



REGIONAL SITE MAP
N.T.S.



KEY PLAN
N.T.S.

LONGLAC WPCP Dechlorination Project

PROJECT NO. – 201–05594–00
CONTRACT NO. – RFS001–2020

ISSUED FOR TENDER
NOVEMBER 2022



Ontario Clean Water Agency
Agence Ontarienne Des Eaux



1269 PREMIER WAY
THUNDER BAY ONTARIO CANADA P7B 0A3
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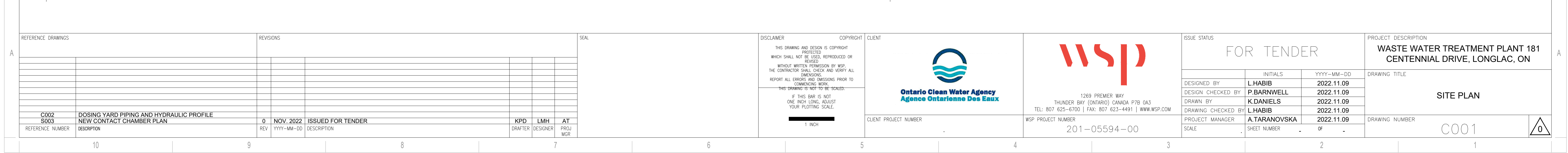
I003 - 5606 MODULE P7-P10 DIGITAL INPUT

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file reference	drawing number
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date	sheet number
NOVEMBER 2022	of





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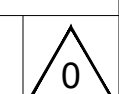
WSP PROJECT NUMBER	201-05594-00
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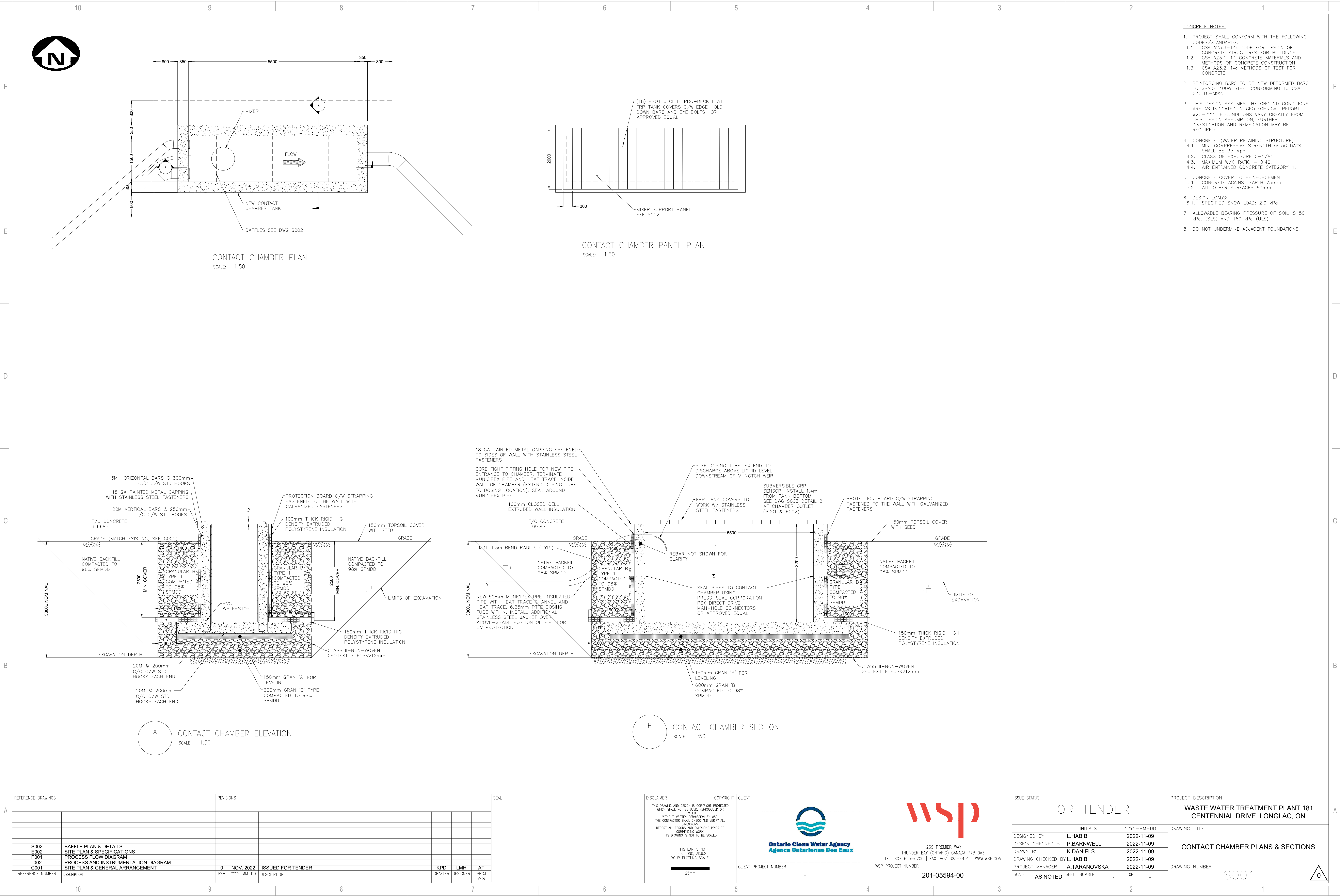
FOR TENDER

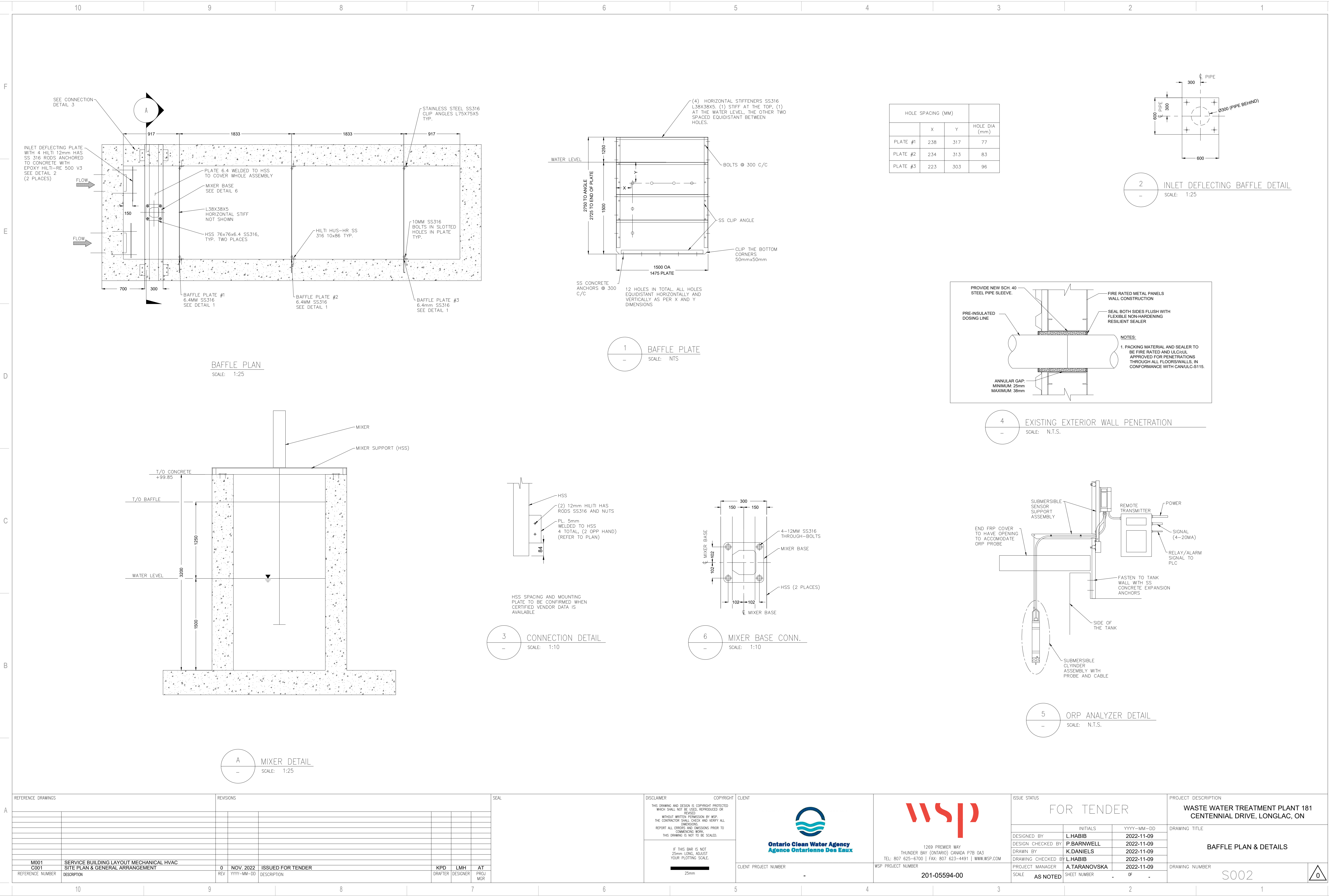
PROJECT MANAGER	A.TARNOVSKA	2022-11-09
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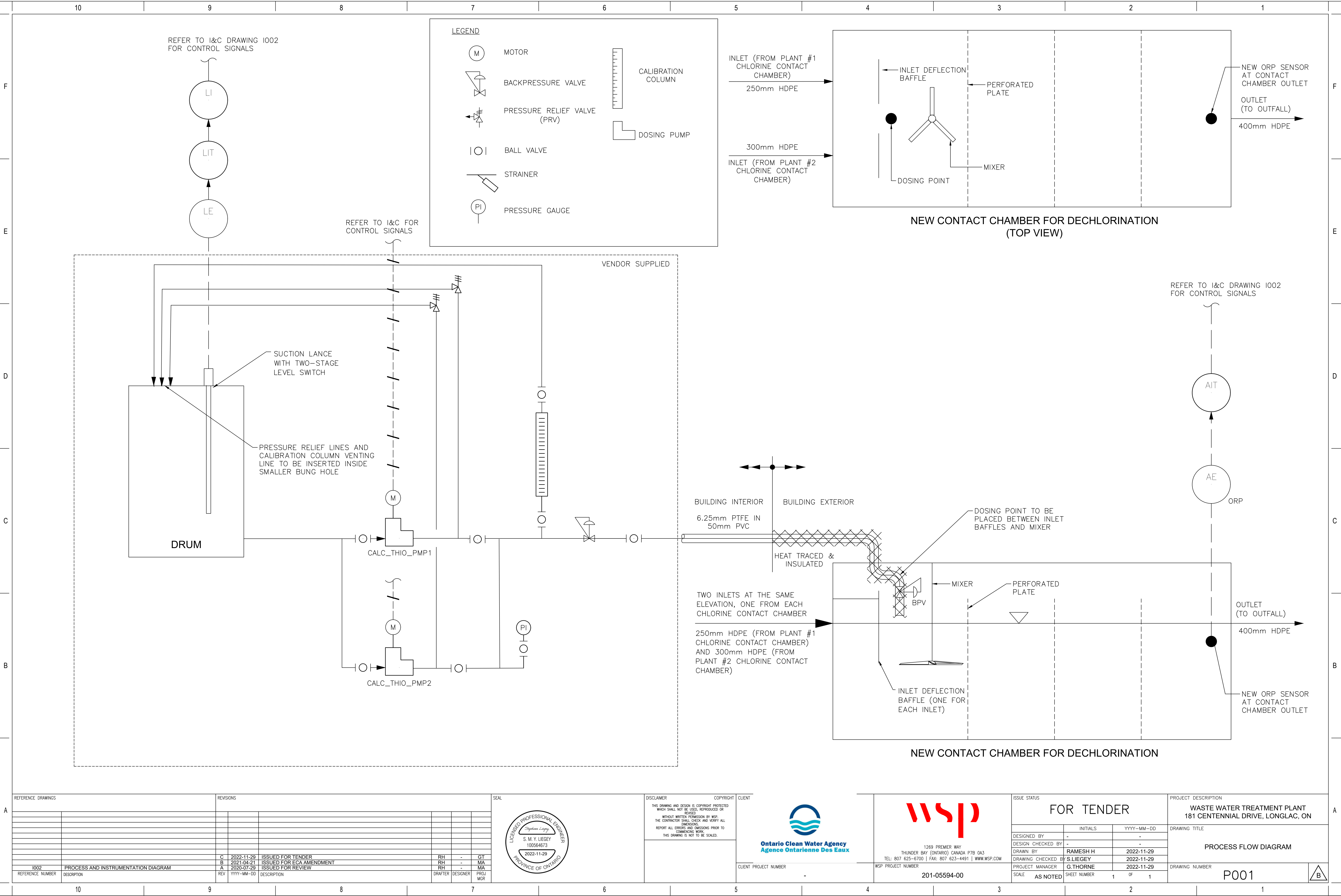
WASTE WATER TREATMENT PLANT 181
CENTENNIAL DRIVE. LONGLAC. ON

DRAWING NUMBER	C002	/
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REFERENCE DRAWINGS		REVISIONS		DRAFTER		DESIGNER		PROJ MGR	
1002	PROCESS AND INSTRUMENTATION DIAGRAM	C	2022-11-29	ISSUED FOR TENDER	RH	-	GT		
		B	2021-04-21	ISSUED FOR ECA AMENDMENT	RH	-	MA		
		A	2020-07-29	ISSUED FOR REVIEW	RH	-	MA		
		REV	YYYY-MM-DD	DESCRIPTION					



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201-05594-00

ISSUE STATUS
FOR TENDER
DESIGNED BY
DESIGN CHECKED BY
DRAWN BY
DRAWING CHECKED BY
PROJECT MANAGER
SCALE
AS NOTED
INITIALS
YYYY-MM-DD
RAMESH H
S. LIEGEY
G. THORNE
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OF
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PROJECT DESCRIPTION
WASTE WATER TREATMENT PLANT
181 CENTENNIAL DRIVE, LONGLAC, ON
DRAWING TITLE
PROCESS FLOW DIAGRAM
DRAWING NUMBER
P001



REFERENCE DRAWINGS				REVISIONS						

	SEAL
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IF THIS BAR IS NOT
25mm LONG, ADJUST
YOUR PLOTTING SCALE

CLIENT



CLIENT PROJECT NUMBER



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ISSUE STATUS

FOR TENDER

	INITIALS	YYYY-MM-DD
DESIGNED BY	CPB	2020-07-21
DESIGN CHECKED BY	JGH	2021-05-18
DRAWN BY	KPD	2022-11-23
DRAWING CHECKED BY	JGH	2021-05-18
PROJECT MANAGER	AT	2022-11-23
SCALE	AS NOTED	SHEET NUMBER 1 OF 1

PROJECT DESCRIPTION

WASTE WATER TREATMENT PLANT
181 CENTENNIAL DRIVE, LONGLAC, ON

DRAWING TITLE

SERVICE BUILDING LAYOUT MECHANICAL HVAC

DRAWING NUMBER

MOO 1



1. SCOPE OF WORK

- A. **###** SERIES DRAWINGS OUTLINES THE COMPLETE SUPPLY, INSTALL, COMMISSIONING, OPERATION, CONSTRUCTION, ADMINISTRATION, & CLOSE-OUT REQUIREMENTS OF THE FOLLOWING SYSTEMS LISTED, SPECIFIED AS PER THE DRAWING PACKAGE & AS PER THE SPECIFICATIONS SHOWN:
- I. POWER DISTRIBUTION
 - II. POWER DEVICES & RE-POWERING EXISTING DEVICES
 - III. LIGHTING FIXTURES
 - IV. FREEZE PROTECTION
 - V. CONDUIT/CABLING PROVISIONS FOR OTHER TRADES

2 DRAWING LIST

- A E001 - ELECTRICAL POWER LAYOUT & DETAILS
B E002 - ELECTRICAL SPECIFICATIONS & SITE PLAN

3 GENERAL REQUIREMENTS

- A REFER TO FRONT-END SPECIFICATIONS FOR GENERAL REQUIREMENTS. FRONT-END SPECIFICATION SUPPLEMENTS ANY REQUIREMENTS
B LISTED BELOW.
- C READ ELECTRICAL SPECIFICATION IN CONJUNCTION WITH ALL OTHER CONSTRUCTION DOCUMENTS.
- D CONFORM TO THE GENERAL CONDITIONS OF THE CONTRACT.
- E THE CONTRACTOR SHALL BE HELD TO HAVE VISITED THE SITE & TO HAVE EXAMINED ALL CONDITIONS AFFECTING THE WORK OF THIS
F PROJECT PRIOR TO BID SUBMISSION. NO CLAIMS FOR EXTRAS DUE TO CONDITIONS THAT WERE VISIBLE OR REASONABLY INFERRABLE PRIOR
G TO THE START OF DEMOLITION OR CONSTRUCTION WILL BE ACCEPTED.
- H CONTRACTOR TO REVIEW SITE TO CONFIRM QUANTITY, EFFORT & SCOPE OF WORK FOR EACH PORTION OF WORK.
- I GENERAL CONTRACTOR IS RESPONSIBLE FOR DIVISION OF WORK.
- J THE CONTRACTOR WILL REPORT ANY ERRORS, DISCREPANCIES OR OMISSIONS TO THE CONSULTANT IMMEDIATELY IN ORDER THAT
K APPROPRIATE ACTION MAY BE TAKEN. ANY CONSEQUENCES RESULTING FROM ACTIONS TAKEN TO CORRECT ANY SUCH ERRORS WITHOUT
L THE WRITTEN CONSENT OF THE CONSULTANT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- M IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN NECESSARY PERMITS & RESOLVE CONFLICTS AT NO
N ADDITIONAL COST TO THE CONTRACT. EXAMINE ALL SPECIFICATIONS, DRAWINGS & SHOP DRAWINGS BEFORE PROCEEDING WITH WORK.
- O CONTRACT DOCUMENTS FOR ELECTRICAL WORK ARE IN PART DIAGRAMMATIC, INTENDED TO CONVEY THE SCOPE OF WORK & GENERAL
P ARRANGEMENT FOR EQUIPMENT, CONDUIT & DEVICES. CONTRACTOR TO COORDINATE LAYOUTS OF ALL ELECTRICAL SYSTEMS WITH OTHER
Q ELECTRICAL SYSTEMS ALONG WITH ARCHITECTURAL, MECHANICAL & STRUCTURAL BUILDING COMPONENTS. NO ADDITIONAL EXTRA
R PAYMENTS ARISING FROM THIS FAILURE TO MAKE SUCH COORDINATION.
- S COORDINATION OF ALL SYSTEMS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- T SYSTEM INTERRUPTIONS SHALL BE KEPT TO A MINIMUM, & IN ANY CASE, SHALL OCCUR AT TIMES & DURATIONS FOR WHICH PRIOR WRITTEN
U AGREEMENT OF THE OWNER & OTHER TRADES HAVE BEEN OBTAINED.
- V THERE IS TO BE NO INTERRUPTIONS TO ANY SYSTEM DURING NORMAL BUILDING HOURS OF OPERATIONS.
- W IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH ALL OTHER TRADES & SYSTEMS TO PROVIDE POWER.
- X COMMUNICATIONS & CONTROLS AS REQUIRED FOR ALL SYSTEMS SPECIFIED.
- Y PROVIDE ALL MATERIALS, DEVICES, LABOUR & TOOLS. MISCELLANEOUS MATERIAL & HARDWARE AS REQUIRED TO COMPLETE ALL SYSTEMS
Z AS SPECIFIED. REPAIRING COMPLETE, COMMISSIONED & OPERATIONAL SYSTEMS.
- AA PROVIDE ALL, ALL SYSTEMS AS SPECIFIED OR AS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- AB PERFORM ALL WORK BY LICENSED ELECTRICIANS HOLDING A VALID CERTIFICATE OF QUALIFICATION &/OR TRAINED TO PERFORM WORK ON
AC THE SPECIFIC MANUFACTURE SYSTEM. PERMITTED ACTIVITIES ARE BASED ON TRAINING LEVEL, ATTAINED & DEMONSTRATION OF SKILL TO
AD SPECIFIC DUTIES.
- AE COMPLETE ALL WORK TO THE ONTARIO ELECTRICAL SAFETY CODE, ONTARIO BUILDING CODE & ALL APPLICABLE CODES & STANDARDS.
- AF DO NOT REDUCE THE STANDARDS ESTABLISHED BY APPLYING APPLICABLE CODES & STANDARDS.
- AG CONFORM TO ALL WORK WITH CONSTRUCTION PROJECT MANAGER BEFORE WORK BEGINS.
- AH REFER TO BIDDER SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- AI CONTRACTOR TO COMPLETE ONTARIO EHS ALL REGARDING BELOW GRADE SERVICE & COMPLETE A DETAILED INSPECTION/INVESTIGATION
AJ OF ANY BELOW GRADE SERVICE WORK. TAKE EXTENSIVE MEASUREMENTS DURING BELOW GRADE WORK & EXCAVATION.
- AK PAY FOR A SUBMIT ALL CERTIFICATES/INSPECTIONS & PERMITS & INCLUDE COPY IN O&M BINDER.

4 TENDER

- A REFER TO FRONT-END SPECIFICATIONS FOR TENDER REQUIREMENTS

5 HEALTH & SAFETY

- A REFER TO FRONT-END SPECIFICATIONS FOR HEALTH & SAFETY REQUIREMENTS

6 CONSTRUCTION ADMINISTRATION

- A REFER TO FRONT-END SPECIFICATIONS FOR CONSTRUCTION ADMINISTRATION REQUIREMENTS. FRONT-END SPECIFICATION SUPPLEMENTS ANY REQUIREMENTS LISTED BELOW.
- B SUBMIT COMPLETE SHOP DRAWINGS FOR ALL EQUIPMENT, MATERIAL & LABELING USED FOR REVIEW BEFORE WORK COMMENCES.
- C COMPLETE TESTING, COMMISSIONING & VERIFICATION OF PROPER OPERATION OF ALL EQUIPMENT & SYSTEMS.
- D CONTACT CONSULTANT IMMEDIATELY REGARDING CONFLICT BETWEEN DRAWING, SPECIFICATION & SITE CONDITIONS FOR CLARIFICATION & DIRECTION.
- E SYSTEM INTERRUPTIONS SHALL BE KEPT TO A MINIMUM, & IN ANY CASE SHALL OCCUR AT TIMES & DURATIONS FOR WHICH PRIOR WRITTEN AGREEMENT OF THE OWNER & OTHER TRADES HAVE BEEN OBTAINED.

7. OWNER STAFF TRAINING

- A REFER TO FRONT-END SPECIFICATIONS FOR OWNER / STAFF TRAINING REQUIREMENTS

8 CLOSE-OUT REQUIREMENTS

- A REFER TO FRONT-END SPECIFICATIONS FOR CLOSE OUT REQUIREMENTS. FRONT-END SPECIFICATION SUPPLEMENTS ANY REQUIREMENTS LISTED BELOW.
- B INSTRUCT OPERATING PERSONNEL IN OPERATION, CARE & MAINTENANCE OF SYSTEMS. SYSTEM EQUIPMENT & COMPONENTS PROVIDE THESE SERVICES FOR SUCH PERIOD & FOR AS MANY VISITS AS NECESSARY TO PUT EQUIPMENT IN OPERATION & TO ENSURE THAT OPERATING PERSONNEL ARE CONVERSANT WITH ALL ASPECTS OF ITS CARE & OPERATION.
- C TEST ALL EQUIPMENT TO CONFIRM PROPER INSTALLATION & SAFE OPERATION IN ACCORDANCE WITH THE INTENT OF THE DRAWINGS & SPECIFICATIONS. SUBMIT ALL SPECIFIED TESTS.
- D SUBMIT ELECTRICAL SAFETY AUTHORITY PERMIT INSTALLATION & RESULTS.
- E SUBMIT LETTER OUTLINING THAT EACH SYSTEM SPECIFIED HAS BEEN TESTED, COMMISSIONED & IS 100% OPERATIONAL.

9 GENERAL PRODUCT REQUIREMENTS

- A REFER TO FRONT-END SPECIFICATIONS FOR ADDITIONAL GENERAL PRODUCT REQUIREMENTS
B ALL MATERIAL TO BE COMMERCIAL GRADE, NEW, WITHOUT DEFECT, CSA/UL/CUL APPROVED, NEMA STANDARDS, DLC CERTIFICATION
C ALL EQUIPMENT, DEVICES & FIXTURES TO MATCH EXISTING FINISH & INSTALLATION DETAILS UNLESS NOTED OTHERWISE

- | | |
|---|--|
| D | SUPPLY ALL EQUIPMENT OF A SPECIFIC SYSTEM BY A SINGLE MANUFACTURER. I.E. SUPPLY ALL RECEPTABLES BY A SINGLE MANUFACTURER |
| E | SUPPLY ALL POWER DISTRIBUTION EQUIPMENT BY A SINGLE MANUFACTURER. SUPPLY ALL LIGHTING CONTROL BY SINGLE MANUFACTURER. ETC. UNLESS NOTED OTHERWISE |
| F | SUPPLY ALL EQUIPMENT AS SPECIFIED. WHERE EQUIPMENT IS SPECIFIED OR EQUAL AN EQUAL CAN BE SUPPLIED IF IT MEETS THE GENERAL CONFORMANCE OF THE PROJECT SPECIFIED UNLESS NOTED OTHERWISE |
| G | ALL ELECTRICAL FITTINGS, DEVICES, BOXES, SUPPORTS & HARDWARE TO BE GALVANIZED OR HAVE A CORROSION RESISTANT PRIMER FACTORY INSTALLED |
| H | ALL POWER CONDUCTORS TO BE MINIMUM #12 AWG CU RSD TYPE. DO NOT USE ROMEX/ALUMINUM HANDS CABLEING OR ETC. NO EXCEPTIONS. ALL CONDUITS TO BE COPPER |
| I | ALL RACEWAYS AS REQUIRED OR SPECIFIED IN DET. PROVIDE MECHANICAL PROTECTION WHERE SUBJECT TO DAMAGE |
| J | PROVIDE MECHANICAL PROTECTION TO ALL EXPOSED CABLEING/CONDUIT WHERE SUBJECT TO DAMAGE |
| K | CONFIRM ALL ELECTRICAL EQUIPMENT SUPPLIED BY OTHERS IS SUITABLE FOR INSTALLATION & POWER REQUIREMENTS |
| L | ALL RECEPTABLES TO BE GROUNDING WIRE TYPE. QUICK PUSH IN TYPE IF ACCEPTABLE |
| M | INSTALL ALL LABELS, NAMEPLATES & EQUIPMENT INSTRUCTION IN ENGLISH |
| N | EQUIPMENT IDENTIFICATION: IDENTIFY ALL EQUIPMENT. LAMINATED PLATES: WHITE BACKGROUND, BLACK TEXT AS SPECIFIED. IDENTIFY ALL EQUIPMENT IN ENGLISH. SUBMIT SHOP DRAWING FOR REVIEW & APPROVAL. PRIOR TO MANUFACTURER. SECURE ALL EXTERIOR LAMINATED PLATES WITH STAINLESS STEEL HARDWARE. SECURE ALL INTERIOR LAMINATED LABELS WITH MANUFACTURERS ADHESIVE. CLEAR SURFACE BEFORE APPLICATION |

- 1 POWER PANELS-POWER DISTRIBUTION EQUIPMENT - 10MM TEXT (MAXIMUM 3 LINE)
2 MECHANICAL EQUIPMENT ELECTRICAL INFORMATION - 10MM TEXT (MAXIMUM 2 LINE)
3 ELECTRICAL EQUIPMENT - 10MM TEXT (MAXIMUM 2 LINE)
4 RECEPTACLES - 8MM TEXT (MAXIMUM 1 LINE) 75MM WIDE & 10MM TALL LABEL
5 IF LAMACODE LABEL SPECIFICATIONS NOT SHOWN FOR SPECIFIC APPLICATION, CONFIRM LABEL DIMENSIONS

D COLOUR CODED CIRCUITS AS PER 2020/2021/2022/2023 CIRCUITS SHALL BE COLOUR CODED TO RED (PHASE A) BLACK (PHASE B) BLUE (PHASE C) NO OTHER COLOUR CURRENT CARRYING CONDUCTORS TO BE USED ALL NEUTRALS TO BE WHITE ALL BONDING CONDUCTORS TO BE GREEN

P WIRING IDENTIFICATION: IDENTIFY CONDUCTORS WITH PERMANENT NUMBERED TAPE AT THE PANEL EACH DEVICE ON THE CIRCUIT & EACH SPLICE GROUND NEUTRAL WITH ASSOCIATED BRANCH CIRCUITS UTILIZING ELECTRICAL TAPE GROUPING & IDENTIFYING THE CIRCUITS THE NEUTRAL IS ASSOCIATED WITH

GENERAL EXECUTION REQUIREMENTS

- CONTRACTOR TO KEEP THE WORK SITE CLEAN ON A DAILY BASIS. ALL MATERIALS RELATED TO CONSTRUCTION/DEMOLITION TO BE REMOVED FROM SITE UPON COMPLETE OF THE WORK FOR THAT MATERIAL/EQUIPMENT/DEMOLITION MATERIAL NOT TO BE STOCKPILED ON SITE.
- CONFIRM EQUIPMENT VOLTAGE/LIGHTING FOR ALL AREAS BEFORE EQUIPMENT ORDERED.
- C ALL BELOW GRADE CONDUIT TO BE PVC RIGID CONDUIT.
- D SIZE ALL CONDUITS/PIPES AS PER CODE REGARDING VOLTAGE DROP. REFER TO OESC - D3.8 & 102 FOR REFERENCE.
- E ADJUST DEVICE BOX TO ACCOUNT FOR BOX FILL.
- F MAINTAIN MIN RUMBLING SPACE AS PER PANEL SCHEDULES WHERE NOTED TO REDUCE CIRCUIT VOLTAGE DROP. ADJUST TERMINATION TO ACCOUNT FOR OVER SIZED CONDUITOR SIZE TO DEVICES/BREAKERS/DEVICE BOXES ETC.
- G ALL INTERIOR CONDUIT TO BE EXTERIOR GRADE CONDUIT TO BE SIZED ACCORDINGLY. INSTALL FULL STRINGPICO IN ALL CONDUIT ALL ABOVE GROUND. ALLS NOTED IN THE SCHEDULES OUTLINED IN TABLE 8 & ASSOCIATED LABELS.
- H INSTALL ALL BELOW/BEHIND GRADE WORK WARRANTED WITH EXPANSION COUPLINGS/SLEEVES TO MITIGATE THERMAL EXPANSION & CONTRACTION & DAMAGE TO CONDUIT/CABLING.
- I VERIFY ALL LAYOUTS & MOUNTING HEIGHTS BEFORE WORK BEGINS.
- J REFER TO PRODUCT SPECIFICATIONS/INSTALL DRAWINGS FOR MOUNTING HEIGHT. IF NOT SPECIFIED MAINTAIN MOUNTING HEIGHT AS PER EXISTING DEVICES THROUGHOUT SPACE. MOUR PER CODE REQUIREMENT. CONFIRM MOUNTING HEIGHT WITH CONSULTANT.
- K WHEN DEVICE BOXES, DEVICES OR EQUIPMENT ARE GROUPED. INSTALL AT SAME MOUNTING HEIGHT. MOUNTING HEIGHTS TO REMAIN CONSISTENT THROUGHOUT THE WORK.
- L MAINTAIN 1" MIN CLEARANCE IN FRONT OF ALL ELECTRICAL PANELS & EQUIPMENT.
- M RELOCATE ALL EQUIPMENT TO ALLOW FOR SERVICING OF EQUIPMENT.
- N INSTALL ALL EQUIPMENT HANGERS/PLATES AS REQUIRED TO BE VISIBLE FROM FRONT OF EQUIPMENT.
- O ALL EQUIPMENT, DEVICES, LIGHTING FIXTURES SHALL BE SECURED TO STRUCTURAL SECURE COMPONENTS. INSTALL BLOCKING AS REQUIRED. DO NOT USE DRYWALL ANCHORS, TOGGLE BOLTS OR STAPLS.
- P INSTALL ALL CONDUIT WITH CABLE TIES. ALL CONDUIT TO BE SECURED TO STRUCTURE. RELYING ON CONDUIT FOR BOND IS NOT SUFFICIENT. NO EXCEPTIONS.
- Q SIZE ALL BACKGROUND CONDUCTORS AS PER OESC & OESC 146.
- R PROVIDE ALL UNDERGROUND CABLES/CONDUITS INCLUDING TRENCHING, BEDDING & BACK FILLING FOR ALL WORK.
- S INSTALL ALL EQUIPMENT, DEVICES, RACEWAYS, CONDUIT & CABLEING LEVEL, PLUMB, SQUARE & STRAIGHT WITH RESPECT TO BUILDING LINES.
- T SIZE ALL CONDUITS/CABLES TO ALLOW FOR INTERIOR/EXTERIOR PERIMETER ON THE INTERIOR. DO NOT SEAL EXTERIOR TO ALLOW FOR NATURAL DRAINAGE, SLOPE TO THE EXTERIOR.
- U MODIFY CIRCUIT ALLOCATIONS AS REQUIRED. RECORD FINAL PANEL DIRECTORY ON AS-BUILT DRAWINGS.
- V PRODUCT DIMENSIONS: LAYOUTS SHOWN ON THE DRAWINGS ARE BASED ON PUBLISHED DIMENSIONS OF VARIOUS MANUFACTURERS' EQUIPMENT AT THE TIME OF DESIGN. DIMENSION OF EQUIPMENT PROVIDED BY THE CONTRACTOR MAY CONFLICT WITH THE LAYOUTS SHOWN ON THE DRAWINGS. CONTRACTOR TO VERIFY EQUIPMENT DIMENSIONS. CONTRACTOR WILL FIT THE SPACE ALLOTTED OR MAKE ALTERNATE LAYOUTS TO ACCOMMODATE THE PROVIDED EQUIPMENT SUBJECT TO APPROVAL.
- W ALL SERVICE ROOMS SHALL MAINTAIN WORKING SPACE AROUND ALL EQUIPMENT WITH AN UNOBSTRUCTED MEANS OF ACCESS ALONG WITH 1000MM OF CLEARANCE IN FRONT OF ALL ELECTRICAL EQUIPMENT (POWER PANELS, CONTROL PANELS, MISC. ETC) AS PER OESC 2306.
- X DUCTS/DRY WOOD CONDUIT SHALL BE SECURED TO STRUCTURE WITH DIRECT BURIED CAUTION TAPE AT HALF DISTANCE FROM CONDUIT/CABLEING & SURFACE. RECORD FINAL DETAILED LOCATION OF ALL ROUTINGS WITH DIMENSIONS ON AS-BUILT DRAWINGS.
- Y MAINTAIN EQUIPMENT MAINTAIN MOUNTING HEIGHT THROUGHOUT.

DEMOLITION

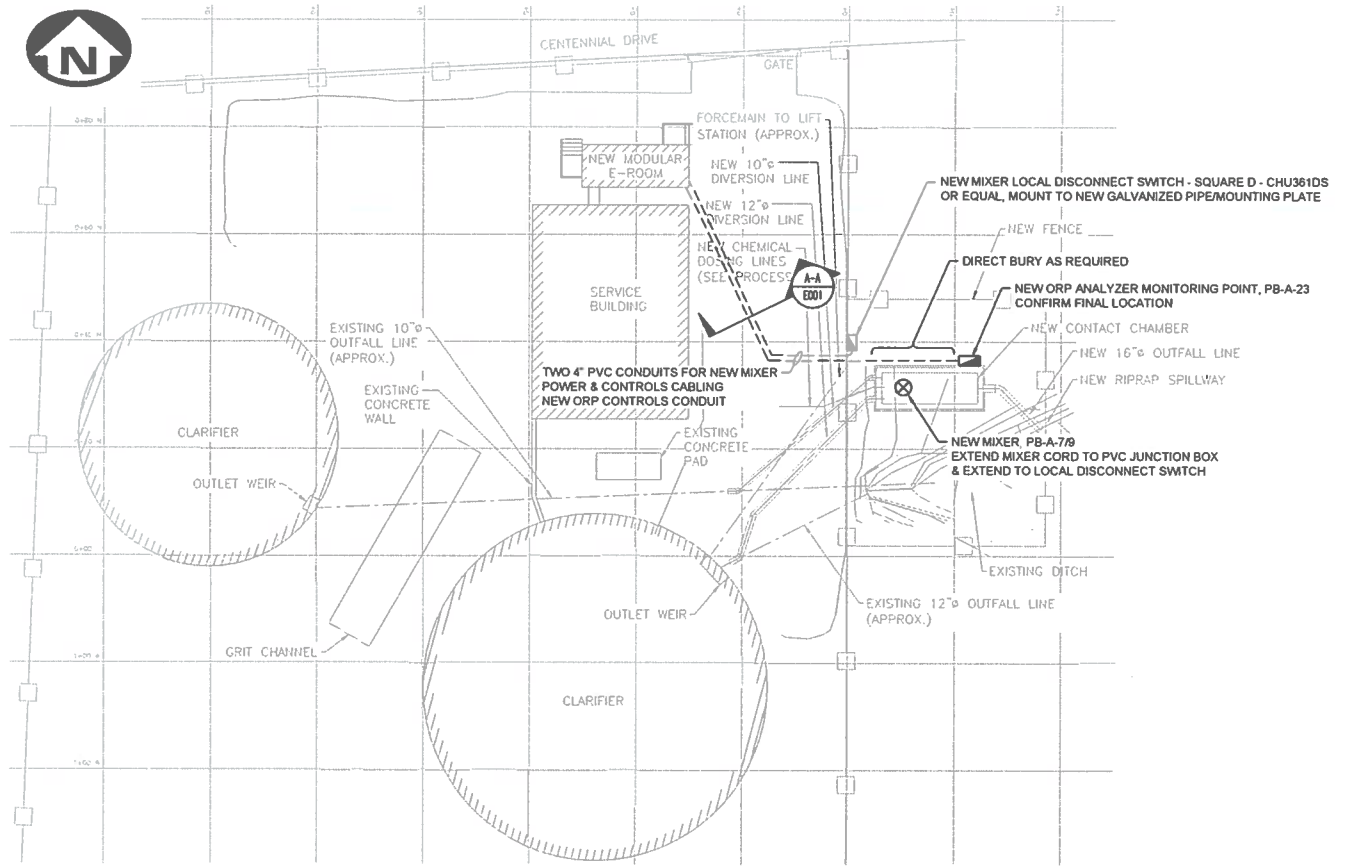
- A REFER TO CONSTRUCTION DOCUMENTS FOR SCOPE OF DEMOLITION WORK TO BE COMPLETED
B VERIFY SCOPE OF DEMOLITION WITH GENERAL CONTRACTOR BEFORE WORK BEGINS
C REMOVE EXISTING SURFACE MOUNTED CONTROL CABLES & EQUIPMENT. CONFIRM SCOPE WITH GENERAL CONTRACTOR
D EQUIPMENT DEVICES TO BE DECOMMISSIONED, RE-USED & REMOVED AS PER NEW LAYOUT. REMOVE C&I DEVICE BOX, CABLES & CONDUIT BACK TO ELECTRICAL PANEL. IF NO OTHER DEVICES ARE PRESENT ON THE SPECIFIC CIRCUIT, IF OTHER DEVICES ARE REQUIRED ON CIRCUIT
E SEND ALL BACK TO EXISTING JUNCTION BOXES OR RACKS. PROVIDE ADDITIONAL JUNCTION BOXES AS REQUIRED. TAG JUNCTION BOX WITH CIRCUIT. UPDATE PANEL DIRECTORY AS REQUIRED
F COORDINATE HANDING OVER REMOVED EQUIPMENT MATERIAL TO OWNER
G RECORD ALL JUNCTION BOXES ON AS-BUILT DRAWINGS

BELOW GRADE CONDUIT

- A RECORD ALL BELOW GRADE CONDUIT/CABLE ON AS-BUILT DRAWINGS
B PHOTOGRAPH ALL BELOW GRADE WORK FOR RECORD & INCLUDE IN AS-BUILT DRAWING PACKAGE
C ALL BELOW GRADE CONDUIT TO BE RIGID PVC SEAL ALL NOT USED BELOW GRADE CONDUIT ENDS WITH H
CONDUIT END CAPS FOR USE DURING CONSTRUCTION & FOR FUTURE USE
D ALL BELOW GRADE CONDUIT FILL NOT TO EXCEED 30% FOR ANY SYSTEM UNLESS SPECIFIED OTHERWISE

POWER DISTRIBUTION

- B INSTALL NEW FEEDER 600V FEEDER BREAKER C/W ASSOCIATED CABLING, TRANSFORMER & NEW 120/208V PANEL AS PER LAYOUT & SPECIFIED BELOW



WWTP SITE PLAN

SCALE NTS

- C 600V SWITCHGEAR FEEDER BREAKER UTILIZE EXISTING SPARE SECTION WITH EXISTING 600V SWITCH GEAR. REPLACE EXISTING BREAKER WITH NEW 30A 3-POLE 600V BREAKER TO POWER NEW LIGHTING PANEL LP1.
- D LIGHTING PANEL LP1: COMBINATION 600/208V 120 STEPDOWN TRANSFORMER/ LIGHTING PANEL. 120/208V 3 PHASE 4 WIRE. LOAD CENTER 18 BRANCH CIRCUITS. TOP ENTRY. SURFACE MOUNT. INSTALLED AS PER LAYOUT. BRANCH CIRCUITS AS PER PANEL SCHEDULE. EATON P603261 1518CUB OR EQUAL.

1. INSTALL C/W EXTERNAL SURGE PROTECTION DEVICE TOTAL PROTECTION SOLUTIONS - TK-080-3Y208-F-L-B OR EQUAL

- | | |
|---|---|
| E | COORDINATE WITH OWNER REGARDING SHUT DOWN FOR WORK OUTLINED |
| F | SUBMIT SHORT CIRCUIT & COORDINATION (IF APPLICABLE) STUDY WITH POWER DISTRIBUTION SHOP DRAWING. CONTRACTOR TO CARRY FEE FOR STUDY. STUDY TO BE CARRIED OUT BY POWER DISTRIBUTION MANUFACTURER |
| G | PROVIDE AND TAG AWARNING STRIKERS ON ALL ELECTRICAL PANELS & POWER DISTRIBUTION EQUIPMENT OUTLOOKING POTENTIAL, ARC FLASH HAZARDS & ELECTRIC SHOCK |
| H | PROVIDE COMPLETE, TYPED, ACQUAINT & VERIFIED PANEL DIRECTORY ON MANUFACTURER PROVIDED PANEL DIRECTORY TEMPLATE ON ALL NEW ELECTRICAL PANELS |
| I | INSTALL POWER PANEL(S) COMPLETE WITH LOCKABLE DOOR, COVER, PAUL SIZED HEAVY IR/CIRL CIRCUIT DIRECTORY GLAZING. GALVANIZED ENCLOSURE UNLESS NOTED OTHERWISE |
| J | MOCKUP CIRCUIT AND/OR PANELS AS REQUIRED. RECORD FINAL PANEL DIRECTORY ON AS-BUILT DRAWINGS |
| K | COMPLETE LOAD BALANCING ON ADJUST BRANCH CIRCUIT LOCATION AS REQUIRED FOR OPTIMUM LOAD BALANCE |

14 POWER DEVICES

- A POWER DEVICES SCOPE OF WORK INCLUDES BUT IS NOT LIMITED TO MODIFY EXISTING DEVICE & CIRCUIT LAYOUTS & INSTALL NEW POWER DEVICES AS PER LAYOUT & SPECIFICATIONS





- i (NOTE DELETED)
- ii (NOTE DELETED)
- iii POWERING OF NEW PROCESS EQUIPMENT AS SPECIFIED/PER LAYOUT

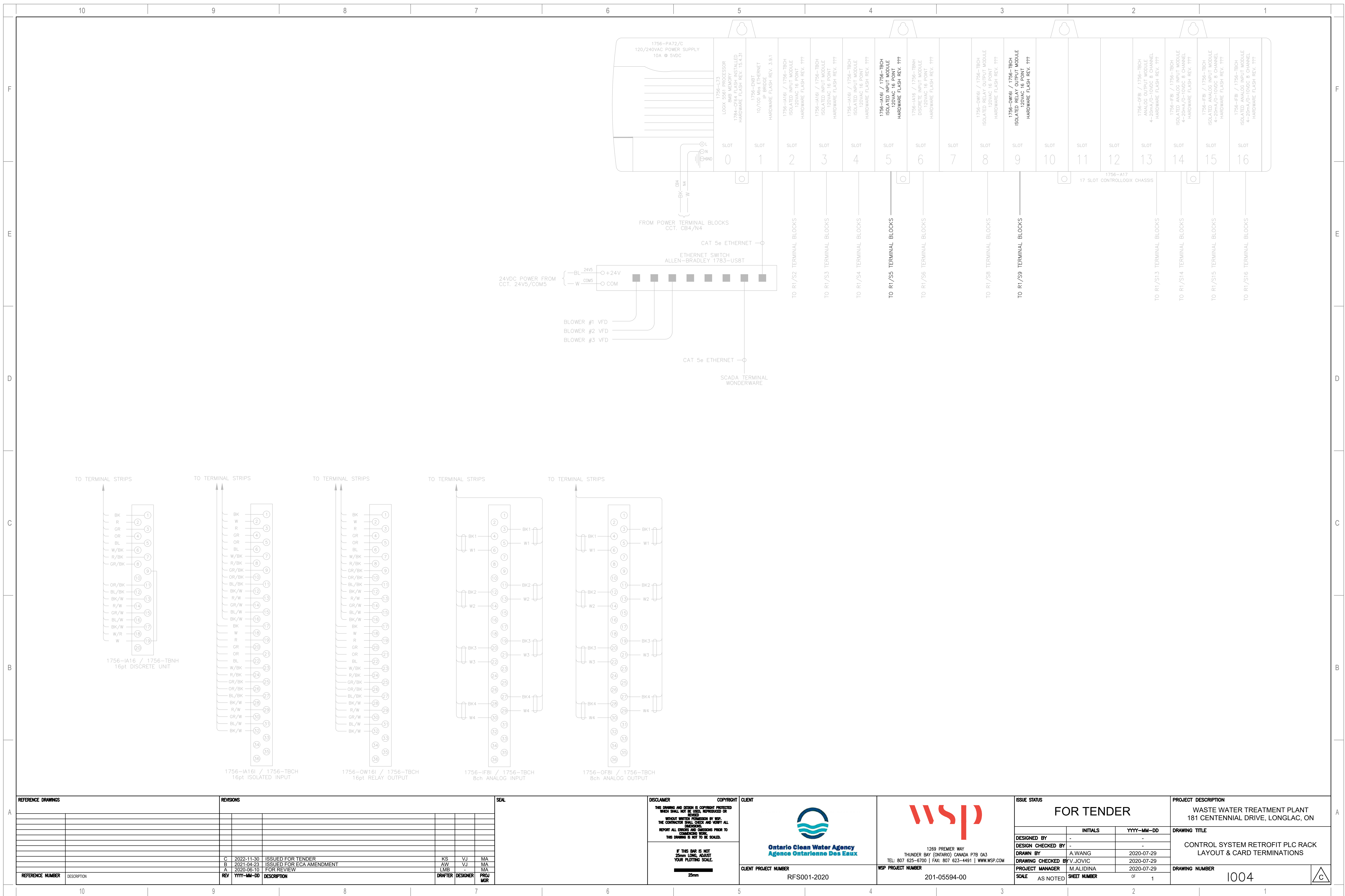
- #### N. POWERING OF FREEZE PROTECTION HEAT TRACE

- COORDINATE WITH MILLWORK, EQUIPMENT & FINAL LAYOUTS FOR OPTIMAL LOCATION OF POWER DEVICES
MODIFY CIRCUIT ALLOCATION AS REQUIRED. REPAIR FINAL PANEL DIRECTORY ON AS BUILD DRAWINGS
ALL RECEPTABLES WITHIN 200MM OF A WATER SOURCE: 1" SINK, JANITORIAL MOP SINK, ETC. ALONG WITH OUTDOOR RECEPTABLES AS
OUTLINED BY THE O&C TO BE GROUND FAULT CIRCUIT PROTECTED UTILIZING A GFCI RECEPTABLE OR BREAKER. INSTALL GFCI PROTECTED
STICKER ON RECEPTABLE PLATE IF PROTECTED BY A GROUND FAULT BREAKER
RECEPTABLE PLATE: SERVICE USE, 20A, HEAVY DUTY INDUSTRIAL SPECIFICATION, 5/2R CONFIGURATION, YELLOW FINISH. INSTALL
COMPLETE WITH CAST FID BOX, CORROSION RESISTANT. HUBBELL BRYCUSA6CR OR EQUAL. INSTALL COMPLETE WITH CORROSION RESISTANT
METALLIC FACE PLATE
HEAT TREAT AS SPECIFIED

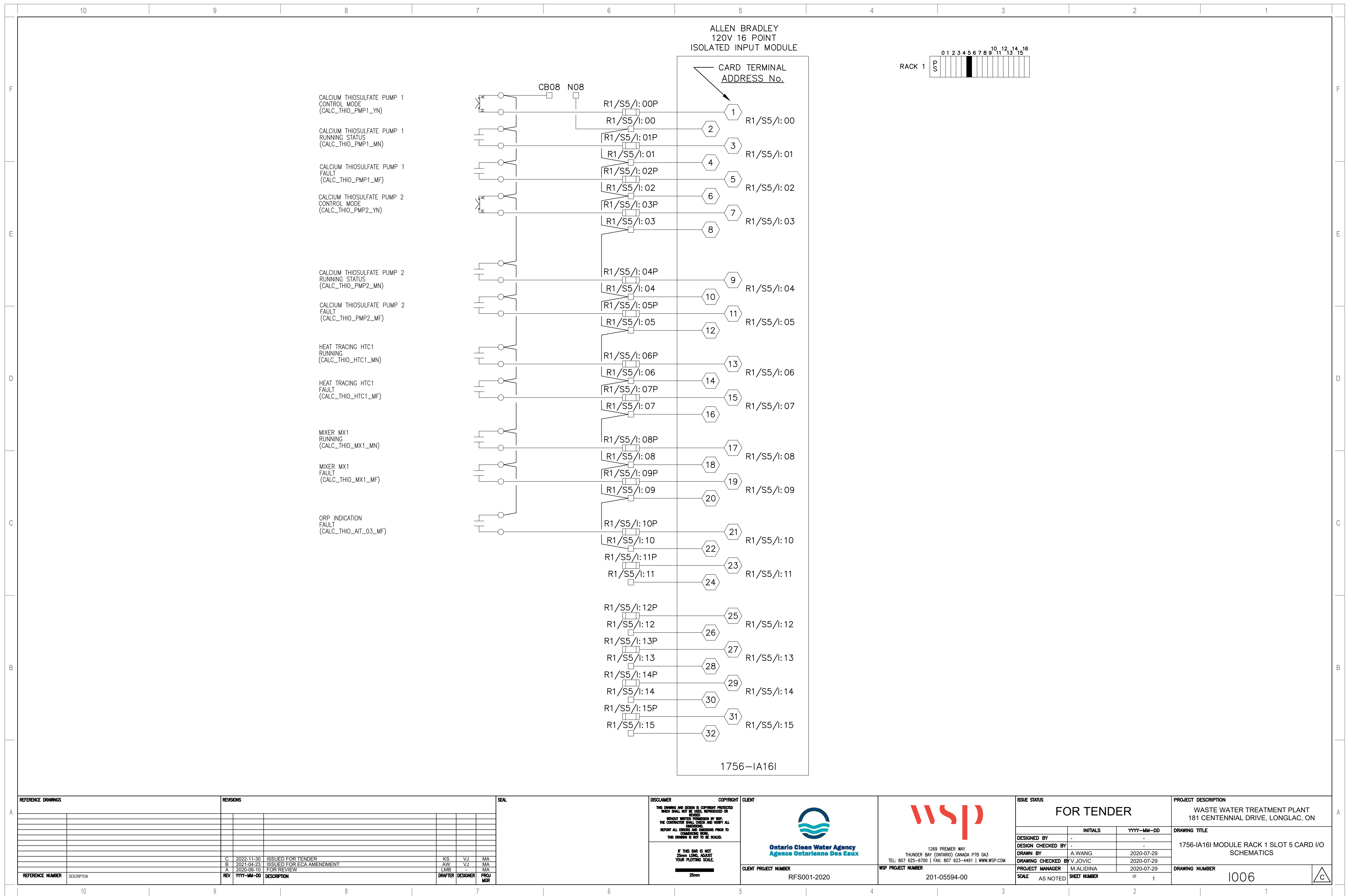
15 INTERIOR LIGHTING

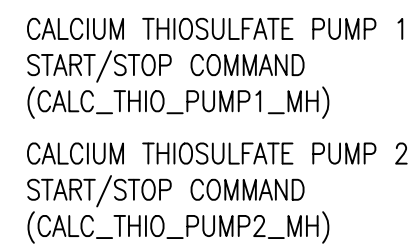
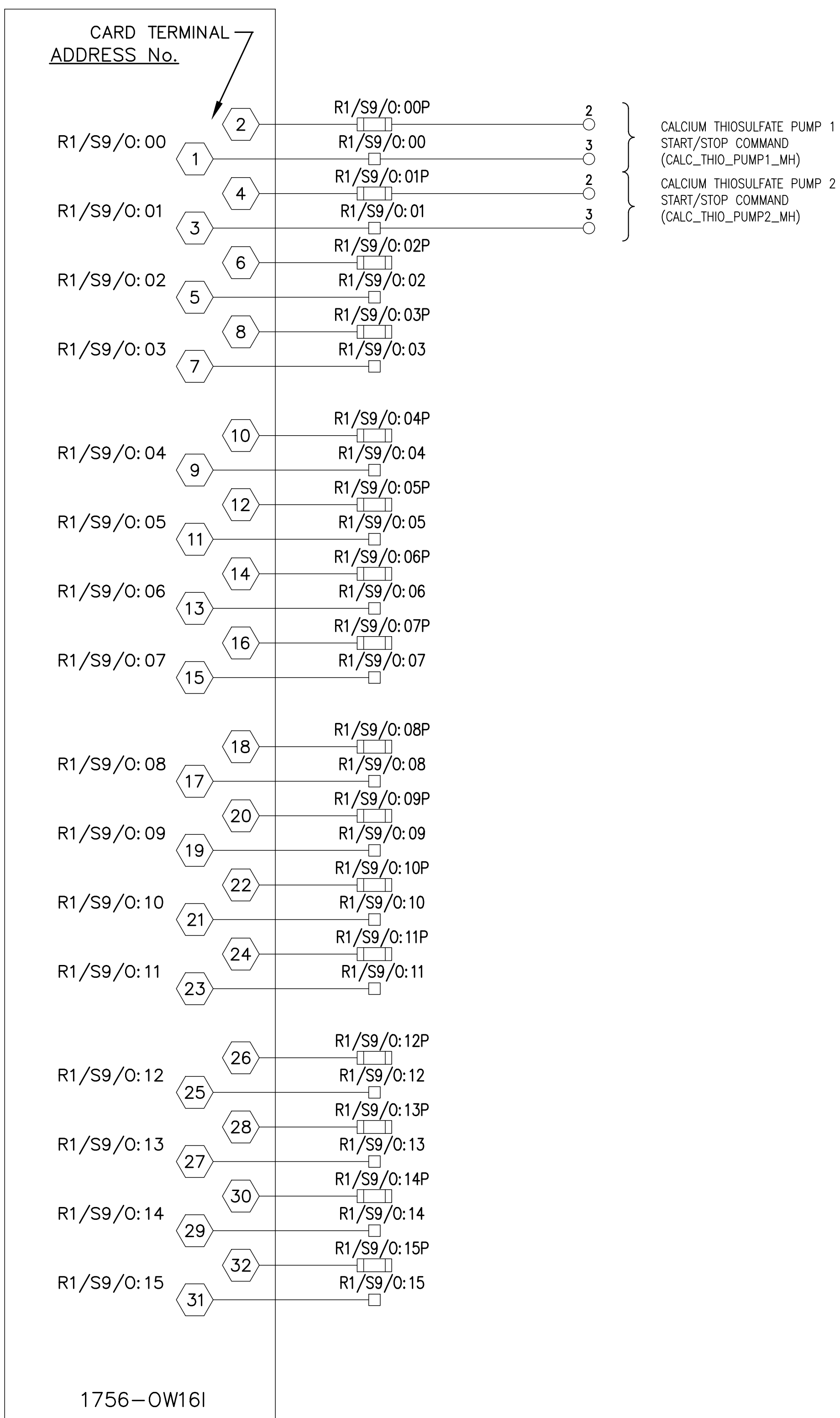
- INTERIOR LIGHTING SCOPE OF WORK INCLUDES BUT IS NOT LIMITED TO THE INSTALLATION OF NEW LIGHTING FIXTURES & CONTROLS AS OUTLINED
(NOTE DELETED)
ALL LIGHTING FIXTURES TO BE POWERED BY EXISTING / NEW DEDICATED CIRCUITS USED SOLELY FOR THE INTERIOR LIGHTING FIXTURES & CONTROLS. NO OTHER DEVICES TO BE WIRED TO SDC CIRCUITS. UPDATE PANEL DIRECTORY ACCORDINGLY
ADJUST LIGHTING LEVELS FOR OPTIMAL LIGHTING DISTRIBUTION. CONFIRM ALL LAYOUT ADJUSTMENTS ON AS-BUILT DRAWINGS
INSTALL FIXTURES WITH INTEGRAL OCCUPANCY SENSORS SO THAT OCCUPANCY SENSOR IS POSITIONED TOWARDS THE ENTRANCE TO THE SPACE
LIGHTING CONTROL SETTINGS TO BE ISSUED DURING SHOP DRAWING PHASE. TIME OFF DELAY TO BE SET TO 15 MINUTES THROUGHOUT UNLESS NOTED OTHERWISE
ALL LIGHTING CONTROL WHERE APPLICABLE TO BE FA-SAFE. IN THE EVENT OF A LIGHTING CONTROL FAILURE, LIGHTING TO REMAIN ON CHLORINE ROOM LIGHTING FIXTURES AS SPECIFIED. REFER TO LAYOUT.

REFERENCE DRAWINGS		REVISIONS		DISCLAIMER		COPYRIGHT		CLIENT		ISSUE STATUS		PROJECT DESCRIPTION	
						THIS DRAWING AND DESIGN IS COPYRIGHT PROTECTED WHICH SHALL NOT BE REPRODUCED OR RE-USED WITHOUT WRITTEN PERMISSION BY WSP. THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS REPORT ALL ERRORS AND DISCREPANCIES PRIOR TO COMMENCING WORK. THIS DRAWING IS NOT TO BE SCALED.		 Ontario Clean Water Agency Agence Ontarienne Des Eaux		 1209 PREMIER WAY THUNDER BAY (ONTARIO) CANADA P7B 0A3 TEL 807 625-0700 FAX 807 623-4431 WWW.WSP.COM		WASTE WATER TREATMENT PLANT 181 CENTENNIAL DRIVE, LONGLAC, ON	
						IF THIS BAR IS NOT 25mm LONG, ADJUST YOUR PLOTTING SCALE		CLIENT PROJECT NUMBER RFS001-2020		WSP PROJECT NUMBER 201-05594-00		FOR TENDER	
										DESIGNED BY K WOZNAK 2020-07-05		DRAWING TITLE ELECTRICAL SITE PLAN & SPECIFICATIONS	
										DESIGN CHECKED BY K WOZNAK 2020-07-15			
										DRAWN BY R.NICHOLSON 2020-07-05			
										DRAWING CHECKED BY J LONERGAN 2022-11-23			
										PROJECT MANAGER A. TARANOVSKA 2022-11-25			
										SCALE 1 OF 1		DRAWING NUMBER E002	
0001 SITE LOCATION & DRAWING INDEX P001 PROCESS FLOW DIAGRAM P002 SERVICE BUILDING LAYOUT M001 MECHANICAL BUILDING LAYOUT / HVAC E001 ELECTRICAL POWER LAYOUT & DETAILS 1001 THRU 1006 INSTRUMENTATION		0 NOV 2022 ISSUED FOR TENDER REV YYYYYMMDD DESCRIPTION		RAN JAL AT DRAFTER DESIGNER PROJ MGR									
REFERENCE NUMBER DESCRIPTION													







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