

### **TENDER 19-08**

### **HWY 19A PHASE III WATERMAIN & FORCEMAIN**

### ADDENDUM NO. 2

March 28th, 2018

This addendum forms part of the Tender Documents and shall be read, interpreted, and coordinated with all other parts. The costs of all elements contained herein shall be included in the submission. The following revisions, changes, corrections, additions, and or deletions supersede the information contained in the original Documents to the extent referenced and shall become part thereof.

#### Addendum Item 1 - Questions and Answers

#### 1. **Proponent Question:**

Sanitary Manhole 'A' is called up as a 1050mm, but there are no quantities for the "Base, Lid, Slab, Cover and Frame" or "Manhole Riser Section". Please Clarify?

#### **Response:**

The attached Revised Schedule of Quantities and Prices has been corrected to include the 1050mm diameter manhole SMH-A.

#### 2. **Proponent Question:**

Drain Manhole 1 1350mm: the north and south inverts of the 300mm diameter storm sewers have inverts at 2.65m. Are these both to be outside drops to a 1.65m invert?

#### **Response:**

The intent of the design of the storm system modifications is to create an inverted siphon below the forcemain that is to be installed. The lateral 300mm diameter storm sewers that discharge to DMH-1 do not require outside drops. They can be connected to the manhole directly as shown on the drawings.

#### 3. **Proponent Question:**

Who is responsible for relocating anchor poles?

#### **Response:**

In accordance with the General Construction Notes: - Note 5, the Contractor is responsible for the relocation of anchor poles, and the cost is to be considered incidental to the work. The Contractor is responsible for the coordination, execution and payment of the pole relocations required for the project.

#### 4. **Proponent Question:**

SMH-AV2: Plan calls for 1050mm manhole, details call for 1200mm manhole. Please clarify?

#### **Response:**

The correct manhole size at SMH-AV2 is 1350mm. Drawings issued for Addendum No. 1 (attached) show the correct size.

#### 5. Proponent Question:

Where are the 2 x 38mm water services as per Item #37 of the Schedule of Quantities and Prices?

#### **Response:**

The 38mm water services have been replaced with 50mm services and the Revised Schedule of Quantities and Prices has been corrected to reflect this change.

#### 6. Proponent Question:

Item #25 of the Schedule of Quantities and Prices: "250 HxF Gate Valve". I count 7 not 6.

#### **Response:**

The correct quantity is 7 and the Revised Schedule of Quantities and Prices has been corrected to reflect this amount.

#### 7. **Proponent Question:**

Item #33 of the Schedule of Quantities and Prices: "200 HxFxF Tee". I count 0 not 1.

#### **Response:**

The correct quantity is 0 and this item has been deleted from the Schedule of Quantities and Prices.

#### 8. **Proponent Question:**

There is no line item for the two 50mm water irrigation sleeves.

#### **Response:**

See Item #35 of the Schedule of Quantity and Prices. There are no "irrigation sleeves", but rather two services.

#### 9. **Proponent Question:**

For the irrigation, are we to price CR-I102?

#### **Response:**

The 50mm water services for irrigation are to be installed per Detail 2, Sheet C-7. They are to be used in future work scheduled for 2020.

#### 10. Proponent Question:

There is no line item for the 2 – 250mm DI Caps. Station 100+720 and 101+320.

#### **Response:**

The Revised Schedule of Quantities and Prices has been corrected to reflect the pay item for the 250mm caps on the water system.

#### 11. Proponent Question:

On drawing 2 of 7, sta 100-720, there is a note stating that the "existing250mm AC sanitary is live at crossing". Could you confirm this? The drawing also indicates that this AC sanitary main is already capped and abandoned upstream of the crossing point. I refer to the note behind the east curb line.

#### **Response:**

The 250AC sani main is abandoned westward of the cap and remaining stub connects to the 450mm dia forcemain that is in service. For this reason it is shown as live.

#### 12. Proponent Question:

On drawing C-4, roughly sta 101+190, there is a 200mm DI San that we eventually tie into the gravity sanitary system. Does this 200mm DI line current connect to the 450mm FM? If so, is there a valve at the existing tee connect to the 450mm FM?

#### **Response:**

Record drawings and field survey do not show a valve at this location. It is assumed that there is no valve and that this line is under back pressure from the forcemain.

#### 13. Proponent Question:

Regarding Bid Items 34 and 35: You may also require a Bid Item for 250mm caps.

#### **Response:**

The revised Schedule of Quantities and Unit Prices has been updated to reflect a Pay Item for 250mm caps

#### 14. Proponent Question:

Regarding Bid Item 37, which is for 38mm Service connection: There are no 38mm services identified on the drawings. In order to price the "2ea" quantity realistically, we need to know if any will be "long side" connections (i.e. across the traffic lanes from the main connection).

#### **Response:**

The 38mm water services have been replaced with 50mm services and the Revised Schedule of Quantities and Prices has been corrected to reflect this change.

#### 15. Proponent Question:

Regarding Bid Items 51 through 54: These flanged valves will require stub ends and backup rings fused into the HDPE pipe. Currently, there are no bid items for these materials.

#### **Response:**

Stub ends and back up rings for flanged connections on HDPE piping is considered incidental to the supply and placement of the HDPE pipe of the same diameter.

#### 16. Proponent Question:

Regarding Bid Items 59 and 60: What does the term "BW" reference in the tee description?

#### **Response:**

BW means Butt Weld End or Plain End.

#### 17. Proponent Question:

Regarding Bid item 72: Could you identify the storm MH being rebenched? We find a sanitary MH, SMH13 that is identified as "re-bench". Item 72 is in the Storm Sewer section.

#### Response:

The existing manhole to be re-benched is a sanitary manhole, SMH-S13, approximate Sta 101+216.

#### 18. Proponent Question:

Is there a deadline to ask the City further questions?

#### **Response:**

All questions regarding this tender must be submitted to the City in writing at <u>purchasing@campbellriver.ca</u> no later than 2:00pm (local time) on Wednesday April 3<sup>rd</sup>. Any questions received after this date and time will not be responded to.

#### Addendum Item 2 – Options for Alternatives

Add to the Instructions to Tenderers Part I the following:

#### **Options for Alternatives** 4.13

**Option 1** and **Option 2** in the *Optional Work* portion of the Schedule of Quantities and Prices are mutually exclusive. The *Work* will include one or the other but not both. Consequently, the *Owner* will include only the lower of the extended prices of the **Option 1** and **Option 2** items when calculating the Tender total cost for making price comparisons between Tenders. In all other respects IT 17.2 shall apply.

The Tenderer shall determine the lower cumulative total for either **Option 1** or **Option 2** and include this lower cumulative total in calculating the total tender value.

#### Addendum Item 3 – Updated Tender Documents

The tender documents have been updated as follows and are attached to this addendum:

- 1. The Schedule of Quantities and Prices have been revised, replace Appendix 1 with **Appendix 1A (issued 28Mar19)**, as attached. Updated items are highlighted in yellow.
- 2. Project drawings have been revised as attached.

#### End of Addendum

#### Acknowledgement of this Addendum in your Tender submission is required.

Clinton J. Crook, SCMP, CPSM Purchasing & Risk Management Officer

# Appendix 1A (issued 28Mar19)

### SCHEDULE OF QUANTITIES AND PRICES - GST EXCLUDED

(See paragraph 5.3.1 of the Instructions to Tender – Part II)

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

ltem	MMCD Ref.	Description	Unit	Quantity	Unit Price	Amount
	01 - GEN					
		Supplementary Specifications 3.1				
1	1.1.4	Mobilization & Demobilization, shall not exceed 10% of the Total Price, excluding GST	LS	1		
	01 53 01 Temporary Facilities					
2	1.9.1	Sanitary Facilities, Site Storage, Loading and Hoardings	LS	1		
		01 55 00 Traffic Control, Vehicle Access and Parking				
3	1.5.1	Traffic Control, Vehicle Access and Parking	LS	1		
		01 57 01 Environmental Protection				
4	1.6	Temporary Erosion and Sediment Control	LS	1		
	01 62 00 Removals					
5	1.2.1	Seawalk Asphalt Removal	SM	1745		
6	1.2.2	450mm Diam. HDPE Forcemain Removal	LM	190		
				Sub-To	otal Page 9.	\$

Sub-Total Page 9: \$

Tenderer's	Owner's
Initial	Initial

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ltem	MMCD Ref.	Description	Unit	Quantity	Unit Price	Amount
	31 - EAR	THWORKS				
		31 22 16 Reshaping Granular Roadbeds				
7	1.4.1	Asphalt Restoration Preparation (3 Driveways)	SM	90		
8	1.4.5	Temporary Gravel Running Surface	SM	2235		
		31 23 01 Excavating, Trenching and Backfilling				
9	1.10.3	Over-Excavation, including Backfilling (Optional Work)	СМ	100		
10	1.10.9	Pre-Locates of Key Utilities prior to Start of Construction	EA	5		
11	1.10.9	Pre-Locate all Existing Water Services - prior to start of watermain construction	EA	34		
		31 23 17 Rock Removal		1		
12	1.6.4/5	Boulders and Rock Fragments - Blasting not Permitted (Optional Work)	СМ	50		
		31 23 23 Control Density Fill		·		
13	1.4.1	1100m of 450mm Diameter Pipe	СМ	177		
	32 - ROA	ADS AND SITE IMPROVEMENTS				
		32 11 16.1 Granular Subbase				
14	1.4.2	Granular Subbase (Optional Work)	Т	200		
		32 11 23 Granular Base		1		
15	1.4.5	Granular Base (Optional Work)	SM	150		
		32 12 16 Hot-Mix Asphalt Concrete Paving		·		
16	1.5.9	Coordination of Owner's Asphalt Contractor	LS	1		
				Sub-To	tal Page 10:	\$

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Item	MMCD Ref.	Description	Unit	Quantity	Unit Price	Amount
	33 - UTII	LITIES	•			
		33 01 30.1 CCTV Inspection of Pipelines		1	,	
17	1.6.2	CCTV Pipeline Inspection - Post Installation	LM	55		
		33 11 01 Waterworks - Imported Backfill		1		
18	1.8.2	Pipe - 200mm Diam. C900 DR18, All Depths	LM	70.85		
19	1.8.2	Pipe - 250mm Diam. C900 DR18, All Depths	LM	639.5		
		33 11 01 Waterworks - Imported Backfill		1 1		
20		Bend - 45º - 200mm Diam. HxH	EA	2		
21		Reducer - 200x250mm Diam. HXF	EA	1		
22		Gate Valve - 150mm Diam. FxH	EA	8		
23		Gate Valve - 200mm Diam. FxH	EA	4		
24		Gate Valve - 250mm Diam. FxH	EA	6		
25	1.8.3	Tee - 200x200x200mm Diam. FxFxH	EA	1		
26		Tee - 250x250x150mm Diam. HxFxF	EA	3		
27		Tee - 250x250x150mm Diam. HxHxF	EA	5		
28		Tee - 250x250x200mm Diam. HxFxF	EA	1		
29		Tee - 250x250x200mm Diam. FxFxF	EA	1		
30		Tee - 250x250x250mm Diam. FxHxF	EA	1		
	1	1		1		

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Tenderer's	Owner's
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ltem	MMCD Ref.	Description	Unit	Quantity	Unit Price	Amount
		33 11 01 Waterworks - Imported Backfill				
31		Cap - 150mm Diam. (Complete with 0.5m of 150mm Diam PVC DR18 Spigot)	EA	8		
32	1.8.3	Cap - 200mm Diam. (Complete with 0.5m of 200mm Diam PVC DR18 Spigot)	EA	1		
33		Cap - 250mm Diam. (Complete with 0.5m of 200mm Diam PVC DR18 Spigot)	EA	2		
34	1.8.4	Service Connection - 19mm Diam.	EA	22		
35	1.0.4	Service Connection - 50mm Diam. Sta 100+785 per Detail 2 Sheet C-7	EA	2		
36	1.8.9	Localised concrete encasement, support, anchor or thrust blocks	СМ	9.5		
37	1.8.13	Tie-In - 200mm Diam South End	EA	1		
38	1.0.13	Tie-In 200mm - North End (Valves and Tee Not Included)	EA	1		
		33 30 01 Sanitary Sewers - Imported Backfill				
39	1.6.2	Pipe - 250mm Diam. PVC DR35, All Depths	LM	22		
40	1.6.7	Tie-In 250mm Diam. PVC to Existing Sanitary Sewer System	EA	2		
		33 34 01 Sewage Forcemains - Imported Backfill				
41		Pipe - 150mm Diam. HDPE DR21, All Depths	LM	12		
42	4.0.0	Pipe - 450mm Diam. HDPE DR21, All Depths	LM	13		
43	1.8.2	<b>Option 1</b> - Pipe - 750mm Diam. HDPE DR21, All Depths	LM	<mark>1300</mark>		
<mark>44</mark>		<b>Option 2</b> - Pipe - 600mm Diam. PVC SDR32.5, PC125, All Depths	LM	<mark>1300</mark>		
<mark>45</mark>	1.8.3	Bends – 22.5° - 450mm Diameter HDPE DR21 F x BW	EA	1		

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Tenderer's	Owner's
Initial	Initial

		M OF TENDER	Page 13 of 20			
	MMCD Ref.	Description	Unit	Quantity	Unit Price	Amount
		33 34 01 Sewage Forcemains - Imported Backfill				
<mark>46</mark>		Bends - 45º - 450mm Diameter HDPE DR21 BWxBW	EA	1		
<mark>47</mark>		Bends - 45° - 450mm Diameter HDPE DR21 BWxF	EA	1		
<mark>48</mark>		<b>Option 1</b> - Bends - 45° - 750mm Diameter HDPE DR21 BWxBW	EA	<mark>4</mark>		
<mark>49</mark>		<b>Option 2</b> - Bends - 45° - 600mm Diameter Epoxy Coated DI	EA	<mark>4</mark>		
<mark>50</mark>		Gate Valve - 150mm Diameter FxF	EA	1		
<mark>51</mark>		Gate Valve - 450mm Diameter FxF	EA	1		
<mark>52</mark>		<b>Option 1</b> - Gate Valve - 750mm Diameter FxF	EA	<mark>1</mark>		
<mark>53</mark>	1.8.3	<b>Option 2</b> - Gate Valve - 600mm Diameter FxF	EA	<mark>1</mark>		
<mark>54</mark>	1.0.0	Blind Flange - 150mm Diameter	EA	1		
<mark>55</mark>		<b>Option 1</b> - Blind Flange - 750mm Diameter	EA	<mark>2</mark>		
<mark>56</mark>		<b>Option 2</b> - Blind Flange - 600mm Diameter	EA	<mark>2</mark>		
<mark>57</mark>		<b>Option 1</b> - Saddle - 750mmx150mm Diameter Flanged	EA	<mark>1</mark>		
<mark>58</mark>		<b>Option 2</b> - Saddle - 600mmx150mm Diameter Flanged	EA	<mark>1</mark>		
<mark>59</mark>		Tees - 450x450x450mm Diameter BWxFxF	EA	1		
<mark>60</mark>		Option 1 - Tees - 750x750x450mm Diameter BWxBWxF	EA	1		
<mark>61</mark>		<b>Option 2</b> - Tees - 600x750x450mm Diameter HxHxF Epoxy Coated DI	EA	1		
<mark>62</mark>	1.8.5	Option 1 - Air Valve Assembly per Detail 3, Sheet C-6	EA	2		

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Tenderer's Owner's Initial Initial

Item	MMCD Ref.	Description	Unit	Quantity	Unit Price	Amount
		33 34 01 Sewage Forcemains - Imported Backfill				
<mark>63</mark>		<b>Option 2</b> Air Valve Assembly per Detail 3, Sheet C-6, substitute a 600x600x600mm Tee HxHxF Epoxy Coated DI, and associated 600mm SS Special Blind Flange	EA	2		
<mark>64</mark>	1.8.5	<b>Option 1</b> - Low Point Drain #1 at Sta. 101+055 including 750x750x750mm BWxBWxF HDPE Tee, Piping, Specials, Valves & Manhole per Detail 4, Sht. C-6	EA	<mark>1</mark>		
<mark>65</mark>		<b>Option 2</b> - Low Point Drain #1 at Sta. 101+055 including 600x600x60mm HxHxF Epoxy Coated DI Tee, Piping, Specials, Valves & Manhole per Detail 4, Sht. C-6	EA	<mark>1</mark>		
<mark>66</mark>		Low Point Drain #2 at Sta. 101+702 including Reducer; Piping, Valves & Manhole per Detail 5, Sht. C-6	EA	1		
<mark>67</mark>		Forcemain Tie-in - North End	LS	1		
<mark>68</mark>	1.8.10	<b>Option 1</b> - Forcemain Tie-in - South End – per Detail 1, Sheet C-6	LS	1		
<mark>69</mark>		<b>Option 2</b> - Forcemain Tie-in - South End – per Detail 1, Sheet C-6, substitute 600mm Epoxy Coated DI, Flanged Hub adapter for HDPE reducer shown	LS	1		
		33 40 01 Storm Sewers - Imported Backfill				
<mark>70</mark>	1.6.2	Pipe - 300mm Diam. PVC DR35	LM	8		
<mark>71</mark>	1.0.2	Pipe - 750mm Diam. PVC DR35 Ribbed	LM	25		
<mark>72</mark>	1.6.9	Tie-In 750mm Diam. PVC to Existing Stormwater Manholes	EA	2		
		33 44 01 Manholes and Catchbasins				
<mark>73</mark>	1.5.1.1	Manhole Base, Lid, Slab, Cover and Frame - 1050mm Diam.	EA	1		
<mark>74</mark>	1.5.1.1	Manhole Base, Lid, Slab, Cover and Frame - 1350mm Diam.	EA	2		
<mark>75</mark>	1.5.1.2	Manhole Riser Section - 1050mm Diam.	LM	0.3		
<mark>76</mark>	1.5.1.2	Manhole Riser Section - 1350mm Diam.	LM	3.5		
<mark>77</mark>	1.5.1.4	Rebench Existing Manhole - 1050mm Diameter	EA	1		
			•			

Sub-Total Page 14: \$

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Initial	Initial

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#### SUMMARY

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Page 9:	\$
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Page 13:	\$
Page 14:	\$
The Tenderer shall determine the lower cumulative total for either <b>Option 1 Sub-Total</b>	\$
or <b>Option 2</b> and include this lower cumulative total in calculating the total tender value. GST (5%):	\$
TOTAL:	\$

Tenderer's	Owner's
Initial	Initial

DESCRIPTION:

# CLIENT: CITY OF CAMPBELL RIVER **TENDER 19-08**

HIGHWAY 19A - ROCKLAND ROAD TO L.S.#6 WATERMAIN AND SANITARY FORCEMAIN UPGRADE CAMPBELL RIVER, BC

MCSL Project No.:

2221-49145

City Project No.:

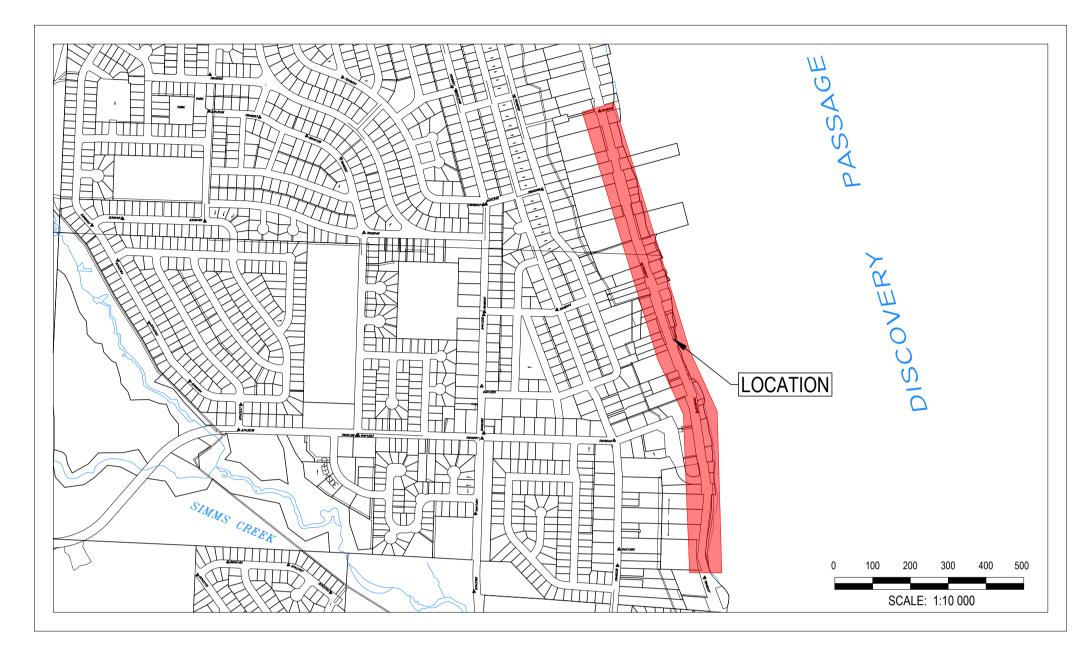
CCR19-501





McElhanney McElhanney Consulting Services Ltd.

1196 DOGWOOD STREET CAMPBELL RIVER, BC. V9W 3A2



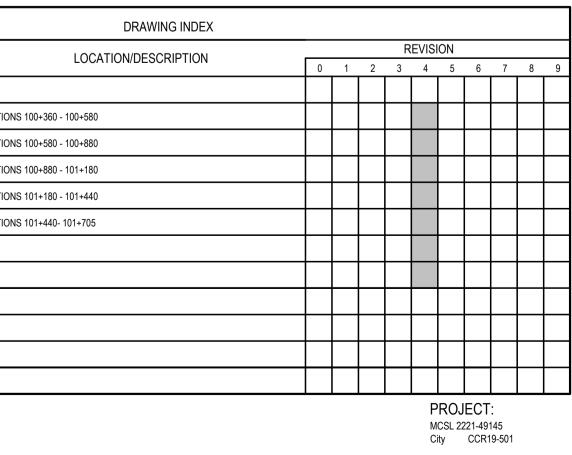
# **PROJECT LOCATION**

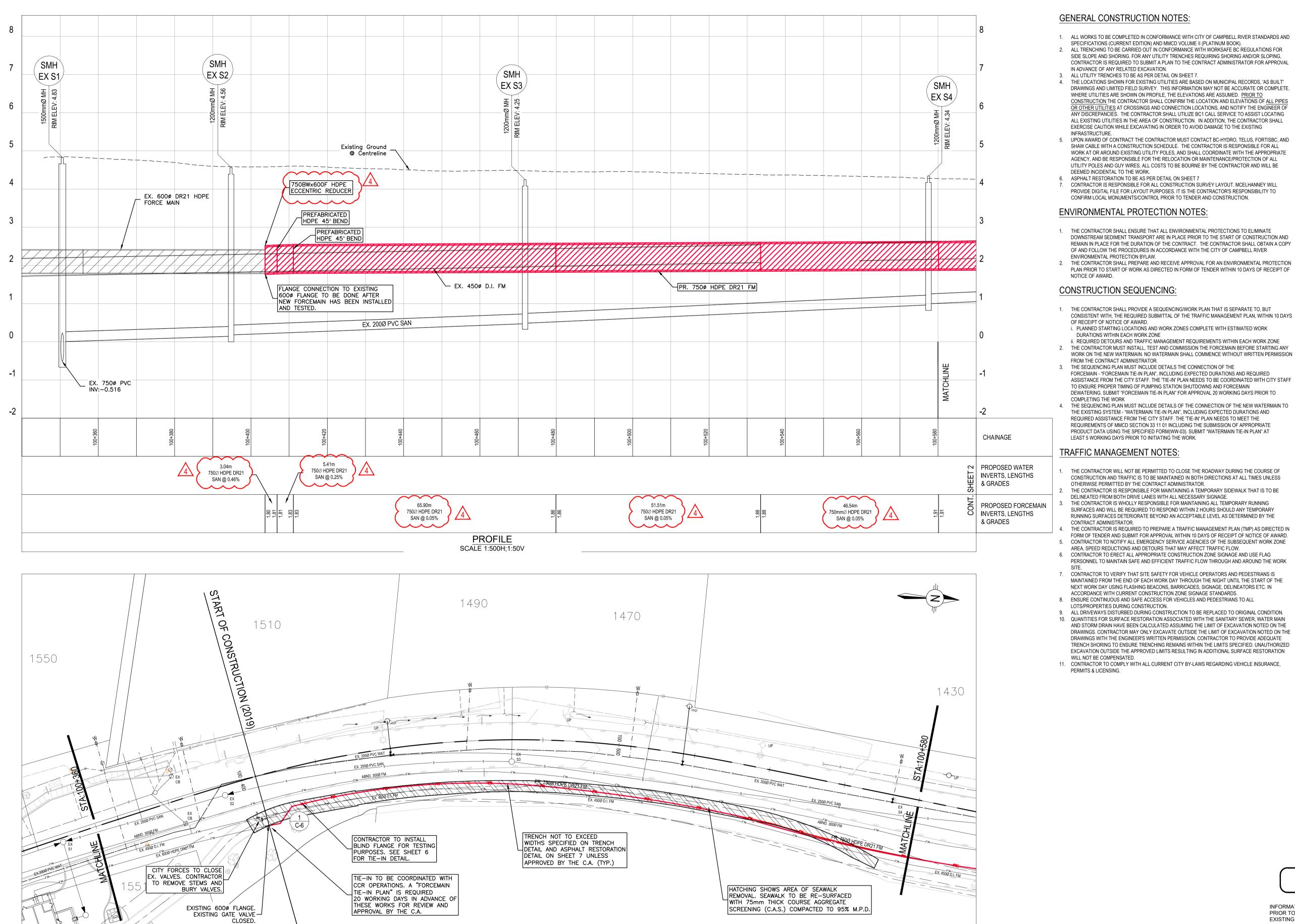
No.	
C-1	CIVIL UTILITIES - PLAN AND PROFILE STATION
C-2	CIVIL UTILITIES - PLAN AND PROFILE STATION
C-3	CIVIL UTILITIES - PLAN AND PROFILE STATION
C-4	CIVIL UTILITIES - PLAN AND PROFILE STATION
C-5	CIVIL UTILITIES - PLAN AND PROFILE STATION
C-6	SANITARY FORCEMAIN DETAILS
C-7	MISCELLANEOUS DETAILS

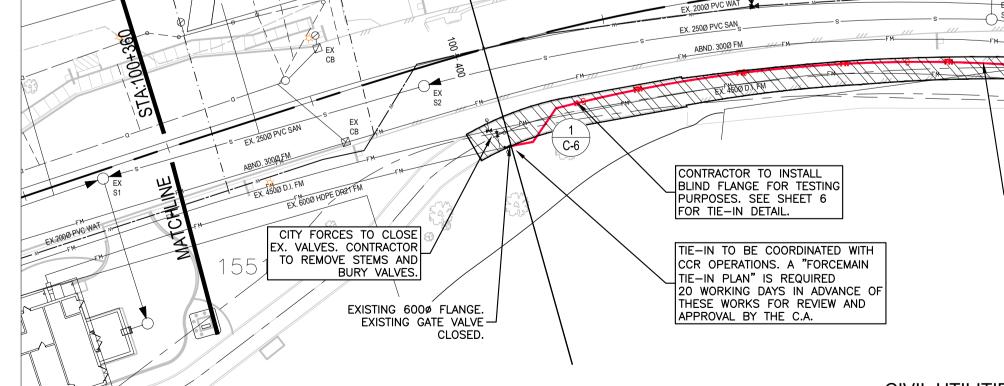


### ADDENDUM #2

## **ISSUED FOR TENDER** MARCH 4, 2019







#### **CIVIL UTILITIES** SCALE 1:500

							U/G TELEPHONE		s S	SANITARY SEWER	S	· · O.D.	OPEN DITCH	· O.D.	DESIGNED:	A1 SCALE:	
							U/G HYDRO	BCH	FMFM	SANITARY FORCEMAIN			SAN. SEWER STORM DRAIN MANHOLE	SMH DMH	MD	1:500	
4	TENDER ADDENDUM #2	EGM	19/03/26	MD	19/03/26		NATURAL GAS	GAS	D D	STORM DRAIN			CATCH BASIN	SIDE INLET 🗾 TOP INLET	DRAWN:	DATE:	
3	ISSUED FOR TENDER	EGM	19/03/04	MD	19/03/04	PL			w W	WATER MAIN	W W	-O <sub>HYD</sub> HYD	FIRE HYDRANT	🔶 HYD	EGM	19/03/04	
2	ISSUED FOR FINAL REVIEW	EGM	19/02/01	MD	19/02/01				P	PAVEMENT	P	M MA	WATER VALVE	NV NV	CHECKED:	DATE:	McElhanney Consulting Services Ltd. 1196 DOGWOOD STREET PH (250) 287-7799 CAMPBELL RIVER, B.C. V9W 3A2
1	ISSUED FOR REVIEW - 80% DESIGN	EGM	18/11/30	MD	18/11/30				C	CURB & GUTTER	C	-O- UP	UTILITY POLE	-O- UP	JS	19/03/04	vow saz River
0	ISSUED FOR REVIEW	EGM	18/08/22	MD	18/08/22					SIDEWALK					APPROVED:	DATE:	
NO.	REVISION	DRAWN	DATE	CHECKED	DATE	EXISTING	LEGEND	DESIGN	EXISTING	LEGEND	DESIGN	EXISTING	LEGEND	DESIGN	MD	19/03/04	

- DOWNSTREAM SEDIMENT TRANSPORT ARE IN PLACE PRIOR TO THE START OF CONSTRUCTION AND REMAIN IN PLACE FOR THE DURATION OF THE CONTRACT. THE CONTRACTOR SHALL OBTAIN A COPY
- PLAN PRIOR TO START OF WORK AS DIRECTED IN FORM OF TENDER WITHIN 10 DAYS OF RECEIPT OF
- CONSISTENT WITH, THE REQUIRED SUBMITTAL OF THE TRAFFIC MANAGEMENT PLAN, WITHIN 10 DAYS
- ASSISTANCE FROM THE CITY STAFF. THE 'TIE-IN' PLAN NEEDS TO BE COORDINATED WITH CITY STAFF
- DRAWINGS, CONTRACTOR MAY ONLY EXCAVATE OUTSIDE THE LIMIT OF EXCAVATION NOTED ON THE TRENCH SHORING TO ENSURE TRENCHING REMAINS WITHIN THE LIMITS SPECIFIED. UNAUTHORIZED

### SANITARY AND STORM SEWER NOTES

- 1. EXISTING SEWER SYSTEMS TO REMAIN ACTIVE DURING CONSTRUCTION AND
- ABANDONED ONLY WHEN THE NEW SYSTEM IS COMMISSIONED. 2. ALL SANITARY AND STORM SEWER PIPES 200mmØ AND GREATER SHALL BE PVC DR35 (UNLESS OTHERWISE NOTED). ALL SANITARY AND STORM SEWER PIPES LESS THAN
- 200mmØ SHALL BE PVC DR28 (UNLESS OTHERWISE NOTED). 3. ALL STORM SEWER MANHOLES TO BE 1050mmØ c/w PRE-BENCHED BASE UNLESS
- OTHERWISE NOTED .. 4. ALL SANITARY SEWER MANHOLES TO BE 1050mmØ c/w PRE-BENCHED BASE UNLESS
- OTHERWISE NOTED. 5. ALL NEWLY CONSTRUCTED SANITARY SEWER LINES AND STORM SEWER DRAINS TO BE
- VIDEO INSPECTED ON COMPLETION OF INSTALLATION. VIDEO TO BE PROVIDE TO C.A. FOR REVIEW AND ACCEPTANCE PRIOR TO ASPHALT RESTORATION WORKS ALL SANITARY FORCEMAIN PIPES SHALL BE PE4710 7500 NPS HDPE DR21 - O.D. 758mm UNLESS OTHERWISE NOTED) SANITARY FORCEMAIN JOINTS SHALL BE BUTT FUSED. WHERE NUMEROUS SERVICE
- CROSSINGS IMPEDE FULL LENGTH PIPE INSTALLATION. CONTRACTOR MAY CUT PIPE INTO SHORTER LENGTHS AND USE ELECTROFUSION COUPLERS WITH WRITTEN APPROVAL FROM THE C.A. SEE NOTES ON SUBSEQUENT SHEETS. ALL STORM AND SANITARY SEWER LENGTHS ARE MEASURED FROM INSIDE FACE TO INSIDE FACE OF MANHOLES. GRADES ARE CALCULATED FROM CENTRE TO CENTRE OF
- MANHOLES. 9. ALL CATCHBASIN LEADS SHALL BE 200mmØ AS PER CCR STANDARDS. WHERE ONE CB DRAINS TO ANOTHER CB PRIOR TO CONNECTION TO A STORM SEWER, THE LEAD FROM THE DOWNSTREAM CB TO THE STORM SEWER SHALL BE 250mmØ.
- 10. ALL PIPE BEDDING TO BE IN ACCORDANCE WITH MMCD GRADATION TABLES.

### WATERWORKS NOTES

- 1. CONTRACTOR WILL BE RESPONSIBLE FOR DAMAGES TO ANY WATER SERVICES CAUSED BY POOR CONNECTION PRACTICES. I.E., SAND AND/OR GRAVEL INTRODUCED INTO WATER SYSTEM.
- 2. FOR WATERMAIN SHUT DOWNS, THE CONTRACTOR MUST NOTIFY THE CONTRACT ADMINISTRATOR (MINIMUM 5 WORKING DAYS NOTICE REQUIRED) WHO WILL LIAISE WITH THE CITY'S WATER DEPARTMENT. ALL REQUIRED WATERMAIN ISOLATIONS TO BE COMPLETED BY THE CITY'S WATER DEPARTMENT. ONCE APPROVAL TO PROCEED HAS BEEN ISSUED. THE CONTRACTOR IS TO NOTIFY ALL AFFECTED WATER CUSTOMERS IN WRITING, OF SCHEDULED WATER MAIN SHUT DOWNS. NOTIFICATION OF 72 HOURS MINIMUM IS REQUIRED.
- ALL WATERMAINS 150Ø OR GREATER SHALL BE C900 DR18 PVC. OPTIONAL WORK IF OBSERVED GROUND CONDITIONS REQUIRE, AS DETERMINED BY E C.A.: ALL METAL PIPES AND APPURTENANCES REQUIRE CATHODIC PROTECTION AS PER SECTION 2.46 OF THE CITY OF CAMPBELL RIVER STANDARDS
- 4.1. ANODES FOR 2-4 BONDED FITTINGS SHOULD BE A MINIMUM OF 16kg 4.2. NON-BONDED FITTING(S) REQUIRE A DEDICATED 8kg ANODE.
- 4.3. INSTALLATION TO MEET DETAIL W119
- 5. ALL NEW WATERMAINS TO BE TESTED, DISINFECTED AND FLUSHED IN ACCORDANCE WITH CURRENT AWWA STANDARDS, MMCD SECTION 33 11 01, AND CCR SUPPLEMENTAL SPECIFICATION PRIOR TO TIE-IN TO EXISTING WATERMAINS.
- 6. BIOLOGICAL TESTING OF NEW WATERWORKS IS TO BE DONE PRIOR TO COMMISSIONING OF NEW MAINS USING PROCEDURES OUTLINED BY THE PROVINCIAL MINISTRY OF HEALTH.
- MINIMUM VERTICAL SEPARATION BETWEEN A WATERMAIN AND ANY PIPE SHALL BE 0.3m. 7 WHERE WATERMAIN CROSSES OVER STORM/SANITARY WITH LESS THAN 0.5m VERTICAL SEPARATION, WRAP ALL WATERMAIN JOINTS WITHIN 3.0m OF CROSSING, WHERE WATERMAIN CROSSES UNDER STORM/SANITARY, WRAP ALL WATERMAIN, STORM AND SANITARY JOINTS INCLUDING TEES, BENDS, CROSSES, REDUCERS, VALVES ETC. WITHIN 6.0m OF CROSSING. WRAP ALL WATERMAIN JOINTS WITH LESS THAN 3.0m HORIZONTAL SEPARATION TO ANY PIPE. JOINT WRAP SHALL MEET OR EXCEED THE B.C. MINISTRY OF HEALTH REQUIREMENTS FOR WATERMAIN JOINT PROTECTION AND AWWA/ANSI STANDARD C209 (CANUS "JointWrap" COLD APPLIED PIPE JOINT SLEEVE, OR EQUAL). WATERMAIN TO HAVE 1.3m COVER TO ALLOW ADEQUATE CLEARANCE FOR ELECTRICAL
- DUCTS. CONTRACTOR TO ENSURE HYDRANTS ARE ADEQUATE FOR THIS DEPTH. 9. WATER SERVICE SIZE TO BE 19Ø UNLESS NOTED OTHERWISE. 10. THRUST BLOCKS SHALL BE PROVIDED ON ALL TEES, CROSSES, REDUCERS, BENDS AND CAPS IN ACCORDANCE WITH DRAWINGS CR-W1 AND CR-W1a. THRUST BLOCKS SHALL BE DESIGNED TO WITHSTAND THE MAXIMUM THRUST GENERATED AT SUCH LOCATIONS. S.S. HYDRANT TIE RODS MAY BE USED IN LIEU OF THRUST BLOCKS IN ACCORDANCE WITH THE MMCD STANDARD DETAIL DRAWING W4. ANY SUBSTITUTION OF RESTRAINING RODS AND RINGS BY THE CONTRACTOR MUST BE DESIGNED BY A PROFESSINAL ENGINEER SUBJECT TO THE SPECIFIED WATER PRESSURES AND SOIL LOADS DEFINED
- IN CR-W1a, AND APPROVED BY THE CONTRACT ADMINISTRATOR. 11. CONTRACTOR IS TO NOTIFY THE CITY AND ENGINEER A MINIMUM OF 5 WORKING DAYS PRIOR TO WATERMAIN TIE INS.
- 12. APPLICATION FOR WATERMAIN ACTIVATION TO BE SUBMITTED BY ENGINEER TO CITY MINIMUM 5 BUSINESS DAYS IN ADVANCE. 13. TIE-INS ARE TO BE WITNESSED BY THE PROJECT INSPECTOR OR ENGINEER USING THE
- CCR WW-03 PROCEDURE. CCR WATER DEPARTMENT MUST BE IN ATTENDANCE WITH NOTIFICATION GIVEN A MINIMUM OF 5 DAYS IN ADVANCE OF PLANNED TIE-INS. 14. 14. THE CITY MUST BE IN POSSESSION OF THE VIHA WATERWORKS
- CONSTRUCTION PERMIT PRIOR TO CONSTRUCTION CONTRACTOR TO MAIN ON SITE. WORK ON CITY LAND PERMIT NOT REQUIRED.

### DATUM NOTES

- 1. ELEVATIONS ARE GEODETIC AND BASED ON:
- 1.1. MONUMENT 79H9039, ELEVATION 5.389m 1.2. LOCATED AT THE NORTH OF THE INTERSECTION OF ROCKLAND RD AND HWY 19A.



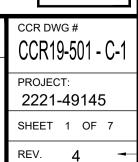
## ADDENDUM #2

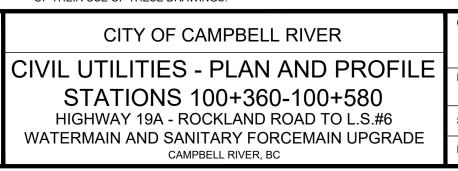
**ISSUED FOR TENDER** 

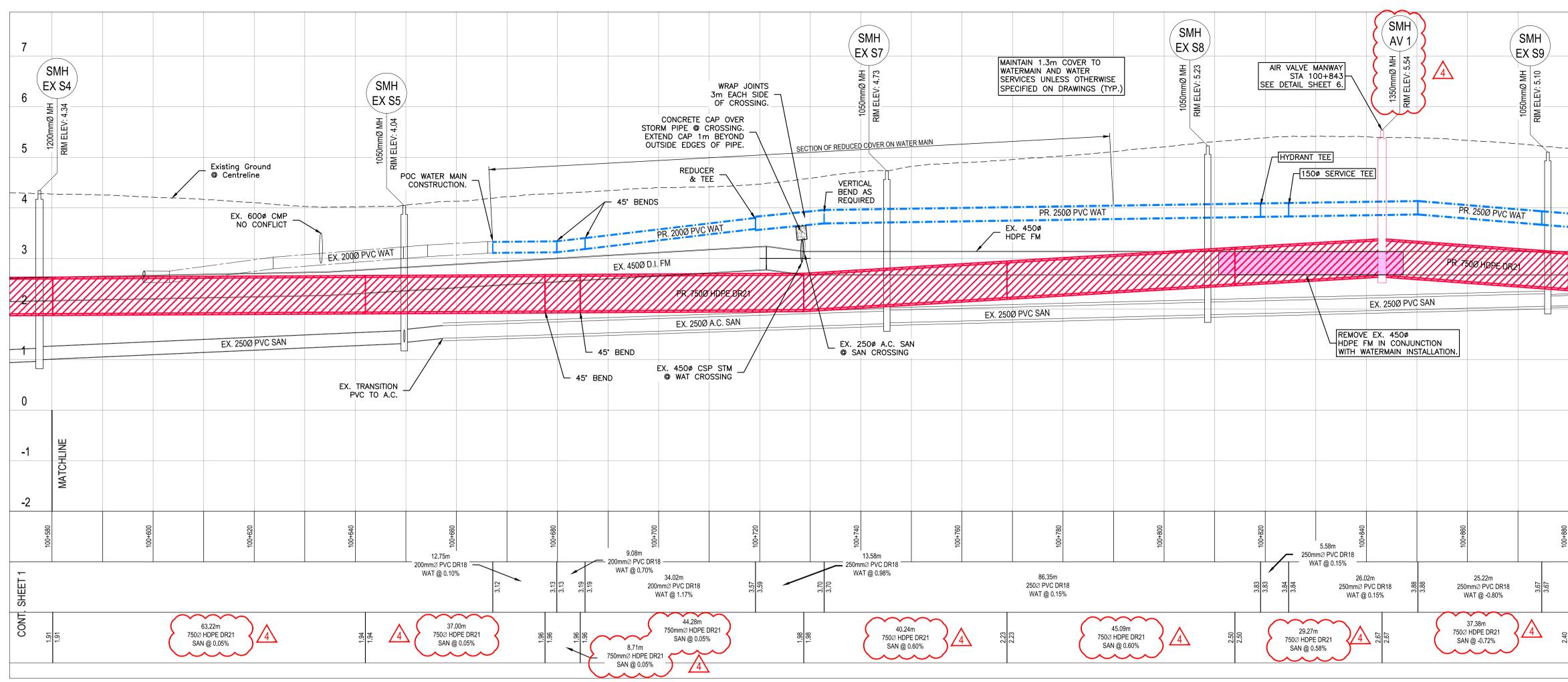
INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. PRIOR TO CONSTRUCTION CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING UTILITIES AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

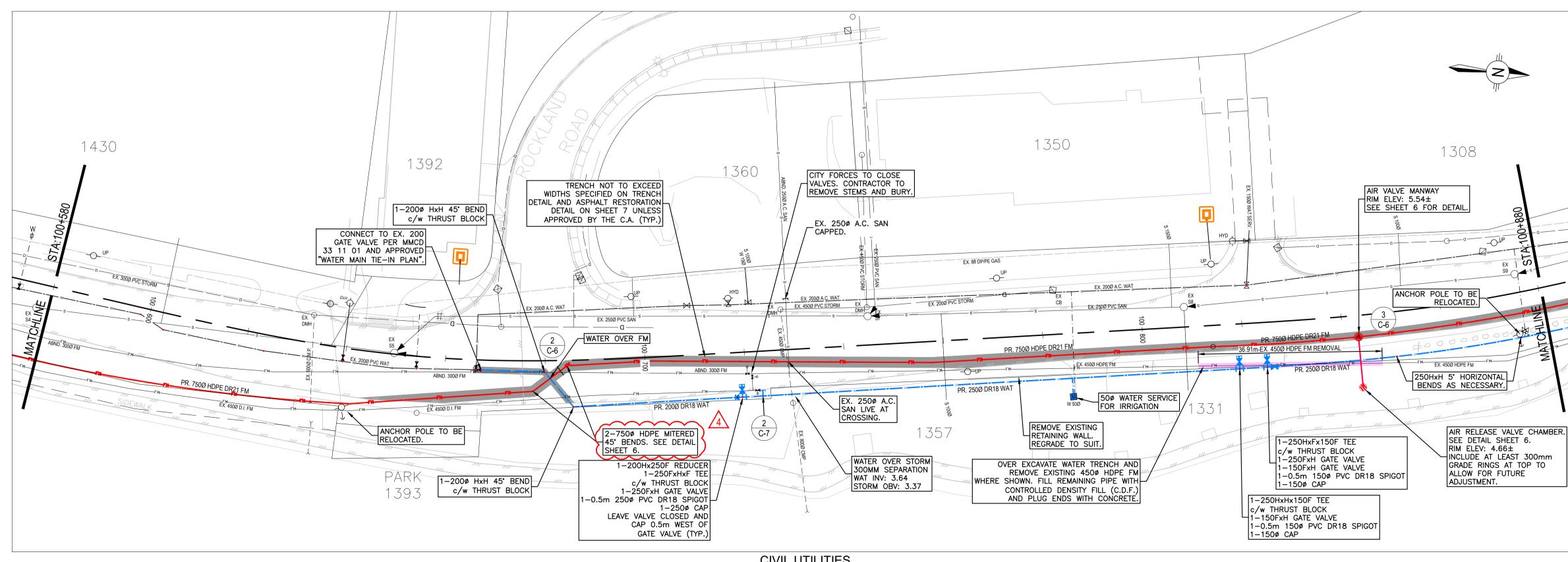
THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES. MCELHANNEY CONSULTING SERVICES LTD., ITS EMPLOYEES, SUBCONSULTANTS AND AGENTS ACCEPT NO RESPONSIBILITY TO ANY OTHER PARTY, INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, FOR LOSS OR LIABILITY INCURRED AS A RESULT OF THEIR USE OF THESE DRAWINGS











							U/G TELEPHONE U/G HYDRO		s S FMFM	SANITARY SEWER SANITARY FORCEMAIN	S S	O.D.	OPEN DITCH SAN. SEWER STORM DRAIN MANHOLE	SM-		designed: MD	A1 SCALE: 1:500		
4	TENDER ADDENDUM #2	EGM	19/03/26	MD	19/03/26			GAS	D	STORM DRAIN			CATCH BASIN				DATE:	-	
3	ISSUED FOR TENDER	EGM	19/03/04	MD	19/03/04	PL	PROPERTY LINE		W	WATER MAIN	W W	-Q- <sub>HYD</sub> HYD	FIRE HYDRANT	+ HY		EGM	19/03/04	McElhanney	City of 1 11
2	ISSUED FOR FINAL REVIEW	EGM	19/02/01	MD	19/02/01				P	PAVEMENT	P	M WV	WATER VALVE	M WV	/	CHECKED:	DATE:	McElhanney Consulting Services Ltd. 1196 DOGWOOD STREET PH (250) 287-7799 CAMPBELL RIVER, B.C. V9W 3A2	Campbell
1	ISSUED FOR REVIEW - 80% DESIGN	EGM	18/11/30	MD	18/11/30				C	CURB & GUTTER	C	-O- UP	UTILITY POLE	-O- UP		JS	19/03/04	V9W 3A2	River
0	ISSUED FOR REVIEW	EGM	18/08/22	MD	18/08/22					SIDEWALK					-	APPROVED:	DATE:	1	
NO.	REVISION	DRAWN	DATE	CHECKED	DATE	EXISTING	LEGEND	DESIGN	EXISTING	LEGEND	DESIGN	EXISTING	LEGEND	DESIGN		MD	19/03/04		



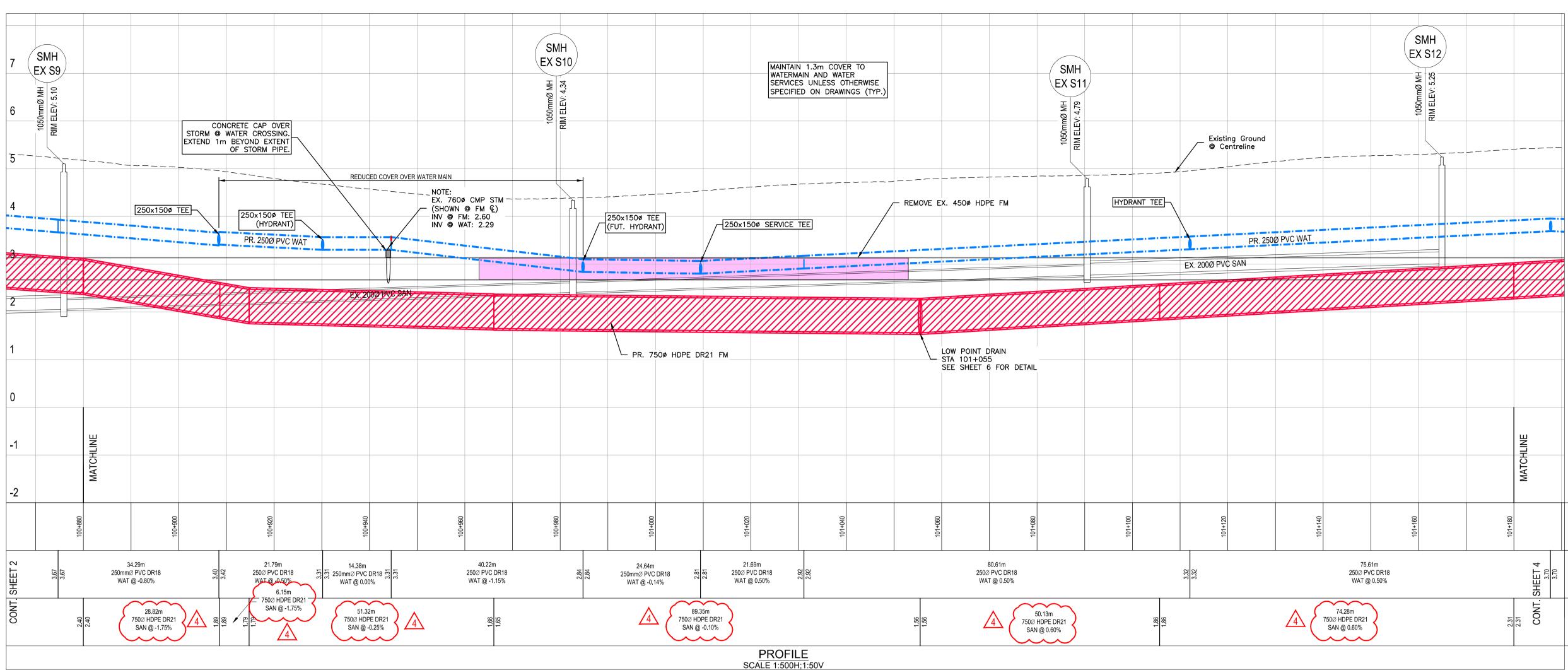
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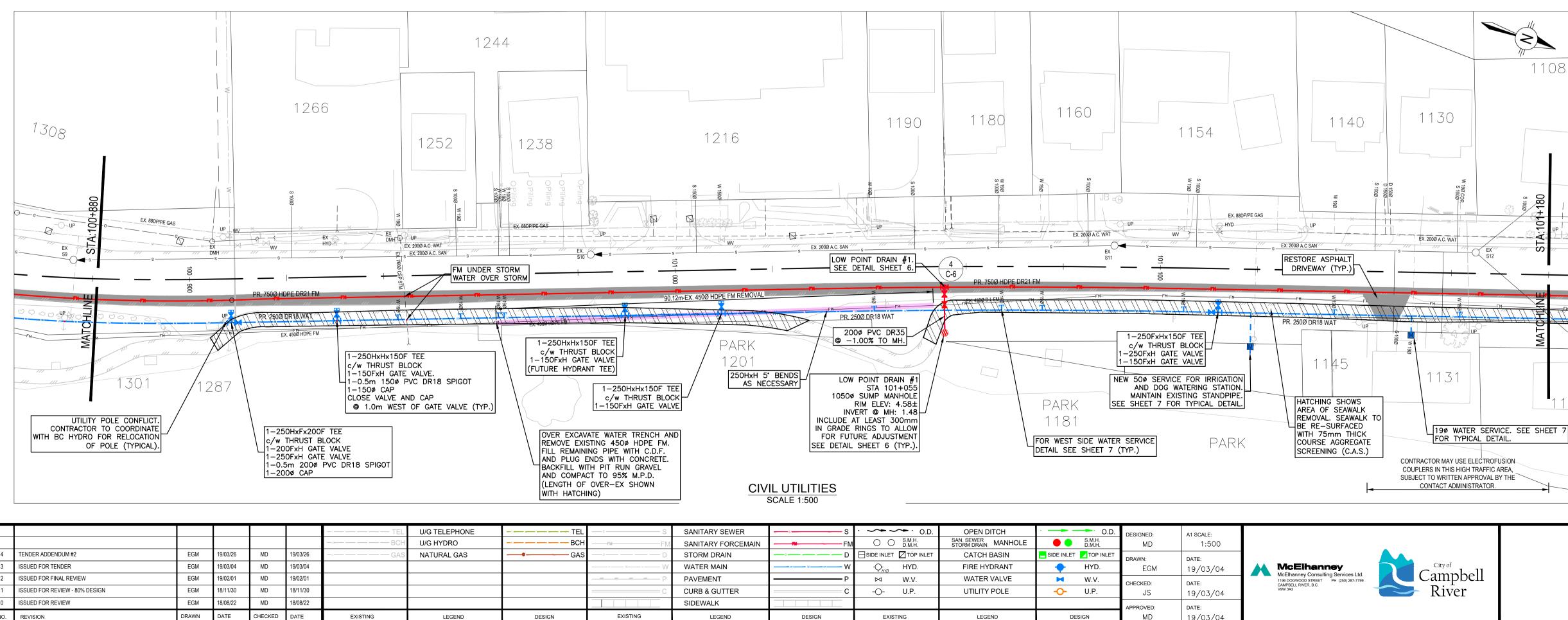
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0 5 10 15 20 25 SCALE: 1:500	
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INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. PRIOR TO CONSTRUCTION CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING UTILITIES AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS. THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES McELHANNEY CONSULTING SERVICES LTD., ITS EMPLOYEES, SUBCONSULTANT AND AGENTS ACCEPT NO RESPONSIBILITY TO ANY OTHER PARTY, INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, FOR LOSS OR LIABILITY INCURRED AS A RESULT OF THEIR USE OF THESE DRAWINGS.	BC <b>E</b> <b>E</b> <b>E</b> <b>E</b> <b>E</b> <b>E</b> <b>E</b> <b>E</b>
	 R DWG # R19-501 - C-2
CIVIL UTILITIES - PLAN AND PROFILE STATIONS 100+580-100+880	 DJECT: 21-49145
HIGHWAY 19A - ROCKLAND ROAD TO L.S.#6 WATERMAIN AND SANITARY FORCEMAIN UPGRADE	 ET 2 OF 7

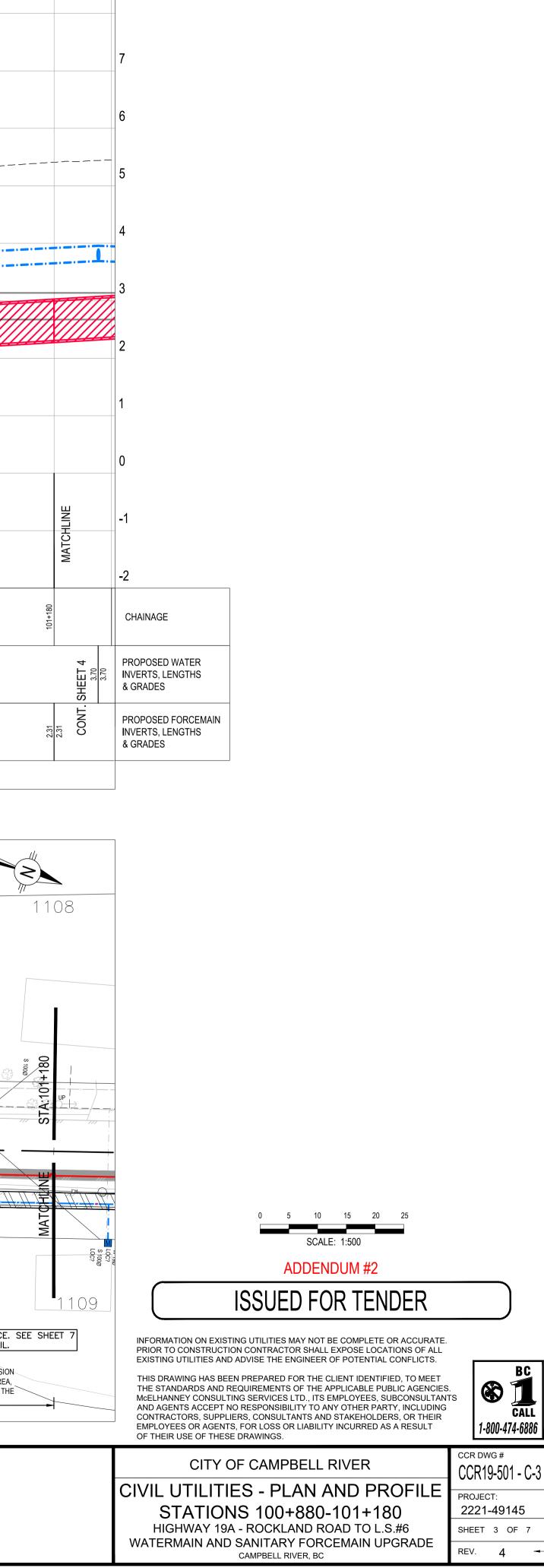
CAMPBELL RIVER, BC

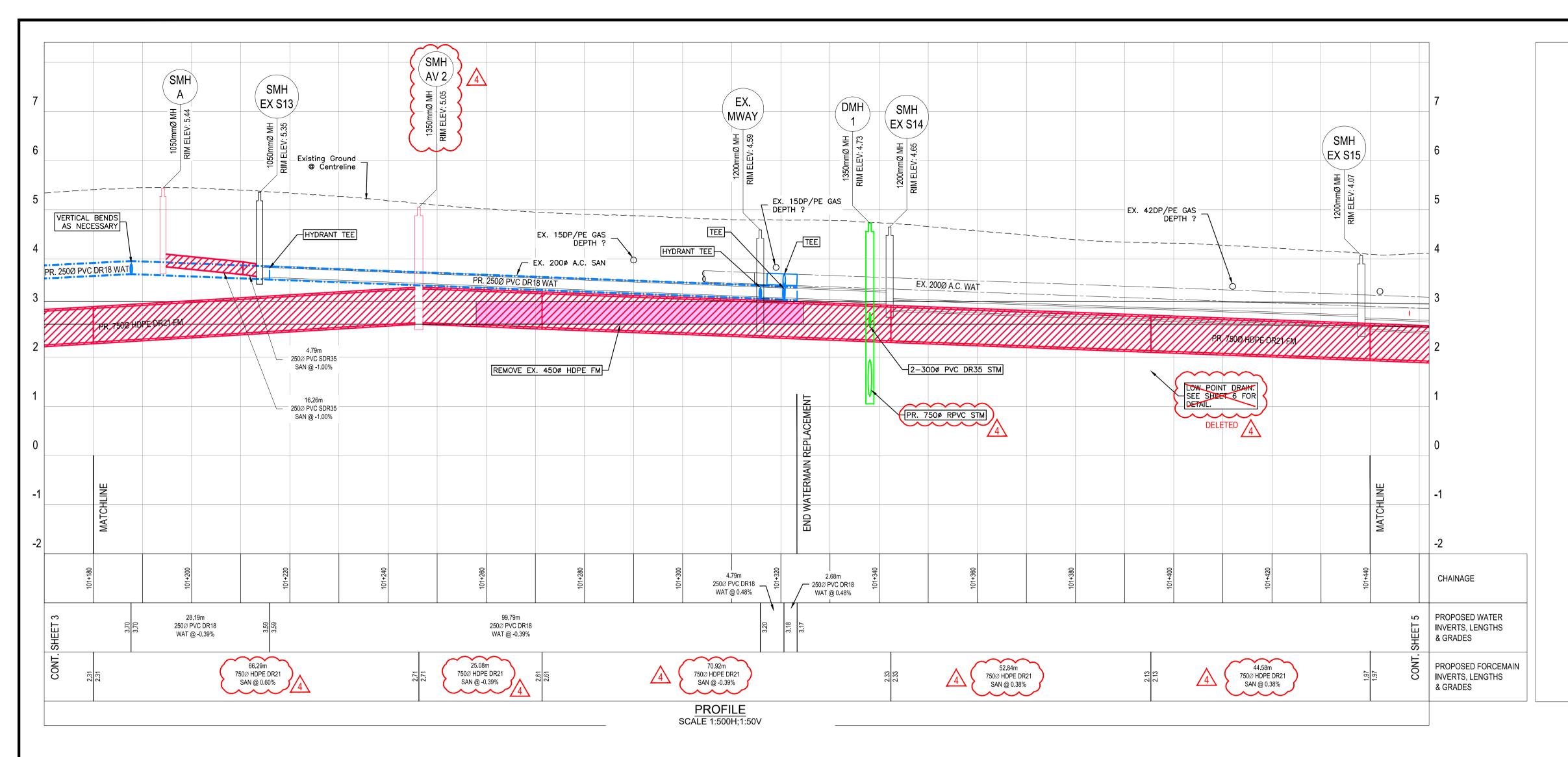
REV. **4** 

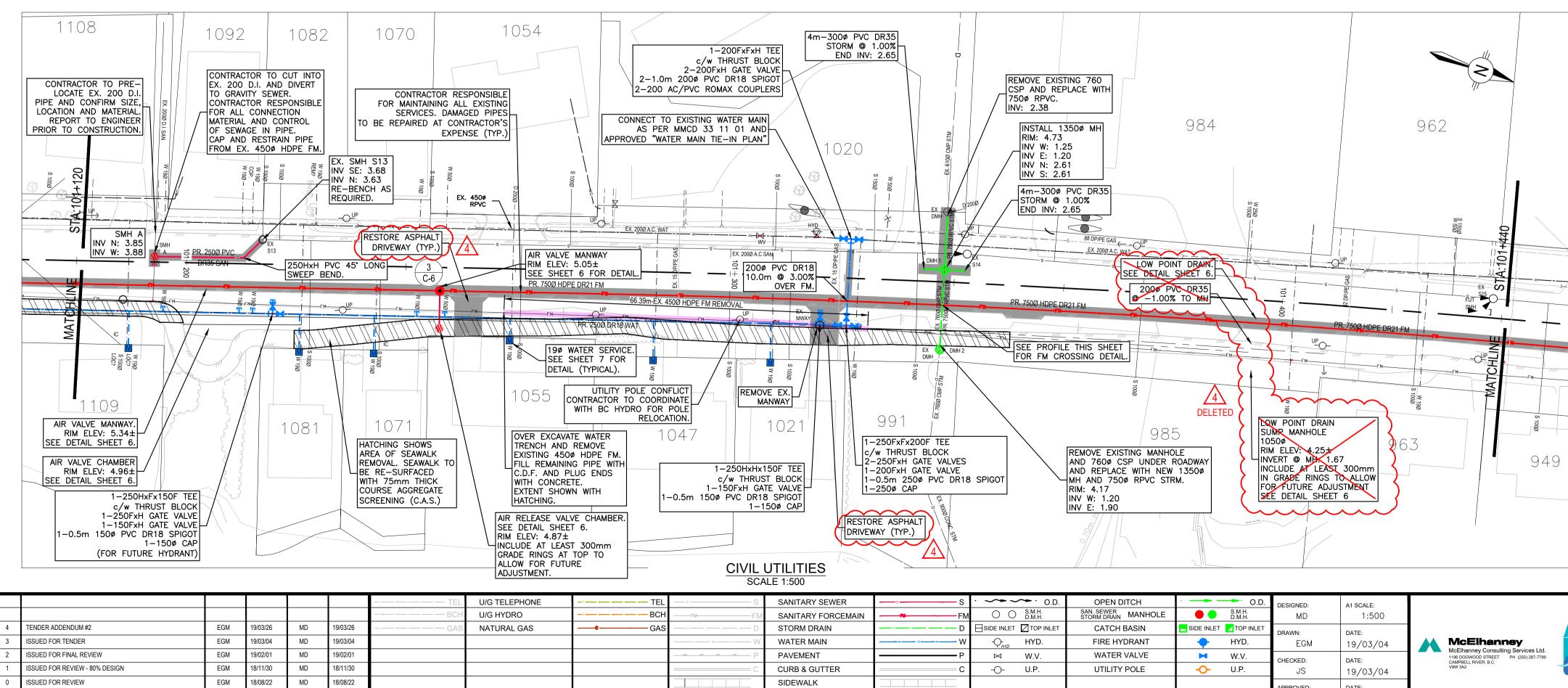




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TER	C	U.P.	UTILITY POLE	- <b>O-</b> U.P.	JS	19/03/04	vyw 3A2 River	
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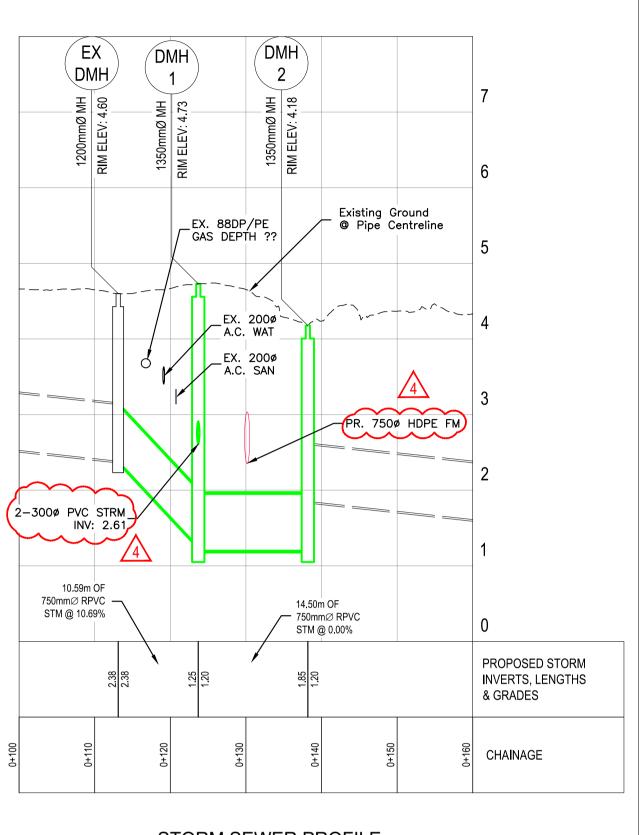
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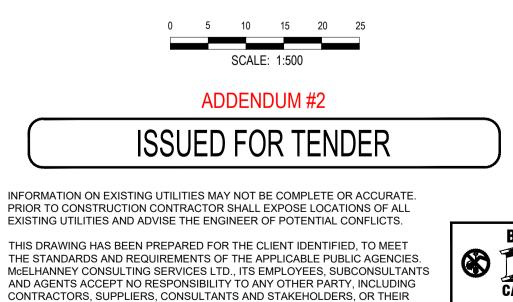
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STORM SEWER PROFILE SCALE 1:500H;1:50V



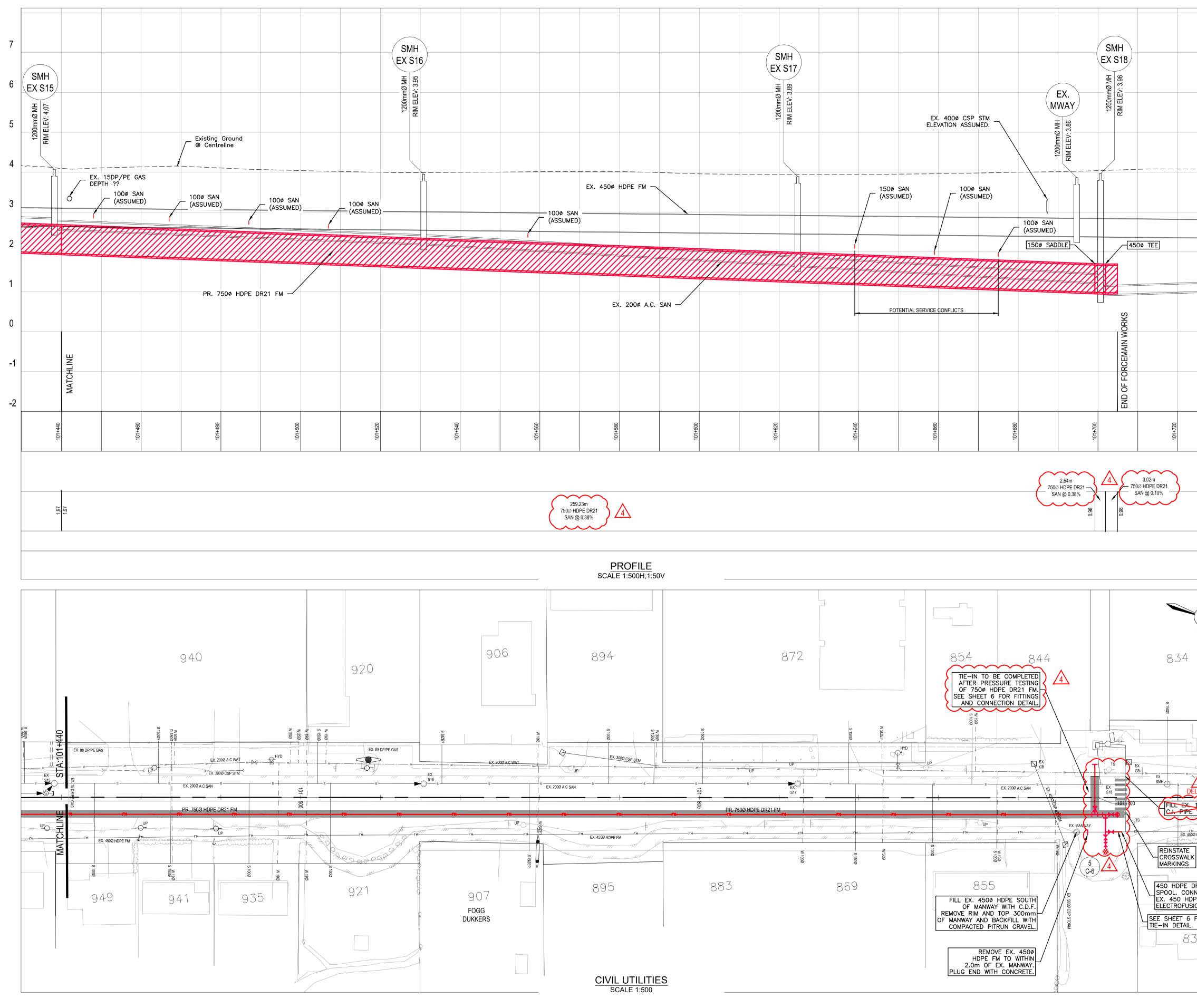
EMPLOYEES OR AGENTS, FOR LOSS OR LIABILITY INCURRED AS A RESULT

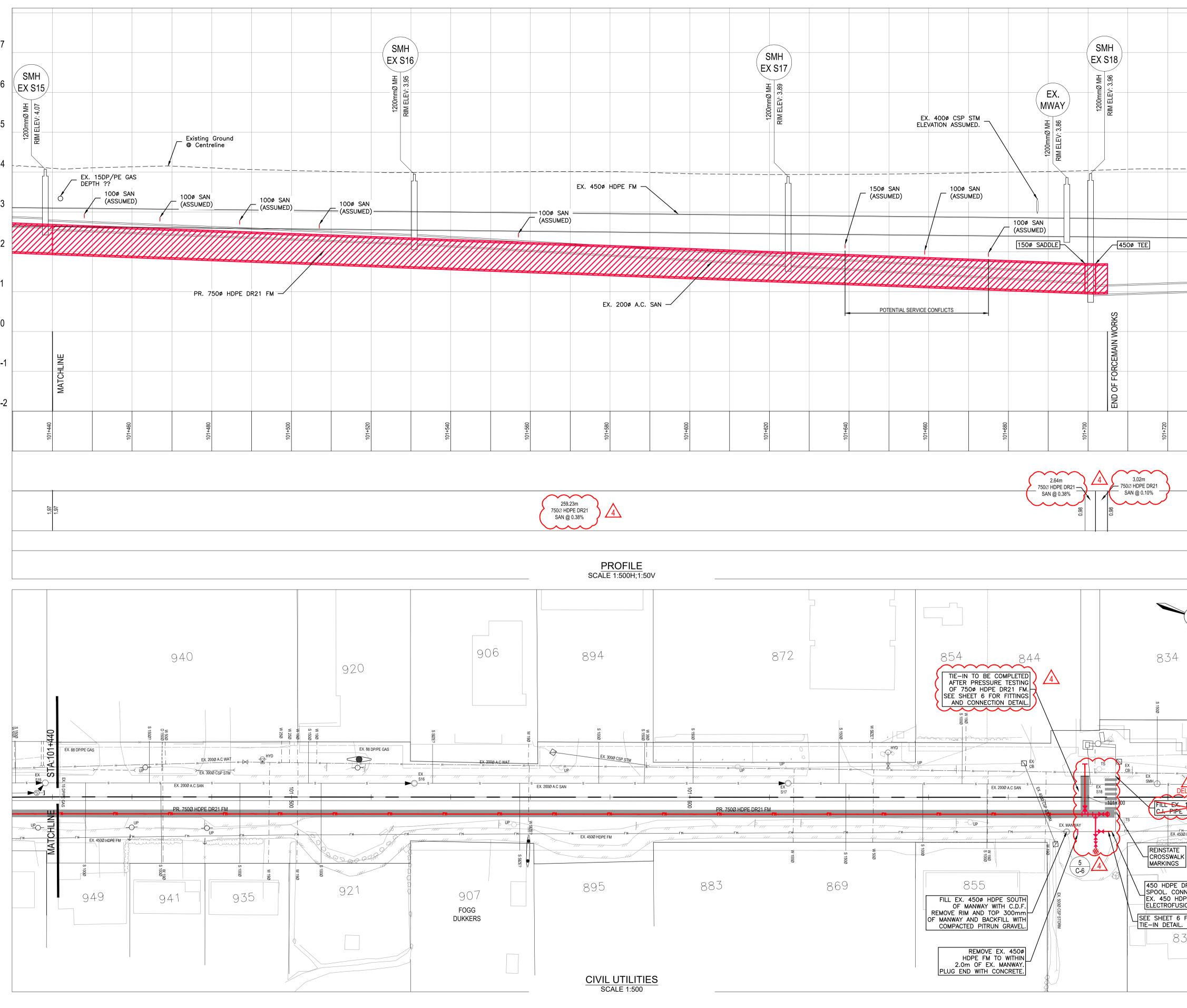
CAMPBELL RIVER, BC

OF THEIR USE OF THESE DRAWINGS



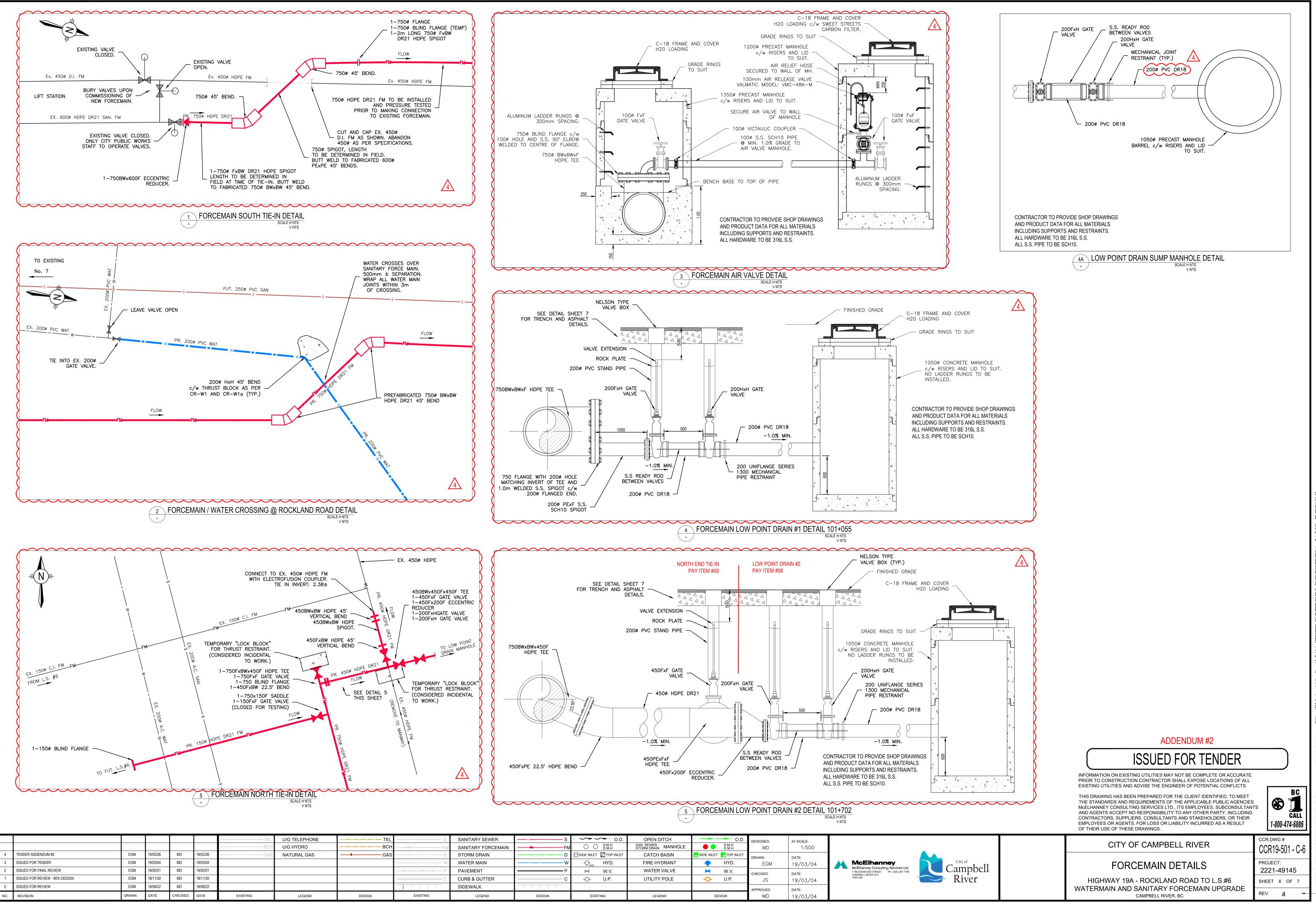




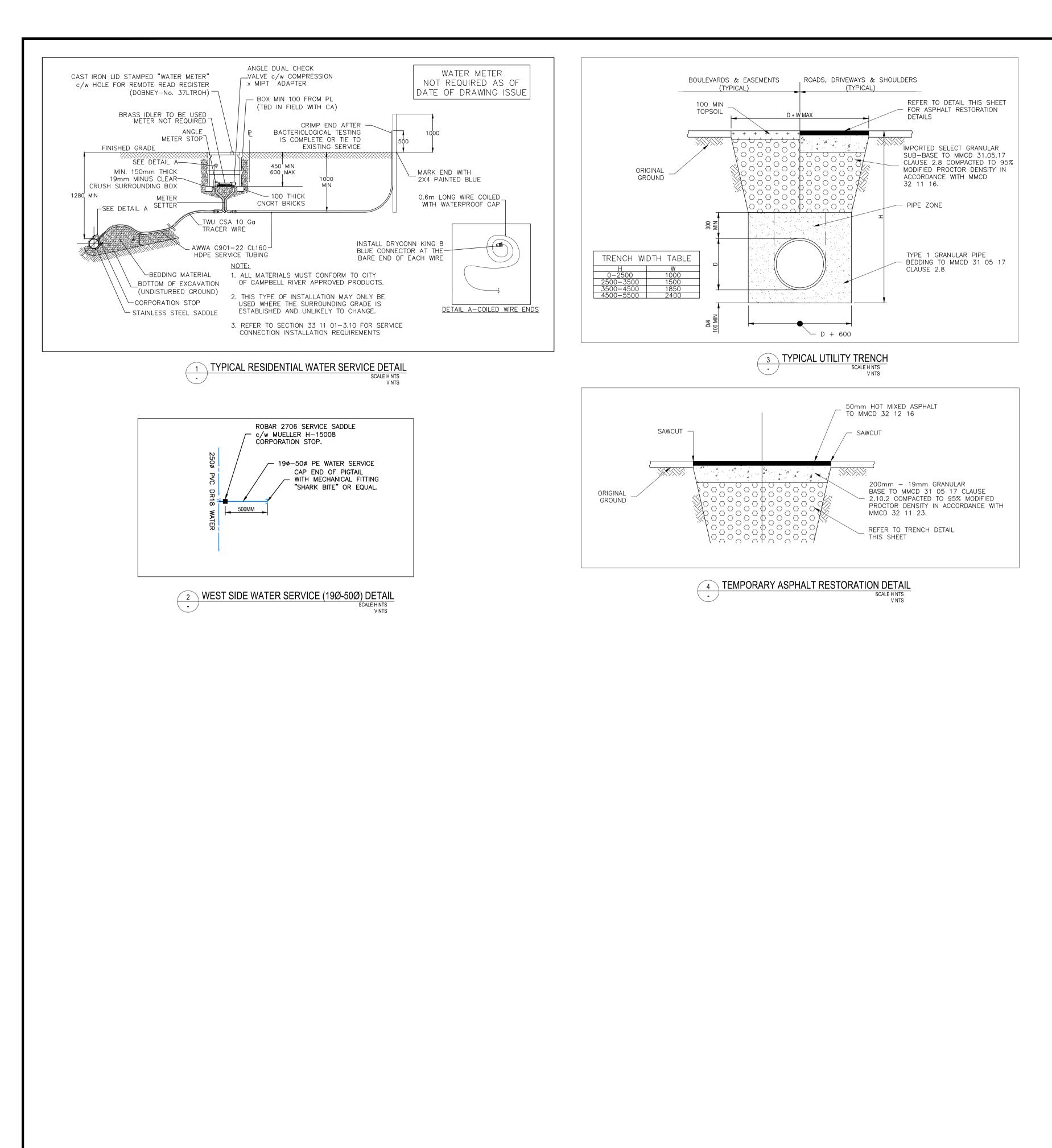


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4	TENDER ADDENDUM #2	EGM	19/03/26	MD	19/03/26		NATURAL GAS	GAS	D	STORM DRAIN			CATCH BASIN	E SIDE INLET Z TOP INLET	DRAWN:	DATE:		
3	ISSUED FOR TENDER	EGM	19/03/04	MD	19/03/04				W W	WATER MAIN	W W	-Q- <sub>HYD</sub> HYD.	FIRE HYDRANT	🔶 HYD.	EGM	19/03/04		
2	ISSUED FOR FINAL REVIEW	EGM	19/02/01	MD	19/02/01				P	PAVEMENT	P	W.V.	WATER VALVE	₩.V.	CHECKED:	DATE:		Lampbell
1	ISSUED FOR REVIEW - 80% DESIGN	EGM	18/11/30	MD	18/11/30				C	CURB & GUTTER	C	U.P.	UTILITY POLE	- <b>O-</b> U.P.	JS	19/03/04	V9W 3A2	River
0	ISSUED FOR REVIEW	EGM	18/08/22	MD	18/08/22					SIDEWALK					APPROVED:	DATE:		
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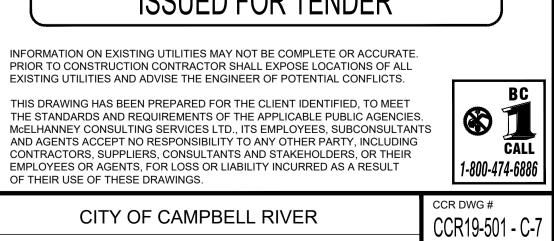
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<b>FOR</b> 35			ON ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE.	)
		EXISTING U THIS DRAW THE STAND	TILITIES AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS. ING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET PARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES EY CONSULTING SERVICES LTD., ITS EMPLOYEES, SUBCONSULTANT	
		AND AGEN CONTRACT EMPLOYEE	IT CONSOLTING SERVICES LTD., IT'S EMPLOTEES, SOBCONSOLTAN IS ACCEPT NO RESPONSIBILITY TO ANY OTHER PARTY, INCLUDING ORS, SUPPLIERS, CONSULTANTS AND STAKEHOLDERS, OR THEIR S OR AGENTS, FOR LOSS OR LIABILITY INCURRED AS A RESULT ISE OF THESE DRAWINGS.	CALL 1-800-474-6886
		CIVIL U	CITY OF CAMPBELL RIVER TILITIES - PLAN AND PROFILE	CCR DWG # CCR19-501 - C-5 PROJECT:
		HIGH	ATIONS 101+440-101+705 WAY 19A - ROCKLAND ROAD TO L.S.#6 IAIN AND SANITARY FORCEMAIN UPGRADE	2221-49145 SHEET 5 OF 7
l			CAMPBELL RIVER, BC	REV. 4 🔫



EWER DRCEMAIN	s S FM	• • • O.D. O O S.M.H. D.M.H.	OPEN DITCH SAN. SEWER STORM DRAIN MANHOLE	• • • • • O.D. • • • S.M.H. D.M.H.	designed: MD	A1 SCALE: 1:500	
IN		SIDE INLET	CATCH BASIN	E SIDE INLET Z TOP INLET	DRAWN:	DATE:	
1	WW	-Q <sub>HYD</sub> HYD.	FIRE HYDRANT	🔶 HYD.	EGM	19/03/04	McElhanney McElhanney Consulting Services Ltd.
	P	⋈ W.V.	WATER VALVE	🛏 W.V.	CHECKED:	DATE:	1196 DOGWOOD STREET PH (250) 287-7799
TER	C	U.P.	UTILITY POLE	- <b>O-</b> U.P.	JS	19/03/04	V9W 3A2 River
					APPROVED:	DATE:	
ND	DESIGN	EXISTING	LEGEND	DESIGN	MD	19/03/04	



							U/G TELEPHONE U/G HYDRO		S S S	SANITARY SEWER STORM DRAIN	S	· • • • • 0.D. ○ ○ <sup>S.M.H.</sup> D.M.H.	OPEN DITCH SAN. SEWER STORM DRAIN MANHOLE	• • • • O.D. • • • • O.D.		A1 SCALE: 1:500		
4	TENDER ADDENDUM #2	EGM	19/03/26	MD	19/03/26		NATURAL GAS	GAS	W	WATER MAIN	W			SIDE INLET Z TOP INLET	DRAWN:	DATE:		
3	ISSUED FOR TENDER	EGM	19/03/04	MD	19/03/04				P	PAVEMENT	P	-Q- <sub>HYD</sub> HYD.	FIRE HYDRANT	🔶 HYD.	EGM	19/03/04	McElhanney	City of 1 11
2	ISSUED FOR FINAL REVIEW	EGM	19/02/01	MD	19/02/01				C	CURB & GUTTER	C	W.V.	WATER VALVE	₩.V.	CHECKED:	DATE:	McElhanney Consulting Services Ltd. 1196 DOGWODD STREET PH (250) 287-7799 CMMPEL PD FC	Campbell
1	ISSUED FOR REVIEW - 80% DESIGN	EGM	18/11/30	MD	18/11/30					SIDEWALK		U.P.	UTILITY POLE	- <b>O-</b> U.P.	JS	19/03/04	CAMPBELL RIVER, B.C. V9W 3A2	
0	ISSUED FOR REVIEW	EGM	18/08/22	MD	18/08/22										APPROVED:	DATE:	1	
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OF THEIR USE OF THESE DRAWINGS.

HIGHWAY 19A - ROCKLAND ROAD TO L.S.#6 WATERMAIN AND SANITARY FORCEMAIN UPGRADE CAMPBELL RIVER, BC

## ADDENDUM #2

# **ISSUED FOR TENDER**

PROJECT: 2221-49145

SHEET 7 OF 7

REV. **4**