

TRAFFIC DATA:

US RTE 41 ADT = 40,800 (2017) POSTED SPEED = 55 MPH
 DESIGN SPEED = 60 MPH
 IL RTE 176 ADT = 15,400 (2017) POSTED SPEED = 40 MPH
 DESIGN SPEED = 45 MPH

FOR INDEX OF SHEETS, SEE SHEET NO. 2

THE PROJECT IS LOCATED IN THE VILLAGE OF LAKE BLUFF AND UNINCORPORATED SHIELDS TOWNSHIP

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

**PROPOSED
 HIGHWAY PLANS**

US-41 F.A.P. 346
 AT ILL 176 (ROCKLAND RD) (PS #37)
 SECTION (125S-1)I-4
 PROJECT NHPP-CIUX(634)
 PUMP STATION, STORM SEWER (NEW)
 UTILITY ADJUSTMENT, PEDESTRIAN RAMPS
 LAKE COUNTY

C-91-087-16

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	1
		ILLINOIS	CONTRACT NO.	

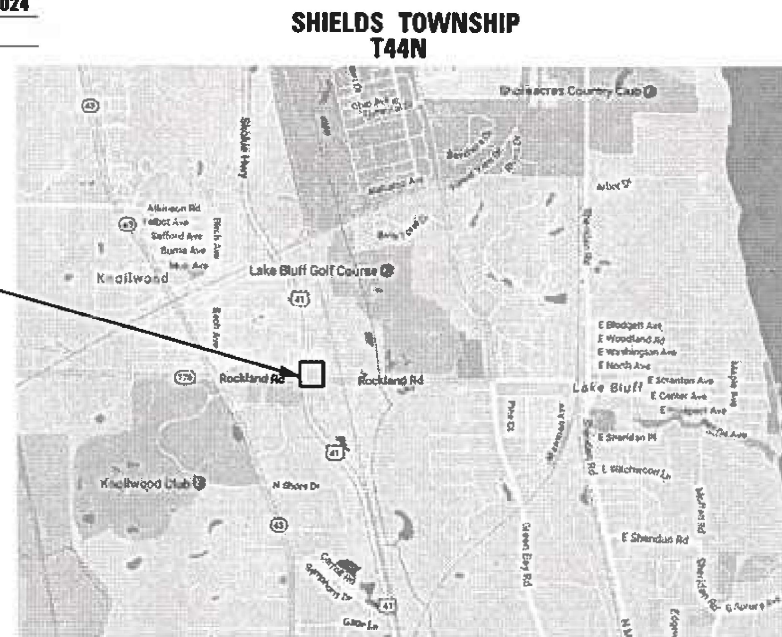
D-91-087-16



DATE: 8/08/2024 DATE: 8/08/2024 DATE: 8/08/2024
 EXPIRATION: 11/30/2025 EXPIRATION: 11/30/2025 EXPIRATION: 11/30/2025
 SHEET NUMBERS: 74-75, 122-129 SHEET NUMBERS: 2-15, 21-22 SHEET NUMBERS: 136-176
24-27, 45, 48-49, 56, 63-65

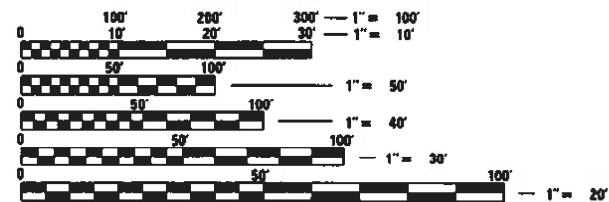


DATE: 8/08/2024 DATE: 8/08/2024 DATE: 8/08/2024 DATE: 8/08/2024
 EXPIRATION: 11/30/2025 EXPIRATION: 11/30/2024 EXPIRATION: 11/30/2025 EXPIRATION: 11/30/2024
 SHEET NUMBERS: 130-135 SHEET NUMBERS: 85-121 SHEET NUMBERS: 16-20, 23 SHEET NUMBERS: 76-84
28-44, 46-47, 50-52, 57-52, 66-73



LOCATION MAP (NTS)

GROSS LENGTH = 1606.50 FT. = 0.304 MILE
 NET LENGTH = 1606.50 FT. = 0.304 MILE



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
 JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
 1-800-892-0123
 OR 811

PROJECT ENGINEER: ANA ABREU
 PROJECT MANAGER: SULEYMAN TULGAR

CONTRACT NO. 62B66

DONOHUE
 230 WEST MONROE STREET, SUITE 2925
 CHICAGO, IL 60606
 312-236-9147

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUBMITTED August 9, 2024
[Signature] REGIONAL ENGINEER
 October 4, 2024
[Signature] ENGINEER OF DESIGN AND ENVIRONMENT
 October 4, 2024
[Signature] DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

**PRINTED BY THE AUTHORITY
 OF THE STATE OF ILLINOIS**

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2	INDEX OF SHEETS	75	EXISTING PUMP STATION DEMOLITION SECTIONS
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46	CIVIL PUMP STATION - TEMPORARY INTERCONNECT PLAN		
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MODEL & MODEL NAMES
 FILE NAMES: SHEETS

	USER NAME = SBREMER	DESIGNED - MTR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PUMP STATION NO. 37 GENERAL INDEX OF SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
	PLOT SCALE = AS NOTED	DRAWN - MTR	REVISED -			346	(125S-1)I-4	LAKE	186	2		
	PLOT DATE = 08/09/24	CHECKED - MBS	REVISED -			CONTRACT NO. 62B66						
		DATE - 08-08-2024	REVISED -			SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.

STATE HIGHWAY STANDARDS:

000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
424016-05	MID-BLOCK CURB RAMPS FOR SIDEWALKS
442201-03	CLASS C AND D PATCHES
542301-03	PRECAST REINFORCED CONCRETE FLARED END SECTION
542401-04	METAL FLARED END SECTION FOR PIPE CULVERTS
542406-04	METAL FLARED END SECTION FOR PIPE ARCHES
601001-05	PIPE UNDERDRAINS
602001-02	CATCH BASIN TYPE A
602011-02	CATCH BASIN TYPE C
602301-04	INLET - TYPE A
602406-11	PRECAST MANHOLE, TYPE A, 6' (1.83M) DIAMETER
602411-09	PRECAST MANHOLE, TYPE A, 7' (2.13M) DIAMETER
602416-09	PRECAST MANHOLE, TYPE A, 8' (2.44M) DIAMETER
602421-09	PRECAST MANHOLE, TYPE A, 9' (2.74M) DIAMETER
602701-02	MANHOLE STEPS
604001-05	FRAME AND LIDS, TYPE 1
604011-05	FRAME AND GRATE, TYPE 3V
604036-03	GRATE, TYPE 8
606001-08	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
642001-03	SHOULDER RUMBLE STRIPS, 16 IN.
664001-02	CHAIN LINK FENCE
666001-01	RIGHT-OF-WAY MARKERS
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5M) TO 24" (600MM) FROM PAVEMENT EDGE
701101-05	OFF-ROAD OPERATIONS, MULTILANE, 15' (4.5M) TO 24" (600MM) FROM PAVEMENT EDGE
701106-02	OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' (4.5M) AWAY
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701421-08	LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY, FOR SPEEDS ≥ 45 MPH TO 55 MPH
701423-10	LANE CLOSURE, MULTILANE, WITH BARRIER, FOR SPEEDS ≥ 45 MPH TO 55 MPH
701426-09	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION, FOR SPEEDS ≥ 45 MPH
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701502-09	URBAN LANE CLOSURE, 2L, 2W, WITH BIDIRECTIONAL LEFT TURN LANE
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701901-09	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
720011-01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
780001-05	TYPICAL PAVEMENT MARKINGS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
814001-03	HANDHOLES

GENERAL NOTES:

1. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
2. THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT KALPANA.KANNAN-HOSADURGA@ILLINOIS.GOV A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
3. THE RESIDENT ENGINEER SHALL CONTACT WALTER CZARNY, AREA TRAFFIC FIELD ENGINEER VIA EMAIL AT WALTER.CZARNY@ILLINOIS.GOV AT LEAST (2) WEEKS PRIOR TO PLACING PERMANENT PAVEMENT MARKINGS.
4. FOR STORM SEWER AND TRENCHES REQUIRING TRENCH BACKFILL, BACKFILLING METHODS TWO AND THREE AUTHORIZED UNDER THE PROVISIONS OF ARTICLE 550.07 OF THE STANDARD SPECIFICATIONS WILL NOT BE ALLOWED.
5. BEFORE STARTING EXCAVATION, THE CONTRACTOR SHALL CALL IDOT ELECTRICAL MAINTENANCE CONTRACTOR, MEADE ELECTRIC COMPANY, AT 1-773-287-7672 FOR UTILITY LOCATIONS WITHIN IDOT R.O.W.
6. NOTE THAT DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE EXISTING PUMPING STATION ACCORDING TO THE REQUIREMENTS OF THE STATE'S ELECTRICAL MAINTENANCE CONTRACT. SHORT-TERM SHUTDOWN WILL BE PERMITTED WITH SPECIFIC WRITTEN PERMISSION (SEE SPECIAL PROVISIONS).
7. ALL SHOP DRAWINGS, MATERIAL SAMPLES, ETC. MUST BE SUBMITTED AND APPROVED BY THE ENGINEER BEFORE INSTALLATION.
8. COORDINATE EXACT LOCATION OF ALL MAJOR EQUIPMENT WITH THE ENGINEER BEFORE INSTALLATION/ORDERING.
9. ALL CONSTRUCTION SHALL COMPLY WITH CURRENT APPLICABLE BUILDING CODES, ALL APPLICABLE MUNICIPAL, STATE AND FEDERAL REGULATIONS HAVING JURISDICTION, INCLUDING THE STATE OF ILLINOIS ACCESSIBILITY STANDARDS.
10. THE CONTRACTOR SHALL BE RESPONSIBLE TO FIELD VERIFY ALL DIMENSIONS PRIOR TO PREPARATION OF SHOP DRAWINGS AND/OR FABRICATION OF ALL PRODUCTS FOR THE WORK.
11. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL TEMPORARY FACILITIES WITH THE FINAL LOCATION OF THE NEW WORK.
12. ALL HORIZONTAL AND VERTICAL CONDUIT ROUTING SHALL BE COORDINATED WITH ARCHITECTURAL DRAWINGS AND APPROVED BY IDOT'S RESIDENT ENGINEER.
13. WITHIN THESE NOTES, THE UNION PACIFIC RAILROAD SHALL BE REFERRED TO AS THE "RAILROAD".
14. A CONTRACTOR'S RIGHT-OF-ENTRY PERMIT IS REQUIRED BEFORE ANY WORK CAN COMMENCE ON RAILROAD PROPERTY. THE COST TO OBTAIN THIS PERMIT SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
15. NO DISRUPTIONS OF RAILROAD OPERATIONS WILL BE PERMITTED.
16. ALL WORK WITHIN 25 FEET OF THE NEAREST TRACK WILL REQUIRE A RAILROAD FLAGMAN. TO SCHEDULE A FLAGMAN FOR WORK ON A COMMUTER LINE, CALL CANDICE MILLER AT (312) 496-4738, A MINIMUM 72 HOURS IN ADVANCE OF START OF WORK. TO SCHEDULE A FLAGMAN FOR WORK ON FREIGHT LINES, CALL DARYL CLARK AT (708) 649-5273, A MINIMUM OF 72 HOURS IN ADVANCE OF START OF WORK.
17. NO UN-USED WORK EQUIPMENT WILL BE ALLOWED TO REMAIN ON THE RAILROAD'S COMMUTER PLATFORM IF PRESENT.
18. RAILROAD UTILITIES ARE NOT INCLUDED UNDER JULIE. CALL CANDICE MILLER AT (312) 496-4738 FOR LOCATES.
19. FIBER OPTICS MAY BE PRESENT IN THIS AREA. CALL (800) 336-9193 TO COORDINATE ANY REQUIRED PROTECTION OR RELOCATION, PRIOR TO CONSTRUCTION.
20. RAILROAD REVIEW AND APPROVAL OF SHORING, DEMOLITION, ERECTION, AND FALSEWORK IS REQUIRED. THE COST OF SUCH REVIEWS IS NOT CONSIDERED REIMBURSEABLE TO THE CONTRACTOR PER SECTION 105.04 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
21. ERECTION OVER THE RAILROAD'S RIGH-OF-WAY SHALL BE DESIGNED TO CAUSE NO INTERRUPTIONS TO RAILROAD'S OPERATIONS. ERECTION OVER THE RAILROAD'S TRACK SHALL BE DEVELOPED SUCH THAT IT ENABLES THE TRACK(S) TO REMAIN OPEN TO TRAIN TRAFFIC PER RAILROAD'S REQUIREMENTS.
22. FOR RAILROAD COORDINATION PLEASE REFER TO THE INSTRUCTIONS ON THE WWW.UPRR.COM.
23. THE CONTRACTOR MUST SUBMIT A PROPOSED METHOD OF EROSION AND SETTLEMENT CONTROL AND HAVE THE METHOD APPROVED BY THE RAILROAD.
24. THE ELEVATION OF THE EXISTING TOP-OF-RAIL PROFILE SHALL BE VERIFIED BEFORE BEGINNING CONSTRUCTION. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE RAILROAD PRIOR TO CONSTRUCTION.
25. TEN (10) FOOT TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURBS AND GUTTER AND MEDIANS IN THE FIELD, UNLESS OTHERWISE SHOWN.

COMMITMENTS:

1. NONE THIS CONTRACT

**CALL IDOT ELECTRICAL MAINTENANCE CONTRACTOR
FOR UTILITY LOCATIONS WITHIN IDOT R.O.W.
MEADE ELECTRIC CO. 773-287-7672**

MODEL AND/OR DELINEATOR
FILE NAME: ST1215

	USER NAME = SBREMER	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = AS NOTED	CHECKED -	REVISED -
	PLOT DATE = 09/10/24	DATE = 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PUMP STATION NO. 37
GENERAL NOTES, HIGHWAY STANDARDS AND DISTRICT DETAILS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)L-4	LAKE	186	3
CONTRACT NO. 62B66				

SCALE: SHEET OF SHEETS STA. TO STA.

ILLINOIS FED. AID PROJECT CIUX(634)

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	
				80% FED 20% STATE	
				ROADWAY	
				0044	
				URBAN	
* 20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	94		94
* 20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	76		76
20101000	TEMPORARY FENCE	FOOT	1361		1361
20200100	EARTH EXCAVATION	CU YD	956		956
20800150	TRENCH BACKFILL	CU YD	1865		1865
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	4865		4865
* 25000210	SEEDING, CLASS 2A	ACRE	1		1
* 25000312	SEEDING, CLASS 4A	ACRE	1		1
* 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	50		50
* 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	50		50
* 25100630	EROSION CONTROL BLANKET	SQ YD	4865		4865
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	296		296
* 28000305	TEMPORARY DITCH CHECKS	FOOT	20		20
* 28000400	PERIMETER EROSION BARRIER	FOOT	1843		1843

* SPECIALTY ITEM

MODEL: 4100/DEL/NAME/ FILE NAME: SHEETS

	USER NAME = SBREMER	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PUMP STATION NO. 37 GENERAL SUMMARY OF QUANTITIES			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = AS NOTED	CHECKED -	REVISED -					346	(125S-1)L-4	LAKE	186	4
PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -	SCALE:		SHEET	OF	SHEETS	STA.	TO STA.	CONTRACT NO. 62B66		
								ILLINOIS	FED. AID PROJECT	CJUX(634)		

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	
				80% FED 20% STATE	
				ROADWAY	
				0044	
				URBAN	
* 28000510	INLET FILTERS	EACH	44	44	
28100105	STONE RIPRAP, CLASS A3	SQ YD	48	48	
28100107	STONE RIPRAP, CLASS A4	SQ YD	39	39	
* 28200200	FILTER FABRIC	SQ YD	87	87	
30300001	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	30	30	
30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	1517	1517	
35101600	AGGREGATE BASE COURSE, TYPE B 4"	SQ YD	88	88	
35101800	AGGREGATE BASE COURSE, TYPE B 6"	SQ YD	446	446	
35501316	HOT-MIX ASPHALT BASE COURSE, 8"	SQ YD	1339	1339	
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	830	830	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	134	134	
40604060	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50	TON	326	326	
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	790	790	
42400800	DETECTABLE WARNINGS	SQ FT	20	20	

* SPECIALTY ITEM

MODEL NUMBER: 11/15/2015
FILE NAME: 11/15/2015

	USER NAME = SBREMER	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PUMP STATION NO. 37 GENERAL SUMMARY OF QUANTITIES			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = AS NOTED	DRAWN -	REVISED -					346	(125S-1)L-4	LAKE	186	5
PLOT DATE = 08/09/24	CHECKED -	REVISED -	SCALE: SHEET OF SHEETS STA. TO STA.			CONTRACT NO. 62B66						
DATE = 08-08-2024	DATE -	REVISED -				ILLINOIS FED. AID PROJECT CIJX(634)						

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	
				80% FED 20% STATE	
				ROADWAY	
				0044	URBAN
44000100	PAVEMENT REMOVAL	SO YD	924	924	
44000200	DRIVEWAY PAVEMENT REMOVAL	SO YD	154	154	
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	399	399	
44000600	SIDEWALK REMOVAL	SO FT	922	922	
44201692	CLASS D PATCHES, TYPE II, 4 INCH	SO YD	13	13	
44201694	CLASS D PATCHES, TYPE III, 4 INCH	SO YD	39	39	
50200450	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL FOR STRUCTURES	CU YD	500	500	
50300225	CONCRETE STRUCTURES	CU YD	832	832	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	239104	239104	
54200220	PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT	325	325	
54205470	PIPE CULVERTS, CLASS D, TYPE 1 EQUIVALENT ROUND-SIZE 15"	FOOT	42	42	
54213687	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 42"	EACH	1	1	
54261715	STEEL FLARED END SECTIONS 15"	EACH	1	1	
54261815	STEEL FLARED END SECTIONS, EQUIVALENT ROUND-SIZE 15"	EACH	2	2	

MODEL & MODEL NAMES
FILE NAME: SELEIS



USER NAME = SBREMER	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = AS NOTED	CHECKED -	REVISED -
PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
GENERAL
SUMMARY OF QUANTITIES**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)L-4	LAKE	186	6
CONTRACT NO. 62B66			ILLINOIS FED. AID PROJECT C1JX(634)	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	
				80% FED 20% STATE	
				ROADWAY	
				0044	URBAN
550A0050	STORM SEWERS, CLASS A, TYPE 1 12"	FOOT	158	158	
550A0180	STORM SEWERS, CLASS A, TYPE 1 42"	FOOT	15	15	
550A0430	STORM SEWERS, CLASS A, TYPE 2 30"	FOOT	72	72	
550A0450	STORM SEWERS, CLASS A, TYPE 2 36"	FOOT	571	571	
550A0490	STORM SEWERS, CLASS A, TYPE 2 54"	FOOT	158	158	
550A0750	STORM SEWERS, CLASS A, TYPE 3 36"	FOOT	259	259	
55100300	STORM SEWER REMOVAL 8"	FOOT	70	70	
55100500	STORM SEWER REMOVAL 12"	FOOT	419	419	
55101200	STORM SEWER REMOVAL 24"	FOOT	94	94	
• 55201300	STORM SEWERS JACKED IN PLACE, 36"	FOOT	679	679	
• 55201800	STORM SEWERS JACKED IN PLACE, 60"	FOOT	46	46	
60108206	PIPE UNDERDRAINS, TYPE 2, 6"	FOOT	37	37	
60200105	CATCH BASINS, TYPE A, 4' -DIAMETER, TYPE 1 FRAME, OPEN LID	EACH	1	1	
60200310	CATCH BASINS, TYPE A, 4' -DIAMETER, TYPE 3V FRAME AND GRATE	EACH	1	1	

• SPECIALTY ITEM

MODEL: 4400ELMAMES
FILE NAME: SELELS



USER NAME = SBREMER	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = AS NOTED	CHECKED -	REVISED -
PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
GENERAL
SUMMARY OF QUANTITIES

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	7
CONTRACT NO. 62B66			ILLINOIS FED. AID PROJECT CBJX(634)	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
				80% FED 20% STATE
				ROADWAY
				0044 URBAN
60206905	CATCH BASINS, TYPE C, TYPE 1 FRAME, OPEN LID	EACH	4	4
60223800	MANHOLES, TYPE A, 6' -DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1	1
60224446	MANHOLES, TYPE A, 7' -DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	8	8
60224459	MANHOLES, TYPE A, 8' -DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	2	2
60224469	MANHOLES, TYPE A, 9' -DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	3	3
60235700	INLETS, TYPE A, TYPE 3 FRAME AND GRATE	EACH	1	1
60236200	INLETS, TYPE A, TYPE 8 GRATE	EACH	1	1
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	227	227
60608300	COMBINATION CONCRETE CURB AND GUTTER, TYPE M-2.12	FOOT	282	282
• 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	6125	6125
• 66900530	SOIL DISPOSAL ANALYSIS	EACH	5	5
• 66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	L SUM	1	1
• 66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	L SUM	1	1
• 66901005	ENGINEERED BARRIER	SQ YD	545	545

• SPECIALTY ITEM

MODEL: 4400/DEL/NAME/ FILE NAME: SHEETS

	USER NAME = SBREMER	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = AS NOTED	CHECKED -	REVISED -
	PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
GENERAL
SUMMARY OF QUANTITIES**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)L-4	LAKE	186	8
CONTRACT NO. 62B66			ILLINOIS FED. AID PROJECT C/UJ(634)	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	
				80% FED 20% STATE	
				ROADWAY	
				0044	URBAN
• 66901006	REGULATED SUBSTANCES MONITORING	CAL DA	130	130	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	27	27	
67100100	MOBILIZATION	L SUM	1	1	
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	28	28	
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	1368	1368	
70307100	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS - TYPE IV	SQ FT	73	73	
70307120	TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE IV TAPE	FOOT	9136	9136	
70307130	TEMPORARY PAVEMENT MARKING - LINE 6" - TYPE IV TAPE	FOOT	1254	1254	
70307210	TEMPORARY PAVEMENT MARKING - LINE 24" - TYPE IV TAPE	FOOT	44	44	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1263	1263	
70400125	PINNING TEMPORARY CONCRETE BARRIER	EACH	138	138	
70600255	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2	EACH	2	2	
70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	1	1	
• 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	134	134	
• 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	4102	4102	
78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	445	445	
• 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	70	70	

• SPECIALTY ITEM

MODEL & SHEET NAMES
FILE NAMES: SHEETS

	USER NAME = SBREMER	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = AS NOTED	CHECKED -	REVISED -
	PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
GENERAL
SUMMARY OF QUANTITIES**


SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)L-4	LAKE	186	9
CONTRACT NO. 62B66			ILLINOIS FED. AID PROJECT C1JX(634)	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	
				80% FED 20% STATE	
				ROADWAY	
				0044	URBAN
• 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	51	51	
* 78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	240	240	
78009006	MODIFIED URETHANE PAVEMENT MARKING - LINE 6"	FOOT	20	20	
* 78009012	MODIFIED URETHANE PAVEMENT MARKING - LINE 12"	FOOT	20	20	
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	6	6	
• 78300200	RAISED REFLECTOR PAVEMENT MARKING REMOVAL	EACH	6	6	
• 78300202	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	1422	1422	
• 80400100	ELECTRIC SERVICE INSTALLATION	EACH	1	1	
• 81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	60	60	
• 81028740	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/2" DIA.	FOOT	40	40	
• 81400200	HEAVY-DUTY HANDHOLE	EACH	3	3	
• 85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1	1	
• 87100110	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, 6F	FOOT	675	675	
• 87200400	SPAN WIRE	FOOT	390	390	
• 87302225	ELECTRIC CABLE AERIAL SUSPENDED, SIGNAL, NO. 14 3C	FOOT	485	485	

• SPECIALTY ITEM

MODEL NUMBER: 11/11/11
FILE NAME: 11/11/11

	USER NAME = SBREMER	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = AS NOTED	CHECKED -	REVISED -
	PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PUMP STATION NO. 37 GENERAL SUMMARY OF QUANTITIES			
SCALE:	SHEET	OF	SHEETS
		STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	10
CONTRACT NO. 62B66			ILLINOIS FED. AID PROJECT CRJ(634)	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	
				80% FED 20% STATE	
				ROADWAY	
				0044	URBAN
87900200	DRILL EXISTING HANDHOLE	EACH	2	2	
89502350	REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	1200	1200	
B2002716	TREE, MALUS ADIRONDACK (ADIRONDACK CRAB APPLE), 2" CALIPER, TREE FORM, BALLED AND BURLAPPED	EACH	8	8	
B2004516	TREE, MALUS RED JEWEL (RED JEWEL CRAB APPLE), 2" CALIPER, TREE FORM, BALLED AND BURLAPPED	EACH	11	11	
C2012748	SHRUB, VIBURNUM PRUNIFOLIUM (BLACKHAW VIBURNUM), 4' HEIGHT, BALLED AND BURLAPPED	EACH	3	3	
X0301028	PUMP STATION SCADA EQUIPMENT	L SUM	1	1	
X0320033	MAINTENANCE OF EXISTING PUMP STATION DURING CONSTRUCTION	CAL MO	24	24	
X0320034	HEATING AND VENTILATION	L SUM	1	1	
X0320035	LOW FLOW PUMP	EACH	1	1	
X0320036	MAIN PUMPS	EACH	3	3	
X0323880	COMPLETE SPARE MAIN PUMP ASSEMBLY	L SUM	1	1	
X0323881	COMPLETE SPARE LOW FLOW PUMP ASSEMBLY	L SUM	1	1	
X0323992	HELICAL GROUND ANCHORS	EACH	38	38	
X0324599	ROD AND CLEAN EXISTING CONDUIT	FOOT	400	400	

• SPECIALTY ITEM

MODEL & NUMBER
FILE NAME: SHEETS

DONOHUE	USER NAME = SBREMER	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = AS NOTED	CHECKED -	REVISED -
	PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PUMP STATION NO. 37 GENERAL SUMMARY OF QUANTITIES			
SCALE:	SHEET	OF	SHEETS
	STA.		TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)L-4	LAKE	186	11
ILLINOIS FED. AID PROJECT C1JX(634)			CONTRACT NO. 62B66	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	
				80% FED 20% STATE	
				ROADWAY	
				0044	URBAN
X0325318	LIGHTWEIGHT CELLULAR CONCRETE FILL	CU YD	115	115	
X0326806	WASHOUT BASIN	L SUM	1	1	
• X7240302	REMOVE SIGN (SPECIAL)	EACH	1	1	
• X0327349	TEMPORARY WOOD POLE, 40 FT., CLASS 4	EACH	3	3	
X0327976	TRACK MONITORING	CAL DA	100	100	
• X0335700	PUMP STATION GENERAL WORK	L SUM	1	1	
• X0783300	PUMP STATION ELECTRICAL WORK	L SUM	1	1	
• X0783500	PUMP STATION MECHANICAL WORK	L SUM	1	1	
X0900075	COFFERDAM (TYPE 1) (IN-STREAM/WETLAND WORK)	EACH	1	1	
• X1400012	REMOVE AND REINSTALL FIBER OPTIC CABLE IN CONDUIT	FOOT	400	400	
• X1400159	TELEPHONE SERVICE INSTALLATION AND CONNECTION	L SUM	1	1	
• X1400160	PUMP STATION PACKAGE ENGINE GENERATOR SYSTEMS	L SUM	1	1	
• X1400162	PUMP STATION MOTOR CONTROL CENTER	L SUM	1	1	

• SPECIALTY ITEM

MODEL NAME: SBREMER
FILE NAME: ST1213

	USER NAME = SBREMER	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = AS NOTED	CHECKED -	REVISED -
	PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
GENERAL
SUMMARY OF QUANTITIES**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)L-4	LAKE	186	12
CONTRACT NO. 62B66			ILLINOIS FED. AID PROJECT CIUX(634)	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	
				80% FED 20% STATE	
				ROADWAY	
				0044	URBAN
• X1400163	AEGIS PANEL	L SUM	1	1	
• X1400164	FIRE DETECTION PANEL	L SUM	1	1	
• X1400165	GAS DETECTION PANEL	L SUM	1	1	
• X1400298	ELECTRICAL CONDUIT, HDD METHOD	FOOT	115	115	
X2011000	TEMPORARY FENCE (SPECIAL)	FOOT	1448	1448	
X2020502	BRACED EXCAVATION	CU YD	5050	5050	
X2130010	EXPLORATION TRENCH (SPECIAL)	FOOT	50	50	
• X3400002	DEMOLITION OF EXISTING PUMP STATION	L SUM	1	1	
X4022000	TEMPORARY ACCESS (COMMERCIAL ENTRANCE)	EACH	2	2	
X4404000	PARKING LOT PAVEMENT REMOVAL	SO YD	666	666	
X4421791	CLASS D PATCHES, TYPE IV, 12 INCH (SPECIAL)	SO YD	135	135	
•• X5427602	REMOVE EXISTING FLARED END SECTION	EACH	2	2	
•• X5537600	STORM SEWERS TO BE CLEANED 8"	FOOT	20	20	
•• X5538200	STORM SEWERS TO BE CLEANED 24"	FOOT	10	10	

- SPECIALTY ITEM
- NON-PARTICIPATING ITEMS

MODEL: 4400210000
FILE NAME: 081024

DONOHUE	USER NAME = SBREMER	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = AS NOTED	CHECKED -	REVISED -
	PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PUMP STATION NO. 37 GENERAL SUMMARY OF QUANTITIES			
SCALE:	SHEET	OF	SHEETS
		STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	13
CONTRACT NO. 62B66			ILLINOIS FED. AID PROJECT CBJX(634)	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	
				80% FED 20% STATE	
				ROADWAY	
				0044	
				URBAN	
•• X5538400	STORM SEWERS TO BE CLEANED 30"	FOOT	100	100	
X6640298	CHAIN LINK FENCE (SPECIAL)	FOOT	20	20	
X6640300	CHAIN LINK FENCE REMOVAL	FOOT	170	170	
X6640308	CHAIN LINK GATES (SPECIAL)	EACH	1	1	
X6640504	SLIDE GATE	EACH	1	1	
X6640570	CHAIN LINK FENCE, 8' (SPECIAL)	FOOT	330	330	
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1	
X7830050	RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REMOVAL	EACH	87	87	
X7830052	RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REPLACEMENT	EACH	87	87	
• X8040305	ELECTRICAL SERVICE CONNECTION	L SUM	1	1	
• X8100105	CONDUIT SPLICE	EACH	2	2	
• X8711100	TEMPORARY AERIAL FIBER OPTIC CABLE, NO. 62.5/ 125, MM 12F, SM12F	FOOT	485	485	
• X8731725	ELECTRIC CABLE AERIAL SUSPENDED, VIDEO, NO. 20 4 C	FOOT	485	485	
• X8951011	REMOVE AERIAL CABLE	FOOT	2815	2815	
Z0004002	BOLLARDS	EACH	13	13	

- SPECIALTY ITEM
- NON-PARTICIPATING ITEMS

MODEL: SMOBELNAMES
FILE NAME: STREETS

	USER NAME = SBREMER	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PUMP STATION NO. 37 GENERAL SUMMARY OF QUANTITIES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = AS NOTED	DRAWN -	REVISED -			346	(125S-1)L-4	LAKE	186	14
	PLOT DATE = 08/09/24	CHECKED -	REVISED -			CONTRACT NO. 62B66		ILLINOIS FED-AID PROJECT CIUX(634)		
	DATE = 08-08-2024	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	
				80% FED 20% STATE	
				ROADWAY	
				0044	URBAN
Z0013797	STABILIZED CONSTRUCTION ENTRANCE	SQ YD	168		168
Z0013798	CONSTRUCTION LAYOUT	L SUM	1		1
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	77		77
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1		1
Z0056622	STORM SEWER (WATER MAIN REQUIREMENTS) 36 INCH	FOOT	204		204
Z0062456	TEMPORARY PAVEMENT	SQ YD	178		178
• Z0068410	STEEL CASINGS 48"	FOOT	200		200
* Z0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	2		2
* 87302841	ELECTRIC CABLE AERIAL SUSPENDED, TRACER, NO. 14 1C	FOOT	485		485
* X8731258	COAXIAL CABLE AERIAL SUSPENDED	FOOT	485		485
∅ Z0076600	TRAINEES	HOUR	4000		4000
∅ Z0076604	TRAINEES - TRAINING PROGRAM GRADUATE	HOUR	4000		4000

• SPECIALTY ITEM

MODEL - S:\MODEL\NAMES
FILE NAME - SETLETS



USER NAME = SBREMER	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = AS NOTED	CHECKED -	REVISED -
PLOT DATE = 08/15/24	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

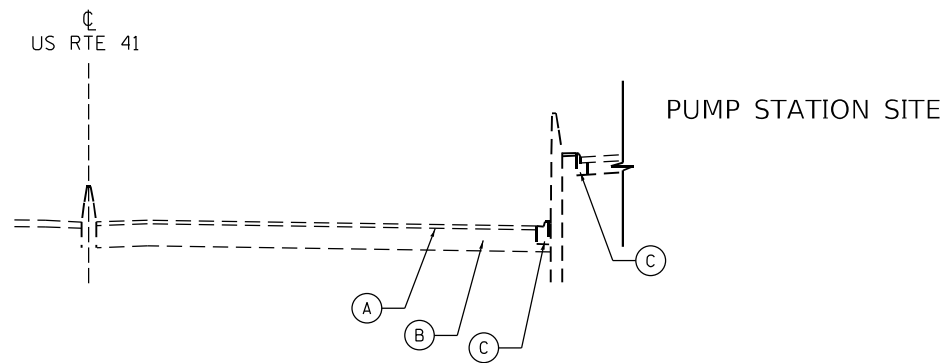
PUMP STATION NO. 37
GENERAL
SUMMARY OF QUANTITIES

SCALE: SHEET OF SHEETS STA. TO STA.

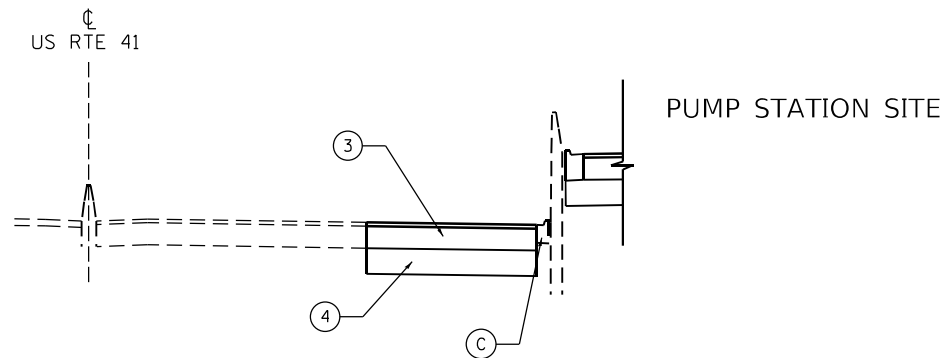
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)L-4	LAKE	186	15
ILLINOIS FED. AID PROJECT CIUX(634)			CONTRACT NO. 62B66	

∅ 0042

REV-SEP



EXISTING TYPICAL SECTION
US RTE 41
STA 877+69.4 TO STA 876+81.8



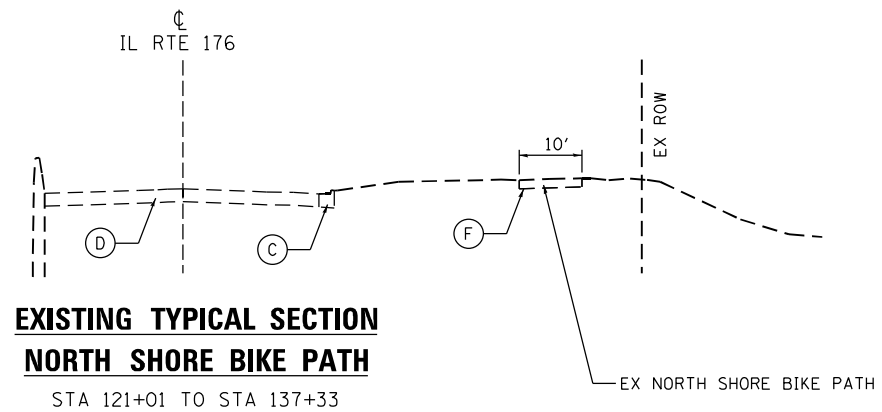
PROPOSED TYPICAL SECTION
US RTE 41
STA 877+69.4 TO STA 876+81.8

EXISTING LEGEND

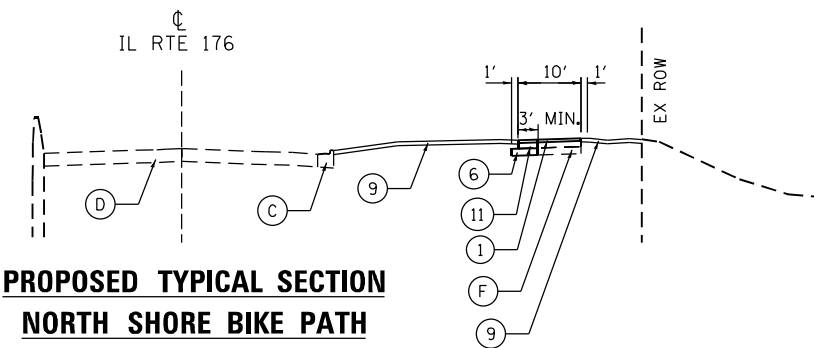
- (A) HMA PAVEMENT, 2 1/2"
- (B) PC CONCRETE BASE COURSE, 9 1/2"
- (C) CURB & GUTTER TYPE B-6.12
- (D) HMA PAVEMENT
- (E) PC CONCRETE BASE COURSE,
- (F) HMA PAVEMENT (VARIES 3'-4')

PROPOSED LEGEND

- (1) HOT-MIX ASPHALT (HMA) SURFACE COURSE, MIX "D", N50, 2"
- (2) HOT-MIX ASPHALT (HMA) BASE COURSE, 8"
- (3) CLASS D PATCHES, 12" (SPECIAL)
- (4) AGGREGATE SUBGRADE IMPROVEMENT, 12"
- (5) AGGREGATE BASE COURSE, TYPE B, 4"
- (6) AGGREGATE BASE COURSE, TYPE B, 6"
- (7) COMBINATION CONCRETE CURB & GUTTER, TYPE M-2.12
- (8) COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.12
- (9) TOPSOIL FURNISH AND PLACE, 4"
SEEDING, CLASS 2A OR CLASS 4A WITH EROSION CONTROL BLANKET
- (10) PORTLAND CEMENT CONCRETE SIDEWALK, 5"
- (11) CLASS D PATCHES, 4"



EXISTING TYPICAL SECTION
NORTH SHORE BIKE PATH
STA 121+01 TO STA 137+33



PROPOSED TYPICAL SECTION
NORTH SHORE BIKE PATH
STA 120+60 TO STA 121+75
STA 123+41 TO STA 124+46
STA 127+11 TO STA 128+20

HMA MIXTURE REQUIREMENTS CHART

OPERATION	MIXTURE TYPE	AIR VOIDS (%) @ Ndes	QUALITY MANAGEMENT PROGRAM (QMP)
PUMP STATION SITE PARKING/ACCESS	HMA SURFACE COURSE, MIX "D", N50 (IL 9.5 mm), 2" HMA BASE COURSE, (HMA BINDER IL-19.0), N50, 8"	4% @ 50 GYR 4% @ 50 GYR	QC/OA QC/OA
COMMERCIAL ENTRANCE	HMA SURFACE COURSE, MIX "D", N50 (IL 9.5 mm), 2" HMA BASE COURSE, (HMA BINDER IL-19.0), N50, 8"	4% @ 50 GYR 4% @ 50 GYR	QC/OA QC/OA
CLASS D PATCHES, 12" (SPECIAL)	HMA SURFACE COURSE, MIX "D", N70 (IL 9.5 mm), 2" HMA BINDER IL-19.0, 10"	4% @ 70 GYR 4% @ 70 GYR	QC/OA QC/OA
CLASS D PATCHES, 4"	HMA BINDER IL-19.0, 4"	4% @ 50 GYR	QC/OA
NORTH SHORE BIKE PATH HMA OVERLAY	HMA SURFACE COURSE, MIX "D", N50 (IL 9.5 mm), 2"	4% @ 50 GYR	QC/OA
*** TEMPORARY PAVEMENT	HMA BINDER IL-19.0, 4"	4% @ 70 GYR	QC/OA

QMP DESIGNATION: QUALITY CONTROL/QUALITY ASSURANCE (QC/OA)

NOTES:

1. THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN
2. THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR 76-22"; AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS.
- *** 3. THE PC CONCRETE TEMPORARY PAVEMENT OPTION SHALL CONSIST OF CLASS PV CONCRETE MEETING THE REQUIREMENTS OF SECTION 1020 OF THE STANDARD SPECIFICATIONS; THICKNESS SHALL BE 4". TEMPORARY PAVEMENT DOES NOT REQUIRE DOWEL BARS. ALL TEMPORARY PAVEMENT SHALL BE PROVIDED OVER AGGREGATE BASE COURSE, TYPE B, 6".

MODEL: Default; FILE: \\nas01.cpe.com\proj\13027_Donohue_P5_31\CADD\CADD_Sheets\CHM1D162B66-sh-27p_section.dgn



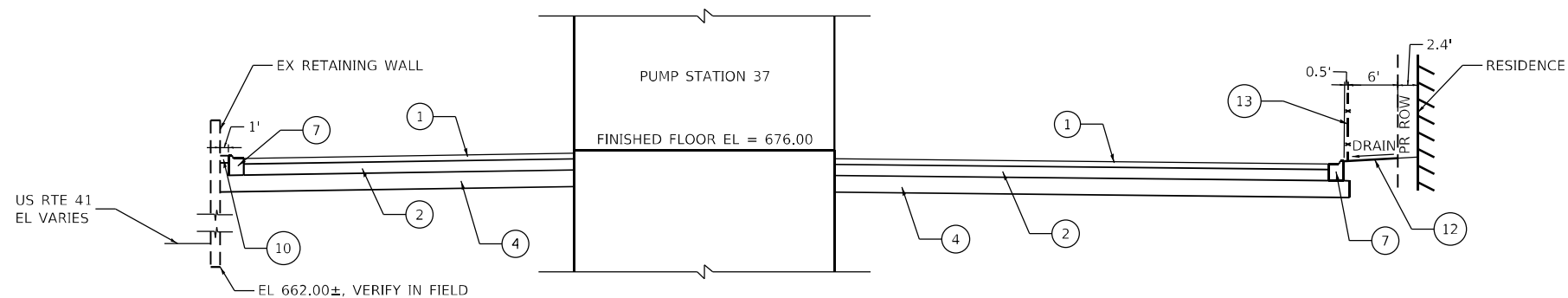
USER NAME = akoller	DESIGNED - AB	REVISED -
DRAWN - AB	REVISIONS -	
PLOT SCALE = 1/8" = 15,000' / 1"	CHECKED - TGM	REVISED -
PLOT DATE = 8/2/2024	DATE - 07-31-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
TYPICAL SECTIONS - I

SCALE: NTS SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE. 346	SECTION (125S-1)L-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 16
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIJX(634)				



**PROPOSED TYPICAL SECTION
PUMP STATION SITE
SECTION A-A**

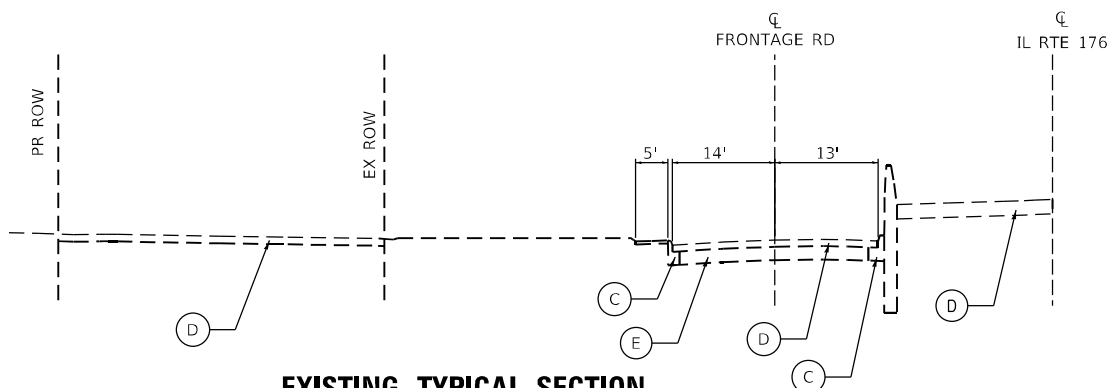
NOT TO SCALE
(SEE SHEET 25)

EXISTING LEGEND

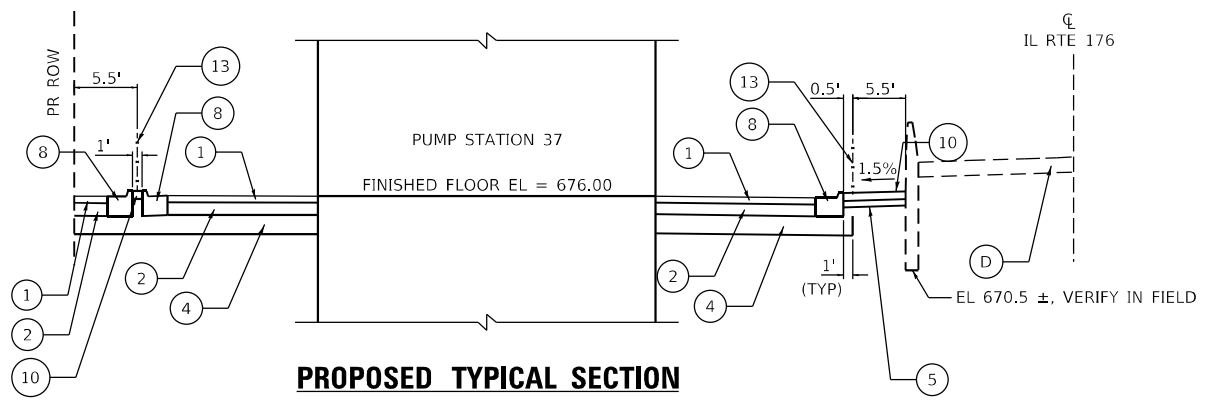
- (C) CURB & GUTTER TYPE B-6.12
- (D) HMA PAVEMENT
- (E) PC CONCRETE BASE COURSE.

PROPOSED LEGEND

- (1) HOT-MIX ASPHALT (HMA) SURFACE COURSE, MIX "D", N50, 2"
- (2) HOT-MIX ASPHALT (HMA) BASE COURSE, 8"
- (3) CLASS D PATCHES, 12" (SPECIAL)
- (4) AGGREGATE SUBGRADE IMPROVEMENT, 12"
- (5) AGGREGATE BASE COURSE, TYPE B, 4"
- (6) AGGREGATE BASE COURSE, TYPE B, 6"
- (7) COMBINATION CONCRETE CURB & GUTTER, TYPE M-2.12
- (8) COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.12
- (9) TOPSOIL FURNISH AND PLACE, 4" SEEDING, CLASS 2A WITH EROSION CONTROL BLANKET
- (10) PORTLAND CEMENT CONCRETE SIDEWALK, 5"
- (11) CLASS D PATCHES, 4"
- (12) STONE RIPRAP, CLASS A3 AND FILTER FABRIC
- (13) CHAIN LINK FENCE, 8' (SPECIAL)



**EXISTING TYPICAL SECTION
PUMP STATION SITE
SECTION B-B**



**PROPOSED TYPICAL SECTION
PUMP STATION SITE
SECTION B-B**

NOT TO SCALE
(SEE SHEET 25)

PARKING LOT NOTES

1. THE SUBGRADE STABILITY SHALL BE VERIFIED BY PROOF ROLLING WITH A FULLY LOADED TANDEM-AXLE TRUCK.
2. ANY AGGREGATE SUBGRADE IMPROVEMENT CONTAMINATED AND/OR DAMAGED BY THE CONTRACTOR'S VEHICLES AND/OR EQUIPMENT IS TO BE REMOVED AND REPLACED AS DIRECTED BY THE ENGINEER AT CONTRACTOR EXPENSE.
3. PIPE UNDERDRAINS SHALL BE INSTALLED ACCORDING TO SECTION 601 OF THE SSRBC AND STANDARD 601001. TOP OF PIPE UNDERDRAINS SHALL BE PLACED A MINIMUM OF 6-INCHES BELOW THE BOTTOM OF THE AGGREGATE SUBGRADE IMPROVEMENT. THE COST OF MAKING PIPE UNDERDRAIN CONNECTIONS TO DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE COST OF THE PIPE UNDERDRAINS, TYPE 2, 4".

MODEL: Default; FILE: 311CAD001CADD_Sheets\CHM1D162066-sh-27p_Sect_Pump_Sta_Shr.dgn



USER NAME = akoller	DESIGNED - TGM	REVISED -
PLOT SCALE = 20,000' / 1"	CHECKED - AB	REVISED -
PLOT DATE = 8/8/2024	DATE - 07-31-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
TYPICAL SECTIONS - II**

SCALE: NTS SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)L-4	LAKE	186	17
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIJX(634)				

TREE REMOVAL SCHEDULE			
STATION	OFFSET	6-15 UNITS DIAMETER (UNIT)	OVER 15 UNITS DIAMETER (UNIT)
129+65	42' RT	9	
130+05	45' RT	6	
130+12	41' RT	6	
130+20	42' RT	10	
130+37	41' RT	7	
130+50	35' RT	10	
131+30	46' RT	12	
131+71	47' RT	12	
134+36	43' RT	10	
120+91	70' LT	12	
121+60	65' LT		17
121+76	63' LT		17
132+36	44' RT		24
132+45	39' RT		18
TOTAL		94	76

REMOVAL SCHEDULE								
STATION	STATION	OFFSET	PAVEMENT REMOVAL (SQ YD)	DRIVEWAY PAVEMENT REMOVAL (SQ YD)	COMBINATION CURB AND GUTTER REMOVAL (FOOT)	SIDEWALK REMOVAL (SQ FT)	PARKING LOT PAVEMENT REMOVAL (SQ YD)	CHAIN LINK FENCE REMOVAL (FOOT)
131+96	132+16	49' LT		53				
133+73	134+14	49' RT		101				
PUMP STATION SITE								
602+29	604+28	14' LT			177	776		
602+29	604+28	14' LT	611		222			
602+16	604+18							170
603+07	603+21					146		
603+05	604+20						666	
US ROUTE 41								
875+75	877+75		135					
BIKE PATH TEMPORARY WIDENING								
120+60	121+75		49					
123+41	124+47		56					
127+11	128+20		73					
TOTAL			924	154	399	922	666	170

AGGREGATE SCHEDULE				
STATION	STATION	AGGREGATE SUBGRADE IMPROVEMENT 12" (SQ YD)	AGGREGATE BASE COURSE, TYPE B 6" (SQ YD)	AGGREGATE BASE COURSE, TYPE B 4" (SQ YD)
BIKE PATH				
121+00	121+37		17	
123+55	124+05		21	
127+50	128+00		28	
DRIVEWAYS				
131+96	132+16		59	
133+73	134+14		107	
PUMP STATION SITE		1517		88
US RTE 41				
876+81.8		877+69.4		
BIKE PATH-TEMPORARY WIDENING				
120+60	121+75		62	
123+41	124+47		67	
127+11	128+20		85	
TOTAL		1517	446	88

PAVEMENT MARKING TAPE SCHEDULE							
STATION	STATION	TYPE/COLOR	TEMPORARY PAVEMENT MARKING LINE 4"-TYPE IV TAPE (FOOT)	TEMPORARY PAVEMENT MARKING LINE 6"-TYPE IV TAPE (FOOT)	TEMPORARY PAVEMENT MARKING LINE 24"-TYPE IV TAPE (FOOT)	TEMPORARY PAVEMENT MARKING-LETTERS AND SYMBOLS -TYPE IV TAPE (FOOT)	SHORT TERM PAVEMENT MARKING REMOVAL (SQ FT)
US RTE 41							
875+75	889+84	SOLID WHITE	2818				465
NORTH SHORE BIKE PATH							
120+43	137+11	SOLID WHITE	3336				182
HELICAL PIERS							
117+87	118+87	SOLID YELLOW	200				33
118+87	120+09	SOLID YELLOW	244				40.3
117+87	120+09	SOLID YELLOW	444				73.3
120+09	122+22	DBL SOLID YELLOW	852				140.6
120+72	124+24	SOLID YELLOW	704				116.2
123+00	124+24	SOLID YELLOW	248				40.9
118+09	120+09	SOLID WHITE	400				66.0
120+09	122+22	SOLID WHITE	426				70.3
122+22	124+24	SOLID WHITE	404				66.7
122+22	123+16	DASH WHITE		62			16
123+16	124+33	SOLID WHITE		234			59
128+03		SOLID WHITE			20		
116+21	116+23	SOLID WHITE			12		
124+23	124+24	SOLID WHITE			12		
123+60		ARROW ONLY				15.2	
123+50						21.4	
ROUNDED TOTAL			10076	296	44	73	1368

TEMPORARY CONCRETE BARRIER SCHEDULE			
STATION	STATION	TEMPORARY CONCRETE BARRIER (FOOT)	PINNING TEMPORARY CONCRETE BARRIER (EACH)
US RTE 41			
875+75	878+00	225	78
878+00	879+25	125	
IL RTE 176			
119+53	123+28	375	60
BIKE PATH			
120+99	121+37	38	
123+56	124+06	50	
127+50	128+00	50	
129+60	130+10	50	
TOTAL		912.5	138

TEMPORARY PAVEMENT SCHEDULE		
STATION	STATION	TEMPORARY PAVEMENT (SQ YD)
TEMPORARY BIKE PATH WIDENING		
120+60	121+75	49
123+41	124+47	56
127+11	128+20	73
TOTAL		178

CLASS D PATCHES SCHEDULE				
STATION	STATION	CLASS D PATCHES, TYPE II, 4 INCH (SQ YD)	CLASS D PATCHES, TYPE III, 4 INCH (SQ YD)	CLASS D PATCHES, TYPE IV, 12" (SPECIAL) (SQ YD)
121+00	121+37	13		
123+55	124+05		16	
127+50	128+00		23	
US RTE 41				
876+80	877+70			135
TOTAL		13	39	135

HOT-MIX ASPHALT SCHEDULE				
STATION	STATION	HOT-MIX ASPHALT BASE COURSE, 8" (SQ YD)	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (TON)	BITUMINOUS MATERIALS (TACK COAT) (POUND)
120+60	121+75		14	57
123+35	124+46		14	56
127+11	128+20		14	55
132+07	132+80	53	6	24
133+97	134+56	101	11	45
PUMP STATION SITE		1185	133	532
US RTE 41				
876+82	877+69			61
TOTAL		1339	193	830

IMPACT ATTENUATORS SCHEDULE		
STATION	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2 (SQ YD)	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3 (SQ YD)
IL 176		
119+53	1	
120+17	1	
US 41		
879+25		1
TOTAL	2	1

PAVEMENT MARKER SCHEDULE					
STATION	STATION	RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REMOVAL (EACH)	RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REPLACEMENT (EACH)	RAISED REFLECTIVE PAVEMENT MARKER, REMOVAL (EACH)	RAISED REFLECTIVE PAVEMENT MARKER (EACH)
US RTE 41					
878+00	889+84	30	30		
875+75	878+00			6	6
HELICAL PIERS					
117+87	120+42	15	15		
117+87	119+58	11	11		
119+58	124+24	25	25		
122+28	124+24	6	6		
PUMP STATION SITE					
TOTAL		87	87	6	6

HMA BUTT JOINT REMOVAL SCHEDULE		
STATION	STATION	HMA SURFACE REMOVAL- BUTT JOINT (SQ YD)
BIKE PATH:		
120+60	120+80	22
121+55	121+75	22
123+35	123+55	22
124+26	124+46	22
127+11	127+31	22
128+00	128+20	22
TOTAL		134

TREE ROOT PRUNING SCHEDULE			
LOCATION	1-10 INCH DIAMETER (EACH)	OVER 10 INCH DIAMETER (EACH)	TREE ROOT PRUNING (EACH)
IL 176	1	1	1
TOTAL	1	1	1

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USER NAME = abee	DESIGNED - TGM	REVISED -
PLOT SCALE = 2.0000' / in.	DRAWN - JN	REVISED -
PLOT DATE = 9/19/2024	CHECKED - JMT	REVISED -
	DATE - 07-31-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PUMP STATION NO. 37 GENERAL SCHEDULES OF QUANTITIES			
SCALE:	SHEET 1 OF 2 SHEETS	STA.	TO STA.

F.A.P RTE. 346	SECTION (125S-1)I-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 18
CONTRACT NO. 62B66				ILLINOIS FED. AID PROJECT. CBX(834)

LANDSCAPING SCHEDULE							
STATION	STATION	TOPSOIL FURNISH & PLACE, 4" (SQ YD)	SEEDING, CLASS 2A (ACRE)	NITROGEN FERTILIZER NUTRIENT (POUND)	POTASSIUM FERTILIZER NUTRIENT (POUND)	EROSION CONTROL BLANKET (SQ YD)	SEEDING, CLASS 4A (ACRE)
120+44	121+83	215	0.04	4	4	215	
120+44	124+79	1254	0.26	24	24	1254	
123+31	124+57	231	0.05	4	4	231	
125+38	128+30	640	0.13	12	12	640	
127+01	128+36	260	0.05	5	5	260	
129+28	131+98	841				841	0.17
132+16	133+80	484				484	0.10
134+08	137+20	941				940	0.19
PUMP STATION SITE			0.01	1	1		
ROUNDED TOTAL		4865	1	50	50	4865	1

STONE RIPRAP SCHEDULE				
STATION	STATION	STONE RIPRAP, CLASS A3 (SQ YD)	STONE RIPRAP, CLASS A4 (SQ YD)	FILTER FABRIC (SQ YD)
137+10	137+33		39	39
PUMP STATION SITE		48		48
TOTAL		48	39	87

INLET FILTER SCHEDULE		
STATION	OFFSET	INLET FILTERS (EACH)
876+48	36' LT	1
877+32	36' LT	1
877+74	35' LT	1
878+59	36' LT	1
121+18	21' LT	1
121+21	22' LT	1
122+02	52' LT	1
122+35	22' LT	1
122+95	53' LT	1
123+03	48' LT	1
123+86	22' LT	1
124+59	59' LT	1
125+73	25' LT	1
125+24	22' LT	1
135+10	32' LT	1
PUMP STATION SITE		29
TOTAL		44

EROSION CONTROL SCHEDULE			
STATION	STATION	TEMPORARY EROSION CONTROL SEEDING (POUND)	TEMPORARY DITCH CHECKS (FOOT)
120+44	121+83	10	
120+44	124+79	57	
123+31	124+57	10	
125+38	128+30	29	
127+01	128+36	12	
129+28	131+98	38	
132+16	133+80	22	
134+08	137+20	43	
131+90			10
133+64			10
PUMP STATION SITE		74	
TOTAL		296	20

TEMPORARY FENCE (SPECIAL) SCHEDULE				
STATION	OFFSET	STATION	OFFSET	TEMPORARY FENCE (SPECIAL) (FOOT)
120+44	40.5'RT	120+63	53'RT	19
120+63	53'RT	120+99	58'RT	36
120+99	58'RT	121+37	58'RT	38
121+37	58'RT	121+77	51'RT	40
121+77	51'RT	123+41	50'RT	164
123+41	50'RT	123+56	53.7'RT	15
123+56	53.7'RT	124+06	53'RT	50
124+06	53'RT	124+50	40'RT	44
124+50	40'RT	124+74	37'RT	24
125+61	38'RT	125+85	37'RT	24
125+85	37'RT	127+08	44'RT	123
127+08	44'RT	127+50	54'RT	42
127+50	54'RT	128+00	54'RT	50
128+00	54'RT	128+24	48'RT	24
128+24	48'RT	128+50	49.6'RT	26
129+22	46'RT	129+60	46.5'RT	38
129+60	46.5'RT	131+93	51'RT	233
132+19	50'RT	133+77	50'RT	158
134+11	51'RT	134+99	53'RT	88
134+99	53'RT	135+67	50'RT	68
135+67	50'RT	137+11	48'RT	144
TOTAL				1448

THERMOPLASTIC PAVEMENT MARKING SCHEDULE							
STATION	STATION	TYPE/COLOR	THERMOPLASTIC PAVEMENT MARKING LINE 4" (FOOT)	THERMOPLASTIC PAVEMENT MARKING LINE 6" (FOOT)	THERMOPLASTIC PAVEMENT MARKING LINE 12" (FOOT)	THERMOPLASTIC PAVEMENT MARKING LINE 24" (FOOT)	THERMOPLASTIC PAVEMENT MARKING LETTERS & SYMBOLS (SQ FT)
BIKE PATH							
120+43	124+80		111				73
125+40	128+54						
120+42	128+52	DASH YELLOW	81	206			61
US RTE 41							
875+75	889+84	DASH WHITE	360				
875+75	889+84	SOLID WHITE	1409				
875+75	878+00	SOLID YELLOW	225				
877+01					7		
878+60					9		
US RTE 176							
116+22	119+28						
117+89	119+28	DBL SOLID YELLOW	564				
119+58	120+42	DBL SOLID YELLOW	336				
120+72	122+28	DBL SOLID YELLOW	624				
122+28	124+24	SOLID WHITE		195			
120+83	122+13	DASH WHITE		43			
122+28	124+24	DBL SOLID YELLOW	392				
118+39	118+43				6		
119+07	119+18				15		
119+77	119+93				22		
121+27	121+35				11		
128+03						20	
124+24						31	
128+03							7.2
128+03							54
122+62							21
122+88							16
123+87							21
124+13							16
TOTAL			4102	445	70	51	134

EARTH WORK SUMMARY							
		TEMPORARY WIDENING			FINAL GRADING		
STATION	STATION	CUT (CU YD)	FILL (CU YD)	ADJUSTMENT FOR SHRINKAGE	CUT (CU YD)	FILL (CU YD)	ADJUSTMENT FOR SHRINKAGE
120+75	128+50	56	3	48	238	29	203
128+64	137+00				267		227
PUMP STATION SITE					400		
TOTAL		56	3	48	905	29	430

MODIFIED URETHANE PAVEMENT MARKING SCHEDULE				
STATION	STATION	MODIFIED URETHANE PAVEMENT MARKING- LINE 4" (FOOT)	MODIFIED URETHANE PAVEMENT MARKING- LINE 6" (FOOT)	MODIFIED URETHANE PAVEMENT MARKING- LINE 12" (FOOT)
119+28	119+58	60		
119+28	119+58	60		
120+43	120+72	60		
120+43	120+72	60		
120+52	120+66		20	20
TOTAL		240	20	20

TEMPORARY FENCE SCHEDULE				
STATION	OFFSET	STATION	OFFSET	TEMPORARY FENCE (SPECIAL) (FOOT)
120+76	121' LT	121+76	121' LT	101
121+76	121' LT	121+77	59' LT	62
128+24	33' RT	128+24	48' RT	15
129+40	32' RT	129+40	46' RT	14
TREE PROTECTION				
126+02	28' RT	126+44	28' RT	42
126+44	28' RT	126+44	41' RT	13
126+44	41' RT	126+02	37' RT	42
126+02	37' RT	126+02	28' RT	9
TOTAL				298

CURB AND GUTTER SCHEDULE			
STATION	STATION	CURB AND GUTTER B-6.12 (FT)	CURB AND GUTTER M-2.12 (FT)
PUMP STATION SITE		135	282
TOTAL		135	282

SIDEWALK SCHEDULE			
STATION	STATION	PCC CONCRETE SIDEWALK 5 INCH (SQ FT)	DETECTABLE WARNING (SQ FT)
PUMP STATION SITE		790	20
TOTAL		790	20

PAVEMENT MARKING REMOVAL- WASTER BLASTING SCHEDULE			
STATION	STATION	TYPE	PAVEMENT MARKING REMOVAL- WATER BLASTING (SQ FT)
875+75	889+84	DASH YELLOW	120
875+75	889+84	SOLID YELLOW	120
117+87	119+58	YELLOW DBL. CEN LINE	114
119+58	120+42	YELLOW DBL. CEN LINE	56
120+42	122+28	YELLOW DBL. CEN LINE	124
122+28	124+24	YELLOW DBL. CEN LINE	131
117+96	119+58	YELLOW DBL. CEN LINE	108
119+58	122+28	YELLOW DBL. CEN LINE	180
120+43	122+28	DASH YELLOW	23
116+21		SOLID WHITE	60
116+22	117+96	SOLID WHITE	87
117+96	119+28	DASH WHITE	17
122+28	124+24	SOLID WHITE	98
124+24		SOLID WHITE	58
118+41	121+31	SOLID YELLOW	54
116+47		SOLID WHITE	36.4
124+00		SOLID WHITE	36.4
TOTAL			1422

PERIMETER EROSION BARRIER SCHEDULE			
STATION	STATION	OFFSET	PERIMETER EROSION BARRIER (FOOT)
120+76	121+79	123' LT	103
121+79	121+79	123' LT	63
120+82	124+90	81' RT	408
125+27	128+38	81' RT	311
129+39	131+33	80' RT	194
131+44	132+59	80' RT	115
132+59	132+58	112' RT	33
132+58	133+66	103' RT	109
133+66	133+84	110' RT	19
134+09	134+32	97' RT	26
134+32	136+97	91' RT	276
136+97	137+03	109' RT	20
PUMP STATION SITE			163
TOTAL			1843

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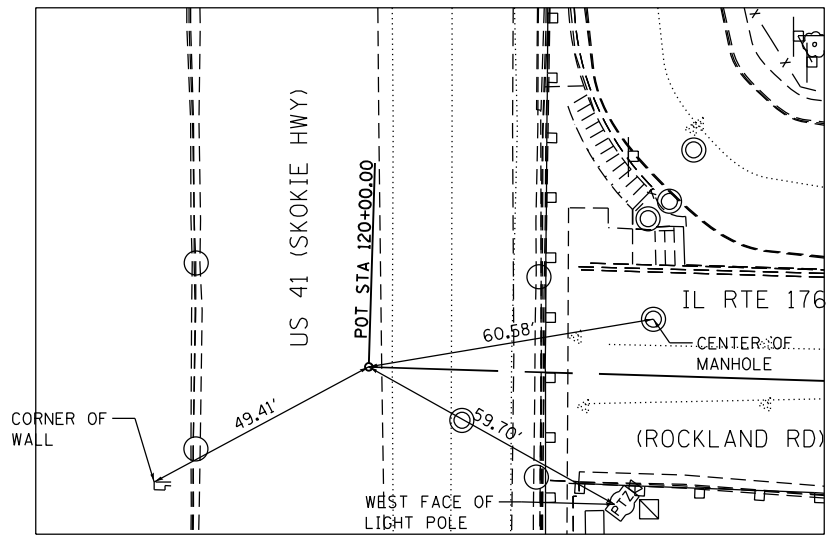
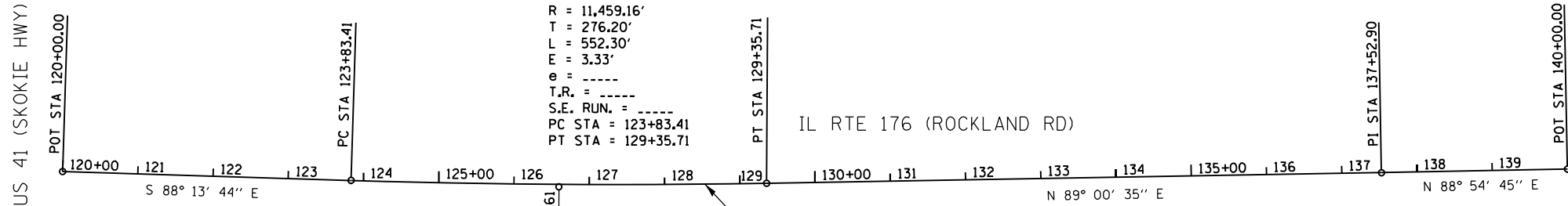
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PUMP STATION NO. 37 GENERAL SCHEDULES OF QUANTITIES			
SCALE:	SHEET 2 OF 2 SHEETS	STA.	TO STA.

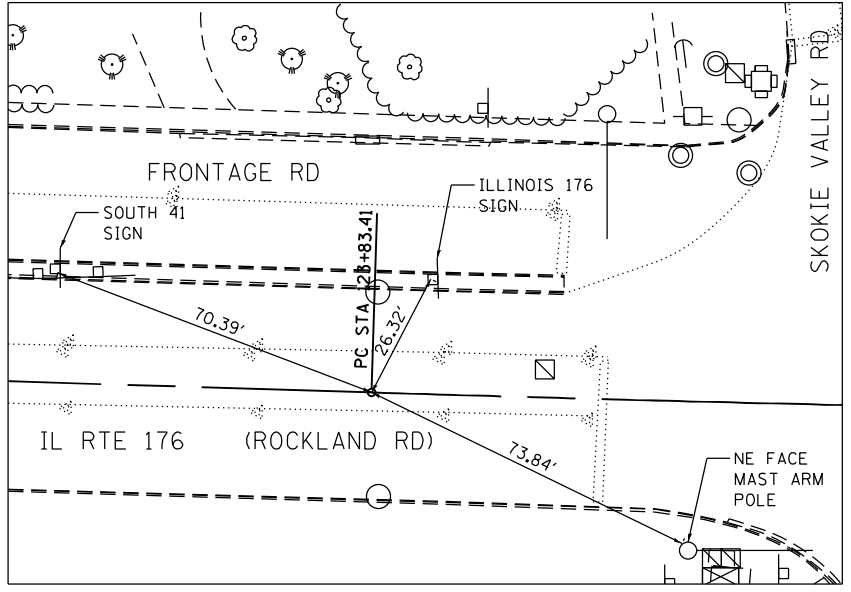
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CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CRUX(534)				

EX CURVE 176ALI-1
 PI STA = 126+59.61
 $\Delta = 2^\circ 45' 41''$ (LT)
 $D = 0^\circ 30' 00''$
 $R = 11,459.16'$
 $T = 276.20'$
 $L = 552.30'$
 $E = 3.33'$
 $e = \text{---}$
 $T.R. = \text{---}$
 S.E. RUN. = ---
 PC STA = 123+83.41
 PT STA = 129+35.71



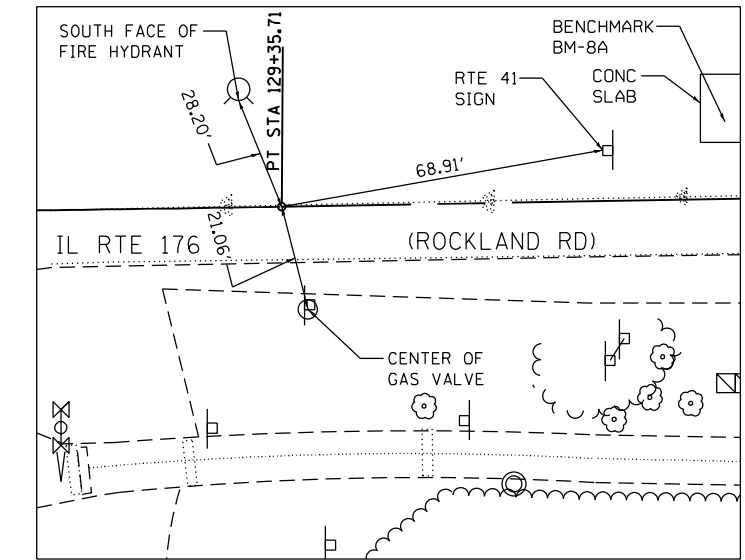
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 EL = 679.52



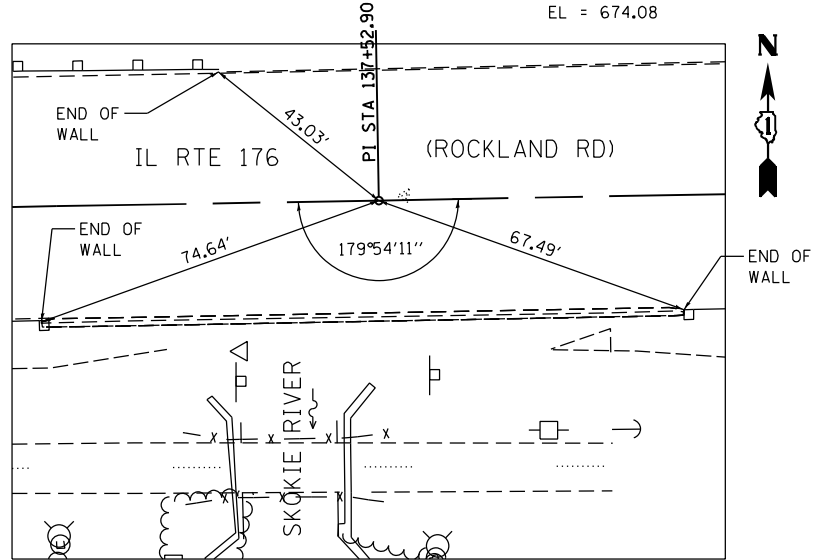
PC STA 123+83.41

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 EL = 674.08



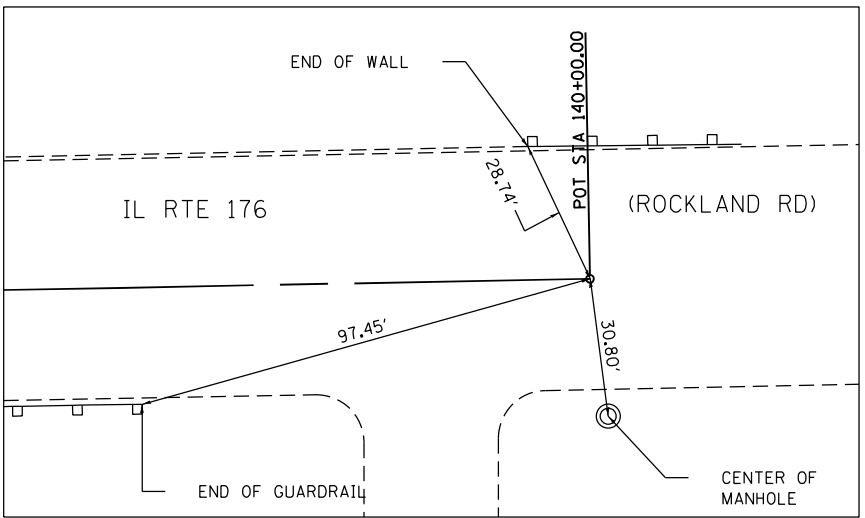
PT STA 129+35.71

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 EL = 677.53



PI STA 137+52.90

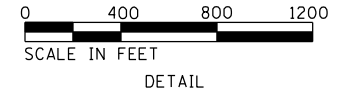
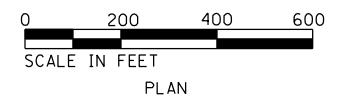
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 E = 1111225.649
 EL = 674.55



POT STA 140+00.00

SET MAG NAIL
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 E = 1111472.709
 EL = 672.62

BENCHMARKS:
 BM-8A
 BOX CUT ON 12' CONCRETE SLAB APPROXIMATELY 1000' EAST OF ROUTE 41 & APPROXIMATELY 200' EAST OF RAILROAD TRACKS ON NORTH SIDE OF ROUTE 176 (ROCKLAND ROAD).
 EL = 674.11
 OSBM 10-1
 SQUARE CUT ON THE NORTHEAST CORNER OF ABUTMENT/WALL ON THE SOUTH SIDE OF ROUTE 176 (ROCKLAND ROAD), ON THE EAST SIDE OF ROUTE 41 PEDESTRIAN BRIDGE (LABELED EL. 103.43 RT 176 BRIDGE WORK)
 EL = 681.98



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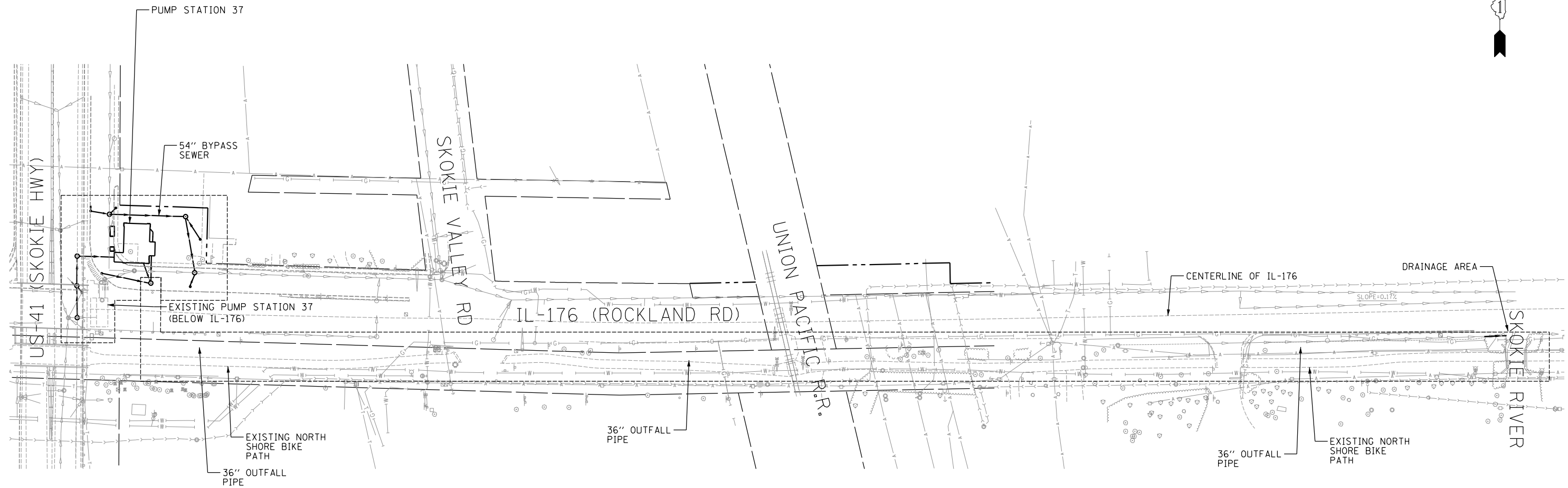
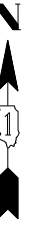


USER NAME = akoller	DESIGNED - JN	REVISED -
DRAWN - JN	REVISED -	
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DATE - 07-31-2024	REVISED -	

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

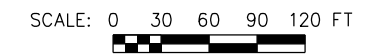
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SCALE:	SHEET 1 OF 1 SHEETS	STA.	TO STA.

F.A.P. RTE. 346	SECTION (125S-1)I-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 20
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT C10X(634)				



GENERAL NOTES:

1. SEE SHEETS 119-121, S-35 - S-37, FOR SOIL BORINGS.
2. SEE SHEETS 41-44 FOR EROSION CONTROL.
3. SEE SHEETS 36-40 FOR MAINTENANCE OF TRAFFIC AND TRAFFIC CONTROL, RESPECTIVELY.



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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

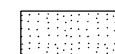

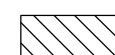
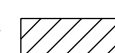



**PUMP STATION NO. 37
CIVIL
OVERALL SITE PLAN**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	21
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CJUX(634)				



REMOVAL LEGEND

-  PARKING LOT PAVEMENT REMOVAL
-  SIDEWALK REMOVAL
-  PAVEMENT REMOVAL
-  COMBINATION CURB & GUTTER REMOVAL
-  TREE REMOVAL
-  CHAIN LINK FENCE REMOVAL
-  SIGN REMOVAL

US 41 (SKOKIE HIGHWAY)

EXISTING HMA PARKING LOT

EXISTING RETAINING WALL
EXISTING CURB & GUTTER

REMOVE SIGN PANEL ASSEMBLY-TYPE B

STA 877+50.92
US 41 (SKOKIE HWY)=
STA 119+99.87
IL 176 (ROCKLAND RD)

120+00

602

EX ROW

PR ROW

PR ROW

EX ROW

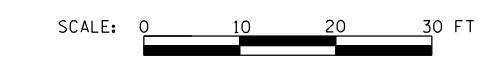
31'

FRONTAGE ROAD

605+00

604

IL 176 (ROCKLAND RD.)



- NOTES:
- ALL REMOVAL WORK SHOWN WILL BE COMPLETED IN DEMOLITION STAGE I.
 - SEE SHEETS 24 AND 25 (CIVIL PUMP STATION - DEMOLITION PLAN STAGE I-II) FOR PIPE AND STRUCTURE REMOVAL/ABANDONMENT AND DEMOLITION STAGING.

MODEL: Default
FILE: Model - G:\Engineering\101\101\Projects\13027_Donohue\PS_37\CADD\CADD_Sheets\CHM\162066-11-Site_Removal_Plan.dgn



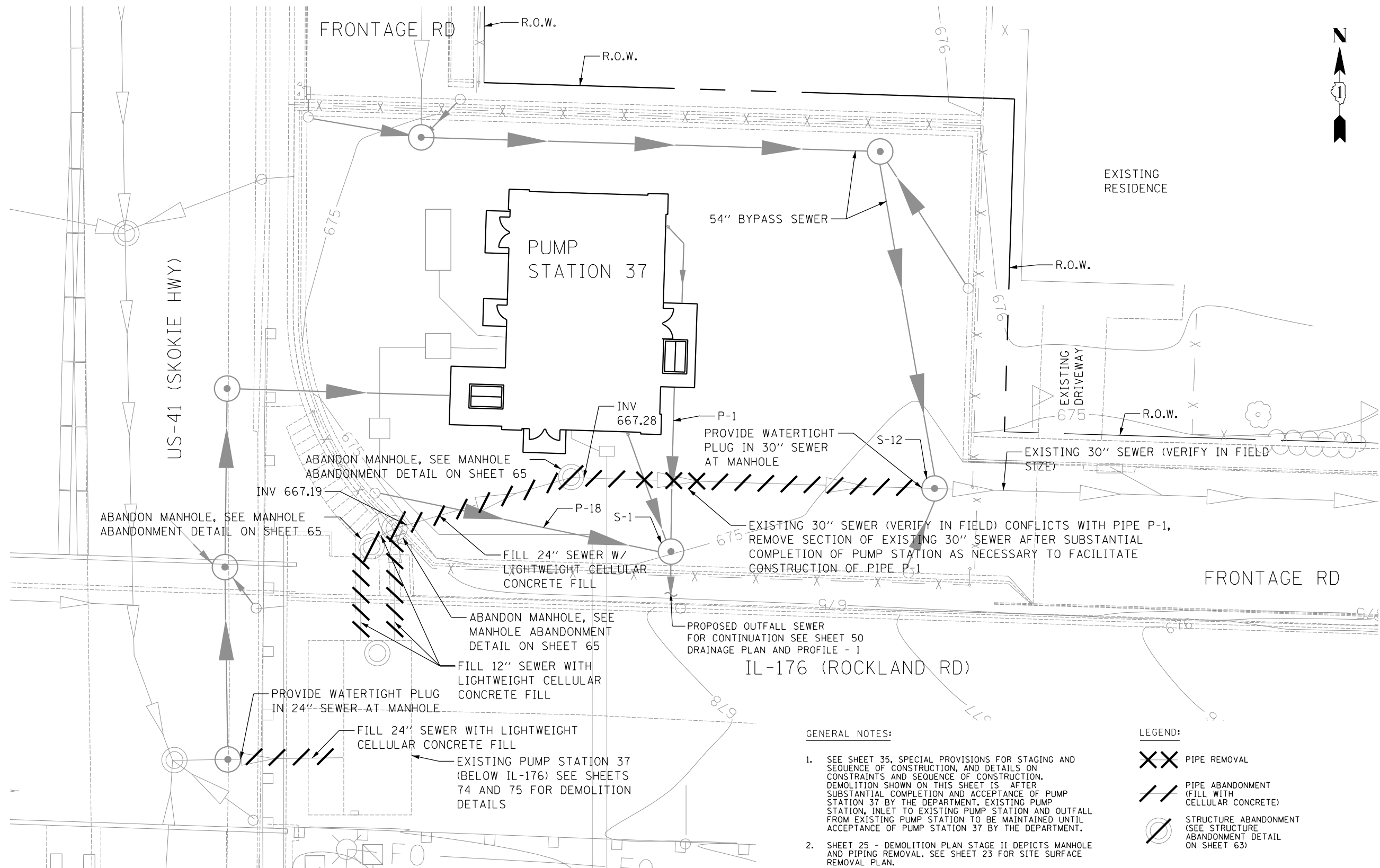
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DRAWN - JN	REVISED -	
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PLOT DATE = 8/8/2024	DATE - 07-31-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
CIVIL PUMP STATION
SITE SURFACE REMOVAL PLAN

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE. 346	SECTION (125S-1)I-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 23
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIJX(634)				



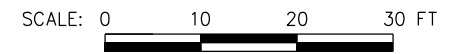
EXISTING 30" SEWER (VERIFY IN FIELD) CONFLICTS WITH PIPE P-1, REMOVE SECTION OF EXISTING 30" SEWER AFTER SUBSTANTIAL COMPLETION OF PUMP STATION AS NECESSARY TO FACILITATE CONSTRUCTION OF PIPE P-1

GENERAL NOTES:

- SEE SHEET 35, SPECIAL PROVISIONS FOR STAGING AND SEQUENCE OF CONSTRUCTION, AND DETAILS ON CONSTRAINTS AND SEQUENCE OF CONSTRUCTION. DEMOLITION SHOWN ON THIS SHEET IS AFTER SUBSTANTIAL COMPLETION AND ACCEPTANCE OF PUMP STATION 37 BY THE DEPARTMENT. EXISTING PUMP STATION, INLET TO EXISTING PUMP STATION AND OUTFALL FROM EXISTING PUMP STATION TO BE MAINTAINED UNTIL ACCEPTANCE OF PUMP STATION 37 BY THE DEPARTMENT.
- SHEET 25 - DEMOLITION PLAN STAGE II DEPICTS MANHOLE AND PIPING REMOVAL. SEE SHEET 23 FOR SITE SURFACE REMOVAL PLAN.
- SHEET 24 - DEMOLITION PLAN STAGE I IS TO BE COMPLETED PRIOR TO SUBSTANTIAL COMPLETION AND ACCEPTANCE OF PUMP STATION 37 BY THE DEPARTMENT. SHEET 25 DEPICTS STAGE II DEMOLITION THAT CANNOT BE STARTED UNTIL AFTER SUBSTANTIAL COMPLETION AND ACCEPTANCE OF PUMP STATION 37 BY THE DEPARTMENT.

LEGEND:

- PIPE REMOVAL
- PIPE ABANDONMENT (FILL WITH CELLULAR CONCRETE)
- STRUCTURE ABANDONMENT (SEE STRUCTURE ABANDONMENT DETAIL ON SHEET 63)



MODEL: S:\08\DEM\NAMES FILE NAMES: SHEETS

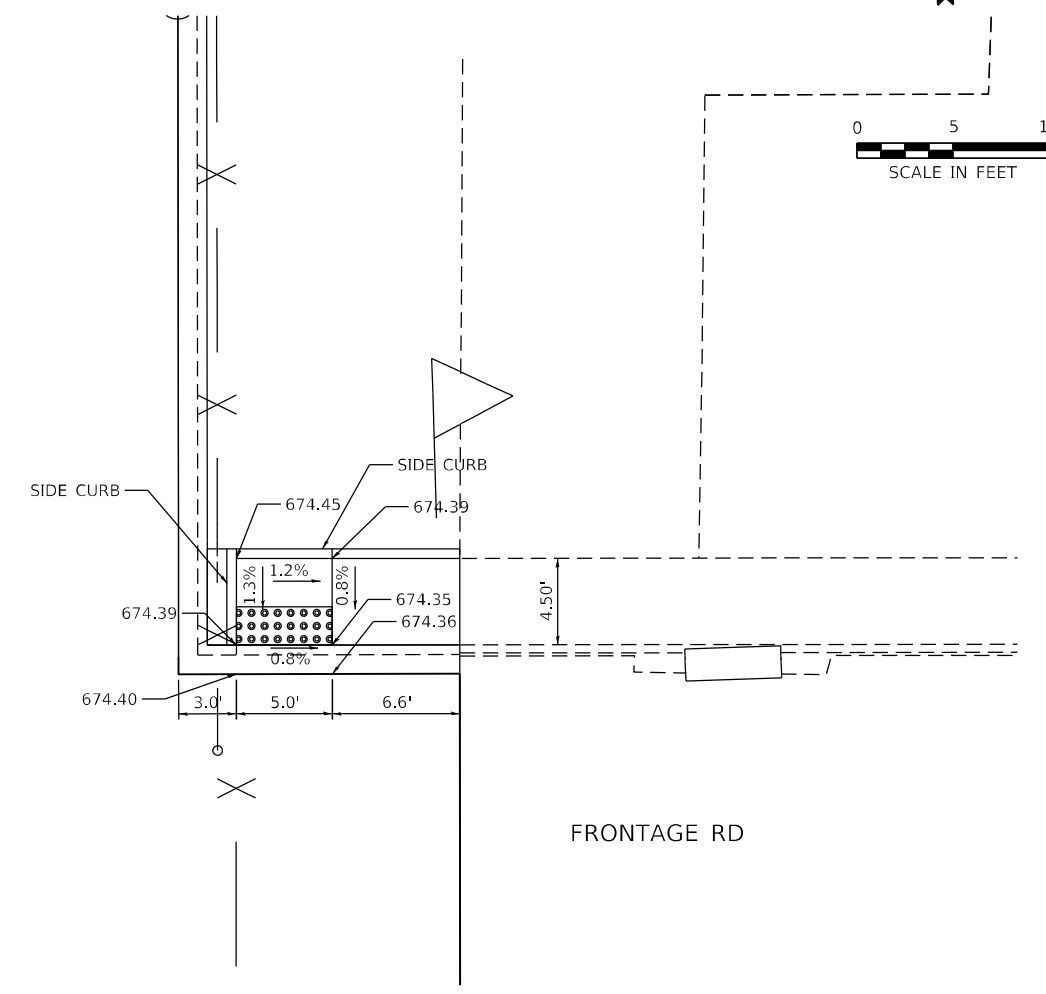
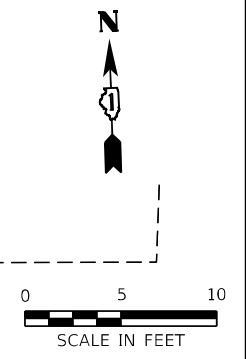
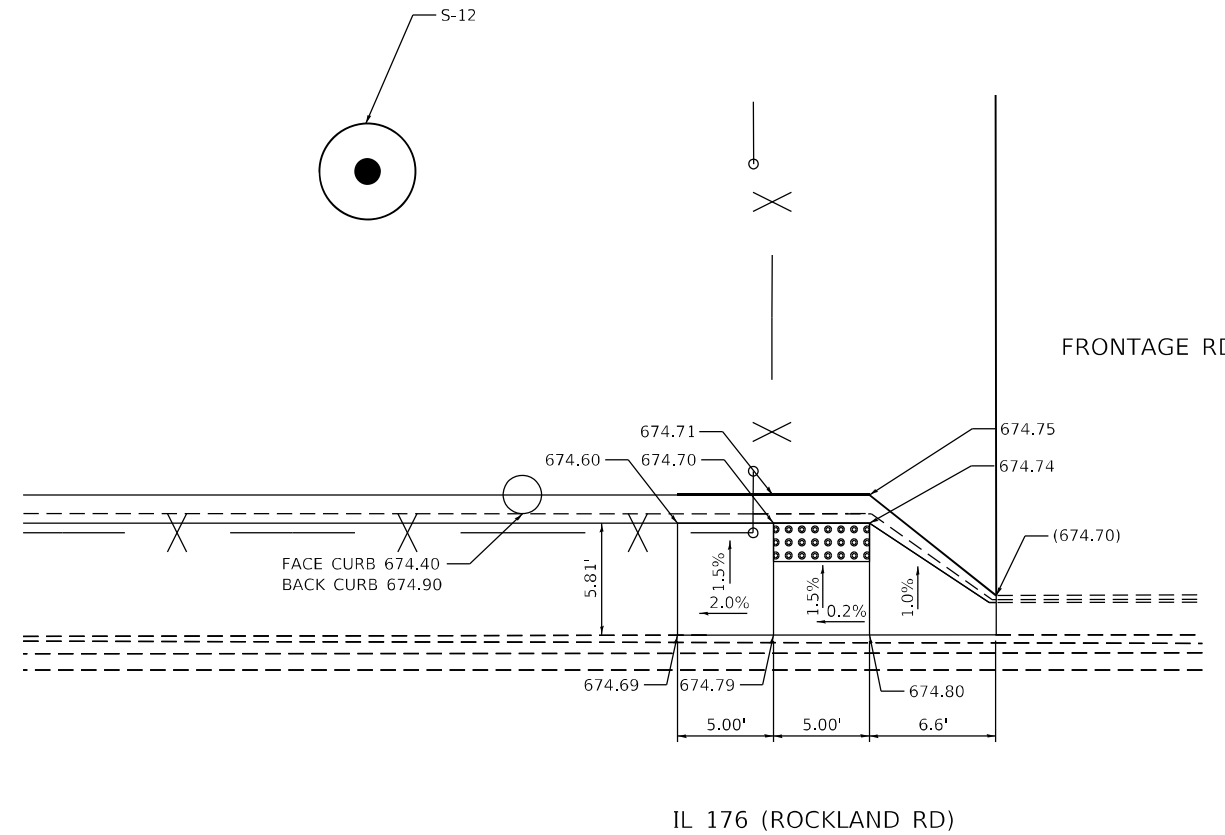
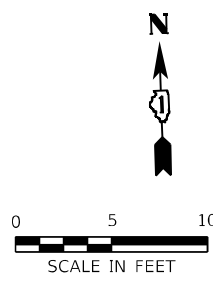


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PLOT SCALE = AS NOTED	DRAWN -	REVISED -
PLOT DATE = 08/09/24	CHECKED -	REVISED -
	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PUMP STATION NO. 37 CIVIL DEMOLITION PLAN STAGE II			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	25
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CRJX(634)				



LEGEND

- PROPOSED SIDEWALK
- PROPOSED SIDE CURB
- () EXISTING ELEVATION/SLOPE
- T.O.C. TOP OF CURB
- DETECTABLE WARNINGS

FILE NAME = O:\Engineering\LiveProjects\13027_Donohue_P5_37\CADD\CADD_Sheets\Civil\102B66-sh-ADA_Ramp.scdgn



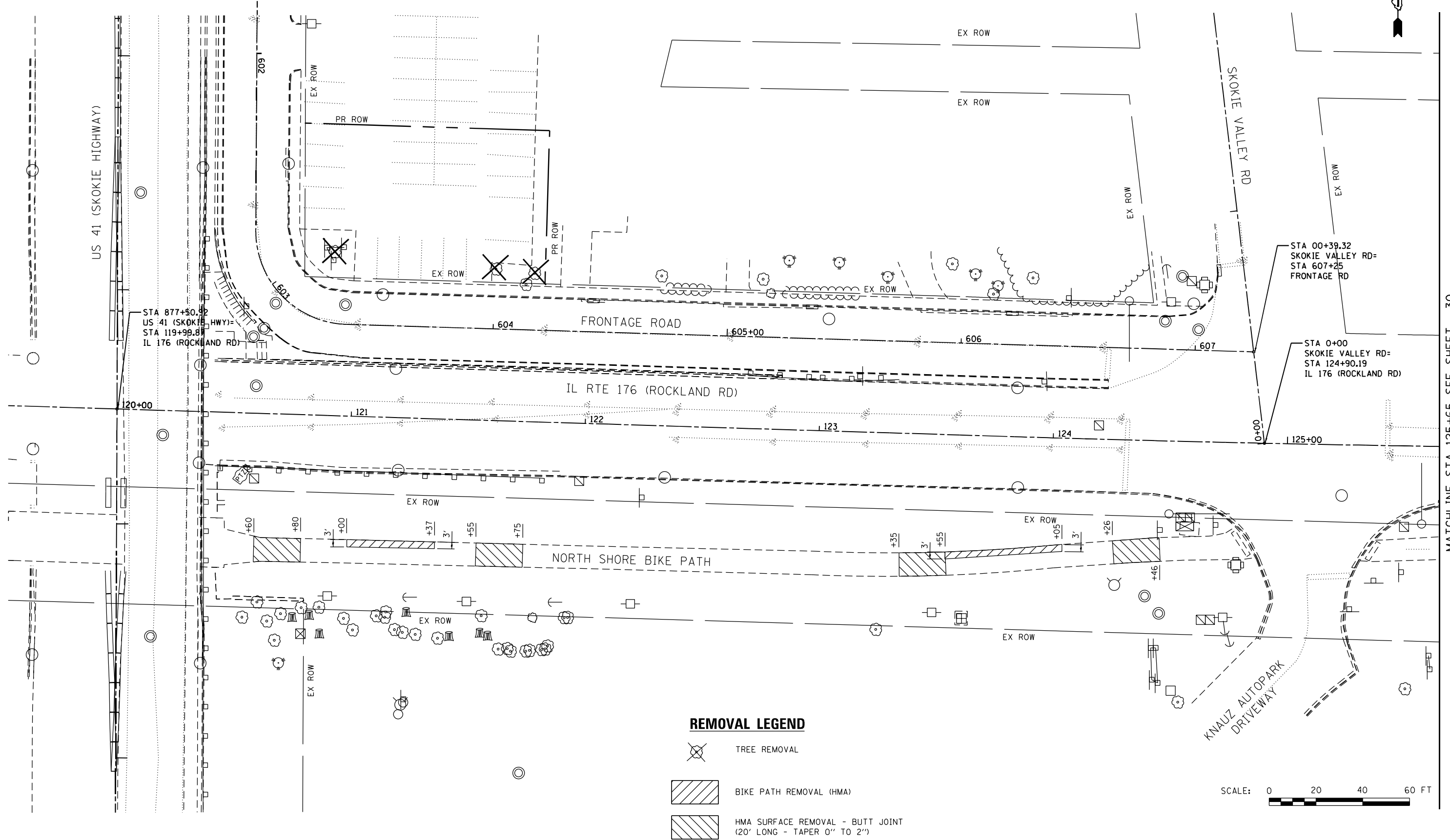
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DRAWN - JN	REVISIONS -	
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PLOT DATE = 8/2/2024	DATE - 07-31-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**




**PUMP STATION NO. 37
CIVIL
SIDEWALK AND ADA RAMP DETAILS**

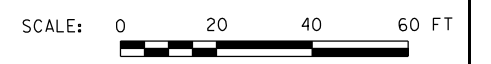
SCALE: 1" = 5' SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)1-4	LAKE	186	28
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT				



REMOVAL LEGEND

-  TREE REMOVAL
-  BIKE PATH REMOVAL (HMA)
-  HMA SURFACE REMOVAL - BUTT JOINT (20' LONG - TAPER 0" TO 2")



MATCHLINE STA 125+65 SEE SHEET 30

MODEL: Default; FILE: 125+65; C:\Eng\Inventry\125+65\Project\125+65\Drawings\PS_31\CADD\CADD_Sheets\CHM162966-11-176_Renr_1.dwg



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DRAWN - AB	REVISIONS -	
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PLOT DATE = 8/2/2024	DATE - 07-31-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PUMP STATION NO. 37 SEWER WORK NORTH SHORE BIKE PATH REMOVAL PLAN - I	
SCALE: 1" = 20'	SHEET 1 OF 3 SHEETS
STA. 120+00	TO STA. 125+65

F.A.P. RTE. 346	SECTION (125S-1)I-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 29
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIJX(634)				



WETLAND 9 - 0.25 ACRE
NO IMPACT





WETLAND 8 - 0.06 ACRE
NO IMPACT

MATCH LINE STA 125+65 SEE SHEET 29

MATCH LINE STA 131+50 SEE SHEET 31



REMOVAL LEGEND

-  TREE REMOVAL
-  VEGETATION / BUSH REMOVAL
-  BIKE PATH REMOVAL (HMA)
-  HMA SURFACE REMOVAL - BUTT JOINT (20' LONG - TAPER 0" TO 2")

SCALE: 0 20 40 60 FT

MODEL: Default
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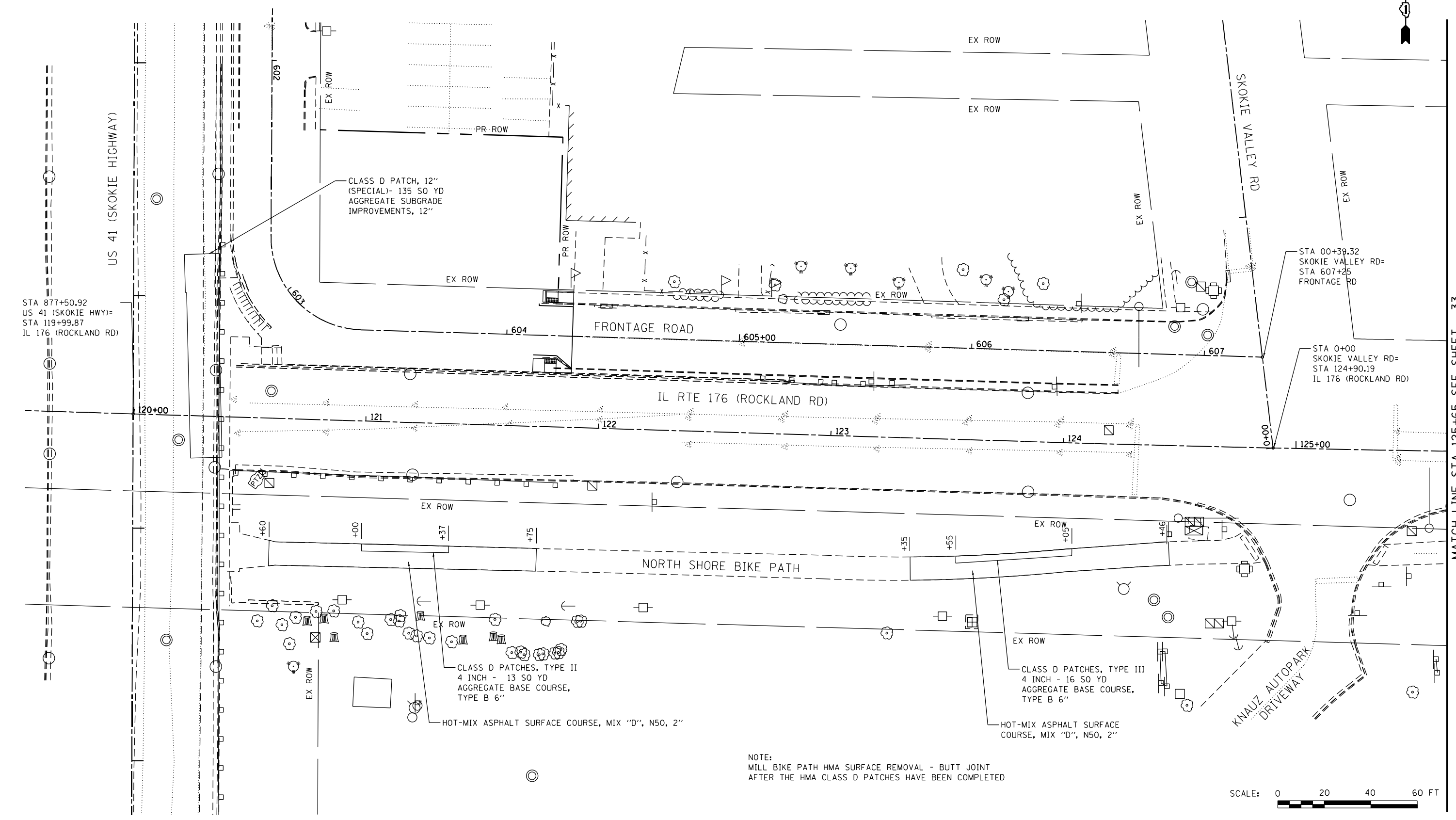
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PLOT DATE = 8/2/2024	DATE - 07-31-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
SEWER WORK
NORTH SHORE BIKE PATH REMOVAL PLAN - II**

SCALE: 1" = 20' SHEET 2 OF 3 SHEETS STA. 125+65 TO STA. 131+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)L-4	LAKE	186	30
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIJX(634)				



NOTE:
MILL BIKE PATH HMA SURFACE REMOVAL - BUTT JOINT
AFTER THE HMA CLASS D PATCHES HAVE BEEN COMPLETED

SCALE: 0 20 40 60 FT

MODEL: Default; FILE: 125+65_01_Eng\125+65\125+65_01_N5_Bike_Path_Plan_1.dwg; PLOT DATE: 8/2/2024



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DRAWN - JN	REVISED -	
PLOT SCALE = 40,000' / 1"	CHECKED - JMT	REVISED -
PLOT DATE = 8/2/2024	DATE - 07-31-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
SEWER WORK
NORTH SHORE BIKE PATH PAVEMENT RESTORATION - I**

SCALE: 1" = 20' SHEET 1 OF 3 SHEETS STA. 120+00 TO STA. 125+65

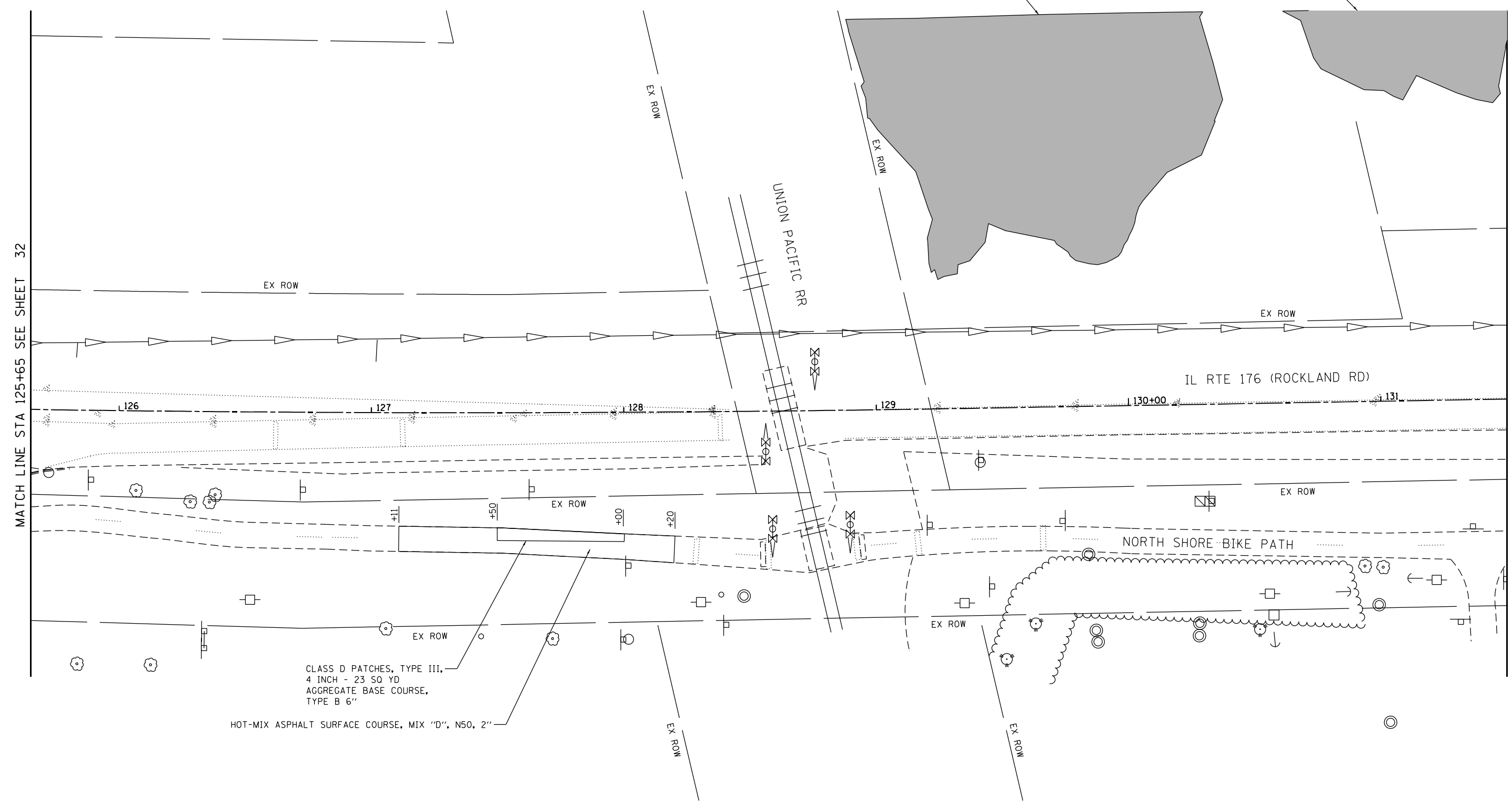
F.A.P. RTE. 346	SECTION (125S-1)L-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 32
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIJX(634)				

MATCH LINE STA 125+65 SEE SHEET 33



WETLAND 9 - 0.25 ACRES
NO IMPACT
(EXTENDS OFFSITE)

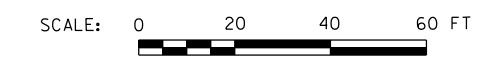
WETLAND 8 - 0.06 ACRES
NO IMPACT



CLASS D PATCHES, TYPE III,
4 INCH - 23 SQ YD
AGGREGATE BASE COURSE,
TYPE B 6"

HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 2"

NOTE:
MILL BIKE PATH HMA SURFACE REVOVAL - BUTT JOINT
AFTER THE HMA CLASS D PATCHES HAVE BEEN COMPLETED.



MODEL: Default
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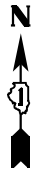
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PLOT DATE = 8/2/2024	DATE - 07-31-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

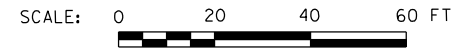
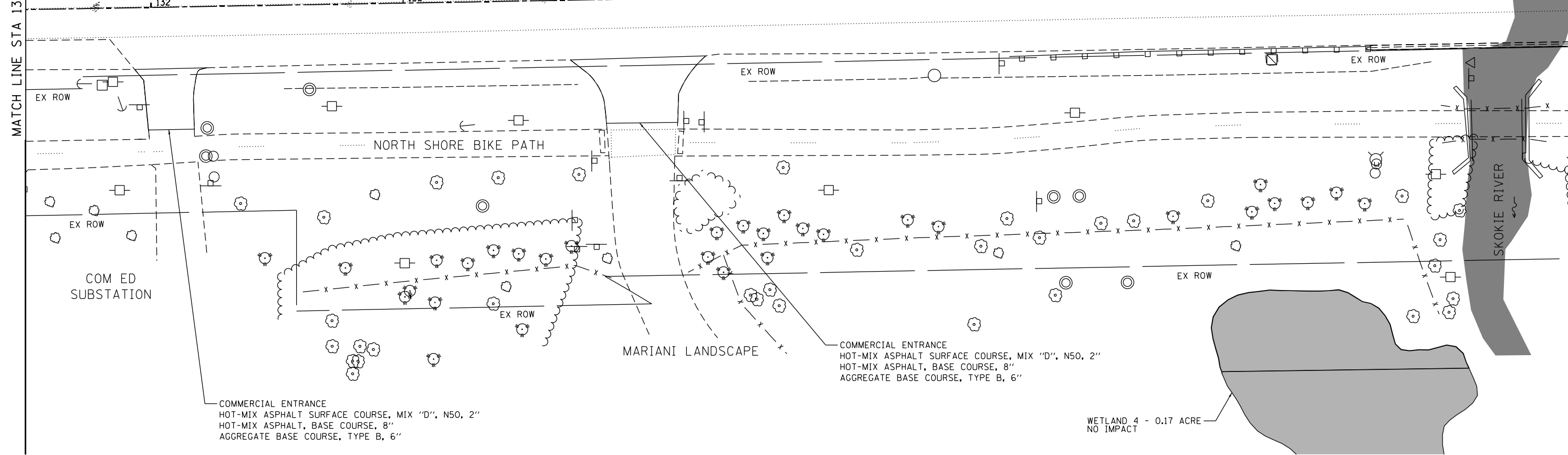
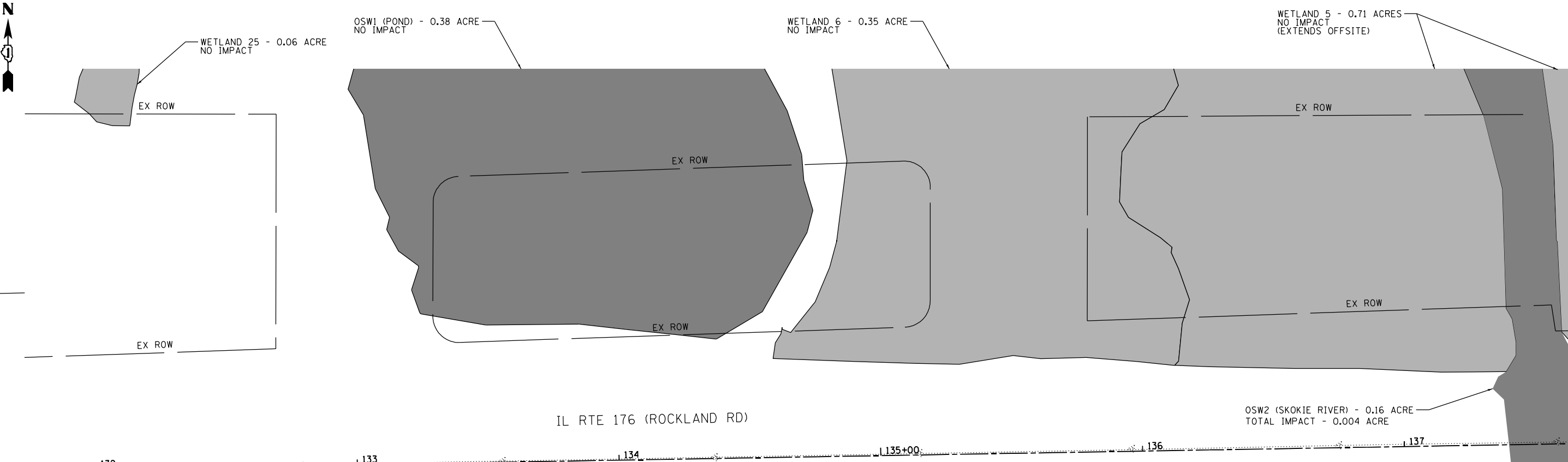
**PUMP STATION NO. 37
SEWER WORK
NORTH SHORE BIKE PATH PAVEMENT RESTORATION - II**

SCALE: 1" = 20' SHEET 2 OF 3 SHEETS STA. 125+65 TO STA. 131+50

F.A.P. RTE. 346	SECTION (125S-1)L-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 33
			CONTRACT NO. 62B66	
		ILLINOIS FED. AID PROJECT CIJX(634)		



MATCH LINE STA 131+50 SEE SHEET 33



MODEL: Default; FILE: I:\Bids\02_Eng\Illuminatio\Live\Projects\13027_Donathue_P5_31\CADD\CADD_Sheets\CHM162B66-III-176_NS_bike_path_plan_2.dgn



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	DRAWN - AB	REVISED -
PLOT SCALE = 40,000' / in.	CHECKED - JMT	REVISED -
PLOT DATE = 8/2/2024	DATE - 07-31-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
SEWER WORK
NORTH SHORE BIKE PATH PAVEMENT RESTORATION - III**

SCALE: 1" = 20' SHEET 3 OF 3 SHEETS STA. 131+50 TO STA. 137+00

F.A.P. RTE. 346	SECTION (125S-1)L-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 34
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIJX(634)				

MAINTENANCE OF TRAFFIC GENERAL NOTES:

1. THE TRAFFIC CONTROL DEPICTED HEREIN IS THE MINIMUM REQUIREMENT. ADDITIONAL TRAFFIC CONTROL DEVICES AS SPECIFIED IN THE HIGHWAY STANDARDS AS SHOWN IN THE INDEX OF SHEETS AND THE SPECIAL PROVISIONS SHALL BE PLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER. ALL TRAFFIC CONTROL DEVICES SHALL BE CONSIDERED INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION, (SPECIAL) UNLESS OTHERWISE INDICATED WITHIN THESE GENERAL NOTES, PLANS OR SPECIAL PROVISIONS.
2. TRAFFIC CONDITIONS, ACCIDENTS, AND OTHER UNFORESEEN EMERGENCY CONDITIONS MAY REQUIRE THE ENGINEER TO RESTRICT, MODIFY OR REMOVE LANE CLOSURES OR CHANNELIZATION SHOWN IN THE PLANS. THE CONTRACTOR SHALL PROMPTLY RESPOND AT THE TIME OF NOTIFICATION BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC CONTROL DEVICES.
3. DRUMS OR TYPE II BARRICADES ON IL ROUTE 176 SHALL BE PROVIDED AS SHOWN IN THE PLANS AND SPACED 50 FEET CENTER TO CENTER IN TANGENTS, 20 FEET CENTER TO CENTER IN TAPERS, AND 10 FEET CENTER TO CENTER IN RADII. DRUMS OR TYPE II BARRICADES ON US ROUTE 41 SHALL BE PROVIDED AS SHOWN IN THE PLANS AND SPACED 100' C-C IN TANGENTS, 50' C-C IN TAPERS, AND 10' C-C IN RADII OR AS SPECIFICALLY CALLED OUT IN THE PLANS.
4. THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT KALPANA.KANNAN-HOSADURGA@ILLINOIS.GOV A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
5. THE ENGINEER SHALL BE INFORMED MINIMUM OF 48 HOURS IN ADVANCE OF ANY PROPOSED CHANGE TO THE SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLAN.
6. ALL EXISTING SIGNS THAT CONFLICT WITH THE TRAFFIC CONTROL PLAN SHALL BE COVERED OR REMOVED IN ACCORDANCE WITH ARTICLE 107.25 OF THE STANDARD SPECIFICATIONS.
7. THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE ALL SIGNS AND SIGN SUPPORTS REQUIRED FOR TRAFFIC CONTROL AND PROTECTION.
8. ALL TEMPORARY PAVEMENT MARKINGS SHOWING DETERIORATION AFTER 7 DAYS OF SERVICE SHALL BE REPLACED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER. ALL MARKINGS THAT REQUIRE REPLACEMENT PRIOR TO 7 DAYS OF SERVICE SHALL BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING LABOR, SIGNS AND TRAFFIC CONTROL DEVICES NECESSARY FOR THE MAINTENANCE OF TRAFFIC UNLESS NOTED OTHERWISE IN THE SPECIAL PROVISIONS.
10. ALL TRAFFIC CONTROL DEVICES SHALL BE REMOVED, COVERED OR TURNED AWAY FROM THE TRAFFIC IMMEDIATELY WHEN THEY ARE NO LONGER NECESSARY. WHEN A SIGN IS COVERED, ITS POST SHALL HAVE A REFLECTIVE 3" x 6" DELINEATOR INSTALLED. COST OF THE DELINEATOR IS INCLUDED IN TRAFFIC CONTROL AND PROTECTION, (SPECIAL).
11. WORK ZONE SPEED LIMIT SHALL BE 45 MPH ON NB US ROUTE 41 ONLY.
12. THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN TRAFFIC IN ACCORDANCE WITH THE TRAFFIC CONTROL PLANS, SPECIAL PROVISIONS, APPLICABLE STATE STANDARDS, AND AS DIRECTED BY THE ENGINEER. ANY CHANGES TO THE TRAFFIC CONTROL SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO IMPLEMENTING ANY CHANGES.
13. THE CONTRACTOR SHALL PROVIDE ADEQUATE TEMPORARY DRAINAGE AND EROSION CONTROL PROTECTION DURING ALL STAGES OF CONSTRUCTION.
14. IN ADVANCE OF THE CONSTRUCTION ON US RTE 41, THE CONTRACTOR SHALL PLACE ONE (1) PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) AS DIRECTED AT A LOCATION DESIGNATED BY THE ENGINEER TO INFORM MOTORISTS OF THE UPCOMING LANE CLOSURE. THE MESSAGE SHALL BE APPROVED BY THE ENGINEER. ADDITIONAL INSTALLATION OF PCMS MAY BE REQUIRED TO KEEP MOTORISTS INFORMED OF CONSTRUCTION ACTIVITIES. ALL MESSAGES SHALL BE APPROVED BY THE ENGINEER. THIS WORK IS TO BE PAID FOR AT THE CONTRACT UNIT PER PRICE PER CALENDAR DAY FOR CHANGEABLE MESSAGE SIGN.
15. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE ALL EXISTING PAVEMENT MARKINGS WHICH CONFLICT WITH THE DESIGNATED TRAFFIC CONTROL PLAN.
16. TEMPORARY CONCRETE BARRIER AND TEMPORARY IMPACT ATTENUATORS SHALL BE PLACED AS INDICATED IN THE PLANS. FURNISHING, INSTALLING AND RELOCATING TEMPORARY CONCRETE BARRIER AND TEMPORARY IMPACT ATTENUATORS SHALL BE IN ACCORDANCE WITH IDOT SPECIAL PROVISIONS, IDOT HIGHWAY STANDARDS, STANDARD SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER.
17. IMMEDIATELY AFTER THE COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL RESTORE ALL PERMANENT PAVEMENT MARKINGS, SIGNS, AND OTHER TRAFFIC CONTROL DEVICES THAT WERE COVERED, REMOVED, DAMAGED, OR OTHERWISE AFFECTED BY CONSTRUCTION.
18. ALL EXISTING RAILROAD WARNING SIGNS AND PAVEMENT MARKINGS SHALL BE MAINTAINED DURING CONSTRUCTION.
19. MAINTAIN THE EXISTING NORTH SHORE BIKE PATH / TEMPORARY NORTH SHORE BIKE PATH WIDENING AT ALL TIMES AS INDICATED IN THE PLANS.
20. CONSTRUCTION OF THE OUTFALL SEWER WILL REQUIRE IMPLEMENTATION OF THE MAINTENANCE OF PEDESTRIAN TRAFFIC ALONG THE NORTH SHORE BIKE PATH. PLEASE COORDINATE ALL PATH WORK WITH THE LAKE COUNTY DIVISION OF TRANSPORTATION.
21. CONSTRUCTION OF THE OUTFALL SEWER WILL ALSO REQUIRE COORDINATION WITH THE UNION PACIFIC RAILROAD. PLEASE COORDINATE WITH JASON M. MURRAY, (402) 544-2623, AT LEAST 14 CALENDAR DAYS PRIOR TO ANY WORK ACTIVITIES BETWEEN AND INCLUDING DRAINAGE STRUCTURES S4 AND S5.

SUGGESTED SEQUENCE OF CONSTRUCTION & MAINTENANCE OF TRAFFIC

THE FOLLOWING SEQUENCE OF CONSTRUCTION AND MAINTENANCE OF TRAFFIC IS SUGGESTED. VARIATIONS MAY BE MADE WITH THE APPROVAL OF THE ENGINEER.

FOR EACH STAGE OF CONSTRUCTION, PROVIDE TRAFFIC CONTROL AS SHOWN ON THE MAINTENANCE OF TRAFFIC PLANS. COORDINATE INSTALLATION OF TEMPORARY PAVEMENT MARKINGS AND OTHER TRAFFIC CONTROL DEVICES WITH THE EXISTING TRAFFIC PATTERNS AT THE PROJECT LIMITS.

SEQUENCE OF CONSTRUCTION:

1. THE EXISTING PUMP STATION AND EXISTING STORM SEWERS SHALL REMAIN IN SERVICE THROUGHOUT THE CONSTRUCTION PERIOD.
2. CONSTRUCT 24" BYPASS SEWER PRIOR TO REMOVAL OF THE EXISTING 24" STORM SEWER AS SHOWN ON THE STAGE I DEMOLITION PLAN SHEET. MAINTAIN THE EXISTING PUMP STATION DISCHARGE. MAINTAIN THE EXISTING SITE DRAINAGE AT ALL TIMES.
3. INSTALL RETAINING WALL INCLUDE HELICAL PILES AS SHOWN IN MAINTANENCE OF TRAFFIC PLANS ALONG IL 176.
4. SUBSTANTIALLY COMPLETE CONSTRUCTION OF THE PUMP STATION, INLET AND OUTFALL SEWERS TO THE EXTENTS POSSIBLE WITHOUT INTERRUPTION TO THE EXISTING PUMP STATION. THE EXISTING PUMP STATION INLET AND DISCHARGE FLOWS MAY BE INTERRUPTED AFTER SUBSTANTIAL COMPLETION. SEE THE INTERRUPTION CONSTRAINTS IN THE SPECIAL PROVISIONS.
5. SEE THE SPECIAL PROVISIONS FOR THE ACTIVATION SEQUENCING OF THE NEW PUMP STATION AND THE RETIREMENT OF THE EXISTING PUMP STATION.

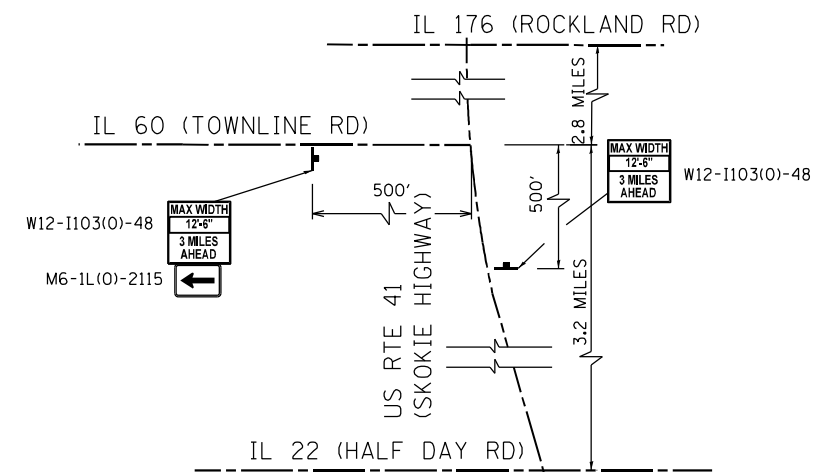
MAINTENANCE OF TRAFFIC:

STAGE 1:

1. PRIOR TO STARTING THE NEW PUMP STATION SITE DEMOLITION, CLOSE THE FRONTAGE ROAD BETWEEN STA 602+10 AND STA 604+56.
2. MAINTAIN TRAFFIC AS SHOWN IN MOT PLANS FOR US ROUTE 41 AND IL 176.
3. CONSTRUCTION OF THE NEW INLET SEWER WILL REQUIRE CLOSURE OF ONE LANE OF NORTHBOUND US RTE 41. THIS LANE CLOSURE WILL BE RESTRICTED TO 45 CALENDAR DAYS FROM WHEN THE CLOSURE IS PUT IN PLACE UNTIL WHEN THE CLOSURE MUST BE FULLY REMOVED.
4. INSTALL RETAINING WALL AND INCLUDE HELICAL PIERS AS SHOWN IN PLANS.
5. RESTORE PAVEMENT MARKINGS ON US ROUTE 41 AND IL ROUTE 176.

STAGE 2:

1. MAINTAIN TRAFFIC AS SHOWN IN MOT PLANS FOR IL 176 AND NORTH SHORE BIKE PATH.
2. USE HIGHWAY STANDARDS 701501 AND 701502 FOR PERIODIC DAYTIME LANE CLOSURES ON IL 176.
3. CONSTRUCT OUTFALL SEWER AS SHOWN IN PLANS.
4. RESTORE BIKE PATH PAVEMENT AND PAVEMENT MARKINGS AS SHOWN IN PLANS UTILIZING HIGHWAY STANDARDS.
5. REMOVE ALL THE EROSION CONTROL MEASURES AND TRAFFIC CONTROL DEVICES.
6. RESTORE THE DISTURBED LANDSCAPED AREA AS SHOWN IN PLANS.



ADVANCE WIDTH RESTRICTION SIGNING FOR NB TRAFFIC US RTE 41

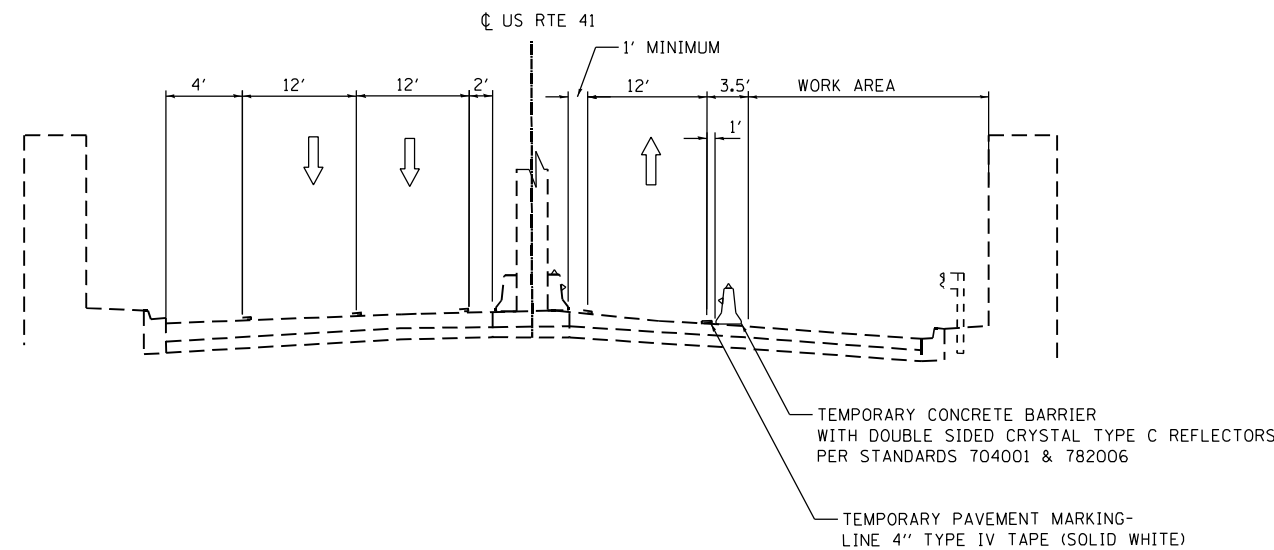
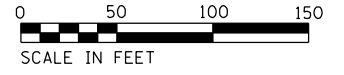
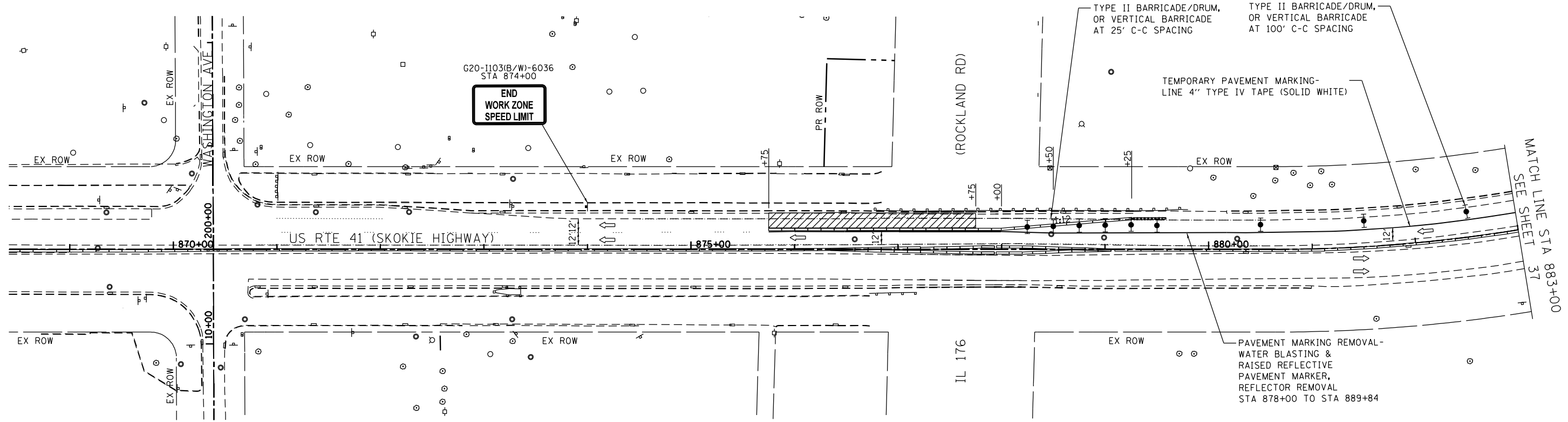
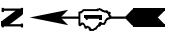
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	PLOT DATE = 9/19/2024	DATE - 07-31-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**









PUMP STATION NO. 37 MAINTENANCE OF TRAFFIC GENERAL NOTES AND SUGGESTED SEQUENCE OF CONSTRUCTION			
SCALE:	SHEET 1 OF 1 SHEETS	STA.	TO STA.

F.A.P RTE. 346	SECTION (125S-1)-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 35
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CLJK(634)				



US RTE 41 MOT TYPICAL SECTION
 STA 877+75 TO STA 875+75
 (LOOKING NORTH)
 NOT TO SCALE

LEGEND

-  WORK AREA
-  DIRECTIONAL BARRICADES
-  TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE
-  SIGN ON PERMANENT OR PORTABLE SUPPORT
-  DIRECTION OF TRAFFIC
-  ARROW BOARD
-  TEMPORARY CONCRETE BARRIER CONTINUOUSLY PINNED TO PAVEMENT
-  IMPACT ATTENUATORS, TEMPORARY (FULLY RE-DIRECTIVE, NARROW) TEST LEVEL 3

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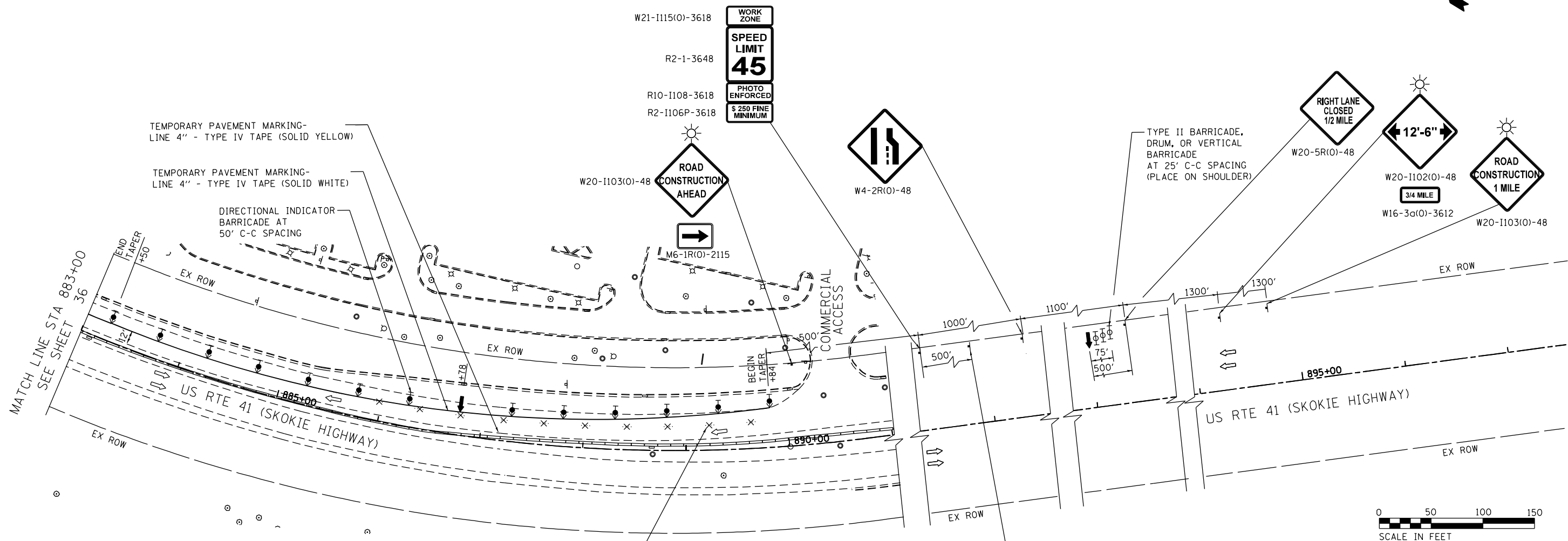
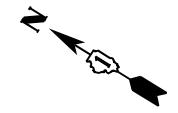


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PLOT SCALE = 100.0000' / in.	DRAWN - AB	REVISED -
PLOT DATE = 9/19/2024	CHECKED - TGM	REVISED -
	DATE - 07-31-2024	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

PUMP STATION NO. 37 MAINTENANCE OF TRAFFIC US RTE. 41	
SCALE: 1" = 50'	SHEET 1 OF 2 SHEETS
STA. 868+40	TO STA. 883+00

F.A.P RTE. 346	SECTION (125S-1)-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 36
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CLJK(634)				



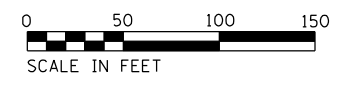
TEMPORARY PAVEMENT MARKING-
LINE 4" - TYPE IV TAPE (SOLID YELLOW)

TEMPORARY PAVEMENT MARKING-
LINE 4" - TYPE IV TAPE (SOLID WHITE)







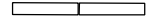



DIRECTIONAL INDICATOR
BARRICADE AT
50' C-C SPACING

PAVEMENT MARKING REMOVAL-
WATER BLASTING &
RAISED REFLECTIVE
PAVEMENT MARKER,
REFLECTOR REMOVAL
STA 878+00 TO STA 889+84

TYPE II BARRICADE,
DRUM, OR VERTICAL
BARRICADE
AT 25' C-C SPACING
(PLACE ON SHOULDER)



LEGEND

-  WORK AREA
-  DIRECTION INDICATOR BARRICADE
-  TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE
-  SIGN ON PERMANENT OR PORTABLE SUPPORT
-  DIRECTION OF TRAFFIC
-  ARROW BOARD
-  TEMPORARY CONCRETE BARRIER CONTINUOUSLY PINNED TO PAVEMENT
-  IMPACT ATTENUATORS, TEMPORARY (FULLY RE-DIRECTIVE, NARROW) TEST LEVEL 3
-   PAVEMENT MARKING REMOVAL- WATER BLASTING

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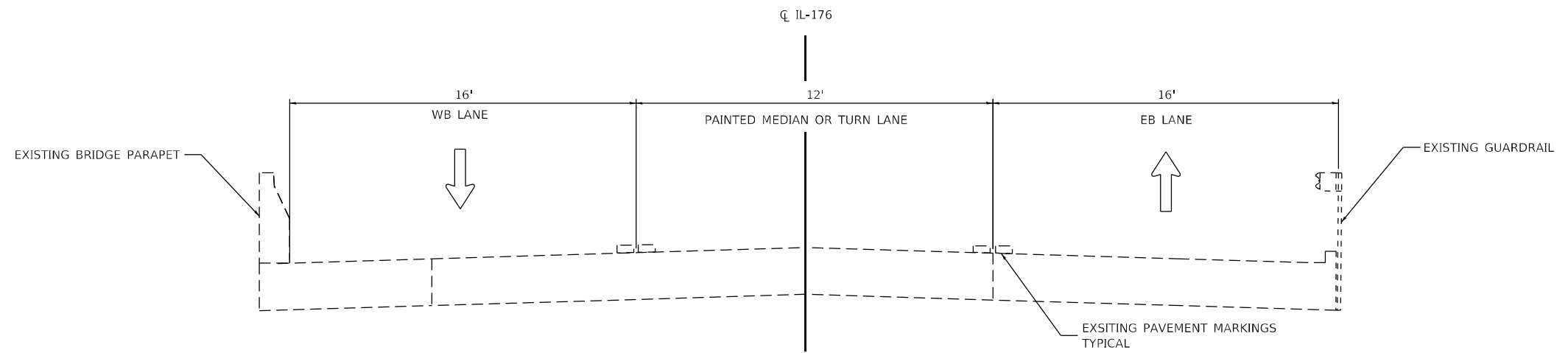


USER NAME	= abee	DESIGNED	- AB	REVISED	-
DRAWN	- AB	CHECKED	- TGM	REVISED	-
PLOT SCALE	= 100.0000' / in.	DATE	- 07-31-2024	REVISED	-
PLOT DATE	= 9/19/2024				

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

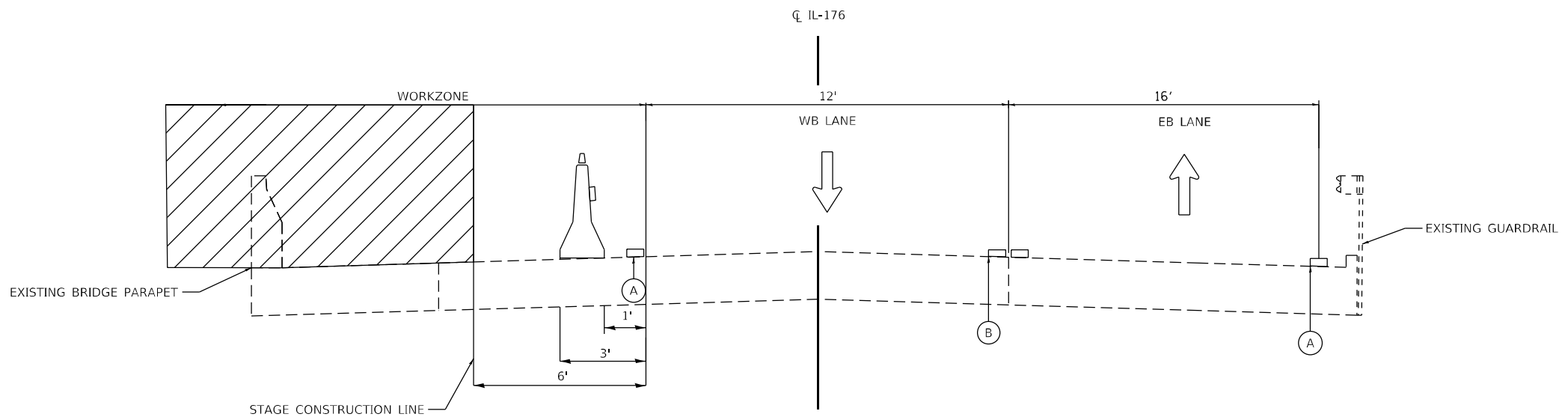
PUMP STATION NO. 37 MAINTENANCE OF TRAFFIC US RTE. 41	
SCALE: 1" = 50'	SHEET 2 OF 2 SHEETS
STA. 883+00	TO STA. 897+57

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)-4	LAKE	186	37
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CLJK(634)				



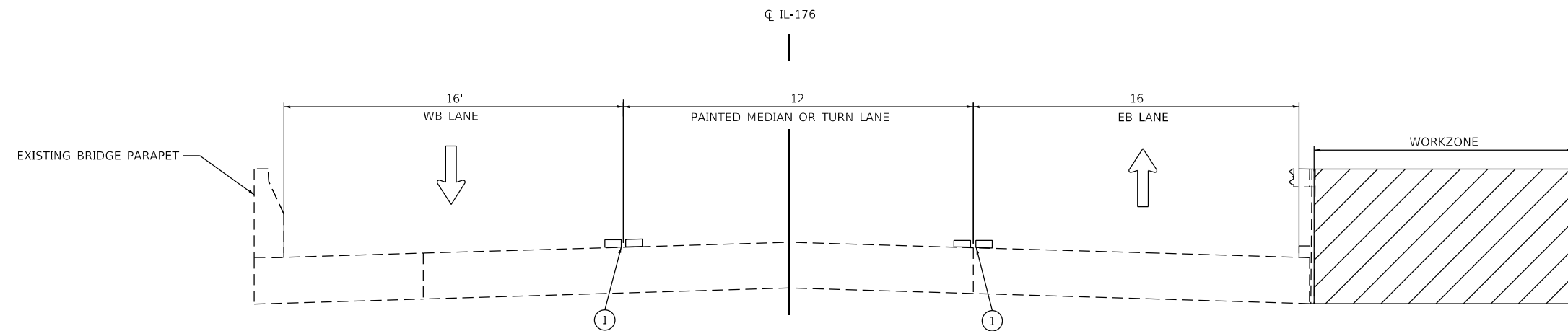
EXISTING TYPICAL SECTION

IL ROUTE 176



STAGE I CONSTRUCTION TYPICAL SECTION

IL ROUTE 176



STAGE II CONSTRUCTION TYPICAL SECTION

IL ROUTE 176

LEGEND	
	WORKZONE
	DIRECTION OF TRAFFIC
	EXISTING PAVEMENT MARKING
	PROPOSED OR TEMPORARY PAVEMENT MARKING
	TEMPORARY CONCRETE BARRIER WITH DOUBLE SIDED CRYSTAL TYPE C REFLECTORS PER STANDARDS 704001 & 782006
TEMPORARY PAVEMENT MARKING, TYPE IV TAPE OF THE WIDTH AND COLOR SPECIFIED:	
(A)	4 INCH, WHITE SOLID
(B)	4 INCH, DOUBLE YELLOW CENTERLINE, 11" C-C
PROPOSED PERMANENT PAVEMENT MARKING OF THE WIDTH AND COLOR SPECIFIED:	
(1)	4 INCH, DOUBLE YELLOW CENTERLINE, 11" C-C

MODEL: Default
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USER NAME = abee	DESIGNED - AK	REVISED -
PLOT SCALE = 100,0000' / in.	DRAWN - AK	REVISED -
PLOT DATE = 9/19/2024	CHECKED - AB	REVISED -
	DATE - 2024-07-16	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
MAINTENANCE OF TRAFFIC - IL ROUTE 176 TYPICAL SECTIONS

SCALE: 1" = 50' SHEET 1 OF 1 SHEETS STA. TO STA.

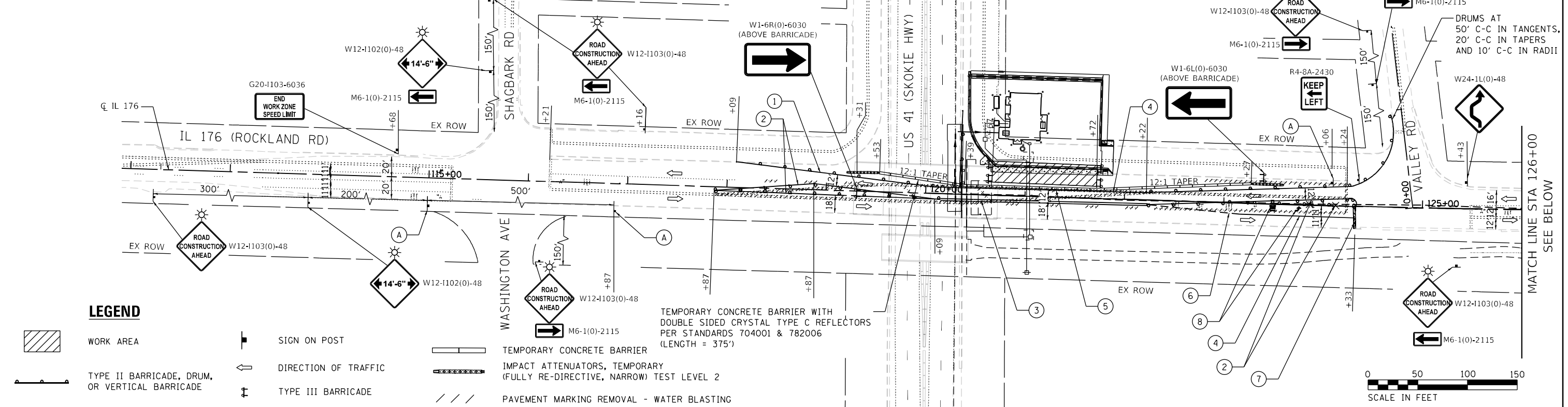
F.A.I. RTE. 346	SECTION (1255-1)-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 38
CONTRACT NO. 62B66			ILLINOIS FED. AID PROJECT CIJX(634)	

TEMPORARY PAVEMENT MARKING LEGEND

- ① TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE IV TAPE - SOLID WHITE
- ② TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE IV TAPE - SOLID YELLOW
- ③ TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE IV TAPE - DOUBLE YELLOW, @ 11" C-C
- ④ TEMPORARY PAVEMENT MARKING - LINE 6" - TYPE IV TAPE - SOLID WHITE
- ⑤ TEMPORARY PAVEMENT MARKING - LINE 6" - TYPE IV TAPE - SOLID YELLOW
- ⑥ TEMPORARY PAVEMENT MARKING - LINE 6" - TYPE IV TAPE - 2' DASH, 6' SKIP
- ⑦ TEMPORARY PAVEMENT MARKING - LINE 24" - TYPE IV TAPE
- ⑧ TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS - TYPE IV TAPE

• RAISED REFLECTORS TO BE REMOVED WITHIN THE LIMITS OF PAVEMENT MARKING REMOVALS

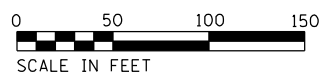
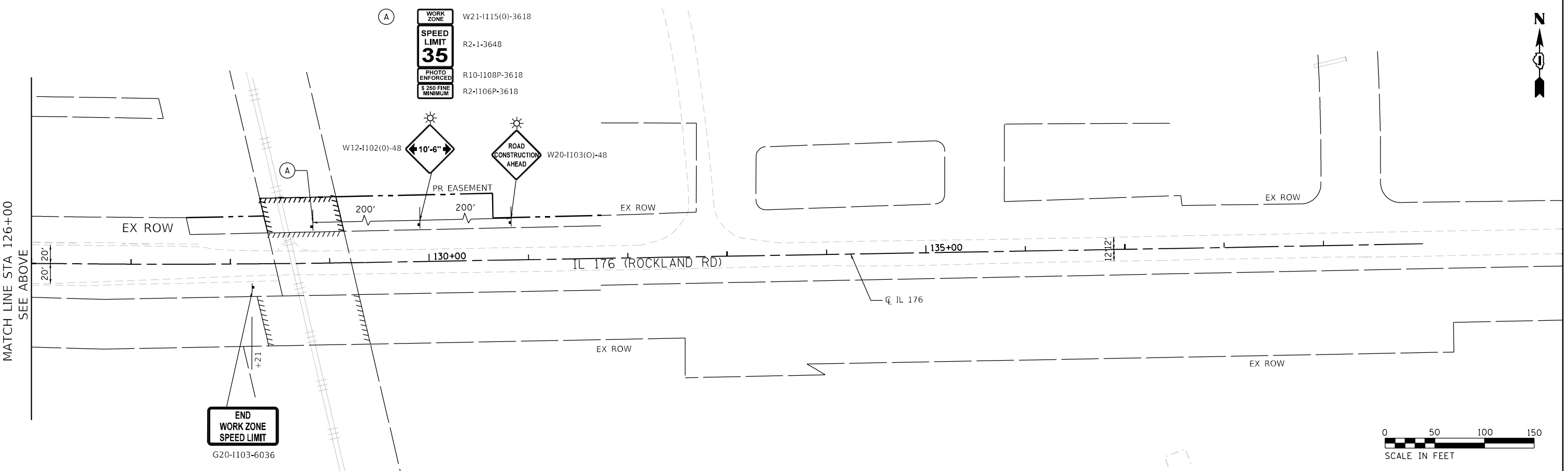
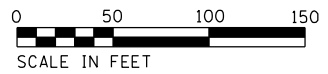
* SIGN SHALL BE REMOVED OR COVERED WHEN WORKERS ARE NOT PRESENT



LEGEND

- WORK AREA
- SIGN ON POST
- DIRECTION OF TRAFFIC
- TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE
- TYPE III BARRICADE
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATORS, TEMPORARY (FULLY RE-DIRECTIVE, NARROW) TEST LEVEL 2
- PAVEMENT MARKING REMOVAL - WATER BLASTING

TEMPORARY CONCRETE BARRIER WITH DOUBLE SIDED CRYSTAL TYPE C REFLECTORS PER STANDARDS 704001 & 782006 (LENGTH = 375')



MODEL: D:\a\l\... FILE: M:\a\l\... Accurate GROUP, INC.



USER NAME = abee	DESIGNED - AK	REVISED -
	DRAWN - AK	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED - AB	REVISED -
PLOT DATE = 9/19/2024	DATE - 2024-07-16	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
MAINTENANCE OF TRAFFIC
IL RTE 176- MOT HELICAL PILES STAGE I**

SCALE: 1" = 50' SHEET 1 OF 2 SHEETS STA. 111+00 TO STA. 140+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(1255-1)-4	LAKE	186	39
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIJX(634)				

EROSION AND SEDIMENT CONTROL GENERAL NOTES

1. ALL CONTROL MEASURES NECESSARY MUST MEET THE MINIMUM REQUIREMENTS AS DESCRIBED IN THE LATEST EROSION AND SEDIMENT CONTROL FIELD GUIDE FOR CONSTRUCTION INSPECTION BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION. ADDITIONAL DETAILS AND BMPs ARE ALSO AVAILABLE AND CAN BE UTILIZED AS SHOWN IN THE ILLINOIS URBAN MANUAL, REVISED TO LATEST VERSION AS AMENDED. ALL ESC MEASURES WILL BE MAINTAINED IN ACCORDANCE WITH THE IDOT EROSION AND SEDIMENT CONTROL FIELD GUIDE FOR CONSTRUCTION INSPECTION AND IDOT'S BEST MANAGEMENT PRACTICES - MAINTENANCE GUIDE: (HTTP://WWW.IDOT.ILLINOIS.GOV/TRANSPORTATION-SYSTEM/ENVIRONMENT/EROSION-AND-SEDIMENT-CONTROL).
2. ALL THE SOIL EROSION AND SEDIMENT CONTROL FEATURES MUST BE CONSTRUCTED PRIOR TO THE COMMENCEMENT OF UPLAND DISTURBANCE. SOIL DISTURBANCE MUST BE PHASED OR ENACTED IN SUCH A MANNER AS TO MINIMIZE EROSION. SOIL STABILIZATION MEASURES MUST CONSIDER THE TIME OF YEAR, SITE CONDITIONS AND THE USE OF TEMPORARY AND/OR PERMANENT MEASURES.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT SEDIMENT TRANSPORT OFF THE SITE IS REDUCED BY A COMBINATION OF MINIMIZATION OF EROSION AT THE SOURCE AND THE INSTALLATION OF SPECIFIC MEASURES TO CONTROL OR REDUCE THE TRANSPORT OF SEDIMENT. A COPY OF THE EROSION AND SEDIMENT CONTROL SCHEDULE BEING IMPLEMENTED BY THE CONTRACTOR MUST BE APPROVED BY THE ENGINEER, WILL BE ON THE CONSTRUCTION SITE AT ALL TIMES.
4. ALL RUNOFF ORIGINATING ON DISTURBED AREAS ASSOCIATED WITH THIS PROJECT WILL PASS THROUGH ONE OR MORE MEASURES THAT WILL MINIMIZE THE OFF-SITE SEDIMENT IMPACTS OF THE CONSTRUCTION ACTIVITIES.
5. DISTURBED AREAS ARE TO BE PROTECTED FROM EROSION IN A TIMELY MANNER. UPON COMPLETION OF GRADING OR CONSTRUCTION ACTIVITY, THE AREA WILL BE STABILIZED (USING PERMANENT MEASURES WHEN POSSIBLE) WITHIN ONE (1) CALENDAR DAY PER SWPPP SECTION I1.B.
6. THE CONTRACTOR MUST CLEAN UP, GRADE THE WORK AREA AS THE PROJECT PROGRESSES AND INSTALL EROSION PROTECTION TO ELIMINATE THE CONCENTRATION OF RUNOFF, OR MUST INSTALL APPROPRIATE SEDIMENT CONTROL DEVICES TO TRAP SEDIMENT. PAVEMENT MUST BE CLEANED DAILY OR AS NECESSARY TO REMOVE EARTHEN MATERIAL TO THE SATISFACTION OF THE ENGINEER OR AUTHORIZED IDOT PERSONNEL.
7. STABILIZATION OF CUT OR FILL SLOPES WITH TEMPORARY OR PERMANENT EROSION CONTROL MEASURES IS REQUIRED WHENEVER THE CUT OR FILL ACTIVITY REACHES 10-FT VERTICALLY OR THE FINISHED SLOPE EQUALS 30-FT, WHICHEVER IS MORE RESTRICTIVE. ONCE THE STABILIZATION MEASURES ARE INSTALLED, THE PLACEMENT OF FILL OR EXCAVATION ACTIVITIES ARE ALLOWED TO PROCEED.
8. THE CONTRACTOR WILL ASSUME RESPONSIBILITY FOR MAINTENANCE OF ALL SOIL EROSION CONTROL DURING CONSTRUCTION. THE CONTRACTOR SHALL DESIGNATE ONE OF HIS EMPLOYEES TO BE RESPONSIBLE FOR IMPLEMENTATION OF THE EROSION AND SEDIMENT CONTROL PLAN ON ALL DISTURBED AREAS THROUGHOUT THE PROJECT.
9. THE CONTRACTOR'S REPRESENTATIVE HAS TO BE KNOWLEDGEABLE ABOUT INSTALLATION AND MAINTENANCE OF THE REQUIRED MEASURES AND HAVE TAKEN AN ILLINOIS DEPARTMENT OF TRANSPORTATION OR APPROVED EQUAL EROSION AND SEDIMENT CONTROL COURSE. THIS PERSON SHALL HAVE THE AUTHORITY TO CARRY OUT THE IMPLEMENTATION OF ANY INSTRUCTION CONCERNING THE EROSION AND SEDIMENT CONTROL PLAN PROVIDED BY THE ENGINEER. THIS INDIVIDUAL AND THE ENGINEER MUST MAKE INSPECTIONS A MINIMUM OF ONCE EVERY SEVEN DAYS OF THE FOLLOWING:
 - A. DISTURBED AREAS OF THE PROJECT SITE THAT HAVE NOT BEEN FULLY STABILIZED.
 - B. STRUCTURAL CONTROL MEASURES (SUCH AS PERIMETER EROSION BARRIER, ETC.)
 - C. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE PROJECT SITE.
 - D. AN ADDITIONAL INSPECTION OF THE ITEMS LISTED ABOVE MUST BE MADE 24-HOURS AFTER A RAINFALL OR EQUIVALENT SNOWFALL EVENT GREATER THAN 0.5-INCH. DURING WINTER MONTHS, ALL MEASURES MUST BE CHECKED BY THE CONTRACTOR AFTER EACH SIGNIFICANT SNOWMELT.
10. ALL THE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED DURING THE CONSTRUCTION SEASON, AS WELL AS OVER THE WINTER SHUTDOWN PERIOD AND OTHER PERIODS WHEN THE PROJECT IS CLOSED DOWN FOR A LONGER DURATION. ANY CONTROL MEASURES FILLED MORE THAN 75% OF CAPACITY MUST BE CLEANED AND RESET AND THESE SPOILS REMOVED TO AN APPROVED SITE.
11. SALVAGED TOPSOIL SHALL BE PLACED ON WELL DRAINED LAND AWAY FROM INTERMITTENT AND ACTIVE DRAINAGE PATHS WITH THE APPROPRIATE RUNOFF CONTROL AND SEDIMENT CONTROL MEASURES INSTALLED AROUND THE STORAGE SITE. IMMEDIATELY AFTER THE FINAL SHAPING OF THE STOCKPILE, THE TOPSOIL WILL BE STABILIZED IN ACCORDANCE WITH THE METHOD APPROVED BY IDOT. THE CONTRACTOR WILL PROVIDE ADEQUATE QUANTITY OF SILT FENCE TO CONTROL THE PERIMETER OF THE STOCKPILE.
12. EXCAVATION TO BE USED FOR EMBANKMENTS SHALL NOT BE STOCKPILED UNLESS PERIMETER CONTROLS ARE UTILIZED. WHEN THIS MATERIAL IS STOCKPILED FOR THE CONVENIENCE OF THE CONTRACTOR, THE COST OF THE CONTROLS WILL BE BORNE BY THE CONTRACTOR. IF THE MATERIAL IS STOCKPILED AT THE DIRECTION OF THE ENGINEER, THE DEPARTMENT WILL ASSUME THE COST OF INSTALLING AND MAINTAINING THE CONTROLS.
13. IF AND/OR WHEN THE CONTRACTOR REQUESTS CHANGE TO POSTPONE COMPLETION OF THE EXCAVATION OF A SPECIFIC AREA AS A CONTINUOUS OPERATION AND PLACING THE TOPSOIL AS DEFINED IN THE STANDARD SPECIFICATIONS, THE ENGINEER MAY ALLOW THE CONTRACTOR TO STABILIZE THE AREA USING TEMPORARY STABILIZATION WITH STRAW MULCH 25 FEET AWAY FROM THE SHOULDER OF THE ROAD PROVIDED THE FOLLOWING CONDITIONS ARE MET:
 - A. ALL AREAS BEING STABILIZED ARE 1:3 SLOPES OR FLATTER
 - B. THE CONTRACTOR BEARS THE COST OF PREPARING THE SEED BED AND STABILIZING THE AREA WITH TEMPORARY STABILIZATION WITH MULCH METHOD 2.
 - C. ALL REQUIRED SEDIMENT CONTROL MEASURES FOR THE SECTION OF ROAD IN QUESTION HAVE BEEN INSTALLED AND ARE BEING MAINTAINED.
14. TOPSOIL PLACEMENT: TOPSOIL WILL BE PLACED ON FINAL SLOPES WHICH WILL NOT BE DISTURBED BY FUTURE CONSTRUCTION. TOPSOIL WILL NOT BE PLACED ON SURFACES WHICH WILL BE PAVED IN THE FUTURE NOR ON TEMPORARY STEEP SLOPES.
15. IN AREAS WHERE A PERMANENT VEGETATIVE COVER IS PRACTICABLE AND INCLUDED IN THE CONTRACT DOCUMENTS, A SPECIAL EFFORT SHOULD BE MADE TO ESTABLISH A COVER AS SOON AS A DISTURBED AREA IS BROUGHT TO FINAL GRADE. UNDER NO CIRCUMSTANCES, SHALL THE CONTRACTOR PROLONG FINAL GRADING AND SHAPING SO THAT THE ENTIRE PROJECT CAN BE PERMANENTLY SEEDED AT ONE TIME.
16. THE CONTRACTOR'S REPRESENTATIVE AND THE ENGINEER MUST KEEP A WRITTEN REPORT SUMMARIZING THE REQUIRED INSPECTIONS. THE REPORTS MUST BE KEPT AT THE SITE DURING CONSTRUCTION. THE REPORTS MUST ALSO BE RETAINED FOR THREE YEARS FROM THE DATE THE SITE IS FINALLY STABILIZED.
17. ANY SEDIMENT LADEN DEWATERING DISCHARGE MUST BE DIRECTED TO AN APPROVED SEDIMENT TRAPPING CONTROL MEASURE PRIOR TO RELEASE FROM THE PROJECT SITE.
18. NO WORK IS ALLOWED BEYOND THE PERMITTED AREA. ANY WORK WITHIN A SWALE OR DITCH CAPABLE OF CONVEYING WATER MUST BE CONDUCTED IN THE DRY. PROVISIONS MUST BE MADE TO BYPASS PUMP OR DEWATER ANY AREAS IN WHICH WORK WILL BE CONDUCTED. IN HIGH FLOW CHANNELS WHERE DEWATERING IS NOT POSSIBLE OR PRACTICAL, SILT FENCE OR SEDIMENT CURTAINS MAY BE INSTALLED PARALLEL TO THE STREAM BANK. IN NO CASE WILL THE CURTAINS BE INSTALLED PERPENDICULAR TO THE FLOW. DEWATERING MUST BE DISCHARGED TO A STABLE, NON-ERODIBLE SURFACE AND IN-STREAM WORK BARRIERS MUST BE COMPOSED OF NON-ERODIBLE MATERIAL.
19. SEEDING USAGE
 CLASS 2A AND CLASS 4A:
 USED ON FINAL DISTURBED CONSTRUCTION AREAS INDICATED ON THE PLANS.

 TEMPORARY EROSION CONTROL SEEDING:
 USED IN AREAS REQUIRING SHORT TERM TEMPORARY SEEDING DURING CONSTRUCTION.
20. THE CONTRACTOR MUST COOPERATE WITH THE ENGINEER AND HIS/HER REPRESENTATIVE WHO WILL MAKE SITE VISITS TO REVIEW THE COMPLIANCE OF THE PLANS IN THE FIELD AND AUDIT IF NECESSARY. THE CONTRACTOR MUST PREPARE THE LOGS AND RECORDS WHEN REQUIRED AND SUBMIT TO IDOT AND/OR APPROPRIATE AGENCIES.
21. THE INSTALLATION, MAINTENANCE, REMOVAL AND RESTORATION OF THE AREA DISTURBED BY THE PLACEMENT OF THE PERIMETER EROSION BARRIER ARE INCLUDED IN THE CONTRACT UNIT PRICE FOR PERIMETER EROSION BARRIER. AFTER ALL PERIMETER EROSION BARRIER IS REMOVED, THE AREAS DAMAGED BY THE PERIMETER EROSION CONTROL BARRIER MUST BE RESTORED TO THEIR ORIGINAL CONDITION.
22. THE CONTRACTOR WILL PROVIDE THE ENGINEER A PLAN TO ENSURE THAT A STABILIZED FLOW LINE WILL BE PROVIDED DURING STORM SEWER CONSTRUCTION. THIS IS IMPORTANT WHERE NEW STORM SEWER CONNECTS TO EXISTING STORM SEWERS/CULVERTS. THE USE OF A STABILIZED FLOW LINE BETWEEN INSTALLED STORM SEWER AND OPEN DISTURBANCE WILL REDUCE THE POTENTIAL FOR THE OFFSITE DISCHARGE OF SEDIMENT-BEARING WATERS, ESPECIALLY WHEN RAIN IS FORECAST, SO THAT FLOW WILL NOT BE EROSION. THE LACK OF AN APPROVED PLAN OR FAILURE TO COMPLY WILL RESULT IN AN ESC DEFICIENCY DEDUCTION.
23. ANY LOOSE MATERIAL DEPOSITED IN THE FLOW LINE OF GUTTERS, DRAINAGE STRUCTURES, DITCHES, ETC., WHICH OBSTRUCTS THE NATURAL FLOW OF WATER, SHALL BE REMOVED AT THE CLOSE OF EACH WORK DAY. PRIOR TO ACCEPTANCE OF THE IMPROVEMENT, ALL DRAINAGE STRUCTURES AND FLOW LINES SHALL BE FREE OF DIRT AND DEBRIS. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT.
24. THE CONTRACTOR IS REQUIRED TO PROVIDE WASHOUT FACILITIES TO COMPLY WITH EROSION CONTROL PERMITS.

25. STABILIZATION MEASURES SHALL BE INITIATED IMMEDIATELY WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN ONE (1) DAY AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED ON ALL DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION WILL NOT OCCUR FOR A PERIOD OF FOURTEEN (14) OR MORE CALENDAR DAYS.
26. EROSION CONTROL ITEMS ARE CONSIDERED TO BE A HIGH PRIORITY ON THIS CONTRACT. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE ENGINEER, THE McHENRY-LAKE COUNTY SOIL & WATER CONSERVATION DISTRICT AND/OR THE US ARMY CORPS OF ENGINEERS.
27. THE US ARMY CORPS OF ENGINEERS MUST BE NOTIFIED 10 DAYS PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITIES AND ONE WEEK PRIOR TO THE FINAL INSPECTION.
28. THE CONTRACTOR SHALL ATTACH AN ALUMINUM SIGN WITH THE FOLLOWING TEXT: "PROTECTED WETLAND - NO INTRUSION". THE SIGN(S) SHALL BE ATTACHED TO THE STAKES BY THE METHOD APPROVED BY THE ENGINEER. THE SIGN(S) WILL BE PROVIDED BY THE DEPARTMENT AND SHALL BE PICKED UP BY THE CONTRACTOR FROM THE DISTRICT ONE ROADSIDE DEVELOPMENT ARCHITECT IN SCHAUMBURG, ILLINOIS. SCHEDULING THE PICK UP OF THE SIGNS CAN BE ARRANGED BY CONTACTING THE DISTRICT ONE ROADSIDE DEVELOPMENT UNIT AT (847) 705-4171. WHEN WORK HAS BEEN COMPLETED, THE SIGN(S) SHALL BE RETURNED TO THE DISTRICT ONE ROADSIDE DEVELOPMENT UNIT. THE COST OF PICKING UP, ATTACHING THE SIGNS TO THE TEMPORARY STAKES AND RETURNING THE SIGNS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR PERIMETER EROSION BARRIER.
29. THIS PROJECT REQUIRES A US ARMY CORPS OF ENGINEER (USACE) 404 PERMIT THAT WILL BE SECURED BY THE DEPARTMENT. ALL CONDITIONS OF THE 404 PERMIT, FOUND IN THE SPECIAL PROVISIONS, MUST BE FOLLOWED. AS A CONDITION OF THIS PERMIT, THE CONTRACTOR WILL NEED TO SUBMIT AN IN-STREAM WORK PLAN (INCLUDING WORK WITHIN WETLANDS) TO THE DEPARTMENT FOR APPROVAL. GUIDELINES ON ACCEPTABLE IN-STREAM WORK TECHNIQUES (INCLUDING WORK WITHIN WETLANDS) CAN BE FOUND ON THE USACE WEBSITE. THE USACE DEFINES AND DETERMINES IN-STREAM WORK. THE COST OF ALL MATERIALS AND LABOR NECESSARY TO COMPLY WITH THE ABOVE PROVISIONS TO PREPARE AND IMPLEMENT AN IN-STREAM WORK PLAN (INCLUDING WORK WITHIN WETLANDS) WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

SOIL EROSION AND SEDIMENT CONTROL STRATEGY:

1. INSTALL TRAFFIC CONTROL DEVICES.
2. ERECT PERIMETER EROSION BARRIERS AND TEMPORARY FENCES AS SHOWN ON THE PLANS.
3. INSTALL INLET FILTERS AND TEMPORARY DITCH CHECKS AS SHOWN ON THE PLANS.
4. ESTABLISH STABILIZED CONSTRUCTION ENTRANCES.
5. CLEAR THE PUMP STATION SITE, REMOVE EXISTING NORTH SHORE BIKE PATH AND DRAINAGE STRUCTURES AS REQUIRED BY THE PROGRESSION OF CONSTRUCTION.
6. CONSTRUCT PROJECT IMPROVEMENTS AS SHOWN ON THE PLANS.
7. INSPECT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES FOR THE DURATION OF CONSTRUCTION.
8. TEMPORARY STABILIZATION OF EACH STAGE SHOULD BE COMPLETED BEFORE WORK BEGINS ON SUBSEQUENT STAGES.
9. STABILIZE DISTURBED AREAS WITH TEMPORARY EROSION CONTROL MEASURES. USE THE PERMANENT SEEDING WITH EROSION CONTROL BLANKET AS SHOWN ON THE PLANS FOR PERMANENT STABILIZATION.
10. WHEN THE PERMANENT STABILIZATION IS ESTABLISHED, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.

HIGHWAY STANDARD

STD. NO.	TITLE
280001	TEMPORARY EROSION CONTROL SYSTEMS

SOIL PROTECTION SCHEDULE:

STABILIZATION TYPE	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.
PERMANENT SEEDING						→					→	
DORMANT SEEDING	→		→							→		→
TEMPORARY SEEDING										→		
EROSION BLANKET/ HYDROMULCH												→

MODEL - Default
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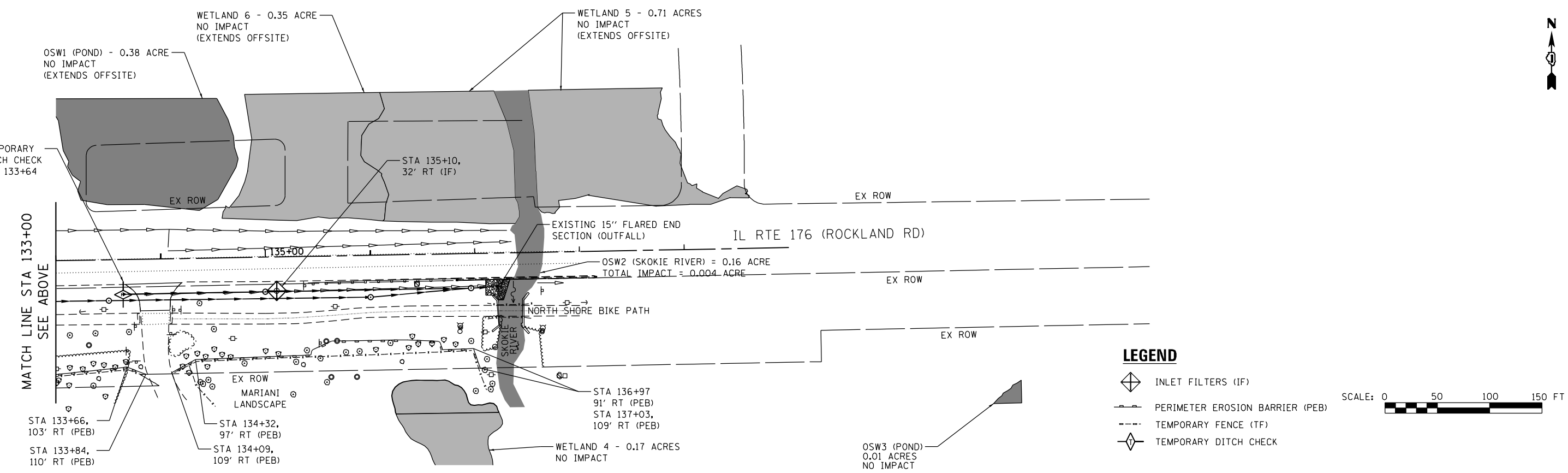
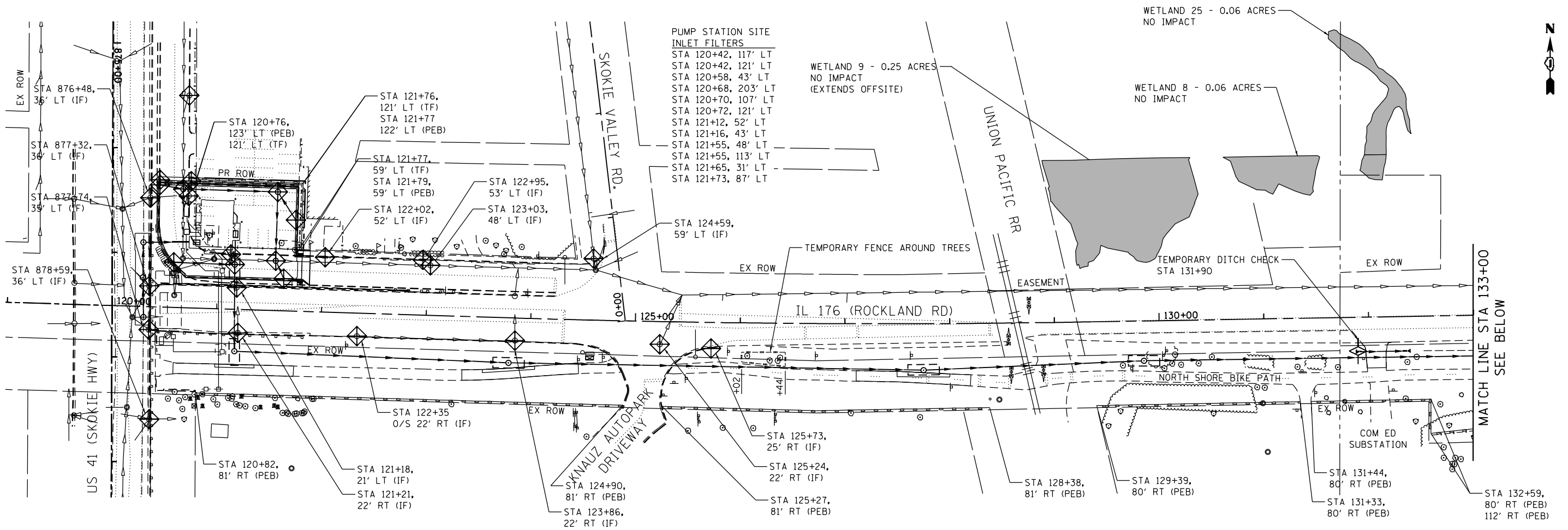
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PLOT DATE = 8/2/2024	CHECKED - AB	REVISED -
	DATE - 07-31-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
EROSION CONTROL
GENERAL NOTES, STRATEGY, STANDARDS AND SCHEDULE**

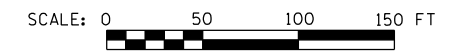
F.A.P RTE. 346	SECTION (125S-1)I-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 41
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CLKJ(634)				

SCALE: SHEET 1 OF 4 SHEETS STA. TO STA.



LEGEND

- INLET FILTERS (IF)
- PERIMETER EROSION BARRIER (PEB)
- TEMPORARY FENCE (TF)
- TEMPORARY DITCH CHECK



MODEL: Default
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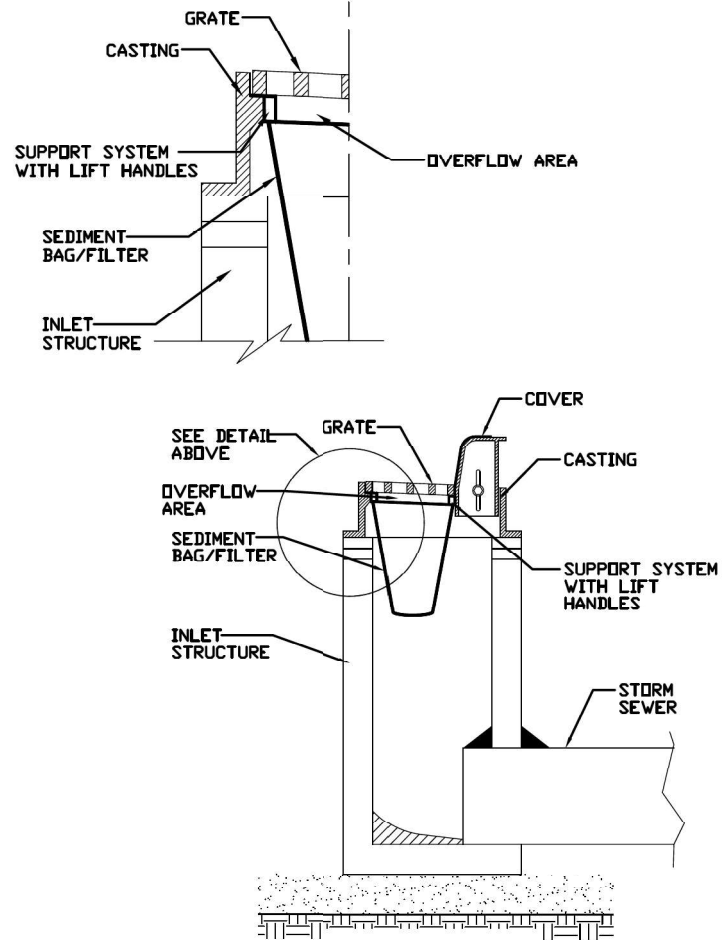
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

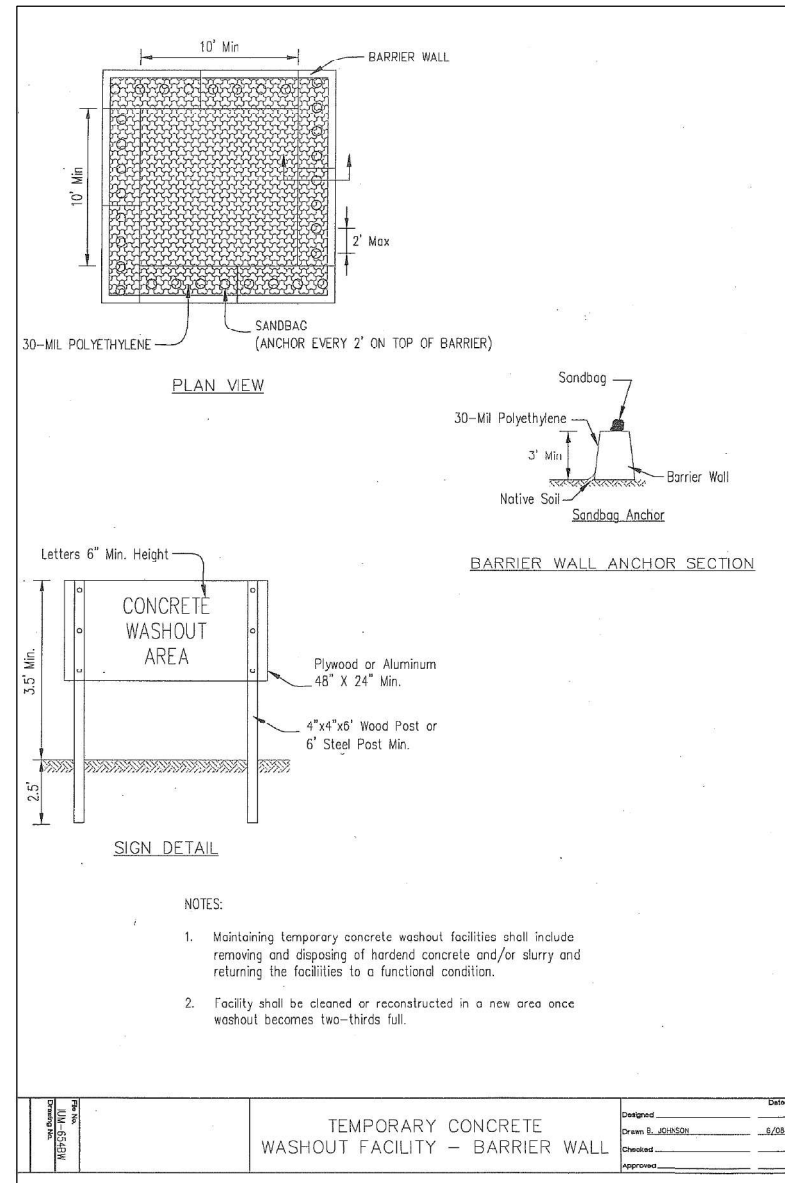
PUMP STATION NO. 37 EROSION CONTROL PLAN		F.A.P RTE. 346	SECTION (125S-1)I-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 42
SCALE: 1" = 50'	SHEET 2 OF 4 SHEETS	STA. 120+00 TO STA. 139+00		CONTRACT NO. 62B66		

ILLINOIS	FED. AID PROJECT	CLJK(634)
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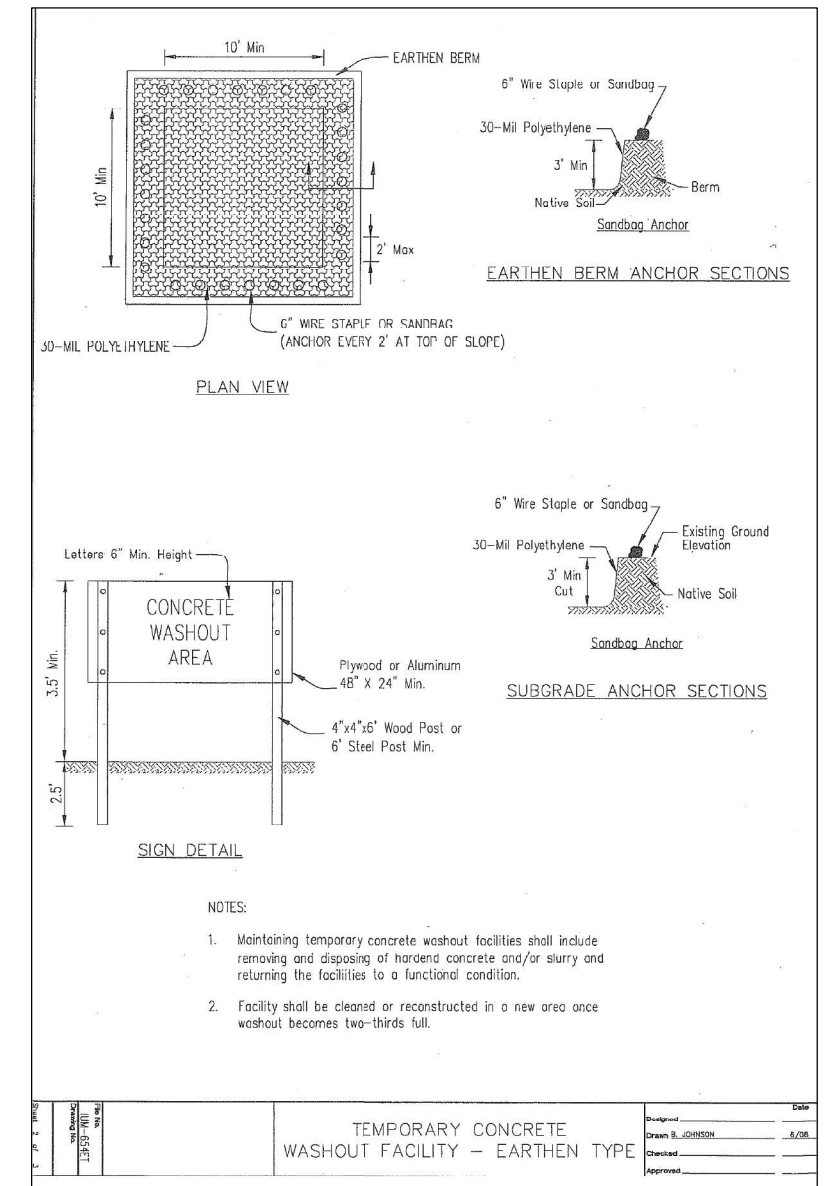
**INLET PROTECTION - PAVED AREAS
DROP-IN PROTECTION**



REFERENCE	STANDARD DWG. NO.
Project _____	IUM-561D
Designed _____ Date _____	SHEET 1 OF 1
Checked _____ Date _____	DATE 01-11-11
Approved _____ Date _____	



DESIGNED	DATE
Drawn B. JOHNSON	8/08
CHECKED	
APPROVED	



DESIGNED	DATE
Drawn B. JOHNSON	8/08
CHECKED	
APPROVED	

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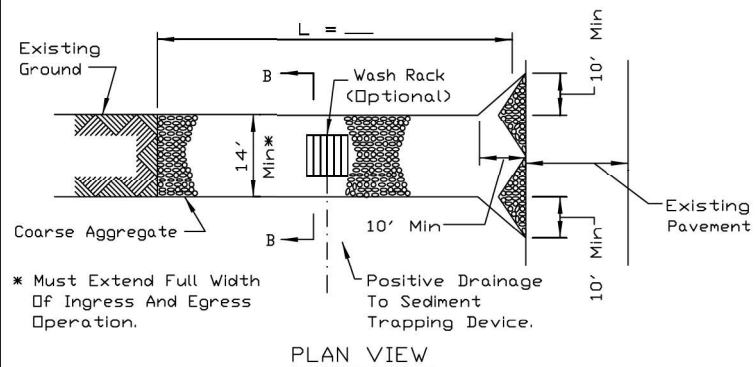
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
EROSION CONTROL
DETAILS - I**

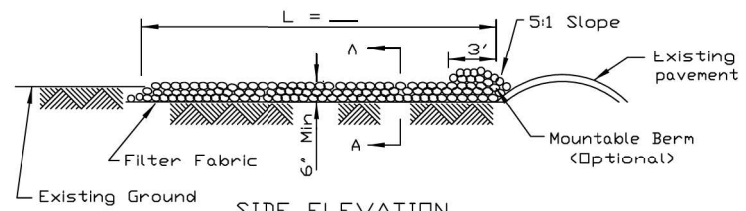
SCALE: SHEET 3 OF 4 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	43
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CLIX(634)				

STABILIZED CONSTRUCTION ENTRANCE PLAN



PLAN VIEW



SIDE ELEVATION

NOTES:

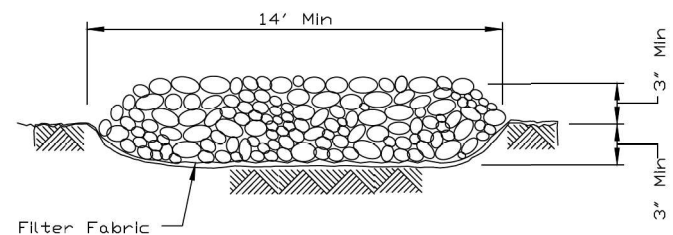
1. Filter fabric shall meet the requirements of material specification 592 GEOTEXTILE, Table 1 or 2, Class I, II or IV and shall be placed over the cleared area prior to the placing of rock.
2. Rock or reclaimed concrete shall meet one of the following IDOT coarse aggregate gradation, CA-1, CA-2, CA-3 or CA-4 and be placed according to construction specification 25 ROCKFILL using placement Method 1 and Class III compaction.
3. Any drainage facilities required because of washing shall be constructed according to manufacturers specifications.
4. If wash racks are used they shall be installed according to the manufacturer's specifications.

REFERENCE Project	_____
Designed	_____ Date _____
Checked	_____ Date _____
Approved	_____ Date _____

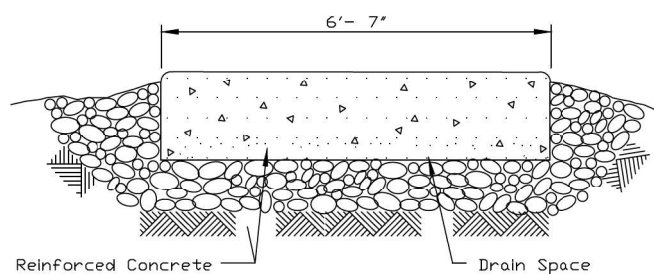


STANDARD DWG. NO.	IL-630
SHEET 1 OF 2	
DATE	8-18-94

STABILIZED CONSTRUCTION ENTRANCE PLAN



SECTION A-A



SECTION B-B

REFERENCE Project	_____
Designed	_____ Date _____
Checked	_____ Date _____
Approved	_____ Date _____



STANDARD DWG. NO.	IL-630
SHEET 2 OF 2	
DATE	8-18-94

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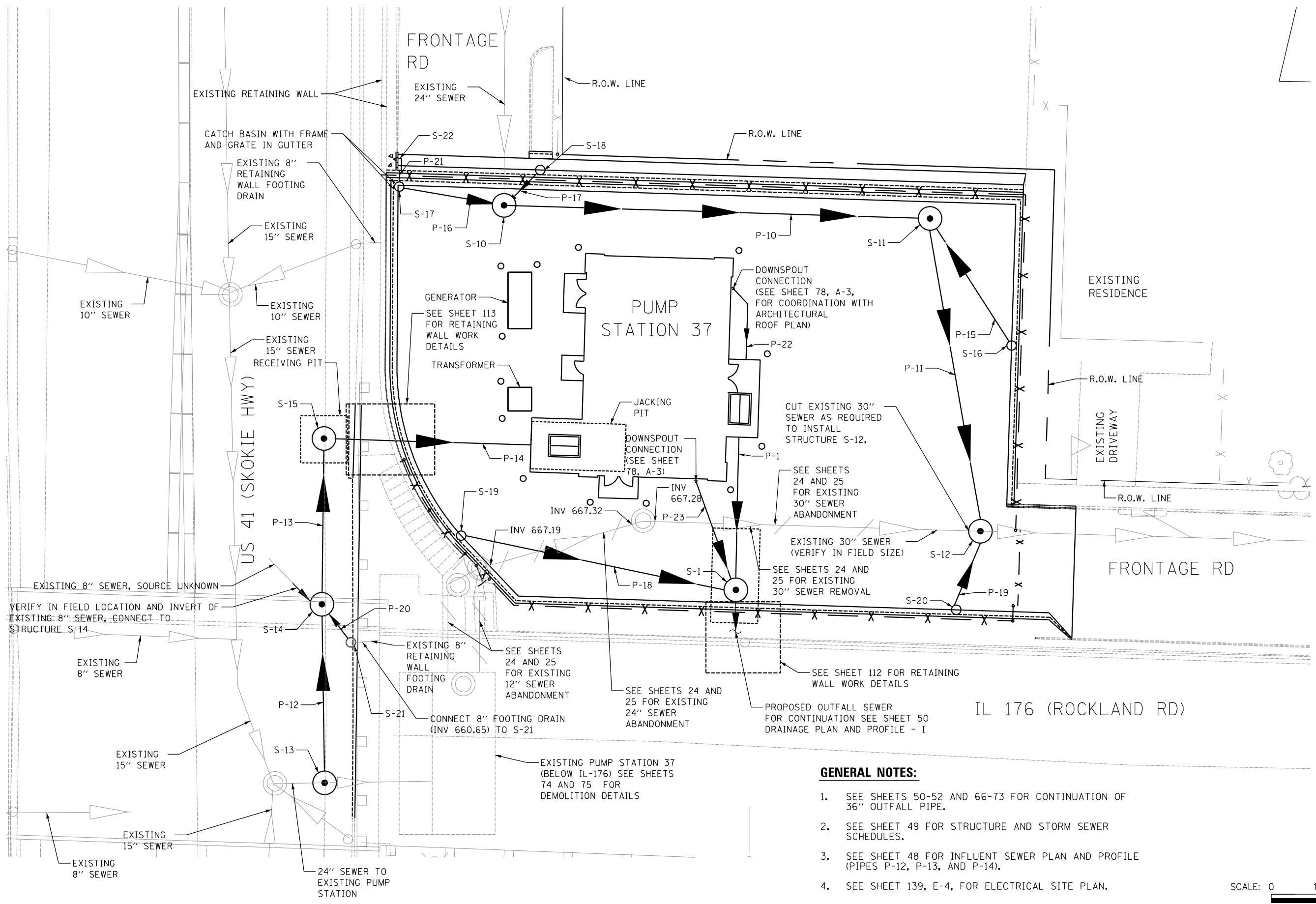
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PLOT DATE	= 8/2/2024	DATE -	07-31-2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
EROSION CONTROL
DETAILS - II

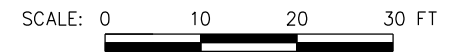
SCALE: SHEET 4 OF 4 SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	44
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CLUX(634)				



GENERAL NOTES:

1. SEE SHEETS 50-52 AND 66-73 FOR CONTINUATION OF 36" OUTFALL PIPE.
2. SEE SHEET 49 FOR STRUCTURE AND STORM SEWER SCHEDULES.
3. SEE SHEET 48 FOR INFLUENT SEWER PLAN AND PROFILE (PIPES P-12, P-13, AND P-14).
4. SEE SHEET 139, E-4, FOR ELECTRICAL SITE PLAN.



MODEL: S:\080924\080924.DWG
FILE NAME: SHEETS



USER NAME = SBREMER	DESIGNED -	REVISED -
PLOT SCALE = AS NOTED	DRAWN -	REVISED -
PLOT DATE = 08/09/24	CHECKED -	REVISED -
	DATE = 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
CIVIL
YARD PIPING PLAN**

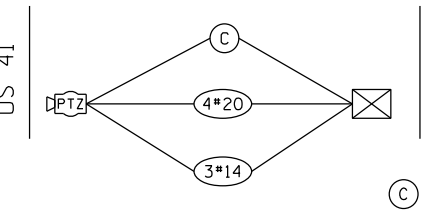
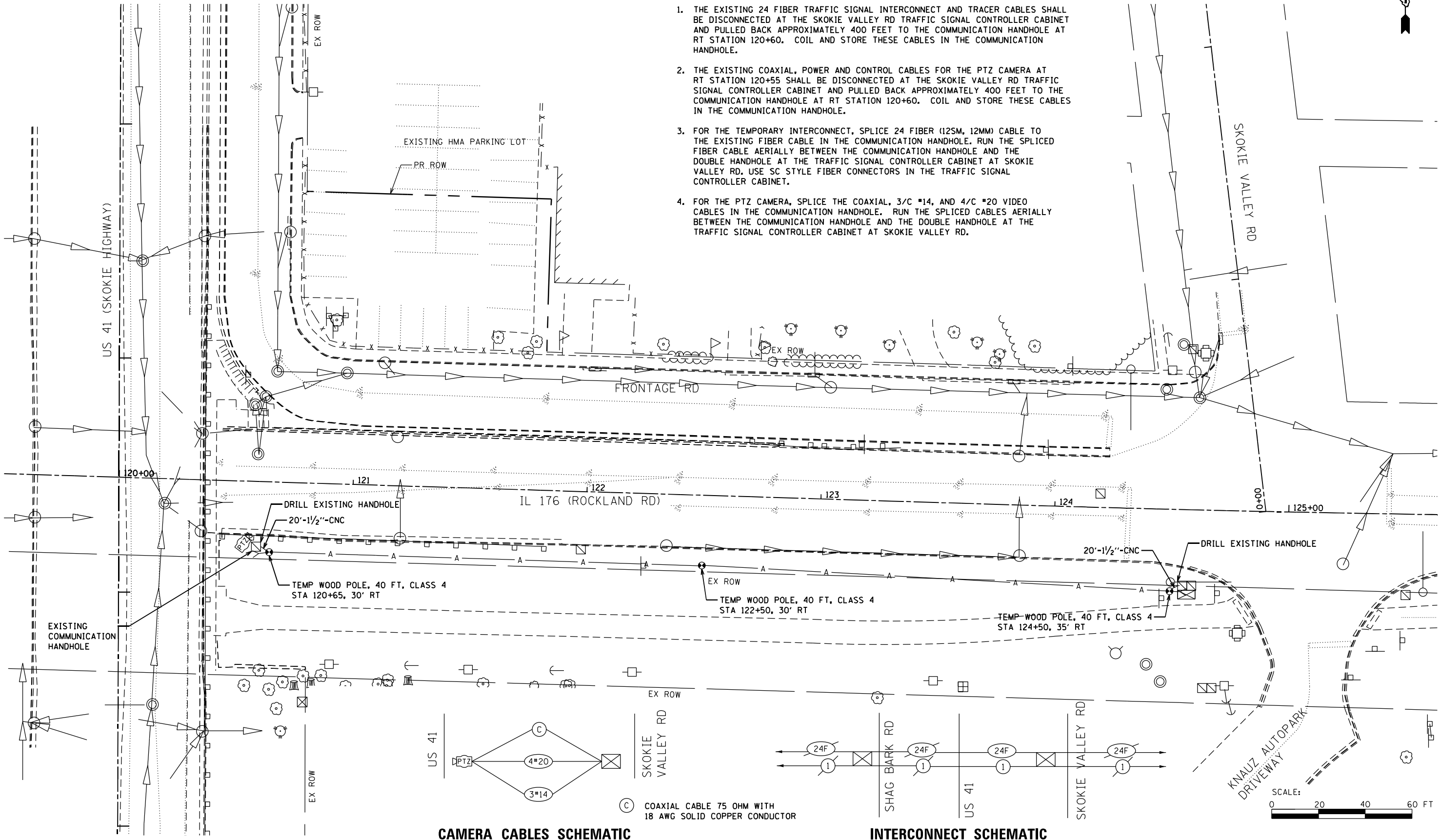
SCALE: 1" = 20' SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	45
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CJUX(634)				

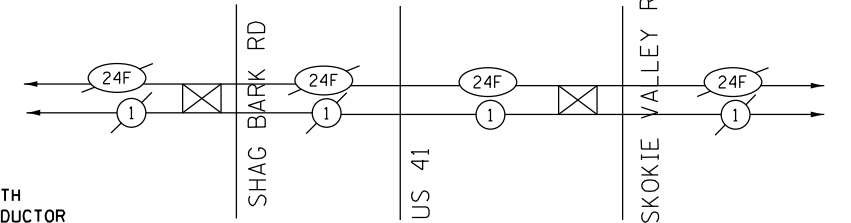


NOTES

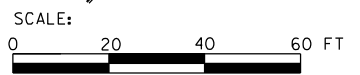
1. THE EXISTING 24 FIBER TRAFFIC SIGNAL INTERCONNECT AND TRACER CABLES SHALL BE DISCONNECTED AT THE SKOKIE VALLEY RD TRAFFIC SIGNAL CONTROLLER CABINET AND PULLED BACK APPROXIMATELY 400 FEET TO THE COMMUNICATION HANDHOLE AT RT STATION 120+60. COIL AND STORE THESE CABLES IN THE COMMUNICATION HANDHOLE.
2. THE EXISTING COAXIAL, POWER AND CONTROL CABLES FOR THE PTZ CAMERA AT RT STATION 120+55 SHALL BE DISCONNECTED AT THE SKOKIE VALLEY RD TRAFFIC SIGNAL CONTROLLER CABINET AND PULLED BACK APPROXIMATELY 400 FEET TO THE COMMUNICATION HANDHOLE AT RT STATION 120+60. COIL AND STORE THESE CABLES IN THE COMMUNICATION HANDHOLE.
3. FOR THE TEMPORARY INTERCONNECT, SPLICE 24 FIBER (12SM, 12MM) CABLE TO THE EXISTING FIBER CABLE IN THE COMMUNICATION HANDHOLE. RUN THE SPLICED FIBER CABLE AERIALLY BETWEEN THE COMMUNICATION HANDHOLE AND THE DOUBLE HANDHOLE AT THE TRAFFIC SIGNAL CONTROLLER CABINET AT SKOKIE VALLEY RD. USE SC STYLE FIBER CONNECTORS IN THE TRAFFIC SIGNAL CONTROLLER CABINET.
4. FOR THE PTZ CAMERA, SPLICE THE COAXIAL, 3/C #14, AND 4/C #20 VIDEO CABLES IN THE COMMUNICATION HANDHOLE. RUN THE SPLICED CABLES AERIALLY BETWEEN THE COMMUNICATION HANDHOLE AND THE DOUBLE HANDHOLE AT THE TRAFFIC SIGNAL CONTROLLER CABINET AT SKOKIE VALLEY RD.



CAMERA CABLES SCHEMATIC



INTERCONNECT SCHEMATIC



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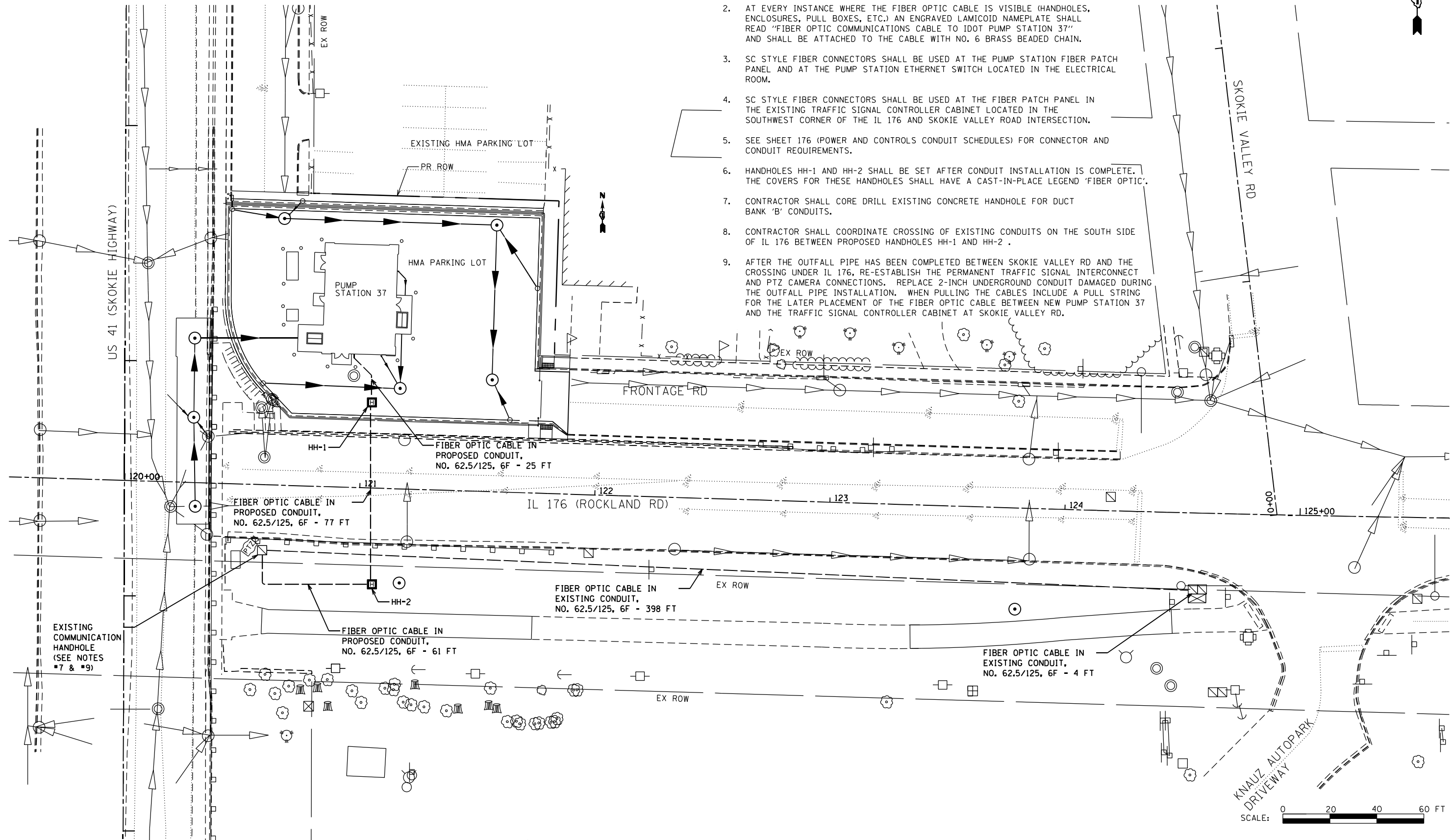
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PUMP STATION NO. 37 CIVIL PUMP STATION TEMPORARY INTERCONNECT PLAN	
SCALE: 1" = 20'	SHEET 1 OF 1 SHEETS
STA. 120+00	TO STA. 125+63

F.A.P. RTE. 346	SECTION (125S-1)I-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 46
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CLUX(634)				

NOTES

1. MATERIALS, INSTALLATION AND TESTING SHALL BE IN ACCORDANCE WITH ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION). SEE SECTIONS 801, 871, AND 1076.
2. AT EVERY INSTANCE WHERE THE FIBER OPTIC CABLE IS VISIBLE (HANDHOLES, ENCLOSURES, PULL BOXES, ETC.) AN ENGRAVED LAMICOID NAMEPLATE SHALL READ "FIBER OPTIC COMMUNICATIONS CABLE TO IDOT PUMP STATION 37" AND SHALL BE ATTACHED TO THE CABLE WITH NO. 6 BRASS BEADED CHAIN.
3. SC STYLE FIBER CONNECTORS SHALL BE USED AT THE PUMP STATION FIBER PATCH PANEL AND AT THE PUMP STATION ETHERNET SWITCH LOCATED IN THE ELECTRICAL ROOM.
4. SC STYLE FIBER CONNECTORS SHALL BE USED AT THE FIBER PATCH PANEL IN THE EXISTING TRAFFIC SIGNAL CONTROLLER CABINET LOCATED IN THE SOUTHWEST CORNER OF THE IL 176 AND SKOKIE VALLEY ROAD INTERSECTION.
5. SEE SHEET 176 (POWER AND CONTROLS CONDUIT SCHEDULES) FOR CONNECTOR AND CONDUIT REQUIREMENTS.
6. HANDHOLES HH-1 AND HH-2 SHALL BE SET AFTER CONDUIT INSTALLATION IS COMPLETE. THE COVERS FOR THESE HANDHOLES SHALL HAVE A CAST-IN-PLACE LEGEND 'FIBER OPTIC'.
7. CONTRACTOR SHALL CORE DRILL EXISTING CONCRETE HANDHOLE FOR DUCT BANK 'B' CONDUITS.
8. CONTRACTOR SHALL COORDINATE CROSSING OF EXISTING CONDUITS ON THE SOUTH SIDE OF IL 176 BETWEEN PROPOSED HANDHOLES HH-1 AND HH-2 .
9. AFTER THE OUTFALL PIPE HAS BEEN COMPLETED BETWEEN SKOKIE VALLEY RD AND THE CROSSING UNDER IL 176, RE-ESTABLISH THE PERMANENT TRAFFIC SIGNAL INTERCONNECT AND PTZ CAMERA CONNECTIONS. REPLACE 2-INCH UNDERGROUND CONDUIT DAMAGED DURING THE OUTFALL PIPE INSTALLATION. WHEN PULLING THE CABLES INCLUDE A PULL STRING FOR THE LATER PLACEMENT OF THE FIBER OPTIC CABLE BETWEEN NEW PUMP STATION 37 AND THE TRAFFIC SIGNAL CONTROLLER CABINET AT SKOKIE VALLEY RD.



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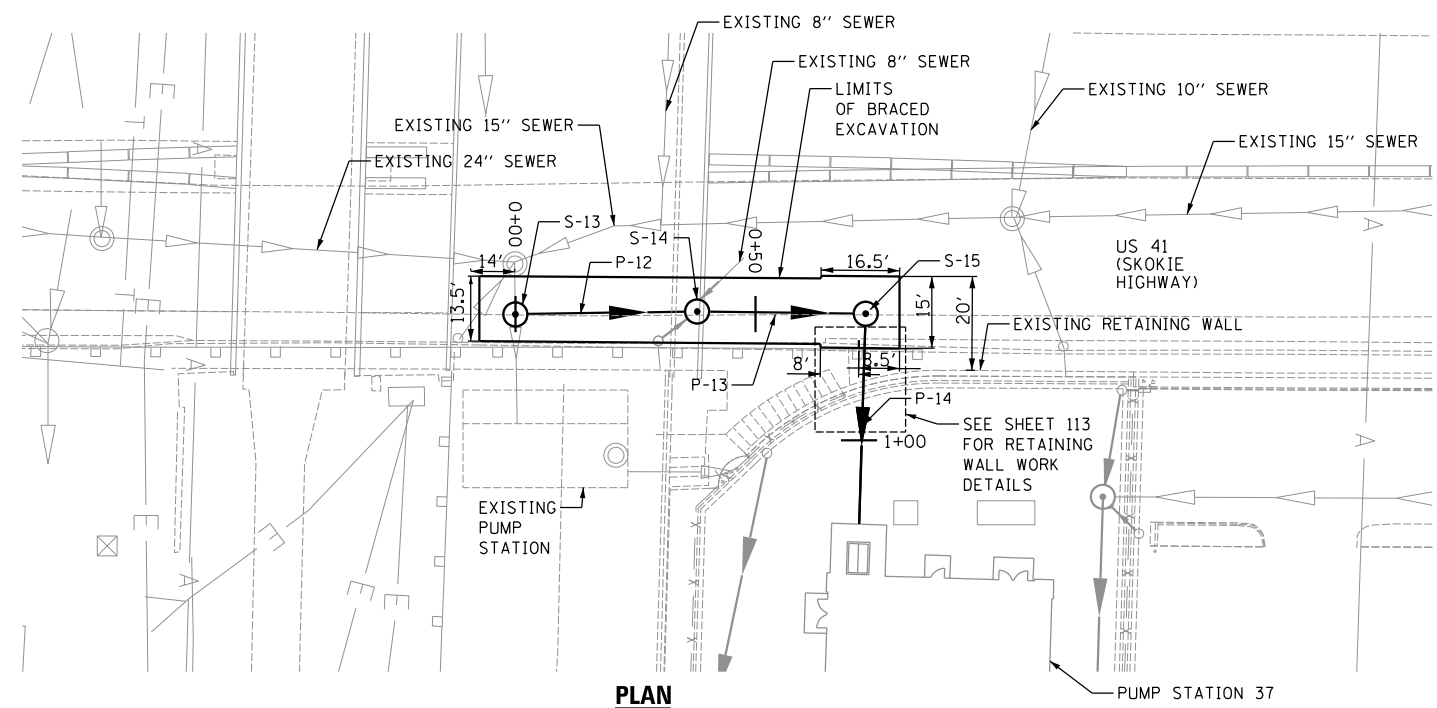


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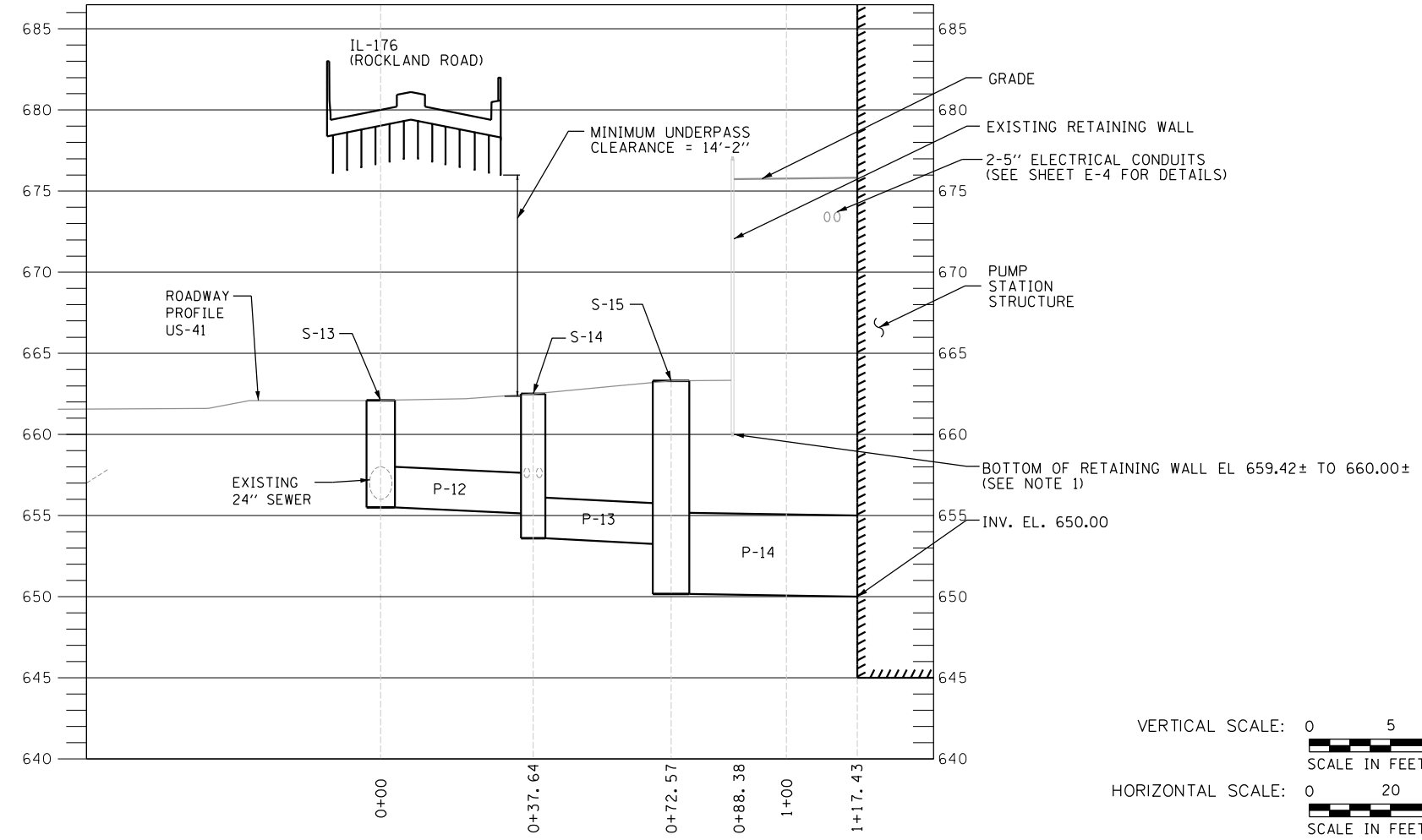
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PUMP STATION NO. 37 CIVIL PUMP STATION FIBER OPTIC CABLE PLAN	
SCALE: 1" = 20'	SHEET 1 OF 1 SHEETS STA. 120+00 TO STA. 125+63

F.A.P RTE. 346	SECTION (125S-1)I-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 47
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CLUX(634)				



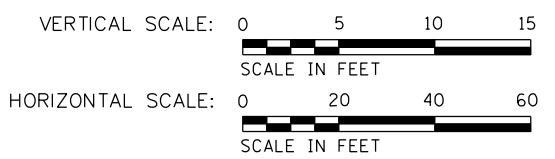
PLAN



PROFILE

GENERAL NOTES:

1. DEPTH OF RETAINING WALL AT 60-INCH SEWER CROSSING IS APPROXIMATE. PRIOR TO CONSTRUCTION CONTRACTOR SHALL PERFORM EXPLORATORY EXCAVATION TO VERIFY. PROVIDE SHEETING AND/OR SHORING AS REQUIRED TO AVOID IMPACTS ON ROAD AND RETAINING WALL.
2. SEE SHEET 49 FOR STRUCTURE AND STORM SEWER SCHEDULES.



MODEL: 4/08/2024 11:45 AM
FILE: 11/24/2024 11:45 AM



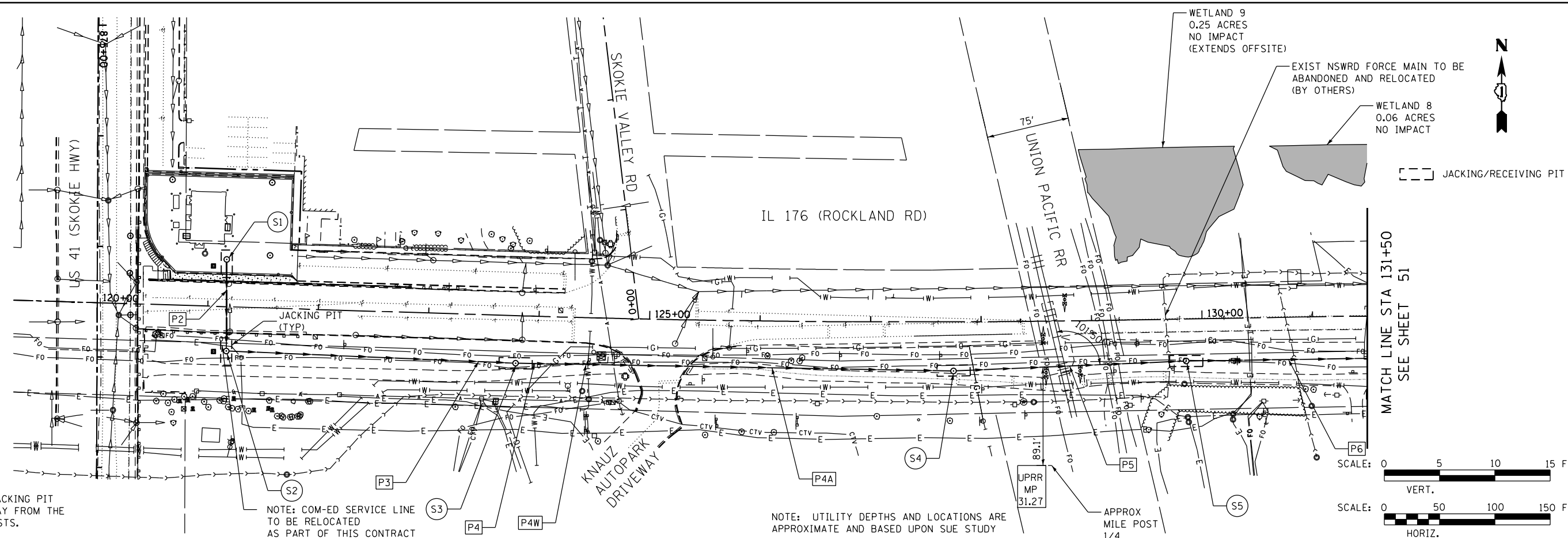
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PLOT DATE = 08/09/24	CHECKED -	REVISED -
	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PUMP STATION NO. 37 CIVIL INFLUENT SEWER PLAN AND PROFILE			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	48
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT C1JX(634)				

PLAN	SURVEYED	DATE
	ALIGNED	BY
	CHECKED	
	FILED	
	NO.	

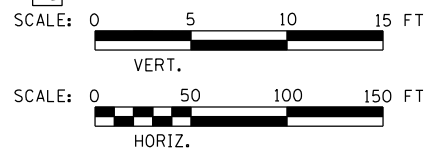


NOTE: MAINTAIN NORTH EDGE OF JACKING PIT AT S2 A MINIMUM OF 3' AWAY FROM THE BACK OF THE GUARDRAIL POSTS.

NOTE: COM-ED SERVICE LINE TO BE RELOCATED AS PART OF THIS CONTRACT

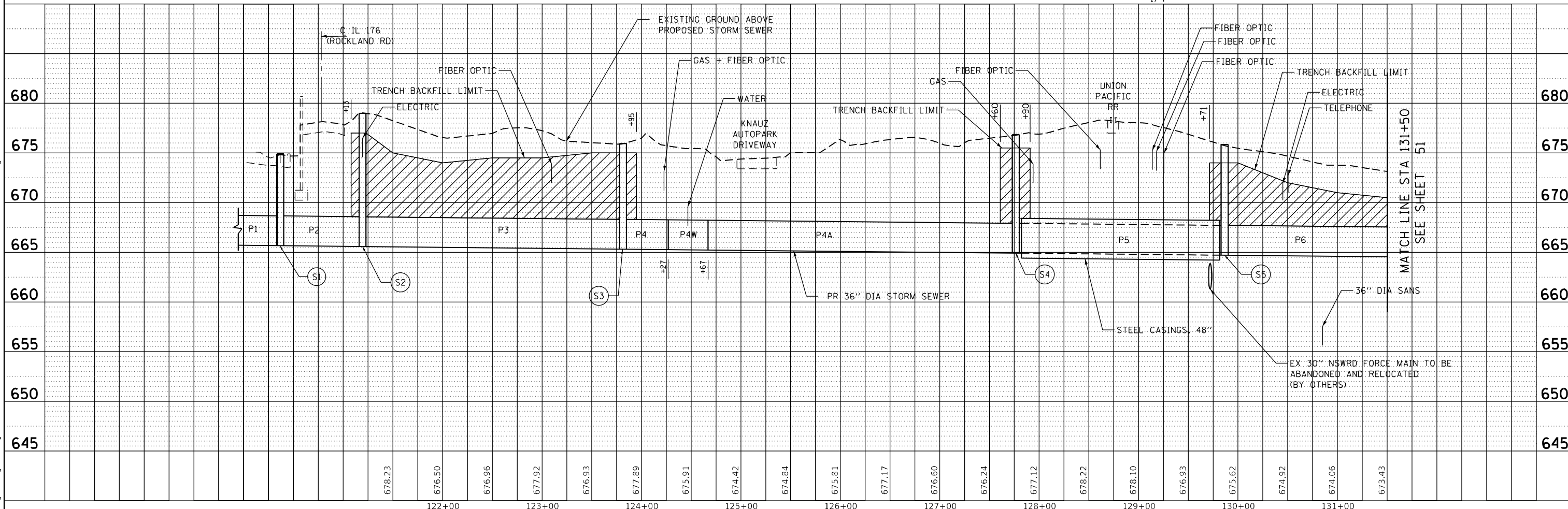
NOTE: UTILITY DEPTHS AND LOCATIONS ARE APPROXIMATE AND BASED UPON SUE STUDY

MATCH LINE STA 131+50
SEE SHEET 51



PROFILE	SURVEYED	DATE
	GRADES	BY
	CHECKED	
	STRUCTURE	
	NOTATIONS	
	CHD	
	NO.	

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MATCH LINE STA 131+50
SEE SHEET 51

	USER NAME = j_davis	DESIGNED - TGM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PUMP STATION NO. 37 SEWER WORK DRAINAGE PLAN AND PROFILE - I	SCALE: SHEET 1 OF 2 SHEETS STA. 120+00 TO STA. 131+50	RTE. US 41 ILLINOIS 176	SECTION (125S-1) I-4 LAKE	COUNTY LAKE CONTRACT NO. 62B66 ILLINOIS FED. AID PROJECT NO. CIUX (634)	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 100.0000' / 1"	DRAWN - JN	REVISED -							186	50
	PLOT DATE = 8/2/2024	CHECKED - JMT	REVISED -								
		DATE - 07-31-2024	REVISED -								

DRAINAGE STRUCTURE SCHEDULE					
STRUCTURE NO.	DESCRIPTION	STATION	OFFSET	INVERT EL	RIM EL
S-1	SEE SHEET 43 (CIVIL PUMP STATION - STRUCTURE AND STORM SEWER SCHEDULES)				
S-2	MANHOLES, TYPE A, 7' DIAMETER WITH TY 1 FRAME, CLOSED LID	121+18	40' RT	665.64	679.00
S-3	MANHOLES, TYPE A, 7' DIAMETER WITH TY 1 FRAME, CLOSED LID	123+80	43' RT	665.38	676.00
S-4	MANHOLES, TYPE A, 7' DIAMETER WITH TY 1 FRAME, CLOSED LID	127+75	44.5' RT	664.98	676.80
S-5	MANHOLES, TYPE A, 7' DIAMETER WITH TY 1 FRAME, CLOSED LID	129+85	38' RT	664.77	676.20
S-6	MANHOLES, TYPE A, 7' DIAMETER WITH TY 1 FRAME, CLOSED LID	133+50	39' RT	664.41	670.80
S-7	MANHOLES, TYPE A, 7' DIAMETER WITH TY 1 FRAME, CLOSED LID	136+00	40' RT	664.16	670.80
S-8	MANHOLES, TYPE A, 8' DIAMETER WITH TY 1 FRAME, CLOSED LID	136+96	33' RT	664.06, 664.10	670.00
S-23	INLETS, TYPE A, TYPE 8 GRATE	135+00	33' RT	667.50	669.00
FES-1	PRECAST REINFORCED CONCRETE FLARED END SECTIONS, 42"	137+22	32' RT	664.02	-
FES-2	STEEL FLARED END SECTIONS, EQUIVALENT ROUND-SIZE 15"	131+91	33' RT	670.60	-
FES-3	STEEL FLARED END SECTIONS, EQUIVALENT ROUND-SIZE 15"	132+36	33' RT	670.37	-
FES-4	STEEL FLARED END SECTIONS, 15"	133+67	33' RT	668.83	-

STORM SEWER SCHEDULE										
PIPE NO.	FROM STR/ STATION	TO STR/ STATION	LENGTH (FT)	DIAMETER (IN)	PIPE TYPE	STEEL CASING	SLOPE %	TRENCH BACKFILL (CY)+	UPSTREAM INVERT	DOWNSTREAM INVERT
P-1	SEE SHEET 49 (CIVIL PUMP STATION - STRUCTURE AND STORM SEWER SCHEDULES)									
* P-2	S-1	S-2	80	36	C-A T3		0.11	154	665.73	665.64
P-3	S-2	S-3	259	36	C-A T3		0.10	427	665.64	665.38
* P-4	S-3	124+27	45	36	C-A T2		0.10	88	665.38	665.33
* P-4W	124+27	124+67	40	36	C-A T2		0.10		665.33	665.29
* P-4A	124+67	S-4	309	36	C-A T2		0.10	48	665.29	664.98
* P-5	S-4	S-5	207	36	C-A T2	48"	0.10	133	664.98	664.77
P-6	S-5	131+85	198	36	C-A T2		0.10	219	664.77	664.57
P-6W	131+85	S-6	164	36	C-A T2		0.10	64	664.57	664.41
P-7	S-6	S-7	247	36	C-A T2		0.10	47	664.41	664.16
P-8	S-7	S-8	93	36	C-A T2		0.10	24	664.16	664.06
P-9	S-8	FES-1	15	42	C-A T1		0.20	--	664.06	664.02

+ - INCLUDES TRENCH BACKFILL FOR JACKING PITS
 * - STORM SEWERS JACKED IN PLACE
 W - WATER MAIN REQUIREMENTS
 ALL STORM SEWERS SHALL MEET OR EXCEED CLASS IV STRENGTH REQUIREMENTS FOR REINFORCED CONCRETE PIPE.

STORM SEWER REMOVAL 12' '				
FROM STA.	OFFSET	TO STA.	OFFSET	LENGTH (FT)
131+89	33' RT	132+25	33' RT	36
133+69	33' RT	137+21	33' RT	352

REMOVE EXISTING FLARED END SECTION	
STATION	OFFSET
131+89	33' RT
132+25	33' RT

PIPE CULVERT SCHEDULE									
PIPE NO.	FROM STR	TO STR	LENGTH (FT)	DIAMETER (IN)	PIPE TYPE	SLOPE %	TRENCH BACKFILL (CY)	UPSTREAM INVERT	DOWNSTREAM INVERT
P-24	FES-2	FES-3	42	15 EQUIVALENT ROUND	C-D T1	0.50	4	670.60	670.37
P-25	FES-4	S-23	132	15	C-D T1	1.00	23	668.83	667.50
P-26	S-23	S-8	193	15	C-D T1	1.76	79	667.50	664.10

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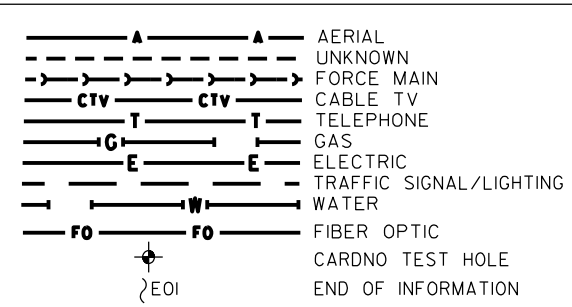
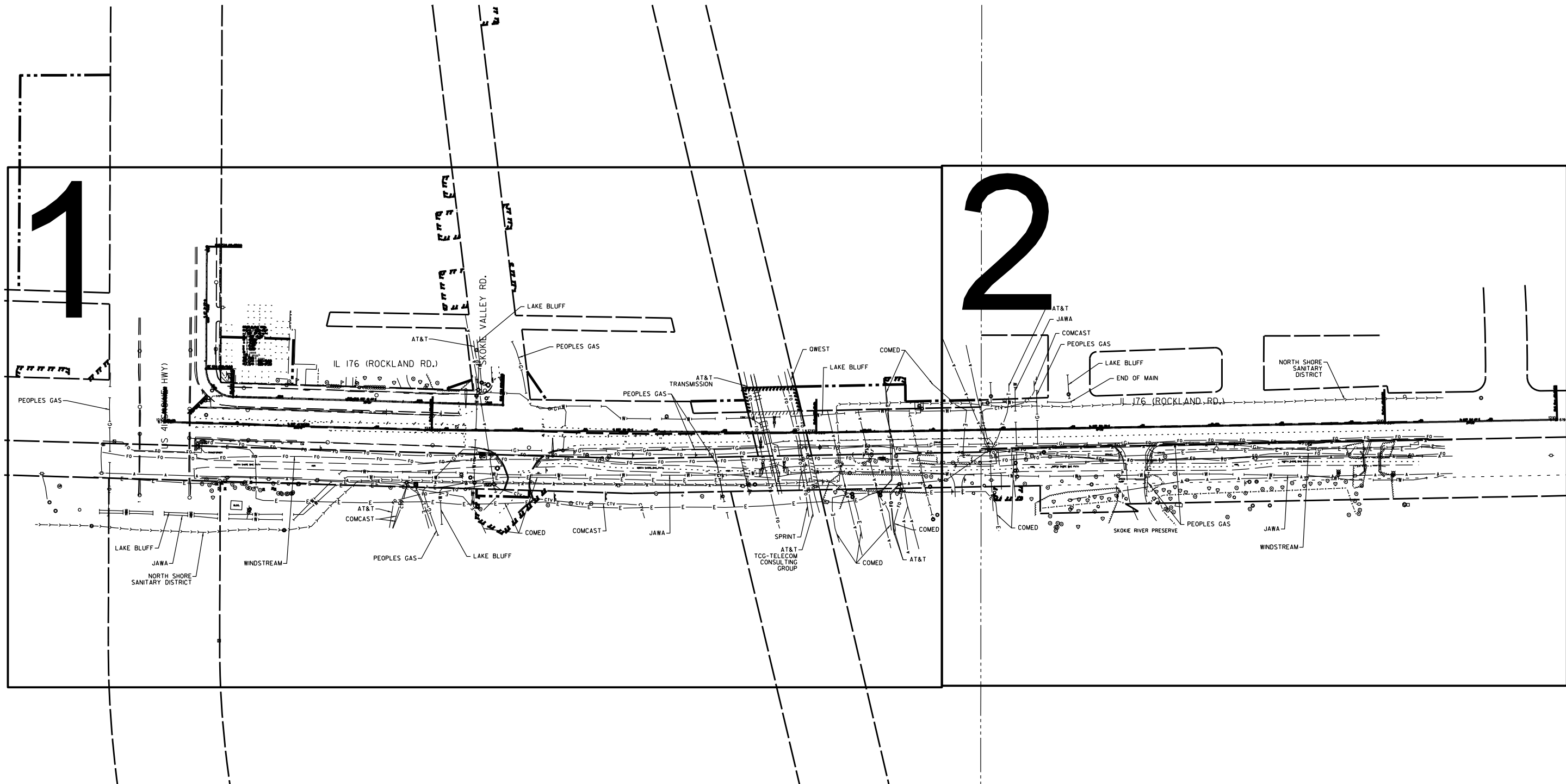


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DRAWN - JMT	REVISED -	
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PLOT DATE = 9/19/2024	DATE - 07-31-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37 SEWER WORK DRAINAGE SCHEDULES			
SCALE:	SHEET 1 OF 1 SHEETS	STA.	TO STA.

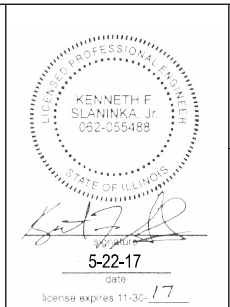
F.A.P RTE. 346	SECTION (125S-1)J-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 52
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CLKJ(634)				



UTILITY OWNERS		
AT&T - FOC/TELEPHONE		
WINDSTREAM - FOC		
SPRINT - FOC		
QWEST - FOC		
COMED - ELECTRIC		
PEOPLES GAS - GAS		
COMCAST - CATV		
JAWA - WATER		
VILLAGE OF LAKE BLUFF - WATER		
NORTH SHORE SANITARY DISTRICT - FORCE MAIN		

All aspects of this Subsurface Utility Engineering (SUE) investigation were performed in accordance with ASCE Standard 38-02 'Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data' and industry standards as of the date of this work. Utilities shown on these plans as depicted in the legend have been investigated by Cardno in accordance with SUE Industry Standards. All other information shown has been provided to Cardno by others. Cardno's SUE field investigation was performed 2-22-17 through 4-28-17. Changes to utilities after 4-28-17 may have been made and therefore may result in variances from this plan. Consideration should be given to updating this plan if deemed advisable prior to final design and construction.

ALL UTILITIES SHOWN QUALITY LEVEL "B" UNLESS NOTED OTHERWISE.



CLAASSEN, WHITE & ASSOCIATES, P.C.
LAND SURVEYORS
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Utility Quality Level 'A': Visually Verified Test Hole
 Utility Quality Level 'B': Designating/non Visually Verified Test Hole
 Utility Quality Level 'C': Research with Survey
 Utility Quality Level 'D': Records Research

DESIGNED	LP	
DRAWN	KLC	REVISED
CHECKED	KFS	REVISED
DATE	5/22/17	REVISED

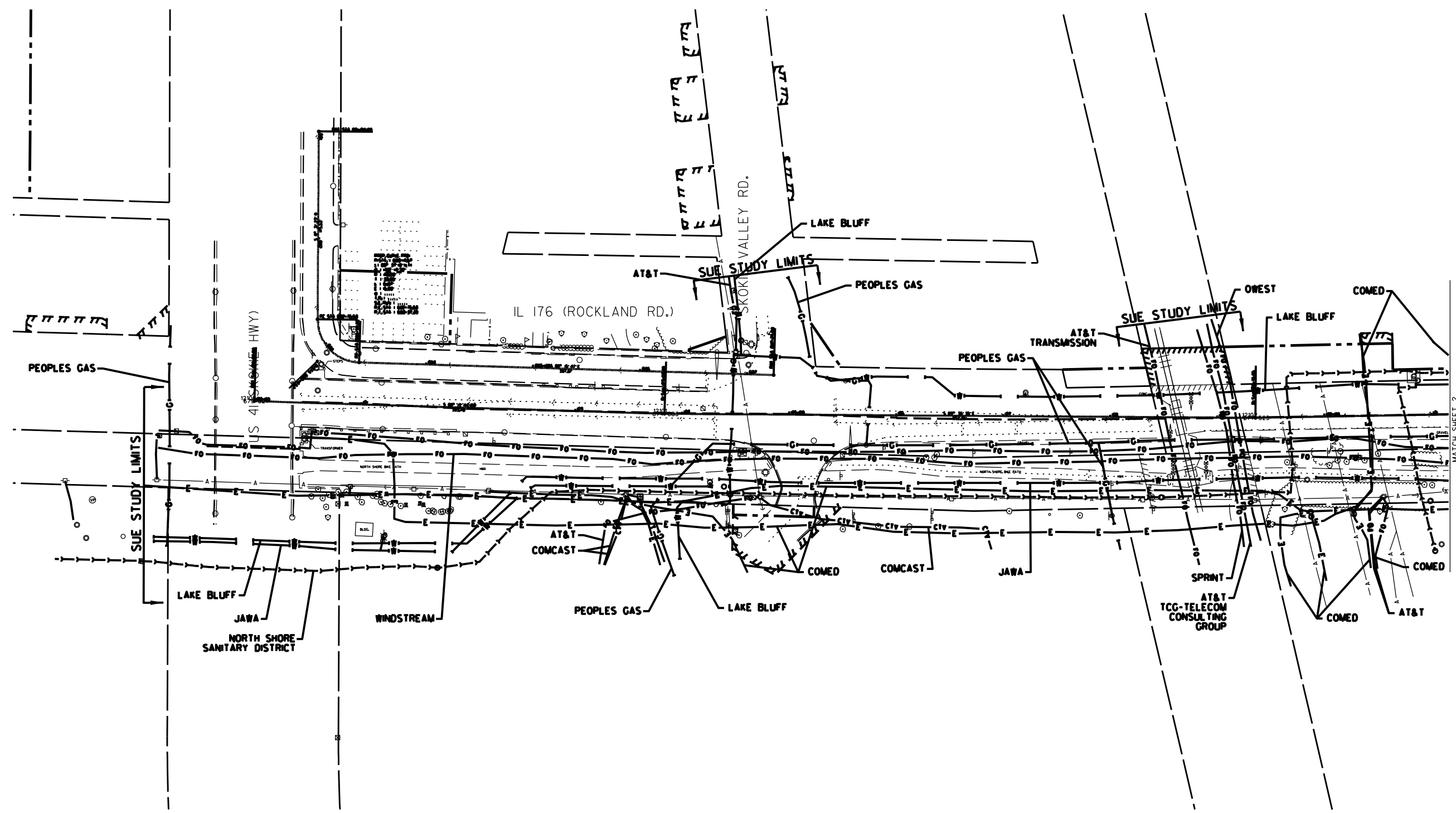
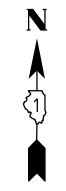
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL RTE. 176 (ROCKLAND RD.) & US 41
LAKE BLUFF, IL

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0346	(1255-III-4	LAKE	186	53

Contract No. 62B66
 FED. ROAD DIST. NO. ILLINOIS IDOT Project No.

TBE Job No. IL09510742
SUE Plan Page: Cover

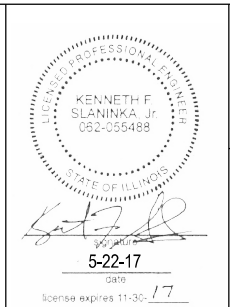
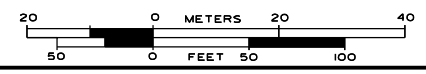


	AERIAL
	UNKNOWN
	FORCE MAIN
	CABLE TV
	TELEPHONE
	GAS
	ELECTRIC
	TRAFFIC SIGNAL/LIGHTING WATER
	FIBER OPTIC
	CARDNO TEST HOLE
	END OF INFORMATION

UTILITY OWNERS		
AT&T - FOC/TELEPHONE		
WINDSTREAM - FOC		
SPRINT - FOC		
QWEST - FOC		
COMED - ELECTRIC		
PEOPLES GAS - GAS		
COMCAST - CATV		
JAWA - WATER		
VILLAGE OF LAKE BLUFF - WATER		
NORTH SHORE SANITARY DISTRICT - FORCE MAIN		

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 (815) 744-3720 clausen@tcwosurvey.com

TBE Job No. IL09510742
 SUE Plan Page: 1 of 2

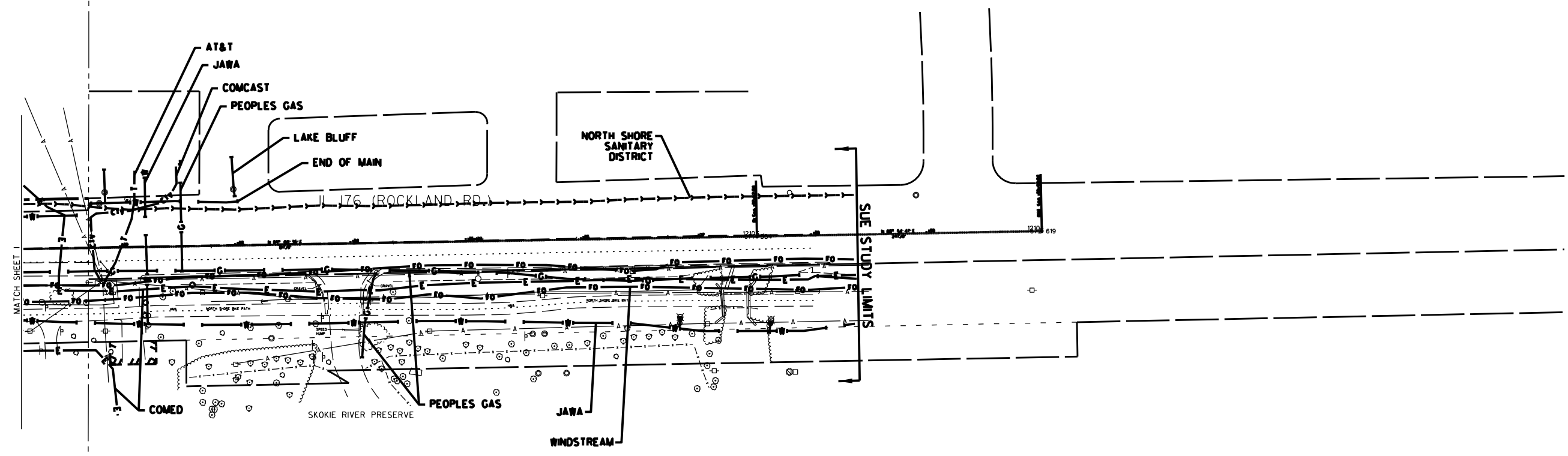
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 Utility Quality Level 'B': Designating/non Visually Verified Test Hole
 Utility Quality Level 'C': Research with Survey
 Utility Quality Level 'D': Records Research

DESIGNED LP	REVISED
DRAWN KLC	REVISED
CHECKED KFS	REVISED
DATE 5/22/17	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL RTE. 176 (ROCKLAND RD.) & US 41
LAKE BLUFF, IL

F.A.P. RTE. 0346	SECTION 0255-III-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 54
FED. ROAD DIST. NO. ILLINOIS		IDOT Project No.		

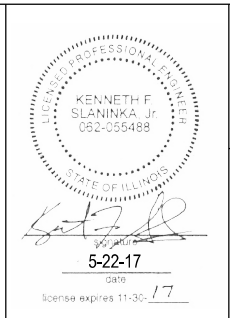
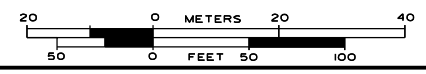


	AERIAL
	UNKNOWN
	FORCE MAIN
	CABLE TV
	TELEPHONE
	GAS
	ELECTRIC
	TRAFFIC SIGNAL/LIGHTING WATER
	FIBER OPTIC
	CARDNO TEST HOLE
	END OF INFORMATION

UTILITY OWNERS	
AT&T - FOC/TELEPHONE	
WINDSTREAM - FOC	
SPRINT - FOC	
QWEST - FOC	
COMED - ELECTRIC	
PEOPLES GAS - GAS	
COMCAST - CATV	
JAWA - WATER	
VILLAGE OF LAKE BLUFF - WATER	
NORTH SHORE SANITARY DISTRICT - FORCE MAIN	

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 (815) 744-3720 clausenwhite@cwosurvey.com

TBE Job No. IL09510742
 SUE Plan Page: 2 of 2

Utility Quality Level 'A': Visually Verified Test Hole
Utility Quality Level 'B': Designating/non Visually Verified Test Hole
Utility Quality Level 'C': Research with Survey
Utility Quality Level 'D': Records Research

DESIGNED	LP	REVISED	
DRAWN	KLC	REVISED	
CHECKED	KFS	REVISED	
DATE	5/22/17	REVISED	

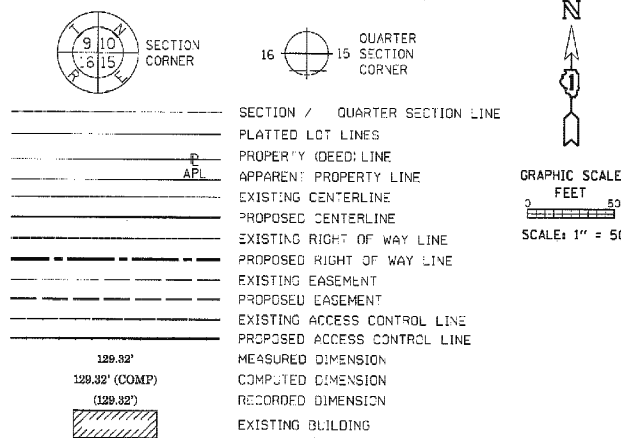
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**IL RTE. 176 (ROCKLAND RD.) & US 41
 LAKE BLUFF, IL**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0346	(1255-III-4	LAKE	186	55
FED. ROAD DIST. NO.		ILLINOIS	IDOT Project No.	

PART OF THE NE 1/4 OF SECTION 19, TWP. 44 N., R. 12 E. OF THE 3RD. P.M., IN COOK COUNTY, ILLINOIS.

LEGEND



BEARINGS ARE REFERENCED TO THE ILLINOIS STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD83 (2011 ADJUSTMENT)

- IRON PIPE OR ROD FOUND ⊗ "MAC" NAIL SET
- + CULT CROSS FOUND OR SET ○ 5 / 8" REBAR SET
- STAKING OF PROPOSED RIGHT OF WAY, SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- M STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS, BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ⊕ PERMANENT SURVEY MARKER, I.D.O.T. STANDARD 2135 (TO BE SET BY OTHERS)
- RIGHT OF WAY STAKING PROPOSED TO BE SET

- SURVEY NOTES:**
- ALL DIMENSIONS ARE MEASURED UNLESS OTHERWISE SPECIFIED.
 - BEARING, DISTANCES, AND COORDINATES SHOWN HEREON REFERENCE THE ILLINOIS STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM OF 1983 (2011 ADJUSTMENT) "GRID".
 - ALL MEASURED AND CALCULATED DISTANCES ARE "GRID" NOT "GROUND". TO OBTAIN GROUND DISTANCES, DIVIDE GRID DISTANCES SHOWN BY THE COMBINATION FACTOR OF 0.99999391.
 - AREAS SHOWN ON THIS PLAT ARE "GROUND".
 - FIELD SURVEY COMPLETED ON OCTOBER 17th, 2017.

STATE OF ILLINOIS)
)SS
COUNTY OF COOK)

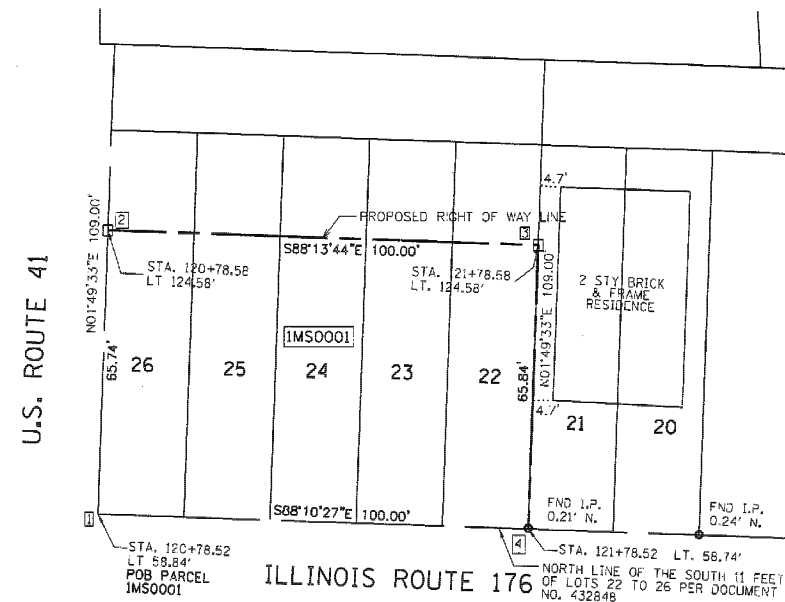
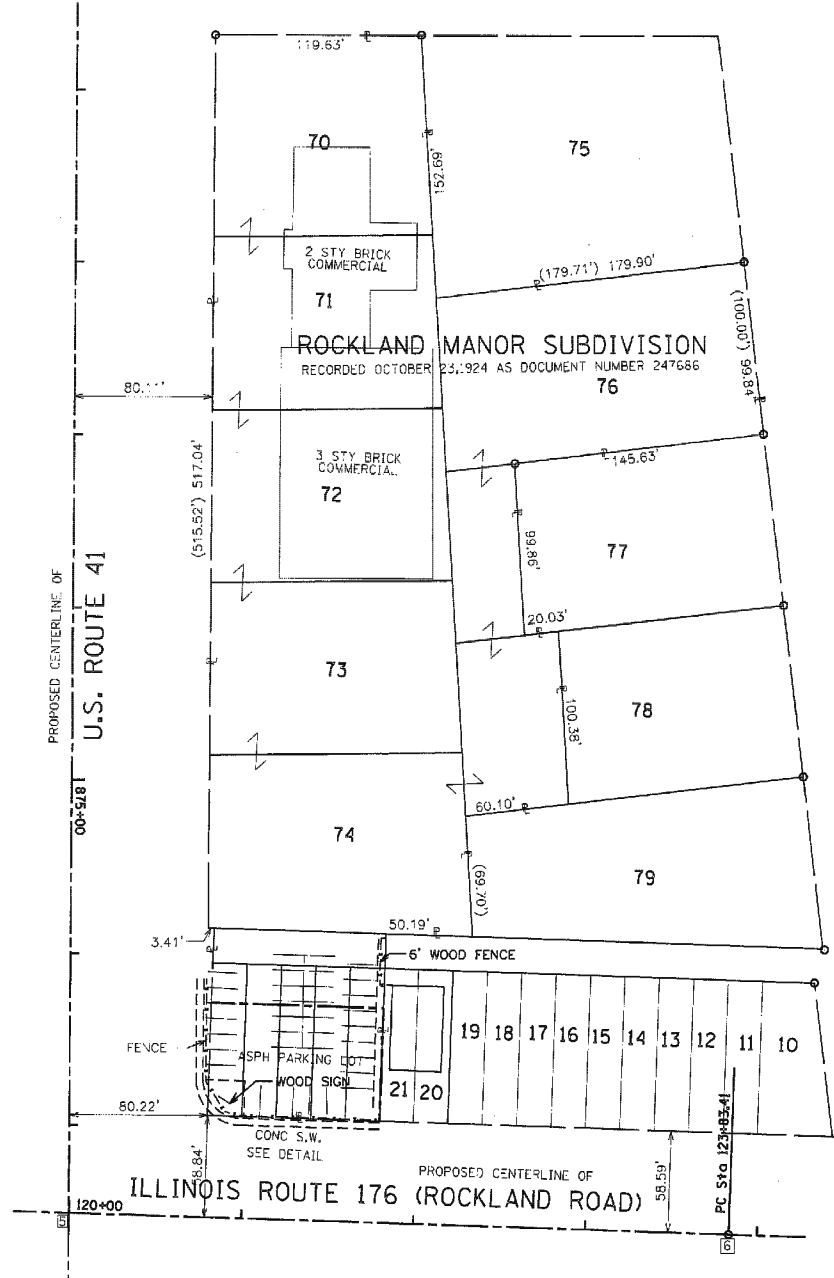
THIS IS TO CERTIFY THAT I, ROD RICHGRUBER, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTION 19, TOWNSHIP 44 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, COOK COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED.

DATED AT SCHAUMBURG, ILLINOIS THIS 30TH DAY OF OCTOBER, 2017 A.D.

Rod Richgruber
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3452
LICENSE EXPIRATION DATE: NOVEMBER 30, 2018



THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.



DETAIL
SCALE: 1" = 20'

PROJECT COORDINATES
ILLINOIS STATE PLANE, EAST ZONE, NAD83 (2011)

POINT NUMBER	NORTHING	EASTING
1	2044868.93	1109553.43
2	2044934.50	1109555.52
3	2044931.55	1109555.47
4	2044865.74	1109553.38
5	2044812.55	1109472.99
6	2044800.70	1109556.35

PARCEL NUMBER	TOTAL HOLDINGS ACRES	PART TAKEN ACRES	AREA IN EXISTING R.O.W. ACRES	REMAINDER AREA ACRES	EASEMENT AREA ACRES	SQUARE FEET	PARCEL INDEX NUMBER
IMS0001	2.528	0.151	N/A	2.377	N/A	N/A	12-19-207-001 THRU 007 12-19-207-011 THRU 013 12-19-207-020



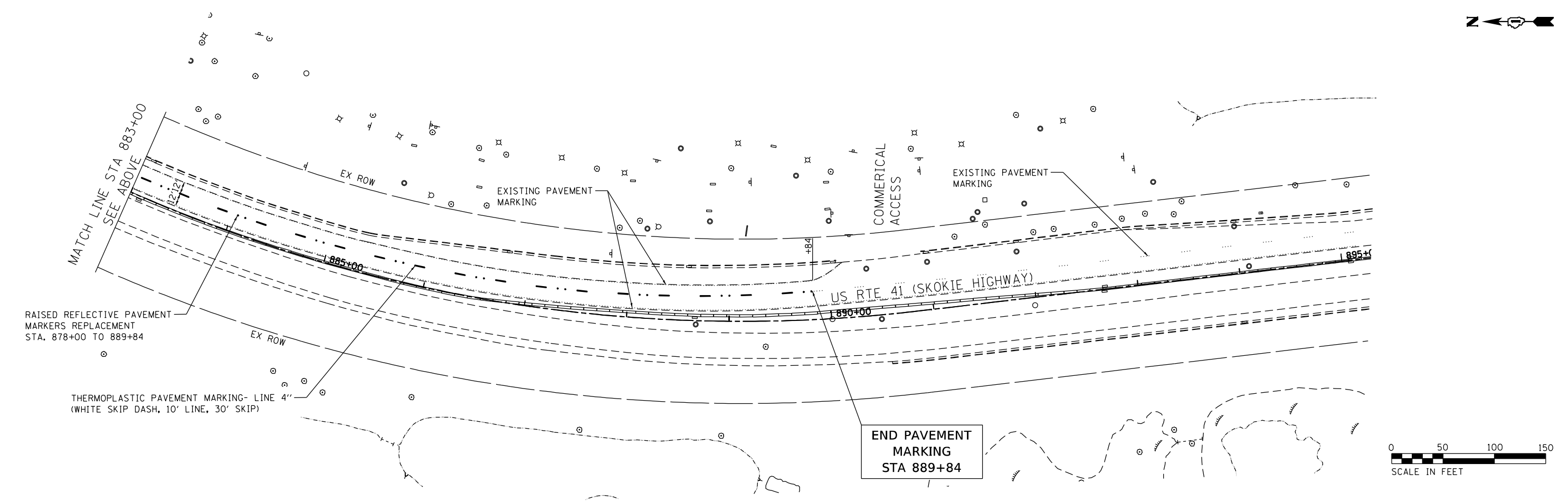
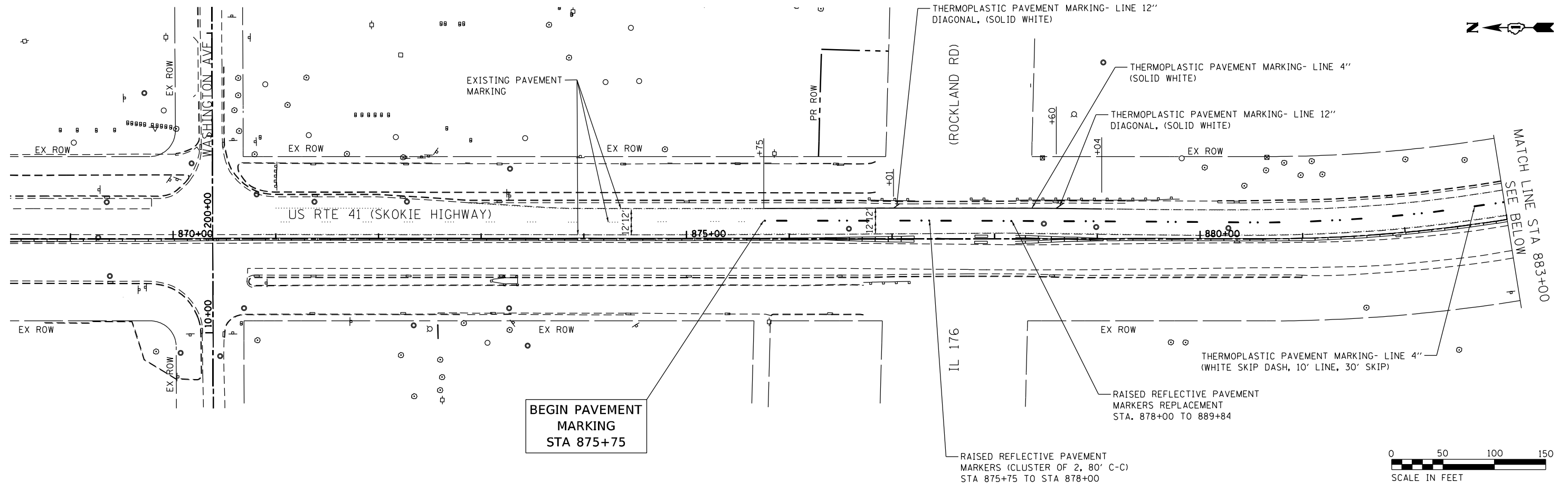
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PLOT DATE = 08/09/24	CHECKED -	REVISED -
	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
CIVIL
PLAT OF SURVEY

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)-L4	LAKE	186	56
CONTRACT NO. 62B66				
ILLINOIS		FED. AID PROJECT CRJ(634)		



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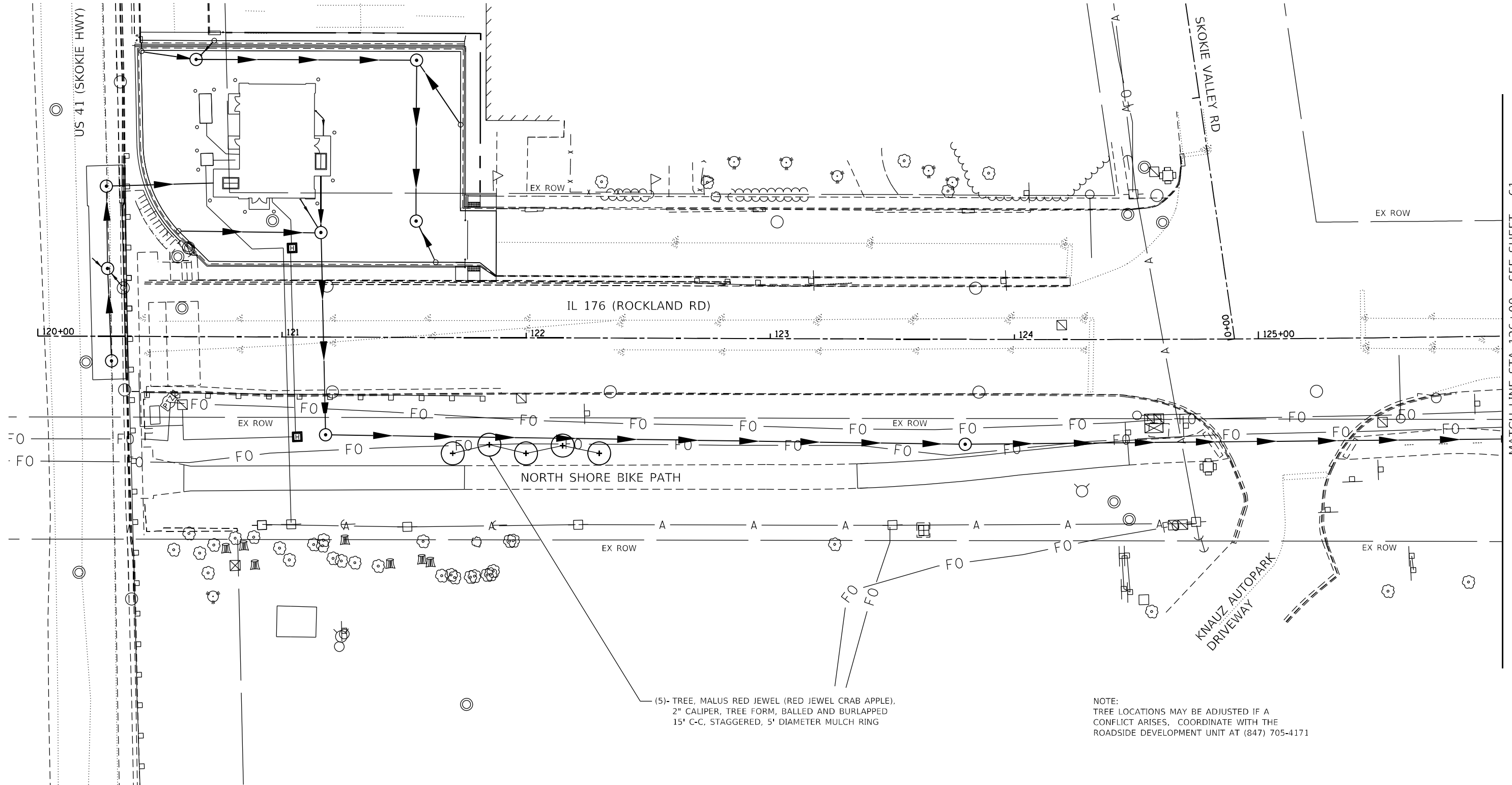
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DRAWN - AB	CHECKED - TGM	REVISED -
PLOT SCALE = 98.6138' / 1 in.	DATE - 07-31-2024	REVISED -
PLOT DATE = 8/2/2024		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
PROPOSED PAVEMENT MARKINGS
US RTE. 41

SCALE: 1" = 50' SHEET 2 OF 2 SHEETS STA. 868+41 TO STA. 895+00

F.A.P. RTE. 346	SECTION (125S-1)I-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 59
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CLUX(534)				



MODEL: Default
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MATCH LINE STA 126+00 - SEE SHEET 61

(5)- TREE, MALUS RED JEWEL (RED JEWEL CRAB APPLE),
 2" CALIPER, TREE FORM, BALLED AND BURLAPPED
 15' C-C, STAGGERED, 5' DIAMETER MULCH RING

NOTE:
 TREE LOCATIONS MAY BE ADJUSTED IF A
 CONFLICT ARISES. COORDINATE WITH THE
 ROADSIDE DEVELOPMENT UNIT AT (847) 705-4171

SCALE: 0 20 40 60 FT



USER NAME = jdavis	DESIGNED - AB	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - AB	REVISED -
PLOT DATE = 8/2/2024	CHECKED - TGM	REVISED -
	DATE - 07-31-2024	REVISED -

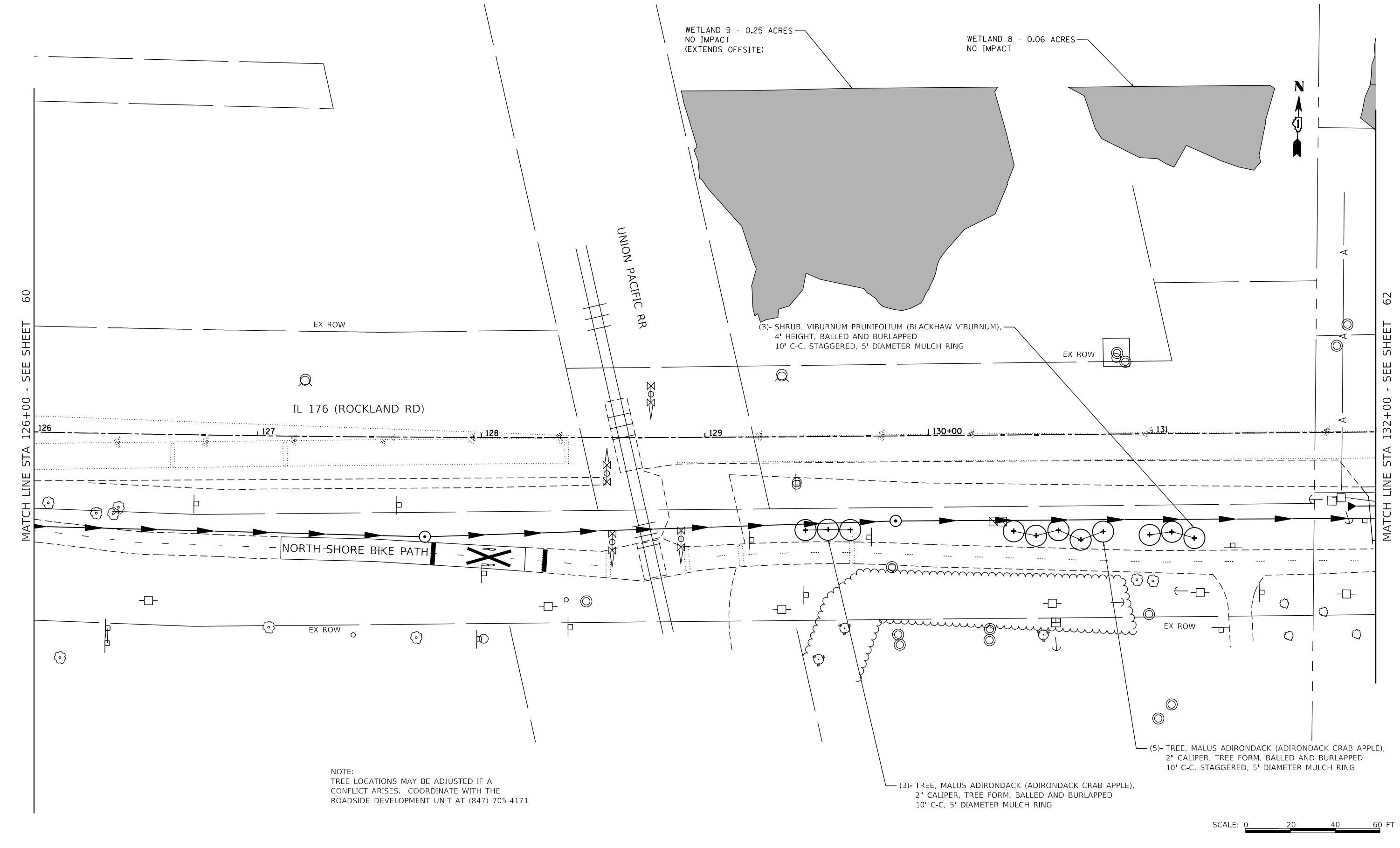
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
 LANDSCAPE I**

SCALE: 1"=20' SHEET 1 OF 3 SHEETS STA. 120+00 TO STA. 126+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)-4	LAKE	186	60
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CLIX(634)				

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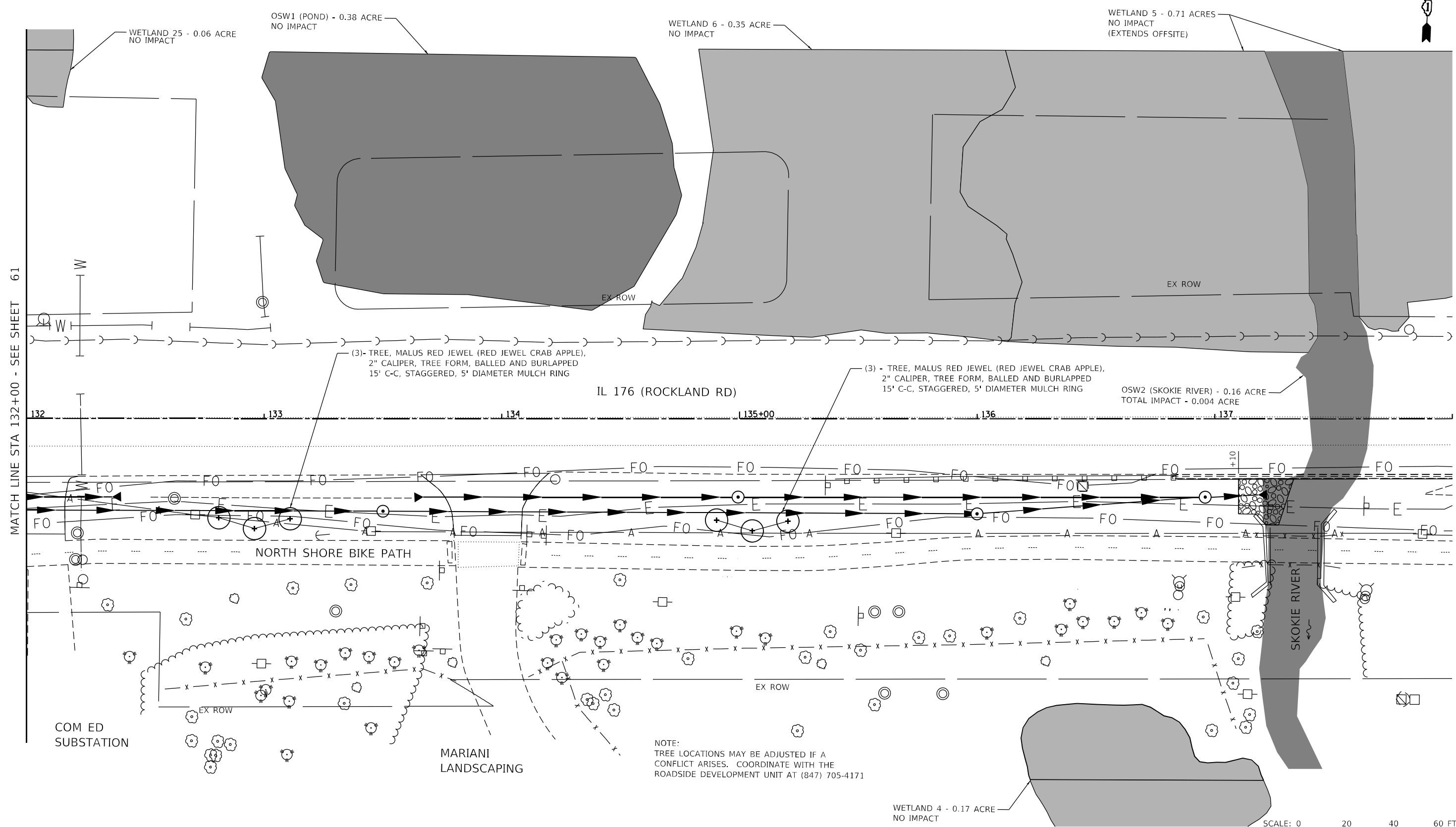


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PLOT DATE = 8/8/2024	CHECKED - TGM	REVISED -
	DATE - 07-31-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PUMP STATION NO. 37 LANDSCAPE II		
SCALE: 1"=20'	SHEET 2 OF 3 SHEETS	STA. 126+00 TO STA. 132+00

F.A.P RTE. 346	SECTION (125S-1)-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 61
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CLX(634)				



MATCH LINE STA 132+00 - SEE SHEET 61

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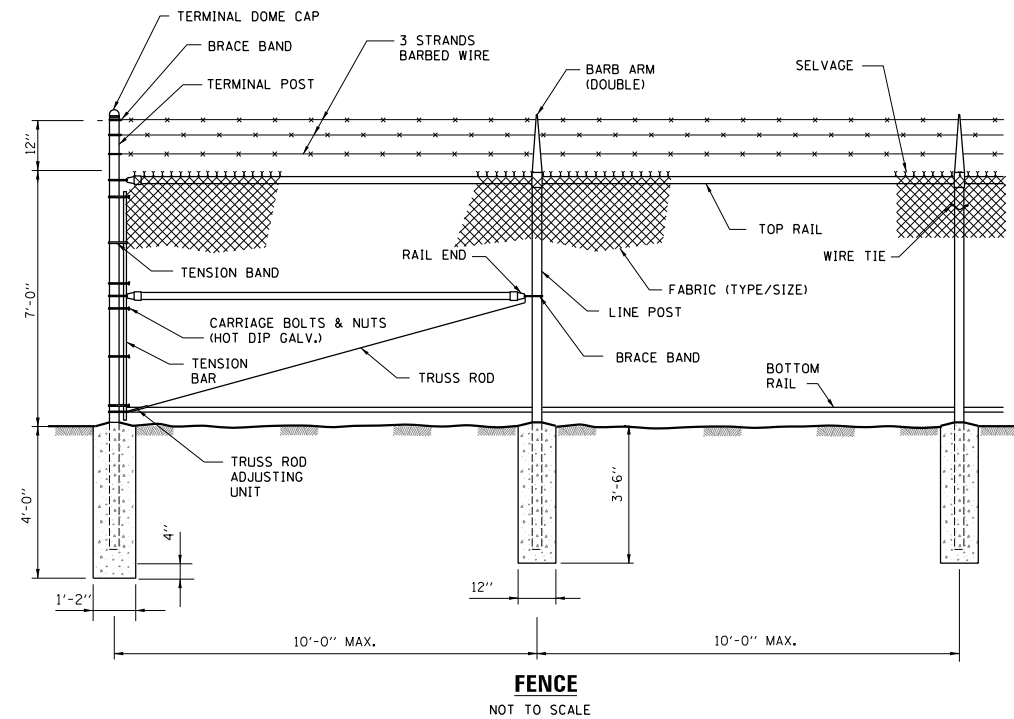


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DRAWN	- AB	CHECKED	- TGM	REVISED	-
PLOT SCALE	= 40,0000' / in.	DATE	- 07-31-2024	REVISED	-
PLOT DATE	= 8/2/2024				

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

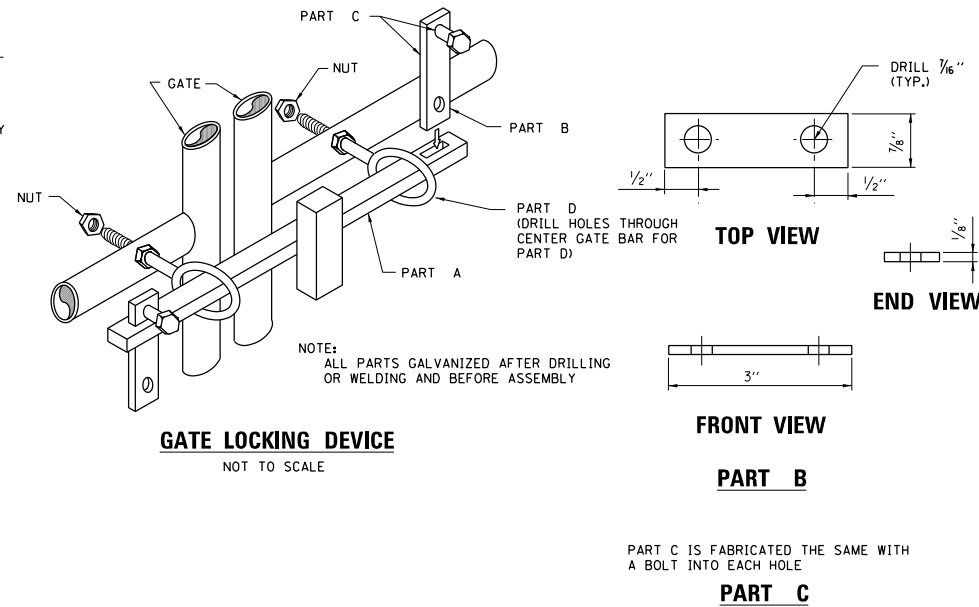
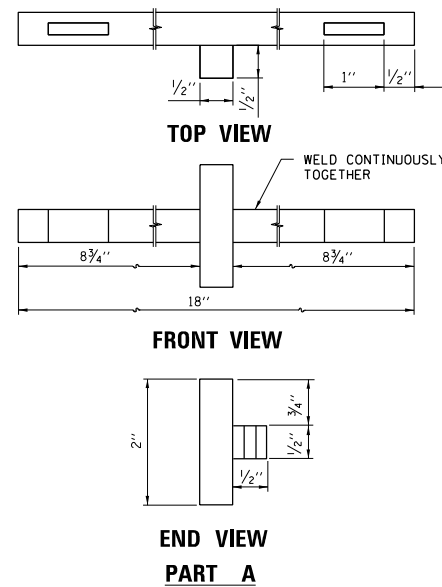
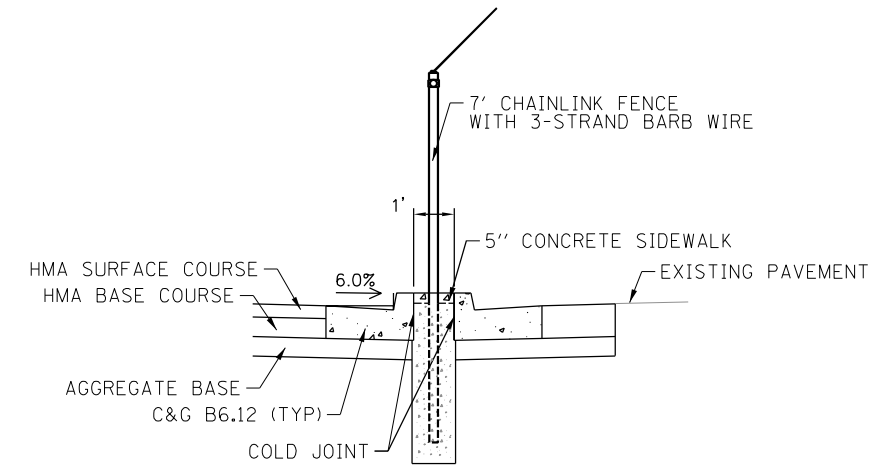
PUMP STATION NO. 37 LANDSCAPE III			
SCALE: 1"=20'	SHEET 3 OF 3 SHEETS	STA. 132+00 TO STA. 138+00	

F.A.P. RTE. 346	SECTION (125S-1)-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 62
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CLIX(634)				



SPECIFICATIONS			
FABRIC	MESH	GAUGE	SELVAGE
ALUM.	2"	9	K+B
BARBED WIRE	TYPE 4 PT.	3 STR. <input checked="" type="checkbox"/>	6 STR. <input type="checkbox"/>
FRMWRK.	O.D.	WALL	LBS/LF
TOP & BOT. RAIL	1 5/8"	.140	2.27
LINE POSTS	2 3/8"	.154	3.65
BRACE RAIL	1 5/8"	.140	2.27
CORNER POSTS	2 7/8"	.203	5.79
END POSTS	2 7/8"	.203	5.79

- NOTES:
- ALL MATERIALS SHALL BE HOT DIP GALVANIZED
 - ALL FITTINGS SHALL BE PRESSED STEEL.
 - SEE E458 FOR GROUNDING. GROUNDING SHALL BE CONTINUOUS. GROUND RODS SHALL BE SPACED NO MORE THAN 100 FEET APART.



PART C IS FABRICATED THE SAME WITH A BOLT INTO EACH HOLE

MODELS: 4/08/2018MMMS FILE NAME: SEE ELS



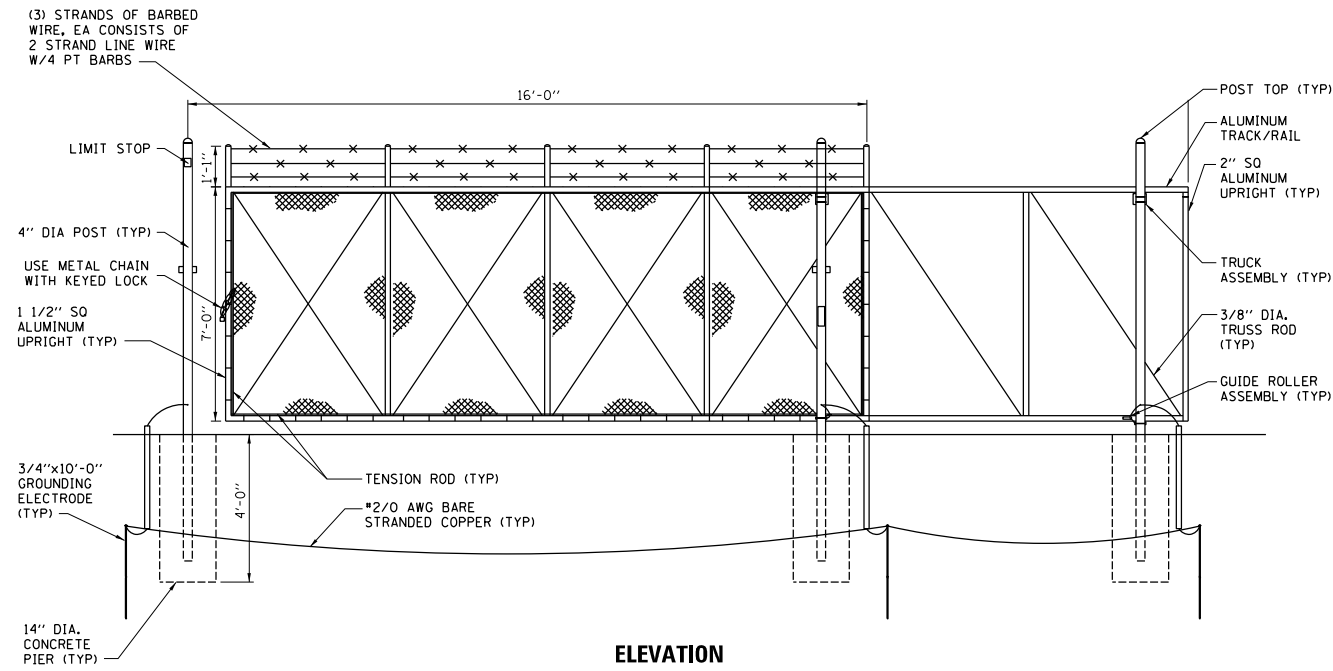
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PLOT DATE = 08/09/24	CHECKED - PMS	REVISED -
	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
CIVIL
GENERAL DETAILS

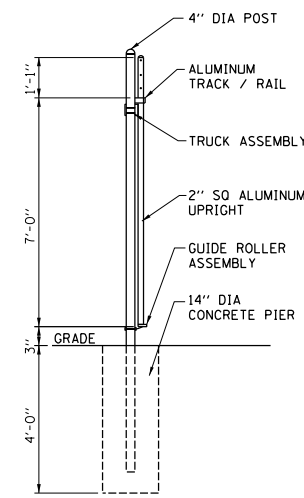
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	63
CONTRACT NO. 62B66				
ILLINOIS		FED. AID PROJECT CBJX(634)		

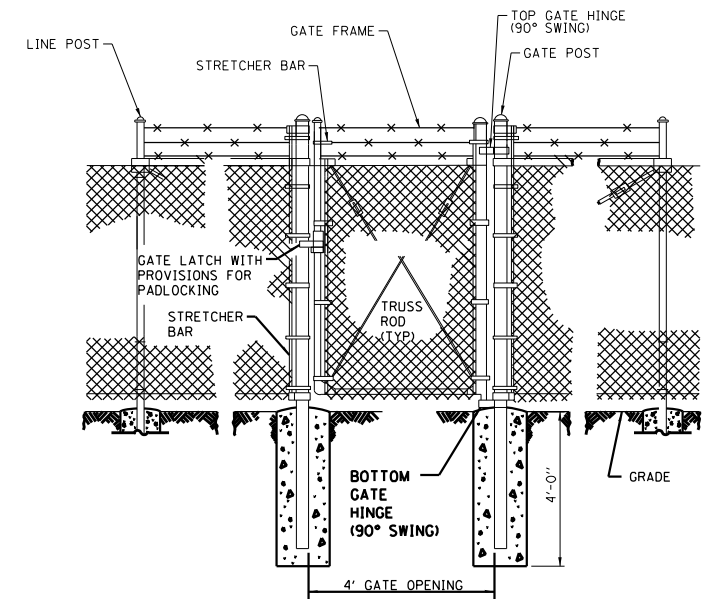


ELEVATION

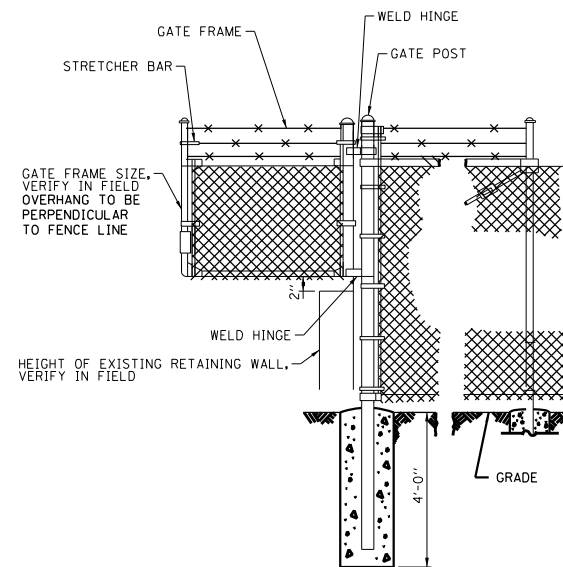
SINGLE CANTILEVERED SLIDING GATE
NOT TO SCALE



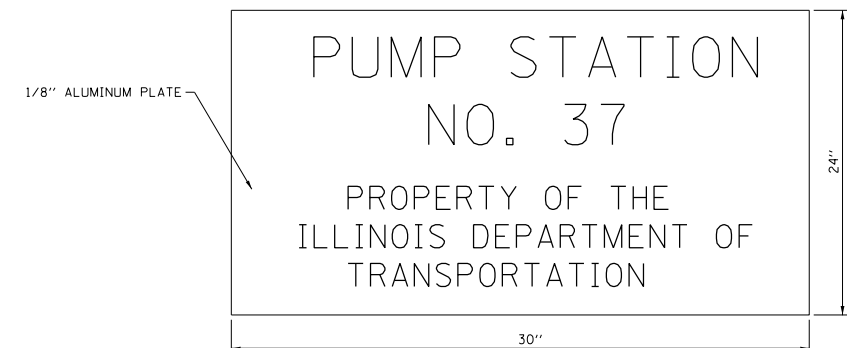
SECTION



MAN GATE
NOT TO SCALE



BARB WIRE FENCE OVERHANG
NOT TO SCALE



REFLECTIVE SIGN
NOT TO SCALE

MODEL & MODEL NAMES FILE NAMES: SEE LISTS



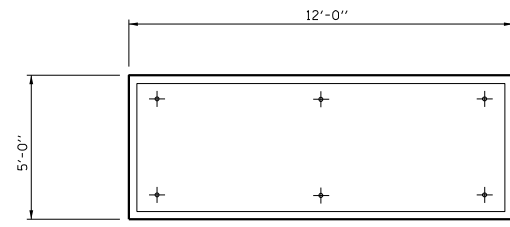
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PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

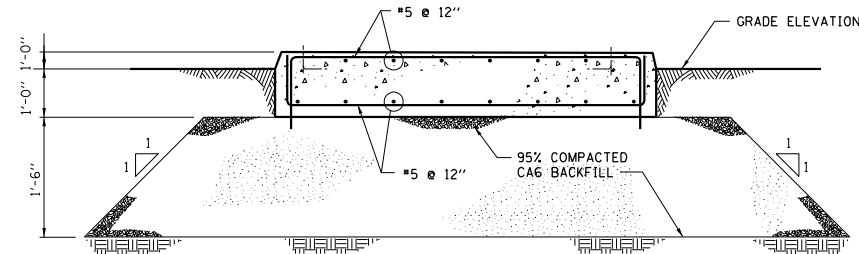
**PUMP STATION NO. 37
CIVIL
GENERAL DETAILS**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	64
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CJX(634)				



PLAN
NOT TO SCALE

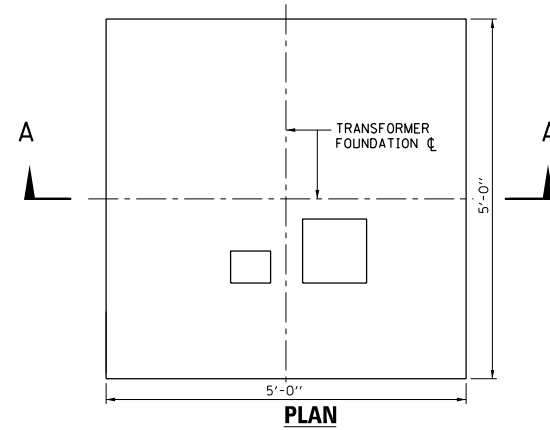


SECTION

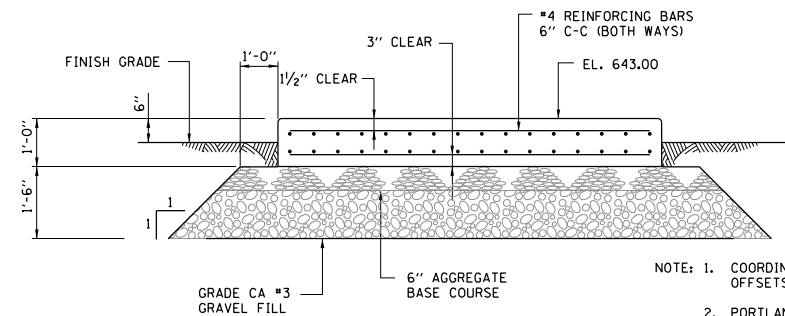
1. CONCRETE PAD AS REQUIRED BY EQUIPMENT MANUFACTURER, MINIMUM OF 2 TIMES THE MASS OF EQUIPMENT SUPPORTED OR 10 TIMES THE MASS OF MOVING PARTS, WHICHEVER IS GREATER.
2. VERIFY CONCRETE PAD DIMENSIONS WITH EQUIPMENT MANUFACTURER.
3. STRIP APPROXIMATELY FIVE FEET OF TOP SOIL PRIOR TO PLACING BACKFILL.

ENGINE GENERATOR FOUNDATION

NOT TO SCALE



PLAN

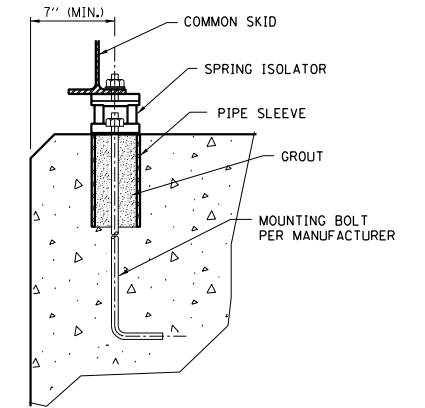


SECTION A-A

COMED TRANSFORMER FOUNDATION

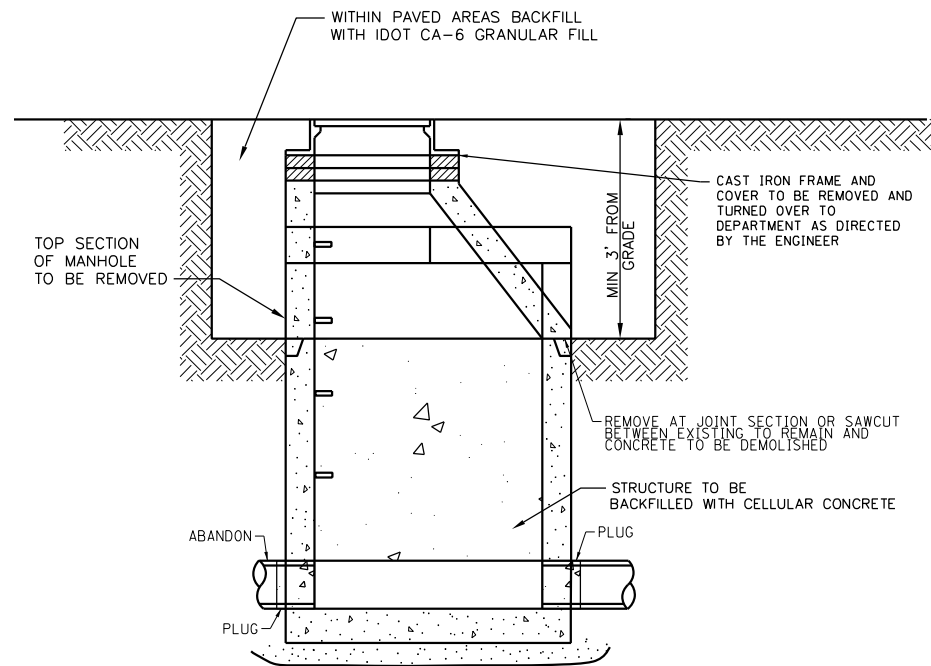
NOT TO SCALE

- NOTE: 1. COORDINATE WITH COMED FOR SIZING AND THE OFFSETS/SETBACKS OPENINGS/CONDUITS.
2. PORTLAND CEMENT CONCRETE SHALL BE PAID FOR UNDER CONCRETE STRUCTURES.
3. REINFORCING BARS SHALL BE PAID FOR UNDER REINFORCEMENT BARS, EPOXY COATED.



TYPICAL SPRING ISOLATOR MOUNTING

NOT TO SCALE



MANHOLE ABANDONMENT

MODEL: SMOBELMANIMS
FILE NAME: SEE LISTS



USER NAME = SBREMER	DESIGNED - LRE	REVISED -
PLOT SCALE = AS NOTED	DRAWN - LRE	REVISED -
PLOT DATE = 08/09/24	CHECKED - PMS	REVISED -
	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
CIVIL
GENERAL DETAILS**

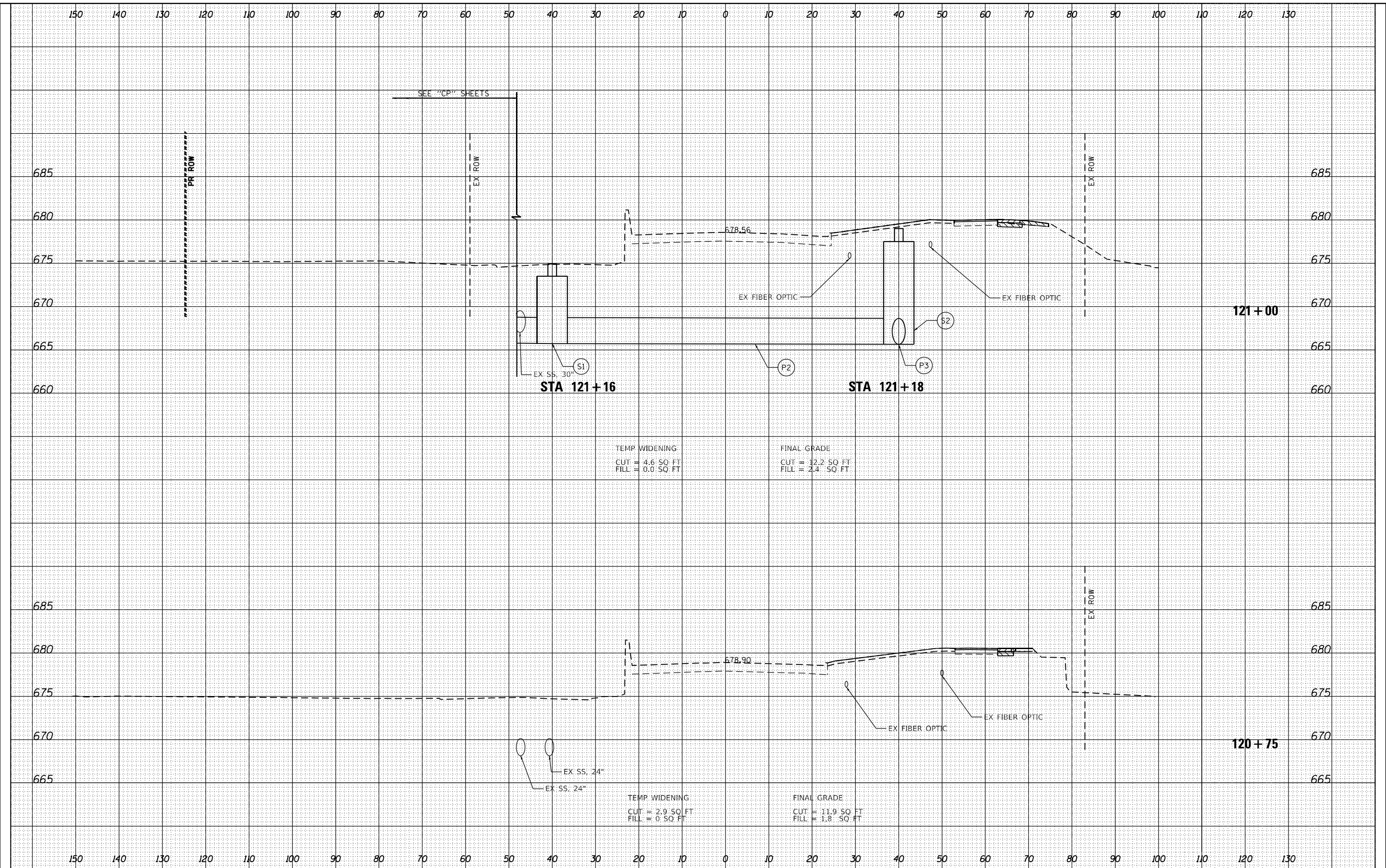
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	65
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CJUX(634)				

DATE	
BY	
FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED
	AREAS CHECKED

DATE	
BY	
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED
	AREAS CHECKED

FILE NAME = D:\Engineering\Live\Projects\12027_Donohue PS 37\CADD\CADD Sheets\Civil\012B66-ant-35C.dgn



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PLOT DATE = 8/2/2024	DATE - 07-31-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
SEWER WORK
CROSS SECTIONS-I**

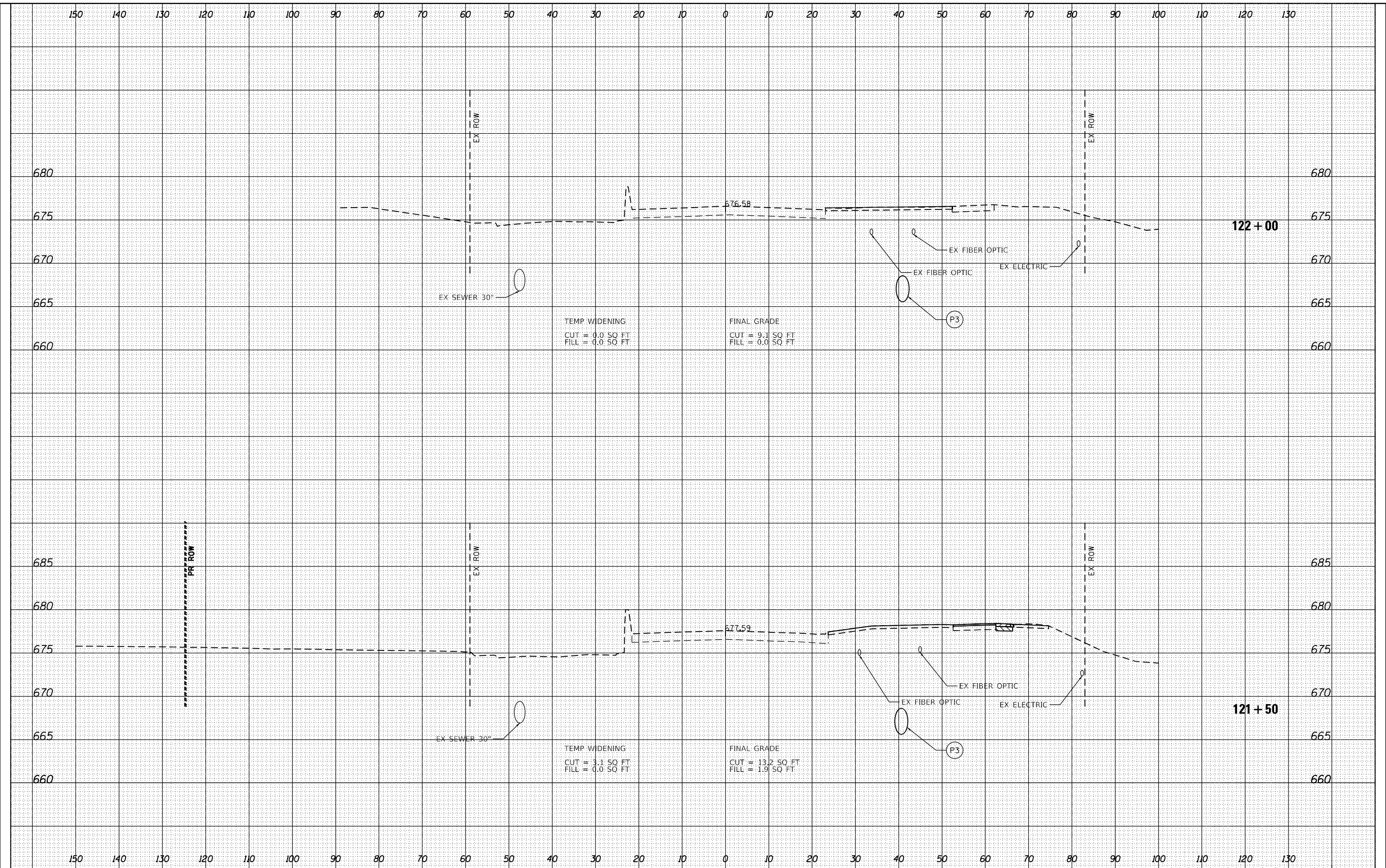
SCALE: SHEET 1 OF 8 SHEETS STA. 120+75 TO STA. 121+00

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
US 41	(1255-1) I-4	LAKE	186	66
ILLINOIS 176				CONTRACT NO. 62B66
ILLINOIS FED. AID PROJECT				

FINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	
NO.	TEMPLATE	
	AREAS CHECKED	
	AREAS CHECKED	

ORIGINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	
NO.	TEMPLATE	
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PLOT DATE = 8/2/2024	DATE - 07-31-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
SEWER WORK
CROSS SECTIONS - II**

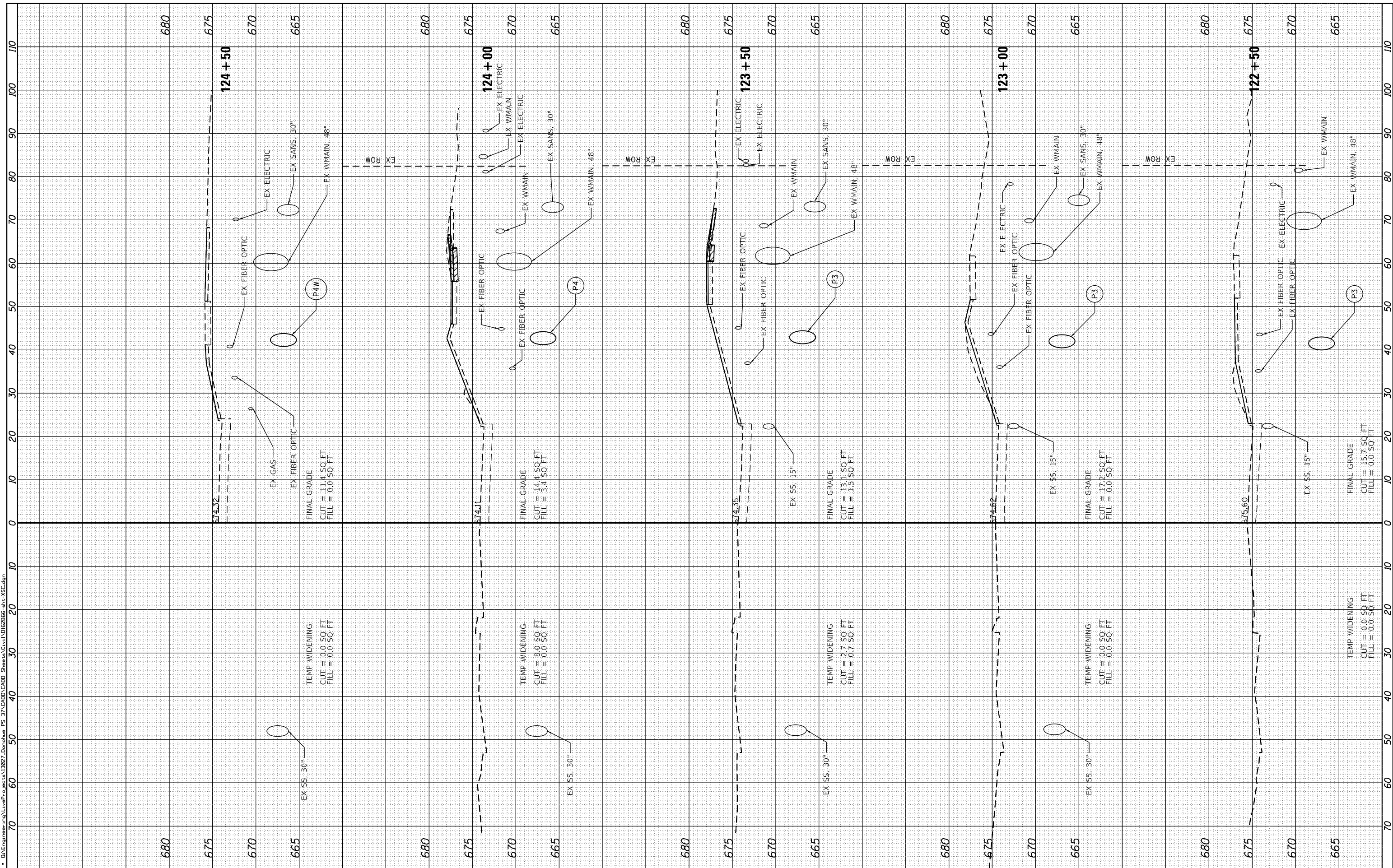
SCALE: SHEET 2 OF 8 SHEETS STA. 121+50 TO STA. 122+00

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
US 41	(1255-1) I-4	LAKE	186	67
ILLINOIS 176				CONTRACT NO. 62B66
ILLINOIS FED. AID PROJECT				

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

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PLOT DATE = 8/2/2024	CHECKED - AB	REVISD -
	DATE - 07-31-2024	REVISD -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PUMP STATION NO. 37 SEWER WORK CROSS SECTIONS - III		
SCALE:	SHEET 3 OF 8 SHEETS	STA. 122+50 TO STA. 124+50

RTE. US 41 ILLINOIS 176	SECTION (1255-1) I-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 68
CONTRACT NO. 62B66			ILLINOIS FED. AID PROJECT	

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

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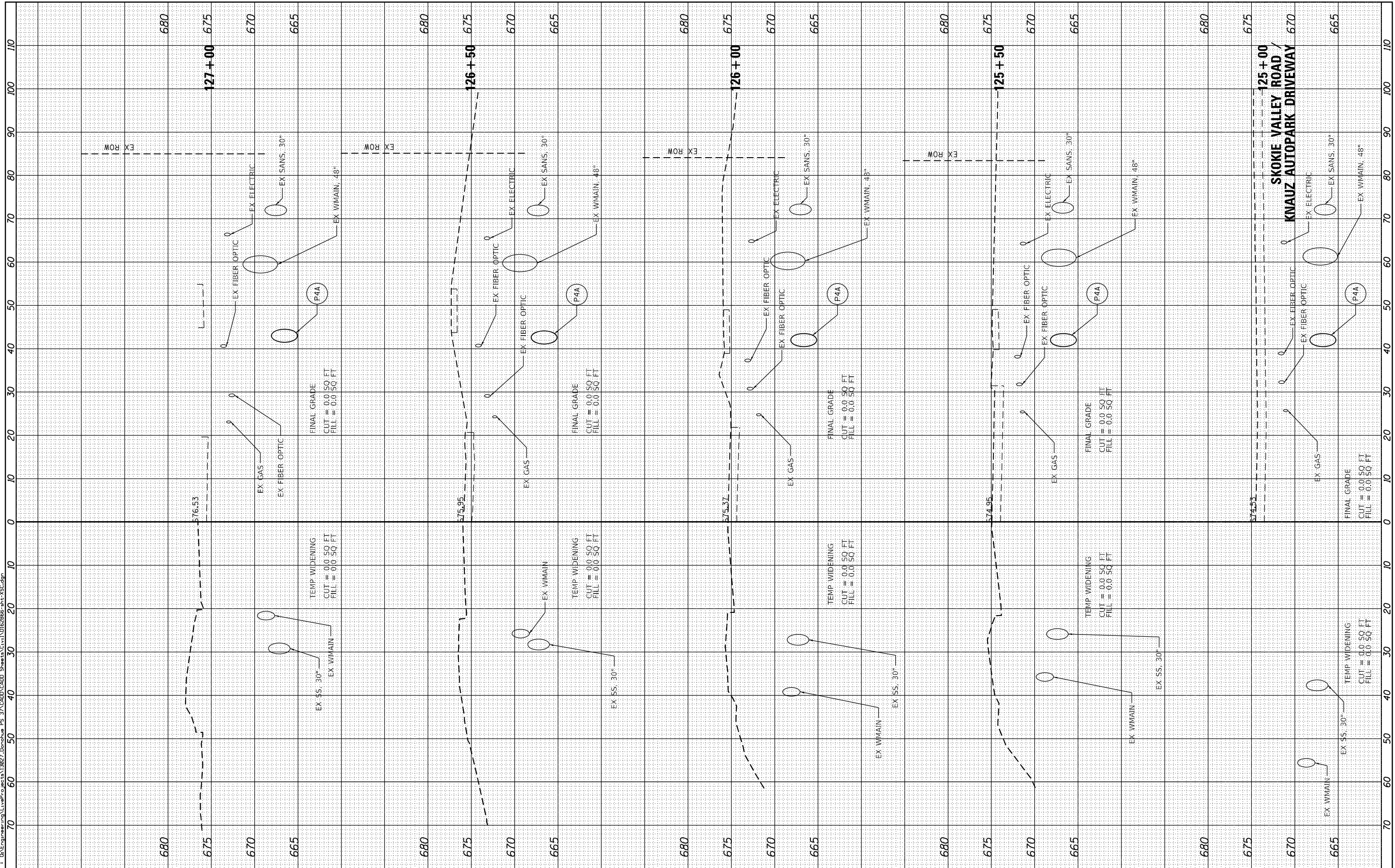
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PLOT DATE = 8/2/2024	DATE - 07-31-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
SEWER WORK
CROSS SECTIONS - IV**

SCALE: SHEET 4 OF 8 SHEETS STA. 125+00 TO STA. 127+00

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
US 41	(1255-1) I-4	LAKE	186	69
ILLINOIS 176		CONTRACT NO. 62B66		
ILLINOIS FED. AID PROJECT				



FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
AREAS CHECKED	TEMPLATE		
NO.	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
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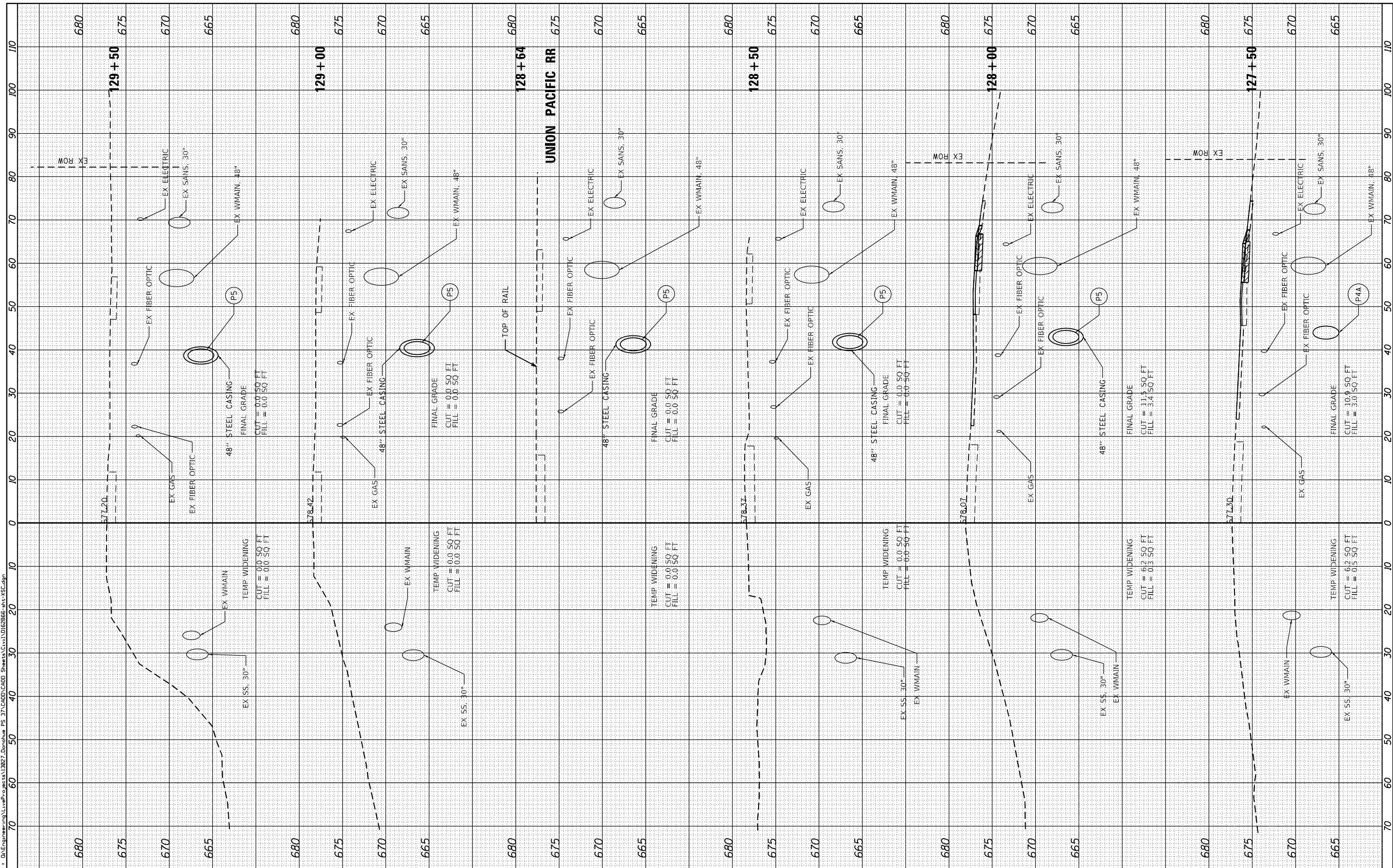
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CHECKED - AB	REVISOR -	REVISED -
DATE - 07-31-2024	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
SEWER WORK
CROSS SECTIONS - V**

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
US 41	(125S-1) I-4	LAKE	186	70
ILLINOIS 176				CONTRACT NO. 62B66
ILLINOIS FED. AID PROJECT				

SCALE: SHEET 5 OF 8 SHEETS STA. 127+50 TO STA. 129+50



UNION PACIFIC RR

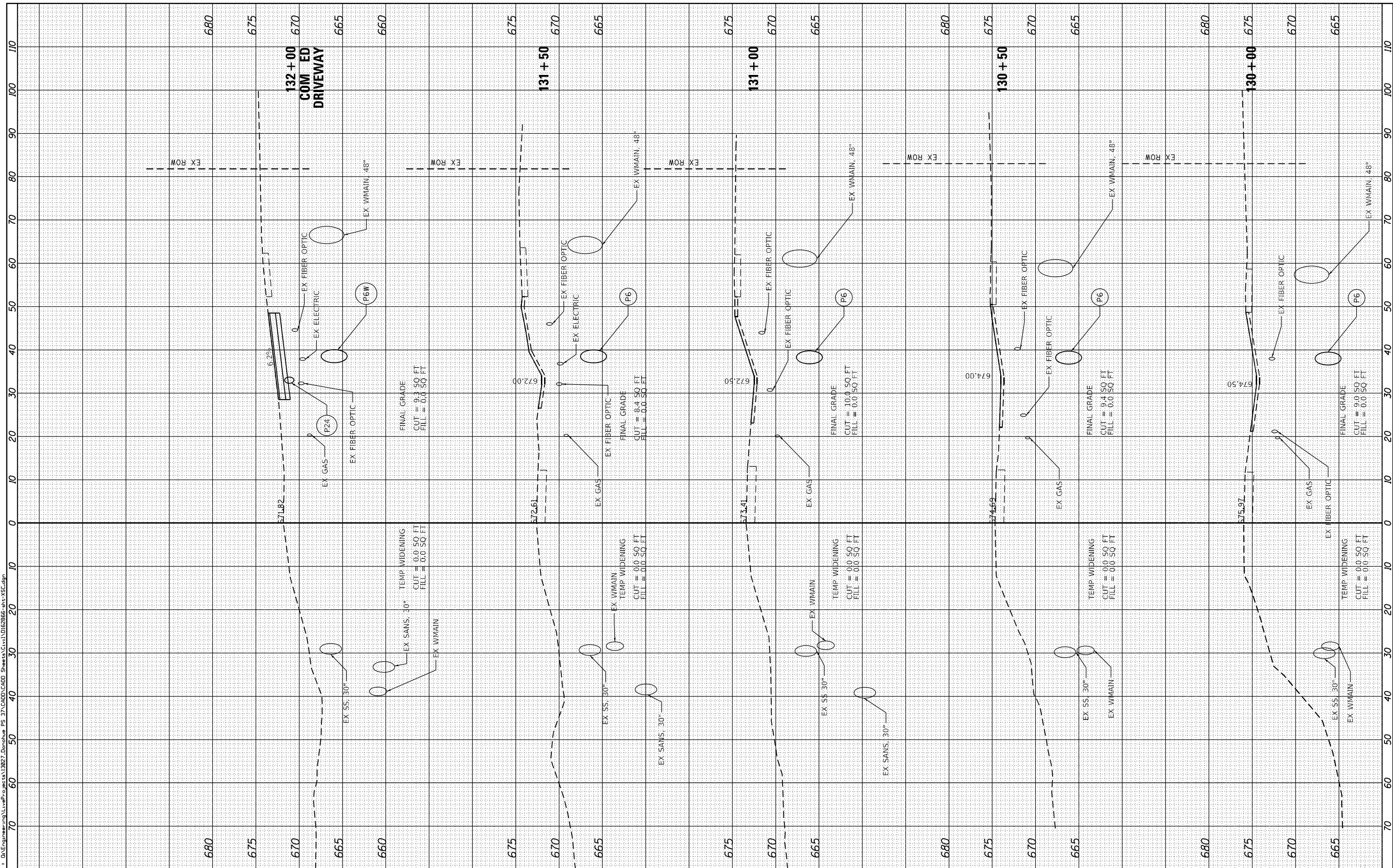
TOP OF RAIL

SCALE: SHEET 5 OF 8 SHEETS STA. 127+50 TO STA. 129+50

FINAL SURVEY NO.	SURVEY PLOTTED AREAS CHECKED	BY	DATE
NOTE BOOK NO.	TEMPLATE AREAS CHECKED		

ORIGINAL SURVEY NO.	SURVEY PLOTTED AREAS CHECKED	BY	DATE
NOTE BOOK NO.	TEMPLATE AREAS CHECKED		

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PLOT DATE = 8/2/2024	CHECKED - AB	REVISIONS
	DATE - 07-31-2024	REVISIONS

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
SEWER WORK
CROSS SECTIONS - VI**

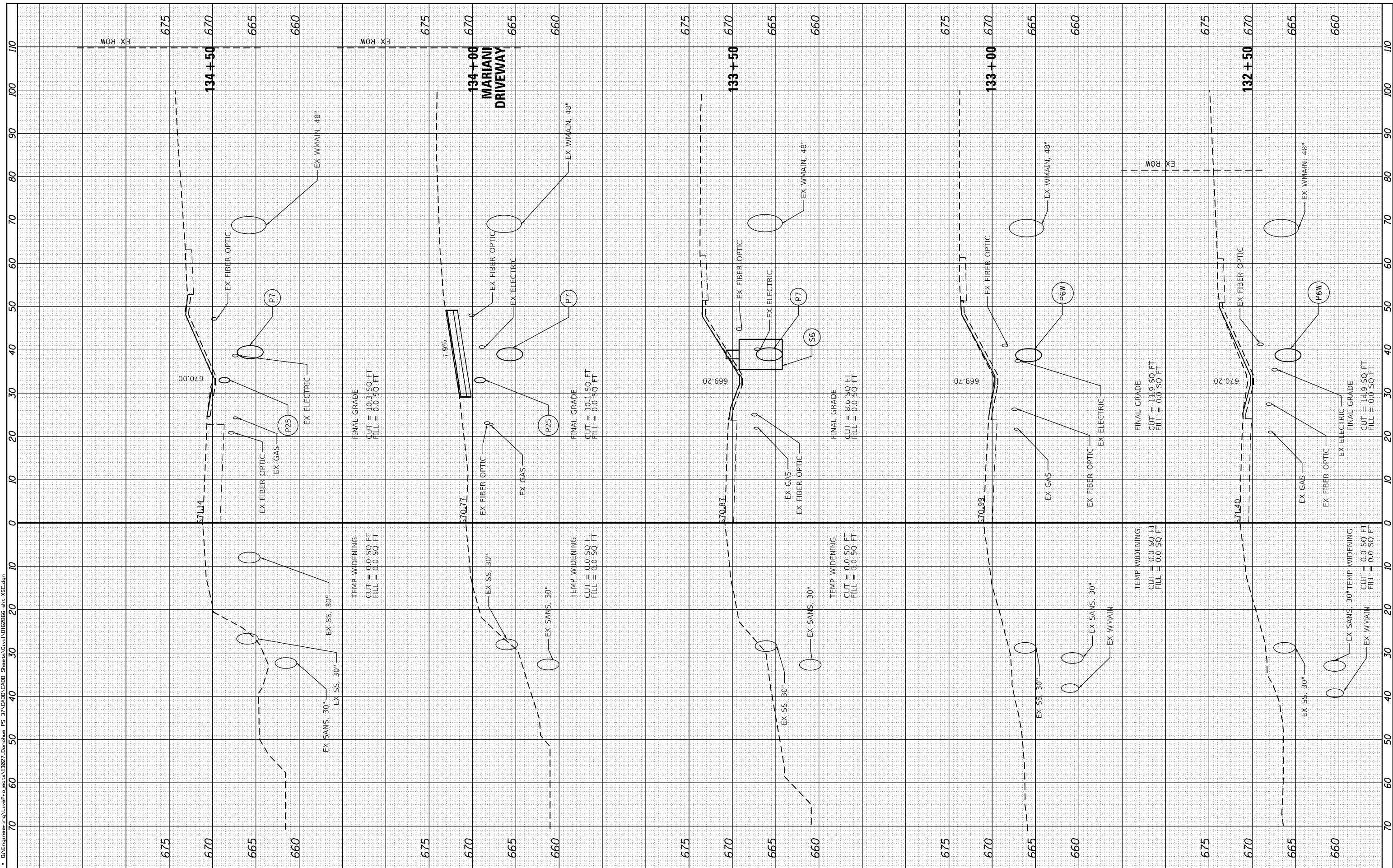
SCALE: SHEET 6 OF 8 SHEETS STA. 130+00 TO STA. 132+00

RTE. US 41 ILLINOIS 176	SECTION (125S-1) I-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 71
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62B66	

FINAL SURVEY	DATE
SURVEYED	BY
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
AREAS CHECKED	

ORIGINAL SURVEY	DATE
SURVEYED	BY
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
AREAS CHECKED	

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PLOT DATE = 8/2/2024	DATE - 07-31-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
SEWER WORK
CROSS SECTIONS - VII**

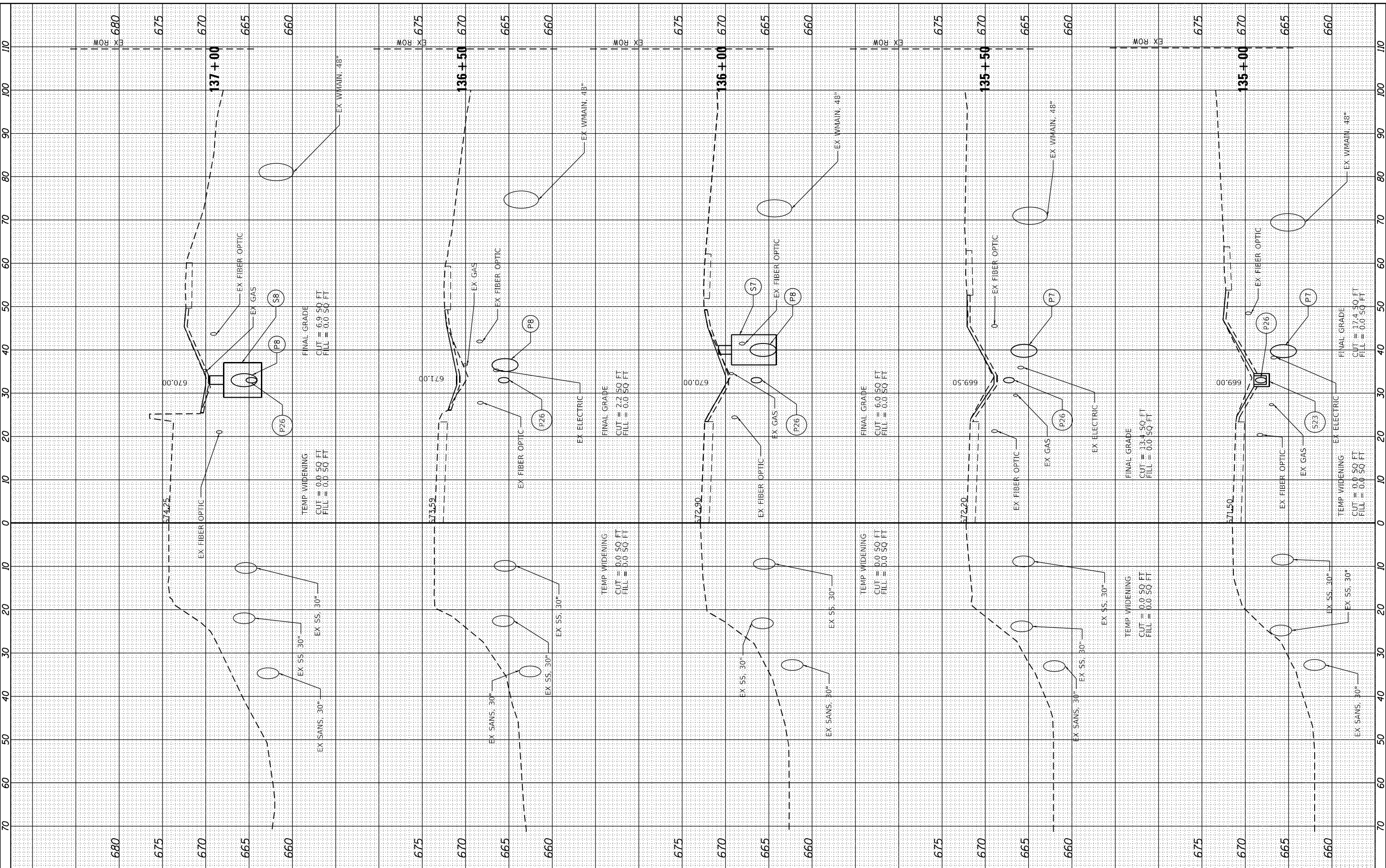
SCALE: SHEET 7 OF 8 SHEETS STA. 132+50 TO STA. 134+50

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
US 41	(125S-1) I-4	LAKE	186	72
ILLINOIS 176		CONTRACT NO. 62B66		
ILLINOIS FED. AID PROJECT				

FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
NOTE BOOK		
AREAS CHECKED		
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ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
NOTE BOOK		
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PLLOT DATE = 8/2/2024	DATE - 07-31-2024	REVISIONS

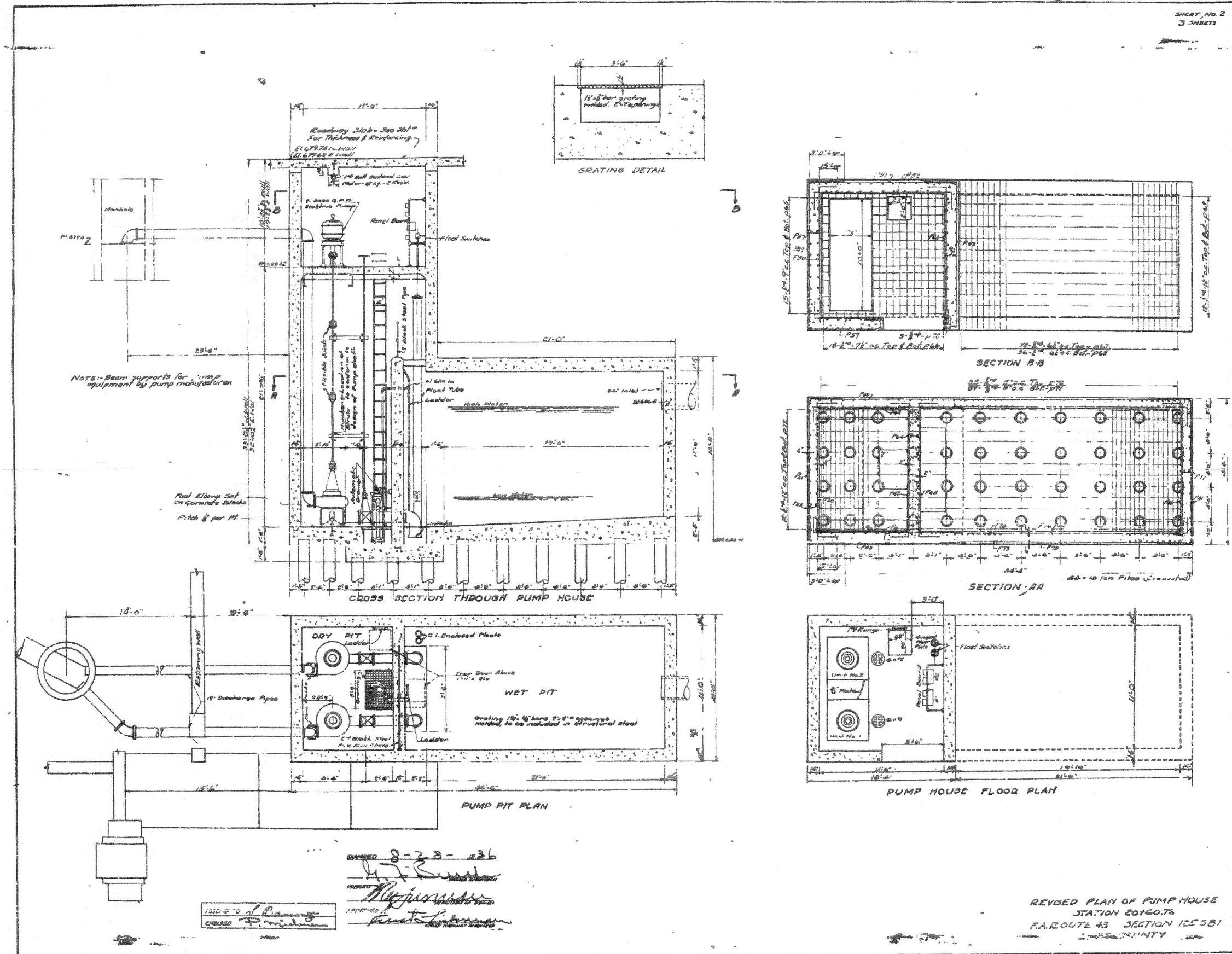
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
SEWER WORK
CROSS SECTIONS - VIII**

SCALE: SHEET 8 OF 8 SHEETS STA. 135+00 TO STA. 137+00

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
US 41	(1255-1) I-4	LAKE	186	73
ILLINOIS 176		CONTRACT NO. 62B66		
ILLINOIS FED. AID PROJECT				

- GENERAL NOTES**
- EXISTING PUMP STATION SHALL REMAIN FULLY OPERATIONAL UNTIL PROPOSED PUMP STATION 37 IS SUBSTANTIALLY COMPLETE AND OPERATING WITH DISCHARGE THROUGH NEW 36" OUTFALL PIPE TO SKOKIE RIVER. CONTRACTOR SHALL REQUEST APPROVAL FROM THE DEPARTMENT TO COMMENCE DECOMMISSIONING OF EXISTING PUMP STATION 37 NOT LESS THAN 14 DAYS PRIOR TO START OF WORK. REFER TO SUGGESTED SEQUENCE OF CONSTRUCTION SHEET FOR DETAILS ON WORK SEQUENCE, CONSTRAINTS AND SHUTDOWNS.
 - CONTRACTOR SHALL REMOVE ALL MECHANICAL (PUMPS AND MOTORS, FABRICATED METAL, BOWLS, IMPELLERS, SUCTION AND DISCHARGE PIPING AND BUBBLER SYSTEM), ELECTRICAL AND HVAC EQUIPMENT AND STRUCTURAL GRATING PRIOR TO FILLING WET PIT WITH LIGHTWEIGHT CELLULAR CONCRETE MATERIAL. THIS SHEET IS SCHEMATIC IN NATURE AND CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING SITE TO UNDERSTAND FULL SCOPE OF REMOVAL WORK.
 - CONTRACTOR SHALL RETURN ALL SALVAGEABLE ITEMS TO THE DEPARTMENT'S STORAGE FACILITY AND AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST. SALVAGEABLE ITEMS INCLUDE MANHOLE FRAMES AND LIDS, EXISTING PUMPS, MOTORS, PIPE, FITTINGS, VALVES, AND BUBBLER SYSTEM.
 - ALL NON-SALVAGEABLE EQUIPMENT AND MATERIAL SHALL BE REMOVED AND HAULED AWAY FROM THE PUMP STATION SITE AT NO ADDITIONAL COST TO THE DEPARTMENT.
 - CONTRACTOR SHALL INITIATE AND COMPLETE CANCELLATION/TERMINATION OF SERVICE AND BILLING, FOR THE ELECTRICAL AND TELEPHONE SERVICES AT THE EXISTING PUMP STATION.



MODEL: S:\MODEL\MM\MMES
 FILE: MMES_SHEETS

DONOHUE	USER NAME = SBREMER	DESIGNED -	REVISED -
	PLOT SCALE = AS NOTED	DRAWN -	REVISED -
	PLOT DATE = 08/09/24	CHECKED -	REVISED -
		DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
 EXISTING PUMP STATION
 DEMOLITION SECTIONS**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)1-4	LAKE	186	75
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CRJ(634)				

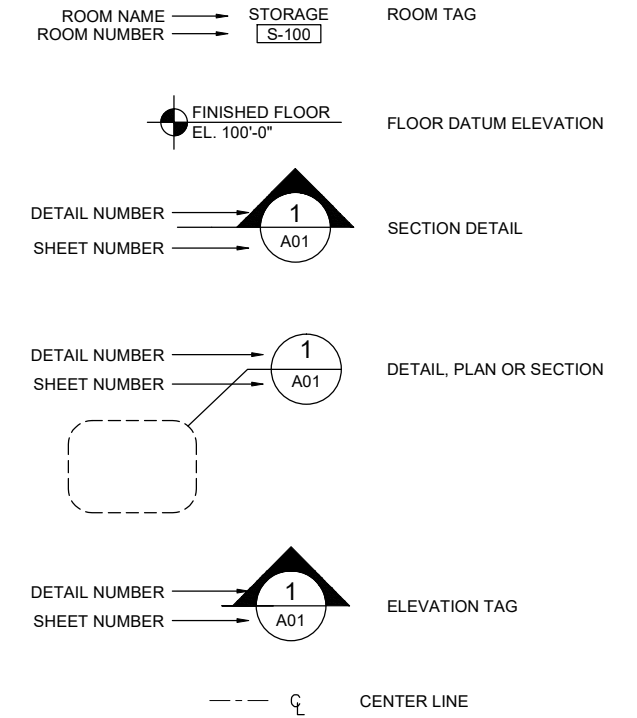
GENERAL ARCHITECTURAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL REQUIRED BLOCKING, SUPPORTS, AND BRACING REQUIRED FOR CONSTRUCTION TO ACHIEVE SPECIFIED REQUIREMENTS AND STANDARDS WHETHER SPECIFICALLY INDICATED OR NOT. ONLY FIRE RETARDANT BLOCKING SHALL BE PROVIDED.
2. ISOLATE DISSIMILAR METALS BY MEANS OF A HEAVY BITUMINOUS COATING, APPROVED PAINT COATING, ADHERED POLYETHYLENE SHEET, NEOPRENE GASKETING OR OTHER MEANS APPROVED BY THE ENGINEER.
3. MINIMUM ROOF R-VALUE TO BE R 24 ft²h/BTU.
4. CALCIUM CHLORIDE AND/OR ADMIXTURES CONTAINING THE SAME SHALL NOT BE INCLUDED IN MORTAR OR GROUT MIX EXCEPT WHEN APPROVED IN WRITING BY ENGINEER.
5. MASONRY WALLS SHALL BE BRACED TO WITHSTAND A HORIZONTAL LOAD OF 20 PSF DURING THEIR ERECTION, AND UNTIL THEIR DESIGN SUPPORTS ARE IN PLACE.
6. MASONRY WORK NOT MEETING THE STRENGTH REQUIREMENT WILL NOT BE ACCEPTED.
7. BLOCK SHALL BE LAID WITH FULL HEAD AND BED JOINTS.
8. ALL CELLS CONTAINING REINFORCING STEEL SHALL BE KEPT CLEAN OF MORTAR DROPPINGS.
9. ANY MORTAR PROTRUSIONS EXTENDING 1/2" OR MORE INTO GROUT SPACES SHALL BE REMOVED.
10. ALL CELLS CONTAINING REINFORCING STEEL AND BOND BEAM SHALL BE FILLED SOLID WITH GROUT AND CONSOLIDATED EITHER BY PUDDLING OR VIBRATION IMMEDIATELY AFTER PLACEMENT. IF PUDDLING IS USED, GROUT POURS SHALL BE 12" OR LESS. FOR POURS OF 12" AND MORE (UP TO 5') CONSOLIDATE BY VIBRATION.
11. UNDER BEARING FOR BEAMS AND LINTELS, FILL ALL CELLS OF AT LEAST 3 COURSES FOR AT LEAST 4'-0" WIDTH WHEREVER POSSIBLE SOLID WITH GROUT.
12. FIRE SEALANT JOINTS SHALL NOT EXCEED 1".
13. REFERENCE STRUCTURAL DRAWINGS FOR MASONRY REINFORCEMENT REQUIREMENTS.

ABBREVIATIONS

A	ADJ.	ADJACENT	M	MATL.	MATERIAL
A.F.F.	A.F.F.	ABOVE FINISHED FLOOR	MAX.	MAX.	MAXIMUM
A.F.G.	A.F.G.	ABOVE FINISHED GRADE	MECH.	MECH.	MECHANICAL
ALUM.	ALUM.	ALUMINUM	MIL	MIL	ONE THOUSAND(TH)
			MIN.	MIN.	MINIMUM
B	BD.	BOARD	MTD.	MTD.	MOUNTED
BLDG.	BLDG.	BUILDING	MTL.	MTL.	METAL
B/	B/	BOTTOM OF			
			N	NO.	NUMBER
C	C/C	CENTER TO CENTER	N.T.S.	N.T.S.	NOT TO SCALE
C.J.	C.J.	CONTROL JOINT	O	O.C.	ON CENTER
CL	CL	CENTER LINE	OPP.	OPP.	OPPOSITE
CLG.	CLG.	CEILING			
CLR.	CLR.	CLEAR(ANCE)	P	PL	PLATE
CMU	CMU	CONCRETE MASONRY UNIT	PL	PSF	POUNDS PER SQUARE FOOT
CONC.	CONC.	CONCRETE	PSI	PSI	POUNDS PER SQUARE INCH
CONT.	CONT.	CONTINUOUS	PTD.	PTD.	PAINT, PAINTED
CRS.	CRS.	COURSE			
			Q	QTY.	QUANTITY
D	DET.	DETAIL			
DIA.	DIA.	DIAMETER	R	REINF.	REINFORCING, REINFORCED,
DIM.	DIM.	DIMENSION			REINFORCEMENT
DN.	DN.	DOWN	REQD.	REQD.	REQUIRED
DWG.(S)	DWG.(S)	DRAWING(S)			
			S	SHT.	SHEET
E	EL.	ELEVATION	SIM.	SIM.	SIMILAR
EPDM	EPDM	ETHYLENE PROPYLENE DIENE MONOMER	SLDR.	SLDR.	SOLDIER
			SPEC.	SPEC.	SPECIFICATIONS
EQ.	EQ.	EQUAL	S.S.	S.S.	STAINLESS STEEL
EQUIP.	EQUIP.	EQUIPMENT	STL.	STL.	STEEL
EXP.	EXP.	EXPANSION	STR.	STR.	STRUCTURAL
EXT.	EXT.	EXTERIOR	STRUCT.	STRUCT.	STRUCTURAL
			T	T	TOP AND BOTTOM
F	FLR.	FLOOR	T&B	T&B	THICK (THICKNESS)
FLR.	FLR.	FLOOR	THRU	THRU	THROUGH
FT	FT	FEET, FOOT	TYP.	TYP.	TYPICAL
FTG.	FTG.	FOOTING	T/	T/	TOP OF
G	GA.	GAUGE	U	U.O.N.	UNLESS OTHERWISE NOTED
GALV.	GALV.	GALVANIZED			
			V	VERT.	VERTICAL
H	H.	HIGH	V.I.F.	V.I.F.	VERIFY IN FIELD
HORIZ.	HORIZ.	HORIZONTAL			
H.P.	H.P.	HIGH POINT	W	W	WITH
I.	I.	INCH(S)	W/	W/	WITH
HVAC	HVAC	HEATING, VENTILATION, AND COOLING			
I	IN	INCH(ES)			
IN	IN	INCH(ES)			
INSUL.	INSUL.	INSULATION			
INT.	INT.	INTERIOR			
J	JT.	JOINT(S)			
L	L.	LENGTH, LONG			
L.	L.	LENGTH, LONG			
L.P.	L.P.	LOW POINT			

SYMBOLS



MODEL: MODELNAMES
FILE NAME: F:\DRAWINGS\2015\1802 - PTB 17B-02 - PUMP STATION #37\A-1 NOTES.DWG

DONOHUE	USER NAME = mglazer	DESIGNED - OT	REVISED - _____
		DRAWN - MP/OT	REVISED - _____
	PLOT SCALE = AS NOTED	CHECKED - JM	REVISED - _____
	PLOT DATE = 08-08-2024	DATE - 08-08-2024	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
ARCHITECTURAL
GENERAL NOTES, ABBREVIATIONS AND SYMBOLS**

SCALE: N.A. SHEET 76 OF 186 SHEETS STA. TO STA.

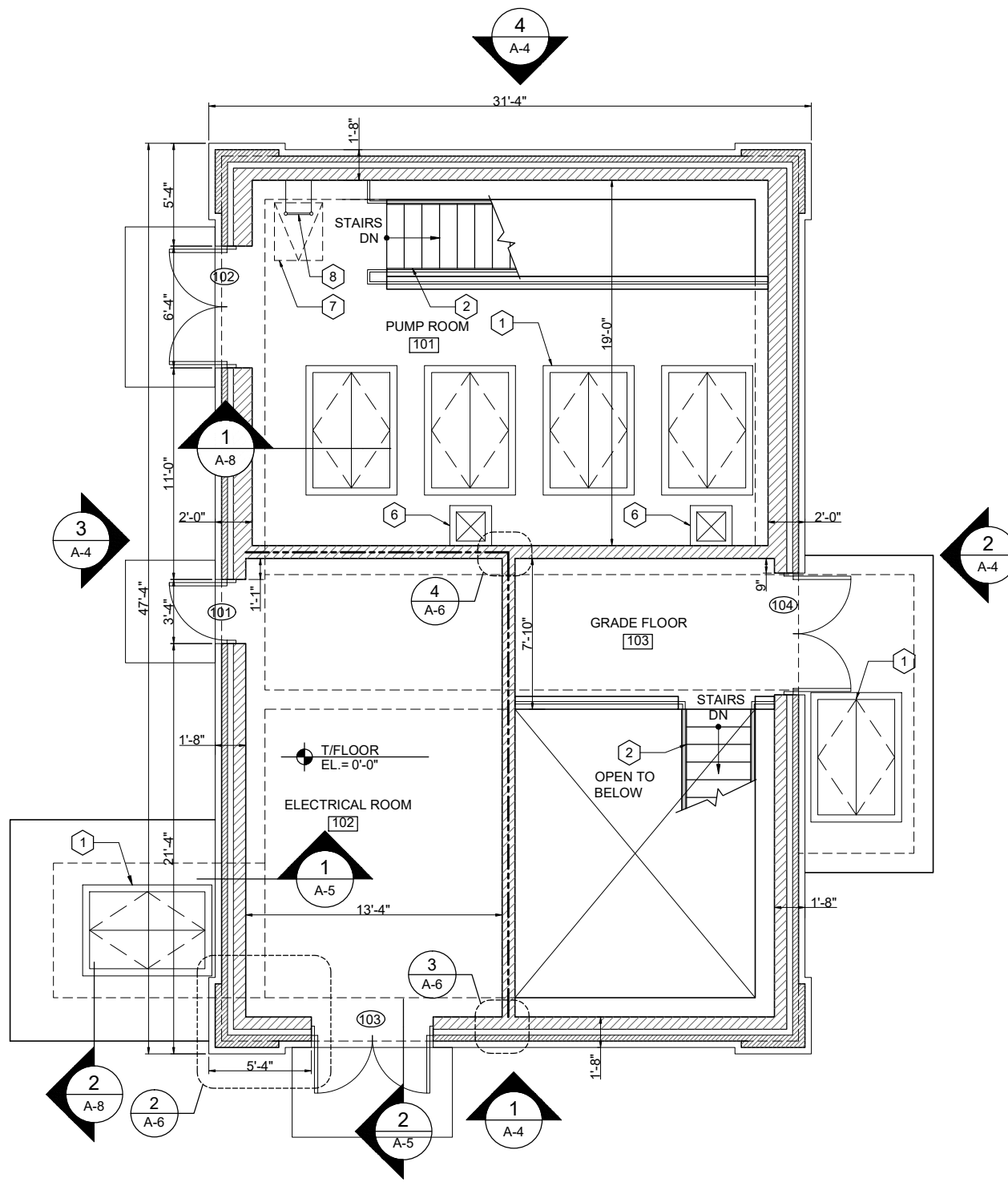
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	76
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIJX(634)				

KEY NOTES: ALL ITEMS TYP. U.O.N.	
1	FLOOR HATCH. SEE SHT. A-8 FOR DETAILS. SEE S-DRAWINGS FOR LOCATIONS
2	STAIRS
3	MASONRY SOLID GLASS BLOCK WINDOW
4	DUCT OPENING. SEE H-DRAWINGS
5	LOUVER. SEE H-DRAWINGS
6	FLOOR PENETRATION. SEE H-DRAWINGS
7	ROOF HATCH ABOVE
8	LADDER UP TO ROOF. SEE S-DRAWINGS

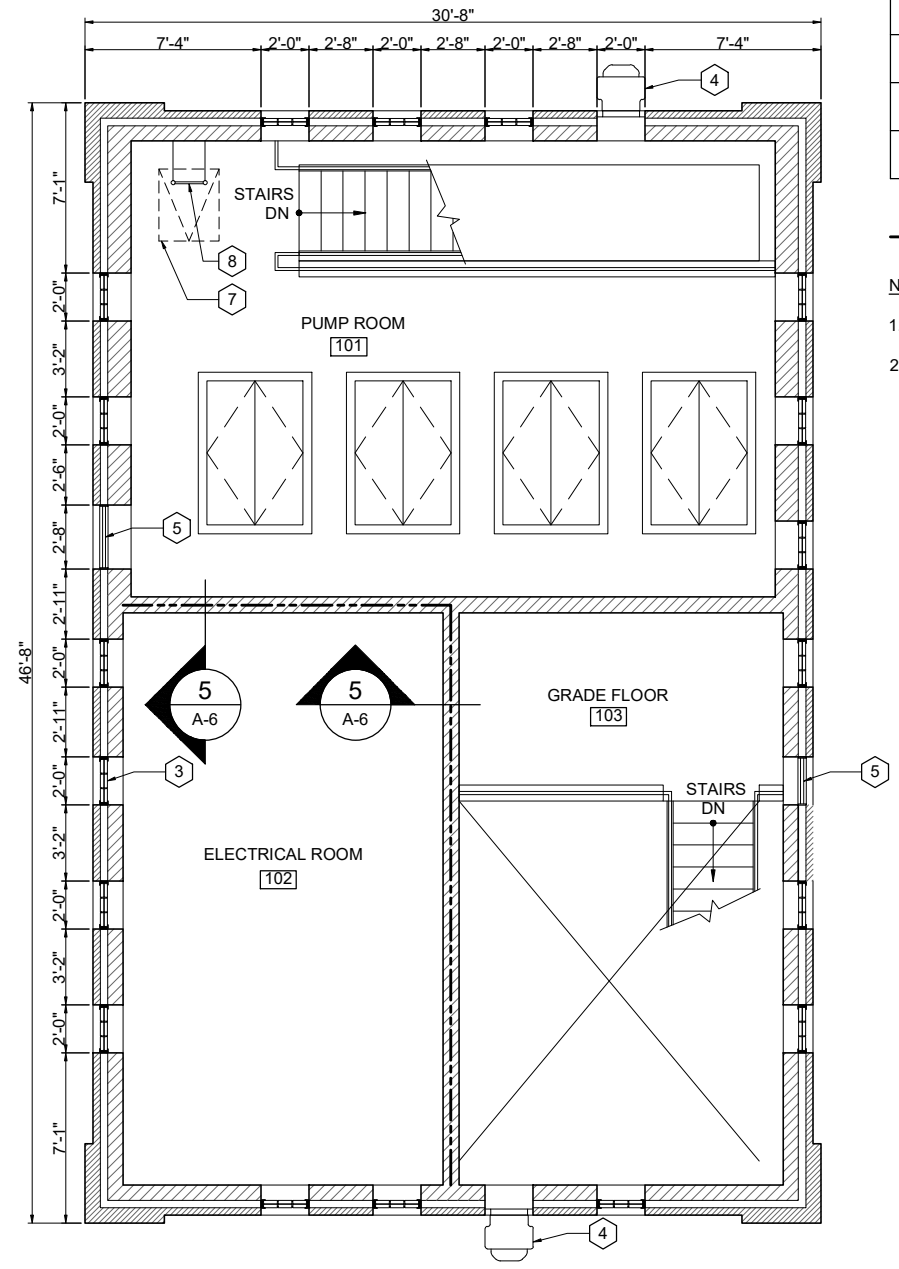
--- 2 HR. RATED WALL ASSEMBLY

NOTES:

- EL. 0'-0" = 676.00'
- DIMENSIONS ARE ROUNDED TO NEAREST MASONRY MODULE.



1
A-2
GRADE LEVEL FLOOR PLAN
SCALE: 1/4"=1'-0"



2
A-2
WINDOW LEVEL FLOOR PLAN
SCALE: 1/4"=1'-0"



SCALE: 0 4 8 FT.

A-2

MODEL: MODELNAMES
FILE NAME: F:\DRAWINGS\2015\1802 - PTB 178-92 - PUMP STATION #37\A-2.F-PLANS.DWG



USER NAME = mglazer	DESIGNED - OT	REVISED -
PLOT SCALE = AS NOTED	DRAWN - MP/OT	REVISED -
PLOT DATE = 08-08-2024	CHECKED - JM	REVISED -
	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

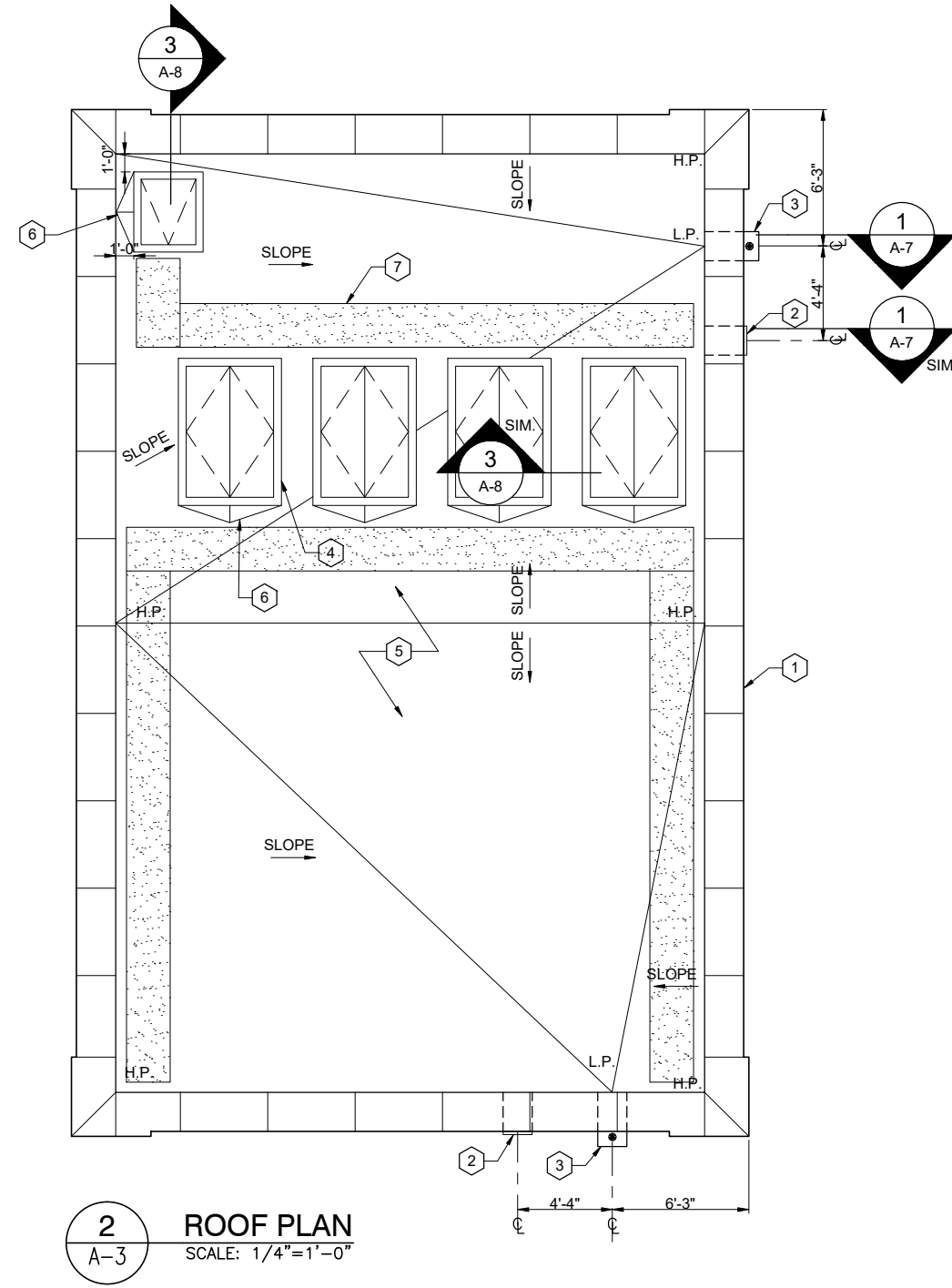
PUMP STATION NO. 37
ARCHITECTURAL
FLOOR PLANS

SCALE: 1/4"=1'-0" SHEET 77 OF 186 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	77
CONTRACT NO. 62B66				

ILLINOIS FED. AID PROJECT CIJX(634)

MODEL: MODELNAMES
 FILE NAME: F:\DRAWINGS\2015\1802 - PTB 178-92 - PUMP STATION #37\A-3.R.ELANS.DWG



2 ROOF PLAN
 A-3 SCALE: 1/4"=1'-0"

KEY NOTES: ALL ITEMS TYP. U.O.N.

1	CAST STONE COPING
2	OVERFLOW SCUPPER
3	S.S. SCUPPER WITH RECEPTOR AND DOWN SPOUT
4	ROOF HATCH
5	FULLY ADHERED MEMBRANE ROOFING SYSTEM
6	ROOF CRICKET
7	WALKWAY PAD. COORDINATE LOCATION IN FIELD

NOTES:
 1. ROOF SLOPE SHALL BE 1/4" PER FOOT.



SCALE: 0 4 8 FT.

A-3

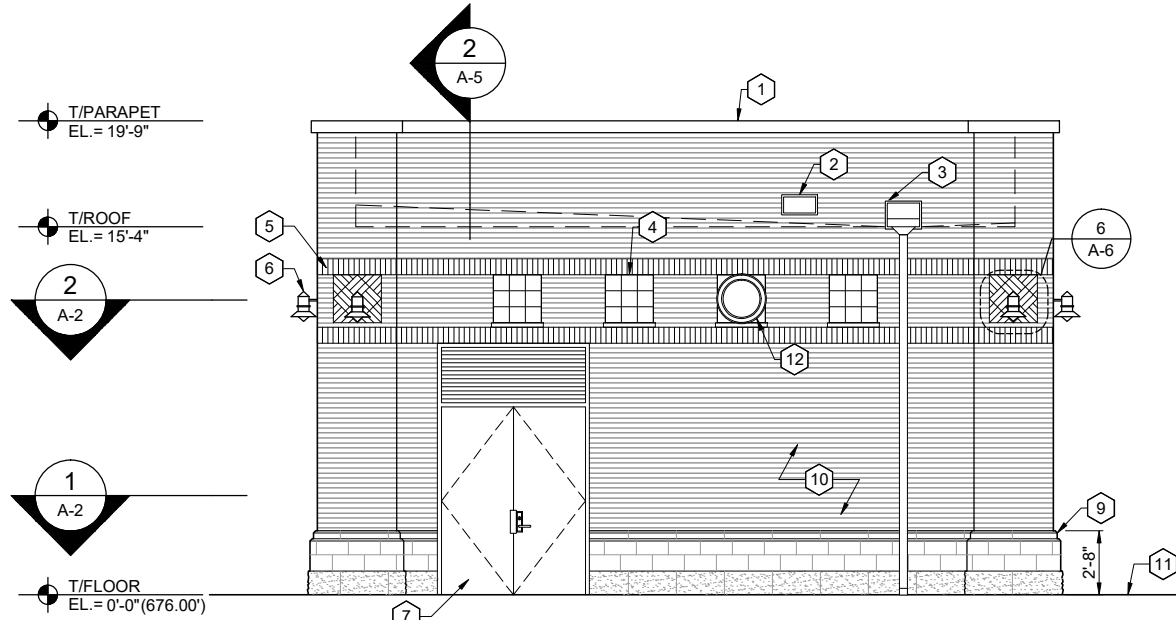
DONOHUE	USER NAME = mglazer	DESIGNED - OT	REVISED - _____
	PLOT SCALE = AS NOTED	DRAWN - MP/OT	REVISED - _____
	PLOT DATE = 08-08-2024	CHECKED - JM	REVISED - _____
		DATE - 08-08-2024	REVISED - _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

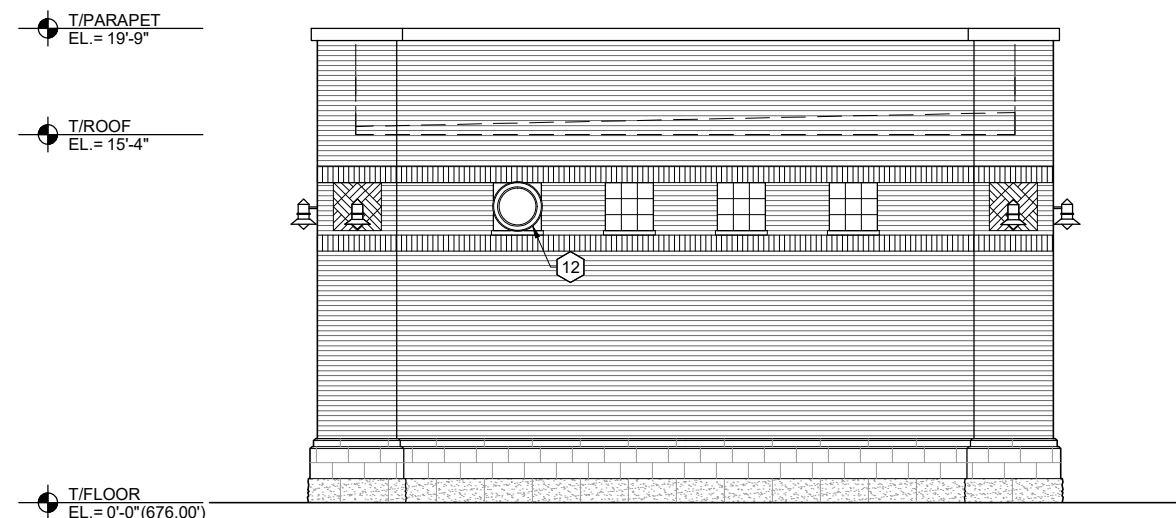
PUMP STATION NO. 37
ARCHITECTURAL
ROOF PLAN

SCALE: 1/4"=1'-0" SHEET 78 OF 186 SHEETS STA. TO STA.

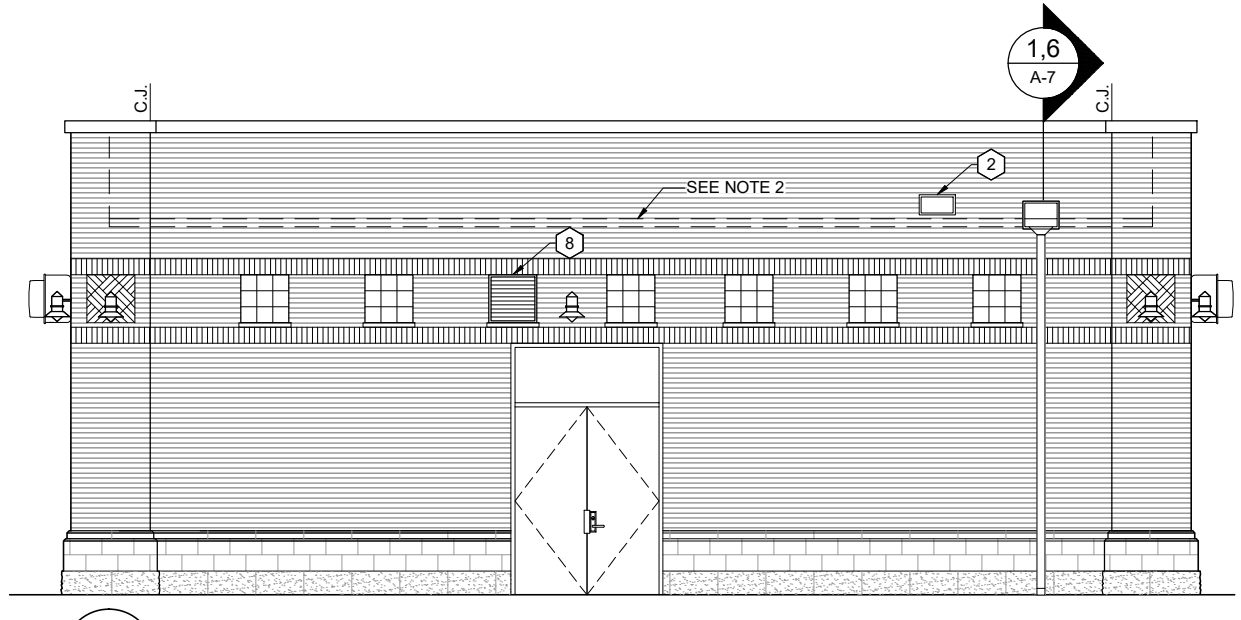
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	78
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIJX(634)				



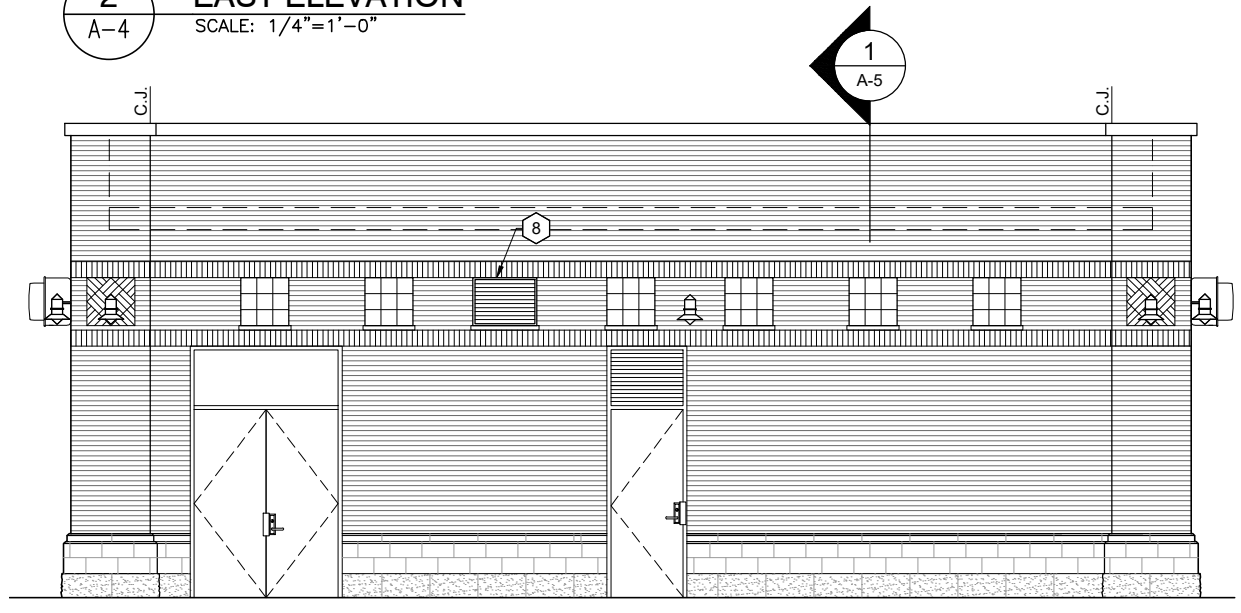
1 SOUTH ELEVATION
A-4 SCALE: 1/4"=1'-0"



4 NORTH ELEVATION
A-4 SCALE: 1/4"=1'-0"



2 EAST ELEVATION
A-4 SCALE: 1/4"=1'-0"



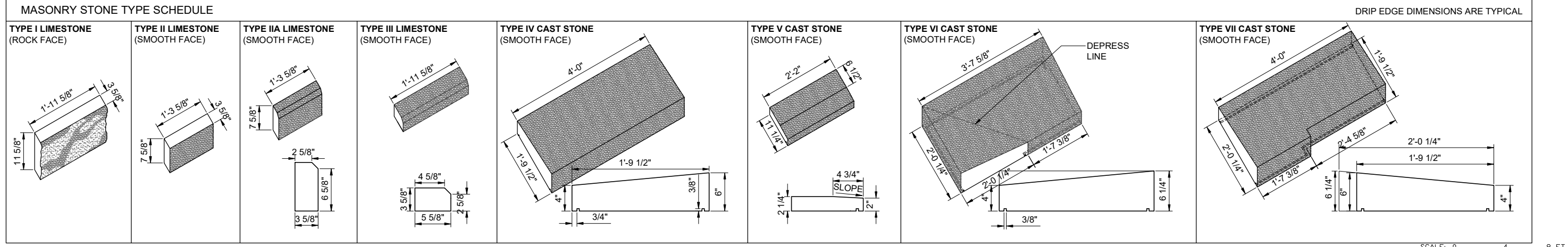
3 WEST ELEVATION
A-4 SCALE: 1/4"=1'-0"

KEY NOTES: ALL ITEMS TYP. U.O.N.

1	CAST STONE COPING
2	OVERFLOW SCUPPER
3	S.S. SCUPPER WITH DOWN SPOUT
4	GLASS BLOCK WINDOW
5	SOLDIER COURSE BRICK BAND
6	WALL MTD. LIGHT FIXTURE
7	S.S. DOOR AND FRAME. SEE DOOR SCHEDULE AND TYPICAL DETAILS ON A-9
8	EXHAUST/INTAKE LOUVER
9	STONE VENEER BASE
10	FACE BRICK
11	FINISHED GRADE
12	EXHAUST FAN

NOTES:
1. SEE 2/A-6 FOR CONTROL JOINT DETAIL.
2. DASHED LINES REPRESENT ROOF INSULATION OUTLINE.

EL. 0'-0" = 676.00'
COORDINATE W/ S-DRAWINGS



A-4 SCALE: 0 4 8 FT.

MODEL: MODELNAMES
FILE NAME: F:\DRAWINGS\2015\1802 - PUMP STATION #37\A-4.ELEV.DWG



USER NAME = mglazer	DESIGNED - OT	REVISED -
PLOT SCALE = AS NOTED	DRAWN - MP/OT	REVISED -
PLOT DATE = 08-08-2024	CHECKED - JM	REVISED -
	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
ARCHITECTURAL
ELEVATIONS**

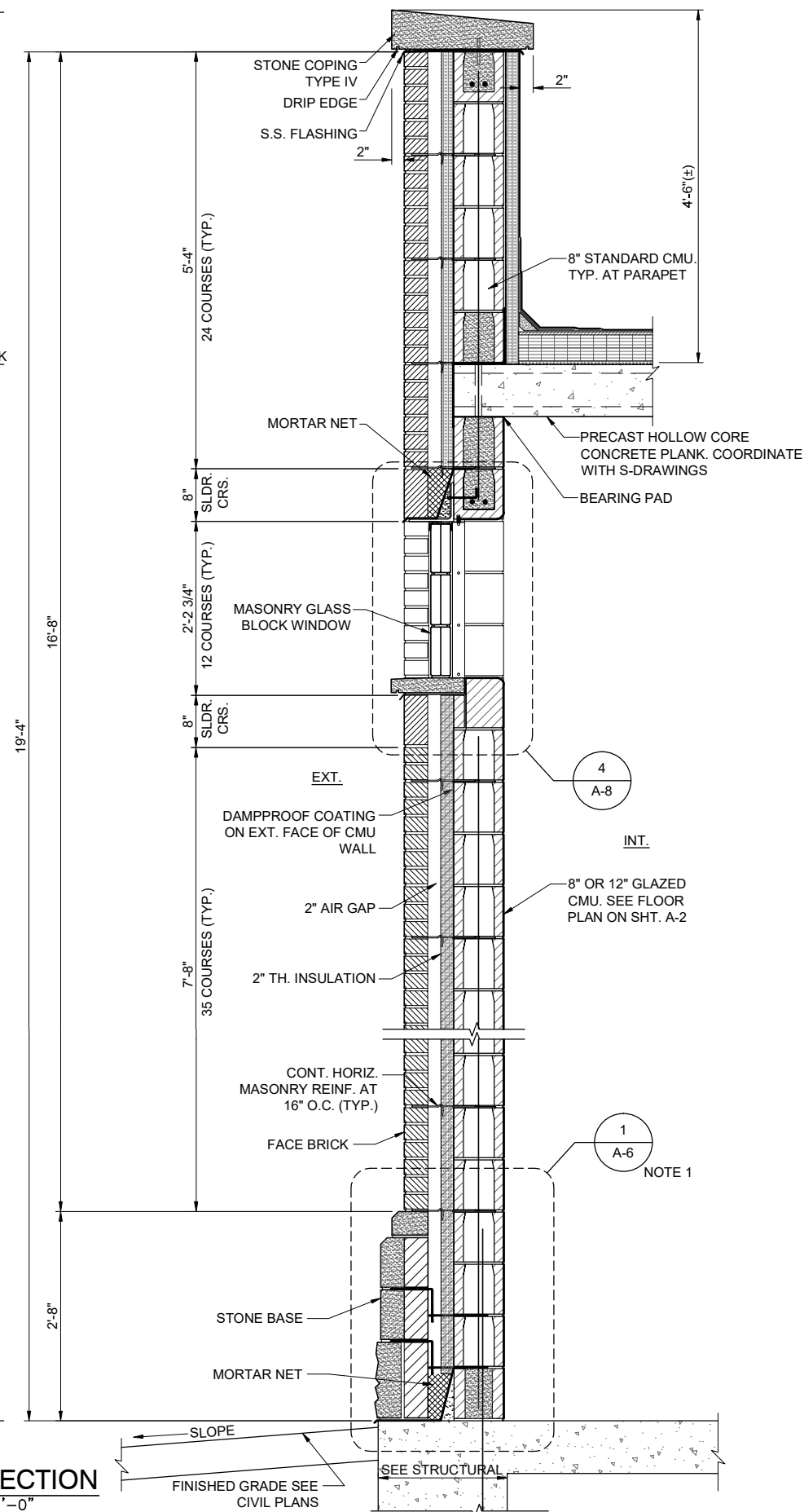
SCALE: 1/4"=1'-0" SHEET 79 OF 186 SHEETS STA. TO STA.

F.A.P. RTE. 346	SECTION (125S-1)I-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 79
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIJX(634)				

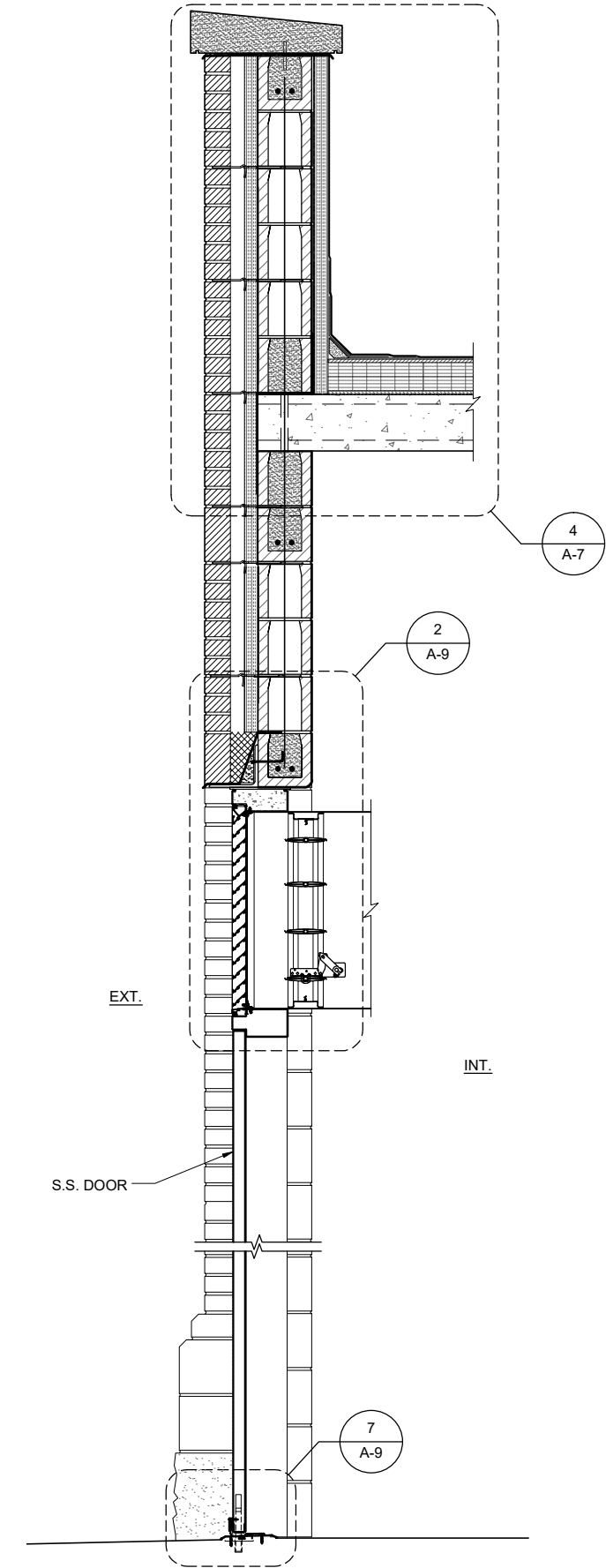
T / PARAPET
EL. = 19'-9"

T / ROOF DECK
EL. = 15'-4"

T / FLOOR
EL. = 0'-0"



1
A-5
WALL SECTION
SCALE: 1"=1'-0"



2
A-5
WALL SECTION
SCALE: 1"=1'-0"

NOTES:
1. FOR BASE AT CORNER PIER SEE DETAIL 8/A-6.

SCALE: 0 1 2 FT.

MODEL: MODELNAMES
FILE NAME: F:\DRAWINGS\2015\1802 - PTB 17B-02 - PUMP STATION #37\A-5 WALL_SECTION.DWG



USER NAME = mglazer	DESIGNED - OT	REVISED -
PLOT SCALE = AS NOTED	DRAWN - MP/OT	REVISED -
PLOT DATE = 08-08-2024	CHECKED - JM	REVISED -
	DATE - 08-08-2024	REVISED -

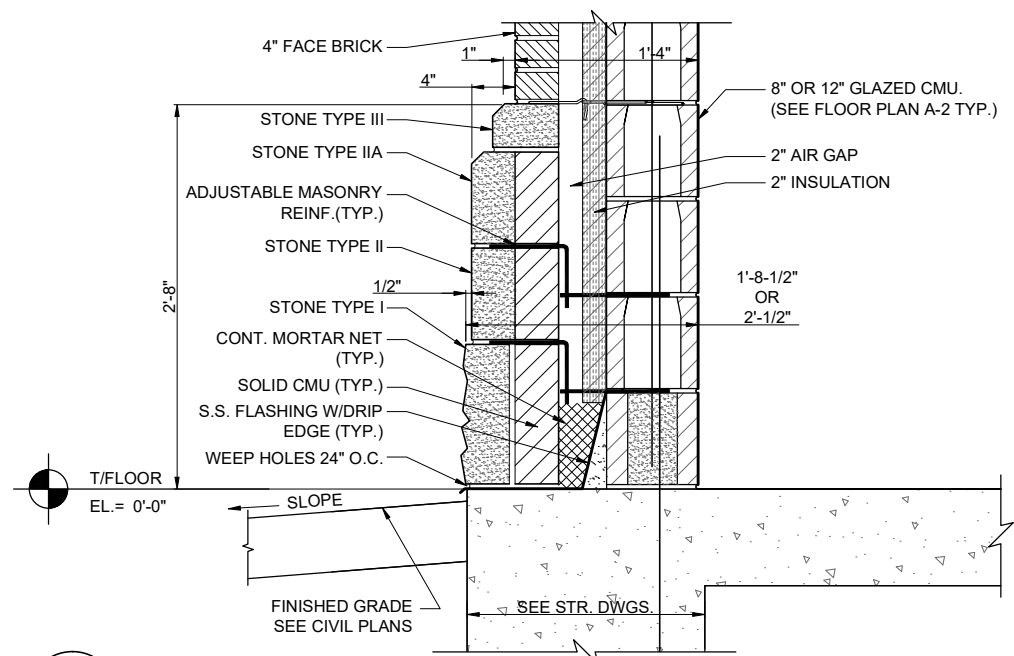
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
ARCHITECTURAL
TYPICAL WALL SECTIONS

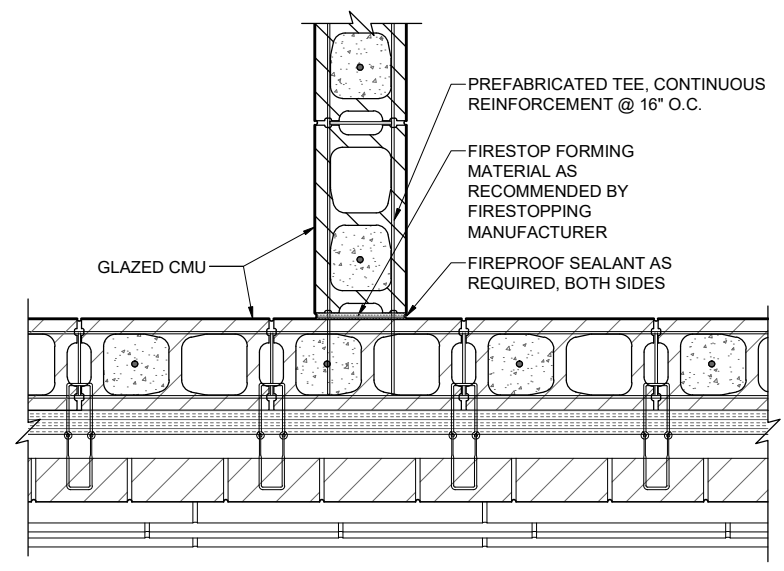
SCALE: 1"=1'-0" SHEET 80 OF 186 SHEETS STA. TO STA.

A-5

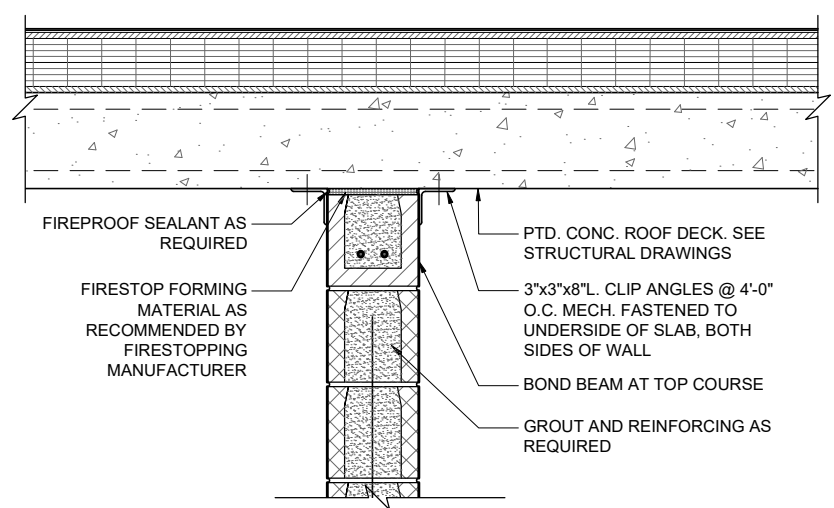
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	80
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIJX(634)				



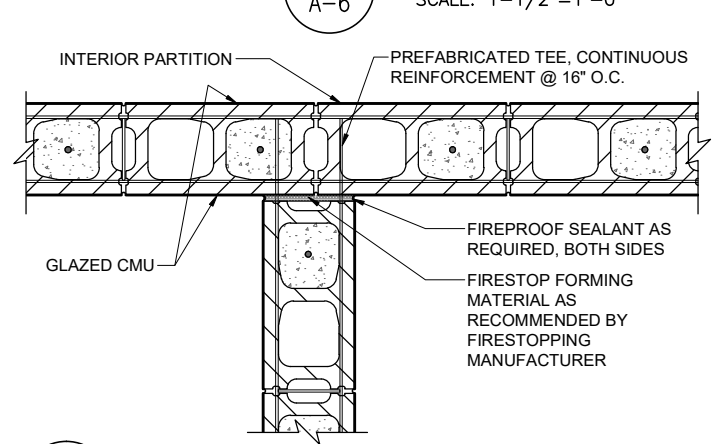
1
A-6
STONE BASE DETAIL
SCALE: 1-1/2"=1'-0"



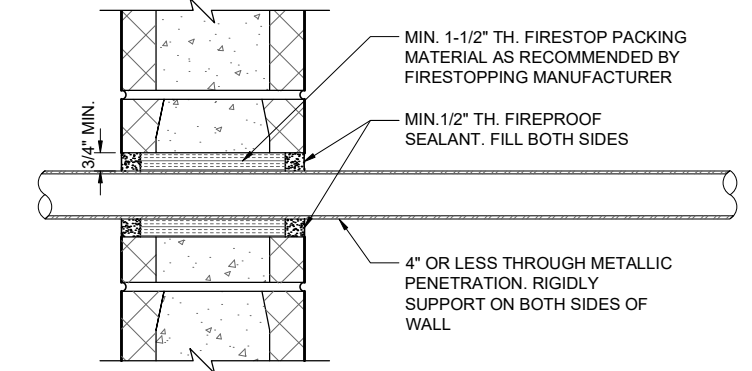
3
A-6
TYPICAL CMU WALL CONNECTION
SCALE: 1-1/2"=1'-0"



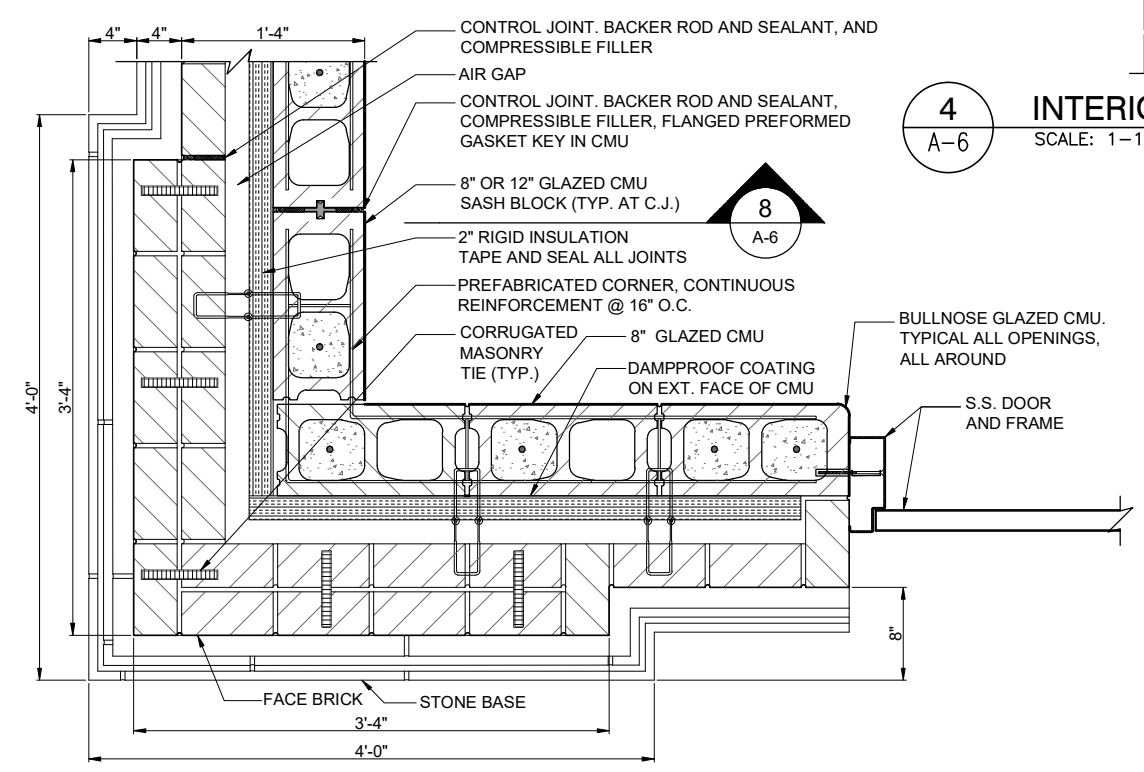
5
A-6
INTERIOR PARTITION AT CEILING
SCALE: 1-1/2"=1'-0"



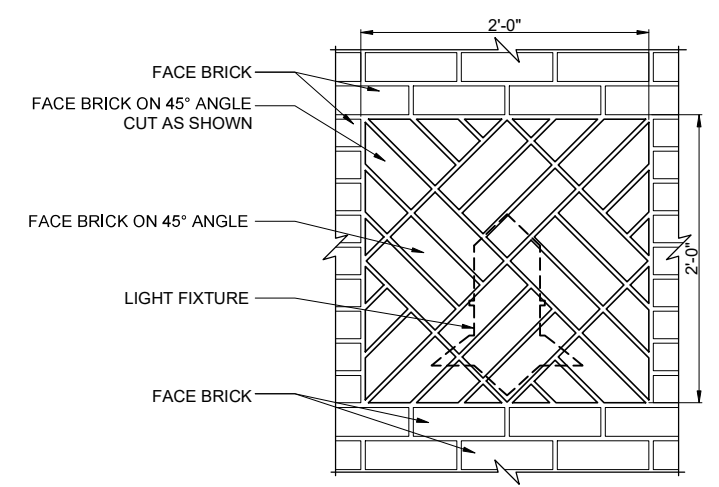
4
A-6
INTERIOR CMU WALL CONNECTION
SCALE: 1-1/2"=1'-0"



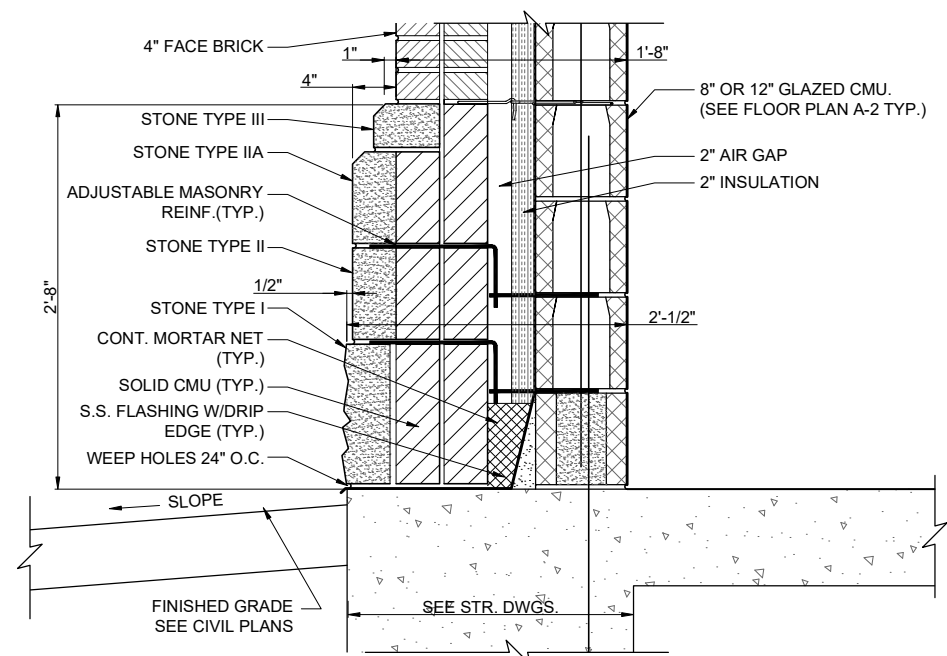
7
A-6
2 HR. RATED WALL TYPICAL PENETRATION
SCALE: 3"=1'-0"



2
A-6
CORNER WALL DETAIL
SCALE: 1-1/2"=1'-0"



6
A-6
PIER MEDALLION DETAIL
SCALE: 1-1/2"=1'-0"



8
A-6
STONE BASE DETAIL AT CORNER PIER
SCALE: 1-1/2"=1'-0"



MODEL: SMOCKELMANS
FILE NAME: F:\DRAWINGS\2015\1802 - PTB 17B-02 - PUMP STATION #37-A-6.MSR.DET.DWG



USER NAME = mglazer	DESIGNED - OT	REVISED -
PLOT SCALE = AS NOTED	DRAWN - MP/OT	REVISED -
PLOT DATE = 08-08-2024	CHECKED - JM	REVISED -
	DATE - 08-08-2024	REVISED -

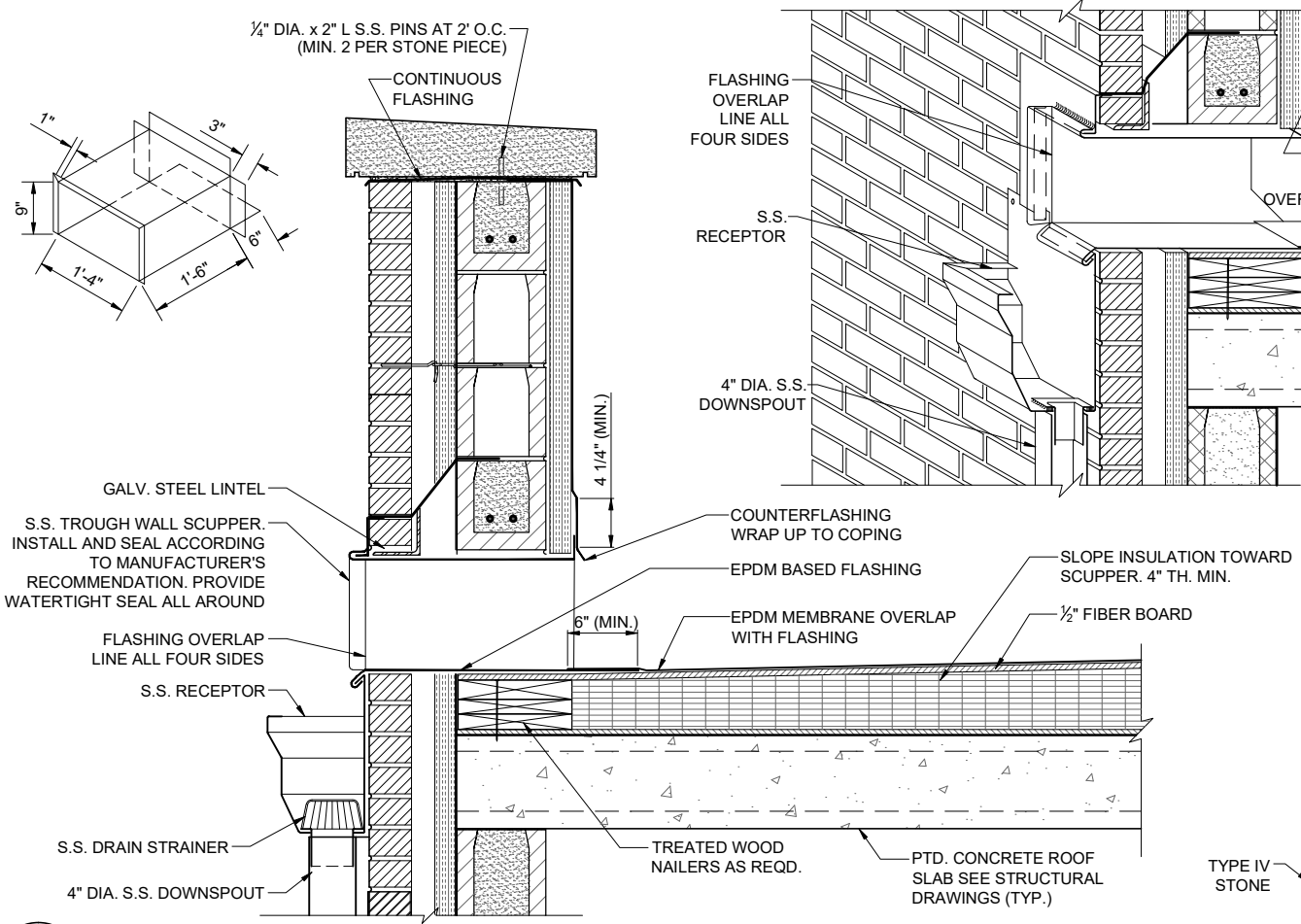
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
ARCHITECTURAL
DETAILS

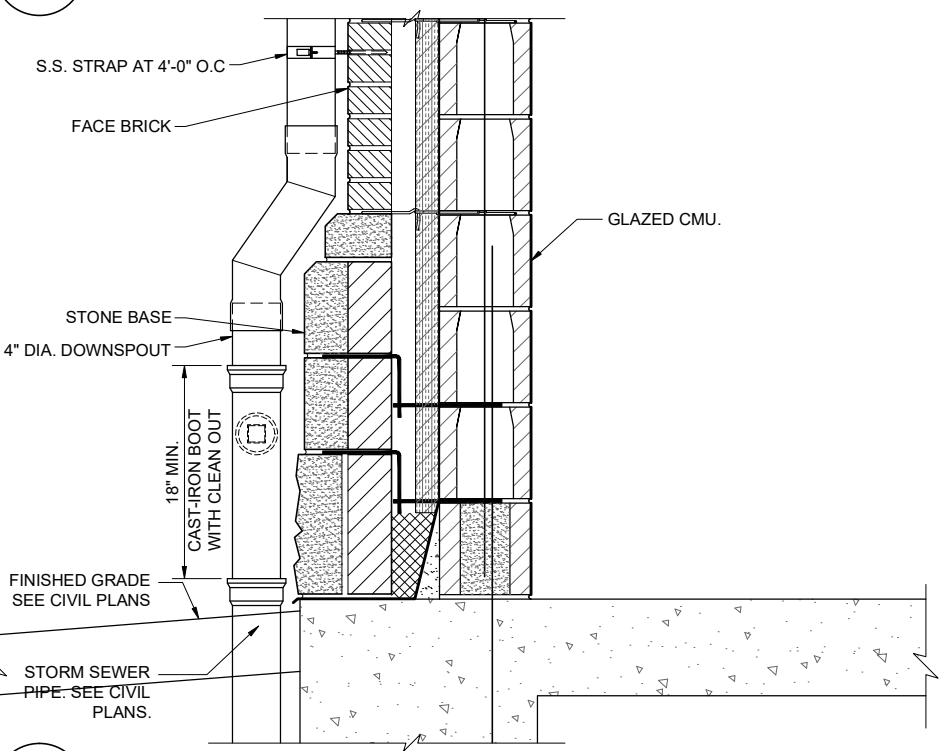
SCALE: 1-1/2"=1'-0" SHEET 81 OF 186 SHEETS STA. TO STA.

A-6

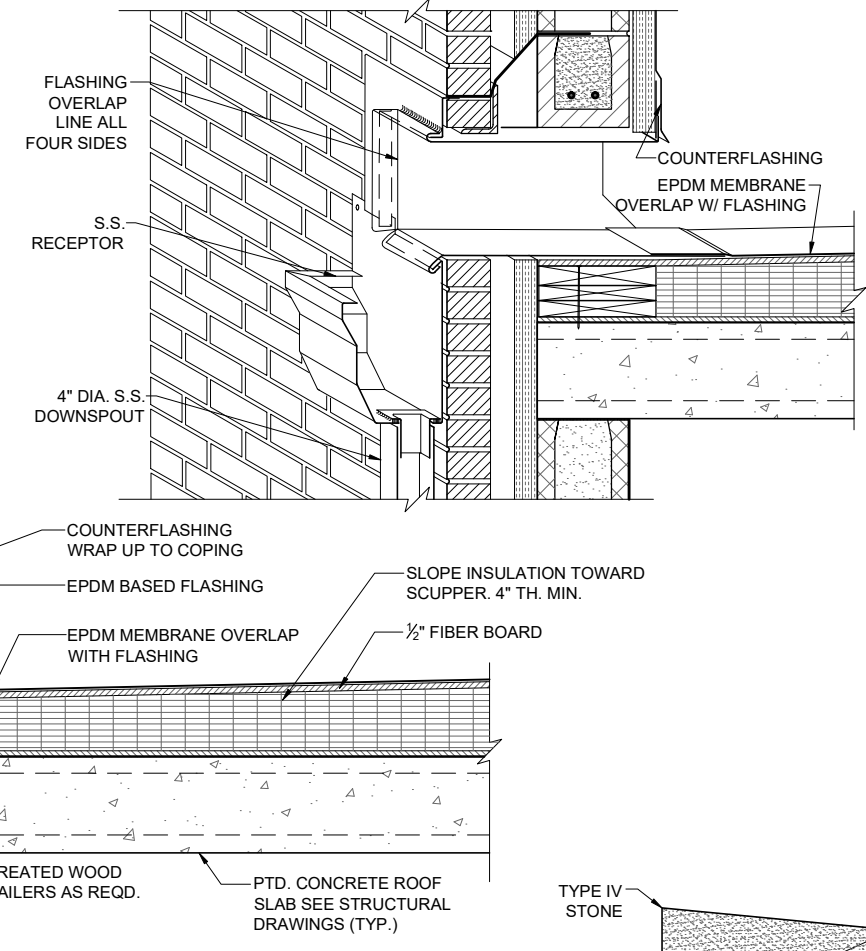
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	81
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIJX(634)				



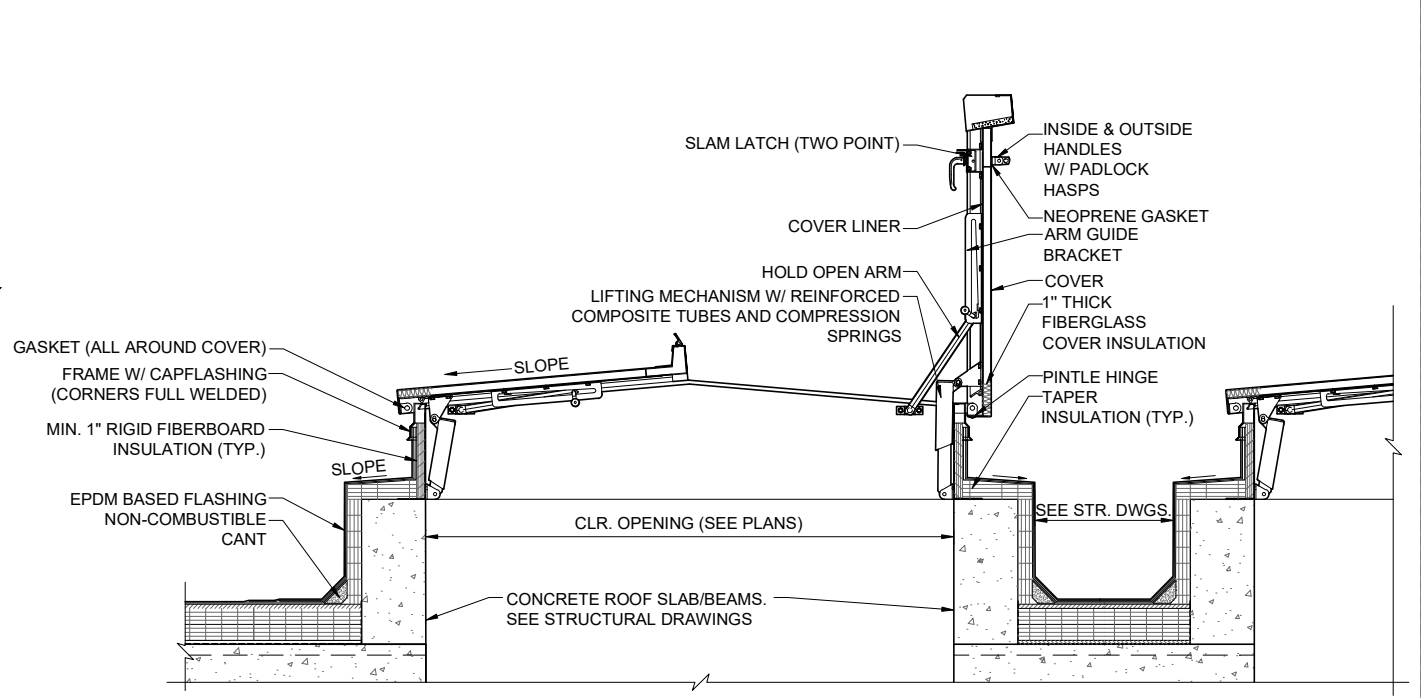
1 TYPICAL SCUPPER SECTION
A-7 SCALE: 1-1/2"=1'-0"



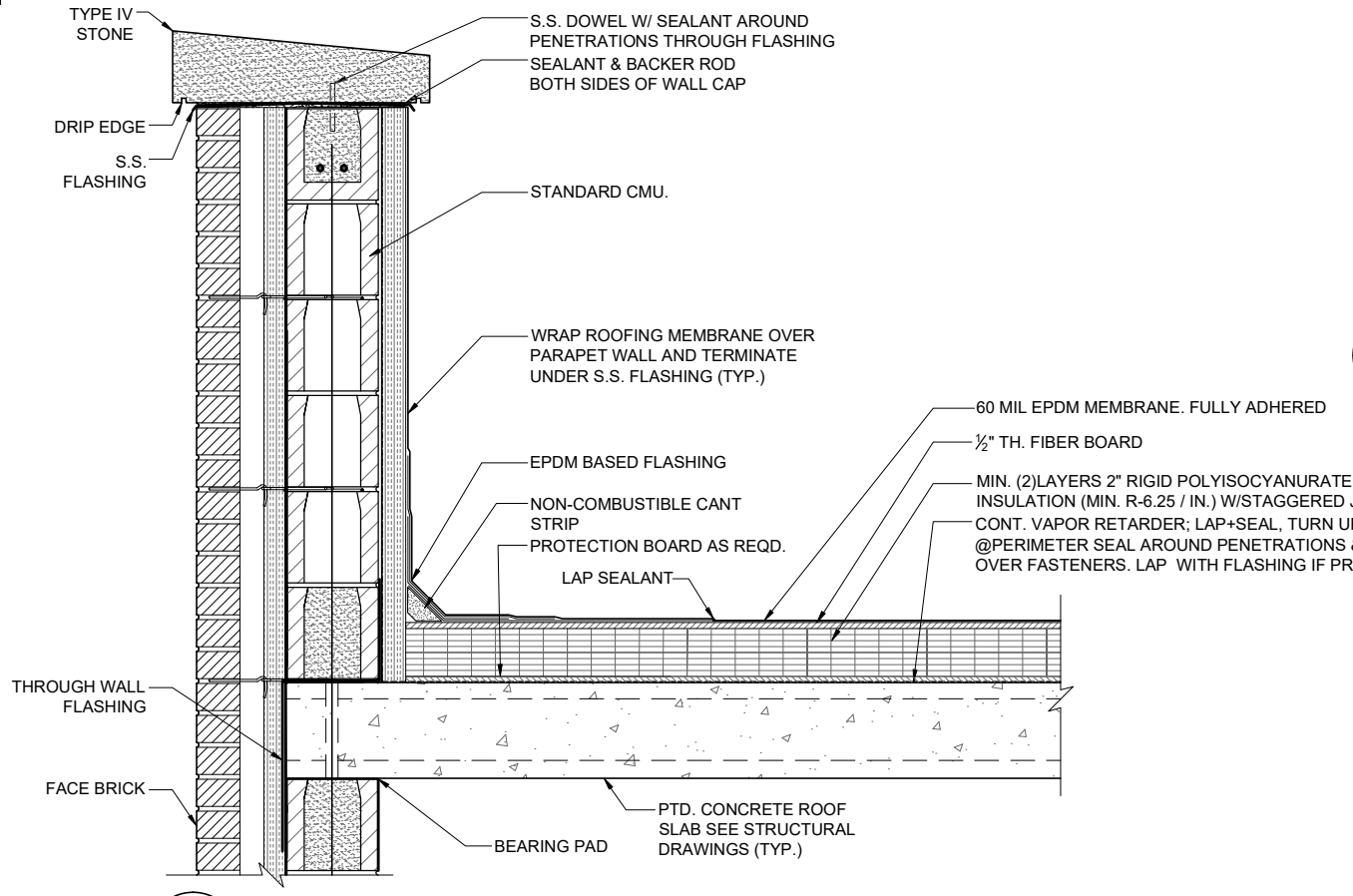
6 DOWNSPOUT CONNECTION DETAIL
A-7 SCALE: 1-1/2"=1'-0"



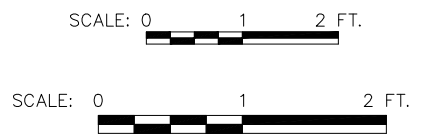
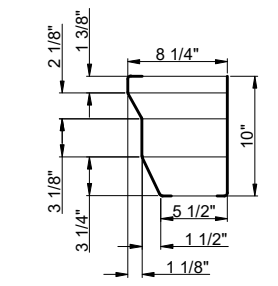
4 TYPICAL PARAPET SECTION
A-7 SCALE: 1-1/2"=1'-0"



3 TYPICAL ROOF HATCH SECTION
A-7 SCALE: 1"=1'-0"



5 RECEPTOR
A-7 SCALE: 1-1/2"=1'-0"



MODEL: SMOCKELMANS
FILE NAME: F:\DRAWINGS\2015\1802 - PUMP STATION #37\A-7.ROOF_DET.DWG



USER NAME = mglazer	DESIGNED - OT	REVISED -
PLOT SCALE = AS NOTED	DRAWN - MP/OT	REVISED -
PLOT DATE = 08-08-2024	CHECKED - JM	REVISED -
	DATE - 08-08-2024	REVISED -

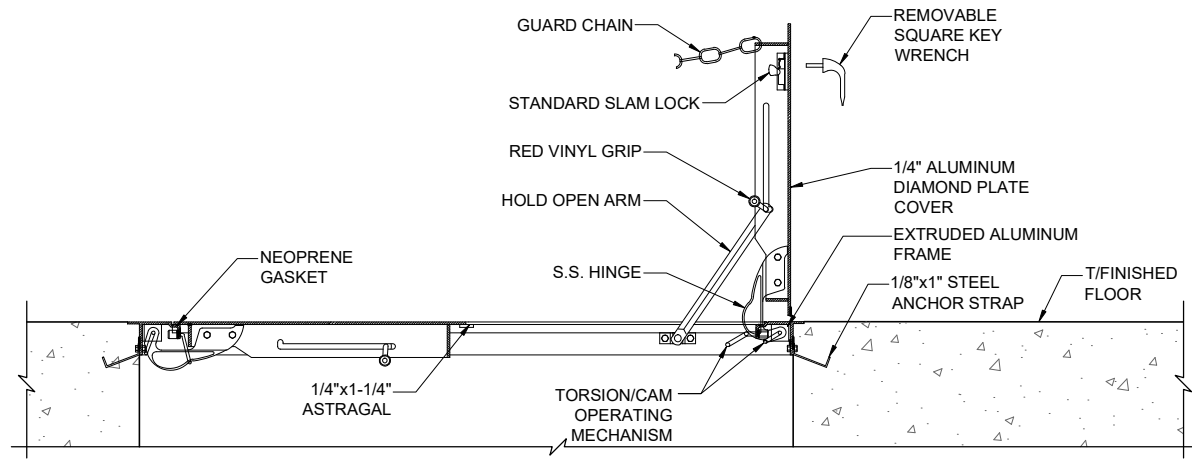
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
ARCHITECTURAL
DETAILS

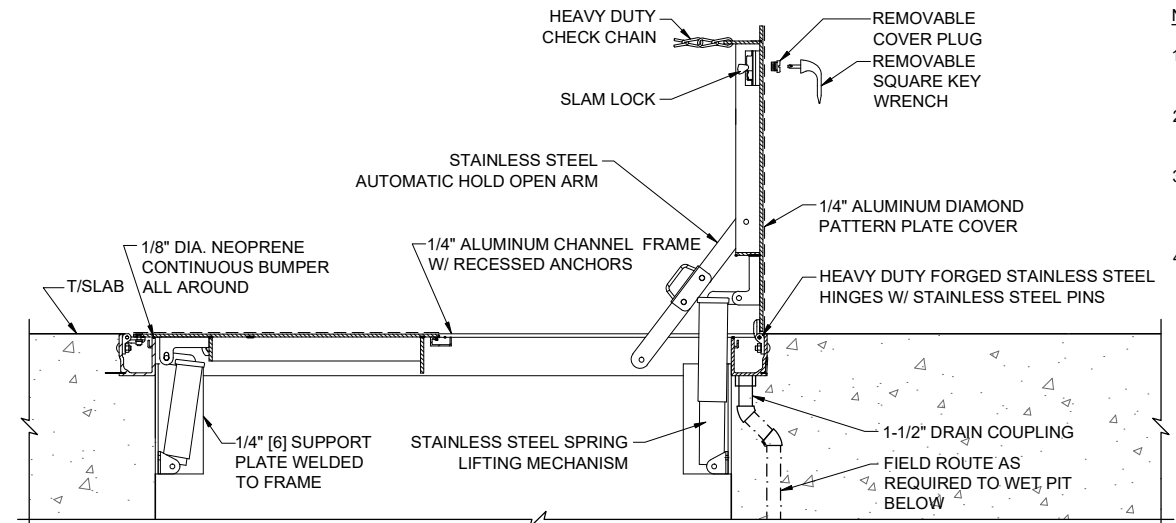
SCALE: VARIES SHEET 82 OF 186 SHEETS STA. TO STA.

A-7

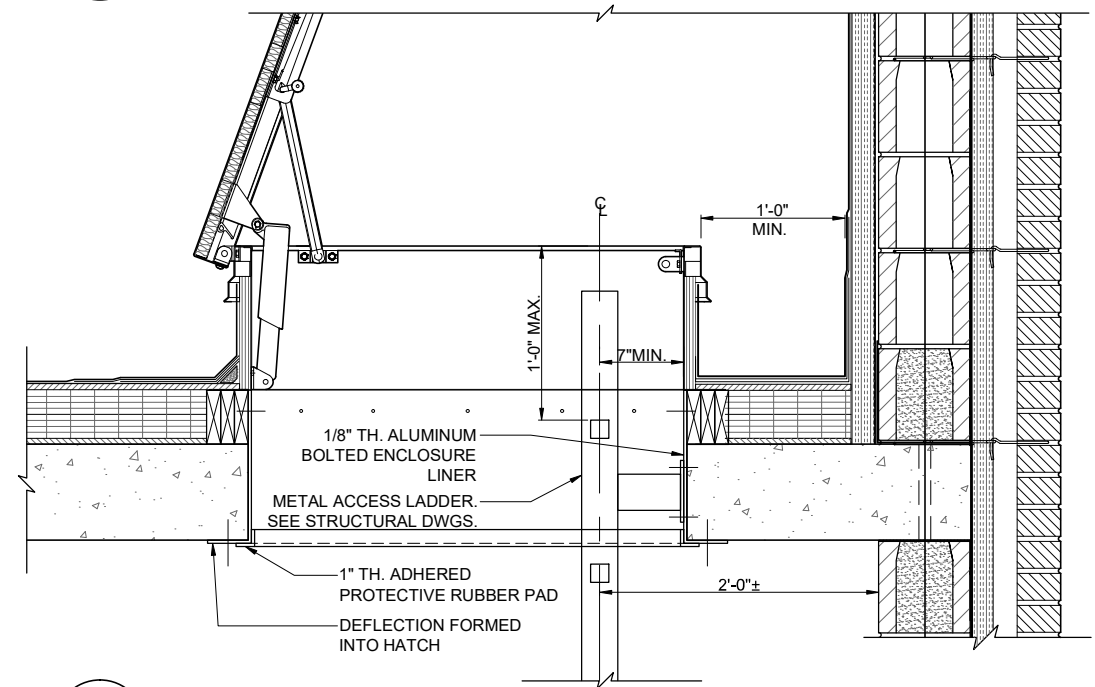
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	82
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIJX(634)				



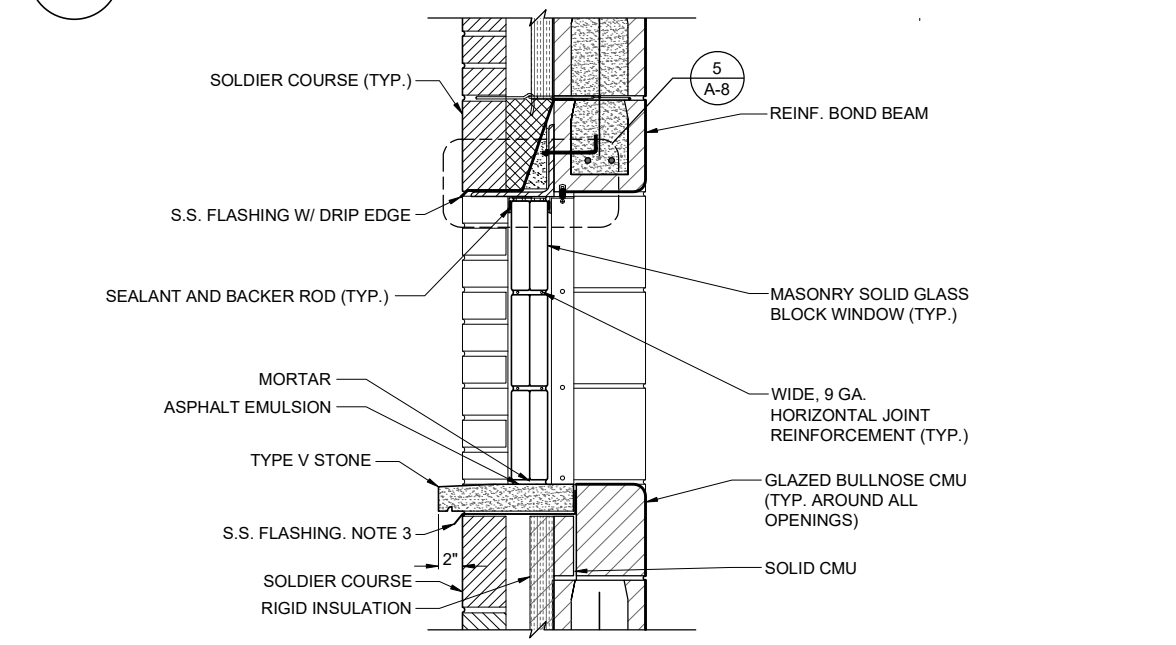
1 INTERIOR FLOOR HATCH DETAIL
A-8 SCALE: 1-1/2"=1'-0"



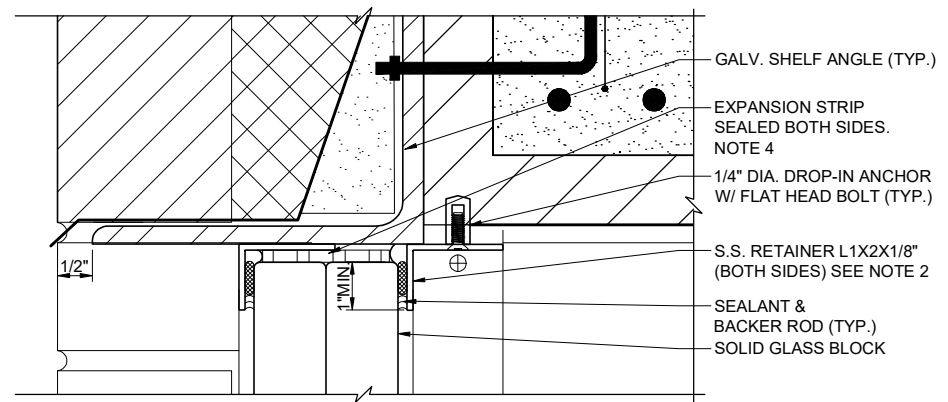
2 EXTERIOR FLOOR HATCH DETAIL
A-8 SCALE: 1-1/2"=1'-0"



3 ROOF HATCH DETAIL
A-8 SCALE: 1-1/2"=1'-0"



4 WINDOW SECTION
A-8 SCALE: 1-1/2"=1'-0"



5 WINDOW HEAD DETAIL
A-8 SCALE: 6"=1'-0"

- NOTES:**
1. ALL ACCESS HATCHES SHALL HAVE S.S. HARDWARE.
 2. PROVIDE SEPARATION BETWEEN DISSIMILAR MATERIALS.
 3. PROVIDE PREFORMED VERTICAL FLASHING END DAMS ON BOTH SIDES OF SILL. TYPICAL FOR ALL OPENINGS.
 4. PROVIDE 1/2" MIN. EXPANSION STRIP AT HEAD AND JAMBS (TYP.)



MODEL: MODELNAMES
FILE NAME: F:\DRAWINGS\2015\1802 - PUMP STATION #37\A-8_DET.DWG



USER NAME = mglazer	DESIGNED - OT	REVISED -
DRAWN - MP/OT	REVISED -	
PLOT SCALE = AS NOTED	CHECKED - JM	REVISED -
PLOT DATE = 08-08-2024	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
ARCHITECTURAL
DETAILS**

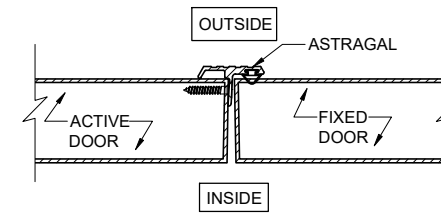
SCALE: 1-1/2"=1'-0" SHEET 83 OF 186 SHEETS STA. TO STA.

A-8

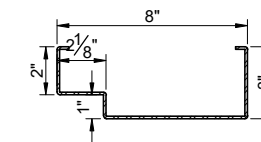
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	83
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIJX(634)				

ROOM FINISH SCHEDULE									
ROOM NO.	ROOM NAME	FLOOR		WALLS		CEILING			REMARKS
		MATERIAL	FINISH/COLOR	MATERIAL	FINISH/COLOR	MATERIAL	FINISH/COLOR	HEIGHT	
101	PUMP ROOM	EPOXY COATING	APRIL HAZE	GLAZED CMU	GREEN SPECKLE	EPOXY PAINT	WHITE	VARIES	
102	ELECTRICAL ROOM	EPOXY COATING	APRIL HAZE	GLAZED CMU	GREEN SPECKLE	EPOXY PAINT	WHITE	14'-8"	
103	VESTIBULE	EPOXY COATING	APRIL HAZE	GLAZED CMU	GREEN SPECKLE	EPOXY PAINT	WHITE	14'-8"	

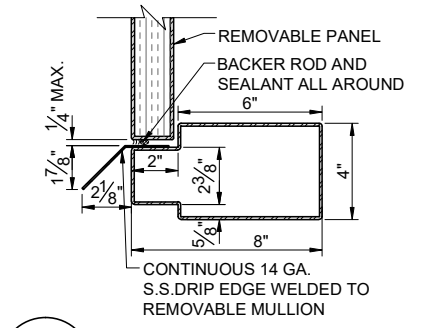
DOOR SCHEDULE											
NUMBER	DOOR		FRAME		DETAILS			HRDWR GROUP SET	REMARKS		
	DOOR SIZE (W X H)	TYPE	MATERIAL	FINISH	MATERIAL	FINISH	HEAD			JAMB	SILL
101	3'-0"x7'-10"	C	S.S.	NO. 4	S.S.	NO. 4	2/A-9	4/A-9	7/A-9	1	W/ LOUVERS
102, 104	2'-3'-0"x7'-10"	A	S.S.	NO. 4	S.S.	NO. 4	7/A-9	4/A-9, SIM.	7/A-9	2	W/ TRANSOM
103	2'-3'-0"x7'-10"	B	S.S.	NO. 4	S.S.	NO. 4	2/A-9	4/A-9, SIM.	7/A-9	2	W/ LOUVERS



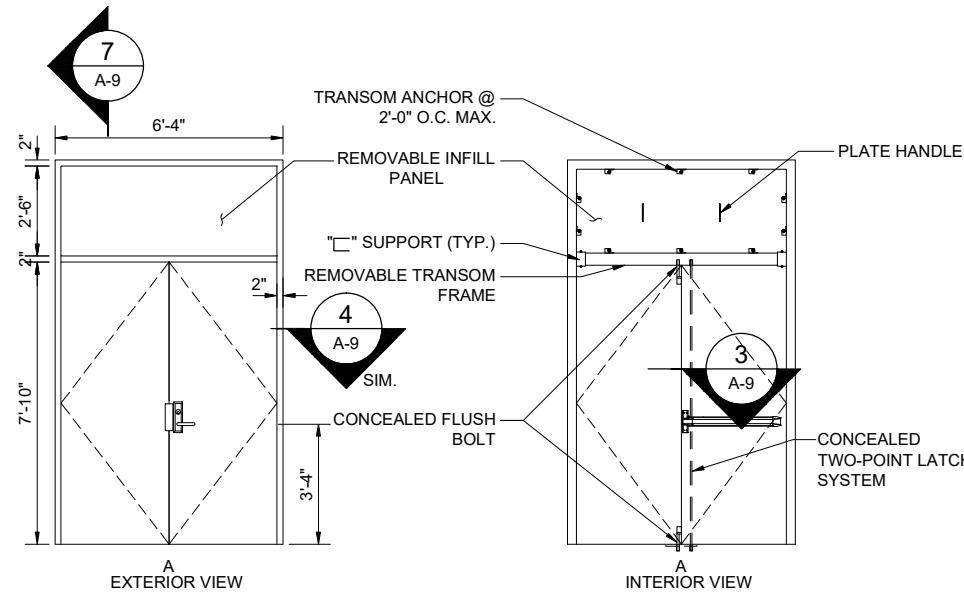
3
A-9
ASTRAGAL DETAIL
SCALE: 6"=1'-0"



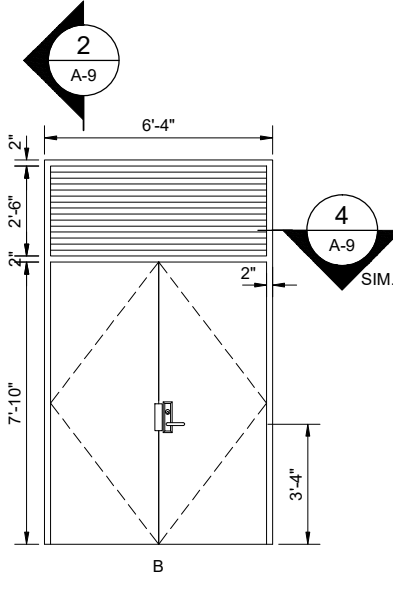
5
A-9
TYP. FRAME
SCALE: 3"=1'-0"



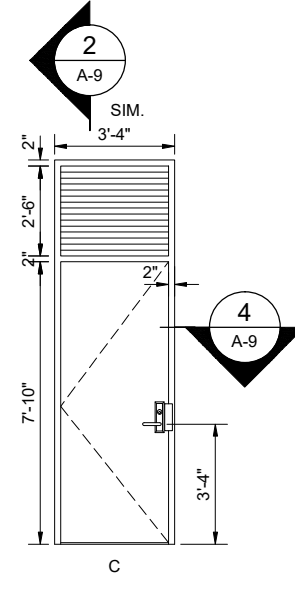
6
A-9
REMOVABLE TRANSOM
SCALE: 3"=1'-0"



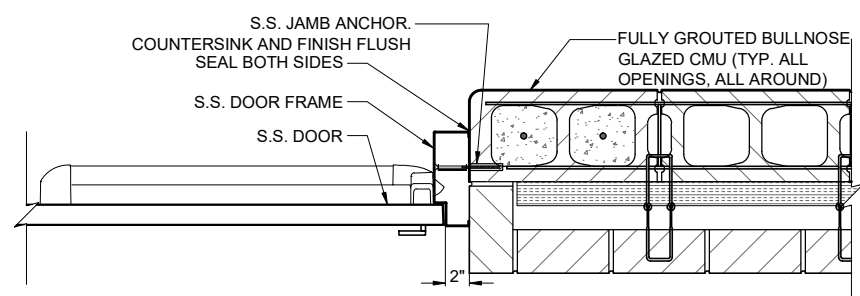
1
A-9
DOOR TYPES
SCALE: 3/8"=1'-0"



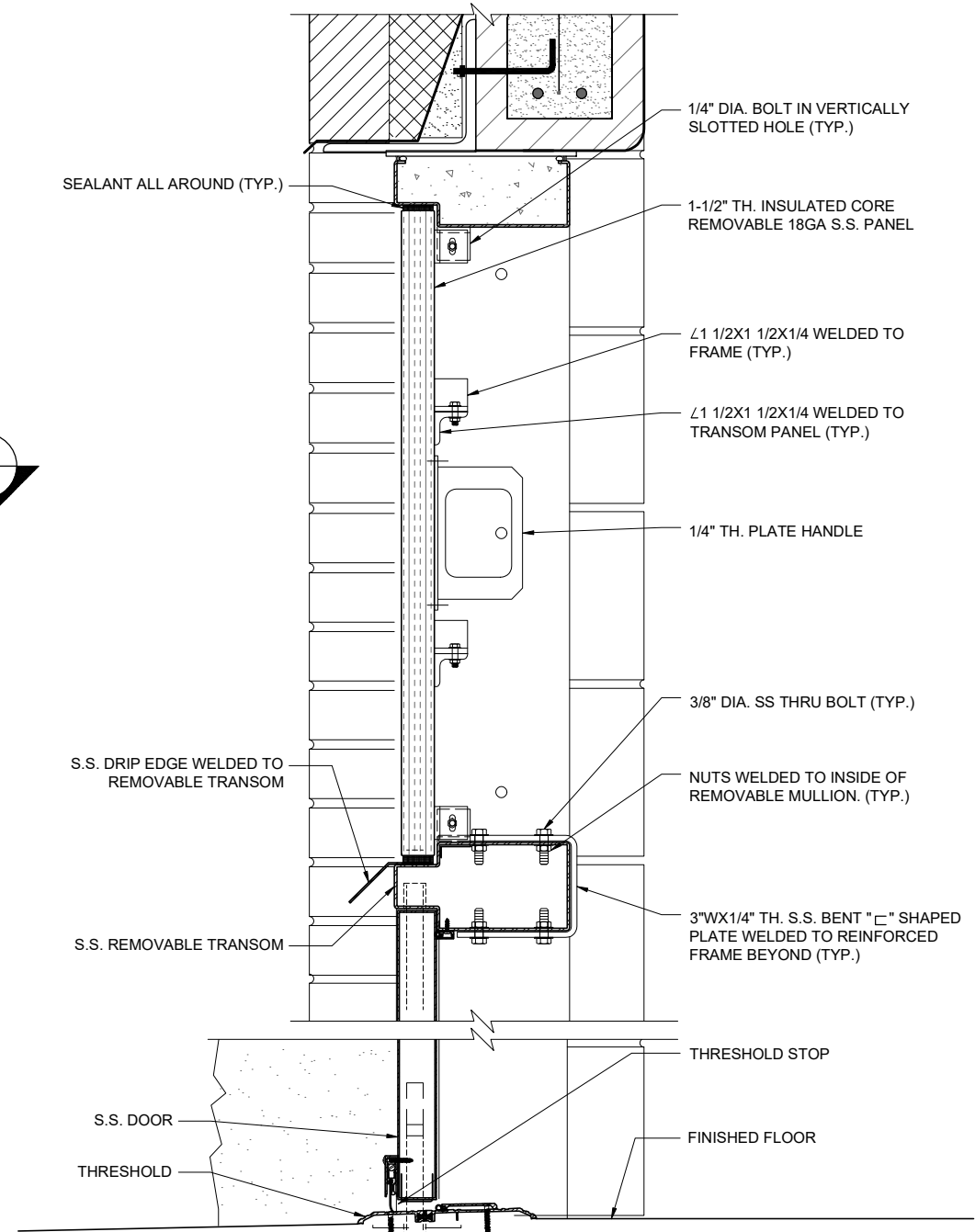
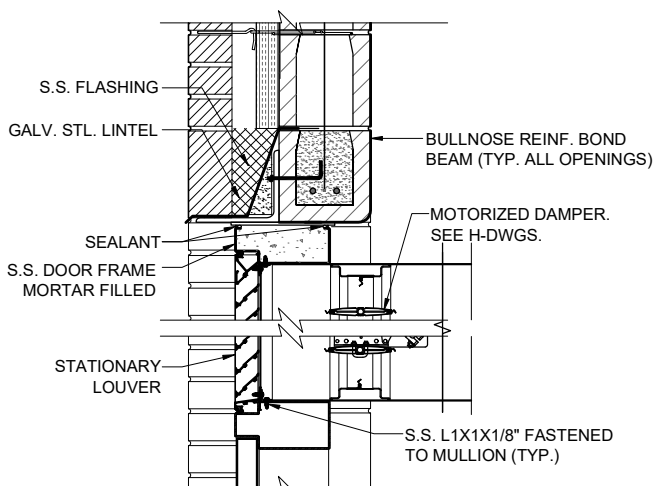
2
A-9
DOOR SECTION
SCALE: 1-1/2"=1'-0"



7
A-9
DOOR SECTION
SCALE: 3"=1'-0"



4
A-9
DOOR JAMB
SCALE: 1-1/2"=1'-0"



SCALE: 0 1 2 FT.

MODEL: SMOCKELMANNES
FILE NAME: F:\DRAWINGS\2015\1802 - PUMP STATION #37\A-9_SCH.DWG



USER NAME = mglazer	DESIGNED - OT	REVISED -
PLOT SCALE = AS NOTED	DRAWN - MP/OT	REVISED -
PLOT DATE = 08-08-2024	CHECKED - JM	REVISED -
	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
ARCHITECTURAL
DETAILS AND SCHEDULES

SCALE: VARIES SHEET 84 OF 186 SHEETS STA. TO STA.

F.A.P. RTE. 346	SECTION (1255-1)J-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 84
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIJX(634)				

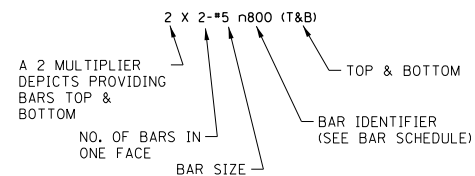
**STRUCTURAL LEGEND
ABBREVIATIONS**

ADDL	ADDITIONAL	MFR	MANUFACTURER
AL	ALUMINUM	MH	MANHOLE
ALT	ALTERNATE	MIN	MINIMUM
B/	BOTTOM OF	MO	MASONRY OPENING
BLDG	BUILDING	NO. or	* NUMBER
BLK	BLOCK	NTS	NOT TO SCALE
BOT	BOTTOM	OC	ON CENTER
@	CENTERLINE	OPNG	OPENING
CJT	CONTROL JOINT	P	PLATE
CLR	CLEAR	PCF	POUNDS PER CUBIC FOOT
CMU	CONCRETE MASONRY UNIT	PJF	PREFORMED JOINT FILLER
COL	COLUMN	R	RISER
CONC	CONCRETE	RAD	RADIUS
CONT	CONTINUOUS	RD	ROOF DRAIN
CONTR JT	CONTRACTION JOINT	REINF	REINFORCING
DBL	DOUBLE	REQD	REQUIRED
DET	DETAIL	SIM	SIMILAR
DIA	DIAMETER	SPA	SPACE OR SPACING
DIP	DUCTILE IRON PIPE	SS	STAINLESS STEEL
DN	DOWN	STL	STEEL
DWG	DRAWING	SO	SQUARE
EA	EACH	T	TREAD
EF	EACH FACE	T/	TOP OF
EL	ELEVATION	T/S	TOP OF STEEL
EQUIP	EQUIPMENT	T&B	TOP AND BOTTOM
EW	EACH WAY	TYP	TYPICAL
EXP	EXPANSION	UNO	UNLESS NOTED OTHERWISE
EXP JT	EXPANSION JOINT	VERT	VERTICAL
EXT	EXTERIOR	W/	WITH
FD	FLOOR DRAIN	WD	WOOD
FRP	FIBERGLASS REINFORCED PLASTIC	WWF	WELDED WIRE FABRIC
FTG	FOOTING	WS	WATERSTOP
GA	GALVE		
GALV	GALVANIZED		
HORZ	HORIZONTAL		
HP	HIGH POINT		
INSUL	INSULATION		
INT	INTERIOR		
LLH	LONG LEG HORIZONTAL		
LLV	LONG LEG VERTICAL		
LP	LOW POINT		

SYMBOLS

	CONCRETE
	EARTH OR BACKFILL
	ROCK
	GRATING

REINFORCING CALL-OUT IDENTIFIER



GENERAL STRUCTURAL NOTES

GENERAL

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

DESIGN CRITERIA

- DESIGN AND CONSTRUCT IN CONFORMANCE WITH THE MOST CURRENT INTERNATIONAL BUILDING CODE EDITION, ACI 350 AND IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- SUPERIMPOSED DESIGN LOADS

A. WIND LOAD:

- ULTIMATE DESIGN WIND SPEED, V_{ult} : 120 MPH
- RISK CATEGORY: III
- WIND EXPOSURE: C
- INTERNAL PRESSURE COEFFICIENT, G_{Cp1} : +/- 0.18
- WALL COMPONENTS AND CLADDING WIND PRESSURES: +26 & -44 PSF

B. SNOW LOAD

- FLAT ROOF SNOW LOAD, P_f : 23.1 PSF + DRIFT
- SNOW EXPOSURE FACTOR C_e : 1.0
- IMPORTANCE FACTOR, I : 1.1
- THERMAL FACTOR, C_t : 1.0

C. ROOFING DEAD LOAD: (EQUIP AND PIPING ADDL)

- MECHANICAL EQUIPMENT: 20 PSF
- STAIRS AND WALKWAYS: VERIFY WITH EQUIPMENT SUPPLIER
- FLOOR LIVE LOADS (OTHER THAN SLABS ON GRADE): 100 PSF OR 1000 LBS CONCENTRATED

F. FLOOR LIVE LOADS (OTHER THAN SLABS ON GRADE)

- PUMP ROOM: 200 PSF
- ELECTRICAL ROOM: 300 PSF
- INTERMEDIATE FLOOR: 200 PSF
- DRY PIT: 200 PSF

G. SEISMIC DESIGN DATA

- RISK CATEGORY: III
- IMPORTANCE FACTOR: 1.25
- MAPPED SPECTRAL RESPONSE ACCELERATIONS: 0.117, 0.056, D
- SITE CLASS: D
- SPECTRAL RESPONSE COEFFICIENTS: 0.125, 0.090, B
- SEISMIC DESIGN CATEGORY: B
- BASIC SEISMIC FORCE RESISTING SYSTEM: ORDINARY REINFORCED MASONRY SHEAR WALLS
- DESIGN BASE SHEAR: $V=C_s \cdot W$ (W =EFFECTIVE SEISMIC WEIGHT)
- RESPONSE MODIFICATION FACTOR, R : 2
- SEISMIC RESPONSE COEFFICIENT, C_s : 0.08
- ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE

FOUNDATIONS

- GEOTECHNICAL INVESTIGATION BY WANG ENGINEERING, INC. DATED FEBRUARY 6, 2017.
- MAXIMUM APPLIED SERVICE BEARING PRESSURE = O_{MAX} = 4000 PSF(NET). GEOTECHNICAL ENGINEER SHALL FIELD VERIFY BEARING CONDITIONS DURING CONSTRUCTION.
- PLACE FOOTINGS ON NATURAL UNDISTURBED EARTH OR STRUCTURAL FILL.
- PLACE FILL AGAINST FOUNDATION WALLS ENCLOSING INTERIOR SPACES AFTER CONSTRUCTION SUCH AS CROSS WALLS, BEAMS, OR SLABS ARE IN PLACE TO BRACE WALL AND SUCH CONSTRUCTION HAS REACHED ITS DESIGN STRENGTH.
- TO MINIMIZE LATERAL FORCES AGAINST THE STRUCTURE DUE TO WEDGING ACTION OF THE SOIL, BEGIN COMPACTION OF EACH LAYER AT THE STRUCTURE WALL.

REINFORCEMENT

- REINFORCING STEEL-ALL REINFORCING STEEL TO BE EPOXY COATED
 - DEFORMED BARS: ASTM A706-GRADE 60
 - EPOXY COATING: ASTM A775
- UNLESS NOTED OTHERWISE PROVIDE CLEAR COVER FOR REINFORCEMENT AS FOLLOWS:
 - CAST AGAINST
 - EARTH: 3 INCHES
 - MUD SLAB: 2 INCHES
 - EXPOSED TO EARTH, WEATHER, OR WATER
 - SLABS
 - #5 BARS OR SMALLER: 1 1/2 INCHES
 - #6 THROUGH # 11 BARS: 2 INCHES
 - WALLS, BEAMS, AND COLUMNS: 2 INCHES
 - NOT EXPOSED TO EARTH, WEATHER, OR WATER
 - SLABS AND WALLS
 - #3 THROUGH #7 BARS: 1 INCH
 - #8 THROUGH # 11 BARS: 1 1/2 INCHES
 - BEAMS AND COLUMNS: 1 1/2 INCHES
- PLACE DOWELS BEFORE PLACING CONCRETE.
- DO NOT FIELD WELD OR FIELD BEND REINFORCING BARS.

CONCRETE

- DESIGN STRENGTH
 - CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ILLINOIS DEPARTMENT OF TRANSPORTION STANDARD SPECIFICATIONS SECTION 503.
 - ALL CAST-IN-PLACE CONCRETE SHALL BE CLASS SI, f'_c = 3,500 psi AT 14 DAYS.
 - ALL PRECAST CONCRETE PLANK SHALL BE f'_c =4,500 psi AT 28 DAYS.
- PROVIDE WATERSTOP IN CONSTRUCTION JOINTS IN
 - WALLS AND SLABS SEPARATING DRY INTERIOR FROM EARTH OR LIQUID.
 - EXTERIOR WALLS AND SLABS OF LIQUID HOLDING TANKS.
 - SLABS ABOVE OCCUPIED AREAS.
 - OTHER LOCATIONS SHOWN.
- CONSTRUCTION JOINTS NOT SHOWN SHALL BE APPROVED BY ENGINEER.
- BEFORE CONCRETE IS PLACED, CONSTRUCTION JOINTS SHALL BE CLEANED, LAITANCE REMOVED, AND SURFACE WETTED. REMOVE STANDING WATER.
- LOCATE CONSTRUCTION JOINTS IN FLOORS WITHIN MIDDLE THIRD OF SPAN. CONSTRUCTION JOINTS IN FLOORS SUPPORTED BY WALLS MAY BE LOCATED AT CENTER OF WALL.
- CONSTRUCTION JOINTS IN BEAMS SHALL BE OFFSET MIN DISTANCE OF 2 TIMES WIDTH OF INTERSECTING BEAM.
- LOCATE VERTICAL JOINTS IN WALL A MIN OF ONE- HALF WALL HEIGHT FROM CORNERS OR OTHER INTERSECTING WALLS. LOCATE HORIZONTAL JOINTS IN WALLS WITHIN THE MIDDLE THIRD OF WALL HEIGHT.
- BEAMS AND HAUNCHES SHALL BE PLACED MONOLITHICALLY AS PART OF SLAB SYSTEM, UNLESS DETAILED OTHERWISE.
- CONSTRUCTION JOINTS SHALL HAVE KEYS OR ROUGHENED SURFACES. WHERE ROUGHENED SURFACE USED, SURFACE SHALL HAVE AMPLITUDE OF 1/4 IN. MIN.
- PROVIDE 3/4 IN. CHAMFER ON EXTERNAL CORNERS OF EXPOSED CONCRETE WALLS, BEAMS, COLUMNS, EQUIPMENT BASES AND EXPOSED EDGES OF CONSTRUCTION JOINTS.
- VERIFY EQUIPMENT PAD AND CURB LOCATIONS, DIMENSIONS, AND ELEVATIONS WITH EQUIPMENT MANUFACTURERS.

MASONRY

- HOLLOW NORMAL WEIGHT CONCRETE BLOCK PER ASTM C90 (f'_c mu=3,275PSI MINIMUM, f'_m =2,250PSI MINIMUM) WITH TYPE S MORTAR (f'_c =1,800PSI MINIMUM.)
- MASONRY OPENINGS LESS THAN 4FT IN WIDTH THAT DO NOT HAVE A LINTEL SCHEDULED SHALL HAVE AN 8IN. HIGH REINFORCED MASONRY LINTEL WITH 2-#5 BARS OR DOUBLE ANGLE STEEL ANGLE LINTEL.
- UNLESS NOTED OTHERWISE, PROVIDE A CONTINUOUS BOND BEAM REINFORCED WITH 2-#5 AROUND THE TOP OF BUILDINGS.
- UNLESS NOTED OTHERWISE, PROVIDE HORIZONTAL MASONRY REINFORCING IN WALLS AT 16. IN ON CENTER.
- FILL JAMB CORES OR OPENINGS OVER 3 FT IN WIDTH WITH MASONRY GROUT FROM BOTTOM OF LINTEL TO BOTTOM OF WALL. REINFORCE CORES WHERE NOTED.
- BRACE MASONRY WALLS UNTIL CEILING SYSTEM IS IN PLACE.

METALS

- STEEL
 - W SHAPES: ASTM A992
 - SQUARE OR RECTANGULAR TUBE: ASTM A500
 - PIPE: ASTM A53
 - BOLTED CONNECTIONS: ASTM A325
 - PLATES, SHAPES, AND BARS: ASTM A36
 - STAINLESS STEEL: AISI TYPE 316
- ALUMINUM SHAPES AND PLATES: ALLOY 6061-T6 OR 6063-T6
- ANCHOR BOLTS: 1/2" MIN DIAMETER: TYPE 316 STAINLESS STEEL
- WELD STRUCTURAL STEEL WITH E70XX ELECTRODES IN ACCORDANCE WITH AWS REQUIREMENTS.
- WELD ALUMINUM IN ACCORDANCE WITH AWS AND ALUMINUM ASSOCIATION REQUIREMENTS.
- COAT ALUMINUM SURFACES IN CONTACT WITH CONCRETE IN ACCORDANCE WITH AA REQUIREMENTS. UNDER NO CIRCUMSTANCES SHALL ALUMINUM CONTACT DISSIMILAR METALS.

MISCELLANEOUS

- FOR ADDITIONAL OPENINGS, ANCHORS, AND EMBEDDED ITEMS SEE ARCHITECTURAL, PROCESS, PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS.

S-1

SCALE: 0 4 8 FT.

MODEL: S400BENAMES
FILE: S400BENAMES

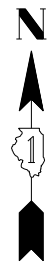
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	PLOT DATE = 08/09/24	CHECKED - PJE	REVISED -
		DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
STRUCTURAL
LEGEND / GENERAL NOTES**

SCALE: SHEET OF SHEETS STA. TO STA.

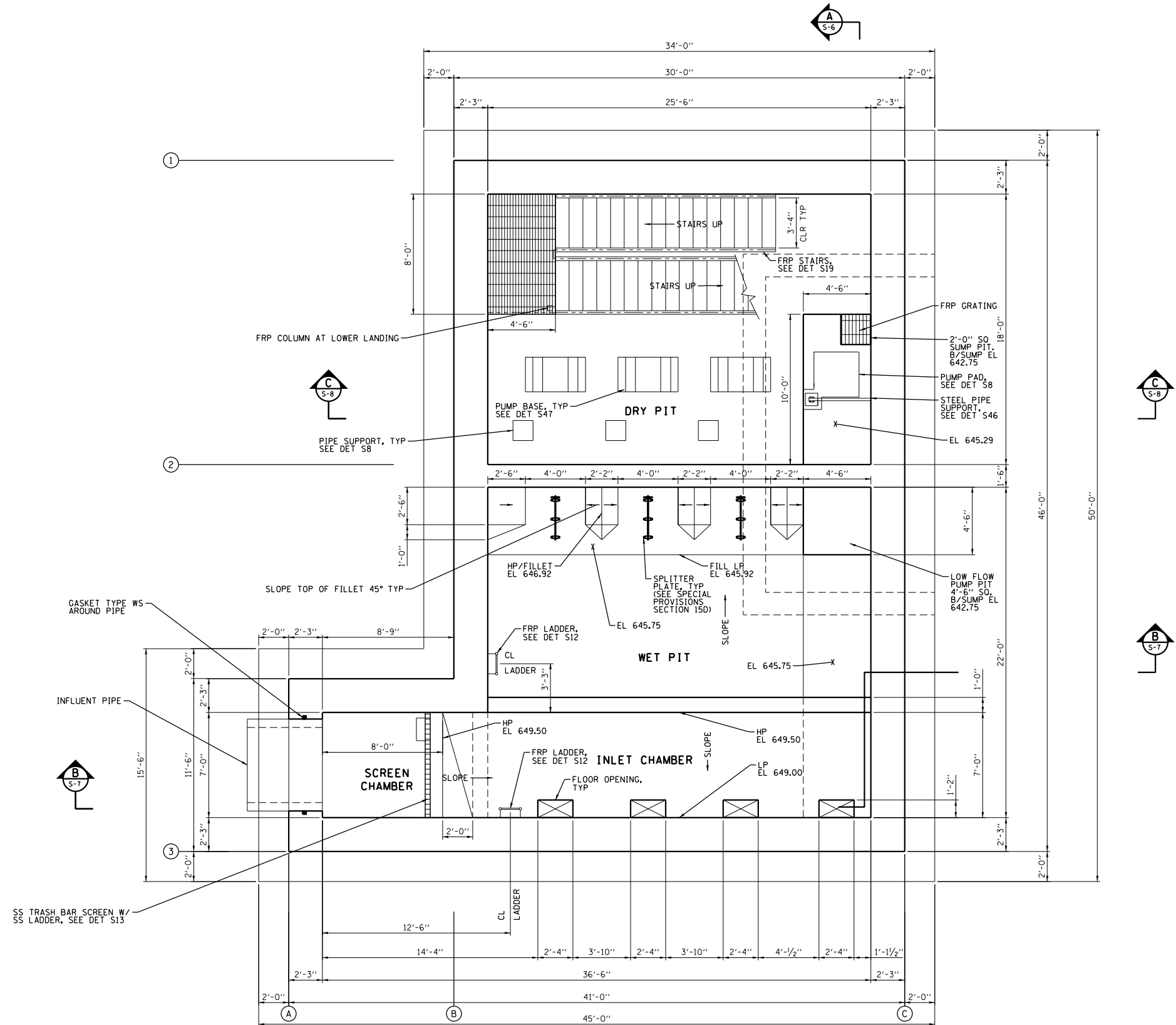
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	85
CONTRACT NO. 62B66				
ILLINOIS		FED. AID PROJECT CBJX(634)		



- NOTES:**
1. ALL AREAS WITHIN BUILDING EXCEPT ELECTRICAL ROOM SHALL BE:

CLASS I, DIVISION 2, GROUP D HAZARDOUS CLASSIFIED LOCATION

 2. CHAMFER ALL EXPOSED CONCRETE EDGES IN WET PIT AND INLET CHAMBER.



LOWER PLAN EL 645.75

S-2



MODEL: SMOBELNAMMS
FILE NAME: SHELFS



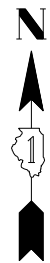
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PLOT DATE = 08/09/24	CHECKED - PJE	REVISED -
	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
STRUCTURAL
LOWER PLAN**

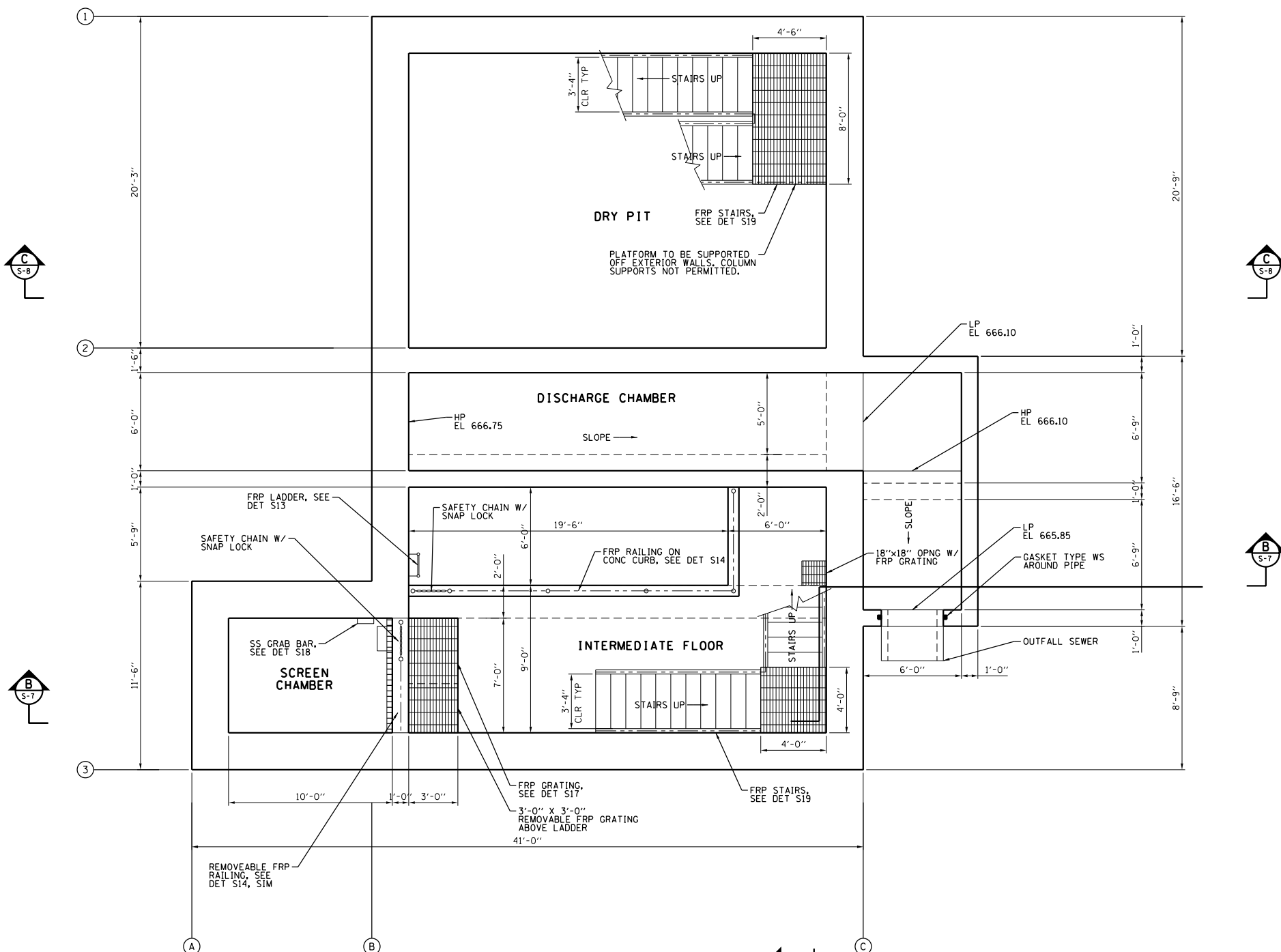
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	86
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CJU(634)				



NOTES:
 1. ALL AREAS WITHIN BUILDING EXCEPT ELECTRICAL ROOM SHALL BE:

CLASS I, DIVISION 2,
 GROUP D
 HAZARDOUS CLASSIFIED
 LOCATION



INTERMEDIATE PLAN EL 662.00



S-3

SCALE: 0 4 8 FT.

MODEL: SMOBELNAMES
 FILE NAME: SELELS



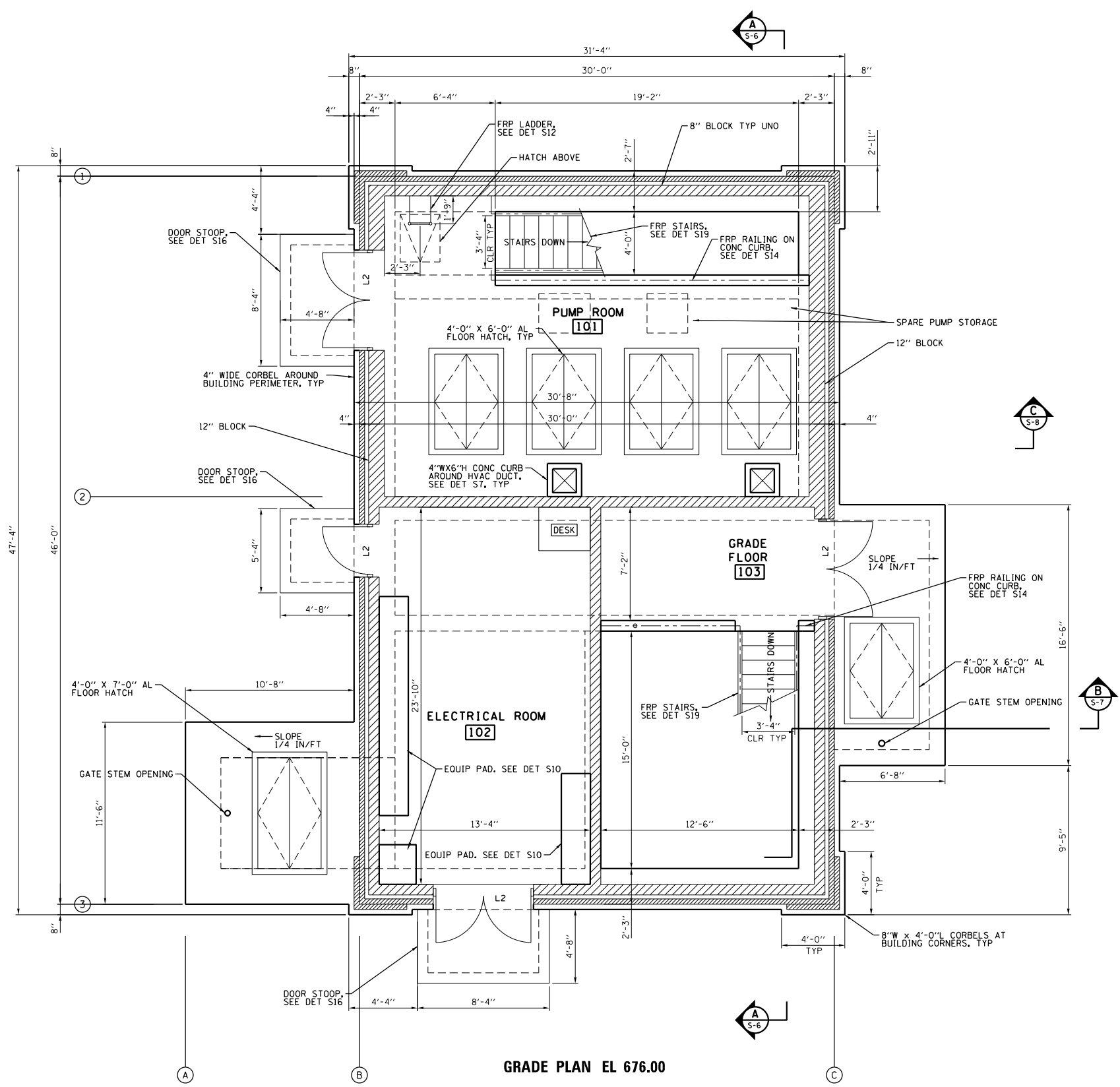
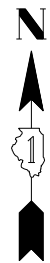
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DRAWN - KAG	REVISED -	
PLOT SCALE = AS NOTED	CHECKED - PJE	REVISED -
PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
 STRUCTURAL
 INTERMEDIATE PLAN

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	87
CONTRACT NO. 62B66				
		ILLINOIS	FED. AID PROJECT C/UJ(634)	



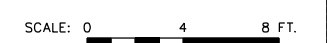
GRADE PLAN EL 676.00

- NOTES:**
1. ALL AREAS WITHIN BUILDING EXCEPT ELECTRICAL ROOM SHALL BE:

CLASS I, DIVISION 2, GROUP D HAZARDOUS CLASSIFIED LOCATION

 2. DESIGNATED LOCATION FOR THE DESK SHALL INCLUDE A DESK, CHAIR, BULLETIN BOARD, AND CABINET FOR REFERENCE DRAWINGS, DOCUMENTS, AND O&M MANUALS.
 3. 12" CMU TO BE REINFORCED @8" OC. 8" CMU TO BE REINFORCED @32" OC.
 4. PROVIDE LINTEL L1 OVER GLASS BLOCK WINDOWS. SEE ARCHITECTURAL DWGS FOR MORE INFORMATION.

S-4



MODEL: 4/20/2018MMMS
FILE NAME: SHELFS



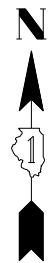
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PLOT SCALE = AS NOTED	DRAWN - KAG	REVISED -
PLOT DATE = 08/09/24	CHECKED - PJE	REVISED -
	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
STRUCTURAL
GRADE PLAN**

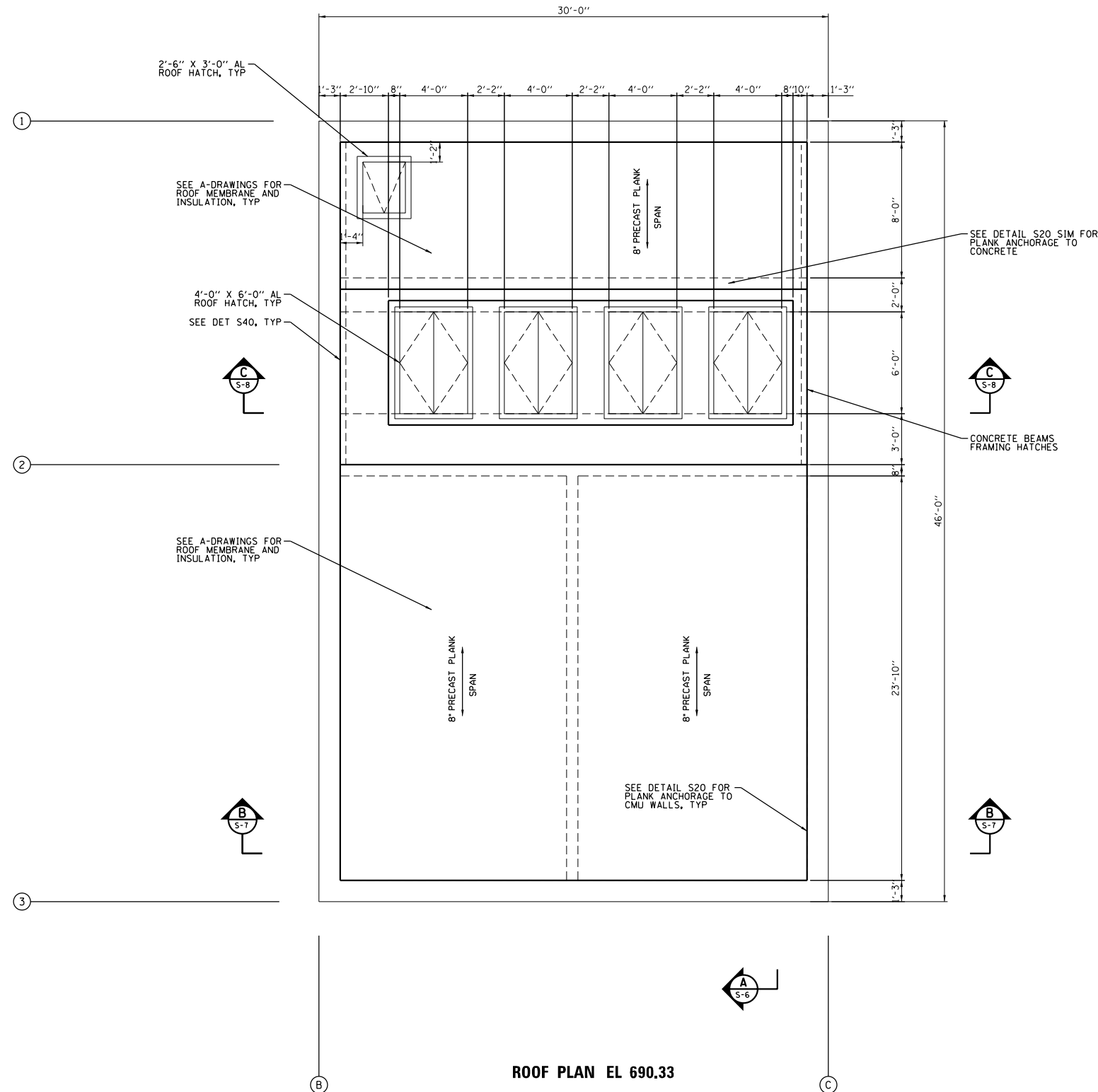
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)L-4	LAKE	186	88
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CJUX(634)				



NOTES:
 1. ALL AREAS WITHIN BUILDING EXCEPT ELECTRICAL ROOM SHALL BE:

CLASS I, DIVISION 2,
 GROUP D
 HAZARDOUS CLASSIFIED
 LOCATION



ROOF PLAN EL 690.33

S-5

SCALE: 0 4 8 FT.

MODEL: S40.DWG
FILE NAME: S40.DWG



USER NAME = SBREMER	DESIGNED - TJB	REVISED -
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PLOT SCALE = AS NOTED	CHECKED - PJE	REVISED -
PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

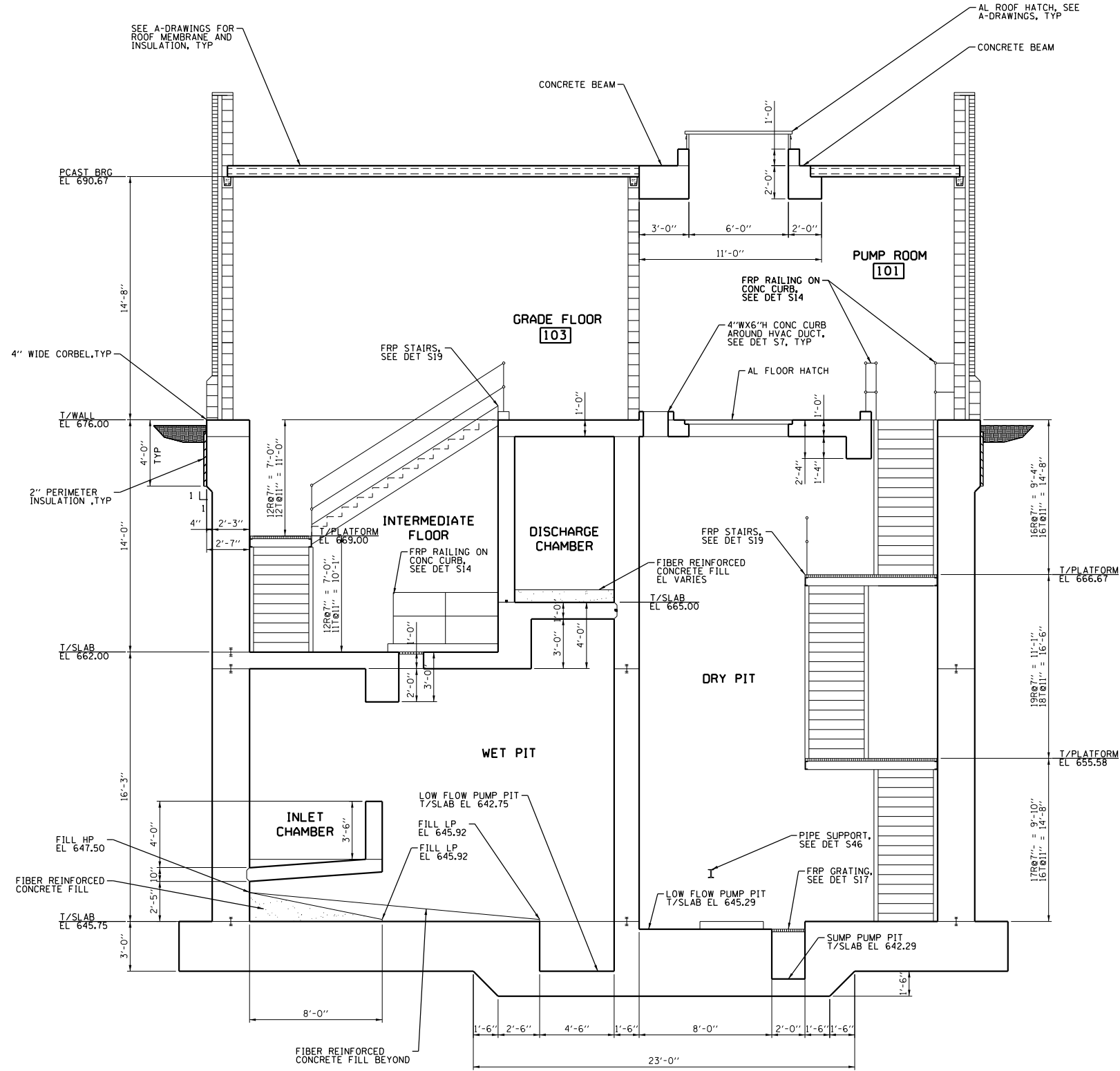
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
 STRUCTURAL
 ROOF PLAN

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	89
CONTRACT NO. 62B66				
		ILLINOIS	FED. AID PROJECT C/UJ(634)	

SCALE: SHEET OF SHEETS STA. TO STA.

NOTES:
 1. ALL AREAS WITHIN BUILDING EXCEPT ELECTRICAL ROOM SHALL BE:
 CLASS I, DIVISION 2,
 GROUP D
 HAZARDOUS CLASSIFIED
 LOCATION



SECTION A-A

S-6

SCALE: 0 4 8 FT.

MODEL: SMOBELNAMES
 FILE: NAME: SHEETS



USER NAME = SBREMER	DESIGNED - TJB	REVISED -
PLOT SCALE = AS NOTED	DRAWN - KAG	REVISED -
PLOT DATE = 08/09/24	CHECKED - PJE	REVISED -
	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

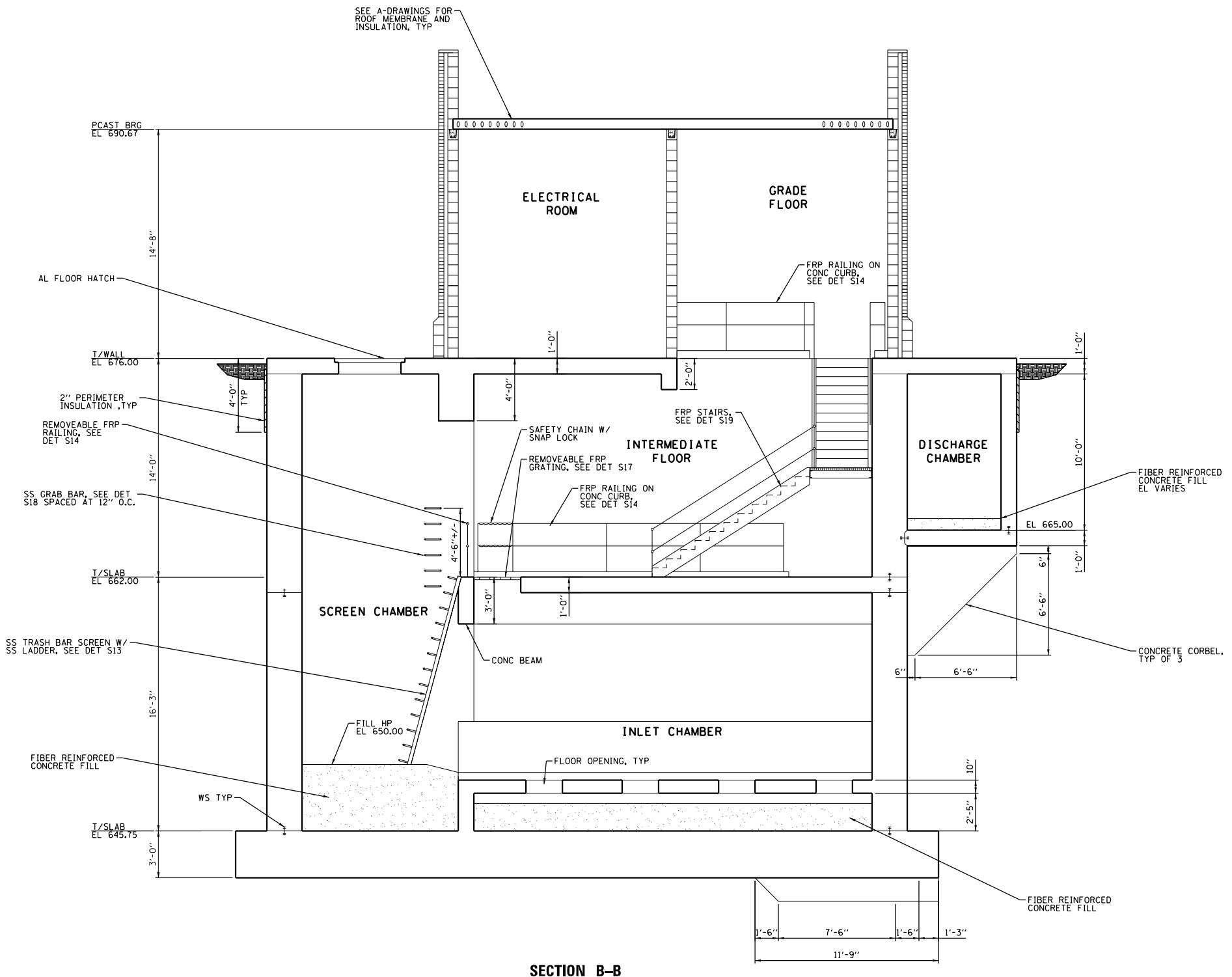
PUMP STATION NO. 37
 STRUCTURAL
 SECTION

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	90
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CBJX(634)				

NOTES:
 1. ALL AREAS WITHIN BUILDING EXCEPT ELECTRICAL ROOM SHALL BE:

CLASS I, DIVISION 2,
 GROUP D
 HAZARDOUS CLASSIFIED
 LOCATION



S-7

SCALE: 0 4 8 FT.

MODEL: SMOBELNAMES
 FILE: NAME: SELELS



USER NAME = SBREMER	DESIGNED - TJB	REVISED -
DRAWN - KAG	REVISED -	
CHECKED - PJE	REVISED -	
DATE - 08-08-2024	REVISED -	

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

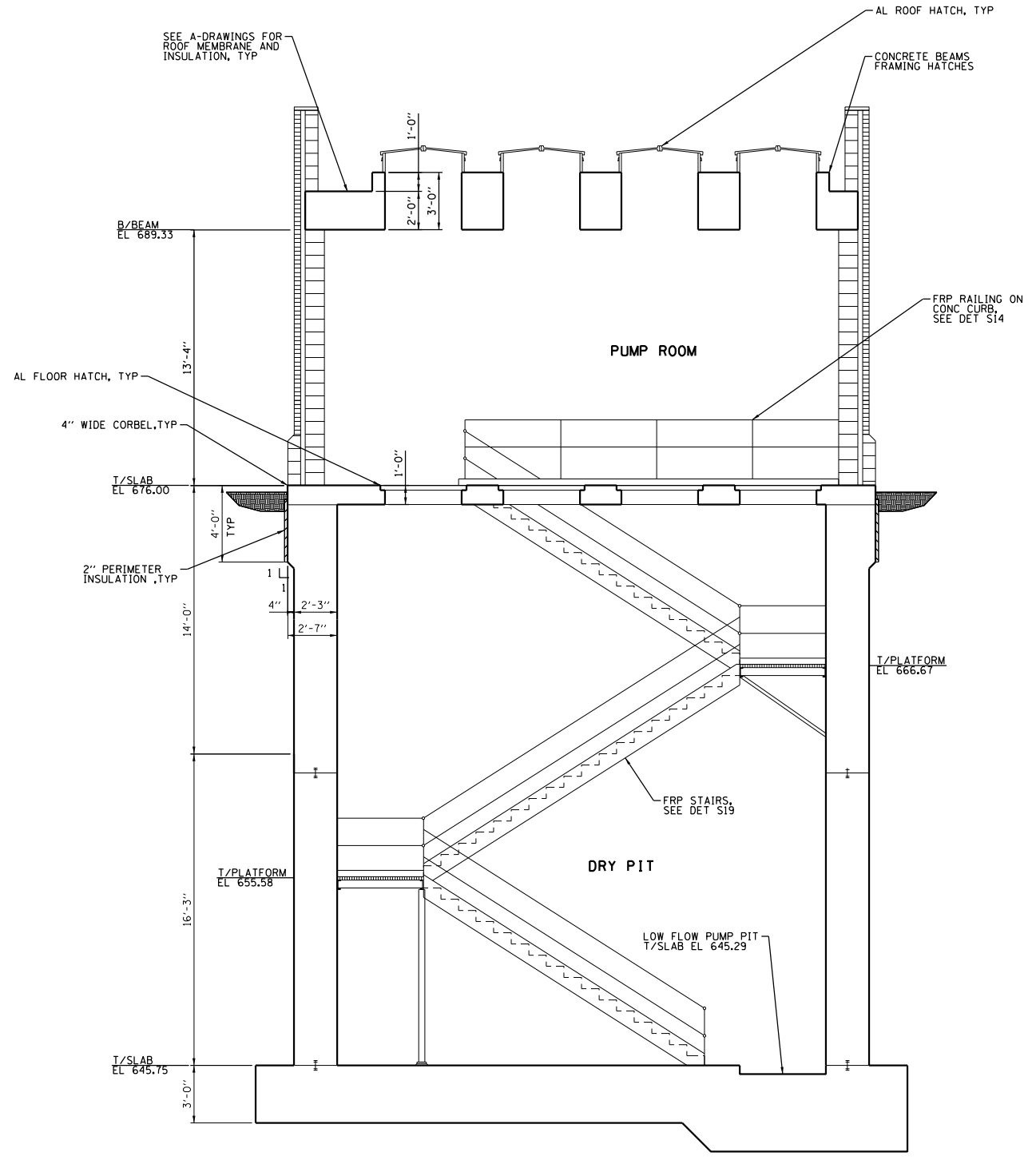
PUMP STATION NO. 37
 STRUCTURAL
 SECTION

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	91
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CJUX(634)				

NOTES:
 1. ALL AREAS WITHIN BUILDING EXCEPT ELECTRICAL ROOM SHALL BE:

CLASS I, DIVISION 2,
 GROUP D
 HAZARDOUS CLASSIFIED
 LOCATION



SECTION C-C

S-8

SCALE: 0 4 8 FT.

MODEL: SMOBELNAMES
 FILE NAME: SLELE5



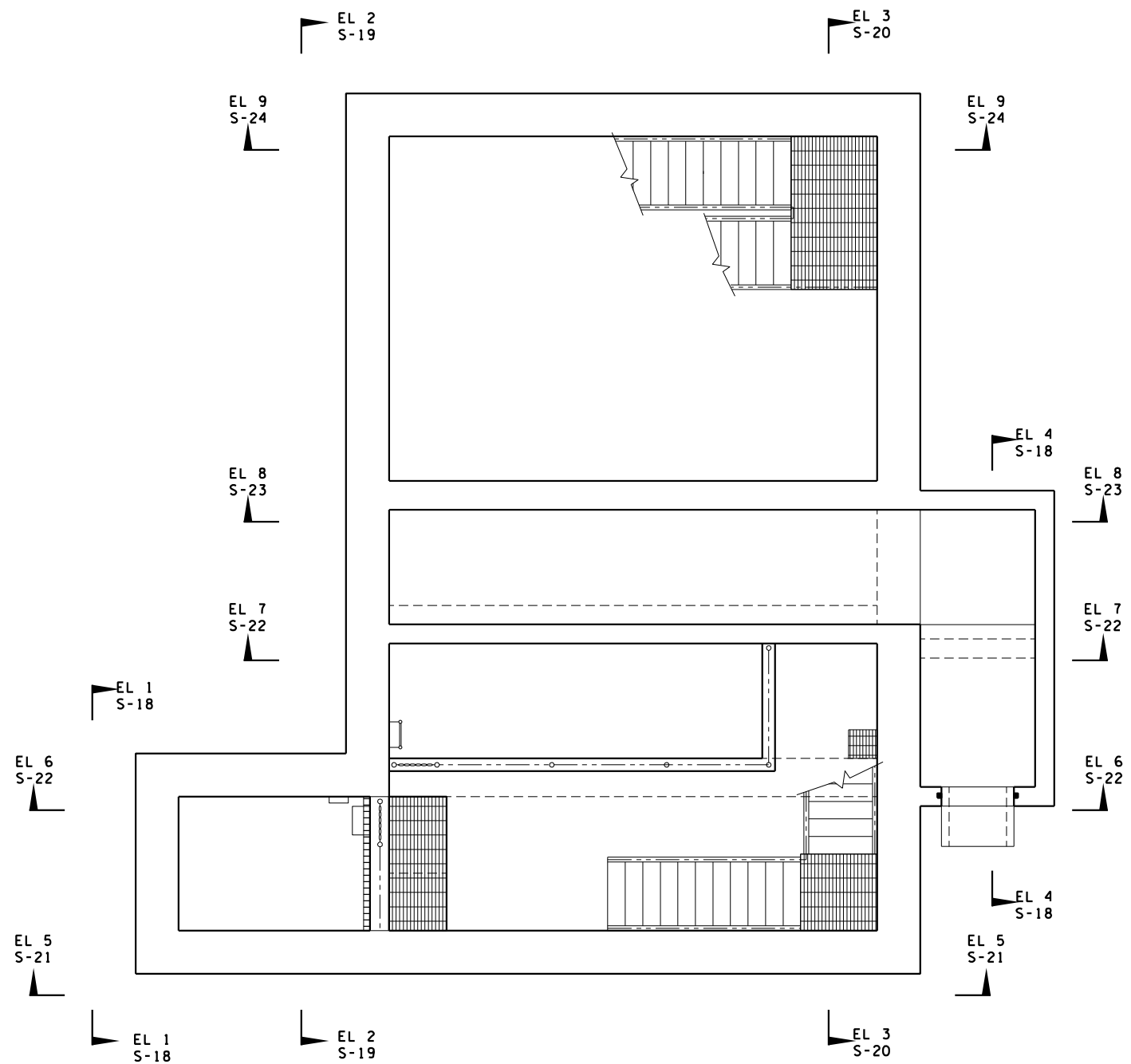
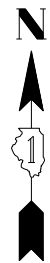
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DRAWN - KAG	REVISED -	
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PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
 STRUCTURAL
 SECTION

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	92
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CJUX(634)				



WALL REINFORCEMENT KEY PLAN

SCALE: 0 4 8 FT.

S-9

MODEL: 4/08/2016MMMS
FILE: 12/16/2016: SRELE5



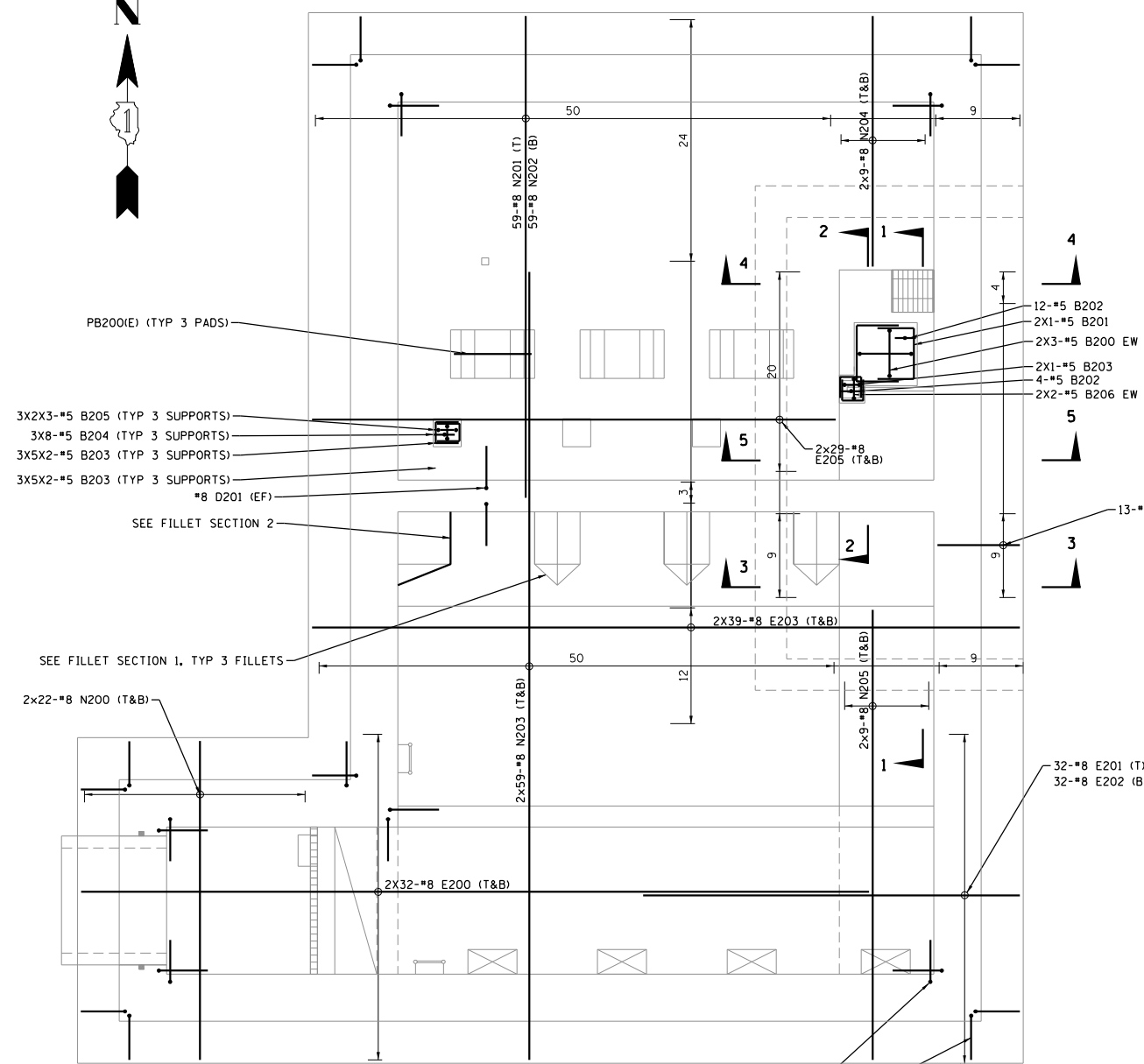
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PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
REINFORCEMENT DETAILS
WALLS KEY PLAN

SCALE: SHEET OF SHEETS STA. TO STA.

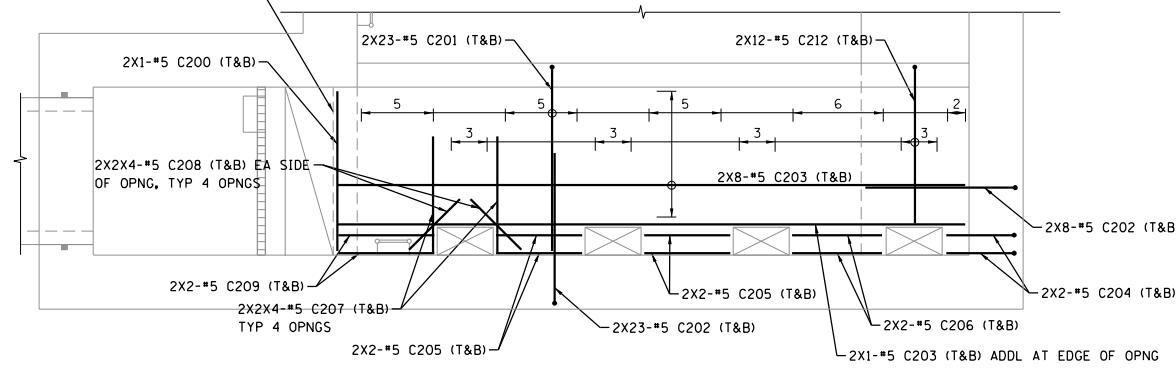
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)L-4	LAKE	186	93
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CJUX(634)				



NOTE: ALL REINFORCING BARS SPACED AT 6" OC UNLESS SHOWN OTHERWISE.

REINFORCEMENT IN WALL BELOW:
-2X4-#5 C210 HORIZ EF, LAP 1'-0"
INTO END WALLS
-2X10-#5 C211 VERT DOWELS EF

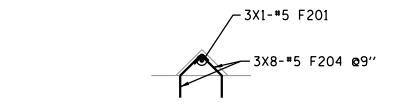
REINFORCEMENT PLAN EL 645.75



NOTE: ALL REINFORCING BARS SPACED AT 9" OC UNLESS SHOWN OTHERWISE.

REINFORCEMENT PLAN EL 649.50

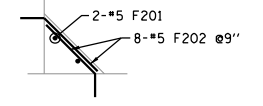
FILLET SECTION 1



BARS N201(E), N202(E), N203(E), N205(E), E200(E), E201(E), E202(E), E206(E)

BAR	a
N201(E)	22'-11"
N202(E)	20'-5"
N203(E)	37'-6"
N205(E)	21'-5"
E200(E)	37'-6"
E201(E)	17'-11"
E202(E)	15'-5"
E206(E)	3'-11"

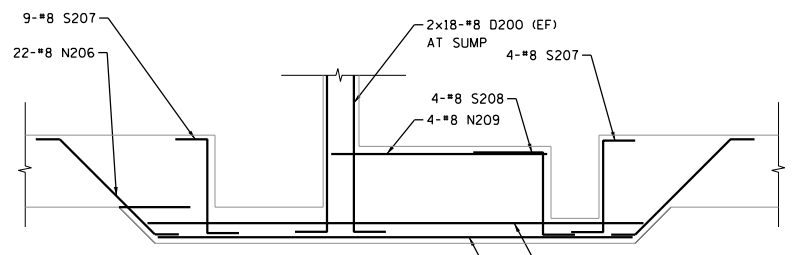
FILLET SECTION 2



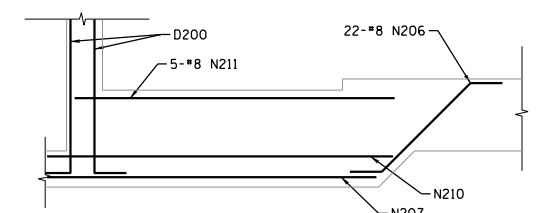
BARS D200(E), D201(E)

BAR	a
D200(E)	12'-9"
D201(E)	11'-3"

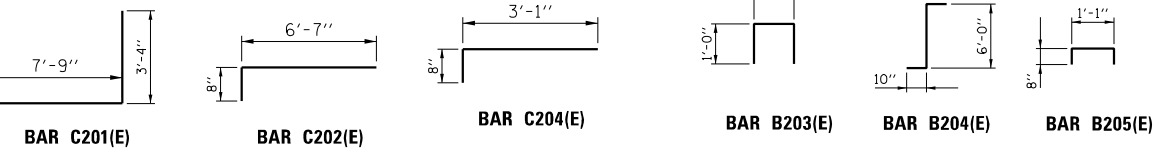
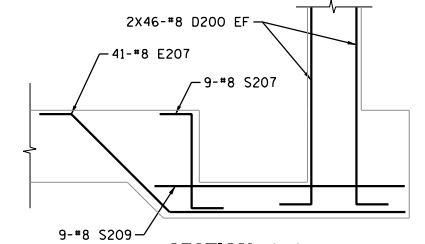
SECTION 1-1



SECTION 2-2



SECTION 3-3



BAR C201(E)

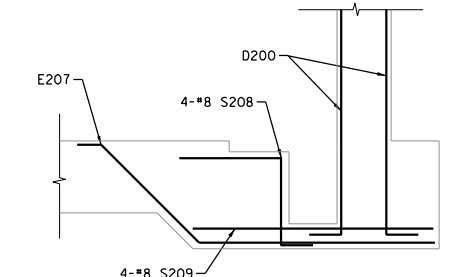
BAR C202(E)

BAR C204(E)

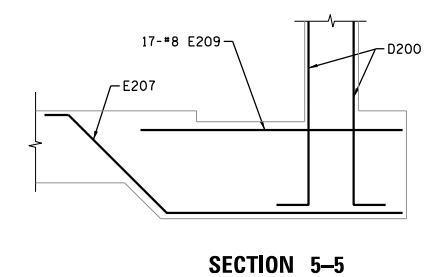
BAR B203(E)

BAR B204(E)

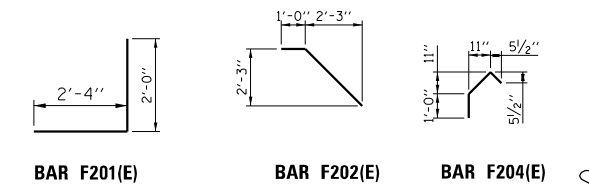
BAR B205(E)



SECTION 4-4



SECTION 5-5



BAR F201(E)

BAR F202(E)

BAR F204(E)

S-10

SCALE: 0 4 8 FT.

BILL OF MATERIALS

BAR	NO.	SIZE	LENGTH	SHAPE
B200(E)	6	#5	3'-5"	□
B201(E)	2	#5	8'-0"	□
B202(E)	16	#5	4'-3"	□
B203(E)	32	#5	3'-0"	□
B204(E)	24	#5	7'-8"	□
B205(E)	18	#5	2'-5"	□
B206(E)	4	#5	1'-8"	□
N200(E)	44	#8	17'-2"	□
N201(E)	59	#8	23'-11"	□
N202(E)	59	#8	21'-5"	□
N203(E)	118	#8	38'-6"	□
N204(E)	18	#8	13'-11"	□
N205(E)	18	#8	22'-5"	□
N206(E)	44	#8	7'-9"	□
N207(E)	22	#8	19'-9"	□
S207(E)	22	#8	6'-1"	□
S208(E)	8	#8	8'-10"	□
S209(E)	13	#8	10'-5"	□
N209(E)	4	#8	9'-2"	□
N210(E)	22	#8	21'-0"	□
N211(E)	5	#8	13'-6"	□
D200(E)	128	#8	13'-9"	□
D201(E)	614	#8	12'-3"	□
E200(E)	64	#8	38'-6"	□
E201(E)	32	#8	18'-11"	□
E202(E)	32	#8	16'-5"	□
E203(E)	78	#8	35'-8"	□
E205(E)	58	#8	26'-11"	□
E206(E)	13	#8	4'-11"	□
E207(E)	41	#8	16'-6"	□
E209(E)	17	#8	10'-11"	□
C200(E)	2	#5	6'-10"	□
C201(E)	46	#5	10'-11"	□
C202(E)	62	#5	7'-3"	□
C203(E)	18	#5	26'-2"	□
C204(E)	4	#5	3'-9"	□
C205(E)	8	#5	3'-7"	□
C206(E)	4	#5	3'-9"	□
C207(E)	16	#5	4'-10"	□
C208(E)	16	#5	3'-0"	□
C209(E)	4	#5	4'-1"	□
C210(E)	8	#5	9'-0"	□
C211(E)	20	#5	6'-6"	□
C212(E)	24	#5	9'-11"	□
F201(E)	5	#5	4'-4"	□
F202(E)	8	#5	5'-4"	□
F204(E)	24	#5	3'-0"	□
PB200(E)	105	#3	10'-0"	□

REINFORCEMENT BARS EPOXY COATED	POUNDS	79,128
CONCRETE STRUCTURES	CU YD	235

* QUANTITIES LISTED ARE FOR ESTIMATING PURPOSES ONLY. VERIFY FINAL REINFORCING LAYOUT WITH PUMP MFR.



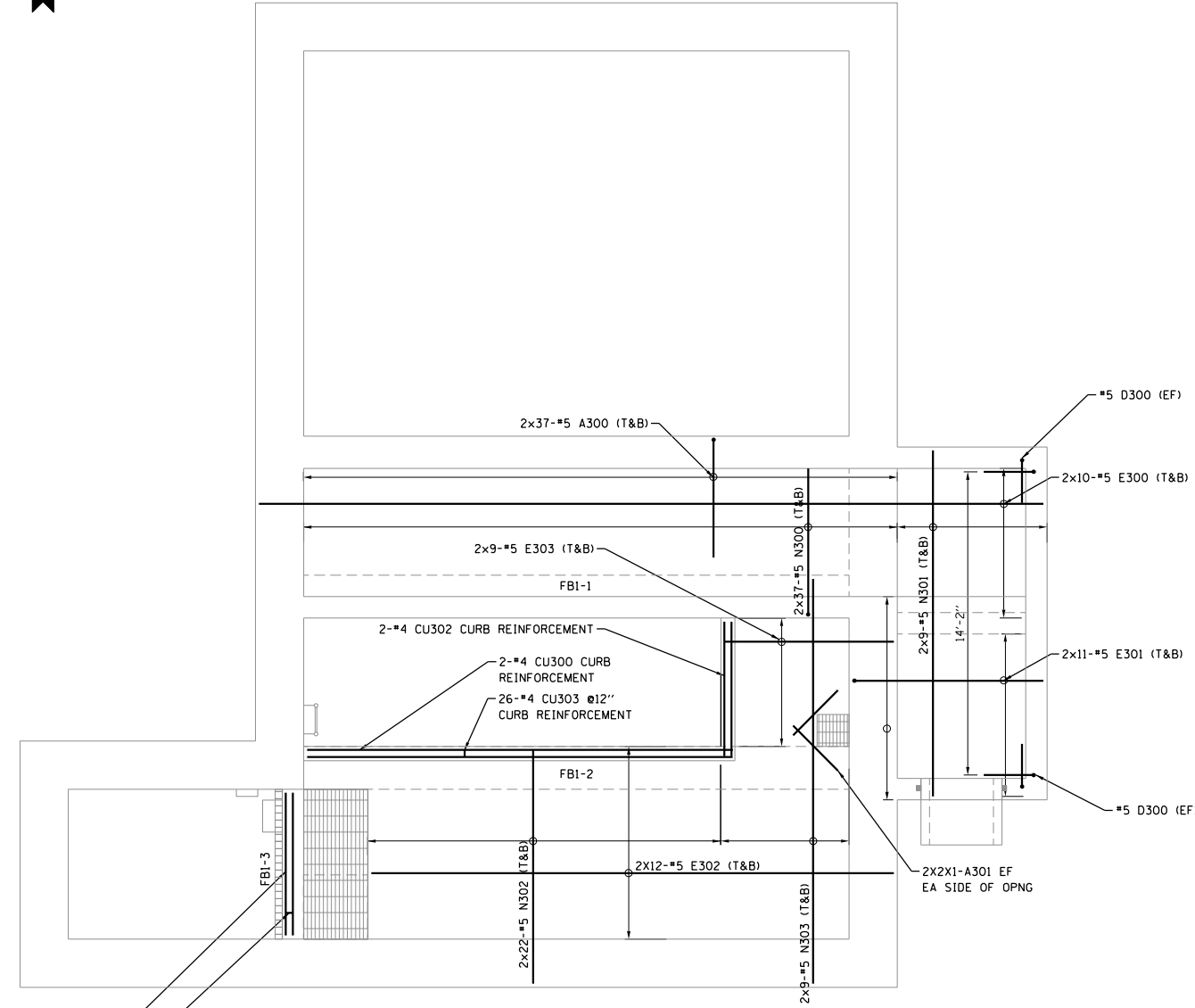
USER NAME	DESIGNED	REVISED
# SBREMER	- TJB	-
DRAWN	- KAG	-
CHECKED	- PJE	-
DATE	- 08-08-2024	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
REINFORCEMENT DETAILS
FLOOR SLAB PLAN EL 645.75**

SCALE: SHEET OF SHEETS STA. TO STA.

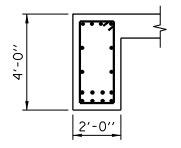
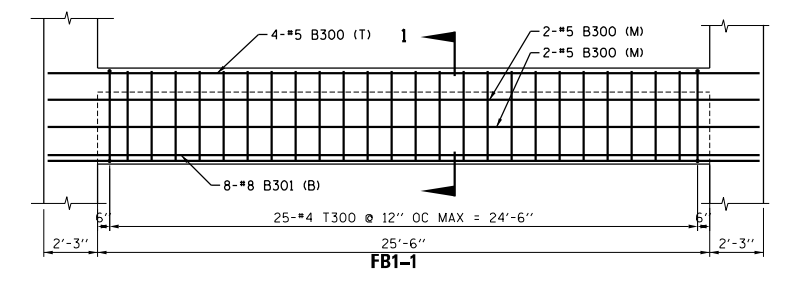
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)-L4	LAKE	186	94
CONTRACT NO. 62B66				
ILLINOIS		FED. AID PROJECT CUJ(634)		



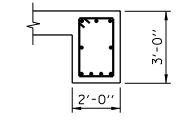
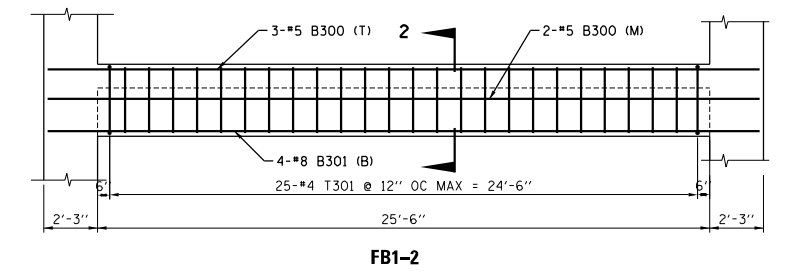
NOTE: ALL REINFORCING BARS SPACED AT 9" OC UNLESS SHOWN OTHERWISE.

REINFORCEMENT PLAN EL 662.00

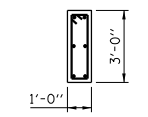
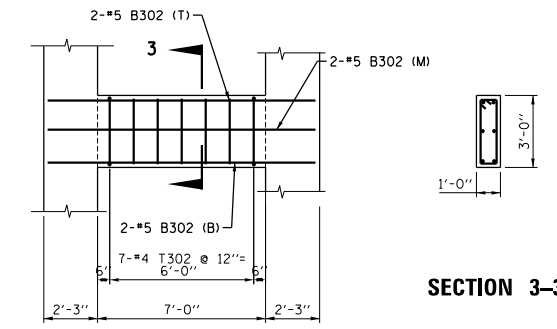
2-#4 CU301 CURB REINFORCEMENT
8-#4 CU303 CURB REINFORCEMENT



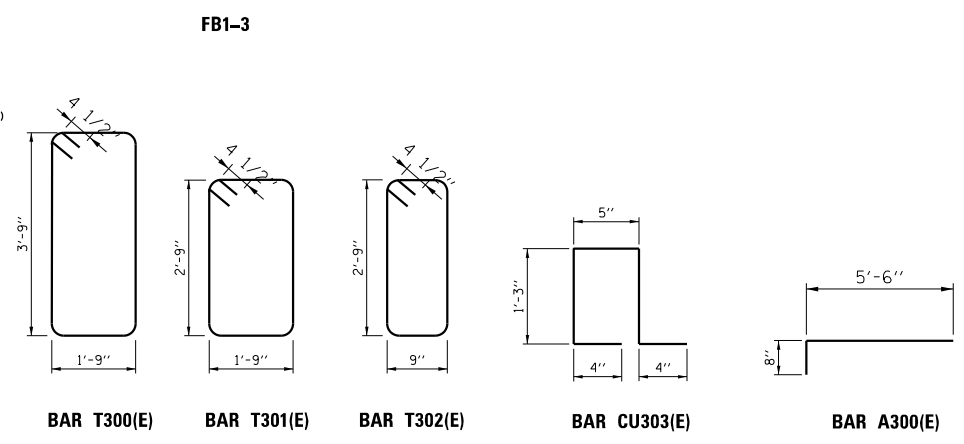
SECTION 1-1



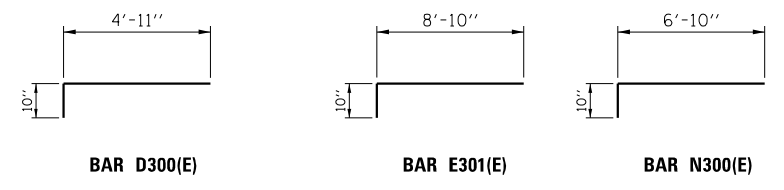
SECTION 2-2



SECTION 3-3



BAR T300(E) BAR T301(E) BAR T302(E) BAR CU303(E) BAR A300(E)



BAR D300(E) BAR E301(E) BAR N300(E)

BILL OF MATERIALS

BAR	NO.	SIZE	LENGTH	SHAPE
B300(E)	13	#5	29'-4"	□
B301(E)	12	#8	29'-4"	□
B302(E)	6	#5	10'-10"	□
T300(E)	25	#4	11'-9"	□
T301(E)	25	#4	9'-9"	□
T302(E)	7	#4	7'-9"	□
N300(E)	74	#5	7'-8"	□
N301(E)	18	#5	16'-2"	□
N302(E)	44	#5	10'-11"	□
N303(E)	18	#5	18'-11"	□
E300(E)	20	#5	36'-8"	□
E301(E)	22	#5	9'-8"	□
E302(E)	24	#5	24'-5"	□
E303(E)	18	#5	7'-11"	□
CU300(E)	2	#4	19'-11"	□
CU301(E)	2	#4	6'-8"	□
CU302(E)	2	#4	6'-5"	□
CU303(E)	34	#4	3'-7"	□
A300(E)	74	#5	6'-2"	□
A301(E)	4	#5	3'-0"	□
D300(E)	64	#5	5'-9"	□

REINFORCEMENT BARS EPOXY COATED	POUNDS	6,296
CONCRETE STRUCTURES	CU YD	31

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MODELS: S:\MODEL\BMM\BMS FILE: BMM\BMS_SELETS



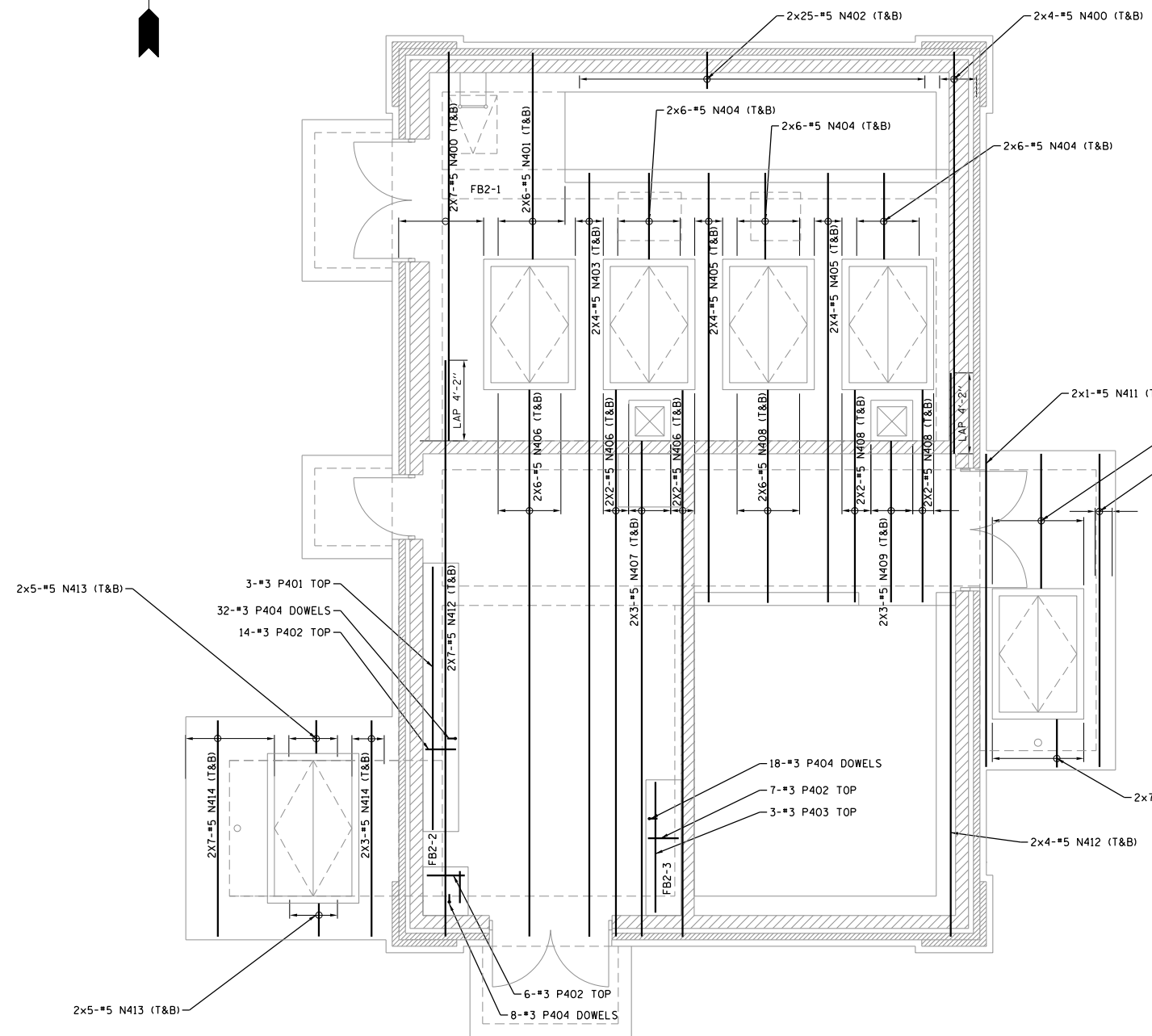
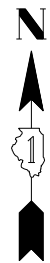
USER NAME = SBREMER	DESIGNED - TJB	REVISED -
PLOT SCALE = AS NOTED	DRAWN - KAG	REVISED -
PLOT DATE = 08/09/24	CHECKED - PJE	REVISED -
	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
REINFORCEMENT DETAILS
FLOOR SLAB PLAN AT EL 662.00**

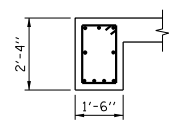
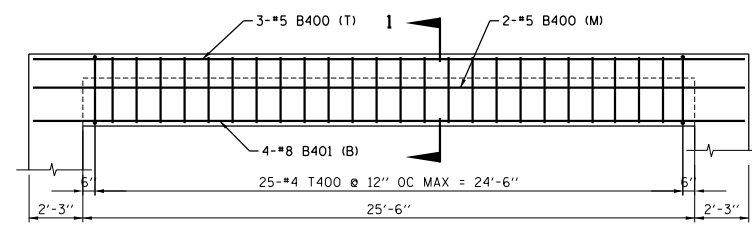
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE. 346	SECTION (125S-1)4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 95
			CONTRACT NO. 62B66	
ILLINOIS FED. AID PROJECT CUJX(634)				

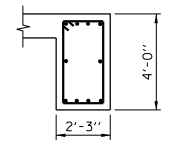
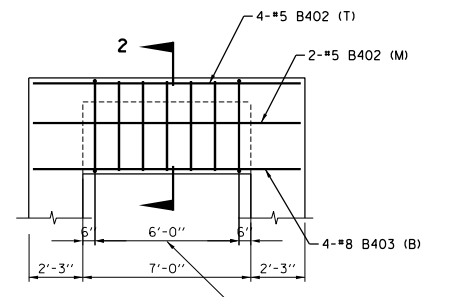


NOTE: ALL REINFORCING BARS SPACED AT 9" OC UNLESS SHOWN OTHERWISE.

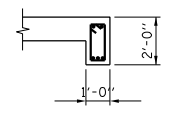
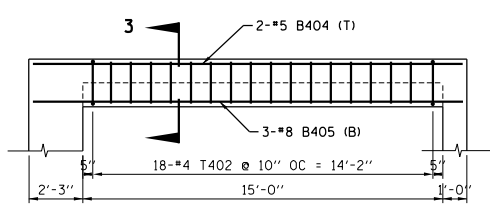
NS REINFORCEMENT PLAN EL 676.00



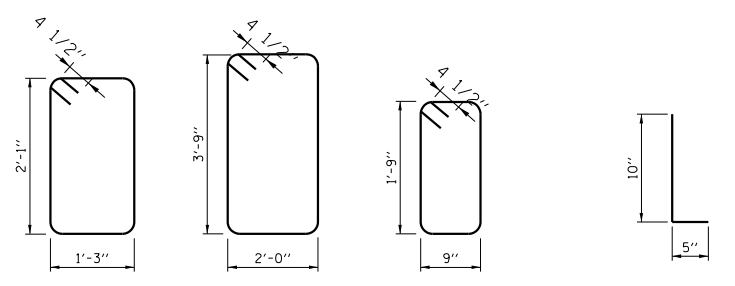
SECTION 1-1



SECTION 2-2



SECTION 3-3



BAR T400(E) BAR T401(E) BAR T402(E) BAR P404(E)

BILL OF MATERIALS

BAR	NO.	SIZE	LENGTH	SHAPE
B400(E)	5	#5	29'-4"	□
B401(E)	4	#8	29'-4"	□
B402(E)	6	#5	10'-10"	□
B403(E)	4	#8	10'-10"	□
B404(E)	2	#5	17'-7"	□
B405(E)	3	#8	17'-7"	□
T400(E)	25	#4	7'-5"	□
T401(E)	7	#4	12'-3"	□
T402(E)	18	#4	5'-9"	□
N400(E)	22	#5	20'-1"	□
N401(E)	12	#5	10'-8"	□
N402(E)	52	#5	1'-11"	□
N403(E)	8	#5	39'-5"	□
N404(E)	36	#5	4'-6"	□
N405(E)	16	#5	22'-2"	□
N406(E)	20	#5	28'-3"	□
N407(E)	6	#5	25'-7"	□
N408(E)	20	#5	11'-0"	□
N409(E)	6	#5	8'-4"	□
N410(E)	14	#5	6'-11"	□
N411(E)	6	#5	16'-2"	□
N412(E)	22	#5	29'-9"	□
N413(E)	20	#5	1'-8"	□
N414(E)	20	#5	11'-2"	□
N415(E)	14	#5	2'-6"	□
E400(E)	30	#5	29'-8"	□
E401(E)	12	#5	8'-3"	□
E402(E)	18	#5	4'-2"	□
E403(E)	6	#5	11'-8"	□
E404(E)	6	#5	10'-4"	□
E405(E)	6	#5	3'-4"	□
E406(E)	20	#5	37'-0"	□
E407(E)	16	#5	14'-11"	□
E408(E)	12	#5	26'-0"	□
E409(E)	20	#5	4'-0"	□
E410(E)	20	#5	17'-2"	□
E411(E)	8	#5	9'-9"	□
E412(E)	6	#5	18'-11"	□
E413(E)	54	#5	1'-10"	□
E414(E)	18	#5	2'-5"	□
CU400(E)	2	#4	19'-10"	□
CU401(E)	2	#4	8'-2"	□
CU402(E)	24	#3	3'-7"	L
CU403(E)	4	#3	5'-6"	□
CU404(E)	30	#4	3'-7"	□
A400(E)	48	#5	3'-0"	□
A401(E)	10	#5	31'-4"	□
A402(E)	8	#5	18'-8"	□
A403(E)	8	#5	19'-11"	□
A404(E)	20	#5	17'-10"	□
A405(E)	16	#5	12'-10"	□
A406(E)	16	#5	17'-10"	□
A407(E)	10	#5	10'-7"	□
A408(E)	10	#5	12'-8"	□
A409(E)	8	#5	7'-8"	□
A410(E)	4	#5	22'-7"	□
P401(N)	3	#3	13'-7"	□
P402(E)	28	#3	1'-7"	□
P403(N)	3	#3	6'-9"	□
P404(N)	58	#3	1'-3"	L
REINFORCEMENT BARS EPOXY COATED			POUNDS	10,546
CONCRETE STRUCTURES			CU YD	56

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MODELS: S:\08\EL676\NS REINFORCEMENT DETAILS



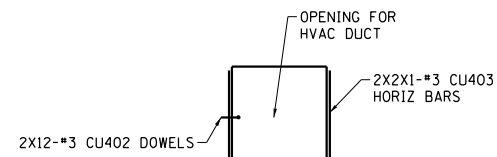
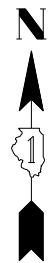
USER NAME = SBREMER	DESIGNED - TJB	REVISED -
PLOT SCALE = AS NOTED	DRAWN - KAG	REVISED -
PLOT DATE = 08/09/24	CHECKED - PJE	REVISED -
	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

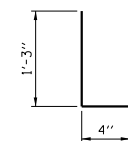
PUMP STATION NO. 37
REINFORCEMENT DETAILS
FLOOR SLAB PLAN AT 676.00

SCALE: SHEET OF SHEETS STA. TO STA.

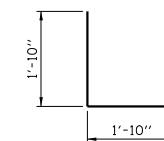
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	96
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CJUX(634)				



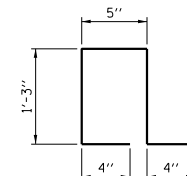
CURB REINFORCEMENT DETAIL
(TYP 2 OPNGS)



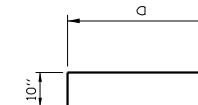
BAR CU402(E)



BAR cu403(E)

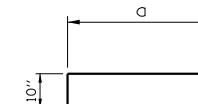


BAR CU404(E)



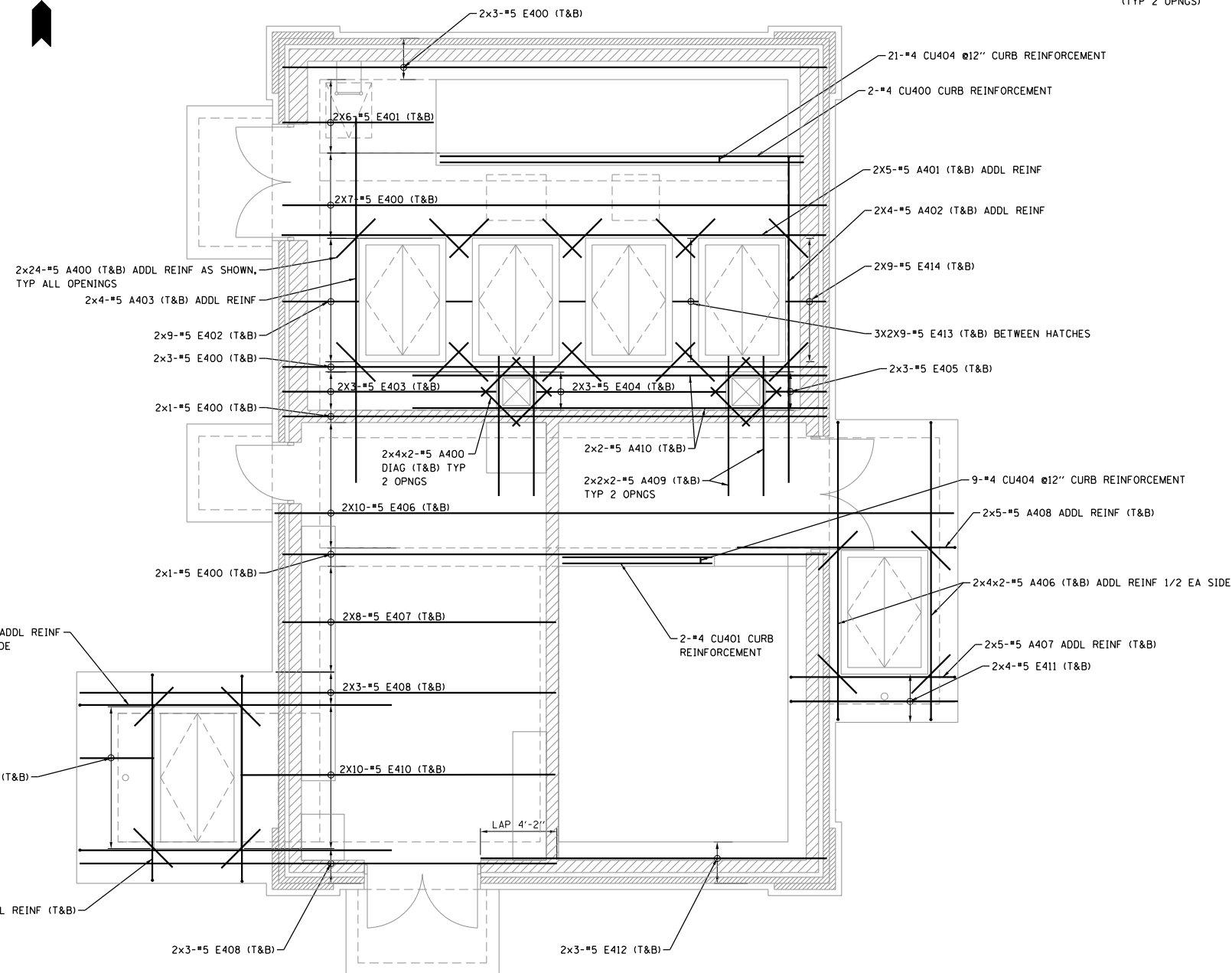
BARS A401(E), A405(E), A406(E), A407(E)

BAR	a
A401(E)	29'-8"
A405(E)	11'-2"
A406(E)	16'-2"
A407(E)	8'-11"



BARS A402(E), A404(E), A408(E)

BAR	a
A402(E)	17'-9"
A404(E)	17'-0"
A408(E)	11'-10"
E411(E)	8'-11"



E/W REINFORCEMENT PLAN EL 676.00

BILL OF MATERIALS

BAR	NO.	SIZE	LENGTH	SHAPE
B400(E)	5	#5	29'-4"	U
B401(E)	4	#8	29'-4"	U
B402(E)	6	#5	10'-10"	U
B403(E)	4	#8	10'-10"	U
B404(E)	2	#5	17'-7"	U
B405(E)	3	#8	17'-7"	U
T400(E)	25	#4	7'-5"	□
T401(E)	7	#4	12'-3"	□
T402(E)	18	#4	5'-9"	□
N400(E)	22	#5	20'-1"	U
N401(E)	12	#5	10'-8"	U
N402(E)	52	#5	1'-11"	U
N403(E)	8	#5	39'-5"	U
N404(E)	36	#5	4'-6"	U
N405(E)	16	#5	22'-2"	U
N406(E)	20	#5	28'-3"	U
N407(E)	6	#5	25'-7"	U
N408(E)	20	#5	11'-0"	U
N409(E)	6	#5	8'-4"	U
N410(E)	14	#5	6'-11"	U
N411(E)	6	#5	16'-2"	U
N412(E)	22	#5	29'-9"	U
N413(E)	20	#5	1'-8"	U
N414(E)	20	#5	11'-2"	U
N415(E)	14	#5	2'-6"	U
E400(E)	30	#5	29'-8"	U
E401(E)	12	#5	8'-3"	U
E402(E)	18	#5	4'-2"	U
E403(E)	6	#5	11'-8"	U
E404(E)	6	#5	10'-4"	U
E405(E)	6	#5	3'-4"	U
E406(E)	20	#5	37'-0"	U
E407(E)	16	#5	14'-11"	U
E408(E)	12	#5	26'-0"	U
E409(E)	20	#5	4'-0"	U
E410(E)	20	#5	17'-2"	U
E411(E)	8	#5	9'-9"	U
E412(E)	6	#5	18'-11"	U
E413(E)	54	#5	1'-6"	U
E414(E)	18	#5	2'-3"	U
CU400(E)	2	#4	19'-10"	U
CU401(E)	2	#4	8'-2"	U
CU402(E)	24	#3	3'-7"	L
CU403(E)	4	#3	5'-6"	□
CU404(E)	30	#4	3'-7"	□
A400(E)	48	#5	3'-0"	U
A401(E)	10	#5	31'-4"	U
A402(E)	8	#5	18'-8"	U
A403(E)	8	#5	19'-11"	U
A404(E)	20	#5	17'-10"	U
A405(E)	16	#5	12'-10"	U
A406(E)	16	#5	17'-10"	U
A407(E)	10	#5	10'-7"	U
A408(E)	10	#5	12'-8"	U
A409(E)	8	#5	7'-8"	U
A410(E)	4	#5	22'-7"	U
P401(N)	3	#3	13'-7"	U
P402(E)	28	#3	1'-7"	U
P403(N)	3	#3	6'-9"	U
P404(N)	58	#3	1'-3"	L
REINFORCEMENT BARS EPOXY COATED			POUNDS	10,546
CONCRETE STRUCTURES			CU YD	56

NOTE: ALL REINFORCING BARS SPACED AT 9" OC UNLESS SHOWN OTHERWISE.

S-13

SCALE: 0 4 8 FT.

MODEL: S400REINMMMS FILE: ILMMS_SLEELS



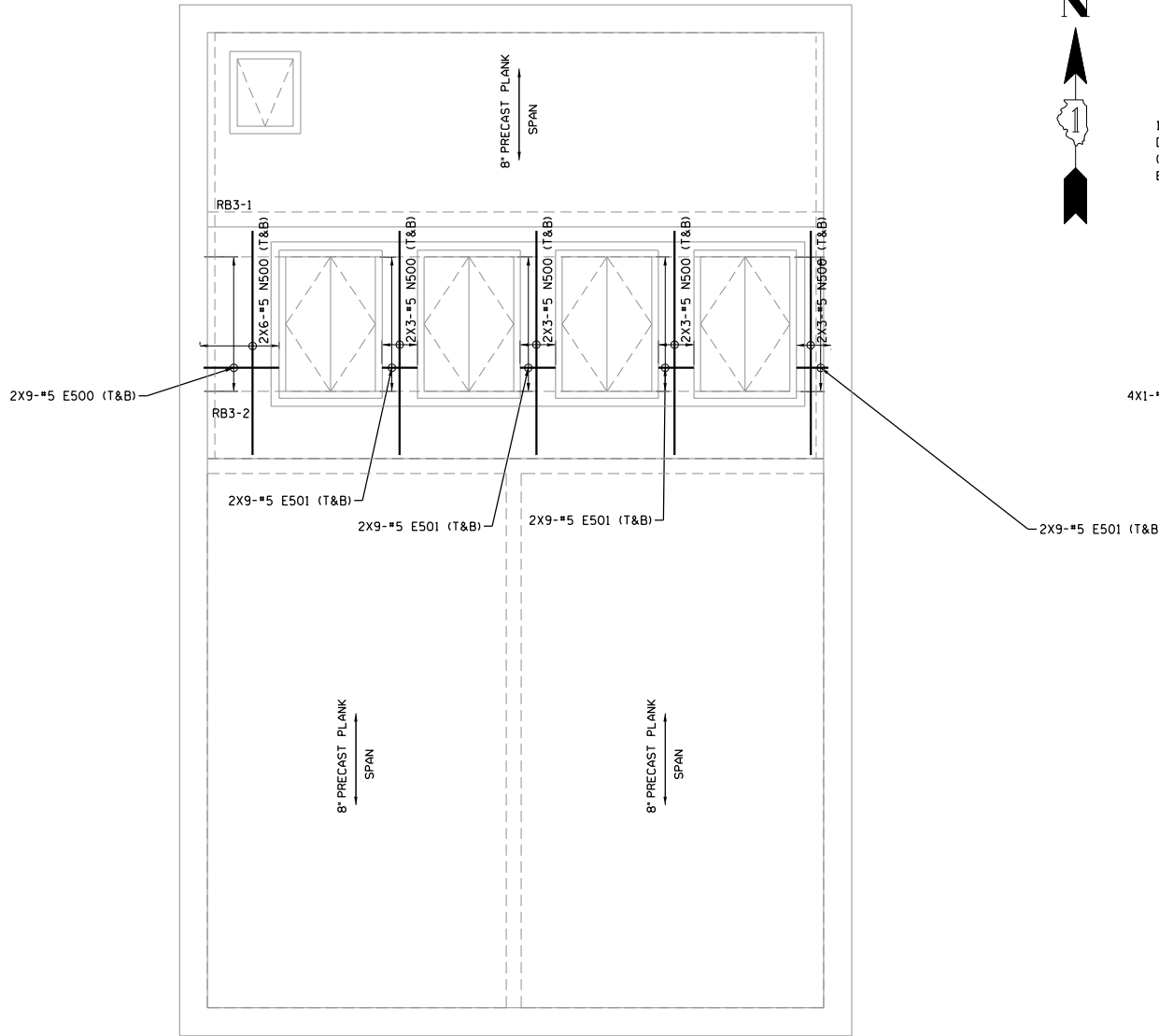
USER NAME = SBREMER	DESIGNED - TJB	REVISED -
DRAWN - KAG	REVISIONS -	
PLOT SCALE = AS NOTED	CHECKED - PJE	REVISED -
PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

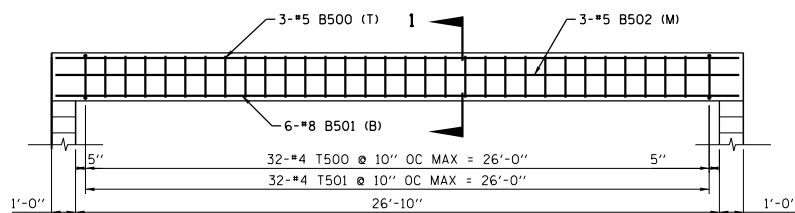
PUMP STATION NO. 37
REINFORCEMENT DETAILS
FLOOR SLAB PLAN AT 676.00

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)4	LAKE	186	97
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CUJ(634)				



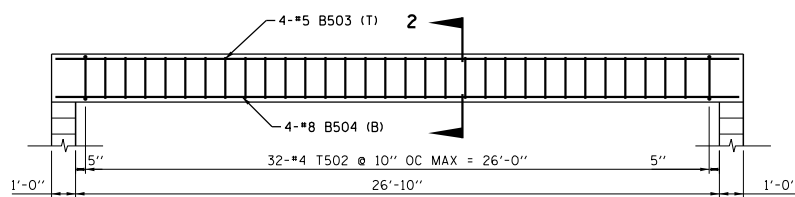
NOTE: ALL REINFORCING BARS SPACED AT 9" OC UNLESS SHOWN OTHERWISE.
BEAM REINFORCEMENT PLAN EL 691.33



SECTION 1-1

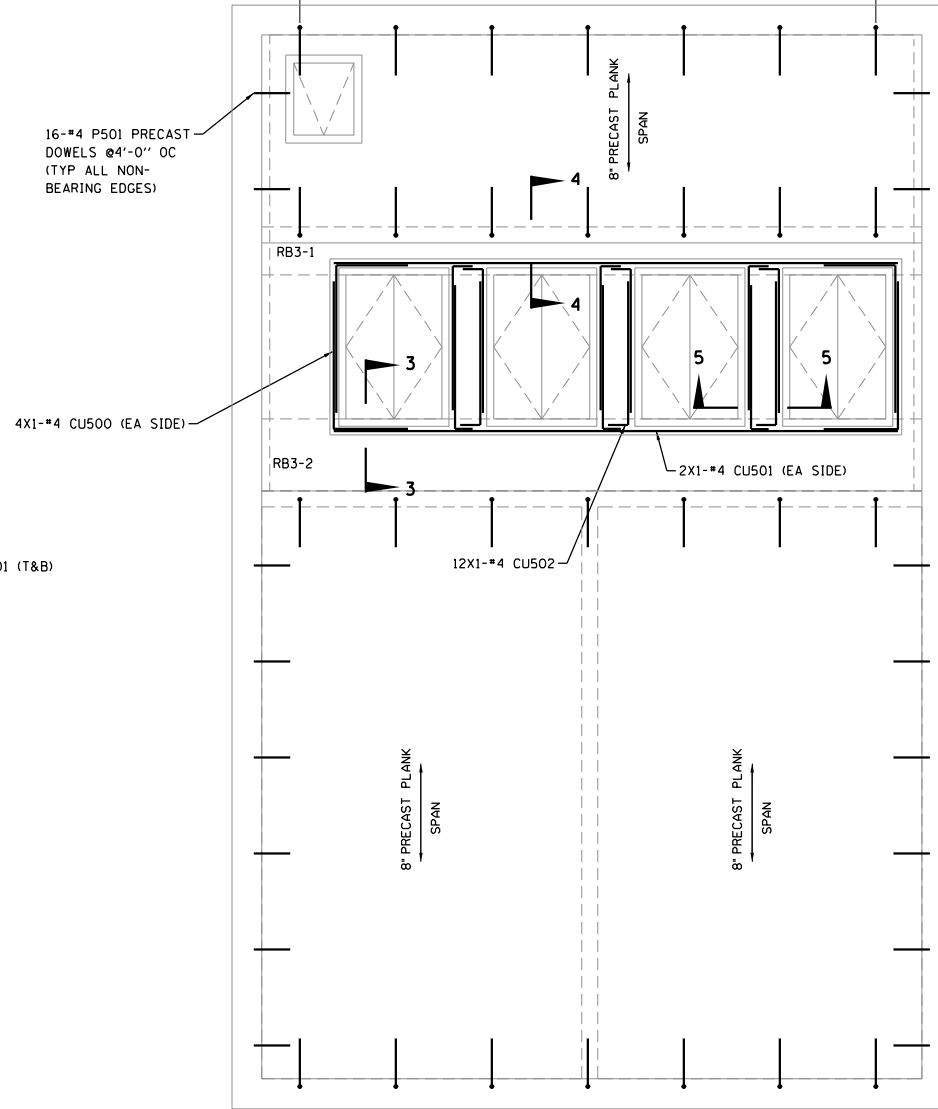
BAR T500(E)

BAR T501(E)

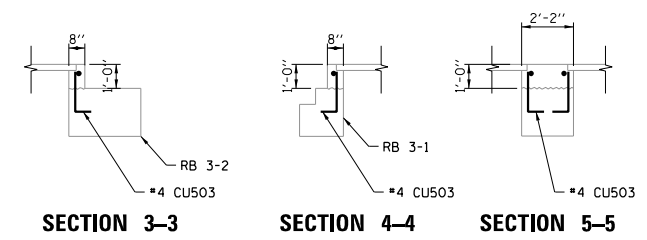


SECTION 2-2

BAR T502(E)



NOTE: ALL REINFORCING BARS SPACED AT 12" OC UNLESS SHOWN OTHERWISE.
CURB REINFORCEMENT PLAN EL 692.33



BAR CU500(E)

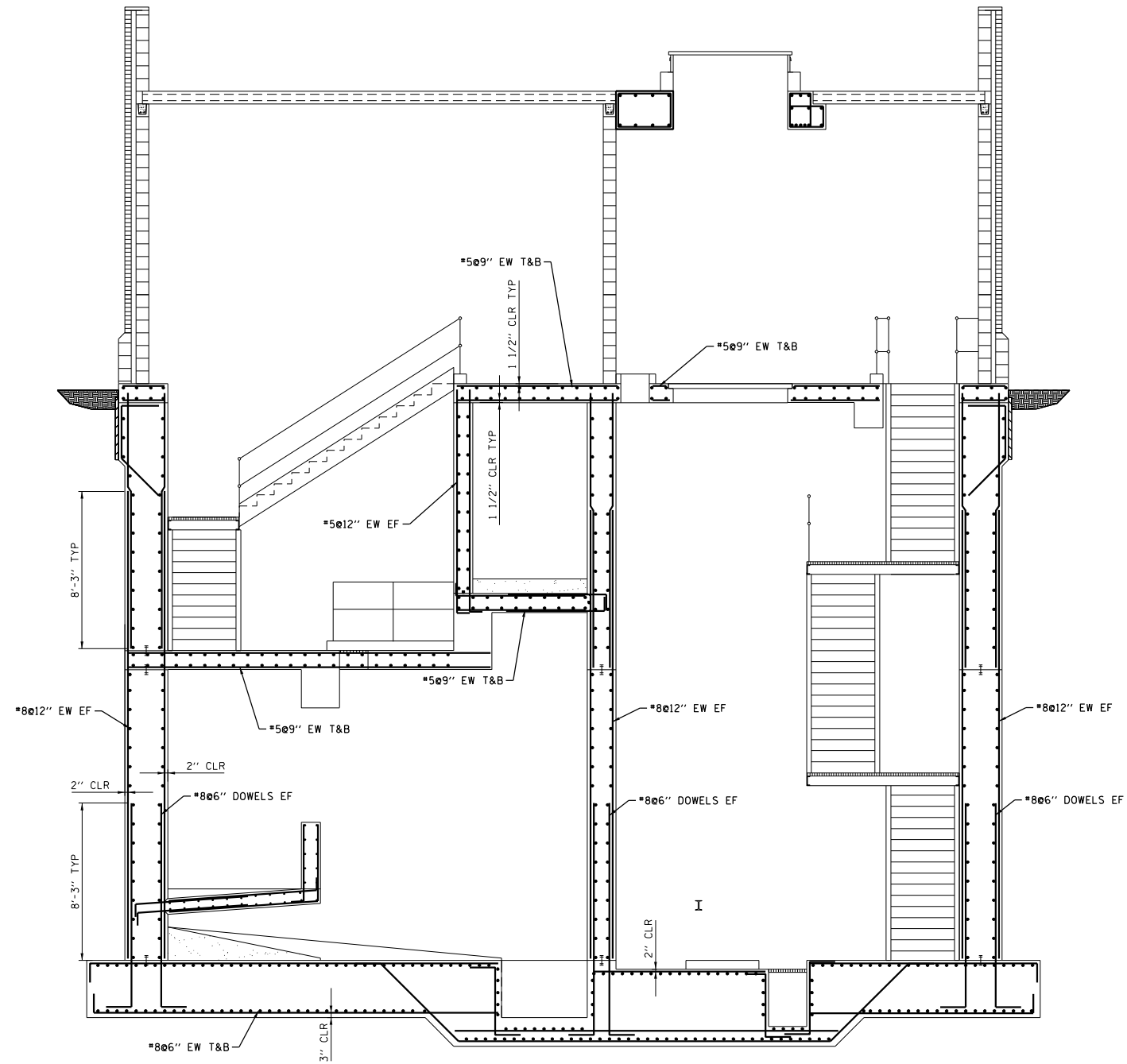
BAR CU502(E)

BAR CU503(E)

BAR P500(E)

BILL OF MATERIALS

BAR	NO.	SIZE	LENGTH	SHAPE	
B500(E)	3	#5	28'-6"		
B501(E)	6	#8	28'-6"		
B502(E)	3	#5	28'-6"		
B503(E)	4	#5	28'-6"		
B504(E)	4	#8	28'-6"		
T500(E)	32	#4	6'-5"		
T501(E)	32	#4	6'-5"		
T502(E)	32	#4	9'-9"		
N500(E)	36	#5	10'-0"		
E500(E)	18	#5	3'-5"		
E501(E)	72	#5	1'-10"		
CU500(E)	4	#4	9'-10"		
CU501(E)	2	#4	23'-6"		
CU502(E)	12	#4	7'-0"		
CU503(E)	106	#4	2'-8"		
P500(E)	28	#4	2'-8"		
P501(E)	16	#4	1'-4"		
			REINFORCEMENT BARS EPOXY COATED	POUNDS	2,505
			CONCRETE STRUCTURES	CU YD	18



SECTION A-A

S-15

SCALE: 0 4 8 FT.

MODEL: S:\MODEL\NAMES FILE: NAME: SELELS



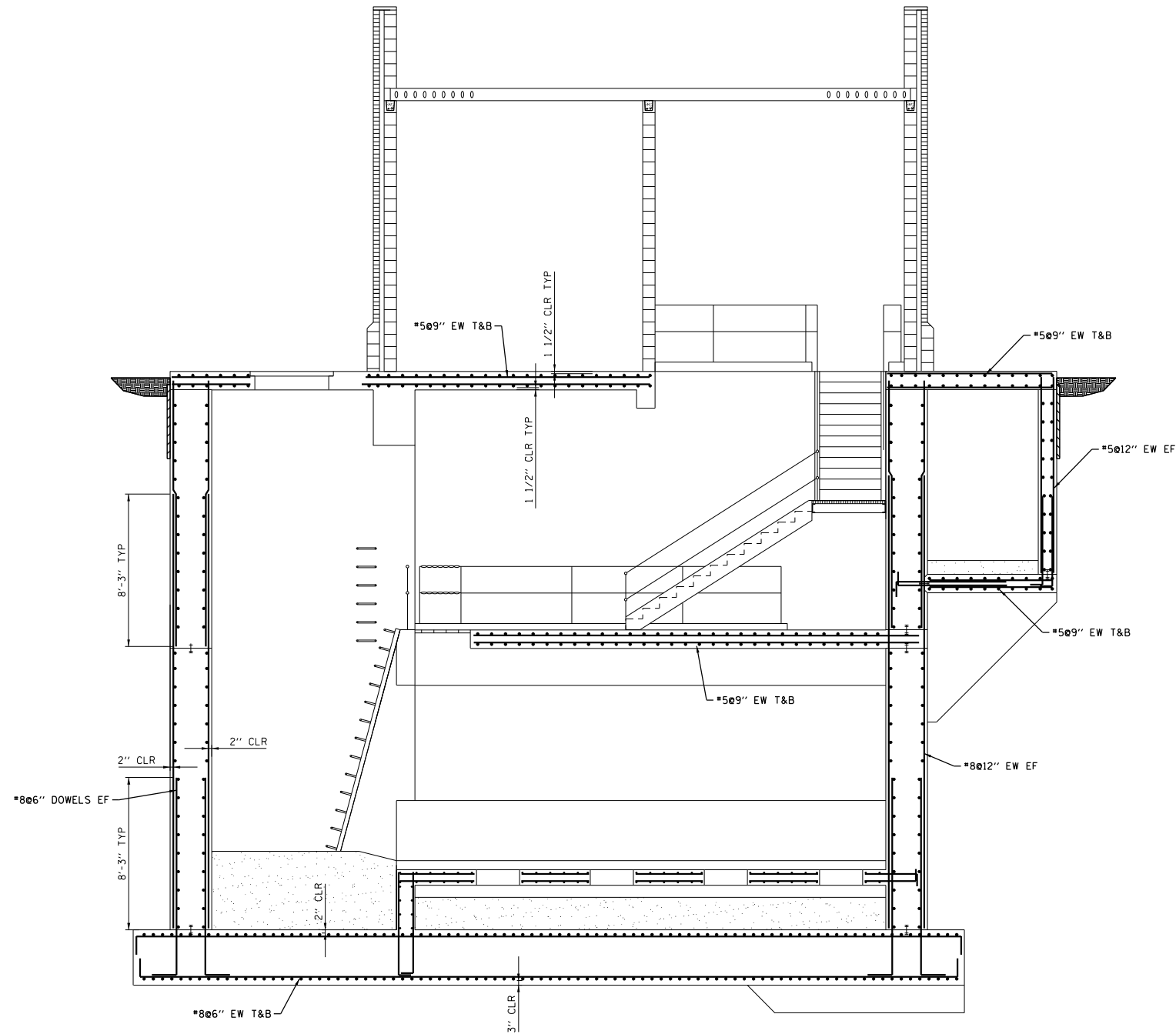
USER NAME = SBREMER	DESIGNED - TJB	REVISED -
PLOT SCALE = AS NOTED	DRAWN - KAG	REVISED -
PLOT DATE = 08/09/24	CHECKED - PJE	REVISED -
	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
REINFORCEMENT DETAILS
SECTION A-A

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	99
CONTRACT NO. 62B66				
ILLINOIS		FED. AID PROJECT CBJX(634)		



SECTION B-B

S-16

SCALE: 0 4 8 FT.

MODEL: SMOBELNAMES
FILE: NAME: SELELS



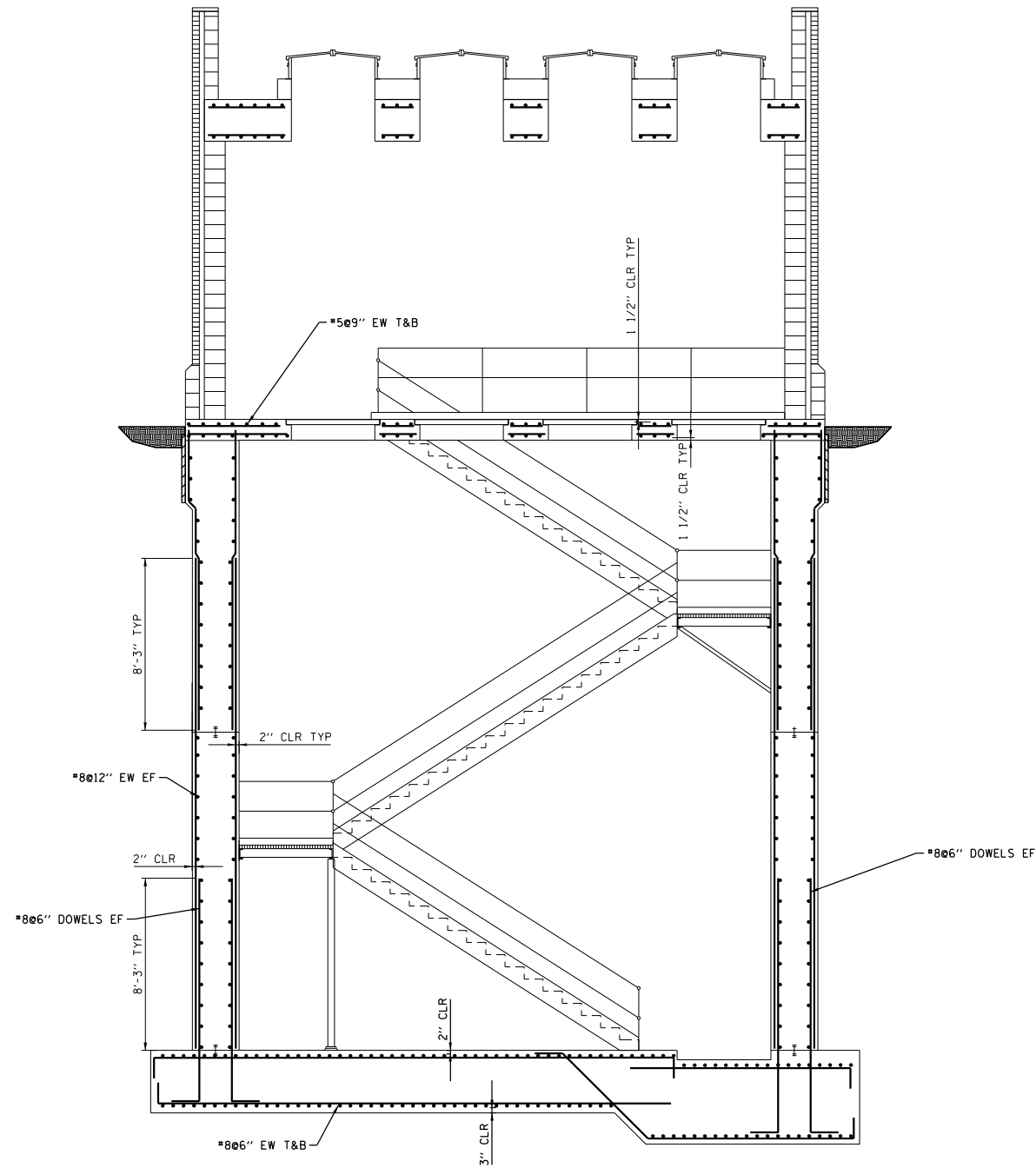
USER NAME = SBREMER	DESIGNED - TJB	REVISED -
PLOT SCALE = AS NOTED	DRAWN - KAG	REVISED -
PLOT DATE = 08/09/24	CHECKED - PJE	REVISED -
	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
REINFORCEMENT DETAILS
SECTION B-B

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	100
CONTRACT NO. 62B66				
ILLINOIS		FED. AID PROJECT CBJX(634)		



SECTION C-C

S-17

SCALE: 0 4 8 FT.

MODEL: S:\MODELS\MAMES FILE: MAMES_SHEETS



USER NAME = SBREMER	DESIGNED - TJB	REVISED -
PLOT SCALE = AS NOTED	DRAWN - KAG	REVISED -
PLOT DATE = 08/09/24	CHECKED - PJE	REVISED -
	DATE - 08-08-2024	REVISED -

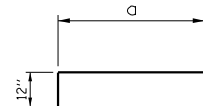
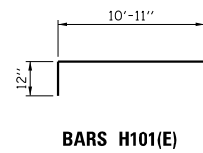
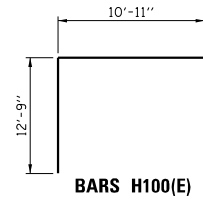
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
REINFORCEMENT DETAILS
SECTION C-C

SCALE: SHEET OF SHEETS STA. TO STA.

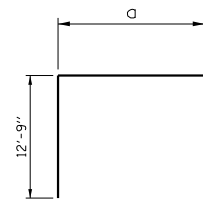
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	101
CONTRACT NO. 62B66				
ILLINOIS		FED. AID PROJECT CRJX(634)		

LIST 1	LIST 2	LIST 3	LIST 4
4-#8 V102	4-#8 V105	4-#8 H102	4-#8 H108
4-#8 V103	4-#8 V106	4-#8 H103	4-#8 H109
4-#8 V104	4-#8 V107	4-#8 H104	4-#8 H110
4-#8 V108		4-#8 H105	4-#8 H111
4-#8 V109		4-#8 H106	4-#8 H112
2-#8 V110		4-#8 H107	4-#8 H113



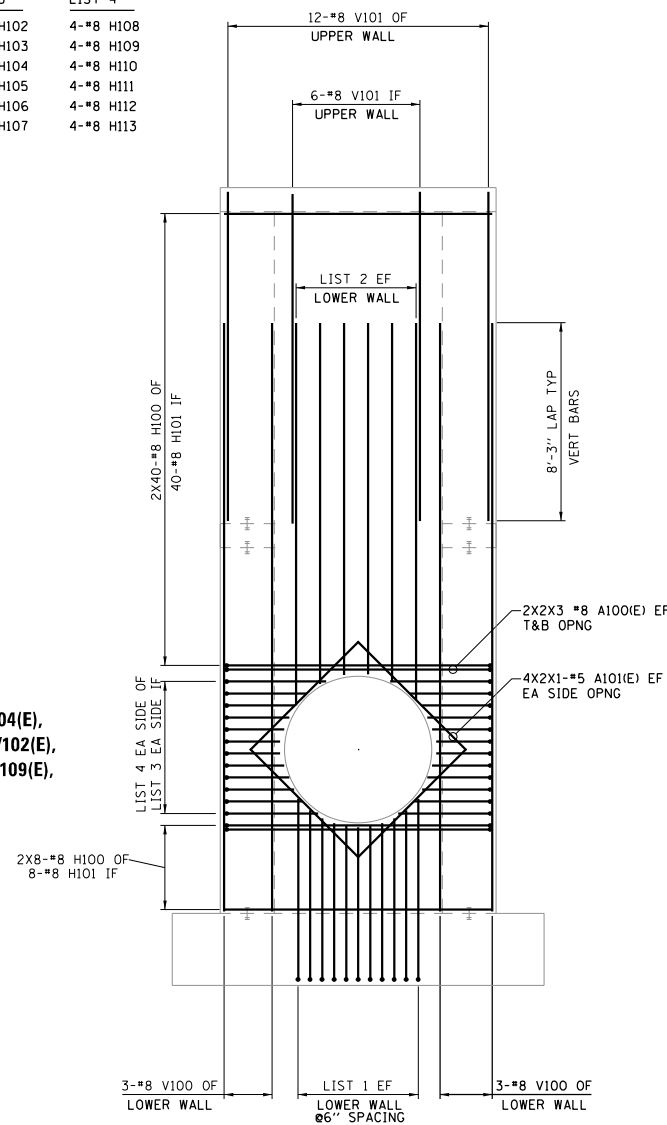
BARS H102(E), H103(E), H104(E), H105(E), H106(E), H107(E), V102(E), V103(E), V104(E), V108(E), V109(E), V110(E)

BAR	a
H102(E)	4'-3"
H103(E)	3'-5"
H104(E)	2'-11"
H105(E)	2'-8"
H106(E)	2'-6"
H107(E)	2'-4"
V102(E)	7'-6"
V103(E)	7'-0"
V104(E)	6'-9"
V108(E)	6'-6"
V109(E)	6'-5"
V110(E)	6'-4"



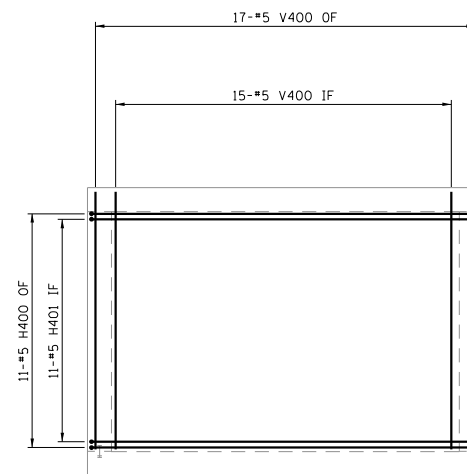
BARS H108(E), H109(E), H110(E), H111(E), H112(E), H113(E)

BAR	a
H108(E)	4'-3"
H109(E)	3'-5"
H110(E)	2'-11"
H111(E)	2'-8"
H112(E)	2'-6"
H113(E)	2'-4"



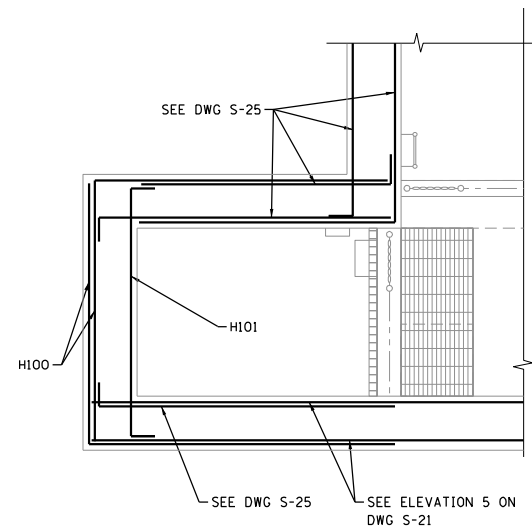
NOTES: HORIZONTAL WALL REINFORCEMENT SPACED AT 6" O.C. UNLESS NOTED OTHERWISE
VERTICAL WALL REINFORCEMENT SPACED AT 12" O.C. UNLESS NOTED OTHERWISE

ELEVATION 1

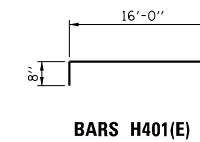
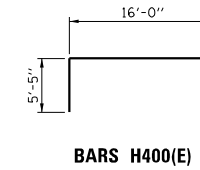


NOTE: WALL REINFORCEMENT SPACED AT 12" O.C. UNLESS NOTED OTHERWISE

ELEVATION 4



PLAN-TYPICAL HORIZONTAL BAR LAYOUT



BILL OF MATERIALS

BAR	NO.	SIZE	LENGTH	SHAPE
V100(E)	6	#8	24'-6"	
V101(E)	18	#8	13'-9"	
V102(E)	4	#8	8'-6"	
V103(E)	4	#8	8'-0"	
V104(E)	4	#8	7'-9"	
V105(E)	4	#8	15'-11"	
V106(E)	4	#8	15'-0"	
V107(E)	4	#8	14'-8"	
V108(E)	4	#8	7'-6"	
V109(E)	4	#8	7'-5"	
V110(E)	2	#8	7'-4"	
H100(E)	96	#8	23'-8"	
H101(E)	48	#8	12'-11"	
H102(E)	4	#8	5'-3"	
H103(E)	4	#8	4'-5"	
H104(E)	4	#8	3'-11"	
H105(E)	4	#8	3'-8"	
H106(E)	4	#8	3'-6"	
H107(E)	4	#8	3'-4"	
H108(E)	4	#8	17'-0"	
H109(E)	4	#8	16'-2"	
H110(E)	4	#8	15'-8"	
H111(E)	4	#8	15'-5"	
H112(E)	4	#8	15'-3"	
H113(E)	4	#8	15'-1"	
A100(E)	12	#8	11'-2"	
A101(E)	8	#5	6'-5"	
V400(E)	32	#5	10'-9"	
H400(E)	22	#5	21'-5"	
H401(E)	11	#5	17'-4"	
REINFORCEMENT BARS EPOXY COATED			POUNDS	12,447
CONCRETE STRUCTURES			CU YD	33

S-18

SCALE: 0 4 8 FT.

MODEL: S400REIN.DWG
FILE NAME: S400REIN.DWG



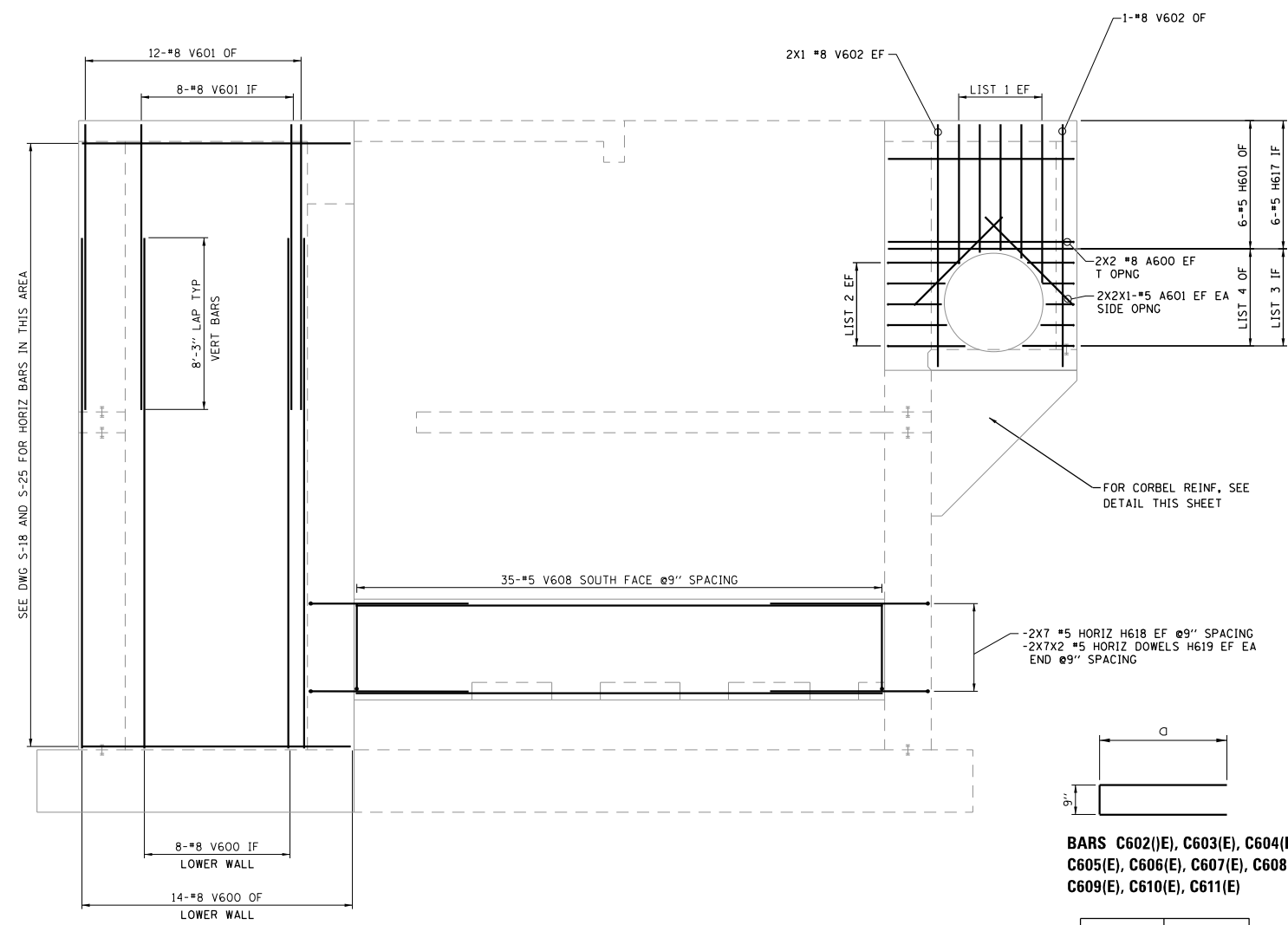
USER NAME = SBREMER	DESIGNED - TJB	REVISED -
PLOT SCALE = AS NOTED	DRAWN - KAG	REVISED -
PLOT DATE = 08/09/24	CHECKED - PJE	REVISED -
	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
REINFORCEMENT DETAILS
ELEVATION**

SCALE: SHEET OF SHEETS STA. TO STA.

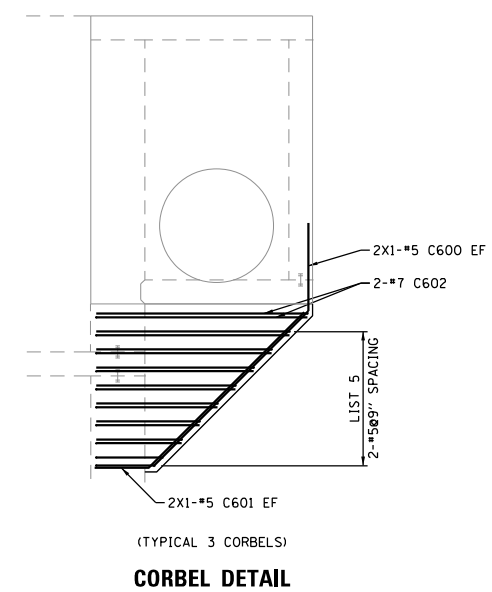
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)-L4	LAKE	186	102
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CRJX(634)				



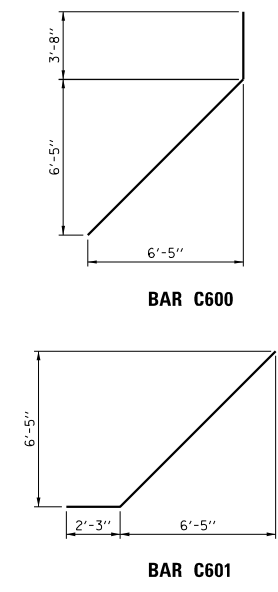
NOTE: WALL REINFORCEMENT SPACED AT 12" O.C. UNLESS NOTED OTHERWISE

ELEVATION 6

- LIST 1
- 2-#5 V603
- 2-#5 V604
- 2-#5 V605
- 2-#5 V606
- 2-#5 V607
- LIST 2
- 2-#5 H602
- 2-#5 H603
- 2-#5 H604
- 2-#5 H605
- 2-#5 H606
- LIST 3
- 1-#5 H607
- 1-#5 H608
- 1-#5 H609
- 1-#5 H610
- 1-#5 H611
- LIST 4
- 1-#5 H612
- 1-#5 H613
- 1-#5 H614
- 1-#5 H615
- 1-#5 H616
- LIST 5
- 2-#5 C603
- 2-#5 C604
- 2-#5 C605
- 2-#5 C606
- 2-#5 C607
- 2-#5 C608
- 2-#5 C609
- 1-#5 C610
- 1-#5 C611

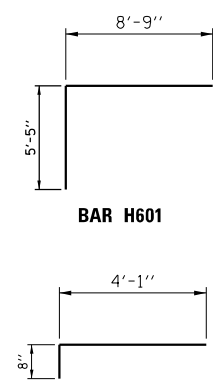


CORBEL DETAIL

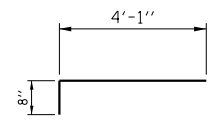


BAR C600

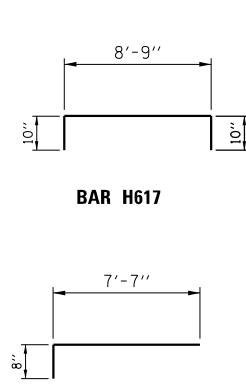
BAR C601



BAR H601



BARS V608(E)

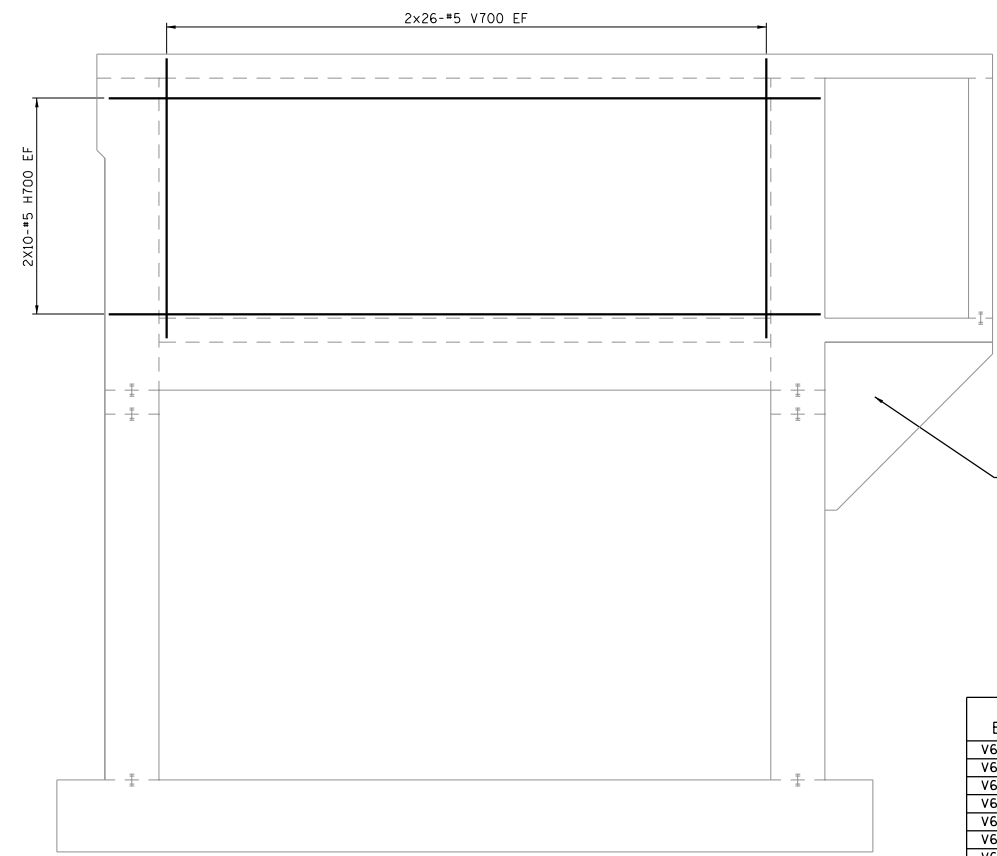


BAR H617

BAR H619(E)

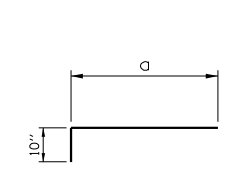
BARS C602(E), C603(E), C604(E), C605(E), C606(E), C607(E), C608(E), C609(E), C610(E), C611(E)

BAR	a
C602(E)	8'-9"
C603(E)	8'-0"
C604(E)	7'-3"
C605(E)	6'-6"
C606(E)	5'-9"
C607(E)	5'-0"
C608(E)	4'-3"
C609(E)	3'-6"
C610(E)	2'-9"
C611(E)	2'-5"



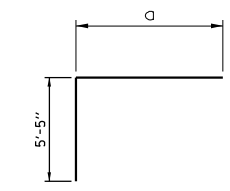
NOTE: WALL REINFORCEMENT SPACED AT 12" O.C. UNLESS NOTED OTHERWISE

ELEVATION 7



BARS H602(E), H603(E), H604(E), H605(E), H606(E), H607(E), H608(E), H609(E), H610(E), H611(E)

BAR	a
H602(E)	3'-6"
H603(E)	2'-9"
H604(E)	2'-7"
H605(E)	2'-10"
H606(E)	3'-8"
H607(E)	2'-3"
H608(E)	1'-6"
H609(E)	1'-4"
H610(E)	1'-7"
H611(E)	2'-5"



BARS H612(E), H613(E), H614(E), H615(E), H616(E)

BAR	a
H612(E)	2'-3"
H613(E)	1'-6"
H614(E)	1'-4"
H615(E)	1'-7"
H616(E)	2'-5"

BILL OF MATERIALS

BAR	NO.	SIZE	LENGTH	SHAPE
V600(E)	22	#8	24'-6"	=====
V601(E)	20	#8	13'-9"	=====
V602(E)	3	#8	11'-8"	=====
V603(E)	2	#5	6'-8"	=====
V604(E)	2	#5	6'-2"	=====
V605(E)	2	#5	6'-1"	=====
V606(E)	2	#5	6'-6"	=====
V607(E)	2	#5	7'-8"	=====
V608(E)	35	#5	4'-9"	=====
H601(E)	6	#5	14'-2"	=====
H602(E)	2	#5	4'-4"	=====
H603(E)	2	#5	3'-7"	=====
H604(E)	2	#5	3'-5"	=====
H605(E)	2	#5	3'-8"	=====
H606(E)	2	#5	4'-6"	=====
H607(E)	1	#5	3'-1"	=====
H608(E)	1	#5	2'-4"	=====
H609(E)	1	#5	2'-2"	=====
H610(E)	1	#5	2'-5"	=====
H611(E)	1	#5	3'-3"	=====
H612(E)	1	#5	7'-8"	=====
H613(E)	1	#5	6'-11"	=====
H614(E)	1	#5	6'-9"	=====
H615(E)	1	#5	7'-0"	=====
H616(E)	1	#5	7'-10"	=====
H617(E)	6	#5	10'-5"	=====
H618(E)	14	#5	25'-4"	=====
H619(E)	28	#5	8'-3"	=====
A600(E)	4	#8	8'-9"	=====
V700(E)	52	#5	11'-8"	=====
H700(E)	20	#5	29'-8"	=====
C600(E)	6	#5	12'-9"	=====
C601(E)	6	#5	11'-5"	=====
C602(E)	6	#7	18'-3"	=====
C603(E)	6	#5	16'-9"	=====
C604(E)	6	#5	15'-3"	=====
C605(E)	6	#5	13'-9"	=====
C606(E)	6	#5	12'-3"	=====
C607(E)	6	#5	10'-9"	=====
C608(E)	6	#5	9'-3"	=====
C609(E)	6	#5	7'-9"	=====
C610(E)	3	#5	6'-3"	=====
C611(E)	3	#5	5'-7"	=====
REINFORCEMENT BARS EPOXY COATED			POUNDS	5,685
CONCRETE STRUCTURES			CU YD	34

S-22

SCALE: 0 4 8 FT.

MODEL: S400REIN.DWG FILE NAME: S400REIN.DWG



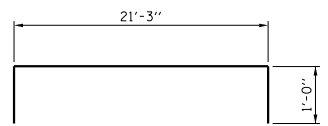
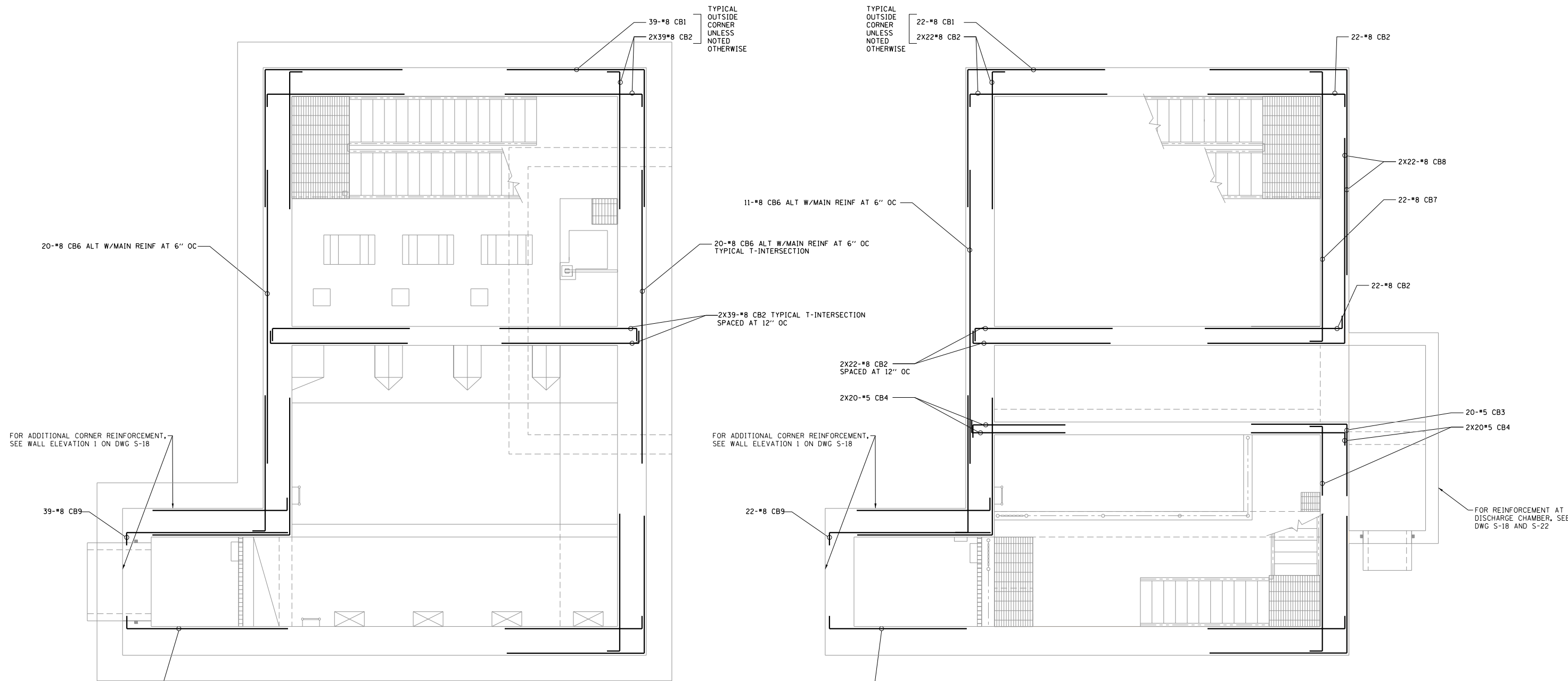
USER NAME = SBREMER	DESIGNED - TJB	REVISED -
DRAWN - KAG	REVISED -	
PLOT SCALE = AS NOTED	CHECKED - PJE	REVISED -
PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

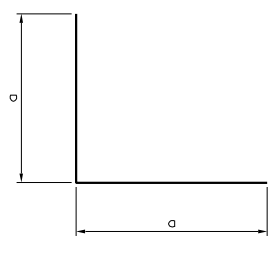
PUMP STATION NO. 37
REINFORCEMENT DETAILS
ELEVATION

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)4	LAKE	186	106
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CJUX(634)				

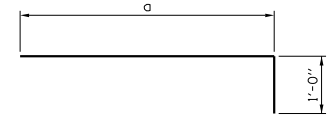


BARS CB7(E)



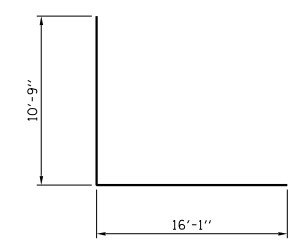
BARS CB1(E), CB3(E)

BAR	a
CB1(E)	10'-9"
CB3(E)	5'-5"



BARS CB2(E), CB4(E), CB9(E)

BAR	a
CB2(E)	10'-9"
CB4(E)	5'-5"
CB9(E)	12'-9"



BAR CB8(E)

BILL OF MATERIALS

BAR	NO.	SIZE	LENGTH	SHAPE
CB1(E)	222	#8	21'-6"	L
CB2(E)	749	#8	11'-9"	L
CB3(E)	20	#5	10'-10"	L
CB4(E)	80	#5	6'-5"	L
CB6(E)	51	#8	23'-0"	L
CB7(E)	22	#8	23'-3"	L
CB8(E)	44	#8	26'-10"	L
CB9(E)	61	#8	13'-9"	L
REINFORCEMENT BARS EPOXY COATED			POUNDS	46,893
CONCRETE STRUCTURES			CU YD	-

S-25



MODEL: S:\MODEL\NAMES FILE NAMES: SEE LISTS



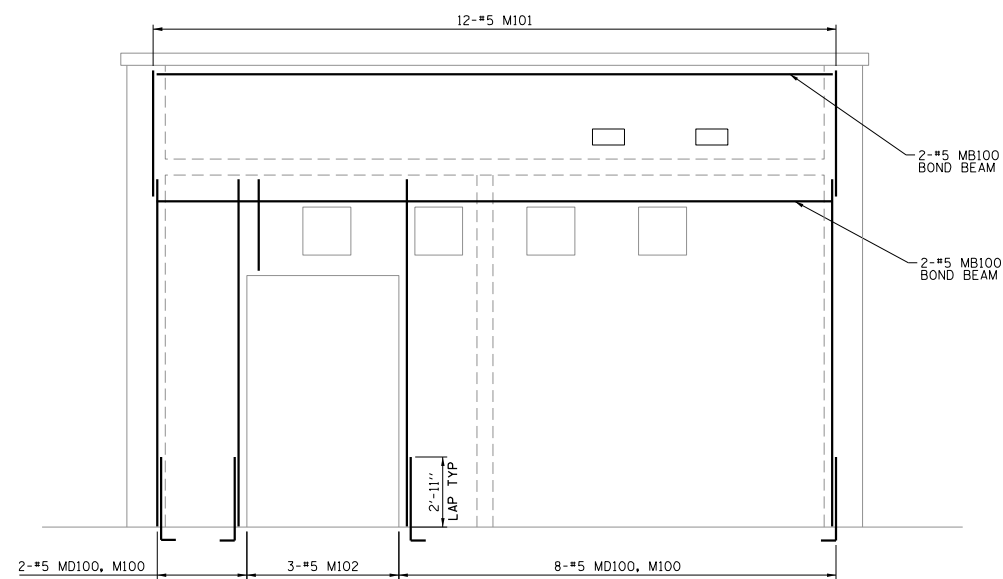
USER NAME = SBREMER	DESIGNED - TJB	REVISED -
PLOT SCALE = AS NOTED	DRAWN - KAG	REVISED -
PLOT DATE = 08/09/24	CHECKED - PJE	REVISED -
	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

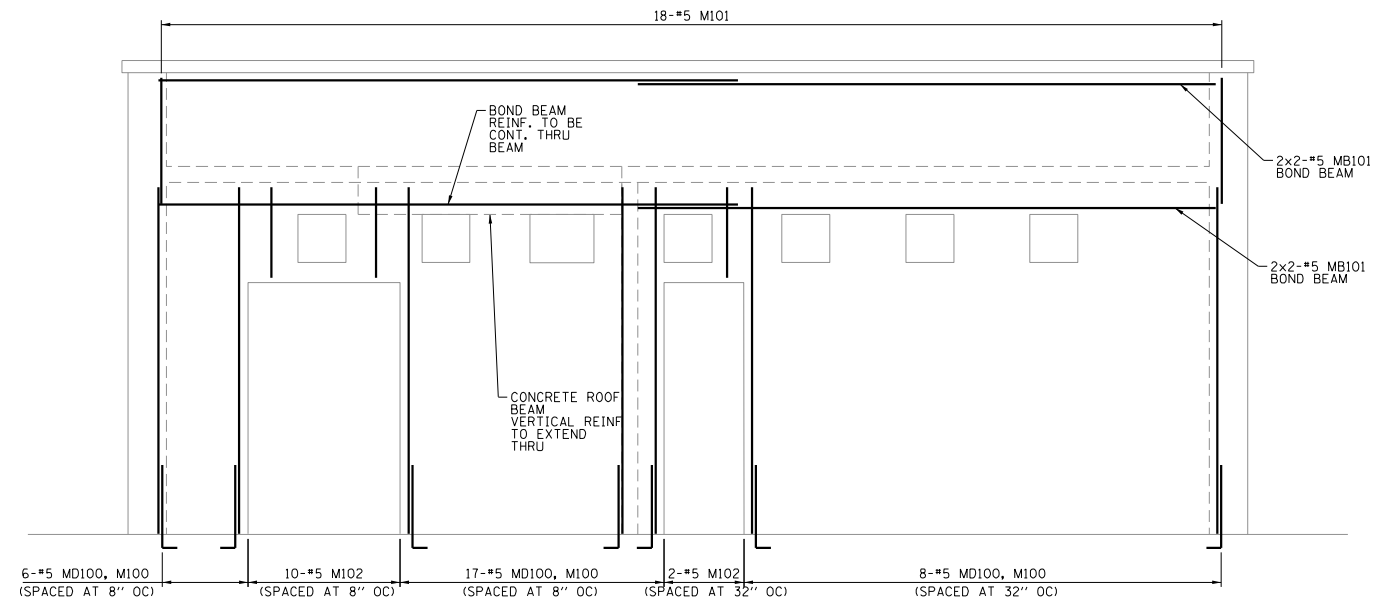
**PUMP STATION NO. 37
REINFORCEMENT DETAILS**

SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.
--------	-------	----	--------	------	----	------

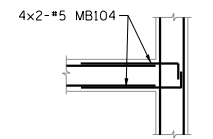
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)L-4	LAKE	186	109
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CJUX(634)				



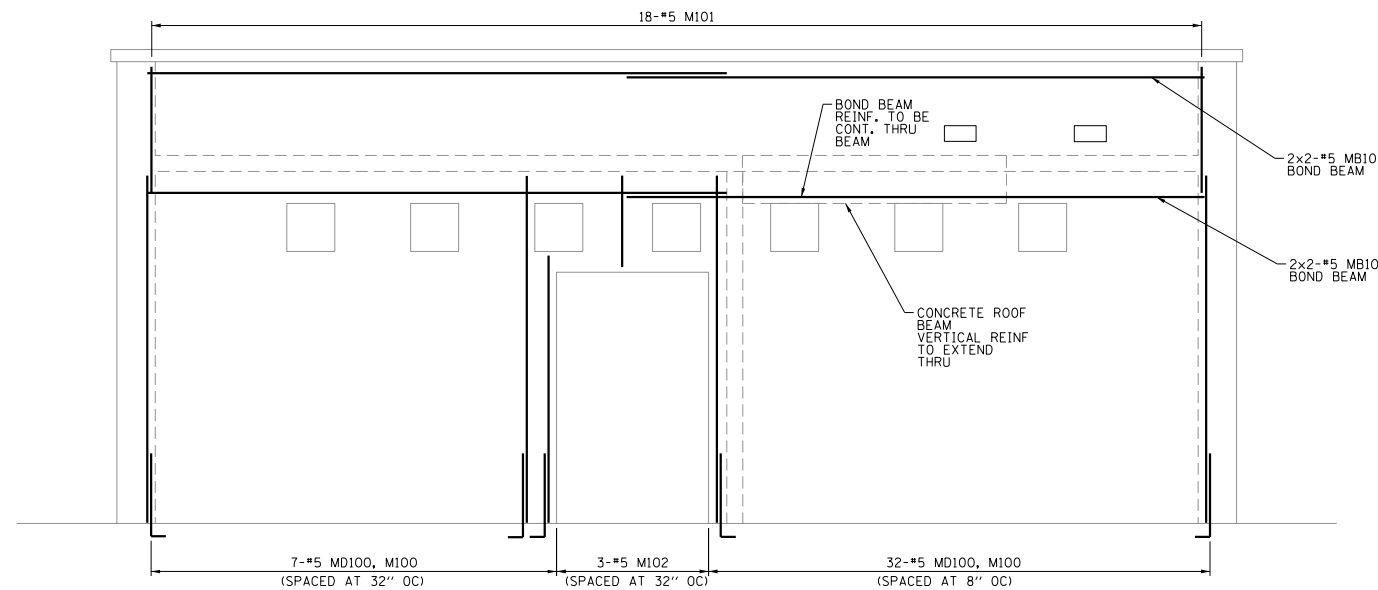
NOTE: WALL REINFORCING BARS SPACED AT 32" OC.
ELEVATION 10



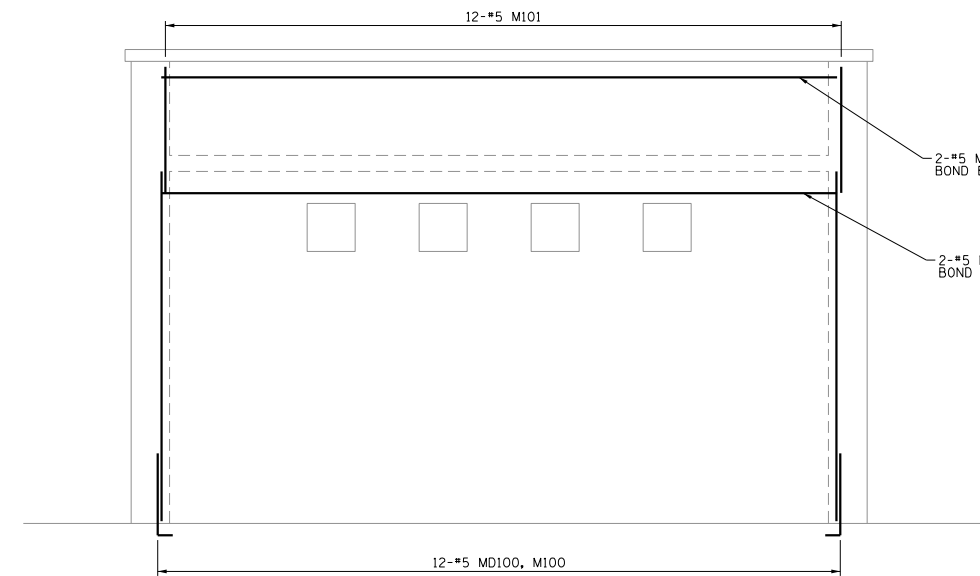
NOTE: WALL REINFORCING BARS SPACED AT 8" & 32" OC.
ELEVATION 11



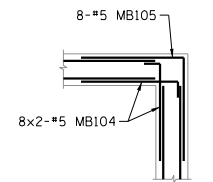
(TYPICAL 4 LOCATIONS)
BOND BEAM T-INTERSECTION



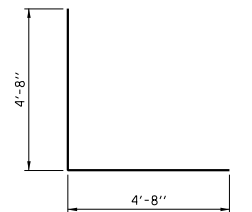
NOTE: WALL REINFORCING BARS SPACED AT 8" & 32" OC.
ELEVATION 12



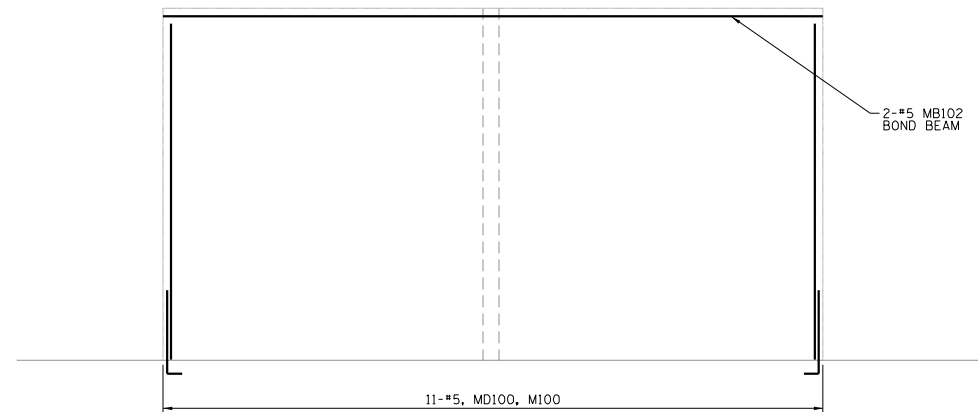
NOTE: WALL REINFORCING BARS SPACED AT 32" OC.
ELEVATION 13



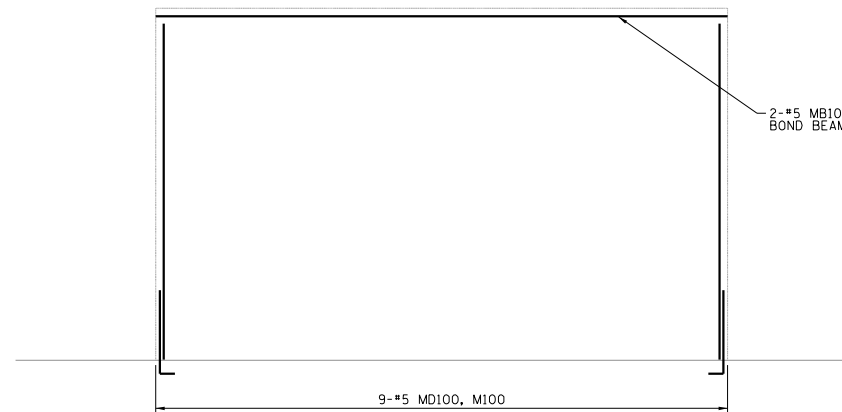
(TYPICAL 8 LOCATIONS)
BOND BEAM CORNER



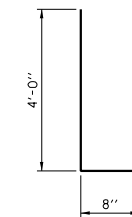
BAR MB105(E)



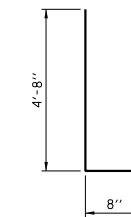
NOTE: WALL REINFORCING BARS SPACED AT 32" OC.
ELEVATION 14



NOTE: WALL REINFORCING BARS SPACED AT 32" OC.
ELEVATION 15



BAR MD100(E)



BAR MB104(E)

BILL OF MATERIALS

BAR	NO.	SIZE	LENGTH	SHAPE
MD100(E)	130	#5	4'-8"	U
M100(E)	130	#5	14'-6"	U
M101(E)	60	#5	5'-3"	U
M102(E)	18	#5	3'-10"	U
MB100(E)	8	#5	28'-2"	U
MB101(E)	16	#5	24'-1"	U
MB102(E)	2	#5	27'-6"	U
MB103(E)	2	#5	23'-10"	U
MB104(E)	24	#5	5'-4"	U
MB105(E)	8	#5	9'-4"	U
REINFORCEMENT BARS EPOXY COATED			POUNDS	3,955
CONCRETE STRUCTURES			CU YD	20

S-27

SCALE: 0 4 8 FT.

MODELS: SMO, BELMONT, FILE: NAME: SEE LIST



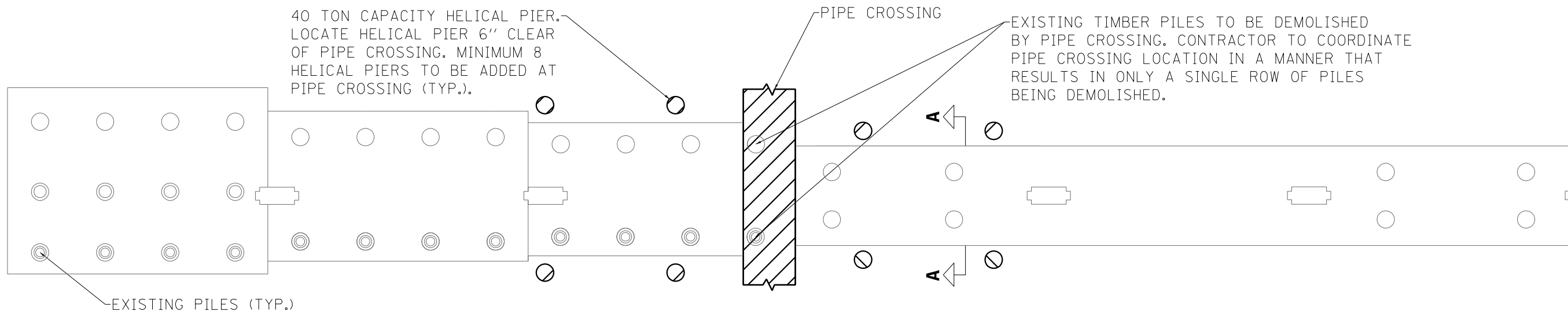
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DRAWN - KAG	REVISIONS -	
PLOT SCALE = AS NOTED	CHECKED - PJE	REVISED -
PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

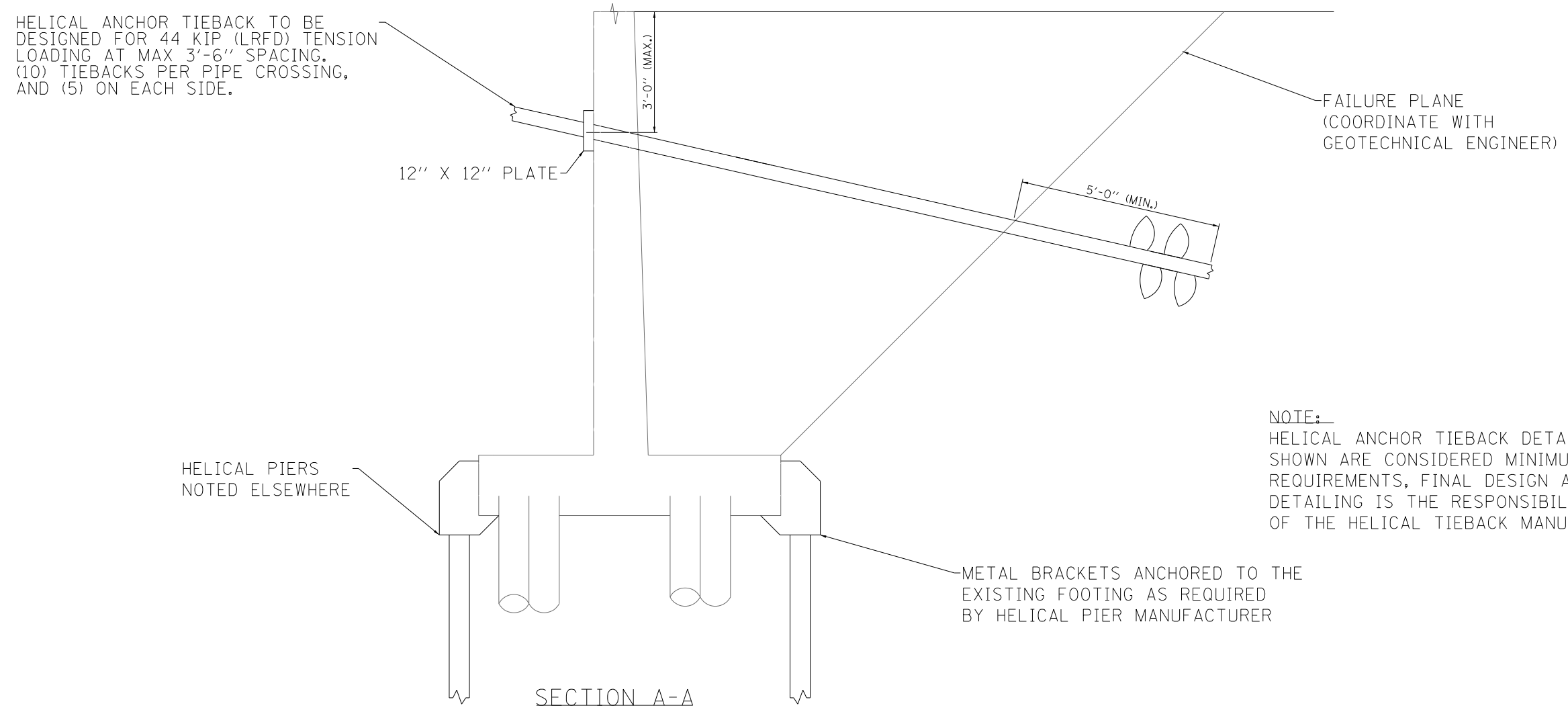
**PUMP STATION NO. 37
REINFORCEMENT DETAILS
MASONRY WALLS**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	111
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CJUX(634)				



NORTH WALL OF ROCKLAND ROAD
SCALE: 1' = 4/5'



SECTION A-A
SCALE: 1' = 2/5'

NOTE:
HELICAL ANCHOR TIEBACK DETAILS SHOWN ARE CONSIDERED MINIMUM REQUIREMENTS, FINAL DESIGN AND DETAILING IS THE RESPONSIBILITY OF THE HELICAL TIEBACK MANUFACTURER.

MODEL: 3402/DEF/NAME
FILE NAME: SFE13



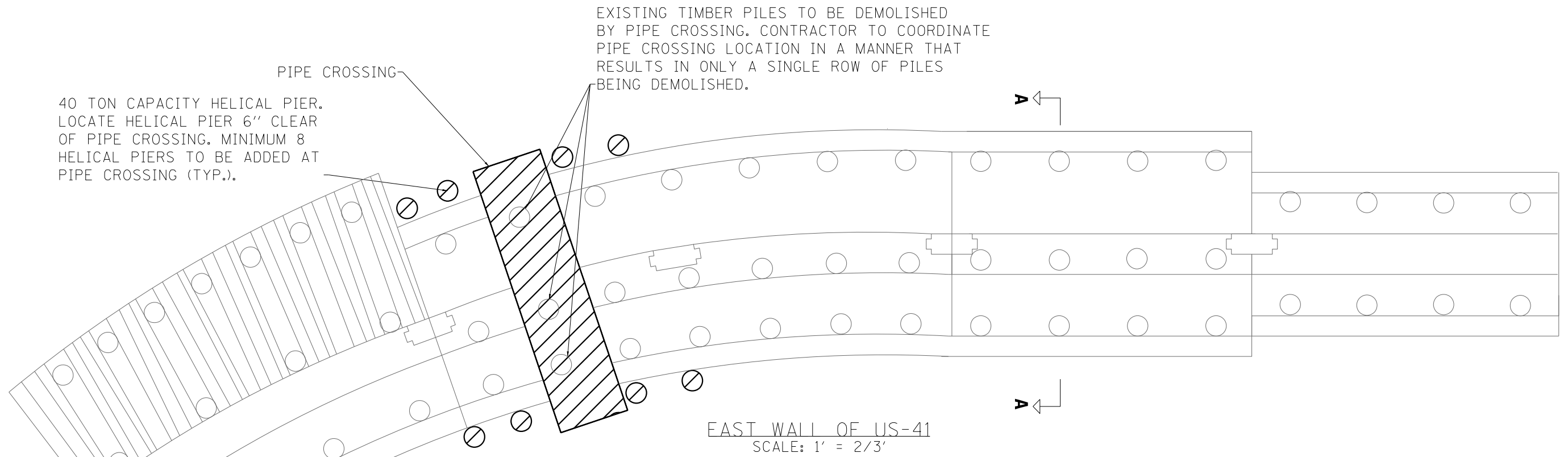
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DRAWN - KAG	REVISIONS -	
PLOT SCALE = \$\$SCALE\$	CHECKED - PJE	REVISED -
PLOT DATE = \$DATES	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
RETAINING WALL DETAILS
PLAN AND SECTION

SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)L-4	LAKE	186	112
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CRJ(634)				

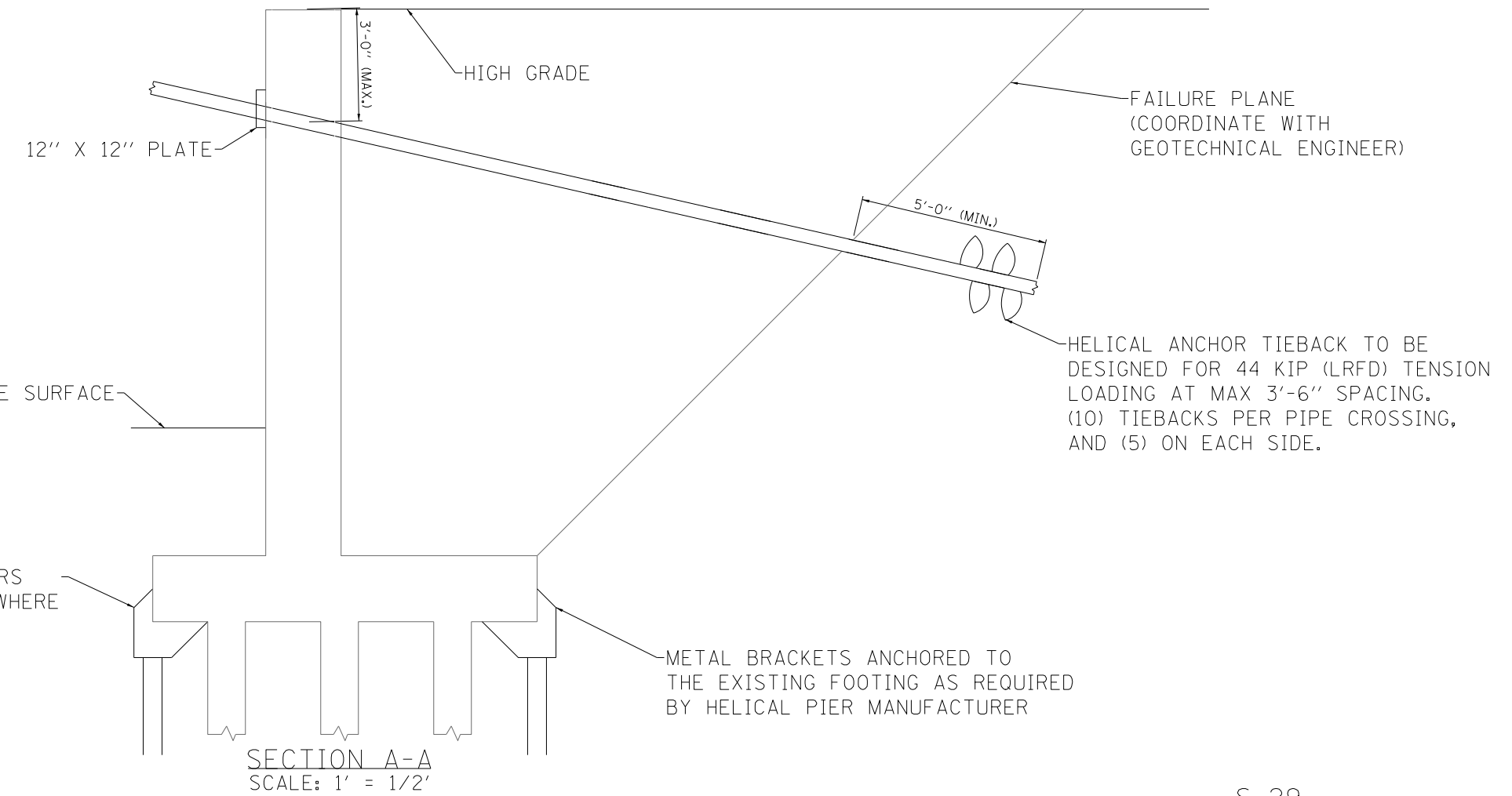


40 TON CAPACITY HELICAL PIER. LOCATE HELICAL PIER 6" CLEAR OF PIPE CROSSING. MINIMUM 8 HELICAL PIERS TO BE ADDED AT PIPE CROSSING (TYP.).

EXISTING TIMBER PILES TO BE DEMOLISHED BY PIPE CROSSING. CONTRACTOR TO COORDINATE PIPE CROSSING LOCATION IN A MANNER THAT RESULTS IN ONLY A SINGLE ROW OF PILES BEING DEMOLISHED.

EAST WALL OF US-41
SCALE: 1' = 2/3'

NOTE:
HELICAL ANCHOR TIEBACK DETAILS SHOWN ARE CONSIDERED MINIMUM REQUIREMENTS, FINAL DESIGN AND DETAILING IS THE RESPONSIBILITY OF THE HELICAL TIEBACK MANUFACTURER.



ROAD SIDE SURFACE

HIGH GRADE

FAILURE PLANE
(COORDINATE WITH
GEOTECHNICAL ENGINEER)

HELICAL ANCHOR TIEBACK TO BE DESIGNED FOR 44 KIP (LRFD) TENSION LOADING AT MAX 3'-6" SPACING. (10) TIEBACKS PER PIPE CROSSING, AND (5) ON EACH SIDE.

HELICAL PIERS NOTED ELSEWHERE

METAL BRACKETS ANCHORED TO THE EXISTING FOOTING AS REQUIRED BY HELICAL PIER MANUFACTURER

SECTION A-A
SCALE: 1' = 1/2'

S-29

MODEL: 34002614MMES
FILE NAME: SHELFS



USER NAME = \$USERS	DESIGNED - TJB	REVISED -
	DRAWN - KAG	REVISED -
PLOT SCALE = \$\$SCALE\$	CHECKED - PJE	REVISED -
PLOT DATE = \$DATES	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
RETAINING WALL DETAILS
PLAN AND SECTION

SCALE: 1.5' = 1' SHEET OF SHEETS STA. TO STA.

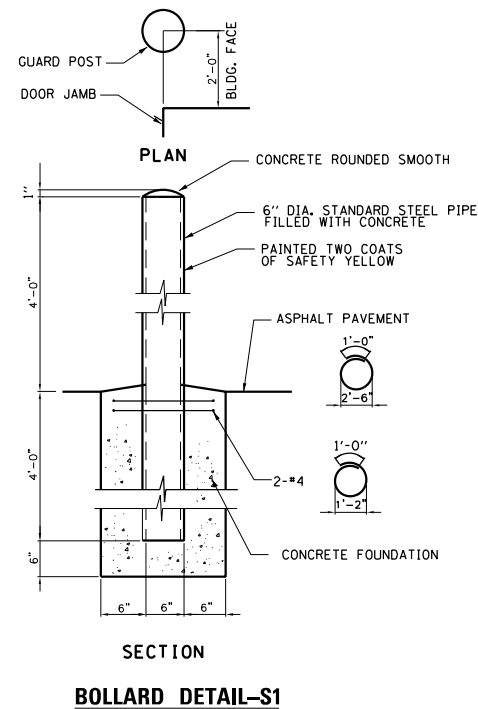
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	113
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CRJX(634)				

**MINIMUM REINFORCEMENT BAR(EPOXY)
SPLICE AND ANCHORAGE
LENGTH (INCHES)**

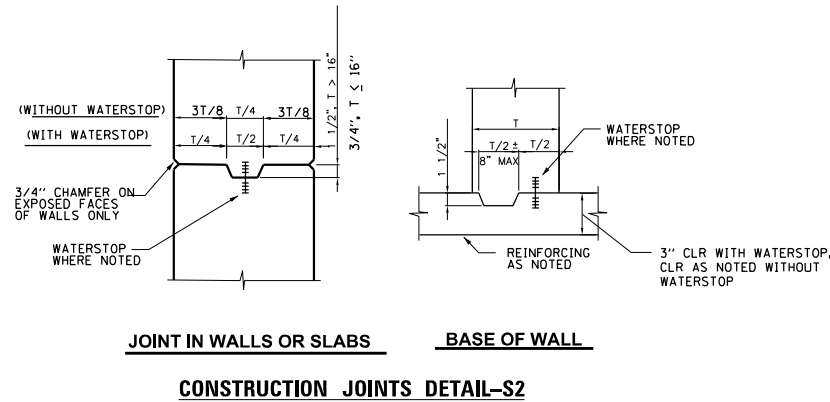
BAR SIZE	LAPPED SPLICE LENGTH		EMBEDMENT LENGTH		COMPRESSION LAP LENGTH
	TOP BARS	OTHERS	TOP BARS	OTHERS	
3	39	30	30	23	12
4	52	40	40	31	15
5	65	50	50	39	19
6	78	60	60	46	23
7	113	87	87	67	27
8	129	99	99	77	30
9	145	112	112	86	34
10	161	124	124	96	38
11	177	136	136	105	42

NOTES:

- TOP BARS ARE HORIZONTAL BARS SO PLACED THAT MORE THAN 12" OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR.
- FOR BARS SPACED LESS THAN 6 BAR DIAMETER OC INCREASE LENGTH BY 25%.
- WHEN LAPPING TWO DIFFERENT SIZE BARS USE THE LAP LENGTH OF THE SMALLER BAR UNLESS NOTED OTHERWISE.
- EMBEDMENT LENGTH IS MINIMUM LENGTH OF EMBEDMENT FOR STRAIGHT DOWELS WHERE END HOOK IS NOT SHOWN, UNLESS OTHERWISE NOTED.
- COMPRESSION LAP LENGTH FOR VERTICAL COLUMN BARS ONLY.
- HOOKS SHALL BE ACI STANDARD UNLESS OTHERWISE NOTED.
- BILL OF MATERIAL IS FOR INFORMATION ONLY. PUMP STATION WILL BE PAID FOR UNDER CONTRACT UNIT PRICE.
- CHAIRS, BOLSTERS, AND STANDEES ARE NOT INCLUDED IN BAR SCHEDULE AND SHALL BE INCIDENTAL TO REINFORCING BARS PAY ITEM.



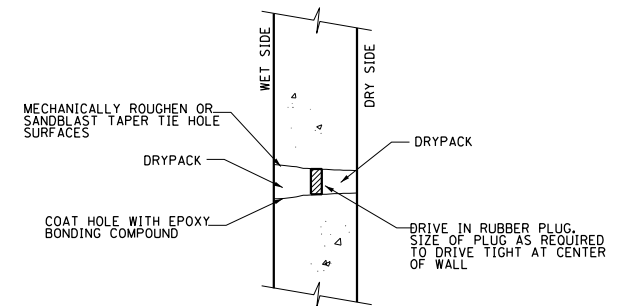
BOLLARD DETAIL-S1



JOINT IN WALLS OR SLABS

BASE OF WALL

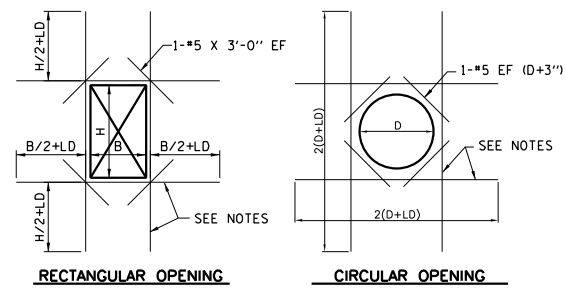
CONSTRUCTION JOINTS DETAIL-S2



NOTES:

- MIN DIA AT DRY SIDE = 1". TAPER HOLE SO THAT MINIMUM WET SIDE DIA = DRY SIDE DIA PLUS 1/4"
- CONSTRUCTION STEPS:**
- SANDBLAST OR MECHANICALLY ROUGHEN TAPER TIE HOLE SURFACES AND BLOW TIE HOLE CLEAN WITH COMPRESSED AIR.
 - DRIVE RUBBER PLUG.
 - APPLY EPOXY BONDING COMPOUND WET SIDE AND WHILE EPOXY IS TACKY, DRYPACK WITH NONSHRINK GROUT.
 - APPLY EPOXY BONDING COMPOUND DRY SIDE AND WHILE EPOXY IS TACKY, DRYPACK WITH NONSHRINK GROUT.

FORM TIE THROUGH BOLT DETAIL-S3



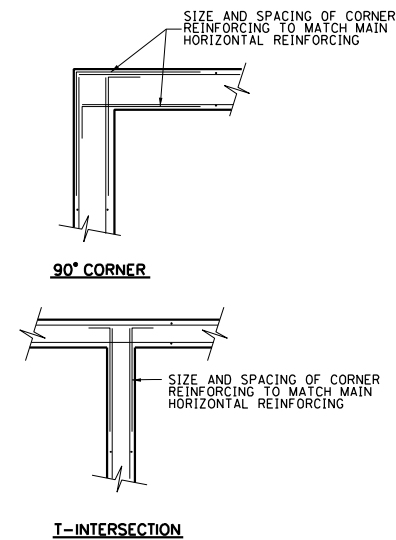
RECTANGULAR OPENING

CIRCULAR OPENING

NOTES:

- THESE DETAILS APPLY TO ALL OPENINGS IN CONCRETE WALLS AND SLABS WHEN THE LARGEST OPENING DIMENSION IS GREATER THAN TWO TIMES SECTION THICKNESS OR GREATER THAN REINFORCING SPACING IN THE SECTION, UNLESS OTHERWISE INDICATED IN THE DRAWINGS.
- THE AREA OF ADDITIONAL REINFORCING REQUIRED IN EACH FACE ON EACH SIDE OF AN OPENING SHALL EQUAL OR EXCEED ONE-HALF OF THE AREA OF THE INTERCEPTED BARS IN EACH FACE, IN EACH DIRECTION, RESPECTIVELY WITH A MINIMUM OF 1-#5 BAR EACH FACE.
- PLACE THE ADDED BARS IN THE SAME LAYERS AS THE WALL OR SLAB REINFORCING.

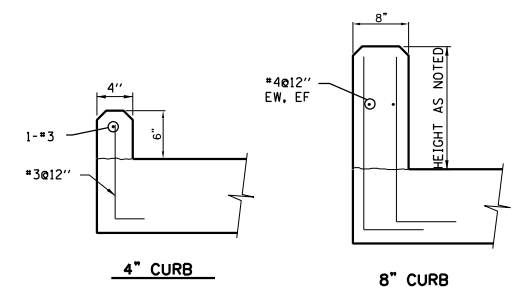
**ADDITIONAL REINFORCEMENT AT OPENINGS IN
WALLS AND SLABS DETAIL-S4**



90° CORNER

T-INTERSECTION

HORIZONTAL REINFORCEMENT DETAIL-S5



4" CURB

8" CURB

CURBS DETAIL-S7

S-30

SCALE: 0 4 8 FT.

MODELS AND DIMENSIONS
FILE NAMES: SEE LISTS



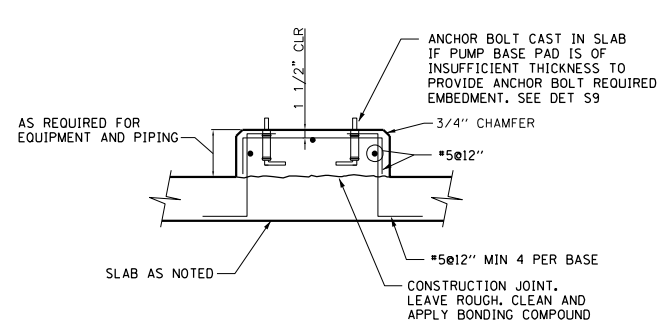
USER NAME = SBREMER	DESIGNED - TJB	REVISED -
PLOT SCALE = AS NOTED	DRAWN - KAG	REVISED -
PLOT DATE = 08/09/24	CHECKED - PJE	REVISED -
	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
STRUCTURAL
DETAILS**

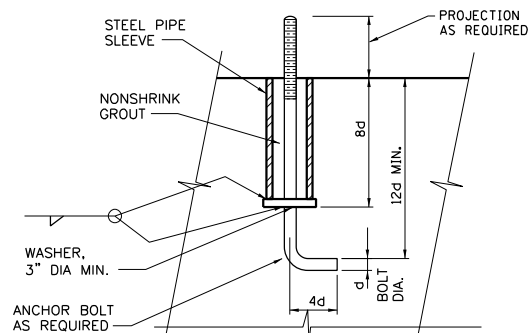
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	114
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT C1JX(634)				



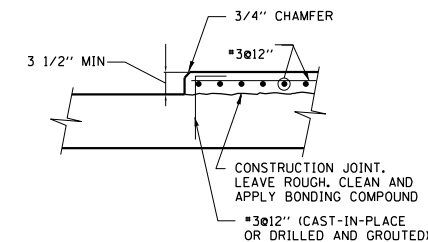
MAIN PUMP BASE DETAIL-S8

N.T.S.



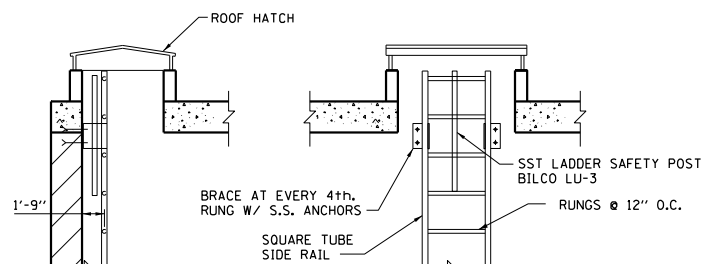
EQUIPMENT ANCHOR BOLT DETAIL-S9

N.T.S.



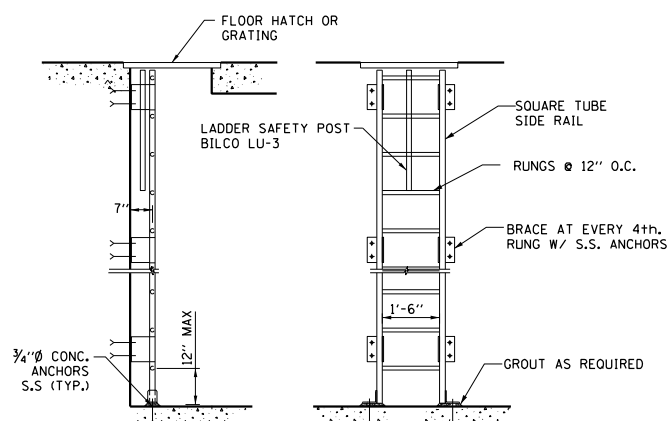
EQUIPMENT PAD DETAIL-S10

N.T.S.



SIDE ELEVATION

FRONT ELEVATION



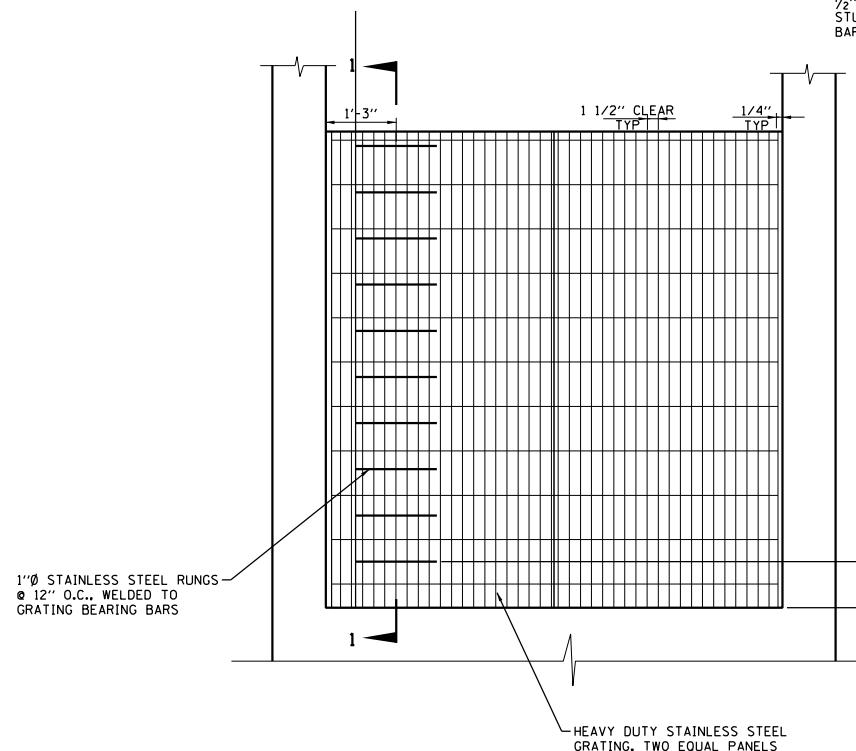
SIDE ELEVATION

FRONT ELEVATION

NOTE: FOR LADDERS LOCATED ON CONTINUOUS WALL, EXTEND LADDER 3'-6" ABOVE FLOOR LEVEL.

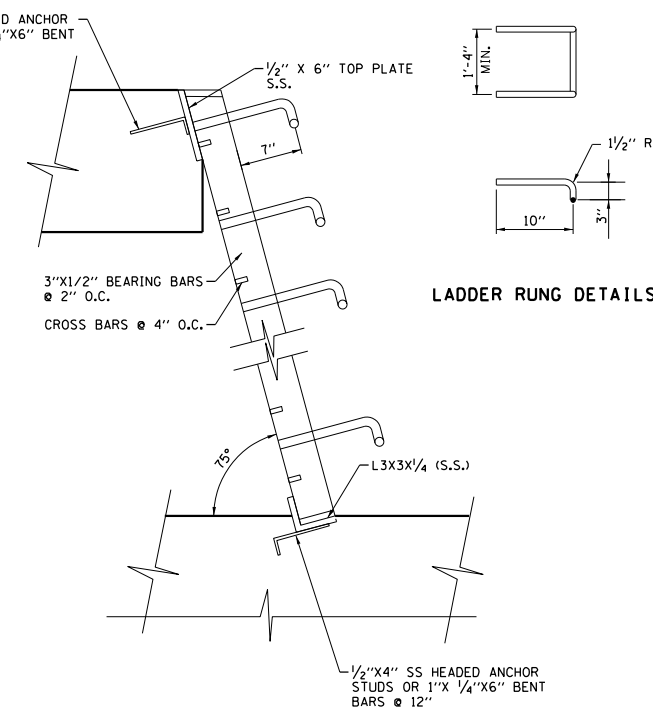
FIBERGLASS LADDER DETAIL-S12

N.T.S.



TRASH BAR SCREEN DETAIL-S13

N.T.S.



LADDER RUNG DETAILS

SECTION 1-1

MODELS AND DIMENSIONS FILE NAMES: SEE LISTS



USER NAME = SBREMER	DESIGNED - TJB	REVISED -
PLOT SCALE = AS NOTED	DRAWN - KAG	REVISED -
PLOT DATE = 08/09/24	CHECKED - PJE	REVISED -
	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

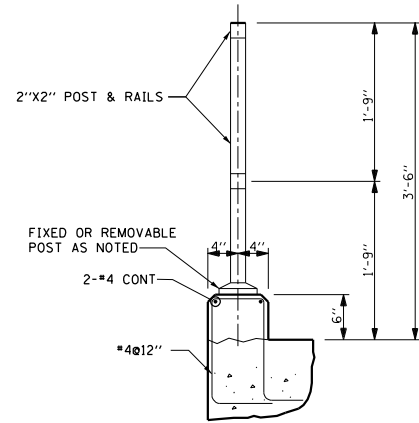
**PUMP STATION NO. 37
STRUCTURAL
DETAILS**

SCALE: SHEET OF SHEETS STA. TO STA.

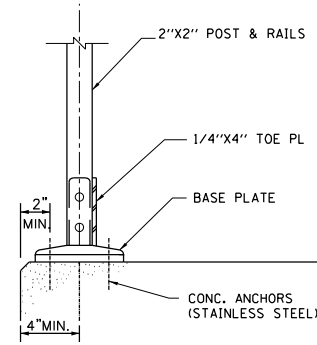
S-31

SCALE: 0 4 8 FT.

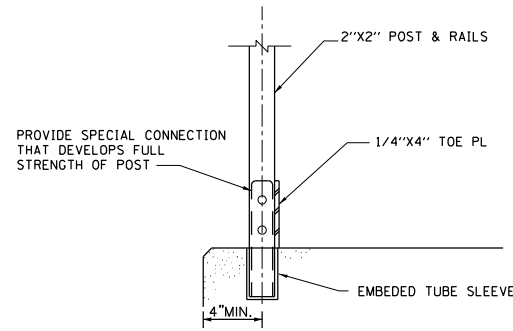
F.A.P. RTE. 346	SECTION (125S-1)L-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 115
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CBJX(634)				



RAILING WITH CURB



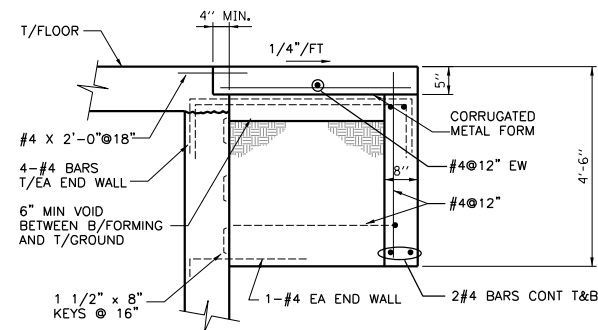
FIXED RAILING SURFACE MOUNTED



REMOVABLE RAILING

FIBERGLASS HANDRAIL DETAIL-S14

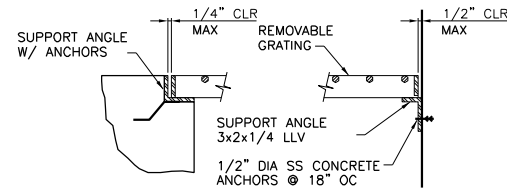
N.T.S.



DOOR STOOP DETAIL-S16

N.T.S.

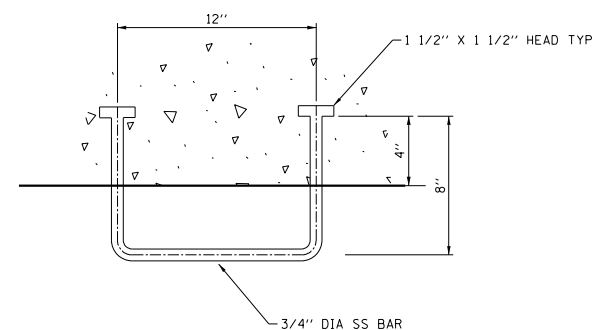
NOTE:
WHERE STOOP LENGTH NOTED IS GREATER THAN 6'-0", PROVIDE ADDITIONAL VERTICAL WALLS AS NOTED ON DRAWINGS.



GRATING SUPPORT DETAIL-S17

N.T.S.

- NOTES:
1. SUPPORT MATERIAL TO MATCH GRATING MATERIAL UNLESS OTHERWISE NOTED.
 2. PROVIDE GRATING SUPPORTS ALL AROUND OPENING UNLESS OTHERWISE NOTED.



GRAB BAR DETAIL-S18

N.T.S.

MODEL - 400/DEL/NAME/MS
FILE NAME: S14.S15



USER NAME = SBREMER	DESIGNED - TJB	REVISED -
PLOT SCALE = AS NOTED	DRAWN - KAG	REVISED -
PLOT DATE = 08/09/24	CHECKED - PJE	REVISED -
	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

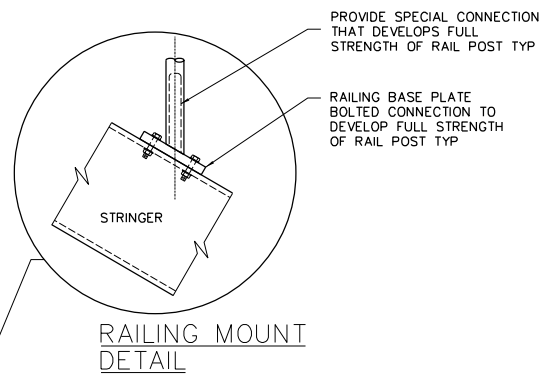
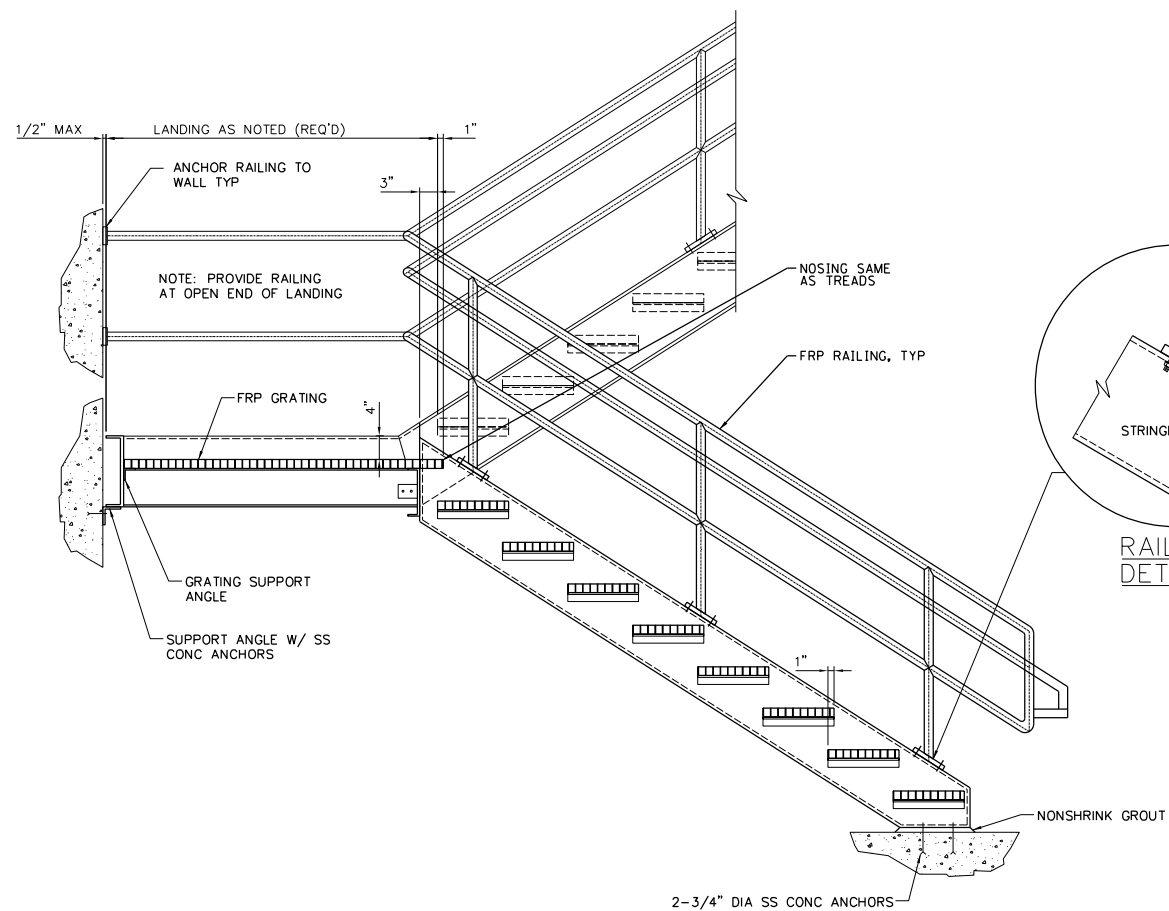
PUMP STATION NO. 37
STRUCTURAL
DETAILS

SCALE: SHEET OF SHEETS STA. TO STA.

S-32

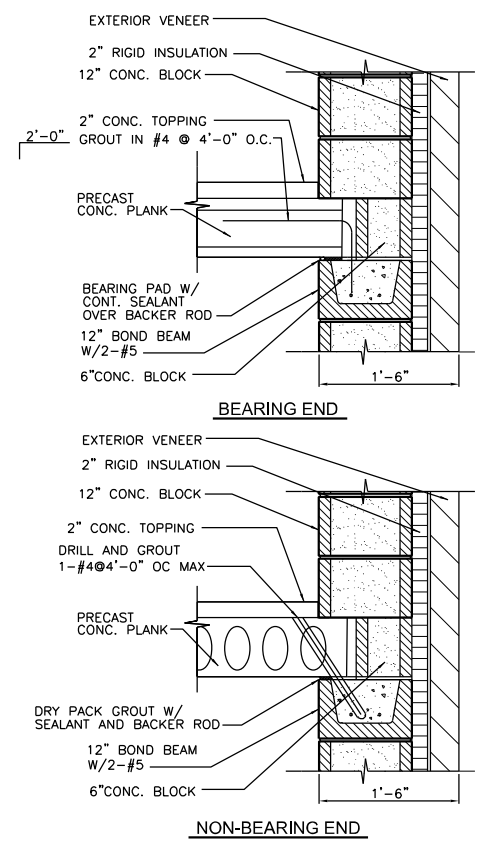
SCALE: 0 4 8 FT.

F.A.P. RTE. 346	SECTION (125S-1)J-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 116
			CONTRACT NO. 62B66	
		ILLINOIS	FED. AID PROJECT CRJX(634)	



1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.
2. SEE DRAWINGS FOR SIZE AND NUMBER OF RISERS AND TREADS.
3. STAIR TO BE CONSTRUCTED OF FRP MEMBERS, GRATING, AND RAILING.
4. ALL CONNECTING BOLTS AND CONCRETE ANCHORS SHALL BE TYPE 316 SS.

FRP STAIR DETAIL-S19
N.T.S.



PRECAST BEARING DETAIL-S20
N.T.S.

S-33 SCALE: 0 4 8 FT.

MODEL: SMO/DEL/ANIM/FILES: NAME: SHEETS



USER NAME = SBREMER	DESIGNED - TJB	REVISED -
PLOT SCALE = AS NOTED	DRAWN - KAG	REVISED -
PLOT DATE = 08/09/24	CHECKED - PJE	REVISED -
	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
STRUCTURAL
DETAILS**

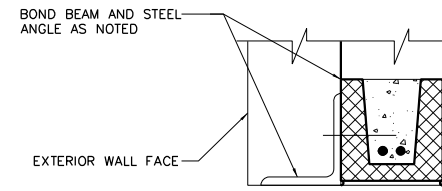
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	117
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CBJX(634)				

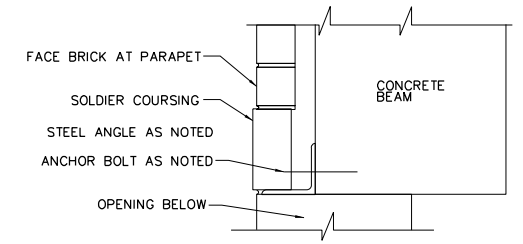
LINTEL SCHEDULE			
LINTEL NO.	DESCRIPTION	LINTEL TYPE	REMARKS
L1	8"X8" BOND BEAM WITH 2-#5 AND L6X6X5/16 W/ 3/4" DIA SS CONC ANCHORS @ 18" OC		8" MINIMUM BEARING EACH END. SEE DET S39
L2	W8X28 W/ 5/16" PLATE AND L6X6X5/16		8" MINIMUM BEARING EACH END. SEE DET S41

NOTES:

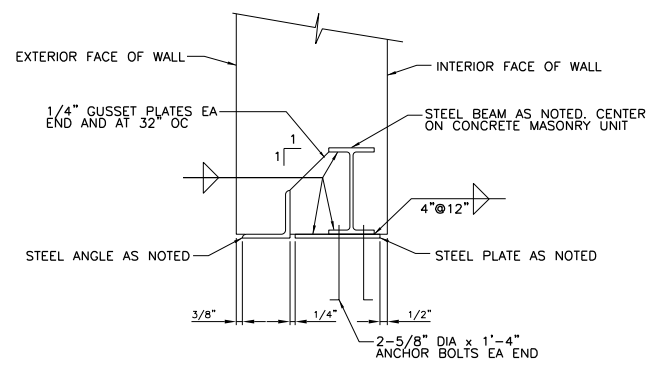
- MASONRY OPENINGS LESS THAN 4'-0" IN WIDTH THAT DO NOT HAVE A LINTEL SCHEDULE SHALL HAVE A BOND BEAM WITH 2-#5 OR STEEL ANGLE LINTEL WITH A TOTAL WIDTH OF HORIZONTAL LEGS APPROXIMATELY 1" LESS THAN WALL THICKNESS.
- PROVIDE A MINIMUM OF 8" BEARING AT EACH END FOR STEEL BEAM AND ANGLE LINTELS, AND BOND BEAM LINTELS UNLESS NOTED OTHERWISE.
- SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL LINTEL REQUIREMENTS.



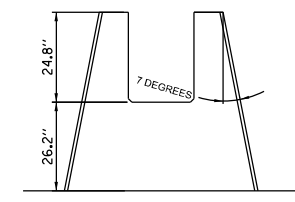
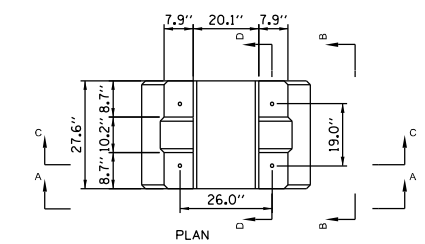
LINTEL DETAIL-S39
N.T.S.



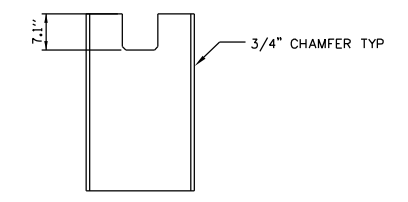
LINTEL DETAIL-S40
N.T.S.



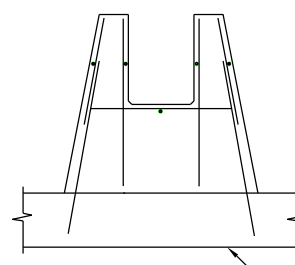
LINTEL DETAIL-S41
N.T.S.



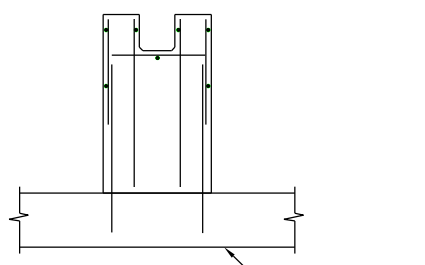
SECTION A-A



SECTION B-B



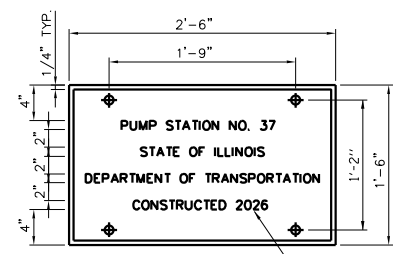
SECTION C-C



SECTION D-D

NOTES: 1. REINFORCING SHOWN #3@6" EW, EF. VERIFY WITH PUMP MFR
2. VERIFY ALL DIMENSIONS WITH PUMP MFR

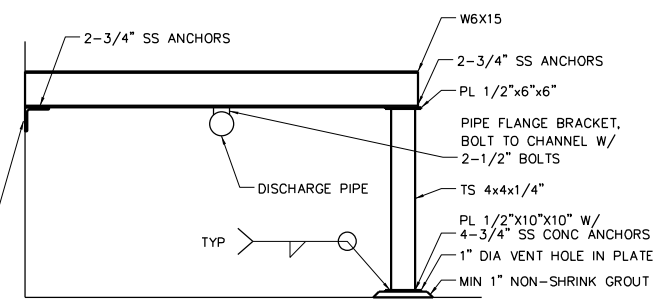
PUMP BASE CONCRETE SUPPORT DETAIL-S47
N.T.S.



IDENTIFICATION PLATE DETAIL-S45
N.T.S.

NOTE:
SEE DRAWINGS FOR MOUNTING LOCATION. VERIFY WITH OWNER PRIOR TO MOUNTING

L 4x4x3/8" 10" LONG ATTATCH TO WALL W/ 2-3/4" SS CONC ANCHORS



NOTES:
1. CONTRACTOR TO COORDINATE EXACT DIMENSIONS PRIOR TO FABRICATION.
2. ALL SUPPORTS SHALL BE 316 SST

STEEL PIPE SUPPORT DETAIL-S46
N.T.S.

USER NAME = SBREMER	DESIGNED - TJB	REVISED -
PLOT SCALE = AS NOTED	DRAWN - KAG	REVISED -
PLOT DATE = 08/09/24	CHECKED - PJE	REVISED -
	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
STRUCTURAL
DETAILS

SCALE: SHEET OF SHEETS STA. TO STA.

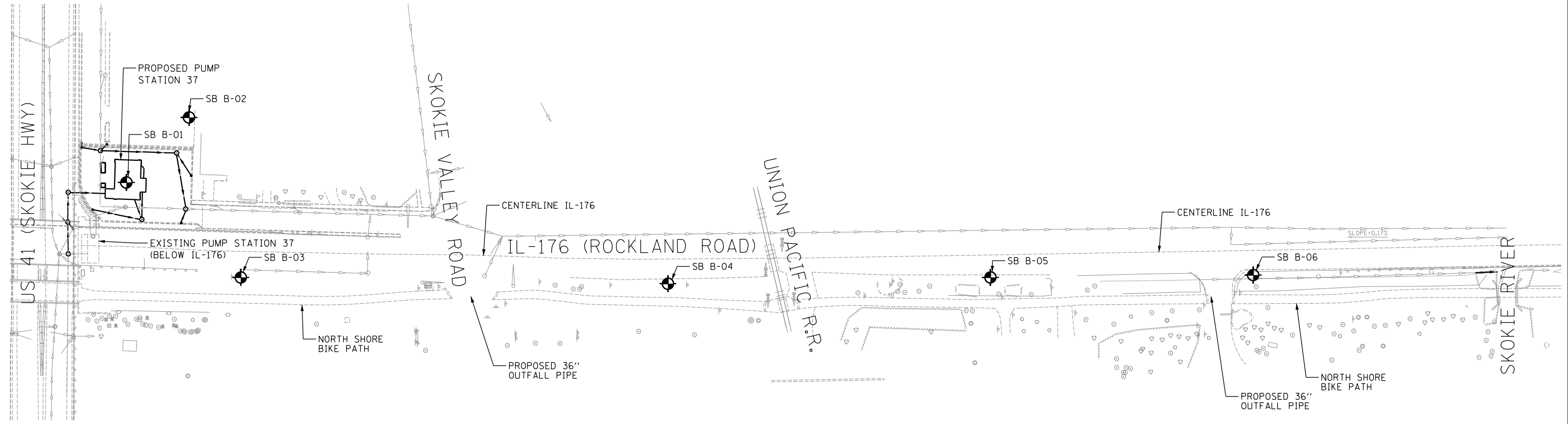
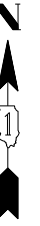
S-34



F.A.P. RTE. 346	SECTION (125S-1)I-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 118
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CJUX(634)				

MODEL: S400BELMAMES FILE: S400BELMAMES

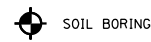




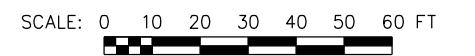
GENERAL NOTES:

1. SEE SHEETS S-36 AND S-37 FOR SOIL BORING LOGS.
2. GEOTECHNICAL REPORT IS AVAILABLE UPON FORMAL REQUEST TO THE DEPARTMENT.

LEGEND:



SOIL BORING NO.	GRADE ELEVATION	NORTHING	EASTING
B-01	675.82	2044886.95	1109573.58
B-02	676.47	2044981.37	1109647.23
B-03	676.33	2044758.85	1109707.97
B-04	676.14	2044762.89	1110213.40
B-05	672.65	2044773.39	1110597.49
B-06	670.28	2044776.08	1110906.57



S-35

MODEL: SMOBENAMES
FILE NAME: SHEETS



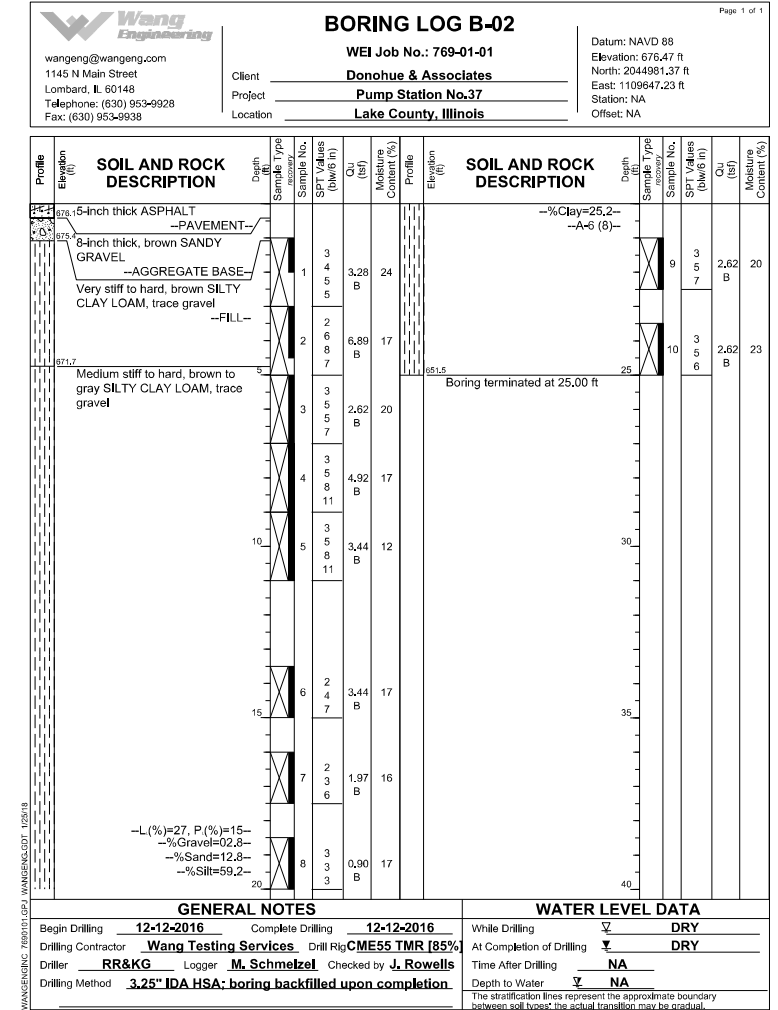
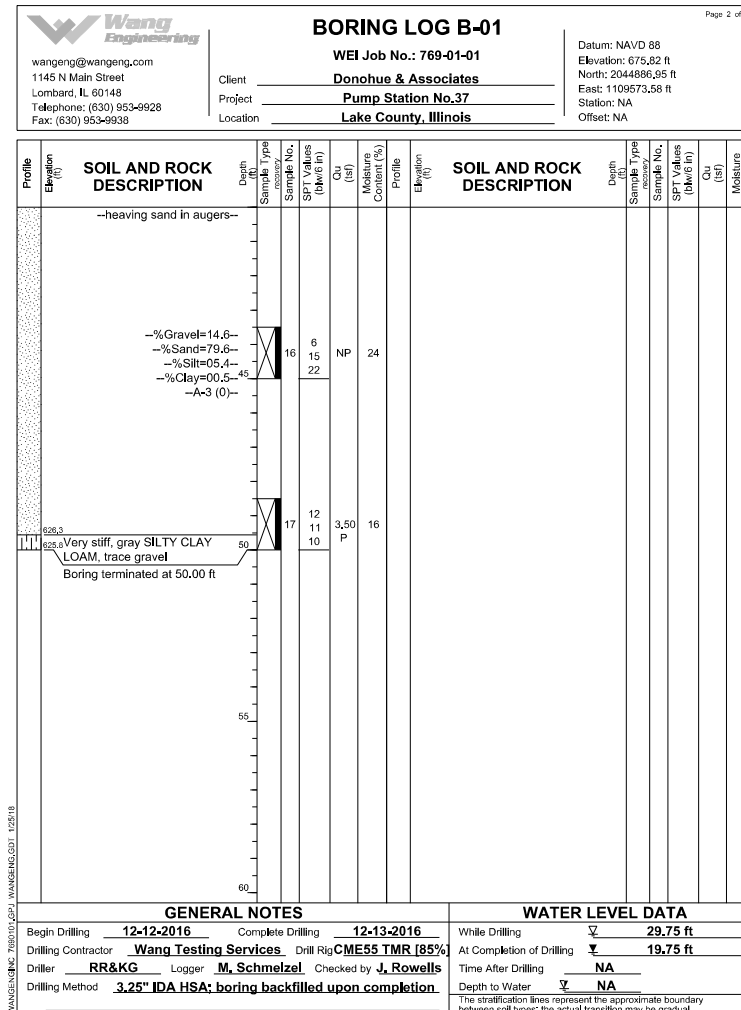
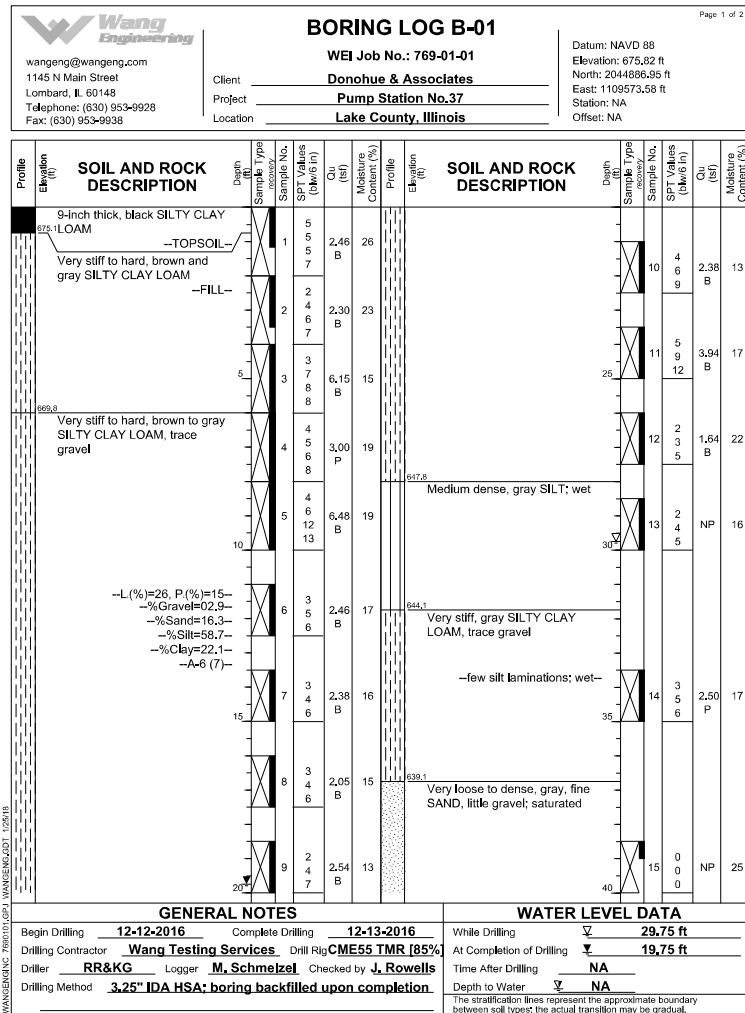
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	DRAWN - KAG	REVISED -
PLOT SCALE = AS NOTED	CHECKED - PJE	REVISED -
PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
SOIL BORING LOCATION PLAN**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	119
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CJU(634)				



MODEL: 4400ELMNAME
FILE NAME: SELELS



USER NAME = SBREMER	DESIGNED - TJB	REVISED -
PLOT SCALE = AS NOTED	CHECKED - PJE	REVISED -
PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
SOIL BORING LOGS**

SCALE: SHEET OF SHEETS STA. TO STA.

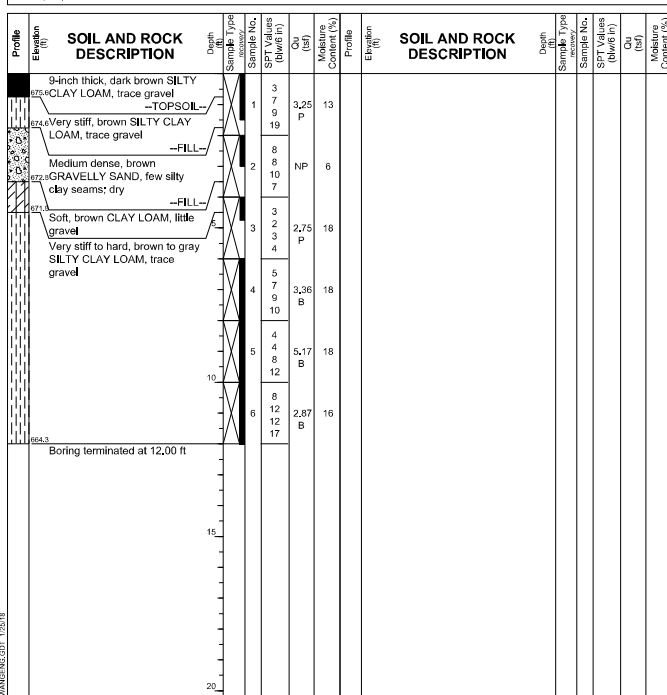
S-36

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	120
CONTRACT NO. 62B66				
ILLINOIS		FED. AID PROJECT (JX)(634)		

Wang Engineering
wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: (630) 953-9928
Fax: (630) 953-9938

BORING LOG B-03
WEI Job No.: 769-01-01
Client: **Donohue & Associates**
Project: **Pump Station No.37**
Location: **Lake County, Illinois**

Datum: NAVD 88
Elevation: 676.33 ft
North: 2044758.85 ft
East: 1109707.97 ft
Station: NA
Offset: NA



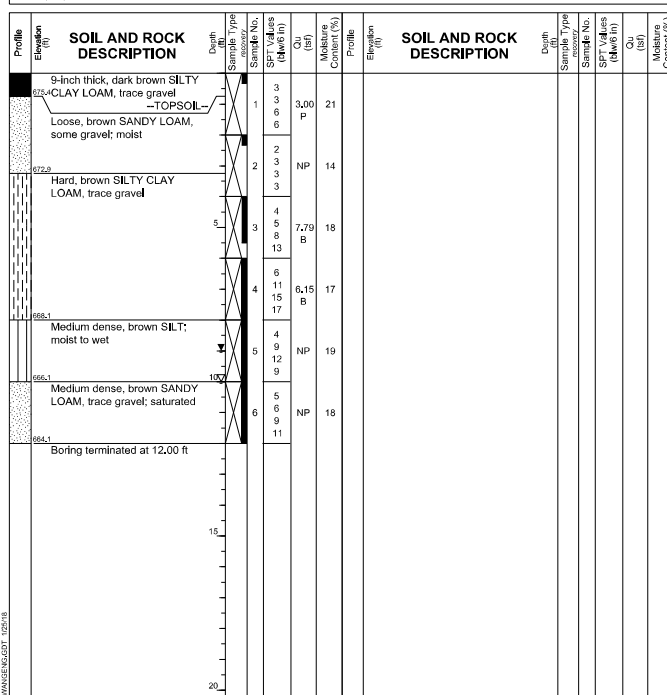
GENERAL NOTES
Begin Drilling 12-13-2016 Complete Drilling 12-13-2016
Drilling Contractor Wang Testing Services Drill Rig CME55 TMR (85%)
Driller RR&KG Logger M. Schmetzel Checked by J. Rowells
Drilling Method 3.25" IDA HSA; boring backfilled upon completion.

WATER LEVEL DATA
While Drilling **DRY**
At Completion of Drilling **DRY**
Time After Drilling **NA**
Depth to Water **NA**

Wang Engineering
wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: (630) 953-9928
Fax: (630) 953-9938

BORING LOG B-04
WEI Job No.: 769-01-01
Client: **Donohue & Associates**
Project: **Pump Station No.37**
Location: **Lake County, Illinois**

Datum: NAVD 88
Elevation: 676.14 ft
North: 2044762.89 ft
East: 1110213.40 ft
Station: NA
Offset: NA



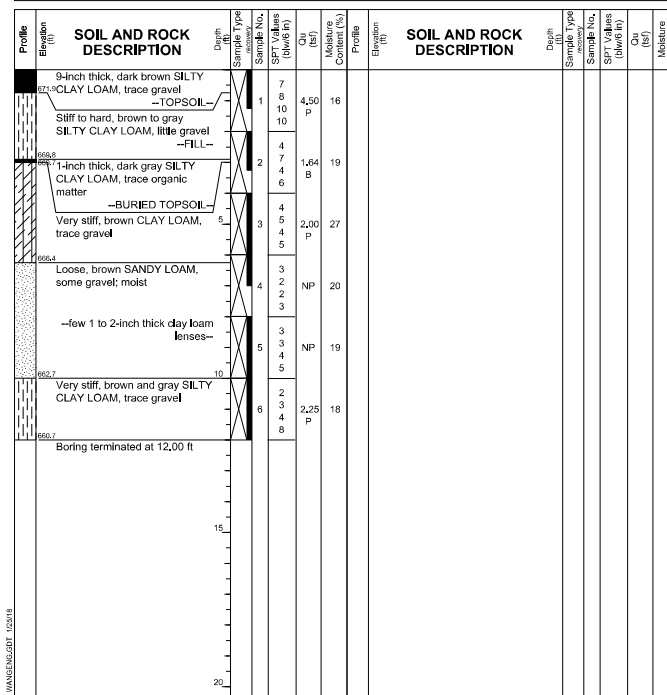
GENERAL NOTES
Begin Drilling 12-13-2016 Complete Drilling 12-13-2016
Drilling Contractor Wang Testing Services Drill Rig CME55 TMR (85%)
Driller RR&KG Logger M. Schmetzel Checked by J. Rowells
Drilling Method 3.25" IDA HSA; boring backfilled upon completion.

WATER LEVEL DATA
While Drilling **10.00 ft**
At Completion of Drilling **9.00 ft**
Time After Drilling **NA**
Depth to Water **NA**

Wang Engineering
wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: (630) 953-9928
Fax: (630) 953-9938

BORING LOG B-05
WEI Job No.: 769-01-01
Client: **Donohue & Associates**
Project: **Pump Station No.37**
Location: **Lake County, Illinois**

Datum: NAVD 88
Elevation: 672.55 ft
North: 2044773.39 ft
East: 1110597.49 ft
Station: NA
Offset: NA



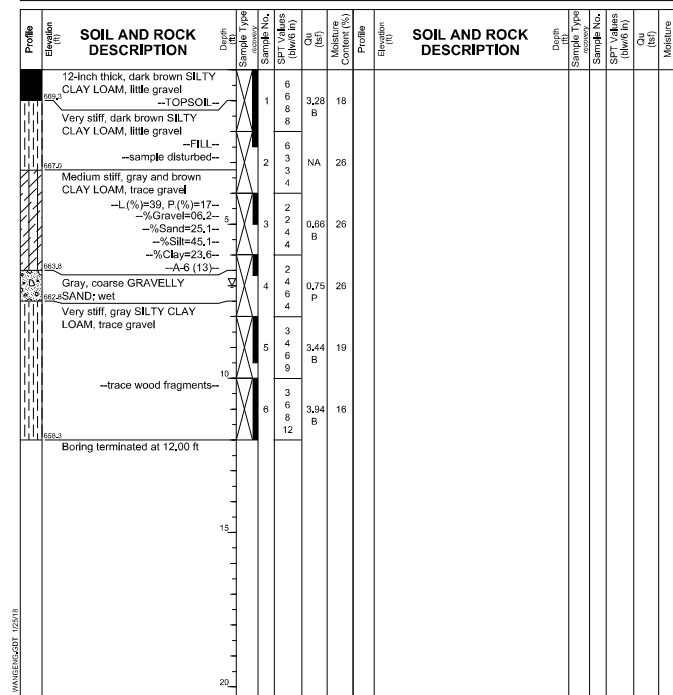
GENERAL NOTES
Begin Drilling 12-13-2016 Complete Drilling 12-13-2016
Drilling Contractor Wang Testing Services Drill Rig CME55 TMR (85%)
Driller RR&KG Logger M. Schmetzel Checked by J. Rowells
Drilling Method 3.25" IDA HSA; boring backfilled upon completion.

WATER LEVEL DATA
While Drilling **DRY**
At Completion of Drilling **DRY**
Time After Drilling **NA**
Depth to Water **NA**

Wang Engineering
wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: (630) 953-9928
Fax: (630) 953-9938

BORING LOG B-06
WEI Job No.: 769-01-01
Client: **Donohue & Associates**
Project: **Pump Station No.37**
Location: **Lake County, Illinois**

Datum: NAVD 88
Elevation: 670.28 ft
North: 2044776.05 ft
East: 1110906.57 ft
Station: NA
Offset: NA



GENERAL NOTES
Begin Drilling 12-13-2016 Complete Drilling 12-13-2016
Drilling Contractor Wang Testing Services Drill Rig CME55 TMR (85%)
Driller RR&KG Logger M. Schmetzel Checked by J. Rowells
Drilling Method 3.25" IDA HSA; boring backfilled upon completion.

WATER LEVEL DATA
While Drilling **7.00 ft**
At Completion of Drilling **DRY**
Time After Drilling **NA**
Depth to Water **NA**

MODEL: S:\MODEL\MIMES
FILE: D:\MIMES: SHELVE



USER NAME = SBREMER	DESIGNED - TJB	REVISED -
PLOT SCALE = AS NOTED	DRAWN - KAG	REVISED -
PLOT DATE = 08/09/24	CHECKED - PJE	REVISED -
	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
SOIL BORING LOGS**

SCALE: SHEET OF SHEETS STA. TO STA.

S-37

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1) L4	LAKE	186	121
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT C1JX(634)				

GENERAL MECHANICAL ABBREVIATIONS:

AVG	AVERAGE		
AFF	ABOVE FINISHED FLOOR		
B/	BOTTOM OF	LP	LOW POINT
BF	BLIND FLANGE	LR	LONG RADIUS
BFP	BACKFLOW PREVENTER	LWL	LOW WATER LEVEL
BFV	BUTTERFLY VALVE	MAX	MAXIMUM
BOD	BOTTOM OF DUCT	MFR	MANUFACTURER
BOT	BOTTOM	MIN	MINIMUM
		MJ	MECHANICAL JOINT
CL	CENTERLINE		
CO	CLEAN OUT	NO. OR #	NUMBER
CONT	CONTINUATION	NTS	NOT TO SCALE
CPVC	CHLORINATED POLYVINYL CHLORIDE		
CS	CONTROL STATION	OC	ON CENTER
CU YD	CUBIC YARD	OD	OUTSIDE DIAMETER
		OBD	OPPOSED BLADE DAMPER
DEG or °	DEGREE	P&ID	PROCESS AND INSTRUMENTATION DIAGRAM
DIA or Ø	DIAMETER	PCP	PRESTRESSED CONCRETE PIPE
DIP	DUCTILE IRON PIPE	PV	PLUG VALVE
DWG	DRAWING	PVC	POLYVINYL CHLORIDE
ECC	ECCENTRIC		
EL	ELEVATION	RCP	REINFORCED CONCRETE PIPE
ELB	ELBOW	RED	REDUCER
EXIST	EXISTING		
EA	EACH WAY	SR	SHORT RADIUS
EXP	EXPANSION	SST	STAINLESS STEEL
		STD	STANDARD
FCA	FLANGED COUPLING ADAPTOR	STL	STEEL
FCV	FLOW CONTROL VALVE		
FLG	FLANGE	T/	TOP OF
FL	FLOOR	TYP	TYPICAL
GALV	GALVANIZED	W/	WITH
		WO	WITHOUT
HB	HOSE BIB	WL	WATER LEVEL
HP	HIGH POINT		
HWL	HIGH WATER LEVEL	YR	YEAR
ID	INSIDE DIAMETER		
INV	INVERT		

NOTES:

- REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR HATCH AND GRATING DETAILS.
- CONTRACTOR TO PROVIDE A LAYOUT DRAWING SHOWING ALL PIPING, SUPPORTS AND APPURTENANCES.
- ALL DIMENSIONS LOCATING EQUIPMENT ARE FROM FINISHED WALL SURFACES OR CENTERLINES, AS INDICATED.
- SEE CIVIL DRAWINGS FOR CONTINUATION OF PIPING OUTSIDE STRUCTURES.
- ALL PIPE PENETRATIONS THROUGH INTERIOR AND EXTERIOR WALLS AND FLOORS SHALL BE SEALED AND WATERTIGHT.
- SLEEVE COUPLING MAY BE USED WHERE NECESSARY, AND AS APPROVED BY THE ENGINEER TO FACILITATE PIPING INSTALLATION.
- FOR FLANGED SYSTEMS PROVIDE FLEXIBLE CONNECTORS WHERE NECESSARY, AND AS APPROVED BY THE ENGINEER, TO FACILITATE PIPING INSTALLATION AND VALVE AND EQUIPMENT REMOVAL.
- ALL FLEXIBLE CONNECTORS, EXPANSION JOINTS, SLEEVE COUPLINGS SUBJECT TO PRESSURE SHALL BE RESTRAINED AS REQUIRED FOR EXPANSION AND FOR FLEXIBILITY.
- THE CONTRACTOR SHALL MAKE ALL REQUIRED MEASUREMENTS TO VERIFY EXISTING AND CONTRACT INTERFACE DIMENSIONS, LOCATIONS, AND OTHER CONDITIONS.
- THE PLANS ARE GENERALLY DIAGRAMMATIC IN NATURE, ROUTING OF PIPING, DUCT WORK, CONDUITS, ETC., AS SHOWN ON THE DRAWINGS, DOES NOT INTEND TO SHOW EVERY RISE, DROP, OFFSET, FITTING, OR STRUCTURAL ELEMENT THAT MAY BE REQUIRED. THE CONTRACTOR SHALL VERIFY EXACT PLACEMENT OF ALL DEVICES AND EQUIPMENT WITH FIELD CONDITIONS AND APPROVED SHOP DRAWINGS.
- THE DRAWINGS, SCHEDULES, AND SPECIFICATIONS HAVE BEEN PREPARED USING SPECIFIC MANUFACTURERS FOR THE BASIS OF DIMENSIONAL DESIGN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING ALL OF THE EQUIPMENT DIMENSIONS TO ENSURE THAT ALL COMPONENTS WILL FIT INTO THE DESIGNATED SPACES INDICATED ON THE DRAWINGS. MINOR DEVIATIONS IN DIMENSIONS WILL BE PERMITTED AT THE ENGINEER'S DISCRETION, PROVIDED THAT THE EQUIPMENT MEETS THE SPECIFIED RATINGS AND FITS INTO THE ALLOCATED SPACES WITH SUITABLE CLEARANCE FOR ACCESS. THE CONTRACTOR SHALL PROVIDE ALL ALTERATIONS REQUIRED TO ACCOMMODATE SUCH EQUIPMENT AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN, DETAIL AND INSTALLATION OF PIPE HANGERS AND SUPPORTS IN ACCORDANCE WITH PROJECT SPECIAL PROVISIONS. PIPE HANGERS AND SUPPORTS SHOWN ON DRAWINGS SHALL BE PROVIDED AS A MINIMUM AND IN ADDITION TO WHAT IS REQUIRED. ABSENSE OF PIPE HANGERS AND SUPPORTS ON DRAWINGS SHALL NOT RELIEVE CONTRACTOR OF RESPONSIBILITY FOR PROVIDING PIPE HANGERS AND SUPPORTS.
- ALL MECHANICAL AND ELECTRICAL ITEMS INSTALLED IN THE PUMP STATION WET PIT, DRY PIT, SCREEN CHAMBER INTERMEDIATE FLOOR, GRADE FLOOR AND PUMP ROOM SHALL BE SUITABLE FOR CLASS 1, DIVISION II, GROUP D, EXPLOSION PROOF, AS CLASSIFIED BY THE NATIONAL ELECTRIC CODE (NEC) FOR HAZARDOUS LOCATIONS.

M-1

MODEL - 3400/DEL/AM/MS
FILE NAME: SHEETS



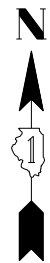
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	DRAWN - MTR	REVISED -
PLOT SCALE = AS NOTED	CHECKED - NWC	REVISED -
PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
PROCESS MECHANICAL
GENERAL NOTES**

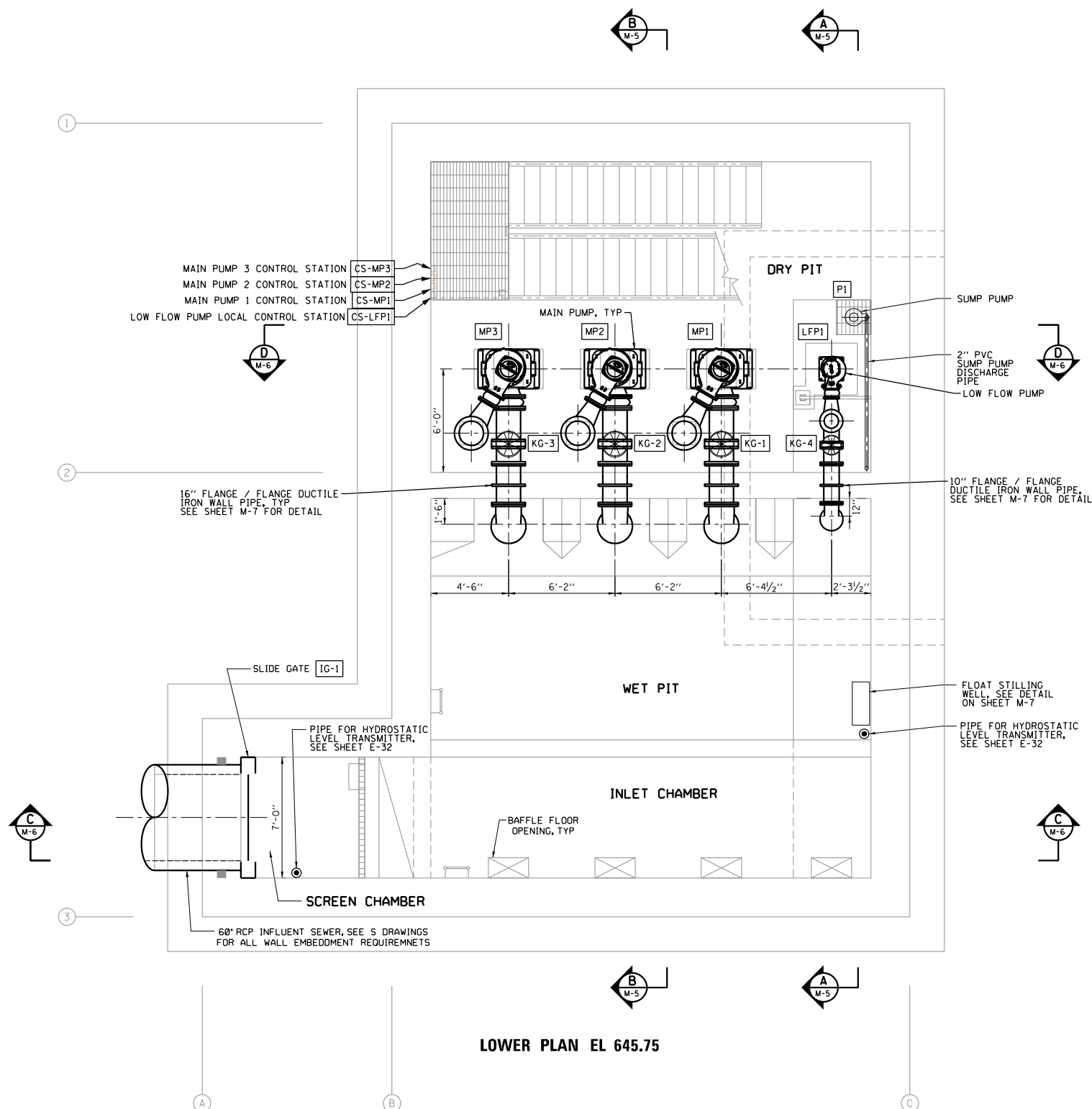
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	122
CONTRACT NO. 62B66				
		ILLINOIS	FED. AID PROJECT C/UJ(634)	



NOTES:
 1. ALL AREAS WITHIN BUILDING EXCEPT ELECTRICAL ROOM SHALL BE:

CLASS I, DIVISION 2,
 GROUP D
 HAZARDOUS CLASSIFIED
 LOCATION



LOWER PLAN EL 645.75

M-2

SCALE: 0 4 8 FT.

MODEL: 4100/DEL/NAME/MS
 FILE: NAME: SHEETS



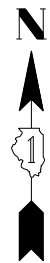
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DRAWN - MTR	REVISED -	
PLOT SCALE = AS NOTED	CHECKED - NWC	REVISED -
PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
 PROCESS MECHANICAL
 LOWER PLAN

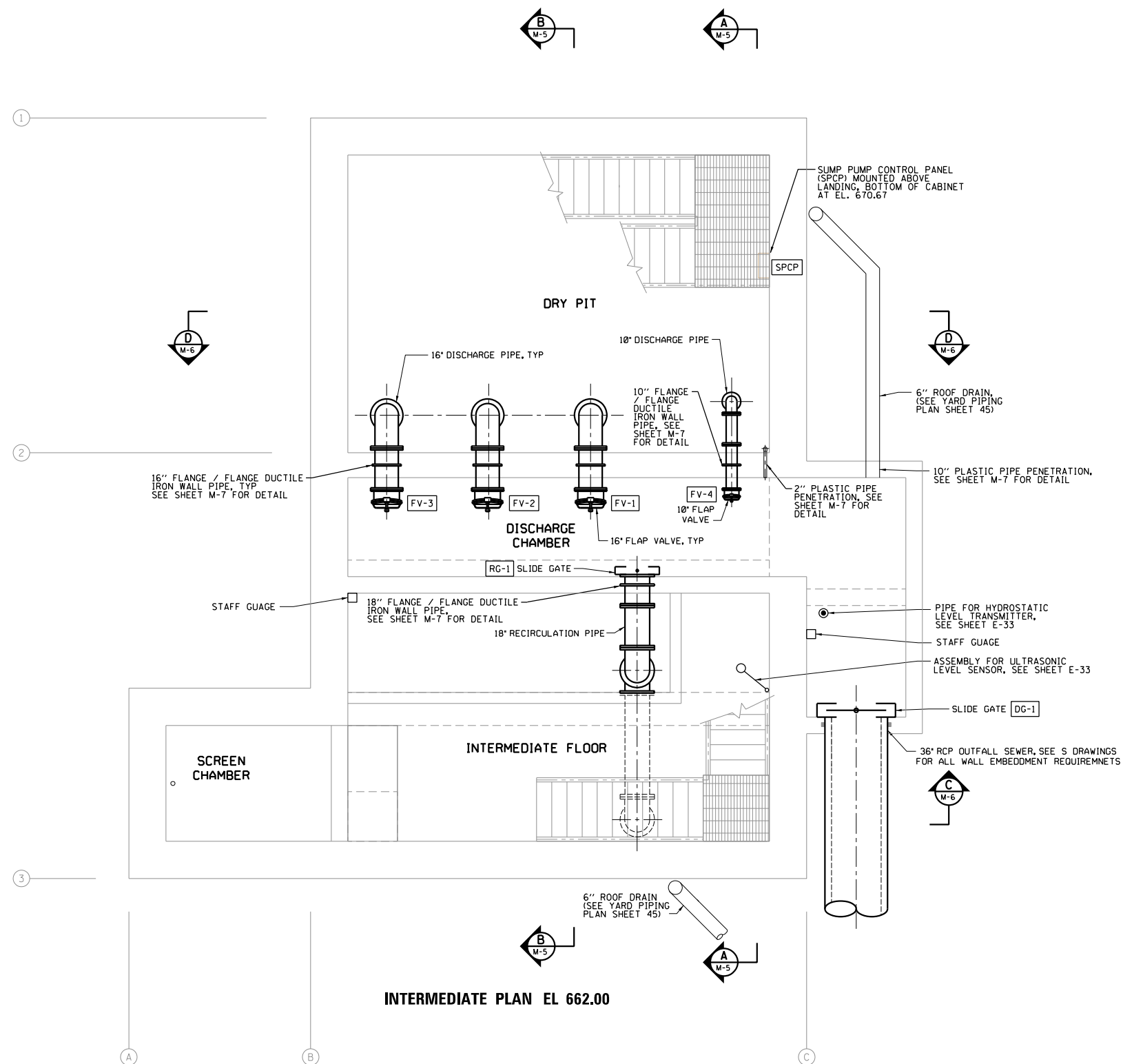
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	123
CONTRACT NO. 62B66				
ILLINOIS		FED. AID PROJECT C/UJ(634)		



NOTES:
 1. ALL AREAS WITHIN BUILDING EXCEPT ELECTRICAL ROOM SHALL BE:

CLASS I, DIVISION 2,
 GROUP D
 HAZARDOUS CLASSIFIED
 LOCATION



INTERMEDIATE PLAN EL 662.00

M-3

SCALE: 0 4 8 FT.

MODEL: 4300.DELINE.MXS
 FILE NAME: SELELS



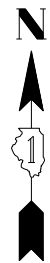
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DRAWN - MTR	REVISED -	
PLOT SCALE = AS NOTED	CHECKED - NWC	REVISED -
PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
 PROCESS MECHANICAL
 INTERMEDIATE PLAN

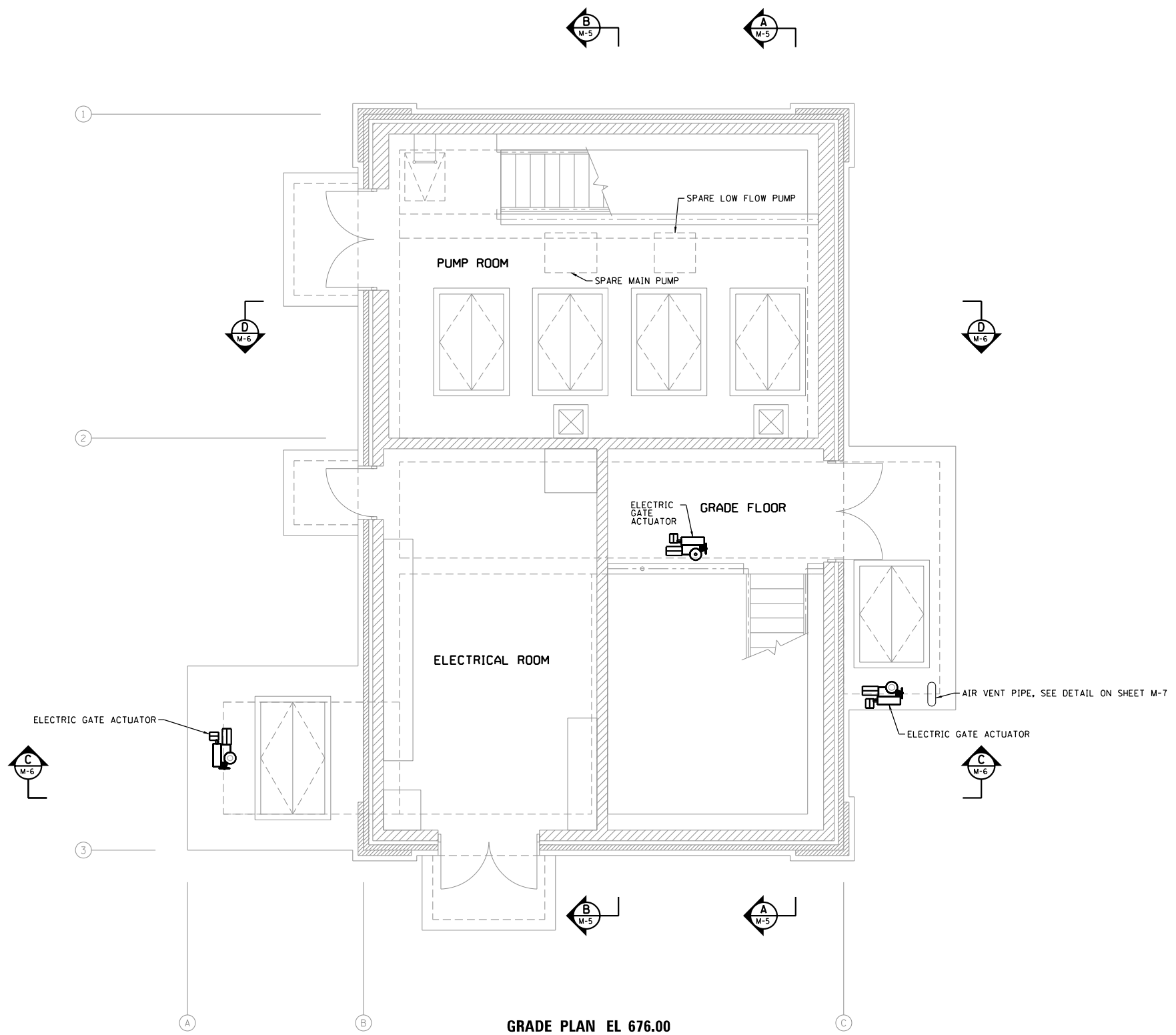
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	124
CONTRACT NO. 62B66				
		ILLINOIS	FED. AID PROJECT CJUJ(634)	



NOTES:
 1. ALL AREAS WITHIN BUILDING EXCEPT ELECTRICAL ROOM SHALL BE:

CLASS I, DIVISION 2,
 GROUP D
 HAZARDOUS CLASSIFIED
 LOCATION



GRADE PLAN EL 676.00

M-4

SCALE: 0 4 8 FT.

MODEL: S:\08\24\11\11\11\M-4.dwg



USER NAME = SBREMER	DESIGNED - MTR	REVISED -
	DRAWN - MTR	REVISED -
PLOT SCALE = AS NOTED	CHECKED - NWC	REVISED -
PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

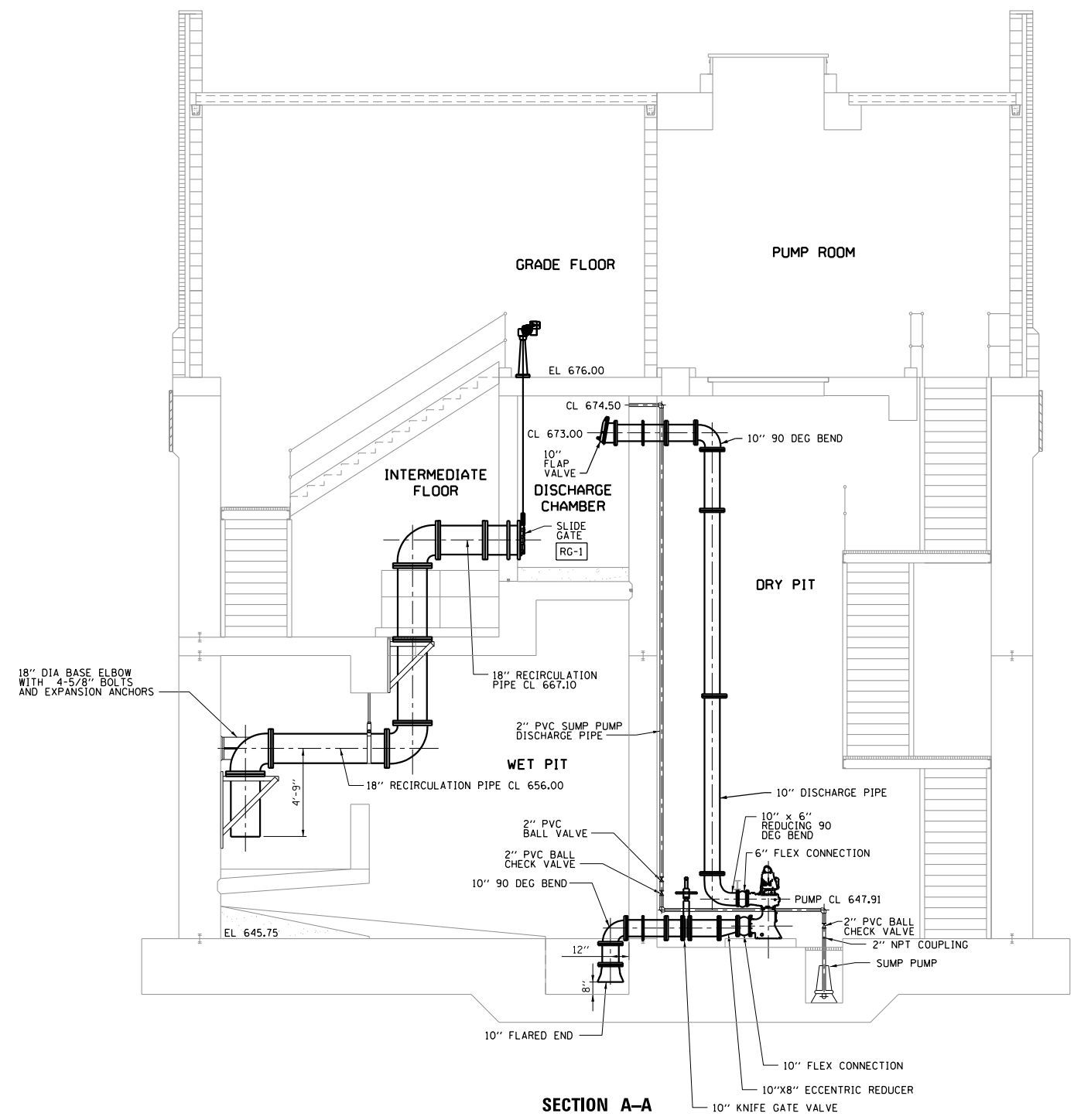
PUMP STATION NO. 37
 PROCESS MECHANICAL
 GRADE PLAN

SCALE: SHEET OF SHEETS STA. TO STA.

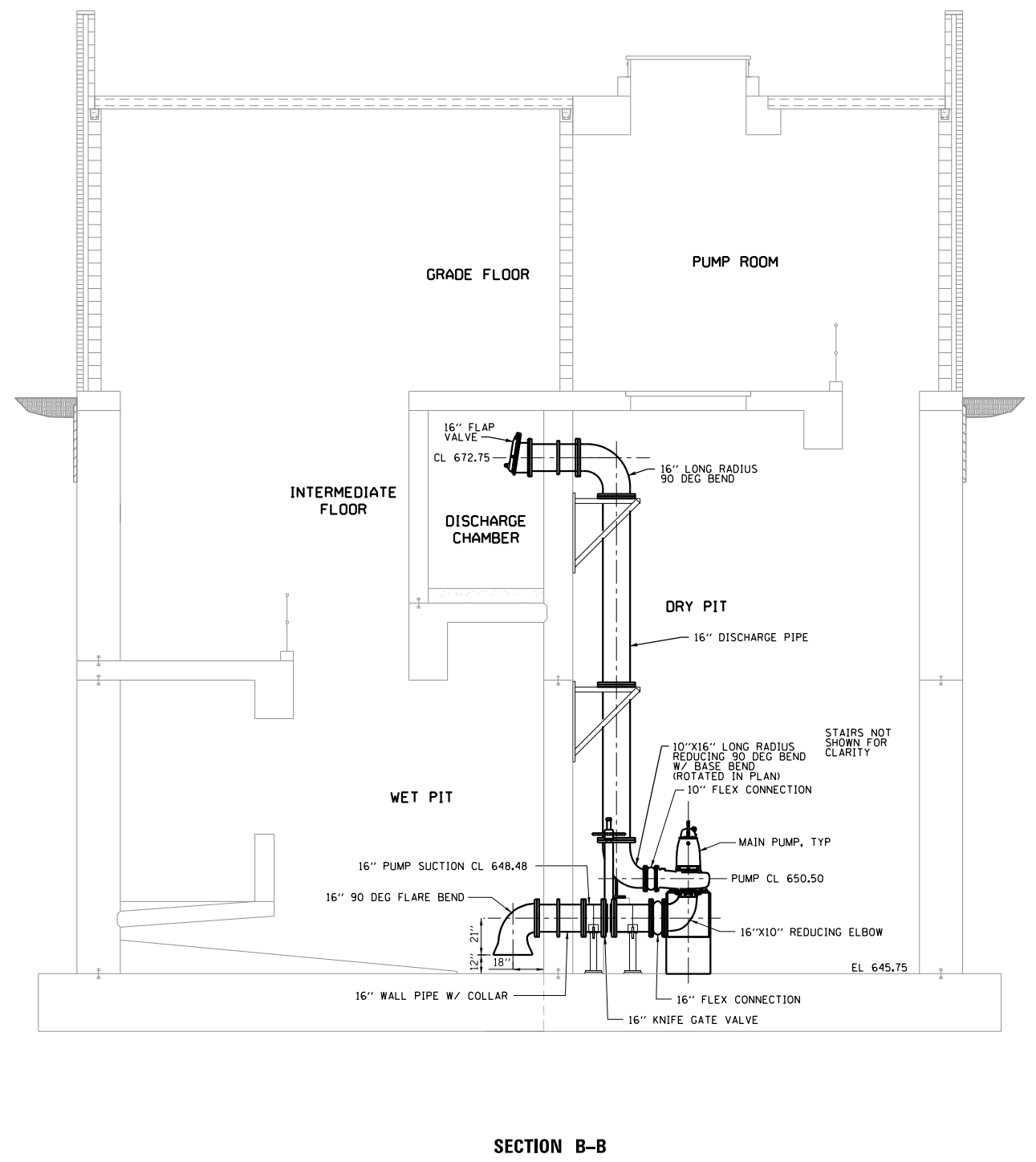
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)L-4	LAKE	186	125
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CJUX(634)				

NOTES:
 1. ALL AREAS WITHIN BUILDING EXCEPT ELECTRICAL ROOM SHALL BE:

CLASS I, DIVISION 2,
 GROUP D
 HAZARDOUS CLASSIFIED
 LOCATION



SECTION A-A



SECTION B-B

M-5

SCALE: 0 4 8 FT.

MODEL: 3/08/2024
FILE: 12/15/2024



USER NAME = SBREMER	DESIGNED - MTR	REVISED -
DRAWN - MTR	REVISED -	
PLOT SCALE = AS NOTED	CHECKED - NWC	REVISED -
PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

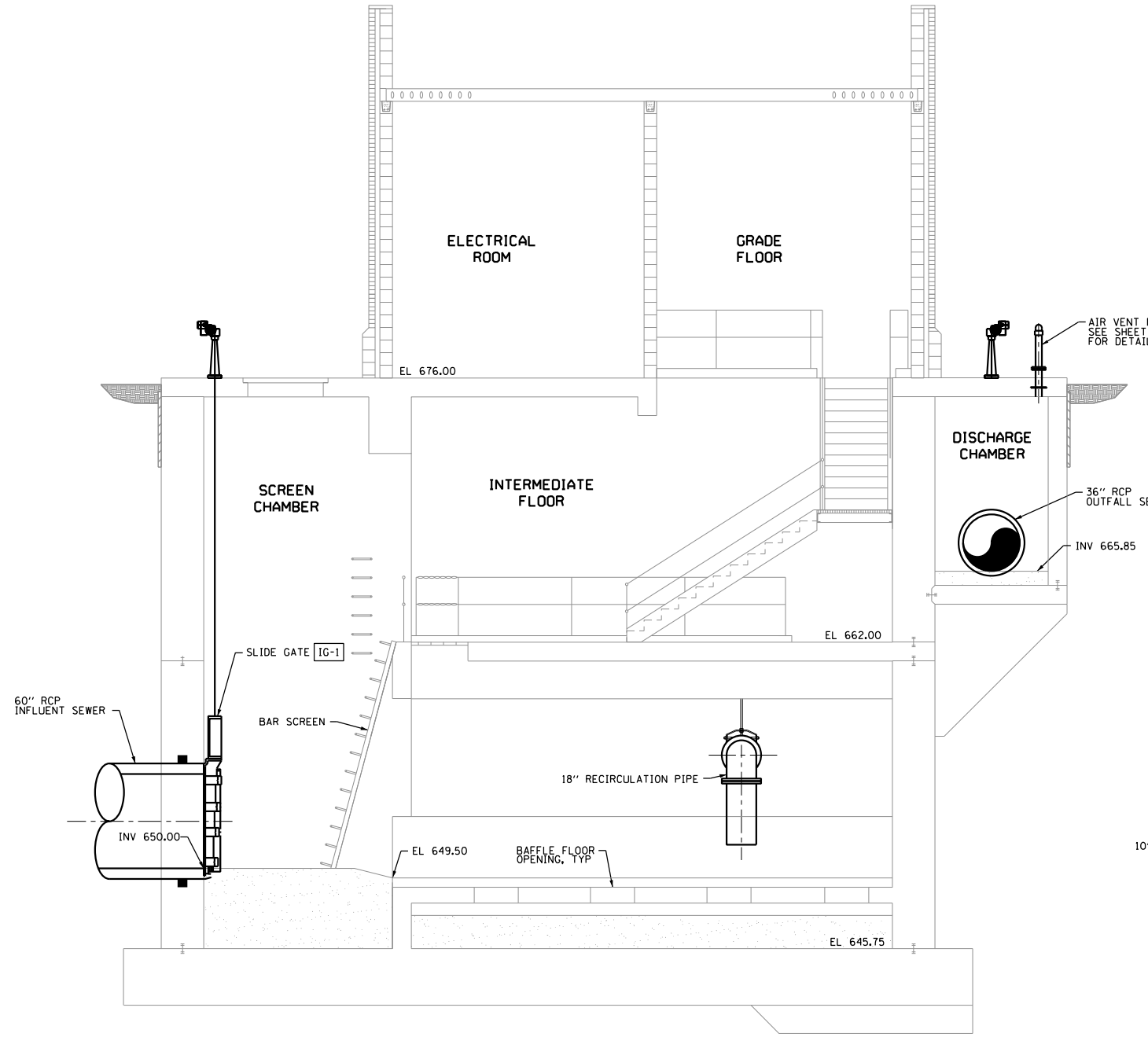
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
 PROCESS MECHANICAL
 SECTION**

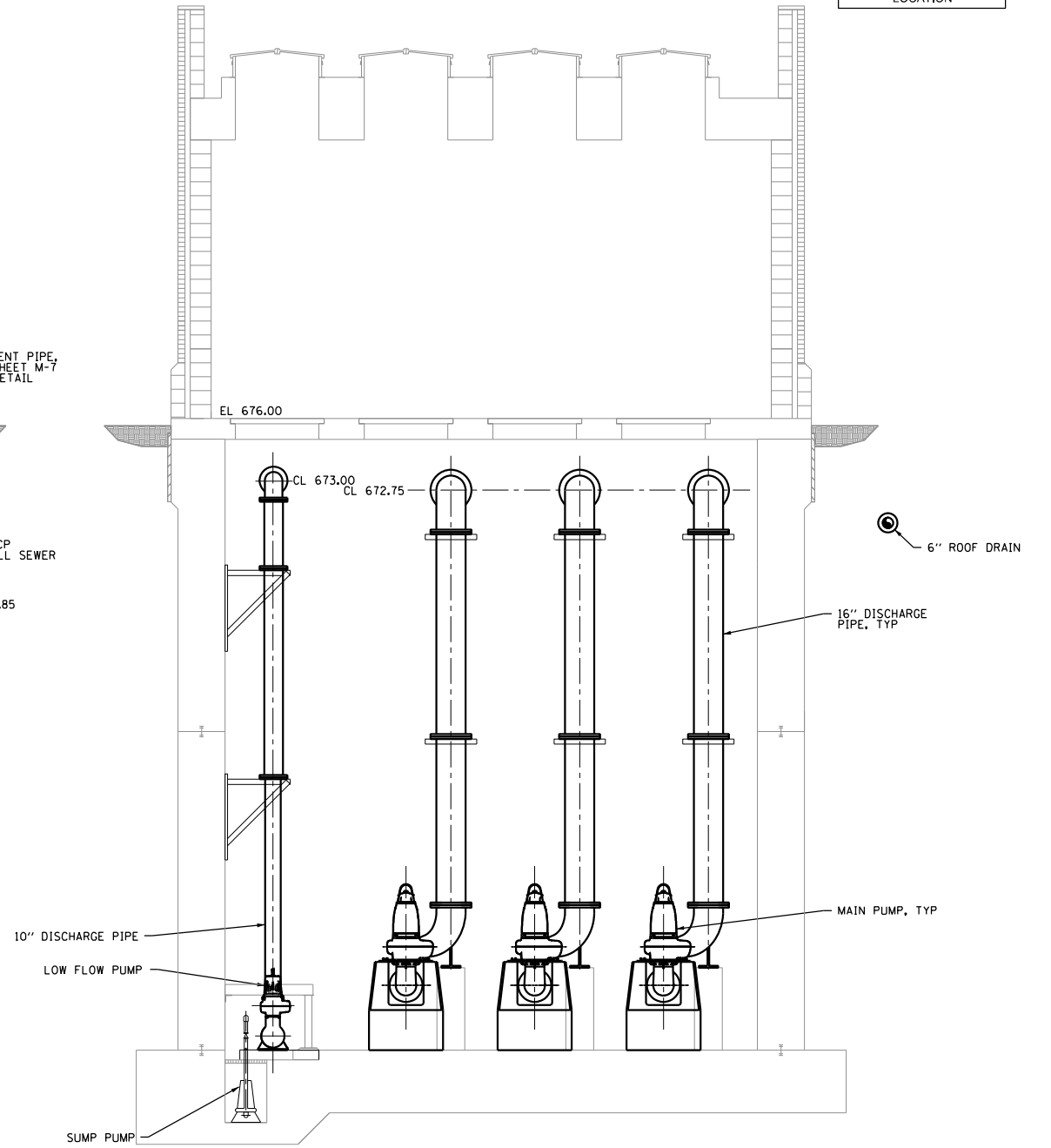
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	126
CONTRACT NO. 62B66				
ILLINOIS		FED. AID PROJECT CRJ(634)		

NOTES:
 1. ALL AREAS WITHIN BUILDING EXCEPT ELECTRICAL ROOM SHALL BE:
 CLASS 1, DIVISION 2,
 GROUP D
 HAZARDOUS CLASSIFIED
 LOCATION



SECTION C-C



SECTION D-D

SCALE: 0 4 8 FT.

M-6

MODEL: 4/08/2024
 FILE NAME: SELELS



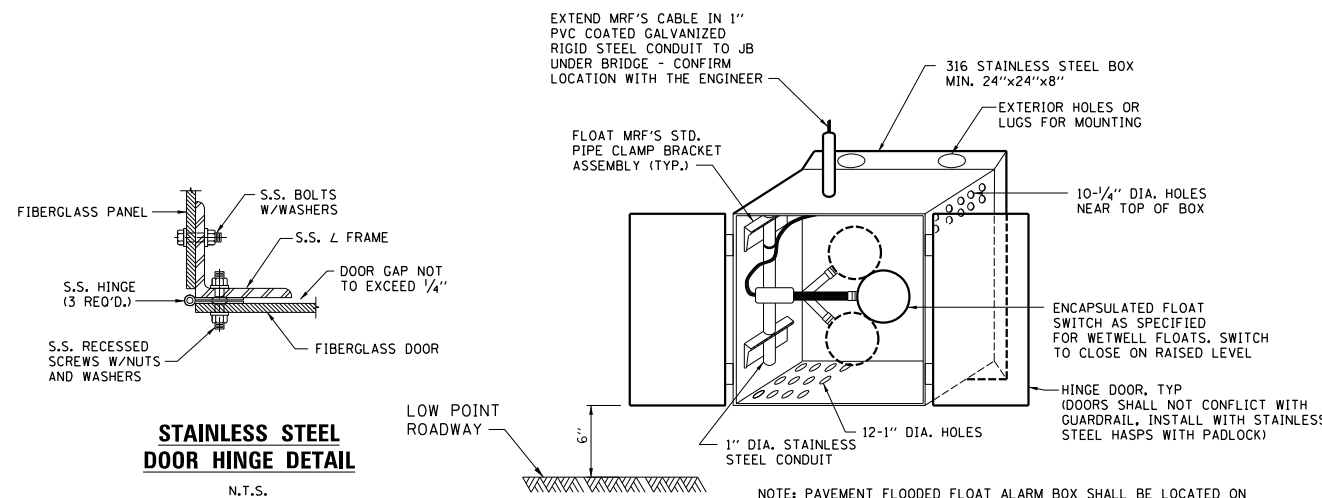
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DRAWN - MTR	REVISIONS -	
PLOT SCALE = AS NOTED	CHECKED - NWC	REVISED -
PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

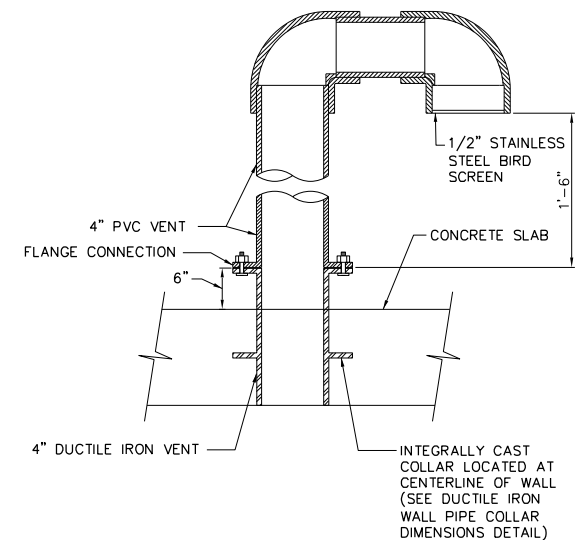
PUMP STATION NO. 37
 PROCESS MECHANICAL
 SECTIONS

SCALE: SHEET OF SHEETS STA. TO STA.

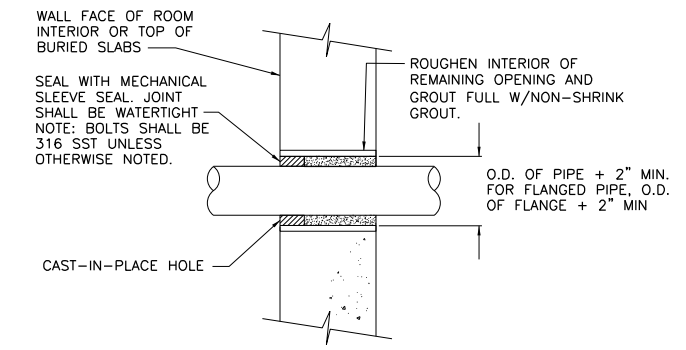
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	127
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT C/UJ(634)				



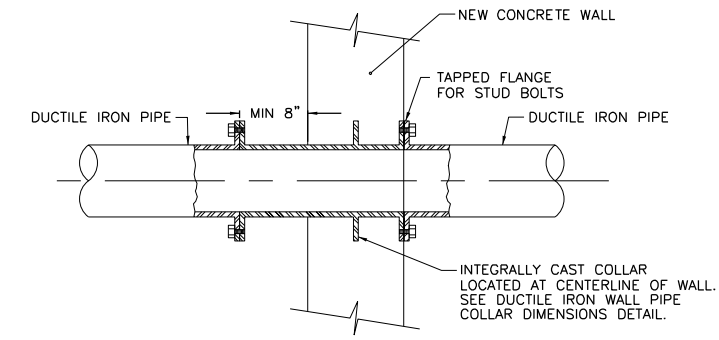
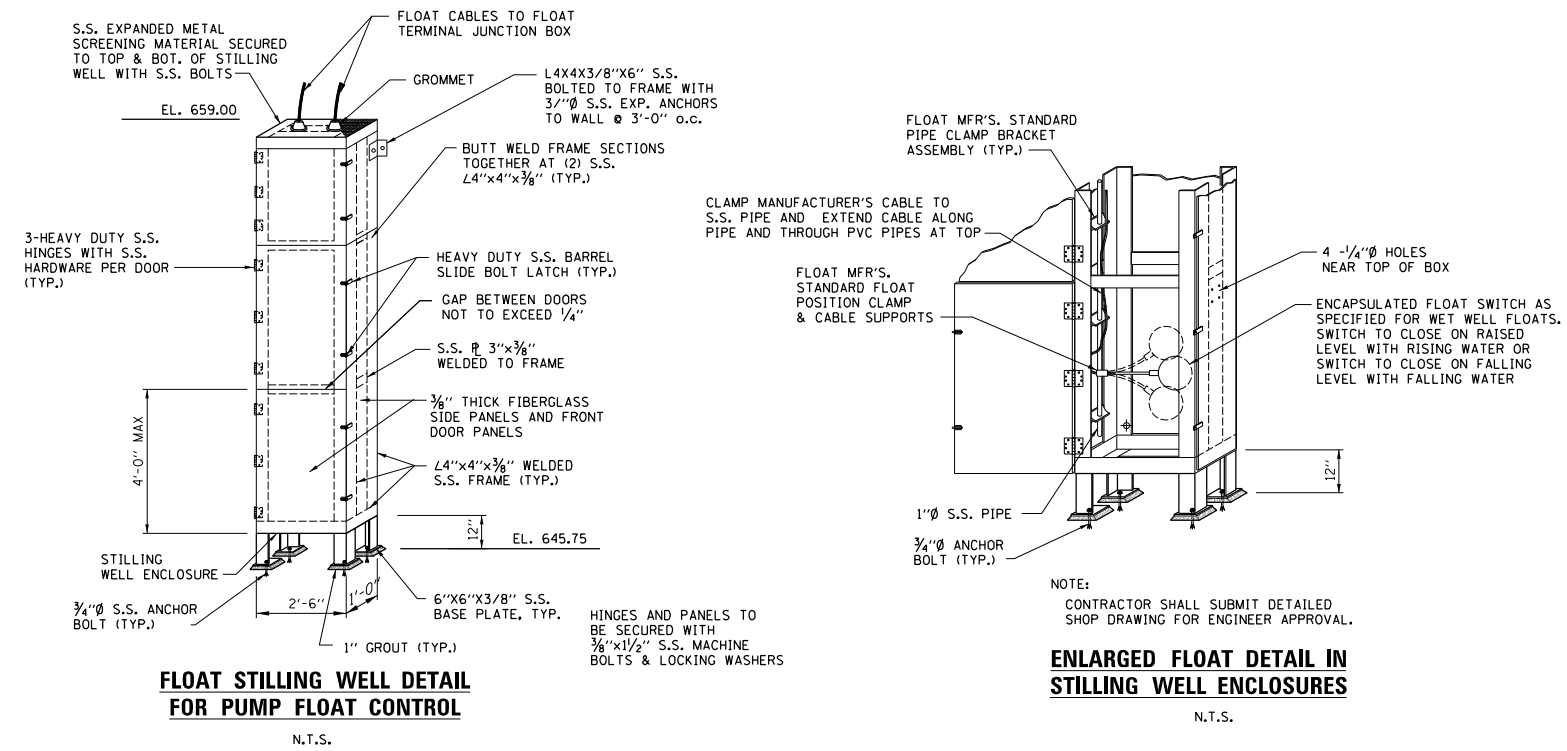
PAVEMENT FLOODED FLOAT ALARM BOX
NOT TO SCALE



AIR VENT PIPE DETAIL
NOT TO SCALE



PLASTIC PIPE PENETRATION DETAIL
N.T.S.



FLANGE /FLANGE DUCTILE IRON WALL PIPE DETAIL
N.T.S.

NOMINAL PIPE DIA (INCHES)	MINIMUM COLLAR DIMENSIONS			
	INTEGRALLY CAST D.I. COLLAR		STEEL COLLAR	
	T THICKNESS (INCHES)	C DIAMETER (INCHES)	T THICKNESS (INCHES)	C DIAMETER (INCHES)
4	0.50	8.00	0.25	6.80
6	0.50	10.00	0.25	8.90
8	0.50	12.50	0.25	11.05
10	0.50	14.50	0.25	13.10
12	0.50	16.50	0.25	15.20
14	0.75	19.50	0.25	17.30
16	0.75	21.75	0.25	19.40
18	0.75	23.75	0.38	22.50
20	0.75	25.75	0.38	24.60
24	0.75	30.25	0.38	28.80

DUCTILE IRON WALL PIPE COLLAR DIMENSIONS DETAIL
N.T.S.

MODEL - 340 DELINEMTS
FILE NAME: SHEETS



USER NAME = SBREMER	DESIGNED - MTR	REVISED -
PLOT SCALE = AS NOTED	DRAWN - MTR	REVISED -
PLOT DATE = 08/09/24	CHECKED - NWC	REVISED -
	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
PROCESS MECHANICAL
DETAILS

SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.
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M-7

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	128
CONTRACT NO. 62B66				
ILLINOIS	FED. AID PROJECT	CRJX(634)		

PUMPING OPERATION WITH RISING WATER			
SCADA FUNCTION	ELEVATION	LEVEL ABOVE SUMP PIT FLOOR	FLOAT FUNCTION
	(FT)	(FT)	
HIGH WATER ALARM	657.11	14.36	HIGH WATER ALARM
NO FUNCTION	654.00	11.25	START MAIN PUMP 3 (IF 1 OR 2 FAILED)
START LAG MAIN PUMP	653.00	10.25	START MAIN PUMP 2
START LEAD MAIN PUMP STOP LOW FLOW PUMP	652.00	9.25	START MAIN PUMP 1 STOP LOW FLOW PUMP
START LOW FLOW PUMP	648.50	5.75	START LOW FLOW PUMP
	663.22	20.47	PAVEMENT FLOOD ALARM

PUMPING OPERATION WITH FALLING WATER			
SCADA FUNCTION	ELEVATION	LEVEL ABOVE SUMP PIT FLOOR	FLOAT FUNCTION
	(FT)	(FT)	
STOP MAIN PUMPS START LOW FLOW PUMP	650.50	7.75	STOP MAIN PUMPS START LOW FLOW PUMP
STOP LOW FLOW PUMP	647.00	4.25	STOP LOW FLOW PUMP
LOW WATER ALARM	646.50	3.75	LOW WATER ALARM

EQUIPMENT SCHEDULE										
ITEM	DESCRIPTION	LOCATION	ELECTRICAL MOTOR CHARACTERISTICS						PUMP	
			KW	HP	RPM	VOLTS	PHASE	HZ	CAPACITY (GPM)	HEAD (FT)
MP1	MAIN PUMP #1	DRY PIT	18.6*	25*	1,180*	480	3	60	3,000	24.7
MP2	MAIN PUMP #2	DRY PIT	18.6*	25*	1,180*	480	3	60	3,000	24.7
MP3	MAIN PUMP #3	DRY PIT	18.6*	25*	1,160*	480	3	60	3,000	24.7
LFP1	LOW FLOW PUMP #1	DRY PIT	6.5*	8.7*	1,800*	480	3	60	921	25.6
IG-1	INFLUENT GATE ACTUATOR	GRADE ELEVATION AT SCREEN CHAMBER		1.0*		480	3	60		
RG-1	RECIRCULATION GATE ACTUATOR	GRADE FLOOR		1.0*		480	3	60		
DG-1	DISCHARGE GATE ACTUATOR	GRADE ELEVATION AT DISCHARGE CHAMBER		1.0*		480	3	60		
P1	SUMP PUMP	DRY PIT		1.5*		480	3	60	20	33

* MAXIMUM

NOTES:

- EQUIPMENT SHALL BE CLASS 1, DIV. 2 GROUP D EXPLOSION PROOF.

M-8

MODELS AND DIMENSIONS FILE NAME: SHELFS



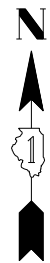
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	DRAWN - MTR	REVISED -
PLOT SCALE = AS NOTED	CHECKED - NWC	REVISED -
PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
PROCESS MECHANICAL
SCHEDULES

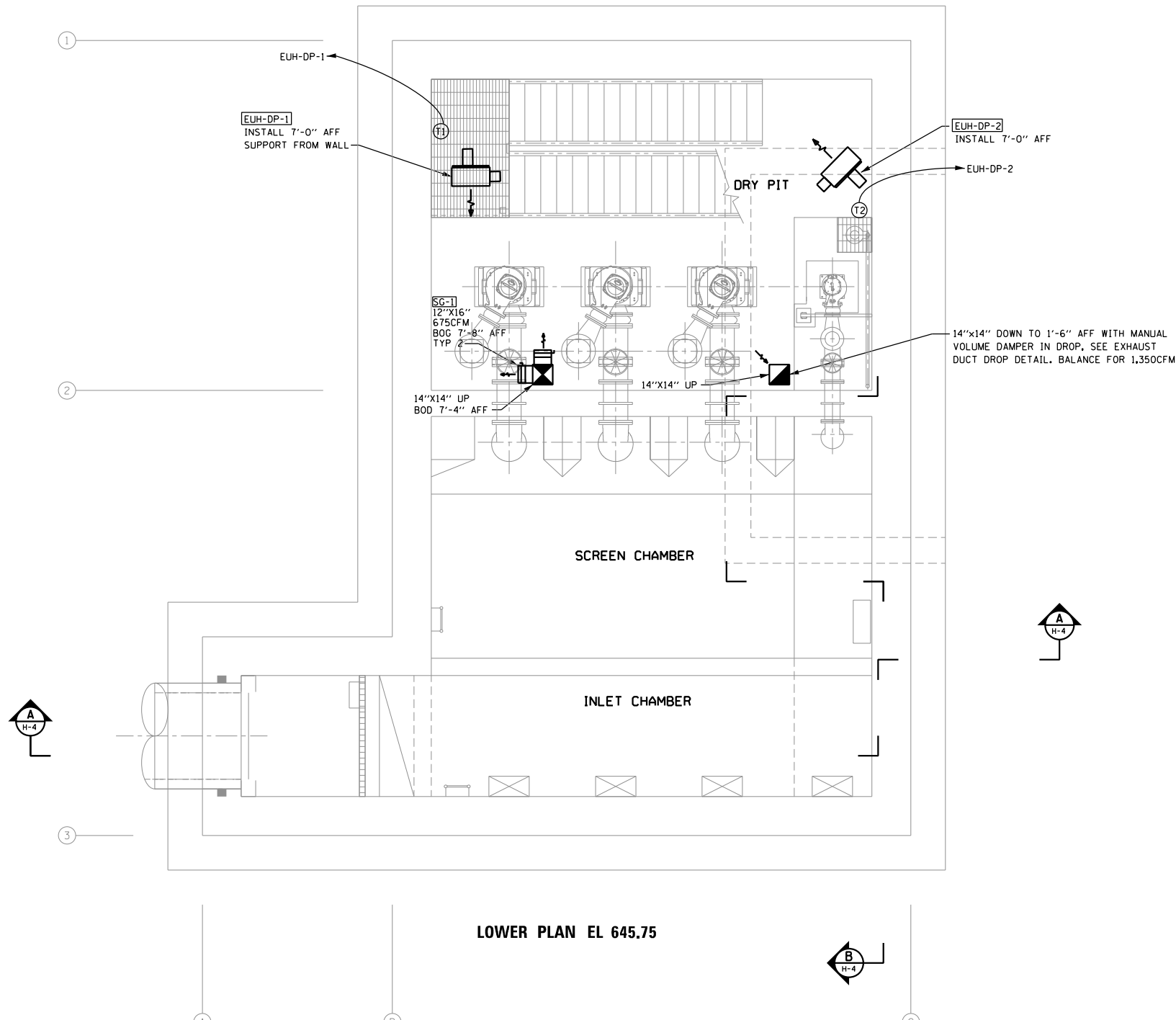
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	129
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CJU(634)				



NOTES:
 1. ALL AREAS WITHIN BUILDING EXCEPT ELECTRICAL ROOM SHALL BE:

CLASS 1, DIVISION 2,
 GROUP D
 HAZARDOUS CLASSIFIED
 LOCATION



LOWER PLAN EL 645.75

SCALE: 0 4 8 FT.

H-1

MODELS AND DIMENSIONS FILE NAMES: SEE LISTS



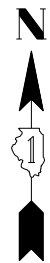
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PLOT SCALE = AS NOTED	DRAWN - CAH	REVISED -
PLOT DATE = 08/09/24	CHECKED - EPC	REVISED -
	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
 HVAC
 LOWER PLAN

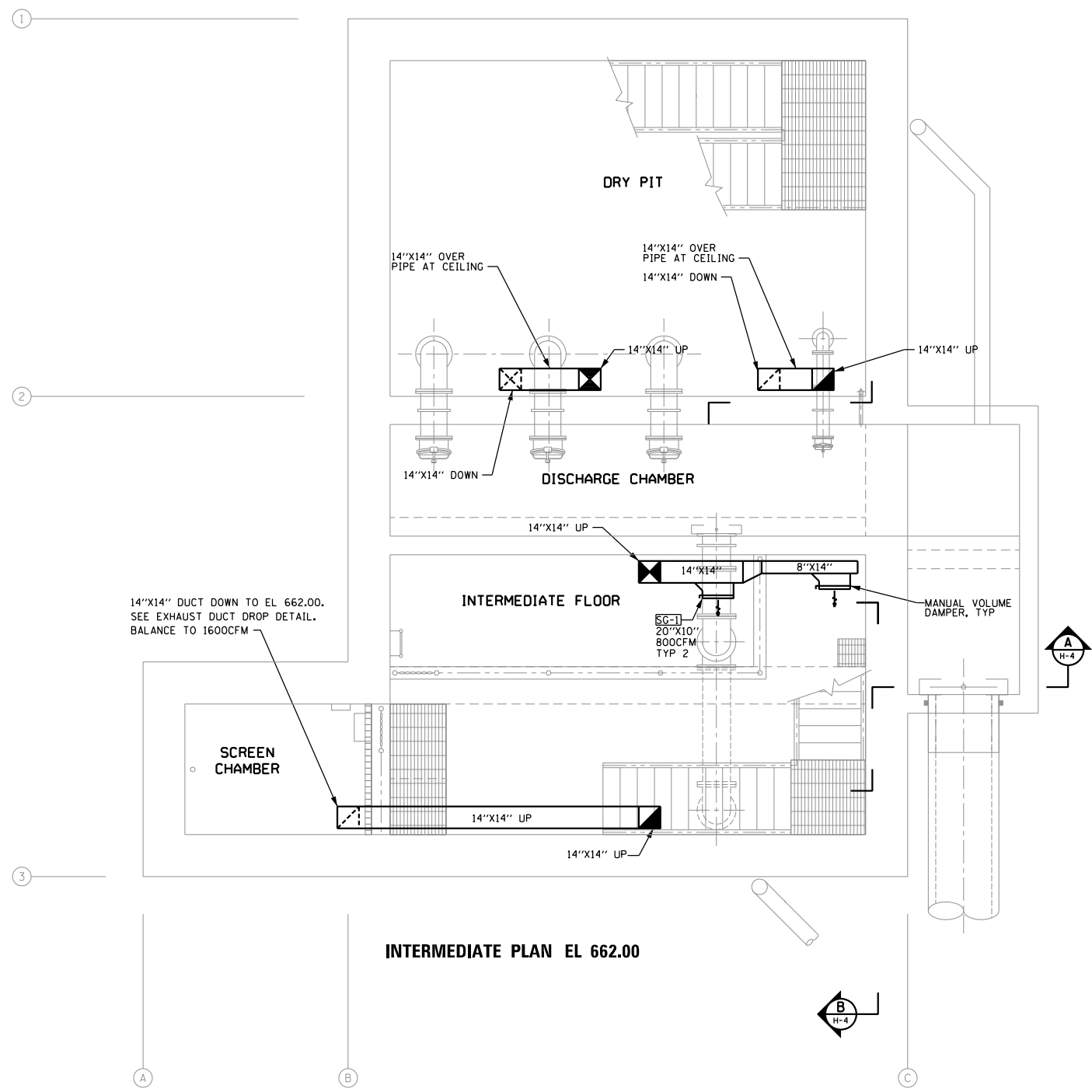
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	130
CONTRACT NO. 62B66				
		ILLINOIS	FED. AID PROJECT C/UJ(634)	



NOTES:
 1. ALL AREAS WITHIN BUILDING EXCEPT ELECTRICAL ROOM SHALL BE:

CLASS 1, DIVISION 2,
 GROUP D
 HAZARDOUS CLASSIFIED
 LOCATION



INTERMEDIATE PLAN EL 662.00

H-2

SCALE: 0 4 8 FT.

MODEL: 4100.DELINE.MXES
 FILE NAME: SELELS



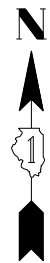
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PLOT SCALE = AS NOTED	DRAWN - CAH	REVISED -
PLOT DATE = 08/09/24	CHECKED - EPC	REVISED -
	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
 HVAC
 INTERMEDIATE PLAN

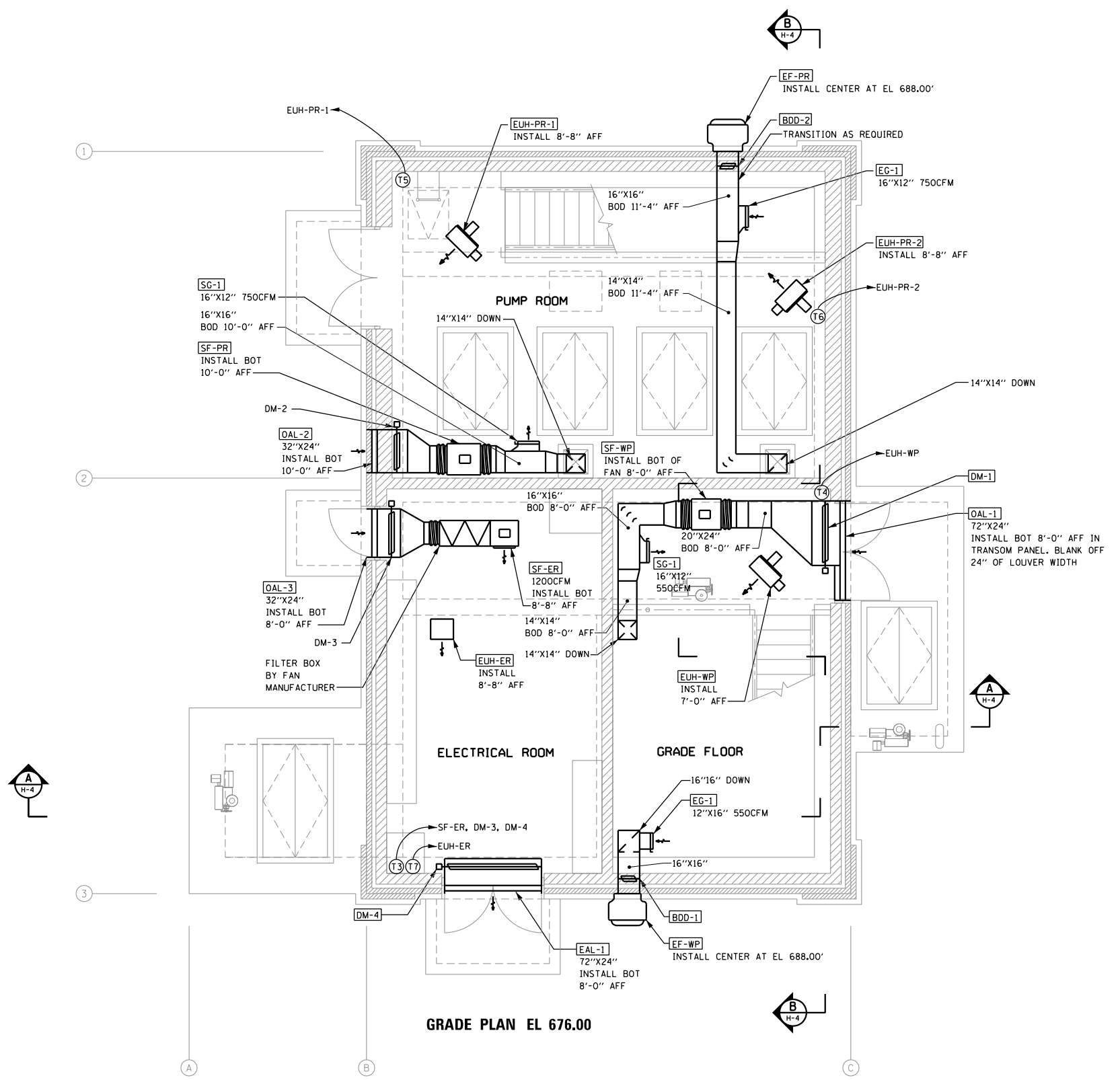
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	131
CONTRACT NO. 62B66				
		ILLINOIS	FED. AID PROJECT	CRJX(634)



NOTES:
 1. ALL AREAS WITHIN BUILDING EXCEPT ELECTRICAL ROOM SHALL BE:
 CLASS I, DIVISION 2,
 GROUP D
 HAZARDOUS CLASSIFIED
 LOCATION

2. ALL DUCTWORK SHALL BE ROUTED TO AVOID SKYLIGHT AND FLOOR HATCH OPENINGS.



GRADE PLAN EL 676.00

SCALE: 0 4 8 FT.

H-3

MODEL: 4300.DELIN.MX
 FILE: 040824.SHEETS



USER NAME = SBREMER	DESIGNED - JLW	REVISED -
PLOT SCALE = AS NOTED	DRAWN - CAH	REVISED -
PLOT DATE = 08/09/24	CHECKED - EPC	REVISED -
	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

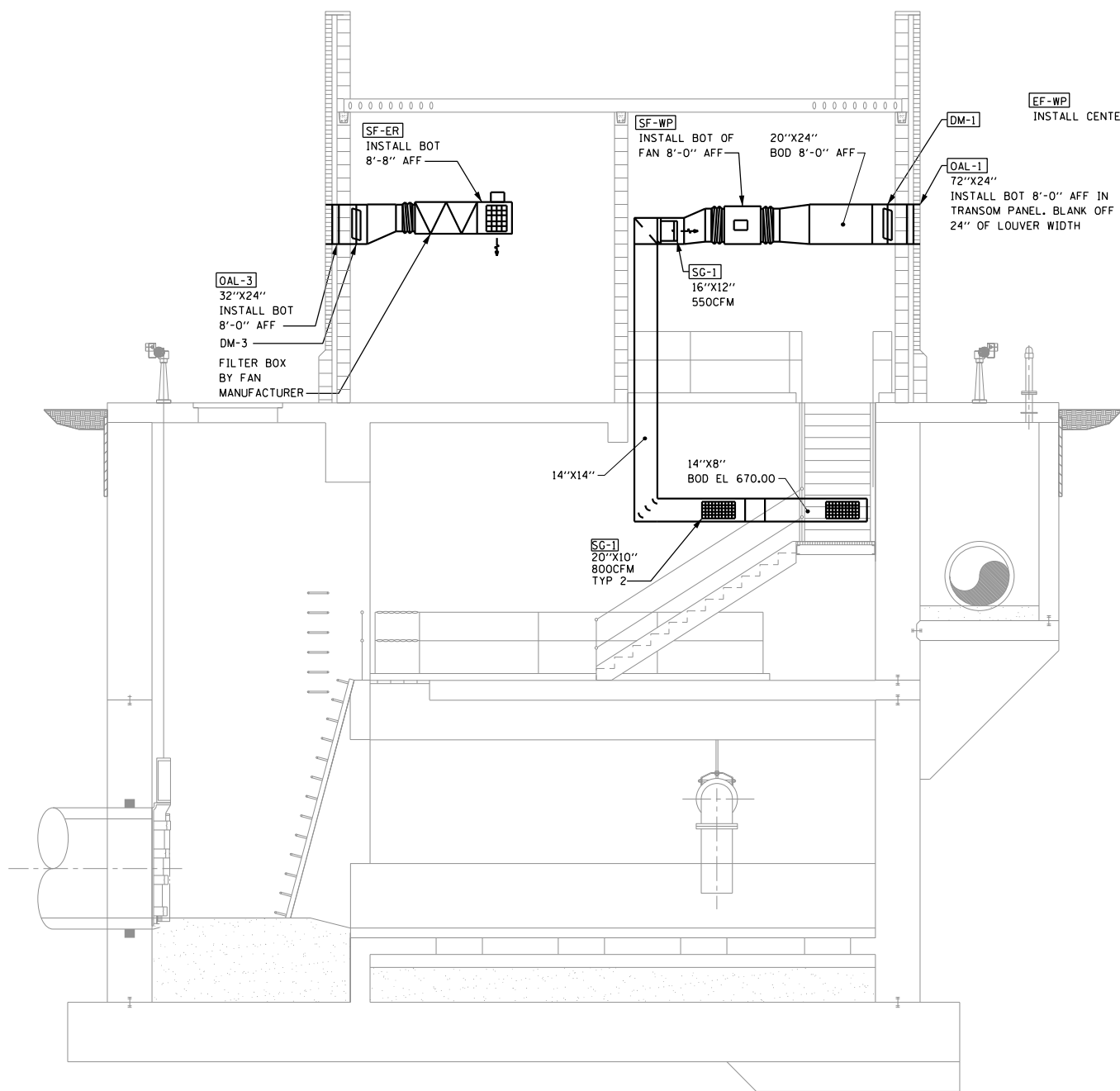
PUMP STATION NO. 37
 HVAC
 GRADE PLAN

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	132
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CJU(634)				

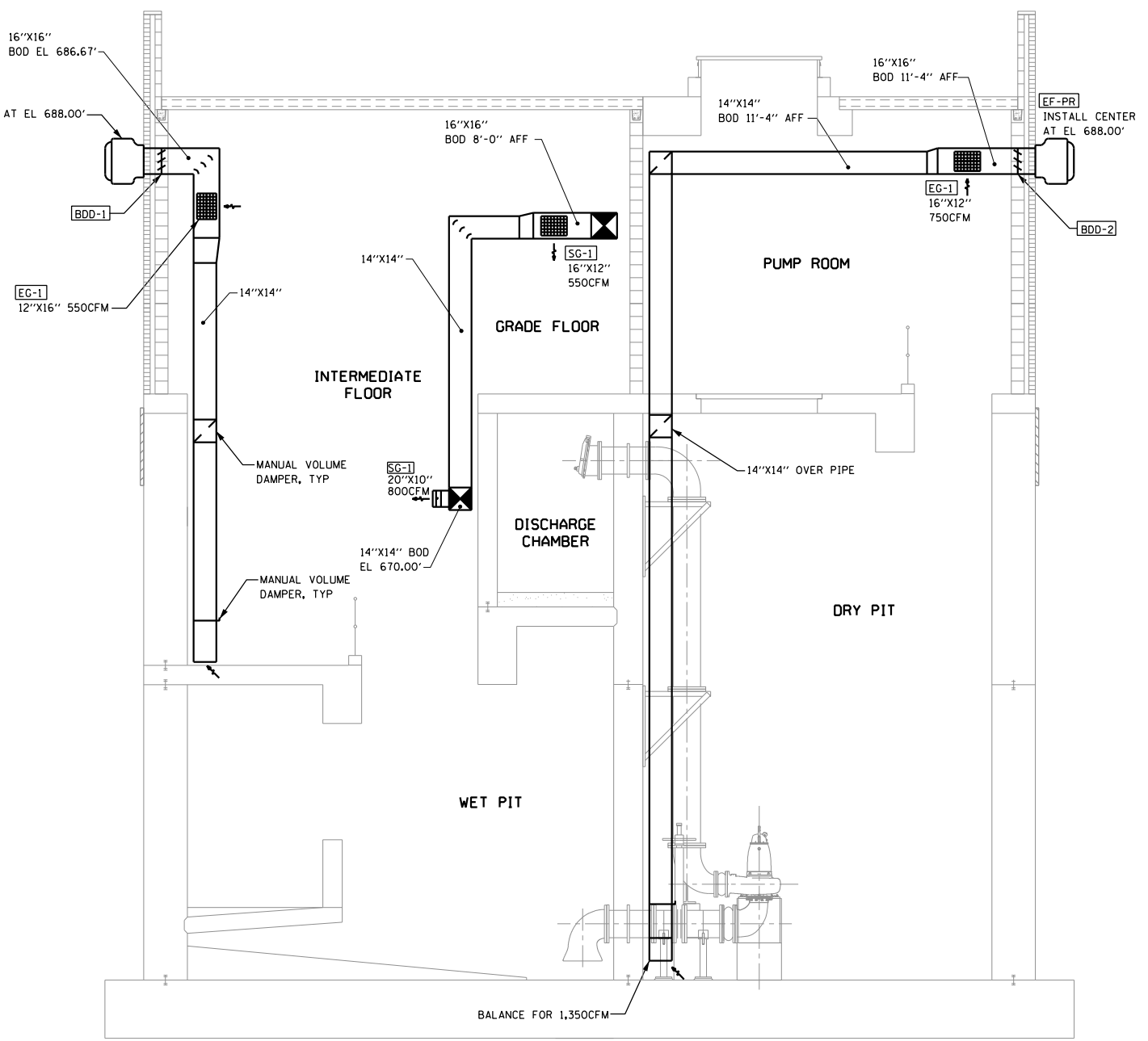
SCALE: SHEET OF SHEETS STA. TO STA.

NOTES:
 1. ALL AREAS WITHIN BUILDING EXCEPT ELECTRICAL ROOM SHALL BE:

CLASS I, DIVISION 2,
 GROUP D
 HAZARDOUS CLASSIFIED
 LOCATION



SECTION A-A



SECTION B-B

MODEL: 4300/DEL/NAME/MS
 FILE: NAME: SHEETS



USER NAME = SBREMER	DESIGNED - JLW	REVISED -
PLOT SCALE = AS NOTED	DRAWN - CAH	REVISED -
PLOT DATE = 08/09/24	CHECKED - EPC	REVISED -
	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
 HVAC
 SECTION

SCALE: SHEET OF SHEETS STA. TO STA.

H-4

SCALE: 0 4 8 FT.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	133
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CJU(634)				

DAMPERS SCHEDULE						
ITEM	SIZE	ACTUATOR			CONFIGURATION	REMARKS
		TYPE	VOLTAGE	PH		
DM-1	72"x24"	NEMA 7 ELECTRIC	115	1	INTAKE	INSULATED BLADE TYPE PROVIDE WITH LIMIT SWITCH LS1 ASSOCIATED WITH LOUVER OAL-1
DM-2	32"x24"	NEMA 7 ELECTRIC	115	1	INTAKE	INSULATED BLADE TYPE PROVIDE WITH LIMIT SWITCH LS2 ASSOCIATED WITH LOUVER OAL-2
DM-3	32"x24"	NEMA 2 ELECTRIC	115	1	INTAKE	INSULATED BLADE TYPE PROVIDE WITH LIMIT SWITCH LS3 ASSOCIATED WITH LOUVER OAL-3
DM-4	72"x24"	NEMA 2 ELECTRIC	115	1	RELIEF	INSULATED BLADE TYPE PROVIDE WITH LIMIT SWITCH LS4 ASSOCIATED WITH LOUVER OAL-1
BDD-1	15"x15"	GRAVITY	---	---	EXHAUST	ALUMINUM BACKDRAFT DAMPER FURNISHED WITH EF-WP
BDD-2	15"x15"	GRAVITY	---	---	EXHAUST	ALUMINUM BACKDRAFT DAMPER ASSOCIATED WITH EF-PR

HEATING AND VENTILATION CONTROLS SCHEDULE					
AREA	HEATING	VENTILATION			
		MANUAL	AUTOMATIC		
			THERMOSTAT	COMBUSTIBLE GAS SENSOR	LIGHT INTERLOCK (FROM SCADA)
WET PIT	THERMOSTAT	YES	NO	YES	YES
PUMP ROOM	THERMOSTAT	YES	NO	YES	YES
ELECTRICAL ROOM	THERMOSTAT	YES	YES	NO	NO

THERMOSTAT SCHEDULE			
THERMOSTAT	NEMA RATING	LOCATION	EQUIPMENT SERVED
T-STAT1	7	DRY PIT	EUH-DP-1
T-STAT2	7	DRY PIT	EUH-DP-2
T-STAT3	4X	ELECTRICAL ROOM	SF-ER, DM-3, DM-4
T-STAT4	7	WET PIT	EUH-WP
T-STAT5	7	PUMP ROOM	EUH-PR-1
T-STAT6	7	PUMP ROOM	EUH-PR-2
T-STAT7	4X	ELECTRICAL ROOM	EUH-ER

NOTE: ALL THERMOSTATS SHALL BE MOUNTED AT 4'-0" ABOVE OPERATING FLOOR.

ELECTRICAL ROOM VENTILATION CONTROL

SUPPLY FAN (SF-ER), EXHAUST LOUVER (EAL-1, DM-4) AND OUTSIDE AIR LOUVER (OAL-3, DM-3) SHALL BE CONTROLLED BY H-O-A SWITCH AND SPACE COOLING THERMOSTAT (T3) SET AT (85°F, ADJUSTABLE).

AUTO MODE:

ON CALL FOR COOLING, MOTORIZED DAMPERS (DM-3 AND DM-4) SHALL OPEN. UPON PROOF OF OPENING, SUPPLY FAN (SF-ER) SHALL ENERGIZE AND RUN CONTINUOUSLY. UPON SATISFACTION OF SPACE COOLING REQUIREMENTS, FAN SHALL STOP AND DAMPERS SHALL CLOSE.

OFF MODE:

SUPPLY FAN (SF-ER) OFF AND DAMPERS (DM-3 AND DM-4) CLOSED.

HAND MODE:

SUPPLY FAN (SF-ER) RUN CONTINUOUSLY AND DAMPERS (DM-3 AND DM-4) OPEN.

UNDER ALL MODES OF OPERATION, FIRE ALARM SIGNAL FROM SCADA SHALL DISABLE ALL VENTILATION EQUIPMENT.

PUMP ROOM VENTILATION

EXHAUST FAN (EF-PR), SUPPLY FAN (SF-PR), AND OUTSIDE AIR LOUVER (OAL-2, DM-2) SHALL BE CONTROLLED BY H-O-A SWITCH.

AUTO MODE:

MOTORIZED DAMPER (DM-2) SHALL OPEN AND PROVE OPEN, THEN EXHAUST FAN (EF-PR) AND SUPPLY FAN (SF-PR) SHALL ENERGIZE AND RUN CONTINUOUSLY UNDER ANY OF THE FOLLOWING CONDITIONS:

- WHEN GAS SENSOR DETECTS COMBUSTIBLE GAS ABOVE SETPOINT WITHIN PUMP ROOM. FAN SHALL REMAIN ON FOR AN ADJUSTABLE TIME PERIOD (15-MINUTES) UPON CLEARING OF ALARM CONDITION.
- WHEN THE PUMP ROOM LIGHTS ARE ENERGIZED.

OFF MODE:

EXHAUST FAN (EF-PR) AND SUPPLY FAN (SF-PR) OFF AND DAMPER (DM-2) CLOSED.

HAND MODE:

EXHAUST FAN (EF-PR) AND SUPPLY FAN (SF-PR) RUN CONTINUOUSLY AND DAMPER (DM-2) OPEN.

UNDER ALL MODES OF OPERATION, FIRE ALARM SIGNAL SHALL DISABLE ALL VENTILATION EQUIPMENT.

WET PIT GRADE AND INTERMEDIATE FLOOR

SUPPLY FAN (SF-WP), EXHAUST FAN (EF-1) AND OUTSIDE AIR LOUVER (OAL-1, DM-1) SHALL BE CONTROLLED BY H-O-A SWITCH.

AUTO MODE:

MOTORIZED DAMPER (DM-1) SHALL OPEN AND PROVE OPEN, THEN SUPPLY FAN (SF-WP) AND EXHAUST FAN (EF-WP) SHALL ENERGIZE AND RUN CONTINUOUSLY UNDER ANY OF THE FOLLOWING CONDITIONS:

- WHEN GAS SENSOR DETECTS COMBUSTIBLE GAS ABOVE SETPOINT WITHIN ANY LOWER LEVEL SPACE. FANS SHALL REMAIN ON FOR AN ADJUSTABLE TIME PERIOD (15-MINUTES) UPON CLEARING OF ALARM CONDITION.
- WHEN THE LIGHTS ARE ENERGIZED.

OFF MODE:

SUPPLY FAN (SF-WP), EXHAUST FAN (EF-WP) OFF AND DAMPER (DM-1) CLOSED.

HAND MODE:

SUPPLY FAN (SF-WP) AND EXHAUST FAN (EF-WP) RUN CONTINUOUSLY AND DAMPER (DM-1) OPEN.

UNDER ALL MODES OF OPERATION, FIRE ALARM SIGNAL SHALL DISABLE ALL VENTILATION EQUIPMENT.

ELECTRIC UNIT HEATERS

EUH-WP, EUH-PR-1, EUH-PR-2, EUH-ER, EUH-DP-1, EUH-DP-2

UNIT HEATERS SHALL OPERATE ON CALL FROM WALL MOUNTED SPACE HEATING THERMOSTAT. ON CALL FOR HEAT, UNIT FAN SHALL RUN AND HEATER SHALL ENERGIZE. UPON SATISFACTION OF SPACE TEMPERATURE UNIT HEATER SHALL STOP.

FAN SCHEDULE														SECTION 15E	
TAG	MANUF.	MODEL	TYPE	SERVICE	AIR FLOW DATA			FAN RPM	DRIVE	SONES	ELECTRICAL DATA				REMARKS
					CFM	ESP (IN WC)	BHP				HP/WATTS	VOLT	PH.	RPM	
EF-WP	GREENHECK CARNES COOK	CUBE-140 VMBK 15 150 ACWB	CENTRI SIDEWALL	EXHAUST	2,150	0.35	0.46	1365	BELT	14	3/4	460	3	1725	1,2,3,4,5,6
EF-PR	GREENHECK CARNES COOK	CUBE-160 VMBK 15 165 ACWB	CENTRI SIDEWALL	EXHAUST	2,100	0.60	0.42	1010	BELT	12	3/4	460	3	1725	1,2,3,4,5,6
SF-WP	GREENHECK CARNES COOK	BSO-140 VIBK 15 150SON-B	CENTRI INLINE	SUPPLY	2,150	0.65	0.60	1395	BELT	11	3/4	460	3	1725	1,2,3,4,7,8
SF-PR	GREENHECK CARNES COOK	BSO-140 VIBK 12 150SON-B	CENTRI INLINE	SUPPLY	2,100	0.60	0.55	1355	BELT	11	3/4	460	3	1725	1,2,3,4,7,8
SF-ER	GREENHECK CARNES COOK	BSO-120 VIBK 10 120SON-B	CENTRI INLINE	SUPPLY	1,200	0.20	0.25	1310	BELT	11	1/3	120	1	1725	1,2,7,8,9,10,11,12

- = ALUMINUM CONSTRUCTION.
- = STAINLESS STEEL FAN SHAFT AND FASTENERS.
- = EXPLOSION PROOF MOTOR
- = SPARK RESISTANT FAN CONSTRUCTION.
- = ALUMINUM BIRDSCREEN.
- = GRAVITY OPERATED DAMPER.
- = ALUMINUM MOTOR COVER AND BELT GUARD.
- = SPRING BASE, HANGING VIBRATION AND NEOPRENE ISOLATORS.
- = FILTERED INSULATED WALL HOUSING WITH OSHA FAN GUARD.
- = OUTLET GUARD.
- = EXTERNAL STATIC PRESSURE (ESP) INCLUDES LOSSES EXTERNAL TO THE FAN SYSTEM ONLY. MANUFACTURER SHALL INCLUDE ALL LOSSES ASSOCIATED WITH FILTERS, HOUSING, AND FREE DISCHARGE WITH MANUFACTURER PROVIDED OUTLET GUARD FOR FAN SELECTION. (APPROX. 0.41-IN W.C. TSP)
- = RIGHT SIDE OUTLET.

ELECTRIC HEATER SCHEDULE														SECTION 15E	
TAG	MANUF.	MODEL	TYPE	OUTPUT (MBH)	MOUNT HEIGHT (FT)	AIR DATA			ELECTRICAL DATA			MOTOR DATA		REMARKS	
						CFM	THROW (FT)	ΔT (°F)	KW	VOLT/•	AMP	HP	VOLT/•		RPM
EUH-ER	MODINE RUFFNECK BERKO	HER 50 RCE 05 HUH	HOR PROP	17.1	8'-8"	530	14	30	5.0	460/3	7.0	1/40	460/3	1725	2,3,5
EUH-PR-1	MODINE RUFFNECK BERKO	HEX-3 FX5 RUX3	EXP PROOF	10.3	8'-8"	500	15	19	3.0	460/3	3.6	1/2	460/3	1725	1,2,3,4,6
EUH-PR-2	MODINE RUFFNECK BERKO	HEX-3 FX5 RUX3	EXP PROOF	10.3	8'-8"	500	15	19	3.0	460/3	3.6	1/2	460/3	1725	1,2,3,4,6
EUH-WP	MODINE RUFFNECK BERKO	HEX-3 FX5 RUX3	EXP PROOF	10.3	7'-0"	500	15	19	3.0	460/3	3.6	1/2	460/3	1725	1,2,3,4,6
EUH-DP-1	MODINE RUFFNECK BERKO	HEX-3 FX5 RUX3	EXP PROOF	10.3	7'-0"	500	15	19	3.0	460/3	3.6	1/2	460/3	1725	1,2,3,4,6
EUH-DP-2	MODINE RUFFNECK BERKO	HEX-3 FX5 RUX3	EXP PROOF	10.3	7'-0"	500	15	19	3.0	460/3	3.6	1/2	460/3	1725	1,2,3,4,6

- = EXPLOSION PROOF UNIT.
- = CONTROLS AS SPECIFIED.
- = MANUFACTURERS MOUNTING ACCESSORIES.
- = WALL MOUNTED EXPLOSION PROOF THERMOSTAT.
- = WALL MOUNTED THERMOSTAT.
- = EPOXY COATED CASING.

WALL LOUVER SCHEDULE											SECTION 15E
TAG	MANUF.	MODEL	SERVICE	CFM	WIDTH (IN)	HEIGHT (IN)	DEPTH (IN)	MAX. APD (IN WC)	MAX. FREE AREA VEL. (FPM)	REMARKS	
OAL-1	GREENHECK CARNES RUSKIN	ESD-403 FPBB ELF445DX	INTAKE	2150	72	24	4	0.07*	600*	1,2,3,5	
OAL-2	GREENHECK CARNES RUSKIN	ESD-403 FPBB ELF445DX	INTAKE	2100	32	24	4	0.14	875	1,2,4,5	
OAL-3	GREENHECK CARNES RUSKIN	ESD-403 FPBB ELF445DX	INTAKE	1200	32	24	4	0.05	500	1,2,3,5	
EAL-1	GREENHECK CARNES RUSKIN	ESD-403 FPBB ELF445DX	EXHAUST	1200	72	24	4	0.02	250	1,2,3,5	

- * = MAX AIR PRESSURE DROP AND VELOCITY BASED ON DUCTED PORTION OF LOUVER.
- 1. = ALUMINUM BIRDSCREEN.
- 2. = EXTENDED SILL.
- 3. = INSULATED BLADE MOTOR OPERATED DAMPER, SEE DAMPER SCHEDULE.
- 4. = EXPLOSION PROOF INSULATED BLADE MOTOR OPERATED DAMPER, SEE DAMPER SCHEDULE.
- 5. = KYNAR FINISH.

AIR INLET AND OUTLET SCHEDULE										SECTION 15E
TAG	MANUF.	MODEL	SERVICE	MAX. APD (IN. W. C)	MAX. NC	PATTERN	FINISH	MATERIAL	REMARKS	
EG-1	AJ MANUF CARNES TITUS	550 H RL AB 350ZRS	EXHAUST	0.10	30	SD	MATTE	SST	1,2	
SG-1	AJ MANUF CARNES TITUS	250 RLDB 300RS-SS	SUPPLY	0.10	35	DD	MATTE	SST		

- DD = 3/4" BLADE, DOUBLE DEFLECTION.
SD = 3/4" BLADE, SINGLE DEFLECTION, 0 DEGREE BLADE ANGLE.
ANOD = ANODIZED FINISH.
1. = CARNES GRILLE 45 DEGREE BLADE
2. = TITUS GRILLE MATERIAL STEEL

H-5

MODELS AND DIMENSIONS FILE NAMES: SEE ELS



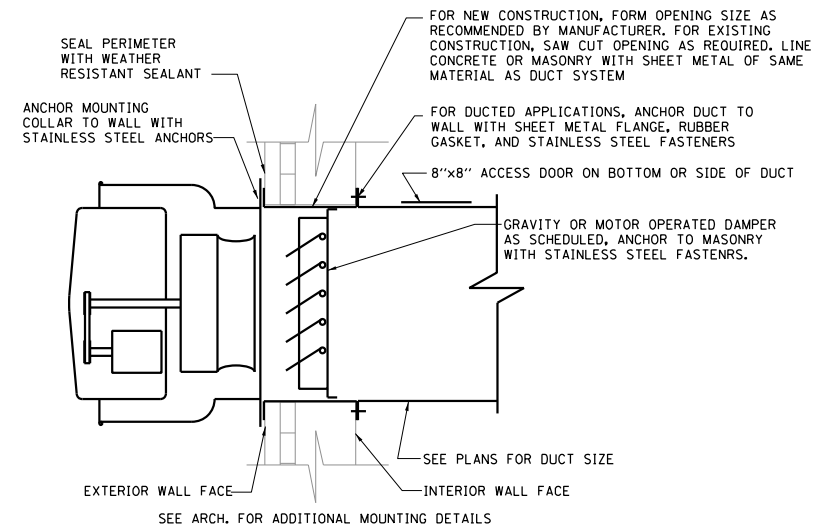
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

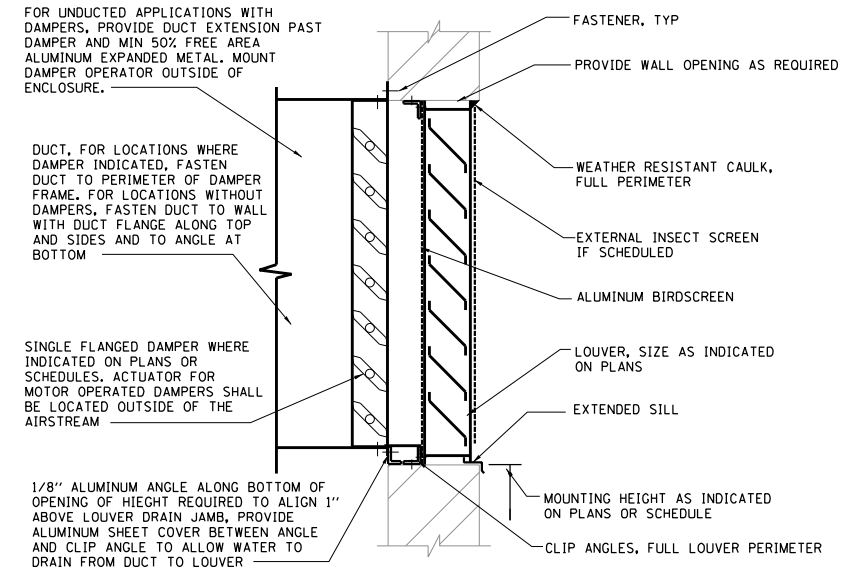
PUMP STATION NO. 37
HVAC
SCHEDULES

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)4	LAKE	186	134
CONTRACT NO. 62B66				
ILLINOIS		FED. AID PROJECT CJX(634)		

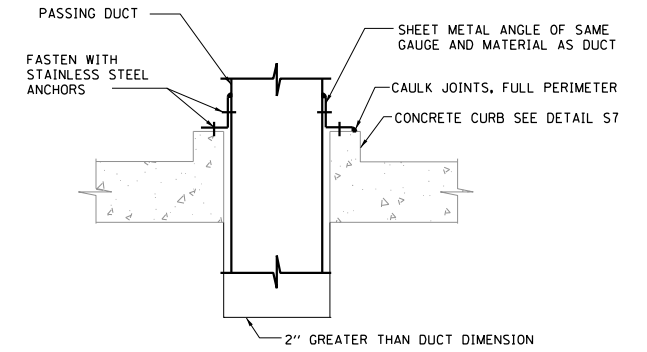


**WALL MOUNTED
EXHAUST FAN DETAIL**

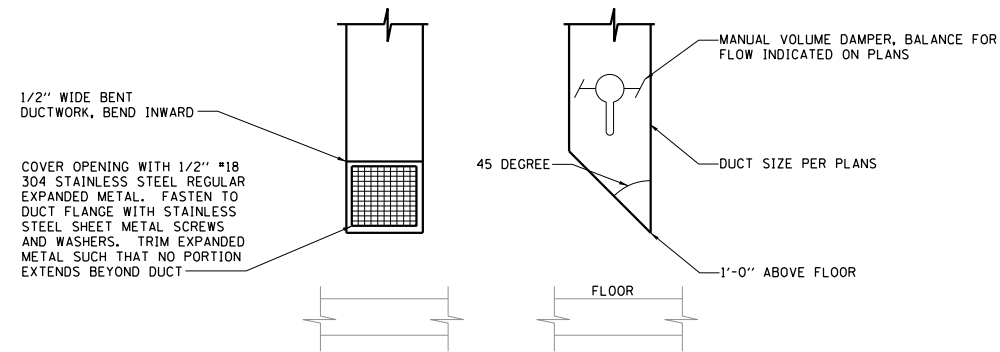


NOTE: ALL FASTENERS SHALL BE OF STAINLESS STEEL CONSTRUCTION
SEE ARCH. FOR ADDITIONAL MOUNTING DETAILS

TYPICAL LOUVER DETAIL



**TYPICAL DUCT FLOOR
PENETRATION DETAIL**



**TYPICAL EXHAUST
DUCT DROP DETAIL**

MODELS AND DIMENSIONS
FILE NAMES: SEE LISTS



USER NAME = SBREMER	DESIGNED - JLW	REVISED -
PLOT SCALE = AS NOTED	DRAWN - CAH	REVISED -
PLOT DATE = 08/09/24	CHECKED - EPC	REVISED -
	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

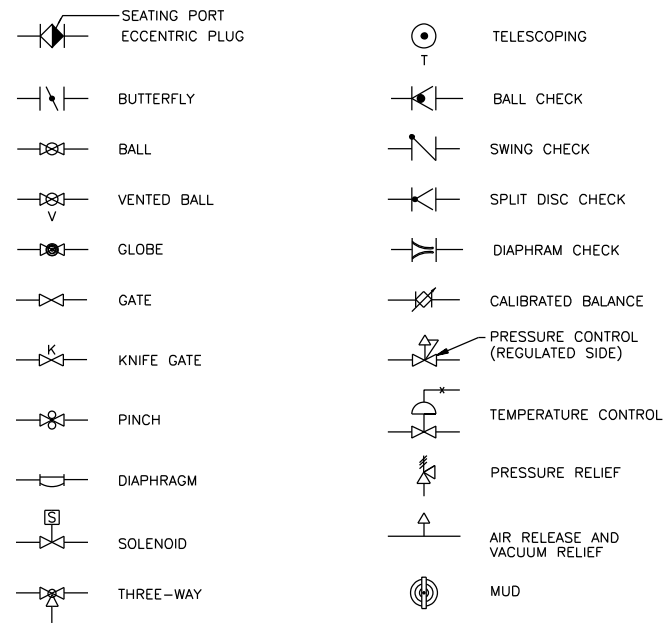
**PUMP STATION NO. 37
HVAC
STANDARD DETAILS**

SCALE: SHEET OF SHEETS STA. TO STA.

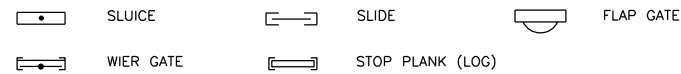
H-6

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	135
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CBJX(634)				

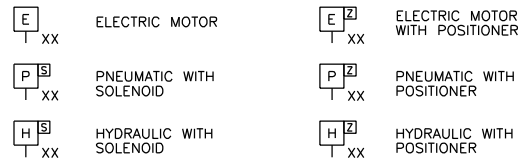
VALVE SYMBOLS



GATE SYMBOLS

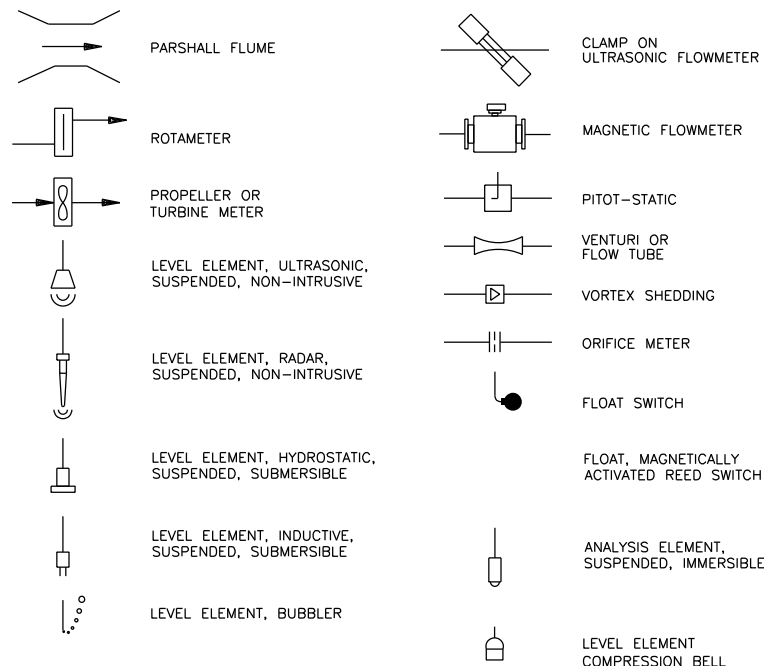


VALVE AND GATE POWER ACTUATOR SYMBOLS

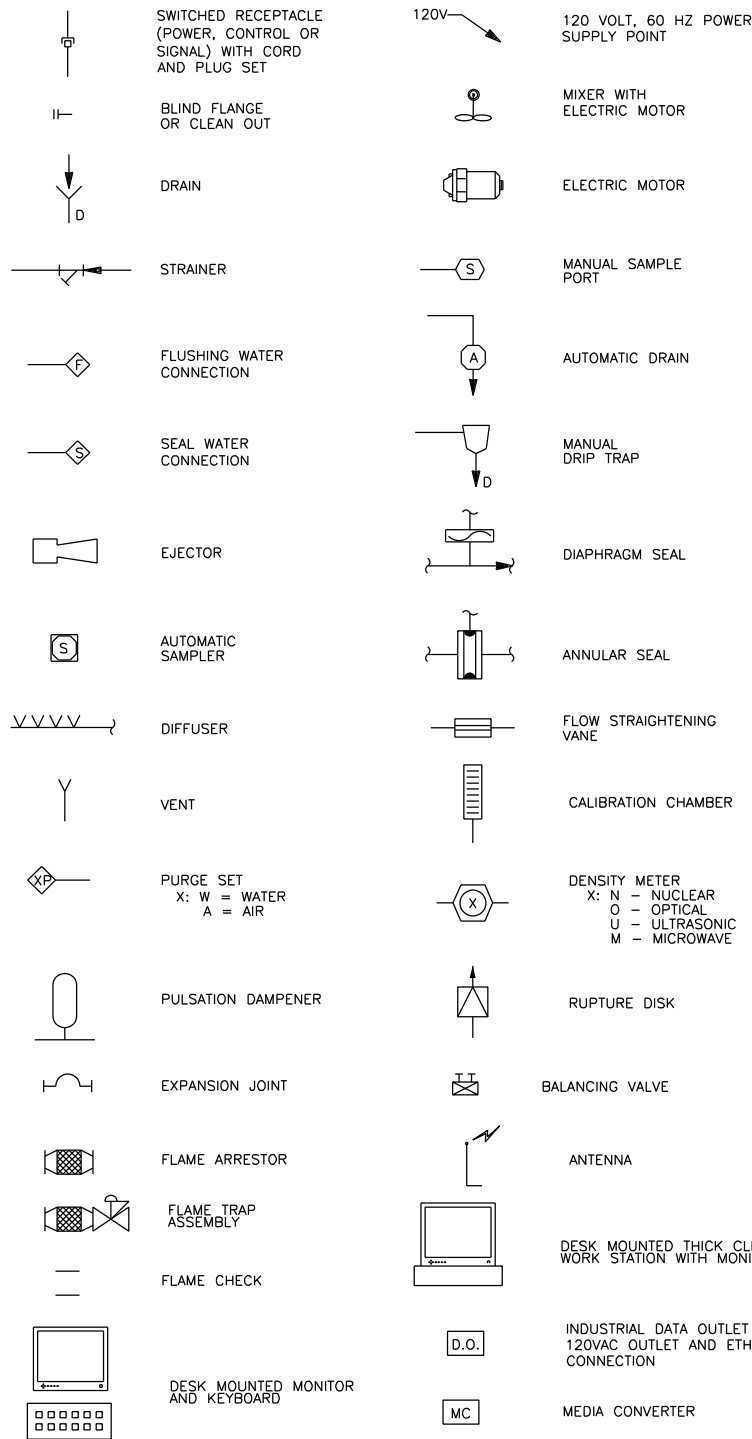


NOTE ON 'XX':
 ON LOSS OF PRIMARY POWER (PNEUMATIC OR ELECTRICAL)
 XX:
 FC = FAIL CLOSED POSITION
 FIP = FAIL INTERMEDIATE POSITION
 FLP = FAIL LAST POSITION
 FO = FAIL OPEN POSITION

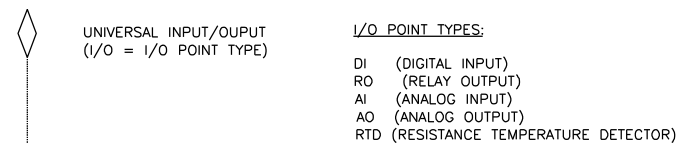
FLOW AND LEVEL ELEMENT SYMBOLS



MISCELLANEOUS SYMBOLS

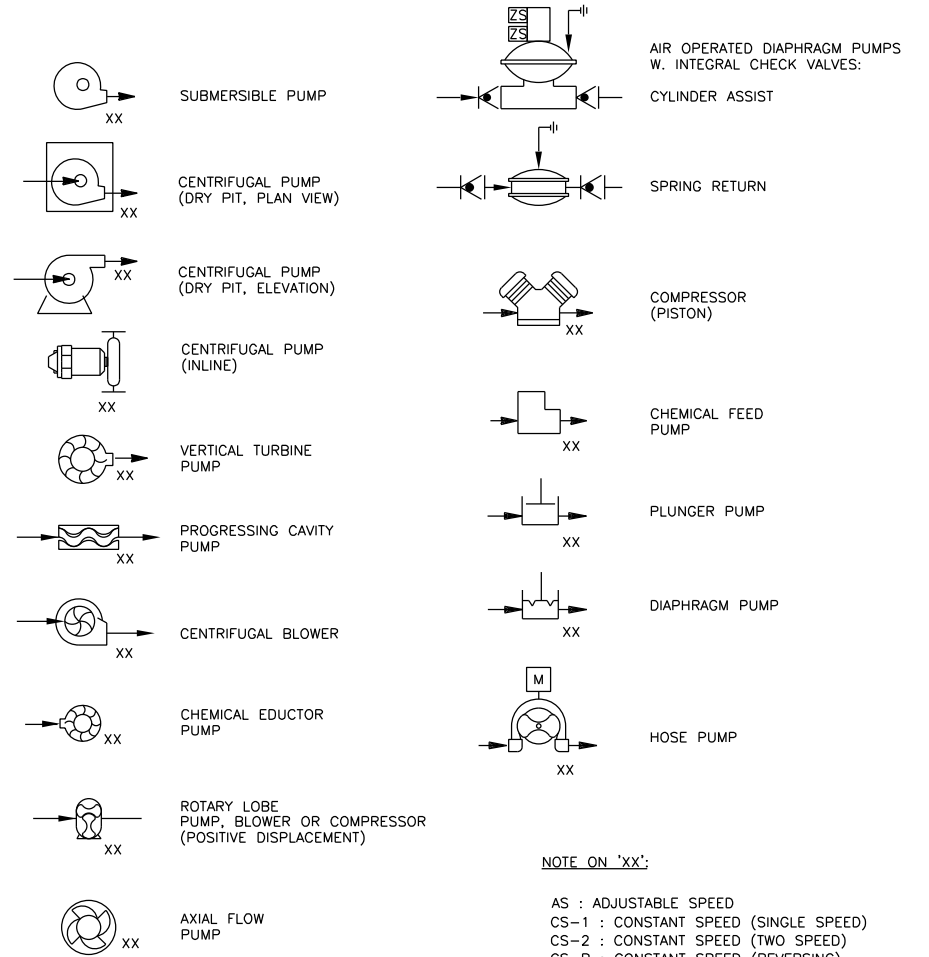


INPUTS & OUTPUTS (I/O) TO PLC, DAQ OR DISTRIBUTED CONTROL SYSTEMS



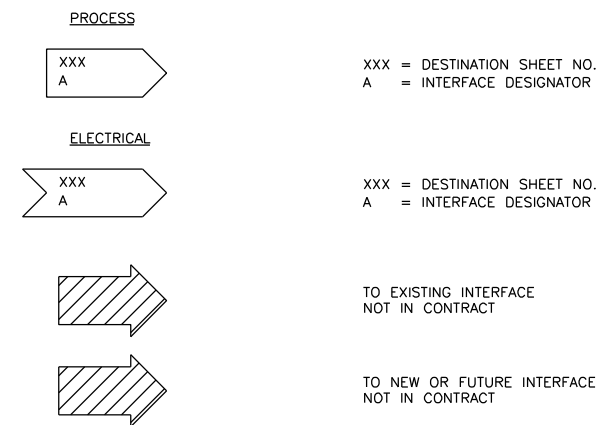
NOTE ON 'X':
 X = TOTAL QUANTITY IF MORE THAN ONE.

PUMP & COMPRESSOR SYMBOLS



NOTE ON 'XX':
 AS : ADJUSTABLE SPEED
 CS-1 : CONSTANT SPEED (SINGLE SPEED)
 CS-2 : CONSTANT SPEED (TWO SPEED)
 CS-R : CONSTANT SPEED (REVERSING)
 MS : MECHANICAL SHIV (ADJUSTABLE)

INTERFACE SYMBOLS



NOTICE:

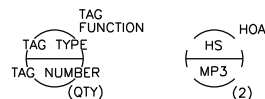
THIS IS A STANDARD LEGEND. NOT ALL OF THE INFORMATION SHOWN IS USED IN CONTRACT DRAWINGS. SEE SHEET G-2 FOR ADDITIONAL GENERAL NOTES.

USER NAME = SBREMER	DESIGNED - DWG	REVISED -
PLOT SCALE = AS NOTED	DRAWN - DWG	REVISED -
PLOT DATE = 08/09/24	CHECKED - MBS	REVISED -
	DATE - 08-08-2024	REVISED -

PUMP STATION NO. 37 INSTRUMENTATION & CONTROLS STANDARD SYMBOLOGY			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	136
CONTRACT NO. 62B66				
ILLINOIS		FED. AID PROJECT C1JX(634)		

INSTRUMENT TAG IDENTIFICATION



COMPONENT DESIGNATOR

- TAG TYPE** P: FIRST LETTER, SEE ISA TABLE BELOW
 AH: SUCCEEDING LETTERS, SEE ISA TABLE BELOW
- TAG NUMBER** 12: P&ID NUMBER
 3: LOOP NUMBER
 4: EQUIPMENT NUMBER
 A: DEVICE LETTER IF MULTIPLE DEVICES
- TAG FUNCTION** HOA: TAG FUNCTION ABBREVIATION, SEE LISTING AT RIGHT
- (QUANTITY)** (2): TOTAL NUMBER OF DEVICES WHERE MORE THAN ONE DEVICE IS REQUIRED. DEVICE NUMBERS ARE SEQUENTIAL BEGINNING WITH THE TAG NUMBER SHOWN. IF QUANTITY IS NOT SHOWN THEN ONE DEVICE ONLY IS REQUIRED.

TAG FUNCTION ABBREVIATIONS

- ALRT ALERT
 ALT ALTERNATE
 C CLOSE(D)
 COMM COMMUNICATIONS
 CM COMPUTER-MANUAL
 DIFF DIFFERENCE OR DIFFERENTIAL
 DN DEVICENET
 DO DISSOLVED OXYGEN
 ESTP ESTOP (EMERGENCY STOP)
 F FAIL
 F(X) CHARACTERIZED
 FOR FORWARD-STOP(OFF)-REVERSE (MAINTAINED CONTACT)
 FSR FORWARD-STOP-REVERSE (MOMENTARY CONTACT)
 FWD FORWARD
 F/R FORWARD/REVERSE (MOTOR STARTER COILS)
 HOA HAND-OFF-AUTOMATIC (MAINTAINED CONTACT)
 HOR HAND-OFF-REMOTE (MAINTAINED CONTACT)
 II CURRENT-TO-CURRENT
 IP CURRENT-TO-PNEUMATIC
 LL LEAD-LAG (MAINTAINED CONTACT)
 LOE LOSS OF ECHO (ULTRASONIC SENSOR FAILURE)
 LOR LOCAL-OFF-REMOTE (MAINTAINED CONTACT)
 LOS LOCKOUT STOP (LOCKABLE IN "STOP" POSITION. MOMENTARY CONTACT)
 L/R LOCAL-REMOTE (MAINTAINED CONTACT)
- MA MANUAL-AUTOMATIC (MAINTAINED CONTACT)
 MOA MANUAL-OFF-AUTOMATIC (MAINTAINED CONTACT)
 O OPEN
 OA OFF-AUTOMATIC
 OCA OPEN-CLOSE-AUTOMATIC (MAINTAINED CONTACT)
 OC OPEN-CLOSE(D) (MAINTAINED CONTACT)
 OSC OPEN-STOP-CLOSE (MOMENTARY CONTACT SPRING RETURN TO CENTER POSITION)
 OO ON-OFF (MAINTAINED CONTACT)
 OOA ON-OFF-AUTOMATIC (MAINTAINED CONTACT)
 OOR ON-OFF-REMOTE (MAINTAINED CONTACT)
 QTY QUANTITY
 R RUN
 REV REVERSE
 RSET RESET
 SBL SLUDGE BLANKET INTERFACE LEVEL
 SP SPEED POT
 SPD SPEED
 SQRT SQUARE ROOT
 SS START-STOP (MOMENTARY CONTACT)
 SSA START-STOP-AUTOMATIC (MOMENTARY CONTACT)
 SSL START-STOP-LOCK (LOCKABLE IN "STOP" POSITION. MOMENTARY CONTACT)
 STRT START
 SUM SUMMATION
 SUSP SUSPEND
 VIB VIBRATION
 X MULTIPLY

TAG SYMBOLS

	FIELD MOUNTED	PANEL MOUNTED ACCESSIBLE TO OPERATOR	PANEL MOUNTED NONACCESSIBLE TO OPERATOR	MOTOR STARTER MOUNTED ACCESSIBLE TO OPERATOR	MOTOR STARTER MOUNTED NONACCESSIBLE TO OPERATOR
DISCRETE INSTRUMENTS	()	()	()	()	()
PROGRAMMABLE CONTROLLER-BASED FUNCTIONS			↔	↔	↔
PANEL MOUNTED OIU FUNCTIONS	{ }	{ }	{ }	{ }	{ }
PC BASED HMI WORKSTATION FUNCTIONS		[]	[]	[]	[]

INSTRUMENT SOCIETY OF AMERICA TABLE

(*) WHEN USED, EXPLANATION IS SHOWN ADJACENT TO INSTRUMENT SYMBOL.

LETTER	FIRST LETTER (S)		SUCCEEDING LETTERS		
	PROCESS OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS (*)		ALARM (W. LOGGING)	ANNUNCIATE	
B	BURNER COMBUSTION		USERS CHOICE (*)	USERS CHOICE (*)	USERS CHOICE (*)
C	USERS CHOICE (*)			CONTROL	
D	USERS CHOICE (*)	DIFFERENTIAL			
E	VOLTAGE		PRIMARY ELEMENT		
F	FLOW RATE	RATIO			FEEDBACK
G	USERS CHOICE (*)		GLASS		
H	HAND (MANUAL)				HIGH
	CURRENT		INDICATE		
J	POWER	SCAN			
K	TIME OR SCHEDULE	TIME RATE OF CHANGE	KEYPAD (DATA ENTRY)	CONTROL STATION	
L	LEVEL		LIGHT (PILOT)		LOW
M	MOTOR	MOMENTARY			MONITORING
N	USERS CHOICE (*)		USERS CHOICE (*)	USERS CHOICE (*)	USERS CHOICE (*)
O	USERS CHOICE (*)		ORIFICE		
P	PRESSURE OR VACUUM		POINT (TEST CONNECTION)		
Q	QUANTITY	INTEGRATE			
R	RADIATION		RECORD, TREND, LOG		
S	SPEED OR FREQUENCY	SAFETY		SWITCH	
T	TEMPERATURE			TRANSMIT	
U	UNIVERSAL/MULTIVARIABLE (*)		MULTIFUNCTION (*)	MULTIFUNCTION (*)	MULTIFUNCTION (*)
V	VIBRATION			VALVE	
W	WEIGHT, FORCE, TORQUE		WELL		
X	UNCLASSIFIED (*)	X AXIS	UNCLASSIFIED (*)	UNCLASSIFIED (*)	UNCLASSIFIED (*)
Y	EVENT, STATE	Y AXIS		RELAY OR COMPUTE (*)	
Z	POSITION, DIMENSION	Z AXIS		DRIVE, ACTUATE OR UNCLASSIFIED FINAL CONTROL ELEMENT	

SPECIAL CASES:

- ETM - ELAPSED TIME METER MS - MOTOR STARTER
 JBX - JUNCTION BOX MOR - MOTOR OVERLOAD RELAY
 NDX - INDEX # MPR - MOTOR PROTECTION RELAY
 CAM - CAMERA

EQUIPMENT AND VALVE TAG IDENTIFICATION

TAG NUMBER

W-XYZ

- W: EQUIPMENT - SEE LIST BELOW
 X: P&ID NUMBER
 Y: LOOP NUMBER
 Z: EQUIPMENT NUMBER

EQUIPMENT LIST

- E - EJECTOR
 G - GATE
 M - MECHANICAL EQUIPMENT
 P - PUMP
 T - TANK
 ATS - AUTOMATIC TRANSFER SWITCH
 EPS - EMERGENCY POWER SYSTEM

SELF CONTAINED VALVE ABBREVIATIONS

- ARV AIR RELEASE VALVE
 AVRV AIR AND VACUUM RELIEF VALVE
 LCV LEVEL CONTROL VALVE
 PCV PRESSURE CONTROL VALVE
 TCV TEMPERATURE CONTROL VALVE
 PSV PRESSURE SAFETY (RELIEF) VALVE

LOCAL CONTROL PANEL TAG IDENTIFICATION

TAG NUMBER

Y-Z

- Y: EQUIPMENT - SEE LIST AT RIGHT
 Z: PANEL NUMBER

EQUIPMENT LIST

- LCP - LOCAL CONTROL PANEL
 CS - CONTROL STATION
 ITC - INSTRUMENT TERM. CABINET
 ASD - ADJUSTABLE SPEED DRIVE
 AP - ALARM PANEL
 SPCP - SUMP PUMP CONTROL PANEL
 NET - NETWORK RACK

DATA HIGHWAY SCHEMATIC ABBREVIATIONS

- S SERIAL LINK (RS232/485)
 FOC DATA HIGHWAY (FIBER OPTIC)
 CE COPPER ETHERNET
 OIU OPERATOR INTERFACE UNIT
 MC FIBER OPTIC/ COPPER MEDIA CONVERTER
 NIC NETWORK INTERFACE CARD
 D DATA OUTLET

GENERAL NOTES

- SEE SHEET 3 FOR ADDITIONAL GENERAL NOTES.
- DRAWINGS SHOW CONTROL, SIGNAL AND ASSOCIATED SINGLE PHASE POWER WIRING REQUIREMENTS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WIRING, WHETHER SHOWN OR NOT, NECESSARY FOR A COMPLETE AND OPERABLE SYSTEM.
- DRAWINGS SHOW APPROXIMATE LOCATIONS OF DEVICES AND PANELS, FIELD VERIFY DIMENSIONS AND ELEVATIONS.
- SHIELDED AND UNSHIELDED CONDUCTORS SHALL BE RUN IN CONDUIT. SHIELDED CONDUCTORS SHALL NOT BE COMBINED WITH UNSHIELDED CONDUCTORS IN ANY CONDUIT. NEITHER SHIELDED NOR UNSHIELDED CONDUCTORS SHALL BE INCLUDED IN THE SAME CONDUIT AS POWER WIRING.
- CONDUITS SHALL BE SIZED TO ACCOMMODATE REQUIRED CONDUCTORS AND SPARES.
- DRAWINGS DO NOT SHOW CONDUIT SYSTEMS. PROVIDE, AS A MINIMUM, PULL BOXES AS RECOMMENDED BY CONDUIT MANUFACTURER. CONDULETS SHALL NOT BE USED AS PULL BOXES.
- PROVIDE EXPLOSION-PROOF SEAL-OFF FITTINGS ON ALL CONDUIT EXITING CLASSIFIED OR RATED LOCATIONS. FITTINGS SHALL BE INSTALLED PER NEC.
- SHIELDED AND UNSHIELDED CONDUCTORS SHALL HAVE A MINIMUM OF 6" SEPARATION BETWEEN CONDUIT ON PARALLEL RUNS.
- SHIELDED AND UNSHIELDED CONDUCTORS SHALL BE SEPARATED BY STEEL BARRIERS IN ALL COMBINED SIGNAL JUNCTION BOXES AND INSTRUMENT TERMINATION CABINETS.
- CONDUCTORS SHALL NOT BE SPLICED EXCEPT AT TERMINALS OR AS DESIGNATED BY ENGINEER.
- FOR EACH CONDUIT, PROVIDE A MINIMUM OF TWO CONDUCTORS OR 10% OF TOTAL CONDUCTORS IN CONDUIT, WHICHEVER IS GREATER AS SPARES. TAG BOTH ENDS OF EACH SPARE. TERMINATE EACH END OF SPARE CONDUCTORS AT TERMINALS WHENEVER POSSIBLE.
- SPARE AND GROUND CONDUCTORS ARE GENERALLY NOT SHOWN IN WIRING TABLES.
- HALF-TONED PORTIONS OF P&ID'S INDICATE DEVICES/EQUIPMENT/STRUCTURES/FACILITIES WHICH ARE NOT A PART OF THIS CONTRACT OR ARE EXISTING.

LINE IDENTIFICATION

PROCESS FLOW

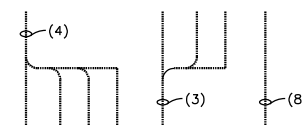
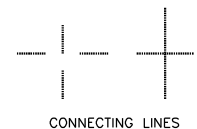
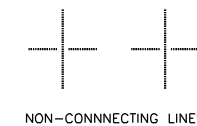
- FLOW STREAM IDENTIFIERS. SEE PROCESS MECHANICAL LEGEND FOR LIST OF FLOW STREAM IDENTIFIERS
- PI NEW MAJOR PROCESS FLOW STREAM (CLOSED CONDUIT)
 RAS NEW INTERMEDIATE PROCESS FLOW STREAM (CLOSED CONDUIT)
 ALP NEW MINOR PROCESS FLOW STREAM (CLOSED CONDUIT)
 PI EXISTING MAJOR PROCESS FLOW STREAM (CLOSED CONDUIT)
 RAS EXISTING INTERMEDIATE PROCESS FLOW STREAM (CLOSED CONDUIT)
 ALP EXISTING MINOR PROCESS FLOW STREAM (CLOSED CONDUIT)
 PI NEW MAJOR PROCESS FLOW STREAM (OPEN CONDUIT)
 PI EXISTING MAJOR PROCESS FLOW STREAM (OPEN CONDUIT)
 pi HEAT TRACED PROCESS FLOW STREAM (CLOSED CONDUIT)

SIGNALS

- DISCRETE (ON/OFF ETC.)
 A MODULATED (4 TO 20 mADC ETC.)
 DATA HIGHWAY (COPPER OR FIBER)
 S SERIAL LINK (RS-232, RS-485)
 INSTRUMENT SUPPLY OR CONNECTION TO EQUIPMENT
 FILLED SYSTEM (CAPILLARY TUBING ETC.)
 PNEUMATIC
 HYDRAULIC
 EM-ELECTROMAGNETIC OR SONIC (GUIDED)
 ELECTROMAGNETIC OR SONIC (UNGUIDED)
 MECHANICAL LINK

STRUCTURES AND EQUIPMENT

- NEW OR RELOCATED EQUIPMENT
 EXISTING EQUIPMENT
 NEW OR RELOCATED STRUCTURE
 EXISTING



PARALLELING LINES. PARENTHEICAL NUMBER INDICATES NUMBER OF SIGNALS REPRESENTED)



USER NAME = SBREMER	DESIGNED - DWG	REVISED -
PLOT SCALE = AS NOTED	DRAWN - DWG	REVISED -
PLOT DATE = 08/09/24	CHECKED - MBS	REVISED -
	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
 INSTRUMENTATION & CONTROL
 STANDARD LEGEND**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	137
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CUJ(634)				

ABBREVIATIONS

A	AMPERE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERE INTERRUPTING CAPACITY
AM	AMPERE METER
AP	AEGIS PANEL
AS	AMPERE METER SELECTOR
ATS	AUTOMATIC TRANSFER SWITCH
BVP	BUS VOLTAGE PRESENT
C	CONTACTOR/CONDUIT/COIL
CB	CIRCUIT BREAKER
CGD	COMBUSTIBLE GAS DETECTOR
CKT, CCT	CIRCUIT
CP	CONTROL PANEL
CS	CONTROL STATION
CT	CURRENT TRANSFORMER
DSC	DISCONNECT
DS	DOOR SWITCH
EF	EXHAUST FAN
FAHS	FIRE ALARM HORN STROBE
FAPS	FIRE ALARM PULL STATION
FAS	FIRE ALARM STROBE
FIX	LIGHT FIXTURE
FP	FIRE PANEL
FSPF	FLOAT SWITCH PAVEMENT FLOOD
FU	FUSE
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFR/GFP	GROUND FAULT RELAY/PROTECTION
GRD	GROUND
GRS	GALVANIZED RIGID STEEL
GS	GAS SENSOR
HD	HEAT DETECTOR
HF	HARMONIC FILTER
HH	HANDHOLE
HID	HIGH INTENSITY DISCHARGE
HP	HORSEPOWER
HR	HORN RELAY
HZ	HERTZ
J	JUNCTION BOX
KVA	KILOVOLT AMPERE
KW	KILOWATT
LCP	LOCAL CONTROL PANEL
LED	LIGHT EMITTING DIODE
LP	LIGHTING PANEL
MCC	MOTOR CONTROL CENTER
MH	MANHOLE
MFR	MANUFACTURER
MPR	MOTOR PROTECTOR RELAY
MV	MEDIUM VOLTAGE MANHOLE
NEC	NATIONAL ELECTRICAL CODE (ANSI/NFPA-70)
NEU, N	NEUTRAL
NF	NON FUSED
OL	OVERLOAD RELAY
PB	PUSHBUTTON
PC	PHOTOCELL
PMG	PADMOUNT GEAR
PMT	PADMOUNT TRANSFORMER
PP	POWER PANEL
PVC	POLY VINYL CHLORIDE
RECP	RECEPTACLE
SCADA	SUPERVISORY CONTROL AND DATA ACQUISITION
SD	SMOKE DETECTOR
SF	SUPPLY FAN
SS	SELECTOR SWITCH
SW	SWITCH
SWGR	SWITCHGEAR
SPCP	SUMP PUMP CONTROL PANEL
SPD	SURGE PROTECTIVE DEVICE
TBM	TEMPORARY BENCHMARK
TDR	TIME DELAY RELAY
UH	UNIT HEATER
UPS	UNINTERRUPTABLE POWER SUPPLY
V	VOLTS
VFC	VENDOR FURNISHED CABLE
VFD	VARIABLE FREQUENCY DRIVE
WP	WEATHERPROOF
XFMR	TRANSFORMER
XP	EXPLOSION PROOF

ELECTRICAL ABBREVIATIONS AND SYMBOLS

PLAN SYMBOLS

	FLUORESCENT FIXTURE - RECESSED (LETTER DENOTES TYPE)
	FLUORESCENT FIXTURE - SURFACE OR SUSPENDED (LETTER DENOTES TYPE)
	FLUORESCENT FIXTURE - WALL MOUNTED (LETTER DENOTES TYPE)
	INCANDESCENT OR HID FIXTURE - WALL MOUNTED (LETTER DENOTES TYPE)
	POLE MOUNTED FIXTURE (LETTER DENOTES TYPE)
	EMERGENCY BATTERY LIGHT
	REMOTE HEAD FOR EMERGENCY BATTERY LIGHT
	EXIT LIGHT WITH INDICATING DIRECTIONAL ARROW
	SWITCH (SINGLE POLE, 2-POLE, 3-WAY, 4-WAY)
	MOMENTARY CONTACT SWITCH - CENTER OFF
	SWITCH / PILOT LIGHT
	DUPLEX GROUNDED RECEPTACLE - 120V
	EXPLOSIONPROOF SIMPLEX GROUNDED RECEPTACLE - 120V
	TELEPHONE OUTLET, WALL MOUNT WITH 3/4" CONDUIT TO TELEPHONE TERMINAL CABINET
	COMPUTER DATA OUTLET; RUN CAT 5E CABLE TO PLC
	RECESSED CEILING SPEAKER
	VOLUME CONTROL
	WALL SPEAKER
	SMOKE DETECTOR
	FIRE ALARM HORN
	FIRE ALARM HORN AND STROBE
	FIRE ALARM STROBE
	FIRE ALARM PULL STATION
	GAS SENSOR
	HEAT DETECTOR
	THERMOSTAT
	CONNECTION TO EQUIPMENT
	SPECIAL PURPOSE RECEPTACLE, NEMA TYPE AND AMPERE RATING AS INDICATED
	MANUAL STARTER WITH PILOT LIGHT
	THREE PHASE MAGNETIC STARTER
	THREE PHASE COMBINATION MAGNETIC STARTER AND DISCONNECT SWITCH

	INFORMATION OUTLET
	SINGLE PHASE MAGNETIC STARTER
	NON-FUSED DISCONNECT SWITCH (NUMERAL INDICATES SWITCH RATING)
	FUSED DISCONNECT SWITCH - 3 POLE UNLESS OTHERWISE INDICATED (UPPER NUMERAL INDICATES SWITCH RATING) (LOWER NUMERAL INDICATES FUSE RATING)
	3-PHASE MANUAL MOTOR SWITCH
	LIGHTING PANEL
	TRANSFORMER
	POWER PANEL
	TERMINAL CABINET (ITC - INDICATES INSTRUMENTATION) (TTC - INDICATES TELEPHONE)
	MOTOR
	JUNCTION BOX
	HANDHOLE
	MANHOLE
	SURVEILLANCE CAMERA
	GROUND ROD
	CAPPED CONDUIT STUB
	CONDUIT TURNING UP OR TO OBSERVER
	CONDUIT TURNING DOWN OR AWAY FROM OBSERVER
	FLEXIBLE CONDUIT CONNECTION
	HOMERUN CIRCUIT OR CONDUCTORS
	DIRECT BURIAL ELECTRICAL CABLE
	UNDERGROUND ELECTRICAL DUCT, CONCRETE ENCASED.

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 (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)
	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) (AUXILIARY SPARE CONTACTS - (2a TWO N.O.)(1b ONE N.C.) (NUMERAL INDICATES NEMA SIZE)
	GROUND
	MOTOR (NUMERAL INDICATES HORSEPOWER)

SCHEMATIC SYMBOLS

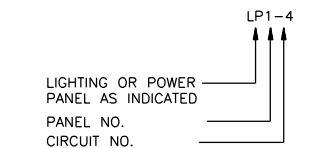
	TERMINAL ON A DEVICE
	NORMALLY OPEN CONTACT
	NORMALLY CLOSED CONTACT
	SINGLE POLE, SINGLE THROW SWITCH
	SINGLE POLE, DOUBLE THROW SWITCH
	DOUBLE POLE, SINGLE THROW SWITCH
	DOUBLE POLE, DOUBLE THROW SWITCH
	THREE WAY ROTARY SWITCH
	NORMALLY CLOSED MOMENTARY PUSH BUTTON SWITCH
	NORMALLY OPEN MOMENTARY PUSH BUTTON SWITCH
	2 POSITION PUSH BUTTON (EXTRA CONTACT BLOCK)
	NORMALLY OPEN DOUBLE BREAK SINGLE THROW CONTACT BLOCK
	NORMALLY CLOSE DOUBLE BREAK SINGLE THROW CONTACT BLOCK
	DOUBLE BREAK DOUBLE THROW CONTACT BLOCK
	MUSHROOM HEAD PUSH BUTTON
	MAINTAINED CONTACT PUSHBUTTON
	2 OR 3 POSITIONS SELECTOR SWITCH (CLOSED CONTACTS INDICATED BY "X")
	MULTI-POSITION, MULTI-CONTACT SELECTOR SWITCH (CLOSED CONTACTS INDICATED BY "X")
	TEMPERATURE SWITCH - CLOSES ON RISING TEMPERATURE
	TEMPERATURE SWITCH - OPENS ON RISING TEMPERATURE
	TIME DELAY RELAY SWITCH - NORMALLY OPEN, CLOSES ON TIME DELAY AFTER ENERGIZATION OF RELAY COIL.
	TIME DELAY RELAY SWITCH - NORMALLY CLOSED, OPENS ON TIME DELAY AFTER ENERGIZATION OF RELAY COIL.
	TIME DELAY RELAY SWITCH - NORMALLY OPEN, OPENS ON TIME DELAY AFTER DE-ENERGIZATION OF RELAY COIL.
	LIMIT SWITCH - NORMALLY OPEN
	LIMIT SWITCH - NORMALLY OPEN HELD CLOSED
	LIMIT SWITCH - NORMALLY CLOSED
	INDICATOR LIGHT (LETTER INDICATES COLOR)
	INDICATOR LIGHT (PUSH TO TEST TYPE)
	GAS SENSOR
	DEVICE ENCLOSURE
	ANNUNCIATOR
	PUMP START COUNTER
	ELAPSED TIME METER
	ELECTRONIC TIMER
	TOTALIZER

MOTOR CONTROL CENTER



NOTE:
1. THIS LIST OF ABBREVIATIONS SHOWN IS A STANDARD LIST. NOT ALL ABBREVIATIONS AND SYMBOLS ARE USED IN THESE CONTRACT DRAWINGS.

PANEL BOARDS



ELECTRICAL GENERAL NOTES

- SEE SHEET NO. 3 - GENERAL - ABBREVIATIONS AND GENERAL FOR ADDITIONAL NOTES. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WIRING, WHETHER SHOWN OR NOT, NECESSARY FOR A COMPLETE SYSTEM.
- PROVIDE EXPLOSION PROOF SEAL-OFF FITTINGS ON ALL CONDUITS EXITING CLASSIFIED OR RATED LOCATIONS. FITTINGS SHALL BE INSTALLED IN THE CLASSIFIED OR RATED LOCATION. CONTRACTOR IS RESPONSIBLE FOR VERIFYING NUMBER OF CONDUCTORS IN CONDUIT PRIOR TO INSTALLATION.
- ALL ROOMS EXCEPT ELECTRICAL ROOM SHALL BE CLASS 1, DIVISION 2, GROUP D EXPLOSION PROOF.
- ALL CONDUITS SHALL BE LABELED WITH AN ADHESIVE TO IDENTIFY THE CONTENTS PER SPECIFICATIONS. LABEL CONDUIT NUMBER AT EACH TERMINATING END AND ON EACH FLOOR.
- EQUIPMENT AND EQUIPMENT MOUNTED DEVICES SHALL HAVE NAMEPLATES PER SPECIFICATIONS.
- EACH LIGHT FIXTURE SHALL HAVE AN UNIQUE NAMEPLATE WHICH IDENTIFIES THE CIRCUIT IT IS POWERED FROM, SOURCE PANEL, AND QUANTITY WITHIN THE CIRCUIT. ACCEPTABLE EXAMPLE:

CIRCUIT 4
FIXTURE 1
LP-1

MODEL & QUANTITY
FILE NAME: SELETS



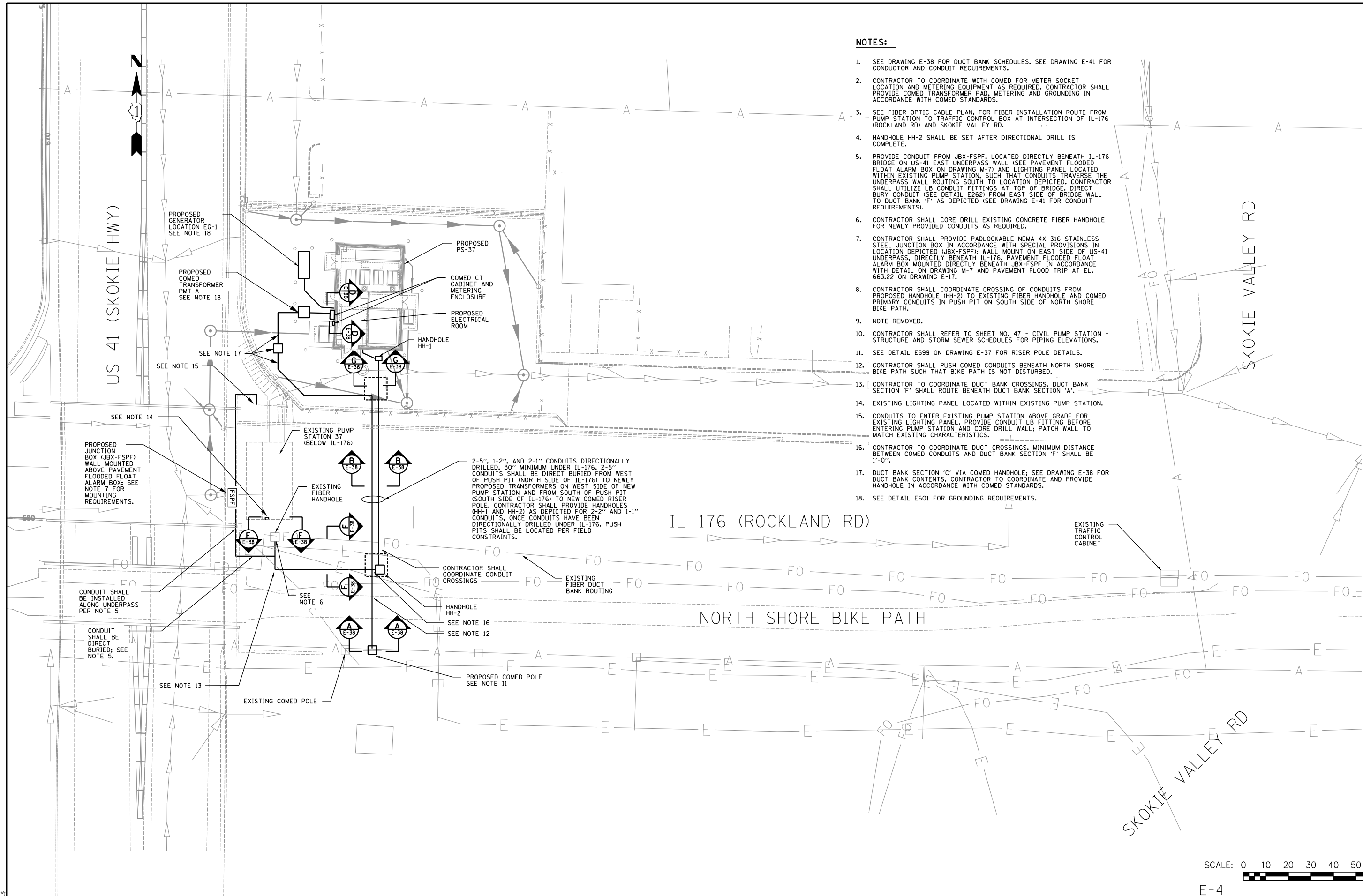
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	DRAWN - JRR	REVISED -
PLOT SCALE = AS NOTED	CHECKED - JAB	REVISED -
PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
ELECTRICAL
ABBREVIATIONS AND SYMBOLS**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	138
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CRJX(634)				



NOTES:

1. SEE DRAWING E-38 FOR DUCT BANK SCHEDULES. SEE DRAWING E-41 FOR CONDUCTOR AND CONDUIT REQUIREMENTS.
2. CONTRACTOR TO COORDINATE WITH COMED FOR METER SOCKET LOCATION AND METERING EQUIPMENT AS REQUIRED. CONTRACTOR SHALL PROVIDE COMED TRANSFORMER PAD, METERING AND GROUNDING IN ACCORDANCE WITH COMED STANDARDS.
3. SEE FIBER OPTIC CABLE PLAN, FOR FIBER INSTALLATION ROUTE FROM PUMP STATION TO TRAFFIC CONTROL BOX AT INTERSECTION OF IL-176 (ROCKLAND RD) AND SKOKIE VALLEY RD.
4. HANDHOLE HH-2 SHALL BE SET AFTER DIRECTIONAL DRILL IS COMPLETE.
5. PROVIDE CONDUIT FROM JBX-FSPF, LOCATED DIRECTLY BENEATH IL-176 BRIDGE ON US-41 EAST UNDERPASS WALL (SEE PAVEMENT FLOODED FLOAT ALARM BOX ON DRAWING M-7) AND LIGHTING PANEL LOCATED WITHIN EXISTING PUMP STATION, SUCH THAT CONDUITS TRAVERSE THE UNDERPASS WALL ROUTING SOUTH TO LOCATION DEPICTED. CONTRACTOR SHALL UTILIZE LB CONDUIT FITTINGS AT TOP OF BRIDGE. DIRECT BURY CONDUIT (SEE DETAIL E262) FROM EAST SIDE OF BRIDGE WALL TO DUCT BANK 'F' AS DEPICTED (SEE DRAWING E-41 FOR CONDUIT REQUIREMENTS).
6. CONTRACTOR SHALL CORE DRILL EXISTING CONCRETE FIBER HANDHOLE FOR NEWLY PROVIDED CONDUITS AS REQUIRED.
7. CONTRACTOR SHALL PROVIDE PADLOCKABLE NEMA 4X 316 STAINLESS STEEL JUNCTION BOX IN ACCORDANCE WITH SPECIAL PROVISIONS IN LOCATION DEPICTED (JBX-FSPF); WALL MOUNT ON EAST SIDE OF US-41 UNDERPASS, DIRECTLY BENEATH IL-176, PAVEMENT FLOODED FLOAT ALARM BOX MOUNTED DIRECTLY BENEATH JBX-FSPF IN ACCORDANCE WITH DETAIL ON DRAWING M-7 AND PAVEMENT FLOOD TRIP AT EL. 663.22 ON DRAWING E-17.
8. CONTRACTOR SHALL COORDINATE CROSSING OF CONDUITS FROM PROPOSED HANDHOLE (HH-2) TO EXISTING FIBER HANDHOLE AND COMED PRIMARY CONDUITS IN PUSH PIT ON SOUTH SIDE OF NORTH SHORE BIKE PATH.
9. NOTE REMOVED.
10. CONTRACTOR SHALL REFER TO SHEET NO. 47 - CIVIL PUMP STATION - STRUCTURE AND STORM SEWER SCHEDULES FOR PIPING ELEVATIONS.
11. SEE DETAIL E599 ON DRAWING E-37 FOR RISER POLE DETAILS.
12. CONTRACTOR SHALL PUSH COMED CONDUITS BENEATH NORTH SHORE BIKE PATH SUCH THAT BIKE PATH IS NOT DISTURBED.
13. CONTRACTOR TO COORDINATE DUCT BANK CROSSINGS. DUCT BANK SECTION 'F' SHALL ROUTE BENEATH DUCT BANK SECTION 'A'.
14. EXISTING LIGHTING PANEL LOCATED WITHIN EXISTING PUMP STATION.
15. CONDUITS TO ENTER EXISTING PUMP STATION ABOVE GRADE FOR EXISTING LIGHTING PANEL. PROVIDE CONDUIT LB FITTING BEFORE ENTERING PUMP STATION AND CORE DRILL WALL; PATCH WALL TO MATCH EXISTING CHARACTERISTICS.
16. CONTRACTOR TO COORDINATE DUCT CROSSINGS. MINIMUM DISTANCE BETWEEN COMED CONDUITS AND DUCT BANK SECTION 'F' SHALL BE 1'-0\".
17. DUCT BANK SECTION 'C' VIA COMED HANDHOLE; SEE DRAWING E-38 FOR DUCT BANK CONTENTS. CONTRACTOR TO COORDINATE AND PROVIDE HANDHOLE IN ACCORDANCE WITH COMED STANDARDS.
18. SEE DETAIL E601 FOR GROUNDING REQUIREMENTS.

2-5\", 1-2\", AND 2-1\" CONDUITS DIRECTIONALLY DRILLED, 30\" MINIMUM UNDER IL-176. 2-5\" CONDUITS SHALL BE DIRECT BURIED FROM WEST OF PUSH PIT (NORTH SIDE OF IL-176) TO NEWLY PROPOSED TRANSFORMERS ON WEST SIDE OF NEW PUMP STATION AND FROM SOUTH OF PUSH PIT (SOUTH SIDE OF IL-176) TO NEW COMED RISER POLE. CONTRACTOR SHALL PROVIDE HANDHOLES (HH-1 AND HH-2) AS DEPICTED FOR 2-2\" AND 1-1\" CONDUITS, ONCE CONDUITS HAVE BEEN DIRECTIONALLY DRILLED UNDER IL-176. PUSH PITS SHALL BE LOCATED PER FIELD CONSTRAINTS.

SCALE: 0 10 20 30 40 50 60 FT

E-4

MODEL & SHEET NAMES FILE NAMES: SEE LISTS



USER NAME = SBREMER	DESIGNED - JRR	REVISED -
PLOT SCALE = AS NOTED	DRAWN - JRR	REVISED -
PLOT DATE = 08/09/24	CHECKED - JAB	REVISED -
	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

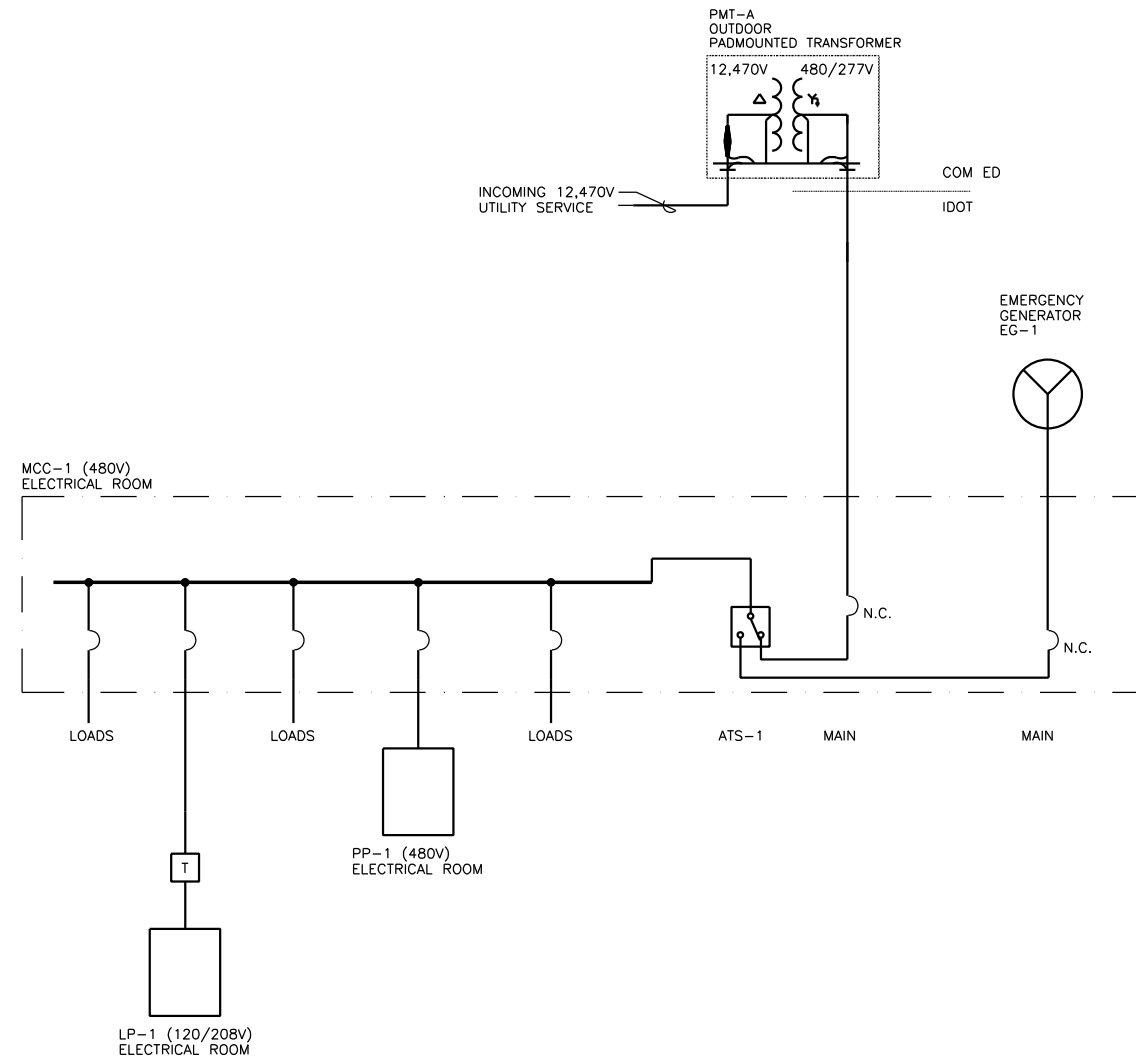
**PUMP STATION NO. 37
ELECTRICAL
SITE PLAN**

SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	139
CONTRACT NO. 62B66				
		ILLINOIS	FED. AID PROJECT CBJX(634)	

GENERAL NOTES:

- 12.47 KV CONDUCTORS FURNISHED AND INSTALLED BY THE ELECTRIC UTILITY (COMED). CONTRACTOR TO INSTALL 2-5" CONDUITS FROM TRANSFORMER TO NEW COMED POLE; SEE DRAWING E-4 FOR LOCATION. CONTRACTOR SHALL PROVIDE SECONDARY 480V CONDUCTORS AND CONDUIT. ALL TERMINATIONS ON TRANSFORMER SHALL BE DONE BY COMED.



OVERALL ELECTRICAL ONE-LINE DIAGRAM

NTS

E-5

MODEL: 4300/DEL/NAME/ FILE NAME: SEE/EIS



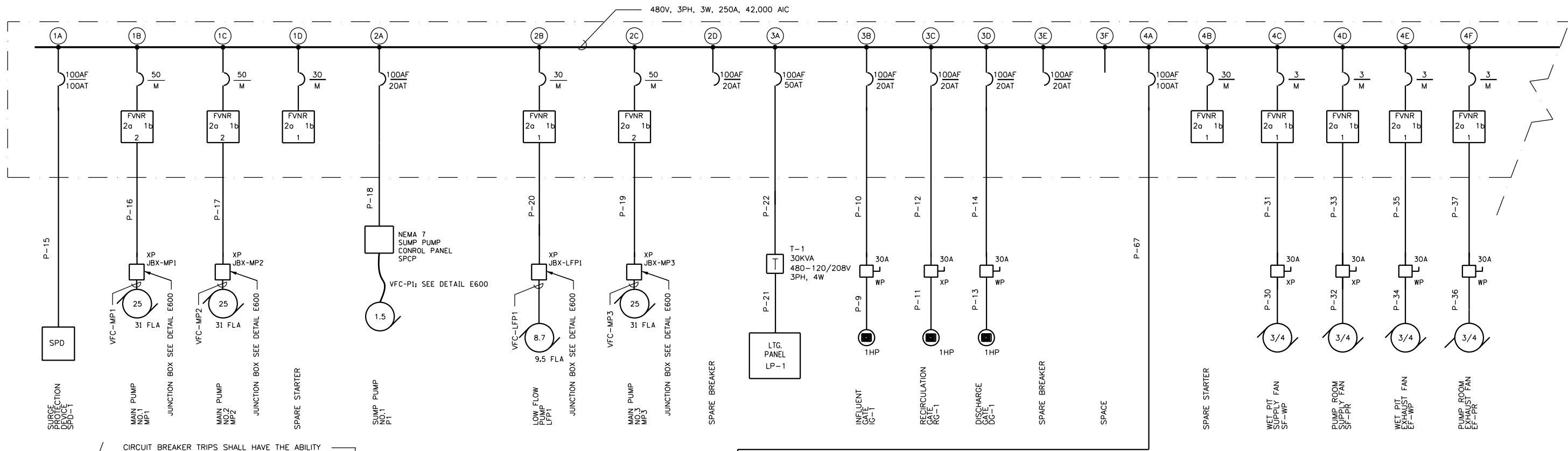
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DRAWN - JRR	REVISIONS -	
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

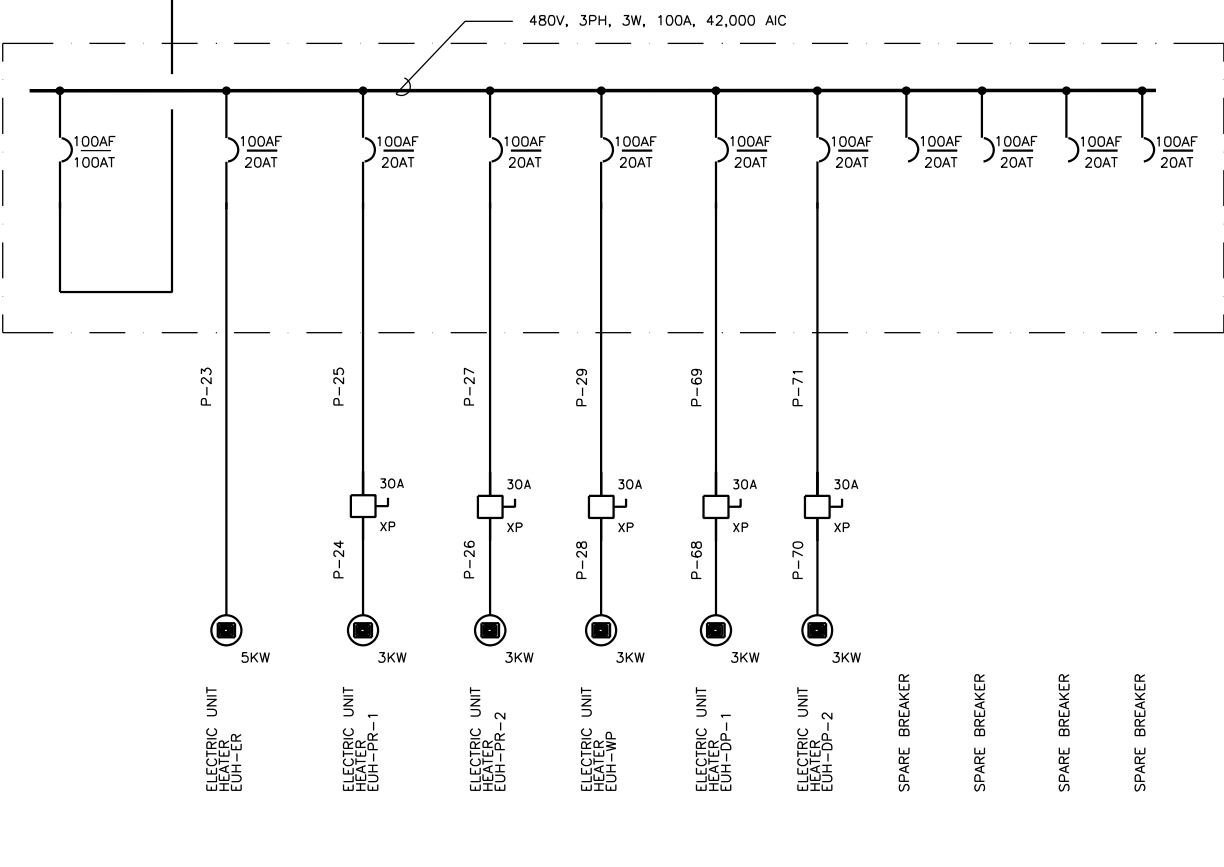
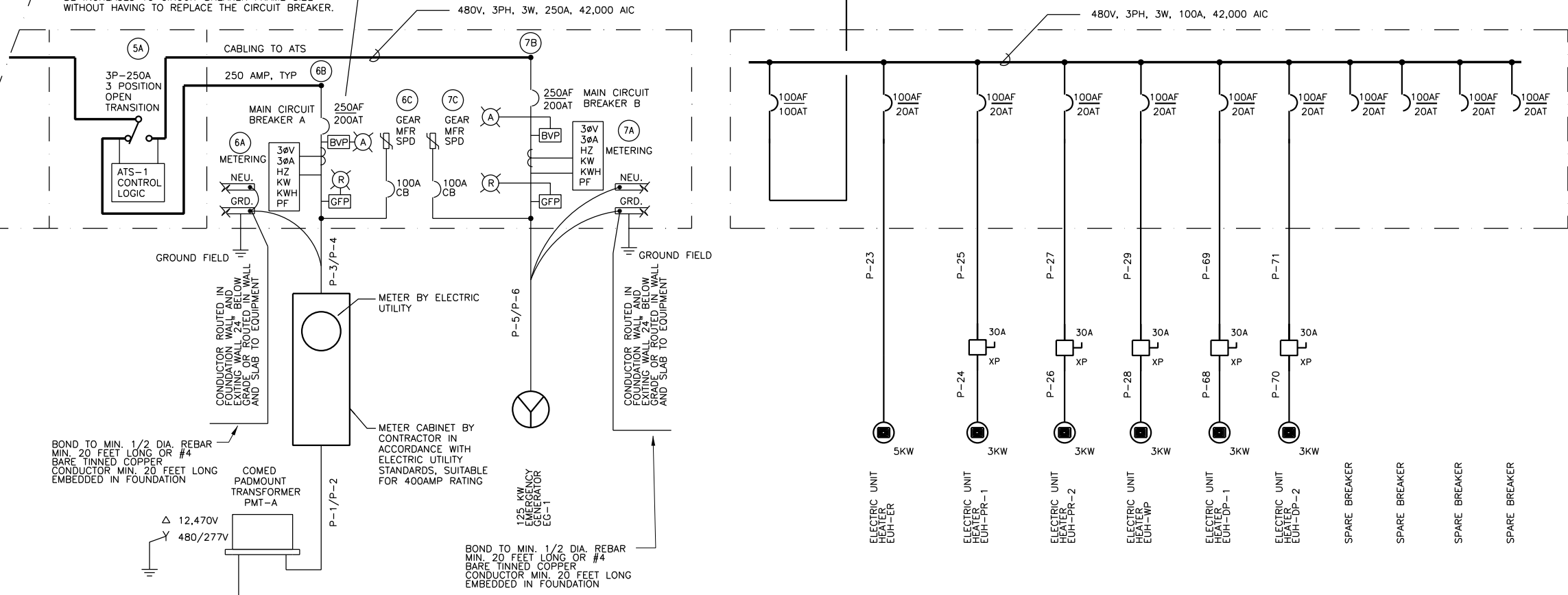
**PUMP STATION NO. 37
ELECTRICAL
OVERALL ONE-LINE DIAGRAM**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)L-4	LAKE	186	140
CONTRACT NO. 62B66				
		ILLINOIS	FED. AID PROJECT C/UJ(634)	



CIRCUIT BREAKER TRIPS SHALL HAVE THE ABILITY BE INCREASED TO CIRCUIT BREAKER FRAME SIZE WITHOUT HAVING TO REPLACE THE CIRCUIT BREAKER.



- NOTES:**
- COORDINATE WITH COMED FOR INCOMING POWER LENGTH TO REQUIREMENTS. PROVIDE ADEQUATE CONDUCTOR LENGTH TO REACH PAD MOUNT TRANSFORMER; TERMINATIONS ON TRANSFORMER BY COMED. COORDINATE WITH COMED FOR METER SOCKET AND METERING EQUIPMENT AS REQUIRED.
 - AMBER INDICATING LIGHTS IN MAIN BREAKER SECTION SHALL ENERGIZE WHEN BUS BARS ARE ENERGIZED.
 - MCC MANUFACTURER SHALL BE RESPONSIBLE FOR SIZING AND PROVIDING CABLING TO AND FROM ATS.
 - DISCONNECTS IDENTIFIED AS WP SHALL BE PROVIDED WITH NEMA 4X 316 SS ENCLOSURES. DISCONNECTS AND BREAKERS WITHIN MCC AND PANELS SHALL INCLUDE PROVISIONS TO BE PAD-LOCKED IN THE OFF POSITION. DISCONNECTS LOCATED OUTSIDE OF BUILDING SHALL INCLUDE PROVISIONS TO BE LOCKED IN BOTH THE OFF AND ON POSITIONS.
 - PROVIDE UFER GROUND FROM SERVICE ENTRANCE INTO BUILDING FOUNDATION PER NEC. SERVICE ENTRANCE SHALL BE GROUNDED TO BUILDING GROUND GRID IN ACCORDANCE WITH NEC. MCC SHALL HAVE A COMMON GROUND ON NEUTRAL BUS WITH A SINGLE BOND FOR THE MAIN BREAKERS. GENERATOR SHALL BE CONFIGURED AS A NOT SEPARATELY DERIVED SYSTEM WITH NO GROUND-NEUTRAL BOND IN THE GENERATOR.
 - MCC, BREAKERS AND TRANSFER SWITCH (POWER FAILURE AND LOSS OF BUS VOLTAGE) SHALL BE PROVIDED WITH DRY CONTACTS PER SPECIFICATIONS FOR I/O TO SCADA.
 - MAIN BREAKERS SPD'S AND CONNECTING CIRCUIT BREAKERS SHALL BE SERVICE ENTRANCE RATED.
 - MCC MANUFACTURER SHALL PROVIDE A ONE LINE DIAGRAM AS SHOP DRAWING SUBMITTAL.
 - SEE DRAWING E-41 FOR CONDUCTOR AND CONDUIT REQUIREMENTS.
 - SEE DRAWING E-38 FOR POWER PANEL (PP-1) AND LIGHTING PANEL (LP-1) SCHEDULE.

MCC-1 ONE-LINE DIAGRAM ELECTRICAL ROOM

PP-1 ONE-LINE DIAGRAM ELECTRICAL ROOM

E-6

MODEL: 480V/277V/480V
FILE NAME: SHEETS



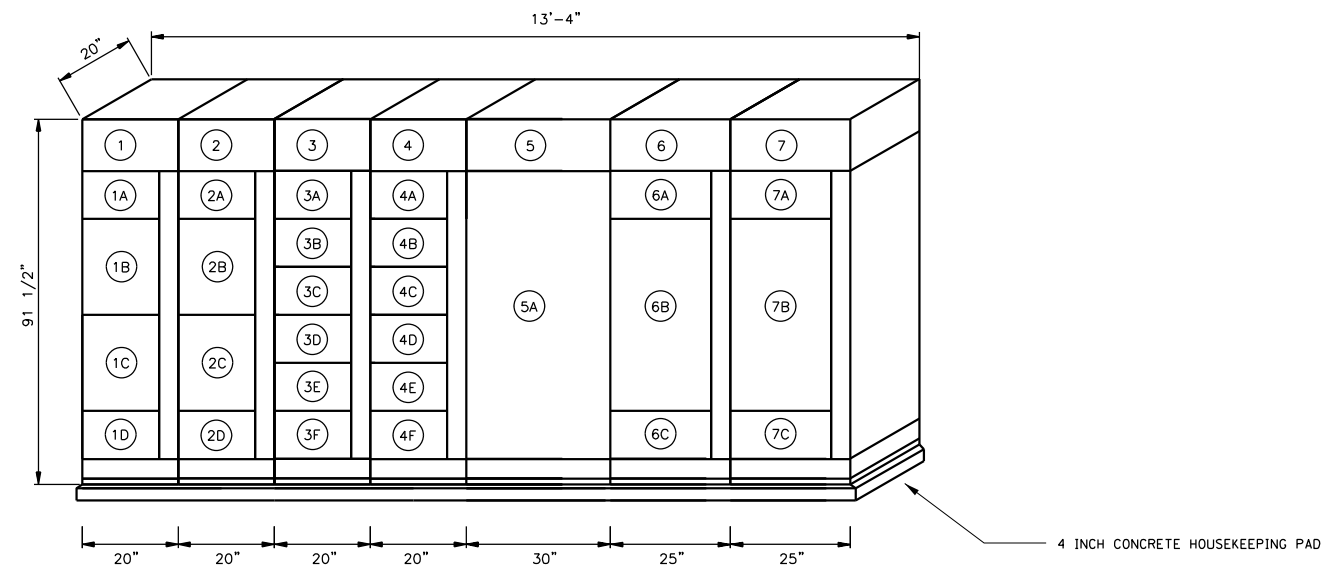
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PLOT DATE = 08/09/24	CHECKED - JAB	REVISED -
	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
ELECTRICAL
MCC AND PP ONE-LINE DIAGRAM**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE. 346	SECTION (125S-1) L-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 141
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CRJX(634)				



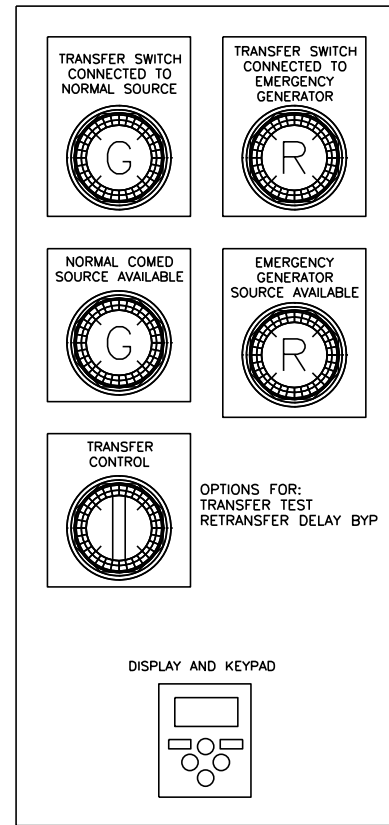
**MCC-1 ELEVATION
ELECTRICAL ROOM**

NTS

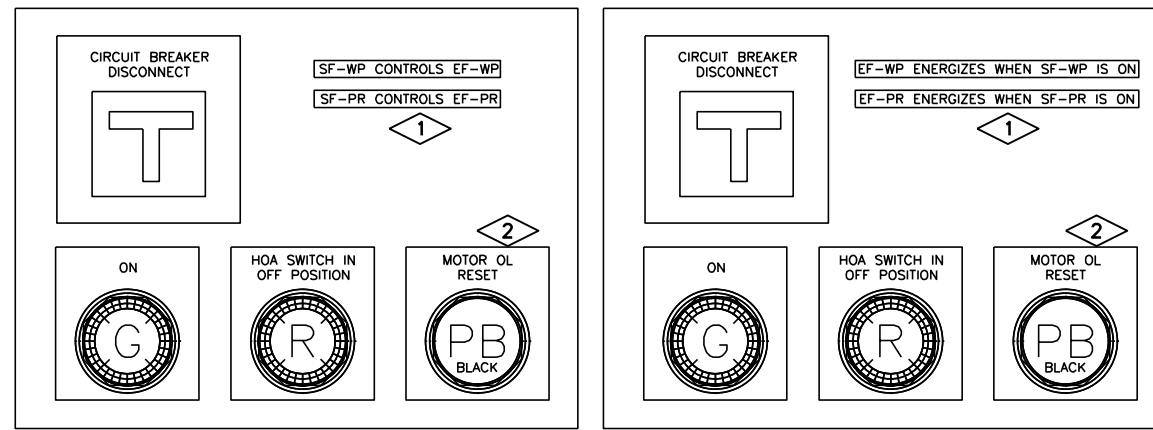
E-7

MODELS AND DIMENSIONS
FILE NAMES: SEE LISTS

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	PLOT SCALE = AS NOTED	DRAWN - JRR	REVISED -			346	(125S-1)L-4	LAKE	186	142	
	PLOT DATE = 08/09/24	CHECKED - JAB	REVISED -			CONTRACT NO. 62B66					
	DATE - 08-08-2024	REVISED -	SCALE:			SHEET	OF	SHEETS	STA.	TO	STA.

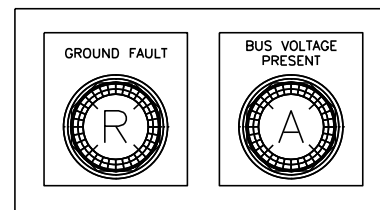


AUTOMATIC TRANSFER SWITCH
ATS-1

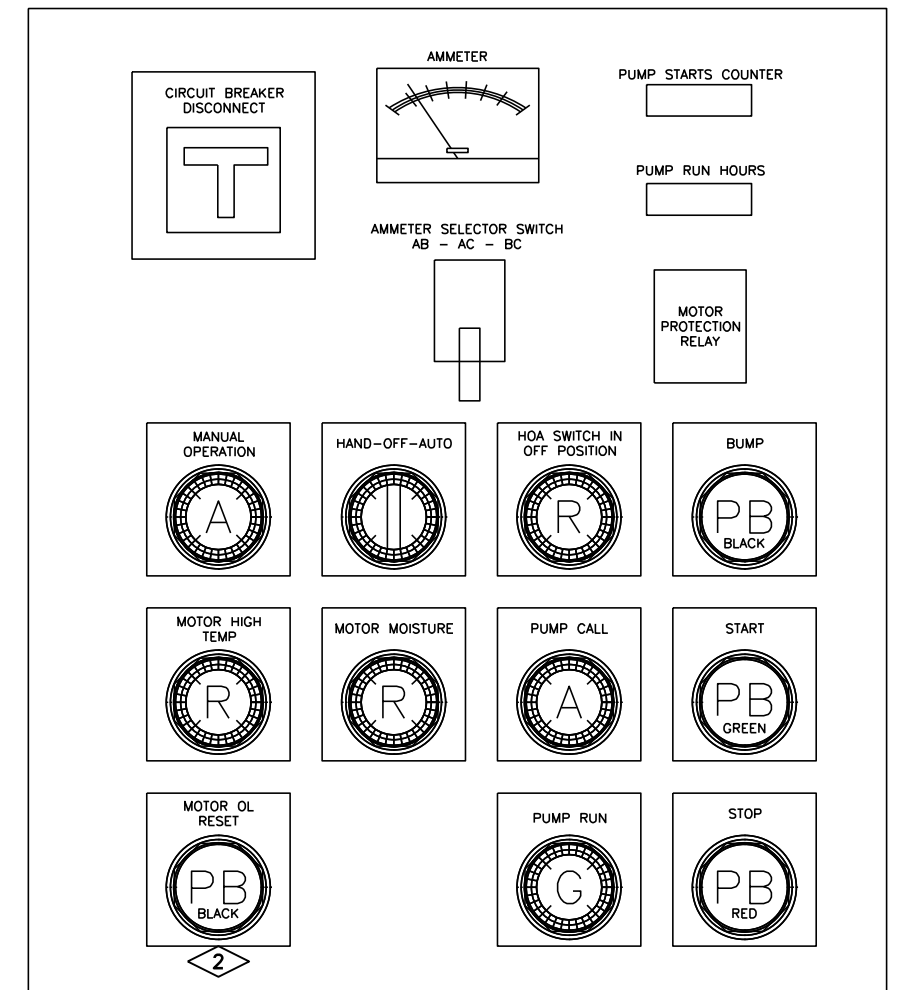


SUPPLY FANS

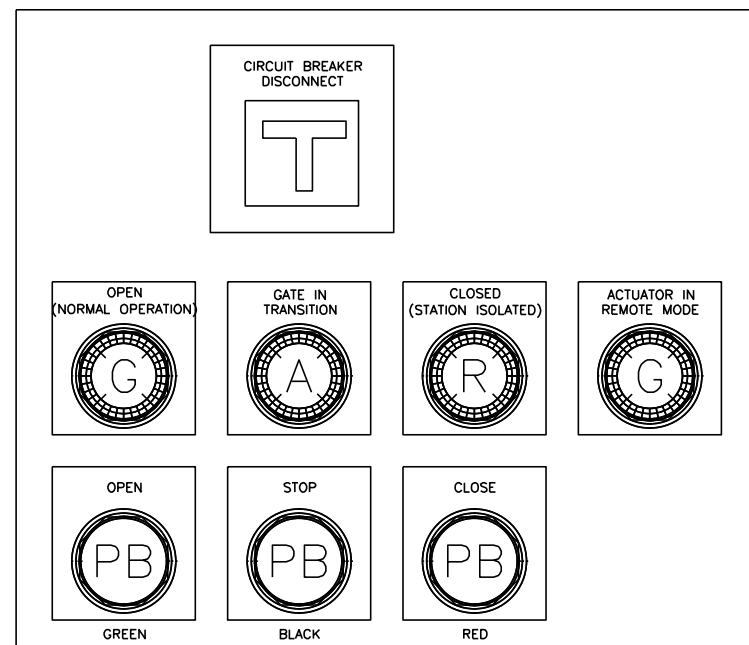
EXHAUST FANS



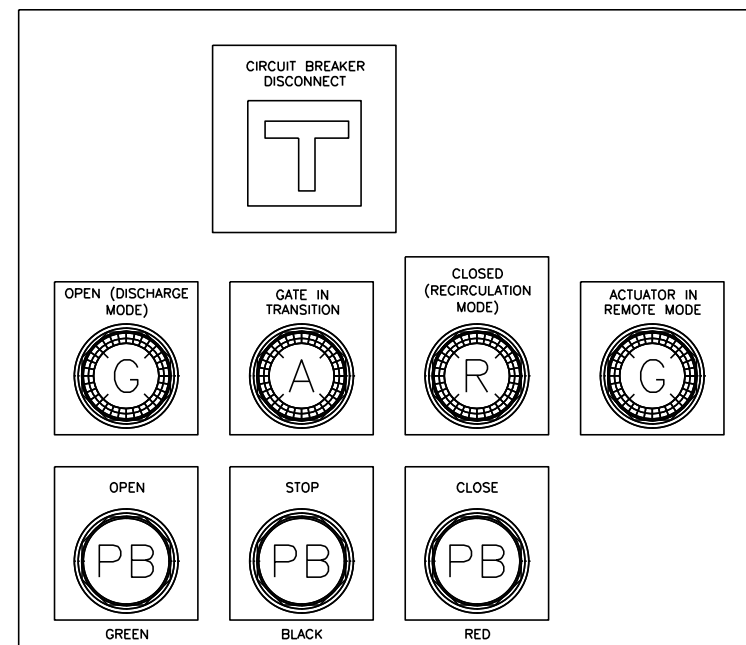
MAIN BREAKERS
(POWER METERS NOT SHOWN)



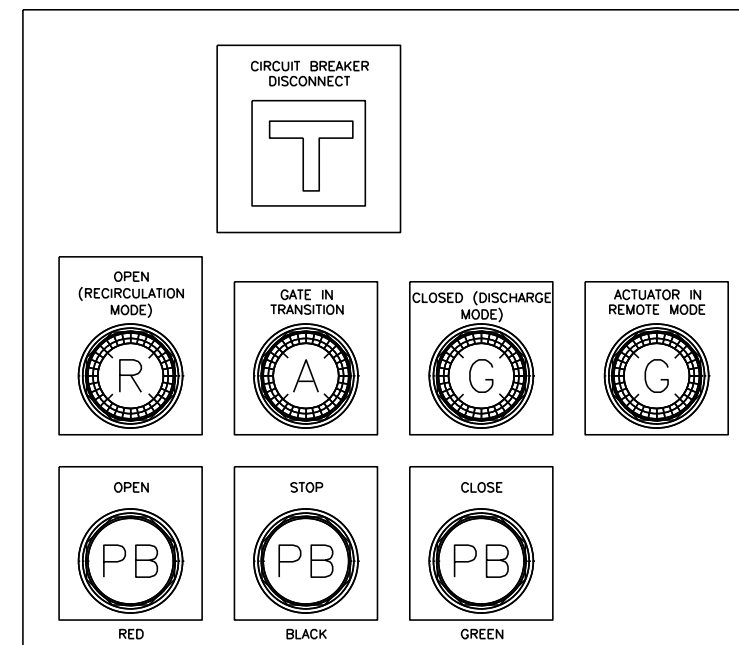
MAIN PUMPS AND LOW FLOW PUMP
MOTOR STARTER (TYPICAL)



INFLUENT GATE
ACTUATOR - IG-1



DISCHARGE GATE
ACTUATOR - DG-1



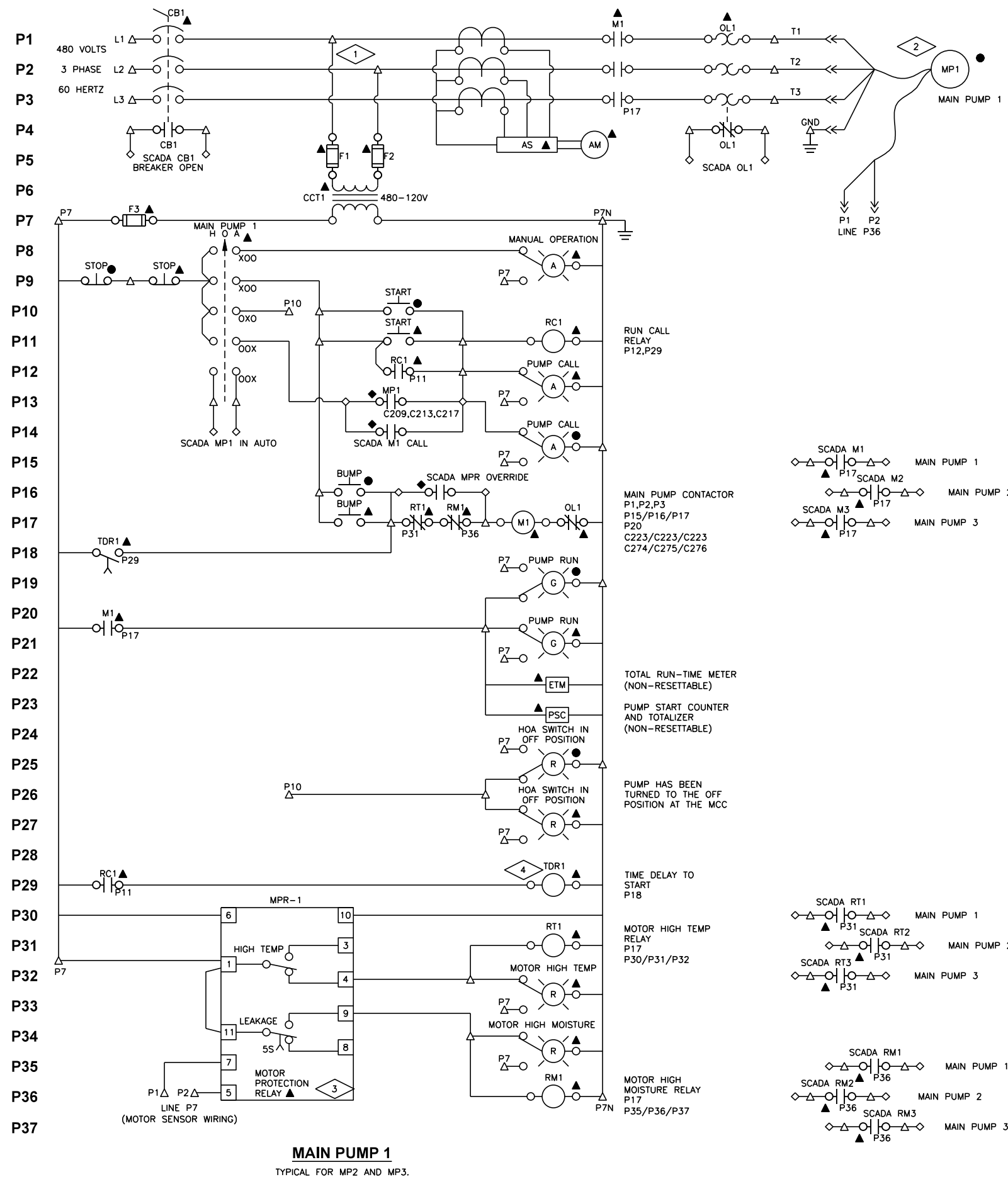
RECIRCULATION GATE
ACTUATOR - RG-1

GENERAL NOTES:

- PILOT LIGHTS SHALL BE LED TYPE WITH PUSH-TO-TEST FUNCTIONALITY IN ACCORDANCE WITH GENERAL PROVISIONS.

PLAN NOTES:

- NAMEPLATES SHALL BE PROVIDED AS SHOWN WITH RESPECTIVE EQUIPMENT.
- PROVIDE MANUAL RESET PUSHBUTTON PER SPECIAL PROVISIONS.



GENERAL NOTES:

- CONTRACTOR SHALL PROVIDE CONTROL SCHEMATIC SHOP DRAWINGS DEPICTING AND IDENTIFYING TERMINALS AND WIRE NUMBERS ASSOCIATED WITH SCADA PANEL AND TERMINAL NUMBERS AS THEY ARE DEPICTED ON MANUFACTURERS EQUIPMENT TERMINAL BLOCKS. COORDINATE PRIOR TO SUBMITTING SHOP DRAWINGS. ALL WIRED DEVICES SHALL BE COORDINATED, DEPICTED, AND IDENTIFIED.

PLAN NOTES:

- EACH CONTROL CIRCUIT TRANSFORMER SHALL DERIVE PRIMARY VOLTAGE FROM PHASE PAIRS AS FOLLOWS:
(PUMP 1 = L1-L2)
(PUMP 2 = L2-L3)
(PUMP 3 = L1-L3)
(LOW FLOW PUMP 1 = L1-L2)
- SOME PUMP MANUFACTURERS HAVE POWER AND MONITORING WIRES IN ONE CABLE. CONTRACTOR SHALL COORDINATE WITH PUMP MANUFACTURER.
- MOTOR PROTECTION RELAY (MPR) PROVIDED BY PUMP MANUFACTURER. TERMINATIONS MAY VARY WITH MANUFACTURER. CONTACTS ARE SHOWN WITH THE DEVICE UN-POWERED. CONTRACTOR SHALL COORDINATE WITH PUMP MANUFACTURER. MPR'S SHALL BE SET FOR AUTO-RESET OPERATION. WHEN POWERED, OVERTEMP RELAY CONTACTS: 1-3 CLOSED, 1-4 OPEN, AND LEAKAGE RELAY CONTACTS: 11-8 CLOSED, 11-9 OPEN.
- TIME DELAY RELAYS SHALL BE SET FOR 10, 15, AND 20 SECONDS FOR PUMPS MP1, MP2, AND MP3 RESPECTIVELY.

LEGEND:

- △ TERMINAL IN MCC
- ◇ TERMINAL IN SCADA PANEL
- TERMINAL ON DEVICE
- ▲ DEVICE IN MCC
- ◆ DEVICE IN SCADA PANEL
- DEVICE LOCALLY MOUNTED

MODEL: SBOBELNAMES
FILE NAME: SFEELS



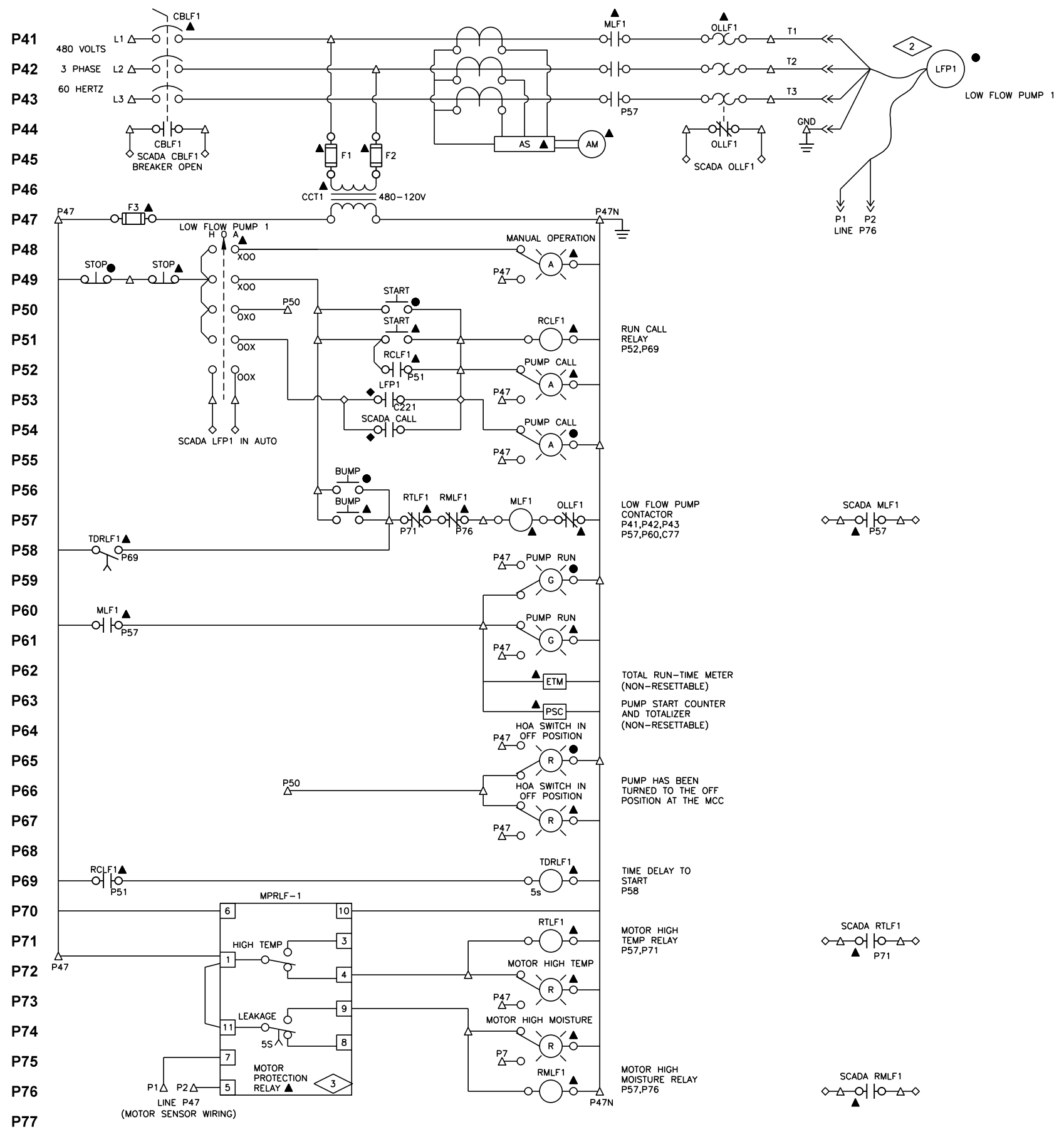
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PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
MAIN PUMP CONTROL SCHEMATICS**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	144
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIU(634)				



LOW FLOW PUMP

GENERAL NOTES:

- CONTRACTOR SHALL PROVIDE CONTROL SCHEMATIC SHOP DRAWINGS DEPICTING AND IDENTIFYING TERMINALS AND WIRE NUMBERS ASSOCIATED WITH SCADA PANEL AND TERMINAL NUMBERS AS THEY ARE DEPICTED ON MANUFACTURERS EQUIPMENT TERMINAL BLOCKS. COORDINATE PRIOR TO SUBMITTING SHOP DRAWINGS. ALL WIRED DEVICES SHALL BE COORDINATED, DEPICTED, AND IDENTIFIED.

PLAN NOTES:

- NOT USED.
- SOME PUMP MANUFACTURERS HAVE POWER AND MONITORING WIRES IN ONE CABLE. CONTRACTOR SHALL COORDINATE WITH PUMP MANUFACTURER.
- MOTOR PROTECTION RELAY (MPR) PROVIDED BY PUMP MANUFACTURER. TERMINATIONS MAY VARY WITH MANUFACTURER. CONTACTS ARE SHOWN WITH THE DEVICE UN-POWERED. CONTRACTOR SHALL COORDINATE WITH PUMP MANUFACTURER. MPR'S SHALL BE SET FOR AUTO-RESET OPERATION. WHEN POWERED, OVERTEMP RELAY CONTACTS: 1-3 CLOSED, 1-4 OPEN, AND LEAKAGE RELAY CONTACTS: 11-8 CLOSED, 11-9 OPEN.

LEGEND:

- △ TERMINAL IN MCC
- ◇ TERMINAL IN SCADA PANEL
- TERMINAL ON DEVICE
- ▲ DEVICE IN MCC
- ◆ DEVICE IN SCADA PANEL
- DEVICE LOCALLY MOUNTED

MODEL: SBOURNAAMES
FILE NAME: SFE15



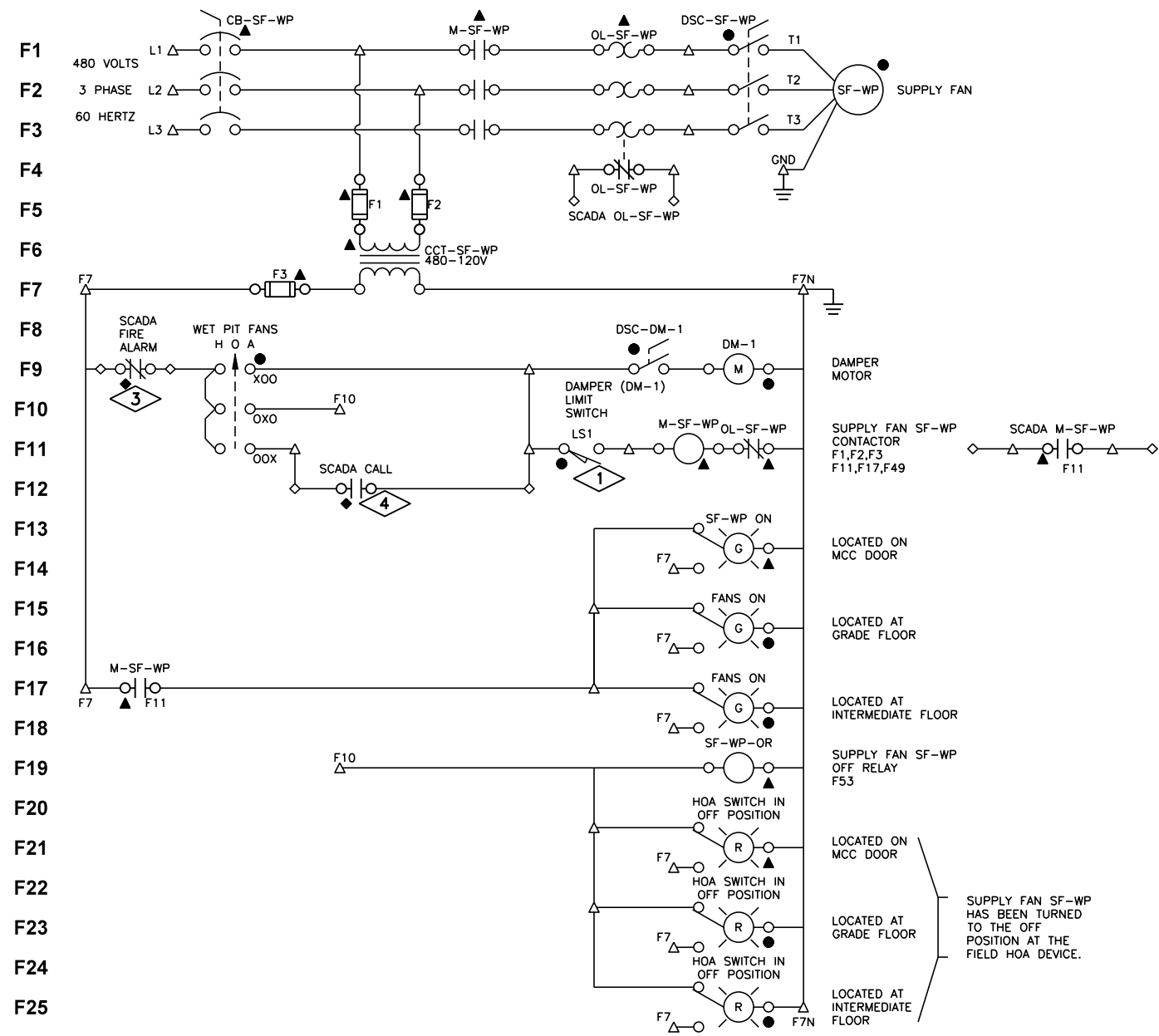
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PLOT SCALE = AS NOTED	DATE -- 08-08-2024	REVISED --
PLOT DATE = 08/09/24		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
LOW FLOW PUMP CONTROL
SCHEMATICS**

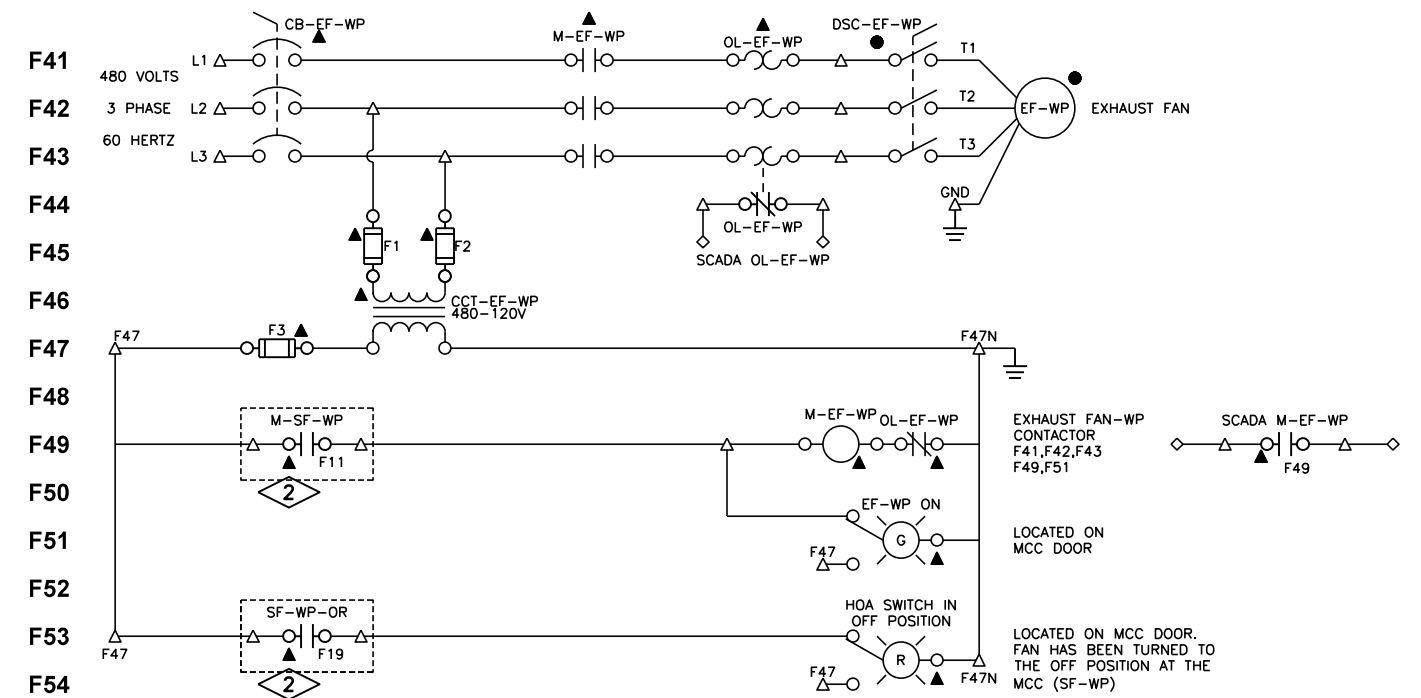
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	145
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIU(634)				



WET PIT SUPPLY FAN - SF-WP

WET PIT SUPPLY FAN (SF-WP)
SERVES GRADE FLOOR, INTERMEDIATE
FLOOR, SCREEN CHAMBER, INLET
CHAMBER AND WET PIT.



WET PIT EXHAUST FAN - EF-WP

WET PIT EXHAUST FAN (EF-WP)
SERVES GRADE FLOOR, INTERMEDIATE
FLOOR, SCREEN CHAMBER, INLET
CHAMBER AND WET PIT.

GENERAL NOTES:

- CONTRACTOR SHALL PROVIDE CONTROL SCHEMATIC SHOP DRAWINGS DEPICTING AND IDENTIFYING TERMINALS AND WIRE NUMBERS ASSOCIATED WITH SCADA PANEL AND TERMINAL BLOCKS AS THEY ARE DEPICTED ON MANUFACTURERS EQUIPMENT TERMINAL BLOCKS. COORDINATE PRIOR TO SUBMITTING SHOP DRAWINGS. ALL WIRED DEVICES SHALL BE COORDINATED, DEPICTED, AND IDENTIFIED.

PLAN NOTES:

- LIMIT SWITCH IS SHOWN IN THE DAMPER CLOSED POSITION. LIMIT SWITCH CLOSURES WHEN DAMPER IS OPEN.
- LOCATED IN SUPPLY FAN SF-WP MCC BUCKET.
- CONTACT OPENS WHEN FIRE ALARM PRESENT.
- CONTACT CLOSURES WHEN LIGHTS ARE ON IN SPACE AND/OR WHEN GAS ALARMS ARE EXCEEDED (AND WILL STAY ON FOR 15 MINUTES FOLLOWING GAS ALARM BEING CLEARED). SEE DRAWING E-20 FOR LIGHTING CIRCUITS.

LEGEND:

- △ TERMINAL IN MCC
- ◇ TERMINAL IN SCADA PANEL
- TERMINAL ON DEVICE
- ▲ DEVICE IN MCC
- ◆ DEVICE IN SCADA PANEL
- DEVICE LOCALLY MOUNTED

MODEL: SBOCELNAMES
FILE NAME: SFELS



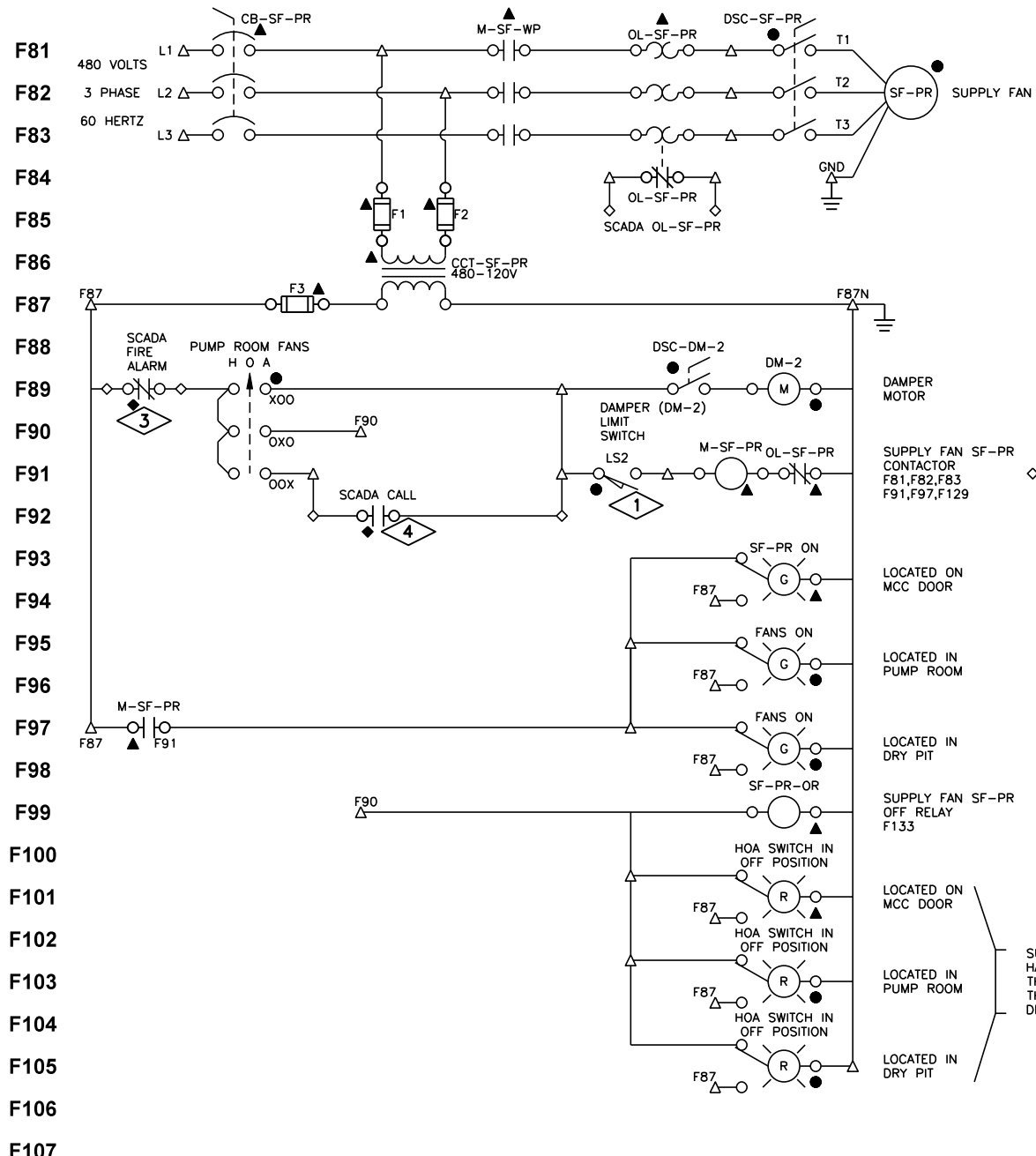
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PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
WET PIT SUPPLY & EXHAUST FANS
CONTROL SCHEMATICS

SCALE: SHEET OF SHEETS STA. TO STA.

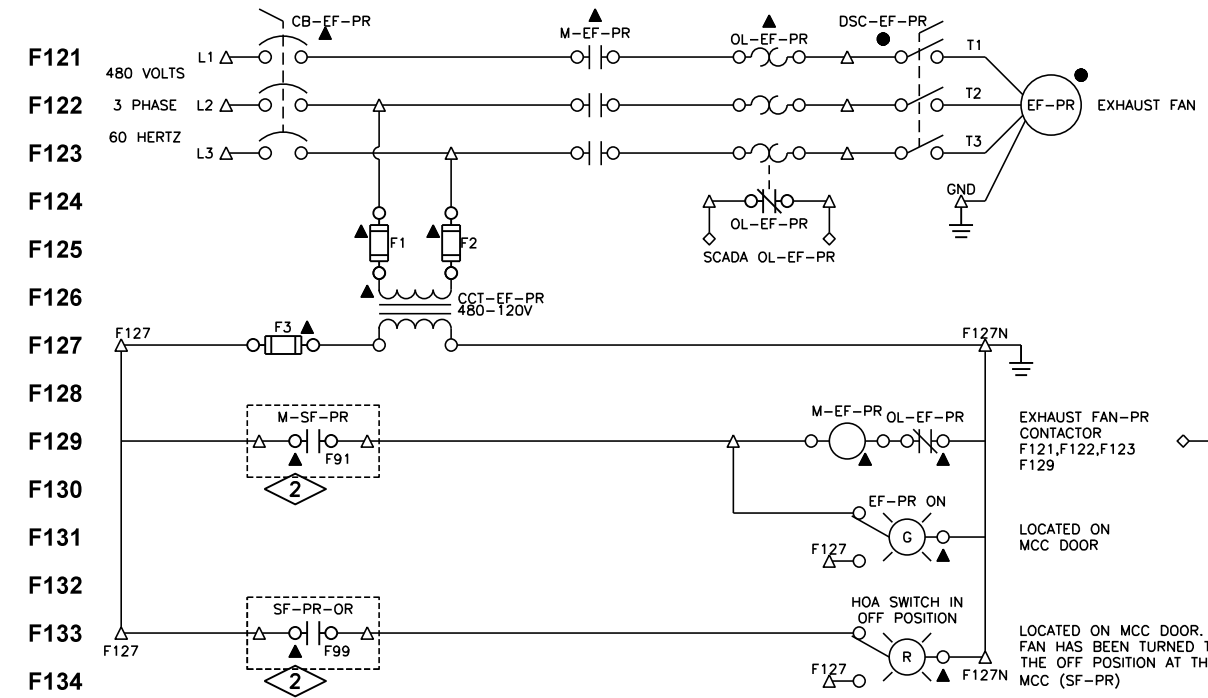
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	146
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIU(634)				



PUMP ROOM SUPPLY FAN - SF-PR

PUMP ROOM SUPPLY FAN (SF-PR) SERVES DRY PIT, AND GRADE FLOOR PUMP ROOM.

SUPPLY FAN SF-PR HAS BEEN TURNED TO THE OFF POSITION AT THE FIELD HOA DEVICE.



PUMP ROOM EXHAUST FAN - EF-PR

PUMP ROOM EXHAUST FAN (EF-PR) SERVES DRY PIT, AND GRADE FLOOR PUMP ROOM.

- F121
- F122
- F123
- F124
- F125
- F126
- F127
- F128
- F129
- F130
- F131
- F132
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- F154
- F155
- F156
- F157
- F158
- F159

GENERAL NOTES:

- CONTRACTOR SHALL PROVIDE CONTROL SCHEMATIC SHOP DRAWINGS DEPICTING AND IDENTIFYING TERMINALS AND WIRE NUMBERS ASSOCIATED WITH SCADA PANEL AND TERMINAL NUMBERS AS THEY ARE DEPICTED ON MANUFACTURERS EQUIPMENT TERMINAL BLOCKS. COORDINATE PRIOR TO SUBMITTING SHOP DRAWINGS. ALL WIRED DEVICES SHALL BE COORDINATED, DEPICTED, AND IDENTIFIED.

PLAN NOTES:

- LIMIT SWITCH IS SHOWN IN THE DAMPER CLOSED POSITION. LIMIT SWITCH CLOSURES WHEN DAMPER IS OPEN.
- LOCATED IN SUPPLY FAN SF-WP MCC BUCKET.
- CONTACT OPENS WHEN FIRE ALARM PRESENT.
- CONTACT CLOSURES WHEN LIGHTS ARE ON IN SPACE AND/OR WHEN GAS ALARMS ARE EXCEEDED (AND WILL STAY ON FOR 15 MINUTES FOLLOWING GAS ALARM BEING CLEARED). SEE DRAWING E-20 FOR LIGHTING CIRCUITS.

LEGEND:

- △ TERMINAL IN MCC
- ◇ TERMINAL IN SCADA PANEL
- TERMINAL ON DEVICE
- ▲ DEVICE IN MCC
- ◆ DEVICE IN SCADA PANEL
- DEVICE LOCALLY MOUNTED

MODEL: SBOURBAMAMES
FILE NAME: SELELS



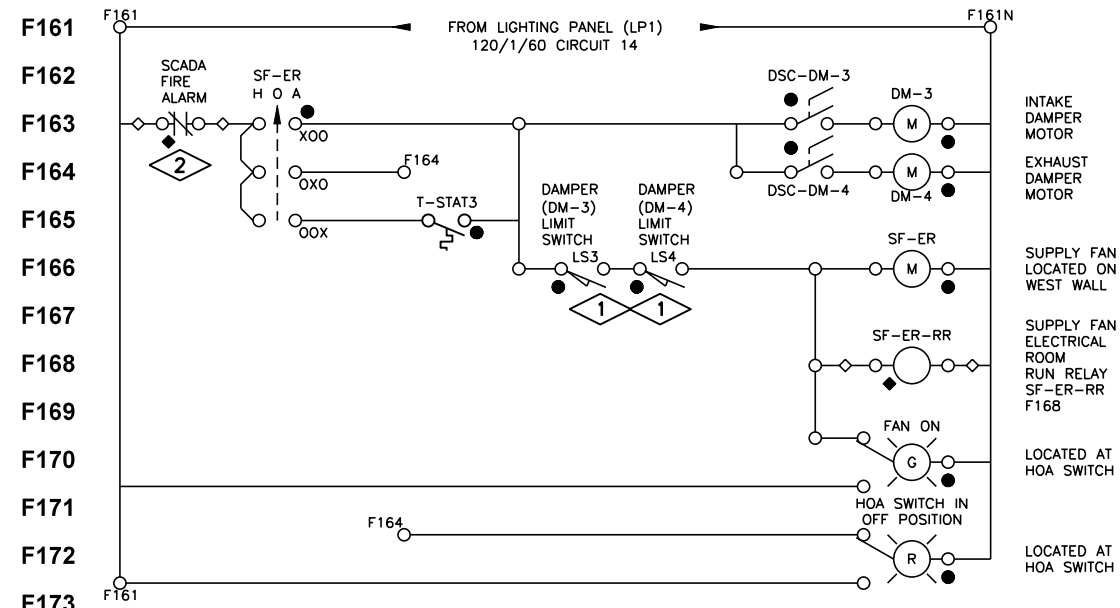
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DRAWN - DWG	REVISIONS -	
PLOT SCALE = AS NOTED	CHECKED - MBS	REVISED -
PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

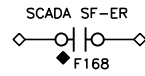
PUMP STATION NO. 37
PUMP ROOM SUPPLY & EXHAUST FANS
CONTROL SCHEMATICS

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	147
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIU(634)				



ELECTRICAL ROOM SUPPLY FAN - SF-ER



F161
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F220

GENERAL NOTES:

- CONTRACTOR SHALL PROVIDE CONTROL SCHEMATIC SHOP DRAWINGS DEPICTING AND IDENTIFYING TERMINALS AND WIRE NUMBERS ASSOCIATED WITH SCADA PANEL AND TERMINAL NUMBERS AS THEY ARE DEPICTED ON MANUFACTURERS EQUIPMENT TERMINAL BLOCKS. COORDINATE PRIOR TO SUBMITTING SHOP DRAWINGS. ALL WIRED DEVICES SHALL BE COORDINATED, DEPICTED, AND IDENTIFIED.

PLAN NOTES:

- LIMIT SWITCH IS SHOWN IN THE DAMPER CLOSED POSITION. LIMIT SWITCH CLOSING WHEN DAMPER IS OPEN.
- CONTACT OPENS WHEN FIRE ALARM PRESENT.

LEGEND:

- △ TERMINAL IN MCC
- ◇ TERMINAL IN SCADA PANEL
- TERMINAL ON DEVICE
- ▲ DEVICE IN MCC
- ◆ DEVICE IN SCADA PANEL
- DEVICE LOCALLY MOUNTED

MODEL: SDR06LNAME5
FILE NAME: SF1E15

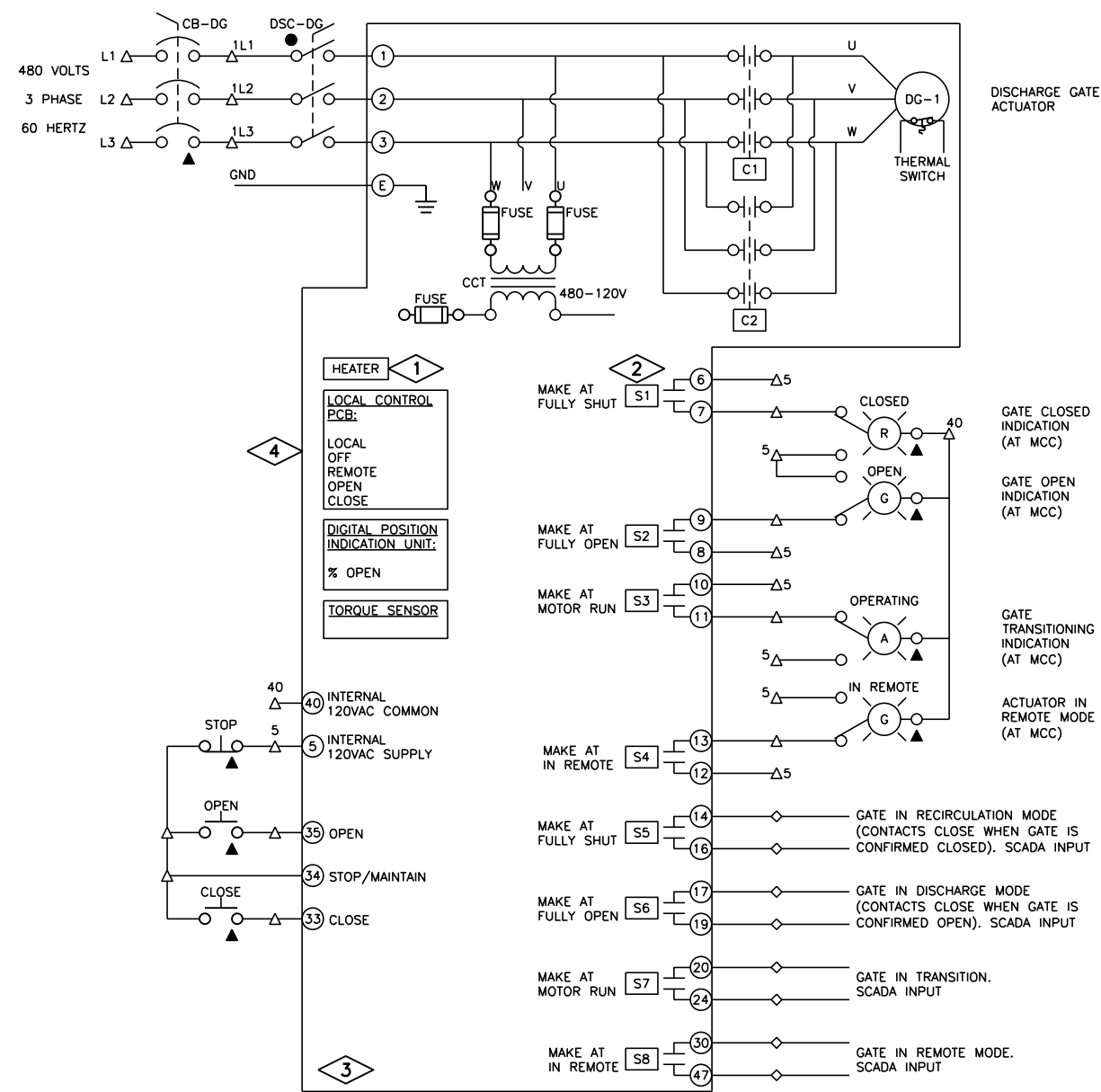
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	PLOT DATE = 08/09/24	CHECKED -- MBS	REVISED --
		DATE -- 08-08-2024	REVISED --

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PUMP STATION NO. 37 ELECTRICAL ROOM SUPPLY FAN CONTROL SCHEMATICS			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

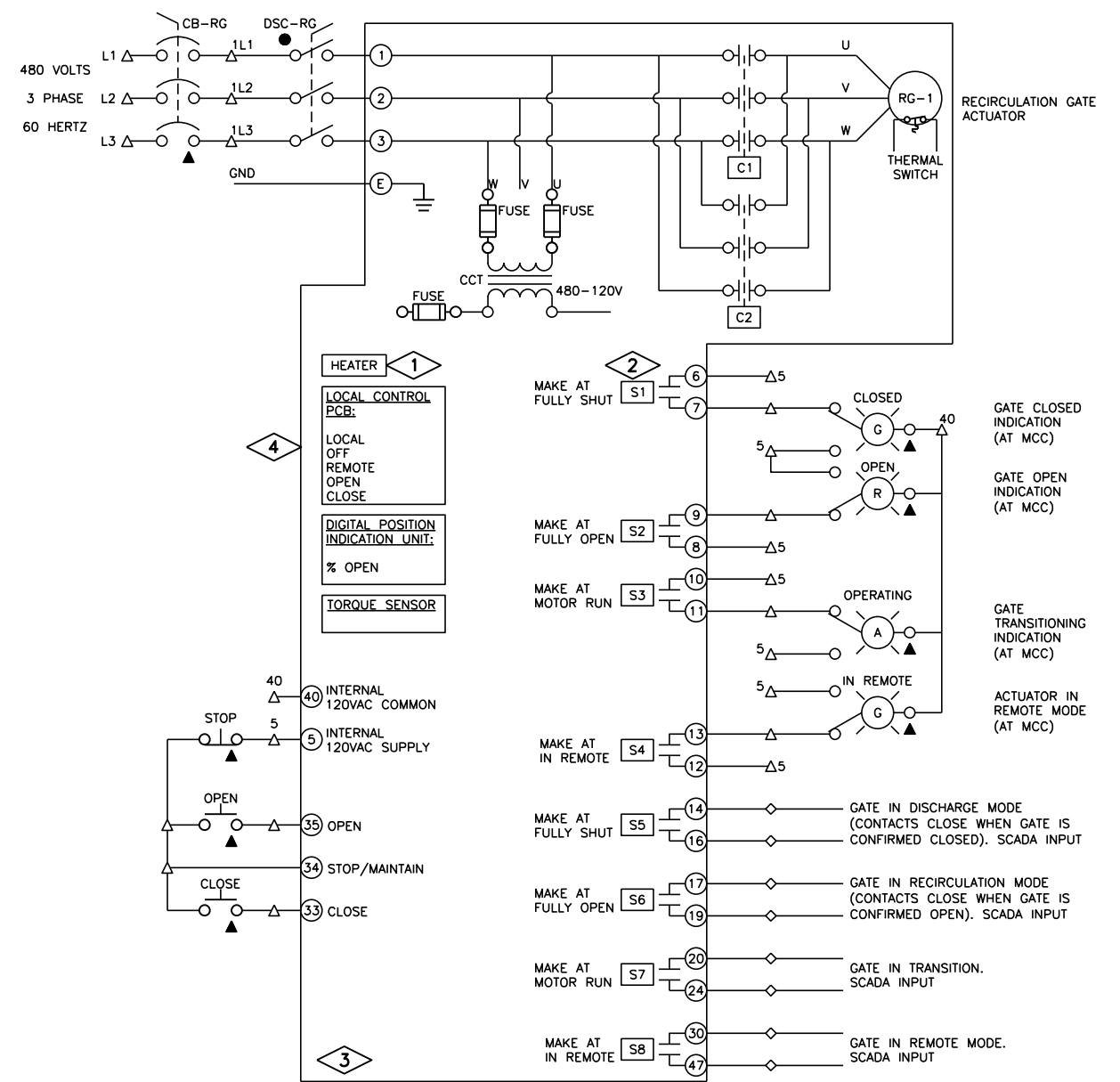
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	148
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIU(634)				

G1
G2
G3
G4
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DISCHARGE GATE ACTUATOR - DG-1

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G71
G72



RECIRCULATION GATE ACTUATOR - RG-1

GENERAL NOTES:

- CONTRACTOR SHALL PROVIDE CONTROL SCHEMATIC SHOP DRAWINGS DEPICTING AND IDENTIFYING TERMINALS AND WIRE NUMBERS ASSOCIATED WITH SCADA PANEL AND TERMINAL NUMBERS AS THEY ARE DEPICTED ON MANUFACTURERS EQUIPMENT TERMINAL BLOCKS. COORDINATE PRIOR TO SUBMITTING SHOP DRAWINGS. ALL WIRED DEVICES SHALL BE COORDINATED, DEPICTED, AND IDENTIFIED.

PLAN NOTES:

- SEE SPECIFICATIONS FOR HEATER REQUIREMENTS.
- S1 THROUGH S8 ARE CONFIGURABLE OUTPUTS, AND SHALL BE CONFIGURED AS SHOWN.
- GATE ACTUATOR WIRING DIAGRAM IS REPRESENTATIVE OF MANUFACTURER ROTORK. IF ANOTHER MANUFACTURER IS APPROVED, THEN CONTRACTOR SHALL PROVIDE SIMILAR FUNCTIONALITY AND COORDINATE WIRING REQUIREMENTS WITH VENDOR.
- LOCAL-OFF-REMOTE SWITCH SHALL BE PAD-LOCKABLE.

LEGEND:

- △ TERMINAL IN MCC
- ◇ TERMINAL IN SCADA PANEL
- TERMINAL ON DEVICE
- ▲ DEVICE IN MCC
- ◆ DEVICE IN SCADA PANEL
- DEVICE LOCALLY MOUNTED

MODEL: SBOCELNAMES
FILENAME: SFELE5



USER NAME = SBREMER	DESIGNED - DWG	REVISED -
	DRAWN - DWG	REVISED -
PLOT SCALE = AS NOTED	CHECKED - MBS	REVISED -
PLOT DATE = 08/09/24	DATE = 08-08-2024	REVISED -

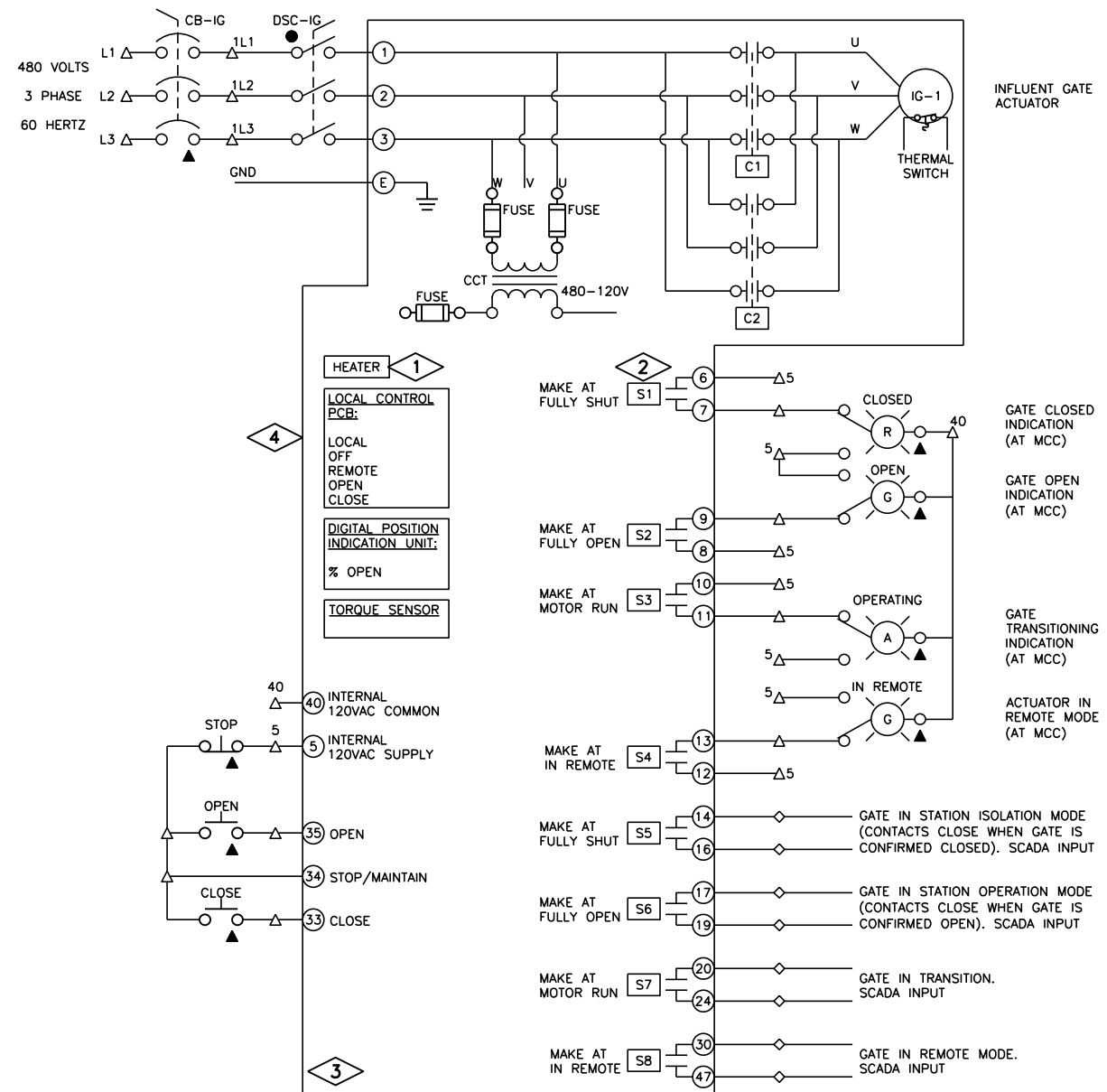
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
ELECTRIC GATE ACTUATORS
CONTROL SCHEMATICS

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	149
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIU(634)				

G121
G122
G123
G124
G125
G126
G127
G128
G129
G130
G131
G132
G133
G134
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G149
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G151
G152
G153
G154
G155
G156
G157
G158



INFLUENT GATE ACTUATOR - IG-1

GENERAL NOTES:

- CONTRACTOR SHALL PROVIDE CONTROL SCHEMATIC SHOP DRAWINGS DEPICTING AND IDENTIFYING TERMINALS AND WIRE NUMBERS ASSOCIATED WITH SCADA PANEL AND TERMINAL NUMBERS AS THEY ARE DEPICTED ON MANUFACTURERS EQUIPMENT TERMINAL BLOCKS. COORDINATE PRIOR TO SUBMITTING SHOP DRAWINGS. ALL WIRED DEVICES SHALL BE COORDINATED, DEPICTED, AND IDENTIFIED.

PLAN NOTES:

- SEE SPECIFICATIONS FOR HEATER REQUIREMENTS.
- S1 THROUGH S8 ARE CONFIGURABLE OUTPUTS, AND SHALL BE CONFIGURED AS SHOWN.
- GATE ACTUATOR WIRING DIAGRAM IS REPRESENTATIVE OF MANUFACTURER ROTORK. IF ANOTHER MANUFACTURER IS APPROVED, THEN CONTRACTOR SHALL PROVIDE SIMILAR FUNCTIONALITY AND COORDINATE WIRING REQUIREMENTS WITH VENDOR.
- LOCAL-OFF-REMOTE SWITCH SHALL BE PAD-LOCKABLE.

LEGEND:

- △ TERMINAL IN MCC
- ◇ TERMINAL IN SCADA PANEL
- TERMINAL ON DEVICE
- ▲ DEVICE IN MCC
- ◆ DEVICE IN SCADA PANEL
- DEVICE LOCALLY MOUNTED

MODEL: SBOCELXAMES
FILE NAME: SFE15



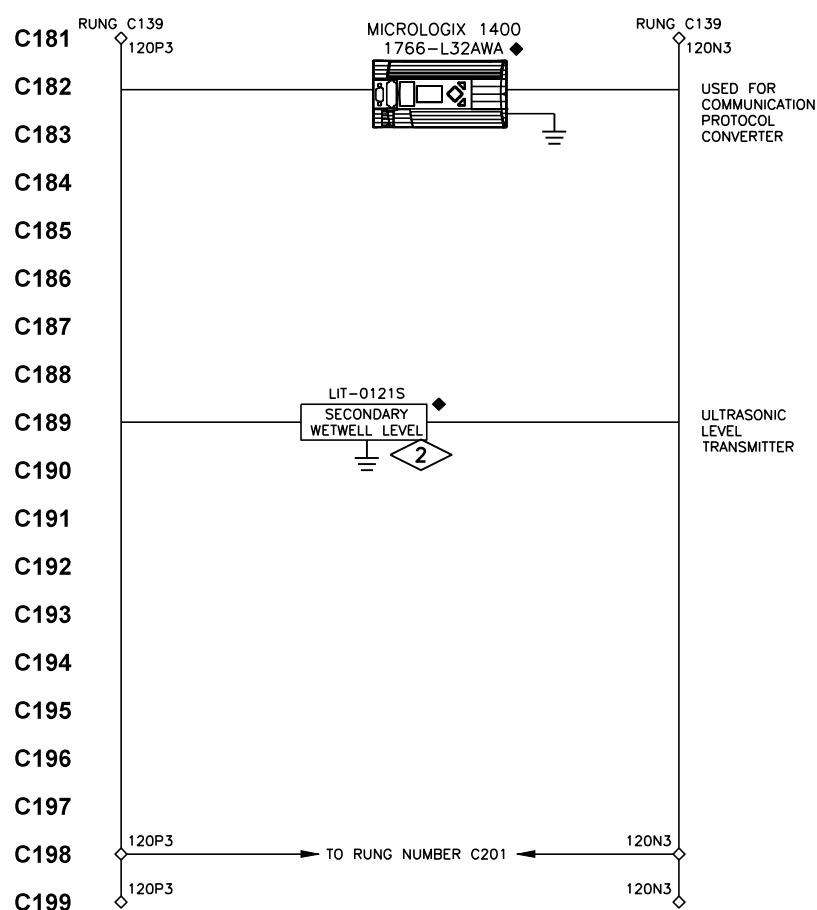
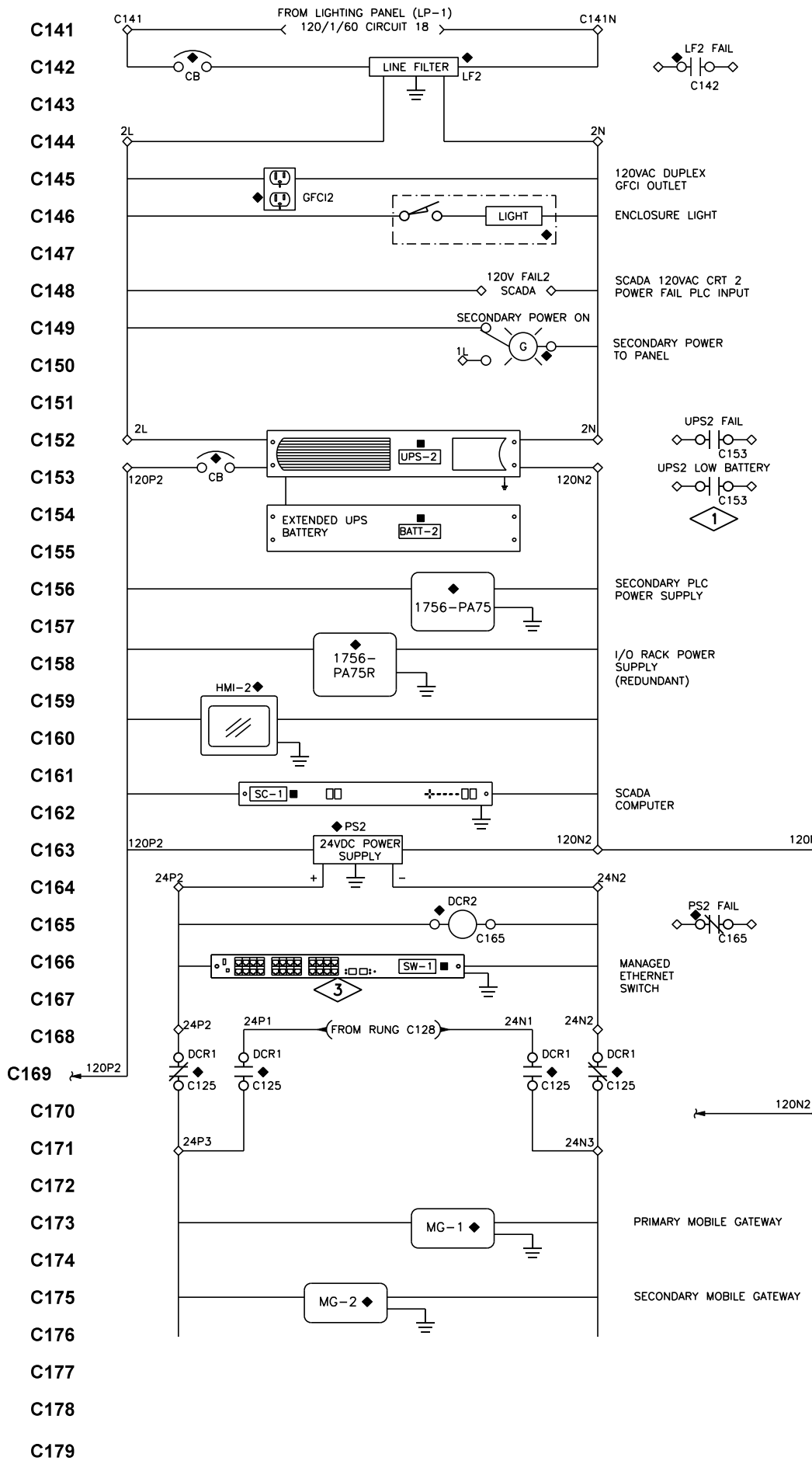
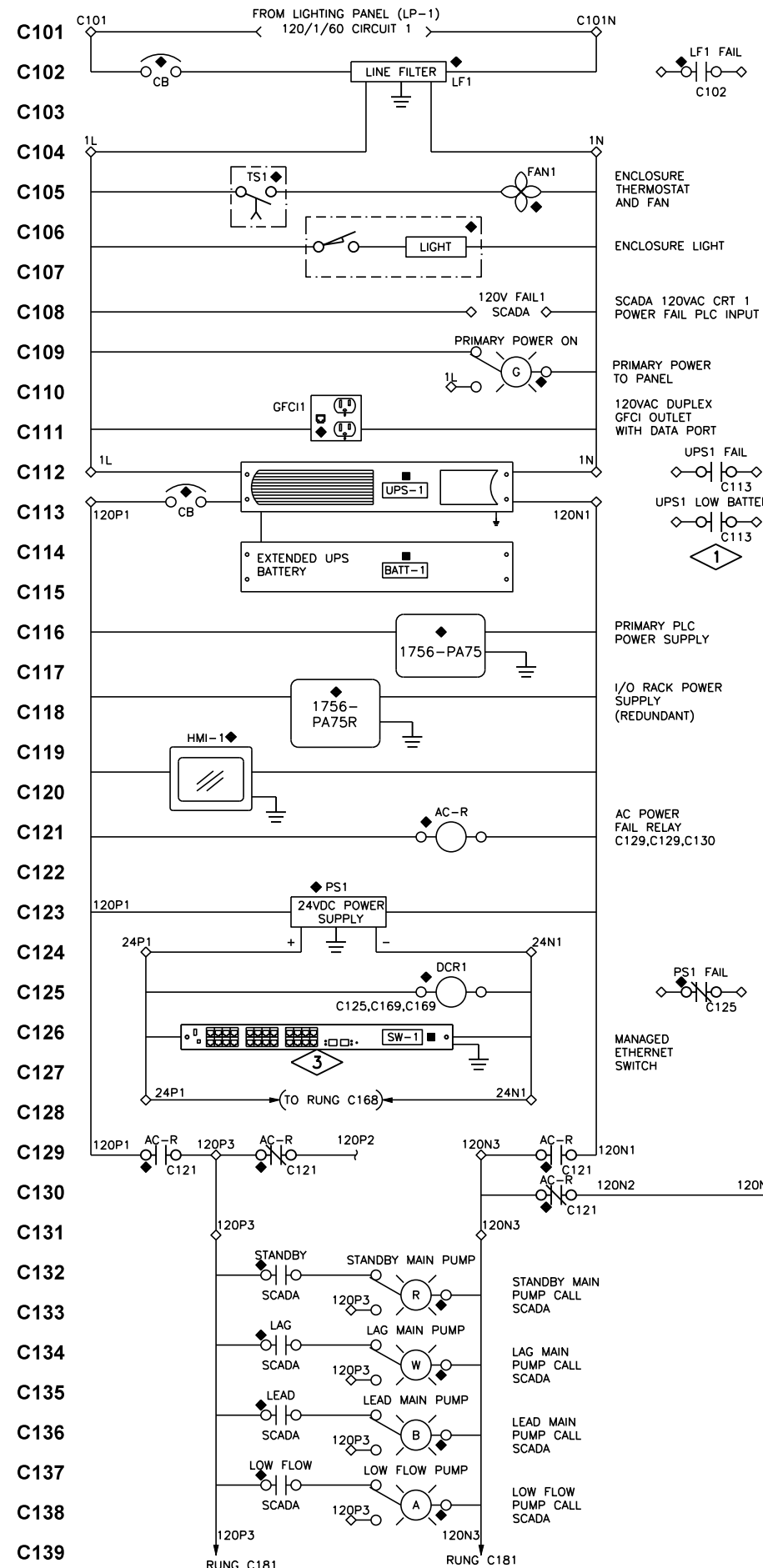
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	DRAWN - DWG	REVISED -
PLOT SCALE = AS NOTED	CHECKED - MBS	REVISED -
PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
ELECTRIC GATE ACTUATORS
CONTROL SCHEMATICS**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	150
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIU(634)				



- GENERAL NOTES:**
- CONTROL CIRCUIT DRAWINGS DEPICT GENERAL DEVICE WIRING PRACTICES AND DOES NOT INCLUDE ALL CIRCUIT PROTECTIVE DEVICES SUCH AS FUSES, CIRCUIT BREAKERS, OR MOV'S. THESE DEVICES SHALL BE INCLUDED IN DETAILED DESIGN DRAWINGS BY CONTRACTOR.
 - CONTRACTOR SHALL PROVIDE CONTROL SCHEMATIC SHOP DRAWINGS DEPICTING AND IDENTIFYING TERMINALS AND WIRE NUMBERS ASSOCIATED WITH SCADA PANEL AND TERMINAL NUMBERS AS THEY ARE DEPICTED ON MANUFACTURERS EQUIPMENT TERMINAL BLOCKS. COORDINATE PRIOR TO SUBMITTING SHOP DRAWINGS. ALL WIRED DEVICES SHALL BE COORDINATED, DEPICTED, AND IDENTIFIED.

- PLAN NOTES:**
- UPS ALARM OUTPUTS OF SAME FUNCTION SHALL BE PARALLELED TO PLC INPUT (I.E. UPS 1 LOW BATTERY AND UPS 2 LOW BATTERY SHALL BE ONE INPUT TO THE PLC).
 - ANALOG WIRING TO PLC AND VENDOR FURNISH CABLE TO TRANSDUCER NOT SHOWN.
 - PROVIDE ONE ETHERNET SWITCH WITH REDUNDANT 24VDC POWER INPUTS.

- LEGEND:**
- △ TERMINAL IN MCC
 - ◇ TERMINAL IN SCADA PANEL
 - TERMINAL ON DEVICE
 - ▲ DEVICE IN MCC
 - ◆ DEVICE IN SCADA PANEL
 - DEVICE FIELD MOUNTED
 - DEVICE LOCATED IN NETWORK RACK

E-16

MODEL: SBOURNAAMES
FILE NAME: SELELS



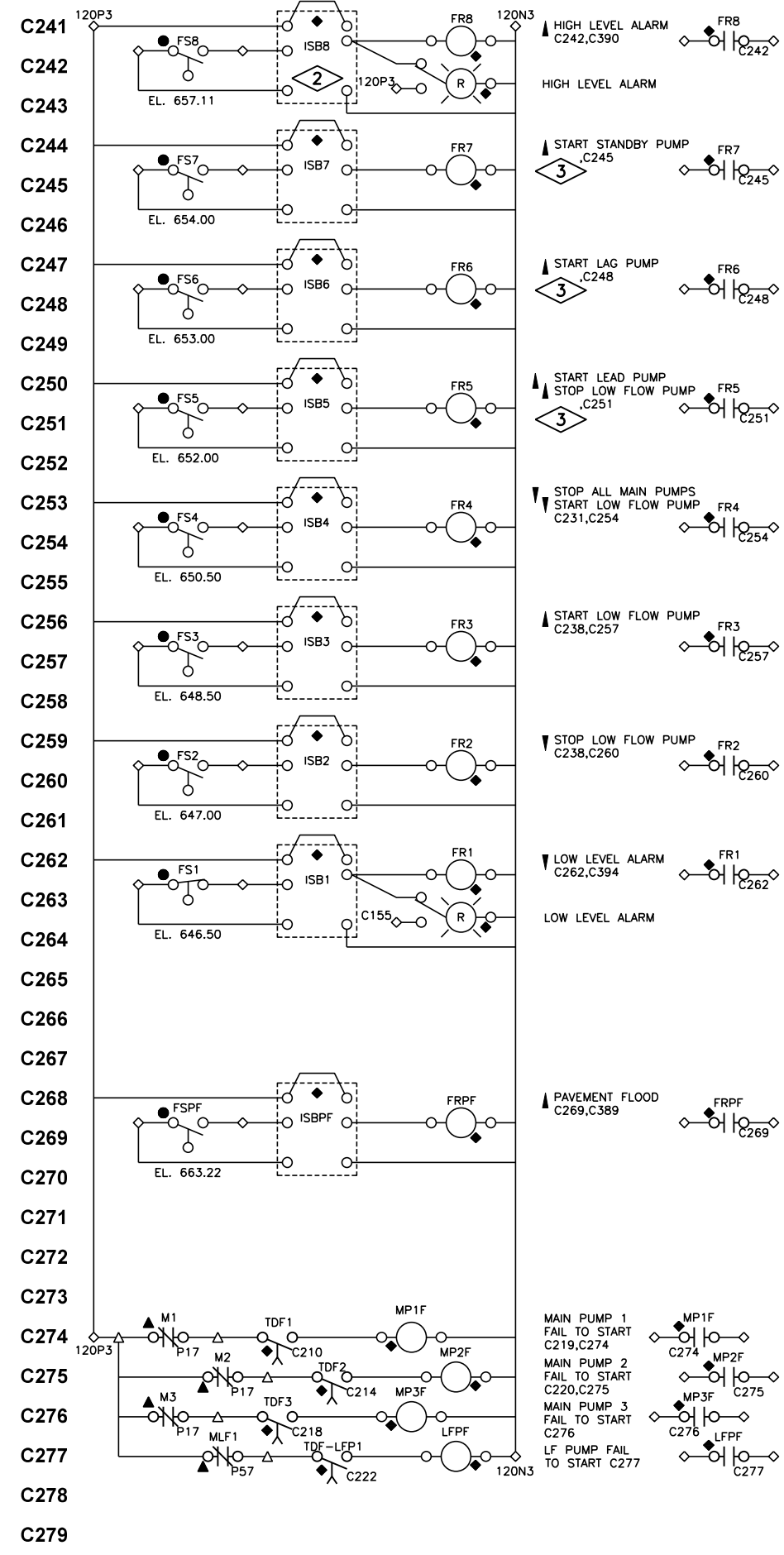
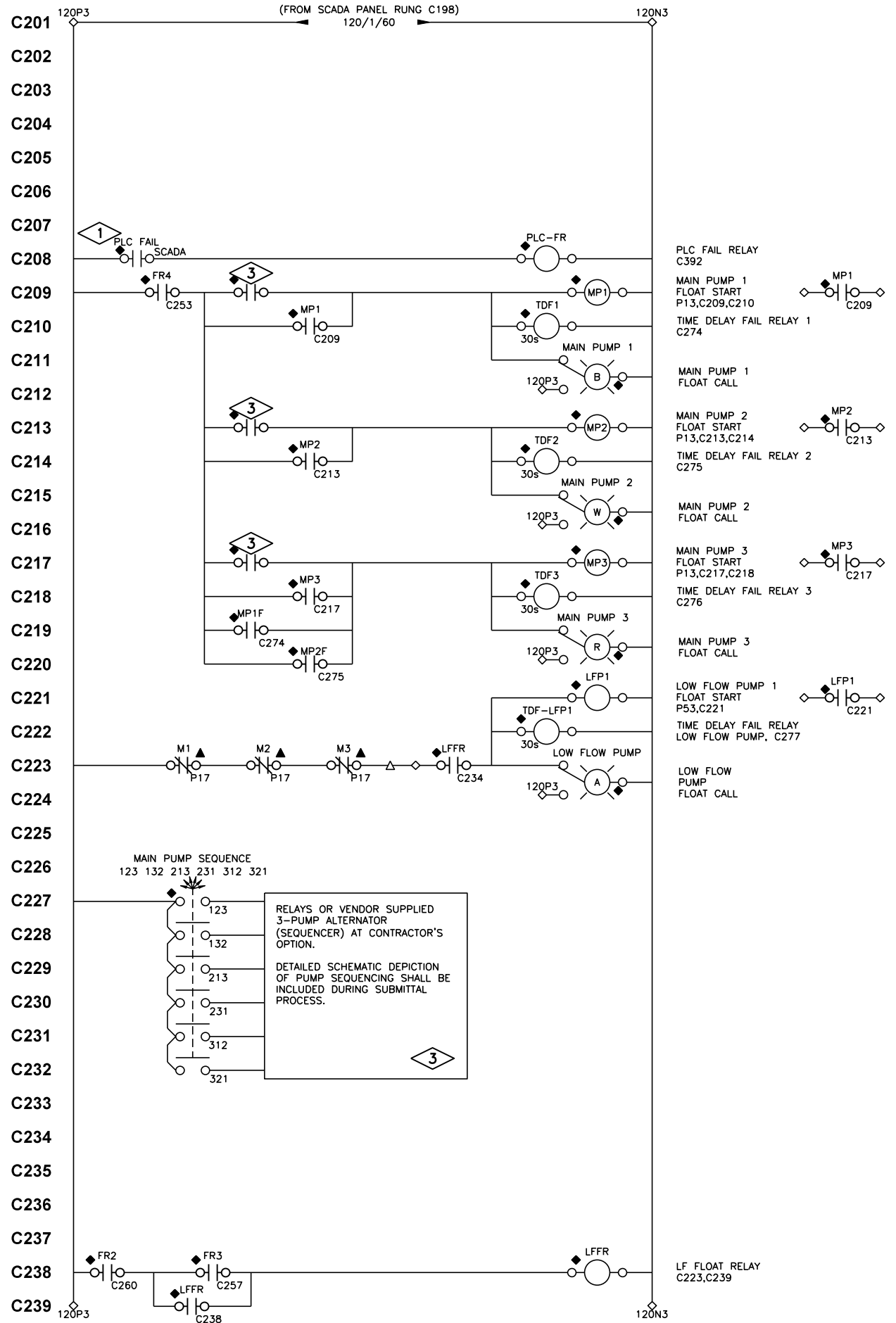
USER NAME = SBREMER	DESIGNED - DWG	REVISED -
DRAWN - DWG	CHECKED - MBS	REVISED -
PLOT SCALE = AS NOTED	DATE - 08-08-2024	REVISED -
PLOT DATE = 08/09/24		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
CONTROL CIRCUITS
SCHEMATIC

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	151
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIU(634)				



- GENERAL NOTES:**
- CONTROL CIRCUIT DRAWINGS DEPICT GENERAL DEVICE WIRING PRACTICES AND DOES NOT INCLUDE ALL CIRCUIT PROTECTIVE DEVICES SUCH AS FUSES, CIRCUIT BREAKERS, OR MOV'S. THESE DEVICES SHALL BE INCLUDED IN DETAILED DESIGN DRAWINGS BY CONTRACTOR.
 - CONTRACTOR SHALL PROVIDE CONTROL SCHEMATIC SHOP DRAWINGS DEPICTING AND IDENTIFYING TERMINALS AND WIRE NUMBERS ASSOCIATED WITH SCADA PANEL AND TERMINAL NUMBERS AS THEY ARE DEPICTED ON MANUFACTURERS EQUIPMENT TERMINAL BLOCKS. COORDINATE PRIOR TO SUBMITTING SHOP DRAWINGS. ALL WIRED DEVICES SHALL BE COORDINATED, DEPICTED, AND IDENTIFIED.

- PLAN NOTES:**
- PLC FAIL OUTPUT. OUTPUT DE-ENERGIZES WHEN PRIMARY AND SECONDARY LEVEL ELEMENTS ARE OUT OF RANGE, AND/OR BOTH PLC PROCESSORS FAIL. SEE SPECIFICATION FOR DETAILS.
 - INTRINSICALLY SAFE BARRIER. ONE ISB PER FLOAT. TYPICAL. WIRE AND CONDUIT IN ACCORDANCE WITH NEC ARTICLE 504.
 - PUMP SEQUENCING LOGIC VIA RELAYS OR PACKAGED ALTERNATOR. CONTRACTOR TO COMPLETE CIRCUITS DURING DETAILED DESIGN.

- LEGEND:**
- △ TERMINAL IN MCC
 - ◇ TERMINAL IN SCADA PANEL
 - TERMINAL ON DEVICE
 - ▲ DEVICE IN MCC
 - DEVICE IN SCADA PANEL
 - ◆ DEVICE FIELD MOUNTED
 - ▲ RISING WATER LEVEL TRIGGER
 - ▼ FALLING WATER LEVEL TRIGGER

MODEL: S:\MODELS\NAMES FILE NAME: SELELS



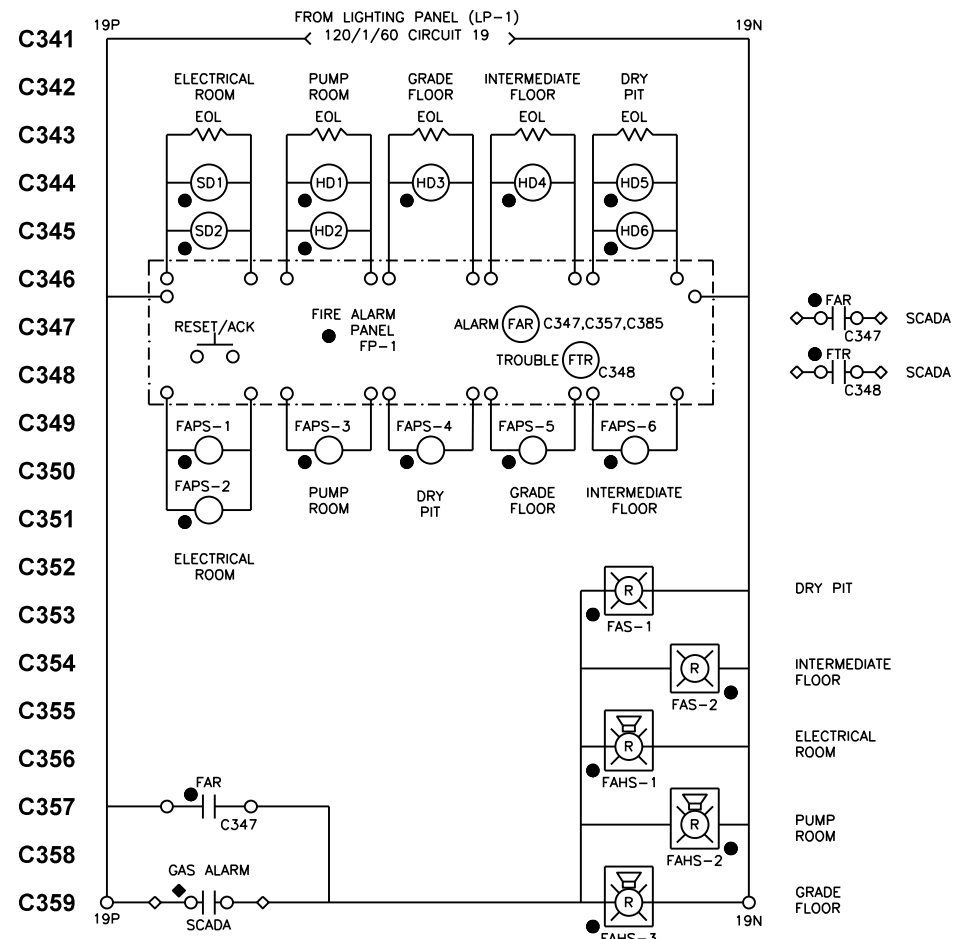
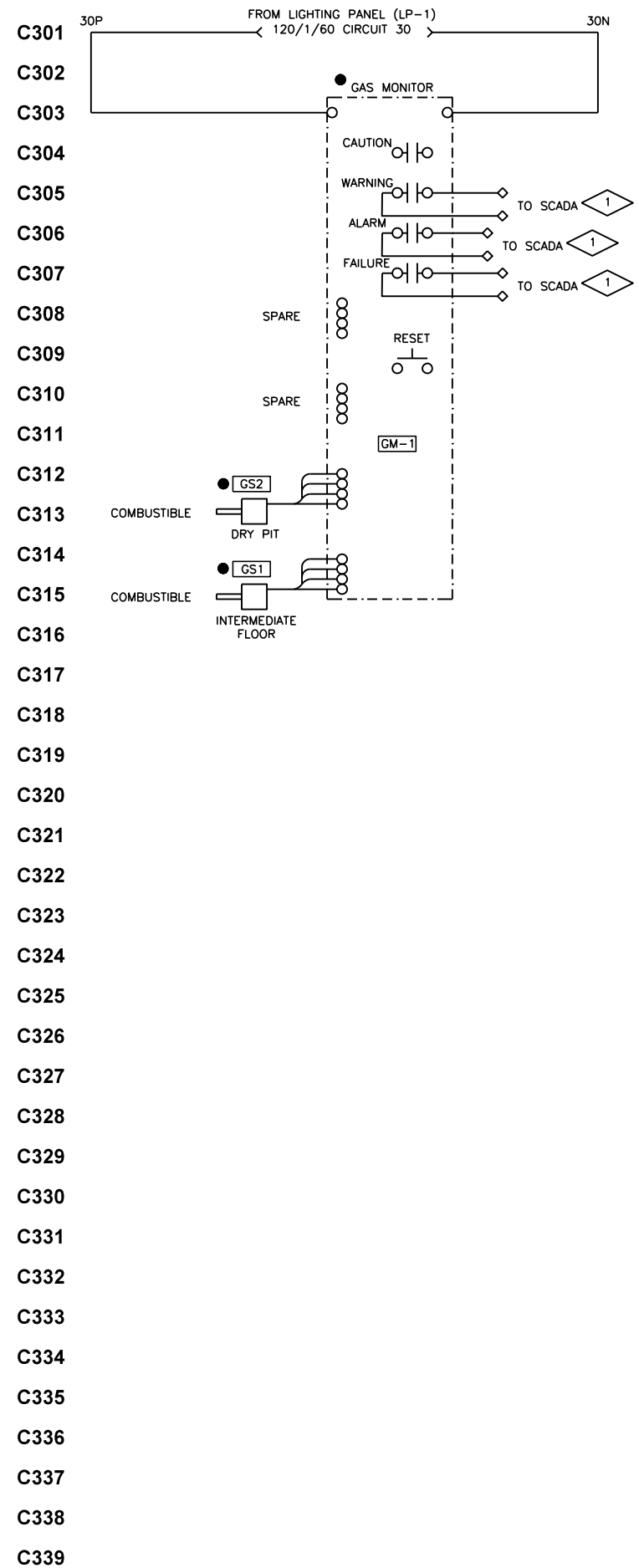
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PLOT SCALE = AS NOTED	DRAWN - DWG	REVISED -
PLOT DATE = 08/09/24	CHECKED - MBS	REVISED -
	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
CONTROL CIRCUITS
SCHEMATIC

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	152
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIJX(634)				



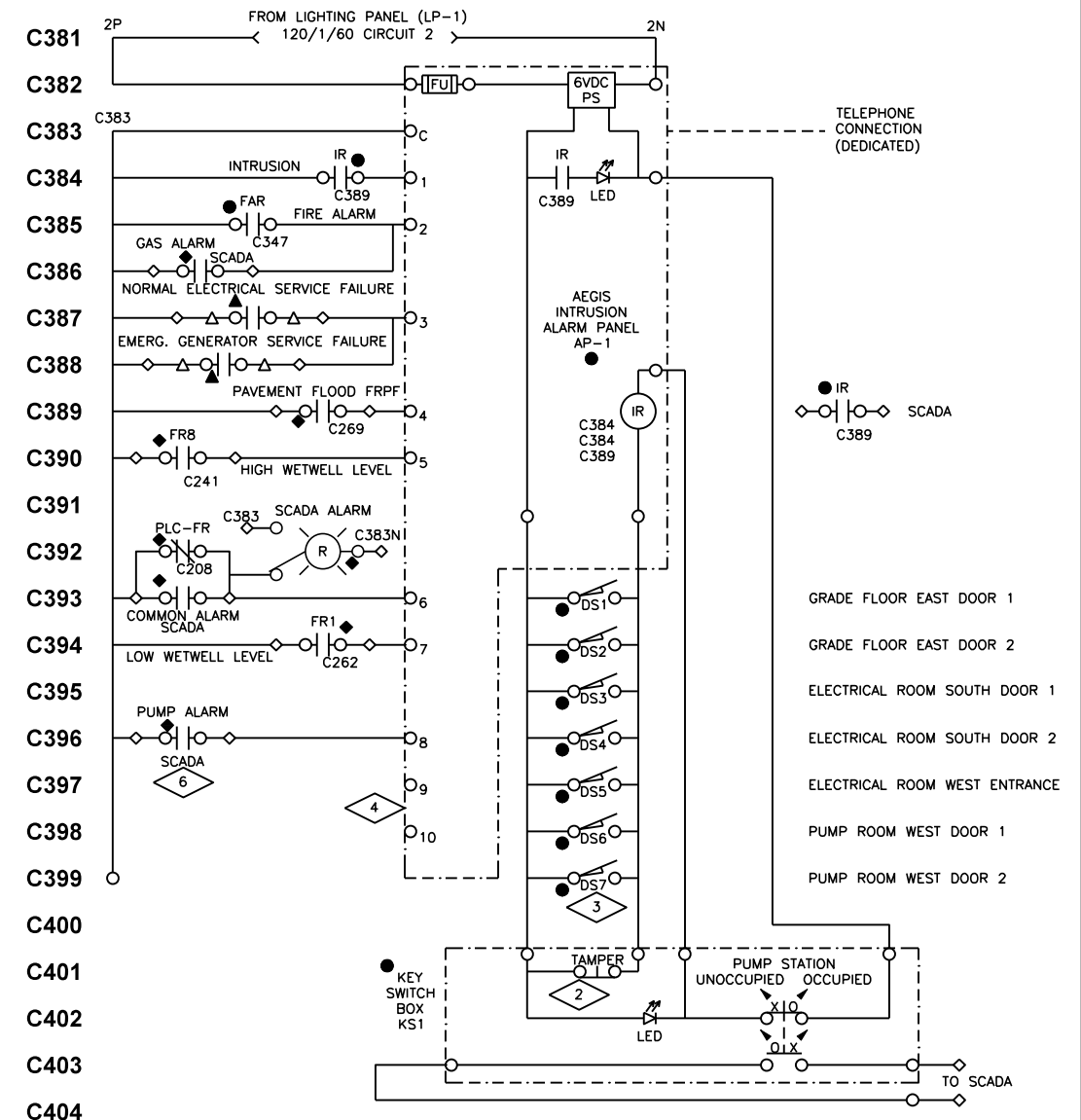
5 FAS = FIRE ALARM STROBE
 FAPS = FIRE ALARM PULL STATION
 FAHS = FIRE ALARM HORN AND STROBE

GENERAL NOTES:

- CONTRACTOR SHALL PROVIDE CONTROL SCHEMATIC SHOP DRAWINGS DEPICTING AND IDENTIFYING TERMINALS AND WIRE NUMBERS ASSOCIATED WITH SCADA PANEL AND TERMINAL NUMBERS AS THEY ARE DEPICTED ON MANUFACTURERS EQUIPMENT TERMINAL BLOCKS. COORDINATE PRIOR TO SUBMITTING SHOP DRAWINGS. ALL WIRED DEVICES SHALL BE COORDINATED, DEPICTED, AND IDENTIFIED.
- CONTROL CIRCUIT DRAWINGS DEPICT GENERAL DEVICE WIRING PRACTICES AND DOES NOT INCLUDE ALL CIRCUIT PROTECTIVE DEVICES SUCH AS FUSES, CIRCUIT BREAKERS, OR MOV'S. THESE DEVICES SHALL BE INCLUDED IN DETAILED DESIGN DRAWINGS BY CONTRACTOR.

PLAN NOTES:

- LIKE OUTPUT CONTACTS OF ACTIVE MODULES SHALL BE PARALLELED TO A SINGLE PLC INPUT.
- NORMALLY CLOSED EXTENDED HEAD PUSHBUTTON HELD OPEN BY COVER OF KEY SWITCH ENCLOSURE.
- NORMALLY CLOSED HELD OPEN DOOR SWITCH (SWITCH CLOSSES WHEN DOOR IS OPEN). MOUNTING SHALL BE FARTHEST POINT AWAY FROM HINGE LOCATED ATOP DOOR.
- AEGIS ALARMS 9 AND 10 ARE AEGIS BATTERY LOW AND AEGIS HEARTBEAT RESPECTIVELY, AND ARE INTERNAL TO AEGIS PANEL.
- ALARMS ARE COMMON FOR GAS ALARM AND FIRE ALARM.
- PUMP ALARM IS DEFINED AS ANY PUMP IN OVERLOAD, OVERTEMP, SEAL-FAIL, OR FAIL-TO-START CONDITION.



LEGEND:

- △ TERMINAL IN MCC
- ◇ TERMINAL IN SCADA PANEL
- TERMINAL ON DEVICE
- ▲ DEVICE IN MCC
- ◆ DEVICE IN SCADA PANEL
- DEVICE FIELD MOUNTED

MODEL: SBOCELNAMES
FILENAME: SFELE3



USER NAME = SBREMER	DESIGNED - DWG	REVISED -
DRAWN - DWG	REVISED -	
PLOT SCALE = AS NOTED	CHECKED - MBS	REVISED -
PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

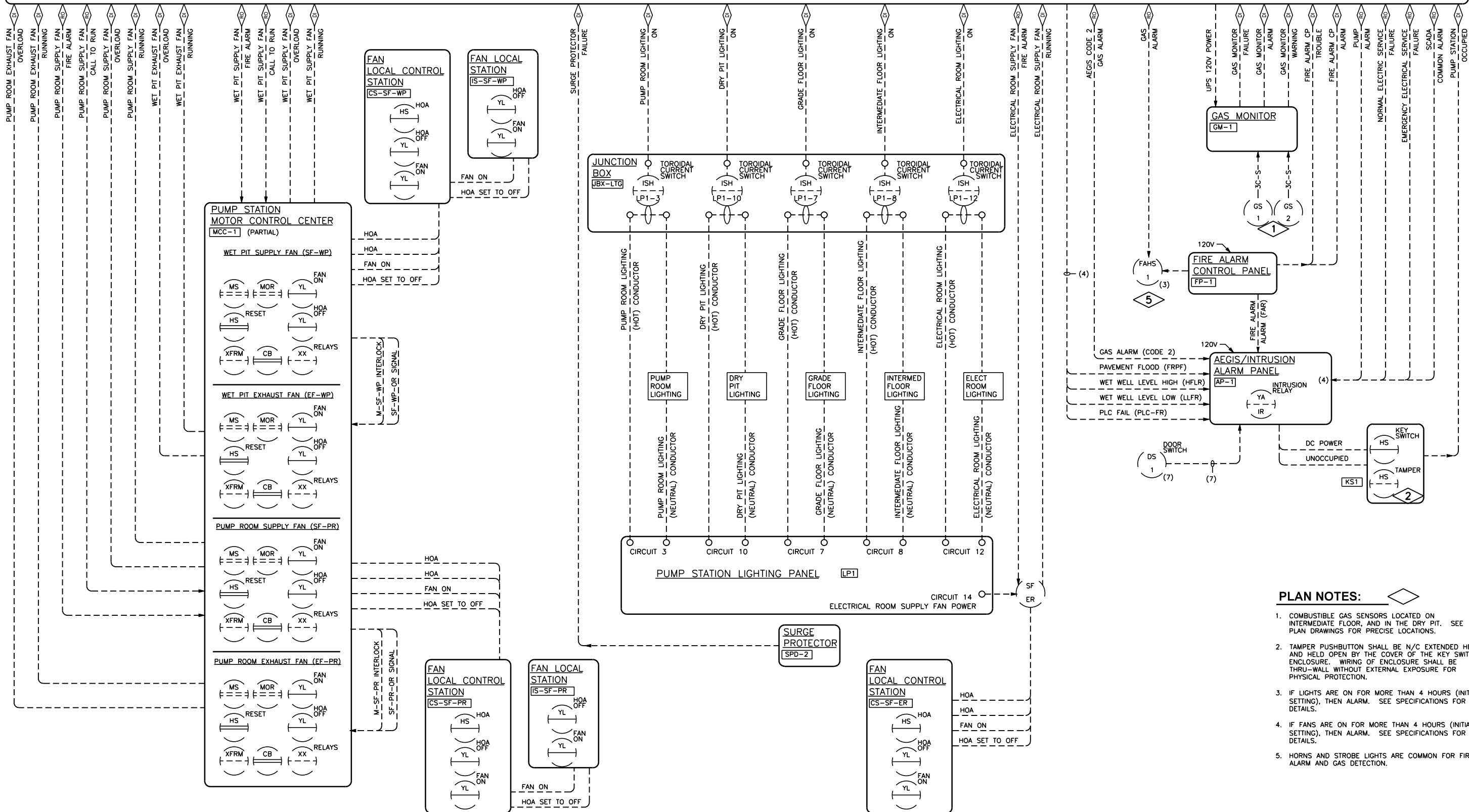
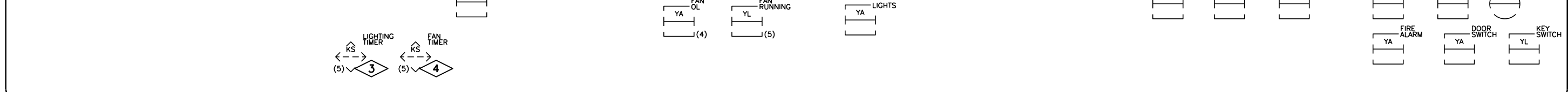
PUMP STATION NO. 37
 GAS, FIRE, AEGIS CONTROLS
 SCHEMATIC

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	153
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIJX(634)				

SCADA PANEL WITH HMI

SP-1 (PARTIAL)



PLAN NOTES:

1. COMBUSTIBLE GAS SENSORS LOCATED ON INTERMEDIATE FLOOR, AND IN THE DRY PIT. SEE PLAN DRAWINGS FOR PRECISE LOCATIONS.
2. TAMPER PUSHBUTTON SHALL BE N/C EXTENDED HEAD, AND HELD OPEN BY THE COVER OF THE KEY SWITCH ENCLOSURE. WIRING OF ENCLOSURE SHALL BE THRU-WALL WITHOUT EXTERNAL EXPOSURE FOR PHYSICAL PROTECTION.
3. IF LIGHTS ARE ON FOR MORE THAN 4 HOURS (INITIAL SETTING), THEN ALARM. SEE SPECIFICATIONS FOR DETAILS.
4. IF FANS ARE ON FOR MORE THAN 4 HOURS (INITIAL SETTING), THEN ALARM. SEE SPECIFICATIONS FOR DETAILS.
5. HORNS AND STROBE LIGHTS ARE COMMON FOR FIRE ALARM AND GAS DETECTION.

E-20

MODEL: SMO...
FILE NAME: SE15

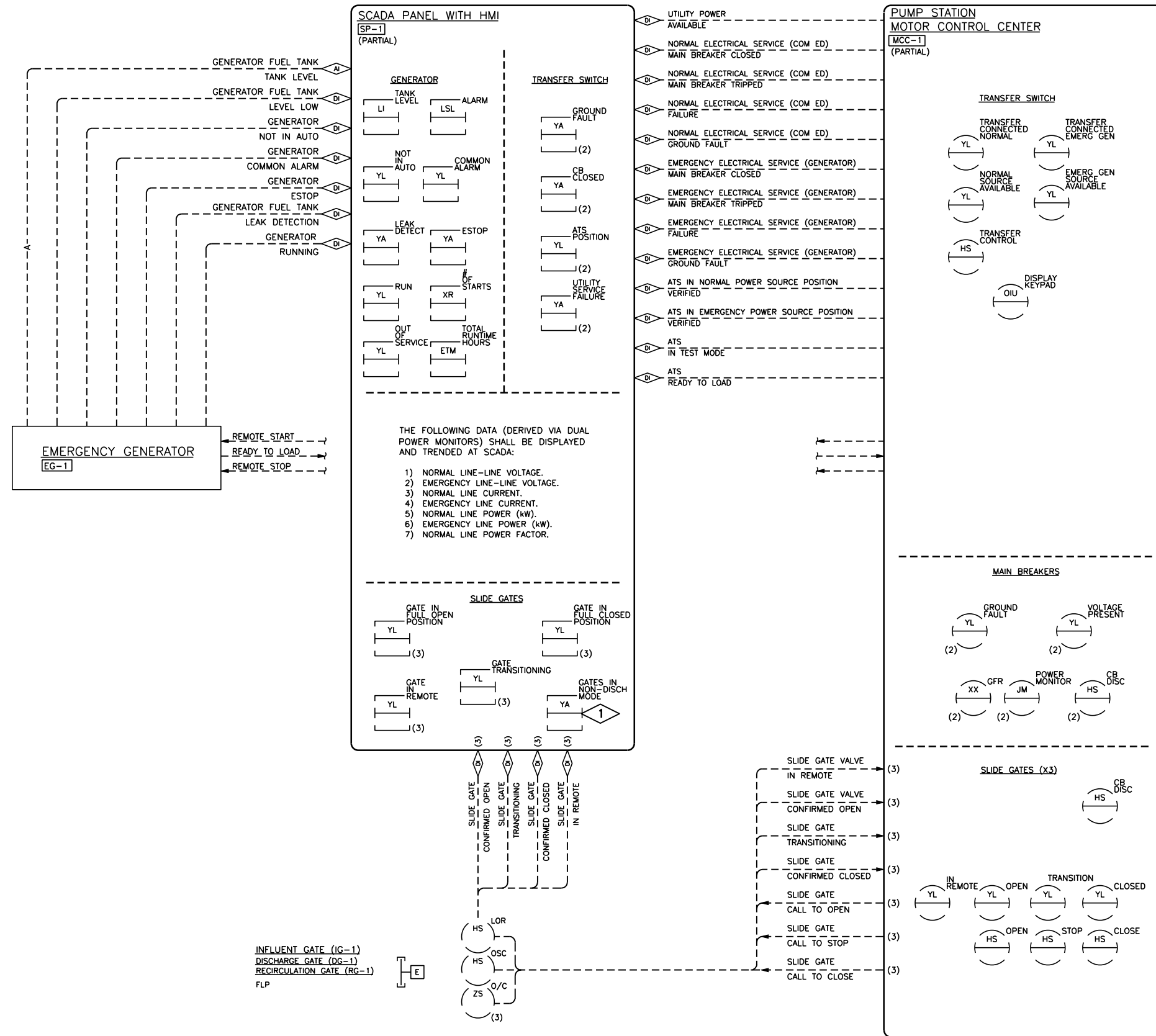


USER NAME = SBREMER	DESIGNED - DWG	REVISED -
DRAWN - DWG	REVISOR -	
PLOT SCALE = AS NOTED	CHECKED - MBS	REVISED -
PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37 PROCESS AND INSTRUMENTATION DIAGRAM			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	155
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIJX(634)				



PLAN NOTES:

- "GATES IN NON-DISCHARGE MODE" ALARM RESULTS WHEN RE-CIRCULATION GATE IS NOT CLOSED, AND/OR DISCHARGE GATE IS NOT OPEN. SEE SPECIFICATIONS FOR DETAILS.

MODEL: SMOCDLXMMES
FILE NAME: SFE15



USER NAME = SBREMER	DESIGNED - DWG	REVISED -
DRAWN - DWG	REVISED -	
PLOT SCALE = AS NOTED	CHECKED - MBS	REVISED -
PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

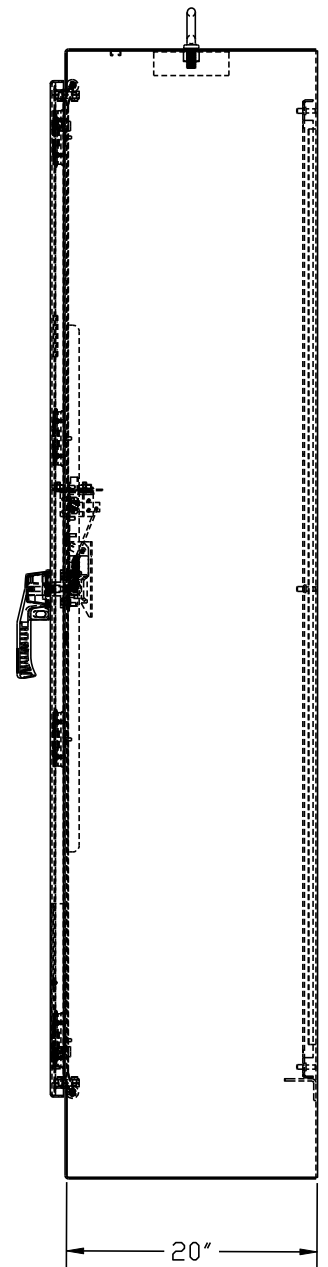
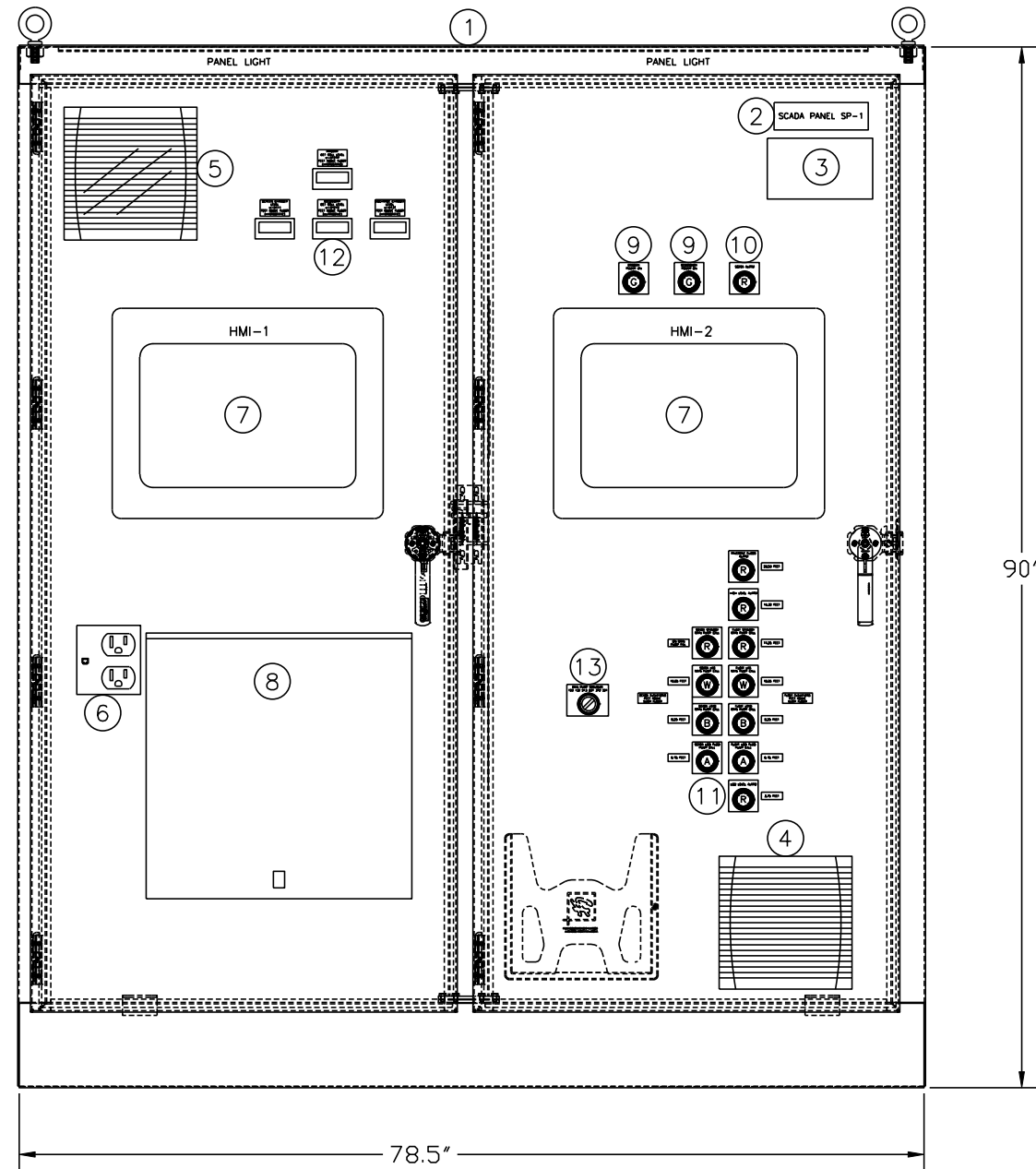
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
TRANSFER SWITCH, GATE
VALVES AND GENERATOR

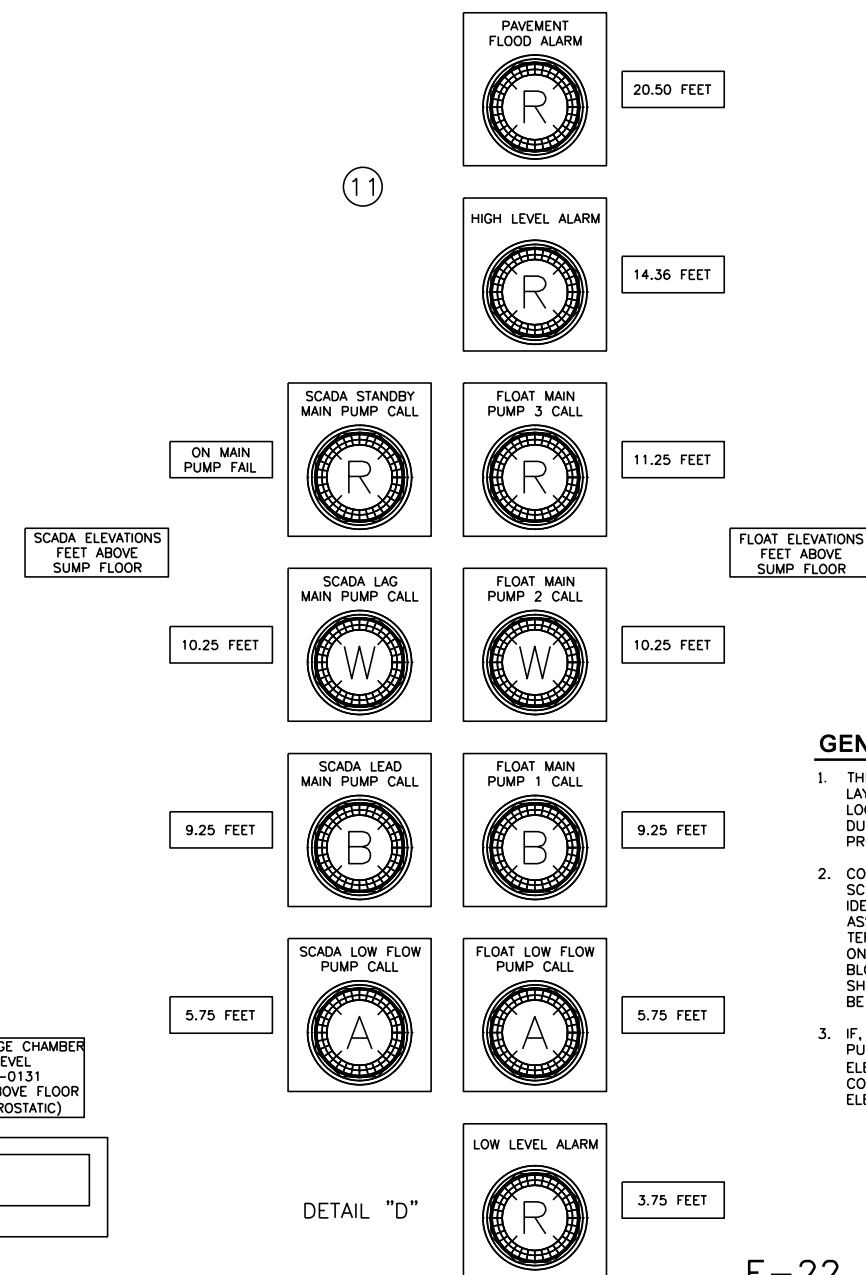
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	156
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIU(634)				

SCADA PANEL

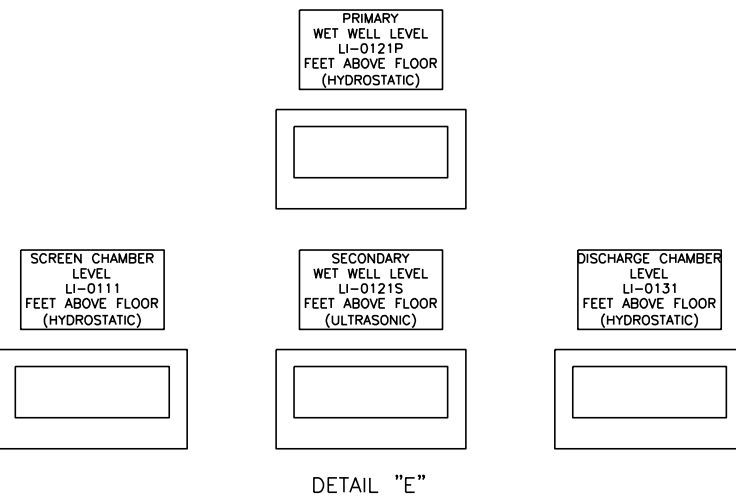
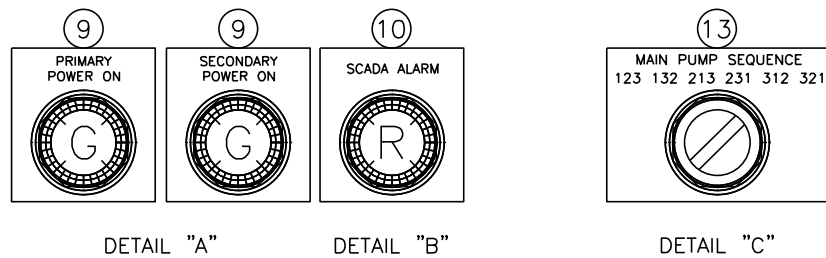


ITEM	QTY	DESCRIPTION	DETAIL
1	1	NEMA 12 ENCLOSURE, 2-DOOR, 90x78.5x20	N/A
2	1	PANEL NAMEPLATE "SCADA PANEL SP-1"	N/A
3	1	ELECTRICAL NAMEPLATE	N/A
4	1	FAN AND FILTER ASSEMBLY	N/A
5	1	LOUVER KIT ASSEMBLY	N/A
6	1	GFCI 120VAC OUTLET AND ETHERNET PORT	N/A
7	2	SCADA HMI-1 AND HMI-2	N/A
8	1	24x24 FOLDING SHELF	N/A
9	2	PILOT LIGHT, LED, PUSH TO TEST, GREEN	A
10	1	PILOT LIGHT, LED, PUSH TO TEST, RED	B
11	2	PILOT LIGHT, LED, PUSH TO TEST, AMBER	D
	2	PILOT LIGHT, LED, PUSH TO TEST, BLUE	
	2	PILOT LIGHT, LED, PUSH TO TEST, WHITE	
	5	PILOT LIGHT, LED, PUSH TO TEST, RED	
12	4	PROCESS DISPLAY METER	E
13	1	6-POSITION SELECTOR SWITCH	C



GENERAL NOTES:

- THIS DRAWING DEPICTS A RECOMMENDED LAYOUT OF PANEL COMPONENTS. FINAL LOCATIONS OF DEVICES SHALL BE APPROVED DURING SHOP DRAWING SUBMITTAL PHASE OF PROJECT.
- CONTRACTOR SHALL PROVIDE CONTROL SCHEMATIC SHOP DRAWINGS DEPICTING AND IDENTIFYING TERMINALS AND WIRE NUMBERS ASSOCIATED WITH SCADA PANEL AND TERMINAL NUMBERS AS THEY ARE DEPICTED ON MANUFACTURERS EQUIPMENT TERMINAL BLOCKS. COORDINATE PRIOR TO SUBMITTING SHOP DRAWINGS. ALL WIRED DEVICES SHALL BE COORDINATED, DEPICTED, AND IDENTIFIED.
- IF, DURING OPERATIONAL TESTING OF THE PUMP STATION, THE PUMP CALL AND ALARM ELEVATIONS CHANGE (FOR ANY REASON), THE CONTRACTOR SHALL PROVIDE NEW ENGRAVED ELEVATIONS AT NO CHARGE.



E-22

MODEL: SMOELNAMES
FILE NAME: SELELS



USER NAME = SBREMER	DESIGNED - DWG	REVISED -
PLOT SCALE = AS NOTED	DRAWN - DWG	REVISED -
PLOT DATE = 08/09/24	CHECKED - MBS	REVISED -
	DATE - 08-08-2024	REVISED -

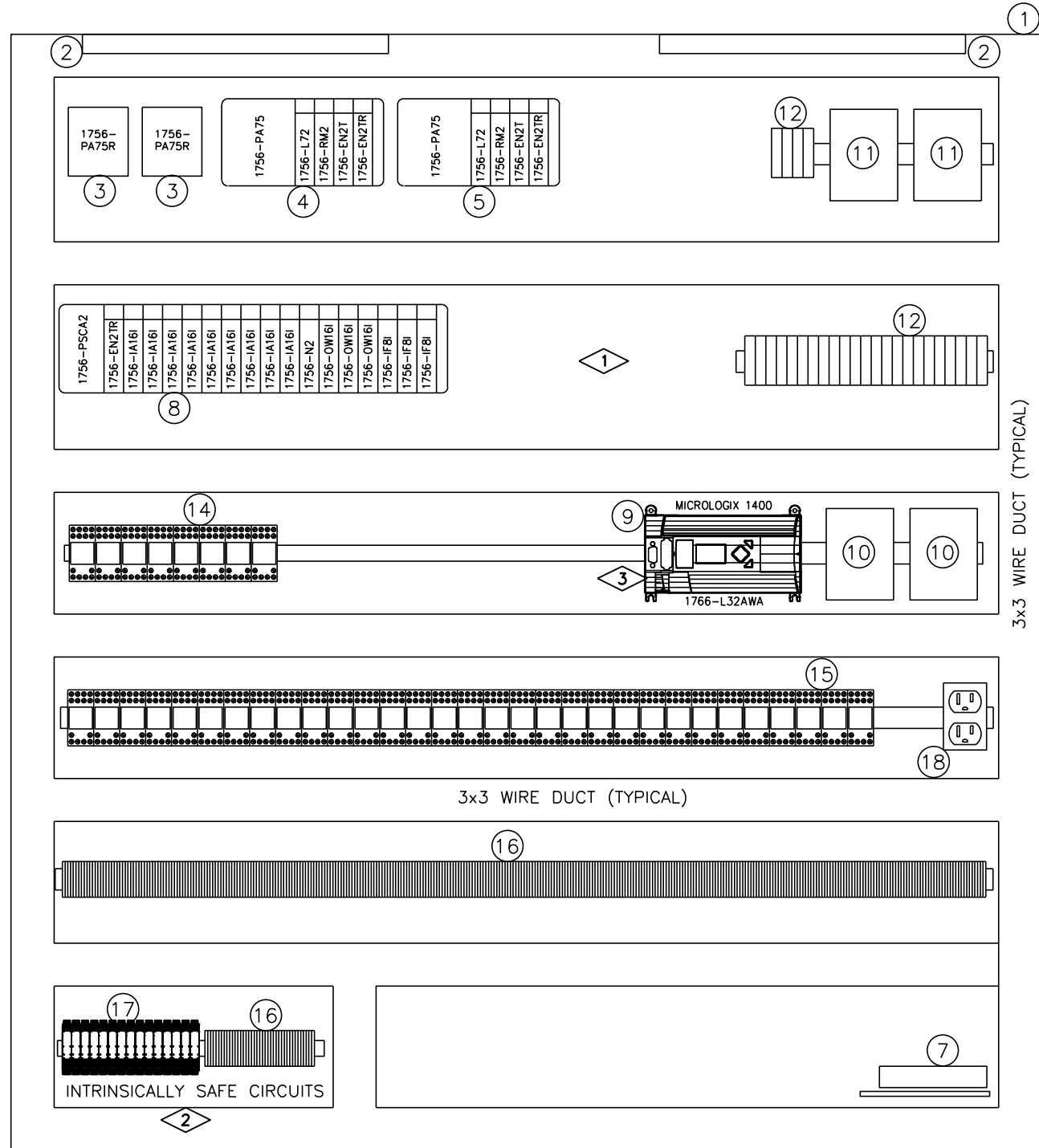
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
SCADA PANEL
FRONT OF PANEL LAYOUT

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE. 346	SECTION (125S-1)I-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 157
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIJX(634)				

SCADA BACK PANEL



ITEM	QTY	DESCRIPTION
1	1	78x72 PANEL
2	2	LED LIGHT & DOOR SWITCH
3	2	PLC POWER SUPPLY
4	1	PRIMARY CONTROLLOGIX PROCESSOR AND RACK
5	1	SECONDARY CONTROLLOGIX PROCESSOR AND RACK
6	-	N/A
7	1	4G MODEM
8	AS REQ'D	PLC REMOTE RACK AND MODULES
9	1	MICROLOGIX PLC PROCESSOR
10	2	24VDC POWER SUPPLY (PS1, PS2)
11	2	120VAC LINE FILTER (LF1, LF2)
12	AS REQ'D	CIRCUIT BREAKERS AND FUSES
13		NOT USED
14	AS REQ'D	TIME DELAY RELAYS
15	AS REQ'D	RELAYS
16	AS REQ'D	TERMINAL BLOCK
17	AS REQ'D	INTRINSICALLY SAFE RELAYS
18	1	GFCI, 120VAC, 15A

NAMEPLATE SCHEDULE			
(17)	(15)	(14)	(12)
ISB1	DCR1	TDF1	CB1
ISB2	DCR2	TDF2	CB2
ISB3	AC-R	TDF3	CB3
ISB4	PLC-FR	TDFLP1	CB4
ISB5	MP1	SPARE1	CB5
ISB6	MP2	SPARE2	CB6
ISB7	MP3	SPARE3	CB7
ISB8	LFP1		CB8
ISBDC	FR8		CB9
ISBPF	FR7		CB10
ISBSP1	FR6		CB11
ISBSP2	FR5		CB12
ISBSP3	FR4		CB13
ISBSP4	FR3		CB14
ISBSP5	FR2		CB15
	FR1		CB16
	FRDC		CB17
	FRPF		CB18
	FLFR		CB19
	MP1F		SPARE1
	MP2F		SPARE2
	MP3F		SPARE3
	LFPF		SPARE4
	SPARE1		
	SPARE2		
	SPARE3		
	SPARE4		
	SPARE5		
	SPARE6		
	SPARE7		
	SPARE8		

GENERAL NOTES:

- THIS DRAWING DEPICTS A RECOMMENDED LAYOUT OF PANEL COMPONENTS. FINAL LOCATIONS OF DEVICES AND WIRE BENDING SPACE SHALL BE APPROVED DURING SHOP DRAWING SUBMITTAL PHASE OF PROJECT.
- ALL FIELD TERMINATIONS SHALL BE MADE AT TERMINAL BLOCKS, DESIGNATED AS SUCH, AND INCLUDE WIRE SIZE AND TIGHTENING TORQUE.
- SEGREGATE INTRINSICALLY SAFE (I/S) CIRCUITS WITH NO. 20 GAUGE (OR THICKER) SHEET METAL PARTITION. I/S CIRCUITS SHALL BE ROUTED IN SEPARATE CONDUIT FROM ALL OTHER CONDUCTORS. INSTALL IN ACCORDANCE WITH ARTICLE 504 OF NFPA-70 (LATEST EDITION).
- CONTRACTOR SHALL PROVIDE CONTROL SCHEMATIC SHOP DRAWINGS DEPICTING AND IDENTIFYING TERMINALS AND WIRE NUMBERS ASSOCIATED WITH SCADA PANEL AND TERMINAL NUMBERS AS THEY ARE DEPICTED ON MANUFACTURERS EQUIPMENT TERMINAL BLOCKS. COORDINATE PRIOR TO SUBMITTING SHOP DRAWINGS. ALL WIRED DEVICES SHALL BE COORDINATED, DEPICTED, AND IDENTIFIED.

PLAN NOTES:

- SPACE RESERVED FOR FUTURE 7-SLOT CHASSIS.
- WIRING AND INSTALLATION SHALL BE IN ACCORDANCE WITH NFPA-70 ARTICLE 504.
- CONTRACTOR MAY ELECT TO USE A CHASSIS MOUNT PROTOCOL CONVERTER AT CONTRACTOR'S DISCRETION.



USER NAME = SBREMER	DESIGNED - DWG	REVISED -
DRAWN - DWG	REVISED -	
PLOT SCALE = AS NOTED	CHECKED - MBS	REVISED -
PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
SCADA PANEL
REAR OF PANEL LAYOUT

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	158
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIJX(634)				

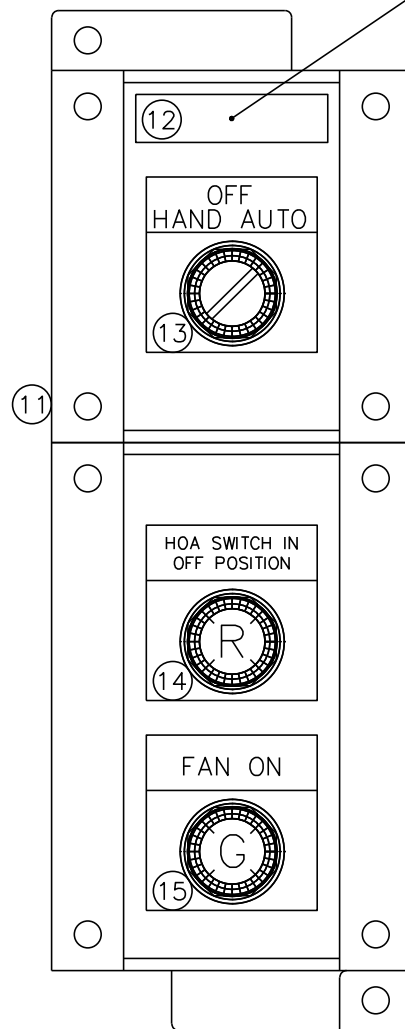
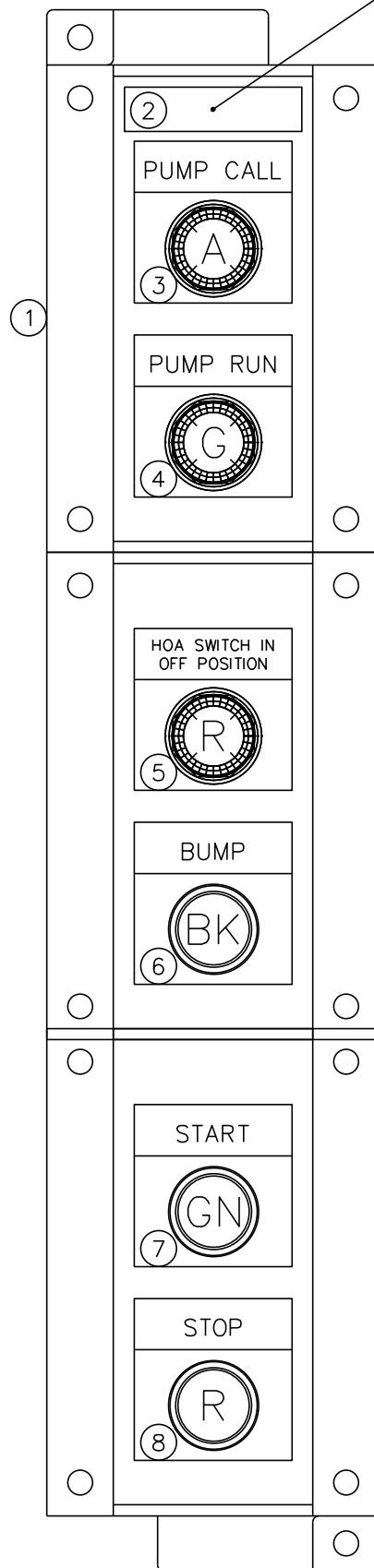
NAMEPLATE SCHEDULE	
CS-MP1	
CS-MP2	
CS-MP3	
CS-LFP1	

MATERIAL LIST (TYPICAL FOR EACH PUMP)		
ITEM	QTY	DESCRIPTION
1	AS REQ'D	NEMA 7 PUSHBUTTON ENCLOSURE
2	1	NAMEPLATE (SEE SCHEDULE)
3	1	NEMA 7 PILOT LIGHT, LED, AMBER
4	1	NEMA 7 PILOT LIGHT, LED, GREEN
5	1	NEMA 7 PILOT LIGHT, LED, RED
6	2	NEMA 7 PUSHBUTTON, BLACK
7	1	NEMA 7 PUSHBUTTON, GREEN
8	1	NEMA 7 PUSHBUTTON, RED
	AS REQ'D	LEGEND PLATES

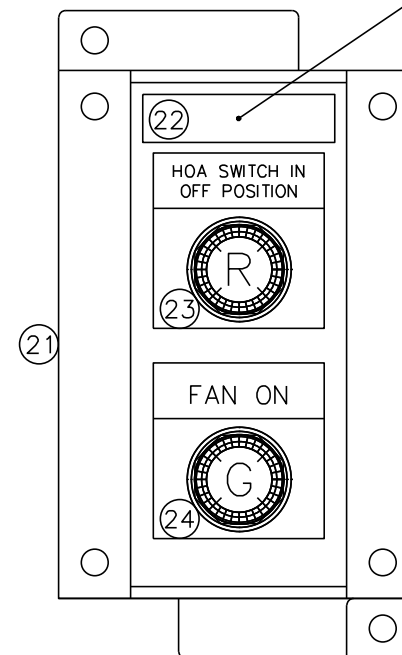
NAMEPLATE SCHEDULE	
CS-SF-WP	
CS-SF-PR	
CS-SF-ER	

NAMEPLATE SCHEDULE	
IS-SF-WP	
IS-SF-PR	

MATERIAL LIST (TYPICAL FOR EACH INDICATION STATION)		
ITEM	QTY	DESCRIPTION
21	AS REQ'D	NEMA 7 PUSHBUTTON ENCLOSURE
22	1	NAMEPLATE (SEE SCHEDULE)
23	1	NEMA 7 PILOT LIGHT, LED, RED
24	1	NEMA 7 PILOT LIGHT, LED, GREEN
	AS REQ'D	LEGEND PLATES



MATERIAL LIST (TYPICAL FOR EACH CONTROL STATION)		
ITEM	QTY	DESCRIPTION
11	AS REQ'D	NEMA 7 PUSHBUTTON ENCLOSURE
12	1	NAMEPLATE (SEE SCHEDULE)
13	1	NEMA 7 3-POS SELECTOR SWITCH
14	1	NEMA 7 PILOT LIGHT, LED, RED
15	2	NEMA 7 PILOT LIGHT, LED, GREEN
	AS REQ'D	LEGEND PLATES



GENERAL NOTES:
 1. ALL PILOT LIGHTS SHALL BE LED AND PUSH-TO-TEST STYLE.

PLAN NOTES:
 1. ELECTRICAL ROOM SUPPLY FAN (SF-ER) MAY BE NEMA 12 MILD STEEL (CONTRACTOR'S OPTION) AS IT IS A NON-RATED SPACE.

E-24

MODEL: SDR06LX0001
FILE NAME: SFE15



USER NAME = SBREMER	DESIGNED - DWG	REVISED -
PLOT SCALE = AS NOTED	DRAWN - DWG	REVISED -
PLOT DATE = 08/09/24	CHECKED - MBS	REVISED -
	DATE - 08-08-2024	REVISED -

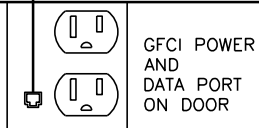
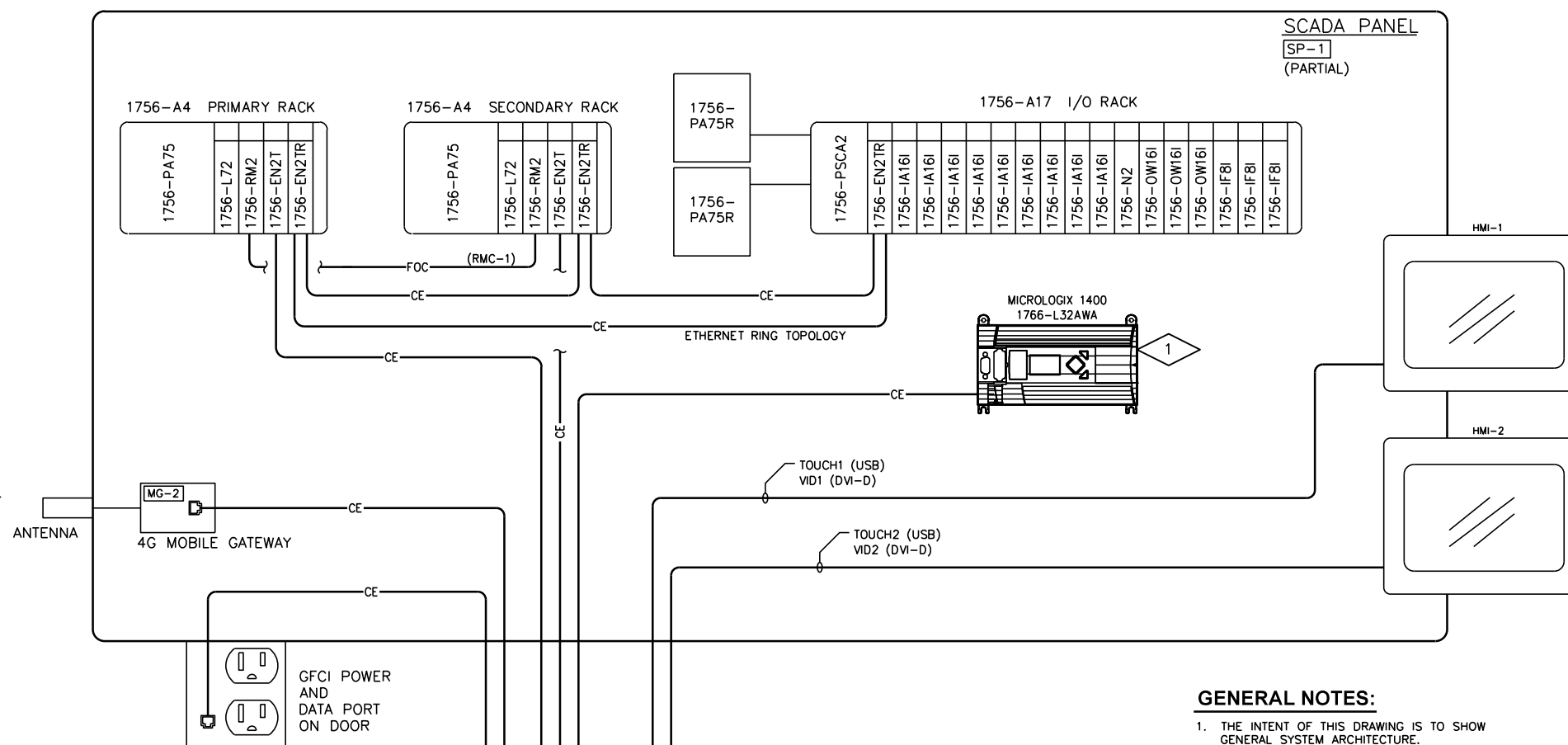
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
PUMP AND FAN CONTROL
PUSHBUTTON STATIONS

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	159
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIU(634)				

DISTRICT ONE, IDOT TSC
AND CONTRACTOR
MAINTENANCE FACILITY
SECURE REMOTE
CONNECTIONS

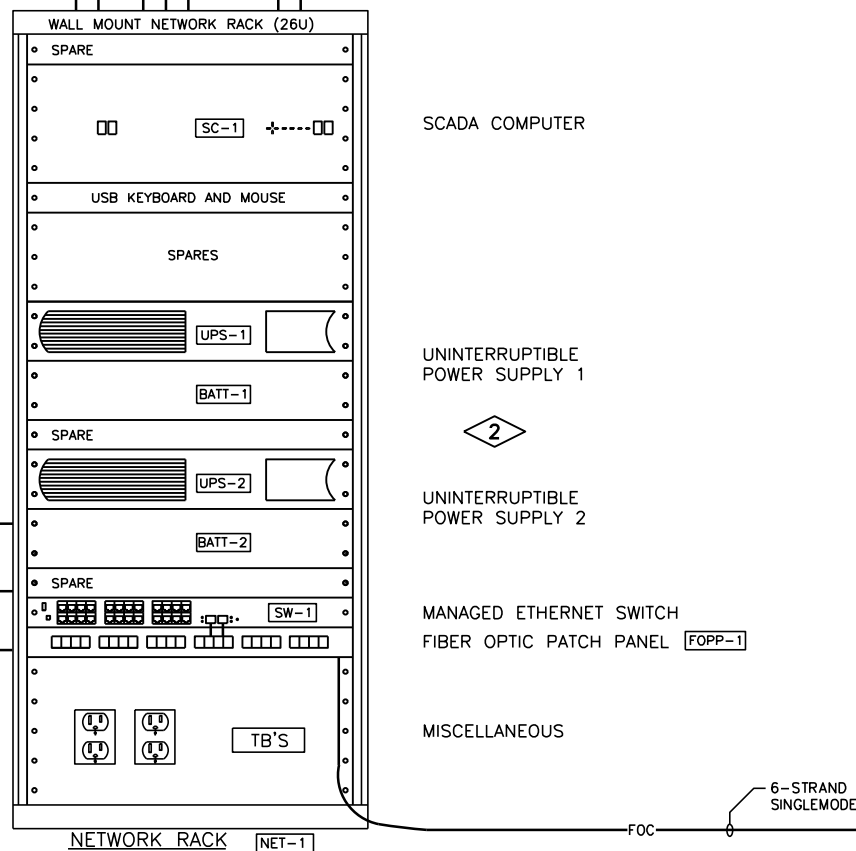
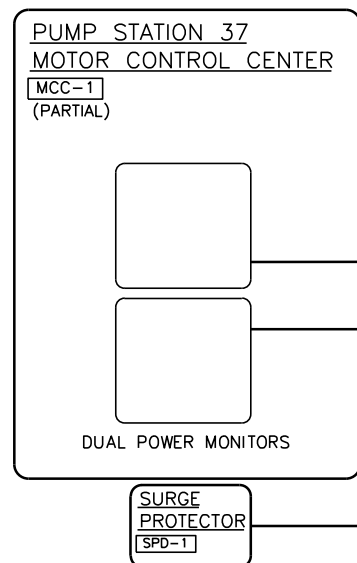


GENERAL NOTES:

1. THE INTENT OF THIS DRAWING IS TO SHOW GENERAL SYSTEM ARCHITECTURE.
2. ALL CE (COPPER ETHERNET) SHALL BE CAT-5e, SEE SPECIFICATIONS FOR DETAILS.

PLAN NOTES:

1. MICROLOGIX 1400 PROCESSOR USED TO COMMUNICATE/TRANSLATE MODBUS TCP TO POWER MONITORS AND ETHERNET/IP TO CONTROLLOGIX PROCESSORS. CONTRACTOR MAY ELECT TO USE A CHASSIS MOUNT PROTOCOL CONVERTER AT CONTRACTOR'S DISCRETION.
2. TWIN UPS PROVIDES POWER FOR ALL COMPONENTS IN NETWORK RACK AND RESPECTIVE SCADA PANEL.
3. SEE SPECIFICATIONS FOR POWER MONITORING AND SURGE PROTECTION DATA TO SCADA.
4. AT EVERY INSTANCE WHERE FIBER CABLE IS VISIBLE (ENCLOSURES, HAND HOLES, PULL BOXES, ETC.) INSTALL A LAMICOID NAMEPLATE ENGRAVED AS FOLLOWS: "FIBER OPTIC COMMUNICATIONS CABLE TO PUMP STATION 37". ATTACH TO CABLE WITH NO. 6 BRASS BEADED CHAIN OR EQUAL.
5. INSTALL FIBER FROM FIBER PATCH PANEL TO EXISTING FIBER HAND HOLE VIA NEW CONDUIT INSTALLED UNDER ROCKLAND ROAD, THEN EAST IN EXISTING BURIED CONDUIT TO THE TRAFFIC CONTROL CABINET LOCATED ON SW CORNER OF SKOKIE VALLEY ROAD AND ROCKLAND ROAD INTERSECTION BETWEEN THE NORTH SHORE BIKE PATH AND ROCKLAND ROAD. SEE SHEET 44 FOR ADDITIONAL DETAILS. ENGINEER ESTIMATES 700 FEET OF FIBER REQUIRED - CONTRACTOR SHALL VERIFY LENGTH PRIOR TO ORDERING. CONTRACTOR IS RESPONSIBLE FOR MATERIAL, INSTALLATION, AND FIBER TESTING. MATERIAL, INSTALLATION, AND FIBER TESTING SHALL BE IN ACCORDANCE WITH ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE SPECIAL PROVISIONS TITLED; FIBER OPTIC CABLE, SINGLE MODE (LATEST EDITION). FIBER AT TRAFFIC CONTROL CABINET SHALL BE CAPPED (PROTECTED) AND LEFT UN-TERMINATED FOR FUTURE USE. IDENTIFY FIBER BUNDLE AS "FIBER OPTIC COMMUNICATIONS CABLE TO PUMP STATION 37".



DISTRICT ONE, IDOT TSC
AND CONTRACTOR
MAINTENANCE FACILITY
SECURE REMOTE
CONNECTIONS
(FUTURE COMMUNICATIONS)

E-25

MODEL: SMOCDLNAME
FILE NAME: SFE15



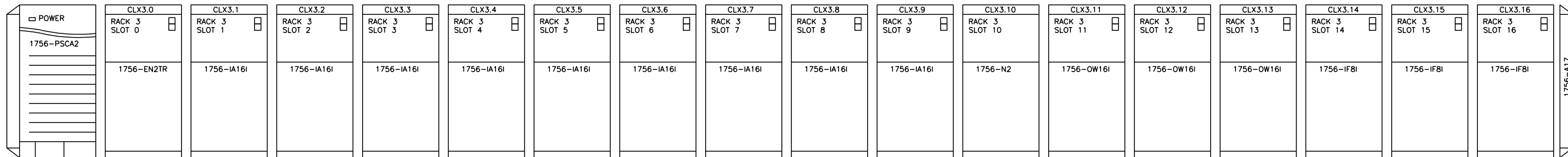
USER NAME = SBREMER	DESIGNED - DWG	REVISED -
DRAWN - DWG	REVISED -	
PLOT SCALE = AS NOTED	CHECKED - MBS	REVISED -
PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
INSTRUMENTATION & CONTROL
SYSTEM ARCHITECTURE

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	160
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CIJX(634)				



CLX3.1 - DIGITAL INPUT		CLX3.2 - DIGITAL INPUT		CLX3.3 - DIGITAL INPUT		CLX3.4 - DIGITAL INPUT	
ADDR	DESCRIPTION	ADDR	DESCRIPTION	ADDR	DESCRIPTION	ADDR	DESCRIPTION
I:1/0	MAIN PUMP 1 CIRCUIT BREAKER OPEN	I:2/0	MAIN PUMP 2 CIRCUIT BREAKER OPEN	I:3/0	MAIN PUMP 3 CIRCUIT BREAKER OPEN	I:4/0	LOW FLOW PUMP CIRCUIT BREAKER OPEN
I:1/1	MAIN PUMP 1 HOA IN AUTO	I:2/1	MAIN PUMP 2 HOA IN AUTO	I:3/1	MAIN PUMP 3 HOA IN AUTO	I:4/1	LOW FLOW PUMP HOA IN AUTO
I:1/2	MAIN PUMP 1 RUNNING	I:2/2	MAIN PUMP 2 RUNNING	I:3/2	MAIN PUMP 3 RUNNING	I:4/2	LOW FLOW PUMP RUNNING
I:1/3	MAIN PUMP 1 OVERLOAD	I:2/3	MAIN PUMP 2 OVERLOAD	I:3/3	MAIN PUMP 3 OVERLOAD	I:4/3	LOW FLOW PUMP OVERLOAD
I:1/4	MAIN PUMP 1 MOTOR HI TEMP	I:2/4	MAIN PUMP 2 MOTOR HI TEMP	I:3/4	MAIN PUMP 3 MOTOR HI TEMP	I:4/4	LOW FLOW PUMP MOTOR HI TEMP
I:1/5	MAIN PUMP 1 MOTOR MOISTURE	I:2/5	MAIN PUMP 2 MOTOR MOISTURE	I:3/5	MAIN PUMP 3 MOTOR MOISTURE	I:4/5	LOW FLOW PUMP MOTOR MOISTURE
I:1/6	MAIN PUMP 1 FLOAT CALL TO RUN	I:2/6	MAIN PUMP 2 FLOAT CALL TO RUN	I:3/6	MAIN PUMP 3 FLOAT CALL TO RUN	I:4/6	LOW FLOW PUMP FLOAT CALL TO RUN
I:1/7	MAIN PUMP 1 FAIL TO START	I:2/7	MAIN PUMP 2 FAIL TO START	I:3/7	MAIN PUMP 3 FAIL TO START	I:4/7	LOW FLOW PUMP FAIL TO START
I:1/8		I:2/8		I:3/8		I:4/8	
I:1/9		I:2/9		I:3/9		I:4/9	
I:1/10	GENERATOR FUEL TANK LOW LEVEL ALARM	I:2/10		I:3/10		I:4/10	
I:1/11	GENERATOR FUEL TANK LEAK DETECTION	I:2/11		I:3/11		I:4/11	
I:1/12	GENERATOR NOT IN AUTO	I:2/12	NORM ELECT SERV MAIN BREAKER CLOSED	I:3/12	SURGE PROTECTOR SPD-2 FAILURE	I:4/12	
I:1/13	GENERATOR COMMON ALARM	I:2/13	NORM ELECT SERV MAIN BREAKER TRIPPED	I:3/13	GAS MONITOR WARNING (COMMON)	I:4/13	
I:1/14	GENERATOR EMERGENCY STOP	I:2/14	NORM ELECT SERVICE FAILURE	I:3/14	GAS MONITOR ALARM (COMMON)	I:4/14	UPS FAILURE (COMMON)
I:1/15	GENERATOR RUNNING	I:2/15	NORM ELECT SERVICE GROUND FAULT	I:3/15	GAS MONITOR FAILURE (COMMON)	I:4/15	UPS LOW BATTERY (COMMON)

CLX3.11 - RELAY OUTPUT		CLX3.12 - RELAY OUTPUT		CLX3.13 - RELAY OUTPUT	
ADDR	DESCRIPTION	ADDR	DESCRIPTION	ADDR	DESCRIPTION
O:11/0	MAIN PUMP 1 CALL TO RUN	O:12/0	MAIN PUMP 2 CALL TO RUN	O:13/0	MAIN PUMP 3 CALL TO RUN
O:11/1	MAIN PUMP 1 MPR OVERRIDE	O:12/1	MAIN PUMP 2 MPR OVERRIDE	O:13/1	MAIN PUMP 3 MPR OVERRIDE
O:11/2	MAIN PUMP 1 CALL TO RUN PILOT LIGHT	O:12/2	MAIN PUMP 2 CALL TO RUN LIGHT	O:13/2	MAIN PUMP 3 CALL TO RUN LIGHT
O:11/3		O:12/3		O:13/3	LOW FLOW PUMP CALL TO RUN
O:11/4		O:12/4		O:13/4	LOW FLOW PUMP MPR OVERRIDE
O:11/5		O:12/5	GAS ALARM (FP-1 ALARM CIRCUIT)	O:13/5	LOW FLOW PUMP CALL TO RUN LIGHT
O:11/6		O:12/6	AEGIS CODE 2 GAS ALARM	O:13/6	
O:11/7		O:12/7	AEGIS CODE 6 SCADA COMMON ALARM	O:13/7	
O:11/8		O:12/8	AEGIS CODE 8 PUMP ALARM	O:13/8	
O:11/9	PLC FAIL (NC)	O:12/9		O:13/9	
O:11/10		O:12/10		O:13/10	
O:11/11	WET PIT SUPPLY FAN (SF-WP) CALL TO RUN	O:12/11	NORMAL ELECTRICAL SERVICE FAILURE	O:13/11	
O:11/12	PUMP RM SUPP FAN (SF-PR) CALL TO RUN	O:12/12	EMERGENCY ELECTRICAL SERVICE FAILURE	O:13/12	
O:11/13	FIRE ALARM (TO SF-WP MCC BUCKET)	O:12/13		O:13/13	
O:11/14	FIRE ALARM (TO SF-PR MCC BUCKET)	O:12/14		O:13/14	
O:11/15	FIRE ALARM (TO SF-ER HOA CIRCUIT)	O:12/15		O:13/15	

CLX3.5 - DIGITAL INPUT		CLX3.6 - DIGITAL INPUT		CLX3.7 - DIGITAL INPUT		CLX3.8 - DIGITAL INPUT		CLX3.9 - DIGITAL INPUT	
ADDR	DESCRIPTION	ADDR	DESCRIPTION	ADDR	DESCRIPTION	ADDR	DESCRIPTION	ADDR	DESCRIPTION
I:5/0	INFLUENT GATE CONFIRMED OPEN	I:6/0	RECIRCULATION GATE CONFIRMED OPEN	I:7/0	DISCHARGE GATE CONFIRMED OPEN	I:8/0	FS8 HIGH LEVEL ALARM	I:9/0	FIRE ALARM
I:5/1	INFLUENT GATE CONFIRMED CLOSED	I:6/1	RECIRCULATION GATE CONFIRMED CLOSED	I:7/1	DISCHARGE GATE CONFIRMED CLOSED	I:8/1	FS7 START MAIN PUMP 3	I:9/1	FIRE ALARM PANEL TROUBLE
I:5/2	INFLUENT GATE IN REMOTE	I:6/2	RECIRCULATION GATE IN REMOTE	I:7/2	DISCHARGE GATE IN REMOTE	I:8/2	FS6 START MAIN PUMP 2	I:9/2	24VDC PS1 FAILURE
I:5/3	INFLUENT GATE IN TRANSITION	I:6/3	RECIRCULATION GATE IN TRANSITION	I:7/3	DISCHARGE GATE IN TRANSITION	I:8/3	FS5 START MP1, STOP LOW FLOW PUMP	I:9/3	24VDC PS2 FAILURE
I:5/4		I:6/4		I:7/4		I:8/4	FS4 STOP MAIN PUMPS, START LF PUMP	I:9/4	
I:5/5		I:6/5	PUMP SEQUENCE 1-2-3	I:7/5		I:8/5	FS3 START LOW FLOW PUMP	I:9/5	
I:5/6		I:6/6	PUMP SEQUENCE 1-3-2	I:7/6	SPD-2 FAILURE	I:8/6	FS2 STOP LOW FLOW PUMP	I:9/6	
I:5/7	SUPPLY FAN SF-WP RUNNING	I:6/7	PUMP SEQUENCE 2-1-3	I:7/7	PUMP ROOM LIGHTS ON	I:8/7	FS1 LOW LEVEL ALARM	I:9/7	
I:5/8	SUPPLY FAN SF-WP OVERLOAD	I:6/8	PUMP SEQUENCE 2-3-1	I:7/8	DRY PIT LIGHTS ON	I:8/8		I:9/8	EMERG ELECT SERV MAIN BREAKER CLOSED
I:5/9	EXHAUST FAN EF-WP RUNNING	I:6/9	PUMP SEQUENCE 3-1-2	I:7/9	GRADE FLOOR LIGHTS ON	I:8/9	PAVEMENT FLOOD FLOAT SWITCH	I:9/9	EMERG ELECT SERV MAIN BREAKER TRIPPED
I:5/10	EXHAUST FAN EF-WP OVERLOAD	I:6/10	PUMP SEQUENCE 3-2-1	I:7/10	INTERMEDIATE FLOOR LIGHTS ON	I:8/10		I:9/10	EMERG ELECT SERVICE FAILURE
I:5/11	SUPPLY FAN SF-PR RUNNING	I:6/11	ATS IN TEST MODE	I:7/11	ELECTRICAL ROOM LIGHTS ON	I:8/11	FAIL SAFE FAULT	I:9/11	EMERG ELECT SERVICE GROUND FAULT
I:5/12	SUPPLY FAN SF-PR OVERLOAD	I:6/12	ATS READY TO LOAD	I:7/12	PUMP STATION INTRUSION	I:8/12	OUT OF BOUNDS ALARM	I:9/12	SCADA PANEL CIRCUIT 1 POWER
I:5/13	EXHAUST FAN EF-PR RUNNING	I:6/13	ATS IN NORMAL POSITION VERIFIED	I:7/13	PUMP STATION OCCUPIED SWITCH	I:8/13		I:9/13	SCADA PANEL CIRCUIT 18 POWER
I:5/14	EXHAUST FAN EF-PR OVERLOAD	I:6/14	ATS IN EMERG GEN POSITION VERIFIED	I:7/14	SUMP PUMP RUNNING	I:8/14		I:9/14	LINE FILTER 1 FAILURE
I:5/15	SUPPLY FAN SF-ER RUNNING	I:6/15	UTILITY POWER AVAILABLE	I:7/15	SUMP PUMP HIGH FLOAT ALARM	I:8/15		I:9/15	LINE FILTER 2 FAILURE

CLX3.14 - ANALOG INPUT		CLX3.15 - ANALOG INPUT		CLX3.16 - ANALOG INPUT	
ADDR	DESCRIPTION	ADDR	DESCRIPTION	ADDR	DESCRIPTION
I:14/0	MAIN PUMP 1 MOTOR CURRENT	I:15/0	MAIN PUMP 2 MOTOR CURRENT	I:16/0	MAIN PUMP 3 MOTOR CURRENT
I:14/1		I:15/1		I:16/1	LOW FLOW PUMP MOTOR CURRENT
I:14/2		I:15/2		I:16/2	
I:14/3	WETWELL PRIMARY LEVEL	I:15/3	WETWELL SECONDARY LEVEL	I:16/3	
I:14/4		I:15/4		I:16/4	SCREEN CHAMBER LEVEL
I:14/5		I:15/5		I:16/5	
I:14/6		I:15/6		I:16/6	
I:14/7	GENERATOR FUEL TANK LEVEL	I:15/7		I:16/7	DISCHARGE CHAMBER LEVEL

E-26

MODEL: SMOCKLAMES
FILE NAME: SELE3

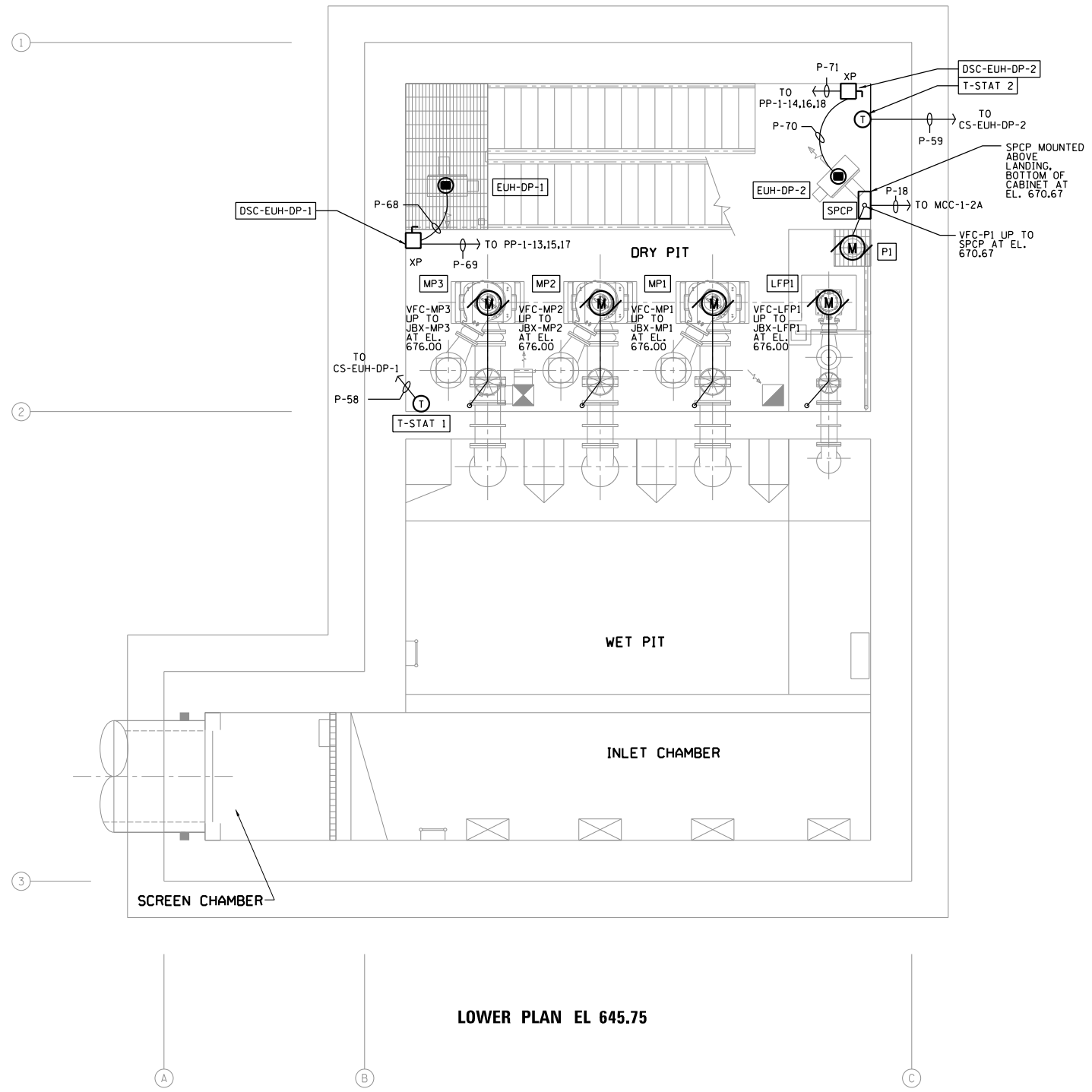
DONOHUE	USER NAME = SBREMER	DESIGNED - DWG	REVISED -
	PLOT SCALE = AS NOTED	DRAWN - DWG	REVISED -
	PLOT DATE = 08/09/24	CHECKED - MBS	REVISED -
		DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE:		SHEET	OF	SHEETS	STA.	TO	STA.
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PUMP STATION NO. 37
PLC I/O MAPPING

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	161
CONTRACT NO. 62B66				
ILLINOIS		FED. AID PROJECT C1U(634)		



LOWER PLAN EL 645.75

NOTES:

1. ALL AREAS WITHIN BUILDING EXCEPT ELECTRICAL CONTROL ROOM SHALL BE:

CLASS I, DIVISION 2,
 GROUP D
 HAZARDOUS CLASSIFIED
 LOCATION
2. SEE DRAWING E-41 FOR CONDUCTOR AND CONDUIT REQUIREMENTS.
3. CONTRACTOR IS RESPONSIBLE FOR VERIFYING NUMBER OF CONDUCTORS IN CONDUIT PRIOR TO INSTALLATION. LOCATION OF BRANCH AND SWITCH LEGS AS INDICATED MAY BE ROUTED DIFFERENTLY AS DICTATED BY CONSTRUCTION AND SPECIFICATIONS. DEVICES SHOWN WIRED SEPARATELY TO SOURCE FOR CLARITY; SIGNALS WITH SAME FUNCTION INCLUDING 120 VOLT DEVICES AND BELOW MAY BE COMBINED IN RACEWAYS PER NEC.
4. THE AREAS BENEATH THE ROOF AND GRADE LEVEL HATCHES SHALL REMAIN CLEAR OF CONDUITS AND EQUIPMENT SO THAT PUMPS CAN BE REMOVED.
5. COORDINATE POWER CONDUIT ROUTINGS WITH LIGHTING CONDUIT AND INSTRUMENTATION & CONTROL CONDUIT ROUTINGS. SEE DRAWINGS E-30, E-31, E-32, AND E-34.
6. SUPPORT VENDOR PUMP CABLES WITH STRESS RELIEF IN PUMP ROOM SUCH THAT STRESS RELIEF IS ACCESSIBLE FROM GRADE LEVEL. INSTALL PER DETAIL E600 ON DRAWING E-37.
7. COORDINATE CONDUIT ROUTING WITH HVAC DUCTS AND EQUIPMENT. SEE DRAWINGS H-1, H-2 & H-3.
8. ALL CONDUITS SHALL BE IDENTIFIED BY A UNIQUE CONDUIT NUMBER, SHOW ON AN ADHESIVE LABEL. SEE DRAWING E-3 FOR CONDUIT REQUIREMENTS.
9. WALL MOUNT DISCONNECTS AND SUMP PUMP CONTROL PANEL (SPCP).

E-27

SCALE: 0 4 8 FT.

MODEL: 4300/DEL/NAME/FILE NAME: SEE LISTS



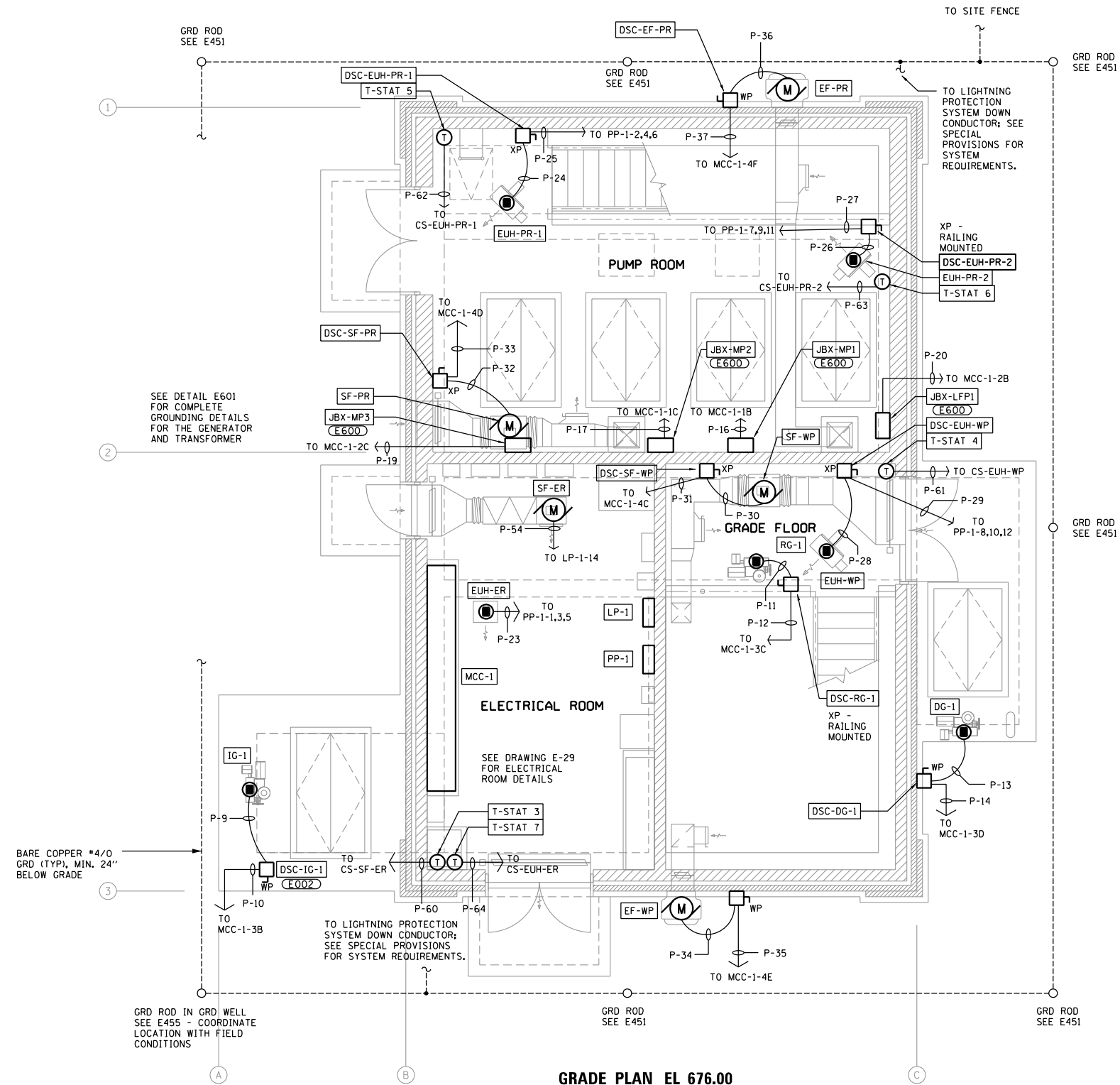
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DRAWN - JRR	REVISED -	
PLOT SCALE = AS NOTED	CHECKED - JAB	REVISED -
PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
ELECTRICAL
LOWER PLAN

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	162
CONTRACT NO. 62B66				
		ILLINOIS	FED. AID PROJECT C/UJ(634)	



GRADE PLAN EL 676.00

NOTES:

1. ALL AREAS WITHIN BUILDING EXCEPT ELECTRICAL ROOM SHALL BE:

CLASS I, DIVISION 2,
 GROUP D
 HAZARDOUS CLASSIFIED
 LOCATION
2. SEE DRAWING E-41 FOR CONDUCTOR AND CONDUIT REQUIREMENTS.
3. CONTRACTOR IS RESPONSIBLE FOR VERIFYING NUMBER OF CONDUCTORS IN CONDUIT PRIOR TO INSTALLATION. LOCATION OF BRANCH AND SWITCH LEGS AS INDICATED MAY BE ROUTED DIFFERENTLY AS DICTATED BY CONSTRUCTION AND SPECIFICATIONS. DEVICES SHOWN WIRED SEPARATELY TO SOURCE FOR CLARITY; SIGNALS WITH SAME FUNCTION INCLUDING 120 VOLT DEVICES AND BELOW MAY BE COMBINED IN RACEWAYS PER NEC.
4. THE AREAS BENEATH THE ROOF HATCHES SHALL REMAIN CLEAR OF CONDUITS AND EQUIPMENT SO THAT PUMPS CAN BE REMOVED.
5. COORDINATE POWER CONDUIT ROUTINGS WITH LIGHTING CONDUIT AND INSTRUMENTATION & CONTROL CONDUIT ROUTINGS. SEE DRAWINGS E-31 AND E-34.
6. CONDUITS FROM EXTERIOR GATES SHALL BE INSTALLED IN CONCRETE SLAB TO DESTINATION SUCH THAT CONDUITS ARE NOT EXPOSED AND DO NOT CREATE A TRIPPING HAZARD.
7. COORDINATE CONDUIT ROUTING WITH HVAC DUCTS AND EQUIPMENT. SEE DRAWING H-3.
8. ALL CONDUITS SHALL BE IDENTIFIED BY A UNIQUE CONDUIT NUMBER, SHOW ON AN ADHESIVE LABEL. SEE DRAWING E-3 FOR CONDUIT REQUIREMENTS.
9. CONDUITS ROUTED IN OR THROUGH ELECTRICAL ROOM SHALL BE OVERHEAD. CONDUITS SHALL NOT BE ROUTED THROUGH DISCHARGE CHAMBER.
10. EXTERIOR DISCONNECTS SHALL HAVE ABILITY TO BE PADLOCKED IN ENERGIZED POSITION.
11. CONTRACTOR TO COORDINATE CORE DRILLS FOR PUMP SPLICE BOXES WITH HVAC DUCT WORK.

E-28

SCALE: 0 4 8 FT.

MODEL: 4300/DEL/NAME/MS FILE: NAME: SHEETS



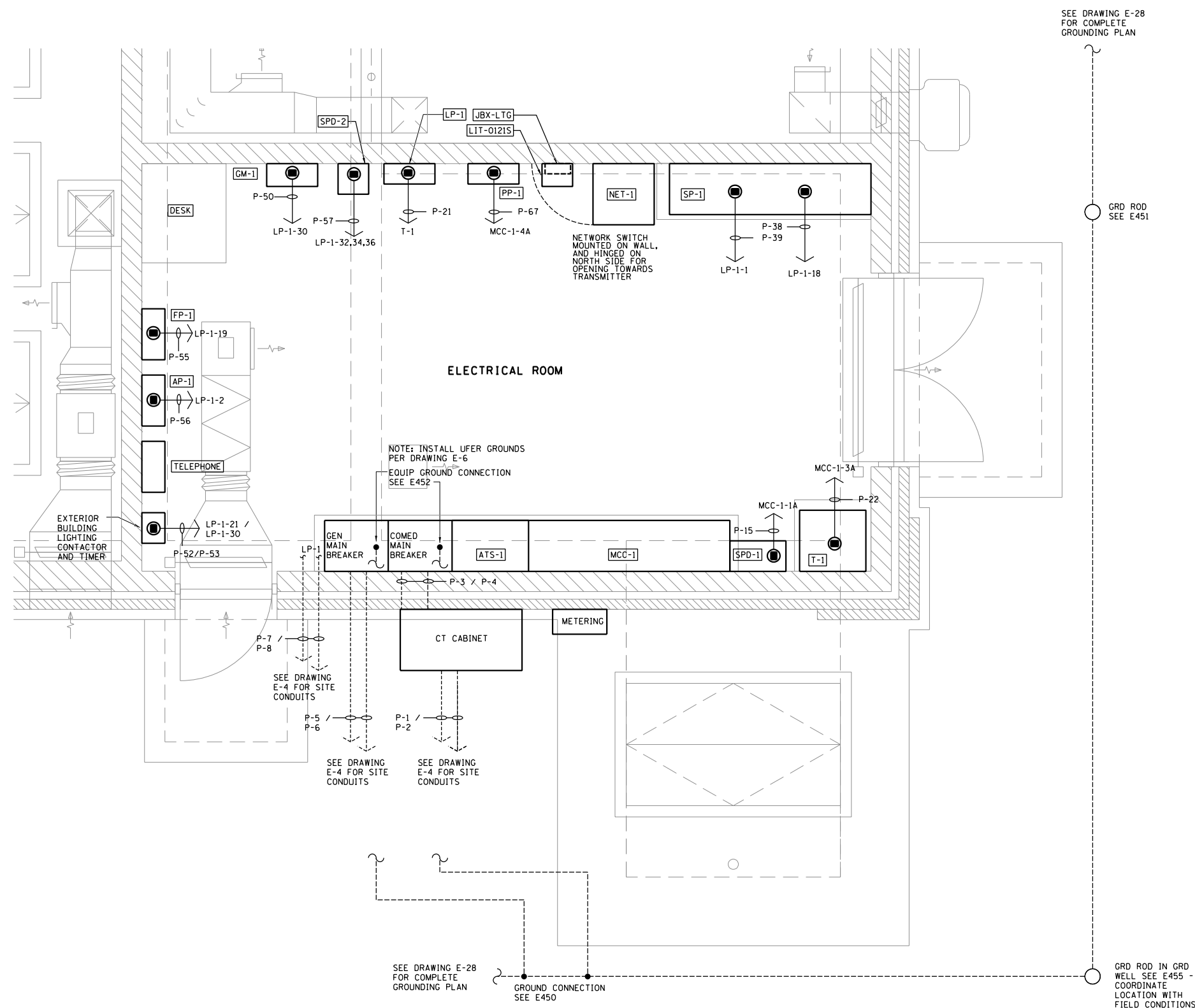
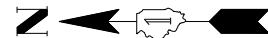
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DRAWN - JRR	REVISED -	
PLOT SCALE = AS NOTED	CHECKED - JAB	REVISED -
PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
ELECTRICAL
POWER AND GROUNDING PLAN**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	163
CONTRACT NO. 62B66				
		ILLINOIS	FED. AID PROJECT CBJX(634)	



GRADE PLAN AT EL. 676.00

NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR VERIFYING NUMBER OF CONDUCTORS IN CONDUIT PRIOR TO INSTALLATION. LOCATION OF BRANCH AND SWITCH LEGS AS INDICATED MAY BE ROUTED DIFFERENTLY AS DICTATED BY CONSTRUCTION AND SPECIFICATIONS. DEVICES SHOWN WIRED SEPARATELY TO SOURCE; SIGNALS WITH SAME FUNCTION INCLUDING 120 VOLT DEVICES AND BELOW MAY BE COMBINED IN RACEWAYS PER NEC.
2. ELECTRICAL SERVICE SHALL ENTER BUILDING ABOVE GRADE THROUGH EXTERIOR WALL.
3. ALL AREAS WITHIN THE BUILDING EXCEPT ELECTRICAL ROOM SHALL BE:

CLASS 1, DIVISION 2,
 GROUP D
 HAZARDOUS CLASSIFIED
 LOCATION
4. COORDINATE POWER AND CONDUIT ROUTINGS WITH LIGHTING CONDUIT AND INSTRUMENTATION AND CONTROL CONDUIT ROUTINGS; SEE DRAWINGS E-28, E-31, E-34 AND E-35.
5. CONDUITS FROM EXTERIOR GATES SHALL BE MOUNTED IN CONCRETE SLAB TO DESTINATION SUCH THAT CONDUITS ARE NOT EXPOSED AND DO NOT CREATE A TRIPPING HAZARD.
6. COORDINATE CONDUIT ROUTING WITH HVAC DUCTS AND EQUIPMENT; SEE DRAWING H-3.
7. PROVIDE A DEDICATED 3/4" CONDUIT FROM AP-1 AND SP-1 TO TELEPHONE PANEL FOR TELEPHONE LINES. PROVIDE A CONDUIT STUBBED OUT 5'-0" FROM BUILDING FOR TELEPHONE SERVICE - COORDINATE LOCATION TELEPHONE SERVICE PROVIDER.
8. EQUIPMENT AND EQUIPMENT MOUNTED DEVICES SUCH AS PILOT LIGHTS, PUSHBUTTONS, METERS AND SELECTOR SWITCHES SHALL HAVE NAMEPLATES PER SPECIFICATIONS.
9. ALL CONDUITS SHALL BE IDENTIFIED BY A UNIQUE CONDUIT NUMBER, SHOWN ON AN ADHESIVE LABEL. SEE DRAWING E-3 FOR CONDUIT REQUIREMENTS.
10. DESIGNATED LOCATION FOR THE DESK SHALL INCLUDE A DESK, CHAIR, BULLETIN BOARD, AND CABINET FOR REFERENCE DRAWINGS, DOCUMENTS, AND O&M MANUALS.
11. AP-1 = AEGIS PANEL
 FP-1 = FIRE ALARM PANEL
 GM-1 = GAS MONITOR PANEL
12. NETWORK SWITCH (NET-1) SHALL BE WALL MOUNTED ABOVE TRANSMITTER (LIT-0121S) AND HINGED ON NORTH SIDE FOR OPENING TOWARDS LIT-0121S. LIT-0121S SHALL BE STACKED ABOVE LIGHTING JUNCTION BOX (LTG-JBX).
13. CONDUITS ROUTED THROUGH ELECTRICAL ROOM SHALL BE OVERHEAD. CONDUITS SHALL NOT BE ROUTED THROUGH DISCHARGE CHAMBER UNLESS NOTED.

SEE DRAWING E-28
FOR COMPLETE
GROUNDING PLAN

GRD ROD
SEE E451

NOTE: INSTALL UFER GROUNDS
PER DRAWING E-6
EQUIP GROUND CONNECTION
SEE E452

SEE DRAWING
E-4 FOR SITE
CONDUITS

SEE DRAWING
E-4 FOR SITE
CONDUITS

SEE DRAWING
E-4 FOR SITE
CONDUITS

SEE DRAWING E-28
FOR COMPLETE
GROUNDING PLAN

GROUND CONNECTION
SEE E450

GRD ROD IN GRD
WELL SEE E455 -
COORDINATE
LOCATION WITH
FIELD CONDITIONS

E-29

SCALE: 0 1 2 4 FT.

MODELS: 4400, BELMONT, FILE NAMES: SEE LISTS



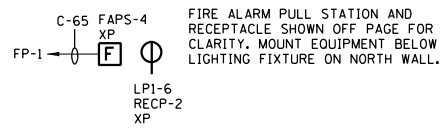
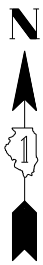
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PLOT DATE = 08/09/24	CHECKED - JAB	REVISED -
	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
ELECTRICAL
ELECTRICAL ROOM POWER PLAN

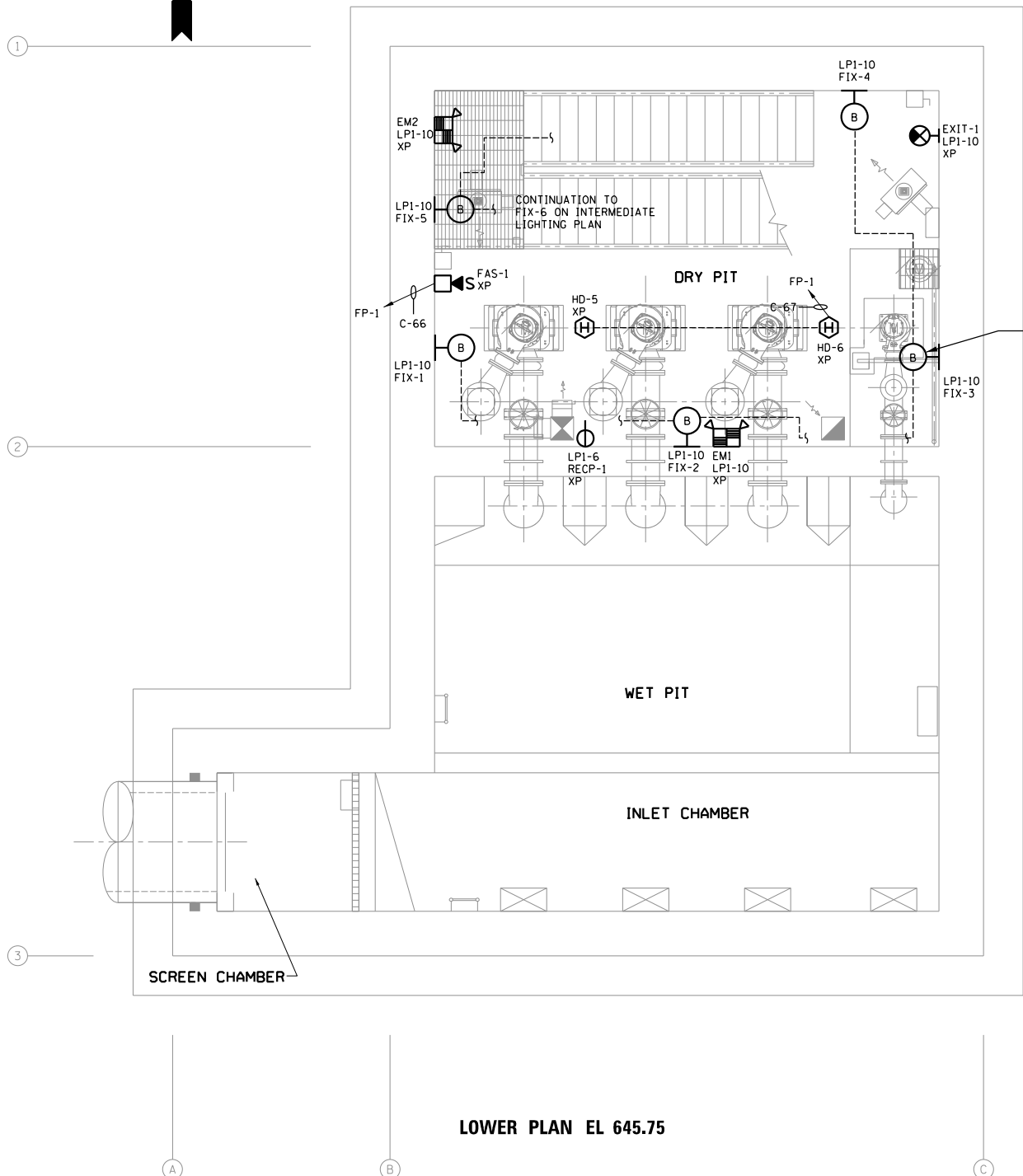
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	164
CONTRACT NO. 62B66				
		ILLINOIS	FED. AID PROJECT CBJX(634)	



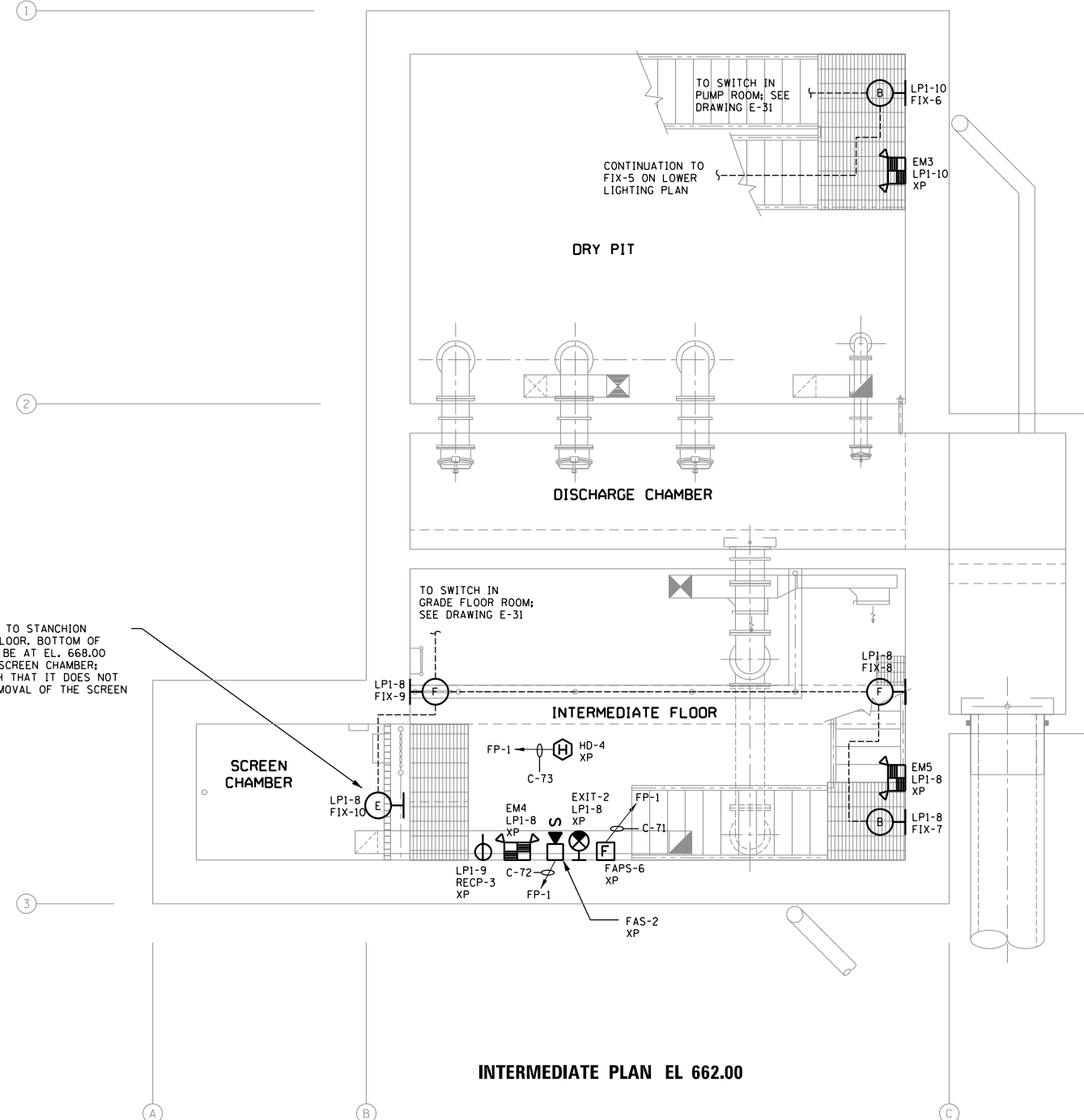
NOTES:

- ALL AREAS WITHIN BUILDING EXCEPT ELECTRICAL ROOM SHALL BE:
CLASS 1, DIVISION 2,
GROUP D
HAZARDOUS CLASSIFIED
LOCATION
- SEE DRAWING E-41 FOR CONDUCTOR AND CONDUIT REQUIREMENTS.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING NUMBER OF CONDUCTORS IN CONDUIT PRIOR TO INSTALLATION. LOCATION OF BRANCH AND SWITCH LEGS AS INDICATED MAY BE ROUTED DIFFERENTLY AS DICTATED BY CONSTRUCTION AND SPECIFICATIONS. DEVICES SHOWN WIRED SEPARATELY TO SOURCE; SIGNALS WITH SAME FUNCTION INCLUDING 120 VOLT DEVICES AND BELOW MAY BE COMBINED IN RACEWAYS PER NEC.
- COORDINATE LIGHTING CONDUIT ROUTINGS WITH POWER CONDUIT AND INSTRUMENTATION & CONTROL CONDUIT ROUTINGS. SEE DRAWINGS E-27, E-32, AND E-33.
- COORDINATE CONDUIT ROUTING WITH HVAC DUCTS. SEE DRAWING H-1 & H-2.
- ALL CONDUITS SHALL BE IDENTIFIED BY A UNIQUE CONDUIT NUMBER, SHOW ON AN ADHESIVE LABEL. SEE DRAWING E-3 FOR CONDUIT REQUIREMENTS.
- HEAT DETECTORS SHALL BE MOUNTED TO CEILING, AND LOCATED SUCH THAT THEY ARE ACCESSIBLE FROM HATCH OPENINGS.
- WALL MOUNTED FIXTURES LOCATED IN DRY PIT AND INTERMEDIATE FLOOR SHALL BE MOUNTED AT 30 DEGREES.



FIXTURES SHALL BE INSTALLED SUCH THAT THEY DO NOT IMPEDE THE REMOVAL OF THE PUMPS (TYP)

MOUNT FIXTURE TO STANCHION ANCHORED TO FLOOR. BOTTOM OF FIXTURE SHALL BE AT EL. 668.00 AND AIMED AT SCREEN CHAMBER; INSTALLED SUCH THAT IT DOES NOT IMPEDE THE REMOVAL OF THE SCREEN FROM ABOVE.



E-30



MODEL: 4/08/2018
FILE: 144861_SHEETS



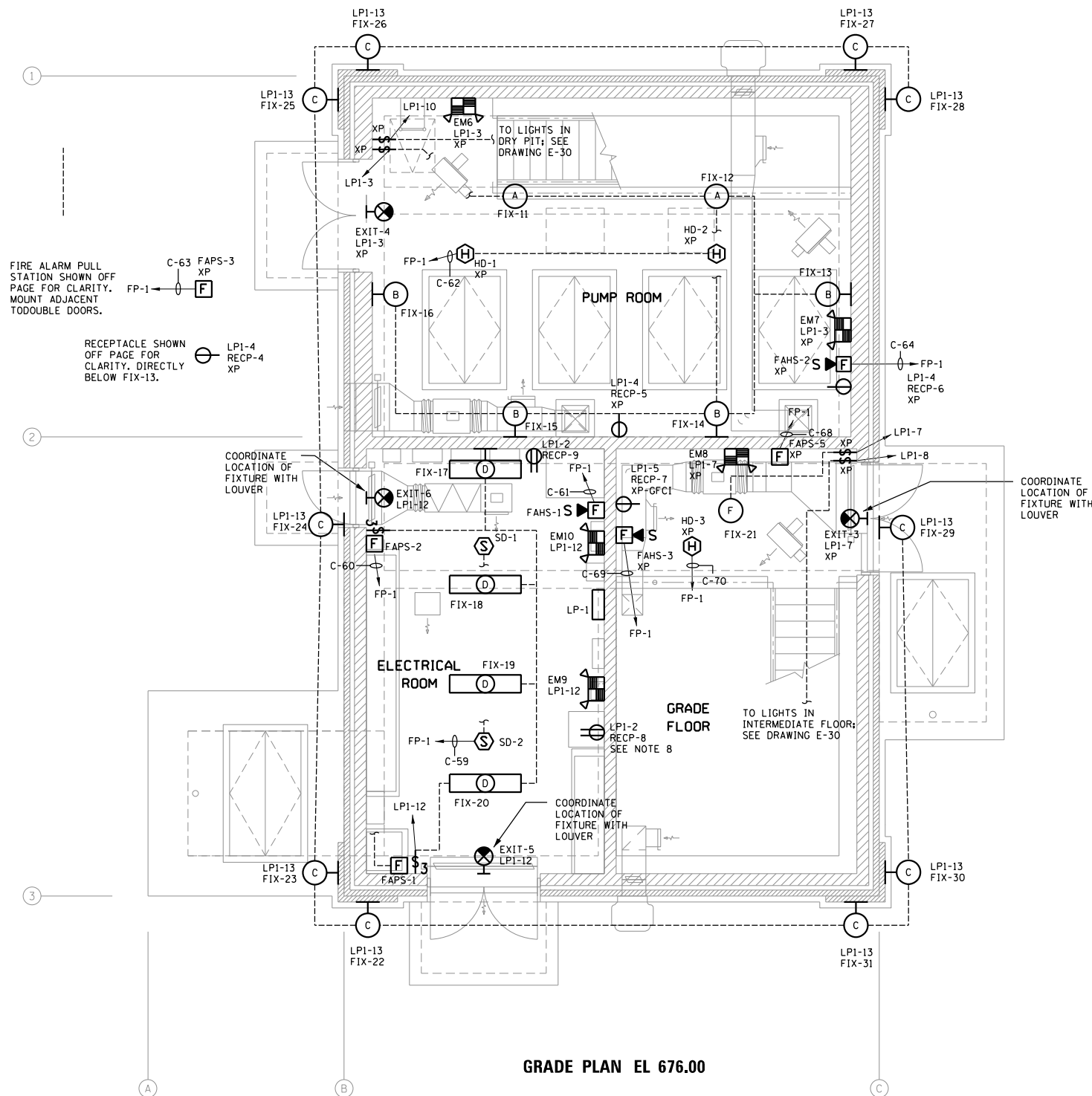
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DRAWN - JRR	REVISED -	
PLOT SCALE = AS NOTED	CHECKED - JAB	REVISED -
PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
ELECTRICAL
LOWER AND INTERMEDIATE LEVEL LIGHTING PLAN**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	165
CONTRACT NO. 62B66				
ILLINOIS		FED. AID PROJECT CBJX(634)		



NOTES:

1. ALL AREAS WITHIN BUILDING EXCEPT ELECTRICAL ROOM SHALL BE:

CLASS I, DIVISION 2, GROUP D HAZARDOUS CLASSIFIED LOCATION

2. SEE DRAWING E-41 FOR CONDUCTOR AND CONDUIT REQUIREMENTS.
3. CONTRACTOR IS RESPONSIBLE FOR VERIFYING NUMBER OF CONDUCTORS IN CONDUIT PRIOR TO INSTALLATION. LOCATION OF BRANCH AND SWITCH LEGS AS INDICATED MAY BE ROUTED DIFFERENTLY AS DICTATED BY CONSTRUCTION AND SPECIFICATIONS. DEVICES SHOWN WIRED SEPARATELY TO SOURCE; SIGNALS WITH SAME FUNCTION INCLUDING 120 VOLT DEVICES AND BELOW MAY BE COMBINED IN RACEWAYS PER NEC.
4. COORDINATE LIGHTING CONDUIT ROUTINGS WITH POWER CONDUIT AND INSTRUMENTATION & CONTROL CONDUIT ROUTINGS. SEE DRAWINGS E-29, E-30, E-34, AND E-35.
5. COORDINATE CONDUIT ROUTING WITH HVAC DUCTS. SEE DRAWING H-3.
6. ALL CONDUITS SHALL BE IDENTIFIED BY A UNIQUE CONDUIT NUMBER. SHOW ON AN ADHESIVE LABEL. SEE DRAWING E-3 FOR CONDUIT REQUIREMENTS.
7. FIX-15 SHALL BE WALL MOUNTED 9' ABOVE GRADE SUCH THAT IT MATCHES BOTTOM OF DUCT WORK.
8. WALL MOUNTED FIXTURES LOCATED IN PUMP ROOM SHALL BE MOUNTED AT 30 DEGREE ANGLE.
9. RECP-8 SHALL BE MOUNTED BELOW NETWORK RACK NET-1.
10. COORDINATE FIX-12 AND FIX-14 WITH DUCT WORK ABOVE.

GRADE PLAN EL 676.00

E-31

SCALE: 0 4 8 FT.

MODEL: 4300/DEL/NAME/FILE: 12/14/15: 12/15/15



USER NAME = SBREMER	DESIGNED - JRR	REVISED -
DRAWN - JRR	REVISIONS -	
PLOT SCALE = AS NOTED	CHECKED - JAB	REVISED -
PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
ELECTRICAL
GRADE LEVEL LIGHTING PLAN**

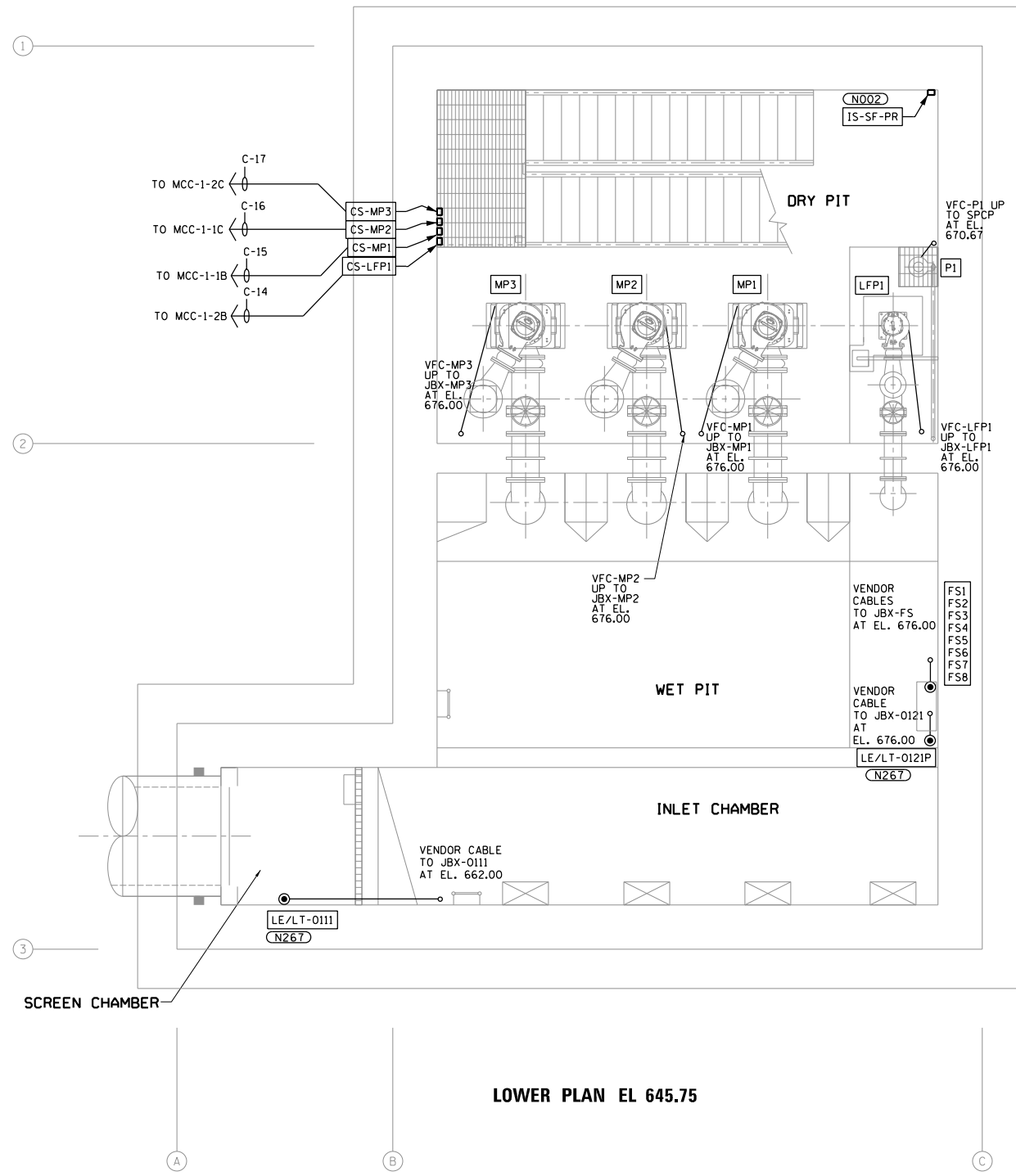
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	166
CONTRACT NO. 62B66				
		ILLINOIS	FED. AID PROJECT	CRJ(634)



NOTES:
 1. ALL AREAS WITHIN BUILDING EXCEPT ELECTRICAL ROOM SHALL BE:

CLASS 1, DIVISION 2,
 GROUP D
 HAZARDOUS CLASSIFIED
 LOCATION



SEE "M" DRAWINGS FOR FLOAT SWITCHES STILLING WELL DETAIL.

LOWER PLAN EL 645.75

E-32

SCALE: 0 4 8 FT.

MODEL: 4/08/2016MMMS FILE NAME: SELEIS



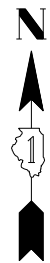
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
 INSTRUMENTATION AND CONTROLS
 LOWER PLAN

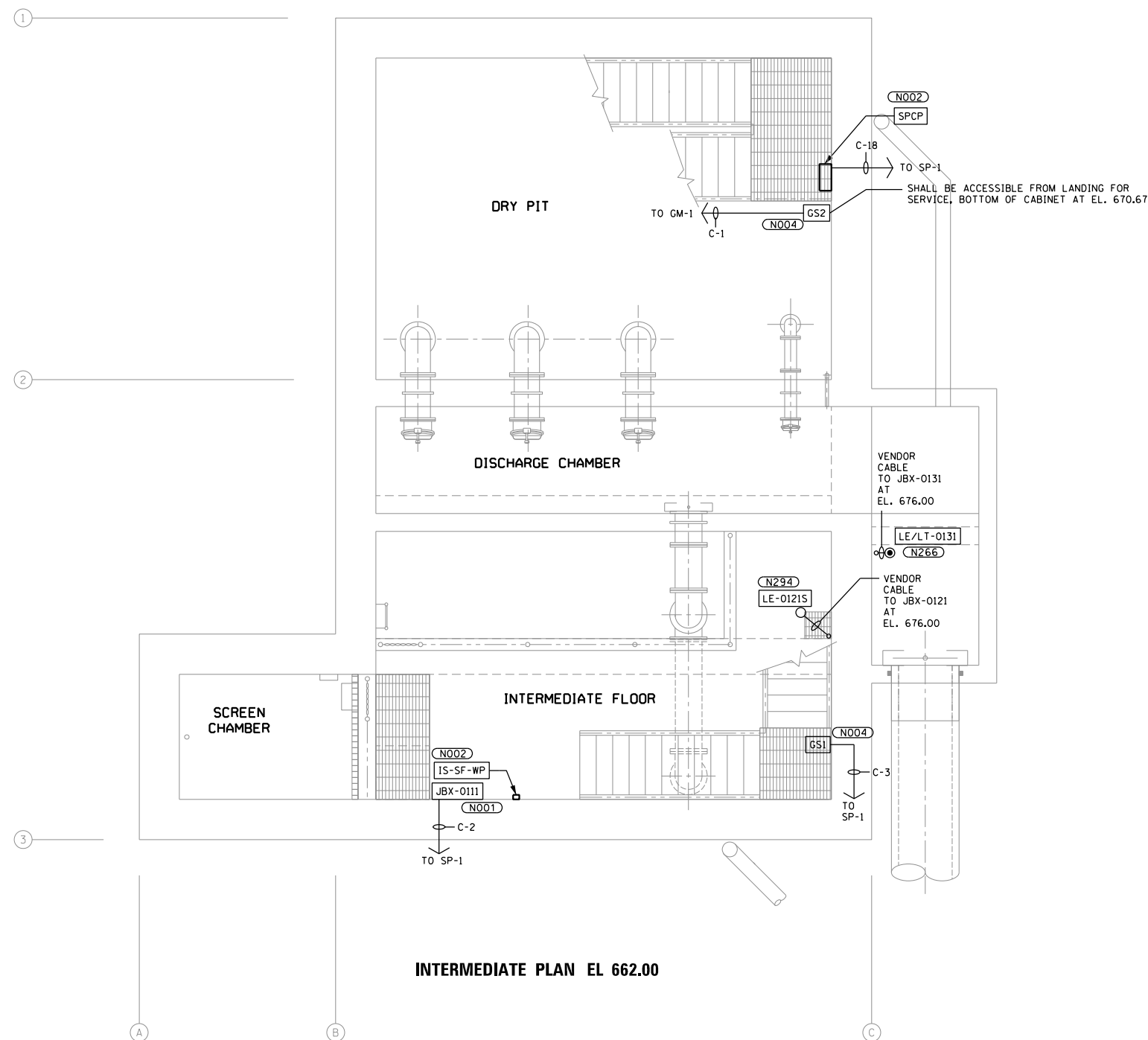
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	167
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT C/JX(634)				



NOTES:
 1. ALL AREAS WITHIN BUILDING EXCEPT ELECTRICAL ROOM SHALL BE:

CLASS 1, DIVISION 2,
 GROUP D
 HAZARDOUS CLASSIFIED
 LOCATION



E-33

SCALE: 0 4 8 FT.

MODEL: 4100/DEL/NAME/ FILE: NAME: SHEETS



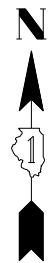
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PLOT DATE = 08/09/24	CHECKED -	REVISED -
	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
 INSTRUMENTATION AND CONTROLS
 INTERMEDIATE PLAN

SCALE: SHEET OF SHEETS STA. TO STA.

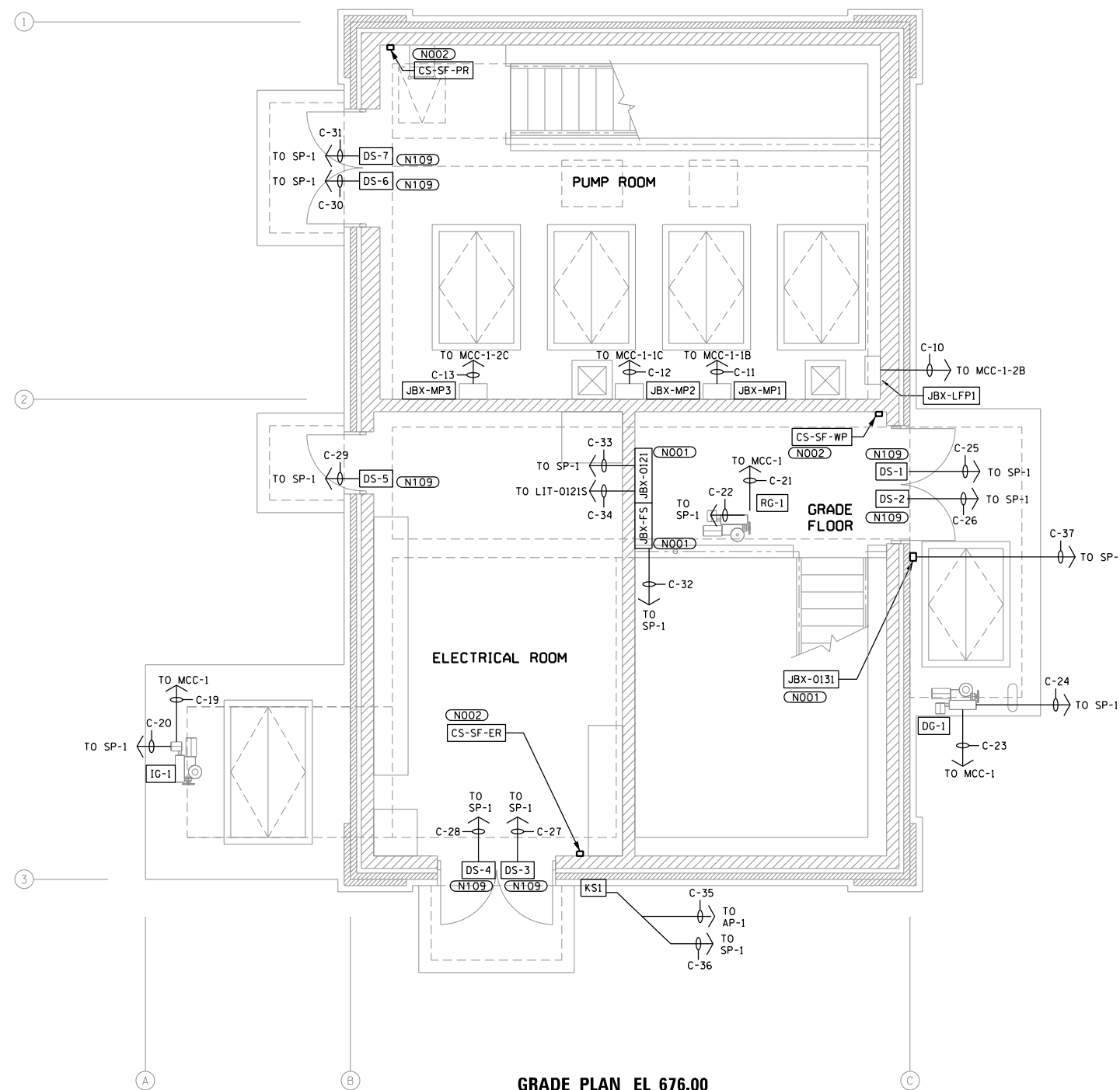
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	168
CONTRACT NO. 62B66				
		ILLINOIS	FED. AID PROJECT C/UJ(634)	



- NOTES:**
- ALL AREAS WITHIN THE BUILDING EXCEPT ELECTRICAL ROOM SHALL BE:

CLASS 1, DIVISION 2, GROUP D HAZARDOUS CLASSIFIED LOCATION

 - CONTRACTOR TO COORDINATE CORE DRILLS FOR PUMP SPLICE BOXES WITH HVAC DUCT WORK.



GRADE PLAN EL 676.00

E-34

SCALE: 0 4 8 FT.

MODELS AND DETAILS
FILE NAMES: SEE LISTS



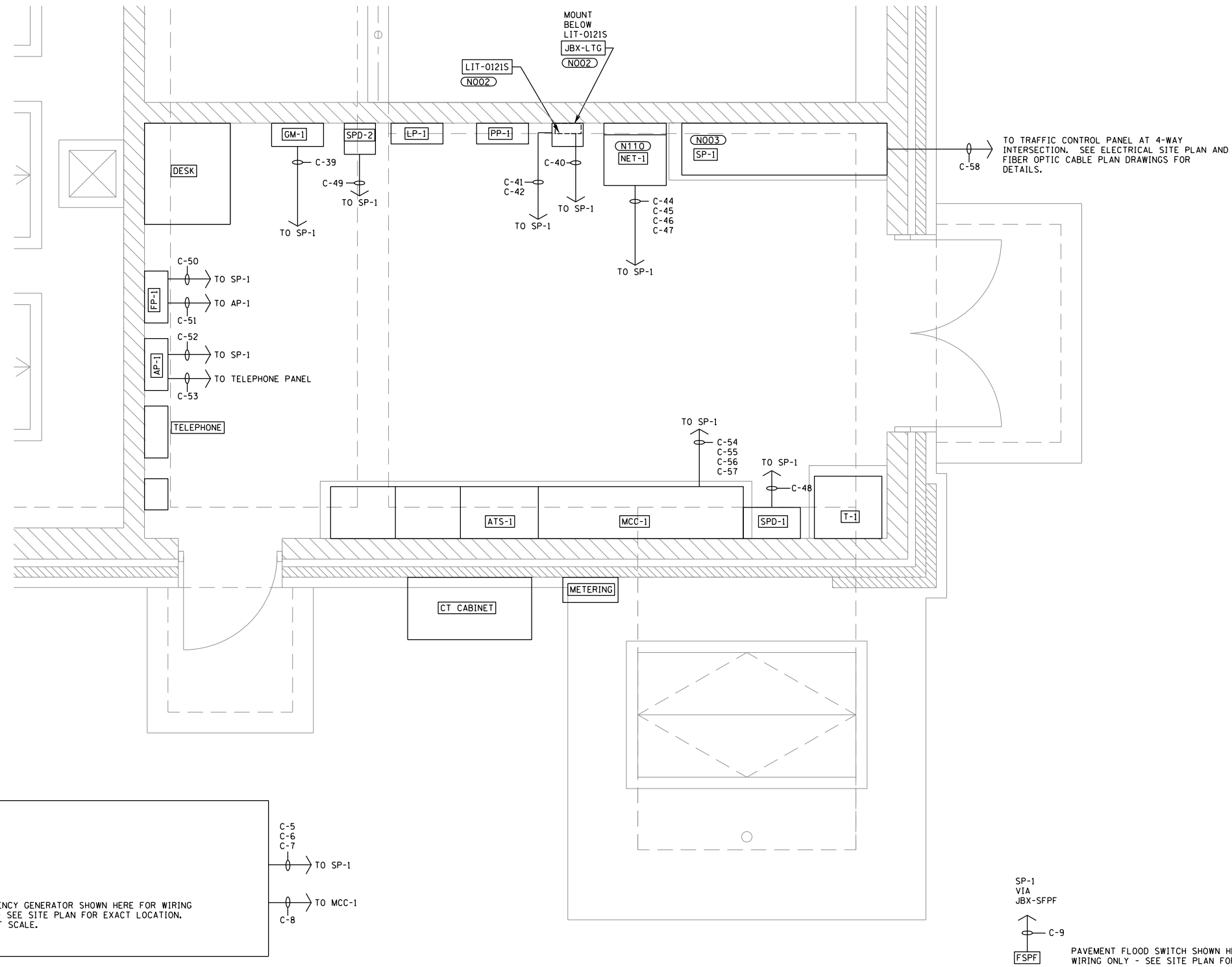
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	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

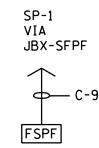
PUMP STATION NO. 37
INSTRUMENTATION AND CONTROLS
GRADE PLAN

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	169
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT C1JX(634)				



GRADE PLAN AT EL. 676.00



PAVEMENT FLOOD SWITCH SHOWN HERE FOR WIRING ONLY - SEE SITE PLAN FOR EXACT LOCATION. DO NOT SCALE.

SEE "M" DRAWINGS FOR FLOOD SWITCH ALARM BOX DETAIL.

E-35 SCALE: 0 1 2 4 FT.

MODELS AND DIMENSIONS FILE NAMES: SEE LISTS



USER NAME = SBREMER	DESIGNED - JRR	REVISED -
PLOT SCALE = AS NOTED	DRAWN - JRR	REVISED -
PLOT DATE = 08/09/24	CHECKED - JAB	REVISED -
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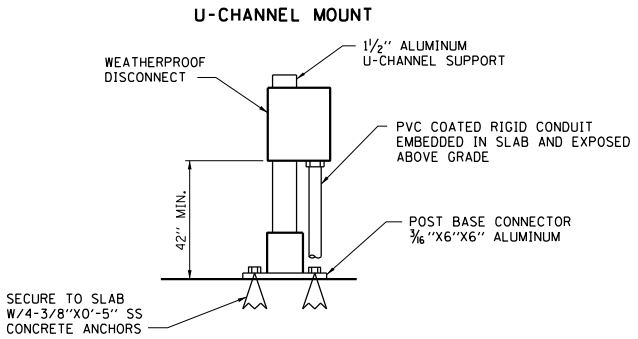
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37
INSTRUMENTATION AND CONTROLS
ELECTRICAL ROOM

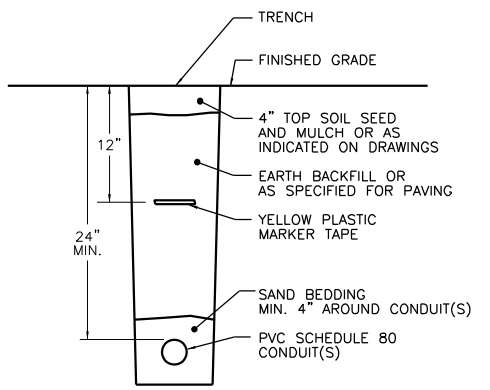
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	170
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CBJX(634)				

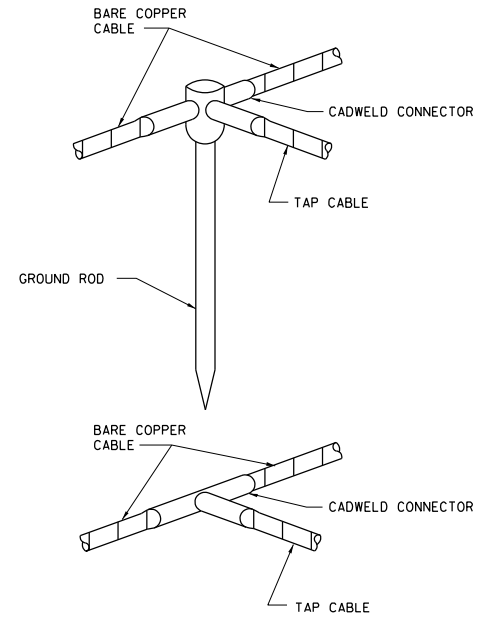
LUMINAIRE SCHEDULE						
TYPE	DESCRIPTION	LAMPS		MANUFACTURER	CATALOG NUMBER	REMARKS
		NO	ORD ABB			
A	PENDANT MOUNTED LED FIXTURE SUITABLE FOR C1 D2 LOCATION	1	LED	HOLOPHANE EATON HUBBELL	PXLH-5000LM-MDU5FR-MVOLT-40K-80CRI-UNM-DGXD VMV SERIES LED HAZARDOUS LIGHTWATT LED	SEE (E500)
B	WALL MOUNTED FOR C1 D2 LOCATION	1	LED	HOLOPHANE APPLETON EATON	PXLH-5000LM-MDU5FR-MVOLT-40K-80CRI-UNM-DGXD-P3US CFP400JBM1 FZD SERIES FLOODLIGHT LUMINAIRE	SEE (E550) UNLESS OTHERWISE NOTED
C	LED WALL LUMINAIRE	1	LED	BEGA-US UNIVERSE KIM LIGHTING	66411 UCS RA 17 ERA PICOEMITTER LED	SEE DRAWING A-5 FOR MOUNTING HEIGHT
D	1X4 ENCLOSED AND GASKETED LED FIXTURE	2	LED	HOLOPHANE LITHONIA EATON	EMS-L48-6000LM-IMAFD-MD-MVOLT-50K FEM LED VAPORTITE LED	MOUNTED 9'-0" AFF
E	STANCHION MOUNTED SUITABLE FOR C1 D2 LOCATION	1	LED	APPLETON HOLOPHANE EATON	HEXF1-P4-MV-4K-T3M-CL-HEXF1YK HRLL LED FZD SERIES FLOODLIGHT LUMINAIRE	MOUNT AS NOTED ON PLANS
F	WALL MOUNTED LED FIXTURE SUITABLE FOR C1 D2 LOCATION	1	LED	HOLOPHANE EATON HUBBELL	PXLH-8000LM-MDU5FR-MVOLT-40K-80CRI-UNM-DGXD VMV SERIES LED HAZARDOUS LIGHTWATT LED	MOUNTED 9'-0" AFF
	EXIT LIGHT WITH LED LAMPS RED LETTERS/WHITE HOUSING	-	WITH UNIT	HOLOPHANE LITHONIA EATON	OM-LED-R-HO-RO-SD LOM SERIES CCH UX SERIES LED	MOUNTED ABOVE DOOR UNLESS OTHERWISE NOTED
	EXIT/EMERGENCY LIGHT WITH LED LAMPS RED LETTERS/WHITE HOUSING SUITABLE FOR C1 D2 ENVIRONMENT	-	WITH UNIT	HOLOPHANE KILLARK LIGHTING EATON	HDXE-1-R-12/27-EL-PW EBS SERIES EX-LITE LED	MOUNTED ABOVE DOOR UNLESS OTHERWISE NOTED
	EMERGENCY BATTERY LIGHT WITH TWO UNIT MOUNTED LAMP HEADS AND CAPACITY FOR REMOTE HEADS	2	LED	HOLOPHANE APPLETON EATON	CZ04L ATX ELS SERIES AN SPECIFICATION EMERGENCY LIGHT	WALL MOUNTED 8'-0" ABOVE FLOOR
	EMERGENCY BATTERY LIGHT WITH TWO UNIT MOUNTED LAMP HEADS SUITABLE FOR C1 D2 ENVIRONMENT	2	LED	KILLARK LIGHTING ABB EATON	EBS230H PTA XELB LED SERIES LIGHT-PAK LED N2LPS	WALL MOUNTED 8'-0" ABOVE FLOOR



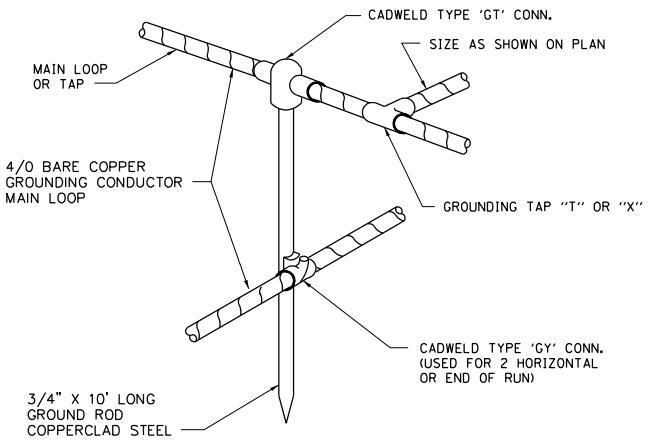
DISCONNECT INSTALLATION E002
NTS



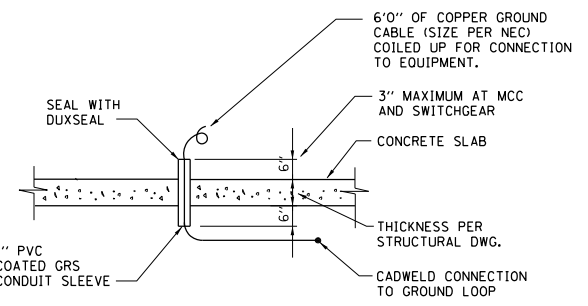
UNDERGROUND CONDUIT DETAIL E262
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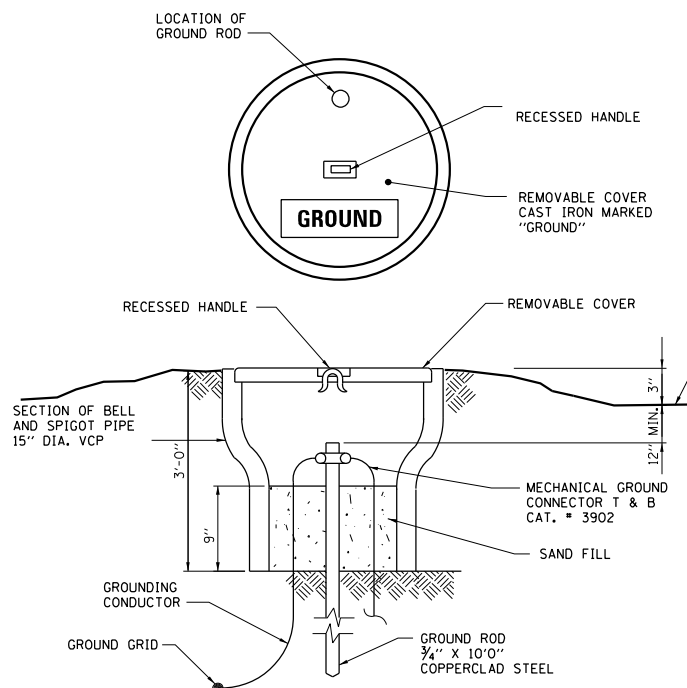
GROUNDING CONNECTION DETAIL E450
NTS



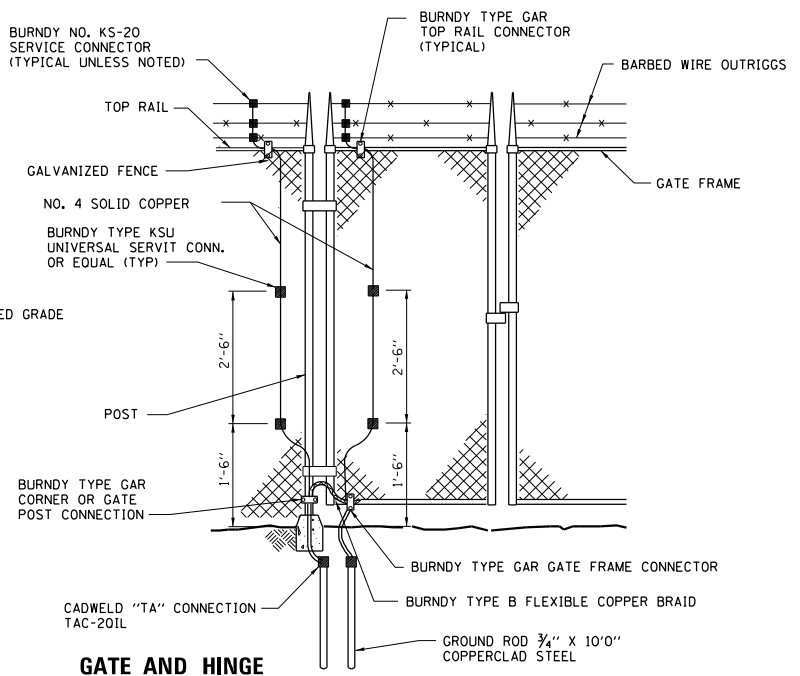
CONDUCTOR TO GROUND ROD CONNECTION DETAIL E451
NTS



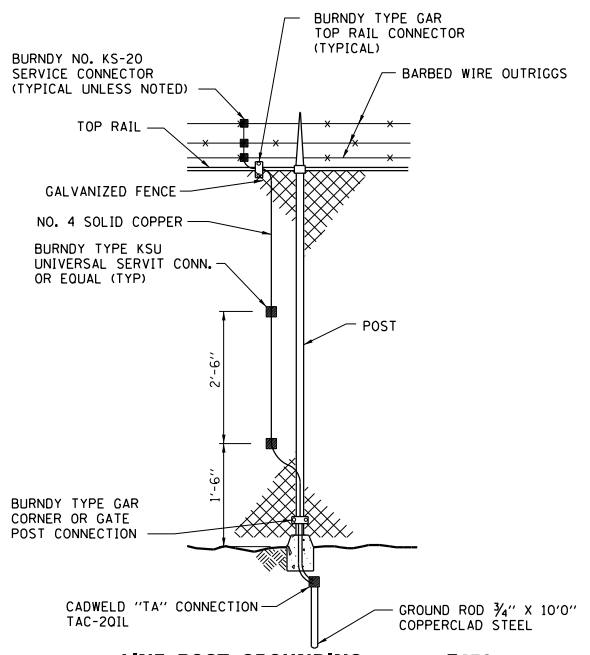
EQUIPMENT GROUND CABLE STUB-UP E452
NTS



GROUNDING TEST STATION DETAIL E455
NTS



GATE AND HINGE POST GROUNDING E457
NTS



LINE POST GROUNDING E458
NTS

MODELS AND DIMENSIONS FILE NAMES: SEE LISTS



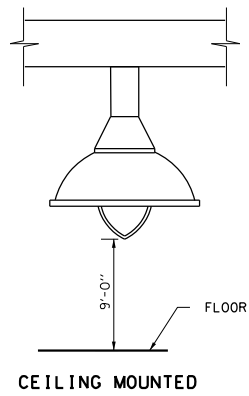
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PLOT SCALE = AS NOTED	DRAWN - JRR	REVISED -
PLOT DATE = 08/09/24	CHECKED - JAB	REVISED -
	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

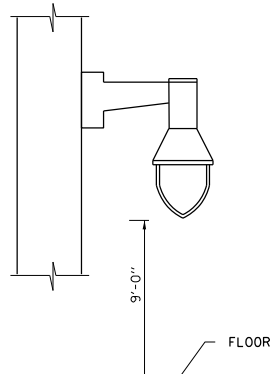
PUMP STATION NO. 37
ELECTRICAL
DETAILS

SCALE: SHEET OF SHEETS STA. TO STA.

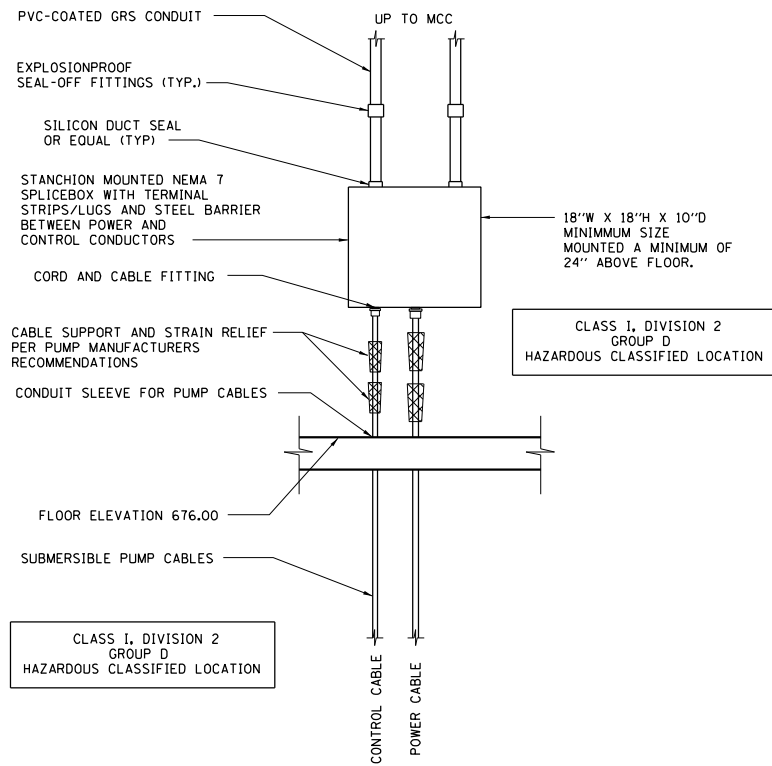
F.A.P. RTE. 346	SECTION (125S-1)I-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 171
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CJU(634)				



FIXTURE MOUNTING DETAIL E500
NTS

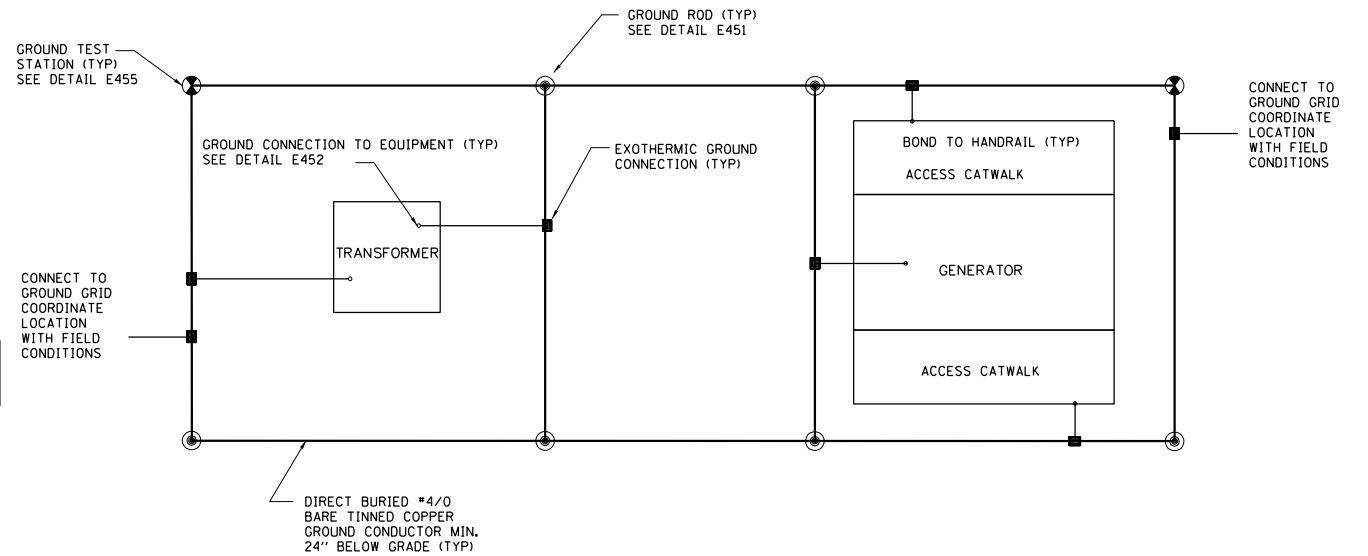


FIXTURE MOUNTING DETAIL E550
NTS

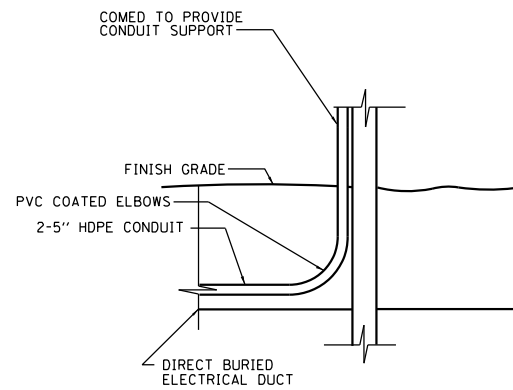


FRONT VIEW
NOTE: COORDINATE AMOUNT OF PUMP CABLES WITH SUPPLIED PUMPS; SOME MANUFACTURERS REQUIRE ONE POWER CABLE AND ONE CONTROL CABLE

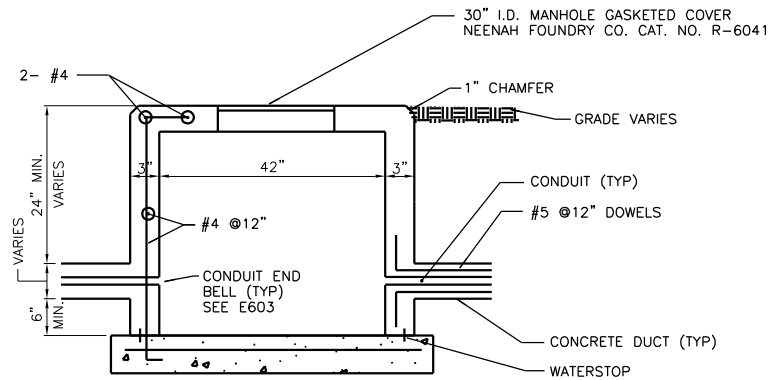
SUBMERSIBLE PUMP SPLICEBOX DETAIL E600
NTS



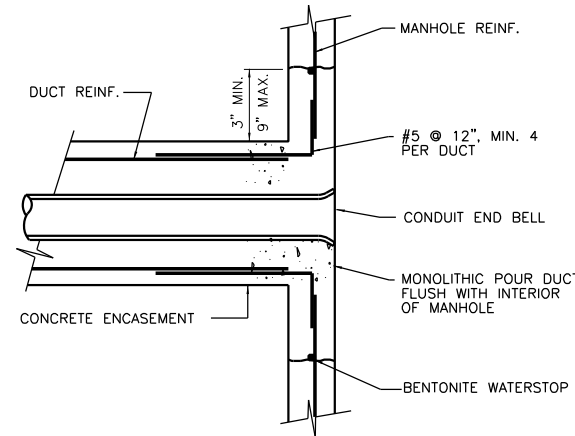
NOTE: COORDINATE GROUNDING OF TRANSFORMER WITH COM ED
GENERATOR AND TRANSFORMER GROUNDING DETAIL E601
NTS



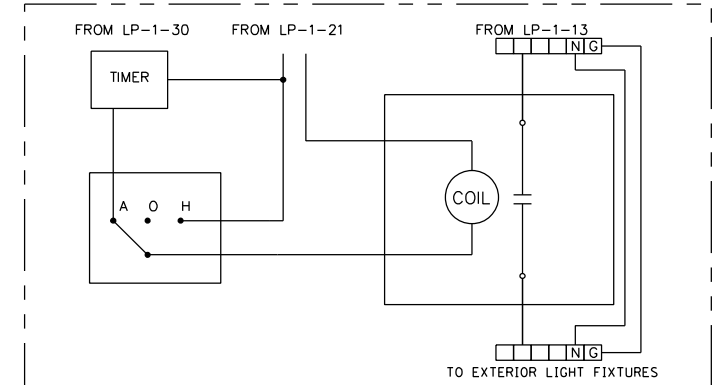
POLE CONDUIT RISER FROM DUCT BANK E599
NTS



HANDHOLE DETAIL E602
NOT TO SCALE



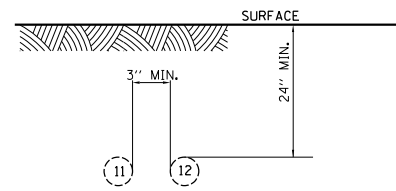
DUCT PRECAST MANHOLE INTERFACE DETAIL E603
NOT TO SCALE



NOTE: NEMA 1 CONTACTOR WITH H-O-A SWITCH ON OUTER ENCLOSURE. TIME SHALL UTILIZE ASTRONOMICAL TIME SWITCH.
CIRCUITS SHOWN FOR BUILDING LIGHTING. REFER TO PANEL SCHEDULE FOR STREET LIGHTING CIRCUIT REQUIREMENTS.
LIGHTING CONTACTOR AND TIMER WIRING DIAGRAM E951
NTS

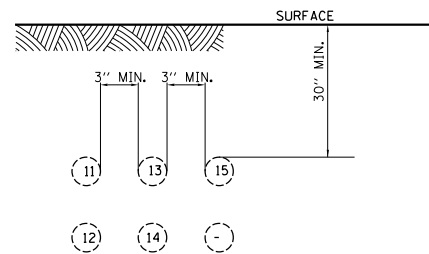
USER NAME = SBREMER	DESIGNED - JRR	REVISED -
PLOT SCALE = AS NOTED	DRAWN - JRR	REVISED -
PLOT DATE = 08/09/24	CHECKED - JAB	REVISED -
	DATE - 08-08-2024	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	172
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CBJX(634)				



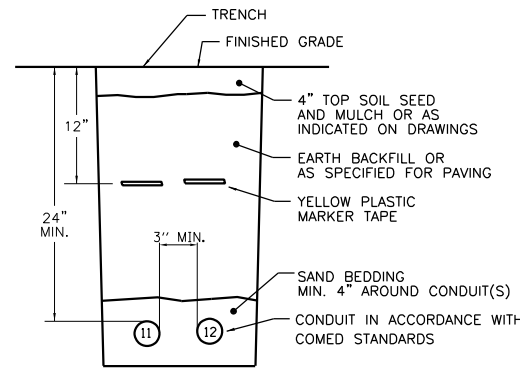
NOTE: DUCT BANK SECTION SHALL BE DIRECTIONALLY DRILLED FROM COMED POLE TO PUSH PIT SOUTH OF IL-176. SPACING SHOWN IS SUGGESTED. ACTUAL DRILLING WILL DICTATE SPACING. SEE DRAWING E-4 FOR EXTENTS. SEE NOTE 7 FOR CONDUIT REQUIREMENTS.

DUCT BANK SECTION A



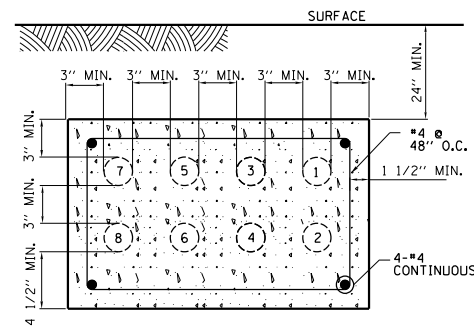
NOTE: DUCT BANK SECTION DIRECTIONALLY DRILLED BENEATH IL-176 FROM PUSH PIT ON SOUTH OF IL-176 TO PUSH PIT ON NORTH OF IL-176. SPACING SHOWN IS SUGGESTED. ACTUAL DRILLING WILL DICTATE SPACING. SEE DRAWING E-4 FOR EXTENTS. SEE NOTE 7 FOR CONDUIT REQUIREMENTS.

DUCT BANK SECTION B

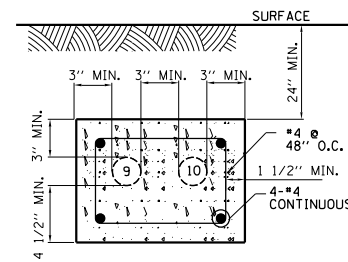


NOTE: DUCT BANK SECTION SHALL BE DIRECT BURIED FROM PUSH PIT ON THE NORTH OF IL-176 TO COMED TRANSFORMER VIA COMED HANDHOLE.

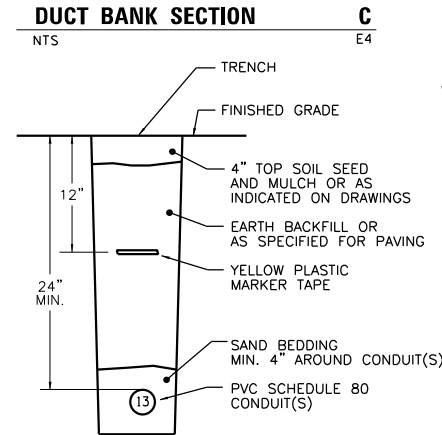
DUCT BANK SECTION C



DUCT BANK SECTION D



DUCT BANK SECTION E

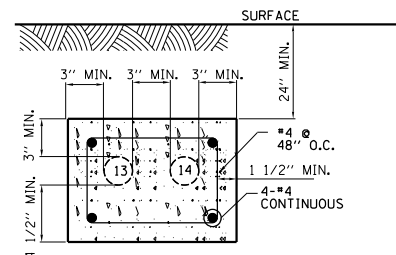


DUCT BANK SECTION F

DUCTBANK SCHEDULE					
NUMBER	SIZE	FROM	TO	CONTENTS	REMARKS
1	2-1/2"	EG-1	MCC-1	POWER	480V - P-5
2	2-1/2"	EG-1	MCC-1	SPARE	CAP EACH END P-6
3	1"	EG-1	MCC-1	CONTROLS	C-8
4	2"	EG-1	SP-1	CONTROLS	C-6
5	1"	EG-1	SP-1	INSTRUMENTATION	PVC COATED GRS CONDUIT - C-7
6	1"	EG-1	SP-1	SPARE	C-5; CAP AT EACH END
7	1"	EG-1	LP-1	POWER	120V - COOLANT HTR - P-7
8	1"	EG-1	LP-1	POWER	120V - CHARGER/STRIP - P-8
9	2"	UTILITY XFMR	METERING CAB.	POWER	P-1
10	2"	UTILITY XFMR	METERING CAB.	SPARE	CAP AT EACH END - P-2
11	5"	UTILITY RISER POLE	UTILITY XFMR	POWER	P-65, VIA PUSH PIT AND COMED HH, NOTE 7
12	5"	UTILITY RISER POLE	UTILITY XFMR	SPARE	CAP AT EACH END; VIA PUSH PIT AND COMED HH - P-66, NOTE 7
13	2"	EX. HH	NET-1	FIBER	C-58, VIA HH-2, -1, NOTE 7
14	1"	FSPF	SP-1	CONTROLS	C-9, VIA HH-2, -1, NOTE 7
15	1"	EX. LP	LP-1	POWER	120/208V - P-72, VIA HH-2, HH-1, NOTE 7

NOTES:

- CONDUIT ELBOWS IN UNDERGROUND DUCT BANKS SHALL BE PVC COATED GRS CONDUIT.
- EXTERIOR ABOVE GRADE CONDUIT SHALL BE PVC COATED GRS CONDUIT.
- CONDUITS ENCASED IN CONCRETE SHALL BE PVC UNLESS NOTED IN SCHEDULE.
- SEE DRAWING E-41 FOR POWER AND CONTROL CONDUCTOR REQUIREMENTS.
- "-" REPRESENTS A SPACE IN THE DUCT BANK.
- CONTRACTOR SHALL VERIFY CONDUIT DUCT BANK LAYOUTS. CONTRACTOR SHALL MODIFY CONDUIT LOCATIONS IN DUCT BANK TO SUIT FIELD CONDITIONS.
- DUCT BANK SECTION 'A' AND 'B' CONDUITS THAT ROUTE UNDER IL-176 AND BIKE PATH SHALL BE HDPE FROM COMED POLE AND PUSH PIT ON NORTH OF IL-176 TO PUSH PIT ON SOUTH OF IL-176.



DUCT BANK SECTION G

SURFACE MOUNTED NEMA 1 480 V, 3 PHASE, 3 WIRE RATING 42,000 A.I.C.										100A MAIN BREAKER 100A MAIN BUS 100A MIN. GRD. BUS									
CKT. NO.	TRIP/P	DESCRIPTION	VA	PHASE			VA	DESCRIPTION	TRIP/P	CKT. NO.	VA	DESCRIPTION	TRIP/P	CKT. NO.	VA				
				A	B	C													
1			1666	•			1000			2									
3	20/3	EUH-ER	1666		•		1000	EUH-PR-1	20/3	4									
5			1666			•	1000			6									
7			1000		•		1000			8									
9	20/3	EUH-PR-2	1000		•		1000	EUH-WP	20/3	10									
11			1000			•	1000			12									
13			1000	•			1000			14									
15	20/3	EUH-DP-1	1000		•		1000	EUH-DP-2	20/3	16									
17			1000			•	1000			18									
19				•						20									
21	20/3	SPARE			•			SPARE	20/3	22									
23						•				24									
25				•						26									
27	20/3	SPARE			•			SPARE	20/3	28									
29						•				30									
TOTALS:			11000	6666	6666	6666	9000												

TOTAL PANEL CONNECTED LOAD: 20000VA, 24.06A @ 480 V

SURFACE MOUNTED NEMA 1 120/208 V, 3 PHASE, 4 WIRE RATING 22,000 A.I.C.										100A MAIN BREAKER 100A MAIN BUS 100A MIN. GRD. BUS									
VA	CKT. NO.	TRIP/P	DESCRIPTION	PHASE			DESCRIPTION	TRIP/P	CKT. NO.	VA									
				A	B	C													
1200	1	20/1	SCADA PANEL SOURCE 1 SP-1	•			AEGIS PANEL AP-1	20/1	2	120									
241	3	20/1	PUMP ROOM LIGHTS		•		PUMP ROOM RECPT	30/1	4	540									
180	5	20/1	GRADE FLOOR RECPT			•	DRY PIT RECPT	20/1	6	360									
179	7	20/1	GRADE FLOOR LIGHTS	•			INTERMEDIATE FLOOR LIGHTS	20/1	8	842									
180	9	20/1	INTERMEDIATE FLOOR RECPT		•		DRY PIT LIGHTS	20/1	10	842									
120	11	20/1	EXT BLDG TIME CLOCK MOTOR			•	ELECTRICAL ROOM LIGHTS	20/1	12	240									
89	13	20/1	EXTERIOR BUILDING LIGHTS	•			SUPPLY FAN ELEC RM SF-ER	20/1	14	696									
1500	15	20/1	GENERATOR COOLANT HEATER		•		GENERATOR BATTERY CHARGER	20/1	16	600									
800	17	20/1	GENERATOR STRIP HEATER			•	SCADA PANEL SOURCE 2 SP-1	20/1	18	1200									
120	19	20/1	FIRE ALARM PANEL FP-1	•			EXISTING PUMP STATION LIGHTING PANEL		20										
120	21	20/1	EXT BLDG LIGHTING CONTACTOR		•				60/3	22	-								
360	23	20/1	ELECTRICAL ROOM RECEIPT			•				24									
900	25	30/1	SPARE	•			SPARE	20/1	26	-									
-	27	20/2	SPARE		•		SPARE	20/1	28	-									
-	29					•	GAS MONITOR GM-1	20/1	30	150									
-	31	20/1	SPARE	•			LIGHTING PANEL SURGE PROTECTION SPD-2		32										
-	33	20/1	SPARE		•				60/3	34	-								
-	35	20/1	SPARE			•				36									
5989				TOTALS:	4146	4563	3800				5590								

TOTAL PANEL CONNECTED LOAD: 11579VA, 32.14A @ 208V

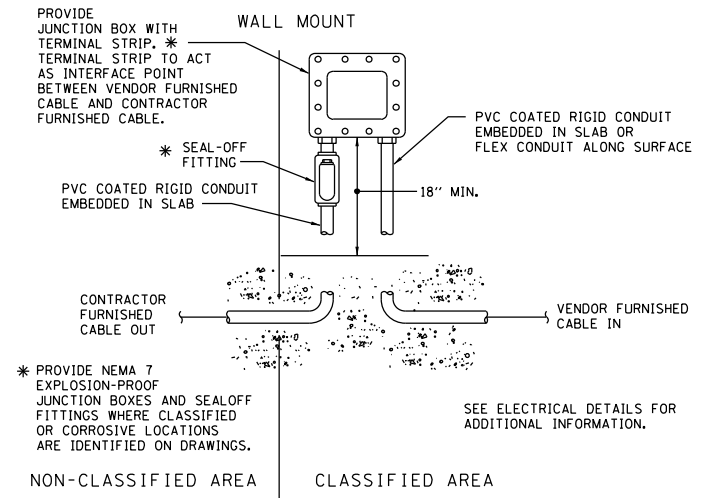
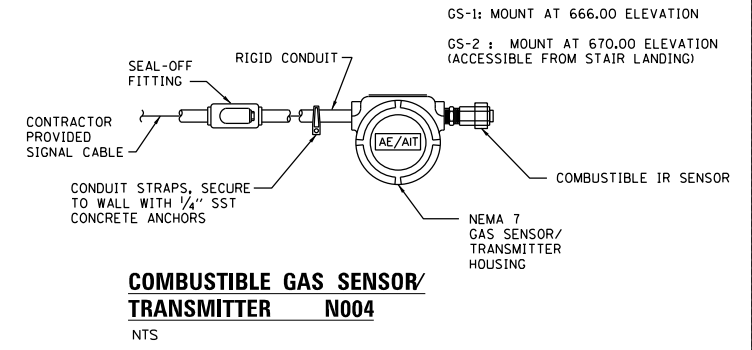
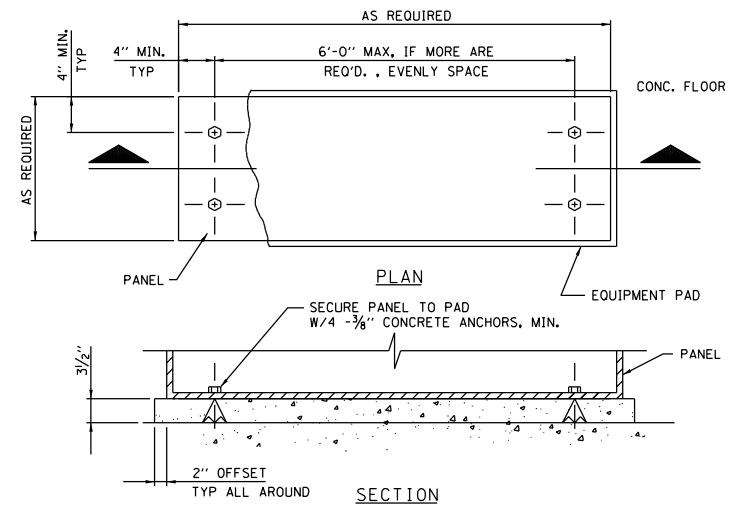
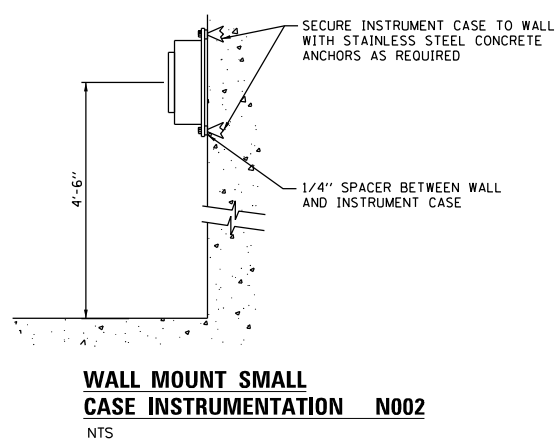
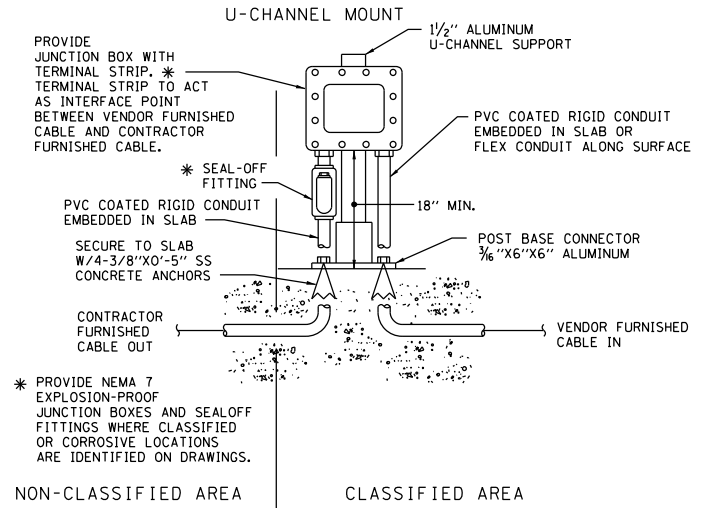


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PLOT SCALE = AS NOTED	DRAWN - JRR	REVISED -
PLOT DATE = 08/09/24	CHECKED - JAB	REVISED -
	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

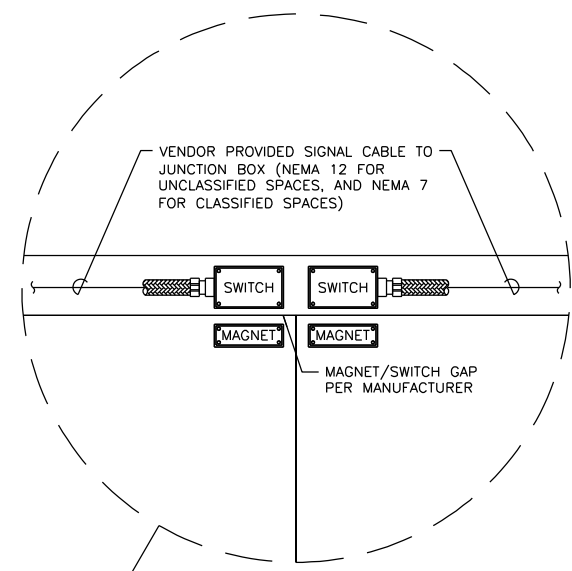
PUMP STATION NO. 37 ELECTRICAL PANEL AND DUCT BANK SCHEDULES			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1) L4	LAKE	186	173
CONTRACT NO. 62B66				
ILLINOIS FED. AID PROJECT CJUX(634)				

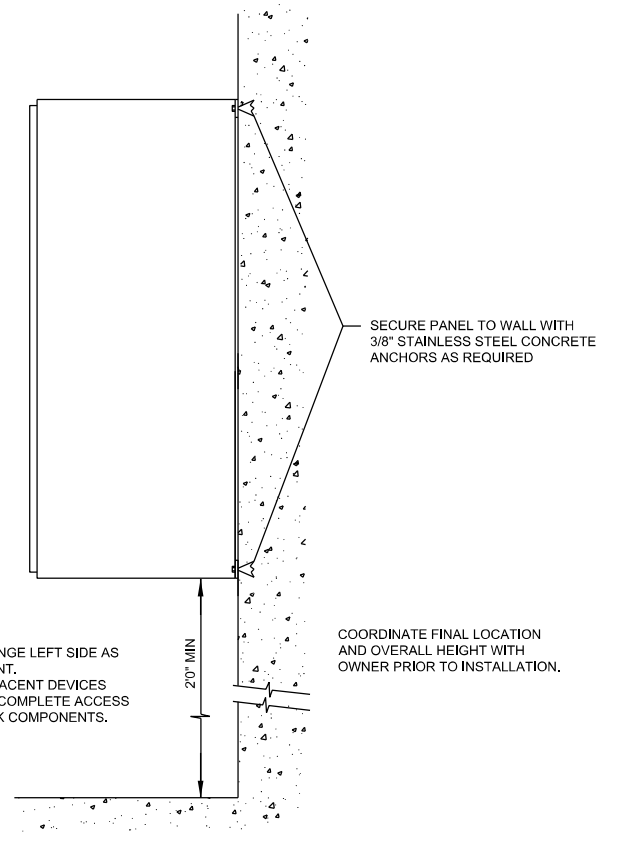


I&C JUNCTION BOX (JBX-xx) INSTALLATION N001

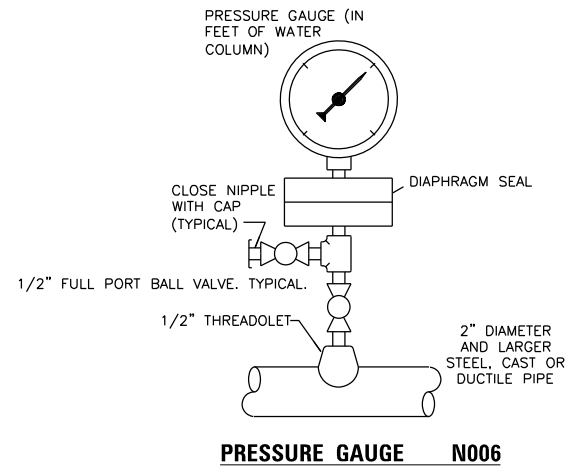
NTS



DOOR INTRUSION SWITCH N109



NETWORK ENCLOSURE N110

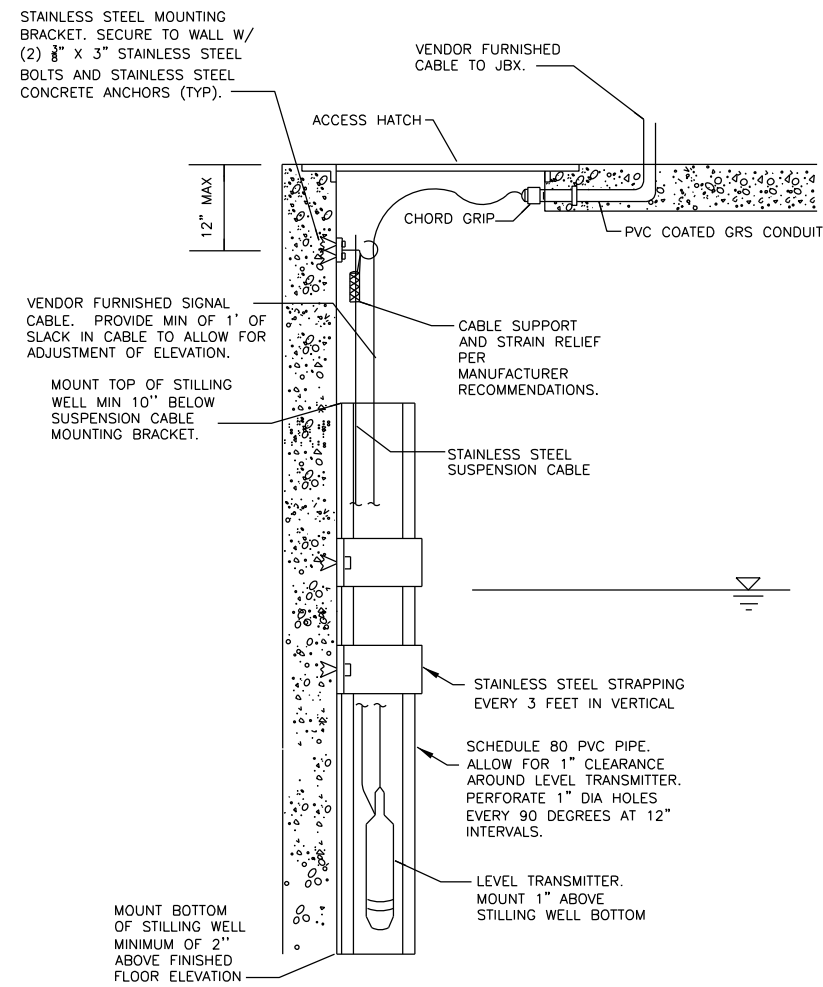


INSTRUMENT PLAN GENERAL NOTES

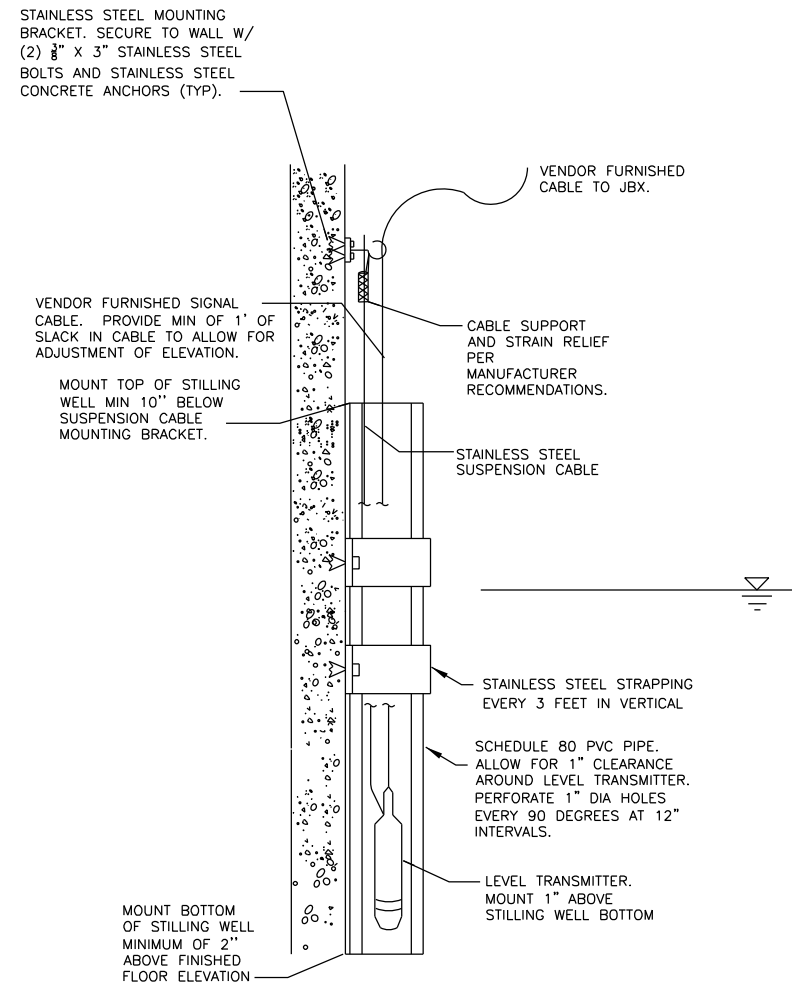
- CONTRACTOR IS RESPONSIBLE FOR ALL WIRING, WHETHER SHOWN OR NOT, NECESSARY FOR A COMPLETE AND OPERABLE SYSTEM.
- THIS DRAWING SHOWS APPROXIMATE INSTALLATION DETAILS AND IS NOT DRAWN TO SCALE.
- SHIELDED AND UNSHIELDED CONDUCTORS SHALL BE RUN IN CONDUIT. SHIELDED CONDUCTORS SHALL NOT BE COMBINED WITH UNSHIELDED CONDUCTORS IN ANY CONDUIT. NEITHER SHIELDED NOR UNSHIELDED CONDUCTORS SHALL BE INCLUDED IN THE SAME CONDUIT AS POWER WIRING.
- SHIELDED AND UNSHIELDED CONDUCTORS SHALL HAVE A MINIMUM OF 6" SEPARATION BETWEEN CONDUIT ON PARALLEL RUNS.
- SHIELDED AND UNSHIELDED CONDUCTORS SHALL BE SEPARATED BY STEEL BARRIERS IN ALL COMBINED SIGNAL JUNCTION BOXES AND CONDUCTORS SHALL NOT BE SPLICED EXCEPT AT TERMINALS OR AS DESIGNATED BY ENGINEER.
- ONLY REQUIRED CONDUCTORS ARE SHOWN ON PLAN. SPARE CONDUCTORS NOT SHOWN.
- FOR EACH CONDUIT CONTAINING MORE THAN TWO CONDUCTORS, PROVIDE A MINIMUM OF TWO CONDUCTORS OR 10% OF TOTAL CONDUCTORS IN CONDUIT, WHICHEVER IS GREATER AS SPARES. TAG BOTH ENDS OF EACH SPARE. TERMINATE EACH END OF SPARE CONDUCTOR AT TERMINALS WHENEVER POSSIBLE.
- CONDUIT SHALL BE SIZED TO ACCOMMODATE REQUIRED CONDUCTORS AND ANTICIPATED SPARES.
- THIS DRAWING DOES NOT SHOW CONDUIT SYSTEMS. PROVIDE, AS A MINIMUM, PULL BOXES AS RECOMMENDED BY CONDUCTOR MANUFACTURER. CONDULETS SHALL NOT BE USED AS PULL BOXES. PROVIDE EXPLOSION-PROOF SEAL-OFF FITTINGS ON ALL CONDUIT EXITING CLASSIFIED OR RATED LOCATIONS. FITTINGS SHALL BE INSTALLED IN THE CLASSIFIED OR RATED LOCATION.

MODEL & QUOTED DIMENSIONS FILE NAMES: SEE ELS

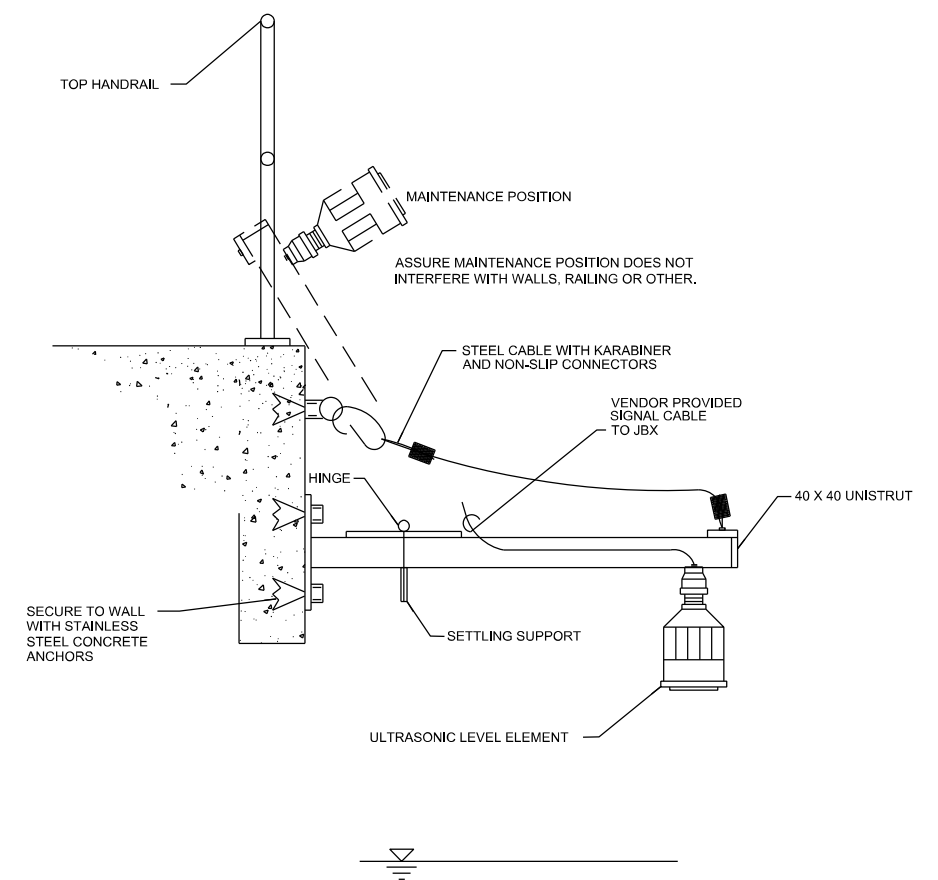
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	PLOT SCALE = AS NOTED	CHECKED - JAB	REVISED -		346	(125S-1)-L4	LAKE	186	174			
	PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT CRJX(634)				



HYDROSTATIC LEVEL TRANSMITTER N266



HYDROSTATIC LEVEL TRANSMITTER N267



ULTRASONIC LEVEL SENSOR SIDEWALL HINGE MOUNT N294

INSTRUMENT PLAN GENERAL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR ALL WIRING, WHETHER SHOWN OR NOT, NECESSARY FOR A COMPLETE AND OPERABLE SYSTEM.
2. THIS DRAWING SHOWS APPROXIMATE INSTALLATION DETAILS AND IS NOT DRAWN TO SCALE.
3. SHIELDED AND UNSHIELDED CONDUCTORS SHALL BE RUN IN CONDUIT. SHIELDED CONDUCTORS SHALL NOT BE COMBINED WITH UNSHIELDED CONDUCTORS IN ANY CONDUIT. NEITHER SHIELDED NOR UNSHIELDED CONDUCTORS SHALL BE INCLUDED IN THE SAME CONDUIT AS POWER WIRING.
4. SHIELDED AND UNSHIELDED CONDUCTORS SHALL HAVE A MINIMUM OF 6" SEPARATION BETWEEN CONDUIT ON PARALLEL RUNS.
5. SHIELDED AND UNSHIELDED CONDUCTORS SHALL BE SEPARATED BY STEEL BARRIERS IN ALL COMBINED SIGNAL JUNCTION BOXES AND INSTRUMENT TERMINATION CABINETS.
6. CONDUCTORS SHALL NOT BE SPLICED EXCEPT AT TERMINALS OR AS DESIGNATED BY ENGINEER.
7. ONLY REQUIRED CONDUCTORS ARE SHOWN ON PLAN. SPARE CONDUCTORS NOT SHOWN.
8. FOR EACH CONDUIT CONTAINING MORE THAN TWO CONDUCTORS, PROVIDE A MINIMUM OF TWO CONDUCTORS OR 10% OF TOTAL CONDUCTORS IN CONDUIT, WHICHEVER IS GREATER AS SPARES. TAG BOTH ENDS OF EACH SPARE. TERMINATE EACH END OF SPARE CONDUCTOR AT TERMINALS WHENEVER POSSIBLE.
9. CONDUIT SHALL BE SIZED TO ACCOMMODATE REQUIRED CONDUCTORS AND ANTICIPATED SPARES.
10. THIS DRAWING DOES NOT SHOW CONDUIT SYSTEMS. PROVIDE, AS A MINIMUM, PULL BOXES AS RECOMMENDED BY CONDUCTOR MANUFACTURER. CONDULETS SHALL NOT BE USED AS PULL BOXES. PROVIDE EXPLOSION-PROOF SEAL-OFF FITTINGS ON ALL CONDUIT EXITING CLASSIFIED OR RATED LOCATIONS. FITTINGS SHALL BE INSTALLED IN THE CLASSIFIED OR RATED LOCATION.

MODELS AND DIMENSIONS FILE NAMES: SEE LISTS



USER NAME = SBREMER	DESIGNED - DWG	REVISED -
PLOT SCALE = AS NOTED	DRAWN - DWG	REVISED -
PLOT DATE = 08/09/24	CHECKED - JAB	REVISED -
	DATE - 08-08-2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PUMP STATION NO. 37
INSTRUMENTATION AND CONTROLS
DETAILS**

SCALE: SHEET OF SHEETS STA. TO STA.

E-40

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	175
CONTRACT NO. 62B66				
ILLINOIS		FED. AID PROJECT C1JX(634)		

1. PVC-GRS IS PVC COATED GRS CONDUIT
2. TWISTED SH PR IS #16AWG TWISTED SHIELDED PAIR
3. 3C-S IS #16 TWISTED TRIAD CABLE
4. CE IS COPPER ETHERNET

POWER CONDUIT						
NUMBER	MIN SIZE (IN.)	TYPE	CONDUCTOR QUANTITY AND SIZE (AWG-KCMIL)	CABLE INSULATION	FROM	TO
P-1	2	PVC	4-1/C #3/0 & 1-1/C#6 GRD	XHHW-2	PMT-A	CT CABINET
P-2	2	PVC	SPARE	-	PMT-A	CT CABINET
P-3	2	PVC-GRS	4-1/C #3/0 & 1-1/C #6 GRD	XHHW-2	METERING CABINET	MCC-1 (SECTION 6B)
P-4	2	PVC-GRS	SPARE	-	METERING CABINET	MCC-1 (SECTION 6B)
P-5	2	PVC	4-1/C #3/0 & 1-1/C #6 GRD	XHHW-2	GENERATOR	MCC-1 (SECTION 7B)
P-6	2	PVC	SPARE	-	GENERATOR	MCC-1 (SECTION 7B)
P-7	1	PVC	2-1/C #12 & 1-1/C #12 GRD	THHN	GENERATOR (COOLANT HEATER)	LP-1 (CIRCUIT 15)
P-8	1	PVC	4-1/C #12 & 2-1/C #12 GRD	THHN	GENERATOR (STRIP HEATER & BATTERY CHARGER)	LP-1 (CIRCUIT 16 & 17)
P-9	3/4	PVC-GRS	3-1/C #12 & 1-1/C #12 GRD	THHN	IG-1	DSC-IG-1
P-10	3/4	PVC-GRS	3-1/C #12 & 1-1/C #12 GRD	THHN	DSC-IG-1	MCC-1 (SECTION 3B)
P-11	3/4	PVC-GRS	3-1/C #12 & 1-1/C #12 GRD	THHN	RG-1	DSC-RG-1
P-12	3/4	PVC-GRS	3-1/C #12 & 1-1/C #12 GRD	THHN	DSC-RG-1	MCC-1 (SECTION 3C)
P-13	3/4	PVC-GRS	3-1/C #12 & 1-1/C #12 GRD	THHN	DG-1	DSC-DG-1
P-14	3/4	PVC-GRS	3-1/C #12 & 1-1/C #12 GRD	THHN	DSC-DG-1	MCC-1 (SECTION 3D)
P-15	2	GRS	MANUFACTURERS HPI CABLE	-	SPD	MCC-1 (SECTION 1A)
P-16	3/4	PVC-GRS	3-1/C #8 & 1-1/C #10 GRD	XHHW-2	JBXMP1	MCC-1 (SECTION 1B)
P-17	3/4	PVC-GRS	3-1/C #8 & 1-1/C #10 GRD	XHHW-2	JBXMP2	MCC-1 (SECTION 1C)
P-18	3/4	PVC-GRS	3-1/C #12 & 1-1/C #12 GRD	THHN	SPCP	MCC-1 (SECTION 2A)
P-19	3/4	PVC-GRS	3-1/C #8 & 1-1/C #10 GRD	XHHW-2	JBXMP3	MCC-1 (SECTION 2C)
P-20	3/4	PVC-GRS	3-1/C #12 & 1-1/C #12 GRD	XHHW-2	JBXLFP1	MCC-1 (SECTION 2B)
P-21	1-1/4	GRS	4-1/C #3 & 1-1/C #8 GRD	THHN	LP-1	T-1
P-22	3/4	GRS	3-1/C #8 & 1-1/C #10 GRD	THHN	T-1	MCC-1 (SECTION 3A)
P-23	3/4	GRS	3-1/C #12 & 1-1/C #12 GRD	THHN	EUH-ER	PP-1 (CIRCUIT 1,3,5)
P-24	3/4	PVC-GRS	3-1/C #12 & 1-1/C #12 GRD	THHN	EUH-PR-1	DSC-EUH-PR-1
P-25	3/4	PVC-GRS	3-1/C #12 & 1-1/C #12 GRD	THHN	DSC-EUH-PR-1	PP-1 (CIRCUIT 2,4,6)
P-26	3/4	PVC-GRS	3-1/C #12 & 1-1/C #12 GRD	THHN	EUH-PR-2	DSC-EUH-PR-2
P-27	3/4	PVC-GRS	3-1/C #12 & 1-1/C #12 GRD	THHN	DSC-EUH-PR-2	PP-1 (CIRCUIT 7,9,11)
P-28	3/4	PVC-GRS	3-1/C #12 & 1-1/C #12 GRD	THHN	EUH-WP	DSC-EUH-WP
P-29	3/4	PVC-GRS	3-1/C #12 & 1-1/C #12 GRD	THHN	DSC-EUH-WP	PP-1 (CIRCUIT 8,10,12)
P-30	3/4	PVC-GRS	3-1/C #12 & 1-1/C #12 GRD	THHN	SF-WP	DSC-SF-WP
P-31	3/4	PVC-GRS	3-1/C #12 & 1-1/C #12 GRD	THHN	DSC-SF-WP	MCC-1 (SECTION 4C)
P-32	3/4	PVC-GRS	3-1/C #12 & 1-1/C #12 GRD	THHN	SF-PR	DSC-SF-PR
P-33	3/4	PVC-GRS	3-1/C #12 & 1-1/C #12 GRD	THHN	DSC-SF-PR	MCC-1 (SECTION 4D)
P-34	3/4	PVC-GRS	3-1/C #12 & 1-1/C #12 GRD	THHN	EF-WP	DSC-EF-WP
P-35	3/4	PVC-GRS	3-1/C #12 & 1-1/C #12 GRD	THHN	DSC-EF-WP	MCC-1 (SECTION 4E)
P-36	3/4	PVC-GRS	3-1/C #12 & 1-1/C #12 GRD	THHN	EF-PR	DSC-EF-PR
P-37	3/4	PVC-GRS	3-1/C #12 & 1-1/C #12 GRD	THHN	DSC-EF-PR	MCC-1 (SECTION 4F)
P-38	3/4	GRS	2-1/C #12 & 1-1/C #12 GRD	THHN	SCADA PANEL SOURCE 1 SP-1	LP-1 (CIRCUIT 1)
P-39	3/4	GRS	2-1/C #12 & 1-1/C #12 GRD	THHN	SCADA PANEL SOURCE 2 SP-1	LP-1 (CIRCUIT 18)
P-40	3/4	GRS	2-1/C #12 & 1-1/C #12 GRD	THHN	ELECTRICAL ROOM RECPT	LP-1 (CIRCUIT 23)
P-41	3/4	PVC-GRS	2-1/C #12 & 1-1/C #12 GRD	THHN	GRADE FLOOR RECPT	LP-1 (CIRCUIT 5)
P-42	3/4	PVC-GRS	2-1/C #12 & 1-1/C #12 GRD	THHN	INTERMEDIATE FLOOR RECPT	LP-1 (CIRCUIT 9)
P-43	3/4	PVC-GRS	2-1/C #12 & 1-1/C #12 GRD	THHN	PUMP ROOM RECPT	LP-1 (CIRCUIT 4)
P-44	3/4	PVC-GRS	2-1/C #12 & 1-1/C #12 GRD	THHN	DRY PIT RECPT	LP-1 (CIRCUIT 6)
P-45	3/4	GRS	2-1/C #12 & 1-1/C #12 GRD	THHN	ELECTRICAL ROOM LIGHTS	LP-1 (CIRCUIT 12) VIA JBXLTG
P-46	3/4	PVC-GRS	2-1/C #12 & 1-1/C #12 GRD	THHN	GRADE FLOOR LIGHTS	LP-1 (CIRCUIT 7) VIA JBXLTG
P-47	3/4	PVC-GRS	2-1/C #12 & 1-1/C #12 GRD	THHN	INTERMEDIATE FLOOR LIGHTS	LP-1 (CIRCUIT 8)
P-48	3/4	PVC-GRS	2-1/C #12 & 1-1/C #12 GRD	THHN	PUMP ROOM LIGHTS	LP-1 (CIRCUIT 3) VIA JBXLTG
P-49	3/4	PVC-GRS	2-1/C #12 & 1-1/C #12 GRD	THHN	DRY PIT LIGHTS	LP-1 (CIRCUIT 10) VIA JBXLTG
P-50	3/4	GRS	2-1/C #12 & 1-1/C #12 GRD	THHN	GAS MONITOR GM-1	LP-1 (CIRCUIT 30)
P-51	3/4	GRS	2-1/C #12 & 1-1/C #12 GRD	THHN	EXTERIOR BUILDING LIGHTS	LP-1 (CIRCUIT 13)
P-52	3/4	GRS	2-1/C #12 & 1-1/C #12 GRD	THHN	EXT BLDG LIGHTING CONTACTOR	LP-1 (CIRCUIT 21)
P-53	3/4	GRS	2-1/C #12 & 1-1/C #12 GRD	THHN	EXT BLDG TIME CLOCK MOTOR	LP-1 (CIRCUIT 30)
P-54	3/4	GRS	2-1/C #12 & 1-1/C #12 GRD	THHN	ELEC RM SUPPLY FAN ER-SF	LP-1 (CIRCUIT 14)
P-55	3/4	GRS	2-1/C #12 & 1-1/C #12 GRD	THHN	FIRE ALARM PANEL FP-1	LP-1 (CIRCUIT 19)
P-56	3/4	GRS	2-1/C #12 & 1-1/C #12 GRD	THHN	AEGIS PANEL AP-1	LP-1 (CIRCUIT 2)
P-57	1	GRS	MANUFACTURERS HPI CABLE	-	LIGHTING PANEL SURGE PROTECTION SPD-2	LP-1 (CIRCUIT 32,34,36)
P-58	3/4	PVC-GRS	2-1/C #12 & 1-1/C #12 GRD	THHN	T-STAT 1	CS-EUH-DP-1
P-59	3/4	PVC-GRS	2-1/C #12 & 1-1/C #12 GRD	THHN	T-STAT 2	CS-EUH-DP-2
P-60	3/4	GRS	2-1/C #12 & 1-1/C #12 GRD	THHN	T-STAT 3	CS-SF-ER
P-61	3/4	PVC-GRS	2-1/C #12 & 1-1/C #12 GRD	THHN	T-STAT 4	CS-EUH-WP
P-62	3/4	PVC-GRS	2-1/C #12 & 1-1/C #12 GRD	THHN	T-STAT 5	CS-EUH-PR-1
P-63	3/4	PVC-GRS	2-1/C #12 & 1-1/C #12 GRD	THHN	T-STAT 6	CS-EUH-PR-2
P-64	3/4	GRS	2-1/C #12 & 1-1/C #12 GRD	THHN	T-STAT 7	CS-EUH-ER
P-65	5	HDPE	Utility Primary Cables	-	ComEd Riser Pole	PMT-A
P-66	5	HDPE	Spare	-	ComEd Riser Pole	PMT-A
P-67	1	GRS	3-1/C #3 & 1-1/C #8 GRD	THHN	MCC-1 (SECTION 4A)	PP-1
P-68	3/4	PVC-GRS	3-1/C #12 & 1-1/C #12 GRD	THHN	EUH-DP-1	DSC-EUH-DP-1
P-69	3/4	PVC-GRS	3-1/C #12 & 1-1/C #12 GRD	THHN	DSC-EUH-DP-1	PP-1 (CIRCUIT 13,15,17)
P-70	3/4	PVC-GRS	3-1/C #12 & 1-1/C #12 GRD	THHN	EUH-DP-2	DSC-EUH-DP-2
P-71	3/4	PVC-GRS	3-1/C #12 & 1-1/C #12 GRD	THHN	DSC-EUH-DP-2	PP-1 (CIRCUIT 14,16,18)
P-72	1	PVC-GRS	4-1/C #6 & 1-1/C #10 GRD	XHHW-2	EXISTING LIGHTING PANEL	LP-1(CIRCUIT

CONTROLS CONDUIT						
NUMBER	MIN SIZE (IN.)	TYPE	CONDUCTOR QUANTITY AND SIZE (AWG-KCMIL)	CABLE INSULATION	FROM	TO
C-1	3/4	PVC-GRS	1 X 3C-S & 1-1/C#14 GRD	PVC	GS2	GM-1
C-2	3/4	PVC-GRS	1 X 1 TWISTED SH PR CABLE	PVC	JBX0111	SP-1
C-3	3/4	PVC-GRS	1 X 3C-S & 1-1/C#14 GRD	PVC	GS1	GM-1
C-5	1	PVC	SPARE	-	GENERATOR	SP-1
C-6	2	PVC	12-1/C#14 & 1-1/C#14 GRD	THHN	GENERATOR	SP-1
C-7	1	GRS	1 X 1 TWISTED SH PR CABLE	PVC	GENERATOR	SP-1
C-8	1	PVC	8-1/C#14 & 1-1/C#14 GRD	THHN	GENERATOR	MCC-1
C-9	1	PVC-GRS	2-1/C#14 & 1-1/C#14 GRD	THHN	FSPF	SP-1
C-10	3/4	PVC-GRS	2-1/C#14 & 1-1/C#14 GRD	THHN	JBXLFP1	MCC-1 (SECTION 2B)
C-11	3/4	PVC-GRS	2-1/C#14 & 1-1/C#14 GRD	THHN	JBXMP1	MCC-1 (SECTION 1B)
C-12	3/4	PVC-GRS	2-1/C#14 & 1-1/C#14 GRD	THHN	JBXMP2	MCC-1 (SECTION 1C)
C-13	3/4	PVC-GRS	2-1/C#14 & 1-1/C#14 GRD	THHN	JBXMP3	MCC-1 (SECTION 2C)
C-14	1	PVC-GRS	10-1/C#14 & 1-1/C#14 GRD	THHN	CS-LFP1	MCC-1 (SECTION 2B)
C-15	1	PVC-GRS	10-1/C#14 & 1-1/C#14 GRD	THHN	CS-MP1	MCC-1 (SECTION 1B)
C-16	1	PVC-GRS	10-1/C#14 & 1-1/C#14 GRD	THHN	CS-MP2	MCC-1 (SECTION 1C)
C-17	1	PVC-GRS	10-1/C#14 & 1-1/C#14 GRD	THHN	CS-MP3	MCC-1 (SECTION 2C)
C-18	3/4	PVC-GRS	4-1/C#14 & 1-1/C#14 GRD	THHN	SPCP	SP-1
C-19	1	PVC-GRS	10-1/C#14 & 1-1/C#14 GRD	THHN	IG-1	MCC-1 (SECTION 3B)
C-20	3/4	PVC-GRS	6-1/C#14 & 1-1/C#14 GRD	THHN	IG-1	SP-1
C-21	1	PVC-GRS	10-1/C#14 & 1-1/C#14 GRD	THHN	RG-1	MCC-1 (SECTION 3C)
C-22	3/4	PVC-GRS	6-1/C#14 & 1-1/C#14 GRD	THHN	RG-1	SP-1
C-23	1	PVC-GRS	10-1/C#14 & 1-1/C#14 GRD	THHN	DG-1	MCC-1 (SECTION 3D)
C-24	3/4	PVC-GRS	6-1/C#14 & 1-1/C#14 GRD	THHN	DG-1	SP-1
C-25	3/4	PVC-GRS	2-1/C#14 & 1-1/C#14 GRD	THHN	DS-1	AP-1
C-26	3/4	PVC-GRS	2-1/C#14 & 1-1/C#14 GRD	THHN	DS-2	AP-1
C-27	3/4	PVC-GRS	2-1/C#14 & 1-1/C#14 GRD	THHN	DS-3	AP-1
C-28	3/4	PVC-GRS	2-1/C#14 & 1-1/C#14 GRD	THHN	DS-4	AP-1
C-29	3/4	PVC-GRS	2-1/C#14 & 1-1/C#14 GRD	THHN	DS-5	AP-1
C-30	3/4	PVC-GRS	2-1/C#14 & 1-1/C#14 GRD	THHN	DS-6	AP-1
C-31	3/4	PVC-GRS	2-1/C#14 & 1-1/C#14 GRD	THHN	DS-7	AP-1
C-32	1 1/2	PVC-GRS	16-1/C#14 & 1-1/C#14 GRD	THHN	JBX-FS	SP-1
C-33	3/4	GRS	1 x 1 TWISTED SH PR CABLE	PVC	JBX0121	SP-1
C-34	3/4	GRS	1 x 1 TWISTED SH PR CABLE	PVC	JBX0121	LIT-0121S
C-35	3/4	PVC-GRS	4-1/C#14 & 1-1/C#14 GRD	THHN	KS1	AP-1
C-36	3/4	PVC-GRS	2-1/C#14 & 1-1/C#14 GRD	THHN	KS1	SP-1
C-37	3/4	GRS	1 x 1 TWISTED SH PR CABLE	PVC	JBX0131	SP-1
C-39	1	GRS	6-1/C#14 & 1-1/C#14 GRD	THHN	GM-1	SP-1
C-40	1	GRS	12-1/C#14 & 1-1/C#14 GRD	THHN	JBXLTG	SP-1
C-41	3/4	GRS	1 X 1 TWISTED SH PR CABLE	PVC	LIT-0121S	SP-1
C-42	3/4	GRS	6-1/C#14 & 1-1/C#14 GRD	THHN	LIT-0121S	SP-1
C-43						
C-44	1	GRS	6 x 1 CAT-5e CABLE	CAT-5e	NET-1	SP-1
C-45	1	GRS	18-1/C#14 & 4-1/C#14 GRD	THHN	NET-1	SP-1
C-46	1	GRS	2 X 1 VIDEO CABLES	PVC	NET-1	SP-1
C-47	1 1/2	GRS	4-1/C#12 & 1-1/C#14 GRD (HMI PWR CORDS MAY BE SUBSTITUTED)	THHN	NET-1	SP-1
C-48	3/4	GRS	2 x 1 CAT-5e CABLE	CAT-5e	SPD-1	NET-1
C-49	3/4	GRS	2-1/C#14 & 1-1/C#14 GRD	THHN	SPD-2	SP-1
C-50	3/4	GRS	6-1/C#14 & 1-1/C#14 GRD	THHN	FP-1	SP-1
C-51	3/4	GRS	2-1/C#14 & 1-1/C#14 GRD	THHN	FP-1	AP-1
C-52	1	GRS	14-1/C#14 & 1-1/C#14 GRD	THHN	AP-1	SP-1
C-53	3/4	GRS	1 x 1 CAT-5e CABLE	CAT-5e	AP-1	TELEPHONE
C-54	3/4	GRS	2 x 1 CAT-5e CABLE	CAT-5e	MCC-1	NET-1
C-55	1	GRS	4 X 1 TWISTED SH PR CABLE	PVC	MCC-1	SP-1
C-56	2	GRS	62-1/C#14 & 1-1/C#14 GRD	THHN	MCC-1	SP-1
C-57	2	GRS	62-1/C#14 & 1-1/C#14 GRD	THHN	MCC-1	SP-1
C-58	2	GRS	6 STRAND SINGLEMODE FIBER	DIELECTRIC	NET-1	TRAFFIC CONTROL
C-59	3/4	GRS	4-1/C#14 & 1-1/C#14 GRD	THHN	SD-1, SD-2	FP-1
C-60	3/4	GRS	4-1/C#14 & 1-1/C#14 GRD	THHN	FAPS-1, -2	FP-1
C-61	3/4	GRS	2-1/C#14 & 1-1/C#14 GRD	THHN	FAHS-1	FP-1
C-62	3/4	PVC-GRS	4-1/C#14 & 1-1/C#14 GRD	THHN	HD-1, -2	FP-1
C-63	3/4	PVC-GRS	2-1/C#14 & 1-1/C#14 GRD	THHN	FAPS-3	FP-1
C-64	3/4	PVC-GRS	2-1/C#14 & 1-1/C#14 GRD	THHN	FAHS-2	FP-1
C-65	3/4	PVC-GRS	2-1/C#14 & 1-1/C#14 GRD	THHN	FAPS-4	FP-1
C-66	3/4	PVC-GRS	2-1/C#14 & 1-1/C#14 GRD	THHN	FAS-1	FP-1
C-67	3/4	PVC-GRS	4-1/C#14 & 1-1/C#14 GRD	THHN	HD-5, -6	FP-1
C-68	3/4	PVC-GRS	2-1/C#14 & 1-1/C#14 GRD	THHN	FAPS-5	FP-1
C-69	3/4	PVC-GRS	2-1/C#14 & 1-1/C#14 GRD	THHN	FAHS-3	FP-1
C-70	3/4	PVC-GRS	2-1/C#14 & 1-1/C#14 GRD	THHN	HD-3	FP-1
C-71	3/4	PVC-GRS	2-1/C#14 & 1-1/C#14 GRD	THHN	FAPS-6	FP-1
C-72	3/4	PVC-GRS	2-1/C#14 & 1-1/C#14 GRD	THHN	FAS-2	FP-1
C-73	3/4	PVC-GRS	2-1/C#14 & 1-1/C#14 GRD	THHN	HD-4	FP-1



USER NAME = SBREMER	DESIGNED - JRR	REVISED -
PLOT SCALE = AS NOTED	CHECKED - JAB	REVISED -
PLOT DATE = 08/09/24	DATE - 08-08-2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 37 ELECTRICAL POWER AND CONTROLS CONDUIT SCHEDULES			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

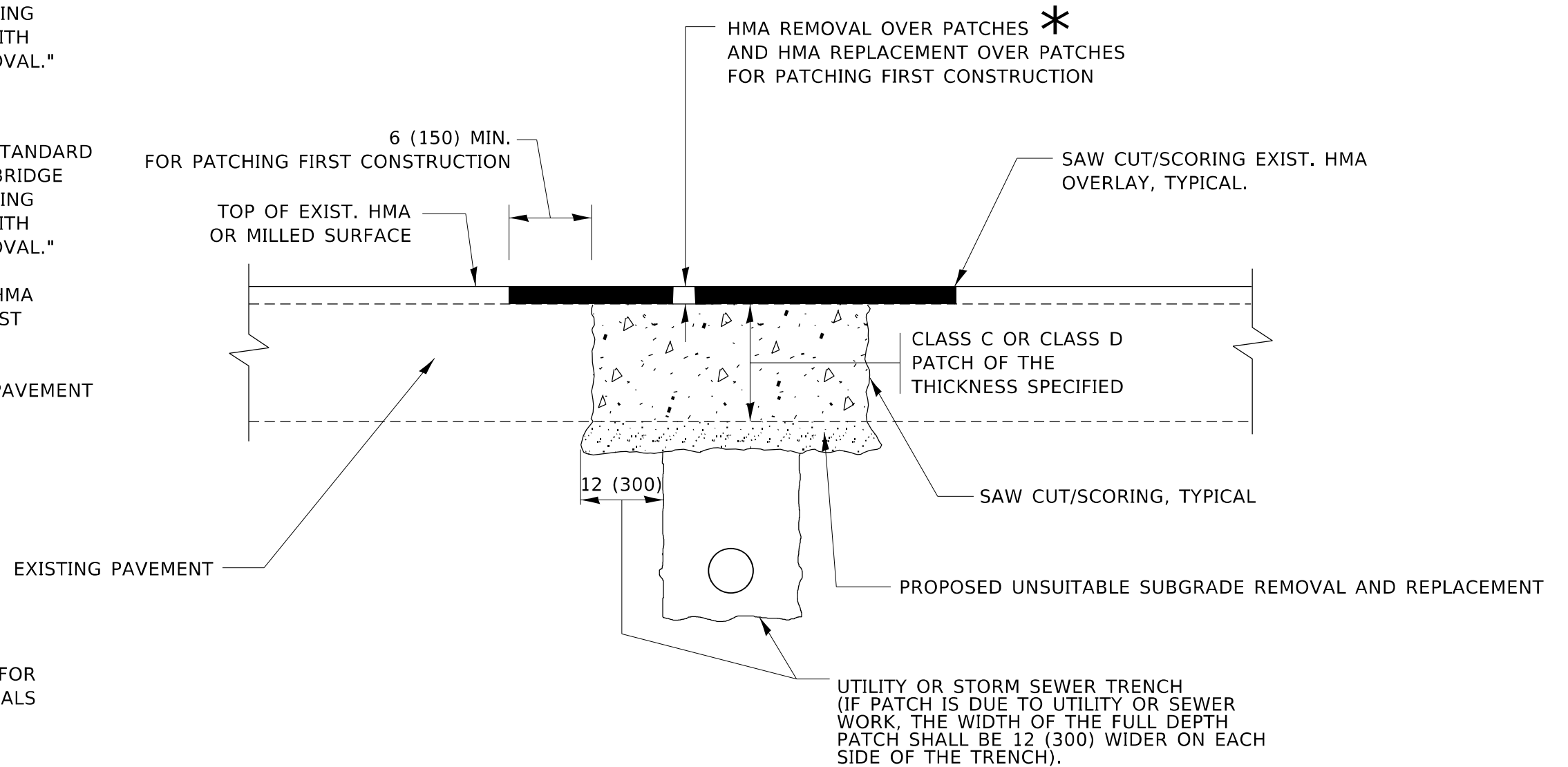
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)4	LAKE</		

METHOD OF MEASUREMENT

REFER TO SECTION 442 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL."

BASIS OF PAYMENT

1. REFER TO SECTION 442 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL."
2. SAW CUT/SCORING OF EXISTING HMA OVERLAY IS INCLUDED IN THE COST OF PAVEMENT PATCHING.
3. SAW CUT/SCORING OF EXISTING PAVEMENT IS INCLUDED IN THE COST OF PAVEMENT PATCHING.



* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

1. MILL HMA FIRST IF THERE IS AT LEAST 4½ INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

MODEL: Default FILE: hma1822.dwg PLOT DATE: 11/18/2022 PROJECT: I110000001001 OFFICE: District 11 PROJECT: I110000001001

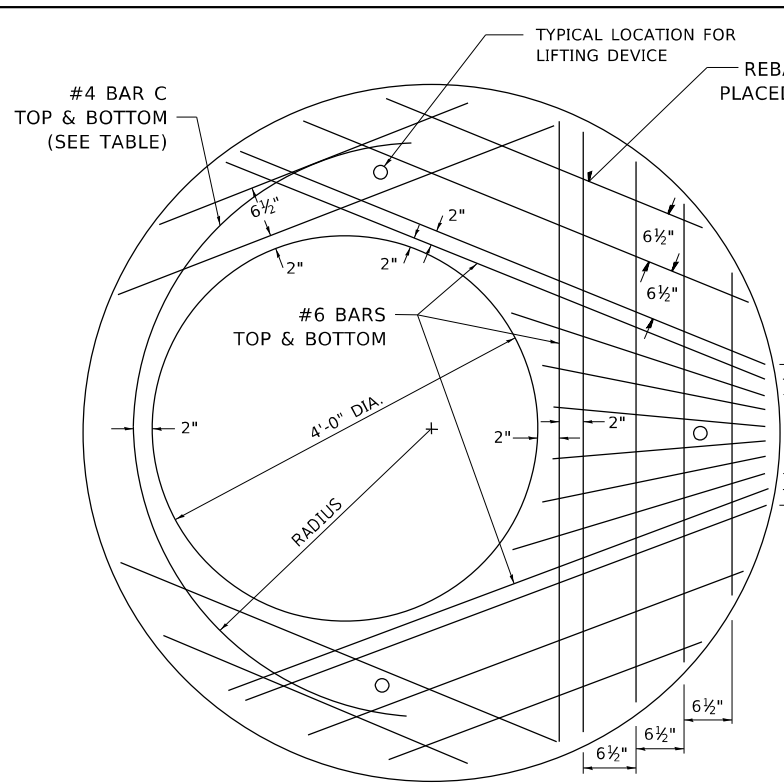
USER NAME = Lawrence,DeManche	DESIGNED - R. SHAH	REVISED - R. BORO 01-01-07
	DRAWN -	REVISED - R. BORO 09-04-07
PLOT SCALE = 100,0000 ' / in.	CHECKED -	REVISED - K. ENG 10-27-08
PLOT DATE = 11/18/2022	DATE - 10-25-94	REVISED - K. SMITH 11-18-22

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT PATCHING FOR
HMA SURFACED PAVEMENT**

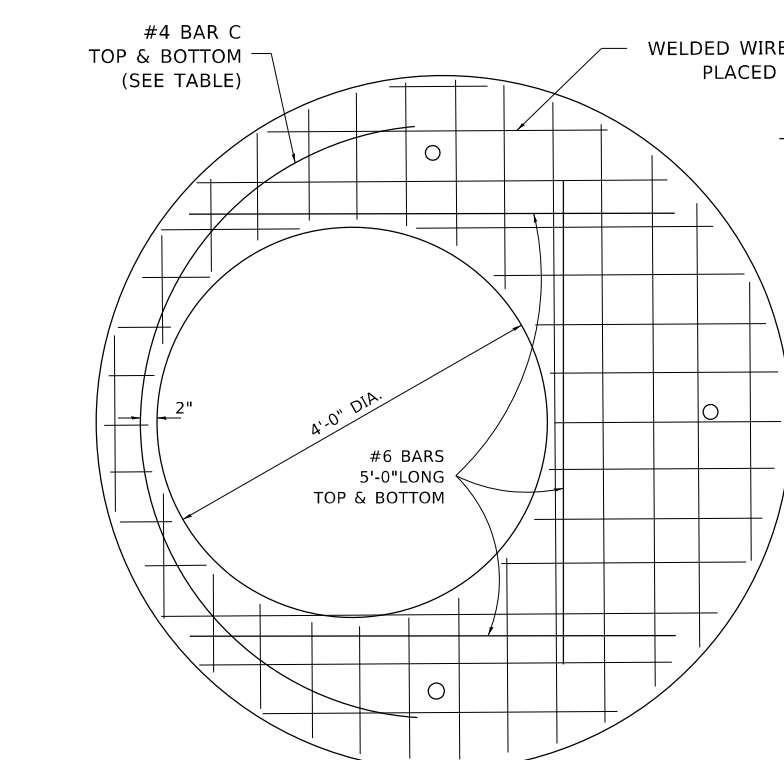
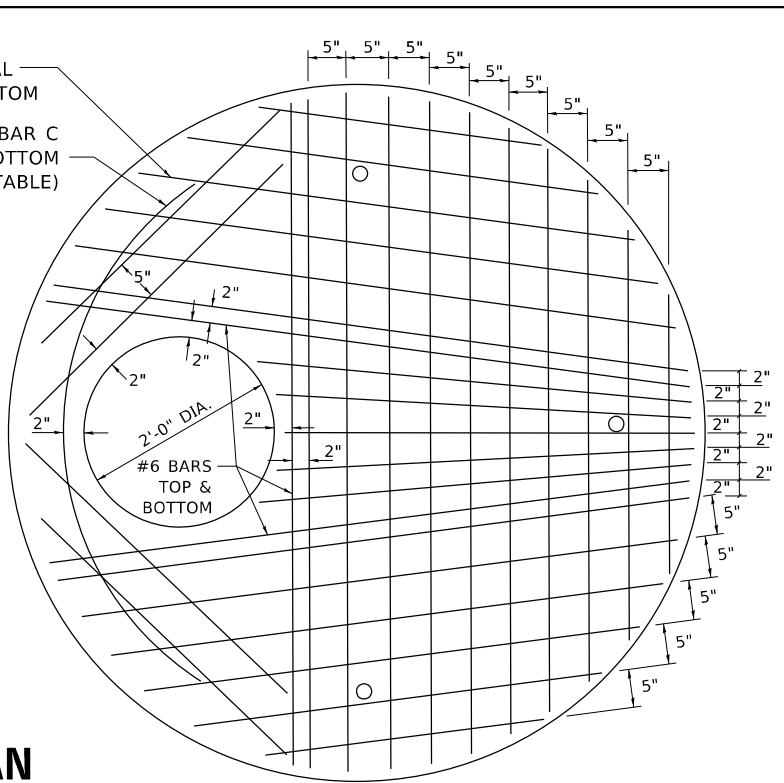
SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE. 346	SECTION (125S-1)1-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 178
BD400-04 (BD-22)		CONTRACT NO. 62B66		
ILLINOIS FED. AID PROJECT				



PLAN

SHOWING REBAR REINFORCEMENT

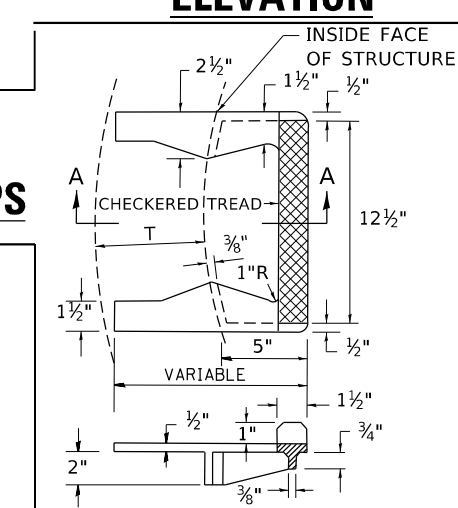


PLAN

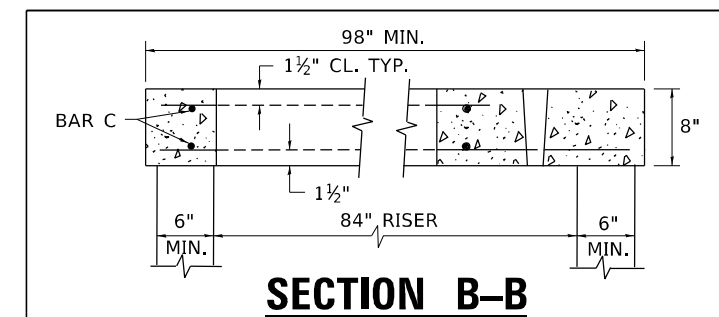
SHOWING WELDED WIRE FABRIC REINFORCEMENT

NOTE:
THIS STRUCTURE SHOULD BE USED WITH PIPES
SIZE 54" DIA. OR SMALLER.

**SEC. A-A
CAST IRON STEPS**

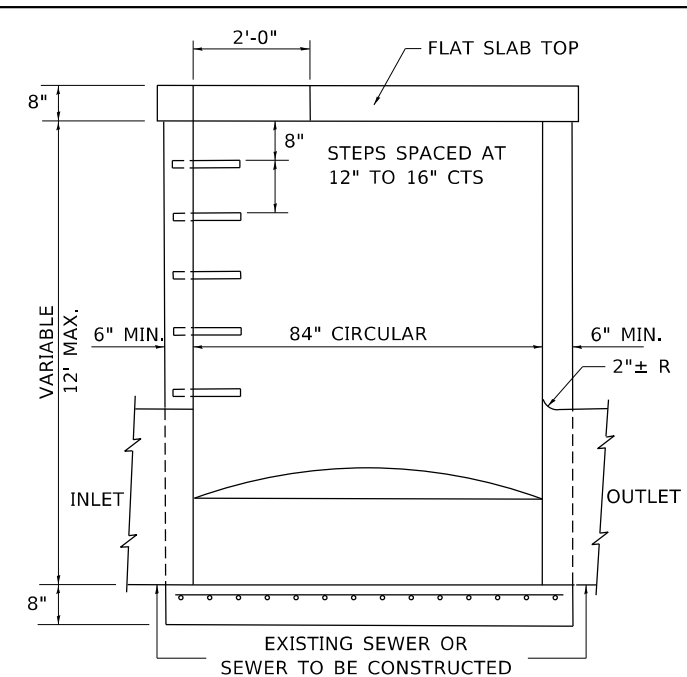


ELEVATION

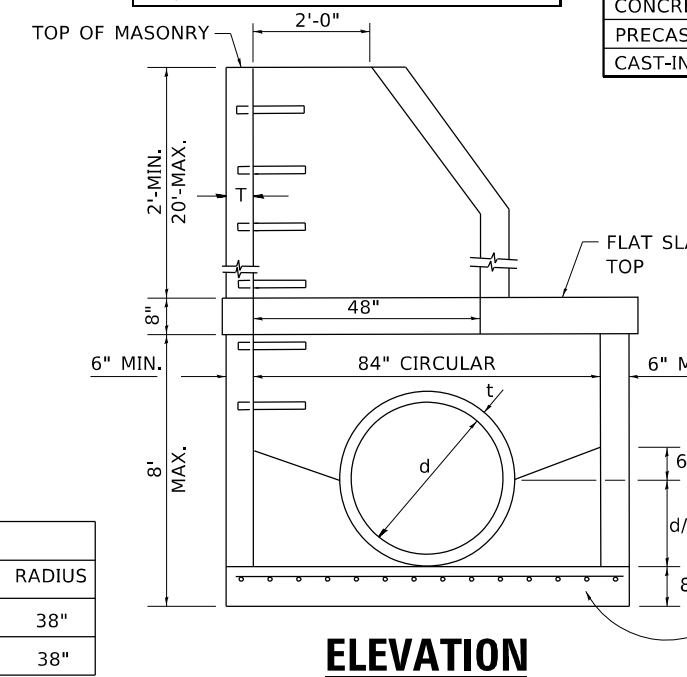


SECTION B-B

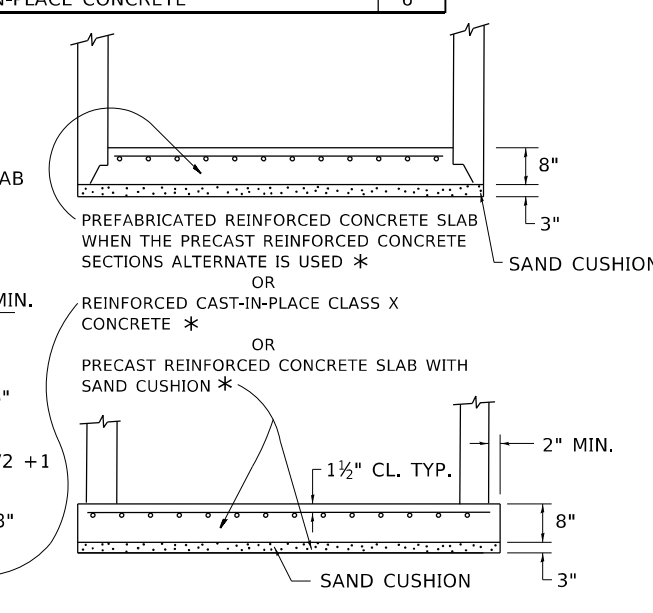
ALTERNATE MATERIALS FOR RISERS	T (MIN.)
CONCRETE MASONRY UNITS	5"
PRECAST REINFORCED CONCRETE SECTIONS	4"
CAST-IN-PLACE CONCRETE	6"



ELEVATION



ELEVATION



DIAMETER OF OPENING	REINFORCEMENT "A _s " WWF OR BAR SIZE EACH DIRECTION	BAR SIZE	BAR C		
			SIZE	LENGTH	RADIUS
2'-0"	1.06 SQ.IN./LIN.FT.	#6	#4	6'-0"	38"
4'-0"	0.82 SQ.IN./LIN.FT.	#6	#4	9'-0"	38"

GENERAL NOTES

ALTERNATE MATERIAL FOR THE WALLS MAY BE CONCRETE MASONRY UNITS, PRECAST REINFORCED CONCRETE SECTIONS OR CAST-IN-PLACE CONCRETE. THE CAST IRON STEPS AS DETAILED HEREON ARE TYPICAL. STEPS OF OTHER DESIGN AND MATERIAL THAT CONFORM TO THE MINIMUM REQUIREMENTS OF THE STEPS SHOWN MAY BE USED WHEN APPROVED BY THE ENGINEER.

CAST IRON STEPS SHALL BE GRAY IRON CONFORMING TO THE REQUIREMENTS OF ARTICLE 1006.14 OF THE STANDARD SPECIFICATIONS.

STEPS SHALL BE EMBEDDED INTO THE WALL A MINIMUM OF THREE (3) INCHES. STEPS SHALL NOT BE EXTENDED ON THE OUTSIDE.

STEPS SHALL BE OMITTED FOR WORK IN COOK COUNTY WHEN THE DEPTH OF THE MANHOLE IS TEN (10') OR LESS.

IN ADDITION TO THE REQUIREMENTS OF ARTICLE 612.13 OF THE STANDARD SPECIFICATIONS, THE CONTRACT UNIT PRICE FOR MANHOLES, TYPE A, 7'-DIAMETER SHALL INCLUDE THE SAND CUSHION WHEN REQUIRED, FURNISHING AND INSTALLING STEPS WHEN REQUIRED, FURNISHING AND COMPACTING THE SPECIFIED BACKFILL MATERIAL, AND FURNISHING AND INSTALLING FLAT SLAB TOP.

PRECAST FLAT SLAB TOP SHALL CONFORM TO ARTICLES 505.01 THRU 505.05 OF THE STANDARD SPECIFICATIONS EXCEPT THAT THE CONCRETE STRENGTH SHALL BE 4,000 PSI AFTER 28 DAYS. REINFORCEMENT BARS AND WELDED WIRE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF ARTICLE 1006.10. ONLY GRADE 60 REINFORCEMENT BARS WILL BE PERMITTED.

BOTTOM SLAB SHALL BE REINFORCED BY EITHER REINFORCEMENT BARS OR WELDED WIRE FABRIC. THE MINIMUM REINFORCEMENT SHALL BE 0.46 SQUARE INCH PER LINEAR FOOT IN BOTH DIRECTIONS.

JOINT CONFIGURATION AND DIMENSIONS OF FLAT SLAB TOP SHALL MATCH AND FIT THE RISER JOINT DETAIL.

LIFTING DEVICES SHALL BE APPROVED BY THE ENGINEER.

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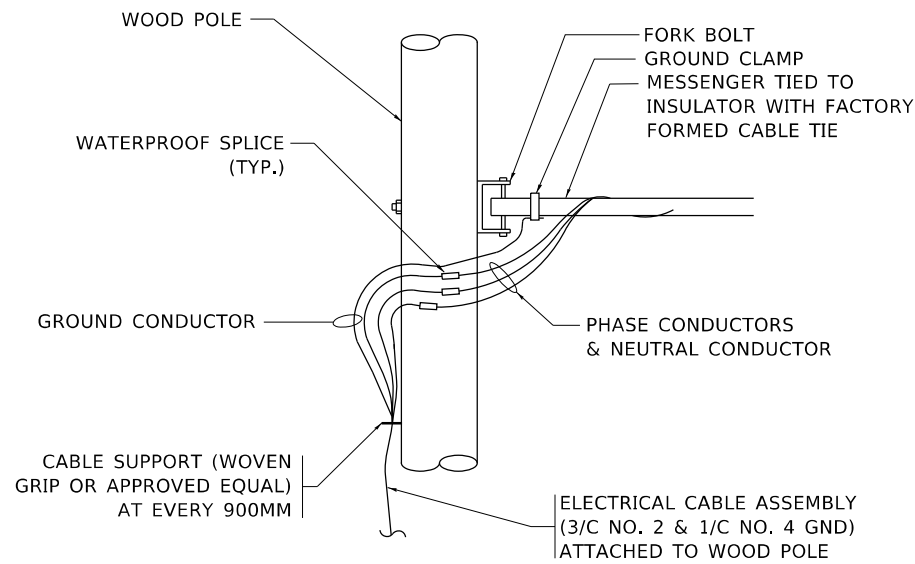
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

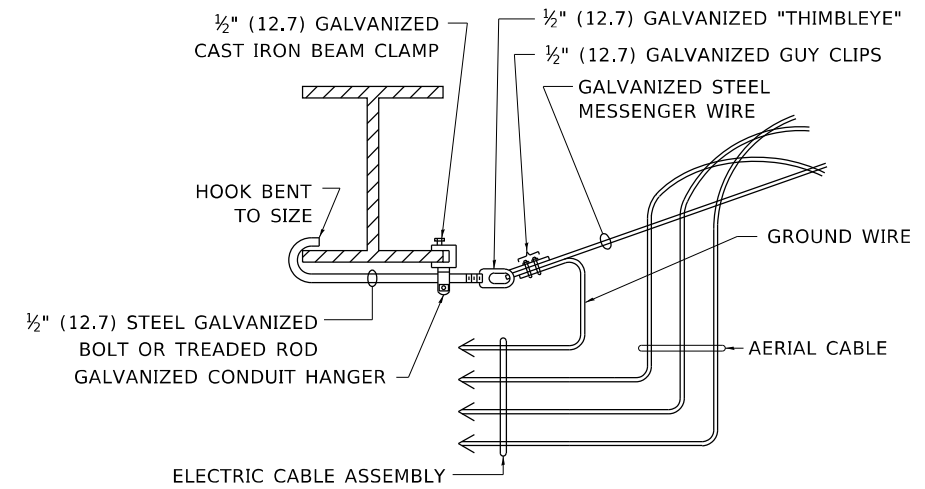
MANHOLE TYPE A
7 FOOT DIAMETER

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

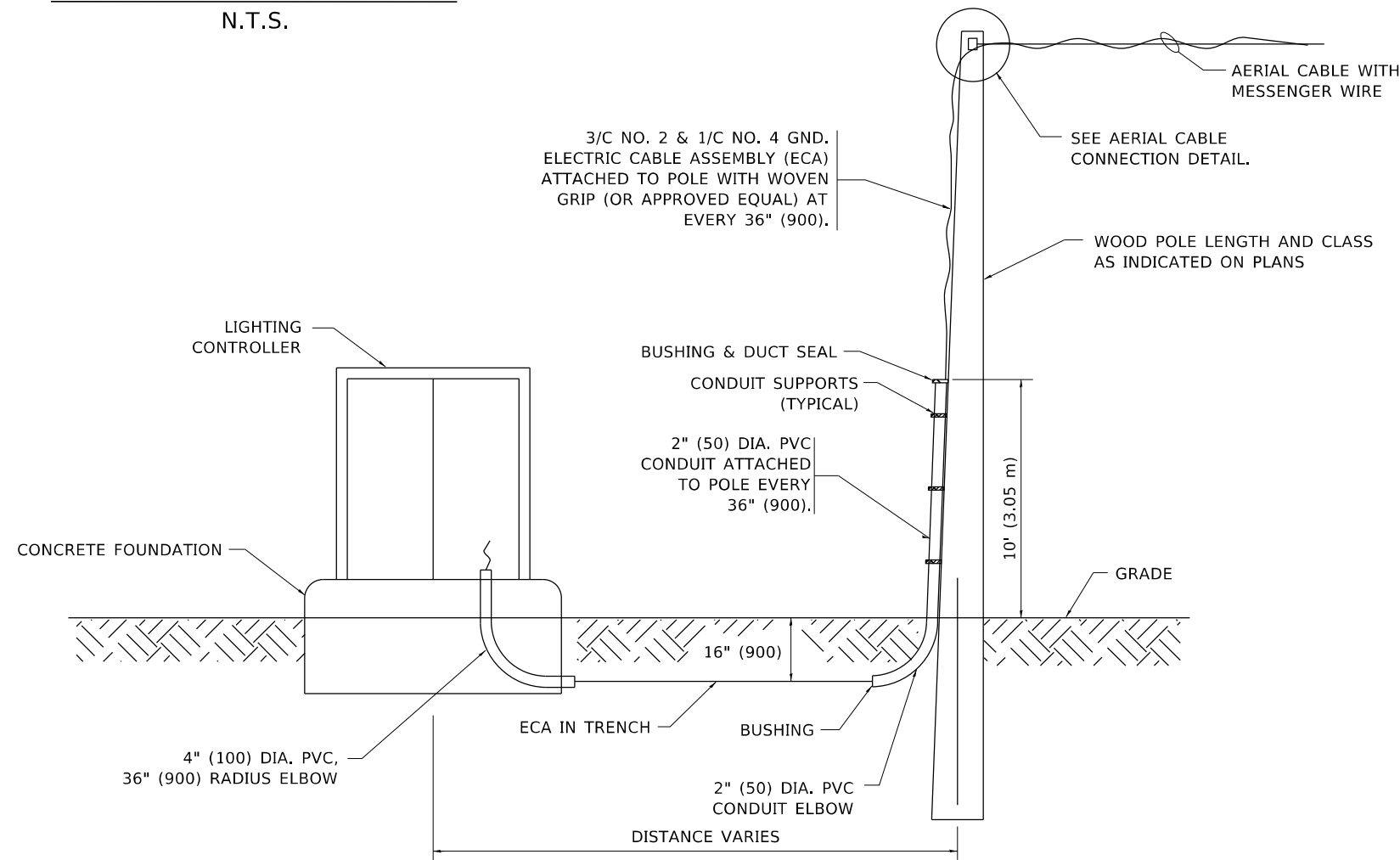
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BD600-11 (BD-37)		CONTRACT NO. 62B66		
ILLINOIS FED. AID PROJECT				



AERIAL CABLE CONNECTION DETAIL
N.T.S.



AERIAL CABLE ATTACHED TO STRUCTURE
NOT TO SCALE



WOOD POLE TO LIGHTING CONTROLLER WIRING CONNECTION DETAIL
N.T.S.

NOTES:

1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED.
2. SEE PROPOSED LIGHTING PLAN FOR CONDUIT, CABLE AND ROUTING.
3. THE CONTRACTOR SHALL PROVIDE INTERMEDIATE SUPPORTS TO MAINTAIN MINIMUM CLEARANCES. REFER TO AERIAL AERIAL CABLE ATTACHED TO STRUCTURE DETAIL.
4. COST OF SPLICES AND MOUNTING HARDWARE SHALL BE INCLUDED IN THE UNIT PRICE FOR AERIAL CABLE.

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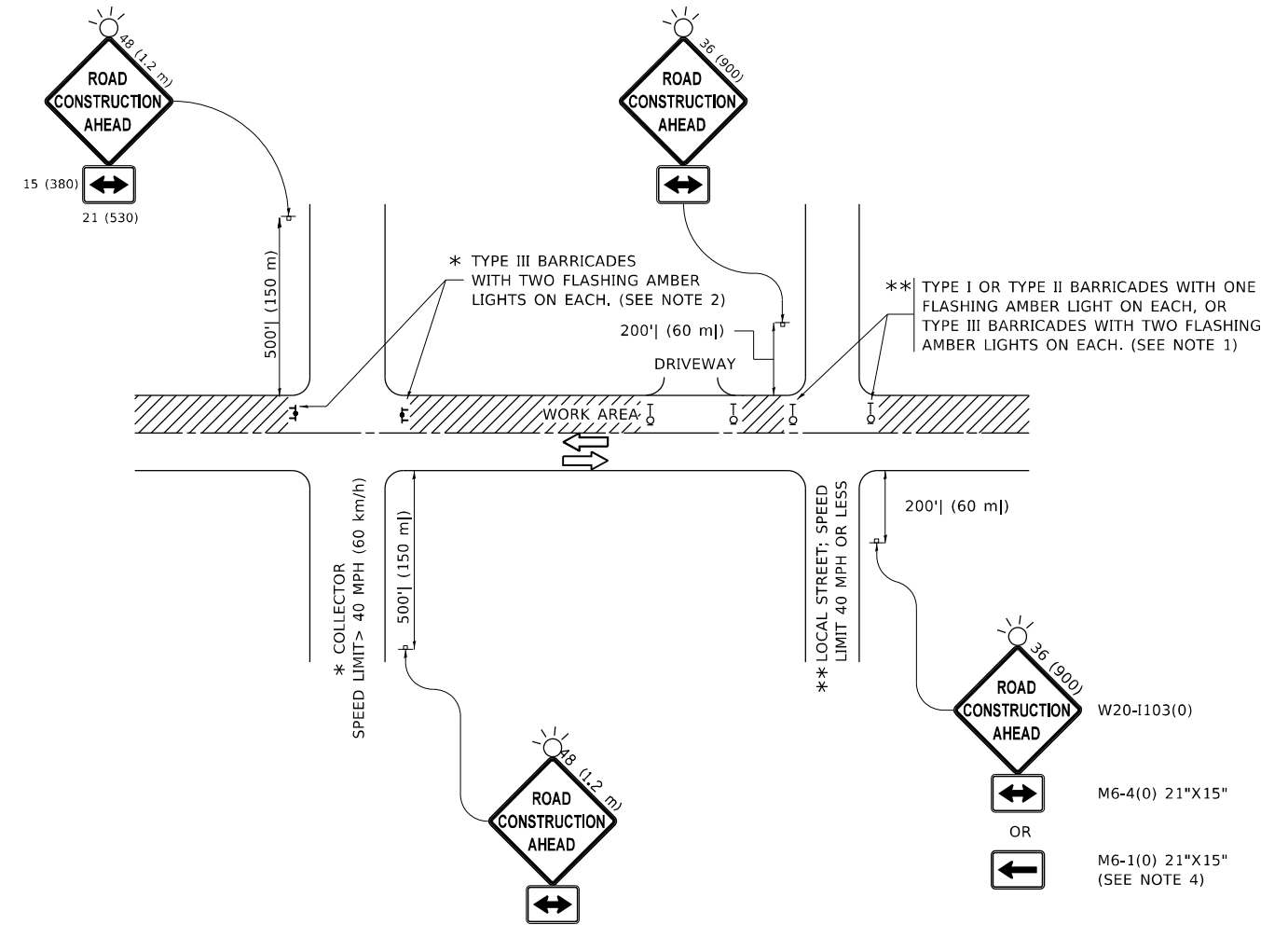
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TEMPORARY AERIAL CABLE INSTALLATION

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	181
BE-801		CONTRACT NO. 62B66		
ILLINOIS FED. AID PROJECT				



NOTES:

- SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - ONE "ROAD CONSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
- SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - ONE "ROAD CONSTRUCTION AHEAD" SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
 - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
- SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
- WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
- ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
- THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in inches (millimeters) unless otherwise shown.

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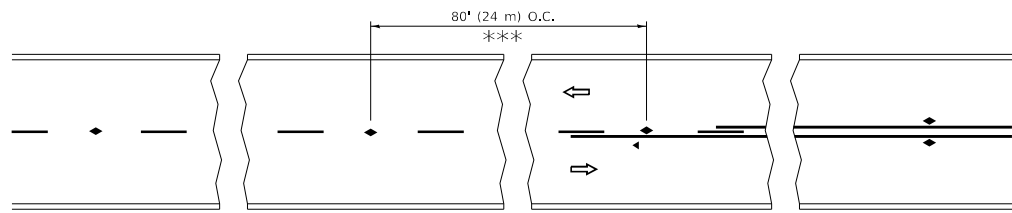
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PLOT DATE = 5/3/2024	DATE - 06-89	REVISED - D. SENDERAK 05-03-24

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL AND PROTECTION FOR
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS**

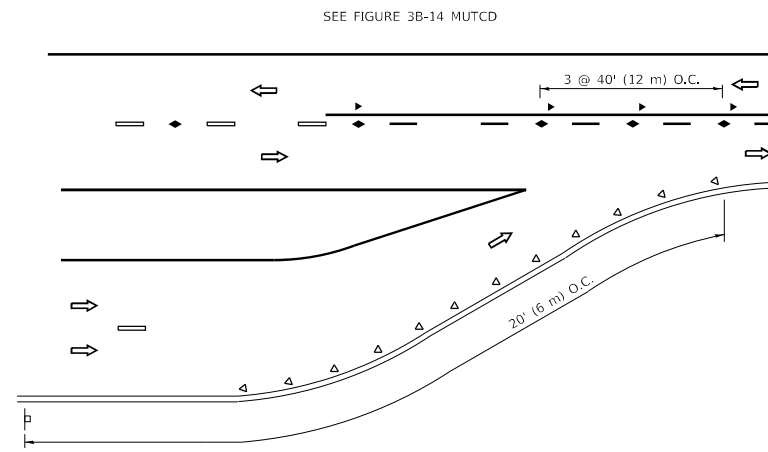
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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TC-10			CONTRACT NO. 62B66	
ILLINOIS FED. AID PROJECT				

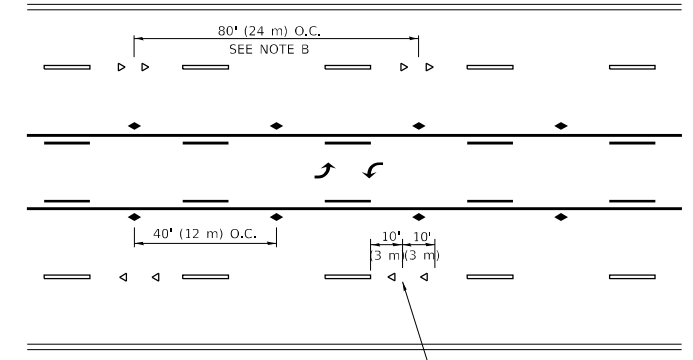


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

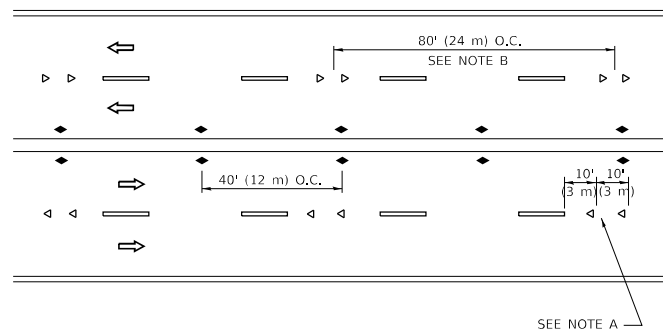
TWO-LANE/TWO-WAY



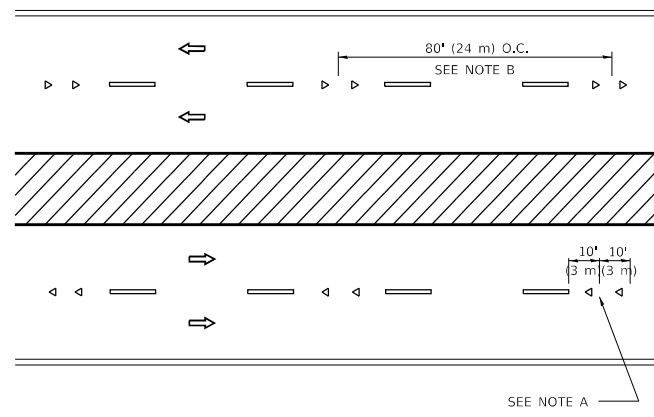
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.
4. MARKERS ARE TO BE USED ADJACENT TO BOTH SOLID WHITE LINES IN DUAL LEFT TURN LANES

SYMBOLS

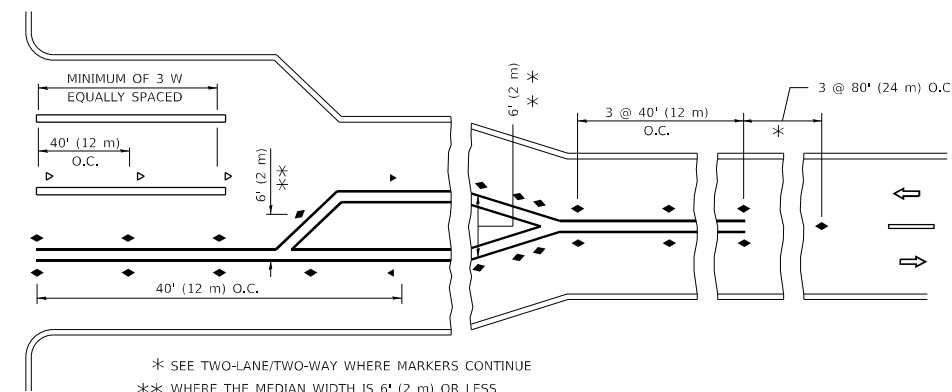
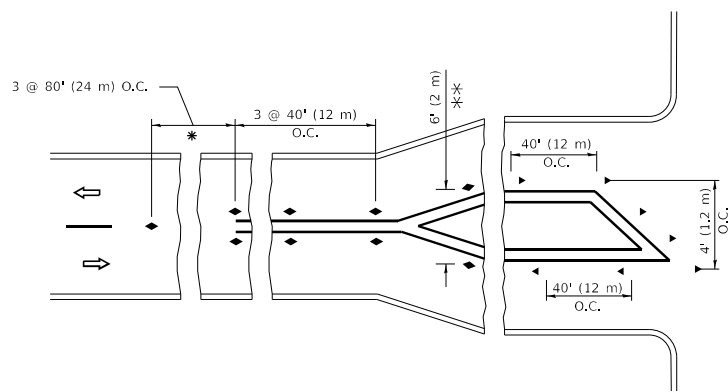
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◀ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



TURN LANES

* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE
 *** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

All dimensions are in inches (millimeters) unless otherwise shown.

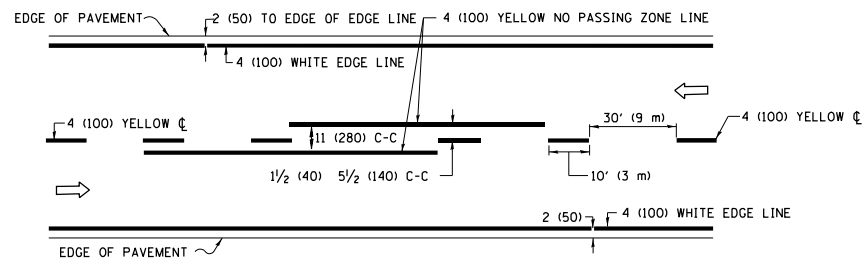
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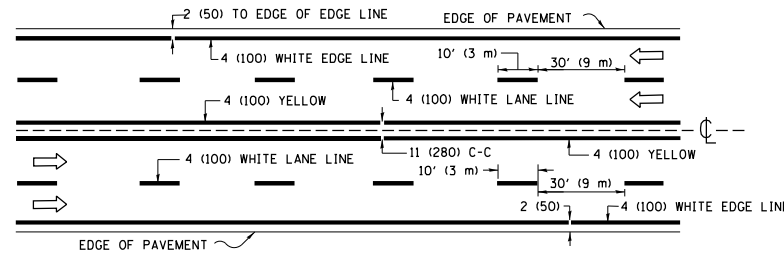
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TYPICAL APPLICATIONS			
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)			
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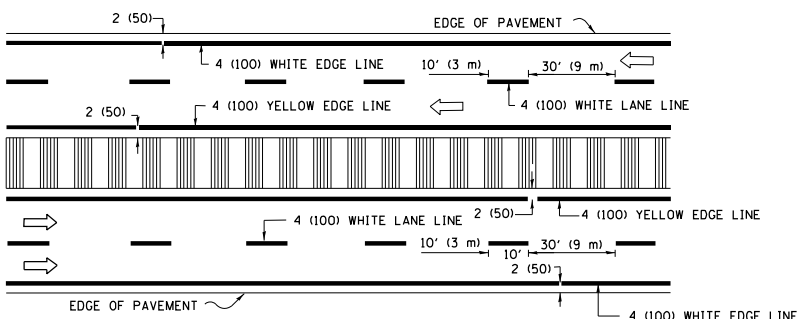
F.A.P. RTE. 346	SECTION (125S-1)I-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 183
TC-11		CONTRACT NO. 62B66		
ILLINOIS		FED. AID PROJECT		



2-LANE ROADWAY

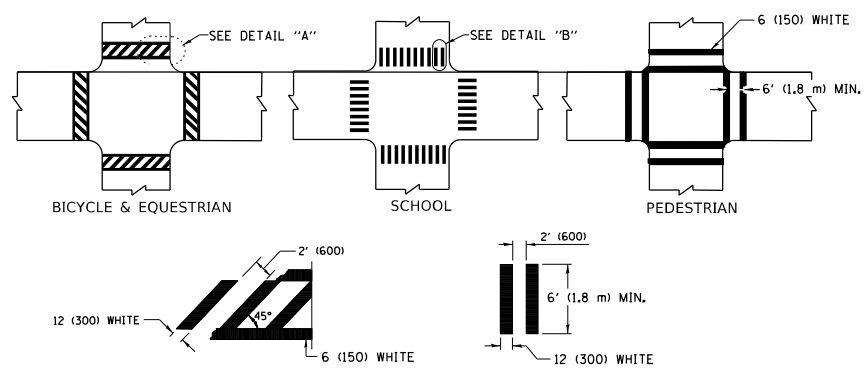


MULTI-LANE UNDIVIDED



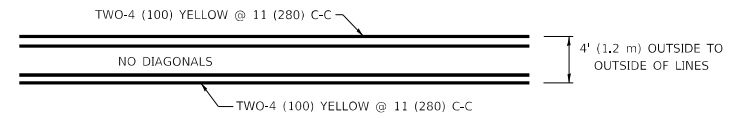
MULTI-LANE DIVIDED WITH MEDIAN

TYPICAL LANE AND EDGE LINE MARKING

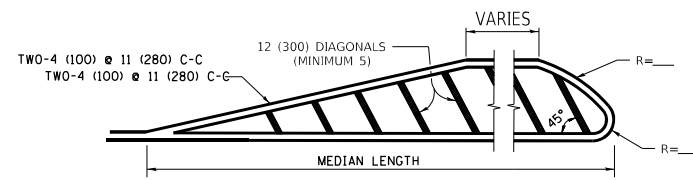


TYPICAL CROSSWALK MARKING

* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES



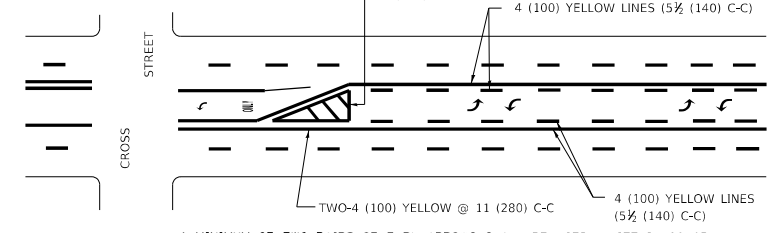
4' (1.2 m) WIDE MEDIANS ONLY



MEDIANS OVER 4' (1.2 m) WIDE

FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))



MEDIAN WITH TWO-WAY LEFT TURN LANE
TYPICAL PAINTED MEDIAN MARKING

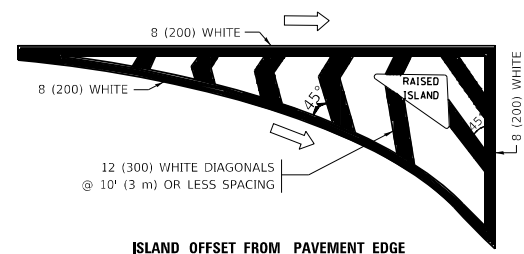
A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.

FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)

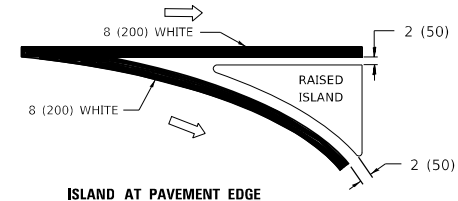
* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

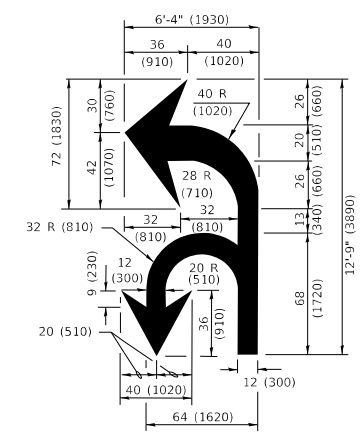
TYPICAL TURN LANE MARKING



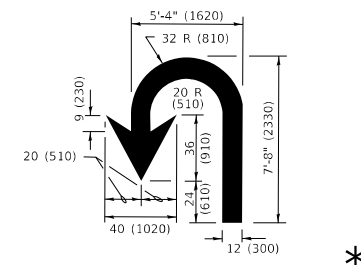
ISLAND OFFSET FROM PAVEMENT EDGE



TYPICAL ISLAND MARKING



COMBINATION LEFT AND U-TURN



U-TURN

LANE REDUCTION TRANSITION

* LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

D(FT)	SPEED LIMIT
345	30
425	35
500	40
580	45
665	50
750	55

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MEDIANS IN YELLOW
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES "RR" IS 8' (1.8 m) LETTERS: 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²)
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS ≥ 8')	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

All dimensions are in inches (millimeters) unless otherwise shown.

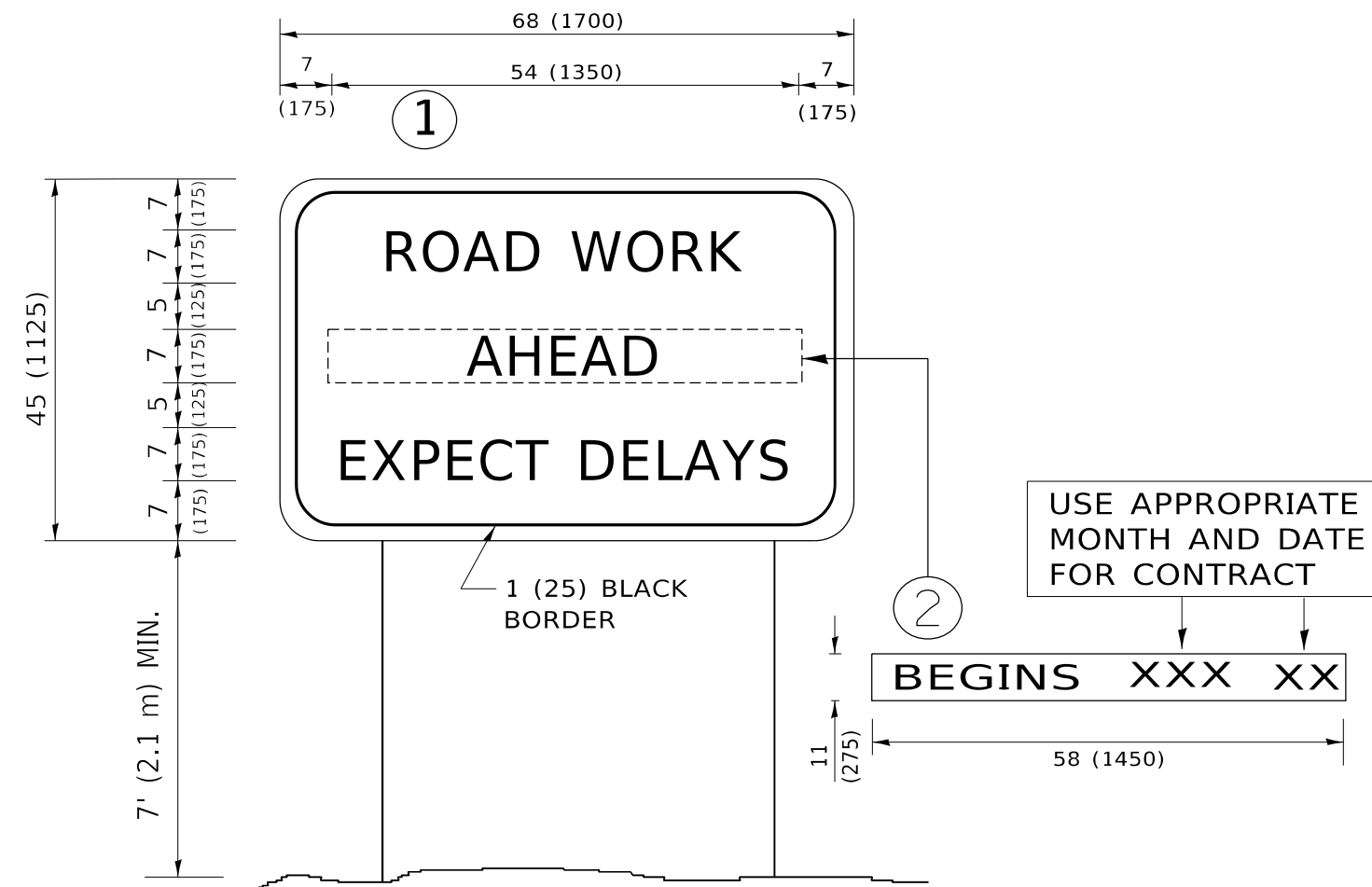
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		REVISED - C. JUCIUS 04-12-16

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SCALE: NONE		SHEET 1 OF 2 SHEETS		STA. TO STA.
DISTRICT ONE TYPICAL PAVEMENT MARKINGS				

F.A.P. RTE. 346	SECTION (125S-1)J-4	COUNTY LAKE	TOTAL SHEETS 186	SHEET NO. 184
TC-13		CONTRACT NO. 62B66		
ILLINOIS FED. AID PROJECT				



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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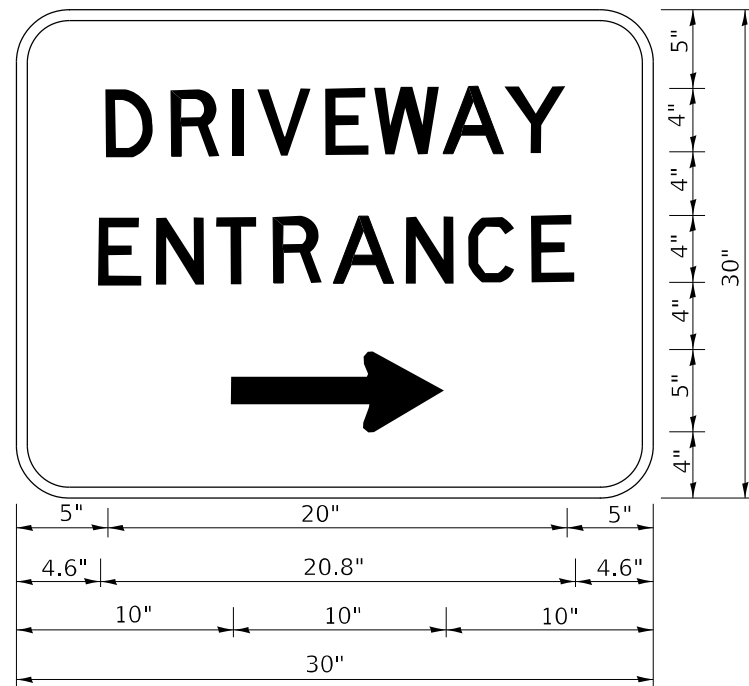
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PLOT DATE = 3/4/2019	DATE -	REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD
INFORMATION SIGN**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	185
TC-22			CONTRACT NO. 62B66	
ILLINOIS FED. AID PROJECT				



3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED
 "DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" x 5.0"

NOTES:

1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE PLACED BACK-TO-BACK: ONE WITH A RIGHT HAND ARROW (SHOWN) SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE FAR LEFT SIDE OF THE DRIVEWAY.
3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

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USER NAME = lleya	DESIGNED -	REVISED - C. JUCIUS 02-15-07
	DRAWN -	REVISED -
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 8/6/2021	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

DRIVEWAY ENTRANCE SIGNING

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(125S-1)I-4	LAKE	186	186
TC-26		CONTRACT NO. 62B66		
		ILLINOIS	FED. AID PROJECT	