

# FOUR RIVERS SANITATION AUTHORITY ROCKFORD, ILLINOIS

## CO-GENERATION EFFICIENCY REHAB PROJECT - BID PACKAGE 1 (CAPITAL PROJECT NO. 2344)

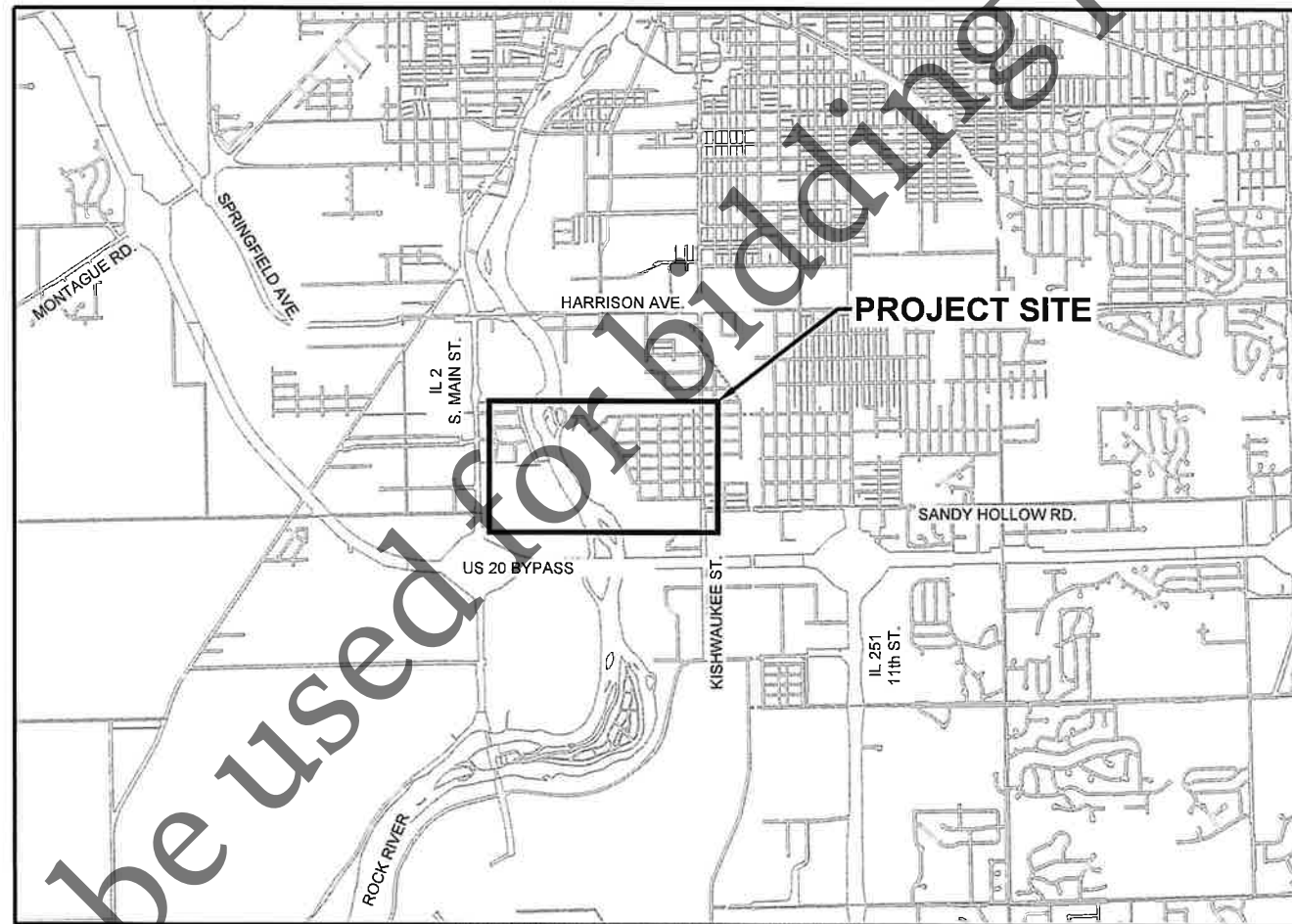
MARCH 2026

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MATTHEW L. CAMPBELL, PE	DIRECTOR, ENGINEERING



WINNEBAGO COUNTY, ILLINOIS


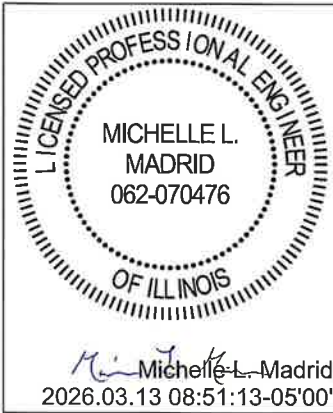
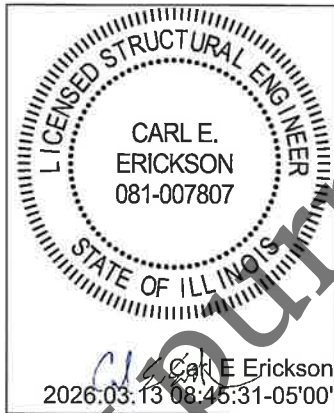
PROJECT ADDRESS  
3333 KISHWAUKEE STREET  
ROCKFORD, IL 61109



SHEET NUMBER	DRAWING NUMBER	DRAWING DESCRIPTION
<b>1 - GENERAL</b>		
1	1-G-01	COVER
2	1-G-02	DRAWING INDEX AND SIGNATURE SHEET
3	1-G-03	SYMBOLS, NOTES AND ABBREVIATIONS
4	1-G-04	CIVIL LEGEND AND GENERAL NOTES
5	1-G-05	PLUMBING LEGEND/HVAC LEGEND/ ELECTRICAL LEGEND
6	1-G-06	SPACE ENVIRONMENT AND HAZARDOUS RATINGS AND MATERIALS SCHEDULE
<b>ELECTRICAL DISTRIBUTION</b>		
7	1-ER-01	PARTIAL OVERALL ONE LINE DIAGRAM - REMOVAL
8	1-E-02	PARTIAL OVERALL ONE LINE DIAGRAM
9	1-E-03	FEEDER F-2 AND F-7 ONE LINE DIAGRAMS
10	1-E-04	ELEVATIONS

<b>2 - SITE DEVELOPMENT</b>		
11	2-CK-01	OVERALL SITE, ACCESS, AND CIVIL DRAWING KEY PLAN
12	2-CER-01	EROSION CONTROL AND SITE CIVIL REMOVAL PLAN
13	2-CER-02	EROSION CONTROL AND SITE CIVIL REMOVAL PLAN
14	2-CER-03	EROSION CONTROL AND SITE CIVIL REMOVAL PLAN
15	2-CP-01	CIVIL SITE PIPING PLAN
16	2-CFG-01	SITE FACILITIES AND GRADING PLAN
17	2-CFG-02	SITE FACILITIES AND GRADING PLAN
18	2-CFG-03	SITE FACILITIES AND GRADING PLAN
19	2-CFG-04	SITE FACILITIES AND GRADING PLAN
20	2-CFG-05	SITE FACILITIES AND GRADING PLAN
21	2-R-01	SITE PLAN - REMOVAL
22	2-R-02	DEWATERING BUILDING NORTH AND SOUTH TRANSFORMERS - REMOVAL
23	2-R-03	SWITCHGEAR BUILDING - REMOVAL
24	2-R-04	ELECTRICAL - REMOVAL
25	2-S-01	SWITCHGEAR MTO-A/B, SWITCHGEAR FEEDERS F-2 AND F-7, AND DEWATERING BUILDING SOUTH TRANSFORMERS
26	2-E-01	SITE PLAN - ELECTRICAL
27	2-E-02	DEWATERING BUILDING NORTH AND SOUTH TRANSFORMERS
28	2-E-03	SWITCHGEAR BUILDING
29	2-E-04	SWITCHGEAR MTO-A/B AND PAD-MOUNTED SWITCHGEARS
30	2-E-05	DUCTBANK SCHEDULE
31	2-E-06	TEMPORARY GENERATOR PLAN

<b>10 - GENERAL NOTES, SCHEDULES, AND STANDARD DETAILS</b>		
32	10-C-01	CIVIL
33	10-C-02	CIVIL
34	10-C-03	CIVIL
35	10-C-04	CIVIL
36	10-S-01	STRUCTURAL
37	10-E-01	ELECTRICAL
38	10-E-02	ELECTRICAL

 JAY T. BIELANSKI 062-065405 <small>Jay T. Bielanski 2026.03.13 08:40:16-05'00'</small>	 MICHELLE L. MADRID 062-070476 <small>Michelle L. Madrid 2026.03.13 08:51:13-05'00'</small>	 CARL E. ERICKSON 081-007807 <small>Carl E. Erickson 2026.03.13 08:45:31-05'00'</small>
JAY BIELANSKI NAME ELECTRICAL TITLE	MICHELLE MADRID NAME CIVIL TITLE	CARL ERICKSON NAME STRUCTURAL TITLE
<b>LIST DRAWING SHEETS:</b> 1-G-01      2-E-03 1-G-02      2-E-04 1-G-03      2-E-05 1-G-05      2-E-06 1-G-06      10-E-01 1-ER-01      10-E-02 1-E-02 1-E-03 1-E-04 2-R-01 2-R-02 2-R-03 2-E-01 2-E-02	<b>LIST DRAWING SHEETS:</b> 1-G-04      10-C-01 2-CK-01      10-C-02 2-CER-01      10-C-03 2-CER-02      10-C-04 2-CER-03 2-CP-01 2-CFG-01 2-CFG-02 2-CFG-03 2-CFG-04 2-CFG-05	<b>LIST DRAWING SHEETS:</b> 2-S-01 10-S-01

Not to be used for bidding purposes

Date	Checked By	Drawn By	Revision Description	Revision Number

Designed By	JTB
Drawn By	JTB
Checked By	RJF
Approved By	JTB
Filename	001G1 INDEX.DWG
Project No.	14456
Project Date	MAR 2026

**FOUR RIVERS SANITATION AUTHORITY**  
**CO-GENERATION EFFICIENCY REHAB PROJECT-BID PACKAGE 1**  
**ELECTRICAL IMPROVEMENTS (CAPITAL PROJECT NO. 2344)**  
 ROCKFORD, IL  
**GENERAL**  
**DRAWING INDEX AND SIGNATURE SHEET**



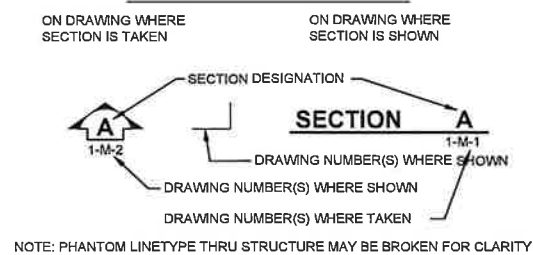
Sheet No.	2
Drawing No.	1-G-02

GENERAL LEGEND

DISCIPLINE IDENTIFIER

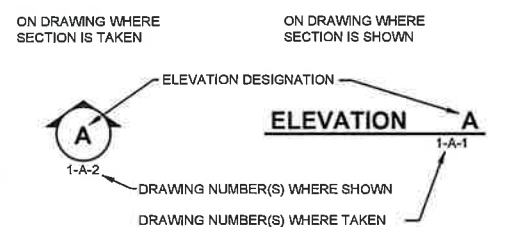
Table with 2 columns: DISCIPLINE and DISCIPLINE IDENTIFIER. Lists various disciplines like GENERAL, CIVIL KEY, etc., and their corresponding letters (G, CK, CN, CR, CF, CG, CE, CP, R, A, S, M, P, H, E, N).

SECTION DESIGNATION

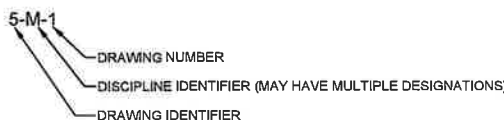


NOTE: PHANTOM LINETYPE THRU STRUCTURE MAY BE BROKEN FOR CLARITY

CASEWORK ELEVATION DESIGNATION



DRAWING NUMBER DESIGNATION



PLAN NOTE DESIGNATION

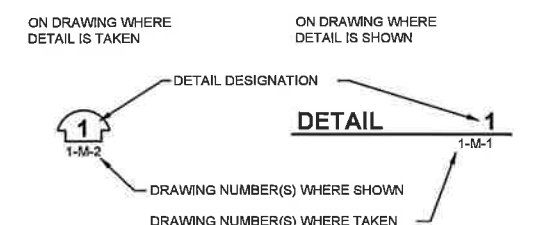


STANDARD DETAIL DESIGNATION



NOTE: STANDARD DETAILS ARE LOCATED ON DRAWINGS THAT HAVE BEEN ASSIGNED A DRAWING IDENTIFIER OF 10 FOLLOWED BY A DISCIPLINE IDENTIFIER. THESE DRAWINGS ARE PLACED LAST IN THE DRAWING SET.

DETAIL DESIGNATION



AREA DESIGNATION



PHOTO DESIGNATION



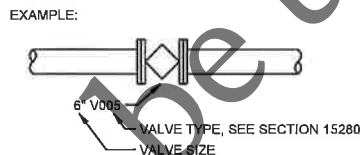
SYMBOLS

Table listing various symbols and their corresponding materials: NON-RIGID INSULATION, RIGID INSULATION, SAND OR FILL, FREE DRAINING FILL, ROUGH CARPENTRY, CONCRETE, CONCRETE BLOCK, FACE BRICK, PRECAST CONCRETE PLANK, EARTH OR BACKFILL, ROCK, REMOVAL.

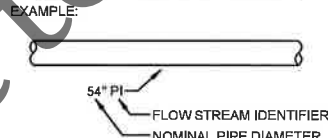
INSTRUMENT IDENTIFICATION

SAME AS SHOWN ON P&ID LEGEND. EXCEPTION: COMPONENT DESIGNATORS NOT USED ON PROCESS MECHANICAL DRAWINGS

VALVE IDENTIFICATION



PIPE IDENTIFICATION



ABBREVIATIONS

Large table of abbreviations and their full names. Columns include ACST, AD, ADDL, AL, ALT, APPROX, ARCH, AVG, BOT, BF, BFP, BLDG, BLK, BLKG, BM, BOB, BOT, BRD, C/L, CEM, CH, CJT, CL, CLG or CEIL, CLO, CLR, CMU, CO, COL, COMPO, CONC, CONF, CONN, CONST, CONT, CONTR JT, CORR, CT, CPVC, CSK, CTR, DBL, DEG, DET, DIA, DIAG, DIM, DIP, DIR, DN, DWG, EA, ECC, EF, EJ, EL, ELEC, EL, ELL, EQ, EQUIP, EWC, EXIST or (X), EXP, EXP JT, EXT, F/, FCA, FD, FE, FEC, FF, FFE, FHT, FHC, FIN, FLR, FLG, FOC, FOS, FOUND, FOW, FRP, FS, FS, FSD, FT, FTG, FV, GA, GALV, G.B., GCMU, GL, GR, GYP BD, H, HB, H/C, HDWD, HDWR, HM, HORIZ, HP, HT, HWL, ID, INSUL, INT, INV, KITCH, LAV, LEV, LIG, LLH, LLV, LP, LGR, LTG, LTWT, LWL, MAINT, MTE, MAX, MB, MECH, MET, MEZZ, MFR, MH, MIN, MISC, MJ, MO, MULL, NW, NIC NO. or #, NR, NTS, OC, OD, OFI, OFO, OPNG or OPNG OPP, P&ID, P. LAM., PDC, PUF, PL, PLAS, PLYWD, PR, PREP, PROJ, PT, PVC, QT, R, R or RAD, RC, RCP, ROP, RD, REC, RED, REDWD, REF, REIN, REQ'D, RES, REV, RM, SCHED, SD, SECT, SH, SIM, SPA, SPECS, SQ, SR, SS or SST, STD, STL, STR, SUSP, S.V., T, T/1, T/2, T&B, T & G, TDC, TMP, THK, TOC, TOP, TOS, TOW, TYP, UNO, UNLESS NOTED OTHERWISE, VVLB, VCT, VER, VERT, VIF, W, WIDE, W/1, WC, WO, WL, W/O, WP, WS, WWF, YR, YEAR.

FLOW STREAM IDENTIFIERS

Table of flow stream identifiers: ALP (AIR LOW PRESSURE), AHP (AIR HIGH PRESSURE), BD (BASIN DRAIN BYPASS), BWM (BACKWASH WASTE), CEN (CENTRATE), CGR (COOLING GLYCOL RETURN), CGS (COOLING GLYCOL SUPPLY), D (DRAIN), DCT (DECANT), DSG (DIGESTER GAS), DSC (DIGESTED SLUDGE CIRCULATED), DS (DIGESTED SLUDGE), DSH (DIGESTED SLUDGE HEATED), DSL (DIGESTED SLUDGE LOADOUT), DSM (DIGESTED SLUDGE MIXING), DST (DIGESTED SLUDGE TRANSFER), EXH (EXHAUST), FE (FINAL EFFLUENT), FECL (FERRIC CHLORIDE FILTRATE), FLT (FILTRATE), GTO (GRAVITY THICKENER OVERFLOW), GRS (GRIT SLURRY), GRT (GRIT), H2S (HYDROGEN SULFIDE), HGR (HEATING GLYCOL RETURN), HGS (HEATING GLYCOL SUPPLY), HWR (HEATING WATER RETURN), HWS (HEATING WATER SUPPLY), LPO (LIQUID POLYMER), ML (MIXED LIQUOR), NG (NATURAL GAS), ODA (ODOROUS AIR OVERFLOW), PE (PRIMARY EFFLUENT), PFI (PRIMARY FILTRATION INFLUENT), PFE (PRIMARY FILTRATION EFFLUENT), PFS (PRIMARY FILTRATION SLUDGE), PFTS (PRIMARY FILTRATION THICKENED SLUDGE), PI (PRIMARY INFILTRANT), PO (POLYMER), PSD (PRIMARY SLUDGE), PSM (PRIMARY SCUM), RAS (RETURN ACTIVATED SLUDGE), RCY (RECYCLE), RCC (RECYCLE CHLORINE CLEAN), RWW (RAW WASTEWATER), SA (SAMPLE), SAN (SANITARY SEWER), SBS (SODIUM BISULFITE), SCN (SCREENINGS), SE (SECONDARY EFFLUENT), SI (SECONDARY INFILTRANT), SHC (SODIUM HYPOCHLORITE), SLD (SOLIDS WASTE DRAWOFF), SSM (SECONDARY SCUM), SUP (SUPERNATANT), TDSD (THICKENED DIGESTED SLUDGE), TPD (THICKENED PRIMARY SLUDGE), TS (THICKENED SLUDGE), TWAS (THICKENED WASTE ACTIVATED SLUDGE), V (VENT), WAS (WASTE ACTIVATED SLUDGE), W1 (POTABLE CITY WATER), W2 (NON-POTABLE CITY WATER), W3 (PLANT EFFLUENT WATER), W4 (NON-POTABLE WELL WATER).

GENERAL NOTES:

- 1. THIS IS STANDARD LEGEND. NOT ALL OF THE INFORMATION SHOWN ON THIS LEGEND IS NEEDED IN THESE CONTRACT DRAWINGS.
2. WORK IN THIS CONTRACT SHOWN FULL-TONE UNLESS OTHERWISE NOTED.
3. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO CONSTRUCTION AND/OR FABRICATION.
4. SEE SECTION 01 11 00 FOR PROJECT CONSTRAINTS.
5. REFER TO DRAWING 1-ENV-01 FOR THE SPACE ENVIRONMENT/HAZARDOUS RATING SCHEDULE REGARDING ENVIRONMENTAL CONDITIONS ANTICIPATED WITHIN EACH SPACE AND ALLOWABLE MATERIALS OF CONSTRUCTION TO BE USED WITHIN EACH SPACE.
6. HAZARDOUS RATINGS IDENTIFIED ON THIS DRAWING INDICATE SPACES IN WHICH A HAZARDOUS ENVIRONMENT MAY GENERALLY EXIST. CONTRACTOR SHALL REFER TO SPACE ENVIRONMENT/HAZARDOUS RATING SCHEDULE IN DRAWING 1-ENV-01 FOR ADDITIONAL INFORMATION EXPLAINING THE EXTENT AND ENVELOPE ASSOCIATED WITH THESE HAZARDS.
7. REFER TO DRAWING 1-G-04 FOR GENERAL CIVIL NOTES.
8. REFER TO DRAWING 1-G-06 FOR GENERAL I&C NOTES.
9. REFER TO DRAWING 10-S-01 FOR GENERAL STRUCTURAL NOTES

GENERAL REMOVAL NOTES:

- 1. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO CONSTRUCTION AND/OR FABRICATION.
2. FULL TONE COMPONENTS TO BE REMOVED.
4. SEE SECTION 01 11 00 FOR PROJECT CONSTRAINTS.
5. SAWCUT AND REMOVE CONCRETE TO THE LIMITS NOTED. IN EXPOSED AREAS NOT COVERED BY NEW CONSTRUCTION, REMOVE REINFORCEMENT AND EMBEDMENTS 1\"/>

Revision table with columns: Date, Checked By, Drawn By, Revision Number, Revision Description, Designated By, Drawn By, Checked By, Approved By, Filename, Project No., Project Date.

FOUR RIVERS SANITATION AUTHORITY
CO-GENERATION EFFICIENCY REHAB PROJECT-BID PACKAGE 1
ELECTRICAL IMPROVEMENTS (CAPITAL PROJECT NO. 2344)
ROCKFORD, IL
GENERAL
SYMBOLS, NOTES AND ABBREVIATIONS

**LEGEND**

**EXISTING**

**PROPOSED**

	BENCHMARK
	CATCH BASIN
	CATV PEDESTAL
	CULVERT
	CULVERT OVER 24" (SHOWN ACTUAL SIZE)
	ELECTRIC MANHOLE
	ELECTRIC METER
	ELECTRIC PEDESTAL
	FLARED END SECTION
	GAS METER
	GATE VALVE
	GUY WIRE
	HANDHOLE
	INLET
	LIGHTPOLE
	SANITARY OR STORM MANHOLE
	SIGN
	SOIL BORING
	SURVEY CONTROL POINT
	TELEPHONE PEDESTAL
	TREE (CONIFEROUS & DECIDUOUS)
	SHRUB & BUSH
	TREE/SHRUB LINE
	WATER VALVE
	WATER VALVE WITH BOX
	WATER VALVE WITH VAULT
	WATER FIRE HYDRANT
	WATER YARD HYDRANT

**LINE TYPE IDENTIFICATION**

**EXISTING**

**PROPOSED**

	BUILDING
	CABLE TV
	CENTERLINE OF ROAD
	CONTOUR
	DITCH/SWALE
	EASEMENT
	FENCE
	ELECTRIC
	ELECTRICAL DUCT
	FIBER OPTIC
	FORCEMAIN
	GAS
	GUARDRAIL
	OVERHEAD ELECTRIC
	PIPE, ABANDON
	PIPE, PREVIOUSLY ABANDONED
	PIPE OVER 24" (SHOWN ACTUAL SIZE)
	PROPERTY LINE
	R.O.W.
	RAILROAD
	SANITARY SEWER
	SILT FENCE
	STORM SEWER
	TELEPHONE
	WATER

**GENERAL NOTES**

- THE MAPPING SHOWN IS BASED ON TOPOGRAPHIC SURVEY COMPLETED BY FRSA IN SEPTEMBER 2025. UNDERGROUND UTILITY INFORMATION SHOWN IS FROM FRSA GIS INFORMATION AND RECORD DRAWINGS.
- DIMENSIONS OR COORDINATES TAKE PRECEDENCE OVER SCALE. CONTRACTORS TO VERIFY ALL DIMENSIONS AND COORDINATES IN THE FIELD FOR PROPER FIT AND ALIGNMENT.
- THE CONTRACTOR SHALL CONTACT THE ILLINOIS ONE CALL SYSTEM (JULIE) A MINIMUM OF 72 HOURS PRIOR TO PERFORMING ANY EARTH MOVING OR EXCAVATION ACTIVITIES. THE CONTRACTOR SHALL ALSO CONTACT ANY OTHER UTILITIES WHICH MAY BE PRESENT WHICH ARE NOT PART OF THE ONE CALL SYSTEM. NOTIFY PLANT STAFF (CONTACT: WARREN ADAM, 815-871-0787) ONE WEEK IN ADVANCE OF PLANT UTILITY LOCATION NEEDS TO ALLOW ADEQUATE RESPONSE TIME FOR PLANT STAFF.
- THE CONTRACTOR SHALL PROVIDE 72 HOURS NOTIFICATION (CONTACT: WARREN ADAM, 815-871-0787) IN ADVANCE OF ANY SITE EXCAVATION WORK TO ALLOW THE OWNER AN OPPORTUNITY TO GPS LOCATE ALL STRUCTURES AND UTILITIES THAT ARE EXPOSED DURING EXCAVATION.
- EXISTING BURIED UTILITIES SHOWN IN PLAN AND PROFILE ARE INDICATED IN ACCORDANCE WITH THE AVAILABLE RECORDS AND FIELD INFORMATION AVAILABLE TO THE ENGINEER. OTHER UTILITIES MAY ALSO BE PRESENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING FROM THE OWNERS OF THE EXISTING UTILITIES THE LOCATION OF THEIR BURIED FACILITIES. ANY UTILITIES DAMAGED OR DESTROYED BY THE CONTRACTOR'S OPERATIONS WHETHER SHOWN ON THE DRAWINGS OR NOT, SHALL BE REPLACED OR REPAIRED TO THE UTILITY'S SATISFACTION AT NO COST TO THE OWNER.
- IF UTILITY FACILITIES OTHER THAN THOSE SHOWN ARE LOCATED, OR IF UTILITIES ARE LOCATED WHICH ARE NOT IN ACCORDANCE WITH THE LOCATION SHOWN ON THE DRAWINGS, THE ENGINEER SHALL BE NOTIFIED TO DETERMINE IF PLAN REVISIONS ARE NEEDED. CONTRACTOR IS REQUIRED TO FIELD LOCATE ALL CROSSING UTILITIES SUFFICIENTLY IN ADVANCE OF CONSTRUCTION ACTIVITIES TO ALLOW ENGINEER TO REVISE LOCATIONS OF NEW FACILITIES TO AVOID CONFLICTS WITHOUT ADDITIONAL COST TO OWNER.
- ACCESS CONSTRAINTS TO BE PLACED ON THE CONTRACTOR FOR THE PROJECT ARE SPECIFIED IN SECTION 01 11 00 OF THE SPECIFICATIONS.
- CONTRACTOR SHALL MAINTAIN ACCESS TO ALL SITE FACILITIES DURING CONSTRUCTION. CONTRACTOR SHALL PLAN ITS WORK SEQUENCE AND ACTIVITIES TO ENSURE THAT ITS WORK DOES NOT INTERFERE WITH PUBLIC NEEDS OR PUBLIC FACILITIES OPERATIONS, DELIVERIES, PICKUPS OR OTHER ACCESS NEEDS.
- THE CONTRACTOR SHALL COORDINATE THE ACTIVITIES OF ITS PERSONNEL, SUBCONTRACTORS, AND UTILITIES PERFORMING WORK ON THIS PROJECT. THE CONTRACTOR SHALL ALSO COORDINATE WITH AUTHORITY CREWS AND OTHER CONTRACTORS WORKING IN OR NEAR THE PROJECT AREA.
- CONTRACTOR SHALL RECEIVE ALL OF THEIR DELIVERIES. CONTRACTOR DELIVERIES ARE NOT ALLOWED TO OWNER'S MAINTENANCE BUILDING OR ADMINISTRATION BUILDING.
- THE CONTRACTOR SHALL MAINTAIN ON FILE WITH THE OWNER AND ENGINEER A CURRENT LIST OF EMERGENCY TELEPHONE NUMBERS FOR THE CONTRACTORS SUPERVISORY PERSONNEL ASSIGNED TO THIS PROJECT. NO LESS THAN 2 NAMES WITH 24 HOUR PHONE NUMBERS SHALL BE INCLUDED.
- ELEVATIONS CALLED OUT ON THE DRAWINGS ARE TYPICALLY AT THE "INVERT" OR BOTTOM OF PIPES AND STRUCTURES, ALONG THE FLOW LINE IN GUTTERS AND SWALES, AND AT THE "RIM" OR TOP (FINISHED GRADE) OF THE FRAME AND COVERS. OTHER ELEVATIONS ARE SPECIFICALLY NOTED.
- UNLESS NOTED OTHERWISE RESTORATION OF EXISTING SANITARY SEWERS AND SERVICE LINES, WATER MAINS AND SERVICE LINES, STORM SEWERS, OTHER UTILITIES, SIDEWALKS, CURBS, DRIVEWAYS, STREETS OR OTHER IMPROVEMENTS NOT SHOWN AS BEING REMOVED, REPLACED OR MODIFIED BY THE PROJECT IS REQUIRED ONLY TO THE EXTENT THEY ARE DAMAGED OR DISTURBED BY CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL RESTORE ALL DAMAGED AND DISTURBED IMPROVEMENTS TO THE IMPROVEMENT OWNERS AND ENGINEERS SATISFACTION.
- WHERE NEW WORK ABUTS EXISTING CURBS, SIDEWALK, DRIVES, OR OTHER PAVEMENTS WHICH ARE TO REMAIN IN PLACE, THE CONTRACTOR SHALL PROVIDE NEAT SAWCUTS, FULL DEPTH AT THE LIMIT OF CONSTRUCTION.
- CONTRACTOR SHALL PROVIDE SUPPORT AND SHALL MAINTAIN SERVICE TO ALL ABOVE AND BELOW GRADE UTILITIES INCLUDING POLES, CABLES, WIRES, WATER, GAS, STORM, AND SANITARY FACILITIES, OR WITH THE WRITTEN CONCURRENCE OF THE UTILITY OWNER, MAY REMOVE, STORE, REINSTALL AND REPLACE AS NECESSARY.
- CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY DURING CONSTRUCTION OF THE PROJECT.
- THE CONTRACTOR SHALL PROTECT ALL PROPERTY PINS (STEEL REBARS, PIPES, CAPPED PINS, ETC.) WHICH WERE FOUND OR LOCATED ON THE PROJECT SITE WHETHER SHOWN ON THE PLANS OR ENCOUNTERED DURING CONSTRUCTION FROM BEING DAMAGED, DESTROYED OR MOVED. IF PROPERTY PINS ARE DAMAGED, DESTROYED OR MOVED, THE CONTRACTOR SHALL PROVIDE THE SERVICES OF A LICENSED ILLINOIS LAND SURVEYOR TO REPLACE THEM AT NO COST TO THE OWNER.
- AS PART OF THE CONTRACTORS RESPONSIBILITIES A DETAILED SET OF RECORD DRAWINGS SHALL BE KEPT TO RECORD CHANGES OR DEVIATIONS FROM THE PLANS AND TO SHOW EXISTING UNDERGROUND UTILITIES OR OTHER FEATURES ENCOUNTERED DURING CONSTRUCTION.

**ABBREVIATIONS**

AGG	AGGREGATE	NG	NATURAL GAS
B/C	BACK OF CURB	OH	OVERHEAD UTILITY
BIT	BITUMINOUS/ASPHALT	PC	POINT OF CURVATURE
CIP	CAST IRON PIPE	PE	POLYETHYLENE PIPE
CO	CLEANOUT	PI	POINT OF INTERSECTION
CONC	CONCRETE	PL	PROPERTY LINE
CMP	CORRUGATED METAL PIPE	PT	POINT OF TANGENCY
CSP	CONCRETE SEWER PIPE	PVC	POLYVINYL CHLORIDE PIPE
		PVI	POINT OF VERTICAL INTERSECTION
DIA	DIAMETER	R	RADIUS
DIP	DUCTILE IRON PIPE	RCP	REINFORCED CONCRETE PIPE
DWP	DEWATERING PIPE	RIM	TOP OF CASTING ELEVATION
EXIST	EXISTING	ROW	RIGHT OF WAY
EOP	EDGE OF PAVEMENT	RT	RIGHT
F&C	FRAME AND COVER	SAN	SANITARY SEWER
F/C	FACE OF CURB	STM	STORM SEWER
F TO F	FACE TO FACE	SD	SUMP DISCHARGE
FG	FINISHED GRADE	T/C	TOP OF CURB
FES	FLARED END SECTION	T/W	TOP OF WALL
INV	INVERT	UD	UNDERDRAIN
L	LENGTH OF CURVE	VC	VERTICAL CURVE
LF	LINEAR FT		
LT	LEFT		

**SYMBOLS**

	PROPOSED HMA PAVEMENT
	PROPOSED PCC PAVEMENT
	PROPOSED PCC SLEEPER SLAB
	PROPOSED PCC SIDEWALK
	TURF RESTORATION
	STRUCTURE DEMOLITION
	HMA PAVEMENT REMOVAL
	PCC PAVEMENT REMOVAL
	PCC SIDEWALK REMOVAL
	CURB & GUTTER REMOVAL
	STAGING AREA

**NOTE:**

- PROCESS FLOW STREAM IDENTIFIERS SAME AS SHOWN ON THE PROCESS MECHANICAL LEGEND
- THIS IS STANDARD LEGEND. NOT ALL OF THE INFORMATION SHOWN ON THIS LEGEND IS NEEDED IN THESE CONTRACT DRAWINGS.

Date	
Checked By	
Drawn By	
Revision Description	
Revision Number	
Designed By	MLM
Drawn By	MLM
Checked By	JLM
Approved By	MLM
Filename	001-LEGENDS
Project No.	14456
Project Date	MAR 2026

**FOUR RIVERS SANITATION AUTHORITY  
CO-GENERATION EFFICIENCY REHAB PROJECT-BID PACKAGE 1  
ELECTRICAL IMPROVEMENTS (CAPITAL PROJECT NO. 2344)  
ROCKFORD, IL**

**GENERAL  
LEGEND AND GENERAL NOTES**



Sheet No.	4
Drawing No.	

**PLUMBING / HVAC ABBREVIATIONS AND SYMBOLS**

**PLUMBING LEGEND**

	HW - HOT WATER PIPE (ON PLUMBING DRAWINGS)		TRENCH DRAIN		GLOBE VALVE
	HWRE - HOT WATER RECIRCULATING PIPE (ON PLUMBING DRAWINGS)		YARD HYDRANT		PLUG VALVE
	HWS - HEATING WATER SUPPLY PIPE (ON HVAC DRAWINGS)		WALL HYDRANT		PRESSURE REDUCING VALVE
	HWR - HEATING WATER RETURN PIPE (ON HVAC DRAWINGS)		HOSE BIBB		RELIEF OR SAFETY VALVE
	PIPE (REFER TO FLOW STREAM IDENTIFIERS)		REDUCER (CONCENTRIC)		CONTROL VALVE (2-WAY)
	BELOW SLAB OR BURIED PIPE (REFER TO FLOW STREAM IDENTIFIERS)		REDUCER (ECCENTRIC)		CONTROL VALVE (3-WAY)
	VENT		BALL VALVE		BALANCING VALVE
	ELBOW FITTING (TURNED DOWN)		BUTTERFLY VALVE		MANUAL AIR VENT
	ELBOW FITTING (TURNED UP)		CHECK VALVE		STRAINER
	TEE OUTLET UP		GATE VALVE		BACKFLOW PREVENTER
	TEE OUTLET DOWN		ANGLE STOP		WATER HAMMER ARRESTOR
	PIPE ANCHOR				
	PIPE HANGER				
	PIPE GUIDE				
	CAP				
	EXPANSION JOINT				
	UNION				
	FLANGE				
	VENT THRU ROOF				
	FLOOR DRAIN				
	CLEANOUT				
	FLOOR CLEANOUT				
	WALL CLEANOUT				
	HUB DRAIN				
	ROOF DRAIN				
	OVERFLOW DRAIN				

**HVAC LEGEND**

	ACCESS DOOR		STAT, T=TEMP, H=HUMIDITY, P=PRESSURE, G=GAS
	DUCT (FIRST FIG. IS SIDE SHOWN)		SENSOR WITH DISPLAY AND ADJUSTMENT
	DUCT SECTION (RETURN)		SENSOR WITHOUT DISPLAY OR ADJUSTMENT
	DUCT SECTION (SUPPLY)		ALARM WARNING LIGHT WITH HORN
	DUCT LINING		ALARM WARNING LIGHT WITH HORN
	RETURN, EXHAUST OR SUPPLY GRILLE W/ MVD		FIRE DAMPER
	ELBOW DOWN		MOTOR OPERATED DAMPER
	ELBOW W/ TURNING VANES		GRAVITY BACKDRAFT DAMPER
	MANUAL VOLUME DAMPER		PRESSURE GAUGE
	FLEXIBLE CONNECTOR		THERMOMETER
	SMOKE DETECTOR		

**FLOWSTREAM IDENTIFIERS**

AI	INSTRUMENT AIR	CWS	CHILLED WATER SUPPLY	HWS	HEATING WATER SUPPLY	TW	TEMPERED WATER
AHP	AIR (HIGH PRESSURE)	F	FIRE SPRINKLER	NG	GAS (NATURAL)	V	VENT
AV	ACID VENT	HGR	HEATING GLYCOL RETURN	ODA	ODOROUS AIR	WH	POTABLE CITY WATER
AW	ACID WASTE	HGS	HEATING GLYCOL SUPPLY	ODR	ODOROUS AIR	W2	NON-POTABLE CITY WATER
CND	CONDENSATE	HPHW	HIGH PRESSURE HOT WATER	RL	REFRIGERANT (LIQUID)	W3	PLANT EFFLUENT WATER (NOT-POTABLE)
CGR	COOLING GLYCOL RETURN	HPW	HIGH PRESSURE WATER	RS	REFRIGERANT (SUCTION)	W4	WELL WATER (NON-POTABLE)
CGS	COOLING GLYCOL SUPPLY	HW	HOT WATER	SAN	SANITARY SEWER	"A"	WATER HAMMER SIZE, LETTERS A-D
CR	CONDENSATE RETURN	HWR	HEATING WATER RETURN	SLP	STEAM (LOW PRESSURE)		
CWR	CHILLED WATER RETURN	HWRE	HOT WATER RECIRCULATION	STM	STORM SEWER		

**ABBREVIATIONS**

AFF	ABOVE FINISHED FLOOR	EL	ELEVATION	MVD	MANUAL VOLUME DAMPER	TOP	TOP OF DUCT
BDD	BACKDRAFT DAMPER	EXP	EXPLOSION PROOF	OA	OUTSIDE AIR	VTR	VENT THROUGH ROOF
BOD	BOTTOM OF DUCT	H-O-A	HAND-OFF-AUTO SWITCH	PSIG	POUND PER SQUARE INCH (GAUGE)	WSFU	WATER SUPPLY FIXTURE UNIT
CL	CENTER LINE ELEVATION	HP	HIGH POINT	THRU	THROUGH	VIF	VERIFY IN FIELD
DFU	DRAINAGE FIXTURE UNIT	LP	LOW POINT				

**EQUIPMENT TAG IDENTIFIERS**

ACU	AIR CONDITIONING UNIT	EWL	ELECTRIC WATER HEATER	IH	INTAKE HOOD	SG	SUPPLY GRILLE
ACCU	AIR COOLED CONDENSING UNIT	EWS	EMERGENCY WASH STATION	LAV	LAVATORY	SHR	SHOWER
AHU	AIR HANDLING UNIT	FCU	FAN COIL UNIT	MAU	MAKE-UP AIR UNIT	SP	SUMP PUMP
B	BOILER	FD	FLOOR DRAIN	MCD	MOTOR CONTROL DAMPER	SPCP	SUMP PUMP CONTROL PANEL
BS	BRANCH SELECTOR	GDCP	GAS DETECTION CONTROL PANEL	MS	MOP SINK	SS	SERVICE SINK
CO	CLEANOUT	GUH	GAS UNIT HEATER	OAL	OUTSIDE AIR LOUVER	TCP	TEMPERATURE CONTROL PANEL
CP	CIRCULATING PUMP	GWL	GAS WATER HEATER	P	PUMP	TG	TRANSFER GRILLE
CS	COUNTERTOP SINK	HB	HOSE BIB	RAL	RELIEF AIR LOUVER	TMV	THERMOSTATIC MIXING VALVE
DEH	DEHUMIDIFIER	HD	HUB DRAIN	RD	ROOF DRAIN	UR	URINAL
EAL	EXHAUST AIR LOUVER	HP	HEAT PUMP	RG	RETURN GRILLE	VAV	VARIABLE AIR VOLUME BOX
EEW	EMERGENCY EYEWASH STATION	HPHW	HIGH PRESSURE HOT WATER SYSTEM	RH	RELIEF HOOD	WCCU	WATER COOLED CONDENSING UNIT
EF	EXHAUST FAN	HPW	HIGH PRESSURE WATER SYSTEM	RHR	RADIANT HEATING PANEL	WC	WATER CLOSET
EG	EXHAUST GRILLE	HUH	HOT WATER UNIT HEATER	RPZ	REDUCED ZONE PRESSURE BACKFLOW PREVENTER	WH	WALL HYDRANT
EH	ELECTRIC HEATER	HWC	HOT WATER CONVECTOR	RTU	ROOFTOP UNIT		
EUH	ELECTRIC UNIT HEATER	ICD	INSULATED MOTOR CONTROL DAMPER	SD	SUPPLY DIFFUSER		
EWC	ELECTRIC WATER COOLER			SF	SUPPLY FAN		

**ELECTRICAL ABBREVIATIONS AND SYMBOLS**

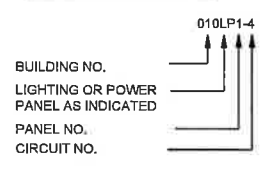
**ABBREVIATIONS**

A	AMPERE	A	LED OR FLUORESCENT FIXTURE - RECESSED (LETTER DENOTES TYPE)
AFF	ABOVE FINISHED FLOOR	A	LED OR FLUORESCENT FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
AFG	ABOVE FINISHED GRADE	A	LED OR FLUORESCENT FIXTURE - WALL MOUNTED (LETTER DENOTES TYPE)
AIC	AMPERE INTERRUPTING CAPACITY	A	LED OR HID FIXTURE - WALL MOUNTED (LETTER DENOTES TYPE)
C	CONTACTOR/CONDUIT/COIL	A	LED OR HID FIXTURE - POLE MOUNTED FIXTURE (LETTER DENOTES TYPE)
CB	CIRCUIT BREAKER	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
CKT, CCT	CIRCUIT	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
DISC	DISCONNECT	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
EP	EXPLOSION PROOF	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
GFP	GROUND FAULT PROTECTION	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
GRD	GROUND	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
GRS	GALVANIZED RIGID STEEL	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
HF	HARMONIC FILTER	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
HH	HANDHOLE	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
HID	HIGH INTENSITY DISCHARGE	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
HP	HORSEPOWER	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
J	JUNCTION BOX	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
KVA	KILOVOLT AMPERE	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
KW	KILOWATT	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
LCP	LOCAL CONTROL PANEL	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
LP	LIGHTING PANEL	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
MCC	MOTOR CONTROL CENTER	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
MH	MANHOLE	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
MV	MEDIUM VOLTAGE MANHOLE	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
NEC	NATIONAL ELECTRICAL CODE (ANSI/NFPA-70)	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
NEU, N	NEUTRAL	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
NC	NORMALLY CLOSED	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
NF	NON FUSED	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
NGR	NEUTRAL GROUND RESISTOR	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
NO	NORMALLY OPEN	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
OL	OVERLOAD RELAY	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
PC	PHOTOCELL	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
PMG	PADMOUNT GEAR	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
PMT	PADMOUNT TRANSFORMER	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
PP	POWER PANEL	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
PVC	POLY VINYL CHLORIDE	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
SW	SWITCH	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
SWBD	SWITCH BOARD	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
SWG	SWITCHGEAR	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
V	VOLTS	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
VFD	VARIABLE FREQUENCY DRIVE	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
WP	WEATHERPROOF	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
XFMR	TRANSFORMER	A	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)

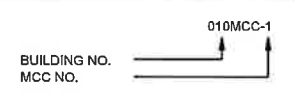
**ONE-LINE SYMBOLS**

	MOLDED CASE CIRCUIT BREAKER (UPPER NUMERAL INDICATES FRAME SIZE) (LOWER NUMERAL INDICATES TRIP SETTING) (CL - INDICATES CURRENT LIMITING CIRCUIT BREAKER) (M - INDICATES MOTOR CIRCUIT PROTECTOR) (MAGNETIC STARTER AND MOLDED CASE CIRCUIT BREAKER)
	TRANSFORMER
	COMBINATION MAGNETIC STARTER WITH MOLDED CASE CIRCUIT BREAKER (FVNR - INDICATES FULL VOLTAGE NON-REVERSING) (FVR - INDICATES FULL VOLTAGE REVERSING) (SSRV - INDICATES SOLID STATE REDUCED VOLTAGE) (TSTW - INDICATES TWO SPEED TWO WINDING) (TSSW - INDICATES TWO SPEED SINGLE WINDING) (CONT - INDICATES CONTACTOR) (AUXILIARY CONTACTS - (2a TWO N.O.)(1b ONE N.C.) (NUMERAL INDICATES NEMA SIZE)
	GROUND
	MOTOR (NUMERAL INDICATES HORSEPOWER)
	GENERATOR
	DRAW-OUT CIRCUIT BREAKER (NUMERAL INDICATES DEVICE NUMBER)
	FUSED SWITCH (NUMERAL INDICATES FUSE SIZE)

**PANELBOARDS**



**MOTOR CONTROL CENTER**



DEVICE NUMBER	FUNCTION
27	UNDervOLTAGE RELAY
32	REVERSE POWER RELAY
46	PHASE-BALANCE CURRENT RELAY
47	PHASE-SEQUENCE VOLTAGE RELAY
50	INSTANTANEOUS OVERCURRENT
51	AC TIME OVERCURRENT RELAY
52	GROUND OVERCURRENT
59	AC CIRCUIT BREAKER
67	OVERVOLTAGE RELAY
81	AC DIRECTIONAL OVERCURRENT
86	OVER/UNDER FREQUENCY RELAY
88	LOCKOUT RELAY
	POTENTIAL TRANSFORMER

**NOTE:**  
1. THIS IS STANDARD LEGEND. NOT ALL OF THE INFORMATION SHOWN ON THIS LEGEND IS NEEDED IN THESE CONTRACT DRAWINGS.

Date	
Checked By	
Drawn By	
Revision Description	
Revision Number	
Designed By	JTB
Drawn By	JTB
Checked By	RJF
Approved By	JTB
Filename	001-LEGENDS
Project No.	14456
Project Date	MAR 2026
FOUR RIVERS SANITATION AUTHORITY CO-GENERATION EFFICIENCY REHAB PROJECT-BID PACKAGE 1 ELECTRICAL IMPROVEMENTS (CAPITAL PROJECT NO. 2344) ROCKFORD, IL GENERAL PLUMBING LEGEND/HVAC LEGEND/ELECTRICAL LEGEND	
Sheet No.	5
Drawing No.	1-G-05

SPACE ENVIRONMENT AND HAZARDOUS RATINGS SCHEDULE					
SEE MATERIALS SCHEDULE FOR REQUIRED CONSTRUCTION MATERIALS FOR VARIOUS EXPOSURES					
BUILDING	SPACE NO.	SPACE NAME	EXPOSURE	NEC HAZARDOUS RATING	HAZARD NOTES
9 - DEWATERING BUILDING	--	ELECTRICAL ROOM, COORIDORS	DRY 2	UNCLASSIFIED	

MATERIALS SCHEDULE							
SEE SPACE ENVIRONMENT AND HAZARDOUS RATINGS SCHEDULE FOR AREAS ASSOCIATED WITH EXPOSURES LISTED							
REQUIREMENTS GIVEN IN DETAILED SPECIFICATIONS SUPERCEDE MATERIALS GIVEN IN THIS SCHEDULE							
EXPOSURE	ANCHOR BOLTS/FASTENERS	PIPING NUTS AND BOLTS (7)	HANGERS AND SUPPORTS (12)	CONDUIT (13)	ENCLOSURES (3)(8)	DUCTWORK	PLUMBING PIPING
CHEMICAL 1	316SST	316SST	316SST	SCH 80 PVC	NEMA 4X - FRP	316SST	PVC, CPVC, OR SST
CHEMICAL 2	316SST	316SST	FRP	SCH 80 PVC	NEMA 4X - FRP	PVC OR FRP	PVC OR CPVC
CHEMICAL 3	NON-METALLIC	316SST	FRP	SCH 80 PVC	N/A	PVC OR FRP	PVC OR CPVC
CHEMICAL 4							
DRY 1	ELECTROPLATED STEEL	CARBON STEEL (10)	GALVANIZED STEEL	EMT	NEMA 1 (9) - CAST OR STEEL	GALVANIZED STEEL	COPPER, PVC, OR CPVC
DRY 2	ELECTROPLATED STEEL	CARBON STEEL (10)	GALVANIZED STEEL	GRS OR ALUMINUM	NEMA 1 (9) - CAST OR STEEL	GALVANIZED STEEL	COPPER, PVC, OR CPVC
DRY 3	GALVANIZED STEEL	CARBON STEEL (10)	GALVANIZED STEEL	GRS OR ALUMINUM	NEMA 9 - SST	ALUMINUM	PVC, CPVC, OR SST
DRY 4							
EXTERIOR	316SST	316SST (11)	316SST (6)	PVC COATED (6)	NEMA 4X - 316SST	ALUMINUM (5)	SST
WET 1	GALVANIZED STEEL	N/A	GALVANIZED STEEL	EMT (1)	NEMA 1 - STEEL	GALVANIZED STEEL	COPPER
WET 2	GALVANIZED STEEL	CARBON STEEL (10)	GALVANIZED STEEL	GRS (2)	NEMA 4 - STEEL	ALUMINUM	PVC, CPVC, OR SST
WET 3	316SST	316SST	316SST	ALUMINUM OR PVC COATED	NEMA 4X - 316SST	316SST	PVC, CPVC, OR SST
WET 4	316SST	316SST	316SST	N/A (4)	N/A (4)	N/A (4)	PVC
WET 5							

NOTES (X):

- GRS FROM FLOOR TO 6'-0" ABOVE.
- FIBERGLASS CONDUIT ALLOWABLE IN PIPING GALLERIES AND TUNNELS.
- HAZARDOUS RATING GIVEN IN SPACE ENVIRONMENT AND HAZARDOUS RATING SCHEDULE TAKES PRECEDENCE; NEMA 7 FOR CLASS I AND NEMA 9 FOR CLASS II AREAS.
- NOT ALLOWED ON INTERIOR WALLS OF WATER HOLDING STRUCTURES.
- PROVIDE PREINSULATED DUCTWORK SYSTEM FOR TEMPERED AIR APPLICATIONS.
- ALUMINUM WHERE SUPPORTED FROM ALUMINUM RAILING.
- UNLESS OTHERWISE SPECIFIED IN THE DETAILED PIPING SYSTEMS SPECIFICATIONS.
- NEMA 7 ENCLOSURES LOCATED IN EXTERIOR, WET 2, OR WET 3 LOCATIONS SHALL PROVIDED WITH AN O-RING OR GASKET IN COVER TO PREVENT WATER ENTRY.
- ENCLOSURES FOR PLCs, EQUIPMENT CONTROL PANELS, AND OTHER CONTROL ENCLOSURES SHALL BE NEMA 12.
- COATED ALONG WITH PIPING SYSTEM.
- FOR PIPING SYSTEMS BEING COATED PROVIDE CARBON STEEL NUTS AND BOLTS.
- PROVIDE DISSIMILAR METAL SEPARATION WHERE METALLIC CONDUIT MATERIALS DIFFER FROM METALLIC HANGERS AND SUPPORTS MATERIALS.
- PROVIDE DISSIMILAR METAL SEPARATION WHEN TRANSITIONING FROM ONE METALLIC CONDUIT MATERIAL TO ANOTHER METALLIC CONDUIT MATERIAL.

#### HAZARD NOTES (SEE NFPA 820)

- ENTIRE ENCLOSED AREA.
- AREAS WITHIN 3'-0" RADIUS OF VENTS ARE CI, D1. AREA BETWEEN 3'-0" AND 5'-0" RADIUS OF VENTS ARE CI, D2.
- AREAS WITHIN 3'-0" RADIUS OF VENTS ARE CI, D2.
- AREAS WITHIN 3'-0" OF REMOVABLE/OPENABLE ACCESS HATCHES ARE CI, D2 TO A HEIGHT 1'-6" ABOVE DECK.
- AREAS WITHIN 3'-0" OF DOORS OR OTHER EXTERIOR WALL OPENINGS ARE CI, D2.
- AREAS WITHIN 10'-0" OF EQUIPMENT OR OPEN CHANNELS ARE CI, D2.
- ENVELOPE INCLUDES ALL LOCATIONS WITHIN 10'-0" Laterally, UP TO 1'-6" ABOVE AND ALONG EXTERIOR FACE OF ENCLOSURE WALLS AND 1'-6" ABOVE ADJACENT GRADE OR FLOOR SURFACES.
- AREAS WITHIN 2 FEET HORIZONTALLY AND 10'-0" ABOVE THE HIGHEST POINT OF THE COVER, WHEN THE COVER IS AT ITS MAXIMUM ELEVATION, ARE CI, D1. AREA BETWEEN 5'-0" AND 10'-0" HORIZONTALLY AND BETWEEN 10'-0" AND 25'-0" ABOVE ARE CI, D2.
- AREAS WITHIN 5'-0" RADIUS OF VENTS ARE CI, D1. AREA BETWEEN 5'-0" AND 10'-0" RADIUS OF VENTS ARE CI, D2.
- AREAS WITHIN 5'-0" RADIUS OF VENTS ARE CI, D2.
- AREAS WITHIN 5'-0" OF DOORS, VENTS, AND EXTERIOR WALL OPENINGS ARE CI, D1. AREA BETWEEN 5'-0" AND 10'-0" OF OPENINGS ARE CI, D2.
- AREAS WITHIN 5'-0" OF DOORS AND EXTERIOR WALL OPENINGS ARE CI, D2.
- AREAS WITHIN 3'-0" RADIUS OF HAZARDOUS MATERIAL EQUIPMENT ARE CI, D2.
- AREAS WITHIN 5'-0" RADIUS OF HAZARDOUS MATERIAL EQUIPMENT ARE CI, D1.
- AREAS WITHIN 10'-0" RADIUS OF DIGESTER GAS VALVES OR PIPING APPURTENANCES ARE CI, D1.
- AREAS WITHIN 10'-0" RADIUS OF DIGESTER GAS VALVES OR PIPING APPURTENANCES ARE CI, D2.
- AREAS WITHIN 3'-0" RADIUS OF ODOR CONTROL EQUIPMENT AND POINTS OF LEAKAGE SUCH AS DAMPERS AND FLANGES ARE CI, D2.
- AREAS WITHIN A 10'-0" ENVELOPE OF ALL FIXTURES, APPURTENANCES, AND HOUSING ARE CI, D1. THE AREAS WITHIN A 15'-0" ENVELOPE ABOVE AND 5-FOOT ENVELOPE ON ALL SIDES OF THE OF THE D1 ENVELOPE ARE CI, D2.
- AREAS WITHIN EQUIPMENT PROCESSING DRIED SLUDGE ARE CII, D1.
- AREAS WITHIN A 10'-0" ENVELOPE OF EQUIPMENT PROCESSING DRIED SLUDGE ARE CII, D2.
- AREAS WITHIN TANKS STORING DRIED SLUDGE ARE CII, D1.
- AREAS WITHIN A 10'-0" ENVELOPE OF TANKS STORING DRIED SLUDGE ARE CII, D2.
- AREAS ARE CLASSIFIED AS A CI, D2 UNTIL PROPOSED SEPARATION AND VENTILATION IS COMPLETED.
- AREAS WITHIN 10'-0" OF NATURAL GAS OR DIGESTER GAS VALVES AND APPURTENANCES ARE CLASSIFIED AS A CI, D1 AND ENCLOSED AREAS ARE CLASSIFIED AS CI, D2 UNTIL NATURAL GAS AND DIGESTER GAS PIPING HAS BEEN REMOVE AND PROPOSED SEPARATION AND VENTILATION IS COMPLETED.

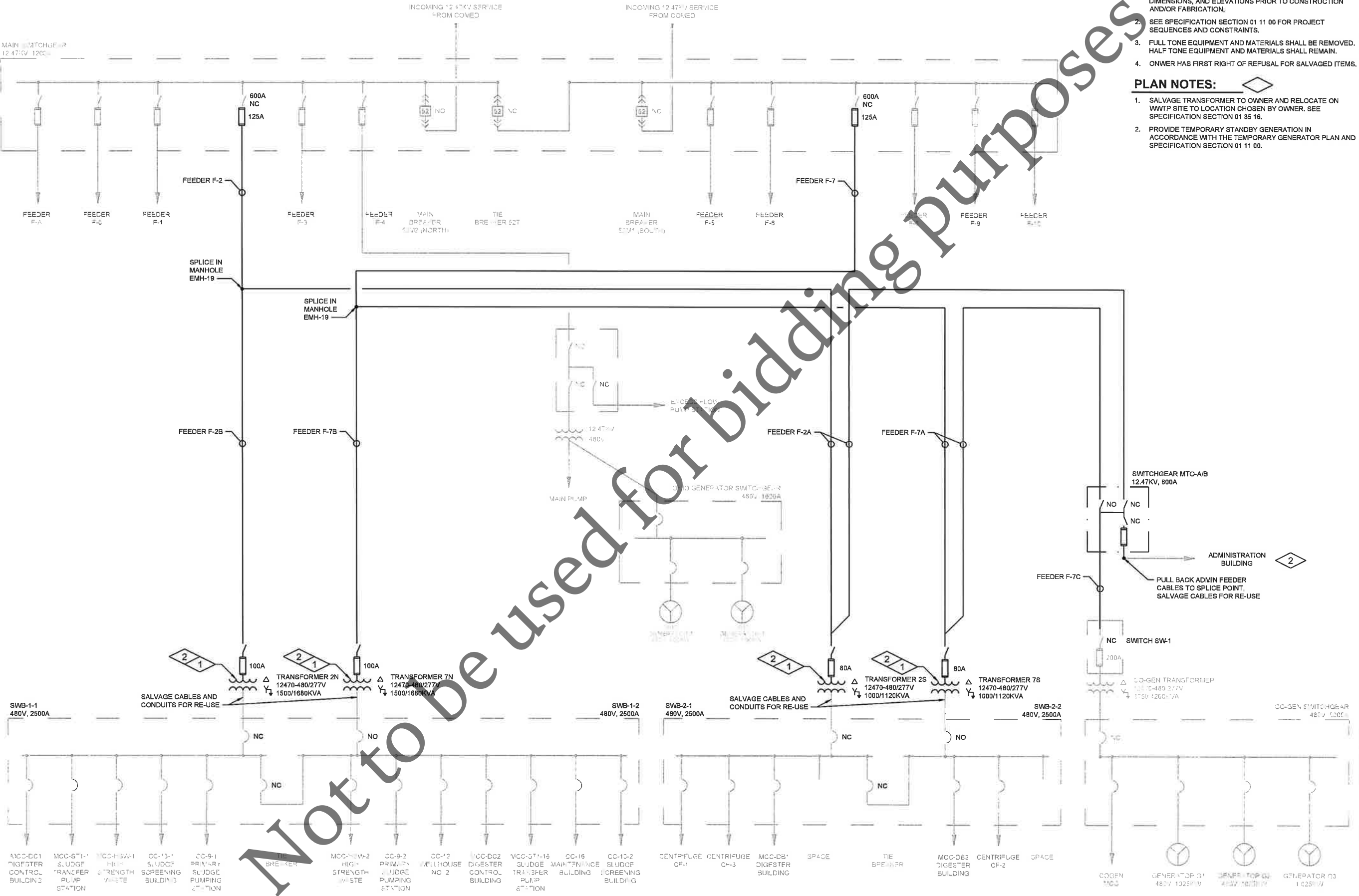
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Date	Checked By	Drawn By	Revision Description	Revision Number

Designed By	JTB
Drawn By	JTB
Checked By	RJF
Approved By	JTB
Filename	001G7ENV.DWG
Project No.	14456
Project Date	MAR 2026

**FOUR RIVERS SANITATION AUTHORITY**  
**CO-GENERATION EFFICIENCY REHAB PROJECT-BID PACKAGE 1**  
**ELECTRICAL IMPROVEMENTS (CAPITAL PROJECT NO. 2344)**  
**ROCKFORD, IL**

**GENERAL - SPACE ENVIRONMENT AND HAZARDOUS RATINGS**  
**AND MATERIALS SCHEDULE**



- GENERAL NOTES:**
1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO CONSTRUCTION AND/OR FABRICATION.
  2. SEE SPECIFICATION SECTION 01 11 00 FOR PROJECT SEQUENCES AND CONSTRAINTS.
  3. FULL TONE EQUIPMENT AND MATERIALS SHALL BE REMOVED. HALF TONE EQUIPMENT AND MATERIALS SHALL REMAIN.
  4. OWNER HAS FIRST RIGHT OF REFUSAL FOR SALVAGED ITEMS.

- PLAN NOTES:**
1. SALVAGE TRANSFORMER TO OWNER AND RELOCATE ON WWTP SITE TO LOCATION CHOSEN BY OWNER. SEE SPECIFICATION SECTION 01 35 16.
  2. PROVIDE TEMPORARY STANDBY GENERATION IN ACCORDANCE WITH THE TEMPORARY GENERATOR PLAN AND SPECIFICATION SECTION 01 11 00.

Revision Number	Revision Description	Drawn By	Checked By	Date

Designed By: JTB  
 Drawn By: JTB  
 Checked By: RJF  
 Approved By: JTB  
 Filename: 1E1.DWG  
 Project No.: 14456  
 Project Date: MAR 2026

**FOUR RIVERS SANITATION AUTHORITY  
 CO-GENERATION EFFICIENCY REHAB PROJECT-BID PACKAGE 1  
 ELECTRICAL IMPROVEMENTS (CAPITAL PROJECT NO. 2344)  
 ROCKFORD, IL**

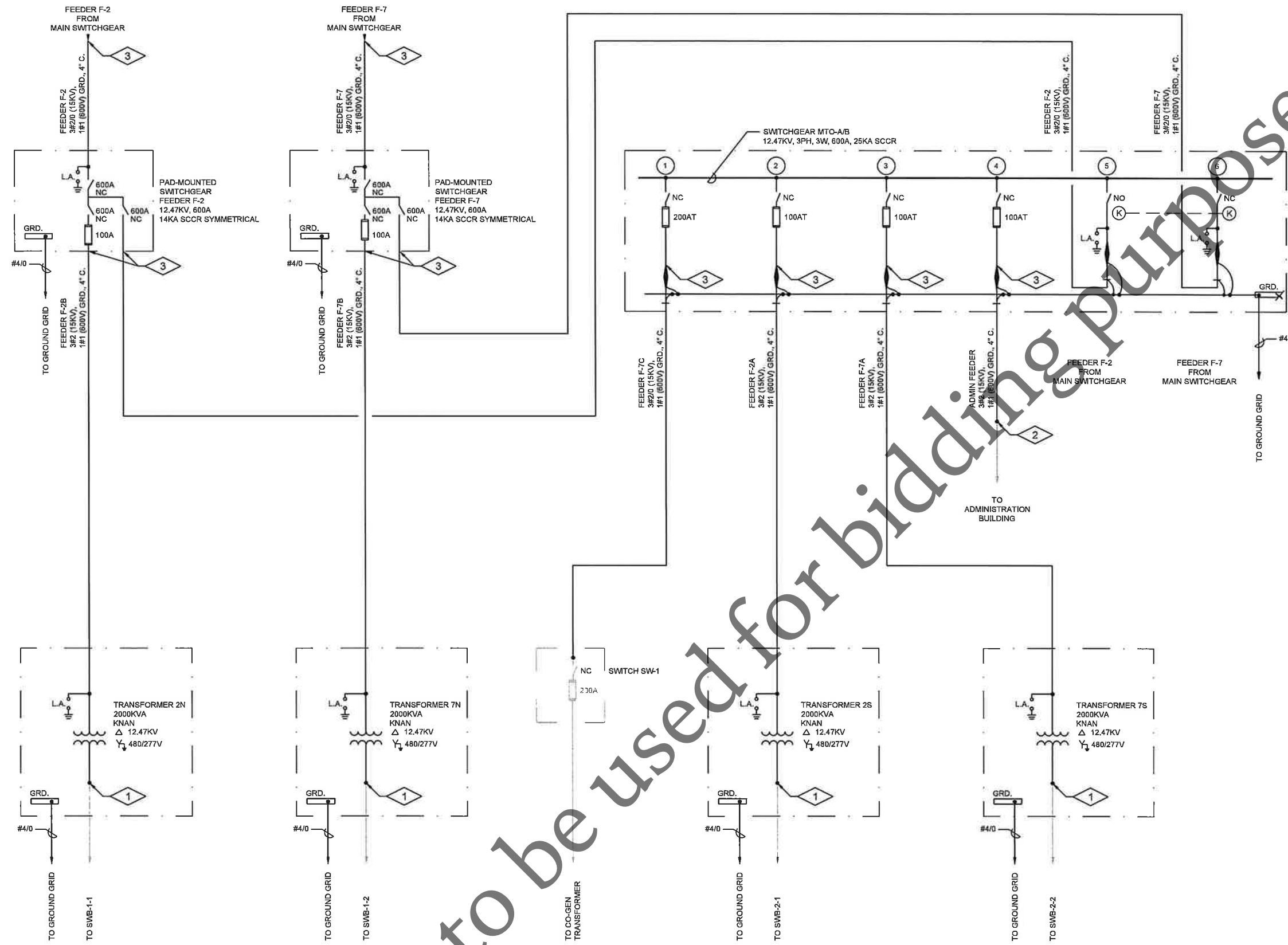
**ELECTRICAL DISTRIBUTION  
 PARTIAL OVERALL ONE LINE DIAGRAM - REMOVAL**



Sheet No. 7  
 Drawing No. 1-ER-01

**PARTIAL OVERALL ONE LINE DIAGRAM - REMOVAL**  
 NTS





**GENERAL NOTES:**

1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO CONSTRUCTION AND/OR FABRICATION.
2. SEE SPECIFICATION SECTION 01 11 00 FOR PROJECT SEQUENCES AND CONSTRAINTS.

**PLAN NOTES:**

1. CONNECT SALVAGED CABLES TO TRANSFORMER.
2. SPLICE NEW CABLES TO SALVAGED CABLES IN MANHOLE EMH-23.
3. PROVIDE FAULT INDICATORS IN MAIN SWITCHGEAR, PAD-MOUNTED SWITCHGEAR FEEDER F-2 AND F-7, AND SWITCHGEAR MTO-A/B AT LOCATIONS INDICATED.

**FEEDER F-2 AND F-7 ONE LINE DIAGRAM**

NTS

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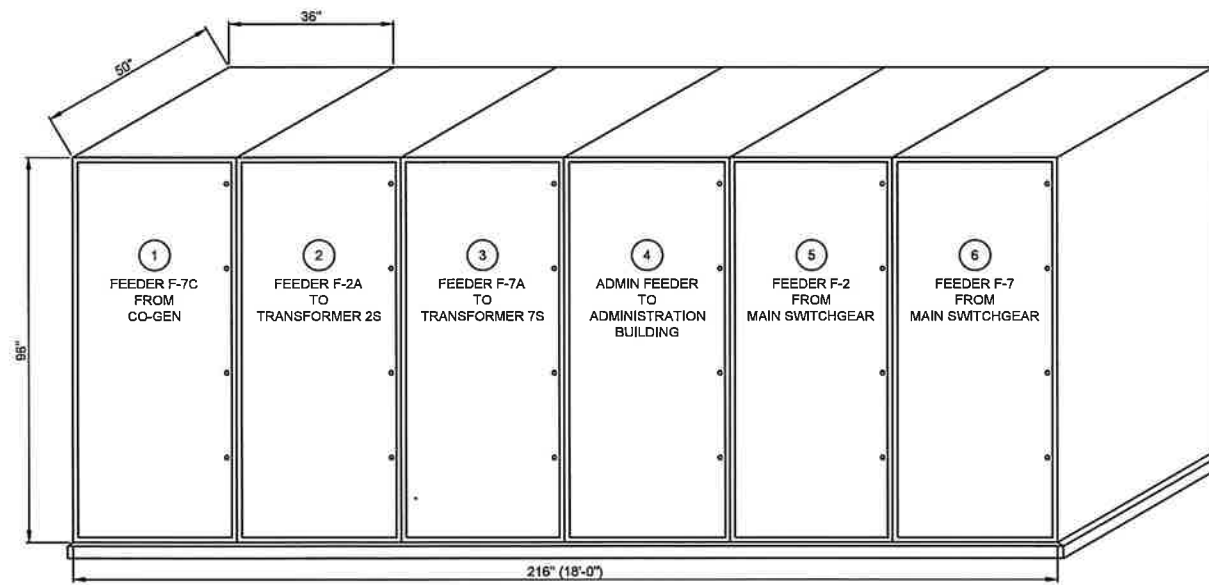
Revision Number	Revision Description	Drawn By	Checked By	Date

Designed By	JTB
Drawn By	JTB
Checked By	RJF
Approved By	JTB
Filename	1E1.DWG
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Project Date	MAR 2026

**FOUR RIVERS SANITATION AUTHORITY**  
**CO-GENERATION EFFICIENCY REHAB PROJECT-BID PACKAGE 1**  
**ELECTRICAL IMPROVEMENTS (CAPITAL PROJECT NO. 2344)**  
 ROCKFORD, IL  
**ELECTRICAL DISTRIBUTION**  
**FEEDER F-2 AND F-7 ONE LINE DIAGRAM**



Sheet No.	9
Drawing No.	1-E-03



**SWITCHGEAR MTO-A/B  
ELEVATION**

NTS

**GENERAL NOTES:**

1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO CONSTRUCTION AND/OR FABRICATION.
2. SEE SPECIFICATION SECTION 01 11 00 FOR PROJECT SEQUENCES AND CONSTRAINTS.

Not to be used for bidding purposes

Revision Number	Revision Description	Drawn By	Checked By	Date

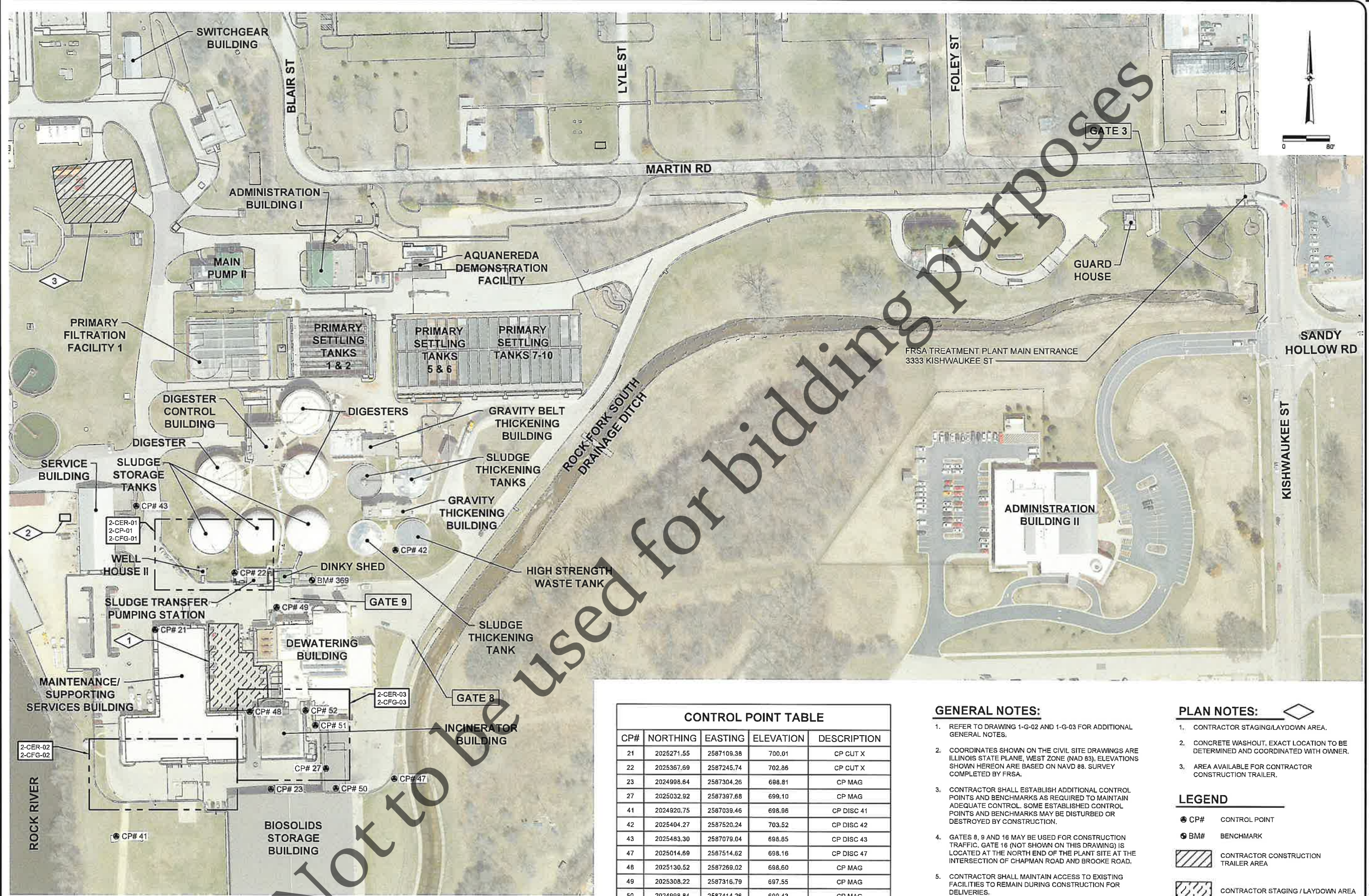
Designed By	JTB
Drawn By	JTB
Checked By	RJF
Approved By	JTB
Filename	1E1.DWG
Project No.	14456
Project Date	MAR 2026

FOUR RIVERS SANITATION AUTHORITY  
 CO-GENERATION EFFICIENCY REHAB PROJECT-BID PACKAGE 1  
 ELECTRICAL IMPROVEMENTS (CAPITAL PROJECT NO. 2344)  
 ROCKFORD, IL  
 ELECTRICAL DISTRIBUTION  
 ELEVATIONS



Sheet No. 10

Drawing No. 1-E-04



Date	Checked By	Drawn By	Revision Description

Revision Number	
Designed By	MLM
Drawn By	MLM
Checked By	JLM
Approved By	MLM
Filename	2-CK-01.DWG
Project No.	14456
Project Date	MAR 2026

FOUR RIVERS SANITATION AUTHORITY  
CO-GENERATION EFFICIENCY REHAB PROJECT-BID PACKAGE 1  
ELECTRICAL IMPROVEMENTS (CAPITAL PROJECT NO. 2344)  
ROCKFORD, IL

SITE DEVELOPMENT  
OVERALL SITE, ACCESS, AND CIVIL DRAWING KEY PLAN

**DONOHUE**

Sheet No. 11  
Drawing No. 2-CK-01

CP#	NORTHING	EASTING	ELEVATION	DESCRIPTION
21	2025271.55	2587109.38	700.01	CP CUT X
22	2025367.69	2587245.74	702.86	CP CUT X
23	2024998.64	2587304.26	688.81	CP MAG
27	2025032.92	2587397.68	699.10	CP MAG
41	2024920.75	2587039.46	698.96	CP DISC 41
42	2025404.27	2587520.24	703.52	CP DISC 42
43	2025483.30	2587079.04	698.85	CP DISC 43
47	2025014.69	2587514.62	698.16	CP DISC 47
48	2025130.52	2587269.02	698.60	CP MAG
49	2025308.22	2587316.79	697.55	CP MAG
50	2024998.84	2587414.26	699.43	CP MAG
51	2025106.47	2587380.61	698.04	CP MAG
52	2025131.96	2587364.32	698.27	CP MAG
369	2025353.70	2587377.39	700.13	BM CHISELED SQUARE

- GENERAL NOTES:**
- REFER TO DRAWING 1-G-02 AND 1-G-03 FOR ADDITIONAL GENERAL NOTES.
  - COORDINATES SHOWN ON THE CIVIL SITE DRAWINGS ARE ILLINOIS STATE PLANE, WEST ZONE (NAD 83). ELEVATIONS SHOWN HEREON ARE BASED ON NAVD 88. SURVEY COMPLETED BY FRSA.
  - CONTRACTOR SHALL ESTABLISH ADDITIONAL CONTROL POINTS AND BENCHMARKS AS REQUIRED TO MAINTAIN ADEQUATE CONTROL. SOME ESTABLISHED CONTROL POINTS AND BENCHMARKS MAY BE DISTURBED OR DESTROYED BY CONSTRUCTION.
  - GATES 8, 9 AND 16 MAY BE USED FOR CONSTRUCTION TRAFFIC. GATE 16 (NOT SHOWN ON THIS DRAWING) IS LOCATED AT THE NORTH END OF THE PLANT SITE AT THE INTERSECTION OF CHAPMAN ROAD AND BROOKE ROAD.
  - CONTRACTOR SHALL MAINTAIN ACCESS TO EXISTING FACILITIES TO REMAIN DURING CONSTRUCTION FOR DELIVERIES.

- PLAN NOTES:**
- CONTRACTOR STAGING/LAYDOWN AREA.
  - CONCRETE WASHOUT. EXACT LOCATION TO BE DETERMINED AND COORDINATED WITH OWNER.
  - AREA AVAILABLE FOR CONTRACTOR CONSTRUCTION TRAILER.
- LEGEND**
- CP# CONTROL POINT
  - BM# BENCHMARK
  - ▨ CONTRACTOR CONSTRUCTION TRAILER AREA
  - ▨ CONTRACTOR STAGING / LAYDOWN AREA



Not to be used for bidding purposes








**GENERAL NOTES:**

1. REFER TO DRAWING 1-G-03 AND 1-G-04 FOR ADDITIONAL GENERAL NOTES.
2. REMOVE VEGETATION AND STRIP TOPSOIL FROM UNPAVED AREAS DISTURBED BY CONSTRUCTION IN ACCORDANCE WITH SPECIFICATION SECTION 31 10 00.
3. SAWCUT PCC SIDEWALK AT REMOVAL LIMITS SHOWN OR REMOVE TO NEAREST JOINT.
4. REFERENCED IDOT STANDARDS ARE INCLUDED IN THE 10-C SERIES DRAWINGS.

**PLAN NOTES:**


1. SAWCUT AND REMOVE HMA PAVEMENT.

**LEGEND**

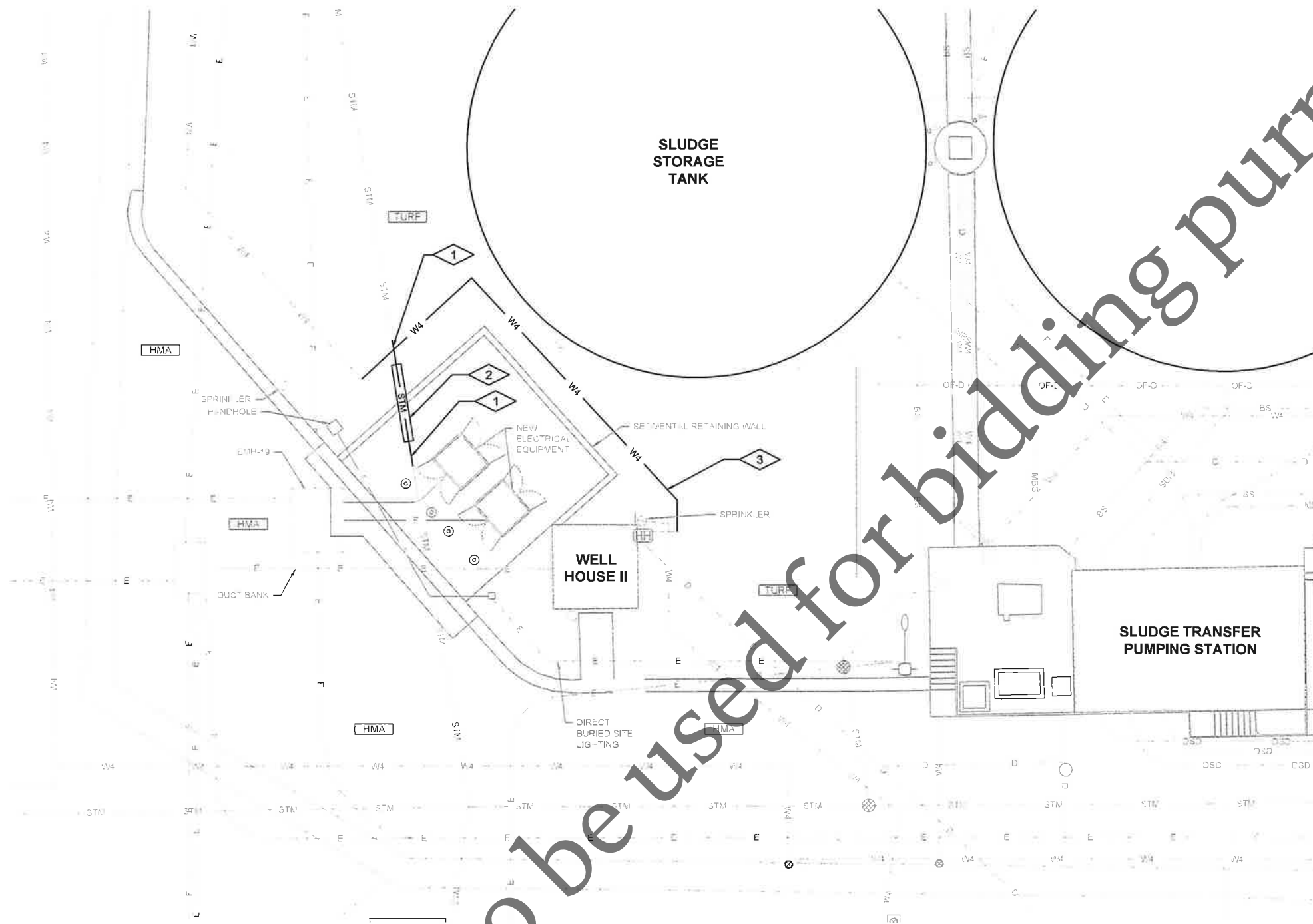
-  HMA PAVEMENT REMOVAL
-  PCC SIDEWALK REMOVAL
-  CURB & GUTTER REMOVAL
-  INLET PROTECTION PER DETAIL C046
-  SILT FENCE PER IDOT STANDARD 280001-07

MATCHLINE - SEE DRAWING 2-CER-03

MAINTENANCE/SUPPORTING SERVICES BUILDING

Date	
Checked By	
Drawn By	
Revision Description	
Revision Number	
Designed By	MLM
Drawn By	MLM
Checked By	JLM
Approved By	MLM
Filename	2-CER-01.DWG
Project No.	14456
Project Date	MAR 2026
<p><b>FOUR RIVERS SANITATION AUTHORITY</b>  <b>CO-GENERATION EFFICIENCY REHAB PROJECT-BID PACKAGE 1</b>  <b>ELECTRICAL IMPROVEMENTS (CAPITAL PROJECT NO. 2344)</b>  <b>ROCKFORD, IL</b></p> <p><b>SITE DEVELOPMENT</b>  <b>EROSION CONTROL AND SITE CIVIL REMOVAL PLAN</b></p>	
	
Sheet No.	13
Drawing No.	2-CER-02





**GENERAL NOTES:**

1. REFER TO DRAWING 1-G-03 AND 1-G-04 FOR ADDITIONAL GENERAL NOTES.
2. ABANDONED PIPING NOT SHOWN FOR CLARITY.

**PLAN NOTES:**

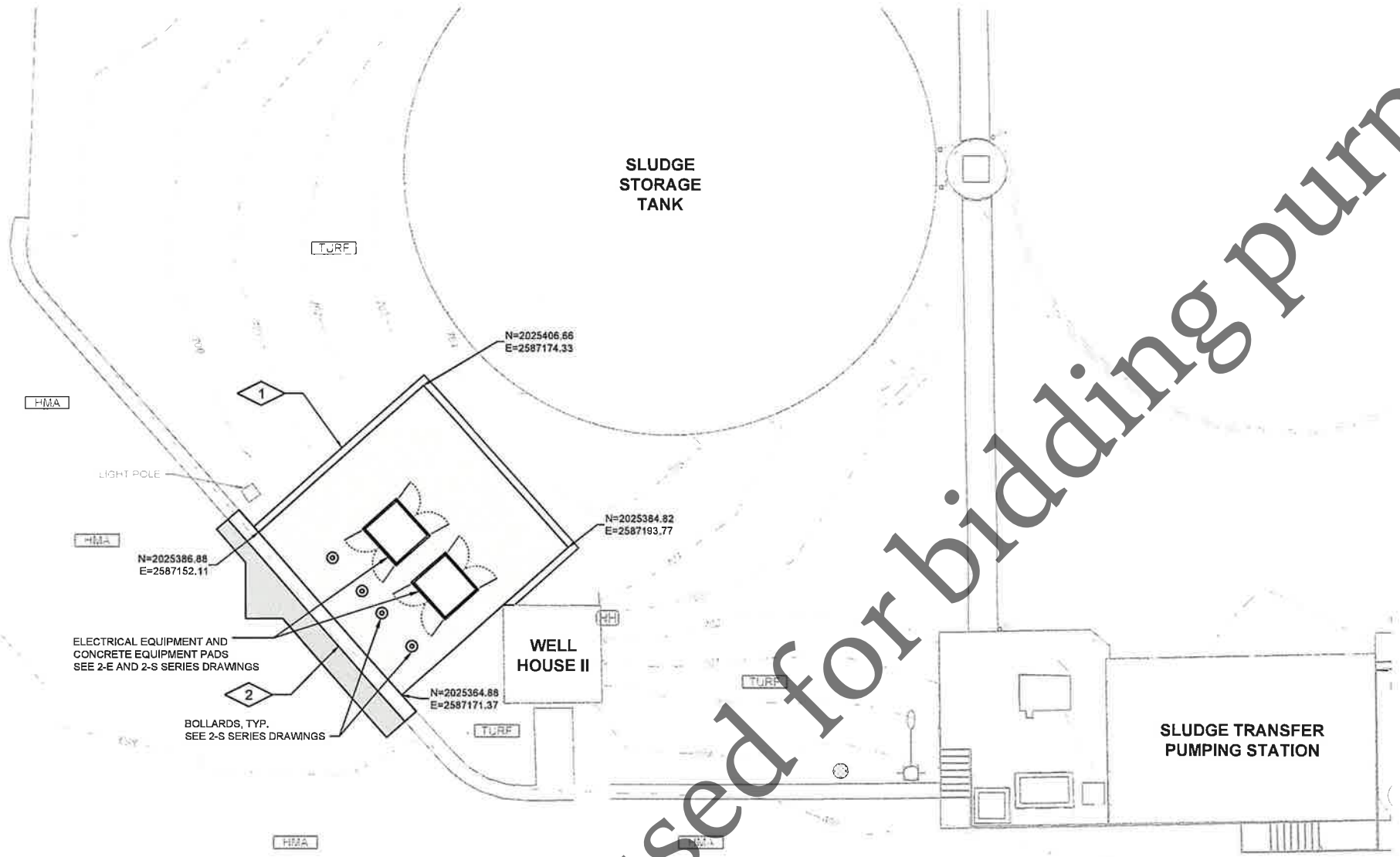
1. NEW 10" PVC STORM PIPE. MATCH EXISTING INVERT ELEVATIONS AND CONNECT TO EXISTING STORM SEWER PIPE WITH FERNCO STRONGBACK COUPLING OR EQUAL.
2. PLACE 10" PVC STORM PIPE WITHIN 18" STEEL CASING BENEATH SEGMENTAL RETAINING WALL IN ACCORDANCE WITH DETAIL (C540). STORM PIPE SHALL BE CENTERED AND RESTRAINED IN CASING PIPE. CASING PIPE SHALL EXTEND 5 FEET BEYOND EDGE OF RETAINING WALL ON EACH SIDE.
3. RELOCATED IRRIGATION LINE (TO BE RELOCATED BY FRSA LANDSCAPE IRRIGATION CONTRACTOR). LOCATION IS APPROXIMATE.

Revision Number	Revision Description	Drawn By	Checked By	Date

Designed By	MLM
Drawn By	MLM
Checked By	JLM
Approved By	MLM
Filename	2-CP-01.DWG
Project No.	14456
Project Date	MAR 2026

**FOUR RIVERS SANITATION AUTHORITY**  
**CO-GENERATION EFFICIENCY REHAB PROJECT-BID PACKAGE 1**  
**ELECTRICAL IMPROVEMENTS (CAPITAL PROJECT NO. 2344)**  
**ROCKFORD, IL**  
**SITE DEVELOPMENT**  
**CIVIL SITE PIPING PLAN**








**GENERAL NOTES:**

1. REFER TO DRAWING 1-G-03 AND 1-G-04 FOR ADDITIONAL GENERAL NOTES.
2. PROVIDE TURF RESTORATION PER DETAIL (C050) FOR SURFACES DISTURBED BY CONSTRUCTION AND NOT INDICATED TO BE PAVED.
3. SEE DRAWING 2-CFG-04 FOR ENLARGED LAYOUT AND GRADING PLANS.

**PLAN NOTES:**

1. SEGMENTAL RETAINING WALL PER SECTION 32 32 23. RETAINING WALL HEIGHT VARIES. RETAINING WALL SHALL EXTEND A MINIMUM OF 6 INCHES ABOVE GRADE. SEE ENLARGED GRADING PLAN ON DRAWING 2-CFG-04 FOR ADDITIONAL INFORMATION.
2. TIP-OUT CURB & GUTTER PER DETAIL (C160) AND IDOT STANDARD 606001-09.

**LEGEND**

-  PCC SIDEWALK (C150)
-  HMA PAVEMENT (C115)
-  AGGREGATE PAVEMENT PER DETAIL (C110)

Revision Number	Revision Description	Drawn By	Checked By	Date

Designed By	MLM
Drawn By	MLM
Checked By	JLM
Approved By	MLM
Filename	2-CFG-01.DWG
Project No.	14456
Project Date	MAR 2026

FOUR RIVERS SANITATION AUTHORITY  
 CO-GENERATION EFFICIENCY REHAB PROJECT-BID PACKAGE 1  
 ELECTRICAL IMPROVEMENTS (CAPITAL PROJECT NO. 2344)  
 ROCKFORD, IL  
 SITE DEVELOPMENT  
 SITE FACILITIES AND GRADING PLAN






Sheet No.	16
Drawing No.	

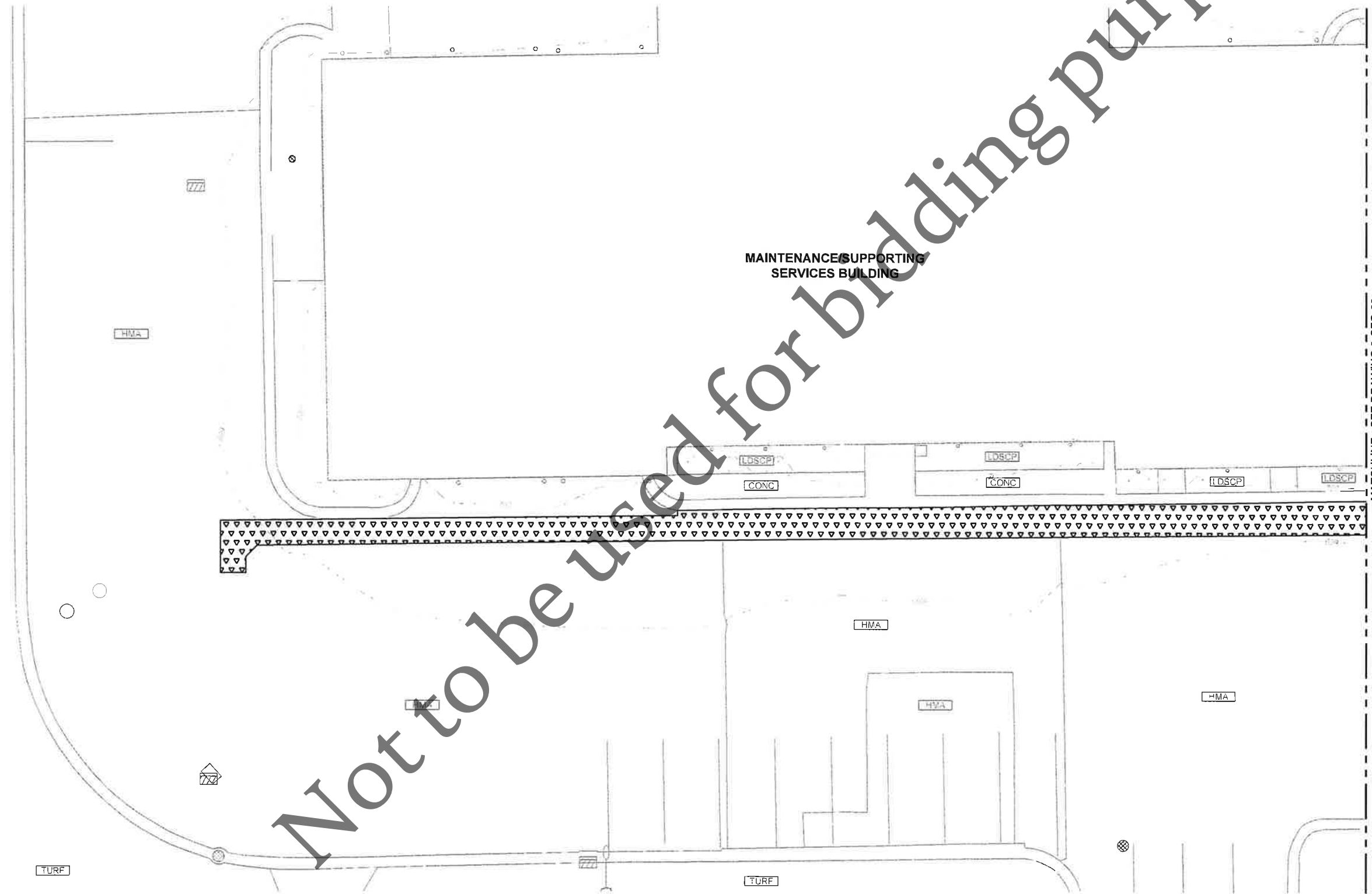
2-CFG-01

**GENERAL NOTES:**

1. REFER TO DRAWING 1-G-02 AND 1-G-03 FOR ADDITIONAL GENERAL NOTES.
2. PROVIDE TURF RESTORATION PER DETAIL C650 FOR SURFACES DISTURBED BY CONSTRUCTION AND NOT INDICATED TO BE PAVED.

**LEGEND**

-  PCC SIDEWALK (C150)
-  HMA PAVEMENT (C115)
-  AGGREGATE PAVEMENT PER DETAIL (C110)



**MAINTENANCE/SUPPORTING SERVICES BUILDING**

MATCHLINE - SEE DRAWING 2-CFG-03

Not to be used for bidding purposes

Revision Number	Revision Description	Drawn By	Checked By	Date

Designed By MLM

Drawn By MLM

Checked By JLM

Approved By MLM

Filename 2-CFG-01.DWG

Project No. 14456

Project Date MAR 2026

**FOUR RIVERS SANITATION AUTHORITY  
CO-GENERATION EFFICIENCY REHAB PROJECT-BID PACKAGE 1  
ELECTRICAL IMPROVEMENTS (CAPITAL PROJECT NO. 2344)  
ROCKFORD, IL**

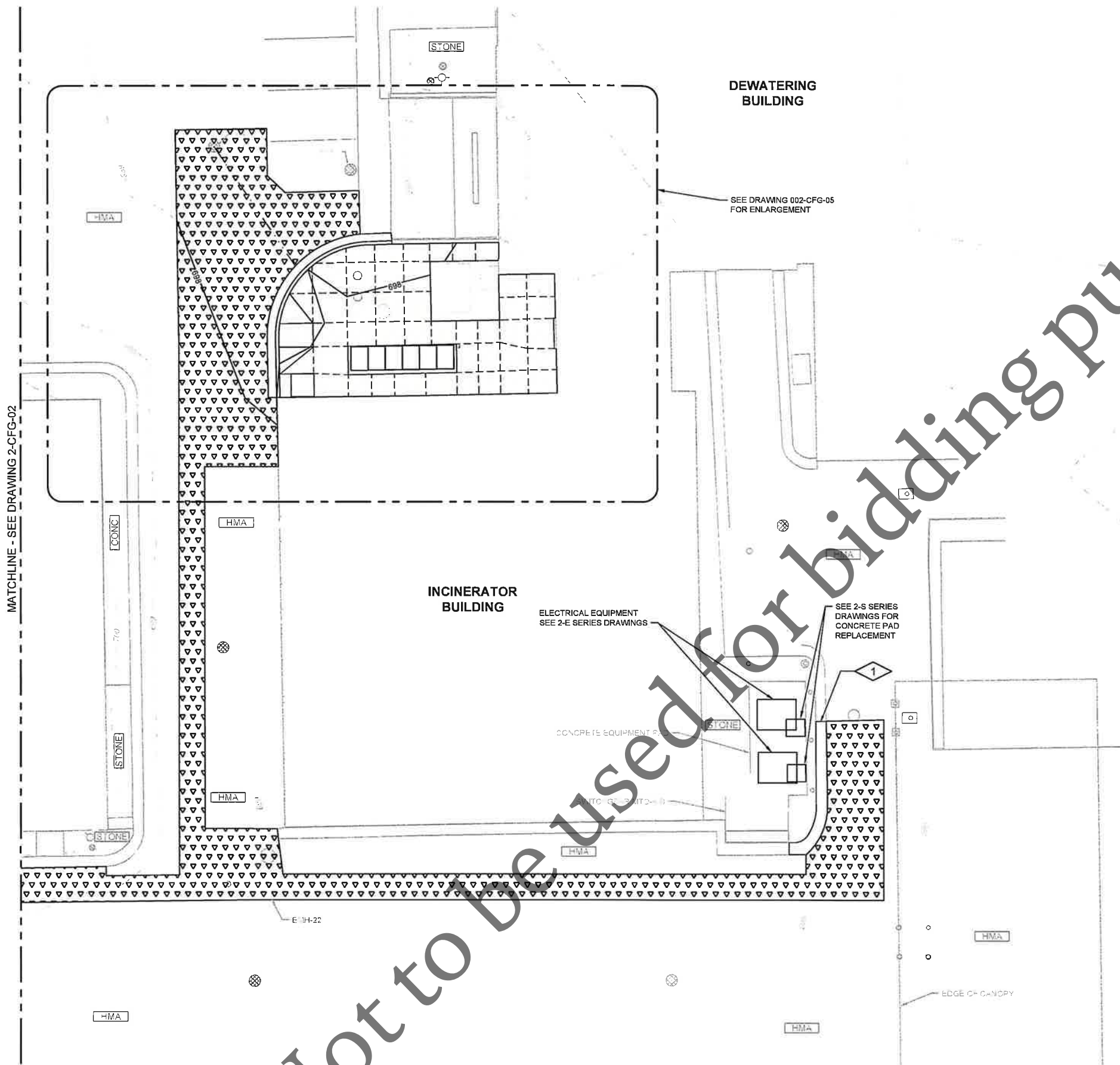
**SITE DEVELOPMENT  
SITE FACILITIES AND GRADING PLAN**



Sheet No. 17

Drawing No.

**2-CFG-02**



**GENERAL NOTES:**

1. REFER TO DRAWING 1-G-02 AND 1-G-03 FOR ADDITIONAL GENERAL NOTES.
2. PROVIDE TURF RESTORATION PER DETAIL (C050) FOR SURFACES DISTURBED BY CONSTRUCTION AND NOT INDICATED TO BE PAVED.

**PLAN NOTES:**

1. TIP-OUT CURB & GUTTER PER DETAIL (C160) AND IDOT STANDARD 606001-09.

**LEGEND**

- PCC SIDEWALK (C150)
- HMA PAVEMENT (C115)
- AGGREGATE PAVEMENT PER DETAIL (C110)

MATCHLINE - SEE DRAWING 2-CFG-02

Revision Number	Revision Description	Drawn By	Checked By	Date

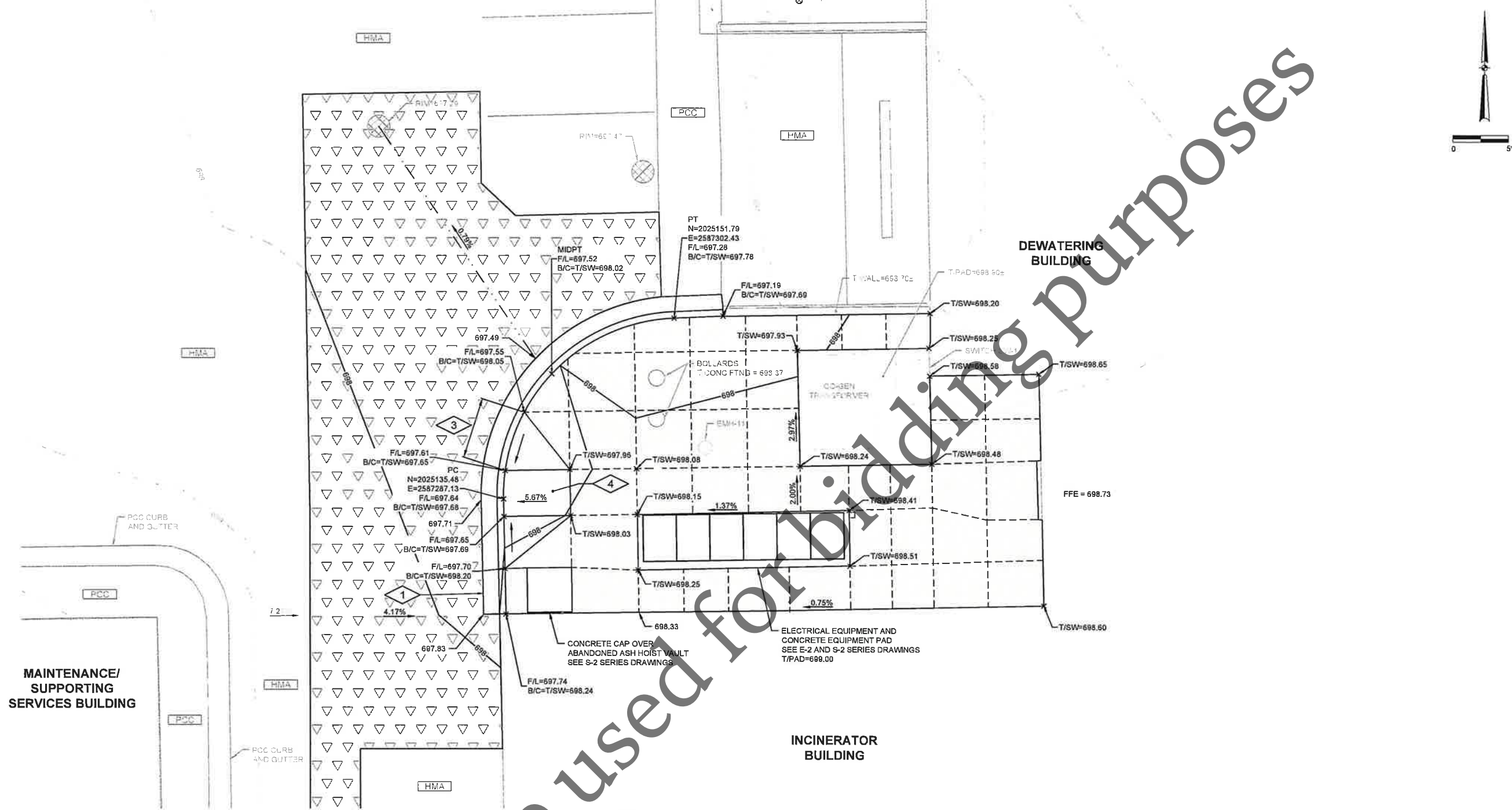
Designed By	MLM
Drawn By	MLM
Checked By	JLM
Approved By	MLM
Filename	2-CFG-01.DWG
Project No.	14456
Project Date	MAR 2026

**FOUR RIVERS SANITATION AUTHORITY**  
**CO-GENERATION EFFICIENCY REHAB PROJECT-BID PACKAGE 1**  
**ELECTRICAL IMPROVEMENTS (CAPITAL PROJECT NO. 2344)**  
 ROCKFORD, IL  
**SITE DEVELOPMENT**  
**SITE FACILITIES AND GRADING PLAN**



Sheet No. 18  
Drawing No.





ENLARGED LAYOUT AND GRADING PLAN  
1"=5'

**GENERAL NOTES:**

1. REFER TO DRAWING 1-G-03 AND 1-G-04 FOR ADDITIONAL GENERAL NOTES.
2. PROVIDE TURF RESTORATION PER DETAIL (C050) FOR SURFACES DISTURBED BY CONSTRUCTION AND NOT INDICATED TO BE PAVED.
3. PROPOSED AGGREGATE PAVEMENT SHOWN HALF-TONE ON THIS SHEET FOR CLARITY.

**PLAN NOTES:**

1. CURB & GUTTER PER DETAIL (C155) AND IDOT STANDARD 606001-09.
2. TIP-OUT CURB & GUTTER PER DETAIL (C165) AND IDOT STANDARD 606001-09.
3. TRANSITION FROM STANDARD CURB & GUTTER TO TIP-OUT CURB & GUTTER.
4. PERPENDICULAR CURB RAMP PER IDOT STANDARD 424001-12. DETECTABLE WARNING SURFACE NOT REQUIRED.

**LEGEND**

- PCC SIDEWALK (C150)
- AGGREGATE PAVEMENT PER DETAIL (C110)
- SIDEWALK JOINT

Date	Checked By	Drawn By	Revision Description

Revision Number	Revision Description

Designed By	MLM
Drawn By	MLM
Checked By	JLM
Approved By	MLM
Filename	2-CFG-01.DWG
Project No.	14456
Project Date	MAR 2026

FOUR RIVERS SANITATION AUTHORITY  
 CO-GENERATION EFFICIENCY REHAB PROJECT-BID PACKAGE 1  
 ELECTRICAL IMPROVEMENTS (CAPITAL PROJECT NO. 2344)  
 ROCKFORD, IL

SITE DEVELOPMENT  
 SITE FACILITIES AND GRADING PLAN



Sheet No. 20  
 Drawing No.






### GENERAL NOTES:

- HAZARDOUS RATINGS IDENTIFIED ON THIS DRAWING INDICATE SPACES IN WHICH A HAZARDOUS ENVIRONMENT MAY GENERALLY EXIST. CONTRACTOR SHALL REFER TO SPACE ENVIRONMENT/HAZARDOUS RATING SCHEDULE IN 001 SERIES OF DRAWINGS FOR ADDITIONAL INFORMATION EXPLAINING THE EXTENT AND ENVELOPE ASSOCIATED WITH THESE HAZARDS.
- CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO CONSTRUCTION AND/OR FABRICATION.
- FULL TONE COMPONENTS TO BE REMOVED.
- SAWCUT AND REMOVE CONCRETE TO THE LIMITS NOTED. IN EXPOSED AREAS NOT COVERED BY NEW CONSTRUCTION, REMOVE REINFORCEMENT AND EMBEDMENTS 1" BEYOND FINISHED SURFACE AND PATCH SURFACE WITH PATCHING MORTAR TO MATCH ADJACENT FINISHED SURFACE.
- REMOVE CONCRETE ANCHORS, ANCHOR BOLTS, AND OTHER EMBEDMENTS FOR MATERIALS AND EQUIPMENT BEING REMOVED. IN EXPOSED AREAS NOT COVERED BY NEW CONSTRUCTION, REMOVE CONCRETE ANCHORS, ANCHOR BOLTS, AND OTHER EMBEDMENTS 1" BEYOND FINISHED SURFACE AND PATCH SURFACE WITH PATCHING MORTAR, FINISH SURFACE TO MATCH ADJACENT FINISHED SURFACE.
- WHERE EQUIPMENT IS INDICATED TO BE REMOVED, REMOVE ALL ASSOCIATED POWER AND CONTROL WIRING AND CONDUIT BACK TO SOURCE. REMOVE JUNCTION BOXES AND PULL BOXES ASSOCIATED WITH THE REMOVED CONDUITS. WHERE CONDUIT SYSTEM CONTAINS CIRCUITS TO OTHER EQUIPMENT THAT REMAINS, RETAIN THESE CIRCUITS AND RELOCATE EXISTING CONDUIT AND EXTEND EXISTING CIRCUITS AS REQUIRED FOR THE INSTALLATION OF NEW EQUIPMENT.
- REMOVE ALL SUPPORTS ASSOCIATED WITH REMOVED PIPING, DUCTWORK, CONDUIT, AND EQUIPMENT. REMOVE RODS AND FASTENERS FROM CEILINGS, FLOORS, AND WALLS WITH CARE. WHERE SURFACE HAS BEEN MARRED, CHIPPED, SPALLED, ETC. AS A RESULT OF REMOVAL, PATCH SURFACE WITH PATCHING MORTAR AND FINISH TO MATCH ADJACENT FINISHED SURFACE.
- REMOVE EXISTING CONCRETE PADS OF ANY EQUIPMENT BEING REMOVED. REMOVE CONCRETE REINFORCEMENT A MINIMUM OF 1" BEYOND FINISHED SURFACE AT ANY LOCATION WHERE NEW CONCRETE PAD WILL NOT COVER ROUGH SURFACE OF REMOVED PAD. PATCH SURFACE WITH PATCHING MORTAR AND FINISH TO MATCH ADJACENT FINISHED SURFACE.
- WHERE OPENINGS ARE LEFT IN WALLS, SLABS, OR CEILINGS DUE TO REMOVED PIPING, DUCTWORK, EQUIPMENT, OR OTHER WORK, PATCH OPENING TO MATCH ADJACENT SURFACES UNLESS NOTED OTHERWISE. THE PERIMETER OF OPENINGS IN CONCRETE WALLS AND SLABS EXPOSED TO EARTH, WEATHER, OR WATER SHALL BE LINED WITH A GASKET TYPE WATERSTOP PRIOR TO PATCHING OF THE WALL. OPENINGS IN PRECAST CONCRETE ROOF MEMBERS ARE TO BE PATCHED WITH CONCRETE AND DOWELED TO THE EXISTING ROOF MEMBERS UNLESS NOTED OTHERWISE. ROOFING SYSTEM SHALL BE PATCHED TO PREVENT ANY LEAKING AT THE OPENING.

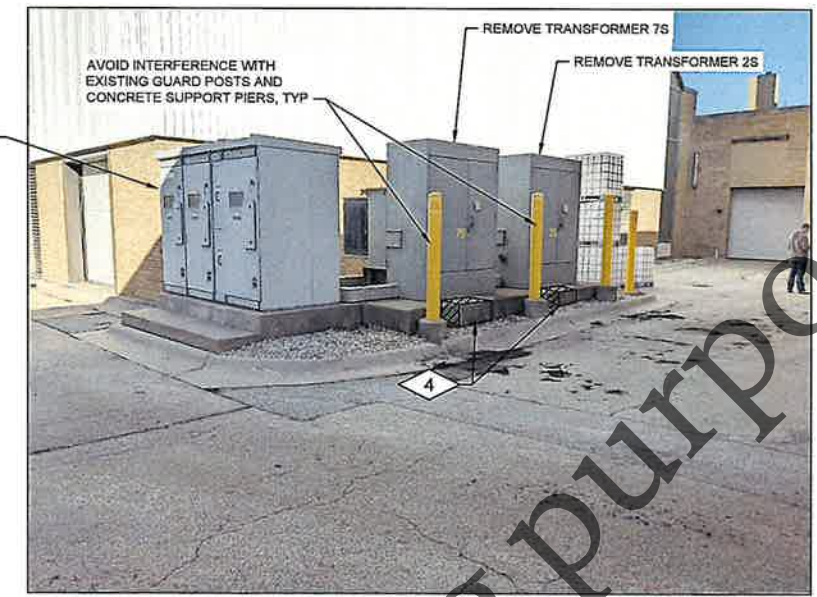
### PLAN NOTES:

- EXCAVATE AND EXPOSE 4" CONDUIT. REMOVE CONDUIT WITHOUT DAMAGING ADMIN BUILDING FEEDER CABLES. PULL CABLES OUT OF REMOVED SECTION OF CONDUIT AWAY FROM SWITCHGEAR MTO-A/B AND SALVAGE FOR RE-USE. CAP AND ABANDON CONDUIT TO SWITCHGEAR MTO-A/B IN PLACE.
- REMOVE CONDUIT TO EXTENTS REQUIRED FOR NEW CONSTRUCTION, CAP AND ABANDON REMAINING CONDUIT IN PLACE.
- ABANDON CONDUITS UNDER SWITCHGEAR MTO-A/B IN PLACE. CUT CONDUITS FLUSH WITH PAD AND CAP OR GROUT.
- SAWCUT AND REMOVE APPROXIMATE 3' X 3' AREA OF EXISTING CONCRETE EQUIPMENT PAD FOR NEW DUCTBANK. CONTRACTOR TO FIELD VERIFY LOCATION OF PAD REMOVAL WITH RELATION TO NEW DUCTBANK TIE IN LOCATION. LIMIT DISTURBANCE OF EXISTING COMPACTED SUBGRADE.
- REMOVE CONDUIT AND CONDUCTORS ROUTED IN INCINERATOR BUILDING BASEMENT BACK TO SPLICE POINT.

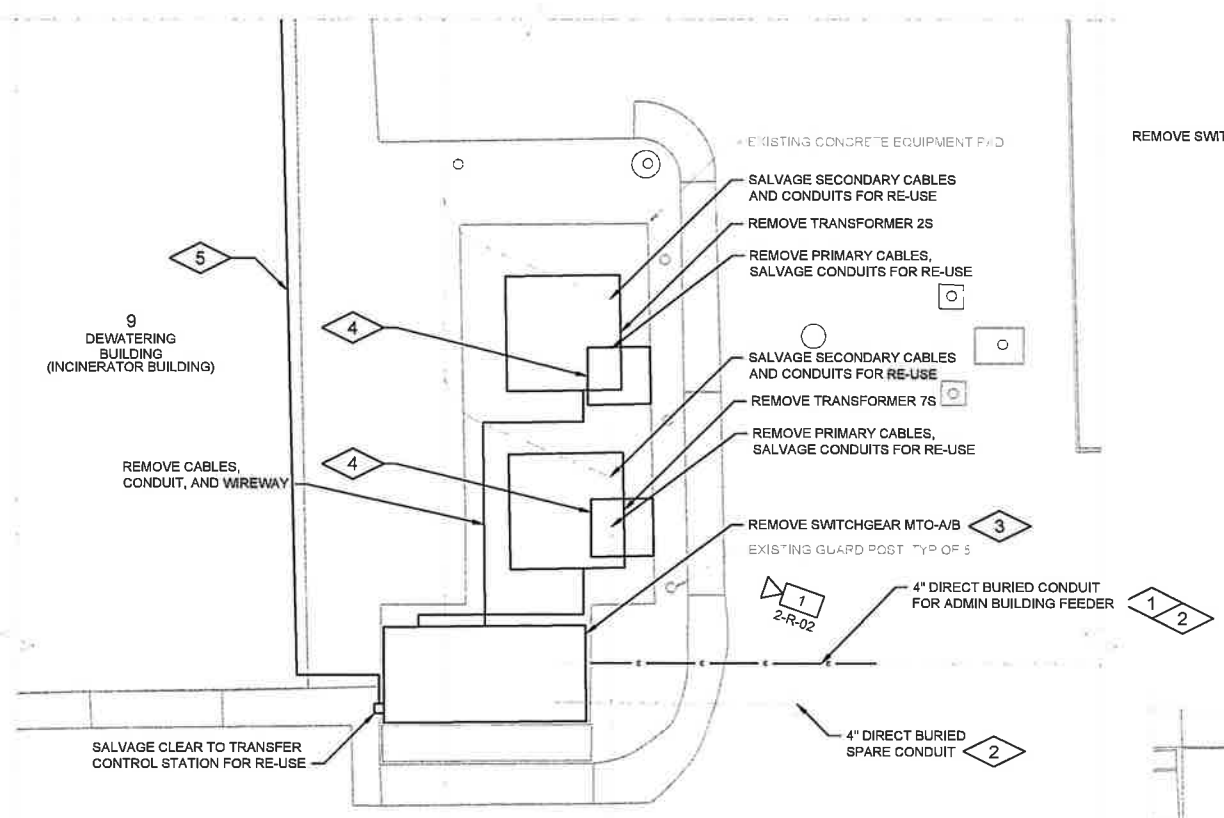
### DUCTBANK LEGEND:

-  CABLES TO BE REMOVED
-  CABLES TO REMAIN
-  SPARE CONDUITS TO REMAIN

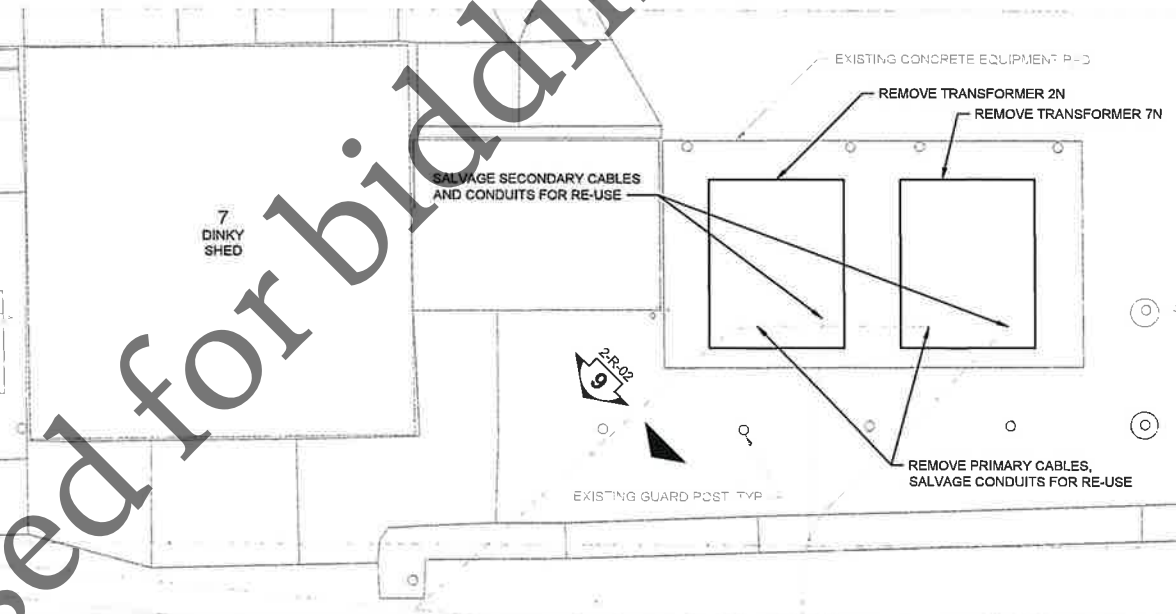
ALL CONDUITS ARE 4" UNLESS OTHERWISE NOTED



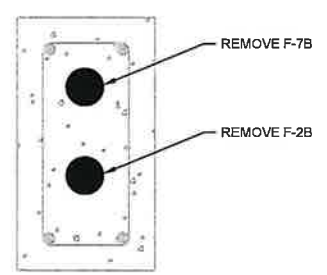
**PHOTO**  
NTS 1  
2-R-02



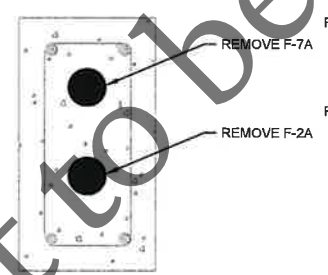
**DEWATERING BUILDING SOUTH TRANSFORMERS - REMOVAL**



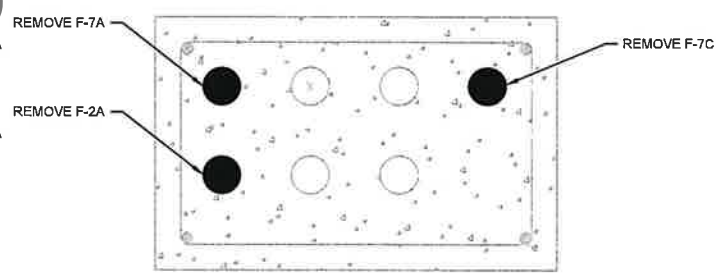
**DEWATERING BUILDING NORTH TRANSFORMERS - REMOVAL**



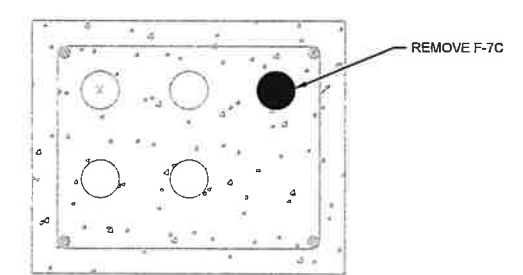
**DUCTBANK SECTION 9**  
NTS 2-R-01 2-R-02



**DUCTBANK SECTION 11**  
NTS 2-R-02




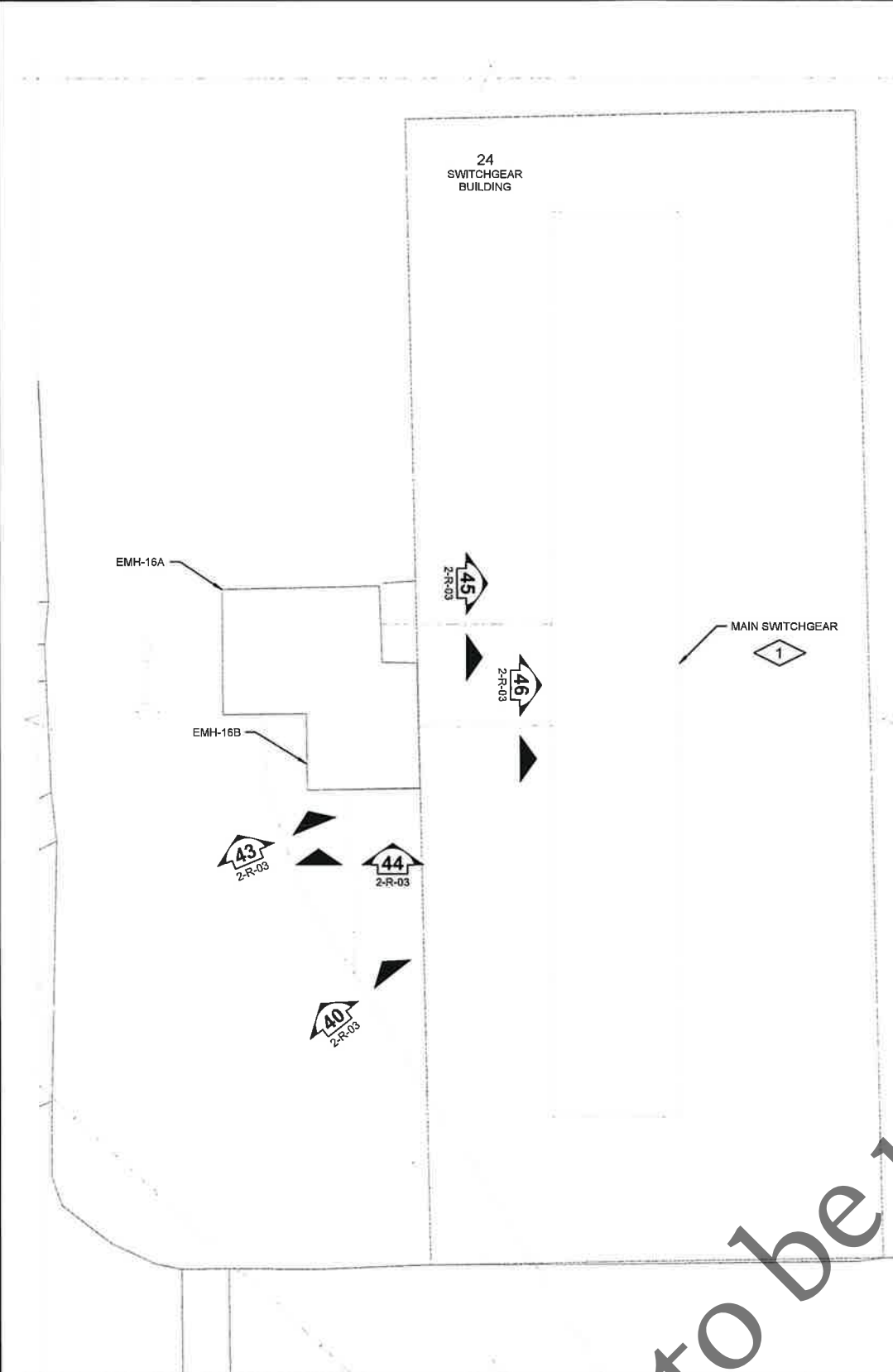
**DUCTBANK SECTION 13A**  
NTS 2-R-01 2-R-02



**DUCTBANK SECTION 19**  
NTS 2-R-02

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Date	Checked By	Drawn By	Revision Description	Revision Number	Designed By	Drawn By	Checked By	Approved By	Filename	Project No.	Project Date
					JTB	JTB	RJF	JTB	2ER1.DWG	14456	MAR 2026
<b>FOUR RIVERS SANITATION AUTHORITY</b> <b>CO-GENERATION EFFICIENCY REHAB PROJECT-BID PACKAGE 1</b> <b>ELECTRICAL IMPROVEMENTS (CAPITAL PROJECT NO. 2344)</b> <b>ROCKFORD, IL</b>											
<b>SITE DEVELOPMENT - DEWATERING BLDG</b> <b>NORTH AND SOUTH TRANSFORMERS - REMOVAL</b>											
											
Sheet No. 22											
Drawing No.											
<b>2-R-02</b>											



**GENERAL NOTES:**

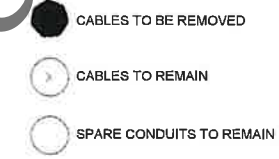
- HAZARDOUS RATINGS IDENTIFIED ON THIS DRAWING INDICATE SPACES IN WHICH A HAZARDOUS ENVIRONMENT MAY GENERALLY EXIST. CONTRACTOR SHALL REFER TO SPACE ENVIRONMENT/HAZARDOUS RATING SCHEDULE IN 001 SERIES OF DRAWINGS FOR ADDITIONAL INFORMATION EXPLAINING THE EXTENT AND ENVELOPE ASSOCIATED WITH THESE HAZARDS.
- CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO CONSTRUCTION AND/OR FABRICATION.
- FULL TONE COMPONENTS TO BE REMOVED.
- SAWCUT AND REMOVE CONCRETE TO THE LIMITS NOTED. IN EXPOSED AREAS NOT COVERED BY NEW CONSTRUCTION, REMOVE REINFORCEMENT AND EMBEDMENTS 1" BEYOND FINISHED SURFACE AND PATCH SURFACE WITH PATCHING MORTAR TO MATCH ADJACENT FINISHED SURFACE.
- REMOVE CONCRETE ANCHORS, ANCHOR BOLTS, AND OTHER EMBEDMENTS FOR MATERIALS AND EQUIPMENT BEING REMOVED. IN EXPOSED AREAS NOT COVERED BY NEW CONSTRUCTION, REMOVE CONCRETE ANCHORS, ANCHOR BOLTS, AND OTHER EMBEDMENTS 1" BEYOND FINISHED SURFACE AND PATCH SURFACE WITH PATCHING MORTAR. FINISH SURFACE TO MATCH ADJACENT FINISHED SURFACE.
- WHERE EQUIPMENT IS INDICATED TO BE REMOVED, REMOVE ALL ASSOCIATED POWER AND CONTROL WIRING AND CONDUIT BACK TO SOURCE. REMOVE JUNCTION BOXES AND PULL BOXES ASSOCIATED WITH THE REMOVED CONDUITS. WHERE CONDUIT SYSTEM CONTAINS CIRCUITS TO OTHER EQUIPMENT THAT REMAINS, RETAIN THESE CIRCUITS AND RELOCATE EXISTING CONDUIT AND EXTEND EXISTING CIRCUITS AS REQUIRED FOR THE INSTALLATION OF NEW EQUIPMENT.

- REMOVE ALL SUPPORTS ASSOCIATED WITH REMOVED PIPING, DUCTWORK, CONDUIT, AND EQUIPMENT. REMOVE RODS AND FASTENERS FROM CEILINGS, FLOORS, AND WALLS WITH CARE. WHERE SURFACE HAS BEEN MARRED, CHIPPED, SPALLED, ETC. AS A RESULT OF REMOVAL, PATCH SURFACE WITH PATCHING MORTAR AND FINISH TO MATCH ADJACENT FINISHED SURFACE.
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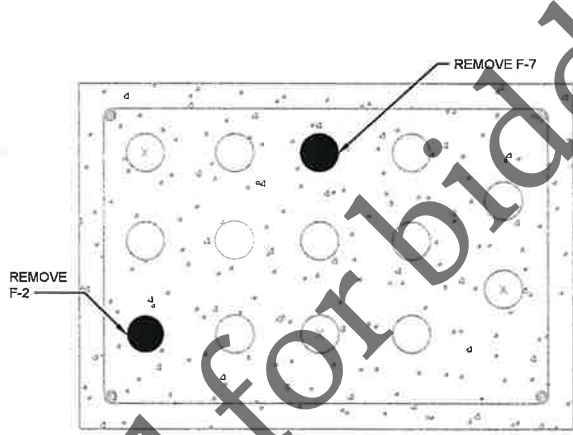
**PLAN NOTES:**

- REMOVE FUSES FROM FEEDER F-2 AND FEEDER F-7 SWITCHES.

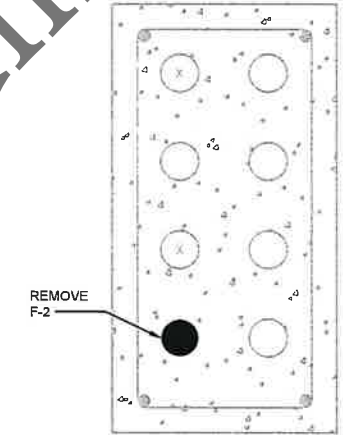
**DUCTBANK LEGEND:**



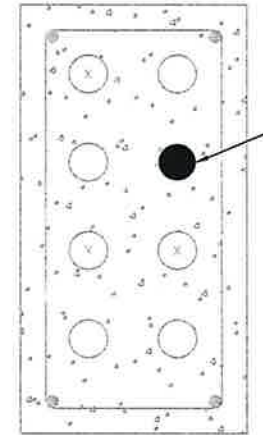
ALL CONDUITS ARE 4" UNLESS OTHERWISE NOTED



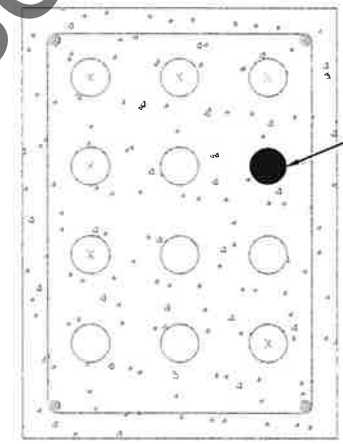
DUCTBANK SECTION 40  
NTS 2-R-01 2-R-03



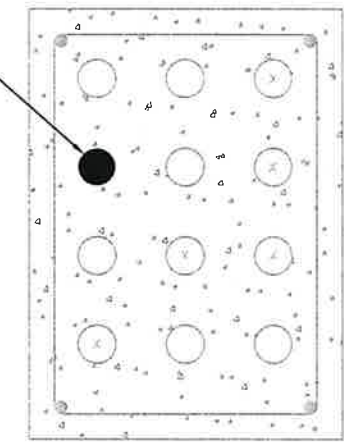
DUCTBANK SECTION 43  
NTS 2-R-03



DUCTBANK SECTION 44  
NTS 2-R-03



DUCTBANK SECTION 45  
NTS 2-R-03



DUCTBANK SECTION 46  
NTS 2-R-03

Not to be used for bidding purposes

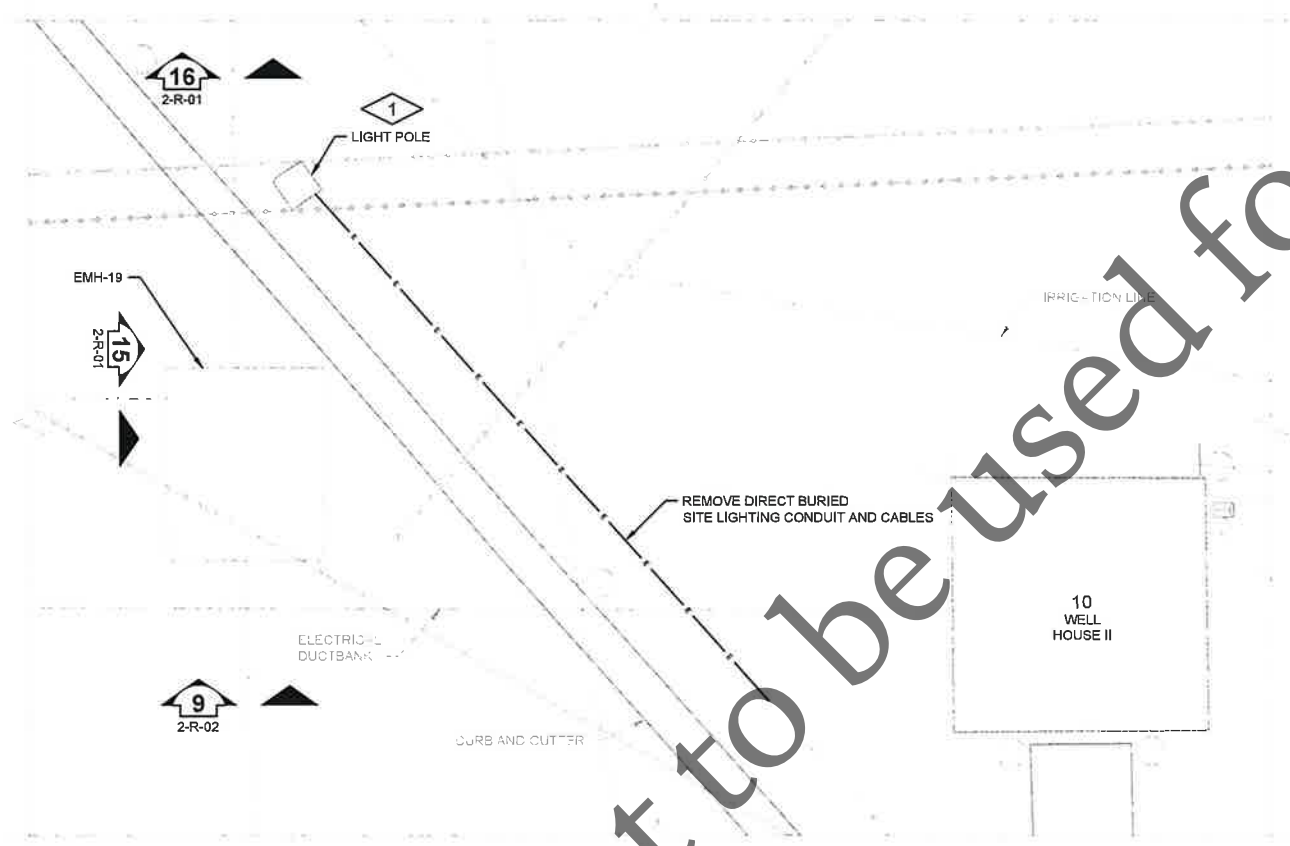
Date	Checked By	Drawn By	Revision Description	Revision Number	Designed By	Drawn By	Checked By	Approved By	Filename	Project No.	Project Date
					JTB	JTB	RJF	JTB	2ER1.DWG	14456	MAR 2026
FOUR RIVERS SANITATION AUTHORITY CO-GENERATION EFFICIENCY REHAB PROJECT-BID PACKAGE 1 ELECTRICAL IMPROVEMENTS (CAPITAL PROJECT NO. 2344) ROCKFORD, IL SITE DEVELOPMENT SWITCHGEAR BUILDING - REMOVAL											
Sheet No. 23											
Drawing No. 2-R-03											

**GENERAL NOTES:**

1. HAZARDOUS RATINGS IDENTIFIED ON THIS DRAWING INDICATE SPACES IN WHICH A HAZARDOUS ENVIRONMENT MAY GENERALLY EXIST. CONTRACTOR SHALL REFER TO SPACE ENVIRONMENT/HAZARDOUS RATING SCHEDULE IN 001 SERIES OF DRAWINGS FOR ADDITIONAL INFORMATION EXPLAINING THE EXTENT AND ENVELOPE ASSOCIATED WITH THESE HAZARDS.
2. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO CONSTRUCTION AND/OR FABRICATION.
3. FULL TONE COMPONENTS TO BE REMOVED.
4. SAWCUT AND REMOVE CONCRETE TO THE LIMITS NOTED, IN EXPOSED AREAS NOT COVERED BY NEW CONSTRUCTION, REMOVE REINFORCEMENT AND EMBEDMENTS 1" BEYOND FINISHED SURFACE AND PATCH SURFACE WITH PATCHING MORTAR TO MATCH ADJACENT FINISHED SURFACE.
5. REMOVE CONCRETE ANCHORS, ANCHOR BOLTS, AND OTHER EMBEDMENTS FOR MATERIALS AND EQUIPMENT BEING REMOVED. IN EXPOSED AREAS NOT COVERED BY NEW CONSTRUCTION, REMOVE CONCRETE ANCHORS, ANCHOR BOLTS, AND OTHER EMBEDMENTS 1" BEYOND FINISHED SURFACE AND PATCH SURFACE WITH PATCHING MORTAR. FINISH SURFACE TO MATCH ADJACENT FINISHED SURFACE.
6. WHERE EQUIPMENT IS INDICATED TO BE REMOVED, REMOVE ALL ASSOCIATED POWER AND CONTROL WIRING AND CONDUIT BACK TO SOURCE. REMOVE JUNCTION BOXES AND PULL BOXES ASSOCIATED WITH THE REMOVED CONDUITS. WHERE CONDUIT SYSTEM CONTAINS CIRCUITS TO OTHER EQUIPMENT THAT REMAINS, RETAIN THESE CIRCUITS AND RELOCATE EXISTING CONDUIT AND EXTEND EXISTING CIRCUITS AS REQUIRED FOR THE INSTALLATION OF NEW EQUIPMENT.
7. REMOVE ALL SUPPORTS ASSOCIATED WITH REMOVED PIPING, DUCTWORK, CONDUIT, AND EQUIPMENT. REMOVE RODS AND FASTENERS FROM CEILINGS, FLOORS, AND WALLS WITH CARE. WHERE SURFACE HAS BEEN MARRERD, CHIPPED, SPALLED, ETC. AS A RESULT OF REMOVAL, PATCH SURFACE WITH PATCHING MORTAR AND FINISH TO MATCH ADJACENT FINISHED SURFACE.
8. REMOVE EXISTING CONCRETE PADS OF ANY EQUIPMENT BEING REMOVED. REMOVE CONCRETE REINFORCEMENT A MINIMUM OF 1" BEYOND FINISHED SURFACE AT ANY LOCATION WHERE NEW CONCRETE PAD WILL NOT COVER ROUGH SURFACE OF REMOVED PAD. PATCH SURFACE WITH PATCHING MORTAR AND FINISH TO MATCH ADJACENT FINISHED SURFACE.
9. WHERE OPENINGS ARE LEFT IN WALLS, SLABS, OR CEILINGS DUE TO REMOVED PIPING, DUCTWORK, EQUIPMENT, OR OTHER WORK, PATCH OPENING TO MATCH ADJACENT SURFACES UNLESS NOTED OTHERWISE. THE PERIMETER OF OPENINGS IN CONCRETE WALLS AND SLABS EXPOSED TO EARTH, WEATHER, OR WATER SHALL BE LINED WITH A GASKET TYPE WATERSTOP PRIOR TO PATCHING OF THE WALL. OPENINGS IN PRECAST CONCRETE ROOF MEMBERS ARE TO BE PATCHED WITH CONCRETE AND DOWELED TO THE EXISTING ROOF MEMBERS UNLESS NOTED OTHERWISE. ROOFING SYSTEM SHALL BE PATCHED TO PREVENT ANY LEAKING AT THE OPENING.

**PLAN NOTES:**

1. LIGHTING CIRCUIT IS FED FROM LIGHTING PANEL LP-16A IN THE MAINTENANCE BUILDING.



**ELECTRICAL REMOVAL**

Not to be used for bidding purposes

Revision Number	Revision Description	Drawn By	Checked By	Date

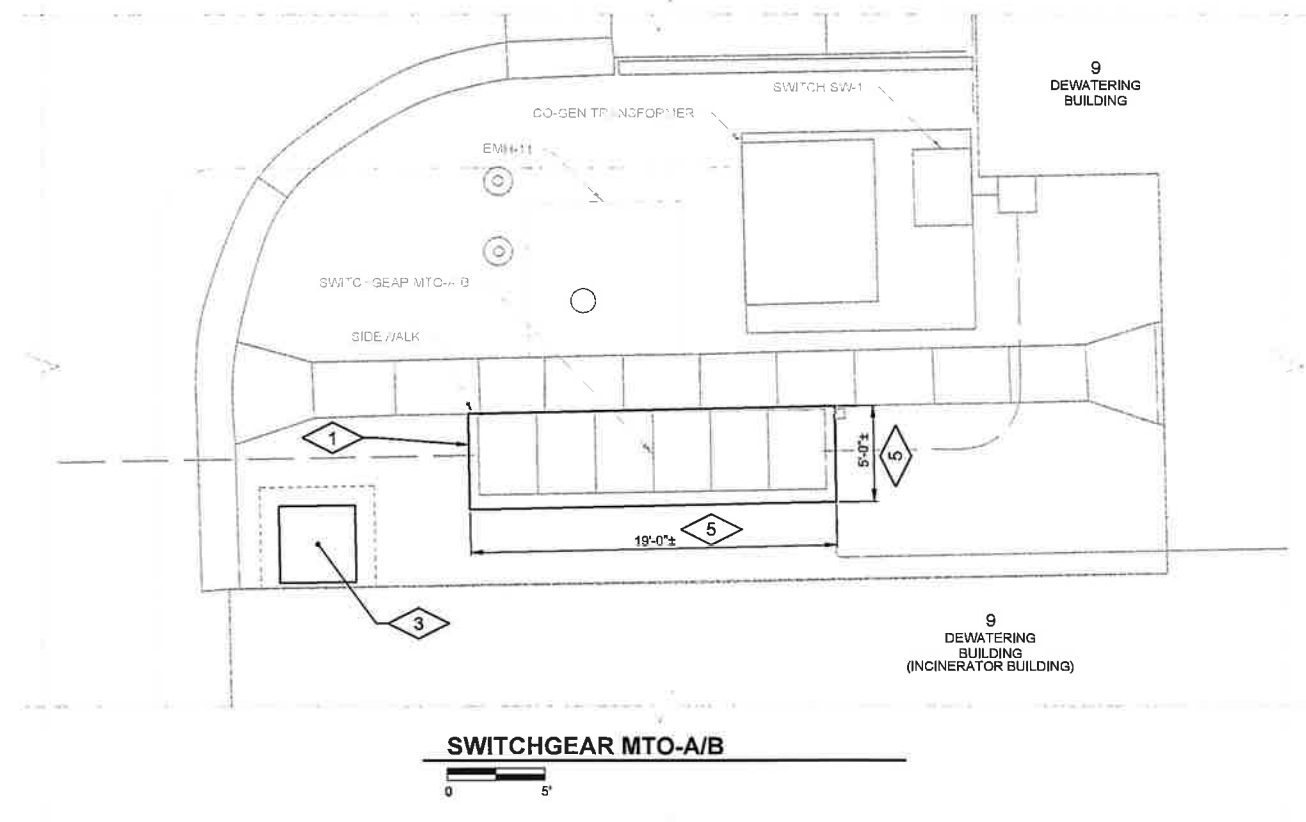
Designed By	JTB
Drawn By	JTB
Checked By	RJF
Approved By	JTB
Filename	2ER1.DWG
Project No.	14456
Project Date	MAR 2026

**FOUR RIVERS SANITATION AUTHORITY**  
**CO-GENERATION EFFICIENCY REHAB PROJECT-BID PACKAGE 1**  
**ELECTRICAL IMPROVEMENTS (CAPITAL PROJECT NO. 2344)**  
 ROCKFORD, IL  
**SITE DEVELOPMENT**  
**ELECTRICAL - REMOVAL**

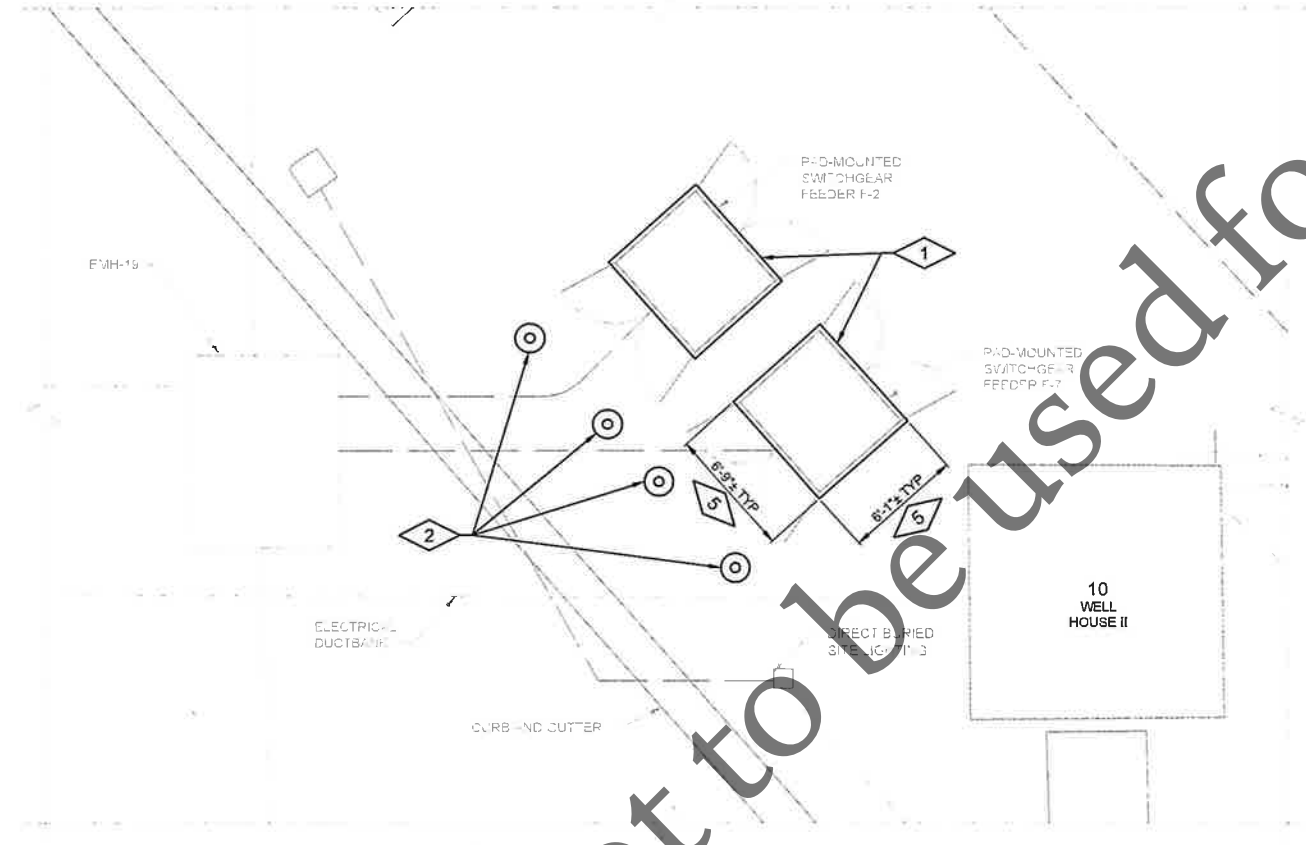


Sheet No.	24
Drawing No.	

2-R-04



**SWITCHGEAR MTO-A/B**



**PAD-MOUNTED SWITCHGEAR FEEDER F-2 AND F-7**

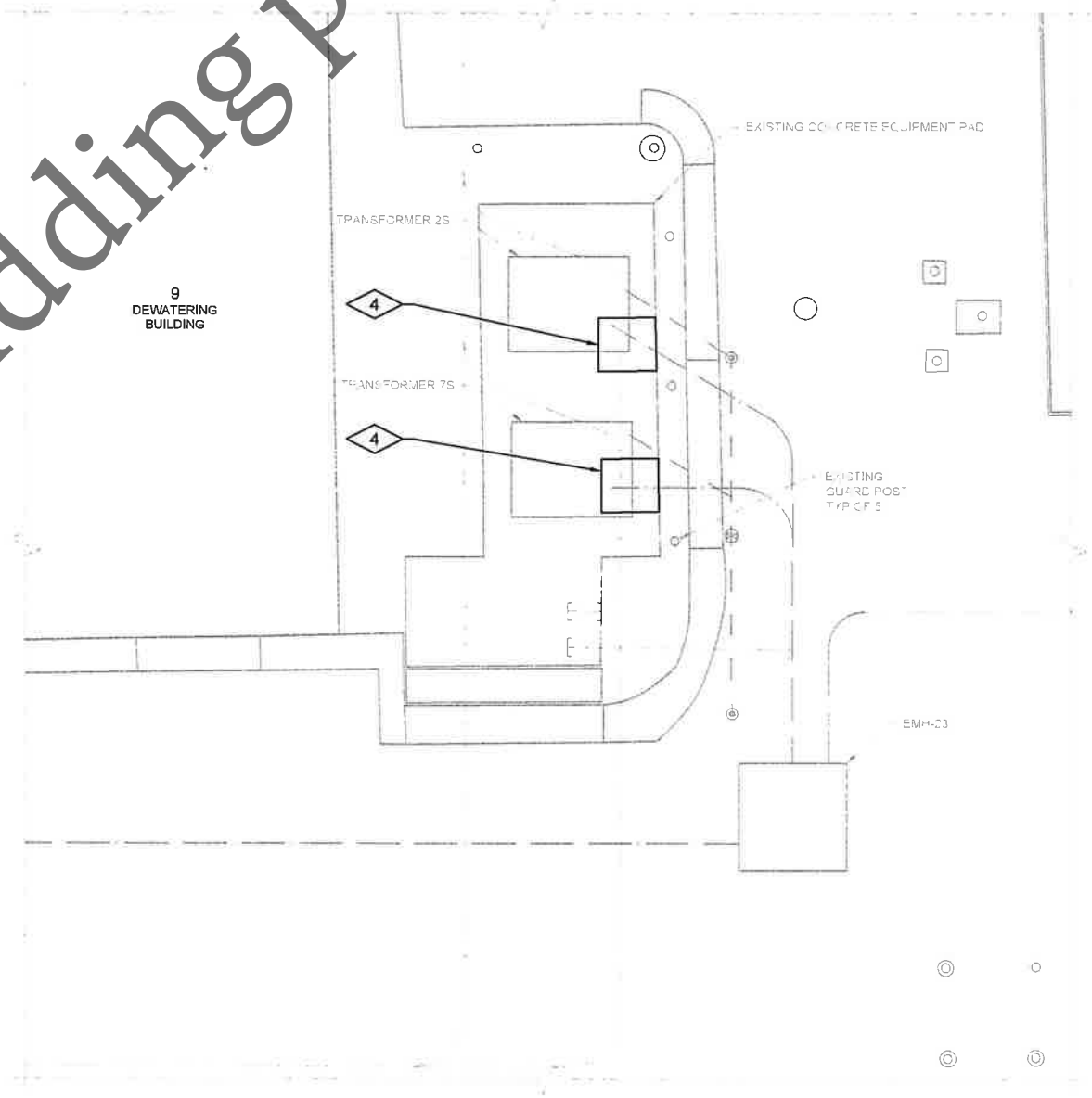


**GENERAL NOTES:**

- CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO CONSTRUCTION AND/OR FABRICATION.
- SEE SPECIFICATION SECTION 01 11 00 FOR PROJECT SEQUENCES AND CONSTRAINTS.

**PLAN NOTES:**

- EQUIPMENT PAD, SEE (S346).
- GUARD POSTS, SEE FRSA TREATMENT PLANT BOLLARD DETAIL ON DRAWING 10-C-04. INSTALL GUARD POSTS IN LOCATIONS TO NOT INTERFERE WITH EXISTING BELOW GRADE UTILITIES AND TO HAVE SUFFICIENT SPACE FOR ACCESS INSIDE SWITCHGEAR FEEDER F-2 AND F-7.
- EXISTING ASH HOIST VAULT BELOW GRADE. REMOVE EXISTING HATCH DOOR AND FRAME AT TOP OF VAULT. PATCH EXISTING OPENING AT TOP OF VAULT AFTER HATCH DOOR AND FRAME ARE REMOVED. PATCH OPENING PER DETAIL (S372). APPROXIMATE OPENING SIZE = 4'-0" X 4'-0". CONTRACTOR TO FIELD VERIFY.
- EXTEND NEW CONCRETE DUCTBANKS INTO REMOVED AREAS OF EXISTING CONCRETE EQUIPMENT PAD. PROVIDE #4@12" DRILLED IN DOWELS, T&B, AT THE INTERFACE BETWEEN THE EXISTING PAD AND NEW DUCTBANKS. SEE DETAIL (S385) FOR DRILLED IN DOWEL REQUIREMENTS. ANY EXISTING DISTURBED SUBGRADE MATERIALS SHALL BE REMOVED AND REPLACED WITH FLOWABLE FILL. SEE SECTION 31 23 00 FOR FLOWABLE FILL REQUIREMENTS.
- VERIFY FINAL DIMENSIONS OF PAD REQUIRED WITH APPROVED ELECTRICAL EQUIPMENT SHOP DRAWINGS.



**DEWATERING BUILDING SOUTH TRANSFORMERS**



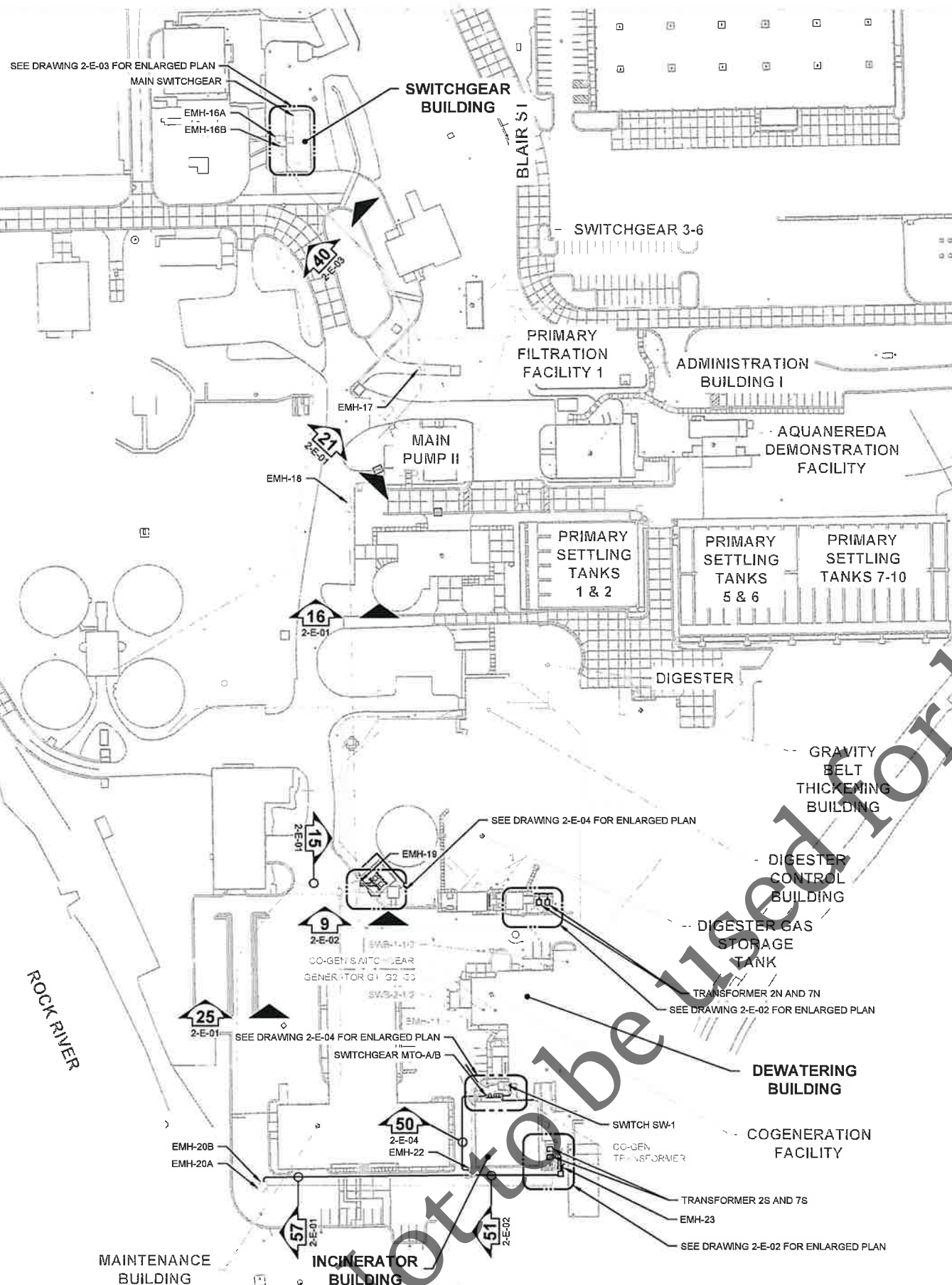
Date	Checked By	Drawn By	Revision Description	Revision Number

Designed By	CDP
Drawn By	CDP
Checked By	CEE
Approved By	CEE
Filename	2S1.DWG
Project No.	14456
Project Date	MAR 2026

**FOUR RIVERS SANITATION AUTHORITY**  
 CO-GENERATION EFFICIENCY REHAB PROJECT-BID PACKAGE 1  
 ELECTRICAL IMPROVEMENTS (CAPITAL PROJECT NO. 2344)  
 ROCKFORD, IL  
**STRUCTURAL**  
 SWITCHGEAR MTO-A/B, SWITCHGEAR FEEDERS F-2 AND F-7,  
 AND DEWATERING BUILDING SOUTH TRANSFORMERS



Sheet No.	25
Drawing No.	2-S-01



**GENERAL NOTES:**

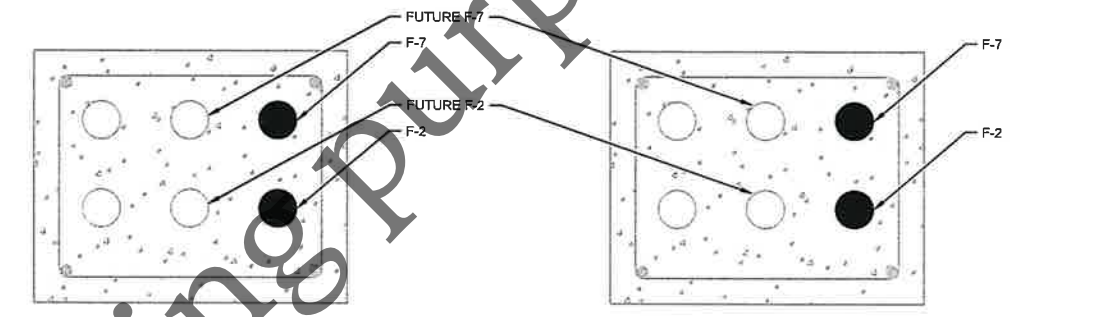
1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO CONSTRUCTION AND/OR FABRICATION.
2. SEE SPECIFICATION SECTION 01 11 00 FOR PROJECT SEQUENCES AND CONSTRAINTS.
3. PROVIDE TRACER WIRE FOR NEW DUCTBANKS IN ACCORDANCE WITH FRSA TREATMENT PLANT TRACER WIRE & ACCESS POINTS DETAIL. SEE DRAWING 10-C-04.

**EXISTING DUCTBANK LEGEND:**

- NEW CABLES IN EXISTING CONDUITS
  - CABLES TO REMAIN
  - SPARE CONDUITS TO REMAIN
- ALL CONDUITS ARE 4" UNLESS OTHERWISE NOTED

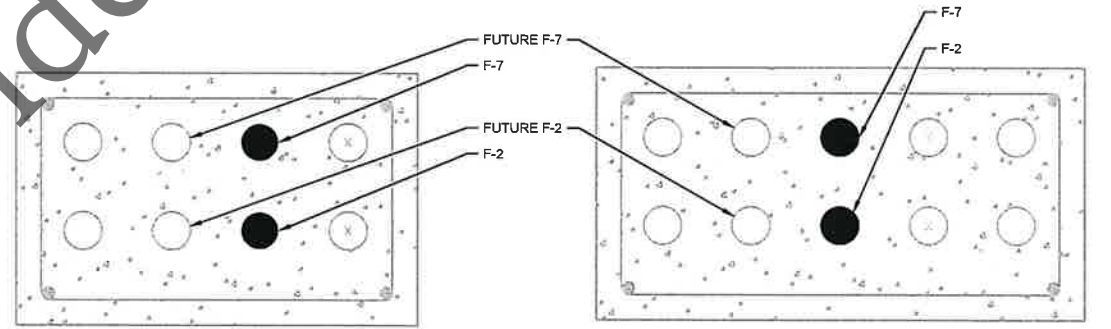
**NEW DUCTBANK LEGEND:**

- # REFER TO DUCTBANK SCHEDULE



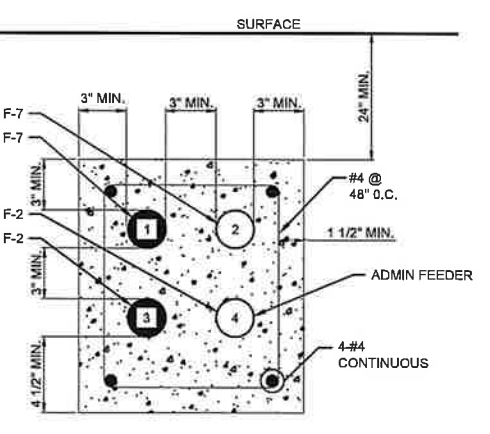
**DUCTBANK SECTION 15**  
NTS  
2-E-01  
2-E-02

**DUCTBANK SECTION 16**  
NTS  
2-E-01



**DUCTBANK SECTION 21**  
NTS  
2-E-01

**DUCTBANK SECTION 25**  
NTS  
2-E-01



**DUCTBANK SECTION 57**  
NTS  
2-E-01

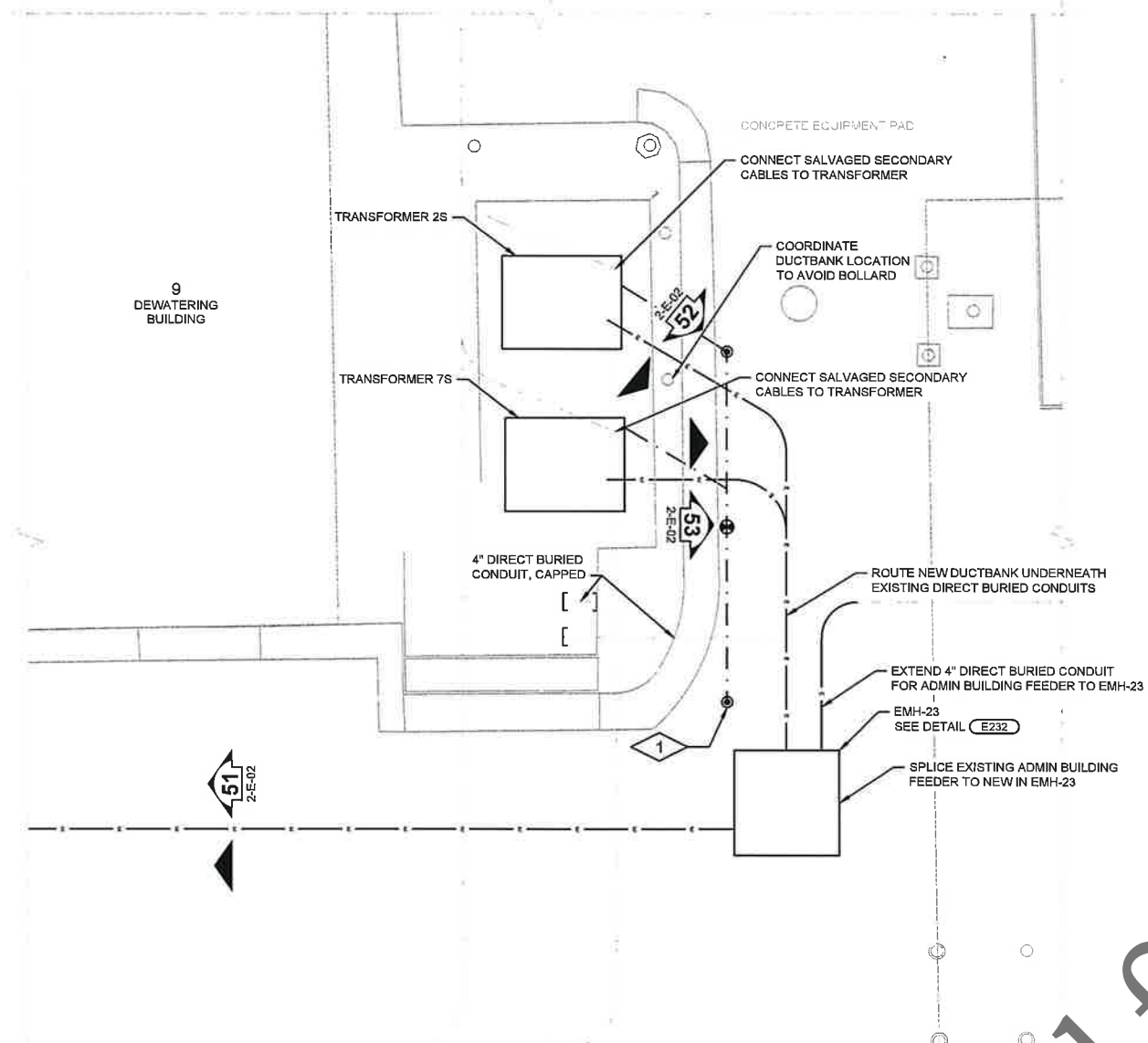


Date	
Checked By	
Drawn By	
Revision Description	
Revision Number	
Designed By	JTB
Drawn By	JTB
Checked By	RJF
Approved By	JTB
Filename	2E1.DWG
Project No.	14456
Project Date	MAR 2026

**FOUR RIVERS SANITATION AUTHORITY**  
CO-GENERATION EFFICIENCY REHAB PROJECT-BID PACKAGE 1  
ELECTRICAL IMPROVEMENTS (CAPITAL PROJECT NO. 2344)  
ROCKFORD, IL  
SITE DEVELOPMENT  
SITE PLAN - ELECTRICAL



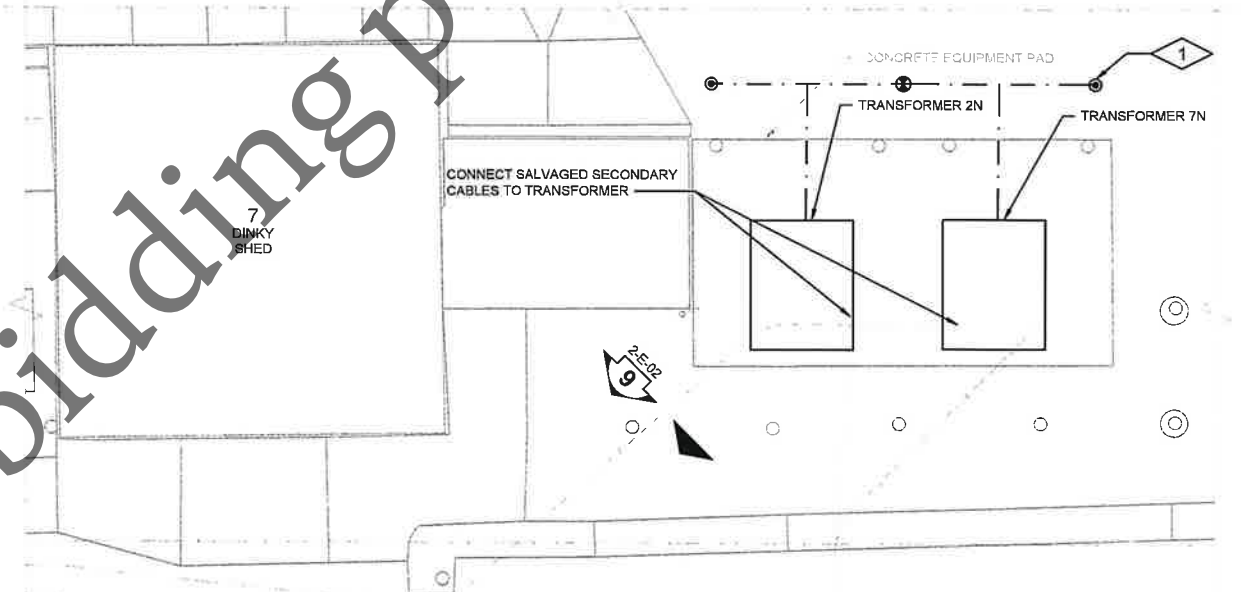
Sheet No.	26
Drawing No.	



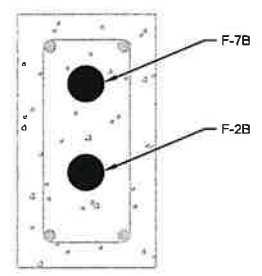
**DEWATERING BUILDING SOUTH TRANSFORMERS**

- GENERAL NOTES:**
- 1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO CONSTRUCTION AND/OR FABRICATION.
  - 2. SEE SPECIFICATION SECTION 01 11 00 FOR PROJECT SEQUENCES AND CONSTRAINTS.
  - 3. PROVIDE TRACER WIRE FOR NEW DUCTBANKS IN ACCORDANCE WITH FRSA TREATMENT PLANT TRACER WIRE & ACCESS POINTS DETAIL. SEE DRAWING 10-C-04.
- PLAN NOTES:**
- 1. PROVIDE GROUND SYSTEM. SEE DETAILS E453 AND E455. CONNECT WITH #4/0 DIRECT BURIED BARE COPPER CABLE.
- NEW DUCTBANK LEGEND:**
- 1 REFER TO DUCTBANK SCHEDULE

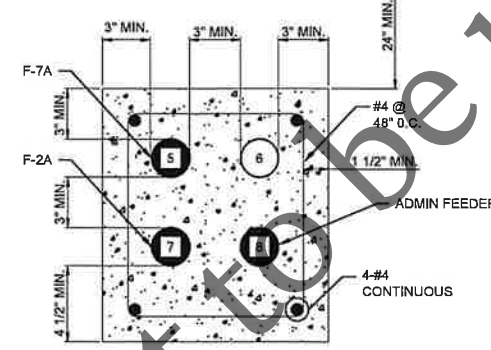
- EXISTING DUCTBANK LEGEND:**
- NEW CABLES IN EXISTING CONDUITS
  - CABLES TO REMAIN
  - SPARE CONDUITS TO REMAIN
- ALL CONDUITS ARE 4" UNLESS OTHERWISE NOTED



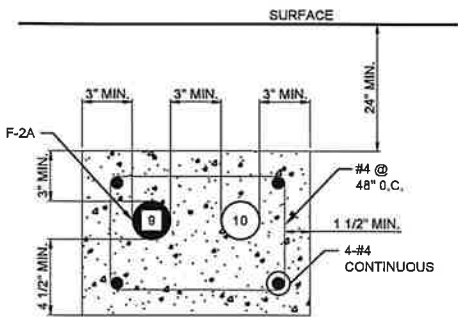
**DEWATERING BUILDING NORTH TRANSFORMERS**



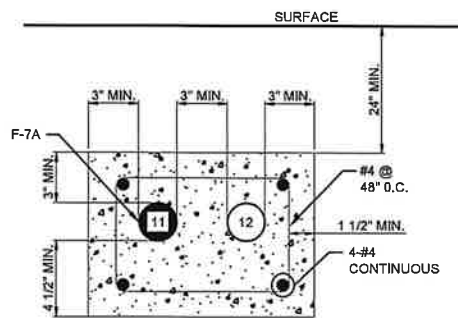
**DUCTBANK SECTION 9**  
NTS  
2-E-01  
2-E-02



**DUCTBANK SECTION 51**  
NTS  
2-E-01  
2-E-02



**DUCTBANK SECTION 52**  
NTS  
2-E-02



**DUCTBANK SECTION 53**  
NTS  
2-E-02

Date	Checked By	Drawn By	Revision Description	Revision Number

Designed By: JTB  
Drawn By: JTB  
Checked By: RJF  
Approved By: JTB  
Filename: 2E1.DWG  
Project No.: 14456  
Project Date: MAR 2026

**FOUR RIVERS SANITATION AUTHORITY**  
CO-GENERATION EFFICIENCY REHAB PROJECT-BID PACKAGE 1  
ELECTRICAL IMPROVEMENTS (CAPITAL PROJECT NO. 2344)  
ROCKFORD, IL

**SITE DEVELOPMENT**  
DEWATERING BLDG NORTH AND SOUTH TRANSFORMERS



Sheet No.: 27  
Drawing No.

2-E-02

**GENERAL NOTES:**

1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO CONSTRUCTION AND/OR FABRICATION.
2. SEE SPECIFICATION SECTION 01 11 00 FOR PROJECT SEQUENCES AND CONSTRAINTS.

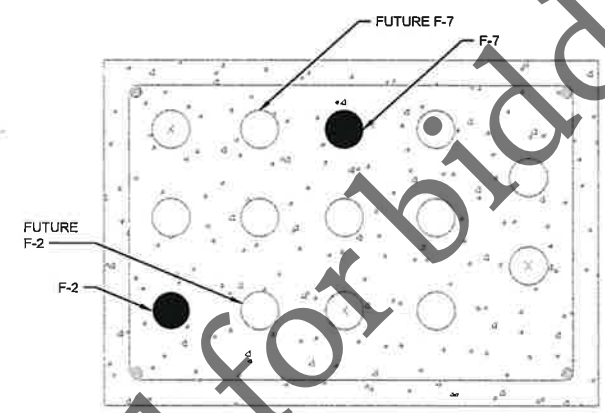
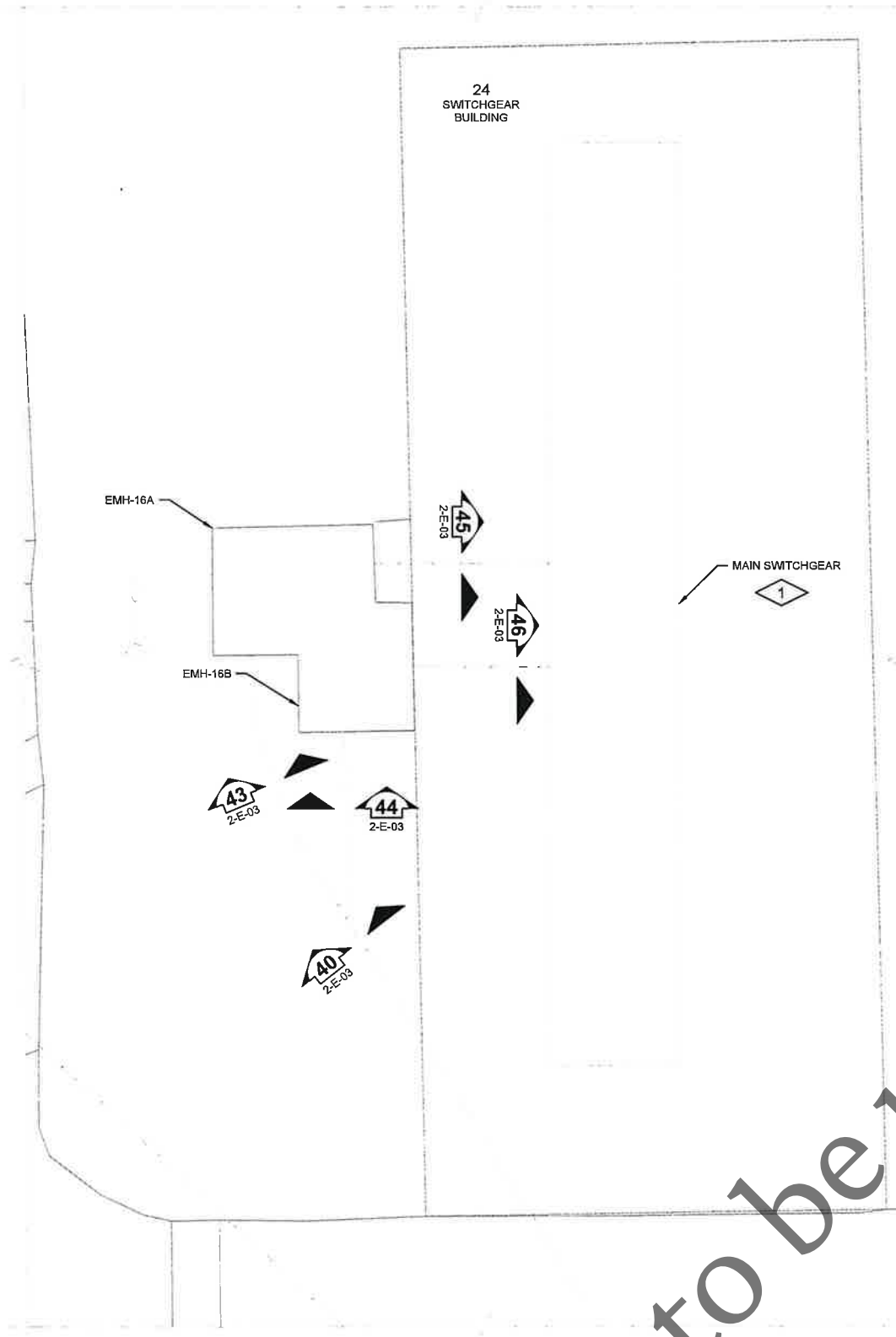
**PLAN NOTES:**

1. PROVIDE NEW FUSES IN FEEDER F-2 AND FEEDER F-7 SWITCHES.

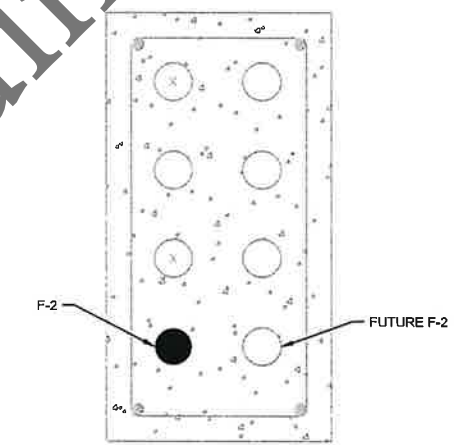
**EXISTING DUCTBANK LEGEND:**

- NEW CABLES IN EXISTING CONDUIT
- ⊗ CABLES TO REMAIN
- SPARE CONDUITS TO REMAIN

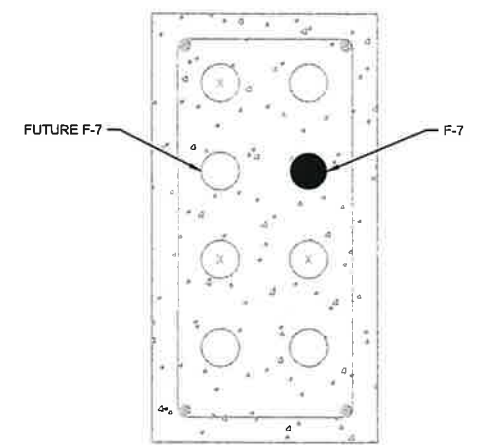
ALL CONDUITS ARE 4" UNLESS OTHERWISE NOTED



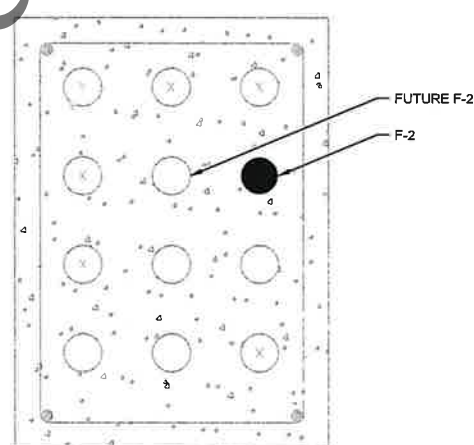
**DUCTBANK SECTION 40**  
NTS 2-E-01 2-E-03



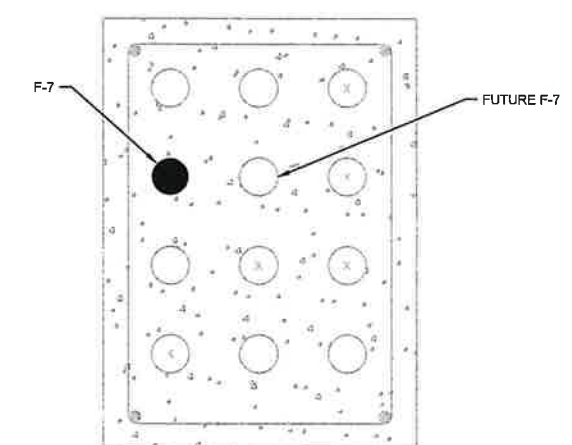
**DUCTBANK SECTION 43**  
NTS 2-E-03



**DUCTBANK SECTION 44**  
NTS 2-E-03



**DUCTBANK SECTION 45**  
NTS 2-E-03



**DUCTBANK SECTION 46**  
NTS 2-E-03

Not to be used for bidding purposes

Date	Checked By	Drawn By	Revision Description	Revision Number	Designed By	Drawn By	Checked By	Approved By	Filename	Project No.	Project Date
					JTB	JTB	RJF	JTB	2E1.DWG	14456	MAR 2026
<b>FOUR RIVERS SANITATION AUTHORITY</b> <b>CO-GENERATION EFFICIENCY REHAB PROJECT-BID PACKAGE 1</b> <b>ELECTRICAL IMPROVEMENTS (CAPITAL PROJECT NO. 2344)</b> <b>ROCKFORD, IL</b>											
<b>SITE DEVELOPMENT</b> <b>SWITCHGEAR BUILDING</b>											
Sheet No. 28											
Drawing No. 2-E-03											

**GENERAL NOTES:**

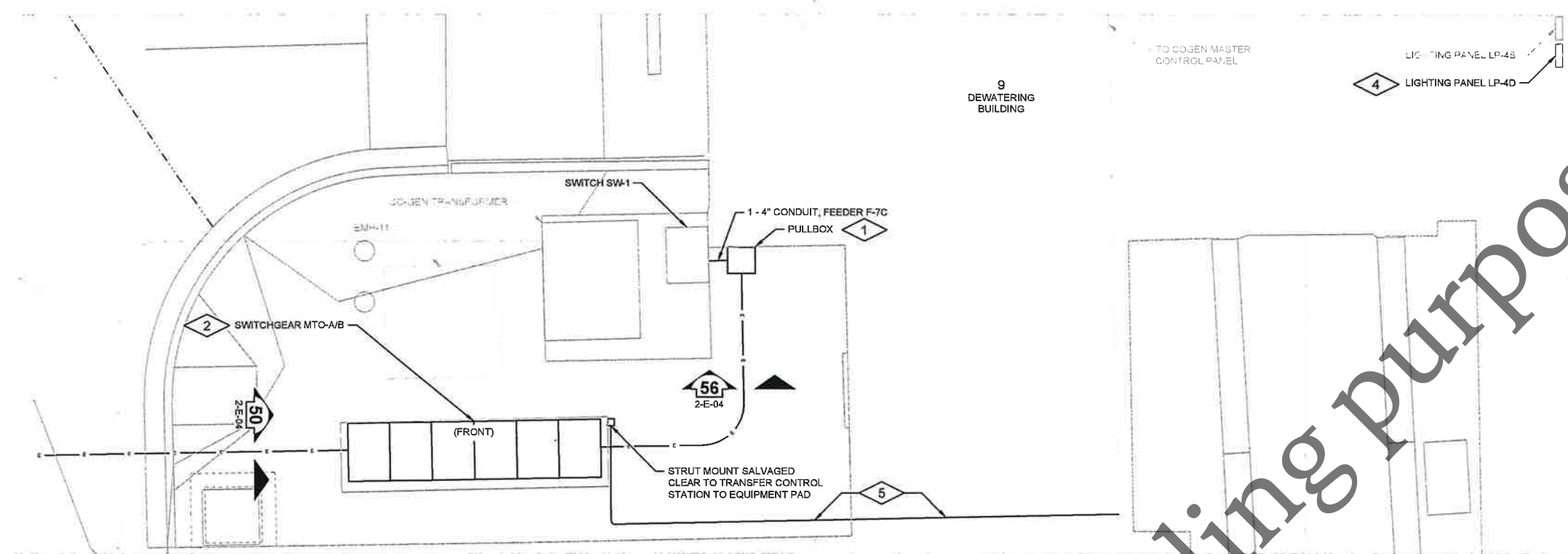
1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO CONSTRUCTION AND/OR FABRICATION.
2. SEE SPECIFICATION SECTION 01 11 00 FOR PROJECT SEQUENCES AND CONSTRAINTS.
3. PROVIDE TRACER WIRE FOR NEW DUCTBANKS IN ACCORDANCE WITH FRSA TREATMENT PLANT TRACER WIRE & ACCESS POINTS DETAIL. SEE DRAWING 10-C-04.

**PLAN NOTES:**

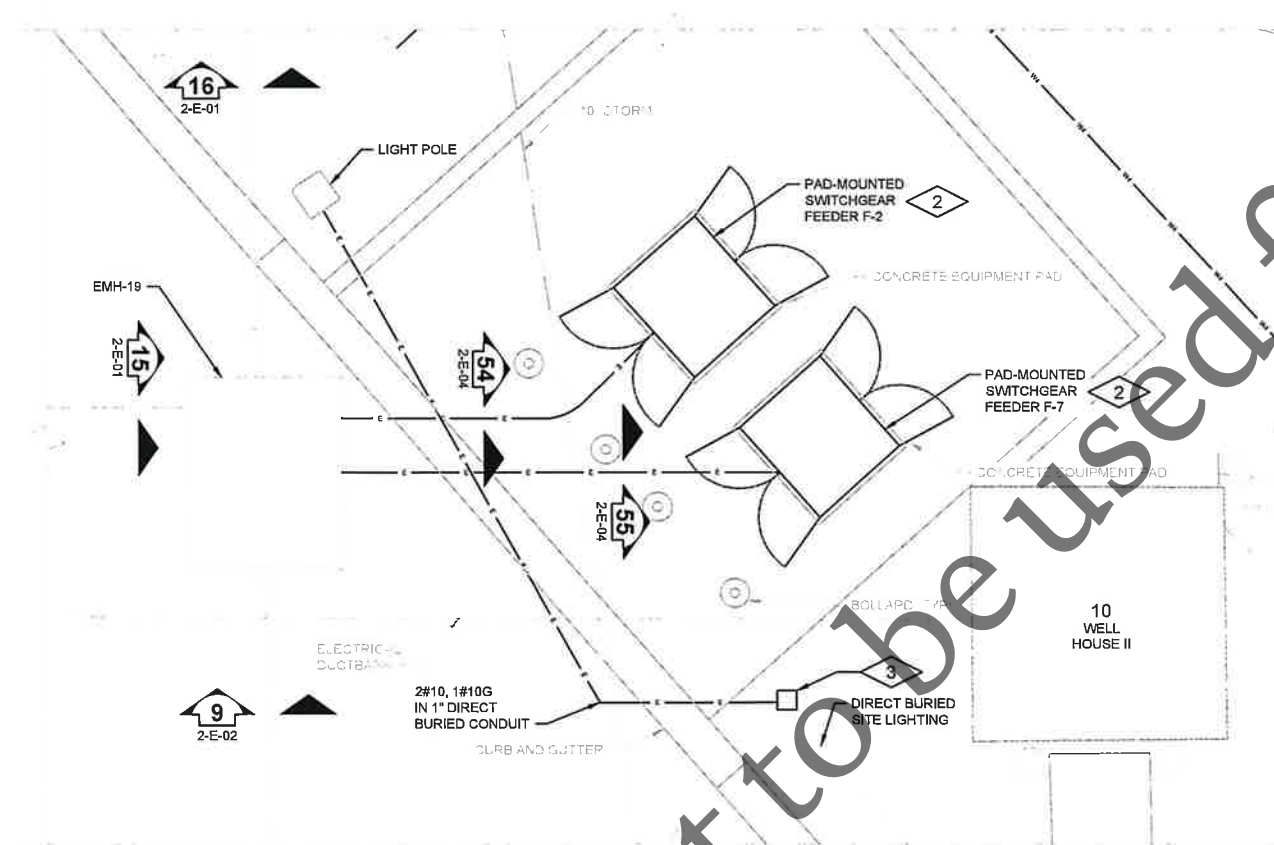
1. WALL MOUNT PULLBOX, SEE DETAIL (E040)
2. PROVIDE GROUND LOOP AROUND EQUIPMENT, SEE DETAIL (E462)
3. PROVIDE PRECAST POLYMER HANDHOLE, QUAZITE OR EQUAL. SPLICE NEW LIGHTING CONDUCTORS TO EXISTING IN HANDHOLE.
4. PROVIDE 120V POWER FOR SWITCHGEAR MTO-A/B SPACE HEATERS FROM SPARE CIRCUIT BREAKER IN LIGHTING PANEL LP-4D LOCATED IN ELECTRICAL ROOM. PROVIDE DIRECT BURIED 1" CONDUIT OUTSIDE OF DEWATERING BUILDING.
5. PROVIDE 20#14 IN 1" C. FOR CLEAR TO TRANSFER CONTROLS. DIRECT BURY CONDUIT ON BUILDING EXTERIOR. ROUTE CONDUIT IN DEWATERING BUILDING BASEMENT AND INTERCEPT EXISTING CONDUIT. PROVIDE JUNCTION BOX AND SPLICE NEW CONDUCTORS TO EXISTING. TEST CLEAR TO TRANSFER FUNCTIONALITY AFTER COMPLETION.

**NEW DUCTBANK LEGEND:**

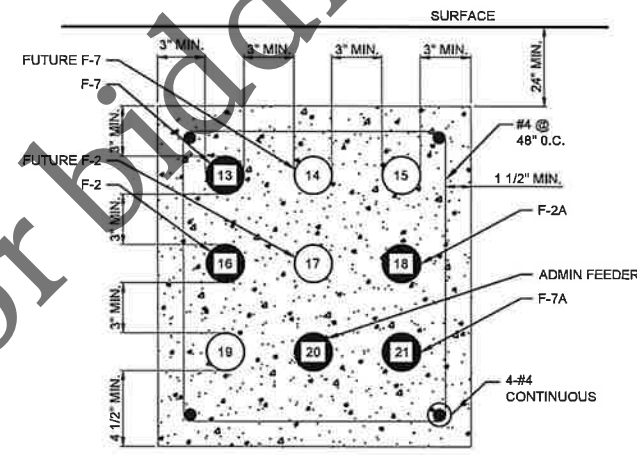
① REFER TO DUCTBANK SCHEDULE



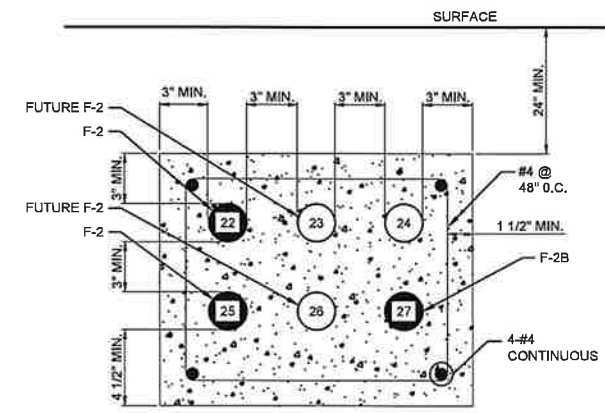
**SWITCHGEAR MTO-A/B**



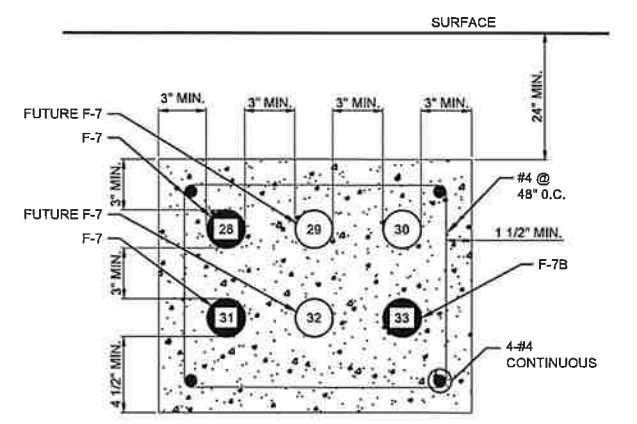
**PAD-MOUNTED SWITCHGEAR FEEDER F-2 AND F-7**



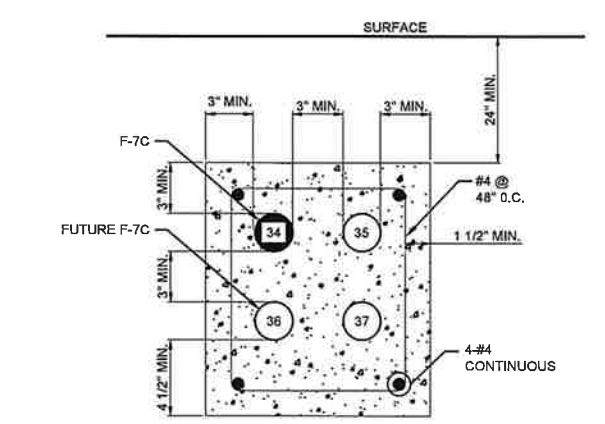
**DUCTBANK SECTION 50**  
NTS 2-E-01  
2-E-04



**DUCTBANK SECTION 54**  
NTS 2-E-04



**DUCTBANK SECTION 55**  
NTS 2-E-04



**DUCTBANK SECTION 56**  
NTS 2-E-04

Date	Checked By	Drawn By	Revision Description

Designed By	JTB
Drawn By	JTB
Checked By	RJF
Approved By	JTB
Filename	2E1.DWG
Project No.	14456
Project Date	MAR 2026

**FOUR RIVERS SANITATION AUTHORITY**  
**CO-GENERATION EFFICIENCY REHAB PROJECT-BID PACKAGE 1**  
**ELECTRICAL IMPROVEMENTS (CAPITAL PROJECT NO. 2344)**  
**ROCKFORD, IL**  
**SITE DEVELOPMENT**  
**SWITCHGEAR MTO-A/B AND PAD-MOUNTED SWITCHGEARS**



Sheet No. 29

Drawing No.

2-E-04

**DUCTBANK SCHEDULE**

NUMBER	SIZE	FROM	TO	CONTENTS	REMARKS
1	4"	MANHOLE EMH-20B	MANHOLE EMH-22	12.47KV	FEEDER F-7
2	4"	MANHOLE EMH-20B	MANHOLE EMH-22	SPARE	FUTURE FEEDER F-7
3	4"	MANHOLE EMH-20B	MANHOLE EMH-22	12.47KV	FEEDER F-2
4	4"	MANHOLE EMH-20B	MANHOLE EMH-22	SPARE	FUTURE FEEDER F-2
5	4"	MANHOLE EMH-22	MANHOLE EMH-23	12.47KV	FEEDER F-7A
6	4"	MANHOLE EMH-22	MANHOLE EMH-23	SPARE	
7	4"	MANHOLE EMH-22	MANHOLE EMH-23	12.47KV	FEEDER F-2A
8	4"	MANHOLE EMH-22	MANHOLE EMH-23	12.47KV	ADMIN FEEDER
9	4"	MANHOLE EMH-23	TRANSFORMER 2S	12.47KV	FEEDER F-2A
10	4"	MANHOLE EMH-23	TRANSFORMER 2S	SPARE	
11	4"	MANHOLE EMH-23	TRANSFORMER 7S	12.47KV	FEEDER F-7A
12	4"	MANHOLE EMH-23	TRANSFORMER 7S	SPARE	
13	4"	MANHOLE EMH-22	SWITCHGEAR MTO-A/B	12.47KV	FEEDER F-7
14	4"	MANHOLE EMH-22	SWITCHGEAR MTO-A/B	SPARE	FUTURE FEEDER F-7
15	4"	MANHOLE EMH-22	SWITCHGEAR MTO-A/B	SPARE	STUB UP IN FEEDER F-7 SECTION
16	4"	MANHOLE EMH-22	SWITCHGEAR MTO-A/B	12.47KV	FEEDER F-2
17	4"	MANHOLE EMH-22	SWITCHGEAR MTO-A/B	SPARE	FUTURE FEEDER F-2
18	4"	MANHOLE EMH-22	SWITCHGEAR MTO-A/B	12.47KV	FEEDER F-2A
19	4"	MANHOLE EMH-22	SWITCHGEAR MTO-A/B	SPARE	STUB UP IN FEEDER F-2 SECTION
20	4"	MANHOLE EMH-22	SWITCHGEAR MTO-A/B	12.47KV	ADMIN FEEDER
21	4"	MANHOLE EMH-22	SWITCHGEAR MTO-A/B	12.47KV	FEEDER F-7A
22	4"	MANHOLE EMH-19	PAD-MOUNTED SWITCHGEAR FEEDER F-2	12.47KV	FEEDER F-2 (INCOMING)
23	4"	MANHOLE EMH-19	PAD-MOUNTED SWITCHGEAR FEEDER F-2	SPARE	FUTURE FEEDER F-2 (INCOMING)
24	4"	MANHOLE EMH-19	PAD-MOUNTED SWITCHGEAR FEEDER F-2	SPARE	
25	4"	MANHOLE EMH-19	PAD-MOUNTED SWITCHGEAR FEEDER F-2	12.47KV	FEEDER F-2 (OUTGOING)
26	4"	MANHOLE EMH-19	PAD-MOUNTED SWITCHGEAR FEEDER F-2	SPARE	FUTURE FEEDER F-2 (OUTGOING)
27	4"	MANHOLE EMH-19	PAD-MOUNTED SWITCHGEAR FEEDER F-2	12.47KV	FEEDER F-2B
28	4"	MANHOLE EMH-19	PAD-MOUNTED SWITCHGEAR FEEDER F-7	12.47KV	FEEDER F-7 (INCOMING)
29	4"	MANHOLE EMH-19	PAD-MOUNTED SWITCHGEAR FEEDER F-7	SPARE	FUTURE FEEDER F-7 (INCOMING)
30	4"	MANHOLE EMH-19	PAD-MOUNTED SWITCHGEAR FEEDER F-7	SPARE	
31	4"	MANHOLE EMH-19	PAD-MOUNTED SWITCHGEAR FEEDER F-7	12.47KV	FEEDER F-7 (OUTGOING)
32	4"	MANHOLE EMH-19	PAD-MOUNTED SWITCHGEAR FEEDER F-7	SPARE	FUTURE FEEDER F-7 (OUTGOING)
33	4"	MANHOLE EMH-19	PAD-MOUNTED SWITCHGEAR FEEDER F-7	12.47KV	FEEDER F-7B
34	4"	SWITCHGEAR MTO-A/B	PULLBOX	12.47KV	FEEDER F-7C
35	4"	SWITCHGEAR MTO-A/B	PULLBOX	SPARE	TERMINATE AT PULLBOX
36	4"	SWITCHGEAR MTO-A/B	PULLBOX	SPARE	FUTURE FEEDER F-7C, TERMINATE AT PULLBOX
37	4"	SWITCHGEAR MTO-A/B	PULLBOX	SPARE	TERMINATE AT PULLBOX

**GENERAL NOTES:**

1. PROVIDE TRACER WIRE FOR NEW DUCTBANKS IN ACCORDANCE WITH FRSA TREATMENT PLANT TRACER WIRE & ACCESS POINTS DETAIL. SEE DRAWING 10-C-04.

Not to be used for bidding purposes

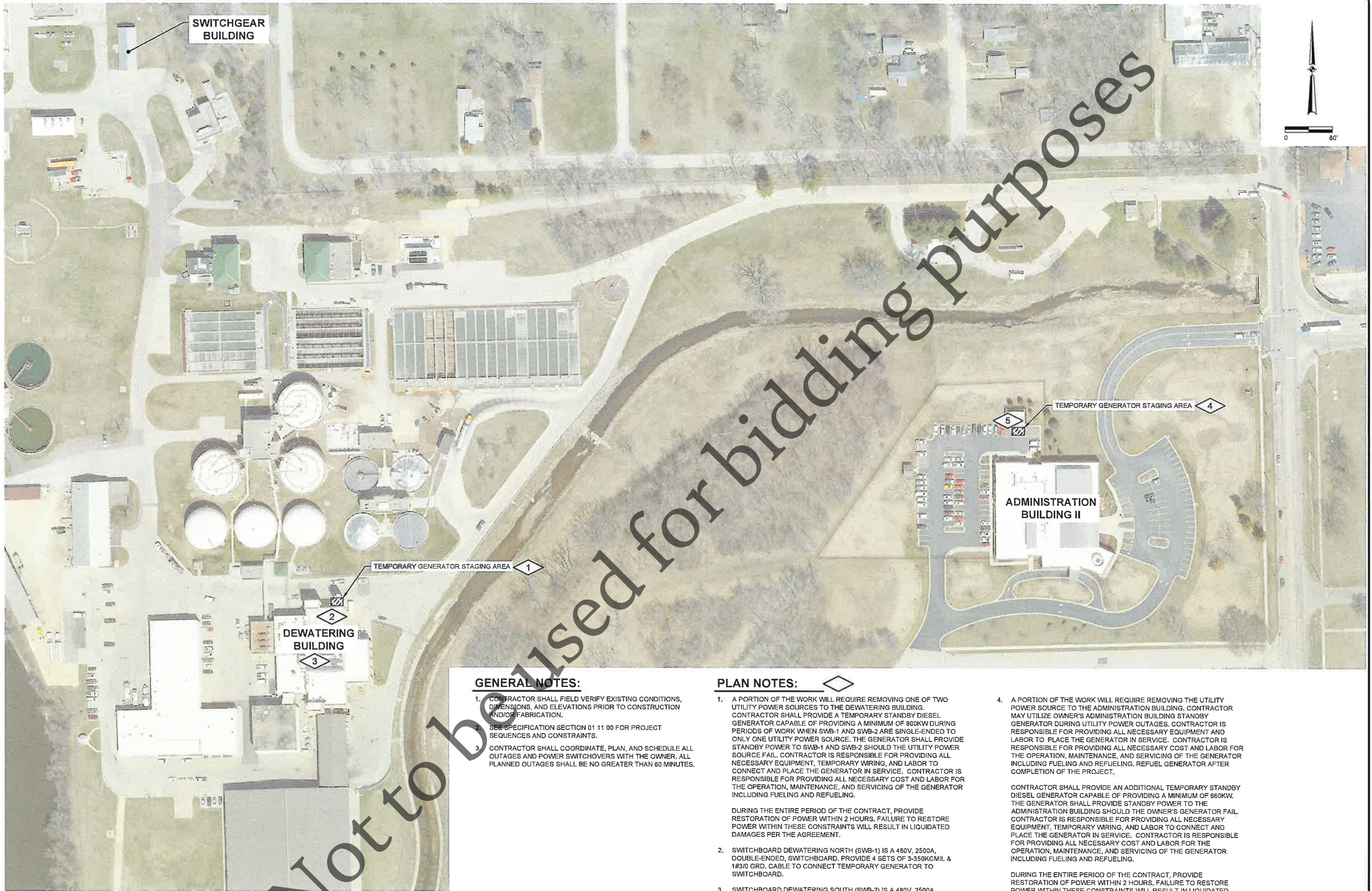
Date	
Checked By	
Drawn By	
Revision Description	
Revision Number	
Designed By	JTB
Drawn By	JTB
Checked By	RJF
Approved By	JTB
Filename	2E1.DWG
Project No.	14456
Project Date	MAR 2026

**FOUR RIVERS SANITATION AUTHORITY**  
**CO-GENERATION EFFICIENCY REHAB PROJECT-BID PACKAGE 1**  
**ELECTRICAL IMPROVEMENTS (CAPITAL PROJECT NO. 2344)**  
 ROCKFORD, IL  
**SITE DEVELOPMENT**  
**DUCTBANK SCHEDULE**



Sheet No. 30

Drawing No. 2-E-05



**GENERAL NOTES:**

- 1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO CONSTRUCTION AND/OR FABRICATION.
- 2. SEE SPECIFICATION SECTION 01 11 00 FOR PROJECT SEQUENCES AND CONSTRAINTS.
- 3. CONTRACTOR SHALL COORDINATE, PLAN, AND SCHEDULE ALL OUTAGES AND POWER SWITCHOVERS WITH THE OWNER. ALL PLANNED OUTAGES SHALL BE NO GREATER THAN 60 MINUTES.

**PLAN NOTES:**

- 1. A PORTION OF THE WORK WILL REQUIRE REMOVING ONE OF TWO UTILITY POWER SOURCES TO THE DEWATERING BUILDING. CONTRACTOR SHALL PROVIDE A TEMPORARY STANDBY DIESEL GENERATOR CAPABLE OF PROVIDING A MINIMUM OF 800KW DURING PERIODS OF WORK WHEN SWB-1 AND SWB-2 ARE SINGLE-ENDED TO ONLY ONE UTILITY POWER SOURCE. THE GENERATOR SHALL PROVIDE STANDBY POWER TO SWB-1 AND SWB-2 SHOULD THE UTILITY POWER SOURCE FAIL. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY EQUIPMENT, TEMPORARY WIRING, AND LABOR TO CONNECT AND PLACE THE GENERATOR IN SERVICE. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY COST AND LABOR FOR THE OPERATION, MAINTENANCE, AND SERVICING OF THE GENERATOR INCLUDING FUELING AND REFUELING.  
  
DURING THE ENTIRE PERIOD OF THE CONTRACT, PROVIDE RESTORATION OF POWER WITHIN 2 HOURS. FAILURE TO RESTORE POWER WITHIN THESE CONSTRAINTS WILL RESULT IN LIQUIDATED DAMAGES PER THE AGREEMENT.
- 2. SWITCHBOARD DEWATERING NORTH (SWB-1) IS A 480V, 2500A, DOUBLE-ENDED, SWITCHBOARD. PROVIDE 4 SETS OF 3-350KCMIL & 1#3/0 GRD. CABLE TO CONNECT TEMPORARY GENERATOR TO SWITCHBOARD.
- 3. SWITCHBOARD DEWATERING SOUTH (SWB-2) IS A 480V, 2500A DOUBLE-ENDED, SWITCHBOARD. PROVIDE 2 SETS OF 3-350KCMIL & 1#3/0 GRD. CABLE TO CONNECT TEMPORARY GENERATOR TO SWITCHBOARD.
- 4. A PORTION OF THE WORK WILL REQUIRE REMOVING THE UTILITY POWER SOURCE TO THE ADMINISTRATION BUILDING. CONTRACTOR MAY UTILIZE OWNER'S ADMINISTRATION BUILDING STANDBY GENERATOR DURING UTILITY POWER OUTAGES. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY EQUIPMENT AND LABOR TO PLACE THE GENERATOR IN SERVICE. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY COST AND LABOR FOR THE OPERATION, MAINTENANCE, AND SERVICING OF THE GENERATOR INCLUDING FUELING AND REFUELING. REFUEL GENERATOR AFTER COMPLETION OF THE PROJECT.  
  
CONTRACTOR SHALL PROVIDE AN ADDITIONAL TEMPORARY STANDBY DIESEL GENERATOR CAPABLE OF PROVIDING A MINIMUM OF 660KW. THE GENERATOR SHALL PROVIDE STANDBY POWER TO THE ADMINISTRATION BUILDING SHOULD THE OWNER'S GENERATOR FAIL. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY EQUIPMENT, TEMPORARY WIRING, AND LABOR TO CONNECT AND PLACE THE GENERATOR IN SERVICE. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY COST AND LABOR FOR THE OPERATION, MAINTENANCE, AND SERVICING OF THE GENERATOR INCLUDING FUELING AND REFUELING.  
  
DURING THE ENTIRE PERIOD OF THE CONTRACT, PROVIDE RESTORATION OF POWER WITHIN 2 HOURS. FAILURE TO RESTORE POWER WITHIN THESE CONSTRAINTS WILL RESULT IN LIQUIDATED DAMAGES PER THE AGREEMENT.
- 5. THE ADMINISTRATION BUILDING IS FED BY AN OUTDOOR PAD-MOUNTED TRANSFORMER. PROVIDE 3 SETS OF 3-350KCMIL & 1#2/0 GRD. CABLE TO CONNECT TEMPORARY GENERATOR TO ADMINISTRATION BUILDING FEEDER CABLES TERMINATED ON THE SECONDARY SIDE OF THE TRANSFORMER.

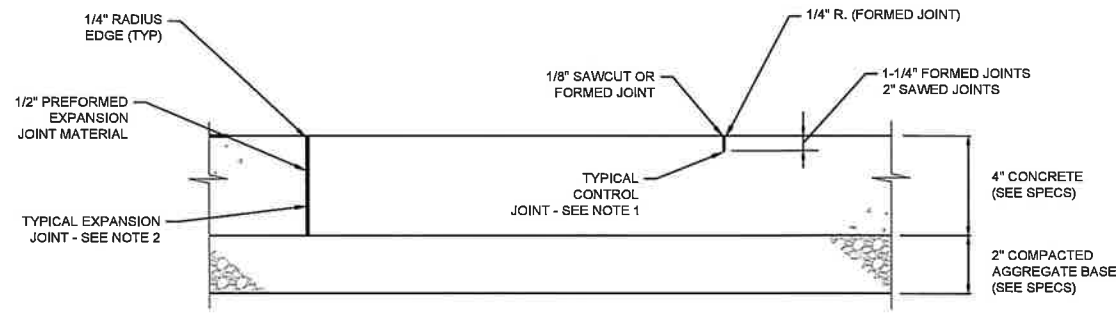
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Designed By: JTB  
 Drawn By: JTB  
 Checked By: R/JF  
 Approved By: JTB  
 Filename: 2-E-06.DWG  
 Project No.: 14456  
 Project Date: MAR 2026

**FOUR RIVERS SANITATION AUTHORITY**  
**CO-GENERATION EFFICIENCY REHAB PROJECT-BID PACKAGE 1**  
**ELECTRICAL IMPROVEMENTS (CAPITAL PROJECT NO. 2344)**  
 ROCKFORD, IL

SITE DEVELOPMENT  
 TEMPORARY GENERATOR PLAN



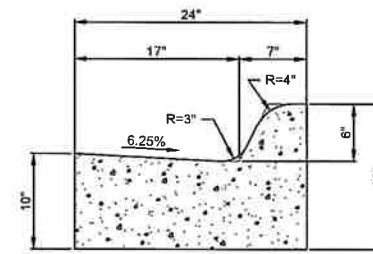


**NOTE:**

- CONTROL JOINTS TO BE SPACED 6'-0" O.C. MAXIMUM EACH DIRECTION.
- EXPANSION JOINTS TO BE SPACED AT 100' MAXIMUM EACH DIRECTION AND WHERE SIDEWALK MEETS CASTINGS OR OTHER RIGID STRUCTURES.
- ALL MATERIALS AND WORKMANSHIP TO BE IN ACCORDANCE WITH SPECIFICATIONS.
- LONGITUDINAL SLOPES TO MATCH EXISTING, CROSS SLOPE OF NEW SIDEWALK TO BE 1/2% MINIMUM.
- SIDEWALK WIDTH AND PLAN VIEW AS SHOWN IN PLANS.

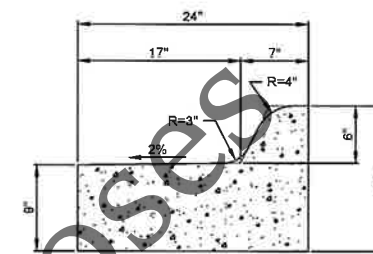
**UNREINFORCED CONCRETE SIDEWALK C150**

NTS



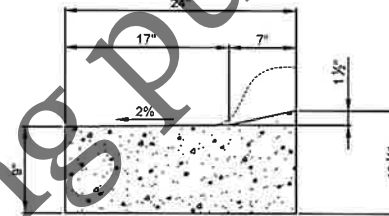
**STANDARD CURB & GUTTER C155**

NTS



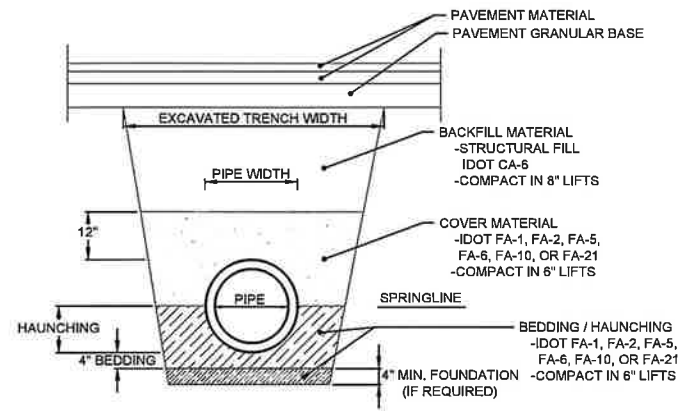
**TIP-OUT CURB & GUTTER C160**

NTS

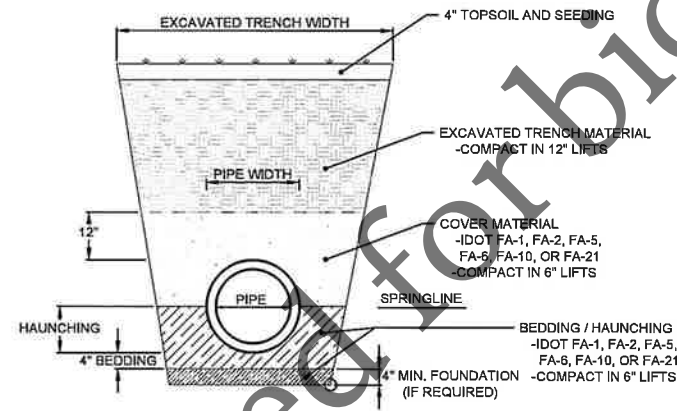


**DEPRESSED TIP-OUT CURB & GUTTER C165**

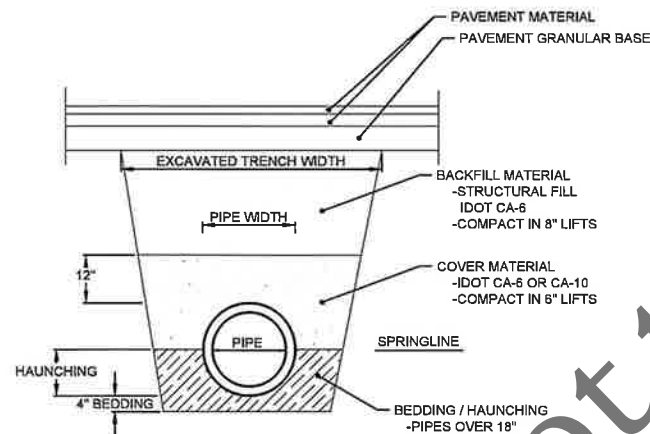
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**PLASTIC PIPE BEDDING**



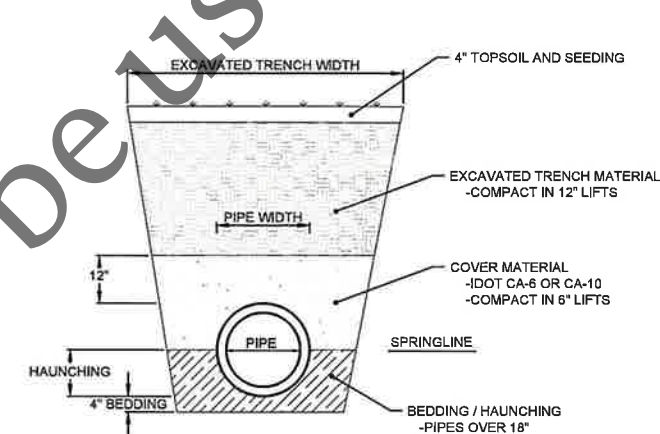
**PLASTIC PIPE BEDDING**



**DIP & RCP BEDDING**

**PIPE BEDDING, COVER, AND BACKFILL IN OR WITHIN 5' OF PAVEMENT C500**

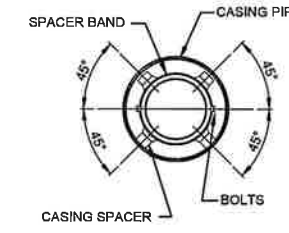
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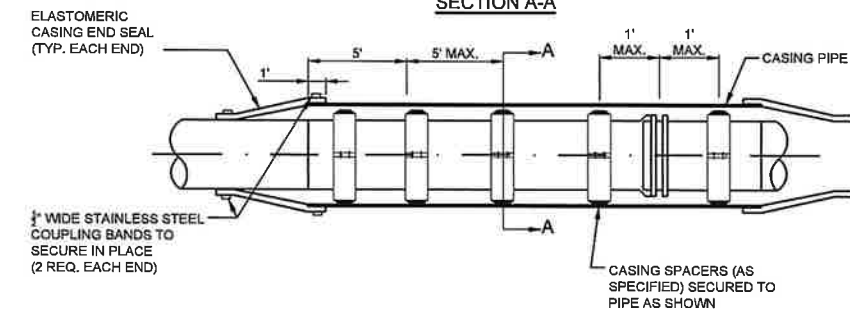
**DIP & RCP BEDDING**

**PIPE BEDDING, COVER, AND BACKFILL GREATER THAN 5' FROM PAVEMENT C505**

NTS



**SECTION A-A**



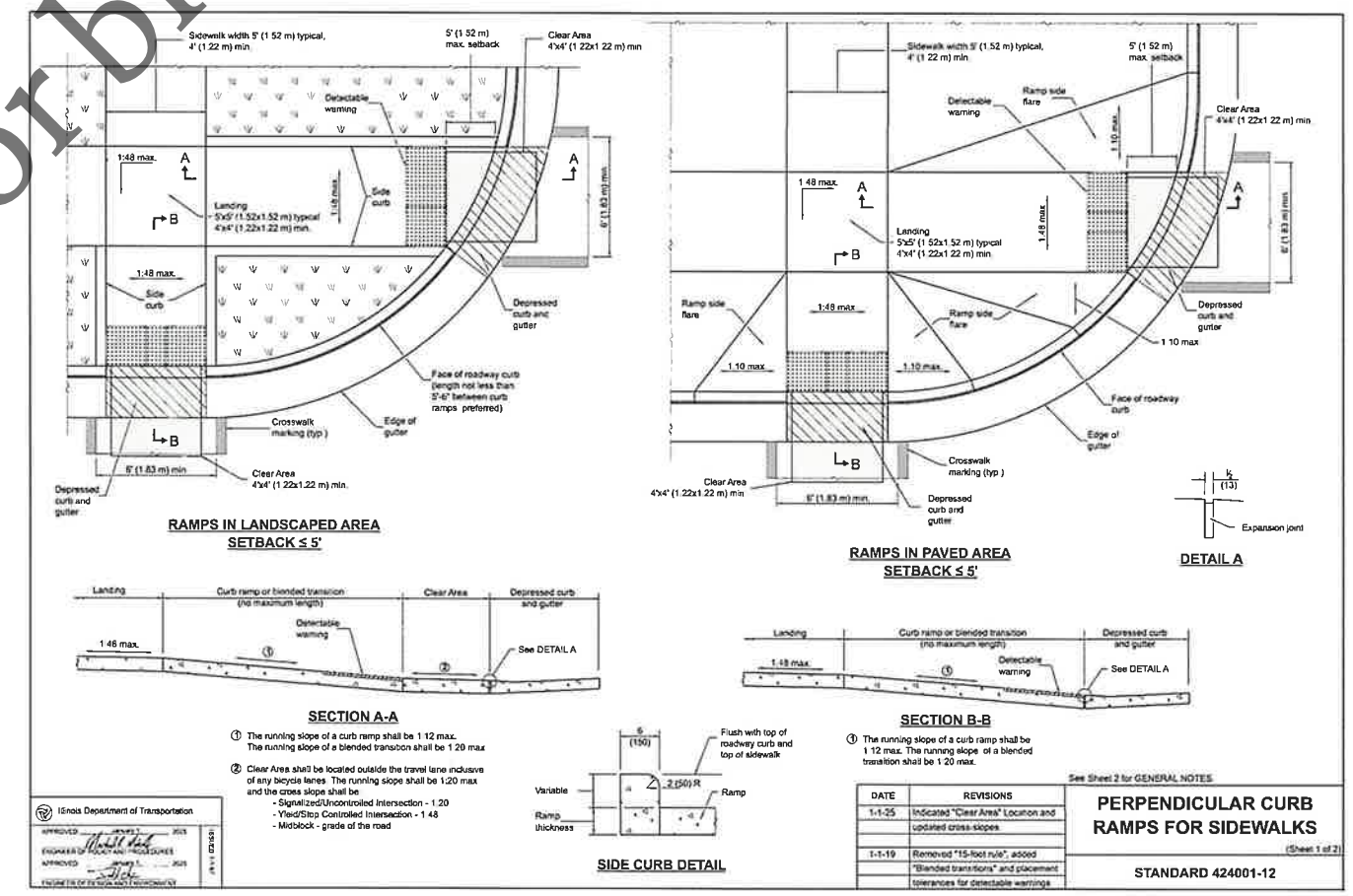
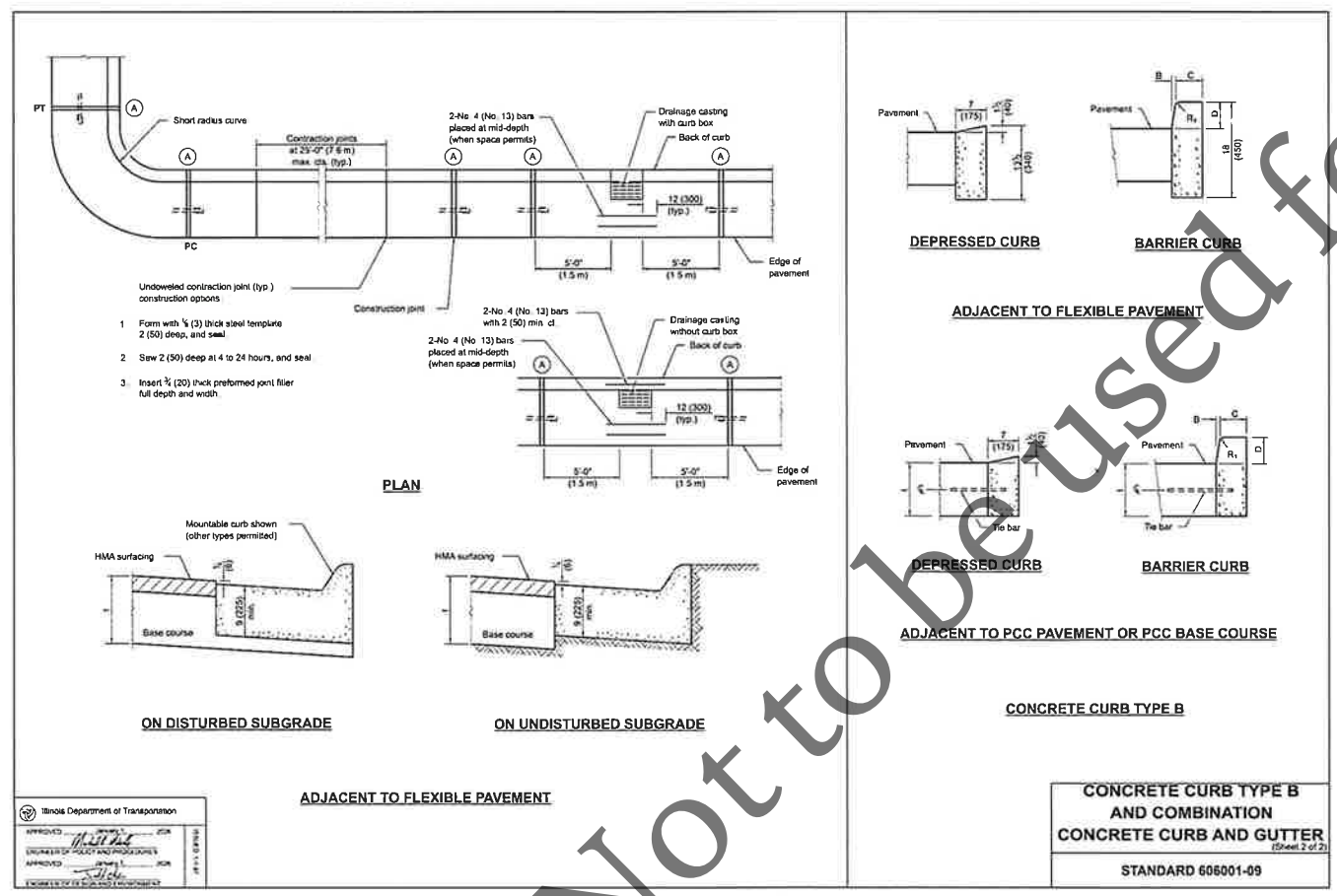
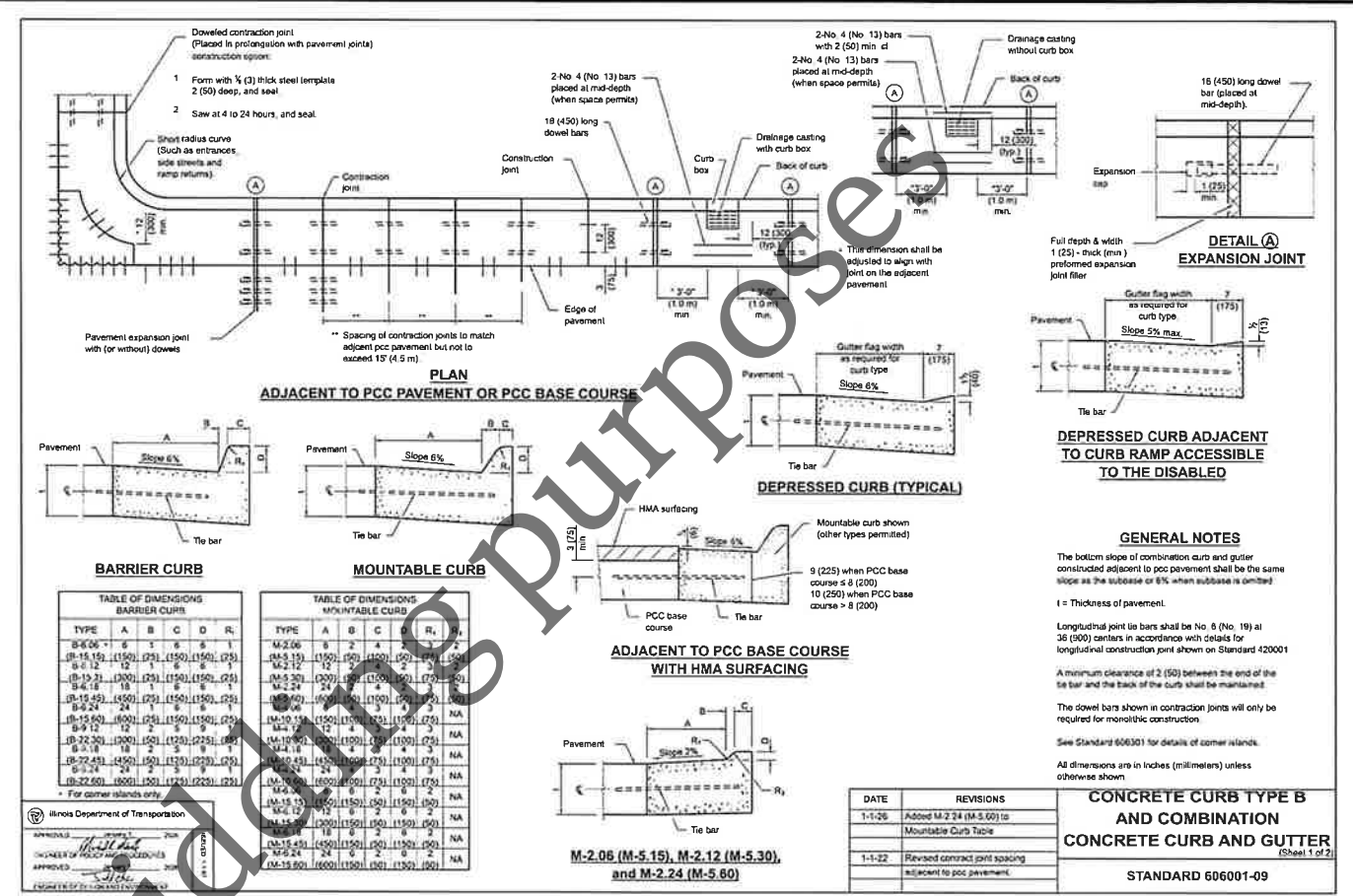
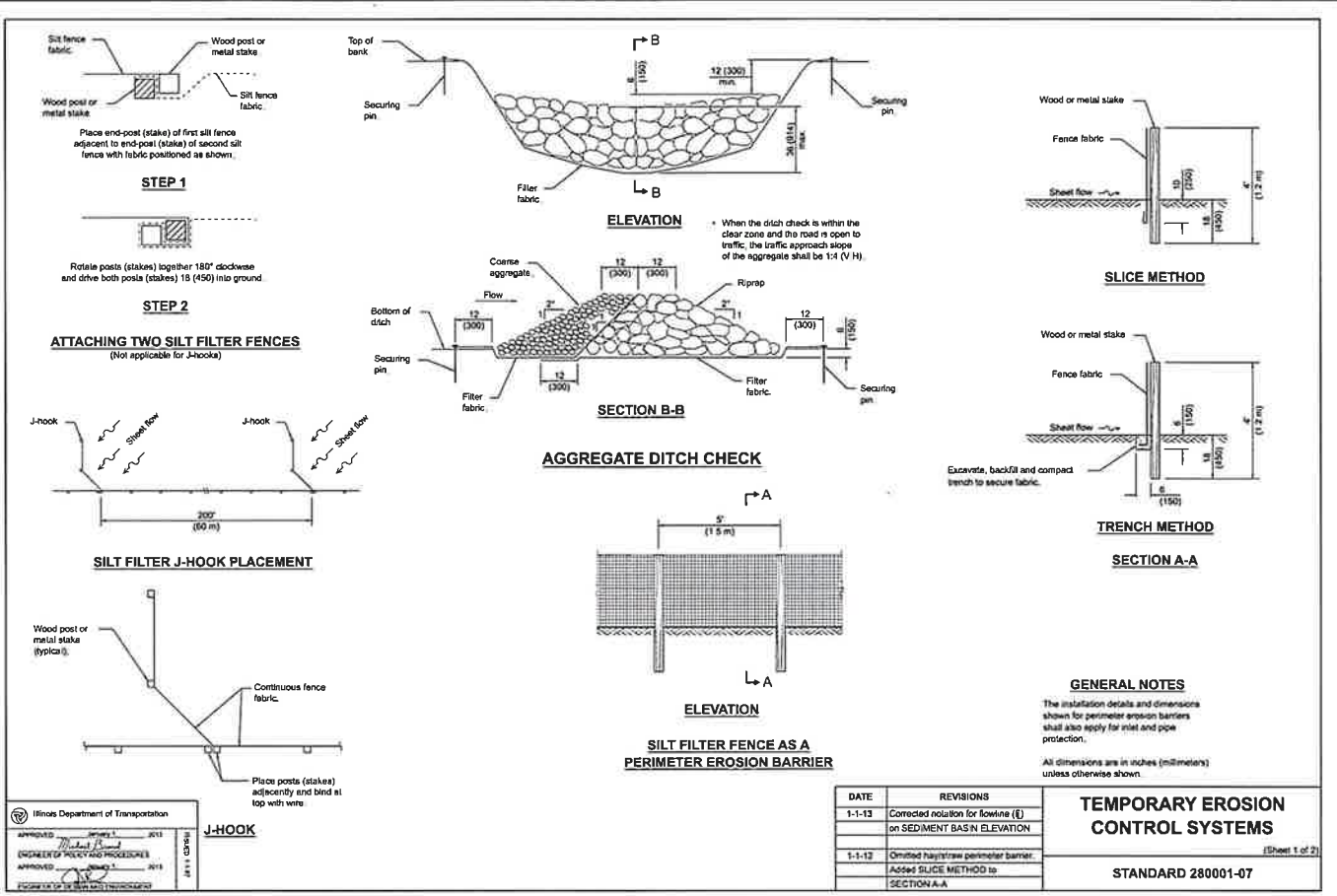
**CASING SPACER AND END SEALS INSTALLATION C540**

NTS

Date	
Checked By	
Drawn By	
Revision Number	
Revision Description	
Designed By	MLM
Drawn By	MLM
Checked By	JLM
Approved By	MLM
Filename	10CD1.DWG
Project No.	14456
Project Date	MAR 2026

**FOUR RIVERS SANITATION AUTHORITY  
CO-GENERATION EFFICIENCY REHAB PROJECT-BID PACKAGE 1  
ELECTRICAL IMPROVEMENTS (CAPITAL PROJECT NO. 2344)  
ROCKFORD, IL**

**GENERAL NOTES, SCHEDULES, AND STANDARD DETAILS  
CIVIL**



Date	Checked By	Drawn By	Revision Description	Revision Number	Designed By	Drawn By	Checked By	Approved By	Filename	Project No.	Project Date
					MLM	MLM	JLM	MLM	10CD1.DWG	14456	MAR 2026

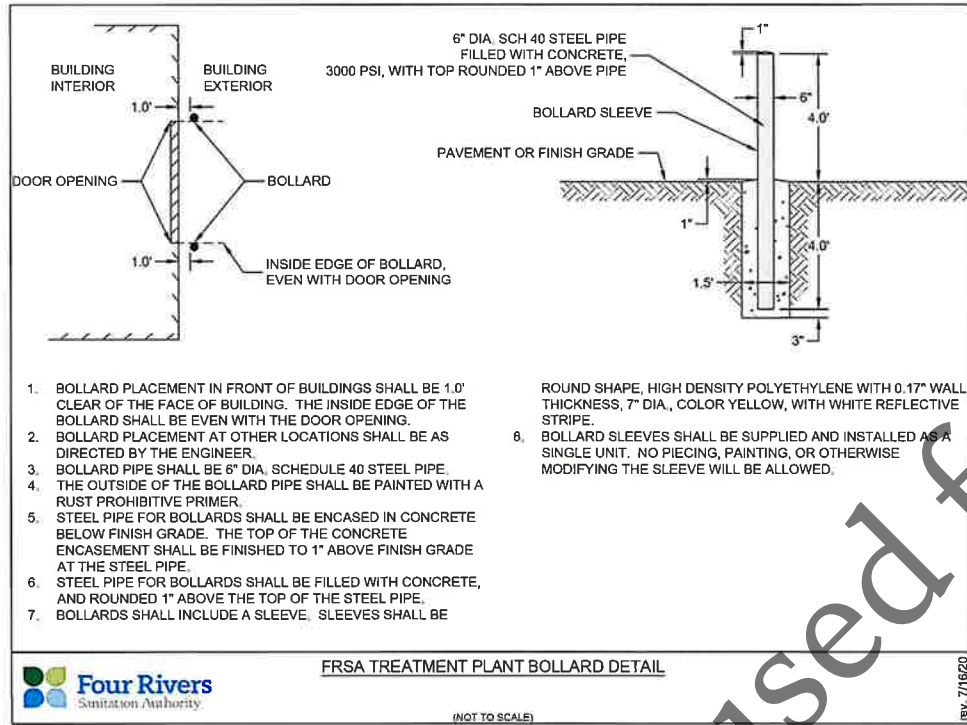
**FOUR RIVERS SANITATION AUTHORITY  
CO-GENERATION EFFICIENCY REHAB PROJECT-BID PACKAGE 1  
ELECTRICAL IMPROVEMENTS (CAPITAL PROJECT NO. 2344)  
ROCKFORD, IL**

**GENERAL NOTES, SCHEDULES, AND STANDARD DETAILS  
CIVIL**

**DONOHUE**

Sheet No. 34  
Drawing No. 10-C-03

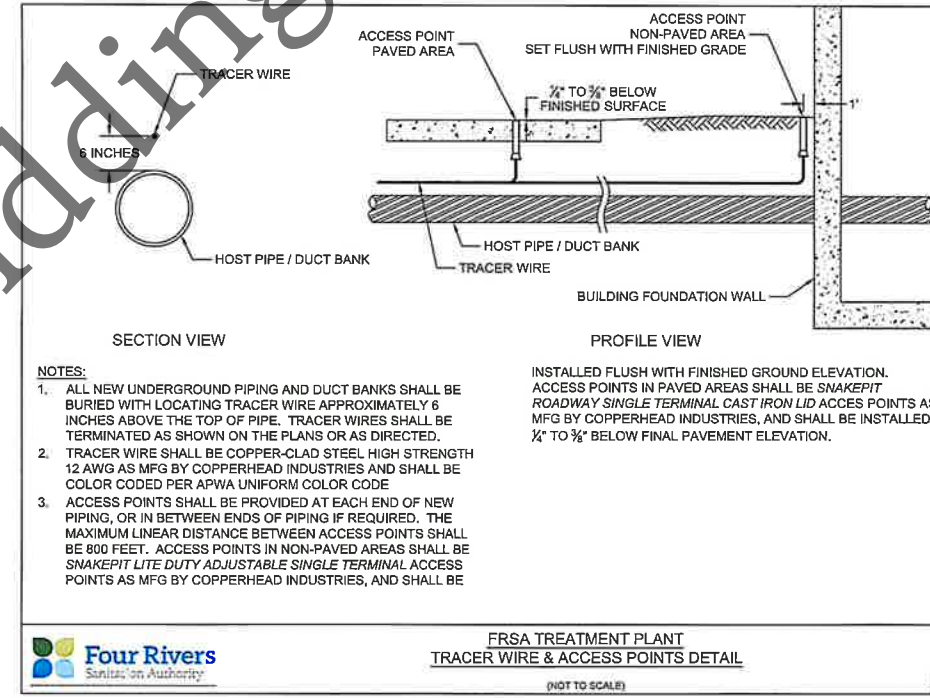
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1. BOLLARD PLACEMENT IN FRONT OF BUILDINGS SHALL BE 1.0' CLEAR OF THE FACE OF BUILDING. THE INSIDE EDGE OF THE BOLLARD SHALL BE EVEN WITH THE DOOR OPENING.
2. BOLLARD PLACEMENT AT OTHER LOCATIONS SHALL BE AS DIRECTED BY THE ENGINEER.
3. BOLLARD PIPE SHALL BE 6" DIA. SCHEDULE 40 STEEL PIPE.
4. THE OUTSIDE OF THE BOLLARD PIPE SHALL BE PAINTED WITH A RUST PROHIBITIVE PRIMER.
5. STEEL PIPE FOR BOLLARDS SHALL BE ENCASED IN CONCRETE BELOW FINISH GRADE. THE TOP OF THE CONCRETE ENCASEMENT SHALL BE FINISHED TO 1" ABOVE FINISH GRADE AT THE STEEL PIPE.
6. STEEL PIPE FOR BOLLARDS SHALL BE FILLED WITH CONCRETE, AND ROUNDED 1" ABOVE THE TOP OF THE STEEL PIPE.
7. BOLLARDS SHALL INCLUDE A SLEEVE. SLEEVES SHALL BE

ROUND SHAPE, HIGH DENSITY POLYETHYLENE WITH 0.17" WALL THICKNESS, 7" DIA., COLOR YELLOW, WITH WHITE REFLECTIVE STRIPE.

8. BOLLARD SLEEVES SHALL BE SUPPLIED AND INSTALLED AS A SINGLE UNIT. NO PIECING, PAINTING, OR OTHERWISE MODIFYING THE SLEEVE WILL BE ALLOWED.



**NOTES:**

1. ALL NEW UNDERGROUND PIPING AND DUCT BANKS SHALL BE BURIED WITH LOCATING TRACER WIRE APPROXIMATELY 6 INCHES ABOVE THE TOP OF PIPE. TRACER WIRES SHALL BE TERMINATED AS SHOWN ON THE PLANS OR AS DIRECTED.
2. TRACER WIRE SHALL BE COPPER-CLAD STEEL HIGH STRENGTH 12 AWG AS MFG BY COPPERHEAD INDUSTRIES AND SHALL BE COLOR CODED PER APWA UNIFORM COLOR CODE
3. ACCESS POINTS SHALL BE PROVIDED AT EACH END OF NEW PIPING, OR IN BETWEEN ENDS OF PIPING IF REQUIRED. THE MAXIMUM LINEAR DISTANCE BETWEEN ACCESS POINTS SHALL BE 800 FEET. ACCESS POINTS IN NON-PAVED AREAS SHALL BE SNAKEPIT LITE DUTY ADJUSTABLE SINGLE TERMINAL ACCESS POINTS AS MFG BY COPPERHEAD INDUSTRIES, AND SHALL BE

INSTALLED FLUSH WITH FINISHED GROUND ELEVATION. ACCESS POINTS IN PAVED AREAS SHALL BE SNAKEPIT ROADWAY SINGLE TERMINAL CAST IRON LID ACCESS POINTS AS MFG BY COPPERHEAD INDUSTRIES, AND SHALL BE INSTALLED 1/4" TO 3/8" BELOW FINAL PAVEMENT ELEVATION.

Revision Number	Revision Description	Drawn By	Checked By	Date

Designed By	MLM
Drawn By	MLM
Checked By	JLM
Approved By	MLM
Filename	10CD1.DWG
Project No.	14456
Project Date	MAR 2026

<b>FOUR RIVERS SANITATION AUTHORITY</b> <b>CO-GENERATION EFFICIENCY REHAB PROJECT-BID PACKAGE 1</b> <b>ELECTRICAL IMPROVEMENTS (CAPITAL PROJECT NO. 2344)</b> <b>ROCKFORD, IL</b>	
<b>GENERAL NOTES, SCHEDULES, AND STANDARD DETAILS</b> <b>CIVIL</b>	

Sheet No.	35
Drawing No.	10-C-04

**GENERAL STRUCTURAL NOTES**

**GENERAL**  
 1. THE GENERAL STRUCTURAL NOTES AND STANDARD STRUCTURAL DETAILS APPLY TO THE ENTIRE PROJECT UNLESS SPECIFICALLY NOTED OTHERWISE.

**DESIGN CRITERIA**  
 1. DESIGN AND CONSTRUCT IN CONFORMANCE WITH THE INTERNATIONAL BUILDING CODE, 2021 EDITION.

**FOUNDATIONS**  
 1. PLACE CONCRETE SLABS ON UNDISTURBED EARTH OR FREE DRAINING FILL AS NOTED.

**REINFORCEMENT**  
 1. REINFORCEMENT STEEL  
 A. DEFORMED BARS: ASTM A615 - GRADE 60  
 2. UNLESS NOTED OTHERWISE PROVIDE CLEAR COVER FOR REINFORCEMENT AS FOLLOWS:  
 A. CAST AGAINST:  
 1. EARTH: 3 INCHES  
 2. MUD SLAB: 2 INCHES  
 B. EXPOSED TO EARTH, WEATHER, OR WATER  
 1. SLABS: 2 INCHES  
 3. PLACE DOWELS BEFORE PLACING CONCRETE.  
 4. DO NOT FIELD WELD OR FIELD BEND REINFORCING BARS.

**CONCRETE**  
 1. DESIGN STRENGTH  
 B. ALL LOCATIONS:  
 CLASS A: F'C = 4500 PSI  
 2. UNLESS NOTED OTHERWISE, CONSTRUCTION JOINTS SHOWN ARE OPTIONAL CONSTRUCTION JOINTS NOT SHOWN SHALL BE APPROVED BY ENGINEER.  
 3. BEFORE CONCRETE IS PLACED, CONSTRUCTION JOINTS SHALL BE CLEANED, LAITANCE REMOVED, AND SURFACE WETTED. REMOVE STANDING WATER.  
 4. CONSTRUCTION JOINTS SHALL HAVE ROUGHENED SURFACES. SURFACE SHALL HAVE AMPLITUDE OF 1/4 IN. MIN.  
 5. PROVIDE 3/4 IN. CHAMFER ON EXTERNAL CORNERS OF EXPOSED EDGES OF EQUIPMENT PADS.  
 6. VERIFY EQUIPMENT PAD LOCATIONS, DIMENSIONS, AND ELEVATIONS WITH EQUIPMENT MANUFACTURERS.

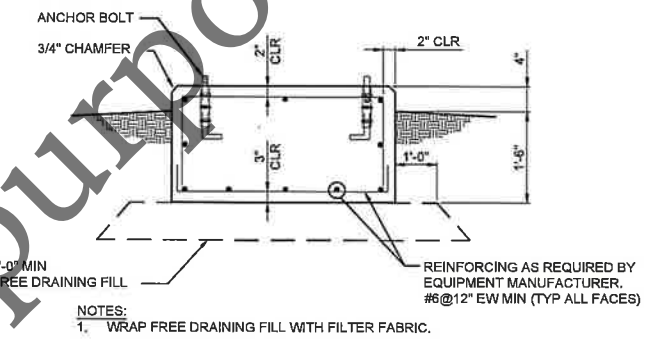
**METALS**  
 1. STAINLESS STEEL  
 1. EXTERIOR USES: AISI, TYPE 316  
 2. CAST-IN-PLACE ANCHOR RODS: AISI, TYPE 316  
 2. ANCHOR RODS, 1/2" MINIMUM DIA:  
 A. ALL LOCATIONS: STAINLESS STEEL  
 3. WELD STRUCTURAL STEEL WITH E70XX ELECTRODES IN ACCORDANCE WITH AWS REQUIREMENTS.  
 4. WELD ALUMINUM IN ACCORDANCE WITH AWS AND AA REQUIREMENTS.  
 5. COAT ALUMINUM SURFACES IN CONTACT WITH CONCRETE IN ACCORDANCE WITH AA REQUIREMENTS. UNDER NO CIRCUMSTANCES SHALL ALUMINUM CONTACT DISSIMILAR METALS.

**MISCELLANEOUS**  
 1. VERIFY PERTINENT EXISTING CONDITIONS AND DIMENSIONS BEFORE STARTING CONSTRUCTION AND/OR FABRICATION.  
 2. FOR ADDITIONAL OPENINGS, ANCHORS, AND EMBEDDED ITEMS, SEE CIVIL AND ELECTRICAL DRAWINGS.

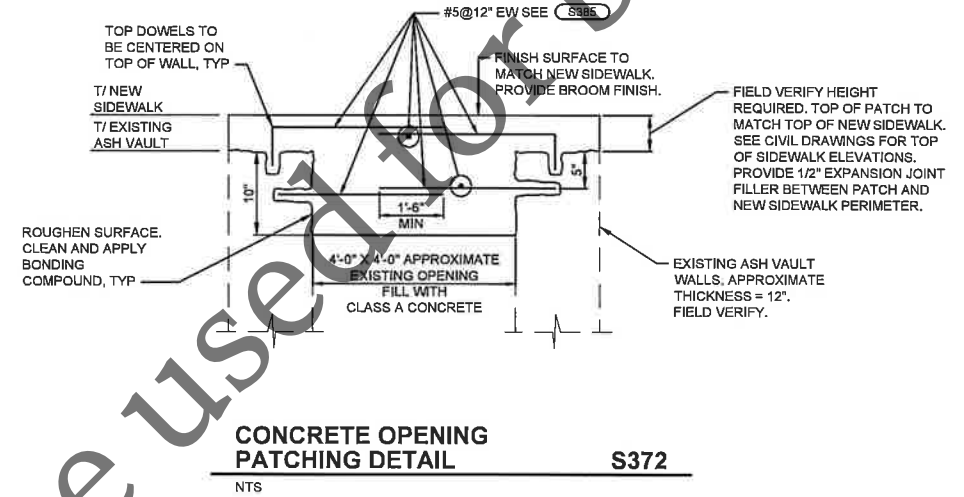
**REMOVALS**  
 1. REMOVE ALL CONCRETE ANCHORS, ANCHOR RODS AND OTHER EMBEDMENTS A MINIMUM OF 1" BEYOND FINISHED SURFACE AND PATCH SURFACE WITH PATCHING MORTAR TO MATCH EXISTING.  
 2. REMOVE EXISTING CONCRETE PADS OF ANY EQUIPMENT BEING REMOVED. REMOVE CONCRETE AND REINFORCEMENT A MINIMUM OF 1" BEYOND FINISHED SURFACE AT ANY LOCATION WHERE NEW CONCRETE PAD WILL NOT COVER ROUGH SURFACE OF REMOVAL. PATCH BACK TO FINISHED SURFACE WITH PATCHING MORTAR.  
 3. SAWCUT AND REMOVE CONCRETE TO LIMITS NOTED. REMOVE CONCRETE AND REINFORCEMENT A MINIMUM 1" BEYOND FINISHED SURFACE AT ANY LOCATION WHERE NEW CONCRETE WILL NOT COVER ROUGH SURFACE OF REMOVAL. PATCH BACK TO FINISHED SURFACE WITH PATCHING MORTAR.

MINIMUM REINFORCEMENT BAR SPLICE AND ANCHORAGE LENGTH (INCHES) S010				
BAR SIZE	LAPPED SPLICE LENGTH		EMBEDMENT LENGTH	
	TOP BARS	OTHERS	TOP BARS	OTHERS
3	16	16	12	12
4	19	16	14	12
5	27	21	21	16
6	38	29	29	22

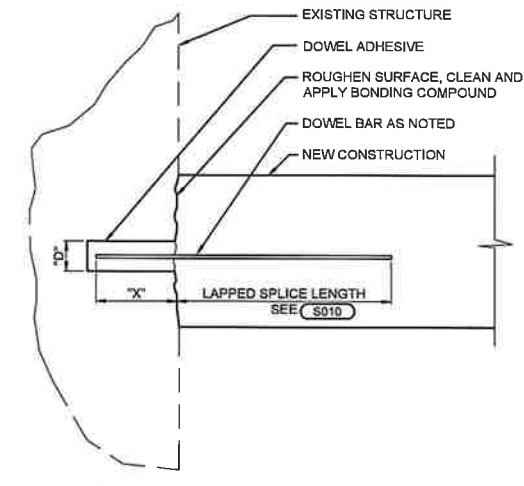
**NOTES:**  
 1. TOP BARS ARE HORIZONTAL BARS SO PLACED THAT MORE THAN 12" OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR.  
 2. FOR BARS SPACED LESS THAN 6 BAR DIAMETER OC INCREASE LENGTH BY 25%.  
 3. WHEN LAPPING TWO DIFFERENT SIZE BARS USE THE LAP LENGTH OF THE SMALLER BAR UNLESS NOTED OTHERWISE.  
 4. EMBEDMENT LENGTH IS MINIMUM LENGTH OF EMBEDMENT FOR STRAIGHT DOWELS WHERE END HOOK IS NOT SHOWN, UNLESS OTHERWISE NOTED.  
 5. HOOKS SHALL BE ACI STANDARD UNLESS OTHERWISE NOTED.



**EQUIPMENT PAD DETAIL S348**  
 NTS



**CONCRETE OPENING PATCHING DETAIL S372**  
 NTS



**DRILLED IN DOWEL DETAIL S385**  
 NTS

Date	Checked By	Drawn By	Revision Description

Revision Number	Designation

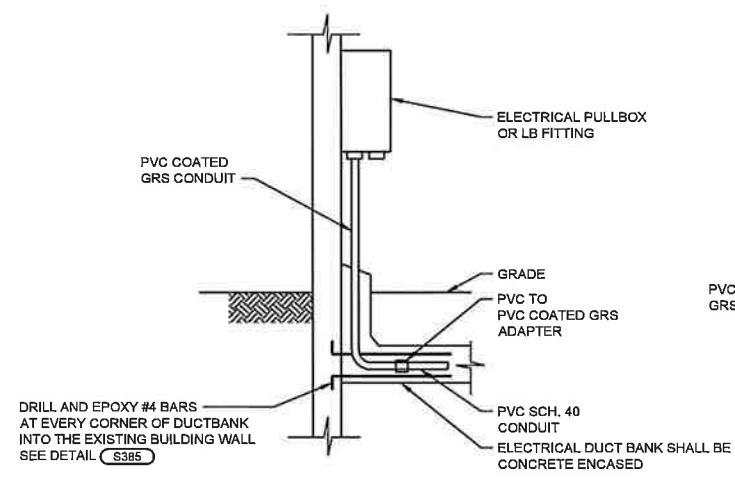
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 Drawn By: CDP  
 Checked By: CEE  
 Approved By: CEE  
 Filename: 10S1.DWG  
 Project No.: 14456  
 Project Date: MAR 2026

FOUR RIVERS SANITATION AUTHORITY  
 CO-GENERATION EFFICIENCY REHAB PROJECT-BID PACKAGE 1  
 ELECTRICAL IMPROVEMENTS (CAPITAL PROJECT NO. 2344)  
 ROCKFORD, IL  
 GENERAL NOTES, SCHEDULES, AND STANDARD DETAILS  
 STRUCTURAL

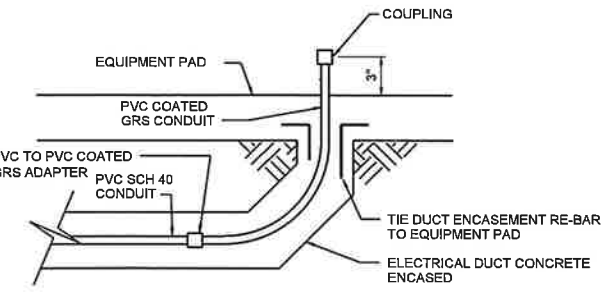


Sheet No. 36  
 Drawing No. 10-S-01

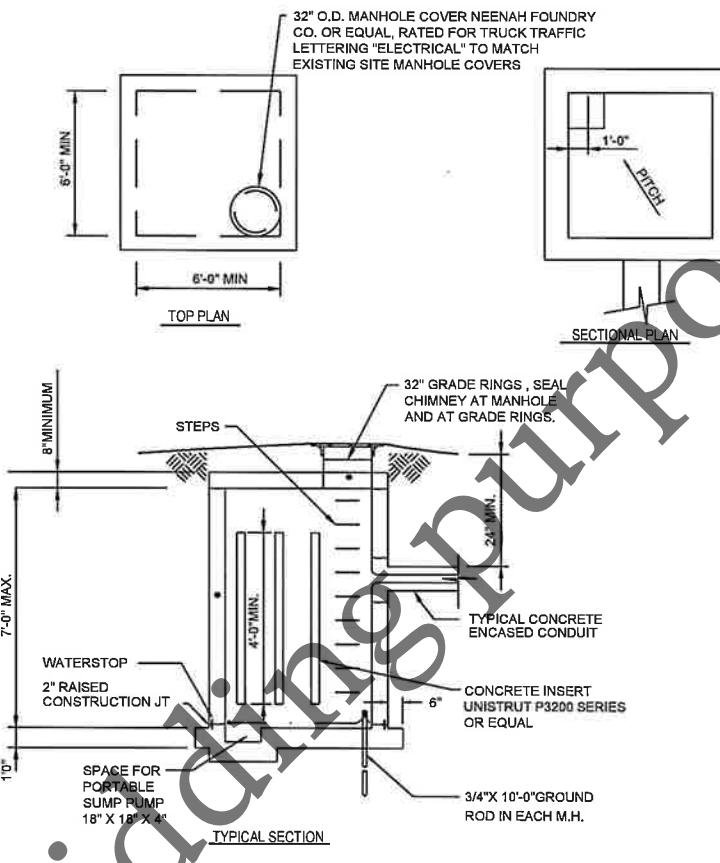
Not to be used for bidding purposes



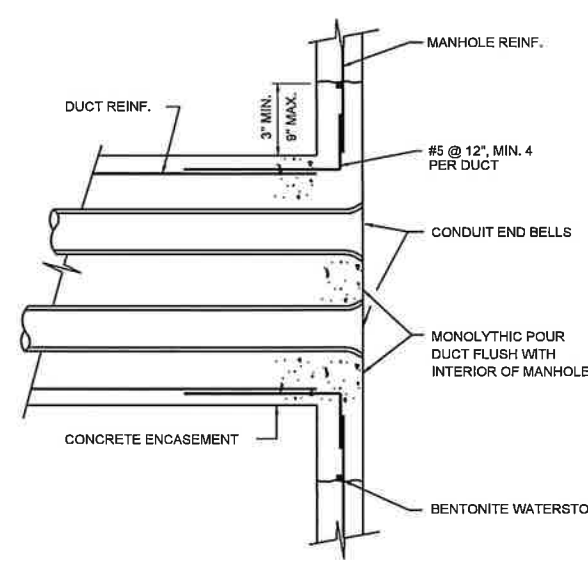
**PULLBOX MOUNTING DETAIL E040**  
NTS



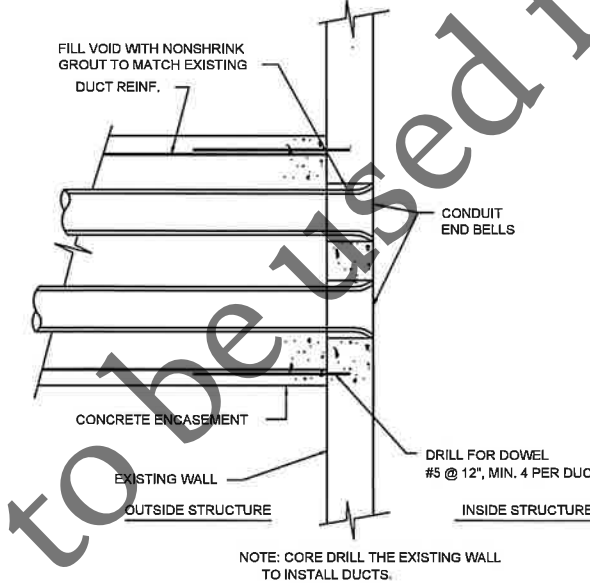
**TYPICAL CONDUIT STUB-UP THROUGH EQUIPMENT PAD E104**  
NTS



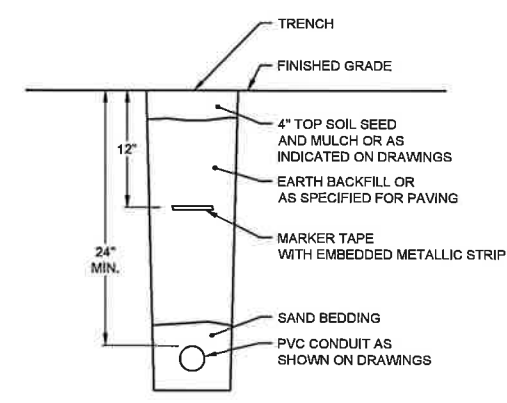
**MANHOLE DETAIL E232**  
NTS



**TYPICAL DUCT TO NEW MANHOLE INTERFACE DETAIL E241**  
NTS



**TYPICAL DUCT TO EXISTING MANHOLE INTERFACE DETAIL E242**  
NTS



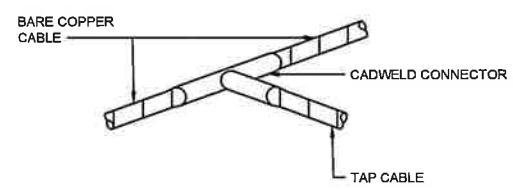
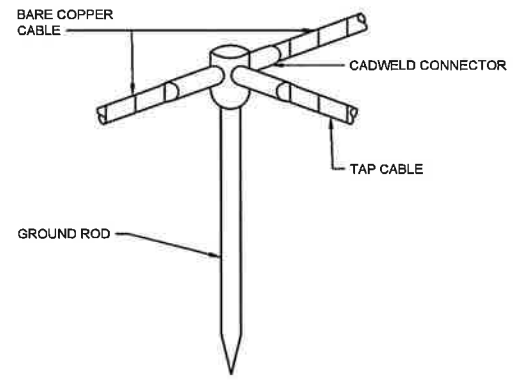
**TYPICAL DIRECT BURIED CONDUIT DETAIL E262**  
NTS

Revision Number	Revision Description	Drawn By	Checked By	Date

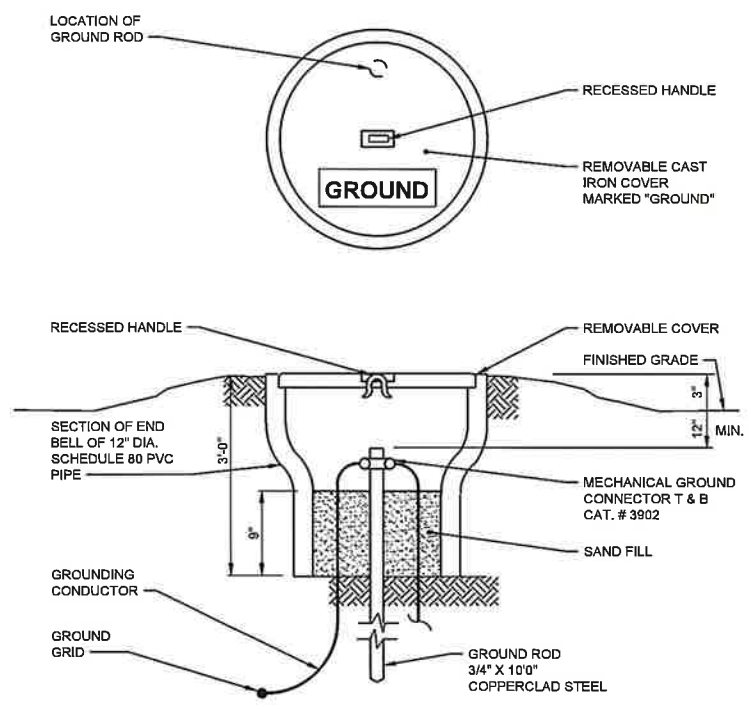
Designed By: JTB  
Drawn By: JTB  
Checked By: R.J.F.  
Approved By: JTB  
Filename: 10E1.DWG  
Project No.: 14456  
Project Date: MAR 2026

FOUR RIVERS SANITATION AUTHORITY  
CO-GENERATION EFFICIENCY REHAB PROJECT-BID PACKAGE 1  
ELECTRICAL IMPROVEMENTS (CAPITAL PROJECT NO. 2344)  
ROCKFORD, IL  
GENERAL NOTES, SCHEDULES, AND STANDARD DETAILS  
ELECTRICAL

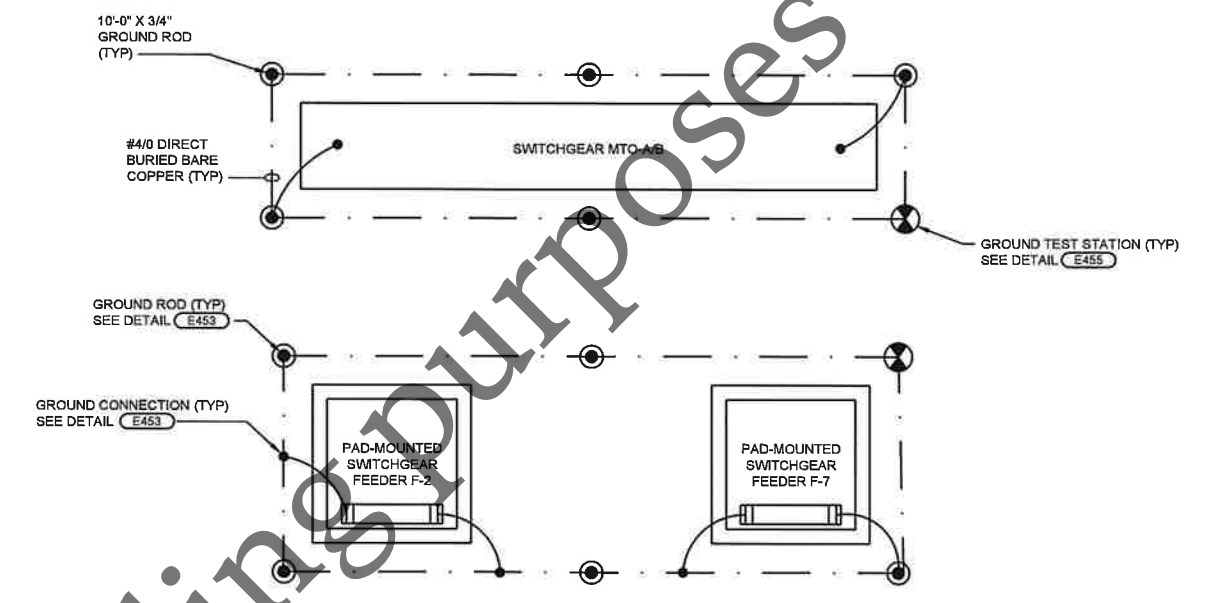
Not to be used for bidding purposes



**GROUNDING CONNECTION DETAIL** E453  
NTS



**GROUNDING TEST STATION DETAIL** E455  
NTS



**EQUIPMENT GROUNDING DETAIL** E462  
NTS

Not to be used for bidding purposes

Date	Checked By	Drawn By	Revision Description	Revision Number

Designed By: JTJ  
 Drawn By: JTJ  
 Checked By: RJF  
 Approved By: JTJ  
 Filename: 10E1.DWG  
 Project No.: 14456  
 Project Date: MAR 2026

**FOUR RIVERS SANITATION AUTHORITY**  
**CO-GENERATION EFFICIENCY REHAB PROJECT-BID PACKAGE 1**  
**ELECTRICAL IMPROVEMENTS (CAPITAL PROJECT NO. 2344)**  
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Sheet No. 38  
 Drawing No. 10-E-02