REQUEST FOR TENDERS No. 21-049

CRPS Control Panel Supply

ISSUED: 12 May, 2021

CLOSING DATE AND TIME:
Tenders must be received on or before:
3:00 PM (15:00 hrs) Pacific Time on 10 June, 2021

Submissions and Questions are to be directed to:
Duncan Taylor
250-390-6583
dtaylor@rdn.bc.ca

Questions, or requested revisions to the form of contract, should be received at least seven (7) business days before the closing date.

Proponent's Information Meeting:
None

Instructions to Bidders

ARTICLE 1. Closing Date/Time/Location and Submission Requirements
Bidders must submit their TENDER on or before 3:00 PM (15:00 hrs), Pacific Time, 10 June, 2021.

Submission Requirements:

Bidders must, at minimum, submit a completed Tender Form along with supporting information (reference lists and/or other materials) to facilitate Regional District of Nanaimo (RDN) tender evaluation, with reference to Article 11 "Award" below.

Tenders will be accepted by Email only: In PDF format with "CRPS Control Panel Supply" as the subject line to this electronic address:

dtaylor@rdn.bc.ca

The RDN will not be held responsible for any technological delays.

Tenders received by any other manner will not be accepted. Tenders will not be opened in public.

ARTICLE 2. Scope of Work
Tenders are invited from qualified and experienced firms to supply and deliver (1) new PLC control panel and (1) new HMI control panel for the Chase River Pump Station Upgrade project located at the Chase River Pump Station, 1174 Island Highway South, Nanaimo, BC.

Delivery of the Goods is expected to be within 8 weeks from issue of Purchase Order.

The Delivery Point for all equipment shall be:

Regional District of Nanaimo
Greater Nanaimo Pollution Control Centre
4600 Hammond Bay Road
Nanaimo, B.C. V9T 5A8

Attn: Jeremy Kaye

ARTICLE 3. Tender Documents
The Tender Documents referred to in this tender package include the following:

(1) Request for Tenders, including the Supply Contractor's "Tender Form";
(2) Standard Form Supply Contract Supply Agreement;
(3) Standard Form Supply Contract General Conditions*

* Includes the specifications, the drawings, and the standards.

The Tenderer must carefully examine the Tender Documents. Should a Tenderer find discrepancies in, or omissions from the Tender Documents, or should they be in doubt as to their meaning, they should, prior to submitting their tender, notify the RDN contact person in writing. The Tenderer may not claim, after the submission of a tender, that there was any misunderstanding with respect to the conditions imposed by the documents.

No verbal agreement or conversation made or had at any time with any officer, agency, or employee of the RDN shall affect or modify any of the terms or obligations herein stated or deemed to be any representation of warranty.

ARTICLE 4. Addenda

If the RDN determines that an amendment is required to this TENDER, the RDN will post an addendum on the RDN (www.rdn.bc.ca) and BC Bid websites (www.bcbid.gov.bc.ca). Each addendum will be incorporated into and become part of the TENDER. No amendment of any kind to the TENDER is effective unless it is contained in a written addendum issued by the RDN. It is the sole responsibility of the Proponent to check and ensure all addendums are included prior to submitting their final Tender submission.

ARTICLE 5. Tender Price

All pricing is to be in Canadian Dollars and is to include all transportation costs to the delivery point. Prices shall be filled in as indicated on the Tender Form. In the event of a price extension discrepancy when calculating the total contract value, the RDN reserves the right to correct the totals.

ARTICLE 6. Federal and Provincial Sales Taxes

GST and PST shall be shown separately on the Tender Form based on the total contract value.

ARTICLE 7. Tender Signing

The TENDER must be executed by an authorized signatory in a position to legally bind their Company to the information contained in the Tender Form.

ARTICLE 8. Revisions to Tenders

Any revision to the tender by the Tenderer must be in writing properly executed and received on or before the posted closing date and time as per the submission instructions outlined in Article 1.

ARTICLE 9. Tender Withdrawal

A Tenderer may, without prejudice to themselves, withdraw their TENDER on written request received on or before the posted closing date and time as per the submission instructions outlined in Article 1.

ARTICLE 10. Tender Rejection

.1 The RDN reserves the right to reject any or all tenders or accept other than the lowest tender and to accept the tender which it deems most advantageous.

.2 The RDN may reject a tender if:

a) After investigation and consideration, the RDN concludes that the Tenderer is not qualified to do the work and/or cannot do the work and perform the Contract in a manner satisfactory to the RDN.

b) A tender contains qualifying conditions or otherwise fails to conform to these Instructions to Tenderers.
c) A tender is incomplete, is considered incomplete in the Instructions to Tenderers, is obscure or irregular, which has erasures or corrections in the Tender Form or in which prices are omitted.
d) The RDN may, in its absolute discretion, reject a Tender submitted by Tenderer if the Tenderer, or any officer or director of the Tenderer is or has been engaged either directly or indirectly through another corporation in a legal action against the RDN, its elected or appointed officers and employees in relation to:
   - any other contract for works or services; or
   - any matter arising from the RDN's exercise of its powers, duties, or functions under the Local Government Act or another enactment within five years of the date of this Call for Tenders.

In determining whether to reject a tender under this clause, the RDN will consider whether the litigation is likely to affect the Tenderer's ability to work with the RDN, its consultants and representatives and whether the RDN's experience with the Tenderer indicates that the RDN is likely to incur increased staff and legal costs in the administration of this contract if it is awarded to the Tenderer.

.3 The RDN may reject all tenders if for any reason the RDN considers to be in its best interest to do so, including without limitation for any of the following reasons;
a) the lowest tender that the RDN considers otherwise acceptable is higher than the funds budgeted or otherwise available for the project;
b) the RDN decides not to proceed with the project or to defer the project;
c) if only one bid is received, then the tender may be reissued unless a financial analysis indicates that the sole bid represents a good value for the taxpayers ; or
d) the RDN is delayed in obtaining, or is unable to obtain, all approvals or consents it considers necessary, whether required by law or otherwise.

.4 The RDN reserves the right to consider and to reject any tender or all tenders without notice to a Tenderer or Tenderers and without permitting a Tenderer to provide additional information.

.5 In no event will the RDN be responsible for a Tenderer's costs of preparing or submitting a tender.

ARTICLE 11. Award

Awards shall be made on tenders that will give the greatest value to the RDN based on price, quality, warranty, and delivery time. The RDN shall be free to assess these criteria based solely on the information provided with tenders. The lowest, or any tender may not necessarily be accepted. The RDN will, following receipt of an acceptable tender, issue in writing a Notice of Intent to award to the successful Tenderer. Award is anticipated to be made within 30 days of tender closing.

ARTICLE 12. Form of Supply Contract

The Supply Agreement and General Conditions of the Contract are enclosed at the end of this document. Tenderers should carefully review this form of Contract. Tenderers may (but are not required to) request that RDN consider revisions to the form of Contract, including the scope of supply. Tenderers should submit such requests to the RDN well before the Closing Date and Time. If the RDN agrees to a request

received prior to the Time, then RDN will issue an Addendum to modify the Supply Contract. Failure to do so by the Tenderer means acceptance of the RDN form of Contract as presented.

ARTICLE 13. No Claim for Compensation
Except as expressly and specifically permitted in these Instructions to Tenderers, no Tenderer shall have any claim for any compensation of any kind whatsoever, as a result of participating in the tender, and by submitting a bid each Tenderer shall be deemed to have agreed that it has no claim.

ARTICLE 14. Solicitation of Board Members
"If a member of the Board, or a person who was a member of the Board in the previous six months has a direct or indirect interest in the contract, then the Tenderer shall report this to the RDN in accordance with Section 107 of the *Community Charter* upon being notified of the award of the contract.

The Tenderer warrants and represents that it has not received any information or a record from any Board member or former Board member contrary to Section 108 of the *Community Charter*." The successful Tenderer will be required to direct all communications related to their contract through the staff members responsible for the project.

ARTICLE 15. Freedom of Information and Protection of Privacy Act
All documents submitted to the RDN will be held in confidence by the RDN, subject to the provisions of the Province of British Columbia's *Freedom of Information and Protection of Privacy Act.* All tenders become the property of the RDN. The successful vendor and value of the award is routinely released.

ARTICLE 16. Conflict of Interest
The Tenderer declares that it has no financial interest, directly or indirectly in the business of any third party that would be or be seen to be a conflict of interest in carrying out the services. It warrants that neither it nor any of its officers or directors, or any employee with authority to bind the Tenderer, has any financial or personal relationship or affiliation with any elected official or employee of the RDN or their immediate families which might in any way be seen to create a conflict.

ARTICLE 17. Collusion
The Tenderer shall not engage in collusion of any sort and shall ensure that no person or other legal entity, other than the Tenderer has an interest in the TENDER. Tenderers shall prepare their TENDER without any knowledge of, comparison of figures with, or arrangement with any other person or firm preparing a tender for the same work.

TENDER FORM
21-049 CRPS Control Panel Supply
Page 1 of 2

Date: _____

Company Name:_____

Address: _____

Telephone:_____ Email: _____

To: Regional District of Nanaimo
C/O Duncan Taylor
dtaylor@rdn.bc.ca

Having examined the Tender Documents, including any addenda, and having reviewed and complied with the Instructions to Bidders, we hereby offer to supply the Goods set forth in the aforesaid documents for the Stipulated Contract Price. Prices include the Supply Contractor's labour, material, equipment, material costs, transportation costs, overhead and profit and shall represent the cost to the Regional District of Nanaimo (RDN) of such charges excluding taxes which shall be shown separately.

Lump Sum Total $_____

PST (7%) $_____

GST (5%) $_____

Total Stipulated Contract Price $_____

WARRANTY DESCRIPTION

_____

DELIVERY (DDP Delivery Point) weeks from receipt of order

_____

TENDER FORM
21-049 Control Panel Supply

ACCEPTANCE

.1 The tender is open to acceptance for a period of sixty (60) calendar days from the date of bid closing.

.2 We understand that the lowest or any Bid will not necessarily be accepted. The Owner may also elect not to proceed with the Project.

.3 The RDN reserves the right to waive minor defects or irregularities in tenders.

Company: _____

Signature: _____
(Authorized Officer)

Printed: _____
(Authorized Officer)

1. GENERAL

1.1. Summary

1.1.1. This specification covers the supply of Control Panels for the Chase River Pump Station Upgrade project.

1.1.2. The Supplier shall supply (2) fully assembled and wired control panels in accordance with the project drawings and this specification.

a) CP100 PLC Control Panel
b) HMI100 Operator Control Panel

1.1.3. Control panels will be mounted and installed in the field by Others.

1.2. Drawings

1.2.1. The following Project Drawings shall be considered part of this specification:

Drawing No.	Rev.	Description
CRPS-I-101	0	CP-100 PANEL LAYOUT
CRPS-I-102	0	CP-100 BILL OF MATERIAL
CRPS-I-103	0	CP-100 POWER DISTRIBUTION
CRPS-I-104	0	CP-100 GENERAL SCHEMATICS
CRPS-I-105	0	CP-100 SLOT 1 ANALOG INPUT
CRPS-I-106	0	CP-100 SLOT 2 & 3 ANALOG & RTD INPUT
CRPS-I-107	0	CP-100 SLOT 5 & 6 ANALOG OUTPUT & DISCRETE INPUT
CRPS-I-108	0	CP-100 SLOT 7 & 8 DISCRETE INPUT
CRPS-I-109	0	CP-100 SLOT 9 & 10 DISCRETE INPUT
CRPS-I-110	0	CP-100 SLOT 11 & 12 DISCRETE & RELAY OUTPUT
CRPS-I-111	0	BACK-UP CONTROLLER SCHEMATIC DIAGRAM
CRPS-I-121	0	HMI-100 PANEL LAYOUT
CRPS-I-122	0	HMI-100 BILL OF MATERIAL
CRPS-I-123	0	HMI-100 PANEL SCHEMATICS

1.3. References

1.3.1. CSA C22.1-2018 “Canadian Electrical Code, Part I"

1.3.2. CSA C22.2 No. 286-2017 “Industrial Control Panels and Assemblies”

1.4. Submittals

1.4.1. On completion of the work, Supplier shall provide a copy of their completed QA/QC documents for the Purchaser’s records.

1.5. Quality Assurance

1.5.1. Supplier shall have been manufacturing industrial control panels for at least five years. On request, the supplier shall provide a list of installations involving equipment of similar size and application.

1.5.2. Supplier shall make their facilities available for the Purchaser to perform a pre-shipment quality inspection of the panels prior to shipment. Alternately, the Supplier shall provide detailed photographs of the panels to the Purchaser for review prior to shipment. The Supplier shall provide the Purchaser at least 1 week notice prior to readiness to ship to coordinate the inspection.

2. PRODUCTS

2.1. Provide all equipment and components shown in the project drawings with the exception of items detailed in the Bill of Materials marked EXISTING or OWNER SUPPLIED.

2.2. Completed assemblies and all equipment in enclosures shall bear a CSA or similar marking or label, that is acceptable to Technical Safety BC.

2.3. Manufacturers and products shall be as specified on the Bill of Materials in the project drawings. Alternate products can be substituted only with the prior approval of the Purchaser.

3. EXECUTION

3.1. Panel Wiring

3.1.1. Control and power distribution wiring shall be type TEW (105ºC), 600V. Wire sizes shall be as shown on the project drawings.

3.1.2. Analog panel wiring shall be stranded, twisted shielded pair or triad, with shields connected (or isolated) as shown on the project drawings. Wire sizes shall be as shown on the project drawings.

3.1.3. Wire colours shall be as shown on the project drawings.

3.1.4. Mark each wire at both ends with a machine printed heat shrink sleeve, with the wire tag shown on the project drawings.

3.1.5. Wires shall be terminated using crimp-on wire ferrules.

3.1.6. Wiring shall be segregated by voltage in colour-coded wire duct accordance with the project drawings (white for 24 Vdc, gray for 120 Vac).

3.2. Network Cabling

3.2.1. All in-panel Ethernet cables shall be factory-made and installed in accordance with the project drawings.

3.3. Nameplates

3.3.1. Provide nameplates for panels, control devices and other items as detailed on the project drawings.

3.4. Panel Grounding

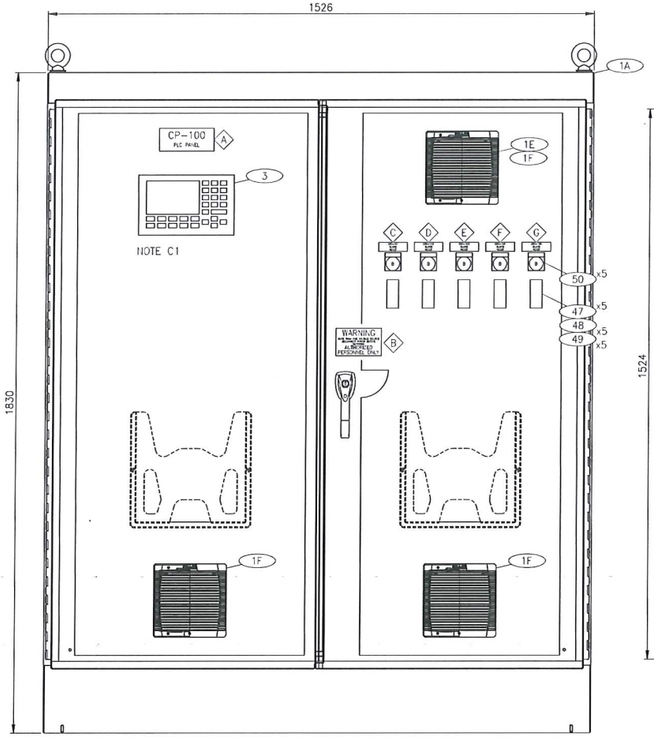
3.4.1. Provide supplementary bonding conductors for backpanels and doors.

3.4.2. Provide electrical and isolated instrument ground bars and systems as shown on the project drawings.

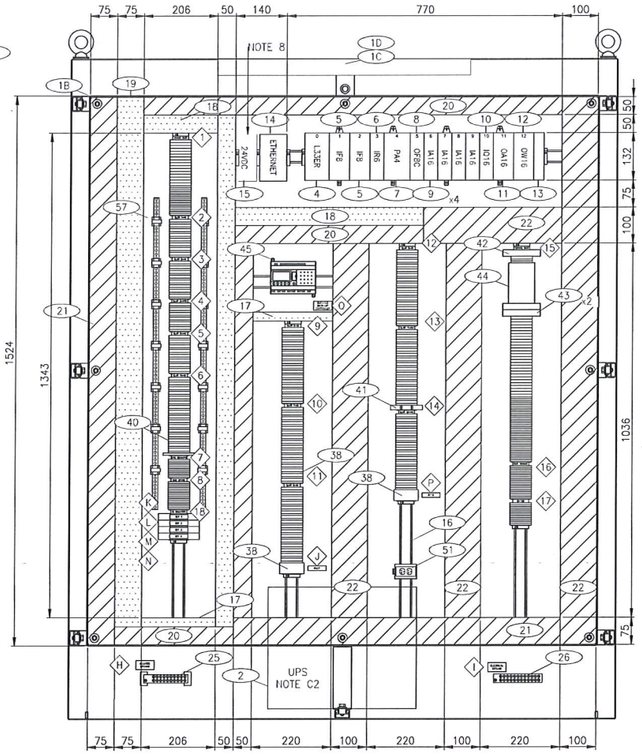
3.5. Purchaser-Supplied Materials

3.5.1. The Purchaser will field-install the HMI in CP100 marked as EXISTING in the Bill of Materials. The Supplier shall provide panel cut-out and wiring provisions for field installation of the HMI.

3.5.2. All materials marked in the Bill of Materials as OWNER SUPPLIED shall be free-issued by the Purchaser to the Supplier for assembly and installation in the Panels.



FRONT VIEW – DOOR CLOSED
SCALE: 1:8



FRONT VIEW – DOOR REMOVED
SCALE: 1:8

LAMACOIDS				
TAG #	TAG	COLOR	LAMACOID SIZE	TEXT HEIGHT
A	CP-100 / PLC PANEL	BLACK ON WHITE	7" x 2-1/2"	3/4" / 3/8"
B	SEE DETAIL A	BLACK ON WHITE	3" x 5"	5/8" / 3/16" / 3/8"
C	CAS-101 ALARM RESET	BLACK ON WHITE	1" x 3"	3/16"
D	CAS-102 ALARM RESET	BLACK ON WHITE	1" x 3"	3/16"
E	CAS-103 ALARM RESET	BLACK ON WHITE	1" x 3"	3/16"
F	CAS-104 ALARM RESET	BLACK ON WHITE	1" x 3"	3/16"
G	CAS-105 ALARM RESET	BLACK ON WHITE	1" x 3"	3/16"
H	ISOLATED GROUND	BLACK ON WHITE	1" x 3"	3/16"
I	ELECTRICAL GROUND	BLACK ON WHITE	1" x 3"	3/16"
J	R527	BLACK ON WHITE	1/2" x 3"	3/16"
K	ISR 1	BLACK ON WHITE	1/2" x 3"	3/16"
L	ISR 2	BLACK ON WHITE	1/2" x 3"	3/16"
M	ISR 3	BLACK ON WHITE	1/2" x 3"	3/16"
N	ISR 4	BLACK ON WHITE	1/2" x 3"	3/16"
P	R715	BLACK ON WHITE	1/2" x 3"	3/16"
Q	BUC-100/BACK-UP CONTROLLER	BLACK ON WHITE	1" x 3"	3/16"

WARNING
MORE THAN ONE VOLTAGE SOURCE
DISCONNECT POWER BEFORE
SERVICING
AUTHORIZED PERSONNEL
ONLY

DETAIL A
SCALE: NTS



WIRE WAY LEGEND
WHITE – 24 VDC
GREY – 120 VAC

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
CRPS-I-102	CP-100 BILL OF MATERIAL	1

NOTES:

1. FOR BILL OF MATERIALS, TERMINAL STRIP BREAKDOWNS & LAMICOIDS SEE REFERENCE 1.
2. ALL LAMICOIDS/LABELLING TO BE PROVIDED/INSTALLED BY PANEL VENDOR.
3. NAME PLATE SHALL BE MOUNTED WITH STAINLESS STEEL SELF TAPPING SCREWS ON THE OUTSIDE OF THE CONTROL PANEL DOOR. ENSURE PANEL NEMA RATING INTEGRITY IS MAINTAINED.
4. ALL CABLES SHALL ENTER PANEL FROM THE TOP ONLY.
5. ALL INTERNAL CABINET WIRING TO BE ON LEFT HAND SIDE WHEREVER POSSIBLE. ALL FIELD CABLES TERMINATE ON RIGHT HAND SIDE.
6. COMPLETED CABINET TO MEET CSA APPROVAL.
7. PANEL VENDOR TO MOUNT TS35 DIN RAIL ON STAND-OFFS. TERMINALS TO BE FLUSH WITH THE TOP OF THE WIRE DUCT.
8. POWER SUPPLY REQUIRES MINIMUM 5MM CLEARANCE ON EACH SIDE AND 50MM CLEARANCE AT TOP AND BOTTOM.

CONSTRUCTION NOTES:

C1. EXISTING HVI PANEL TO BE RE-INSTALLED IN NEW PANEL DOOR.
C2. RDN TO INSTALL UPS AT SITE.

ISSUED FOR
CONSTRUCTION
Date: 2021/03/08

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REV	YY/MM/DD	DESCRIPTION	DRWN	CHKD	APVD
0	21/03/08	ISSUED FOR CONSTRUCTION	AF	BDH	BDH

CLIENT: REGIONAL DISTRICT OF NANAIMO

Allnorth

CLIENT NO:	-	DRWN: AF	DATE: 20/12/21
PROJECT NO:	2003251	DSGN: AF	DATE: 20/12/21
DRAWING SIZE:	ANSI "D"	CHKD: JAK	DATE: 21/03/03
SCALE:	AS NOTED	APVD: BDH	DATE: 21/03/08

PROJECT:
CHASE RIVER PUMP STATION UPGRADE

TITLE:
CP-100 PANEL LAYOUT

DWG NO: **CRPS-I-101** REV: **0**

Date: 2021/03/07 9:36 PM | User: Ava Fu | File: P:\NA\2020\2003251 RDN-Chase River Pump Stn Upgrades\1000-Dwgs\1017-Instr\01-Production\CRPS-I-101 | Layout: REV 0 | Paper Size: 863.6mm x 558.8mm

BILL OF MATERIALS

ITEM	QUANTITY	DESCRIPTION	MANUFACTURER	MODEL	PROVIDED BY
1A	1	NEMA 12 FREESTANDING ENCLOSURE, SINGLE ACCESS, DOUBLE DOOR – 72" x 60" x 18" (1830mm x 1526mm x459mm)	HAMMOND	1418ZX18	PANEL VENDOR
1B	1	FULL HEIGHT INNER PANEL 60" X 56"	HAMMOND	72ZXFW	PANEL VENDOR
1C	2	COMPACT LED LIGHTING KIT W/SWITCH SCREW MOUNT – 90–260V AC	HAMMOND	LEDACSWSCR	PANEL VENDOR
1D	1	LED LIGHTING AC POWER CORD 2m	HAMMOND	LEDACCORDPOW	PANEL VENDOR
1E	1	65 CFM FILTERFAN, 120V AC, 20 W	HAMMOND	PF32000T12LG	PANEL VENDOR
1F	3	EXHAUST FILTER	HAMMOND	PFA30000LG	PANEL VENDOR
2	1	DOUBLE CONVERSION ONLINE UPS, 2000VA, 1800 W	EATON	9SX2000	OWNER SUPPLIED
3	1	PANELVIEW PLUS 700 HMI	ALLEN BRADLEY	2711P–B7C15D2	EXISTING
4	1	COMPACTLOGIX 5370 CONTROLLER	ALLEN BRADLEY	1769–L33ER	OWNER SUPPLIED
5	2	ANALOG INPUT – COMPACT VOLTAGE/CURRENT ANALOG INPUT MODULE, 8 CHANNELS	ALLEN BRADLEY	1769–IF8	OWNER SUPPLIED
6	1	RTD INPUT – COMPACT RTD/RESISTANCE INPUT MODULE, 6 CHANNELS	ALLEN BRADLEY	1769–IR6	OWNER SUPPLIED
7	1	PLC POWER SUPPLY	ALLEN BRADLEY	1769–PA4	OWNER SUPPLIED
8	1	ANALOG OUTPUT – COMPACT CURRENT OUTPUT ANALOG MODULE, 24V DC, 8 CHANNELS	ALLEN BRADLEY	1769–OF8C	OWNER SUPPLIED
9	4	DIGITAL INPUT COMPACT 120V AC INPUT MODULE, 120V AC, 16 CHANNELS	ALLEN BRADLEY	1769–IA16	OWNER SUPPLIED
10	1	DIGITAL INPUT – COMPACT 24V DC SINK/SOURCE INPUT MODULE, 16 CHANNELS	ALLEN BRADLEY	1769–IQ16	OWNER SUPPLIED
11	1	DIGITAL OUTPUT – COMPACT 120/240V AC SOLID–STATE OUTPUT MODULE, 16 CHANNELS, MAX 0.5A PER POINT	ALLEN BRADLEY	1769–OA16	OWNER SUPPLIED
12	1	RELAY OUTPUT – COMPACT AC/DC RELAY CONTACT MODULE, 16 CHANNELS, MAX 10A PER COMMON	ALLEN BRADLEY	1769–OW16	OWNER SUPPLIED
13	1	RIGHT SIDE END CAP	ALLEN BRADLEY	1769–ECR	OWNER SUPPLIED
14	1	6 PORT ETHERNET SWITCH, STRATIX 5700 – FULL MANAGE	ALLEN BRADLEY	1783–BMS06TA	OWNER SUPPLIED
15	1	24VDC POWER SUPPLY, 10A	PHOENIX	QUINT4–PS/1AC/24DC/10	PANEL VENDOR
16	A/R	TS–35 DIN MOUNTING RAIL	OPEN	OPEN	PANEL VENDOR
17	A/R	PVC WIRE DUCT WHITE – 1"W x 4"H NARROW SLOT C/W DUCT COVER	PANDUIT	F1X4WH6; C1WH6	PANEL VENDOR
18	A/R	PVC WIRE DUCT WHITE – 2"W x 4"W NARROW SLOT C/W DUCT COVER	PANDUIT	F2X4WH6; C2WH6	PANEL VENDOR
19	A/R	PVC WIRE DUCT WHITE – 3"W x 4"H NARROW SLOT C/W DUCT COVER	PANDUIT	F3X4WH6; C3WH6	PANEL VENDOR
20	A/R	PVC WIRE DUCT GREY – 2"W x 4"H NARROW SLOT C/W DUCT COVER	PANDUIT	F2X4LG6; C2LG6	PANEL VENDOR
21	A/R	PVC WIRE DUCT GREY – 3"W x 4"H NARROW SLOT C/W DUCT COVER	PANDUIT	F3X4LG6; C3LG6	PANEL VENDOR
22	A/R	PVC WIRE DUCT GREY – 4"W x 4"H NARROW SLOT C/W DUCT COVER	PANDUIT	F4X4LG6; C4LG6	PANEL VENDOR
23		SPARE			
24		SPARE			
25	1	COPPER GROUND BAR (MINIMUM 1/4" THICK x 1"H WITH MINIMUM TEN (10) GROUNDING SCREWS SUITABLE FOR #14 AWG TO #4 AWG CONDUCTORS, AND ONE (1) GROUND LUG SUITABLE FOR #2 AWG CONDUCTOR, MOUNTED ON ISOLATED STANDOFF	OPEN	OPEN	PANEL VENDOR
26	1	COPPER GROUND BAR (MINIMUM 1/4" THICK x 1"H WITH MINIMUM TEN (10) GROUNDING SCREWS SUITABLE FOR #14 AWG TO #4 AWG CONDUCTORS, AND ONE (1) GROUND LUG SUITABLE FOR #2 AWG CONDUCTOR	OPEN	OPEN	PANEL VENDOR
27	17	LABEL HOLDERS – DIN RAIL MOUNT SCHT–5S	WEIDMULLER	1631930000	PANEL VENDOR
28	17	ESO 5 S DIN A4 WS TERMINAL LABEL FOR SCHT–5S HOLDER	WEIDMULLER	1631920000	PANEL VENDOR
29	17	SCHT–5S LABEL COVER	WEIDMULLER	1631940000	PANEL VENDOR
30	210	FEED THROUGH TERMINAL BLOCK (SINGLE WDU 2.5) – 20 A, 600 V, #12–#26 AWG	WEIDMULLER	1020000000	PANEL VENDOR
31	1	FEED THROUGH TERMINAL BLOCK (SINGLE WDU 6) – 45 A, 600 V, #8–#20 AWG	WEIDMULLER	1020200000	PANEL VENDOR
32	67	FUSED TERMINAL BLOCK (WSI 6/LD) – 6.3 A, 10–36 VDC, #8–#20 AWG, LED, 5 mm X 20 mm FUSE	WEIDMULLER	1119840000	PANEL VENDOR
33	126	FUSED TERMINAL BLOCK (WSI 6/LD) – 6.3 A, 60–150 V, #8–#20 AWG, LED, 5 mm X 20 mm FUSE	WEIDMULLER	1119850000	PANEL VENDOR
34	30	TEST–DISCONNECT TERMINAL BLOCKS (WTR 2.5) – 24A, 500V, #12 – #30 AWG	WEIDMULLER	1855610000	PANEL VENDOR
35	8	TERMINAL BLOCK END CLAMPS – EW 35 FOR TS35 RAIL	WEIDMULLER	383560000	PANEL VENDOR

BILL OF MATERIALS

ITEM	QUANTITY	DESCRIPTION	MANUFACTURER	MODEL	PROVIDED BY
36	17	TERMINAL BLOCK END CLAMPS – EW 35 FOR T35 RAIL	WEIDMULLER	383560000	PANEL VENDOR
37	A/R	TERMINAL BLOCK MARKING TAGS FOR BOM ITEMS 30, 31	WEIDMULLER	1609840000	PANEL VENDOR
38	2	MININATURE ICE CUBE RELAY – 120V AC, 7A; COMPLETE WITH DIN RAIL MOUNTING BASE SOCKET	ALLEN BRADLEY	700–HC24A1; 700–HN128	PANEL VENDOR
39	4	ISOLATED BARRIER – SWITCH AMPLIFIER, 20–125 VDC, 2 CHANNELS RELAY OUTPUT (NO)	TURCK	IM1–22EX–R	PANEL VENDOR
40	1	CONTROL RELAY (TRS 5VDC 1CO) – 6A, SCREW CONNECTION	WEIDMULLER	1122740000	PANEL VENDOR
41	1	CONTROL RELAY (TRS 120VAC RC 2CO) – 8A, SCREW CONNECTION	WEIDMULLER	1123550000	PANEL VENDOR
42	1	20A CIRCUIT BREAKER – 1P, 480/277 VAC, #18 – #6 AWG, 10 kA (TYPE B BRANCH CIRCUIT)	EATON	FAZ–B20/1–NA	PANEL VENDOR
43	2	15A CIRCUIT BREAKER – 1P, 480/277 VAC, #18 – #6 AWG, 10 kA (TYPE B BRANCH CIRCUIT)	EATON	FAZ–B15/1–NA	PANEL VENDOR
44	1	AEGIS LINE FILTERS AND SURGE PROTECTORS – 120V AV, 20A	EATON	AGPH12020	PANEL VENDOR
45	1	ZELIO LOGIC COMPACT SMART RELAY, 120V AC WITH CLOCK	SCHNEIDER	SR2B201FU	PANEL VENDOR
46	1	CONNECTION CABLE FOR ZELIO RELAY	SCHNEIDER	SR2USB01	PANEL VENDOR
47	5	FLYGT MINI CAS PUMP SENSOR MONITOR, 120V AC	XYLEM	40–50 10 98	PANEL VENDOR
48	5	MOUNTING BRACKET TO MOUNT CAS ON PANEL	XYLEM	13–40 01 87	PANEL VENDOR
49	5	SOCKET 11 PINS BACK MOUNTED	XYLEM	13–40 02 00	PANEL VENDOR
50	5	30 mm FLUSH HEAD PUSHBUTTON, BLACK	ALLEN BRADLEY	800T–A2A	PANEL VENDOR
51	1	DUAL RECEPTACLE, 120V 20A, DIN RAIL SCREWED, TYPE NEMA 5–20R	PHOENIX	5600525	PANEL VENDOR
52	57	0.25 A FUSE – FAST ACTING, NON–HAZARDOUS	BUSSMANN	GMA–250–R	PANEL VENDOR
53	69	0.5 A FUSE – FAST ACTING, NON–HAZARDOUS	BUSSMANN	GMA–500–R	PANEL VENDOR
54	17	1 A FUSE – FAST ACTING, NON–HAZARDOUS	BUSSMANN	GMA–1–R	PANEL VENDOR
55	44	2 A FUSE – FAST ACTING, NON–HAZARDOUS	BUSSMANN	GMA–2–R	PANEL VENDOR
56	1	3 A FUSE – FAST ACTING, NON–HAZARDOUS	BUSSMANN	GMA–3–R	PANEL VENDOR
57	A/R	NSCH 1M ISOLATED COPPER BUSBAR c/w CLAMPING SCREW (0296700000), CLAMPING PRESSURE PIECES (0280100000) & BUS SUPPORT (299860000)	WEIDMULLER	280200000	PANEL VENDOR
58	2	CAT 6 SHIELDED NETWORK CABLE COMPLETE WITH RJ45 CONNECTORS, LENGTH AS REQUIRED.	OPEN	OPEN	PANEL VENDOR

TERMINAL STRIP BREAKDOWN

TAG#	DESCRIPTION	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(39)	(40)	(41)	(52)	(53)	(54)	(55)	(56)
1	24VDC DIST	1	1	1	16		16			1	1				11			1	1
2	SLOT 1–AI	1	1	1	8		8				1				8				
3	SLOT 2–AI	1	1	1	8		8				1				8				
4	SLOT 3–RTD	1	1	1	6		6				1				6				
5	SLOT 5–AO	1	1	1	8		8				1				8				
6	SLOT 10–DI	1	1	1	16		16				1		1		16				
7	CAS SENSORS (CS)	1	1	1	10						1								
8	BUC 24VDC	1	1	1	10		5			1	1					5			
9	SLOT 6–DI	1	1	1	16			16		1	1					16			
10	SLOT 7–DI	1	1	1	16			16			1					16			
11	SLOT 8–DI	1	1	1	16			16			1					16			
12	SLOT 9–DI	1	1	1	16			16		1	1					16			
13	SLOT 11–DO	1	1	1	16			16		1	1			1			16		
14	SLOT 12–RO	1	1	1	16			16		1	1							16	
15	120VAC	1	1	1	32	1		30		1	1						1	27	
16	BUC 120VAC	1	1	1					18		1								
17	G–120	1	1	1					12	1	1								
18	IS RELAY ISOLATOR	1	1	1								4							

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
CRPS-I-101	CP-100 PANEL LAYOUT	1

NOTES:

1. PANEL VENDOR TO PROVIDE MINIMUM FIVE (5) SPARE FUSES FOR EACH BOM ITEM 52–56.

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DRAWING SIZE:	ANSI "D"	CHKD: JAK	DATE: 21/03/03
SCALE:	AS NOTED	APVD: BDH	DATE: 21/03/08

PROJECT:

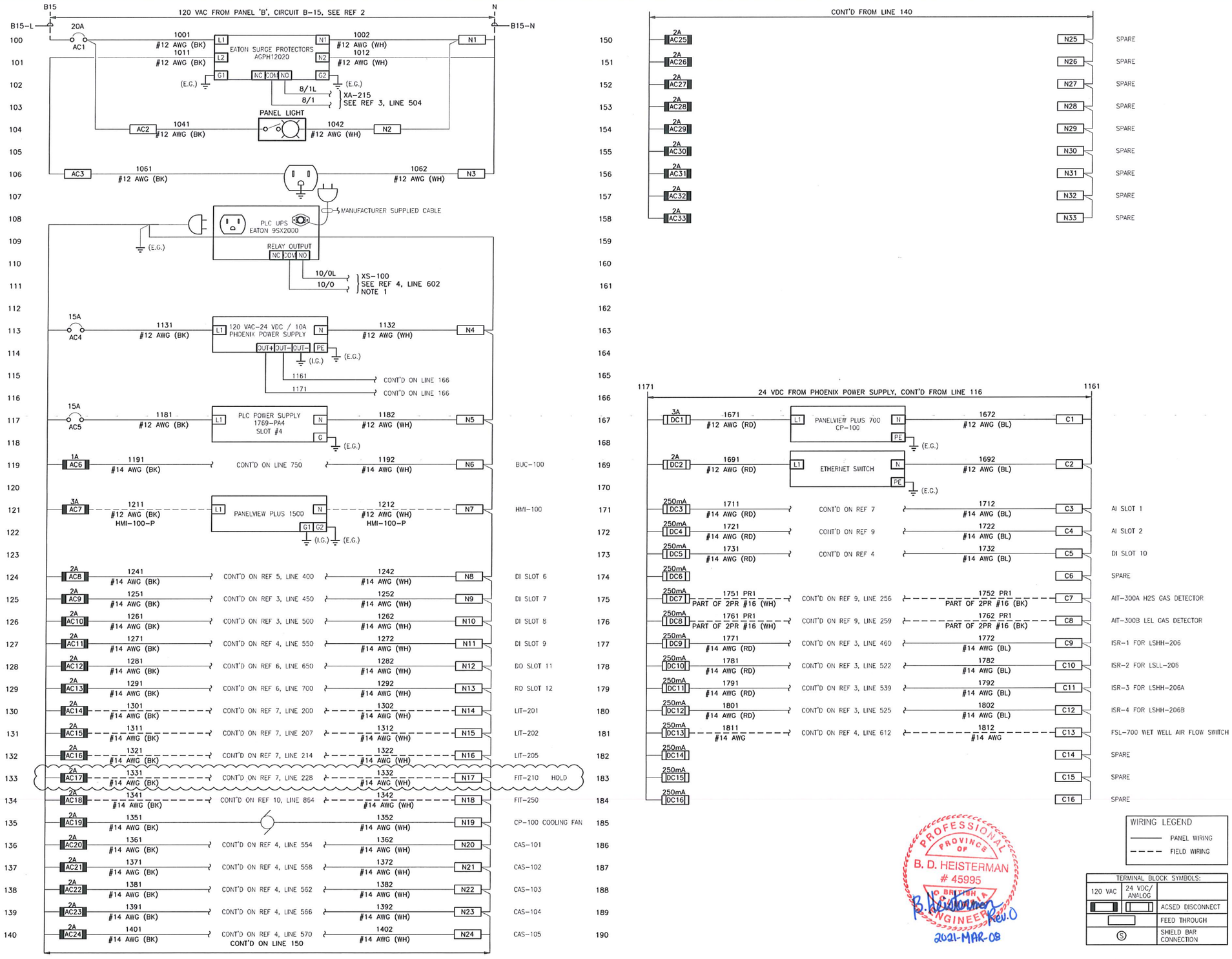
CHASE RIVER PUMP STATION UPGRADE

TITLE:

CP-100 BILL OF MATERIAL

DWG NO: **CRPS-I-102** REV: **0**

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REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
CRPS-E-110	E/I/C FIELD WIRING BLOCK DIAGRAM	1
CRPS-E-106	MCC LAYOUT, SCHEDULES AN DETAILS	2
CRPS-I-108	CP-100 SLOT 7&8 DISCRETE INPUT	3
CRPS-I-109	CP-100 SLOT 9&10 DISCRETE INPUT	4
CRPS-I-108	CP-100 SLOT 5&6 DISCRETE INPUT	5
CRPS-I-110	CP-100 SLOT 11&12 OUTPUTS	6
CRPS-I-105	CP-100 SLOT 1 ANALOG INPUT	7
CRPS-I-101	CP-100 PANEL LAYOUT	8
CRPS-I-106	CP-100 SLOT 2&3 INPUTS	9
CRPS-I-112	GATE CONTROL SCHEMATICS	10

NOTES:

1. UPS RELAY OUTPUT SIGNAL CAN BE CONFIGURED FOR EATON MODEL 9SX2000. CHOOSE EVENTS THAT WILL TRIGGER THIS ALARM THROUGH THE LCD. REFER TO USER MANUAL FOR MORE INFORMATION.

FABRICATION NOTES:

F1. ALL WIRES TO BE LABELED AT BOTH ENDS.

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SCALE:	NTS	APVD: BDH	DATE: 21/03/08

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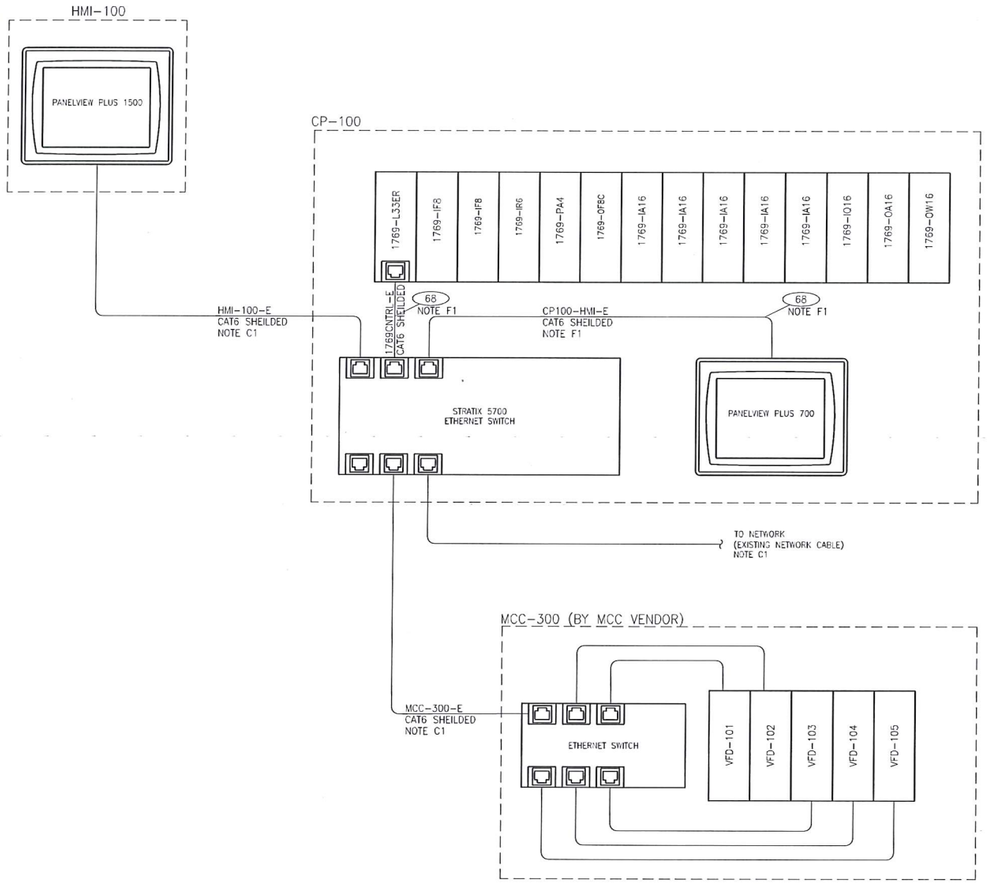
CHASE RIVER PUMP STATION UPGRADE

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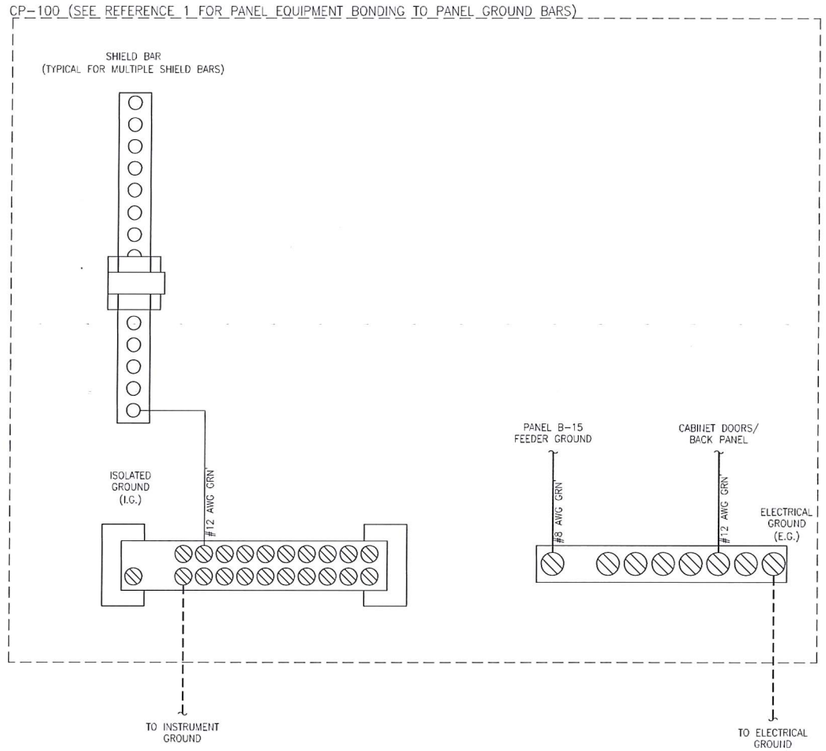
CP-100 POWER DISTRIBUTION

DWG NO:	REV:
CRPS-I-103	0

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NETWORK CONNECTIONS
SCALE: NTS



PANEL EQUIPMENT GROUNDING
SCALE: NTS

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REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
CRPS-I-103	CP-100 POWER DISTRIBUTION	1
CRPS-I-102	CP-100 BILL OF MATERIAL	2

FABRICATION NOTES:

F1. PANEL VENDOR TO INSTALL CAT 6 CABLE COMPLETE WITH CABLE TAGS. SEE REFERENCE 2 FOR DETAILS.

CONSTRUCTION NOTES:

C1. CONTRACTOR TO INSTALL, TAG, AND TERMINATE NETWORK CABLE.

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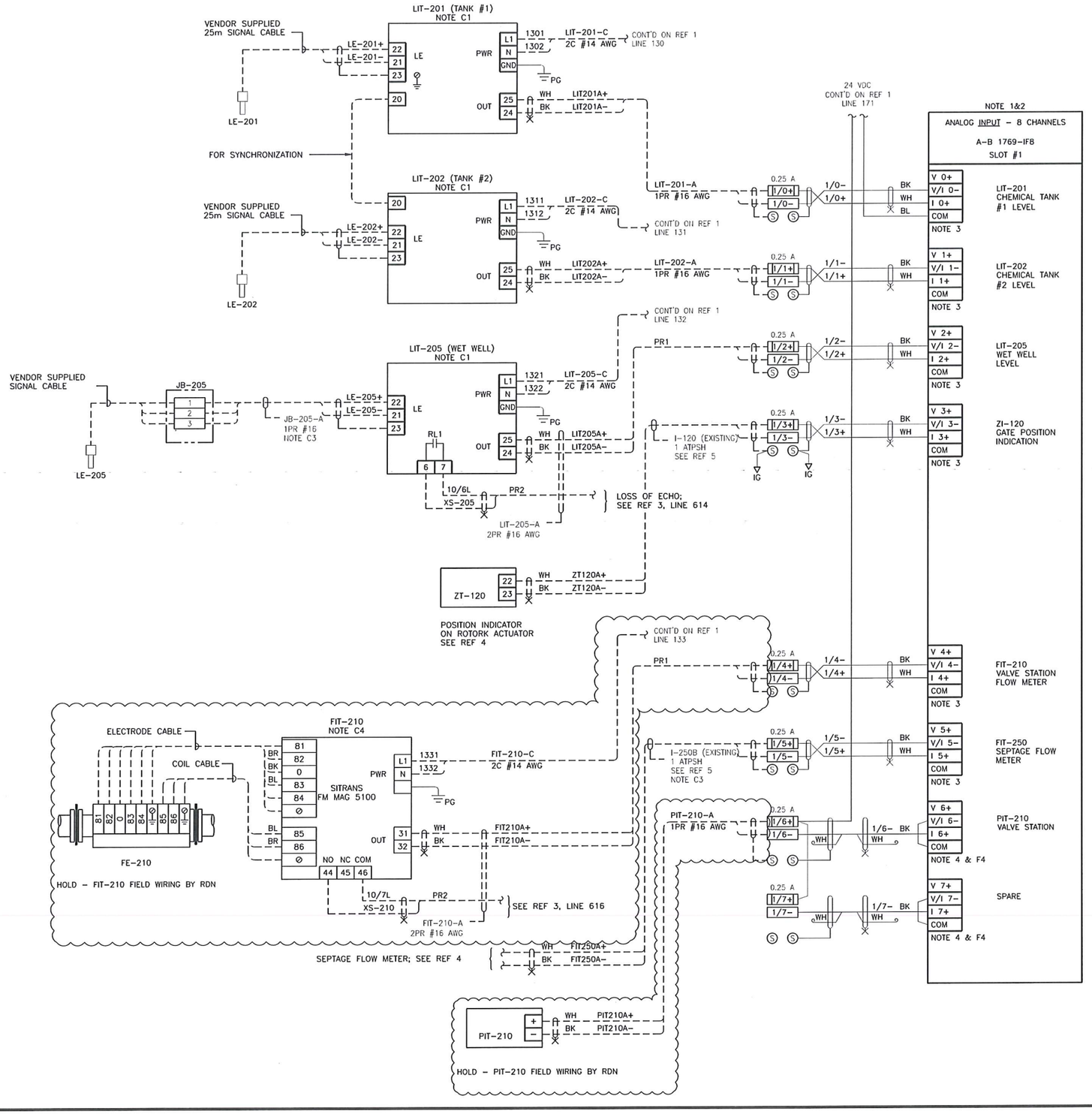
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SCALE:	AS NOTED	APVD:	BDH	DATE:	21/03/08

PROJECT:
CHASE RIVER PUMP STATION UPGRADE

TITLE:
CP-100 GENERAL SCHEMATICS

DWG NO: **CRPS-I-104**
REV: **0**

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REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
CRPS-I-103	CP-100 POWER DISTRIBUTION	1
CRPS-I-108	CP-100 SLOT 7&8 DISCRETE INPUT	2
CRPS-I-109	CP-100 SLOT 9&10 DISCRETE INPUT	3
CRPS-I-112	GATE CONTROL SCHEMATICS	4
CRPS-E-110	FIELD WIRING BLOCK DIAGRAM	5

NOTES:

1. ALL MODULE COMMONS (ANALOG COMMON) ARE CONNECTED IN THE ANALOG MODULE.
2. THE 1769-IF8 MODULE DOES NOT PROVIDE LOOP POWER FOR ANALOG INPUTS.
3. CURRENT OUTPUT IS FIELD POWERED FROM TRANSMITTER.
4. 2-WIRE LOOP POWERED DEVICE.

FABRICATION NOTES:

F1. ALL PANEL ANALOG WIRING TO BE #18 AWG UNLESS OTHERWISE SPECIFIED.
F2. ALL WIRES TO BE LABELED AT BOTH ENDS.
F3. INSTALL JUMPER BETWEEN AI MODULE TERMINALS I X+ AND COM.
F4. COIL AND TAPE SPARE WHITE CONDUCTOR.

CONSTRUCTION NOTES:

C1. EXISTING PANEL MOUNT TRANSMITTERS REPLACED WITH NEW WALL MOUNT TRANSMITTERS IN ELECTRICAL ROOM. INSTALL, TAG AND TERMINATE NEW CABLES FROM TRANSMITTERS TO CP-100.
C2. EXISTING CABLES/CONDUIT FOR LE-201/202 TO BE RE-ROUTED FROM CP-100 TO NEW LIT-201/202 WALL-MOUNT TRANSMITTERS.
C3. NEW TECK CABLE TO BE INSTALLED FROM JB-205 TO LIT-205.
C4. NEW FIT-210 INSTALLED ON VALVE STATION PACKAGE.

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SCALE:	NTS	APVD: BDH	DATE: 21/03/08

PROJECT:

CHASE RIVER PUMP STATION UPGRADE

TITLE:

CP-100 SLOT 1 ANALOG INPUT

DWG NO: **CRPS-I-105** REV: **0**

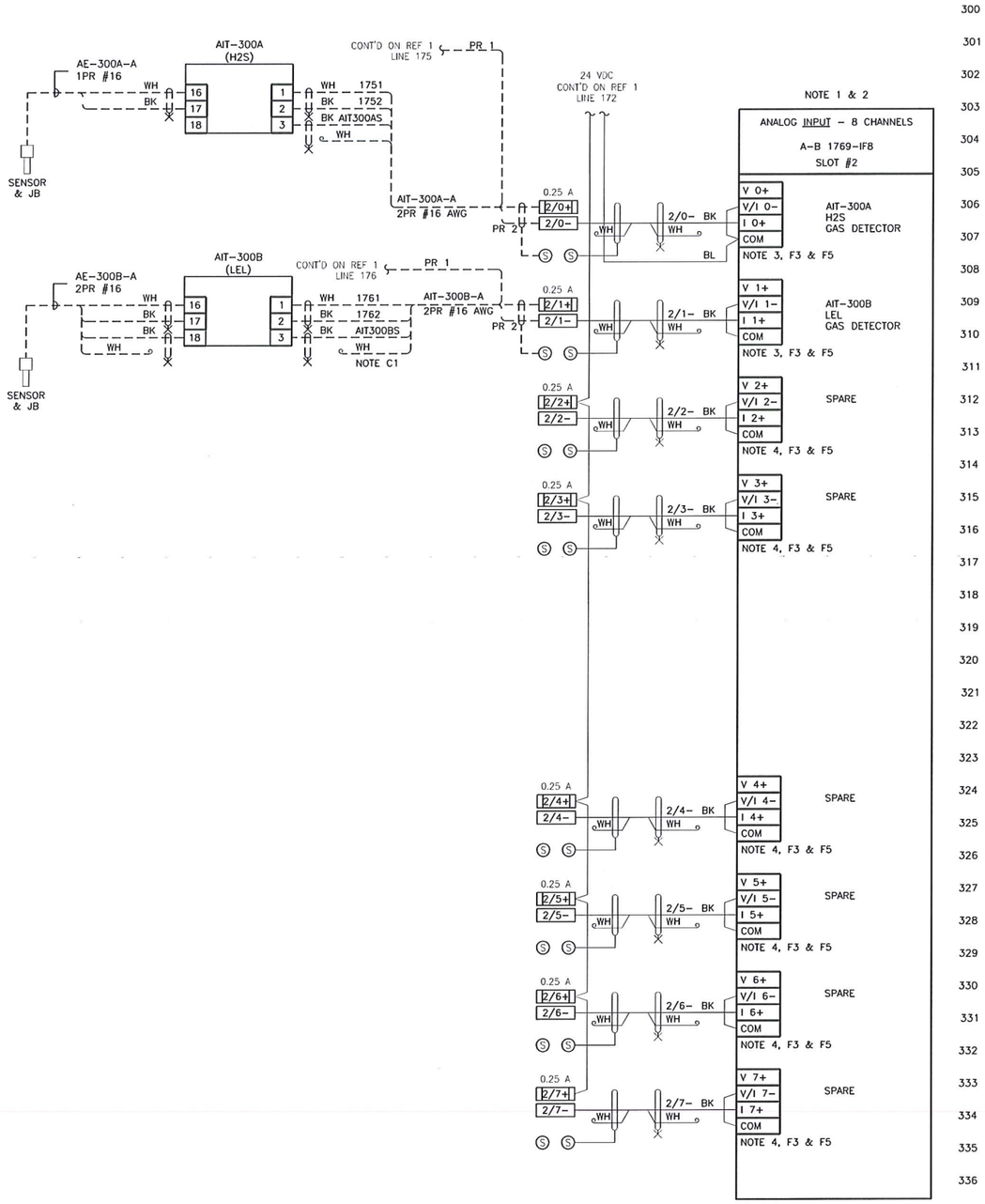
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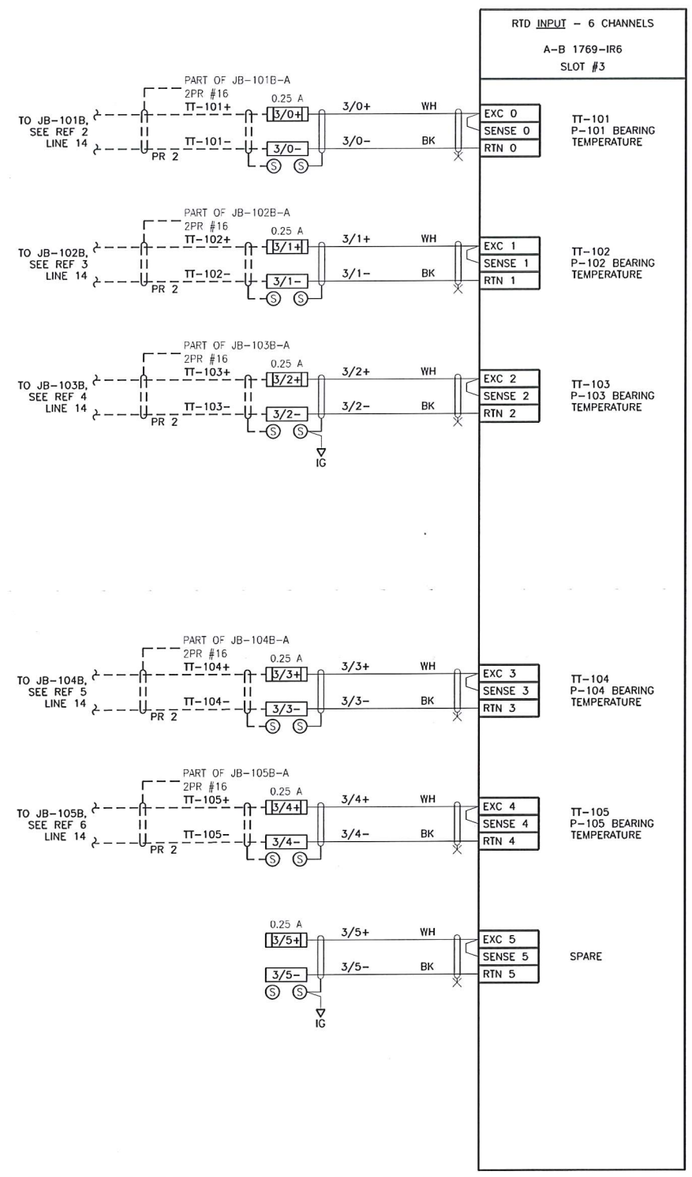
WIRING LEGEND

PANEL WIRING
FIELD WIRING

TERMINAL BLOCK SYMBOLS:		
120 VAC	24 VDC/ ANALOG	
		FUSED DISCONNECT
		FEED THROUGH
		SHIELD BAR CONNECTION

Date: 2021/03/07 9:56 PM | User: Ava Fu | File: P:\NAI\2020\2003251 RDN-Chase River Pump Stn Upgrades\1000-Dwgs\1017-Instr\01-Production\CRPS-I-105 | Layout: REV 0 | Paper Size: 863.6mm x 558.8mm







WIRING LEGEND

———	PANEL WIRING
- - - -	FIELD WIRING

TERMINAL BLOCK SYMBOLS:

120 VAC	24 VDC/ ANALOG	
▮	▯	FUSED DISCONNECT
		FEED THROUGH
Ⓢ		SHIELD BAR CONNECTION

REFERENCE DRAWINGS

DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
CRPS-I-103	CP-100 POWER DISTRIBUTION	1
CRPS-E-011	P-101 SCHEMATIC DIAGRAM	2
CRPS-E-012	P-102 SCHEMATIC DIAGRAM	3
CRPS-E-013	P-103 SCHEMATIC DIAGRAM	4
CRPS-E-014	P-104 SCHEMATIC DIAGRAM	5
CRPS-E-015	P-105 SCHEMATIC DIAGRAM	6

NOTES:

1. ALL MODULE COMMONS (ANALOG COMMON) ARE CONNECTED IN THE ANALOG MODULE.
2. THE 1769-IF8 MODULE DOES NOT PROVIDE LOOP POWER FOR ANALOG INPUTS.
3. 3-WIRE SOURCING TRANSMITTER.
4. 2-WIRE LOOP POWERED DEVICE.

FABRICATION NOTES:

F1. ALL PANEL ANALOG WIRING TO BE #18 AWG UNLESS OTHERWISE SPECIFIED.
F2. ALL WIRES TO BE LABELED AT BOTH ENDS.
F3. INSTALL JUMPER BETWEEN AI MODULE TERMINALS I X+ AND COM.
F4. FOR 2-WIRE RTD INSTALL JUMPER BETWEEN MODULE TERMINALS EXC AND SENSE.
F5. COIL AND TAPE SPARE WHITE CONDUCTOR.

CONSTRUCTION NOTES:

C1. COIL AND TAPE SPARE WHITE CONDUCTOR.

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DRAWING SIZE:	ANSI "D"	CHKD: JAK	DATE: 21/03/03
SCALE:	NTS	APVD: BDH	DATE: 21/03/08

PROJECT:

CHASE RIVER PUMP STATION UPGRADE

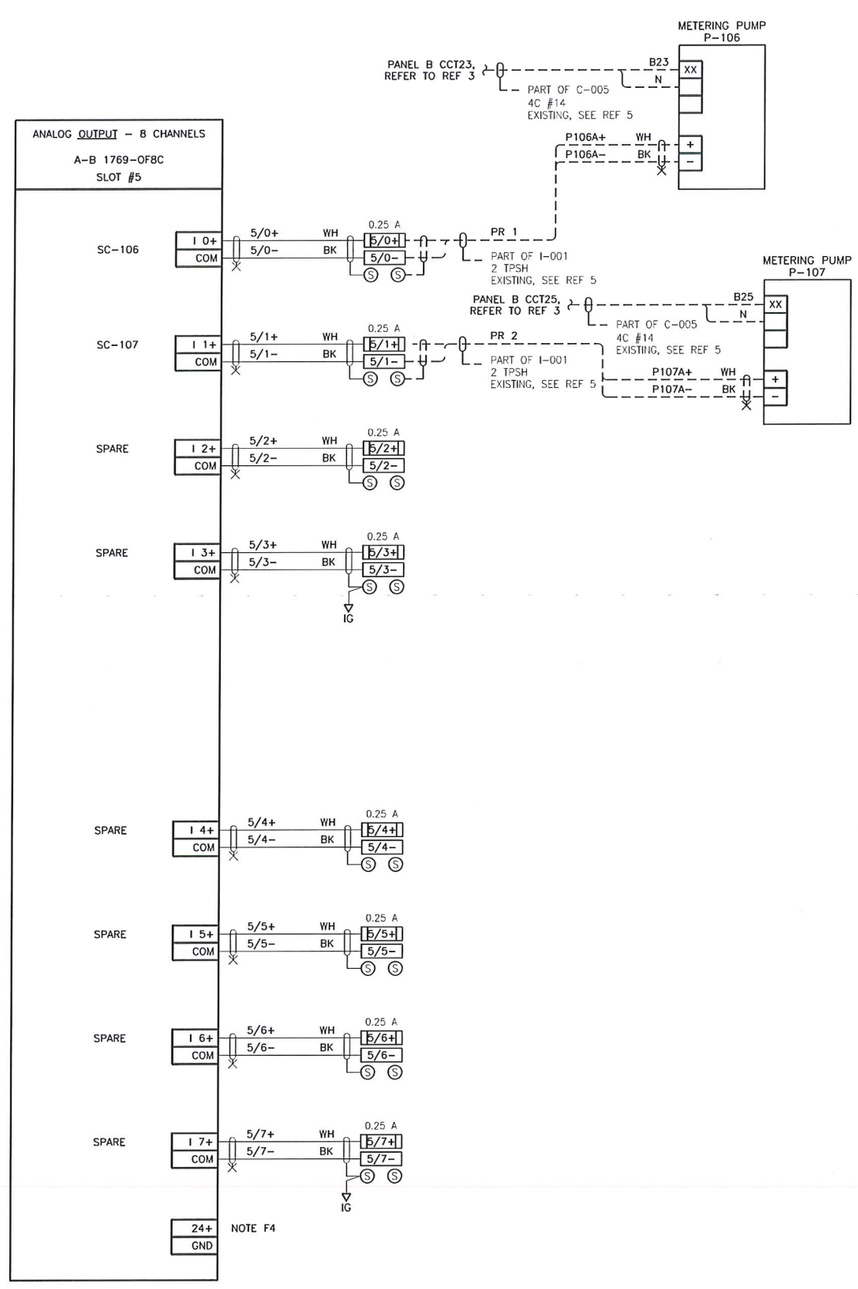
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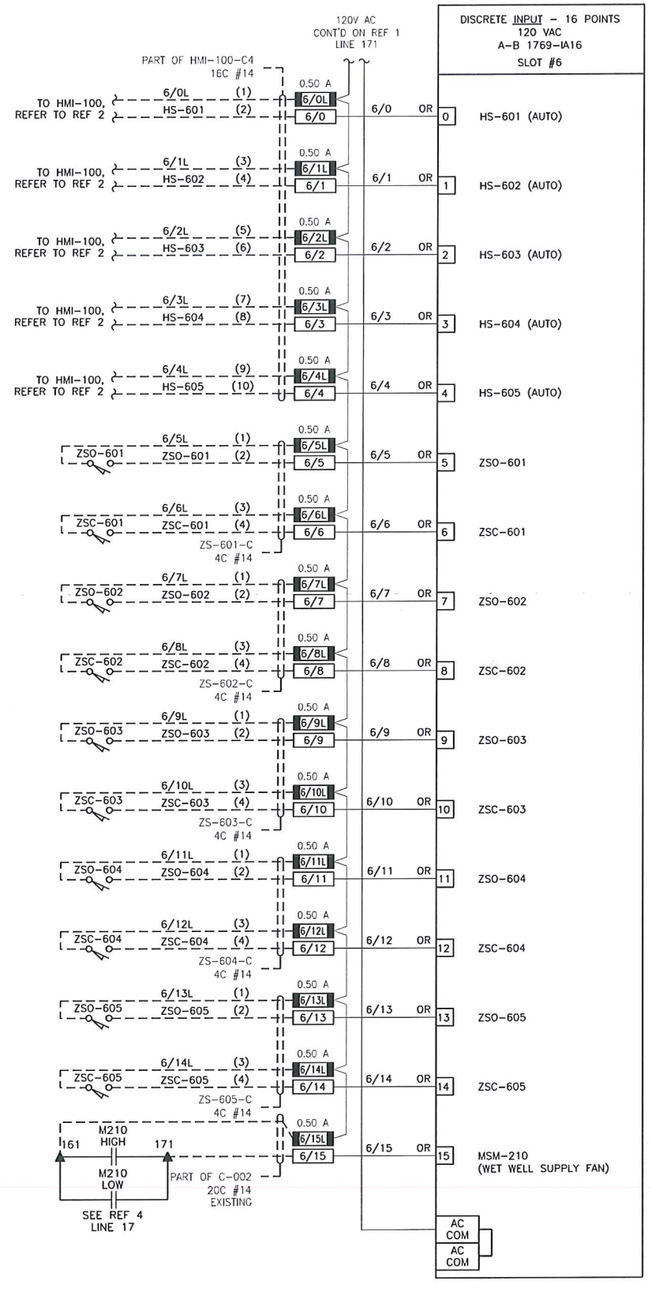
CP-100 SLOT 2 & 3 ANALOG & RTD INPUT

DWG NO: **CRPS-I-106**

REV: **0**

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REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
CRPS-I-104	CP-100 POWER DISTRIBUTION	1
CRPS-I-123	HMI-100 WIRING DIAGRAM	2
CRPS-E-106	MCC LAYOUTS, SCHEDULES AND DETAILS	3
CRPS-E-107	ELECTRICAL CONTROL SCHEMATICS	4
CRPS-E-110	FIELD WIRING BLOCK DIAGRAM	5

NOTES:

FABRICATION NOTES:

F1. ALL PANEL ANALOG WIRING TO BE #18 AWG UNLESS OTHERWISE SPECIFIED.
F2. ALL PANEL DISCRETE WIRING TO BE #16 AWG UNLESS OTHERWISE SPECIFIED.
F3. ALL WIRES TO BE LABELED AT BOTH ENDS.
F4. ENSURE THE 1769-OF8C AO CARD BUS POWER SWITCH IS PRESSED TO THE TOP POSITION (DEFAULT) FOR 24V POWER FROM THE 1769 SYSTEM POWER SUPPLY VIA THE I/O BUS.

CONSTRUCTION NOTES:

C1. FIELD CABLES FOR VALVE LIMIT SWITCHES ZSO/ZSC ARE CURRENTLY TERMINATED TO MCC-200. CONTRACTORS SHALL INSTALL NEW FIELD CABLES FROM CP-100 TO ZSO/ZSC-601,602,603,604 AND 605.

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PROVINCE OF BRITISH COLUMBIA
B. D. HEISTERMAN
45995
Rev.0
2021-MAR-08

WIRING LEGEND
PANEL WIRING
FIELD WIRING

TERMINAL BLOCK SYMBOLS:		
120 VAC	24 VDC/ ANALOG	
		FUSED DISCONNECT
		FEED THROUGH
		MCC-100 TERMINAL
		SHIELD BAR CONNECTION

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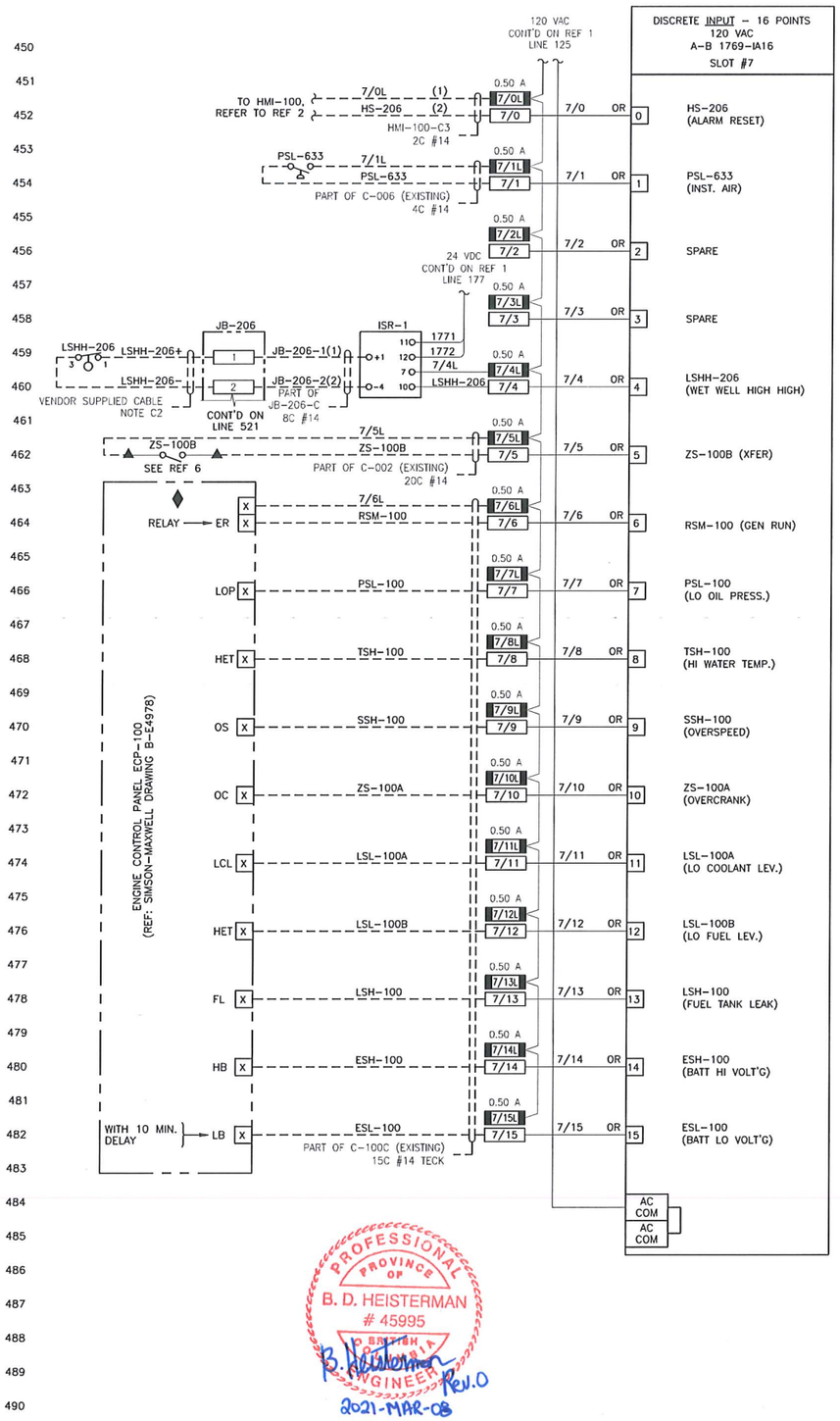
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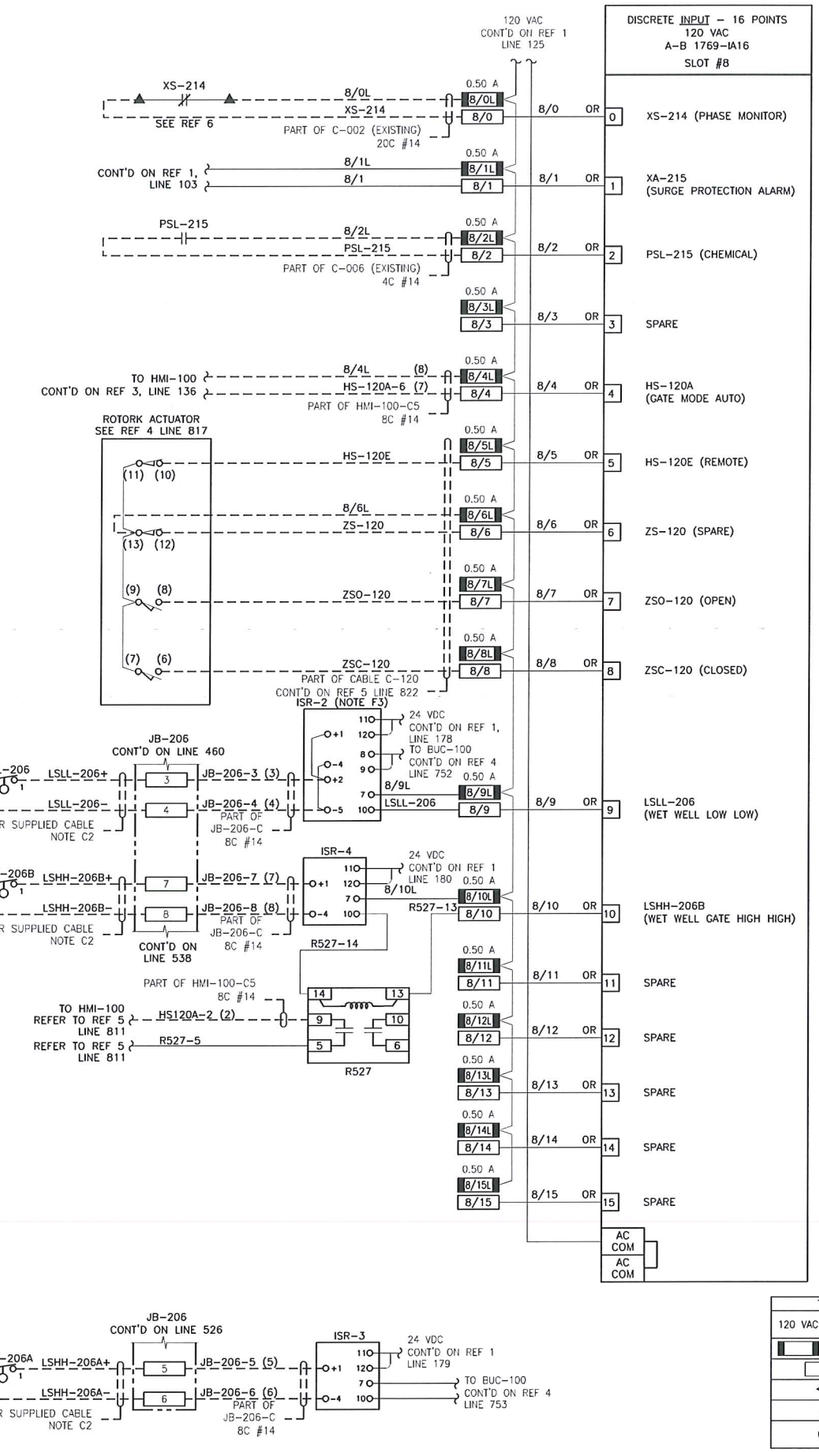
PROJECT:
CHASE RIVER PUMP STATION UPGRADE

TITLE:
CP-100 SLOT 5 & 6 ANALOG OUTPUT & DISCRETE INPUT

DWG NO: **CRPS-I-107** REV: **0**

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WIRING LEGEND
- PANEL WIRING
- FIELD WIRING

TERMINAL BLOCK SYMBOLS:

120 VAC	24 VDC/ ANALOG	
		FUSED DISCONNECT
		FEED THROUGH
		ECP-100 TERMINAL
		MCC-100 TERMINAL
		SHIELD BAR CONNECTION

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REFERENCE DRAWINGS

DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
CRPS-I-104	CP-100 POWER DISTRIBUTION	1
CRPS-I-105	CP-100 ANALOG INPUT	2
CRPS-I-123	HMI-100 WIRING	3
CRPS-I-111	BUC-100 WIRING	4
CRPS-I-112	GATE CONTROL WIRING	5
CRPS-E-105	SINGLE LINE DIAGRAM	6

NOTES:

FABRICATION NOTES:

F1. ALL PANEL DISCRETE WIRING TO BE #16 AWG UNLESS OTHERWISE SPECIFIED.
F2. ALL WIRES TO BE LABELED AT BOTH ENDS.
F3. JUMPER TO BE INSTALLED BETWEEN ISR-2 CHANNEL 1 AND 2 INPUT.

CONSTRUCTION NOTES:

C1. CABLE SUPPLIED WITH NEW LEVEL SWITCH, CABLE TO BE ROUTED IN METAL CONDUIT TO JB-206.

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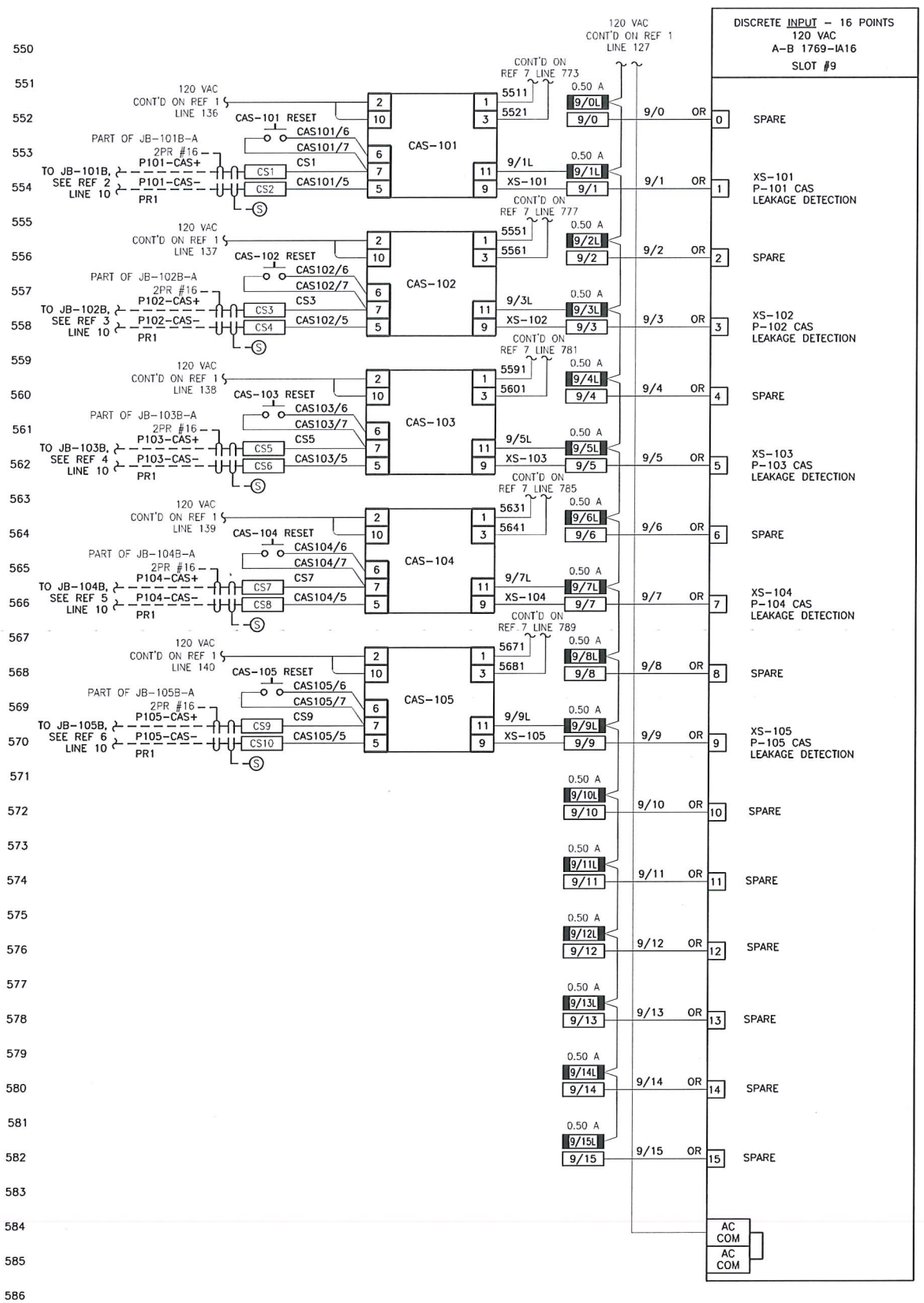
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SCALE:	AS NOTED	APVD: BDH	DATE: 21/03/08

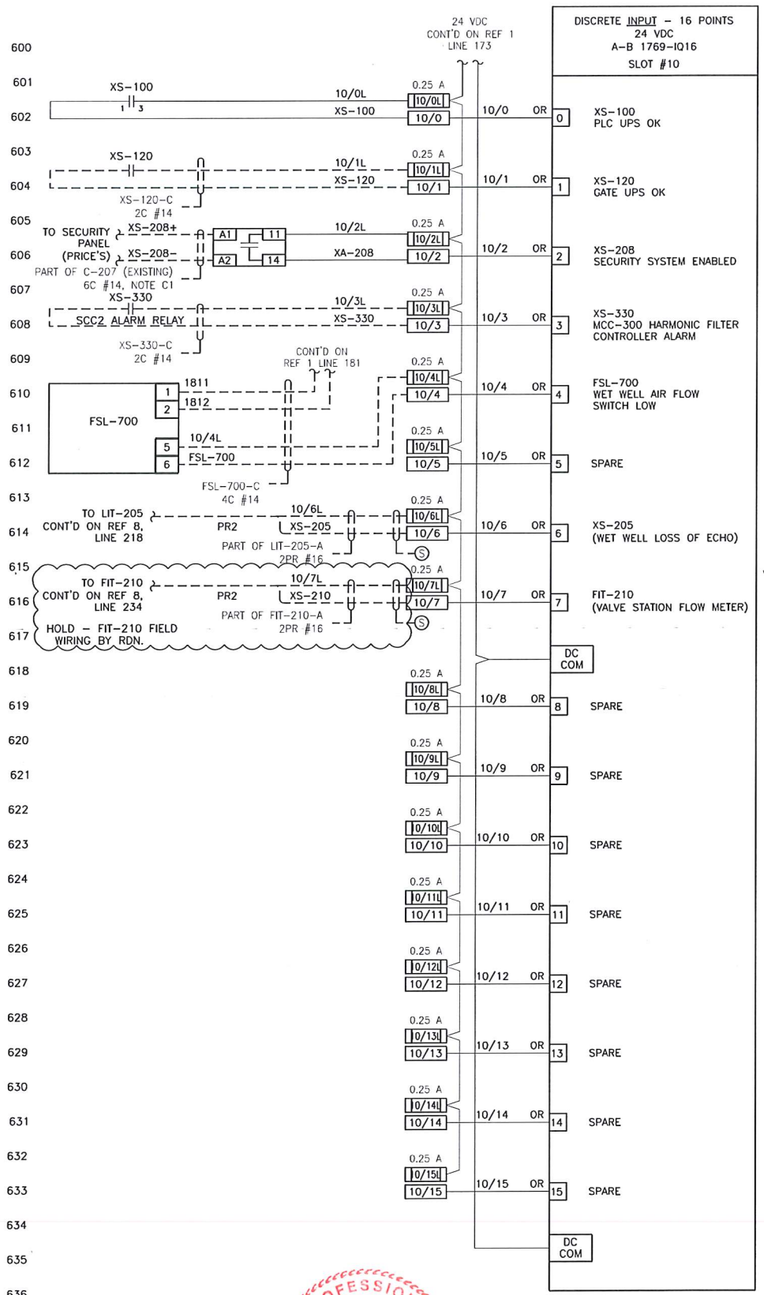
PROJECT:
CHASE RIVER PUMP STATION UPGRADE

TITLE:
CP-100 SLOT 7 & 8 DISCRETE INPUT

DWG NO: **CRPS-I-108**
REV: **0**

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WIRING LEGEND
- PANEL WIRING
- FIELD WIRING

TERMINAL BLOCK SYMBOLS:

120 VAC	24 VDC/ ANALOG	
		FUSED DISCONNECT
		FEED THROUGH
		MCC–100 TERMINAL
		SHIELD BAR CONNECTION

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B. Heisterman Rev.0
2021-MAR-08

REFERENCE DRAWINGS

DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
CRPS-I-104	CP-100 POWER DISTRIBUTION	1
CRPS-E-011	P-101 SCHEMATIC DIAGRAM	2
CRPS-E-012	P-102 SCHEMATIC DIAGRAM	3
CRPS-E-013	P-103 SCHEMATIC DIAGRAM	4
CRPS-E-014	P-104 SCHEMATIC DIAGRAM	5
CRPS-E-015	P-105 SCHEMATIC DIAGRAM	6
CRPS-I-111	BUC-100 SCHEMATIC	7
CRPS-I-105	CP-100 SLOT 1 ANALOG INPUT	8

NOTES:

FABRICATION NOTES:

F1. ALL PANEL DISCRETE WIRING TO BE #16 AWG UNLESS OTHERWISE SPECIFIED.
F2. ALL WIRES TO BE LABELLED AT BOTH ENDS.

CONSTRUCTION NOTES:

C1. USE EXISTING CONDUCTOR IN CONDUIT TO SECURITY ALARM PANEL (PRINCE'S). IF EXISTING CONDUCTORS ARE NOT AVAILABLE CONTRACTOR TO RUN NEW CONDUCTOR IN EXISTING CONDUIT.

ISSUED FOR
CONSTRUCTION
Date: 2021/03/08

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0	21/03/08	ISSUED FOR CONSTRUCTION	AF	BDH	BDH

CLIENT: REGIONAL DISTRICT OF NANAIMO

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CLIENT NO:	-	DRWN: AF	DATE: 20/12/21
PROJECT NO:	2003251	DSGN: AF	DATE: 20/12/21
DRAWING SIZE:	ANSI "D"	CHKD: JAK	DATE: 21/03/03
SCALE:	AS NOTED	APVD: BDH	DATE: 21/03/08

PROJECT:

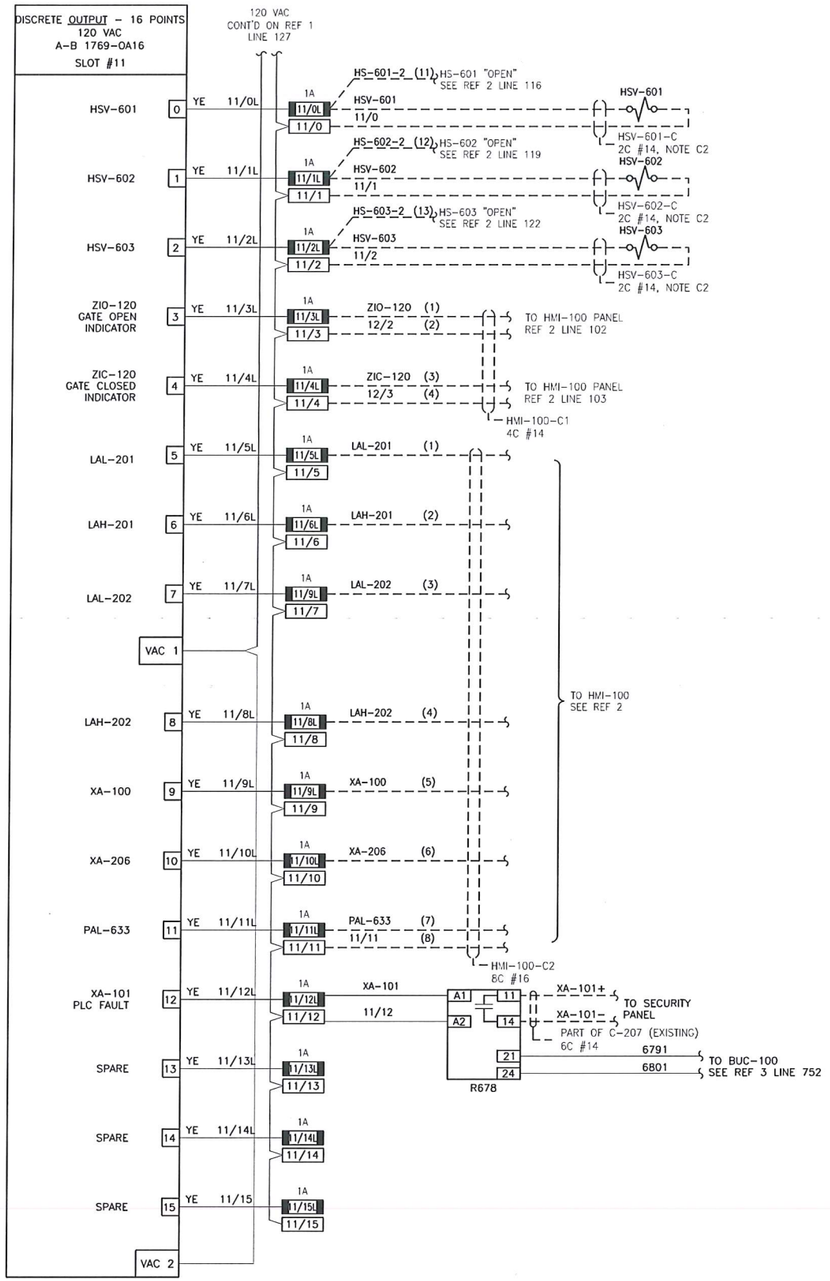
CHASE RIVER PUMP STATION UPGRADE

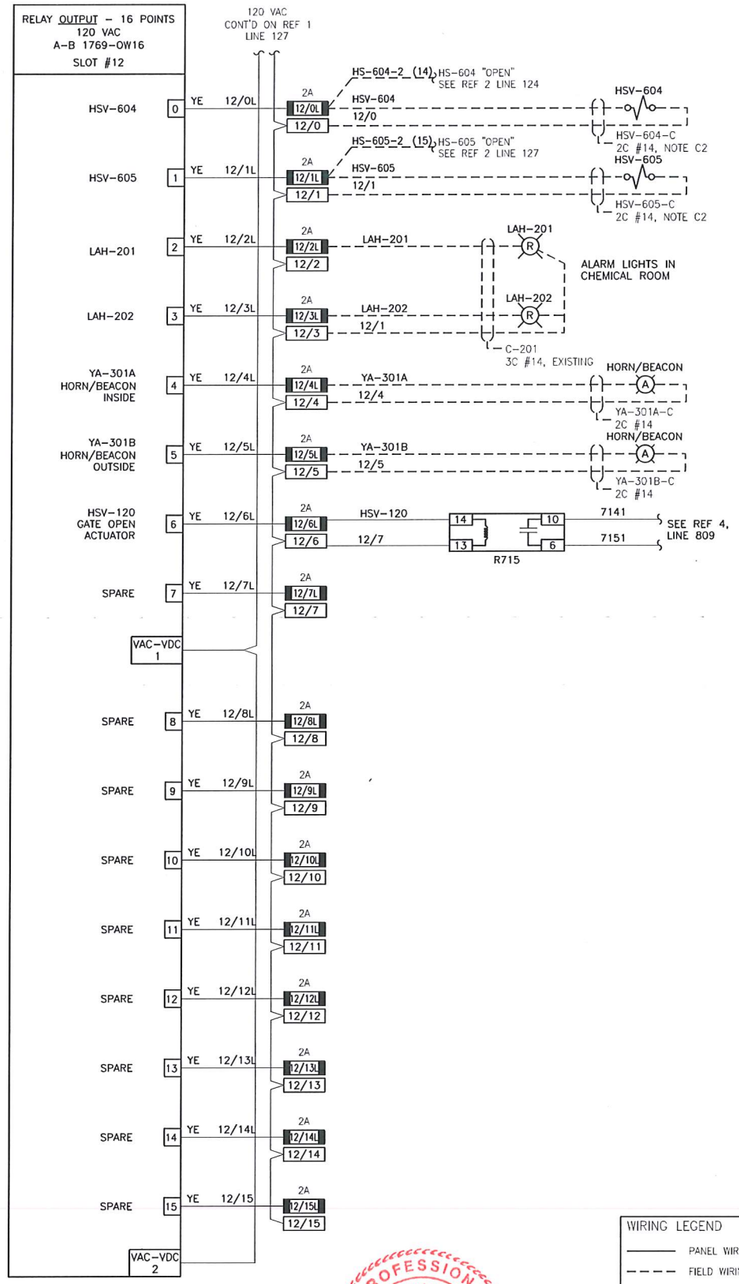
TITLE:

CP-100 SLOT 9 &10 DISCRETE INPUT

DWG NO: **CRPS-I-109** REV: **0**

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REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
CRPS-I-104	CP-100 POWER DISTRIBUTION	1
CRPS-I-123	HMI-100 PANEL SCHEMATICS	2
CRPS-I-111	BUC-100 SCHEMATICS	3
CRPS-I-112	GATE CONTROL SCHEMATICS	4

NOTES:

FABRICATION NOTES:

F1. ALL PANEL DISCRETE WIRING TO BE #16 AWG UNLESS OTHERWISE SPECIFIED.
F2. ALL WIRES TO BE LABELED AT BOTH ENDS.

CONSTRUCTION NOTES:

C1. USE EXISTING CONDUCTOR IN CONDUIT TO SECURITY ALARM PANEL (PRICE'S). IF EXISTING CONDUCTORS ARE NOT AVAILABLE CONTRACTOR TO RUN NEW CONDUCTOR IN EXISTING CONDUIT.
C2. FIELD CABLES FOR VALVES HSV-601, 602, 603, 604, 605 ARE CURRENTLY TERMINATED TO MCC-200. CONTRACTOR TO INSTALL NEW FIELD CABLES FROM CP-100 TO HSV-601, 602, 603, 604 AND 605.

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PROJECT NO:	2003251	DSGN: AF	DATE: 20/12/12
DRAWING SIZE:	ANSI "D"	CHKD: JAK	DATE: 21/03/03
SCALE:	AS NOTED	APVD: BDH	DATE: 21/03/08

PROJECT:

CHASE RIVER PUMP STATION UPGRADE

TITLE:

CP-100 SLOT 11 & 12 DISCRETE & RELAY OUTPUT

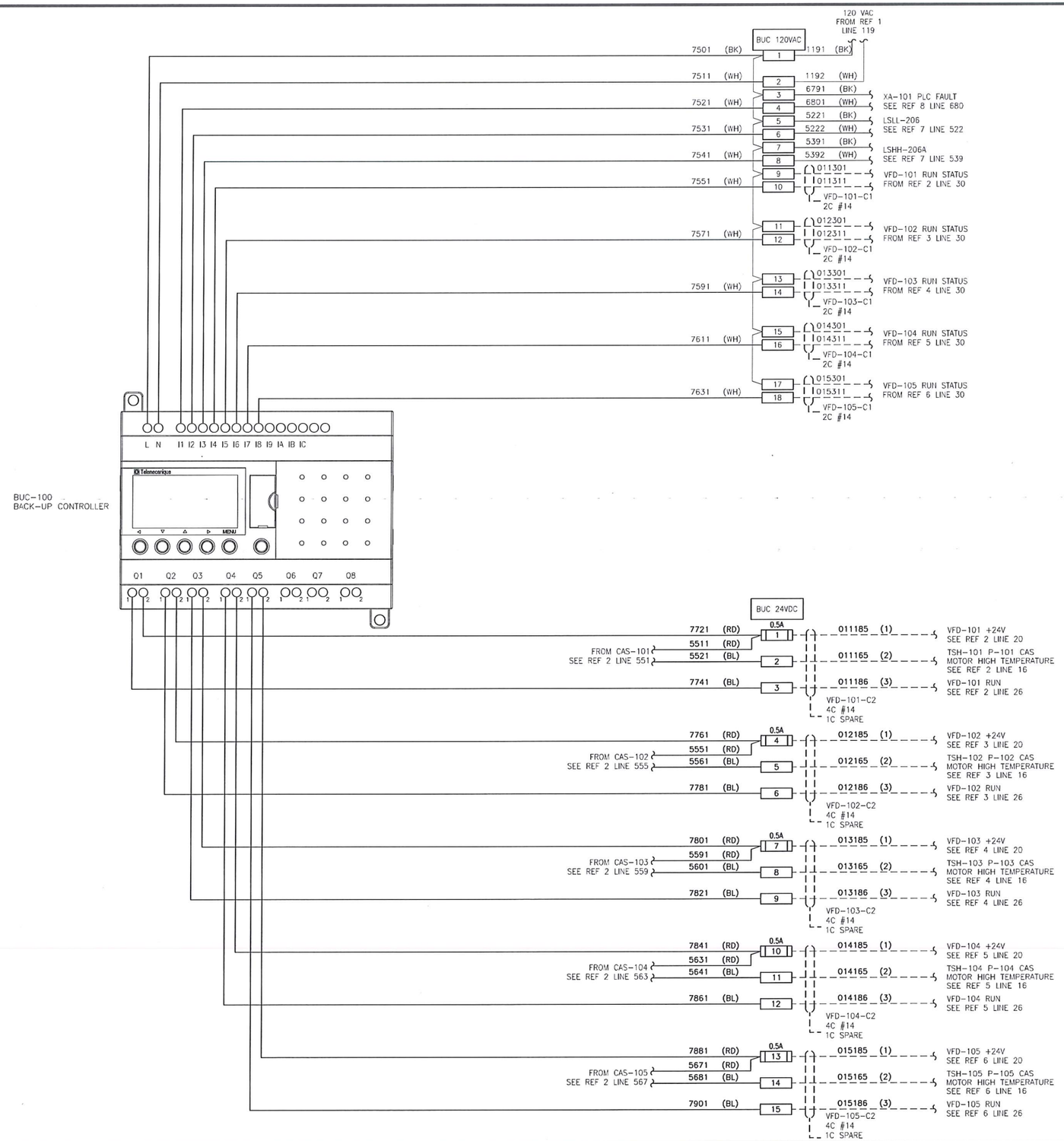
DWG NO:	REV:
CRPS-I-110	0

WIRING LEGEND
PANEL WIRING
FIELD WIRING

TERMINAL BLOCK SYMBOLS:		
120 VAC	24 VDC/ ANALOG	
		FUSED DISCONNECT
		FEED THROUGH
		MCC-100 TERMINAL
		SHIELD BAR CONNECTION

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REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
CRPS-I-103	CP-100 POWER DISTRIBUTION	1
CRPS-E-011	P-101 SCHEMATIC DIAGRAM	2
CRPS-E-012	P-102 SCHEMATIC DIAGRAM	3
CRPS-E-013	P-103 SCHEMATIC DIAGRAM	4
CRPS-E-014	P-104 SCHEMATIC DIAGRAM	5
CRPS-E-015	P-105 SCHEMATIC DIAGRAM	6
CRPS-I-108	CP-100 SLOT 7&8 DIGITAL INPUT	7
CRPS-I-110	CP-100 DISCRETE & RELAY OUTPUT	8

NOTES:

1. BACK-UP CONTROLLER ACTIVATED BY PLC FAULT ALARM (XA-101) OR LSHH-206A.

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SCALE:	AS NOTED	APVD:	BDH	DATE:	21/03/08

PROJECT:

CHASE RIVER PUMP STATION UPGRADE

TITLE:

CP-100 BACK-UP CONTROLLER SCHEMATIC DIAGRAM

DWG NO: **CRPS-I-111** REV: **0**

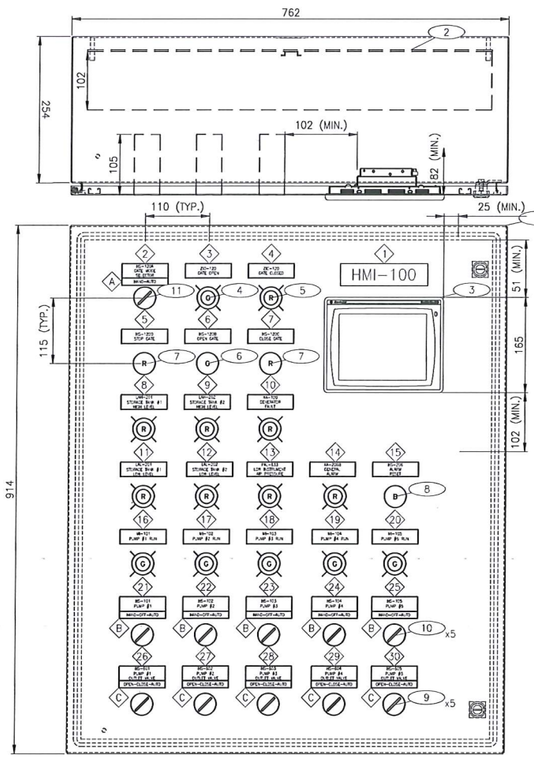
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WIRING LEGEND
PANEL WIRING
FIELD WIRING

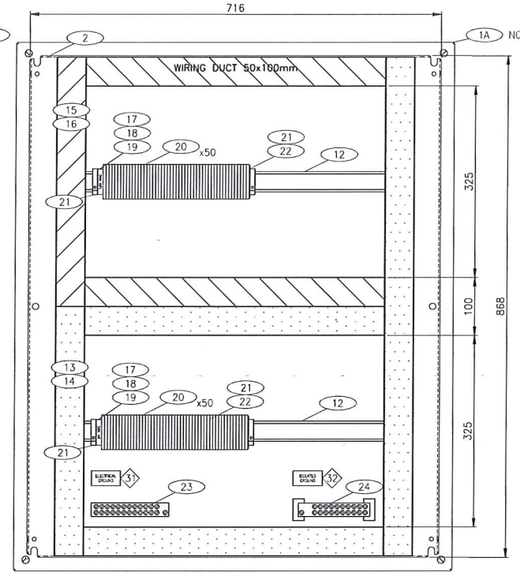
TERMINAL BLOCK SYMBOLS:

120 VAC	24 VDC/ ANALOG	
		FUSED DISCONNECT
		FEED THROUGH
		MCC-100 TERMINAL
		SHIELD BAR CONNECTION

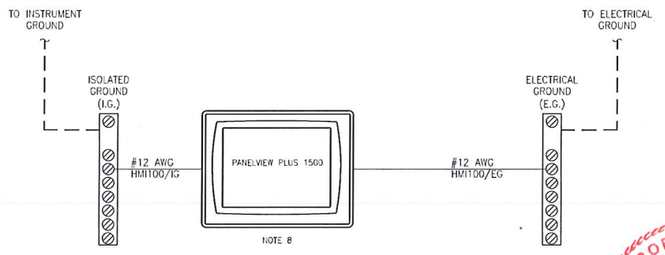
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FRONT VIEW – DOOR CLOSED
SCALE: 1:5



FRONT VIEW – DOOR REMOVED
SCALE: 1:5



GROUNDING DETAIL
SCALE: NTS

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LAMACOIDS				
TAG #	TAG	COLOR	LAMACOID SIZE	TEXT HEIGHT
1	HMI-100	BLACK ON WHITE	7" x 2-1/2"	3/4" / 3/8"
2	HS-120A/GATE MODE SELECTOR	BLACK ON WHITE	1" x 3"	3/16"
3	ZIO-120/ GATE OPEN	BLACK ON WHITE	1" x 3"	3/16"
4	ZIC-120/GATE CLOSED	BLACK ON WHITE	1" x 3"	3/16"
5	HS-120D/STOP GATE	BLACK ON WHITE	1" x 3"	3/16"
6	HS-120B/OPEN GATE	BLACK ON WHITE	1" x 3"	3/16"
7	HS-120C/CLOSE GATE	BLACK ON WHITE	1" x 3"	3/16"
8	LAH-201/STORAGE TANK #1 HIGH LEVEL	BLACK ON WHITE	1" x 3"	3/16"
9	LAH-202/STORAGE TANK #2 HIGH LEVEL	BLACK ON WHITE	1" x 3"	3/16"
10	XA-100/GENERATOR FAULT	BLACK ON WHITE	1" x 3"	3/16"
11	LAL-201/STORAGE TANK #1 LOW LEVEL	BLACK ON WHITE	1" x 3"	3/16"
12	LAL-202/STORAGE TANK #2 LOW LEVEL	BLACK ON WHITE	1" x 3"	3/16"
13	PAL-633/LOW INSTRUMENT AIR PRESSURE	BLACK ON WHITE	1" x 3"	3/16"
14	XA-206B/GENERAL ALARM	BLACK ON WHITE	1" x 3"	3/16"
15	HS-206/ALARM RESET	BLACK ON WHITE	1" x 3"	3/16"
16	MI-101/PUMP #1 RUN	BLACK ON WHITE	1" x 3"	3/16"
17	MI-102/PUMP #2 RUN	BLACK ON WHITE	1" x 3"	3/16"
18	MI-103/PUMP #3 RUN	BLACK ON WHITE	1" x 3"	3/16"
19	MI-104/PUMP #4 RUN	BLACK ON WHITE	1" x 3"	3/16"
20	MI-105/PUMP #5 RUN	BLACK ON WHITE	1" x 3"	3/16"
21	HS-101/PUMP #1	BLACK ON WHITE	1" x 3"	3/16"
22	HS-102/PUMP #2	BLACK ON WHITE	1" x 3"	3/16"
23	HS-103/PUMP #3	BLACK ON WHITE	1" x 3"	3/16"
24	HS-104/PUMP #4	BLACK ON WHITE	1" x 3"	3/16"
25	HS-105/PUMP #5	BLACK ON WHITE	1" x 3"	3/16"
26	HS-601/PUMP #1 OUTLET VALVE	BLACK ON WHITE	1" x 3"	3/16"
27	HS-602/PUMP #2 OUTLET VALVE	BLACK ON WHITE	1" x 3"	3/16"
28	HS-603/PUMP #3 OUTLET VALVE	BLACK ON WHITE	1" x 3"	3/16"
29	HS-604/PUMP #4 OUTLET VALVE	BLACK ON WHITE	1" x 3"	3/16"
30	HS-605/PUMP #5 OUTLET VALVE	BLACK ON WHITE	1" x 3"	3/16"
31	ELECTRICAL GROUND	BLACK ON WHITE	1" x 3"	3/16"
32	ISOLATED GROUND	BLACK ON WHITE	1" x 3"	3/16"
A	HAND-AUTO	BLACK ON WHITE	1/2" x 3"	3/16"
B	HAND-OFF-AUTO	BLACK ON WHITE	1/2" x 3"	3/16"
C	OPEN-CLOSE-AUTO	BLACK ON WHITE	1/2" x 3"	3/16"

WIRE WAY LEGEND
WHITE – 24 VDC
GREY – 120 VAC

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
CRPS-I-101	CP-100 PANEL LAYOUT	1
CRPS-I-122	HMI-100 BILL OF MATERIAL	2

NOTES:

1. FOR BILL OF MATERIALS, TERMINAL STRIP BREAKDOWNS & LAMICOIDS SEE CRPS-I-122.
2. ALL LAMICOIDS/LABELLING TO BE PROVIDED/INSTALLED BY PANEL VENDOR.
3. NAME PLATE SHALL BE MOUNTED WITH STAINLESS STEEL SELF TAPPING SCREWS ON THE OUTSIDE OF THE CONTROL PANEL DOOR. ENSURE PANEL NEMA RATING INTEGRITY IS MAINTAINED.
4. ALL CABLES SHALL ENTER PANEL FROM THE TOP ONLY.
5. ALL INTERNAL CABINET WIRING TO BE ON LEFT HAND SIDE WHEREVER POSSIBLE. ALL FIELD CABLES TERMINATE ON RIGHT HAND SIDE.
6. COMPLETED CABINET TO MEET CSA APPROVAL.
7. PANEL VENDOR TO MOUNT TS35 DIN RAIL ON STAND-OFFS. TERMINALS TO BE FLUSH WITH THE TOP OF THE WIRE DUCT.
8. PANELVIEW PLUS FUNCTIONAL EARTH CONNECTION ON BACK OF DISPLAY TO IG AND PROTECTIVE EARTH CONNECTION AT THE POWER INPUT TERMINAL TO EG.

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SCALE:	AS NOTED	APVD: BDH	DATE: 21/03/08

PROJECT:
CHASE RIVER PUMP STATION UPGRADE

TITLE:
HMI-100 PANEL LAYOUT

DWG NO: **CRPS-I-121**
REV: **0**

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BILL OF MATERIALS (-)

ITEM	QUANTITY	DESCRIPTION	MAKE	MODEL	PROVIDED BY
1	1	MILD STEEL WALLMOUNT ENCLOSURE, HINGE DOOR WITH QUARTER TURN 36" X 30" X 10"	HAMMOND	EN4SD363010LG	PANEL VENDOR
2	1	BACK PANEL 36" X 30"	HAMMOND	EP3630	PANEL VENDOR
3	1	PANELVIEW PLUS6 1500 HMI, 120VAC, TOUCH SCREEN WITH KEYPAD, WINDOWS CE	ALLEN BRADLEY	2711P-B15C4A8	OWNER SUPPLIED
4	6	30 mm PILOT LIGHT, GREEN, 12-130 V AC/DC, LED, PUSH-TO-TEST, METAL	ALLEN BRADLEY	800T-QTH2G	PANEL VENDOR
5	8	30 mm PILOT LIGHT, RED, 12-130 V AC/DC, LED, PUSH-TO-TEST, METAL	ALLEN BRADLEY	800T-QTH2R	PANEL VENDOR
6	1	30 mm FLUSH HEAD PUSH BUTTON, GREEN, 1 N.O. - 1 N.C., METAL	ALLEN BRADLEY	800T-A1A	PANEL VENDOR
7	2	30 mm FLUSH HEAD PUSH BUTTON, RED, 1 N.O. - 1 N.C., METAL	ALLEN BRADLEY	800T-A6A	PANEL VENDOR
8	1	30 mm FLUSH HEAD PUSH BUTTON, BLACK, 1 N.O. - 1 N.C., METAL	ALLEN BRADLEY	800T-A2A	PANEL VENDOR
9	5	30 mm 3-POSITION SELECTOR SWITCH, MAINTAINED, 2 N.O. - 2 N.C., METAL	ALLEN BRADLEY	800T-J2B	PANEL VENDOR
10	5	30 mm 3-POSITION SELECTOR SWITCH, MAINTAINED, 3 N.O. - 3 N.C., METAL	ALLEN BRADLEY	800T-J2H	PANEL VENDOR
11	1	30 mm 2-POSITION SELECTOR SWITCH, MAINTAINED, 2 N.O. - 2 N.C., METAL	ALLEN BRADLEY	800T-H2B	PANEL VENDOR
12	A/R	TS-35 DIN MOUNTING RAIL	HAMMOND	2D2K20	PANEL VENDOR
13	A/R	PVC WIRE DUCT WHITE - 2"W x 4"H NARROW SLOT	PANDUIT	F2X4WH6	PANEL VENDOR
14	A/R	PVC WIRE DUCT COVER WHITE - 2" WIDE	PANDUIT	C2WH6	PANEL VENDOR
15	A/R	PVC WIRE DUCT GREY - 2"W x 4"H NARROW SLOT	PANDUIT	F2X4LG6	PANEL VENDOR
16	A/R	PVC WIRE DUCT COVER GREY - 2" WIDE	PANDUIT	C2LG6	PANEL VENDOR
17	2	LABEL HOLDERS - DIN RAIL MOUNT SCHT-5S	WEIDMULLER	1631930000	PANEL VENDOR
18	2	ESO 5 S DIN A4 WS TERMINAL LABEL FOR SCHT-5S HOLDER	WEIDMULLER	1631920000	PANEL VENDOR
19	2	SCHT-5S LABEL COVER	WEIDMULLER	1631940000	PANEL VENDOR
20	100	FEED THROUGH TERMINAL BLOCK (SINGLE WDU 2.5) - 20 A, 600 V, #12-#26 AWG	WEIDMULLER	1020000000	PANEL VENDOR
21	2	TERMINAL BLOCK END CLAMPS - EW 35 FOR TS35 RAIL	WEIDMULLER	383560000	PANEL VENDOR
22	4	TERMINAL BLOCK END PLATE - WAP 2.5-10	WEIDMULLER	1050000000	PANEL VENDOR
23	A/R	COPPER GROUND BAR (MINIMUM 1/4" THICK x 1"H WITH MINIMUM THEN (10) GROUNDING SCREWS SUITABLE FOR #14 AWG TO #4 AWG CONDUCTORS, AND ONE (1) GROUND LUG SUITABLE FOR #2 AWG CONDUCTOR	OPEN	OPEN	PANEL VENDOR
24	A/R	COPPER GROUND BAR (MINIMUM 1/4" THICK x 1"H WITH MINIMUM THEN (10) GROUNDING SCREWS SUITABLE FOR #14 AWG TO #4 AWG CONDUCTORS, AND ONE (1) GROUND LUG SUITABLE FOR #2 AWG CONDUCTOR, MOUNTED ON ISOLATED STANDOFF	OPEN	OPEN	PANEL VENDOR

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REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
CRPS-I-121	HMI-100 PANEL LAYOUT	1
CRPS-I-123	HMI-100 PANELSCHEMATICS	2

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PROJECT:

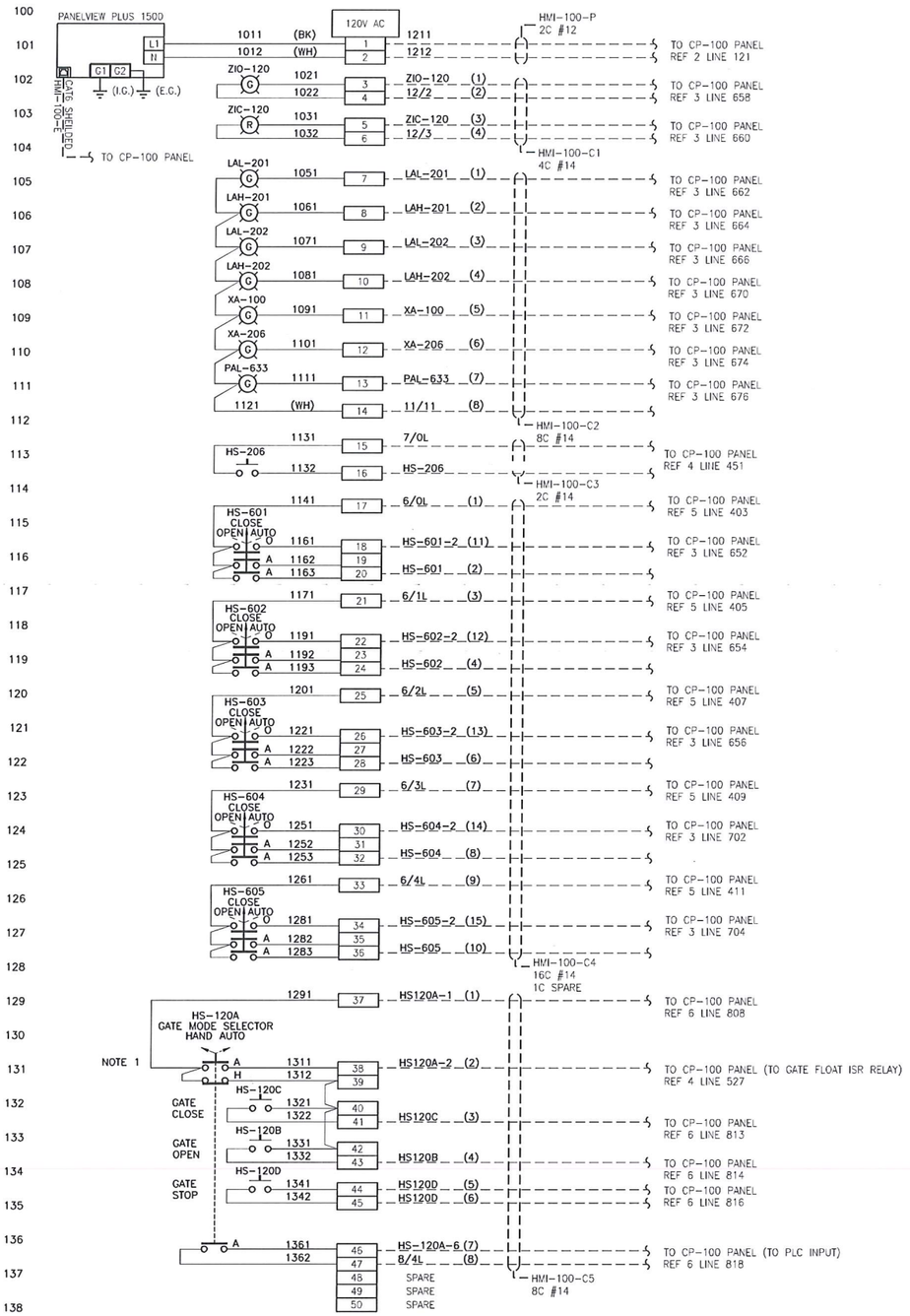
CHASE RIVER PUMP STATION UPGRADE

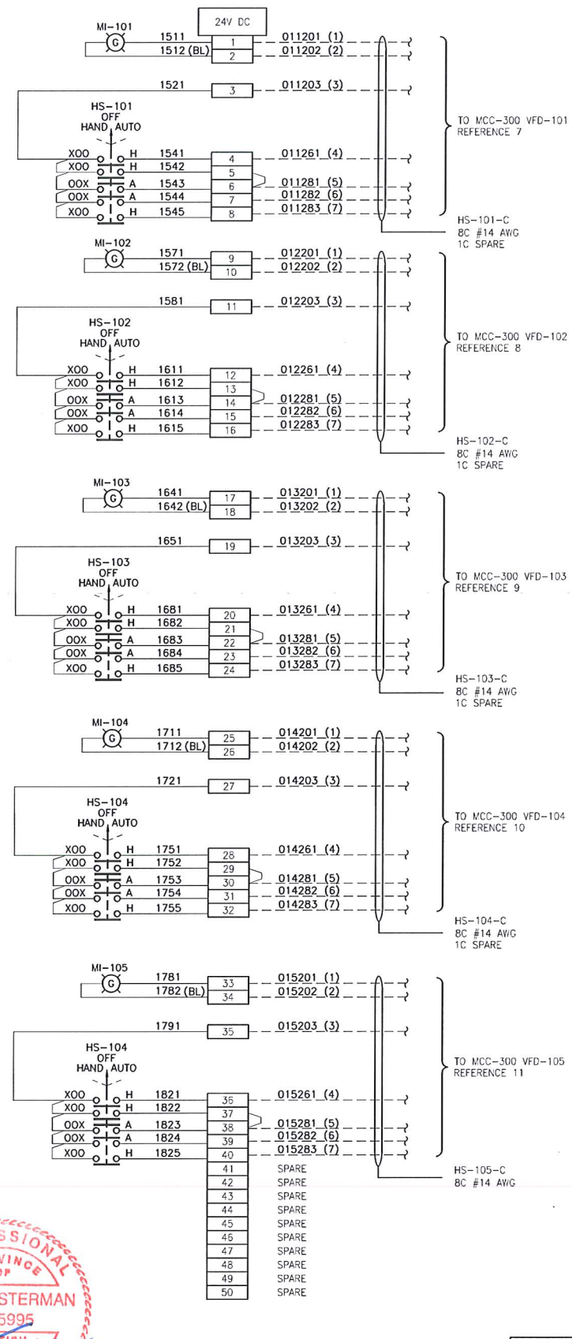
TITLE:

HMI-100 BILL OF MATERIAL

DWG NO: **CRPS-I-122** REV: **0**

Date: 2021/03/08 10:56 AM | User: Ava Fu | File: P:\NA\2020\2003251 RDN-Chase River Pump Stn Upgrades\1000-Dwgs\1017-Instr\01-Production\CRPS-I-122 | Layout: REV 0 | Paper Size: 863.6mm x 558.8mm





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WIRING LEGEND
PANEL WIRING
FIELD WIRING

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
CRPS-I-121	HMI-100 PANEL LAYOUT	1
CRPS-I-103	CP-100 POWER DISTRIBUTION	2
CRPS-I-110	CP-100 SLOT 11&12 OUTPUTS	3
CRPS-I-108	CP-100 SLOT 7&8 DIGITAL INPUT	4
CRPS-I-107	CP-100 SLOT 5&6 DIGITAL INPUT	5
CRPS-I-112	GATE CONTROL WIRING DIAGRAM	6
CRPS-E-011	VFD-101 SCHEMATIC DIAGRAM	7
CRPS-E-012	VFD-102 SCHEMATIC DIAGRAM	8
CRPS-E-013	VFD-103 SCHEMATIC DIAGRAM	9
CRPS-E-014	VFD-104 SCHEMATIC DIAGRAM	10
CRPS-E-015	VFD-105 SCHEMATIC DIAGRAM	11

NOTES:

1. WHEN IN AUTO THE GATE WILL CLOSE IF LSHH-206B IS ACTIVATED. THERE IS NO OUTPUT FROM THE PLC TO COMMAND THE GATE TO CLOSE. IN AUTO THE GATE WILL OPEN FROM PLC OUTPUT COMMAND HSV-120.

FABRICATION NOTES:

F1. ALL PANEL DISCRETE WIRING TO BE #16 AWG UNLESS OTHERWISE SPECIFIED.
F2. ALL WIRES TO BE LABELLED AT BOTH ENDS.
F3. ALL 120VAC PANEL WIRING TO BE BLACK AND ALL 24VDC PANEL WIRING TO BE RED UNLESS OTHERWISE SPECIFIED.

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CONSTRUCTION
Date: 2021/03/08

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REV	YY/MM/DD	DESCRIPTION	DRWN	CHKD	APVD
0	21/03/08	ISSUED FOR CONSTRUCTION	AF	BDH	BDH

CLIENT: REGIONAL DISTRICT OF NANAIMO

Allnorth

CLIENT NO:	-	DRWN:	AF	DATE:	20/12/21
PROJECT NO:	2003251	DSGN:	AF	DATE:	20/12/21
DRAWING SIZE:	ANSI "D"	CHKD:	JAK	DATE:	21/03/03
SCALE:	AS NOTED	APVD:	BDH	DATE:	21/03/08

PROJECT:

CHASE RIVER PUMP STATION UPGRADE

TITLE:

HMI-100 PANEL SCHEMATICS

DWG NO: **CRPS-I-123**

REV: **0**

Date: 2021/03/07 10:55 PM | User: Ava Fu | File: P:\NA\2020\2003251 RDN-Chase River Pump Stn Upgrades\1000-Dwgs\1017-Instr\01-Production\CRPS-I-123 | Layout: REV 0 | Paper Size: 863.6mm x 558.8mm

BETWEEN: _____ (the "Supply Contractor")

AND: Regional District of Nanaimo (the "Corporation")

THIS AGREEMENT WITNESSES that the Supply Contractor and the Corporation agree as follows:

1. The Supply Contractor shall provide all labour, Supply Contractor's Plant and Equipment and materials required to supply the Goods within the required time, as required by the Contract Documents.

2. The Corporation shall pay the Supply Contractor the Contract Price, as required by the Contract Documents.

3. The Contract Price shall be the sum in Canadian Dollars of the following:

   (a) the Contract Price, $ _____, and

   (b) any payments made on account of changes, as may be required by the Contract Documents.

   The Contract Price shall be the entire compensation owing to the Supply Contractor by the Corporation for the Goods and shall cover and include necessary costs including but not limited to all supervision, labour, materials, Supply Contractor's Plant and Equipment, overhead, profit, financing costs, duty, shipping charges, fabrication and finishing, conveyance and delivery, packing, crating, freight, cartage, off-loading, drafting charges, tariffs, warranty and all other costs and expenses whatsoever incurred in performing the Contract.

   Except for the amounts which the RDN in good faith is disputing and except for any set off which the RDN may claim and except for invoices (or portions of invoices) in respect of which the RDN has requested and not received supporting evidence, the RDN shall pay invoices submitted to it for the Services within 30 days' receipt thereof.

4. The Supply Contractor shall supply all Goods to the Delivery Point no later than <XX weeks from receipt of order>.

5. The Contract Documents shall form a part of this Agreement as though recited in full.

6. The Contract supersedes all prior negotiations, representations, or agreements, whether written or oral and is the entire agreement between the Corporation and the Supply Contractor with respect to the subject matter of this Agreement.

SAMPLE

7. The Supply Contractor shall not assign the Contract, or any portion of the Contract, or any payments due or to become due under the Contract, without the express written consent of the Corporation.

8. No action or failure to act by the Corporation or an authorized representative of the Corporation shall constitute a waiver of any right or duty afforded any of them under the Contract or constitute an approval or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

9. This Agreement shall enure to the benefit of and be binding upon the Corporation and the Supply Contractor and their respective heirs, executors, legal representatives, successors and permitted assigns. In the event of more than one person being the Supply Contractor, the grants, covenants, provisos and claims, rights, powers, privileges, and liabilities shall be construed and held to be several as well as joint.

10. Time shall be of the essence of this Agreement.

11. This Agreement may be executed in any number of counterparts, each of which will be deemed to be an original and all of which taken together will be deemed to constitute one and the same instrument. Delivery by electronic transmission in portable document format (PDF) of an executed counterpart of this Agreement is as effective as delivery of an originally executed counterpart of this Agreement.

SAMPLE

IN WITNESS WHEREOF the parties hereto have executed this Agreement as follows:

REGIONAL DISTRICT OF NANAIMO
by its authorized signatory on _____ day of _____, 20__ (the date of Agreement):

SIGNED on behalf of the Corporation by:

Signature: _____

Name: _____

Title: _____

Signature: _____

Name: _____

Title: _____

[SUPPLY CONTRACTOR'S NAME]
by its authorized signatory on _____ day of _____, 20__:

SIGNED on behalf of the Supply Contractor by:

Signature: _____

Name: _____

Title: _____

Signature: _____

Name: _____

Title: _____

END OF SECTION

SAMPLE

GENERAL

1.1 DEFINITIONS

The following words and terms, unless the context otherwise requires, in all Contract Documents, shall have the meanings set out below. Words importing the male gender include the female gender and either includes the neuter and vice versa and words importing the singular number includes the plural number and vice versa.

"Addenda" means the supplemental written conditions issued prior to execution of the Agreement which modify or interpret the Contract Documents by addition, deletion, clarification, or corrections;

"Agreement" means the Standard Form Supply Contract Form of Agreement;

"Contract" means the agreement formed by the Corporation's acceptance of the Proposal for the supply and delivery of the Goods as set out in the Contract Documents;

"Contract Documents" means the following documents:

(1) the executed Supply Agreement
(2) the General Conditions
(3) any Addenda (attached Schedule 1)
(4) the Supply Contractor Tender Form (attached Schedule 2)
(5) the original Supply Contractor Supporting Information, if any (attached Schedule 3)
(6) the Specifications (attached Schedule 4)
(7) the Drawings (attached Schedule 5)
(8) the Standards (attached Schedule 6)
(9) other relevant documents such as but not limited to letters of clarification and any reports or the like included by reference;

"Contract Price" has the meaning set out in the supply form of agreement;

“Corporation” means the Regional District of Nanaimo;

"Day" means calendar day;

“Delivery Date” has the meaning set out in the supply form of agreement;

“Delivery Point” means the Greater Nanaimo Pollution Control Centre, 4600 Hammond Bay Road, Nanaimo, B.C. V9T 5A8.

“Goods” means all material and non-material things to be provided by the Supply Contractor under the terms of the Contract;

“Person” includes an individual, corporation, partnership, and joint venture;
“Specifications" means that part of the Contract Documents consisting of general requirements and written descriptions of the technical features of materials, equipment, construction systems, standards and workmanship;

“Supply Contractor" means the person who or which execute the Agreement;

"Supply Contractor's Plant and Equipment" means the equipment, material, supplies and all other items (except labour) brought onto the Delivery Point by the Supply Contractor, but not to be incorporated in the Goods;

CONTRACT REQUIREMENTS

1.1.1 Successors' Obligations

The Contract shall enure to the benefit of and is binding upon not only the parties hereto but also their respective successors and permitted assigns.

1.1.2 Assignment of Contract

The Supply Contractor shall not assign the Contract in whole or in part, nor any payments due or to become due under the Contract without the prior written consent of the Corporation. No assignment of the Contract shall relieve the Supply Contractor from any obligation under the Contract or impose any liability on the Corporation. Involuntary assignment of the Contract as a result of, inter alia, bankruptcy, assignment of the Contract for the benefit of creditors or appointment of a receiver, or insolvency shall be deemed default under the Contract entitling the Corporation to terminate the Contract as hereinafter provided.

1.1.3 Waiver of Rights

Except as herein provided, no act or failure to act by the Supply Contractor or the Corporation at any time with respect to the exercise of any right or remedies conferred upon them under this Contract shall be deemed to be a waiver on the part of the Supply Contractor or the Corporation, as the case may be, of any of their rights or remedies. No waiver shall be effective except in writing. No waiver of one right or remedy shall act as a waiver of any other right or remedy or as a subsequent waiver of the same right or remedy.

1.1.4 Amendment of Contract Documents

The Contract Documents shall not be amended except as specifically agreed in writing signed by both the Corporation and the Supply Contractor.

1.2 LAWS, REGULATIONS AND PERMITS

1.2.1 The Contract shall be construed under and according to the laws of the Province of British Columbia and subject to an agreement to refer a dispute to mediation as per clause 2.3 Dispute Resolution. The parties agree to irrevocably attorn to the jurisdiction of the Courts of the Province of British Columbia.

1.2.2 The Supply Contractor shall give all notices required by law and shall comply with all laws, acts, ordinances, rules and regulations relating to or affecting the Goods. If any permits, authorizations, approvals or licences from any government or governmental agencies are necessary or desirable for the prosecution of the work they shall be obtained by the Supply Contractor at its expense, provided that the Supply Contractor shall not make application for any such permit, authorization, approval or licence without first obtaining the written consent of the Corporation.

1.2.3 Patents, Royalties and Copyright

The Supply Contractor shall pay all fees, royalties or claims for any patented invention, article, process or method that may be used upon or in a manner connected with the Goods or with the use of the Goods by the Corporation. Before final payment is made on the account of this Contract, the Supply Contractor shall, if requested by the Corporation, furnish acceptable proof of a proper release from all such fees or claims.

1.2.4 All references to money in the Contract Documents shall be interpreted as meaning lawful currency of Canada.

PART 2 CORPORATION-SUPPLY CONTRACTOR RELATIONS

2.1 AUTHORITY OF CORPORATION

2.1.1 Acceptability of Goods

The Corporation shall make the final determination of the acceptability of the Goods.

2.1.2 Appointment and Authority of Inspector

2.1.2.1 The Corporation may appoint an Inspector for the Goods at any time before or after award of the Contract. If the Corporation appoints an Inspector, the Inspector shall represent the Corporation, at any time during the supply process, up to and including the Delivery Point. The Inspector shall have the authority set out in the Contract Documents and such other authority as may be delegated in writing by the Corporation including but not limited to the following:

(a) to make decisions regarding the Goods;

(b) to make decisions regarding the manner of performance of the Goods;

(c) to make determinations regarding deficiencies;

2.2 RESPONSIBILITIES OF THE SUPPLY CONTRACTOR

2.2.1 Attention to the Goods

The Supply Contractor shall diligently attend to the supply of the Goods so that they are delivered faithfully, expeditiously and in accordance with the Contract Documents.

2.2.2 Authorized Representative

The Supply Contractor shall advise the Corporation in writing of the name of the Supply Contractor's authorized representative.

2.2.3 Off-loading of Goods

The Supply Contractor shall provide all necessary instructions to ensure satisfactory off-loading of the Goods.

2.2.4 Shipment

The Supply Contractor shall properly package all Goods for safe shipment to the Delivery Point and a Notice of Shipment shall be sent by the Supply Contractor to the Corporation in advance of final delivery. The Notice of Shipment shall state the delivery date, the Purchase Order number, description of the goods, the Supply Contractor's name, and the carrier by which the shipment is being made. Clear title to the Equipment, free of all charges, liens and encumbrances shall pass to RDN when the Equipment(s) is received, inspected, deficiencies rectified, and accepted by the RDN at the delivery point. Until such time as title

of Equipment(s) is accepted by the RDN, the Supply Contractor shall be responsible for insurance claims related to the Equipment(s) and the RDN shall not be considered to have breached any Contract if there is a fire, damage or other cause which entitles an insurance company to seize or take possession of the Equipment or part thereof.

The passing of title to the RDN shall not affect any of the Dealer's obligations.

2.2.5 Errors and Omissions

If the Supply Contractor discovers that there are any errors or omissions in the Contract Documents, it shall immediately notify the Corporation in writing. The Corporation will review the matter and if it concludes that there is an error or omission, it shall determine the corrective actions to be taken and will advise the Supply Contractor accordingly. If the corrective work associated with an error or omission increases or decreases the amount of work called for in the Contract, the Corporation shall issue an appropriate change order. After discovery by the Supply Contractor of an error or omission in the Contract Documents any work thereafter performed by the Supply Contractor shall be done at its risk unless otherwise agreed by the Corporation.

2.3 DISPUTE RESOLUTION

2.3.1 Disputes

A dispute occurs between the Corporation and the Supply Contractor where there is a difference between the parties as to the interpretation, application, or administration of the Contract.

2.3.2 Dispute/Claim Resolution

(1) All matters in dispute under this Agreement which is not first resolved between the parties acting reasonably may, with the concurrence of both the Regional District and the Supply Contractor be submitted to mediation to a single mediator appointed jointly by them.

(2) No one shall be nominated to act as a mediator who is in any way financially interested in the business affairs of either the Regional District or the Supply Contractor.

(3) If the parties cannot agree on the choice of a mediator, each party shall select a nominee and the nominees shall jointly appoint a mediator.

(4) The mediation shall take place in Nanaimo, British Columbia, unless agreed otherwise. Parties will be responsible for their own costs.

PART 3 MATERIAL, EQUIPMENT AND WORKMANSHIP

3.1 GENERAL

The Goods shall be of the quality specified or better. All work related to the Contract Documents shall be done with equipment and workmanship of the best quality and description and by employment of properly skilled workers and in strict conformity with and as required by the Contract Documents. Materials and equipment shall be the product of suppliers or manufacturers of established good reputation, regularly engaged in the supply or manufacture of such materials or equipment.

3.2 DEMONSTRATION OF COMPLIANCE WITH CONTRACT REQUIREMENTS

3.2.1 Inspection

Inspections and testing shall not in any way relieve the Supply Contractor from any of its obligations or responsibilities under the Contract Documents, and shall not in any way prejudice or constitute a waiver of any rights or remedies of the Corporation or any guarantees, warranties or covenants in favour of the Corporation, and the Corporation shall be entitled to rely on the expertise and obligations of the Supply Contractor and its subcontractors and their consultants and engineers to the same extent as if such inspections and testing by the Corporation or any inspector or agent had not taken place.

If the Contract Documents, laws, ordinances, or any public regulatory authority requires parts of the Goods to be specially inspected, tested or approved, the Supply Contractor agrees that the Goods shall comply.

The Goods are subject to inspection and acceptance by the RDN within a reasonable time after receipt. The RDN will notify the Supply Contractor in writing of the rejection of any of the Goods which are not in accordance with the Contract Documents, and the Goods will be held subject to disposition by the Supply Contractor at the Supply Contractor's risk and subject to all charges accruing as a result of such rejection.

Notwithstanding any prior payment therefor, all Goods are subject to inspection and testing by the Corporation, at any time during the supply process, up to and including the Delivery Point.

3.2.2 Certification

The equipment must be certified by the Supply Contractor in accordance with the local authorities with jurisdiction. Where compliance of Goods, materials or equipment with the Contract Documents is not readily determinable through inspection and tests, the RDN may require that the Supply Contractor provide, at the Supply Contractor's expense, properly authenticated documents, certificates, or other satisfactory proof of compliance. These documents, certificates or other proof shall include performance characteristics, materials of construction and the physical or chemical characteristics of materials.

3.2.3 Electrical

Electrical products that plug into an electrical outlet must meet Canadian national safety standards and be certified by an accredited certification body such as CSA, cUL or cETL.

3.3 DEFECTIVE OR IMPROPER GOODS

3.3.1 Correction of Defective Goods

If upon inspection, testing or otherwise the Goods or any portion thereof are found to be non-conforming, unsatisfactory, defective, or inferior quality or workmanship, or fail to meet any guarantee of operating or other specifications contained herein, or any other requirements of the Contract Documents, then without prejudice to any other rights or remedies, the RDN may give notice of its dissatisfaction to the Supply Contractor in writing and the Supply Contractor shall immediately upon receipt of such notice do all things that are required to satisfy the RDN. If the Supply Contractor refuses or neglects to do all things that are required to satisfy the RDN within one week from the receipt of notice, the Corporation may employ some other person to do so and all expenses and costs consequent thereon or incidental thereto shall be charged to the Supply Contractor. The employment of such other person or the doing of the said work by the Corporation itself shall not affect the Supply Contractor's duties and liabilities hereunder or relieve the Supply Contractor from the performance and fulfilment of any or all of the Supply Contractor's warranties, covenants, undertakings, obligations and duties under the Contract.

3.3.2 If upon inspection, testing or otherwise the Goods or any portion thereof are found to be non-conforming, unsatisfactory, defective, or inferior quality or workmanship, or fail to meet any guarantee of operating or other specifications contained herein, or any other requirements of the Contract Documents, then without prejudice to any other rights or remedies, the Corporation may return the Goods or any part thereof to the Supply Contractor at the Supply

Contractor's sole cost and all amounts theretofore paid by the Corporation to the Supply Contractor on account of the Contract Price of such returned Goods, shall be repaid to the Corporation by the Supply Contractor. The Supply Contractor shall advise the Corporation in writing, where to return the Goods, and failing such advice from the Supply Contractor, the Supply Contractor agrees to accept the returned Goods at the Supply Contractor's registered office. Neither the inspection nor failure to make inspection, nor acceptance of Goods shall release the Supply Contractor from any warranties or other provisions of this Contract nor impair the Corporation's right to reject non-conforming Goods. The Corporation reserves the right even after it has paid for and accepted Goods to make a claim against the Supply Contractor on account of any Goods which do not prove to be satisfactory or are defective irrespective of the Corporation's failure to notify the Supply Contractor of a rejection of non-conforming Goods or revocation of acceptance thereof, or to specify with particularity any defect in non-conforming Goods after rejection or acceptance thereof.

3.3.3 Retention of Defective Goods

If in the opinion of the Corporation any portion of the Goods supplied under the Contract is defective or not in accordance with the Contract Documents and if the defect or imperfection in the same is not of sufficient magnitude or importance to make the Goods dangerous or undesirable, or if the removal of such Goods is impracticable, or will create conditions which are dangerous or undesirable, the Corporation shall have the right and authority to retain such Goods instead of requiring the defective or imperfect Goods to be removed and reconstructed, but the Corporation shall be entitled to make such deductions from the payments due or to become due to the Supply Contractor as are just and reasonable.

3.3.4 No Implied Approval

The fact that the Corporation has not disapproved of or rejected any part of the Goods shall not be deemed or be construed to be an acceptance of any such part of the Goods or any such materials.

3.4 WARRANTY AND GUARANTEE

3.4.1 The Supply Contractor agrees that the Goods manufacturer's standard warranty as outlined in the Supply Contractor’s Proposal and is to the benefit of the Corporation and that the Goods are free from all defects arising from faulty construction, manufacturing, materials, equipment or workmanship for the period of the Goods manufacturer's standard warranty period.

3.4.2 During the warranty period, the Supply Contractor, upon the receipt of notice in writing from the Corporation, shall promptly make all repairs arising out of the defects. The Corporation shall be entitled to make such repairs, if 10 Days after the giving of such notice to the Supply Contractor, the Supply Contractor has failed to make or undertake with due diligence the repairs. In case of an emergency, where, in the opinion of the Corporation, delay could cause serious loss or damage, or inconvenience to the public, repairs may be made without notice being sent to the Supply Contractor, only after all reasonable attempts have been made to contact the Supply Contractor. The costs of any repair made by the Corporation in connection with this clause shall be charged to the Supply Contractor and the Supply Contractor shall reimburse the Corporation for such costs. All covenants and agreements shall continue to be binding on the Supply Contractor until they have been fulfilled.

3.4.3 The Corporation is relying on Supply Contractor's skill and judgment in selecting and providing the proper Goods and any applicable services for the Corporation's particular use. The Supply Contractor warrants to the Corporation and its successors in interest that the Goods and any services covered hereby will correspond with the description of the same in the Contract Documents, will conform to all applicable Specifications, will be of the best quality and, unless otherwise specified, will be fit for the purpose for which they are to be used and will conform in all aspects, both in the manufacture and use thereof, with all applicable safety orders or regulations of the Province of British Columbia. The Supply Contractor also warrants that the Goods are free and clear of all liens and encumbrances whatsoever and that the Supply Contractor has a good and marketable title to the same.

3.4.4 The Supply Contractor warrants and guarantees that the Goods are free from all defects arising at any time from faulty design in any part of the Goods.

3.4.5 The Supply Contractor represents that it has read the contract terms and the Specifications and has satisfied itself that the Goods can be supplied in accordance with the Specifications free of defects and fit for the purpose for which they are to be used.

3.4.6 The warranty period shall commence once the RDN accepts clear title of the Equipment.

3.4.7 The warranty should be made out to the Regional District of Nanaimo, 6300 Hammond Bay Road, Nanaimo, B.C. V9T 6N2

PART 4 INDEMNIFICATION AND INSURANCE

4.1 INDEMNIFICATION AND RELEASE

4.1.1 The Supply Contractor shall save harmless and indemnify the Corporation and its directors, officers, servants, employees and agents (the "Indemnified Parties") from and against all actions, claims, demands, proceedings, suits, losses, damages, costs and expenses of whatsoever kind or nature (including but not limiting the generality of the foregoing, in respect of death, injury, loss or damage to any person or property) arising in any way out of or connected with the Goods or the supply, off-loading or delivery of the Goods by the Supply Contractor under this agreement, except to the proportionate extent that such actions, claims, demands, proceedings, suits, losses, damages, costs and expenses were caused by the Indemnified Parties or any of them.

4.1.2 Unless otherwise specified in the Contract, the Supply Contractor shall save harmless and indemnify the Indemnified Parties from and against all actions, claims, demands, proceedings, suits, losses, damages, costs and expenses of whatsoever kind or nature arising in any way from liability of any nature or kind for or on account of any copyrighted or uncopyrighted composition, secret or other process, patented or unpatented invention, articles or appliances manufactured, supplied or used in the Goods, and/or used or to be used by the Corporation before or after supply of the Goods as a result of work performed by the Supply Contractor, and if the Supply Contractor shall fail to save harmless and indemnify in manner aforesaid, any money collected from the Indemnified Parties shall be charged to the Supply Contractor.

4.1.3 The Supply Contractor shall release and discharge the Corporation and its directors, officers, servants, employees and agents (the "Released Parties") from and against all actions, claims, demands, proceedings, suits, losses, damages, costs and expenses of whatsoever kind or nature (including but not limiting the generality of the foregoing, in respect of death, injury, loss or damage to any person or property) which the Supply Contractor or its servants or employees might have in any manner arising in any way out of or connected with the Goods or the supply, off-loading or delivery of the Goods by the Supply Contractor under this agreement except to the proportionate extent that such actions, claims, demands, proceedings, suits, losses, damages, costs and expenses were caused by the Released Parties or any of them.

4.1.4 The indemnity provided in this clause by the Supply Contractor to the Indemnified Parties shall not in any way be limited or restricted by any insurance or by limitations on the amount or type of damages, compensation or benefits payable under the Workers' Compensation Act or any other similar statute.

4.2 INSURANCE

4.2.1 General

The Supply Contractor and subcontractors shall provide at their own cost any insurance which they are required by law to provide or which they consider necessary to protect their own interests.

4.2.2 Indemnity Not Restricted by Insurance

The provisions for insurance shown above shall not in any way limit the indemnity granted by the Supply Contractor to the Indemnified Parties elsewhere in this section.

4.3 PATENT, TRADEMARK OR COPYRIGHT

4.3.1 The Supply Contractor represents that it has fully investigated all Specifications, including any furnished by the Corporation, in connection with the Goods and based on such investigation and its past experience and superior knowledge with respect to such Goods has determined that the production and supply thereof will not infringe any patent, trademark or copyright.

PART 5 SHIPMENT OF GOODS/DAMAGE TO GOODS

5.1 SHIPMENT OF GOODS

5.1.1 Delivery of Goods

The Supply Contractor must deliver the Goods to the Delivery Point. Delivery of the Goods to a carrier for transmission to the Delivery Site does not constitute delivery of the Goods to the Corporation. Any such carrier is deemed to be the Supply Contractor's agent and not the Corporation's agent.

5.1.2 Delivery Costs

The Supply Contractor is responsible for all costs and expenses whatsoever in relation to the supply and delivery of the Goods to the Delivery Point, including without limitations, all shipping, carrier, transportation, freight, insurance,

storage, handling and off-loading costs, as well as any customs or excise charges or duties.

5.1.3 Supply Contractor to Bear Risk

The Supply Contractor shall bear all risks and shall assume all responsibility for the Goods, including, without limitation, any loss or damage to the Goods from any cause whatsoever, up to and including the delivery at the Delivery Point.

5.1.4 Loss or Damage

If loss or damage to the Goods occurs for which the Supply Contractor is responsible, the Supply Contractor shall immediately effect repairs or replace any property as necessary to make good any such loss or damage. If the Supply Contractor refuses or neglects to do so, the Corporation may make good any such loss or damage, either by itself or by employing some other person, and the expense of doing so shall be charged to the Supply Contractor. If any repair or replacement of property is performed on the Goods as a result of loss or damage to the Goods for which the Supply Contractor is responsible the Supply Contractor represents and warrants that the warranty provided shall not be affected or changed to any manner or respect whatsoever.

5.1.5 Acceptance of Delivery of Goods by Corporation

Notwithstanding any other provision in the Contract Documents, the Corporation is not deemed to have accepted the Goods until the Goods have been delivered to and off-loaded at the Delivery Point and the Corporation has had a reasonable opportunity of examining them for the purpose of ascertaining whether they are in conformity with the Contract. The Corporation's acceptance or deemed acceptance of the Goods shall not prejudice any rights or remedies the Corporation may have hereunder relating to Goods that are found to be non-conforming, unsatisfactory, defective, of inferior quality or workmanship, or which fail to meet any specifications or requirements of the Contract Documents.

PART 6 PROGRESS AND COMPLETION

6.1 CONTRACT TIME

6.1.1 Prosecution of the Goods

Time shall be strictly of the essence. The Supply Contractor shall supply the Goods in accordance with the Contract Documents. The Supply Contractor acknowledges that the schedule for supply of the Goods as set out in the Contract Documents is reasonable.

6.1.2 Schedule

The Supply Contractor shall provide a schedule and periodic updates coordinating the supply of Goods within the prescribed time. Contract time extensions, if any, shall be incorporated into updated schedules. The failure of the Supply Contractor to comply with this requirement may entitle the Corporation to terminate the Supply Contractor's right to continue with the supply of Goods or to delay progress payments.

6.2 TERMINATION

6.2.1 The Corporation may terminate the Contract if the Supply Contractor at any time becomes bankrupt, makes an assignment of his property for the benefit of his creditors, or if a receiver or liquidator should be appointed. Such termination shall be effective upon the Corporation giving notice thereof.

6.2.2 The Corporation may terminate the Contract if at any time the Corporation forms the opinion that the Supply Contractor is in default under this Contract because the Supply Contractor:

(1) has breached a fundamental term of the Contract or is in substantial breach of the terms of the Contract;

(2) has failed to supply the Goods, within the time specified in the Contract Documents or extensions mutually agreed between the parties in writing;

(3) has failed or is failing to furnish or to maintain a detailed schedule;

(4) has become in any way unable to supply the Goods or any part thereof;

(5) has repeatedly failed to make prompt payments to subcontractors, suppliers or others for labour, materials or equipment; then the Corporation may give notice in writing to the Supply Contractor of such opinion and require that such default or defaults be remedied forthwith. If, within five Days of such notice, such default or defaults are not remedied to the satisfaction of the Corporation, the Corporation may terminate the Contract. Such termination shall be effective immediately.

6.2.3 The Corporation may terminate the Agreement, without any cost or penalty or consequence whatsoever, if it concludes, acting reasonably on the information available to it, that the Contractor is in material non-compliance with, or has been convicted of a material offence or violation of, health, safety, labour or environmental laws.

6.3 NO CLAIM

Except as herein before provided, the Supply Contractor shall have no claim against the Corporation for any reason whatsoever by reason of the termination of the Contract.

PART 7 PAYMENT

7.1 PAYMENTS TO SUPPLY CONTRACTOR

7.1.1 Payments to the Supply Contractor will be made as per the Supply Agreement

7.1.2 Notwithstanding Clause 7.1.1 the Corporation may withhold from payment:

(2) Any deduction the Corporation may be entitled to under the Contract;

(3) Such reasonable amount as the Corporation determines appropriate with respect to any part of the goods otherwise not in compliance with the Contract Documents.

7.1.3 Payments may be withheld until the relevant operating manuals and all operating and maintenance materials together with all warranties have been delivered to the Corporation.

7.1.4 In addition to any other remedy the Corporation may have in the Contract or law, the Corporation may refuse to make payment because of subsequently discovered evidence or test results, and shall be compensated for any payment previously made to the Supply Contractor to such extent as may be necessary to protect the Corporation from loss as a result of:

(1) Defective or damaged Goods;

(2) A deductive change order;

(3) Failure of the Supply Contractor to supply the Goods in accordance with the Contract Documents, including failure to maintain the supply of the Goods in accordance with the schedule;

(4) Disregard by the Supply Contractor of the authority of the laws of any public body having jurisdiction.

The Corporation may refuse to make payment of the full amount because of claims made against the Corporation on account of the Supply Contractor's performance or supply of Goods. In such case, the Corporation shall give the Supply Contractor prompt written notice stating the reasons for each action.

7.1.5 The Corporation may withhold from payment to the Supply Contractor:

(1) Any set-off the Corporation may be entitled to under the Contract;

(2) The amount of any bona fide builder's lien claim asserted against the Corporation or which the Corporation acting reasonably anticipates will be made against the Corporation.

7.1.6 Prior to payment to the Supply Contractor, if requested by the Corporation, the Supply Contractor shall deliver to the Corporation a statutory declaration in form satisfactory to the Corporation declaring that all subcontractors, labour and accounts for material and equipment have been paid and that no persons, firms or corporations have any lien against the lands comprising the Delivery Point or the work together with such other documentation as the Corporation, acting reasonably, determines is necessary or desirable.

SCHEDULE 1 – ADDENDA

SCHEDULE 2 – SUPPLY CONTRACTOR TENDER FORM

SCHEDULE 3 – SUPPLY CONTRACTOR SUPPORTING INFORMATION

SCHEDULE 4 - SPECIFICATIONS

Title	Ref.No.	Date	Rev
Chase River Pump Station Control Panels	21-049	12 May 2021	0

SCHEDULE 5 - DRAWINGS

Title	Dwg.No.	Date	Rev
CP-100 PANEL LAYOUT	CRPS-I-101	08Mar2021	0
CP-100 BILL OF MATERIAL	CRPS-I-102	08Mar2021	0
CP-100 POWER DISTRIBUTION	CRPS-I-103	08Mar2021	0
CP-100 GENERAL SCHEMATICS	CRPS-I-104	08Mar2021	0
CP-100 SLOT 1 ANALOG INPUT	CRPS-I-105	08Mar2021	0
CP-100 SLOT 2 & 3 ANALOG & RTD INPUT	CRPS-I-106	08Mar2021	0
CP-100 SLOT 5 & 6 ANALOG OUTPUT & DISCRETE INPUT	CRPS-I-107	08Mar2021	0
CP-100 SLOT 7 & 8 DISCRETE INPUT	CRPS-I-108	08Mar2021	0
CP-100 SLOT 9 & 10 DISCRETE INPUT	CRPS-I-109	08Mar2021	0
CP-100- SLOT 11 & 12 DISCRETE & RELAY OUTPUT	CRPS-I-110	08Mar2021	0
BACK-UP CONTROLLER SCHEMATIC DIAGRAM	CRPS-I-111	08Mar2021	0
HMI-100 PANEL LAYOUT	CRPS-I-121	08Mar2021	0
HMI-100 BILL OF MATERIAL	CRPS-I-122	08Mar2021	0
HMI-100 PANEL SCHEMATICS	CRPS-I-123	08Mar2021	0

SCHEDULE 6 – STANDARDS

Title	Std.No.	Date	Rev
None	None	None	