

INFRASTRUCTURE RELIABILITY PROGRAM

18" WATERMAIN

JEFFERSON COUNTY, ILLINOIS

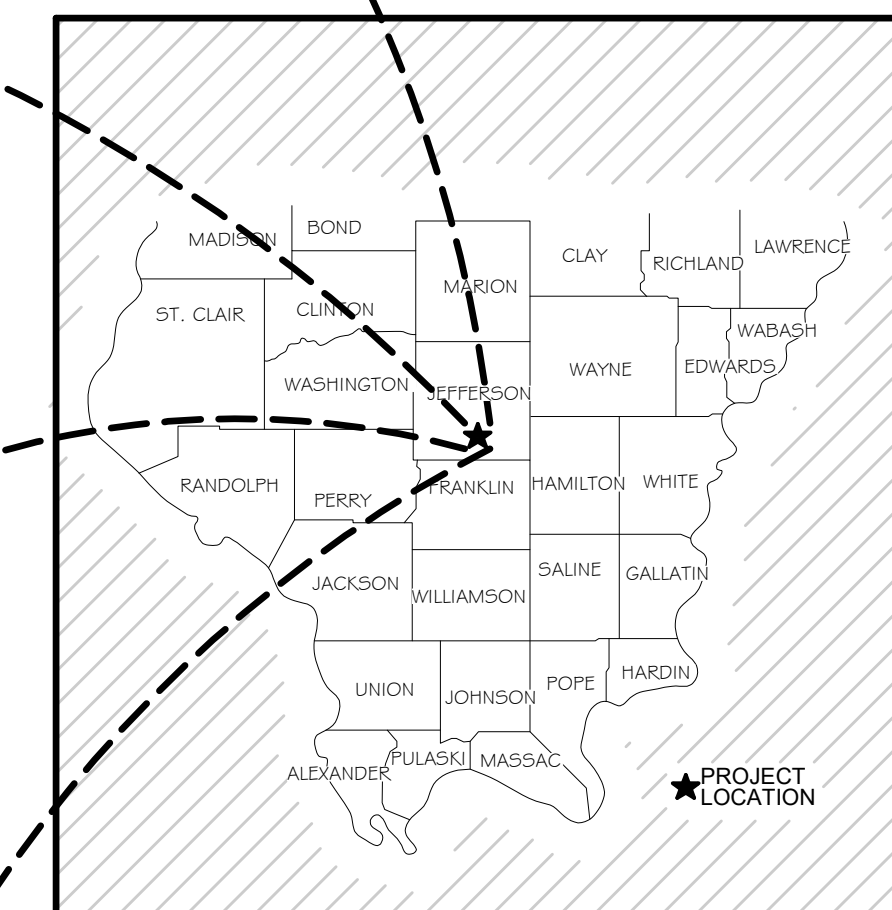
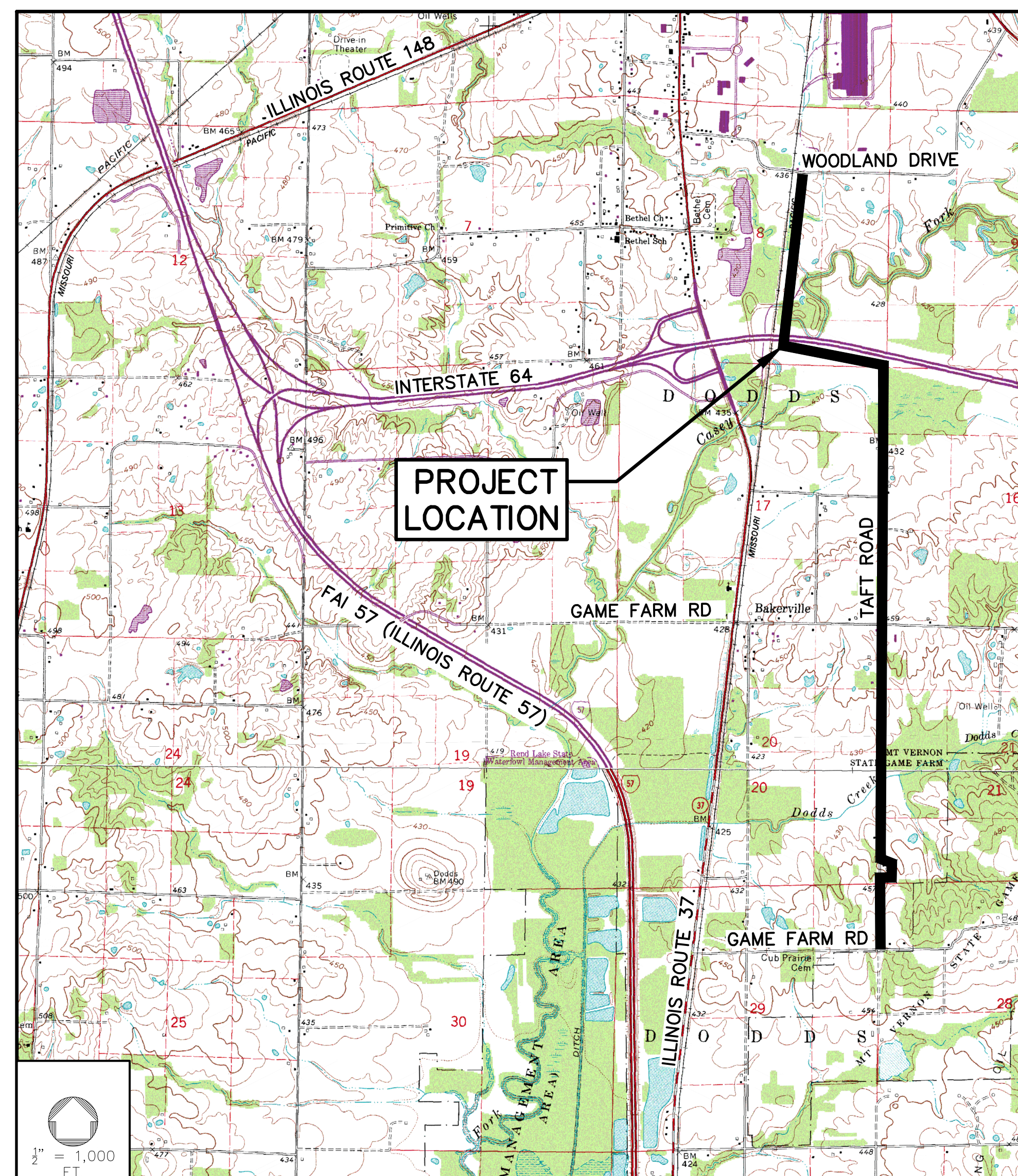
RLCD-19-02

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DESIGN ENGINEER'S SEAL

DATE: OCTOBER 09, 2024

ENGINEER: *Sean Pickford*

ENGINEER'S PRINTED NAME: SEAN PICKFORD, P.E.

LICENSE EXPIRES: NOVEMBER 30TH, 2024

DISTRICT ENGINEER'S RECOMMENDATION TO BID:

DATE: OCTOBER 09, 2024

DISTRICT ENGINEER: *Sean Pickford*

ENGINEER'S PRINTED NAME: SEAN PICKFORD, P.E.

GENERAL MANAGER'S APPROVAL TO BID:

DATE: OCTOBER 09, 2024

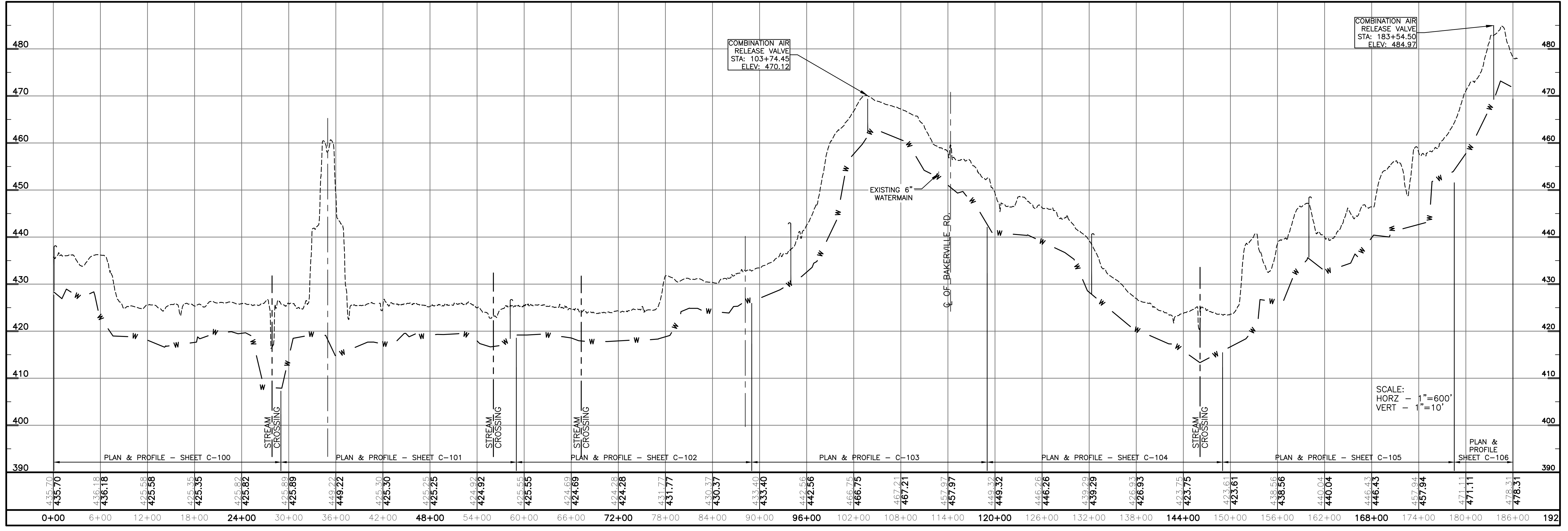
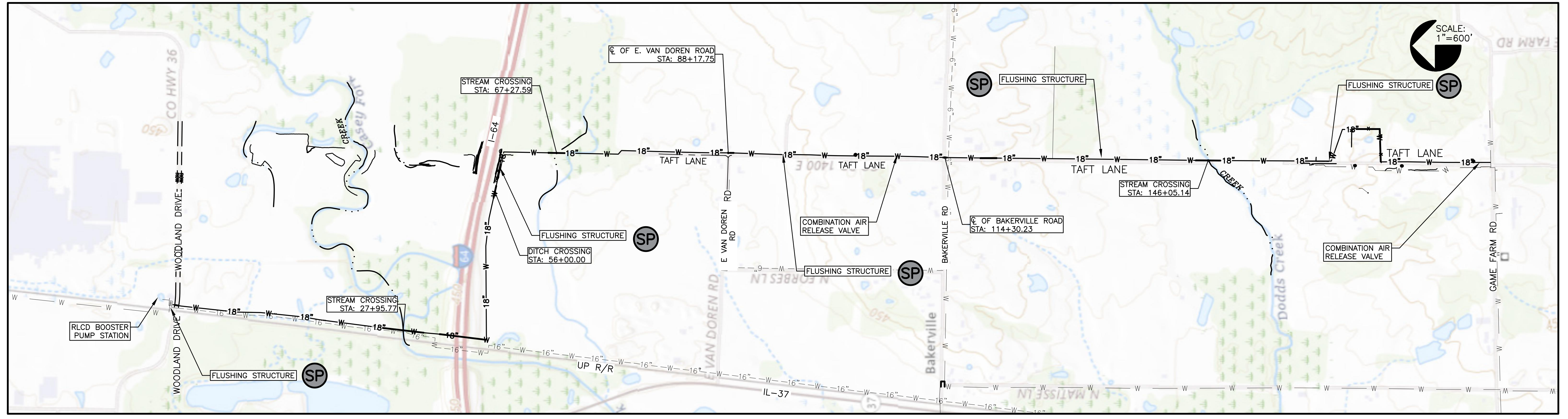
GENERAL MANAGER: *Gary Williams*

GENERAL MANAGER'S PRINTED NAME: GARY WILLIAMS, MPA

PROJECT LOCATION MAP

DATE: 10/04/2024

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THE REND LAKE
CONSERVANCY DISTRICT

11231 MARCUM BRANCH ROAD, BENTON, IL 62812

Sheet Title: PROJECT OVERVIEW
Project Title: INFRASTRUCTURE WATERMAIN RELIABILITY PROGRAM
18" WATERMAIN
JEFFERSON COUNTY, ILLINOIS

JOB NO: 19-02
DRAWN BY: SPD
DATE: 10/04/2024
REVISIONS:

G-100
OF 16 SHEETS

NOTES

GENERAL

- CONSTRUCTION SHALL BE IN ACCORDANCE WITH THESE DRAWINGS, PROVIDED TECHNICAL SPECIFICATIONS, THE "STANDARD SPECIFICATIONS FOR WATER & SEWER MAIN CONSTRUCTION IN ILLINOIS", LATEST EDITION, AND ALL LOCAL AND STATE CODES GOVERNING THE CONSTRUCTION OF THE PROPOSED FACILITIES.
- THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE PRIOR TO COMMENCING CONSTRUCTION. SHOULD ANY DISCREPANCIES OR CONFLICTS BECOME EVIDENT, THE CONTRACTOR SHALL NOTIFY THE DISTRICT PRIOR TO COMMENCING WITH THE PROPOSED WORK.
- RIGHT OF WAYS, PROPERTY LINES, UNDERGROUND STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS AND, THEREFORE, THEIR LOCATION MUST BE CONSIDERED APPROXIMATE ONLY. THERE WILL BE UTILITIES, RIGHTS OF WAY OR OTHER INFORMATION WITHIN THE PROJECT LIMITS NOT SHOWN. THE VERIFICATION OF THE LOCATION OF ALL PROPERTY LINES, RIGHTS OF WAY, UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES EITHER SHOWN OR NOT SHOWN ON THESE PLANS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR SHALL CONTACT J.U.L.I.E. OPERATOR AT 1-800-892-0123 FOR MARKING OF EXISTING UNDERGROUND UTILITIES. J.U.L.I.E. SHOULD BE CONTACTED A MINIMUM OF SEVEN (7) DAYS IN ADVANCE OF CONSTRUCTION. CONTRACTOR SHALL MEET ALL STATE AND LOCAL REQUIREMENTS FOR CROSSING ANY UTILITIES.
- CONTRACTOR IS TO PROTECT ALL UTILITIES WITHIN THE PROJECT LIMITS. UTILITY CROSSINGS MUST BE PROTECTED TO THE SATISFACTION TO THE DISTRICT, AND UTILITY OWNER. ALL CROSSINGS SHALL BE PER ALL APPLICABLE STATE, LOCAL, AND FEDERAL REGULATIONS.
- CONTRACTOR IS TO VERIFY THE LOCATION OF OBSTRUCTIONS AND UTILITIES IN TIMELY MANNER SO AS TO NOT REQUIRE THE WORK THAT HAS BEEN PERFORMED TO BE UNDONE AND THEN REINSTALLED. THIS WORK MUST BE CONSIDERED INCIDENTAL TO THE PROPOSED WATERMAIN INSTALLATION.
- ANY FENCES, LANDSCAPING, DRIVEWAYS, OR ANY OTHER RELATED ELEMENTS EITHER SHOWN OR NOT SHOWN ON THE PLANS MUST BE REPAIRED/REPLACED TO THE SATISFACTION OF THE DISTRICT AND THE PROPERTY OWNER. IF CONCRETE DRIVES ARE CROSSED, THE DISTRICT WILL DETERMINE THE EXTENT OF THE REPLACEMENT WITH THE LIMITS BEING CONFINED TO WITHIN THE EXISTING RIGHT OF WAY OR DISTRICT EASEMENT.
- TREES ARE TO BE PROTECTED AND NOT REMOVED UNLESS THE TREE LIES IN DIRECT CONFLICT WITH THE PROPOSED WORK. TREE REMOVAL MUST BE PRE-APPROVED BY THE DISTRICT. CONTRACTOR IS RESPONSIBLE FOR STUMP REMOVAL 10 FEET EACH SIDE OF THE PROPOSED WATERMAIN WORK.
- CONTRACTOR SHALL COORDINATE WITH THE OWNER BEFORE OPERATING ANY WATER VALVES IN THE SYSTEM. NO VALVES SHALL BE OPERATED NOR ANY WATER MAINS SHUTDOWN WITHOUT PRIOR APPROVAL FROM THE OWNER.
- DISTRICT MAY REQUEST PIPE PUSHING IN SOME SHORT INSTANCES TO CROSS OBSTACLES SUCH AS SIDEWALKS, CURB & GUTTER, ETC. PIPE PUSHING IF REQUIRED SHALL BE CONSIDERED INCIDENTAL TO THE WORK.
- CONNECTION OF THE PROPOSED WORK WILL NOT BE ALLOWED UNTIL APPROVED BY THE DISTRICT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ANY PERMITS/LICENSES REQUIRED FOR THE CONSTRUCTION OF THE PROJECT BUT NOT PROVIDED DURING THE BIDDING OF THE PROJECT.

EROSION CONTROL

- REVIEW THE SPECIAL PROVISIONS TO SEE IF A NATIONAL POLLUTION ELIMINATION DISCHARGE SYSTEM (NPDES) PERMIT FOR CONSTRUCTION SITE ACTIVITIES PERMIT IS REQUIRED FOR THIS PROJECT. IF A PERMIT IS REQUIRED, THE CONTRACTOR WILL BE REQUIRED TO ADHERE TO ALL CONDITIONS OF THE PERMIT. SEE THE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.
- IF A PERMIT IS NOT REQUIRED, THE CONTRACTOR MUST STILL UTILIZE EROSION CONTROL MEASURES SO THAT SOILS AND OTHER MATERIALS DO NOT MIGRATE FROM THE PROJECT SITE. THESE MEASURES ARE TO BE APPROVED BY THE DISTRICT PRIOR TO THE START OF CONSTRUCTION. IF APPROVED MEASURES DO NOT STOP THE MIGRATION OF MATERIALS OFFSITE THEN THE CONTRACTOR MUST IMPLEMENT ADDITIONAL MEASURES AS APPROVED BY THE DISTRICT.
- IF NEEDED TO CONTROL EROSION, THE CONTRACTOR WILL BE REQUIRED TO ESTABLISH TEMPORARY VEGETATION DURING THE PROJECT. IF THIS IS REQUIRED, THIS WORK MUST BE CONSIDERED INCIDENTAL TO THE INSTALLATION OF THE WATERMAIN AND IS NOT PART OF THE FINAL CLEANUP.
- THE MAXIMUM LINEAR LENGTH OF TRENCH THAT WILL BE ALLOWED TO BE EXCAVATED DURING CONSTRUCTION IS 40 FEET. THE CONTRACTOR WILL NOT BE ALLOWED TO LEAVE AN EXCAVATION OPEN WHILE THE WORK IS NOT BEING PERFORMED.

WATERMAIN

- PVC WATERMAIN MUST BE ANSI/AWWA C900 OR 905, DR 18 AND BEAR THE SEAL OF APPROVAL AND CONFORM TO ASTM D-1784 DESIGNATED CELL CLASS 12454, NSF STANDARD 14. JOINTS MUST MEET THE REQUIREMENT OF ASTM F477 AND ASTM D-3139. COLOR OF THE PIPE: BLUE. MINIMUM COVER SHALL BE 3.5 FEET.
- PVC WATERMAIN SHALL HAVE LOCATOR WIRE INSTALLED IN THE SAME TRENCH AS THE WATERMAIN, SEE SPECIFICATIONS.
- CONTRACTOR IS TO MAINTAIN WATER AND SEWER SEPARATION AS REQUIRED BY TITLE 35 SUBTITLE C CHAPTER II PART 370.350 OF THE ILLINOIS ADMINISTRATIVE CODE.
- FITTINGS USED FOR PIPING SHALL BE DUCTILE IRON ANSI/AWWA C153 MECHANICAL RESTRAINED JOINT DUCTILE IRON, SEE SPECIFICATIONS. RESTRAINED LENGTH SHALL BE MIN. 20 FEET.
- CA-7 TRENCH BACKFILL IS TO BE PROVIDED WHEN PIPES ARE INSTALLED WITHIN TWO (2) FEET OF THE EDGE OF ANY ROAD SURFACE.
- WATERMAIN IS TO BE PRESSURE TESTED AS PER SECTION 41.2.14 OF THE ILLINOIS STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION. THE TEST PRESSURE SHALL BE 180 PSI.
- TEMPORARY SAMPLE SITES WILL BE REQUIRED. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE WATERMAIN CONSTRUCTION.
- THE EXISTING WATERMAIN WILL BE ABANDONED BY FILLING WITH CONCRETE TO THE SATISFACTION OF THE ENGINEER. THIS WORK IS INCIDENTAL TO THE WATERMAIN CONSTRUCTION.
- THE EXISTING WATER VALVES SHALL BE ABANDONED BY REMOVING SIX (6) INCHES BELOW GRADE. THIS WORK IS INCIDENTAL TO THE WATERMAIN CONSTRUCTION.
- VALVES LOCATED ADJACENT TO ROADS SHALL BE PLACED ON THE EDGE OF THE MOWED ROADWAY, UNLESS OTHERWISE INDICATED OR DIRECTED BY THE ENGINEER.
- CONTRACTOR IS TO ONLY DEFLECT PIPE PER JOINT DEFLECTION AS ALLOWED BY PIPE MANUFACTURER. ADDITIONAL DEPTH REQUIRED IS CONSIDERED INCIDENTAL.

TRAFFIC CONTROL NOTES

- TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, THE TRAFFIC CONTROL ITEMS, THE GUIDELINES CONTAINED IN THE NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREET AND HIGHWAYS, AND ANY SPECIAL DETAILS AND HIGHWAY STANDARDS CONTAINED HEREIN. CONTRACTOR MUST ALSO ADHERE TO THE TRAFFIC CONTROL PROVISIONS OF THE WORK ON RIGHT OF WAY PERMITS.

EXISTING PAVEMENT NOTES

- THE THICKNESS OF THE EXISTING PAVEMENTS HAVE NOT BEEN VERIFIED.
- CONTRACTOR IS TO REPLACE PAVEMENT TO THE EXISTING THICKNESS AS PER IDOT STANDARDS, AND AS REQUIRED BY THE OWNER/OPERATOR OF SAID ROAD.
- ALL SIDEWALK REPLACEMENT SHALL BE A MINIMUM 4" THICK EXCEPT AT DRIVEWAYS WHERE THE SIDEWALK THICKNESS SHALL BE A MINIMUM 6" THICK.

WATERMAIN BACTERIAL TESTING

- CONTRACTOR TO PROVIDE ANY AND ALL REQUIRED BACTERIAL TESTING AS REQUIRED PER IEPA PERMIT.
- THE CONTRACTOR IS TO PREPARE THE SAMPLE SITES AS NECESSARY WITH THE DISTRICT ACTUALLY COLLECTING THE SAMPLES. FAILED SAMPLES WHICH REQUIRE ADDITIONAL SAMPLING AND ALL SAMPLING INCLUDING ANY ANCILLARY ITEMS, LABOR, & ETC. MUST BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION OF THE WATERMAIN PER SECTION 1150 OF THE PROVIDED SPECIFICATIONS.
- CONTRACTOR IS TO ADHERE TO ALL OF THE CONDITIONS OF THE I.E.P.A. CONSTRUCTION PERMIT.
- THE SAMPLE SITE LOCATIONS ARE AT THE FLUSHING STRUCTURES AS SHOWN ON THE PLANS AND AS REQUIRED BY THE IEPA CONSTRUCTION PERMIT.
- AS PART OF THE FLUSHING OF THE WATERMAIN THE CONTRACTOR MUST FLUSH FROM BOTH ENDS OF THE CONNECTIONS FOR EACH OF THE PROPOSED WATERMAIN.

PARTIAL LIST OF ABBREVIATIONS

EA	EACH	CY	CUBIC YARD	DR	DIMENSION RATIO	GRAV	GRAVEL
LF	LINEAR FOOT	TN	TON	PVC	POLY VINYL CHLORIDE	CONC	CONCRETE
LS	LUMP SUM	D.I.	DUCTILE IRON	HDPE	HIGH DENSITY POLYETHYLENE		
SY	SQUARE YARD	M.J.	MECHANICAL RESTRAINED JOINT	BIT	BITUMINOUS PAVEMENT		

WATERMAIN EASEMENT NOTES

- ALL ROAD RIGHTS OF WAY ARE APPARENT AND FROM VISUAL DOCUMENTATION AND MAPPING. IT IS TO BE UNDERSTOOD THAT FIELD ADJUSTMENTS ARE POSSIBLE DUE AVOIDING OF ROAD RIGHTS OF WAY.
- THE PERMANENT WATERMAIN EASEMENT FOR THE PROPOSED PROJECT IS 20' IN WIDTH FOR ALL PARCELS EXCEPT NORTH OF I-64 WHERE EXISTING EASEMENT IS LOCATED. CONTRACTOR IS TO TYPICALLY INSTALL THE WATERMAIN IN THE CENTER OF THE PERMANENT EASEMENT UNLESS CONDITIONS THAT CAN BE SHOWN THAT PROHIBIT IT.
- THE TEMPORARY CONSTRUCTION EASEMENT FOR THE PROPOSED PROJECT IS 30' IN WIDTH OFF OF THE 20' PERMANENT EASEMENT EXCEPT NORTH OF I-64.
- VARIOUS INCIDENTAL ITEMS FOR THE EASEMENTS ARE SHOWN ON THE PLAN SHEETS.
- TOWNSHIP ROAD RIGHT OF WAY IS TO BE CONSIDERED 40' WIDE OR TOP OF SLOPE WHERE ROAD DITCH IS APPARENTLY OUTSIDE OF THE 40'.
- WATERMAIN IS TO BE INSTALLED OUTSIDE OF ALL ROAD RIGHTS OF WAY EXCEPT AS SHOWN BY DETAILS.
- LOCATE EXISTING 2" PIPE BY HYDRO EXCAVATING EVERY 20' BEFORE COMMENCING WORK ON THE FOLLOWING LISTED PARCELS. WORK WILL NOT BE ALLOWED TO COMMENCE UNTIL PIPE ALIGNMENT HAS BEEN VISUALLY VERIFIED AND WITNESSED BY THE LANDOWNER AND THE DISTRICT ENGINEER.
 - 11-21-100-008
 - 11-21-100-002
 - 11-21-100-003

SUMMARY OF QUANTITIES

ITEM NO.	BID ITEM	UNIT	QUANTITY
1.	PVC C-905 DR18 WATERMAIN OPEN CUT 18"	LF	16,595
2.	PVC C-905 DR18 WATERMAIN DIRECTIONAL BORE 18"	LF	1,450
3.	PVC C-905 DR18 WATERMAIN IN CASING 18"	LF	670
4.	HDPE C-906 DR32.5 CASING PIPE DIRECTIONAL BORE 30"	LF	650
5.	D.I. M.J. C-153 FITTING 90 DEG 18"	EA	6
6.	D.I. M.J. C-153 FITTING 45 DEG 18"	EA	4
7.	D.I. M.J. C-153 FITTING TEE 18"x6"	EA	5
8.	D.I. M.J. C-153 FITTING REDUCER 18"x16"	EA	1
9.	D.I. M.J. C-153 FITTING SOLID SLEEVE 18"	EA	18
10.	S.S. C-223 TAPPING SLEEVE W/ TAPPING VALVE 16"	EA	1
11.	S.S. C-223 TAPPING SLEEVE W/ TAPPING VALVE 18"x16"	EA	1
12.	FLUSHING FIXTURE	EA	5
13.	COMBINATION AIR RELEASE VALVE	EA	2
14.	WATER SERVICE 3/4"	EA	7
15.	HDPE C-901 SDR9 WATER SERVICE OPEN CUT 3/4"	LF	350
16.	FERTILIZE & SEED	LF	16,705
17.	CA-7 TRENCH BACKFILL	CY	75
18.	RR-7 RIP RAP	CY	34
19.	ROCK EXCAVATION	CY	20
20.	VEGETATION & TREE CLEARING	EA	8.5
21.	24' METAL FIELD FENCE GATE	EA	5

LEGEND

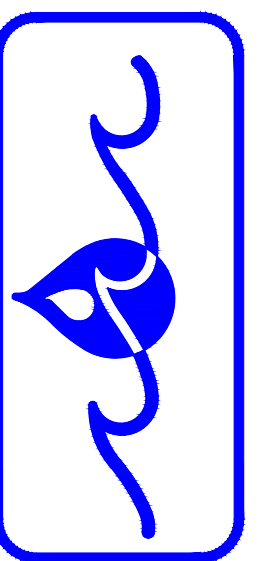
-----	TOPOGRAPHIC FEATURES		
--->---	EXISTING BUILDINGS & STRUCTURES	□	EXISTING UTILITY POLE
--->---	EXISTING DITCHES	□	EXISTING ELECTRIC METER
--->---	EXISTING SANITARY SEWERS	□	EXISTING COMMUNICATIONS PEDESTAL
--->---	EXISTING STORM SEWERS & CULVERTS	□	EXISTING GUYWIRE
--->---	EXISTING WATERLINES	□	EXISTING GAS VALVE
--->---	EXISTING WATER SERVICE LINES	□	EXISTING GAS METER
--->---	EXISTING GAS LINES	□	EXISTING DECIDUOUS TREE
--->---	EXISTING TELEPHONE LINES	□	EXISTING CONIFEROUS TREE
--->---	EXISTING CABLE TV LINES	□	EXISTING BUSH
--->---	EXISTING UNDERGROUND ELECTRIC	□	EXISTING STOP/STREET SIGN
--->---	EXISTING OVERHEAD ELECTRIC	□	EXISTING MAILBOX
--->---	EXISTING CHAINLINK FENCE	□	PROPOSED WATERMAIN
--->---	EXISTING FIBER OPTIC LINES	□	PROPOSED WATER SERVICE LINE
--->---	EXISTING WIRE FENCE	□	PROPOSED VALVE
--->---	EXISTING WOOD FENCE	□	PROPOSED FLUSHING STRUCTURE
--->---	EXISTING APPROXIMATE R.O.W. LINE	□	PROPOSED AIR RELEASE VAULT
--->---	EXISTING APPROXIMATE PROPERTY LINE	□	PROPOSED CASING
--->---	APPROXIMATE CENTERLINE	□	PROPOSED DIRECTIONAL BORE
--->---	APPROXIMATE 1/4 LINE	□	PROPOSED IMPROVED SURFACE REMOVE/REPLACE
--->---	APPROXIMATE 1/4 1/4 LINE	□	PROPOSED SAMPLE SITE
--->---	APPROXIMATE SECTION LINE	□	
--->---	APPROXIMATE TOWNSHIP LINE	□	
--->---	APPROXIMATE RANGE LINE	□	
○	EXISTING HYDRANT	□	PERMANENT EASEMENT
⊗	EXISTING WATER VALVE	□	TEMPORARY EASEMENT
⊗	EXISTING WATER METER	□	
⊗	EXISTING STORM INLET - TYPE 15	□	
⊗	EXISTING STORM MANHOLE	□	
⊗	EXISTING STORM INLET - TYPE 3	□	
⊗	EXISTING STORM FLARED END	□	
⊗	EXISTING SANITARY MANHOLE	□	
⊗	EXISTING SIGN	□	
⊗	EXISTING SIGN LARGE	□	
⊗	EXISTING LIGHT POLE	□	

APPLICABLE STANDARDS

- REND LAKE CONSERVANCY DISTRICT STANDARD DRAWINGS
 - AS ATTACHED TO THESE DRAWINGS
- ILLINOIS STANDARD SPECIFICATIONS FOR WATER & SEWER CONSTRUCTION, LATEST EDITION
 - AS ATTACHED TO THESE DRAWINGS AND AS SPECIFIED
- AMERICAN WATERWORKS ASSOCIATION
 - AS SPECIFIED
- IDOT STANDARDS
 - B.L.R. 28 CONCRETE CURB TYPE B AND COMBINATION CURB AND GUTTER
 - B.L.R. 14-12 PORTLAND CEMENT CONCRETE PAVEMENT (NONREINFORCED)
 - B.L.R. 10-7 PCC PAVEMENT SPECIAL (NONREINFORCED)
 - 701001-02 OFF-RD OPERATIONS, 2L, 2W MORE THAN 15FT
 - 701006-05 OFF-RD OPERATIONS, 2L, 2W 15' TO 24" FROM PAVEMENT EDGE
 - 701301-04 LANE CLOSURE, 2L, 2W SHORT TIME OPERATIONS
 - 701501-06 URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
 - 701901-06 TRAFFIC CONTROL DEVICES

Sheet Title: QUANTITIES, LEGEND, AND GENERAL NOTES
 Project Title: INFRASTRUCTURE WATERMAIN RELIABILITY PROGRAM
 18" WATERMAIN
 JEFFERSON COUNTY, ILLINOIS

THE REND LAKE
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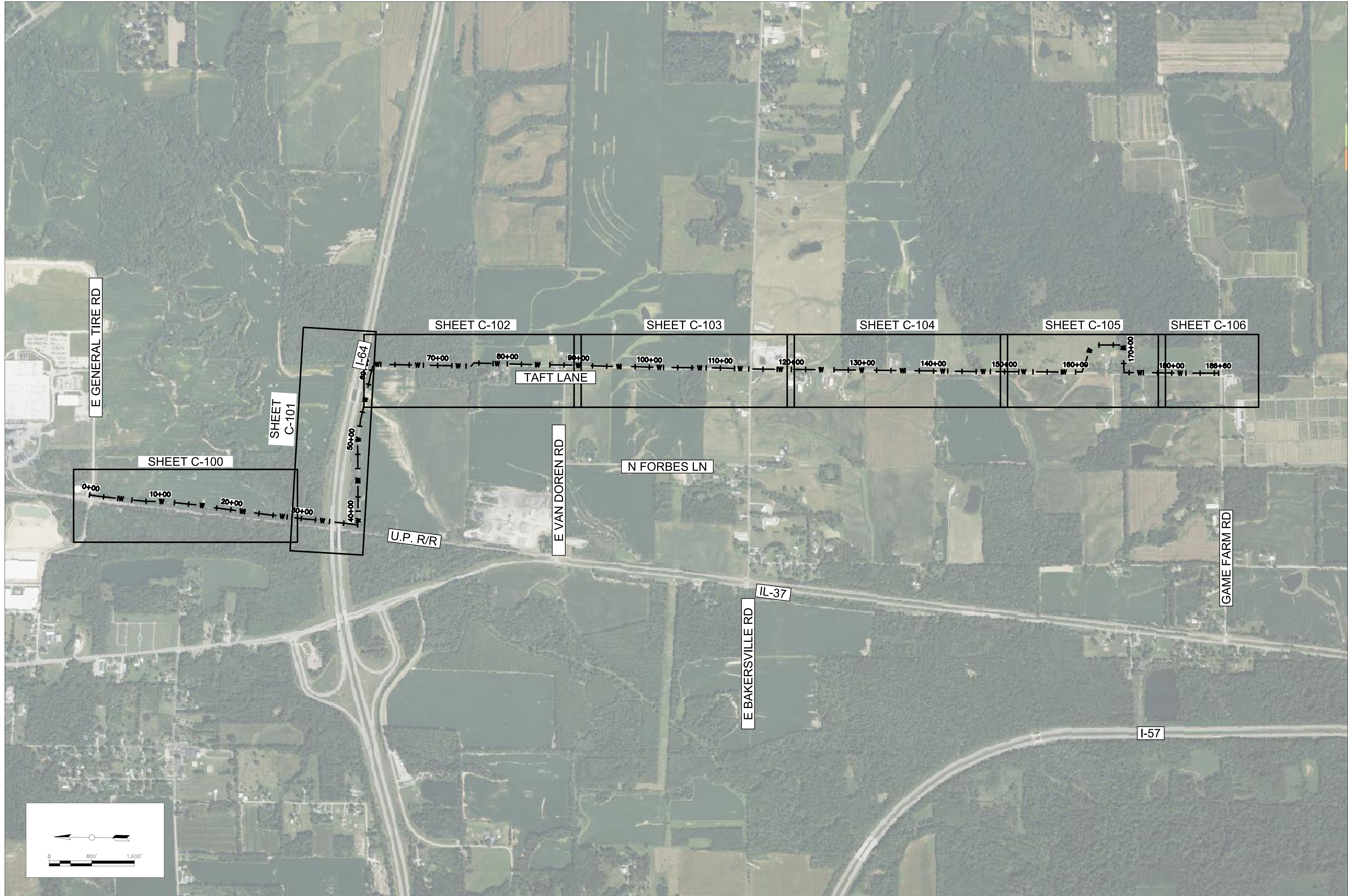


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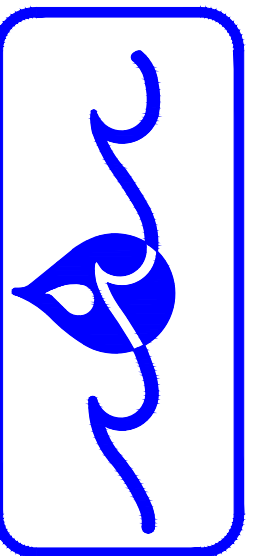


PROJECT INDEX MAP

Sheet Title: DRAWING INDEX

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 18" WATERMAIN
 JEFFERSON COUNTY, ILLINOIS

THE REND LAKE
 CONSERVANCY DISTRICT

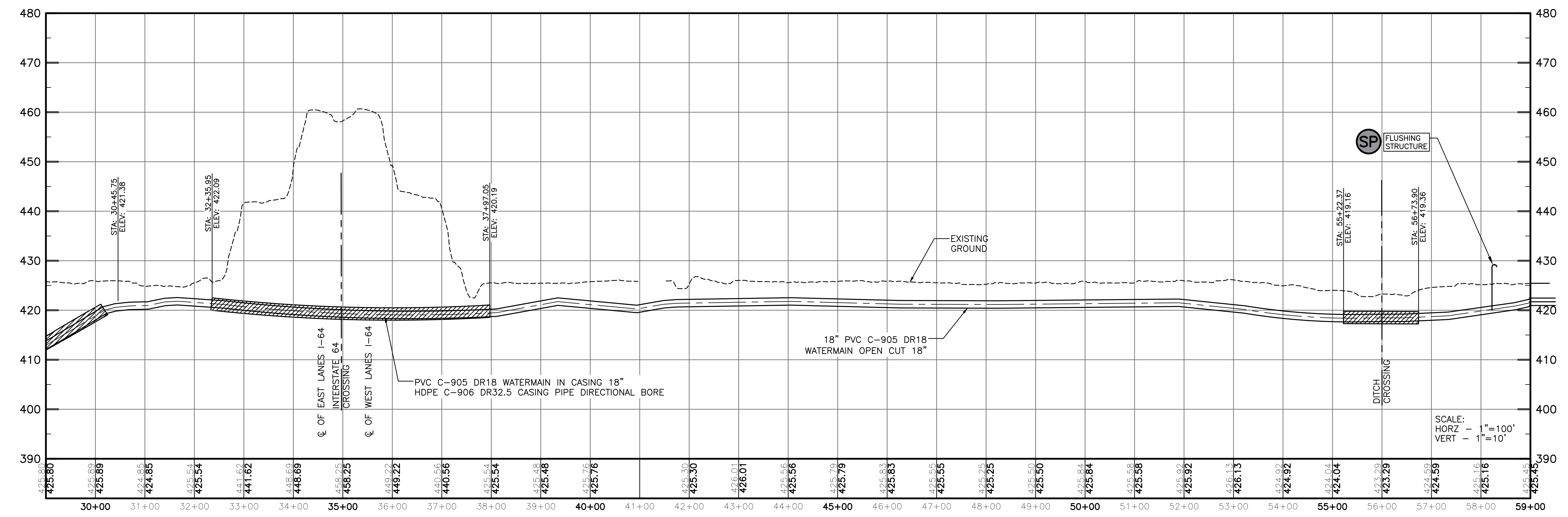
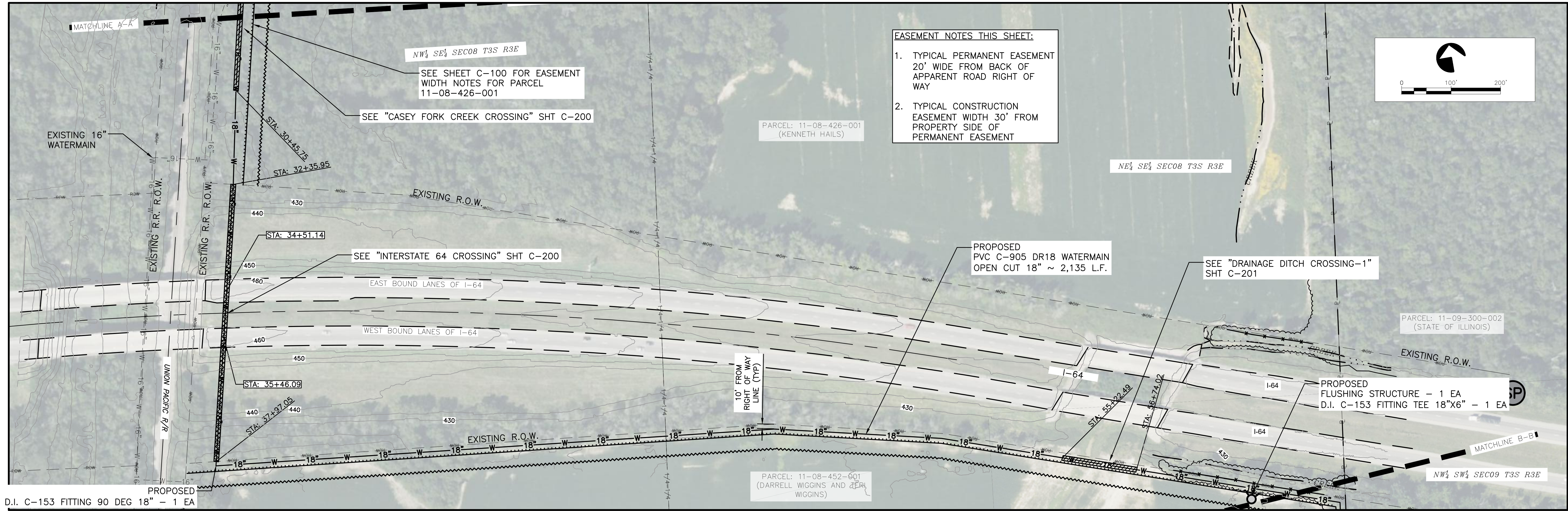


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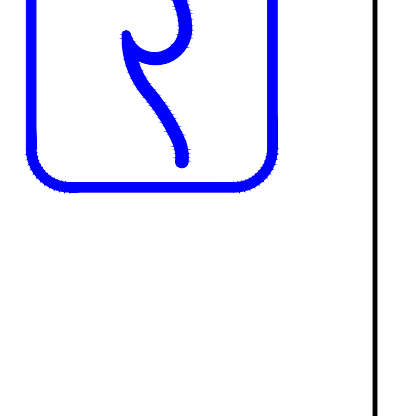
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OF 16 SHEETS



Sheet Title: 18" WATERMAIN PLAN (STA. 29+00 - 59+00)
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 18" WATERMAIN
 JEFFERSON COUNTY, ILLINOIS

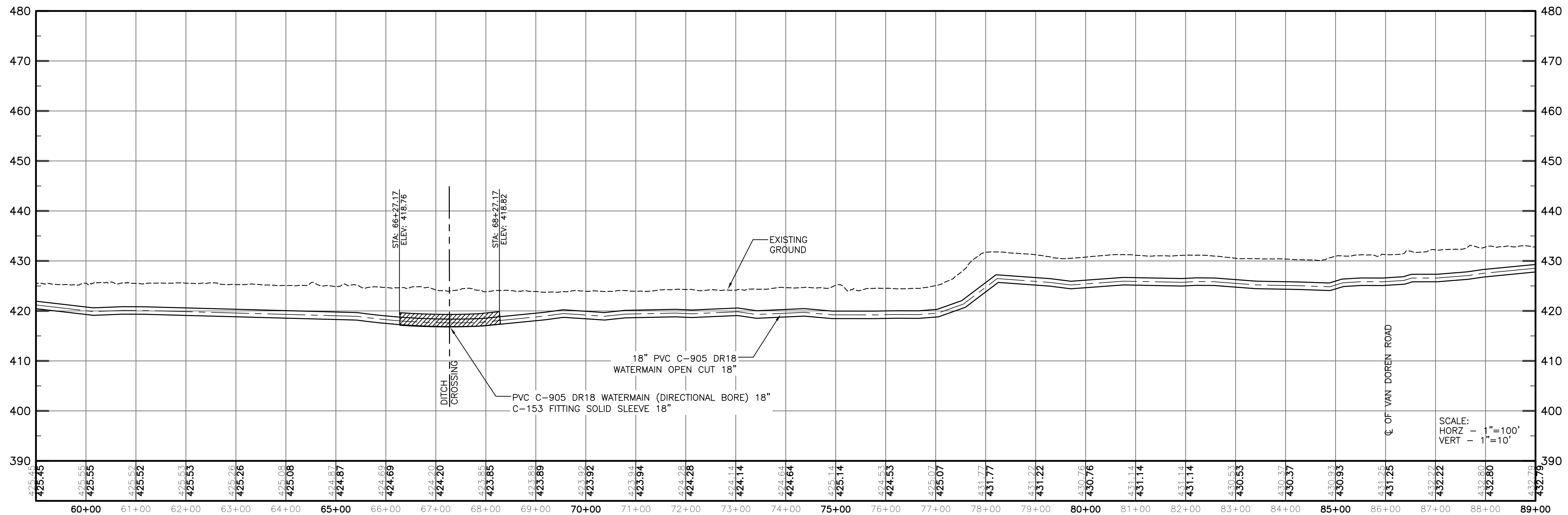
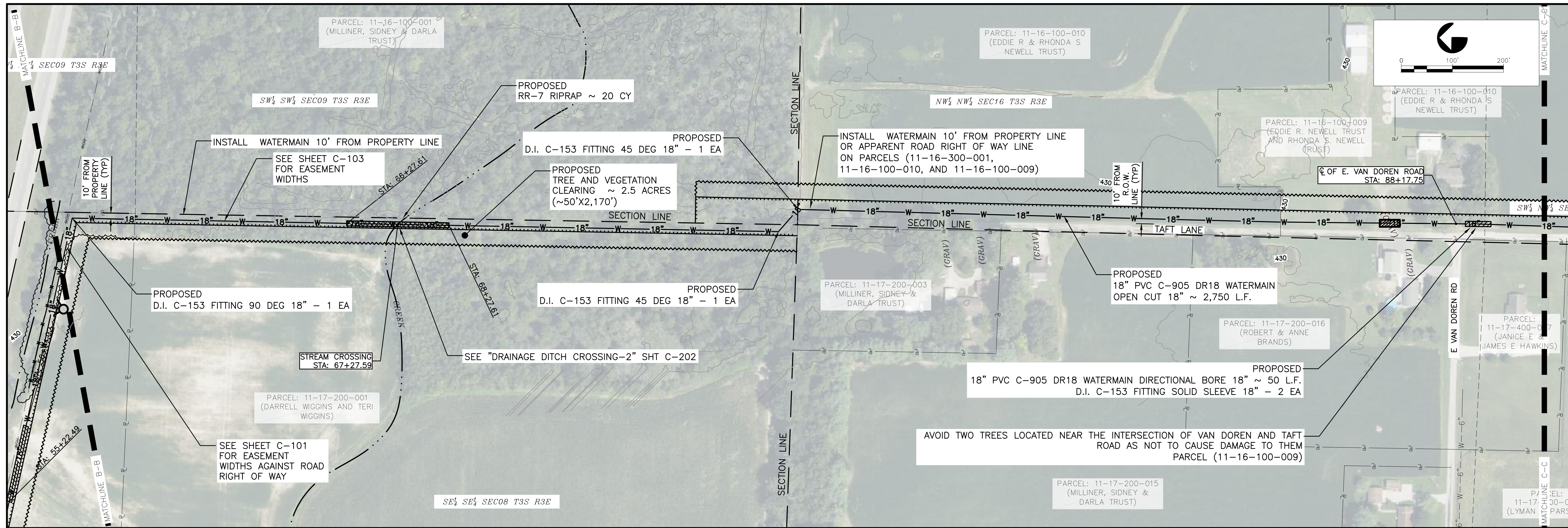
THE REND LAKE
 CONSERVANCY DISTRICT



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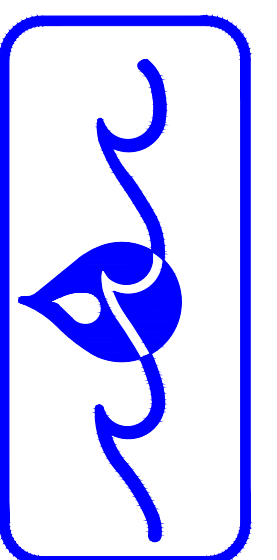
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11231 MARCUM BRANCH ROAD, BENTON, IL 62812



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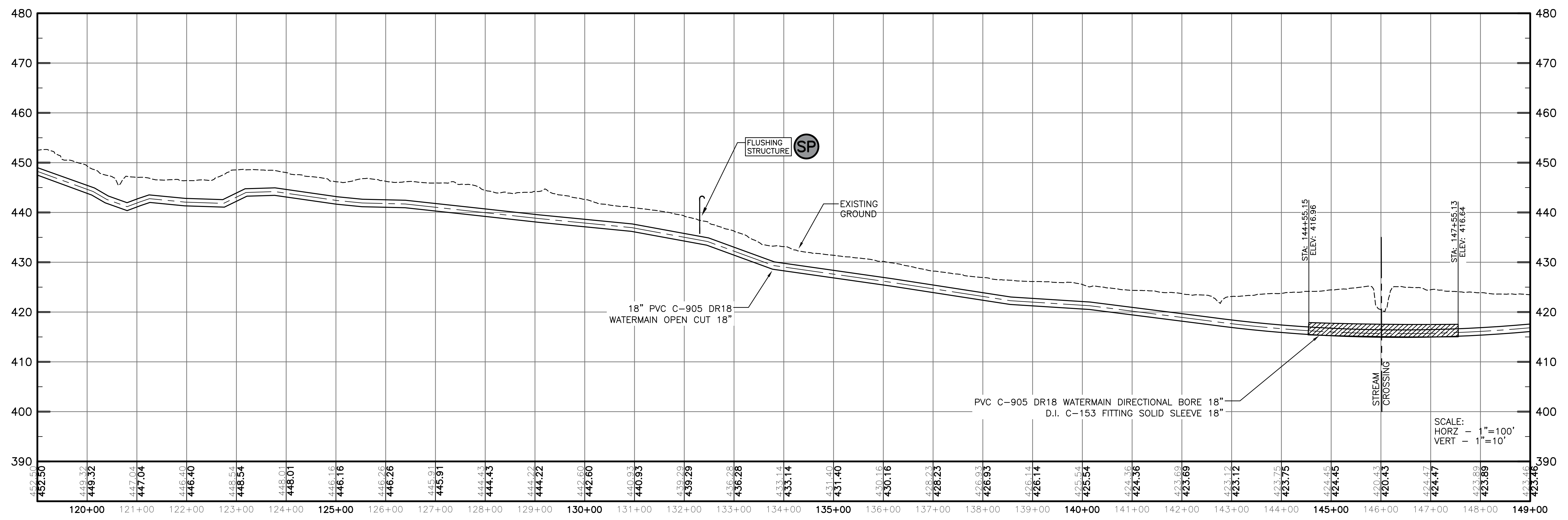
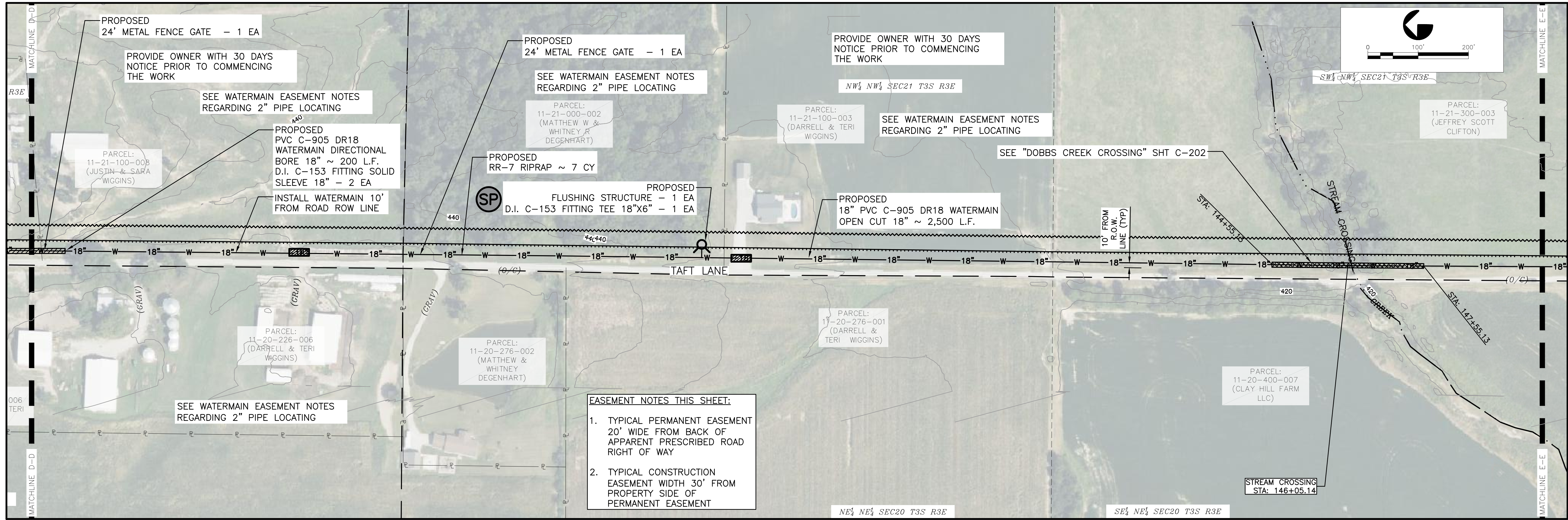


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Sheet Title: 18" WATERMAIN PLAN (STA. 119+00 - 149+00)

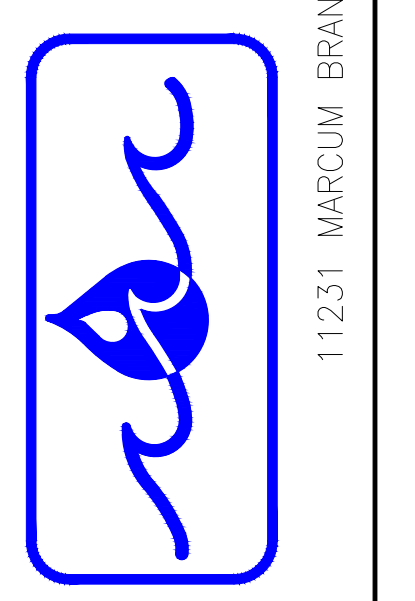
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THE REND LAKE CONSERVANCY DISTRICT

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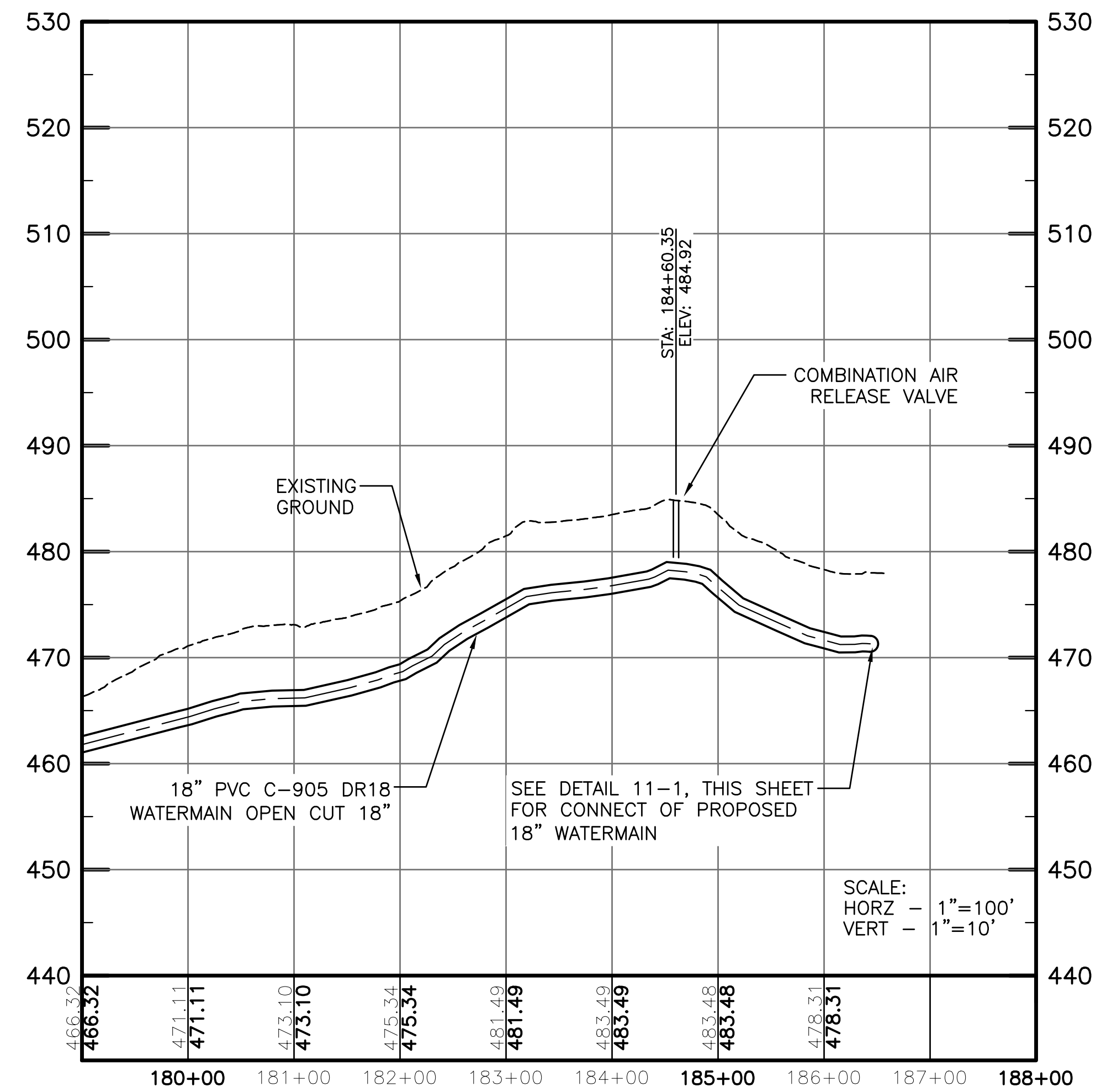
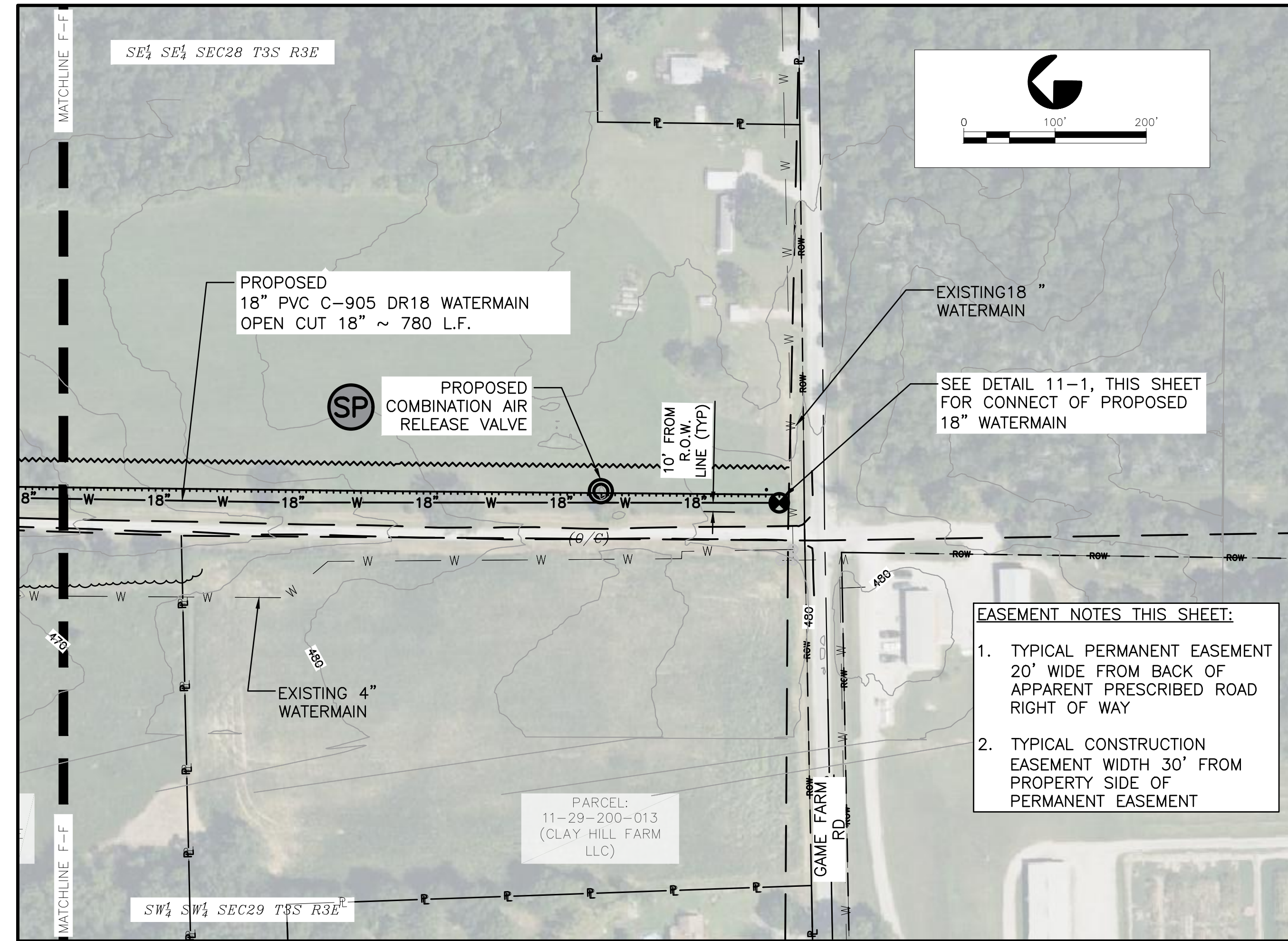
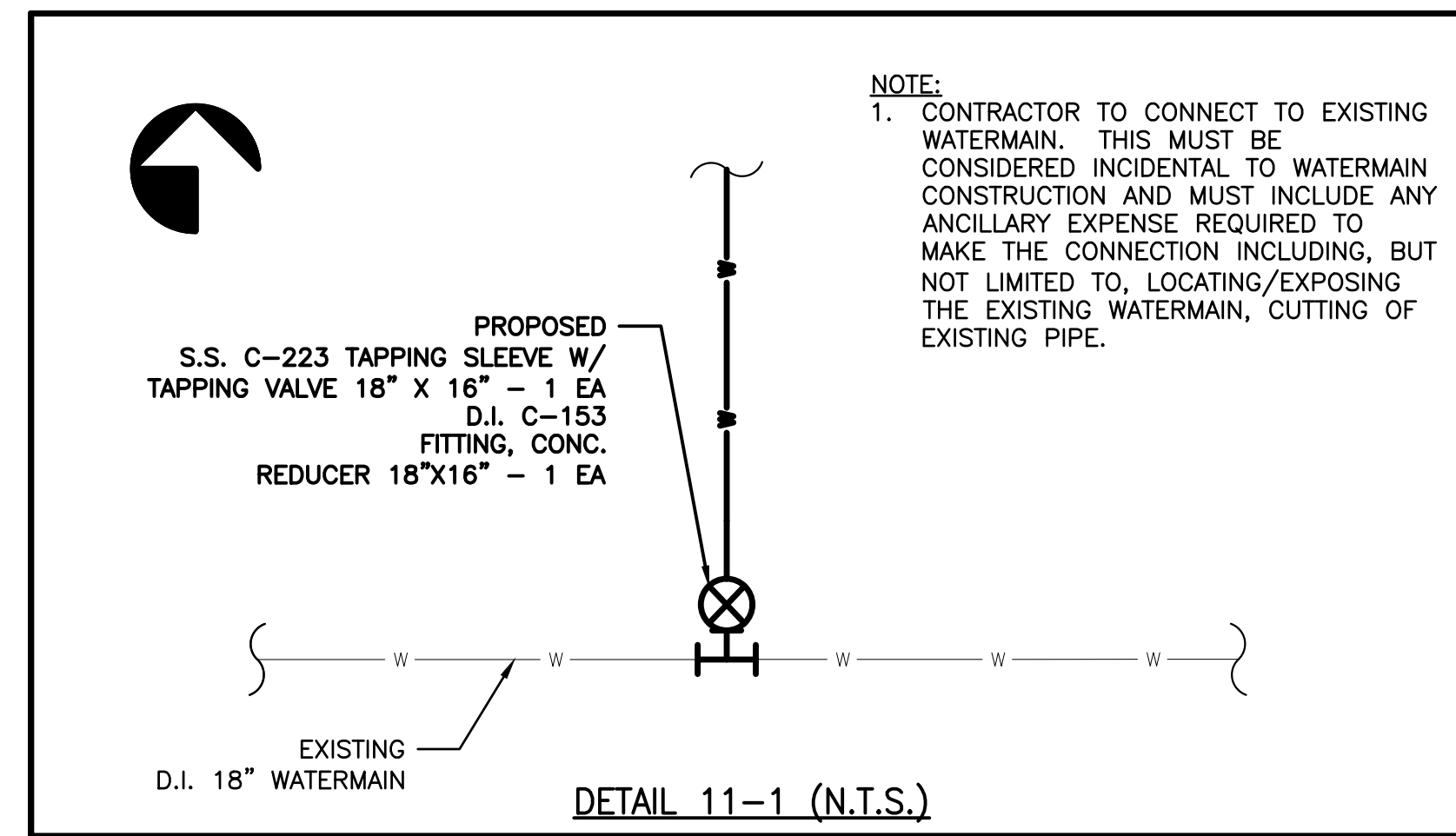
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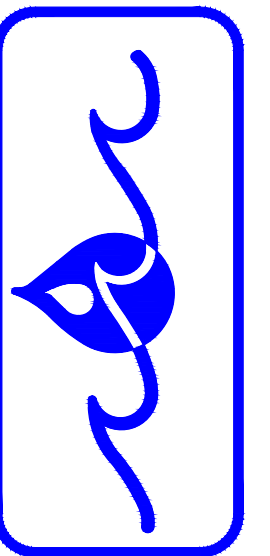
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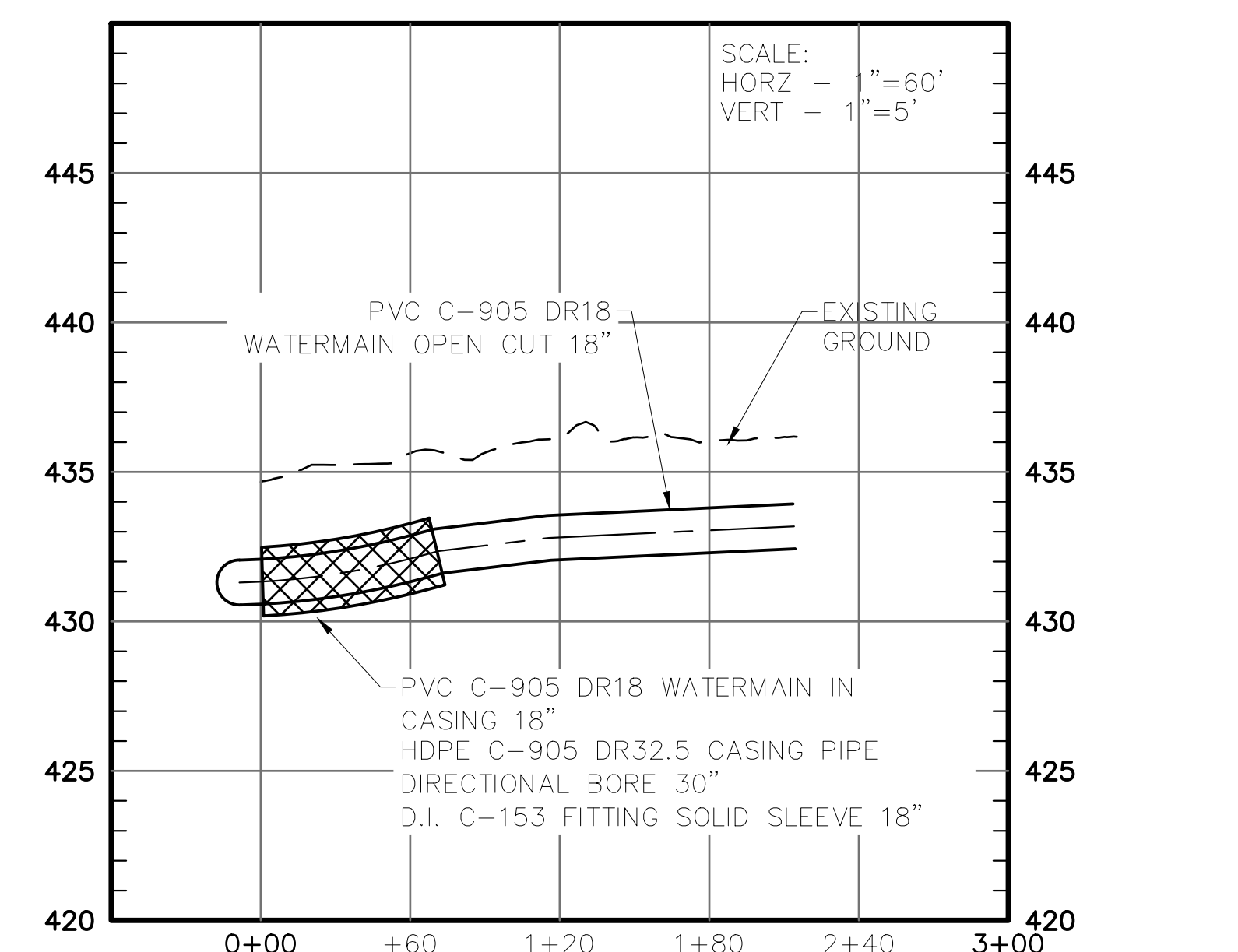
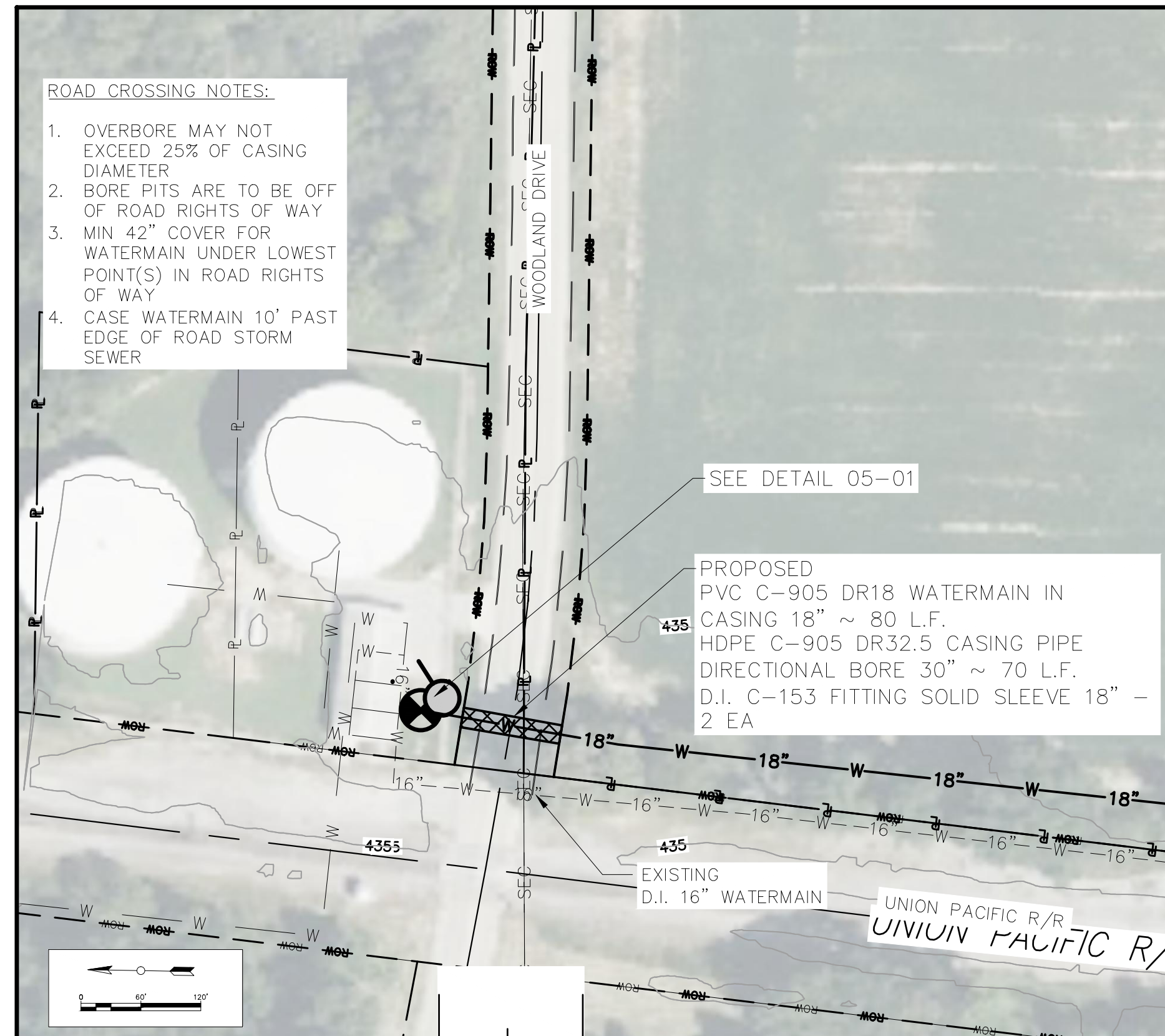


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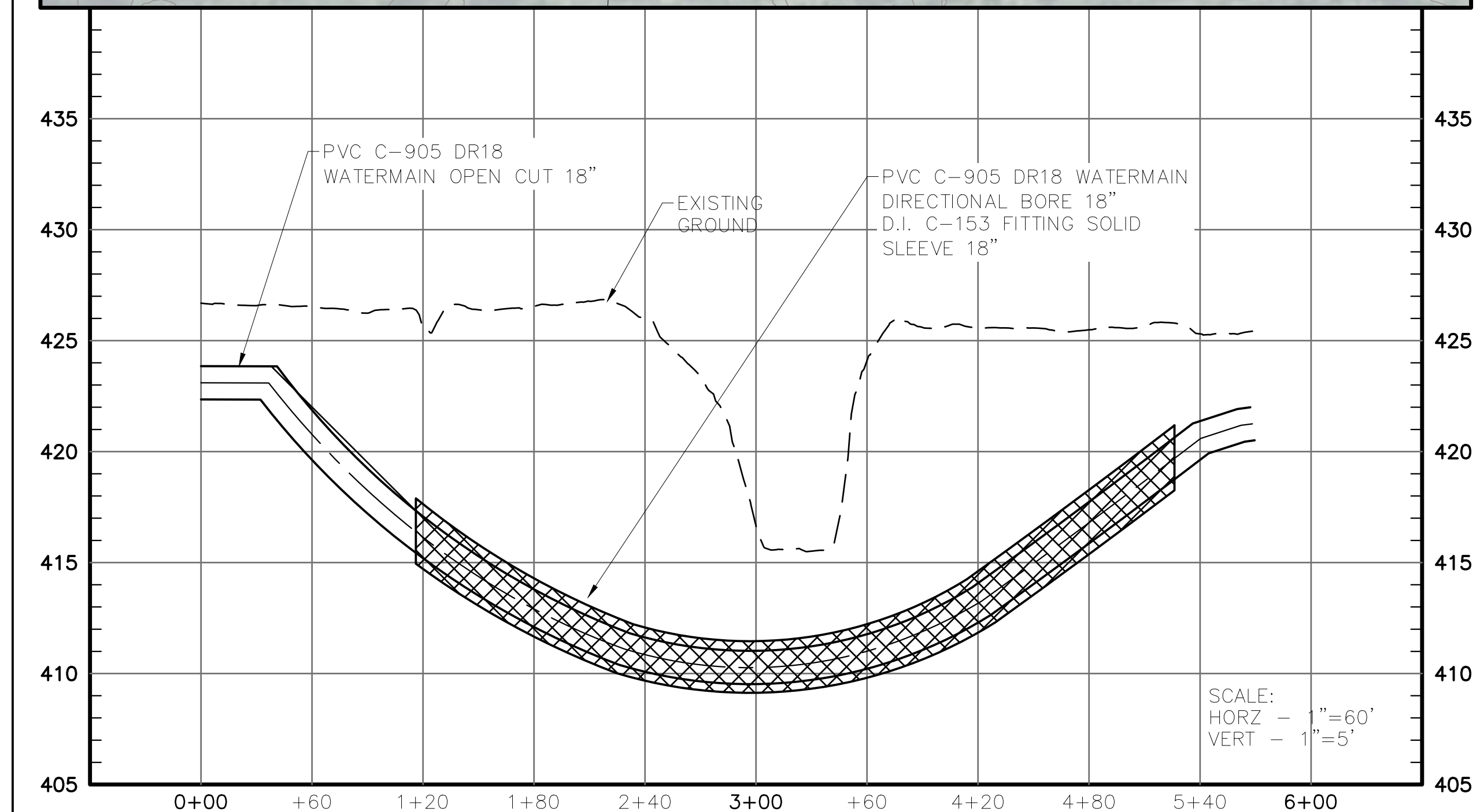
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DATE: 10/04/2024
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WATERMAIN PROFILE WOODLAND DRIVE ROAD CROSSING
SCALE: 1"=60'



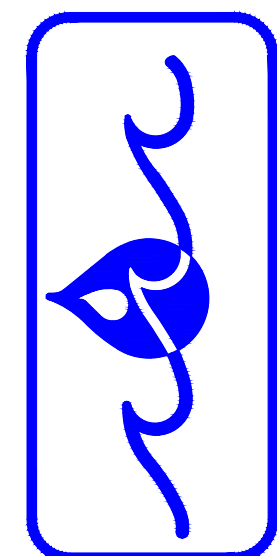
CREEK CROSSING NOTES

1. MIN. DEPTH UNDER LOWEST PART OF CREEK 48"

WATERMAIN PROFILE CASEY FORK CREEK CROSSING
SCALE: 1"=60'

Sheet Title: HIGHWAY/STREAM CROSSING PROFILES
Project Title: INFRASTRUCTURE WATERMAIN RELIABILITY PROGRAM
18" WATERMAIN
JEFFERSON COUNTY, ILLINOIS

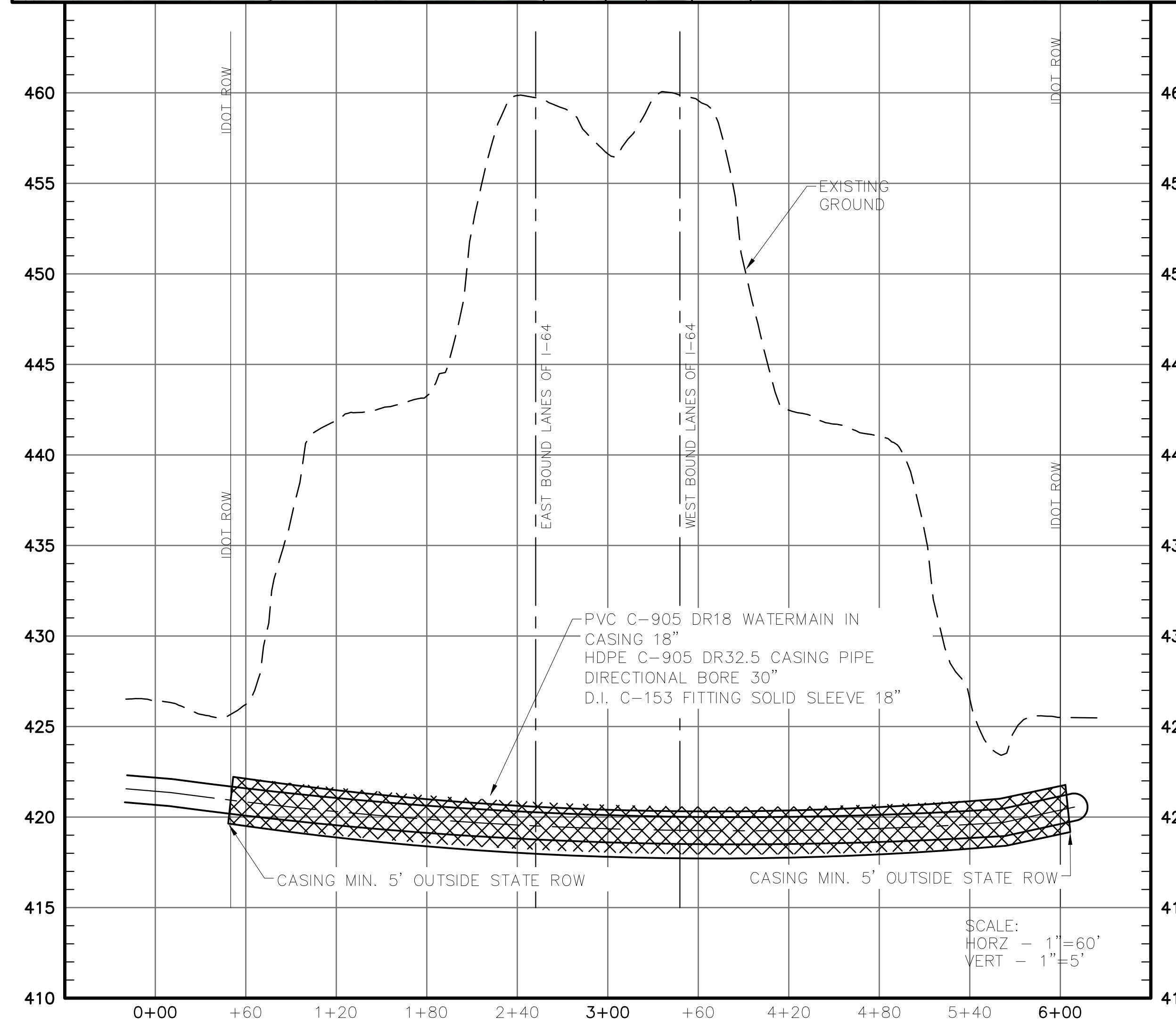
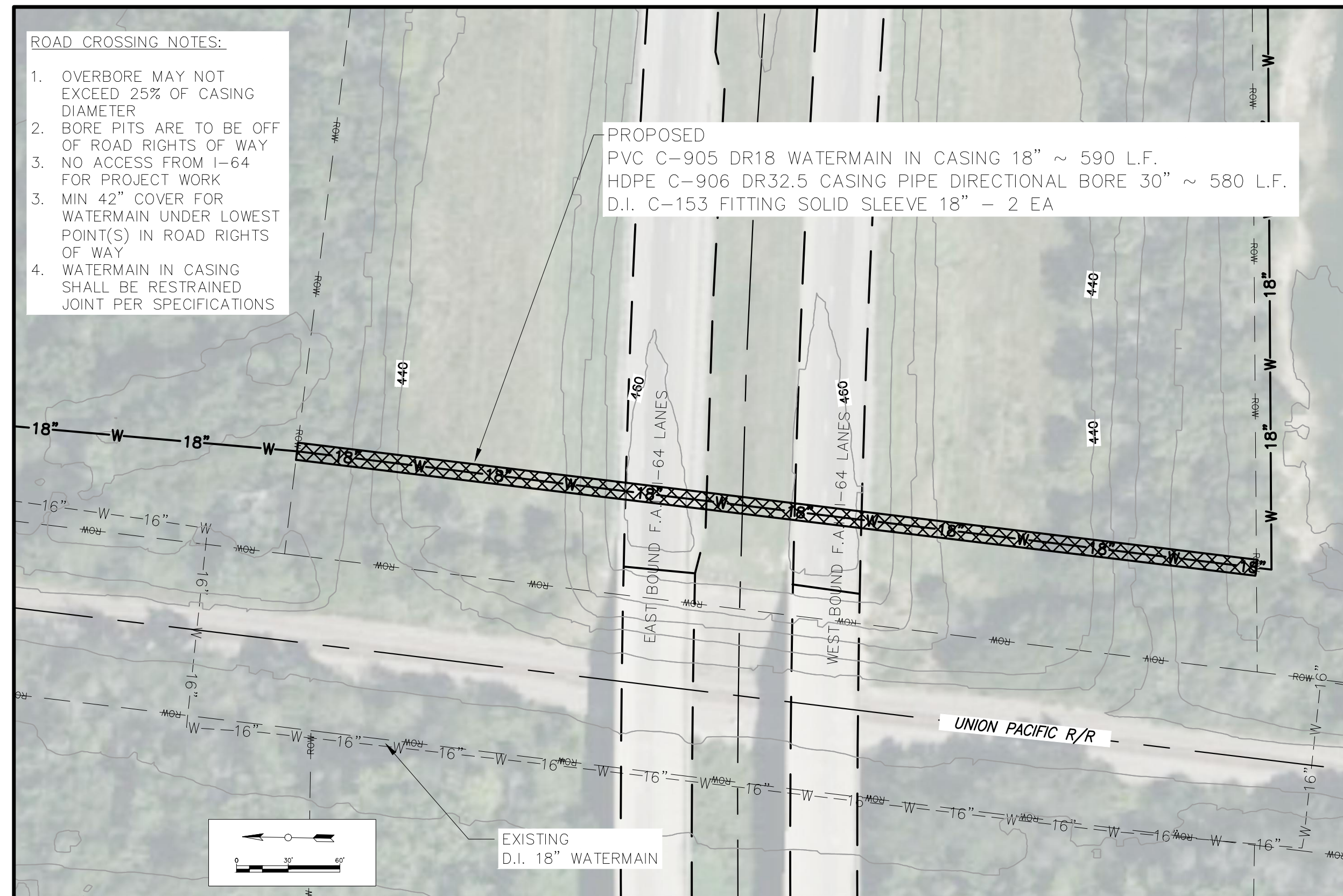
THE REND LAKE
CONSERVANCY DISTRICT



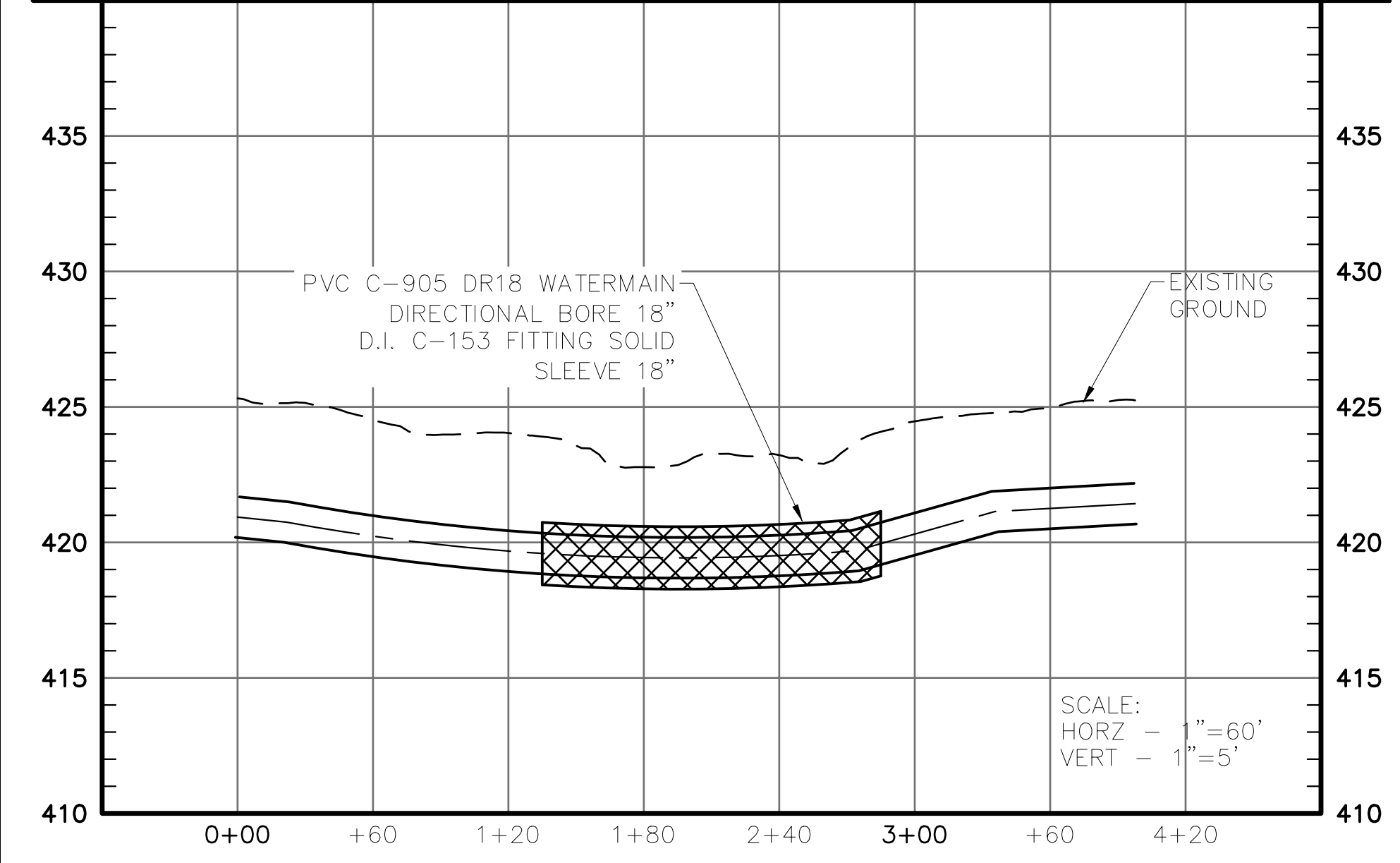
11231 MARCUM BRANCH ROAD, BENTON, IL 62812

JOB NO: 19-02
DRAWN BY: PLD
DATE: 10/04/2024
REVISIONS:

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OF 16 SHEETS



WATERMAIN PROFILE F.A.I. I-64 HIGHWAY CROSSING
 SCALE: 1"=60'



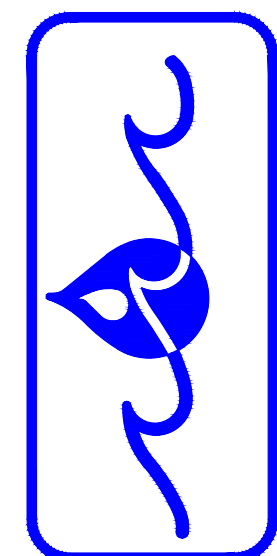
CREEK CROSSING NOTES

- MIN. DEPTH UNDER LOWEST PART OF CREEK 48"

WATERMAIN PROFILE DRAINAGE CREEK CROSSING-1
 SCALE: 1"=60'

Sheet Title: HIGHWAY/STREAM CROSSING PROFILES
 Project Title: INFRASTRUCTURE WATERMAIN RELIABILITY PROGRAM
 18" WATERMAIN
 JEFFERSON COUNTY, ILLINOIS

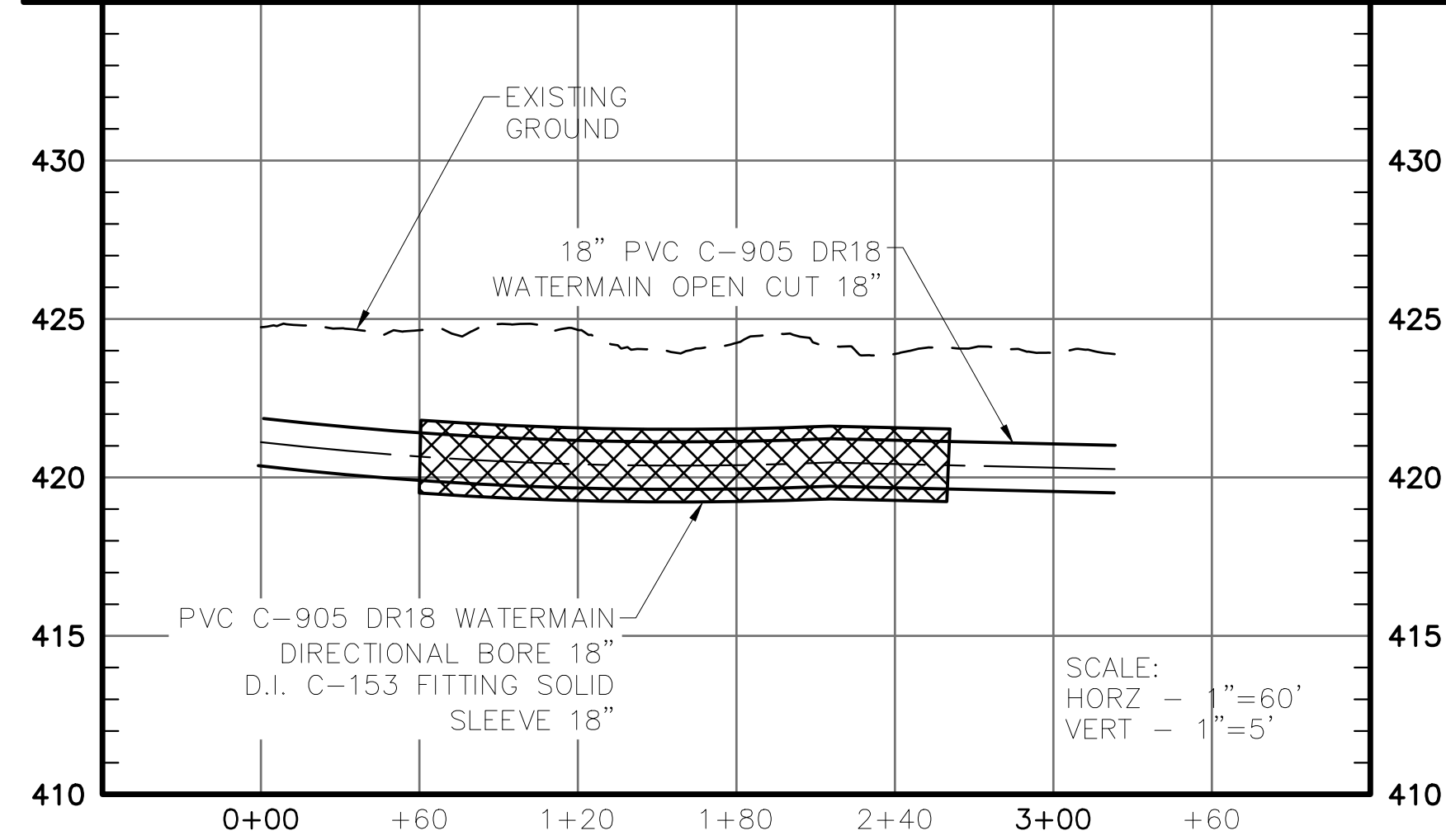
THE REND LAKE CONSERVANCY DISTRICT



11231 MARCUM BRANCH ROAD, BENTON, IL 62812

JOB NO: 19-02
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 DATE: 10/04/2024
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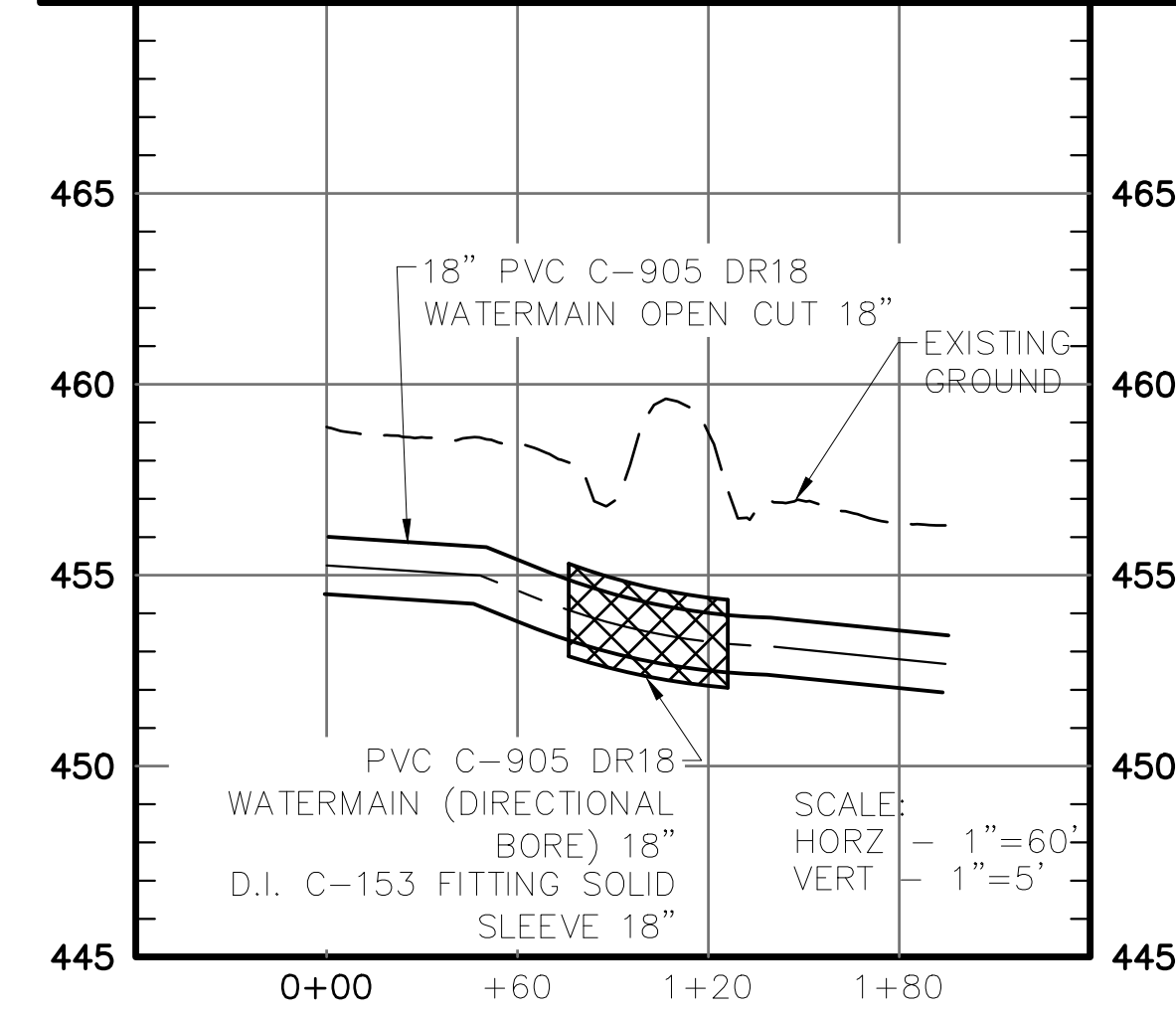
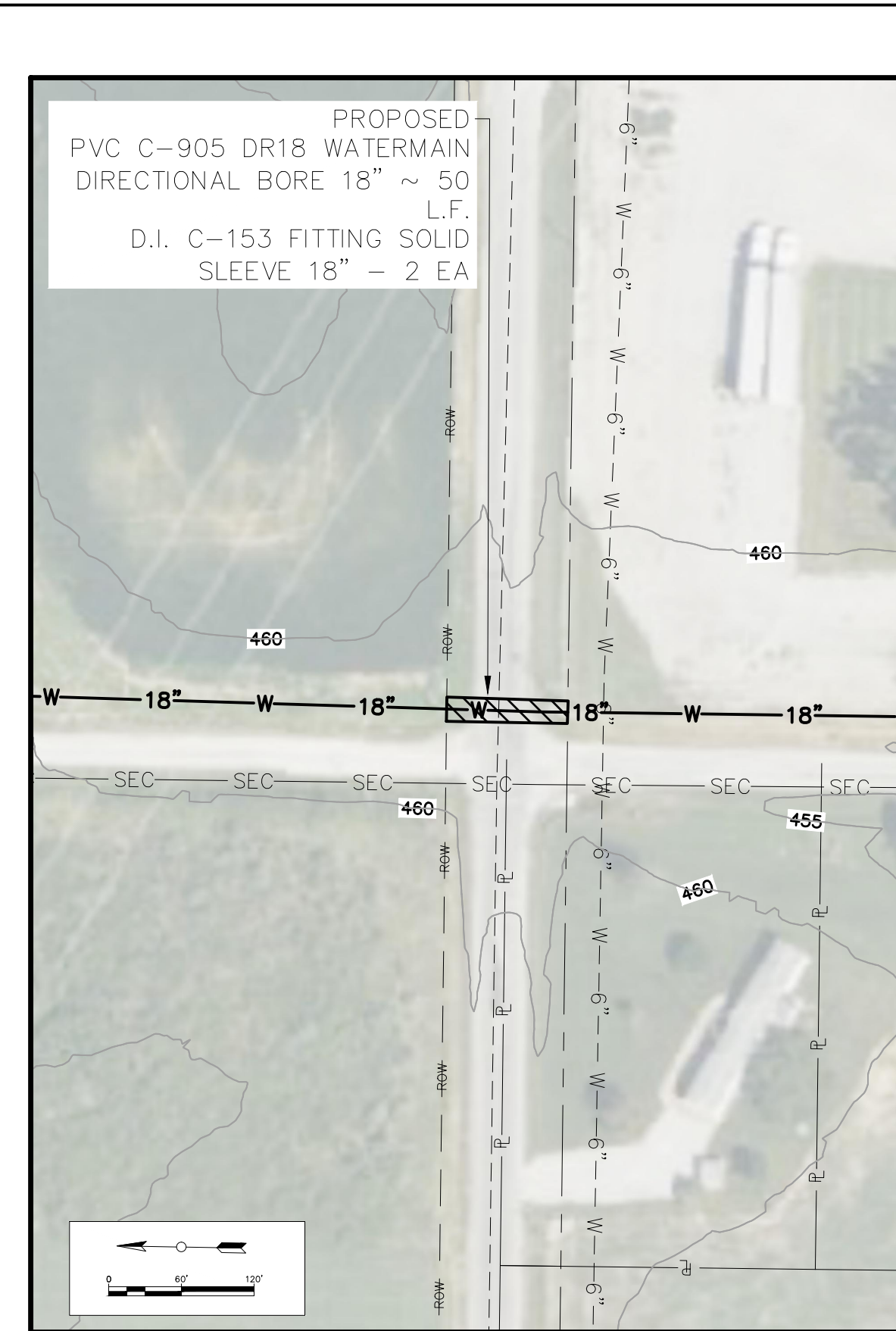
C-201
 OF 16 SHEETS



CREEK CROSSING NOTES

1. MIN. DEPTH UNDER LOWEST PART OF CREEK 48"

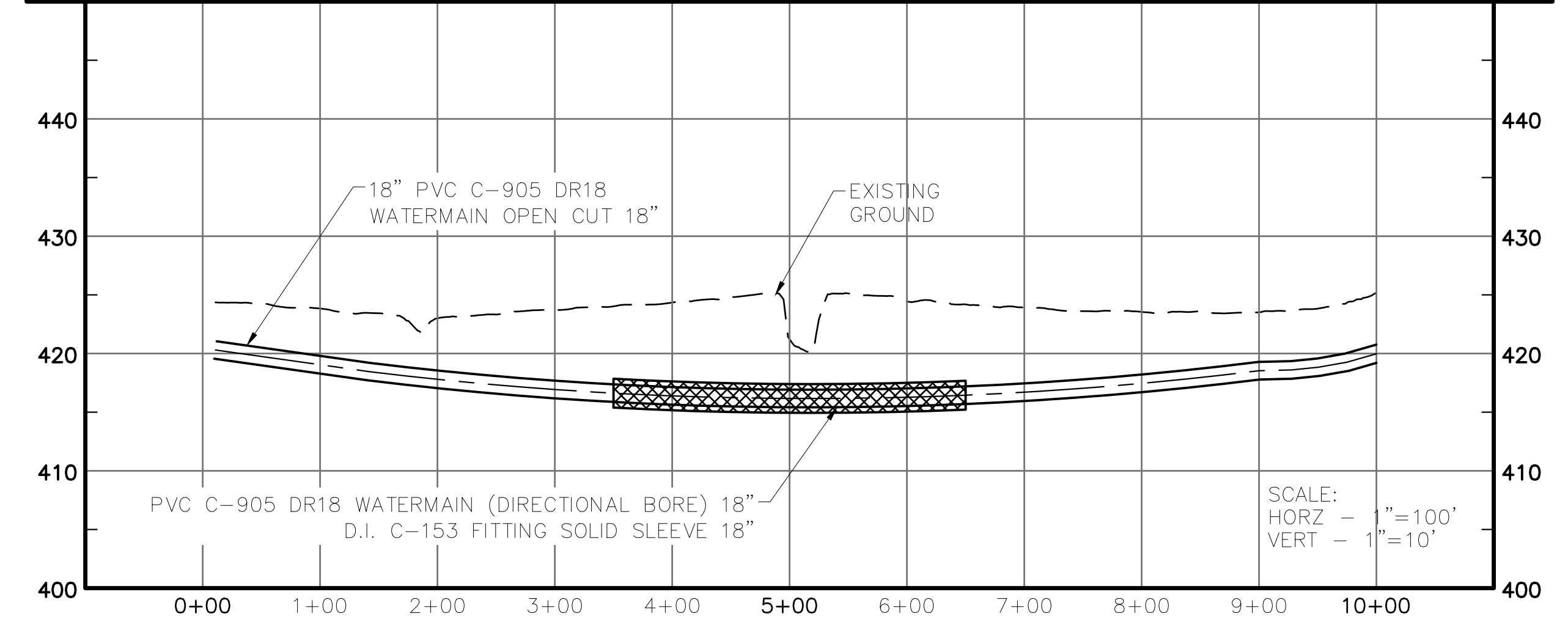
WATERMAIN PROFILE DRAINAGE CREEK CROSSING-2
SCALE: 1"=60'



ROAD CROSSING NOTES:

1. OVERBORE MAY NOT EXCEED 25% OF CASING DIAMETER
2. BORE PITS ARE TO BE OFF OF ROAD RIGHTS OF WAY
3. MIN 42" COVER FOR WATERMAIN UNDER LOWEST POINT(S) IN ROAD RIGHTS OF WAY

WATERMAIN PROFILE EAST BAKERVILLE ROAD CROSSING
SCALE: 1"=60'



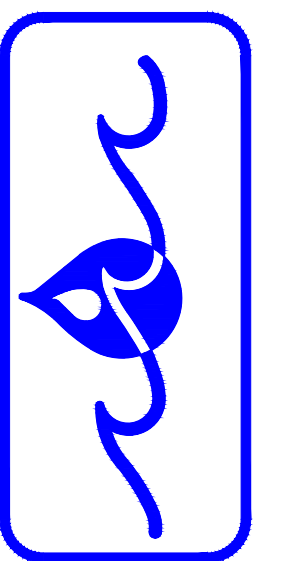
CREEK CROSSING NOTES

1. MIN. DEPTH UNDER LOWEST PART OF CREEK 48"

WATERMAIN PROFILE DOBBS CREEK CROSSING
SCALE: 1"=100'

Sheet Title: HIGHWAY/STREAM CROSSING PROFILES
Project Title: INFRASTRUCTURE WATERMAIN RELIABILITY PROGRAM
18" WATERMAIN
JEFFERSON COUNTY, ILLINOIS

THE REND LAKE
CONSERVANCY DISTRICT

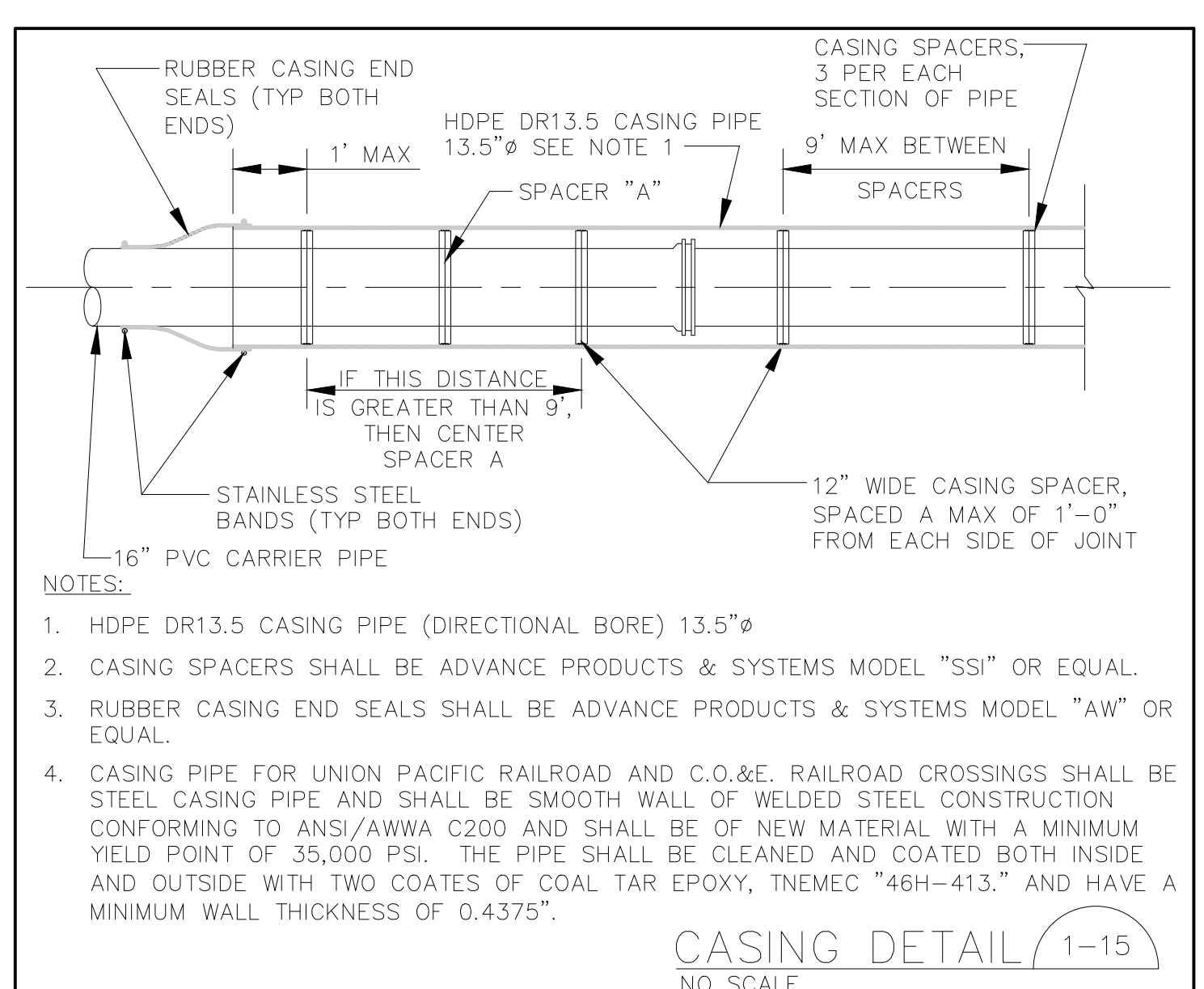
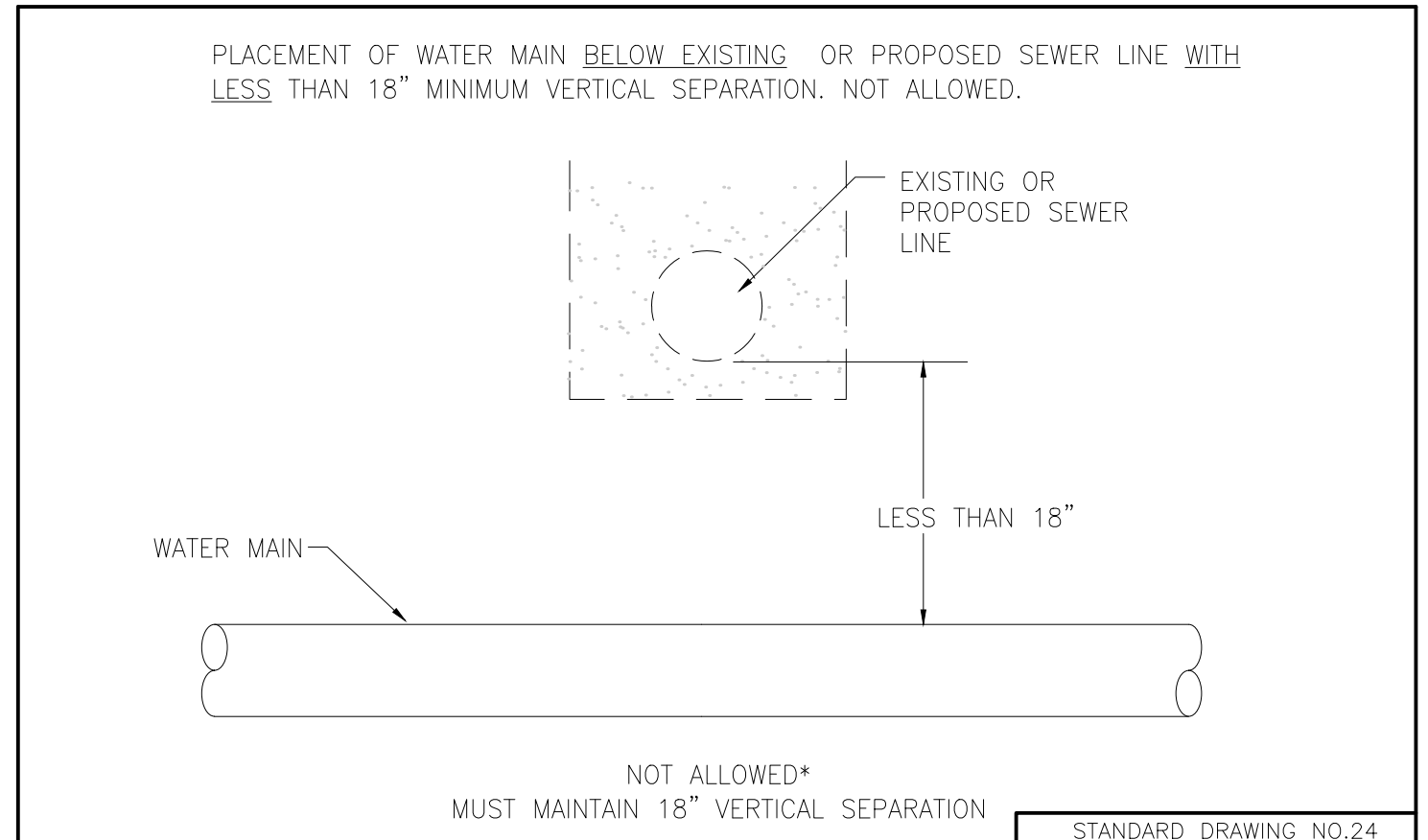
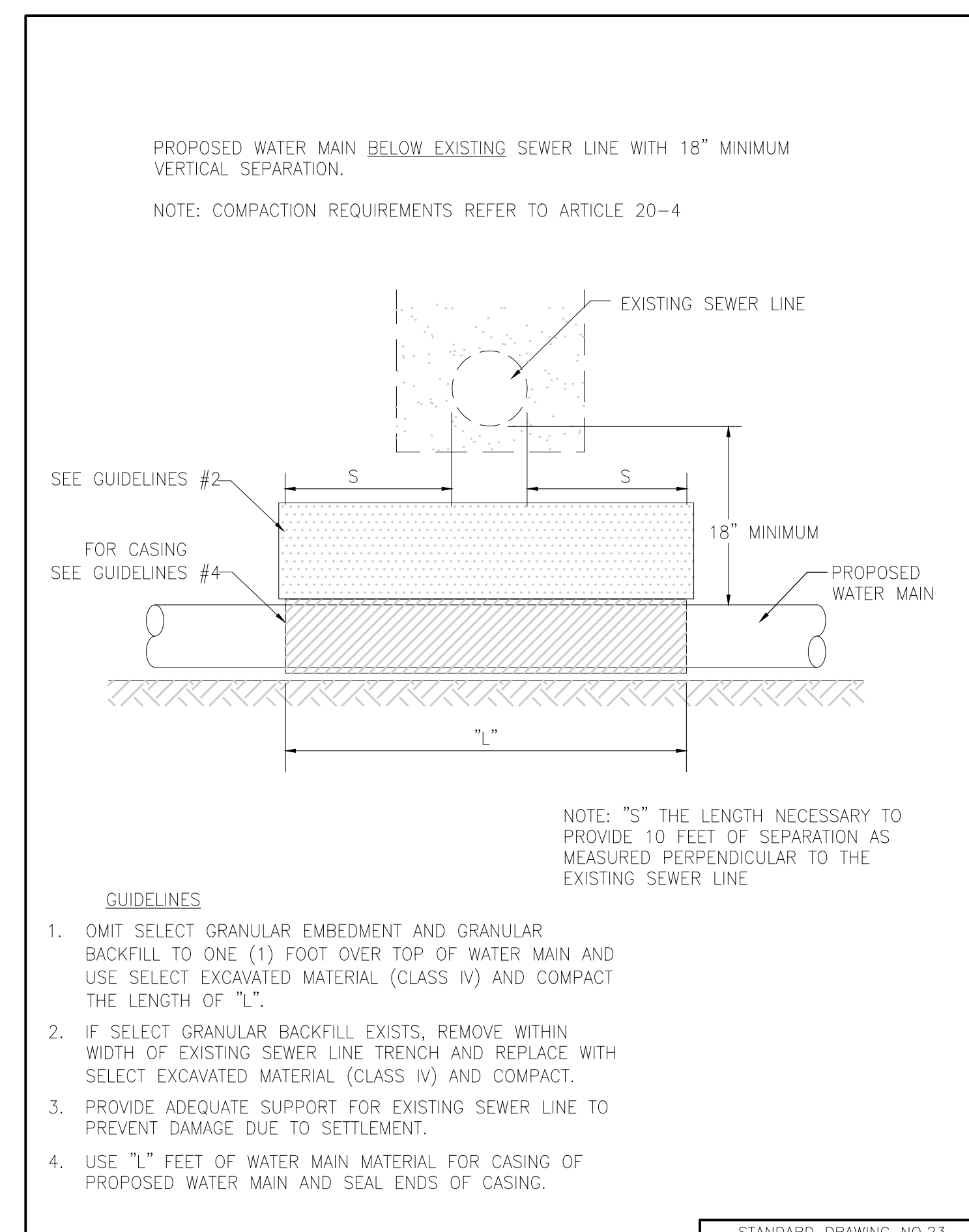
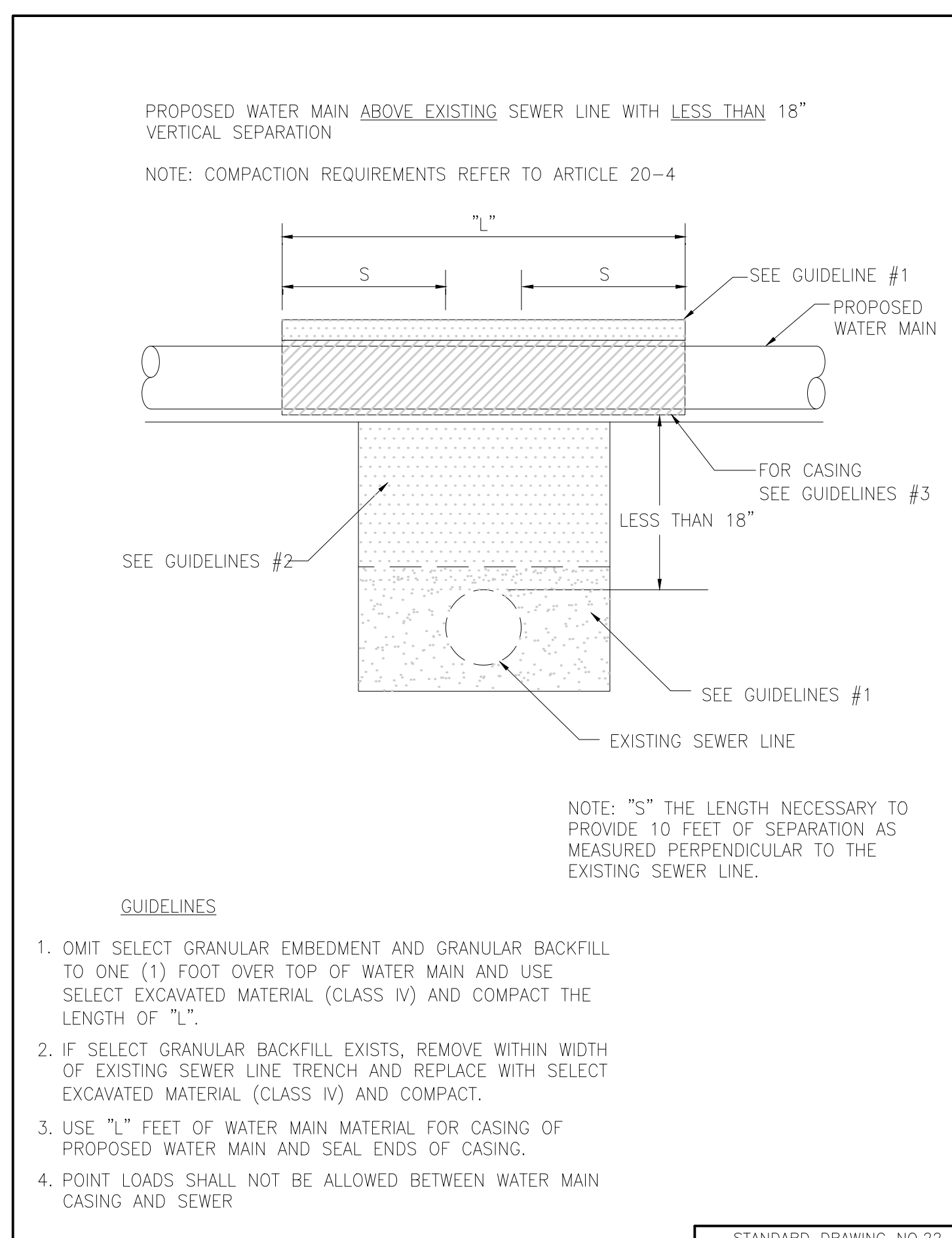
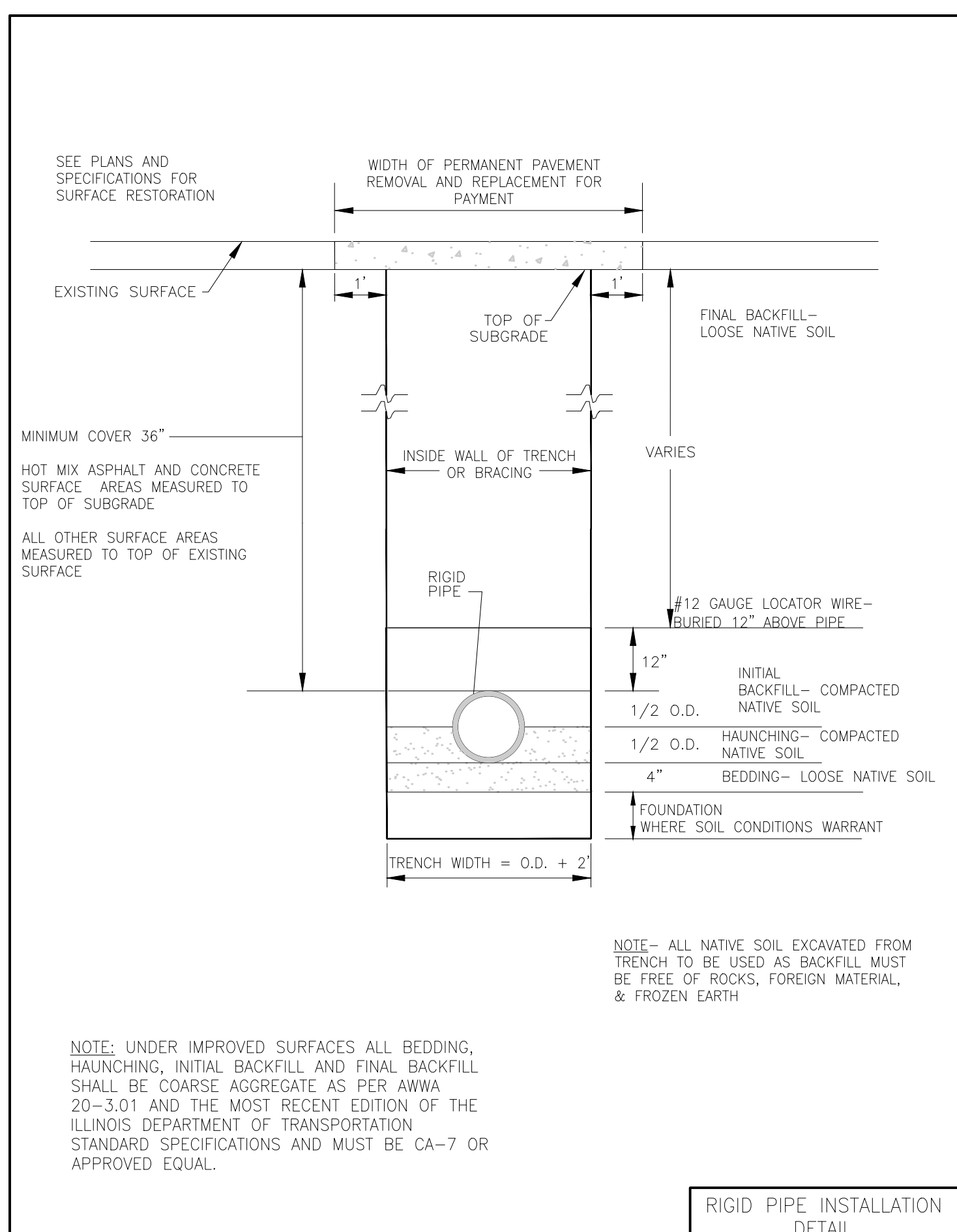
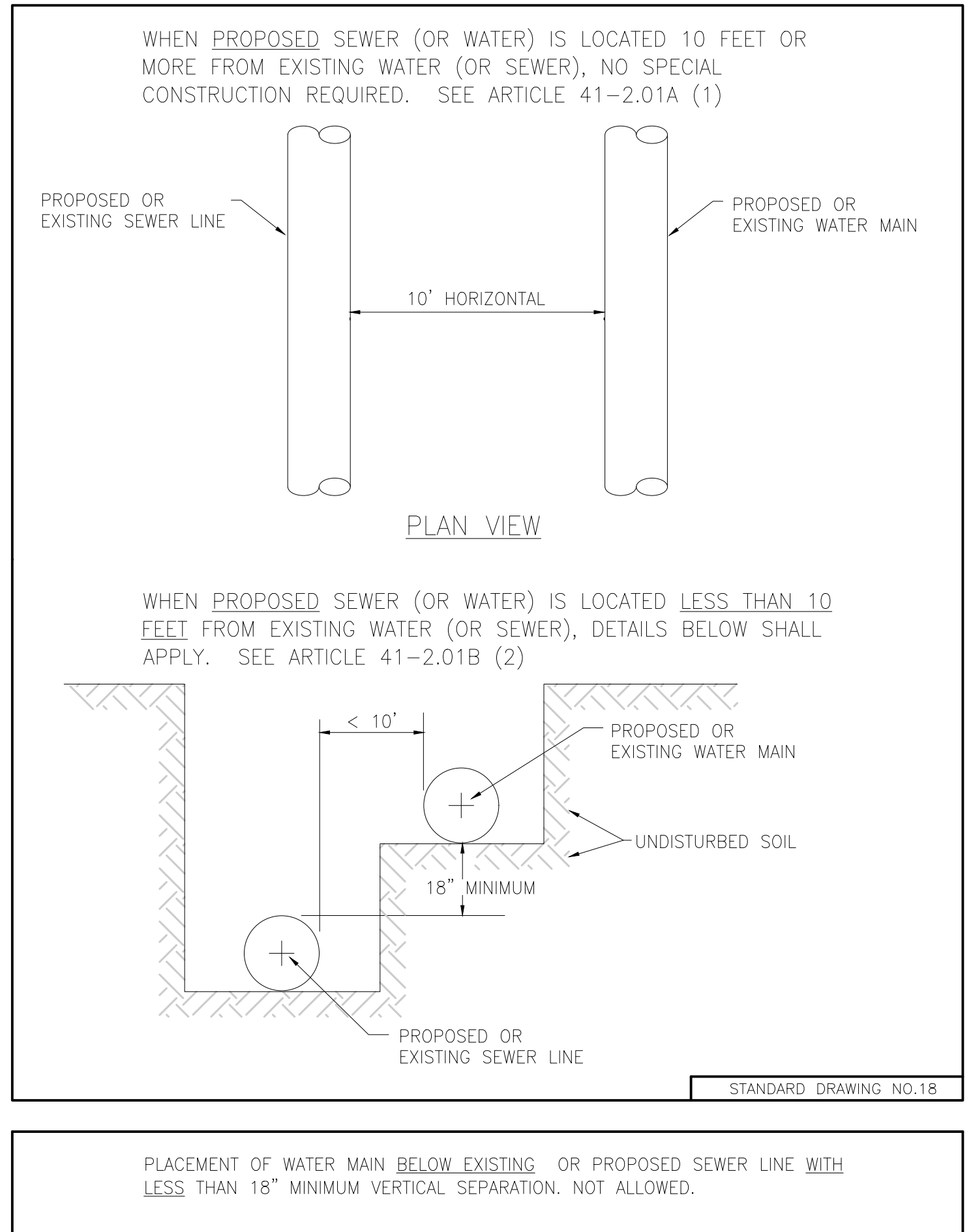
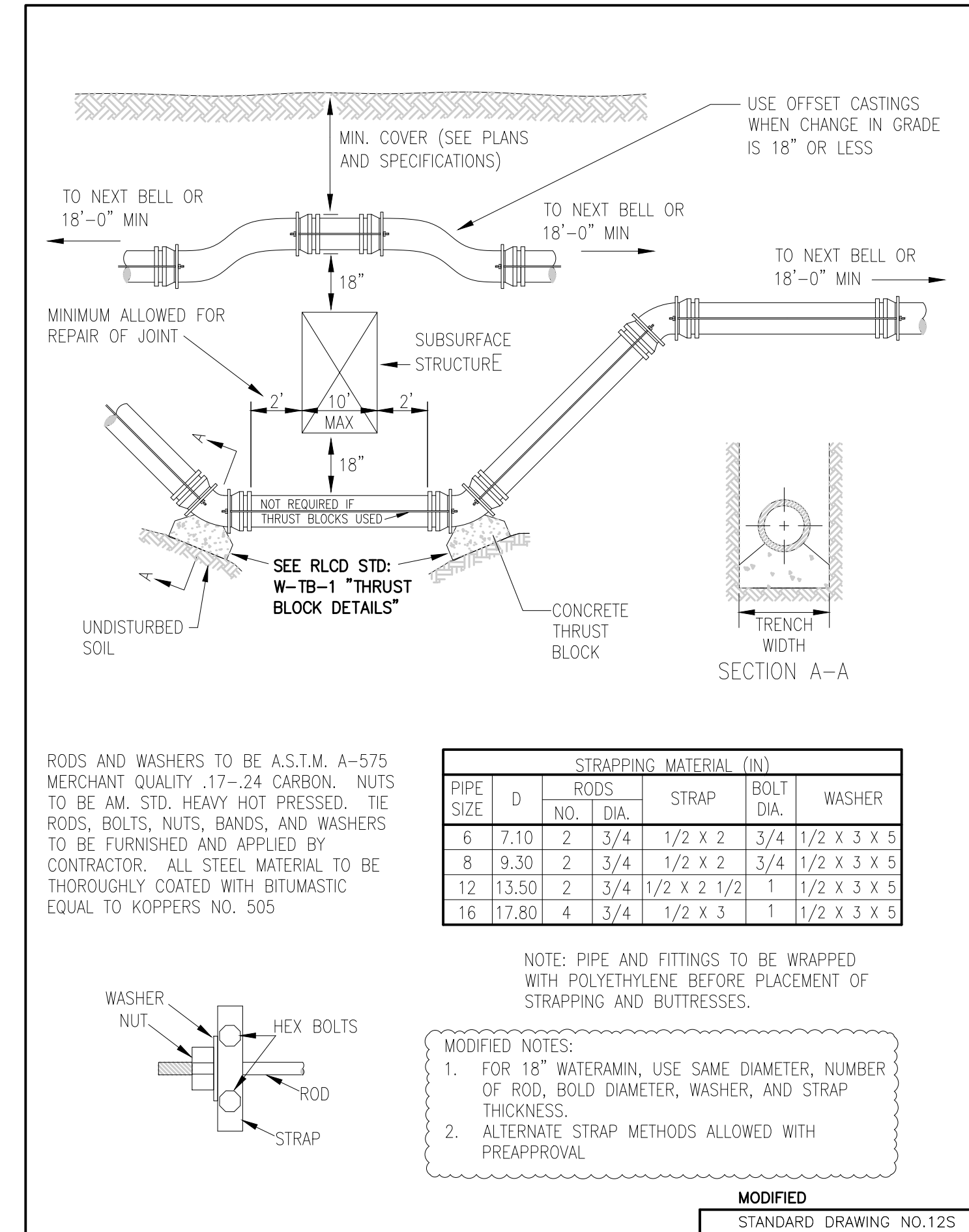
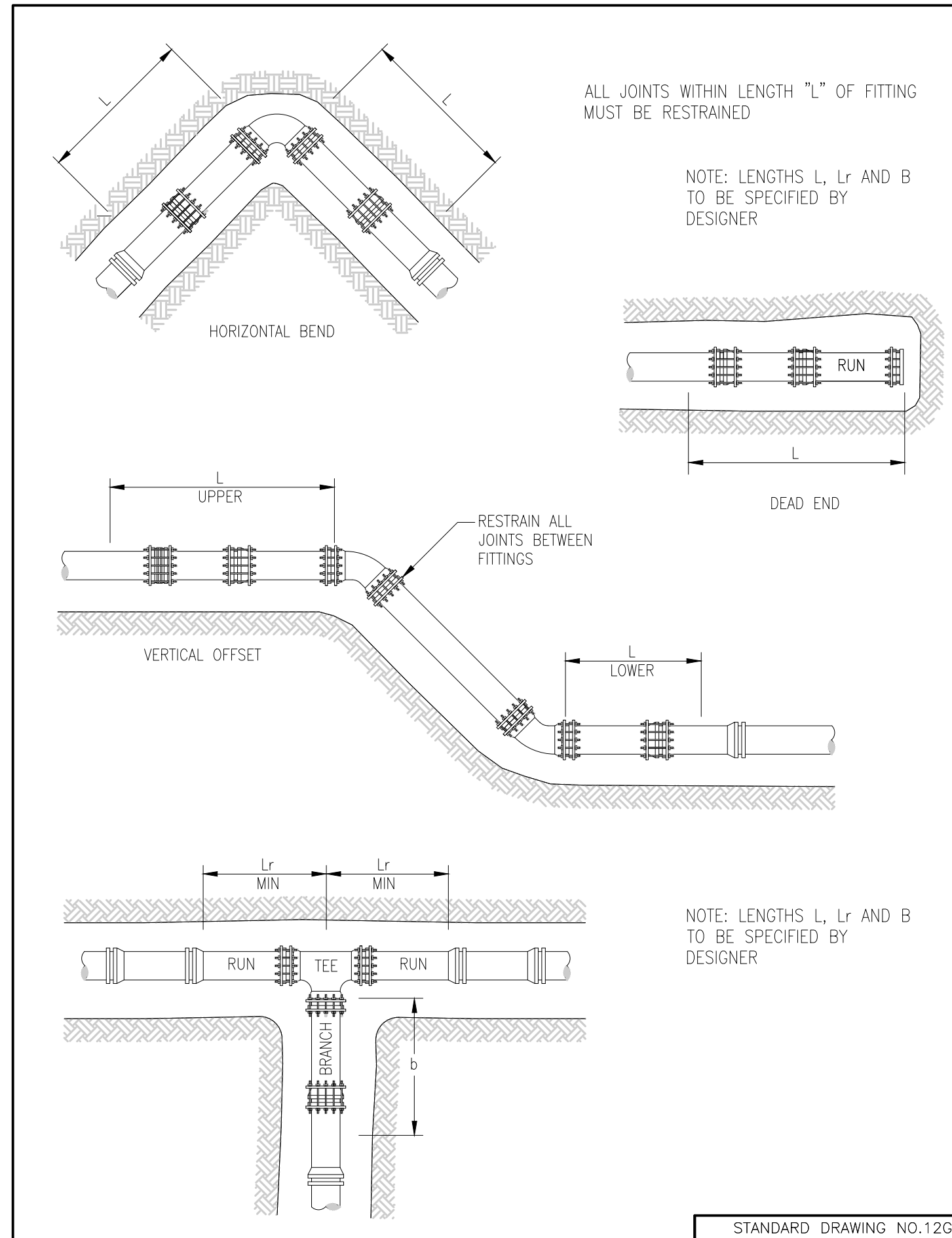
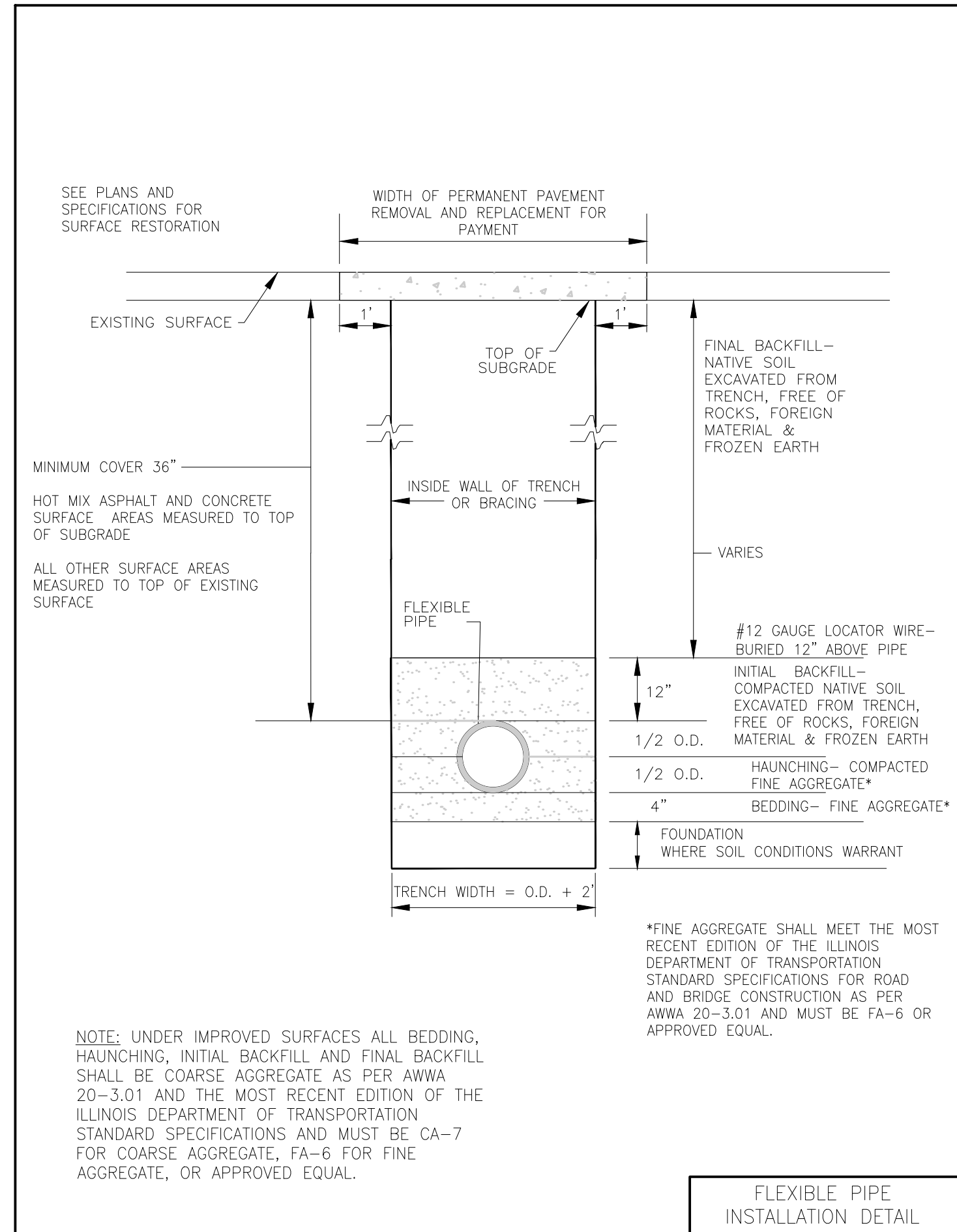


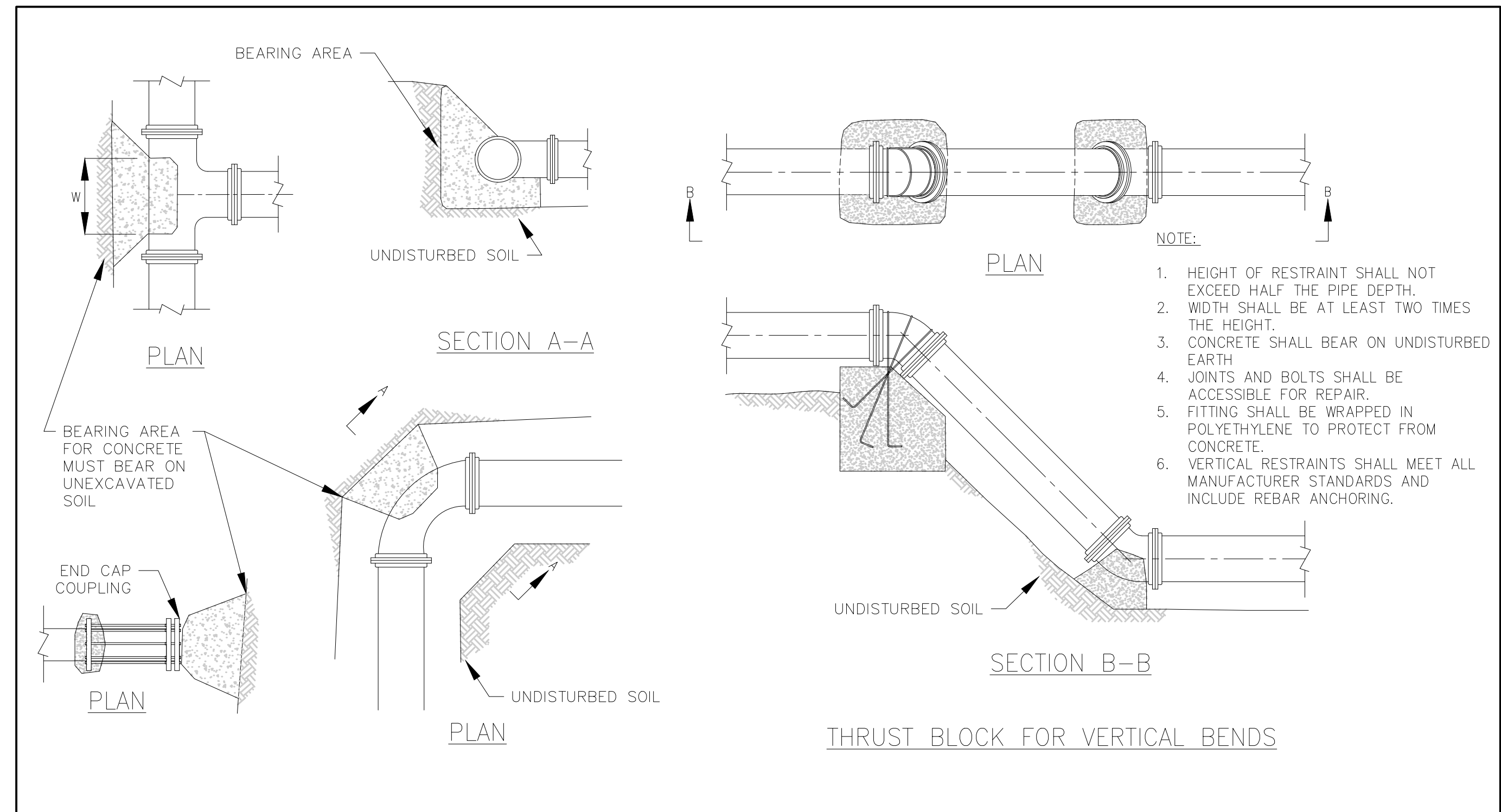
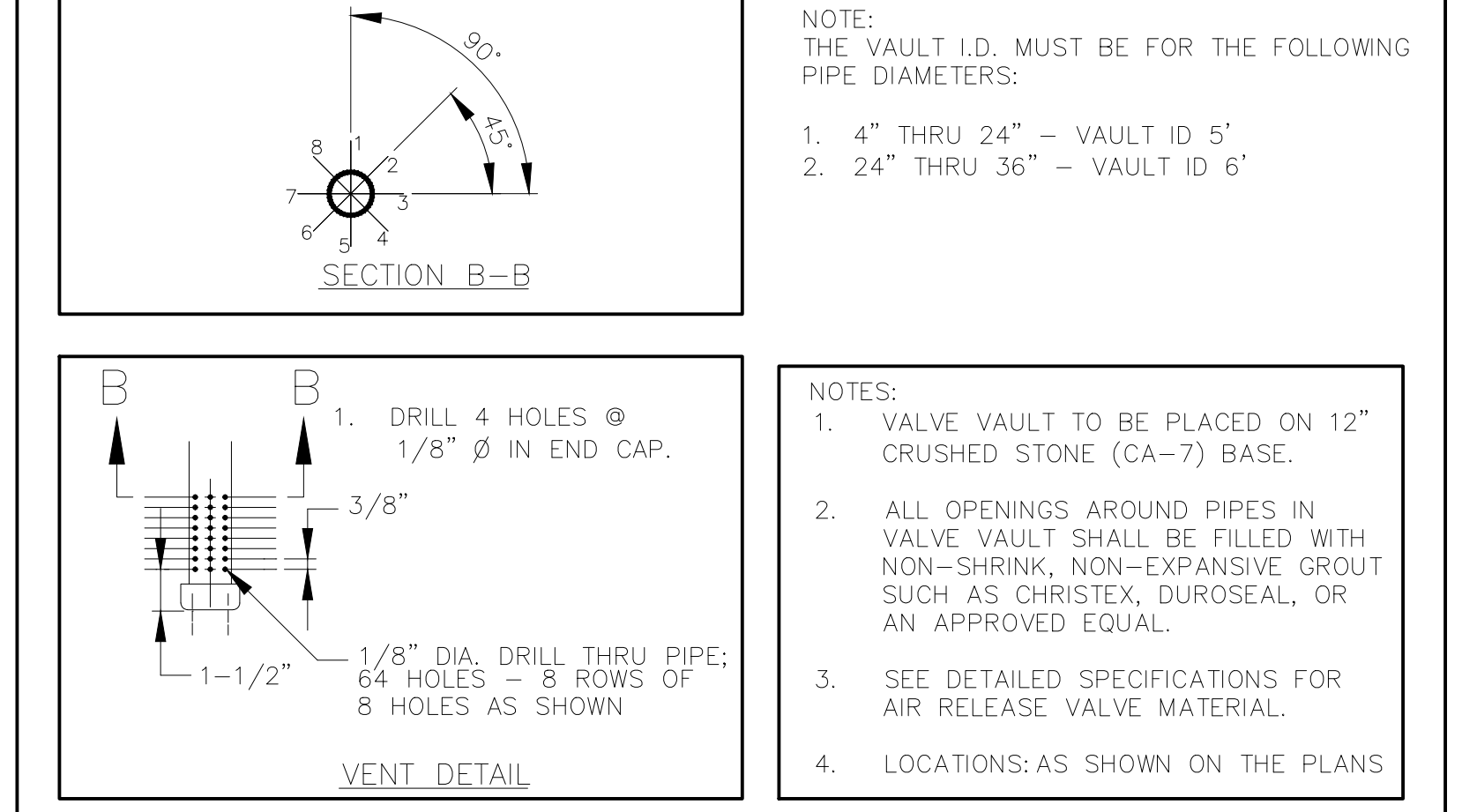
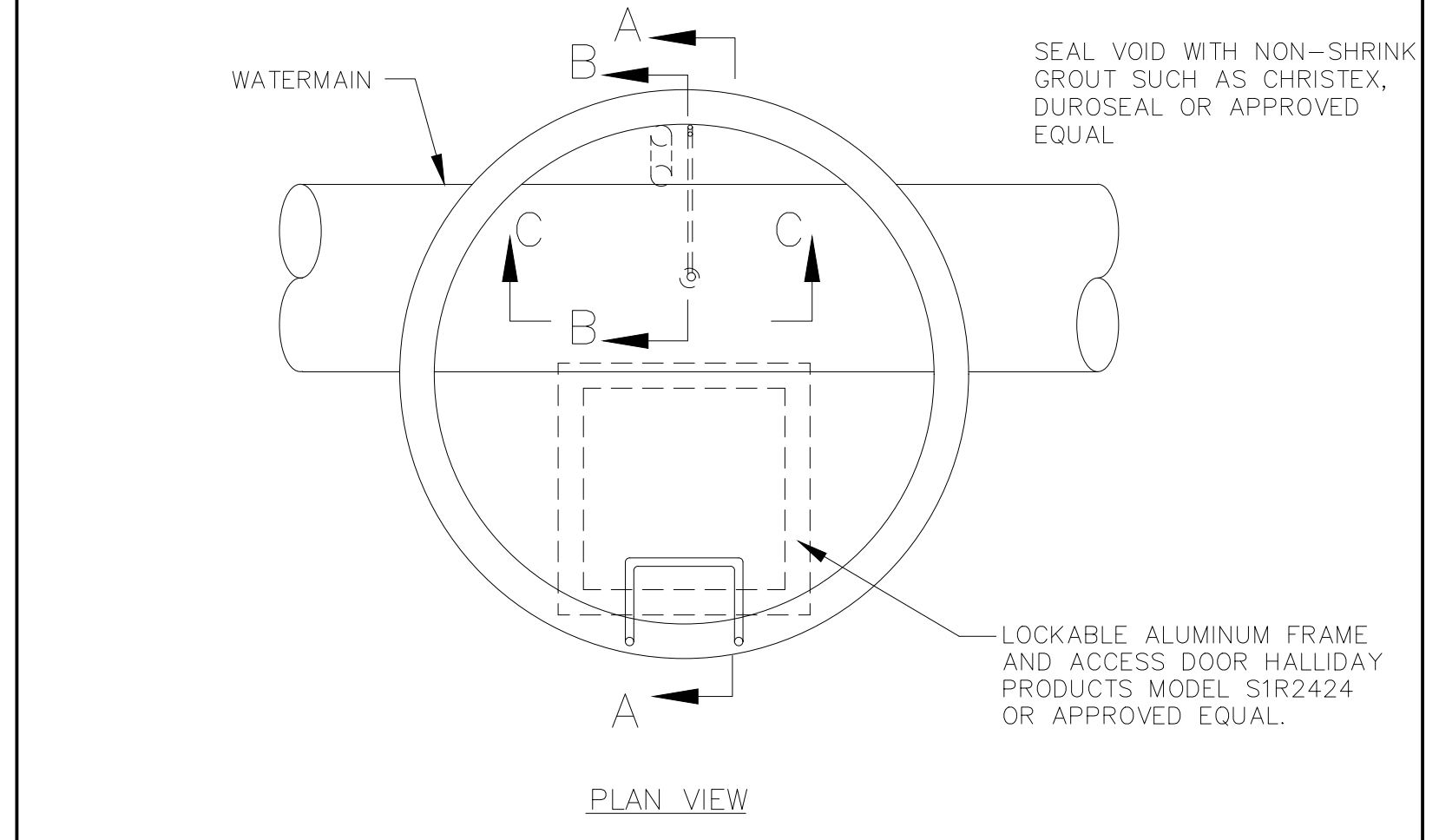
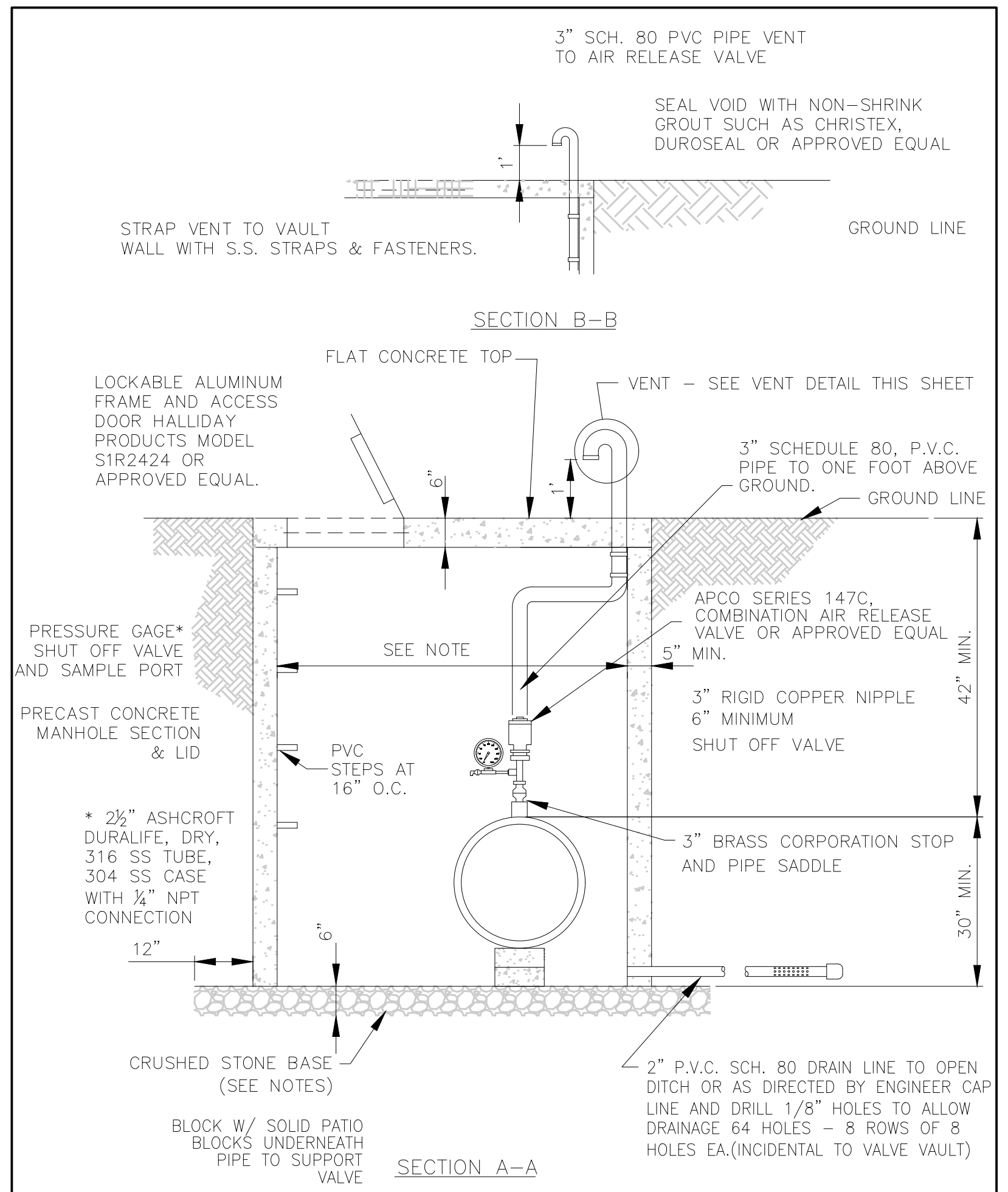
11231 MARCUM BRANCH ROAD, BENTON, IL 62812

JOB NO: 19-02
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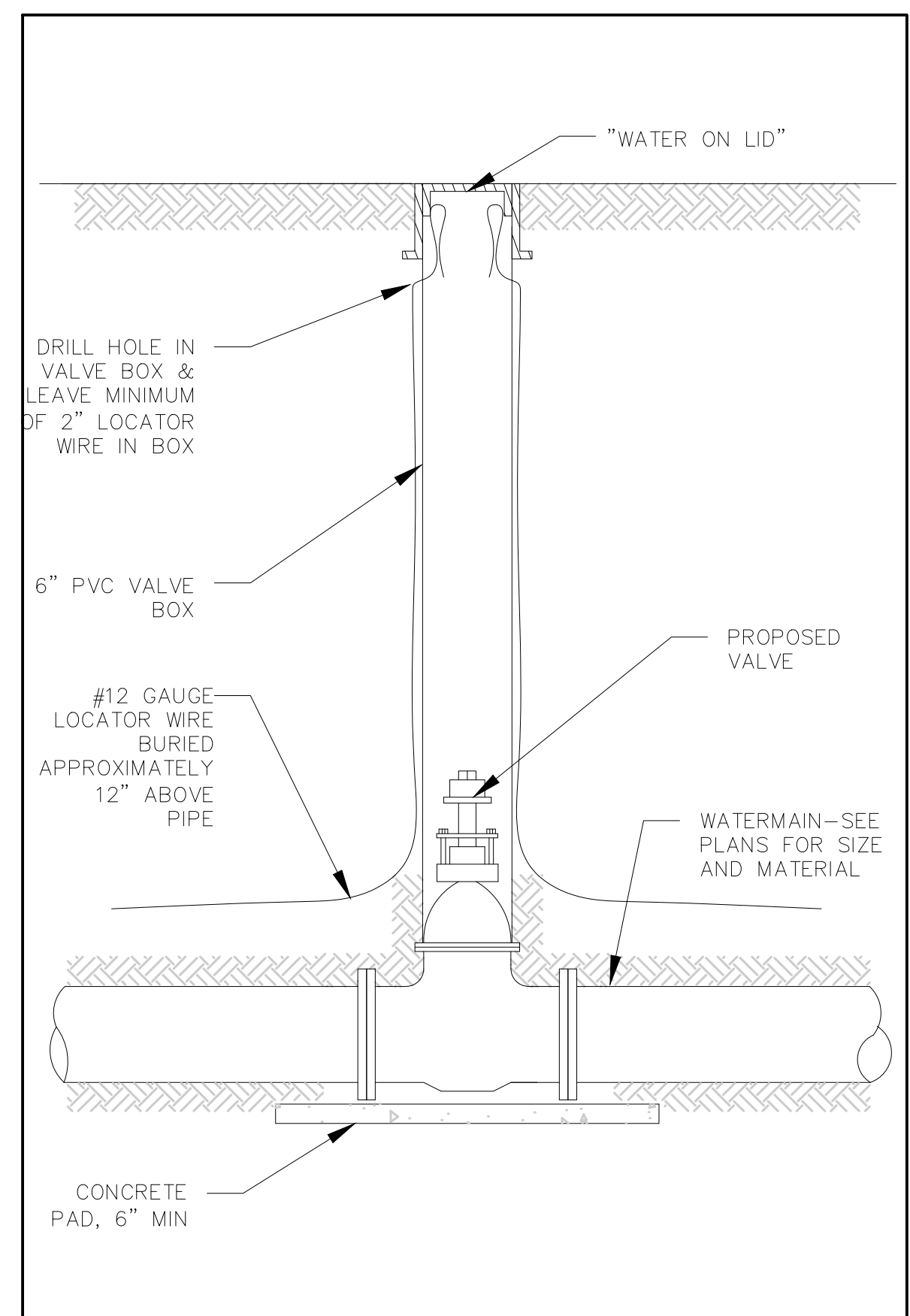
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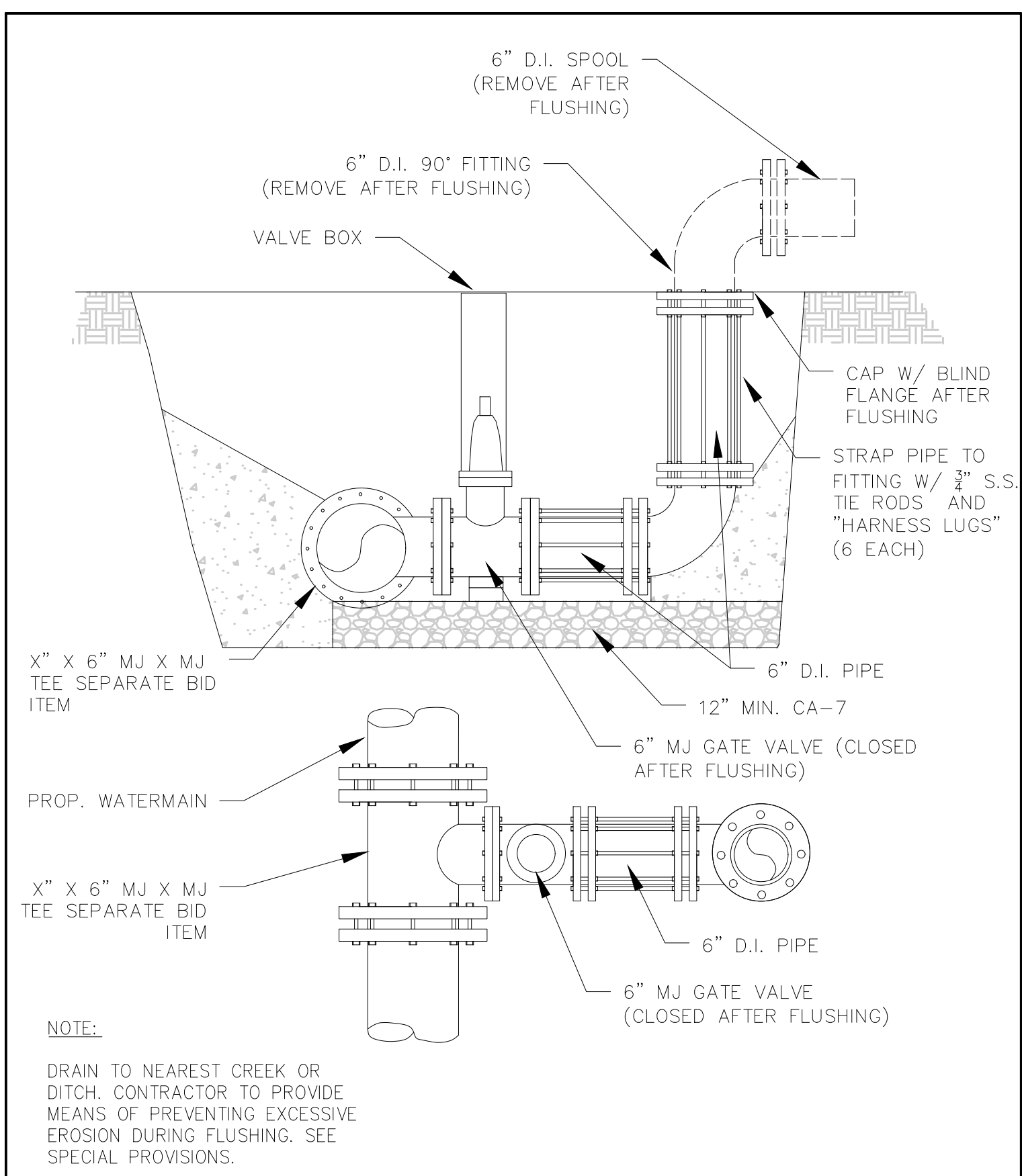


Pipe size	REQUIRED BEARING AREA, SQ. FT.				Tees, Valves, Dead Ends	REQUIRED VOLUME, CU. FT.			
	Horizontal Degree of Bend					Vertical Degree of Bend			
	90°	45°	22.5°	11.25°		90°	45°	22.5°	11.25°
18"	20.0	11.0	5.5	3.0	30.0	64.2	19.0	5.0	1.2
30"	87.0	47.0	24.0	12.0	122.0	1241.0	364.0	95.0	24.0

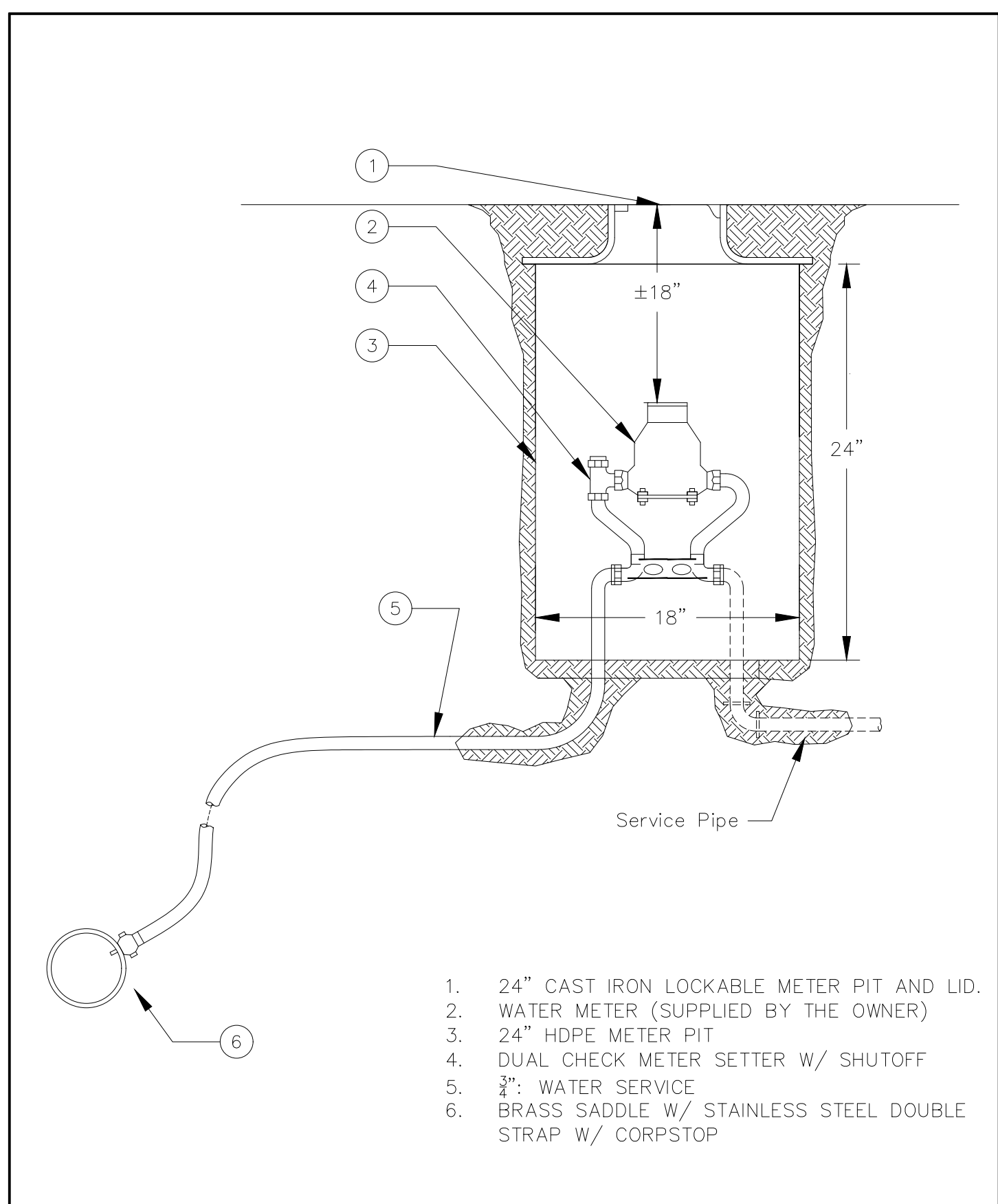
RLCD STD: W-TB-1 THRUST BLOCK DETAILS
SCALE: N.T.S. REV. 07/20



RLCD STD: W-VB-1 TYP. VALVE BOX INSTALLATION
SCALE: N.T.S. REV. 07/20



RLCD STD: W-FF-1 8" FLUSHING FIXTURE
SCALE: N.T.S. REV. 07/20



RLCD STD: W-WM-1 3/4" WATER SERVICE
SCALE: N.T.S. REV. 07/20

