



ADDENDUM NO. 5

DATE: September 30, 2026
PROJECT: WWTP CSO 1 Improvements
OWNER: City of Elwood
ENGINEER: Whitaker Engineering

TO: PROSPECTIVE BIDDERS

This Addendum forms a part of the Contract Documents and modifies the original Drawings and Project Manual dated September 1, 2026. The information included in this Addendum shall become a part of the basic Drawings and Project Manual, the same as if originally incorporated therein. The original Drawings and Project Manual shall remain in their entirety, except as modified by Addendum. The items herein supersede information in the Drawings and Project Manual.

Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of six (6) pages and the following attachments:

1. Addendum #5 – Electrical (3 pages)
2. Revised Sheet E202 TERTIARY BUILDING FIRST FLOOR PLAN – ELECTRICAL (1 page)
3. Revised Sheet E701 ELECTRICAL RISER (1 page)

GENERAL CLARIFICATIONS:

1. Any startup delays caused by the contractor that result in additional costs from Toric Engineering shall be paid by the contractor. Change orders for additional costs due to startup delays will not be considered.
2. For Base Bid Item 6 – Systems Integration Allowance (Toric Engineering), detailed invoices against allowance shall be provided with all applicable pay applications. At the discretion of the Engineer, items may be purchased directly by the general contractor and supplied to Toric Engineering. These items would be paid from the Base Bid allowance amount.
3. The Systems Integration Allowance (Toric Engineering) includes Toric Engineering's overhead and profit. The general contractor shall not include any additional overhead and profit costs when submitting pay applications.
4. If the headworks generator is removed from the project scope (Mandatory Alternate #3), the Contractor shall provide a new weatherproof main electrical switch to replace the existing MDS. The new weatherproof main electrical service shall be located on the exterior of the headworks building. The exact location would be determined during construction. The new main electrical switch shall be rated for 1600A, 480Y/277V, 3P, 4W in NEMA 3R cabinet with one 800A, 3P LSIG circuit breaker and one 600A, 3P LSIG circuit breaker. All equipment shall be service entrance rated. Bidders should account for this in their bid amount for Mandatory Alternate #3.

5. Bidders shall provide the GPR Bid Breakdown (Attachment E) form as indicated in Article 7.01.E of the Bid Form and Section 13.12 of the Instructions to Bidders. The GPR Bid Breakdown shall be provided by Bidders within 48 hours after the bid opening as stated in Addendum #2.
6. Bidders are not required to provide a Qualifications Statement C451 form. The Bidder's experience, present commitments, and financial statement shall be provided in accordance with Form 96.
7. The Estimated Useful Life Form shall be prepared by the Engineer as part of the post-bid SRF submittal.
8. The motorized sluice gate operator shown on plan sheet C601 shall be rehabilitated or replaced with a new operator if rehabilitation is determined to be cost prohibitive during construction. Bidders should anticipate full replacement of the operator as a worst-case scenario for bidding purposes.
9. The Mechanical Fine Screens shall each be **31.00** feet in vertical height.
10. Each Screen and Washer/Compactor Unit shall include Heat Tracing to prevent the unit from freezing or the debris freezing to the screen itself. The heat tracing shall be as required / provided by the manufacturer and field connections by the Contractor.
11. The Mechanical Bar Screen and Washer / Compactor will have a NEMA 4X rated, stainless steel control panel, provided by the Equipment Manufacturer. Required Local Control Panels will be rated the same and provided by the Manufacturer.
12. The Mechanical Bar Screen(s) shall be constructed such that they can be installed, maintained and removed from either the base bid cast-in-place or the alternative precast structures. Field Assembly, if necessary, of screen components shall be carefully coordinated between the selected contractor and the screen manufacturer.
13. A Xypex concrete admixture may be provided in lieu of a post applied Xypex coating for the lift station wet well and screening structure as indicated on Sheets D301-D305. Neither Xypex concrete admixture nor post applied coating is required for the valve vault structure.
14. Substitutions for Xypex coating and/or concrete admixture will not be considered until after bidding.
15. The manufacturer's startup and commissioning services for the sodium hypochlorite and sodium bisulfate pump skids shall be conducted simultaneously for a combined total of two (2) man-days: One man-day for inspection, start-up, functional testing and certificate of proper installation and One man-day for training and commissioning.
16. Warranties for the Chemical Storage Tanks shall be three (3) years from date of shipment. Extended warranties are not included as a part of the project.
17. In Addendum #2, General Clarification Item #10 included the incorrect units for the 2" mill and resurface quantity. The correct quantity should be 950 **SY** of 2" mill and resurface of existing pavement.
18. The existing pump bases within the Effluent Drywell area shall remain and be painted as indicated on sheet D109.
19. A new 3'x3' access hatch shall be installed adjacent to the new concrete tank as indicated on sheet D108. The existing access hatch on the concrete roof shall be removed. New safety access ladders shall be provided in locations indicated on the Drawings (see sheets D108 and D109).
20. Flange hardware shall be 316SS within submerged or exposed locations such as at the Swirl Concentrator, inside the lift station wet well, and inside the screening structure as indicated on sheet

D301-D305. Flange hardware shall be cadmium plated as indicated in Specification Section 400513 2.3.B.4.b for all other locations.

21. The 36" PVC pipe for treated CSO effluent shall be SDR26 (PS 115).
22. The price for 8" flanged D.I. underflow piping and valves shall be incorporated into Bidder's Base Bid Item #2 (Swirl Concentrator) and the price for the 8" D.I. underflow piping outside of the structure shall be incorporated into the Bidder's Base Bid Item #8 (Yard Piping and Accessories).
23. For Mandatory Alternate #11 (CSO #16 Improvements), 20" D.I. pipes are being extended through the existing Structure #3 to Manhole #4 as indicated in the Appendix. Manhole #4 shall have two (2) 20" drop pipes each with a 90° elbow. Pipe supports shall be provided according to the specifications.
24. For Mandatory Alternate #11 (CSO #16 Improvements), the two (2) 45° D.I. bends called out on Page 2 of the exhibit refer to the proposed bends inside Structure #3 as indicated on Page 4 of the exhibit.
25. Push-on joints for the 30" D.I. force main pipe (sheet C501) do not require mechanical restraints. Mechanical joint fittings shall be required as indicated in the Drawings.
26. Push-on joints for buried D.I. gravity sewers (such as the 8" underflow drain) do not require mechanical restraints.
27. For Mandatory Alternate #12, the screen, lift station wet well, and valve vault structures shall be precast concrete in accordance with ASTM C478, with rubber type gaskets equal to ASTM C443. In addition to the rubber type gaskets, all joints shall receive a ½ inch diameter non-asphaltic mastic (Kent-Seal or equal). Sewer connections to precast concrete structures shall be link seal or equal.
28. All precast concrete structures shall be provided with bituminous coating on all exterior vertical surfaces which are backfilled against. Bituminous coating shall be Sikalastic 314 or equal.
29. All precast concrete structures shall be provided with external joint seals that meet or exceed the requirements of ASTM C877, Type II. External joint seals shall be Cretex Wrap External Joint Sealers or equal.
30. Engineer and Owner Field Office shall be provided as a separate room with a separate locked access as a part of the Contractor's field office trailer per Specification section 015000 1.12.G. Engineer and Owner Field Office shall be provided with internet access, a desk, and at least two chairs.

CHANGES TO PROCUREMENT & CONTRACTING DOCUMENTS:

1. Section 00 41 00 Bid Form
 - a. All Bidders shall enter \$480,000.00 for the Base Bid lump sum price for Item #6 - Systems Integration Allowance (Toric Engineering).

CHANGES TO DRAWINGS:

1. SHEET D101 EXISTING TERTIARY TANK ABOVE GRADE DEMOLITION PLAN
 - a. Revise Plan Note #2 as follows:
 2. Existing pumps, ~~bases~~, and piping to be removed in its entirety.
 - b. Revise Plan Note #15 as follows:
 15. Existing ladder access hatch to be removed ~~and relocated~~.
 - c. Delete Plan Note #17. The existing D.I. vent pipe on the concrete roof shall remain.

2. SHEET D301 WET WEATHER LIFT STATION PLAN
 - a. Revise Plan Note #2 as follows:
 2. Walls shall be coated with Xypex from top of wall to bottom of wall **within lift station wet well and screening structure. This note shall not apply if Xypex concrete admixture is used. Neither Xypex admixture nor post applied coating is required for the valve vault structure.**
3. SHEETS D302 - D305 WET WEATHER LIFT STATION SECTION
 - a. Revise Plan Note #2 as follows:
 2. Walls shall be coated with Xypex from top of wall to bottom of wall **within lift station wet well and screening structure. Xypex coating is not required within the valve vault structure.**
4. SHEET S5 SWIRL TANK STRUCTURAL SECTIONS
 - a. Add the following General Note #1:
 1. Expanded Polystyrene (EPS) blocks shall conform to ASTM C578, Type IX, having a minimum compressive resistance of 25 psi at 10% deformation and a minimum nominal density of 1.80 pcf.
5. SHEET D302-A WET WEATHER LIFT STATION – PRECAST ALTERNATE #12 SECTION
 - a. Revise callout for pump riser pipe to indicate a 12" D.I. pipe for each pump.

CHANGES TO SPECIFICATIONS:

1. Section 01 10 00 – Summary
 - a. Revise Section 1.5.B as follows:
 - 1.5.B Sound Level Restrictions: Sound pressure level measured at boundary of Site shall not exceed 40dBA **from 7 PM to 7 AM.**
2. Appendices E1, S1 and T1
 - a. Correct the vertical height of the Mechanical Screen in each specification section (at each location) to 31.00' (in place of 31.25' or 31'-3")
3. Appendices E1, E2 and S1
 - a. Revise, in each appendix, Part 2, Section 2.4.B.2.a as follows:
 - 2.4.B.2.a Enclosures shall be **NEMA 4X rated** for NFPA classified area installation. LCPs must be mounted (by others) according to applicable safety codes as determined by the Engineer.
4. Appendix E1 – Mechanically Cleaned Full Penetration Fine Bar Screens
 - a. Add subsection **2.3.I Modular Construction** immediately after subsection 2.3.H:
 - 2.3.I **Modular Construction: The bar screen will be shipped from the factory fully assembled with the exception of the operating deck enclosures and side shields. The overall bar screen unit will be constructed in sections to be disassembled on site. Prior to fabrication, the Contractor shall coordinate with the manufacturer the dimensions of the modular sections to allow entrance into the building and channel.**
 - b. Add the following section immediately after subsection 2.4.B.3:
 - 2.4.B.4 **Heat Tracing – The manufacturer shall include heat tracing of the dead plate, chute area, and other areas of the equipment that need to be prevented from freezing; and/or having screening waste materials from freezing to the screen components. Installation of field wiring to**

- be completed by others.**
- a. **Dead Plate Heat pads shall be powered by 120 VAC, and terminate in a NEMA 4X junction/control housing. The heat tracing / pad shall have sufficient power to as designed by the manufacturer to prevent freezing. They shall have a high limit thermostat to remain below NEC article 500 T-rating. The heat tracing and pads shall be moisture, chemical and radiation resistant, and rated for Unclassified or Class 1 Div 2 locations.**
5. Appendix E2 – Duperon Washer Compactor
 - a. Add subsection **2.4.B.5 Heat Tracing** immediately after subsection 2.4.B.4:
2.4.B.5 Heat Tracing: The manufacturer shall include heat tracing of the water supply connection, inlet and out chute / pipes, and other areas of the equipment that need to be prevented from freezing; and/or having screening waste materials from freezing to the screen components. Installation of field wiring to be completed by others.
 - a. **Heat pads shall be powered by 120 VAC, and terminate in a NEMA 4X junction/control housing. The heat tracing / pad shall have sufficient power to as designed by the manufacturer to prevent freezing. The heat tracing and pads shall be moisture, chemical and radiation resistant, and rated for Class 1 Div 2 locations.**
 6. Appendix H1 – Vertical Single Wall Polyethylene Storage Tank
 - a. Revise Section 2.03 as follows:
Delete sub section 2.03.B regarding extended warranties.
 7. Appendix H2 – Vertical Double Wall Captor Polyethylene Tank
 - a. Revise Section 2.03 as follows:
Delete sub section 2.03.B regarding extended warranties.
 8. Appendix K – Refrigerated Sampler
 - a. Revise Section 2.2.E as follows:
2.2.E Suction Lines and Strainers
The sampler will utilize a suction line and strainer for taking samples. The suction line shall be made of **3/8 inch (.95 cm) ID vinyl** with a length of 10 feet. The suction line shall have a factory-installed standard **3/8" weighted polypropylene strainer**.
 - b. Revise Section 2.2.F as follows:
2.2.F Sample Collection Containers
The sampler shall be supplied with sample collection container(s). The container(s) shall be **2 round 10L polyethylene containers**.
 9. Appendix S1 – Mandatory Alternate 5 – Alternate Mechanical Screen (Duperon FlexRake FPFS)
 - a. Revise subsection 2.3.F as follows:
2.3.F Scrapers - Scrapers shall be spaced 21 inches apart. To provide long product life the scraper shall move at no greater than 28 inches per minute at standard operating speed of ½ rpm allowing for approximately 1 debris discharge per minute. Staging scrapers and Thru-Bar™ scrapers shall be at the manufacturer recommendations (standard ratio 1:1). At least one scraper every 84 inches shall fully penetrate the bar screen, cleaning all three sides of the

bars as well as through to the cross members in openings of 0.25, 0.375 and 0.50 inches.

- b. Delete the following subsections in subsection 2.4.B.3:
 - Delete Entirely, 2.04.B.3.a Single Level/Speed Control
 - Delete Entirely, 2.04.B.3.c Differential level Control
- c. Replace original text in subsection 2.4.B.4 and replace with the following:
 - 2.4.B.4 **Heat Tracing – The manufacturer shall include heat tracing of the dead plate, chute area, and other areas of the equipment that need to be prevented from freezing; and/or having screening waste materials from freezing to the screen components. Installation of field wiring to be completed by others.**
 - a. **Dead Plate Heat pads shall be powered by 120 VAC, and terminate in a NEMA 4X junction/control housing. The heat tracing / pad shall have sufficient power to as designed by the manufacturer to prevent freezing. They shall have a high limit thermostat to remain below NEC article 500 T-rating. The heat tracing and pads shall be moisture, chemical and radiation resistant, and rated for Unclassified or Class 1 Div 2 locations.**

END OF ADDENDUM NO. 5

ADDENDUM #5



DATE: September 30, 2026

PROJECT: City of Elwood WWTP
CS01 Improvements
Elwood, Indiana 46036

ENGINEER: NEO Engineers, LLC.
1135 Shelby Street
Indianapolis, Indiana 46203
(317) 430-4128

The original Drawings and Project Manual, dated September 1, 2026, are amended as indicated herein. The information included in this Addendum shall become a part of the basic Drawings and Project Manual, the same as if originally incorporated therein. The original Drawings and Project Manual shall remain in their entirety, except as modified by this Addendum. The items herein supersede information in the Drawings and Project Manual

1. DRAWINGS

A. Electrical

- i. E202 TERTIARY BUILDING FIRST FLOOR PLAN – ELECTRICAL
 - 1. See changes to sheet plan note #7.
 - 2. See change to sheet plan note #9.
- ii. E701 ONE-LINE DIAGRAM
 - 1. See changes to Existing One-Line Diagram.
 - 2. See changes to Revised One-Line Diagram.
 - 3. See addition of sheet plan note #15.
 - 4. See addition of 'Switching Order'.

2. SPECIFICATIONS

B. Electrical - NONE

3. CLARIFICATIONS

A. QUESTIONS FROM CONTRACTORS

- i. When reviewing the panel schedule, we see a panel labeled “MSB”. However, when we review the riser diagram, we do not see this panel shown. Instead, the riser indicates a “new MDS”. Can you please confirm the correct main distribution section and associated breaker requirements? Specifically:
 1. The “MSB” panel schedule shows **two (2) 800A, 3-pole breakers**.
 2. The “new MDS” shown on the riser indicates **one (1) 800A, 3-pole breaker and one (1) 600A, 3-pole breaker**.
 3. Could you verify which configuration is correct so we can proceed accurately?
 - Response: This question was answered as part of Addendum #3.
- ii. Sheet E801 Electrical Connection to Mechanical Equipment Schedule shows Item# DWH-1 receiving note 6. Note 6 says, “Disconnect provided with equipment.” However, The Domestic Water Heater Schedule on the same sheet (E-801) shows note 2. Note 2 says, “Provide with fused disconnect switch.” Is the DWH-1 coming with an FBO disconnect or not? If not, is it to be Fused or Non fused?
 - Response: Disconnect switch is NOT provided with equipment. Electrical contractor shall provide disconnect switch. This question is not relevant as the electrical contractor is providing DWH-1. Therefore, the electrical contractor is responsible for the disconnecting means regardless of whether the disconnect comes with the unit or is sold separately.
- iii. New 800A Circuit to ATS-N in Tertiary Building from Pump Building. I do not see any Details on this Circuit, the New ATS and Old ATS are in Different Locations in the Tertiary Building. Will this be a New Underground Duct Bank
 - Response: See attached revised drawing E701.
- iv. Note 7 on E202 Says to Connect new light Fixture to Existing Branch Circuit and to see Details for Additional Info. The only info I see is showing a new Pole Base. These Lights are also not on the Fixture Schedule. Will these be New Pole Bases, Poles, and Fixtures? Or Just New Fixtures? Any Specs.
 - Response: See attached revised drawing E202.
- v. Are there any Plans for the Changeover from Old to New Service at both Buildings? Will Generator Rental be Required to Keep Plant Running.
 - Response: See attached revised drawing E701. See ‘Switching Order’.

- vi. Are there any Plans for the Removal of Old MDS and ATS in the Pump Building? Cabinets will not fit through Opening. Disassembly will extend Downtime to Plant?
 - Response: See attached revised drawing E-701. See 'Switching Order'.
- vii. Can there be an Option to Disconnect and abandon the old lights in place in the Pipe Gallery? Removal will be Difficult and Expensive, especially if Pipe is not Removed per Deduct. New Lights Shown mounted at 7'-6" AFF.
 - Response: This is acceptable. Existing lights in the Pipe Gallery shall be disconnected and abandoned in place. Removal of the existing light fixtures in the Pipe Gallery is not required and should not be included in the Contractor's bid.

ATTACHMENTS

E202, E701

END OF ADDENDUM #5 (ELECTRICAL)

FIELD VERIFY:
EXISTING ELECTRICAL EQUIPMENT WAS OBTAINED FROM SIMILAR BUILDING DRAWINGS AND CUSORY FIELD OBSERVATION, HOWEVER. ACTUAL "AS-BUILT" DRAWINGS WERE NOT AVAILABLE. CERTAIN INFORMATION CONCERNING THE LOCATION OF THE EXISTING ELECTRICAL WORK MUST BE VERIFIED IN THE FIELD TO DETERMINE THE EXACT LOCATIONS, DEPTH, SIZE, ETC. PRIOR TO STARTING CONSTRUCTION. ANY CONFLICT BETWEEN THESE PLANS AND THE ACTUAL CONDITIONS SHALL BE REPORTED IMMEDIATELY TO THE ARCHITECT FOR VERIFICATION AND/OR CORRECTION.

SHEET PLAN NOTES

1. RECONNECT EXISTING MECHANICAL EQUIPMENT TO NEW DISCONNECT SWITCH.
2. CLOSE DAMPERS AND SEAL WITH 2" RIGID INSULATION AND 1/2" PLYWOOD. PAINT PLYWOOD WITH A MINIMUM OF TWO COATS OF LIGHT COLORED FIRE RETARDANT PAINT. SEAL PERIMETER WITH CAULK.
3. PROVIDE NEW COMBINATION MOTOR STARTER/DISCONNECT SWITCH FOR SLUICE GATE MOTOR OPERATOR. CONNECT TO EXISTING FEEDER CIRCUIT.
4. VFD CONTROL PANEL FURNISHED BY SYSTEMS INTEGRATOR AND INSTALLED BY ELECTRICAL CONTRACTOR. VFD'S ARE FURNISHED WITH THE CONTROL PANEL. ALL TERMINATIONS IN CONTROL PANEL ARE BY ELECTRICAL CONTRACTOR.
5. EXHAUST FAN FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR. EXTEND BRANCH CIRCUIT AS REQUIRED.
6. CONNECT NEW LIGHT FIXTURE TO EXISTING LIGHTING BRANCH CIRCUIT.
7. CONNECT NEW LIGHT FIXTURE TO EXISTING LIGHTING BRANCH CIRCUIT.
8. CSO PLC CONTROL PANEL. ALL TERMINATIONS IN PANEL SHALL BE BY ELECTRICAL CONTRACTOR.
9. EXISTING POLE MOUNTED LIGHT TO REMAIN.
10. DECHLORINATION CHAMBER/EFFLUENT CHAMBER ULTRASONIC LEVEL SENSOR.
11. NOT USED.
12. EXISTING ELECTRICAL EQUIPMENT TO REMAIN.
13. PROVIDE (2) NEW 20A-1P CIRCUIT BREAKERS FOR EXISTING KINNEY CALSS CTL PANEL BOARD #BG-10531S.
14. 4" CONDUIT STUBBED 4" ABOVE FINISHED FLOOR AND CAPPED.
15. 4" CONDUIT WITH SCADA INSTALLERS RECOMMENDED CABLE.
16. ELECTRICAL CONTRACTOR SHALL PROVIDE HEAT TRACE AND INSULATION ON PIPING AS INDICATED.

GENERAL NOTES

- A. SEE SHEET E001 FOR SYMBOLS AND ABBREVIATIONS.
- B. SEE E00X SHEETS FOR ELECTRICAL SCHEDULES.
- C. SEE E00X SHEETS FOR ELECTRICAL DETAILS.
- D. WIRING SYSTEM SHALL BE CONDUIT AND CONDUCTOR UNLESS NOTED OTHERWISE. USE SOLID CONDUCTOR FOR SIZE #10 AWG AND SMALLER. USE STRANDED CONDUCTOR FOR LARGER SIZES.
- E. ALL WORK SHALL COMPLY WITH ALL NATIONAL, STATE, AND LOCAL CODES AND ORDINANCES PERTAINING TO THE WORK ON THIS PROJECT.
- F. EXPOSED CONDUIT SHALL BE RUN PARALLEL TO AND AT RIGHT ANGLES TO BUILDING LINES.
- G. ALL EXTERIOR EQUIPMENT AND DEVICES SHALL BE WEATHER PROOF AND RAIN TIGHT.
- H. COORDINATE INSTALLATION OF LIGHT FIXTURES WITH MECHANICAL EQUIPMENT, DIFFUSERS, SUPPORTS, PIPING, DUCTWORK, AND STRUCTURAL PLANS PRIOR TO ROUGH-IN OF FIXTURES.
- I. LOCATE CEILING MOUNTED OCCUPANCY SENSORS TO PROVIDE COMPLETE AREA OF COVERAGE OF SPACE CONTROLLED. SELECT PROPER SENSOR COVERAGE PATTERN FROM MANUFACTURERS PRODUCT DATA. ADDITIONAL SENSORS REQUIRED DUE TO LACK OF COVERAGE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND MANUFACTURER. SENSORS SHALL INCLUDE ALL POWER SUPPLIES AND RELAYS NECESSARY FOR PROPER OPERATION.
- J. CONTRACT DOCUMENTS CONSIST OF BOTH THE PROJECT MANUAL AND DRAWINGS AND BOTH ARE MEANT TO BE COMPLEMENTARY - ANYTHING APPEARING ON EITHER MUST BE EXECUTED THE SAME AS IF SHOWN ON BOTH.
- K. CONTRACTOR SHALL THOROUGHLY EXAMINE THE WORK OF OTHER TRADES PRIOR TO SUBMITTING A BID PROPOSAL.
- L. CONTRACTORS SHALL PROVIDE UPDATED CIRCUIT DIRECTORIES FOR EXISTING PANEL BOARDS IDENTIFYING THE PROPER LOADS FED BY THE CIRCUITS (NEW AND EXISTING) UPON COMPLETION OF THE WORK.
- M. THE PROJECT IS SUBJECT TO BABA REQUIREMENTS. SEE FRONT END SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- N. SEE CIVIL SHEETS FOR ADDITIONAL WORK BY ELECTRICAL CONTRACTOR.
- O. SEE CIVIL SHEET D401 FOR CONTROL LOGIC TABLE.
- P. THE SYSTEM INTEGRATION WILL BE PERFORMED BY THE OWNER'S EXISTING SYSTEM INTEGRATOR (SI). TORIC ENGINEERING, THE SIS CONTROL PANEL SCOPE FOR THIS PROJECT WILL INCLUDE THE WET WEATHER VFD CONTROL PANEL, CSO PLC CONTROL PANEL (LOCATED IN EXISTING PLC CONTROL PANEL), AND THE BASEMENT REMOTE I/O CONTROL PANEL. THE SI WILL ALSO FURNISH THE WET WEATHER WET WELL INSTRUMENTS, CHEMICAL BULK TANK LEVEL INSTRUMENTS, EFFLUENT FLOW INSTRUMENTS, AND CHLORINE ANALYZERS. THE ELECTRICAL CONTRACTOR SHALL INSTALL THE CONTROL PANELS FURNISHED BY THE SI AND THE WET WEATHER WET WELL INSTRUMENTS, CHEMICAL BULK TANK LEVEL INSTRUMENTS, EFFLUENT FLOW INSTRUMENTS, AND CHLORINE ANALYZERS. ALL APPLICATION ENGINEERING WILL BE PERFORMED BY SI. INSTALLATION OF CONDUIT, CONDUCTORS, CABLES, FIBER, AND TERMINATIONS OF SUCH WILL BE PERFORMED BY THE ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL COORDINATE BETWEEN ALL DISCIPLINES TO PROVIDE A COMPLETE AND TOTAL PACKAGE.

REVISIONS:		
1	ADDENDUM #1	09/10/2026
2	ADDENDUM #3	09/25/2026
3	ADDENDUM #5	09/30/2026

SHEET TITLE:
**TERTIARY BUILDING
FIRST FLOOR PLAN - ELECTRICAL**

PROJECT TITLE:
**CITY OF ELWOOD WWTP
CSO1 IMPROVEMENTS**



CONSULTANT:

2214 PLANTSIDE DRIVE
LOUISVILLE, KY 40299
(502) 493-2717 - Corporate
(317) 324-1276 - Fax

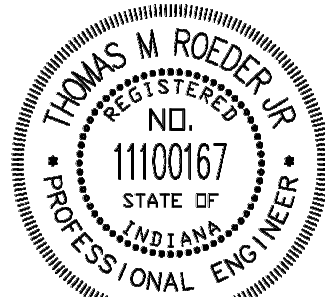


CONSULTANT:

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INDIANAPOLIS, IN 46250
E-MAIL: CWHITAKER@WHITAKERENGINEERING.COM



Thomas M. Roedel

CERTIFIED BY:

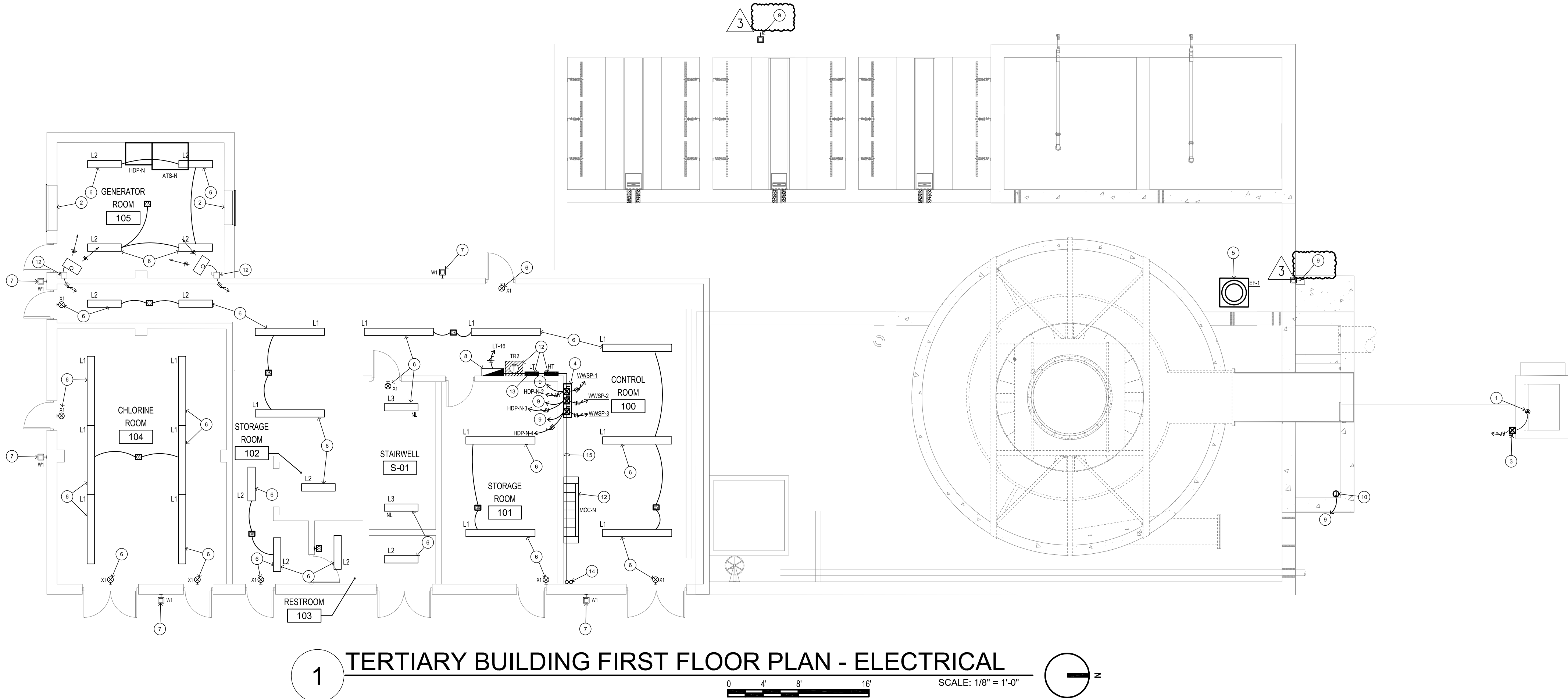
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OWNER INFORMATION:

**CITY OF ELWOOD
UTILITY OFFICE
1505 SOUTH B ST
ELWOOD, IN 46036**

SHEET LABEL	SHEET No. 70	OF: 78
E202	PROJECT No.: 24172	
CHECKED BY: TMR		
DRAWN BY: STAFF	DATE: 09/03/2026	



1 TERTIARY BUILDING FIRST FLOOR PLAN - ELECTRICAL

SCALE: 1/8" = 1'-0"

FEEDER SCHEDULE											
COPPER FEEDERS AND COPPER GROUND					ALUMINUM FEEDERS AND COPPER GROUND						
FEEDER	CONDUCTOR AMPLACITY	75% Cu COPPER WIRE	GROUND CONDUCTOR PER CONDUIT COPPER WIRE	MINIMUM CONDUIT SIZE 3 WIRE PLUS GROUND	4 WIRE PLUS GROUND	FEEDER	CONDUCTOR AMPLACITY	75% Al ALUMINUM WIRE	GROUND CONDUCTOR PER CONDUIT COPPER WIRE	MINIMUM CONDUIT SIZE 3 WIRE PLUS GROUND	4 WIRE PLUS GROUND
1	30A	#12	#12	3/4"	3/4"		-	-	-	-	-
2	30A	#10	#10	3/4"	3/4"		-	-	-	-	-
3	50A	#8	#10	1"	1"		-	-	-	-	-
4	60A	#6	#10	1"	1 1/4"		-	-	-	-	-
5	70A, 80A	#4	#8	1 1/4"	1 1/4"		-	-	-	-	-
6	100A	#3	#8	1 1/4"	1 1/2"		-	-	-	-	-
7	125A	#1	#6	1 1/2"	2"	7	125A	#20	#6	1 1/2"	2"
8	150A	#1/0	#6	2"	2"	8	150A	#3/0	#6	2"	2"
9	175A	#2/0	#6	2"	2"	9	175A	#4/0	#6	2 1/2"	2 1/2"
10	200A	#3/0	#6	2"	2 1/2"	10	200A	250 KCMIL	#6	2"	2 1/2"
11	225A	#4/0	#4	2 1/2"	2 1/2"	11	225A	300 KCMIL	#4	2 1/2"	2 1/2"
12	300A	350 KCMIL	#4	3"	3"	12	300A	500 KCMIL	#4	3"	3"
13	300A	500 KCMIL	#2	3"	3"	13	300A	(2) #4/0	#5	(2) 2 1/2"	(2) 2 1/2"
14	400A	(2) 3/0	#5	(2) 2"	(2) 2"	14	400A	(2) 250 KCMIL	#3	(2) 3"	(2) 3 1/2"
15	500A	(2) 250 KCMIL	#2	(2) 2 1/2"	(2) 2 1/2"	15	500A	(2) 350 KCMIL	#2	(2) 2 1/2"	(2) 2 1/2"
16	600A	(2) 250 KCMIL	#1	(2) 3"	(2) 3"	16	600A	(2) 500 KCMIL	#1	(2) 3"	(2) 3"
17	800A	(2) 500 KCMIL	#1/0	(2) 3"	(2) 4"	17	800A	(3) 400 KCMIL	#1/0	(3) 2 1/2"	(3) 2 1/2"
18	1000A	(3) 500 KCMIL	#2/0	(3) 3 1/2"	(3) 3 1/2"	18	1000A	(4) 300 KCMIL	#2/0	(4) 2 1/2"	(4) 2 1/2"
19	1200A	(3) 600 KCMIL	#3/0	(3) 4"	(3) 4"	19	1200A	(4) 500 KCMIL	#3/0	(4) 3"	(4) 3"
20	1600A	(4) 600 KCMIL	250 KCMIL	(4) 4"	(4) 5"	20	1600A	(5) 600 KCMIL	#4/0	(5) 4"	(5) 4"
21	2000A	(5) 600 KCMIL	250 KCMIL	(5) 4"	(5) 4"	21	2000A	(6) 600 KCMIL	250 KCMIL	(6) 4"	(6) 4"
22	2000A	(6) 600 KCMIL	350 KCMIL	(6) 4"	(6) 4"	22	2500A	(8) 600 KCMIL	350 KCMIL	(8) 4"	(8) 4"
23	3000A	(8) 500 KCMIL	-	(8) 4"	(8) 4"	23	-	-	-	-	-
24						24					

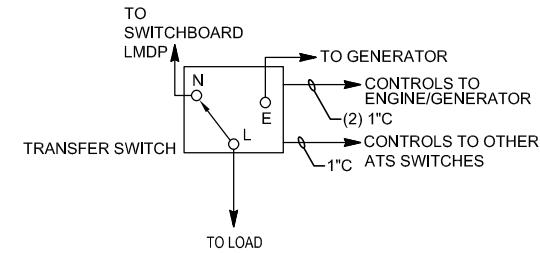
NOTE:
1. WIRING SHALL BE PROVIDED IN ACCORDANCE WITH THE NEC, UNLESS LARGER SIZES ARE SHOWN TO ACCOMMODATE FUTURE LOADS OR VOLTAGE DROP.
2. FEEDERS ARE 4 WIRE UNLESS NOTED OTHERWISE.
3. GROUND CONDUCTORS REQUIRED IN ALL FEEDER CONDUITS.

GENERATOR G-N NOTES

MINIMUM RATED CAPACITY: 510 KW 638 SKVA
BASIS OF DESIGN: MANUF: KOHLER MODEL: 500RQZJB
RATED VOLTAGE: 480V/277 V 3-PHASE/ 4 WIRE
ENCLOSURE RATING: SEE SPECIFICATIONS FUEL TYPE: DIESEL
SEE SPECIFICATIONS FOR ADDITIONAL FEATURES

TRANSFER SWITCH ATS-N NOTES

TRANSFER SWITCH TYPE: AUTOMATIC CURRENT RATING: 800 A
RATED VOLTAGE: 480 V 3-PHASE 4 WIRE # OF POLES: 4
NEUTRAL CONFIGURATION: SWITCHED IN-SYNC TRANSFER: Y
MAIN CIRCUIT BREAKER: N GROUND FAULT ON WIRE: N
SERVICE ENTRANCE RATED: N REMOTE ANNUNCIATION: Y
BY-PASS ISOLATION: Y NEC LOAD BRANCH: 700 KVA: 65
SEE SPECIFICATIONS FOR ADDITIONAL FEATURES
NEMA RATING: 3R

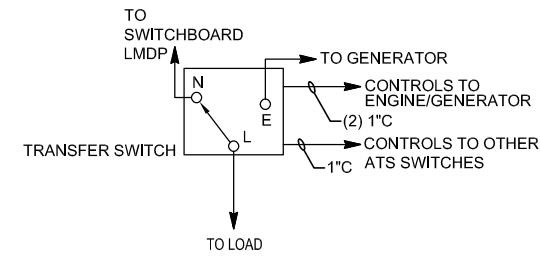


GENERATOR G-S NOTES

MINIMUM RATED CAPACITY: 350 KW 438 SKVA
BASIS OF DESIGN: MANUF: KOHLER MODEL: 350RQZJC
RATED VOLTAGE: 480V/277 V 3-PHASE/ 4 WIRE
ENCLOSURE RATING: SEE SPECIFICATIONS FUEL TYPE: DIESEL
SEE SPECIFICATIONS FOR ADDITIONAL FEATURES

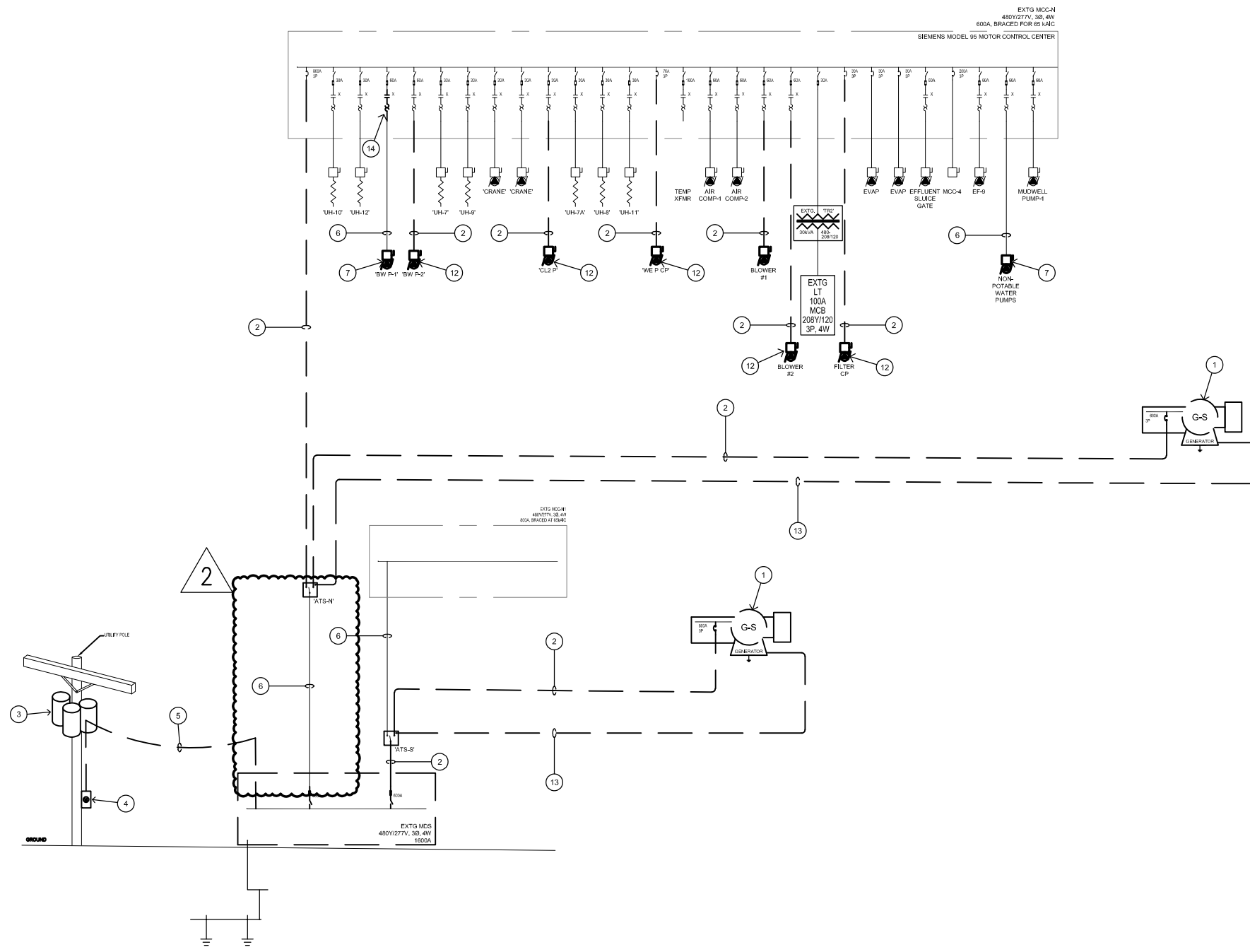
TRANSFER SWITCH ATS-S NOTES

TRANSFER SWITCH TYPE: AUTOMATIC CURRENT RATING: 800 A
RATED VOLTAGE: 480 V 3-PHASE 4 WIRE # OF POLES: 4
NEUTRAL CONFIGURATION: SWITCHED IN-SYNC TRANSFER: Y
MAIN CIRCUIT BREAKER: N GROUND FAULT ON WIRE: N
SERVICE ENTRANCE RATED: N REMOTE ANNUNCIATION: Y
BY-PASS ISOLATION: Y NEC LOAD BRANCH: 700 KVA: 65
SEE SPECIFICATIONS FOR ADDITIONAL FEATURES
NEMA RATING: 1



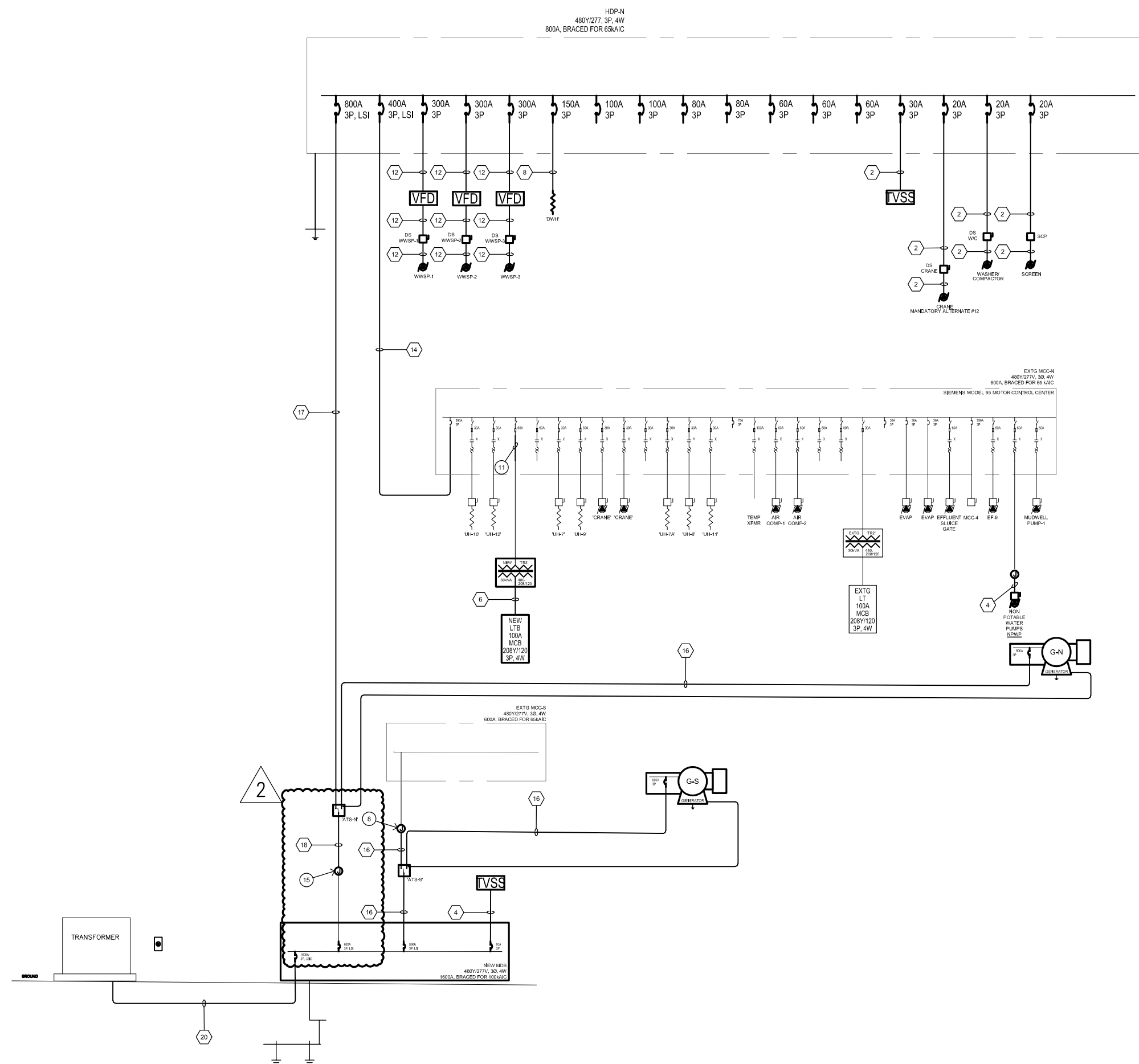
SWITCHING ORDER

- Installation of new pad mount utility transformer
a. Pump Building
i. EC shall coordinate the installation of new pad mount transformer with AEP.
ii. EC shall install new generator G-S and provide temporary connection to Old ATS-S.
iii. EC shall demolish existing generator G-S and all associated equipment inside the existing generator room.
iv. EC shall install new secondary service lateral from location of new pad mount transformer to location of new MDS.
v. EC shall install new ATS-S including all feeder circuits to generator GF-S, to new MDS, and to location of Old MDS.
vi. EC shall install feeder circuit from new generator G-S to new ATS-S.
vii. Disconnect existing MDS and set to side for future demolition after system has been re-energized.
viii. Splice existing feeder circuits previously serving MCC-N1 and Old ATS-S to new feeder circuits from new MDS.
ix. Install junction box over splices.
x. EC shall demolish Old ATS-S.
xi. EC shall demolish Old MDS.
b. Tertiary Building
i. EC shall demolish existing generator G-N and all associated equipment inside the existing generator room.
ii. EC shall install new HDP-N and new ATS-N.
iii. EC shall install feeder circuits, through the interior of the Tertiary Building, between the new HDP-N/ATS-N and Old ATS-N.
iv. EC shall demolish existing ATS-N.
v. EC shall splice existing feeder circuit from Old MDS to new HDP-N.
vi. EC shall splice existing feeder circuit from MCC-S to new ATS-N.
vii. EC shall install junction box over splices.
2. Energize new pad mount transformer.



EXISTING ONE-LINE DIAGRAM

SCALE: NOT TO SCALE



REVISED ONE-LINE DIAGRAM

SCALE: NOT TO SCALE

GENERAL NOTES

- SEE SHEET E001 FOR SYMBOLS AND ABBREVIATIONS.
- SEE E80X SHEETS FOR ELECTRICAL SCHEDULES.
- SEE E90X SHEETS FOR ELECTRICAL DETAILS.
- WIRING SYSTEM SHALL BE CONDUIT AND CONDUCTOR UNLESS NOTED OTHERWISE. USE SOLID CONDUCTOR FOR SIZE #10 AWG AND SMALLER. USE STRANDED CONDUCTOR FOR LARGER SIZES.
- ALL WORK SHALL COMPLY WITH ALL NATIONAL, STATE, AND LOCAL CODES AND ORDINANCES PERTAINING TO THE WORK ON THIS PROJECT.
- EXPOSED CONDUIT SHALL BE RUN PARALLEL TO AND AT RIGHT ANGLES TO BUILDING LINES.
- ALL EXTERIOR EQUIPMENT AND DEVICES SHALL BE WEATHER PROOF AND RAIN TIGHT.
- COORDINATE INSTALLATION OF LIGHT FIXTURES WITH MECHANICAL EQUIPMENT, DIFFUSERS, SUPPORTS, PIPING, DUCTWORK, AND STRUCTURAL PLANS PRIOR TO ROUGH-IN OF FIXTURES.
- LOCATE CEILING MOUNTED OCCUPANCY SENSORS TO PROVIDE COMPLETE AREA OF COVERAGE OF SPACE CONTROLLED. SELECT PROPER SENSOR COVERAGE PATTERN FROM MANUFACTURERS PRODUCT DATA. ADDITIONAL SENSORS REQUIRED DUE TO LACK OF COVERAGE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND MANUFACTURER. SENSORS SHALL INCLUDE ALL POWER SUPPLIES AND RELAYS NECESSARY FOR PROPER OPERATION.
- CONTRACT DOCUMENTS CONSIST OF BOTH THE PROJECT MANUAL AND DRAWINGS AND BOTH ARE MEANT TO BE COMPLEMENTARY - ANYTHING APPEARING ON EITHER MUST BE EXECUTED THE SAME AS IF SHOWN ON BOTH.
- CONTRACTOR SHALL THOROUGHLY EXAMINE THE WORK OF OTHER TRADES PRIOR TO SUBMITTING A BID PROPOSAL.
- CONTRACTORS SHALL PROVIDE UPDATED CIRCUIT DIRECTORIES FOR EXISTING PANEL BOARDS IDENTIFYING THE PROPER LOADS FED BY THE CIRCUITS (NEW AND EXISTING) UPON COMPLETION OF THE WORK.
- THE PROJECT IS SUBJECT TO BABA REQUIREMENTS. SEE FRONT END SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- SEE CIVIL SHEETS FOR ADDITIONAL WORK BY ELECTRICAL CONTRACTOR.
- SEE CIVIL SHEET D401 FOR CONTROL LOGIC TABLE.
- THE SYSTEM INTEGRATION WILL BE PERFORMED BY THE OWNER'S EXISTING SYSTEM INTEGRATOR (SI). TORIC ENGINEERING, THE SI'S CONTROL PANEL SCOPE FOR THIS PROJECT WILL INCLUDE THE WET WEATHER VFD CONTROL PANEL, CSO PLC CONTROL PANEL (LOCATED IN EXISTING PLC CONTROL PANEL), AND THE BASEMENT REMOTE I/O CONTROL PANEL. THE SI WILL ALSO FURNISH THE WET WEATHER WET WELL INSTRUMENTS, CHEMICAL BULK TANK LEVEL INSTRUMENTS, EFFLUENT FLOW INSTRUMENTS, AND CHLORINE ANALYZERS. THE ELECTRICAL CONTRACTOR SHALL INSTALL THE CONTROL PANELS FURNISHED BY THE SI AND THE WET WEATHER WET WELL INSTRUMENTS, CHEMICAL BULK TANK LEVEL INSTRUMENTS, EFFLUENT FLOW INSTRUMENTS, AND CHLORINE ANALYZERS. ALL APPLICATION ENGINEERING WILL BE PERFORMED BY SI. INSTALLATION OF CONDUIT, CONDUCTORS, CABLES, FIBER, AND TERMINATIONS OF SUCH WILL BE PERFORMED BY THE ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL COORDINATE BETWEEN ALL DISCIPLINES TO PROVIDE A COMPLETE AND TOTAL PACKAGE.

SHEET PLAN NOTES

- DEMOLISH EXISTING GENERATOR COMPLETE.
- DEMOLISH EXISTING FEEDER CIRCUIT COMPLETE.
- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH AEP FOR REMOVAL OF OVERHEAD TRANSFORMER BANK.
- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH AEP FOR REMOVAL OF EXISTING UTILITY METER.
- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH AEP FOR REMOVAL OF EXISTING SECONDARY SERVICE DROP.
- EXISTING FEEDER CIRCUIT SHALL REMAIN.
- DEMOLISH EXISTING DISCONNECT SWITCH/MOTOR STARTER. EXISTING FEEDER CIRCUIT SHALL REMAIN.
- PROVIDE JUNCTION BOX OVER PREVIOUS LOCATION OF DEMOLISHED MDS. CONNECT NEW FEEDER CIRCUITS TO EXISTING FEEDERS.
- NEMA 4X SS CABINET SIZED TO HOLD ALL EQUIPMENT, MINIMUM CABINET SIZE IS 60" X 36" X 12".
- 10KVA 480/240/120V STEP DOWN TRANSFORMER IN NEMA 4X SS ENCLOSURE.
- CONNECT EXISTING CONDUCTORS TO LUGS ON FUSE BLOCK.
- DEMOLISH EXISTING DISCONNECT SWITCH/MOTOR STARTER COMPLETE.
- DEMOLISH EXISTING CONTROL CIRCUIT COMPLETE.
- REMOVE EXISTING CONTACTS AND OVERLOADS.
- PROVIDE JUNCTION BOX OVER PREVIOUS LOCATION OF DEMOLISHED ATS. EXTEND NEW NORMAL FEEDER CIRCUIT TO NEW ATS-N.

FIELD VERIFY:

EXISTING ELECTRICAL EQUIPMENT WAS OBTAINED FROM SIMILAR BUILDING DRAWINGS AND CUSORY FIELD OBSERVATION. HOWEVER, ACTUAL "AS-BUILT" DRAWINGS WERE NOT AVAILABLE. CERTAIN INFORMATION CONCERNING THE LOCATION OF THE EXISTING ELECTRICAL WORK MUST BE VERIFIED IN THE FIELD TO DETERMINE THE EXACT LOCATIONS, DEPTH, SIZE, ETC. PRIOR TO STARTING CONSTRUCTION. ANY CONFLICT BETWEEN THESE PLANS AND THE ACTUAL CONDITIONS SHALL BE REPORTED IMMEDIATELY TO THE ARCHITECT FOR VERIFICATION AND/OR CORRECTION.

REVISIONS:

1	ADDENDUM #3	09/25/2026
2	ADDENDUM #5	09/30/2026

ELECTRICAL RISER

SHEET TITLE:

CITY OF ELWOOD WWTP
CSO1 IMPROVEMENTS

PROJECT TITLE:



CONSULTANT:

2214 PLANTSIDE DRIVE
LOUISVILLE, KY 40299
(502) 493-2717 - Corporate
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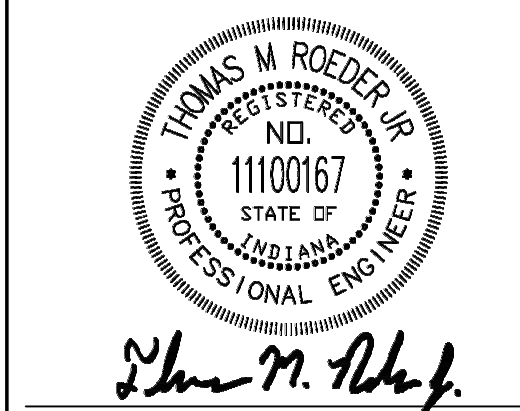


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CERTIFIED BY:

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OWNER INFORMATION:

CITY OF ELWOOD
UTILITY OFFICE
1505 SOUTH B ST
ELWOOD, IN 46036

SHEET LABEL	SHEET No. 74	OF: 78
E701	PROJECT No.: 24172	
CHECKED BY: TMR		
DRAWN BY: STAFF	DATE: 09/03/2026	