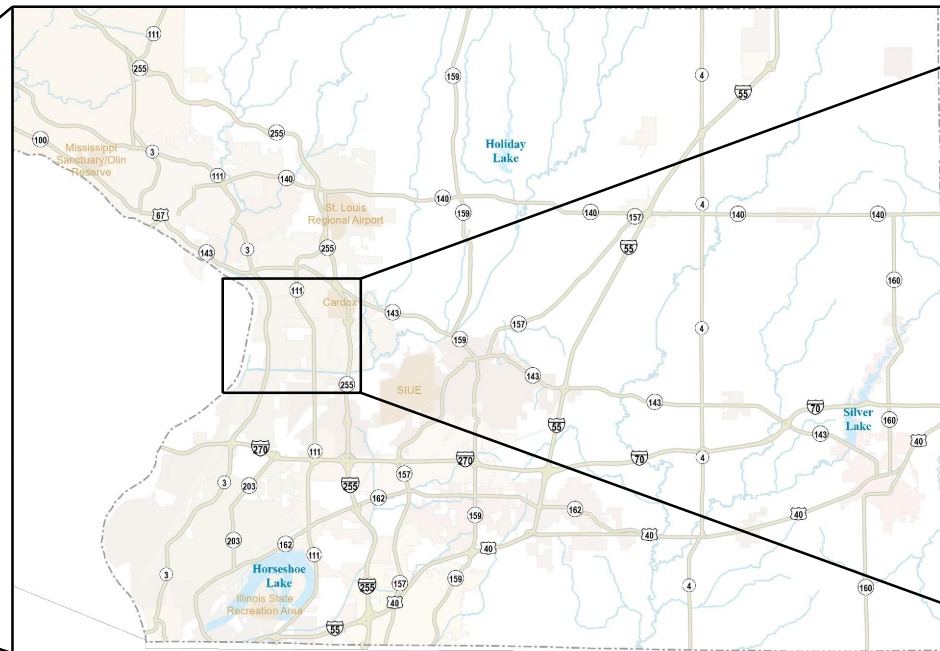


WOOD RIVER DRAINAGE AND LEVEE DISTRICT RAND AVENUE PUMP STATION EFFLUENT PIPING REPLACEMENT AND REHABILITATION

HARTFORD, ILLINOIS
OCTOBER 2024



ILLINOIS



PROJECT LOCATION MAP



PROJECT SITE MAP
RAND AVENUE PUMP STATION
133 WEST RAND AVENUE
HARTFORD, ILLINOIS, 62048

PREPARED FOR



543 WEST MADISON AVENUE
WOOD RIVER, ILLINOIS, 62095

ISSUED FOR BID SUBMITTAL

PREPARED BY



12400 OLIVE BLVD., SUITE 120
ST. LOUIS, MISSOURI 63141
636-536-7042
636-400-7047

INDEX

SHEET NUMBER DRAWING NUMBER DRAWING DESCRIPTION

001 - GENERAL


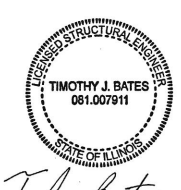
1	001-G-0	COVER
2	001-G-1	DRAWING INDEX
3	001-G-2	GENERAL LEGEND, SYMBOLS, AND ABBREVIATIONS
4	001-G-3	CIVIL LEGEND

002 - SITE DEVELOPMENT

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6	002-CK-2	SURVEY KEY
7	002-CER-1	EROSION CONTROL & RESTORATION PLAN
8	002-CER-2	RESTORATION PLAN, SMS ENGINEERS
9	002-CP-1	CIPP REHABILITATION PLAN AND PROFILE
10	002-CP-2	RIVERSIDE EFFLUENT PIPING PLAN AND PROFILE
11	002-CP-2-ALT	RIVERSIDE EFFLUENT PIPING PLAN AND PROFILE ALTERNATE


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13	999-CD-2	DETAILS BY OTHERS
14	999-CD-3	CIVIL DETAILS
15	999-CD-4	CIVIL DETAILS
16	999-MD-1	PROCESS DETAILS
17	999-SD-1	STRUCTURAL DETAILS

		
<p>_____ JEFFREY A. GRATZER NAME</p> <p>_____ SENIOR ENGINEER TITLE</p> <p>_____ DONOHUE & ASSOCIATES, INC. FIRM</p> <p>DATE <u>10/30/2024</u></p>	<p>_____ TIMOTHY J. BATES NAME</p> <p>_____ STRUCTURAL ENGINEER TITLE</p> <p>_____ DONOHUE & ASSOCIATES, INC. FIRM</p> <p>DATE <u>10/30/2024</u></p>	<p>NOT STAMPED OR DESIGNED BY DONOHUE</p>
<p>LIST DRAWING SHEETS:</p> <ul style="list-style-type: none"> 001-G-0 001-G-1 001-G-2 001-G-3 002-CK-1 002-CK-2 002-CER-1 002-CP-1 002-CP-2 002-CP-2-ALT 999-CD-1 999-CD-3 999-CD-4 999-MD-1 	<p>LIST DRAWING SHEETS:</p> <ul style="list-style-type: none"> 999-SD-1 	<p>LIST DRAWING SHEETS:</p> <ul style="list-style-type: none"> 002-CER-2 999-CD-2

Date	
Checked By	
Drawn By	
Revision Description	
Revision Number	
Designed By	REK
Drawn By	REK
Checked By	JCH
Approved By	JAG
Filename	001G2INDX.DWG
Project No.	14317.02 / 14317.03
Project Date	OCT 2024

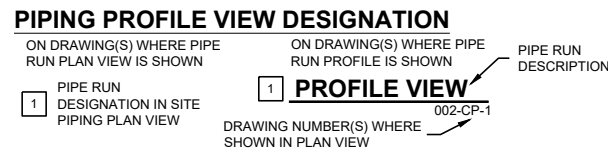
WOOD RIVER DRAINAGE AND LEVEE DISTRICT
RAND AVENUE PUMP STATION
EFFLUENT PIPING REPLACEMENT AND REHABILITATION
HARTFORD, IL
GENERAL
DRAWING INDEX



Sheet No. 2

Drawing No. **001-G-1**

LEGEND		
EXISTING	PROPOSED	
		BENCHMARK
		CATCH BASIN
		CULVERT
		CULVERT OVER 24" (SHOWN ACTUAL SIZE)
		GAS VALVE
		GUY WIRE
		HAY BALES
		HEADWALL
		HYDRANT
		INLET
		IRON PIPE
		MANHOLE
		MARSH
		METER
		UTILITY POLE
		UTILITY POLE WITH LIGHT
		SECTION CORNER
		SIGN
		SPOT ELEVATION
		SOIL BORING
		STREET LIGHT
		SURVEY CONTROL POINT
		TELEPHONE PEDESTAL
		TREE CONIFEROUS, DECIDUOUS
		TREE REMOVAL
		TREE/SHRUB LINE
		WATER VALVE

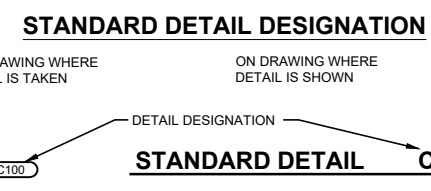
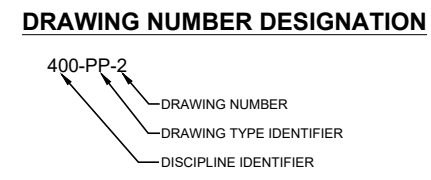


LINE TYPE IDENTIFICATION		
EXISTING	PROPOSED	
		CENTERLINE OF ROAD
		CONTOUR
		DITCH/SWALE
		EASEMENT
		FENCE
		GUARDRAIL
		PIPE, ABANDON
		PIPE, PREVIOUSLY ABANDONED
		PIPE OVER 24" (SHOWN ACTUAL SIZE)
		PIPE REMOVAL
		PROPERTY LINE
		R.O.W.
		RAILROAD
		SILT FENCE
		WATERS EDGE
		WETLAND

YARD PIPING ABBREVIATIONS		
EXISTING	PROPOSED	
		CABLE TV
		ELECTRIC
		ELECTRICAL DUCT
		FIBER OPTIC
		FORCEMAIN
		GAS
		OVERHEAD ELECTRIC
		SANITARY SEWER
		STORM SEWER
		TELEPHONE
		UNKNOWN UTILITY
		WATER

GENERAL LEGEND	
WORK TYPE IDENTIFIER	WORK TYPE IDENTIFIER
GENERAL	001
GENERAL SITE	100
REMOVALS	200
PLAN	300
SANITARY SEWER	400
WATER MAIN	500
STORM SEWER	600
FORCE MAIN	700
RESTORATION / PAVING	800
CROSS SECTIONS	900
GENERAL NOTES AND STANDARD DETAILS	999

DRAWING TYPE	DRAWING TYPE IDENTIFIER
CIVIL	C
CONSTRUCTION DETAILS	CD
KEY PLAN OR OVERALL PLAN	CK
EROSION CONTROL	EC
GENERAL	G
LIGHTING	L
PAVING DETAILS	PD
JOINTING PLAN	PJ
PAVEMENT MARKING	PM
PLAN	PN
PLAN AND PROFILE	PP
REMOVAL PLAN	R
STAGING PLAN	S
SURVEY CONTROL	SC
TRAFFIC CONTROL	TC
TYPICAL SECTION	TS
CROSS SECTION	XS



NOTE: STANDARD DETAILS ARE LOCATED ON DRAWINGS THAT HAVE BEEN ASSIGNED A SITE IDENTIFIER OF 999 FOLLOWED BY A DISCIPLINE IDENTIFIER. THESE DRAWINGS ARE PLACED LAST IN THE DRAWING SET.

EXAMPLE: 999-C-1

NOTE:

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

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

SYMBOLS	
	EXISTING ASPHALTIC PAVEMENT TO REMAIN
	REMOVE & REPLACE ASPHALTIC PAVEMENT & BASE
	REMOVE & REPLACE GRAVEL
	EXISTING GRAVEL

Date	Checked By	Drawn By	Revision Description	Revision Number

Designed By	REK
Drawn By	REK
Checked By	JCH
Approved By	JAG
Filename	001G3LGNDS.DWG
Project No.	14317.02 / 14317.03
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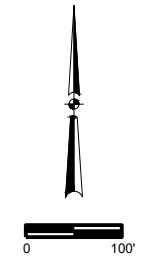
**WOOD RIVER DRAINAGE AND LEVEE DISTRICT
 RAND AVENUE PUMP STATION
 EFFLUENT PIPING REPLACEMENT AND REHABILITATION
 HARTFORD, IL**

**GENERAL
 CIVIL LEGEND**



Sheet No. 4

Drawing No. 001-G-3



PLAN NOTES:

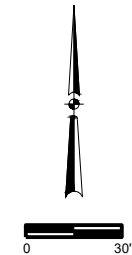
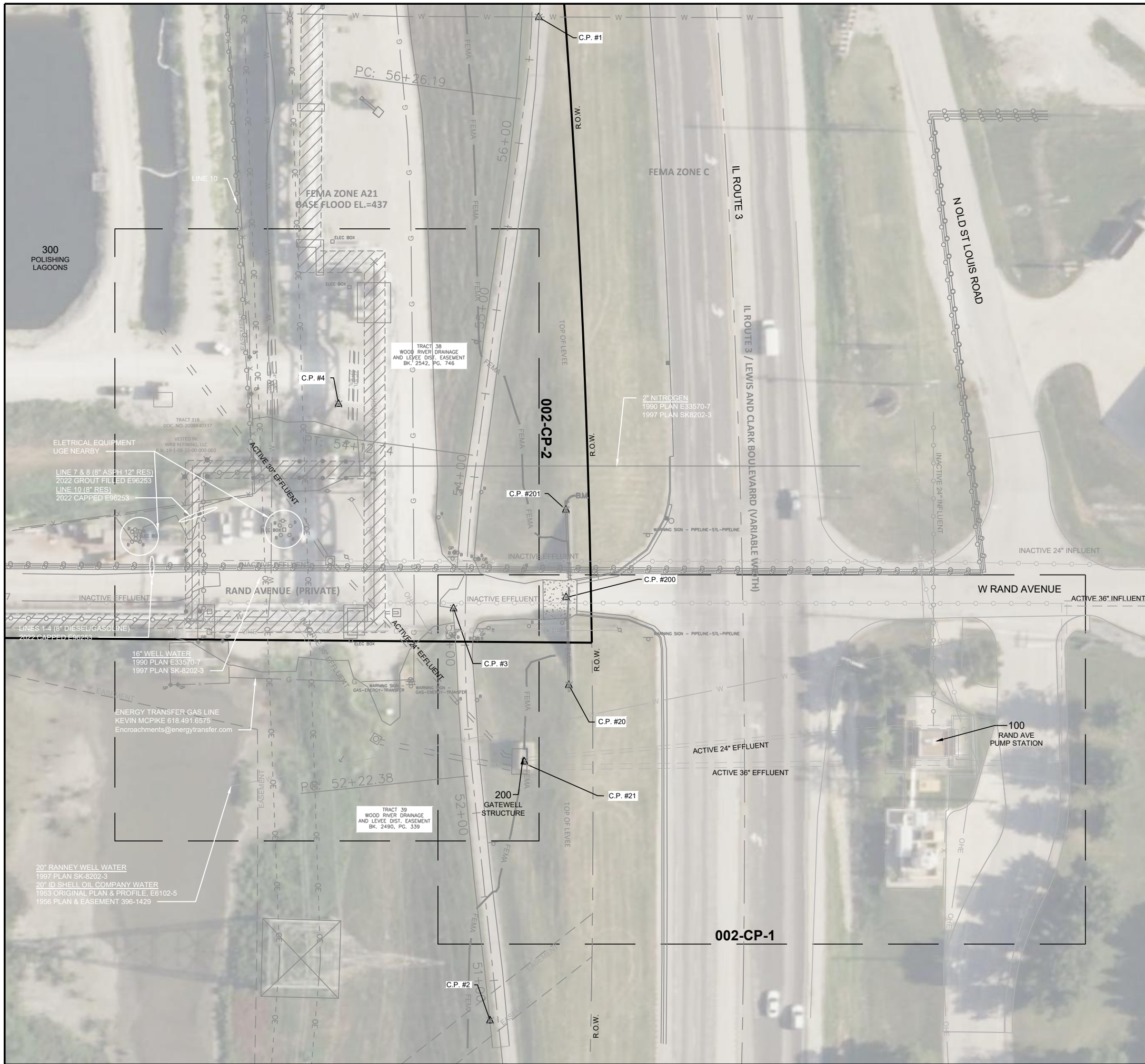
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2. TRACT 31B DOC. NO. 2008R40337 VESTED IN: WRB REFINING, LLC 19-1-08-33-00-000-002
3. TRACT 2C DOC. NO. 2008R40337
4. TRACT 38 WOOD RIVER DRAINAGE AND LEVEE DIST. EASEMENT BK. 2542 PG. 746
5. SINCLAIR REFINING CO. EASEMENT
6. 25' SHELL OIL CO EASEMENT FOR WATER LINE (NOT SHOWN IN PROVIDED SURVEY)

Revision Number	Revision Description	Date

Designed By	REK
Drawn By	REK
Checked By	JCH
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Project No.	14317.02 / 14317.03
Project Date	OCT 2024

WOOD RIVER DRAINAGE AND LEVEE DISTRICT
RAND AVENUE PUMP STATION
EFFLUENT PIPING REPLACEMENT AND REHABILITATION
HARTFORD, IL
SITE DEVELOPMENT
SITE KEY





GENERAL NOTES:

1. SURVEY WITHIN RESTRICTED AREA WAS COMPLETED BY WRDL IN JULY 2024. THE SITE WEST OF IL ROUTE 3 WAS SURVEYED BY SHEPPARD, MORGAN & SCHWAAB, INC. THE EAST SIDE OF IL ROUTE 3 IS BASED ON RECORD INFORMATION.
2. STAGING AREAS TO BE COORDINATED WITH OWNER AND PHILLIPS 66.

ILLINOIS STATE PLANE WEST ZONE, NAVD88

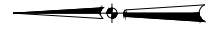
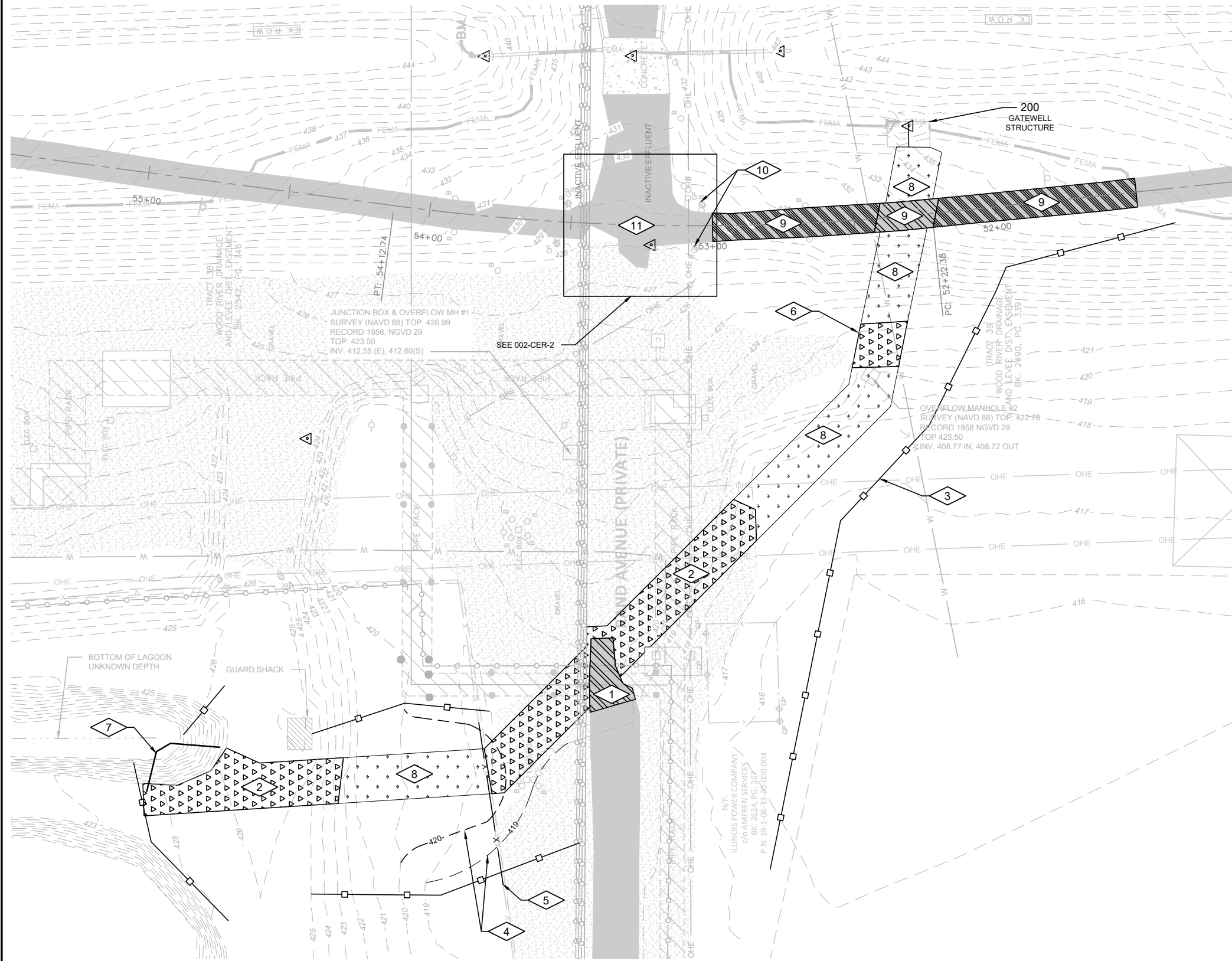
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3	791683.14	2316047.28	428.2	MAG NAIL
4	791804.53	2315978.96	425.39	MAG NAIL
20	791637.60	2316115.68	443.59	ALUMINUM TAB
21	791592.16	2316089.29	443.57	ALUMINUM TAB
200	791689.74	2316114.08	430.49	CUT CROSS
201	791741.69	2316113.97	443.38	CUT CROSS

NOTE:
SURVEYOR HAS A LEADER POINTING TO CP #201 WITH THE LETTERS "B.M."

Revision Number	Revision Description	Drawn By	Checked By	Date

Designed By	REK
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Filename	002-CK.DWG
Project No.	14317.02 / 14317.03
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**WOOD RIVER DRAINAGE AND LEVEE DISTRICT
RAND AVENUE PUMP STATION
EFFLUENT PIPING REPLACEMENT AND REHABILITATION
HARTFORD, IL
SITE DEVELOPMENT
SURVEY KEY**



GENERAL NOTES:

1. ORIGINAL PLANS AND RECORDS ARE FROM 1958, WHICH WAS OBSERVED IN A DIFFERENT VERTICAL DATUM (NGVD 29 TO NAVD 88).
2. SEE SECTION 01 11 00 FOR CONSTRUCTION SEQUENCING REQUIREMENTS.
3. RESTORE LAGOON AS DIRECTED BY PHILLIPS 66.
4. RESTORATION AREA IS INTENDED TO BE CENTERED ON THE PIPE AND MANHOLE LOCATIONS, AND IS APPROXIMATE. IF AN ALTERNATE DESIGN IS SELECTED, THE RESTORATION AREA WILL MOVE WITH THE PIPE LOCATION. CONTRACTOR SHALL RESTORE ALL SURFACES DISTURBED BY CONSTRUCTION.
5. RESTORE LEVEE IN ACCORDANCE WITH USACE REQUIREMENTS.
6. TRAIL RESTORATION AND RAND AVE ROAD RESTORATION NOTED ON THIS SHEET WAS COMPLETED BY SMS ENGINEERS WITH PLANS TITLED "CONFLUENCE TRAIL IMPROVEMENTS", SEALED ON 9-10-2024. SEE APPENDIX FOR FULL SET OF THESE PLANS.

PLAN NOTES:

1. REMOVE AND REPLACE EXISTING ASPHALT (C120)
2. REMOVE AND REPLACE EXISTING GRAVEL PAVEMENT. REPLACE IN KIND WITH STONE THAT MATCHES EXISTING. (C130)
3. SILT FENCE (C031)
4. FILL DITCH OVER PIPE, MINIMUM 1 FOOT COVER.
5. REMOVE AND REPLACE CHAIN LINK FENCE AS REQUIRED FOR CONSTRUCTION, AND REINSTALL AFTER REGRADING. REPLACE AS NECESSARY, IN KIND.
6. FOR ALTERNATE DESIGN, EXTEND DRIVEWAY EAST AROUND PROPOSED MH#2-ALT.
7. CONTRACTOR TO PROVIDE MEANS TO ISOLATE WORK AREA (COFFER DAM)
8. RESTORE TOPSOIL WITH SEED AND SOD.
9. REMOVE AND REPLACE EXISTING ASPHALT TRAIL FROM STA. 51+50 TO 53+50 OF SMS ENGINEERING TRAIL RESTORATION PLAN. TRAIL RESTORATION PROJECT ANTICIPATED TO OCCUR PRIOR TO PROPOSED WORK. THIS SEGMENT OF REPAIR IS COMBINED WITH THIS PROJECT. SEE DETAIL: (C125)
10. BOLLARDS/GATES TO BE REMOVED.
11. RAND AVE ROAD RESTORATION, PER DETAIL (C128)

Revision Number	Revision Description	Drawn By	Checked By	Date

Designed By	REK
Drawn By	REK
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Approved By	JAG
Filename	002-CP.DWG
Project No.	14317.02 / 14317.03
Project Date	OCT 2024

WOOD RIVER DRAINAGE AND LEVEE DISTRICT
RAND AVENUE PUMP STATION
EFFLUENT PIPING REPLACEMENT AND REHABILITATION
HARTFORD, IL
SITE DEVELOPMENT
EROSION CONTROL & RESTORATION PLAN



Sheet No. 7
Drawing No.

ROAD AND TRAIL DESIGN FROM "CONFLUENCE TRAIL IMPROVEMENTS"
 MADISON COUNTY MASS TRANSIT DISTRICT, HARTFORD, ILLINOIS / WOOD
 RIVER, ILLINOIS
 MCT NO. 21-1-21301

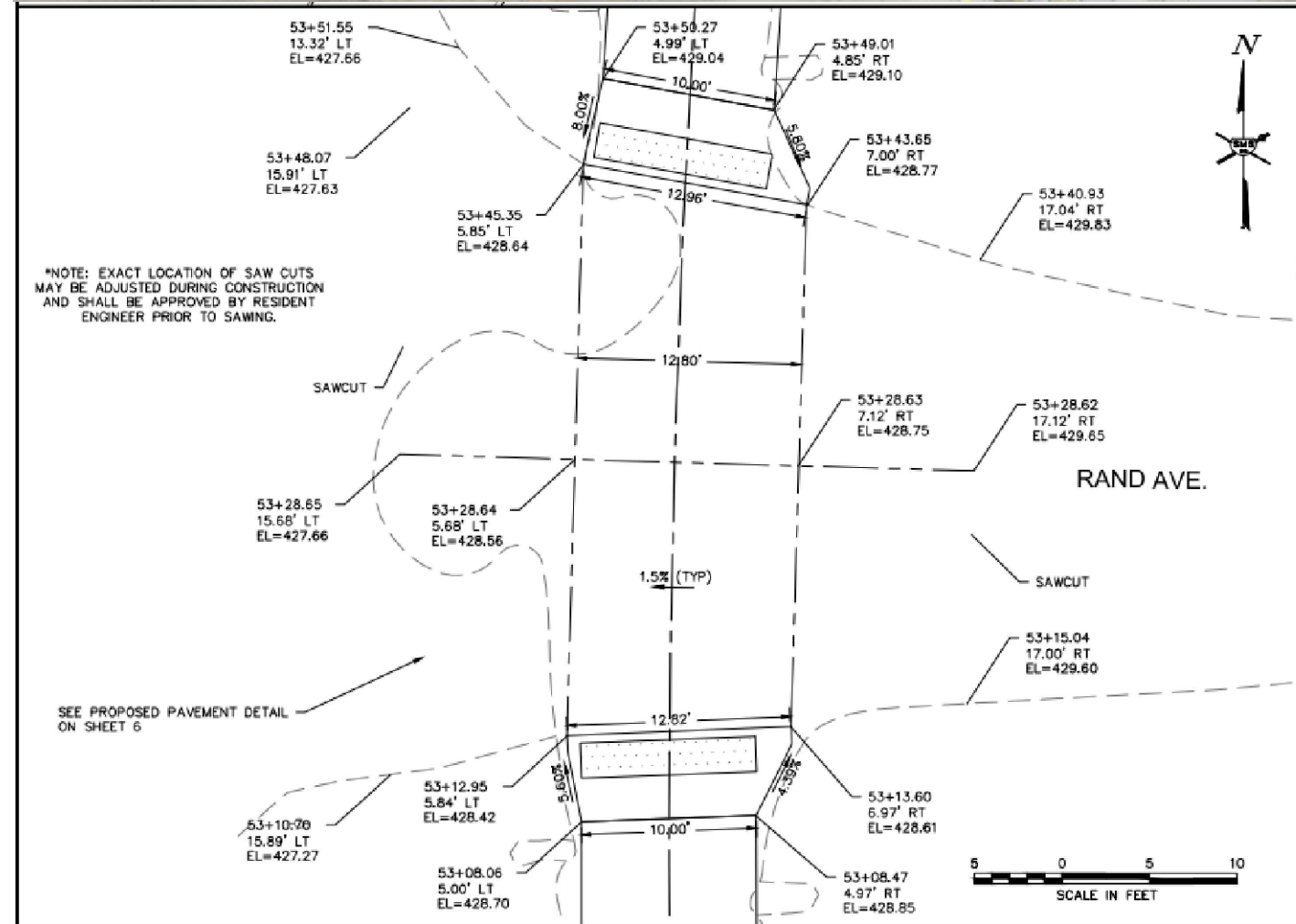
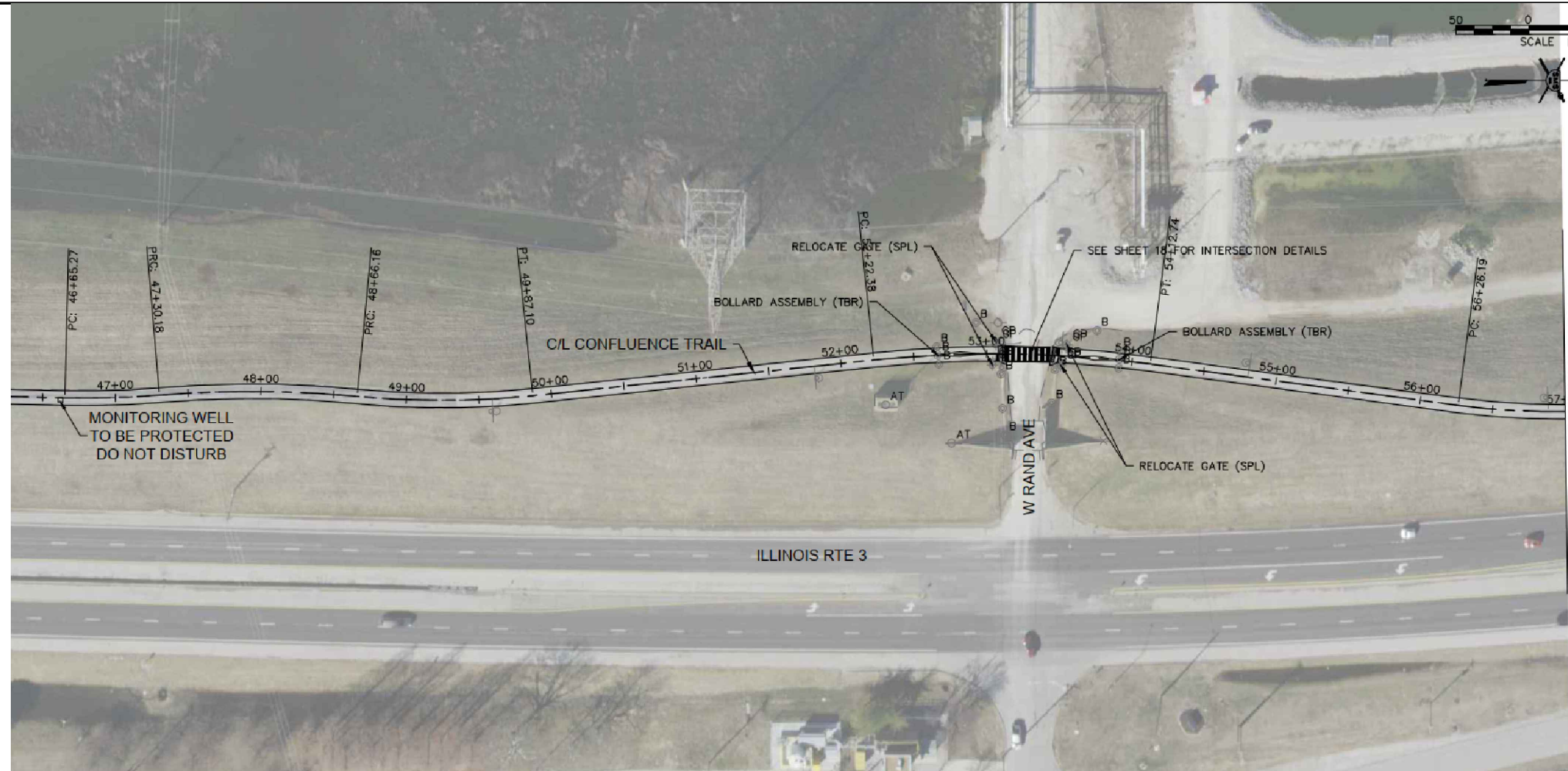
DESIGNED BY SMS ENGINEERS, SHEPPARD, MORGAN & SCHWAAB, INC.
 # 184-000992
 SEALED BY COEY D. DANIELS ON 9-10-2024

DETAILS FROM THE SMS DESIGN HAVE BEEN ADDED TO DONOHUE'S 999-CD-2.
 FROM PAGE 6 OF 21. THE INFORMATION ON THIS PAGE IS FROM PAGES 10
 AND 18 OF 21.

STATIONING FROM THE TRAIL RESTORATION PROJECT IS SHOWN ON
 002-CER-1. STATIONS 51+50 TO 53+50 WILL BE INSTALLED IN CONJUNCTION
 WITH WOOD RIVER LEVEE PROJECT DUE TO CONSTRUCTION TIMELINES.

INSTALL TRAFFIC CONTROL AND TRAIL CLOSURE PER THE CONFLUENCE
 TRAIL IMPROVEMENTS PLANS IN THE APPENDIX.

QUESTIONS REGARDING THE ROAD AND TRAIL RESTORATION SHOULD BE
 DIRECTED TO COEY D. DANIELS cdaniels@smsengineers.com 618-462-9755



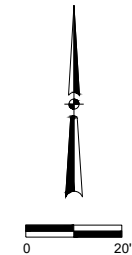
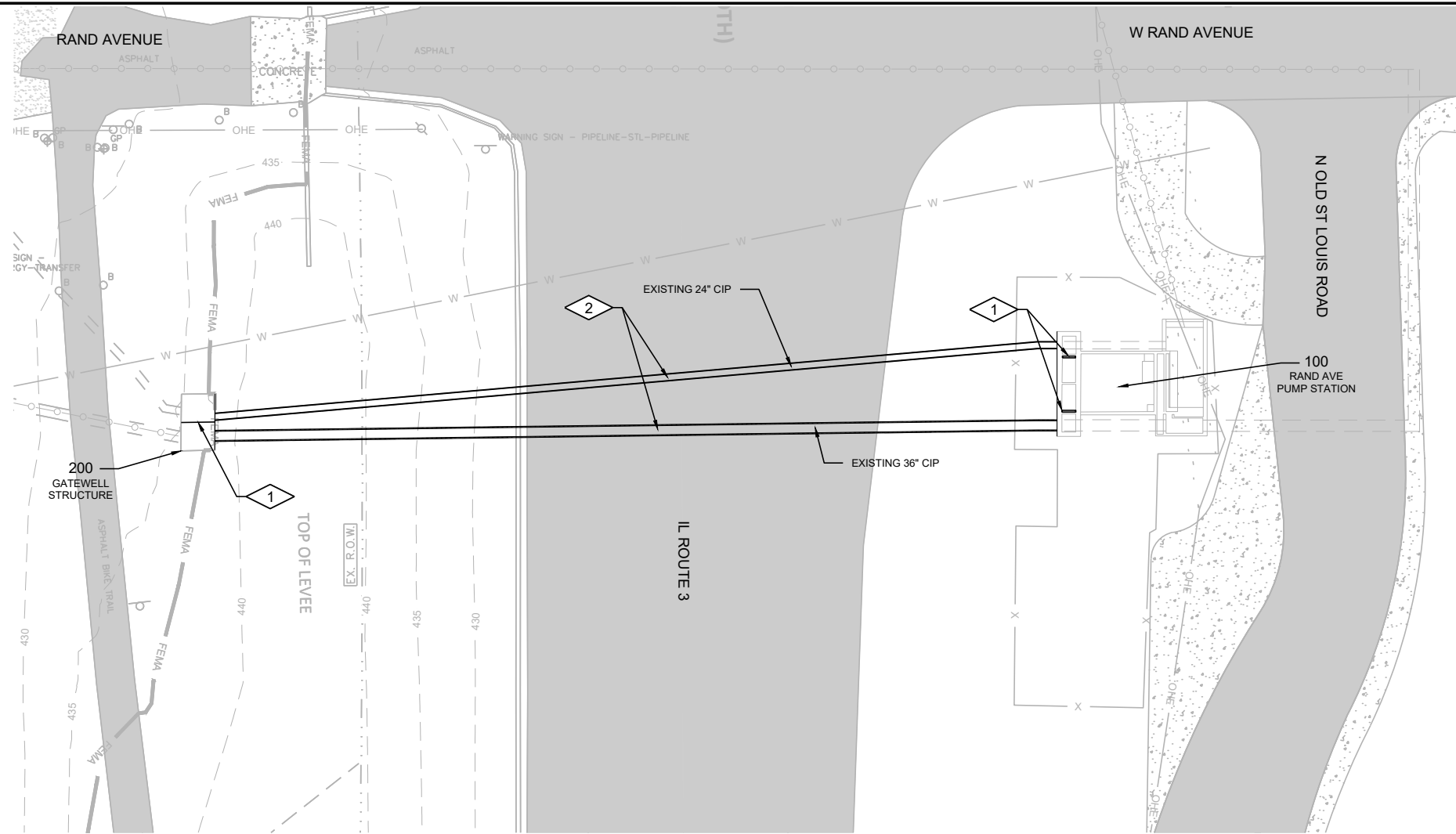
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Drawn By	N/A
Checked By	N/A
Approved By	N/A
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WOOD RIVER DRAINAGE AND LEVEE DISTRICT
RAND AVENUE PUMP STATION
EFFLUENT PIPING REPLACEMENT AND REHABILITATION
 HARTFORD, IL

SITE DEVELOPMENT
RESTORATION PLAN, SMS ENGINEERS

Sheet No. 8
 Drawing No. 002-CER-2

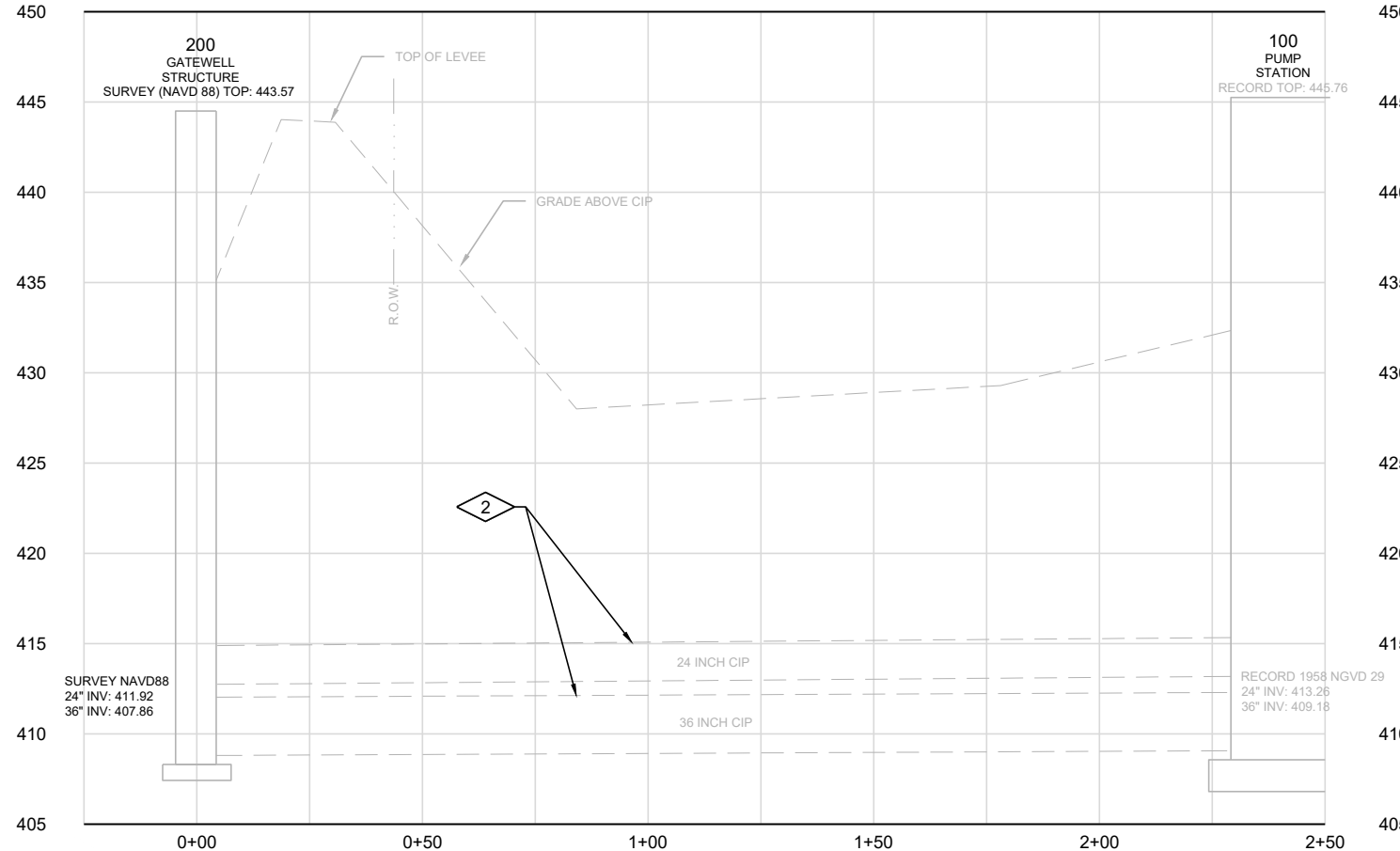


GENERAL NOTES:

- 1. ALL EXISTING PIPING AND UTILITIES SHALL BE FIELD VERIFIED FOR LOCATION AND ELEVATION. CONTACT ENGINEER IF UNKNOWN CONFLICTS EXIST.
- 2. ORIGINAL PLANS AND RECORDS ARE FROM 1956, WHICH WAS OBSERVED IN A DIFFERENT VERTICAL DATUM (NGVD 29 TO NAVD 88).
- 3. SEE SECTION 01 11 00 FOR CONSTRUCTION SEQUENCING REQUIREMENTS.
- 4. REMOVE AND REINSTALL EXISTING GRATING AT GATEWELL STRUCTURE AND PUMP STATION HEADBOX AS REQUIRED FOR CONSTRUCTION ACCESS. SEE RAND AVE PUMP STATION RECORD DRAWINGS INCLUDED IN THE PROJECT MANUAL FOR ADDITIONAL INFORMATION ON EXISTING GRATING.

PLAN NOTES:

- 1. CONSTRUCT TEMPORARY BULKHEAD. SEE SPECIFICATION 01 11 00 FOR ADDITIONAL INFORMATION.
- 2. REHABILITATE EXISTING CAST IRON EFFLUENT PIPES WITH CIPP LINER. HEAVY MECHANICAL CLEANING REQUIRED. SEE SPECIFICATION 33 01 30.72. ACCESS FOR CLEANING AND CIPP LINING INSTALLATION SHALL BE THROUGH EXISTING GATEWELL AND PUMP STATION HEADBOX.



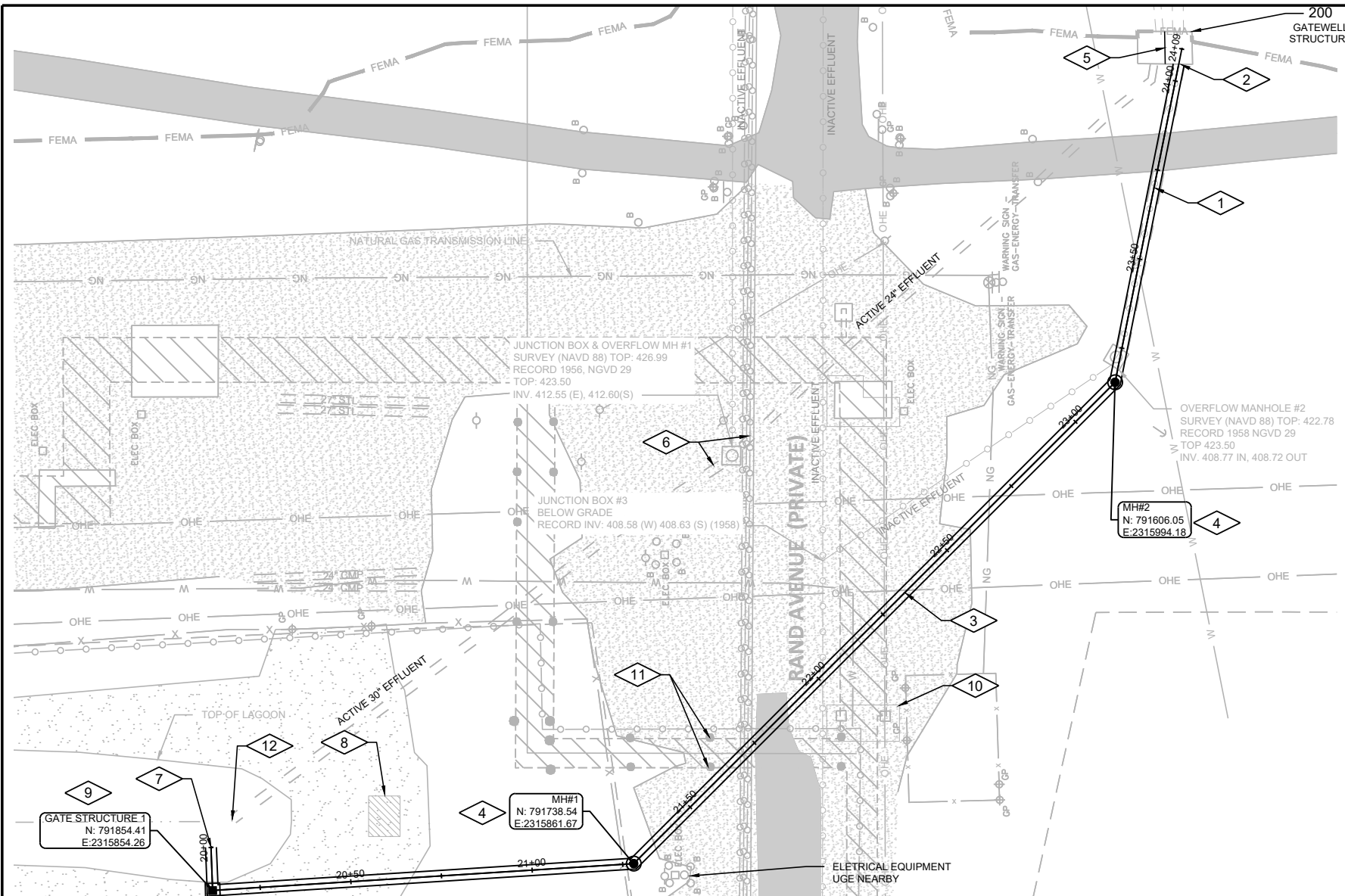
Revision Number	Revision Description	Drawn By	Checked By	Date

Designed By	REK
Drawn By	REK
Checked By	JCH
Approved By	JAG
Filename	002-CP.DWG
Project No.	14317.02 / 14317.03
Project Date	OCT 2024

**WOOD RIVER DRAINAGE AND LEVEE DISTRICT
RAND AVENUE PUMP STATION
EFFLUENT PIPING REPLACEMENT AND REHABILITATION
HARTFORD, IL
CIPP REHABILITATION
PLAN AND PROFILE**

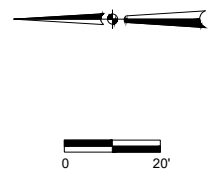


Sheet No. 9
Drawing No.



GENERAL NOTES:

- ALL EXISTING PIPING AND UTILITIES SHALL BE FIELD VERIFIED FOR LOCATION AND ELEVATION. MANY OF THE EXISTING PIPES HAVE NOT BEEN FIELD VERIFIED, AND ARE BASED ON RECORD. CONTACT ENGINEER IF UNKNOWN CONFLICTS EXIST.
- INSTALL PIPING IN CONFORMANCE WITH APPROPRIATE TRENCHING, BEDDING AND BACKFILL REQUIREMENTS. (C500) (C505)
- ORIGINAL PLANS AND RECORDS ARE FROM 1956, WHICH WAS OBSERVED IN A DIFFERENT VERTICAL DATUM (NGVD 29 TO NAVD 88).
- SEE SECTION 01 11 00 FOR CONSTRUCTION SEQUENCING REQUIREMENTS.
- IF SOFT SOILS ARE ENCOUNTERED, REFERENCE THE GEOTECHNICAL REPORT INCLUDED IN THE PROJECT MANUAL FOR INFORMATION ON HOW TO PROPERLY SUPPORT THE PIPE.
- CONTRACTOR SHALL HYDRO-EXCAVATE ALONG THE ENTIRE PATH OF THE PROPOSED SEWER IN A ZIGZAG PATTERN THAT CROSSES THE WIDTH OF THE PROPOSED SEWER EVERY 5 FEET. HYDRO-EXCAVATE TO A DEPTH OF 1 FOOT BELOW THE BOTTOM OF THE PROPOSED PIPE. SEE SECTION 31 10 00 FOR ADDITIONAL INFORMATION.



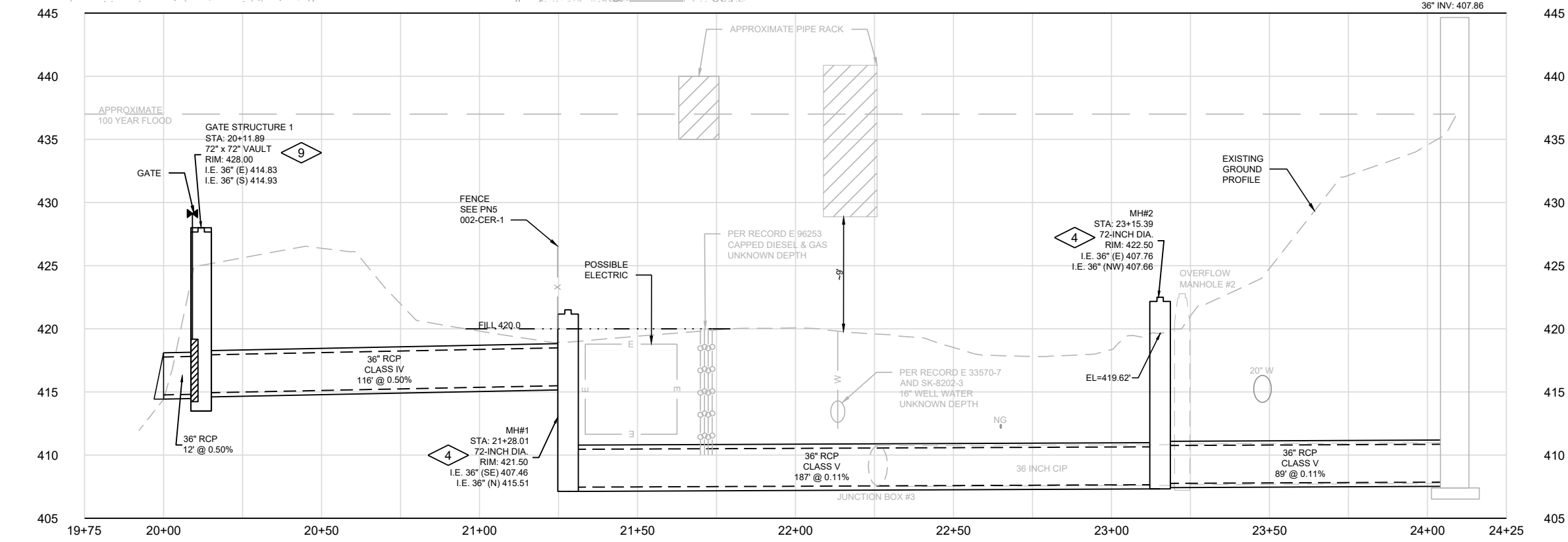
PLAN NOTES:

- FULLY REMOVE ABANDONED 36" CAST IRON EFFLUENT PIPE (MOSTLY FULL OF CONCRETE) AND OVERFLOW MANHOLE #2 BETWEEN STATIONS 23+00 AND GATEWELL STRUCTURE. GROUT FILL END OF PIPE TO SEAL OFF.
- CONNECT NEW 36" RCP INTO EXISTING PIPE OPENING. SEE (S300)
- PROVIDE 36" RCP, INSTALLED IN OPEN TRENCH.
- PROVIDE 72" DIAMETER MANHOLE
- TEMPORARY BULKHEAD. SEE 002-CP-1. CONTRACTOR TO CORE DRILL TWO 6-INCH HOLES IN THE EXISTING WALL OF THE GATEWELL STRUCTURE. INVERT ELEVATION OF THE HOLES SHALL MATCH TOP OF SLAB ELEVATION WHERE THE EXISTING 24-INCH PIPE FROM THE HEADBOX ENTERS THE GATEWELL STRUCTURE. THE HOLES SHALL BE FIELD LOCATED TO AVOID DAMAGE TO THE EXISTING WALL REINFORCING. SEE SPECIFICATION 01 11 00.
- FILL EXISTING 24" AND 30" EFFLUENT PIPE AND EXISTING MANHOLE STRUCTURE WITH GROUT AND ABANDON.
- FLARED END SECTION WITH PIPE GRATE PER IDOT STANDARD 542311-07. CONTRACTOR TO REPLACE ANY DISTURBED RIP RAP IN KIND. SEE DETAIL: (C310)
- CONTRACTOR SHALL COORDINATE WITH OWNER TO RELOCATE EXISTING GUARD SHACK DURING CONSTRUCTION.
- GATE STRUCTURE, PER SPECIFICATION SECTION 33 05 61 AND 40 05 59.23. AND DETAIL: (C210)
- PROTECT MAJOR STRUCTURAL ELEMENTS.
- SUPPORT EXISTING PIPE RACK DURING INSTALLATION, AND REPLACE DISTURBED STRUCTURAL SUPPORT IN KIND.
- PLUG EXISTING EFFLUENT PIPE FOR GROUT FILLING.

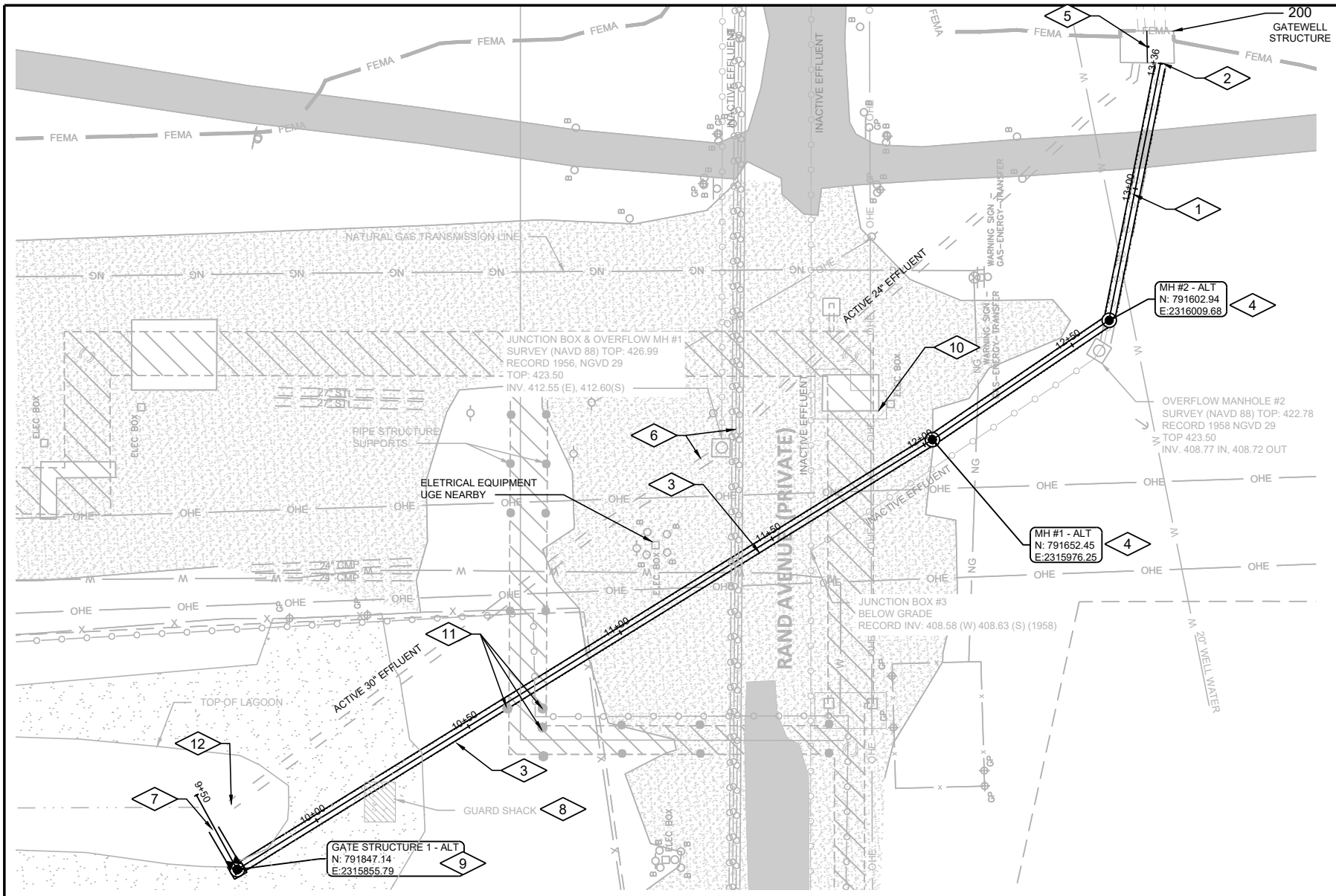
Date	Checked By	Drawn By	Revision Description

Revision Number	Designed By	Drawn By	Checked By	Approved By
	REK	REK	JCH	JAG

Filename	002-CP.DWG
Project No.	14317.02 / 14317.03
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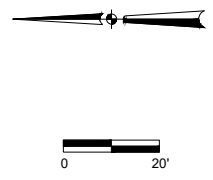


**WOOD RIVER DRAINAGE AND LEVEE DISTRICT
 RAND AVENUE PUMP STATION
 EFFLUENT PIPING REPLACEMENT AND REHABILITATION
 HARTFORD, IL**



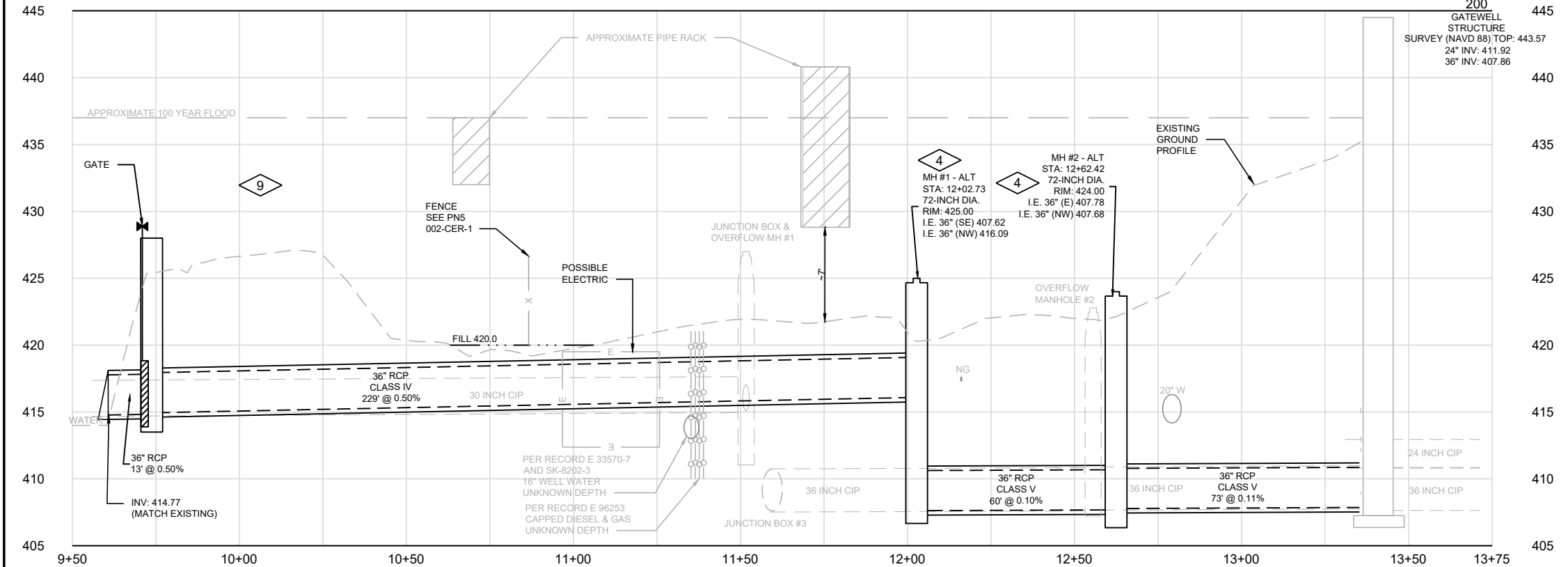
GENERAL NOTES:

1. ALL EXISTING PIPING AND UTILITIES SHALL BE FIELD VERIFIED FOR LOCATION AND ELEVATION. MANY OF THE EXISTING PIPES HAVE NOT BEEN FIELD VERIFIED, AND ARE BASED ON RECORD. CONTACT ENGINEER IF UNKNOWN CONFLICTS EXIST.
2. INSTALL PIPING IN CONFORMANCE WITH APPROPRIATE TRENCHING, BEDDING AND BACKFILL REQUIREMENTS. (C500 C505)
3. ORIGINAL PLANS AND RECORDS ARE FROM 1956, WHICH WAS OBSERVED IN A DIFFERENT VERTICAL DATUM (NGVD 29 TO NAVD 88).
4. SEE SECTION 01 11 00 FOR CONSTRUCTION SEQUENCING REQUIREMENTS.
5. IF SOFT SOILS ARE ENCOUNTERED, REFERENCE THE GEOTECHNICAL REPORT INCLUDED IN THE PROJECT MANUAL FOR INFORMATION ON HOW TO PROPERLY SUPPORT THE PIPE.
6. CONTRACTOR SHALL HYDRO-EXCAVATE ALONG THE ENTIRE PATH OF THE PROPOSED SEWER IN A ZIGZAG PATTERN THAT CROSSES THE WIDTH OF THE PROPOSED SEWER EVERY 5 FEET. HYDRO-EXCAVATE TO A DEPTH OF 1 FOOT BELOW THE BOTTOM OF THE PROPOSED PIPE. SEE SECTION 31 10 00 FOR ADDITIONAL INFORMATION.



PLAN NOTES:

1. FULLY REMOVE ABANDONED 36" CAST IRON EFFLUENT PIPE (MOSTLY FULL OF CONCRETE) BETWEEN OVERFLOW MANHOLE #2 AND GATEWELL STRUCTURE. REPLACE WITH 36" RCP AS SHOWN. GROUT FILL STUB NEXT TO EXISTING OVERFLOW MANHOLE #2 TO SEAL OFF PIPE.
2. CONNECT NEW 36" RCP INTO EXISTING PIPE OPENING. SEE (S300)
3. PROVIDE 36" RCP, INSTALLED IN OPEN TRENCH.
4. PROVIDE 72" DIAMETER MANHOLE
5. TEMPORARY BULKHEAD, SEE 002-CP-1. CONTRACTOR TO CORE DRILL TWO 6-INCH HOLES IN THE EXISTING WALL OF THE GATEWELL STRUCTURE. INVERT ELEVATION OF THE HOLES SHALL MATCH TOP OF SLAB ELEVATION WHERE THE EXISTING 24-INCH PIPE FROM THE HEADBOX ENTERS THE GATEWELL STRUCTURE. THE HOLES SHALL BE FIELD LOCATED TO AVOID DAMAGE TO THE EXISTING WALL REINFORCING. SEE SPECIFICATION 01 11 00.
6. FILL EXISTING 24" AND 30" EFFLUENT PIPE AND EXISTING MANHOLE STRUCTURE WITH GROUT AND ABANDON.
7. FLARED END SECTION WITH PIPE GRATE PER IDOT STANDARD 542311-07. CONTRACTOR TO REPLACE ANY DISTURBED RIP RAP IN KIND. SEE DETAIL: (C310)
8. CONTRACTOR SHALL COORDINATE WITH OWNER TO RELOCATE EXISTING GUARD SHACK DURING CONSTRUCTION.
9. GATE STRUCTURE, PER SPECIFICATION SECTION 33 05 61 AND 40 05 59.23, AND DETAIL: (C210)
10. PROTECT MAJOR STRUCTURAL ELEMENTS.
11. SUPPORT EXISTING PIPE RACK DURING INSTALLATION, AND REPLACE DISTURBED STRUCTURAL SUPPORT IN KIND.
12. PLUG EXISTING EFFLUENT PIPE FOR GROUT FILLING.



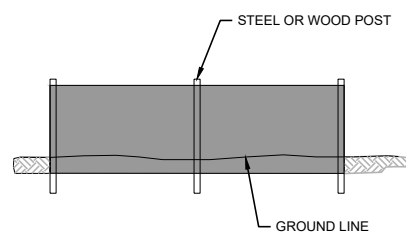
Date	Checked By	Drawn By	Revision Description	Revision Number

Designed By	REK
Drawn By	REK
Checked By	JCH
Approved By	JAG
Filename	002-CP.DWG
Project No.	14317.02 / 14317.03
Project Date	OCT 2024

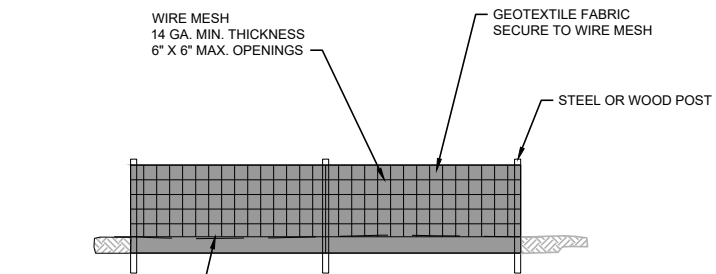
WOOD RIVER DRAINAGE AND LEVEE DISTRICT
RAND AVENUE PUMP STATION
EFFLUENT PIPING REPLACEMENT AND REHABILITATION
HARTFORD, IL
RIVERSIDE EFFLUENT PIPING
PLAN AND PROFILE ALTERNATE



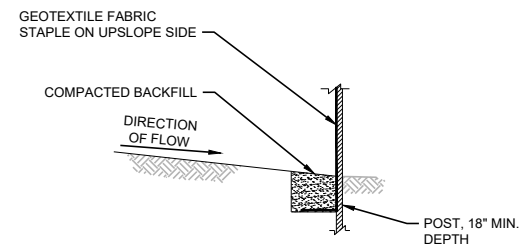
Sheet No. 11
Drawing No.



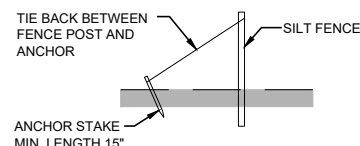
SILT FENCE



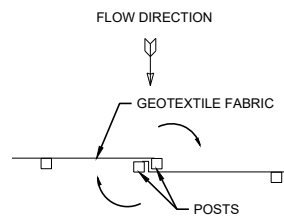
SILT FENCE WITH WIRE MESH SUPPORT
USE WHERE INDICATED



ANCHOR TRENCH DETAIL



TIE BACK DETAIL
USE WHERE ADDITIONAL SUPPORT IS NEEDED

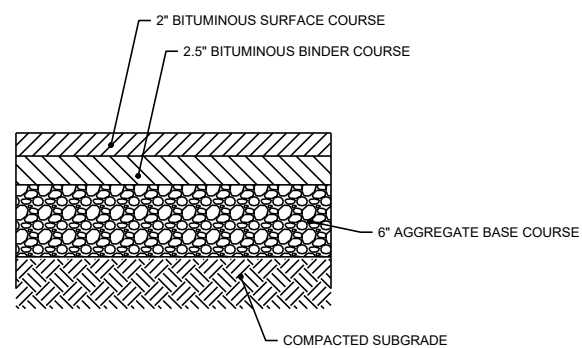


STEP 1: PLACE THE END POST OF THE SECOND FENCE INSIDE THE END POST OF THE FIRST FENCE. ROTATE BOTH POSTS AT LEAST 180 DEGREES IN A CLOCKWISE DIRECTION TO CREATE A TIGHT SEAL WITH THE FABRIC.



STEP 2: CUT THE FABRIC NEAR THE BOTTOM OF THE POSTS TO ACCOMMODATE THE 6" FLAP. DRIVE BOTH POSTS A MINIMUM OF 18 INCHES INTO THE GROUND AND BURY FLAP.

ATTACHING TWO SILT FENCES



ASPHALT PAVEMENT C120

NTS

Revision Number	Revision Description	Drawn By	Checked By	Date

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**WOOD RIVER DRAINAGE AND LEVEE DISTRICT
RAND AVENUE PUMP STATION
EFFLUENT PIPING REPLACEMENT AND REHABILITATION
HARTFORD, IL
CIVIL DETAILS**



Sheet No. 12

Drawing No. 999-CD-1

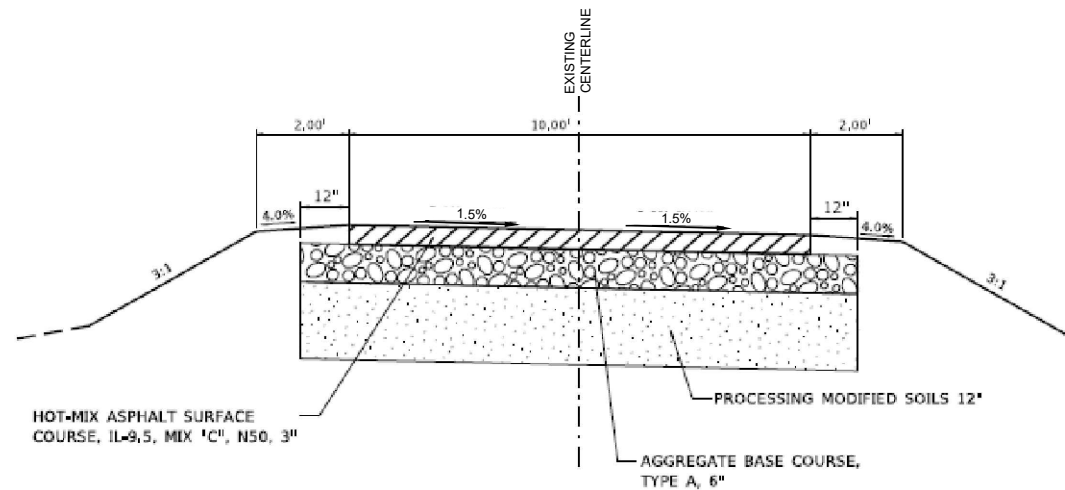
ROAD AND TRAIL DESIGN FROM "CONFLUENCE TRAIL IMPROVEMENTS"
MADISON COUNTY MASS TRANSIT DISTRICT, HARTFORD, ILLINOIS / WOOD
RIVER, ILLINOIS
MCT NO. 21-1-21301

DESIGNED BY SMS ENGINEERS, SHEPPARD, MORGAN & SCHWAAB, INC.
184-000992
SEALED BY COEY D. DANIELS ON 9-10-2024

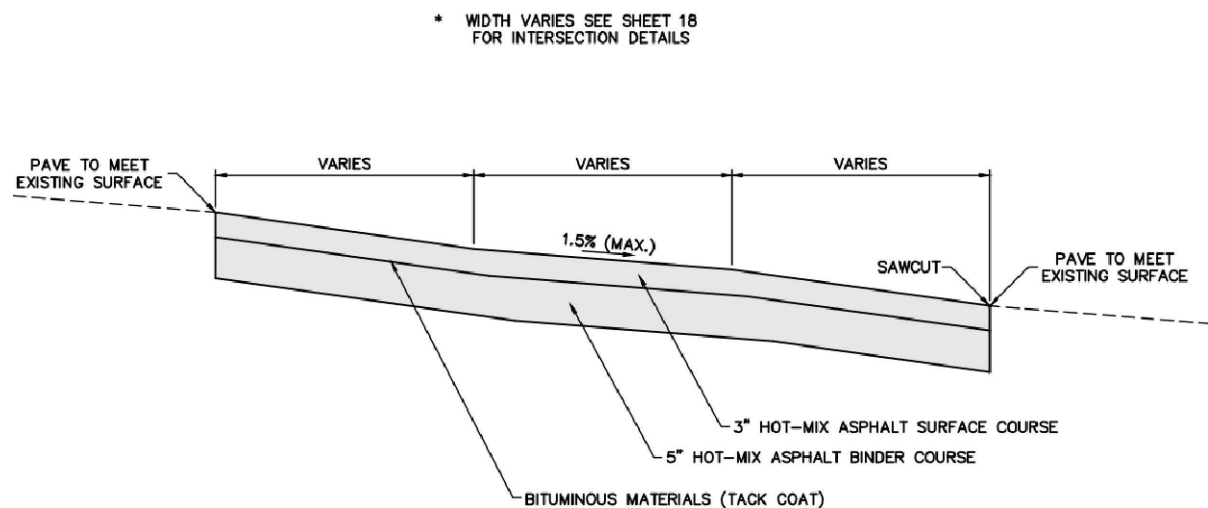
DETAIL C128 FROM PAGE 6 OF 21. DETAIL C125 WAS PROVIDED BY MADISON
COUNTY MASS TRANSIT DISTRICT.

QUESTIONS REGARDING THE ROAD AND TRAIL RESTORATION SHOULD BE
DIRECTED TO COEY D. DANIELS cdaniels@smsengineers.com 618-462-9755

MADISON COUNTY MASS TRANSIT DISTRICT CONTACT:
MARK STEYER msteyer@mct.org 618-797-4600, ext. 2303



TRAIL RESTORATION C125
NTS PER MCT



PROPOSED TYPICAL SECTION SIDE ROAD CROSSINGS C128
SCALE: 1" = 4' HORZ.
1" = 1' VERT.

PAVEMENT RESTORATION C128
NTS PER SMS ENGINEERING

MIXTURE REQUIREMENTS		
MIXTURE USE	SURFACE	BINDER/BASE
PG	PG 64-22	PG 64-22
RAP % (MAX.)	10%	15%
DESIGN AIR VOIDS	4.0% @ Ndes = 50	4.0% @ Ndes = 50
MIX COMPOSITION (GRADATION MIXTURE)	IL-9.5	IL-19.0
FRICTION AGG.	MIXTURE C	MIXTURE B
MIXTURE WEIGHT	112 LB/SQ YD/IN	112 LB/SQ YD/IN

Revision Number	Revision Description	Drawn By	Checked By	Date

DESIGNED BY N/A
DRAWN BY N/A
CHECKED BY N/A
APPROVED BY N/A
FILENAME 999CD1.DWG
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PROJECT DATE OCT 2024

**WOOD RIVER DRAINAGE AND LEVEE DISTRICT
RAND AVENUE PUMP STATION
EFFLUENT PIPING REPLACEMENT AND REHABILITATION
HARTFORD, IL**

DETAILS BY OTHERS

DONOHUE

SHEET NO. 13
DRAWING NO. 999-CD-2

Date	
Checked By	
Drawn By	
Revision Description	
Revision Number	

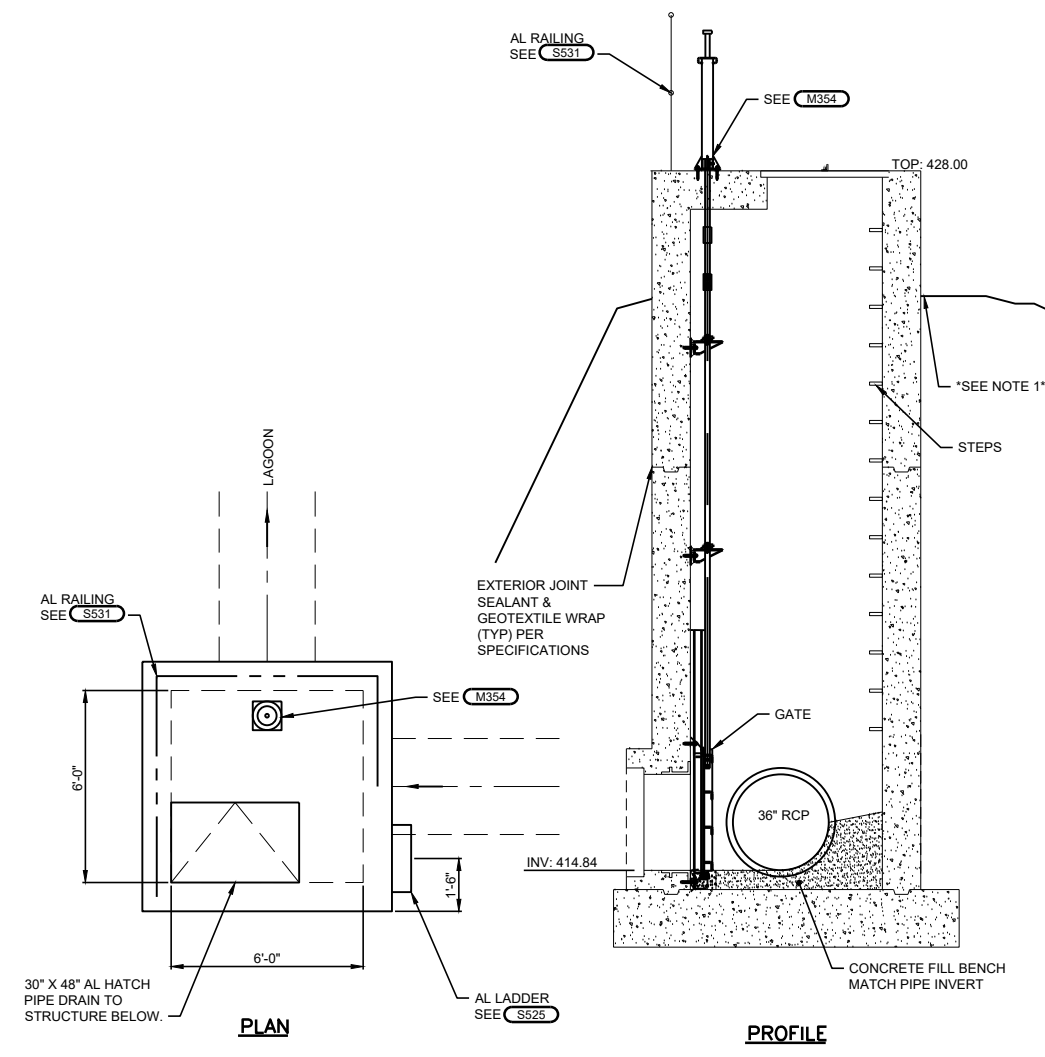
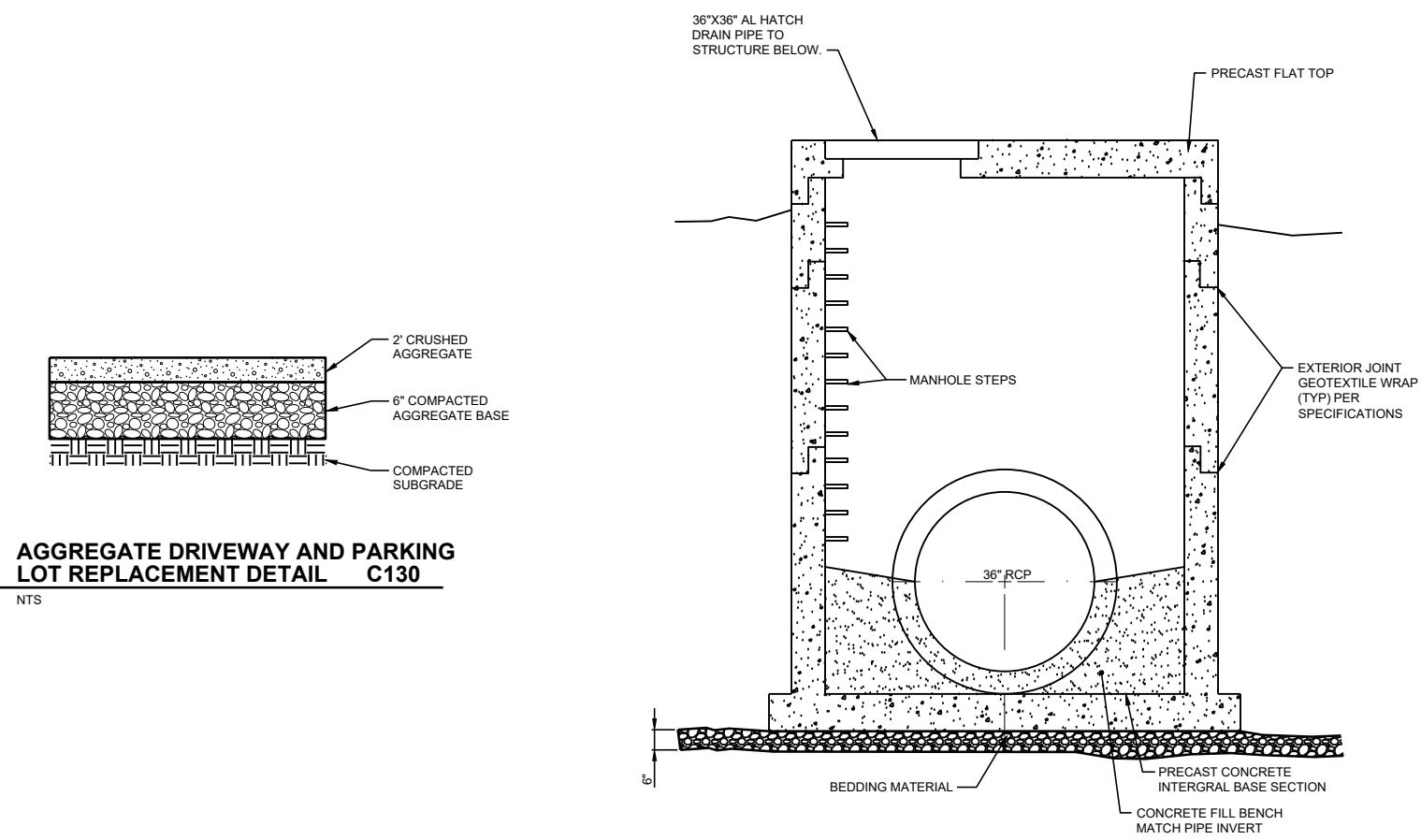
Designed By	REK
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WOOD RIVER DRAINAGE AND LEVEE DISTRICT
 RAND AVENUE PUMP STATION
 EFFLUENT PIPING REPLACEMENT AND REHABILITATION
 HARTFORD, IL
 CIVIL DETAILS

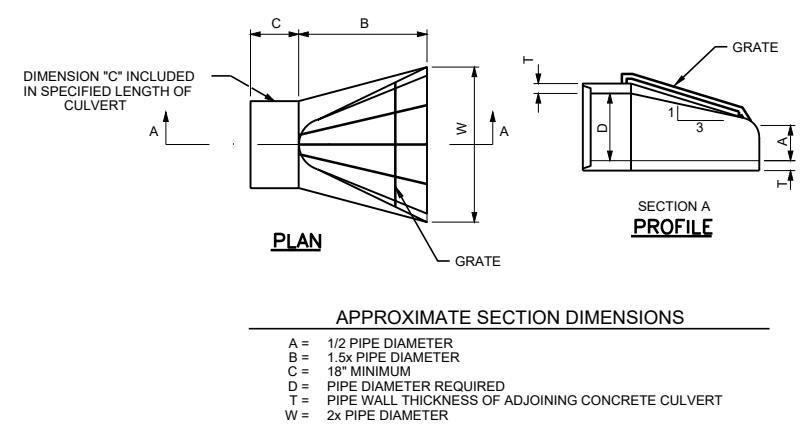


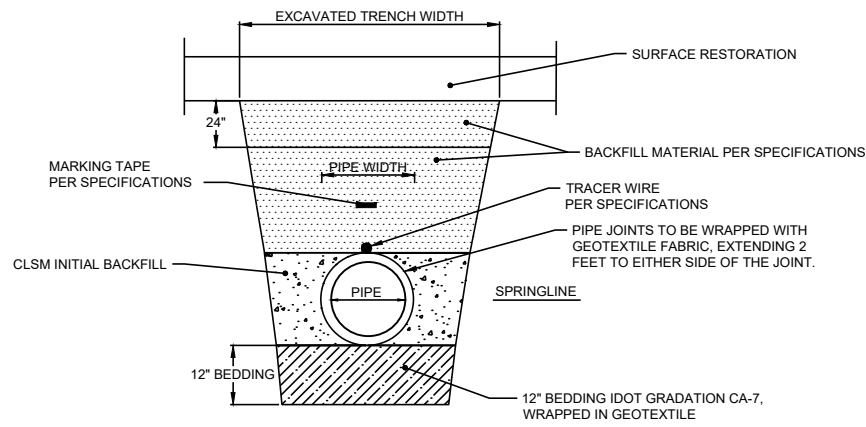
Sheet No.	14
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999-CD-3



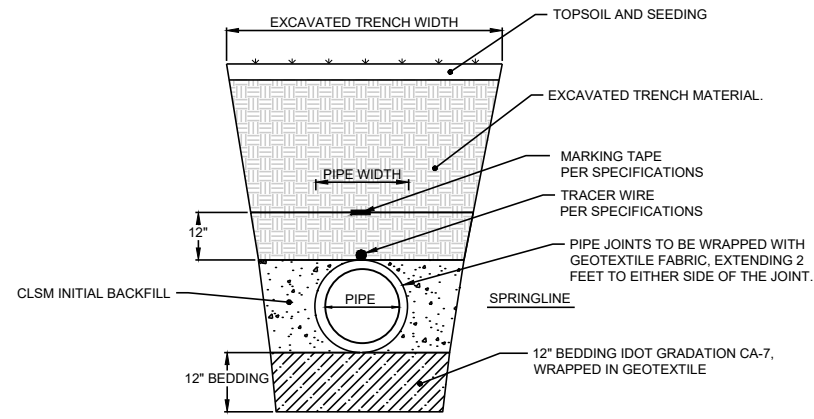
NOTES:
 1. CONTRACTOR TO CONFIRM DISTANCE FROM FINAL GRADE TO TOP OF STRUCTURE AFTER PLACEMENT. IF DISTANCE IS 30" OR GREATER, A RAILING MUST BE PROVIDED AROUND THE ENTIRE STRUCTURE, WITH A GATE OPENING FOR THE LADDER. THE SHOWN PLAN VIEW ASSUMES 30" OR LESS NEAR THE LADDER AND HATCH.





PIPE BEDDING, COVER, AND BACKFILL BENEATH OR WITHIN 2' OF PAVEMENT C500

NTS

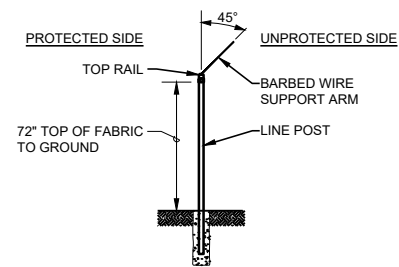


NOTES:

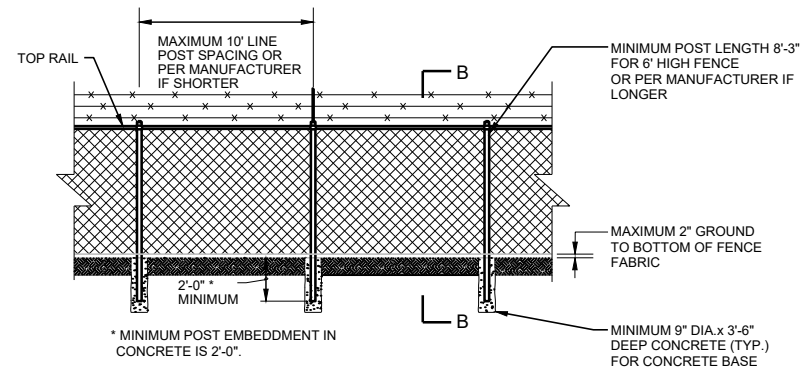
1. REQUIREMENTS FOR TRENCH MATERIAL MAY VARY BASED ON PROXIMITY TO LEVEE, LAGOON, OR OTHER EXISTING FEATURES. SEE SPECIFICATIONS FOR MORE INFORMATION.

PIPE BEDDING, COVER, AND BACKFILL GREATER THAN 2' FROM PAVEMENT C505

NTS



SECTION "B"



CHAIN LINK FENCING WITH BARBED WIRE DETAIL C700

NTS

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Drawn By	
Revision Description	
Revision Number	
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Drawn By	REK
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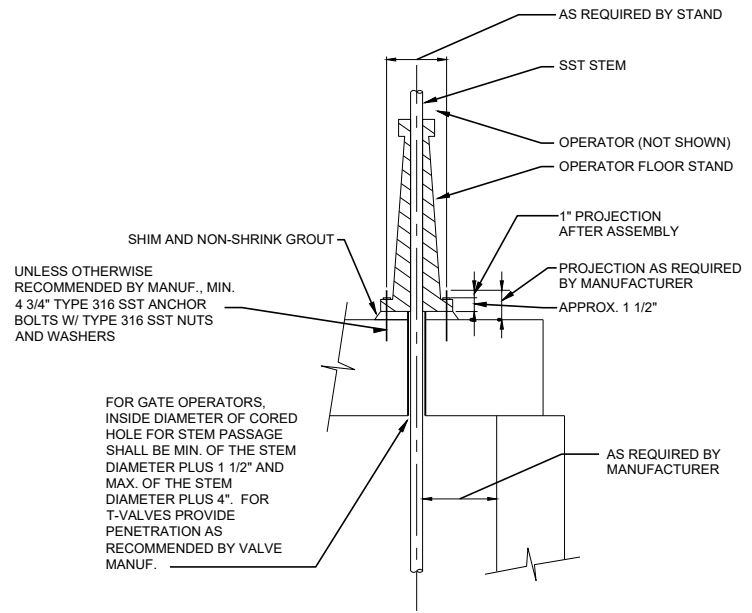
WOOD RIVER DRAINAGE AND LEVEE DISTRICT
 RAND AVENUE PUMP STATION
 EFFLUENT PIPING REPLACEMENT AND REHABILITATION
 HARTFORD, IL
 CIVIL DETAILS



Sheet No. 15

Drawing No.

999-CD-4

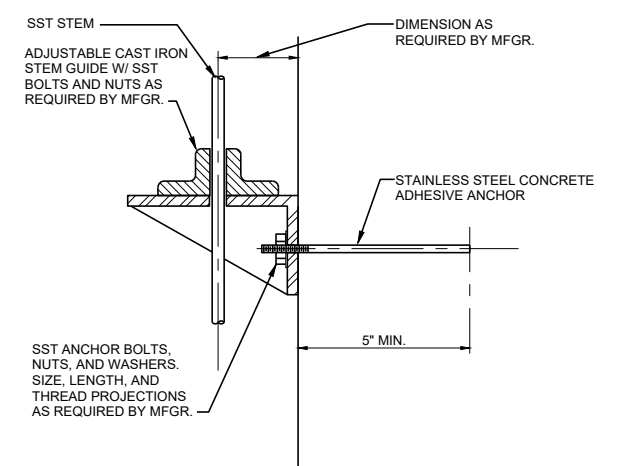


UNLESS OTHERWISE RECOMMENDED BY MANUF., MIN. 4 3/4\"/>

FOR GATE OPERATORS, INSIDE DIAMETER OF CORED HOLE FOR STEM PASSAGE SHALL BE MIN. OF THE STEM DIAMETER PLUS 1 1/2\"/>

NOTES:
1. PROVIDE STEM GUIDES AS REQUIRED BY MANUFACTURER. SEE M380

FLOOR STAND DETAIL
PRECAST CONCRETE M354
NTS



STEM GUIDE DETAIL M380
NTS

Revision Number	Revision Description	Drawn By	Checked By	Date

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WOOD RIVER DRAINAGE AND LEVEE DISTRICT
RAND AVENUE PUMP STATION
EFFLUENT PIPING REPLACEMENT AND REHABILITATION
HARTFORD, IL
PROCESS DETAILS

Sheet No. 16
Drawing No. 999-MD-1

