



CITY OF COURTENAY

TENDER T21-11

Millard /Sandpiper Watermain Upgrade

**Master Municipal Construction Documents (2009 Edition)
Unit Price Contract**

Issued: March 2021

Tender Closing Date: March 31, 2021, 2:00 PM Local Time

Table of Contents

The complete **Contract Documents** consist of the following parts:

1. The Master Municipal Construction Documents (Tender Package) consisting of the following parts (included in this tender package):
 - Invitation to Tender
 - Instructions to Tenderers, Part I
 - Form of Tender
 - Appendix 1 – Schedule of Quantities and Prices
 - Appendix 2 – Preliminary Construction Schedule
 - Appendix 3 – Experience of Superintendent
 - Appendix 4 – Comparable Work Experience
 - Appendix 5 – Subcontractors
 - Appendix 6 – Tenderers Current Projects Underway
 - Appendix 7 - Prime Contractor Designation Agreement
 - Draft Agreement
 - Schedule 1 – Schedule of Contract Documents
 - Schedule 2 – List of Contract Detail Drawings
 - Supplementary General Conditions
 - Supplementary Specifications
 - City of Courtenay Standard Construction Supplementary Specifications
 - Reference Information
 - Geotechnical Assessment
 - Appendix A- Archaeological Site Alteration Permit
2. The balance of the Master Municipal Construction Documents, Platinum, latest edition including supplemental updates. These documents are available in the “MMCD – General Conditions, Specifications and Standard Detail Drawings” (**not distributed in the tender package**):
 - Instructions to Tenderers, Part II
 - General Conditions
 - Technical Specifications
 - Standard Detail Drawings



Invitation to Tender

Tender T21-11 Sandpiper Millard Watermain Upgrade

The City of Courtenay invites Tenders for T21-11, Sandpiper Millard Watermain Upgrade. The work will include the following:

Installation of new watermain within archaeologically sensitive areas. Work will generally include:

Part A

- Pre-excavation of watermain and servicing trenching in archeological sensitive area (approximately 300 m of trenching)

Part B

- Installation of approximately 230 m of 200 mm watermain
- Connection of existing services to new watermain
- Disconnect and cap existing AC watermain on Millard Avenue and Sandpiper Drive, install hydrants

Tender documents are available for downloading from BC Bid at www.bcbid.gov.bc.ca and the City's website www.courtenay.ca/bids.

Sealed tenders submitted must be accompanied by the specified Bid Bond and will be received at the location stated below, **on or before 2:00 p.m., March 31st, 2021**

City of Courtenay
830 Cliffe Avenue
Courtenay, B.C. V9N 2J7

Due to the COVID19 virus pandemic, the City of Courtenay's Tender Submission Procedure has changed as follows.

- a) Tender submissions will be received at City Hall 830 Cliffe Ave. Courtenay via a mail slot at the front door main entrance. If the package is too large for the mail slot, knock on main entrance front door and a staff person will open the door and provide guidance for delivery of the submission package.
- b) Tender submissions will not be opened in public. All packages and mail received by the City remain in a secure location for 24 hours prior to opening to minimize COVID19 virus exposure.

- c) Tenderers will be notified of the unofficial tender submission results within 48 hours of the tender closing date and time. Tender results will be forwarded to all participants by email unless otherwise requested.

Tenderers are required to periodically check the BC Bid website or City of Courtenay website for any updated information and Addenda issued before the Closing Date.

Any changes to the Tender documentation or clarifications will be issued by means of written Addenda and posted on the BC Bid and City of Courtenay websites and will form part of the Tender.

The City does not retain a bidder's list or bidder's registry. Tenderers are encouraged to register as plan takers and view the Tender documents and drawings by contacting the Vancouver Island Construction Association: website: www.vicabc.com.

Should there be any discrepancy in the information provided the City's original file copy will prevail.

All enquiries are to be submitted in writing by email, **no later than 3 days prior to the Tender Closing Time** and quoting the Tender Name and Number to:

Email: purchasing@courtenay.ca

Tenders shall remain open for a period of 90 days following the Tender 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 Invitation to Tender at any time without recourse by the Tenderer. The City will not under any circumstance be responsible for any costs incurred by the Tenderer in preparing the Tender.

Graham Peterson,
Procurement Specialist
City of Courtenay

**INSTRUCTIONS TO TENDERERS
PART I**

TABLE OF CONTENTS		Page
1	Introduction	IT 2
2	Tender Documents.....	IT 3
3	Submission of Tenders	IT 3
4	Additional Instructions to Tenderers	IT 4

Instructions to Tenderers - Part I

(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.)

(TO BE READ WITH "INSTRUCTIONS TO TENDERERS - PART II" CONTAINED IN THE EDITION OF THE PUBLICATION "MASTER MUNICIPAL CONSTRUCTION DOCUMENTS" SPECIFIED IN ARTICLE 2.2 BELOW)

Owner: CITY OF COURTENAY
Contract: Sandpiper Millard Watermain Upgrade
Reference No. TENDER T21-11

- 1 Introduction** 1.1 These Instructions apply to and govern the preparation of tenders for this *Contract*. The *Contract* is generally for the following work:

Part A

- Pre-excavation of watermain and servicing trenching in archeological sensitive area (approximately 300 m of trenching) per Contract Drawing C-201

Part B

- Installation of approximately 230 m of 200 mm watermain,
- Connection of existing services to new watermain
- Disconnect and cap existing AC watermain on Millard Avenue and Sandpiper Drive, install hydrants

- 1.2 Direct all inquiries regarding the *Contract*, to:

Contact: Graham Peterson,
City of Courtenay
Purchasing Division
Address: 830 Cliffe Avenue,
Courtenay, B.C. V9N 2J7
Email: purchasing@courtenay.ca

-
- | | | | |
|----------|------------------------------|-----|---|
| 2 | Tender Documents | 2.1 | <p>The tender documents which a tenderer should review to prepare a tender consist of all of the <i>Contract Documents</i> 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 <i>Contract Documents</i> include the drawings listed in Schedule 2 to the Agreement, entitled “List of <i>Contract Drawings</i>”.</p> |
| | | 2.2 | <p><u>A portion of the <i>Contract Documents</i> are included by reference. Copies of these documents have not been included with the tender package.</u> These documents are the Instructions to Tenderers - Part II, General Conditions, Specifications and Standard Detail Drawings 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 <i>Tender Closing Date</i>. <u>All sections of this publication are by reference included in the <i>Contract Documents</i>.</u></p> |
| | | 2.3 | <p>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 <i>Contract Documents</i>. Such additional information is made available only for the assistance of tenderers who must make their own judgement about its reliability, accuracy, completeness and relevance to the <i>Contract</i>, 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.</p> |
| 3 | Submission of Tenders | 3.1 | <p>Tenders must be submitted in a sealed envelope, marked on the outside with the above <i>Contract</i> Title and Reference No., and must be received on or before:</p> <p><i>Tender Closing Time:</i> 2:00 p.m. local time</p> <p><i>Tender Closing Date:</i> March 31, 2021</p> <p><i>Delivered to:</i> City of Courtenay
c/o Purchasing Division
830 Cliffe Avenue,
Courtenay, B.C. V9N 2J7</p> |
-

3.2 Late tenders will not be accepted or considered, and will be returned unopened.

3.3 Tender Submission

a. Tenders **must** be submitted on the tender forms included in these tender documents. The addition to or changing of any words in these tender forms by the Tenderer or the failure to comply with and complete all items may be cause for rejection without consideration of the tender submission.

b. The tender submission **must** include acknowledgement of receipt of all issued addenda.

c. The tender submission **must** include the specified financial security, in the form of a Bid Security as required in Section 5.2 of the Instructions to Tenderers Part II.

d. The Form of Tender **must** bear the signature of a legal signing authority of the Tenderer.

e. Other than the acknowledgement of receipt of addenda, or request for withdrawal or revision, documents submitted as part of a tender **will not be considered** if received by any of the Owner's facsimile machines or by email.

f. Except as expressly and specifically permitted in these Instructions to Tenderers, no Tenderers shall have any claim for any compensation of any kind whatsoever, as a result of participating in the tender, and by submitting a bid, each Tenderer shall be deemed to have agreed that it has no claim.

4 Additional Instructions to Tenderers

4.1 The Owner is subject to the provisions of the Freedom of Information and Protection of Privacy Act. As a result, while Section 21 of the Act does offer some protection for third party business interests, the Owner cannot guarantee that any information provided to the Owner can be held in confidence. All tenders, after closing time and date become the property of the City of Courtenay.

4.2 The Owner shall not be liable for a Tenderer's cost of submitting a tender.

4.3 A Non-mandatory Site Meeting will be held for this project. The site meeting will be held on **March 17th at 10 am**. The meeting location will be on Millard Road.

- 4.4 Acceptance of the Tender is subject to budget approval and/or City of Courtenay Council approval, and/or the approval of jurisdictions having authority. Budget approval for this project is anticipated in May 2021.
- 4.5 Work on the Owner's property shall be carried out subject to City of Courtenay Bylaw No. 2804 – Prevention of Public Nuisances, unless other arrangements are made between the Owner and the Tenderer, and agreed to in writing.
- 4.6 The Owner requires that the Work under this Contract be completed as quickly as possible after the Contract award, and that *Substantial Performance* of this Contract to be achieved by September 30th, 2021.
- 4.7 The Owner anticipates Contract Award to be the end of May 2021. Notwithstanding this, the Owner has 90 days from the Tender Closing Date to Award the Contract.
- 4.9 All construction activities including establishing lay down areas must be within existing City Right-of-Ways and Statutory Right-of-Way limits as shown on Contract Drawings, unless alternate arrangements have been made by the Contractor with private property owners. The Contractor agrees to absolve the City of all liabilities relating to the use of the lay down areas by Contractor. The Contractor shall mitigate and resolve any disputes with private property owners as a result of the use of the lay down areas by the Contractor.
- 4.10 Specific construction schedule requirements for the Contract are provided in SGC 4.6.
- 4.11 The Contractor is advised that the project location is within a known archeological site. SGC 27.1 and Appendix A provide requirements during construction.
-

FORM OF TENDER

Owner: City of Courtenay
Contract: Millard/Sandpiper Watermain Upgrade
Reference No. Tender T21-11

TO OWNER:

1 WE, THE UNDERSIGNED:

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

_____;

(ADDENDA NUMBER AND TITLE, IF ANY)

1.2 have full knowledge of the *Place of the Work*, and the *Work* required; and

1.3 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, 2021**, and *Total Performance* of the *Work* on or before **October 30, 2021**.

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 Lump Sums set out in Appendix I, the "*Schedule of Quantities and Prices*", provided by the *Contract Documents*. For the purposes of tender comparison, our offer to complete the *Work* for the *Tender Price* as set out in Appendix I of this Form of Tender. Our *Tender Price* is based on estimated quantities listed in the *Schedule of Quantities and Prices*, and excludes GST.

Tenderer's Initials _____

Owner's Initials _____

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.

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.

5 WE AGREE:

- 5.1 that this tender will be irrevocable and open for acceptance by the *Owner* for a period of **90 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 5 *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*, covering the performance of the *Work* including the *Contractor's* obligations during the *Maintenance Period*, 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*; and
- b) a "clearance letter" indicating that the Tenderer is in WorkSafe BC compliance; and
- c) a copy of the insurance policies as specified in GC 24 indicating that all such insurance coverage is in place; and

Tenderer's Initials _____

Owner's Initials _____

- d) a copy of a current City of Courtenay business license or a Mid-Island inter-municipal business license; and
- e) a copy of the Tenderers safety program as specified by Supplementary General Condition 4.2.2.

5.1.2 within 10 *Days* of receipt of written "*Notice to Proceed*", or such longer time as may be otherwise specified in the *Notice to Proceed*:

- a) commence the *Work*; and
- b) sign the *Contract Documents* as required by GC 2.1.2.

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 WE DECLARE THAT:

Tenderer's Initials _____

Owner's Initials _____

- 7.1 no person, firm or company other than the undersigned, has any interest in this tender or in the proposed Contract for which this tender is made;
- 7.2 this tender is made without any connection, knowledge, comparison of figures, or agreement with any other company, firm or person making a tender for the same work.
- 7.3 in tendering for this work, and when called upon to enter into an agreement, the Owner, we will be bound to comply with all laws, statutes, and municipal bylaws pertaining to the Work. The agreement will be governed by the laws of the province of British Columbia.
- 7.4 in submitting this tender, we did not rely upon any information provided by the Owner, or any of the Owner's employees or agents, relating to the conditions, contingencies, risks or other circumstances, local or otherwise, which might influence or affect the performance or the cost of the Work, including, without limiting the nature of the ground, subsoil, substrata of the work site, the means of access to the work site, the quality, quantity, nature or location of the materials to be furnished or removed in performance of the Work, and the conditions under which the labour force will be employed, except the extent that any such information is expressly set forth in the *Contract Documents*. We have relied on our own examination of the work site and have informed ourselves as to all conditions, contingencies, risks, and circumstances, local or otherwise, which might influence or affect the performance or the cost of the Work. We accept the site prior to the signing of the Contract, or the discovery of archaeological material.

8

WE AGREE:

- 8.1 The Work shall be complete by September 30, 2021 as the designated *Substantial Performance Date* and completed entirely by October 30, 2021 as the designated *Total Performance Date*.
- 8.2 There shall be no exclusion of time from the Designated Completion Period for any reason other than delays clearly attributable to the Owner, its agents, employees or any authorized representatives.

Tenderer's Initials _____

Owner's Initials _____

9 WE DECLARE THAT:

- 9.1 We recognize that the lowest or any tender will not necessarily be accepted.
- 9.2 We recognize that the Owner reserves the right to reject all tenders or to accept the tender which best suits its long-term objectives; and we recognize the Owner reserves the right to accept or reject all or part of this Tender at any time during the period specified by paragraph 5.1 of this Form of Tender.

10 WE DECLARE THAT:

- 10.1 We do not (or any related company) have any family, ownership, and operating relationships with the City of Courtenay, or any elected official, staff or other officials holding public office in the City of Courtenay and agree that the Owner reserves the right to reject any tender that may be perceived to be in a conflict of interest.

11 WE DECLARE THAT:

- 11.1 The Tenderer has not:
- (a) had a bid bond or performance bond retained or claimed against.
 - (b) breached a contract for works or services with the Owner or other Public Authority in British Columbia.
 - (c) been engaged in a legal action against the Owner or other Public Authority in British Columbia, or the elected or appointed officers and employees of the Owner or the Public Authority, in relation to:
 - any other contract for works or services
 - any matter arising from the exercise of the Owner's or other Public Authority's powers, duties or functions under the Community Charter, Local Government Act or other enactment.
 - (d) been charged or convicted of an offence in relation to the performance of a contract for works or services with the Owner or other Public Authority.

Tenderer's Initials _____

Owner's Initials _____

within five years of the closing date of this Tender.

- 11.2 Tenderers who are unable to truthfully complete this declaration must provide full particulars of the relevant circumstances. Submission of a false declaration is grounds for rejection of a tender.

OUR ADDRESS is as follows:

Phone: ____ - ____

Fax: ____ - ____

Email: _____

Attention: _____

This Tender is executed this ____ day of _____, 20 ____.

Tenderer:

FULL LEGAL NAME OF CORPORATION, PARTNERSHIP
OR INDIVIDUAL

AUTHORIZED SIGNATOR

Tenderer's Initials _____

Owner's Initials _____

Appendix 1

SCHEDULE OF QUANTITIES AND PRICES

(See paragraph 5.3.1 of the Instructions to Tenderers - Part II)

(All prices and *Quotations* including the *Contract Price* shall include all *Taxes*, but shall not include *GST*. *GST* shall be shown separately.)

Summary Sheet

PART A Subtotal \$ _____

PART B Subtotal \$ _____

SUBTOTAL PRICE (PART A + B) \$ _____

GST \$ _____

TENDER PRICE PLUS GST \$ _____

Tenderer's Initials _____

Owner's Initials _____

SCHEDULE OF QUANTITIES & PRICES						
<i>Section</i>	<i>Para</i>		<i>Unit</i>	<i>Quantity</i>	<i>Unit Price</i>	<i>Amount</i>
PART A						
01 53 01		Temporary Facilities				
	SS-1.9.1	Mobilization	Lump Sum	1		
32 12 16		Hot-Mix Asphalt Concrete Paving				
	1.5.7	Saw Cut Asphalt	Lineal Metres	320		
31 11 01		Clearing and Grubbing				
	SS-1.4.2	Clearing and Grubbing	Lump Sum	1		
31 23 01		Excavating, Trenching and Backfilling				
	SS-1.10.9	Disposal of Unsuitable Material including asphalt	Cubic Meters	725		
	SS-1.10.10	Rate for On-site Crew	Hours	80		
	SS-1.10.11	Utility Pole Support for Excavation	Days	2		
	SS-1.10.12	Supply and Stockpile Imported Material	Cubic Meters	700		
					Sub Total	
PART B						
01 53 01		Temporary Facilities				
	SS-1.9.1	Demobilization	Lump Sum	1		
03 30 20		Concrete Walks, Curb And Gutter				
	1.4.5	Concrete Driveway Restoration - 150 mm thickness	Square Metre	20		
31 22 16,2		Reshaping Existing Subgrade				
	1.4.2	Replacement of Unsuitable Subgrade- (Optional)	Cubic Metre	25		
31 23 01		Excavating, Trenching and Backfilling				
	1.10.4	Removal and Disposal of AC watermain	Lineal Metre	9		
32 11 16.1		Granular Subbase				
	1.4.2	Replacement of Unsuitable Subbase - 230 mm thickness (Optional)	Square Metre	50		
31 24 13		Granular Base				
	1.4.2	Gravel shoulder (0.5 m wide) - 20 mm base	Square Metre	75		
	1.4.2	Restore gravel driveways / Parking Area (150 mm)	Square Metre	80		
	1.4.2	Granular Base 75 mm thickness (Optional Item)	Square Metre	155		
32 12 16		Hot-Mix Asphalt Concrete Paving				
	SS-1.5.1, 1.5.2	Asphalt Pavement Roadway - 50 mm	Square Meters	370		
	SS-1.5.1, 1.5.2	Asphalt Pavement Roadway - 50 mm (Optional Item)	Square Meters	155		
	SS-1.5.1, 1.5.2	Asphalt Pavement Driveway Restoration - 50 mm	Square Meters	35		
	1.5.7	Saw Cut Asphalt at Centreline of Road (Optional Item)	Lineal Metres	230		

Tenderer's Initials _____

Owner's Initials _____

32 12 16		Hydraulic Seeding				
	1.8.2	Hydraulic Seeding	Square Meters	300		
33 11 01		Waterworks				
	1.8.1, 1.8.2	Watermain PVC 200 mm diameter, Imported Backfill	Lineal Metres	230		
	1.8.3	In-line Gate Valves 200 mm	Each	1		
	1.8.3	Bend 200 mm diameter 22.5 Degree of Bend	Each	4		
	1.8.3	Bend 200 mm diameter 45 Degree of Bend	Each	1		
	1.8.3	Cap 150 mm diameter	Each	2		
	1.8.4	Water Service Connections 25 mm dia. per CSSD Drawing W2c	Each	7		
	1.8.4	Water Service Connections 50 mm dia. per Standard Drawings W2d	Each	1		
	SS-1.8.14	Hydrant Assembly including system tie ins	Each	2		
	SS-1.8.13	Tie-in at 0+00	Lump Sum	1		
				Sub Total		
				Total		
				GST		
				GRAND TOTAL	\$	

Tenderer's Initials _____

Owner's Initials _____

Appendix 3

EXPERIENCE OF SUPERINTENDENT

(See paragraph 5.3.3 of the Instructions to Tenderers - Part II)

Name: _____

Dates: _____

Project
Name: _____

Responsibility: _____

References: _____

Dates: _____

Project Name: _____

Responsibility: _____

References: _____

Dates: _____

Project Name: _____

Responsibility: _____

References: _____

Tenderer's Initials _____

Owner's Initials _____

Appendix 4

COMPARABLE WORK EXPERIENCE

(See paragraph 5.3.4 of the Instructions to Tenderers - Part II)

PROJECT	OWNER/ CONTRACT NAME	PHONE NUMBER	WORK DESCRIPTION	VALUE (\$)

Tenderer's Initials _____

Owner's Initials _____

Appendix 5

SUBCONTRACTORS

(See paragraph 5.3.5 of the Instructions to Tenderers - Part II)

TENDER ITEM	TRADE	SUBCONTRACTOR NAME	PHONE NUMBER

Tenderer's Initials _____

Owner's Initials _____

Appendix 6

TENDERER'S CURRENT PROJECT UNDERWAY

PROJECT	OWNER/ CONTACT NAME	PHONE NUMBER	WORK DESCRIPTION	VALUE (\$)	% COMPLETE

Tenderer's Initials _____

Owner's Initials _____

Appendix 7

PRIME CONTRACTOR DESIGNATION

PROJECT TITLE: Millard/ Sandpiper Watermain Upgrade
WORK DESCRIPTION: Installation of 230 m of 200mm Watermain
LOCATION: Courtenay, B.C.
OWNER: City of Courtenay

This declaration is a WorkSafe BC (formally WCB) requirement for work on City-owned properties, projects, and developments.

As per the requirements of the Workers' Compensation Act Part 3, Division 3, Section 118 (1-3) which states:

Coordination of multiple-employer workplaces

118 (1) In this section:

“**multiple-employer workplace**” means a workplace where workers of 2 or more employers are working at the same time:

“**prime contractor**” means in relation to a multiple-employer workplace:

- (a) the directing Contractor, employer or other person who enters into a written Agreement with the Owner of that workplace to be the Prime Contractor for the purposes of this Part, or;
 - (b) if there is no Agreement referred to in paragraph (a), the Owner of the workplace.
- (2) The Prime Contractor of a multiple-employer workplace must:
- (a) ensure that the activities of employers, workers and other persons at the workplace relating to occupational health and safety are coordinated, and;
 - (b) do everything that is reasonably practicable to establish and maintain a system or process that will ensure compliance with this Part and the regulation in respect to the workplace.
- (3) Each employer of workers at a multiple-employer workplace must give to the Prime Contractor the name of the person the employer has designated to supervise the employer's workers at that workplace.

By signing this Agreement, the undersigned accepts all responsibilities of a Prime Contractor as outlined in the Workers' Compensation Act, and WorkSafe BC (OH&S Regulation).

As a Contractor signing this Agreement with the City, you are agreeing that your company, management staff, supervisory staff and workers will comply with the Work Safe B.C. Occupational Health and Safety Regulations OH&S Regulations and the Workers' Compensation (WC) Act.

Tenderer's Initials _____

Owner's Initials _____

Any penalties, sanctions or additional costs levied against the City, as a result of the actions of the Prime Contractor are the responsibility of the Prime Contractor.

I, the undersigned, acknowledge having read and understand the information above. By signing this Agreement, I agree as a representative of the firm noted below, to accept all responsibilities of the Prime Contractor for this project.

I fully understand and accept the responsibilities of the Prime Contractor designation in accordance with the Workers' Compensation Act for all work on City-owned property; as described above, and will abide by all WorkSafe BC Regulation requirements.

WorkSafe BC *Notice of Project No.* (if applicable): _____

Company: _____

Signed: _____

Date: _____
(Authorized Signatory)

Tenderer's Initials _____

Owner's Initials _____

AGREEMENT
BETWEEN OWNER AND CONTRACTOR

THIS AGREEMENT made in duplicate this ____ day of _____, 2021.

Contract: Sandpiper Millard Watermain Upgrade

Reference No. Tender T21-11

BETWEEN:

CITY OF COURTENAY

(the "Owner")

AND:

(the "Contractor")

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

ARTICLE 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, 2021** and achieve *Total Performance* of the *Work* on or before October 30, 2021 subject to the provisions of the *Contract Documents* for adjustments to the *Contract Time*.
- 1.3 Time shall be of the essence of the *Contract*.

ARTICLE 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*.

ARTICLE 3 CONTRACT PRICE

- 3.1 The price for the *Work* ("*Contract Price*") shall be the sum in Canadian dollars of the following:
- 3.1.1 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
 - 3.1.2 all lump sums, if any, as listed in the *Schedule of Quantities and Prices*, for items relating to or incorporated into the *Work*; plus
 - 3.1.3 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*.

ARTICLE 4 PAYMENT

- 4.1 Subject to applicable legislation and the provisions of the *Contract Documents*, the *Owner* shall make payments to the *Contractor*.

ARTICLE 5 RIGHTS AND REMEDIES

- 5.1 The duties and obligations imposed by the *Contract Documents* and the rights and remedies available thereunder 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*.
-

ARTICLE 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 hand, or by email to the addresses as set out below:

The *Owner*: City of Courtenay
830 Cliffe Avenue,
Courtenay, B.C. V9N 2J7
Fax: 250-334-4241
Chris Davidson, Director of Engineering

The *Contractor*:

The *Contract Administrator*:

McElhanney Ltd.
1211 Ryan Road
Courtenay, B.C. V9N 3R6
Chantal Richard, P.Eng.

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

6.2.1 immediately upon delivery, if delivered by hand; or

6.2.2 immediately upon transmission if sent and received by fax; or

6.2.3 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*.

6.4 The sender of a notice by fax assumes all risk that the fax will be received properly, and the provisions of paragraph 12.5 of the Instructions to Tenderers apply to the sender.

ARTICLE 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 ensure 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:

(AUTHORIZED SIGNATORY)

(AUTHORIZED SIGNATORY)

Owner:

CITY OF COURTENAY

(AUTHORIZED SIGNATORY)

(AUTHORIZED SIGNATORY)

Schedule 1

Schedule of Contract Documents

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”, 2009 Platinum edition. Including all Supplemental Updates as published at mmcd.net. All sections of this publication are included in the *Contract Documents*.

- 1 Agreement, including all Schedules;
 - 2 General Conditions*;
 - 3 Supplementary General Conditions;
 - 4 Specifications*;
 - 5 Supplementary Specifications;
 - 6 City of Courtenay Standard Construction Supplementary Specifications;
 - 7 MoTI Standard Specifications for Highway Construction (Volume I & II);
 - 8 Standard Detail Drawings*;
 - 9 Supplementary Standard Detail Drawings;
 - 10 Executed Form of Tender, including all Appendices;
 - 11 *Contract Drawings* listed in Schedule 2 to the Agreement - “List of *Contract Drawings*”;
 - 12 Appendices;
 - 13 Instructions To Tenderers - Part I;
 - 14 Instructions to Tenderers - Part II*;
 - 15 The following Addenda: _____
-

Schedule 2

List of Contract Drawings

(Complete listing of all drawings, plans and sketches which are to form a part of this Contract, other than Standard Detail Drawings and Supplementary Standard Detail Drawings.)

TITLE	DRAWING NO.	DATE	REVISION DATE	REVISION NO.
Cover				
Overall Plan	C-001	Feb 24, 2021		0
Millard Road Plan and Profile	C-101	Feb 24, 2021		0
Sandpiper Drive Plan and Profile	C-102	Feb 24, 2021		0
Sandpiper NW & NE Plan and Profiles	C-103	Feb 24, 2021		0
Pre-excavation Plan	C-201	Feb 24, 2021		0
Miscellaneous Details	C-301	Feb 24, 2021		0

SUPPLEMENTARY GENERAL CONDITIONS

(TO BE READ WITH "GENERAL CONDITIONS" CONTAINED IN THE 2009 PLATINUM EDITION OF THE PUBLICATION "MASTER MUNICIPAL CONSTRUCTION DOCUMENTS")

TABLE OF CONTENTS

Sec.	Description	Page
1	Definitions.....	2
2	Documents.....	2
3	Contract Administrator.....	3
4	Contractor.....	3
6	Other Contractors.....	5
7	Changes.....	5
9	Valuation of Changes and Extra Work.....	5
10	Force Account.....	6
12	Hazardous Material.....	6
13	Delays.....	6
17	Disputes.....	7
18	Payment.....	7
20	Laws, Notices, Permits and Fees.....	8
24	Insurance.....	8
27	Archaeology.....	9
SCHEDULE 17.5.3	Letter Agreement with <i>Referee</i>	10

SUPPLEMENTARY GENERAL CONDITIONS

Contract: Millard/Sandpiper Watermain Upgrade

Reference No. Tender T21-11

DEFINITIONS 1

Contract Administrator 1.21 *(delete GC 1.21.1 and replace with the following) ‡*

1.21.1 **“Contract Administrator”** means the person appointed by the *Owner* and identified by the *Owner* in writing to the *Contractor*. The *Contract Administrator* may be an officer of the *Owner*, a direct employee of the *Owner*, an officer or employee of the consultant who designed the *Work* for the *Owner*, or an independent consultant.

Deleted Items 1.30 Delete GC 1.30.1 ‡

Added Items 1.79 Add GC 1.79.1

1.79.1 **“Engineer”** means the *Owner’s* engineer appointed to provided technical support during the course of the *Work*.

DOCUMENTS 2

Interpretation 2.2 *(delete GC 2.2.4(1) and replace with the following)*

The *Contract Documents* shall govern and take precedence in the following order with the Agreement taking precedence over all other *Contract Documents*.

- (a) Agreement
- (b) Addenda
- (c) Supplementary General Conditions
- (d) General Conditions
- (e) Supplementary Specifications
- (f) City of Courtenay Standard Construction Supplementary Specifications
- (g) MoTI Standard Specifications for Highway Construction (Volume I & II);
- (h) Specifications
- (i) Drawings listed in Schedule 2 of the Agreement
- (j) Supplementary Detail Drawings
- (k) Standard Detail Drawings
- (l) Executed Form of Tender
- (m) Instructions to Tenderers
- (n) All other Contract Documents;

CONTRACT ADMINISTRATOR 3

Contract Administration 3.3

(delete GC 3.3.1 and replace with the following)

3.3.1 The *Contract Administrator* shall provide administration of the *Contract* as described in the *Contract Documents* during all *Work*, until the end of the *Maintenance Period*.

Inspection and Site Inspector 3.4

(delete GC 3.4.5 and replace with the following)†

3.4.5 If at any time and for any reason the *Contract Administrator* determines that inspection or testing of the *Work*, or portion of the *Work*, is required that was not called for in the *Contract Documents*, then the *Contract Administrator* may direct the *Contractor* to perform, or have performed, that inspection or testing, as provided in GC 4.12.6.

CONTRACTOR 4

Safety 4.2

(add new clause 4.2.2 as follows)

4.2.2 Further to GC 4.2.1, the *Contractor* shall demonstrate and maintain an active safety program, to the satisfaction of the *Owner*, for the duration of the *Contract*.

Protection of Work, Property and the Public 4.3

(delete GC 4.3.1 and replace with the following)

4.3.1 In performing the *Work* the *Contractor* shall protect the *Work*, the *Owner's* property and all other person's property from damage. The *Contractor* shall, at the *Contractor's* own expense, make good any such damage and indemnify the *Owner* and their agents from any loss or expense which arises as a result of the *Contractor's* operations. The *Contractor* shall obtain and provide to the *Owner* written acceptance of any restored damage.

(add new clause 4.3.7 as follows)

4.3.7 The *Contractor* shall locate, mark and protect from damage or disturbance, any and all stakes, survey pins, monuments and markers at the *Place of the Work*. All survey stakes, pins, monuments or markers which, in the opinion of the *Owner*, have been damaged or disturbed shall be made good following construction by a registered B.C. Land Surveyor at the *Contractor's* expense.

Construction Schedule 4.6

(delete GC 4.6.2 and replace with the following)†

4.6.2 The *Contractor* shall update the *Baseline Construction Schedule* as requested to produce an adjusted *Baseline Schedule* (the “Adjusted *Baseline Schedule*”) that reflects any adjustments to the *Milestone Date(s)* or the *Contract Time* as provided by the *Contract Documents*, including without limitation if the *Contract Administrator* issues a *Change Order* or other *Contract Document(s)* which adjusts any *Milestone Date(s)*. Each Adjusted *Baseline Schedule* will replace the previous *Baseline Construction Schedule*.

(delete GC 4.6.6 and replace with the following) †

4.6.6 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. Subject to a contrary provision in the *Contract Documents*, the *Owner* shall issue the *Notice to Proceed* within 10 Days of receipt of the documentation required from the *Contractor* under paragraph 5.1.1 of the Form of Tender. Failure by the *Owner* to issue the *Notice to Proceed* within the 10 Days shall entitle the *Contractor* to a claim for delay under GC 13.1.1.

(Add GC 4.6.8 as follows)

4.6.8 The *Contract* schedule shall conform to the following conditions;

- 1) Part A of the contract must be completed in entirety prior to commencing with Part B of the contract.
- 2) The *Contractor* shall allow 4 weeks (20 working days) within the schedule for completion of Part A of the contract.
- 3) The *Contractor* shall begin Part B of the contract immediately following completion of Part A of the contract.
- 4) The *Contractor* is advised that the length of time for completion of Part A of the contract will vary based on field conditions. It is the *Contractors* responsibility to ensure that there is sufficient time to complete the contract in it’s entirety prior to the Substantial Performance date. An extension to the contract will only be considered if Part A of the contract is longer than the allowance above, for reasons out of the *Contractor’s* control. The extension considered will be limited to the additional time required to complete Part A of the contract. The *Contractor* is advised that delay claims for Part B of the *Contract* as a result of time required to complete Part A of the *Contract* shall not be considered.

Superintendent

4.7

(delete GC 4.7.1 and replace with the following) †

4.7.1 The *Contractor* shall employ a competent senior representative at the *Place of the Work* (the “*Superintendent*”) who shall have the responsibility to ensure that the *Work* is performed in compliance with the *Contract Documents*. Unless otherwise permitted in writing by the *Owner*, the *Superintendent* shall be the person whose experience was submitted in Appendix 3 of the Tender. The *Contractor* shall also employ necessary assistants for the

Superintendent and the *Superintendent* and assistants shall be in attendance at the *Place of the Work* while *Work* is being performed.

Materials

4.9

(add new clause 4.9.3 as follows)

4.9.3 The *Contractor* will provide documentation to the *Contract Administrator* upon request which verifies that all materials and products comply with the City of Courtenay's Approved Products List.

SubContractors

4.11

(Delete GC 4.11.2 and replace with the following) †

4.11.2 The *Contractor* shall employ only the *SubContractors* listed in Appendix 5 of the Form of Tender, or others as approved in writing by the *Owner*, and shall not change or employ additional *SubContractors* without the approval of the *Owner*, which approval shall not be unreasonably withheld.

OTHER CONTRACTORS

6

(add new clause 6.2.2 as follows)

Coordination and Connection

6.2

Each major component of the *Work* will be staked independently by the *Engineer* as requested by the *Contractor*. The *Contractor* shall be responsible for maintaining line and grade based on reference points provided by the *Engineer* Two full working days prior notice is required for layout work.

There has been 12 hours of survey layout time allocated to this project. The *Contractor* is expected to utilize this time as efficiently as possible. Re-work as a result of the *Contractor's* actions, shall be done at the *Contractor's* expense.

All survey posts, including legal reference points that are disturbed during the course of construction will be replaced at the *Contractor's* expense. The *Contractor* shall notify the *Engineer* before removing or burying any survey posts.

CHANGES

7

Changes

7.1

(delete GC 7.1.3 and replace with the following) †

7.1.3 Additional work that the *Owner* may wish performed that does not satisfy the requirements of subparagraphs (a) and (b) of GC 7.1.1(1) is *Extra Work* and 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*.

VALUATION OF CHANGES AND EXTRA WORK

9

Quantity Variations

9.4

(delete GC 9.4.1 and replace with the following) †

9.4.1 If for any reason, including an addition or deletion under GC 7.1.1.(1) or GC 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 as 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.

(delete GC 9.4.2 (2) and replace with the following)‡

9.4.2 (2) If there is an overrun in the estimated quantity, GC 9.4.3 (2) shall apply to the overrun.

FORCE ACCOUNT 10

Force Account Costs 10.1

(delete GC 10.1.1(4) and replace with the following)‡

10.1.1 (4) *Force Account Work Performed* by a *SubContractor* shall be paid for in the lesser of: (i) the amount as provided by subparagraphs (1), (2) and (3) of this GC, plus a markup of 5%, or (ii) the actual amount the *Contractor* pays the *SubContractor* including a markup of 10% on such actual cost to cover all overhead and profit.

HAZARDOUS MATERIALS 12

Discovery of Hazardous Materials 12.2

(delete GC 12.2.2 and replace with the following)‡

12.2.2 If the *Contract Administrator* observes any materials at the *Place of the 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).

DELAYS 13

Liquidated Damages for Late Completion 13.9

(delete GC 13.9.1 and replace with the following)‡

13.9.1 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) as a genuine pre-estimate of the *Owner's* increased costs for the *Contract Administrator* and the *Owner's* own staff caused by such delay an amount of \$0 per day or pro rata portion for each *Day* that 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*.

DISPUTES 17

Referee 17.5 **(delete GC 17.5.2 (2) and replace with the following)‡**

- (1) if the parties have not agreed upon a *Referee* within 3 Days of a submission of names by one party to the other as provided by GC 17.5.2 (1), then either party may request in writing the Master Municipal Construction Documents Association to appoint the *Referee*. The Association will have the authority to appoint a *Referee* without further consultation with the parties and the parties shall accept the Association's appointment. If for any reason the Association fails to appoint a *Referee* within 5 Days of the written request then such failure shall be deemed to be an agreement between the parties to omit a review of that *Dispute* by a *Referee* and a party may at the end of the 5 Days request a *Settlement Meeting* and proceed with the remaining steps in the *Dispute* resolution process as described in this GC.

PAYMENT 18

Supporting Documentation 18.2 **(delete GC 18.2.2 and replace with the following)‡**
18.2.2 If requested in writing by the *Contract Administrator* the *Contractor* shall as a precondition to the issuance of the *Payment Certificate* provide a sworn declaration in a form acceptable to the *Contract Administrator*, that as of the date set out in the sworn declaration all amounts which have been incurred directly by the *Contractor* relating to the *Work* that are due and owing to third parties have been paid.

Holdbacks 18.4 **(delete GC 18.4.2 and replace with the following)‡**

18.4.2 Defects and Deficiencies: In addition to other holdbacks as provided by the *Contract Documents*, when considering *Substantial Performance*, the *Owner* may hold back from payments otherwise due to the *Contractor* 200% of a reasonable estimate, as determined by the *Contract Administrator*, on account of deficient or defective *Work* already paid for. This holdback may be held, without interest, until all deficiencies or defects are remedied. The items of defect or deficiency and the amounts of related holdbacks shall be listed separately on the *Payment Certificate*.

(add SGC 18.4.6 as follows)

18.4.6 At the time of *Substantial Performance* the *Contractor* is required to provide record drawing information that meets Section 01 33 01 – Project Record *Drawings*. Should the *Contractor* fail to provide the record drawing information, this will be taken to be a deficiency and the *Owner* may hold back \$10,000 from payments otherwise due to the *Contractor*. This holdback may be held until record drawing information is submitted and approved by the *Contract Administrator*, and the conditions of SGC 18.4.2 are met.

Substantial Performance 18.6

(delete GC 18.6.3 (1) and replace with the following)†

18.6.3 (1) a sworn declaration in a form in accordance with SGC 18.2.2; and;

LAWS, NOTICES, PERMITS AND FEES 20

Permits 20.2

(add SGC 20.2.3 as follows)

20.2.3 The *Contractor* shall obtain a City of Courtenay business license, a copy of which must be submitted to the *Contract Administrator* prior to issuance of the first *Payment Certificate*.

Environmental Laws 20.4

(add clause 20.4.2 as follows)

20.4.2 Further to GC 20.4.1, the *Contractor* shall engage a registered professional skilled and knowledgeable in the appropriate disciplines for production and updating of a Sediment and Erosion Control Plan throughout the duration of the *Contract*.

INSURANCE 24

Required Insurance 24.1

(delete GC 24.1.1 (2) and replace with the following)†

24.1.1 (2) Commercial General Bodily Injury and Property Damage liability Insurance Limits: Bodily Injury and Property damage – inclusive \$5,000,000. The insurance shall include *Contractor's* Contingent Liability and Contractual Liability of sufficient scope to include the liability assumed by the *Contractor* under the terms of this *Contract*, and Completed Operations Liability. The policy shall include the *Owner* and the *Contract Administrator* as additional insured's with a cross liability clause. Any property damage deductible shall be for the account of the *Contractor* and shall not exceed \$10,000.00 for any one occurrence.

(add GC 24.1.1 (5) as follows)†

24.1.1 (5) Boiler and machinery Insurance in the joint names of the *Contractor*, and the *Owner*. The policy shall include as insured's all *Sub-Contractors*. The coverage shall be maintained continuously from commencement of use or operation of the boiler and machinery objects insured by the policy and until 10 calendar days after *Substantial Performance*.

(delete GC 24.1.5 and replace with the following)‡

24.1.5 All policies referred to in this GC shall provide that thirty (30) days notice of cancellation will be given in writing to each insured, including the *Owner*, otherwise the policies to remain in full force and effect until the *Work* has been completed. Notwithstanding the foregoing, the Commercial General Bodily Injury and Property Damage Liability insurance referred to in GC 24.1.1 (2) shall remain in full force and effect from the commencement of the performance of the *Work* for a period of not less than twelve (12) months following *Total Performance*, and with respect to completed operations coverage for a period of not less than 24 months following *Total Performance*.

(add clause 24.1.7 as follows)

24.1.7 The *Contractor* shall ensure the following are named as additional insured under this *Contract*:

- City of Courtenay
- McElhanney Ltd.
- Baseline Archaeological Services Ltd.

ARCHAEOLOGY 27

27.1 ***(add section 27 as follows)***

.1 The *Contractor* is advised that the project location is within a known archaeological site. A *Site Alteration Permit* has been obtained by the *Owner* and is included in Appendix A. All work must be completed under the supervision of an archaeologist, who will be paid for by the *Owner*. The *Contractor* must adhere to all the conditions listed in the permit at all times.

It is anticipated that during completion of Part A of the contract, when archaeologically significant material will be discovered, the *Contractor* will work under the direction of the Archaeologist.

The Archeologist will also be engaging the K'omoks First Nation, members are expected to be on-site throughout the pre-excavation.

SCHEDULE 17.5.3 Letter Agreement with Referee ‡

Add following Schedule 17.5.3 to Supplementary General Conditions:

Schedule 17.5.3

Letter Agreement with Referee

(Name and Address of *Referee*)

Contract:

Reference No.

BETWEEN:

(the "*Owner*")

AND:

(the "*Contractor*")

We write to confirm your appointment as a *Referee* under the above *Contract*. The terms of your appointment are as contained in GC 17.5 of the *Contract Documents*. The parties specifically confirm GC 17.5.5, GC 17.5.13 and GC 17.5.14.

We confirm that you agree to review any Disputes in accordance with the *Contract Documents* that may be sent to you by either of the parties, and perform the functions of a *Referee* as described in the *Contract Documents*. The written *Dispute* and related materials, including a copy of the *Contract Documents*, shall be forwarded to you.

Please submit your invoices on a monthly basis directly to the *Contract Administrator*. The *Owner* shall make payment within 20 calendar days of receipt.

Note: ‡ Indicates amendment recommended by MMCD Board

Please confirm your agreement to the terms as set out in this letter by signing a copy of the enclosed letter and returning it to the *Contract Administrator*.

Yours truly,

_____ Date

_____ Date

_____ Date

END OF SUPPLEMENTARY GENERAL CONDITIONS

SUPPLEMENTARY SPECIFICATIONS

Supplementary Specifications

Table of Contents

Reference Section	Clause(s)	Page
01 53 01 Temporary Facilities	1.9.1	2
01 55 00 Traffic Control, Vehicle Access and Parking	1.0.6,1.0.7, 1.4.10.3	2
01 57 01 Environmental Protection	1.0.3, 1.2.2.2	2
03 30 20 Concrete Walks, Curbs and Gutters	2.1.5.1.	3
31 05 17 Aggregates and Granular Materials	2.7.1[‡]	4
31 11 01 Clearing and Grubbing	1.4.1	4
31 22 01 Site Grading	3.3.1[‡]	4
31 23 01 Excavating, Trenching and Backfilling	1.10.9-1.10.12	5
32 11 23 Granular Base	1.4.3	6
32 12 16 Hot Mix Asphalt Paving	1.5.1, 1.5.2, 1.5.8	6
32 92 19 Hydraulic Seeding	3.3.1[‡] and 3.5.4[‡]	6
33 11 01 Waterworks	1.8.2,1.8.13[‡] ,1.8.14, 2.2.2.2	7

The following Supplementary Specifications included in this section of the *Contract Documents* are modifications or additions to the Specifications in the Master Municipal Construction Document Volume II (Platinum Edition):

Reference Section 01 53 01 Temporary Facilities

Clause 1.9.1

Delete Clause 1.9.1 and replace with the following:

- .1 Payment for mobilization and demobilization includes all costs associated with mobilizing to, and demobilizing from the site, bonding and insurance costs, temporary facilities as described in this section, any temporary structures as required on the Contract Drawings, preparation of laydown areas and remediation of laydown and other areas disturbed by the Contractor.

Reference Section 01 55 00 Traffic Control, Vehicle Access and Parking

Clause 1.0.6

Add Clause 1.0.6 as follows:

- .6 The Contractor is required to provide 48 hours written notice to all residents, homes and businesses including all units in a multi-family site for any service or vehicle interruption.

Clause 1.0.7

Add Clause 1.0.7 as follows:

- .7 The contractor shall prepare a Traffic Management Plan (TMP) for approval by the Owner 2 weeks prior to beginning the work. The approved TMP shall be implemented and maintained during the *Work*.

Clause 1.4.10.3[†]

Delete Clause 1.4.10.3 and replace with:

- .3 When workmen or equipment are employed on travelled way over brow of hills, around sharp curves or at other locations where oncoming traffic would not otherwise have adequate warning.

Reference Section 01 57 01 Environmental Protection

Clause 1.0.3

Add Clause 1.0.3 as follows:

- .3 Provide to the Contract Administrator, for review and acceptance, an Erosion and Sediment Control Plan including a description of the proposed methodology to minimize potential impact on the surrounding environment, and shall contain at a minimum, prescriptions to address the following issues:

- .1 Dust control
- .2 Hours of operation and noise control measures
- .3 Spill containment, methodology and reporting procedures
- .4 Proposed locations of stockpiled material and methods designated to protect the environment from stockpiled material
- .5 Measures to protect environment from handling or cutting concrete.
- .6 Methods to control silt and sediment runoff from entering any storm drainage system, manmade or natural body
- .7 Methods to control and dispose of trench water.
- .8 Acknowledgement that all waste will be disposed of in accordance with applicable regulations.
- .9 Materials expected to be removed from the work area, and the location of the intended dumpsite(s).

Clause 1.2.2.2[‡]

Delete Clause 1.2.2.2 and replace with:

- .2 Do not operate construction equipment in watercourses.

Reference Section 03 30 20 Concrete Walks, Curbs and Gutters

Clause 2.1.5.1[‡]

Delete second to last line and replace with:

Minimum cement content: 335 kg/m³

Reference Section 31 05 17 Aggregates and Granular Materials

Clause 2.7.1[‡]

Delete 2.7.1 and replace with the following:

		Percent Passing								
Sieve Designation		Type 1*		Type 2*		Type 3*				
50.0	mm			100		100	100	-	100	
38.0	mm			100		100	90	-	100	
25.0	mm			100		100	20	-	60	
19.0	mm	90	-	100	90	-	100	0	-	15
12.5	mm	65	-	85	70	-	100			
9.5	mm	50	-	75			0	-	5	
4.75	mm	25	-	50	40	-	70			
2.36	mm	10	-	35	25	-	52			
1.18	mm	6	-	26	15	-	38			
0.600	mm	3	-	17	6	-	27			
0.300	mm				3	-	20			
0.075	mm	0	-	5	0	-	8			
*Type 1:		<i>standard gradation</i>								
*Type 2:		<i>to be used only in dry trench conditions and with Contract Administrator's approval</i>								
*Type 3:		<i>minimum 40% Porosity</i>								

Recycled concrete free from contaminated and other extraneous material, confirming to the Type 1 gradations, may be used as pipe bedding and surround material.

Reference Section 31 11 01 Clearing and Grubbing

Delete Clause 1.4.1 and replace with the following:

- .3 Payment for clearing and grubbing and any trimming for vegetation will be measured on a lump sum basis to complete all work required but the Contract and as directed by the Contract Administrator. Payment shall include all clearing and grubbing of all branches, stumps, timbers and vegetation remains and disposal offsite.

Reference Section 31 22 01 Site Grading

Clause 3.3.1[‡]

Delete Table 1 and replace with the following:

Note: ‡ Indicates amendment recommended by MMCD Board

TABLE 2: TOLERANCES FOR SUBGRADES WHERE GROWING MEDIUM (TOPSOIL) TO BE PLACED OVER SUBGRADE

Conditions	Intended Growing Medium Depth	Tolerance
Within 3 m from fixed elevations (e.g., paving edges, curbs, etc.)	0 – 150 mm	± 25 mm
	151 – 300 mm	± 25 mm
	301 – 600 mm	± 50 mm
Other areas	0 – 150 mm	± 25 mm
	151 – 300 mm	± 50 mm
	301 – 600 mm	± 50 mm

Reference Section 31 23 01 Excavating, Trenching and Backfilling

Add the following to **Clause 1.10.9:**

- .9 Payment for disposal of unsuitable material includes equipment and labour required to haul material off-site and disposal of material and includes asphalt, topsoil, midden and any other material removed within the trenched area that cannot be re-utilized on site. Payment for this item will for the volume of material removed, and measured by the trench area and depth provided in the Contract Drawings. No payment for additional volume will be made without prior approval by the Contract Administrator.

Add the following to **Clause 1.10.10:**

- .10 Rate for on-site crew includes one excavator and operator and any other personnel required to be onsite to complete excavation and backfilling requirements of Part A of the contract, and not included in other unit costs. The unit shall be measured by the hourly rate, with actual hours of work provided at the end of each day to the Contract Administrator for approval. The Contractor is advised that the days may not be continuous based on the archaeological findings. In the event that the Contractor cannot continue to work due to unforeseen archaeological findings, the contractor may charge a half day minimum (4 hours) for that day. No other additional payment for stoppage in work will be considered. The rate provided by the contractor is for this item only, Any other work completed by Force Account within the contract will be calculated according to General Conditions 10.0.

Add the following to **Clause 1.10.11:**

- .11 Payment for this item includes all costs, labour, equipment and approval and coordination with the regulatory authority to complete this work and will be measured in days required. The Contractor will take care to minimize the requirements for utility support during the project. The rate provided herein is for Part A of the contract only.

Add the following to **Clause 1.10.12:**

Note: ‡ Indicates amendment recommended by MMCD Board

- .12 Payment for imported trench backfill will include supply and stockpiling material on-site for later use under item 1.10.11. Payment for this item will be for the volume of material installed in the trench, and measured by the trench area and depth provided in the Contract Drawings. No payment for additional volume will be made without prior approval by the Contract Administrator.

Reference Section 32 11 23 Granular Base

1.4 Measurement and Payment

Delete section 1.5.3 and replace with the following:

- .1 Payment for 1.4.1 and 1.4.2 of this section includes supply of granular base material, compaction and proof roll of existing sub-base, adjustment moisture content and compaction.

Reference Section 32 12 16 Hot Mix Asphalt Paving

1.5 Measurement and Payment

Delete section 1.5.1 and replace with the following:

- .1 Payment for asphaltic concrete paving includes all construction joint preparation, supply and placing of the asphaltic concrete, compaction, adjusting and cleaning frames, covers and lids of all castings affected and taped temporary pavement markings.

Measurement for asphaltic concrete paving for specified design mixes for lower and upper courses will be for the actual area placed and will be paid for based on square meters.

Delete section 1.5.2.2 and replace with the following:

- .2 if thickness is less than specified, Contract Administrator may calculate amount of asphaltic concrete deficiency and, for payment purpose, reduce the item amount in pro-rata accordingly.

Add section 1.5.2.3 as follows:

- .3 if thickness is greater than specified, Contract Administrator may accept the work, if the excess thickness is acceptable, with no additional payment for the excess thickness.

Delete section 1.5.8 and replace with the following:

- .8 Payment for permanent reinstatement of pavement includes all work under Section 31 23 01 – Excavating, Trenching and Backfilling – 3.6.7, but not saw cutting edges of pavement. Payment also includes all construction joint preparation, supply and

Note: † Indicates amendment recommended by MMCD Board

placing of the asphaltic concrete, compaction, adjusting and cleaning frames, covers and lids of all castings affected, milling, tack coat.

Thicknesses of pavements may be checked by Contract Administrator as per 1.5.2 of this section. If thickness varies from the thickness specified, Contract Administrator may follow the provisions of 1.5.2 of this section.

Reference Section 32 92 19 Hydraulic Seeding

Clause 3.3.1[‡] and 3.5.4[‡]

Delete 3.3.1 and replace with:

- .1 All hydraulic seeding/mulching equipment adjustment to reflect Rates of Application determined for the project.

Delete 3.5.4 and replace with:

- .4 If required, add legume seed to grass mixture at time of seeding. Inoculate legume seed with standard product humus culture before mixing with grass seed. Protect inoculated seed from exposure to sunlight for periods of over one-half hour. Use seed within eight hours from inoculation; otherwise, seed to be re-inoculated.

Reference Section 33 11 01 Waterworks

Clause 1.8.2

Delete Clause 1.8.2 and replace with the following

- .2 Payment for watermain and service connection includes trench excavation, disposal of surplus excavated materials, bedding, supply and installation of all pipe, bolts, gaskets and tie-rods, backfill as shown on Contract drawings, cleaning, pressure and leakage testing, flushing, disinfection, all surface restoration, and all other work and materials necessary to complete the installation including utility pole holds as shown on the Contract Drawings and specified under this section.

Clause 1.8.13[‡]

Delete Clause 1.8.13 and replace with the following

- .13 Payment for tie-ins to existing mains where all pipework is to be undertaken by the Contractor will be as 1.8.12 of this Section, including all pipes, fittings and necessary tie-in work to complete tie-in as shown on Contract Drawings.

Clause 1.8.14

Add Clause 1.8.14 as follows:

Note: [‡] Indicates amendment recommended by MMCD Board

- .14 Payment for hydrants includes the hydrant body, lateral connections from mainline tee off watermain hydrants, repair coupling, spool piece, isolation valve at the mainline tee and curb valve with adjustable valve box, concrete pad and all other incidental work as shown on Standard Detail Drawings W4 and Contract Drawings.

Clause 2.2.2.2[‡]

Delete Clause 2.2.2.2 and replace with the following:

- .2 Joints: It is mandatory that the push-on integrally thickened bell and spigot type conform to ASTM D3139 Clause 6.2 with single elastomeric gasket to ASTM F477.

END OF MMCD SUPPLEMENTARY SPECIFICATIONS

APPENDIX A – SITE ALTERATION PERMIT

REFERENCE INFORMATION – GEOTECHNICAL ASSESSMENT

Note: Geotechnical Information is provided for completeness only. The Contractor shall satisfy himself of the actual geotechnical conditions on-site prior to providing his tender. The information provided in the attached is a record of exploratory excavations over a very limited portion of the site and may not be representative of conditions elsewhere on site.

APPENDIX A – SITE ALTERATION PERMIT



February 4, 2020

Permit File: 2020-0028

Chris Engisch
Baseline Archaeological Services Ltd.
556 Harmston Ave.
Courtenay, BC V9N 2X5

AND

Chris Davidson
830 Cliffe Ave
Courtenay, BC V9N 2J7

Email: cengisch@shaw.ca

Email: cdavidson@courtenay.ca

Re: Alteration Permit 2020-0028 - Granted

Dear Chris Engisch and Chris Davidson:

Further to Application **19A0555**, submitted for Branch consideration on **October 22, 2019**, I am pleased to enclose Alteration Permit **2020-0028**. Please keep this copy for your records; the original will be retained in the Archaeology Branch permit file.

The results of your alterations are to be presented in a permit report, submitted in both double-sided hard copy and PDF formats, by **December 31, 2022**.

Should you have any questions regarding this permit, please contact your Project Officer, Chandra Young-Boyle, who can be reached by calling **(250) 419-8531**, or emailing **Chandra.YoungBoyle@gov.bc.ca**.

Please note that the permit number listed above must be referenced in the subject line of all permit-related emails sent to the Archaeology Branch.

Sincerely,

A handwritten signature in cursive script, appearing to read "PT", written in black ink.

Paula Thorogood
Manager of Archaeological Operations

PT/jc/Encl.

pc: See attached Permit Distribution List

**Ministry of Forests,
Lands, Natural Resource
Operations and Rural Development**

Archaeology Branch
Phone: (250) 953-3334
Fax: (250) 953-3340

Mailing Address:
PO Box 9816 Stn Prov Govt
Victoria BC V8W 9W3

✓	DISTRIBUTED TO	ATTENTION	CONTACTED	FILE #
	Chris Engisch	Permit Holder	cengisch@shaw.ca	
	Chris Davidson	Co-Permittee	cdavidson@courtenay.ca	
sea	Nanwakolas Council	Art Wilson	referrals@nanwakolas.com;	19-877 and 19- 878
m	Qualicum First Nation	Chief Michael Recalma	receptionist.qualicum@shaw.ca; BY MAIL	
	Tla'amin First Nation	Denise Smith, Rod Allan	Denise.smith@tn-bc.ca; Rod.Allan@TN-bc.ca	
	We Wai Kai First Nation	Chief Brian Assu, Merci Brown, Samantha Chickite	merci.brown@wewaikai.com; samantha.chickite@wewaikai.com;	
	Xwemalhkwa First Nation	Chief Darren Blaney	darrenwjblaney@gmail.com	



HERITAGE CONSERVATION ACT

ALTERATION PERMIT

THIS IS TO CERTIFY that **Chris Engisch** of **Baseline Archaeological Services Ltd.** and **Chris Davidson** are hereby authorized to conduct alterations as described below, subject to the terms and conditions on the back hereof.

Type of alteration, archaeological site number(s) and location(s):

Alterations to archaeological site DkSf-2, for a proposed water main installation from Island Highway along Millard Road and a portion of Sandpiper Drive, in Courtenay, on behalf of the City of Courtenay.

All work is to conform with the "Application for Permit" dated October 22, 2019.

Disposition of materials collected: **Courtenay & District Museum**

Issued **February 4, 2020**

Expires **December 31, 2022**

Minister of Forests, Lands, Natural Resource Operations and Rural Development

Per 
(See back for *Conditions*)

GENERAL TERMS AND CONDITIONS OF PERMIT

1. Permits shall be valid for the term stipulated on the front of the permit unless otherwise suspended or cancelled. Extensions to the term of the permit, or other amendments, will be considered upon submission of a request to the Archaeology Branch at least 45 days prior to the expiry date of the permit.
2. The permit-holder shall provide the Archaeology Branch with one (1) bound copy, if longer than five (5) pages, and one (1) electronic copy in PDF format of a written report outlining the work carried out under the terms of the permit.
3. The title page of all reports must indicate the name(s) of the copyright owner(s) and, where agreed to, a Grant of License statement completed and signed by the copyright owner(s).
4. The permit-holder shall provide the Archaeology Branch with an updated British Columbia Archaeological Site Inventory Form for any site altered under authority of the permit.
5. A person appointed by the Branch may at any time inspect any aspect of a project conducted under the terms of this permit. To further their inspection, the appointee may request field data, or conduct excavations within the study area. Notwithstanding the expiration or earlier termination of the term of the permit this provision will remain and continue in full force and effect.
6. Where a condition for archaeological monitoring of development is attached to the permit, the permit-holder shall arrange for a secure repository to curate any materials recovered under authority of the permit.
7. Heritage objects and associated materials recovered under authority of the permit may not be sold or exchanged for financial gain. Any other transfer of heritage objects, materials and records, or changes to the conditions identified under the "Disposition of materials collected..." section of the permit, may only be carried out with prior consent of the Minister.
8. A permit issued under Section 12.4(1) does not authorize the holder of the permit to enter property, or to make any alteration to property, without the permission of the owner or occupier.
9. In the event that human remains are encountered, all work must cease in the vicinity of the remains and the Archaeology Branch must be contacted for direction, unless otherwise provided for in the permit application.
10. Where concurrent archaeological studies are required, per Section 5 of the application, an Eligible Archaeologist, as approved by the Branch, will be retained by the applicant. Any ground-altering activities must be conducted under the direction of the archaeologist.
11. Where known, First Nation file numbers will be reference in permit-related correspondence.
12. The permit-holder shall arrange for a secure repository to curate any materials recovered under authority of the permit.
13. The permit-holder shall conform to all requirements that may be imposed by the institution or organization named in the "Disposition of materials collected..." section of the permit.
14. Any other conditions that may be specified in the permit.

OTHER CONDITIONS

15. Where it is not feasible to retain archaeological sediments from DkSg-2 within the site, the sediments will be deposited at the Edgett Midden Repository Site (DkSg-15) where they are to be segregated from other archaeological sediments if at all possible. The original and redeposited locations will be mapped and included in site record updates for both the original site and DkSg-15.

REFERENCE INFORMATION – GEOTECHNICAL ASSESSMENT

Note: Geotechnical Information is provided for completeness only. The Contractor shall satisfy himself of the actual geotechnical conditions on-site prior to providing his tender. The information provided in the attached is a record of exploratory excavations over a very limited portion of the site and may not be representative of conditions elsewhere on site.

TECHNICAL MEMO

To Mr. Brandon Donais Mr. Chris Davidson, P.Eng. City of Courtenay	From Breanne McLean, EIT Reviewed by: George Zhou, Ph.D., P.Eng.
Re Millard Road Watermain Geotechnical Memo	Date February 24, 2021

1. Introduction

The City of Courtenay engaged McElhanney to complete civil design for the replacement of an existing 50 mm watermain with a new 200 mm watermain within an archeologically significant area. To install the proposed works, trenching up to 1.3 m depth within the roadway, road shoulder, local residents' yards and driveways will be required. The City also plans to re-surface the roadway with hot mix asphalt (HMA) from the road edge to centerline in some areas.

To obtain additional information on the likely material to be encountered within the proposed alignment area, McElhanney completed a geotechnical investigation utilizing a hydro-vac truck.

The geotechnical assessment results and recommendations for the proposed works are reported herein.

2. Site Investigation

2.1. GEOTECHNICAL HYDRO-VAC INVESTIGATION

The geotechnical investigation was supervised by McElhanney personnel on February 10, 2021 and involved advancing seven (7) hydro-vac holes to a maximum depth of 1.8m below ground surface. Hydro-vac hole locations were chosen to provide subsurface soil information to inform the proposed new watermain design along Millard Road and Sandpiper Drive.

The subsurface and groundwater conditions encountered during the hydro-vac investigation were logged and photographed in the field by McElhanney personnel. Test hole locations were backfilled to surface

level with spoil material and tamped using a handheld shovel. Cold Patch Asphalt was used to repair any existing asphalt that was disturbed during the hydro-vac investigation along Millard Road. The detailed descriptions in the test hole logs were logged using the Modified Unified Classification System for Soils included in **Appendix C**. Test holes were completed using a hydro-vac truck owned and operated by Edgett Excavating Ltd. of Courtenay, BC.

The approximate hydro-vac hole locations are shown on the attached **Drawing B-01** shown in **Appendix B**. Soil conditions observed in the test holes are summarised below in **Table 2-1** and test hole logs containing detailed soil descriptions are attached in **Appendix C**.

Table 2-1: Test Hole Summary¹.

TEST HOLE ID	DEPTH ¹ (m)
TH21-01 Civic 3495 Millard Rd. Edge of pavement	1.4
TH21-02 Civic 3501 Millard Rd. Edge of pavement	1.8
TH21-03 Civic 3500 Millard Rd. Edge of pavement	1.6
TH21-04 Sandpiper Rd. Public Park Blvd.	1.7
TH21-05 Civic 3462 Sandpipe Dr. Boulevard	1.7
TH21-06 Civic 3503, Millard Rd Edge of pavement	1.6
TH21-07 Civic 3491 Millard Rd. Edge of pavement	0.5

Notes:

1. The depth of the test hole below ground surface measurements are approximate.



2.2. SUBSURFACE CONDITIONS

In general, the encountered subsurface conditions were consistent and are summarized below in

Table 2-2. Detailed Test Hole logs are provided in **Appendix C**

Table 2-2: Soil Profile Summary.

TEST HOLE ID	ASPHALT ¹ (m)	GRASS/TOPSOIL/ ROOTLETS (m) ¹	GRAVEL/ ROAD BASE (m) ¹	SAND & GRAVEL, TRACE SILT (FILL) (m) ¹	MIDDEN (m) ²
TH21-01	0.0 - 0.1 0.25 - 0.35	-		0.35- 1.4	-
TH21-02	0.0- 0.1	-	0.1- 0.2	0.2- 0.7	0.7- 1.8
TH21-03	0- 0.1	-	0.1- 0.2	0.2- 1.6	-
TH21-04	-	0.01- 0.1	0- 0.01	-	0.1- 1.7
TH21-05	-	0- 0.2	-	-	0.2- 1.7
TH21-06	0- 0.1		0.1- 0.2	-	0.2- 1.6
TH21-07	0- 0.05			0.05- 0.5	-

Notes:

1. Refer to test hole logs for detailed soil descriptions.
2. "Midden" refers to local archaeological term to describe soil conditions, refer to test hole logs for detailed description.



3. Recommendations

The existing pavement shall be removed to the road centerline, followed by subgrade stripping to the design grade at the top of subbase. The excavated material can be reused as backfill but is subject to the geotechnical engineer's written approval.

Prior to granular base gravel placement, proof roll testing can be used to identify any poor performing subbase and underlying subgrade or soft spots. If any soft spots are identified, unsuitable or soft material needs to be over-excavated to the underlying firm layer, followed by backfill with pit run gravel and compacted in lifts to the specified density. To ensure the design subbase gravel thickness of 230mm, we recommend advancing a series of test pits into the subbase. The subbase gravel shall be compacted with a large smooth drum ride on vibratory roller. Granular base gravel and Hot Mix Asphalt (HMA) should be supplied, placed and compacted in accordance with project specifications.

4. Closure


The attached Statement of Limitations for Geotechnical Services is provided in **Appendix A** and applies to this report and are hereby incorporated herein.

We trust this geotechnical memo is sufficient for your present needs. Should you have any questions of require additional information, please do not hesitate to contact us.

Sincerely,

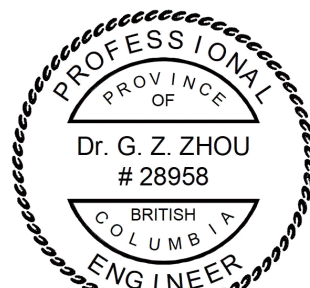
McElhanney Ltd.

Prepared by:



Breanne McLean, EIT
Junior Geotechnical Engineer

Reviewed by:



George Zhou, P.Eng.
Geotechnical Engineer



APPENDIX A

Statement of Limitations

Statement of Limitations

Use of this Report. This report was prepared by McElhanney Ltd. ("McElhanney") for the particular site, design objective, development and purpose (the "Project") described in this report and for the exclusive use of the client identified in this report (the "Client"). The data, interpretations and recommendations pertain to the Project and are not applicable to any other project or site location and this report may not be reproduced, used or relied upon, in whole or in part, by a party other than the Client, without the prior written consent of McElhanney. The Client may provide copies of this report to its affiliates, contractors, subcontractors and regulatory authorities for use in relation to and in connection with the Project provided that any reliance, unauthorized use, and/or decisions made based on the information contained within this report are at the sole risk of such parties. McElhanney will not be responsible for the use of this report on projects other than the Project, where this report or the contents hereof have been modified without McElhanney's consent, to the extent that the content is in the nature of an opinion, and if the report is preliminary or draft. This is a technical report and is not a legal representation or interpretation of laws, rules, regulations, or policies of governmental agencies.

Standard of Care and Disclaimer of Warranties. This report was prepared with the degree of care, skill, and diligence as would reasonably be expected from a qualified member of the same profession, providing a similar report for similar projects, and under similar circumstances, and in accordance with generally accepted engineering/planning/etc and scientific judgments, principles and practices. McElhanney expressly disclaims any and all warranties in connection with this report.

Information from Client and Third Parties. McElhanney has relied in good faith on information provided by the Client and third parties noted in this report and has assumed such information to be accurate, complete, reliable, non-fringing, and fit for the intended purpose without independent verification. McElhanney accepts no responsibility for any deficiency, misstatements or inaccuracy contained in this report as a result of omissions or errors in information provided by third parties or for omissions, misstatements or fraudulent acts of persons interviewed.

Effect of Changes. All evaluations and conclusions stated in this report are based on facts, observations, site-specific details, legislation and regulations as they existed at the time of the site assessment/report preparation. Some conditions are subject to change over time and the Client recognizes that the passage of time, natural occurrences, and direct or indirect human intervention at or near the site may substantially alter such evaluations and conclusions. Construction activities can significantly alter soil, rock and other geologic conditions on the site. McElhanney should be requested to re-evaluate the conclusions of this report and to provide amendments as required prior to any reliance upon the information presented herein upon any of the following events: a) any changes (or possible changes) as to the site, purpose, or development plans upon which this report was based, b) any changes to applicable laws subsequent to the issuance of the report, c) new information is discovered in the future during site excavations, construction, building demolition or other activities, or d) additional subsurface assessments or testing conducted by others



APPENDIX B

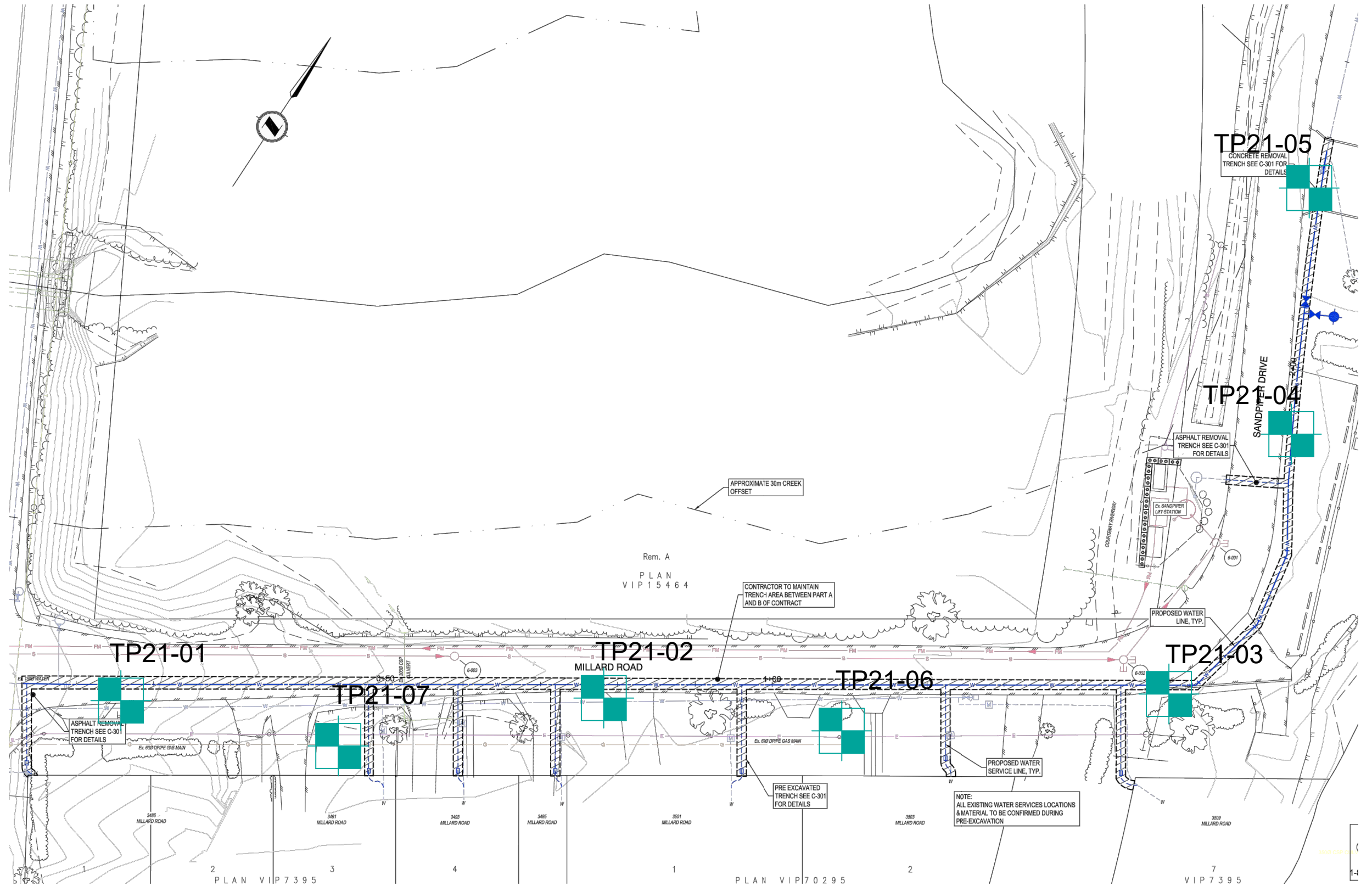
Drawing B-01- Borehole Site Plan

LEGEND:

TH21-XX TEST HOLE LOCATION

NOTES:

1. TEST HOLE LOCATIONS WERE MEASURED IN THE FIELD OFF OF EXISTING FEATURES BY MCELHANNEY ON FEBRUARY 10, 2021
2. THE INFORMATION SUMMARIZED ON THIS DRAWING IS CONSIDERED CONCEPTUAL INFORMATION ONLY.



DATE: 2021-02-16, 14:20 FILE: C:\Users\mrcandrew\Desktop\GEO\TECH\AutoCAD\millard rd water main test hole site plan- Draft 1.dwg

THIS DRAWING AND DESIGN IS THE PROPERTY OF MCELHANNEY AND SHALL NOT BE USED, REUSED OR REPRODUCED WITHOUT THE CONSENT OF MCELHANNEY. MCELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING AND DESIGN HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. MCELHANNEY, ITS EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO, THIS DRAWING, BY ANY THIRD PARTY, INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT MCELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UNDERGROUND FACILITIES MAY NOT BE COMPLETE OR ACCURATE. MCELHANNEY, ITS EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS PLAN. PRIOR TO CONSTRUCTION CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.



1211 Ryan Road
Courtenay BC
Canada V9N 3R6
T 250 338 5495

DRAWING NOT TO SCALE

DISTANCES ARE IN METRES UNLESS OTHERWISE NOTED
ORIGINAL DWG SIZE: ANSI B (11" x 17")

MILLARD/ SANDPIPER WATER
MAIN UPGRADE

CITY OF COURTENAY
COURTENAY, B.C.

TEST HOLE LOCATION PLAN

B-01

Project Number
2211-47416-29

APPENDIX C

Soil Classification Legend and Test Hole Log
Sheets

MODIFIED UNIFIED CLASSIFICATION SYSTEMS FOR SOILS

MAJOR DIVISION		GROUP SYMBOL	TYPICAL SOIL DESCRIPTION	LABORATORY CLASSIFICATION CRITERIA			
COARSE GRAINED SOILS (more than 50% larger than 75 µm)	GRAVELS	Clean Gravels (< 5% Fines)	GW	Well graded gravels, sandy gravels, trace or no fines	$C_u = D_{60}/D_{10} > 4$, $C_c = (D_{30})^2 / D_{10} D_{60} = 1 \text{ to } 3$		
			GP	Poorly graded gravels, sandy gravels, trace or no fines	Not meeting the GW requirements.		
		Dirty Gravels (> 12% Fines)	GM	Silty gravels, silty sandy gravels	Plasticity below A-Line or $I_p < 4$		
			GC	Clayey gravels, clayey sandy gravels	Plasticity above A-Line or $I_p > 7$		
	SANDS	Clean Sands (< 5% Fines)	SW	Well graded sands, gravelly sand, trace or no fines	$C_u = D_{60}/D_{10} > 4$, $C_c = (D_{30})^2 / D_{10} D_{60} = 1 \text{ to } 3$		
			SP	Poorly graded sands, gravelly sand, trace or no fines	Not meeting the SW requirements.		
		Dirty Sands (> 12% Fines)	SM	Silty sands, sand and silt mixtures	Plasticity below A-Line or $I_p < 4$		
			SC	Clayey sands, sand and clay mixtures	Plasticity above A-Line or $I_p > 7$		
		FINE GRAINED SOILS (more than 50% smaller than 75 µm)	SILTS	$W_L < 50\%$	ML	Inorganic silts, sandy silts with slight plasticity	Classifications are based upon Plasticity Chart.
				$W_L > 50\%$	MH	Inorganic silts of high plasticity	
CLAYS	$W_L < 30\%$		CL	Inorganic clay, silty clays of low plasticity			
	$30\% < W_L < 50\%$		CI	Inorganic clay, silty clays of intermediate plasticity			
	$W_L > 50\%$		CH	Inorganic clay, silty clays of high plasticity			
	ORGANIC SILTS AND CLAYS		$W_L < 50\%$	OL	Organic silts and silty clays of low plasticity		
$W_L > 50\%$			OH	Organic silts and silty clays of high plasticity			
HIGHLY ORGANIC			PT	Peat and other highly organic soils			

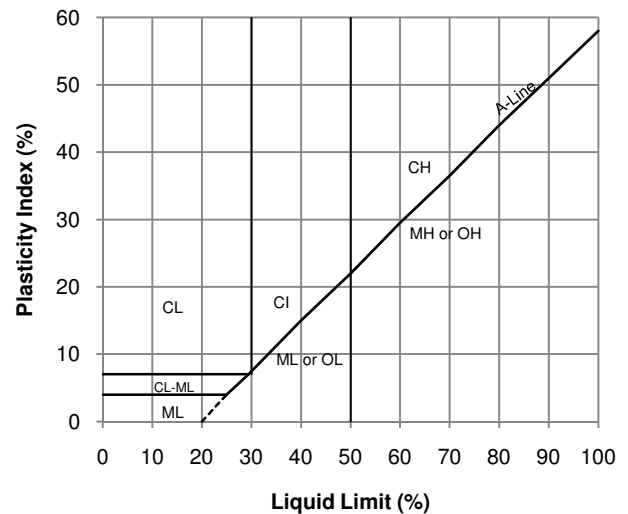
SOIL COMPONENTS

Fraction	U.S. Standard Sieve Size		Percentage (by weight)	Description
	Passing	Retained		
Gravel			35-50	AND
Coarse	76 mm	19 mm		
Fine	19 mm	4.75 mm		
Sand			20-35	Y/EY
Coarse	4.75 mm	2.00 mm		
Medium	2.00 mm	425 µm	10-20	SOME
Fine	425 µm	75 µm		
Fines (Silt or Clay)	75 µm		1-10	TRACE
Oversize Material	Cobbles	76 mm to 200 mm		
	Boulders	> 200 mm		

RELATIVE DENSITY AND CONSISTENCY

Cohesionless Soils		Cohesive Soils	
Relative Density	SPT (N) Value	Consistency	Undrained Shear Strength (kPa)
Very Loose	0-4	Very Soft	0-10
Loose	4-10	Soft	10-25
Compact	10-30	Firm	25-50
Dense	30-50	Stiff	50-100
Very Dense	>50	Very Stiff	100-200
		Hard	>200

Plasticity Chart



Notes:

- Use dual symbols for coarse grained soils with 5 to 12% fines (i.e. GP-GM)
- All sieves are U.S. Standard ASTM E11



McElhanney

McElhanney Consulting Services Limited



CLIENT City of Courtenay

PROJECT NUMBER 2211-47416-29

DATE STARTED 2/10/21 **COMPLETED** 2/10/21

DRILLING CONTRACTOR Edgett Excavating Ltd.

DRILLING METHOD Hydro-Vac Excavation

LOGGED BY B.McLean **CHECKED BY** G.Zhou

NOTES Civic address 3495 Millard Rd, Southside edge of

PROJECT NAME Millard Rd. and Sandpiper Dr. Watermain

PROJECT LOCATION Courtenay, BC

GROUND ELEVATION _____ **HOLE SIZE** 0.2 m

GROUND WATER LEVELS:

AT TIME OF DRILLING ---

AT END OF DRILLING ---

AFTER DRILLING ---

DEPTH (m)	SAMPLE TYPE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION
			ASPHALT
			0.10 SAND and GRAVEL, trace silt, trace cobbles, compact, brown, moist. (FILL)
			0.25 ASPHALT
			0.35 SAND and GRAVEL, trace silt (well-graded), trace cobbles, compact, brown, moist. (FILL)
0.5			
1.0			
1.40			

End of test hole due to reaching target depth.
 No groundwater seepage encountered.
 Test hole backfilled with spoil and cold-patch asphalt and tamped with handheld shovel.
 Bottom of test hole at 1.40 meters.

GENERAL BH / TP / WELL 2211-47416-29 MILLARD RD WATERMAIN HYDRO-VAC HOLES- DRAFT.GPJ GINT STD CANADA LAB.GDT 2/22/21



CLIENT City of Courtenay

PROJECT NUMBER 2211-47416-29

DATE STARTED 2/10/21 COMPLETED 2/10/21

DRILLING CONTRACTOR Edgett Excavating Ltd.

DRILLING METHOD Hydro-Vac Excavation

LOGGED BY B.McLean CHECKED BY G.Zhou

NOTES Civic address 3501 Millard Rd, Southside edge of

PROJECT NAME Millard Rd. and Sandpiper Dr. Watermain

PROJECT LOCATION Courtenay, BC

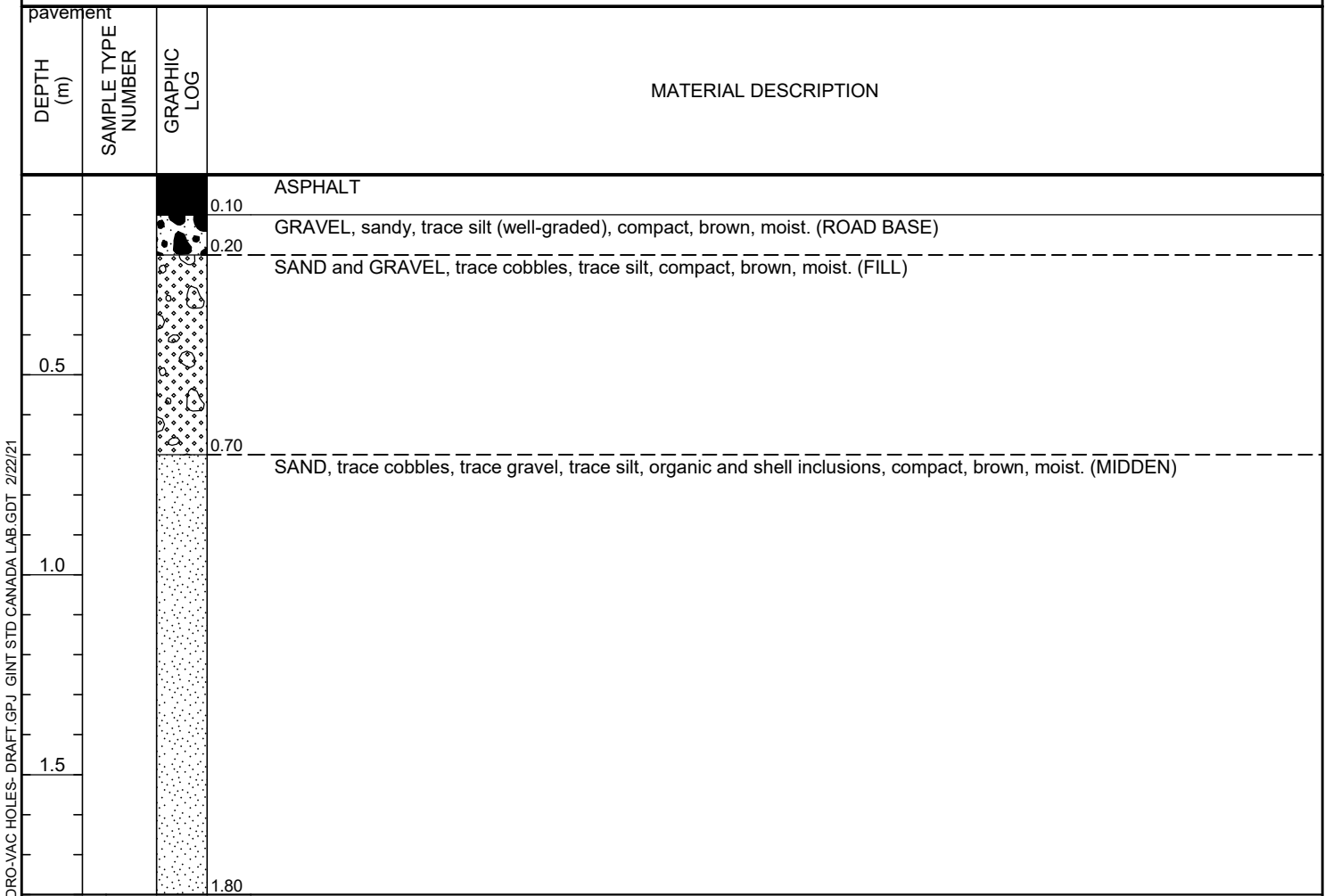
GROUND ELEVATION _____ HOLE SIZE 0.2 m

GROUND WATER LEVELS:

AT TIME OF DRILLING ---

AT END OF DRILLING ---

AFTER DRILLING ---



End of test hole due to reaching target depth.
 No groundwater seepage encountered.
 Test hole backfilled with spoil and cold-patch asphalt and tamped with handheld shovel.
 Bottom of test hole at 1.80 meters.

GENERAL BH / TP / WELL 2211-47416-29 MILLARD RD WATERMAIN HYDRO-VAC HOLES- DRAFT.GPJ GINT STD CANADA LAB.GDT 2/22/21



CLIENT City of Courtenay

PROJECT NAME Millard Rd. and Sandpiper Dr. Watermain

PROJECT NUMBER 2211-47416-29

PROJECT LOCATION Courtenay, BC

DATE STARTED 2/10/21 COMPLETED 2/10/21

GROUND ELEVATION _____ HOLE SIZE 0.2 m

DRILLING CONTRACTOR Edgett Excavating Ltd.

GROUND WATER LEVELS:

DRILLING METHOD Hydro-Vac Excavation

AT TIME OF DRILLING ---

LOGGED BY B.McLean CHECKED BY G.Zhou

AT END OF DRILLING ---

NOTES Civic address 3509 Millard Rd & Sandpiper Dr, Southside edge of pavement AFTER DRILLING ---

DEPTH (m)	SAMPLE TYPE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION
			0.10 ASPHALT
			0.20 GRAVEL, sandy, trace silt (well-graded), compact, brown, moist. (ROAD BASE)
			SAND and GRAVEL, trace silt, trace cobbles, compact, brown, moist. (FILL)
0.5			
1.0			
1.5			
			1.60

End of test hole due to reaching target depth.
 No groundwater seepage encountered.
 Test hole backfilled with spoil and cold-patch asphalt and tamped with handheld shovel.
 Bottom of test hole at 1.60 meters.

GENERAL BH / TP / WELL 2211-47416-29 MILLARD RD WATERMAIN HYDRO-VAC HOLES- DRAFT.GPJ GINT STD CANADA LAB.GDT 2/22/21



CLIENT City of Courtenay
 PROJECT NUMBER 2211-47416-29
 DATE STARTED 2/10/21 COMPLETED 2/10/21
 DRILLING CONTRACTOR Edgett Excavating Ltd.
 DRILLING METHOD Hydro-Vac Excavation
 LOGGED BY B.McLean CHECKED BY G.Zhou
 NOTES Public Park, Sandpiper Dr, East side Blvd.

PROJECT NAME Millard Rd. and Sandpiper Dr. Watermain
 PROJECT LOCATION Courtenay, BC
 GROUND ELEVATION _____ HOLE SIZE 0.2 m
 GROUND WATER LEVELS:
 AT TIME OF DRILLING ---
 AT END OF DRILLING ---
 AFTER DRILLING ---

GENERAL BH / TP / WELL 2211-47416-29 MILLARD RD WATERMAIN HYDRO-VAC HOLES- DRAFT.GPJ GINT STD CANADA LAB.GDT 2/22/21

DEPTH (m)	SAMPLE TYPE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION
0.01			GRAVEL, sandy, trace silt (well-graded), compact, brown, moist. (ROAD BASE)
0.10			TOPSOIL, rootlets, grass, organics.
			SAND, trace cobbles, trace gravel, trace silt, organic and shell inclusions, soft, black, moist. (MIDDEN)
0.5			
1.0			Transitions to light brown, compact.
1.5			
1.70			

End of test hole due to reaching target depth.
 No groundwater seepage encountered.
 Test hole backfilled with spoil and tamped with handheld shovel.
 Bottom of test hole at 1.70 meters.



CLIENT City of Courtenay

PROJECT NUMBER 2211-47416-29

DATE STARTED 2/10/21 COMPLETED 2/10/21

DRILLING CONTRACTOR Edgett Excavating Ltd.

DRILLING METHOD Hydro-Vac Excavation

LOGGED BY B.McLean CHECKED BY G.Zhou

NOTES Civic address 3462 Sandpiper Dr., Eastside Blvd.

PROJECT NAME Millard Rd. and Sandpiper Dr. Watermain

PROJECT LOCATION Courtenay, BC

GROUND ELEVATION _____ HOLE SIZE 0.2 m




GROUND WATER LEVELS:

AT TIME OF DRILLING ---

AT END OF DRILLING ---

AFTER DRILLING ---

GENERAL BH / TP / WELL 2211-47416-29 MILLARD RD WATERMAIN HYDRO-VAC HOLES- DRAFT.GPJ GINT STD CANADA LAB.GDT 2/22/21

DEPTH (m)	SAMPLE TYPE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION
0.05			GRASS
			TOPSOIL
0.20			SAND (fine-grained), trace cobbles, trace gravel, trace silt, organic and shell inclusions, soft to compact, brown, moist. (MIDDEN)
0.5			
1.0			
1.5			
1.70			

End of test hole due to reaching target depth.
 No groundwater seepage encountered.
 Test hole backfilled with spoil and tamped with handheld shovel.
 Bottom of test hole at 1.70 meters.



CLIENT City of Courtenay
 PROJECT NUMBER 2211-47416-29
 DATE STARTED 2/10/21 COMPLETED 2/10/21
 DRILLING CONTRACTOR Edgett Excavating Ltd.
 DRILLING METHOD Hydro-Vac Excavation
 LOGGED BY B.McLean CHECKED BY G.Zhou
 NOTES Civic address 3503 Millard Rd, Southside Blvd.

PROJECT NAME Millard Rd. and Sandpiper Dr. Watermain
 PROJECT LOCATION Courtenay, BC
 GROUND ELEVATION _____ HOLE SIZE 0.2 m
 GROUND WATER LEVELS:
 AT TIME OF DRILLING ---
 AT END OF DRILLING ---
 AFTER DRILLING ---

DEPTH (m)	SAMPLE TYPE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION
			0.10 ASPHALT
			0.20 GRAVEL, sandy, trace silt (well-graded), compact, brown, moist. (ROAD BASE)
			SAND (fine-grained), trace cobbles, trace gravel, trace silt, organic and shell inclusions, soft to compact, brown, moist. (MIDDEN)
0.5			
1.0			
1.5			
			1.60


End of test hole due to reaching target depth.
 No groundwater seepage encountered.
 Test hole backfilled with spoil and cold-patch asphalt and tamped with handheld shovel.
 Bottom of test hole at 1.60 meters.

GENERAL BH / TP / WELL 2211-47416-29 MILLARD RD WATERMAIN HYDRO-VAC HOLES- DRAFT.GPJ GINT STD CANADA LAB.GDT 2/22/21



CLIENT City of Courtenay
 PROJECT NUMBER 2211-47416-29
 DATE STARTED 2/10/21 COMPLETED 2/10/21
 DRILLING CONTRACTOR Edgett Excavating Ltd.
 DRILLING METHOD Hydro-Vac Excavation
 LOGGED BY B.McLean CHECKED BY G.Zhou
 NOTES Civic address 3491 Millard Rd., Southside Blvd.

PROJECT NAME Millard Rd. and Sandpiper Dr. Watermain
 PROJECT LOCATION Courtenay, BC
 GROUND ELEVATION _____ HOLE SIZE 0.2 m
 GROUND WATER LEVELS:
 AT TIME OF DRILLING ---
 AT END OF DRILLING ---
 AFTER DRILLING ---

DEPTH (m)	SAMPLE TYPE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION
0.5			0.05 ASPHALT SAND and GRAVEL, trace cobbles, trace silt, compact, brown, moist. (FILL) 0.50

End of test hole due to reaching target depth.
 No groundwater seepage encountered.
 Test hole backfilled with spoil and cold-patch asphalt and tamped with handheld shovel.
 Bottom of test hole at 0.50 meters.

GENERAL BH / TP / WELL 2211-47416-29 MILLARD RD WATERMAIN HYDRO-VAC HOLES- DRAFT.GPJ GINT STD CANADA LAB.GDT 2/22/21