

ADDENDUM NO. 2

To the Specifications and Drawings
for
Cornwall Wastewater System Upgrades – Phase I
PLC and SCADA Upgrades
Town of Cornwall, PEI



195 MacEwen Road
Summerside, P.E.I.
C1N 5Y4

Dated: September 16, 2019
Summerside, P.E.I.

- .1 **Precedence:** This Addendum forms an integral part of the Contract Documents covering all aspects of this Project and it to be read in conjunction therewith. Should points arise which are at variance, this Addendum shall take precedence.
- .2 **Purpose:** The purpose of this Addendum is to add to, clarify and/or to amend the Specifications and Drawings.
- .3 **Content:** The Addendum comprises of 3 pages of text, including this cover sheet, 1 drawing (CSK-1), for a total of 4 pages.
- .4 This addendum is to be signed by the bidder and submitted with the Tender Form.

Company Name

Contractor's Signature

Addendum No. 2

**Cornwall Wastewater System Upgrades
Phase I
PLC and SCADA Upgrades**



September 16, 2019

General:

1. Bidders are advised that a new sewage lift station pump control panel is required to replace an existing panel located within the Cornwall Business Park (see attached drawing CSK-1 for details). The new panel is to be complete with PLC and communications to operate with the new SCADA system.
2. Bidders are advised that a revised Schedule of Prices is attached that reflects the addition of the new control panel at the Business Park. This revised Schedule of Unit Prices is to replace the original Schedule of Unit Prices in its entirety.
3. The closing date for the tender has been revised to 12:00pm Noon, Wednesday, September 25, 2019.

Contractor's Signature

**-- REVISED --
Schedule of Prices**

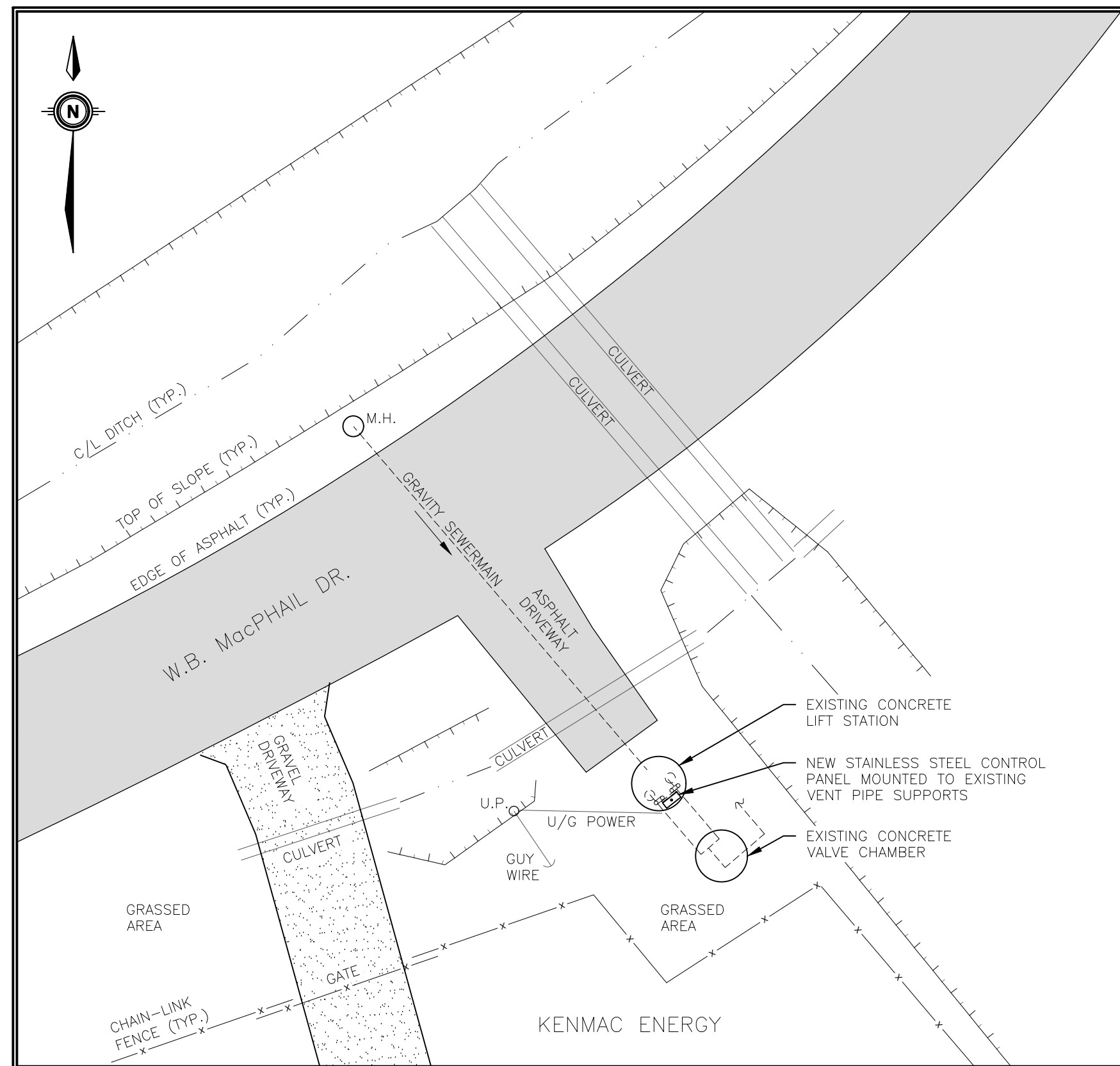
**Cornwall Wastewater System Upgrades
Phase I
PLC and SCADA UPGRADES**

Town of Cornwall

<u>Item #</u>	<u>Description</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Total Price</u>
1.	New PLC and Communication System at 18 Sites.	1 L.S.	\$ _____	\$ _____
2.	New Communication System at the Pond Street Lift Station site.	1 L.S.	\$ _____	\$ _____
3.	VTSCADA Upgrade at Maintenance Building.	1 L.S.	\$ _____	\$ _____
4.	New Antenna and Communication System at Water Tower.	1 L.S.	\$ _____	\$ _____
5.	Cash Allowance.	1 L.S.	\$ <u>20,000.00</u>	\$ <u>20,000.00</u>
6.	Business Park - New Sewage Lift Station Pump Control Panel, complete with PLC and communications to operate with the new SCADA system.	1 L.S.	\$ _____	\$ _____
				Subtotal = \$ _____
				HST (15%) = \$ _____
				Total Tender Amount = \$ _____ (supplied and installed)

Contractor _____

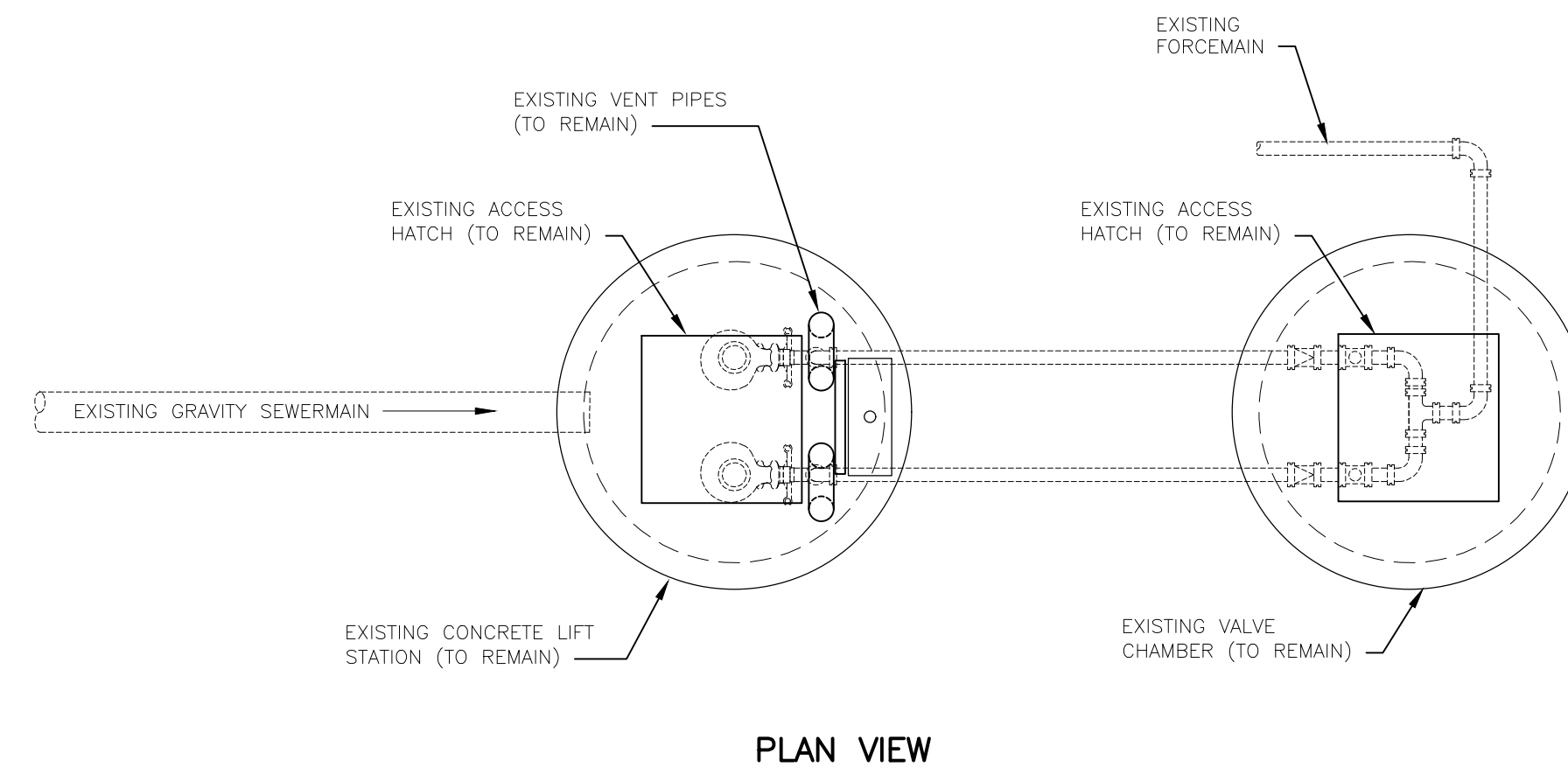
 Signature _____



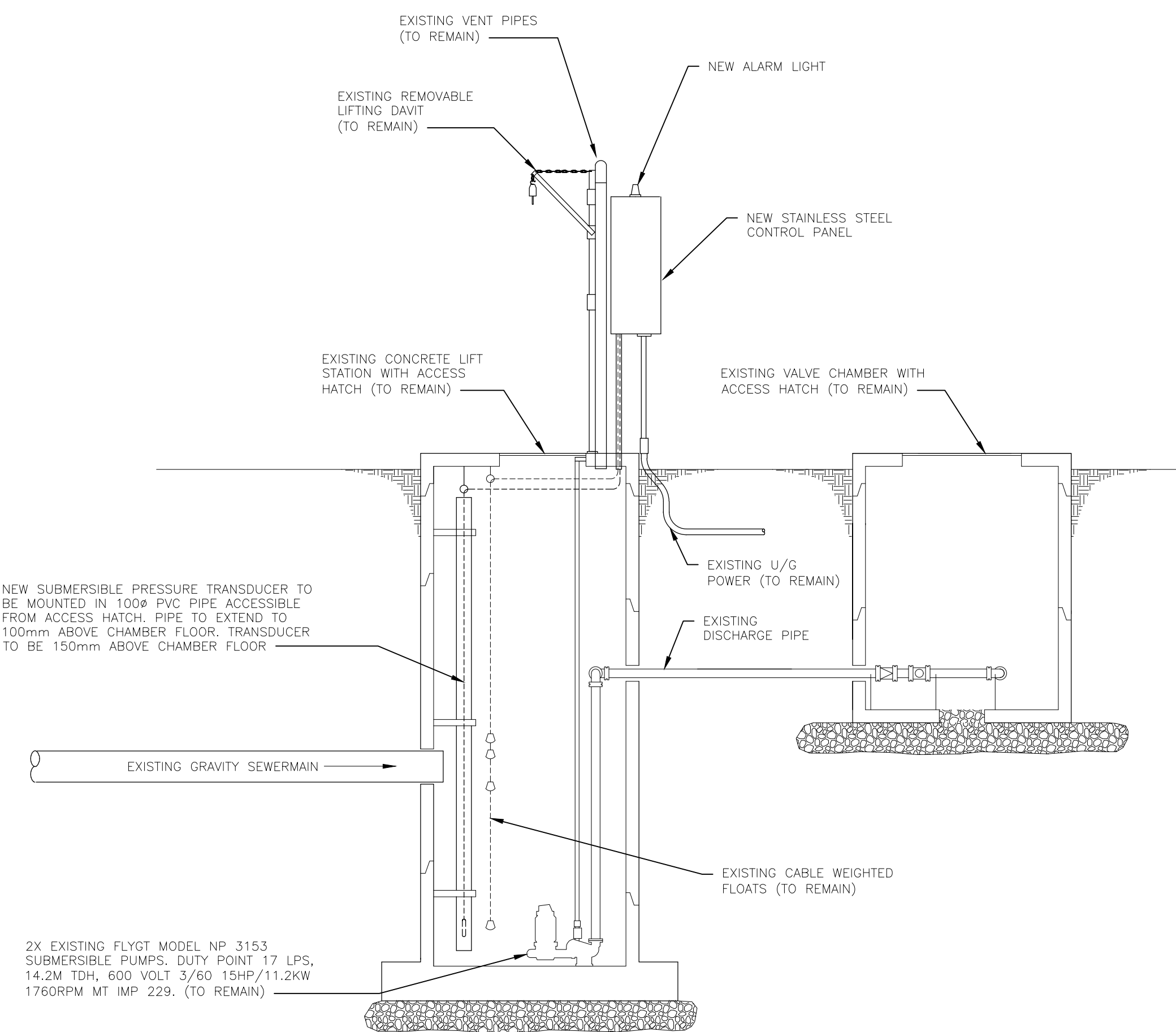
SITE PLAN
NOT TO SCALE

NEW CONTROL PANEL PARTS LIST

1. CUSTOM NEMA 4X STAINLESS STEEL ENCLOSURE c/w OUTER UTILITY METER ACCESS DOOR, INNER MOUNTING PANEL, INNER SWING PANEL, THERMAL INSULATION AND PADLOCK HASP
2. 600 VOLT 3 PHASE FUSIBLE SERVICE ENTRANCE DISCONNECT SWITCH (60 AMP) c/w FUSES
3. MANUAL TRANSFER SWITCH
4. RECEPTACLE TO BE PROVIDED FOR CONNECTION TO MOBILE GENERATOR
5. 100 AMP 3 PHASE UTILITY METER SOCKET
6. 60 AMP MAIN DISCONNECT INTERLOCKED TO SWING PANEL
7. FULL VOLTAGE NON-REVERSING MOTOR STARTERS c/w INDIVIDUAL PROTECTION, OVERLOAD AND GROUND FAULT PROTECTION
8. PHASE LOSS AND SURGE PROTECTION
9. CONTROL TRANSFORMER c/w FUSING
10. 24 VDC POWER SUPPLY
11. MINICAS II PROTECTION RELAYS INSTALLED
12. ILLUMINATED H-O-A SELECTOR SWITCHES
13. FAULT RESET BUTTON FAULT AND HIGH LEVEL ALARM LIGHTS
14. EXTERNAL ALARM LIGHT SUPPLIED LOOSE
15. IS RELAY FOR 2 LEVEL FLOATS (EXISTING FLOATS TO REMAIN)
16. CURRENT MONITORING CT'S FOR EACH PUMP
17. CONTROL RELAYS, TERMINAL BLOCKS, WIREWAY AND LABELING
18. ALLEN BRADLEY MICRO 850 PLC c/w DIGITAL AND ANALOG I/O, COMMUNICATION SYSTEM c/w RADIO AND ANTENNA
19. PANEL MOUNTED 7" COLOUR HMI
20. PANEL HEATER AND THERMOSTAT
21. SUBMERSIBLE LEVEL TRANSDUCER
22. DETAILED WIRING SCHEMATICS
23. QA TESTING AND CSA CERTIFICATION

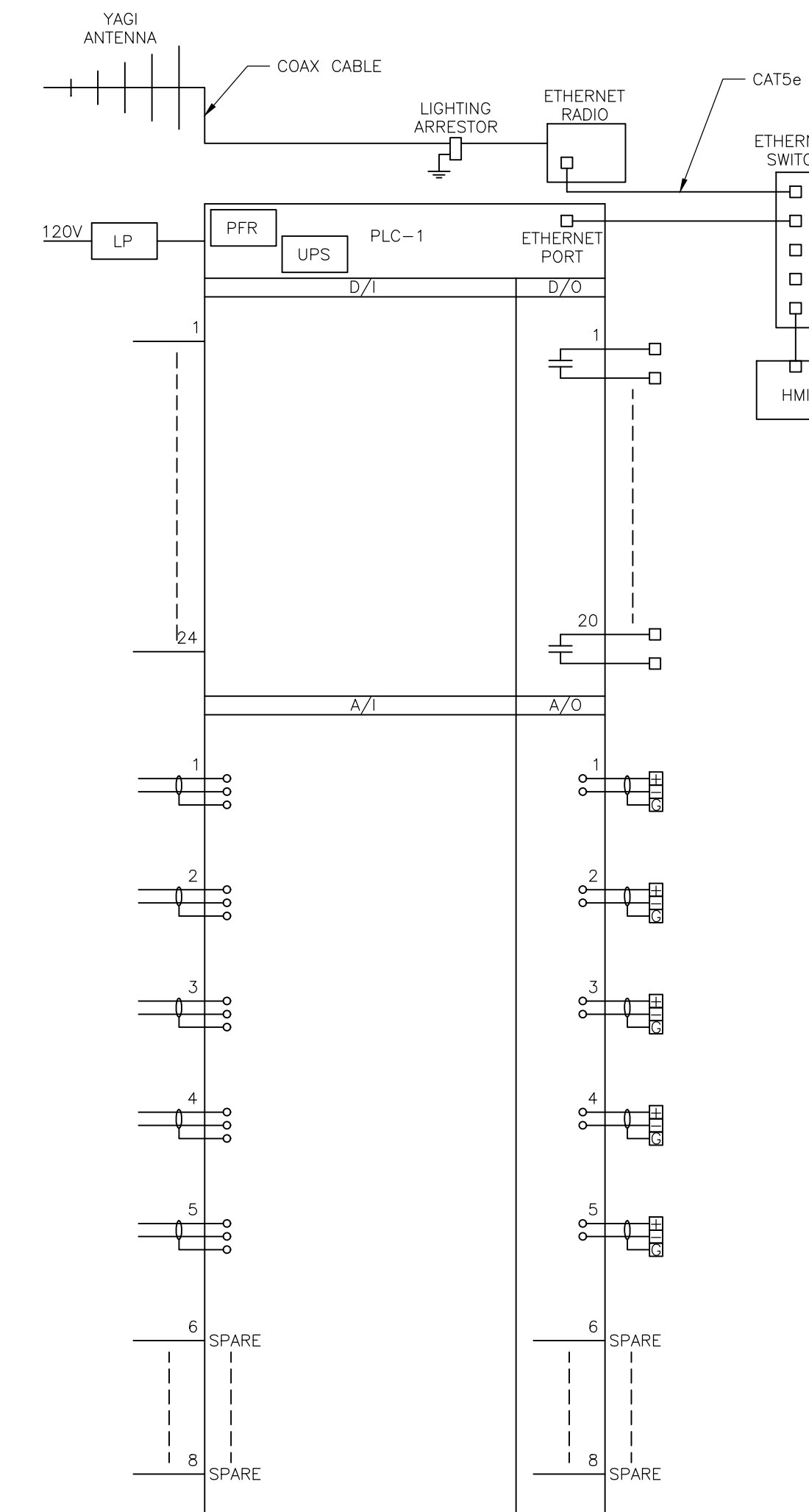


PLAN VIEW



SECTION VIEW

1
NEW CONTROL PANEL MOUNTED ON EXISTING CONCRETE LIFT STATION
NOT TO SCALE



2
LIFT STATION PLC SCHEMATIC
NOT TO SCALE

PLC REQUIREMENTS:

1. NEW PLC SYSTEM C/W HMI, UPS, AND ALL COMPONENTS FOR A WORKING SYSTEM.
2. NEW ETHERNET BASED RADIO COMPLETE WITH COMMUNICATIONS CABLES AND CONFIGURATION. ALL DATA AND ALARMS SHALL BE TRANSMITTED TO MAINTENANCE BUILDING SCADA. RADIO-PATH STUDY SHALL BE INCLUDED TO DETERMINE EFFECTIVE COMMUNICATION.

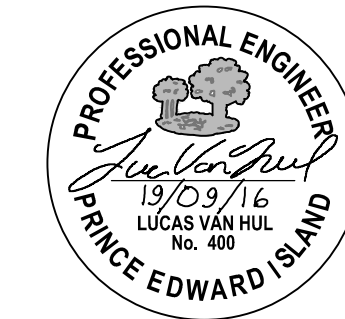
PLC AND RADIO UPGRADE:

1. UPGRADE STATION TO INDUSTRIAL PROGRAMMABLE LOGIC CONTROLLER (PLC) IN PLACE OF THE EXISTING CONTROLLERS. THE EXISTING PLC AND COMMUNICATION HARDWARE TO BE REMOVED FROM SITE. THE PLC PROPOSED IS AN ALLEN BRADLEY MICRO 850 SERIES CONTROLLER WITH ON-BOARD ETHERNET AND SERIAL COMMUNICATIONS. REUSE EXISTING GROUNDING FOR THE NEW PLC AND COMMUNICATION SYSTEMS. THE PLC WILL BE MOUNTED IN NEW CONTROL PANEL. A 7 INCH COLOR TOUCH SCREEN (HMI) WILL BE MOUNTED IN THE CONTROL PANEL AND WILL ALLOW LOCAL INPUT OF THE PARAMETERS AND ALSO DISPLAY STATUS OF PROCESS AND ALARMS.
2. PROPOSED PLC SHALL BE MICRO 850; DIGITAL I/P -24 NUMBERS, DIGITAL O/P-20 NUMBERS, ANALOG I/P -8 NUMBERS & ANALOG O/P -8 NUMBERS. ADDITIONAL INPUTS AND OUTPUTS AS PER EXISTING SITE I/O UTILIZATION. PROVIDE I/O EXTENSION CARDS AS PER SITE REQUIREMENT TO ACCOMMODATE ALL EXISTING POINTS AND SPARES.
3. PROVIDE 30% SPARE AT EACH LOCATION

NOTES

1. CONTRACTOR IS TO SUPPLY A NEW CONTROL PANEL FOR EXISTING STATION COMPLETE WITH ALL NECESSARY ELECTRICAL COMPONENTS FOR A COMPLETE FUNCTIONING SYSTEM.
2. CONTROL PANEL TO BE REPLACED IN THE ORIGINAL LOCATION OF THE EXISTING PANEL.
3. EXISTING GROUNDING SYSTEM TO BE USED.
4. COORDINATE WITH MECL FOR DISCONNECTION AND RECONNECTION OF POWER SERVICE.
5. CONTRACTOR TO PROVIDE TEMPORARY POWER FOR MANUAL PUMP CONTROL TO FACILITATE LIFT STATION OPERATION FOR THE DURATION OF THE PANEL REPLACEMENT.
6. ALL INFORMATION REGARDING EXISTING EQUIPMENT TO REMAIN TO BE CONFIRMED BY THE CONTRACTOR ON SITE. IF ANY DISCREPANCIES ARE FOUND, REPORT TO THE ENGINEER.

SEAL:



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REVISION:

NO.	DATE	DESCRIPTION	DATE: (YYYY/MM/DD)
1	2019/09/16	ISSUED FOR ADDENDUM #2	2019/09/16

PROJECT NUMBER: 181-12123-00
ORIGINAL SCALE: HORIZONTAL: N/A VERTICAL: N/A
DESIGNED BY: L. VAN HUL
DRAWN BY: D. BEAMAN



WSP Canada Inc.
195 MacEwen Road
Summerside, Prince Edward Island, C1N 5Y4 Canada
T 902-436-2669 F 902-436-8601 wsp.com

CLIENT:

TOWN OF CORNWALL

CLIENT REF. #:

PROJECT:

**WASTEWATER SYSTEM UPGRADES
PHASE I - PLC & SCADA UPGRADES
CORNWALL, PE**

TITLE:

**BUSINESS PARK LIFT STATION
PUMP CONTROL PANEL REPLACEMENT
ADDENDUM #2**

SHEET NUMBER:

CSK-1

SHEET #:

1 OF 1

ISSUE:

ISSUED FOR ADDENDUM #2

REV #:

1