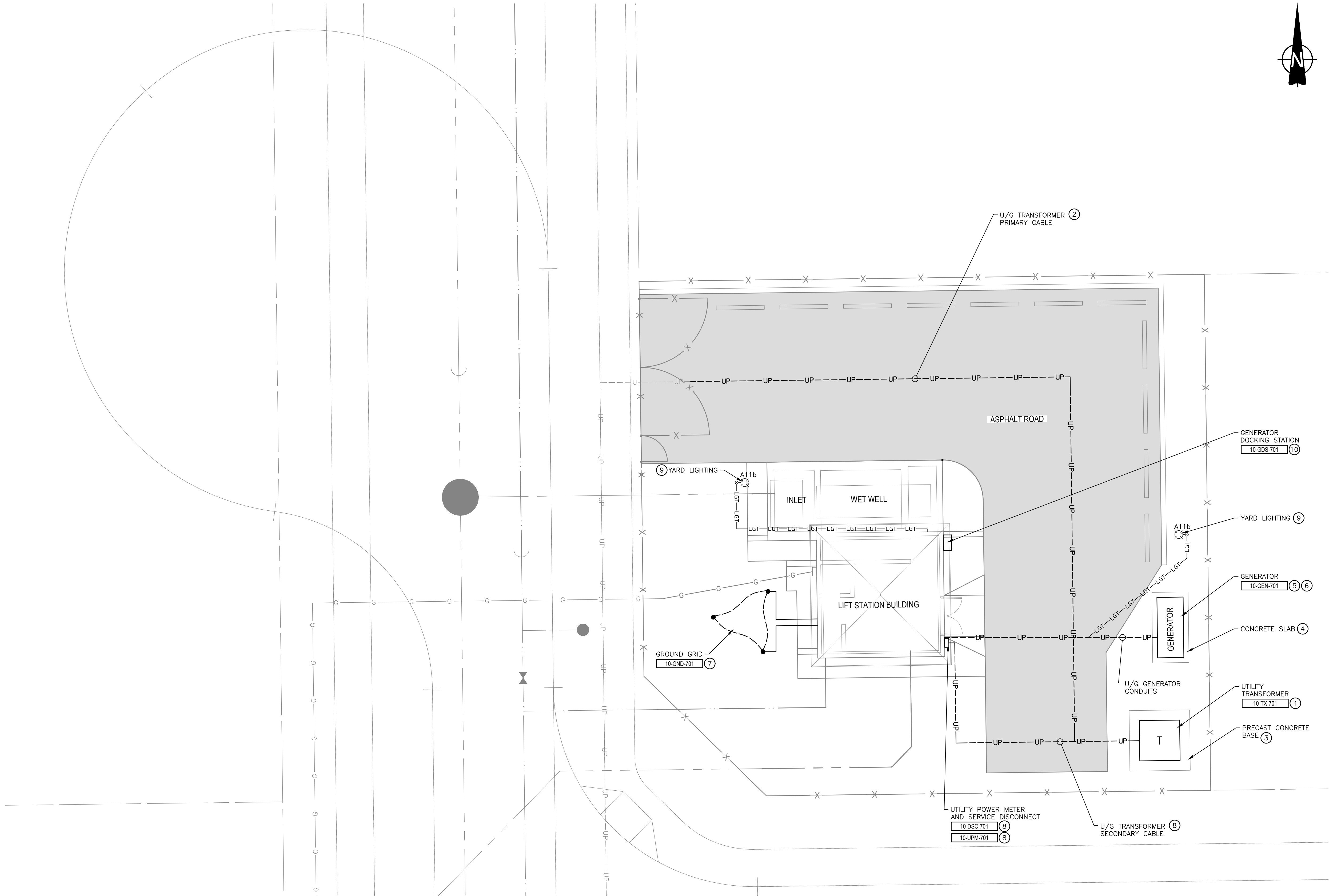


Russel Kercher / Jan. 6, 23 / X:\0480\0480-27310 Drawings\03_M\Pls\sheet\Construction\702 SITE PLAN.dwg



GENERAL NOTES:

1. ALL ELECTRICAL EQUIPMENT ON THIS DRAWING IS NEW UNLESS NOTED OTHERWISE.
2. SERVICES PROVIDED BY FORTIS FOR INSTALLATION OF UTILITY POWER SHALL BE TO:
 - 2.1. IDENTIFY LOCATION AT PROPERTY LINE FOR INTERCONNECTION OF PRIMARY SERVICE CONDUIT FROM UTILITY UPSTREAM HV NETWORK.
 - 2.2. SUPPLY AND INSTALL UNDERGROUND PRIMARY CONDUIT FROM A SWITCHING CUBICLE IN THE UTILITY UPSTREAM HV NETWORK TO THE IDENTIFIED LOCATION AT THE PROPERTY LINE.
 - 2.3. SUPPLY AND INSTALL PRIMARY HV CABLE (THREE-PHASE) UP TO UTILITY TRANSFORMER 10-TX-701.
 - 2.4. SUPPLY AND INSTALL UTILITY TRANSFORMER 10-TX-701 ON PRECAST CONCRETE BASE AND MAKE ALL TERMINATIONS.
3. SERVICES PROVIDED BY CONTRACTOR FOR INSTALLATION OF UTILITY POWER SHALL BE TO:
 - 3.1. COMPLETE ALL CABLE TRENCHING AND CONDUIT ROUTING AS NEEDED FOR PRIMARY AND SECONDARY CABLES LOCATED ON THE PROJECT SITE. COORDINATE WITH UTILITY CO. FOR IDENTIFIED LOCATION AT THE PROPERTY LINE TO INTERCONNECT WITH UTILITY UPSTREAM HV NETWORK.
 - 3.2. SUPPLY AND INSTALL PRE-CAST BASE, GROUNDING, BOLLARDS & DUCTS FOR PADMOUNT TRANSFORMER.
 - 3.3. SUPPLY AND INSTALL UTILITY POWER METER ON BUILDING EXTERIOR.
 - 3.4. SUPPLY AND INSTALL THREE PHASE SECONDARY UNDERGROUND CABLE AND CONDUIT.
 - 3.5. COMPLETE ALL WORK RELATING TO PRIMARY AND SECONDARY TRANSFORMER CONNECTIONS AND UTILITY SERVICE IN ACCORDANCE AND COMPLIANCE WITH THE FORTIS ALBERTA 'SERVICE AND METERING GUIDE' AS WELL AS FORTIS ALBERTA STANDARD 'CIPGD' FOR 'CUSTOMER INSTALLED PRE-CASE BASE, GROUNDING, AND DUCTING PROCESS'.

KEY NOTES:

- ① FORTIS TO PROVIDE UTILITY TRANSFORMER, TX-01.
- ② U/G UTILITY TRANSFORMER PRIMARY CABLE TO BE RUN THROUGH U/G CONDUIT. CONDUIT TO BE SUPPLIED AND INSTALLED BY CONTRACTOR. PRIMARY CABLE TO BE SUPPLIED AND INSTALLED BY UTILITY.
- ③ PROVIDE AN OPENING IN SLAB FOR UTILITY TRANSFORMER PRIMARY CONDUIT PASSAGE; ADJUST OPENING SIZE AS REQUIRED. REFER TO DETAIL ON DRAWING 718 FOR PRECAST BASE INSTALLATION.
- ④ PROVIDE AN OPENING IN SLAB FOR GENERATOR CONDUIT PASSAGE; ADJUST OPENING SIZE AS REQUIRED. COORDINATE INSTALLATION OF BASE WITH STRUCTURAL DRAWINGS.
- ⑤ CONTRACTOR TO SUPPLY AND INSTALL GENERATOR, GEN-01
- ⑥ CONNECT GENERATOR FRAME TO THE GROUND GRID
- ⑦ GROUND GRID (APPROXIMATE LOCATION) C/W COPPER CLAD GROUND RODS, INTERCONNECTED WITH BARE #3/0 COPPER WIRE. CONNECT TO GROUND BAR IN BUILDING.
- ⑧ U/G UTILITY TRANSFORMER SECONDARY CABLE TO BE RUN THROUGH U/G CONDUIT TO SERVICE DISCONNECT SWITCH AND METER MOUNTED ON EAST FACE OF BUILDING. CONDUIT AND WIRE BY CONTRACTOR. COORDINATE WITH UTILITY FOR INSTALLATION OF METER.
- ⑨ REFER TO YARD LIGHT LUMINAIRE AND POST DETAIL ON DRAWING EL717.
- ⑩ GENERATOR DOCKING STATION ON EAST FACE OF BUILDING ALLOWS PROVISION FOR CONNECTION TO PORTABLE GENERATOR DURING CONSTRUCTION. PROVIDE TRYSTAR GDS-1 SERIES C/W KEY INTERLOCK BETWEEN ENCLOSURE DOOR AND UPSTREAM BREAKER, RECEPTACLES FOR BATTERY CHARGER AND BLOCK HEATER, STRIP HEATER AND THERMOSTAT - ENCLOSURE TO BE CONSTRUCTED OF STAINLESS STEEL.

LEGEND:

— GAS —	U/G GAS LINE
— TEL —	U/G TELEPHONE LINE
— — —	U/G SANITARY LINE
— STM —	U/G STORM LINE
— — —	U/G WATER LINE
— X — X —	FENCE LINE
— — — UP —	U/G POWER LINE
— LGT — LGT — LGT —	U/G LIGHTING CIRCUIT

1
EL702

SITE PLAN — HEARTHSTONE SANITARY LIFT STATION

SCALE = 1:100 (ON ANSI D SHEET)

1:100 0 1000 2000 3000 4000mm

Scale



MATTAMY (SHERWOOD PARK) LTD

HEARTHSTONE SANITARY LIFT STATION

Drawn: RD	Design Checked: REK	Date: NOV. 23, 2022
Designed: RK	Discipline Review: DMD	Date: NOV. 23, 2022



ELECTRICAL SITE PLAN

Drawing No.
15719
EL
702
Sheet No.
702

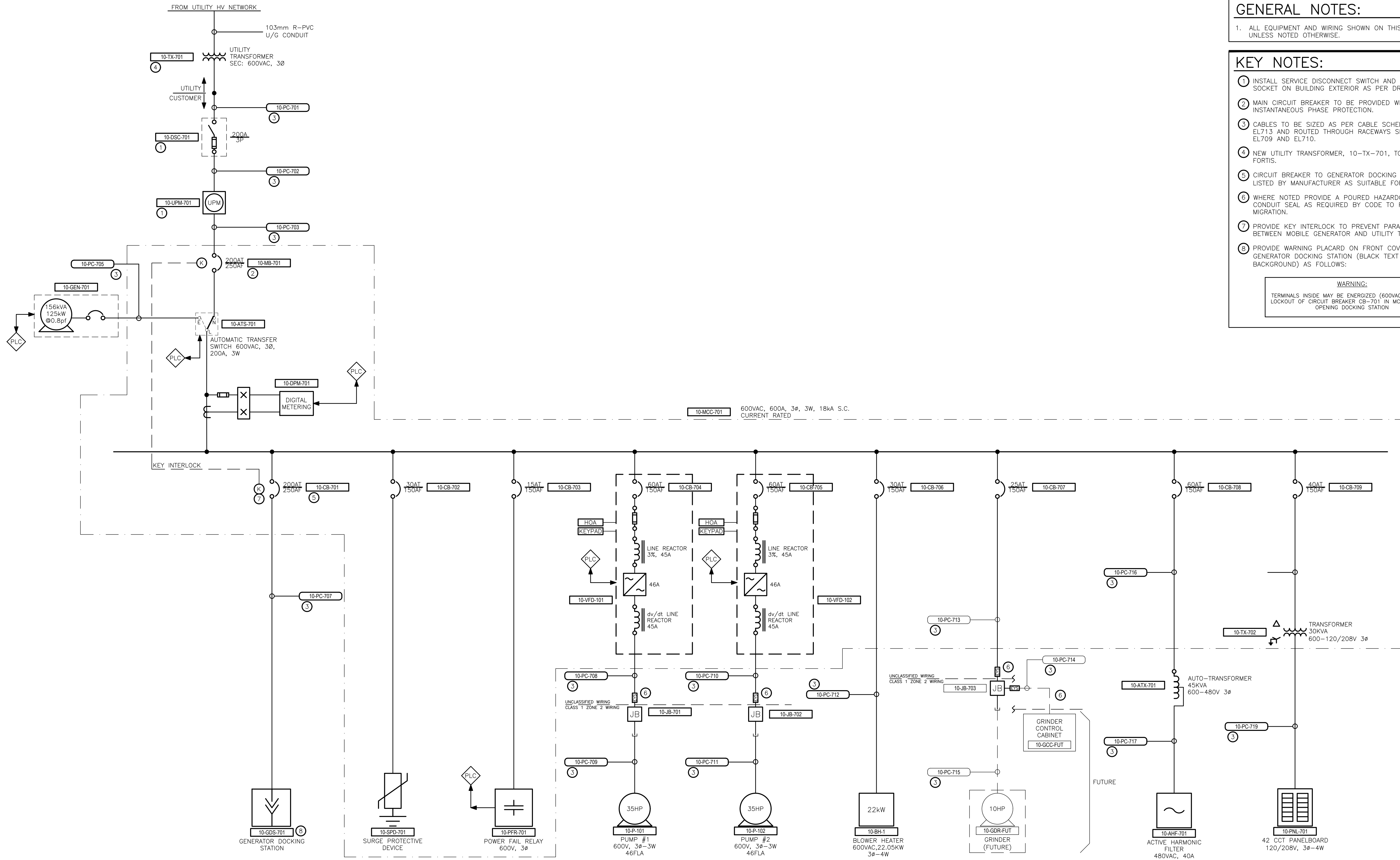
NOTE: THIS DRAWING IS
HALF SCALE WHEN PRINTED
TO 11" x 17" FORMAT

FOR APPROVAL

No.	DESCRIPTION	BY	DATE
2	FOR APPROVAL	DMD	JAN. 6, 2023
1	FOR APPROVAL	DMD	NOV. 23, 2022
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MAGNA IV ENGINEERING, INC.
RM SIGNATURE:
RM APEGA ID #: 127263
DATE: 6 Jan. 2023
PERMIT NUMBER: P008767
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)



GENERAL NOTES:

1. ALL EQUIPMENT AND WIRING SHOWN ON THIS DRAWING IS NEW UNLESS NOTED OTHERWISE.

KEY NOTES:

1. INSTALL SERVICE DISCONNECT SWITCH AND UTILITY METER SOCKET ON BUILDING EXTERIOR AS PER DRAWING EL702.
2. MAIN CIRCUIT BREAKER TO BE PROVIDED WITH LONG AND INSTANTANEOUS PHASE PROTECTION.
3. CABLES TO BE SIZED AS PER CABLE SCHEDULE ON DRAWING EL713 AND ROUTED THROUGH RACEWAYS SHOWN ON DRAWINGS EL709 AND EL710.
4. NEW UTILITY TRANSFORMER, 10-TX-701, TO BE INSTALLED BY FORTIS.
5. CIRCUIT BREAKER TO GENERATOR DOCKING STATION MUST BE LISTED BY MANUFACTURER AS SUITABLE FOR 'REVERSE FEED'.
6. WHERE NOTED PROVIDE A POURED HAZARDOUS LOCATION CONDUIT SEAL AS REQUIRED BY CODE TO PREVENT GAS MIGRATION.
7. PROVIDE KEY INTERLOCK TO PREVENT PARALLEL CONNECTION BETWEEN MOBILE GENERATOR AND UTILITY TRANSFORMER.
8. PROVIDE WARNING PLACARD ON FRONT COVER OF THE GENERATOR DOCKING STATION (BLACK TEXT ON YELLOW BACKGROUND) AS FOLLOWS:

WARNING:

TERMINALS INSIDE MAY BE ENERGIZED (600VAC) - VERIFY LOCKOUT OF CIRCUIT BREAKER CB-701 IN MCC PRIOR TO OPENING DOCKING STATION

NOTE: THIS DRAWING IS HALF SCALE WHEN PRINTED TO 11" x 17" FORMAT

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NONE / N.T.S.
Scale
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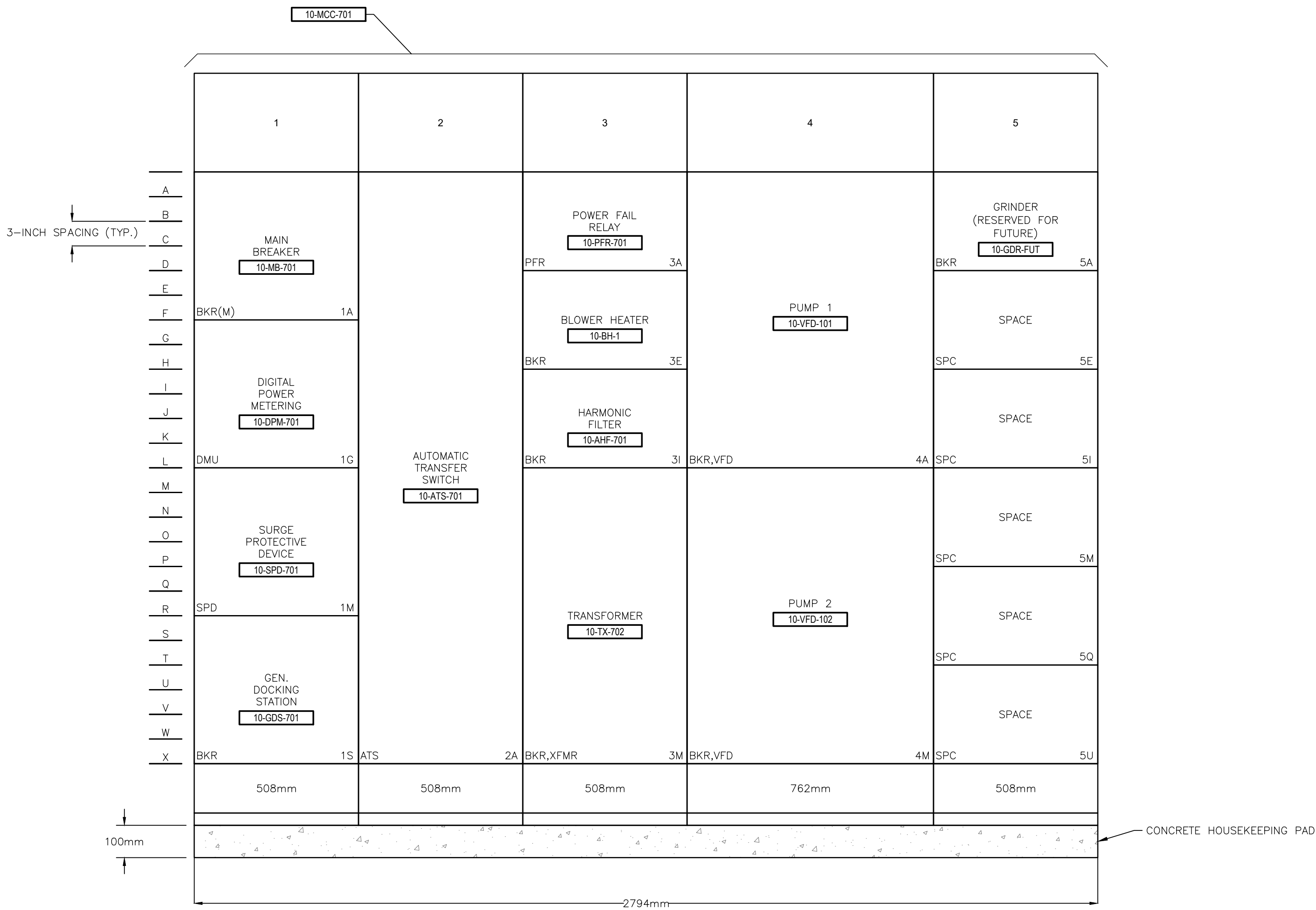
MATTAMY (SHERWOOD PARK) LTD
HEARTHSTONE SANITARY LIFT STATION
Drawn: RD
Design Checked: REK
Discipline Review: DMD
Date: NOV. 23, 2022

ELECTRICAL
SINGLE LINE DIAGRAM

Drawing No.
15719
EL
703
Sheet No.
703

- GENERAL NOTES:
1. ALL EQUIPMENT AND WIRING SHOWN ON THIS DRAWING IS NEW UNLESS NOTED OTHERWISE.

2. COORDINATE WITH STRUCTURAL TRADE FOR HOUSEKEEPING PAD.



1

MOTOR CONTROL CENTRE LAYOUT

EL704

SCALE = 1:10 (ON ANSI D SHEET)

NOTE: THIS DRAWING IS
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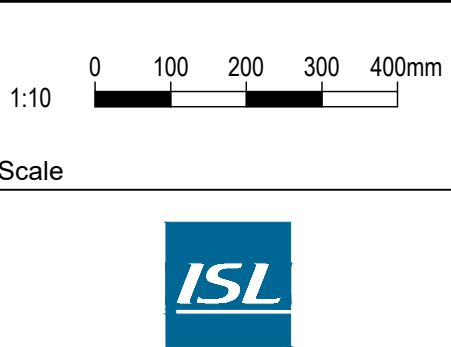
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RM APEGA ID #: 127263

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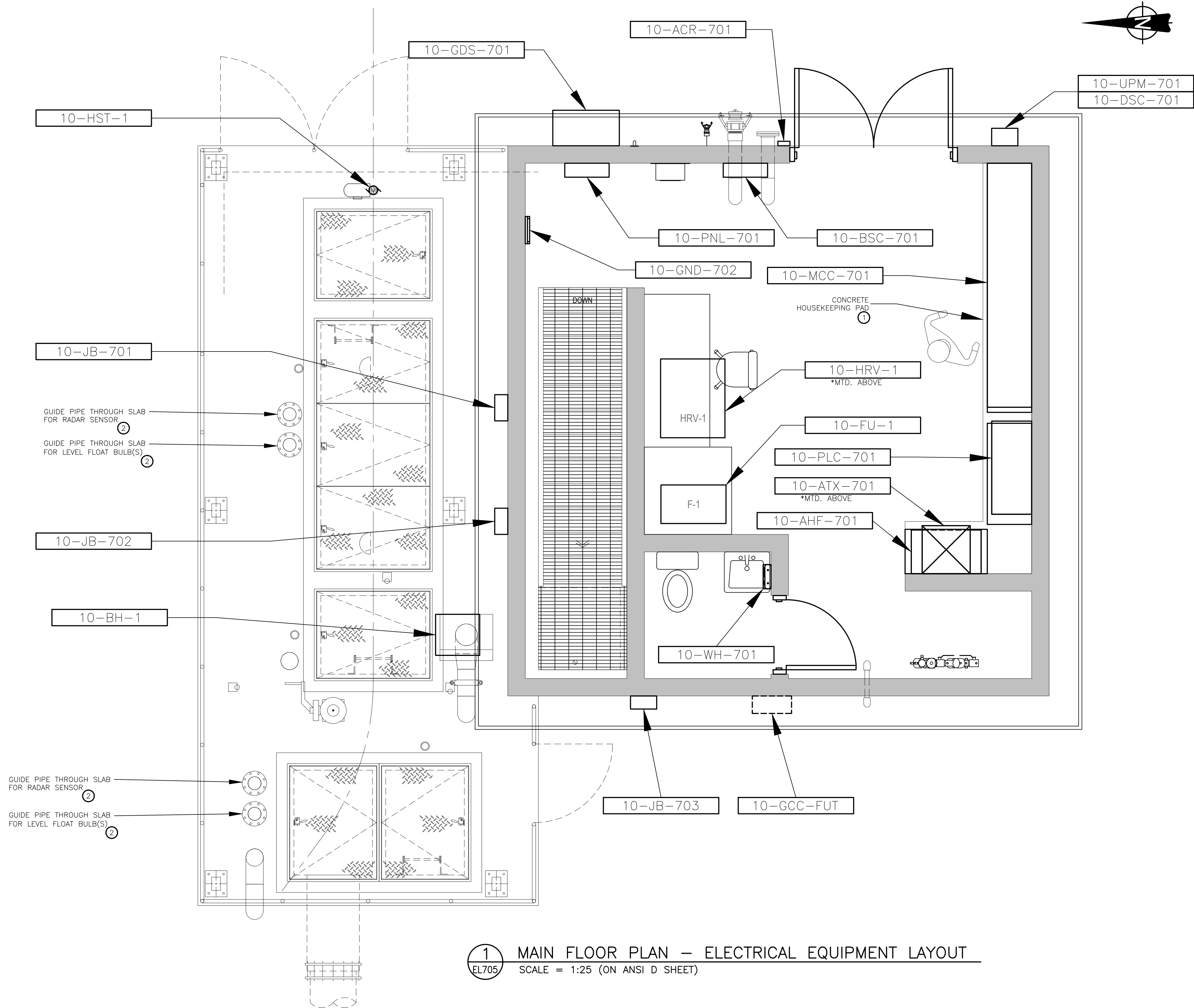


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ELECTRICAL
MCC LAYOUT

Drawing No.
15719
EL
704
Sheet No.
704

Russel Kercher / Jan. 6, 23 / X:\1480\480-27310 Drawings\03 - WPI\Sheet\Construction\705 EQUIP LAYOUT (2 OF 2 - BELOW GRADE).dwg



- GENERAL NOTES:**
- ALL EQUIPMENT AND WIRING SHOWN ON THIS DRAWING IS NEW UNLESS NOTED OTHERWISE.
- KEY NOTES:**
- ALL FLOOR MOUNTED ELECTRICAL EQUIPMENT (MCC, AHF, PLC) TO BE INSTALLED ON CONCRETE HOUSEKEEPING PAD (100MM HIGH) REFER TO STRUCTURAL DRAWINGS FOR INSTALLATION REQUIREMENTS.
 - COORDINATE WITH PROCESS DRAWINGS FOR EXACT LOCATION AND CONFIGURATION OF GUIDE PIPES.

1 MAIN FLOOR PLAN – ELECTRICAL EQUIPMENT LAYOUT
SCALE = 1:25 (ON ANSI D SHEET)

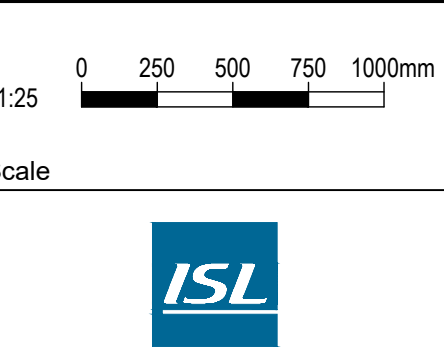
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No.	DESCRIPTION	BY	DATE
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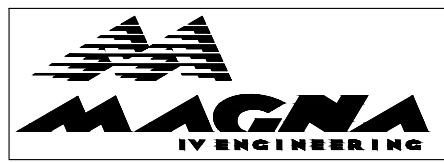


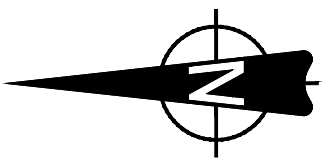
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Designed: RK	Discipline Review: DMD	Date: NOV. 23, 2022

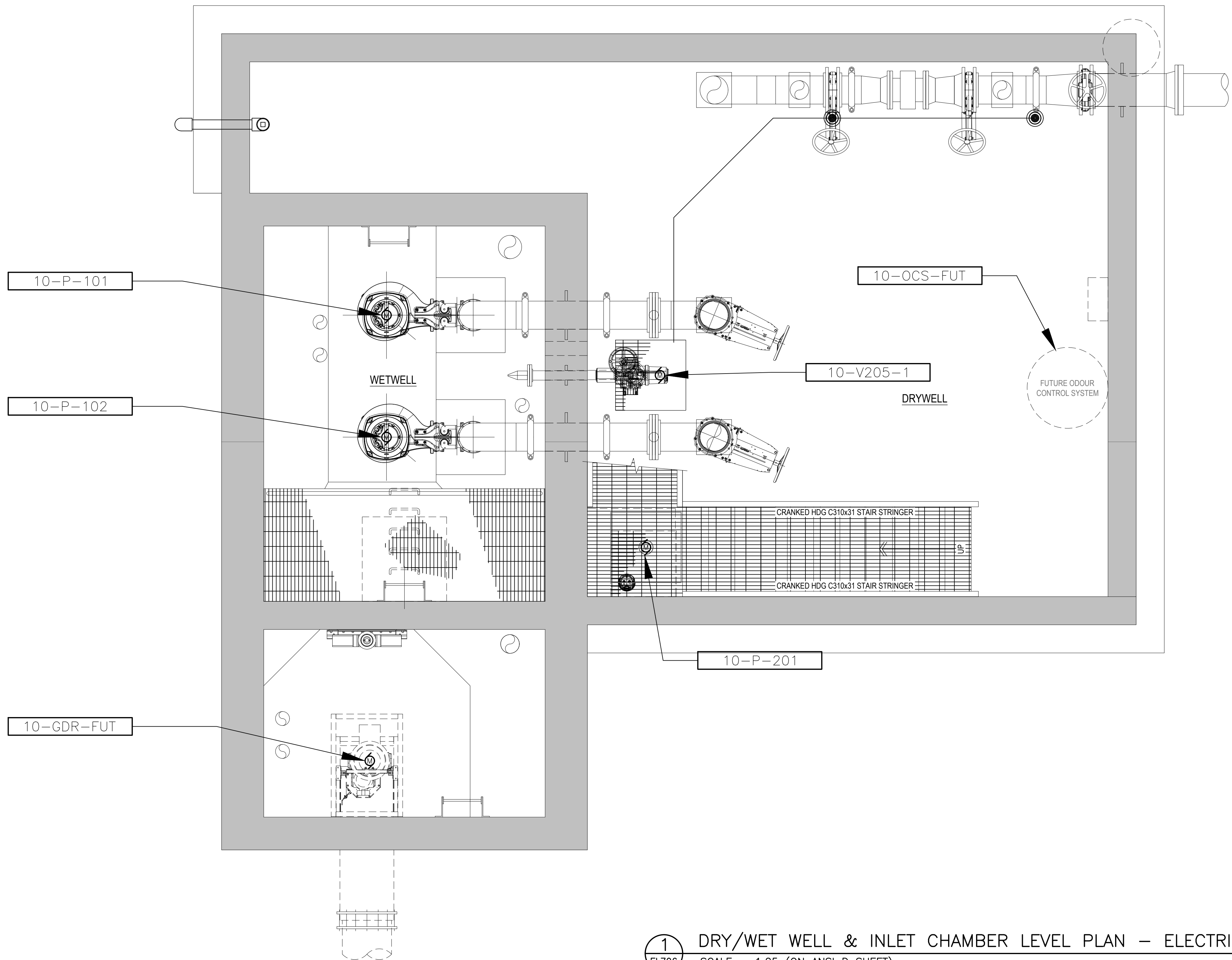
ELECTRICAL EQUIPMENT LAYOUT MAIN FLOOR PLAN	Drawing No.
	15719 EL 705
	Sheet No. 705





GENERAL NOTES:

1. ALL EQUIPMENT AND WIRING SHOWN ON THIS DRAWING IS NEW UNLESS NOTED OTHERWISE.



1 DRY/WET WELL & INLET CHAMBER LEVEL PLAN – ELECTRICAL EQUIPMENT LAYOUT
EL706 SCALE = 1:25 (ON ANSI D SHEET)

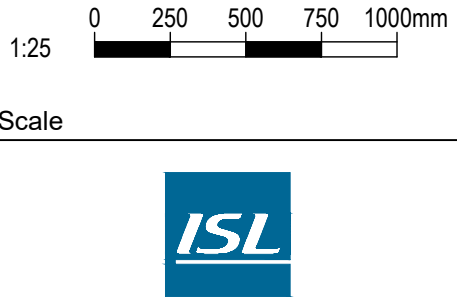
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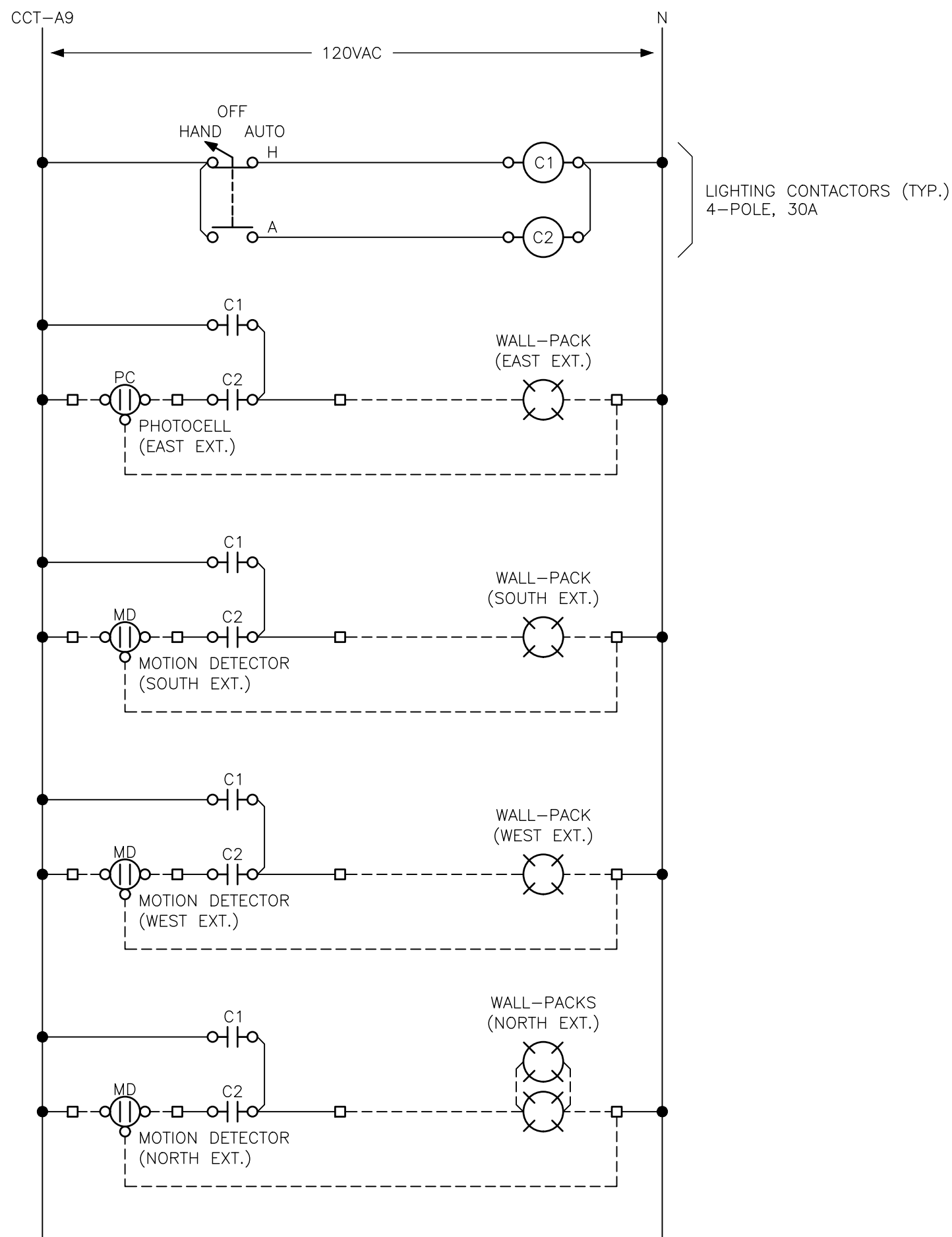
MATTAMY (SHERWOOD PARK) LTD		
HEARTHSTONE SANITARY LIFT STATION		
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Designed: RK	Discipline Review: DMD	Date: NOV. 23, 2022

ELECTRICAL
EQUIPMENT LAYOUT
DRY WELL / WET WELL LEVEL PLAN

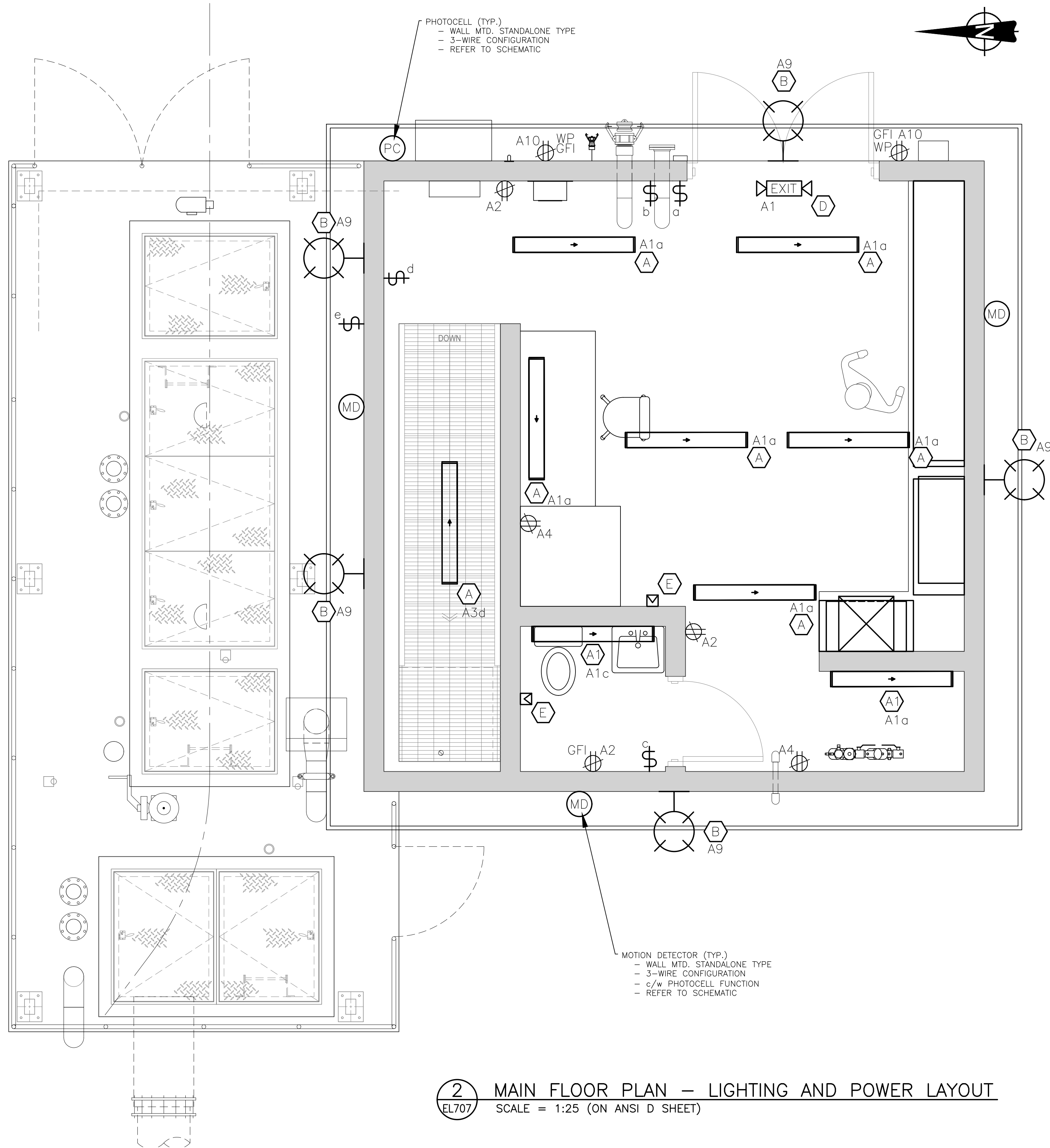


Drawing No.
15719
EL
706
Sheet No.
706

Russel Kercher / Jan. 6, 23 / X:\1680\480-27310 Drawings\03_WPI\sheet\Construction\708 LIGHTING LAYOUT (2 OF 2 - BELOW GRADE).dwg



1 EXTERIOR LIGHTING CONTROL SCHEMATIC
NOT TO SCALE



2 MAIN FLOOR PLAN - LIGHTING AND POWER LAYOUT
SCALE = 1:25 (ON ANSI D SHEET)

GENERAL NOTES:

1. ALL EQUIPMENT AND WIRING SHOWN ON THIS DRAWING IS NEW UNLESS NOTED OTHERWISE.

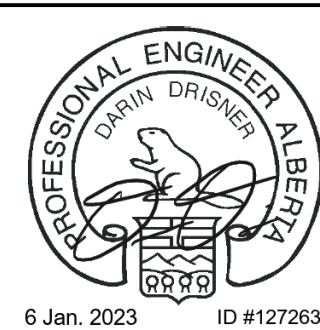
LUMINAIRE SCHEDULE:

- A 4FT LED FIXTURE, 3500K, 10771 LUMEN OUTPUT, 120VAC, 30W SUSPENDED FROM CEILING, METALUX VAPORTITE LED, SERIAL NUMBER: 4VT2-LD5-11-DR100-UNV-LB35-CD1-WL-U
- A1 SAME AS 'A' EXCEPT IT IS WALL MOUNTED.
- B LED, WALL PACK, 12W, 120VAC, 1400 LUMEN OUTPUT, PHOTOCELL CONTROLLED WHERE INDICATED, 3000K, IMPACT-RESISTANT TEMPERED GLASS, WALL MOUNTED, C/W GLARE VISOR AND MOTION SENSOR MODULE FOR ON/OFF OPERATION, LUMARK CROSSTOUR SERIES OR APPROVED EQUIVALENT, MOUNTED 2900mm ABOVE GRADE
- C NOT USED.
- D EXIT SIGN WITH DUAL EMERGENCY LED HEAD, 7.5W EACH, AND BATTERY BACKUP. MIN. RUNTIME OF 30-MINUTES ON LOSS OF POWER. AS MANUFACTURED BY BEGHELLI (FTZ SERIES), OR APPROVED EQUIVALENT.
- E REMOTE EMERGENCY LED HEAD, 7.5W, AS MANUFACTURED BY BEGHELLI (SEA SERIES).
- F CLASS 1 DIV 1 RATED LED LUMINAIRE FOR USE IN WET WELL AND INLET MANHOLE. WALL MOUNT UNLESS SPECIFICALLY NOTED OTHERWISE. RATED 45W, 120VAC, 3750 LUMEN OUTPUT, 5000K COLOR TEMP., CONTROLLED VIA LIGHTING CONTACTOR, COPPER-FREE CORROSION RESISTANT ALUMINUM ALLOW BODY WITH BAKED POWDER EPOXY/POLYESTER FINISH, AND FACTORY SEAL. PROVIDE WITH MOUNTING BRACKET, CLEAR GLOBE OPTIC AND GUARD. USE KILLARK EML LED HAZLOC SERIES.

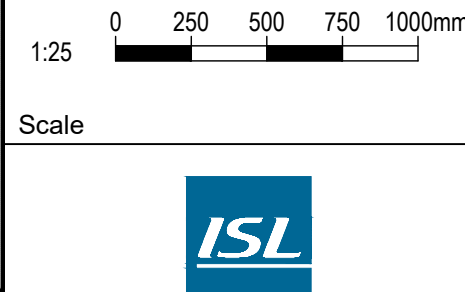
NOTE: THIS DRAWING IS
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No.	DESCRIPTION	BY	DATE
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RM APEGA ID #: 127263
DATE: 6 Jan. 2023
PERMIT NUMBER: P008767
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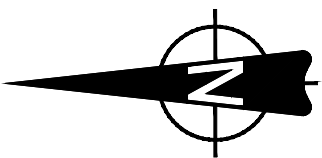
MATTAMY (SHERWOOD PARK) LTD		
HEARTHSTONE SANITARY LIFT STATION		
Drawn: RD	Design Checked: REK	Date: NOV. 23, 2022
Designed: RK	Discipline Review: DMD	Date: NOV. 23, 2022

ELECTRICAL
LIGHTING AND POWER LAYOUT
MAIN FLOOR PLAN



Drawing No.
15719
EL
707
Sheet No.
707

Russel Kercher / Jan. 6, 23 / X:\460\460-27310 Drawings\03_WPI\Sheet\Construction\708_LIGHTING_LAYOUT (2 OF 2 - BELOW GRADE).dwg

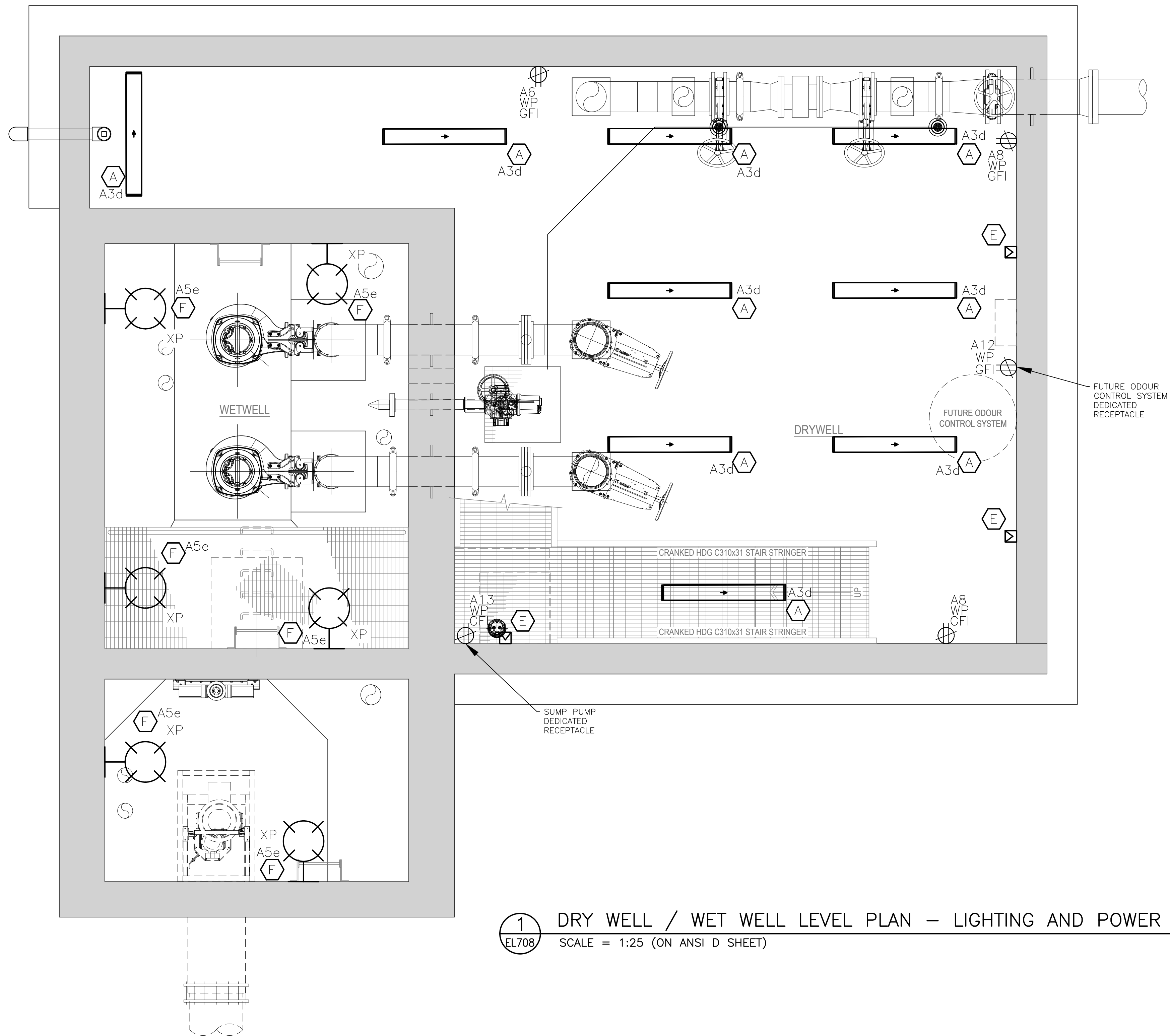


GENERAL NOTES:

1. ALL EQUIPMENT AND WIRING SHOWN ON THIS DRAWING IS NEW UNLESS NOTED OTHERWISE.
2. ALL RECEPTACLES IN THE DRY WELL TO BE GFI TYPE AND SHALL BE MOUNTED A MINIMUM OF 1200MM A.F.F.

LUMINAIRE SCHEDULE:

- A** 4FT LED FIXTURE, 3500K, 10771 LUMEN OUTPUT, 120VAC, 30W SUSPENDED FROM CEILING, METALUX VAPORTITE LED, SERIAL NUMBER: 4VT2-LD5-11-DR100-UNV-L835-CD1-WL-U
- A1** SAME AS 'A' EXCEPT IT IS WALL MOUNTED.
- B** LED, WALL PACK, 12W, 120VAC, 1400 LUMEN OUTPUT, PHOTOCELL CONTROLLED WHERE INDICATED, 3000K, IMPACT-RESISTANT TEMPERED GLASS, WALL MOUNTED, C/W GLARE VISOR AND MOTION SENSOR MODULE FOR ON/OFF OPERATION, LUMARK CROSSTOUR SERIES OR APPROVED EQUIVALENT, MOUNTED 2900mm ABOVE GRADE
- C** NOT USED.
- D** EXIT SIGN WITH DUAL EMERGENCY LED HEAD, 7.5W EACH, AND BATTERY BACKUP. MIN. RUNTIME OF 30-MINUTES ON LOSS OF POWER, AS MANUFACTURED BY BEGHELLI (FTZ SERIES), OR APPROVED EQUIVALENT.
- E** REMOTE EMERGENCY LED HEAD, 7.5W, AS MANUFACTURED BY BEGHELLI (SEA SERIES).
- F** CLASS 1 DIV 1 RATED LED LUMINAIRE FOR USE IN WET WELL AND INLET MANHOLE. WALL MOUNT UNLESS SPECIFICALLY NOTED OTHERWISE. RATED 45W, 120VAC, 3750 LUMEN OUTPUT, 5000K COLOR TEMP., CONTROLLED VIA LIGHTING CONTACTOR, COPPER-FREE CORROSION RESISTANT ALUMINUM ALLOW BODY WITH BAKED POWDER EPOXY/POLYESTER FINISH, AND FACTORY SEAL. PROVIDE WITH MOUNTING BRACKET, CLEAR GLOBE OPTIC AND GUARD. USE KILLARK EML LED HAZLOC SERIES.



1 DRY WELL / WET WELL LEVEL PLAN - LIGHTING AND POWER LAYOUT
EL708 SCALE = 1:25 (ON ANSI D SHEET)

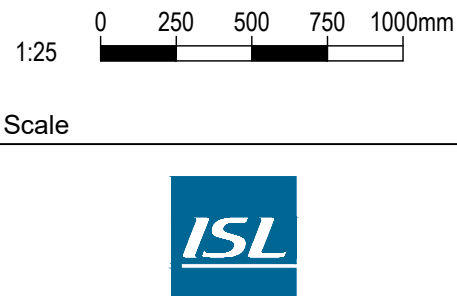
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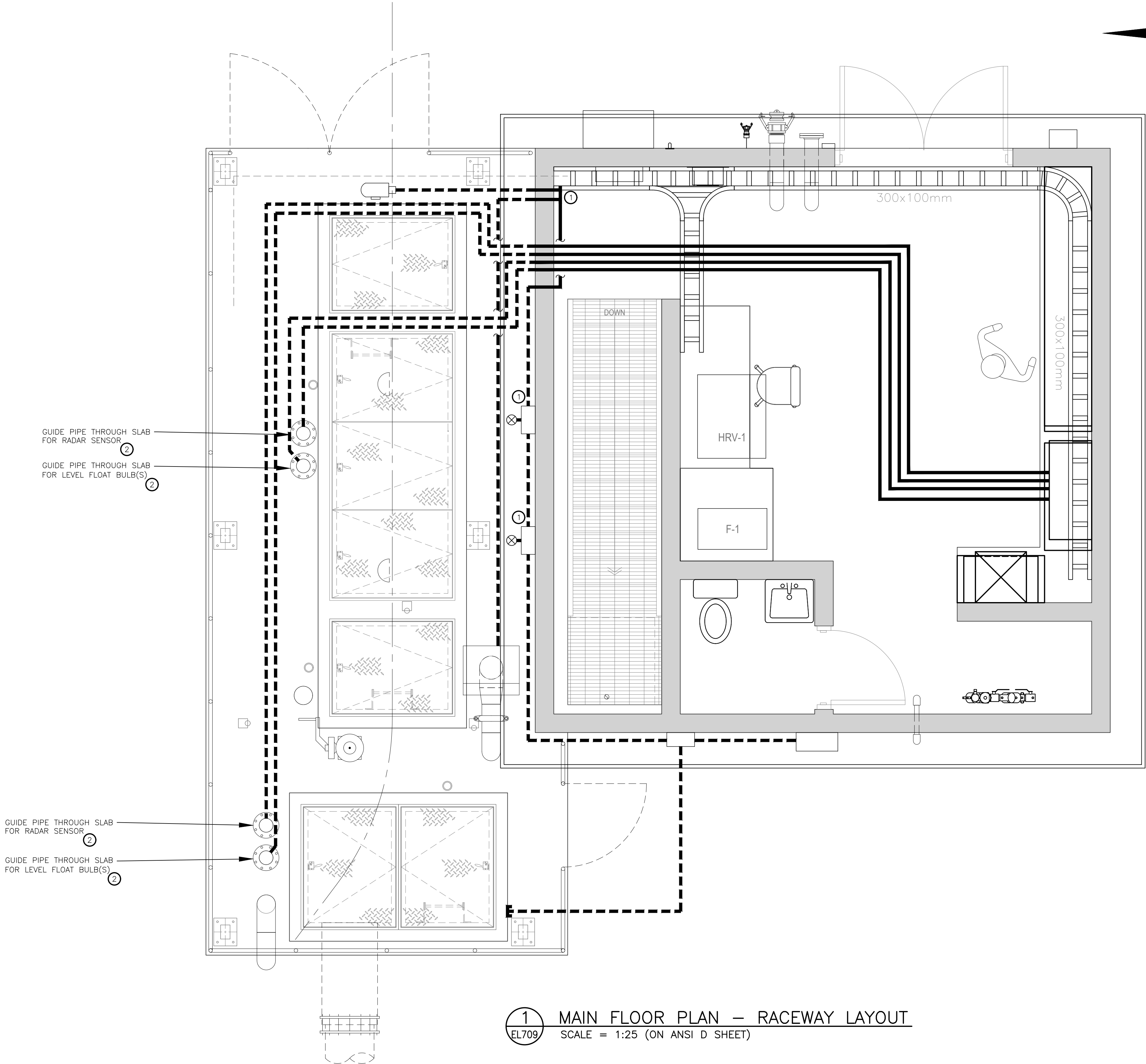


MATTAMY (SHERWOOD PARK) LTD		
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ELECTRICAL
LIGHTING AND POWER LAYOUT
DRY WELL / WET WELL LEVEL PLAN



Drawing No.
15719
EL
708
Sheet No.
708



GENERAL NOTES:

1. ALL EQUIPMENT AND WIRING SHOWN ON THIS DRAWING IS NEW UNLESS NOTED OTHERWISE.
2. ALL RACEWAYS, CONDUIT, AND CABLETRAYS ON THIS DRAWING ARE SHOWN DIAGRAMMATICALLY. CONTRACTOR TO ADJUST ROUTING AS REQUIRED TO SUIT SITE CONDITIONS.

KEY NOTES:

- ① PUMP POWER AND CONTROL CABLING TO RUN IN CABLE TRAY FROM MCC TO VFD THEN THROUGH CONDUITS ON THE NORTH WALL TO THE AND JUNCTION BOX OUTSIDE OF THE BUILDING.
- ② COORDINATE WITH PROCESS DRAWINGS FOR EXACT LOCATION AND CONFIGURATION OF GUIDE PIPES.

LEGEND:

- CONDUIT IN SLAB
— CONDUIT ON SURFACE

1 MAIN FLOOR PLAN – RACEWAY LAYOUT
EL709 SCALE = 1:25 (ON ANSI D SHEET)

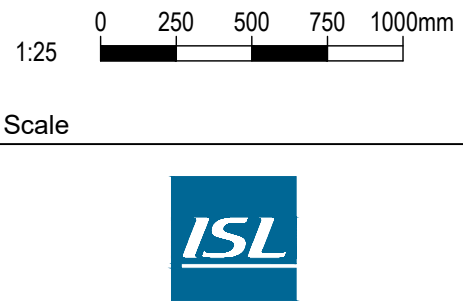
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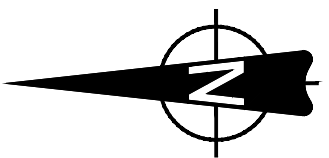
MATTAMY (SHERWOOD PARK) LTD			
HEARTHSTONE SANITARY LIFT STATION			
Drawn: RD	Design Checked: REK	Date: NOV. 23, 2022	
Designed: RK	Discipline Review: DMD	Date: NOV. 23, 2022	

ELECTRICAL
RACEWAY LAYOUT
MAIN FLOOR PLAN



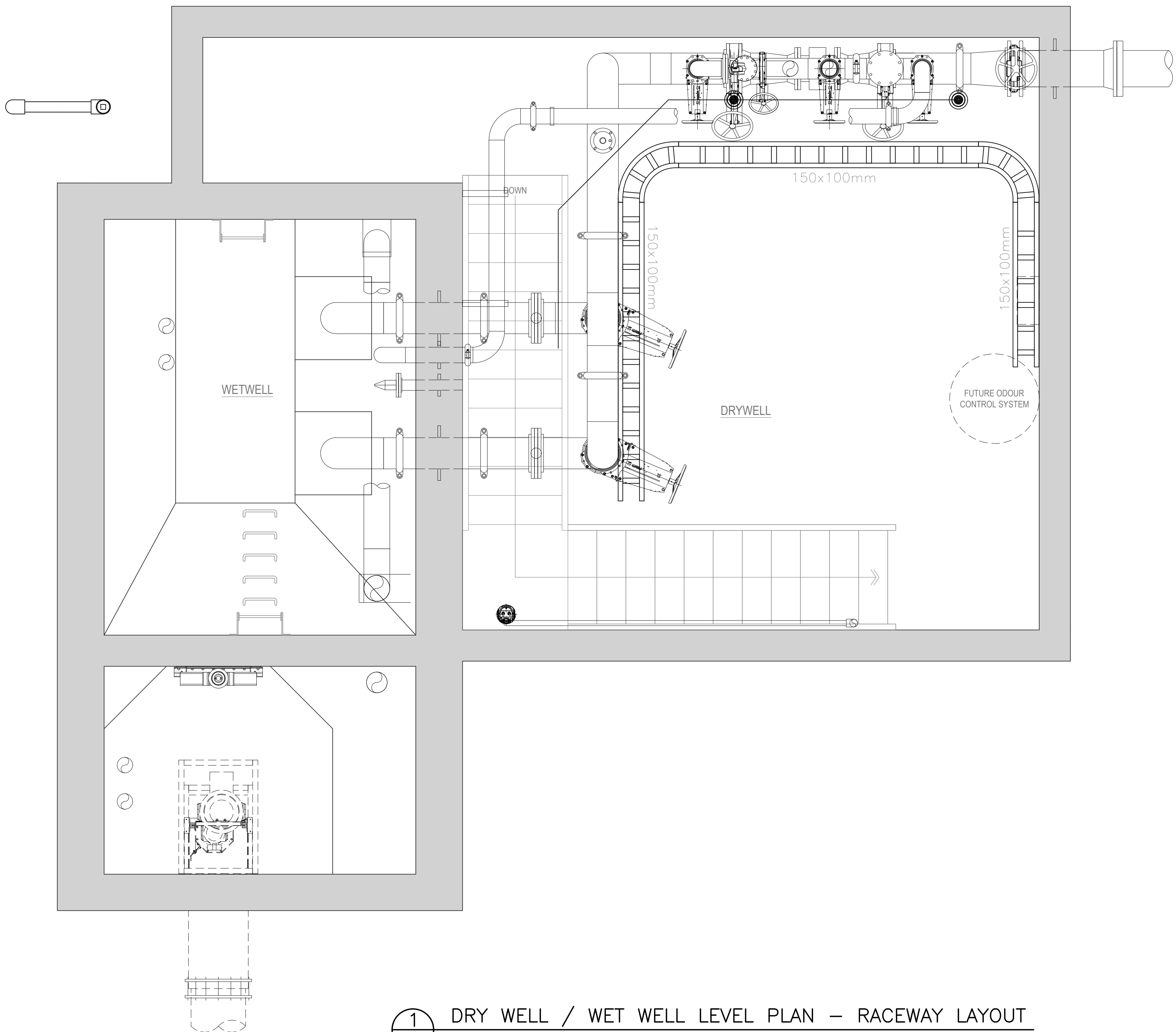
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15719
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709
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709

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GENERAL NOTES:

1. ALL EQUIPMENT AND WIRING SHOWN ON THIS DRAWING IS NEW UNLESS NOTED OTHERWISE.
2. ALL RACEWAYS, CONDUIT, AND CABLETRAYS ON THIS DRAWING ARE SHOWN DIAGRAMATTICALLY. CONTRACTOR TO ADJUST ROUTING AS REQUIRED TO SUIT SITE CONDITIONS.



1 DRY WELL / WET WELL LEVEL PLAN – RACEWAY LAYOUT
EL710 SCALE = 1:25 (ON ANSI D SHEET)

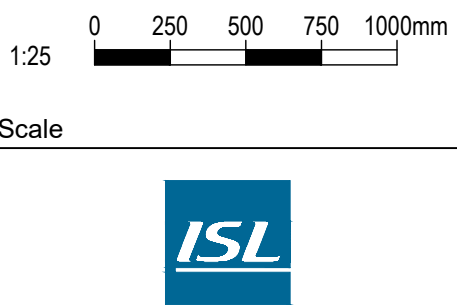
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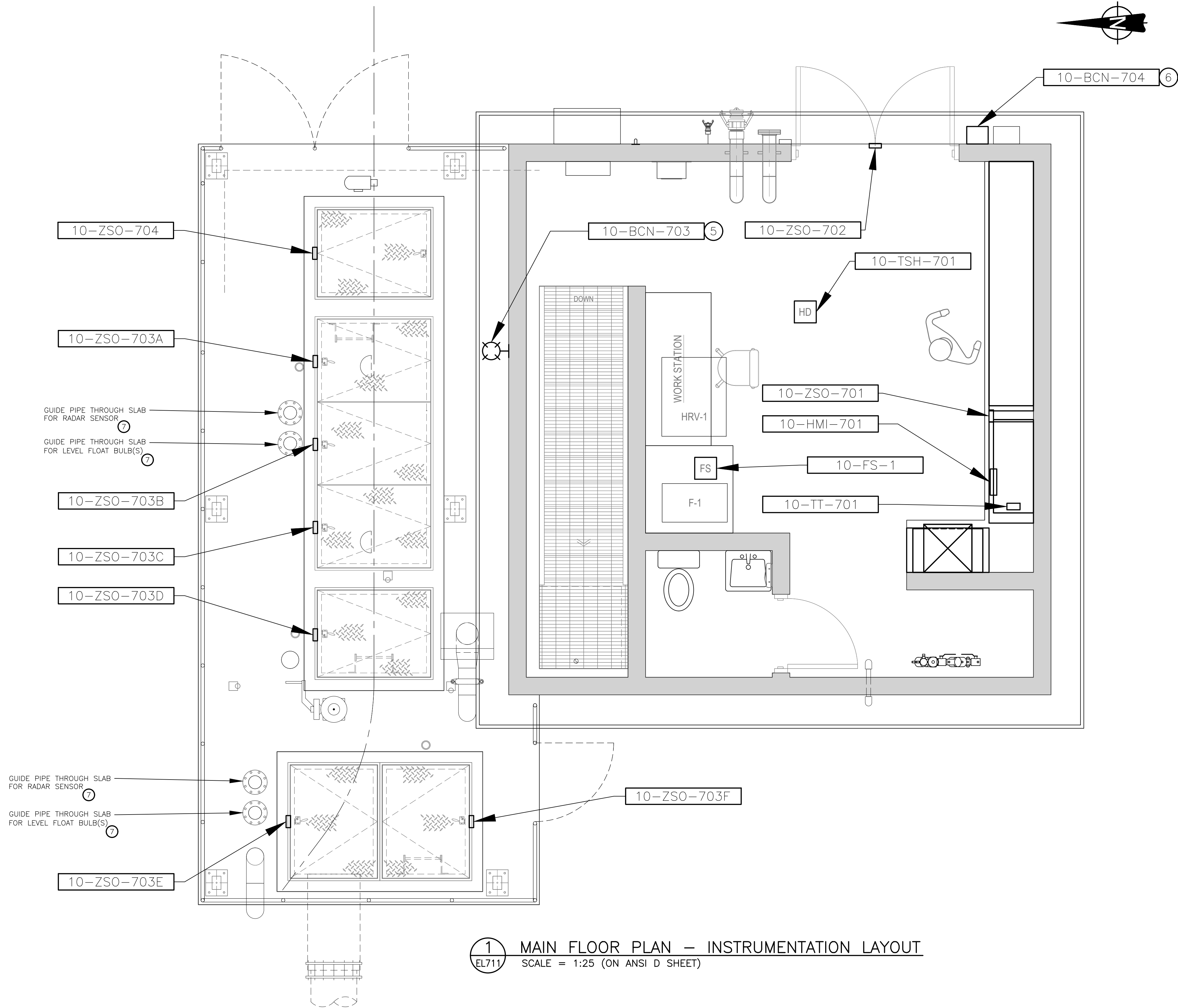
MATTAMY (SHERWOOD PARK) LTD		
HEARTHSTONE SANITARY LIFT STATION		
Drawn: RD	Design Checked: REK	Date: NOV. 23, 2022
Designed: RK	Discipline Review: DMD	Date: NOV. 23, 2022

ELECTRICAL
RACEWAY LAYOUT
DRY WELL / WET WELL LEVEL PLAN



Drawing No.
15719
EL
710
Sheet No.
710

Russel Kercher / Jan. 6, 23 / X:\1680\1680-27310 Drawings\03_MPL\sheet\Construction\T12 INSTRUMENTATION LAYOUT (2 OF 2 - BELOW GRADE).dwg



1 MAIN FLOOR PLAN — INSTRUMENTATION LAYOUT
SCALE = 1:25 (ON ANSI D SHEET)

GENERAL NOTES:

1. ALL EQUIPMENT/WIRING SHOWN ON THIS DRAWING IS NEW TO BE INSTALLED WHERE APPROXIMATELY NOTED.

KEY NOTES:

- 1 H2S SENSOR, 10-AIT-703, TO BE MOUNTED IN THE WETWELL AT THE PLATFORM LEVEL.
- 2 H2S SENSOR, 10-AIT-701/702, TO BE MOUNTED BY THE SUMP IN THE DRYWELL.
- 3 LEL SENSOR, 10-AIT-704, TO ALARM WHEN 5% LEL DETECTED, LOCATED UNDERNEATH SLAB TOP.
- 4 HORN 10-HRN-701 AND BLUE BEACONS 10-BCN-701/702 TO ACTIVATE WHEN SENSORS, 10-AIT-701/702/703, ARE ALARMED.
- 5 RED BEACON, 10-BCN-703, MOUNTED ON EXTERIOR OF THE BUILDING TO ACTIVATE WHEN SENSOR 10-AIT-704 IS ALARMED.
- 6 ENCLOSURE CONTAINING A RED PILOT LIGHT/BEACON INDICATING VENTILATION FAIL C/W SIGNAGE THAT SAYS 'VENTILATION FAIL'.
- 7 COORDINATE WITH PROCESS DRAWINGS FOR EXACT LOCATION AND CONFIGURATION OF GUIDE PIPES.

LEGEND (INSTRUMENTATION):

- | | |
|----|--------------------------|
| HD | - HEAT DETECTOR |
| FS | - AIR FLOW SWITCH |
| H | - HORN |
| G | - GAS DETECTOR |
| L | - LEVEL DETECTION DEVICE |

NOTE: THIS DRAWING IS
HALF SCALE WHEN PRINTED
TO 11" x 17" FORMAT

FOR APPROVAL

No.	DESCRIPTION	BY	DATE
2	FOR APPROVAL	DMD	JAN. 6, 2023
1	FOR APPROVAL	DMD	NOV. 23, 2022

REVISIONS



PERMIT TO PRACTICE
MAGNA IV ENGINEERING, INC.
RM SIGNATURE: *[Signature]*
RM APEGA ID #: 127263
DATE: 6 Jan. 2023
PERMIT NUMBER: P008767
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

1:25
0 250 500 750 1000mm
Scale



MATTAMY (SHERWOOD PARK) LTD

HEARTHSTONE SANITARY
LIFT STATION

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ELECTRICAL
INSTRUMENTATION LAYOUT
MAIN FLOOR PLAN

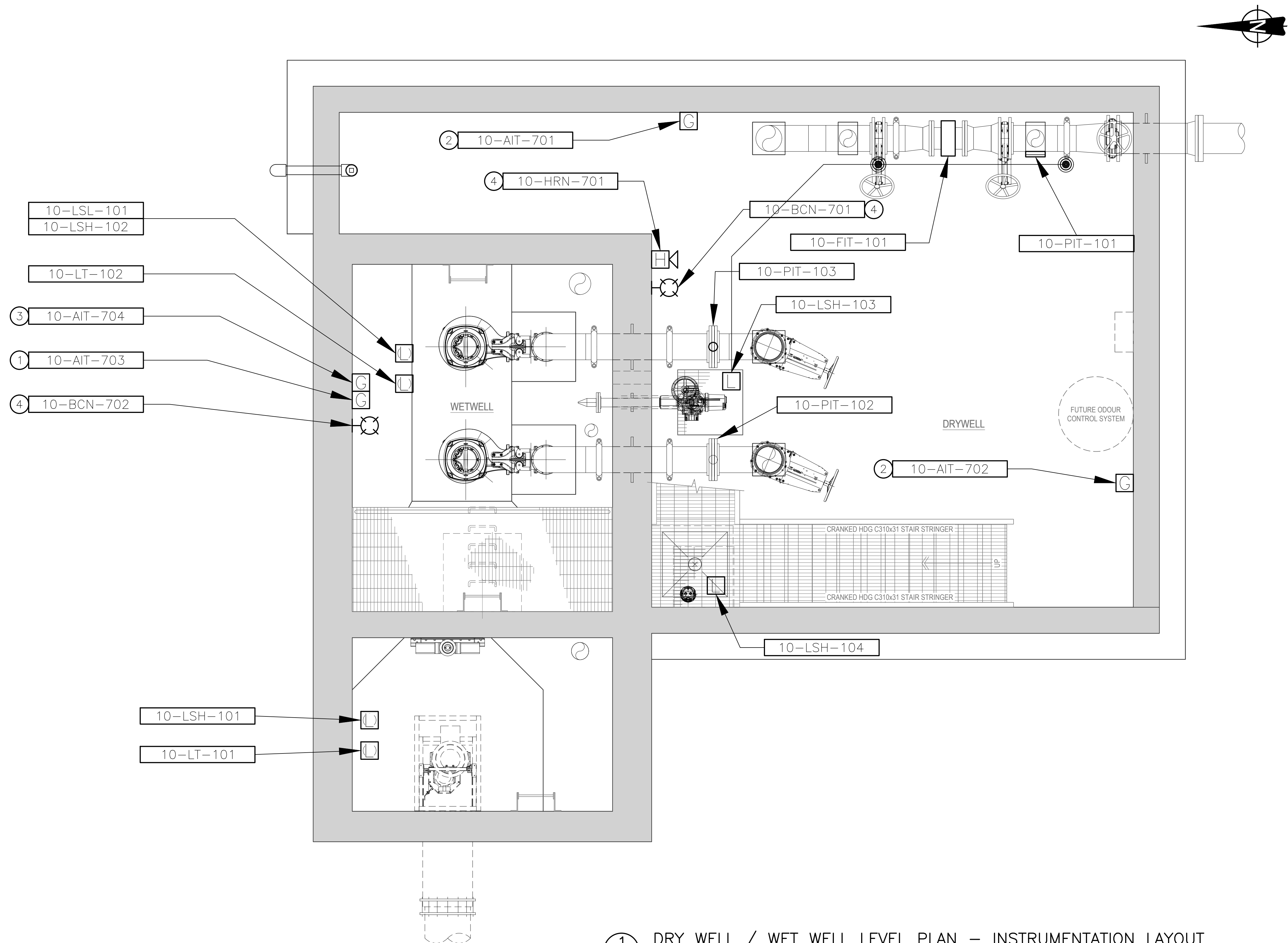
Drawing No.

15719
EL
711

Sheet No.
711



Russel Kercher / Jan. 6, 23 / X:\1680\480-27310 Drawings\03_MPL\sheet\Construction\T12 INSTRUMENTATION LAYOUT (2 OF 2 - BELOW GRADE).dwg



GENERAL NOTES:

1. ALL EQUIPMENT/WIRING SHOWN ON THIS DRAWING IS NEW TO BE INSTALLED WHERE APPROXIMATELY NOTED.

KEY NOTES:

- ① H2S SENSOR, 10-AIT-703, TO BE MOUNTED IN THE WETWELL AT THE PLATFORM LEVEL.
- ② H2S SENSOR, 10-AIT-701/702, TO BE MOUNTED BY THE SUMP IN THE DRYWELL.
- ③ LEL SENSOR, 10-AIT-704, TO ALARM WHEN 5% LEL DETECTED, LOCATED UNDERNEATH SLAB TOP.
- ④ HORN 10-HRN-701 AND BLUE BEACONS 10-BCN-701/702 TO ACTIVATE WHEN SENSORS, 10-AIT-701/702/703, ARE ALARMED.
- ⑤ RED BEACON, 10-BCN-703, MOUNTED ON EXTERIOR OF THE BUILDING TO ACTIVATE WHEN SENSOR 10-AIT-704 IS ALARMED.
- ⑥ ENCLOSURE CONTAINING A RED PILOT LIGHT/BEACON INDICATING VENTILATION FAIL C/W SIGNAGE THAT SAYS 'VENTILATION FAIL'.

LEGEND (INSTRUMENTATION):

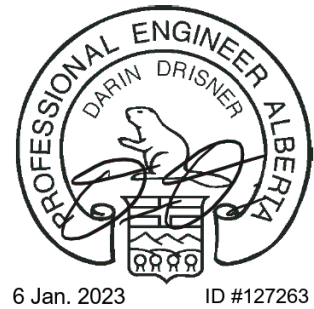
HD	- HEAT DETECTOR
FS	- AIR FLOW SWITCH
H	- HORN
G	- GAS DETECTOR
L	- LEVEL DETECTION DEVICE

1 DRY WELL / WET WELL LEVEL PLAN - INSTRUMENTATION LAYOUT
SCALE = 1:25 (ON ANSI D SHEET)

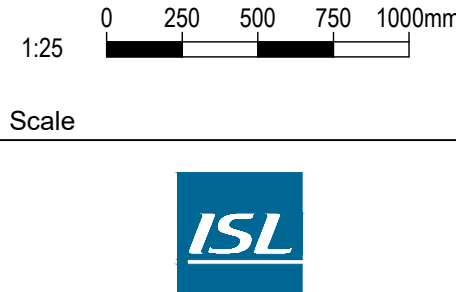
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PERMIT TO PRACTICE
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RM SIGNATURE: *[Signature]*
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MATTAMY (SHERWOOD PARK) LTD		
HEARTHSTONE SANITARY LIFT STATION		
Drawn: RD	Design Checked: REK	Date: NOV. 23, 2022
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ELECTRICAL
INSTRUMENTATION LAYOUT
DRY WELL / WET WELL LEVEL PLAN



Drawing No.
15719
EL
712
Sheet No.
712

CABLE / CONDUIT SCHEDULE								
TAG	FROM	TO / PURPOSE	# OF CONDUCTORS	TYPE	VOLTS / PHASE	CONDUIT SIZE	POWER/CONTROL/INSTRUMENTATION	NOTES
10-PC-701	10-TX-701	10-DISC-701	4C #3/0 AWG + 1C #4 GRD	RW90	600 / 3	103mm RIGID PVC CONDUIT	POWER	
10-PC-702	10-DISC-701	10-UPM-701	4C #3/0 AWG + 1C #4 GRD	RW90	600 / 3	63mm RIGID GALV. CONDUIT	POWER	
10-PC-703	10-UPM-701	10-MB-701	4C #3/0 AWG + 1C #4 GRD	RW90	600 / 3	63mm RIGID GALV. CONDUIT	POWER	
10-PC-704	(NOT USED)	(NOT USED)						
10-PC-705	10-ATS-701	10-GEN-701	4C #3/0 AWG + 1C #4 GRD	RW90	600 / 3	63mm RIGID PVC CONDUIT	POWER	
10-PC-706	(NOT USED)	(NOT USED)						
10-PC-707	10-CB-701	10-GDS-701	4C #3/0 AWG + 1C #4 GRD	RW90	600 / 3	63mm RIGID PVC CONDUIT	POWER	
10-PC-708	10-VFD-101	10-JB-701	3C #6 AWG + 1C #10 GRD	RW90	600 / 3	35mm RIGID GALV. CONDUIT	POWER	
10-PC-709	10-JB-701	10-P-101	MANUF. COMPOSITE CABLE	RW90	600 / 3	35mm RIGID GALV. CONDUIT	POWER	CONDUIT STUB INTO WET WELL
10-PC-710	10-VFD-102	10-JB-702	3C #6 AWG + 1C #10 GRD	RW90	600 / 3	35mm RIGID GALV. CONDUIT	POWER	
10-PC-711	10-JB-702	10-P-102	MANUF. COMPOSITE CABLE	RW90	600 / 3	35mm RIGID GALV. CONDUIT	POWER	CONDUIT STUB INTO WET WELL
10-PC-712	10-CB-706	10-BH-1	3C #10 AWG + 1C #12 GRD	RW90	600 / 3	27mm RIGID GALV. CONDUIT	POWER	
10-PC-713	10-CB-707	10-GCC-FUT	EMPTY CONDUIT	N/A	600 / 3	27mm RIGID GALV. CONDUIT	POWER	FOR FUTURE GRINDER
10-PC-714	10-GCC-FUT	10-JB-703	FUTURE	N/A	N/A	N/A	POWER	FOR FUTURE GRINDER
10-PC-715	10-JB-703	10-GDR-FUT	EMPTY CONDUIT	N/A	600 / 3	27mm RIGID GALV. CONDUIT	POWER	FOR FUTURE GRINDER
10-PC-716	10-CB-708	10-ATX-701	3C #6 AWG + GRD	TECK 90	600 / 3		POWER	
10-PC-717	10-ATX-701	10-AHF-701	3C #4 AWG + GRD	TECK 90	480 / 3		POWER	
10-PC-718	(NOT USED)	(NOT USED)						
10-PC-719	10-PNL-701	10-TX-702	4C #1 AWG + GRD	TECK 90	208 / 3	N/A	POWER	
10-PC-720	10-PNL-701	10-WH-701	2C #8 AWG + GRD	TECK 90	208 / 1	N/A	POWER	
10-PC-721	10-PNL-701	10-HST-701	3C #12 AWG + 1C #12 GRD	RW90	208 / 3	21mm RIGID PVC CONDUIT	POWER	
10-PC-722	10-PNL-701	10-V205-1	3C #12 AWG + GRD	TECK 90	208 / 3	N/A	POWER	
10-PC-723	10-PNL-701	10-GEN-701	3C #4 AWG + 1C #6 GRD	RW90	208 / 1	41mm RIGID PVC CONDUIT	POWER	FOR GENERATOR PANELBOARD

GENERAL NOTES:

1. ALL WIRING SHALL USE COPPER CONDUCTORS UNLESS SPECIFICALLY NOTED OTHERWISE.

CABLE / CONDUIT SCHEDULE							
TAG	FROM	TO / PURPOSE	# OF CONDUCTORS	# OF SPARES	CONDUCTOR SIZE	POWER/CONTROL/INSTRUMENTATION	NOTES
10-CC-701	10-AHF-701	10-PLC-701	2	2	14 AWG	CONTROL	
10-CC-702	10-ATS-701	10-PLC-701	3	2	14 AWG	CONTROL	
10-CC-703	10-GEN-701	10-PLC-701	8	2	14 AWG	CONTROL	
10-CC-704	10-LSH-101	10-PLC-701	2	0	14 AWG	CONTROL	
10-CC-705	10-LSH-102	10-PLC-701	2	0	14 AWG	CONTROL	
10-CC-706	10-LSH-103	10-PLC-701	2	0	14 AWG	CONTROL	
10-CC-707	10-LSH-104	10-PLC-701	2	0	14 AWG	CONTROL	
10-CC-708	10-PFR-701	10-PLC-701	2	0	14 AWG	CONTROL	
10-CC-709	10-JB-701	10-PLC-701	5	1	14 AWG	CONTROL	
10-CC-710	10-JB-702	10-PLC-701	5	1	14 AWG	CONTROL	
10-CC-711	10-VFD-101	10-PLC-701	8	2	14 AWG	CONTROL	
10-CC-712	10-VFD-102	10-PLC-701	8	2	14 AWG	CONTROL	
10-CC-713	10-SPD-701	10-PLC-701	2	0	14 AWG	CONTROL	
10-CC-714	10-TSH-701	10-PLC-701	2	0	14 AWG	CONTROL	
10-CC-715	10-ZSO-702	10-PLC-701	2	0	14 AWG	CONTROL	
10-CC-716	10-ZSO-703	10-PLC-701	4	0	14 AWG	CONTROL	
10-CC-717	10-ZSO-704	10-PLC-701	2	0	14 AWG	CONTROL	
10-CC-718	10-V205-1	10-PLC-701	2	0	14 AWG	CONTROL	
10-CC-719	10-FS-1	10-PLC-701	2	0	14 AWG	CONTROL	
10-CC-720	10-LSL-101	10-PLC-701	2	0	14 AWG	CONTROL	
10-CC-721	10-BCN-701	10-PLC-701	2	0	14 AWG	CONTROL	
10-CC-722	10-BCN-702	10-PLC-701	2	0	14 AWG	CONTROL	
10-CC-723	10-BCN-703	10-PLC-701	2	0	14 AWG	CONTROL	
10-CC-724	10-BCN-704	10-PLC-701	2	0	14 AWG	CONTROL	
10-CC-725	10-HRN-701	10-PLC-701	2	0	14 AWG	CONTROL	
10-CC-726	10-FIT-701	10-PLC-701	4	0	16TSP	CONTROL	
10-CC-727	10-GEN-701	10-PLC-701	4	2	16TSP	CONTROL	
10-CC-728	10-LIT-701	10-PLC-701	4	2	16TSP	CONTROL	
10-CC-729	10-LIT-702	10-PLC-701	4	2	16TSP	CONTROL	
10-CC-730	10-TT-701	10-PLC-701	2	0	16TSP	CONTROL	
10-CC-731	10-PIT-701	10-PLC-701	4	2	16TSP	CONTROL	
10-CC-732	10-PIT-702	10-PLC-701	4	2	16TSP	CONTROL	
10-CC-733	10-PIT-703	10-PLC-701	4	2	16TSP	CONTROL	
10-CC-734	10-VFD-701	10-PLC-701	4	0	16TSP	CONTROL	
10-CC-735	10-VFD-702	10-PLC-701	4	0	16TSP	CONTROL	
10-CC-736	10-GEN-701	10-PLC-701	12	3	14 AWG	CONTROL	

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RM SIGNATURE:

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NONE / N.T.S.

Scale

MATTAMY (SHERWOOD PARK) LTD

HEARTHSTONE SANITARY
LIFT STATION

Drawn: RD	Design Checked: REK	Date: NOV. 23, 2022
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ELECTRICAL
CABLE SCHEDULE



Drawing No.
15719
EL
713
Sheet No.
713

Russel Kercher / Jan. 6, 23 / X:\480\480-27310 Drawings\03_VIP\Isheet\Construction\714 PANEL SCHEDULE.dwg

ELECTRICAL PANEL SCHEDULE													
PANEL: A				VOLTAGE: 120 / 208 V 3 PHASE, 4 WIRE									
FED FROM: 10-TX-702 (IN MCC)													
LOCATION: MAIN FLOOR													
BUS AMPS: 100 A				MIN AIC: 10,000 A									
MAIN LUGS ONLY						100% RATED NEUTRAL BUS							
SURFACE MOUNT						PHASE			EQUIPMENT GROUND BUS				
LOAD DESCRIPTION	TRIP	POLE	NO.	A	B	C	NO.	POLE	TRIP	LOAD DESCRIPTION			
MAIN FLOOR LIGHTING	15	1	1	•	•		2	1	20	RECEPTACLES			
DRY WELL LIGHTING	15	1	3				4	1	20	RECEPTACLES			
WET WELL / INLET LIGHTING	15	1	5		•		6	1	20	RECEPTACLES			
FURNACE	15	1	7	•			8	1	20	RECEPTACLES			
EXTERIOR LIGHTING	15	1	9		•		10	1	20	RECEPTACLES - EXTERIOR			
YARD LIGHTING	15	1	11				12	1	20	ODOUR CONTROL RECEPTACLE			
LIGHTING CONTROL	15	1	13	•	•		14	2	60	GENERATOR PANELBOARD			
SUMP PUMP RECEPTACLE	15	1	15				16	2	60	GENERATOR PANELBOARD			
PLC CABINET	15	1	17		•		18	1	15	BLOWER HEATER CONTROLS			
WATER HEATER	30	2	19	•			20	3	15	HOIST			
WATER HEATER	30	2	21		•		22	3	15	HOIST			
HRV	15	1	23				24	3	15	HOIST			
SPARE	15	1	25	•	•		26	3	15	MUD VALVE ACTUATOR			
SPARE	15	1	27				28	3	15	MUD VALVE ACTUATOR			
SPARE	15	1	29		•		30	3	15	MUD VALVE ACTUATOR			
SPACE	-	-	31	•			32	-	-	SPACE			
SPACE	-	-	33		•		34	-	-	SPACE			
SPACE	-	-	35				36	-	-	SPACE			
SPACE	-	-	37	•	•		38	-	-	SPACE			
SPACE	-	-	39				40	-	-	SPACE			
SPACE	-	-	41		•		42	-	-	SPACE			

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MATTAMY (SHERWOOD PARK) LTD

HEARTHSTONE SANITARY
LIFT STATION

Drawn: RD Design Checked: REK Date: NOV. 23, 2022

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ELECTRICAL
PANEL SCHEDULE

Drawing No.
15719
EL
714

Sheet No.
714



GENERAL NOTES:

1. DETAILS PROVIDED FOR EQUIPMENT UNDER THE SCOPE OF OTHER DIVISIONS IS PROVIDED FOR REFERENCE ONLY -- CONFIRM DETAILS WITH DESIGN DOCUMENTS UNDER OTHER DISCIPLINES AND SHOP DRAWINGS AS REQUIRED.

EQUIPMENT SCHEDULE						
DESCRIPTION	TAG	MAKE	MODEL	SIZE	LOCATION	COMMENTS
ACCESS CARD READER	10-ACR-701				EXTERIOR	BUILDING SECURITY
ACTIVE HARMONIC FILTER	10-AHF-701	ACCUSINE PCS+	PCSP040D7	40A	MAIN FLOOR	
GAS MONITOR (H2S)	10-AIT-701				DRYWELL	REFER TO INSTRUMENT DATASHEET IN SPECIFICATION
GAS MONITOR (H2S)	10-AIT-702				DRYWELL	REFER TO INSTRUMENT DATASHEET IN SPECIFICATION
GAS MONITOR (H2S)	10-AIT-703				WETWELL	REFER TO INSTRUMENT DATASHEET IN SPECIFICATION
GAS MONITOR (LEL)	10-AIT-704				WETWELL	REFER TO INSTRUMENT DATASHEET IN SPECIFICATION
AUTOMATIC TRANSFER SWITCH	10-ATS-701			200A	WITHIN MCC	
BEACON/STROBE	10-BCN-701				DRYWELL	BLUE BEACON
BEACON/STROBE	10-BCN-702				WETWELL	BLUE BEACON
BEACON/STROBE	10-BCN-703				DRYWELL EXTERIOR	RED BEACON
BLOWER HEATER	10-BH-1	DEXON AIR SYSTEMS INC	SMDH16-1	16.5KW	WETWELL	SUPPLY BY BUILDING MECHANICAL TRADE
BUILDING SECURITY CABINET	10-BSC-701				MAIN FLOOR	COORDINATE WITH BUILDING SECURITY TRADE
DIGITAL METERING	10-DPM-701				WITHIN MCC	
FLOW TRANSMITTER	10-FQIT-101				DRYWELL	REFER TO INSTRUMENT DATASHEET IN SPECIFICATION
HVAC FLOW SWITCH	10-FS-1				MAIN FLOOR	REFER TO INSTRUMENT DATASHEET IN SPECIFICATION
FURNACE	10-FU-1	KEEPRITE	N95ESN0601714	1.15KW	MAIN FLOOR	SUPPLY BY BUILDING MECHANICAL TRADE
GRINDER CONTROL CABINET	10-GCC-FUT			15A	EXTERIOR	FUTURE
GRINDER	10-GDR-FUT	MUFFIN MONSTER	40002-2412	10HP	INLET VAULT	FUTURE
GENERATOR DOCKING STATION	10-GDS-701				EXTERIOR	
GENERATOR	10-GEN-701			125KW	EXTERIOR	
GROUND GRID	10-GND-701				EXTERIOR	
GROUND BAR	10-GND-702				MAIN FLOOR	
HUMAN MACHINE INTERFACE (HMI) SCREEN	10-HMI-701				MAIN FLOOR	REFER TO CONTROL CABINET BILL OF MATERIAL (DWG. 720)
HORN	10-HRN-701				DRYWELL	REFER TO INSTRUMENT DATASHEET IN SPECIFICATION
HVAC UNIT	10-HRV-1	LIFEBREATH	530ERV	2.6KW	MAIN FLOOR	SUPPLY BY BUILDING MECHANICAL TRADE
HOIST/Crane	10-HST-1				WETWELL	REFER TO INSTRUMENT DATASHEET IN SPECIFICATION
LEVEL SWITCH	10-LAHH-101	FLYGT			WETWELL	REFER TO INSTRUMENT DATASHEET IN SPECIFICATION
LEVEL SWITCH	10-LAHH-102	FLYGT			DRYWELL	REFER TO INSTRUMENT DATASHEET IN SPECIFICATION
LEVEL SWITCH	10-LALL-101	FLYGT			WETWELL	REFER TO INSTRUMENT DATASHEET IN SPECIFICATION
LEVEL TRANSMITTER	10-LIT-701				INLET VAULT	REFER TO INSTRUMENT DATASHEET IN SPECIFICATION
LEVEL TRANSMITTER	10-LIT-702				WETWELL	REFER TO INSTRUMENT DATASHEET IN SPECIFICATION
HIGH LEVEL SWITCH	10-LSH-103				DRYWELL (SUMP PIT)	REFER TO INSTRUMENT DATASHEET IN SPECIFICATION
HIGH LEVEL SWITCH	10-LSH-104				DRYWELL (WEEPING TILE SUMP)	REFER TO INSTRUMENT DATASHEET IN SPECIFICATION
ODOUR CONTROL SYSTEM	10-OCS-FUT				DRYWELL	FUTURE

EQUIPMENT SCHEDULE						
DESCRIPTION	TAG	MAKE	MODEL	SIZE	LOCATION	COMMENTS
PUMP #1	10-P-101	FLYGT	N3202.660 30-18-6AA-W	35HP	WETWELL	SUPPLY BY PROCESS MECHANICAL TRADE
PUMP #2	10-P-102	FLYGT	N3202.660 30-18-6AA-W	35HP	WETWELL	SUPPLY BY PROCESS MECHANICAL TRADE
WEEPING TILE SUMP PUMP	10-P-201				DRYWELL	SUPPLY BY BUILDING MECHANICAL TRADE
POWER FAIL RELAY	10-PFR-701				WITHIN MCC	
PRESSURE TRANSMITTER	10-PIT-101				DRYWELL	REFER TO INSTRUMENT DATASHEET IN SPECIFICATION
PRESSURE TRANSMITTER	10-PIT-102				DRYWELL	REFER TO INSTRUMENT DATASHEET IN SPECIFICATION
PRESSURE TRANSMITTER	10-PIT-103				DRYWELL	REFER TO INSTRUMENT DATASHEET IN SPECIFICATION
PANELBOARD (PANEL 'A')	10-PNL-701				MAIN FLOOR	
PUMP SENSOR MONITOR	10-PSM-101				WITHIN CONTROL CABINET	REFER TO CONTROL CABINET BILL OF MATERIAL (DWG. 720)
PUMP SENSOR MONITOR	10-PSM-102				WITHIN CONTROL CABINET	REFER TO CONTROL CABINET BILL OF MATERIAL (DWG. 720)
SURGE PROTECTIVE DEVICE	10-SPD-701				WITHIN MCC	
SURGE PROTECTIVE DEVICE	10-SPD-702				WITHIN CONTROL CABINET	REFER TO CONTROL CABINET BILL OF MATERIAL (DWG. 720)
MUD VALVE SOLENOID	10-V205-1				DRYWELL (SUMP PIT)	SUPPLY BY PROCESS MECHANICAL TRADE
TEMPERATURE TRANSMITTER	10-TT-701				MAIN FLOOR	REFER TO INSTRUMENT DATASHEET IN SPECIFICATION
HEAT DETECTOR	10-TSH-701				MAIN FLOOR	REFER TO INSTRUMENT DATASHEET IN SPECIFICATION
UTILITY TRANSFORMER	10-TX-701			TBD	EXTERIOR	SUPPLY BY UTILITY (FORTIS)
TRANSFORMER (PANEL 'A')	10-TX-702			30KVA	WITHIN MCC	
UTILITY METER	10-UPM-701				WITHIN MCC	METER BASE AND SOCKET BY CONTRACTOR - METER BY UTILITY (FORTIS)
UNINTERRUPTIBLE POWER SUPPLY	10-UPS-701	EATON			WITHIN CONTROL CABINET	REFER TO CONTROL CABINET BILL OF MATERIAL (DWG. 720)
VARIABLE FREQUENCY DRIVE (PUMP 1)	10-VFD-101			46A	MAIN FLOOR	
VARIABLE FREQUENCY DRIVE (PUMP 2)	10-VFD-102			46A	MAIN FLOOR	
HOT WATER HEATER	10-WH-701	RHEEM	RETEX-06	6KW	WASHROOM	SUPPLY BY BUILDING MECHANICAL TRADE
DOOR SWITCH	10-ZSO-701				WITHIN CONTROL CABINET	REFER TO CONTROL CABINET BILL OF MATERIAL (DWG. 720)
DOOR SWITCH	10-ZSO-702				MAIN FLOOR	REFER TO INSTRUMENT DATASHEET IN SPECIFICATION
HATCH SWITCH	10-ZSO-703A				WETWELL	REFER TO INSTRUMENT DATASHEET IN SPECIFICATION
HATCH SWITCH	10-ZSO-703B				WETWELL	REFER TO INSTRUMENT DATASHEET IN SPECIFICATION
HATCH SWITCH	10-ZSO-703C				WETWELL	REFER TO INSTRUMENT DATASHEET IN SPECIFICATION
HATCH SWITCH	10-ZSO-703D				WETWELL	REFER TO INSTRUMENT DATASHEET IN SPECIFICATION
HATCH SWITCH	10-ZSO-703E				INLET VAULT	REFER TO INSTRUMENT DATASHEET IN SPECIFICATION
HATCH SWITCH	10-ZSO-703F				INLET VAULT	REFER TO INSTRUMENT DATASHEET IN SPECIFICATION
HATCH SWITCH	10-ZSO-704				DRYWELL (EXT. ACCESS)	REFER TO INSTRUMENT DATASHEET IN SPECIFICATION

NOTE: THIS DRAWING IS
HALF SCALE WHEN PRINTED
TO 11" x 17" FORMAT

FOR APPROVAL

2	FOR APPROVAL	DMD	JAN. 6, 2023	
1	FOR APPROVAL	DMD	NOV. 23, 2022	
No.	DESCRIPTION	BY	DATE	
REVISIONS				



PERMIT TO PRACTICE
MAGNA IV ENGINEERING, INC.

RM SIGNATURE:

RM APEGA ID #: 127263

DATE: 6 Jan. 2023

PERMIT NUMBER: P008767

The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

NONE / N.T.S.

Scale

MATTAMY (SHERWOOD PARK) LTD

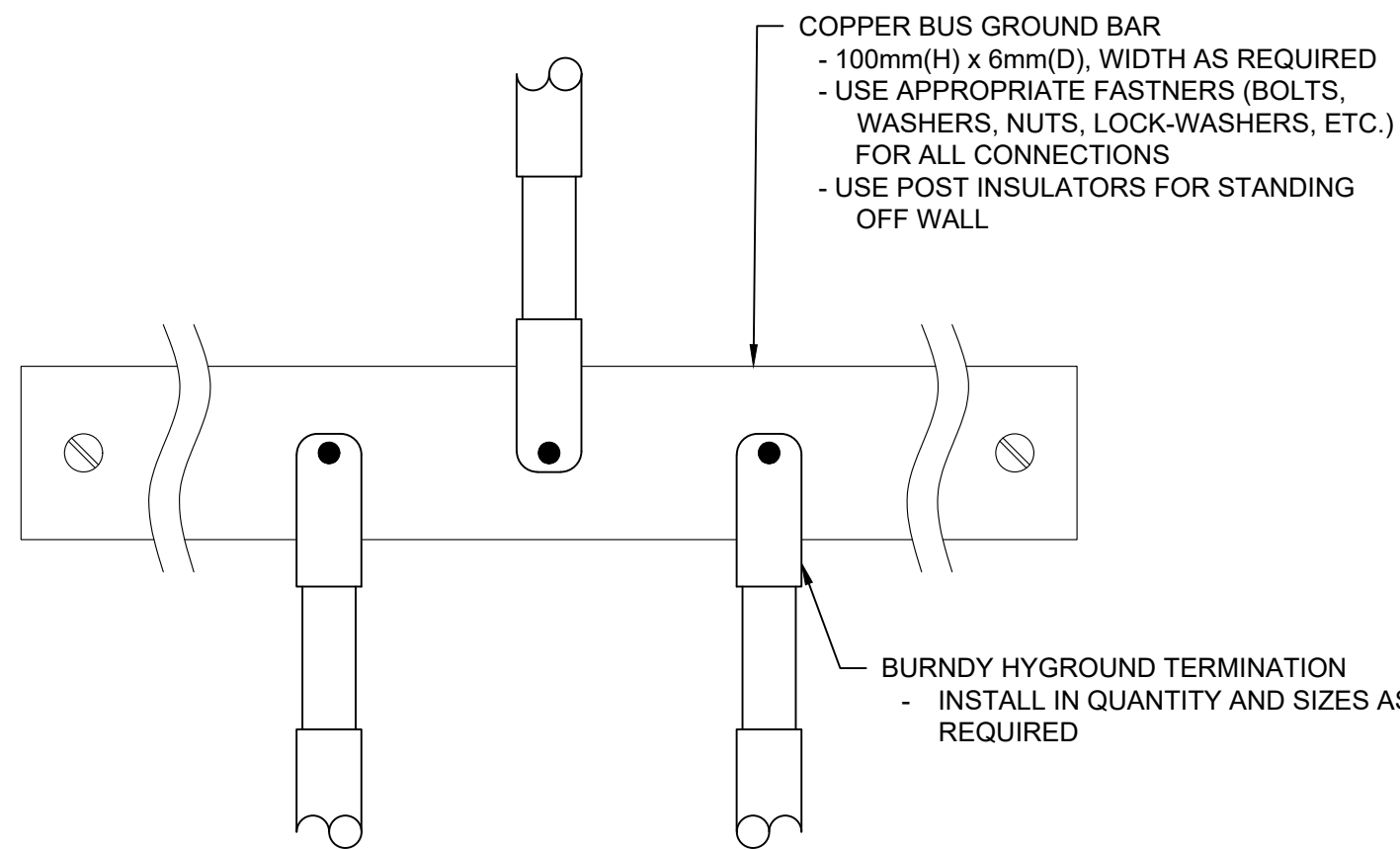
**HEARTHSTONE SANITARY
LIFT STATION**

Drawn: RD	Design Checked: REK	Date: NOV. 23, 2022
Designed: RK	Discipline Review: DMD	Date: NOV. 23, 2022

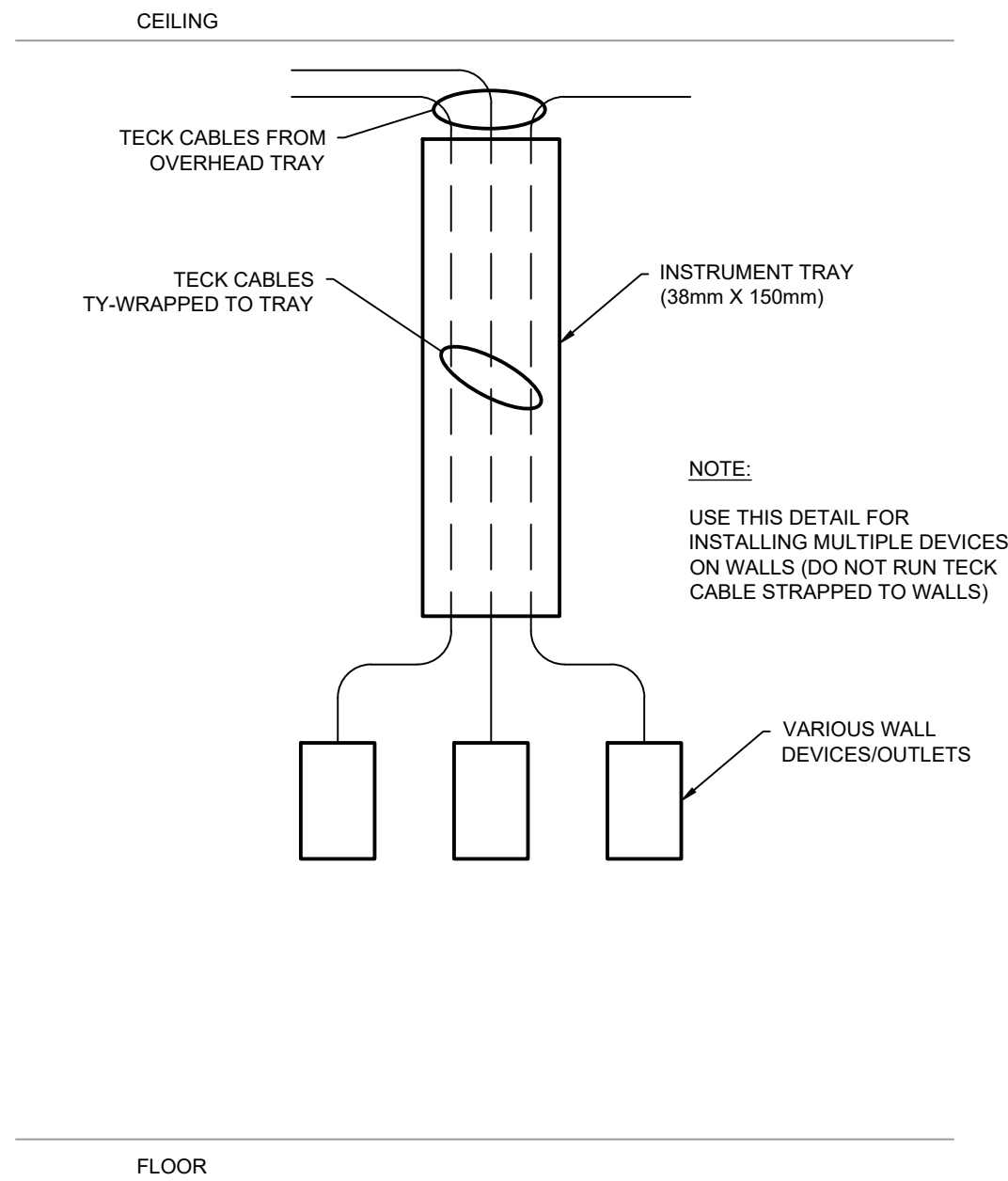
ELECTRICAL
EQUIPMENT SCHEDULE

Drawing No.
15719
EL
715
Sheet No.
715

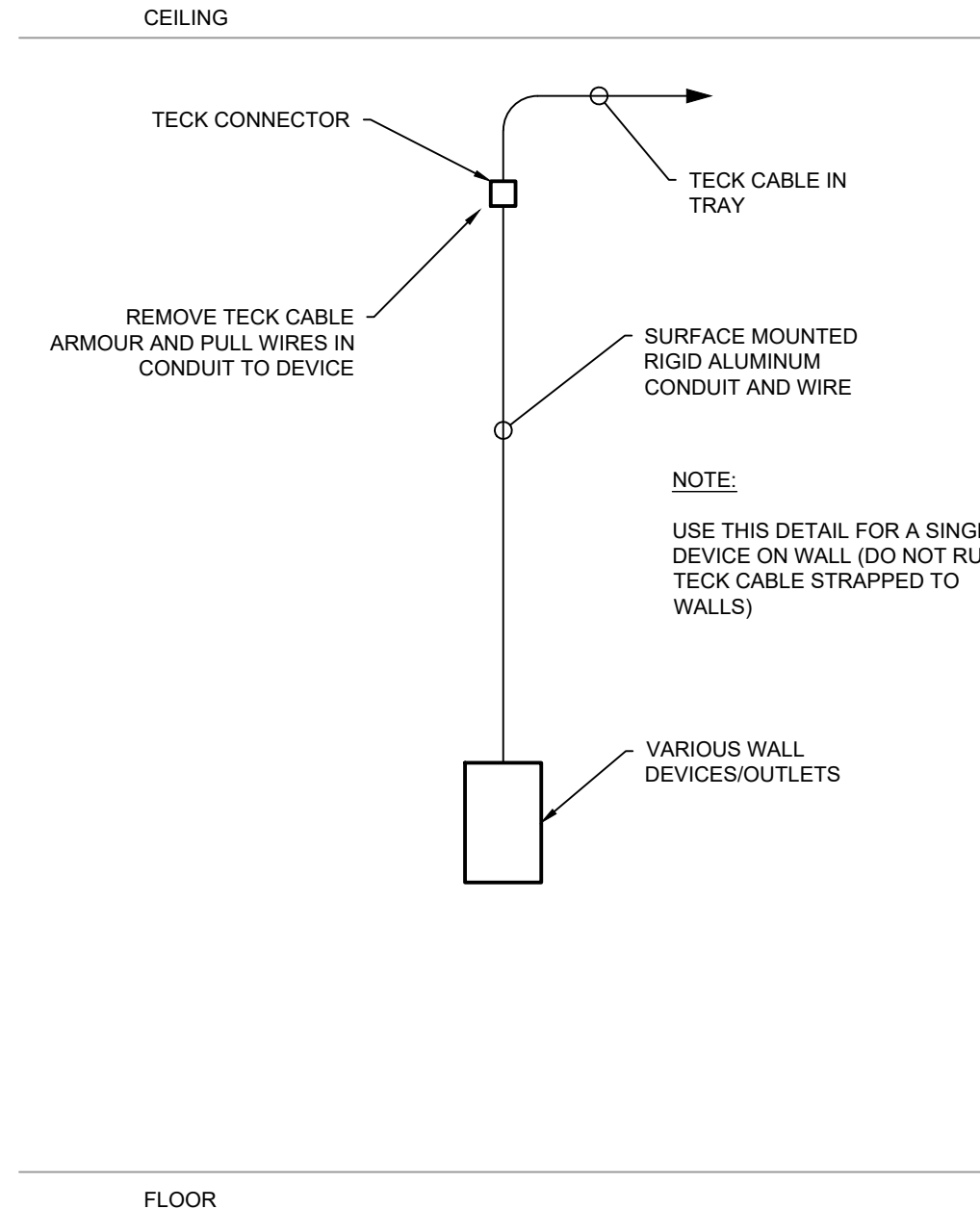




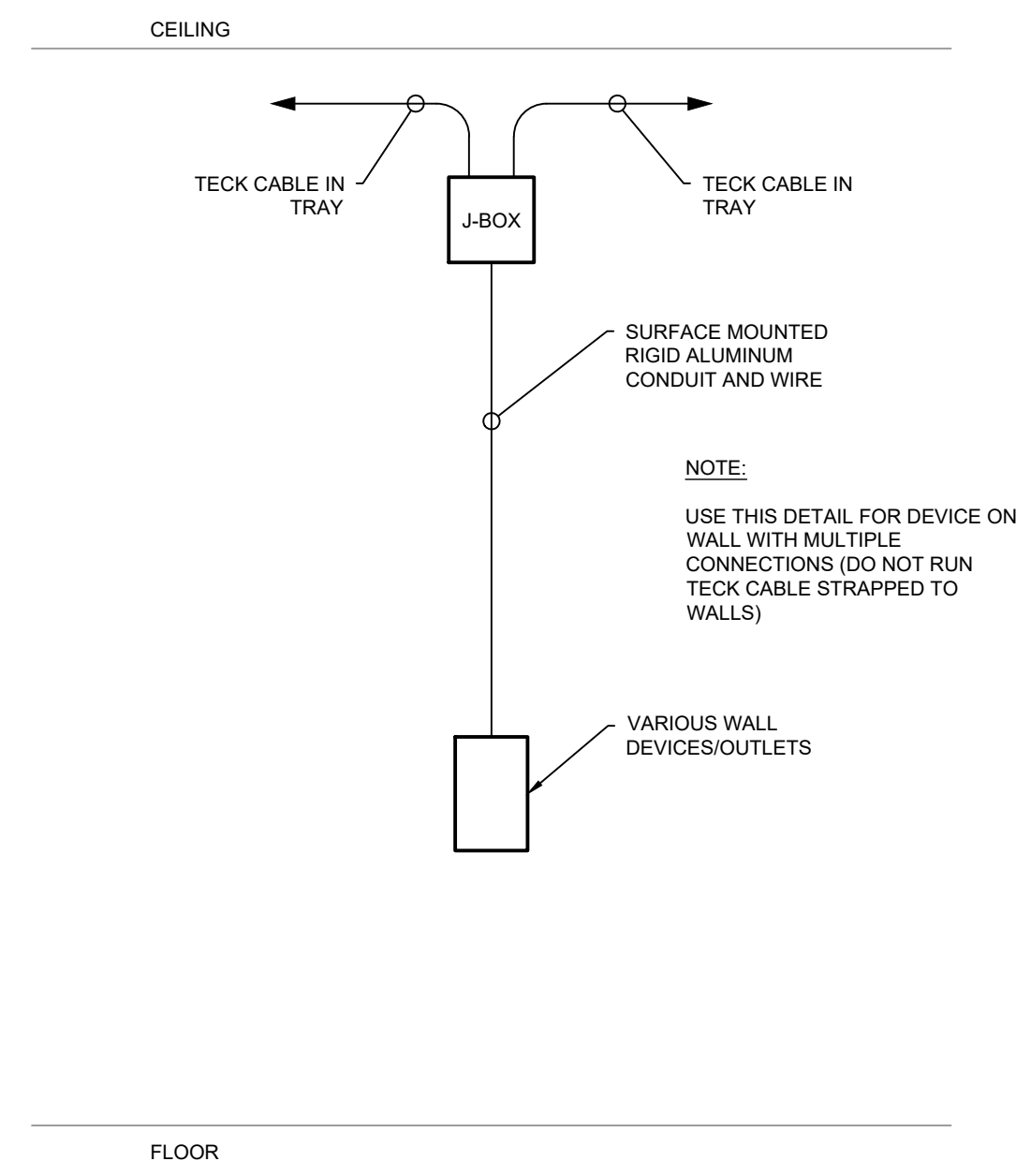
1 BUILDING GROUND BAR DETAIL
SCALE = NONE



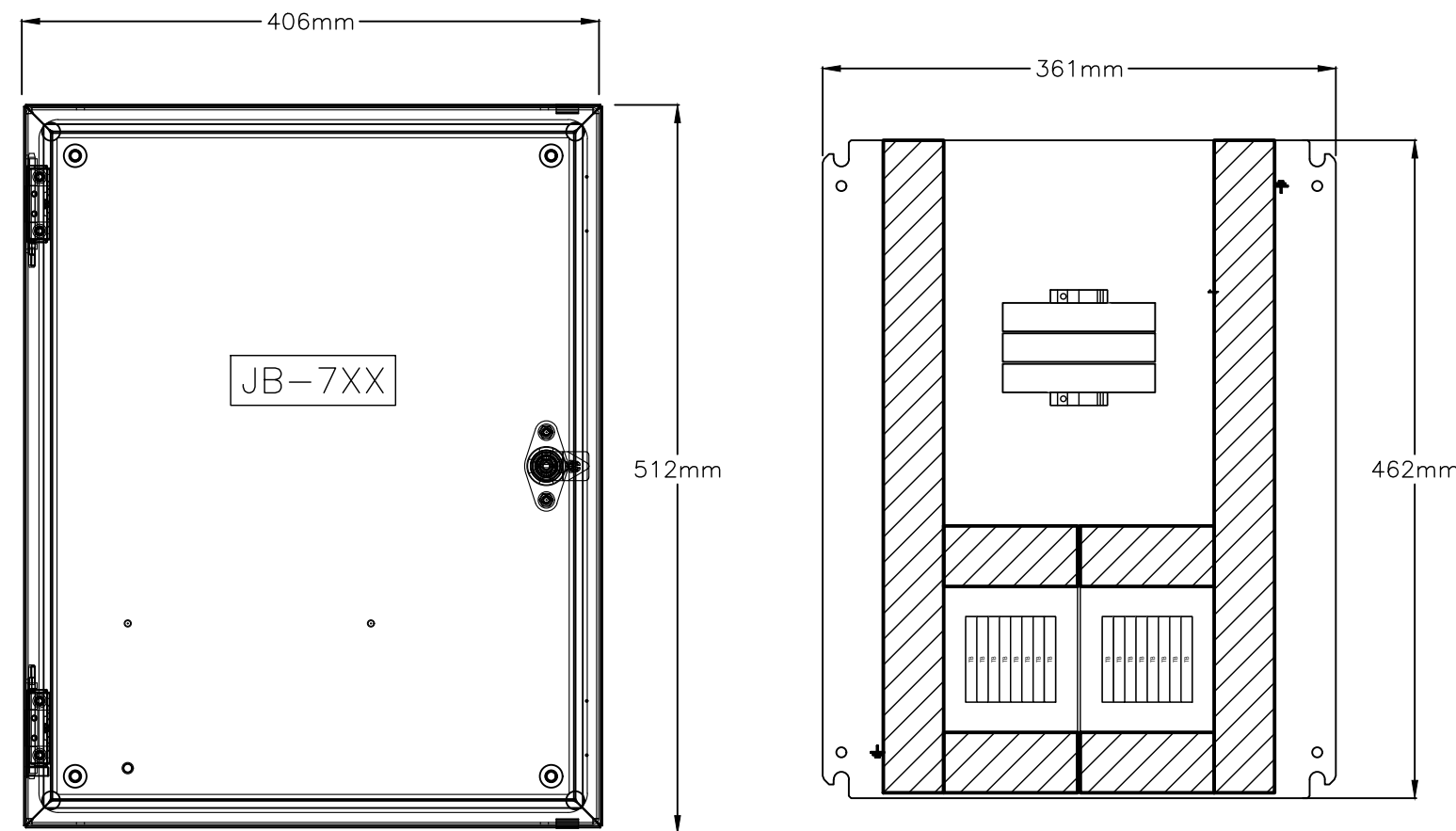
2 TECK TO CONDUIT OR DEVICE 1 (TYP.)
SCALE = N.T.S.



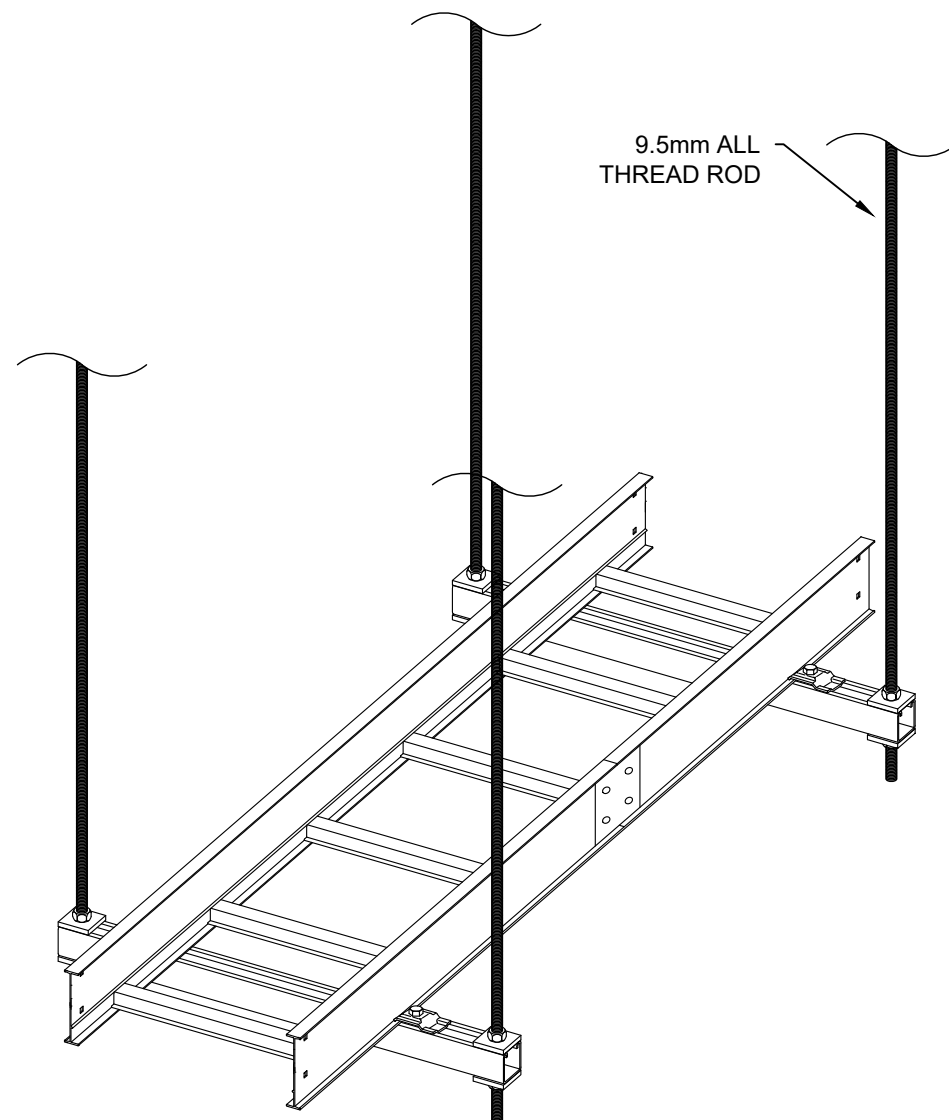
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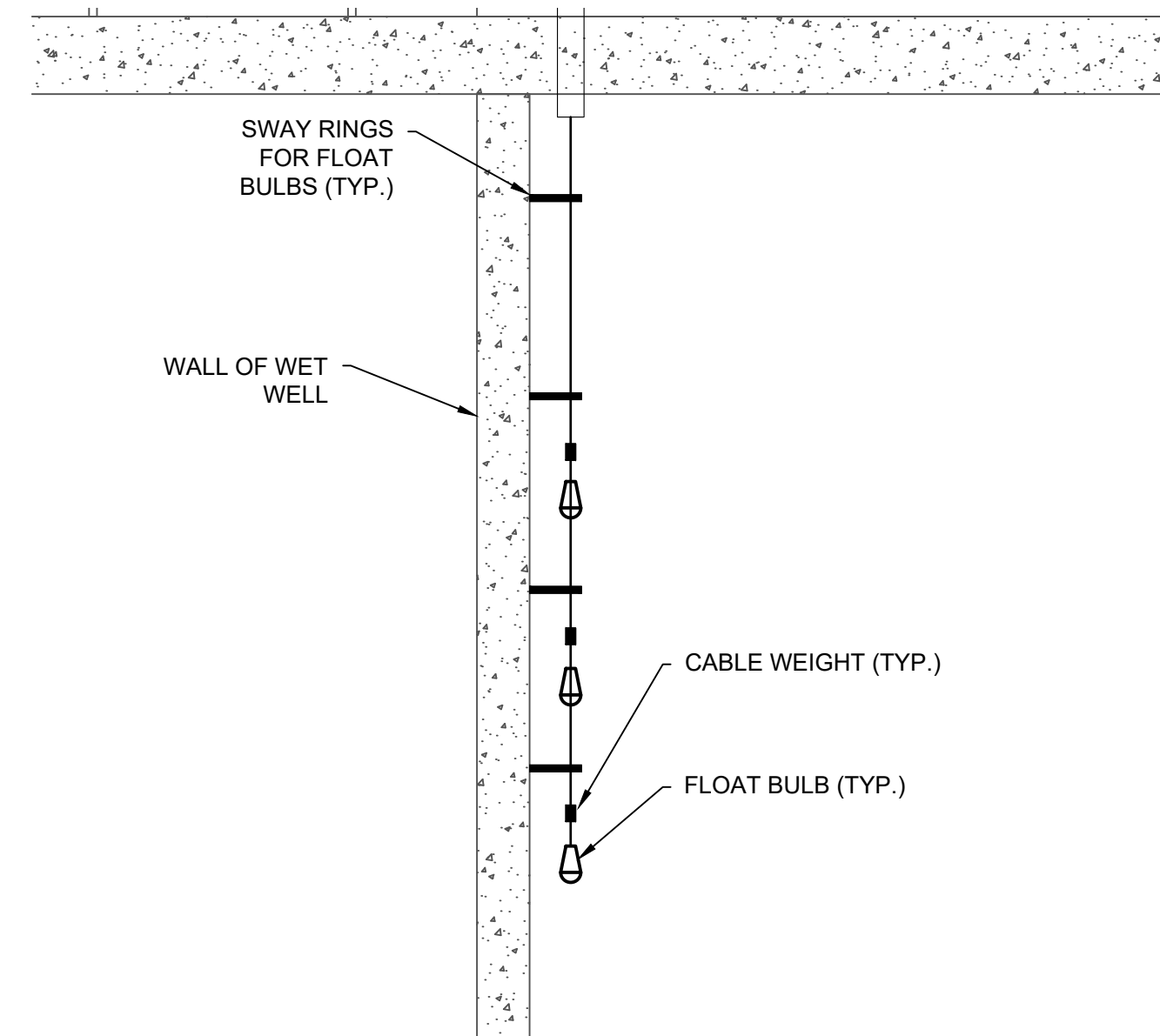
4 TECK TO CONDUIT OR DEVICE 3 (TYP.)
SCALE = N.T.S.



5 DETAIL - TYPICAL I.S. BARRIER JUNCTION BOX
SCALE = N.T.S.



6 TYPICAL TRAY MOUNTING DETAIL
SCALE = N.T.S.



7 TYPICAL WETWELL LEVEL SWITCHES
SCALE = N.T.S.

NOTE: THIS DRAWING IS
HALF SCALE WHEN PRINTED
TO 11" x 17" FORMAT

FOR APPROVAL

No.	DESCRIPTION	BY	DATE
2	FOR APPROVAL	DMD	JAN. 6, 2023
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MAGNA IV ENGINEERING, INC.
RM SIGNATURE: [Signature]
RM APEGA ID #: 127263
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AS SHOWN

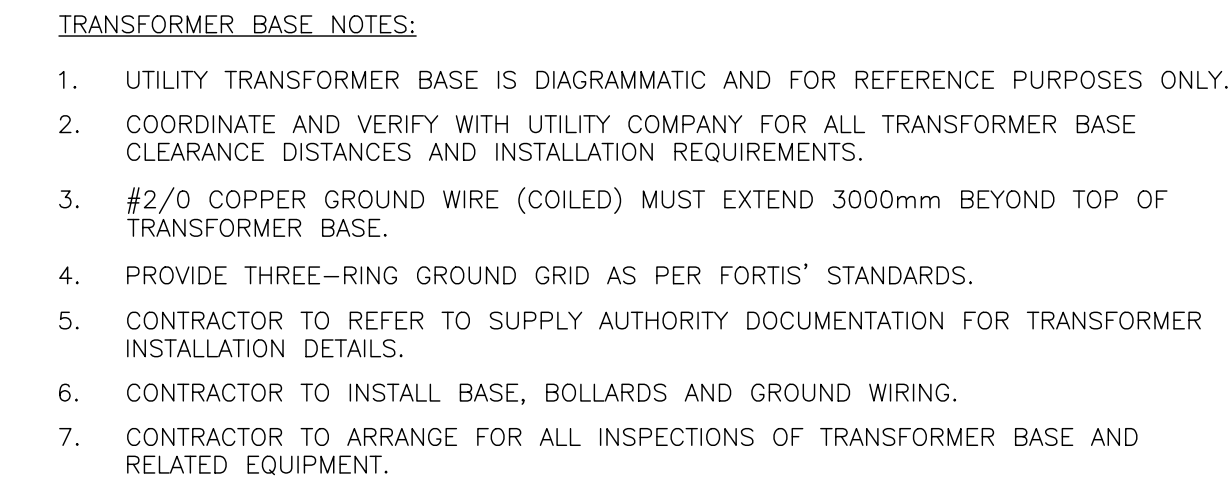
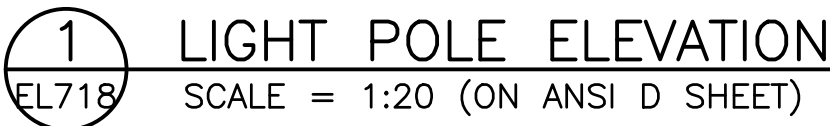
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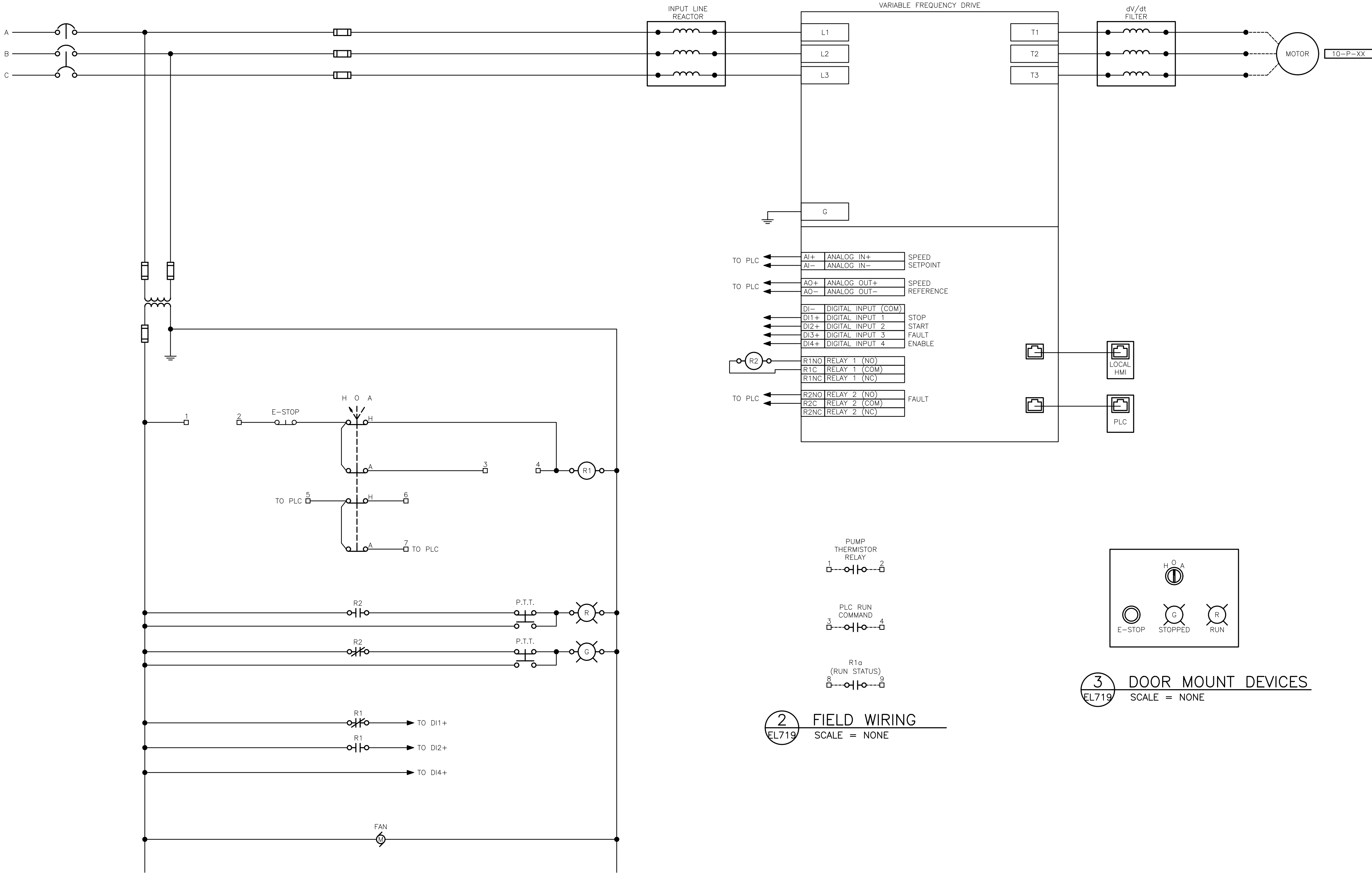
ISL

MATTAMY (SHERWOOD PARK) LTD		
HEARTHSTONE SANITARY LIFT STATION		
Drawn: RD	Design Checked: REK	Date: NOV. 23, 2022
Designed: RK	Discipline Review: DMD	Date: NOV. 23, 2022

ELECTRICAL STANDARD DETAILS	
Drawing No. 15719 EL 717 Sheet No. 717	







GENERAL NOTES:

1. THIS DRAWING IS PROVIDED TO SUMMARIZE THE BASE FUNCTIONALITY OF THE REQUIRED VFD ASSEMBLY TO OPERATE THE NOTED MOTOR. SUPPLIER TO PROVIDE A COMPLETE SCHEMATIC WITH SHOP DRAWING SUBMITTAL FOR REVIEW BY OWNER'S REPRESENTATIVE.
2. THE VARIABLE FREQUENCY DRIVE ASSEMBLY PROVIDED BY THE SUPPLIER IS TO INCLUDE (AT A MINIMUM) THE VFD, AN INPUT LINE REACTOR (3% MIN.), dv/dt LOAD REACTOR, LINE VOLTAGE FUSES, INPUT CIRCUIT BREAKER WITH EXTERIOR OPERATING HANDLE, CONTROL POWER TRANSFORMER, AND ASSOCIATED PILOT DEVICES, CONTROL RELAYS, TERMINALS, ETC.

1 SCHEMATIC
EL719 SCALE = NONE

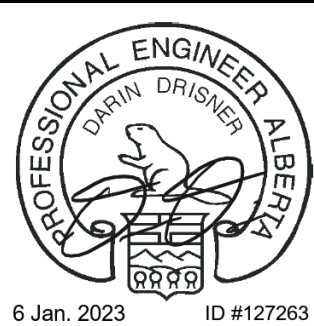
2 FIELD WIRING
EL719 SCALE = NONE

3 DOOR MOUNT DEVICES
EL719 SCALE = NONE

NOTE: THIS DRAWING IS
HALF SCALE WHEN PRINTED
TO 11" x 17" FORMAT

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NONE / N.T.S.
Scale
ISL

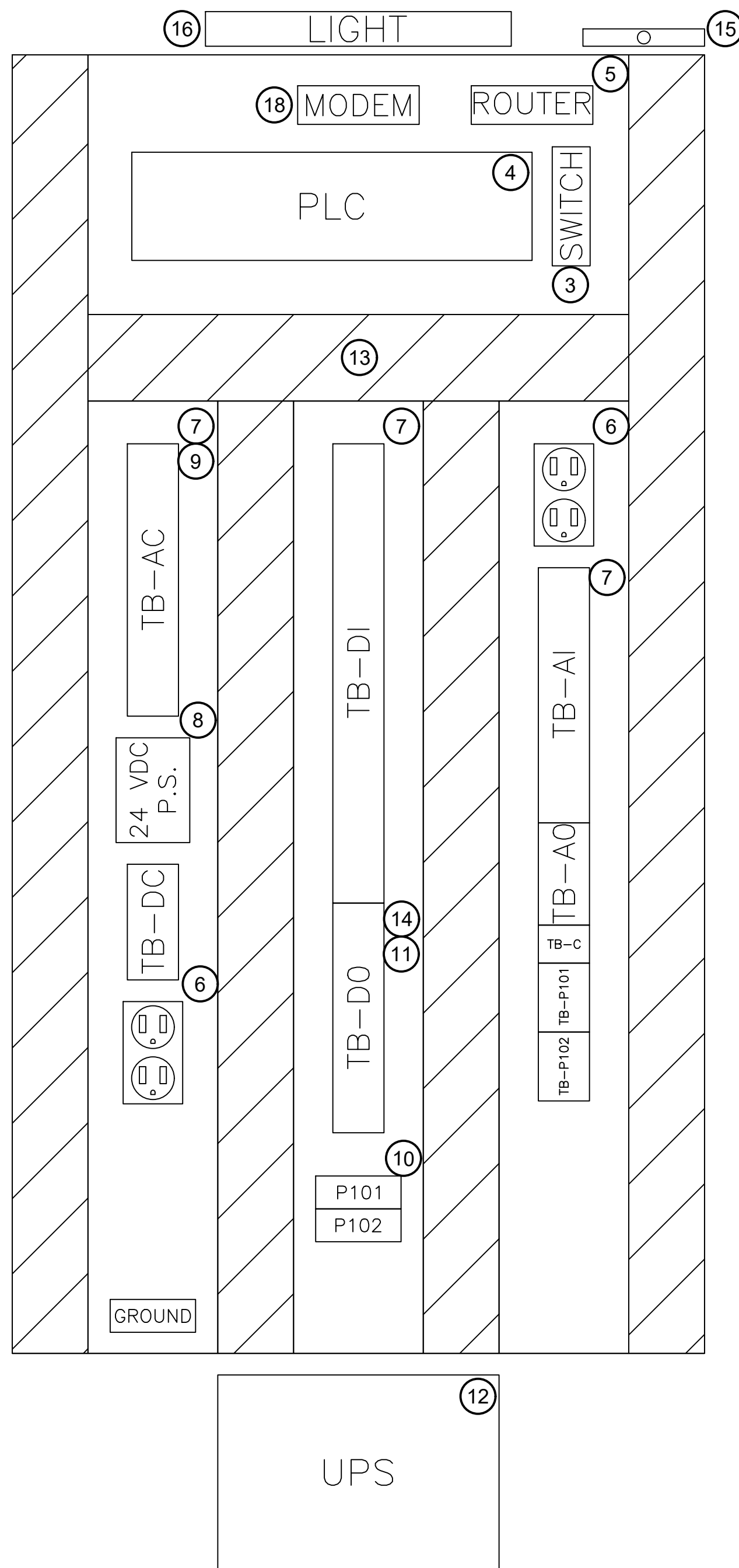
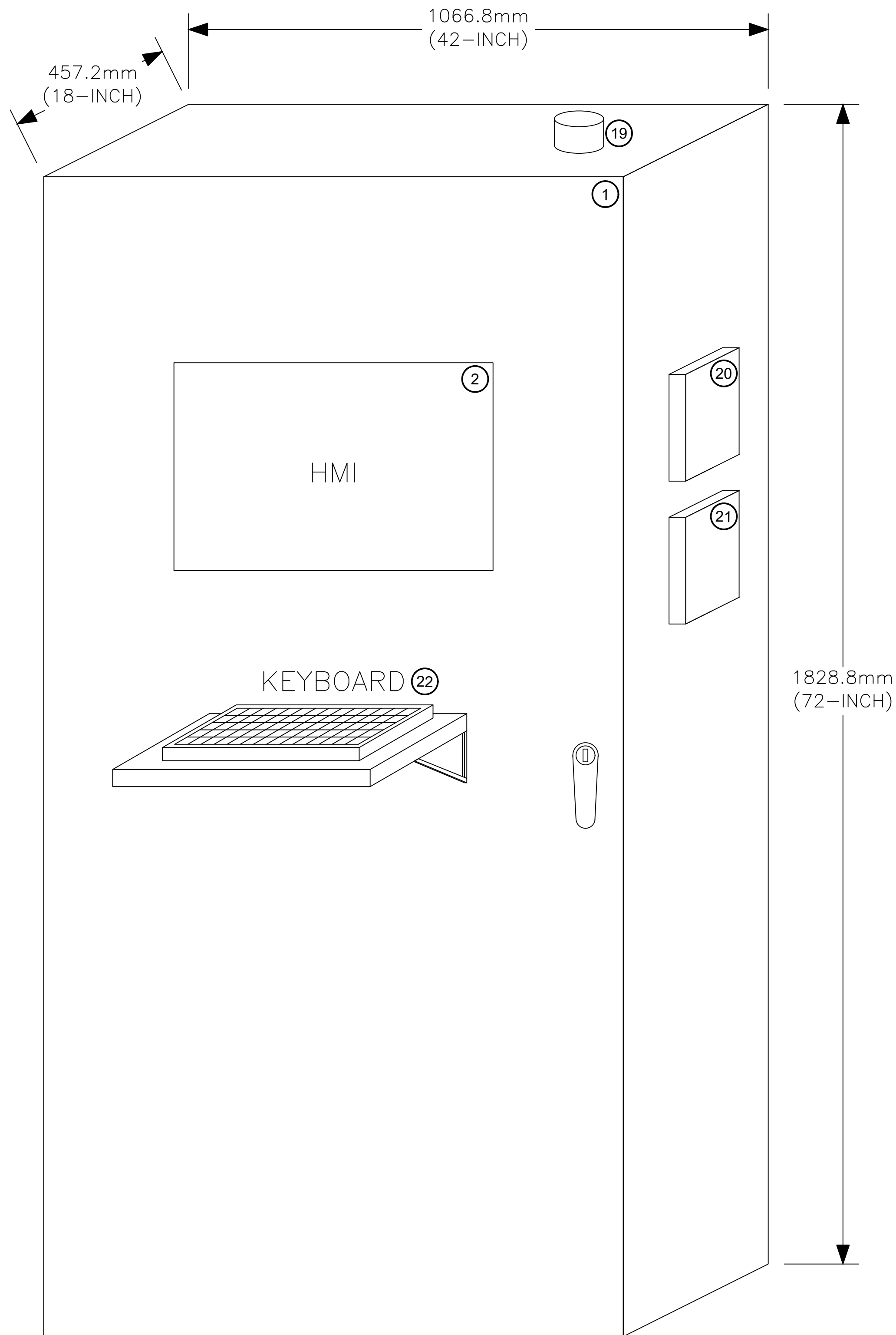
MATTAMY (SHERWOOD PARK) LTD		
HEARTHSTONE SANITARY LIFT STATION		
Drawn: RD	Design Checked: REK	Date: NOV. 23, 2022
Designed: RK	Discipline Review: DMD	Date: NOV. 23, 2022

ELECTRICAL
SCHEMATIC - GENERAL



Drawing No.
15719
EL
719
Sheet No.
719

Russel Kercher / Jan. 6, 23 / X:\0480\0480-27310 Drawings\03_MPL\sheet\Construction\720 CONTROL CABINET - LAYOUT AND BOM.dwg

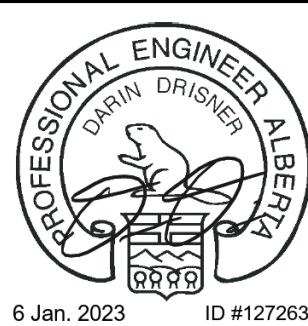


BILL OF MATERIALS			
TAG	QTY	FUNCTION	PART NUMBER
①	1	CONTROL PANEL 72"H X 42"W X 18"D	HOFFMAN A724818FSDG C/W A72P48F1 BACKPAN
②	1	HMI	NEXCOM IPPC2170FE2-DC
③	1	NETWORK SWITCH	RED LION SL SERIES
④	1	PLC SYSTEM	GE RX3i SERIES
⑤	1	NETWORK ROUTER	FORTIGATE 60D
⑥	2	DUPLEX RECEPTACLES	HUBBELL IG-5262
⑦	LOT	TERMINALS	WEIDMULLER #0467460000 #0225560001 #0222760001
⑧	1	24VDC POWER SUPPLY	WEIDMULLER PRO MAX #1478130000
⑨	LOT	2P, CONTROL RELAYS	OMRON G2R-2-SN C/W RELAY BASE
⑩	2	PUMP SUPERVISION RELAYS	MINI-CAS II
⑪	LOT	1P, CONTROL RELAYS	OMRON G2R-1-SN C/W RELAY BASE
⑫	1	UNINTERRUPTIBLE POWER SUPPLY, 1500VA	EATON 9SX SERIES
⑬	LOT	WIREWAY	PANDUIT F SERIES
⑭	LOT	4P, CONTROL RELAYS	OMRON MY4N C/W RELAY BASE
⑮	1	DOOR SWITCH	LEVITON 1865
⑯	1	PANEL LIGHT	THOMAS & BETTS SN117-UNV-EB81-U
⑰	N/A	NOT USED	
⑱	1	MODEM	SUPPLY BY OWNER
⑲	1	MODEM ANTENNA	SUPPLY BY OWNER
⑳	1	TEMPERATURE TRANSMITTER	ENDRESS + HOUSER TMR31
㉑	1	THERMOSTAT	-
㉒	1	KEYBOARD AND TRAY	-

NOTE: THIS DRAWING IS
HALF SCALE WHEN PRINTED
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FOR APPROVAL

No.	DESCRIPTION	BY	DATE
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NONE / N.T.S.
Scale

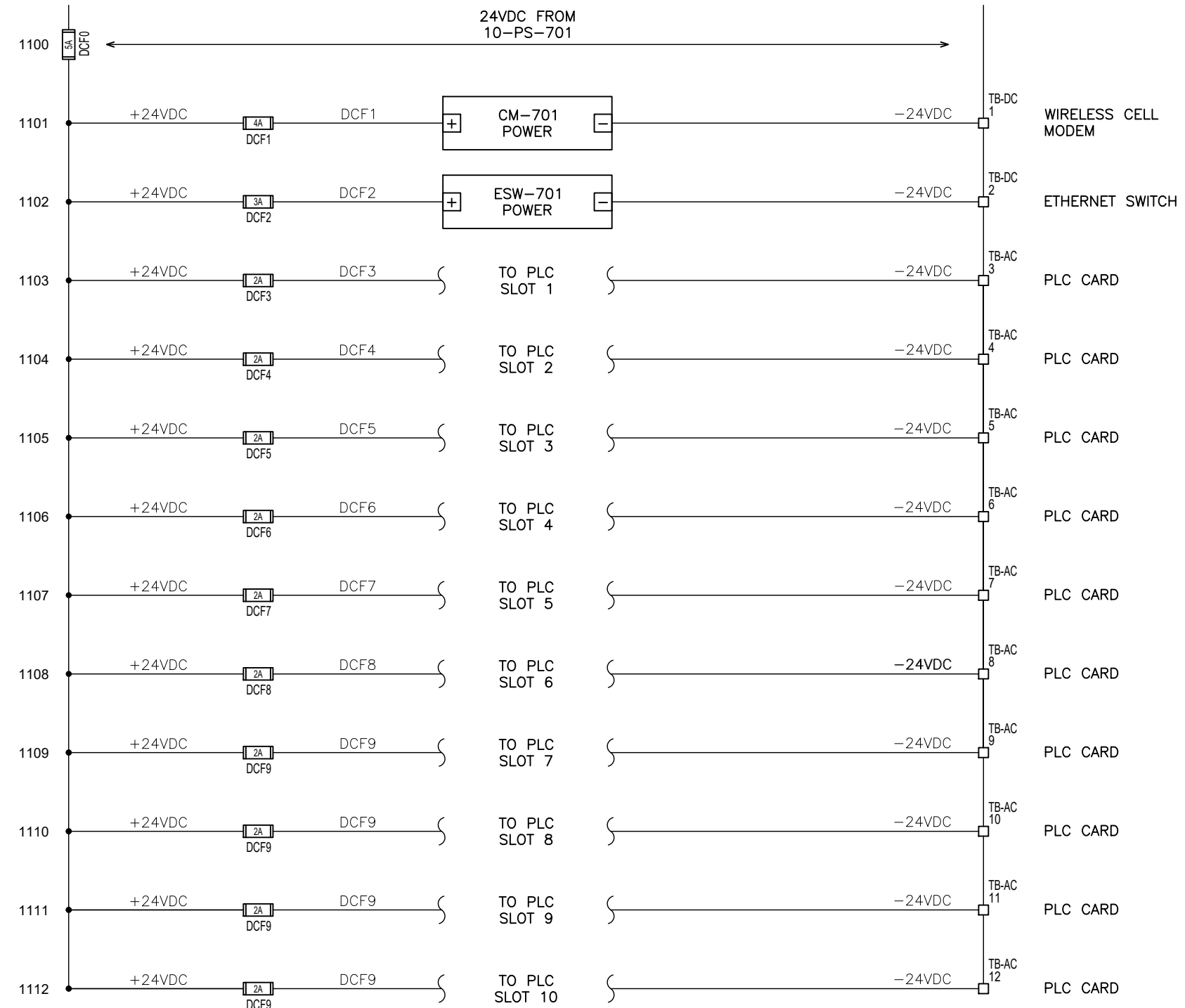
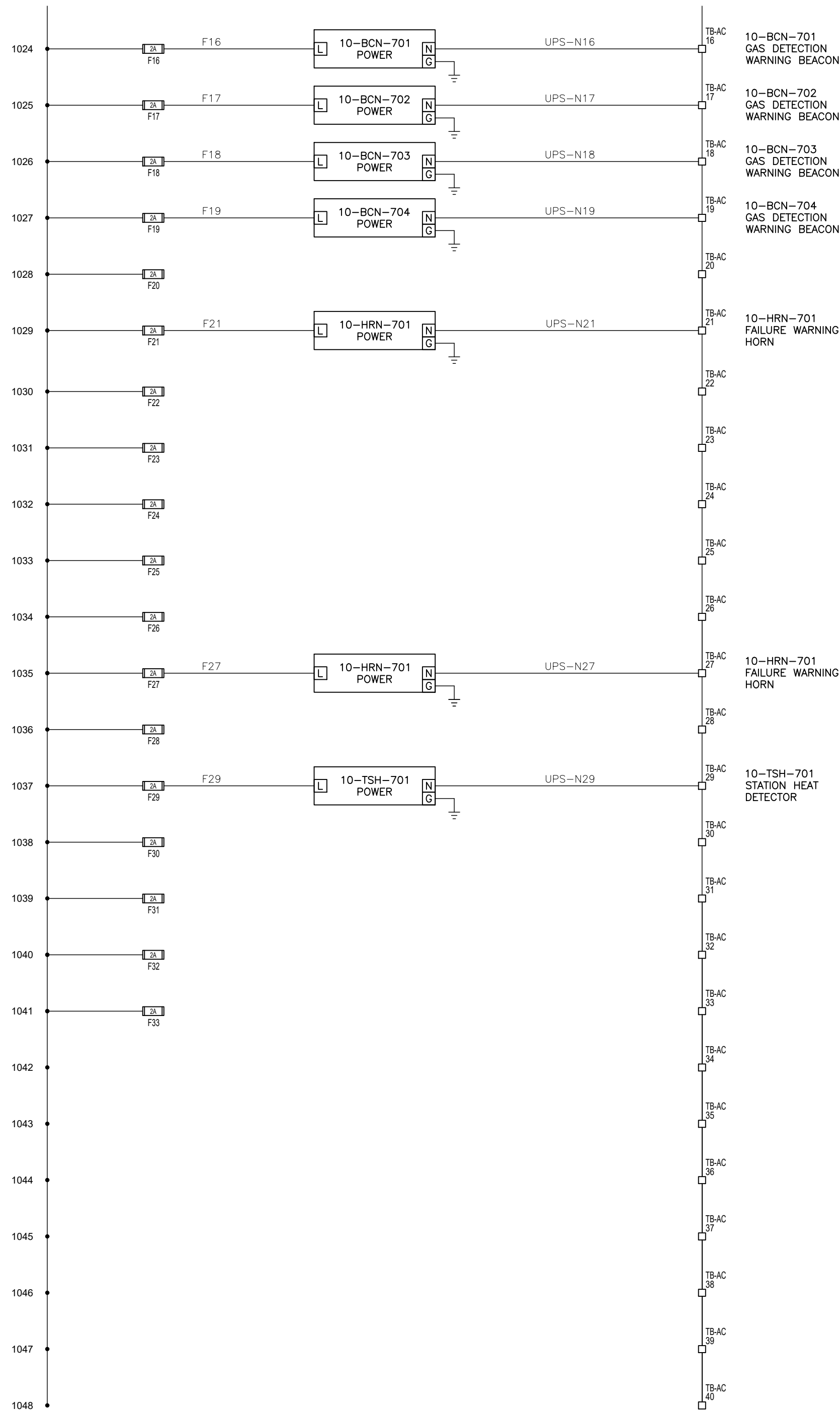
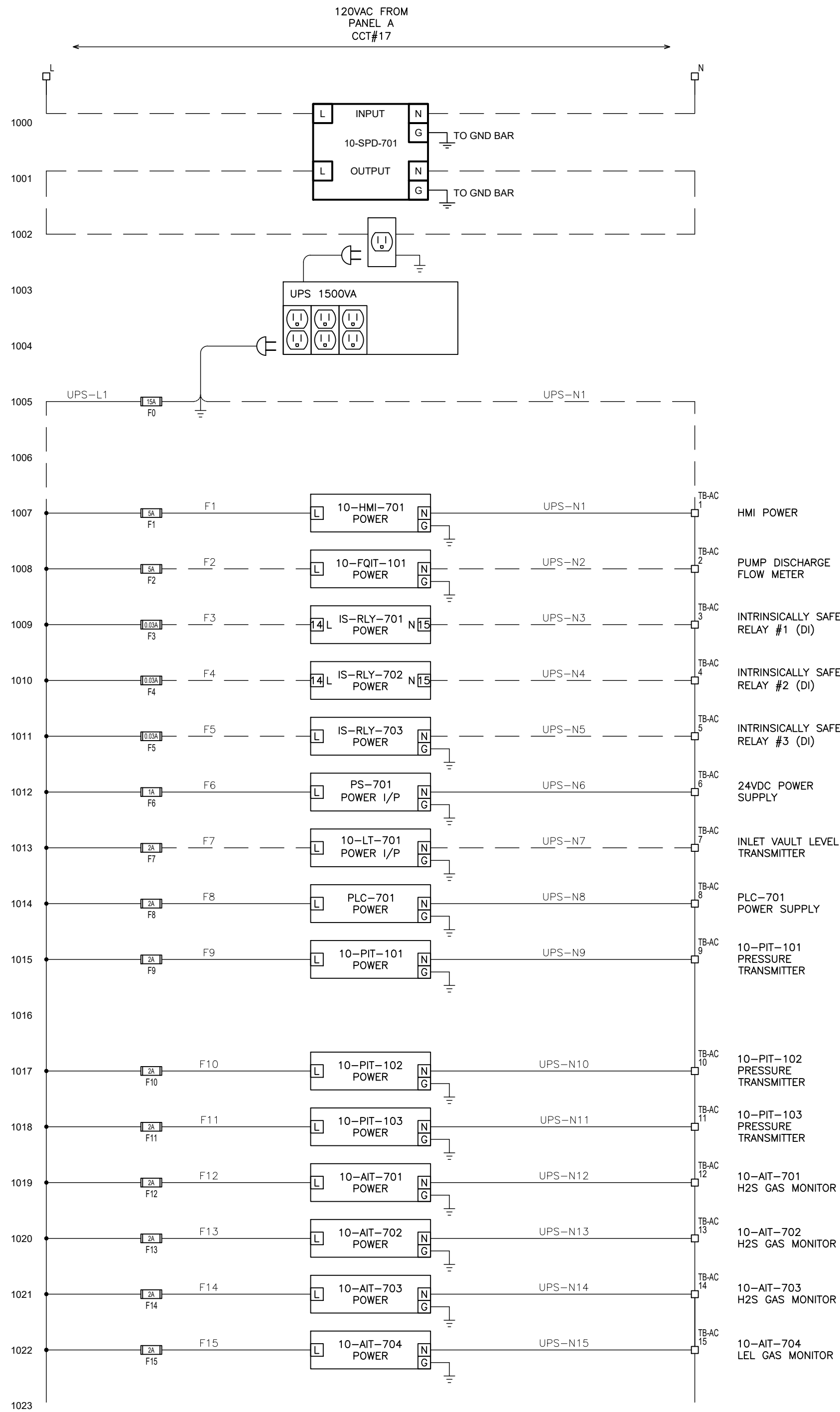
MATTAMY (SHERWOOD PARK) LTD		
HEARTHSTONE SANITARY LIFT STATION		
Drawn: RD	Design Checked: REK	Date: NOV. 23, 2022
Designed: RK	Discipline Review: DMD	Date: NOV. 23, 2022

ELECTRICAL
CONTROL CABINET
LAYOUT AND BOM



Drawing No.
15719
EL
720
Sheet No.
720

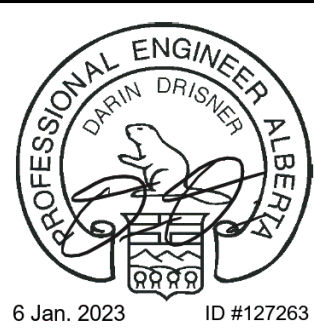
Russel Kerher / Jan. 6, 23 / X:\1480\480-27310 Drawings\03_WPI\sheet\Construction\721 CONTROL CABINET - CONTROL POWER SCHEMATIC.dwg



NOTE: THIS DRAWING IS
HALF SCALE WHEN PRINTED
TO 11" x 17" FORMAT

FOR APPROVAL

No.	DESCRIPTION	BY	DATE
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NONE / N.T.S.
Scale
ISL

MATTAMY (SHERWOOD PARK) LTD		
HEARTHSTONE SANITARY LIFT STATION		
Drawn: RD	Design Checked: REK	Date: NOV. 23, 2022
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ELECTRICAL
CONTROL CABINET
CONTROL POWER SCHEMATIC

Drawing No.
15719
EL
721
Sheet No.
721

Russel Kercher / Jan. 6, 23 / X:\0480\0480-273\10 Drawings\03_WPI\sheet\Construction\23 CONTROL CABINET - DISCRETE I/O SCHEMATIC (2 OF 2).dwg

248

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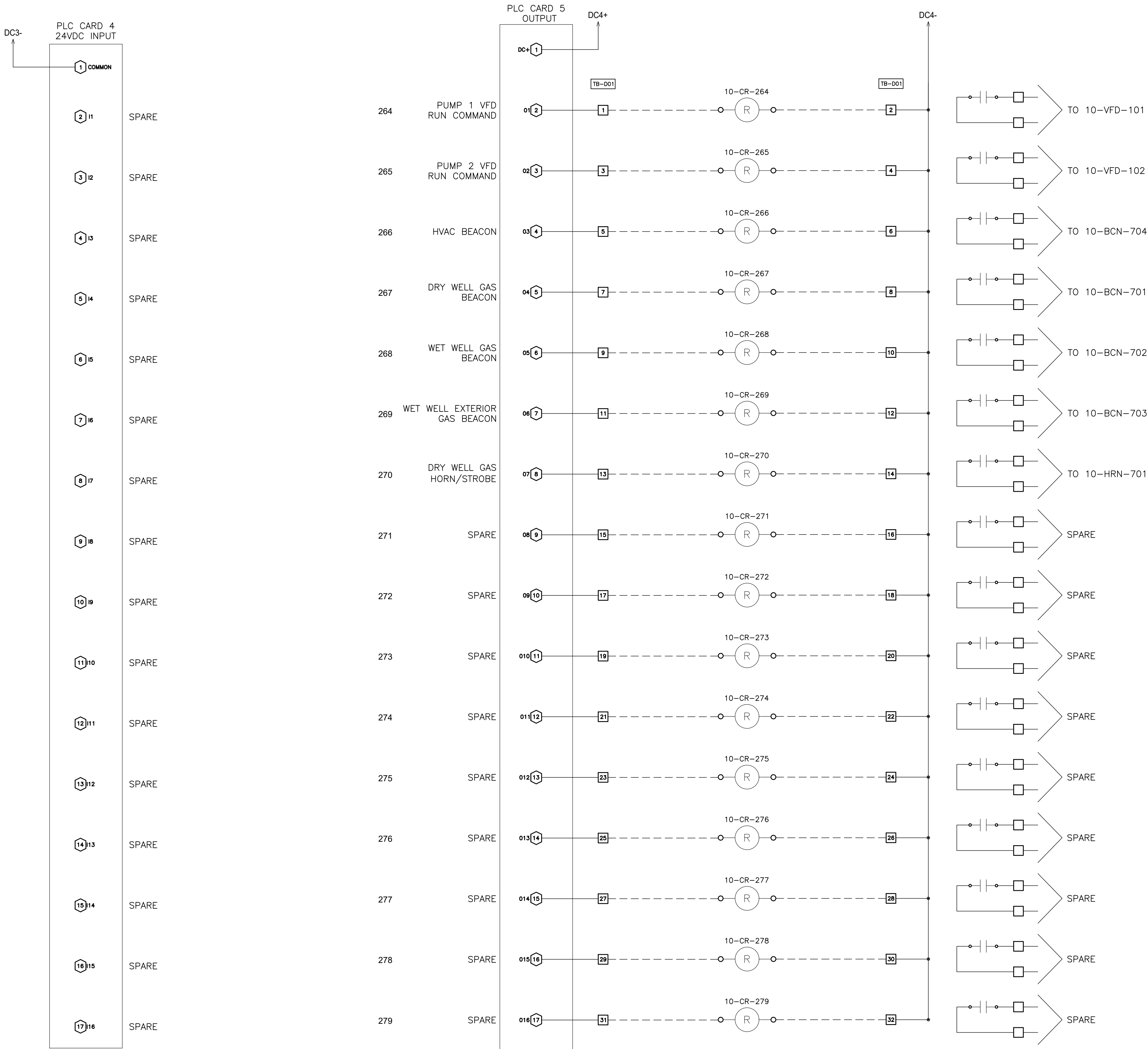
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263



NOTE: THIS DRAWING IS
HALF SCALE WHEN PRINTED
TO 11" x 17" FORMAT

FOR APPROVAL

2	FOR APPROVAL	DMD	JAN. 6, 2023
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REVISIONS			



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MAGNA IV ENGINEERING, INC.
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AS SHOWN

Scale



MATTAMY (SHERWOOD PARK) LTD

HEARTHSTONE SANITARY
LIFT STATION

Drawn: RD	Design Checked: REK	Date: NOV. 23, 2022
Designed: RK	Discipline Review: DMD	Date: NOV. 23, 2022

ELECTRICAL
CONTROL CABINET
DISCRETE I/O SCHEMATIC



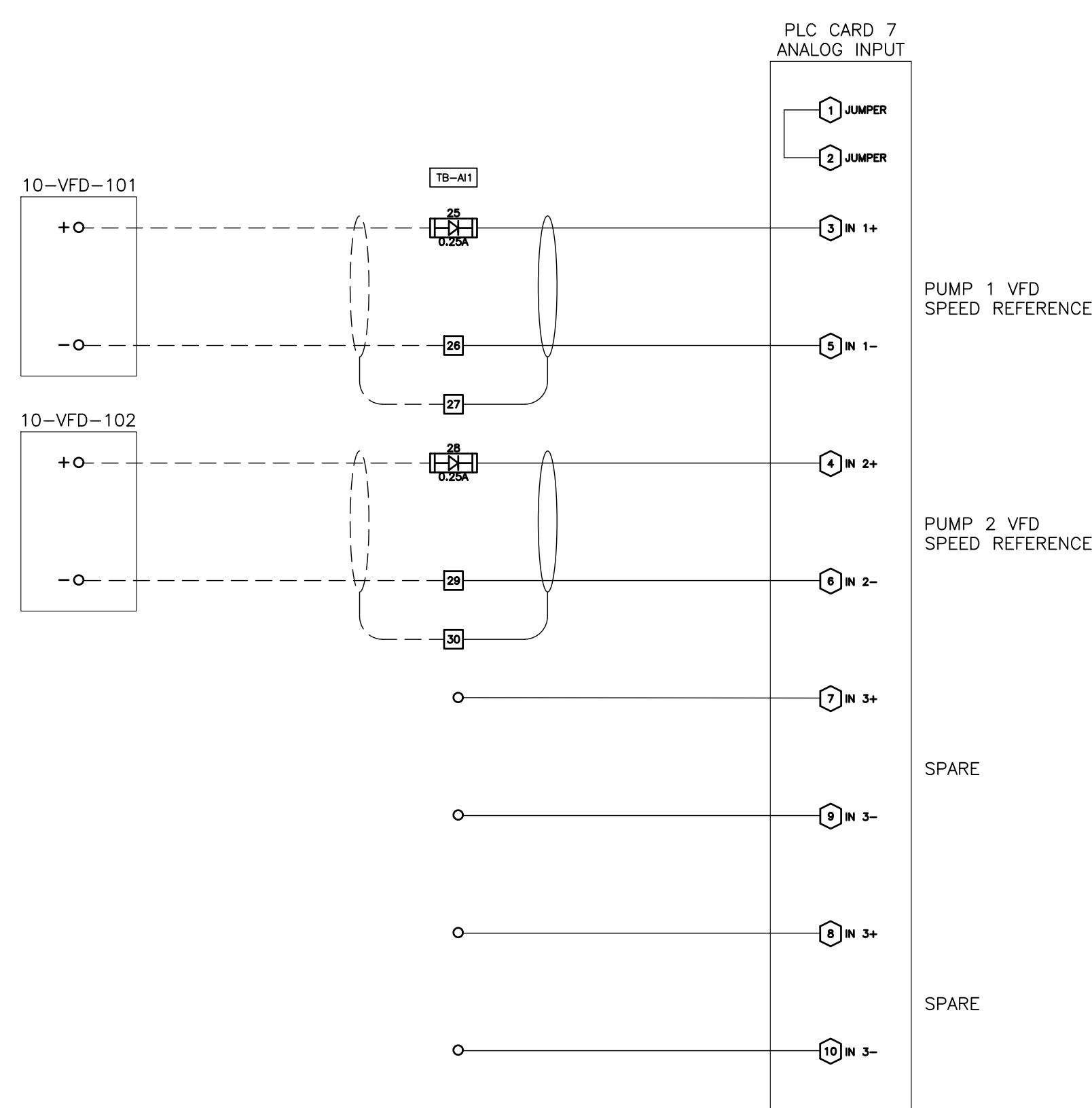
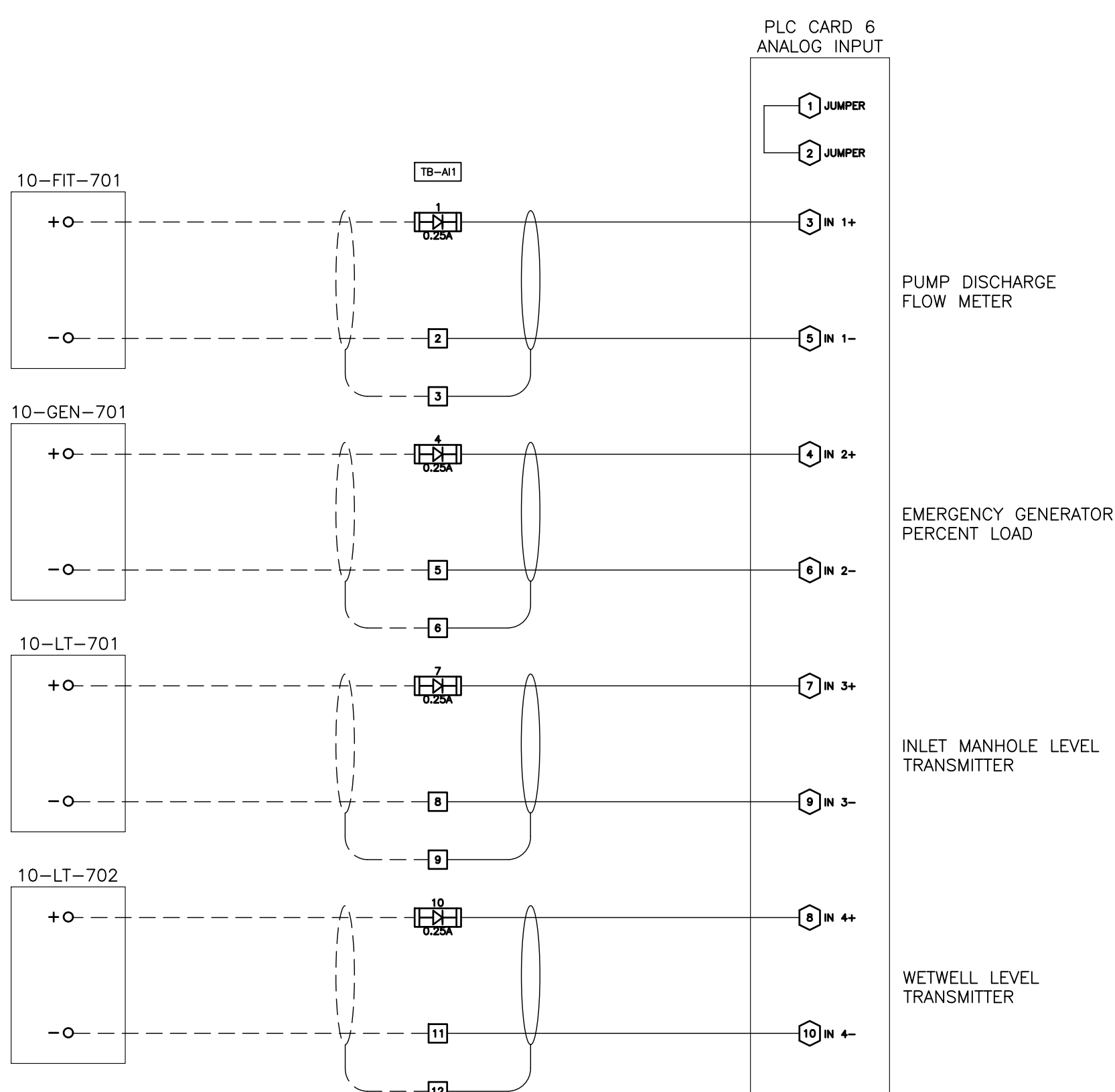
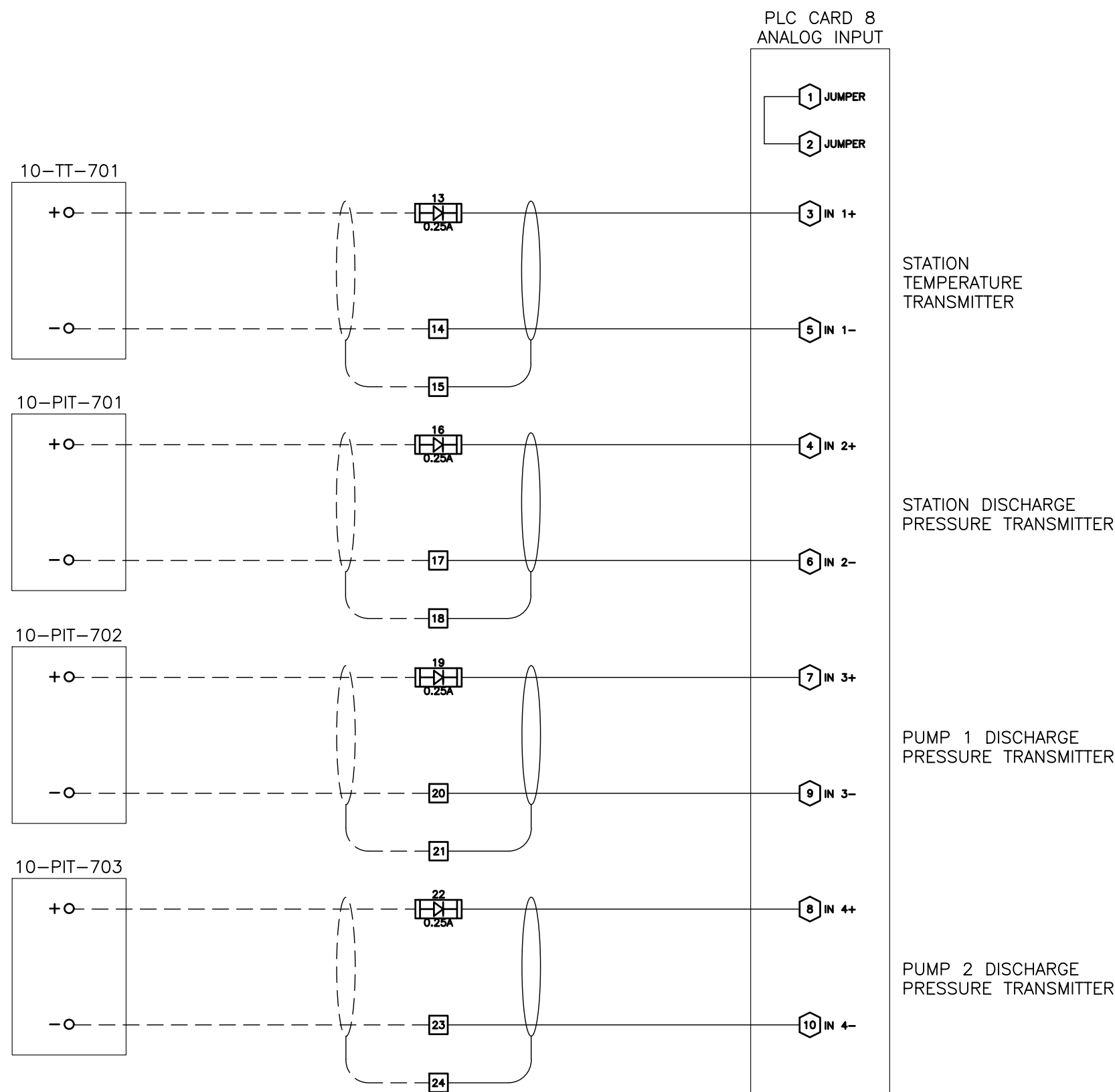
Drawing No.

15719
EL
723

Sheet No.

723

Russel Kercher / Jan. 6, 23 / X:\1680\480-27310 Drawings\03_VIP\1sheet\Construct\724 CONTROL CABINET - ANALOG I/O SCHEMATIC (1 OF 2).dwg



NOTE: THIS DRAWING IS
HALF SCALE WHEN PRINTED
TO 11" x 17" FORMAT

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No.	DESCRIPTION	BY	DATE
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REVISIONS



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MAGNA IV ENGINEERING, INC.
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NONE / N.T.S.

Scale



MATTAMY (SHERWOOD PARK) LTD

HEARTHSTONE SANITARY
LIFT STATION

Drawn: RD	Design Checked: REK	Date: NOV. 23, 2022
Designed: RK	Discipline Review: DMD	Date: NOV. 23, 2022

ELECTRICAL
CONTROL CABINET
ANALOG I/O SCHEMATIC

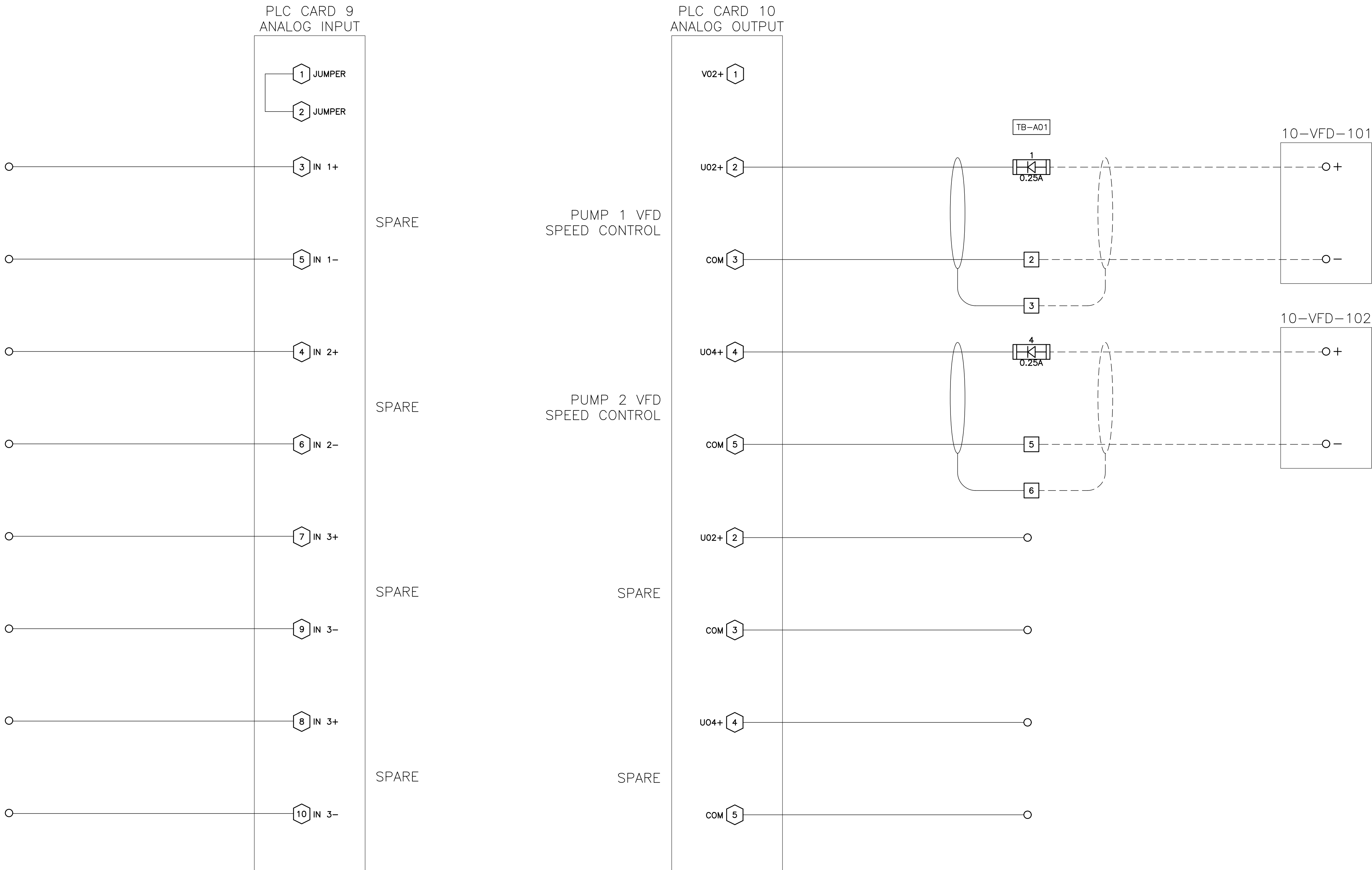


Drawing No.

15719
EL
724

Sheet No.
724

Russel Kercher / Jan. 6, 23 / X:\0480\0480-27310 Drawings\03_VIP\Isheet\Construct\725 CONTROL CABINET - ANALOG I/O SCHEMATIC (2 OF 2).dwg



NOTE: THIS DRAWING IS
HALF SCALE WHEN PRINTED
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AS SHOWN
Scale

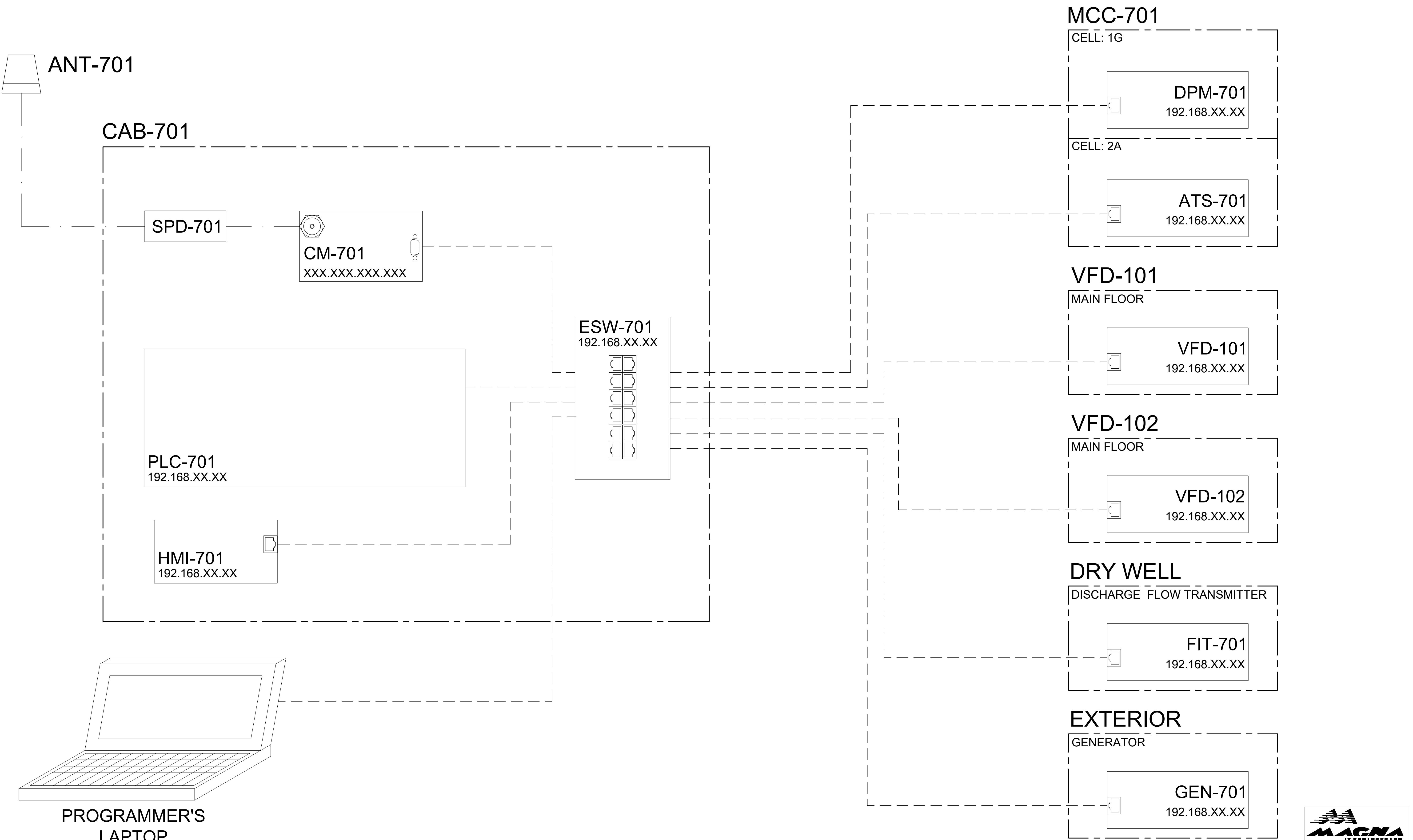
MATTAMY (SHERWOOD PARK) LTD		
HEARTHSTONE SANITARY LIFT STATION		
Drawn: RD	Design Checked: REK	Date: NOV. 23, 2022
Designed: RK	Discipline Review: DMD	Date: NOV. 23, 2022

ELECTRICAL
CONTROL CABINET
ANALOG I/O SCHEMATIC



Drawing No.
15719
EL
725
Sheet No.
725

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NOTE: THIS DRAWING IS
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FOR APPROVAL

No.	DESCRIPTION	BY	DATE
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PROFESSIONAL ENGINEER
ALBERTA
6 Jan. 2023 ID #127263

PERMIT TO PRACTICE
MAGNA IV ENGINEERING, INC.
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NONE / N.T.S.

Scale

ISL

MATTAMY (SHERWOOD PARK) LTD

HEARTHSTONE SANITARY
LIFT STATION

Drawn: RD	Design Checked: REK	Date: NOV. 23, 2022
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ELECTRICAL
NETWORK DIAGRAM

Drawing No. 15719
EL 726
Sheet No. 726

