CASSELMAN MAIN SPS UPGRADES

16 BRISSON ST, CASSELMAN, ON K0A 1M0

Project No. 16953-134 | ISSUED FOR TENDER | APRIL 23, 2025





DRAWIN	NG LIST- CASSELMAN MAIN SPS UPGRADE
Sheet Number	Sheet Title
1 CIVIL	
C100	ALIGNMENT PLAN
C101	SITE PLAN
C102	FORCEMAIN PLAN & PROFILE BRISSON STREET
C103	FORCEMAIN PLAN & PROFILE EASEMENT (SHEET 1)
C104	FORCEMAIN PLAN & PROFILE EASEMENT (SHEET 2)
C105	FORCEMAIN PLAN & PROFILE LAURIER STREET
C106	FORCEMAIN PLAN & PROFILE LAGOON ACCESS ROAD
C107	FORCEMAIN PLAN & PROFILE LAGOON CELL 1 WEST BERM
C108 C109	FORCEMAIN PLAN & PROFILE LAGOON CELL 1 NORTH BERM FORCEMAIN PLAN & PROFILE LAGOON CELL 1 EAST BERM AND
C110	DETAILS
	DETAILS
2 ARCHITECTURAL	
A101 A102	NEW GROUND LEVEL PLAN
	DEMOLITION ROOF PLAN
A103 A104	ROOF PLAN WALL SECTIONS
A105	
A106	TYPICAL DETAILS
3 PROCESS	
PID000 PID101	PROCESS AND INSTRUMENTATION LEGEND HYDRAULIC PROFILE AND P&ID
DP101	
P101	PUMPING STATION DEMOLITION PUMPING STATION BASEMENT PLAN
P102	PUMPING STATION BASEMENT PLAN PUMPING STATION GROUND FLOOR AND ALUM BUILDING PLAN
P103	PUMPING STATION GROUND FLOOR AND ALOW BUILDING FLAN
P104	PUMPING STATION SECTIONS PUMPING STATION SECTIONS
PM001	PROCESS MECHANICAL STANDARD DETAILS
PM001 PM002	PROCESS MECHANICAL STANDARD DETAILS PROCESS MECHANICAL STANDARD DETAILS
4 MECHANICAL	
DM101	DEMOLITION PLAN
M101	MECHANICAL SCHEMATICS
M102	MECHANICAL PLAN
5 ELECTRICAL	
DE101	DEMOLITION
DE101	SINGLE LINE DIAGRAM - DEMO
E101	ELECTRICAL LEGEND & SCHEDULES
E102	SINGLE LINE DIAGRAM
	TABLES OF PANELS & DEVICES AND MOTOR STARTER &
E103	CONTROL LIST
E104	HEAT TRACE DETAILS
E105	MOTOR STARTER SCHEMATICS
E106	PLANS, DETAILS & PANEL SCHEDULE - BASEMENT
E107	PLANS DETAILS & PANEL SCHEDULE - GROUND LEVEL
1101	NOTES AND DETAILS
1102	PLC COMPONENTS AND IO LIST
1103	IO LIST
1104	CONTOL PANEL BILL OF MATERIALS
1105	CONTROL PANEL LAYOUT
1106	CONTROL PANEL POWER WIRING LOGIC
1107	CONTROL PANEL POWER WIRING LOGIC
I107 I108	CONTROL PANEL POWER WIRING LOGIC CONTROL BLOCK DIAGRAM
1108	CONTROL BLOCK DIAGRAM
I108 I109	CONTROL BLOCK DIAGRAM TYPICAL CONTROL WIRING EXAMPLE
I108 I109 N101	CONTROL BLOCK DIAGRAM TYPICAL CONTROL WIRING EXAMPLE NETWORK BLOCK DIAGRAM

UPGRADES

SPS

1AIN

CASSELMAN

COVER SHEET

GENERAL NOTES:

- WITH THE EXCEPTION OF THE CITY OF OTTAWA CONSTRUCTION SPECIFICATIONS & STANDARD DETAIL DRAWINGS REFERRED TO IN THIS CONTRACT, ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) & STANDARD SPECIFICATIONS (OPSS) SHALL APPLY TO THIS CONTRACT.
- 2. DRAWINGS TO BE READ IN CONJUNCTION WITH THE GEOTECHNICAL AND HYDROGEOLOGICAL INVESTIGATION REPORT NO. 100117.051 PREPARED BY GEMTEC CONSULTING ENGINEERS AND SCIENTISTS LTD.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION, BACKFILL, REINSTATEMENT OF ALL AREAS DISTURBED DURING CONSTRUCTION AND ALL ASSOCIATED WORKS TO THE SATISFACTION OF THE ENGINEER AND THE MUNICIPALITY OF CASSELMAN.
- 4. THE LOCATION OF UTILITIES IS APPROXIMATE ONLY. THE EXACT LOCATION SHOULD BE DETERMINED BY CONSULTING THE MUNICIPAL AUTHORITIES AND UTILITIY COMPANIES CONCERNED. THE MUNICIPALITY OF CASSELMAN CANNOT ACCEPT RESPONSIBILITY FOR ANY ERRORS OR OMISSIONS ON THE INFORMATION SHOWN HEREIN.
- 5. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THE LOCATION OF ALL EXISTING UTILITIES AND EXISTING UTILITY SERVICES, INCLUDING BUT NOT LIMITED TO: WATER, SEWER, GAS, HYDRO, AND TELECOMMUNICATIONS.
- 6. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING PROTECTION AND SUPPORT SYSTEMS FOR ALL EXISTING UNDERGROUND AND ABOVE GROUND UTILITIES DURING CONSTRUCTION.
- 7. EXISTING PUMPING STATION AND FORCEMAIN MUST REMAIN OPERATIONAL UNTIL NEW STATION, EMERGENCY GENERATOR BYPASS, ETC. AND NEW FORCEMAIN HAVE BEEN TESTED AND COMMISSIONED (REFER TO CONSTRAINTS AND SUGGESTED SEQUENCING IN SPECIFICATIONS). PROVIDE SAFE ACCESS TO EXISTING PUMPING STATION AT ALL TIMES DURING CONSTRUCTION.
- 8. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE NOTED.

STAGING NOTES:

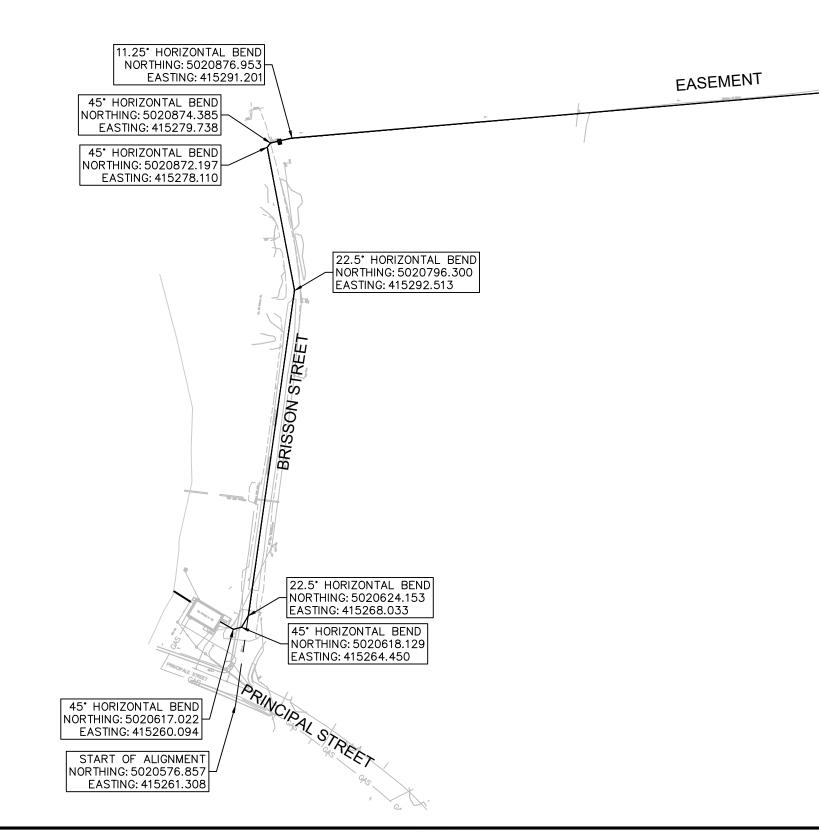
- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC / PEDESTRIAN / CYCLIST CONTROL. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE ONTARIO TRAFFIC MANUAL (OTM) BOOK 7, LATEST EDITION.
- 2. THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN / CYCLIST MOVEMENT WITHIN THE CONTRACT LIMITS FOR THE DURATION OF THE CONSTRUCTION.
- 3. THE CONTRACTOR SHALL MAINTAIN MINIMUM LANE WIDTHS OF 3.25m THROUGHOUT THE WORK AREA.

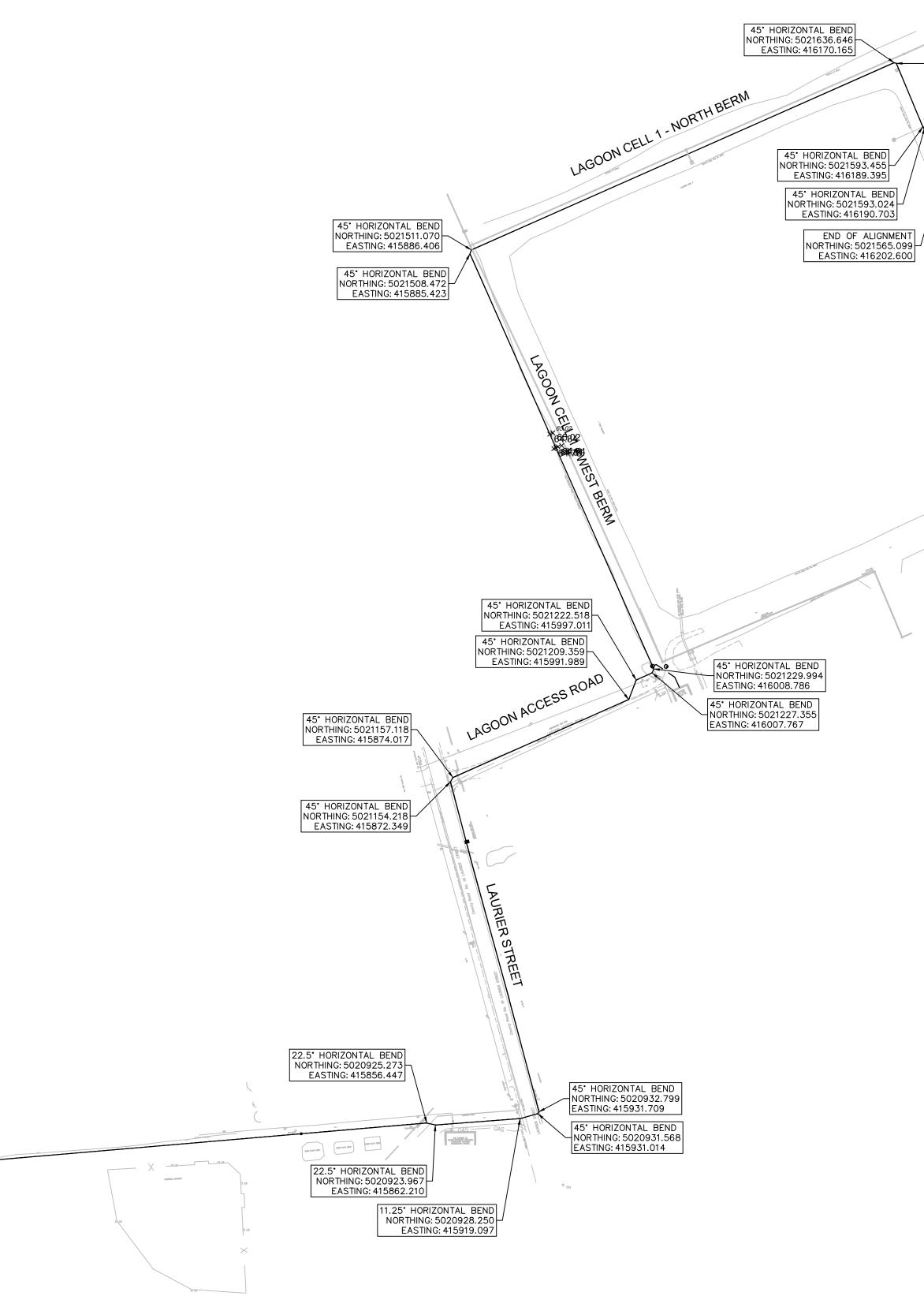
SEWER NOTES:

- 1. ALL SANITARY MAINTENANCE HOLES TO BE BENCHED PER OPSD 701.021.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE TO DETERMINE VIA EXCAVATION THE EXACT LOCATION, ELEVATION AND SIZE OF THE EXISTING WATERMAINS, SEWERS AND UNDERGROUND STRUCTURES AS REQUIRED FOR ALL CONNECTIONS, RELOCATIONS AND BLANKINGS.
- 3. CONCRETE THRUST BLOCKS TO BE PROVIDED AT ALL CHANGES IN PIPE DIRECTION. CONCRETE TO BE PLACED AGAINST UNDISTURBED SOIL AT THE BOTTOM AND SIDE OF THE TRENCH. ALL THRUST BLOCKS TO BE 20MPa AND SHALL BE CENTRED ON THE THRUST FORCE. THE BEARING AREA ON UNDISTURBED GROUND AT BENDS SHALL BE A MINIMUM OF 500mm. THE VERTICAL THICKNESS OF THE THRUST BLOCK SHALL BE A MINIMUM OF 300mm.
- 4. ALL JOINTS WITHIN 3m OF A HORIZONTAL BEND MUST BE RESTRAINED. ALL JOINTS WITHIN 6m OF A VERTICAL BEND MUST BE RESTRAINED. RESTRAINING AND RETAINING RINGS SHALL MEET OR EXCEED THE REQUIREMENTS OF UNI-B-13-92, SHALL BE UL LISTED AND FACTORY MUTUAL APPROVED.
- 5. TRACE WIRE TO BE SECURED TO PIPE AT EVERY FITTING AND AT INTERVALS NOT EXCEEDING 3m BY THE USE OF FIBREGLASS TAPE OR PLASTIC TIE WRAP. SPLICING OF TRACER WIRE SHALL NOT BE PERMITTED. CONNECT TRACKER WIRE TO BOLTS AT ANY DUCTILE IRON FITTINGS.

GRADING NOTES:

1. UNLESS OTHERWISE SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL MAINTAIN EXISTING LATERAL AND LONGITUDINAL ROAD SLOPES AND MATCH EXISTING GRADES, ENSURING POSITIVE DRAINAGE WITH NO PONDING.





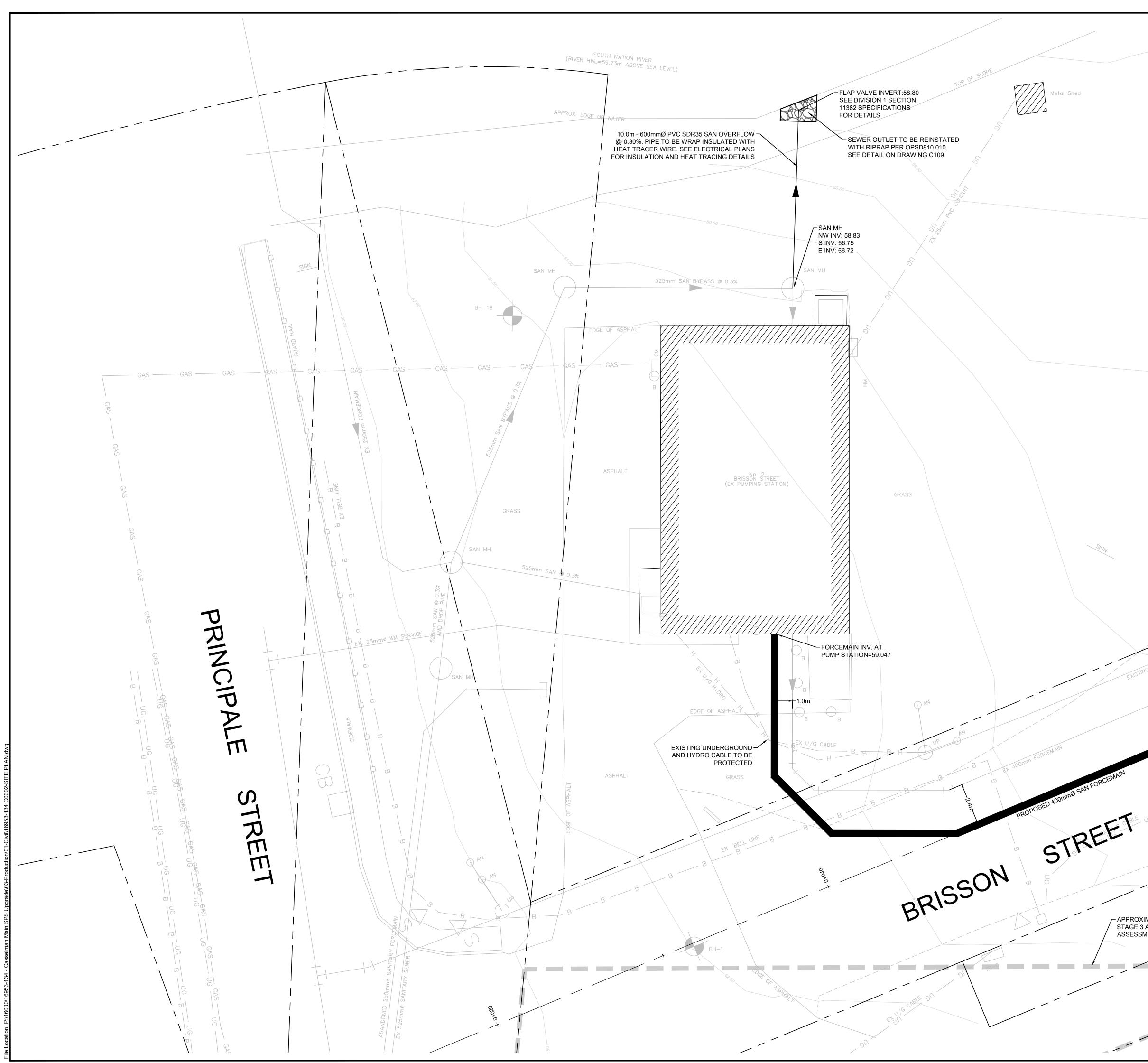
45° HORIZONTAL BEND

-NORTHING: 5021636.197 EASTING: 416171.610

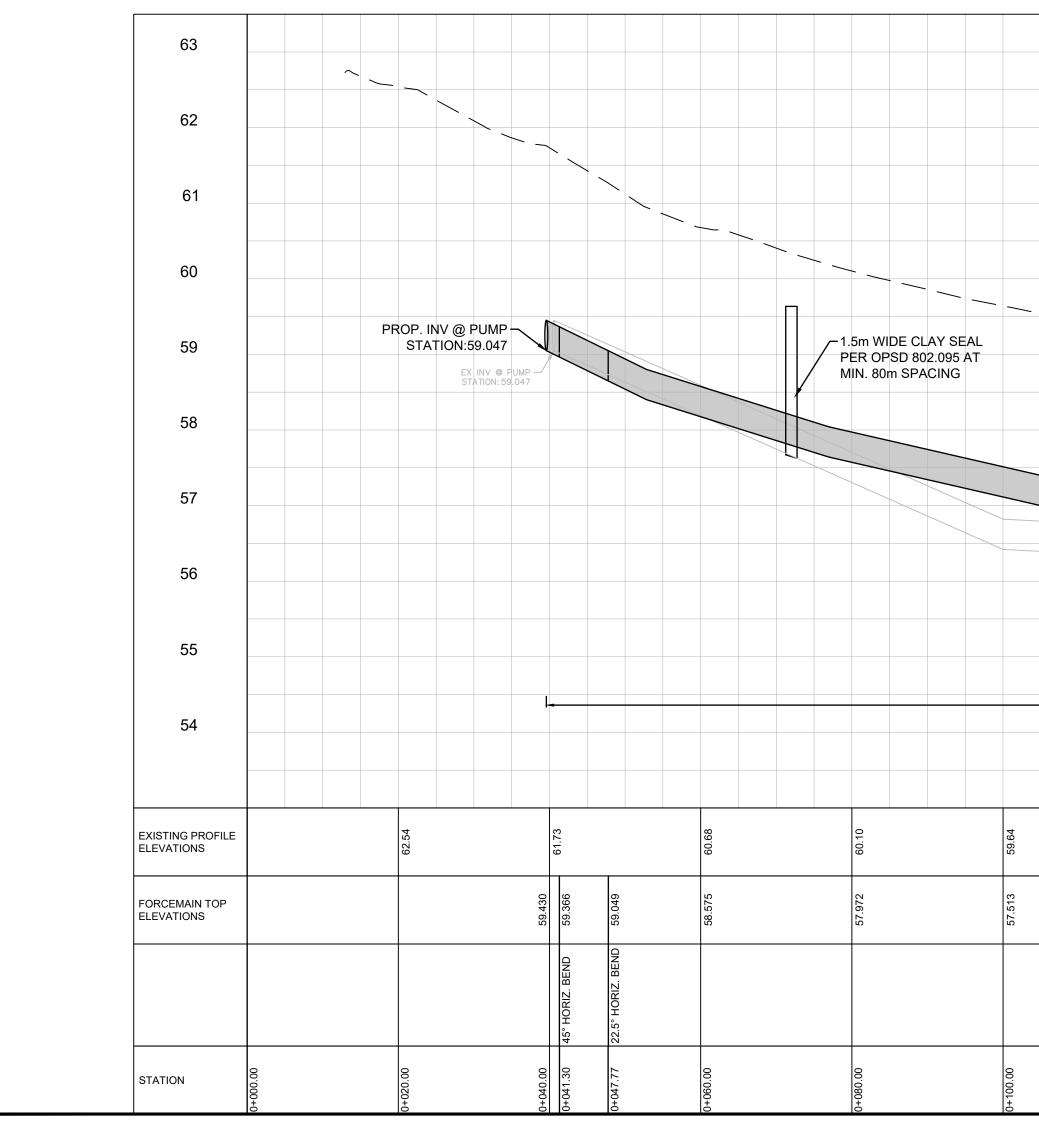
CELL

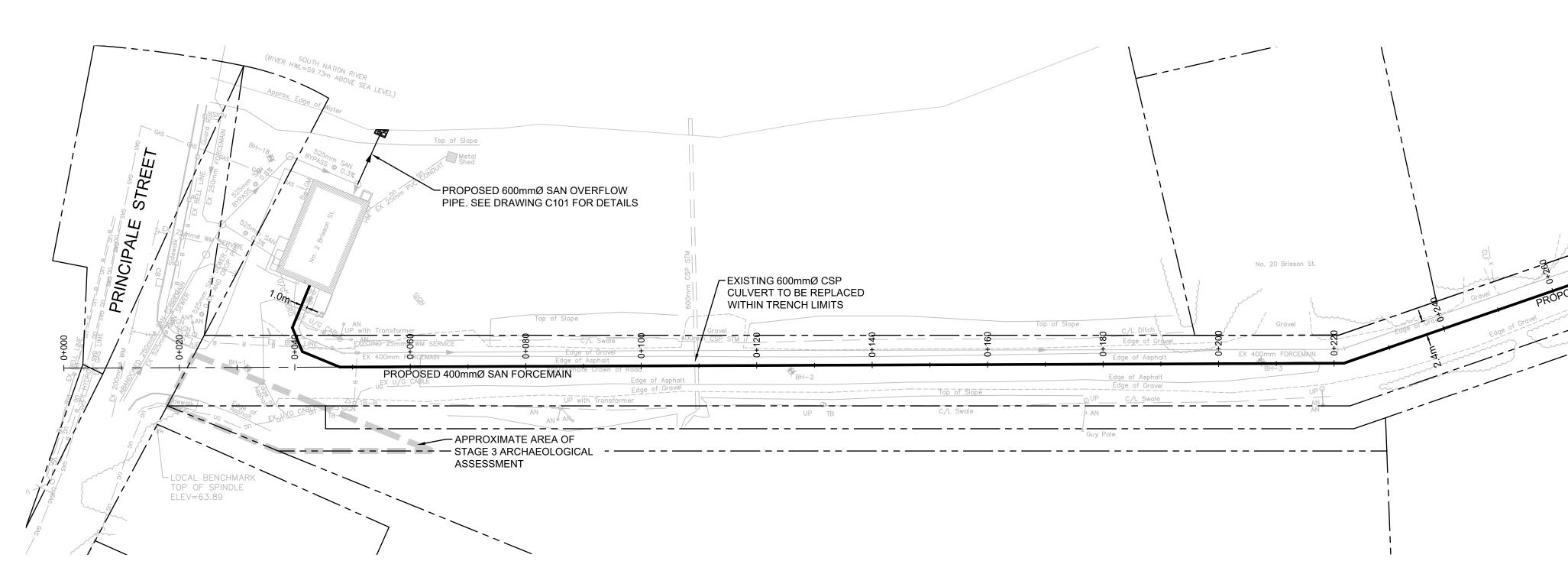
5

NOTE: ALL HORIZONTAL COORDINATE GEOREFERENCED. SITE BENCHMARKS MNR MONUMENT No. 010198000 BRASS PLUG, FLUSH WITH GRA AT THE NORTHEAST SIDE OF F APPROXIMATELY 85m NORTHV N:5018091.529 E:492911.346 Z:63.437 <u>CP-25</u> CUTCROSS ON NORTH EDGE C RUE PRINCPAL, APPROXIMATE STREET CENTRELINE, ACROSS TRANSFORMER. N:5018134.476 E:492833.738	626 ADE, LOCATED ON SIDEWALK PRINCIPAL STREET AND IS VEST OF MONTCALM STREET. DF SIDEWALK, NORTH SIDE OF LY 28.3m WEST OF BRISSON	
LIMITED AND ARE SUBJECT TO COPYRI IN THE APPLICABLE PROJECT CONTRAC OF THESE DRAWINGS FOR PURPOSES OR EXECUTION OF THE DESCRIBED WO	SION DD/MM/YY CED BY J.L. RICHARDS & ASSOCIATES GHT AND USE RESTRICTIONS SET OUT CT. ANY USE, REUSE, OR MODIFICATION OTHER THAN THE ORIGINAL PROJECT	
WARRANTIES, EITHER EXPRESS OR IMP OF THESE DRAWINGS FOR ANY OTHE	PLIED, OF THE SUITABILITY OR FITNESS ER PURPOSE, AND ANY PARTY WHICH IERWISE RELY ON THESE DRAWINGS PTS THESE LIMITATIONS AND DOES SO BILITY TO JLR.	
CLIENT:	www.jlrichards.ca	
CONSULTANT:	Richards RS-ARCHITECTS-PLANNERS	
PROFESSIONAL STAMP	ELMAN MAIN SPS	
UPGF 16 BRISSON ST, CASS DRAWING:	RADE SELMAN, ON KOA 1MO	4:37 PM
DESIGN: AP DRAWN: PC CHECKED: AS	DRAWING #	PLOT DATE: April 22, 2025 2:14:37 PM
JLR #: 16953-134		PLO



	1675.4		
	SAN		
	SAI		
	o _{up} UTI	ILITY POLE	
	°AN GU	IY WIRE	
	D TB CA	BLE BOX	
	∆ s SIG	GN	
	Bo BO	LLARD	
	GA:	S METER	
		/	
	PREPARED BY: AOV		
	DATED: 2024-08-01		CSPS)
			0080)
\vdash			
0	ISSUED FOR T	ENDER	23/04/25
No.	ISSUE / REVI	ISION	DD/MM/YY
LIMIT IN TH	ED AND ARE SUBJECT TO COPYR E APPLICABLE PROJECT CONTRA	RIGHT AND USE RESTRICTI CT. ANY USE, REUSE, OR M	ONS SET OUT
OF T OR E	HESE DRAWINGS FOR PURPOSES XECUTION OF THE DESCRIBED W	S OTHER THAN THE ORIGII ORK IS NOT PERMITTED O	NAL PROJECT
WITH WAR	OUT THE PRIOR WRITTEN AUT RANTIES, EITHER EXPRESS OR IM	HORIZATION OF JLR. JLF IPLIED, OF THE SUITABILIT	R MAKES NO Y OR FITNESS
OF T CHOO	HESE DRAWINGS FOR ANY OTHI	ER PURPOSE, AND ANY F HERWISE RELY ON THES	PARTY WHICH
WITH	OUT JLR'S AUTHORIZATION ACCE	PTS THESE LIMITATIONS A	
VERI	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S	BAR TO	1
VERI	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S	BAR TO	25mm
VERI THE I	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S	BAR TO	25mm
VERI THE I	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S	BAR TO	25mm
VERI THE I	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S .E: 1:100	BAR TO	25mn
VERII THE I	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S .E: 1:100	BAR TO	25mn
VERII THE I	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S .E: 1:100	BAR TO	25mn
VERII THE I	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S .E: 1:100	BAR TO	25mn
VERII THE I	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S .E: 1:100	BAR TO	25mn
VERII THE I SCAL	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S .E: 1:100	BAR TO DIZE DRAWING. 0	
VERII THE I SCAL	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S .E: 1:100 NT:	BAR TO IZE DRAWING. 0	w.jlrichards.ca
VERII THE I SCAL	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S .E: 1:100 NT:	BAR TO IZE DRAWING. 0	w.jlrichards.c
VERII THE I SCAL	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S .E: 1:100 NT:	BAR TO IZE DRAWING. 0	w.jlrichards.c
VERII THE I SCAL	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S .E: 1:100	BAR TO IZE DRAWING. 0	w.jlrichards.ca
VERII THE I	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S .E: 1:100 NT:	BAR TO IZE DRAWING. 0	w.jlrichards.c
VERII THE I	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S .E: 1:100 NT: SULTANT:	BAR TO IZE DRAWING. 0	w.jlrichards.c
VERII THE I	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S .E: 1:100 NT: SULTANT:	BAR TO IZE DRAWING. 0	w.jlrichards.ca
VERII THE I	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S .E: 1:100 NT: SULTANT:	BAR TO IZE DRAWING. 0	w.jlrichards.ca
CONS CONS	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S .E: 1:100 NT: SULTANT: SULTANT: SULTANT:	BAR TO DIZE DRAWING.	w.jlrichards.ca
CONS CONS	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S .E: 1:100 NT: SULTANT:	BAR TO IZE DRAWING. 0	w.jlrichards.ca
CONS CONS	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S .E: 1:100 NT: SULTANT: SULTANT: SULTANT:	BAR TO DIZE DRAWING.	w.jlrichards.ca
CONS CONS PROF	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S E. 1:100 NT: SULTANT: SULTANT: SULTANT: SULTANT: FESSIONAL STAMP	BAR TO DIZE DRAWING.	w.jlrichards.ca
CONS CONS PROF	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S E. 1:100 NT: SULTANT: SULTANT: SULTANT: SULTANT: FESSIONAL STAMP	BAR TO DIZE DRAWING.	w.jlrichards.ca
CONS CONS PROF	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S E. 1:100 NT: SULTANT: SULTANT: SULTANT: SULTANT: SULTANT: SULTANT:	BAR TO DIZE DRAWING.	w.jlrichards.ca
CONS CONS PROF	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S E. 1:100 NT: SULTANT: SULTANT: SULTANT: SULTANT: SULTANT: SULTANT:	BAR TO DIZE DRAWING.	w.jlrichards.ca
CONS CONS PROF	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S E. 1:100 NT: SULTANT: SULTANT: SULTANT: SULTANT: FESSIONAL STAMP	BAR TO DIZE DRAWING.	w.jlrichards.ca
CONS CONS PROF	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S E I 1:100 IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	BAR TO DIZE DRAWING.	w.jlrichards.ca
	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S E I 1:100 IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	BAR TO DIZE DRAWING.	w.jlrichards.ca
	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S E I 1:100 IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	BAR TO BIZE DRAWING. 0 WWW Richards ERS-ARCHITECTS-PLA	w.jlrichards.ca
	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S E I 1:100 IT IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	BAR TO BIZE DRAWING. 0 WWW Richards ERS-ARCHITECTS-PLA	w.jlrichards.ca
	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S E I 1:100 IT IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	BAR TO BIZE DRAWING.	w.jlrichards.ca
	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S E I 1:100 IT IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	BAR TO BIZE DRAWING.	w.jlrichards.ca
VERII THE I SCAL CLIEI CONS CONS PROF	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S T. 1:100 NT: SULTANT: SULTANT: SULTANT: SULTANT: FESSIONAL STAMP A.E.A. SMITH 100117279 Apr. 23 2025 Apr. 23 2025 Apr. 23 2025 Continents SULTANT: SULTANT:	BAR TO BIZE DRAWING.	w.jlrichards.ca
VERII THE I SCAL CLIEI CONS CONS PROF	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S E. 1:100 NT: SULTANT: SULTANT: SULTANT: FESSIONAL STAMP A.E.A. SMITH 100117279 Apr. 23 2025 MOVE OF ONLINE SULTANT: SULT	BAR TO BIZE DRAWING.	w.jlrichards.ca
VERII THE I SCAL CLIEI CONS CONS PROF	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S E. 1:100 NT: SULTANT: SULTANT: SULTANT: FESSIONAL STAMP A.E.A. SMITH 100117279 Apr. 23 2025 MOVE OF ONLINE SULTANT: SULT	BAR TO BIZE DRAWING.	w.jlrichards.ca
VERII THE I SCAL CLIEI CONS CONS PROF	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S E. 1:100 NT: SULTANT: SULTANT: FESSIONAL STAMP FESSIONAL STAMP Apr. 23 2025 Apr. 24 20 Apr. 25 20 Apr. 25 20	BAR TO BIZE DRAWING.	w.jlrichards.ca
VERII THE I SCAL CLIEI CONS CONS PROF	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S E. 1:100 NT: SULTANT: SULTANT: FESSIONAL STAMP FESSIONAL STAMP Apr. 23 2025 Apr. 24 20 Apr. 25 20 Apr. 25 20	BAR TO BIZE DRAWING.	w.jlrichards.ca
VERII THE I SCAL CLIEI CONS CONS PROF	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S E. 1:100 NT: SULTANT: SULTANT: FESSIONAL STAMP FESSIONAL STAMP Apr. 23 2025 Apr. 24 20 Apr. 25 20 Apr. 25 20	BAR TO BIZE DRAWING.	w.jlrichards.ca
	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S T: 1:100 NT: SULTANT: SULTANT: FESSIONAL STAMP FESSIONAL STAMP A. E. A. SMITH 100117279 Apr. 23 2025 Apr. 23 2025 DECT: SOLTANT: SULTAN	BAR TO BIZE DRAWING.	w.jlrichards.ca
	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S T: 1:100 NT: SULTANT: SULTANT: FESSIONAL STAMP ADD. 23 2025 ADD. 23 2025 ADD. 23 2025 ADD. 23 2025 ADD. 20 50 10 10 10 ADD. 23 2025 ADD. 20 50 10 10 IS COMPANY ADD. 23 2025 ADD. 20 50 10 10 IS COMPANY ADD. 23 2025 IS COMPANY IS COMPANY	BAR TO BIZE DRAWING.	w.jlrichards.ca
	TY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S T: 1:100 NT: IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	BAR TO BIZE DRAWING. DRAWING #:	w.jlrichards.ca
	FY SHEET SIZE AND SCALES. THE RIGHT IS 25MM IF THIS IS A FULL S T: 1:100 NT: SULTANT: SULTANT: SULTANT: FESSIONAL STAMP A.E. A. SMITH 100117279 Apr. 23 2025 Apr. 23 2025 Apr. 23 2025 Apr. 23 2025 Apr. 23 2025 Apr. 23 2025 Composed of the second of the s	BAR TO BIZE DRAWING.	w.jlrichards.ca
	No. THES LIMIT IN TH OF T OR E WITH WAR OF T CHOO WITH	Image: Solution of the system of the syst	SAN SANITARY SEWER FORCEMAIN SANITARY FORCEMAIN STM STORM SEWER GAS GAS LINE B UNDERGROUND BELL H UNDERGROUND CABLE OH OVERHEAD HYDRO UG UNDERGROUND CABLE OH OVERHEAD HYDRO X CHAIN LINK FENCE GUARD RAIL DRIP LINE/VEGETATION BUILDING MANHOLE CB CATCH BASIN MAHOLE CATCH BASIN SH=-3 BOREHOLE OUP UTILITY POLE ON GAS SIGN Bo BOLLARD GM GAS METER TOPOGRAPHIC SURVEY PREPARED BY: AOV DATED: 2024-08-01 HORIZONTAL DATUM: MTM ZONE 9, NAD 83 (VERTICAL DATUM: CGVD28 IMMED AND ARE SUBJECT TO COPYRIGHT AND USE RESTROIN IMMED AND ARE SUBJECT TO COPYRIGHT AND USE RESTROIN INFESE DRAWINGS HAVE BEEN PRODUCED BY J.L. RICHARDS & IMMED AND ARE SUBJECT TO COPYRIGHT AND USE RESTROIN OF THESE DRAWINGS FOR PUPROPSIS OTHER THAIN THE ORG IMMED AND ARE SUBJECT TO COPYRIGHT AND USE RES



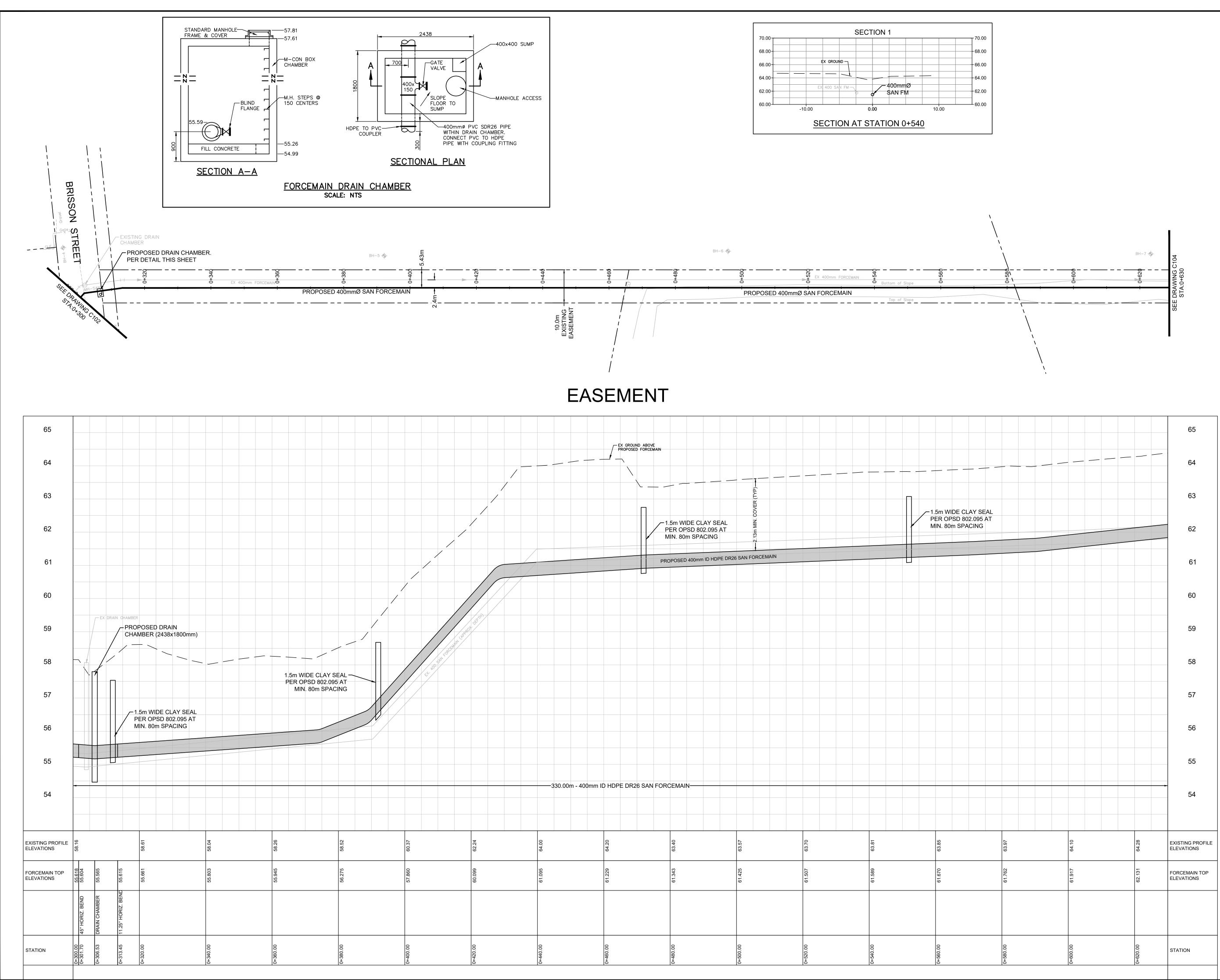


BRISSON STREET

																	63
																	62
																	61
																	60
<u> </u>							ND ABOVE D FORCEMAIN										59
	Λ					- <i>I</i>											
	EX. 600 CSP STM INV: \$8.12 - 50m	m INSULATION - 12							<u>ек (түр).</u>	 <u> </u>	 <u> </u>			 		 	58
	INV: 58.12 EXT	END 1000mm BEYC	OND CULVERT	/ PE	R OPSD	E CLAY SEA 0 802.095 A 1 SPACING	-		IN. COVER								
				¥					2.13m M		1.5m WIDE CI PER OPSD 80	02.095 A	AL AT				57
	EX. 400 SAN FORCEM	AIN (APPROX. DEPTH)		PRO	POSED 4(00mm ID HDPE	DR26 SAN F	ORCEMAIN	Î		MIN. 80m SPA	ACING					
																	56
																	55
			2	60.41m - 400n	nm ID HI	DPE DR26	SAN FORCI	EMAIN									54
																	54
59.64		59.31	59.07	000	50.90 50		58.79		58.68	58.41	58.25		58.27		58.27	E) EL	XISTING PROFILE
513		185	925	205	co		350		195	284	105		338		778	97 FC	ORCEMAIN TOP
57.5		57.	56.5	L T	oc		56.650		56.4	56.284 56.284	29		55.6		55.7	LI 22	ORCEMAIN TOP
										Z. BEND						BEND	
										22.5° HORIZ						45° HORIZ.	
00.00		20.00	40.00		00.00		180.00		200.00	0+220.00 0+221.65	240.00		60.00		280.00	06.90 508.90	TATION
0+1		0+1	0+1	+ +	- + >		0+1		2+0	(1+0) (1+0)	2+0		0+2		3+0	C+0	

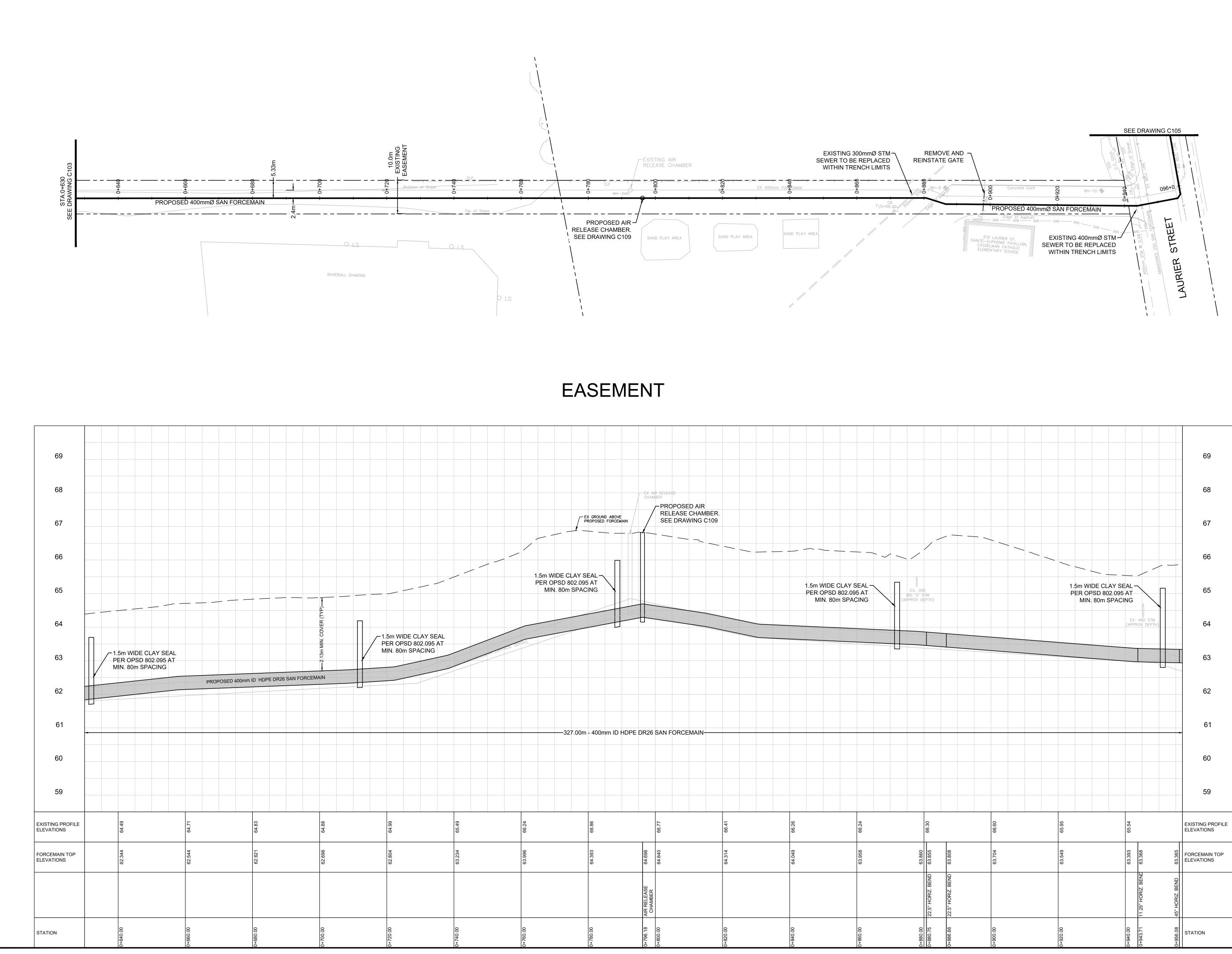
		CEMAIN	STA: 01-300 CT03))
DSED 400mmØ LOCAL NAIL IN	BENCHMARK- UTILITY POLE ELEV=58.30			
	ELEV=58.30	/		

	LEG	END	
		PROPERTY LINE	
		WATERMAIN SANITARY SEWER	
		SANITART SEWER	
	<u>STM</u>		
	GAS GAS	GAS LINE	
		UNDERGROUND BELL	_
		UNDERGROUND HYDR	
		OVERHEAD HYDRO	
	x x	CHAIN LINK FENCE	
	OO	GUARD RAIL	
		DRIP LINE/VEGETATION	N
	Vuunnuunnuunnuunnuunnu	MANHOLE	
	св□	CATCH BASIN	
	-¢ _{FH}	FIRE HYDRANT	
	BH-3	BOREHOLE	
	01	UTILITY POLE GUY WIRE	
		CABLE BOX	
	∆s	SIGN	
	Bo	BOLLARD	
	GM	GAS METER	
	VERTICAL DATUM:	CGVD28	
0	ISSUED F	OR TENDER	23/04/25
No.	ISSUE /	REVISION	DD/MM/YY
THE F	RIGHT IS 25MM IF THIS IS A FI E: 1:500 H, 1:50 V	ULL SIZE DRAWING. 0	25mn
CLIEN	IT:	w	ww.jlrichards.ca
CONS	JR J.I.	L.Richards	LANNERS
PROF	ESSIONAL STAMP	PROJECT NORTH	
1 Horse	A. E. A. SMITH 100117279 Apr. 23 2025 Bounce of our filling		
PROJ 16	A.E.A.SMITH 100117279 Apr. 23 2025 ECT: 953-134 - CAS UF 16 BRISSON ST, 0	SSELMAN MA OGRADE	
16	A.E.A.SMITH 100117279 Apr. 23 2025 BOUNCE OF ONTABLE 953-134 - CAS UF 16 BRISSON ST, O VING: FORCEMAIN BRISS	GRADE	.1M0
16	A.E.A.SMITH 100117279 Apr. 23 2025 Apr. 23 2025 BOUNCE OF ONTABLE 16 BRISSON ST, O VING: FORCEMAIN BRISSO	PGRADE Casselman, on koa PLAN & PRO	.1M0
16 DRAV	A.E.A.SMITH 100117279 Apr. 23 2025 Apr. 23 2025 ECT: 953-134 - CAS UF 16 BRISSON ST, O VING: FORCEMAIN BRISS	PGRADE CASSELMAN, ON KOA PLAN & PRO ON STREET	1M0

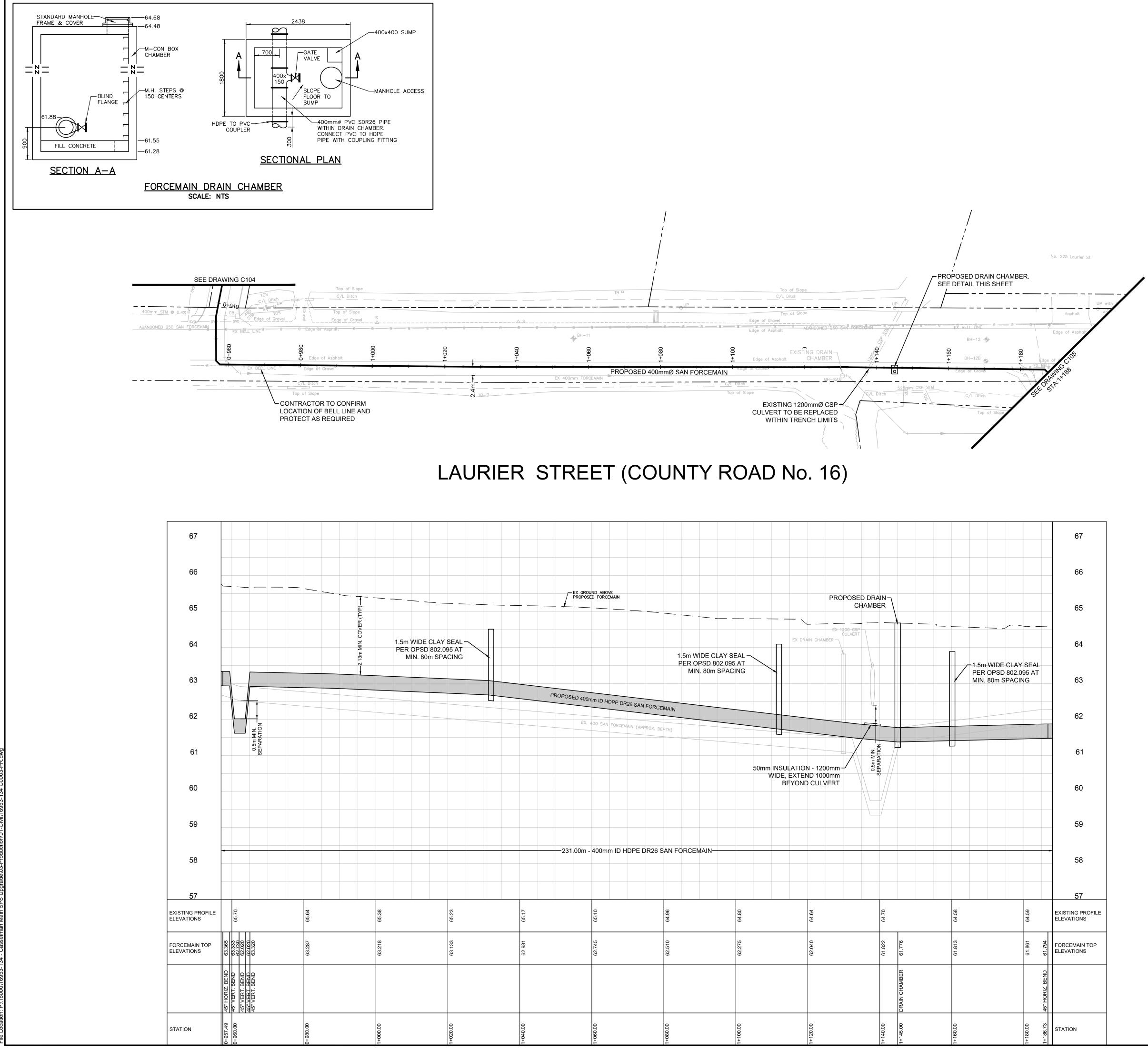


.ocation: P:\16000\16953-134 - Casselman Main SPS Upgrade\03-Production\01-Civil\16953-134 C0003-PR.dwg

	LEG	END	
		PROPERTY LINE	
	CAN	WATERMAIN	
		SANITARY SEWER SANITARY FORCEMAIN	
	CTM	STORM SEWER	
	GAS GAS		
	— в — в —	UNDERGROUND BELL	
		UNDERGROUND HYDRO	
		UNDERGROUND CABLE	
		OVERHEAD HYDRO CHAIN LINK FENCE	
		GUARD RAIL	
		DRIP LINE/VEGETATION	N
	Nonnonnonnonnonnonnon (N	BUILDING	
	0	MANHOLE	
	СВ	CATCH BASIN	
	-\$_FH	FIRE HYDRANT	
	BH-3	BOREHOLE UTILITY POLE	
	° AN	GUY WIRE	
	□ TB	CABLE BOX	
	\triangle S	SIGN	
	Bo	BOLLARD	
	GM	GAS METER	
	TOPOGRAPHIC SUR PREPARED BY: AOV DATED: 2024-08-01 HORIZONTAL DATUM VERTICAL DATUM:	 И: MTM ZONE 9, NAD 83	3 (CSRS)
0	ISSUED F	OR TENDER	23/04/25
No.	ISSUE /	REVISION	DD/MM/YY
WITHC WARR OF TH CHOOS WITHC AT THI	OUT THE PRIOR WRITTEN ANTIES, EITHER EXPRESS (IESE DRAWINGS FOR ANY SES TO USE, MODIFY, OF OUT JLR'S AUTHORIZATION EIR SOLE RISK AND WITHOL Y SHEET SIZE AND SCALES.	THE BAR TO	JLR MAKES NO LITY OR FITNESS Y PARTY WHICH ESE DRAWINGS
	IGHT IS 25MM IF THIS IS A FU		1 25mm
SCALE	1:500 H, 1:50 V		
	ULTANT:	ν L.Richards	ww.jlrichards.ca
		L. RICHAHUS INEERS-ARCHITECTS-P	
CONS	ULTANT:		
	A.E.A.SMITH A.F. 23 2025 Apr. 23 2025	PROJECT NORTH)
	^{ест:} 953-134 - СА	SSELMAN MA 'GRADE	IN SPS
	^{ест:} 953-134 - СА UP		
PROJE 169	953-134 - CAS UP 16 BRISSON ST, C	GRADE	
16s	953-134 - CAS UP 16 BRISSON ST, (^{1ING:}	GRADE	TIMO
DRAW	953-134 - CAS UP 16 BRISSON ST, C 'ING: FORCEMAIN EASEME	PGRADE CASSELMAN, ON KOA PLAN & PRO ENT (SHEET 1	TIMO
16 DRAW	ECT: 953-134 - СА UP 16 BRISSON ST, C 'ING: FORCEMAIN EASEME SN: AP 'N: PC	PGRADE CASSELMAN, ON KOA PLAN & PRO INT (SHEET 1	FILE
16s	953-134 - CAS UP 16 BRISSON ST, C ING: FORCEMAIN EASEME	PGRADE CASSELMAN, ON KOA PLAN & PRO ENT (SHEET 1	FILE



	LEG		
	== 0	(FNI)	
		PROPERTY LINE	
	<u></u>	WATERMAIN	
	CAN	SANITARY SEWER	
	FORCEMAIN	SANITARY FORCEMAIN	
		STORM SEWER	
	GAS GAS	GAS LINE	
	— в — в —	UNDERGROUND BELL	
	— н — н —	UNDERGROUND HYDRO)
	UG UG	UNDERGROUND CABLE	
	— ОН — ОН —	OVERHEAD HYDRO	
	X X	CHAIN LINK FENCE	
	D	GUARD RAIL	
		DRIP LINE/VEGETATION	1
	Connormannannannannan 13	BUILDING	
	0	MANHOLE	
	СВ	CATCH BASIN	
	-\$-FH	FIRE HYDRANT	
		BOREHOLE	
	O _{UP}	UTILITY POLE	
		GUY WIRE	
		CABLE BOX	
	∆ S	SIGN	
	Bo	BOLLARD	
	GM	GAS METER	
	TODO 67		
	TOPOGRAPHIC SUR PREPARED BY:	<u>KVEY</u>	
	AOV DATED: 2024-08-01		
		M: MTM ZONE 9, NAD 83 CGVD28	(CSRS)
		001020	
	1001122 -		00/04/05
0		OR TENDER	23/04/25
No.	ISSUE /	REVISION	DD/MM/YY
CHOC	SES TO USE, MODIFY, OF	OTHER PURPOSE, AND ANY R OTHERWISE RELY ON THI ACCEPTS THESE LIMITATION: JT LIABILITY TO JLR.	ESE DRAWINGS
CHOC WITH AT TH VERIF THE F	DEES TO USE, MODIFY, OF DUT JLR'S AUTHORIZATION HEIR SOLE RISK AND WITHOU SY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FI	R OTHERWISE RELY ON THI ACCEPTS THESE LIMITATION JT LIABILITY TO JLR.	' PARTY WHICH ESE DRAWINGS
CHOC WITH AT TH	DEES TO USE, MODIFY, OF DUT JLR'S AUTHORIZATION LEIR SOLE RISK AND WITHOU RY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A F	R OTHERWISE RELY ON THI ACCEPTS THESE LIMITATIONS JT LIABILITY TO JLR.	Y PARTY WHICH ESE DRAWINGS S AND DOES SO
CHOC WITH AT TH VERIF THE F	DEES TO USE, MODIFY, OF DUT JLR'S AUTHORIZATION HEIR SOLE RISK AND WITHOU SY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FI	R OTHERWISE RELY ON THI ACCEPTS THESE LIMITATIONS JT LIABILITY TO JLR.	Y PARTY WHICH ESE DRAWINGS S AND DOES SO
CHOC WITH AT TH VERIF THE F	DES TO USE, MODIFY, OF DUT JLR'S AUTHORIZATION IEIR SOLE RISK AND WITHOL Y SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FI E: 1:500 H, 1:50 V	R OTHERWISE RELY ON THI ACCEPTS THESE LIMITATIONS JT LIABILITY TO JLR.	Y PARTY WHICH ESE DRAWINGS S AND DOES SO
CHOC WITH AT TH VERIF THE F	DES TO USE, MODIFY, OF DUT JLR'S AUTHORIZATION IEIR SOLE RISK AND WITHOL Y SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FI E: 1:500 H, 1:50 V	R OTHERWISE RELY ON THI ACCEPTS THESE LIMITATIONS JT LIABILITY TO JLR.	Y PARTY WHICH ESE DRAWINGS S AND DOES SO
CHOC WITH AT TH VERIF THE F	DES TO USE, MODIFY, OF DUT JLR'S AUTHORIZATION IEIR SOLE RISK AND WITHOL Y SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FI E: 1:500 H, 1:50 V	R OTHERWISE RELY ON THI ACCEPTS THESE LIMITATIONS JT LIABILITY TO JLR.	Y PARTY WHICH ESE DRAWINGS S AND DOES SO
CHOC WITH AT TH VERIF THE F	DES TO USE, MODIFY, OF DUT JLR'S AUTHORIZATION IEIR SOLE RISK AND WITHOL Y SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FI E: 1:500 H, 1:50 V	R OTHERWISE RELY ON THI ACCEPTS THESE LIMITATIONS JT LIABILITY TO JLR.	Y PARTY WHICH ESE DRAWINGS S AND DOES SO
CHOC WITH AT TH VERIF THE F SCAL	DEST TO USE, MODIFY, OF DUT JLR'S AUTHORIZATION IEIR SOLE RISK AND WITHOL TY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FI E: 1:500 H, 1:50 V	R OTHERWISE RELY ON THI ACCEPTS THESE LIMITATIONS JT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING.	2 PARTY WHICH ESE DRAWINGS S AND DOES SO 25mm
CHOC WITH AT TH VERIF THE F SCAL	DES TO USE, MODIFY, OF DUT JLR'S AUTHORIZATION IEIR SOLE RISK AND WITHOL Y SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FI E: 1:500 H, 1:50 V	R OTHERWISE RELY ON THI ACCEPTS THESE LIMITATIONS JT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING.	2 PARTY WHICH ESE DRAWINGS S AND DOES SO 25mm
CHOC WITH AT TH VERIF THE F SCAL	DEST TO USE, MODIFY, OF DUT JLR'S AUTHORIZATION IEIR SOLE RISK AND WITHOL TY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FI E: 1:500 H, 1:50 V IT:	R OTHERWISE RELY ON THI ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING.	Y PARTY WHICH ESE DRAWINGS S AND DOES SO 25mm
CHOC WITH AT TH VERIF THE F SCAL	SULTANT:	R OTHERWISE RELY ON THI ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING.	Y PARTY WHICH ESE DRAWINGS S AND DOES SO 25mm
CHOC WITH AT TH VERIF THE F SCAL	SULTANT:	R OTHERWISE RELY ON THI ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING.	Y PARTY WHICH ESE DRAWINGS S AND DOES SO 25mm
CHOC WITH AT TH VERIE THE F SCAL	SULTANT:	R OTHERWISE RELY ON THI ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING.	Y PARTY WHICH ESE DRAWINGS S AND DOES SO 25mm
CHOC WITH AT TH VERIF THE F SCAL	SULTANT:	R OTHERWISE RELY ON THI ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING.	Y PARTY WHICH ESE DRAWINGS S AND DOES SO 25mm
CHOC WITH AT TH VERIF THE F SCAL	SULTANT:	R OTHERWISE RELY ON THI ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING.	Y PARTY WHICH ESE DRAWINGS S AND DOES SO 25mm
CHOC WITH AT TH VERIF THE F SCAL	SULTANT:	R OTHERWISE RELY ON THI ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING.	Y PARTY WHICH ESE DRAWINGS S AND DOES SO 25mm
CONS	AND	R OTHERWISE RELY ON THI ACCEPTS THESE LIMITATIONS JT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING.	Y PARTY WHICH ESE DRAWINGS S AND DOES SO 25mm
CONS	AND	R OTHERWISE RELY ON THI ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING.	Y PARTY WHICH ESE DRAWINGS S AND DOES SO 25mm
CONS	AND	R OTHERWISE RELY ON THI ACCEPTS THESE LIMITATIONS JT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING.	Y PARTY WHICH ESE DRAWINGS S AND DOES SO 25mm
CONS	SULTANT: ESSIONAL STAMP ESSIONAL STAMP	R OTHERWISE RELY ON THI ACCEPTS THESE LIMITATIONS JT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING.	Y PARTY WHICH ESE DRAWINGS S AND DOES SO 25mm
CONS	AND	R OTHERWISE RELY ON THI ACCEPTS THESE LIMITATIONS JT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING.	Y PARTY WHICH ESE DRAWINGS S AND DOES SO 25mm
CONS	SULTANT: ESSIONAL STAMP SULTANT: ESSIONAL STAMP A. E. A. SMITH 100117279 Apr. 23 2025	R OTHERWISE RELY ON THI ACCEPTS THESE LIMITATIONS JT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING.	Y PARTY WHICH ESE DRAWINGS S AND DOES SO 25mm
CONS	SULTANT: ESSIONAL STAMP SULTANT: ESSIONAL STAMP ESSIONAL STAMP	R OTHERWISE RELY ON THI ACCEPTS THESE LIMITATIONS JT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING.	Y PARTY WHICH ESE DRAWINGS S AND DOES SO 25mm
CONS CONS	SULTANT: ESSIONAL STAMP ESSIONAL STAMP A.E. A. SMITH 100117279 Apr. 23 2025 Apr. 24 20 Apr. 25 20 Apr. 2	R OTHERWISE RELY ON THI ACCEPTS THESE LIMITATIONS JT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING.	Y PARTY WHICH ESE DRAWINGS S AND DOES SO 25mm
CONS	SULTANT: ESSIONAL STAMP ESSIONAL STAMP A.E. A. SMITH 100117279 Apr. 23 2025 Apr. 24 20 Apr. 25 20 Apr. 2	R OTHERWISE RELY ON THI ACCEPTS THESE LIMITATIONS JT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING.	v PARTY WHICH ESE DRAWINGS S AND DOES SO 25mm ww.jlrichards.ca
	EET:	A OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS JT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING.	25mm
	SULTANT: ESSIONAL STAMP SULTANT: ESSIONAL STAMP A. E. A. SMITH 100117279 Apr. 23 2025 Apr. 23 2025 Apr. 23 2025 Apr. 23 2025 CONTINUED CONTINUE	R OTHERWISE RELY ON THI ACCEPTS THESE LIMITATIONS JT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING.	25mm
	SULTANT: ESSIONAL STAMP SULTANT: ESSIONAL STAMP A. E. A. SMITH 100117279 Apr. 23 2025 Apr. 23 2025 Apr. 23 2025 Apr. 23 2025 CONTINUED CONTINUE	A OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING.	25mm
	ESSIONAL STAMP	A OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING.	PARTY WHICH ESE DRAWINGS AND DOES SO 25mm www.jlrichards.ca
	ESSIONAL STAMP A.E.A.SMITH SULTANT: ESSIONAL STAMP Apr. 23 2025 Apr. 24 Apr. 25 Apr.	A OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING. 0 W A.Richards SINEERS - ARCHITECTS - PI	PARTY WHICH ESE DRAWINGS AND DOES SO 25mm www.jlrichards.ca
CONS CONS CONS	ESSIONAL STAMP A.E.A.SMITH SULTANT: ESSIONAL STAMP Apr. 23 2025 Apr. 24 Apr. 25 Apr	A OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING. 0 W A.Richards SINEERS - ARCHITECTS - PI	PARTY WHICH ESE DRAWINGS AND DOES SO 25mm www.jlrichards.ca
CONS CONS CONS	ESSIONAL STAMP A.E.A.SMITH SULTANT: ESSIONAL STAMP Apr. 23 2025 Apr. 24 Apr. 25 Apr	A OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING. 0 W A.Richards SINEERS - ARCHITECTS - PI	PARTY WHICH ESE DRAWINGS AND DOES SO 25mm www.jlrichards.ca
CONS CONS CONS	SULTANT: ESSIONAL STAMP SULTANT: ESSIONAL STAMP A.E.A. SMITH 10117279 Apr. 23 2025 Apr. 24 Apr. 25	A OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING. 0 W A.Richards SINEERS - ARCHITECTS - PI	PARTY WHICH ESE DRAWINGS AND DOES SO 25mm www.jlrichards.ca
CONS	ESSIONAL STAMP ESSIONAL STAMP A.E.A. SMITH SULTANT: ESSIONAL STAMP Apr. 23 2025 Apr. 23 2025 Apr. 23 2025 Apr. 23 2025 COMMENDIAL SULTANT: ESSIONAL STAMP Apr. 23 2025 Apr. 23 2025 COMMENDIAL SULTANT: ESSIONAL STAMP Apr. 23 2025 COMMENDIAL APR. 24 20 COMMENDIAL APR. 24 20 COMMENDIAL APR. 24 20 COMMENDIAL APR. 25 20 COMMENDIAL APR. 24 20 COMMENDIAL APR. 25 20 COMMENDIAL APR	A OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING.	PARTY WHICH ESE DRAWINGS AND DOES SO 25mm 25mm
CONS CONS CONS	ESSIONAL STAMP ESSIONAL STAMP A.E.A. SMITH SULTANT: ESSIONAL STAMP Apr. 23 2025 Apr. 23 2025 Apr. 23 2025 Apr. 23 2025 COMMENDIAL SULTANT: ESSIONAL STAMP Apr. 23 2025 Apr. 23 2025 COMMENDIAL SULTANT: ESSIONAL STAMP Apr. 23 2025 COMMENDIAL APR. 24 20 COMMENDIAL APR. 24 20 COMMENDIAL APR. 24 20 COMMENDIAL APR. 25 20 COMMENDIAL APR. 24 20 COMMENDIAL APR. 25 20 COMMENDIAL APR	A OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING.	PARTY WHICH ESE DRAWINGS AND DOES SO 25mm 25mm
	SULTANT: ESSIONAL STAMP ESSIONAL STAMP ECT: 953-134 - CAS UT FORCEMAIN FORCEMAIN FORCEMAIN FORCEMAIN CONTRACTOR SULTANT: ECT: 16 BRISSON ST, O	A OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING. 0 W L.Richards SINEERS-ARCHITECTS-PI PROJECT NORTH SSELMAN MAP GRADE CASSELMAN, ON KOA SSELMAN, ON KOA SSELMAN, ON KOA	PARTY WHICH ESE DRAWINGS AND DOES SO 25mm 25mm Ww.jlrichards.ca
	SULTANT: ESSIONAL STAMP A.E.A. SMITH 100117279 Apr. 23 2025 Apr. 24 Apr. Apr. 24	A OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING. 0 W L.Richards GRADE INFERS-ARCHITECTS-PI PROJECT NORTH SSELMAN MA SSELMAN MA SSELMAN MA CASSELMAN, ON KOA CASSELMAN, ON KOA DRAWING #:	PARTY WHICH ESE DRAWINGS AND DOES SO 25mm 25mm ANINERS
	SULTANT: ESSIONAL STAMP SULTANT: ESSIONAL STAMP A.E.A. SMITH 100117279 Apr. 23 2025 Apr. 24 Apr. 24	A OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING. 0 W L.Richards SINEERS-ARCHITECTS-PI PROJECT NORTH SSELMAN MAP GRADE CASSELMAN, ON KOA SSELMAN, ON KOA SSELMAN, ON KOA	PARTY WHICH ESE DRAWINGS AND DOES SO 25mm 25mm ANINERS
	SULTANT: ESSIONAL STAMP ECT: 953-134 - CAS UITS FORCENAL FORCENAL BULTANT: ECT: 953-134 - CAS CONTINUE CO	A OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING. 0 W L.Richards GRADE INFERS-ARCHITECTS-PI PROJECT NORTH SSELMAN MA SSELMAN MA SSELMAN MA CASSELMAN, ON KOA CASSELMAN, ON KOA DRAWING #:	PARTY WHICH ESE DRAWINGS AND DOES SO 25mm 25mm www.jlrichards.ca ANNERS

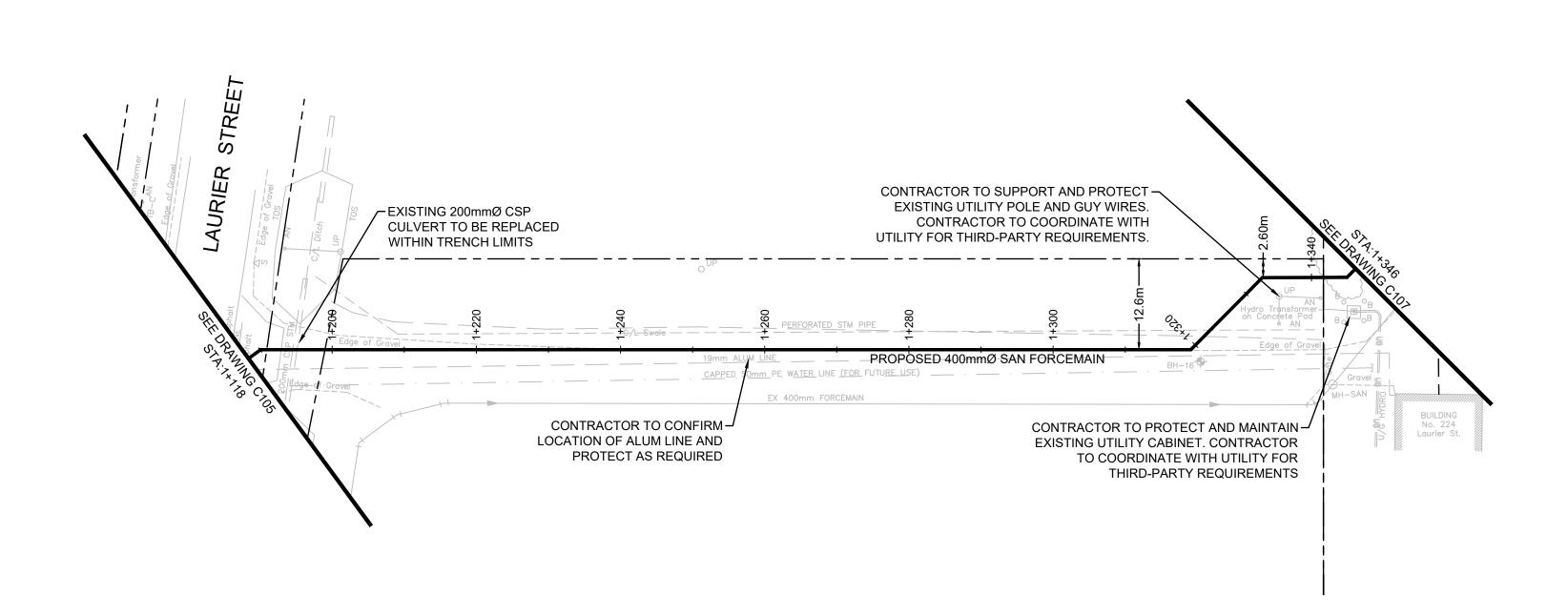


	LEGI	END	
		PROPERTY LINE	
	<u>WM</u>	WATERMAIN	
		SANITARY SEWER	
		SANITARY FORCEMAIN	
	<u>STM</u>		
	GAS GAS		
		UNDERGROUND BELL	
		UNDERGROUND HYDRO	
		OVERHEAD HYDRO	
		CHAIN LINK FENCE	
	<u>D</u> D		
		DRIP LINE/VEGETATION	
	Sumumumumumumumi	BUILDING	
	0	MANHOLE	
	СВ	CATCH BASIN	
	-\$-FH	FIRE HYDRANT	
	'BH-3	BOREHOLE	
		UTILITY POLE	
	°AN	GUY WIRE	
	□ TB △ S	CABLE BOX	
	Bo	SIGN	
	GM	GAS METER	
	TOPOGRAPHIC SUR	VEY	
	PREPARED BY: AOV		
		1: MTM ZONE 9, NAD 83	(CSRS)
	VERTICAL DATUM:	CGVD28	
0	ISSUED FO	OR TENDER	23/04/25
-			
No.		REVISION	DD/MM/YY
CHOC		OTHER PURPOSE, AND ANY OTHERWISE RELY ON THE	SE DRAWINGS
CHOC WITH AT TH		OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS T LIABILITY TO JLR.	SE DRAWINGS AND DOES SO
CHOC WITH AT TH VERIF THE F	DUT JLR'S AUTHORIZATION A EIR SOLE RISK AND WITHOU Y SHEET SIZE AND SCALES. IGHT IS 25MM IF THIS IS A FL	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS T LIABILITY TO JLR. THE BAR TO	SE DRAWINGS
CHOC WITH AT TH VERIF THE F	DUT JLR'S AUTHORIZATION A EIR SOLE RISK AND WITHOU Y SHEET SIZE AND SCALES. IGHT IS 25MM IF THIS IS A FL	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS T LIABILITY TO JLR.	SE DRAWINGS AND DOES SO
CHOC WITH AT TH VERIF THE F	DUT JLR'S AUTHORIZATION A EIR SOLE RISK AND WITHOU Y SHEET SIZE AND SCALES. IGHT IS 25MM IF THIS IS A FL E: 1:500 H, 1:50 V	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS T LIABILITY TO JLR.	SE DRAWINGS AND DOES SO
CHOC WITH AT TH VERIF THE F	DUT JLR'S AUTHORIZATION A EIR SOLE RISK AND WITHOU Y SHEET SIZE AND SCALES. IGHT IS 25MM IF THIS IS A FL E: 1:500 H, 1:50 V	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS T LIABILITY TO JLR.	SE DRAWINGS AND DOES SO
CHOC WITH AT TH VERIF THE F	DUT JLR'S AUTHORIZATION A EIR SOLE RISK AND WITHOU Y SHEET SIZE AND SCALES. IGHT IS 25MM IF THIS IS A FL E: 1:500 H, 1:50 V	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS T LIABILITY TO JLR.	SE DRAWINGS AND DOES SO
CHOC WITH AT TH VERIF THE F	DUT JLR'S AUTHORIZATION A EIR SOLE RISK AND WITHOU Y SHEET SIZE AND SCALES. IGHT IS 25MM IF THIS IS A FL E: 1:500 H, 1:50 V	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS T LIABILITY TO JLR.	SE DRAWINGS AND DOES SO
CHOC WITH AT TH VERIF THE F SCAL	DUT JLR'S AUTHORIZATION A EIR SOLE RISK AND WITHOU Y SHEET SIZE AND SCALES. IGHT IS 25MM IF THIS IS A FL E: 1:500 H, 1:50 V	OTHERWISE RELY ON THES ACCEPTS THESE LIMITATIONS T LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING.	SE DRAWINGS AND DOES SO 25mm
CLIEN	DUT JLR'S AUTHORIZATION A EIR SOLE RISK AND WITHOU Y SHEET SIZE AND SCALES. IGHT IS 25MM IF THIS IS A FL E: 1:500 H, 1:50 V	OTHERWISE RELY ON THES ACCEPTS THESE LIMITATIONS T LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING.	SE DRAWINGS AND DOES SO
CHOC WITH AT TH VERIF THE F SCAL	DUT JLR'S AUTHORIZATION A EIR SOLE RISK AND WITHOU Y SHEET SIZE AND SCALES. IGHT IS 25MM IF THIS IS A FL E: 1:500 H, 1:50 V	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS T LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING.	SE DRAWINGS AND DOES SO 25mm
CHOC WITH AT TH VERIF THE F SCAL	DUT JLR'S AUTHORIZATION A EIR SOLE RISK AND WITHOU Y SHEET SIZE AND SCALES. IGHT IS 25MM IF THIS IS A FL E: 1:500 H, 1:50 V IT: IULTANT:	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS T LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING.	SE DRAWINGS AND DOES SO 25mm
CHOC WITH AT TH VERIF THE F SCAL	DUT JLR'S AUTHORIZATION A EIR SOLE RISK AND WITHOU Y SHEET SIZE AND SCALES. IGHT IS 25MM IF THIS IS A FL E: 1:500 H, 1:50 V IT: IULTANT:	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS T LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING.	SE DRAWINGS AND DOES SO 25mm
CHOC WITH AT TH VERIF THE F SCAL	DUT JLR'S AUTHORIZATION A EIR SOLE RISK AND WITHOU Y SHEET SIZE AND SCALES. IGHT IS 25MM IF THIS IS A FL E: 1:500 H, 1:50 V IT: IULTANT:	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS T LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING.	SE DRAWINGS AND DOES SO 25mm
CHOC WITH AT TH VERIF THE F SCAL	DUT JLR'S AUTHORIZATION A EIR SOLE RISK AND WITHOU Y SHEET SIZE AND SCALES. IGHT IS 25MM IF THIS IS A FU E: 1:500 H, 1:50 V IT: ULTANT:	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS T LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING.	SE DRAWINGS AND DOES SO 25mm
CHOC WITH AT TH VERIF THE F SCAL	DUT JLR'S AUTHORIZATION A EIR SOLE RISK AND WITHOU Y SHEET SIZE AND SCALES. IGHT IS 25MM IF THIS IS A FU E: 1:500 H, 1:50 V IT: ULTANT:	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS T LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING.	SE DRAWINGS AND DOES SO 25mm
CHOC WITH AT TH VERIF THE F SCAL	DUT JLR'S AUTHORIZATION A EIR SOLE RISK AND WITHOU Y SHEET SIZE AND SCALES. IGHT IS 25MM IF THIS IS A FU E: 1:500 H, 1:50 V IT: ULTANT:	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS T LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING.	SE DRAWINGS AND DOES SO 25mm
CONS	DUT JLR'S AUTHORIZATION A EIR SOLE RISK AND WITHOU Y SHEET SIZE AND SCALES. IGHT IS 25MM IF THIS IS A FL E: 1:500 H, 1:50 V IT: UULTANT: UULTANT: ESSIONAL STAMP	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS T LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING.	SE DRAWINGS AND DOES SO 25mm
CONS	DUT JLR'S AUTHORIZATION A EIR SOLE RISK AND WITHOU Y SHEET SIZE AND SCALES. IGHT IS 25MM IF THIS IS A FL E: 1:500 H, 1:50 V IT: UULTANT: UULTANT: ESSIONAL STAMP	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS T LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING.	SE DRAWINGS AND DOES SO 25mm
CONS	DUT JLR'S AUTHORIZATION A EIR SOLE RISK AND WITHOU Y SHEET SIZE AND SCALES. IIGHT IS 25MM IF THIS IS A FL E: 1:500 H, 1:50 V IT: ULTANT: ULTANT:	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS T LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING.	SE DRAWINGS AND DOES SO 25mm
CONS	ULTANT: ESSIONAL STAMP ESSIONAL STAMP	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS T LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING.	SE DRAWINGS AND DOES SO 25mm
CONS	ULTANT: ESSIONAL STAMP A.E.A. SMITH A.F. A. SMITH DOTITIONAL ESSIONAL STAMP	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS T LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING.	SE DRAWINGS AND DOES SO 25mm
CONS	ULTANT: ESSIONAL STAMP A.E.A. SMITH A.F. A. SMITH DOTITIONAL ESSIONAL STAMP	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS T LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING.	SE DRAWINGS AND DOES SO 25mm
CONS CONS	ULTANT: ESSIONAL STAMP ESSIONAL STAMP A.E.A. SMITH 100117279 Apr. 23 2025 Apr. 24 20 Apr. 25 20 Apr. 2	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS T LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING.	SE DRAWINGS AND DOES SO 25mm
CONS	ULTANT: ESSIONAL STAMP ESSIONAL STAMP A.E.A. SMITH 100117279 Apr. 23 2025 Apr. 24 20 Apr. 25 20 Apr. 2	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS T LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING.	SE DRAWINGS AND DOES SO 25mm
	ESSIONAL STAMP	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS T LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING.	25mm
	ULTANT: ESSIONAL STAMP ESSIONAL STAMP A.E. A. SMITH 100117279 Apr. 23 2025 Apr. 24 Apr. 25 Apr.	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS T LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING. 0 WW .RECHARCS INEERS - ARCHITECTS - PLA PROJECT NORTH	25mm
	ESSIONAL STAMP ESSIONAL STAMP AF. 23 2025 Apr. 24 Apr. 25 A	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS T LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING. 0	ANNERS
	ESSIONAL STAMP ESSIONAL STAMP AF. 23 2025 Apr. 24 Apr. 25 A	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS T LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING. 0 WW A.Richards INEERS- ARCHITECTS- PLA PROJECT NORTH PROJECT NORTH	ANNERS
CONS	ULTANT: ESSIONAL STAMP APR 23 2025 Apr 23	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS T LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING. 0	ANNERS
	ULTANT: ESSIONAL STAMP APR 23 2025 Apr 23	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS T LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING. 0	ANNERS
CONS	ULTANT: ESSIONAL STAMP A.E.A. SMITH 100117279 Apr. 23 2025 Apr. 24 Apr. 25 Apr. 25	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS TLABILITY TO JLR. THE BAR TO JLL SIZE DRAWING. 0 WA AREAS ARCHITECTS - PLA PROJECT NORTH PROJECT NORTH PROJECT NORTH SELMAN MAI CASSELMAN ON KOA	ANNERS N SPS
CONS CONS CONS	ESSIONAL STAMP AFR SOLE RISK AND WITHOU Y SHEET SIZE AND SCALES. IGHT IS 25MM IF THIS IS A FL I: 500 H, 1:50 V II: ULTANT: ESSIONAL STAMP AFR 23 2025 Apr. 24 Apr. 25 Apr. 25 Ap	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS TLABILITY TO JLR. THE BAR TO JLL SIZE DRAWING. 0 WA ARICHARTOS INTERS- ARCHITECTS- PLAN PROJECT NORTH PROJECT NORTH SSELMAN MAI GRADE CASSELMAN, ON KOA	ANNERS
CONS CONS CONS	ESSIONAL STAMP AFR SOLE RISK AND WITHOU Y SHEET SIZE AND SCALES. IGHT IS 25MM IF THIS IS A FL I: 500 H, 1:50 V II: ULTANT: ESSIONAL STAMP AFR 23 2025 Apr. 24 Apr. 25 Apr. 25 Ap	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS TLABILITY TO JLR. THE BAR TO JLL SIZE DRAWING. 0 WA AREAS ARCHITECTS - PLA PROJECT NORTH PROJECT NORTH PROJECT NORTH SELMAN MAI CASSELMAN ON KOA	ANNERS
CONS CONS CONS	ECT: 953-134 - CAS ULTANT: FORCEMAIN 16 BRISSON ST, C 70 16 BRISSON ST, C	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS I LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING. 0 WA ARICHARTOS INTERS- ARCHITECTS- PLAN PROJECT NORTH SSELMAN MAI GRADE CASSELMAN, ON KOA PLAN & PROF	ANNERS N SPS
	A.E. A. SMITH SOLE AND SCALES. IGHT IS 25MM IF THIS IS A FU II: II: II: II: II: II: II: II	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS I LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING. 0 WA ARICHARTOS INTERS- ARCHITECTS- PLAN PROJECT NORTH SSELMAN MAI GRADE CASSELMAN, ON KOA PLAN & PROF	ANNERS
	A.E.A.SMITH SSIONAL STAMP A.E.A.SMITHU SSIONAL STAMP A.E.A.SMITH A.E.A.SMITH A.E.A.SMITH A.E.A.SMITH A.E.A.SMITH A.E.A.SMITH A.E.A.SMITH 100117279 Apr. 23 2025 Apr. 24 Apr. 24	OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS TILABILITY TO JUR. THE BAR TO JUL SIZE DRAWING. 0 MACHINE ARCHITECTS - PLAN PROJECT NORTH PROJECT NORTH PROJECT NORTH SELMAN MAI SELMAN MAI CASSELMAN, ON KOA	ANNERS N SPS MODUCES SO

67	
6	
55	
64	
63	
62	
51	

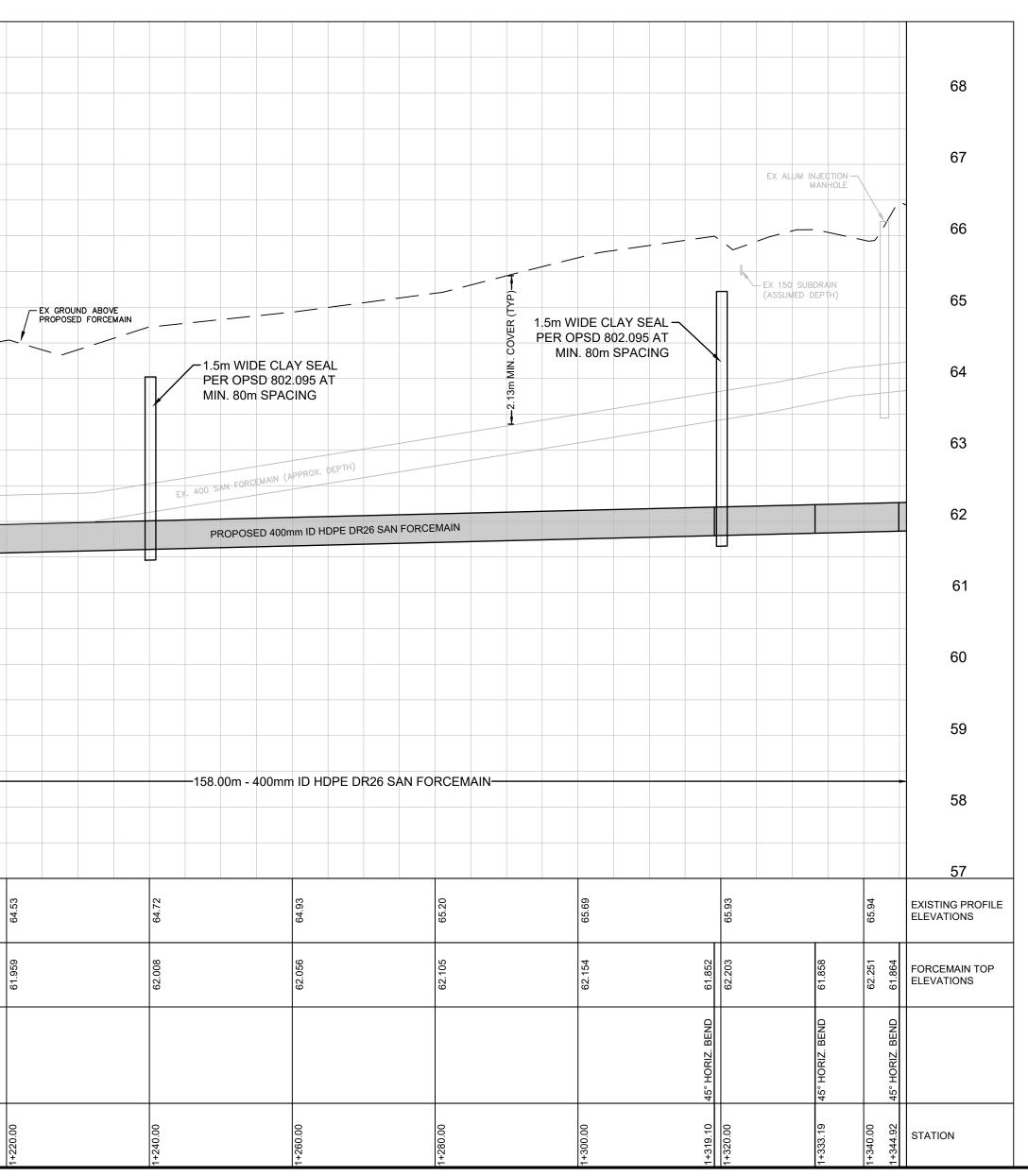
60	
59	

ocation: P:\16000\16953-134 - Casselman Main SPS Upgrade\03-Production\01-Civil\16953-134 C0003-PR.dwg



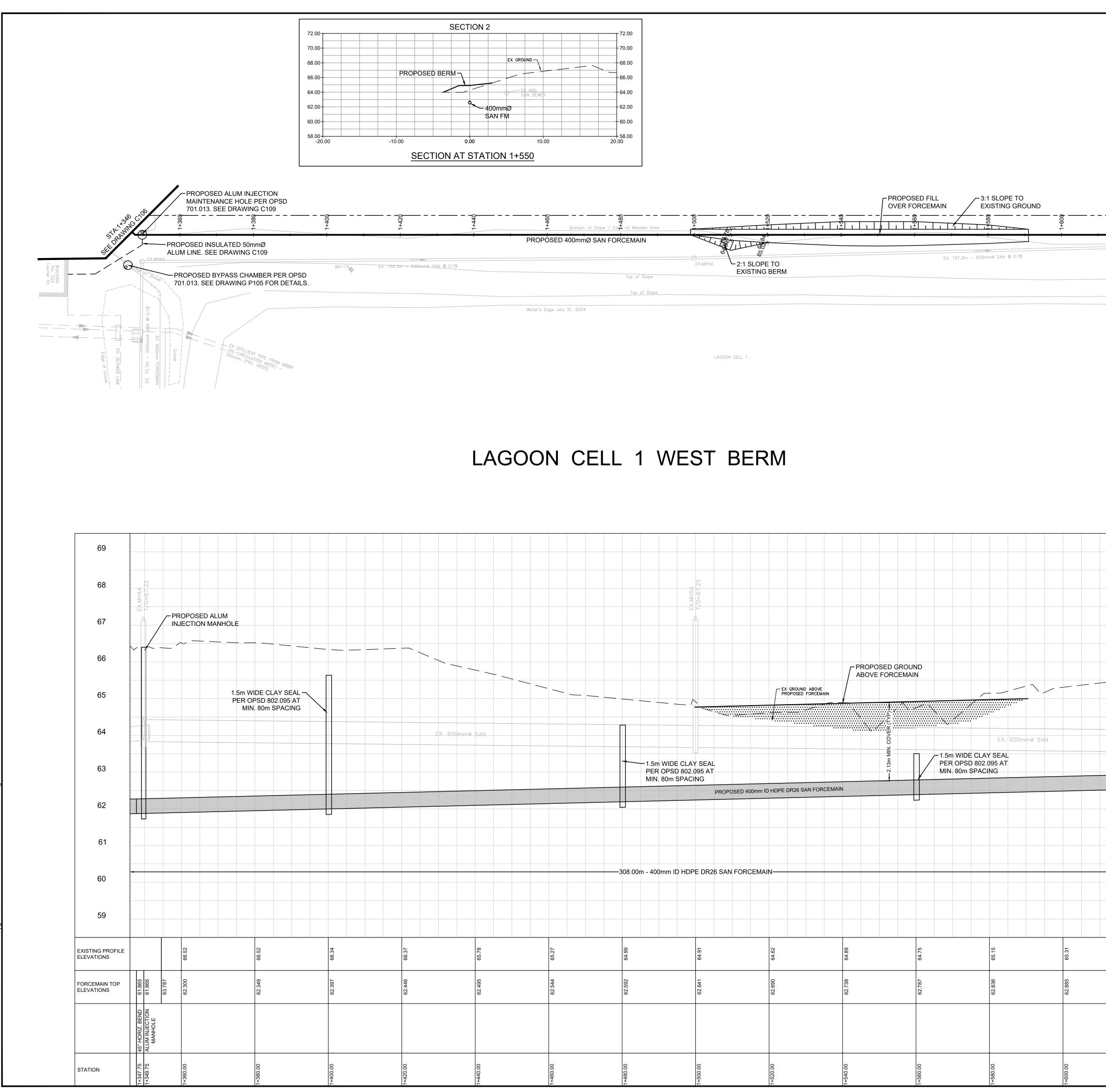
68						
67						
66						
65						
		/	~	<u> </u>		
64		/- EX	200 CSP VERT		~	
63			VERT			
62						
04						
61						
60						
59						
58						
50						
57						
EXISTING PROFILE ELEVATIONS			64.36			
FORCEMAIN TOP ELEVATIONS	61.796		61.910			
	45° HORIZ. BEND					
STATION	1+190.08		1+200.00			

LAGOON ACCESS ROAD



	LEG	END	
		PROPERTY LINE	
	<u>WM</u> SAN	WATERMAIN SANITARY SEWER	
	FORCEMAIN	SANITARY FORCEMAIN	
		STORM SEWER	
	GAS GAS B B	GAS LINE UNDERGROUND BELL	
		UNDERGROUND HYDRO	
	UG UG	UNDERGROUND CABLE	
		OVERHEAD HYDRO	
	X X	CHAIN LINK FENCE GUARD RAIL	
		DRIP LINE/VEGETATION	
	Hamananananananananananan		
	0	MANHOLE CATCH BASIN	
	_{СВ} — -ф _{ғн}	FIRE HYDRANT	
		BOREHOLE	
		UTILITY POLE	
	°AN □ TB	GUY WIRE CABLE BOX	
	∆ s	SIGN	
	Bo	BOLLARD	
	⊡GM	GAS METER	
	TOPOGRAPHIC SUR PREPARED BY: AOV		
	DATED: 2024-08-01	I: MTM ZONE 9, NAD 83	(CSRS)
	VERTICAL DATUM:	CGVD28	(-)
0	ISSUED F	OR TENDER	23/04/25
No.		REVISION	DD/MM/YY
		RODUCED BY J.L. RICHARDS	
OF TH OR EX WITH WARF OF TI	HESE DRAWINGS FOR PURP XECUTION OF THE DESCRIBI OUT THE PRIOR WRITTEN RANTIES, EITHER EXPRESS (NTRACT. ANY USE, REUSE, OR OSES OTHER THAN THE ORIG ED WORK IS NOT PERMITTED (AUTHORIZATION OF JLR. JL DR IMPLIED, OF THE SUITABILIT OTHER PURPOSE, AND ANY OTHERWISE RELY ON THE	INAL PROJECT OR ENDORSED .R MAKES NO I'Y OR FITNESS PARTY WHICH
WITH	OUT JLR'S AUTHORIZATION A	ACCEPTS THESE LIMITATIONS	
WITH AT TH VERIF	EIR SOLE RISK AND WITHOU	ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR.	AND DOES SO
WITH AT TH VERIF	IEIR SOLE RISK AND WITHOU FY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU	ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO	
WITH AT TH VERIF THE F	IEIR SOLE RISK AND WITHOU FY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU	ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR.	AND DOES SO
WITH AT TH VERIF THE F	IEIR SOLE RISK AND WITHOU FY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU E: 1:500 H, 1:50 V	ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR.	AND DOES SO
WITH AT TH VERIF THE F	IEIR SOLE RISK AND WITHOU FY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU E: 1:500 H, 1:50 V	ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR.	AND DOES SO
WITH AT TH VERIF THE F	IEIR SOLE RISK AND WITHOU FY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU E: 1:500 H, 1:50 V	ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR.	AND DOES SO
WITH AT TH VERIF THE F	IEIR SOLE RISK AND WITHOU FY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU E: 1:500 H, 1:50 V	ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR.	AND DOES SO
WITH AT TH VERIF THE F SCAL	IEIR SOLE RISK AND WITHOU FY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU E: 1:500 H, 1:50 V	ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO JUL SIZE DRAWING.	AND DOES SO
WITH AT TH VERIF THE F SCAL	IEIR SOLE RISK AND WITHOU TY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU E: 1:500 H, 1:50 V NT: SULTANT:	ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO JUL SIZE DRAWING.	AND DOES SO
WITH AT TH VERIF THE F SCAL	IEIR SOLE RISK AND WITHOU TY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU E: 1:500 H, 1:50 V NT: SULTANT:	ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING. 0	AND DOES SO 25mm
VERIF THE F SCAL	IEIR SOLE RISK AND WITHOU TY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU E: 1:500 H, 1:50 V NT: SULTANT: SULTANT: SULTANT:	ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO JUL SIZE DRAWING. 0	AND DOES SO 25mm
VERIF THE F SCAL	IEIR SOLE RISK AND WITHOU TY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU E: 1:500 H, 1:50 V NT: SULTANT:	ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING. 0	AND DOES SO 25mm
VERIF THE F SCAL	IEIR SOLE RISK AND WITHOU TY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU E: 1:500 H, 1:50 V NT: SULTANT: SULTANT: SULTANT:	ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING. 0	AND DOES SO 25mm
VERIF THE F SCAL	IEIR SOLE RISK AND WITHOU TY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU E: 1:500 H, 1:50 V NT: SULTANT: SULTANT: SULTANT:	ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING. 0	AND DOES SO 25mm
VERIF THE F SCAL	IEIR SOLE RISK AND WITHOU TY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU E: 1:500 H, 1:50 V NT: SULTANT: SULTANT: SULTANT:	ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING. 0	AND DOES SO 25mm
VERIF THE F SCAL	IEIR SOLE RISK AND WITHOU TY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU E: 1:500 H, 1:50 V NT: SULTANT: SULTANT: SULTANT: EESSIONAL STAMP	ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING. 0	AND DOES SO 25mm
VERIF THE F SCAL	IEIR SOLE RISK AND WITHOU TY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU E: 1:500 H, 1:50 V NT: SULTANT: SULTANT: SULTANT:	ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING. 0	AND DOES SO 25mm
VERIFITHE F	IEIR SOLE RISK AND WITHOU TY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU E: 1:500 H, 1:50 V NT: SULTANT: SULTANT: SULTANT: EESSIONAL STAMP	ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING. 0	AND DOES SO 25mm
VERIFITHE F	IEIR SOLE RISK AND WITHOU SY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU E: 1:500 H, 1:50 V NT: SULTANT: SULTANT: EESSIONAL STAMP A.E. A. SMITH 100117279 ADT. 23 2025	ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING. 0	AND DOES SO 25mm
VERIF THE F SCAL	IEIR SOLE RISK AND WITHOU PY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU E: 1:500 H, 1:50 V AT: SULTANT: ESSIONAL STAMP SULTANT: ESSIONAL STAMP A. E. A. SMITH 100117279	ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING. 0	AND DOES SO 25mm
VERIF THE F SCAL	IEIR SOLE RISK AND WITHOU PY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU E: 1:500 H, 1:50 V AT: SULTANT: SULTANT: SULTANT: FESSIONAL STAMP A.E. A. SMITH 100117279 Apr. 23 2025 Apr. 24 Apr. 25	ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING. 0	AND DOES SO 25mm
VERIFTHE F SCAL CLIEN CONS CONS	IEIR SOLE RISK AND WITHOU AND STATES SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU E: 1:500 H, 1:50 V T: SULTANT: SULTANT: EESSIONAL STAMP A.E. A. SMITH 100117279 Apr. 23 2025 Apr. 24 Apr. 25 Apr.	ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING.	AND DOES SO 25mm
VERIF THE F SCAL CLIEN CONS CONS	IEIR SOLE RISK AND WITHOU PY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU E: 1:500 H, 1:50 V TT: SULTANT: SULTANT: FESSIONAL STAMP FESSIONAL STAMP A.E. A. SMITH 100117279 Apr. 23 2025 Apr. 24 20 Apr. 25 20 Apr. 2	ACCEPTS THESE LIMITATIONS THE BAR TO JUL SIZE DRAWING.	AND DOES SO 25mm
VERIFTHE F SCAL CLIEN CONS CONS	EERSIONAL STAMP SULTANT: ESSIONAL STAMP Apr. 23 2025 Apr. 24 Apr. 25 Apr	ACCEPTS THESE LIMITATIONS TILABILITY TO JLR. THE BAR TO JLL SIZE DRAWING.	AND DOES SO 25mm
VERIF THE F SCAL CLIEN CONS CONS PROF	IEIR SOLE RISK AND WITHOU TY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU E: 1:500 H, 1:50 V NT: SULTANT: ESSIONAL STAMP ESSIONAL STAMP Apr. 23 2025 Apr. 24 Apr. 25 Apr. 2	ACCEPTS THESE LIMITATIONS THE BAR TO JUL SIZE DRAWING.	AND DOES SO 25mm
VERIF THE F SCAL CLIEN CONS CONS	IEIR SOLE RISK AND WITHOU TY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU E: 1:500 H, 1:50 V NT: SULTANT: ESSIONAL STAMP ESSIONAL STAMP Apr. 23 2025 Apr. 24 Apr. 25 Apr. 2	ACCEPTS THESE LIMITATIONS TILABILITY TO JLR. THE BAR TO JLL SIZE DRAWING.	AND DOES SO 25mm
VERIF THE F SCAL CLIEN CONS CONS PROF	IEIR SOLE RISK AND WITHOU TY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU E: 1:500 H, 1:50 V NT: SULTANT: ESSIONAL STAMP ESSIONAL STAMP Apr. 23 2025 Apr. 24 Apr. 25 Apr. 2	ACCEPTS THESE LIMITATIONS TILABILITY TO JLR. THE BAR TO JLL SIZE DRAWING.	AND DOES SO 25mm
VERIF THE F SCAL CLIEN CONS CONS PROF	IEIR SOLE RISK AND WITHOU SUBJECT SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU T: T: SULTANT: ESSIONAL STAMP Apr. 23 2025 Apr. 24 Apr. 25 Apr. 24 Apr. 25 Apr. 2	ACCEPTS THESE LIMITATIONS THE BAR TO JUL SIZE DRAWING.	AND DOES SO 25mm ANNERS
VERIF THE F SCAL CLIEN CONS CONS PROF	IEIR SOLE RISK AND WITHOU SUBJECT SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU T: T: SULTANT: ESSIONAL STAMP Apr. 23 2025 Apr. 24 Apr. 25 Apr. 24 Apr. 25 Apr. 2	ACCEPTS THESE LIMITATIONS THE BAR TO JUL SIZE DRAWING.	AND DOES SO 25mm ANNERS
VERIF THE F SCAL CLIEN CONS CONS PROF	IEIR SOLE RISK AND WITHOU SUBJECT SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU E: 1:500 H, 1:50 V IT: SULTANT: EESSIONAL STAMP A.E. A. SMITH 100117279 Apr. 23 2025 Apr. 24 Apr.	ACCEPTS THESE LIMITATIONS THE BAR TO JUL SIZE DRAWING.	AND DOES SO 25mm ANNERS
VERIF THE F SCAL CLIEN CONS CONS PROF	IEIR SOLE RISK AND WITHOU SUBJECT SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU T: T: T: T: T: T: T: T: T: T:	ACCEPTS THESE LIMITATIONS THE BAR TO JUL SIZE DRAWING.	AND DOES SO 25mm ANNERS

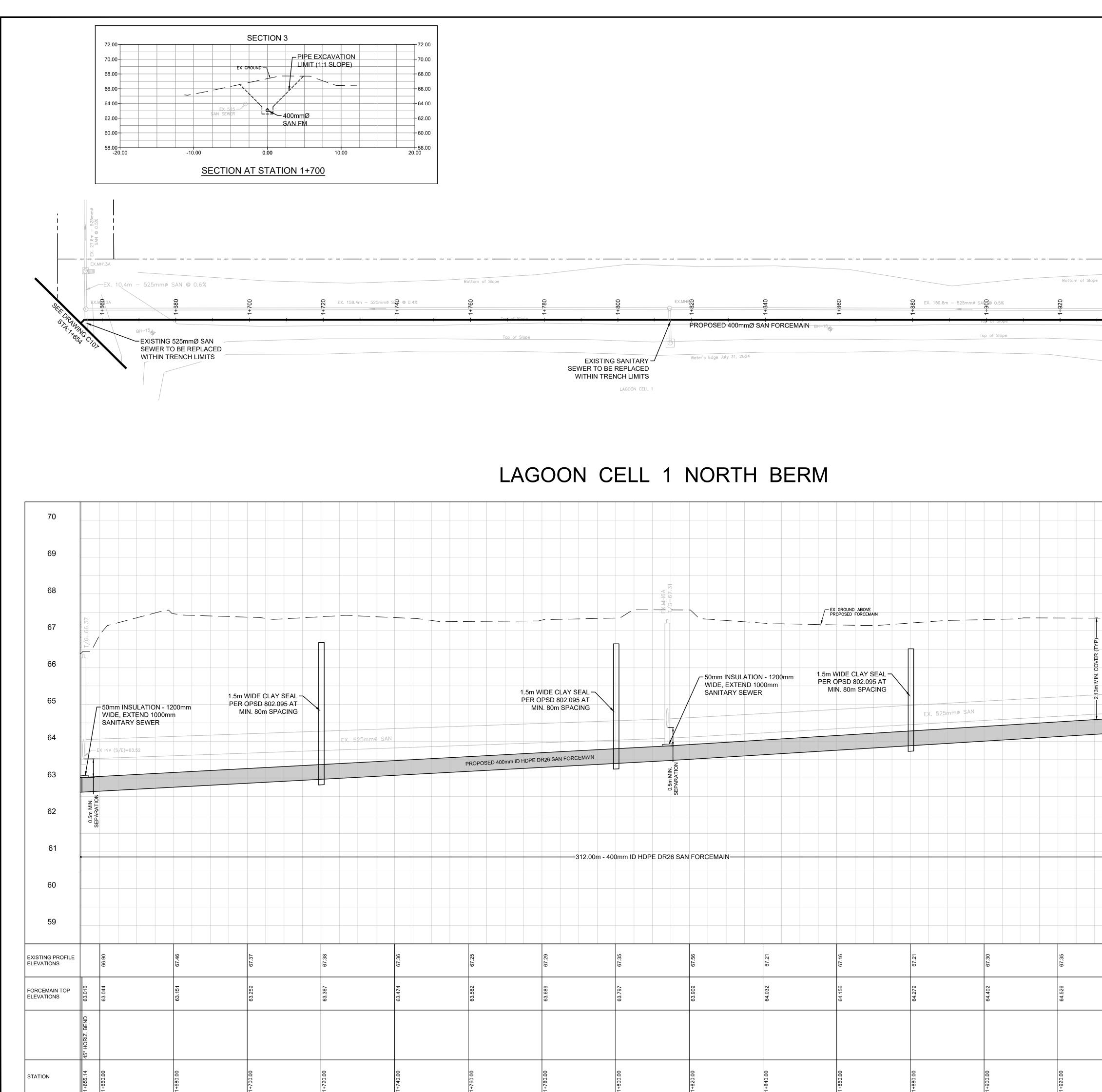
T DATE. And 32 2025 2:15:15 DM



		.MH5A G=67.25									69 68
					POSED GROUND						67 ~ 66
				E ANN					1.5m WIDE CLAY SEAL - PER OPSD 802.095 AT MIN. 80m SPACING		65 64
	PER OPSD MIN. 80m S	CLAY SEAL 0 802.095 AT SPACING	SED 400mm ID HDPE DR26 SAN FC		Z	-1.5m WIDE CLAY SE PER OPSD 802.095 MIN. 80m SPACING	EAL AT				63
											62
	—308.00m - 400mm IC	D HDPE DR26 SAN	FORCEMAIN								- 60 59
65.27	64.99	64.91	64.62	64.89	64.75	65.15		65.31	65.54	66.11	EXISTING PROFIL ELEVATIONS
62.544	62.592	62.641	62.690	62.738	62.787	62.836		62.885		62.982	FORCEMAIN TOP ELEVATIONS
460.00	80.00	00.00	50.00	40.00	00.003	00.088		00.00	20.00	40.00	STATION

1+620	+++++++++++++++++++++++++++++++++++++++			
	SHE	RANING A	<u>&</u>	

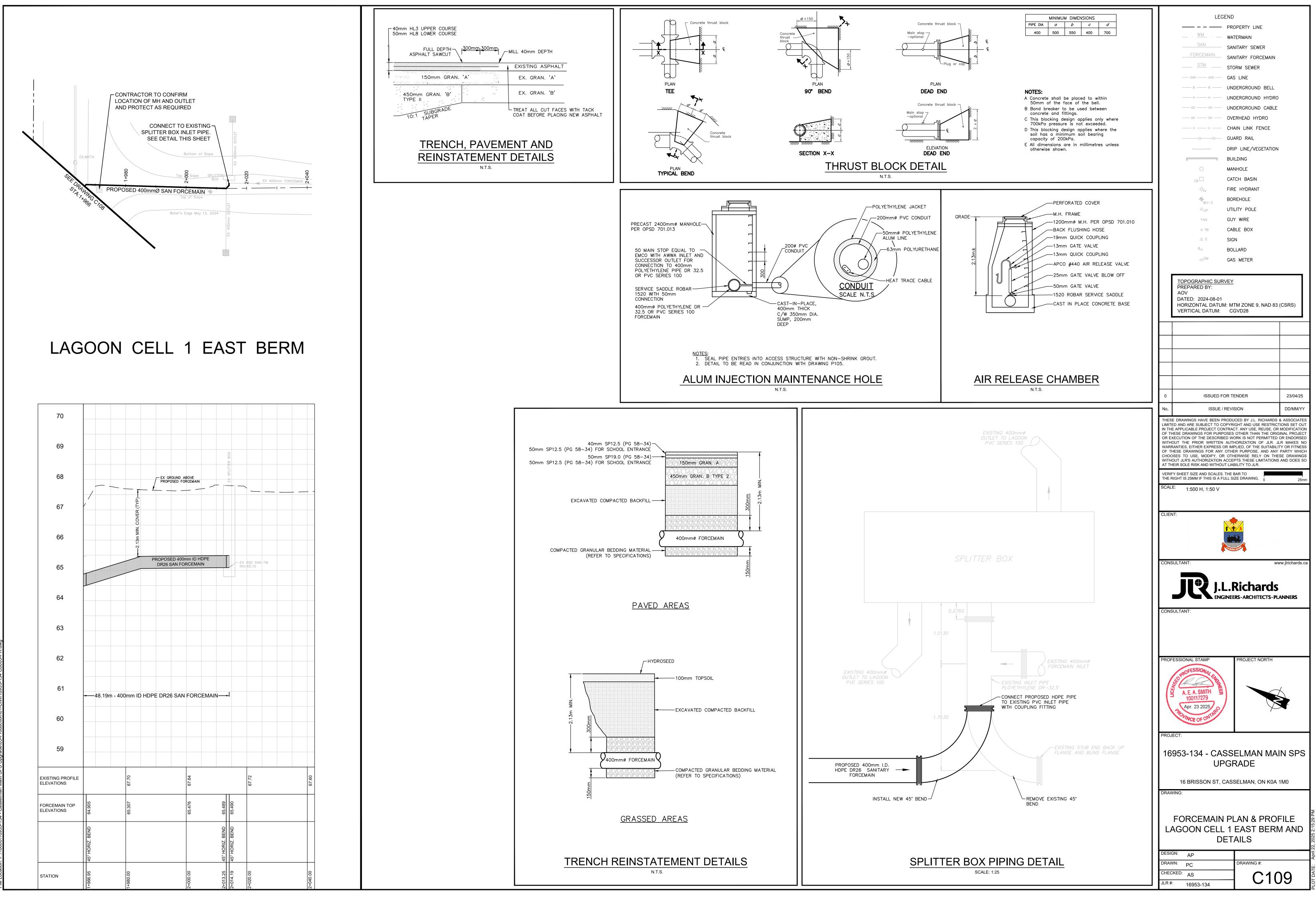
		END PROPERTY LINE	
i i	<u>WM</u>		
		SANITARY SEWER	
		SANITARY FORCEMAIN	
	<u>STM</u>	STORM SEWER	
	—— GAS —— GAS ——		
	— в — в —	UNDERGROUND BELL	
	— н — н —	UNDERGROUND HYDRO	
	UG UG	UNDERGROUND CABLE	
	— ОН — ОН —	OVERHEAD HYDRO	
	x x	CHAIN LINK FENCE	
	<u>D</u>	GUARD RAIL	
		DRIP LINE/VEGETATION	
	Kunnunnunnunnun (BUILDING	
	\bigcirc	MANHOLE	
	00	CATCH BASIN	
		FIRE HYDRANT	
	BH-3	BOREHOLE	
		UTILITY POLE	
		GUY WIRE	
	□ TB △ S	CABLE BOX	
	Bo	SIGN BOLLARD	
	014	GAS METER	
		GAS METER	
	DATED: 2024-08-01 HORIZONTAL DATUN VERTICAL DATUM:	/I: MTM ZONE 9, NAD 83 CGVD28	(CSRS)
0	ISSUED FO	OR TENDER	23/04/25
-	-	-	
No.		REVISION RODUCED BY J.L. RICHARDS	DD/MM/YY
	EIR SOLE RISK AND WITHOU		SE DRAWINGS
VERIF	EIR SOLE RISK AND WITHOU Y SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU	ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO	SE DRAWINGS AND DOES SO
VERIF THE R	EIR SOLE RISK AND WITHOU Y SHEET SIZE AND SCALES. IGHT IS 25MM IF THIS IS A FU	ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR.	SE DRAWINGS AND DOES SO
VERIF THE R SCALI	EIR SOLE RISK AND WITHOU Y SHEET SIZE AND SCALES. NGHT IS 25MM IF THIS IS A FL E: 1:500 H, 1:50 V	ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING. 0	SE DRAWINGS AND DOES SO 25mm
VERIF THE R SCALI	EIR SOLE RISK AND WITHOU TY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FL E: 1:500 H, 1:50 V IT: SULTANT: SULTANT: SULTANT:	ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING. 0	S AND DOES SO 25mm
VERIF THE R SCALI	EIR SOLE RISK AND WITHOU AF SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU T: IT: SULTANT: ESSIONAL STAMP Apr. 23 2025 Apr. 24 20 Apr. 25 2	ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING. 0	SE DRAWINGS AND DOES SO 25mm
	EIR SOLE RISK AND WITHOU TY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU E: 1:500 H, 1:50 V IT: SULTANT: ESSIONAL STAMP A.E.A. SMITH 100117279 Apr. 23 2025 Apr. 24 Apr. 25	ACCEPTS THESE LIMITATIONS IT LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING. 0	AND DOES SO 25mm 25mm
	EIR SOLE RISK AND WITHOU TY SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU T: IT: IT: IT: IT: IT: IT: IT:	ACCEPTS THESE LIMITATIONS TI LIABILITY TO JLR. THE BAR TO JLL SIZE DRAWING.	AND DOES SO 25mm 25mm
	EIR SOLE RISK AND WITHOU Y SHEET SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU T: 1:500 H, 1:50 V IT: SULTANT: ESSIONAL STAMP A.E.A. SMITH 100117279 Apr. 23 2025 Apr. 24 Apr. 24 Apr. 24 Apr. 24 Apr. 25 Apr. 24 Apr. 25 Apr. 24 Apr. 24 Apr. 24 Apr. 24 Apr. 25 Apr. 24 Apr. 25 Apr. 24 Apr. 25 Apr. 24 Apr. 25 Ap	ACCEPTS THESE LIMITATIONS TILABILITY TO JLR. THE BAR TO JLL SIZE DRAWING.	AND DOES SO 25mm 25mm ANNERS
	EIR SOLE RISK AND WITHOU SUBJECT SIZE AND SCALES. RIGHT IS 25MM IF THIS IS A FU T: II: II: II: II: II: II: II:	ACCEPTS THESE LIMITATIONS THE BAR TO JUL SIZE DRAWING.	AND DOES SO 25mm 25mm ANNERS IN SPS 1M0 FILE ERM

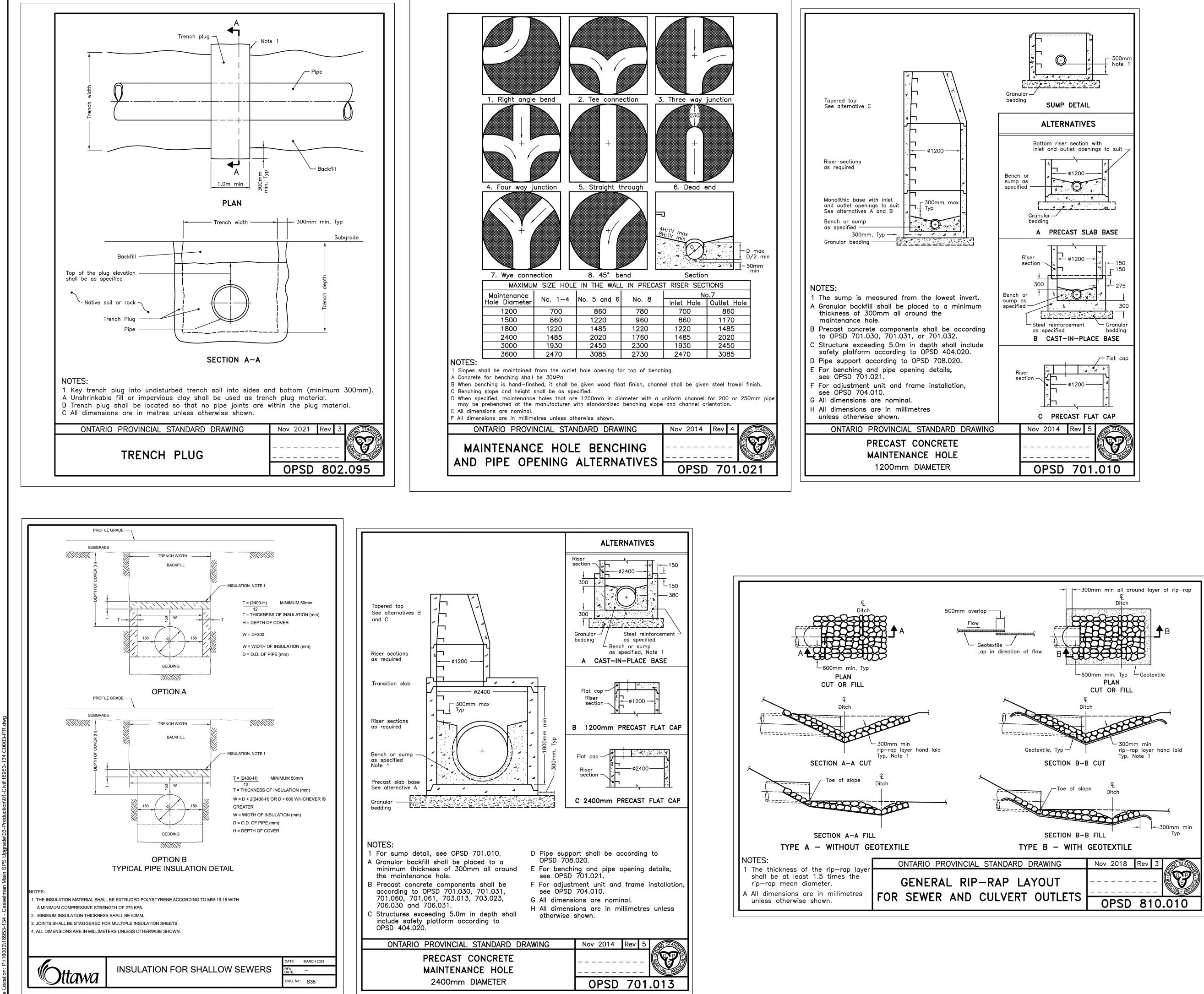


																	70
																	69
			.MH6A G=67.31														68
				- \			GROUND ABOVE ROPOSED FORCEMAIN					 					67
				/	- 50mm INSULATION WIDE, EXTEND 100	Omm PER (WIDE CLAY SEAL -						MIN. COVER (TYP)	1.5m WIDE CLAY S PER OPSD 802.09 MIN. 80m SPA(5 AT 🗋		66
PER O	IDE CLAY SEAL - PSD 802.095 AT I. 80m SPACING				SANITARY SEWER		N. 80m SPACING	E	x. 525m	nmø SAN							65
	R26 SAN FORCEMAIN																64
			0.5m MIN. SEPARATION														63
																	62
	312.00n	n - 400	mm ID HDPE DR26 S	AN FO	RCEMAIN												61
																	60
																	59
	67.29		67.35	67.56		67.21	67.16	67.21			67.30	67.35		67.39		67.15	EXISTING PROFILE ELEVATIONS
	63.689		63.797	63.909		64.032	64.156	64.279			64.402	 64.526		64.649		64.772 64.858	FORCEMAIN TOP ELEVATIONS
	1+780.00		1+800.00	1+820.00		1+840.00	1+860.00	1+880.00			1+900.00	1+920.00		1+940.00		1+960.00	STATION

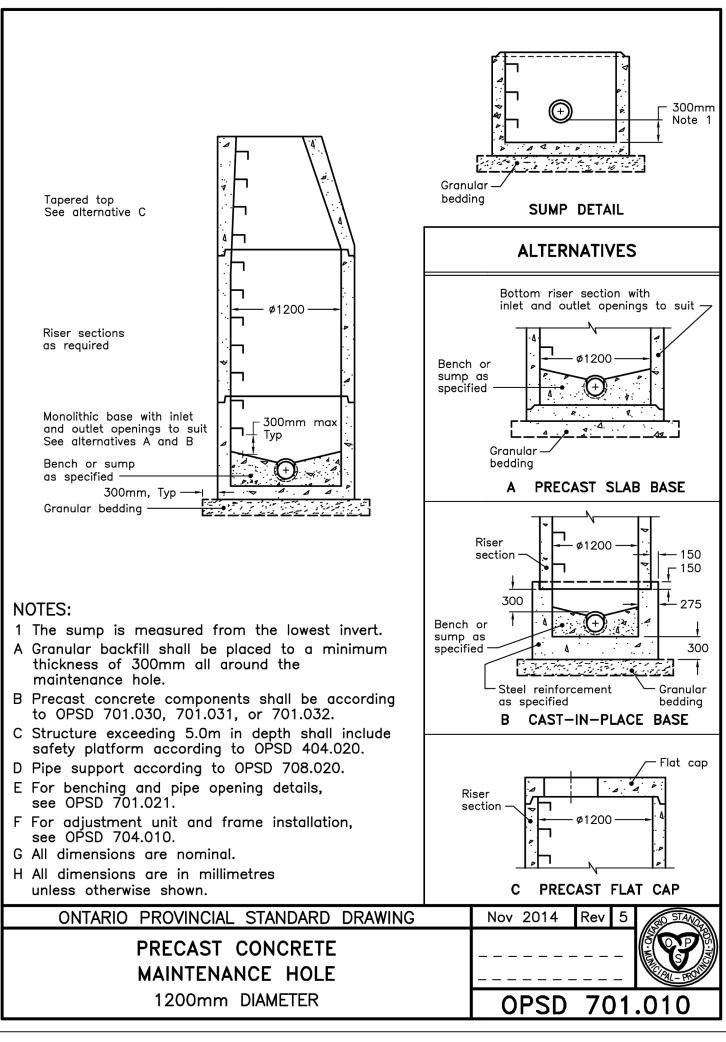
		/
- 1+940	- 1+960	
	1+960 1+960 1+960 1+960	×××

PROPERTY LINE WM WATERNAIN SAN SANTARY SEWER SAN SANTARY SEWER SAN STORM SEWER STORM SEWER SANTARY FORCEMAN STM STORM SEWER STM STORM SEWER STM STORM SEWER STM UNDERGROUND BELL H UNDERGROUND CABLE STM CHAIN LINK FENCE SULARD RAL BUILDING MANHOLE CATCH BASIN STT CABLE BOX ST CAS METER DONCORDAPHIC SULVEY DONCONTAL DATUM: MTIZONE 9, NAD 83 (CSR5) YM ISUE / REVISION DOMMY THERE POPORANCIAS HAVE REVEN POPOLOCED TO TENDER 2304/25	WM WATERNAIN SAN SANITARY SEVER FORCEMAIN SANITARY SEVER STM STORM SEVER STM STORM SEVER SOS GAS LINE SOS GAS LINE SOS GUARD RAIL DRIP LINE/VEGETATION BULDING CATCH BASIN BULDING SON GABLE BOX SIGN SOS SIGN SOS BOREHOLE CABLE BOX SIGN SOS SIGN SOS BOTED: 202408-01 HORIZONTAL DATUM: MTM ZONE 9, NAD 83 (CSRS) VERTICAL DATUM: CGVD28 DMMMY DATED: 202408-01 DMMMY HORIZONTAL DATUM: MTM ZONE 9, NAD 83 (CSRS) DMMMY VERTICAL DATUM: CGVD28 DMMMY THESE DRAWINGS FOR ANY OFTER PURPASES OFTER THAN THE ORGENAL PROJECT <th></th> <th>EEG</th> <th>SEND</th> <th></th>		EEG	SEND		
SAN SANITARY SEWER GORCEMAN SANITARY SEWER GOS GAS GOS GUARD RAL GOS GATCH BASIN GOS GATCH BASIN GOS GATCH BASIN GOS GOLLARD	SAN SMITARY SEVER FORCEMAN SMITARY FORCEMAN STM STORM SEVER GAS GAS GAS GAS GAS GAS GAS GAS GAS GAS GAS GAS GAS UNDERGROUND BELL GAS UNDERGROUND CABLE GAR UNDERGROUND CABLE GAR GUARD RAIL GAR GUARD RAIL GAR CATCH BASIN GAR GUARD RAIL GAR GUARD RAIL GAR GUARD RAIL GAR CATCH BASIN GAR GUARD RAIL GAR GUY WIRE GTB< CABLE BOX GAR GAR METER Matter ISSUE / REVISION DDMMYY THERE MONTAL DATUM COTTENDER 230425					
FORCEMAN SANTARY FORCEMAN STAM STORM SEWER GAG GAS LINE GAG GUR LINE CASCH BASIN GAG GAS LINE COCORAPHIC SURVEY MAN LINE ROW GAS GIN LINE MO ISUE/ REVISION DMANY LINE ISUE/ REVISION DMANY Internet Andres SUBE/ TO COMPARCIC BY ALL REVENDER LINE Intern	FORCEMANT SANTARY FORCEMANT STAM STORM SEWER STAM STORM SEWER STAM GAS LINE STORM SEWER STORM SEWER STOR SEGNENCE STORM SEW					
Image:	Image: Image		FORCEMAIN	SANITARY FORCEMAIN		
Image: Construction of the construc	Image: Construction of the consthe construction of the construction of the					
Image: Strategy of the strategy	Image: Construction of the construc					
Image: construction of the second	OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF OF <)	
X X CHAIN LINK FRUCE QUARD RAIL DRIP LINE/VEGETATION BUILDING BUILDING ANAHOLE CATCH BASIN Ana FIRE HYDRANT Ana BOREHOLE OUP UTILITY POLE ANA GUY WIRE ANA GUY ANA	X CHAIN LINK FENCE GUARD RAIL DRIP LINE/VEGETATION BUILDING BUILDING CATCH BASIN FIRE HYDRANT Image: Signed Control of Signed Control contrect Control Contrect Control Control of Si		UG UG	UNDERGROUND CABLE		
GUARD RAIL DRIP LINE/VEGETATION BUILDING MANHOLE CATCH BASIN Image: CATCH BASIN	GUARD RAIL DRIP LINE/VEGETATION BUILDING MANHOLE CATCH BASIN Image: CATCH BASIN					
BUILDING MANHOLE Calch BASIN Calch BASIN <tr< th=""><th>BUILDING MANHOLE CACH BASIN CACH BASIN CAL CAL</th><th></th><th></th><th></th><th></th></tr<>	BUILDING MANHOLE CACH BASIN CACH BASIN CAL					
Name	MANHOLE CATCH BASIN Image: CatCh BASIN<			DRIP LINE/VEGETATION	I	
CONSULTANT CATCH BASIN Consultant FIRE HYDRANT Consultant FIRE HYDRANT Consultant FIRE HYDRANT Consultant FIRE BOREHOLE Our UTILITY POLE Our Out WIRE Our Out WIRE Our Out WIRE Out Out Out WIRE Out Out Out WIRE Out Out Out WIRE Out	GB CATCH BASIN GB FIRE HYDRANT GDP UTILITY POLE GM GUY WIRE GM GUY WIRE GM GUY WIRE GM GUY WIRE GM GABLE BOX GM GAS METER COPOGRAPHIC SURVEY MANDER MOTED: 20240800 MOTED: CATCH BASIN MOTED: CORTICAL DATUM: MOTED: CORTICAL DATUM: GO ISSUED FOR TENDER QUINCALL DATUM: CONTACT ANY USE, REVES, ON MODIFICATION MOTED: ISSUEJ REVISION DDMMYN THESE DRAWINGS HAVE BEEN PRODUCED BY JL. RICHARDS & ASSOCIATES INTERPORT PURPOSES OF MIRED SO FILE THAN THE ORIGINAL PROJECT ON OF MIRED SO FOR PURPOSES OF MIRED SO FILE THAN THE ORIGINAL PROJECT ON OF MIRED SO FOR PURPOSES OF MIRED SO FILE THAN THE ORIGINAL PROJECT ON OF MIRED SO FOR PURPOSES OF MIRED SO FILE THAN THE ORIGINAL PROJECT ON OF MIRED SO FOR PURPOSES OF MIRED SO FILE THAN THE ORIGINAL PROJECT ON OF MIRED SO FOR PURPOSES OF MIRED SO FILE THAN THE ORIGINAL PROJECT ON OF MIRED SO FOR PURPOSES OF MIRED SO FILE THAN THE ORIGINAL PROJECT ON OF MIRED SO FOR PURPOSES OF MIRED SO FILE THAN THE ORIGINAL PROJECT ON OF MIRED SO FOR PURPOSES OF MIRED SO FILE THAN THE ORIGINAL PROJECT ON OF MIRED SO FOR PURPOSES OF MIRED SO FILE THAN THE ORIGINAL PROJECT ON OF MIRED SO FOR PURPOSES OF MIRED SO FILE THAN THE ORIGINAL PROV		Communication and Communication and Communication and Communication and Communication and Communication and Comm	BUILDING		
Image: Signal State	Image: Signal State Sta		0			
Image: Borehole Out UTILITY POLE One CABLE BOX AS SIGN Bo BOLLARD Image: CABLE DOX AS AS SIGN Bo BOLLARD Image: CABLE DOX AS Image: CABLE PONCOCONCOD BY ILL RICHARDS AS ASSOCATE	Ministry BOREHOLE Our UTILITY POLE Our GUY WIRE OB CABLE BOX AS SIGN O BOLLARD OM GAS METER DOCORRAPHIC SURVEY Ministry PREPARE DY: Ministry Ministry CASL DATUM: MINISTONE 9, NAD 83 (CSR) VETICAL DATUM: CGVD2 Ministry CASULADATUM: CGVD2 Ministry CASULADATUM: Ministry CASULADATUM: CGVD2 Ministry CASULADATUM: CGVD					
AN GUY WIRE DB CABLE BOX AS SIGN B BOLLARD DCM GAS METER INTERPARED BY: AN SOUTAL DATUM: MTM ZONE 9, NAD 83 (CSR) CRIZONTAL DATUM: MTM ZONE 9, NAD 83 (CSR) CRIZONTAL DATUM: CGVD23 Image: Colspan="2">Image: Colspan="2">Colspan="2" Colspan="2" Colspan="	AN GUY WIRE B CABLE BOX A S B BOLLARD B BOLLARD B GAS METER INTERCISTICATION OF AN ANTIPACINE SUPERIE PREPARED BY: MICONTAL DATUM: MITM ZONE 9, NAD 63 (CSR) CRITICAL DATUM: CGVD28 MICONTAL DATUM: MITM ZONE 9, NAD 63 (CSR) Image: Colspan="2">INTERCISTICATION OF ANTIPACINE CONTRACT ANTIPACINE CONTRACT ANTIPACINE CONTRACT AND USE RESURCE CONTRACT AND U					
Image: ABLE BOX Image: SIGN Image: Bollard Image:	0.13 CABLE BOX 2.5 SIGN 0.13 BOLLARD 0.14 GAS METER 1.11 COPOGRAPHIC SURVEY PREPARE DY: BOLLARD 2.11 CASTOR CONSTRUCTION OF THE ADDR STATES AND ADDR STATE		O _{UP}	UTILITY POLE		
<form> A.S. SIGN B. COLLARD C.M. CAS METER CONSULTANT B. CAS METER M. CAS METER M. M. M. CAS METER M. M. M. CONSULADATUM: MITAZONE 9, NAD 83 (CSR) M. CAS METER M.<th>A.S. SIGN B. BOLLARD B.M. GAS METER CDECENTED DESE MERES DES MERE</th><th></th><th></th><th></th><th></th></form>	A.S. SIGN B. BOLLARD B.M. GAS METER CDECENTED DESE MERES DES MERE					
Image: Construction of the proportion of the proporthe proportin the proportion of the proportion of the pr	Image: Construction of the consthe construction of the construction of the					
Image: Description of the standard	DOG MACHAN TOPOGRAPHIC SURVEY PREPARED BY: WO DATED: 2024-08-01 HORIZONTAL DATUM: MTM ZONE 9, NAD 83 (CSRS) VERTICAL DATUM: CGVD28 Image: Comparison of the compar		Bo			
PREPARED BY: AOV DTED: 2024-08-01 HORIZONTAL DATUM: MTM ZONE 9, NAD 83 (CSRS) VERTICAL DATUM: CGVD28 O ISSUED FOR TENDER 23/04/25 No. ISSUE / REVISION DD/MM/YY THESE DRAWINGS HAVE BEEN PRODUCED BY JL. RICHARDS & ASSOCIATES LIMITED AND ARE SUBJECT TO COPYRIGHT AND USE RESTRICTIONS SET OUT IN THE APPLICABLE PROJECT CONTRACT. ANY USE, REUSE, OR MODIFICATION OF THESE DRAWINGS FOR PURPOSES OTHER THAN THE ORIGINAL PROJECT OF THESE DRAWINGS FOR PURPOSES OTHER THAN THE ORIGINAL PROJECT OF THESE DRAWINGS FOR PURPOSES OTHER THAN THE ORIGINAL PROJECT OF THESE DRAWINGS FOR PURPOSES OTHER THAN THE ORIGINAL PROJECT OF THESE DRAWINGS FOR ANY OTHER PURPOSE, AND ANY PARTY WHICH CHOOSES TO USE, MODIFY, OR OTHERWISE RELY ON THESE DRAWINGS OF THESE DRAWINGS FOR ANY OTHER PURPOSE, AND ANY PARTY WHICH CHOOSES TO USE, MODIFY, OR OTHERWISE RELY ON THESE DRAWINGS OT THER SOLE RISK AND WITHOUT LIABILITY TO JLR. VERIFY SHEET SIZE AND SCALES. THE BAR TO THE RIGHT IS 25MM IFTHIS IS A FULL SIZE DRAWING. CLIENT: VERIFY SHEET SIZE AND SCALES. THE BAR TO THE RIGHT IS 25MM IFTHIS IS A FULL SIZE DRAWING. CONSULTANT: VERIFY SHEET SIZE AND SCALES. THE BAR TO THER RIGHT IS 25MM IFTHIS IS A FULL SIZE DRAWING. CLIENT: VERIFY SHEET SIZE AND SCALES. THE BAR TO THER RIGHT IS 25MM IFTHIS IS A FULL SIZE DRAWING. CONSULTANT: VERIFY SHEET SIZE AND SCALES. THE BAR TO THER RIGHT IS 25MM IFTHIS IS A FULL SIZE DRAWING. CONSULTANT: VERIFY SHEET SIZE AND SCALES. THE BAR TO THER RIGHT IS 25MM IFTHIS IS A FULL SIZE DRAWING. CONSULTANT: VERIFY SHEET SIZE AND SCALES. THE BAR TO THER RIGHT IS 25MM IFTHIS IS A FULL SIZE DRAWING. CONSULTANT: VERIFY SHEET SIZE AND SCALES. THE BAR TO THER RIGHT IS 25MM IFTHIS IS A FULL SIZE DRAWING. THER RIGHT IS 25MM IFTHIS IS A FULL SIZE DRAWING. CONSULTANT: VERIFY SHEET SIZE AND SCALES. THE BAR TO THE RIGHT IS 25MM IFTHIS IS A FULL SIZE DRAWING. THER SOLE RISK AND WITHOUT LIABILITY TO JLR. VERIFY SHEET SIZE AND SCALES. THE BAR TO THE RIGHT IS 25MM IFTHIS IS A FULL SIZE DRAWING. THE RIG	PREPARED BY: AOV DITED: 2024-08-01 HORIZONTAL DATUM: MTM ZONE 9, NAD 83 (CSRS) VERTICAL DATUM: CGVD28		⊡GM	GAS METER		
No. ISSUE / REVISION DD/MM/YY THESE DRAWINGS HAVE BEEN PRODUCED BY J.L. RICHARDS & ASSOCIATES LIMITED AND ARE SUBJECT TO COPYRIGHT AND USE RESTRICTIONS SET OUT IN THE APPLICABLE PROJECT CONTRACT. ANY USE, REUSE, OR MODIFICATION OF THESE DRAWINGS FOR PURPOSES OTHER THAN THE ORIGINAL PROJECT OR EXECUTION OF THE DESCRIBED WORK IS NOT PERMITTED OR ENDORSED WITHOUT THE PRIOR WRITTEN AUTHORIZATION OF J.R. J.LR MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, OF THE SUITABILITY OR FITNESS OF THESE DRAWINGS FOR ANY OTHER PURPOSE, AND ANY PARTY WHICH CHOOSES TO USE, MODIFY, OR OTHERWISE RELY ON THESE DRAWINGS WITHOUT JLR'S AUTHORIZATION ACCEPTS THESE LIMITATIONS AND DOES SO AT THEIR SOLE RISK AND WITHOUT LIABILITY TO JLR. VERIFY SHEET SIZE AND SCALES. THE BAR TO THE RIGHT IS 25MM IF THIS IS A FULL SIZE DRAWING. 0	No. ISSUE / REVISION DD/MM/YY THESE DRAWINGS HAVE BEEN PRODUCED BY JL. RICHARDS & ASSOCIATES LIMITED AND ARE SUBJECT TO COPYRIGHT AND USE RESTRICTIONS SET OUT IN THE APPLICABLE PROJECT CONTRACT ANY USE, REUSE, OR MODIFICATION OF THESE DRAWINGS FOR PURPOSES OTHER THAN THE ORIGINAL PROJECT OR EXECUTION OF THE DESCRIBED WORK IS NOT PERMITTED OR ENDORSED WITHOUT THE PRIOR WRITTEN AUTHORIZATION OF JLR. JLR MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, OF THE SUITABILITY OR FITNESS OF THESE DRAWINGS FOR ANY OTHER PURPOSE, AND ANY PARTY WHICH CHOOSES TO USE, MODIFY, OR OTHERWISE RELY ON THESE DRAWINGS WITHOUT JLR'S AUTHORIZATION ACCEPTS THESE LIMITATIONS AND DOES ON AT THEIR SOLE RISK AND WITHOUT LIABILITY TO JLR. VERIFY SHEET SIZE AND SCALES. THE BAR TO THE RIGHT IS 25MM IF THIS IS A FULL SIZE DRAWING. 0 25mm SCALE: 1:500 H, 1:50 V 25mm CLIENT: Implication accepts the Section of the suitability of the result of		PREPARED BY: AOV DATED: 2024-08-01 HORIZONTAL DATUI	M: MTM ZONE 9, NAD 83	(CSRS)	
No. ISSUE / REVISION DD/MM/YY THESE DRAWINGS HAVE BEEN PRODUCED BY J.L. RICHARDS & ASSOCIATES LIMITED AND ARE SUBJECT TO COPYRIGHT AND USE RESTRICTIONS SET OUT IN THE APPLICABLE PROJECT CONTRACT. ANY USE, REUSE, OR MODIFICATION OF THESE DRAWINGS FOR PURPOSES OTHER THAN THE ORIGINAL PROJECT OR EXECUTION OF THE DESCRIBED WORK IS NOT PERMITTED OR ENDORSED WITHOUT THE PRIOR WRITTEN AUTHORIZATION OF JLR. JLR MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, OF THE SUITABILITY OR FITNESS OF THESE DRAWINGS FOR ANY OTHER PURPOSE, AND ANY PARTY WHICH CHOOSES TO USE, MODIFY, OR OTHERWISE RELY ON THESE DRAWINGS WITHOUT JLR'S AUTHORIZATION ACCEPTS THESE LIMITATIONS AND DOES SO AT THEIR SOLE RISK AND WITHOUT LIABILITY TO JLR. VERIFY SHEET SIZE AND SCALES. THE BAR TO THE RIGHT IS 25MM IF THIS IS A FULL SIZE DRAWING.	No. ISSUE / REVISION DD/MM/YY THESE DRAWINGS HAVE BEEN PRODUCED BY JL. RICHARDS & ASSOCIATES LIMITED AND ARE SUBJECT TO COPYRIGHT AND USE RESTRICTIONS SET OUT IN THE APPLICABLE PROJECT CONTRACT. ANY USE, REUSE, OR MODIFICATION OF THESE DRAWINGS FOR PURPOSES OTHER THAN THE ORIGINAL PROJECT OR EXECUTION OF THE DESCRIBED WORK IS NOT PERMITTED OR ENDORSED WITHOUT THE PRIOR WRITTEN AUTHORIZATION OF JLR. JLR MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, OF THE SUITABILITY OR FITNESS OF THESE DRAWINGS FOR ANY OTHER PURPOSE, AND ANY PARTY WHICH CHOOSES TO USE, MODIFY, OR OTHERRWISE RELY ON THESE DRAWINGS WITHOUT JLR'S AUTHORIZATION ACCEPTS THESE LIMITATIONS AND DOES SO AT THEIR SOLE RISK AND WITHOUT LIABILITY TO JLR. VERIFY SHEET SIZE AND SCALES. THE BAR TO THE RIGHT IS 25MM IF THIS IS A FULL SIZE DRAWING. 0 25mm SCALE 1:500 H, 1:50 V 25mm CONSULTANT WWW.JIRICHARDS & MODIFY. OR OTHER PURPOSE, AND ANY PARTY WHICH CHOOSES TO USE, MODIFY. OR OTHERWISE RELY ON THESE DRAWINGS WITHOUT JLR'S AUTHORIZATION ACCEPTS THESE LIMITATIONS AND DOES SO AT THEIR SOLE RISK AND WITHOUT LIABILITY TO JLR. VERIFY SHEET SIZE AND SCALES. THE BAR TO THE RIGHT IS 25MM IF THIS IS A FULL SIZE DRAWING. CONSULTANT: WWW.JIRICHARDS & WWW.JIRICH					
No. ISSUE / REVISION DD/MM/YY THESE DRAWINGS HAVE BEEN PRODUCED BY J.L. RICHARDS & ASSOCIATES LIMITED AND ARE SUBJECT TO COPYRIGHT AND USE RESTRICTIONS SET OUT IN THE APPLICABLE PROJECT CONTRACT. ANY USE REUSE, OR MODIFICATION OF THESE DRAWINGS FOR PURPOSES OTHER THAN THE ORIGINAL PROJECT OR EXECUTION OF THE DESCRIBED WORK IS NOT PERMITTED OR ENDORSED WITHOUT THE PRIOR WRITTEN AUTHORIZATION OF J.R. J.R MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, OF THE SUITABILITY OR FITNESS OF THESE DRAWINGS FOR ANY OTHER PURPOSE, AND ANY PARTY WHICH CHOOSES TO USE, MODIFY, OR OTHER WISE RELLY ON THESE DRAWINGS OT THESE DRAWINGS FOR ANY OTHER PURPOSE, AND ANY PARTY WHICH CHOOSES TO USE, MODIFY, OR OTHER WISE RELLY ON THESE DRAWINGS OT THESE DRAWINGS FOR ANY OTHER PURPOSE, AND ANY PARTY WHICH CHOOSES TO USE, MODIFY, OR OTHER WISE RELLY ON THESE DRAWINGS OT THESE DRAWINGS FOR ANY OTHER PURPOSE, AND ANY PARTY WHICH CHOOSES TO USE, MODIFY, OR OTHER WISE RELLY ON THESE DRAWINGS OT THER SOLE RISK AND WITHOUT LIABILITY TO J.R. VERIFY SHEET SIZE AND SCALES. THE BAR TO THE RIGHT IS 25MM IF THIS IS A FULL SIZE DRAWING. 0 25mm SCALE: 1:500 H, 1:50 V 25mm 0 25mm 0 25mm 0 25mm <td c<="" th=""><th>No. ISSUE / REVISION DD/MM/YY THESE DRAWINGS HAVE BEEN PRODUCED BY J.L. RICHARDS & ASSOCIATES LIMITED AND ARE SUBJECT TO COPYRIGHT AND USE RESTRICTIONS SET OUT IN THE APPLICABLE PROJECT CONTRACT. ANY USE, REUSE, OR MODIFICATION OF THESE DRAWINGS FOR PURPOSES OTHER THAN THE ORIGINAL PROJECT OR EXECUTION OF THE DESCRIBED WORK IS NOT PERMITTED OR ENDORSED WITHOUT THE PRIOR WRITTEN AUTHORIZATION OF J.L. J.L.R MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, OF THE SUITABILITY OR FITNESS OF THESE DRAWINGS FOR ANY OTHER PURPOSE, AND ANY PARTY WHICH CHOOSES TO USE, MODIFY, OR OTHERWISE RELY ON THESE DRAWINGS WITHOUT J.L.R'S AUTHORIZATION ACCEPTS THESE LIMITATIONS AND DOES SO AT THEIR SOLE RISK AND WITHOUT LIABILITY TO J.R. VERIFY SHEET SIZE AND SCALES. THE BAR TO THE RIGHT IS 25MM IF THIS IS A FULL SIZE DRAWING. 0 25mm SCALE: 1:500 H, 1:50 V 25mm CLIENT: WWW.jlrichards.ca CONSULTANT: WWW.jlrichards.ca</th><th></th><th></th><th></th><th></th></td>	<th>No. ISSUE / REVISION DD/MM/YY THESE DRAWINGS HAVE BEEN PRODUCED BY J.L. RICHARDS & ASSOCIATES LIMITED AND ARE SUBJECT TO COPYRIGHT AND USE RESTRICTIONS SET OUT IN THE APPLICABLE PROJECT CONTRACT. ANY USE, REUSE, OR MODIFICATION OF THESE DRAWINGS FOR PURPOSES OTHER THAN THE ORIGINAL PROJECT OR EXECUTION OF THE DESCRIBED WORK IS NOT PERMITTED OR ENDORSED WITHOUT THE PRIOR WRITTEN AUTHORIZATION OF J.L. J.L.R MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, OF THE SUITABILITY OR FITNESS OF THESE DRAWINGS FOR ANY OTHER PURPOSE, AND ANY PARTY WHICH CHOOSES TO USE, MODIFY, OR OTHERWISE RELY ON THESE DRAWINGS WITHOUT J.L.R'S AUTHORIZATION ACCEPTS THESE LIMITATIONS AND DOES SO AT THEIR SOLE RISK AND WITHOUT LIABILITY TO J.R. VERIFY SHEET SIZE AND SCALES. THE BAR TO THE RIGHT IS 25MM IF THIS IS A FULL SIZE DRAWING. 0 25mm SCALE: 1:500 H, 1:50 V 25mm CLIENT: WWW.jlrichards.ca CONSULTANT: WWW.jlrichards.ca</th> <th></th> <th></th> <th></th> <th></th>	No. ISSUE / REVISION DD/MM/YY THESE DRAWINGS HAVE BEEN PRODUCED BY J.L. RICHARDS & ASSOCIATES LIMITED AND ARE SUBJECT TO COPYRIGHT AND USE RESTRICTIONS SET OUT IN THE APPLICABLE PROJECT CONTRACT. ANY USE, REUSE, OR MODIFICATION OF THESE DRAWINGS FOR PURPOSES OTHER THAN THE ORIGINAL PROJECT OR EXECUTION OF THE DESCRIBED WORK IS NOT PERMITTED OR ENDORSED WITHOUT THE PRIOR WRITTEN AUTHORIZATION OF J.L. J.L.R MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, OF THE SUITABILITY OR FITNESS OF THESE DRAWINGS FOR ANY OTHER PURPOSE, AND ANY PARTY WHICH CHOOSES TO USE, MODIFY, OR OTHERWISE RELY ON THESE DRAWINGS WITHOUT J.L.R'S AUTHORIZATION ACCEPTS THESE LIMITATIONS AND DOES SO AT THEIR SOLE RISK AND WITHOUT LIABILITY TO J.R. VERIFY SHEET SIZE AND SCALES. THE BAR TO THE RIGHT IS 25MM IF THIS IS A FULL SIZE DRAWING. 0 25mm SCALE: 1:500 H, 1:50 V 25mm CLIENT: WWW.jlrichards.ca CONSULTANT: WWW.jlrichards.ca				
No. ISSUE / REVISION DD/MM/YY THESE DRAWINGS HAVE BEEN PRODUCED BY JL. RICHARDS & ASSOCIATES LIMITED AND ARE SUBJECT TO COPYRIGHT AND USE RESTRICTIONS SET OUT IN THE APPLICABLE PROJECT CONTRACT. ANY USE REUSE, OR MODIFICATION OF THESE DRAWINGS FOR PURPOSES OTHER THAN THE ORIGINAL PROJECT OR EXECUTION OF THE DESCRIBED WORK IS NOT PERMITTED OR ENDORSED WITHOUT THE PRIOR WRITTEN AUTHORIZATION OF J.R. J.R MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, OF THE SUITABILITY OR FITNESS OF THESE DRAWINGS FOR ANY OTHER PURPOSE, AND ANY PARTY WHICH CHOOSES TO USE, MODIFY, OR OTHER WISE RELLY ON THESE DRAWINGS OF THESE DRAWINGS FOR ANY OTHER PURPOSE, AND ANY PARTY WHICH CHOOSES TO USE, MODIFY, OR OTHERWISE RELLY ON THESE DRAWINGS AT THEIR SOLE RISK AND WITHOUT LIABILITY TO JLR. VERIFY SHEET SIZE AND SCALES. THE BAR TO THE RIGHT IS 25MM IF THIS IS A FULL SIZE DRAWING. 0 25mm SCALE: 1:500 H, 1:50 V 25mm CONSULTANT: WWW.JIRICHARDS INTERCE DIAL THE SOLE THE SOLE THE SOLE THE SOLE THE SOLE THE SOLE SOLE SOLE SOLE SOLE SOLE SOLE SOL	No. ISSUE / REVISION DD/MM/YY THESE DRAWINGS HAVE BEEN PRODUCED BY J.L. RICHARDS & ASSOCIATES LIMITED AND ARE SUBJECT TO COPYRIGHT AND USE RESTRICTIONS SET OUT IN THE APPLICABLE PROJECT CONTRACT. ANY USE, REUSE, OR MODIFICATION OF THESE DRAWINGS FOR PURPOSES OTHER THAN THE ORIGINAL PROJECT OR EXECUTION OF THE DESCRIBED WORK IS NOT PERMITTED OR ENDORSED WITHOUT THE PRIOR WRITTEN AUTHORIZATION OF J.L. J.L.R MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, OF THE SUITABILITY OR FITNESS OF THESE DRAWINGS FOR ANY OTHER PURPOSE, AND ANY PARTY WHICH CHOOSES TO USE, MODIFY, OR OTHERWISE RELY ON THESE DRAWINGS WITHOUT J.L.R'S AUTHORIZATION ACCEPTS THESE LIMITATIONS AND DOES SO AT THEIR SOLE RISK AND WITHOUT LIABILITY TO J.R. VERIFY SHEET SIZE AND SCALES. THE BAR TO THE RIGHT IS 25MM IF THIS IS A FULL SIZE DRAWING. 0 25mm SCALE: 1:500 H, 1:50 V 25mm CLIENT: WWW.jlrichards.ca CONSULTANT: WWW.jlrichards.ca					
THESE DRAWINGS HAVE BEEN PRODUCED BY J.L. RICHARDS & ASSOCIATES LIMITED AND ARE SUBJECT TO COPYRIGHT AND USE RESTRICTIONS SET OUT OF THESE DRAWINGS FOR PURPOSES OTHER THAN THE ORIGINAL PROJECT OR EXECUTION OF THE DESCRIBED WORK IS NOT PERMITTED OR ENDORSED WITHOUT THE PRIOR WRITTEN AUTHORIZATION OF J.R. J.R MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, OF THE SUITABILITY OR FITNESS OF THESE DRAWINGS FOR ANY OTHER PURPOSE, AND ANY PARTY WHICH CHOOSES TO USE, MODIFY, OR OTHERWISE RELY ON THESE DRAWINGS WITHOUT J.R'S AUTHORIZATION ACCEPTS THESE LIMITATIONS AND DOES SO AT THEIR SOLE RISK AND WITHOUT LIABILITY TO J.R. VERIFY SHEET SIZE AND SCALES. THE BAR TO THE RIGHT IS 25MM IF THIS IS A FULL SIZE DRAWING. COLLENT: CLIENT: CLIENT: CONSULTANT: CONSULTANT: WWW.jlrichards.cc	THESE DRAWINGS HAVE BEEN PRODUCED BY J.L. RICHARDS & ASSOCIATES LIMITED AND ARE SUBJECT TO COPYRIGHT AND USE RESTRICTIONS SET OUT IN THE APPLICABLE PROJECT CONTRACT. ANY USE, REUSE, OR MODIFICATION OF THESE DRAWINGS FOR PURPOSES OTHER THAN THE ORIGINAL PROJECT OR EXECUTION OF THE DESCRIBED WORK IS NOT PERMITTED OR ENDORSED WITHOUT THE PRIOR WRITTEN AUTHORIZATION OF J.R. J.R. MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, OF THE SUITABILITY OR FITNESS OF THESE DRAWINGS FOR ANY OTHER PURPOSE, AND ANY PARTY WHICH CHOOSES TO USE, MODIFY, OR OTHERWISE RELY ON THESE DRAWINGS WITHOUT J.R'S AUTHORIZATION ACCEPTS THESE LIMITATIONS AND DOES SO AT THEIR SOLE RISK AND WITHOUT LIABILITY TO J.R. VERIFY SHEET SIZE AND SCALES. THE BAR TO THE RIGHT IS 25MM IF THIS IS A FULL SIZE DRAWING. CALE: 1:500 H, 1:50 V CLIENT: CONSULTANT: CONSULTANT: WWW.jirichards.cc	0	ISSUED F	OR TENDER	23/04/25	
LIMITED AND ARE SUBJECT TO COPYRIGHT AND USE RESTRICTIONS SET OUT IN THE APPLICABLE PROJECT CONTRACT. ANY USE, REUSE, OR MODIFICATION OF THESE DRAWINGS FOR PURPOSES OTHER THAN THE ORIGINAL PROJECT OR EXECUTION OF THE DESCRIBED WORK IS NOT PERMITTED OR ENDORSED WITHOUT THE PRIOR WRITTEN AUTHORIZATION OF J.R. J.R MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, OF THE SUITABILITY OR FITNESS OF THESE DRAWINGS FOR ANY OTHER PURPOSE, AND ANY PARTY WHICH CHOOSES TO USE, MODIFY, OR OTHERWISE RELY ON THESE DRAWINGS WITHOUT J.R'S AUTHORIZATION ACCEPTS THESE LIMITATIONS AND DOES SO AT THEIR SOLE RISK AND WITHOUT LIABILITY TO J.R. VERIFY SHEET SIZE AND SCALES. THE BAR TO THE RIGHT IS 25MM IF THIS IS A FULL SIZE DRAWING. 0 25mm SCALE: 1:500 H, 1:50 V CLIENT: CLIENT: CONSULTANT: www.jlrichards.ca	LIMITED AND ARE SUBJECT TO COPYRIGHT AND USE RESTRICTIONS SET OUT IN THE APPLICABLE PROJECT CONTRACT. ANY USE, REUSE, OR MODIFICATION OF THESE DRAWINGS FOR PURPOSES OTHER THAN THE ORIGINAL PROJECT OR EXECUTION OF THE DESCRIBED WORK IS NOT PERMITTED OR ENDORSED WITHOUT THE PRIOR WRITTEN AUTHORIZATION OF J.R. J.R. MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, OF THE SUITABILITY OR FITNESS OF THESE DRAWINGS FOR ANY OTHER PURPOSE, AND ANY PARTY WHICH CHOOSES TO USE, MODIFY, OR OTHERWISE RELY ON THESE DRAWINGS WITHOUT J.R'S AUTHORIZATION ACCEPTS THESE LIMITATIONS AND DOES SO AT THEIR SOLE RISK AND WITHOUT LIABILITY TO J.R. VERIFY SHEET SIZE AND SCALES. THE BAR TO THE RIGHT IS 25MM IF THIS IS A FULL SIZE DRAWING. CALE: 1:500 H, 1:50 V CLIENT: CONSULTANT: www.jlrichards.ce CONSULTANT: www.jlrichards.ce					
CLIENT: CONSULTANT: CONSULTANT: Www.jlrichards.ca	CLIENT: CONSULTANT: CONSULTANT: CONSULTANT: Www.jlrichards.ca	IN THI OF TH OR EX WITH WARF OF TH CHOC	E APPLICABLE PROJECT CO HESE DRAWINGS FOR PURF (ECUTION OF THE DESCRIB DUT THE PRIOR WRITTEN (ANTIES, EITHER EXPRESS) HESE DRAWINGS FOR ANY (SES TO USE, MODIFY, OF DUT JLR'S AUTHORIZATION	NTRACT. ANY USE, REUSE, OF POSES OTHER THAN THE ORIG IED WORK IS NOT PERMITTED AUTHORIZATION OF JLR. J OR IMPLIED, OF THE SUITABIL OTHER PURPOSE, AND ANY R OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS	TIONS SET OUT MODIFICATION GINAL PROJECT OR ENDORSED ILR MAKES NO ITY OR FITNESS PARTY WHICH ESE DRAWINGS	
		IN THI OF TH OR E2 WITHO WARF OF TH CHOC WITHO AT TH VERIF THE F	E APPLICABLE PROJECT CO IESE DRAWINGS FOR PURF (ECUTION OF THE DESCRIB DUT THE PRIOR WRITTEN IANTIES, EITHER EXPRESS IESE DRAWINGS FOR ANY ISES TO USE, MODIFY, OF DUT JLR'S AUTHORIZATION EIR SOLE RISK AND WITHOL 'Y SHEET SIZE AND SCALES IGHT IS 25MM IF THIS IS A F E.	NTRACT. ANY USE, REUSE, OF POSES OTHER THAN THE ORIG ED WORK IS NOT PERMITTED AUTHORIZATION OF JLR. J OR IMPLIED, OF THE SUITABIL OTHER PURPOSE, AND ANY R OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS JT LIABILITY TO JLR.	TIONS SET OUT MODIFICATION GINAL PROJECT OR ENDORSED JUR MAKES NO ITY OR FITNESS PARTY WHICH ESE DRAWINGS AND DOES SO	
PROFESSIONAL STAMP PROJECT NORTH		IN THI OF TH OF TH OF TH CHOC WITH AT TH VERIF THE F SCAL	E APPLICABLE PROJECT CO IESE DRAWINGS FOR PURF VECUTION OF THE DESCRIB DUT THE PRIOR WRITTEN IANTIES, EITHER EXPRESS IESE DRAWINGS FOR ANY SES TO USE, MODIFY, OF DUT JLR'S AUTHORIZATION EIR SOLE RISK AND WITHOU TY SHEET SIZE AND SCALES IGHT IS 25MM IF THIS IS A F E: 1:500 H, 1:50 V IT: UULTANT: SULTANT: EULTANT: EULTANT: ESSIONAL STAMP	NTRACT. ANY USE, REUSE, OF POSES OTHER THAN THE ORIO INTERD OF SUITABIL OR IMPLIED, OF THE SUITABIL OTHER PURPOSE, AND ANY R OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS JT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING.	TIONS SET OUT MODIFICATION GRINAL PROJECT OR ENDORSED JUR MAKES NO ITY OR FITNESS PARTY WHICH ESE DRAWINGS AND DOES SO 25mm	
PROFESSIONAL STAMP PROJECT NORTH	A.E.A. SMITH 100117279	IN THI OF TH OF TH OF TH CHOC WITH AT TH VERIF THE F SCAL	A.E.A. SMITH SULTANT: SU	NTRACT. ANY USE, REUSE, OF POSES OTHER THAN THE ORIO INTERD OF SUITABIL OR IMPLIED, OF THE SUITABIL OTHER PURPOSE, AND ANY R OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS JT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING.	TIONS SET OUT MODIFICATION GRINAL PROJECT OR ENDORSED JUR MAKES NO ITY OR FITNESS PARTY WHICH ESE DRAWINGS AND DOES SO 25mm	
A.E. A. SMITH 100117279 Apr. 23 2025	A.E. A. SMITH 100117279 Apr. 23 2025 BOUNCE OF ONTAND	IN THI OF TH OF TH OF TH CHOC WITH AT TH VERIF THE F SCAL	APPLICABLE PROJECT CO HESE DRAWINGS FOR PURP VECUTION OF THE DESCRIB DUT THE PRIOR WRITTEN ANTIES, EITHER EXPRESS HESE DRAWINGS FOR ANY SES TO USE, MODIFY, OF DUT JR'S AUTHORIZATION EIR SOLE RISK AND WITHOU TY SHEET SIZE AND SCALES HET SIZE AND SCALES HET 1:500 H, 1:50 V IT: ULTANT: ESSIONAL STAMP A.E. A. SMITH 100117279 Apr. 23 2025 Apr. 24 Apr. 25 Ap	NTRACT. ANY USE, REUSE, OF POSES OTHER THAN THE ORIO INTERD OF SUITABIL OR IMPLIED, OF THE SUITABIL OTHER PURPOSE, AND ANY R OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS JT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING.	TIONS SET OUT MODIFICATION GRINAL PROJECT OR ENDORSED JUR MAKES NO ITY OR FITNESS PARTY WHICH ESE DRAWINGS AND DOES SO 25mm	
A.E. A. SMITH 100117279 Apr. 23 2025 BOUNCE OF ONTINIO	PROJECT: 16953-134 - CASSELMAN MAIN SPS UPGRADE	IN THI OF TH OF TH OF TH CHOC WITH AT TH VERIF THE F SCAL CLIEN CONS PROF	APPLICABLE PROJECT CO HESE DRAWINGS FOR PURP VECUTION OF THE DESCRIB DUT THE PRIOR WRITTEN ANTHES, EITHER EXPRESS HESE DRAWINGS FOR ANY SUST USE, MODIFY, OF DUT JLR'S AUTHORIZATION EIR SOLE RISK AND WITHOU TY SHEET SIZE AND SCALES HET 1:500 H, 1:50 V IT: ULTANT: ESSIONAL STAMP APR 23 2025 APR 24 2025 APR 25 2025 APR 25 2025 APR 25 2025 APR 25 2025 APR 25 2025	NTRACT. ANY USE, REUSE, OF POSES OTHER THAN THE ORIO ED WORK IS NOT PERMITTED AUTHORIZATION OF JLR. J OR IMPLIED, OF THE SUITABIL OTHER PURPOSE, AND ANY R OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS JT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING. THE BAR TO THE SIZE DRAWING. THE BAR TO THE SIZE DRAWING. THE SIZE DRAW	TIONS SET OUT MODIFICATION SINAL PROJECT OR ENDORSED ILR MAKES NO TY OR FITNESS PARTY WHICH ESE DRAWINGS AND DOES SO 25mm 25mm	
PROJECT: 16953-134 - CASSELMAN MAIN SPS UPGRADE	PROJECT: 16953-134 - CASSELMAN MAIN SPS UPGRADE 16 BRISSON ST, CASSELMAN, ON KOA 1M0	CONS	APPLICABLE PROJECT CO HESE DRAWINGS FOR PURP VECUTION OF THE DESCRIB DUT THE PRIOR WRITTEN ANTIES, EITHER EXPRESS HESE DRAWINGS FOR ANY SUST USE, MODIFY, OF DUT JLR'S AUTHORIZATION EIR SOLE RISK AND WITHOU TY SHEET SIZE AND SCALES HIGHT IS 25MM IF THIS IS A F E: 1:500 H, 1:50 V IT: ULTANT: ESSIONAL STAMP APR. 23 2025 APR. 23 2025 APR. 23 2025 APR. 23 2025 CONTINUE ECT: 953-134 - CAN UF 16 BRISSON ST, O	NTRACT. ANY USE, REUSE, OF POSES OTHER THAN THE ORIO ED WORK IS NOT PERMITTED AUTHORIZATION OF JLR. J OR IMPLIED, OF THE SUITABIL OTHER PURPOSE, AND ANY R OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS JT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING. THE BAR TO THE SIZE DRAWING. THE BAR TO THE SIZE DRAWING. THE SIZE DRAW	TIONS SET OUT MODIFICATION SINAL PROJECT OR ENDORSED ILR MAKES NO TY OR FITNESS PARTY WHICH ESE DRAWINGS AND DOES SO 25mm 25mm	
PROJECT: 16 BRISSON ST, CASSELMAN, ON KOA 1M0	Image: With State of the s	CONS CONS CONS	APPLICABLE PROJECT CO HESE DRAWINGS FOR PURP VECUTION OF THE DESCRIB DUT THE PRIOR WRITTEN ANTIES, EITHER EXPRESS HESE DRAWINGS FOR ANY SES TO USE, MODIFY, OF DUT JLR'S AUTHORIZATION EIR SOLE RISK AND WITHOU TY SHEET SIZE AND SCALES HET IS 25MM IF THIS IS A F E 1:500 H, 1:50 V HT: ULTANT: ESSIONAL STAMP APR. 23 2025 APR. 23 2025 APR. 23 2025 APR. 23 2025 CULTANT: ECT: 953-134 - CA UF 16 BRISSON ST, O VING: FORCEMAIN	NTRACT. ANY USE, REUSE, OF POSES OTHER THAN THE ORIG ED WORK IS NOT PERMITTED AUTHORIZATION OF JLR. J OR IMPLIED, OF THE SUITABIL OTHER PURPOSE, AND ANY ACCEPTS THESE LIMITATIONS JT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING. 0 W LARGENARCHITECTS-PI INEERS-ARCHITECTS-PI SSELMAN NOR KOA SSELMAN, ON KOA CASSELMAN, ON KOA I PLAN & PRO	TIONS SET OUT MODIFICATION SINAL PROJECT OR ENDORSED JR MAKES NO ITY OR FITNESS PARTY WHICH SE DRAWINGS AND DOES SO 25mm 25mm	
PROJECT: 16953-134 - CASSELMAN MAIN SPS UPGRADE 16 BRISSON ST, CASSELMAN, ON KOA 1M0 DRAWING: ENTRUME DESIGN: AP	PROJECT: 16953-134 - CASSELMAN MAIN SPS UPGRADE 16 BRISSON ST, CASSELMAN, ON KOA 1MO DRAWING: DESIGN: AP	CONS CO	APPLICABLE PROJECT CO HESE DRAWINGS FOR PURP GEOTION OF THE DESCRIB DUT THE PRIOR WRITTEN ANTIES, EITHER EXPRESS HESE DRAWINGS FOR ANY SUST OUSE, MODIFY, OF DUT JLR'S AUTHORIZATION EIR SOLE RISK AND WITHOU Y SHEET SIZE AND SCALES HIGHT IS 25MM IF THIS IS A F E 1:500 H, 1:50 V IT: SULTANT: ESSIONAL STAMP A.E. A. SMITH 100117279 Apr. 23 2025 Apr. 24 Apr. 24 Apr.	NTRACT. ANY USE, REUSE, OF POSES OTHER THAN THE ORIG ED WORK IS NOT PERMITTED AUTHORIZATION OF J.R. J OR IMPLIED, OF THE SUITABIL OTHER PURPOSE, AND ANY R OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS JILIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING. O V AUTHORIZATION OF J.R. O V AUTHORIZATION OF J.R. O V AUTHORIZATION OF IMPLIED, OF THE SUITABIL OTHER PURPOSE, AND ANY O V AUTHORIZATION ON CONTRACT ON CONTRACTOR ON CONTRACTOR O	TIONS SET OUT MODIFICATION SINAL PROJECT OR ENDORSED JR MAKES NO TY OR FITNESS PARTY WHICH ESE DRAWINGS AND DOES SO 25mm 25mm	
Image: Project: Froject: 16953-134 - CASSELMAN MAIN SPS UPGRADE 16 BRISSON ST, CASSELMAN, ON KOA 1M0 Drawing: FORCEMAIN PLAN & PROFILE LAGOON CELL 1 NORTH BERM	PROJECT: 16953-134 - CASSELMAN MAIN SPS UPGRADE 16 BRISSON ST, CASSELMAN, ON KOA 1MO DRAWING: DRAWING: DESIGN: AP DRAWN: PC DRAWING #:	IN THI OF THI OF THI OF THI OF THI WITH WARF OF THI OF THI WARF OF THI OF THI SCAL CLIEN CONS CONS PROF PROF DRAV	APPLICABLE PROJECT CO HESE DRAWINGS FOR PURP GEOTION OF THE DESCRIB DUT THE PRIOR WRITTEN ANTIES, EITHER EXPRESS HESE DRAWINGS FOR ANY SUST JLR'S AUTHORIZATION IS SOLE RISK AND WITHOU IS SOLE RISK AND SCALES IS STONAL STAMP IS SOLE RISK AND SCALES IS TOUT ANT: IS SOLE RISK AND SCALES IS SOLE RISK AND SCALES	NTRACT. ANY USE, REUSE, OF POSES OTHER THAN THE ORIG ED WORK IS NOT PERMITTED AUTHORIZATION OF J.R. J OR IMPLIED, OF THE SUITABIL OTHER PURPOSE, AND ANY R OTHERWISE RELY ON THE ACCEPTS THESE LIMITATIONS JT LIABILITY TO JLR. THE BAR TO ULL SIZE DRAWING. O CASSELMANING CASSELMAN, ON KOA I PLAN & PRO L 1 NORTH B DRAWING #:	TIONS SET OUT MODIFICATION 3INAL PROJECT OR ENDORSED JR MAKES NO ITY OR FITNESS PARTY WHICH SE DRAWINGS AND DOES SO 25mm 25mm 25mm 100 100 100 100 100 100 100	

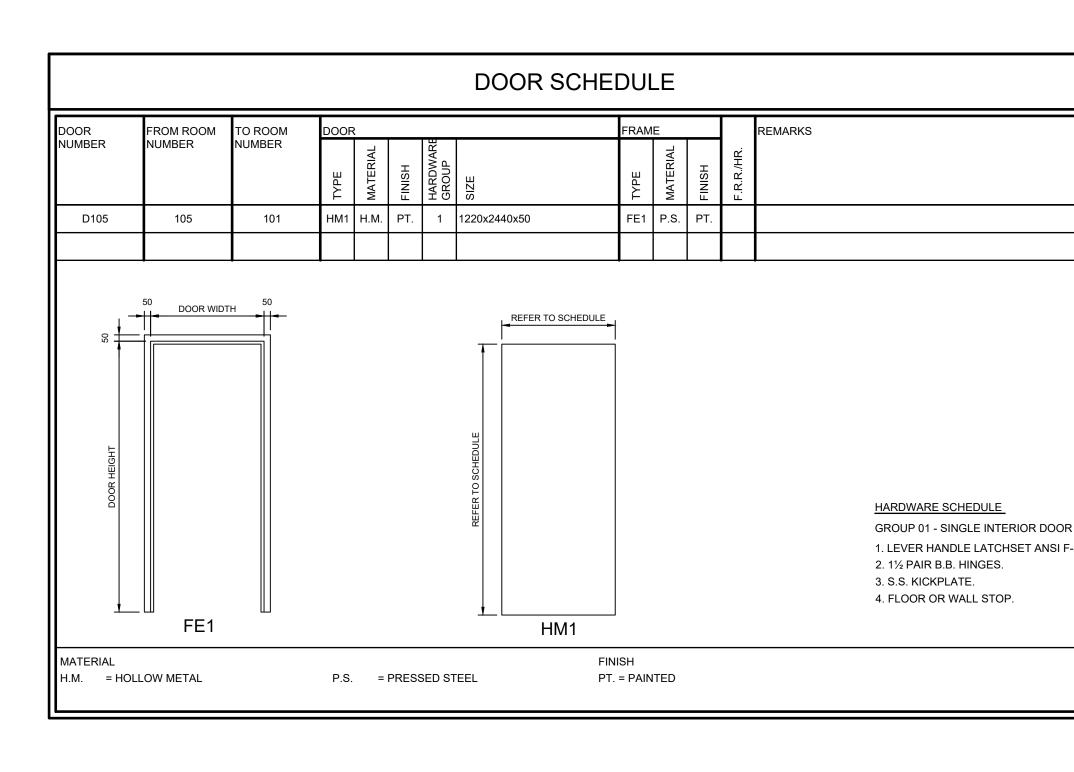


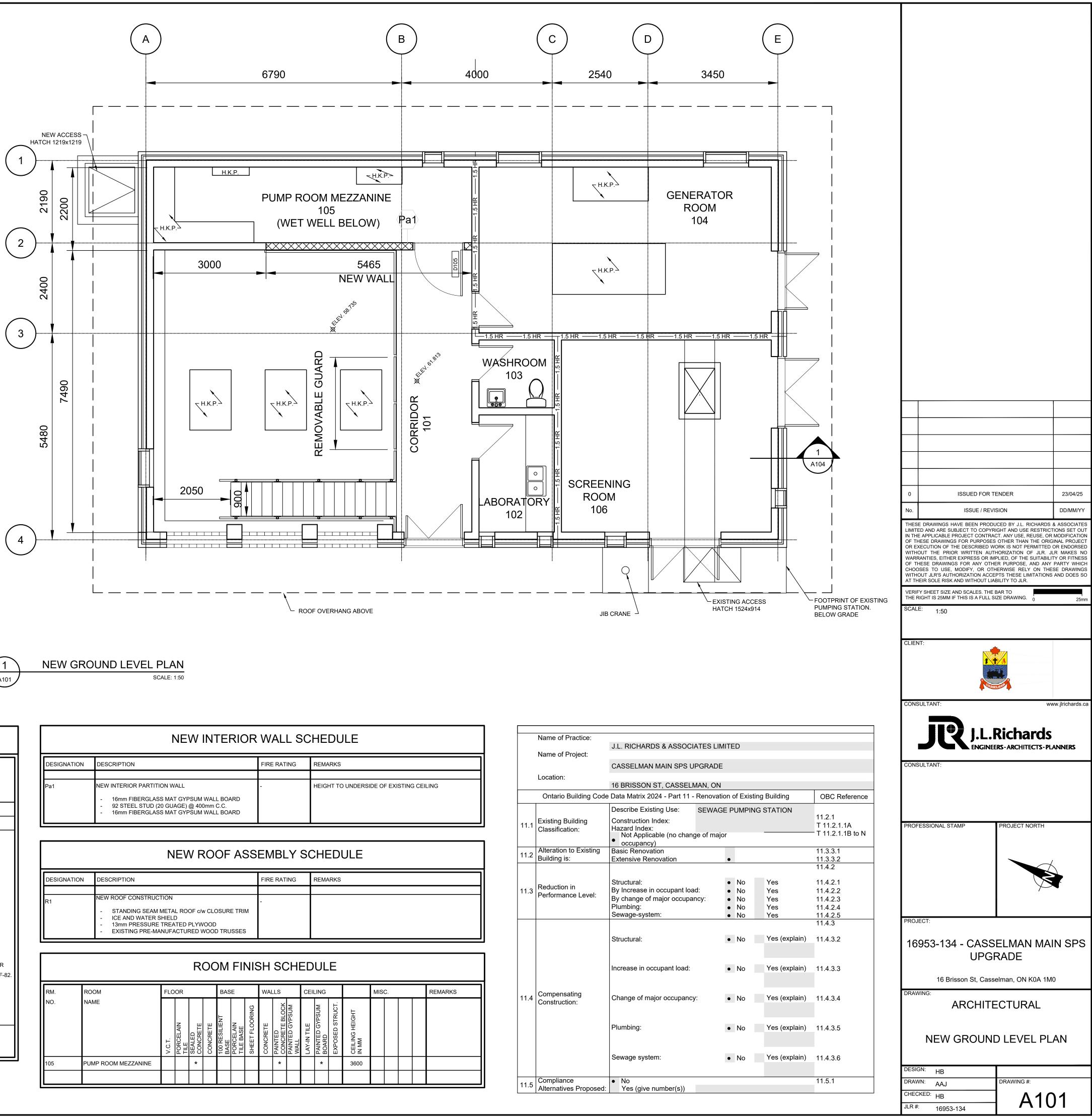


ons are in millimetres unless otherwise shown.	
ARIO PROVINCIAL STANDARD DRAWING	Nov 2014 Rev 4
ITENANCE HOLE BENCHING PIPE OPENING ALTERNATIVES	
TE UPENING ALTERNATIVES	OPSD 701.021



	TOPOGRAPHIC SURVEY PREPARED BY: AOV DATED: 2024 08 01		
	DATED: 2024-08-01 HORIZONTAL DATUM: M VERTICAL DATUM: C	TM ZONE 9, NAD 8 GVD28	3 (CSRS)
0	ISSUED FOR TI	ENDER	23/04/25
No.	ISSUE / REVI	SION	DD/MM/YY
OR E WITH WARI OF T CHOO WITH AT TH	HESE DRAWINGS FOR PURPOSES XECUTION OF THE DESCRIBED WO OUT THE PRIOR WRITTEN AUTI RANTIES, EITHER EXPRESS OR IMI HESE DRAWINGS FOR ANY OTHE DSES TO USE, MODIFY, OR OTH OUT JLR'S AUTHORIZATION ACCE HEIR SOLE RISK AND WITHOUT LIAI	ORK IS NOT PERMITTEI HORIZATION OF JLR. PLIED, OF THE SUITABI ER PURPOSE, AND AN IERWISE RELY ON TH PTS THESE LIMITATION BILITY TO JLR.	D OR ENDORSED JLR MAKES NO LITY OR FITNESS Y PARTY WHICH IESE DRAWINGS
THE F	RIGHT IS 25MM IF THIS IS A FULL SI	IZE DRAWING. 0	
	1.500 H, 1.50 V	1.	25mm
CLIEN	NT:		~~
	NT: SULTANT:		vww.jlrichards.ca
CONS	NT: SULTANT: SULTANT:	Richards	vww.jlrichards.ca
CONS	NT: SULTANT: SULTANT: SULTANT: SULTANT: SULTANT: SULTANT: SULTANT:	Richards	vww.jlrichards.ca
	NT: SULTANT:		
CONS PROF	NT: SULTANT: SULTANT: SULTANT: SULTANT: TESSIONAL STAMP AF. 23 2025 Apr. 23 2025 Ap		
CONS PROF	NT: SULTANT: SULTANT: SULTANT: SULTANT: TESSIONAL STAMP AF. 23 2025 Apr. 23 2025 Contrasts	PROJECT NORTH	
	NT: SULTANT: SULTANT: SULTANT: FESSIONAL STAMP MECT: 953-134 - CASS UPGF 16 BRISSON ST, CASS UPGF 16 BRISSON ST, CASS VING: DET.	PROJECT NORTH	







		1	۷E۱	W	IN.	ΤE	RI	DR	W	/A	LL	S	Cŀ	ΗE	DU	JLE									Name of Practice
DESIGNATION	DESCRIPTION								FIR	RE R/	ATIN	G	F	REMA	RKS										Name of Project:
												_													Location:
Pa1	NEW INTERIOR PARTITI			SUM	WAL	L BO	ARD		-					HEIGH	нт тс) UNDER	SIDE (OF EX	ISTIN	g cei	LING		-		Ontario Building
	- 92 STEEL STUD (2 - 16mm FIBERGLAS	20 GU/	AGE) (@ 400	0mm	C.C.																			Existing Building
																								1.1	Classification:
		Ν	ΕV	VF	RO	OF	F A	SS	ΕN	ИE	۶L	YS	SC	HE	ED	ULE							1	1.2	Alteration to Exist Building is:
DESIGNATION	DESCRIPTION								FIR	RE R/	ATIN	G	F	REMA	RKS										Reduction in
R1	NEW ROOF CONSTRUC - STANDING SEAM - ICE AND WATER S	META		OF c/∖	w CL(OSUF	RETR	IM	-														1	1.3	Performance Lev
	- 13mm PRESSURE - EXISTING PRE-MA						USSE	S																	
				R	00	DM	FI	NIS	SH	I S	CI	HE	D	UL	E										
RM. RO	DOM	FLO	OR			BA	SE		WA	ALLS			CEIL	ING			MIS	SC.			REMARKS		1	1.4	Compensating
NO. NA	AME		PORCELAIN TILE	SEALED CONCRETE	CONCRETE	RESILIENT :	PORCELAIN TILE BASE	SHEET FLOORING	CONCRETE		CRETE BLOCK TED GYPSUM		LAY-IN TILE	PAINTED GYPSUM BOARD	EXPOSED STRUCT.	CEILING HEIGHT IN MM								1.4	Construction:
105 PL	IMP ROOM MEZZANINE	V.C.T.	POR(TILE		CON	100 F RASF	POR	SHEE	CON	-	CONCRET	WALI	LAY-I		EXPO		1								
				*	1	1	1	1	1	*	-			*		3600		1	1	I	I	11			



1

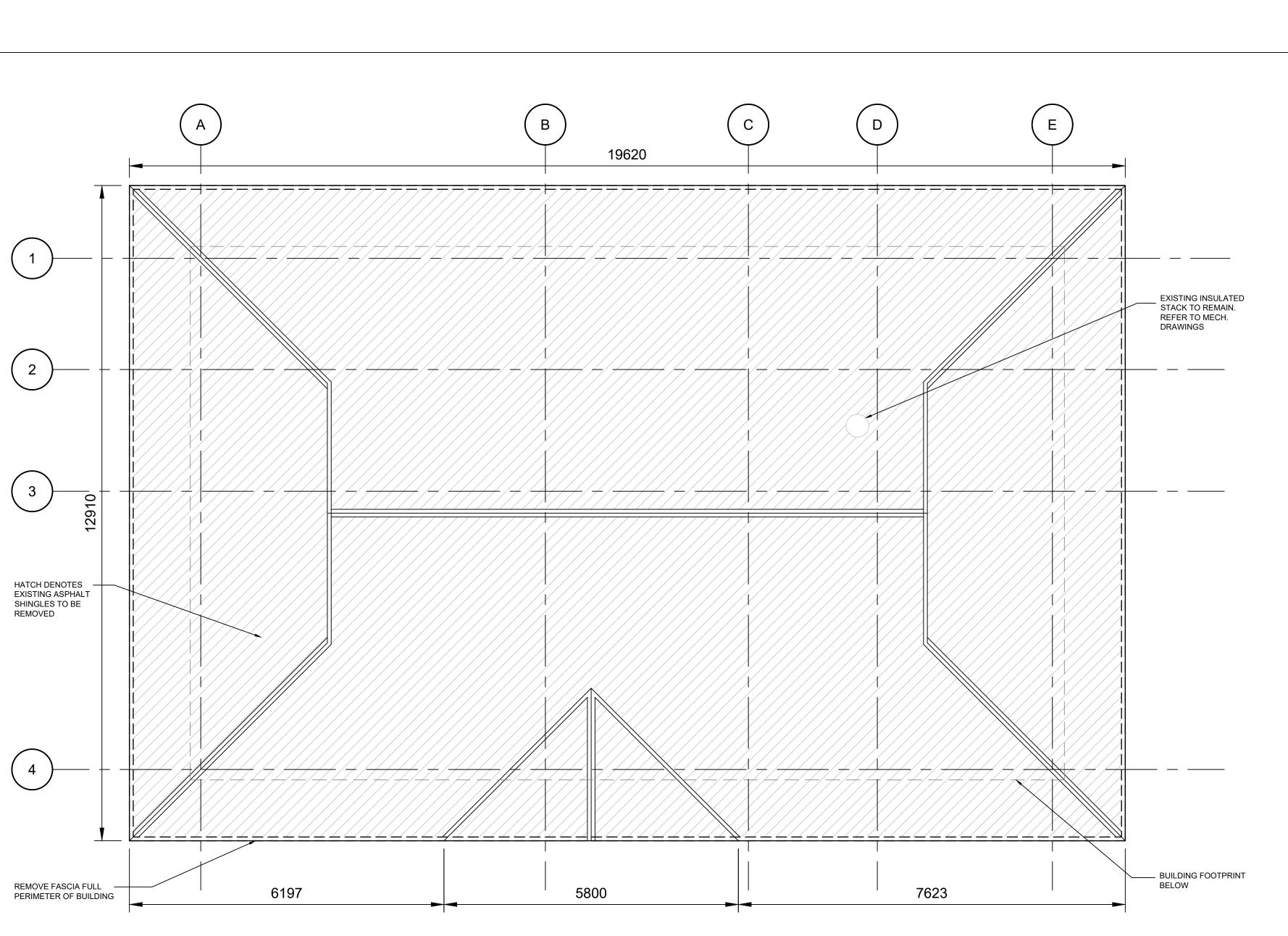
A102

1

2

3

4

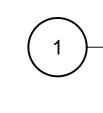


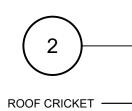
ROOF DEMOLITION PLAN

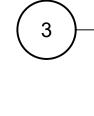
SCALE: 0.018538

			[
0	ISSUED FOR T	ENDER	23/04/25
No.	ISSUE / REVIS		DD/MM/YY
OF THE CHOOS WITHO AT THE VERIFY	NTIES, EITHER EXPRESS OR IMP ESE DRAWINGS FOR ANY OTHE INES TO USE, MODIFY, OR OTH UT JLR'S AUTHORIZATION ACCEI IR SOLE RISK AND WITHOUT LIA SHEET SIZE AND SCALES. THE E GHT IS 25MM IF THIS IS A FULL SI	ER PURPOSE, AND ANY HERWISE RELY ON THE PTS THESE LIMITATIONS BILITY TO JLR.	PARTY WHICH SE DRAWINGS
SCALE	:		
CLIENT			
	T: JULTANT:		/w.jlrichards.ca
CONSL	T: JUTANT: JUTANT:	Richards Ers-architects-pl	
CONSL	T: ULTANT: UTANT: UTANT: ENGINEE	Richards	
CONSL	T: JITANT: JITANT: JITANT: SIGNAL STAMP	Richards Ers-architects-pl	
CONSU	T: UTANT: UTANT: UTANT: UTANT: SSIONAL STAMP CT: 053-134 - CASS UPGF	Richards ERS-ARCHITECTS-PL	ANNERS
CONSU	T: JUTANT: JUTANT: JUTANT: SSIONAL STAMP SSIONAL STAMP CT: D53-134 - CASS UPGF 16 Brisson St, Casse NG:	Richards ERS-ARCHITECTS-PL	ANNERS
CONSU CONSU PROFE	T: JUTANT: JUTANT: JUTANT: SSIONAL STAMP SSIONAL STAMP CT: D53-134 - CASS UPGF 16 Brisson St, Casse NG:	PROJECT NORTH	ANINERS N SPS
CONSU CONSU PROFE	TITANT: UTANT	PROJECT NORTH	ANINERS N SPS

.ocation: P:\16000\16953-134 - Casselman Main SPS Upgrade\03-Production\02-Arch\A109 ROOF PLAN.dwg



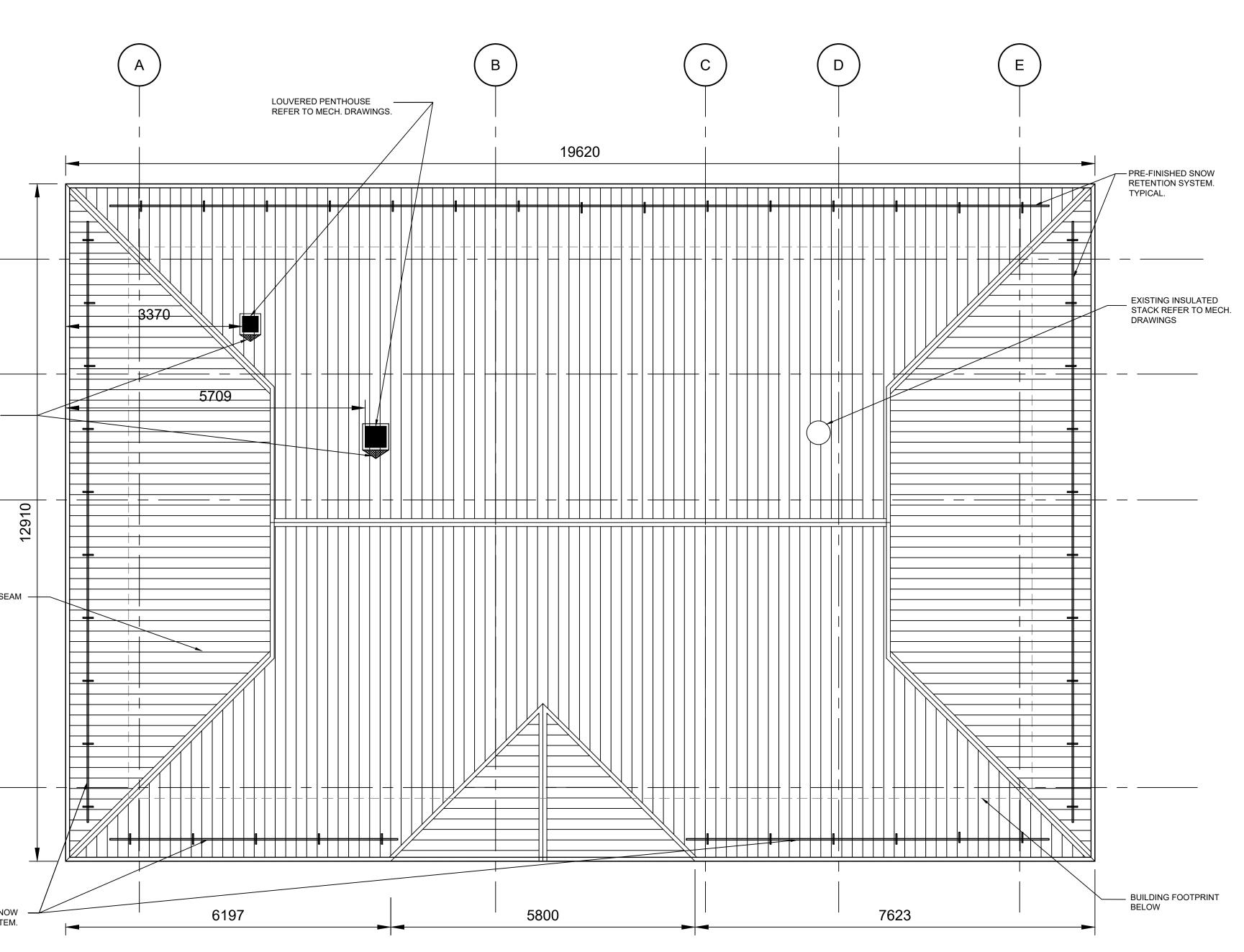


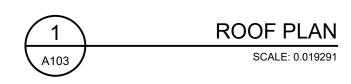


NEW STANDING SEAM – METAL ROOF

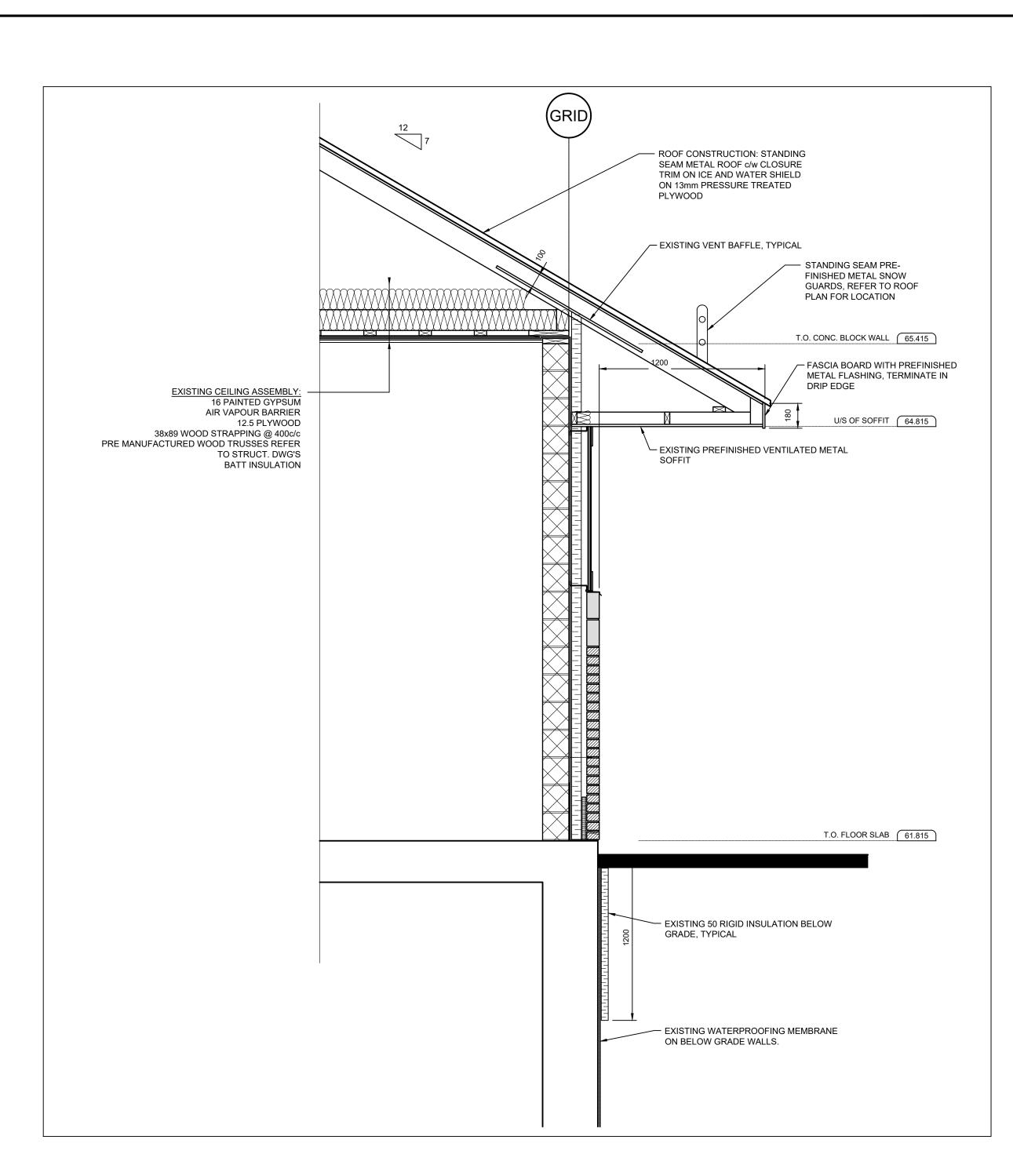
4

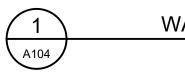
PRE-FINISHED SNOW RETENTION SYSTEM. TYPICAL.





0 No.	ISSUED FOR TI		23/04/25 DD/MM/YY
LIMIT IN TH OF TI OR E WITH WARI OF T CHOO WITH AT TH VERII	SE DRAWINGS HAVE BEEN PRODU ED AND ARE SUBJECT TO COPYRI E APPLICABLE PROJECT CONTRAC HESE DRAWINGS FOR PURPOSES XECUTION OF THE DESCRIBED WO IOUT THE PRIOR WRITTEN AUTH RANTIES, EITHER EXPRESS OR IMI HESE DRAWINGS FOR ANY OTHE DSES TO USE, MODIFY, OR OTH DSES TO USE, MODIFY, OR OTH OUT JLR'S AUTHORIZATION ACCE HEIR SOLE RISK AND WITHOUT LIAI FY SHEET SIZE AND SCALES. THE FR RIGHT IS 25MM IF THIS IS A FULL SI	IGHT AND USE RESTRICT CT. ANY USE, REUSE, OR OTHER THAN THE ORIG ORK IS NOT PERMITTED HORIZATION OF JLR. JI PLIED, OF THE SUITABILI ER PURPOSE, AND ANY HERWISE RELY ON THE PTS THESE LIMITATIONS BILITY TO JLR.	TIONS SET OUT MODIFICATION INAL PROJECT OR ENDORSED LR MAKES NO TY OR FITNESS PARTY WHICH SE DRAWINGS
SCAL	.E: 1:50		
CLIEI	NT:		
CLIE	NT:		
	SULTANT:		ww.jlrichards.ca
CON	SULTANT:	Richards	
CON	SULTANT:	Richards	
CONS	SULTANT: SULTANT: SULTANT: FESSIONAL STAMP	Richards ers-Architects-PL	ANNERS
CONS PROF PROF	SULTANT: SULTANT: SULTANT: SULTANT: DECT: OSS3-134 - CASSS UPGE 16 Brisson St, Casse	Richards ERS-ARCHITECTS-PL	ANNERS
CONS PROF PROF	SULTANT: SULTANT: SULTANT: FESSIONAL STAMP JECT: 9953-134 - CASSS UPGE 16 Brisson St, Casse 16 Brisson St, Casse	Richards ERS-ARCHITECTS-PL	ANNERS
CONS PROF	SULTANT: SULTANT: SULTANT: FESSIONAL STAMP FESSIONAL STAMP FESSIONAL STAMP IDECT: OS53-134 - CASSS UPGE 16 Brisson St, Casse UPGE 16 Brisson St, Casse NING: ARCHITE ROOF	Richards ERS-ARCHITECTS-PL	ANNERS
CONS PROF PROF	SULTANT: SULTANT: SULTANT: FESSIONAL STAMP FESSIONAL STAMP FESSIONAL STAMP IG Brisson St, Casse UPGE 16 Brisson St, Casse UPGE 16 Brisson St, Casse UPGE 16 Brisson St, Casse	PROJECT NORTH	ANNERS

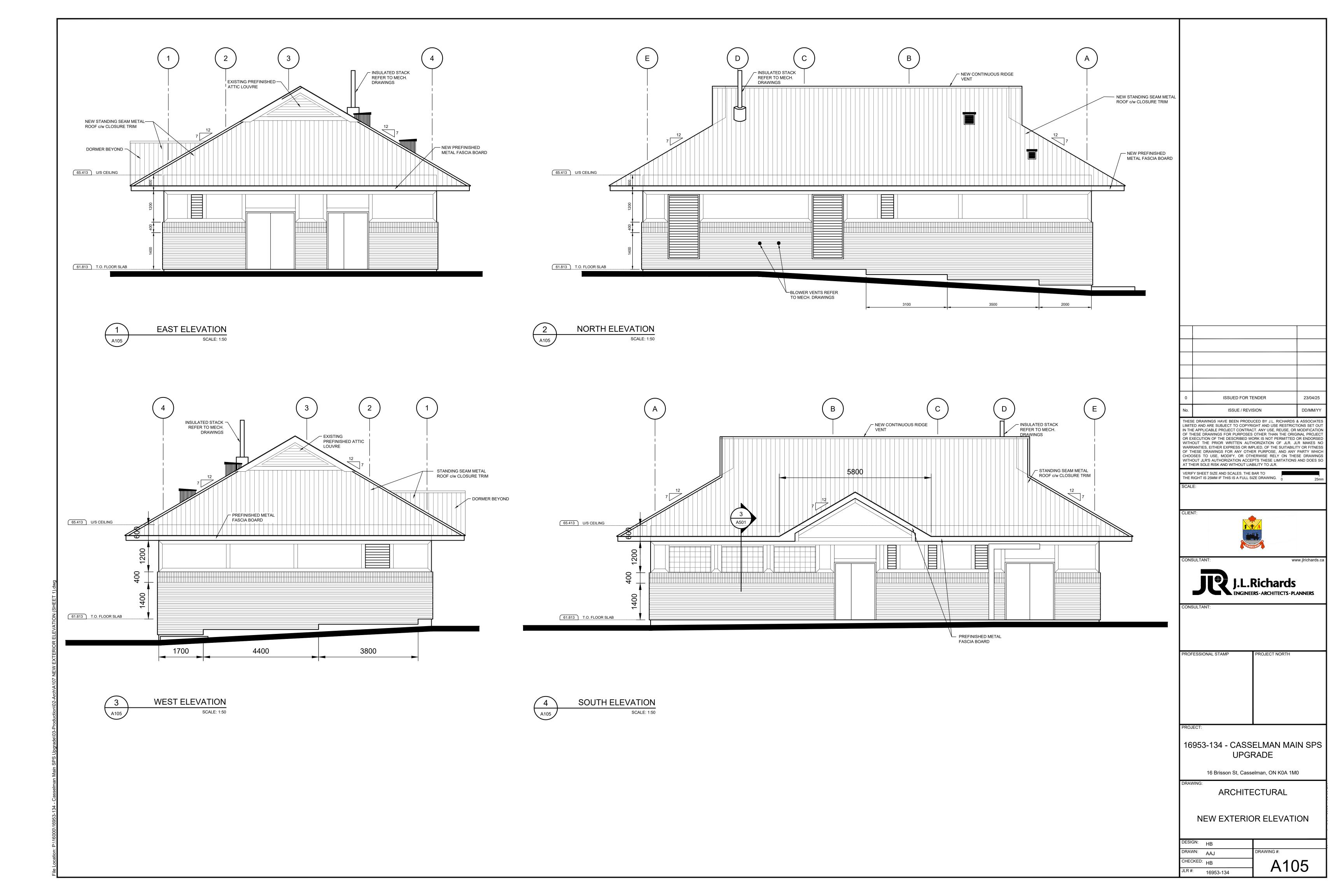


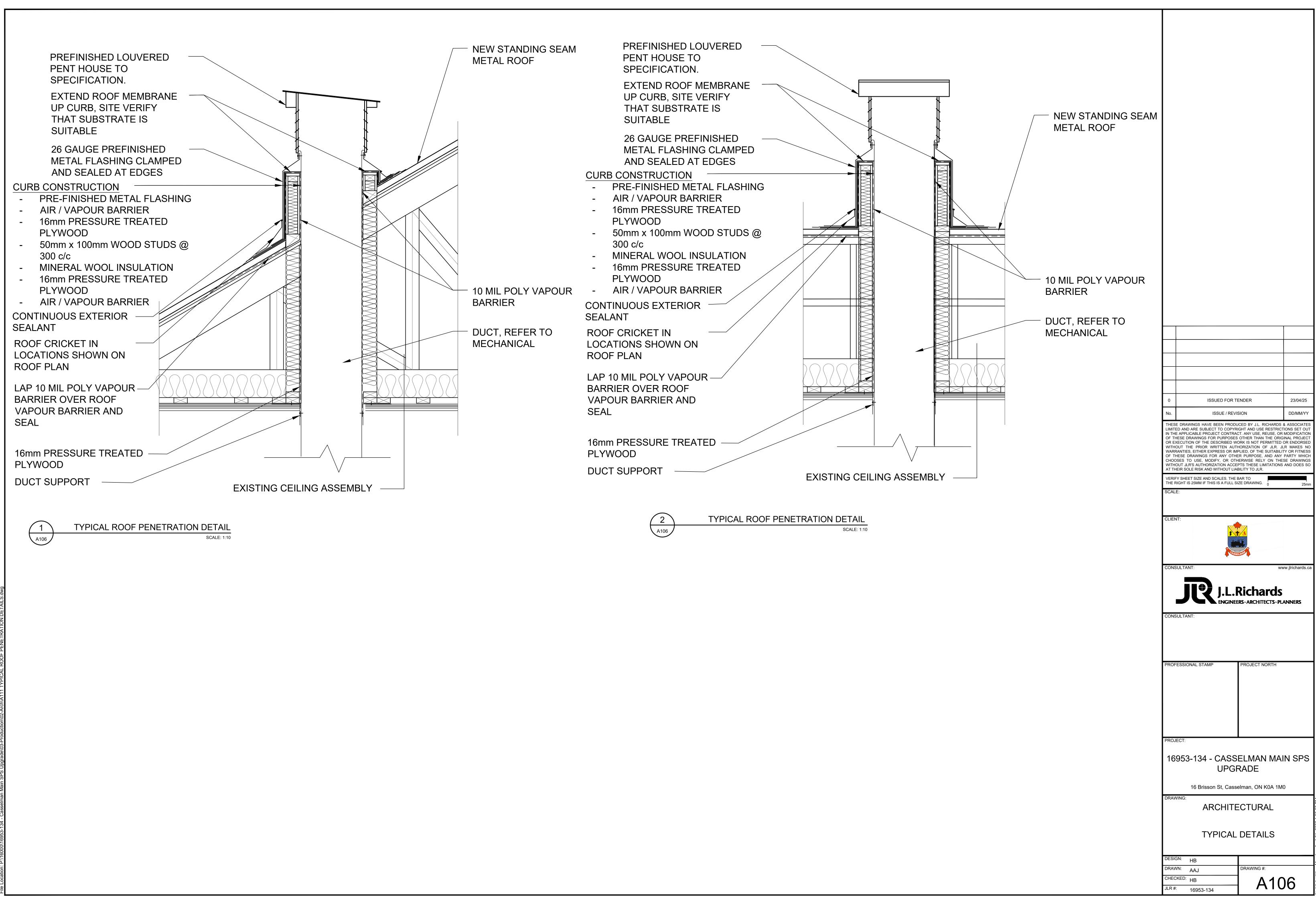


WALL SECTION SCALE: 1:20

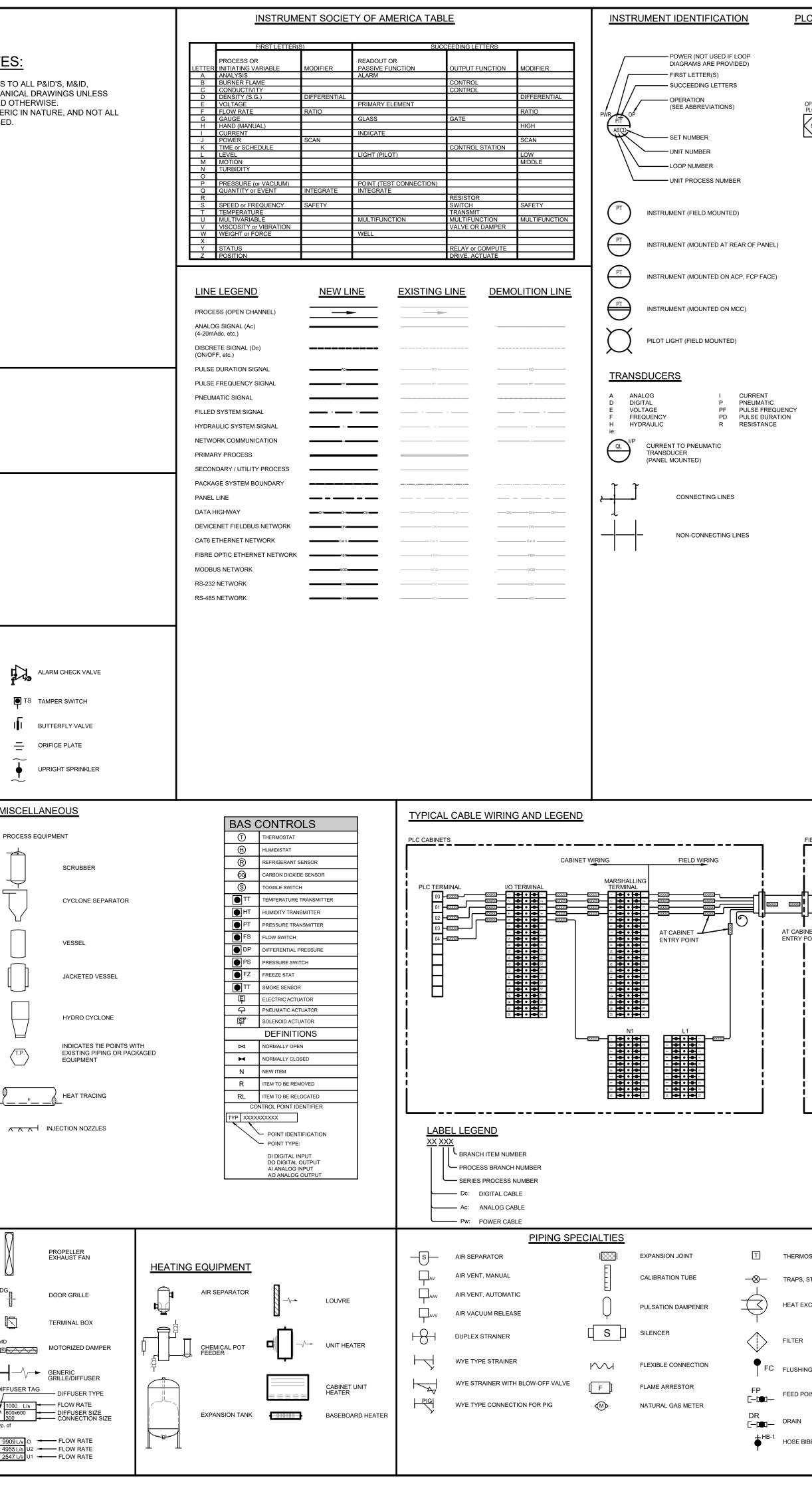
0	ISSUED FOR TI	ENDER	23/04/25
No.	ISSUE / REVI		DD/MM/YY
	' SHEET SIZE AND SCALES. THE E GHT IS 25MM IF THIS IS A FULL SI :		ן 25mn
CLIENT			
CONSU	JLTANT:		w.jlrichards.c
		Richards	
CONSU	JIR J.L.I ENGINEE	Richards Ers-architects-pl	ANNERS
	JLTANT:		ANNERS
		Richards FRS-ARCHITECTS-PL	ANNERS
	JLTANT:		ANNERS
PROFE	CT: 053-134 - CASS	PROJECT NORTH	
PROFE PROJE	CT: 053-134 - CASS UPGF 16 Brisson St, Casse	PROJECT NORTH	NSPS
PROFE	CT: D53-134 - CASS UPGF 16 Brisson St, Casse NG:	PROJECT NORTH	NSPS
PROFE PROJE	CT: D53-134 - CASS UPGF 16 Brisson St, Casse NG: ARCHITE	PROJECT NORTH ELMAN MAI RADE elman, ON K0A 1M0	NSPS
PROFE PROJE	ILTANT: SSIONAL STAMP CT: D53-134 - CASS UPGF 16 Brisson St, Casse NG: ARCHITE WALL SE NI HB N: HB N: HB	PROJECT NORTH ELMAN MAI RADE elman, ON KOA 1M0	N SPS

0

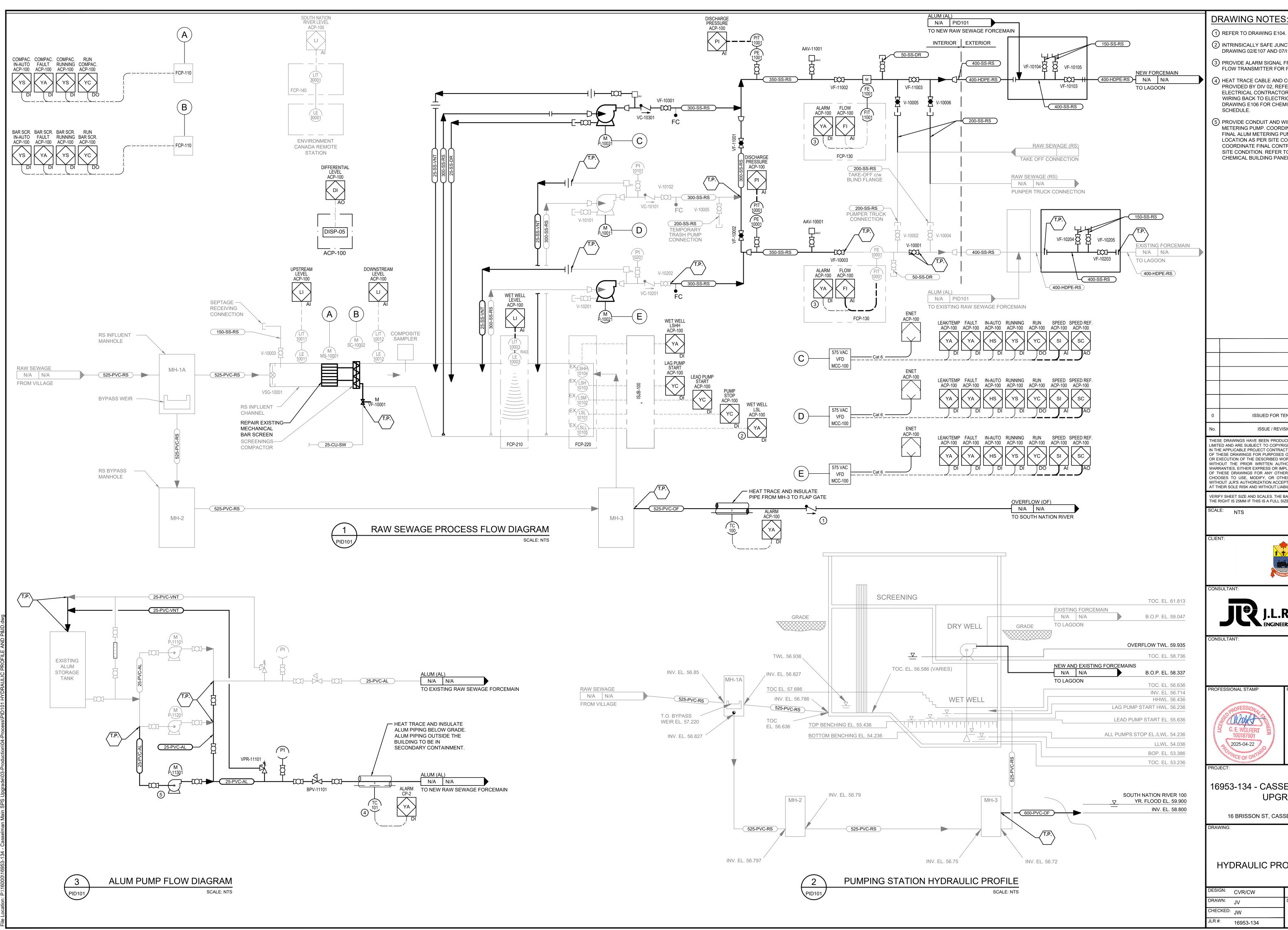




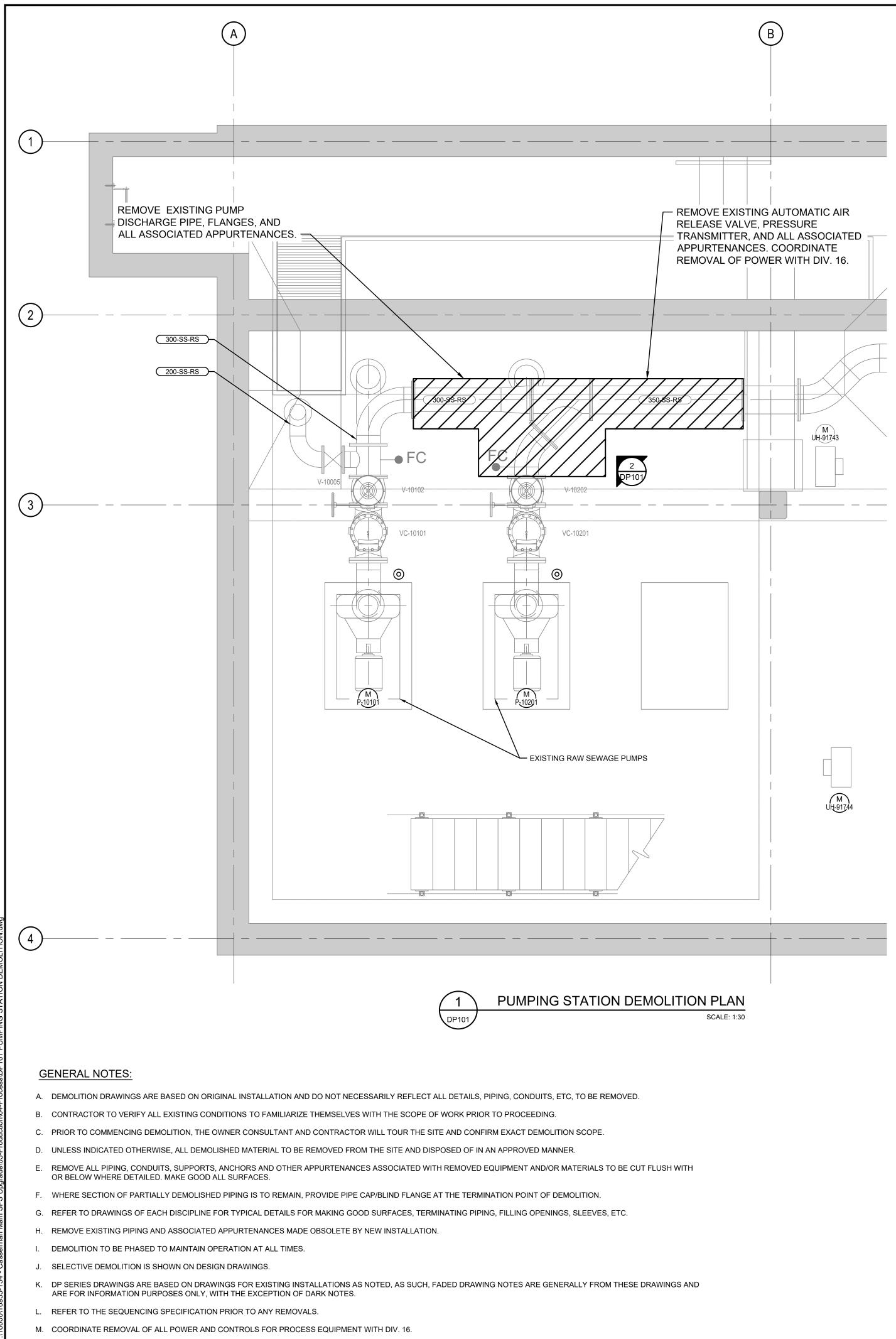
PROCESS DEVICE TAG BREAKDOWN		
POWERED EQUIPMENT TAGS EQUIPMENT ABBREVIATION MOTOR(M), OR SOLENOID(S), OR GENERIC EQUIPMENT (EQ).	S-XX-YY LINE NO. S-XX-YY EXISTING LINE NO. WHERE:	GENERAL NOTE
DEVICE ID MAJOR PROCESS NUMBER	S = NOMINAL SIZE XX = MATERIAL YY = SYSTEM IDENTIFIER SYSTEM IDENTIFIERS	A. THIS LEGEND APPLIES
INSTRUMENTATION MECHANICAL	AA AQUEOUS AMMONIA AL ALUMINUM SULFATE	PROCESS AND MECHAN SPECIFICALLY STATED B. THIS LEGEND IS GENER
FORMAT LIT-203001 FORMAT VFC-20301	BSC BIOSOLIDS CAKE BW BACKWASH BWR BACKWASH RESIDUALS	SYMBOLS MAY BE USED
INSTRUMENT TYPE INSTRUMENT TYPE INSTRUMENT FIER	BYP BYPASS CA COMPRESSED AIR CL2 CHLORINE	
① MAJOR PROCESS① MAJOR PROCESS② SUB-PROCESS② SUB-PROCESS③ PROCESS TRAIN③ PROCESS TRAIN	CLS CHLORINE SOLUTION CNT CENTRATE	
INSTRUMENT TRAIN O MECH. DEVICE ID INSTRUMENT DEVICE ID	COAG COAGULANT DBS DRIED BIOSOLIDS DCW DOMESTIC COLD WATER	
PROCESS ORGANIZATION PROCESS AND MECHANICAL MAJOR PROCESS EQUIPMENT IDENTIFIERS	DHW DOMESTIC HOT WATER DG DIGESTER GAS DR DRAIN	
1. PUMPING STATION PROCESS EQUIPMENT 9. HOUSE SERVICES BL - BLOWER BS - BAR SCREEN	DSL DIGESTED SLUDGE DSC DEWATERED SLUDGE CAKE DWV DRAIN / WASTE / VENT	
XXX-ABYYY CL2 - CHLORINATOR CP - COMPRESSOR YYY NUMBER REPRESENTING BUILDING SERVICE CNT - CENTRIFUGE	EA EXHAUST AIR ECND EXHAUST CONDENSATE	
XXX EQUIPMENT TAGS F - FILTER A 9 FOR HOUSE SERVICES G - GRINDER B NUMBER REPRESENTING BUILDING GC - GRINT CLASSIFIER 1 FOR RAW SEWAGE PUMPING STATION HC - HYDRO CYCLONE	EFF1 PRIMARY EFFLUENT WATER EFF2 SECONDARY EFFLUENT WATER EQL EQUALIZATION	
001-049 ODOUR CONTROL UNITS / SYSTEMS HG - HAND GATE 051-099 SUMPS HG - HAND GATE FRAME HST - HOIST HOIST HX - HEAT EXCHANGER	EW EFFLUENT WATER FCL FERRIC CHLORIDE FLT FILTRATE	
301-349 "COMPRESSED AIR, VACUUM" MB - MECHANICAL BRUSH 401-499 PLUMBING MIX - GENERIC MIXER MS - MECHANICAL SCREEN	FOF FUEL OIL FILL FOR FUEL OIL RETURN FOS FUEL OIL SUPPLY	
601-649 "BOILERS, ASSOCIATED PUMPS, & EQUIPMENT" RBC - ROTATING BIOLOGICAL CONTACTOR 601-649 "BOILERS, ASSOCIATED PUMPS, & EQUIPMENT" SC - SCUM COLLECTOR 650-699 "REFRIGERATION (CHILLERS, COOLING SC - SCREW CONVEYOR	FOVFUEL OIL VENTFSFIRE STANDPIPE	PROCESS SERVICES
701-719 "PUMPS, EXPANSION TANKS" SL - STOP LOG 701-719 "PUMPS, EXPANSION TANKS" SL - STOP LOG SMP SAMPLER	FST FERRIC SULFATE GLR GLYCOL RETURN GLS GLYCOL SUPPLY	CHANNEL AERATION
741-769 "HEATING ELEMENTS (UH, COILS, CABINETS, ETC.)" UVD - ULTRA-VIOLET DEVICE WBC - WEIR - BROAD-CRESTED WSC - WEIR - SHARP-CRESTED	GS GRIT SLURRY HWR HEATING WATER RETURN HWS HEATING WATER SUPPLY	SECONDARY SLUDGE TANK AERATION
771-799 "AHU, MUA, A/C UNITS" WVN - WEIR - V-NOTCH 801-819 GAS FIRED UNIT HEATERS VALVES 821-849 "FANS (EF, SF, TF, ETC.)" VALVE: AUTOMATIC AIR/VACUUM RELEASE	LIME LIME LBS LIQUID BIOSOLIDS MHW MUNICIPAL HOT WATER	
b21bb49 PANS (EF, SF, FF, ETC.) VB VALVE: BALANCING VALVE 851-899 MOTORIZED DAMPERS VBF VALVE: BACKFLOW PREVENTER 901-999 COGENERATION VB VALVE: CHECK	MW MUNICIPAL WATER NG NATURAL GAS	PROCESS/MECHANICAL ABBREVIATIONS
VF - VALVE: FLOW ISOLATION VFC - VALVE: FLOW CONTROL VPC - VALVE: PRESSURE REGULATING VALVE	NPHW NON-POTABLE HOT WATER NPW NON-POTABLE WATER OA OUTSIDE AIR	BOP - BOTTOM OF PIPE COP - CENTRE OF PIPE
VPR - VALVE: PRESSURE RELIEF VVR - VALVE: VACUUM REGULATOR TANKS	ODR ODOUR CONTROL EXHAUST AIR OF OVERFLOW OFL OUTFALL	INV INVERT BOD - BOTTOM OF DUCT C/W - COMPLETE WITH NTS - NOT TO SCALE
TB - TANK: BACKWASH TD - TANK: DAY TF - TANK: FILTER TH - TANK: HOLDING	OIL LUBE OIL PIPING PA PROCESS AIR	
TM - TANK: MIXING TS - TANK: SETTLING VENTILATION EQUIPMENT	PLY POLYMER PSD PRIMARY SLUDGE RA RETURN AIR	
AC - AIR CONDITIONING UNIT AHU - AIR HANDLING UNIT CND - CONDENSER	RAS RETURN ACTIVATED SLUDGE RECIR DOMESTIC HOT WATER RECIRCULATION RJW REJECT WATER	
EF - EXHAUST FAN FC - FAN COIL FH - FUME HOOD HRV - HEAT RECOVERY VENTILATOR	RL REFRIGERANT LIQUID RS REFRIGERANT SUCTION RSP RAW SEPTAGE	FIRE PROTECTION
L - LOUVER MD - MOTORIZED DAMPER MUA - MAKE-UP AIR UNIT ODR - ODOUR CONTROL	RSE RAW SEWAGE RSL RAW SLUDGE RW RAW WATER	
SF - SUPPLY FAN SIL - SILENCER TF - TRANSFER FAN	SAN SANITARY DRAIN SBI SODIUM BISULFITE	HOSE STATION
VAV - VARIABLE AIR VOLUME BOX HEATING EQUIPMENT BB - BASEBOARD HEATER	SCL SODIUM HYPOCHLORITE SCM SCUM SCR SCREENINGS	
BLR - BOILER BPV - BOILER POWER VENTER CUH - CABINET UNIT HEATER ET - EXPANSION TANK	SHW SEPARATED HOT WATER SMP SAMPLING SN SUPERNATANT	SUPERVISED OS & Y GATE VALVE
HC - HEATING COIL RA - CONVECTOR RH - RADIANT HEATER	SP SPRINKLER PIPE (FIRE PROTECTION) SSL SECONDARY SLUDGE ST STEAM	FIRE DEPT. CONNECTION
RP - RADIANT HEATING PANEL UH - UNIT HEATER WH - WATER HEATER (INSTANTANEOUS) WHT - WATER HEATING TANK	STM STORM DRAIN SW SEPARATED WATER	REFRIGERATION MI
PLUMBING EQUIPMENT BFP - BACKFLOW PREVENTER C.O CLEAN OUT	(MUNICIPAL WATER DOWNSTREAM OF A BFP) TSL THICKENED SECONDARY SLUDGE TW TREATED WATER	COMPRESSORS PF
DF - DRINKING FOUNTAIN ES - EMERGENCY SHOWER EW - EYE WASH	UNW UNWATERING VNT VENT WAS WASTE ACTIVATED SLUDGE	
FD - FLOOR DRAIN FFD - FUNNEL FLOOR DRAIN HB - HUB DRAIN L - LAVATORY	PIPE MATERIAL ABBREVIATIONS AL ALUMINUM CI CAST IRON CONC CONCRETE (CHANNEL)	
RD - ROOF DRAIN SH - SHOWER SS - SERVICE SINK UR - URINAL	CP CONCRETE PIPE CPP CONCRETE PRESSURE PIPE CPVC CHLORINATED POLYVINYL CHLORIDE	ROTARY
WC - WATER CLOSET	CS CARBON STEEL CU COPPER DI DUCTILE IRON DIG GLASS LINED DUCTILE IRON	ROTARY SCREW
VALVES	GF GLASS FIBRE GS GALVANIZED STEEL HDPE HIGH DENSITY POLYETHYLENE HYP HYPRESCON	
GATE (GENERIC) VACUUM RELIEF VALVE	PE POLYETHYLENE PVC POLYVINYL CHLORIDE RCP REINFORCED CONCRETE PIPE SS STAINLESS STEEL	
GATE, ANGLE	TYG TYGON TUBE UIP URECON INSULATED PIPE FLOW MEASUREMENT DEVICES	
I ↓ LUBRICATED PLUG VALVE		COOLING TOWERS
3 WAY (GENERIC) Image: Circuit Balancing Value Image: Circuit Balancing Value Image: Circuit Balancing Value Image: Circuit Balanci Balanci Balancing Value Image: Circuit Balancing Va	M MAGNETIC FLOW METER	COOLING TOWER
	D DENSITY METER	EVAPORATORS
Image: Second state Image: Second state Image: Second state Image: Second state <td>WEIR, V-NOTCH</td> <td>FINNED COIL</td>	WEIR, V-NOTCH	FINNED COIL
MUD VALVE - HAND GATE		
PRESSURE REDUCING VALVE C HAND GATE (FRAME ONLY)		
	VARIABLE AREA FLOW METER	FINNED EXCHANGER
THERMOSTATIC SELF PNEUMATIC GATE VALVE	ROTATING MATERIAL	
	EQUIPMENT HANDLING	AIR MOVING EQUIPMENT
PIPE SYMBOLS Concentric reducer ————————————————————————————————————	CENTRIFUGAL BLOWER ROTARY FEEDER	
		FD FIRE DAMPER
Image: Second state Image: Second state Imag		BDD BACK DRAFT DAMPER
Image: Pipe break Image: Pipe break		ROOFTOP FAN
		GRILLE DIFF
	PROGRESSIVE CAVITY PUMP S INLINE GRINDER	
		Typ. a PENTHOUSE LOUVRE



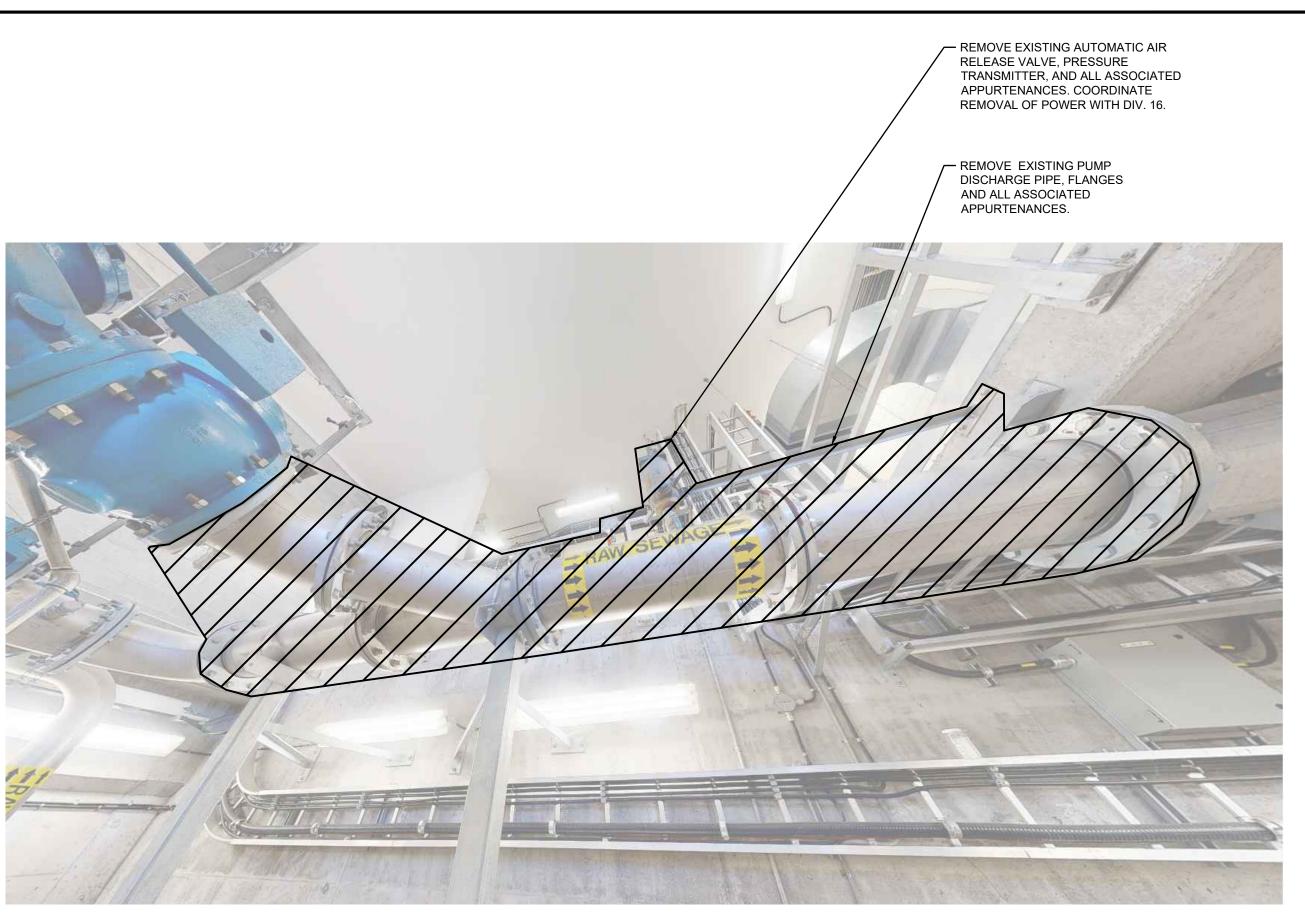
LC IDENTIFICATION	ABBREVIATIONS		
	XXV XX VOLT AC - AS INDICATED		
	XXV XX VOLT AC - AS INDICATED XXV XX VOLT DC - AS INDICATED AC ALTERNATING CURRENT		
	ACK ACKNOWLEDGE ALARM ALKY ALKALINITY		
ALARM / FUNCTION	AM AUTO-MANUAL AOT AUTO-OFF-TEST		
PLC TAG NUMBER	CC CORPORATION COCK CL2 CHLORINE (TYP)		
OPENED ISA FUNCTION	CM COMPUTER-MANUAL COD CHEMICAL OXYGEN DEMAND		
SC	CP-# CONTROL PANEL № CS LOCATE ON CONTROL STATION		
	DC DIRECT CURRENT DO DISSOLVED OXYGEN		
ANALOG OR DIGITAL	DOZDEOZONATED WATERDPHTDRAIN TO PROCESS HOLDING TANK		
INPUT/OUTPUT	FOSFAST-OFF-SLOWFOSAFAST-OFF-SLOW-AUTOFOSRFAST-OFF-SLOW-REMOTE		
	FOSR FAST-OFF-SLOW-REMOTE FP-X-Y FIELD PANEL No. XY (X=UNIT PROCESS #, Y=PANEL #) FR FORWARD-REVERSE		
	H2S HYDROGEN SULPHIDE H0A HAND-OFF-AUTO		
	HOR HAND-OFF-REMOTE IS INTRINSIC SAFETY RELAY IS INTRINSIC SAFETY RELAY		
	LA LIGHTNING ARRESTOR LCP LOCAL CONTROL PANEL		
	LHOA LOW SPEED - HIGH SPEED - OFF - AUTO LOS LOCKOUT STOP		
	LR LOCAL-REMOTE MA MANUAL-AUTO		
	MC MODULATE-CLOSE MCC-# MOTOR CONTROL CENTRE No OC OPEN-CLOSE (D)		
	OCR OPEN-CLOSE-REMOTE OCA OPEN-CLOSE-AUTO		
	OI OPERATOR INTERFACE OO ON-OFF		
	OOA ON-OFF-AUTO OOR ON-OFF-REMOTE		
	OP ORTHO PHOSPHOROUS OSC OPEN-STOP-CLOSE		
	pH HYDROGEN ION CONCENTRATION PLC PROGRAMMABLE LOGIC CONTROLLER or RTU RM-# REMOTE MULTIPLEXING MODULE No		
	RTU-# REMOTE TELEMETRY UNIT No SS START-STOP		
	TCL2TOTAL CHLORINE RESIDUALTODTOTAL OXYGEN DEMAND		
	TURB TURBIDITY VFD VARIABLE FREQUENCY DRIVE		
	D DIFFERENCE å SUM		
	X MULTIPLY , DIVIDE f(x) CHARACTERIZED		
	f(x) CHARACTERIZED x ⁿ RAISED TO THE Nth POWER Ö SQUARE ROOT		
	AVE AVERAGE 1:1 REPEAT OR BOOST		
	 SELECT HIGHEST SIGNAL SELECT LOWEST SIGNAL BIAS 		
	± BIAS % GAIN OR ATTENUATE ACP-# LOCATE ON AREA CONTROL PANEL №		
	D LOCATE ON MCC		
	INTERFACE SYMBOLS		
	X A = CONNECTION I.D. X = PROCESS ABREVIATION		
	Z X = PROCESS ABBREVIATION Y = DESTINATION/INCOMING DRAWING Z = DESCRIPTION		
	ANALOG INPUT		
	ANALOG OUTPUT	0 ISSUED FOR TE	NDER 23/04/25
	> PLUG AND JACK	No. ISSUE / REVIS	
		THESE DRAWINGS HAVE BEEN PRODUC LIMITED AND ARE SUBJECT TO COPYRIC IN THE APPLICABLE PROJECT CONTRACT	GHT AND USE RESTRICTIONS SET OUT
		IN THE APPLICABLE PROJECT CONTRAC OF THESE DRAWINGS FOR PURPOSES OR EXECUTION OF THE DESCRIBED WO	OTHER THAN THE ORIGINAL PROJECT
	PROCESS EXTERNAL TO PROJECT	WITHOUT THE PRIOR WRITTEN AUTH WARRANTIES, EITHER EXPRESS OR IMP	ORIZATION OF JLR. JLR MAKES NO LIED, OF THE SUITABILITY OR FITNESS
	DEVICENET NODE	OF THESE DRAWINGS FOR ANY OTHER CHOOSES TO USE, MODIFY, OR OTHE	R PURPOSE, AND ANY PARTY WHICH ERWISE RELY ON THESE DRAWINGS
	DN GENERIC DEVICENET NODE	WITHOUT JLR'S AUTHORIZATION ACCEP AT THEIR SOLE RISK AND WITHOUT LIAB	
	VFD VFD EQUIPMENT C/W DEVICENET NODE	VERIFY SHEET SIZE AND SCALES. THE B. THE RIGHT IS 25MM IF THIS IS A FULL SIZ	AR TO 25mm
	PANEL TAGGING	SCALE: NTS	
FIELD CABINETS		CLIENT:	
	SUB PROCESS		
	MAJOR PROCESS		
╊╷_╩Ϳ ╿╞══ <mark>═</mark> ╤╲─────	ALPHABETIC PORTION OF TAG EX: LP, FCP, CP, LCP, DP, JBa, JBd, JBp, IT		
╹┝┶╾═╋╋┙╢	EX: LP, FCP, CP, LCP, DP, JBa, JBd, JBp, IT MAJOR PROCESS: REFER TO PID 01, USE 9 FOR GENERAL PANELS	CASSEL	
	SUB PROCESS: 0 FOR GENERAL PROCESS PANELS	CONSULTANT:	www.jlrichards.ca
	9 FOR BUILDING SERVICES GENERAL PANELS		
		JR J.L.F	Richards
			RS-ARCHITECTS-PLANNERS
		CONSULTANT:	
·		PROFESSIONAL STAMP	PROJECT NORTH
L]	acteria	
WIRE COLOUR LEGEND		SPROFESSIONAL	
RED: DIGITAL CONTROL WIRING BLACK: 120 VOLT (HOT)		C.E. WOLFERT	
WHITE: 120 V NEUTRAL YELLOW: 24 V (+)		S C. E. WOLFERT	
BROWN: 24 V (-) GREEN: GROUND		2025-04-22	
BLUE: INTRINSIC SAFETY		OUNCE OF ONTARIL	
		PROJECT:	
* \		16052 424 0400	
	YARD HYDRANT	16953-134 - CASSE UPGF	
, STEAM	/H-1 WALL HYDRANT	UPGF	
¢*	HB-1 EXISTING HOSE BIBB	16 BRISSON ST, CASS	ELMAN, ON K0A 1M0
xchanger T	YH-1 EXISTING YARD HYDRANT	DRAWING:	
¶ ⊥×	WH-1		
↓	EXISTING WALL HYDRANT		
NG CONNECTION	-U THERMOWELL	PROCESS AND INS	
		LEGI	END
OINT L			< - -
		DESIGN: CVR/CW	F
BIBB		JV	DRAWING #:
		CHECKED: JW	PID000
		JLR #: 16953-134	



(1) REFER TO DRAWING E104. COORDINATE WITH DIV. 15. (2) INTRINSICALLY SAFE JUNCTION BOX. REFER TO DRAWING 02/E107 AND 07/I105. (3) PROVIDE ALARM SIGNAL FROM EXISTING AND NEW FLOW TRANSMITTER FOR PLC MONITORING. (4) HEAT TRACE CABLE AND CONTROLLER TO BE PROVIDED BY DIV 02, REFER TO DRAWING C109. ELECTRICAL CONTRACTOR TO PROVIDE CONDUIT AND WIRING BACK TO ELECTRICAL ROOM. REFER TO DRAWING E106 FOR CHEMICAL BUILDING PANEL SCHEDULE. (5) PROVIDE CONDUIT AND WIRING FOR THE NEW ALUM METERING PUMP. COORDINATE WITH DIV.15. FINAL ALUM METERING PUMP CONTROL PANEL LOCATION AS PER SITE CONDITION. CONTRACTOR TO COORDINATE FINAL CONTROL PANEL'S LOCATION WITH SITE CONDITION. REFER TO DRAWING E106 FOR CHEMICAL BUILDING PANEL SCHEDULE. ISSUED FOR TENDER 23/04/25 **ISSUE / REVISION** DD/MM/YY THESE DRAWINGS HAVE BEEN PRODUCED BY J.L. RICHARDS & ASSOCIATE LIMITED AND ARE SUBJECT TO COPYRIGHT AND USE RESTRICTIONS SET OU IN THE APPLICABLE PROJECT CONTRACT. ANY USE, REUSE, OR MODIFICATION OF THESE DRAWINGS FOR PURPOSES OTHER THAN THE ORIGINAL PROJEC OR EXECUTION OF THE DESCRIBED WORK IS NOT PERMITTED OR ENDORSEI WITHOUT THE PRIOR WRITTEN AUTHORIZATION OF JLR. JLR MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, OF THE SUITABILITY OR FITNESS OF THESE DRAWINGS FOR ANY OTHER PURPOSE, AND ANY PARTY WHICH CHOOSES TO USE, MODIFY, OR OTHERWISE RELY ON THESE DRAWINGS WITHOUT JLR'S AUTHORIZATION ACCEPTS THESE LIMITATIONS AND DOES SO AT THEIR SOLE RISK AND WITHOUT LIABILITY TO JLR. VERIFY SHEET SIZE AND SCALES. THE BAR TO THE RIGHT IS 25MM IF THIS IS A FULL SIZE DRAWING. SCALE: NTS CONSULTAN www.jlrichards.c .L.Richards NGINEERS · ARCHITECTS · PLANNERS ONSULTANT: ROFESSIONAL STAMP PROJECT NORTH Clibold C.E. WOLFERT 2025-04-22 OJECT 16953-134 - CASSELMAN MAIN SPS UPGRADE 16 BRISSON ST, CASSELMAN, ON KOA 1M0 HYDRAULIC PROFILE AND P&ID DESIGN: CVR/CW DRAWN: JV RAWING #: CHECKED: JW PID101



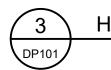
- N. FOR BELOW GRADE REMOVALS, REFER TO CIVIL DEMOLITION DRAWINGS.





REMOVE EXISTING DISCHARGE PIPING AND PROVIDE NEW PIPING AND VALVES IN ACCORDANCE WITH THE PIP TO CONNECT TO NEW AND EXISTING PUMPING SYSTEM ----

REMOVE EXISTING SUCTION PIPING. PROVIDE NEW SUCTION PIPING AND VALVES TO EXISTING PUMP AND NEW PUMP IN



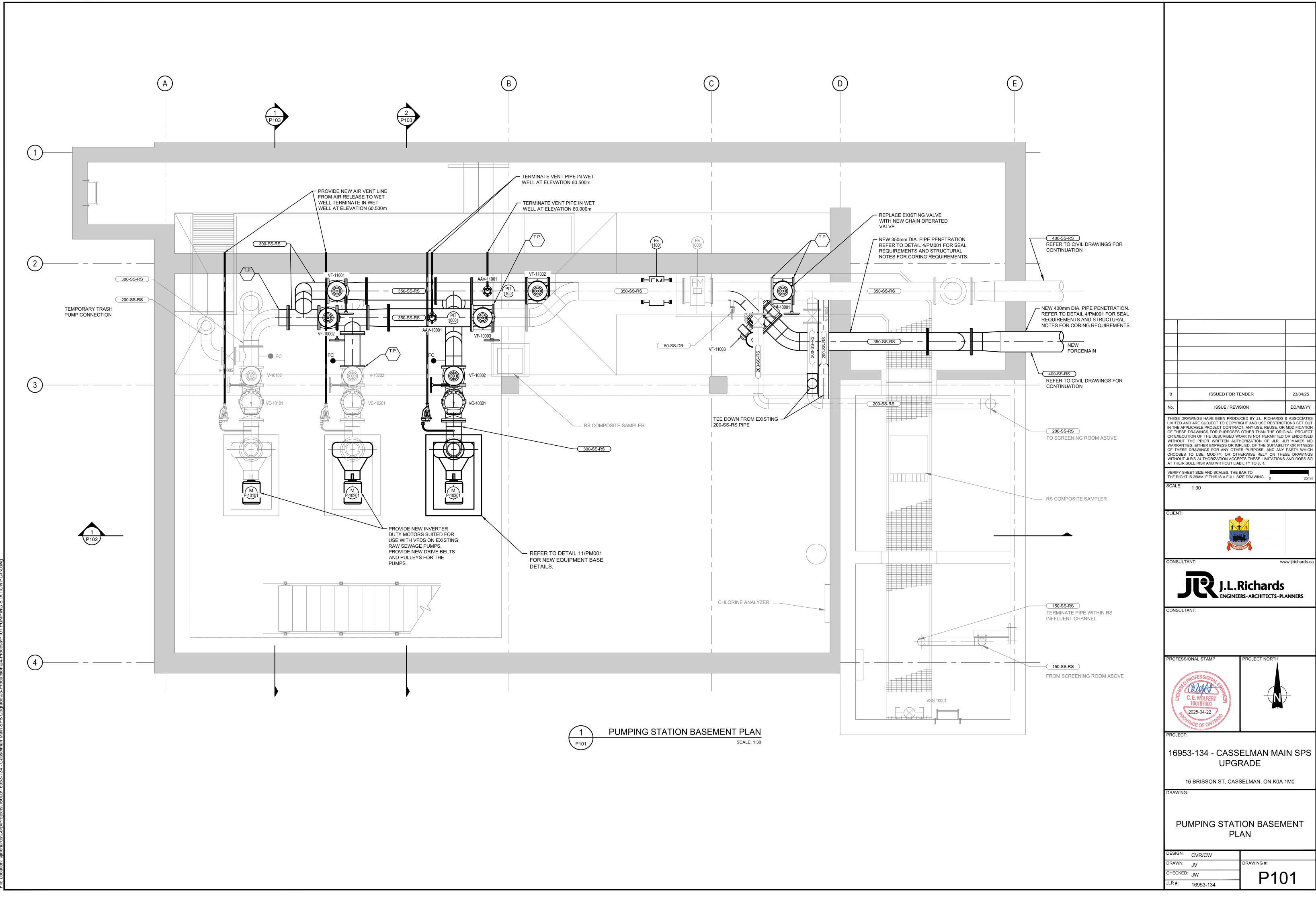
HEATING WATER PUMPS DEMOLITION SCALE: NTS

PUMPING STATION DEMOLITION

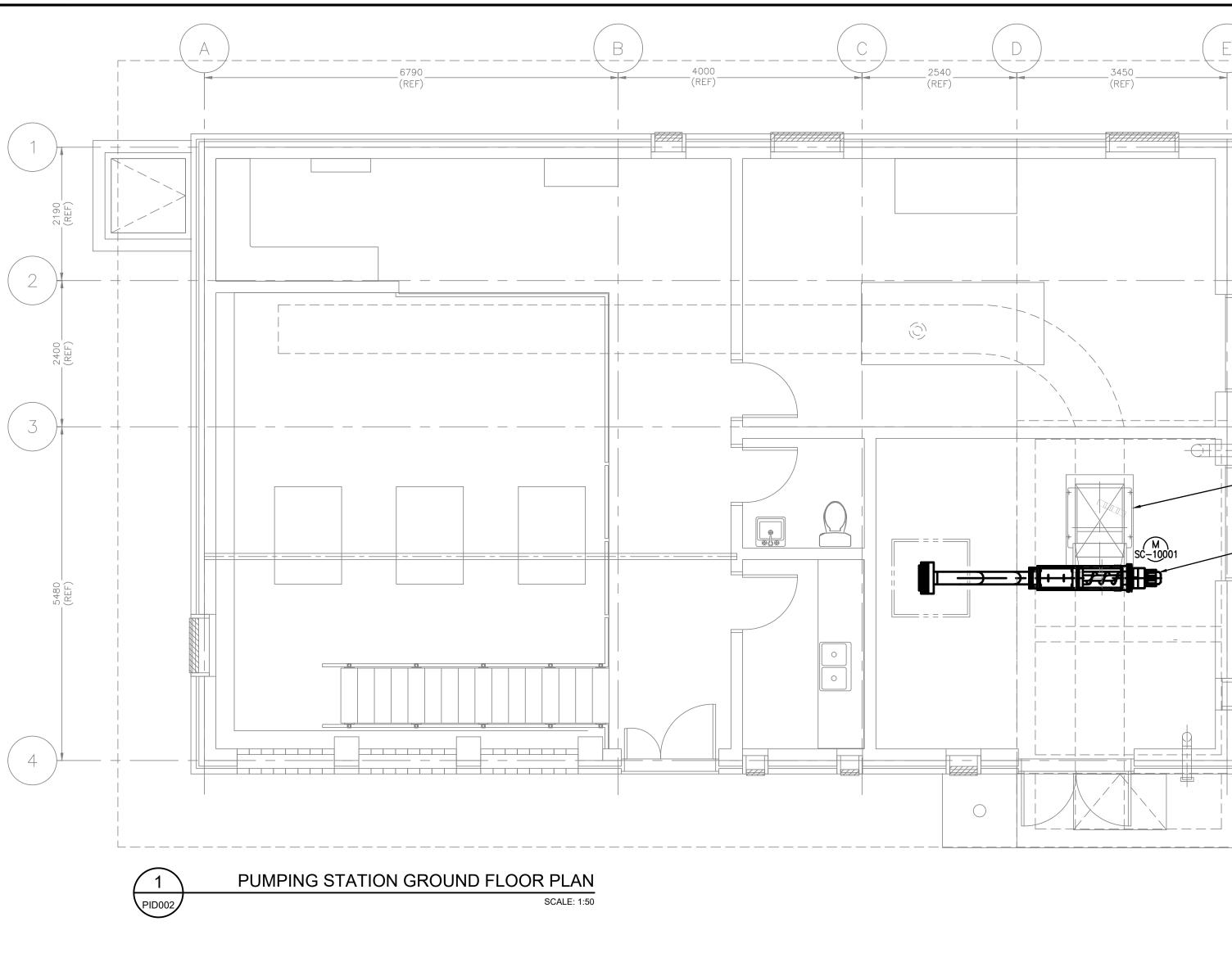




_				
0	ISSUED FOR TE	ENDER	23/04/25	
No.	ISSUE / REVIS	SION	DD/MM/YY	
LIMIT IN TH OF TH OR E WITH WARF OF T CHOC WITH AT TH	E DRAWINGS HAVE BEEN PRODU ED AND ARE SUBJECT TO COPYRI E APPLICABLE PROJECT CONTRAC HESE DRAWINGS FOR PURPOSES XECUTION OF THE DESCRIBED WO OUT THE PRIOR WRITTEN AUTH RANTIES, EITHER EXPRESS OR IMF HESE DRAWINGS FOR ANY OTHE DSES TO USE, MODIFY, OR OTH OUT JLR'S AUTHORIZATION ACCEI HEIR SOLE RISK AND WITHOUT LIAE	GHT AND USE RESTRICT CT. ANY USE, REUSE, OR OTHER THAN THE ORIG DRK IS NOT PERMITTED (IORIZATION OF JLR. JL PLIED, OF THE SUITABILIT R PURPOSE, AND ANY IERWISE RELY ON THE PTS THESE LIMITATIONS BILITY TO JLR.	IONS SET OUT MODIFICATION INAL PROJECT OR ENDORSED .R MAKES NO ITY OR FITNESS PARTY WHICH SE DRAWINGS	
	RIGHT IS 25MM IF THIS IS A FULL SI		25mm	
CLIEN	NT: SULTANT:		/w.jlrichards.ca	
		Richards rs-architects-pl	ANNERS	
	SULTANT:			
	EESSIONAL STAMP	PROJECT NORTH)-	
	16953-134 - CASSELMAN MAIN SPS UPGRADE 16 BRISSON ST, CASSELMAN, ON KOA 1M0			
DRAV	VING:			
	PUMPING STATI	ON DEMOL	ITION	
DESIO DRAV CHEC		DRAWING #:	01	
JLR #	[:] 16953-134			



\\ilirichards\Corp\Projects\16000\16953-134 - Casselman Main SPS Upgrade\03-Production\04-Process\P101 PUMPING STATION PLAN



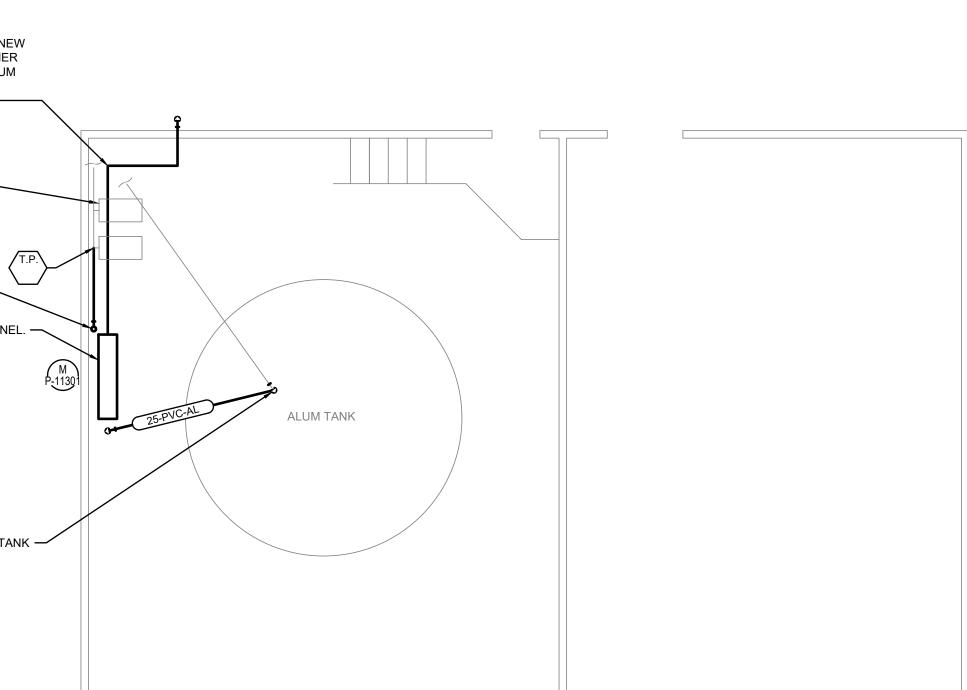
PROVIDE NEW 25-PVC-AL PIPING FROM NEW PUMP SYSTEM TO CARRIER PIPE. CARRIER PIPE TO BE ROUTED TO JUST INSIDE ALUM BUILDING WALL. REFER TO CIVIL FOR CARRIER PIPE DETAIL. -----

EXISTING ALUM PUMPS ———

25-PVC-AL UP TO NEW PUMP —

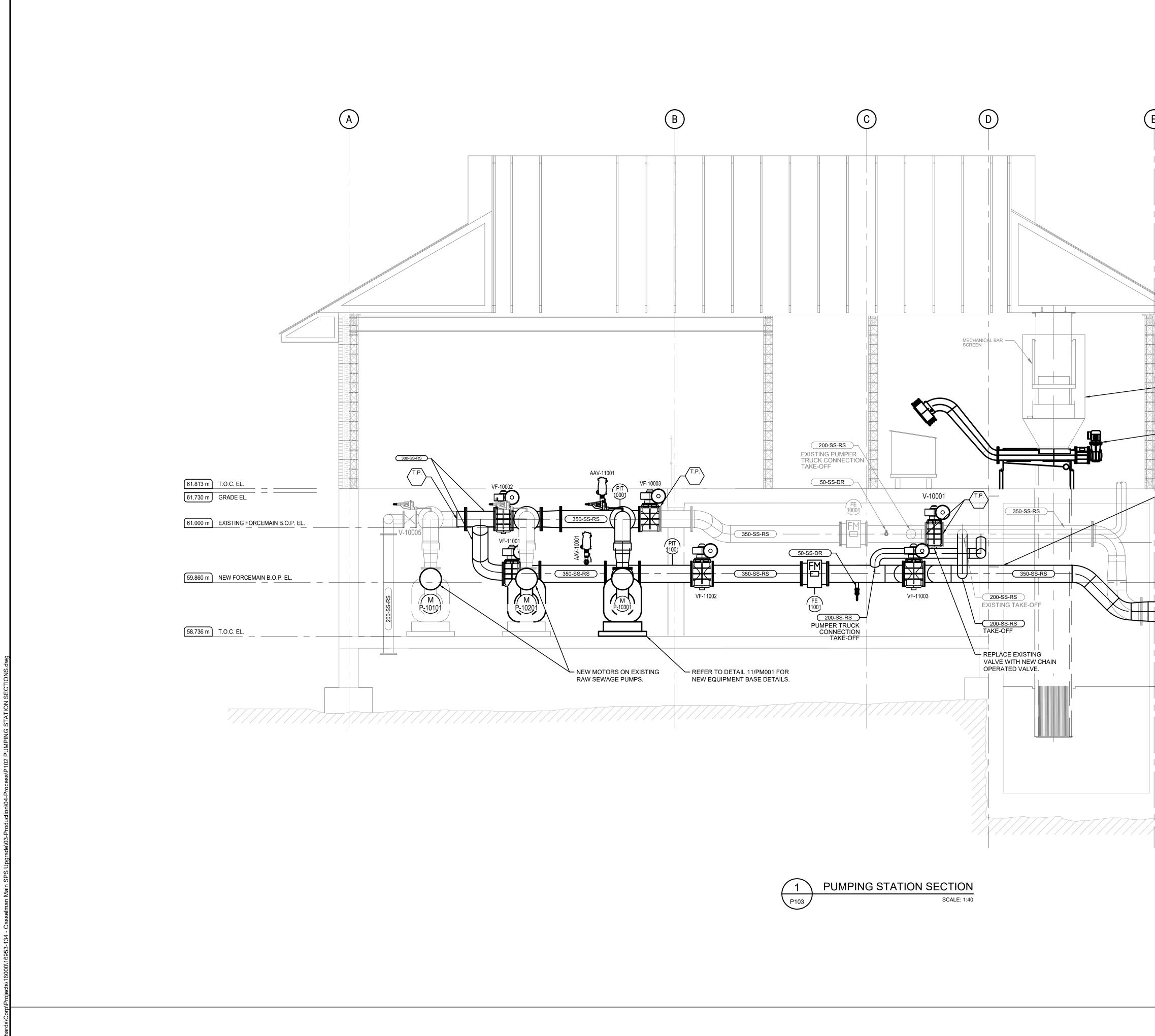
PROVIDE NEW PUMPING AND PIPING PANEL. ----



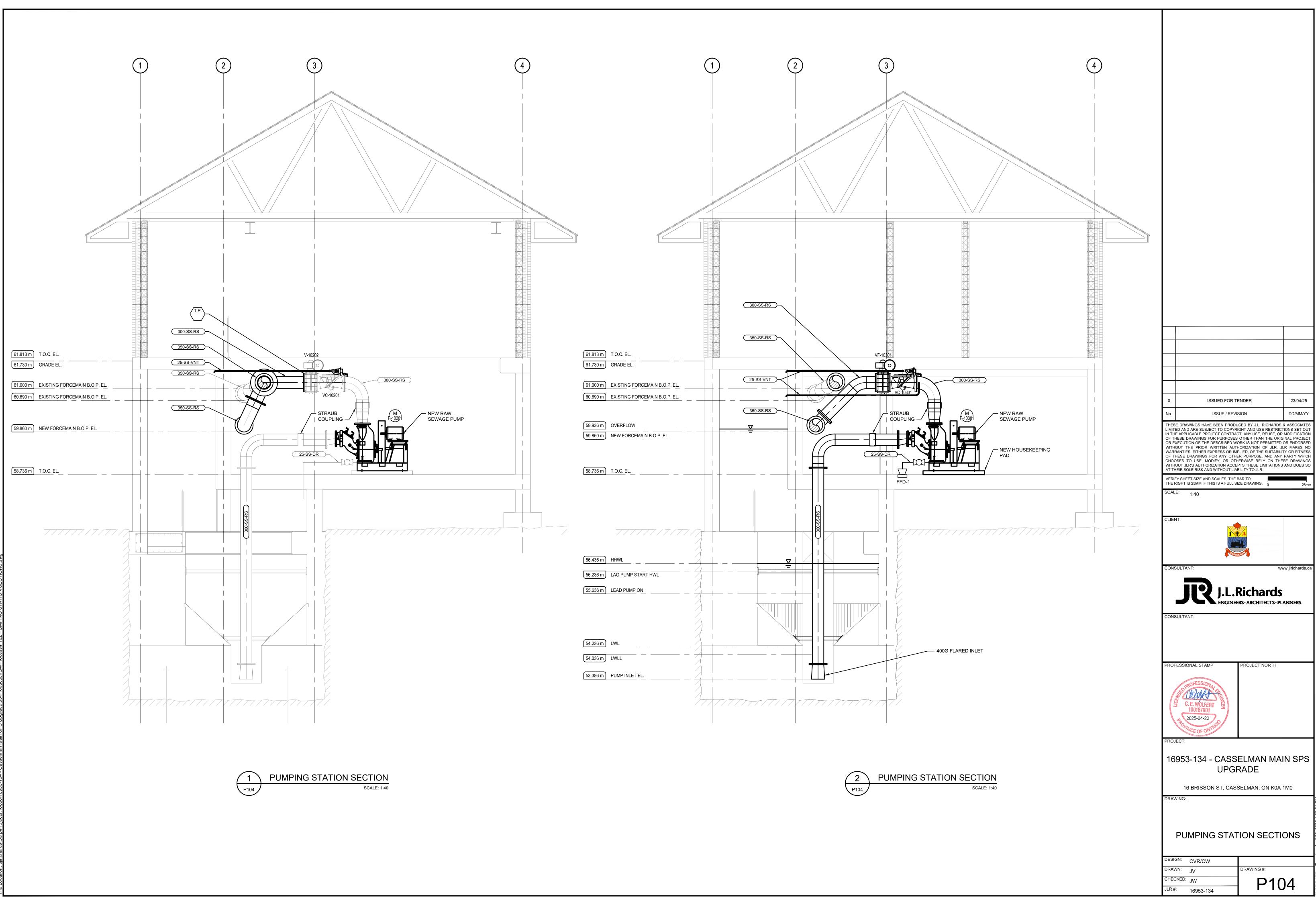


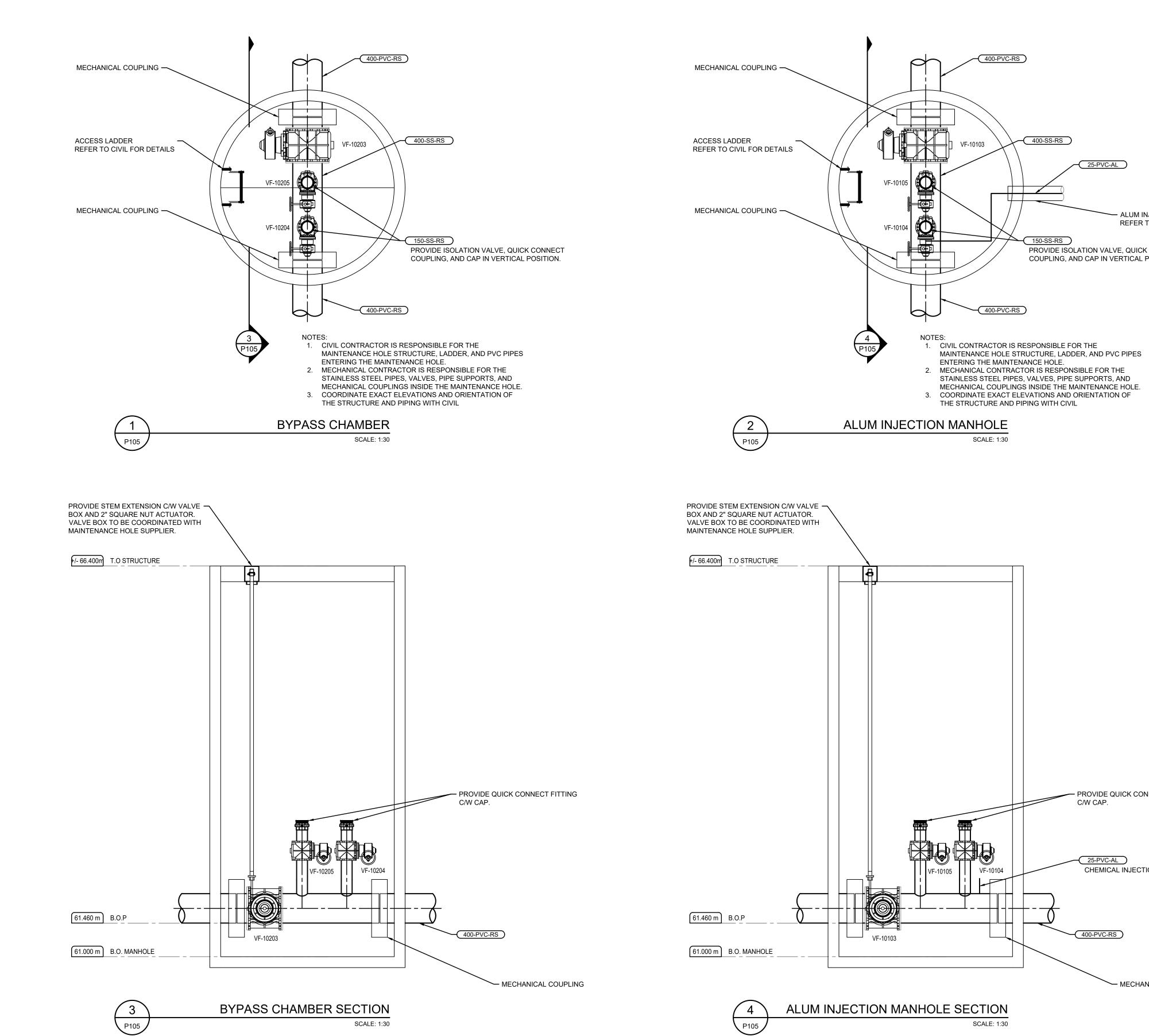
ALUM / BLOWER BUILDING SCALE: 1:50

REPAIR EXISTING SCREEN.		
PROVIDE NEW SCREENING COMPACTOR.		
	0 ISSUED FOR TI No. ISSUE / REVI:	
	THESE DRAWINGS HAVE BEEN PRODU LIMITED AND ARE SUBJECT TO COPYRI IN THE APPLICABLE PROJECT CONTRAC OF THESE DRAWINGS FOR PURPOSES OR EXECUTION OF THE DESCRIBED WO	GHT AND USE RESTRICTIONS SET OUT CT. ANY USE, REUSE, OR MODIFICATION OTHER THAN THE ORIGINAL PROJECT
	WITHOUT THE PRIOR WRITTEN AUTH WARRANTIES, EITHER EXPRESS OR IMI OF THESE DRAWINGS FOR ANY OTHE CHOOSES TO USE, MODIFY, OR OTH WITHOUT JLR'S AUTHORIZATION ACCE	Horization of JLR. JLR Makes NC Plied, of the Suitability or Fitness R Purpose, and any Party Which Ierwise Rely on These Drawings
	AT THEIR SOLE RISK AND WITHOUT LIAN VERIFY SHEET SIZE AND SCALES. THE F THE RIGHT IS 25MM IF THIS IS A FULL SI	BILITY TO JLR.
	SCALE: 1:50	2 3 4m
	CLIENT:	
	Cosse	
	CONSULTANT:	www.jlrichards.c
	JR J.L.I	Richards rs-architects-planners
	CONSULTANT:	
	PROFESSIONAL STAMP	PROJECT NORTH
	G. E. WOLFERT	
	100187901 3800 WCE OF ONTARIO	
	PROJECT:	
	16953-134 - CASS UPGF	
	16 Brisson St, Cass	elman, ON K0A 1M0
		
	PUMPING STA FLOOR AND ALU	TION GROUND M BUILDING PLAN
	DESIGN: CW DRAWN: EH	DRAWING #:
	CHECKED: JW JLR #: 16953-134	P102



E)				
REPAIR EXISTING SCREEN.	\vdash			
PROVIDE NEW SCREENING COMPACTOR				
	_			
NEW 350mm DIA. PIPE PENETRATION. REFER TO DETAIL 4/PM001 FOR SEAL	0	ISSUED FOR TH	ENDER	23/04/25
REQUIREMENTS AND STRUCTURAL NOTES FOR CORING REQUIREMENTS.	No.	ISSUE / REVIS	SION	DD/MM/YY
	LIMIT IN TH	SE DRAWINGS HAVE BEEN PRODU TED AND ARE SUBJECT TO COPYRI IE APPLICABLE PROJECT CONTRAC HESE DRAWINGS FOR PURPOSES	IGHT AND USE RESTRICT CT. ANY USE, REUSE, OR	IONS SET OUT MODIFICATION
	OR E WITH WAR	EXECUTION OF THE DESCRIBED WO NOUT THE PRIOR WRITTEN AUTH RANTIES, EITHER EXPRESS OR IMP	ORK IS NOT PERMITTED (HORIZATION OF JLR. JL PLIED, OF THE SUITABILIT	OR ENDORSED R MAKES NO TY OR FITNESS
EXISTING FORCEMAIN B.O.P. EL. 60.690 m	CHO WITH	HESE DRAWINGS FOR ANY OTHE OSES TO USE, MODIFY, OR OTH IOUT JLR'S AUTHORIZATION ACCEI HEIR SOLE RISK AND WITHOUT LIA!	ERWISE RELY ON THE	SE DRAWINGS
	THE	FY SHEET SIZE AND SCALES. THE E RIGHT IS 25MM IF THIS IS A FULL SI		25mm
	SCAL	^{_E:} 1:40		
400-SS-RS EXISTING FORCEMAIN B.O.P. EL. 59.047 m	CLIE	NT:		
NEW FORCEMAIN B.O.P. EL. 59.047 m				
REFER TO CIVIL FOR CONTINUATION.		Starse		
EXISTING T.O.C. EL. 57.686 m	CON	SULTANT:	ww	w.jlrichards.ca
		JR J.L.I	Richards	
NEW 400mm DIA. PIPE PENETRATION.		ENGINEE	RS-ARCHITECTS-PL	ANNERS
REFER TO DETAIL 4/PM001 FOR SEAL REQUIREMENTS AND STRUCTURAL NOTES FOR CORING REQUIREMENTS.	CON	SULTANT:		
	PRO	FESSIONAL STAMP	PROJECT NORTH	
		OFFSSIO		
		SE CULOURS		
		C. E. WOLFERT		
		BAUNCE OF ONTARIO		
	PRO	JECT:		
	16	953-134 - CASS UPGF		N SPS
		16 BRISSON ST, CASS		1M0
	DRAV	WING:		
	+	PUMPING STAT	ION SECTION	ONS
	DESI	GN: OVEROW		
	DRA	WN: JV	DRAWING #:	
	CHE JLR #	^{CKED:} JW ^{#:} 16953-134	P10)3





SCALE: 1:30

S-RS	
	25-PVC-AL
	ALUM INJECTION CARRIER PIPE. REFER TO CIVIL.
PS	

PROVIDE ISOLATION VALVE, QUICK CONNECT COUPLING, AND CAP IN VERTICAL POSITION.

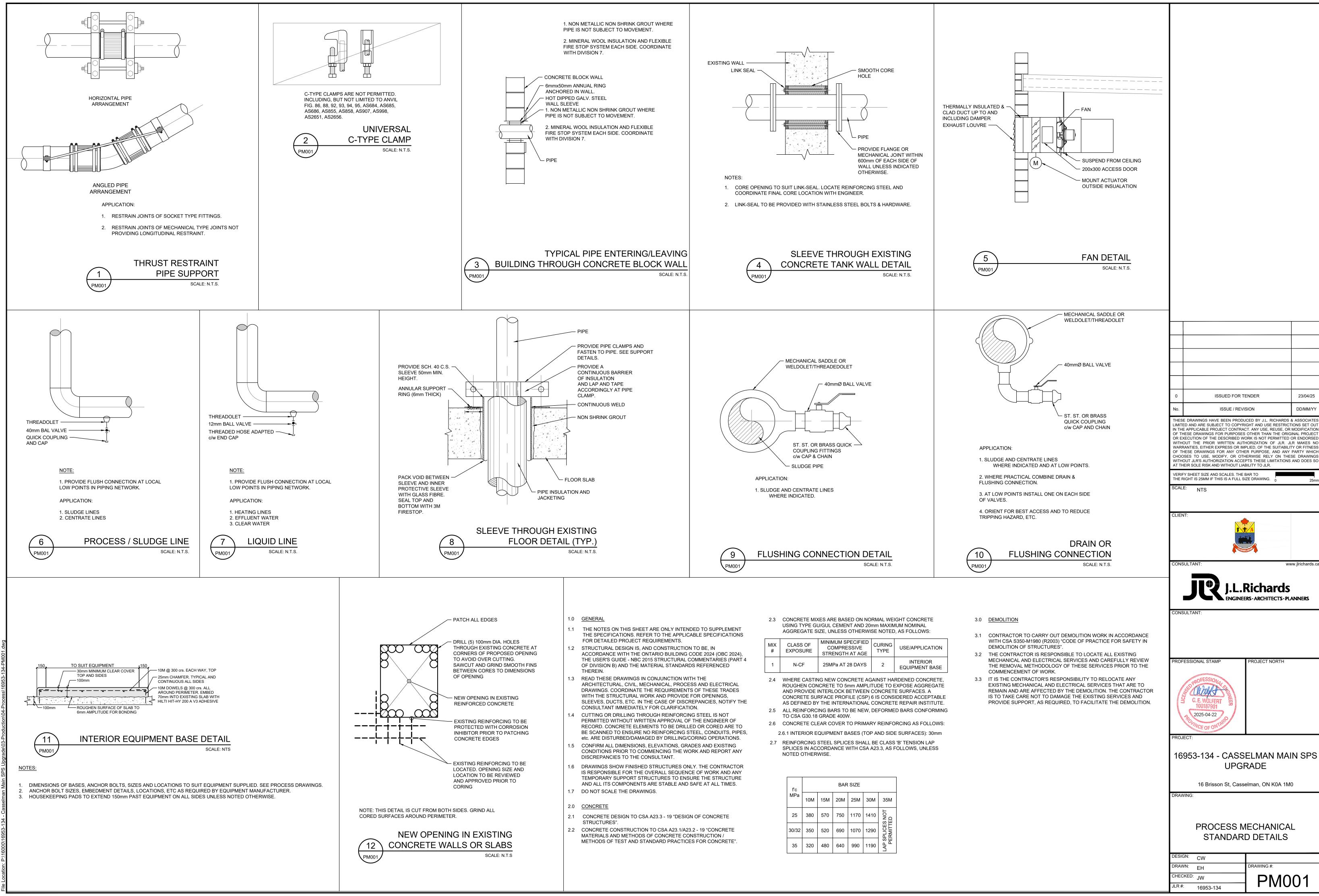
PROVIDE QUICK CONNECT FITTING C/W CAP.

- 25-PVC-AL CHEMICAL INJECTION LOCATION

- 400-PVC-RS

- MECHANICAL COUPLING

0		ISSUED FOR 1	ENDER		23/04/25
No.		ISSUE / REV HAVE BEEN PROD			
CHOO WITH AT TI	OSES TO USE IOUT JLR'S AU HEIR SOLE RIS FY SHEET SIZE	NGS FOR ANY OTH E, MODIFY, OR OT THORIZATION ACCE K AND WITHOUT LIA E AND SCALES. THE I IF THIS IS A FULL S	HERWISE RI EPTS THESE ABILITY TO JL BAR TO	ELY ON THE LIMITATIONS .R.	SE DRAWINGS
-	E: 1.50				
					_
CLIE	0	1	2	3	4m
CLIE	0	1	2	3	4m
CLIEI	0	1	2	3	4m
	0	1	2		
	NT: SULTANT:				4m /w.jlrichards.ca
	NT: SULTANT:	R J.L.	Rich	ards	/w.jlrichards.ca
CON		R J.L.	Rich		/w.jlrichards.ca
CON	NT: SULTANT:	R J.L.	Rich	ards	/w.jlrichards.ca
CON		R J.L.	Rich	ards	/w.jlrichards.ca
CON		R J.L.	Rich	ards	/w.jlrichards.ca
CON		R.J.L.	Rich	ards	/w.jlrichards.ca
CON	NT: SULTANT: SULTANT:	R.J.L.	Rich ers-arch	ards	/w.jlrichards.ca
CON	NT: SULTANT: SULTANT:	R.J.L.	Rich ers-arch	ards	/w.jlrichards.ca
CON	I.SU I.SU	STAMP	Rich ers-arch	ards	/w.jlrichards.ca
CON	I.SU I.SU	STAMP	Rich ers-arch	ards	/w.jlrichards.ca
	I.SU I.SU	STAMP	Rich ers-arch	ards	/w.jlrichards.ca
	I.SU I.SU	STAMP	PROJECT	ww ards intects-pL	w.jlrichards.ca
	I.SU I.SU	STAMP	PROJECT		w.jlrichards.ca
	I.SU I.SU	STAMP			ANNERS
	I.SU I.SU	STAMP			ANNERS
	I.SU I.SU	STAMP			ANNERS
	I.SU I.SU	STAMP STAMP STAMP SOLVER SOLVER			ANNERS
	TISO NT: SULTANT: SULTANT: FESSIONAL S SULTANT: FESSIONAL S C.E.WC 10078 C.E.WC 100	STAMP			ANNERS
	II.SU II	STAMP STAMP STAMP SOLUTION A-22 SOLUTION A-23 SOLUTION A-3 SOLUTION			ANNERS
	I.SU I.SU	STAMP STAMP STAMP SOLUTION A-22 SOLUTION A-23 SOLUTION A-3 SOLUTION			ANNERS
		STAMP STAMP STAMP SOLUTION A-22 SOLUTION A-23 SOLUTION A-3 SOLUTION	PROJECT PROJECT		N SPS

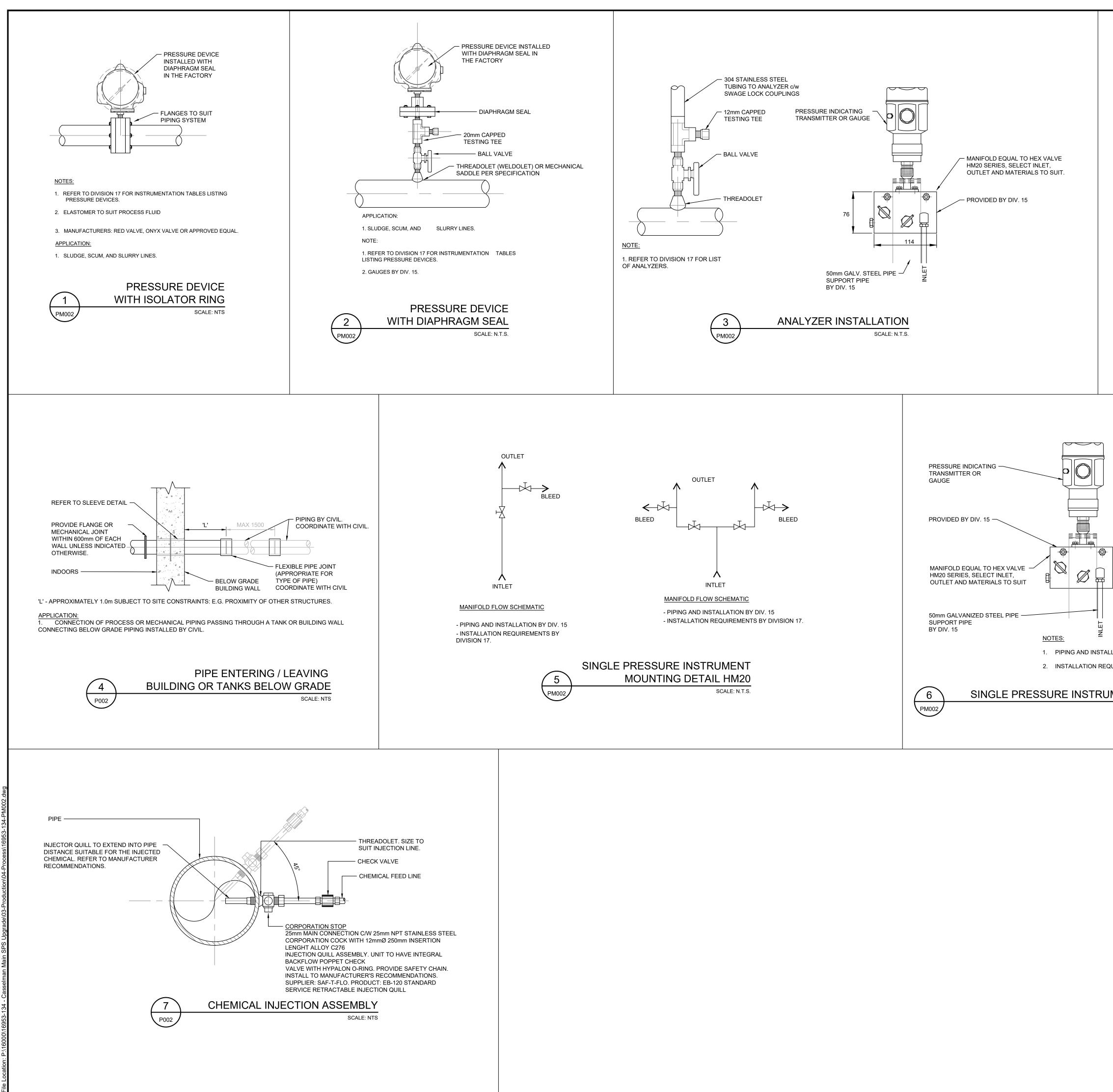


	esdav. April 22, 2025 1:20:16 PM
	Tues
	DATE.

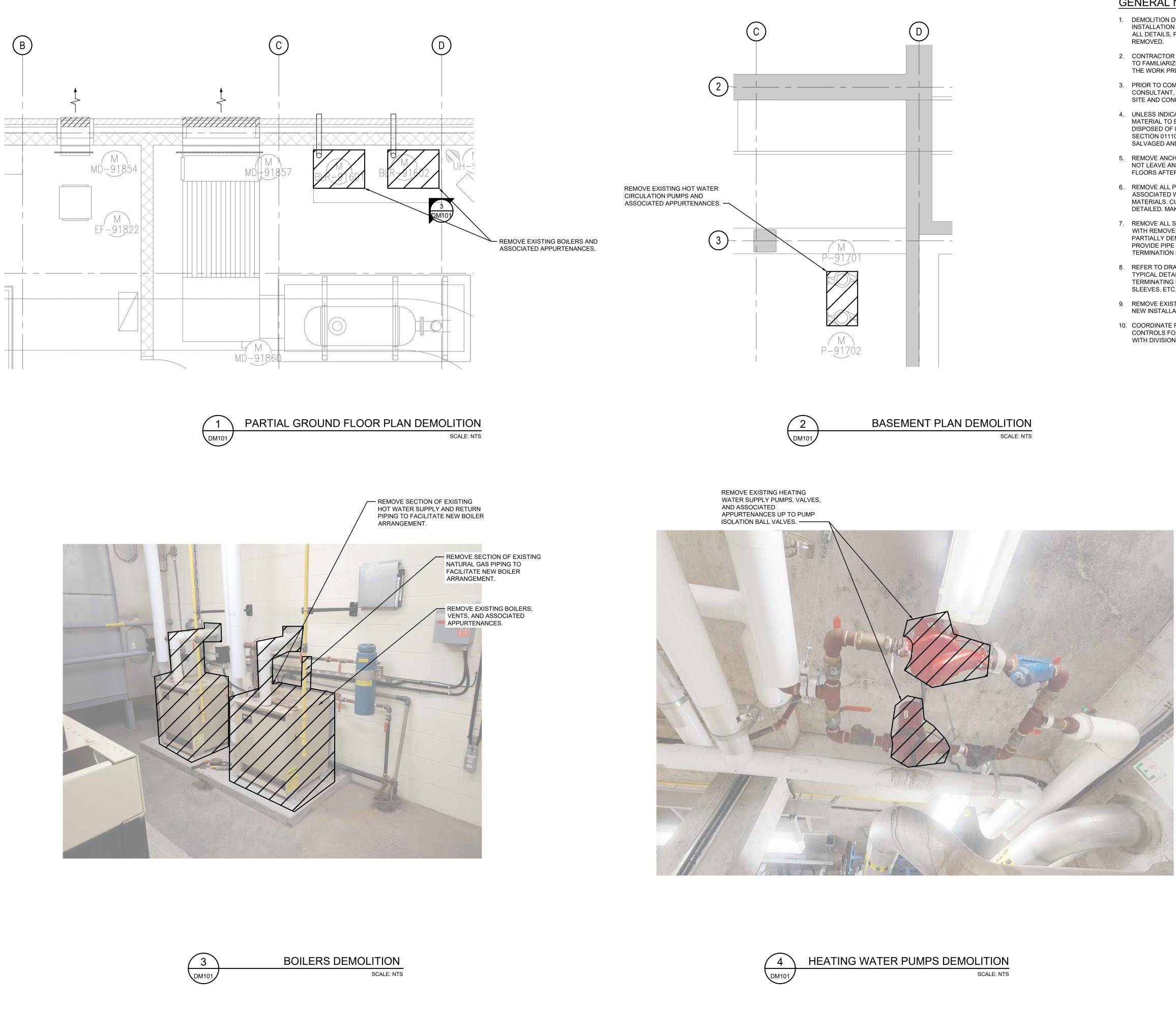
23/04/25

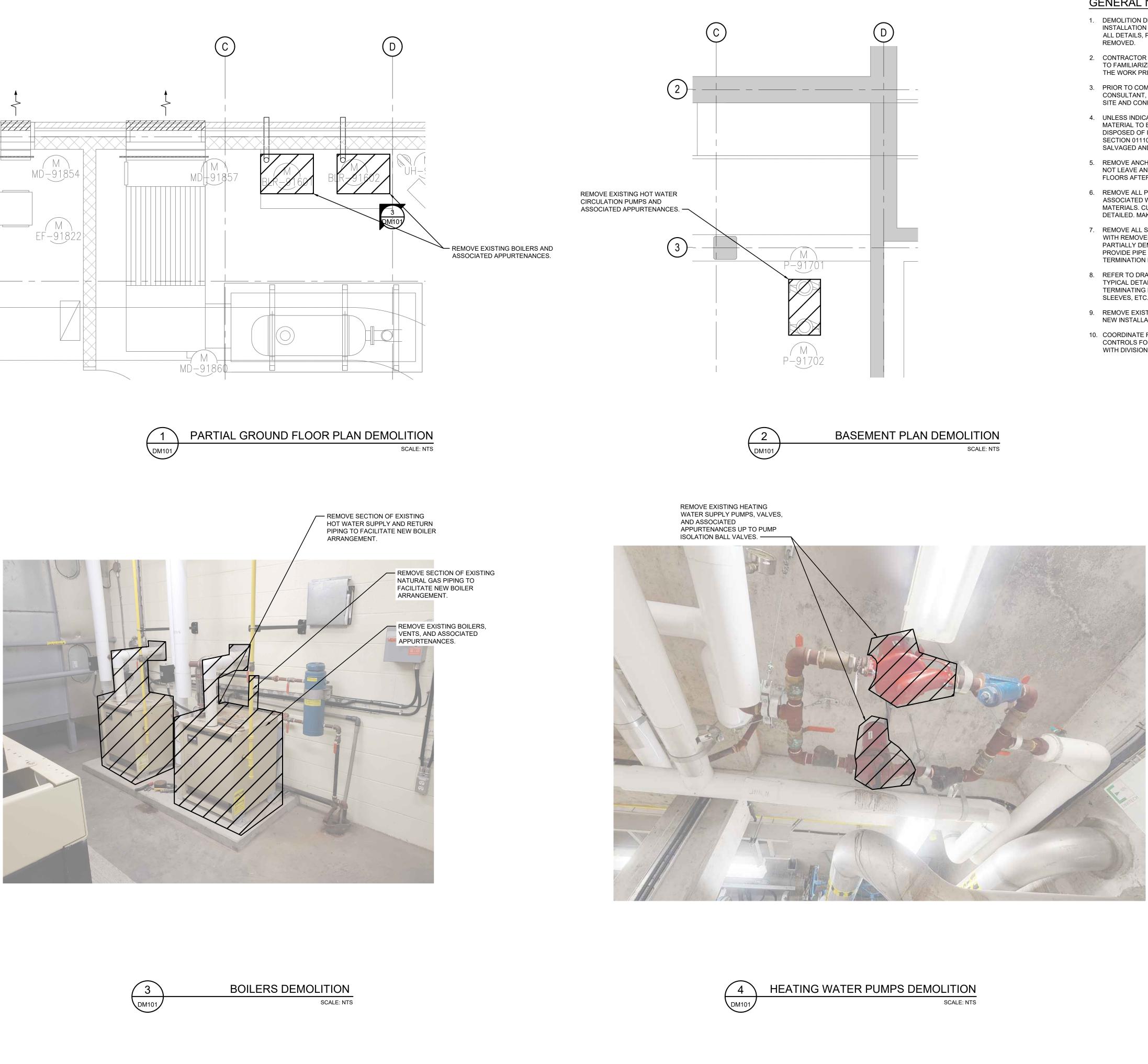
DD/MM/YY

www.jlrichards



	\vdash			
OUTLET				
	\vdash			
	0	ISSUED FOR TE	ENDER	23/04/25
BLEED	No.	ISSUE / REVIS	SION	DD/MM/YY
	LIMIT IN TH	SE DRAWINGS HAVE BEEN PRODU TED AND ARE SUBJECT TO COPYRI HE APPLICABLE PROJECT CONTRAC	IGHT AND USE RESTRICT CT. ANY USE, REUSE, OR	TIONS SET OUT MODIFICATION
	OR E WITH WAR	THESE DRAWINGS FOR PURPOSES EXECUTION OF THE DESCRIBED WO HOUT THE PRIOR WRITTEN AUTH RRANTIES, EITHER EXPRESS OR IMP	ORK IS NOT PERMITTED (HORIZATION OF JLR. JL PLIED, OF THE SUITABILIT	OR ENDORSED LR MAKES NO TY OR FITNESS
	OF T CHO WITH	THESE DRAWINGS FOR ANY OTHE DOSES TO USE, MODIFY, OR OTH HOUT JLR'S AUTHORIZATION ACCEF THEIR SOLE RISK AND WITHOUT LIAB	ER PURPOSE, AND ANY IERWISE RELY ON THE PTS THESE LIMITATIONS	PARTY WHICH SE DRAWINGS
INLET	VERI	RIFY SHEET SIZE AND SCALES. THE E RIGHT IS 25MM IF THIS IS A FULL SI	BAR TO	25mm
MANIFOLD FLOW SCHEMATIC	SCAL	^{LE:} NTS		
	CLIE	NT:		
LATION BY DIV. 15.				
QUIREMENTS BY DIVISION 17.		21555		
MENT MOUNTING DETAIL HM20	CON	ISULTANT:	wv	ww.jlrichards.ca
SCALE: NTS			0 :	
		JR J.L.	KICNAPOS RS-ARCHITECTS-PL	ANNERS
		ISULTANT:		
	PRO	FESSIONAL STAMP	PROJECT NORTH	
		PROFESSION A		
		C.E. WOLFERT		
		100107901		
	PRO	2025-04-22 DJECT:		
	10	6953-134 - CASS UPGF		IN SPS
		16 Brisson St, Casse		0
	DRA	WING:		
		PROCESS M	IECHANICA D DETAILS	L
			J DE TAILS	
	DESI	IGN: CW		
	DRA	^{WN:} EH	DRAWING #:	

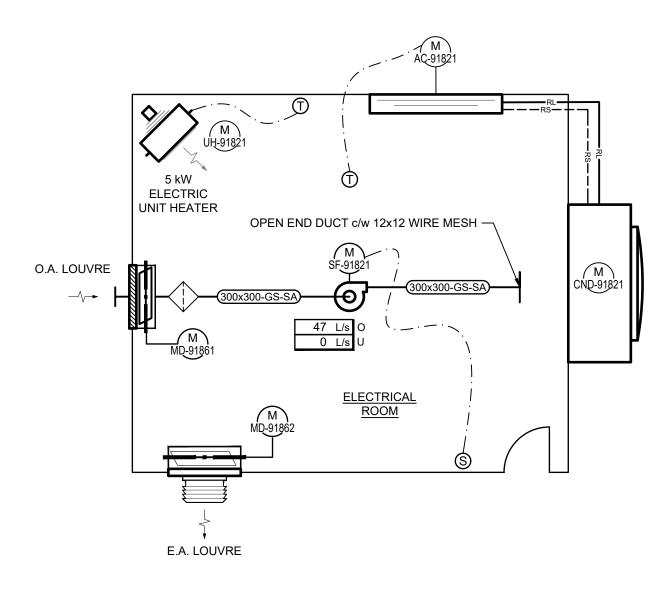


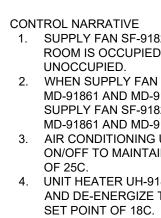




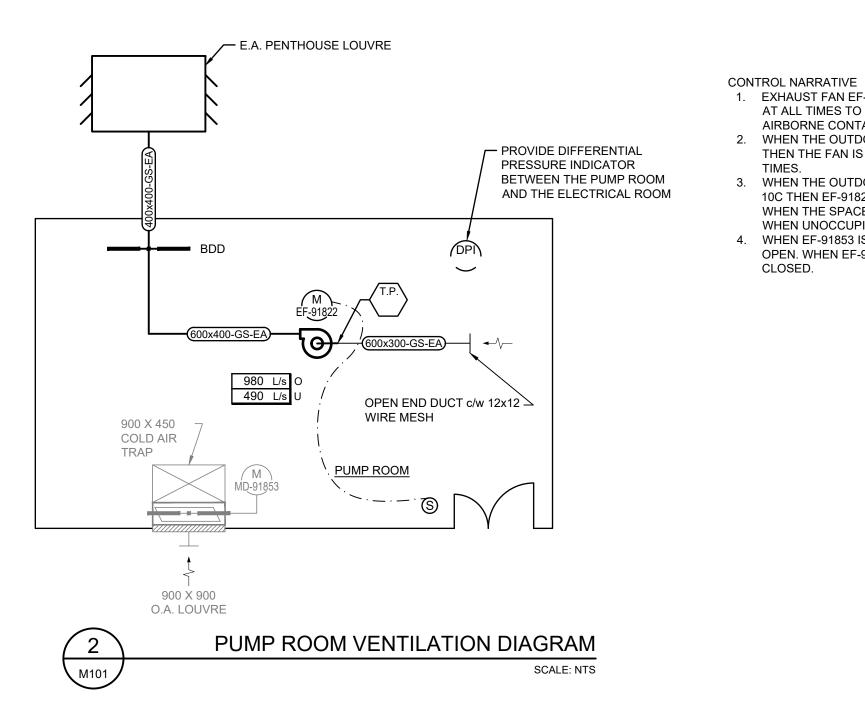
<u>GENERAL NOTES:</u>	
 DEMOLITION DRAWINGS ARE BASED ON ORIGINAL INSTALLATION AND DO NOT NECESSARILY REFLECT ALL DETAILS, PIPING, CONDUITS, ETC, TO BE REMOVED. 	
2. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS TO FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROCEEDING.	
3. PRIOR TO COMMENCING DEMOLITION, THE OWNER, CONSULTANT, AND CONTRACTOR WILL TOUR THE SITE AND CONFIRM EXACT DEMOLITION SCOPE.	
 UNLESS INDICATED OTHERWISE, ALL DEMOLISHED MATERIAL TO BE REMOVED FROM SITE AND DISPOSED OF IN AN APPROVED MANNER. REFER TO SECTION 01110 SUMMARY OF WORK FOR ITEMS TO BE SALVAGED AND TURNED OVER TO OWNER. 	
5. REMOVE ANCHORS WHEN REMOVING SUPPORTS. DO NOT LEAVE ANY ANCHORS IN FLOOR. REPAIR ALL FLOORS AFTER REMOVALS.	
 REMOVE ALL PIPING, CONDUITS, SUPPORTS, ETC. ASSOCIATED WITH REMOVED EQUIPMENT AND / OR MATERIALS. CUT FLUSH WITH, OR BELOW WHERE DETAILED. MAKE GOOD SURFACES. 	
7. REMOVE ALL SUPPORTS, VALVES, ETC. ASSOCIATED WITH REMOVED PIPING. WHERE SECTIONS OF PARTIALLY DEMOLISHED PIPING IS TO REMAIN, PROVIDE PIPE CAP / BLIND FLANGE AT THE TERMINATION POINT OF THE DEMOLITION.	
 REFER TO DRAWINGS OF EACH DISCIPLINE FOR TYPICAL DETAILS FOR MAKING GOOD SURFACES, TERMINATING PIPING, FILLING OPENINGS AND SLEEVES, ETC. 	
9. REMOVE EXISTING PIPING ETC. MADE OBSOLETE BY NEW INSTALLATION.	
10. COORDINATE REMOVAL OF ALL POWER AND CONTROLS FOR MECHANICAL EQUIPMENT REMOVALS WITH DIVISION 16.	
	0 ISSUED FOR TENDER 23/04/25
	No. ISSUE / REVISION DD/MM/YY THESE DRAWINGS HAVE BEEN PRODUCED BY J.L. RICHARDS & ASSOCIATES
	LIMITED AND ARE SUBJECT TO COPYRIGHT AND USE RESTRICTIONS SET OUT IN THE APPLICABLE PROJECT CONTRACT. ANY USE, REUSE, OR MODIFICATION OF THESE DRAWINGS FOR PURPOSES OTHER THAN THE ORIGINAL PROJECT OR EXECUTION OF THE DESCRIBED WORK IS NOT PERMITTED OR ENDORSED WITHOUT THE PRIOR WRITTEN AUTHORIZATION OF JLR. JLR MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, OF THE SUITABILITY OR FITNESS OF THESE DRAWINGS FOR ANY OTHER PURPOSE, AND ANY PARTY WHICH CHOOSES TO USE, MODIFY, OR OTHERWISE RELY ON THESE DRAWINGS WITHOUT JLR'S AUTHORIZATION ACCEPTS THESE LIMITATIONS AND DOES SO
	AT THEIR SOLE RISK AND WITHOUT LIABILITY TO JLR. VERIFY SHEET SIZE AND SCALES. THE BAR TO THE RIGHT IS 25MM IF THIS IS A FULL SIZE DRAWING. SCALE: NTC
	NTS
	CLIENT:
/ 7	CONSULTANT: www.jlrichards.ca
	J.L.Richards Engineers-Architects-Planners
a Francis	CONSULTANT:
	PROFESSIONAL STAMP PROJECT NORTH
	PROFESSIONAL STAMP PROJECT NORTH
	C. E. WOLFERT 100187901 2025-04-22 2025-04-22
	PROJECT: 16953-134 - CASSELMAN MAIN SPS
	UPGRADE 16 Brisson St, Casselman, ON K0A 1M0
	DRAWING:
	DEMOLITION PLAN
	DESIGN: CW DRAWN: EH CHECKED: IM
	CHECKED: JW DM101 JLR #: 16953-134 DM101









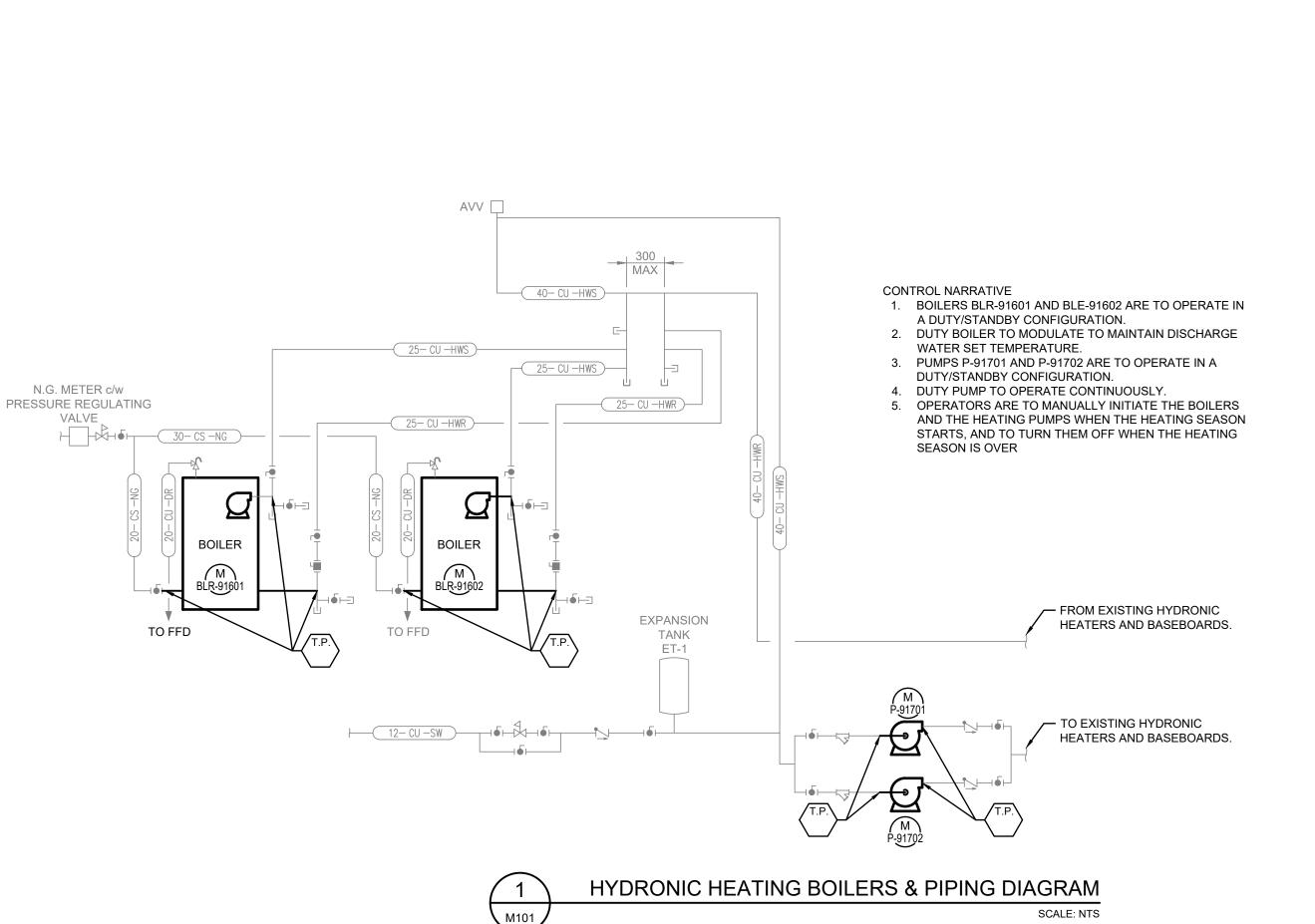




1. SUPPLY FAN SF-91821 TO ENERGIZE WHEN ELECTRICAL ROOM IS OCCUPIED, AND DE-ENERGIZED WHEN

2. WHEN SUPPLY FAN SF-91821 IS ENERGIZED, DAMPERS MD-91861 AND MD-91862 ARE TO BE OPEN. WHEN SUPPLY FAN SF-91821 IS DE-ENERGIZED, DAMPERS MD-91861 AND MD-91862 ARE TO BE CLOSED. 3. AIR CONDITIONING UNIT TO MODULATE AND TURN ON/OFF TO MAINTAIN ROOM TEMPERATURE SET POINT

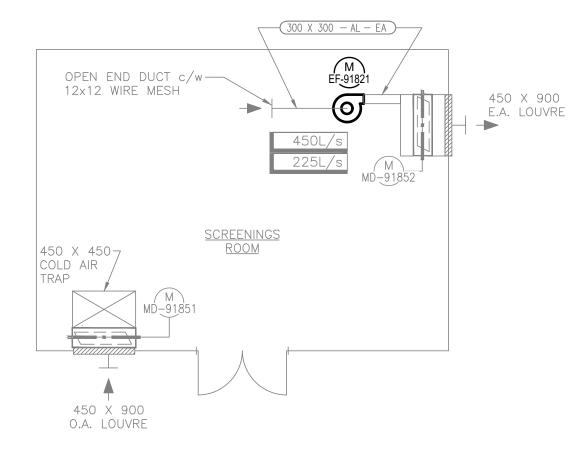
4. UNIT HEATER UH-91821 TO MODULATE TO ENERGIZE AND DE-ENERGIZE TO MAINTAIN ROOM TEMPERATURE

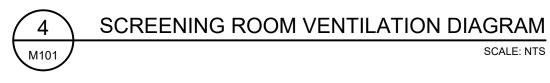


1. EXHAUST FAN EF-91822 TO OPERATE CONTINUOUSLY AT ALL TIMES TO PROVIDE VENTILATION AND REMOVE AIRBORNE CONTAMINANTS FROM THE PUMP ROOM. 2. WHEN THE OUTDOOR TEMPERATURE IS ABOVE 10C THEN THE FAN IS TO OPERATE AT HIGH SPEED AT ALL

3. WHEN THE OUTDOOR TEMPERATURE IS AT OR BELOW 10C THEN EF-91822 IS TO OPERATE AT HIGH SPEED WHEN THE SPACE IS OCCUPIED, AND LOW SPEED WHEN UNOCCUPIED.

4. WHEN EF-91853 IS ENERGIZED, MD-91853 IS TO BE OPEN. WHEN EF-91822 IS DE-ENERGIZED, MD-91853 IS





CONTROL NARRATIVE

- 1. EXHAUST FAN EF-91821 TO OPERATE CONTINUOUSLY AT ALL TIMES TO PROVIDE VENTILATION AND REMOVE AIRBORNE CONTAMINANTS FROM THE SCREENING ROOM.
- 2. WHEN THE OUTDOOR TEMPERATURE IS ABOVE 10C THEN THE FAN IS TO OPERATE AT HIGH SPEED AT ALL TIMES.
- 3. WHEN THE OUTDOOR TEMPERATURE IS AT OR BELOW 10C THEN EF-91821 IS TO OPERATE AT HIGH SPEED WHEN THE SPACE IS OCCUPIED, AND LOW SPEED WHEN UNOCCUPIED.
- 4. WHEN EF-91821 IS ENERGIZED, MD-91851 AND MD-91852 ARE TO BE OPEN. WHEN EF-91821 IS DE-ENERGIZED, MD-91853 AND MD-91852 ARE TO BE CLOSED.
- ISSUED FOR TENDER 23/04/25 **ISSUE / REVISION** DD/MM/YY THESE DRAWINGS HAVE BEEN PRODUCED BY J.L. RICHARDS & ASSOCIATE LIMITED AND ARE SUBJECT TO COPYRIGHT AND USE RESTRICTIONS SET OU IN THE APPLICABLE PROJECT CONTRACT. ANY USE, REUSE, OR MODIFICATION OF THESE DRAWINGS FOR PURPOSES OTHER THAN THE ORIGINAL PROJEC OR EXECUTION OF THE DESCRIBED WORK IS NOT PERMITTED OR ENDORSEI WITHOUT THE PRIOR WRITTEN AUTHORIZATION OF JLR. JLR MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, OF THE SUITABILITY OR FITNESS OF THESE DRAWINGS FOR ANY OTHER PURPOSE, AND ANY PARTY WHICH CHOOSES TO USE, MODIFY, OR OTHERWISE RELY ON THESE DRAWINGS WITHOUT JLR'S AUTHORIZATION ACCEPTS THESE LIMITATIONS AND DOES SC AT THEIR SOLE RISK AND WITHOUT LIABILITY TO JLR. VERIFY SHEET SIZE AND SCALES. THE BAR TO THE RIGHT IS 25MM IF THIS IS A FULL SIZE DRAWING. SCALE: NTS CLIENT: t + ONSULTAN www.jlrichards.c ...Richards IGINEERS · ARCHITECTS · PLANNERS CONSULTANT: PROFESSIONAL STAMP PROJECT NORTH Clipplet C.E. WOI FFRI 2025-04-22 ROJECT: 16953-134 - CASSELMAN MAIN SPS UPGRADE 16 BRISSON ST, CASSELMAN, ON K0A 1M0 MECHANICAL SCHEMATICS

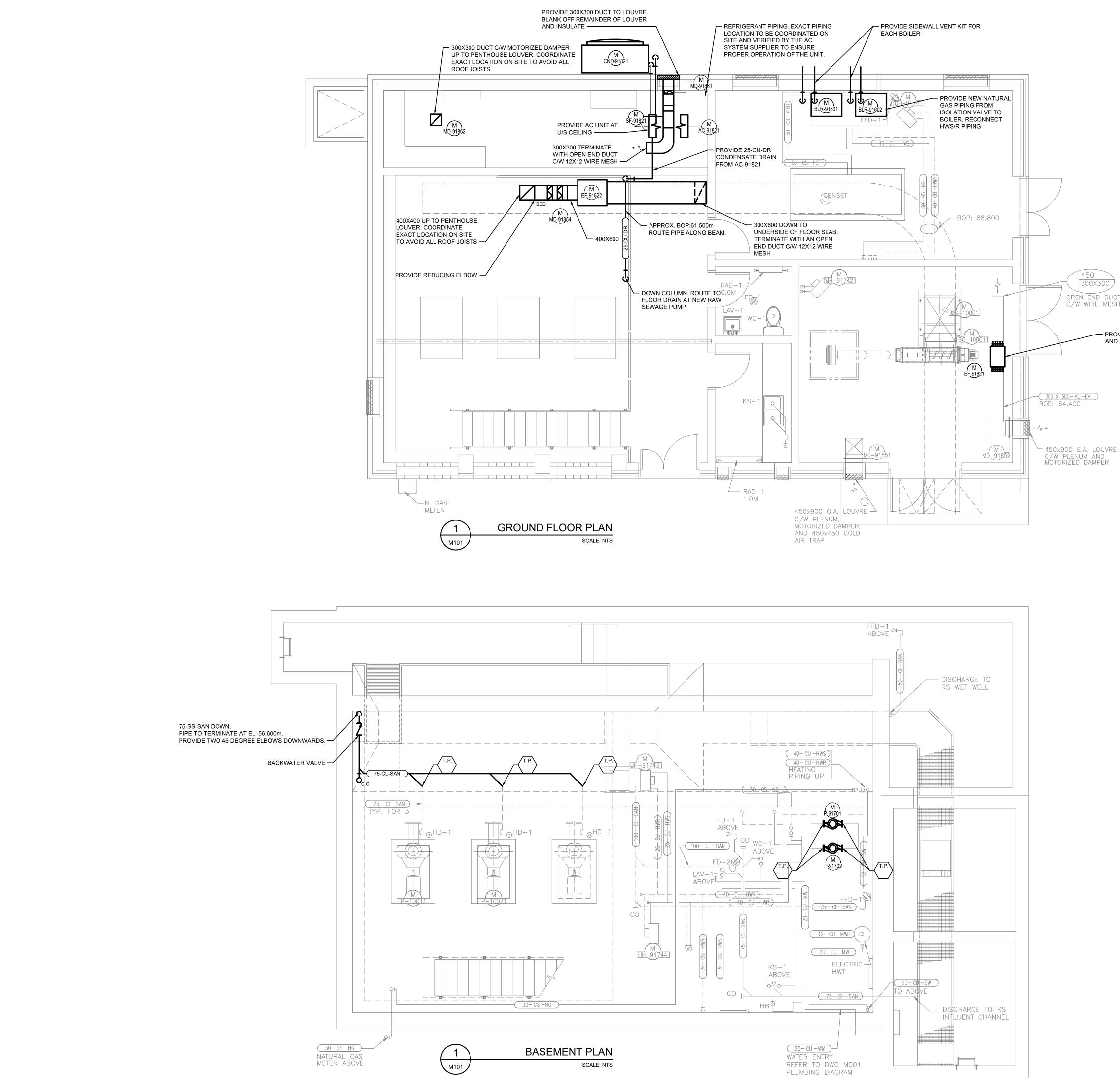
RAWING #:

M101

DESIGN: CVR/CW DRAWN: JV/EH

JLR #: 16953-134

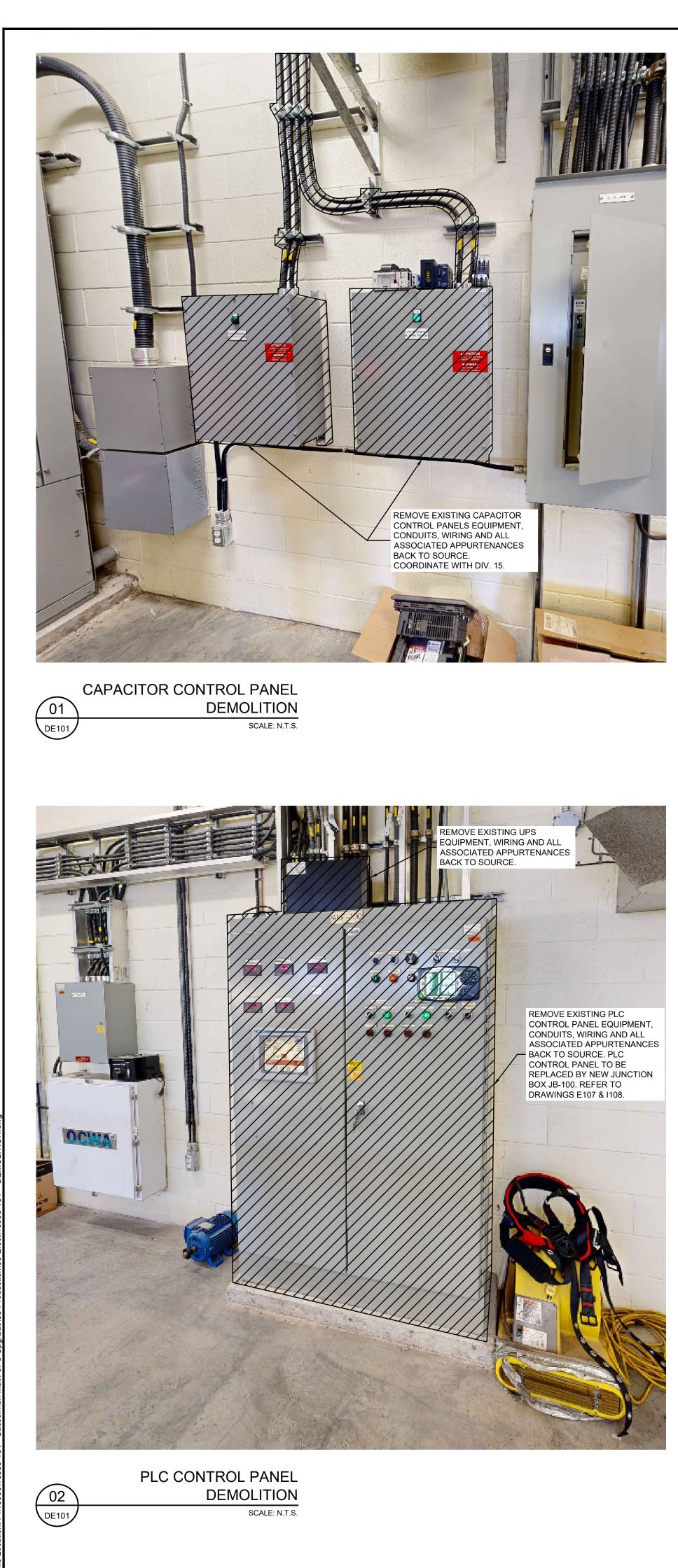
CHECKED: JW

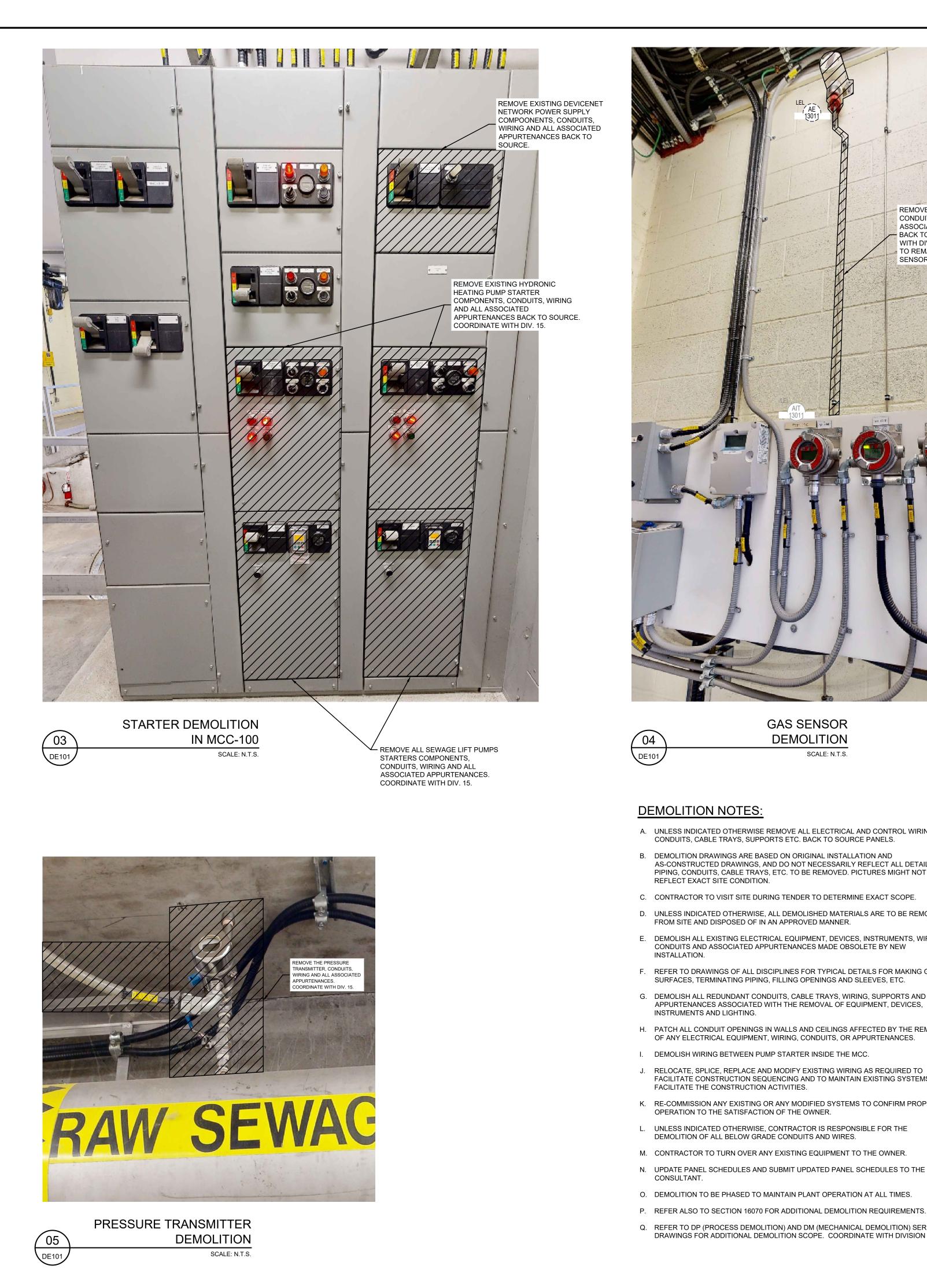


450 300X300 OPEN END DUCT C/W WIRE MESH

> - PROVIDE NEW EXHAUST FAN AND FELLABLE CONNECTORS.

0	ISSUED FOR T	ENDER	23/04/25
No.	ISSUE / REVIS	SION	DD/MM/YY
WITH WARF OF TI CHOO WITH AT TH	XECUTION OF THE DESCRIBED WO OUT THE PRIOR WRITTEN AUTI RANTIES, EITHER EXPRESS OR IMF HESE DRAWINGS FOR ANY OTHE DSES TO USE, MODIFY, OR OTH OUT JLR'S AUTHORIZATION ACCEI HEIR SOLE RISK AND WITHOUT LIAN FY SHEET SIZE AND SCALES. THE E RIGHT IS 25MM IF THIS IS A FULL SI	HORIZATION OF JLR. JL PLIED, OF THE SUITABILIT ER PURPOSE, AND ANY HERWISE RELY ON THES PTS THESE LIMITATIONS BILITY TO JLR.	R MAKES NO Y OR FITNESS PARTY WHICH SE DRAWINGS
SCAL	E:		
CLIEN	NT:		
			w.jirichards.ca
CONS	SULTANT:		
PROF	ESSIONAL STAMP	PROJECT NORTH	
	953-134 - CASS UPGF	RADE	
DRAV	16 Brisson St, Casse	əman, UN KUA 1M(J
	MECHANI	CAL PLAN	
DESI	CW	DRAWING #:	
	CKED: JW	M10)2
JLR #	[:] 16953-134		-







GAS SENSOR DEMOLITION SCALE: N.T.S.

A. UNLESS INDICATED OTHERWISE REMOVE ALL ELECTRICAL AND CONTROL WIRING, CONDUITS, CABLE TRAYS, SUPPORTS ETC. BACK TO SOURCE PANELS.

AS-CONSTRUCTED DRAWINGS, AND DO NOT NECESSARILY REFLECT ALL DETAILS, PIPING, CONDUITS, CABLE TRAYS, ETC. TO BE REMOVED. PICTURES MIGHT NOT

C. CONTRACTOR TO VISIT SITE DURING TENDER TO DETERMINE EXACT SCOPE. D. UNLESS INDICATED OTHERWISE, ALL DEMOLISHED MATERIALS ARE TO BE REMOVED

E. DEMOLISH ALL EXISTING ELECTRICAL EQUIPMENT, DEVICES, INSTRUMENTS, WIRING, CONDUITS AND ASSOCIATED APPURTENANCES MADE OBSOLETE BY NEW

F. REFER TO DRAWINGS OF ALL DISCIPLINES FOR TYPICAL DETAILS FOR MAKING GOOD

G. DEMOLISH ALL REDUNDANT CONDUITS, CABLE TRAYS, WIRING, SUPPORTS AND APPURTENANCES ASSOCIATED WITH THE REMOVAL OF EQUIPMENT, DEVICES,

H. PATCH ALL CONDUIT OPENINGS IN WALLS AND CEILINGS AFFECTED BY THE REMOVAL OF ANY ELECTRICAL EQUIPMENT, WIRING, CONDUITS, OR APPURTENANCES.

J. RELOCATE, SPLICE, REPLACE AND MODIFY EXISTING WIRING AS REQUIRED TO FACILITATE CONSTRUCTION SEQUENCING AND TO MAINTAIN EXISTING SYSTEMS TO

K. RE-COMMISSION ANY EXISTING OR ANY MODIFIED SYSTEMS TO CONFIRM PROPER OPERATION TO THE SATISFACTION OF THE OWNER.

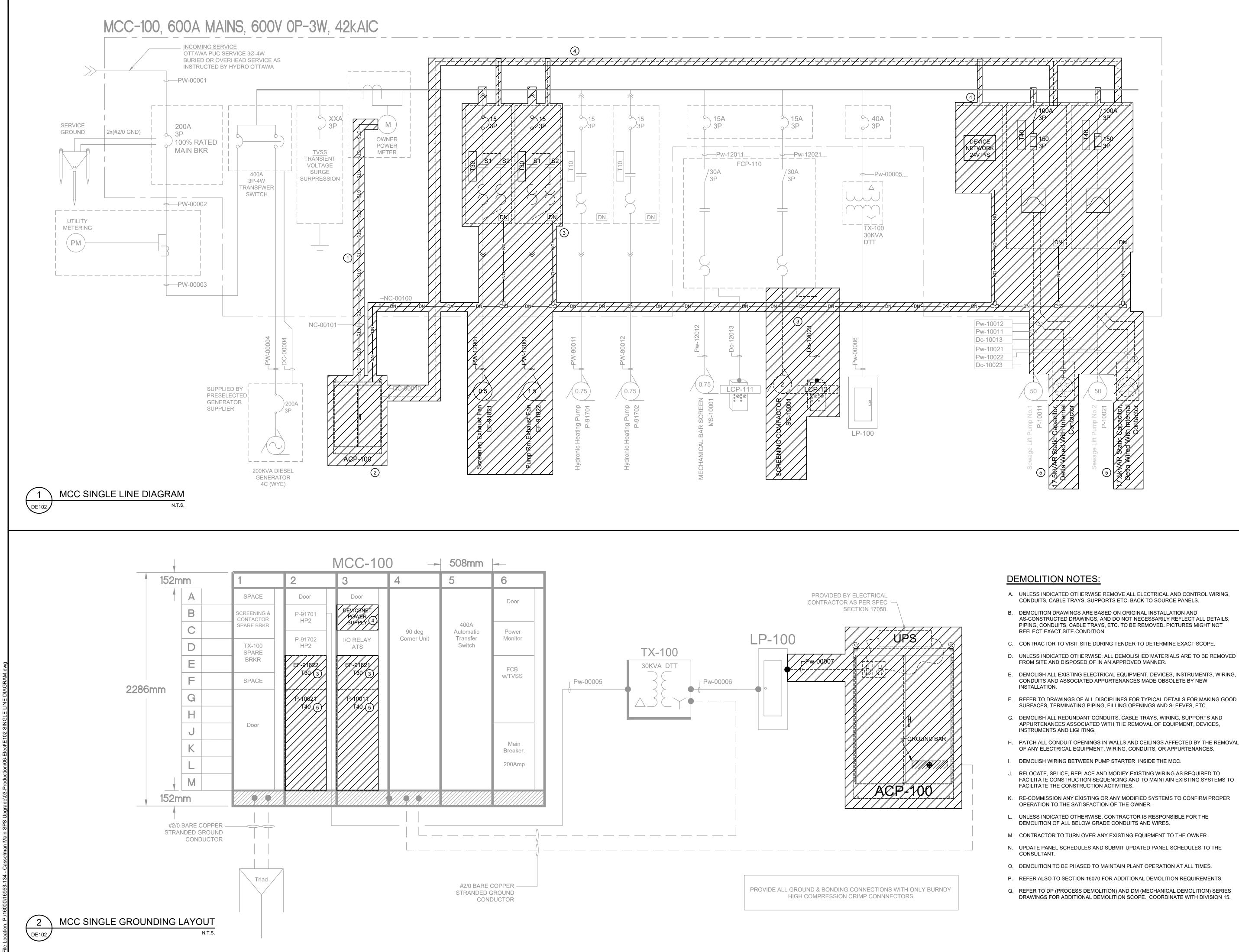
L. UNLESS INDICATED OTHERWISE, CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION OF ALL BELOW GRADE CONDUITS AND WIRES.

N. UPDATE PANEL SCHEDULES AND SUBMIT UPDATED PANEL SCHEDULES TO THE

O. DEMOLITION TO BE PHASED TO MAINTAIN PLANT OPERATION AT ALL TIMES.

Q. REFER TO DP (PROCESS DEMOLITION) AND DM (MECHANICAL DEMOLITION) SERIES DRAWINGS FOR ADDITIONAL DEMOLITION SCOPE. COORDINATE WITH DIVISION 15.

0 No.	ISSUED FOR TI		23/04/25 DD/MM/YY
THES	E DRAWINGS HAVE BEEN PRODU	ICED BY J.L. RICHARDS	& ASSOCIATES
OF TH CHOC WITH AT TH	RANTIES, EITHER EXPRESS OR IMI HESE DRAWINGS FOR ANY OTHE DSES TO USE, MODIFY, OR OTH OUT JLR'S AUTHORIZATION ACCE HEIR SOLE RISK AND WITHOUT LIAN FY SHEET SIZE AND SCALES. THE F RIGHT IS 25MM IF THIS IS A FULL SI E: N.T.S.	ER PURPOSE, AND ANY HERWISE RELY ON THE PTS THESE LIMITATIONS BILITY TO JLR.	PARTY WHICH SE DRAWINGS
	N.1.3.		
CLIEN	NT:		
CONS	SULTANT:	ww	w.jlrichards.ca
	JR J.L.I	Richards	
0.01/2	ENGINEE	RS-ARCHITECTS-PL	ANNERS
CONS	SULTANT:		
PROF	ESSIONAL STAMP	PROJECT NORTH	
	C. BULA-BULA 100540590		
ICE	C. BULA-BULA		
100540590 5 muluillo			
	OLINCE OF ONTAN		
PROJ			
16	953-134 - CASS UPGF	ELMAN MAI RADE	N SPS
	16 Brisson St, Casso	elman, ON K0A 1M0	D
DRAV	VING:		
-	ELECT	RICAL	
	ELECT	RICAL	
		RICAL	
DESIC	DEMO		
DESIC DRAV CHEC	DEMO ^{GN:} CB ^{VN:} RH		01



- A. UNLESS INDICATED OTHERWISE REMOVE ALL ELECTRICAL AND CONTROL WIRING, CONDUITS, CABLE TRAYS, SUPPORTS ETC. BACK TO SOURCE PANELS.
- B. DEMOLITION DRAWINGS ARE BASED ON ORIGINAL INSTALLATION AND AS-CONSTRUCTED DRAWINGS, AND DO NOT NECESSARILY REFLECT ALL DETAILS. PIPING, CONDUITS, CABLE TRAYS, ETC. TO BE REMOVED. PICTURES MIGHT NOT
- C. CONTRACTOR TO VISIT SITE DURING TENDER TO DETERMINE EXACT SCOPE.
- D. UNLESS INDICATED OTHERWISE, ALL DEMOLISHED MATERIALS ARE TO BE REMOVED FROM SITE AND DISPOSED OF IN AN APPROVED MANNER.
- CONDUITS AND ASSOCIATED APPURTENANCES MADE OBSOLETE BY NEW
- F. REFER TO DRAWINGS OF ALL DISCIPLINES FOR TYPICAL DETAILS FOR MAKING GOOD SURFACES, TERMINATING PIPING, FILLING OPENINGS AND SLEEVES, ETC.
- G. DEMOLISH ALL REDUNDANT CONDUITS, CABLE TRAYS, WIRING, SUPPORTS AND APPURTENANCES ASSOCIATED WITH THE REMOVAL OF EQUIPMENT, DEVICES,
- H. PATCH ALL CONDUIT OPENINGS IN WALLS AND CEILINGS AFFECTED BY THE REMOVAL OF ANY ELECTRICAL EQUIPMENT, WIRING, CONDUITS, OR APPURTENANCES.
- I. DEMOLISH WIRING BETWEEN PUMP STARTER INSIDE THE MCC.
- J. RELOCATE, SPLICE, REPLACE AND MODIFY EXISTING WIRING AS REQUIRED TO FACILITATE CONSTRUCTION SEQUENCING AND TO MAINTAIN EXISTING SYSTEMS TO
- K. RE-COMMISSION ANY EXISTING OR ANY MODIFIED SYSTEMS TO CONFIRM PROPER OPERATION TO THE SATISFACTION OF THE OWNER.
- L. UNLESS INDICATED OTHERWISE, CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION OF ALL BELOW GRADE CONDUITS AND WIRES.
- M. CONTRACTOR TO TURN OVER ANY EXISTING EQUIPMENT TO THE OWNER.
- N. UPDATE PANEL SCHEDULES AND SUBMIT UPDATED PANEL SCHEDULES TO THE
- O. DEMOLITION TO BE PHASED TO MAINTAIN PLANT OPERATION AT ALL TIMES.
- P. REFER ALSO TO SECTION 16070 FOR ADDITIONAL DEMOLITION REQUIREMENTS.
- Q. REFER TO DP (PROCESS DEMOLITION) AND DM (MECHANICAL DEMOLITION) SERIES DRAWINGS FOR ADDITIONAL DEMOLITION SCOPE. COORDINATE WITH DIVISION 15.

GENERAL NOTES:

A. REFER TO DRAWING DE101 FOR DEMOLITION.

DRAWING NOTES:

- 1 REMOVE EXISTING CAT5 ETHERNET CABLE BACK TO SOURCE. PROVIDE NEW CAT6 ETHERNET CABLE FOR EXISTING POWER MONITOR. REFER TO DRAWING N101
- (2) REMOVE EXISTING PLC CONTROL PANEL, WIRING AND ALL ASSOCIATED APPURTENANCES BACK TO SOURCE. PROVIDE NEW PLC CONTROL PANEL PER DRAWING I105.
- (3) REMOVE EXHAUST FAN STARTERS COMPONENTS INSIDE THE MCC AND ALL APPURTENANCES BACK TO SOURCE. NEW EXHAUST FAN STARTERS TO BE C/W VFD. REFER TO DRAWING E102.
- (4) REMOVE EXISTING DEVICENET NETWORK CABLES AND ALL APPURTENANCE BACK TO SOURCE. REMOVE EXISTING DEVICENET 24VDC POWER SUPPLY AND ALL APPURTENANCES BACK TO SOURCE.
- (5) REMOVE EXISTING PUMP STARTER COMPONENTS INSIDE THE MCC, WIRING AND ALL APPURTENANCES BACK TO SOURCE. REMOVE EXISTING STATIC CAPACITOR PANELS, WIRING AND ALL APPURTENANCES BACK TO SOURCE.

0	ISSUED FOR TENDER	23/04/25
No.	ISSUE / REVISION	DD/MM/YY
THESE DRAWINGS HAVE BEEN PRODUCED BY J.L. RICHARDS & ASSOCIATES LIMITED AND ARE SUBJECT TO COPYRIGHT AND USE RESTRICTIONS SET OUT IN THE APPLICABLE PROJECT CONTRACT. ANY USE, REUSE, OR MODIFICATION OF THESE DRAWINGS FOR PURPOSES OTHER THAN THE ORIGINAL PROJECT OR EXECUTION OF THE DESCRIBED WORK IS NOT PERMITTED OR ENDORSED WITHOUT THE PRIOR WRITTEN AUTHORIZATION OF JLR. JLR MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, OF THE SUITABILITY OR FITNESS OF THESE DRAWINGS FOR ANY OTHER PURPOSE, AND ANY PARTY WHICH CHOOSES TO USE, MODIFY, OR OTHERWISE RELY ON THESE DRAWINGS WITHOUT JLR'S AUTHORIZATION ACCEPTS THESE LIMITATIONS AND DOES SO AT THEIR SOLE RISK AND WITHOUT LIABILITY TO JLR.		

VERIFY SHEET SIZE AND SCALES. THE BAR TO THE RIGHT IS 25MM IF THIS IS A FULL SIZE DRAWING.

SCALE: N.T.S.

ONSULTAN

ROJECT

DESIGN: CB

RAWN: RH

CHECKED: LO

JLR #: 16953-134

CLIENT





ROFESSIONAL STAMP PROJECT NORTH JFESSIC 2025-04-23 C. BULA-BULA 100540590

16953-134 - CASSELMAN MAIN SPS UPGRADE

16 Brisson St, Casselman, ON K0A 1M0

ELECTRICAL ----

SINGLE LINE DIAGRAM - DEMO

RAWING #:

DE102

GENERAL NOTES:

GENERAL NOTES APPLY TO ALL ELECTRICAL DRAWINGS

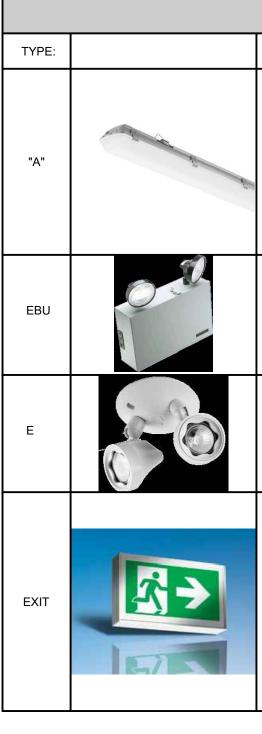
- A. ALL EXXX AND IXXX TO BE READ IN CONJUNCTION WITH THIS DRAWING. SYMBOLS AND NOTES SHOWN ON THIS DRAWING APPLY TO THOSE DRAWINGS.
- B. NOT ALL SYMBOLS USED IN THE EXX AND IXX DRAWINGS MAY BE SHOWN ON THIS LEGEND. IN SUCH CASES INDUSTRY STANDARD SYMBOLOGY WILL BE EMPLOYED AND A DESCRIPTION PROVIDED.
- C. ALL CABLES MAY NOT BE SHOWN. REFER TO SINGLE LINE AND BLOCK DIAGRAM.
- D. WHERE CABLE TRAYS ARE NOT PROVIDED FOR TECK CABLES PROVIDE UNISTRUT OR OTHER ACCEPTABLE BRACKETS TO SUPPORT CABLES FOR A NEAT AND TIDY WORKMANSHIP-LIKE INSTALLATION.

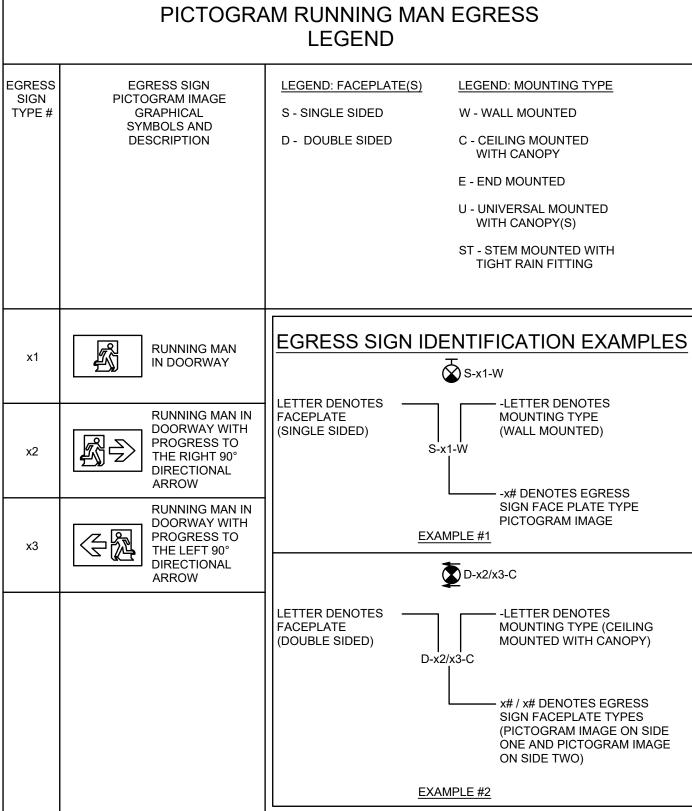
PROCESS PLANS

- A. REFER TO THE SINGLE LINE DIAGRAM, AND PANEL SCHEDULES, AND BLOCK DIAGRAM FOR WIRING REQUIREMENTS.
- B. ALL BRACKETS TO BE STAINLESS STEEL WITH STAINLESS STEEL HARDWARE, UNLESS OTHERWISE INDICATED.
- C. COORDINATE ALL CORING WITH STRUCTURAL. X-RAY CONCRETE PRIOR TO CORING. ENSURE NO STRUCTURAL STEEL IS DAMAGED.
- D. ALL CABLES RELATED TO THE PERTINENT DRAWING MAY NOT BE SHOWN.
- E. CONDUCTOR SIZES INDICATED IN THE CONTRACT DOCUMENTS ARE PROVIDED AS MINIMUM SIZES FOR TENDER PURPOSES ONLY. THE CONTRACTOR IS TO REVIEW AND PLAN FINAL CABLE ROUTING,
- F. PROVIDE MECHANICAL PROTECTION FOR ALL CABLES TO MEET THE LATEST REVISION OF THE ONTARIO ELECTRICAL SAFETY CODE.
- G. SURFACE MOUNTED CONDUITS TO BE PAINTED TO MATCH WALL/CEILING COLOUR.
- H. JUNCTION BOX, CONDUIT, TRAPEZE HANGER AND SUPPORT CHANNEL SYSTEMS ARE NOT PERMITTED TO BE INSTALLED AND / OR SECURED DIRECTLY TO UNDERSIDE OF STEEL ROOF DECK SYSTEM. ALL SUPPORT CHANNEL AND / OR TRAPEZE HANGERS TO BE SECURED TO THE STRUCTURAL CHANNEL JOISTS.
- I. ALL EQUIPMENT LOCAL DISCONNECTS MAY NOT BE SHOWN ON PLAN DRAWING. REFER TO SINGLE LINE DIAGRAMS, PIDs, MIDs, MOTOR STARTER AND CONTROL LIST WHERE SUCH DEVICE IS REQUIRED.
- J. WHERE INTRINSICALLY SAFE CIRCUITS ARE SPECIFIED TO BE PROVIDED, THE CONTRACTOR SHALL COORDINATE ALL PRODUCTS IN THE CIRCUIT WITH AN ENGINEER LICENSED IN THE PROVINCE OF ONTARIO AND PROVIDE ALL REQUIRED DOCUMENTATION NECESSARY TO DEMONSTRATE A SAFE SYSTEM INSTALLATION, COMPLETE WITH OPERATION AND MAINTENANCE DATA, TO THE SATISFACTION OF THE ELECTRICAL SAFTEY AUTHORITY AS WELL AS THE CONSULTANT. REFER TO RULE 18-064 AND APPENDIX F OF THE ELECTRICAL SAFETY CODE.

HOUSE SERVICES PLANS

- A. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING CHAINS AND OTHER APPURTENANCES TO SECURE LIGHTING FIXTURES TO AVOID INTERFERENCES WITH MECHANICAL, ARCHITECTURAL AND STRUCTURAL ELEMENTS AND TO PREVENT SUCH ITEMS FROM DIMINISHING THE LIGHTING LEVELS, WHETHER IT IS CALLED FOR EXPLICITLY OR NOT IN THE DRAWINGS. ALL CHAINS FOR LIGHTING INSIDE PROCESS AND WET/DAMP AREAS SHALL BE STAINLESS STEEL c/w STAINLESS STEEL MOUNTING HARDWARE
- NO CABLING OR CONDUITS TO BE RUN HORIZONTALLY ON ANY EXTERIOR WALL. PENETRATE EXTERIOR В. WALL AT LOCATION WHERE DEVICE IS TO BE MOUNTED. THERE SHOULD BE NO VISIBLE HORIZONTAL CABLING OR CONDUITS ON BUILDING EXTERIOR.
- REFER TO PANEL SCHEDULES FOR BUILDING SERVICES LOADS.
- JUNCTION BOX, CONDUIT, TRAPEZE HANGER AND SUPPORT CHANNEL SYSTEMS ARE NOT PERMITTED TO BE D. INSTALLED AND / OR SECURED DIRECTLY TO UNDERSIDE OF STEEL ROOF DECK SYSTEM. ALL SUPPORT CHANNEL AND / OR TRAPEZE HANGERS TO STRUCTURAL OPEN WEB STEEL JOIST.
- PROVIDE MECHANICAL PROTECTION FOR ALL CABLES TO MEET THE LATEST REVISION OF THE ONTARIO ELECTRICAL SAFETY CODE.
- ALL DISCONNECTS FOR MECHANICAL LOADS MAY NOT BE SHOW ON DRAWING. PROVIDE LOCAL DISCONNECTS PER THE LATEST REVISION OF THE ONTARIO ELECTRICAL SAFETY CODE, SINGLE LINE DIAGRAMS, PIDs, MIDs, MOTOR STARTER AND CONTROL LIST WHERE SUCH DEVICE IS REQUIRED.
- PROVIDE BRACKETS, AS REQUIRED, FOR DISCONNECTS AND ALL OTHER EQUIPMENT.
- COORDINATE LIGHTING MOUNTING HEIGHTS WITH MECHANICAL EQUIPMENT. LIGHTING NOT TO BE OBSTRUCTED OR Н. INTERFERE WITH ANY MECHANICAL OR ELECTRICAL EQUIPMENT.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING CHAINS AND OTHER APPURTENANCES TO SECURE LIGHTING FIXTURES TO AVOID INTERFERENCES WITH MECHANICAL, ARCHITECTURAL AND STRUCTURAL ELEMENTS AND TO PREVENT SUCH ITEMS FROM DIMINISHING THE LIGHTING LEVELS, WHETHER IT IS CALLED FOR EXPLICITLY OR NOT IN THE DRAWINGS. REFER TO SECTION 16500. AS NOTED IN SECTION 16500. ALL CHAINS FOR LIGHTING INSIDE PROCESS AND WET/DAMP AREAS SHALL BE STAINLESS STEEL C/W STAINLESS STEEL MOUNTING HARDWARE.
- WALL MOUNTED EMERGENCY LIGHTS TO BE MOUNTED AT 2400mm A.F.F. COORDINATE WITH SITE CONDITIONS. THE ONTARIO ELECTRICAL SAFETY CODE REQUIRES RECEPTACLES TO WHICH UNIT EQUIPMENT IS TO BE CONNECTED SHALL NOT BE MORE THAN 1500mm FROM THE LOCATION OF THE UNIT EQUIPMENT. NOTE THAT SUCH RECEPTACLES MAY NOT BE SHOWN ON THE DRAWINGS. PROVIDE ALL SUCH RECEPTACLES.
- ALL DISCONNECTS FOR MECHANICAL LOADS MAY NOT BE SHOWN ON DRAWINGS. PROVIDE LOCAL DISCONNECTS TO MEET OR EXCEED THE REQUIREMENTS OF THE ONTARIO ELECTRICAL SAFETY CODE AND ITS BULLETINS. REFER TO SINGLE LINE DIAGRAMS, PIDs, MIDs, MOTOR STARTER AND CONTROL LIST AS WELL AS SPECIFICATION SECTION 16440 WHERE SUCH DEVICES ARE REQUIRED (FOR ANY REASON).
- PROVIDE STAINLESS STEEL BRACKETS AND FASTENERS, AS REQUIRED, FOR DISCONNECTS AND ALL OTHER EQUIPMENT.
- M. REFER TO ARCHITECTURAL DRAWINGS FOR EXTERIOR LIGHTING AND DEVICE MOUNTING HEIGHTS.
- N. UNLESS OTHERWISE INDICATED, SIZE ALL CONDUITS TO MEET OR EXCEED THE REQUIREMENTS OF THE ONTARIO ELECTRICAL SAFETY CODE AND ITS BULLETINS.
- PROVIDE A GROUND WIRE IN EACH CONDUIT CONTAINING POWER OR CONTROL CONDUCTORS. SIZE GROUND WIRES TO MEET OR EXCEED THE REQUIREMENTS OF THE ONTARIO ELECTRICAL SAFETY CODE AND ITS BULLETINS.





OR APPROVED EQUAL

LUMINAIRE SCHEDULE		
SPECIFIED PRODUCT:	LAMP TYPE:	
7" x 4' POLYCARBONATE HOUSING AND LENS WITH SEAMLESS GASKET, HIGH PERFORMANCE METAL REFLECTOR.STAINLESS STEEL MOUNTING HARDWARE WITH TEN BUCKLE TYPE LATCHES, UV STABILIZED HIGH CLARITY LINEAR LENS, SEALED STRAIN RELIEF, CABLE GLAND KIT INCLUDED, INTEGRATED END ALIGNERS FOR ROW ALIGNMENT, SURFACE, CHAIN HUNG, IP65 RATED LED C/W LED DRIVER. LUMINAIRE TO BE CHAIN HUNG AT 3000mm A.F.F UNLESS OTHERWISE INDICATED. LITHONIA: CSVT L48 5000LM MVOLT 80CRI	LED 4100K, 5000-6000 LUMENS OUTPUT, 85CRI, 57 W	
EATON METALUX: 4VT2-LD4-6-DR-W-UNV-L840-CD1-WL-U HUBBELL LIGHTING: LXEM-4-40-ML-RFP-U-SSL		
120V EMERGENCY LIGHTING 12 VOLT BATTERY PACK c/w INTEGRAL AND REMOTE HEADS. SEALED LONG LIFE (10 YEARS) BATTERY SIZED TO MAINTAIN LOAD FOR 1/2 HOUR MINIMUM. READY-LITE: LDX12-360/2LD9-XX STANPRO: SLC-12360-2SM-3LJ-WHT-XX AIMLITE: EBST-12360-2SM-3LJ-WHT-XX STANPRO: SCL-12360-2SM-3LJ-WHT	LED EQUIVALENT TO 18 WATT HALOGEN	
SURFACE MOUNTED REMOTE HEADS, SINGLE OR DOUBLE AS INDICATED. READY-LITE: RMX-LD9-XX STANPRO: NX-6-12-6-LA-WH-XX	LED EQUIVALENT TO 18 WATT HALOGEN	
AIMLITE: RMSMZ-6-12-3W-LJ-WHT-XX		
PICTOGRAM EXIT SIGN. THE SIGN SHALL BE SUITABLE FOR WALL, END, OR CEILING MOUNT. THE FRAME AND BACKPLATE SHALL EACH BE OF ONE-PIECE STEEL CONSTRUCTION. THE FACEPLATE(S) SHALL BE CONSTRUCTED OF ROBUST CLEAR POLYCARBONATE PANELS WITH AN OPAQUE BORDER COLOURED FACTORY-WHITE. THE LIGHT SOURCE SHALL BE WHITE LIGHT EMITTING DIODES (LED) AND SHALL PROVIDE EVEN ILLUMINATION IN NORMAL AND EMERGENCY OPERATION. MOUNTING, ARROWS AND FACES AS REQUIRED. SIGN TO OPERATE FOR MINIMUM OF 90 MINUTES DURING AC FAILURE.	2.5 WATT LED PER FACE	
EMERGI-LITE: ESXWI STANPRO: RMP-0-WH-UDC-XX AIMLITE: RPST-U-M-WHT-BAT		

	ABBREVIATIONS		
A.F.F.	ABOVE FINISHED FLOOR		
ATS	AUTOMATIC TRANSFER SWITCH		
B.O.C.T.	BOTTOM OF CABLE TRAY ABOVE A.F.F		
B.O.F.	BOTTOM OF FLOAT		
DTT	DRY TYPE TRANSFORMER		
E	EMERGENCY POWER		
GFCI	GROUND FAULT CIRCUIT INTERRUPTER		
GND	GROUND CONDUCTOR		
IG	ISOLATED GROUND		
MCC	MOTOR CONTROL CENTRE		
MCS	MOULDED CASE SWITCH		
MIO	MODULAR PLC I/O		
Ν	NORMAL POWER		
NIC	NOT IN CONTRACT		
NTS	NOT TO SCALE		
O/C	OVER COUNTER		
PLC	PROGRAMMABLE LOGIC CONTROLLER		
PNL	PANEL		
TL	TWIST LOCK		
UPS	UNINTERRUPTIBLE POWER SUPPLY		
WP	WEATHER PROOF		

HOUSE SYSTEMS WIRING / CABLE GUIDES SCHEDULE

COPPER CONDUCTORS IN A RACEWAY		
MAXIMUM CIRCUIT AMPERAGE	SINGLE PHASE CIRCUIT	THREE PHASE CIRCUIT
15 AMP	2c-#12 AWG RW90 + GND IN 21mm C	3c-#12 AWG RW90 + GND IN 21mm C
20 AMP.	2c-#12 AWG RW90 + GND IN 21mm C	3c-#12 AWG RW90 + GND IN 21mm C
30 AMP.	2c-#10 AWG RW90 + GND IN 21mm C	3c-#10 AWG RW90 + GND IN 21mm C

PROCESS AND HOUSE SERVICES CONDUIT REQUIREMENTS

ROOM NUMBER	ROOM DESCRIPTION	CONDUIT TYPE
ALL SERIES	UNDERGROUND	RIGID PVC CONDUIT (RPVC)
ALL SERIES	EXTERIOR ABOVE GRADE	RIGID ALUMINIUM CONDUIT (RAC)
ALL SERIES	PUMP ROOM	RGS
ALL SERIES	ELECTRICAL ROOM	SURFACE MOUNT, EMT + LIQUID TIGHT FITTINGS
ALL SERIES	RATED AREA	OESC COMPLIANT RAC CONDUIT, BOXES AND FITTINGS

CABLE LEGEND:

Cat 6	CATEGORY 6
— — / — / — / — /	DISCRETE
	POWER
	ANALOG
	EXISTING

CIRCUIT NUMBERING FORMAT:

SWITCHED CIRCUIT (IF APPLICABLE) ------ PANEL NAME

	RECEPTACLE SYMBOLS	
ŧ	20A, 125V, NEMA 5-20R T-SLOT DUPLEX RECEPTACLE	
⊖ _{GFCI}	20A, 125V, NEMA 5-20R T-SLOT GFCI DUPLEX RECEPTACLE	
⊖- _{GFCI/WP}	20A, 125V, NEMA 5-20R T-SLOT GFCI WP "IN USE" DUPLEX RECEPTACLE	
۲	MISCELLANEOUS, TYPE AS INDICATED	

POWER SYMBOLS		
JBX	JUNCTION BOX (X INDICATES POWER, INTRINSICALLY SAFE, ANALOG OR DISCRETE)	
Ľ	FUSED DISCONNECT SWITCH	
	UNFUSED DISCONNECT SWITCH	
	EXPLOSION PROOF UNFUSED DISCONNECT SWITCH	
	MOTOR RATED TOGGLE SWITCH	
$\left \begin{array}{c} \\ \\ \\ \\ \end{array}\right $	SINGLE PHASE MOTOR (INDICATED HP)	
\bigcirc	THREE PHASE MOTOR (INDICATED HP)	
<i>с</i> -	HARD WIRED	
	PANELBOARD	
	SURGE PROTECTIVE DEVICE	
	CIRCUIT BREAKER	
\bigcirc	GENERATOR	
	POWER MONITOR WITH CT/PT	
<pre></pre>	EYS FITTING	

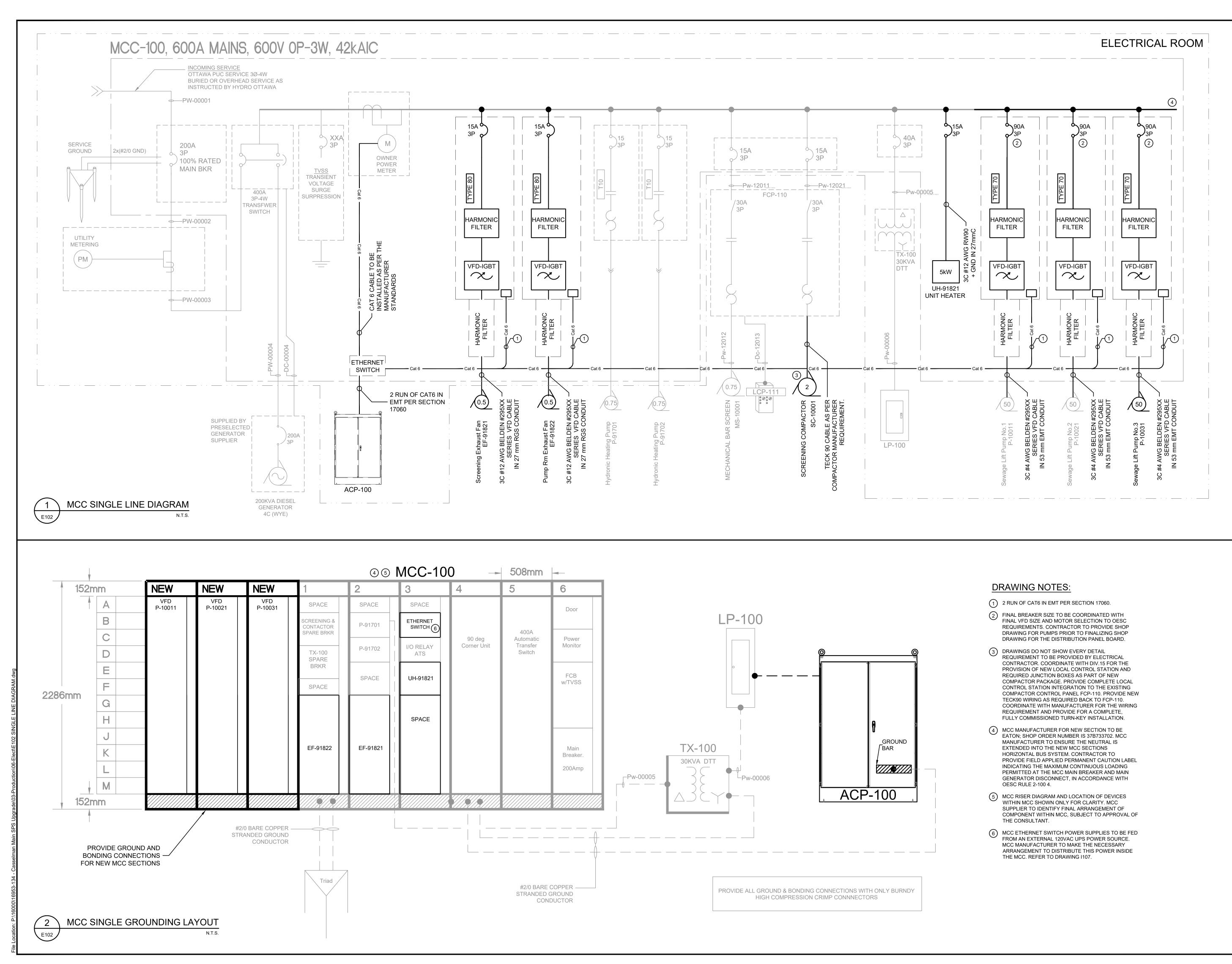
LIGHTING SYMBOLS		
\$	SWITCH (CIRCUIT AS INDICATED)	
$\3	3-WAY SWITCH (CIRCUIT AS INDICATED)	
\$ ^M	MOTOR RATED SWITCH (CIRCUIT AS INDICATED)	
	LED LIGHT FIXTURE, TYPE AS INDICATED	
E E	DUAL HEAD EMERGENCY LIGHTING BATTERY UNIT	
EE	DOUBLE REMOTE EMERGENCY LIGHT HEAD	
	WALL MOUNTED EXIT SIGN	

	MISCELLANEOUS
T	THERMOSTAT
VFD	VARIABLE FREQUENCY DRIVE
	ELECTRIC UNIT HEATER

	INSTRUMENTATION SYMBOLS
ABC 123456	SIGNALLING DEVICE
M ABC-12345	MOTORIZED EQUIPMENT
S VFC-12345	SOLENOID VALVE
(ABC) 123456	INSTRUMENT/DEVICE

	COMMUNICATION SYMBOLS
V	COMBINATION TELEPHONE/ETHERNET OUTLET

0 No.	ISSUED FOR TH		23/04/25 DD/MM/YY
WITHO WARR OF TH CHOO WITHO AT TH	ECUTION OF THE DESCRIBED WO DUT THE PRIOR WRITTEN AUTH ANTIES, EITHER EXPRESS OR IMI IESE DRAWINGS FOR ANY OTHE SES TO USE, MODIFY, OR OTH DUT JLR'S AUTHORIZATION ACCEI EIR SOLE RISK AND WITHOUT LIA Y SHEET SIZE AND SCALES. THE EI IGHT IS 25MM IF THIS IS A FULL SI	HORIZATION OF JLR. JL PLIED, OF THE SUITABILIT ER PURPOSE, AND ANY HERWISE RELY ON THE PTS THESE LIMITATIONS BILITY TO JLR.	R MAKES NO Y OR FITNESS PARTY WHICH SE DRAWINGS
SCALE			23000
CLIEN	T:		
CONS	ULTANT:		w.jlrichards.ca
	JR J.L.I	Richards	
CONS		RS-ARCHITECTS-PL	ANNERS
PROF	ESSIONAL STAMP	PROJECT NORTH	
	C. BULA-BULA 100540590		
LICENC	C. BULA-BULA		
	s muleul o		
	OLINCE OF ONTAIN		
PROJE	953-134 - CASS	ELMAN MAI RADE	N SPS
	16 Brisson St, Casse)
DRAW	/ING:	RICAL	
	ELEUI		
l			
	ELECTRICAI SCHEI	L LEGEND & DULES	X
DESIG	SCHEI		X
DESIG DRAW CHEC	SCHEI ^{IN:} св ^{IN:} RH		



GE	ENERAL NOTES	<u> 3:</u>	
A.	CONTRACTOR TO PLAN TURN-KEY, FULLY FUNC INSTALLATIONS AS INDI DOCUMENTS.	TIONAL BUILDING	R A
В.	REFER TO DRAWING N1	01.	
C.	REFER TO SECTION 168 REACTOR, LOAD REACT REQUIREMENTS.	-	
D.		10VED TO ITS FINAL	
-			
0	ISSUED FOR TE	ENDER	23/04/25
No.	ISSUE / REVIS		DD/MM/YY
	DRAWINGS HAVE BEEN PRODU		
VERIFY	IR SOLE RISK AND WITHOUT LIAE SHEET SIZE AND SCALES. THE E GHT IS 25MM IF THIS IS A FULL SI AS SHOWN	BAR TO	25mm
CLIENT			
ULILITI			
	Casse		
CONSL	JLTANT:	wv	vw.jlrichards.ca
_	JR J.L.I	Richards	
		RS-ARCHITECTS-PL	ANNERS
CONSL	JLTANT:		
PROFE	SSIONAL STAMP	PROJECT NORTH	
	BROFESSIONAL STAMP 2025-04-23 C. BULA-BULA 100540590		
No.	2025-04-23		
LICE	C. BULA-BULA		
	Imulul o		
	SOUNCE OF ONTAND		
PROJE	CT:		
169	953-134 - CASS	ELMAN MAI	N SPS
	UPGF		
	16 Brisson St, Casse	elman. ON K0A 1M	0
DRAWI	NG		
	ELECT	RICAL	
	SINGLE LIN	E DIAGRAM	1
	NI.		
DESIGI DRAWI	СВ	DRAWING #:	
CHECK	^{ED:} JJT	E10	

TABLE OF PANEL	AND ELECTRICAL	EQUIPMENT

DEVICE				DE	VICE		FIELD	WORK	
TAG IDENTIFIER	SERVICE DESCRIPTION	LOCATION	DWG DETAIL	VOLTS	ø w	SUPPLY BY	INSTALL BY		
ACP 100	CONTROL PANEL	ELECTRICAL ROOM / CHEMICAL BUILDING	3	120	1 2	SI	E	E	G
CP 101	SECURITY PANEL	ELECTRICAL ROOM / CHEMICAL BUILDING	01/I108, 02/E107	120	1 2	SI	Е	E	G
CP 2	METERING PUMP CONTROL PANEL	ELECTRICAL ROOM / CHEMICAL BUILDING	03/E201, I201	120	1 2	EX	EX	EX	ΕX
CP 103	HEAT TRACE CONTROL PANEL	PUMP ROOM	01/E106	120	1 2	SI	Е	E	G
FCP 110	BAR SCREEN & COMPACTOR FIELD CONTROL PANEL (EXISTING)	PUMP ROOM	01/PID101, 01/E106	120	1 2	EX	EX	EX	E
FCP 130	FLOW INSTRUMENTATION PANEL (EXISTING)	PUMP ROOM	01/PID101, 01 & 02/E106, 01/I108	0	0 0	EX	EX	EX	E)
FCP 140	GAS INSTRUMENTATION PANEL (EXISTING)	ELECTRICAL ROOM / CHEMICAL BUILDING	04/DE101, 01/PID101, 01 & 02/E107	0	0 0	EX	EX	EX	E)
FCP 160	OCWA CONTROL PANEL 2	ELECTRICAL ROOM / CHEMICAL BUILDING	01/E106	120	1 2	EX	EX	EX	E)
ISJB 100	INTRINSICALLY SAFE JUNCTION BOX	ELECTRICAL ROOM / CHEMICAL BUILDING	01/PID101, 02/E107, 01/I108	24	0 0	SI	Е	E	Ģ
JB 100	JUNCTION BOX (FIELD WIRING CONNECTIONS)	ELECTRICAL ROOM / CHEMICAL BUILDING	02/E107, 01/I108	0	0 0	SI	Е	E	G
JBP 101	JUNCTION BOX FOR HEAT TRACE	EXTERIOR	01/E107	0	0 0	E	Е	E	G
JBa 07	JUNCTION BOX ON FCP-130 (EXISTING)	PUMP ROOM	01/E106, 02/E106	0	0 0	EX	EX	EX	E
JBd 07	JUNCTION BOX (EXISTING)	PUMP ROOM	01/E106	0	0 0	EX	EX	EX	E)
JBd 10	JUNCTION BOX ON FCP-130 (EXISTING)	PUMP ROOM	01/E106, 02/E106, 01/I108	0	0 0	EX	EX	EX	E
LP 100	LIGHTING PANEL (EXISTING)	ELECTRICAL ROOM / CHEMICAL BUILDING	4	208	1 2	EX	EX	EX	E
MCC 100	MOTOR CONTROL CENTRE (EXISTING)	ELECTRICAL ROOM / CHEMICAL BUILDING		600	3 4	EX	EX	EX	E

TABLE OF PANELS AND 01 E103 ELECTRICAL EQUIPMENT

SCALE: N.T.S.

	GENERAL						мотс	R										CC	NTR	DL DE	TAILS	& RE	SPO	NSIBIL	ITiES	
	GLINLIAL							/1 \					:	STAR	TER				AT M	OTOR		A	AUTO	MATIC	DN	COMMENTS
DEVICE TAG	DESCRIPTION	GENERATOR SEQUENCE	DEVICE LOCATION		POWER SOURCE	VOLTAGE PHASE	LOAD	SUPPLIED BY	INSTALLED BY	WIRED BY	COMMISSIONED BY	ТҮРЕ	DETAIL REFERENCE	SUPPLIED BY	INSTALLED BY	WIRED BY	COMMISSIONED BY	SUPPLIED BY	INSTALLED BY	WIRED BY	COMMISSIONED BY	SUPPLIED BY	INSTALLED BY	CONTROL WIRED BY	COMMISSIONED BY	STARTER NOTES
C 91821		0	ELECTRICAL ROOM 105	LP	100	208 1	0.056 KW	М	E	E	G	INTEGRAL		М	E	E	G	М	E	E	G	E	E	E	G	
LR 91601	BOILER	0	GENERATOR ROOM 104	LP	100	120 1	100 W	М	E	E	G	INTEGRAL		М	E	E	G	М	E	E	G	Е	E	E	G	
LR 91602	BOILER	0	GENERATOR ROOM 104	LP	100	120 1	100 W	М	E	E	G	INTEGRAL		М	E	E	G	М	E	E	G	Е	E	E	G	
ND 91821	CONDENSER	0	EXTERIOR	LP	100	208 1	0	М	E	E	G	INTEGRAL		М	E	E	G	М	E	E	G	Е	E	E	G	
F 91821	EXHAUST FAN	0	SCREENING ROOM 106	МСС	; 100	600 3	0.5 HP	М	E	E	G	VFD		М	E	E	G	М	E	E	G	SI	E	E	G	
F 91822	EXHAUST FAN	0	PUMP ROOM 001	МСС	; 100	600 3	0.5 HP	М	E	E	G	VFD		М	E	E	G	М	E	E	G	SI	E	E	G	
D 91854	MOTORIZED DAMPER	0	PUMP ROOM 001	ACP	100	120 1	0	М	E	E	G	INTEGRAL		М	E	E	G	М	E	E	G	SI	E	E	G	
D 91861	MOTORIZED DAMPER	0	ELECTRICAL ROOM 105	LP	100	120 1	0	М	E	E	G	INTEGRAL		М	E	E	G	М	E	E	G	SI	E	E	G	
D 91862	MOTORIZED DAMPER	0	ELECTRICAL ROOM 105	LP	100	120 1	0	М	E	E	G	INTEGRAL		М	E	E	G	М	E	E	G	SI	E	E	G	
10011	SEWAGE LIFT PUMP (EXISTING)	0	PUMP ROOM 001	мсс	; 100	600 3	50 HP	EX	EX	EX	EX	VFD		М	E	E	G	М	E	E	G	SI	E	E	G	
10021	SEWAGE LIFT PUMP (EXISTING)	0	PUMP ROOM 001	мсс	; 100	600 3	50 HP	EX	EX	EX	EX	VFD		М	E	E	G	М	E	E	G	SI	E	E	G	
10031	SEWAGE LIFT PUMP	0	PUMP ROOM 001	мсс	; 100	600 3	50 HP	М	М	E	G	VFD		М	E	E	G	М	E	E	G	SI	E	E	G	
	SCREENING COMPACTOR		SCREENING AREA 004		; 100	600 3	2 HP		М	E	G	INTEGRAL		М	E	E	G	М	E	E	G	SI	E	E	G	
F 91821	SUPPLY FAN	0	ELECTRICAL ROOM 105	LP	100	120 1	0.25 HP	М	E	E	G	TOGGLE		М	E	E	G	М	E	E	G	E	E	E	G	DIV.16 TO PROVIDE CONDUIT, WIRING AND TOGGLE SWITCH
	UNIT HEATER		ELECTRICAL ROOM 105	мсс	; 100	600 3	5 KW		F	F	G	INTEGRAL		М	F	F	G	М	F	F	G	E	E	F	G	DIV.16 TO PROVIDE CONDUIT, WIRING AND THERMOSTAT

			T,	ABLE OF	= DE	VICES						
DEVICE										FIELD	WORK	
TAG IDENTIFIER	PREVIOUS TAG	COMPONENT CODE	DEVICE DESCRIPTION	ELEMENT TAG	INS. TYPE	LOCATION	OPERATION	NOTES	SUPPLY BY	INSTALL BY	WIRE BY	COMN BY
AIT 13011			PUMP ROOM GAS MONITOR (LEL) (EXISTING)	AE		ELECTRICAL ROOM	LEL	04/DE101, 01/E107, 02/E107	EX	EX	EX	EX
TT 10001			EFFLUENT DISCHARGE FLOW INDICATE TRANSMITTER (EXISTING)	FE		PUMP ROOM		1/PID101, 01/E106, 02/E106	EX	EX	EX	EX
TT 11001		F01	EFFLUENT DISCHARGE FLOW INDICATE TRANSMITTER	FE		PUMP ROOM	MAG	1/PID101, 01/E106, 02/E106, 01/I108	SI	E	E	G
(P 91001			TIME OR SCHEDULE POINT			PUMP ROOM		1108	SI	E	E	G
_IT 10003			SCREENING WET WELL LEVEL TRANSMITTER (EXISTING)	LE			RAD	1/PID101	EX	EX	EX	EX
.IT 10011			SCREENING UPSTREAM LEVEL TRANSMITTER (EXISTING)	LE				1/PID101, 01/E106	EX	EX	EX	EX
IT 10012			SCREENING DOWNSTREAM LEVEL TRANSMITTER (EXISTING)	LE				1/PID101, 01/E106	EX	EX	EX	EX
.IT 30001			SCREENING SOUTH NATION RIVER LEVEL TRANSMITTER (EXISTING)	LE				1/PID101	EX	EX	EX	EX
_SH 10103			WET WELL EXISTING LEVEL SWITCH HIGH (EXISTING)					1/PID101	EX	EX	EX	EX
SHH 10104			WET WELL LEVEL SWITCH GATE TRANSMITTER (EXISTING)					1/PID101	EX	EX	EX	EX
.SL 10101			WET WELL LEVEL SWITCH LOW (EXISTING)					1/PID101	EX	EX	EX	EX
SLL 10105			WET WELL LEVEL SWITCH LOW LOW (EXISTING)					1/PID101	EX	EX	EX	EX
SM 10102			WET WELL LEVEL SWITCH MIDDLE (EXISTING)					1/PID101	EX	EX	EX	EX
PIT 10001		P01	PRESSURE INDICATE TRANSMITTER			PUMP ROOM		1/PID101, 01/E106, I108	SI	E	E	G
PIT 11001		P01	PRESSURE INDICATE TRANSMITTER	PE		PUMP ROOM		1/PID101, 1/P101, 01/E106	SI	E	E	G
SD 10001		T50	ELECTRICAL ROOM SMOKE DETECTOR			ELECTRICAL ROOM		02/E107, I108	SI	E	E	G
TT 10001		T01	TEMPERATURE INDICATE TRANSMITTER			ELECTRICAL ROOM	RTD	02/E107, I108	SI	E	E	G
'AL 90011		O01	STACK LIGHT RED (ALARM)			EXTERIOR		01/E107	SI	E	E	G
'AL 90012		O01	STACK LIGHT AMBER (WARNING)			EXTERIOR		01/E107	SI	Е	E	G
/AL 90021		O01	STACK LIGHT RED (ALARM)			EXTERIOR		01/E107	SI	Е	E	G
YAL 90022		O01	STACK LIGHT AMBER (WARNING)			EXTERIOR		01/E107	SI	Е	E	G

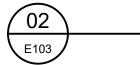


TABLE OF DEVICES

SCALE: N.T.S.

DRAWING NOTES:

- (1) EXISTING GAS SENSOR TO BE DEMOLISHED. SITE SI TO PROVIDE NEW SENSOR IN PUMP ROOM TO BE CONNECTED TO THE EXISTING PUMP ROOM GAS TRANSMITTER. REFER TO 04/DE101, 01/E107 & 02/E107.
- 2 AVAILABLE EXISTING AS BUILT ACP-100 CONTROL PANEL SHOP DRAWING NOT SHOWING OCWA PANEL SIGNAL EXCHANGE. CONTRACTOR TO COORDINATE WITH SITE CONDITION FOR THE EXACT OCWA PANEL SIGNALS EXCHANGE FROM ACP-100 AND SUBMIT SHOP DRAWING WITH UPDATES.
- 3 DWG DETAIL REFERENCE: 01/PID101, 02/DE101, 01 & 02/DE102, 01 & 02/E102, 01 & 02/E107, 1104 AND 01/I108
- DWG DETAIL REFERENCE: 03/DE101, 01 & 02/DE102, 01 & 02/E102, 01 & 02/E107 AND 01/I108

LEGEND

- <u>G:</u> GENERAL CONTRACTOR E: ELECTRICAL CONTRACTOR
- MECHANICAL CONTRACTOR
- EX: EXISTING SI: SYSTEM INTEGRATOR

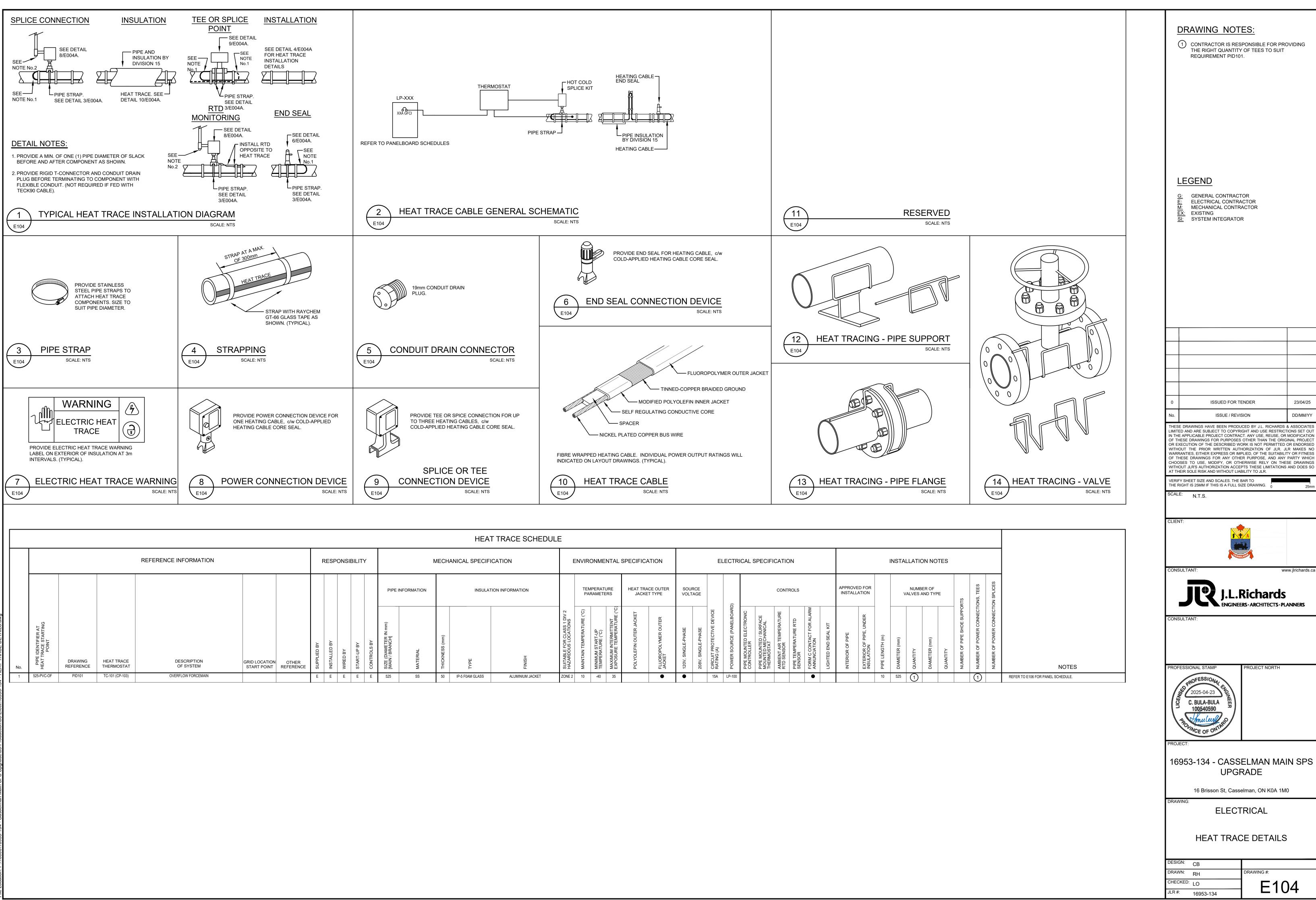
0	ISSUED FOR TI	ENDER	23/04/25
No.	ISSUE / REVI	SION	DD/MM/YY
OF THORE >	E APPLICABLE PROJECT CONTRAC HESE DRAWINGS FOR PURPOSES KECUTION OF THE DESCRIBED WO DUT THE PRIOR WRITTEN AUTH ANTIES, EITHER EXPRESS OR IMI HESE DRAWINGS FOR ANY OTHE DSES TO USE, MODIFY, OR OTH- DUT JLR'S AUTHORIZATION ACCE HEIR SOLE RISK AND WITHOUT LIA	OTHER THAN THE ORIG ORK IS NOT PERMITTED HORIZATION OF JLR. JI PLIED, OF THE SUITABILI ER PURPOSE, AND ANY IERWISE RELY ON THE PTS THESE LIMITATIONS	inal project or endorsed r makes no ty or fitness party which se drawings
	Y SHEET SIZE AND SCALES. THE B RIGHT IS 25MM IF THIS IS A FULL SI		25mm
SCALI	^{E:} N.T.S.		
CLIEN	IT:		
	10155E	IMAN	
CONS	SULTANT:	wv	vw.jlrichards.ca
l		Richards	ANNERS
CONS	GULTANT:		
PROF	ESSIONAL STAMP PROFESSIONAL 2025-04-23 C. BULA-BULA	PROJECT NORTH	
	2025-04-23		
ICEA	C. BULA-BULA		
	100540590		
	POLINCE OF ONTAN		
PROJ	ECT:		
16	953-134 - CASS UPGF	ELMAN MAI RADE	N SPS
	16 Brisson St, Cass	elman, ON K0A 1M	0
DRAW	VING		
	ELECT	RICAL	
	TABLES OF PAN ID MOTOR STAI LIS		
DESIG	GN: CB		
DRAW	^{VN:} RH	DRAWING #:	
	KED.		\sim

CHECKED: LO

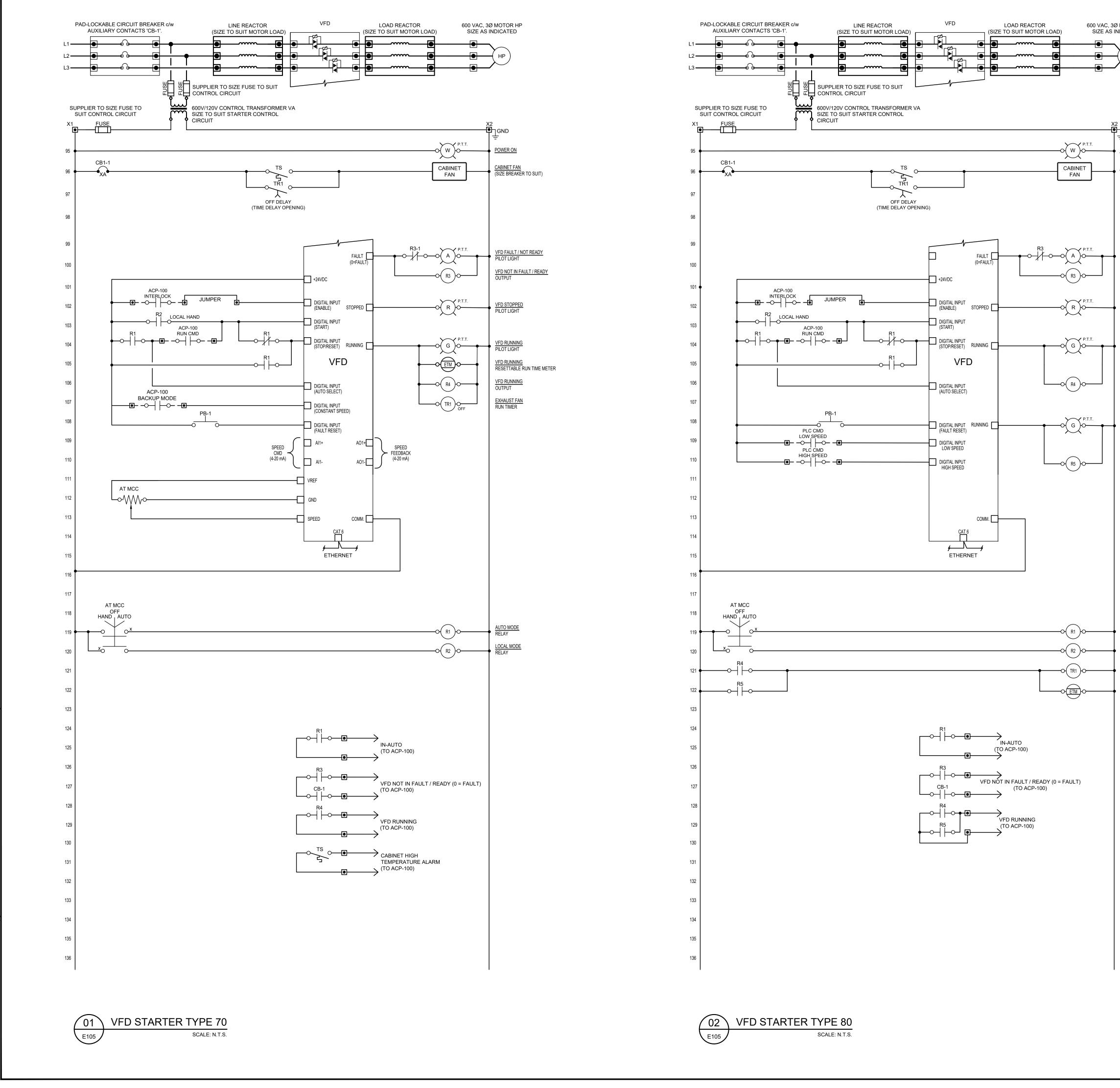
JLR #: 16953-134

E103

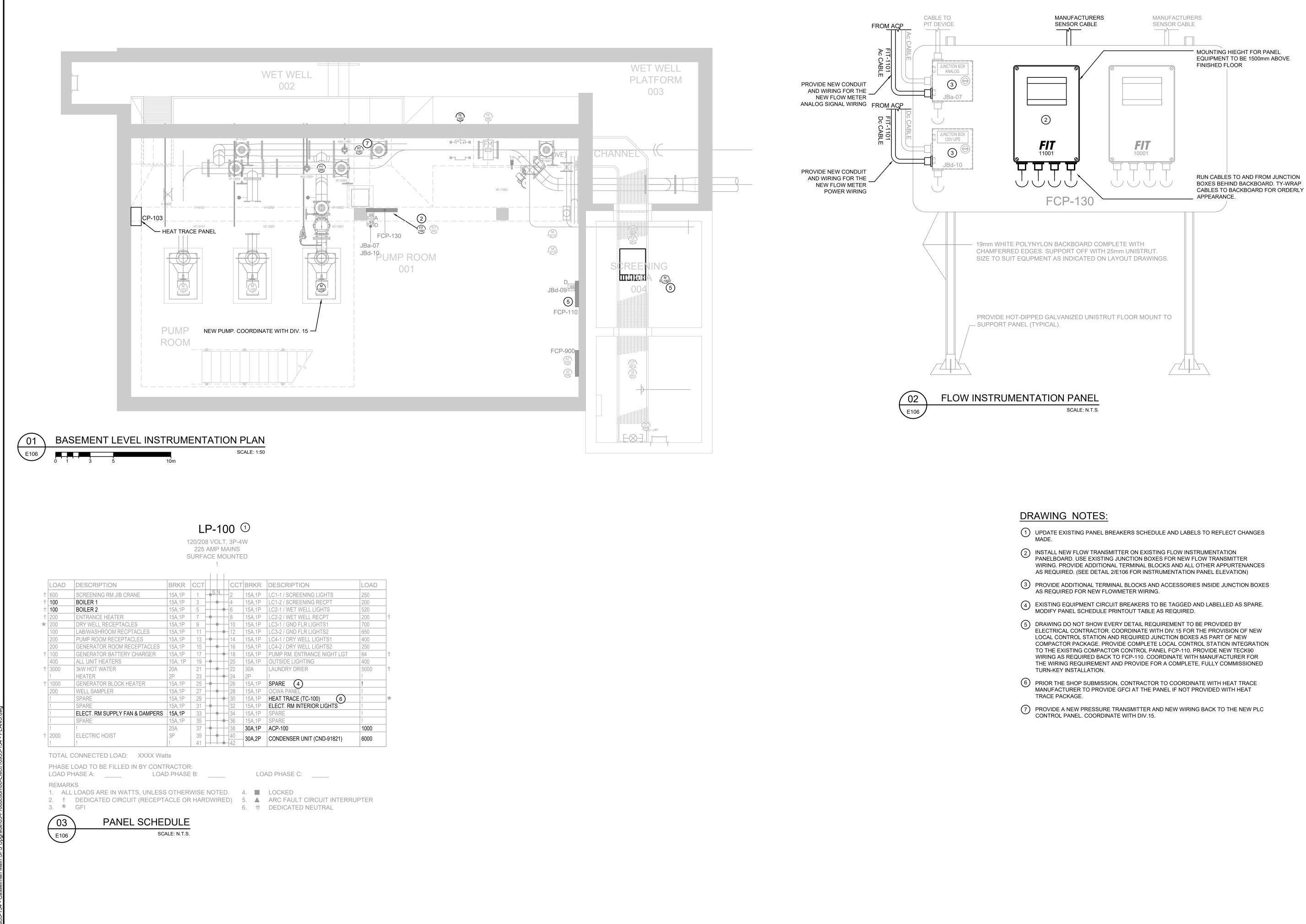
СН	



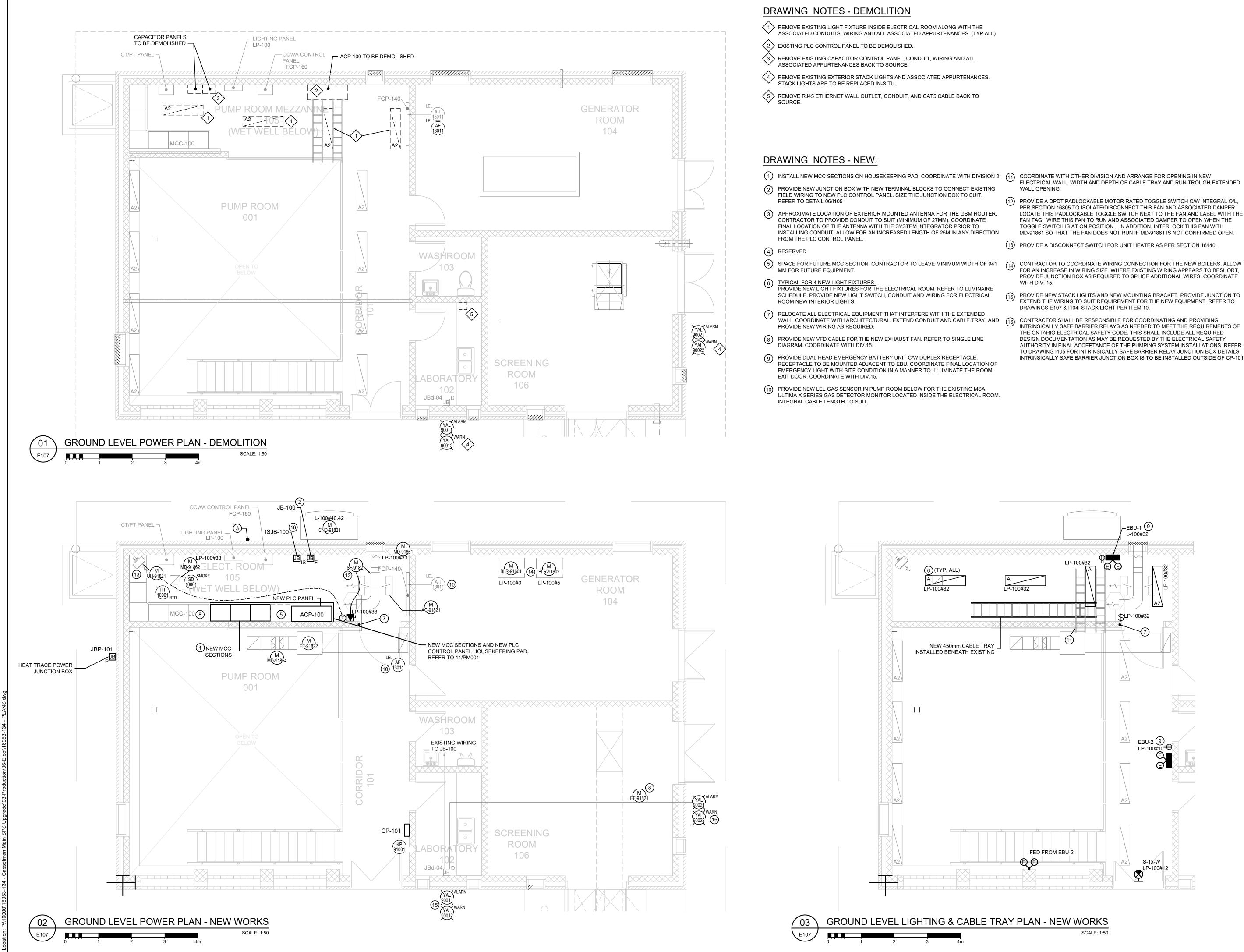
											HEA	T TRACE SCHEDUL	E														
				REFERENCE INFORMATION		RESP	PONSIBILI	ΤY		MECHAN	NICAL SPECIF	FICATION	EI	NVIRONMENTAL	SPECIFICA	ATION		EL	ECTRIC	CAL SPECIF	ICATION					INS ⁻	TALLATI
LS.dwg	5 N										INSULA	TION INFORMATION	ASS 1 DIV 2 ATIONS	TEMPERATURE PARAMETERS (, C) VALINE (, C)	HEAT TRA JACKE	CE OUTER T TYPE	SOURCE VOLTAGE	/E DEVICE	ANELBOARD)	CTRONIC RFACE ICAL	CONTROLS	OR ALARM	KIT	APPROVE INSTALL4	D FOR ATION		NUMI VALVES
IEAT TRACE DETAII	o PIPE IDENTIFIER A HEAT TRACE START POINT	DRAWING REFERENCE	HEAT TRACE THERMOSTAT	DESCRIPTION OF SYSTEM	GRID LOCATION OTHER START POINT REFERENCE	SUPPLIED BY INSTALLED BY	WIRED BY START-UP BY	CONTROLS BY	SIZE (DIAMETER IN r [MAIN / BRANCH] MATERIAL	THICKNESS (mm)	ТҮРЕ	FINISH	SUITABLE FOR CLAS HAZARDOUS LOCAT	MAINTAIN TEMPERA MINIMUM START-UP TEMPERATURE (°C) MAXIMUM INTERMIT EXPOSURE TEMPER	POLYOLEFIN OUTER	FLUOROPOLYMER C JACKET	120V, SINGLE-PHASE	208V, SINGLE-FIAME CIRCUIT PROTECTIV RATING (A)	POWER SOURCE (P/	PIPE MOUNTED ELE CONTROLLER PIPE MOUNTED / SU MOUNTED MECHANI THERMOSTAT	AMBIENT AIR TEMPE RTD SENSOR PIPE TEMPERATURE	SENSOR FORM C CONTACT F ANNUNCIATION	LIGHTED END SEAL	INTERIOR OF PIPE	EXTERIOR OF PIPE, INSULATION	PIPE LENGTH (m)	QUANTITY
34 - H	1 525-PVC-0	DF PID101	TC-101 (CP-103)	OVERFLOW FORCEMAIN		E E	E E	E	525 SS	50	IP-5 F0AM GLASS	ALUMINIUM JACKET	ZONE 2	10 -40 35		•	•	15A	LP-100			•				10 52	5 1



		DETAIL NOTES:			
	HP)				
		LAMP COLOURS TO BE CONFIRMED PRIOR TO			
		16812.			
	POWER ON	7. FOR EACH STARTER, PROVIDE COOLING FAN AS PER VFD			
		BY THERMOSTAT SETPOINT AS WELL WHEN VFD IS RUNNING.8. FOR EACH STARTER, PROVIDE TERMINALS TO INTERLOCK THE			
		PROGRAM THE STARTERS TO IMMEDIATELY SHUTDOWN IF THE INTERLOCKS ARE REMOVED.			
		WITH WITH DIVISION 15. MINICAS II MODULE TO BE MOUNTED ON MCC SECTION DOOR.			
		FAULT MONITORING.			
		 AUTO MODE WITH 4-20 mA ANALOG INPUT SPEED FROM PLC. BACKUP MODE WITH PRESET SPEED. SET PRESET SPEED AS PER MAXIMUM FLOW WHEN TWO (2) PUMPS ARE RUNNING. HAND MODE WITH 0-10V ANALOG INPUT SPEED FROM 			
		MODES.			
		13. PROVIDE CT(S), MOVs AND OTHER APPURTENANCES TO SUIT.			
		14. VFD FAULT RESET VIA PUSH BUTTON ON VFD MCC SECTION			
		15. MONITORING AND CONTROL OF VFD VIA HARDWIRED PLC I/O,			
		16. ALL ALARMS TO BE WIRED IN A FAIL SAFE MANNER SUCH THAT SIGNAL IS ALWAYS PRESENT UNDER NORMAL WORKING			
		17. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL PLC			
		18. PROGRAM THE VFD TO SEND FAULT / NOT READY SIGNAL IN			
					00/01/21
					23/04/25 DD/MM/YY
ATTORNE RAT			THE RIGHT	EET SIZE AND SCALES. THE BAR TO IS 25MM IF THIS IS A FULL SIZE DRAWING. 0	25m
REAT SERVICES STREAM					
EAY EAY EAY EAY EAY EAY EAY EAY			CLIENT:	<u></u>	
REPERTING VERTIMAGE REPERTING CONSULTANT CONSULTANT CONSULTANT PROFESSIONAL STAMP PROJECT NORTH PROJECT NORTH	RELAY		CLIENT:	T	
RIKTMERVETER RIKTMERVETER RIKTMERVETER PROFESSIONAL STAMP PROJECT NORTH PROJECT NORTH PROJ	RELAY LOCAL MODE RELAY		CLIENT:		
PROJECT: 16953-134 - CASSELMAN MAIN SP UPGRADE 16 Brisson St, Casselman, ON KOA 1M0 DRAWING: MOTOR STARTER SCHEMATICS DESIGN: CB	RELAY LOCAL MODE RELAY EXHAUST FAN RUN TIMER (OFF DELAY)			NT:	www.jlrichards.c
PROJECT: 16953-134 - CASSELMAN MAIN SP UPGRADE 16 Brisson St, Casselman, ON KOA 1MO DRAWING: MOTOR STARTER SCHEMATICS DESIGN: CB	RELAY LOCAL MODE RELAY EXHAUST FAN RUN TIMER (OFF DELAY) VFD RUNNING		CONSULTA	J.L.Richar ENGINEERS-ARCHITEC	ds
16953-134 - CASSELMAN MAIN SP UPGRADE 16 Brisson St, Casselman, ON KOA 1M0 DRAWING: MOTOR STARTER SCHEMATICS	RELAY LOCAL MODE RELAY EXHAUST FAN RUN TIMER (OFF DELAY) VFD RUNNING			NAL STAME	ds TS-PLANNERS
DRAWING: MOTOR STARTER SCHEMATICS	COCAL MODE RELAY RELAY EXHAUST FAN RUN TIMER (OFF DELAY) VFD RUNNING		CONSULTA	DNAL STAMP ONAL STAMP OFESSIONA 2025-04-23 BULA-BULA 100540590	ds TS-PLANNERS
DESIGN: CB	RELAY LOCAL MODE RELAY EXHAUST FAN RUN TIMER (OFF DELAY) VFD RUNNING		CONSULTA CONSULTA PROFESSION PROFESSION PROJECT:	DNAL STAMP OFESSION 2025-04-23 BULA-BULA 100540590 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW	CTH
	RELAY LOCAL MODE RELAY EXHAUST FAN RUN TIMER (OFF DELAY) VFD RUNNING		CONSULTA CONSULTA PROFESSION PROJECT: 16953	DNAL STAMP OFESSIONA 2025-04-23 BULA-BULA 100540590 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW	TS- PLANINERS
	RELAY LOCAL MODE RELAY EXHAUST FAN RUN TIMER (OFF DELAY) VFD RUNNING		CONSULTA CONSULTA PROFESSION PROJECT: 16953 DRAWING:	TRUE PROJECT NOR DIAL STAMP DIAL STAMP	CTH TTH MAIN SPS
DRAWN: RH CHECKED: LO JLR #: 16053 134 E105	RELAY LOCAL MODE RELAY EXHAUST FAN RUN TIMER (OFF DELAY) VFD RUNNING		CONSULTA CONSULTA PROFESSION PROJECT: 16953 DRAWING:	DIVERSIONAL STAMP ONAL STAMP OFESSION 2025-04-23 BULA-BULA 100540590 CE OF ONTARIO CE DE DIVERSION OF CONTRACT CB	CTH TTH MAIN SPS



0	ISSUED FOR TE	ENDER	23/04/25
No.	ISSUE / REVIS	-	DD/MM/YY
VERIFY	R SOLE RISK AND WITHOUT LIAE SHEET SIZE AND SCALES. THE E HT IS 25MM IF THIS IS A FULL SI AS SHOWN	BAR TO	25mr
CLIENT			
CONSU	_TANT:	ww	/w.jlrichards.c
		Richards ERS-ARCHITECTS-PL	ANNERS
CONSU	TANT:		
PROFES	C. BULA-BULA 100540590	PROJECT NORTH	
	VIA:- ONTE	1	
PROJEC	53-134 - CASS	ELMAN MAI	N SPS
PROJEC	53-134 - CASS UPGF	RADE	
PROJEC	53-134 - CASS UPGF 16 Brisson St, Casse	RADE	
PROJEC 169	53-134 - CASS UPGF 16 Brisson St, Casse	RADE elman, ON KOA 1M RICAL	o EL
PROJEC 169	53-134 - CASS UPGF 16 Brisson St, Casse IG: ELECT PLANS, DETA SCHEDULE -	RADE elman, ON KOA 1M RICAL	o EL



- MD-91861 SO THAT THE FAN DOES NOT RUN IF MD-91861 IS NOT CONFIRMED OPEN. (13) PROVIDE A DISCONNECT SWITCH FOR UNIT HEATER AS PER SECTION 16440.
- FOR AN INCREASE IN WIRING SIZE. WHERE EXISTING WIRING APPEARS TO BESHORT, PROVIDE JUNCTION BOX AS REQUIRED TO SPLICE ADDITIONAL WIRES. COORDINATE
- PROVIDE NEW STACK LIGHTS AND NEW MOUNTING BRACKET. PROVIDE JUNCTION TO EXTEND THE WIRING TO SUIT REQUIREMENT FOR THE NEW EQUIPMENT. REFER TO

ELECTRICAL WALL, WIDTH AND DEPTH OF CABLE TRAY AND RUN TROUGH EXTENDED

- (12) PROVIDE A DPDT PADLOCKABLE MOTOR RATED TOGGLE SWITCH C/W INTEGRAL O/L, PER SECTION 16805 TO ISOLATE/DISCONNECT THIS FAN AND ASSOCIATED DAMPER. LOCATE THIS PADLOCKABLE TOGGLE SWITCH NEXT TO THE FAN AND LABEL WITH THE FAN TAG. WIRE THIS FAN TO RUN AND ASSOCIATED DAMPER TO OPEN WHEN THE TOGGLE SWITCH IS AT ON POSITION. IN ADDITION, INTERLOCK THIS FAN WITH
- INTRINSICALLY SAFE BARRIER RELAYS AS NEEDED TO MEET THE REQUIREMENTS OF THE ONTARIO ELECTRICAL SAFETY CODE. THIS SHALL INCLUDE ALL REQUIRED DESIGN DOCUMENTATION AS MAY BE REQUESTED BY THE ELECTRICAL SAFETY AUTHORITY IN FINAL ACCEPTANCE OF THE PUMPING SYSTEM INSTALLATIONS. REFER TO DRAWING I105 FOR INTRINSICALLY SAFE BARRIER RELAY JUNCTION BOX DETAILS. INTRINSICALLY SAFE BARRIER JUNCTION BOX IS TO BE INSTALLED OUTSIDE OF CP-101

GENERAL NOTES: A. CONTRACTOR TO COORDINATE CABLE TRAY ROUTE WITH MECHANICAL AND ARCHITECTURAL. B. CABLE TRAY BRACKETS NOT TO EXTEND MORE THAN 500mm BEYOND CABLE TRAYS. C. COORDINATE FINAL DIMENSIONS OF HOUSEKEEPING PADS WITH ACTUAL EQUIPMENT DIMENSIONS. PROVIDE A MINIMUM OF 10mm CLEARANCE ON FRONT AND SIDES. EACH HOUSEKEEPING PAD TO BE 100mm HIGH. D. REFER TO 03/ E106 FOR L-100 PANEL SCHEDULE. PROVIDE NEW HEAT/SMOKE DETECTOR INSIDE ELECTRICAL ROOM. COORDINATE EXACT LOCATION AS PER SITE CONDITION. REFER TO SECTION 17100. ISSUED FOR TENDER 23/04/25 **ISSUE / REVISION** DD/MM/YY THESE DRAWINGS HAVE BEEN PRODUCED BY J.L. RICHARDS & ASSOCIATI LIMITED AND ARE SUBJECT TO COPYRIGHT AND USE RESTRICTIONS SET OF IN THE APPLICABLE PROJECT CONTRACT, ANY USE, REUSE, OR MODIFICATION OF THESE DRAWINGS FOR PURPOSES OTHER THAN THE ORIGINAL PROJECT OR EXECUTION OF THE DESCRIBED WORK IS NOT PERMITTED OR ENDORSE WITHOUT THE PRIOR WRITTEN AUTHORIZATION OF JLR. JLR MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, OF THE SUITABILITY OR FITNESS OF THESE DRAWINGS FOR ANY OTHER PURPOSE, AND ANY PARTY WHICH CHOOSES TO USE, MODIFY, OR OTHERWISE RELY ON THESE DRAWINGS WITHOUT JLR'S AUTHORIZATION ACCEPTS THESE LIMITATIONS AND DOES S AT THEIR SOLE RISK AND WITHOUT LIABILITY TO JLR. VERIFY SHEET SIZE AND SCALES. THE BAR TO THE RIGHT IS 25MM IF THIS IS A FULL SIZE DRAWING SCALE: AS SHOWN www.jlrichards. L.Richards INFERS-ARCHITECTS-PLANNERS ONSULTAN ROFESSIONAL STAME PROJECT NORTH 2025-04-2 C. BULA-BULA 100540590 16953-134 - CASSELMAN MAIN SPS UPGRADE 16 Brisson St, Casselman, ON K0A 1M0 ELECTRICAL PLANS DETAILS & PANEL

SCHEDULE - GROUND LEVEL

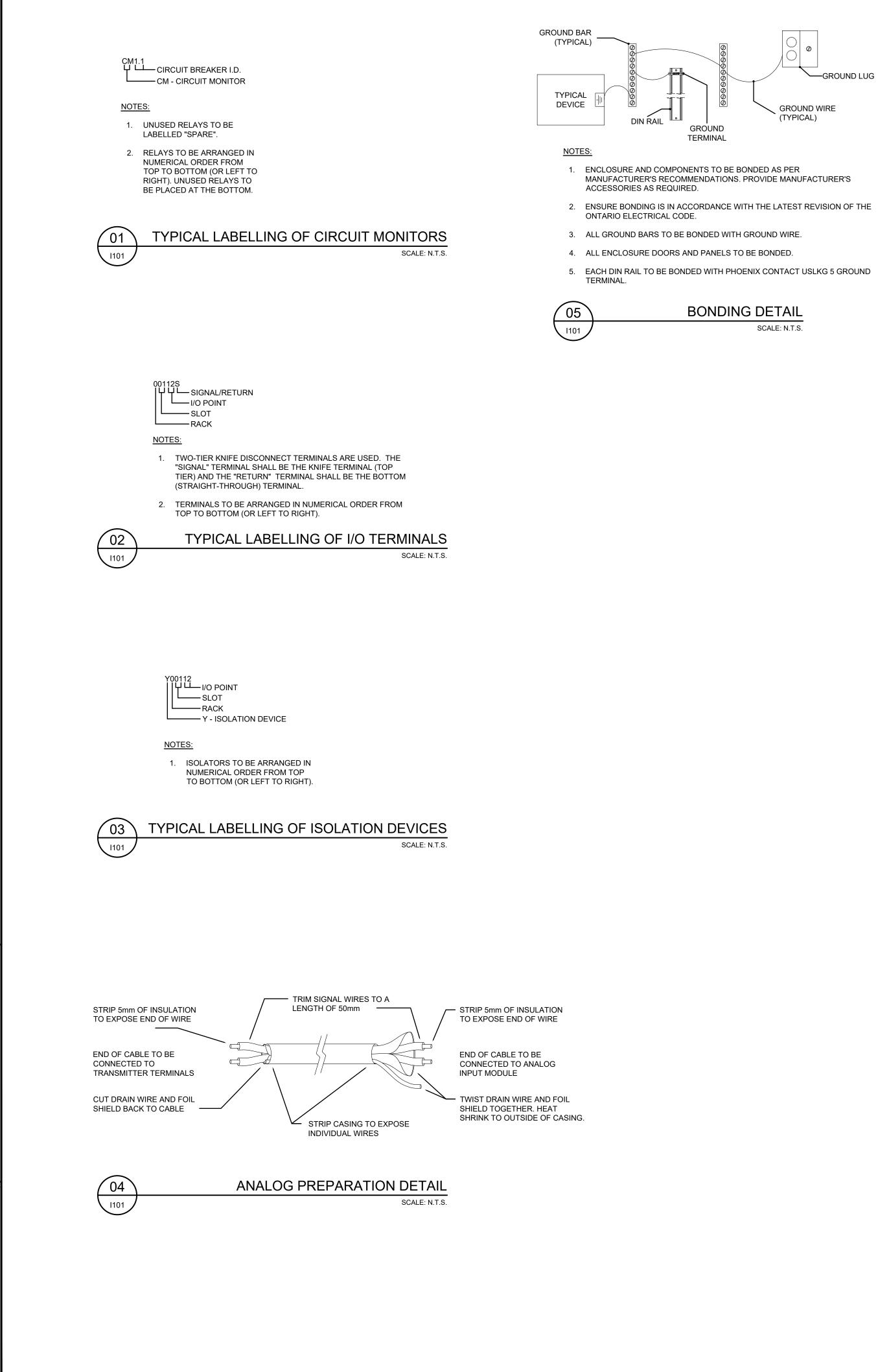
RAWING #:

E107

DESIGN: CB

DRAWN: RH

CHECKED: LO



GENERAL NOTES:

- PROVIDE REQUIRED ACCESSORIES/COMPONENTS TO ASSURE IP2X DEGREE OF PROTECTION (FINGER-SAFE RATING) FOR ALL ENSURE THAT ENCLOSURE NEMA RATINGS ARE PRESERVED.
- COORDINATE INSTALLATION OF DEVICES WITHIN THE ENCLOSURES TO ENSURE NO CONFLICTS NOR INTERFERENCES OCCUR QUANTITIES TO BE DETERMINED FROM CONTRACT DOCUMENTS. 5. ENCLOSURES TO BE BUILT IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURERS OF THE COMPONENTS
- 6. USE SUITABLE CONSTRUCTION GRADE ADHESIVE TO SECURE LAMACOIDS TO ENCLOSURES. ENSURE ADHESIVE IS RATED FOR MEANS REQUIRING PUNCTURING OF THE ENCLOSURES/PANELS/DOORS, ARE NOT ACCEPTABLE.

INSPECTION:

1. ENCLOSURES TO PASS ESA INSPECTION. PROVIDE ESA LABELS IN CONSPICUOUS LOCATIONS.

PLC/MIO:

1. REFER TO THE PLC/MIO CONFIGURATION SCHEDULES FOR PLC/MIO CARD ARRANGEMENT.

INSTALLATION NOTES:

- PROVIDE CABLE/CONDUIT ENTRIES ONLY AS REQUIRED.
- UNLESS OTHERWISE INDICATED, 120VAC WIRING ENTER THE ENCLOSURE ON THE LEFT; 24VDC AND COMMUNICATION WIRING TOP OR BOTTOM OF ENCLOSURES ONLY. ENCLOSURE INSTALLER TO COVER ALL COMPONENTS IN THE ENCLOSURE TO PREVENT METAL FILINGS FROM ENTERING THE
- ENCLOSURES AND ALL COMPONENTS TO BE PROTECTED FROM FOREIGN PARTICLES DURING CONSTRUCTION. 5. AFTER INSTALLATION, ENCLOSURES TO BE CLEANED, INSIDE AND OUT, AND ALL DUCT COVERS REPLACED.
- 6. APPLY TOUCH-UP PAINT TO ALL EXPOSED ENCLOSURE AND PANEL AREAS THAT HAVE BEEN SCRATCHED, PENETRATED, ETC. THE AREA AND TO BE SUPPLIED BY THE ENCLOSURE MANUFACTURER. APPLY TOUCH-UP PAINT AS PER MANUFACTURER'S REC

SPARE DIN RAIL SPACE:

1. PROVIDE SUFFICIENT SPARE DIN RAIL SPACE AS INDICATED.

LENGTH OF EXPOSED WIRES/CABLES:

1. LAYOUT THE COMPONENTS ON THE PANEL SUCH THAT THERE IS SUFFICIENT EXPOSED WIRE/CABLE BETWEEN THE COMPONEI WIRE/CABLE AS WELL AS FULL EXPOSURE OF THE WIRE/CABLE LABEL. TYPICALLY, AN EXPOSED LENGTH OF AT LEAST 32mm IS

JUMPERS:

- 1. GENERALLY, ALL JUMPERS SHALL BE INSULATED WIRE. COMB STYLE JUMPERS ARE NOT ACCEPTABLE UNLESS PRE-APPROVEI ACCESSORIES TO BE USED FOR WIRING.
- 2. EACH WIRE JUMPER TO EXTEND INTO WIRING DUCT.

SHOP DRAWINGS:

- 1. CONSULT THE SHOP DRAWINGS OF ALL RELATED EQUIPMENT PRIOR TO PREPARING THE PANEL SHOP DRAWINGS. 2. SHOP DRAWINGS TO INCLUDE, BUT NOT LIMITED TO THE FOLLOWING:
- 2.1. I/O DIAGRAMS
- 2.2. DETAILED ENCLOSURE/PANEL LAYOUT DRAWINGS, LABELLING AND DIMENSIONS 2.3. DETAILED WIRING DIAGRAMS, INCLUDING WIRE LABELS AND WIRE SPECIFICATIONS
- 2.4. TAGS TO BE USED 2.5. DETAILED SHOP DRAWINGS/DATA SHEET FOR EACH COMPONENT/ACCESSORY (INCLUDING WIRES AND CABLES) TO BE USE

VOLTAGE SEPARATION/ELECTROMAGNETIC INTERFERENCE (EMI):

- ENSURE PROPER VOLTAGE SEPARATION IS OBSERVED.
- 2. ROUTE WIRES AND CABLES IN A MANNER SUCH THAT EMI IS MINIMIZED. 3. PROVIDE FERRITE COLLARS/BEADS AND OTHER ACCESSORIES AS REQUIRED TO MINIMIZE EMI.
- 4. FOLLOW MANUFACTURERS' RECOMMENDATIONS WITH RESPECT TO EMI.
- 5. ADVISE THE ENGINEER OF ANY ISSUES ARISING WITH RESPECT TO EMI.

WIRE LABELS:

- 1. INTERNAL PANEL WIRES TO BE LABELLED ACCORDING TO THE COMPONENT AT THE HIGHER POTENTIAL. INCLUDE TERMINAL D WIRE FROM CB1.1 THAT FEEDS THE 24VDC POWER SUPPLY SHOULD BE LABELLED AS "CB1.1". ALSO, A WIRE FROM TERMINAL "R100-12"
- 2. BOTH ENDS OF EACH WIRE TO BE LABELLED (WITH THE SAME LABEL). 3. WIRE LABEL MATERIAL TO BE APPROVED PRIOR TO INSTALLATION.

CIRCUIT BREAKERS AND SUPPLEMENTARY PROTECTORS:

1. SIZE CIRCUIT BREAKERS AND SUPPLEMENTARY PROTECTORS TO SUIT. PROVIDE SIZES IN SHOP DRAWINGS FOR REVIEW.

GENERAL LABELLING:

- 1. ALL COMPONENTS TO BE LABELLED AS SPECIFIED.
- 2. LABELS TO BE PRINTED BY MACHINE AND SHOULD BE DONE IN A NEAT ORGANIZED MANNER. 3. PHOENIX CONTACT DEVICES TO BE LABELLED USING PRE-APPROVED PHOENIX CONTACT LABELLING SYSTEMS.
- 4. WHERE PHOENIX CONTACT LABELLING SYSTEM IS NOT APPLICABLE, LABELLING SHALL BE DONE USING A BRADY STYLE SELF-
- . BOTH SIDES OF EACH TERMINAL TO BE LABELLED AS SHOWN, UNLESS OTHERWISE INDICATED. 6. LABEL EACH WIRE DUCT TO INDICATE THE WIRING CLASS (e.g. 120VAC, 24VDC, OR COMMUNICATIONS).

LOOSE COMPONENTS:

- PROVIDE THE FOLLOWING LOOSE COMPONENTS IN A "ZIPLOCK" BAG SECURED INSIDE EACH CABINET:
- FIVE (5) OF EACH TYPE OF TERMINAL BLOCK
- TWO (2) OF EACH TYPE OF RELAY - FOUR (4) SNAP-ON END BRACKETS
- ONE (1) ANALOG SIGNAL ISOLATING AMPLIFIER

ETHERNET PATCH CORDS:

- 1. PROVIDE SUFFICIENT NUMBER OF PATCH CORDS FOR INTERNAL ETHERNET CONNECTIONS. PATCH CORDS AS PER SECTION
- 2. SELECT PATCH CORD LENGTHS TO SUIT. PATCH CORDS TO BE AS SHORT AS POSSIBLE. 3. PROVIDE ONE (1) SPARE 2m PATCH CORD. PLACE IT IN THE ZIPLOCK BAG CONTAINING THE LOOSE COMPONENTS.
- 4. PROVIDE A LABEL FOR EACH END OF EACH PATCH CORD.

TELEPHONE PATCH CORDS:

- 1. PROVIDE TELEPHONE PATCH CORDS FOR AS REQUIRED FOR INTERNAL TELEPHONE CONNECTIONS INCLUDING EQUIPMENT M EQUIPMENT MANUFACTURERS' RECOMMENDATIONS.
- 2. PROVIDE A LABEL FOR EACH END OF EACH PATCH CORD.

FACTORY ACCEPTANCE TEST (FAT)

- 1. SUBMIT DIGITAL PHOTOGRAPHS OF THE PANEL FOR REVIEW BEFORE SCHEDULING THE FAT TEST.
- 2. ADVISE THE ENGINEER TWO (2) WEEKS BEFORE REQUESTING THE FAT TEST. 3. ENCLOSURE TO BE FULLY ASSEMBLED PRIOR TO FAT TEST.
- 4. PANEL BUILDER TO PERFORM CERTAIN BASIC TESTS ON THE PANELS AND SUBMIT THE RESULTS TO THE ENGINEER PRIOR TO S 4.1. "PULL TEST". ENSURE WIRES ARE SECURELY CONNECTED.
- 4.2. RESISTANCE CHECKS. CHECK FOR CONTINUITY TO CONFIRM WIRING IS DONE AS INTENDED. 4.3. VOLTAGE CHECKS. ENSURE THAT VOLTAGES MEET MANUFACTURERS' REQUIREMENTS.
- 5. FAT TEST SHALL INCLUDE, BUT NOT LIMITED TO THE FOLLOWING:
- 5.1. GENERAL CONFORMANCE TO THE CONTRACT SPECIFICATIONS AND DRAWINGS.

L ENCLOSURES. R DURING PANEL BUILDING AND BEFORE FINAL INSTALLATION OF DEVICES.		
S USED. OR THE INTENDED ENVIRONMENTAL CONDITIONS. SCREWS OR OTHER		
G ENTER THE ENCLOSURE ON THE RIGHT. CABLE ENTRIES SHALL BE FROM E COMPONENTS DURING CABLE/CONDUIT INSTALLATION.		
., TO PREVENT CORROSION. TOUCH-UP PAINT TO BE THE SAME COLOUR AS		
ECOMMENDATIONS.		
IENT AND THE WIRE DUCT TO FACILITATE COMFORTABLE HANDLING OF THE		
IS RECOMMENDED.		
ED BY THE ENGINEER. PROVIDE SHOP DRAWINGS DETAILING ALL		
SED	0	IS
	No.	
	LIMITI IN TH OF TH	E DRAWINGS HAVE ED AND ARE SUBJEC E APPLICABLE PROJ HESE DRAWINGS FC
	WITH WARF OF TI	Xecution of the E out the prior W Ranties, either ex Hese drawings fo DSES to use, moe
DESIGNATION IN THE WIRE LABEL WHERE APPLICABLE. FOR EXAMPLE, A . 12 ON R100 THAT ACTIVATES ANOTHER RELAY SHOULD BE LABELLED AS		OUT JLR'S AUTHORI HEIR SOLE RISK AND
	THE F	RIGHT IS 25MM IF TH E: N.T.S.
	CLIEN	NT:
-ADHESIVE TAPE OR MANUFACTURER RECOMMENDED METHOD.		
	CONS	SULTANT:
		JR
	CONS	SULTANT:
17060.	PROF	ESSIONAL STAMF
		LO PROFESSION
MOUNTED ON THE CABINET EXTERIOR. PATCH CORDS AS PER	LICE A	PROFESSION 2025-04-23 C. BULA-BUL 100540590
		ROVINCE OF ON
	PROJ	
O SCHEDULING A FAT TEST. THESE TESTS INCLUDE, BUT NOT LIMITED TO:	16	953-134 -
		16 Brisso
	DRAV	
		NOT
	DESI0 DRAV	CD
	CHEC	

0 No.	ISSUED FOR T		23/04/25 DD/MM/YY
Limiti of th or ex with warf of ti choc with	E DRAWINGS HAVE BEEN PRODU ED AND ARE SUBJECT TO COPYR E APPLICABLE PROJECT CONTRAG IESE DRAWINGS FOR PURPOSE KECUTION OF THE DESCRIBED WI DUT THE PRIOR WRITTEN AUTI RANTIES, EITHER EXPRESS OR IM IESE DRAWINGS FOR ANY OTHE DISES TO USE, MODIPY, OR OTH DUT JLR'S AUTHORIZATION ACCE IEIR SOLE RISK AND WITHOUT LIA	IGHT AND USE RESTRICT CT. ANY USE, REUSE, OR OTHER THAN THE ORIG ORK IS NOT PERMITTED (HORIZATION OF JLR. JL PUIED, OF THE SUITABILIT ER PURPOSE, AND ANY HERWISE RELY ON THES PTS THESE LIMITATIONS	NONS SET OUT MODIFICATION INAL PROJECT OR ENDORSED R MAKES NO FY OR FITNESS PARTY WHICH SE DRAWINGS
	EY SHEET SIZE AND SCALES. THE I RIGHT IS 25MM IF THIS IS A FULL SI E: N.T.S.		25mm
	IT:		
	SULTANT:		w.jlrichards.ca
		PROJECT NORTH	
LICEAL	C. BULA-BULA 100540590		
	ECT: 953-134 - CASS UPGI 16 Brisson St, Casse	RADE	2
DRAV	VING:		5 10:43-18 AM
		D DETAILS	
DESI	СВ	DRAWING #:	Wed

1101

CHECKED: LO

			COMPONENT SUM	/IAR I			
SLOT NUMB.	CATALOG NUMBER	MANUFACTURER	DESCRIPTION	IO TYPE	IO RACK	IO COUNT	COMMENTS
0	1769-L36ERM	AB/RA	CompactLogix Ethernet Processor, 3 MB Mem	Processor	0		
1	1769-IQ16	AB/RA	16 Point 24VDC Input Module	Digital Input	0	16	
2	1769-IQ16	AB/RA	16 Point 24VDC Input Module	Digital Input	0	16	
3	1769-IQ16	AB/RA	16 Point 24VDC Input Module	Digital Input	0	16	
	1769-PA4	AB/RA	Power Supply 120V Input; 4A @ 5VDC, 2A 24VDC	Miscellaneous	0		
4	1769-IQ16	AB/RA	16 Point 24VDC Input Module	Digital Input	0	16	
5	1769-IQ16	AB/RA	16 Point 24VDC Input Module	Digital Input	0	16	
6	1769-OW16	AB/RA	16 Point Relay Output Module	Digital Output	0	16	
7	1769-OW16	AB/RA	16 Point Relay Output Module	Digital Output	0	16	
8	1769-OW16	AB/RA	16 Point Relay Output Module	Digital Output	0	16	
	1769-CRL1	AB/RA	Right-To-Left bus Expansion Cable	Miscellaneous			
9	1769-IF8	AB/RA	8 Channel Current Analog Input Module	Analog Input	1	8	
10	1769-IF8	AB/RA	8 Channel Current Analog Input Module	Analog Input	1	8	
11	1769-IF8	AB/RA	8 Channel Current Analog Input Module	Analog Input	1	8	
12	1769-IF8	AB/RA	8 Channel Current Analog Input Module	Analog Input	1	8	
	1769-PA4	AB/RA	Power Supply 120V Input; 4A @ 5VDC, 2A 24VDC	Miscellaneous	0		
13	1769-OF4CI	AB/RA	4 Channel Current Isolated Analog Output Module	Analog Output	1	4	
14	1769-OF4CI	AB/RA	4 Channel Current Isolated Analog Output Module	Analog Output	1	4	
15	1769-OF4CI	AB/RA	4 Channel Current Isolated Analog Output Module	Analog Output	1	4	
	1769-ECR	AB/RA	Right End Cap Terminator	Miscellaneous	1	0	

1102

01 ACP-100 PLC RACK COMPONENT SCHEDULE

CONTROLLER					
IO TAG	ISA TAG	EQUIPMENT	DESCRIPTION	LOCATION	OPI
DI - 0	YS -	ACP-100	In PLC Mode	Electrical Room	1 = PL
DI - 1 DI - 2	YS - YS -	FCP-150 FCP-150	Security Monitoring Screening Room Lights On	Electrical Room	1 = O
DI - 2 DI - 3	YS - YS -	FCP-150 FCP-150	Wet Well Lights On	Screening Room Wet Well	1 = 0
DI - 3	YS -	FCP-150	Pump Room Lights On	Pump Room	1=0
DI - 5	YS -	FCP-150	Dry Well Lights On	Electrical Room	1 = 0
DI - 6	YS -	FCP-150	Security Enable Push Button	Electrical Room	1 = EN
DI - 7	YS -	MCC-100	Pump #1 In Auto	Pump Room	1 = Al
DI - 8	YS	MCC-100	Pump #1 Running	Pump Room	1= RU
DI - 9	YA -	MCC-100	Pump #1 Fault	Pump Room	1 = F <i>F</i>
DI - 10	YS -	MCC-100	Pump #2 In Auto	Pump Room	1 = AL
DI - 11	YS -	MCC-100	Pump #2 Running	Pump Room	1= RU
DI - 12	YA -	MCC-100	Pump #2 Fault	Pump Room	1 = FA
DI - 13	YS -	FCP-160	Screening In Auto	Screening Room	1 = AL
DI - 14	YS	FCP-160	Screening Running	Screening Room	1 = Rl
DI - 15	YA	FCP-160	Screening Fault	Screening Room	0 = FA
DI - 16	YS -	FCP-160	Compactor In Auto	Screening Room	1 = AL
DI - 17	YS -	FCP-160	Compactor Running	Screening Room	1 = RL
DI - 18	YA -	FCP-160	Compactor Fault	Screening Room	0 = FA
DI - 19	LSLL LSL -	ACP-100 ACP-100	Wet Well Level Low-Low - Alarm Wet Well Level Low - Stop Pumps	Wet Well	0 = AL 0 = ST
DI - 20 DI - 21	LOL -	ACP-100	Wet weil Level Low - Stop Pumps	Wet Well	0-31
DI - 21 DI - 22	- LSH -	ACP-100	Wet Well Level High - Start Duty	Wet Well	0 = ST
DI - 22	LSHH -	ACP-100	Wet Well Level High-High - Alarm	Wet Well	0 = ST
DI - 24	YA -	ACP-100	Critical Circuit Monitoring - Misc Controls	Electrical Room	0 = AL
DI - 25	YA -	ACP-100	Critical Circuit Monitoring - Analog Outputs	Electrical Room	0 = AL
DI - 26	YA -	ACP-100	Critical Circuit Monitoring - DC Power Supply Okay	Electrical Room	0 = AL
DI - 27	YS	FCP-160	Screenning Room Both Dampers Open	Screening Room	1 = OF
DI - 28	YS -	ACP-100	Pump Room Both Dampers Open	Pump Room	1 = OF
DI - 29	YS -	LCP-180	Generator Room Combustion Air Damper Open	Generator Room	1 = OF
DI - 30	YS -	LCP-180	Generator Room Intake Air Damper Open	Generator Room	1 = OF
DI - 31	YS	GEN-100	Generator Running	Generator Room	1 = RL
DI - 32	YS -	ATS-100	ATS In Normal Position	Electrical Room	1 = NC
DI - 33	YS -	ATS-100	ATS In Emergency Position	Electrical Room	1 = EN
DI - 34	YS -	ATS-100	Generator Run Contactor	Electrical Room	1 = RL
DI - 35	YS -	ATS-100	Force to Emergency	Electrical Room	1 = FC
DI - 36	-				
DI - 37	- VC	MCC 100	Dump #2 In Auto	Electrical Deem	1 - 41
DI - 38 DI - 39	YS - YS -	MCC-100 MCC-100	Pump #3 In Auto Pump #3 Running	Electrical Room Electrical Room	1 = AU 1 = RU
DI - 40	YA -	MCC-100	Pump #3 Fault	Electrical Room	0 = FA
DI - 41	YS -	MCC-100	Pump Room Fan #1 Running	Electrical Room	1 = RL
DI - 42	YS -	MCC-100	Screening Room Fan #2 Running	Screening Room	1 = RL
DI - 43					
DI - 44					
DI - 45					
DI - 46	YS	ACP-100	General Alarm Reset Push Button	Electrical Room	1 = RE
DI - 47	YA	ACP-100	Critical Circuit Monitoring - Float Relay Logic	Electrical Room	0 = AL
DI - 48	YA	CP-103	Heat Trace Piping Status Alarm	Pump Room	0 = AL
DI - 49					
DI - 50	YA	HD-10001	Electrical Room Heat/Smoke Detected Alarm	Electrical Room	0 = Al
DI - 51					
DI - 52	YS -	MCC-100	Pump Room Fan #1 In Auto	Electrical Room	1 = AU
DI - 53	YA	MCC-100	Pump Room Fan #1 In Fault	Electrical Room	0 = FA
DI - 54 DI - 55	YA - YA -	MCC-100 MCC-100	Screening Room Fan #1 In Auto Screening Room Fan #1 In Fault	Electrical Room Electrical Room	1 = AL 0 = FA
DI - 55	YS -	MCC-100 MCC-100	Electrical Room Fan #1 In Auto	Electrical Room	1 = AL
DI - 57	YA	MCC-100	Electrical Room Fan #1 In Fault	Electrical Room	0 = FA
DI - 58					
DI - 59					
DI - 60	YA	ACP-100	Heat Trace General Alarm	Pump Room	0 = AL
DI - 61	YS	FS	Pump Room Exhaust Fan Flow Switch	Pump Room	1 = FL
DI - 62					
DI - 63	YA	ACP-100	ACP-100 Control Panel Power Failure	Electrical Room	0 = AL
DI - 64	YA	ACP-100	UPS-100 Power Failure	Electrical Room	0 = AL
DI - 65	YA	ACP-100	UPS-100 On Battery	Electrical Room	0 = AL
DI - 66	YA	ACP-100	UPS-100 Battery Low	Electrical Room	0 = LC
DI - 67	YA	ACP-100	UPS-100 General Fault	Electrical Room	0 = FA
DI - 68					
DI - 69	YA	ACP-100	PLC Control Panel SPD Failure	Electrical Room	0 = F <i>F</i>
DI - 70					
DI - 71					
DI - 72					
DI - 73					
DI - 74				 	
DI - 75					
DI - 76					
DI - 77 DI - 78					
DI - 78 DI - 79					



I/O LIST (1 OF 3)

OPERATION	RACY	SLOT	POINT	COMMENTS
OPERATION 1 = PLC	RACK 0	SLOT	POINT 0	COMMENTS
1-120	0	1	1	
1 = ON	0	1	2	
1 = ON	0	1	3	
1 = ON	0	1	4	
1 = ON	0	1	5	
1 = ENABLE	0	1	6	
1 = AUTO	0	1	7	
1= RUNNING	0	1	8	
1 = FAULT	0	1	9	
1 = AUTO	0	1	10	
1= RUNNING	0	1	11	
1 = FAULT	0	1	12	
1 = AUTO	0	1	13	
1 = RUNNING	0	1	14	
0 = FAULT	0	1	15	
1 = AUTO	0	2	0	
1 = RUNNING	0	2	1	
0 = FAULT	0	2	2	
0 = ALARM	0	2	3	
0 = STOP	0	2	4	
	0	2	5	
0 = START	0	2	6	
0 = ALARM	0	2	7	
0 = ALARM	0	2	8	
0 = ALARM	0	2	9	
0 = ALARM	0	2	10	
1 = OPEN	0	2	11	
1 = OPEN	0	2	12	
1 = OPEN	0	2	13	
1 = OPEN	0	2	14	
1 = RUNNING	0	2	15	
1 = NORMAL	0	3	0	
1 = EMERG.	0	3	1	
1 = RUN	0	3	2	
1 = FORCED	0	3	3	
	0	3	4	
	0	3	5	
1 = AUTO	0	3	6	
1 = RUNNING	0	3	7	
0 = FAULT	0	3	8	
1 = RUNNING	0	3	9	
1 = RUNNING	0	3	10	
	0	3	11	
	0	3	12	
	0	3	13	
1 = RESET	0	3	14	
0 = ALARM	0	3	15	
0 = ALARM	0	4	0	
	0	4	1	
0 = ALARM	0	4	2	
	0	4	3	
1 = AUTO	0	4	4	
0 = FAULT	0	4	5	
1 = AUTO	0	4	6	
0 = FAULT	0	4	7	
1 = AUTO	0	4	8	
0 = FAULT	0	4	9	
	0	4	10	
	0	4	11	
0 = ALARM	0	4	12	
1 = FLOW	0	4	13	
0.01050	0	4	14	
0 = ALARM	0	4	15	
0 = ALARM	0	5	0	
0 = ALARM	0	5	1	
0 = LOW	0	5	2	
0 = FAULT	0	5	3	
	0	5	4	
	0	5	5	
0 = FAULT	0	5	6	
0 = FAULT		-	7	
0 = FAULT	0	5		
0 = FAULT	0	5	8	
0 = FAULT	0	5 5	8 9	
0 = FAULT	0 0 0	5 5 5	8 9 10	
0 = FAULT	0 0 0 0	5 5 5 5	8 9 10 11	
0 = FAULT	0 0 0	5 5 5 5 5 5	8 9 10	
0 = FAULT	0 0 0 0	5 5 5 5	8 9 10 11	

G	ENERAL NOTES	<u>S:</u>	
A.	THIS PROVIDED IO LIST IS BA DRAWING AND MAY NOT REF CONTRACTOR TO COORDINA EXACT IO ADDRESSING TO T	FLECT EXACT SITE CON ATE WITH SITE CONDITION	DITION. ON FOR THE
	DRAWING WITH UPDATED IO		
0	ISSUED FOR T	ENDER	23/04/25
No. THES	ISSUE / REVI E DRAWINGS HAVE BEEN PRODU	-	DD/MM/YY
LIMITI IN TH OF TH OR EX WITH WARF OF TH CHOC WITH	ED AND ARE SUBJECT TO COPYR E APPLICABLE PROJECT CONTRAG HESE DRAWINGS FOR PURPOSES XECUTION OF THE DESCRIBED W OUT THE PRIOR WRITTEN AUT RANTIES, EITHER EXPRESS OR IM HESE DRAWINGS FOR ANY OTHE SSES TO USE, MODIFY, OR OTH OUT JLR'S AUTHORIZATION ACCE IEIR SOLE RISK AND WITHOUT LIA	IGHT AND USE RESTRICT CT. ANY USE, REUSE, OR OTHER THAN THE ORIG ORK IS NOT PERMITTED HORIZATION OF JLR. JL PLIED, OF THE SUITABILIT ER PURPOSE, AND ANY IERWISE RELY ON THE PTS THESE LIMITATIONS	IONS SET OUT MODIFICATION INAL PROJECT DR ENDORSED R MAKES NO ITY OR FITNESS PARTY WHICH SE DRAWINGS
VERIF	TY SHEET SIZE AND SCALES. THE I RIGHT IS 25MM IF THIS IS A FULL S	BAR TO	25mm
SCAL	^{E:} N.T.S.		
CLIEN	лт: Г		
CONS			w.jlrichards.ca
CONS	GULTANT:		
	C. BULA-BULA	PROJECT NORTH	
	2025-04-23 IP		
	BOWINCE OF ONTATIO		
^{ркој}	953-134 - CASS	ELMAN MAI RADE	N SPS
	16 Brisson St, Cass	elman, ON K0A 1M	о :
DRAV		RICAL	
F	PLC COMPONE	NTS AND IO	LIST
DESI DRAV	СВ	DRAWING #:	

I102

CHECKED: LO

NTROLLER IO TAG	ISA TAG	EQUIPMENT	DESCRIPTION	LOCATION	OPERATION	RACK	SLOT	POINT	COMMENTS
DO - 0 DO - 1	-		Turn Off All Station Lighting High Gas Alarm Interlock	Electrical Room Electrical Room		0	6	0	
)0 - 1)0 - 2	-		High Gas Warning Interlock	Electrical Room		0	6	2	
00 - 3			Alarm Buzzer	Electrical Room		0	6	3	
00 - 4 00 - 5	-		Pump #1 Run Command Pump #2 Run Command	Electrical Room Electrical Room	_	0	6	4 5	
)0 - 5)0 - 6	-		Screening Run Command	Electrical Room		0	6	6	
00 - 7	-		Compactor Run Command	Screening Room		0	6	7	
)O - 8)O - 9	-		Generator Room Combustion Air Damper Open Command Generator Room Combustion Air Damper Close Command	Generator Room Generator Room		0	6 6	8 9	
00 - 3 00 - 10	-					0	6	10	
00 - 11						0	6	11	
10 - 12 10 - 13			Pump #3 Run Command	Electrical Room		0	6	12 13	
10 - 13 10 - 14			Screening Room Unit Heater UH-91742	Screening Room		0	6	14	See rung drawing rung 249 for Unit Heater Interlock wiring
0 - 15			PLC Watchdog pulse	Electrical Room		0	6	15	Provide Watchdog Relay.
10 - 16 10 - 17	YC		Pump Room Fan #1 Run Command Low Speed Pump Room Fan #1 Run Command High Speed	Pump Room Pump Room		0	7	0	
10 - 17 10 - 18	YC		Pump Room Fan #1 Run Command High Speed Pump Room Fan #1 Interlock	Pump Room		0	7	2	
0 - 19	YC		Screening Room Fan #2 Run Command Low Speed	Screening Room		0	7	3	
00 - 20 00 - 21	YC		Screening Room Fan #1 Run Command High Speed Screening Room Fan #2 Interlock	Screening Room Screening Room		0	7	4 5	
00 - 21 00 - 22	10					0	7	5 6	<u> </u>
00 - 23						0	7	7	
10 - 24 10 - 25						0	7	8 9	
10 - 25 10 - 26						0	7	9 10	
0 - 27						0	7	11	
10 - 28 10 - 29						0	7	12	
iO - 29 iO - 30						0 0	7 7	13 14	
00 - 31						0	7	15	
10 - 32	YC	CP-101	Autodialer Zone #1	Electrical Room	0 = DIAL	0	8	0	
10 - 33 10 - 34	YC YC	CP-101 CP-101	Autodialer Zone #2 Autodialer Zone #3	Electrical Room Electrical Room	0 = DIAL 0 = DIAL	0	8 8	1 2	
O - 35	YC	CP-101	Autodialer Zone #4	Electrical Room	0 = DIAL	0	8	3	
00 - 36	YC	CP-101	Autodialer Zone #5	Electrical Room	0 = DIAL	0	8	4	
00 - 37 00 - 38	YC YC	CP-101 CP-101	Autodialer Zone #6 Autodialer Zone #7	Electrical Room Electrical Room	0 = DIAL 0 = DIAL	0	8	5 6	
DO - 39	YC	CP-101	Autodialer Zone #8	Electrical Room	0 = DIAL	0	8	7	
00 - 40	YC	CP-101	Autodialer Zone #9	Electrical Room	0 = DIAL	0	8	8	
00 - 41 00 - 42	YC YC	CP-101 CP-101	Autodialer Zone #10 Autodialer Zone #11	Electrical Room Electrical Room	0 = DIAL 0 = DIAL	0	8	9 10	
00 - 43	YC	CP-101	Autodialer Zone #12	Electrical Room	0 = DIAL	0	8	11	
00 - 44 00 - 45	YC YC	CP-101 CP-101	Autodialer Zone #13 Autodialer Zone #14	Electrical Room Electrical Room	0 = DIAL 0 = DIAL	0 0	8	12 13	
00 - 45 00 - 46	YC	CP-101	Autodialer Zone #15	Electrical Room	0 = DIAL	0	8	14	
00 - 47	YC	CP-101	Autodialer Zone #16	Electrical Room	0 = DIAL	0	8	15	
Al - 0 Al - 1	AI -		Screening Room H2S Gas Monitor Screening Room LEL Gas Monitor	Screening Room Screening Room		1	9 9		Provide Analog Signal Isolator Provide Analog Signal Isolator
AI - 1 AI - 2	TI		Screening Room Temperature	Screening Room		1	9	2	Provide Analog Signal Isolator
AI - 3	AI		Pump Room LEL Gas Monitor	Pump Room		1	9	3	Provide Analog Signal Isolator
Al - 4	TI		Pump Room Temperature	Pump Room		1	9		Provide Analog Signal Isolator
Al - 5 Al - 6	TI LI		Generator Room Temprature Generator Fuel Level	Generator Room Generator Room		1	9 9	5 6	Provide Analog Signal Isolator Provide Isolator/Duplicator for signal multiplexing with DISP-07. Refer Dwg 01/I105
AI - 7	LI		South Nation River Level	Pump Room		1	9	7	Provide Analog Signal Isolator
Al - 8 Al - 9	LI -		Pre-screening Level Effluent Discharge Flow FM1	Screening Room Pump Room		1	10	0	Provide Analog Signal Isolator Provide Isolator/Duplicator for signal multiplexing with DISP.01. Refer Dwg 01/l105
AI - 9 AI - 10	FI PI -		Effluent Discharge Flow FM1 Effluent Pressure FM1	Pump Room Pump Room		1	10 10	1 2	Provide Isolator/Duplicator for signal multiplexing with DISP-01. Refer Dwg 01/I105 Provide Isolator/Duplicator for signal multiplexing with DISP-03. Refer Dwg 01/I105
AI - 11	LI -		Wet Well Level	Wet Well		1	10	3	Provide Isolator/Duplicator for signal multiplexing with DISP-05. Refer Dwg 01/I105
Al - 12 Al - 13	FI -		Effluent Discharge Flow FM2	Pump Room		1	10	4	Provide Isolator/Duplicator for signal multiplexing with DISP-02. Refer Dwg 01/I105
AI - 13 AI - 14	PI LI		Effluent Pressure FM2 Post-screening Level	Pump Room Screening Room		1	10 10	5 6	Provide Isolator/Duplicator for signal multiplexing with DISP-04. Refer Dwg 01/I105 Provide Analog Signal Isolator
Al - 15	AI		Residual Chlorine Analyzer	Pump Room		1	10	7	Provide Analog Signal Isolator
AI - 16	TI -		Electrical Room Temperature	Electrical Room		1	11	0	Provide isolating amplifier
AI - 17 AI - 18	SI SI		Pump #1 Speed Feedback Pump #2 Speed Feedback	Electrical Room Electrical Room		1	11 11	1 2	Provide isolating amplifier Provide isolating amplifier
Al - 19	SI		Pump #3 Speed Feedback	Electrical Room		1	11	3	Provide isolating amplifier
Al - 20	SI -		Pump Room Fan #1 Speed Feedback	Electrical Room		1	11	4	Provide isolating amplifier
AI - 21 AI - 22	SI		Screening Room Fan #2 Speed Feedback	Electrical Room		1	11 11	5 6	Provide isolating amplifier
Al - 23						1	11	7	
Al - 24						1	12	0	
AI - 25 AI - 26	-					1	12 12	1 2	
Al - 27						1	12	3	
AI - 28						1	12	4	
AI - 29 AI - 30						1	12 12	5 6	
Al - 30 Al - 31						1	12	7	

<u></u>		1		COMPONENT I/O LIST	
CONTROLLER IO TAG	ISA TAG	EQUIPMENT	DESCRIPTION	LOCATION	
AO - 0	PC		Bypass Damper Position Command	Generator Room	
AO - 1	PC		Exhaust Damper Position Command	Generator Room	
AO - 2	LI -		Screening Differential Level Process Display DISP-06	Screening Room	
AO - 3					
AO - 4	SC		Pump #1 Speed Command	Electrical Room	
AO - 5	SC		Pump #2 Speed Command	Electrical Room	
AO - 6	SC		Pump #3 Speed Command	Electrical Room	
AO - 7					
AO - 8	SC		Pump Room Fan #1 Speed Command	Electrical Room	
AO - 9	SC		Screening Room Fan #2 Speed Command	Electrical Room	
AO - 10					
AO - 11					



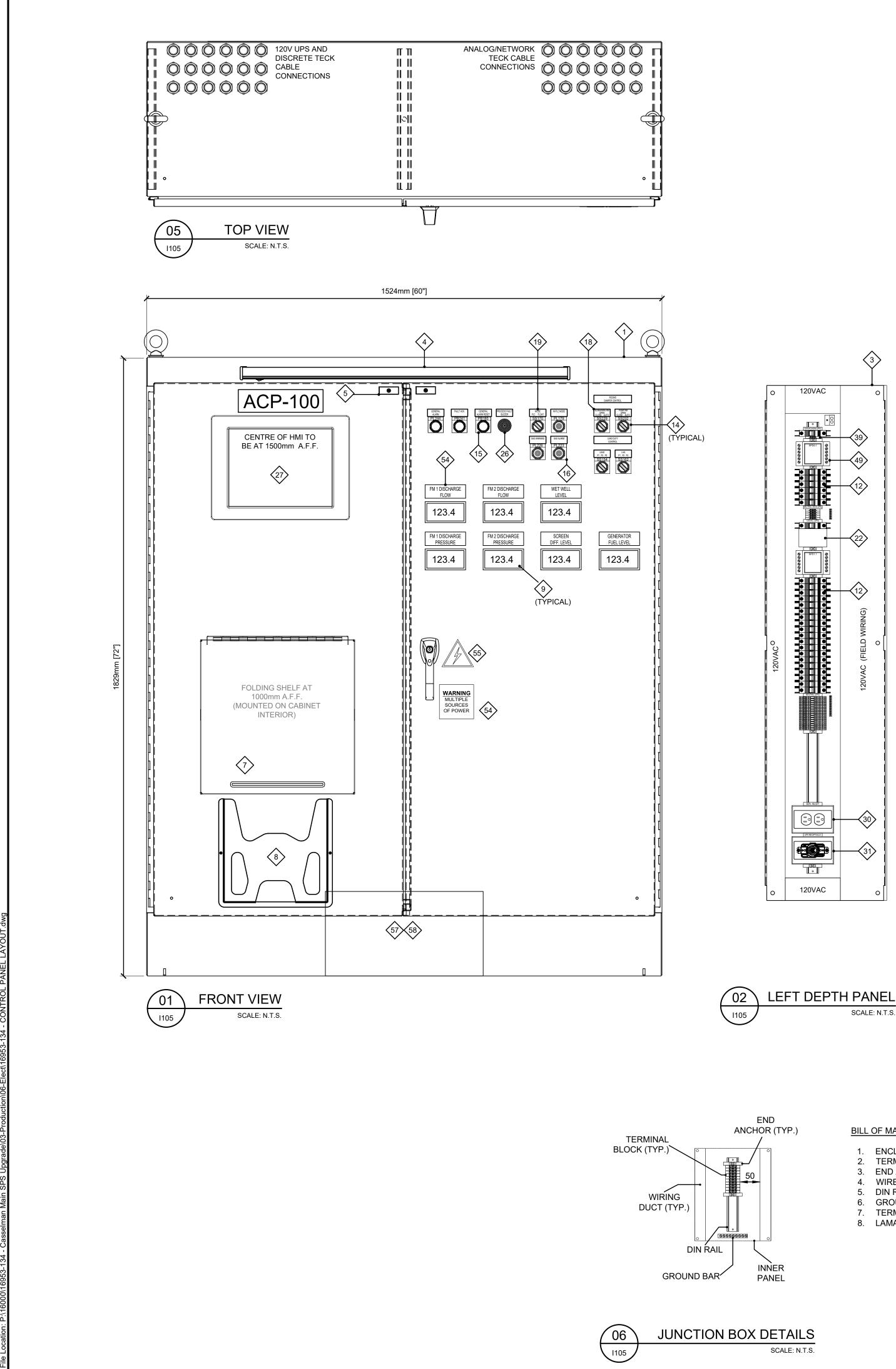
I/O LIST (3 OF 3)

OPERATION	RACK	SLOT	POINT	COMMENTS
	1	13	0	
	1	13	1	
	1	13	2	
	1	13	3	
	1	14	4	
	1	14	5	
	1	14	6	
	1	14	7	
	1	15	0	
	1	15	1	
	1	15	2	
	1	15	3	
	1			

0	ISSUED FOR T		23/04/25
	ISSUE / REVI E DRAWINGS HAVE BEEN PRODU ED AND ARE SUBJECT TO COPYR	JCED BY J.L. RICHARDS	
WARF OF TH CHOC WITHO AT TH	DUT THE PRIOR WRITTEN AUT ANTIES, EITHER EXPRESS OR IM HESE DRAWINGS FOR ANY OTHE USES TO USE, MODIFY, OR OTH DUT JLR'S AUTHORIZATION ACCE HEIR SOLE RISK AND WITHOUT LIA TY SHEET SIZE AND SCALES. THE I RIGHT IS 25MM IF THIS IS A FULL S E.	PLIED, OF THE SUITABILI ER PURPOSE, AND ANY HERWISE RELY ON THE PTS THESE LIMITATIONS BILITY TO JLR.	TY OR FITNESS PARTY WHICH SE DRAWINGS
CLIEN	N.I.S.		1
OLIEN			
CONS	SULTANT:		vw.jlrichards.ca
	SULTANT:		
	SULTANT:	Richards	
CONS	SULTANT: SULTANT:	Richards	
CONS	SULTANT: SULTANT: ESSIONAL STAMP PROFESSIONAL STAMP 2025-04-23 C. BULA-BULA 100540590	Richards ERS-ARCHITECTS-PL	
CONS	SULTANT: SULTANT: SULTANT: ESSIONAL STAMP C. BULA-BULA 100540590 C. BULA-BULA 100540590	Richards ERS-ARCHITECTS-PL	
PROF	ECT: SULTANT: ESSIONAL STAMP SULTANT: ESSIONAL STAMP SULTANT: ES	PROJECT NORTH	ANNERS
PROF	SULTANT: ESSIONAL STAMP SULTANT: ESSIONAL	PROJECT NORTH	ANNERS IN SPS
PROF PROJ	SULTANT: ESSIONAL STAMP SULTANT: ESSIONAL STAMP SULTANT: SULTANT: ESSIONAL STAMP SULTANT: SULTAN	PROJECT NORTH	ANNERS IN SPS
PROF PROJ	SULTANT: ESSIONAL STAMP SULTANT: ESSIONAL STAMP SULTANT: SULTANT: ESSIONAL STAMP SULTANT: SULTAN	PROJECT NORTH	ANNERS IN SPS

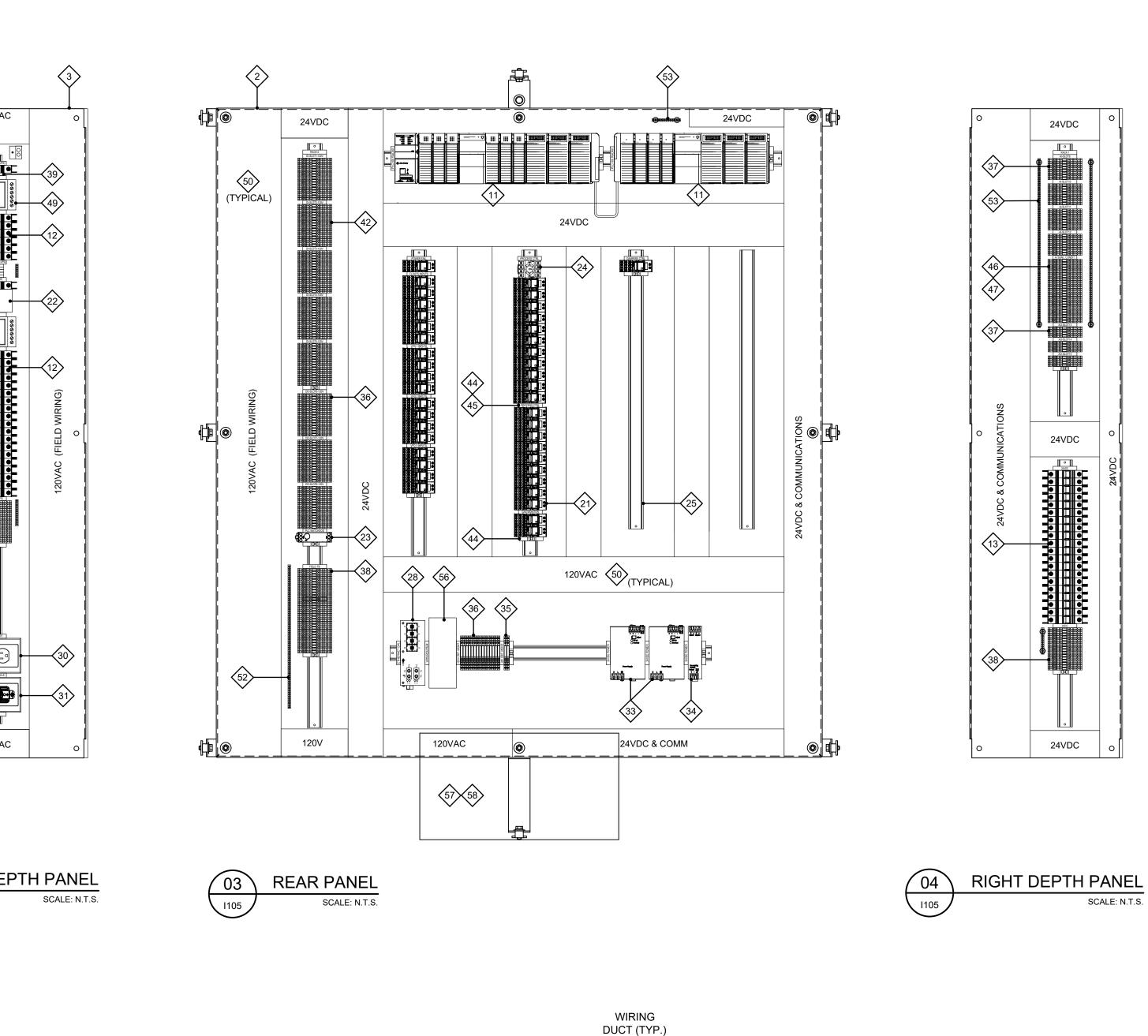
	MANUFACTURER	PART NUMBER	DESCRIPTION	COMMENTS
\geq	HAMMOND	1418 TD FS SERIES	72" X 60" X 18" DOUBLE DOOR FREESTANDING NEMA 12 MILD STEEL GREY ENCLOSURE.	1. HOFFMAN EQUIVALENT IS ACCEPTABLE.
	HAMMOND HAMMOND	TO SUIT TO SUIT	72" X 60" STEEL REAR PANEL FOR 72" X 60" X 18" 1418Z SERIES ENCLOSURE. 72" X 18" STEEL SIDE PANEL FOR 72" X 60" X 18" 1418Z SERIES ENCLOSURE.	 HOFFMAN EQUIVALENT IS ACCEPTABLE. HOFFMAN EQUIVALENT IS ACCEPTABLE.
<u>, </u>				1. PROVIDE REQUIRED MOUNTING APPURTENANC
\geq	HAMMOND	FLK10LED	26" LED LIGHT KIT (120VAC)	2. HOFFMAN EQUIVALENT IS ACCEPTABLE.
\rangle	HAMMOND	FLKDS	REMOTE DOOR SWITCH C/W FORM C CONTACT	1. HOFFMAN EQUIVALENT IS ACCEPTABLE.
\geqslant	HAMMOND	ECLIPSE ENSD SERIES	NEMA 4, ANSI 61 GREY, WALLMOUNT ENCLOSURE C/W MATCHING WHITE REAR PANEL. SIZE ENCLOSURE TO SUIT.	 JUNIOR ECLIPSE EJ SERIES IS ACCEPTABLE. HOFFMAN EQUIVALENT IS ACCEPTABLE.
\rangle	RALSTON	Z-5020	ANSI 61 GREY 18" X 18" LARGE FOLDING SHELF	
	HOFFMAN		SHEET POCKET. LARGE ENOUGH FOR UNFOLDED 11" X 17" SHEETS.	1. HAMMOND EQUIVALENT IS ACCEPTABLE.
	PRECISION DIGITAL	PD765 SERIES	PROCESS METER, TRIDENT X2 DISPLAY	
	EDWARDS SIGNALLING	200 SERIES	STACKLIGHT 200 SERIES, 70MM, 120VAC	1. ALLEN BRADLEY EQUIVALENT IS ACCEPTABLE.
$\overline{\mathbf{b}}$	ALLEN-BRADLEY	PLC-100	PLC RACK. REFER TO DRAWING DETAIL XXX FOR RIO SCHEDULE 1-POLE MINIATURE CIRCUIT BREAKER (120VAC). PROVIDE 1489-AMCL1XX BUS BAR (XX IS NUMBER OF	
≥	ALLEN-BRADLEY	1489-M1C SERIES	PINS)	1. SCHNEIDER EQUIVALENT IS ACCEPTABLE.
3	ALLEN-BRADLEY	1492-D1C SERIES	1-POLE MINIATURE CIRCUIT BREAKER (24VDC). PROVIDE 1489-AMCL1XX BUS BAR (XX IS NUMBER OF PINS)	1. SCHNEIDER EQUIVALENT IS ACCEPTABLE.
4	ALLEN-BRADLEY	800T SERIES	ALUMINUM LEGEND PLATE (STANDARD SIZE). ENGRAVED BY MANUFACTURER.	
>	ALLEN-BRADLEY	800TC SERIES	BLUE FLUSH HEAD MOMENTARY PUSHBUTTON	
> >	ALLEN-BRADLEY	800TC SERIES	FINGER-SAFE PUSH-TO-TEST PILOT LIGHT c/w 800T SERIES ALUMINUM LEGEND PLATE	
\rightarrow	ALLEN-BRADLEY	800TC-U SERIES	SPEED POTENTIOMETER	
> >	ALLEN-BRADLEY	800TC SERIES	FINGER SAFE 3-POSITION SELECTOR SWITCH, BLACK W/ WHITE INSERT.	
			NUMBER OF CONTACTS TO SUIT FINGER SAFE 2-POSITION SELECTOR SWITCH, BLACK W/ WHITE INSERT.	
>	ALLEN-BRADLEY	800TC SERIES	NUMBER OF CONTACTS TO SUIT	
\diamond	ALLEN-BRADLEY	700-HK	24VDC SLIM RELAY, PROVIDE RETAINER CLIP, LED, PUSH-TO-TEST, MANUAL OVERRIDE. PROVIDE SURGE SURPRESSOR MODULE TO SUIT. PROVIDE RELAY BASE 700-HN SERIES	
>	ALLEN-BRADLEY	700-HC24A1-3-4	120VAC 4-POLE MINIATURE SQUARE BASE RELAY C/W PUSH-TO-TEST AND LED. PROVIDE 700-HN104	
			MINI 14-BLADE SOCKET AND 700-AV3R VARISTOR SURGE SUPPRESSOR W/ LED. UPS SWITCH CONTACTOR. NUMBER OF POWER AND AUXILIARY CONTACTS TO SUIT. PROVIDE	
≥	ALLEN-BRADLEY	100-C SERIES	AUXILIARY CONTACT 100-F SERIES FOR UPS POWER MONITORING BY THE PLC.	
3	ALLEN-BRADLEY	700-FS SERIES	24VDC SIGNAL ON AND SIGNAL OFF WATCHDOG MONITOR	1. SELECT RELAY FUNCTION TO MONITOR PLC PUL SIGNAL 25 SECONDS.
•	ALLEN-BRADLEY	700-HR SERIES	GENERAL PURPOSE TIMER RELAY, 24VDC. PROVIDE 700-HN101 RELAY BASE SOCKET.	1. PROVIDE REQUIRED APPURTENANCES FOR MOUNTING HORIZONTALLY OR VERTICALLY, AS INDICATED.
>	ALLEN-BRADLEY	199-DR1	35mm X 15mm SYMMETRICAL ZINC PLATED DIN RAIL. PROVIDE MATCHING STAND-OFFS AS REQUIRED	1. PHOENIX CONTACT EQUIVALENT IS ACCEPTABLE
> >	ALLEN-BRADLEY	855P SERIES	TO RAISE HEIGHT OF COMPONENTS. PANEL MOUNT SIGNALING BUZZER, 80dB	1. MAPPLE SYSTEM HMI EQUIVALENT IS ACCEPTAB
$\overline{\boldsymbol{\mathcal{Y}}}$	ALLEN-BRADLEY	2711P SERIES	12 INCHES PANELVIEW 7 PLUS PERFORMANCE TERMINAL	1. MAPPLE SYSTEM HMI EQUIVALENT IS ACCEPTAB
<u>}</u>	ALLEN-BRADLEY	STRATIX 2500	LIGHTLY MANAGED ETHERNET SWITCH	
		SERIES		
<u>}</u>	HAMMOND	ECLIPSE JUNIOR SERIES	NEMA 4X STAINLESS STEEL JUNCTION BOX DIN RAIL UTILITY BOX COMPLETE WITH 5-15R DUPLEX RECEPTACLE. BUILT-IN GFCI	1. HOFFMAN EQUIVALENT IS ACCEPTABLE
\diamond	HUBBELL	DRUB15 SERIES	WHERE INDICATED ON DRAWINGS.	
∢	HUBBELL	HBL SERIES	LOCKING DEVICES, TWIST-LOCK SINGLE FLUSH RECEPTACLE, 30A. PROVIDE ALL APPERTUNANCES AS REQUIRED.	
>	RESERVED			
<u>}</u>	PHOENIX CONTACT	QUINT-PS/	SINGLE-PHASE PRIMARY-SWITCHED 20A 24VDC POWER SUPPLY	
<u> </u>		1AC/24DC/ 20 QUINT-DIODE/12-24DC/		
<u>}</u>	PHOENIX CONTACT	2X20/1X40	24VDC REDUNDANCY MODULE.	
\$	PHOENIX CONTACT	PLC-RSC-24DC/21	24VDC TERMINAL STYLE RELAY C/W 1 FORM C CONTACT, SCREW CONNECTION	
<u></u>	PHOENIX CONTACT	PLC-RSC-120UC/21	120VAC TERMINAL STYLE RELAY C/W 1 FORM C CONTACT, SCREW CONNECTION	
6			FUSE MODULAR TERMINAL BLOCK, PROVIDE 100mA GLASS FUSE FOR ALL ANALOG	
> >	PHOENIX CONTACT	UT 4-L/HESILED 24	POINTS. 120KOHM, LED INDICATION FOR BLOWN FUSE.	
> >	PHOENIX CONTACT	UT 4-L/HESILED 24 UTTB 4	DOUBLE LEVEL TERMINAL BLOCK. PROVIDE END COVER TO SUIT.	
> > >	PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT	UTTB 4		1. USED FOR CONTROL PANEL POWER FEED
> > > >	PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT	UTTB 4 UK 6 N UK 5 N	DOUBLE LEVEL TERMINAL BLOCK. PROVIDE END COVER TO SUIT. UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT.	1. USED FOR CONTROL PANEL POWER FEED 1. USED FOR 120VAC/24VDC CONNECTIONS
	PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT	UTTB 4 UK 6 N	DOUBLE LEVEL TERMINAL BLOCK. PROVIDE END COVER TO SUIT. UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT.	
	PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT	UTTB 4 UK 6 N UK 5 N	DOUBLE LEVEL TERMINAL BLOCK. PROVIDE END COVER TO SUIT. UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT.	
	PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT	UTTB 4 UK 6 N UK 5 N USLKG 6	DOUBLE LEVEL TERMINAL BLOCK. PROVIDE END COVER TO SUIT. UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. KNIFE DISCONNECT TERMINAL BLOCK, 30A. PROVIDE BLUE PLUG-IN BRIDGE TO SUIT. PROVIDE END	1. USED FOR 120VAC/24VDC CONNECTIONS
	PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT	UTTB 4 UK 6 N UK 5 N USLKG 6 UTTB 4-MT USLKG 5 CLIPFIX 35	DOUBLE LEVEL TERMINAL BLOCK. PROVIDE END COVER TO SUIT.UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT.UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT.GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT.KNIFE DISCONNECT TERMINAL BLOCK, 30A. PROVIDE BLUE PLUG-IN BRIDGE TO SUIT. PROVIDE END COVER TO SUIT.GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE BLUE PLUG-IN BRIDGE TO SUIT. PROVIDE END COVER TO SUIT.GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE BLUE PLUG-IN BRIDGE TO SUIT. PROVIDE END COVER TO SUIT.SNAP-ON END BRACKET	1. USED FOR 120VAC/24VDC CONNECTIONS
	PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT	UTTB 4 UK 6 N UK 5 N USLKG 6 UTTB 4-MT USLKG 5 CLIPFIX 35 KLM + ESL 26X6	DOUBLE LEVEL TERMINAL BLOCK. PROVIDE END COVER TO SUIT. UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. KNIFE DISCONNECT TERMINAL BLOCK, 30A. PROVIDE BLUE PLUG-IN BRIDGE TO SUIT. PROVIDE END COVER TO SUIT. GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE BLUE PLUG-IN BRIDGE TO SUIT. PROVIDE END COVER TO SUIT.	1. USED FOR 120VAC/24VDC CONNECTIONS
	PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT	UTTB 4 UK 6 N UK 5 N USLKG 6 UTTB 4-MT USLKG 5 CLIPFIX 35	DOUBLE LEVEL TERMINAL BLOCK. PROVIDE END COVER TO SUIT.UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT.UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT.GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT.KNIFE DISCONNECT TERMINAL BLOCK, 30A. PROVIDE BLUE PLUG-IN BRIDGE TO SUIT. PROVIDE END COVER TO SUIT.GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE BLUE PLUG-IN BRIDGE TO SUIT. PROVIDE END COVER TO SUIT.GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE BLUE PLUG-IN BRIDGE TO SUIT. PROVIDE END COVER TO SUIT.SNAP-ON END BRACKET	1. USED FOR 120VAC/24VDC CONNECTIONS
	PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT	UTTB 4 UK 6 N UK 5 N USLKG 6 UTTB 4-MT USLKG 5 CLIPFIX 35 KLM + ESL 26X6 MINI MCR-SL-UI-UI-NC MINI	DOUBLE LEVEL TERMINAL BLOCK. PROVIDE END COVER TO SUIT. UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. KNIFE DISCONNECT TERMINAL BLOCK, 30A. PROVIDE BLUE PLUG-IN BRIDGE TO SUIT. PROVIDE END COVER TO SUIT. GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE BLUE PLUG-IN BRIDGE TO SUIT. PROVIDE END COVER TO SUIT. GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. SNAP-ON END BRACKET TERMINAL STRIP MARKERS / GROUP LABELS	1. USED FOR 120VAC/24VDC CONNECTIONS
	PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT	UTTB 4 UK 6 N UK 5 N USLKG 6 UTTB 4-MT USLKG 5 CLIPFIX 35 KLM + ESL 26X6 MINI MCR-SL-UI-UI-NC	DOUBLE LEVEL TERMINAL BLOCK. PROVIDE END COVER TO SUIT. UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. KNIFE DISCONNECT TERMINAL BLOCK, 30A. PROVIDE BLUE PLUG-IN BRIDGE TO SUIT. PROVIDE END COVER TO SUIT. GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE BLUE PLUG-IN BRIDGE TO SUIT. PROVIDE END COVER TO SUIT. SNAP-ON END BRACKET TERMINAL STRIP MARKERS / GROUP LABELS CONFIGURABLE ANALOG SIGNAL CONDITIONER	1. USED FOR 120VAC/24VDC CONNECTIONS
	PHOENIX CONTACT PHOENIX CONTACT ALLEN BRADELY TOTAL PROTECTION	UTTB 4 UK 6 N UK 5 N USLKG 6 UTTB 4-MT USLKG 5 CLIPFIX 35 KLM + ESL 26X6 MINI MCR-SL-UI-UI-NC MINI MCR-SL-UI-2UI-NC 800T	DOUBLE LEVEL TERMINAL BLOCK. PROVIDE END COVER TO SUIT.UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT.UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT.GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT.KNIFE DISCONNECT TERMINAL BLOCK, 30A. PROVIDE BLUE PLUG-IN BRIDGE TO SUIT. PROVIDE END COVER TO SUIT.GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE BLUE PLUG-IN BRIDGE TO SUIT. PROVIDE END COVER TO SUIT.GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT.SNAP-ON END BRACKETTERMINAL STRIP MARKERS / GROUP LABELSCONFIGURABLE ANALOG SIGNAL CONDITIONERCONFIGURABLE ANALOG SIGNAL ISOLATING AMPLIFIER DUPLICATOR, SCREW CONNECTION30mm TYPE 4 2-POS E-STOP BUTTON, PULL/TWIST RELEASESURGE PROTECTIVE DEVICE, 40KA PER PHASE, 30A, 120VAC, C/W COMPONENT	1. USED FOR 120VAC/24VDC CONNECTIONS
	PHOENIX CONTACT PHOENIX CONTACT ALLEN BRADELY TOTAL PROTECTION SOLUTIONS	UTTB 4 UK 6 N UK 5 N USLKG 6 UTTB 4-MT USLKG 5 CLIPFIX 35 KLM + ESL 26X6 MINI MCR-SL-UI-UI-NC MINI MCR-SL-UI-2UI-NC 800T TK-LTE120-30A-DIN2-RC	DOUBLE LEVEL TERMINAL BLOCK. PROVIDE END COVER TO SUIT.UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT.UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT.GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT.KNIFE DISCONNECT TERMINAL BLOCK, 30A. PROVIDE BLUE PLUG-IN BRIDGE TO SUIT. PROVIDE END COVER TO SUIT.GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT.SNAP-ON END BRACKETTERMINAL STRIP MARKERS / GROUP LABELSCONFIGURABLE ANALOG SIGNAL CONDITIONERCONFIGURABLE ANALOG SIGNAL ISOLATING AMPLIFIER DUPLICATOR, SCREW CONNECTION30mm TYPE 4 2-POS E-STOP BUTTON, PULL/TWIST RELEASESURGE PROTECTIVE DEVICE, 40KA PER PHASE, 30A, 120VAC, C/W COMPONENT LEVEL FUSING	1. USED FOR 120VAC/24VDC CONNECTIONS 1. USED FOR RIO INPUTS.
	PHOENIX CONTACT PHOENIX CONTACT ALLEN BRADELY TOTAL PROTECTION SOLUTIONS	UTTB 4 UK 6 N UK 6 N USLKG 6 UTTB 4-MT USLKG 5 CLIPFIX 35 KLM + ESL 26X6 MINI MCR-SL-UI-UI-NC MINI MCR-SL-UI-2UI-NC 800T TK-LTE120-30A-DIN2-RC F?X?LG6 SERIES	DOUBLE LEVEL TERMINAL BLOCK. PROVIDE END COVER TO SUIT. UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. KNIFE DISCONNECT TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. KNIFE DISCONNECT TERMINAL BLOCK, 30A. PROVIDE BLUE PLUG-IN BRIDGE TO SUIT. PROVIDE END COVER TO SUIT. SNAP-ON END BRACKET TERMINAL STRIP MARKERS / GROUP LABELS CONFIGURABLE ANALOG SIGNAL CONDITIONER CONFIGURABLE ANALOG SIGNAL ISOLATING AMPLIFIER DUPLICATOR, SCREW CONNECTION 30mm TYPE 4 2-POS E-STOP BUTTON, PULL/TWIST RELEASE SURGE PROTECTIVE DEVICE, 40kA PER PHASE, 30A, 120VAC, C/W COMPONENT LEVEL FUSING ?" X ?" LIGHT GREY NARROW SLOT WIRING DUCT c/w MATCHING COVER, SIZED TO SUIT	1. USED FOR 120VAC/24VDC CONNECTIONS
	PHOENIX CONTACT PHOENIX CONTACT ALLEN BRADELY TOTAL PROTECTION SOLUTIONS	UTTB 4 UK 6 N UK 5 N USLKG 6 UTTB 4-MT USLKG 5 CLIPFIX 35 KLM + ESL 26X6 MINI MCR-SL-UI-UI-NC MINI MCR-SL-UI-2UI-NC 800T TK-LTE120-30A-DIN2-RC	DOUBLE LEVEL TERMINAL BLOCK. PROVIDE END COVER TO SUIT.UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT.UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT.GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT.KNIFE DISCONNECT TERMINAL BLOCK, 30A. PROVIDE BLUE PLUG-IN BRIDGE TO SUIT. PROVIDE END COVER TO SUIT.GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT.SNAP-ON END BRACKETTERMINAL STRIP MARKERS / GROUP LABELSCONFIGURABLE ANALOG SIGNAL CONDITIONER30mm TYPE 4 2-POS E-STOP BUTTON, PULL/TWIST RELEASESURGE PROTECTIVE DEVICE, 40kA PER PHASE, 30A, 120VAC, C/W COMPONENT LEVEL FUSING?" X ?" LIGHT GREY NARROW SLOT WIRING DUCT c/w MATCHING COVER, SIZED TO SUITSWITCH AMPLIFIER, 2 CHANNELS ISOLATED BARRIER	1. USED FOR 120VAC/24VDC CONNECTIONS 1. USED FOR RIO INPUTS.
	PHOENIX CONTACT PHOENIX CONTACT ALLEN BRADELY TOTAL PROTECTION SOLUTIONS	UTTB 4 UK 6 N UK 6 N USLKG 6 UTTB 4-MT USLKG 5 CLIPFIX 35 KLM + ESL 26X6 MINI MCR-SL-UI-UI-NC MINI MCR-SL-UI-2UI-NC 800T TK-LTE120-30A-DIN2-RC F?X?LG6 SERIES	DOUBLE LEVEL TERMINAL BLOCK. PROVIDE END COVER TO SUIT. UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. KNIFE DISCONNECT TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. KNIFE DISCONNECT TERMINAL BLOCK, 30A. PROVIDE BLUE PLUG-IN BRIDGE TO SUIT. PROVIDE END COVER TO SUIT. SNAP-ON END BRACKET TERMINAL STRIP MARKERS / GROUP LABELS CONFIGURABLE ANALOG SIGNAL CONDITIONER CONFIGURABLE ANALOG SIGNAL ISOLATING AMPLIFIER DUPLICATOR, SCREW CONNECTION 30mm TYPE 4 2-POS E-STOP BUTTON, PULL/TWIST RELEASE SURGE PROTECTIVE DEVICE, 40kA PER PHASE, 30A, 120VAC, C/W COMPONENT LEVEL FUSING ?" X ?" LIGHT GREY NARROW SLOT WIRING DUCT c/w MATCHING COVER, SIZED TO SUIT	1. USED FOR 120VAC/24VDC CONNECTIONS 1. USED FOR RIO INPUTS.
	PHOENIX CONTACT PHOENIX CONTACT ALLEN BRADELY TOTAL PROTECTION SOLUTIONS	UTTB 4 UK 6 N UK 6 N USLKG 6 UTTB 4-MT USLKG 5 CLIPFIX 35 KLM + ESL 26X6 MINI MCR-SL-UI-UI-NC MINI MCR-SL-UI-2UI-NC 800T TK-LTE120-30A-DIN2-RC F?X?LG6 SERIES	DOUBLE LEVEL TERMINAL BLOCK. PROVIDE END COVER TO SUIT. UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. KNIFE DISCONNECT TERMINAL BLOCK, 30A. PROVIDE BLUE PLUG-IN BRIDGE TO SUIT. PROVIDE END COVER TO SUIT. GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE BLUE PLUG-IN BRIDGE TO SUIT. PROVIDE END COVER TO SUIT. SNAP-ON END BRACKET TERMINAL STRIP MARKERS / GROUP LABELS CONFIGURABLE ANALOG SIGNAL CONDITIONER CONFIGURABLE ANALOG SIGNAL ISOLATING AMPLIFIER DUPLICATOR, SCREW CONNECTION 30mm TYPE 4 2-POS E-STOP BUTTON, PULL/TWIST RELEASE SURGE PROTECTIVE DEVICE, 40kA PER PHASE, 30A, 120VAC, C/W COMPONENT LEVEL FUSING ?" X ?" LIGHT GREY NARROW SLOT WIRING DUCT c/w MATCHING COVER, SIZED TO SUIT SWITCH AMPLIFIER, 2 CHANNELS ISOLATED BARRIER COPPER GROUND BAR ISOLATED COPPER GROUND BAR	1. USED FOR 120VAC/24VDC CONNECTIONS 1. USED FOR RIO INPUTS.
	PHOENIX CONTACT PHOENIX CONTACT ALLEN BRADELY TOTAL PROTECTION SOLUTIONS	UTTB 4 UK 6 N UK 6 N USLKG 6 UTTB 4-MT USLKG 5 CLIPFIX 35 KLM + ESL 26X6 MINI MCR-SL-UI-UI-NC MINI MCR-SL-UI-2UI-NC 800T TK-LTE120-30A-DIN2-RC F?X?LG6 SERIES	DOUBLE LEVEL TERMINAL BLOCK. PROVIDE END COVER TO SUIT. UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. KNIFE DISCONNECT TERMINAL BLOCK, 30A. PROVIDE BLUE PLUG-IN BRIDGE TO SUIT. PROVIDE END COVER TO SUIT. SNAP-ON END BRACKET TERMINAL STRIP MARKERS / GROUP LABELS CONFIGURABLE ANALOG SIGNAL CONDITIONER CONFIGURABLE ANALOG SIGNAL ISOLATING AMPLIFIER DUPLICATOR, SCREW CONNECTION 30mm TYPE 4 2-POS E-STOP BUTTON, PULL/TWIST RELEASE SURGE PROTECTIVE DEVICE, 40kA PER PHASE, 30A, 120VAC, C/W COMPONENT LEVEL FUSING ?" X ?" LIGHT GREY NARROW SLOT WIRING DUCT c/w MATCHING COVER, SIZED TO SUIT SWITCH AMPLIFIER, 2 CHANNELS ISOLATED BARRIER COPPER GROUND BAR ISOLATED COPPER GROUND BAR S0 MM X 150 MM LAMACOID WITH WHITE BACKGROUND AND BLACK 25mm HIGH CHARACTERS, SIZE TO SUIT	1. USED FOR 120VAC/24VDC CONNECTIONS 1. USED FOR RIO INPUTS.
	PHOENIX CONTACT PHOENIX CONTACT ALLEN BRADELY TOTAL PROTECTION SOLUTIONS PANDUIT PEPPERL+FUCHS	UTTB 4 UK 6 N UK 5 N USLKG 6 UTTB 4-MT USLKG 5 CLIPFIX 35 KLM + ESL 26X6 MINI MCR-SL-UI-UI-NC MINI MCR-SL-UI-2UI-NC 800T TK-LTE120-30A-DIN2-RC F?X?LG6 SERIES KFD2-SR2-Ex2.W	DOUBLE LEVEL TERMINAL BLOCK. PROVIDE END COVER TO SUIT. UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. KNIFE DISCONNECT TERMINAL BLOCK, 30A. PROVIDE BLUE PLUG-IN BRIDGE TO SUIT. PROVIDE END COVER TO SUIT. GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE BLUE PLUG-IN BRIDGE TO SUIT. PROVIDE END COVER TO SUIT. SNAP-ON END BRACKET TERMINAL STRIP MARKERS / GROUP LABELS CONFIGURABLE ANALOG SIGNAL CONDITIONER CONFIGURABLE ANALOG SIGNAL ISOLATING AMPLIFIER DUPLICATOR, SCREW CONNECTION 30mm TYPE 4 2-POS E-STOP BUTTON, PULL/TWIST RELEASE SURGE PROTECTIVE DEVICE, 40kA PER PHASE, 30A, 120VAC, C/W COMPONENT LEVEL FUSING ?" X ?" LIGHT GREY NARROW SLOT WIRING DUCT c/w MATCHING COVER, SIZED TO SUIT SWITCH AMPLIFIER, 2 CHANNELS ISOLATED BARRIER COPPER GROUND BAR ISOLATED COPPER GROUND BAR S0 MM X 150 MM LAMACOID WITH WHITE BACKGROUND AND BLACK 25mm HIGH CHARACTERS, SIZE TO SUIT ESA SHOCK HAZARD STICKER	1. USED FOR 120VAC/24VDC CONNECTIONS 1. USED FOR RIO INPUTS.
	PHOENIX CONTACT PHOENIX CONTACT ALLEN BRADELY TOTAL PROTECTION SOLUTIONS	UTTB 4 UK 6 N UK 5 N USLKG 6 UTTB 4-MT USLKG 5 CLIPFIX 35 KLM + ESL 26X6 MINI MCR-SL-UI-UI-NC MINI MCR-SL-UI-2UI-NC 800T TK-LTE120-30A-DIN2-RC F?X?LG6 SERIES KFD2-SR2-Ex2.W F?X?LG6 SERIES KFD2-SR2-Ex2.W	DOUBLE LEVEL TERMINAL BLOCK. PROVIDE END COVER TO SUIT. UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. KNIFE DISCONNECT TERMINAL BLOCK, 30A. PROVIDE BLUE PLUG-IN BRIDGE TO SUIT. PROVIDE END COVER TO SUIT. GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. SNAP-ON END BRACKET TERMINAL STRIP MARKERS / GROUP LABELS CONFIGURABLE ANALOG SIGNAL CONDITIONER CONFIGURABLE ANALOG SIGNAL ISOLATING AMPLIFIER DUPLICATOR, SCREW CONNECTION 30mm TYPE 4 2-POS E-STOP BUTTON, PULL/TWIST RELEASE SURGE PROTECTIVE DEVICE, 40kA PER PHASE, 30A, 120VAC, C/W COMPONENT LEVEL FUSING ?" X ?" LIGHT GREY NARROW SLOT WIRING DUCT c/w MATCHING COVER, SIZED TO SUIT SWITCH AMPLIFIER, 2 CHANNELS ISOLATED BARRIER COPPER GROUND BAR ISOLATED COPPER GROUND BAR SO MM X 150 MM LAMACOID WITH WHITE BACKGROUND AND BLACK 25mm HIGH CHARACTERS, SIZE TO SUIT SUIT ESA SHOCK HAZARD STICKER INDUSTRIAL ROUTER, NAT, VPN, FIREWALL	1. USED FOR 120VAC/24VDC CONNECTIONS 1. USED FOR RIO INPUTS. 1. USED FOR RIO INPUTS. 1. SIZE TO SUIT
	PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT ALLEN BRADELY TOTAL PROTECTION SOLUTIONS PANDUIT PEPPERL+FUCHS PHOENIX CONTACT PHOENIX CONTACT	UTTB 4 UK 6 N UK 5 N USLKG 6 UTTB 4-MT USLKG 5 CLIPFIX 35 KLM + ESL 26X6 MINI MCR-SL-UI-UI-NC MINI MCR-SL-UI-2UI-NC 800T TK-LTE120-30A-DIN2-RC F?X?LG6 SERIES KFD2-SR2-Ex2.W	DOUBLE LEVEL TERMINAL BLOCK. PROVIDE END COVER TO SUIT. UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. KNIFE DISCONNECT TERMINAL BLOCK, 30A. PROVIDE BLUE PLUG-IN BRIDGE TO SUIT. PROVIDE END COVER TO SUIT. GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE BLUE PLUG-IN BRIDGE TO SUIT. PROVIDE END COVER TO SUIT. SNAP-ON END BRACKET TERMINAL STRIP MARKERS / GROUP LABELS CONFIGURABLE ANALOG SIGNAL CONDITIONER CONFIGURABLE ANALOG SIGNAL ISOLATING AMPLIFIER DUPLICATOR, SCREW CONNECTION 30mm TYPE 4 2-POS E-STOP BUTTON, PULL/TWIST RELEASE SURGE PROTECTIVE DEVICE, 40kA PER PHASE, 30A, 120VAC, C/W COMPONENT LEVEL FUSING ?" X ?" LIGHT GREY NARROW SLOT WIRING DUCT c/w MATCHING COVER, SIZED TO SUIT SWITCH AMPLIFIER, 2 CHANNELS ISOLATED BARRIER COPPER GROUND BAR ISOLATED COPPER GROUND BAR S0 MM X 150 MM LAMACOID WITH WHITE BACKGROUND AND BLACK 25mm HIGH CHARACTERS, SIZE TO SUIT ESA SHOCK HAZARD STICKER	1. USED FOR 120VAC/24VDC CONNECTIONS 1. USED FOR RIO INPUTS.
> > > >	PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT ALLEN BRADELY TOTAL PROTECTION SOLUTIONS PANDUIT PEPPERL+FUCHS PHOENIX CONTACT PHOENIX CONTACT PHOENIX CONTACT	UTTB 4 UK 6 N UK 5 N USLKG 6 UTTB 4-MT USLKG 5 CLIPFIX 35 KLM + ESL 26X6 MINI MCR-SL-UI-UI-NC MINI MCR-SL-UI-2UI-NC 800T TK-LTE120-30A-DIN2-RC F?X?LG6 SERIES KFD2-SR2-Ex2.W F?X?LG6 SERIES KFD2-SR2-Ex2.W	DOUBLE LEVEL TERMINAL BLOCK. PROVIDE END COVER TO SUIT. UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. UNIVERSAL TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. KNIFE DISCONNECT TERMINAL BLOCK, 30A. PROVIDE BLUE PLUG-IN BRIDGE TO SUIT. PROVIDE END COVER TO SUIT. GROUND TERMINAL BLOCK, SCREW CONNECTION. PROVIDE END COVER TO SUIT. SNAP-ON END BRACKET TERMINAL STRIP MARKERS / GROUP LABELS CONFIGURABLE ANALOG SIGNAL CONDITIONER CONFIGURABLE ANALOG SIGNAL ISOLATING AMPLIFIER DUPLICATOR, SCREW CONNECTION 30mm TYPE 4 2-POS E-STOP BUTTON, PULL/TWIST RELEASE SURGE PROTECTIVE DEVICE, 40kA PER PHASE, 30A, 120VAC, C/W COMPONENT LEVEL FUSING ?" X ?" LIGHT GREY NARROW SLOT WIRING DUCT c/w MATCHING COVER, SIZED TO SUIT SWITCH AMPLIFIER, 2 CHANNELS ISOLATED BARRIER COPPER GROUND BAR ISOLATED COPPER GROUND BAR SOUMM 130 MM LAMACOID WITH WHITE BACKGROUND AND BLACK 25mm HIGH CHARACTERS, SIZE TO SUIT SUIT ESA SHOCK HAZARD STICKER INDUSTRIAL ROUTER, NAT, VPN, FIREWALL	1. USED FOR 120VAC/24VDC CONNECTIONS 1. USED FOR RIO INPUTS. 1. USED FOR RIO INPUTS. 1. SIZE TO SUIT

0	ISSUED FOR TE		23/04/25	
No. THES	ISSUE / REVIS		DD/MM/YY & ASSOCIATES	
LIMIT IN TH OF TI OR E WITH WARI OF T CHOO WITH	ED AND ARE SUBJECT TO COPYRIG E APPLICABLE PROJECT CONTRACT HESE DRAWINGS FOR PURPOSES (XECUTION OF THE DESCRIBED WOI OUT THE PRIOR WRITTEN AUTHO RANTIES, EITHER EXPRESS OR IMPL HESE DRAWINGS FOR ANY OTHEF DSES TO USE, MODIFY, OR OTHE OUT JLR'S AUTHORIZATION ACCEP	SHT AND USE RESTRICT T. ANY USE, REUSE, OR DTHER THAN THE ORIG RK IS NOT PERMITTED (ORIZATION OF JLR. JL LIED, OF THE SUITABILIT R PURPOSE, AND ANY STWISE RELY ON THES TS THESE LIMITATIONS	IONS SET OUT MODIFICATION INAL PROJECT DR ENDORSED R MAKES NO 'Y OR FITNESS PARTY WHICH SE DRAWINGS	
VERI				
VERIFY SHEET SIZE AND SCALES. THE BAR TO THE RIGHT IS 25MM IF THIS IS A FULL SIZE DRAWING. 0 25mm				
SCAL	^{E:} N.T.S.			
	E: N.T.S.			
	N.T. S .			
SCAL	N.T.S.			
SCAL	N.T. S .		/w.jlrichards.ca	
SCAL CLIE	NT: SULTANT: SULTANT:			
SCAL CLIE	NT: SULTANT:	lichards		
SCAL CLIE	NT: SULTANT: SULTANT:	lichards		
SCAL CLIE	NT: SULTANT: SULTANT:	lichards		
SCAL CLIEF CONS	NT: SULTANT: SULTANT: SULTANT:	lichards		
SCAL CLIEF CONS	NT: SULTANT: SULTANT: SULTANT:	Richards IS-ARCHITECTS-PL/		
SCAL CLIEF CONS	NT: SULTANT: SULTANT: SULTANT:	Richards IS-ARCHITECTS-PL/		
SCAL CLIEF CONS	NT: SULTANT: SULTANT:	Richards IS-ARCHITECTS-PL/		
SCAL CLIEF CONS	NT: SULTANT: S	Richards IS-ARCHITECTS-PL/		
	NT: SULTANT: SULTANT: SULTANT: SULTANT: SULTANT: SULTANT: SULTANT:	Richards IS-ARCHITECTS-PL/		
SCAL CLIEF CONS	NT: SULTANT: SULTANT: SULTANT: SULTANT: SULTANT: SULTANT: SULTANT:	Richards IS-ARCHITECTS-PL/		
	NT: SULTANT:	PROJECT NORTH	ANNERS	
	TT: SULTANT: S	PROJECT NORTH	ANNERS	
	NT: SULTANT:	PROJECT NORTH	ANINERS N SPS	
CONS CONS PROF	NT: SULTANT: S	PROJECT NORTH	ANINERS N SPS	
CONS CONS PROF	NT: SULTANT: ESSIONAL STAMP SULTANT: ESSIONAL STAMP 2025-04-23 C. BULA-BULA 100540590 C.	PROJECT NORTH	ANINERS N SPS	
CONS CONS PROF	NT: SULTANT:	PROJECT NORTH	ANINERS N SPS	
CONS CONS PROF	NT: SULTANT: ESSIONAL STAMP SULTANT: ESSIONAL STAMP CONFESSIONAL STAMP CONFESSIO	PROJECT NORTH	ANINERS N SPS	
	TT: SULTANT: S	PROJECT NORTH	ANINERS N SPS	
	TT: SULTANT: S	PROJECT NORTH	ANINERS N SPS	



GENERAL NOTES:

- A. PROVIDE ENOUGH TERMINALS TO TERMINATE ALL CONDUCTORS OF ALL CABLES CONNECTED TO THE JUNCTION BOX. REFER TO CABLE SCHEDULE.
- B. SIZE EACH JUNCTION BOX TO ACCOMMODATE THE NUMBER OF TERMINALS.
- C. SIZE THE DIN RAIL TO ACCOMMODATE THE NUMBER OF TERMINALS.
- D. ALTERNATIVE LAYOUT MAY BE CONSIDERED AT TIME OF SHOP DRAWINGS REVIEW.
- E. PROVIDE AT LEAST 50mm SPACE BETWEEN WIRE DUCT AND TERMINAL.
- F. TERMINAL BLOCKS TO BE LABELLED NUMERICALLY, STARTING AT 1 AND **INCREMENTING BY 1.**
- G. JUNCTION BOX WIRING SHALL BE IP2X. PROVIDE ALL ACCESSORIES REQUIRED FOR A IP2X RATING.
- H. PROVIDE A LAMACOID LABEL AS INDICATED ON THE DRAWINGS.



DIN RAIL

INNER /

PANEL

.88 .88 .88

INTRINSICALLY SAFE

JUNCTION BOX DETAILS

GROUND BAR

07

I105

SCALE: N.T.S.

BILL OF MATERIALS:

1. ENCLOSURE PER ITEM 22. SIZE ENCLOSURE TO SUIT.

2. TERMINAL BLOCKS PER ITEM 40.

4. WIRE AND DUCT SIZED TO SUIT.

7. TERMINAL GROUP LABELS PER ITEM 45.

3. END ANCHORS PER ITEM 44.

6. GROUND BAR PER ITEM 52.

5. DIN RAIL PER ITEM 25.

8. LAMACOID PER ITEM 54.

I. USE SUITABLE CONSTRUCTION GRADE ADHESIVE TO SECURE LAMACOID TO JUNCTION BOX. ENSURE ADHESIVE IS RATED FOR THE INTENDED ENVIRONMENTAL CONDITIONS. SCREWS, OR OTHER MEANS REQUIRING PUNCTURING OF THE ENCLOSURE, IS NOT ACCEPTABLE.

J. JUNCTION BOXES SERVICING POWER CABLES ARE TO HAVE TERMINAL BLOCKS SIZED TO SUIT.

K. THIS JUNCTION BOX IS INTENDED TO INTRINSICALLY SAFE CIRCUIT FOR WET WELLS FLOATS.

L. DUCTING FOR PLC COMMUNICATIONS CABLING TO BE ELEVATED USING PANEL STANDOFFS (OR EQUIVALENT). FINAL HEIGHT OF COMMUNICATIONS DUCTING TO MATCH THAT OF ADJACENT DUCTING. PLC I/O WIRING TO BE ROUTED BENEATH PLC COMMUNICATIONS DUCTING.

M. SYSTEMS INTEGRATOR TO PROGRAM THE PLC TO DETECT LOSS OF COMMUNICATIONS WITH ALL NETWORK DEVICES AND ALARM ACCORDINGLY.

BILL OF MATERIALS:

TERMINAL

ANCHOR (TYP.)

>END

I.S. ISOLATION

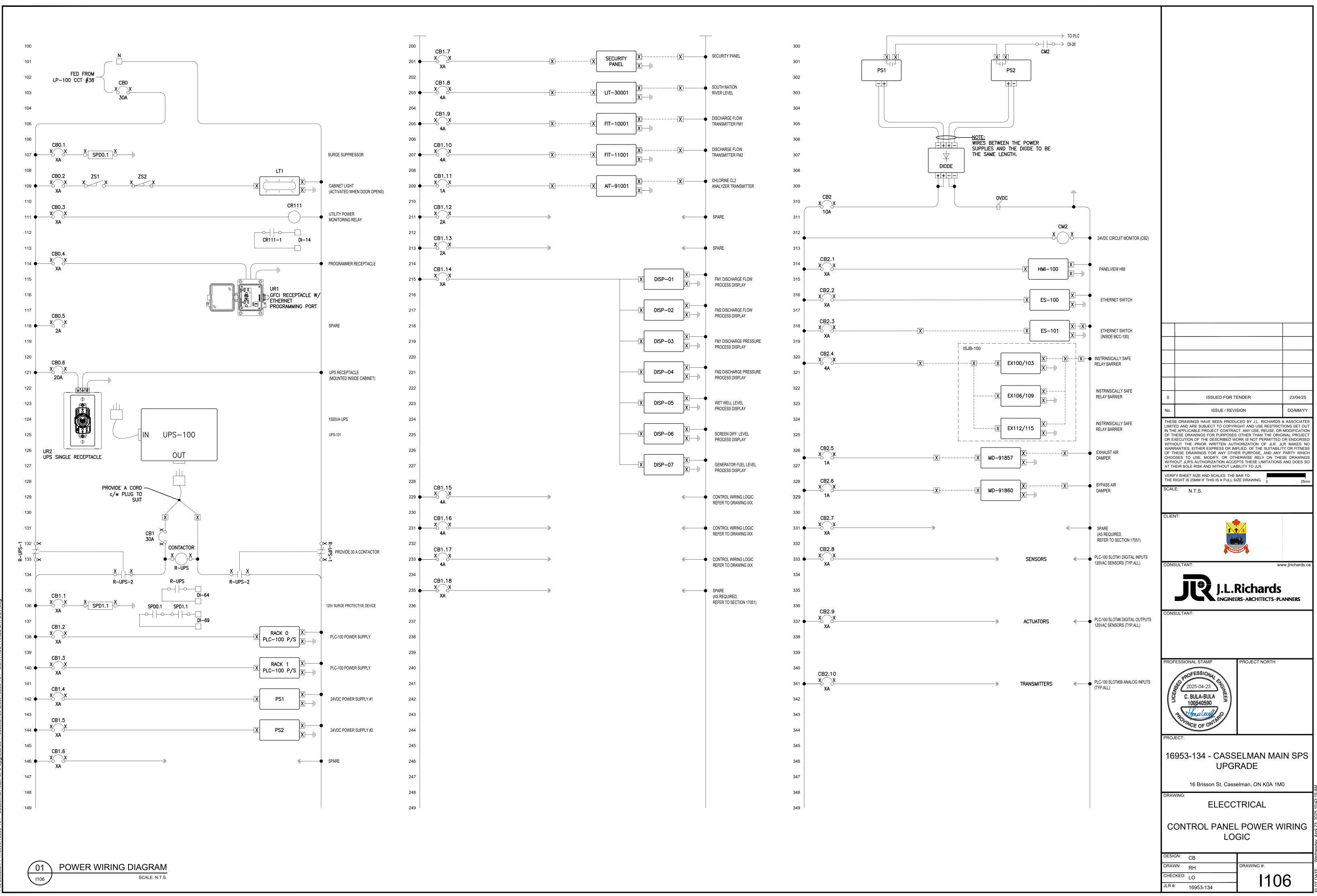
DEVICES

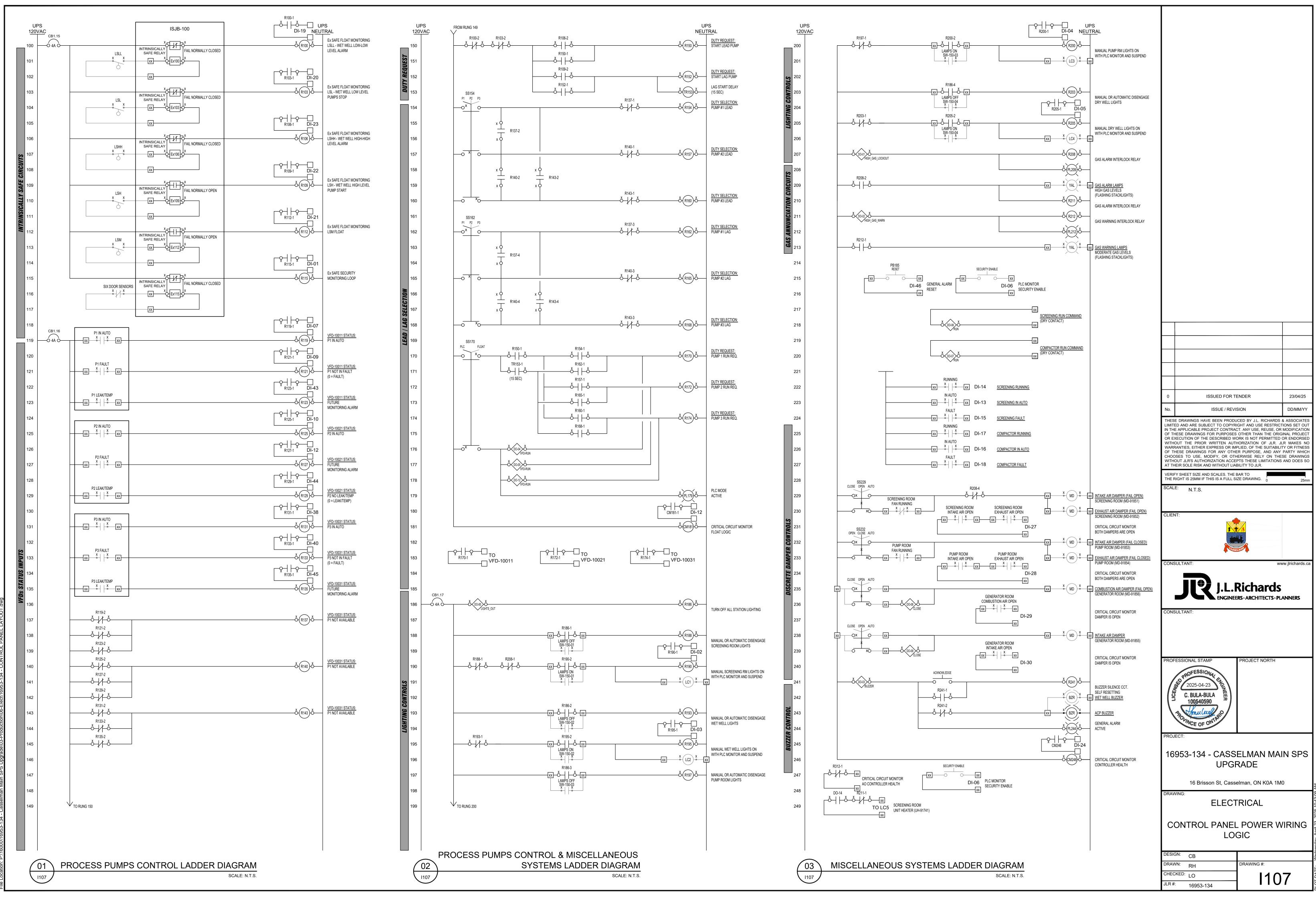
SCALE: N.T.S.

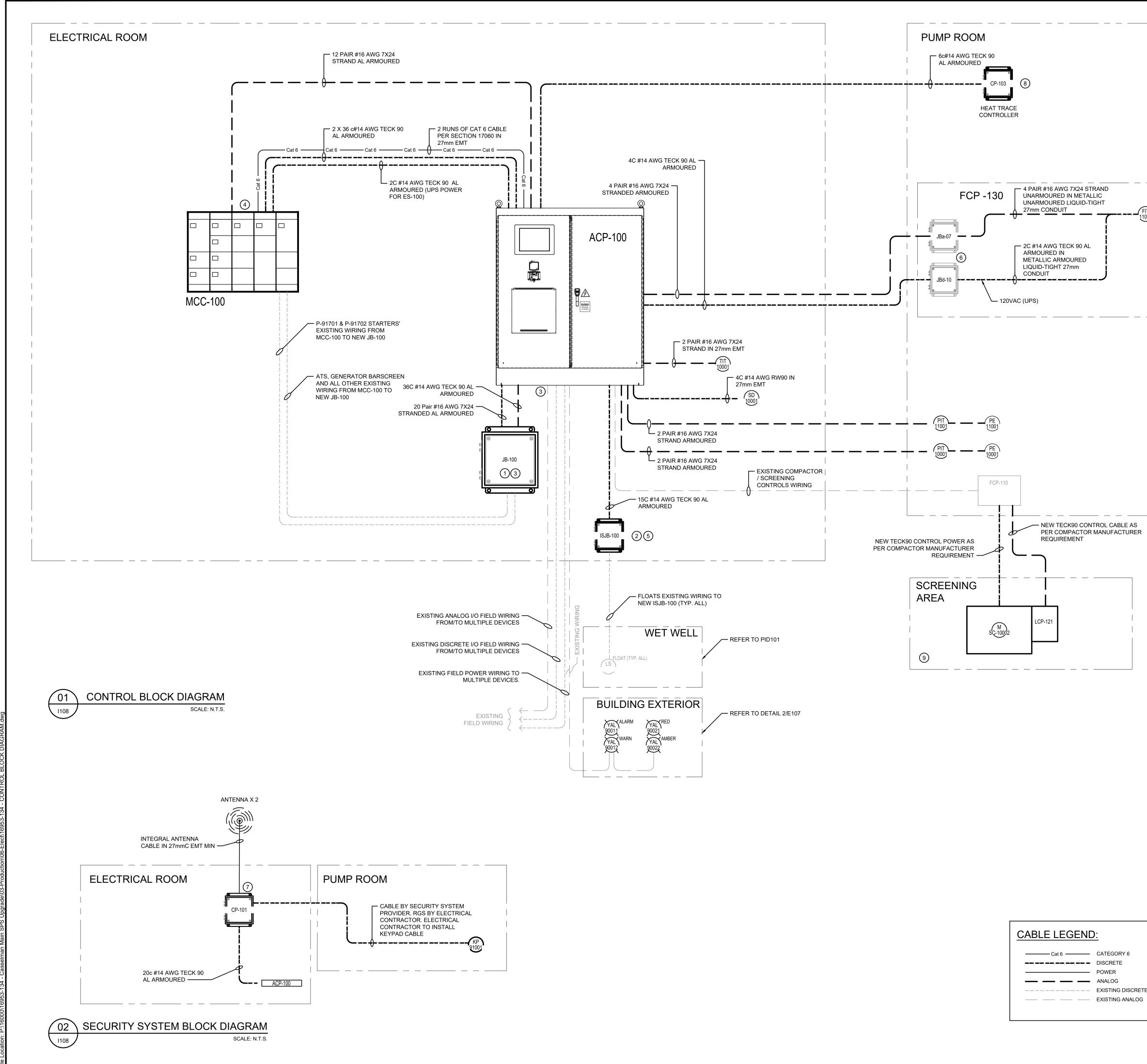
BLOCK (TYP.)

- 1. ENCLOSURE PER ITEM 6. SIZE ENCLOSURE TO SUIT.
- 2. TERMINAL BLOCKS PER ITEM 40. 3. END ANCHORS PER ITEM 44.
- 4. WIRE AND DUCT SIZED TO SUIT.
- 5. DIN RAIL PER ITEM 25.
- 6. GROUND BAR PER ITEM 52. 7. TERMINAL GROUP LABELS PER ITEM 45.
- 8. LAMACOID PER ITEM 54.
- 9. ISOLATING SWITCHING AMPLIFIER, PER ITEM 51.

<u> </u>	I		
0	ISSUED FOR TI	ENDER	23/04/25
No.	ISSUE / REVI	-	DD/MM/YY
IN TH OF TH OR E WITH WARF OF T CHOO WITH	ED AND ARE SUBJECT TO COPYRI E APPLICABLE PROJECT CONTRAC HESE DRAWINGS FOR PURPOSES XECUTION OF THE DESCRIBED WO OUT THE PRIOR WRITTEN AUTI RANTIES, EITHER EXPRESS OR IMI HESE DRAWINGS FOR ANY OTHE DSES TO USE, MODIFY, OR OTH OUT JLR'S AUTHORIZATION ACCE HEIR SOLE RISK AND WITHOUT LIAN	CT. ANY USE, REUSE, OR OTHER THAN THE ORIG DRK IS NOT PERMITTED HORIZATION OF JLR. JL PLIED, OF THE SUITABILIT ER PURPOSE, AND ANY IERWISE RELY ON THE PTS THESE LIMITATIONS	MODIFICATION INAL PROJECT OR ENDORSED IR MAKES NO IY OR FITNESS PARTY WHICH SE DRAWINGS
	FY SHEET SIZE AND SCALES. THE B RIGHT IS 25MM IF THIS IS A FULL SI E: N.T.S.		25mm
	N.1.0.		
CLIE	NT:		
CONS	SULTANT:	ww	/w.jlrichards.ca
	JR J.L.I	Richards	
CONS	SULTANT:	RS-ARCHITECTS-PL	ANNERS
PROF	ESSIONAL STAMP	PROJECT NORTH	
	C. BULA-BULA 100540590		
	C. BULA-BULA		
	PROVINCE OF ONTAIL		
PROJ			
16	953-134 - CASS UPGF	ELMAN MAI RADE	N SPS
DRAV	16 Brisson St, Casso	elman, ON K0A 1M)
		RICAL	л 40.49.4
	CONTROL PA	NEL LAYOU	JT 5
DESI	СВ		
DRAV CHEC	CKED: LO	DRAWING #:	5
JLR #	16953-134		







FIT MAG	SENSOR EXCITATION CABLE IN 27mm RGS

DRAWING NOTES:

(1) REFER TO JUNCTION BOX DETAIL 6/1105.

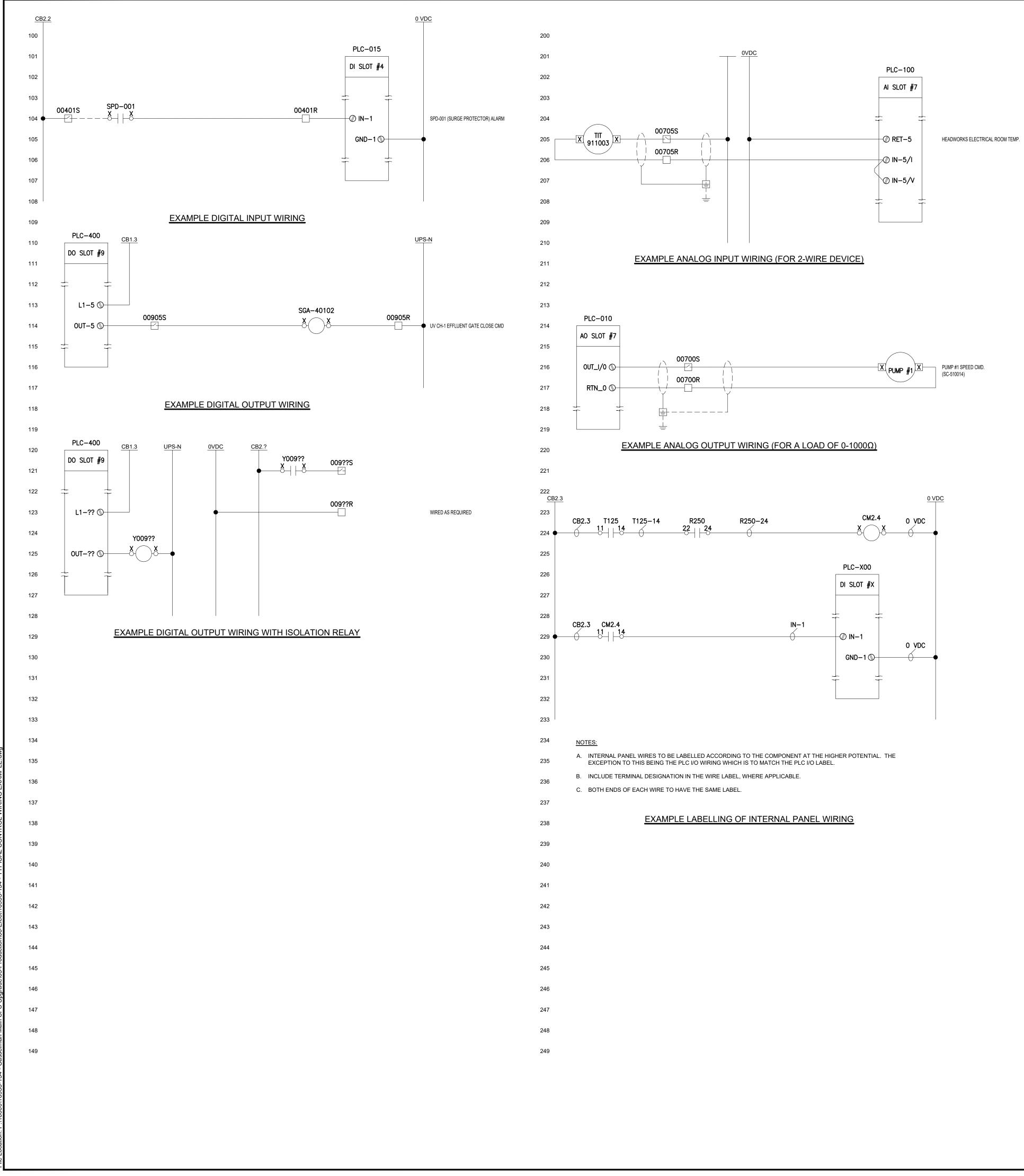
- (2) RETAIN THE SERVICES OF A PROFESSIONAL ENGINEER, LICENSED IN THE PROVINCE OF ONTARIO, TO DESIGN THE INTRINSIC BARRIER PROTECTION SYSTEM, IN ACCORDANCE WITH THE REQUIREMENTS OF THE OESC. SUBMIT SEALED SHOP DRAWINGS/DESCRIPTIVE SYSTEM DOCUMENTS (DSD) AS PER CSA 22.1-21 FOR REVIEW. PROVIDE SEALED DSD WITH ENTITY PARAMETER DETAILS FOR EACH INTRINSICALLY SAFE PROVIDE CABLE CAPACITANCE, INDUCTANCE, AND RESISTANCE.
- (3) ALL FIELD WIRING TO BE CONNECTED TO NEW ACP-100 CONTROL PANEL. FIELD WIRING PASSING/CROSSING BY NEW ACP-100 CONTROL PANEL SHALL BE DIRECTLY TERMINATED TO THE ACP-100. TERMINATE ALL FIELD WIRING TO THE NEW JB-100 JUNCTION BOX WHERE WIRING WILL NOT REACH NEW PLC PANEL ACP-100 LOCATION, PROVIDE NEW WIRING FROM JB-100 TO NEW PLC CONTROL PANEL AS REQUIRED. PROVIDE TERMINAL BLOCKS, WIRE LABELS, WIRE IDENTIFICATION AND ALL APPURTENANCES AS REQUIRED.
- (4) PROVIDE NEW MANAGED ETHERNET SWITCH INSIDE THE MCC-100 TO CONNECT ALL MCC-100 ETHERNET DEVICES. REFER TO SECTION 17060.
- 5 REFER TO DRAWING 7/1105 FOR JUNCTION DETAILS. WHERE EXISTING I.S. DEVICE WIRING APPEARS TO BE SHORT, PROVIDE NEW WIRING BACK TO THE SOURCE. WIRE SPLICE IS NOT ACCEPTABLE.
- (6) PROVIDE ADDITIONAL TERMINAL BLOCKS INSIDE JUNCTION BOXES AS REQUIRED FOR THE NEW FLOW TRANSMITTER WIRING.
- (7) COORDINATE WITH FALCON SECURITY FOR THE PROVISION OF SECURITY PANEL AND ASSOCIATED WIRING. MAKE AND MODEL TO BE COORDINATED WITH PROVIDER TO ALIGN WITH OWNER'S REQUIREMENTS. PROVIDE DIALER WITH MINIMUM OF 16 ZONES. COORDINATE WITH OWNER FOR ALARM ZONE ASSIGNMENT. COORDINATE WITH OWNER FOR PROVISION OF SIM CARD FOR VPN ROUTER INTERNET.
- (8) REFER TO DETAIL DRAWING E104.
- (9) DRAWINGS DO NOT SHOW EVERY DETAIL REQUIREMENT TO BE PROVIDED BY ELECTRICAL CONTRACTOR. COORDINATE WITH DIV.15 FOR THE PROVISION OF NEW LOCAL CONTROL STATION AND REQUIRED JUNCTION BOXES AS PART OF NEW COMPACTOR PACKAGE. PROVIDE COMPLETE LOCAL CONTROL STATION INTEGRATION TO THE EXISTING COMPACTOR CONTROL PANEL FCP-110. PROVIDE NEW TECK90 POWER AND CONTROL WIRING AS REQUIRED BACK TO FCP-110. COORDINATE WITH MANUFACTURER FOR THE WIRING REQUIREMENT AND PROVIDE FOR A COMPLETE, FULLY COMMISSIONED TURN-KEY INSTALLATION. FINAL CABLE LENGTH TO BE COORDINATED WITH COMPACTOR MANUFACTURER AND DIV.15. REFER TO SECTION 16122 FOR THE CLASSIFIED AREA CABLE CONNECTORS REQUIREMENTS.

CHECKED: LO

JLR #: 16953-134

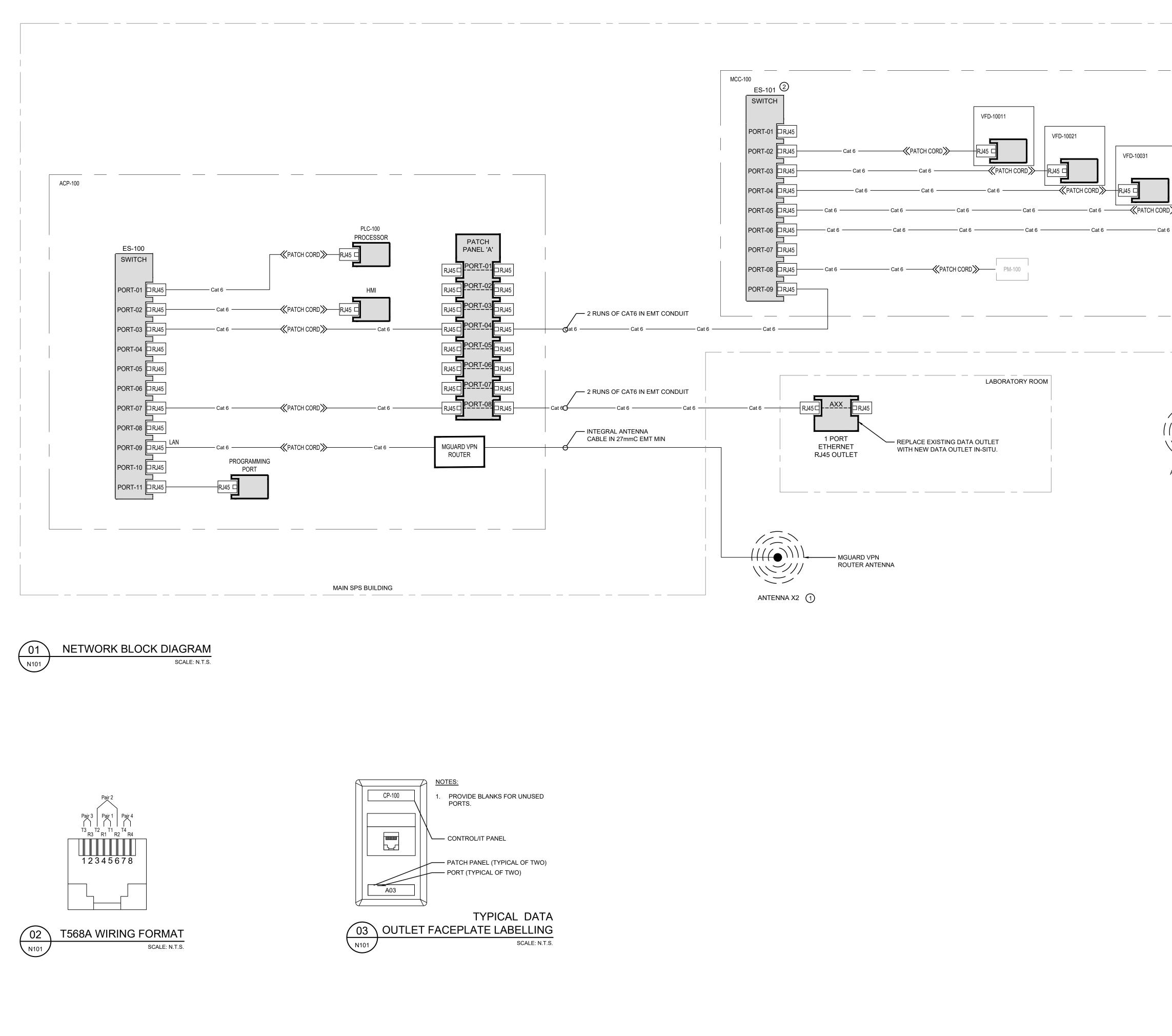
	ENERAL NOTES	-					
В.	THIS DRAWING IS TO BE R ALL PLC WIRING DIAGRAM DRAWINGS.	EAD IN CONJUNCTIO	ON WITH				
C.	CONTRACTOR TO ORDER A	APPROPRIATE LENG	GTH OF				
D.	CONTRACTOR SHALL BE RESPONSIBLE FOR						
	COORDINATING AND PROVIDING INTRINSICALLY SAFE BARRIER RELAYS AS NEEDED TO MEET THE REQUIREMENTS OF THE ONTARIO ELECTRICAL SAFETY						
	CODE. THIS SHALL INCLUD DOCUMENTATION AS MAY ELECTRICAL SAFETY AUTH	BE REQUESTED BY	THE				
	OF THE PUMPING SYSTEM INSTALLATIONS. UNLESS SPECIFIED OTHERWISE, ALL DISCRETE AND						
	CONTROL POWER WIRING TO BE RW90 WHILE ANALOG IS TO BE MULTI-PAIR CABLES.						
F.	ADDITIONAL CABLE REQU - PORTABLE CONTROL C. SOOW		S SERIES				
	 MULTI-PAIR UNARMOUF 323-631-16XX SERIES MULTI-PAIR ARMOURED 		ĒR				
	 323-639-16XX SERIES MULTI-TRIAD ARMOURE 323-679-16XX SERIES 		R				
	323-079-10AA SERIES						
0 No.	ISSUED FOR T		23/04/25 DD/MM/YY				
	E DRAWINGS HAVE BEEN PRODU ED AND ARE SUBJECT TO COPYR						
OF TH OR E	E APPLICABLE PROJECT CONTRAC HESE DRAWINGS FOR PURPOSES XECUTION OF THE DESCRIBED W OUT THE PRIOR WRITTEN AUT	OTHER THAN THE ORIG	INAL PROJECT				
WARF OF TI CHOO	RANTIES, EITHER EXPRESS OR IM HESE DRAWINGS FOR ANY OTH DSES TO USE, MODIFY, OR OTH	Plied, of the suitabilit Fr purpose, and any Ferwise rely on the	TY OR FITNESS PARTY WHICH SE DRAWINGS				
AT TH	OUT JLR'S AUTHORIZATION ACCE IEIR SOLE RISK AND WITHOUT LIA	BILITY TO JLR.	AND DOES SO				
THE F	RIGHT IS 25MM IF THIS IS A FULL S E:	ZE DRAWING.	25mm				
CLIEN	NT:						
	Cass	ENAN					
CONS	SULTANT:	ww	/w.jlrichards.ca				
	JR J.L.I	Richards					
	ENGINE	RS·ARCHITECTS·PL	ANNERS				
CONS	SULTANT:						
PROF	C. BULA-BULA	PROJECT NORTH					
	2025-04-23						
	C. BULA-BULA						
$ \setminus$	BROWINCE OF ONTATION						
PROJ							
16	953-134 - CASS UPGI	ELMAN MAI RADE	N 272				
	16 Brisson St, Cass	elman, ON K0A 1M	0				
DRAV		, a					
	CONTROL BL	OCK DIAGR	AM				
DESI	CB	DRAWING #:					

1108



CB2.4	<u>i</u>
300	
301	
302	
303	SED 100 COM 5
304 🔶	00501S SPD-100-COM S
305	
306	
307	
308	
309	NOTES:
310	A. FIELD WIRES TO BE LABELLED ACCOREB. INCLUDE TERMINAL DESIGNATION IN THE
311	c. BOTH ENDS OF EACH WIRE TO HAVE THE
312	D. INCLUDE JUNCTION BOX TERMINALS, W
313	EXA
314	GENERAL NOTES:
315	A. ALL WIRES TO BE TERMINATED USING ARE CRIMPED WITHIN THE FERRULE AN
316	B. NO MORE THAN TWO (2) WIRES TO BE (REQUIRED.
317	C. WIRING TO BE IN ACCORDANCE WITH TD. FOLLOW MANUFACTURER'S RECOMME
318	E. SECURE WIRES IN WIRE DUCT USING C EXCESS CABLE TIE ENDS. CABLE TIE A
319	 F. ALL PLC AND MIO I/O POINTS TO BE TER ALL I/O POINTS.
320	G. THESE DRAWINGS TO BE READ IN CON
321	H. PERFORM A "PULL TEST" ON EACH WIRI. LABEL EACH WIRE AS INDICATED.
322	J. THE PANEL BUILDER IS RESPONSIBLE F PANEL AS WELL AS THOSE OF THE FIEL
323	INCLUDED ON THE AS-BUILT DOCUMEN K. ALL NEW ALARMS TO BE WIRED IN A FA
324	UNLESS THERE IS AN ALARM. FOR EXA PROVIDE FAIL-SAFE WIRING. PROVIDE
325	L. REFER TO THE I/O LIST FOR CIRCUIT MU ONE RELAYS ARE USED TO MONITOR C SHALL BE WIRED IN SERIES.
326	M. PROVIDE 24VDC DISCRETE INPUT ANDN. PROVIDE DRY CONTACT WIRING FOR T
327	DEVICE/EQUIPMENT.O. PROVIDE LOOP POWERED OR FIELD PO
328	FIELD DEVICE/EQUIPMENT.P. REFER TO THE INSTALLATION DOCUME
329	Q. PROVIDE A TWO-TIER KNIFE TERMINAL THE EXAMPLES PROVIDED AND AS PEF RELAYS, PROVIDE ALL SUCH RELAYS.
330	MATERIALS. R. PROVIDE A TWO-TIER KNIFE TERMINAL
331	EXAMPLES PROVIDED AND AS PER THE PROVIDE ALL SUCH AMPLIFIERS. THE A MATERIALS.
332	S. EACH DIN RAIL IN EACH CONTROL PAN DIN RAIL. GROUND TERMINALS NOT SH
333	T. BREAKERS TO BE "C CURVE" UNLESS C EQUIPMENT MANUFACTURER'S RECOM
334	U. CIRCUIT BREAKERS AND CIRCUIT MON
335 336	V. PROVIDE ADDITIONAL BREAKERS AS RIW. PANEL BUILDER TO SIZE BREAKERS TO
337	X. PROVIDE (ADDITIONAL) RELAYS AND O
338	Y. PANEL BUILDER TO VERIFY THE WIRING NEW PLC PANELS.
339	POWER AND CONTROL WIRE (INTERNAL TO SIZE:
340	 USE A MINIMUM OF 14AWG FOR POWE USE A MINIMUM OF 16AWG FOR CONT
341	COLOUR: 1. 24VAC/120VAC (NON-UPS): BLACK (L 2. 24VAC/120VAC (UPS): ORANGE
342	3. 24VDC: YELLOW 4. GROUND: GREEN. 5. INTRINSIC SAFETY: BLUE.
343	TYPE: 1. EACH POWER AND CONTROL WIRE TO
344	1.1. RW 90, 600V RATED 1.2. COPPER CONDUCTOR WITH XLP INSU 1.3. 90°C WET OR DRY
344 345	1.4. IN ACCORDANCE WITH CSA C22.2 No. 1.5. ANIXTER 6CL SERIES SINGLE STRAND
345 346	ANALOG WIRE (INTERNAL TO ENCLOSURE)
340	TYPE: 1. BELDEN 8761 FOR PAIRS 2. BELDEN 22660 FOR TRIADS
347	NOTES:
340	A. WIRE TO MEET THE REQUIREMENTS OF B. PROVIDE SHOP DRAWINGS FOR WIRES
5-10	

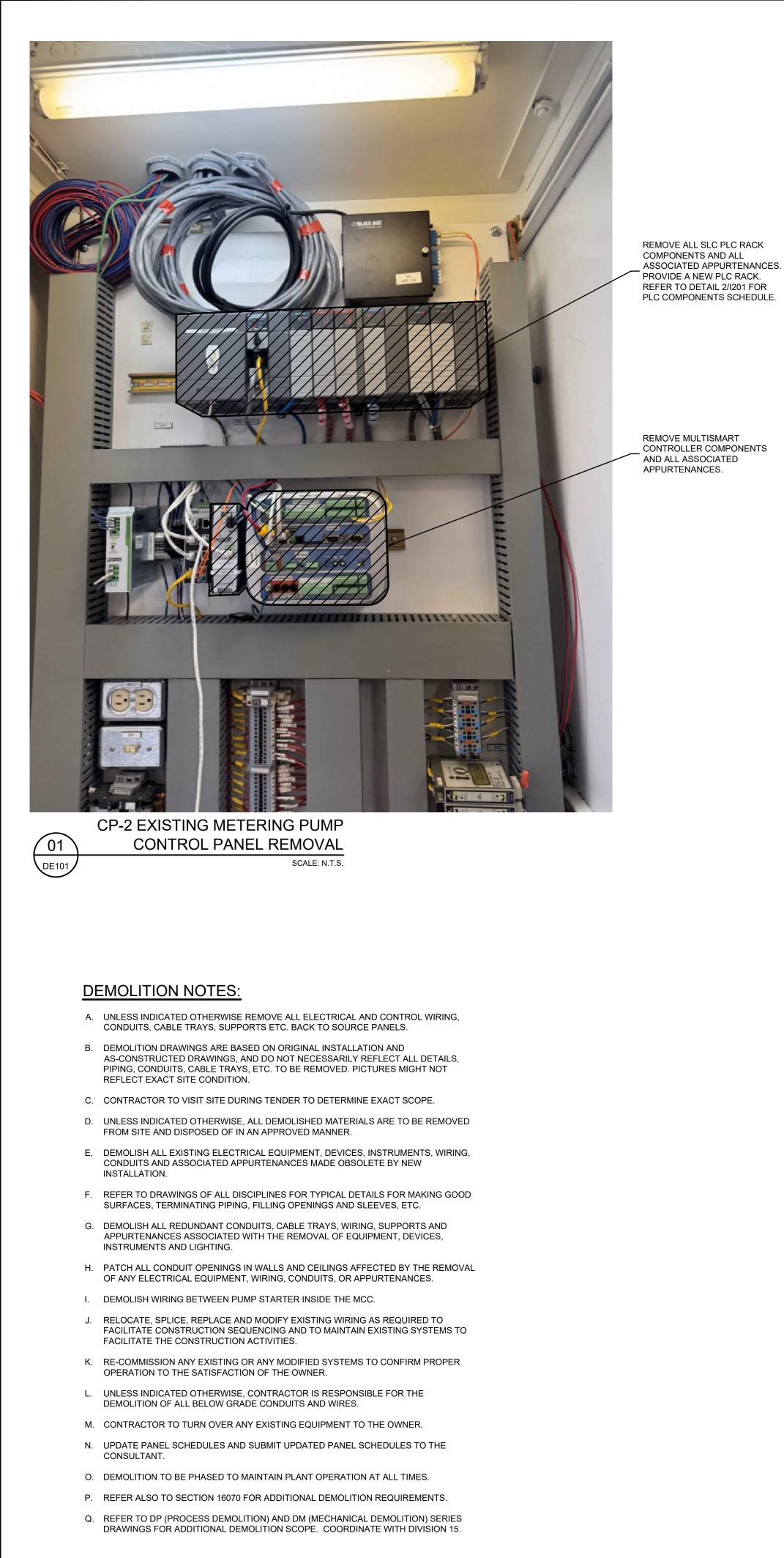
		<u>0 VDC</u>		
	PLC-100 DI SLOT #5			
SPD-100 SPD-100-NC				
COM NC 00501R	—⊘ IN—1	SPD-100 (SURGE PROTECTOR) ALARM		
	GND-1 ()	•		
RDING TO THE FIELD DEVICE TAG. THE WIRE LABEL, WHERE APPLICABLE. THE SAME LABEL. WHERE APPLICABLE.				
AMPLE LABELLING OF FIELD WIRING				
G CRIMP-ON FERRULES. ONLY ONE WIRE PER FERRULE. ENSU AND THAT THERE ARE NO STRAY STRANDS OF WIRE. CONNECTED TO THE SAME SIDE OF A TERMINAL. PROVIDE AD				
THE LATEST REVISION OF THE ONTARIO ELECTRICAL SAFETY	CODE.			
ENDATIONS FOR INSTALLATION AND WIRING OF COMPONENTS		REMOVE		
APPLICATION TO BE DONE IN A NEAT ORGANIZED MANNER.				
NJUNCTION WITH THE PLC/MIO I/O TABLES AND AS-BUILT DRAW				
RE TO CONFIRM THAT IT IS SECURELY TERMINATED.				
FOR IDENTIFYING THE CORRECT TERMINALS FOR ALL DEVICE				
FAIL-SAFE MANNER, SUCH THAT AN INPUT IS ALWAYS PRESENT			0 ISSUED FOR T	ENDER 23/04/25
XAMPLE, IN THE CASE OF THE UPS ALARMS SELECT THE CONTA E ALL RELAYS AND ACCESSORIES REQUIRED TO PROVIDE FAIL	-SAFE WIRING.		No. ISSUE / REV	ISION DD/MM/YY
MONITORING (POWER FAILURE RELAYS) INPUTS TO THE PLC/MI CIRCUITS FOR A PARTICULAR PLC OR MIO I/O CARD. IN SUCH (LIMITED AND ARE SUBJECT TO COPYFIN THE APPLICABLE PROJECT CONTRA	JCED BY J.L. RICHARDS & ASSOCIATES RIGHT AND USE RESTRICTIONS SET OUT CT. ANY USE, REUSE, OR MODIFICATION
O OUTPUT WIRING AS REQUIRED FOR FIELD DEVICES. THE DISCRETE OUTPUT CARDS OF EACH PLC AND MIO AS REQ			OR EXECUTION OF THE DESCRIBED W WITHOUT THE PRIOR WRITTEN AUT	S OTHER THAN THE ORIGINAL PROJECT YORK IS NOT PERMITTED OR ENDORSED THORIZATION OF JLR. JLR MAKES NO IPLIED, OF THE SUITABILITY OR FITNESS
POWERED WIRING FOR THE ANALOG INPUT CARDS OF EACH PL			OF THESE DRAWINGS FOR ANY OTH CHOOSES TO USE, MODIFY, OR OT WITHOUT JLR'S AUTHORIZATION ACCE	ER PURPOSE, AND ANY PARTY WHICH HERWISE RELY ON THESE DRAWINGS PTS THESE LIMITATIONS AND DOES SO
IENTATION FOR THE REQUIREMENTS OF EACH FIELD DEVICE/E			AT THEIR SOLE RISK AND WITHOUT LIA VERIFY SHEET SIZE AND SCALES. THE THE RIGHT IS 25MM IF THIS IS A FULL S	BAR TO
L BLOCK FOR EACH DISCRETE I/O. WIRE EACH DISCRETE I/O A R THE MANUFACTURERS' RECOMMENDATIONS. SOME DISCRE THE ACCEPTABLE ISOLATION RELAYS ARE SPECIFIED IN THE	S PER THE GENERAL II TE I/O REQUIRE ISOLA	TION	SCALE: N.T.S.	0 201111
L BLOCK FOR EACH ANALOG I/O. WIRE EACH ANALOG I/O AS PE HE MANUFACTURERS' RECOMMENDATIONS. SOME ANALOG I/O ACCEPTABLE ANALOG ISOLATING AMPLIFIERS ARE SPECIFIED	REQUIRE ISOLATION A	MPLIFIERS.	CLIENT:	
NEL SHALL BE BONDED. REFER TO BONDING DETAIL. PROVIDE SHOWN ON LAYOUT DRAWINGS. OTHERWISE INDICATED. COORDINATE BREAKER SIZES AND CI MMENDATIONS.			CONSULTANT:	www.jlrichards.ca
NITORS TAGS TO BE SEQUENTIAL.				www.jiircharus.ca
REQUIRED FOR POWER DISTRIBUTION. O SUIT.				Richards
			CONSULTANT:	ERS-ARCHITECTS-PLANNERS
IG REQUIREMENTS OF THE EXISTING SIGNALS PRIOR TO PREP.	ARING SHUP DRAWING	DO FUK INE		
O ENCLOSURE) SPECIFICATIONS:				
VER WIRING, EXCEPT AS OTHERWISE NOTED. ITROL WIRING, EXCEPT AS OTHERWISE NOTED.			PROFESSIONAL STAMP	PROJECT NORTH
(LINE); WHITE (NEUTRAL). E (LINE); GREY (NEUTRAL). W (+VE); BROWN (-VE).			C. BULA-BULA	
TO MEET THE FOLLOWING SPECIFICATIONS:			2025-04-23 C. BULA-BULA 100540590	
ULATION			3 muleup o	
). 38 IDED CONDUCTOR			PROJECT:	
SPECIFICATIONS:				ELMAN MAIN SPS RADE
			16 Brisson St, Cass	elman, ON K0A 1M0
DF THE COMPONENT MANUFACTURERS. S TO BE USED.				FRICAL
			TYPICAL CON	ITROL WIRING
				MPLE
			DESIGN: CB	
			DRAWN: RH	
			CHECKED: LO JLR #: 16953-134	1109

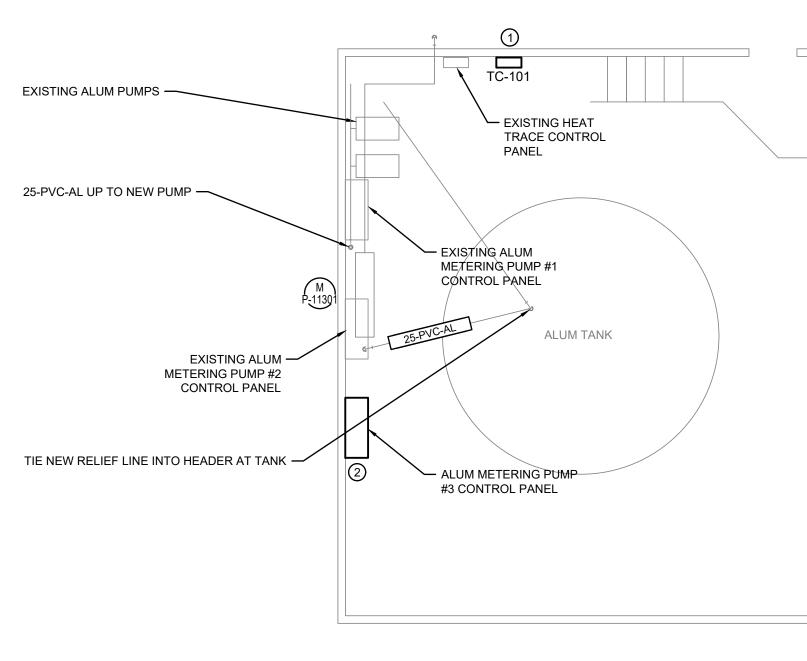


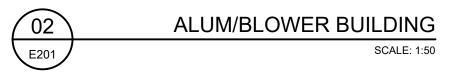
		<u>GENERAL</u>	NOTES:
		A. REFER TO LEGEND	DRAWING ###
	ELECTRICAL ROOM	B. THIS DRAW WITH ALL P DRAWINGS	/ING IS TO BE PLC WIRING DI , PROCESS L BLOCK DIAGR/
		C. CONTRACT	
		D. UNLESS NO DEVICES AI UPS POWE SCADA CON	
]		E. PROVIDE B	
VFD-91821 VFD-91822 VFD-91822 RJ45 RJ45 CPATCH CORD			
	LAGOON PUMP ROOM CONTROL PANEL		
	MGUARD VPN		
ANTENNA X2 1	ROUTER	0	ISSUED FOR TENI
		No. THESE DRAWINGS HAY	ISSUE / REVISIO
	EXISTING UNMANAGED ETHERNET SWITCH	LIMITED AND ARE SUB IN THE APPLICABLE PR OF THESE DRAWINGS OR EXECUTION OF THI WITHOUT THE PRIOR WARRANTIES, EITHER OF THESE DRAWINGS CHOOSES TO USE, M WITHOUT JLR'S AUTHO AT THEIR SOLE RISK AI VERIFY SHEET SIZE AN THE RIGHT IS 25MM IF	JECT TO COPYRIGH COJECT CONTRACT. FOR PURPOSES OT E DESCRIBED WORK WRITTEN AUTHOF EXPRESS OR IMPLIE FOR ANY OTHER IODIFY, OR OTHER DRIZATION ACCEPTS ND WITHOUT LIABILI ID SCALES. THE BAR
		CLIENT: CONSULTANT:	
	LAGOON PUMPING BUILDING	Je	J.L.R ENGINEERS
		CONSULTANT:	
THE GSM ROUTER CONNECTION		PROFESSIONAL STAT	
CONDUIT TO SUIT (MINIMUM OF LOCATION OF THE ANTENNA AS 2 PROVIDE NEW MANAGED ETHE ETHERNET SWITCH TO BE UPS TO DRAWING I106. NUMBER OF	PER CELLULAR TOWER. RNET SWITCH INSIDE MCC-100. POWERED FROM ACP-100, REFER	PROJECT:	
		16953-134	UPGR/
		16 Bris: DRAWING:	son St, Casseln
		NETWO	ELECTR ORK BLO
		DESIGN: CB	
		DRAWN: RH	D
		CHECKED: LO	24
		JLR #: 16953-1	34

TO DRAWING ### FOR ELECTRICAL RAWING IS TO BE READ IN CONJUNCTION ALL PLC WIRING DIAGRAMS, P&ID NGS, PROCESS LAYOUT DRAWINGS AND ROL BLOCK DIAGRAM. RACTOR TO ORDER APPROPRIATE H OF CAT6 AND FIBER CABLE. S NOTED OTHERWISE, ALL NETWORK ES AND SCADA EQUIPMENT ARE TO BE WERED. ALL NETWORK EQUIPMENT COMPUTER. PROVIDE UPS FOR OFFICE UPS PER ITEM 70. IDE BLANKS FOR USED PORTS. ISSUED FOR TENDER 23/04/25 DD/MM/YY **ISSUE / REVISION** GS HAVE BEEN PRODUCED BY J.L. RICHARDS & ASSOCIATE E SUBJECT TO COPYRIGHT AND USE RESTRICTIONS SET OU BLE PROJECT CONTRACT. ANY USE, REUSE, OR MODIFICATION INGS FOR PURPOSES OTHER THAN THE ORIGINAL PROJECT F THE DESCRIBED WORK IS NOT PERMITTED OR ENDORSE PRIOR WRITTEN AUTHORIZATION OF JLR. JLR MAKES NO ITHER EXPRESS OR IMPLIED, OF THE SUITABILITY OR FITNESS VINGS FOR ANY OTHER PURPOSE, AND ANY PARTY WHICH JSE, MODIFY, OR OTHERWISE RELY ON THESE DRAWINGS AUTHORIZATION ACCEPTS THESE LIMITATIONS AND DOES SO ISK AND WITHOUT LIABILITY TO JLR. SIZE AND SCALES. THE BAR TO 5MM IF THIS IS A FULL SIZE DRAWING. 1 + www.jlrichards.ca J.L.Richards ENGINEERS-ARCHITECTS-PLANNERS PROJECT NORTH SSIONA 5-04-23 JLA-BULA 540590 MULUY FOF ONTRI 134 - CASSELMAN MAIN SPS UPGRADE Brisson St, Casselman, ON K0A 1M0 ELECTRICAL WORK BLOCK DIAGRAM DRAWING #:

N101







LP-A 120/208 VOLT, 3P-4W 60 AMP MAINS SURFACE MOUNTED

		1		+			1	1
DESCRIPTION	BRKR	CCT				CCT	BRKR	DESCRIPTION
RECEPTACLES ALUM ROOM	15A,1P	1	L S	5.N	-	-2	15A,1P	RECEPTACLES BLOWER RC
ALUM ROOM LIGHTS/EMERG LGT	15A,1P	3		+	+	- 4	15A,1P	BLOWER ROOM LIGHT/EMEI
ALUM FED PUMP #1	15A,1P	5		+	-+	6	15A,1P	OUTDOOR LIGHTS
ALUM FED PUMP #2	15A,1P	7		+	+	8	15A,1P	ALUM FED PUMP #3
ALUM ROOM VENTILATION	15A,1P	9		+	+	- 10	15A,1P	WATER PUMP
FCP-RFI CONTROL PANEL	15A,1P	11		+	-+	- 12	15A,1P	CP-EF1, MD-1, MD-2
HEAT TRACE	20A,1P	13		+	+	- 14	30A,1P	CP-2
ALUUM ROOM HEAT TRACE	20A,1P	15		+	+	- 16	20A,1P	CP-3
	30A,1P	17	\vdash	+	-+	18	20A,1P	HEAT TRACE (TC-101)
	60A,1P	19		+	+	- 20	20A,1P	
	60A,1P	21	\vdash	+	+	- 22	20A,1P	
	60A,1P	23		+	-+	-24	20A,1P	
	60A,1P	25		+	+	- 26		
		27		+	+	- 28		
		29		+	-+	- 30		
		31		+	+	- 32		
		33		+	+	- 34		
		35		+	+	- 36		
		37		+	+	- 38		
		39	\vdash	+	+	-40		
		41	\vdash	-	-	- 42		

TOTAL CONNECTED LOAD: XXXX Watts

PHASE LOAD TO BE FILLED IN BY CONTRACTOR:

LOAD PHASE A: _____ LOAD PHASE B: _____ LOAD PHASE C: _____ REMARKS

1. ALL LOADS ARE IN WATTS, UNLESS OTHERWISE NOTED. 4. 🔲 LOCKED 2. † DEDICATED CIRCUIT (RECEPTACLE OR HARDWIRED) 5. 🔺 ARC FAULT CIRCUIT INTERRUPTER 3. ***** GFI

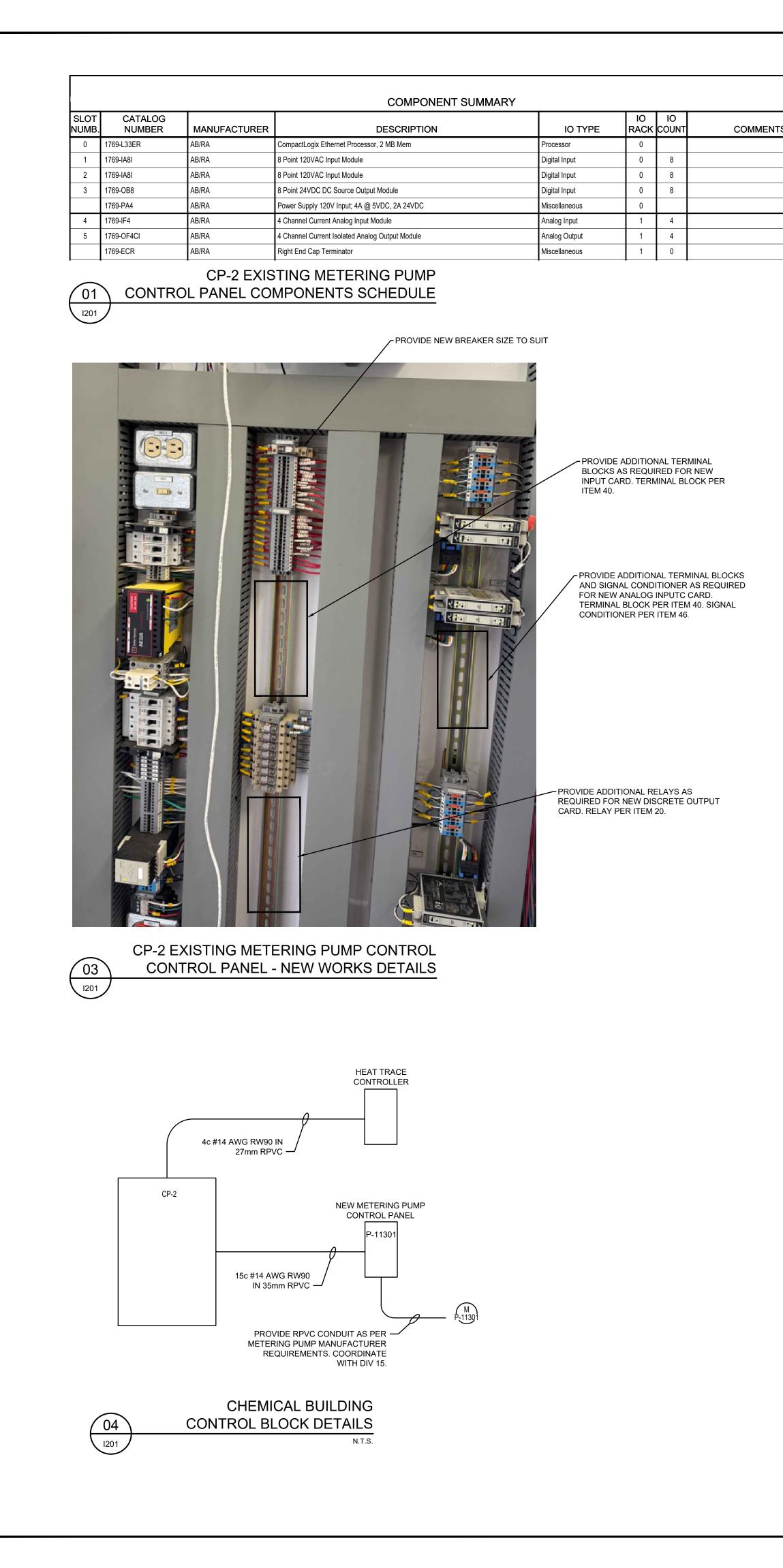


	RAWING NOTES: HEAT TRACE CONTROLLER AND ALL HEAT TRACE APPURTENANCES TO BE SUPPLIED BY DIVISION 0 CONTRACTOR TO PROVIDE CONDUIT AND WIRING POWER AND CONTROL. COORDINATE WITH DIV 02	2. FOR
2	COORDINATE THE SUPPLY OF THE ALUM METERIN PUMP #3 WITH DIV.15. CONTRACTOR TO PROVIDE WIRING AND CONDUIT FOR POWER AND CONTROL REFER TO 4/I201.	
CHART-CP	ELECTRICAL ROOM	

TION	
ES BLOWER ROOM	
DOM LIGHT/EMERG LGT	
IGHTS	
PUMP #3	
/IP	
-1, MD-2	
E (TC-101)	*
	1

6. # DEDICATED NEUTRAL

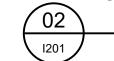
0	ISSUED FOR T	ENDER	23/04/25
OF THES	PPLICABLE PROJECT CONTRA DRAWINGS FOR PURPOSES CUTION OF THE DESCRIBED W T THE PRIOR WRITTEN AUT	OTHER THAN THE ORK IS NOT PERMIT	ORIGINAL PROJECT
OF THES CHOOSE WITHOU AT THEI	ITIES, EITHER EXPRESS OR IM SE DRAWINGS FOR ANY OTHE S TO USE, MODIFY, OR OTH T JLR'S AUTHORIZATION ACCE R SOLE RISK AND WITHOUT LIA SHEET SIZE AND SCALES. THE I	ER PURPOSE, AND HERWISE RELY ON IPTS THESE LIMITAT BILITY TO JLR.	ANY PARTY WHICH THESE DRAWINGS
	N.T.S.		25mm
CLIENT:			
CONSU	JR J.L.I	Richard	www.jirichards.ca
		ERS-ARCHITECTS	S-PLANNERS
CONSU	_TANT:		
		PROJECT NORT	Н
PROFES	SSIONAL STAMP 2025-04-23 C. BULA-BULA 100540590	PROJECT NORT	H
PROFES	SSIONAL STAMP PROFESSIONAL 2025-04-23 C. BULA-BULA 100540590 C. BULA-BULA C. BULA-BULA C. BULA-BULA 100540590 C. BULA-BULA C. BULA C. BULA-BULA C. BULA-BULA C. BULA-BULA C. BULA C. BULA-BULA C. BULA C. BULA-BULA C. BULA-BULA C. BULA C. BULA-BULA C. BULA C. BULA-BULA C. BULA-BULA C. BULA-BULA C. BULA C. BULA-BULA C. BULA-BULA C. BULA-BULA C. BULA C. BULA-BULA C. BULA C. BULA-BULA	ELMAN M	
PROFES	SSIONAL STAMP PROFESSIONAL THE 2025-04-23 C. BULA-BULA 100540590 WINCE OF ONTRACT S3-134 - CASS UPGI 16 Brisson St, Cass	ELMAN M RADE	1AIN SPS
PROFES PROJEC	SSIONAL STAMP 2025-04-23 C. BULA-BULA 100540590 C. BULA-BULA C. BULA-BU	ELMAN M RADE elman, ON KOA RICAL OON	1AIN SPS
PROFES PROJEC 169 DRAWIN	SSIONAL STAMP	ELMAN M RADE elman, ON KOA FRICAL OON LITION	1AIN SPS
PROFES	SSIONAL STAMP	ELMAN M RADE elman, ON KOA RICAL OON LITION	1AIN SPS



ation: P:\16000\16953-134 - Casselman Main SPS Upgrade\03-Production\06-Elect\16953-134 - IO LIST.dwg

			1	COMPONENT I/O LIS	T
CONTROLL IO TAG	.ER ISA TAG	EQUIPMENT	DESCRIPTION	LOCATION	c
DI - 0			Radio Link Fault Status		
DI - 1			Alum Storage Room Door Opened Status		
DI - 2			Blower Room Door Opened Status		
DI - 3			Alum Spill Containment Area Sump Level Switch		
DI - 4			Blower 1 Run Status		
DI - 5			Blower 1 General Alarm (Future)		
DI - 6			Blower 1 Run Status		
DI - 7			Blower 1 General Alarm (Future)		
DI - 8			Alum Metering Pump #1 AP-0303 Run Status		
DI - 9			Alum Metering Pump #1 AP-0303 Control Status		
DI - 10			Alum Metering Pump #1 AP-0303 General Alarm		
DI - 11 DI - 12			Alum Metering Pump #2 AP-0303 Run Status Alum Metering Pump #2 AP-0303 Control Status		-+
DI - 12 DI - 13			Alum Metering Pump #2 AP-0303 Control Status Alum Metering Pump #2 AP-0303 General Alarm		
DI - 13			Veolia General Process Alarm		
DI - 14			Veolia General HVAC Alarm		
DI 0			Alum Metering Pump #3 AP-0303 Run Status	Chemical Room	-+
DI 1			Alum Metering Pump #3 AP-0303 Control Status	Chemical Room	-+
DI 2			Alum Metering Pump #3 AP-0303 General Alarm	Chemical Room	-+
DI 3					
DI 4			Heat Trace General Alarm (Existing)	Chemical Room	+
DI 5			Heat Trace General Alarm (TC-101)	Chemical Room	
DI 6					
DI 7					
DI 8					
DI 9					+
DI 10					
DI 11					
DI 12					
DI 13					
DI 14					
DI 15					
DO - 0			Alum Metering Pump #1 AP-0303 Run/Start/Stop Command		
DO - 1			Alum Metering Pump #2 AP-0303 Run/Start/Stop Command		
DO - 2			Alum Metering Pump #3 AP-0303 Run/Start/Stop Command	Chemical Room	
DO - 3					
DO - 4					\square
DO - 5					-+
DO - 6					-+
DO - 7					-+
AI - 0			Alum Storage Tank Room Temprature		
Al - 1			Alum Storage Tank Level		
Al - 2			Alum Metering Pump #1 Speed Feedback		-+
Al - 3			Alum Metering Pump #2 Speed Feedback	Chamical Decar	-+
AI 4			Alum Metering Pump #3 Speed Feedback	Chemical Room	-+
AI 5					
Al 6 Al 7					-+
AI 7 AO - 0			Alum Metering Pump #1 AP-0303 Speed Command		-+
AO - 0 AO - 1			Alum Metering Pump #1 AP-0303 Speed Command Alum Metering Pump #2 AP-0303 Speed Command		-+
AO - 1 AO - 2			Alum Metering Pump #2 AP-0303 Speed Command Alum Metering Pump #3 AP-0303 Speed Command	Chemical Room	+
AU - 2		1	August Microning Fullip #0 AF-0000 Opeed Command		

CP-2 EXISTING METERING PUMP



I/O LIST

CONOL PANEL - IO LIST

OPERATION	RACK	SLOT	POINT	COMMENTS
	0	1	0	
	0	1	1	
	0	1	2	
	0	1	3	
	0	1	4	
	0	1	5	
	0	1	6	
	0	1	7 8	
	0	1	0 9	
	0	1	10	
	0	1	11	
	0	1	12	
	0	1	13	
	0	1	14	
	0	1	15	
	0	2	0	New Discrete Input
	0	2	1	New Discrete Input
	0	2	2	New Discrete Input
	0	2	3	
	0	2	4	New Discrete Input
	0	2	5	New Discrete Input
	0	2	6	
	0	2	7	
	0	2	8	
	0	2	9	
	0	2	10	
	0	2 2	11 12	
	0	2	13	
	0	2	14	
	0	2	15	
	0	3	0	
	0	3	1	
	0	3	2	New Discrete Input
	0	3	3	
	0	3	4	
	0	3	5	
	0	3	6	
	0	3	7	
	1	4	0	
	1	4	1	
	1	4	2	
	1	4	3	
		4	4	New Analog Input
		4	5	
		4	6 7	
	1	5	0	
	1	5	1	
	1	5	2	New Analog Output
	1	5	3	<u> </u>
		l		

GENERAL NOTES:

- A. REPLACE EXISTING SLC PLC RACK WITH COMPACT LOGIX PLC IO RACK. USE EXISTING IO CARD WIRING FOR THE NEW REMOTE RACK IO CARDS. CONVERT THE EXISTING SLC PLC LOGIC IN THE NEW COMPACT LOGIX PLC. REFER TO EXISTING IO LIST AND NEW IO. UPDATE THE IO LIST AS REQUIRED.
- B. REFER TO SECTION 17002 FOR DETAILED SYSTEM INTEGRATION SCOPE OF WORK.
- C. UPDATE AND PROVIDE MODIFIED SHOP DRAWING THAT INCLUDE NEW CHANGES FOR CONSULTANT APPROVAL. REFER TO SECTION 17003.
- D. SYSTEM INTEGRATOR IS TO RE-PROGRAM EXISTING HMI AT THE METERING PLC CONTROL PANEL TO INCORPORATE ADDITIONAL CHEMICAL PUMP, NEW CONTROLLER INTEGRATION AND ALL OTHER PERTINENT CHANGES WITHIN THE SYSTEM. PROGRAM ALARM AND TRENDS. COORDINATE WITH DIV.15.
- E. PROVIDE COMPLETE, FULLY COMMISSIONED TURN-KEY INSTALLATION OF THE CHART RECORDER PANEL (CHART CP) THIS INCLUDES BUT NOT LIMITED TO EXISTING ALARM, PROCESS DATA MONITORING AND ANY EXISTING COMMUNICATION TO THE MAIN PUMPING STATION NEW PLC CONTROL PANEL (ACP-100).
- F. CONTRACTOR IS RESPONSIBLE TO PROVIDE FOR A COMPLETE, FULLY COMMISSIONED TURN-KEY COMMUNICATION INSTALLATION BETWEEN MAIN PUMPING STATION, LAGOON FACILITY AND WATER TREATMENT PLANT AS REQUIRED.

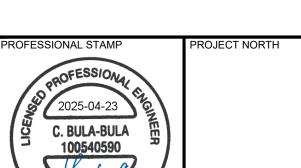
0	ISSUED FOR TENDER	23/04/25		
No.	ISSUE / REVISION	DD/MM/YY		
THESE DRAWINGS HAVE BEEN PRODUCED BY J.L. RICHARDS & ASSOCIATES LIMITED AND ARE SUBJECT TO COPYRIGHT AND USE RESTRICTIONS SET OUT IN THE APPLICABLE PROJECT CONTRACT. ANY USE, REUSE, OR MODIFICATION OF THESE DRAWINGS FOR PURPOSES OTHER THAN THE ORIGINAL PROJECT OR EXECUTION OF THE DESCRIBED WORK IS NOT PERMITTED OR ENDORSED WITHOUT THE PRIOR WRITTEN AUTHORIZATION OF JLR. JLR MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, OF THE SUITABILITY OR FITNESS OF THESE DRAWINGS FOR ANY OTHER PURPOSE, AND ANY PARTY WHICH CHOOSES TO USE, MODIFY, OR OTHERWISE RELY ON THESE DRAWINGS WITHOUT JLR'S AUTHORIZATION ACCEPTS THESE LIMITATIONS AND DOES SO AT THEIR SOLE RISK AND WITHOUT LIABILITY TO JLR.				
	FY SHEET SIZE AND SCALES. THE BAR TO RIGHT IS 25MM IF THIS IS A FULL SIZE DRAWING. 0	25mm		
SCAL	^{E:} N.T.S.			





CLIENT

ONSULTAN





16 Brisson St, Casselman, ON K0A 1M0

ELECTRICAL LAGOON

DESIGN: CB

CHECKED: LO

LAGOON	
IO LIST	