

# **REQUEST FOR QUOTATION**

Denny Island Water Distribution System Reference No. 17-2184-SPF

May 2024



# TABLE OF CONTENTS

1.0	PROJI	ECT OVERVIEW	1
2.0	SCOP	E OF WORK	1
	2.1 M	EASUREMENT AND PAYMENT	2
	2.1.1	Watermain	2
	2.1.2	Hydrant Assemblies	2
	2.1.3	Fittings	3
	2.1.4	Air Valve Assemblies	3
	2.1.5	Sampling Stations	4
	2.1.6	Culvert Crossings	4
	2.1.7	Water Services and Meters	4
	2.1.8	Gravel Access Road	5
	2.2 M	ОТІ РЕГМІТ	5
	2.3 S	JBSURFACE CONDITIONS	6
	2.4 Si	TE INSPECTIONS / FIELD REVIEWS	6
3.0	PROP	ONENT QUALIFICATIONS	6
4.0	SCHE	DULE	7
5.0	PROJI	ECT PHASING	7
6.0	CONT	RACTUAL REQUIREMENTS	7
7.0	SUBM	ISSION REQUIREMENTS	8
	7.1 S	JBMISSION OF QUOTATION	8
	7.2 Q	UOTATION FORM	8
	7.3 S	JBMISSION EVALUATION	8

## **APPENDICES**

Appendix A	Location and Site Plan
Appendix B	Issued for Quotation Drawings
Appendix C	MOTI Permit
Appendix D	Geotechnical Investigation Report
Appendix E	Project Phasing Figure
Appendix F	Form of Contract
Appendix G	Quotation Form



# 1.0 PROJECT OVERVIEW

The Central Coast Regional District (CCRD) is proceeding with the construction of a potable water distribution system to service the Denny Island community. School District #49 (SD #49) has constructed a new groundwater well, treatment plant, reservoir, and watermain to supply the Shearwater Elementary School and adjacent facilities. Through a partnership agreement, the SD #49 water infrastructure will supply the broader CCRD water distribution system.

The location of the Denny Island community and proposed water distribution system are depicted in the figures provided in **Appendix A**.

The CCRD has issued this Request for Quotation (RFQ) to solicit quotations from qualified proponents to construct the proposed water distribution system.

Urban Systems Ltd. has been retained by the CCRD to administer this RFQ and provide technical review of the construction of the proposed works, and will hereafter be referred to as Contract Administrator.

# 2.0 SCOPE OF WORK

The scope of work covered in this RFQ generally includes the supply and installation of:

- Approximately 2,700 m of 200 mm Ø, HDPE DR17 watermain;
- Approximately 230 m of 100 mm Ø, HDPE DR17 watermain;
- Approximately ten (10) fire hydrant assemblies;
- Ancillary fittings including isolation gate valves, tees, reducers, and end caps;
- Approximately eight (8) combination air valve assemblies;
- Approximately three (3) sampling stations;
- Four (4) segments of 300 mm Ø HDPE casing pipe c/w insulation to facilitate crossings under existing culverts;
- 25 mm Ø, polyethylene water service connection laterals to approximately 50 properties c/w water meter pit assemblies; and
- Approximately 200 m of gravel access road.

Further details regarding each component of work are provided below and Issued for Quotation (IFQ) drawings are included as **Appendix B**.



Note that the above scope components are somewhat flexible and potential modifications representing cost efficiencies will be considered, provided that the intent of the project remains whole.

#### 2.1 Measurement and Payment

The specific measurement and payment details will be reflected in the contract document (discussed later in this RFQ). The following subsections are provided to clarify the details of the scope of work and facilitate informed quotation prices.

#### 2.1.1 Watermain

The scope of work for watermain installation includes: traffic control; trench excavation; disposal of surplus excavated material; screening of deleterious material; supply, placement, and compaction of pipe bedding; supply and installation of HDPE pipe as specified including all slip on flanges, bolts, bends, end caps, temporary blow offs, and other fittings not specifically listed as separate payment items; supply, placement, and compaction of imported or select native backfill material; cleaning, disinfection, pressure and leakage testing, and flushing of new piping; and road / surface restoration to equal or better condition.

Payment for watermain supply and installation will be per linear metre for each pipe size and material listed.

The following considerations are highlighted regarding watermain supply and installation:

- The watermain alignment within the road right-of-way may be horizontally adjusted to optimize trenching conditions and progress;
- Trench width may be kept to minimum dimensions as per MMCD Standard Detail Drawing W4 which indicates D+450 at the trench base corresponding to 650 mm for 200 mm Ø pipe. Proponents shall determine the appropriate excavation technique (blasting, hammering, or otherwise) and trench dimensions;
- Pipe bedding and backfill material specifications are noted on the IFQ drawings. Proponents may suggest imported or locally created (crushed) material for re-use as trench backfill subject to approval of the Geotechnical Engineer; and
- Surface restoration requirements are limited to the footprint of the trench or otherwise to restore to pre-existing conditions. There is no requirement to resurface the full road with, provided it is not disturbed / damaged.

#### 2.1.2 Hydrant Assemblies

The scope of work for hydrant assemblies includes the mainline tee, isolation valve with adjustable valve box, hydrant lead / lateral piping, hydrant body, thrust blocks, and all other incidental work as shown on MMCD Standard Detail Drawing W4. Payment includes product supply, installation, disinfection, testing, excavation, backfill, restoration, and all other works cited in 2.1.1 above.



The location of each hydrant shall be confirmed with the Contract Administrator prior to installation and final hydrant locations may differ from those depicted on the IFQ drawings.

Payment will be for each hydrant assembly supplied and installed.

Proponents may suggest cost savings for CCRD consideration at select hydrant locations, such as:

- Installing a standpipe vs fire hydrant; or
- Installing a tee, isolation valve, and cap with deferral of the lead and / or hydrant.

#### 2.1.3 Fittings

Main line isolation gate valves are specified at specific hydrant tees, as well as other intersection tees as noted on the IFQ drawings. The scope of work for isolation valves includes supply and installation of the valve, PVC riser, cast iron valve box, and all other works cited in 2.1.1 above.

Where isolation valves are located within the gravel road surface, the valve box shall be set 150 mm below finished grade and covered. This is to prevent damage from road grading operations. At locations other than hydrant tees, the location of any buried valve shall be indicated by an offset post.

Other fittings include tees, reducers, and end caps as indicated on the IFQ drawings.

Payment will be for each isolation valve supplied and installed, other than those included in the hydrant assembly cited in 2.1.2 above. Payment will be for each tee, reducer, and end cap supplied and installed.

#### 2.1.4 Air Valve Assemblies

The scope of work for combination air valve assemblies includes supply and installation of the saddle; corporation stop; offset pipe; curb stop; precast concrete box, frame, and cover; combination air valve; ancillary piping and fittings; and all incidental works indicated on the detail provided in the IFQ drawings. Payment includes product supply, installation, disinfection, testing, excavation, backfill, restoration, and all other works cited in 2.1.1 above.

The location of the combination air valve assemblies shall be confirmed with the Contract Administrator prior to installation and locations may differ from those depicted on the IFQ drawings.

Payment will be for each combination air valve assembly supplied and installed.

Proponents may suggest alterations to the vertical alignment of the watermain that may represent cost savings due to elimination of air valve assemblies or otherwise. Air valve assemblies are typically required where the elevation between pipe summit and valley exceeds 600 mm.



#### 2.1.5 Sampling Stations

The scope of work for sampling stations includes supply and installation of the saddle, corporation stop; service connection piping, sampling station, and all incidental works. Payment includes product supply, installation, disinfection, testing, excavation, backfill, restoration, and all other works cited in 2.1.1 above.

The location of the sampling stations shall be confirmed with the Contract Administrator prior to installation and locations may differ from those depicted on the IFQ drawings.

Payment will be for each sampling station supplied and installed.

#### 2.1.6 Culvert Crossings

The scope of work for culvert crossings includes supply and installation of the HDPE casing pipe; HDPE watermain; wrap around end seals; insulation; and all incidental works indicated on the detail provided in the IFQ drawings. Payment includes product supply, installation, disinfection, testing, excavation, backfill, restoration, and all other works cited in 2.1.1 above.

Payment will be per linear metre for the supply and installation of the cased segments of watermain. This is an inclusive unit price and not an extra over and above the cost of the un-cased watermain supply and installation, and as such payment shall be under either 2.1.1 or 2.1.6 for the respective measured lengths, not both.

Proponents may suggest an alternate culvert crossing technique / design concept that represents cost savings for consideration, and provided that such meets technical and regulatory requirements.

#### 2.1.7 Water Services and Meters

The scope of work for water services includes supply and installation of the saddle; corporation stop, polyethylene piping, curb stop, ancillary fittings, marker post; and all works shown on the IFQ drawings and cited in 2.1.1 above. Water service connections shall be installed up to the property line as per MMCD Standard Detail Drawing W2a. The location of the water service at each property frontage shall be confirmed with the Contract Administrator prior to installation.

Payment will be for each water service connection installed, regardless of the length between watermain and property line.

The scope of work for water meter assemblies includes supply and installation of the box, setter, spool piece, lid, and all ancillary fitting or components as per the detail provided in the IFQ drawings.

Note that meter boxes will only be installed at occupied lots within the service area. For any vacant lots, the water service will extend to property line where the piping shall be "pigtailed" to surface with a wooden marker post beyond the curb stop.



In addition to the proposed new water services to properties within this contract limits, there are approximately five properties in the previously constructed SD #49 watermain contract where water services have been installed. As part of this contract, cut in of a water meter assembly will be required.

For select non-residential properties, such as Shearwater Marina and the Old Cannery, the water meter and backflow prevention device assembly design is pending. The intent is to conduct a site investigation to understand specific needs / conditions and then subsequently confirm the location and configuration of the meter / backflow prevention assembly. For these select properties, the scope of the metering / backflow prevention works will be coordinated via Contemplated Change Order with the successful proponent.

Payment will be per water meter assembly supplied and installed.

As optional quotation price is requested for the extra over and above cost per property to supply and install the water meter and reading endpoint within the above described pit assembly. Proponents can assume a 19 mm Sensus iPERL, Neptune T-10, or approved equal water meter with remote reading endpoint.

Proponents are also asked to identify cost savings associated with an inside meter installation within the home / building vs outside in a pit at property line.

#### 2.1.8 Gravel Access Road

Approximately 200 m of the proposed watermain on Whiskey Point will be located beyond the current limit of the vehicular road. To facilitate access for future O&M or other needs, a gravel road is proposed along the new watermain alignment. The scope of work for this gravel road item is above and beyond the typical trench restoration, and includes the supply, placement, and compaction of the granular sub-base and base as per the detail provided in the IFQ drawings.

Payment will be per square metre of base and sub-base supplied, placed, and compacted as per the thicknesses indicated in the IFQ drawings detail.

Proponents may suggest an alternate restoration approach for this section of watermain that could represent cost savings. This could include the minimum trench restoration approach that meets the bedding / backfill requirements and provides sufficient access above the watermain.

#### 2.2 MOTI Permit

The distribution watermains will predominantly be located within the Ministry of Transportation and Infrastructure (MOTI) right-of-way. The following conditions of the MOTI permit are highlighted:

- The minimum depth of pipe cover is 0.9 m;
- Traffic must be maintained at all times;
- No more than 45 m of trench excavation shall be open at one time; and
- The road surface is to be completely restored as soon as possible.



The complete MOTI permit, with all conditions, is included as **Appendix C**. Note that the completion date cited in the permit is December 31, 2023 however the proponent shall assume that the permit will be extended to meet the construction schedule which will be coordinated by the CCRD / Urban Systems.

The successful proponent is required to confirm the MOTI right-of-way limits on site and ensure that the new water infrastructure does not encroach into private property.

### 2.3 Subsurface Conditions

Geotechnical test pits were completed in April 2018 under the supervision of Fraser Valley Engineering Ltd. (FVEL). A Geotechnical Investigation Report was subsequently prepared by Out of the Box Engineering Ltd. which is provided in **Appendix D** along with a test pit location map.

In January 2019, the CCRD completed test trenches in various locations throughout the proposed Denny Island water distribution system. The intent of this fieldwork was to assess the effort required to break up and excavate the bedrock and gauge linear trench progress rates. Proponents interested in the findings of this fieldwork should contact Urban Systems accordingly.

### 2.4 Site Inspections / Field Reviews

The successful proponent will be expected to coordinate with the project team to ensure the required site inspections, field reviews, material tests, and similar are completed. This may include:

- Shipping out samples of bedding or backfill material for laboratory analysis;
- Taking photos of specific works or details requested by Urban Systems;
- Participating in video calls such that key activities can be remotely witnessed;
- Cooperating with locally appointed CCRD representatives to oversee specific aspects of the work; and
- Generally working with the CCRD and Urban Systems to ensure appropriate quality assurance / quality control of the works.

# 3.0 PROPONENT QUALIFICATIONS

Proponents are expected to have relevant experience in the supply and installation of potable water system infrastructure. This includes, but is not limited to:

- Trenching, bedding, and backfilling linear pipe (within bedrock subsurface conditions);
- Fusing HDPE pipe / fittings and electrofusing service saddles;
- Installing centralized components such as hydrants and combination air valve assemblies; and
- Completing pressure testing and disinfection of new works.



# 4.0 SCHEDULE

The works included in this project are targeted to be substantially complete by September 30, 2025. Proponents are able to suggest a shorter schedule or extended schedule with appropriate rationale for CCRD consideration.

The CCRD will work with the Province to revise the completion date for the Strategic Priorities Fund grant; however, this process is somewhat contingent on the results of this RFQ including the Quotation Price and proposed schedule. Proponents are advised that the award of this project is subject to the grant extension with the Province.

# 5.0 PROJECT PHASING

The CCRD is considering the potential to construct this project in multiple phases. A project phasing figure is presented in **Appendix E** which depicts the suggested extents of Phase 1 vs Phase 2 works. Proponents are asked to provide costing for Phase 1 only, Phase 2 only, and both Phases 1 and 2.

The CCRD intends / desires to construct all works under a single construction contract, but also wants to understand costing for a phased approach such that project expenditures relative to available grant funding can be navigated.

# 6.0 CONTRACTUAL REQUIREMENTS

The successful proponent is expected to enter into a contract with the CCRD to complete the works. The Master Municipal Construction Document (MMCD) Platinum Edition unit price contract is proposed for this project. A copy of the form of contract is included in **Appendix F**.

Proponents shall confirm a commitment to enter into the proposed contract with the CCRD. If there are any desired revisions or exceptions taken to the proposed form of contract, these should be clearly outlined in the proponent's submission.

The successful proponent will be the Prime Contractor for the work, and as such, will be expected to have applicable WorkSafeBC coverage in place.

In accordance with the Builders Lien Act and as outlined in the contract, a builders lien holdback will be applied to all payments.

A Bid Bond is not required for this RFQ. Proponents shall confirm that they can obtain a Performance Bond and Labour and Material Payment Bond, each in the amount of 50% of the Quotation Price. Proponents shall also confirm the cost premium for such bonding. The CCRD will ultimately decide whether or not to include bonding in this contract. Further, award of this contract to a proponent without bonding would need to be carefully considered by the CCRD.



# 7.0 SUBMISSION REQUIREMENTS

## 7.1 Submission of Quotation

Quotations shall be submitted electronically, in PDF format, via email to:

Central Coast Regional District c/o Urban Systems Ltd. Attention: Jacob Scissons, P.Eng. jscissons@urbansystems.ca

Proponents must respond to this RFQ by 2:00 PM PST on May 23, 2024.

Any inquiries regarding this RFQ should be directed in writing to the above.

### 7.2 Quotation Form

Quotations shall be submitted on the Quotation Form provided in **Appendix G**.

#### 7.3 Submission Evaluation

The CCRD will evaluate proponent quotations based on the best value for money. Consideration will also be given to the proponent based on experience and availability of resources.

The CCRD is seeking a proponent who is committed to working collaboratively as a team to achieve the project objectives. This may include:

- Revising and / or reducing the scope of work to meet the project budget;
- Phasing the work to ensure critical components are completed;
- Offering suggestions for design modifications that may reduce time or costs; and
- Identifying opportunities for cost savings through means such as owner supplied materials.

In this regard, the execution of the proposed MMCD unit price contract will be negotiated between the CCRD and successful proponent. The intent is to ensure clarity, fairness, and an appropriate allocation of risk.

The CCRD reserves the right to award all, portions, or none of the work to any proponent.





# LOCATION AND SITE PLAN

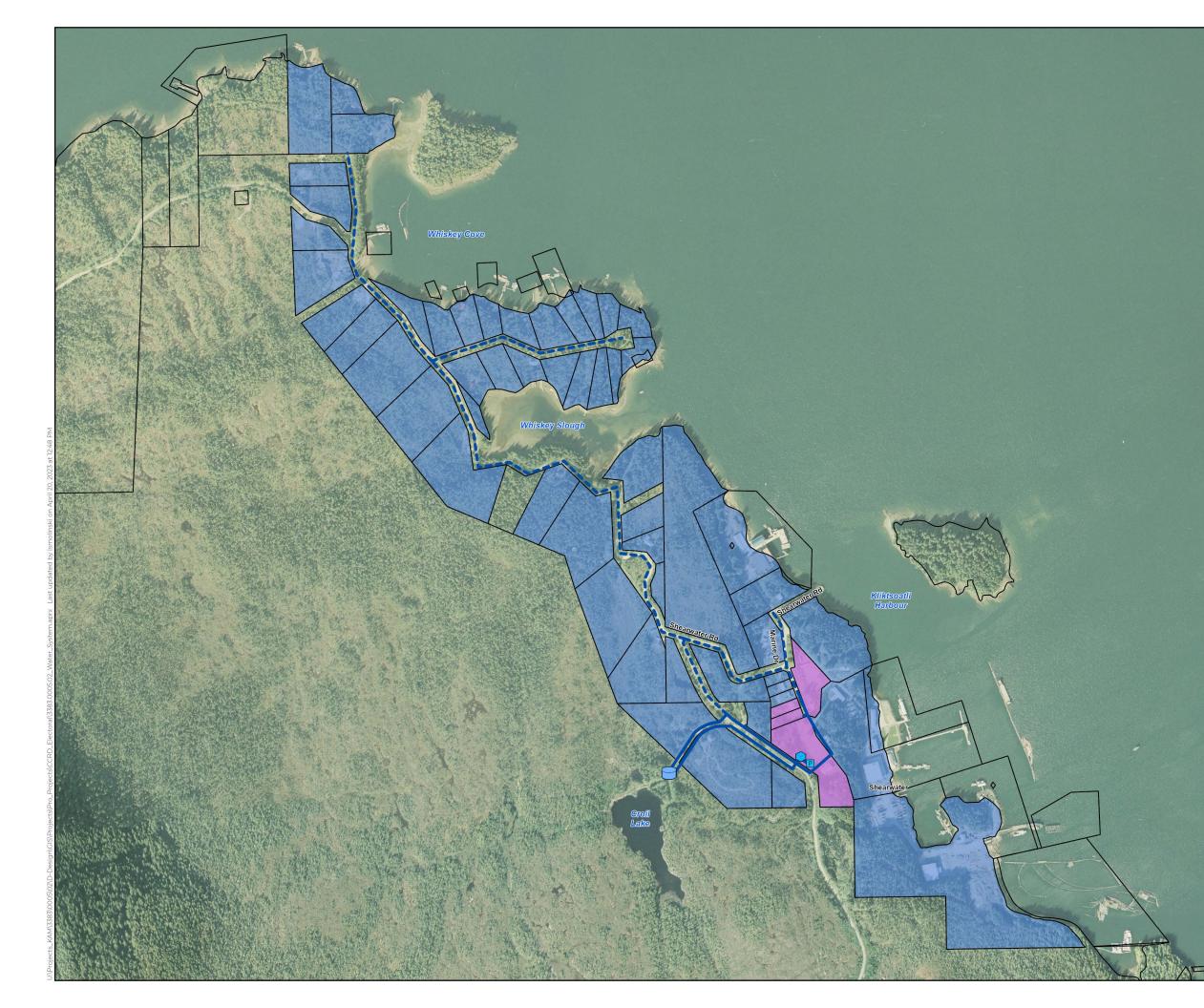


ant

Location Within BC

U/Projects\_KAM\3383\0005\02\D-Design\GIS\Projects\Pro\_Projects\CCRD\_Electoral\3383.0005.02\_Water\_System.aprx\Project\_Location\_8.5x11

FIGURE 1



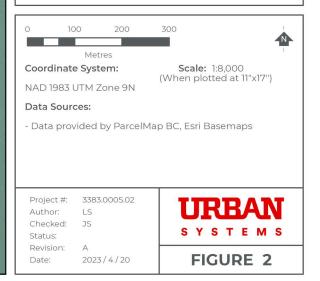


# Denny Island Community Water System

#### Legend

Ρ	Existing Well
	Existing WTP
$\Theta$	Existing Reservoir
	Existing Watermain
	Proposed Watermain
	SD #49 Service Area
	CCRD Service Area

The accuracy & completeness of information shown on this drawing is not guaranteed. It will be the responsibility of the user of the information shown on this drawing to locate & establish the precise location of all existing information whether shown or not.



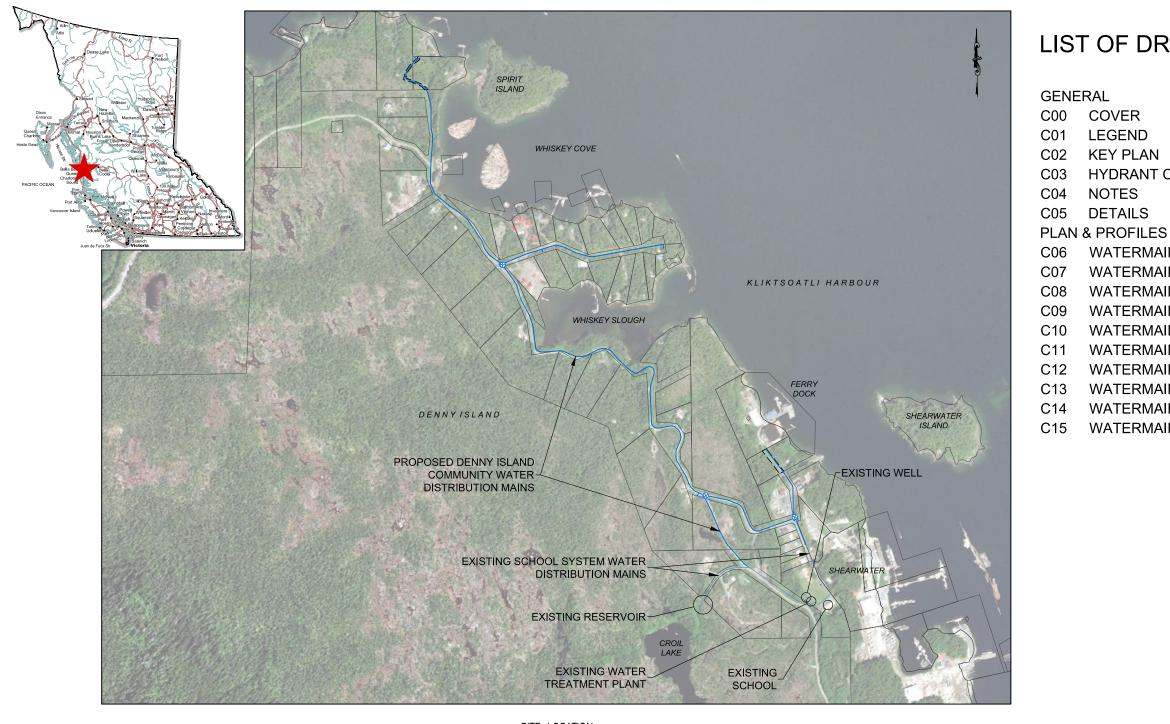


# APPENDIX B

# **ISSUED FOR QUOTATION DRAWINGS**



# **DENNY ISLAND COMMUNITY WATER SYSTEM**



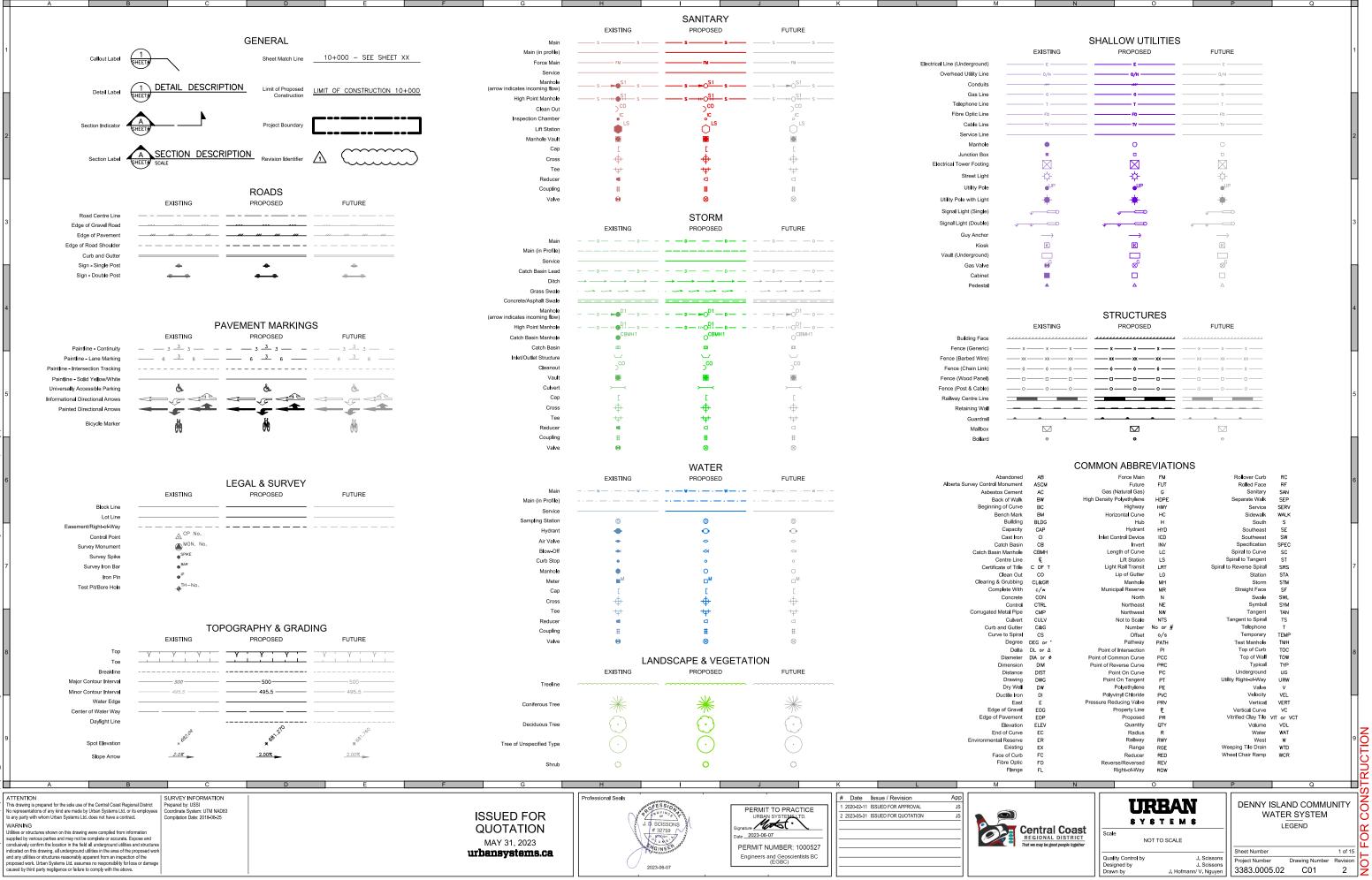


LIST OF DRAWINGS

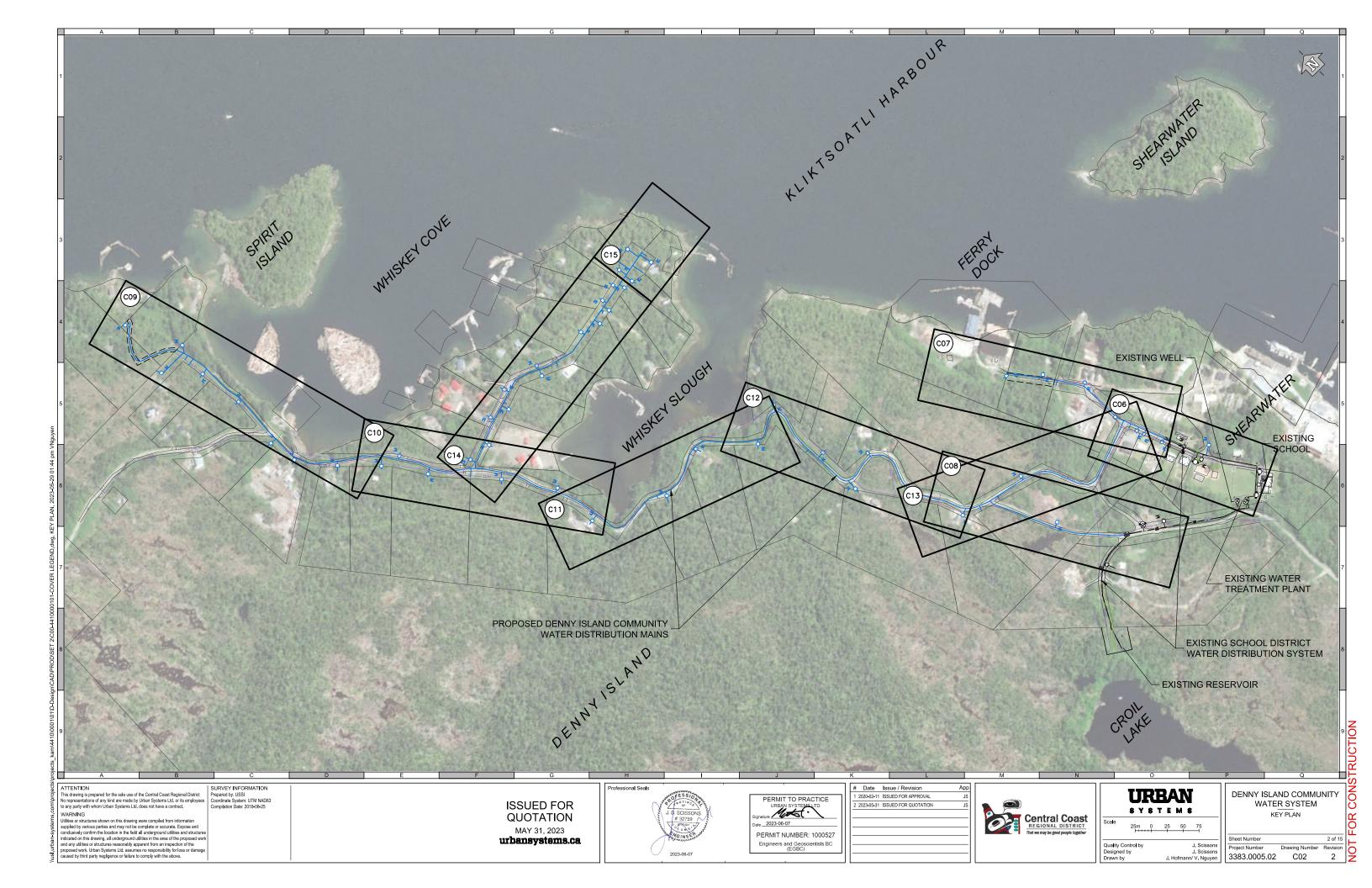
COVER LEGEND KEY PLAN HYDRANT COVERAGE NOTES DETAILS WATERMAIN - MARINE DRIVE WATERMAIN - MARINE DRIVE WATERMAIN - AIRPORT ROAD WATERMAIN - HERON POINT ROAD WATERMAIN - SHEARWATER ROAD WATERMAIN - SHEARWATER ROAD WATERMAIN - SHEARWATER ROAD WATERMAIN - SHEARWATER ROAD WATERMAIN - WHISKEY POINT ROAD WATERMAIN - WHISKEY POINT ROAD

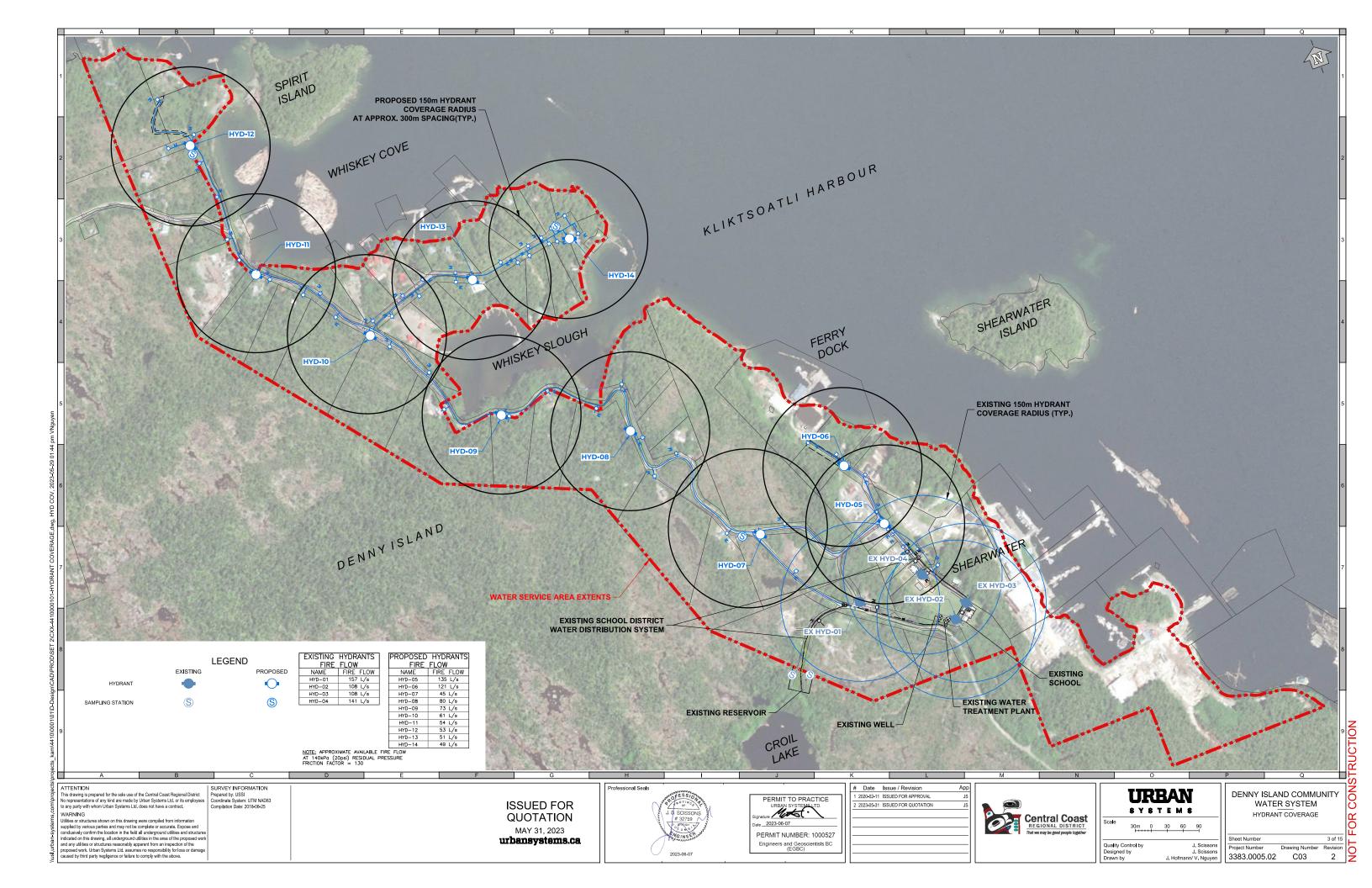
# URBAN SYSTEMS

31, 2023 CENTRAL COAST REGIONAL DISTRICT / DENNY ISLAND COMMUNITY WATER SYSTEM / 3383.0005.02 / MAY



1 of 15 Revision O





|--|

- 1. ALL WORKS TO BE COMPLETED IN ACCORDANCE WITH TECHNICAL SPECIFICATIONS CONTAINED IN THE MASTER MUNICIPAL CONSTRUCTION DOCUMENT (MMCD) PLATINUM EDITION, VOLUME II, 2009 AND THE CONTRACT DRAWINGS.
- 2. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THE LOCATION OF EXISTING UTILITIES IN THREE DIMENSIONS PRIOR TO CONSTRUCTION.
- 3. ALL EXISTING PROPERTY PINS ARE TO BE PROTECTED. THE CONTRACTOR IS RESPONSIBLE, AT THEIR OWN EXPENSE, FOR REPLACEMENT OF ANY PINS DISTURBED DURING THE WORKS. IF PINS NEED TO BE REPLACED, IT SHALL BE COMPLETED BY A BCLS APPROVED BY THE CONTRACT ADMINISTRATOR.
- 4. DO NOT USE THESE DRAWINGS TO ESTABLISH PROPERTY LINES OR LEGAL BOUNDARIES.
- CONTRACTOR TO RECORD THE LOCATION OF NEW WORKS IN THREE DIMENSIONS INCLUDING ELEVATIONS OF BURIED WORKS AND CORRESPONDING SURFACE ELEVATIONS.
- 6. ALL DISTURBED AREAS ARE TO BE RESTORED TO ORIGINAL OR BETTER CONDITION.
- 7. ROAD RESTORATION TO BE COMPLETED IN ACCORDANCE WITH SPECIFICATIONS FROM MOTI AND MMCD DWG G5.
- 8. ANY SLOPES DISTURBED DURING CONSTRUCTION TO BE PROTECTED FROM EROSION AND RE-VEGETATED AS SOON AS WEATHER PERMITS.

#### WATER WORKS NOTES

1. HDPE WATERMAIN TO BE DR17 (125 PSI) PE4710.

- 2. PRESSURE TESTING AND CHLORINATION TO BE PERFORMED BY THE CONTRACTOR IN ACCORDANCE WITH AWWA C651 AND MMCD SECTION 33 11 01.
- 3. a) HORIZONTAL SEPARATION BETWEEN WATERMAINS AND ANY STORM OR SANITARY MAINS TO BE A MINIMUM OF 3.0m.

b) VERTICAL SEPARATION BETWEEN WATERMAINS AND ANY STORM OR SANITARY MAINS TO BE A MINIMUM OF 500mm.

- c) VERTICAL SEPARATION BETWEEN WATERMAINS AND UTILITIES OTHER THAN STORM OR SANITARY MAINS TO BE A MINIMUM OF 150mm
- 4. COVER ABOVE ALL WATERMAINS TO BE A MINIMUM OF 0.9m. IF THE REQUIRED COVER CANNOT BE ACHIEVED, 50mm THICK, 1.2m WIDE RIGID HI40 INSULATION SHALL BE PLACED ABOVE THE WATERMAIN IN ACCORDANCE WITH THE CONTRACT ADMINISTRATOR'S APPROVAL.

#### 5. a) TRENCH WORK TO BE IN ACCORDANCE WITH MMCD DWG G4.

- b) PIPE BEDDING AND SURROUND MATERIAL TO CONSIST OF WELL-GRADED 19mm MINUS SAND AND GRAVEL COMPACTED TO 95% MPMDD.
- c) TRENCH BACKFILL MATERIAL TO CONSIST OF WELL-GRADED 19mm MINUS SAND AND GRAVEL. TRENCH BACKFILL TO BE PLACED IN LIFTS NOT EXCEEDING 300 MM AND IS TO BE COMPACTED TO 95% MPMDD.
- 6. GATE VALVES TO BE IN ACCORDANCE WITH AWWA C509 AND MMCD DWG W3.
- 7. SAMPLING STATIONS TO BE ECLIPSE 88 OR APPROVED EQUAL.
- 8. HYDRANTS TO BE IN ACCORDANCE WITH MMCD DWG W4.
- 9. BLOW-OFFS TO BE IN ACCORDANCE WITH MMCD DWG W8.
- 10. COMBINATION AIR VALVES TO BE ARI D-090-P.
- 11. WATER SERVICE CONNECTIONS TO BE 25 MM POLYETHYLENE AS PER MMCD DWG W20. SERVICE SADDLE TO BE ELECTROFUSED TO WATERMAIN.

12. WATER METERS TO BE INSTALLED ON ALL SERVICE CONNECTIONS AS PER DETAIL.

COORDINATION NOTES

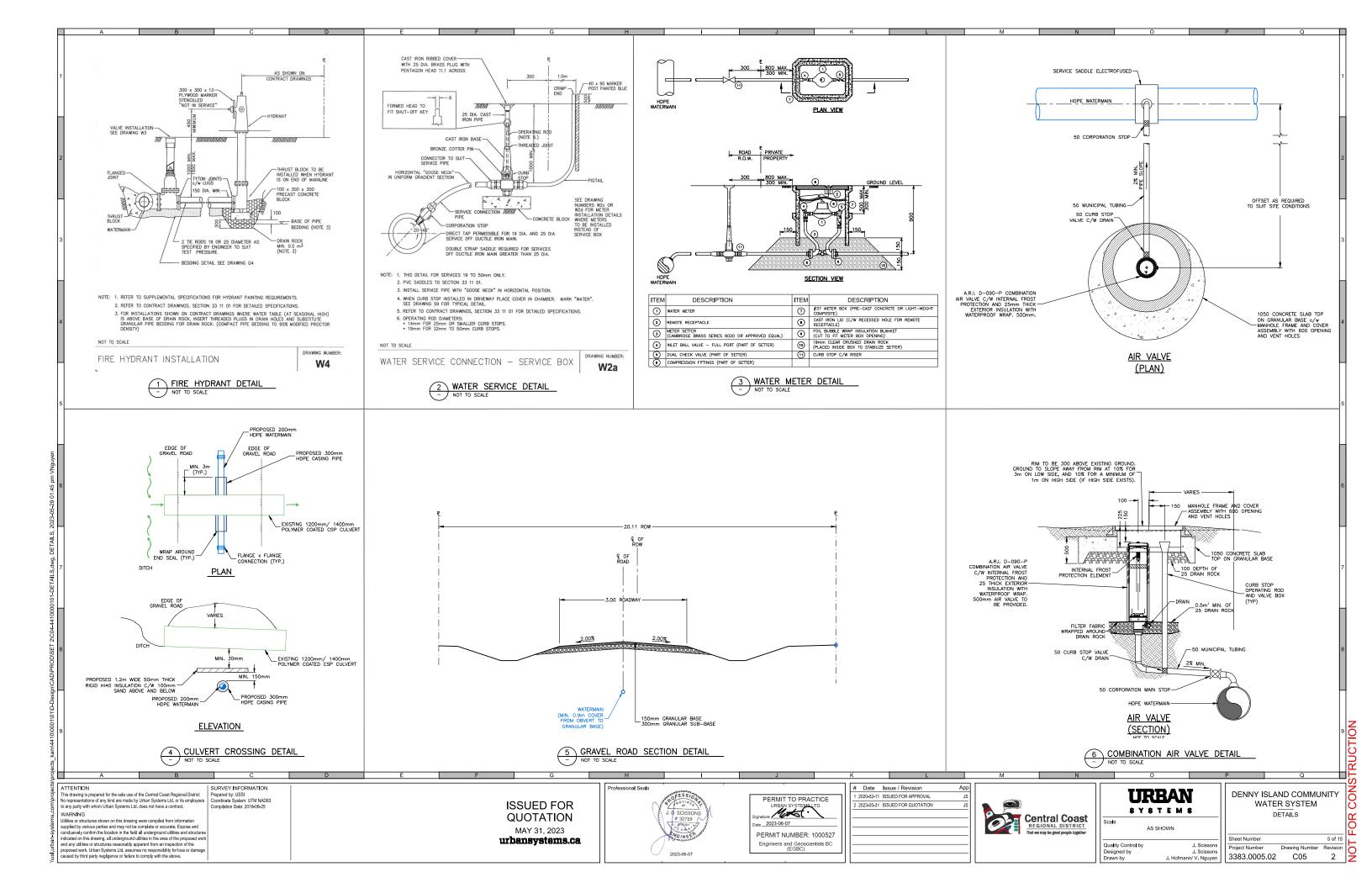
E

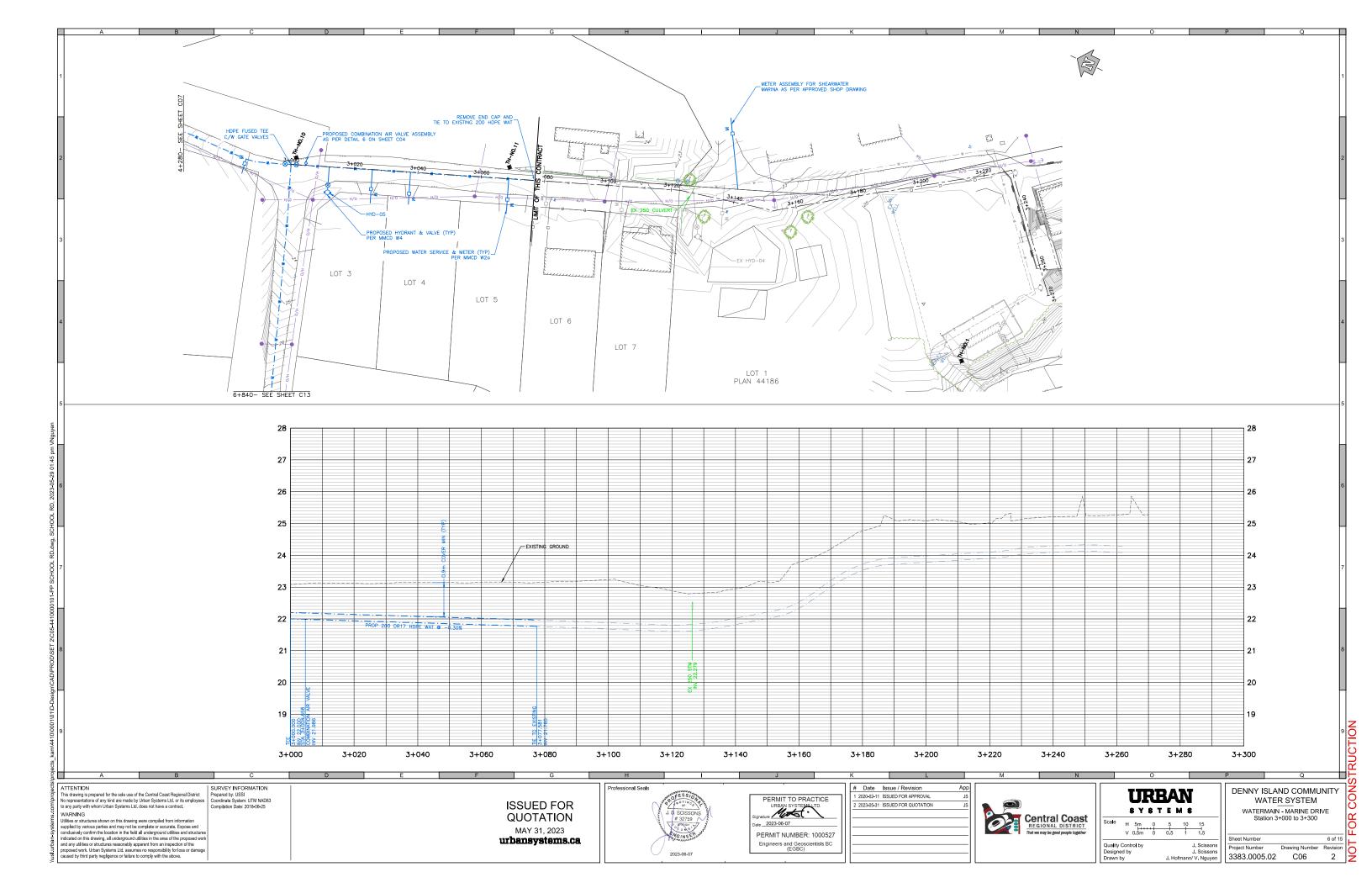
- 1. WATERMAIN ALIGNMENT WITHIN ROAD RIGHT-OF-WAY TO BE ADJUSTED BASED ON FAVOURABLE TRENCHING CONDITIONS, MINIMIZING UTILITY/ OTHER CONFLICTS, AND SIMILAR CONSIDERATIONS. ALIGNMENT TO BE CONFIRMED WITH CONTRACT ADMINISTRATOR.
- LOCATIONS OF HYDRANTS, COMBINATION AIR VALVE ASSEMBLIES, ISOLATION VALVES, SAMPLING STATIONS, AND SIMILAR CENTRALIZED WATER SYSTEM COMPONENTS TO BE CONFIRMED WITH CONTRACT ADMINISTRATOR PRIOR TO INSTALLATION.
- WATER SERVICE CONNECTION LOCATIONS AT EACH PROPERTY FRONTAGE SHALL BE CONFIRMED WITH THE CONTRACT ADMINISTRATOR PRIOR TO INSTALLATION AND MAY BE INFORMED BY PROPERTY OWNER INPUT.

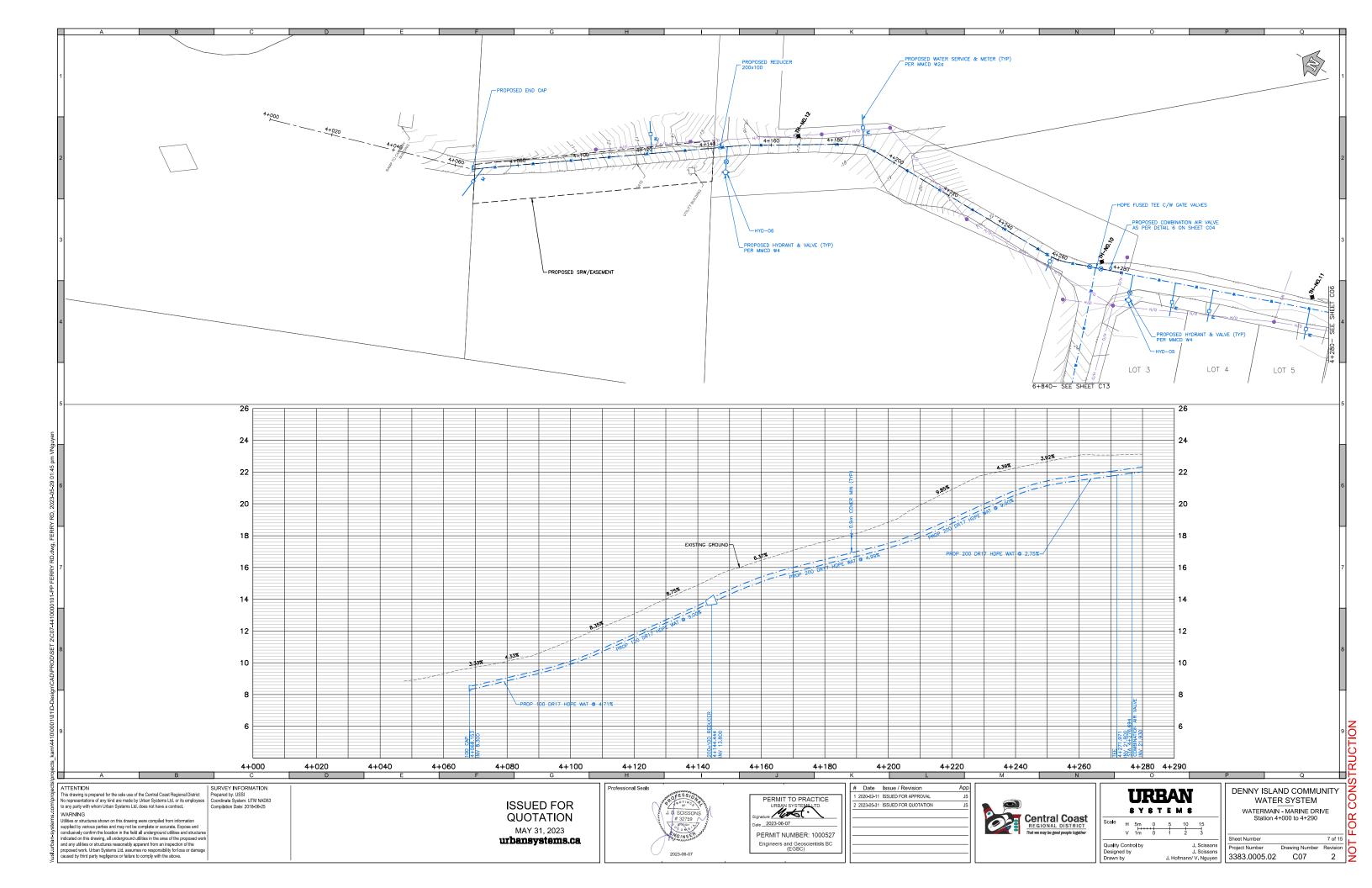
ie A	В	C	D	F	F	G	Н			к			М	
No representations of any k to any party with whom Urb WARNING Utilities or structures shown supplied by various parties conclusively confirm the loc indicated on this drawing, a and any utilities or structure proposed work. Urban Syst	he sole use of the Central Coast Regional Dist are made by Urban Systems Ltd. or its empl Systems Ltd. or its empl systems Ltd. or its on theve a contract. If the drawing were completed from information may not be complete or accurate. Expose a on in the field all underground utilities and stru- derground utilities in the area of the propose easonably apparent from an inspection of the st. Ltd. assumes no responsibility for loss or de ce or failure to comply with the above.	yees Coordinate System: UTM NADE Compilation Date: 2018-06-25 d tures J work			(	SSUED FOR QUOTATION MAY 31, 2023 <b>bansystems.ca</b>	Professional Seals	2023-06-07	PERMIT TO PRAC URBAN SYSTEMS I Signature Date_2023-06-07 PERMIT NUMBER: 11 Engineers and Geoscien (EGBC)	1 2020   2 2023   2 2023   2 2023   2 2023   2 2023	Date Issue / Revision 002-11 ISSUED FOR APPROVAL 2-05-31 ISSUED FOR QUOTATION	App 		Cent REGIO hat we ma

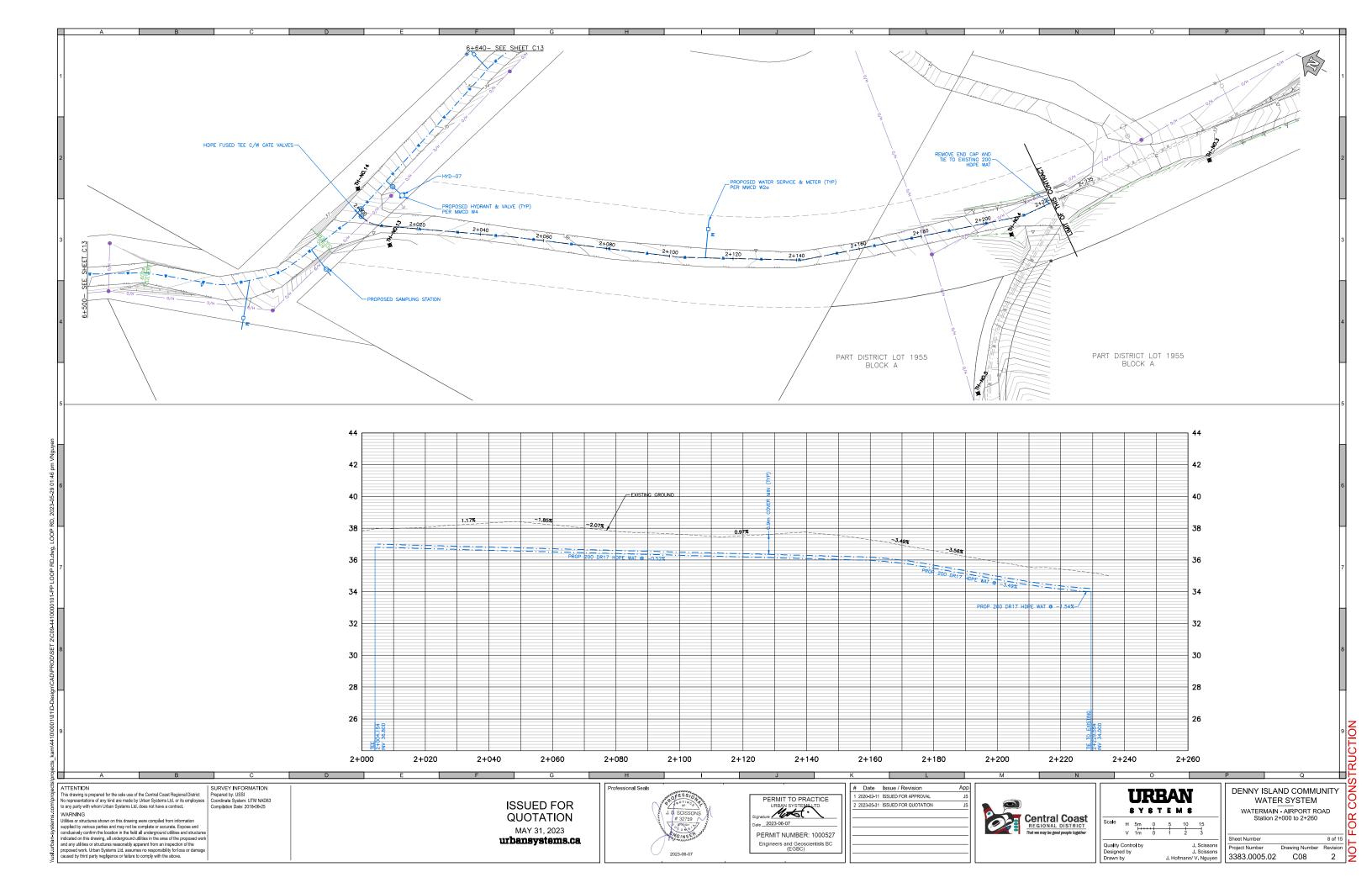
I N	0	P	Ι <u>α</u>	9	<b><i>IRUCTION</i></b>
IN IN		F	<u> </u>		ςΩ'
Central Coast	Scale		SLAND COMMU ATE <u>R SY</u> STEM NOTES	JNITY	FOR CON
mat no may be good people agener		Sheet Number		4 of 15	<u> </u>
	Quality Control by J. Scissons Designed by J. Scissons	Project Number	Drawing Number	Revision	5
	Drawn by J. Hofmann/ V. Nguyen	3383.0005	5.02 C04	2	ž

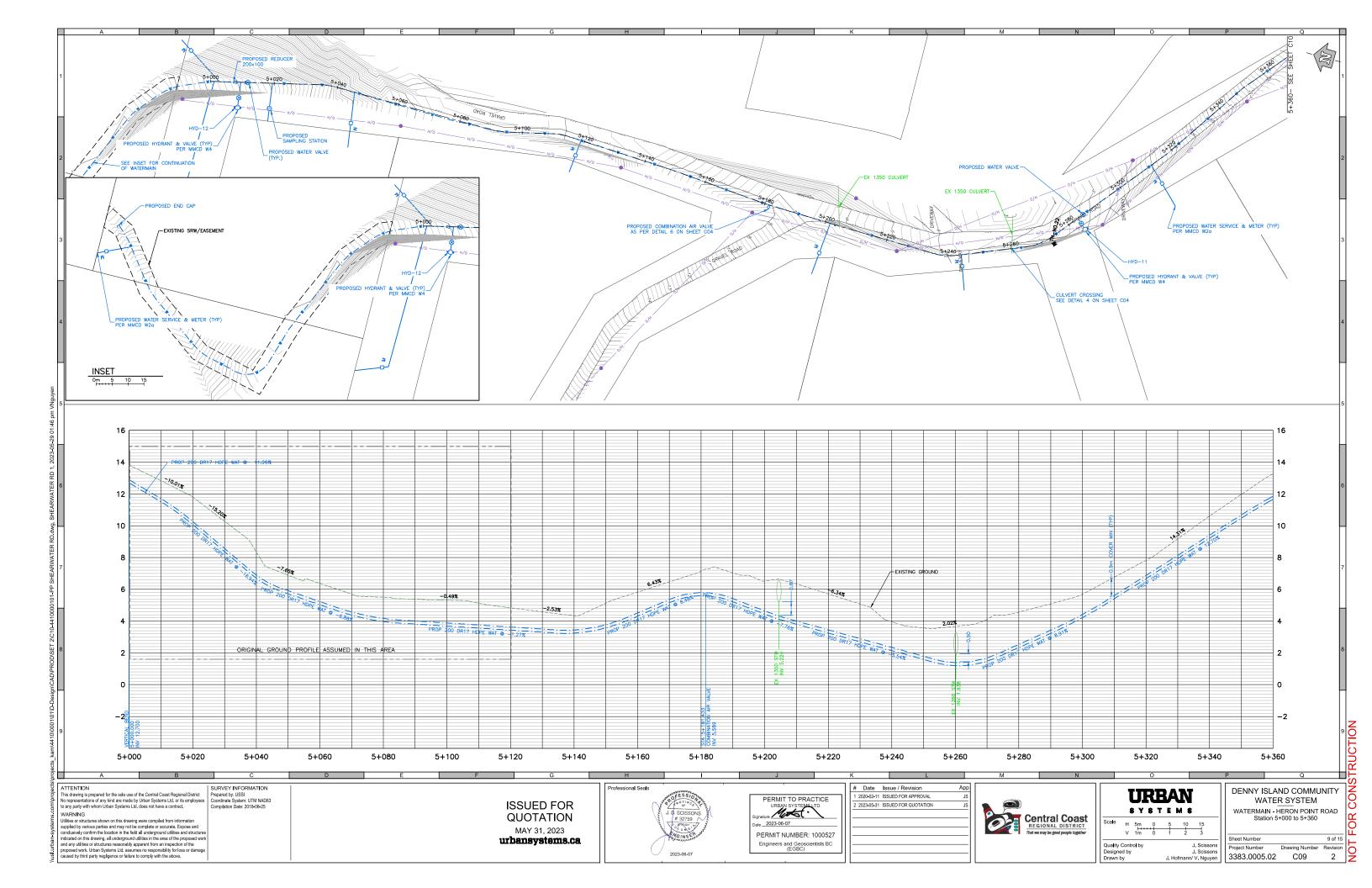
D

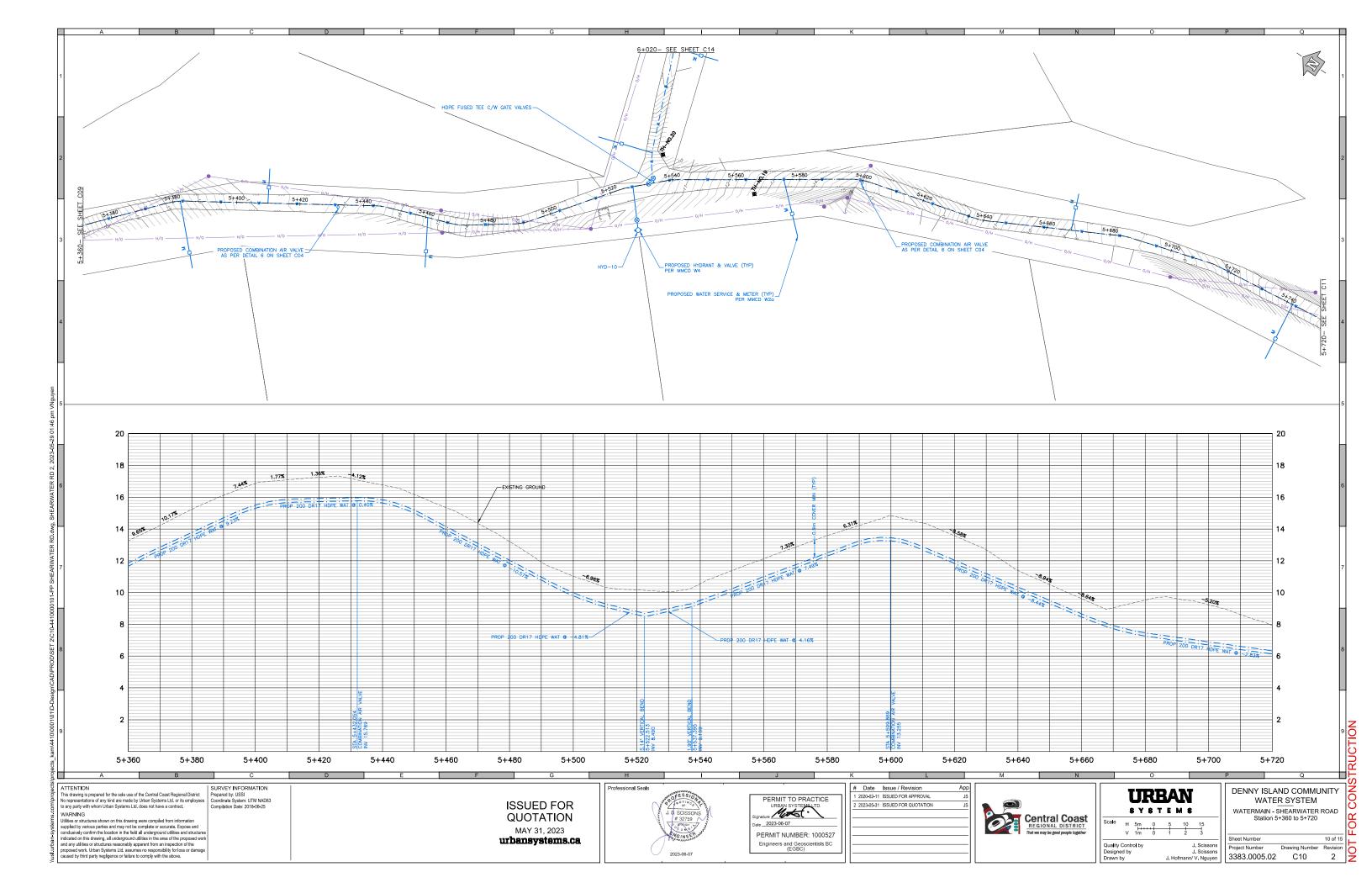


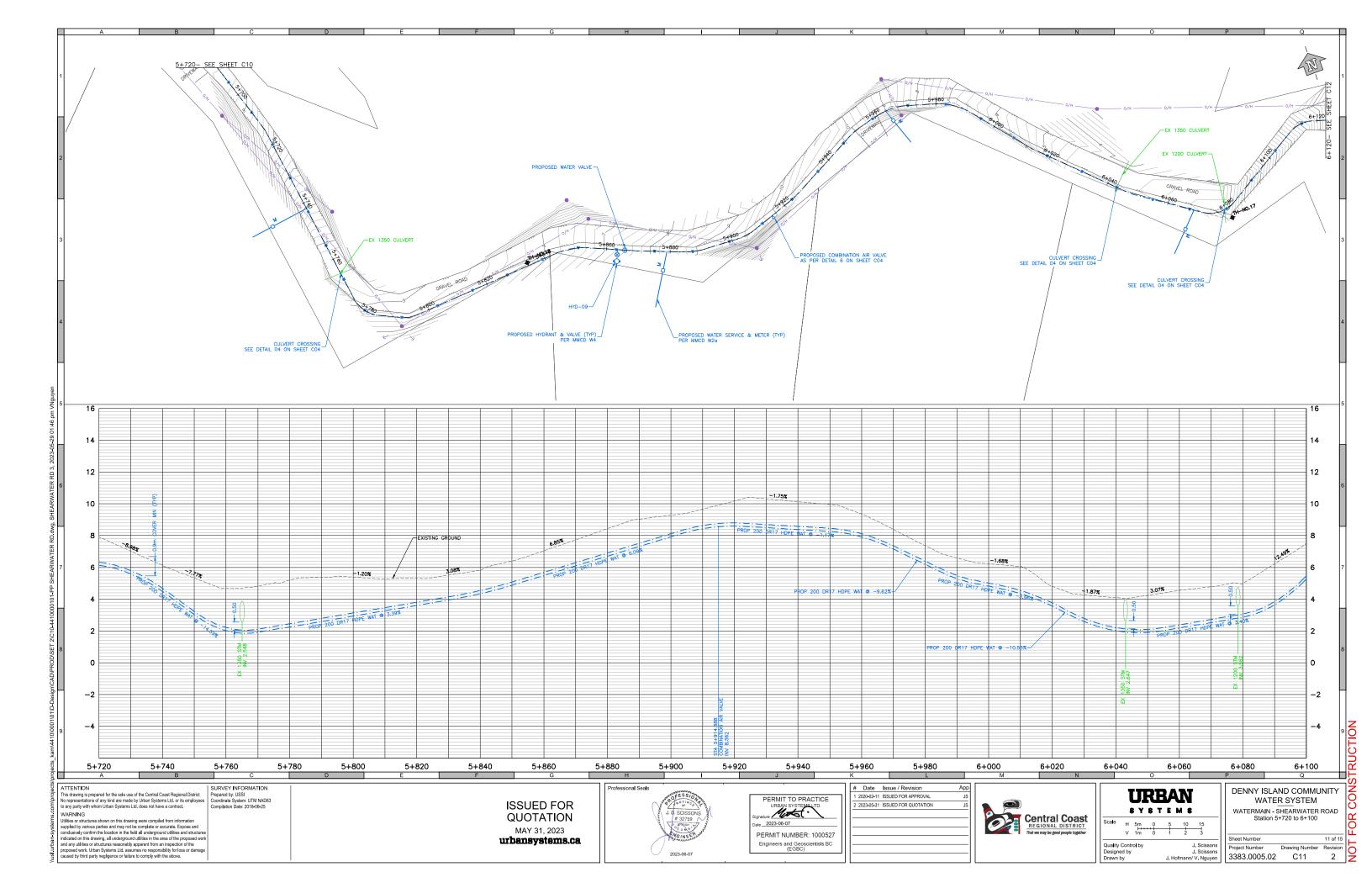


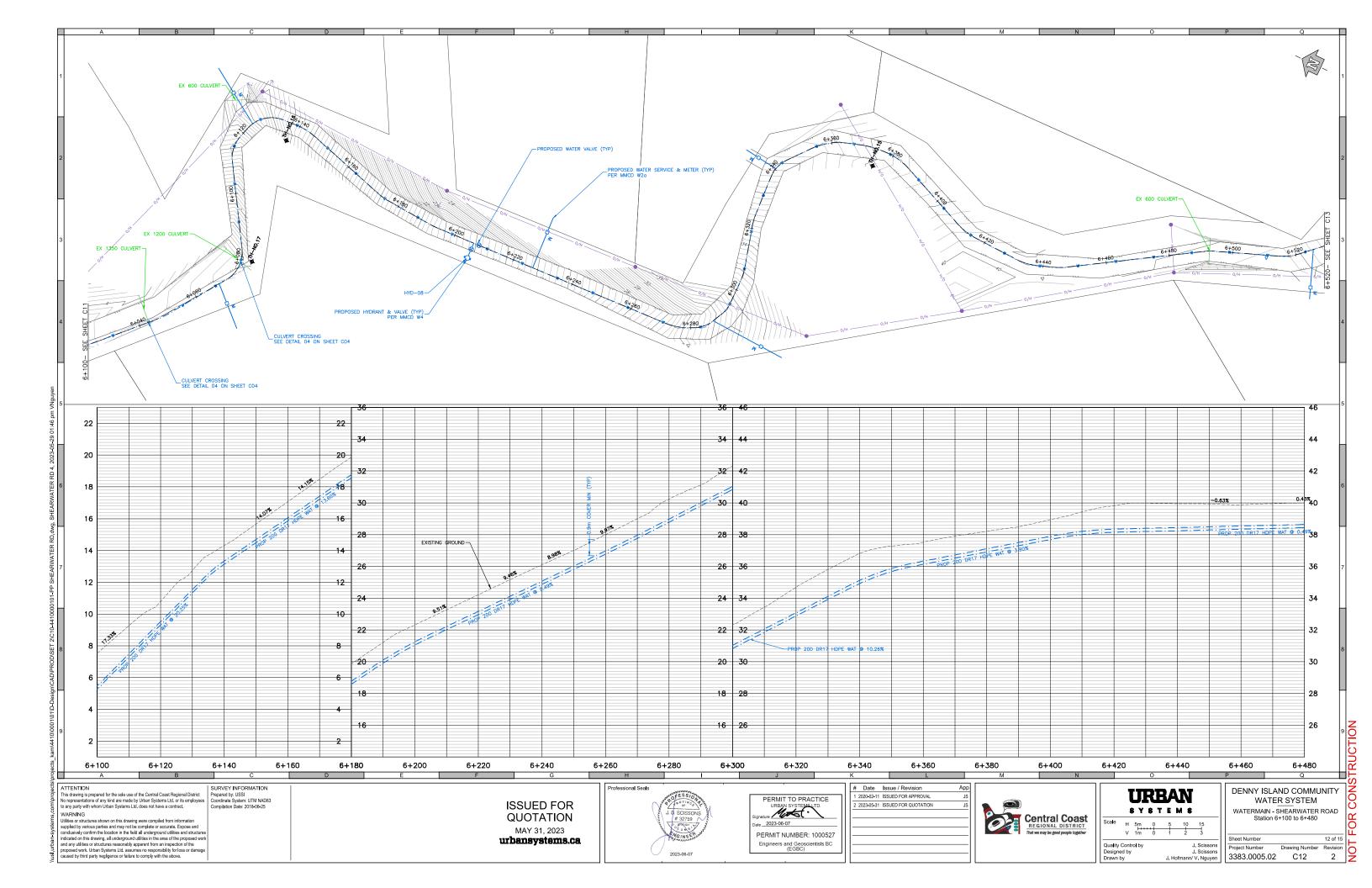


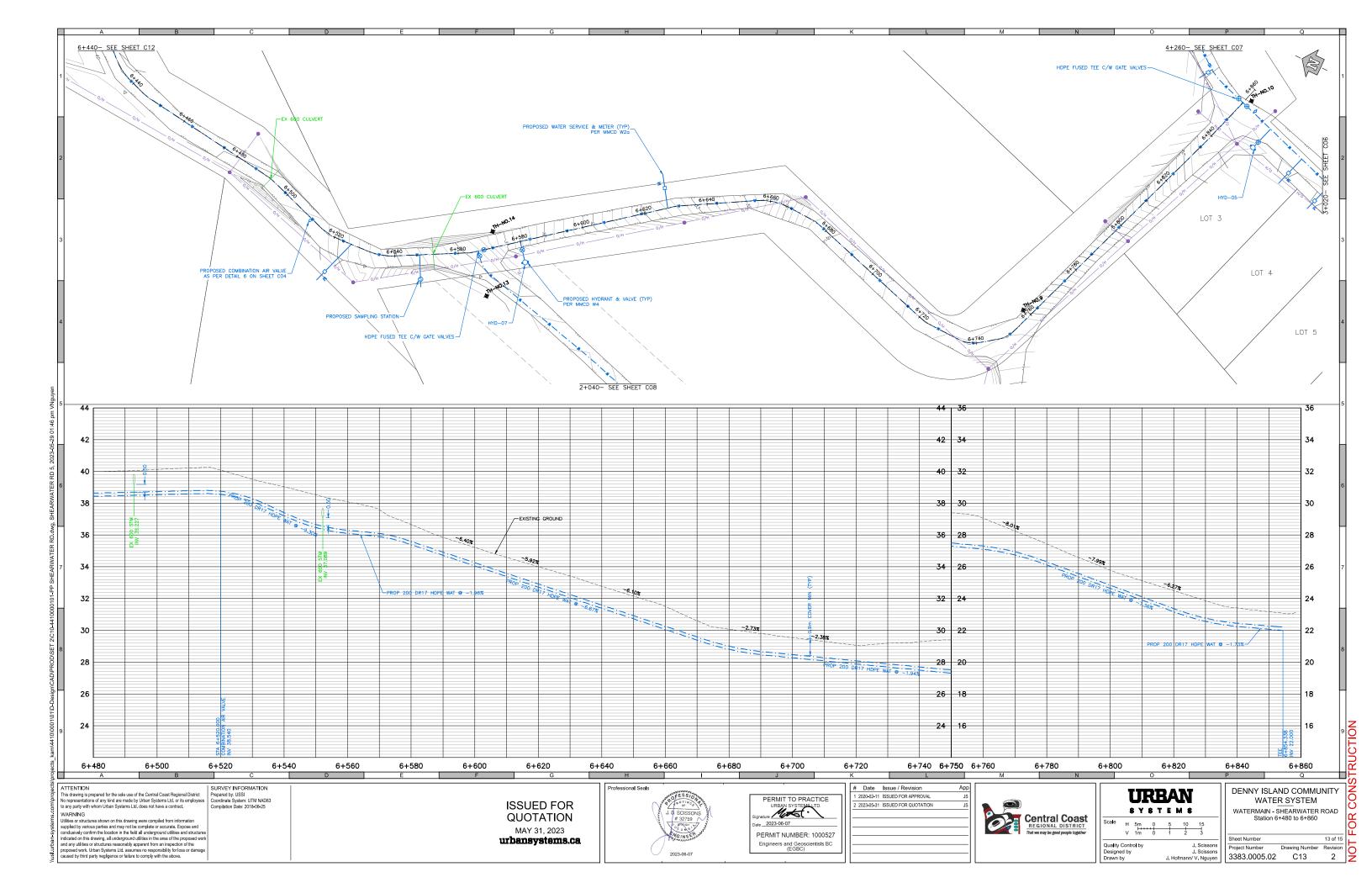


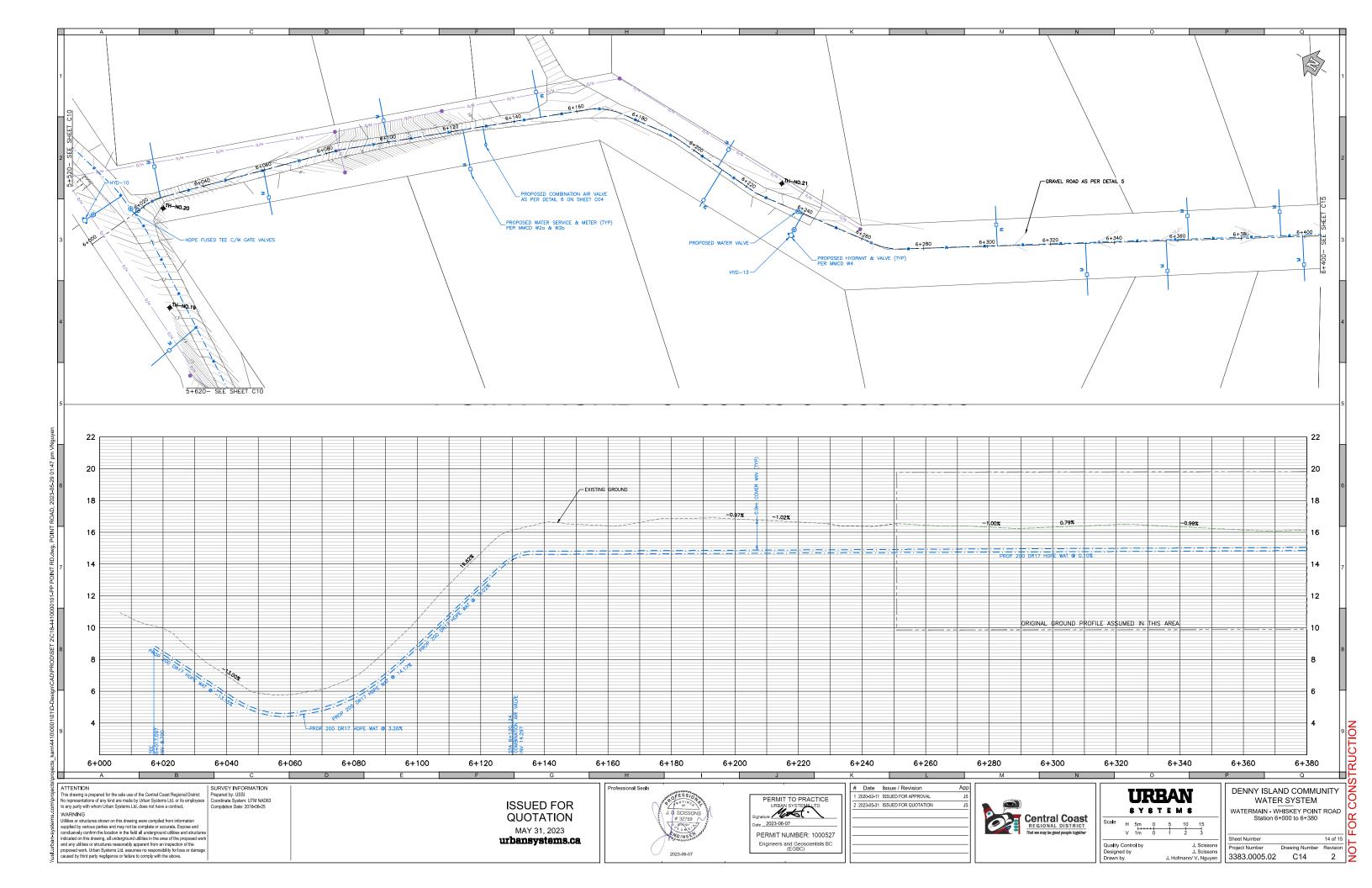


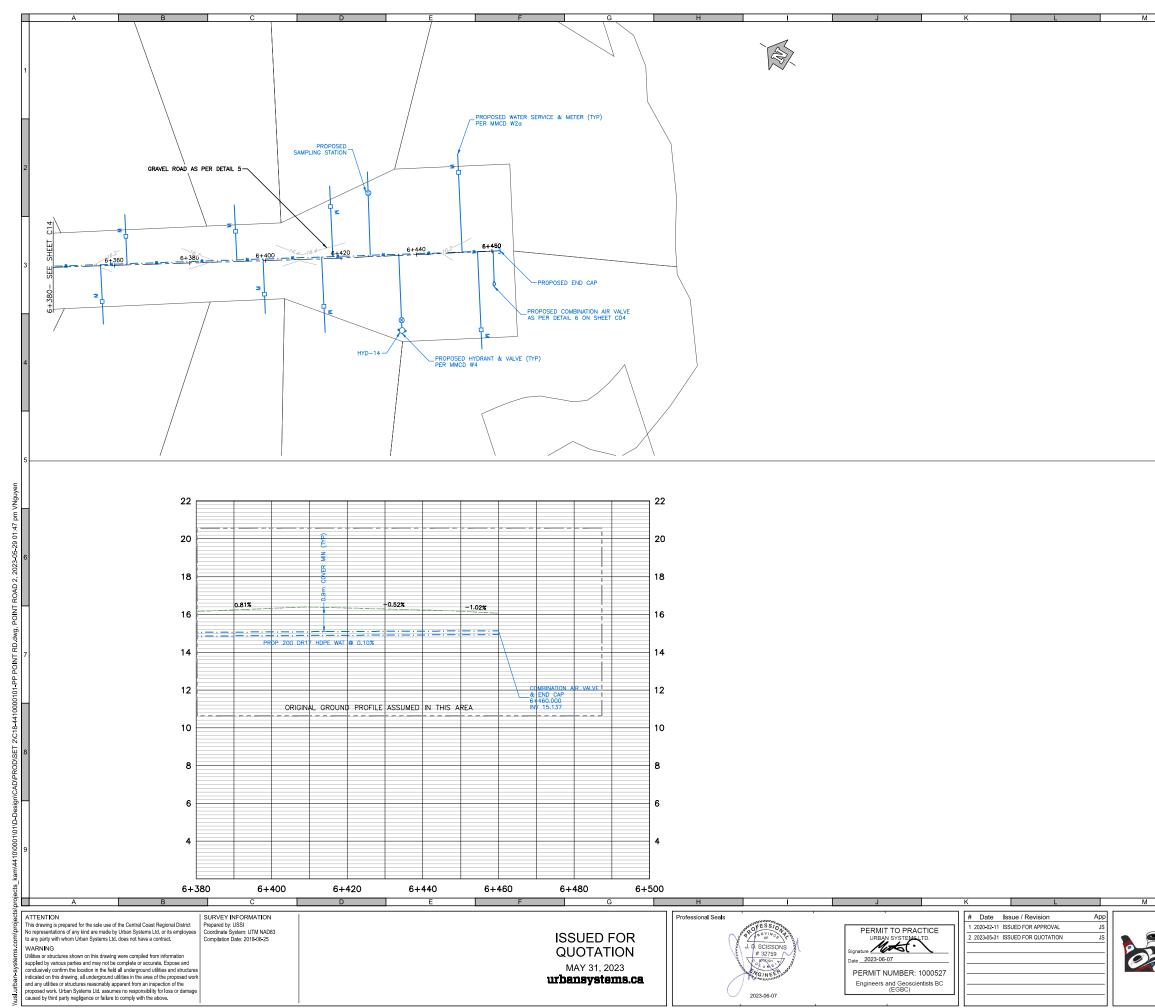












	N		0		P	Q	
							1
							2
							-
							3
							4
							5
							6
							Γ
							7
							8
							9
	N		0		P	Q	
		U	RBAN	I	DENNY ISL WAT	AND COMMU ER SYSTEM	NITY
Central	Coast		<b>STEM</b>			WHISKEY POINT 6+380 to 6+462	ROAD
Central REGIONAL That we may be good	DISTRICT d people together	Scale H 5m H V 1m			Sheet Number		15 of 15
		Quality Control by Designed by Drawn by	Unfor	J. Scissons J. Scissons nn/ V. Nguyen	Project Number 3383.0005.0		Revision 2
		Drawn by	J. Hotmar	n/ v. Nguyen	0000.0000.0		2



# APPENDIX C

# **MOTI PERMIT**

Request for Quotation | Denny Island Water Distribution System



# PERMIT TO CONSTRUCT, USE, AND MAINTAIN WORKS WITHIN THE RIGHT-OF-WAY OF A PROVINCIAL PUBLIC HIGHWAY

### PURSUANT TO TRANSPORTATION ACT AND/OR THE INDUSTRIAL ROADS ACT AND/OR THE MOTOR VEHICLE ACT AND/OR AS DEFINED IN THE NISGA'A FINAL AGREEMENT AND THE NISGA'A FINAL AGREEMENT ACT.

**BETWEEN:** 

The Minister of Transportation and Infrastructure

Cariboo 301-640 Borland Street Williams Lake , British Columbia V2G 4T1 Canada

("The Minister")

AND:

Central Coast Regional District 626 Cliff Street PO Box 186 Bella Coola, British Columbia V0T 1C0 Canada

("The Permittee")

#### WHEREAS:

- A. The Minister has the authority to grant permits for the auxiliary use of highway right of way, which authority is pursuant to both the Transportation Act and the Industrial Roads Act, the Motor Vehicle Act, as defined in the Nisga'a Final Agreement and the Nisga'a Final Agreement Act;
- **B.** The Permittee has requested the Minister to issue a permit pursuant to this authority for the following purpose:

The installation, operation, and maintenance of a low-pressure pipe for the purpose of providing potable water on Denny island located throughout the service area and within Ministry of Transportation and Infrastructure rights-of-way, as outlined in the application and drawings submitted on February 20, 2020. The depth of pipe cover requirement is reduced to 0.9m under roadway and ditch line, as shown on the attached drawings C01-C10. This permit was amended on January 13, 2023 to extend the completion date to December 31, 2023.

C. The Minister is prepared to issue a permit on certain terms and conditions;

ACCORDINGLY, the Minister hereby grants to the Permittee a permit for the Use (as hereinafter defined) of highway right of way on the following terms and conditions:

- 1. That the construction and maintenance of the said works is carried out to the satisfaction of the Regional Director, Transportation.
- 2. That, before opening up any highway or interfering with any public work, intimation in writing of the intention to do so must be given to the District Official at least seven days before the work is begun.
- 3. That any person appointed by the Regional Director, Transportation, for the purpose shall have free access to all parts of the works for the purpose of inspecting the same.
- 4. That the construction of the said works shall be commenced on or before the 1<sup>st</sup> of April, 2020 and shall be prosecuted with due diligence and to the satisfaction of the Regional Director, Transportation, and shall be completed on or before the 31<sup>st</sup> of December, 2023.



Ministry of Transportation

5.

(a) The highway must at all times be kept open to traffic. The roadway must be completely restored for traffic as soon as possible. At all times the permittee must safeguard the traveling public.

(b) That, unless with the consent of the Regional Director, Transportation, no more than forty-five (45) metres of pipe-track or other excavation in any public highway is to be kept open at one time.

(c) All excavation work must be carried out in accordance with the BC Occupational Health and Safety Regulation. Care shall be taken to protect adjacent property.

(d) That all excavations shall be carefully back-filled with suitable material, which is to be tamped into place, and that the permittee shall restore the surface of the road and shoulders and ditches at their own expense. All surplus material is to be removed from the Provincial Crown lands, or deposited where and as required by the District Official of the Ministry of Transportation and Infrastructure. The permittee is financially responsible for any maintenance works required on said ditch for a period of one year. The Ministry will carry out the necessary remedial work and invoice the permittee monthly.

(e) The pipeline crossing installation is to be placed by drilling and (or) jacking in such a manner as to afford minimum grade settlement. No water jetting will be permitted. That where, in the opinion of the District Official, an excavation or opening for a pipeline crossing installation could be made which would not be detrimental to the highway or its users, permission will be granted for said works. On throughways, freeways, and main highways no open cuts will be allowed.

(f) That all pipelines in excess of a nominal diameter of 5 cm., whether gas, oil, water, pressure sewers, conduits, etc., shall be installed where indicated by the District Official, encased in a steel casing-pipe or conduit-pipe of sufficient strength to withstand all stresses and strains resulting from the location, such casing to extend the full width of the highway right-of-way if deemed necessary to the District Official. The ends of the casing-pipe shall be suitably sealed and, if required, properly vented above the ground with vent-pipes not less than 5 cm. in diameter, and extending not less than 1.2 metres above ground surface. Vent-pipes shall be connected 30 cm. from the ends of the casing-pipe, and the top of each vent shall be fitted with a turn-down elbow, properly screened and equipped with identification markers.

All pipelines of non-rigid material, i.e., plastic or copper, of any diameter, shall be cased, or embedded in sand.

The inside diameter of the casing-pipe shall be at least 25 percent larger than the outside diameter of the pipeline. The casing-pipe shall be installed with an even bearing throughout its length, and in such a manner so as to prevent leakage, except through the vents.

The top of the casing-pipe, or the pipeline where casing is not required, shall be located as directed by the District Official, and shall in no case be less than 1.2 metres below the surface of the highway and not less than 1.0 metres below the highway ditches. Pipelines must not obstruct drainage structures or ditches or interfere with traffic on the highway or with highway maintenance.

- 6. That where the work for which permission is hereby granted comes in contact with any bridge, culvert, ditch, or other existing work, such existing work must be properly maintained and supported in such manner as not to interfere with its proper function during the construction of the new work, and on the completion of the new work the bridge, culvert, ditch, or other existing work interfered with shall be completely restored to its original good condition.
- 7. That when necessary all excavations, materials, or other obstructions are to be efficiently fenced, lit, and watched, and at all times every possible precaution is to be taken to ensure the safety of the public.
- 8. The Permittee shall indemnify and save harmless the Ministry, its agents and employees, from and against all claims, liabilities, demands, losses, damages, costs and expenses, fines, penalties, assessments and levies made against or incurred, suffered or sustained by the Ministry, its agents and employees, or any of them at any time or times, whether before or after the expiration or termination of this permit, where the same or any of them are based upon or arise out of or from anything done or omitted to be done by the Permittee, its employees, agents or Subcontractors, in connection with the permit.
- 9. That the permission herein granted to use and maintain the works is only granted for such times as the land or public work in, upon, or over which the said works are constructed is under the jurisdiction of the Minister of Transportation and Infrastructure. This permission is not to be construed as being granted for all time, and shall not be deemed to vest in the permittee any right, title or interest whatsoever in or to the lands upon which the works are constructed. Should the lands affected at any time be included within that of an incorporated municipality or city, this permission shall become void, unless the works are on a highway duly classified as an arterial highway pursuant to Section 45 of the Transportation Act.
- 10. That after receiving notice in writing of the intention on the part of the Provincial Government to construct, extend, alter, or improve any public work, the person or persons responsible for the maintenance of the works for which permission is hereby granted shall within six weeks move or alter such work at their own expense to such new positions or in such manner as may be necessitated by the construction, extension, alteration, or improvement proposed to be carried out by the Provincial Government.



- 11. That while reasonable care will be taken on the part of the Provincial Government to do as little damage as possible to any private work in the carrying-out of the construction, extension, alterations, improvement, repair, or maintenance of any public work adjacent thereto, the Provincial Government can accept no responsibility for any kind of such damage.
- 12. That the permission hereby granted to construct, use, and maintain work is granted without prejudice to the provisions of the Transportation Act, or other Acts governing Crown lands and public works or their use by the public.
- 13. That this permission shall be in force only during such time as the said works are operated and maintained by the applicants to the entire satisfaction of the Regional Director, Transportation.
- 14. That the Ministry will not be responsible for grade changes on accesses caused by reconstruction of any Provincial highway.
- 15. This permit is valid only for the specific works stated herein. Any alterations or additions must be covered by a separate permit.
- 16. This permit may be canceled, at the discretion of the Minister, without recourse, should the permittee fail to comply with all the terms of the permit. Thirty days' notice will be given before cancellation.
- 17. When the requirements of the Ministry necessitate use of the said lands for Provincial purposes, at the discretion of the Minister, this permit may be canceled.
- 18. That these works shall be identified with this permit number in a manner satisfactory to the District Official of the Ministry of Transportation and Infrastructure.
- 19. As a condition of this permit, the permittee unconditionally agrees with the Ministry of Transportation and Infrastructure that the permittee is the prime contractor or will appoint a qualified prime contractor, as described in Section 118 of the Workers Compensation Act, for the purposes of the work described by this permit, at the work location described in this permit, and that the permittee or designated prime contractor will observe and perform all of the duties and obligations which fall to be discharged by the prime contractor pursuant to the Workers Compensation Act and the Occupational Health and Safety Regulation.
- 20. The permittee is advised and acknowledges that the following hazards may be present at the work location and need to be considered in coordinating site safety: overhead hazards, particularly electrical or telecommunications lines; buried utilities, particularly electrical, telecommunication, and gas lines; traffic, danger trees, falling rocks, and sharp or infectious litter.
- 21. Any works within the Ministry right-of-way that fall within the scope of "engineering" under the Engineers and Geoscientists Act will be performed by a Professional Engineer, and shall comply with this Ministry's "Engineer of Record and Field Review Guidelines". The Guidelines can be viewed on the Ministry's website at <a href="http://www2.gov.bc.ca/assets/gov/driving-and-transportation/transportation-infrastructure/engineering-standards-and-guidelines/technical-circulars/2009/t06-09.pdf">http://www2.gov.bc.ca/assets/gov/driving-and-transportation-infrastructure/engineering-standards-and-guidelines/technical-circulars/2009/t06-09.pdf</a>
- 22. The permittee is responsible for preventing the introduction and spread of noxious weeds on the highway right-of-way as defined by the British Columbia Weed Control Act and Weed Control Regulation.
- 23. Permittee is responsible for ensuring that all works are contained to the highway right of way. Any works located within private property must have the owner's permission.
- 24. Trench shoring must conform to WCB standards. All excavation on highway right-of-way must be backfilled by the end of the same working day in such a manner as to safeguard the travelling public.
- 25. The Permittee must restore all slopes, road shoulders, ditches, drainage facilities, driveway accesses and all highway right-ofway that has been disturbed to original or better than original condition.
- 26. That where the work for which consent is hereby granted comes in contact with any bridge, culvert, ditch or other existing work, such existing work must be properly maintained and supported in such manner as not to interfere with its proper function during the construction of the new work. On the completion of the new work, the Permittee shall ensure that the bridge, culvert, ditch, or other existing work interfered with shall be completely restored to its original good condition.
- 27. That while reasonable care will be taken on the part of the Provincial Government to do as little damage as possible to any private work in the carrying-out of the construction, extension, alteration, improvement, repair, or maintenance of public work adjacent thereto, the Provincial Government can accept no responsibility of any kind for such damage.
- 28. That the construction of the said works is carried out in conformity with all legislation applicable to the Permittee or specifications by regulatory bodies having jurisdiction over the Permittee, and that the Regional Director, Ministry of Transportation and Infrastructure of the Province of British Columbia, or any person appointed by the Regional Director, Ministry of Transportation and Infrastructure shall have free access to all parts of the works for the purpose of satisfying himself that the works are being carried out in accordance with such legislation or regulatory specifications as aforementioned.



- 29. That this permit shall be in force only during such time as the said works are operated and maintained by the applicants or their assignees or successors in conformity with all legislation applicable to the Permittee or specifications by regulatory bodies having jurisdiction over the Permittee.
- 30. This permit may be cancelled, at the discretion of the Minister, without recourse, should the permittee fail to comply with all the terms of the permit. Thirty days' notice will be given before cancellation.
- 31. When the requirements of the Ministry necessitate use of the said lands for Provincial purposes, at the discretion of the Minister, this permit may be cancelled.
- 32. All work at all times is to be carried out to the entire satisfaction of the Cariboo District Manager, Williams Lake. If the works do not meet the satisfaction of the Ministry, remedial work may be undertaken by the Ministry at the cost of the Permittee.
- 33. The Permittee shall determine the location of highway right-of-way to ensure their permitted work is within Ministry jurisdiction. The Permittee is responsible for all trespass issues.
- 34. Permittee is responsible for notifying and gaining approval of utility companies with existing installations in the immediate vicinity of the permitted works prior to installation of any works.

The Permittee is to ensure that no damage is done to any existing underground or overhead utilities.

35. The Permittee will ensure that the works do not impair, impede or otherwise interfere with:

a) public passage on the Highways

b) the provision of highway maintenance services by the Province, or by its servants, contractors, agents or authorized representatives of the Province in connection with the Highways

c) the operation of the Highways.

- 36. Only rubber-tired equipment may be used on pavement or on shoulders of paved highways. Machines with steel tracks or flat steel pads must use swamp pads or rubber tires to protect the road surface. When heavy rubber-tired equipment is turning on the paved surface, care must be taken to prevent scarring.
- 37. Any excavations outside of the road prism but within highway right-of-way shall be backfilled and compacted.
- 38. The Permittee, utilities and their contractors must follow standards and procedures set out in the 2020 Traffic Management Manual for Work on Roadways (TMM) and Occupational Health and Safety Regulation. The 2020 Traffic Management Manual for Work on Roadways (TMM) can be viewed on the Ministry's website at <u>www.gov.bc.ca/trafficmanagement</u>
- 39. The Permittee shall obtain and maintain during the term of this permit and at the Permittee's own expense, liability insurance against third party claims arising as a result of the works consented to in this permit from the Permittee working within Ministry right-of-way. Such liability insurance shall have coverage limits of not less than FIVE MILLION DOLLARS (\$5,000,000.00) for bodily injury, including death and property damage and shall be endorsed as follows:

"It is understood and agreed that Her Majesty the Queen in Right of the Province of British Columbia as represented by the Minister of Transportation, together with the employees, agents and servants of the Minister, hereinafter referred to as the Additional Named Insured as an Additional Named Insured." The policy shall contain a cross liability clause and a clause giving notice of cancellation or material alteration to the Minister.

- 40. The Permittee shall ensure that any subcontractor performing work covered by this permit shall adhere to all conditions specified herein. The field supervisor for the Permittee is to have a copy of this permit on site during field operations and be aware of all permit conditions.
- 41. As constructed drawings shall be provided, to Regional and District Highways offices, covering all works permitted within our right-of-way.
- 42. Protection of Survey Monuments

The Permittee shall be responsible for the preservation during construction of all geodetic benchmarks, survey monuments and property markers on the right-of-way. The Permittee shall use, at no expense to the Ministry, a British Columbia Land Surveyor to replace any survey monuments destroyed or damaged as a result of the Permittee's negligence. At locations where construction work will cover or destroy such markers, the Permittee shall not move or remove them until written direction is received from the Ministry Representative.

43. Protection of Roads

The Permittee shall ensure all equipment working on or hauling material on to and from the Site does not damage or deposit material onto any part of an existing roadway. Materials spilled onto the public roadways or driveways opened to public traffic shall be cleaned up immediately. The Permittee has the full responsibility to repair any damage to existing highways, local roads and driveways caused by its construction equipment and/or operations.



44. Trenching Standards

Pavement must be cut by hand or approved mechanical means in straight lines parallel to the trench centreline.

Distance from a pavement cut to the edge of the trench must be at least 150 mm or sufficient to ensure the pavement will not be undermined by sloughing.

Except where trenching is well clear of the road shoulder, all excavated material must be removed from the site immediately.

Stockpiling of native material adjacent to the trench is not permitted.

Trenches must be backfilled or adequately covered at the end of the work day

Trench shoring must conform to WorkSafe BC standards and is to be used where soil conditions warrant. Extreme care must be taken to avoid sloughing of the trench sides to minimize damage to the subgrade beyond the limits of excavation.

- 45. Three reasonable attempts to bore or jack the pipeline, under paved road crossings, shall be expected prior to consideration of open cut crossings. Should open cutting be subsequently permitted, compaction, material, concrete capping and patching specifications shall be provided. If open cutting is permitted the crossing shall be perpendicular to centre line in order to minimize disturbance to the road structure, unless otherwise approved. Any open cut trench is to be saw cut to a width of one metre additional width beyond the edge of the trench excavation unless such width reaches the curb or edge of pavement. After three (3) months or when the hot patch has settled, the trench plus an additional three (3) meters on either side is to be scarified to a 50mm depth and re-paved to create a smooth seam and surface. The permittee shall be responsible for the repair of any failure and/or settlement of the excavation area for a period of three (3) years.
- 46. Trench Backfill

Pipe bedding must conform to industry standards.

Where sloughing of trench sides has undermined the pavement, the pavement must be marked with a painted line showing the extent of the damaged area. Pavement must be removed from this area and the voids filled and compacted in accordance with backfill requirements.

Trenches must be backfilled with granular material that meets Ministry standards as set out in Section 202.02 (Table 202-C), 2016 Standard Specifications for Highway Construction and all subsequent interim revisions and updates, in accordance with the following minimum requirements:

(a) Sub-base material must meet or exceed specified requirements for Select Granular Sub Base aggregates.

(b) Crushed Base Course depth is to match existing depth, but must not be less than 300 mm compacted thickness and consist of "25 mm minus" WGB (or IGB) crushed aggregate.

Backfill must be placed in layers not exceeding 150 mm compacted thickness and shall be compacted with approved tamping equipment to a minimum of 95 percent Proctor density to within 300 mm of the surface and 100 percent for the final 300 mm.

The Standard Specifications for Highway Construction can be viewed on the Ministry's Website at

http://www2.gov.bc.ca/assets/gov/driving-and-transportation/transportation-infrastructure/engineering-standards-and-guidelines/highway-specifications/volume\_1\_ss2012.pdf

Unless specifically addressed elsewhere in this permit all utility poles, underground cable, and appurtenances, shall be installed in accordance with the BC Supplement to TAC Geometric Design Guide and Utility Policy Manual.

The ministry's Utility Policy Manual can be viewed on the Ministry's website at: <a href="http://www.th.gov.bc.ca/permits/Utility%20Permit%20Manual.pdf">http://www.th.gov.bc.ca/permits/Utility%20Permit%20Manual.pdf</a>

The ministry's BC Supplement to TAC Geometric Design Guide can be viewed on the Ministry's website at:

http://www2.gov.bc.ca/gov/content/transportation/transportation-infrastructure/engineering-standards-guidelines/highwaydesign-survey/tac-bc

#### 47. Temporary Patching

As soon as any portion of the highway can be re-opened to traffic, a temporary asphalt patch must be applied.

#### 48. Permanent Patching

Pavement edges must be cut, made true and straight, cleaned, and primed before installing a final patch.



Asphalt concrete must be restored to the same thickness as the existing surface or to a minimum of 75 mm thickness, whichever is greater. Asphaltic concrete must meet Ministry standards as set out in Section 502, Standard Specifications for Highway Construction.

Asphalt concrete is to be laid in two or more lifts or layers. Each lift is to be thoroughly compacted before successive lifts are applied.

The Permittee will ensure that the permanent pavement patch is to Ministry standards for one year from the date that the patch is installed.

49. Highest Standards Apply

Where the Ministry and a regulator both set a standard or requirement in a particular area, the highest or most stringent of the two will apply to any installation on highway right-of- way.

50. Clean Up

All unsuitable material and inorganic debris shall be removed from the project area. All surplus or unsuitable organic waste and debris shall be removed from the site unless its complete burning is approved by the Designated Ministry Official in compliance with the B.C. Open Burning Smoke Control regulation.

51. Excavations across entrances

Excavations across entrances, whether private or commercial, must be backfilled and thoroughly compacted by the end of the current working day. The surface must be restored, whether paved or gravel, to its original condition within 48 hours.

Affected property owners must be notified at least 48 hours in advance before excavating a driveway.

- 52. That if the Permittee violates any of the conditions of this Permit, the Permittee shall remedy the violation as expeditiously as possible in accordance with any direction which the Minister may give. In the event of a default, the Minister shall give notice to the Permittee requiring that the default be rectified within a period reasonable, having regard to all the circumstances. Failing rectification within the period of notice, the Minister may, but shall not be obligated to, remedy the default and the reasonable cost and expenses thereof shall be recoverable against the Permittee.
- 53. Archaeology sites in British Columbia, whether recorded or unrecorded, are protected under the provisions of the Heritage Conservation Act and may not be altered without a permit issued by the Ministry of Tourism, Culture and the Arts, Archaeology Branch. Since some potential does exist for the presence of unrecorded sites, please be advised that in the event that remains are encountered, all land altering activity and must be stopped and Archaeology Branch must be notified at Ph: (250)953-3334 or Fax: (250)953-3340.

The rights granted to the Permittee in this permit are to be exercised only for the purpose as defined in Recital B on page 1.

Dated at	Williams Lake	. British Columbia. this	28	dav of	Februarv		2020
		,,,,,,			1 6 6 1 6 6 1	,	=0=0

wes )Kavo

On Behalf of the Minister



## APPENDIX D

### **GEOTECHNICAL INVESTIGATION REPORT**

#### OUT OF THE BOX ENGINEERING 0772308 BC LTD

August 21, 2018

Project # 2018-0669

URBAN SYSTEMS #200 – 286 St Paul Street Kamloops, BC V2C 6G4

Attention: Jacob Scissons, P.Eng.

# Reference:Geotechnical Engineering Services – Shearwater Water Projects<br/>School District #49 Elementary School Water System Project, AND<br/>CCRD Water Distribution System Project

Please accept the following letter/report in support of the above-mentioned project(s).

The proposed projects include a proposed reservoir, pump house, and water main route (up to 3.5km).

The following information is based on test pits excavated by a local contractor and witnessed by a representative of Fraser Valley Engineering Ltd (in place of the undersigned due to a last minute scheduling issue). The undersigned received all the field notes/information from Fraser Valley Engineering to be used in the preparation of this report.

Generally the test pits encountered shallow bedrock with a variety of materials including fill, root mat, debris, cobbles, broken rock and silty sand above the rock. As can be observed in the test pit logs (attached), there was not a consistent type of material or any homogeneity. Also attached is a rough map of the test pit locations. It is understood that the test pit locations may have been surveyed by others after excavation. If a surveyed location map is available, please make it available to append to this report.

Consider the following list as a summary of pertinent information for use in structural design and construction of the proposed project.

#### Site Grading/Preparation - Proposed Reservoir and Pump House

Based on the soils observed in the test pits, it is recommended that the locations of the reservoir and pump house be stripped to competent bedrock. Then compacted three-inch minus crushed material be used as a levelling material prior to placing the foundations. Consider proof-rolling the prepped pads (observed by a qualified soils engineer) to confirm suitability of the pad to support the proposed structures. Loose/soft soils, as disclosed by the proof-rolling, should be excavated out and replaced with thoroughly compacted granular soil. An acceptable proof-roller would be a fully-loaded, tandem-axle, dump truck. Place at least four tire tracks on all areas.

#### **Compaction and Fill Requirements**

It is understood that two local sources of crushed material is available (up to 12-inch minus). Consider using a fine crusher dust as pipe bedding/surround with coarser material being suitable away from the pipes. Three-inch minus is a suitable material for pad prep at the proposed reservoir and pump station location. At the time of construction, this writer or another qualified soils engineering firm should verify that proposed fill soils are acceptable. Any required fill should be placed in lifts not exceeding 0.3m (1

foot) un-compacted. Compact all fill to at least 95 percent of the maximum density (modified Proctor -ASTM D-1557).

#### **Bearing Capacity**

Consider designing for a) Ultimate Limit State (ULS) bearing pressure of 215 kPa (4500 pounds per square foot (psf)), and ii) Serviceability Limit State (SLS) of 180 kPa (3750 psf) where the bedrock has been exposed and suitable compacted granular fill is used to establish final foundation grades.

#### **Footing Widths**

Regardless of the aforementioned allowable bearing capacities, the minimum width of strip footings should not be less than 450mm (18 inches) and pad footings should not be less than 600mm square (24 inches square).

#### **Frost Depth**

For this particular area, consider a frost depth of 1.2m when designing foundations and pipe depths/cover.

#### Excavation

The soils and material overlying the bedrock should not pose a difficulty for most common excavators. However, the bedrock encountered in the test pits could be difficult or impossible to excavate without blasting. One could consider a two-tiered classification of the bedrock for payment purposes. One class is rock that is rippable by a D-8 crawler with ripper or a backhoe with 250 net engine horsepower with ripper. The second class is rock that requires drilling and blasting to loosen. This may also apply to trenches in rock that could be rippable except for tight working areas.

All excavation should be performed fully in accordance with WorkSafe standards.

#### Site Classification for Seismic Design

Based on the shallow bedrock here and the recommendation for exposing bedrock and using wellcompacted granular fill, one could consider that site would qualify as "Site Class D" as defined in the BC **Building Code** 

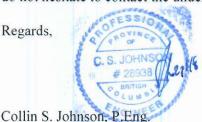
#### Closure

This investigation and report were completed for use by the client and the client's design team, and was done in general conformance for similar works in this area. Use of this report by others than our client and team requires the permission of the client and the undersigned.

Should information other than what was used for the purpose of this report become available, please contact this writer to see if additional recommendations are warranted.

I trust that this report meets the needs of the client at this time. However, if there are any questions, please do not hesitate to contact the undersigned.

Regards,



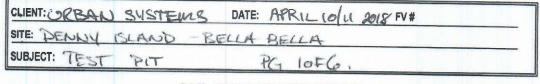
2018-0669 Shearwater, BC

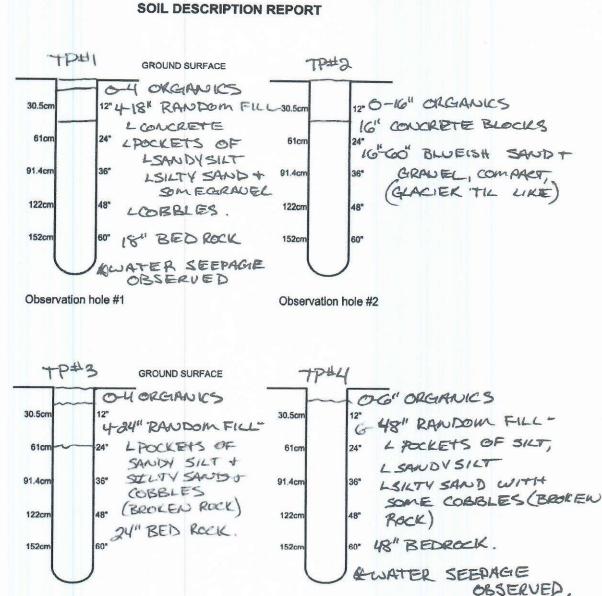
Collin Johnson, P.Eng. Box 274 Agassiz PO, Agassiz, BC VOM 1A0 604-819-9809 / johnsonscollin@gmail.com



GEOTHECNICAL STRUCTURAL

101-33465 Maclure Road Abbotsford, B.C. V2S 7W2 Tel: 604-850-0364 Fax: 604-557-0390 Email: Info@fvel.com





**Observation hole #3** 

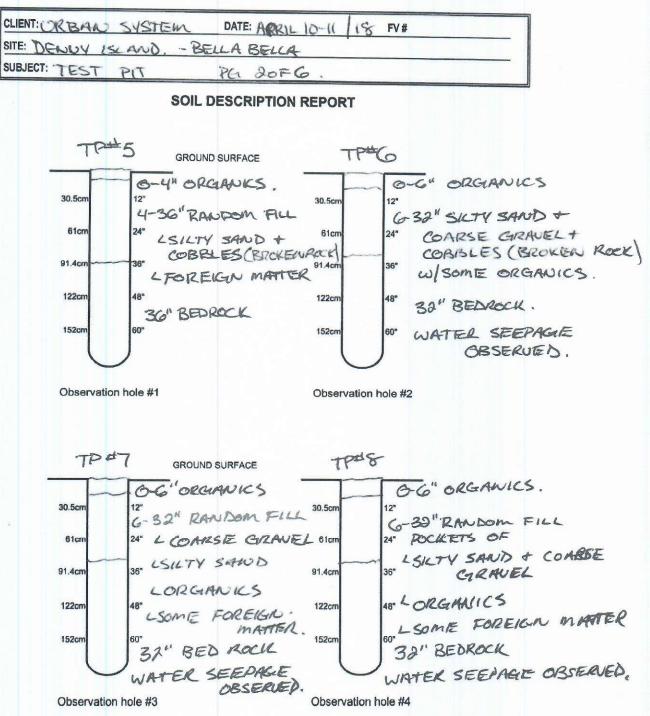
**Observation hole #4** 



FRASER VALLEY ENGINEERING LTD.

GEOTHECNICAL STRUCTURAL

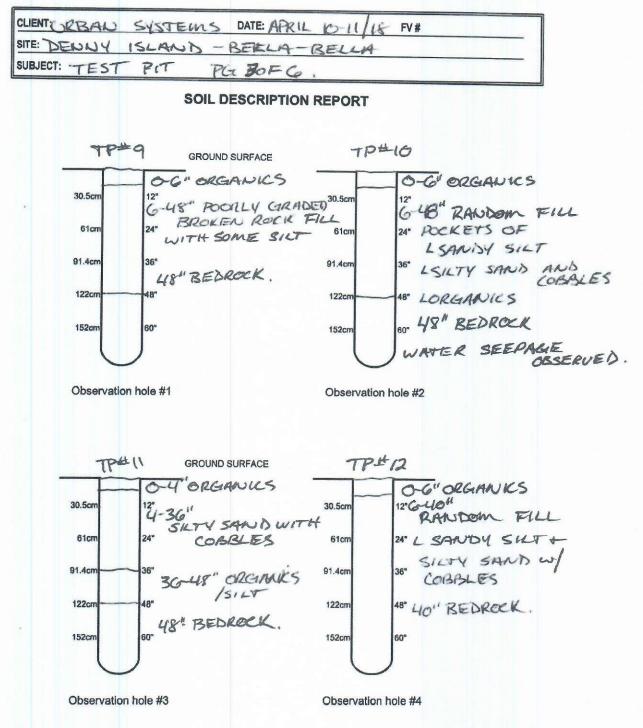
101-33465 Maclure Road Abbotsford, B.C. V2S 7W2 Tel: 604-850-0364 Fax: 604-557-0390 Email: info@fvel.com





GEOTHECNICAL STRUCTURAL

101-33465 Maclure Road Abbotsford, B.C. V2S 7W2 Tel: 604-850-0364 Fax: 604-557-0390 Email: info@fvel.com



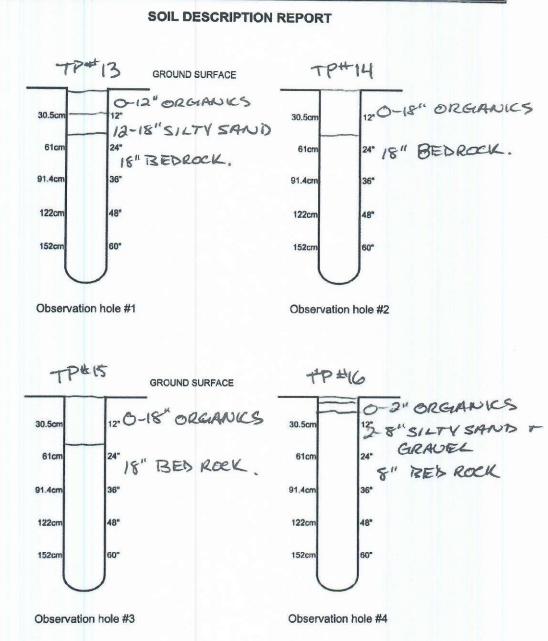


GEOTHECNICAL STRUCTURAL

101-33465 Maclure Road Abbotsford, B.C. V2S 7W2 Tel: 604-850-0364 Fax: 604-557-0390

Email: info@fvel.com

CLIENT: URBAN	SUSTEMS	DATE:	PRIL 10	-11/18	FV#	
SITE: DENINY						
SUBJECT: TEST	and the second se	PAGE	YOFC			

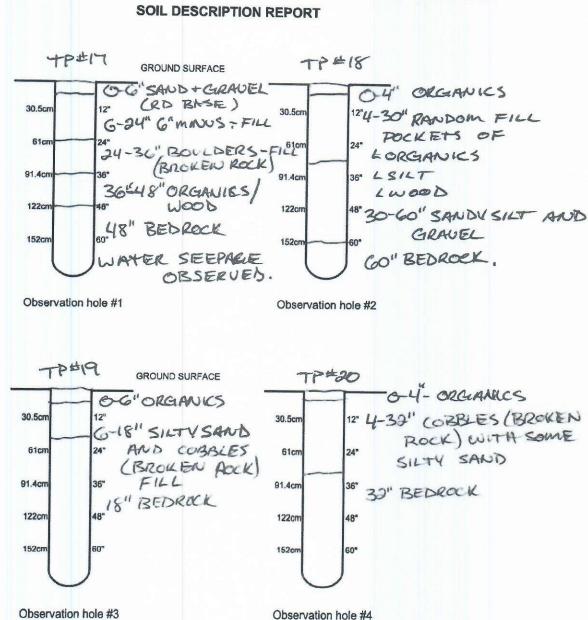




GEOTHECNICAL STRUCTURAL

101-33465 Maclure Road Abbotsford, B.C. V2S 7W2 Tel: 604-850-0364 Fax: 604-557-0390 Email: info@fvel.com

CLIENT: UKBAN	SYSTEMS DATE: APRIL 10-11/18 FV#
	BLAND - BELLA BELLA
SUBJECT: TEST	

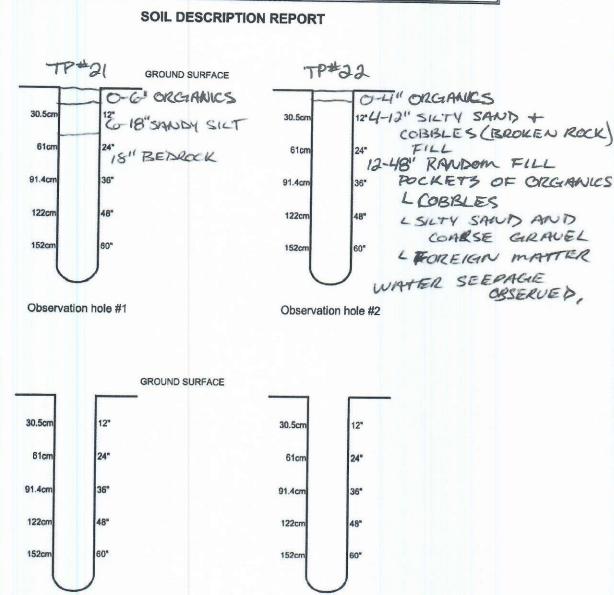




GEOTHECNICAL STRUCTURAL 101-33465 Maclure Road

Abbotsford, B.C. V2S 7W2 Tel: 604-850-0364 Fax: 604-557-0390 Email: info@fvel.com

CICDIPO	SYSTEMS	DATE: APRIL 10-11	LY FV#
SITE: DENNY		BELLA BELLA	
SUBJECT: TEST	PIT	PG GOFG.	



**Observation hole #3 Observation hole #4** 

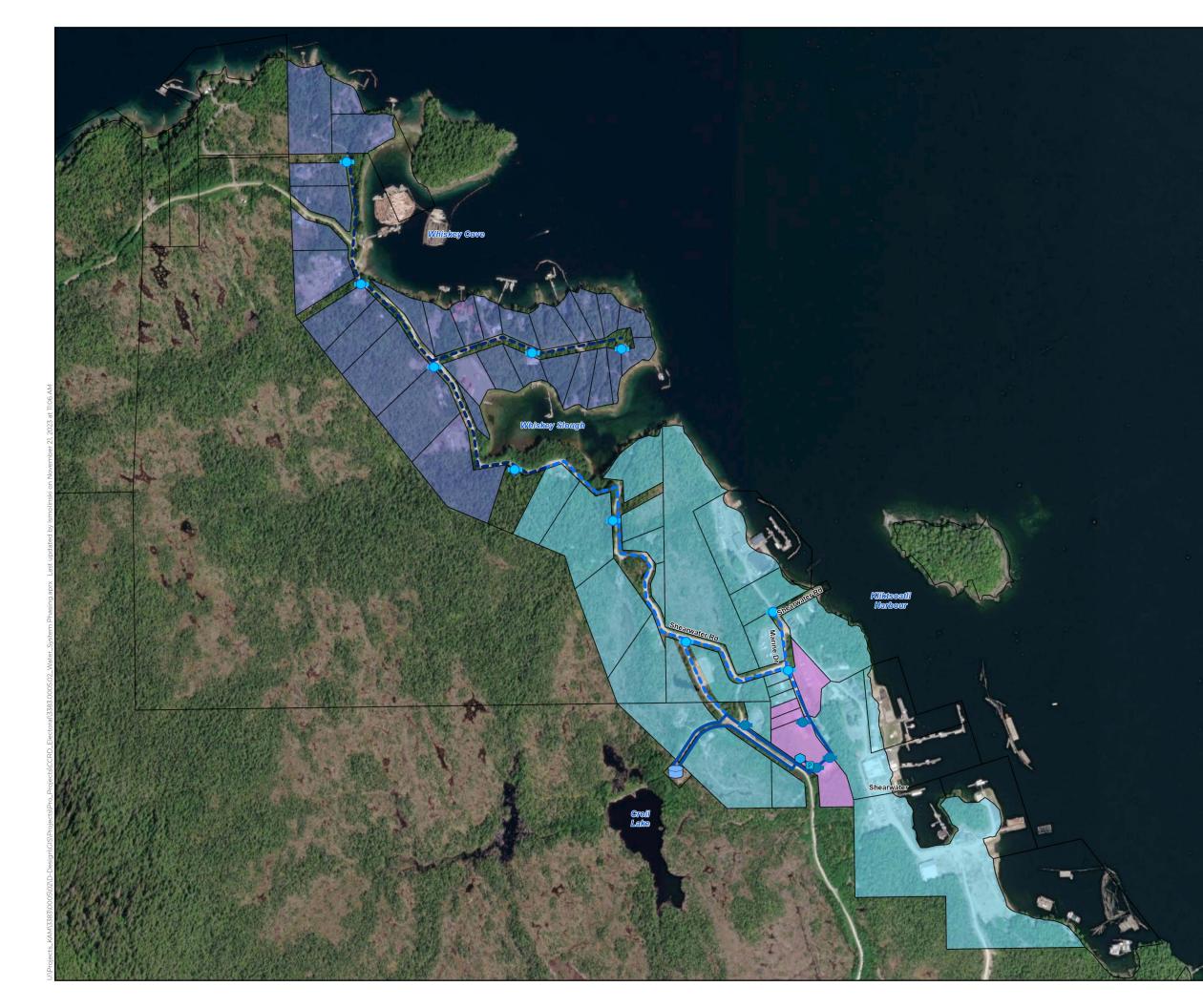




## APPENDIX E

### **PROJECT PHASING FIGURE**

Request for Quotation | Denny Island Water Distribution System



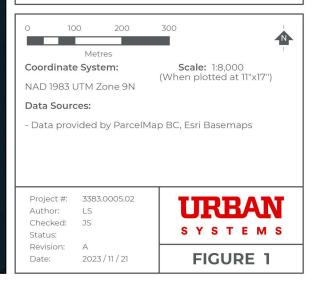


#### Denny Island Community Water System

#### Potential Project Phasing

Lege	nd
Ρ	Existing Well
$\bigcirc$	Existing WTP
$\Theta$	Existing Reservoir
_	Existing Watermain
	Proposed Watermain Phase 1
	Proposed Watermain Phase 2
•	Existing Hydrant
•	Proposed Hydrant
	SD #49 Service Area
	CCRD Service Area Phase 1
	CCRD Service Area Phase 2

The accuracy & completeness of information shown on this drawing is not guaranteed. It will be the responsibility of the user of the information shown on this drawing to locate & establish the precise location of all existing information whether shown or not.





## APPENDIX F

### FORM OF CONTRACT



## MASTER MUNICIPAL CONSTRUCTION DOCUMENTS PLATINUM EDITION UNIT PRICE CONTRACT

Central Coast Regional District Denny Island Water Distribution System Reference No.: 17-2184-SPF

#### MASTER MUNICIPAL CONSTRUCTION DOCUMENTS

#### **Platinum Edition**

#### **CONTENTS**

The complete Master Municipal Construction Documents consist of the following parts:

#### 1. Project Specific Documents

(contained within this document and the Contract Drawings)

- Invitation to Tenderers Omitted for this project.
- Instructions to Tenderers, Part I Omitted for this project.
- 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
- Form of Agreement
  - Schedule 1 Schedule of Contract Documents
  - Schedule 2 List of Contract Drawings
- Supplementary General Conditions
- Supplementary Specifications
- Contract Drawings
- Appendix A Geotechnical Investigation Report
- 2. Standard Complete Master Municipal Construction Documents Platinum Edition (not contained herein available in the "MMCD Platinum Edition Volume II")
  - Instructions to Tenderers, Part II
  - General Conditions
  - Schedules and Diagrams
    - o Schedule 17.5.3 Letter Agreement with Referee
    - Flow Chart Changes and Extra Work
    - Flow Chart Dispute Resolution Process
  - Specifications
  - Standard Detail Drawings

## **INVITATION TO TENDERERS**

Omitted for this project.

## **INSTRUCTIONS TO TENDERERS – PART 1**

Omitted for this project.

## FORM OF TENDER

MMCD UNIT PRICE CONTRACT		PAGE 1 OF 3 FORM OF TENDER 2009
Owner	r:	Central Coast Regional District
Contrac	t:	Denny Island Water Distribution System
Reference No.	.:	17-2184-SPF
To Owner:		
WE, THE UNDERSIGNED:	1.1	have received and carefully reviewed all of the <i>Contract Documents</i> , 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, IF ANY)
	1.2	have full knowledge of the <i>Place of the Work</i> , and the <i>Work</i> required; and
	1.3	have complied with the Instructions to Tenderers.
ACCORDINGLY WE HEREBY OFFER:	2.1	to perform and complete all of the <i>Work</i> and to provide all the labour, equipment and material all as set out in the <i>Contract Documents</i> , in strict compliance with the <i>Contract Documents</i> ;
	2.2	to achieve Substantial Performance of the Work on or before September 30, 2025; and
	2.3	to do the <i>Work</i> for the price, which is the sum of the products of the actual quantities incorporated into the <i>Work</i> and the appropriate unit prices set out in Appendix 1, the " <i>Schedule of</i> <i>Quantities and Prices</i> ", plus any lump sums or specific prices and adjustment amounts as provided by the <i>Contract Documents</i> . For the purposes of tender comparison, our offer is to complete the <i>Work</i> for the " <i>Tender Price</i> " as set out on Appendix 1 of this Form of Tender. Our <i>Tender Price</i> is based on the estimated quantities listed in the <i>Schedule of Quantities and Prices</i> , and excludes <i>GST</i> .
WE CONFIRM:	3.1	that we understand and agree that the quantities as listed in the <i>Schedule of Quantities and Prices</i> are estimated, and that the actual quantities will vary.
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.

MMCD UNIT PRICE CONTRACT		Fo	PAGE 2 OF 3 RM OF TENDER 2009
WE AGREE:	5.1	<i>Owner</i> followin if the te this pe	is tender will be irrevocable and open for acceptance by the r for a period of forty-five (45) calendar days from the day ng the <i>Tender Closing Date</i> and <i>Tender Closing Time</i> , even ender of another tenderer is accepted by the <i>Owner</i> . If within priod the <i>Owner</i> delivers a written notice (" <i>Notice of Award</i> ") ch the <i>Owner</i> accepts our tender we will:
		5.1.1	within 15 Days of receipt of the written <i>Notice of Award</i> deliver to the <i>Owner</i> .
			.1 a Performance Bond and a Labour and Material Payment Bond, each in the amount of 50% of the <i>Contract Price</i> , covering the performance of the <i>Work</i> including the <i>Contractor's</i> obligations during the <i>Maintenance Period</i> , issued by a surety licenced to carry on the business of suretyship in the province of British Columbia, and in a form acceptable to the <i>Owner</i> ,
			.2 a Baseline Construction Schedule, as provided by GC 4.6.1;
			.3 a "clearance letter" indicating that the tenderer is in WorkSafeBC compliance; and
			.4 a copy of the insurance policies as specified in GC 24 indicating that all such insurance coverage is in place and;
		5.1.2	within two (2) Days of receipt of written " <i>Notice to Proceed</i> ", or such longer time as may be otherwise specified in the <i>Notice to Proceed</i> , commence the <i>Work</i> ; and
		5.1.3	sign the Contract Documents as required by GC 2.1.2.
WE AGREE:	6.1	,	we receive written <i>Notice of Award</i> of this <i>Contract</i> and, ry 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 <i>Work</i> as required by the <i>Notice to Proceed</i> ,
			then such failure or refusal will be deemed to be a refusal by us to enter into the <i>Contract</i> and the <i>Owner</i> may, on written notice to us, award the <i>Contract</i> to another party.

MMCD UNIT PRICE CONTRACT	Form of Tender	PAGE 3 OF 3 2009
OUR ADDRESS IS AS FOLLOWS:		
	(ADDRESS)	
	(ADDRESS)	
	(PHONE NUMBER)	
	(EMAIL)	
	(ATTENTION TO)	
	This Tender is executed this	
	day of	
	(DAY) (MONTH)	(YEAR)
	Contractor.	
	(FULL LEGAL NAME OF CORPORATION, PARTNERSHI	P OR INDIVIDUAL)
	(AUTHORIZED SIGNATORY NAME) (AUTHORIZ	ED SIGNATORY SIGNATURE)
	(AUTHORIZED SIGNATORY NAME) (AUTHORIZ	ED SIGNATORY SIGNATURE)

The Schedule of Quantities and Prices will be populated based on the Quotation Form contained in the Request for Quotation and the successful proponent's submission thereof.

#### **Central Coast Regional District**

Denny Island Water Distribution System

See paragraph 5.3.2 of the Instructions to Tenderers – Part II.

Indicate schedule with bar chart with major item descriptions and time.

#### MILESTONE DATES:

#### Substantial Performance Date: September 30, 2025

ACTIVITY	(Ind		units	of dur	JCTIC ation,	e.g. v	weeks	s, mor	nths, e	etc.)
	1	2	3	4	5	6	7	8	9	10

MMCD UNIT PRICE CONTRA	FORM OF TENDER CT APPENDIX 3 – EXPERIENCE OF SUPERINTENDENT	PAGE 1 OF 1 2009
	Central Coast Regional District	
	Denny Island Water Distribution System	
	See paragraph 5.3.3 of the Instructions to Tenderers – Part	Ш.
Name:		
Experience		
Project Name:		
Dates:		
 References:		
Dates:		
Responsibility:		
References:		
Project Name:		
Project Name		
References:		
_		
•		
Dates: _		
Responsibility:		
References:		

#### FORM OF TENDER APPENDIX 4 – COMPARABLE WORK EXPERIENCE

#### **Central Coast Regional District**

Denny Island Water Distribution System

See paragraph 5.3.4 of the Instructions to Tenderers - Part II.

PROJECT	OWNER / CONTACT NAME / PHONE	WORK DESCRIPTION	VALUE (\$)
	Owner:		
	Contact:		
	Phone:		
	Owner:		
	Contact:		
	Phone:		
	Owner:		
	Contact:		
	Phone:		
	Owner:		
	Contact:		
	Phone:		
	Owner:		
	Contact:		
	Phone:		
	Owner:		
	Contact:		
	Phone:		
	Owner:		
	Contact:		
	Phone:		

#### FORM OF TENDER APPENDIX 5 – SUBCONTRACTORS

#### **Central Coast Regional District**

Denny Island Water Distribution System

See paragraph 5.3.5 of the Instructions to Tenderers – Part II.

TENDER ITEM	TRADE	SUBCONTRACTOR NAME	PHONE NUMBER

## FORM OF AGREEMENT

#### FORM OF AGREEMENT

#### BETWEEN OWNER AND CONTRACTOR

This agreement made in duplicate this

	day of					
(DAY)	(MONTH)	(YEAR)				
Contract:	Denny Island Water Distribution System					
Reference No.:	17-2184-SPF					
BETWEEN	Central Coast Regional District					
	626 Cliff Street, Box #186					
	Bella Coola, BC V0T 1C0					
	(NAME AND OFFICE ADDRESS OF OWNER)					
	("the Owner")					
AND						

(NAME AND OFFICE ADDRESS OF CONTRACTOR)

("the Contractor")

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

Article 1 The Work Start / 1.1 The Contractor will perform all Work and provide all labour, **Completion Dates** equipment, and material and do all things strictly as required by the Contract Documents. The Contractor will commence the Work in accordance with the 1.2 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, 2025 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. The "Contract Documents" consist of the documents listed or Article 2 Contract 2.1 **Documents** 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.

MMCD UNIT PRICE CONTRACT		PAGE 2 OF 7 FORM OF AGREEMENT 2009			
		2.2	The <i>Contract</i> supersedes all prior negotiations, representations or agreements, whether written or oral, and the <i>Contract</i> may be amended only in strict accordance with the provisions of the <i>Contract Documents</i> .		
Article 3	Contract Price	3.1	The price for the <i>Work</i> (" <i>Contract Price</i> ") shall be the sum in Canadian dollars of the following:		
			3.1.1 the product of the actual quantities of the items of <i>Work</i> listed in the <i>Schedule of Quantities and Prices</i> which are incorporated into or made necessary by the <i>Work</i> and the unit prices listed in the <i>Schedule of Quantities and Prices</i> ; 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 <i>Extra Work</i> , approved in accordance with the provisions of the <i>Contract Documents</i> .		
		3.2	The <i>Contract Price</i> shall be the entire compensation owing to the <i>Contractor</i> for the <i>Work</i> 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 <i>Work</i> .		
Article 4	Payment	4.1	Subject to applicable legislation and the provisions of the Contract Documents, the Owner shall make payments to the Contractor.		
		4.2	If the <i>Owner</i> fails to make payments to the <i>Contractor</i> as they become due in accordance with the terms of the <i>Contract</i> <i>Documents</i> then interest calculated at 2% per annum over the prime commercial lending rate of the Royal Bank of Canada on such unpaid amounts shall also become due and payable until payment. Such interest shall be calculated and added to any unpaid amounts monthly.		
Article 5	Rights and Remedies	5.1	The duties and obligations imposed by the <i>Contract Documents</i> 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 <i>Contract Documents</i> , no action or failure to act by the <i>Owner</i> , <i>Contract Administrator</i> , or <i>Contractor</i> shall constitute a waiver of any of the parties' rights or duties afforded under the <i>Contract</i> , nor shall any such action or failure to act constitute an approval of or acquiescence in any breach under the <i>Contract</i> .		

MMCD Unit Price	CONTRACT		For	M OF AGREEMENT	PAGE 3 OF 7 2009
Article 6	Notices	6.1	and th <i>Contra</i>	nunications among the <i>Owner</i> , the <i>Cor</i> ne <i>Contractor</i> , including all written notic act <i>Documents</i> , may be delivered by ha -paid registered mail to the addresses a	ces required by the and, or by email, or
			The O	wner.	
				Central Coast Regional District (NAME OF OWNER)	
				626 Cliff Street, Box #186, (ADDRESS)	
				Bella Coola, BC V0T 1C0 (ADDRESS)	
				jmanson@ccrd.ca (EMAIL)	
				John Manson. P.Eng.	
				(ATTENTION)	
			The C	ontractor.	
				(NAME OF CONTRACTOR)	
				(ADDRESS)	
				(ADDRESS)	
				(EMAIL)	
				(ATTENTION)	
			The C	ontract Administrator.	
				Urban Systems Ltd. (NAME OF CONTRACT ADMINISTRATOR'S COMF	 PANY)
				501 - 121 5 <sup>th</sup> Avenue, Kamloops, BC, (ADDRESS)	,
				Kamloops, BC V2C 0M1 (ADDRESS)	
				jscissons@urbansystems.ca (EMAIL)	
				Jacob Scissons, P.Eng. (ATTENTION)	
		6.2		nmunication or notice that is addressed lered to have been received:	as above shall be
			6.2.1	immediately upon delivery, if delivered	d by hand; or
			6.2.2	immediately upon transmission, if sen	

MMCD UNIT PRICE CONTRACT	PAGE 4 OF 7 FORM OF AGREEMENT 2009			
		6.2.3 after five (5) <i>Days</i> from date of posting if sent by registered mail.		
	6.3	The <i>Owner</i> or the <i>Contractor</i> may, at any time, change its address for notice by giving written notice to the other at the address then applicable. Similarly, if the <i>Contract Administrator</i> changes its address for notice then the <i>Owner</i> will give or cause to be given written notice to the <i>Contractor</i> .		
	6.4	The sender of a notice by email assumes all risk that the email is received.		
Article 7 General	7.1	This <i>Contract</i> shall be construed according to the laws of British Columbia.		
	7.2	This <i>Contract</i> may be executed in two or more counterparts, each of which shall be deemed an original and all of which together shall constitute but one and the same instrument. It shall not be necessary that any single counterpart hereof be executed by all parties so long as at least one counterpart is executed by each party.		
	7.3	This <i>Contract</i> may be digitally signed via a reputable commercial digital signature provider, on the conditions that the signer has sole access to the signer's account with such provider and that an electronic copy of the digitally-certified signed <i>Contract</i> is provided to all of the parties. Delivery of a signed copy of this <i>Contract</i> by facsimile or electronically reproduced transmission shall be effective as delivery of an originally-executed copy of this <i>Contract</i> and any such copy so delivered shall be deemed to be an originally-executed copy for all intents and purposes.		
	7.4	The <i>Contractor</i> shall not, without the express written consent of the <i>Owner</i> , assign this <i>Contract</i> , or any portion of this <i>Contract</i> .		
	7.5	The headings included in the <i>Contract Documents</i> are for convenience only and do not form part of this <i>Contract</i> and will not be used to interpret, define or limit the scope or intent of this <i>Contract</i> or any of the provisions of the <i>Contract Documents</i> .		
	7.6	A word in the <i>Contract Documents</i> in the singular includes the plural and, in each case, vice versa.		
	7.7	This agreement shall ensure to the benefit of and be binding upon the parties and their successors, executors, administrators and assigns.		

#### FORM OF AGREEMENT

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

Contractor.

(FULL LEGAL NAME OF CORPORATION, PARTNERSHIP OR INDIVIDUAL)

(AUTHORIZED SIGNATORY)

(FULL NAME OF AUTHORIZED SIGNATORY)

Owner:

(FULL LEGAL NAME OF CORPORATION, PARTNERSHIP OR INDIVIDUAL)

(AUTHORIZED SIGNATORY)

(FULL NAME OF AUTHORIZED SIGNATORY)

MMCD UNIT PRICE CONTRACT			PAGE 6 OF 7 2009		
Schedule 1	Schedule of Contract Documents	The following is an exact and complete list of the <i>Contract Documents</i> , 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", Platinum edition dated 2009. All sections of this publication are included in the <i>Contract Documents</i> .			
		1.1	Agreement, including all Schedules		
		1.2	Supplementary General Conditions		
		1.3	General Conditions*		
		1.4	Supplementary Specifications		
		1.5	Specifications*		
		1.6	Supplementary Detail Drawings		
		1.7	Standard Detail Drawings*		
		1.8	Executed Form of Tender, including all Appendic	es	
		1.9	Contract Drawings listed in Schedule 2 to the Ag of Contract Drawings"	greement – "List	
		<del>1.10</del>	Instructions to Tenderers - Part I		
		1.11	Instructions to Tenderers - Part II*		
		1.12	The following Addenda:		

(ADDENDA, IF ANY)

#### Schedule 2 List of Contract Drawings

TITLE	DRAWING NO.	REVISION NO.	REVISION DATE
Cover	C00	2	2023-05-31
Legend	C01	2	2023-05-31
Key Plan	C02	2	2023-05-31
Hydrant Coverage	C03	2	2023-05-31
Notes	C04	2	2023-05-31
Details	C05	2	2023-05-31
Watermain – Marine Drive	C06	2	2023-05-31
Watermain – Marine Drive	C07	2	2023-05-31
Watermain – Airport Road	C08	2	2023-05-31
Watermain – Heron Point Road	C09	2	2023-05-31
Watermain – Shearwater Road	C10	2	2023-05-31
Watermain – Shearwater Road	C11	2	2023-05-31
Watermain – Shearwater Road	C12	2	2023-05-31
Watermain – Shearwater Road	C13	2	2023-05-31
Watermain – Whiskey Point Road	C14	2	2023-05-31
Watermain – Whiskey Point Road	C15	2	2023-05-31

## SUPPLEMENTARY GENERAL CONDITIONS

### **Supplementary General Conditions**

### **Table of Contents**

SGC 1.21	Contract Administrator
SGC 1.30	Deleted Items
SGC 2.2	Interpretation
SGC 3.4	Inspection and Site Inspector
SGC 4.3	Protection of Work, Property and the Public
SGC 4.6	Construction Schedule
SGC 4.7	Superintendent
SGC 4.11	Subcontractors
SGC 7.1	Changes
SGC 9.2	Valuation Method
SGC 9.4	Quantity Variations
SGC 10.1	Force Account Costs
SGC 10.3	Submit Accurate Records
SGC 12.2	Discovery of Hazardous Materials
SGC 13.1	Delay by Owner or Contract Administrator
SGC 13.3	Unavoidable Delay
SGC 13.9	Liquidated Damages for Late Completion
SGC 17.5	Referee
SGC 18.2	Supporting Documentation
SGC 18.4	Holdbacks
SGC 18.6	Substantial Performance
SGC 24.1	Required Insurance
SCHEDULE 17.5.3	Letter Agreement with Referee

### SUPPLEMENTARY GENERAL

PRICE

CONDITIONS

2009

### CONTRACT

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

### SGC 1.21 Contract Administrator <sup>‡</sup>

Delete GC 1.21.1 and replace with the following:

"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.

### SGC 1.30 Deleted Items<sup>‡</sup>

Delete GC 1.30.1 "Deleted Items"

### SGC 2.2 Interpretation <sup>‡</sup>

Delete GC 2.2.4 (1) (i) and replace with the following:

(i) Standard Detail *Drawings* 

### SGC 3.4 Inspection and Site Inspector<sup>‡</sup>

Delete GC 3.4.5 and replace with the following:

.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.

### SGC 4.3 Protection of *Work*, Property and the Public <sup>‡</sup>

Add GC 4.3.3 as follows:

.3 The *Contractor* shall at the *Contractor's* own cost, as part of the *Work*, provide all necessary safety devices and supervision at the *Place of the Work* so as to protect the public, including pedestrians and cyclists.

### SGC 4.6 Construction Schedule<sup>‡</sup>

Delete GC 4.6.2 and replace with the following:

.2 The Contractor shall update the Baseline Construction Schedule monthly 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.

Unit Price	SUPPLEMENTARY GENERAL CONDITIONS	PAGE 2 OF 9 2009
CONTRACT		2003

Delete GC 4.6.6 and replace with the following:

.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.

### SGC 4.7 Superintendent<sup>‡</sup>

Delete GC 4.7.1 and replace with the following:

.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.

### SGC 4.11 Subcontractors <sup>‡</sup>

Delete GC 4.11.2 and replace with the following:

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.

### SGC 7.1 Changes <sup>‡</sup>

Delete GC 7.1.3 and replace with the following:

.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*.

### SGC 9.2 Valuation Method <sup>‡</sup>

Delete GC 9.2.3 (1) and replace with the following:

(1) shall be interpreted to include compensation on account of all related costs, including but not limited to all direct, indirect, "impact", head office, overhead, and all other costs, and all markups and profits, even if the *Quotation* does not specifically mention such items; and

Unit	SUPPLEMENTARY GENERAL	PAGE 3 OF 9
Price	CONDITIONS	2009
CONTRACT SGC 9.4	Quantity Variations <sup>‡</sup>	

Delete GC 9.4.1 and replace with the following:

.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:

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

### SGC 10.1 Force Account Costs <sup>‡</sup>

Delete GC 10.1.1(4) and replace with the following:

(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.

### SGC 10.3 Submit Accurate Records <sup>‡</sup>

Delete GC 10.3.2 and replace with the following:

- .2 The Contract Administrator shall, within one Day of the receipt of a Force Account report:
  - (1) certify the information in the submitted *Force Account* report that the *Contract Administrator* accepts as correct; and
  - (2) reject in writing the information, if any, in the *submitted Force Account* report that the *Contract Administrator* does not accept as correct.

Add SGC 10.3.3, 10.3.4, and 10.3.5 as follows:

- .3 Any information in a submitted *Force Account* report which the *Contract Administrator* fails to either certify or reject within the one *Day* period will be deemed to have been certified as accepted.
- .4 Any information in a submitted *Force Account* report that is rejected by the *Contract Administrator* and which remains disputed by the *Contractor* and the *Contract Administrator* will be resolved in accordance with GC 17.
- .5 The Owner shall not be liable to pay for any Work based on Force Account for which the daily Force Account reports were not prepared and submitted as set out in GC 10.3.1.

Unit Price Contract		SUPPLEMENTARY GENERAL CONDITIONS	PAGE 4 OF 9 2009
SGC 12.2	Disco	very of Hazardous Materials <sup>‡</sup>	
	Delete	e GC 12.2.2 and replace with the following:	
	.2	If the Contract Administrator observes any materials at the the Contract Administrator knows or suspects may be Hau the Contract Administrator shall immediately give written n and the Contractor shall immediately stop the Work or p required by GC 12.2.1 (1).	zardous Materials then otice to the Contractor
SGC 13.1	GGC 13.1 Delay by Owner or Contract Administrator <sup>‡</sup>		
	Delete	e GC 13.1.1 (2) and replace with the following:	
	(2)	reimbursement by the <i>Owner</i> for directly related out of p reasonably and necessarily incurred by the <i>Contractor</i> as plus payment of a markup of 10% on such costs shall be plus a further markup of 10% on the total of the foregoin profit. No payment shall be owed for lost opportunity.	a result of such delay, allowed for overhead
SGC 13.3	C 13.3 Unavoidable Delay <sup>‡</sup>		
	Delete	GC 13.3.1 and replace with the following:	
	.1	If the <i>Contractor</i> is delayed in the performance of the <i>Wo</i> beyond the reasonable control of the <i>Contractor</i> , <i>Administrator</i> , including <i>Abnormal Weather</i> , labour disp (including lock-outs decreed or recommended for its men contractors' association, of which the <i>Contractor</i> is a me <i>Contractor</i> is otherwise bound), fire, or unusual delay by con written notice as required by GC 13.6, the <i>Contractor</i> extension of the <i>Contract Time</i> , but shall not be entitled to costs. For certainty "common carrier" in this GC does not in services to the public over wires or satellite systems.	Owner or Contract utes, strikes, lockouts nbers by a recognized ember or to which the common carriers, then, shall be entitled to an reimbursement of any
SGC 13.9	Liquic	dated Damages for Late Completion <sup>‡</sup>	
	Delete	e GC 13.9.1 and replace with the following:	
	.1	If the <i>Contractor</i> fails to meet the <i>Milestone Date</i> for <i>Subs</i> set out in the Form of Tender, paragraph 2.2 as may be ac provisions of the <i>Contract Documents</i> , then the <i>Owner</i> monies owing to the <i>Contractor</i> for the <i>Work</i> :	djusted pursuant to the
		(1) as a genuine pre-estimate of the Owner's increased Administrator and the Owner's own staff caused by of \$250 per day or pro rata portion for each Day Performance is achieved after the Substantial F Date; plus	such delay an amount that actual Substantial

	SUPPLEMENTARY GENERAL CONDITIONS	PAGE 5 OF 9
CONTRACT		2009
	(2) all direct out-of-pocket costs, such as costs for safet equipment rental, reasonably incurred by the Owner as a such delay.	
	If the monies owing to the <i>Contractor</i> are less than the total by the <i>Contractor</i> to the <i>Owner</i> under (1) and (2) then any immediately, upon written notice from the <i>Owner</i> , and up <i>Performance</i> , be due and owing by the <i>Contractor</i> to the <i>C</i>	y shortfall shall on <i>Substantial</i>
SGC 17.5	Referee <sup>‡</sup>	
	Delete GC 17.5.2 (2) and replace with the following:	
	(2) if the parties have not agreed upon a <i>Referee</i> within 3 Days of names by one party to the other as provided by <i>GC</i> 17.5.2 party may request in writing the Master Municipal Construction Association to appoint the <i>Referee</i> . The Association will have appoint a <i>Referee</i> without further consultation with the parties	(1), then either on Documents 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*.

Delete GC 17.5.8 and replace with the following:

.8 The *Referee* shall render a brief and impartial decision in writing on the *Dispute*, with copies to both parties within 15 *Days* of the *Referee's* appointment or such longer period as agreed to in writing by both parties. A value to the parties of the review is in having the *Referee* give a timely decision. The decision shall include consideration of the amount, if any, of an adjustment to the *Contract Time* and *Contract Price* that should be made arising out of the matters relating to the *Dispute*.

#### SGC 18.2 Supporting Documentation <sup>‡</sup>

Delete GC 18.2.2 and replace with the following:

.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.

### SGC 18.4 Holdbacks

Delete GC 18.4.2 and replace with the following:

.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*.

Unit

PRICE

2009

CONTRACT

Add SGC 18.4.6 as follows:

.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.

### SGC 18.6 Substantial Performance<sup>‡</sup>

Delete GC 18.6.3 (1) and replace with the following:

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

### SGC 24.1 Required Insurance <sup>‡</sup>

Delete GC 24.1.1 (2) and replace with the following:

(2) Commercial General Bodily Injury and Property Damage liability Insurance

Limits: Bodily Injury and Property damage - inclusive \$5,000,000

The insurance shall include Completed Operations, *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.

Delete GC 24.1.1 (3) and replace with the following:

(3) Course of Construction Builders' Risk Insurance

Coverage on an "All Risks" basis in the amount of not less than the amount of the *Contract Price*; subject to a deductible provision for the *Contractor's* account not exceeding \$10,000.00 each loss. Coverage to include the *Owner* as an additional insured.

Add GC 24.1.1 (5) as follows:

(5) Boiler and machinery Insurance in the joint names of the *Contractor*, and the *Owner*. The policy shall include as insured's all Subcontractors. 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:

.5 All policies referred to in this *GC* shall provide that thirty (30) days notice of cancellation will be given in writing to the Named Insured and the *Owner*, otherwise the policies to remain in full force and effect until the *Work* has been completed.

Unit Price Contract	SUPPLEMENTARY GENERAL CONDITIONS	Page 7 of 9 2009
	Notwithstanding the foregoing, the Commercial Gen Property Damage Liability insurance referred to in <i>GC</i> a full force and effect from the commencement of the per- a period of not less than twelve (12) months following with respect to completed operations coverage for a per- months following <i>Total Performance</i> .	24.1.1 (2) shall remain in formance of the <i>Work</i> for <i>Total Performance</i> , and

### SCHEDULE 17.5.3 Letter Agreement with Referee <sup>‡</sup>

Add following Schedule 17.5.3 to Supplementary General Conditions:

UNIT
------

PRICE

CONTRACT

### SUPPLEMENTARY GENERAL CONDITIONS

PAGE 8 OF 9

2009

### Schedule 17.5.3

### Letter Agreement with Referee

(Name and Address of *Referee*)

Contract:

Reference No.

**BETWEEN**:

(the "Owner")

AND:

(the "Contractor")

Unit	SUPPLEMENTARY GENERAL	PAGE 9 OF 9
PRICE	CONDITIONS	2009
CONTRACT		

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.

We confirm that your daily/hourly rate for fees is \$\_\_\_\_\_\_. In addition to your invoiced fees the *Owner* will pay any and all reasonable disbursements incurred in providing your services.

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

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,

Authorized Signatory of Owner	Date
Authorized Signatory of Contractor	Date
Referee	Date

### END OF SUPPLEMENTARY GENERAL CONDITIONS

# SUPPLEMENTARY SPECIFICATIONS

To be developed as required to outline Measurement and Payment clauses, or otherwise.

# **CONTRACT DRAWINGS**

Issued for Quotation Drawings will be updated to Issued for Construction Drawings to form the Contract Drawings

# APPENDIX A – GEOTECHNICAL INVESTIGATION REPORT

Report included in Request for Quotation



# APPENDIX G

# **QUOTATION FORM**

# 1. Proponent Contact Information

The following proponent information is requested:

Company Name:	
Address:	
Primary Project Contact:	
Name:	
Office Number:	
Cell Number:	
Email:	

# 2. Relevant Experience

Proponents are asked to highlight experience on projects of a similar nature.

### Project #1:

Location of Work:	
Year:	
Nature and Scale of Work:	
Reference Contact Name:	
Telephone:	
Email:	

Project #2:						
Location of Work:						
Year:						
Nature and Scale of Work:						
Reference Contact Name:						
Telephone:						
Email:						

# 3. Proponent Team

Identify proponent team members for this project and outline roles / responsibilities, skillset / qualifications, and experience.

Team Member	Role / Responsibility

Attach team member resumes if desired.

### 4. Subcontractors / Suppliers

Identify subcontractors for this project and outline roles / responsibilities, skillset / qualifications, and experience.

Subcontractor Name	Role / Responsibility

Identify suppliers for this project and outline products / equipment to be provided.

Supplier Name	Product / Equipment

### 5. Project Approach

Please outline the proposed approach to this project, specifically highlighting collaboration, capacity building, cost savings, or similar opportunities with the CCRD and / or local Denny Island community.

### 6. Schedule

Identify the following milestone dates:

RFQ Closing	May 23, 2024
Identification of Preferred Proponent	May 30, 2024
Contract Award to Successful Proponent	June 13, 2024 – CCRD Board Meeting
Mobilization to Denny Island	
Supply and Installation of Works	
Testing and Commissioning	
Restoration	
• Project Completion (Target Sept. 30, 2025)	

Provide any additional comments regarding anticipated schedule. If shorter or extended schedule is proposed, please provide rationale.

### 7. Contract

Proponents are asked to confirm their commitment to enter into a contract with the CCRD to complete the works. Any exceptions or proposed modifications to the proposed MMCD unit price contract should also be noted below.

### 8. Quotation Price

Populate the table on the following page with quoted unit prices for the proposed work as well as the extended amount based on quantity x unit price. The Quotation Price shall be considered the sum of all quoted unit prices x estimated quantities.

Three (3) separate quotation scenarios are presented, each requiring independent quotation <u>without</u> <u>bonding costs included</u>:

- Phase 1 Works Only
- Phase 2 Works Only
- Phase 1 and 2 Works

Please confirm that proponent can obtain bonding, Performance Bond and Labour and Material Payment Bond, each in the amount of 50% of the Quotation Price:

Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, please identify cost premium for bonding: \$\_\_\_\_\_

In addition to the unit prices, proponents are asked to provide hourly rates for various equipment, materials, or labour expected to be required to complete the works. The intent is to have pre-identified rates in the event that hourly as and when services are required. This also provides transparency with respect to cost breakdowns for the partnering nature of this project.

Equipment / Material / Labour	Hourly Rate

Attach additional pages as needed.

	PHASE 1		PHASE 2			PHASES 1 AND 2					
Item	Description	Units	Quantity	Unit Price Amount		Quantity			Quantity	Unit Price	Amount
1	Watermain										
a)	200 mm Ø HDPE DR 17 Watermain Marine Drive – Dwg C06/C07 Sta. 3+000 to 3+080 and 4+145 to 4+270	m	205			0			205		
b)	100 mm Ø HDPE DR 17 Watermain Marine Drive – Dwg C07 Sta. 4+070 to 4+145	m	75			0			75		
c)	200 mm Ø HDPE DR 17 Watermain Shearwater Road – Dwg C13 Sta. 6+565 to 6+855	m	290			0			290		
d)	200 mm Ø HDPE DR 17 Watermain Airport Road – Dwg C08 Sta. 2+000 to 2+220	m	220			0			220		
e)	200 mm Ø HDPE DR 17 Watermain Shearwater Road – Dwg C10/C11/C12/C13 Sta. 5+535 to 6+565 (less 3 culvert crossings)	m	620			380			1000		
f)	200 mm Ø HDPE DR 17 Watermain Whiskey Point Road - Dwg C14/C15 Sta. 6+015 to 6+460	m	0			445			445		
g)	200 mm Ø HDPE DR 17 Watermain Shearwater Road – Dwg C09/C10 Sta. 5+190 to 5+535 (less 1 culvert crossing)	m	0			335			335		
h)	200 mm Ø HDPE DR 17 Watermain Heron Point Road – Dwg C09 Sta. 5+010 to 5+190	m	0			180			180		
i)	100 mm Ø HDPE DR 17 Watermain Heron Point Road – Dwg C09	m	0			150			150		
2	Hydrants										
a)	Complete Fire Hydrant Assembly	ea.	5			5			10		
3	Fittings										
a)	200 mm Ø FxF Gate Valve	ea.	6			5			11		
b)	200x200x200 mm Ø FxFxF Tee	ea.	2			1			3		
c)	200x100 mm Ø FxF Reducer	ea.	1			1			2		
d)	200 mm Ø End Cap / Blind Flange	ea.	0			1			1		
e)	100 mm Ø End Cap / Blind Flange	ea.	1			1			2		
4	Combination Air Valve Assemblies										
a)	Complete Combination Air Valve Assembly	ea.	3			5			8		
5	Sampling Stations										
a)	Complete Sampling Station Assembly	ea.	1			2			3		
6	Water Services										
a)	25 mm Ø Polyethylene Water Service	ea.	19			31			50		
b)	Meter Box / Setter Assembly	ea.	24			31			55		
c)	19 mm Ø Meter (Optional)	ea.	24			31			55		
7	Watermain Culvert Crossings										
a)	200 mm Ø HDPE c/w Casing and Insulation	m	20			20			40		
8	Gravel Access Road – Dwg C14/C15										
a)	150 mm Thick Granular Base	m²	0			600			600		
b)	300 mm Thick Granular Sub-Base	m²	0			600			600		
				Total:			Total:			Total:	

Proponents are asked to identify any suggested alterations to the project scope / approach and the associated estimated cost savings.

Component of Work			
(i.e. watermain, hydrants, air valve assemblies, gravel access road, water meters, etc.)	Estimated Cost Savings		
i.e. Water Meters – inside installation vs outside in a pit at property line.	\$		

Attach additional pages as needed.

### 9. Addenda

Proponents shall note receipt and acknowledgment of addenda in the table below, which shall constitute understanding that all addenda content form part of the RFQ and subsequent contracts.

Addendum #	Date Issued

### **10.** Quotation Endorsement

The quotation shall be endorsed by an authorized signatory of the proponent below.

Scenario	Quotation Price (excl. GST)
Phase 1 Works Only	\$
Phase 2 Works Only	\$
Phase 1 and 2 Works	\$

NAME OF PROPONENT

AUTHORIZED SIGNATORY FOR PROPONENT