REGIONAL DISTRICT OF NANAIMO

REQUEST FOR PROPOSALS No. 24-031

French Creek Pollution Control Centre
Morningstar Creek Crossing Replacement

Addendum 3
Issued: May 28, 2024

Closing Date & Time: on or before 3:00 PM Pacific Time on June 4, 2024

This addendum shall be read in conjunction with and considered as an integral part of the Request for Proposal. Revisions supersede the information contained in the original Proposal or previously issued Addendum. No consideration will be allowed for any extras due to any Proponent not being familiar with the contents of this Addendum. All other terms and conditions remain the same.

RFP Addendum:

1. Delete the following drawings in **Appendix B** and replace with updated, enclosed drawings. Revisions are clouded.

   DELETE:

   - Drawing C-1003 R0
   - Drawing C-1006 R0
   - Drawing C-1007 R0
   - Drawing C-1009 R0 (P1)

   ADD:

   - Drawing C-1003 R1
     - Corrected the scale bar to 1:250
   - Drawing C-1006 R1
     - Corrected the scale bar to 1:250
     - Updated the commodity list to include Centrate (CEN).
   - Drawing C-1007 R1
     - Updated the commodity list to include Centrate (CEN).
   - Drawing C-1009 R1
     - Updated Centrate (CEN) pipe tag in profile.

- Updated the FE and PE pipe diameter to the 600mm nominal diameter.

2. Delete the Schedule of Quantities and Prices in **Appendix A** and replace with enclosed, updated copy. Revisions are shown in red.
    - **DELETE:** Schedule of Quantities and Prices in Appendix A.
    - **ADD:** Schedule of Quantities and Prices – R1.
3. The list of existing electrical and communications cables shown in both the "Morningstar Creek Crossing" and the "Temporary Infrastructure for Continuity of Dewatering Operations (Optional Work)" subsections of **Section 3 Scope of Services** shall be deleted and replaced with the following list:
    - 1 – three (3) conductor Teck cable (1,000 V, 350 AWG) providing power to the Dewatering Building.
    - 1 – six (6) fibre cable for communications to the Dewatering Building.
    - 1 – telco cable for the Dewatering Building security system.

    Also reference enclosed markup of Drawing C-1003 for additional clarity on location of existing cables and response to Q7 / A7 below.

RFP Questions and Answers:

Q1) Provide flow rate in Morningstar Creek.

A1) Below is an excerpt from the French Creek Water Allocation Plan, July 1994, authored by the provincial Ministry of Environment, Land and Parks. The report notes the average monthly discharge from Morningstar Creek in August and September was 0 and 8 litres per second, respectively.

3.2.3 Morningstar Creek

Morningstar Creek is tributary to the French Creek tidal area. The drainage area of Morningstar Creek is estimated to be 7.90 km^2 (3.05 mi^2).

The estimated mean monthly discharge and mean annual discharge (MAD) flow estimates is in the following table:

Morningstar Creek Mean Monthly and Mean Annual Discharge
litres/sec

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	MAD
514	403	387	190	95	32	8	0	8	47	300	577	216

There was no significant flow on August 27, 1986 in the culvert under Lee Road.

Norecol Environmental Consultants Ltd. reportedly measured the flow in Morningstar Creek as 180 litres/sec on November 30, 1988.

Additional information on expected groundwater levels can be found in **Appendix E Geotechnical Information**. In addition, please see note on enclosed markup of Drawing C-1003 regarding condition of wetland area in outfall alignment.

Q2) Confirm the size of the new reclaimed service water (RSW). Shown 75mm in plan view and 100mm in profile view.

A2) The RSW piping is 100mm across the bridge and 75mm from tee to tie in at dewatering building. See enclosed, updated drawing C-1007.

Q3) The Schedule of Quantities and Prices shows 85LM of 50mm HDPE pipe. Confirm the location of this pipe.

A3) This was referring to the 100mm diameter RSW line across the bridge and was incorrectly labelled. See Q2/A2 above and enclosed, updated Schedule of Quantities and Prices.

Q4) The Schedule of Quantities and Prices shows 85LM of 75mm HDPE pipe. Confirm the location of this pipe.

A4) This was referring to the 75mm diameter RSW line from tee to tie-in at the Dewatering Building. See Q2/A2 above and enclosed, updated Schedule of Quantities and Prices.

Q5) Confirm the length of 600mm HDPE (711 OD) pipe. We measure 285LM in total (130LM – Primary Effluent and 155LM Final Effluent).

A5) The correct length is 145 lm (65 lm Primary Effluent and 80 lm Final Effluent). See enclosed, updated Schedule of Quantities and Prices.

Q6) Confirm the number of 75mm gate valves. We count 6 in total, 4 on 75mm potable water line and 2 on reclaimed service water line.

A6) There are:

- 4 – 75mm Gate Valves.
- 6 – 100mm Plug Valves.

See enclosed, updated Schedule of Quantities and Prices.

Q7) Spec calls for temporary routing of the following systems, I would need clarifications on what is existing and expectation for temporary routing. Page #4 of spec:

a. 3 x electrical cables – 3 cables or 3 conductors? Voltage, ampacity, wire size? remove and replace with new or splice in pull pits? How long can power be down?

b. Ethernet cable – Pull new cable after re-routed conduit complete or splice?

c. Fibre optic cable – Pull new cable after re-routed conduit complete or splice? Cable type?

d. Phone – Pull new or splice?

A7) Cables temporarily routed for the creek crossing work can be strung aerially and direct buried with sand bedding to tie-in (splice) points. The answers below correspond to the lettered list above. Also reference Item 3 in Clarifications section above:

a. There is a single, three (3) conductor Teck cable (1,000 V, 350 AWG) providing power to the Dewatering Building that is to be temporarily and permanently reinstated. Splices are permitted.

b. There is no ethernet cable.

c. There is a single, six (6) fibre cable for communications to the Dewatering Building that is to be temporarily and permanently reinstated. A single splice on this cable is permitted. Pull new cable from splice location to Dewatering Building. Splicing to be performed by technician certified to perform fibre splices.

d. There is a telco cable for the Dewatering Building security system that is to be temporarily and permanently reinstated. See photo markup enclosed for visual reference. Splices are permitted.

Q8) Is it just 2 conduit systems? Ethernet, phone, and FO cable in one duct and power in the other?

A8) See enclosed markup of drawing C-1003 for information on type and location of existing electrical and communications cables.

Q9) Confirm the location of class 250 riprap and provide specifications for the same.

A9) The Class 250 riprap is noted on drawings C-1008 and C-1009 as a row of 600mm diameter rocks to be placed at the toe of the riprap slope on the outside corner of the creek, upstream of the creek crossing.

Q10) Confirm the requirement of railing on top of MSE wall and provide specifications/details of the same.

A10) A railing on top of the MSE wall is not required.

Q11) Does 632 vaults supplied by the contractor get inspected by BC Hydro?

A11) BC Hydro will not inspect onsite infrastructure.

Q12) Confirm if geotextile and geogrids for the MSE wall supplied owner.

A12) The geogrid incorporated in the MSE walls will be supplied by the RDN. Geotextile, where indicated on the drawings and in the specifications, shall be supplied by the Contractor. For example, the geotextile surround for the clear crush at the base of the MSE walls shall be supplied by the Contractor.

Q13) Confirm the availability of water source on-site for construction.

A13) A fire hydrant adjacent to the plant exists off Highway 19A just north of Morningstar Creek. Contact Epcor Water Services – French Creek at (250) 951-2460 to arrange use. There are also several 1" hose connections in various locations in the plant that may be used.

Q14) Provide the thickness of existing asphalt.

A14) The thickness of the existing asphalt is unknown. Assume asphalt thickness of 75mm.

End of Addendum

EXISTING DRYING BEDS/ STORAGE

EXISTING DRYING BED

EXISTING DRYING BED

EXISTING DRYING BED

EXISTIG SUMP PUMP

EXISTING MCC–500 KIOSK

CONC. APRON

EXISTING DEWATERING BUILDING

DEWATERING

DRIVEWAY

ASPHALT

EX STORAGE SHED

EX TRUCK SCALE

100–SPARE–PE

100–CEN–PE

100–DS–PE

MORNINGSTAR CREEK

TELUS STRUCTURE

500–FE–ST

EXIST. 500ø PE

ISLAND HIGHWAY

2 x 103 DB2 PVC POWER DUCTS (1 SPARE)

2 x 103 DB2 PVC COMMS DUCTS (1 SPARE)

100–CEN–PE

100–SPARE–PE

300–STM–AC

TREELINE

LANDSCAPE AREA

ASPHALT RD

LANDSCAPED AREA

EXISTING FRENCH CREEK POLLUTION CONTROL CENTRE

150–STM–DI

TRICKLING FILTER PUMP AREA

CONTACT

GRIT ROOM

CONC. CURB

MH

CB

LS

C.O.

STAND PIPE

75–RSW–PE

75–PW–PE

300–STM–CSP

100–DS–PE

BRIDGE

CREEK

EXISTING PRECAST BRIDGE, ABUTMENTS AND FOOTINGS TO BE REMOVED

LEGEND

- STORM PIPE
- SANITARY PIPE
- WATER PIPE
- HYDRO DUCT
- HYDRO OVERHEAD LINE
- TELEPHONE LINE
- FORTIS GAS

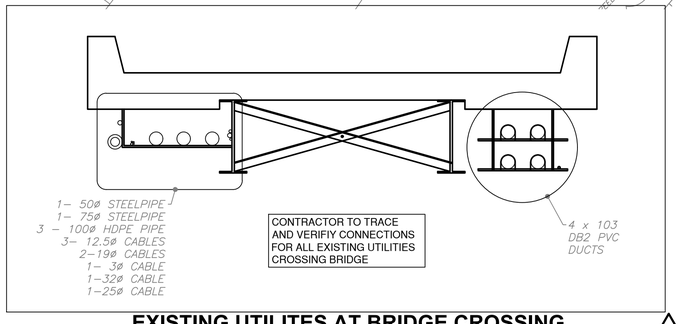
NOMINAL DIAMETER
COMMODITY
PIPE MATERIAL
75–PW–HDPE

COMMODITY

CEN	CENTRATE
DS	DIGESTED SLUDGE
DE	DISINFECTED EFFLUENT
RSW	RECLAIMED SERVICE WATER
PW	POTABLE WATER
STM	STORM WATER
FE	FINAL EFFLUENT

PIPE MATERIAL

AC	ASBESTOS CEMENT
CP	CONCRETE
DI	DUCTILE IRON
PE	HIGH DENSITY POLYETHYLENE
PVC	POLYVINYL CHLORIDE
ST	STEEL



EXISTING UTILITES AT BRIDGE CROSSING

SITE PLAN

0 6.25 12.5 m

1:250

1

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

REV	YY/MM/DD	DESCRIPTION	DRWN	CHKD	APVD
1	24/05/22	ISSUED FOR RFP	MW	NS	NS
0	24/04/19	ISSUED FOR RFP	MW	BB	NS

REGIONAL DISTRICT OF NANAIMO

CONSULTANT

AECOM

TITLE:

EXISTING SITE UTILITIES PLAN

PROJECT NO:	60714632	DSGN: MW	DATE:	-
RDN PROJECT NO:	-			
DRAWING SIZE:	ANSI "D"	CHKD: -	DATE:	-
SCALE:	AS NOTED	APVD: -	DATE:	-

PROJECT:

FRENCH CREEK POLLUTION CONTROL CENTRE STAGE 4 EXPANSION - EARLY WORKS

DWG NO: **FCPCC-SHT-C-1003**

REV: **1**

LEGEND

EXISTING UTITLIES

- STORM PIPE
- SANITARY PIPE
- WATER PIPE
- HYDRO DUCT
- HYDRO OVERHEAD LINE
- TELEPHONE LINE
- FORTIS GAS

NOMINAL DIAMETER
COMMODITY
PIPE MATERIAL

75–PW–HDPE

COMMODITY

CEN	CENTRATE (FUT. PROCESS WASTE DRAIN)
DS	DIGESTED SLUDGE
DE	DISINFECTED EFFLUENT
RSW	RECLAIMED SERVICE WATER
PW	POTABLE WATER
FE	FINAL EFFLUENT
PE	PRIMARY EFFLUENT
TWAS	THICKENED WASTE ACTIVATED SLUDGE
SAN	SANITARY WASTE

PIPE MATERIAL

AC	ASBESTOS CEMENT
CP	CONCRETE
DI	DUCTILE IRON
PE	HIGH DENSITY POLYETHYLENE
PVC	POLYVINYL CHLORIDE
ST	STEEL

600–FE–PE
600–PE–PE
150–TWAS–PE
50–FE(MS)–PE
100–SAN–PE
100–CEN–PE
100–RSW–PE
100–PW–PE
100–DE–PE
100–SPARE–PE
100–DS–PE
75–RSW–PE
75–PW–PE
300–STM–CSP
300–STM–AC
500–FE–ST
150–STM–DI

8-127Ø POWER/ COMMS DUCTS

MH-5
MH-6

711Ø OD HDPE FLANGE ADAPTER C/W BACKING RING AND TEMPORARILY CAP WITH BLIND FLANGE

COLD BEND 711Ø OD HDPE MAIN WITHIN MANUFACTURERS RECOMMENDATIONS.

200Ø HDPE FLANGED BRANCH CONNECTIONS FOR FUTURE AIR VALVES, AS PER DETAIL ON C-003

RELOCATE EXISTING POWER AND COMMS TO DEWATERING BUILDING. SEE C-1007 FOR DETAILS

2 x 103 DB2 PVC DUCTS (1 SPARE)

2 x 103 DB2 PVC DUCTS (1 SPARE)

NOTE: ALL NON-FUSED JOINTS ON WATERMAIN TO BE WRAPPED

EXISTING CENTRATE SUMP & PUMP STATION TO REMAIN

EXISTING MCC–500 KIOSK

TELUS STRUCTURE

DEWATERING BUILDING

CONC. APRON

ASPHALT

DRIVEWAY

STAND PIPE

TREELINE

MORNINGSTAR CREEK

LANDSCAPED AREA

TRICKLING FILTERS

TRICKLING FILTER PUMP AREA

ASPHALT RD

1 PLAN
0 6.25 12.5 m
1:250

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

REV	YY/MM/DD	DESCRIPTION	DRWN	CHKD	APVD
1	24/05/22	ISSUED FOR RFP	MW	NS	NS
0	24/04/19	ISSUED FOR RFP	MW	BB	NS

REGIONAL DISTRICT OF NANAIMO

CONSULTANT
AECOM

TITLE:
MORNINGSTAR CREEK SITE CROSSING PLAN

PROJECT NO:	60714632	DSGN: MW	DATE: -
RDN PROJECT NO:	-		
DRAWING SIZE:	ANSI "D"	CHKD: -	DATE: -
SCALE:	AS NOTED	APVD: -	DATE: -

PROJECT:
FRENCH CREEK POLLUTION CONTROL CENTRE STAGE 4 EXPANSION - EARLY WORKS

DWG NO: **FCPCC-SHT-C-1006**
REV: **1**

VALVE TO REMAIN CLOSED UNTIL FUTURE EXTENSION

1 100Ø TEE C/W 2- 100Ø PLUG VALVE

VALVE TO REMAIN CLOSED UNTIL FUTURE EXTENSION

REFER TO C-1021 FOR PE & FE PROFILES

CAP 8-127Ø DB2 CONDUITS FOR FUTURE EXTENSION

711Ø OD HDPE FLANGE ADAPTER C/W BACKING RING AND CAP WITH BLIND FLANGE

711Ø OD HDPE FLANGE ADAPTER C/W BACKING RING AND CAP WITH BLIND FLANGE

INSTALL HDPE FLANGE ADAPTER C/W BACKING RING AND CAP 150Ø TWAS WITH BLIND FLANGE (FOR FUTURE EXTENSION

INSTALL HDPE FLANGE ADAPTER C/W BACKING RING AND CAP 150Ø FE (MORNINGSTAR FM) WITH BLIND FLANGE (FOR FUTURE EXTENSION

INSTALL HDPE FLANGE ADAPTER C/W BACKING RING AND CAP 1-100Ø SAN WITH BLIND FLANGES (FOR FUTURE EXTENSION

INSTALL HDPE FLANGE ADAPTER C/W BACKING RING AND CAP 1-100Ø PWD WITH BLIND FLANGES (FOR FUTURE EXTENSION

INSTALL HDPE FLANGE ADAPTER C/W BACKING RING AND CAP 75Ø PSW WITH BLIND FLANGE (FOR FUTURE EXTENSION

INSTALL HDPE FLANGE ADAPTER C/W BACKING RING AND CAP 75Ø HDPE WATER SERVICE WITH BLIND FLANGE C/W 50Ø FLUSH. (FOR FUTURE EXTENSION)

TIE IN TO INTO EX 4-100Ø DB11 DUCTS

TIE IN TO EXISTING100 CENTRATE LINE (CEN) INTO PWD LINE WITH RESTRAINED COUPLER

TIE IN TO EXISTING 100Ø HDPE DIGESTED SLUDGE LINE WITH RESTRAINED COUPLER

NOTE: ALL NON-FUSED JOINTS ON WATERMAIN TO BE WRAPPED

75Ø TEE C/W 2- 75Ø GATE VALVES

VALVE TO REMAIN CLOSED UNTIL FUTURE EXTENSION

1 100 x 75Ø TEE C/W 2- 100Ø PLUG VALVES

VALVE TO REMAIN CLOSED UNTIL FUTURE EXTENSION

MH-5 632 BC HYDRO STYLE VAULT

MORNINGSTAR CREEK

B C-1009

711Ø x 200Ø TEE FOR FUTURE AIR VALVE

711Ø 90°DR17 HDPE FABRICATED BEND

REFER TO DRAWINGS C-1006 FOR CONTINUATION

100–DS–PE

REINSTATE CONNECTION

100–RSW–PE

75–PW–PE

1

100–CEN–PE (PSW)

100–SAN–PE CAP FOR FUTURE CONNECTION TO PRIMARIES

150–FE–PE CAP FOR FUTURE CONNCTION TO MORNINGSTAR PS

150–TWAS–PE CAP FOR FUTURE CONNECTION TO ATADS

600–FE–HDPE

711Ø x 200Ø TEE FOR FUTURE AIR VALVE

STA:0+040

600–PE–HDPE

INSTALL TEMPORARY 2-103Ø DB11 POWER DUCTS AND JUNCTION BOXES & RE-ROUTE POWER TO DEWATERING BUILDING

INSTALL TEMPORARY 2-103Ø DB11 COMMS DUCTS AND JUNCTION BOXES. & REROUTE FIBRE TO DEWATERING BUILDING

2 x 103 DB2 PVC COMMS DUCTS (1 SPARE)

2 x 103 DB2 PVC POWER DUCTS (1 SPARE)

TIE IN TO INTO EX 4-103Ø DB11 DUCTS

711Ø 22.5°& 45° DR17 HDPE FABRICATED BENDS BACK TO BACK

INSTALL HDPE FLANGE ADAPTER C/W BACKING RING AND CAP 1-100Ø SAN WITH BLIND FLANGES (FOR FUTURE EXTENSION

75Ø TEE C/W 2- 75Ø GATE VALVES

MH-6 632 BC HYDRO STYLE VAULT

CAP 8-127Ø DB11 DUCTS

VALVE CLOSED

8-127Ø DB11 DUCTS

CAP 100Ø HDPE PWD LINE WITH FLANGE ADAPTER AND BLIND FLANGE

CAP 75Ø HDPE WATER SERVICE C/W 50Ø FLUSH. (FOR FUTURE EXTENSION)

STA:0+000

STA:0+020

STA:0+040

STA:0+060

BRIDGE

DRIVEWAY

ASPHALT

LANDSCAPE AREA

1 75–RSW–PE

TIE IN TO EXISTING 75Ø HDPE POTABLE WATER SERVICE WITH RESTRAINED COUPLER

TIE IN TO EXISTING 75Ø HDPE RECLAIMED WATER SERVICE WITH RESTRAINED COUPLER

TIE IN TO EXISTING 75Ø HDPE RECLAIMED WATER SERVICE WITH RESTRAINED COUPLER

TIE IN TO EXISTING 75Ø HDPE POTABLE WATER SERVICE WITH RESTRAINED COUPLER

TIE IN TO EXISTING 100Ø HDPE PWD LINE WITH INTO EXISTING 100Ø HDPE CEN RESTRAINED COUPLER

TIE IN TO EXISTING 100Ø HDPE DIGESTED SLUDGE LINE WITH RESTRAINED COUPLER

INSTALL HDPE FLANGE ADAPTER C/W BACKING RING AND CAP 150Ø TWAS WITH BLIND FLANGE (FOR FUTURE EXTENSION

INSTALL HDPE FLANGE ADAPTER C/W BACKING RING AND CAP 150Ø FE (MORNINGSTAR FM) WITH BLIND FLANGE (FOR FUTURE EXTENSION

711Ø OD HDPE FLANGE ADAPTER C/W BACKING RING AND CAP WITH BLIND FLANGE

SITE PLAN

LEGEND

NOMINAL DIAMETER
COMMODITY
PIPE MATERIAL

75–PW–HDPE

1

COMMODITY	
CEN	CENTRATE/ (FUT. PROCESS WASTE DRAIN)
DS	DIGESTED SLUDGE
DUF	DRYING BED UNDERFLOW
DE	DISINFECTED EFFLUENT
PW	POTABLE WATER
RSW	RECLAIMED SERVICE WATER
STM	STORM WATER
FE	FINAL EFFLUENT
PE	PRIMARY EFFLUENT
TWAS	THICKENED WASTE ACTIVATED SLUDGE

PIPE MATERIAL	
AC	ASBESTOS CEMENT
CP	CONCRETE
DI	DUCTILE IRON
PE	HIGH DENSITY POLYETHYLENE
PVC	POLYVINYL CHLORIDE
ST	STEEL

0 2.5 5 m

1:100

REFERENCE DRAWINGS

DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
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REV	YY/MM/DD	DESCRIPTION	DRWN	CHKD	APVD
1	24/05/22	ISSUED FOR RFP	MW	NS	NS
0	24/04/19	ISSUED FOR RFP	MW	BB	NS

REGIONAL DISTRICT OF NANAIMO

CONSULTANT

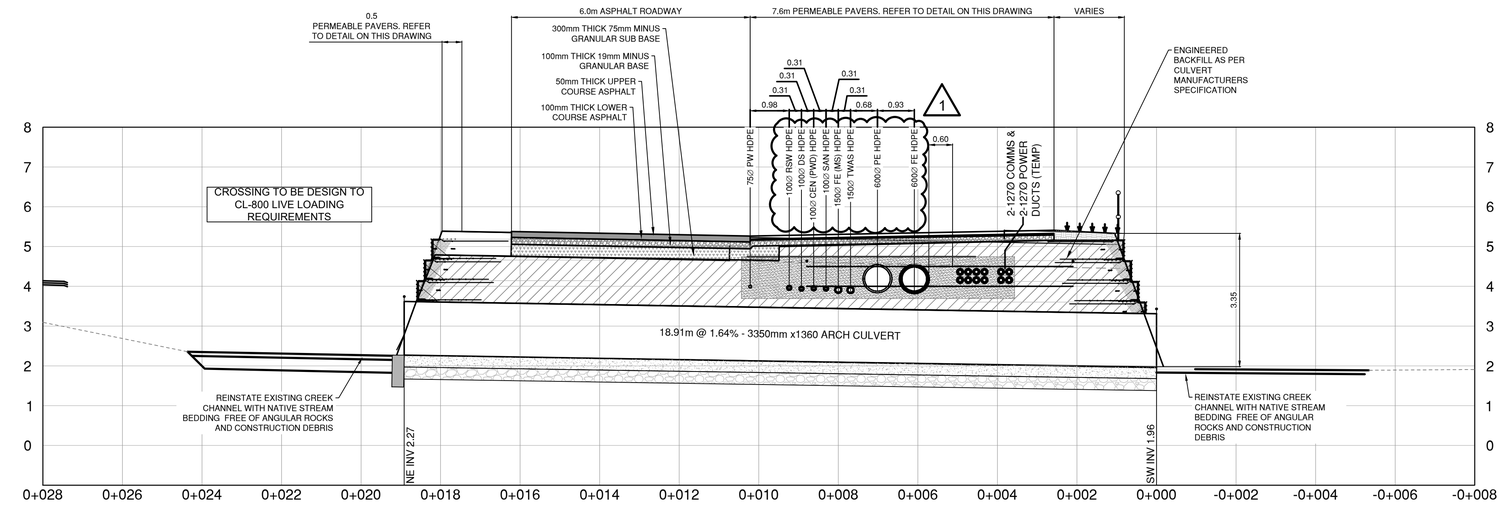
AECOM

TITLE: **MORNINGSTAR CREEK UTILITY PLAN**

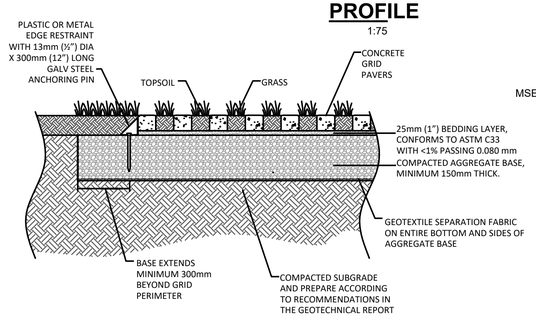
PROJECT: **FRENCH CREEK POLLUTION CONTROL CENTRE STAGE 4 EXPANSION - EARLY WORKS**

PROJECT NO:	60714632	DSGN: MW	DATE: -
RDN PROJECT NO:	-		
DRAWING SIZE:	ANSI "D"	CHKD: -	DATE: -
SCALE:	AS NOTED	APVD: -	DATE: -

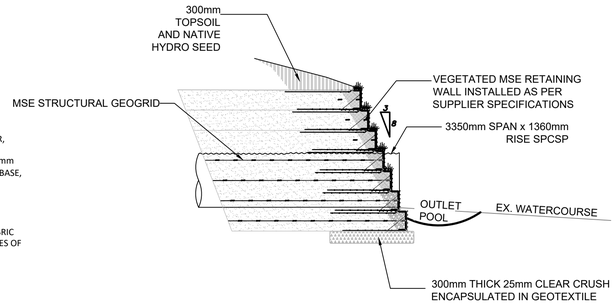
DWG NO: **FCPCC-SHT-C-1007** REV: **1**



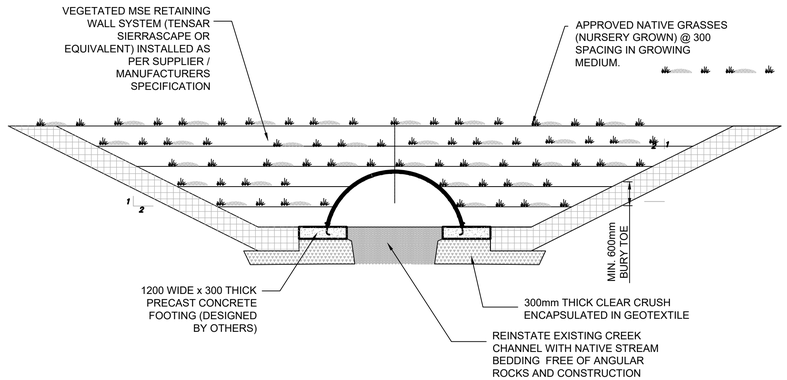
PROFILE
1:75



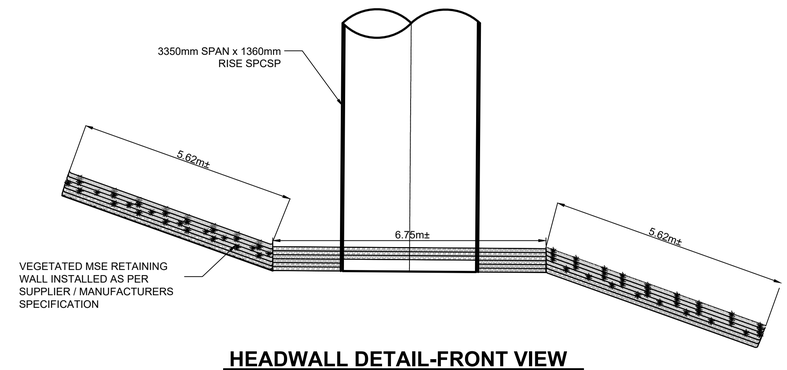
PERMEABLE PAVER DETAIL
N.T.S.



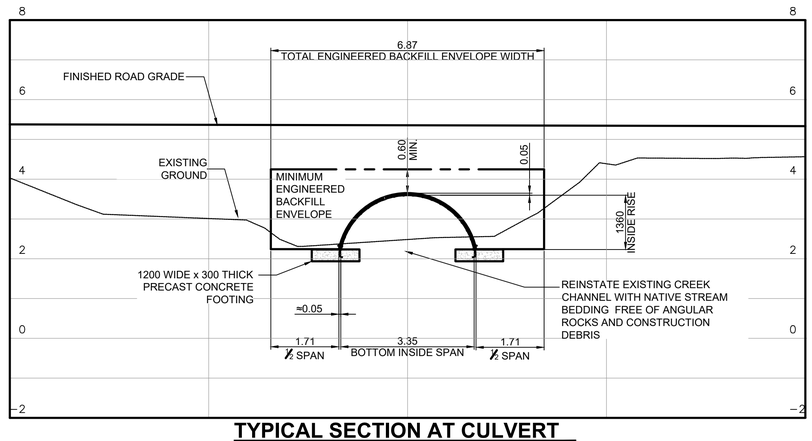
HEADWALL DETAIL-SIDE VIEW
1:75



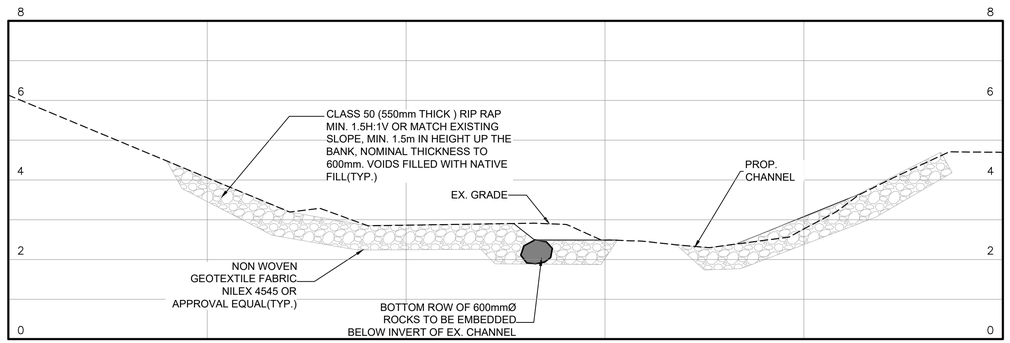
HEADWALL DETAIL-PLAN VIEW
1:75



HEADWALL DETAIL-FRONT VIEW
1:75



TYPICAL SECTION AT CULVERT
1:75



SECTION A
1:75
C-1008

NOTE: CULVERT FOOTINGS AND ANCHORS, AND MSE WALL DETAIL FOR INFORMATION ONLY. TO BE DESIGNED BY THE CULVERT SUPPLIER WITH CONSTRUCTION DRAWINGS SEALED BY PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF BRITISH COLUMBIA.

REFERENCE DRAWINGS

DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

REV	YY/MM/DD	DESCRIPTION	DRWN	CHKD	APVD
1	24/05/22	ISSUED FOR RFP	MW	NS	NS
0	24/04/19	ISSUED FOR RFP	MW	BB	NS

REGIONAL DISTRICT OF NANAIMO

CONSULTANT
AECOM

TITLE:
MORNINGSTAR CREEK CULVERT SECTIONS AND DETAILS

PROJECT:
FRENCH CREEK POLLUTION CONTROL CENTRE STAGE 4 EXPANSION - EARLY WORKS

PROJECT NO:	60714632	DSGN:	MW	DATE:	-
RDN PROJECT NO:	-				
DRAWING SIZE:	ANSI "D"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

DWG NO: **FCPCC-SHT-C-1009**
REV: **1**

SCHEDULE OF QUANTITIES AND PRICES – R1

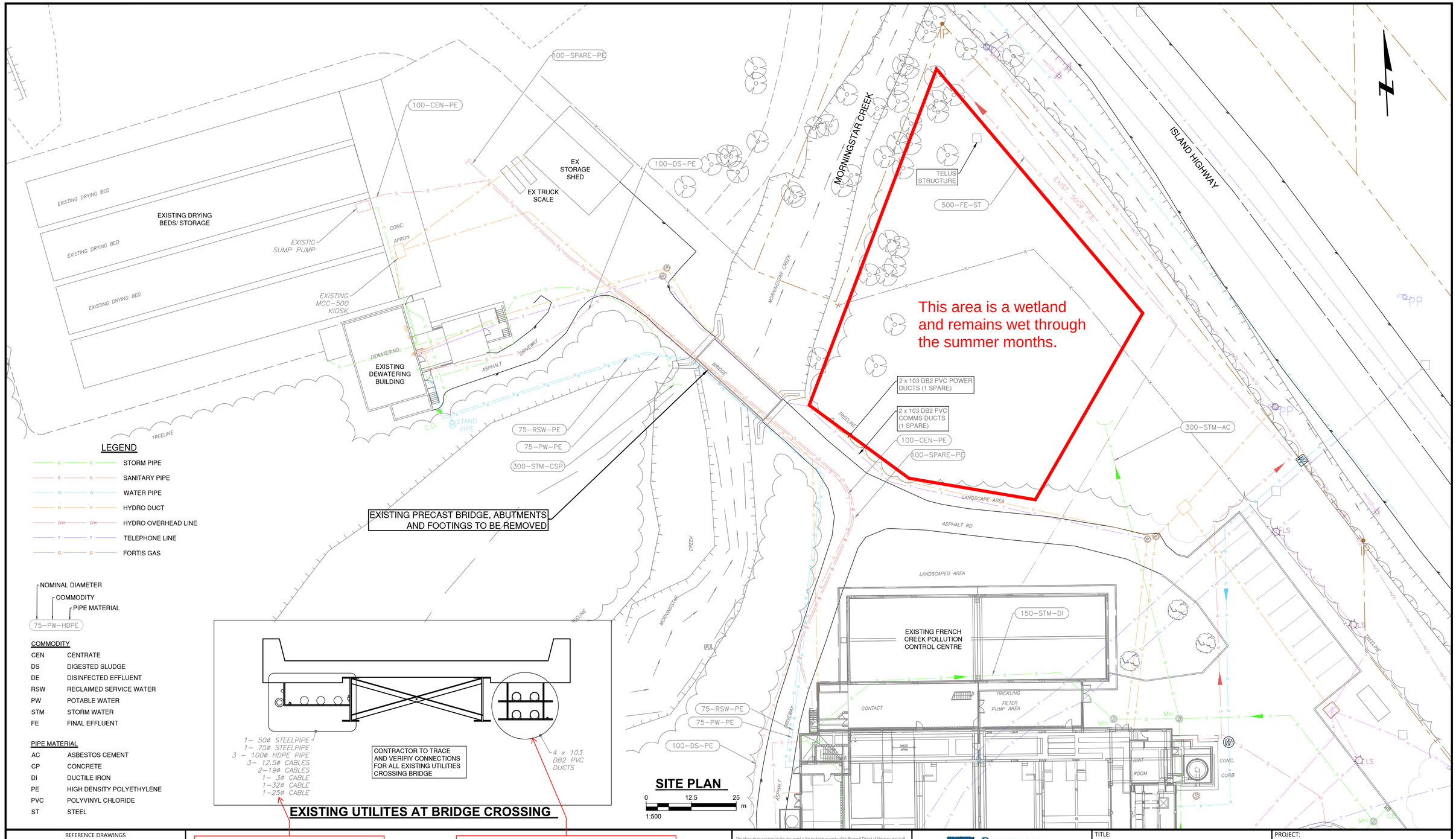
Item	Description	Unit	Quantity	Unit Price ($)	Subtotal ($)
3.2	Clearing and Grubbing				
	a) Clearing and Grubbing	m^2	960		
	b) Isolated Tree Clearing	ea	3		
	c) Topsoil stripping and removal	m^3	1920		
	d) Remove stockpile material	m^3	4000		
3.3	Excavating, Trenching and Backfilling				
	a) Over-excavation, removal and disposal of native material, and supply and placement of imported Type 3 granular fill material	m^3	100 (1)		
	b) Common excavation and disposal	m^3	250		
3.5	Yard Piping				
	a) Watermain HDPE 75mm diameter depth of main 1.2m Granular Backfill	m	90		
	b) Reclaimed Service Water Forcemain Pipe HDPE DR17 100mm diameter, for depth of main 1.2m deep Granular Backfill	m	55		
	c) Reclaimed Service Water (RSW) Forcemain Pipe HDPE DR17 75mm diameter, for depth of main 1.2m deep Granular Backfill	m	20		
	d) Forcemain Pipe HDPE DR17 100mm diameter, for depth of main 1.2m deep Granular Backfill	m	240		
	e) Forcemain Pipe HDPE DR17 150mm diameter, for depth of main 1.2m deep Granular Backfill	m	125		
	f) Forcemain Pipe HDPE DR17 711mm diameter OD, for depth of main 1.8m deep Granular Backfill	m	135		
	g) Bends 711mm diameter DR17 HDPE fabricated fittings	ea	3		

	h) Fittings 711mm diameter x 200mm diameter tee c/w 200mm flange and blind flange	ea	2		
	i) In-line Gate Valves 75mm FL-FL	ea	4		
	j) In-line Plug Valves 100mm FL-FL	ea	6		
	k) Tie -Ins & capping	ls	n/a		
3.6	Morningstar Creek Culvert and Crossing Work				
	a) Culvert Pipe CSP 500mm diameter, granular backfill inc. sandbag headwalls	m	15		
	b) Culvert SPCSP Arch 3350 wide X 1360 high , c/w precast footings, Engineered Backfill	m	19		
	c) End Walls MSE	ea	2		
	d) Class 250 Uniform Riprap - Machine Placed	tonne	60		
	e) Class 50 Graded Riprap - Machine Placed	tonne	290		
	f) Permeable pavers c/w aggregate base and geotextile	m^2	150		
	g) Regrade and restore creek bed	ls	n/a		
3.7	Site Grading and Roadway				
	a) Subgrade Preparation	m^2	3,300		
	b) Replace Unsuitable Subgrade	m^2	200		
	c) Common Excavation - Offsite Disposal	m^3	250		
	d) Import Embankment Fill - 75mm Minus Granular Fill	m^3	6,250		
	e) Granular Sub-Base 300mm Thickness for Roads	m^2	1,250		

	f) Granular Base 150mm Thickness for Roads	m^2	1,250		
	g) Granular Construction Access 200mm Thickness for Roads	m^2	800		
	h) Signs and Pavement Marking	ls	n/a		
3.8	Asphalt Paving				
	a) Asphalt Pavement - Lower Course # 1	tonne	161		
	b) Asphalt Pavement - Upper Course # 1	tonne	81		
3.9	Fencing and Gates				
	a) Remove and reinstate fence	m	20		
	b) Chain link gate	ea	1		
3.11	Landscaping				
	100mm thick topsoil and hydraulic seed	m^2	1,000		

(1) Over-excavation will be as directed by the Engineer at the unit price for this item.

END OF SECTION



LEGEND

- STORM PIPE
- SANITARY PIPE
- WATER PIPE
- HYDRO DUCT
- HYDRO OVERHEAD LINE
- TELEPHONE LINE
- FORTIS GAS

NOMINAL DIAMETER
COMMODITY
PIPE MATERIAL
75-PW-HDPE

COMMODITY

CEN	CENTRATE
DS	DIGESTED SLUDGE
DE	DISINFECTED EFFLUENT
RSW	RECLAIMED SERVICE WATER
PW	POTABLE WATER
STM	STORM WATER
FE	FINAL EFFLUENT

PIPE MATERIAL

AC	ASBESTOS CEMENT
CP	CONCRETE
DI	DUCTILE IRON
PE	HIGH DENSITY POLYETHYLENE
PVC	POLYVINYL CHLORIDE
ST	STEEL

EXISTING UTILITES AT BRIDGE CROSSING

SITE PLAN

0 12.5 25 m
1:500

Retain:
1 - Telco cable for Dewatering Building security system. Ref. photo markup next page.

Demo:
All other electrical / communications cables this side of bridge.

Retain:
1 - Three (3) conductor Teck cable (1000V, 350 AWG) for Dewatering Building power.
1 - Six (6) fibre cable for communications to Dewatering Building. Splice single location and pull new cable between splice and Dewatering Building.

Demo:
- Telco cable not needed.

REFERENCE DRAWINGS

DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

REV	YY/MM/DD	DESCRIPTION	DRWN	CHKD	APVD
0	24/04/19	ISSUED FOR RFP	MW	BB	NS

REGIONAL DISTRICT OF NANAIMO

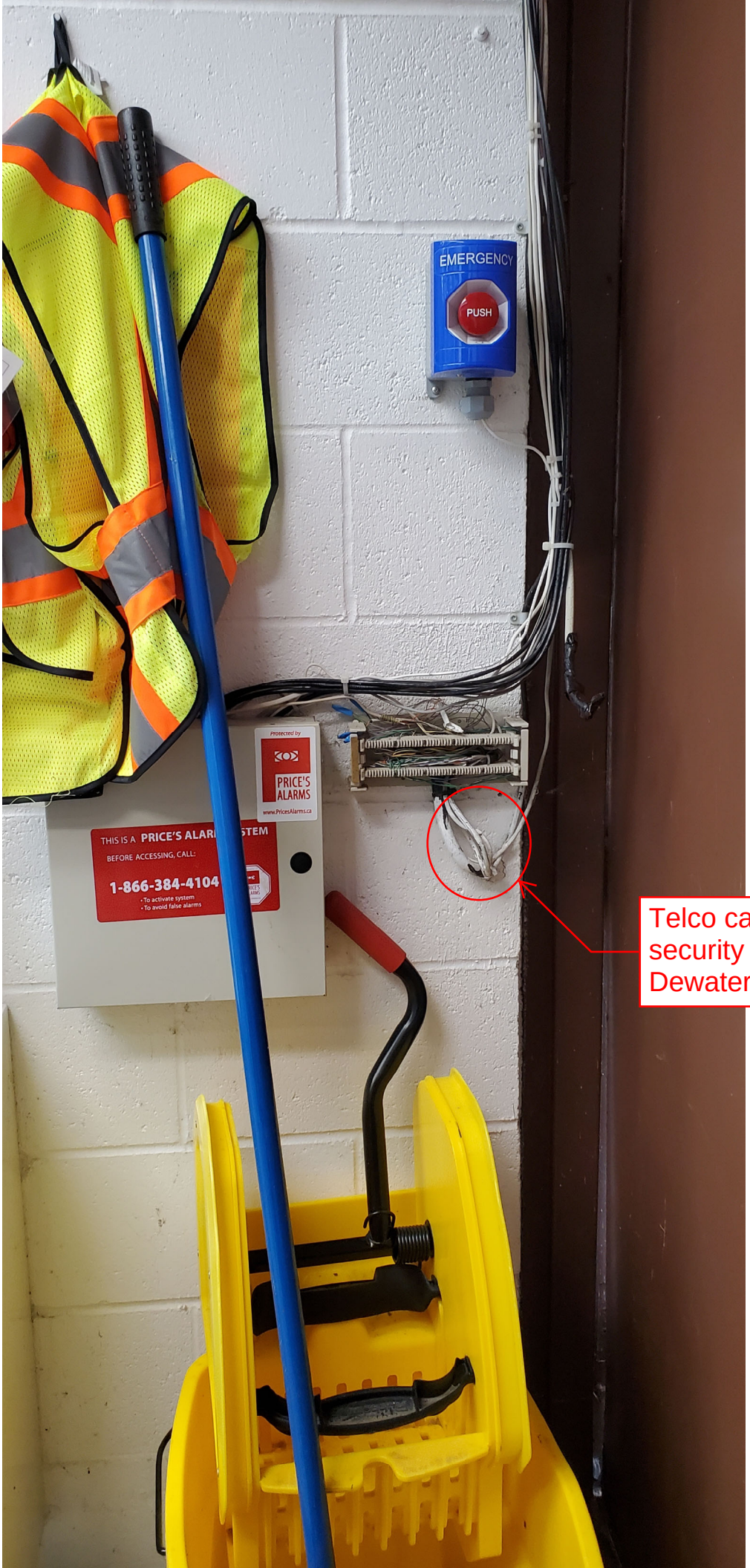
CONSULTANT
AECOM

TITLE:
EXISTING SITE UTILITIES PLAN

PROJECT:
FRENCH CREEK POLLUTION CONTROL CENTRE STAGE 4 EXPANSION - EARLY WORKS

PROJECT NO:	60714632	DSGN:	MW	DATE:	-
RDN PROJECT NO:	-				
DRAWING SIZE:	ANSI "D"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

DWG NO: **FCPCC-SHT-C-1003** REV: **0**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BEFORE ACCESSING, CALL:
1-866-384-4104
• To activate system
• To avoid false alarms
Telco cable for security system in Dewatering Building