



City of Coquitlam

**Contract Documents  
81364**

**Culvert CIPP Installation -  
Mundy Creek at Cape Horn  
Ave**



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**Culvert CIPP Installation - Mundy Creek at Cape Horn Ave**  
**Project Construction Documents**

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# ***Invitation to Tender***



## INVITATION TO TENDER

DATE OF ISSUE: **February 26, 2026**

*We acknowledge with gratitude and respect that the name Coquitlam was derived from the hən̓q̓əmi̓n̓əm̓ word kwikwə́ləm (kwee-kwuh-tlum) meaning “Red Fish Up the River”. The City is honoured to be located on the kwikwə́ləm (Kwikwetlem) traditional and ancestral lands, including those parts that were historically shared with the s̓q̓əc̓íyaʔ t̓əm̓əxw (Katzie), and other Coast Salish Peoples.*

### **Tender No. 81364**

### **Culvert CIPP Installation - Mundy Creek at Cape Horn Ave**

The City of Coquitlam invites tenders for **Contract 81364 - Culvert CIPP Installation - Mundy Creek at Cape Horn Ave**, generally consisting of the following, but not limited to:

- CIPP Installation for approx. 86m of 1200mm concrete culvert pipe;
- Install approx. 22m of three C909 PVC overflow storm pipes;
- Install approx. 60m of 710mm HDPE DR17 overflow storm pipe;
- Tree removals and;
- Other miscellaneous and incidental works as described in the Contract Documents.

Tender Documents and Drawings are available for downloading from the City of Coquitlam website: [www.coquitlam.ca/BidOpportunities](http://www.coquitlam.ca/BidOpportunities)

Printing of Tender documents and drawings is the sole responsibility of the Tenderers.

Tenders submitted must be accompanied by a copy of the original specified 10% Bid Bond and will be received:

**On or Before 2:00 pm local time**

**March 19, 2026**

("Closing Date and Time")

## **Addenda**

**Tenderers are required to check the City's website for any updated information, issued before the Closing Date at: [www.coquitlam.ca/BidOpportunities](http://www.coquitlam.ca/BidOpportunities). Where in its sole discretion it considers it to be necessary or desirable, the City may issue Addenda to amend any portion of the Contract Documents.**

Any changes to the Tender documentation will be issued by means of written Addenda and posted on the City's website and will form part of the Tender. No amendment of any kind to the Tender is effective unless it is posted in a formal written Addendum on the City website. Upon submitting a Tender, Tenderers will be deemed to have received notice of all Addenda that are posted on the City's website and deemed to have considered the information for inclusion in the Tender submitted.

The City does not retain a bidder's list or bidder's registry. Tenderers are encouraged to register as plan takers and may view the Tender Documents and Drawings by contacting the Vancouver Regional Construction Association (VRCA), website: [www.my.vrca.ca](http://www.my.vrca.ca), ph: 604-294-3766, or email at [vrca@vrca.ca](mailto:vrca@vrca.ca), quoting the Coquitlam Tender Reference Number.

Should there be any discrepancy in the documentation provided, the City's original file copy shall prevail.

Tenders shall remain open for acceptance for 60 days following the submission Closing Date.

The City reserves the right to accept or reject any or all Tenders and the lowest or any Tender may not necessarily be accepted. The City also reserves the right to cancel any request for Tender at any time without recourse by the Tenderer.

The City, prior to award of any Tender, may negotiate with the Tenderer presenting the lowest price compliant Tender, for changes in the Work, materials, specifications or conditions without having any duty or obligation to advise any other Tenderers or to allow them to modify their Tenders, and the City will have no liability to any Tenderer as a result of such negotiations or modifications.

The City will not be responsible for any costs incurred by the Tenderer in preparing the Tender.

Procurement of goods and services is conducted in accordance with Chapter 5 of the Canadian Free Trade Agreement (CFTA) and the New West Partnership Trade Agreement (NWPTA).

M. Pain  
Manager Procurement

# ***Instructions to Tenderers***

**Tender 81364**

**Culvert CIPP Installation - Mundy Creek at Cape Horn Ave**

**INSTRUCTIONS TO TENDERERS**

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## INSTRUCTIONS TO TENDERERS

(FOR USE WHEN UNIT PRICES FORM THE BASIS OF PAYMENT - TO BE USED ONLY WITH THE GENERAL CONDITIONS AND OTHER STANDARD DOCUMENTS OF THE UNIT PRICE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS.)

### The City of Coquitlam

*Contract:* **Culvert CIPP Installation - Mundy Creek at Cape Horn Ave**

*Reference No.* **81364**

#### 1.0 Introduction

- 1.1 These Instructions apply to and govern the preparation of tenders for this *Contract*. The *Contract* is generally for the following work:
- CIPP Installation for approx. 86m of 1200mm concrete culvert pipe;
  - Install approx. 22m of three C909 PVC overflow storm pipes;
  - Install approx. 60m of 710mm HDPE DR17 overflow storm pipe;
  - Tree removals and;
  - Other miscellaneous and incidental works as described in the Contract Documents.

- 1.2 All inquiries regarding this Tender are to be submitted in writing referencing the **Tender Name and Number** sent to:

**E-mail** [bid@coquitlam.ca](mailto:bid@coquitlam.ca)

The deadline for inquiries is **2:00 PM** local time, **Monday, March 16, 2026**.

**INQUIRIES RECEIVED AFTER THIS DATE AND TIME MAY NOT RECEIVE A RESPONSE.**

#### 2.0 Tender Documents

- 2.1 The Tender Documents which a Tenderer should review to prepare a Tender consist of all of the *Contract Documents* listed in Schedule 1 entitled "Schedule of Contract Documents". Schedule 1 is attached to the Agreement which is included as part of the Tender Package. The *Contract Documents* include the drawings listed in Schedule 2 to the Agreement, entitled "**List of Contract Drawings**".

- 2.2 A portion of the Contract Documents are included by reference. Copies of these documents have not been included with the tender package. These documents are the General Conditions, Specifications and Standard Detail Drawings. They are those contained in the publication entitled "Master Municipal Construction Documents - General Conditions, Specifications and Standard Detail Drawings". Refer to Schedule 1 to the Agreement or, if not specified in Schedule 1, then the applicable edition shall

be the most recent edition as of the date of the *Tender Closing Date*. All sections of this publication are by reference included in the *Contract Documents*.

2.3 Any additional information made available to Tenderers prior to the Tender Closing Time by the Owner or representative of the Owner, such as geotechnical reports or as-built plans, which is not expressly included in Schedule 1 or Schedule 2 to the Agreement, is not included in the Contract Documents. Such additional information is made available only for the assistance of Tenderers who must make their own judgments about its reliability, accuracy, completeness and relevance to the *Contract*, and neither the Owner nor any representative of the Owner gives any guarantee or representation that the additional information is reliable, accurate, complete or relevant.

**3.0 Submission of Tenders**

3.1 Tenders must be submitted on the Tender Form provided, accompanied by a copy of the original 10% Bid Bond quoting the Tender Name and Number, and be uploaded to the City's file transfer website.

Tenders must be received on or before:

***Tender Closing Time: 2:00 p.m. local time***

***Tender Closing Date: March 19, 2026***

For the purpose of the Tender submission, digital copies of original documents and signatures sent electronically are accepted. Original documents are required upon request by the City.

**Instructions for Tender Submission**

3.2 **Tender submissions are to be consolidated into one (1) PDF file and uploaded electronically through Qfile, the City's file transfer service accessed at website:**

<http://qfile.coquitlam.ca/bid>

- 1. In the "Subject Field" enter: Tender Number and Name**
- 2. Add consolidated Tender file in PDF format and Appendix 1 in XLS format, and Send** (ensure your web browser remains open until you receive 2 emails from Qfile to confirm upload is complete and was sent to email: bid@coquitlam.ca)

**Tenderers are responsible to allow for ample time to complete the submission process. For assistance, phone 604-927-3037.**

3.3 Tenders submitted shall be deemed to be received when displayed as a new email in the in-box of the above email address. The City will not be responsible for any delay or for any Tenders not received for any reason, including technological delays or issues by either party's network or email program, and the City will not be liable for any damages associated with Tenders not received.

3.4 The City reserves the right to accept late Tenders to allow for technological delays. The City also reserves the right to accept Tenders by email: [bid@coquitlam.ca](mailto:bid@coquitlam.ca).

**BIDS RECEIVED IN-PERSON, BY COURIER, OR BY FAX WILL NOT BE ACCEPTED.**

3.5 Tenders will not be opened in public. The unevaluated results will be forwarded to participants by email.

3.6 Tender submissions are subject to the Freedom of Information and Protection of Privacy Act and contents may be disclosed if required to do so, pursuant to the Act.

**4.0 Additional Instructions to Tenderers**

4.0.1 Mundy Creek is a red coded watercourses as per FLNRO Streamside Protection Regulation and must conform to all DFO/FLNRO regulations. All work within the stream must be completed within the DFO fisheries window of August 1, 2026 to September 15, 2026.

A change authorization permit has been applied for with DFO. If DFO does not approve the work in time to complete the work in the 2026 Fisheries Window, construction will be deferred to the 2027 Fisheries Window.

**Obtaining Documents**

4.1 The following documents which are referred to and form part of the Contract Document package may be obtained as follows:

- Copies of the Master Municipal Construction Documents Volume II (2009), General Conditions, Specifications and Standard Detail Drawings are available separately from:

Support Services Unlimited  
Suite 102  
211 Columbia Street  
Vancouver, B.C. V6A 2R5  
Tel: 604-681-0295  
Fax: 604-305-0424

- Copies of the City of Coquitlam Supplementary Specifications and Detailed Drawings to the MMCD 2009 Edition are available for viewing and downloading off the City of Coquitlam website: [Supplementary Specifications and Detailed Drawings to MMCD](#)

**Test Excavations**

4.2 Prior to the excavation of test holes on road allowances or privately owned property the Tenderer shall obtain permission from the Municipality or Owner of the property and comply with their requirements for restoration of disturbed surfaces and utilities. Failure to comply with Municipal by-laws restricting this practice may result in prosecution of the offending party.

- Business License** 4.3 The successful Tenderer shall provide evidence of a City of Coquitlam Business License or Tri-Cities Inter-Municipal Business License prior to commencement of work or supply of materials. For more information, contact Business License Division Ph: 604-927-3085 or apply online at website: [City of Coquitlam Business License](#)
- No Claim** 4.4 Except as expressly and specifically permitted in these Instructions to Tenderers, no Tenderer shall have any claim for any compensation of any kind whatsoever, as a result of participating in this Tender, including accepting a non-compliant bid and by submitting a Tender, each Tenderer shall be deemed to have agreed that it has no claim.
- No Cost** 4.5 The City will not under any circumstances be responsible for any costs incurred by the Tenderer in preparing the Tender.
- Right to Accept or Reject any Tender** 4.6 The City reserves the right to accept or reject any or all Tenders and the lowest or any Tender may not necessarily be accepted. In its sole discretion, the City may reject or retain for its consideration, tenders which are nonconforming because they do not contain the content or form required by the instructions to tenderers or for failure to comply with the process for submission set out in these instructions to tenderers.
- The City specifically reserves the right to reject all Tenders if none is considered to be satisfactory and, in that event, at its option, to call for additional Tenders.
- Negotiation** 4.7 The City, prior to award of any Tender, may negotiate with the Tenderer presenting the lowest price compliant Tender, for changes in the Work, materials, specifications or conditions without having any duty or obligation to advise any other Tenderers or to allow them to modify their Tenders, and the City will have no liability to any Tenderer as a result of such negotiations or modifications.
- Cancellation of Tender** 4.8 The City reserves the right to cancel any request for Tender at any time without recourse by the Tenderer. The City has the right to not award this work for any reason including choosing to complete the work with the City's own forces.
- Conflict of Interest** 4.9 Tenderers shall disclose any actual or potential conflicts of interest and existing business relationships it may have with the City, their elected or appointed officials or employees.
- Collusion** 4.10 Tenderers will not discuss or communicate with one another in regards to the preparation of their Tenders. Each Tenderer will ensure that its participation in the Tender process and that of its team members is conducted without collusion or fraud. Failure to comply with this requirement may lead to disqualification without further notice or warning.

**Instruction to  
Tenderers –  
Part II**

Delete Instructions to Tenderers – Part II Contained in the Edition of the Publication “Master Municipal Construction Documents 2009” and replace with the following:

**5.0 Tender  
Requirements**

- 5.1 A tender should be on the Form of Tender as provided and be signed by the authorized signatory(s) as follows:
- 5.1.1 if the tenderer is a partnership or joint venture then the name of the partnership or joint venturer should be included, and each partner or joint venturer should sign personally; if a partner of joint venture is a corporation then such corporation should sign as indicated in paragraph 5.1.3 below; and
  - 5.1.2 if the tenderer is a corporation then the full name of the corporation should be included, together with the names and signatures of authorized signatories.
  - 5.1.3 For the purpose of the Tender submission, digital copies of original documents and electronic signatures are accepted. Original documents are required upon request by the City.
- 5.2 A tender must be accompanied by tender security (“*Bid Security*”) in the form of:
- 5.2.1 a copy (digital or Electronic copy is acceptable) of the original bid bond in an amount equal to 10% of the Tender Price, issued by a surety licensed to carry on the business of suretyship in British Columbia in a form reasonably satisfactory to the *Owner*;
- 5.3 Tenderer should be competent and capable of performing the various items of work. Tenderer shall complete the following statement sheets appended to the Form of Tender:
- 5.3.1 Appendix 1 – the Schedule of Quantities and Prices;
  - 5.3.2 Appendix 2 – a “*Preliminary Construction Schedule*”, generally in the form attached as Appendix 2 to the Form of Tender, and showing *Substantial Performance* by the date or within the duration, shown in paragraph 2.2 of the Form of Tender.
  - 5.3.3 Appendix 3 – name and brief description of the previous experience of the *Superintendent* the tenderer will use for the *Work*;
  - 5.3.4 Appendix 4 – a list of previous comparable work, including a brief description of that work,

approximate contract value, and references (with phone numbers);

5.3.5 Appendix 5 – a complete list of all subcontractors, if any, that the tenderer will use for the *Work* including full names; and

5.3.6 Appendix 7 – is provided for information only, to indicate the Contract Insurance is to be submitted by the successful Tenderer upon Notice of Award.

5.4 The successful tenderer will, within 15 *Days* of receipt of the written *Notice of Award*, be required to deliver to the *Owner* the items listed in FT 5.1.1, including a Performance Bond and a Labour and Material Payment Bond as described in FT 5.1.1(a), failing which the provisions of FT 6.1 will apply.

**6.0 Qualifications, Modifications, Alternative Tenders**

6.1 Tenders which contain qualifications, or omissions, so as to make comparison which other tenders difficult, may be rejected by the *Owner*.

6.2 A tenderer may, at the tenderer's election, submit an alternative tender ("*Alternative Tender*") which varies the materials, products, designs or equipment by the *Owner as Approved Equals* as the case may be, but an *Alternative Tender* must be in addition to, and not in substitution for a tender which conforms to the requirements of the *Contract Documents*.

6.3 The only *Alternative Tender* that the *Owner* may accept is an *Alternative Tender* submitted by that tenderer whose conforming tender, submitted as required by paragraph 6.2 of these Instructions to Tenderers, would have been accepted by the *Owners* in the preference to other conforming tenders, if no *Alternative Tenders* had been invited.

**7.0 Approved Equals**

7.1 Prior to the *Tender Closing Time and Date*, a tenderer may request the *Owner* to approve materials, products, or equipment ("*Approved Equal*") to be included in a tender in substitution for items indicated in the Contract Documents.

7.2 Applications for an *Approved Equal* must be in writing, and supported by appropriate supporting information, data, specifications, and documentation.

7.3 If the *Owner* decides in its discretion to accept an *Approved Equal*, then the *Owner* will issue an addendum to all tenderers.

7.4 The *Owner* is not obligated to review or accept an application for an *Approved Equal*.

**8.0 Inspection of  
the Place of the  
Work**

- 8.1 All tenderers, either personally or through a representative, are responsible to examine the *Place of the Work* before submitting a tender. A tenderer has full responsibility to be familiar with and make allowance in the tender for all conditions at the *Place of the Work* that might affect the tender, including any information regarding subsurface soil conditions made available by the *Owner*, the location of the *Work*, local conditions, topographical soil conditions, weather and access. Unless otherwise specified in the *Contract Documents*, a tenderer is not required to do subsurface investigations. By submitting a tender, a tenderer represents that the tenderer has examined the *Place of the Work*, or specifically elected not to. No additional payments or time extensions shall be claimable or due because of difficulties relating to conditions at the *Place of the Work* which were reasonably foreseeable by a contractor qualified to undertake the *Work*.
- 8.2 Tenderers are referred to GC 11.2.1 regarding **Concealed or Unknown Conditions**.

**9.0 Interpretation  
of Contract  
Documents**

- 9.1 If a tenderer is in doubt as to the correct meaning of any provision of the *Contract Documents*, the tenderer may request clarification as instructed in paragraph 1.2 of the Instructions to Tenderers.
- 9.2 If a tenderer discovers any contradictions or inconsistencies in the *Contract Documents* or its provisions, or any discrepancies between a provision of the *Contract Documents* and conditions at the *Place of the Work as* observed in an examination under paragraph 8 of the person named in paragraph 1.2 of the Instructions to Tenderers.
- 9.3 If the *Owner* considers it necessary, the *Owner* may issue written addenda to provide clarification (s) of the *Contract Documents*.
- 9.4 No oral interpretation or representations from the *Owner* or any representative of the *Owner* will affect, alter, or amend any provision of the *Contract Documents*.

**10.0 Prices**

- 10.1 The Tendered Price will represent the entire cost excluding *GST* to the *Owner* of the complete *Work* based on the estimated quantities in the *Schedule of Quantities and Prices* of the Form of Tender. Notwithstanding the generalities of the above, tenderers shall include in the tendered prices (including unit prices, lump sum prices, or other forms of pricing) sufficient amounts to cover:
- 10.1.1 the costs of all labour, equipment and material included in or required for the *Work*, including all items which, whole not specifically listed in the *Schedule of Quantities and Prices*, are included in the *Work* specifically or by necessary inference from the *Contract Documents*;

10.1.2 all assessments payable with respect to labour as required by any statutory scheme such as unemployment insurance, holiday pay, insurance, CPP and all employee benefits and the Workers Compensation Act;

10.1.3 all overhead costs, including head office and on-site overhead costs, and all amounts for the *Contractor's* profit.

10.2 The tendered prices and all subcontracts must allow for compliance with all applicable laws regarding trade or other qualifications of employees performing the *Work*, and payment of appropriate wages for labour included in or required for the *Work*.

**11.0 Taxes**

11.1 The tendered prices shall cover all taxes and assessments of any kind payable with respect to the *Work*, but shall not include *GST*. *GST* shall be listed as a separate line item as required by GC 19.3.

**12.0 Amendment of Tenders**

12.1 A tenderer may amend or revoke a tender by giving written notice, delivered by Email, to the office referred to in paragraph 3.4 of the Instructions to Tenderers at any time up until the *Tender Closing Date and Time*. An amendment or revocation that is received after the *Tender Closing Date and Time* shall not be considered and shall not affect a tender as submitted.

12.2 An amendment or revocation must be signed by an authorized signatory of the tenderer in the same manner as provided by paragraph 5.1 of these Instructions to Tenderers.

12.3 Any amendment that expressly or by inference discloses the tenderer's *Tender Price* or other material element of the tender such that, in the opinion of the *Owner*, the confidentiality of the tender is breached, will invalidate the entire tender.

12.4 An acceptable form of a tender amendment which tenderers may, but are not required to, use is as follows:

"Contract: \_\_\_\_\_  
(TITLE OF CONTRACT)  
Reference No. \_\_\_\_\_  
(OWNER'S CONTRACT REFERENCE NO.)  
TO: \_\_\_\_\_  
(NAME OF OWNER)

We the undersigned wish to amend our tender which we submitted for the above *Contract* by deleting the following tendered prices or items from our tender:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
(TENDERED PRICES AND/OR TENDER ITEMS IN THE TENDER THAT ARE TO BE AMENDED)

and substituting the following revised tendered prices or items:

\_\_\_\_\_  
\_\_\_\_\_

(REVISED TENDERED PRICES OR TENDER ITEMS)

The extensions in our tender should be adjusted accordingly, and our **Tender Price** as set out in Appendix 1 of our submitted **Form of Tender**, and on the **Schedule of Quantities and Prices**, increased / decreased by \$\_\_\_\_\_, excluding GST. We have not included our revised **Tender Price** in order to preserve the confidentiality of our tender.

Signed and delivered the \_\_\_ day of \_\_\_\_\_, 20\_\_."

**13.0 Duration of Tenders**

13.1 After the *Tender Closing Time*, a tender shall remain valid and irrevocable as set out in paragraph 5.1 of the Form of Tender.

**14.0 Qualifications of Tenderers**

14.1 By submitting a tender, a tenderer is representing that it has the competence, qualifications and relevant experience required to do the *Work*.

**15.0 Award**

15.1 In exercising its discretion, the *Owner* will have regard to the information provided in the Appendices to the Form of Tender as described under IT 5.3 including the proven experience of the tenderer, and any listed subcontractors, to do the *Work*.

Tenders received will be evaluated to provide the City with greatest value based on quality, service, price and experience. Evaluation Criteria will include but is not limited to:

1. Ability to meet specifications and required completion date
2. Contractor's past experience, references, reputation and compliance to specifications
3. Demonstrated successful experience on similar projects and specific equipment installation
4. Price: purchase price, maintenance costs, availability of parts and service, warranty and compatibility with existing equipment and/or conditions
5. Any other criteria, the City deems, at its sole discretion, necessary to evaluate Tenders;
6. Lowest price will not necessarily be accepted.

The City may, in its absolute discretion, not award to a Tenderer if the Tenderer, or any officer or director of a corporate Tenderer, is or has been engaged, either directly or indirectly through another corporation or legal entity, in a legal action against the City and its elected and appointed officers and employees or any of them in relation to:

- a) any other contract or services; or
- b) any matter arising from the City's exercise of its powers, duties or functions under the *Local Government Act*, the *Community Charter* or any other enactments; within five years of this Tender Offer.

For purposes of this section, the words "legal action" includes, without limitation, mediation, arbitration, hearing before an administrative tribunal or lawsuit filed in any court.

Without limiting the City's sole discretion, in determining whether or not to award to a Tenderer pursuant to this clause, the City will consider such factors as whether the legal action is likely to affect the Tenderer's ability to work with the City and its employees, agents, consultants and representatives or any of them and whether the City's past experience with the Tenderer in the matter that resulted in the legal action indicates that the City is likely to incur increased staff and legal costs or either of them in the administration of this contract if it is awarded to the Tenderer.

In the event that the lowest total Tender Price by two or more Tenderers is the same amount, the City will select a Tenderer with an overall satisfactory performance record in having completed work on previous relevant projects that are provided as references, and on City projects. Information obtained from references will not be disclosed or discussed with any Tenderer. If all references are equal, selection will be determined by a coin toss in a manner to be directed by the City.

Where only one Tender is received the City may reject such and re-tender on a selected basis.

15.2 The *Owner* will notify the successful tenderer in writing.

15.3 If there are any discrepancies in the *Schedule of Quantities and Prices* between the unit prices and the extended totals then the unit prices shall be deemed correct, and corresponding corrections shall be made to the extended totals. If a unit price or extended total has been omitted, the following shall apply:

- a) If a unit price is given but the corresponding extended total has been omitted, then the extended total shall be calculated from unit price and the estimated quantity, and inserted as the extended total;

- b) If an extended total is given but the corresponding unit price has been omitted, then the unit price shall be calculated from the extended total and estimated quantity, and inserted as the unit price;
- c) If both the unit price and the corresponding extended total for a tender item have been omitted, then the following test shall be applied to determine whether the tender shall be rejected as incomplete:
  - (i) the highest of the unit prices tendered by other tenderers for that tender item shall be used as the test unit price, and the corresponding test extended total shall be calculated from the test unit price and the estimated quantity;
  - (ii) if the test extended total for the tender item exceeds 1% of the revised total *Tender Price*, including the test extended total, or if the revised total *Tender Price*, including the test extended total, alters the ranking of the tenderers according to the lowest *Tender Price*, then the omitted unit price for that tender item is deemed to materially affect the *Tender Price* relative to other tenders and the tender shall be rejected;
  - (iii) if the tender is not rejected under subparagraph (ii) of this IT 15.3 (c), then the unit price and the extended total for that tender item shall both be deemed to be, and the costs for that tender item shall be zero deemed to be included in other tender items prices;
- d) In no event shall page totals in the *Schedule of Quantities and Prices* or the total *Tender Price* be used to calculate missing extended totals or unit prices.

**16.0 Subcontractors**

- 16.1 The *Owner* reserves the right to object to any of the subcontractors listed in a tender. If the *Owner* objects to any of the subcontractor(s) then the *Owner* will permit a tenderer to, within 5 days, propose a substitute subcontractor(s) acceptable to the *Owner* provided that there is not resulting adjustment in the *Tender Price* or the completion date set out in paragraph 2.2 of the Form of Tender. A tenderer will not be required to make such substitution and, if the *Owner* objects to a listed *Subcontractor(s)*, the tenderer may, rather than propose a substitute subcontractor(s), consider its tender rejected by the *Owner* and by written notice withdraw its tender. The *Owner* shall, in the event, return the tenderer's bid security.

**17.0 Optional Work**

- 17.1 If the *Schedule of Quantities and Prices* includes any tender prices for *Optional or Provisional Work*, as defined in GC 7.4.1, the tenderers must complete all the unit prices for such *Optional or Provisional Work*. Such tender prices shall not include any general overhead costs, or other costs, or profit, not directly related to the *Optional or Provisional Work*.
- 17.2 Notwithstanding that the *Owner* may elect not to proceed with the *Optional or Provisional Work*, the tender prices for any *Optional or Provisional Work*, including the extended totals for *Optional or Provisional Work* unit prices, shall be included in the *Tender Price* for the purpose of any price comparisons between tenders.

# ***Form of Tender***



## Form of Tender

Tender No. 81364

### Culvert CIPP Installation - Mundy Creek at Cape Horn Ave

#### Summary

Name of **Contractor**: \_\_\_\_\_

**Tender Price** (exclude GST): \$ \_\_\_\_\_

(FROM APPENDIX 1 OF FORM OF TENDER)

**Tender submitted must be accompanied by a copy of the original 10% Bid Bond and will be received**

**On or before 2:00 pm (local time)  
Thursday, March 19, 2026**

#### Instructions for Tender Submission

**Tender submissions are to be consolidated into one (1) .pdf file and uploaded electronically through QFile, the City's file transfer service accessed at website: [qfile.coquitlam.ca/bid](http://qfile.coquitlam.ca/bid)**

- 1. In the "Subject Field" enter:** Tender Number and Name
- 2. Add consolidated Tender file in PDF format, and Appendix 1 in XLS format, and Send** (ensure your web browser remains open until you receive 2 emails from Qfile to confirm upload is complete and was sent to the correct email address: [bid@coquitlam.ca](mailto:bid@coquitlam.ca) )

**Tenderers are responsible to allow ample time to complete the Tender submission process. If assistance is required, phone 604-927-3037.**

February 2026

The City of Coquitlam  
3000 Guildford Way  
Coquitlam, B.C. V3B 7N2

---

( FOR USE WHEN UNIT PRICES FORM THE BASIS OF PAYMENT - TO BE USED ONLY WITH THE GENERAL CONDITIONS AND OTHER STANDARD DOCUMENTS OF THE UNIT PRICE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS. )

**Contract Name: Culvert CIPP Installation - Mundy Creek at Cape Horn Ave**  
**Reference No.: 81364**

**TO OWNER:**

**1 WE, THE UNDERSIGNED:**

- 1.1 have received and carefully reviewed all of the *Contract Documents*, including the Instructions to Tenderers, the City of Coquitlam Supplementary General Conditions, the City of Coquitlam Supplementary Contract Specifications, the specified edition of the "Master Municipal Construction Documents – General Conditions, Specifications and Standard Detail Drawings" and the following Addenda:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_;

( ADDENDA, IF ANY )

- 1.2 shall fully disclose any actual or potential conflicts of interest and existing business relationships we may have with the City, their elected or appointed officials or employees:

\_\_\_\_\_

- 1.3 have full knowledge of the *Place of the Work*, and the *Work* required; and  
1.4 have complied with the Instructions to Tenderers; and

**2 ACCORDINGLY WE HEREBY OFFER:**

- 2.1 to perform and complete all of the *Work* and to provide all the labour, equipment and material all as set out in the *Contract Documents*, in strict compliance with the *Contract Documents*; and  
2.2 to achieve *Substantial Performance* of the *Work* on or before **September 30, 2026**; and  
2.3 to do the *Work* for the price, which is the sum of the products of the actual quantities incorporated into the *Work* and the appropriate unit prices set out in Appendix 1, the "*Schedule of Quantities and Prices*", plus any lump sums or specific prices and adjustment amounts as provided by the *Contract Documents*. For the purposes of tender comparison, our offer is to complete the *Work* for the "*Tender Price*" as set out on Appendix 1 of this Form of Tender. Our *Tender Price* is based on the estimated quantities listed in the *Schedule of Quantities and Prices*, and excludes *GST*.

**3 WE CONFIRM:**

- 3.1 that we understand and agree that the quantities as listed in the *Schedule of Quantities and Prices* are estimated, and that the actual quantities will vary.
- 3.2 that we understand and agree that the owner is in no way obliged to accept this Tender.

**4 WE CONFIRM:**

- 4.1 that the following Appendices are attached to and form a part of this tender:
  - 4.1.1 the Appendices as required by paragraph 5.3 of the Instructions to Tenderers - Part II; and
  - 4.1.2 the *Bid Security* as required by paragraph 5.2 of the Instructions to Tenderers - Part II.
  - 4.1.3 the Certificate of Compliance on the form provided in Appendix 7 of this Form of Tender.

**5 WE AGREE:**

- 5.1 that this tender will be irrevocable and open for acceptance by the *Owner* for a period of **60** calendar days from the day following the *Tender Closing Date and Time*, even if the tender of another Tenderer is accepted by the *Owner*. If within this period the *Owner* delivers a written notice ("*Notice of Award*") by which the *Owner* accepts our tender we will:
  - 5.1.1 within **15 Days** of receipt of the written *Notice of Award* deliver to the *Owner*:
    - a) a Performance Bond and a Labour and Material Payment Bond, each in the amount of 50% of the *Contract Price*, issued by a surety licensed to carry on the business of suretyship in the province of British Columbia, and in a form acceptable to the *Owner*;
    - b) a "clearance letter" indicating that the Tenderer is in WCB compliance; and
    - c) a copy of the insurance policies as specified in SGC Section 24 indicating that all such insurance coverage is in place and;
    - d) a letter confirming the *Contractor* as "Prime Contractor" for the Contract as specified in SGC Section 21.2.1.
  - 5.1.2 within **2 Days** of receipt of written "*Notice to Proceed*", or such longer time as may be otherwise specified in the *Notice to Proceed*, commence the *Work*; and
  - 5.1.3 sign the Contract Documents as required by GC 2.1.

**6 WE AGREE:**

6.1 that, if we receive written *Notice of Award* of this *Contract* and, contrary to paragraph 5 of this Form of Tender, we:

6.1.1 fail or refuse to deliver the documents as specified by paragraph 5.1.1 of this Form of Tender; or

6.1.2 fail or refuse to commence the *Work* as required by the *Notice to Proceed*,

**then such failure or refusal will be deemed to be a refusal by us to enter into the *Contract*** and the *Owner* may, on written notice to us, award the *Contract* to another party. We further agree that, as full compensation on account of damages suffered by the *Owner* because of such failure or refusal, the *Bid Security* shall be forfeited to the *Owner*, in an amount equal to the lesser of:

6.1.3 the face value of the *Bid Security*; and

6.1.4 the amount by which our *Tender Price* is less than the amount for which the *Owner* contracts with another party to perform the *Work*.

**7 OUR ADDRESS** is as follows:

---

---

---

Phone: \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

Email: \_\_\_\_\_

Attention: \_\_\_\_\_

This Tender is executed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

*Contractor:*

\_\_\_\_\_  
**(FULL LEGAL NAME OF CORPORATION, PARTNERSHIP OR INDIVIDUAL)**

\_\_\_\_\_  
**(AUTHORIZED SIGNATORY)**

\_\_\_\_\_  
**(AUTHORIZED SIGNATORY)**

**8 WE CONFIRM:**

8.1 our Goods and Services Tax (GST) registration status is as follows:

8.1.1 for information purposes, our GST Registration Number is:

\_\_\_\_\_  
**(GST REGISTRATION NUMBER)**

**or;**

8.1.2 by signature hereunder, we certify we are **not required** to provide a registration number:

\_\_\_\_\_  
**(AUTHORIZED SIGNATORY)**

\_\_\_\_\_  
**(AUTHORIZED SIGNATORY)**

**APPENDIX 1  
FORM OF TENDER**

**Contract 81364  
Culvert CIPP Installation - Mundy Creek at Cape Horn Ave**

**SCHEDULE OF QUANTITIES AND PRICES**

(see paragraph 5.3.1 of the Instruction to Tenderers)

**(All Tender and Contract Prices shall NOT include GST. GST will apply upon payment)**

**(Should there be any discrepancy in the information provided, the City's original file copy shall prevail)**

ITEM NO.	MMCD Ref./ (Supp. Specs)	DESCRIPTION	UNIT	QTY	UNIT PRICE	EXTENDED AMOUNT
<b>1</b>	<b>01 55 00S</b>	<b>TRAFFIC CONTROL, VEHICLE ACCESS, AND PARKING</b>				
1.01	(1.5.1)	Traffic Control/Management	Incidental to Contract			
<b>2</b>	<b>01 57 01S</b>	<b>ENVIRONMENTAL PROTECTION</b>				
2.01	(1.6.1)	Environmental Protection (Erosion and Sediment Control), including bypass to complete the works, and all related works	Incidental to Contract			
<b>3</b>	<b>03 30 20S</b>	<b>CONCRETE WALK, CURBS AND GUTTERS</b>				
3.01	(1.4.3)	Concrete Curb and Gutter - MMCD C5	l.m	20		
3.02	(1.4.5)	Concrete Sidewalk, Driveways, Walkway connectors & Wheelchair Letdown - 100mm thick – broom finished c/w 100mm granular base and as shown and described in the Contract Documents	sq.m	30		
<b>4</b>	<b>31 37 10S</b>	<b>RIPRAP</b>				
4.01	(1.4.1)	Supply and Install Class 10 Rip Rap c/w excavation, filter fabric underlay, environmental protection, and geosynthetics installation	tonne	20		
<b>5</b>	<b>32 01 16.7S</b>	<b>COLD MILLING</b>				
5.01	(1.5.1)	Surface Milling (50mm)	sq.m	105		
<b>6</b>	<b>32 12 16S</b>	<b>HOT-MIX ASPHALT CONCRETE PAVING</b>				
6.01	(1.5.1)	Machine Laid MMCD Upper Course #1 - 50mm thick and keyed-in to existing asphalt	tonne	10		
6.02	(1.5.1)	Machine Laid MMCD Upper Course #1 - 50mm thick - Asphalt Sidewalk	tonne	2		
<b>7</b>	<b>32 17 23S</b>	<b>PAINTED PAVEMENT MARKINGS</b>				
7.01	(1.5.3)	Thermoplastic Pavement Marking Replacement	l.s.	1		
<b>8</b>	<b>32 31 13S</b>	<b>CHAIN LINK FENCES AND GATES</b>				
8.01	(1.5.4)	Remove and reinstate W-beam barrier	l.s.	1		
<b>9</b>	<b>32 92 19S</b>	<b>HYDRAULIC SEEDING</b>				
9.01	(1.8.2)	Hydraulic Seeding	sq.m	430		
<b>10</b>	<b>33 05 24S</b>	<b>CURED IN PLACE PIPE LINERS</b>				
10.01	(1.9.1)	Supply and installation of structural liner to the 1200mm Concrete Storm Pipe c/w acceptable product description, structural design calculation, and all submissions (per MMCD Specification Section 33 05 24), all related works and as shown in Contract Documents	l.m	86		
10.02	(1.9.12)	Cut protruding rebar from inside existing culvert, including all WCB regulations for confined space entry	l.s.	1		

ITEM NO.	MMCD Ref./ (Supp. Specs)	DESCRIPTION	UNIT	QTY	UNIT PRICE	EXTENDED AMOUNT
<b>11</b>	<b>33 40 01S</b>	<b>STORM SEWERS</b>				
11.01	(1.6.2)	Supply and Install 710mm dia. HDPE DR17 Overflow Storm Pipe	l.m	61		
11.02	(1.6.2)	Supply and Install 3-600mm dia. C909 PVC Overflow Storm Pipes c/w clear crush bedding and wrapped in geotextile	l.m	22		
11.03	(1.6.2)	Supply and Install 150mm dia. Perforated PVC Pipe, c/w clear crush and filter fabric as per Detail D in the Contract Drawings	l.s.	1		
11.04	(1.6.10)	Remove and reinstall front section of existing debris screen, and all related works and as shown in contract drawings	l.s	1		
<b>12</b>	<b>33 42 13S</b>	<b>PIPE CULVERTS</b>				
12.01	(1.5.3)	Supply and Install dam-sac headwall, geosynthetics and backfill material (including excavation and disposal of spoil)	l.s.	1		
<b>13</b>	<b>33 44 01S</b>	<b>MANHOLES AND CATCHBASINS</b>				
13.01	(1.5.1.1)	Supply and Install 2400mm Pre-benched Storm Manhole (c/w Base, Benching, Lid, Slab, Cover, Frame)	each	1		
13.02	(1.5.7)	Locate Manhole and Install Location Marker	L.S.	1		

**Total Tended Price (exclude GST) \$** \_\_\_\_\_  
 (Transfer the amount to Form of Tender Summary Page 1)

Name of Contractor: \_\_\_\_\_

**APPENDIX 2**

**FORM OF TENDER**

**Contract 81364**

**Culvert CIPP Installation - Mundy Creek at Cape Horn Ave**

**PRELIMINARY CONSTRUCTION SCHEDULE**

(See paragraph 5.3.2 of the Instructions to Tenderers)

INDICATE SCHEDULE WITH BAR CHART WITH CONSTRUCTION DURATIONS

CONSTRUCTION ACTIIVITY	AUGUST				SEPTEMBER			
	1	2	3	4	1	2	3	4

Substantial Completion Date: **September 30, 2026**

Proposed Disposal Site: \_\_\_\_\_

**APPENDIX 3**

**FORM OF TENDER**

**Contract 81364**

**Culvert CIPP Installation - Mundy Creek at Cape Horn Ave**

**EXPERIENCE OF SUPERINTENDENT**

(See paragraph 5.3.3 of the Instructions to Tenderers)

**Proposed Project Superintendent** \_\_\_\_\_

**List of Project Experience**

<b>PROJECT:</b>		<b>Dates:</b>	
<b>Work Description:</b>			
<b>Responsibility:</b>			
<b>Owner/Reference:</b>		<b>Phone No.:</b>	

<b>PROJECT:</b>		<b>Dates:</b>	
<b>Work Description:</b>			
<b>Responsibility:</b>			
<b>Owner/Reference:</b>		<b>Phone No.:</b>	

<b>PROJECT:</b>		<b>Dates:</b>	
<b>Work Description:</b>			
<b>Responsibility:</b>			
<b>Owner/Reference:</b>		<b>Phone No.:</b>	

**APPENDIX 4**

**FORM OF TENDER**

**Contract 81364**

**Culvert CIPP Installation - Mundy Creek at Cape Horn Ave**

**CONTRACTOR'S COMPARABLE WORK EXPERIENCE**

(See paragraph 5.3.4 of the Instructions to Tenderers)

<b>PROJECT:</b>		<b>VALUE (\$):</b>	
<b>OWNER:</b>		<b>Phone No.:</b>	
<b>Work Description:</b>			

<b>PROJECT:</b>		<b>VALUE (\$):</b>	
<b>OWNER:</b>		<b>Phone No.:</b>	
<b>Work Description:</b>			

<b>PROJECT:</b>		<b>VALUE (\$):</b>	
<b>OWNER:</b>		<b>Phone No.:</b>	
<b>Work Description:</b>			

<b>PROJECT:</b>		<b>VALUE (\$):</b>	
<b>OWNER:</b>		<b>Phone No.:</b>	
<b>Work Description:</b>			

**APPENDIX 5**

**FORM OF TENDER**

**Contract 81364  
Culvert CIPP Installation - Mundy Creek at Cape Horn Ave**

**SUBCONTRACTORS**

(See paragraph 5.3.5 of the Instructions to Tenderers)

<b>Trade:</b>		<b>Tender Item:</b>	
<b>Work Description:</b>			
<b>Subcontractor:</b>		<b>Phone No.:</b>	

<b>Trade:</b>		<b>Tender Item:</b>	
<b>Work Description:</b>			
<b>Subcontractor:</b>		<b>Phone No.:</b>	

<b>Trade:</b>		<b>Tender Item:</b>	
<b>Work Description:</b>			
<b>Subcontractor:</b>		<b>Phone No.:</b>	

<b>Trade:</b>		<b>Tender Item:</b>	
<b>Work Description:</b>			
<b>Subcontractor:</b>		<b>Phone No.:</b>	

<b>Trade:</b>		<b>Tender Item:</b>	
<b>Work Description:</b>			
<b>Subcontractor:</b>		<b>Phone No.:</b>	

**APPENDIX 6**

**FORM OF TENDER**

**Contract 81364  
Culvert CIPP Installation - Mundy Creek at Cape Horn Ave**

**Bid Bond**

NO. \_\_\_\_\_

\$ \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS THAT

\_\_\_\_\_  
As Principal, hereinafter called the Principal, and

\_\_\_\_\_  
As Surety, hereinafter called the Surety, are held and firmly bound unto

\_\_\_\_\_  
As Obligee, hereinafter called the Obligee, in the amount of

\_\_\_\_\_ Dollars (\$\_\_\_\_\_) lawful money of  
Canada, for the payment of which sum, well and truly to be made, the Principal and the Surety bind  
themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these  
presents.

WHEREAS, the Principal has submitted a written Tender to the Obligee, dated the \_\_\_\_\_ day of  
\_\_\_\_\_, 2026, for Contract \_\_\_\_\_.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the aforesaid Principal shall have the  
Tender accepted within sixty (60) days from the Closing Date of Tender and the said Principal will, within the  
time required, enter into a formal contract and give good and sufficient bonds to secure the performance of  
the terms and conditions of the Contract, then this obligation shall be null and void; otherwise the Principal  
and Surety will pay unto the Obligee the difference in money between the amount of the bid of the said  
Principal and the amount for which the Obligee legally contracts with another party to perform the work if the  
latter amount be in excess of the former.

The Surety shall not be liable for a greater sum than the specified penalty of this Bond.

Any suit under this Bond must be instituted before the expiration of six (6) months from the date of this Bond.

IN TESTIMONY WHEREOF, the Principal has hereto set its hand and affixed its seal, and the Surety has caused  
these presents to be sealed with its corporate seal duly attested by the signature of its Attorney-In-Fact,  
this \_\_\_\_\_ day of \_\_\_\_\_, 2026.

SIGNED, SEALED AND DELIVERED

In the presence of:

_____ )	_____
_____ )	PRINCIPAL
_____ )	
_____ )	_____
_____ )	SURETY

---

**APPENDIX 7**

**FORM OF TENDER**

**Contract 81364**

**Culvert CIPP Installation - Mundy Creek at Cape Horn Ave**

**CERTIFICATE OF COMPLIANCE for CONTRACT INSURANCE**

---

This is provided for information to certify that the Tenderer does hereby undertake and agree to supply to the City of Coquitlam, upon award, contract insurance listed below for the project requirements indicated:

**Contract Number:**      **81364**

**Contract Name:**        **Culvert CIPP Installation - Mundy Creek at Cape Horn Ave**

**Description of Work:**

- CIPP Installation for approx. 86m of 1200mm concrete culvert pipe;
- Install approx. 22m of three C909 PVC overflow storm pipes;
- Install approx. 60m of 710mm HDPE DR17 overflow storm pipe;
- Tree removals and;
- Other miscellaneous and incidental works as described in the Contract Documents.

**Commercial General Liability:**      **\$5,000,000 limit**

**Special Coverage Required:**      **YES    NO    Special Coverage Description**  
(   ) ( X ) Shoring and Underpinning Hazard  
(   ) ( X ) Pile Driving and Vibrations  
(   ) ( X ) Excavation Hazard  
(   ) ( X ) Demolition  
(   ) ( X ) Blasting

We also certify that the insurance coverage will meet the requirements of the Supplementary General Conditions Section 24 - Insurance, included as part of the Contract Documents, and that the proof of insurance will be provided on the City of Coquitlam Certificate of Insurance form, without amendments, except for the exclusions noted above.

---

*Name of Tenderer (printed)*

---

*Authorized Signature*

---

Date

# ***Agreement***

---

## AGREEMENT

### Between Owner and Contractor

( FOR USE WHEN UNIT PRICES FORM THE BASIS OF PAYMENT - TO BE USED ONLY WITH THE GENERAL CONDITIONS AND OTHER STANDARD DOCUMENTS OF THE UNIT PRICE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS. )

**THIS AGREEMENT** made in duplicate this \_\_\_\_ day of \_\_\_\_\_ 2026.

**Contract:** Culvert CIPP Installation - Mundy Creek at Cape Horn Ave

**Reference No.** 81364

**BETWEEN:**

The City of Coquitlam  
3000 Guildford Way  
Coquitlam, B.C. V3B 7N2

(the "Owner")

**AND:**

(the "Contractor")

The *Owner* and the *Contractor* agree as follows:

**1 THE WORK - START/COMPLETION DATES**

- 1.1 The *Contractor* will perform all *Work* and provide all labour, equipment and material and do all things strictly as required by the *Contract Documents*.
- 1.2 The *Contractor* will commence the *Work* in accordance with the *Notice to Proceed*. The *Contractor* will proceed with the *Work* diligently, will perform the *Work* generally in accordance with the construction schedules as required by the *Contract Documents* and will achieve *Substantial Performance* of the *Work* on or before **September 30, 2026**, subject to the provisions of the *Contract Documents* for adjustments to the *Contract Time*.
- 1.3 Time shall be the essence of the Contract.

## **2 CONTRACT DOCUMENTS**

- 2.1 The "*Contract Documents*" consist of the documents listed or referred to in Schedule 1, entitled "*Schedule of Contract Documents*", which is attached and forms a part of this Agreement, and includes any and all additional and amending documents issued in accordance with the provisions of the *Contract Documents*. All of the *Contract Documents* shall constitute the entire *Contract* between the *Owner* and the *Contractor*.
- 2.2 The *Contract* supersedes all prior negotiations, representations or agreements, whether written or oral, and the *Contract* may be amended only in strict accordance with the provisions of the *Contract Documents*.

## **3 CONTRACT PRICE**

- 3.1 The price for the *Work* ("*Contract Price*") shall be the sum in Canadian dollars of the following:
- a) the product of the actual quantities of the items of *Work* listed in the *Schedule of Quantities and Prices* which are incorporated into or made necessary by the *Work* and the unit prices listed in the *Schedule of Quantities and Prices*; plus
  - b) all lump sums, if any, as listed in the *Schedule of Quantities and Prices*, for items relating to or incorporated into the *Work*; plus
  - c) any adjustments, including any payments owing on account of *Changes* and agreed to *Extra Work*, approved in accordance with the provisions of the *Contract Documents*.
- 3.2 The *Contract Price* shall be the entire compensation owing to the *Contractor* for the *Work* and this compensation shall cover and include all profit and all costs of supervision, labour, material, equipment, overhead, financing, and all other costs and expenses whatsoever incurred in performing the *Work*.

## **4 PAYMENT**

- 4.1 Subject to applicable legislation and the provisions of the *Contract Documents*, the *Owner* shall make payments to the *Contractor*.
- 4.2 If the *Owner* fails to make payments to the *Contractor* as they become due in accordance with the terms of the *Contract Documents* then interest calculated at 2% per annum over the prime commercial lending rate of the Royal Bank of Canada on such unpaid amounts shall also become due and payable until payment. Such interest shall be calculated and added to any unpaid amounts monthly.

## **5 RIGHTS AND REMEDIES**

- 5.1 The duties and obligations imposed by the *Contract Documents* and the rights and remedies available hereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law.

5.2 Except as specifically set out in the *Contract Documents*, no action or failure to act by the *Owner*, *Contract Administrator* or *Contractor* shall constitute a waiver of any of the parties' rights or duties afforded under the *Contract*, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach under the *Contract*.

## 6 NOTICES

6.1 Communications among the *Owner*, the *Contract Administrator* and the *Contractor*, including all written notices required by the *Contract Documents*, may be delivered by email, or by hand, or by pre-paid registered mail to the addresses as set out below:

The *Owner*:

The City of Coquitlam  
3000 Guildford Way  
Coquitlam, B.C. V3B 7N2

Tel: 604-927-3500

The *Contractor*:

Tel:  
Email:  
Attention:

The *Contract Administrator*:

The City of Coquitlam  
3000 Guildford Way  
Coquitlam, B.C. V3B 7N2

Tel:  
Email:  
Attention:

6.2 A communication or notice that is addressed as above shall be considered to have been received:

- a) immediately upon delivery, if delivered by hand; or
- b) immediately upon transmission if sent or received by email; or
- c) after 5 days from date of posting if sent by registered mail.

6.3 The *Owner* or the *Contractor* may, at any time, change its address for notice by giving written notice to the other at the address then applicable. Similarly if the *Contract Administrator* changes its address for notice then the *Owner* will give or cause to be given written notice to the *Contractor*.

## 7 GENERAL

7.1 This *Contract* shall be construed according to the laws of British Columbia.

- 7.2 The *Contractor* shall not, without the express written consent of the *Owner*, assign this *Contract*, or any portion of this *Contract*.
- 7.3 The headings included in the *Contract Documents* are for convenience only and do not form part of this *Contract* and will not be used to interpret, define or limit the scope or intent of this *Contract* or any of the provisions of the *Contract Documents*.
- 7.4 A word in the *Contract Documents* in the singular includes the plural and, in each case, vice versa.
- 7.5 This agreement shall enure to the benefit of and be binding upon the parties and their successors, executors, administrators and assigns

IN WITNESS WHEREOF the parties hereto have executed this Agreement the day and year first written above.

*Contractor:*

\_\_\_\_\_  
(FULL LEGAL NAME OF CORPORATION, PARTNERSHIP OR INDIVIDUAL)

\_\_\_\_\_  
(AUTHORIZED SIGNATORY)

\_\_\_\_\_  
(AUTHORIZED SIGNATORY AND POSITION - PRINT)

*Owner:*

The City of Coquitlam

\_\_\_\_\_  
**Edwin Dela Rosa, ASCT**  
(MANAGER, CAPITAL PROJECTS AND INSPECTIONS)  
Representative as Per G.C. 17

\_\_\_\_\_  
**Chad Braley, ASCT**  
(SENIOR MANAGER, DESIGN AND CONSTRUCTION)

---

**Culvert CIPP Installation - Mundy Creek at Cape Horn Ave**

**Reference No: 81364**

**Schedule 1**

**Schedule of Contract Documents**

**(INCLUDE IN LIST ALL DOCUMENTS INCLUDING, IF ANY, SUPPLEMENTARY GENERAL CONDITIONS, SUPPLEMENTARY SPECIFICATIONS, SUPPLEMENTARY STANDARD DETAIL DRAWINGS)**

The following is an exact and complete list of the *Contract Documents*, as referred to in Article 2.1 of the Agreement.

**NOTE:** The documents noted with "\*" are contained in the "Master Municipal Construction Documents – General Conditions, Specifications and Standard Detail Drawings", edition dated 2009. All sections of this publication are included in the *Contract Documents*.

1. Agreement, including all Schedules;
2. The following Addenda:
  - As issued
3. Supplementary General Conditions, if any;
4. General Conditions\*;
5. Supplementary Specifications, if any;
6. Detail Specifications, if any;
7. Specifications\*;
8. Supplementary Detail Drawings, if any;
9. Standard Detail Drawings\*;
10. Executed Form of Tender, including all Appendices;
11. Drawings listed in Schedule 2 to the Agreement – "List of Drawings", if any;
12. Instructions to Tenderers;
13. COQUITLAM "Supplementary Specifications Master Municipal Construction Documents" March 2022

**Culvert CIPP Installation - Mundy Creek at Cape Horn Ave**

**Reference No: 81364**

**Schedule 2**

**LIST OF DRAWINGS**

**(Complete Listing of All Drawings, Plans and Sketches That Are Part of the Contract Documents)**

**Bound in this Document:**

**Appendix A: Traffic Management Detail Specifications**

**Appendix B: Archaeological Chance Find Procedures**

**Appendix C: As-built Records**

**Appendix D: Construction Mitigation Plan**

**Appendix E: Construction Environmental Mitigation Plan**

**Bound Separately: Contract Drawings**

TITLE	SHEET NO.	REVISION NO.	DATE
COVER	-	C	2026/02/18
CAPE HORN CULVERT - GENERAL NOTES	1/8	C	2026/02/17
CAPE HORN CULVERT REHABILITATION - KEY PLAN	2/8	C	2026/02/17
CAPE HORN CULVERT REHABILITATION - PLAN AND PROFILE	3/8	C	2026/02/17
CAPE HORN OVERFLOW CULVERT - PLAN AND PROFILE	4/8	C	2026/02/17
CAPE HORN AVE - PERMANENT RESTORATION	5/8	C	2026/02/17
CAPE HORN CULVERT - TYPICAL DETAILS	6/8	C	2026/02/17
TREE REMOVAL AND PROTECTION PLAN	7/8	C	2026/02/17
EROSION AND SEDIMENT CONTROL PLAN	8/8	C	2026/02/17

# ***Supplementary General Conditions***

## SUPPLEMENTARY GENERAL CONDITIONS

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**1.0 DEFINITIONS**

**1.1 Abnormal Weather** 1.1.1 **(Replace clause 1.1.1 as follows):**  
Abnormal Weather” means temperature, precipitation, wind or other weather conditions in which the monthly average, differs from the statistical average for that condition in that period by more than one standard deviation, calculated based on data available from Environment Canada. Coquitlam’s Burke Mountain Rain Gauge will be used to compare the rainfall summary versus the available data from Environment Canada.  
[City of Coquitlam Rainfall](#)

**2.0 DOCUMENTS**

**2.2 Interpretation** 2.2.4 (1) **(Replace clause 2.2.4 (1) as follows):**  
The Contract Documents shall govern and take precedence in the following order as listed in Schedule 1 of the Agreement, taking precedence over all Contract Documents.

**4.0 CONTRACTOR**

**4.1 Control of the Work** 4.1.1 **(Add to clause 4.1.1 as follows):**  
The *Contract Administrator* is responsible for all survey layout for the construction of the Work to the design specifications and/or elevations as shown on the contract drawings or as amended on site by the Contract Administrator, unless otherwise described in the Contract Document.

4.1.2 **(Add to clause 4.1.2 as follows):**  
The Contractor shall not deposit any material upon any street, sidewalk, boulevard or other property, without the Contract Administrator’s or the Owner’s permission, nor shall they allow the same to remain longer than necessary. All surplus spoil and rubbish and other waste material shall be removed from the site so that the area of work is cleaned up and restored to as clean a condition as it was before the Contract started, within four days of the Contract Administrator’s written request to do so, failing which the Owner may carry out the work or have the work carried out by others and recover the costs from the Contractor or may deduct the cost from any monies due or that may become due to the Contractor.

4.1.3 **(Add new clause 4.1.3 as follows):**  
Work can be performed during the normal weekday working hours of 0700h to 1900h, unless specified

These Supplementary General Conditions must be read in conjunction with the General Conditions contained in the Master Municipal Construction Documents, Volume II, Printed 2009

otherwise in Supplementary Specifications - Appendix A: Traffic Management Detail Specifications. Written permission from the Contract Administrator will be required for any works to be performed outside of the normal working days of Monday to Friday.

No Sunday work will be permitted, except in case of emergency and then only with the written permission of the Contract Administrator and to such extent as he deems necessary.

In case the Contractor decides to work on a day which is a Statutory Holiday, they shall provide the Contract Administrator in writing at least (4) days in advance of such holiday, stating those places where said work is to be conducted. In case the Contractor fails to give such notice in advance of any Statutory Holiday, no work within the terms of the contract shall be done on such holiday.

**The cost of inspections on a Sunday or on a Statutory Holiday by City staff/s will be at Contractor's expense.**

**4.2 Safety**

4.2.2

***(Add new clause 4.2.2 as follows):***

*In an emergency, gas pipeline rupture or leak, Contact FortisBC's 24 Hour Emergency Line (1-800-663-9911) and Coquitlam Fire (911) immediately and then City of Coquitlam's Utility Control Centre (604-927-6287).*

**4.3 Protection of Work, Property and the Public**

4.3.1

***(Replace clause 4.3.1 as follows):***

In performing the Work, the Contractor shall protect the Work and the Owner's property and other person's property from damage. The Contractor shall at the Contractor's own expense make good any such damage which arises as the result of the Contractor's operations. If the Contractor causes damage to private property, the Contractor must obtain a written release from the owner of the damaged property.

4.3.5.1

***(Add clause 4.3.5.1 as follows):***

The Contractor shall notify the Contract Administrator immediately if damage occurs to any City or third party utility or structure.

4.3.7

***(Add new clause 4.3.7 as follows):***

Any lands other than those upon which the work is to be performed, which may be required for temporary facilities, storage purposes or access to the work site, other than those provided by the *Owner*, shall be provided by the *Contractor* at their own cost, with no liability to the *Owner*.

- |            |                              |       |   |
|------------|------------------------------|-------|---|
| <b>4.6</b> | <b>Construction Schedule</b> | 4.6.1 | <p><b><i>(Replace clause 4.6.1 as follows):</i></b><br/>The Contractor shall within the time set out in the Form of Tender prepare and submit to the Contract Administrator for their approval a construction schedule (the Baseline Construction Schedule) indicating the planned start and completion dates of major activities of the Work. The Baseline Construction Schedule shall be in more detail than the Preliminary Construction Schedule and shall indicate completion of the Work in compliance with any specified Milestone Dates, including Substantial Performance.</p> |
|            |                              | 4.6.6 | <p><b><i>(Replace clause 4.6.6 as follows):</i></b><br/>The time for the performance of the Work shall commence on the date specified in the Notice to Proceed, or if not so specified, on the date the Notice to Proceed is issued. The Notice to Proceed will not be issued until the documentation required under paragraph 5.1.1 of the Form of Tender has been submitted and the construction schedule has been approved.</p>  |
|            |                              | 4.6.8 | <p><b><i>(Add new clause 4.6.8 as follows):</i></b><br/>Any requests to lengthen the work schedule shall be made in writing by the Contractor within five working days of knowledge of the reason for the extension. The Contract Administrator will adjust the schedule at their discretion upon receipt of a written request.</p>   |
| <b>4.7</b> | <b>Superintendent</b>        | 4.7.4 | <p><b><i>(Add new clause 4.7.4 as follows):</i></b><br/>The key personnel named in the Contractor's Tender response, shall remain in these key positions throughout the project. In the event that key personnel leave the Contractor's firm, or for any unknown reason are unable to continue fulfilling their role, the Contractor must propose a suitable replacement, and obtain written consent from the Owner. Acceptance of the proposed replacement is at the sole discretion of the Contract Administrator and the Owner.</p>  |
| <b>4.8</b> | <b>Workers</b>               | 4.8.2 | <p><b><i>(Add new clause 4.8.2 as follows):</i></b><br/>The Contractor shall, upon the request of the Contract Administrator, remove any person employed by them for the purposes of the Contract who, in the opinion of the Contract Administrator, is incompetent or has conducted themselves improperly, and the Contractor shall not permit a person who has been removed to return to the Place of Work.</p>   |

**4.9 Materials**

4.9.3

***(Add new clause 4.9.3 as follows):***

The Contractor shall, at their cost,

- a) Be responsible for storing all of the materials supplied for the Work either by themselves or the Owner, until it has been incorporated into the completed Work;
- b) Store all materials in a manner which will prevent damage from the weather, dirt, foreign matter, vandalism and theft;
- c) Arrange for and/or verify the time of delivery of all materials to be supplied by themselves or the Owner to ensure that delivery will coincide with their work schedules.
- d) Examine with the Contract Administrator the quantities and details of all materials supplied by the Owner at the time and place of delivery or those materials already at the Place of Work, and prepare and sign a Statement of Materials Acceptance, specifically noting and rejecting any defective material;
- e) Replace all materials supplied by themselves or the Owner which are found to be stolen, missing or damaged while under their care;
- f) Replace all materials found to be defective in manufacture which have been supplied by themselves.

**4.11 Subcontractors**

4.11.3

***(Replace clause 4.11.3 as follows):***

The Contractor shall, upon notice of the Contract Administrator, remove any Subcontractor employed by them for the purposes of the Contract who, in the opinion of the Contract Administrator, is incompetent or has conducted themselves improperly, and the Contractor shall not permit the Subcontractor who has been removed to return to the Place of Work. The removal of a Subcontractor under this clause shall not be considered a Change and the Contract Price and the Contract Time shall not be adjusted.

**4.12 Test and Inspections**

4.12.1

***(Replace clause 4.12.1 as follows):***

The Contractor shall perform or cause to be performed all tests, inspections and approvals of the Work as described in the Contract Documents or a required by the Contract Administrator as part of Quality Control. The Contractor shall complete all the necessary testing at the frequencies described in the Contract Document unless otherwise approved by the Contract Administrator.

Acceptable test and inspection results will not relieve the Contractor of its obligations under the Contract to correct defects or deficiencies in the Work.

- 4.12.11 **(Add clause 4.12.11 as follows):**  
Failure to follow DFO/FLNRO BMPs and the approved permit for Instream Works or as instructed by Contract Administrator will result in shut-down of the work. The Contractor must take all steps to mitigate impacts to aquatic resources, environment and habitats before work can re-start on site. No claim will be accepted by the Owner for costs associated with this work shut-down.
- 4.14 Final Clean-up** 4.14.1 **(Replace clause 4.14.1 as follows):**  
Prior to applying for Substantial Performance, the Contractor shall remove all surplus products, tools, construction machinery and equipment relating to the Work that is not required for the performance of the remaining Work. The Contractor shall also remove waste, debris and waste products other than caused by the Owner or Other Contractors, and leave the Place of Work clean and suitable for occupancy by the Owner unless otherwise specified in the Contract Documents or directed by the Contract Administrator.
- 4.16 Notice of Disruption** 4.16.2 **(Add new clause 4.16.2 as follows):**  
Written notice must be provided to all properties which may be physically affected by the construction not less than one week and not more than two weeks prior to construction.  
  
Notify occupants directly affected by the work 48 hours in advance of commencement of construction. Cost of notifying area occupants of ensuing construction and delivery of the notices is incidental to the Contract.
- 7.0 CHANGES**
- 7.1 Changes** 7.1.3 **(Replace clause 7.1.3 as follows):**  
Additional work that the Owner may wished performed that does not satisfy the requirements of subparagraphs (a) and (b) of GC 7.1.1 is extra work (Extra Work) and is not a Change. Pursuant to GC 8, Extra Work may be declined by the Contractor or may, upon agreement between the parties, be undertaken as Extra Work.
- 7.4 Optional Work** 7.4.2 **(Add new clause 7.4.2 as follows):**  
If there are Optional items or Provisional items included in the *Schedule of Quantities and Prices*, those items shall be used only as directed and at the sole discretion of the Contract Administrator through the issue of a Change Order. These items will be paid at the contract unit price as part of regular progress payments. Only quantities used will be eligible for payment. No claim will be accepted for

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unused Optional or Provisional quantities. Clause 9.4 Quantity Variations will not be applicable for these items.

**9.0 VALUATION OF CHANGES AND EXTRA WORK**

**9.2 Valuation Method** 9.2.4

***(Replace clause 9.2.4 as follows):***

Once a quotation is accepted by the Contract Administrator, or other agreement reached between the Contract Administrator and the Contractor regarding adjustments to the Contract Price or Contract Time on account of a Change or Extra Work, the Contractor shall not be entitled to claim or receive additional payment, or adjustment to the Contract Time on account of a Change or Extra Work.

**9.4 Quantity Variations** 9.4.1

***(Replace clause 9.4.1 as follows):***

If for any reason, including an addition or deletion under GC 7.1.1(1) or 7.1.1(2) respectively, the actual quantity of a unit price item varies by more than plus or minus the Variance Threshold Percentage from the estimated quantity for that unit price item listed in the Schedule of Quantities and Prices (the "Tender Quantity") or as otherwise agreed to pursuant to these Contract Documents, then either the Owner or the Contractor may by written notice request the other party to agree to a revised unit price, considering the change in quantities. A party shall make a request for a revised unit price as soon as reasonably possible after the party concerned becomes aware of the quantity variation.

9.4.2 ***(Delete clause 9.4.2 (2))***

**10.0 FORCE ACCOUNTS**

**10.1 Force Account Costs** 10.1.1(1)

***(Add to clause 10.1.1(1) as follows):***

Costs for the Contractor's Superintendent, Project Managers, Health and Safety Personnel, and Office/Administration Staff are not eligible for labour costs as those costs are considered incidental to the mark up owing for overhead and labour.

10.1.1(4) ***(Replace clause 10.1.1(4) as follows):***

Force Account Work performed by a subcontractor shall be paid for in the lesser of: (i) the amount provided by subparagraphs (1), (2) and (3) of this GC, plus a mark-up of 5%, or (ii) the actual amount the Contractor pays the subcontractor including a mark-up of 10% on such actual costs to cover all overhead and profit.

These Supplementary General Conditions must be read in conjunction with the General Conditions contained in the Master Municipal Construction Documents, Volume II, Printed 2009

**12.0 HAZARDOUS MATERIALS**

**12.2 Discovery of Hazardous Materials**

12.2.2

***(Replace clause 12.2.2 as follows):***

If the Contract Administrator observes any materials at the Place of Work that the Contract Administrator knows or suspects may be Hazardous Materials, then the Contract Administrator shall immediately give written notice to the Contractor and the Contractor shall immediately stop the Work or portion of the Work as required by GC 12.2.1(1).

**13.0 DELAYS**

**13.1 Delay by Owner or Contract Administrator**

13.1.2

***(Add new clause 13.1.2 as follows):***

The Owner may at any time suspend the work or any portion thereof provided they give the Contractor five (5) days' written notice of delay. The Contractor shall resume work upon written notice from the Owner. The Contractor shall be entitled to:

- a) An extension of the Contract time equivalent to the length of suspension of work.
- b) Reimbursement by the Owner for directly related out-of-pocket additional costs, reasonably and necessarily incurred by the Contractor as a result of such suspension. No additional payment will be made to the Contractor for any loss of profits or overhead.

**13.3 Unavoidable Delay**

13.3.1

***(Add to clause 13.3.1 as follows):***

Beyond the reasonable control of the Contractor also includes pandemic or community outbreak

**13.8 Direction to Stop or Delay**

13.8.3

***(Add new clause 13.8.3 as follows):***

The Contract Administrator may order the Contractor to stop work if at any time the Contract Administrator is of the opinion that there exists a danger to life or property.

**13.9 Liquidated Damages for Late Completion**

13.9.1

***(Replace clause 13.9.1 as follows):***

If the Contractor fails to meet the Milestone Date for Substantial Performance as set out in the Form of Tender, paragraph 2.2 as may be adjusted pursuant to the provisions of the Contract Documents, then the Owner may deduct from any monies owing to the Contractor for the Work:

- (1) An amount of \$1,000.00 for each calendar day the actual *Substantial Performance* is achieved after the Substantial Performance Milestone Date; plus

- (2) All direct out of pocket costs, such as costs for safety, security or equipment rental, reasonably incurred by the Owner as a direct result of such delay.

If the monies owing to the Contractor are less than the total amount owing by the Contractor to the Owner under (1) and (2) then any shortfall shall immediately, upon written notice from the Owner, and upon Substantial Performance, be due and owing by the Contractor to the Owner.

**18.0 PAYMENT**

**18.1 Preparation of Payment Certificate**

18.1.1

***(Replace clause 18.1.1 as follows):***

The Contract Administrator shall prepare and issue a certificate for the period ending the last calendar day of the month.

**18.4 Holdbacks**

18.4.2

***(Add to clause 18.4.2 as follows):***

At the sole discretion of the Contract Administrator, an amount equivalent to 10% of the contract award value or 200% of a reasonable estimate, whichever is higher, may be held without interest until all deficiencies have been remedied and accepted by the Contract Administrator.

**18.6 Substantial Performance**

18.6.5

***(Replace clause 18.6.5 as follows):***

The Owner may release any builders lien holdback on the 56th day following the date of Substantial Performance, or other date as required by law, but the Owner may hold back the amounts for any deficiencies or filed builders liens as provided in GC 18.4.2, 18.4.3 and 18.4.4.

18.6.6

***(Replace clause 18.6.6 as follows):***

The *Contract Administrator*, as defined herein, shall be the *Payment Certifier* responsible under Section 7 of the *Builders Lien Act* for certifying *Substantial Performance* of the *Work* of the *Contractor*, but not the *Work* of *Subcontractors*. The *Contractor* shall cooperate with and assist the *Contract Administrator* by providing information and assistance in a timely manner as the *Contract Administrator* considers necessary to carry out the duties of the *Payment Certifier* for the *Contract*.

The *Contractor* shall be the *Payment Certifier* responsible under Section 7 of the *Builders Lien Act* for certifying *Substantial Performance* of the *Work* of each *Subcontractor*. Prior to certifying completion for a *Subcontractor*, the *Contractor* shall consult the *Contract Administrator* and obtain the *Contract Administrator's* comments on the status of completion by the *Subcontractor*, including any

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deficiencies or defects in the *Subcontractor's Work* noted by the *Contract Administrator*. The *Contractor* will indemnify and save the *Owner* harmless from any and all liability the *Owner* may have to anyone arising out of the certification by the *Contractor* of *Substantial Performance* for that *Subcontractor*.

Notwithstanding any other provision of the *Contract*, no payments will be due or owing to the *Contractor* so long as a Lien filed by anyone claiming under or through the *Contractor* remains registered against the Project of any lands, or interest therein, on which *Work* for the project was performed. Failure of the *Contractor* to remove all Liens promptly will entitle the *Owner* to damages.

**19.0 TAXES, DUTIES AND  
GST**

**19.4 Tariffs or Duties**

19.4.1

Tariffs or Duties refer to taxes, levies, or charges imposed by any level of government (including foreign governments) on imported or domestic goods, materials, or equipment used in the performance of the Work. The Contract Price is based on the tariffs and duties in effect as of the date of the Tender Closing. If, after the Tender Closing Date, any new Tariffs or Duties are imposed, or existing rates are materially increased, and such changes directly and demonstrably affect the cost of materials or equipment required for the performance of the Work, the Contractor shall notify the Contract Administrator in writing within ten (10) Working Days of becoming aware of such change, providing supporting documentation, including but not limited to:

- (1) Affected materials
- (2) Quantity and cost impact
- (3) Evidence of original and new tariff rates
- (4) Reasonable efforts made to mitigate the cost impact (e.g., sourcing alternatives)

19.4.2

If the Contract Administrator is satisfied that the Contractor has incurred additional direct costs solely due to the change in Tariffs or Duties, the Owner will issue a Change Order to adjust the Contract Price accordingly. No adjustment shall be made for Tariffs or Duties that were publicly announced or reasonably foreseeable before the Tender Closing Date.

19.4.3

This clause does not apply to costs incurred due to delays caused by the Contractor's procurement or supply chain management. It also does not apply if the Contractor fails

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to take reasonable steps to mitigate the impact of the change.

19.4.4 If the imposition of new Tariffs or Duties causes unavoidable delays in material delivery, the Contractor may request an extension of the Contract Time under GC 13.3, subject to approval by the Contract Administrator.

**21.0 WORKERS  
COMPENSATION  
REGULATIONS**

**21.2 Contractor is  
"Prime Contractor"**

21.2.1 ***(Add to clause 21.2.1 as follows):***  
Prior to the issuance of the "Notice to Proceed" the Contractor must provide a signed "Prime Contractor Designation" form as provided in Appendix IV of these Supplementary General Conditions.

**24.0 INSURANCE**

***(Replace section 24.0 as follows):***

**24.1 General**

24.1.1 **Importance of Prompt Attention to Insurance Requirements:**  
The Contractor shall provide the Owner with satisfactory evidence that the insurance required to be provided under this GC is in full force and effect.

24.1.2 **Acceptable Insurance Carriers:**  
The insurer issuing any policy, or other document which is evidence of insurance to the Contractor, shall be an insurer licensed by the Superintendent of Insurance in the Province of British Columbia and registered with the Department of Insurance for Canada in Ottawa, except the Insurance Corporation of British Columbia, which is not subject to this condition.

24.1.3 **Owner's Right to Change Terms:**  
Notwithstanding anything contained in the Contract Documents, the Owner will have the right to request a change to the specified terms and conditions respecting insurance at the sole option of the Owner. The Contractor will be notified in writing of any changes required by the Owner and will provide a quotation for such work.

24.1.4 **Delivery of Insurance Documents:**  
All insurance policies or other acceptable specified documents shall be delivered to, and accepted by, the Owner before the Contract Documents are signed. No work shall be commenced by the Contractor or by anyone acting

on the instructions of the Contractor, until the required Insurance Documents have been accepted by the Owner and the Contract Documents have been duly signed by the Owner and the Contractor.

24.1.5 **Owner's Right to Insure:**

Should the Contractor for any reason not comply with the specified requirements with respect to the insurance, the Owner will, at the Owner's option, have the right to purchase all or any part of such insurance which, in the opinion of the Owner, may be required to provide the specified insurance, and, in the event of so doing, the Owner will have the right to pay the premiums for such insurance and to withhold the amount of premiums so paid from any amount due and payable to the Contractor under the Contract.

**24.2 Required Insurance**

24.2.1 **General**

Damage to work (excluding Building Contracts where Section 24.3, Paragraph 24.3.1, Further Responsibilities of Contractor, applies).

The Contractor shall be responsible for any and all loss, or damage, whatsoever which may occur on or to the works, completed or otherwise, until such time as the entire works have been completed and the Notice of Acceptance has been issued by the Owner, except that loss or damage caused solely by an act of the Owner. In the event of any loss or damage occurring, the Contractor shall, on notice from the Contract Administrator, immediately put the works into the condition it was immediately prior to such loss or damage, all at the

Contractor's expense, except where such loss or damage was caused solely by an act of the Owner.

The Contractor shall be responsible for any and all loss or damage whatsoever which may occur on or to the works, completed or otherwise, arising out of the negligence of the Contractor, any subcontractors, and the employees or agents of any of them.

24.2.2 **Public Liability Insurance:**

(Other than Automobile Third Party Liability Insurance):

**Evidence of Insurance:**

The Contractor shall deposit with the Owner, before the work commences, a Certificate of Insurance, signed by an

authorized representative of the insurer, such certificate to be as shown in Appendix III.

**Effective Dates and Terms:**

The effective date of the Certificate of Insurance shall be the date of the execution of the Contract Agreement and the term of this policy shall be from such effective date until a date not less than twelve (12) months after the date of Substantial Performance completion of all work under the Contract.

**Limits of Liability:**

For bodily injury and for property damage shall be inclusive limits not less than \$5,000,000.

24.2.3 **Public Liability Insurance (Automobile):**

The Contractor shall deposit with the Owner before the work commences a Certificate of Insurance with respect to owned automobiles on ICBC Form No. APV 47 entitled "Confirmation of Insurance Coverage" and with respect to Non-Owned Automobiles including hired automobiles and Contractual Liability on ICBC non-owned automobile policy Form APV 29 (if non-owned automobile coverage is not included under the comprehensive general liability coverage) each signed by an authorized representative of the Insurance Corporation of British Columbia.

**24.3 Physical Loss or Damage With Respect to New Buildings under Construction and/or Major Additions to Existing Structures**

24.3.1 **Responsibility for Placing Insurance:**

The types of insurance required under this section will be provided and maintained at the expense of the City of Coquitlam during the term of the Contract and will be as follows unless otherwise changed by specific endorsement to these Insurance Specifications.

24.3.2 **Insurance Coverage Required:**

Builders Risk Completed Value "All Risks" Course of Construction Insurance. This policy will be written in the names of the City of Coquitlam and the Contractor with loss payable as their respective interests may appear.

24.3.3 **Responsibility of Contractor - Limitations of cover and deductibles:**

The insurance provided by the City of Coquitlam as described herein will not provide the Contractor with full protection against any and all kinds of loss or damage which may arise out of the Contract. It is, therefore, the

responsibility of the Contractor to fully understand the scope of the cover provided with particular attention to the exclusions, limitations of cover and deductible provisions contained in the Insuring Agreements of the policies and it is further the responsibility of the Contractor to take out at the Contractor's expense, whatever other additional insurance the Contractor may consider necessary or desirable for his protection subject as hereinafter provided. The Contractor shall act in the same manner on insurance made available through the City of Coquitlam as he would if he had arranged such insurance himself.

24.3.4 **Responsibility of Contractor – Direct Damage Insurance:**

If the Contractor fails to do all or anything that is required of them concerning insurance, the City of Coquitlam may do what is required and any monies expended by the City of Coquitlam for that purpose shall be repayable and recoverable from the Contractor. Should any action, failure or negligence of the Contractor result in higher insurance costs being incurred by the City of Coquitlam, such additional costs shall be payable or recoverable from the Contractor.

24.3.5 **Responsibility of Contractor – Machinery and Equipment Belonging to Others:**

Unless otherwise directed by the City of Coquitlam in writing, the Contractor shall carry insurance covering loss or damage to construction machinery, tools and equipment owned by and/or on bare rental from a third party or parties and used by the Contractor in performing the work, which insurance shall be in a form satisfactory to the City of Coquitlam and having coverage in accordance with the actual cash value of such construction machinery, tools and equipment. Such policies shall also provide for subrogation to be waived against the City of Coquitlam. A certified copy of the policy shall be delivered to the City of Coquitlam not later than thirty days after the commencement of work under the Contract.

24.3.6 **Contractor's Waiver of Liability to Coquitlam:**

The Contractor hereby releases the City of Coquitlam from any and all liability for damages to the extent that such damages are covered by the course of construction insurance referred to in Section 24.3 of these specifications.

24.3.7 **Liability of Contractor:**

Neither the providing of insurance by the Contractor or the City of Coquitlam in accordance with the requirements

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These Supplementary General Conditions must be read in conjunction with the General Conditions contained in the Master Municipal Construction Documents, Volume II, Printed 2009

hereof, nor the insolvency, bankruptcy, nor failure of any insurance company to pay any claim accruing shall be held to waive any of the provisions of this Contract with respect to the liability of the Contractor or otherwise.

24.3.8 **Responsibility of Contractor for protection of work, persons and property:**

The Contractor and all persons employed by the Contractor or under their control, and all employees and subcontractors, shall use due care that no person or property is injured, and that no rights are infringed in the prosecution of the work. Contractors shall take particular care to protect the work against loss or damage caused by riot, vandalism or malicious mischief and shall be at the expense of the Contractor provide all necessary safeguards in the form of watchmen and/or watch dog protection to prevent loss or damage of this type. The payment of deductibles is the responsibility of the Contractor and if not paid by the Contractor such amounts shall be deducted by the City of Coquitlam from payment due to the Contractor. These deductibles will normally be \$250.00 each claim.

24.3.9 **Action to be taken in the event of loss or damage to the work covered by the Contract:**

When any loss or damage occurs to the work or to any materials and supplies on the site of the work, the Contractor shall remove any and all damaged or destroyed property and shall rebuild or replace the damaged or destroyed work, materials, or supplies and complete the work to the satisfaction of the Owner. For such removal, rebuilding, or replacing, the Contractor shall be entitled to receive from the Owner the amount of insurance monies received by the Owner pursuant to the said adjustment which amount shall be paid to the Contractor as the work of rebuilding or replacing proceeds, and in accordance with the Agreement. Damage or destruction of the whole or any part of the work shall not affect the rights and obligations of either party under the Agreement, except that in such event the Contractor shall be entitled to such reasonable extension of time to complete the work as the Architect and/or Contract Administrator may decide.

24.3.10 **Further responsibility of Contractor:**

Other than with respect to loss or damage arising out of insured risks and herein before specified, the Contractor shall be responsible for all loss or damage whatsoever which may occur on or to the works completed or otherwise, until such time as the entire works have been completed and the Notice of Acceptance has been issued by

the Owner, except that loss or damage caused solely by an act of the Owner.

In the event of any loss or damage occurring, the Contractor shall on notice from the Owner immediately put the works into the condition it was immediately prior to such loss or damage, all at the Contractor's expense except as previously stated.

24.3.11 **Owner Not Responsible for Loss or Damage or Loss of Use of Property of Contractors and their Employees:**

The Owner will not be responsible for securing or paying for insurance of any kind other than as specified in Section 24.3 of these specifications nor will the Owner have any responsibility whatsoever for loss or damage from whatever cause occurring to property owned, leased, or otherwise in the possession of the Contractor, subcontractors or their employees including, without restricting the generality of the foregoing, machinery, equipment, tools, supplies, and clothing at the construction site or elsewhere including loss of use of same.

24.4 **Additional Insured** 24.4.1

**The Contractor shall ensure the following are named as "additional insured" on the liability policy for this contract:**

- The City of Coquitlam

The City may identify private properties that are directly affected by construction. If so, the Contractor shall include the legal owners of these properties named as "additional insured" on the liability policy for this contract.

25.0 **MAINTENANCE PERIOD**

25.1 **Correction of Defects** 25.1.4

***(Add new clause 25.1.4 as follows):***

The Owner is authorized to make repairs to defects or deficiencies if, ten days after giving written notice, the Contractor has failed to make or undertake with due diligence the required repairs. However, in the case of emergency where, in the opinion of the Owner, delay is not reasonable, repairs may be made without notice being sent to the Contractor. All expenses incurred by the Owner in connection with repairs made pursuant to GC 25 shall be paid by the Contractor or may be deducted from the Maintenance Security, or other holdbacks. The Contractor shall promptly pay any shortfall.

**27.0 CONTRACTOR  
PERFORMANCE  
EVALUATION**

27.1

***(Add new clause 27.1 as follows):***

After the completion of the Contract, the Contractor will be evaluated on their performance of the Work. The evaluation will provide percentage scores on the following categories:

1. *Contract Administration*
2. *Construction Management*
3. *Schedule Management*
4. *Communications*
5. *Resource Management and Contractor Performance*
6. *Quality Management*

*An evaluation summary report may be issued to the Contractor with scores for each of these categories. Upon request, the Contractor may attend a meeting with the City to discuss the evaluation.*

*This internal evaluation may be reviewed for reference on subsequent tenders with the City. Evaluation scores can form part of the tender analysis and influence contract award decisions.*

*Evaluation Scores in categories that are below 50% may result in a suspension of tendering privileges with the City.*

**APPENDIX I**

**PERFORMANCE BOND**

NO. \_\_\_\_\_ \$ \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS THAT

\_\_\_\_\_  
As Principal, hereinafter called the Principal, and

\_\_\_\_\_  
As Surety, hereinafter called the Surety, are held and firmly bound unto

\_\_\_\_\_  
As Obligee, hereinafter called the Obligee, in the amount of

\_\_\_\_\_ Dollars  
(\$ \_\_\_\_\_ )

lawful money of Canada, for the payment of which sum, well and truly to be made, the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a written contract with the Obligee, dated the \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_, for

\_\_\_\_\_  
\_\_\_\_\_

in accordance with the drawings and specifications submitted, therefore, which contract, drawings and specifications and addenda thereto, to the extent provided for, are by reference made part hereof and are hereinafter referred to as the Contract.

NOW THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if the Principal shall promptly and faithfully perform said Contract (including any addenda thereto, provided such addenda do not collectively increase the amount to be paid to the Principal by more than twenty per cent (20%) of the amount of the Contract except with the written consent of the Surety) then this obligation shall be null and void; otherwise, it shall remain in full force and effect.

These Supplementary General Conditions must be read in conjunction with the General Conditions contained in the Master Municipal Construction Documents, Volume II, Printed 2009

Whenever the Principal shall be, and declared by Obligee to be, in default under the Contract, the Obligee having performed Obligee's obligations thereunder, the Surety may promptly remedy the default, or shall promptly:

1. Complete the Contract in accordance with its terms and conditions, or
2. Obtain a bid or bids for submission to Obligee for completing the Contract in accordance with its terms and conditions, and upon determination by Obligee and Surety of the lowest responsible bidder, arrange for a contract between such bidder and Obligee and make available as work progresses (even though there should be a default or a succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term 'balance of the contract price', as used in this paragraph, shall mean the total amount payable by Obligee to Principal under the Contract less the amount properly paid by Obligee to Principal.

Any suit under this Bond must be instituted before the expiration of two (2) years from date on which the Notice of Acceptance under the Contract is issued.

The Surety shall not be liable for a greater sum than the specified penalty of this Bond.

No right of action shall accrue on this Bond to or for the use of any person or corporation other than the Obligee named herein or the heirs, executors, administrators, or successors of Obligee.

IN TESTIMONY WHEREOF, the Principal has hereto set its hand and affixed its seal, and the Surety has caused these presents to be sealed with its corporate seal duly attested by the signature of its Attorney-in-fact, this \_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_.

SIGNED, SEALED and DELIVERED

In the presence of

)  
)  
)  
)  
)

\_\_\_\_\_  
PRINCIPAL

\_\_\_\_\_  
SURETY

\_\_\_\_\_

**APPENDIX II**

**LABOUR AND MATERIAL PAYMENT BOND**

(Private Contracts – Trustee Form)

NO. \_\_\_\_\_

\$ \_\_\_\_\_

Note: This Bond is issued simultaneously with another Bond in favour of the Obligee conditioned for the full and faithful performance of the Contract.

KNOW ALL MEN BY THESE PRESENTS THAT

\_\_\_\_\_  
As Principal, hereinafter called the Principal, and

\_\_\_\_\_  
As Surety, hereinafter called the Surety, are, subject to the conditions hereinafter contained, held and firmly bound unto

\_\_\_\_\_  
As Trustee, hereinafter called the Obligee, for the use and benefit of the Claimants, their and each of their heirs, executors, administrators, successors and assigns in the amount of

\_\_\_\_\_ Dollars  
(\$ \_\_\_\_\_) lawful money of Canada, for the payment of which sum well and truly to be made, the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns jointly and severally, firmly by these presents.

SIGNED AND SEALED this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

WHEREAS, the Principal has entered into a written contract with the Obligee dated the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, for

\_\_\_\_\_  
\_\_\_\_\_

which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if the Principal shall make payment to all Claimants for all labour and material used or reasonably required for use in the performance of the Contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

\_\_\_\_\_  
These Supplementary General Conditions must be read in conjunction with the General Conditions contained in the Master Municipal Construction Documents, Volume II, Printed 2009

1. A Claimant for the purpose of this Bond, is defined as one having a direct contract with the Principal for labour, material, or both, used or reasonably required for use in the performance of the Contract, labour and material being construed to include the part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment directly applicable to the Contract provided that a person, firm or corporation who rents equipment to the Principal to be used in the performance of the Contract under a contract which provides that all or any part of the rent is to be applied towards the purchase price thereof shall only be a Claimant to the extent of the prevailing industrial rental value of such equipment for the period during which the equipment was used in the performance of the Contract. The prevailing industrial rental value of equipment shall be determined, insofar as it is practical to do so, in accordance with and in the manner provided for in the latest revised edition of the publication of the Canadian Construction Association entitled "Rental Rates on Contractors' Equipment" published prior to the period during which the equipment was used in the performance of the Contract.
2. The Principal and the Surety hereby jointly and severally agree with the Oblige as Trustee that every Claimant who has not been paid as provided for under the terms of his contract with the Principal before the expiration of a period of ninety (90) days after the date on which the last of such Claimant's work or labour was done or performed or materials were furnished by such Claimant, may as a beneficiary of the trust herein provided for, sue on this Bond, prosecute the suite to final judgment for such sum or sums as may be justly due to such Claimant under the terms of his said contract with the Principal and have execution thereon. Provided that the Oblige is not obliged to do or take any act, action or proceeding against the Surety on behalf of the Claimants or any of them to enforce the provisions of this Bond. If any act, action or proceeding is taken either in the name of the Oblige or by joining the Oblige as a party to such proceedings then such act, action or proceeding shall be taken on the understanding and basis that the Claimants or any of them who take such act, action or proceeding shall indemnify and save harmless the Oblige against all costs, charges and expense or liabilities incurred thereon and any loss or damage resulting to the Oblige by reasons thereof. Provided still further that subject to the foregoing terms and conditions, the Claimants or any of them may use the name of the Oblige to sue on and enforce the provisions of this Bond.
3. No suit or action shall be commenced hereunder by any Claimant:
  - a) unless such Claimant shall have given written notice within the time limits hereinafter set forth to each of the Principal, Surety and Oblige, stating with substantial accuracy the amount claimed. Such notice shall be served by mailing the same by registered mail to the Principal, Surety and Oblige at any place where an office is regularly maintained for the transaction of business by such persons or served in any manner in which legal process may be served in the Province or other part of Canada in which the subject matter of the contract is located. Such notice shall be given (i) in respect of any claim for the amount or any portion thereof required to be held back from the Claimant by the Principal under either the terms of the Claimant's contract with the Principal or under the Mechanic's Liens Legislation applicable to the Claimant's contract with the Principal whichever is the greater within one hundred and twenty (120) days after such Claimant should have been paid in full under the Claimant's contract with the Principal; (ii) in respect of any claim other than for the holdback or portion thereof referred to above within one hundred and twenty (120) days after the date upon which such claimant did

or performed the last of the work or labour or furnished the last of the materials for which such claim is made under the Claimant's contract with the Principal.

- b) after the expiration of one (1) year following the date on which Principal ceased work on the Contract including work performed under guarantees provided in the Contract.
  - c) Other than in a court of competent jurisdiction in the Province or District of Canada in which the subject matter of the Contract or any part thereof is situated and none elsewhere, and the parties hereto agree to submit to the jurisdiction of such court.
4. The amount of this Bond shall be reduced by and to the extent of any payments made in good further and in accordance with the provisions which may be filed of record against the subject matter of the Contract, whether or not claim for the amount of such lien be presented under and against this Bond.
5. The Surety shall not be liable for a greater sum than the specified penalty of this Bond.

IN TESTIMONY WHEREOF, the Principal has hereto set its hand and affixed its seal, and the Surety has caused these presents to be sealed with its corporate seal duly attested by the signature of its Attorney-in-fact the day and year first above written.

SIGNED, SEALED and DELIVERED

In the presence of

)  
)  
)  
)  
)

\_\_\_\_\_  
PRINCIPAL

\_\_\_\_\_  
SURETY

\_\_\_\_\_

**APPENDIX III**

**CERTIFICATE OF INSURANCE**

This Certificate issued to the City of Coquitlam is to certify that policies of insurance, as described below, have been issued to the Insured named below and are in force at this time. It is understood and agreed that thirty (30) days' prior written notice by registered mail of any material alterations, transfer, assignment or cancellation of any of the policies listed below, either in part or in whole, will be given to the holder of this Certificate.

A. This Certificate is issued to: Named Insured and Mailing Address:

**City of Coquitlam**  
**3000 Guildford Way**  
Coquitlam, BC V3B 7N2

B. CONTRACT NUMBER AND/OR NAME Description of the Work:

C. INSURANCE POLICY

Name of Insurer:  
Policy Number:  
Effective Date:

Liability Limit:  
Expiry Date:

D. INSURANCE COVERAGE

**COMMERCIAL GENERAL LIABILITY** coverage is required to insure against liability from the activities arising out of operations or work in connection with the above-described project, including liability arising out of the use of City property.

D.1 The minimum limit shall be \$5,000,000.00 inclusive per occurrence against bodily injury, personal injury and property damage.

D.2 The City of Coquitlam, its employees, officers, agents and volunteers are added as Additional Insureds, but only with respect to operations conducted by or on behalf of the Named Insured in connection with the above-described project, operations or work.

D.3 This insurance shall be primary as regards the City of Coquitlam, its employees, officers, agents and volunteers as Additional Insureds.

D.4 Any deductible or reimbursement clause contained in the policy shall not apply to the City of Coquitlam and shall be the sole responsibility of the Named Insured.

D.5 The insurance shall include the following coverages:

- D.5.1 Cross Liability Clause
- D.5.2 Non-Owned Automobile Liability
- D.5.3 Unlicensed Automobile Liability
- D.5.4 Blanket Contractual Liability
- D.5.5 Broad Form Property Damage Liability
- D.5.6 Owner's & Contractor's Protective Liability
- D.5.7 Products & Completed Operations Liability

D.6 Indicate provision of special coverage for this project as required by the City:

YES	NO	Special Coverage Description
-----	----	------------------------------

- |                          |                                     |                                 |
|--------------------------|-------------------------------------|---------------------------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Shoring and Underpinning Hazard |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Pile Driving and Vibrations     |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Excavation Hazard               |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Demolition                      |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Blasting                        |

\_\_\_\_\_  
Authorized Signature and Stamp

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
City' broker to return to City Representative

\_\_\_\_\_  
Department

These Supplementary General Conditions must be read in conjunction with the General Conditions contained in the Master Municipal Construction Documents, Volume II, Printed 2009



**APPENDIX IV**

**PRIME CONTRACTOR DESIGNATION**

Owner: **City of Coquitlam**  
Contractor: \_\_\_\_\_  
Contract / Permit #: **81364**  
Project / Workplace: **Culvert CIPP Installation - Mundy Creek at Cape Horn Ave** (the "Project")

By signing this Prime Contractor Designation form, the Contractor hereby:

1. agrees to be, and accepts designation as, the "prime contractor" for the purposes of the Workers Compensation Act, R.S.B.C. 2019, c. 1 (the "Act") and the Occupational Health and Safety Regulation, B.C. Reg. 223/2022 (the "Regulation") in respect of the Project and Workplace noted above;
2. represents and warrants that the Contractor is qualified and capable to perform the duties of prime contractor and that the undersigned signatory has the authority to accept designation as prime contractor and to bind the Contractor;
3. accepts the duty and responsibility for ensuring the activities of employers, workers and other persons at the Workplace relating to occupational health and safety are coordinated and agrees to do everything that is reasonably practicable to establish and maintain a system or process that will ensure compliance with the Act and the Regulation in respect of the Workplace;
4. covenants and agrees to comply with the occupational health and safety provisions of the Act, the Regulation, any other applicable regulations under the Act, and any applicable orders;
5. acknowledges and agrees that the Owner has provided the Contractor the information known to the Owner that is necessary to identify and eliminate or control hazards to the health or safety of persons at the Workplace; and
6. agrees that the designation as prime contractor hereunder may not be assigned or revoked without the prior written consent of the Owner.

**Prime Contractor Name:** \_\_\_\_\_

**Prime Contractor Address:** \_\_\_\_\_

\_\_\_\_\_  
**Prime Contractor Signature** **Date**

\_\_\_\_\_  
**Print Name**

*Please return a signed copy of this designation to the City of Coquitlam, 3000 Guildford Way, Coquitlam, BC, V3B 7N2. If you have any questions, please contact the City of Coquitlam Health & Safety Manager at 604-927-3070.*

***Supplementary Contract  
Specifications***

**Supplementary Specifications**

to the  
MASTER MUNICIPAL SPECIFICATIONS  
**Volume II – Platinum Book**

**Culvert CIPP Installation – Mundy Creek at Cape Horn Ave**  
TENDER NO. 81364

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CONTRACT SPECIFIC NOTATIONS

1.00 CONTRACT SPECIFIC  
INSTRUCTIONS

1.01 Coordination of Work

The Contractor shall be responsible to consult with all affected businesses, residents, transportation companies regarding delays, detours, and any other works affecting any transit service in the area, and will be responsible to coordinate the works with City crews and other contractors working in the area. If working area is to become a multiple-employer workplace as defined by WorkSafe BC, the Contractor shall remain the Prime Contractor.

1.02 Outside Agency Approval

In accordance with the Contract Documents, the Contractor is responsible to consult with and obtain any approval required to meet and comply with all the conditions required from outside agency such as, but not limited to, BC One Call, Metro Vancouver, BC Hydro, Telus, Kinder Morgan, and Fortis BC in the area of the place of Work.

The installation of the overflow storm culverts will be crossing two Metro Vancouver watermains and one Fortis BC DP gas main. Permission to cross the Metro Vancouver watermains and the FortisBC gas main must be obtained prior to any work taking place. The City has started the approval process with Metro Vancouver. The Contractor will be required to coordinate any required inspections or site meetings with 3<sup>rd</sup> Party Utility Owner representatives.

The Contractor will be required to conform to the conditions of that approval which will likely require hand digging or hydro excavation near the watermains and gas main under the presence of an inspector. Contractor to contact Metro Vancouver and Fortis BC to arrange for an inspector in accordance with Metro Vancouver and Fortis BC's proximal policy and guidelines prior to excavating within proximity of their utilities.

1.03 Waste Collection  
Coordination

1. Contractor is responsible to accommodate all waste collection vehicles and cart pick up schedules throughout construction. Collection schedule can be found in <https://www.coquitlam.ca/157/Collection-Calendar-Guidelines> .
2. If waste collection will be impacted the contractor is responsible to:
  - a. Provide advanced notification to:
    - i. The City's Solid Waste staff at 604-927-3500 or [wastereduction@coquitlam.ca](mailto:wastereduction@coquitlam.ca); and
    - ii. The City's Contract Administrator.
  - b. Provide access for collection trucks to closed streets due to road work; or
  - c. Move waste carts for collection:
    - i. The Contractor is required to ensure each cart is labelled with the property address and returned to the correct address after collection (each cart has its own individual cart identification code and is specifically assigned to each property). **Contractors will be responsible for the costs to replace missing carts.**
3. Contractor's Request for Change in Collection Time (e.g. PM to AM):
  - i. The Contractor must provide residents with as much notice as possible – minimum 5 working days.
  - ii. The contractor must follow all conditions of Clause 1.04 and is responsible to deal with any missed collections. For example, taking garbage to the United Boulevard Recycling and Waste Centre or covering the cost associated for any missed collection to be rescheduled.

Questions: [wastereduction@coquitlam.ca](mailto:wastereduction@coquitlam.ca)

CONTRACT SPECIFIC NOTATIONS

- 1.04 Cooperation with Emergency and Maintenance Activities**
- The Contractor will be responsible to cooperate with regular maintenance or emergency vehicles and staff for access to the site when required including:
- Fire, Police, and Ambulance
  - Waste Collections (garbage/recycling pick-up)
  - City Maintenance (or representatives)
  - Other City Contractors
- 1.05 Site Safety**
- The Contractor is responsible to ensure the construction site is safe at all times for workers, pedestrians, and vehicle traffic. During non-working hours, the Contractor must ensure that the site has all potentially hazardous areas appropriately identified and protected, and also must provide appropriate signage, lighting, and markings for the direction of vehicle and pedestrian traffic, all to ensure the safety of the public. Supply and use of this equipment is considered incidental to the contract.
- Manhole lids, valve boxes and other appurtenances within the roadway that may present a traffic hazard during construction must be clearly marked for traffic.
- Manhole lids left raised in preparation for paving must have a rubberized protector ring painted with bright color for traffic safety. Supply and use of this equipment is considered incidental to the contract.
- 1.06 Lane Closure Restrictions**
- Refer to: **Appendix A: Traffic Management Detail Specifications.**
- The Contractor must take the above information into account in the preparation and submission of the Tender.
- Costs to complete the works taking the above restrictions into consideration shall be incidental to work described in other sections unless otherwise shown in the Schedule of Quantities and Prices.
- 1.07 Schedule of Work**
- All work under this Contract is to be completed within the designated Contract Duration. The Contractor must provide sufficient resources in a continuous effort and site presence to complete all the work within the allotted time. As set out in the MMCD the Contractor must provide updates to the construction schedule monthly, preferably biweekly.
- 1.08 DFO Fisheries Window**
- Mundy Creek is a red coded watercourse as per FLNRO Streamside Protection Regulation and must conform to all DFO/FLNRO regulations. This project must be completed within the DFO fisheries window of August 1, 2026 to September 15, 2026.
- If the project cannot be completed by September 15, 2026, this project will be deferred to the 2027 Fisheries Window construction.
- 1.09 Survey Layout**
- Construction layout will be staked out by the Contract Administrator as outlined in Supplementary General Conditions. The Contractor is responsible to not disturb the survey stakes and markers. If the Contract Administrator has to redo the survey layout, it will be at the Contractor's cost.
- 1.10 Location of Existing Utilities**
- The contractor is responsible to verify the depth and location of all utilities (watermains, storm mains, sanitary mains & etc.), including outside agency utilities (i.e. Fortis BC Gas Mains & etc.) and service connections (water, storm & sanitary services at the mains & property lines) by hand digging or by Hydro-Vac in the presence of the Inspector.
- Pre-locates must be completed as soon as possible after award of the contract so changes can be completed by the Engineer prior to site construction. Contact Metro Vancouver for location of their utilities and BC One for location of other outside agency utilities. The contractor will not receive any compensation or allowance for

CONTRACT SPECIFIC NOTATIONS

delays if work is halted due to utilities & services connections not located prior to commencing construction.

City of Coquitlam does not guarantee water, storm or sanitary services connections are perpendicular to the mains or property lines, the contractor will not receive any compensation for the time to locate these connections or for exposing hidden services at the property lines.

Payment for this work will be treated as incidental to payment for work described in other sections.

**1.11 Manholes & Valves**

Access to manholes and valves must be maintained at all time for city utilities crews and external utility companies. In case of an emergency the cost for exposing any buried manhole or valve covers during construction will be paid by the contractor.

**1.12 Utility Adjustments -  
City Infrastructure and/or  
Other Agency  
Infrastructure**

The Contractor is responsible for adjusting all utilities, belonging to Coquitlam and/or other agencies that are affected by the road works. All adjustments to utilities must be completed to the satisfaction of the utility owner. Utility adjustment will be considered incidental to the contract unless otherwise noted in the Contract Documents.

The Contractor should note that certain utility owners may decide to complete their own adjustments. The Contractor will be required to cooperate with any utility company providing their own adjustments.

The Contractor shall be responsible to contact the appropriate utility company within minimum of seventy two (72) hours of the work. No adjustment shall be made without the written approval of the utility company.

All manholes must be vertically adjusted a minimum of twenty four (24) hours prior to paving.

**1.13 Accesses**

The Contractor is responsible to maintain all business/residential vehicles and pedestrian accesses open at all times, the contractor may provide temporary accesses if the affected owner agrees. All costs associated with temporary accesses will be at the contractor's expense.

**1.14 Construction Access**

The Contractor is responsible for establishing access to the site for construction purposes.

The Contractor shall restore all site access routes to existing and better condition following construction. Existing condition shall be established by pre-construction survey of intended access route(s).

**1.15 FORTIS BC Emergency  
Protocol**

Payment for preparation of the Construction Access, pre-construction survey of intended access route(s) and restoration of all access routes following construction shall be incidental unless otherwise noted on the Contract Drawings.

In an emergency, gas pipeline rupture or leak, Contact Fortis BC 24 Hour Emergency Line (1-800-663-9911) & Fire Department (911) immediately and then City Coquitlam Utility Control Centre (604-927-6287).

**1.16 Verification of  
Dimensions and  
Quantities**

Before proceeding with work, Contractor is to visit site and check and verify dimensions and quantities. Report variations between drawings and site conditions to the Contract Administrator before proceeding with work.

CONTRACT SPECIFIC NOTATIONS

- 1.17 Precautions** Protect areas under construction from damage caused by excessive erosion, flooding, heavy rains, etc. Repair or replacement of unprotected damaged areas and as directed by the Contract Administrator will be at no cost to the Owner.
- 2.00 CONSTRUCTION ACTIVITY**
- 2.01 Notice to Residents and Businesses** Residents and businesses affected by the proposed construction must be notified by the Contractor at least 7 days prior to commencement of works and be provided with the construction schedule and Contractor's contact information.
- 2.02 Site Clean-up During Construction and End of Construction** The Contractor will be responsible for the complete clean-up of the work site during construction & at the end of construction and prior to the Substantial Performance review. This work is considered incidental to the Contract.
- The work will include cleaning of all catch basins periodically or as directed by the Contract Administrator within the Work area, or nearby location as affected by the Work. All cleaning is to be performed by vacuum truck to the satisfaction of the Contract Administrator and will include off-site disposal of waste material.
- Payment for this work will be treated as incidental to payment for work described in other Sections.
- 3.00 MANDATORY MEETINGS AND CONTRACTOR REPRESENTATIVES AND SUBCONTRACTORS**
- 3.01 Pre-Construction Meeting Requirements** After the Award of the Contract, the Contractor (Project Manager & Superintendent) will be required to attend a Pre-Construction Meeting with the Contract Administrator and provide all necessary information required by the Contract Administrator prior to provision of a Notice to Proceed. Items required to be provided at the meeting include:
1. A Detailed Construction Schedule showing the start date & completion date and the durations of major work components showing how all work will be completed within the Contract Duration.
  2. Construction Staging Plan providing information & details on the number of stages being proposed by the contractor. This plan will be reviewed and must be approved prior to commencing construction.
  3. Proof of insurance
  4. Performance Bond and Labour and Materials Payment Bond
  5. WCB Clearance Letter and copy of Notice of Project
  6. City of Coquitlam Business License
  7. A copy of portions of your Health and Safety Plan including the Title Page, Table of Contents, and portion showing latest revision date.
- 3.02 Contract Schedule, Contract Duration, and Charges** A detailed, realistic construction schedule for this project will be required to be presented at the pre-construction meeting. The schedule must show major components and durations. All work under this project is to be completed within the designated Contract Duration as contained in the Contract Agreement, or as formally amended.
- 3.03 Contract Superintendent and Subcontractors** In compliance with the MMCD General Conditions, Section 4.7, Superintendent, the Contractor shall have a competent senior representative, (the "Superintendent") in FULL TIME attendance at the Place of Work while work is being performed for the duration of the contract. This (FULL TIME) attendance is also required when work is being performed by Subcontractors.

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CONTRACT SPECIFIC NOTATIONS

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Work done by Subcontractors is to be directed by the Superintendent and monitored on site ensuring conformance to the Contract Documents and other particular direction to the Superintendent by the Contract Administrator. The Owner is not responsible for the direction of Subcontractors.

**3.04 Changes of Contractor  
Representatives &  
Subcontractors**

The Superintendent and Subcontractors indicated in the Form of Tender shall not be changed unless:

1. The Owner requests a replacement
2. The Contractor submits an application for a change, in writing, to the Contract Administrator with the change being approved in writing.

**END OF SECTION**

**1.0 GENERAL**

**1.3 Submission**

Delete 1.3.2 and  
replace with the  
following

Submit one copy of an accurate project record document in final form prior to applying for Substantial Performance including any video report, test reports and Operation & Maintenance manual. Record documents to include changes in the Issued for Construction Drawings, new elevation, offsets & location of all utilities, manhole rim, catchbasin rim, vaults, valve boxes, inverts walkways/sidewalks, and any unknown/new utilities found on site. Legal holdbacks will not be released until complete record documents, including reports and manuals, have been submitted and accepted by the Contract Administrator.

Contractor to get sign off letter duly signed by the property owners when private property is affected by the work. Properties required to obtain the sign off letters will be at the sole discretion of the Contract Administrator.

Payment for all work performed under this section will be incidental to work in other Sections, unless otherwise described in Schedule of Quantities and Prices.

**END OF SECTION**

QUALITY CONTROL

- 1.0 QUALITY**
- The Contractor shall provide a final product conforming to the Contract Documents and the intent of the work. The work is to be accurate to the dimensional and tolerance requirements of the contract.
- Payment will be subject to adjustments based on quality assurance tests performed by the Contract Administrator.
- 1.1 Quality Control (QC) by Contractor**
- The MMCD (2009) definition of “Quality Control” is the process by which the Contractor checks specific materials, products, and workmanship to ensure strict conformance with the Contract Documents.**
- The Contractor is fully responsible for quality control of the materials, production, and construction processes. Quality control tests shall be performed by the Contractor, at their own expense, to ensure that products meet the contract specifications.
- Failure by the Contractor to conduct adequate quality control testing during production and construction will negate the Contractor’s ability to appeal the quality assurance tests used for acceptance/rejection of the work.
- Under no circumstances will QC test results produced after completion of the Quality Assurance (QA) results be considered for appeal purposes
- Any changes in the Work with respect to the location, grade, or line shall be approved in advance by the Contract Administrator. Failure to notify the Contract Administrator of changes in writing may result in rejection of Work.
- 1.2 Inspection of Work, Quality Assurance, and Material Testing, by the Owner**
- The MMCD (2009) definition of “Quality Assurance” means the process by which the Owner evaluates if the work is being constructed in accordance with the Contract Documents. This definition will be used for this contract**
- The *Contract Administrator* will provide construction review through spot inspections and spot materials testing for Quality Assurance.
- Any materials testing results indicating a non-conformance to the Contract Documents will require construction corrective action by the Contractor. The Contractor shall have no claim for delays, interruptions, double-handling of materials, rejection of materials, or any other cause brought about by such tests, including awaiting the outcome of such tests.
- All subsequent testing to corrective action to verify conformance to the Contract Documents will be the full responsibility of the *Contractor*. Inspection review by the Owner will not relieve the Contractor from providing a product that meets or exceeds the requirements of the Contract Documents.
- 1.3 Inspection**
- Materials testing shall be as described in MMCD General Conditions, Section 4.12 with the following change:
- Delete Section 4.12.2(a) and insert the following:
- Where the MMCD specification clauses for Inspection and Testing indicate the Contract Administrator will arrange for all testing for work described in this section will be amended to read The Contractor will arrange for and pay for all testing for work described in this section. The testing shall take place at the following prescribed rates and as directed by the contract administrator. The contract administrator has the authority to call for testing, up to the rates and frequencies specified, at the Contractors cost.
- All testing covered under this item shall be performed by a CSA/CCIL certified laboratory and technicians with copies of all test results to be sent directly to the Contract Administrator. Re-testing resulting from failed first tests shall be at the Contractors expense.

QUALITY CONTROL

- 1.4 Testing** Contractor shall carry out inspection and testing (QC) to ensure compliance with Contract Documents. Contractor shall submit test results within one week of testing to the Contract Administrator.
- The Contractor shall provide test results prior to the preparation of the payment certificate.
- 1.5 Contractors Responsibilities** Furnish labour and facilities to:
1. Provide access to work to be inspected
  2. Facilitate inspections and tests
  3. Make good work disturbed by inspection and tests
- 1.6 Access to Work** Allow inspection testing agencies access to Work.
- 1.7 Tests** Test rates and frequencies (excluding failed tests), when not defined in the MMCD or Detail Specifications Sections shall be at the following frequencies:
1. Trench Backfilling and Compaction
    - 1.1 Compaction: 1 test / 10 lm / 300mm lift
    - 1.2 Sieve: 1 test / placed material / 50 m<sup>3</sup>
  2. Granular Base
    - 2.1 Compaction: 1 test/500m<sup>2</sup> / 100mm depth of granular base, min. 1 test if < 500m<sup>2</sup>
    - 2.2 Sieve: 1 test / placed material / 250 TONNES
  3. Granular Subbase
    - 3.1 Compaction: 1 test/500m<sup>2</sup>/150mm depth of granular subbase, min. 1 test if <500m<sup>2</sup>
    - 3.2 Sieve: 1 test / placed material / 250 TONNES
  4. Embankment (Subgrade)
    - 4.1 Compaction: 1 test/ 50m<sup>2</sup> / 0.15m depth of fill, min. 1 test if < 50m<sup>2</sup>
    - 4.2 Sieve: 1 test / placed material / 100 TONNES
  5. Asphalt
    - 5.1 Marshall test: 1 test per 250 TONNES placed, per mix specified, min. 1 / day  
ASTM D1559, D3203, C117, C136
    - 5.2 Superpave: 1 test per 250 TONNES placed, per mix specified, min. 1 / day  
CAI-SP2, ASTM D3203, C117, C136
    - 5.3 Cores: 1 per 500 m<sup>2</sup>/lift
    - 5.4 Continuous asphalt density testing during paving.
  6. Subgrade Preparation
    - 6.1 Compaction & Moisture: 1 test / 500 m<sup>2</sup>, min. 1 test if < 500m<sup>2</sup>
  7. Concrete Tests
    - 7.1 Air, Slump & 1 Set Cylinders: 1 test / 10 m<sup>3</sup>, min. 1 set / day
- 1.8 Measurement and Payment** Payment for all work performed under this section will be incidental to payment for work described in other Sections.

END OF SECTION

TRAFFIC CONTROL, VEHICLE ACCESS AND PARKING

1.0	GENERAL	Add 1.0.6	<p>The <i>Contractor</i> is responsible for all temporary traffic control on the streets required for completion of the work. The <i>Contractor</i> will be responsible to provide a Traffic Management Plan (TMP) for approval (10) ten working days prior to any lane closures taking place. TMP is to be prepared by a qualified professional to the satisfaction of the Contract Administrator.</p> <p>The TMP shall outline the approach to traffic management, show recognition and minimization of risks indicates signing locations, identify Traffic Control Persons (TCP) stations, show lane shifting and proposed closures.</p> <p>The Contractor is responsible to ensure and maintain all business/residential vehicles, cyclists and pedestrian accesses open at all times. The contractor may provide temporary accesses if the affected owner agrees. All costs associated with temporary accesses will be at the contractor's expense.</p>
		Add 1.0.7	<p>A Road and Sidewalk Closure Permit is required from Coquitlam for all work affecting pedestrian and traffic flow related to construction. A permit is required for each specific construction interference with pedestrian and traffic flow. The road and sidewalk closure permit form can be obtained for use from the City's website at <a href="http://www.coquitlam.ca">http://www.coquitlam.ca</a>. The Contractor must follow the approved TMP. Any changes to this TMP must be submitted to City's Traffic Operations for approval.</p>
		Add 1.0.8	<p>Refer to Appendix A – Traffic Management Detail Specifications.</p>
1.4	Traffic Control	Delete 1.4.1 and replace with the following	<p>The Contractor shall conduct his operations so as to cause the minimum obstruction and inconvenience to traffic and to places of business and residences adjacent to the Place of Work. No greater quantity of work shall be undertaken at any one time than can be properly conducted with due regard to the rights and interests of the public as may be determined by the Contract Administrator.</p> <p>The Contractor is to provide at all times safe and convenient means of approach and entrance to adjoining lanes, driveways, buildings and property both for vehicles and pedestrians to the satisfaction of the Contract Administrator. For this purpose, he shall construct and maintain suitable and safe platforms, approaches, structures, bridges, diversions or other works.</p> <p>Where traffic must cross open trenches, the Contractor shall provide suitable bridges. Where trenches have been backfilled or where road improvements are incomplete the Contractor shall take any steps necessary to prevent potholes or other traffic hazards. Where the Contract Administrator so instructs or where Contract Specifications so require, the Contractor shall provide temporary asphalt patching of such hazards.</p>
		Add 1.4.9.3.1	<p>The <i>Contractor</i>, as required by the <i>Contract Administrator</i> and the City, is to supply Construction Zone information signs (stationary), refer to MMCD 01 58 01 for the required identification signage.</p> <p>The <i>Contractor</i> is responsible for the removal of the signs at the completion of the work.</p>

Delete 1.5.1 and  
replace with the  
following

Payment for all work performed under this section including submission of Traffic Management Plan (TMP), Traffic Control Persons (TCP) & all temporary traffic signs, devices as required for traffic & pedestrian safety; and all other items described in the Traffic Regulation Section, and all labour, material, equipment and work described under **Appendix A: Traffic Management Detail Specifications** shall be treated as incidental to payment for work described in other Sections unless shown otherwise in the Schedule of Quantities and Prices.

**END OF SECTION**

1.0 GENERAL

1.0.3 Erosion and  
Sediment Control  
Supervisor

Add 1.0.3

The Erosion and Sediment Control (ESC) Supervisor is the Qualified Professional who is experienced in implementing ESC Plans as per the CEMP and who is responsible for the inspection and monitoring of ESC Facilities to ensure these are installed and maintained in accordance with the ESC Plan, and if necessary, are modified during construction to ensure compliance with the Stream and Drainage System Protection Bylaw No. 4403, 2013.

1.2 Temporary Erosion  
and Sediment  
Controls

Delete 1.2.1 and  
replace with the  
following

Properly drain all portions of the site. Protect the site and the watercourses to which it drains, directly or indirectly, against erosion and siltation in accordance with the City of Coquitlam's Stream and Drainage System Protection Bylaw No. 4403, 2013 during construction and until the maintenance period is completed. Ensure no silt, gravel, debris or other deleterious substance resulting from construction activity discharges into existing drainage systems or watercourses or onto highways or adjacent property. The *Contractor* is responsible for all damage that may be caused by water backing up or flowing over, through, from or along any part of the work or otherwise resulting from his operations.

Keep existing culverts, drains, ditches and watercourses affected by the work clear of excavated material at all times. When it is necessary to remove or alter any existing drainage structure, provide suitable alternative measures for handling the drainage. Adequately support culverts and drainpipes across trenches to prevent displacement and interference with the proper flow of water due to trench settlement.

Provisions must be made to allow safe conveyance of flow during non-working hours. The Contractor is solely responsible for any repairs that may be required following such an event.

Sweep streets, and clean catch basins, manhole sumps, detention tanks, and maintain siltation controls as often as the *Contract Administrator* and the City deems necessary.

Follow all Federal and Provincial regulations and guidelines respecting protection of fish, fish habitat, and watercourses.

Delete 1.2.2.2 and  
replace with the  
following

Do not operate construction equipment in watercourses.

Add 1.2.2.9

In any Watercourse, or In-Stream Works:

- .1 Prior to any work, Erosion and Sediment control measures should be in placed; and
- .2 Fish salvage completed by Environmental Monitor; and
- .3 Temporary water passages or other approved means of handling waterflow in creeks installed to prevent or minimize any impact to fish and aquatic habitat as approved by Contract Administrator.
- .4 All work must be carried out during favourable and low water conditions.

Failure of the Contractor to properly address concerns relating to this Section will result in shut-down of the work. No claim will be accepted by the Owner for costs associated with this work shut-down.

		Add 1.2.2.11	All work within a watercourse must be undertaken and completed in isolation of all flowing water to maintain downstream water quality and unrestricted flows.
1.4	Environmental Protection	Add 1.4.3.5	Immediately contain and clean up any leaks and spills of prohibited materials at the <i>Place of Work</i> .
		Add 1.4.3.6	Ensure that a well-stocked spill kit is on-site at all times and that the <i>Contractor's</i> employees are familiar with appropriate spill response techniques.
		Add 1.4.3.7	Immediately notify the <i>Contract Administrator</i> and the City of any leaks or spills of prohibited materials that occur at the <i>Place of Work</i> .
		Add 1.4.3.8	Ensure that any fuel stored on-site is located at least 15 metres from the nearest stream, and is placed within a bermed and lined area, in order to prevent leaks or spills into the environment.
		Add 1.4.3.9	All equipment and machinery must be in good working condition (power washed), free of leaks or excess oil and grease. No equipment refueling or servicing shall be undertaken within a minimum of 15 meters of any water course or surface water drainage.
		Add 1.4.3.10	During all phases of the operation, the Contractor shall take precautions to abate nuisance caused by mud or dust by clean up, sweeping, sprinkling with water or dust control, or other means as necessary to accomplish results satisfactory to the Contract Administrator.
1.6	Measurement and Payment	Delete 1.6.1 and replace with the following	Lump sum payment for Erosion and Sediment Control includes site isolation, dewatering, the preparation and implementation of the approved <b>Dewatering and Site Isolation Plan</b> , including management of the creek water flow system (by-pass pumping, isolation, blocking, diversion) including supply, installation and removal of the temporary system, all equipment, materials, plugs and all associated works; and
			Supply, installation, maintenance and clean-up of all erosion and sediment control measures necessary to meet the Sediment Control Plan and City of Coquitlam Stream and Drainage System Protection Bylaw No. 4403, 2013 requirements, removal and disposal of deposited material, supply and installation of temporary water passages, pumps, hoses, bypass or other approved means of handling waterflow in any watercourse as approved by Contract Administrator, erosion control blankets and removal of all said works following the completion of the maintenance period; and
			Supply, installation and removal of temporary isolation facilities, as directed by the Contract Administrator and Environmental Monitor, to facilitate fish salvage operations. (Fish salvage will be undertaken by the Environmental Monitor to be assigned by the City); and
			All labour, materials, and equipment required to supply and install the Work as specified in this Section, in Supplementary General Conditions – 20.4.2 and all labour, materials and equipment required for implementation of environmental <b>Construction Mitigation Plan</b> as described in <b>Appendix D</b> .

ENVIRONMENTAL PROTECTION

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1.9 Archaeological / Add 1.9  
Historical Resources

Immediately cease work and inform the *Contract Administrator* and the City, if any archaeological or historical resources are encountered during construction. Leave these resources in place and do not disturb them in any way. Contractor must follow Appendix B – Archaeological Chance Find Procedures.

END OF SECTION

**1.3 Measurement and  
Payment**

Delete 1.3.1 and  
replace with the  
following

Payment for the installation of 1.2m x 1.2m static construction  
Information signs as shown in Appendix A – Traffic Management  
Detail Specifications includes supply, placement and removal and  
will be incidental to payment for work described in other Sections,  
unless shown otherwise in the Schedule of Quantities and Prices.

**END OF SECTION**

<b>1.4</b>	<b>Measurement and Payment</b>	Delete 1.4.3 and replace with the following	<p>Payment for machine placed or hand formed C5 wide base concrete curb, excluding granular subbase &amp; base, includes supply and placing of the concrete curb and gutter, tie-ins, transitions, subgrade preparation, compaction, saw cutting, and will cover all straight and curve sections and will be made separately for each specified type.</p> <p>Payment for excavation and disposal of excavated material will be made under payment item, Common Excavation – offsite disposal, in the Schedule of Quantities and Price.</p> <p>Payment for granular subbase and granular base under curb and gutter will be made under payment items in Section 32 11 16.1S and 32 11 23S, Granular Subbase and Granular Base, respectively.</p>
		Delete 1.4.5 and replace with the following	<p>Payment for concrete sidewalks, letdowns, driveways, walkways, stamped concrete, infills, exposed aggregate concrete, and all concrete ramps includes supply and installation, saw cutting, granular base, regrading of driveways for proper tie-in, field fit and adjustments, subgrade preparation under the concrete sidewalks, in-fills, driveways and walkways, and will be made separately for each specified thickness and type of finish.</p> <p>Payment for excavation and disposal of native excavated material will be made under payment item, Common Excavation – offsite disposal, in the Schedule of Quantities and Price.</p> <p>Payment includes supply, installation and removal of temporary gravel letdown and driveway tie-in at final grade c/w vertical curve to ensure vehicle will not bottom out. Payment includes Quality Control (QC) through test drive by Contractor on letdown and driveway using a standard sedan car to be provided by the Contractor. Final grade to be approved and tested by the City as part of Quality Assurance (QA) and to follow Supplementary General Condition, Clause 4.12.</p>
		Add 1.4.10	<p>Payment for Detectable/Tactile Warning Surface Tile includes supply and placing of Access Tile Model # ACC-R-<u>  </u>X_ (or approved equal) Truncated Dome Detectable Warning Tactile Surface replaceable cast in place - Yellow Color, installation as per the Manufacture’s Specifications and as specified in the Schedule of Quantities and Prices.</p>
<b>2.1</b>	<b>Materials</b>	Delete 2.1.5.1 and replace with the following	<p>Hand-formed and hand-placed concrete:</p> <p>Slump: 80 mm Air entrainment: 5 to 8%. Maximum aggregate size: 20 mm. Minimum cement content: 335 kg/m3. Minimum 28 day compressive strength: 32 MPa.</p>
		Add 2.1.7	<p>Tactile warning surface tile shall be replaceable cast-in-place style. Truncated domes shall be in square grid pattern with a 5 mm nominal raised height, base diameter of 23 mm and top diameter of 11.5 mm. Dome spacing range shall be between 40 mm – 60 mm.</p> <p>Color of the panel shall be Federal Yellow (Y) per US Federal Standard 595B Table IV, Color No. 335.</p> <p>Minimum size of the panel shall be 600 mm by 1200 mm.</p>

3.0 EXECUTION

3.5 Concrete Placement

Delete 3.5.9 and  
replace with the  
following

The *Contractor* is responsible for adjusting all utility manhole frames and valve boxes, belonging to Coquitlam and/or other agencies that are affected by the road works. All adjustments to utilities must be completed to the satisfaction of the utility owner. Riser rings will not be accepted.

The *Contractor* should note that certain utility owners may decide to complete their own adjustments. The *Contractor* will be required to cooperate with any utility company providing their own adjustments.

The *Contractor* shall be responsible to contact the appropriate utility company within a minimum of seventy-two (72) hours of the work. No adjustment shall be made without the written approval of the utility company. All manholes must be vertically adjusted a minimum of twenty-four (24) hours prior to concrete placement.

3.9 Expansion Joints

Delete 3.9.1 and  
replace with the  
following

Form transverse expansion joints at both ends of curb returns and at maximum spacing of 9.0 m for sidewalks, 30.0 m of curb and gutter, at each end of driveway crossing, at tangent point of circular work, and on either side of catch basins.

**END OF SECTION**

1.3	<b>Measurement and Payment</b>	Delete 1.3.1 and replace with the following	Payment for all tree protection includes supply, installation, removal and disposal of all materials and labour required to complete the work as per the arborist's recommendations.
2.0 <b>PRODUCTS</b>			
2.1	<b>Materials</b>	Add 2.1.10	Protective Fencing: Posts - Pressure treated wood 100 mm dia.; Post to be 1.8 m to 2.0m in height at 2.0 m O.C. Snow fence as per Coquitlam Approved Products List; Flagging Tape - 4" Orange glow - 'Tree Retention Area'.
2.0 <b>EXECUTION</b>			
3.1	<b>Existing Trees</b>	Add 3.1.7	The <i>Contractor</i> is responsible to minimize damage to all trees which are to remain.
		Add 3.1.8	The <i>Contractor</i> will be responsible for all claims and costs including the cost of examination by an Arborist, repair, removal and replacement of trees, as required by the Arborist, the <i>Contract Administrator</i> and the City for tree damage where proper notification was not received from the <i>Contractor</i> . Damage will be assessed based on the International Society of Arboriculture Guidelines. The term shall be for a period of one year following the date of Substantial Performance of the <i>Work</i> .
		Add 3.1.9	Place protective fencing/barricades as per Coquitlam Standard Detail Drawings COQ-R26, where identified on the Contract Drawings. <i>Contractor</i> shall maintain fence in good condition during construction.
		Add 3.1.10	When work is to be performed inside fenced areas, <i>Contractor</i> shall take care to avoid damage to existing vegetation. Work to be done inside areas of existing vegetation to be retained includes: <ul style="list-style-type: none"> <li>.1 Removal of isolated trees as directed by the <i>Contract Administrator</i> and the City.</li> <li>.2 Selective pruning and tree removal at edges to create tidy and well-shaped forest edge.</li> <li>.3 Placing planting soil and planting of trees.</li> </ul>
		Add 3.1.11	Relocation of boulevard trees will include excavation of the tree by hand digging or Hydro-Vac, excavation of the planting site, planting of the tree and installation of tree trench as per COQ-L2A, and all labour, materials, and equipment required to complete the work. All work must be done under arborist supervision.
		Add 3.1.12	Do not park, service or fuel vehicles within the vegetation retention areas.
3.4	<b>Pruning</b>	Add 3.4.2	Do not cut roots or branches of retained trees without approval of the <i>Contract Administrator</i> and the City.

**END OF SECTION**

**1.0 GENERAL**

**1.8 Limitations of Open Trench**

1.8.1  
Replace last sentence  
with the following

If circumstances do not permit complete backfilling of all trenches, and where permitted by the *Contract Administrator* and the City, adequately protect all open trenches or excavations with approved fencing or barricades and, where required, with flashing lights.

Add 1.8.2

The use of road plates to cover excavations and restore travel lanes is not permitted in late Fall, Winter or if forecast indicates temperature equal or below 2 degrees Celsius, unless otherwise permitted by the Contract Administrator.

Where construction necessitates the use of road plates, the Contractor is responsible for properly securing them (either pinned or recessed into the pavement) and feathered a minimum of 300mm with existing road asphalt on all four sides. The Contractor is responsible for repairing any pavement damage related to the plate installation.

**2.0 PRODUCTS**

**2.2 Use of Specified Materials**

Delete 2.2.1.2

Delete Pit Run Sand.

Delete 2.2.3.3

Delete Pit Run Sand.

**3.0 EXECUTION**

**3.3 Excavation**

Delete 3.3.1.2 and  
replace with the  
following

Connections to existing waterworks systems are to be made by the *Contractor* under the inspection / supervision of the *Contract Administrator* and the City.

**3.6 Surface Restoration**

Delete 3.6.2.4 and  
replace with the  
following

Restore lawns with approved topsoil and sod to match existing lawn.

Delete 3.6.3.1 and  
replace with the  
following

Restore surface with a minimum 100 mm of 19 mm granular road base material.

Delete 3.6.7.5 and  
replace with the  
following

Restore pavement as detailed on Coquitlam Standard Detail Drawing COQ-G4 unless otherwise shown on the Contract Drawings. Temporary patch shall be a minimum thickness of 75 mm thickness, or will match existing asphalt thickness. Permanent restoration to consist of a 35mm mill and overlay with a 35 mm key where existing thickness permits. A 50 mm key is required on Arterial and Collector Roadways. Dry if necessary and paint clean, dry edge with asphalt emulsion (tack coat).

**END OF SECTION**

**RIPRAP**

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**1.0 GENERAL**

**1.4 Measurement and Payment**      Add to 1.4.1

Payment includes all labor, material and equipment required to complete the installation as shown on Contract Drawings and specified under this Section. Payment includes riprap placement keyed into place and filter fabric underlay. Re-use of existing material on site will be incidental to payment under this Section.

**3.0 EXECUTION**

**3.2 Placement**      Add 3.2.8

Placement of riprap shall be done in a manner which maintains a well graded material and does not cause particular segregation, maintaining a minimum practical percentage of voids. Stones are not to be dropped from a height of more than 600mm to avoid damage / puncturing of underlying geotextile. The Contractor shall, at their own cost, repair or replace geotextile if the geotextile is deemed damaged / punctured due to placement of riprap, in the opinion of Contract Administrator.

The entire mass of the stones shall be placed in conformance with the grades and thickness shown on the plans. Material shall be placed to its minimum thickness in one operation in a manner to avoid displacement of underlying material. Placing material in layers or by dumping into chutes is not permitted. Rearranging of individual stones by small mechanical equipment may be required to the extent necessary to secure the results specified.

**END OF SECTION**

**COLD MILLING**

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**1.5 Measurement and  
Payment**

Delete 1.5.1 and  
replace with the  
following

Payment for this item will be made for the depth specified in the Schedule of Quantities in the Form of Tender and is for the removal of existing asphalt, granular & native materials within the roadway to the depth specified, as detailed in the Contract Documents, in order to complete the permanent pavement restoration.

Payment will be made for each square metre of asphalt removed, to the depths indicated in the Form of Tender, and includes the off-site disposal of all milled material. Payment includes mobilization, demobilization, demonstration milling test section, the cost of transport & disposal off-site, saw cutting, street sweeping or cleaning to allow for the placement of required thickness of asphaltic concrete. Saw cutting and milled key at project limits will be incidental under payment item 32 12 16 – Hot Mix Asphaltic Concrete Paving.

**END OF SECTION**

**1.0 GENERAL**

**1.4 Submission of Mix Design**

Delete 1.4.1 and replace with the following

Submit asphalt concrete mix design, including RAP content and trial mix test results to Contract Administrator for review at least two weeks prior to commencing work.

**1.5 Measurement and Payment**

Delete 1.5.1 and replace with the following

Payment for asphaltic concrete paving includes all construction joint preparation, saw cutting, tack coat, supply and placing of the asphaltic concrete, reinstatement of permanent thermoplastic painted lines, compaction, and cleaning frames, covers and lids of castings affected, will be made at the unit price bid per square meter of surface layer of asphalt lift placed. Payment for the installation of full depth trench patch is incidental to the payment for the work described in the other Sections.

Payment for the temporary taped pavement markings and installation of the temporary pavement trench patch is incidental to the payment for the work described in the other Sections.

The contractor will not receive any additional compensation above the respective unit prices bid in the Schedule of Quantities and Prices for Hand Work, Special Equipment & Machinery to complete the Hot Mix Asphaltic Paving Work as shown on the Contract Drawings or as directed by the Contract Administrator.

Delete 1.5.3 and replace with the following

Payment for asphaltic concrete sidewalks, pathways, driveways, infill strips, and curbs includes all construction joint preparation, saw cutting, supply and placing of the asphaltic concrete, compaction and cleaning frames, covers and lids of castings affected and is considered to be incidental to payment for work described in other Sections.

Payment for this item includes all applicable materials and work described in 1.5.1.

**1.6 Inspection and Testing**

Add 1.6.3

Test cores will be taken by the *Contract Administrator* in the areas of new paving and will include cores along construction joints to ensure compliance with the required design and compaction.

**2.0 PRODUCTS**

**2.1 Materials**

Add 2.1.2.1

Usage of recycled asphalt shingles or any other materials not specified in the Contract Documents will not be permitted.

Add 2.1.2.2

Usage of softening agents, rejuvenators, or recycling agents will not be permitted.

**2.2 Mix Design**

Delete 2.2.2 and replace with the following

Mix may contain up to a maximum of 10 % by mass of RAP for Upper Course Asphalt and 15 % by mass of RAP for Lower Course Asphalt without a special mix design. The *Contract Administrator* and the City may approve higher proportion of RAP if *Contractor* demonstrates ability to produce mix meeting requirements of the specification.

Delete 2.2.3.2 Marshall Stability and replace with the following

Marshall Stability at 60°C for both lower and upper courses to be 10 KN min.

3.0 EXECUTION

3.3 Preparation

Delete 3.3.3 and  
replace with the  
following

The *Contractor* is responsible for adjusting all utility manhole frames and valve boxes, belonging to Coquitlam and/or other agencies that are affected by the road works. All adjustments to utilities must be completed to the satisfaction of the utility owner. Utility adjustment within the paved surface will be considered incidental to the *Work* unless otherwise noted in the *Contract Documents*.

The *Contractor* should note that certain utility owners may decide to complete their own adjustments. The *Contractor* will be required to cooperate with any utility company providing their own adjustments.

The *Contractor* shall be responsible to contact the appropriate utility company with in minimum of seventy-two (72) hours of the work. No adjustment shall be made without the written approval of the utility company.

All manholes must be vertically adjusted a minimum of twenty-four (24) hours prior to paving. The use of riser rings for adjusting manhole frames and value boxes will not be permitted.

3.7 Joints

Delete 3.7.5 and  
replace with the  
following

Construct butt joints at locations as shown on the *Contract Drawing* and as directed in the field by the *Contract Administrator* and the City.

**END OF SECTION**

PAINTED PAVEMENT MARKINGS

1.0 GENERAL

1.2 Scope

Delete 1.2.1 and replace with the following

Pavement Markings: Miscellaneous taped temporary and permanent pavement paint markings including pedestrian crosswalk, merge and diverge markings, stop lines, solid and broken line road lane markings including edge lines of merge and diverge markings, bike symbols, etc. to be provided as shown on the *Contract Drawing*.

1.5 Measurement and Payment

Delete 1.5.2 and replace with the following

All permanent markings shall be marked with thermoplastic road markings as specified under Section 32 17 23S, 2.1 Materials, unless shown otherwise in the Schedule of Quantities and Prices.

Delete 1.5.3 and replace with the following

The lump sum payment for permanent thermoplastic pavement markings covers removal of existing markings, supplying all materials and completing all the permanent thermoplastic pavement markings necessary to provide markings as shown on the Contract Drawings.

NOTE: PAYMENT FOR PERMANENT THERMPOPLASTIC PAVEMENT MARKINGS WILL NOT BE MADE UNTIL ALL TEMPORARY PAVEMENT MARKINGS AND REFLECTIVE DEVICES HAVE BEEN REMOVED.

Delete 1.5.4 and replace with the following

Payment for signage includes all sign poles, bases, sleeves, sign relocations, temporary removal, cleaning and re-installation of existing, and sign installations (complete). The City will supply signs to supplement existing signs as required. Payment includes all labor, materials and incidentals to complete the work.

1. Installation of each new sign pole, cap, sleeve and trapezoidal base includes all costs to supply all materials, labour and equipment and incidentals, as shown on Standard Detail Drawings SS-E11.1 & SS-E11.2, necessary to the install sign structure as shown on the Contract Drawings and as directed by the Contract Administrator.

2. Installation of each new sign pole, cap, sleeve, galvanized steel bracket for no post barrier, as per MOT Drawing # SP635-3.8.3, includes all costs to supply all materials, labour and equipment and incidentals necessary to the sign structure as shown on the Contract Drawings and as directed by the Contract Administrator.

3. The unit price payment is for each city supplied aluminum sign installed on a sign pole includes sign mount clamps & all costs to supply all materials, labour and equipment and incidentals necessary to install each sign as directed by the Contract Administrator.

4. Installation of each aluminum sign on a lamp standard pole or sign pole includes sign mount clamps and all costs to supply all materials, labour and equipment and incidentals necessary to install each sign as directed by the Contract Administrator.

Add 1.5.5

Payment for the removal and disposal of all existing signages that are no longer required on site, as described in contract drawings or as directed by the Contract Administrator will include removal and disposal of signs, poles, bases, and all labour and equipment to complete the work.

2.0 PRODUCTS

PAINTED PAVEMENT MARKINGS

2.1 Materials

Delete 2.1.1 and  
replace with the  
following

All permanent paint markings shall be marked with thermoplastic manufactured by LAFRENTZ Road Markings, HITEX North America (HiBrite Extrude Thermoplastic), or ENNIS-FLINT (Extruded Thermoplastic).

Delete 2.1.6 and  
replace with the  
following

Pavement Markings:

Delete 2.1.7 and  
replace with the  
following

Thermoplastic material

- .1 Material composition shall be at the discretion of the manufacturer subject to the approval of the Contract Administrator and the City. Each formulation shall be identified by a code number.
- .2 No retained water when tested by ASTM D-570.
- .3 Specific gravity of the supplied product shall be within 3 % of that specified for the selected formulation.
- .4 Material shall not deteriorate upon contact with deicing chemicals, gasoline, diesel fuel or grease dropped by traffic.
- .5 Material shall not break down, deteriorate, scorch or discolour, if held within the application temperature range specified by the manufacturer for a period of four hours and it must be able to be reheated from room temperature to the application temperature four (4) times without showing any of these detrimental effects.
- .6 When applied at the temperature recommended by the manufacturer and at a film thickness of 2 to 4 mm, the material shall set solid and show no tracking under traffic after elapsed times as follows:
  - .1 Two (2) minutes at an air temperature of 10° C, relative humidity less than 75 %, and road surface temperature from 10° C to 20° C.
  - .2 Five (5) minutes at an air temperature of 32° C, relative humidity less than 75 %, and road surface temperature from 35° C to 50° C.
  - .3 The drying time under conditions intermediate between the two air temperatures shall be interpolated using a straight line model.
- .7 The quantity, type, and gradation of the component reflecting glass spheres premixed in the thermoplastic material shall be at the discretion of the manufacturer, but shall provide retroreflection levels specified below.

3.0 EXECUTION

3.3 Application

Add to 3.3.1.3

Temporary raised pavement markings (TRPMs) are to be provided on all multi-lane roadways as directed by the *Contract Administrator* and the City.

Delete 3.3.3.3 and  
replace with the  
following

Thermoplastic material shall be heated in the melter to a temperature of 382 °F.

END OF SECTION

**CHAIN LINK FENCES AND GATES**

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**1.5 Measurement and  
Payment**

Delete 1.5.4 and  
replace with the  
following

Payment for the removal and re-installation of the W-beam barrier  
will be paid in a lump sum amount, and will include all labour,  
materials, and equipment required to complete the work.

**END OF SECTION**

HYDRAULIC SEEDING

1.0 GENERAL

1.3 Scheduling

Delete 1.3 and replace with the following

- .1 Schedule all operations to ensure optimum environmental protection, grading, growing medium placement, planting, seeding or sodding operations as outlined in the specifications.
- .2 Schedule seeding to coincide with preparation of soil surface.
- .3 Organize scheduling to ensure a minimum of on-site storage of seed and fertilizer material, minimum movement and compaction of growing medium, and prompt watering operations. Coordinate work schedule with scheduling of other trades on site.
- .4 Plan, schedule and execute the work to ensure a supply of water for landscape purposes in adequate amounts and at adequate pressures for satisfactory irrigation of all seeded areas.

1.4 Handling and Storage

Add 1.4.2

Protect existing Site features against damage or contamination due to Work of this Section. Make good all damage or contamination which occurs to the satisfaction of the Contract Administrator and the City.

Add 1.4.3

Deliver seeds, mulch, fertilizers, tackifier and other products to the Site in manufacturer's original containers, clearly identified. Do not remove or deface labels or other identification.

1.5 Drainage Control

Delete 1.5 and replace with the following

Provide for proper water management and drainage of site during work of this section. Water management shall include silt traps, erosion control measures, temporary water collection ditches, as well as their adequate maintenance to ensure that storm water which may become laden with soil or growing medium or hydraulic seed is detained and cleaned prior to discharge from site.

1.6 Samples

Add to 1.6.1

The *Contract Administrator* and the City may test for purity and germination.

1.7 Site Examination

Delete 1.7.1 and replace with the following

Examine site prior to the commencement of work to verify surface preparation is complete and has been accepted by the Contract Administrator and the City.

1.10 Quality Assurance

Add 1.10

- .1 *Contractor* to provide seed analysis that will include but is not limited to:
  - .1 Name and address of supplier
  - .2 Analysis of seed mixture
  - .3 Percentage of pure seed
  - .4 Year of production
  - .5 Date and location of bagging
  - .6 Percentage germination
- .2 The sample accepted by the review will form the standard by which the project will be supplied.
- .3 Should the *Contractor* require the source of seed supply to change during the construction a written request must be provided to the *Contract Administrator* and the City 48 hours in advance. The request shall be followed up by submission of proposed seed supplier and substitution seed analysis for *Contract Administrator* and the City review prior to the start of supply to the site.

HYDRAULIC SEEDING

- .4 All seed shall be delivered and stored in original containers in enclosed storage facility protected from the damage, weather, insects and rodents.

2.0 PRODUCTS

2.1 Grass Seed

Delete 2.1 and replace with the following

- .1 Grass Seed shall be mixed and supplied by a recognized seed house and delivered in original containers, in accordance with Federal and Provincial seed laws having a minimum germination of 75% and minimum purity of 97%, and meet the requirements of the Government of Canada Seed Act for Canada No. 1 seed.
- .2 Seed mixtures to be approved by the *Contract Administrator* in the original packaging. The seed mixture for boulevards and landscaped areas shall be made up from a minimum of three (3) varieties of Perennial Rye, one (1) of Kentucky Bluegrass and three (3) varieties of Fescue from Coquitlam Approved Products List.
  - .1 Seed Mix shall be 50% Perennial Rye, 35% Fescues, 15% Kentucky Bluegrass.
  - .2 Seed Rate shall be 50g per square metre.

.3 Table Guideline of Approved Seed Mix Ratios.

% Seed Count	% Weight	Seed Varieties
15%	25%	All-Star Perennial Rye Grass
5%	15%	Elka II Perennial Rye Grass
20%	15%	Cindy Creeping Red Fescue
15%	15%	Shamrock Kentuck Bluegrass
20%	10%	Cindy Lou Creeping Red Fescue
15%	10%	Longfellow II Chewing Fescue
10%	10%	Gator 3 Perennial Rye Grass
Acceptable products shall be an all purpose sun / shade mix' conforming to the above mix ratios		

2.2 Hydraulic Mulch

Delete 2.2 and replace with the following

- .1 Provide hydraulic seeding solution containing a mulch of wood cellulose fibre specifically designed for hydraulic seeding containing no growth or germination inhibiting factors, and dyed green for visual metering during application.
- .2 Hydraulic mulch to be capable of dispersing rapidly in water to form a homogeneous slurry and remaining in such a state when agitated or mixed with other specified materials. When applied, hydraulic mulch is to be capable of forming absorptive mat, which will allow moisture to percolate into the underlying soil and to contain no growth or germination inhibiting factors.
- .3 Mulch is to be dry and free of weeds, weed seeds and other foreign material, and to be supplied in packages bearing manufacturer's label clearly indicating the weight and product name.
- .4 Mulch shall contain a colloidal polythacuride (or equivalent) tackifier which is to be adhered to mulch to prevent separation during shipment and to avoid chemical agglomeration during mixing in hydraulic mulching equipment. It shall be 'M-Binder' or approved alternative.

2.3 Water

Delete 2.3.1 and replace with the following

Water shall be potable, free of impurities that would inhibit sod growth. *Contractor* to ensure adequate water is available to maintain seeded areas during germination and in a vigorously

HYDRAULIC SEEDING

			growing, healthy state until <i>Total Performance</i> of work of this section.
2.5	<b>Dolomite Lime</b>	Add 2.5	.1 Dolomite lime shall be finely ground, containing not less than 90% calcium carbonate.
2.6	<b>Wood Posts</b>	Add 2.6	.1 Wood posts shall be 38 mm x 38 mm x 1.5 m No. 1 Grade or better Hem/Fir, untreated wood.
2.7	<b>Binder Twine</b>	Add 2.7	.1 Bidner Twine shall be hemp based multiple strand string.
2.8	<b>Flagging Tape</b>	Add 2.8	.1 Flagging tape shall be 30 mm wide, biodegradable ribbon tape made of non woven cellulosic material, colour: red, or an approved equal.
3.0	<b>EXECUTION</b>		
3.1	<b>Finish Grade Preparation</b>	Delete 3.1.2 and replace with the following	Prior to the broadcast of seed <i>Contract Administrator</i> and the City to review and direct minor adjustments and refinements of finish grades prior to the <i>Contractor</i> proceeding. Review includes grades, <i>Growing Medium</i> depth and condition of finished surface. Subsequent to the <i>Contract Administrator</i> and the City review the <i>Contractor</i> shall re-grade, add <i>Growing Medium</i> and make adjustments as directed by <i>Contract Administrator</i> and the City.
		Delete 3.1.5 and replace with the following	Finish grade smooth to extent required for class of seeding to be carried out, firm against footprints, loose textured and free of all stones, roots, branches, etc. larger than 25 mm or required for removal for class of seeding to be carried out.
3.2	<b>Seeding-General</b>	Delete 3.2.1 and replace with the following	Carry out hydraulic seeding during periods which are most favourable for the establishment of a health stand of grass within the following calendar seasons: .1 Spring (April 1st to June 15th) .2 Fall (August 15th to September 30th). .3 Hydraulic seeding shall not take place during periods of rain, freezing and/or abnormally hot and dry weather.
3.4	<b>Protection</b>	Add 3.4.4	Protect all seeded areas against trespassing and from damage at all times clearly marked, staked, string and flagging tape.
		Add 3.4.5	Perimeter Protection: All seeded areas shall be surrounded by a 900 mm high barrier made up of the following components: .1 Wood posts placed at 1.8 metres on centre. .2 Wood Posts to be driven to a depth of 300 mm .3 String two (2) strands of hemp based binder twine (or equal product) between posts. Insure one full wrap of twine around each post. .4 Tie 300 mm strands of 'red' flagging tape at 450 mm intervals along the entire length of both strands of twine. .5 Maintain perimeter protection until <i>Total Performance</i> issued for seeded area. Upon acceptance remove perimeter fence and dispose of off site.
		Add 3.4.6	Hydraulic seeded areas that have been damaged by construction operation, construction/ site personnel or construction traffic shall be replaced at no cost to the <i>Owners</i> . Replacement shall include removal of <i>Growing Medium</i> , regarding of subgrade, replacing <i>Growing Medium</i> and reseeding as required.

HYDRAULIC SEEDING

- |            |  |   |  |
|------------|--|---|--|
| <b>3.5</b> | <b>Application for Hydraulic Seeding</b> | Delete 3.5 and replace with the following | <ul style="list-style-type: none"><li>.1 Thoroughly mix seed, fertilizer and hydraulic mulch in water slurry and distribute uniformly over surface with an approved hydraulic mulcher.</li><li>.2 All seeding is to be done during calm weather and on soil that is free of frost, snow, and standing water. Do not perform the work when wind exceeds 10 km/hr or when the soil is excessively dry.</li><li>.3 Measure quantities of each material to be charged into hydraulic seeder/mulcher tank accurately either in mass or by commonly accepted system of mass-calibrated volume measurements. Add materials to tank while it is being filled with water and in following sequence:<ul style="list-style-type: none"><li>.1 Seed</li><li>.2 Fertilizer</li><li>.3 Mulch</li><li>.4 Tackifier</li></ul></li><li>.4 Thoroughly mix materials into a homogeneous water based slurry and distribute uniformly over the area and, all disturbed areas, to be hydraulically seeded.</li><li>.5 Seeding Rate:<ul style="list-style-type: none"><li>.1 Apply at 435 kg/ha or, as recommended by supplier and approved by the <i>Contract Administrator</i> and the City.</li><li>.2 Fertilizer at the following rate: Evergrow 28-3-8 @ 29g/m<sup>2</sup></li><li>.3 Fibre Mulch at the following rate: 15kg/m<sup>2</sup></li><li>.4 Tackifier at the following rate: 45 kg/ha.</li></ul></li><li>.6 Carry out hydraulic seeding with care to ensure homogeneous slurry does not come in contact with foliage of trees, shrubs or other susceptible vegetation.</li><li>.7 Do not spray homogeneous slurry on objects not expected to grow grass.</li><li>.8 Promptly rectify any overspray or damage that occurs during hydraulic seeding.</li><li>.9 Do not leave seed, fertilize, mulch and water slurry in tank for more than 4 hours. Slurry left in tank over maximum allowed time shall not be used for seeding and shall be disposed offsite.</li><li>.10 Follow up seeding with all maintenance procedures required to maintain the approved grades and obtain uniform germination. The <i>Contractor</i> is to carry out at no cost to the Owner, reseed operations at two (2) week intervals where germination has failed or wash outs have occurred.</li></ul> |
| <b>3.7</b> | <b>Clean-up</b>                          | Add 3.7.2                                 | Flush all walks and paved areas clean to the satisfaction of the <i>Contract Administrator</i> and the City.   |
| <b>3.8</b> | <b>Grass Maintenance</b>                 | Delete 3.8 and replace with the following | <ul style="list-style-type: none"><li>.1 Maintenance of hydraulic seeded areas shall begin immediately after hydraulic seeding operation and shall continue until all deficiencies noted in the <i>Substantial Performance</i> review have been rectified to the satisfaction of the <i>Contract Administrator</i> and the City and conditions for <i>Total Performance</i> been achieved. The <i>Contractor</i> is to notify the <i>Contract Administrator</i> and the City in writing forty-eight hours (48) prior to stopping maintenance operations.</li><li>.2 Grass Cutting: After the 'first' cut of hydraulic seeded areas grass cutting operations shall be carried out on a weekly (seven day) basis until <i>Total Performance</i> by <i>Contract Administrator</i> and the City:<ul style="list-style-type: none"><li>.1 First cut of seeded areas shall occur when a uniform grass height of 75 mm has been attained. First cut shall be to a height of 65 mm.</li></ul></li></ul>  |

- .2 Continue regular weekly cutting at a height of 50 mm until *Total Performance*.
- .3 Cutting operations shall be such that each cut is at right angles to the previous cut.
- .4 *Contractor* to remove grass clippings after each cut and dispose of off site.
- .5 Roll when required to remove any minor depressions or irregularities.
- .6 Immediately repair seeded areas that show deterioration or bare spots. Top-dress all areas showing shrinkage due to lack of watering and seed with seed mix that matches the original seed mix.
- .3 Fertilizer analysis shall conform to recommendations provided with *Growing Medium* analysis. Application of fertilizer shall follow manufacturers' recommendations noting that after October 1 lawn areas shall not be fertilized until April 15th of the following spring.
- .4 Hydraulic seeded lawn areas to be kept free of invasive and/or noxious broadleaf weeds, grasses including but not limited to poa annua, disease, fungi, detrimental nematodes and detrimental insects.
- 3.9 **Conditions for Total Performance** Delete 3.9 and replace with the following
  - .1 Conditions for *Total Performance* of Hydraulic Seeded areas:
    - .1 Hydraulic seeded areas are vigorously growing, well established with a thick, dense and healthy green appearance.
    - .2 Hydraulic seeded areas shall not have any eroded or wash out areas, bare or dead spots and are free of invasive and/or noxious broadleaf weeds and grasses.
    - .3 No surface *Growing Medium* is visible when established hydraulic seeded areas have been cut to height of 38 mm
    - .4 Hydraulic seeded areas have been cut at least two (2) times, to a height of 38 mm a minimum of (7) days apart.
    - .5 Grass is free of grass varieties other than those specified.
    - .6 Grass is sufficiently established that its roots are growing into underlying *Growing Medium*.
    - .7 Specified maintenance procedures have been carried out.
  - .2 Areas hydraulic seeded after September 30<sup>th</sup> will not be reviewed for *Total Performance* until April 30<sup>th</sup> the next year.

END OF SECTION

CCTV INSPECTION OF PIPELINES

**1.0 GENERAL**

- |            |                                    |   |   |
|------------|------------------------------------|---|---|
| <b>1.2</b> | <b>References</b>                  | Delete 1.2.2.1 and replace with the following | National Association of Sewer Service Companies' (NASSCO's) Pipeline Assessment and Certification Program, version 6.x including addendums, or latest version.  |
| <b>1.3</b> | <b>Submission of Certification</b> | Delete 1.3.1 and replace with the following   | Submit copy of the CCTV operator's current PACP or NAAPI certification certificate to the Contract Administrator at least one week prior to the start of the CCTV inspection operations.  |
| <b>1.4</b> | <b>Work Regulations</b>            | Add 1.4.3                                     | The Contractor shall provide the City with a written confined space entry procedure and a written confined space rescue procedure before commencement of any work at any of the construction project sites.   |
| <b>1.5</b> | <b>Scheduling of Work</b>          | Add 1.5.3                                     | The Contractor shall contact the <i>Contract Administrator</i> at the end of each day, stating the location of work and type of work to be undertaken the following day.  |
|            |                                    | Add 1.5.4                                     | The Contractor shall be responsible for notifying residents prior to accessing easements and rights of way adjacent to private property. All permission to access private property shall be obtained from the resident(s) prior to accessing private property at no cost to the City.   |
| <b>1.6</b> | <b>Measurement for Payment</b>     | Delete 1.6 and replace with the following     | Payment for all work performed under this Section will be incidental to payment for work described in other Sections unless shown otherwise in the Schedule of Prices and Quantities. Payment includes performing CCTV inspection and Report for the full length of all pipes prior to construction and after CIPP installation is completed, flow reduction, flushing and cleaning full length of pipes, submission of videos and reports to the Contract Administrator. |

**2.0 PRODUCTS**

- |            |                  |   |  |
|------------|------------------|---|--|
| <b>2.1</b> | <b>Equipment</b> | Delete 2.1.4 and replace with the following | The individual digital video playback files are to be of MPEG file format. |
|            |                  | Add 2.1.5                                   | Video capture equipment shall be capable of capture with no frame loss.    |
| <b>2.2</b> | <b>Materials</b> | Delete 2.2.1 and replace with the following | Digital video files to be stored on new, unused USB media.                 |

**3.0 EXECUTION**

- |            |                        |   |   |
|------------|------------------------|---|---|
| <b>3.1</b> | <b>CCTV Inspection</b> | Delete 3.1.1 and replace with the following | CCTV operator to be certified by NASSCO (PACP/MACP/LACP).   |
|            |                        | Delete 3.1.2 and replace with the following | NASSCO certified software must be used to produce inspection report and the data will be submitted in the PACP standardized database format. The review of this statement will be part of the evaluation of the tender. Submission to satisfy all of the specifications and report submissions per NASSCO's PACP (MACP/LACP) will be used as a benchmark for subsequent inspection report submission. |

	Delete 3.1.4 and replace with the following	Flow in the pipeline not to exceed approximately $\frac{1}{4}$ of the pipe diameter. Notify Contract Administrator of excessive flows, video using flow reduction method per 3.11 of this Section.
	Delete 3.1.11 and replace with the following	Note condition of pipe joints at manhole walls at the beginning and end of each pipeline; At the beginning of each pipeline or where surface wear of the pipe changes, pan to the invert and any direction as needed to report and record surface wear condition of the pipe using PACP (MACP/LACP) codes; Fill under remarks the observations if no surface wear observed due to good condition of pipe or unable to determine stating reason.
	Delete 3.1.14 and replace with the following	Stop camera at each defect, change of condition of pipe and service connection to record defect in accordance with PACP (MACP/LACP) codes.
	Delete 3.1.15 and replace with the following	Add PACP (MAC/LACP) code overlay to digital video at defects or connections in addition to continuously displayed data.
	Add 3.1.19	The inspection measurement and reporting units must be in metric system.
<b>3.3</b>	<b>Site Coding Sheets</b>	
	Delete 3.3.1 and replace with the following	Each pipeline length to be recorded according to the PACP. Any variation from the manual to be noted in the survey report.

**END OF SECTION**

CLEANING OF SEWERS

**1.0 GENERAL**

- 1.3 Work Regulations** Add 1.3.2 Provide written confirmation to the Contract Administrator that workers have knowledge of confined space entry practices and of equipment required for confined space entry.
- 1.4 Scheduling of Work** Delete 1.4.3 and replace with the following Notify Contract Administrator of the location of cleaning 3 days before start of work.
- Add 1.4.5 The Contractor shall be responsible for notifying residents prior to accessing easements and rights of way adjacent to private property. All permission to access private property shall be obtained from the resident(s) prior to accessing private property at no cost to the City.
- 1.5 Measurement for Payment** Delete 1.5 and replace with the following Payment for all work performed under this Section will be incidental to payment for work described in other Sections unless shown otherwise in the Schedule of Prices and Quantities. Payment includes flushing and cleaning, flow reduction, root cutting and removal from the full pipe length, debris removal by vacuum pumping at manhole, and offsite disposal of debris at approved dump site.

**3.0 EXECUTION**

- 3.1 Sewer Cleaning** Add 3.1.6 Where an intruding service connection precludes passing of the camera during CCTV inspection, the Contractor shall notify the Contract Administrator who may require the intruding portion to be removed without damage to the system.
- 3.2 Water Supply** Add to 3.2.1 Arrangement for hydrant use is to be made by the Contractor. City may require supervision of the first hydrant set-up. The Contractor shall supply the appropriate backflow prevention devices and hose. The Contractor shall be responsible in providing the hydrant number, location and duration of usage to the Contract Administrator, 3 days prior to obtaining the Hydrant Use Permit.

**END OF SECTION**

CURED IN PLACE PIPE LINERS

1.0 GENERAL

- 1.4 **Work Regulations** Add 1.4.2 Provide written confirmation to the Contract Administrator that workers have knowledge of confined space entry practices and of equipment required for confined space entry.
- Add 1.4.3 Comply with the MSDS for the particular chemicals used in the preparation of the CIPP liner material.
- 1.8 **Scheduling of Work** Add 1.8.4 The Contractor shall be responsible for notifying residents prior to accessing easements and rights of way adjacent to private property. All permission to access private property shall be obtained from the resident(s) prior to accessing private property at no cost to the City.
- The Contractor shall be responsible in notifying resident(s) of dates and periods when service will be interrupted.
- Add 1.8.5 Notify Contract Administrator of the location for lining *3 days* before start of work.
- 1.9 **Measurement for Payment** Delete 1.9 and replace with the following
- 1.9.1 Payment is to supply and install CIPP structural liner on each location as described in Schedule of Quantities and Prices. The tendered price is to include all labor, materials and all such other items that may be required to complete the work including removal of any obstruction, flushing and root cutting to properly install the CIPP liner. Payment includes all works specified in Sections 33 01 30.1S, 33 01 30.2S and 00 72 43S.
- Payment includes ensuring that no styrene runoff or other harmful materials enter the stream, and are cleaned up using a vactor truck.
- Post-construction sign off by a Professional Engineer is required and will be incidental to other pay items.**
- Add 1.9.12 Cutting of protruding rebar from inside the existing culvert includes all labour, materials, and equipment required to complete the work conforming to all WCB safety regulations for confined space entry.
- 2.0 PRODUCTS
- 2.1 **Liner Material** Add 2.1.3 The liner shall be sized such that there is no loss in capacity of the existing sewer. Calculations of pipe flow before and after liner installation shall be submitted to the Contract Administrator for approval. The Contractor shall field measure the internal circumference of the sewers to determine the exact size of liner that is required so that the liner is tight to the wall of the existing pipe.
- Add 2.1.4 The length of the liner shall be that deemed necessary by the Contractor to effectively carry out the insertion and sealing of the liner at the inlet and outlet points. The Contractor shall verify the lengths in the field before cutting the liner to length.
- 3.0 EXECUTION
- 3.3 **Sewer Flow Management** Add 3.3.4 The Contractor shall maintain existing sewage flows during construction. The Contractor will be responsible for installation, maintenance and providing of all sewer flow management system.

CURED IN PLACE PIPE LINERS

3.5	Preparation	Add 3.5.1.1	Contractor to ensure that all roots are removed and treated prior to lining to prevent any damage or any future damage by roots to liner. The <i>Contractor</i> will be responsible for correction of defects as per General Condition 25.1
		Add 3.5.4.1	Pre-measure and document the location of all defects to be repaired by Point Repair.
		Add 3.5.6	Notify effected property owners 3 days in advance of disruption of service. Information notice to be pre-approved by <i>Contract Administrator</i> .
3.6	Liner Installation	Add 3.6.5	The finish lining shall be continuous over the entire length of the inversion run and shall be free from visual defects such as, but not limited to, foreign inclusions, dry spots, root intrusions, pin holes, cracks, folds, lifts, creases and delamination. The Contractor will be responsible for all the cost and repair of such defects.
		Add 3.6.6	The exposed surface of the liner shall be free of dimples, exposed fibers and any protrusions that may interfere with future maintenance requirements such as CCTV inspections, root cutting equipment, and grouting packers.
		Add 3.6.7	Liner fabric shall be fully and evenly impregnated with resin.
3.7	Field Cured Samples	Add 3.7.4	Samples shall be submitted for testing immediately after the preparation of test sample, evaluated and tested for thickness and flexural strength and modulus strength in accordance with appropriate ASTM standards.
3.9	Termination at Manholes	Add 3.9.3	The liner ends in the manhole shall be tight fitting and shall require the application of a watertight sealing product at the terminal points. The sealing product shall be compatible with the liner. Liner end works shall not commence until the liner has fully stabilized. Any lip or obstruction created by the liner shall be gently tapered. The liner ends shall not obstruct any flow.
3.10	Post Installation CCTV Inspection	Delete 3.10.2 and replace with the following	After installation and reconnecting services, the Contractor shall video inspect the sewer and submit the USB (2 copies) with log report as per Contract Specifications to Contract Administrator for review.
		Add 3.10.3	The quality of the liner and service interface will be assessed in part by the Contract Administrator when reviewing the post installation CCTV video recordings provided by the Contractor. Liners that do not conform to this document will be rejected by the Contract Administrator and remedial work shall be undertaken by the Contractor in order to receive payment.
		Add 3.10.4	USB (2 copies) and flexidata reports completed after lining and interface sealing shall be submitted to the Contract Administrator before final invoice. Should any portion of the inspection recordings be of inadequate quality or coverage, as determined by Contract Administrator, the Contractor shall have the portion reinspected and recorded at no additional expense to the Owner.
		Add 3.10.5	Defects that may affect the integrity or strength of the pipe in the opinion of the Engineer shall be repaired or the pipe replaced at the Contractor's expense. The completed replaced sewer main must have

acceptable grade and alignment and be satisfactory to the Contract Administrator.

**END OF SECTION**

STORM SEWERS

1.6 Measurement and  
Payment

Delete 1.6.1 and  
replace with the  
following

Payment for storm sewer will be made at the unit price bid for storm sewer (regardless of depth) consistent with pipe materials, diameters and backfill requirements shown on the Contract Drawings and described under individual payment items in the Schedule of Quantities.

Delete 1.6.2 and  
replace with the  
following

Payment for storm sewers includes trench excavation, dewatering, removal and disposal of existing pipes, supply and installation of all pipe, wyes, cap, fittings and related materials, tie-ins to existing or new storm pipe or manhole, construction joints, bedding, import backfill, approved native backfill, granular base, granular subbase, temporary full-depth asphalt patch, cleaning and flushing, testing (if applicable), videoing, surface restoration and all other work and materials necessary to complete installation as shown on Contract Drawings, as specified under this Section and as described in Clause 1.6.1; and

Native excavated material approved for re-use as trench backfill shall be at the sole discretion of the Contract Administrator. All cobbles greater than 150 mm diameter removed and disposed off-site and shall be granular in nature and free from organic materials. Native excavated material shall not be used as trench backfill where moisture content does not permit compaction to specified density. Where native excavated material is unacceptable for use as trench backfill, imported trench backfill shall be supplied, placed, and compacted to specified density.

Payment for supply and installation of temporary water passages, pumps, hoses, bypass or other approved means of handling waterflow in any watercourse as approved by Contract Administrator will be incidental to Section 01 57 01S, Clause 1.6.1.

Measurement for storm sewer will be made horizontally along the ground from the start of new pipe to the terminus of the new pipe;

No payment will be made under this item carried out as part of operation of items described in other Sections.

Delete 1.6.10 and  
replace with the  
following

Payment for the removal and reinstallation of the front section of the grillage/trash screen includes removal, storage, and re-installation of existing grillage/trash screen as shown on the Contract Drawings, including all labour, materials, and equipment required to complete the work.

END OF SECTION

**1.0 GENERAL**

**1.5 Measurement and  
Payment**

Delete 1.5.3 and  
replace with the  
following

Payment for dam-sac headwalls will be for each wall and will include excavation, disposal of excavated material, granular bedding material, imported or native backfill as specified on the Contract Drawings, connection to culvert, all surface restoration, and all labour, materials, and equipment required to complete the work.

**END OF SECTION**

**1.0 GENERAL**

**1.1 Related Work**

Add 1.1.6

Hot Mix Asphalt Concrete  
Pavement

Section 32 12 16

Add 1.1.7

Portland Cement Concrete  
Paving

Section 32 13 13

**1.5 Measurement and  
Payment**

Delete 1.5.1.1 and  
replace with the  
following

Payment for all manholes will be on a unit rate basis per manhole, for the varying diameters/sizes, and includes excavation, on-site reuse of surplus/displaced material, dewatering, base preparation and compaction, manhole base, benching, lid, slab, frame & lid, cover, ladders & setting frame & lid to the finished grade, except riser for circular manholes in accordance with the Contract Drawings.

Delete 1.5.1.2 and  
replace with the  
following

Payment for manhole riser sections will be for risers of standard or non-standard heights required to complete manhole from specified invert to finishing level. Payment includes all risers as shown on the Standard Detailed Drawings. Measurement will be made vertically for the length of risers required from the top of the manhole base (cast-in-place or precast) to reach the underside of concrete lid or slab.

Add 1.5.7

Payment for locating the manhole includes using hand tools and a metal detector within a 7-meter radius of the location, supply and installation of a location marker, and all labour, materials, and equipment required to complete the work as shown in the Contract Drawings.

**2.0 PRODUCTS**

**2.1 Materials**

Add 2.1.7.3

Any frame and cover assembly creating a point load on the concrete riser rings will not be permitted.

Delete 2.1.12 and  
replace with the  
following

Catchbasin lids manufactured to ASTM C478M

Delete 2.1.16.2

Delete 2.1.17

**3.0 EXECUTION**

**3.1 Excavation and  
Backfill**

Add 3.1.2

For manholes, when base gravels are complete, excavate for grade rings and manhole frame assembly. Do not disturb the compacted road base beyond the excavation requirement.

**3.3 Manhole Installation**

Delete 3.3.12.2 and  
replace with the  
following

Allowable products are precast concrete risers and cast-in-place form system. Individual riser heights shall be 50mm, 75mm, or 100mm.

Delete 3.3.12.5 and  
replace with the  
following

Proper layer of grout between the spacers, covering the entire surface of the rings, should be utilized.

**MANHOLES AND CATCHBASINS**

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Delete 3.3.15 and  
replace with the  
following

Install drop structures as shown on the contract drawings to Coquitlam Standard Detail Drawing COQ-S4 and Standard Detail Drawing S3. Maximum allowable inside ramp shall be 250 mm invert to invert.

Delete 3.3.17 and  
replace with the  
following

Ensure frames conform to design contour of pavement or existing surface. Manhole lids left raised in preparation for overlay paving shall have a rubberized protector ring or asphalt ramp. The use of riser rings for adjusting manhole frames will not be permitted.

**END OF SECTION**

***Appendix A -  
Traffic Management Detail  
Specifications***

- |                             |    |  |
|-----------------------------|----|--|
| <b>1.0 GENERAL</b>          | .1 | This Traffic Management detail specification refers to the Contractor's specific plans to identify project traffic risks affecting the <i>Work</i> , provide Traffic Control Plans, and to implement the traffic control for the safe passage of vehicles and pedestrian through the work zone.  |
| 1.1 Related Works           | .1 | Traffic Regulation MMCD Section 01 55 00S.   |
| 1.2 References              | .1 | WorkSafe BC, Occupational Health and Safety (OHS) Regulation, Section 18 – Traffic Control.  |
|                             | .2 | B.C. Ministry of Transportation (MOT) Traffic Control Manual for Work on Roadways.   |
| 1.3 Project Requirements    | .1 | A Road and Sidewalk Closure Permit is required by Coquitlam for all work affecting traffic flow related to construction. A permit is required for each specific construction interference with traffic flow. A digital copy of the Road and Sidewalk Closure Permit form can be obtained for use during the contract from the City's website at <a href="http://www.coquitlam.ca/closure">www.coquitlam.ca/closure</a> . |
|                             | .2 | A Road and Sidewalk Closure Permit form application must be submitted to the City's Traffic Operation Division 5 working days prior to start of work.  |
| 1.4 Measurement and Payment | .1 | For this Contract, payment for all work performed under this section, unless included in the Schedule of Quantities and Prices shall be treated as incidental work, including a Traffic Management Plan (TMP), Traffic Control Persons (TMP), traffic markings & all temporary traffic signs, devices as required for traffic & pedestrian safety; and all other items described in the Section 01 55 00S.               |
| <br><b>2.0 PRODUCTS</b>     |    |  |
| 2.1 Traffic Management Plan | .1 | The Contractor is required to assign a Traffic Manager for the Contract with the responsibility of preparing the Traffic Management Plan and the Traffic Control Plans, as well as the responsibility for continuing implementation of traffic control for the Work.   |
|                             | .2 | The Traffic Management Plan (TMP) will consist of the following components: <ul style="list-style-type: none"> <li>.1 Identification of risks to traffic during the Work</li> <li>.2 Traffic Control Plans for individual stages of the construction</li> </ul>  |

- .3 Incident Management Plan for the response to an unplanned event and recording of incident information;
- .4 Category 3 TMP must be signed and sealed by a qualified Professional Engineer.
- .3 Submission of the TMP is to be made to the *Contract Administrator* within five (5) days of the *Notice of Award* of the *Contract*, and must be approved by the *Contract Administrator* prior to start of the *Work*.
- .4 Review of the TMP will be performed by the Contract Administrator. Comments for revisions to the TMP will be returned to the *Traffic Manager* for implementations.
- .5 The Contractor shall comply with all the requirements of applicable laws, rules, regulations, codes and orders of the municipal and other appropriate authorities concerned with work on streets or highways and shall post proper notices and/or signals, and provide necessary barriers, guards, lights, flagmen or watchmen as may be necessary for proper maintenance of traffic and protection of persons and property from injury or damage. All costs involved in respect to the above requirements will be deemed to be included in the Contract Price.
- .6 The Contractor shall give due notice to local police and fire departments prior to beginning construction and shall comply in all respects with their requirements.
- .7 The Contractor, during the progress of the work, shall make adequate provision to accommodate the normal traffic along streets and highways immediately adjacent to or crossing the work so as to cause the minimum of inconvenience to the general public.
- .8 The Contractor is required to maintain local traffic and driveway access during all stages of construction. This includes maintaining a 1.5m width walkway or pathway through the construction site for pedestrians.
- .9 Where existing streets or roads are not available as detours, all traffic shall be permitted to pass through the work with as little inconvenience and delay as possible unless otherwise provided or authorized by the Contract Administrator. If half the street only is under improvement, the other half shall be conditioned and maintained as detour.

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These supplementary Specifications must be read in conjunction with the Master Municipal Specifications contained in the Master Municipal Construction Documents (Platinum), Volume II, 2009.

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- 2.2 Incident Management and Reporting
- .1 The Contractor shall facilitate incident response vehicles and staff and move traffic safely and expeditiously through or around an incident on site and provide assistance to emergency response personnel as required. An incident includes, but is not limited to, motor vehicle accidents, emergency road repairs, disabled vehicles, and debris on the road. The immediate response to an emergency shall by necessity make use of available devices and equipment.
  - .2 If an incident occurs on site, the Contractor will be required to submit a report to the Contract Administrator documenting details of the incident including event, location, date, time, action taken, duration and restoration of site.
- 2.3 Traffic Control Plans
- .1 The Contractor shall designate a qualified Traffic Control Supervisor for the works, per the requirements of WCB regulations Section 18.  
  
The designated Traffic Control Supervisor may be the same individual that is designated as the Traffic Manager, or may be a separate individual qualified for the responsibilities of this function.
  - .2 The Contractor shall prepare weekly the anticipated traffic control activities, locations, and durations for the upcoming week.
  - .3 Permissible delays shall only be considered outside Peak Hours. Permissible delays are categorized as follows:
    - a) Minor Delays - Less than two (2) minutes in duration; for occasional interruption due to construction activities. These delays shall be coordinated with available breaks in the traffic flow.
    - b) Major Delays - Maximum ten (10) minutes in duration; for occasional interruption of traffic for construction activities if traffic volumes permit. These delays shall be coordinated with available breaks in the traffic flow.
  - .4 The Contractor is responsible for ensuring that the flow of traffic is unimpeded by construction-related activities.

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**3.0 EXECUTION**

- 3.1 Traffic Control Plan
- .1 A copy of the approved current Traffic Plan must be held on site by both the Site Superintendent as well as the person/company responsible for the traffic control implementation.
  - .2 Failure to produce a valid approved Traffic Plan on site, or having work not follow the Traffic Control Plan will result in immediate shut-down of the work. The Contractor will be required to safely restore facility conditions to allow traffic flow at their expense. The Contractor must take all steps to acquire an approved Traffic Control Plan before work can re-start on site. No claim will be accepted by the Owner for costs associated with this work shut-down.
- 3.2 Road and Sidewalk Closure Permits
- .1 The Contractor must have, on-site, a copy of an approved Road and Sidewalk Closure Permit valid for the work being done. Failure to produce a valid Road and Sidewalk Closure Permit on-site will result in shut-down of the work. Failure to comply on what is stated on the approved permit will result in shut-down of the work. The Contractor will be required to safely restore facility conditions to allow traffic flow at their expense. The Contractor must take all steps to acquire a Road and Sidewalk Closure Permit before work can re-start on site. No claim will be accepted by the Owner for costs associated with this work shut-down.
- 3.3 Traffic Control Personnel & Equipment
- .1 The Contractor shall supply all necessary traffic control devices required to perform traffic control services for the project. Signs and traffic control devices not applying to existing conditions shall be removed. Where operations are carried out in stages, only those traffic control devices that apply to the current stage are to be left in place.
  - .2 There must be sufficient Traffic Control Persons (TCPs) on site to appropriately and safely direct traffic in all sections of the Work.
- 3.4 Signage
- .1 Supply, installation, maintenance and removal of all works-related signs shall be the responsibility of the Contractor. The location and type of each sign shall be indicated on the approved Traffic Control Plan, for each stage of the works.

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These supplementary Specifications must be read in conjunction with the Master Municipal Specifications contained in the Master Municipal Construction Documents (Platinum), Volume II, 2009.

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Traffic control signs and devices must be positioned and used as specified in the Traffic Control Plan and signs and devices must be located so as to allow traffic to move by or through the work area in a controlled manner and, if necessary, to come to a controlled stop with due regard for the prevailing weather and road conditions.

Signs shall be checked daily for legibility, damage, suitability and location. Signs and delineators shall be cleaned as frequently as necessary to ensure full legibility and reflectance.

3.5 Detours .1 Any proposed detours must be approved by the Contract Administrator and conducted in accordance with the approved Traffic Plan and the Traffic Control Manual for Work on Roadways.

3.6 Abrupt Changes in Surface Elevations .1 The Contractor shall minimize any abrupt changes in roadway elevation left exposed to traffic during both working and non-working hours.

A wedge of asphalt must be used as a transition to vertical differences in travelled areas and have a slope of 4:1 or less.

3.7 Cyclist and Pedestrian Access .1 The Contractor shall make provision for pedestrians, wheel chairs and bicycles to have safe access across the work zone at all times. If this cannot be readily accommodated, then acceptable detours and appropriate signs shall be provided.

3.8 Temporary Pavement Markings .1 The Contractor shall be responsible for the application and removal of all temporary pavement markings and reflective devices.

All temporary markings must be removed after installation of permanent markings.

#### **4.0 TRAFFIC RESTRICTIONS**

4.1 Road and Sidewalk Closure Permits .1 Minimum of Single Lane Traffic in each direction and all local traffic must be accommodated at all times. Detours and full road closure (with Local Traffic Only) will only be allowed during placement of asphalt paving.

.2 A City of Coquitlam Road and Sidewalk Closure Permit is required for each instance of closure and will be valid for a maximum period of one (1) week and, if still necessary, re-submittal of a Road and Sidewalk Closure Request is required.

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These supplementary Specifications must be read in conjunction with the Master Municipal Specifications contained in the Master Municipal Construction Documents (Platinum), Volume II, 2009.

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A copy of the approved Road and Sidewalk Closure and Lane Closure Permit must be held on site by both the Site Superintendent and the person/company responsible for the traffic control implementation.

**.3 Total Road Closure is Not Permitted**

.4 Detours will only be permitted as approved by the Contract Administrator and must have a complete Traffic Control Plan indicating detour route, signing, and duration. Detours will not be allowed without sufficient lead time for commercial and retail operation to react appropriately to detour information provided to them.

4.2 Lane Closure Restrictions

**.1 For each of the road sections affected:**

- Road and Sidewalk Closures will be reviewed for appropriateness during the allowable hours of work.
- Access to properties to be maintained
- Sufficient Traffic Control Persons are required for each Road and Sidewalk Closure (or any work activities), including side street intersections, to safely guide traffic through the work site.

**5.0 HOURS OF WORK**

**.1 The hours of work shall be from 0700h to 1900h inclusive Monday to Friday and 0900h to 1800h inclusive Saturdays , unless noted otherwise.**

.2 Some allowances may be made for paving operations, depending on a proposal acceptable to the Contract Administrator.

.3 Line Marking work may be performed at night, (21:00 to 05:00).

No work is allowed on Sundays without specific written permission from Contract Administrator.

**6.0 CONSTRUCTION OPERATIONS**

6.1 Truck Routes

.1 The Contractor is restricted to the City's designated Truck Routes. The current Truck Route Map is available on the City's website at [www.coquitlam.ca](http://www.coquitlam.ca) and can be found under Residents, Transit & Transportation, Trucking Routes.

6.2 Road Specific Considerations

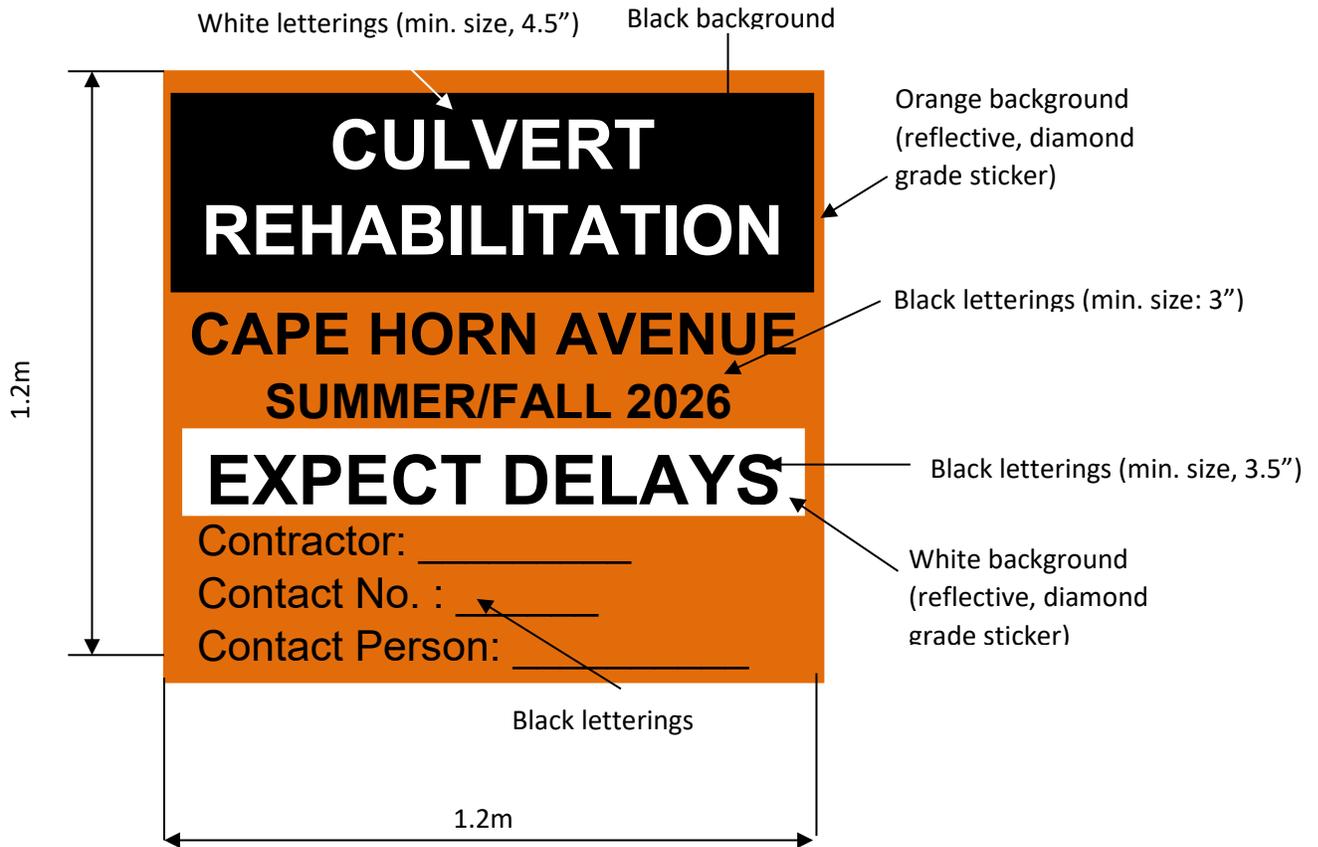
.1 Ensure that Traffic Management Plan accommodates businesses and residences during construction activities.

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These supplementary Specifications must be read in conjunction with the Master Municipal Specifications contained in the Master Municipal Construction Documents (Platinum), Volume II, 2009.

- .2 Contractor shall not schedule paving during garbage pick up day.
- 6.3 Work Stoppage Due to Traffic .1 The City will not control or direct traffic control activities of the Contractor, but may require an immediate stop to any work where, in the sole opinion of the Contract Administrator, the provided traffic management plan is ineffective or creating unreasonable delays.
- 6.4 Construction Activity and Signage .1 The Contractor will be responsible to place other construction information signs as required to inform the public of construction activities, and ensure safe travel through the work site.
- 6.5 Construction Zone Information Signs .1 The Contractor is required to provide, one week prior to start of work, six stationary signs at intersections, one in each direction, to inform traffic of existing and anticipated conditions at entry points of the lane to be worked on, locations for these signs will be provided by the Contract Administrator. Signs to be re-used and transferred to the next location once lane is completed.
- Ensure that signs and locations are addressed in the Traffic Management Plan. All signs are to be removed at the end of the construction period.
- Exact locations to be determined on site by Contract Administrator.

Construction Zone Information Signs to follow specifications below:



These supplementary Specifications must be read in conjunction with the Master Municipal Specifications contained in the Master Municipal Construction Documents (Platinum), Volume II, 2009.

APPENDIX 1



City of Coquitlam  
**Road and Sidewalk  
Closure Permit Request**

Traffic and Street Use Management Section  
3000 Guildford Way, Coquitlam BC V3B 7N2

Phone: [604-927-6250](tel:604-927-6250) Email: [StreetPermits@coquitlam.ca](mailto:StreetPermits@coquitlam.ca)

~~Initial Permit: \$150~~ ~~Renewal Permit: \$75~~

Application Date: \_\_\_\_\_ City Project or Film Permit Number (if applicable): 81364

- An Initial Permit is required for all new applications and when the location, type of work, or the type of traffic controls change from what was approved for the Initial Permit. The application needs to be received a minimum of 10 business days prior to the intended closure date.
- A Renewal Permit extends the rights and privileges of the approved Initial Permit and is required when the timeline needs to be extended. The application must be received a minimum of 5 business days prior to the intended extension date.

Development Site Address (if applicable): \_\_\_\_\_

Work location (street name, block number, to/from, at, etc.) \_\_\_\_\_

**Contact Information**

Applicant Company Name: \_\_\_\_\_

Applicant (person completing application form)

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Applicant's Signature: \_\_\_\_\_

Company Name (Prime Contractor): \_\_\_\_\_

Site Superintendent

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Phone: \_\_\_\_\_ Mobile: \_\_\_\_\_ Email: \_\_\_\_\_

**Permit Information**

Start Date: \_\_\_\_\_ End Date: \_\_\_\_\_

Day(s) and Time(s):  Monday  Tuesday  Wednesday  Thursday  Friday From: 00:00 To: 00:00  
 Saturday From: 00:00 To: 00:00  Sunday From: 00:00 To: 00:00

Specific Lanes:  Curb  Inside/Centre Lane  Left Turn Lane  Right Turn Lane  Parking Lane  
 All Lanes  Sidewalk/MUP  Bicycle Lane

Direction:  Northbound  Southbound  Westbound  Eastbound

Purpose of Work:  Concrete Pour  Utility Installation  Curb Installation  Other \_\_\_\_\_

This permit is related to:  City Design and Construction  City Parks  External Environmental  
 Development  External/Utilities

City Contact (if applicable): \_\_\_\_\_

**Office Use Only**

Permit Conditions/Comments:

Approved by \_\_\_\_\_

Date \_\_\_\_\_

These supplementary Specifications must be read in conjunction with the Master Municipal Specifications contained in the Master Municipal Construction Documents (Platinum), Volume II, 2009.

### Application Checklist



The following information must be provided. Incomplete applications will not be reviewed.

1.  Traffic Management Plan (TMP); **OR**  
 Traffic Management Manual for Work on Roadways Figure Number: \_\_\_\_\_
2.  **Project Category Determination** (per [2020 Traffic Manual for Work on Roadways](#)).  
 Initial Project Category Assessment  
 Project Risk Analysis  
 Category 1  Category 2  Category 3
3.  **Prime Contractor Designation Letter**
4.  **City of Coquitlam Certificate of Insurance**
5.  **Notification Letter and Map** (required for all full road closures). A Notification Letter must be provided to all affected residents and businesses.  
 Yes  No  Not Applicable
6.  **Traffic Control Persons** (flag persons) **required?** All operations within the road right-of-way must comply with WorkSafe BC regulations and BC Ministry of Transportation standards for work on roadways.  
 Yes  No If yes, how many? \_\_\_\_\_
7.  **Bus routes/stops impacted?** Applicant is to contact Coast Mountain Bus Company (with a minimum of 3 days' notice) [Temporary Transit Changes Request Form](#). General information can be found by visiting [Temporary Transit Changes](#).
8.  **City of Coquitlam Solid Waste has been contacted?** Coquitlam Environmental Services contacted regarding impact to garbage/recycling routes and pick up Phone: [604-927-4300](tel:604-927-4300) Email: [wastereduction@coquitlam.ca](mailto:wastereduction@coquitlam.ca)  
 Yes  No  
Are operations impacted?  Yes  No  
If Yes:
  - a plan to ensure continuous collection has been provided:  Yes  No
  - Day(s) of the week impacted: \_\_\_\_\_
  - Time(s) of the day impacted:  a.m.  p.m.
9.  **Pedestrian / Bike Lanes impacted?** Please describe sidewalks and/or bicycle facilities that will be impacted by the proposed work.  
\_\_\_\_\_  
\_\_\_\_\_
10.  **Is the work on, or will it impact a road along our [Major Road Network](#)?**  
 Yes  No

### Additional information

- Only vehicles actively engaged in the performance of cleaning, clearing, maintenance, repair, construction or other work are permitted within work zones. Vehicles being used by Superintendents, Traffic Control Persons, and other construction personnel that are not actively engaged in work described above are not permitted within the work zone and are not permitted parking /stopping prohibitions.
- Closures of sidewalks, cycling facilities, lanes, and full road closures are only permitted during the time periods indicated on the approved permit. Traffic controls are not permitted outside of these approved permit hours.

These supplementary Specifications must be read in conjunction with the Master Municipal Specifications contained in the Master Municipal Construction Documents (Platinum), Volume II, 2009.

***Appendix B -  
Archaeological Chance Find  
Procedures***

# Archaeological Chance Find Procedures City of Coquitlam

DRAFT 2

November 2021 (version 2)



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## Introduction

This document is presented as an accompaniment to Kwikwetlem Cultural Heritage and Archaeology Chance Find Procedures training provided by Brown & Oakes Archaeology to City of Coquitlam (or the “City”) staff and contractors.

The Chance Find Procedure (CFP) is intended to provide City planners and onsite project personnel guidelines for the appropriate response to an unanticipated discovery of known or suspected archaeological or cultural heritage materials during City operations. A CFP is NOT a substitute for professional archaeological assessment of project areas considered to hold archaeological potential. Thorough archaeological assessment will always reduce project risk of harms to protected archaeological sites and minimize the potential for encountering unanticipated material. This CFP training is intended to promote the preservation and proper management of heritage resources that are unexpectedly encountered during City activities.

The document presents a summary of archaeology site protection legislation, steps to follow in the case of suspected or observed archaeological materials, a list of appropriate authorities to contact in the case of archaeological site encounters, and a guide to archaeological site and materials recognition. Information on Kwikwetlem culture history and connections to traditional lands is not presented in this document and this information is best shared via virtual or in-person presentations.

## Purpose

The purpose of CFP documentation is to aid in the protection and proper management of archaeological materials encountered during City of Coquitlam activities. Many land-altering activities have the potential to expose and/or negatively impact undocumented archaeological materials.

The purpose of this document is to:

- Ensure project personnel are aware that undocumented archaeological sites are likely to be present in the City of Coquitlam.
- Promote awareness of activities that may lead to the exposure of archaeological materials, including excavations, vegetation clearing, field survey and inspections, and more.
- Provide personnel the appropriate steps to follow if suspected or observed archaeological resources are encountered during work or personal activities.
- Provide education and resources to assist recognition of archaeological site types and materials in the lower Fraser River region.

## Archaeological Sites in British Columbia

Archaeological sites are places that exhibit physical evidence of past human activity. Archaeological sites in British Columbia are automatically protected under the *Heritage Conservation Act* (HCA) when located on provincial, crown, municipal, or private land<sup>1</sup>. The vast majority of archaeological sites in BC include places and belongings of Indigenous peoples. Some post-1846 sites related to newcomer history may also be registered and protected under the HCA if of significance to a place, industry, or region, for example. HCA protection is extended to ship and plane wrecks more than 2 years old.

Many First Nations consider the widely accepted definition of an archaeological site as a place featuring only the material remains of human activity too restrictive and instead advocate for the recognition and protection of a wider range of “cultural heritage” site types, including places of spiritual significance, named locales, known travel routes, and other places of cultural value.

The majority of the City of Coquitlam has not been surveyed for archaeological sites and it is reasonable to expect that many archaeological sites are buried and/or undetected. These sites are collectively referred to as undocumented archaeological sites.

## HCA Legislation and Policies

Archaeological sites are automatically protected under the terms of the *Heritage Conservation Act* whether known or undocumented. Sites are protected whether previously disturbed by historic activities or intact. The HCA prohibits the alteration or disturbance of archaeological sites in whole or in part, on provincial public and private lands, whether impacts are intentional or inadvertent, and irrespective of previous land disturbance.

The HCA provides substantial penalties for the destruction or unauthorized disturbance of archaeological sites including imprisonment for up to two years and fines of up to \$1,000,000.

Alterations to archaeological sites may proceed under appropriate HCA permits held by professional archaeologists following provincial assessment guidelines<sup>2</sup>. Work plans and methodologies related to archaeological site investigations must meet provincial regulatory standards and are expected to conform to participating First Nation cultural heritage policies and best-practice standards.

Archaeological materials on federally managed lands may be protected by other legislation and policies. Many federal agencies will adhere to the requirements outlined in the *HCA* when managing archaeological sites.

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<sup>1</sup> <http://www.for.gov.bc.ca/archaeology/index.htm>.

<sup>2</sup> The HCA is administered by the Archaeology Branch, Ministry of Forests, Lands, Natural Resources and Rural Development.

## First Nation Cultural Heritage Management

Many BC First Nations maintain cultural heritage policies and/or heritage permitting systems to assert oversight over Indigenous cultural heritage management and to ensure a high standard of archaeological practice. Contact should be made with locally affected Nations prior to any heritage study or project work with the potential to encounter cultural heritage materials to ensure adherence to Nation-preferred heritage protections, permits, and policy.

## Potential to Encounter Archaeological Sites

Any project involving ground alterations has the potential to expose undocumented archaeological sites. Common forms of ground disturbances that have led to site discoveries include land grading, vegetation clearing/grubbing, excavation, asphalt/concrete removal, geotechnical drilling, access road or trail building, foundation demolition, heavy equipment movement, habitat planting, stream and pond channeling or dredging.

Other kinds of work activities where teams may encounter undocumented archaeological sites include field teams working in proximity to natural, undeveloped or minimally disturbed terrain. Teams involved in field surveys, field inspections, or inventories of natural ground and waterways, riparian areas, municipal parks and trails, forested areas, cut bank or erosion area, and so on may encounter exposed archaeological materials.

City workers or contractors engaged in any activity that may result in archaeological materials identification should be made aware of HCA site protection legislation and field supervisors properly versed CFP procedures.

## Types of Archaeological Sites

The following site types are well-known across the lower Fraser River region and may be encountered in the City of Coquitlam. The following site types may contain a range of artifact types and sediment signatures.

- **Stone tool sites** containing isolated artifacts or accumulations of stone tool working debris.
- **Habitation sites** show accumulations of food remains, tools, and evidence such as hearths indicating short term and seasonal camps and settlements used for travel and resource procurement as well as large and permanent villages.
- **Surface features** such as cultural depressions created by former habitations, earthen fortifications, burial mounds, and rock cairns.
- **Wet sites** contain preserved organic materials like woven basketry or wood tools in addition to other cultural material; these sites form under special preservation conditions typically anaerobic water saturated sediments along waterways and floodplains.
- **Culturally Modified Trees (CMTs)** include bark stripped trees, planks, and territory markers.
- **Rock art** including pictographs (painted rock images) and petroglyphs (images carved or pecked into rockfaces or boulders).

## Archaeological Chance Find Procedure

In the event of found or suspected archaeological material, follow the procedures outlined below.

### **STEP 1: WATCH** for potential archaeological materials

- ⇒ Know that undocumented archaeological sites are expected throughout Coquitlam.
- ⇒ Know that archaeological materials are protected by law and must be reported.
- ⇒ If you believe you may have encountered archaeological materials (either intact or disturbed) follow the steps outlined below.

### **STEP 2: STOP** work in proximity to the material

- ⇒ If known or suspected archaeological materials are encountered, STOP work in the immediate vicinity.
- ⇒ Do not disturb, move, relocate, or collect the material.

### **STEP 3: REPORT** observed materials

- ⇒ Alert the site supervisor that suspected archaeological materials have been observed.
- ⇒ The site supervisor will ensure appropriate contact is made with City managers who will in turn reach out to archaeological professionals.

### **STEP 4: CONTACT** archaeological professionals

- ⇒ Seek immediate advice from an archaeological professional.
- ⇒ Teams may be advised to protect the area with flagging or cones until the area can be assessed by the appropriate representative.
- ⇒ Teams may be requested to provide locational details or photographs of the material.

### **STEP 5: AWAIT** advisement

- ⇒ Wait for instructions from the appropriate representative; do not begin ground disturbing work until cleared to do so.
- ⇒ Prepare and submit an incident report to ensure compliance with appropriate regulators and interest groups.

## Archaeological Chance Find Procedure - Suspected Ancestral (Human) Remains

In the event of found or suspected human remains, follow the procedures outlined below\*.

**STEP 1: STOP** all activity at the job site immediately, including the removal of backfill. Do not rebury the remains.

**STEP 2: REPORT** to the City Project Manager. The Project Manager will contact an archaeological professional and determine the appropriate course of action. In most cases, the archaeology professional will visit the site to determine if the materials are reasonably expected to be human and archaeological. If warranted, the consultant will notify the Archaeology Branch and the RCMP, the Office of the Coroner, and affected First Nations. The Coroner will affirm whether the remains are archaeological and not of forensic concern. The archaeologist will inform the Archaeology Branch and First Nations will be consulted to determine culturally appropriate handling protocols and subsequent project management options.

**STEP 3: PROTECT** the affected location with flagging or cones to prevent additional disturbance and for privacy. Do not photograph the material.

**STEP 4: TREAT** the remains with dignity and respect. Do not allow bystanders to take photographs or video.

**STEP 5: AWAIT** advisement.

\* If it is reasonable to think the human remains are not archaeological but forensic in nature, an immediate call to the RCMP is required.

### Management Options

If determined that an archaeological or cultural heritage site (intact or disturbed) is present, an archaeologist will coordinate communications with the City, local affected First Nations, and the Archaeology Branch to evaluate management options. Archaeology Branch and First Nations approval and additional permitting may be required prior to the implementation of management options.

Examples of potential management options are provided below. Options will vary based on site characteristics, proponent needs, and Archaeology Branch and First Nation requirements.

**Option A:** Site avoidance through project redesign or relocation. Site avoidance is always preferred. Avoidance minimizes impacts to irreplaceable archaeological sites and reduces cost and schedule impacts.

**Option B:** Systematic data recovery through controlled archaeological excavation or other method. Data recovery is destructive to archaeological sites and will entail consideration of costs and schedule coordination.

**Option C:** Monitoring of construction activities by a professional archaeological team. Monitoring is appropriate where project impacts cannot be evaluated before construction (due to impenetrable surfaces or underground facilities, for example) or where potential to encounter archaeological materials is present following impact assessment or systematic data recovery.

## Best Practices for CFP Implementation

- A Chance Find Procedure is best applied as an outcome stemming from archaeological assessment – as a last step verification that archaeological materials have not been overlooked in project area assessments, or where there is a professional assessment that documents a low expectation for encountering archaeological materials in a work area.
- A Chance Find Procedure is not an acceptable replacement for a professional archaeological overview (AOA) or archaeological impact assessment (AIA) or a well-designed and implemented archaeological construction monitoring plan for many areas. Engagement with professional archaeological teams, affected First Nations, or the Archaeology Branch will assist in appropriate heritage study approaches.
- Chance Find Procedure training must be delivered by professional archaeologists and local area First Nations who wish to contribute to CFP presentations.
- Chance Find Procedures should be summarized regularly as part of job or project requirements, and CFP training repeated by the archaeological and First Nation team for new employees, project teams, and subcontractors.
- Chance Find Procedures do not supersede any requirements or policies pertaining to cultural heritage management by First Nations with interests in the area. Proponents are encouraged to seek input from interested First Nations on area-specific CFPs as part of any project engagement process.

## Contact List

### Archaeology Branch

Paula Thorogood	Planning and Assessment Manager	250-953-3300	Paula.Thorogood@gov.bc.ca
Nathan Friesen	Planning and Assessment Supervisor	250-953-3306	<a href="mailto:Nathan.P.Friesen@gov.bc.ca">Nathan.P.Friesen@gov.bc.ca</a>

### City of Coquitlam

Main Reception 604-927-3000

### Police and Coroner

RCMP (Non-emergency)	Coquitlam	604-945-1550
BC Coroners Service	Lower Mainland Region	604-660-7708

### Area First Nations

Kwikwetlem First Nation 604-540-0680

Katzie First Nation 604-465-8961

Kwantlen Nation 604-888-2488

Musqueam Indian Band 604-263-3261

Stó:lō Nation 604-824-2420

Tsleil Waututh Nation 604-929-3454

## Archaeological Site and Materials Identification

The following archaeological sites and artifacts are common to the lower Fraser River region. This guide is to assist in the recognition and protection of archaeological materials found by chance. If you identify any archaeological material, stop work immediately and contact a professional archaeologist.

### Artifacts

Artifacts are objects made or modified by humans and may be formed of stone, bone, antler or wood. Bone, antler and wood tools were produced in abundance, but stone artifacts are the most common artifacts found in the lower Fraser region because of the preservation durability of stone. Bone and antler were fashioned into a variety of items, including needles, knives, points, jewelry, awls and scrapers. Wood was used to make implements like spoons and bowls, handles, ceremonial objects, canoes, houses, and much more.



Photo Credit: RBCM, Archaeology Collection. Antler and wood tools (<https://learning.royalbcmuseum.bc.ca>)

Stone tools common to this region include projectile points, knives, adzes (axes), scrapers, mauls (hammers), net weights, beads, and more. Archaeologists distinguish chipped stone from ground stone artifacts, each distinguished by the mode of manufacture, either flaking scars or grinding and polishing marks. Stone flakes or 'debitage' is produced during the process of making stone tools. These flakes were sometimes used as tools themselves or were left behind at the stone tool working site. Culturally produced debitage shows features distinctive from naturally broken rock, gravel or crush, but these signatures can be difficult to identify to an untrained eye. Stone artifacts were produced from dacite, quartzite, slate and nephrite as well as obsidian, chert, and other materials. Stone was acquired locally or transported or traded over long distances; high-quality materials like obsidian has been traced to locations from Prince Rupert to Oregon and beyond.

Artifacts may be found as isolated finds or in association with other cultural materials.

Archaeological Chance Find Procedure



Photo Credit: B&OA, Chipped stone artifacts from Coquitlam Lake.



Photo Credit (left): B&OA, Nephrite ground stone adze from Port Coquitlam. Photo Credit (right): RBCM, Archaeology Collection. Ground stone hand mauls (<https://learning.royalbcmuseum.bc.ca>)



Photo Credit: B&OA, Stone tool debitage from BC Interior.

## Beads

Beads were made from a variety of materials including stone, shell, bone and glass (in more recent times). Shell and stone disc beads were used in jewelry, regalia and in mortuary practices across the Northwest Coast. On the Lower Fraser it is most common to find stone beads at archaeological sites fashioned from mud or silt stone, slate, or other softer stone. At some burial sites, individuals of rank were laid to rest with thousands of stone and shell beads.



Photo Credit: B&OA, Ground stone beads from near Agassiz.

## Indigenous Historical Artifacts

Indigenous use of European materials in the years following contact are often found in early historic sites. Ceramics, glass, and metal were valued for their strength, durability, ease of access, or aesthetic properties. Glass was worked using traditional stone tool techniques in the same way as obsidian (a natural volcanic glass). Clay pipes were adopted by Indigenous peoples who several centuries earlier had introduced the practice of tobacco smoking to European traders. Glass beads were used by European fur traders to trade with Indigenous peoples; trade beads were initially valued for their vibrant colour and the expectation of beads as a wealth item.

Photo Credit (left): B&OA, Worked glass and clay stone pipe, Coquitlam.



Photo Credit (middle): <https://www.canadashistory.ca/explore/fur-trade/tobacco-pipes>. Photo Credit: Oregon Museum of Natural and Cultural History, Glass trade beads (<https://mnch.uoregon.edu/index.php/collections-galleries>).

## Hearths

Hearths are the remnants of fires identifiable by dense black charcoal, ash and heat oxidized sediments. While natural forest fires may also leave traces of burning, hearths tend to be more defined and frequently show concave bases, evidence of repeated use, and contain or are in proximity to burned bone, fire-altered rock, and artifacts.

## Fire-Altered Rock

Fire-altered rock (FAR) is rock modified by repeated heating and cooling. Heating small, rounded river cobbles and immersing the hot stones in water filled baskets or boxes was a frequently used cooking technique called 'stone boiling'. Heated stones were also used to warm clothing and bedding. The repeated heating and cooling of FAR created distinctive fracture and colour patterns that are easily distinguished from naturally broken rock. FAR shows irregular breakage patterns, is frequently deeply pitted, is often deep rust or black in colour, and may be found mixed in charcoal and ash laden sediments. As FAR is often found in abundance around settlement areas or near cooking features and hearths, it is a frequent first indicator of the presence of archaeological sites. Often mixed in FAR deposits are boiling stones—small, rounded pebbles that have not yet been fractured by thermal processes



Photo Credit: B&OA, Fire altered rock, Coquitlam.



## Shell and Non-Shell Midden

Midden deposits are generally indicative of camp or village sites. Middens accumulate through the repeated, ongoing use of an area where food remnants or the debris of daily living build up in layers at a site over time. In coastal areas, shellfish provided an abundant food source and, middens contain abundant fragmented or whole shell typically embedded in dark, greasy, sediments rich in charcoal, ash, fire cracked rock, burnt materials, and artifacts. Because shell neutralizes the acidity in soil, shell middens enhance preservation of organic food remains and tools, and fish and mammal bone, wood, antler, and botanical remains are often well-preserved in shell midden sites.

Non-shell middens are accumulations of living materials formed at camps and settlements away from marine waterways. Non-shell midden shows layered deposits of dark sediments, ash, and sometimes sand and clay in sediments with little to no shell. These deposits rarely contain bone, antler, or wood remains due to poorer preservation environments.

In Coquitlam, non-shell middens are the more common site type but there are a few examples of inland shell midden sites associated with camps or settlements where shellfish was transported to locations by travel or trade.



Photo Credit (left): B&OA, Non-shell stratified midden Port Coquitlam. Photo Credit (right): Shell midden, Vancouver Island (<https://learning.royalbcmuseum.bc.ca/pathways/can->)

## Surface Features

Surface features are non-portable cultural formations visible on the landscape. Features may include pits or depressions, earthen mounds or rock cairns, petroforms (rock arrangements) or trails. Cultural depressions may indicate the location of semi-subterranean winter dwellings, plank houses where midden accumulated around the outside of structures, cache pits used for tool or food storage, or pits and trenches used for food cooking or processing. Cultural depressions are identifiable by their uniform shape (usually round or rectangular), a berm may be present around the edge of features, the presence of associated artifacts, or concentrations of charcoal, ash, and fire altered rock.

Cultural mounds or rock cairns are other familiar surface features. Earthen burial mounds and rock cairns are part of a mortuary tradition found throughout the lower Fraser region over the past 1,500 years. Cultural mounds and cairns range in size from around a meter in diameter to more than 12 meters across. Individual occurrences or clusters of well-formed oval or circular mounds of earth and rock should trigger archaeological assessment.



Photo Credit: SFU Museum, Winter pit house village, Lillooet.

## Rock Shelters and Caves

Rock shelters were used, among other purposes, as camps, spiritual or burial locations, and storage caches. Shelters can be found associated with overhangs of large boulders, indentations in rock bluffs or in caves. Shelters often associate with artifacts, rock art, and hearth features.

## Ancestral (Human) Remains

Human remains are especially sensitive and significant finds. Any potential human bone requires immediate implementation of the CFP. Ancestral remains are frequently present at archaeological locations and may be found articulated in a burial context or as scattered fragments.

## Petroglyphs and Pictographs (Rock Art)

Northwest Coast rock art includes images depicted on boulders, rock overhangs, rock faces, or other exposed rock surfaces. Pictographs are drawings or designs painted on rock using pigments like ochre or charcoal mixed with grease. Petroglyphs are images incised or pecked into stone. Designs vary widely and often depict animals, humans, or an extensive variety of geometric shapes.



Photo Credit: B&OA, Portion of petroglyph panel at Petroglyph Provincial Park, Nanaimo.



Photo Credit: B&OA, Portion of pictograph panel at Pitt Lake.

## Fish Weirs and Traps

Fish weirs are structures constructed to funnel and trap fish for harvesting. Traps were built in intertidal areas along marine and river shorelines and near stream mouths. Weirs vary in form and structure depending on water and shoreline conditions, fish species targeted for harvest, intended volume of harvest, and community preferences. Fish weir sites are identifiable by linear or patterned arrangements of wooden stakes protruding from beach or bank edges or boulder alignments along waterways.



Photo Credit: Washington State Archives, Yelm Jim Fish Trap 1885  
<http://www.digitalarchives.wa.gov/Record/View/DAA73FC7A57E989D65B6DBEA419FC89E>

## Wet Sites

Wet sites are special preservation environments that form in low oxygen water saturated environments along waterways, in bogs and on floodplains. These locations permit enhanced preservation of organic artifacts like wood, bark, and botanicals. Artifacts found in wet sites have included basketry, twine and rope, wooden tools and weapons, architectural structures, and ceremonial implements made of wood and bone.



Photo Credit (left): Mike Blake. Ground slate knife with wooden handle, Agassiz. Photo Credit (right): Katherine Bernick, Waterlogged and preserved basket, Coquitlam.

## Culturally Modified Trees (CMTs)

Culturally Modified Trees are trees that have been utilized by Indigenous Peoples for a broad range of cultural uses. Wood was used to build houses, canoes, tools, and weapons. Branches, boughs, and leaves were used to fashion tools, for medicine and in cultural ceremony. Harvesting cedar bark and roots was undertaken regularly to make clothing, cordage, basketry, and sleeping mats, ceremonial regalia, and much more.

Triangular bark stripped cedars are the most common form of CMT; a long, linear triangular bark scar will show where bark was removed from the trunk of a living tree. The exposed scar will heal over time creating a seam on the outer tree bark. This form of sustainable harvesting allowed the same tree to be used multiple times for bark harvesting. CMTs can also show evidence of wood removal where wedges were used to pry rectangular planks of wood from standing, living trees.

Logging and clearing throughout much of Coquitlam municipality reduces the chance that archaeological CMTs remain in most forested areas today, but more recent CMTs where bark or wood was harvested from second-growth forest by Kwikwetlem for cultural uses may be present.



Photo Credit: B&OA, Bark stripped cedars, Coquitlam.

## **Additional Resources**

Learning Portal, Royal BC Museum - <https://learning.royalbcmuseum.bc.ca>

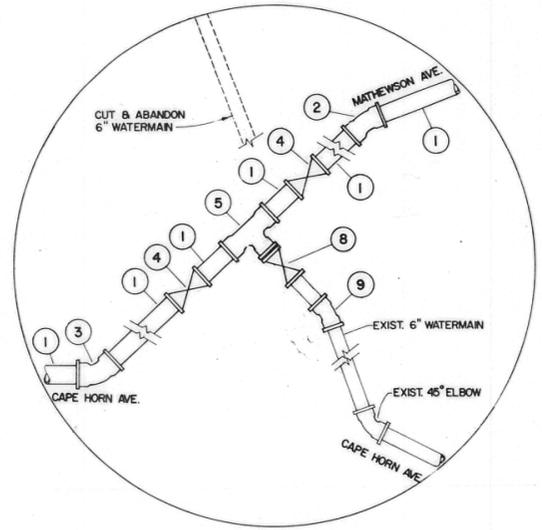
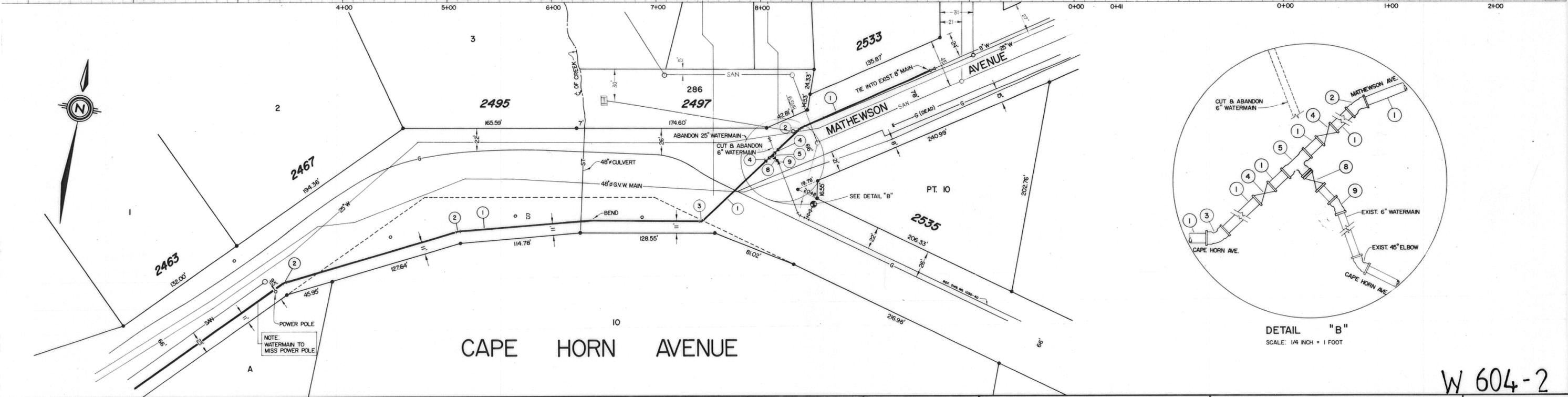
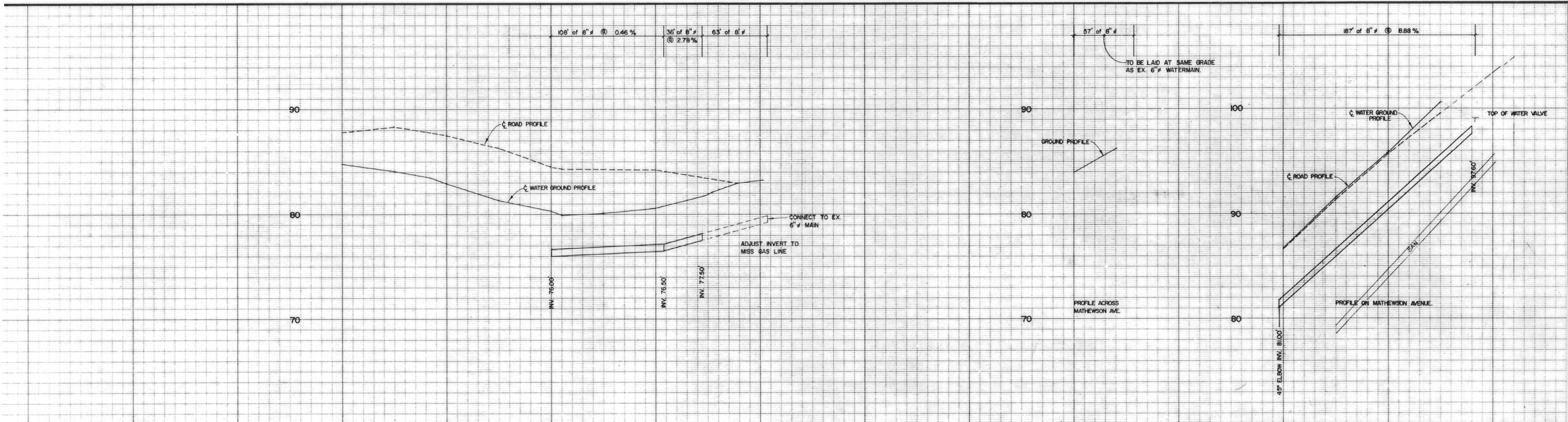
SFU Museum of Archaeology & Ethnology - <https://www.sfu.ca/archaeology/museum.html>

## **References Cited**

Archaeology Branch (1999). Found Human Remains. On file with the Archaeology Branch, Victoria, BC. From [http://www.tca.gov.bc.ca/archaeology/policies/found\\_human\\_remains.htm](http://www.tca.gov.bc.ca/archaeology/policies/found_human_remains.htm)

Archaeology Branch (2010). Heritage Conservation Act (RSBC 1996). On file with the Ministry of Tourism, Culture, and the Arts, Victoria, BC. From

***Appendix C -  
As-built Records***



REVISION	NO.	DATE	BY	CHKD.
AS CONSTRUCTED	2	SEPT 9, 74	[Signature]	[Signature]
8.13' OFFSET CHANGED TO 11'	1	Aug 12/74	EGT	WCF

PROPOSED		EXISTING		LEGEND	
ST SEWER	ST	ST	ST	VALVE	PROPOSED
SAN SEWER	SAN	SAN	SAN	MANHOLE	EXISTING
GAS	G	G	G	STORM INLET TYPES	
WATER	W	W	W	I	II
UG ELEC.	BCH	BCH	BCH	III	IV
UG TEL.	BCT	BCT	BCT		

DESIGNED - F. CHOW  
 DRAWN - [Signature] B. WEST  
 CHECKED - [Signature]  
 DATE - AUGUST, 1974

APP'D -  
 DATE -  
 SCALE: HORIZ - 1" = 40'  
 VERT - 1" = 4'

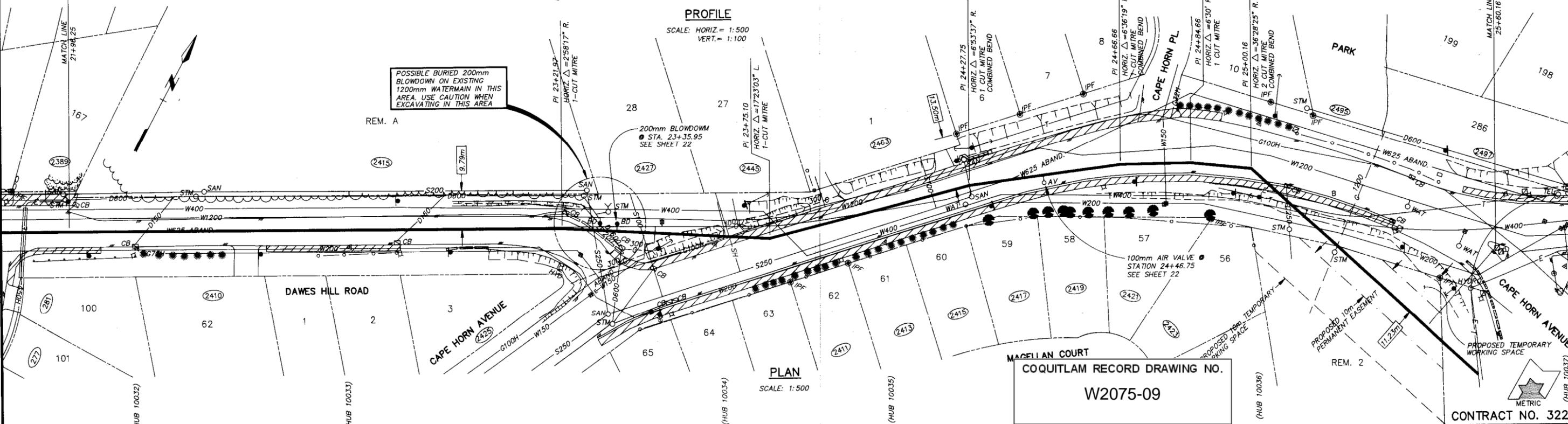
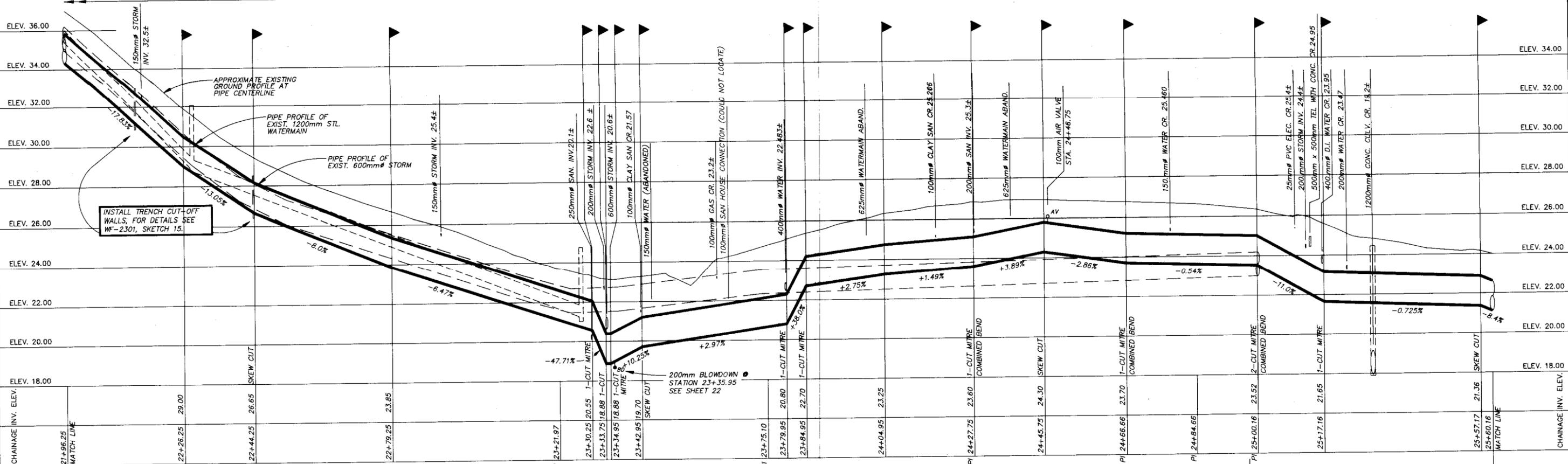
**DISTRICT OF COQUITLAM**  
 ENGINEERING DEPARTMENT

8"  $\phi$  WATERMAIN ON  
 CAPE HORN AVENUE  
 EAST OF DAWES HILL ROAD

FILE - 604
DWG - 984420-016
SHEET 2 OF 2

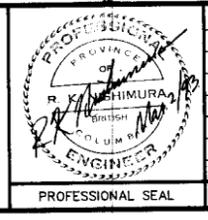
W 604-2

\* 1524mm O.D. x 9.53mm WALL WELDED STEEL PIPE (ASTM A-36) WITH BELL AND SPIGOT JOINTS COAL TAR ENAMEL LINED AND COATED



SOIL SYMBOLS		DRAWING SYMBOLS	
ORGANIC	PIPELINE	SEWER HOUSE CONNECTIONS	HOUSE NUMBER
CLAY	TRaverse HUB	FIRE HYDRANT	LAMP STANDARD
SILT	IRON PIN FOUND	SEWER	SIDEWALK
SAND	OLD IRON PIN	STORM DRAIN	DITCH
GRAVEL	LEAD PLUG FOUND	CATCH BASIN	PAVEMENT
	MANHOLE	CULVERT	ROCKERIES
	POWER POLE	GAS MAIN	FENCE
	TELEPHONE POLE	STORM HOUSE CONNECTION	GRAVEL SURFACE
	GUY/ANCHOR POLE	UNDERGROUND TEL. CABLES	ELECT. PULL BOX
	WATER VALVE BOX	WATER MAIN	SIGN
	GAS VALVE BOX	WATER HOUSE CONNECTION	HEDGE, TREE
		UG ELECT. CABLES	CAPPED SERVICE PIPE
			PROPOSED PERMANENT EASEMENT
			EXISTING PROPERTY LINE
			TEMP. WORKING SPACE
			AIR VALVE
			GRADE BREAK
			BLOWDOWN

- NOTES:
- ALL ELEVATIONS ARE GEODETIC AND ARE IN METRES.
  - SURVEY CONTROL POINTS IN BRACKETS REFER TO PRELIMINARY SURVEY LINE.
  - FIELD BOOK REF. W782-1 TO W782-6
  - DATE OF SURVEY: SEPT 1992
  - \* DENOTES ITEMS SUPPLIED BY THE CORPORATION.
  - PIPE HATCHES TO BE SPACED AT APPROXIMATELY 300m INTERVALS. LOCATIONS TO BE DETERMINED BY THE ENGINEER IN THE FIELD.



Issue	Date	Des'n	Dr'n	Chkd	App'd	Description
A	02.24.93	R.N.	G.M.			ISSUE FOR TENDER

GREATER VANCOUVER WATER DISTRICT

SAPPERTON MAIN 0.2 - STAGE 1  
SECTION 1  
CAPE HORN PUMP STATION TO  
SCHOOLHOUSE STREET  
PLAN AND PROFILE

Design: R.N.  
Des. chkd: R.N.  
Drawn/Tr.: G.M.  
Dwg. chkd: G.M.  
Supervised: G.M.  
Engineer: G.M.

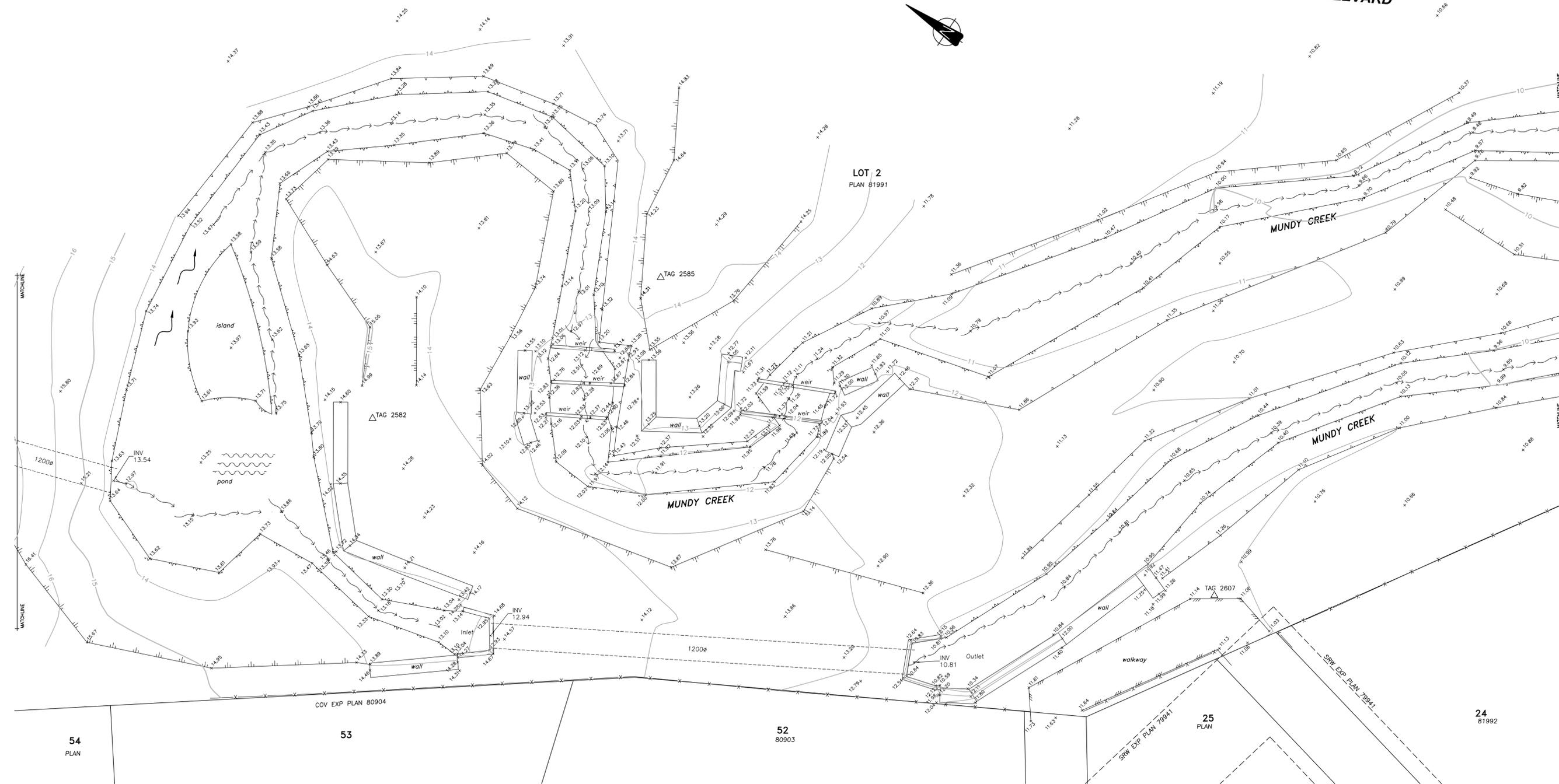
SCALE AS SHOWN  
DATE FEB 1993  
SHEET 9  
DRAWING NO. WF-2301

CONTRACT NO. 322

SUPERSEDES PRINTS OF THIS NUMBER WITH LETTERS PREVIOUS TO A

UNITED BOULEVARD

LOT 2  
PLAN 81991



**IMPORTANT:**  
HYDRO, GAS AND TELEPHONE ARE NOT LOCATED ON THE CITY OF COQUITLAM AS-BUILTS.  
CONTACT BC HYDRO, TERASEN GAS AND TELUS FOR CURRENT AS-BUILTS PERTAINING TO THESE UTILITIES.

**NOTE:**  
LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY AND SHOULD BE CONFIRMED BY A PIPE LOCATOR AND MANUAL DIGGING. ALL OR ANY EXISTING STRUCTURES ARE NOT NECESSARILY SHOWN.

THIS PHOTOCOPY IS SUPPLIED BY THE CITY OF COQUITLAM FOR GENERAL INFORMATION ONLY AND THE ACCURACY OF INFORMATION CONTAINED ON THE DOCUMENT IS NO WAY GUARANTEED BY THE CITY.

STORM WORKS INDICATED ARE NOT NEW WORKS BUT ARE PREVIOUSLY UNDOCUMENTED RECORD INFORMATION DESCRIBED SPECIFICALLY ON THIS PLAN. FOR OTHER STORM RECORD INFORMATION SEE OTHER APPROPRIATE RECORD PLANS.

SUPPLEMENTARY LEGEND

- Top of bank
- Bottom of bank
- Top of creek
- Bottom of creek
- Iron pin found
- Control point placed

GRAPHIC SCALE



24  
81992

COQ. ASBUILT No.  
**D2570-02**

Destroy All Prints Bearing Rev. No. less than one indicated below

EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED

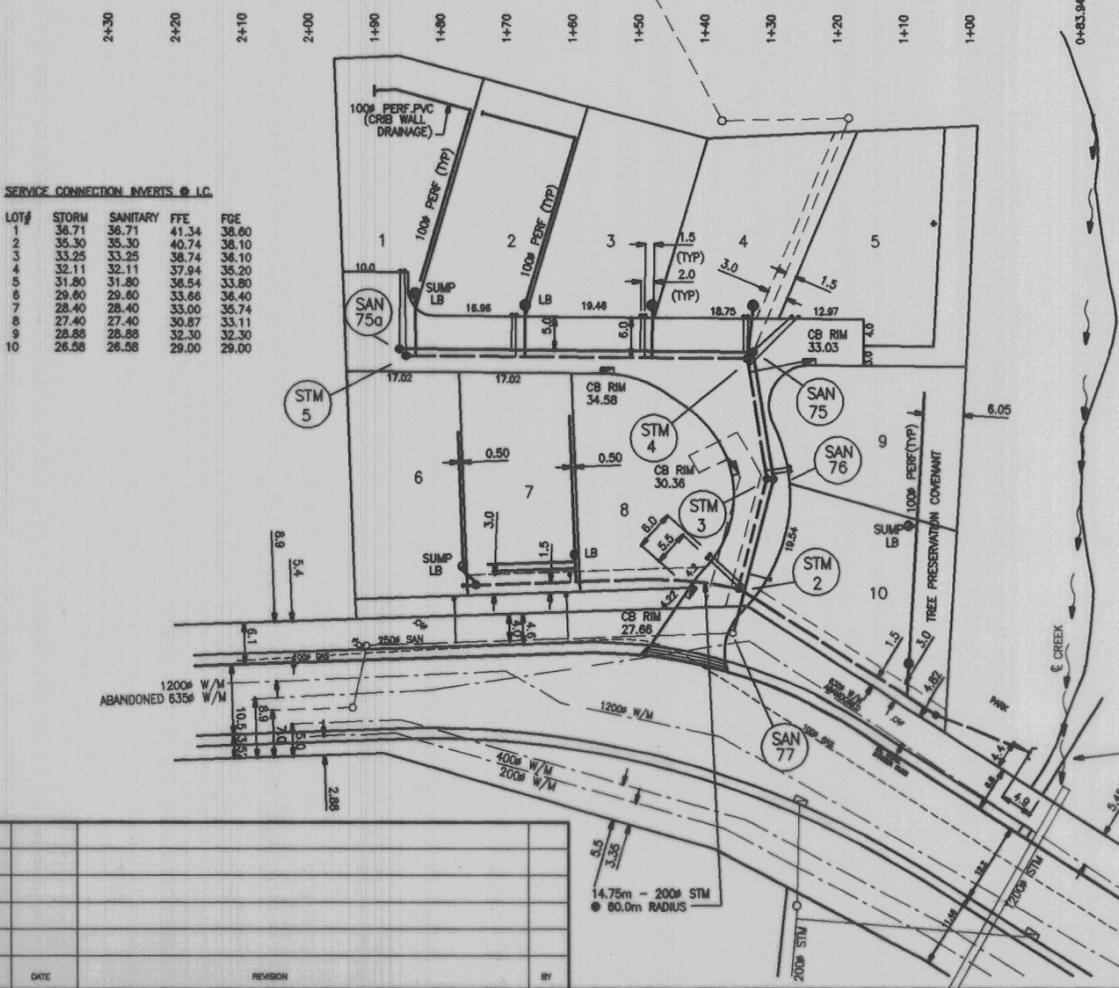
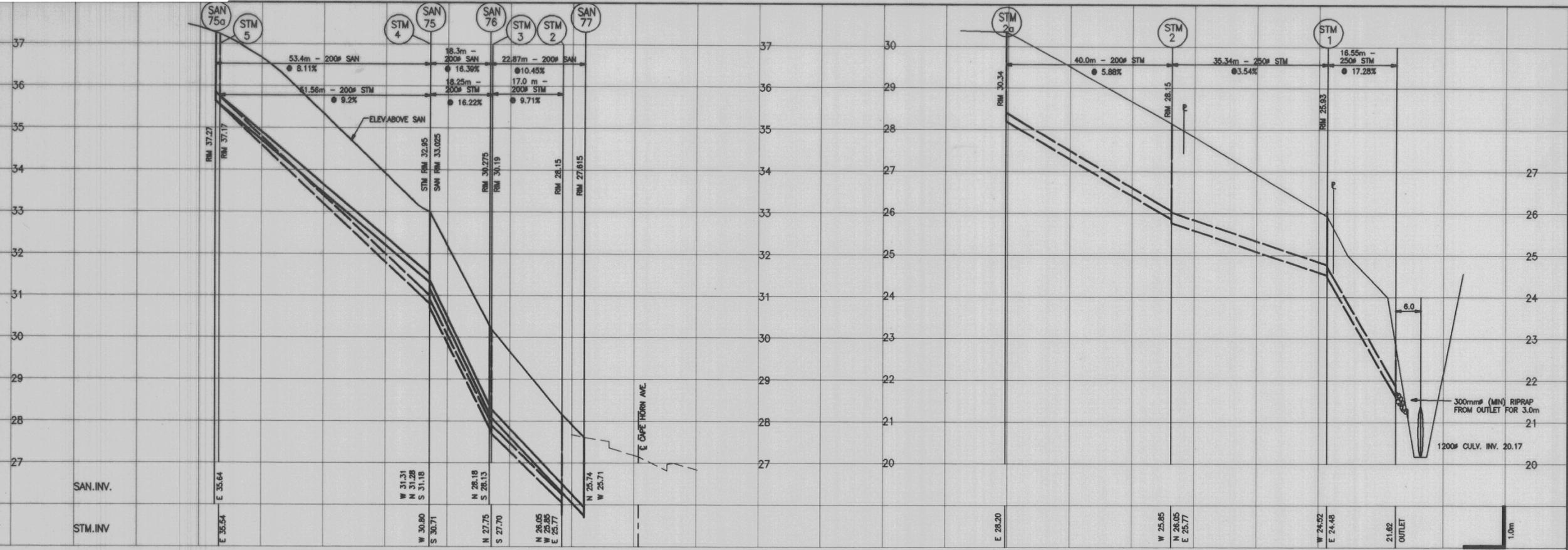
**Coquitlam**  
Engineering & Public Works  
3000 Guildford Way, Coquitlam, B.C. V3B 7N2

Project	CAPE HORN AVENUE		DESIGNED	SCALE	DATE
	At United Blvd.			Horiz. 1:100	NOV 10 11
	Drainage Survey		DRAWN	DWG FILE:	
			A.S.K.	11CapeHo1107455070	
			CHECKED	SHEET	OF 3 REV.
			APPROVED	<b>2</b>	<b>0</b>

PLOT DATE/TIME: Friday, November 18, 2011 9:33:29 AM



D 1553



SERVICE CONNECTION INVERTS @ I.C.

LOT#	STORM	SANITARY	FFE	FGE
1	36.71	36.71	41.34	38.80
2	35.30	35.30	40.74	38.10
3	33.25	33.25	38.74	36.10
4	32.11	32.11	37.94	35.20
5	31.80	31.80	36.54	33.80
6	29.80	29.80	33.66	36.40
7	28.40	28.40	33.00	36.74
8	27.40	27.40	30.87	33.11
9	28.88	28.88	32.30	32.30
10	28.58	28.58	29.00	29.00

I CERTIFY THAT THE INFORMATION CONTAINED ON THIS DRAWING IS A CORRECT REPRESENTATION OF THE CONSTRUCTED WORKS.

DRAWN	QJA
DESIGNED	QJA
CHECKED	
APPROVED	
FIELD BOOK	
SCALES	HORIZ. 1:500 VERT. 1:50

NOV.10, 1993

**D1553**  
**S1264**

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**STORM & SANITARY SEWERS**

STRATA DEVELOPMENT  
CAPE HORN AVENUE  
COQUITLAM

DATE	01/91
SHEET	1 of 1
DWG. No.	90-002
ISSUE	FINAL

ACIO 90-6035

# ***Appendix D - Construction Mitigation Plan***

## Construction Mitigation Plan (CMP)

(To be read with MMCD Platinum 2009 Edition Specifications and Contract's Supplementary Specifications, Section 01 57 01)

This CMP and the Environmental Notes found in cover page of Contract Drawings outlines the minimum mandatory measures that the Contractor must follow during construction.

### Work Site Location: Cape Horn Ave Culvert at Mundy Creek

Mundy Creek at Cape Horn Ave has a classification as a red coded watercourse inhabited by Salmonids and/or rare or endangered species year-round.

Construction activities will occur in isolation of any watercourse flow. Bypass must be installed as appropriate following DFO/FLNRO guidelines for proper flow control prior to start of any construction.

#### I. Scheduling & Environmental Monitoring

- Proposed work will be scheduled for completion within the Fisheries Window of August 1 to September 15, 2026, unless otherwise authorized by DFO and **will be subject to approval by Ministry**.
- Fish salvage (if needed) will be undertaken as required from areas proposed for flow isolation to be done by an Environmental Monitor (EM) designated by the City.
- An environmental monitor (EM) independent of the construction contractor will be designated by the City to act as EM for the project.
- The EM will provide monitoring of environmentally sensitive construction works to ensure works proceed as per DFO requirements.
- The EM will also monitor the implementation and effectiveness of erosion and sediment control (ESC) measures deployed by the contractor.
- All work which involves heavy machinery that is disturbing earth material must be suspended during substantial rainfall (substantial rainfall will be determined by the EM after a review of weather conditions and existing ground saturation).
- If the proposed works are not conducted in a manner compliant with this CMP or the environmental regulatory approvals, then the EM is required to inform the Contact Administrator (CA), Engineering Inspector, and the contractor of concerns relating to this CMP. The contractor will immediately address deficiencies so that works are compliant with the intent of the CMP.
- The Contractor shall keep on site at all times a copy of this CMP and any environmental approvals required by DFO/Ministry.

#### II. Riparian Zone

- Any planting requirements will be as listed in the Contract Documents and Drawing or as specified in this CMP. Specific planting locations will be determined by the EM on site.
- Disturbed areas are to be revegetated with the prescribed grass seed mix and then covered with mulch or straw to prevent erosion and to help seeds germinate.
- All efforts will be made to leave undisturbed native vegetation where possible. Stream banks and ditches are to be restored to their original or better condition if any disturbance occurs.
- The Contractor shall restore all disturbed areas to their original condition or better after construction is completed.

- **Planting Zone**

- ❖ Seeding :

- Broadcast seed to all exposed soil in the riparian zone with coastal reclamation mixture at 75kg/ha or approved equivalent by EM.

### III. **Erosion and Sediment Control (ESC) measures**

- Effective erosion and sediment control measures shall be installed by the Contractor prior to any commencement of work.
- These measures are to be inspected by the EM regularly during the course of construction. Necessary repairs/corrections will be made by the Contractor immediately if ESC is compromised or becomes ineffective or as determined by the EM.
- Any debris removed from the work site are to be stabilized to prevent them from entering the watercourse (i.e. covering spoil piles with secured tarps, covering exposed soils with straw, etc.).
- For ESC to be effective on this site the Contractor will follow conditions of this CMP and important ESC measures that will meet or exceed the standards outlined in the DFO "Land Development Guidelines for the protection of Aquatic Habitat" and/or directives provided by agency approvals.
- All works will be conducted by the Contractor in a manner that will prevent the release of sediment or sediment laden waters to storm sewers and swales draining to fish habitat.
- Construction and excavation wastes, overburden, soil or any substance deleterious to aquatic life will be disposed of or placed in a manner that will prevent their entry in to any storm sewer system. All rock or other material will be free of fine sediment and contaminants
- All disturbed slopes and ground surfaces that may contribute sediment-laden water during precipitation events must be stabilized through application of organic (i.e. straw) or inorganic (i.e. plastic) mulches over the course of the project.
- Work will be pursued to completion as quickly as possible once started.
- Prior to commencement of the works the contractor must obtain sufficient quantities of silt fence, straw bales, grass seed mix, sandbags, erosion control blanketing, mulch etc. necessary to stabilize disturbed ground. These materials must be onsite, available for inspection and installation prior to the commencement of any ground disturbance.

### IV. **Operation of Machinery**

- Machinery is to arrive on site in good working condition, power washed and free of leaks, excess oil and grease. No fuels, lubricants or any deleterious substance will be permitted to any watercourse at any given time.
- No machine refueling within 30m of any watercourse will be allowed.

### V. **Spills**

- A spill containment kit must be readily accessible to each construction equipment on site in the event of release of a deleterious substance to the environment. Any spill of a deleterious substance that enters the watercourse will be immediately reported to the Provincial Emergency Program 24hour phone line at 1-800-663-3456.
- The spill kit must be onsite ready for inspection at commencement of construction. Construction will not be allowed to commence if proper spill kit is not available on site.

***Appendix E -  
Construction Environmental  
Mitigation Plan***



## **ENVIRONMENTAL MANAGEMENT PLAN**

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City of Coquitlam

Cape Horn Ave Culvert Rehabilitation

February 2026





ISL Engineering and Land Services Ltd. is an award-winning full-service consulting firm dedicated to working with all levels of government and the private sector to deliver planning and design solutions for transportation, water, and land projects.

#### **ISL Commitments**

We embrace diversity, equity, and inclusion to build thriving teams and deliver the best outcomes for our clients. We are committed to a safe, respectful, and inclusive workplace where every voice contributes to our shared success.

ISL's Permit to Practice reflects our commitment to the highest standards of professional and ethical responsibility—principles that align with our shared values. As a people-first company, we recognize that success in an AI-enabled future depends on exceptional professionals whose expertise informs every decision. We use artificial intelligence to enhance innovation, efficiency, and quality while ensuring human insight, collaboration, and accountability remain central to our work. AI enhances our judgment, but every output is critically reviewed to uphold ISL's standards of technical excellence, accuracy, and client trust.



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## SCHEDULES

Schedule 1	Contractor Environmental Orientation Record
Schedule 2	Project Contact List
Schedule 3	Reference Spill Response Plan
Schedule 4	Spill Reporting Regulation List of Reportable Quantities



## 1.0 ENVIRONMENTAL MANAGEMENT PLAN PURPOSE

The enclosed Environmental Management Plan (EMP) has been developed by ISL Engineering and Land Services Ltd. (ISL) for use by the City of Coquitlam (CoQ) during the Cape Horn Ave Culvert Maintenance Repair Project (the Project) along Cape Horn Ave in Coquitlam, BC (**Figure 1**). The mitigation measures outlined in this EMP align with CoQ's commitments to have the project constructed in a manner which avoids detrimental environmental effects and contravening environmental legislation.

The EMP cites applicable Best Management Practices (BMPs) for mitigation of environmental effects and standard environmental conditions for the federal *Fisheries Act*, and provincial *Water Sustainability Act* (WSA) regulation for Authorized Changes in and About a Stream that the Contractor must adopt as part of their practices. Fully implementing the BMPs set out in this EMP will help to avoid triggering Stop Work Orders, and otherwise contravening the following environmental legislation:

- Provincial *Water Sustainability Regulation* (WSR);
- Provincial *Wildlife Act*;
- Provincial *Environmental Management Act*;
- Provincial *Weed Control Act*;
- Federal *Fisheries Act*; and
- Federal *Migratory Birds Convention Act*.

The provisions outlined in this EMP are Contractor's mandatories and form part of contract documents for the project. Therefore, the Contractor must read and understand the environmental obligations contained within this EMP and, consequently, the Contract. Prospective Contractors are advised to carefully review this EMP prior to submitting responses to the Tender, to ensure that the environmental protection and effect mitigation requirements are adequately captured and accounted for.

If the Contractor does not have appropriate environmental effects mitigation measures onsite and the Environmental Monitor (EM) indicates that the Contractor cannot protect or mitigate effects to aquatic habitat, wildlife, and other project-specific environmental sensitivities requiring protection, delays and shutdowns may result in additional costs that are the Contractor's sole responsibility.

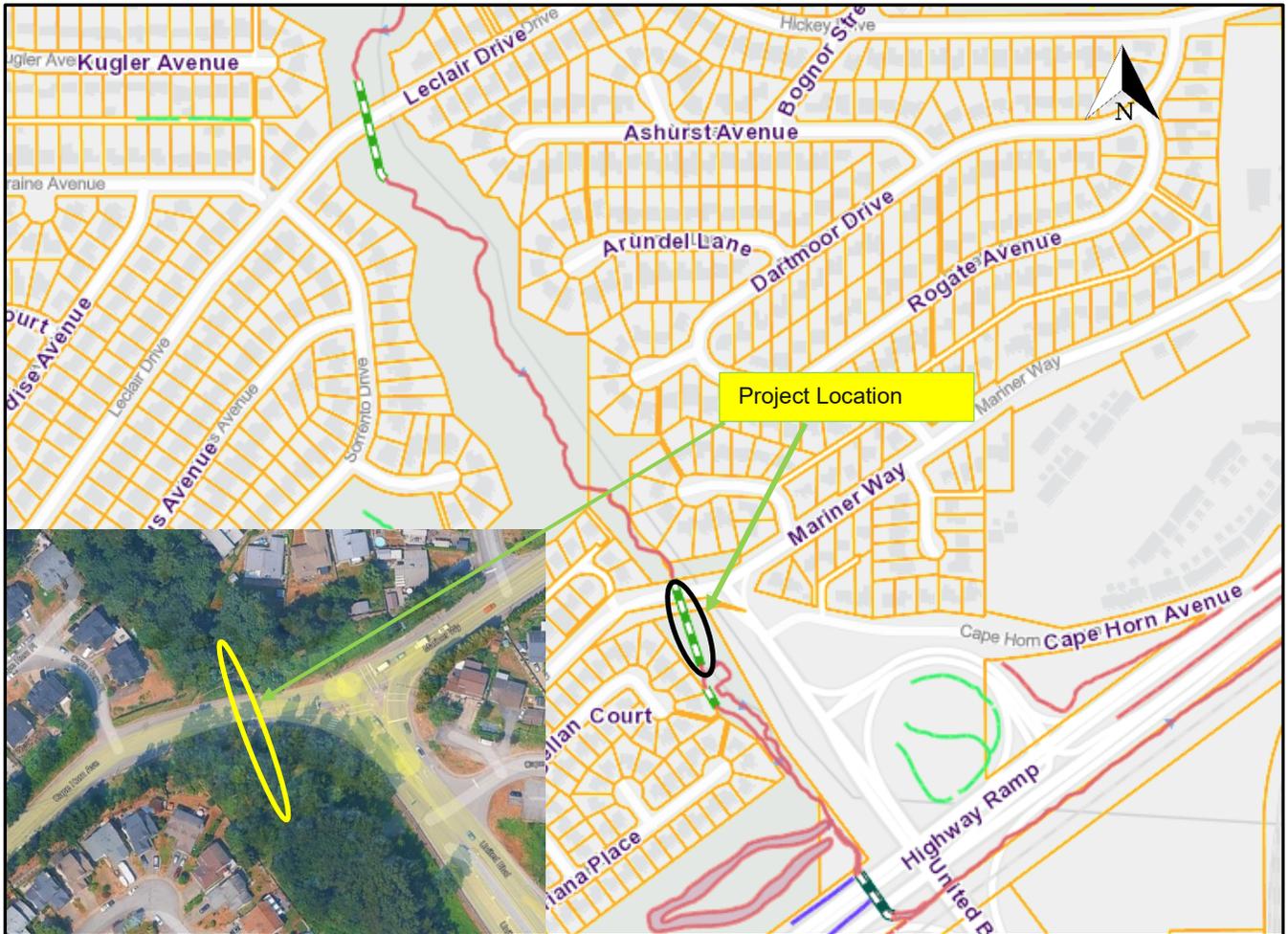


Figure 1. Key map showing the general location of the Project.



## 2.0 PROJECT BACKGROUND

The Project is a maintenance repair of an approximately 89 m long, 1200 mm diameter reinforced concrete (RC) pipe culvert underneath Cape Horn Avenue, which has exposed reinforcing steel. The current RC pipe will be repaired through trenchless rehabilitation by the installation of a Cured-In-Place Pipe (CIPP) and the installation of a three overflowing PVC pipe.

The culvert repair requires work in is Mundy Creek (Watershed Code: 100-024500-04600-93900), a known native fish-bearing stream with salmonid capture records both upstream and downstream of the Project location. In addition, the trees and shrubs along the riparian habitat provide areas for nesting migratory birds. There is a critical habitat (CH) polygon for Western Painted Turtle (*Chrysemys picta bellii*) overlapping the Project location. The project is unlikely to impact Western Painted Turtles individuals or their critical habitat as the project site lacks attributes for suitable aquatic and terrestrial habitats required to complete their life cycle.

## 3.0 REGULATORY CONTEXT

A Notification of Authorized Changes In and About A Stream (WSR Notice) was submitted as per Section 39 (1) of the WSR for the maintenance of a culvert for crossing a stream for the purpose of a road. To ensure compliance with relevant environmental legislation, the construction activities need to conform with the relevant guidelines and best management practices (BMPs) set out in:

- Requirements and Best Management Practices for Making Changes In and About a Stream in British Columbia (2022)  
<https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/working-around-water/wsa-cias-requirements-bmps.pdf>
- A User's Guide for Changes in and About a Stream in British Columbia (2022)  
[https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/working-around-water/wsa-cias-users\\_guide.pdf](https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/working-around-water/wsa-cias-users_guide.pdf)
- DFO Measures to Protect Fish and Fish Habitat (2025)  
<https://www.dfo-mpo.gc.ca/pnw-ppe/measures-mesures-eng.html>
- DFO Standard for In-water site isolation (2025)  
<https://www.dfo-mpo.gc.ca/pnw-ppe/standards-normes/site-isolation-confinement-aire-travail-eng.html>



## 4.0 ENVIRONMENTAL MONITORING REQUIREMENTS

A qualified Environmental Monitor (EM) will be provided by the CoQ. The Contractor **is not required to provide their own EM** for this Project.

The EM will:

- The EM will complete a Contractor Environmental Orientation Record (CEOR; **Schedule 1**) as part of the pre-construction meeting.
- Be provided by the CoQ, the authority to modify or halt any construction activity if deemed necessary for protection of fish and wildlife populations or their habitats.
- Complete requisite nesting bird surveys, fish salvages, and wildlife sweeps.
- Identify whether the Contractor's mitigatory measures meet the requirements of environmental regulatory conditions and documents, this EMP, and applicable environmental BMPs.
- Report Environmental Incidents, as defined in Section 6.11 or non-compliance to the regulatory agencies with jurisdiction in the event of circumstances that would trigger a requirement for agency involvement.
- Report environmental non-conformance to the Site Supervisor and Project Manager.
- Provide weekly environmental monitoring reports to the Contractor's Site Supervisor at the end of each site inspection.
- Not consider the Project to be complete and in compliance with best practices for mitigating the works if there are any outstanding proposed mitigative measures.

## 5.0 PROJECT MITIGATION MEASURES

The following section outlines the Contractor's mandatory environmental mitigation measures to be implemented throughout the duration of the project activities.

### 5.1 Contractor's Instream Work Requirements

The Contractor is responsible for completing all instream work in isolation of flowing water through site isolation, bypass, and pumping.

#### 5.1.1 Contractor's Instream Work Window

- Instream works under this contract will be completed per the least risk instream work window for the region, which is between the periods of **August 1<sup>st</sup> to September 15<sup>th</sup>**.
- No instream work may proceed outside this instream work period without formal acceptance from the province.

#### 5.1.2 Contractor's Site Isolation Requirements

The Contractor is responsible for installing quality, functioning site isolation upstream and downstream of the worksite to enable work to be completed in isolation of flowing water, prevent death of fish, and deposition of deleterious substances.



- The site isolation technique utilized must be leak free. Leak free is defined as isolation that does not permit water to seep into the isolated site such that it fouls the CIPP liner or affect its ability to cure.
- If leak free isolation cannot be met, then the EM will have the authority to shut-down the works and direct the contractor to adjust the site isolation.
- Costs or delays associated with achieving the site isolation requirements will be solely borne by the Contractor.
- Site isolation must remain functioning and in place until the CIPP liner is fully cured.

### 5.1.3 Contractor's Bypass Requirements

The Contractor shall install and maintain a functioning site bypass for the duration of the instream works. The Contractor shall:

- Ensure all instream work is to be completed in the dry; that is in isolation of flowing water.
- Deploy a full stream bypass needs to be deployed by the Contractor concurrent with Section 6.3, and fully maintained throughout the duration of instream works, until such time as the CIPP liner is fully cured.
- The Contractor is wholly responsible for sizing, developing and maintaining a bypass system in functioning condition throughout the period the watercourse will be bypassed; the isolated site must not be allowed to flood when the Contractor is offsite.
- The Contractor's bypass shall direct clean water from upstream of the site, around the worksite, and discharge this same water to the stream channel immediately downstream of the isolated site to maintain downstream flows, to prevent dewatering of fish-bearing habitat.
- The Contractor shall have adequate back-up capacity for pumps and hoses in the case of a pumping failure.
- The Contractor shall adequately armour or otherwise protect the bypass discharge location must so that the channel bed is not scoured or disrupted, and the banks are not eroded.
- The Contractor is wholly responsible for developing and maintaining a bypass system in functioning condition throughout the period the watercourse will be bypassed; the site must not be allowed to flood when the Contractor is offsite (i.e., overnight and weekends).
- The Contractor is responsible for maintaining the pump system in working order and cleaning intake screens.
- The Contractor shall ensure that they have adequate bypass capacity to bypass flow for the duration of work and address contingencies such as rainfall and pump malfunction.
- Flooding of the work site due to inadequate bypass provisions is not acceptable, and daily shutdown allowing the worksite to flood is also prohibited.
- Should the Contractor's bypass system fail and this loss of bypass functionality results in an environmental incident (discharge of turbid water), then the Contractor is solely responsible for all costs associated with assessing, cleaning, mitigating, and restoring instream habitat along with costs associated with addressing the matter.
- The Contractor is responsible for penalties that may be administered under the project contract provisions along with costs and penalties associated with DFO Director's Orders or Orders by a Fisheries Officer, provincial Conservation Officer, or CoQ bylaw officers.



#### 5.1.4 Contractor's Fish Salvage Requirements

- Fish salvage will be provided by ISL. The Contractor is not required to retain a Qualified Environmental Professional (QEP) to complete fish salvages prior to instream works.
- The Contractor shall notify the EM a **minimum of 10 days** before site isolation and bypass is scheduled so that a fish salvage can occur prior to instream activities.
- The fish salvage crew will issue written confirmation to the Contractor when the fish salvage is complete.
- The Contractor must not commence instream works until fish salvage is complete.
- The Contractor is responsible for the hand removal of debris which accumulates on the isolation fish fencing.
- The Contractor must not undertake any machine work that will disturb isolation fish fencing.
- Should the Contractor damage isolation fish fencing, they are responsible for costs of replacement and reinstatement of the fencing and cost for any requisite fish re-salvage efforts by the City's QEP.

#### 5.2 Contractor's Water Quality Management Requirements

Water Quality downstream of the active work site must meet the City of Coquitlam's Stream and Drainage System Protection Bylaw Number 4403, 2013.

- Turbidity cannot exceed 25 Nephelometric Turbidity Units (NTUs) under normal weather condition or exceed 100 NTUs during and 24 hours after a Significant Rainfall Event (25 mm or greater of rainfall within 24 hours).
- pH values must remain within 6.5 to 8.0.
- Additionally, water quality must meet thresholds for styrene. As styrene is not currently listed in the BC WQG for the protection of aquatic life, the applicable water quality standard from Schedule 3.2: General Numerical Water Standards, of the British Columbia Contaminated Sites Regulation (CSR) has been adopted as a conservative benchmark for monitoring during construction. As such, onsite work practices must ensure that water discharged from the site does not exceed the **styrene concentration limit of 72 µg/L**.

#### 5.3 Contractor's Erosion and Sediment Control Requirements

Construction-related activities may generate erosion and sedimentation, especially during ground disturbance. Effective Erosion and Sediment Control (ESC) measures must be utilized for the duration of the project to prevent erosion of soils and sedimentation of watercourses and streets. The Contractor shall:

- A site-specific ESC Plan will be formulated for the project. The ESC Plan will detail ingress/egress routes, laydown and stockpiling areas, areas for trash pump water treatment and/or discharge, and the location and specifications of ESC BMPs which will be implemented during construction.



- Prior to commencement of the work the Contractor must obtain sufficient quantities of ESC materials (such as but not limited to siltsoxx, hay bales, straw wattles, polyethylene sheeting, sandbags, silt fencing, erosion control blanket, grass seed mix) to stabilize erodible surfaces and prevent sediment from migrating to ditches or offsite.
- Ensure that ESC control materials and labour required to install the materials are on-site, and available for inspection and deployment prior to the commencement of any ground disturbance.
- Stabilize all disturbed ground surfaces that may contribute sediment-laden water into sensitive fish habitats during precipitation events. Use biodegradable erosion and sediment control materials whenever possible.
- Construction must be completed in a manner that will prevent the release of sediment or sediment-laden waters into Mundy Creek, ditches, storm sewers and/or streets.
- Leave undisturbed native vegetation wherever possible.
- Complete work as quickly as possible once started.
- Maintain effective sediment and erosion control measures until revegetation of disturbed areas is achieved.
- Avoid work activities when ground becomes saturated and where possible avoid ground disturbing activities during periods of significant rainfall events (SREs). SRE's are defined as precipitation events where there is >25 mm over 24-hour period.
- Avoid tracking sediments to roads. Sweep paved roadways not less than daily, otherwise when they become fouled with sediment.
- Perimeter control measures such as silt fencing will be installed to ensure deleterious materials are not released into any of the surrounding drainages.
- Soil stockpiles are to be stabilized by covering stockpiles with 6 mm polyethylene sheeting weighted down with sandbags. Sheeting must be overlapped by minimum of 30 mm, the toe will be surrounded by a berm of sandbags, siltsoxx or an approved equivalent.
- All on-site storm water catch basins must be protected with properly installed protection, such as silt sacks (not geotextile sheath) to prevent sedimentation of the storm sewer system. Off-site catch basins near the site must also have catch basin protection installed.
- The EM will inspect ESC measures for efficacy at least once per week during periods of dry weather, with additional inspection within 24 hours of an SRE.
- Necessary repairs will be made by the Contractor immediately if any damage occurs such that erosion and sediment control is compromised during construction and when ESC deficiencies are identified by the EM.
- The EM will include inspection findings in the weekly report to the Contractor after each inspection; outlining conformance with the ESC Plan, and where there are deficiencies, identify them for immediate contractor action.
- All ESC controls must be removed prior to vacating the worksite (i.e., removing all non-biodegradable ESC materials once the site is stabilized).



## 5.4 Contractor's Requirements for Wildlife Protection and Nesting Bird Surveys

Mitigation measures for the protection of wildlife are outlined below.

- If any vegetation disturbance, including tree or shrub trimming, removal, or any other type of vegetation clearing is to take place within the regional nesting bird window (between March 1 to August 31), the EM will perform a nesting bird survey prior to vegetation disturbance activities.
- The EM will be notified a **minimum 5 days** prior to tree or shrub disturbance.
- The EM will perform a nesting bird survey prior to vegetation disturbance activities:
  - The nesting bird survey will be conducted a maximum of 48 hours prior to vegetation disturbance.
  - If an active bird nest is discovered, the EM will apply a 'no disturbance' buffer of appropriate species-specific size.
  - The no disturbance buffer will remain in place until a second survey has confirmed that the nest is no longer active.
- Any trees that harbour a Pileated Woodpecker nesting cavity, even if unoccupied, require year-round protection. Therefore, any trees proposed for removal will be inspected for the presence of such cavities prior to disturbance.
- Any chance discoveries of bird nests, wildlife denning sites, and other areas of wildlife habitation during construction will be reported to the EM. It is the Contractor's responsibility to ensure their crew are aware of their wildlife reporting responsibilities.
- The EM will be notified of any wildlife that may be encountered onsite during construction activities.
- Feeding dangerous wildlife is illegal or leaving attractants is strictly prohibited and punishable by fines under the provincial *Wildlife Act*. The Contractor's crew will not feed or handle wildlife (directly or indirectly).
- The Contractor will not conduct tree trimming, removal, or vegetation clearing until the EM has provided a Notice to Proceed.
- The Contractor shall consult with Parks regarding any replacement planting requirements associated with tree removal.
- The Contractor shall install animal proof locking garbage containers at the worksite.

## 5.5 Contractor's Vegetation and Invasive Plant Management

Existing roadways should be utilized as much as possible for site access and laydown areas to minimize vegetation disturbance, with clearing limited to the minimum area required to complete the works. The Contractor shall abide by the following:

- Avoid clearing native vegetation such as trees, woody shrubs, and/or herbaceous ground cover where possible.
- Ensure areas of work are clearly marked onsite prior to starting work (e.g., for staging, and storage).



- Immediately notify the EM for further direction if vegetation removal is required.

The Contractor shall manage their work and activities to prevent the import and offsite tracking of invasive plants and:

- Pressure wash all equipment prior to bringing it to the site to remove invasive plant material or seeds.
- Any soil and / or plant material that needs to be removed from the site will be isolated on polyethylene sheeting and covered with polyethylene sheeting that is weighted with sandbags and disposed of.
- Identify a facility that will accept invasive weeds and price haul costs appropriately.
- Inspect utilized equipment for soil and plant material prior to demobilization off-site.
- Any equipment that has had contact with invasive plants will be thoroughly cleaned to remove any plant material prior to that equipment being removed from the site.

## 5.6 Contractor's CIPP Curing Management Requirements

Styrene is a chemical component commonly found in certain resin formulations used in CIPP as a liner. It is known to be highly toxic to fish and can be passed to fish habitat through uncured or improperly handled liners. To address this risk, CIPP suppliers have developed styrene free liners. ISL has specified a requirement for a styrene free liner formulation for this Project.

However, despite the 'styrene free' label, these products may still contain trace amounts of styrene at very low concentrations. Additionally, CIPP installation processes, such as steam curing, can generate alkaline by-products that may elevate pH levels in localized areas, potentially impacting water quality. To protect the aquatic environment, it is essential to prevent any leachate or harmful byproducts from entering nearby water bodies. At a minimum, the Contractor shall implement the following procedures during CIPP installation:

- Complete CIPP installation in isolation of flowing water.
- Construct a polyethylene lined sump at the culvert outlet to capture condensate and miscellaneous debris during CIPP installation.
- Schedule curing for a period of no rain (minimum 24 hours).
- Allow the CIPP liner to cure for the minimum manufacturer specification prior to reintroduction of flow.
- Conduct a contained "first flush" of water through the culvert following the manufacturer's specified curing period and before reintroduction of flow. This initial flush is intended to remove any residual materials or byproducts, which will be captured in the polyethylene-lined sump. Flow shall not be reintroduced until the EM has collected water quality grab samples, confirming that water coming from the cured liner meets water quality guidelines as outlined in Section 6.1. The EM will also collect water samples for styrene, BTEX, and alkalinity/pH for analytical lab analysis prior to reintroduction of flow to Mundy Creek
- All water within the poly-lined sump will be pumped away for disposal. Such water shall be collected and transported to an appropriate disposal facility at the Contractor's expense. Under no circumstance will it be released to the stream channel on reintroduction of flow.



- Remove any isolated water that does not meet the water quality requirements, as directed by the EM onsite. Under no circumstances shall the contaminated water be discharged into the stream, adjacent ditches, surrounding vegetation, or CoQ drainage systems.
- Remove all condensate or miscellaneous debris from the watercourse prior to isolation and bypass removal, and the reintroduction of flows to Mundy Creek.

## 5.7 Contractor's Non-Hazardous Waste Management Requirements

The Contractor shall adhere to all applicable legislation with respect to the handling, transportation and/or disposal of all materials related to the Project. Additionally, the Contractor shall:

- Store food and food waste in such a way that it is not easily accessible by animals.
- Provide locking waste receptacles that are specifically designed to be wildlife-proof for all waste.
- Inspect waste receptacles for wildlife damage and repair or replace as necessary.
- Store trash cans in a locked container or have removed from site at the end of each day to avoid wildlife attractions.
- Not dispose of solid wastes onto the site, including sumps, streams, culverts, or road edges.
- Recycle or dispose of all solid waste at approved waste disposal facilities.
- No burning of any kind onsite.

## 5.8 Contractor's Deleterious Substances Control and Hydrocarbon Spill Management

The Contractor will be responsible for ensuring that substances that are hazardous to the environment do not enter watercourses, ditches, or environmentally sensitive areas. To prevent the discharge of deleterious substances such as oils, fuels, grease, and hydrocarbons, the Contractor is required to develop a site-specific spill response plan for the project that has the minimum conditions set out below:

- The Contractor shall prepare a Spill Response Plan (SRP) and submit it to the Contract Administrator (CA) a minimum of 14 days prior to mobilization to the site. A reference SRP is provided in **Schedule 3**. The Contractor will develop their own and provide that to the CA.
- The SRP shall include a Project Contact List. A reference Project Contact List is provided in **Schedule 2**.
- The SRP must be kept onsite for the duration of the project.
- In the event of a spill, the SRP will be implemented.
- In addition to the SRP, during the construction the Contractor will:
  - Store fuel and hydrocarbon-based lubricants in designated storage areas >30 m from streams and ditches.
  - Prevent the discharge of hydrocarbons (oil, fuels, grease, lubricants, anti-freeze), concrete, grouts, construction waste, or other deleterious substances to watercourses or the ground.



- Prevent oil, grease, or any other substance deleterious to aquatic life from entering any watercourse, ditch, or storm sewer.
- Avoid damaging buried infrastructure (**CALL BEFORE YOU DIG**).
- Include one onsite large spill kit with a minimum 220 litre sorbent capacity. The kit must include two spill booms that can be deployed across the watercourse.
- Avoid refueling within 15 m of a stream or ditch.
- Ensuring refueling attendants maintain a hand on the refueling hose at all times (i.e., ensuring attendants do not lock the hose and attend to other matters while refueling operations area underway).
- Inspect equipment and machines that are utilized onsite will be delivered to the site clean, and in good operating condition.
- Provide dedicated waste receptacles for hydrocarbons and lubricant fouled waste material, concrete, and other potentially deleterious wastes.
- Provide secondary containment for fuel and chemical containers with 125% capacity of the primary storage container.
- Deploy drip trays beneath machinery to catch drips and leaks.
- Deploy spill containment, control and clean-up materials in the event of a spill.
- Act quickly and effectively should a spill occur.
- Report per the *Environmental Management Act* – Spill Reporting Regulation (**Schedule 3**).
- Restock spill kits within 48 hours of a spill.
- Prohibit smoking near containment facilities or near fueling storage areas.
- The SRP shall be kept onsite for the duration of the project activities.
- The Contractor who is wholly responsible for costs associated with clean-up of spills originating from their equipment or work practices and with any regulatory penalties, orders or changes stemming from a spill originating from their equipment or work processes.

## 5.9 Environmental Incident Response

Effective communications regarding Environmental Incidents are important throughout the Project. A list of project contacts and external agencies related to incident reporting is provided in **Schedule 2**. The Contractor will develop a site-specific Environmental Incident Response plan and include that within their CEMP. For this project, Environmental Incidents will be defined as:

- Spills to lands exceeding reportable quantities outlined in **Schedule 4** of the Spill Reporting Regulation of the BC Environmental Management Act.
- Spill to water, or watercourse (any).
- Repeated discharges of turbid water exceeding guidelines in Section 6.1 of this EMP.
- Violation of applicable environmental legislation.
- Injury or death of wildlife as a result of project activities.



- Destruction or damage of an active bird nest.
- Other environmental issues when considered together are deemed to represent a significant risk to the environment.

If an Environmental Incident is observed by the EM, or Contractor, it must be reported via the Spill/Environmental Incident Reporting framework outlined in **Schedule 3**.

- The EM will determine if a regulatory threshold has been crossed which requires reporting to senior government agencies.
- Construction activities will cease, and the EM and the Contractor will discuss immediate and longer-term contingencies to avoid reoccurrence.
- The EM will issue an interim incident report to the Contractor on the day the incident is observed.
- The EM will provide a follow up Environmental Incident Report to the CA within one business day of the observation of the incident.
- Repeated Environmental Incidents will lead to the EM recommending to the CA a local 'shut-down' for environmental non-compliance.
- The local shutdown will not be lifted until the construction is brought into conformance with this EMP.



# SCHEDULE 1

## CONTRACTOR ENVIRONMENTAL ORIENTATION RECORD

**ISL ENVIRONMENTAL MANAGEMENT****SOP CONTRACTOR ORIENTATION RECORD**

CATEGORY: Field Services

**ISL Environmental Management - Contractor Environmental Orientation Record**

The Contractor Environmental Orientation Record (CEOR) shall be completed for all works involving an environmental component. The Environmental Monitor is responsible for ensuring that the environmental requirements of the work are reviewed with the Contractor before work is started, and that a record of the discussion is documented on the CEOR. The form must be signed by both the Environmental Monitor and the Contractor. By signing the CEOR, the Contractor indicates he/she has been advised of the environmental requirements of the project. The CEOR shall be filed with the Contract documents as required to confirm pay items, or to otherwise satisfy requirements of the contract.

Date:		File No.	
<b>1</b>	<b>Project Information</b>		
	Project Title		
	Project Description		
	Project Location		
<b>2</b>	<b>Contractor Information (if applicable)</b>		
	Company Name		
	Company Address		
	Site Contact/Representative Name		
	Tel. #	Fax #	E-mail
<b>3</b>	<b>Environmental Management Plan</b> Review the environmental issues and requirements of the work as specified in the Environmental Management Plan (EMP), Regulatory approvals or Best Management Practices (BMP)		
	Is there an EMP, CMP, BMP or Field Guide for the work?	<input type="checkbox"/> Yes	<input type="checkbox"/> NA
	Have the environmental requirements been reviewed with the Contractor and the Contractor's staff? (Use the checklist below to guide discussion)	<input type="checkbox"/> Yes	<input type="checkbox"/> NA
	<b>Environmental Issues</b>	<b>Environmental Management Plan Requirements</b>	<b>Discussed</b> <b>NA</b>
	Fish and Aquatic - habitat alteration, disturbance or loss		<input type="checkbox"/> <input type="checkbox"/>
	Site isolation & Bypass		<input type="checkbox"/> <input type="checkbox"/>
	Instream footprint mitigation		<input type="checkbox"/> <input type="checkbox"/>
	Riparian footprint mitigation (Vegetation disturbance or removal and mitigation)		<input type="checkbox"/> <input type="checkbox"/>
	Noxious weed control		<input type="checkbox"/> <input type="checkbox"/>
	Wildlife and Bird - habitat alteration, disturbance or loss		<input type="checkbox"/> <input type="checkbox"/>
	Soil erosion/compaction Water quality - erosion and siltation		<input type="checkbox"/> <input type="checkbox"/>
	Disturbance to Heritage Resources/Archaeological Sites		<input type="checkbox"/> <input type="checkbox"/>
	Noise Concerns		<input type="checkbox"/> <input type="checkbox"/>
	Hazardous waste (garbage)		<input type="checkbox"/> <input type="checkbox"/>

**ISL ENVIRONMENTAL MANAGEMENT**  
**SOP CONTRACTOR ORIENTATION RECORD**



**CATEGORY: Field Services**

Environmental Issues	Environmental Protection Requirements	Discussed	NA
Air emissions/ dust generation/other		<input type="checkbox"/>	<input type="checkbox"/>
Generation and disposal of waste (litter, latrine)		<input type="checkbox"/>	<input type="checkbox"/>
Fuel and flammable storage		<input type="checkbox"/>	<input type="checkbox"/>
Fuel-Spill of Spill of hazardous substances		<input type="checkbox"/>	<input type="checkbox"/>
Generation and disposal of hazardous substances		<input type="checkbox"/>	<input type="checkbox"/>
Property Considerations		<input type="checkbox"/>	<input type="checkbox"/>
Do the tools and equipment meet the requirements?		<input type="checkbox"/>	<input type="checkbox"/>
<b>Permits and Approvals Information:</b> Ensure the necessary environmental permits and approvals relating to the work have been obtained prior to starting work.			
Are environmental notification, permits, licenses or approvals required?		<input type="checkbox"/> Yes	<input type="checkbox"/> NA
List applicable regulatory requirements and permit reference numbers.			
Have the permits, licenses and approvals obtained and/or checked?		<input type="checkbox"/> Yes	<input type="checkbox"/> NA
<b>Emergency Response Plan/Oil and Chemical Spill Response Plan</b>			
Has the Oil and Chemical Spill Response Plan been discussed?		<input type="checkbox"/> Yes	<input type="checkbox"/> NA
Are there spill kits available on location?		<input type="checkbox"/> Yes	<input type="checkbox"/> NA
Where are the spill kits located?		<input type="checkbox"/> Yes	<input type="checkbox"/> NA
Does the contractor have an Emergency Response Plan? Has it been discussed?			
<b>Environmental Incident Reporting</b>			
Environmental Incident Reporting Procedures discussed?		<input type="checkbox"/> Yes	<input type="checkbox"/> NA

***The undersigned has been briefed on the environmental requirements of the work as detailed above.***

Signed: \_\_\_\_\_ Contractor Foreman      Date: \_\_\_\_\_

Counter-signed: \_\_\_\_\_ Environmental Monitor      Date: \_\_\_\_\_

**Additional Comments:**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



# SCHEDULE 2

## PROJECT CONTACT LIST



## Project Contact List

CONTACT	OFFICE	CELL	EMAIL
<b>Contractor</b> <b>Superintendent</b>	TBD	TBD	TBD
<b>Contractor</b> <b>Foreman</b>	TBD	TBD	TBD
<b>City of Abbotsford</b> <b>Project Contact</b>	TBD	TBD	TBD
<b>Tanveer Singh Bhandal, P.Eng.</b> <b>ISL</b> <b>Project Manager</b>	604-371-0091	TBD	<a href="mailto:tbhandal@islengineering.com">tbhandal@islengineering.com</a>
<b>Contract Administrator</b>	TBD	TBD	TBD
<b>ISL</b> <b>Environmental Monitor</b>	TBD	TBD	TBD
<b>EMERGENCY MANAGEMENT BC</b> <b>Spill Reporting</b>	<b>1-800-663-3456</b>	-	<a href="mailto:SpillReports@gov.bc.ca">SpillReports@gov.bc.ca</a>
<b>Report All Poachers and Polluters</b> <b>(RAPP)</b>	<b>1-877-952-7277</b>	-	<a href="https://forms.gov.bc.ca/environment/rapp/">https://forms.gov.bc.ca/environment/rapp/</a>
<b>Fisheries and Oceans Canada</b>	<b>1-800-465-4336</b>	-	-
<b>Ministry of Water, Land and Resource Stewardship</b>	<b>1-800-663-7867</b>	-	-
<b>BC ONE CALL</b>	<b>1-800-474-6886</b>		<a href="mailto:info@bc1c.ca">info@bc1c.ca</a>



# SCHEDULE 3

## REFERENCE SPILL/INCIDENT RESPONSE PLAN



## Reference Spill Response Procedures

If a spill of fuel, oils, lubricants or other harmful substances occurs at the site, the following procedures will be implemented.

<p>Spill Response Steps</p> <ol style="list-style-type: none"> <li>1. <b>ENSURE SAFETY</b></li> <li>2. <b>STOP THE FLOW</b> (when possible)</li> <li>3. <b>SECURE THE AREA</b></li> <li>4. <b>CONTAIN THE SPILL</b></li> <li>5. <b>NOTIFY/REPORT</b> (PEP 1-800-663-3456)</li> <li>6. <b>CLEAN-UP</b></li> </ol> <p>(Circumstances may dictate another sequence of events)</p>
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### 1. ENSURE SAFETY

- Ensure Personal, Public, and Environmental Safety
- Wear appropriate Personal Protective Equipment (PPE)
- Never rush in, always determine the product spilled before taking action
- Warn people in immediate vicinity
- Ensure **no ignition sources** if spill is of a flammable material

### 2. STOP THE FLOW (when possible)

- Act quickly to reduce the risk of environmental effects
- Close valves, shut off pumps or plug holes/leaks, set containers upright
- Stop the flow of the spill at its source

### 3. SECURE THE AREA

- Limit access to spill area
- Prevent unauthorized entry onto site

### 4. CONTAIN THE SPILL

- Block off and protect ditches, drains and culverts
- Prevent spilled material from entering drainage structures (ditches, culverts, drains)
- Use spill sorbent material to contain spill
- If necessary, use a dike, berm or any other method to prevent any discharge off site
- Make every effort to minimize contamination
- Contain as close to the source as possible

### 5. NOTIFY/REPORT

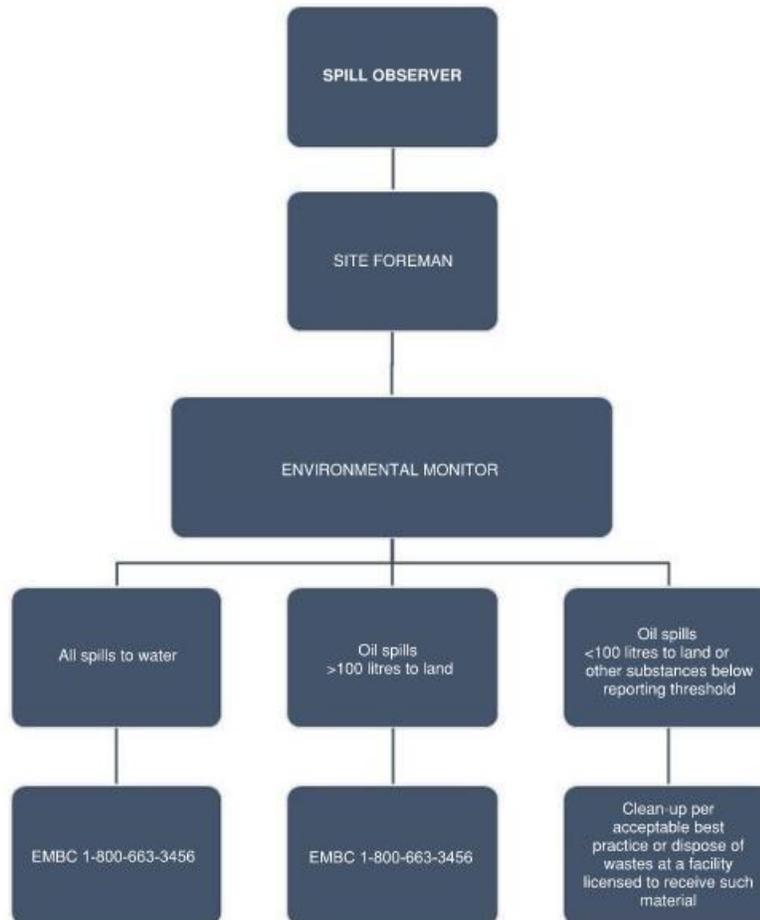
- Notify Site Supervisor and EM (or alternate) of incident (provide spill details)
- When necessary, the first external call should be made to (see spill reporting requirements):

#### **Emergency Management BC (EMBC) 1-800-663-3456 (24 hours)**

- Provide necessary spill details to other external agencies (see spill reporting requirements)



### Spill Reporting Notification Chart





# SCHEDULE 4

## SPILL REPORTING REGULATION LIST OF REPORTABLE QUANTITIES



### SPILL REPORTABLE QUANTITIES

Should there be a spill of materials or products that exceed the thresholds in the table below, the EM will report to Emergency Management BC per the Spill Reporting Regulation. An Environmental Incident will be deemed to have occurred and the procedures set out in Section 6.11 and in Schedule 3 will be instituted.

Substances as defined in the Federal Regulations or Hazardous Waste Regulation (HWR)	Quantity
Class 1, Explosives as defined in section 2.9	≤50 kg, if the substance poses a danger to public safety
Class 2.1, Flammable Gases, other than natural gas, as defined in section 2.14 (a)	10 kg
Class 2.2 Non-flammable and Non-toxic Gases as defined in section 2.14 (b)	10 kg
Class 2.3, Toxic Gases as defined in section 2.14(c)	5 kg
Class 3, Flammable Liquids as defined in section 2.18	100 L
Class 4, Flammable Solids as defined in section 2.20	25 kg
Class 5.1, Oxidizing Substances as defined in section 2.24 (a)	50 kg or 50 L
Class 5.2, Organic Peroxides as defined in section 2.24 (b)	1 kg or 1 L
Class 6.1, Toxic Substances as defined in section 2.27 (a)	5 kg or 5 L
Class 8, Corrosives as defined in section 2.40	5 kg or 5 L
Class 9, Miscellaneous Products, Substances or organisms as defined in section 2.43	25 kg or 25 L
Leachable toxic waste as defined in section 1 of the HWR	25 kg or 25 L
Waste containing PAH's as defined in section 1 of the HWR	5 kg or 5 L
Waste asbestos as defined in section 1 of the HWR	50 kg
Waste oil as defined in section 1 of the HWR	100 L
Waste that contains a pest control product as defined in section 1 of the WWR	5 kg or 5 L
PCB wastes as defined in section 1 of the HWR	25 kg or 25 L

Notwithstanding the reportable quantities list above, all spills to water are reportable.