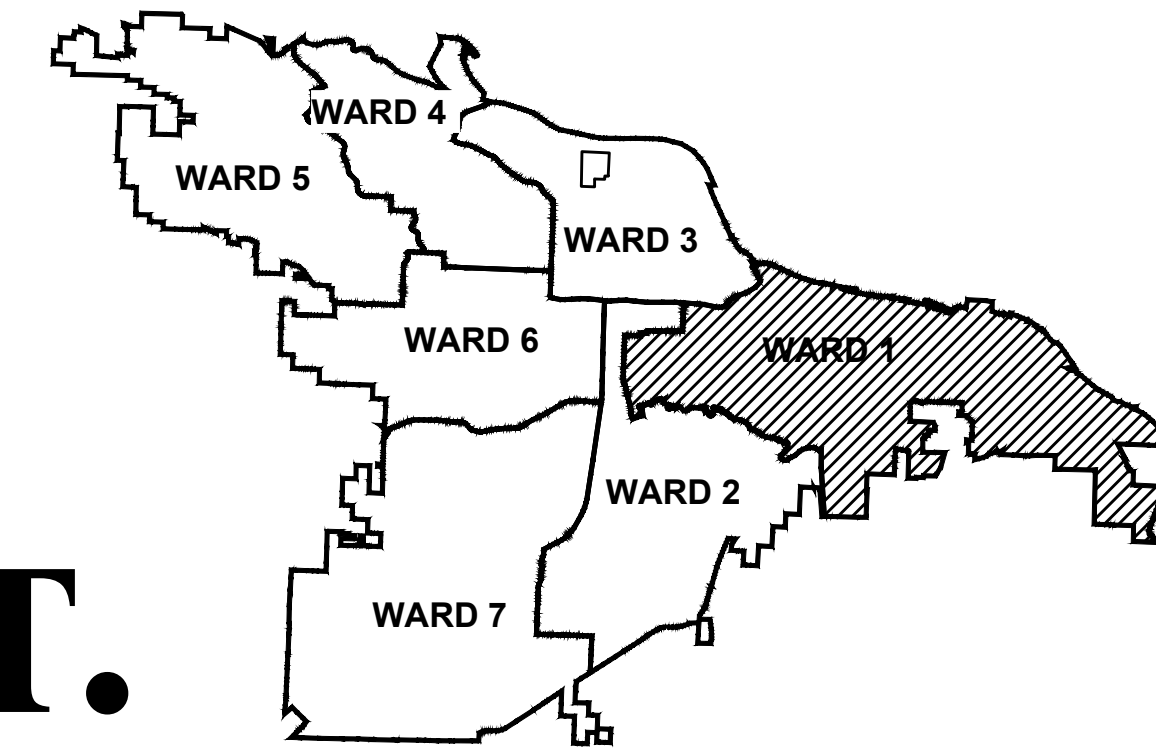


01-22-DR-01

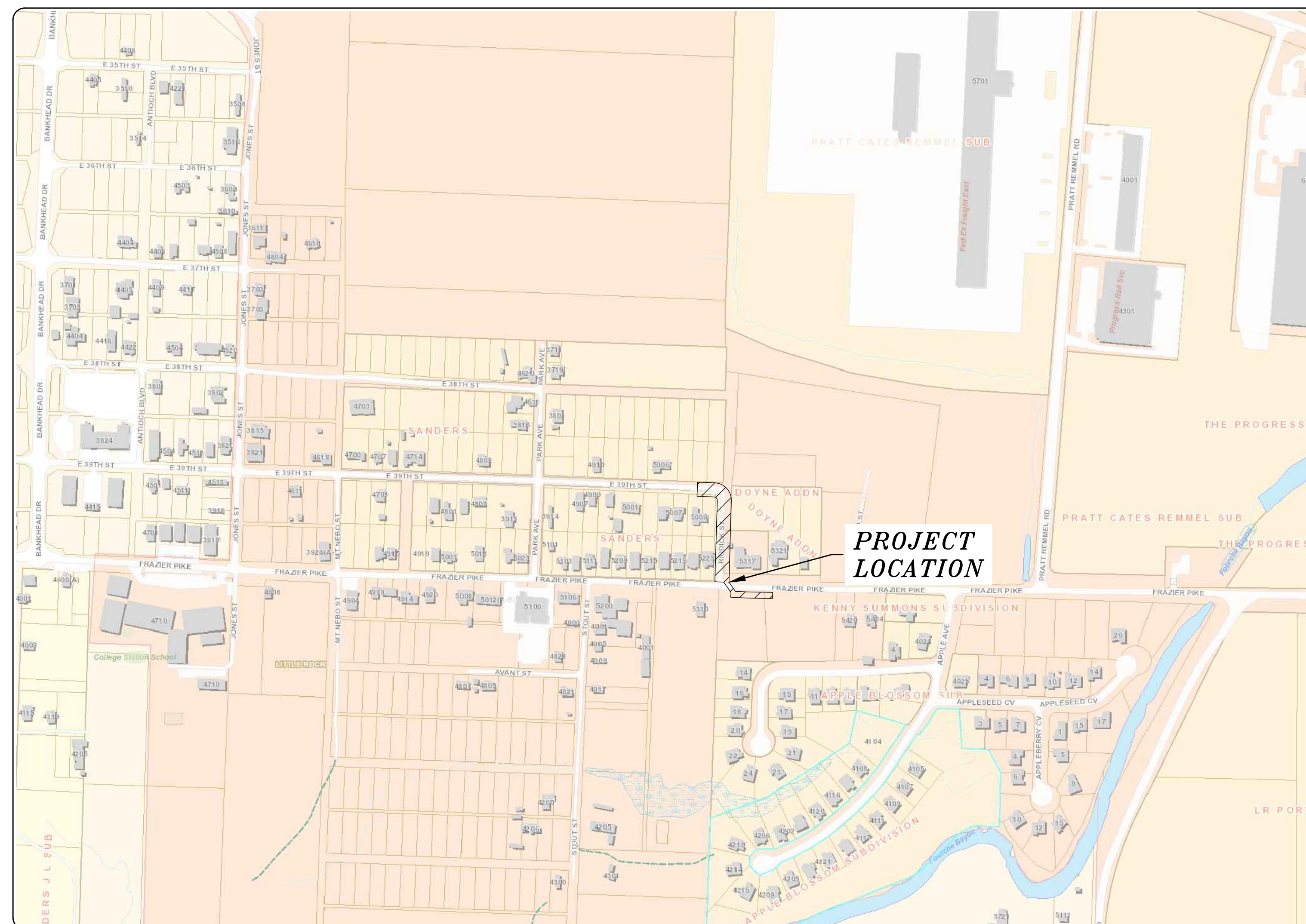
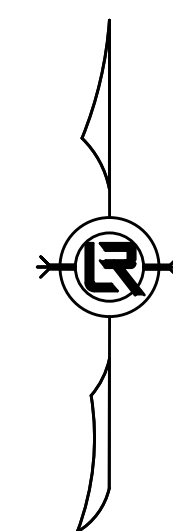
EAST 39TH ST. DRAINAGE

FROM PARK AVE. TO RIDDICK ST.

(INTERSECTION WITH PARK AVE. TO RIDDICK ST)



PROJECT LOCATION - WARD 2



SHEET NO.	TITLE
C 100	COVER SHEET
C 200	QUANTITIES, GENERAL NOTES, LEGEND
C 201	BOX CULVERT & HEADWALL DETAILS
C 202	BOX CULVERT & HEADWALL DETAILS
C 300	FIELD TIES LAYOUT SHEET
C 400	EXISTING CONDITIONS SITE PLAN
C 500	SITE DETAIL
C 501	DRAINAGE PLAN AND PROFILE
C 502	DRAINAGE PLAN AND PROFILE
C 503	DRAINAGE PLAN AND PROFILE
C 601	DRAINAGE DITCH CROSS-SECTIONS
C 602	DRAINAGE DITCH CROSS-SECTIONS
C 603	DRAINAGE DITCH CROSS-SECTIONS
C 604	DRAINAGE DITCH CROSS-SECTIONS
C 605	DRAINAGE DITCH CROSS-SECTIONS
C 606	GENERAL TOPO
C 701	EROSION CONTROL PLAN PHASE 1
C 702	EROSION CONTROL PLAN PHASE 2
C 702	EROSION CONTROL PLAN PHASE 3
C 800	MAINTENANCE OF TRAFFIC



2023-2025
BOND PROGRAM

DEPARTMENT OF PUBLIC WORKS
CIVIL ENGINEERING
701 WEST MARKHAM STREET
LITTLE ROCK, ARKANSAS 72201



5800 Evergreen Drive
Little Rock, AR 72205
Ph (501) 663-8800
Fax (501) 588-0123
www.harboenv.com

REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS
EAST 39TH ST. DRAINAGE IMPROVEMENTS

COVER SHEET

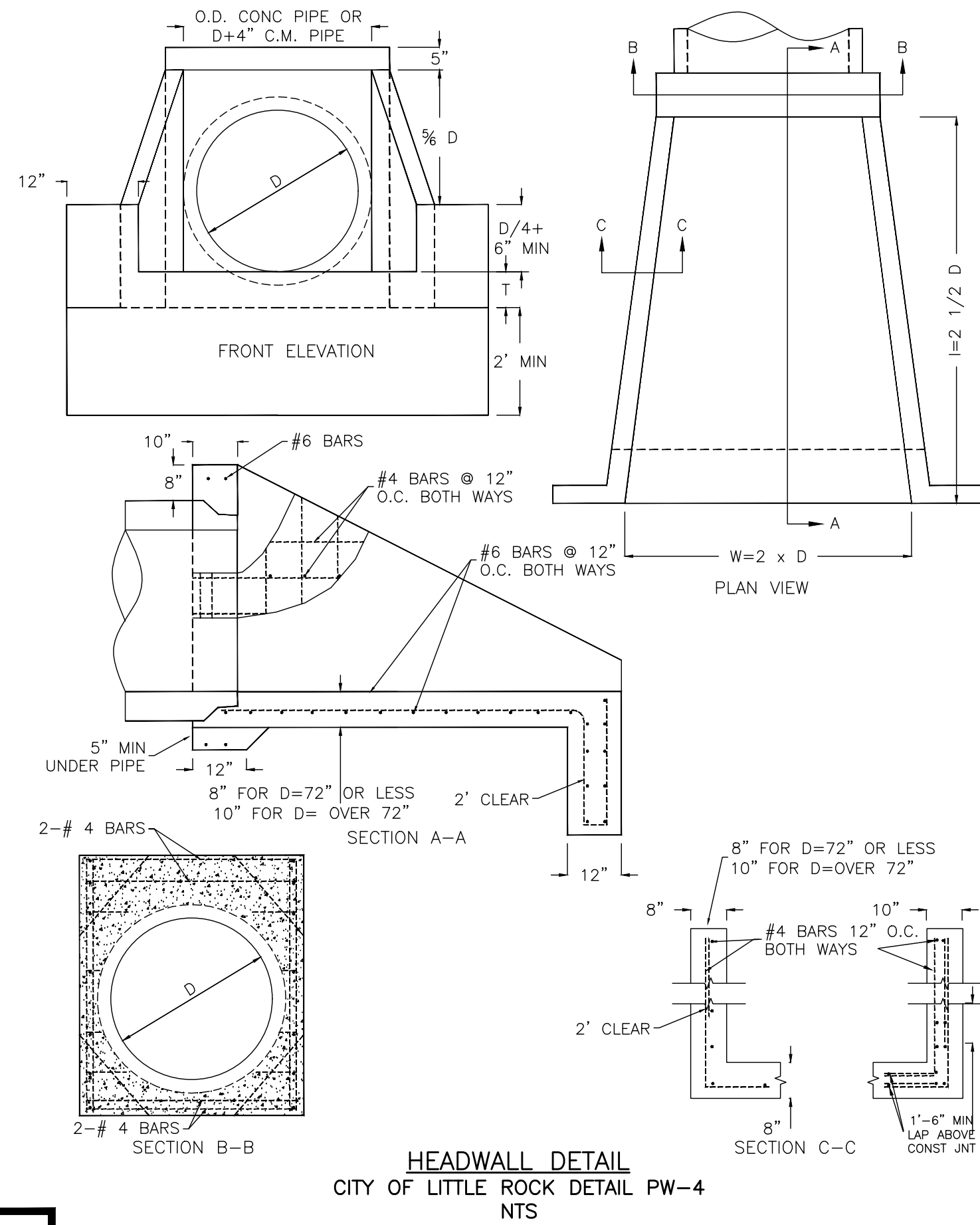
DEPARTMENT OF PUBLIC WORKS
CIVIL ENGINEERING
701 W. MARKHAM
LITTLE ROCK, ARKANSAS 72201



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SET

DRAWN BY JNS
DESIGNED JNS
CHECKED AHR
DATE 12/31/2024
SCALE 1" = 300'
PROJECT NO. CLR # 01-22-DR-01
SHEET NO. C100

CLR PROJECT # 01-22-DR-01			
FROM PARK AVE. TO RIDDICK ST.			
12/31/2024			
ITEM NO.	DESCRIPTION OF ITEMS	CONTRACT QUANTITY	UNIT
2.01	SITE PREPARATION	1	L.S.
3.01	UNCLASSIFIED EXCAVATION	724.9	C.Y.
3.02	COMPACTED EMBANKMENT	42.83	C.Y.
7.04	CONCRETE DRIVEWAY (4" THICK), STANDARD FINISH (CHANNEL)	7326	S.F.
11.01	REINFORCED CONCRETE PRECAST BOX CULVERT (3'X3')	40	L.F.
11.02	REINFORCED CONCRETE BOX CULVERT (3'X3')	38	L.F.
11.06	REINFORCED CONCRETE HEADWALLS		
	REINFORCED CONCRETE HEADWALL - STM1	0.2	C.Y.
	REINFORCED CONCRETE HEADWALL - STM1 (WING)	1.0	C.Y.
	REINFORCED CONCRETE HEADWALL - STM1 (TOEWALL)	1.8	C.Y.
	REINFORCED CONCRETE HEADWALL - STM2 UPSTREAM	0.8	C.Y.
	REINFORCED CONCRETE HEADWALL - STM2 UPSTREAM (APRON)	0.8	C.Y.
	REINFORCED CONCRETE HEADWALL - STM2 DOWNSTREAM	0.1	C.Y.
	REINFORCED CONCRETE HEADWALL - STM2 DOWNSTREAM (WINGS)	0.9	C.Y.
	REINFORCED CONCRETE HEADWALL - STM2 DOWNSTREAM (TOEWALL)	1.7	C.Y.
	REINFORCED CONCRETE HEADWALL - STM3	0.2	C.Y.
	REINFORCED CONCRETE HEADWALL - STM3 (WINGS)	1.0	C.Y.
	REINFORCED CONCRETE HEADWALL - STM3 (TOEWALL)	1.8	C.Y.
11.06	REINFORCED CONCRETE HEADWALL - TOTAL	8.4	C.Y.
14.01	SOLID SODDING (BERMUDA)	1056	S.Y.
16.01	MAINTENANCE OF TRAFFIC	1	L.S.
17.01	PAVEMENT REPAIRS (BOX CULVERT CROSSING)	30	S.Y.
19.01	FINAL CLEAN UP	1	L.S.
24.05	ROCK DAM, (RD)	7	EA
26.10	TRENCH & EXCAVATION SAFETY	1	L.S.



HEADWALL DETAIL
CITY OF LITTLE ROCK DETAIL PW-4
NTS

CIVIL GENERAL NOTES

1. ANY DAMAGE TO LANDSCAPING AREAS, YARDS, FENCES OR SIGNS SHALL BE RESTORED TO CONDITION SATISFACTORY TO THE CITY OF LITTLE ROCK PUBLIC WORKS.
2. DISTURBED GRASS AREAS SHALL BE REPLACED BY TOPSOIL AND SEEDING OR HYDROMULCH.
3. ARKANSAS STATE LICENSING LAW FOR COMMERCIAL CONTRACTORS ACT 150 OF 1965 AND ACT 162 OF 1987 (AS AMENDED) REQUIRES THE INSTALLATION CONTRACTOR TO HAVE A VALID CONTRACTOR'S LICENSE.
4. ALL WORK SHALL CONFORM AS APPLICABLE TO THE CITY OF LITTLE ROCK PUBLIC WORKS DEPARTMENT STANDARD DETAILS FOR STREET AND DRAINAGE FACILITIES IMPROVEMENTS.
5. REFER TO TECHNICAL SPECIFICATIONS IN THE PROJECT MANUAL FOR SPECIFIC MATERIAL AND PRODUCT REQUIREMENTS.

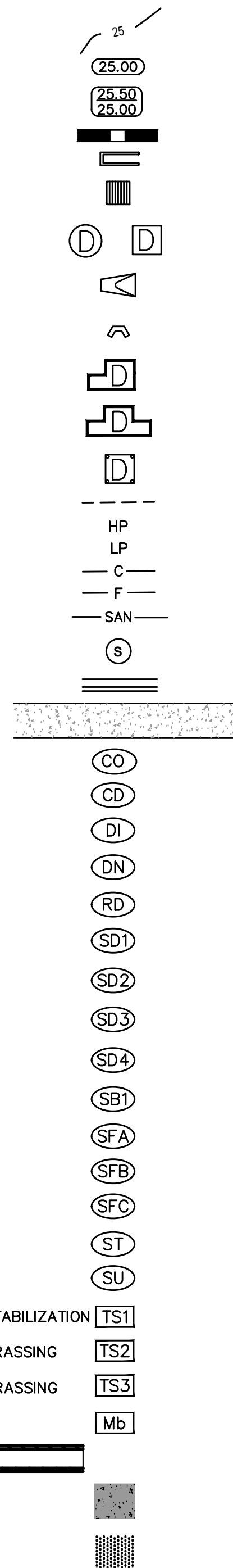
EXISTING

- IRON ROD
- PK NAIL
- R.R. SPIKE
- CONC. MONUMENT
- WATER VALVE
- WATER METER
- FIRE HYDRANT
- GAS METER
- GAS VALVE
- CLEAN-OUT
- GUARD POST (BOLLARD)
- SIGN POST
- BENCHMARK
- STORM SEWER MANHOLE
- SANITARY SEWER MANHOLE
- TELEPHONE MANHOLE
- ELECTRIC MANHOLE
- TELEPHONE BOX
- ELECTRIC BOX
- CABLE BOX
- UTILITY POLE
- GUY WIRE
- LIGHT POLE
- POST OR POLE (TYPE AS NOTED)
- MAILBOX
- DECIDUOUS TREE
- EVERGREEN/CONIFEROUS TREE
- BUSH
- PROPERTY LINE
- SETBACK LINE
- EASEMENT LINE
- CURB
- FENCE
- OVERHEAD ELECTRIC
- OVERHEAD TELEPHONE
- OVERHEAD CABLE
- UNDERGROUND TELEPHONE
- UNDERGROUND ELECTRIC
- UNDERGROUND CABLE
- WATER LINE
- SEWER LINE
- GAS LINE
- STORM SEWER/CULVERT
- EDGE OF WOODS
- CONTOUR LINE
- EXISTING DITCH



PROPOSED

- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- PROPOSED SPOT CURB ELEVATION
- STORM SEWER - PIPE
- STORM SEWER - MITERED END SECTION
- STORM SEWER - GRATE INLET
- STORM SEWER - JUNCTION BOX
- STORM SEWER - FLARED END SECTION
- STORM SEWER - HEADWALL
- STORM SEWER - SINGLE WING
- STORM SEWER - DOUBLE WING
- STORM SEWER - AREA INLET
- GRADE BREAK LINE
- HIGH POINT
- LOW POINT
- CUT LINE
- FILL LINE
- SANITARY SEWER PIPE
- SANITARY SEWER MANHOLE
- PROPOSED CURB
- PROPOSED CONCRETE
- CONSTRUCTION - ENTRANCE/EXIT
- CHECK DAM
- DIVERSION BERM
- DOWNDRAIN STRUCTURE - TEMPORARY
- ROCK DAM
- SEDIMENT BARRIER - SILT FENCE
- SEDIMENT BARRIER - GRAVEL RING
- SEDIMENT BARRIER - BLOCK & GRAVEL
- SEDIMENT BARRIER - BLOCK
- TEMPORARY SEDIMENT BASIN
- SILT FENCE - TYPE A
- SILT FENCE - TYPE B
- SILT FENCE - TYPE C
- STORM DRAIN OUTLET PROTECTION
- SURFACE ROUGHENING
- DISTURBED AREA STABILIZATION -TEMPORARY STABILIZATION
- DISTURBED AREA STABILIZATION -TEMPORARY GRASSING
- DISTURBED AREA STABILIZATION -PERMANENT GRASSING
- MATTING/BLANKETS
- PROPOSED BOX CULVERT
- PROPOSED DITCH CONCRETE
- PROPOSED SEED/SOD TOP DITCH/SHOULDER



REVISIONS	DATE
-	-

CITY OF LITTLE ROCK, ARKANSAS
EAST 39TH ST. DRAINAGE IMPROVEMENTS
GENERAL NOTES, LEGEND AND QUANTITIES

DEPARTMENT OF PUBLIC WORKS
CIVIL ENGINEERING
701 W. MARKHAM
LITTLE ROCK, ARKANSAS 72201

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SCALE
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PROJECT NO.
CLR # 01-22-DR-01
SHEET NO.
C200

TABLE OF DIMENSIONS AND REINFORCING STEEL (Wings for one structure end)										
Maximum Wingwall Height Hw	Dimensions				Variable Reinforcing			Estimated Quantities per ft. of wing length (2-wings)		
	W	X	Y	Z	Bars J1	Bars J2	Reinf (Lb/Ft)	Conc (CY/Ft)		
2'-6"	2'-5"	1'-0"	9"	7"	#4	1'-0"	#4	1'-0"	33.73	0.248
3'-0"	2'-5"	1'-0"	9"	7"	#4	1'-0"	#4	1'-0"	37.07	0.261
3'-6"	2'-5"	1'-0"	9"	7"	#4	1'-0"	#4	1'-0"	37.74	0.273
4'-0"	2'-5"	1'-0"	9"	7"	#4	1'-0"	#4	1'-0"	38.41	0.285
4'-6"	3'-2"	1'-6"	1'-0"	7"	#4	1'-0"	#4	1'-0"	41.75	0.330
5'-0"	3'-2"	1'-6"	1'-0"	7"	#4	1'-0"	#4	1'-0"	45.09	0.343
5'-6"	3'-2"	1'-6"	1'-0"	7"	#4	1'-0"	#4	1'-0"	45.75	0.355
6'-0"	3'-2"	1'-6"	1'-0"	7"	#4	1'-0"	#4	1'-0"	46.42	0.367
7'-0"	3'-8"	1'-9"	1'-3"	7"	#4	1'-0"	#4	1'-0"	52.77	0.414
8'-0"	4'-2"	2'-0"	1'-6"	8"	#5	1'-0"	#4	1'-0"	60.19	0.486
9'-0"	4'-8"	2'-3"	1'-9"	8"	#5	1'-0"	#4	1'-0"	81.49	0.535
10'-0"	5'-2"	2'-6"	2'-0"	8"	#5	1'-0"	#4	1'-0"	97.25	0.584
11'-0"	5'-8"	2'-9"	2'-3"	8"	#5	1'-0"	#5	1'-0"	133.65	0.634
12'-0"	6'-2"	3'-0"	2'-6"	9"	#7	1'-0"	#5	1'-0"	162.29	0.721
13'-0"	6'-8"	3'-3"	2'-9"	11"	#7	1'-0"	#5	1'-0"	178.80	0.856
14'-0"	7'-2"	3'-6"	3'-0"	1'-0"	#8	1'-0"	#5	1'-0"	216.78	0.959
15'-0"	7'-8"	4'-0"	3'-0"	1'-1"	#9	1'-0"	#6	1'-0"	283.06	1.068
16'-0"	8'-2"	4'-6"	3'-0"	1'-3"	#9	1'-0"	#6	1'-0"	292.02	1.234

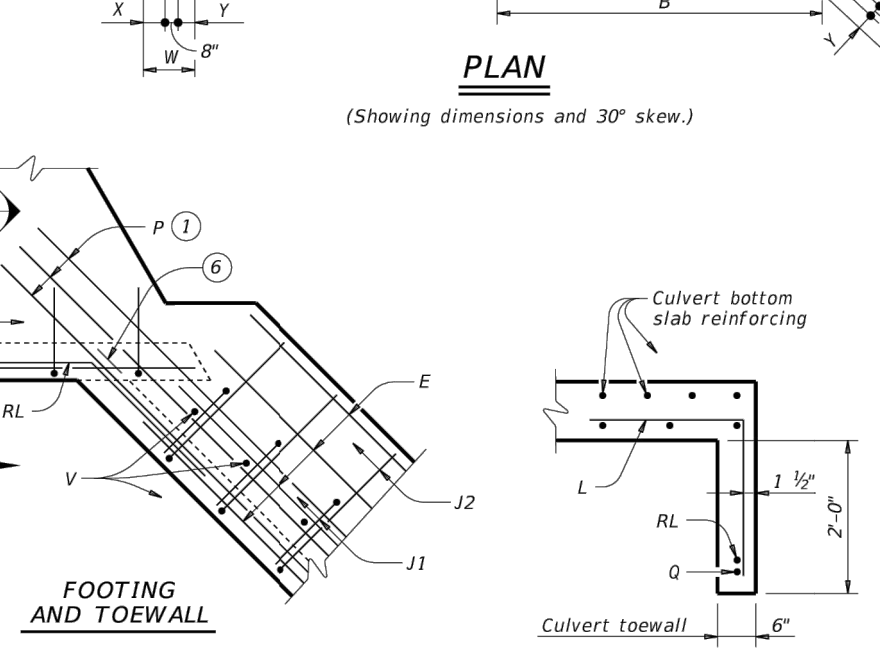
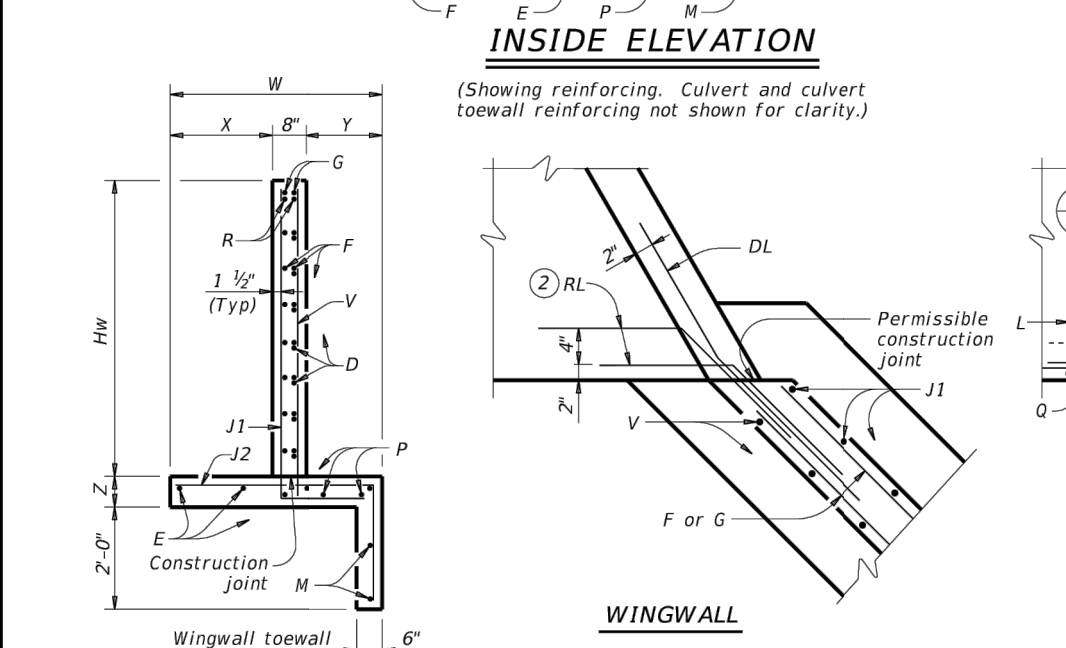
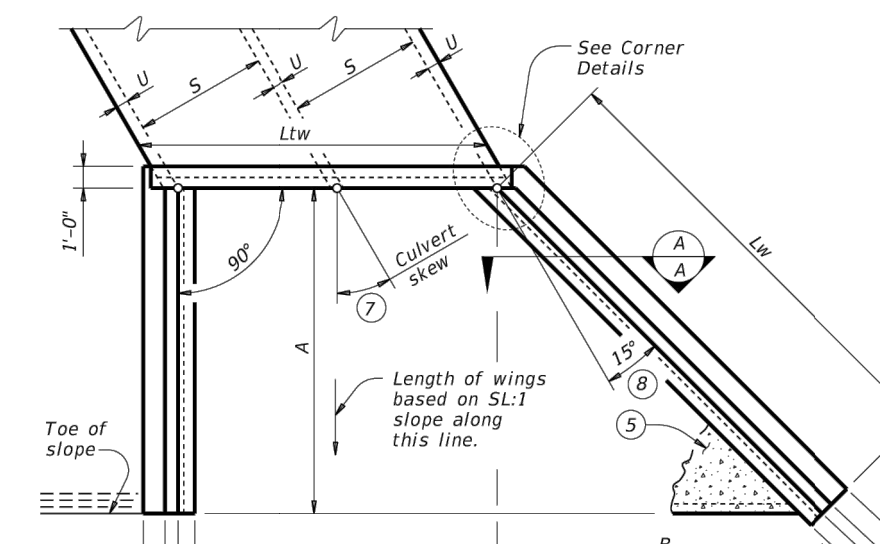
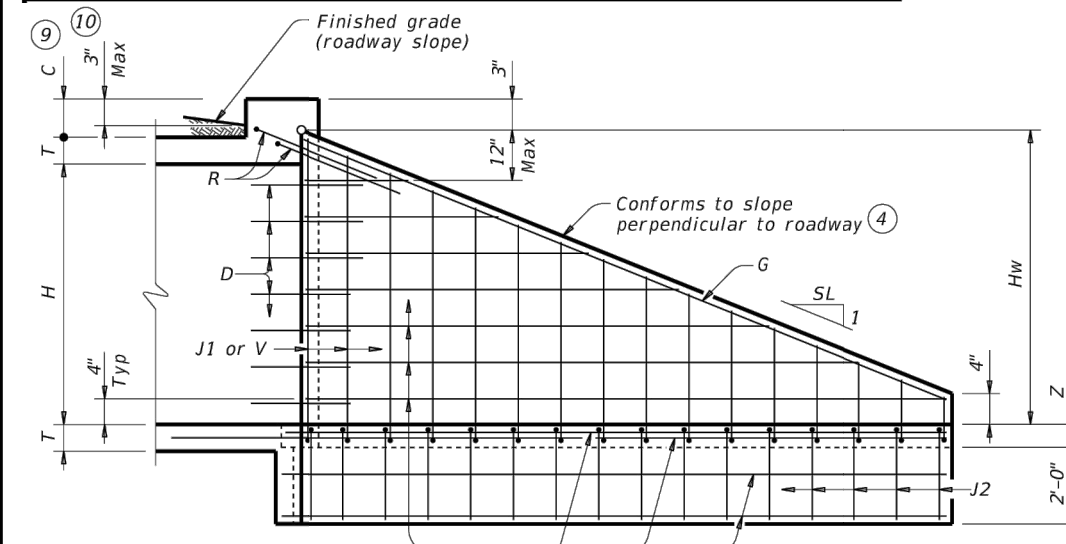
TABLE OF WINGWALL REINFORCING (2-wings)			
Bar	Size	No.	Spa
DL	#5	-	1'-0"
DS	#5	-	1'-0"
E	#4	-	1'-0"
F	#4	-	1'-0"
G	#6	4	-
H	#4	4	-
P	#4	-	1'-0"
RS	#5	3	-
RL	#5	3	-
R	#4	-	1'-0"

TABLE OF ESTIMATED CURVLET TOEWALL QUANTITIES			
Bar	Size	No.	Spa
L	#4	-	1'-6"
Q	#4	1	-
Reinf (Lb/Ft)			2.45
Conc (CY/Ft)			0.037

WING DIMENSION FORMULAS:
(All values are in feet.)
 $H_w = H + T + C - 0.250'$
 $A = (H_w - 0.333) / SL_1$
 $B = (A) \tan(\theta + 15^\circ)$
 $L_w = (A) + (\cosine \theta + 15^\circ)$
 For cast-in-place culverts:
 $L_w = (N)(S) + (N + 1)(U) + \cosine \theta$
 For precast culverts:
 $L_w = (N)(2U + S) + (N - 1)(0.5) + \cosine \theta$
 Total wingwall area (two wings - SF) = $0.5 (H_w + 0.333) (L_w + A)$

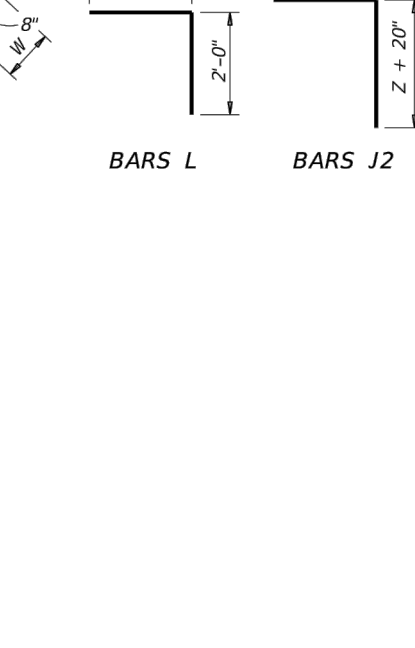
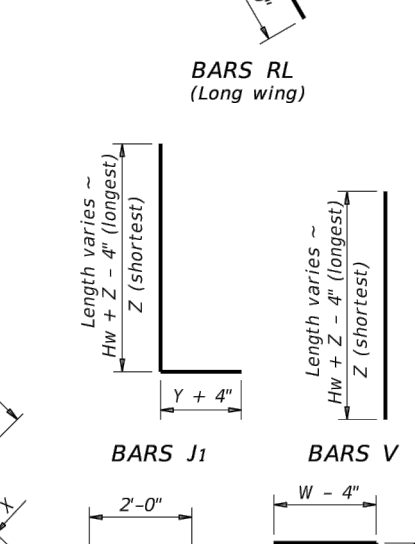
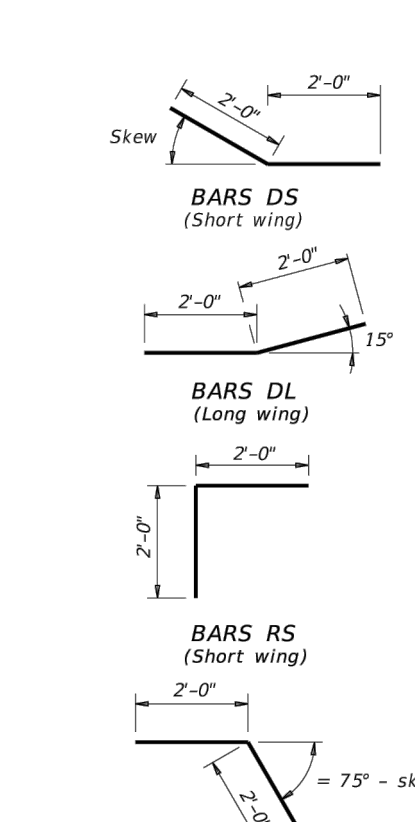
TABLE OF ESTIMATED CURVLET TOEWALL QUANTITIES
 Bar Size No. Spa
 L #4 - 1'-6"
 Q #4 1 -
 Reinf (Lb/Ft) 2.45
 Conc (CY/Ft) 0.037

GENERAL NOTES:
 Designated according to AASHTO LRFD Bridge Design Specifications.
 When structure is founded on solid rock, depth of toewalls for culverts and wingwalls may be reduced or eliminated as directed by the Engineer.
 See Box Culvert Supplement (BCS) standard sheet for additional dimensions and information.
 The quantities for concrete and reinforcing steel resulting from the formulas given on this sheet are for Contractor's information only.
 Reinforcing dimensions are out-to-out of bars.



SECTION A-A
(Culvert and culvert toewall reinforcing not shown for clarity.)

SECTION B-B
(Culvert and culvert toewall reinforcing not shown for clarity.)



SECTION A-A
(Culvert and culvert toewall reinforcing not shown for clarity.)

SECTION B-B
(Culvert and culvert toewall reinforcing not shown for clarity.)

- Extend Bars P 3'-0" minimum into bottom slab of box culvert.
- Adjust as necessary to maintain 1 1/2" clear cover and 4" minimum between bars.
- Quantities shown are based on an average wing height for two wings (one structure end). To determine total quantities for two wings, multiply the tabulated values by 0.5 (Lw + Lw).
- Recommended values of side slope are: 2:1, 3:1, 4:1, and 6:1.
- When shown elsewhere on the plans, construct 3" deep concrete riprap. Payment for riprap is as required by Item 432, "Riprap." Unless otherwise shown on the plans or directed by the Engineer, provide a 6" wide by 1'-6" deep reinforced concrete toewall along all edges of the riprap adjacent to natural ground; reinforce the toewall by extending typical riprap reinforcing into the toewall; and extend construction joints or grooved joints oriented in the direction of flow across the full distance of the riprap at intervals of approximately 20'. When such riprap is provided, the culvert toewall shown in SECTION B-B will not be required.
- At Contractor's option, culvert toewall may be ended flush with wingwall toewall. Adjust reinforcing as needed.
- Applicable values of skew are: 15°, 30°, and 45°.
- Typical wingwall angle for all skews.
- 0' Min to 5'-0" Max. Estimated curb heights are shown elsewhere in the plans. For structures with pedestrian rail or curbs taller than 1'-0", refer to the Extended Curb Details (ECD) standard sheet. For structures with T631 or T631LS bridge rail, refer to the Mounting Details for T631 & T631LS Rails (T631-M) standard sheet. Refer to the Box Culvert Rail Mounting Details (RAC) standard sheet for structures with bridge rail other than T631 or T631LS.
- For vehicle safety, the following requirements must be met:
 - For structures without bridge rail, construct curbs no more than 3" above finished grade.
 - For structures with bridge rail, construct curbs flush with finished grade.
 Reduce curb heights, if necessary, to meet the above requirements. No changes will be made in quantities and no additional compensation will be allowed for this work.

MATERIAL NOTES:
 Provide Class C concrete (f'c=3,600 psi).
 Provide Grade 60 reinforcing steel.
 Provide galvanized reinforcing steel if required elsewhere in the plans.
 In riprap concrete, synthetic fibers listed on the "Fibers for Concrete" Material Producer List (MPL) may be used in lieu of steel reinforcing unless noted otherwise.

GENERAL NOTES:
 Designated according to AASHTO LRFD Bridge Design Specifications.
 When structure is founded on solid rock, depth of toewalls for culverts and wingwalls may be reduced or eliminated as directed by the Engineer.
 See Box Culvert Supplement (BCS) standard sheet for additional dimensions and information.
 The quantities for concrete and reinforcing steel resulting from the formulas given on this sheet are for Contractor's information only.
 Reinforcing dimensions are out-to-out of bars.

CONCRETE WINGWALLS WITH FLARED WINGS FOR SKEWED BOX CULVERTS

FW-S

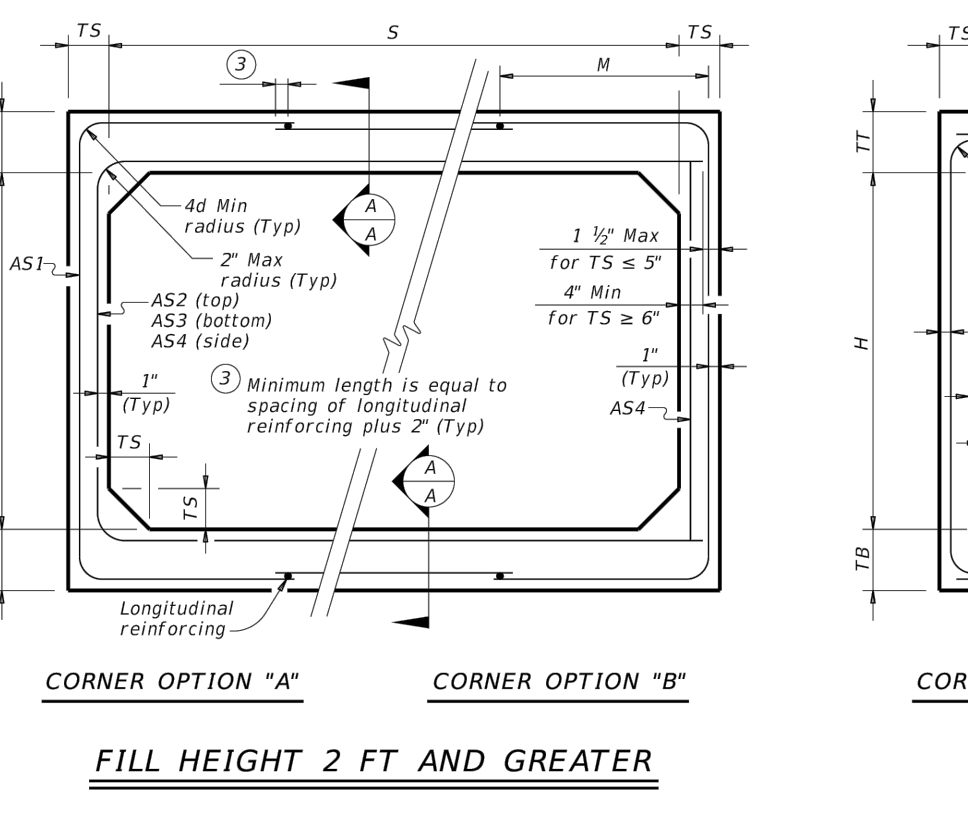
BOX DATA														
SECTION DIMENSIONS					REINFORCING (sq. in. / ft.)									
S	H	T1	T2	TS	Fill Height (ft.)	M (Min) (in.)	AS1	AS2	AS3	AS4	AS5	AS7	AS8	Lift Weight (tons)
3	2	7	6	4	< 2	-	0.17	0.25	0.16	0.10	0.17	0.17	0.14	3.3
3	2	4	4	4	2 < 3	31	0.13	0.19	0.18	0.10	-	-	-	2.4
3	2	4	4	4	3 - 5	31	0.10	0.12	0.10	-	-	-	-	2.4
3	2	4	4	4	10	31	0.10	0.10	0.10	-	-	-	-	2.4
3	2	4	4	4	15	31	0.10	0.13	0.13	-	-	-	-	2.4
3	2	4	4	4	20	31	0.11	0.17	0.17	-	-	-	-	2.4
3	2	4	4	4	25	31	0.14	0.21	0.21	-	-	-	-	2.4
3	2	4	4	4	30	31	0.17	0.25	0.25	-	-	-	-	2.4
3	2	4	4	4	35	31	0.20	0.29	0.30	-	-	-	-	2.4
3	3	7	6	4	< 2	-	0.17	0.27	0.17	0.10	0.17	0.17	0.14	3.7
3	3	4	4	4	2 < 3	31	0.10	0.22	0.21	0.10	-	-	-	2.8
3	3	4	4	4	3 - 5	31	0.10	0.14	0.14	0.10	-	-	-	2.8
3	3	4	4	4	10	31	0.10	0.11	0.11	0.10	-	-	-	2.8
3	3	4	4	4	15	31	0.10	0.14	0.15	0.10	-	-	-	2.8
3	3	4	4	4	20	31	0.10	0.16	0.19	0.10	-	-	-	2.8
3	3	4	4	4	25	31	0.10	0.23	0.23	-	-	-	-	2.8
3	3	4	4	4	30	31	0.12	0.27	0.28	0.10	-	-	-	2.8
3	3	4	4	4	35	31	0.14	0.32	0.32	0.10	-	-	-	2.8

- For box length = 8'-0"
- AS1 thru AS4, AS7 and AS8 are minimum required areas of reinforcement per linear foot of box length. AS5 is minimum required area of reinforcement per linear foot of box width.



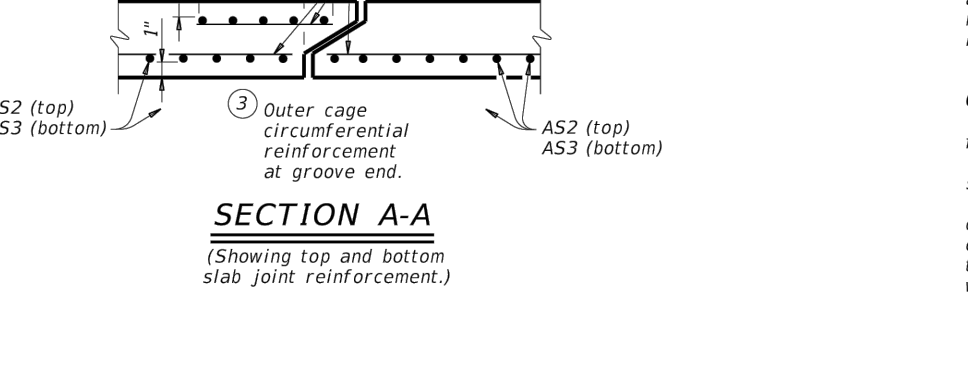
SECTION A-A
(Showing top and bottom slab joint reinforcement.)

SECTION B-B
(Showing dimensions.)



CORNER OPTION "A" **CORNER OPTION "B"**

FILL HEIGHT 2 FT AND GREATER



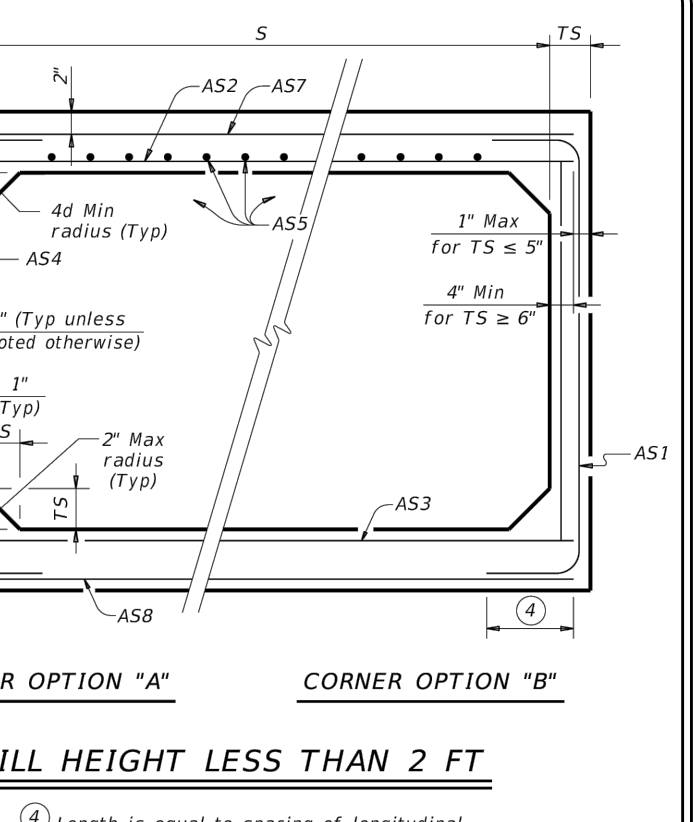
CORNER OPTION "A" **CORNER OPTION "B"**

FILL HEIGHT LESS THAN 2 FT



SECTION A-A
(Showing top and bottom slab joint reinforcement.)

SECTION B-B
(Showing dimensions.)



SECTION A-A
(Showing top and bottom slab joint reinforcement.)

SECTION B-B
(Showing dimensions.)

MATERIAL NOTES:
 Provide 0.03 sq. in./ft. minimum longitudinal reinforcement at each face in slabs and walls. This minimum requirement may be met by the transverse wires when wire mesh reinforcement is used.
 Provide Class H concrete (f'c = 5,000 psi).

GENERAL NOTES:
 Designs shown conform to ASTM C1577. Refer to ASTM C1577 for information or details not shown.
 See Box Culverts Precast Miscellaneous Details (SCP-MD) standard sheet for details and notes not shown.
 In lieu of furnishing the designs shown on this sheet, the contractor may furnish an alternate design that is equal to or exceeds the design for the design fill height in the table. Submit shop plans for alternate designs in accordance with Item "Precast Concrete Structural Members (Fabrication)" HL93 LOADING
SINGLE BOX CULVERTS
PRECAST
3'-0" SPAN
SCP-3

SECTION A-A
(Culvert and culvert toewall reinforcing not shown for clarity.)

SECTION B-B
(Culvert and culvert toewall reinforcing not shown for clarity.)

REVISIONS	DATE
-	-

CITY OF LITTLE ROCK, ARKANSAS
EAST 39TH ST. DRAINAGE IMPROVEMENTS
BOX CULVERT & HEADWALL DETAILS

DEPARTMENT OF PUBLIC WORKS
CIVIL ENGINEERING
701 W. MARKHAM
LITTLE ROCK, ARKANSAS 72201

90% REVIEW SET

DRAWN BY
JNS
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SHEET NO.
C201

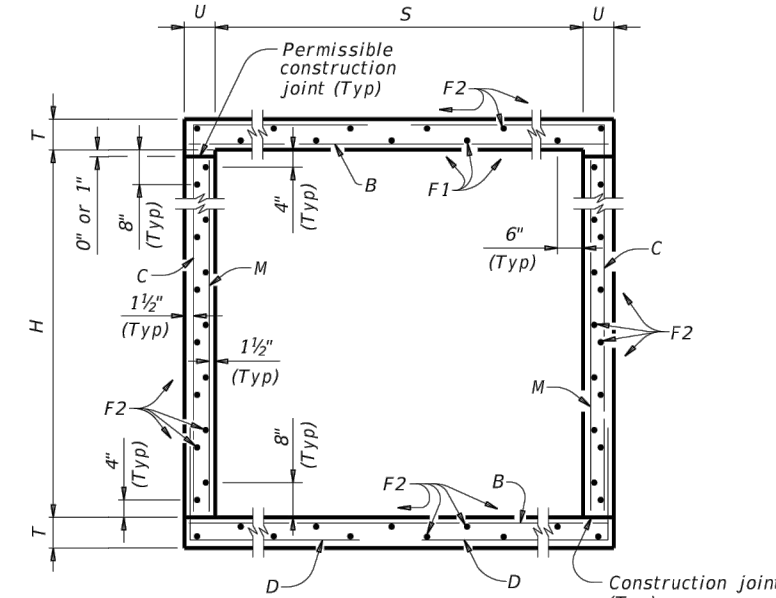
TABLE OF DIMENSIONS AND REINFORCING STEEL (Wings for one structure end)										
Maximum Wingwall Height Hw	Dimensions				Variable Reinforcing			Estimated Quantities per ft. of wing length (2-wings)		
	W	X	Y	Z	Bars J1	Bars J2	Reinf (Lb/Ft)	Conc (CY/Ft)		
2'-6"	2'-5"	1'-0"	9"	7"	#4	1'-0"	#4	1'-0"	33.73	0.248
3'-0"	2'-5"	1'-0"	9"	7"	#4	1'-0"	#4	1'-0"	37.07	0.261
3'-6"	2'-5"	1'-0"	9"	7"	#4	1'-0"	#4	1'-0"	37.74	0.273
4'-0"	2'-5"	1'-0"	9"	7"	#4	1'-0"	#4	1'-0"	38.41	0.285
4'-6"	3'-2"	1'-6"	1'-0"	7"	#4	1'-0"	#4	1'-0"	41.75	0.330
5'-0"	3'-2"	1'-6"	1'-0"	7"	#4	1'-0"	#4	1'-0"	45.09	0.343
5'-6"	3'-2"	1'-6"	1'-0"	7"	#4	1'-0"	#4	1'-0"	45.75	0.355
6'-0"	3'-2"	1'-6"	1'-0"	7"	#4	1'-0"	#4	1'-0"	46.42	0.367
7'-0"	3'-8"	1'-9"	1'-3"	7"	#4	1'-0"	#4	1'-0"	52.77	0.414
8'-0"	4'-2"	2'-0"	1'-6"	8"	#5	1'-0"	#4	1'-0"	60.19	0.486
9'-0"	4'-8"	2'-3"	1'-9"	8"	#5	1'-0"	#4	1'-0"	81.49	0.535
10'-0"	5'-2"	2'-6"	2'-0"	8"	#5	1'-0"	#4	1'-0"	97.25	0.584
11'-0"	5'-8"	2'-9"	2'-3"	8"	#5	1'-0"	#5	1'-0"	133.65	0.634
12'-0"	6'-2"	3'-0"	2'-6"	9"	#7	1'-0"	#5	1'-0"	162.29	0.721
13'-0"	6'-8"	3'-3"	2'-9"	11"	#7	1'-0"	#5	1'-0"	178.80	0.856
14'-0"	7'-2"	3'-6"	3'-0"	1'-0"	#8	1'-0"	#5	1'-0"	216.78	0.959
15'-0"	7'-8"	4'-0"	3'-0"	1'-1"	#9	1'-0"	#6	1'-0"	283.06	1.068
16'-0"	8'-2"	4'-6"	3'-0"	1'-3"	#9	1'-0"	#6	1'-0"	292.02	1.234

TABLE OF WINGWALL REINFORCING (2-wings)			
Bar	Size	No.	Spa
D	#5	-	1'-0"
E	#4	-	1'-0"
F	#4	-	1'-0"
G	#6	4	-
M	#4	4	-
P	#4	-	1'-0"
R	#5	3	-
V	#4	-	1'-0"

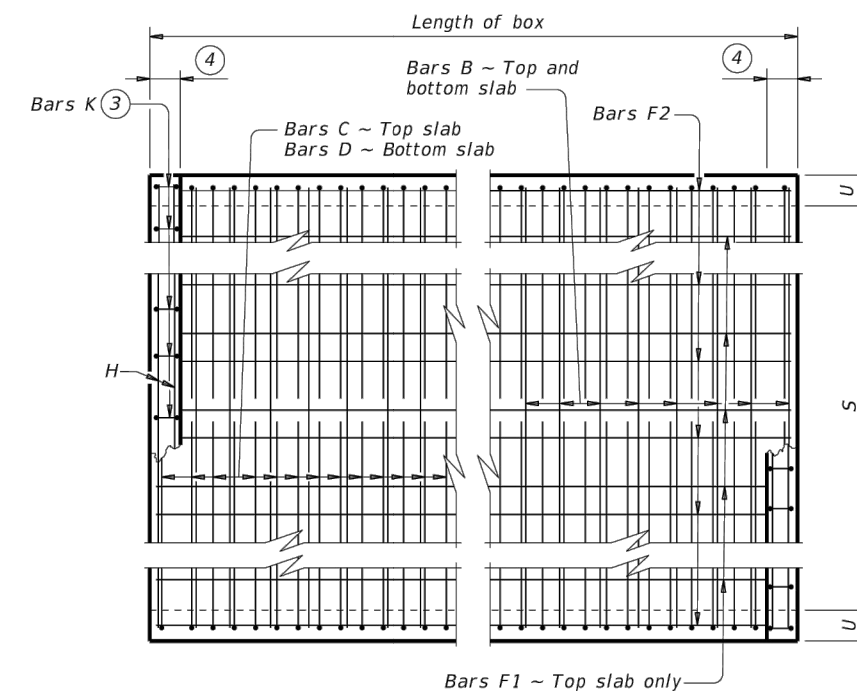
TABLE OF ESTIMATED CURVLET TOEWALL QUANTITIES			
Bar			

SECTION DIMENSIONS		BILLS OF REINFORCING STEEL (For Box Length = 40 feet)												QUANTITIES																												
S	H	T	U	Bars B			Bars C			Bars D			Bars M - #4			Bars F1 - #4 at 18" Spa		Bars F2 - #4 at 18" Spa		Bars H - #4		Bars K		Per Foot of Barrel		Curb	Total															
				No.	Size	Length	No.	Size	Length	No.	Size	Length	No.	Size	Length	No.	Length	Wt.	No.	Length	Wt.	No.	Wt.	Conc. (CY)	Reinf. (LB)			Conc. (CY)	Reinf. (LB)													
3'-0"	2'-0"	8"	7"	30	#5	9'	3-11"	441	108	#4	9'	5'-4"	385	2'-6"	2'-10"	108	#4	9'	5'-1"	367	2'-10"	2'-3"	108	9'	2'-0"	144	3	39'-9"	80	19	39'-9"	505	3'-11"	10	10	28	0.292	48.1	0.3	38	12.0	1,960
3'-0"	3'-0"	8"	7"	30	#5	9'	3-11"	441	108	#4	9'	6'-4"	457	3'-6"	2'-10"	108	#4	9'	5'-1"	367	2'-10"	2'-3"	108	9'	3'-0"	216	3	39'-9"	80	23	39'-9"	611	3'-11"	10	10	28	0.335	54.3	0.3	38	13.7	2,210
4'-0"	2'-0"	8"	7"	30	#5	9'	4'-11"	554	162	#4	6'	5'-8"	613	2'-6"	3'-2"	162	#4	6'	5'-5"	586	3'-2"	2'-3"	108	9'	2'-0"	144	3	39'-9"	80	21	39'-9"	558	4'-11"	13	12	33	0.342	63.4	0.4	46	14.1	2,581
4'-0"	3'-0"	8"	7"	30	#5	9'	4'-11"	554	162	#4	6'	6'-8"	721	2'-6"	3'-2"	162	#4	6'	5'-5"	586	3'-2"	2'-3"	108	9'	3'-0"	216	3	39'-9"	80	25	39'-9"	664	4'-11"	13	12	33	0.385	70.5	0.4	46	15.8	2,867
4'-0"	4'-0"	8"	7"	30	#5	9'	4'-11"	554	162	#4	6'	7'-8"	830	4'-6"	3'-2"	162	#4	6'	5'-5"	586	3'-2"	2'-3"	108	9'	4'-0"	289	3	39'-9"	80	25	39'-9"	664	4'-11"	13	12	33	0.428	75.1	0.4	46	17.5	3,049

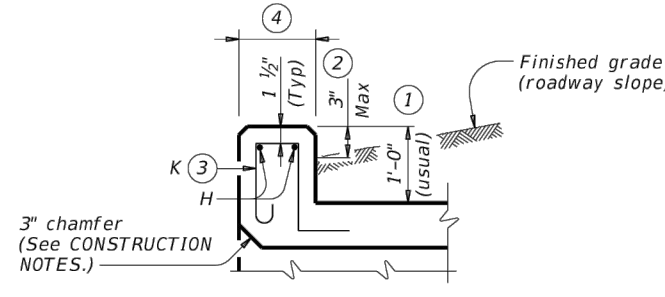
⑤ For direct traffic culverts (fill height ≤ 2 ft.), identify the required box size and select the option with the minimum fill height.



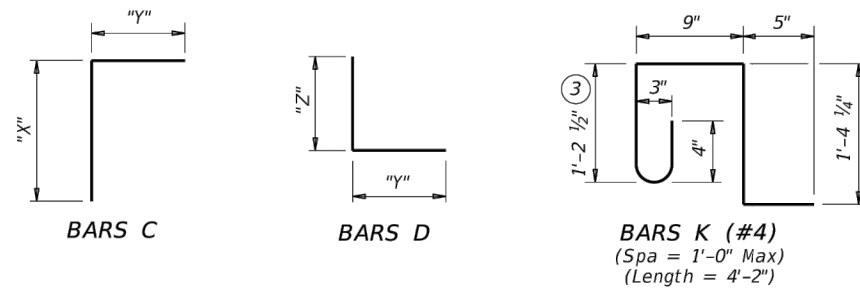
TYPICAL SECTION



PLAN OF REINF STEEL



SECTION THRU CURB



SINGLE BOX CULVERTS CAST-IN-PLACE 0' TO 30' FILL SCC-3 & 4

- ① 0" Min to 5'-0" Max. Estimated curb heights are shown elsewhere in the plans. For structures with pedestrian rail or curbs taller than 3'-0", refer to the Extended Curb Details (ECD) standard sheet. For structures with T631 or T631LS bridge rail, refer to the Mounting Details for T631 & T631LS Rails (T631-CR) standard sheet. Refer to the Rail Anchorage Curb (RAC) standard sheet for structures with bridge rail other than T631 or T631LS.
- ② For vehicle safety, the following requirements must be met:
 - For structures without bridge rail, construct curbs no more than 3" above finished grade.
 - For structures with bridge rail, construct curbs flush with finished grade. Reduce curb heights, if necessary, to meet the above requirements. No changes will be made in quantities and no additional compensation will be allowed for this work.
- ③ For curbs less than 1'-0" high, tilt Bars K or reduce bar height as necessary to maintain cover. For curbs less than 3" high, Bars K may be omitted.
- ④ 1'-0" typical. 2'-3" when the Rail Anchorage Curb (RAC) standard sheet is referred to elsewhere in the plans.

The Contractor may replace Bars B, C, D, E, F1, F2, M, Y, and/or Z with deformed welded wire reinforcement (WWR) meeting the requirements of ASTM A1064. The area of required reinforcement may be reduced by the ratio of 60 ksi / 70 ksi. Spacing of WWR is limited to 4" Min and 18" Max. When required, provide lap splices in the WWR of the same length required for the equivalent bar size, rounded up for wire sizes exceeding conventional bar sizes. The lap length required for WWR is never less than the lap length required for uncoated #4 bars.

Example conversion: Replacing No. 6 Gr 60 at 6" Spacing with WWR
 Required WWR = (0.44 sq. in. per 0.5 ft.) x (60 ksi / 70 ksi) = 0.755 sq. in. per ft.
 If D306 wire is used to meet the 0.755 sq. in. per ft. requirement in this example, the required spacing = (0.306 sq. in. / 0.755 sq. in. per ft.) x (12 in. per ft.) = 4.86" Max spacing. Required lap length for the provided D306 wire is 2'-1" (the same minimum lap length required for uncoated #5 bars, as listed under MATERIAL NOTES).

CONSTRUCTION NOTES:

Do not use permanent forms.
 Chamfer the bottom edge of the top slab 3" at the entrance.
 Optionally, raise construction joints shown at the flow line by a maximum of 6". If this option is taken, Bars M may be cut off or raised; Bars C and D may be reversed.

MATERIAL NOTES:

Provide Grade 60 reinforcing steel.
 Provide galvanized reinforcing steel if required elsewhere in the plans.
 Provide Class C concrete (f'c = 3,600 psi) for culvert barrel and curb, with the following exceptions: provide Class S concrete (f'c = 4,000 psi) for top slabs of:

- culverts with overlay;
- culverts with 1-to-2 course surface treatment; or
- culverts with the top slab as the final riding surface.

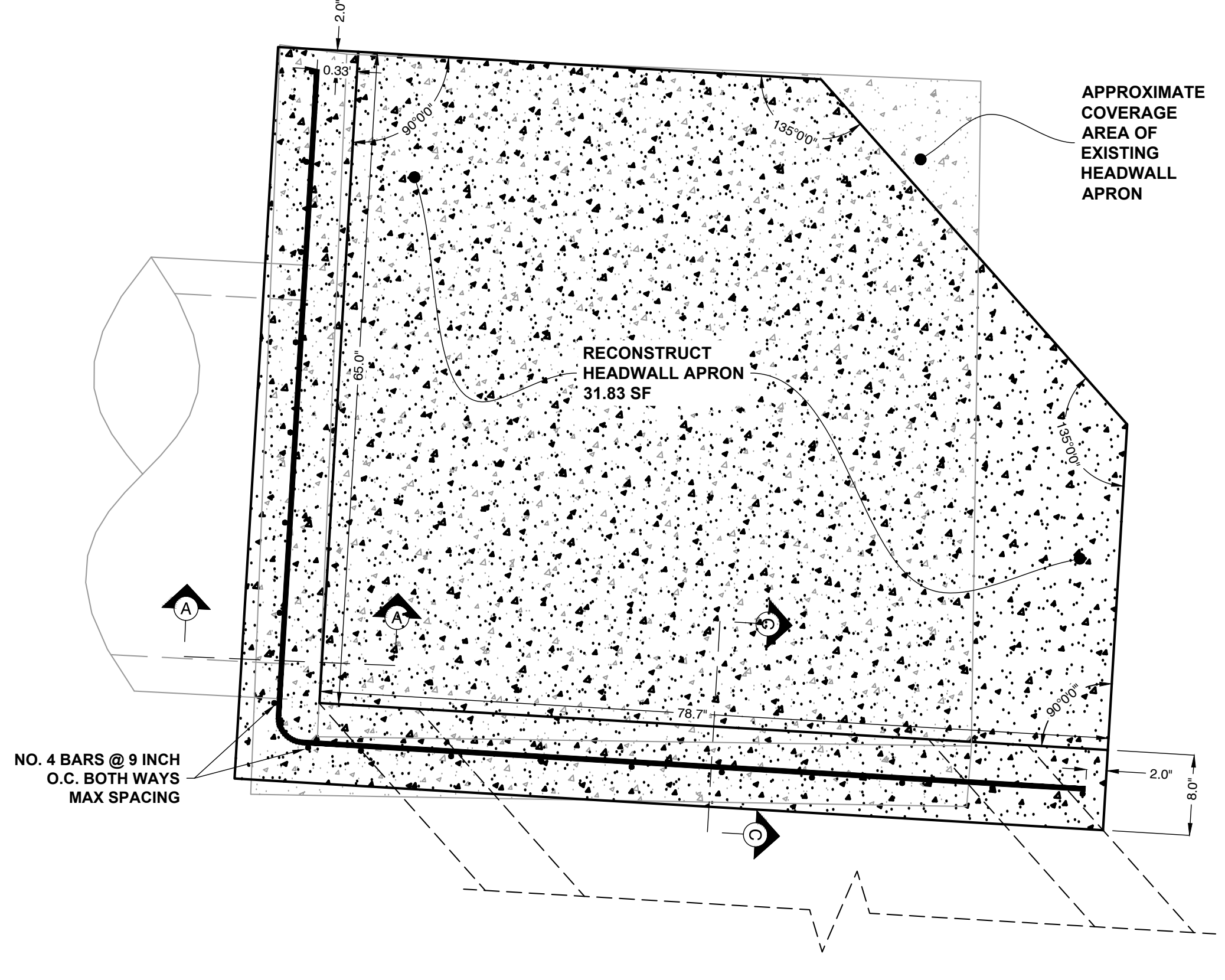
 Provide bar laps, where required, as follows:

- uncoated or galvanized - #4 = 1'-8" Min
- uncoated or galvanized - #5 = 2'-1" Min

GENERAL NOTES:

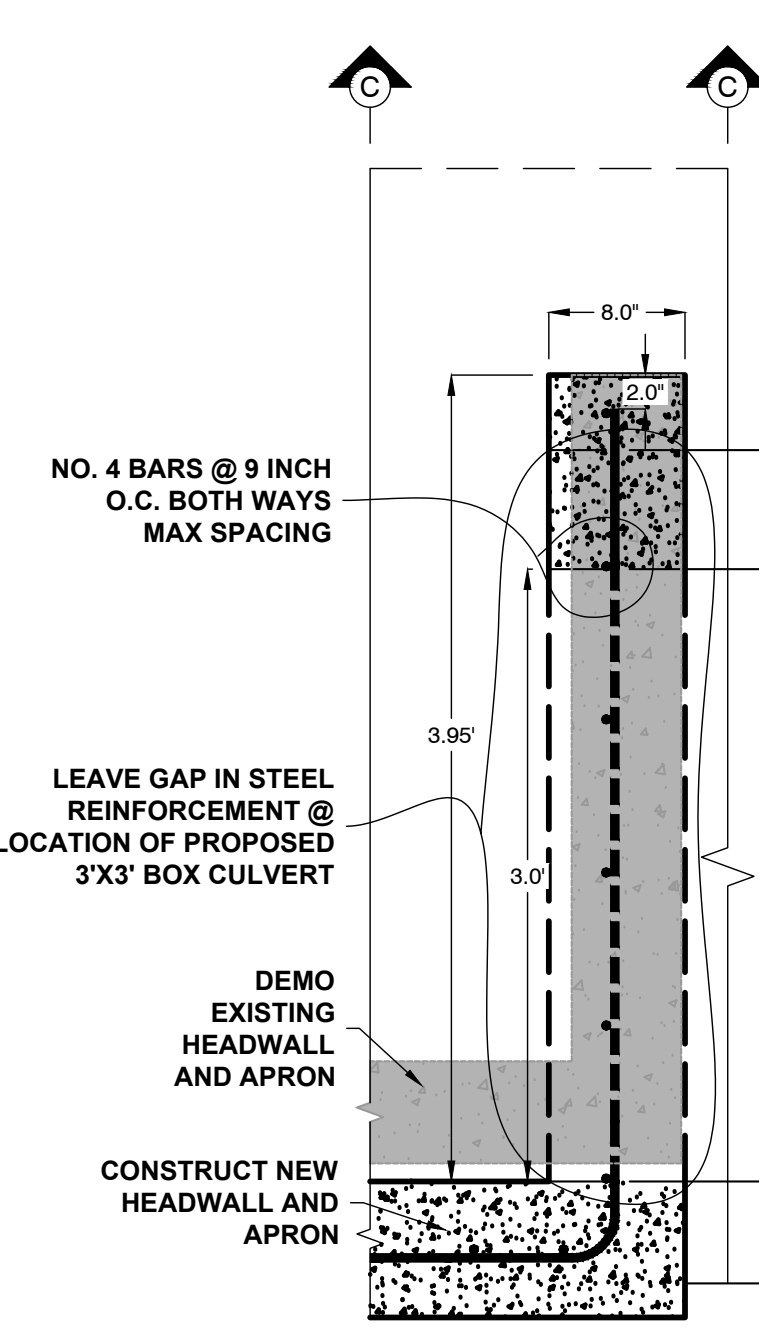
Designed according to AASHTO LRFD Bridge Design Specifications for the range of fill heights shown.
 See the Single Box Culverts Cast-In-Place Miscellaneous Detail (SCC-MD) standard sheet for details pertaining to skewed ends, angle sections, and lengthening.

Cover dimensions are clear dimensions, unless noted otherwise. Reinforcing bar dimensions shown are out-to-out of bar.



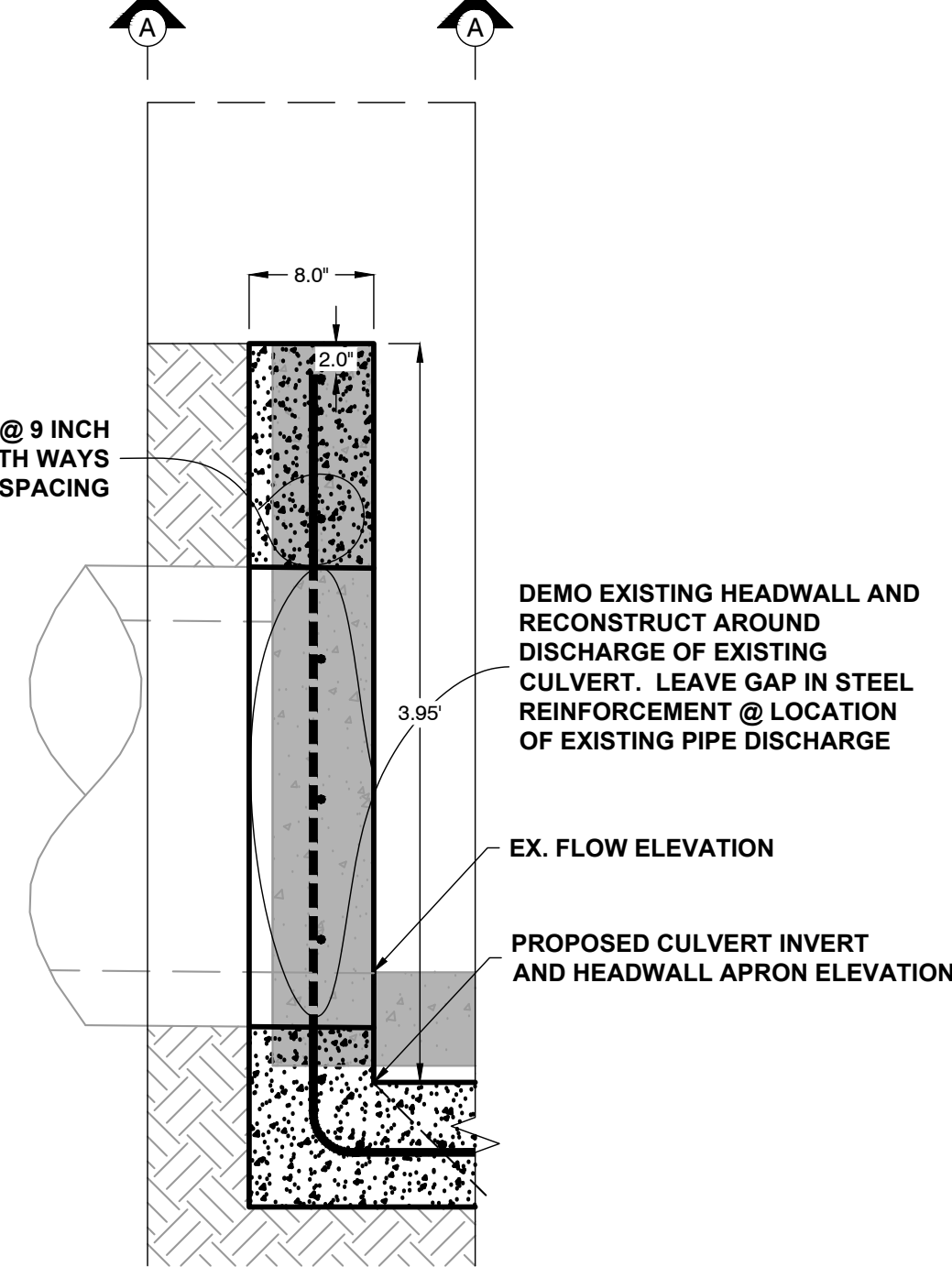
HEADWALL MODIFICATION - PLAN VIEW

SCALE: NTS



HEADWALL MODIFICATION - SECTION C-C

SCALE: NTS



HEADWALL MODIFICATION - SECTION A-A

SCALE: NTS

REVISIONS	DATE
-	-

CITY OF LITTLE ROCK, ARKANSAS
 EAST 39TH ST. DRAINAGE IMPROVEMENTS
 BOX CULVERT & HEADWALL DETAILS

DEPARTMENT OF PUBLIC WORKS
 CIVIL ENGINEERING
 701 W. MARKHAM
 LITTLE ROCK, ARKANSAS 72201

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 12/31/2024
 SCALE
 N/A
 PROJECT NO.
 CLR # 01-22-DR-01
 SHEET NO.
 C201

**RIDDICK EAST EDGE
PAVMENT OFFSET
ALIGNMENT GEOMETRY**

Point #	Description	Northing	Easting
1001	0+00.00 BOA	136280.00	1247450.80
1002	0+57.50 PI	136337.41	1247447.49
1003	0+81.75 PI	136361.63	1247448.51
1004	1+02.40 PI	136382.28	1247449.15
1005	1+26.70 PI	136406.56	1247449.88
1006	1+55.23 PI	136435.07	1247450.90
1007	1+80.10 PI	136459.86	1247452.99
1008	2+04.47 PI	136484.22	1247452.34
1009	2+20.36 PI	136500.09	1247453.11
1010	2+65.98 PI	136545.68	1247454.82
1011	2+91.09 PI	136570.67	1247457.21
1012	2+98.00 PI	136577.59	1247457.44
1014	2+99.97 PC	136579.56	1247457.51
1015	3+23.34 Mid	136600.91	1247449.56
1016	3+46.71 PT	136610.52	1247428.91
1017	4+14.61 EOA	136613.66	1247361.08

**RIDDICK WEST EDGE
PAVMENT OFFSET
ALIGNMENT GEOMETRY**

Point #	Description	Northing	Easting
1101	0+00.00 BOA	136281.20	1247426.58
1102	0+57.56 PI	136338.51	1247432.01
1103	1+26.53 PI	136407.44	1247434.26
1104	1+55.00 PI	136435.86	1247435.90
1105	2+04.54 PI	136485.39	1247437.15
1107	2+72.47 PC	136553.26	1247439.86
1108	2+88.31 Mid	136568.80	1247437.38
1109	3+04.15 PT	136582.18	1247429.10
1111	3+06.53 PC	136583.92	1247427.47
1112	3+17.48 Mid	136590.39	1247418.71
1113	3+28.43 PT	136593.31	1247408.22
1114	3+47.76 PI	136595.03	1247388.97
1115	3+76.55 EOA	136595.34	1247360.18

**FRAZIER PIKE SOUTH EDGE
PAVMENT OFFSET
ALIGNMENT GEOMETRY**

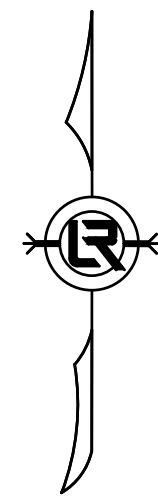
Point #	Description	Northing	Easting
1201	0+00.00 BOA	136251.78	1247613.32
1202	0+59.64 PI	136252.96	1247553.69
1203	0+88.35 PI	136253.52	1247525.00
1204	1+20.58 PI	136255.04	1247492.80
1205	1+29.33 PI	136255.64	1247484.07
1206	1+37.41 PI	136256.12	1247476.00
1207	2+00.00 EOA	136258.77	1247413.46

SURVEY BENCHMARKS

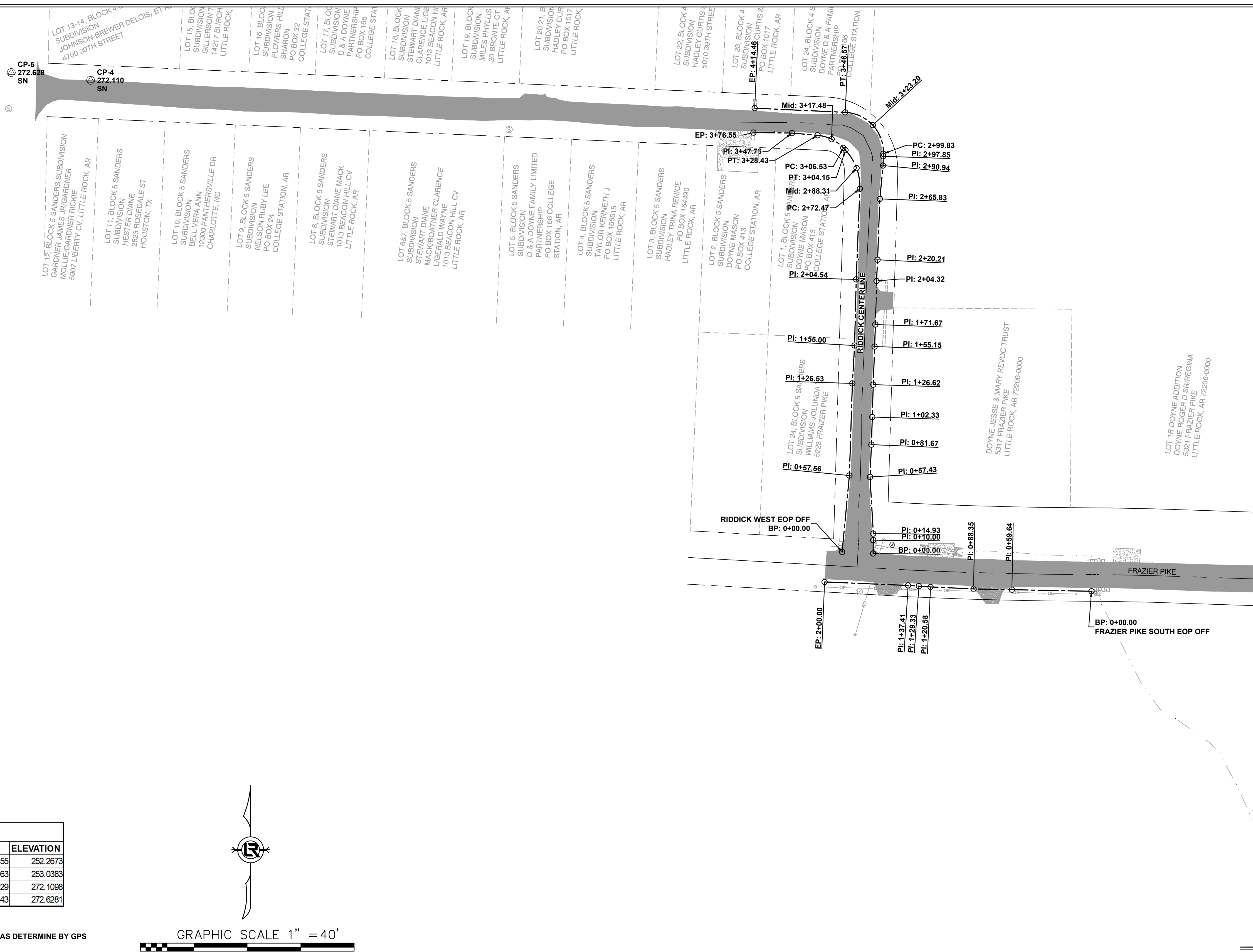
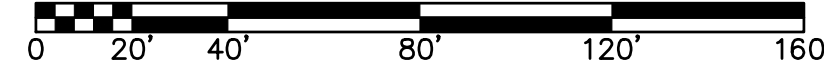
NO.	DESCRIPTION	NORTHING	EASTING	ELEVATION
CP-2	SN	135966.0459	1247792.55	252.2673
CP-3	SN	135962.4045	1247761.563	253.0383
CP-4	SN	136634.5268	1246863.829	272.1098
CP-5	SN	136640.363	1246804.43	272.6281

VERTICAL DATUM: NGVD 29
BASIS OF BEARING: ARKANSAS GRID NORTH NAD 83 AS DETERMINE BY GPS

CONTROL POINT



GRAPHIC SCALE 1" = 40'



RED APPLE COVE
CP-3 253.038 SN
CP-2 252.267 SN

REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS
EAST 39TH ST. DRAINAGE IMPROVEMENTS
FIELD TIES/LAYOUT SHEET

DEPARTMENT OF PUBLIC WORKS
CIVIL ENGINEERING
701 W. MARKHAM
LITTLE ROCK, ARKANSAS 72201

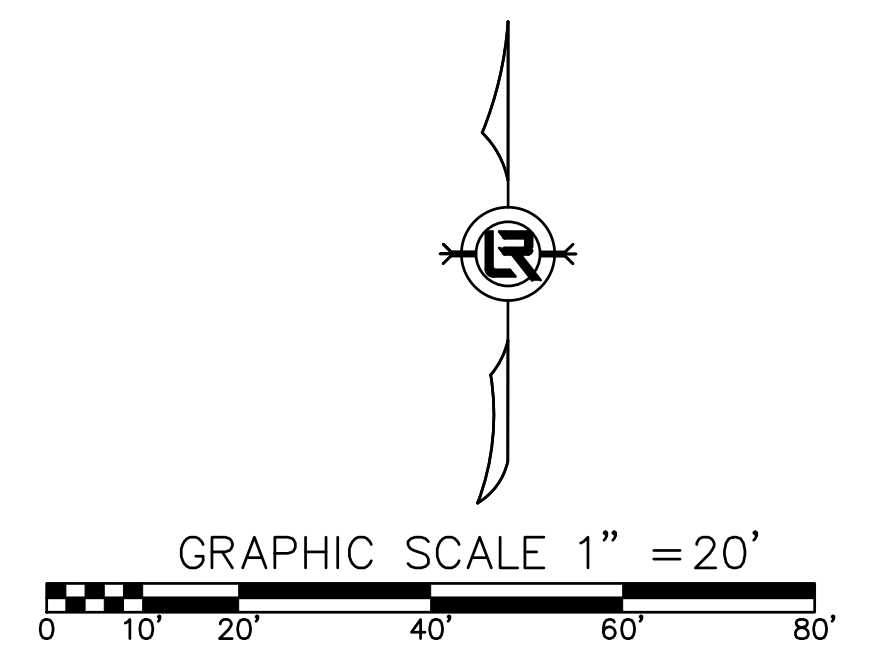
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12/31/2024
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AS NOTED
PROJECT NO.
CLR # 01-22-DR-01
SHEET NO.
C300



Existing Pipe Network				
NAME	SIZE	LENGTH	SLOPE	DESCRIPTION
ExSTM - 1	24"	30.39'	-0.27%	C.P.
ExSTM - 2	18"	48.83'	-0.74%	C.P.
ExSTM - 6	24"	24.89'	0.00%	C.P.
ExSTM - 7	24"	24.41'	0.00%	C.P.
ExSTM - 8	15"	20.50'	1.12%	C.P.


Existing Pipe Network				
NAME	SIZE	LENGTH	SLOPE	DESCRIPTION
ExSTM - 3	36.25" X 22.50"	27.86'	0.90%	CONC HORIZ. ELL. ARCH
ExSTM - 4	36.25" X 22.50"	21.79'	0.73%	CONC HORIZ. ELL. ARCH
ExSTM - 5	36.25" X 22.50"	23.83'	-0.00%	CONC HORIZ. ELL. ARCH



REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS
EAST 39TH ST. DRAINAGE IMPROVEMENTS
EXISTING CONDITIONS SITE PLAN

DEPARTMENT OF PUBLIC WORKS
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SHEET NO.
C400

PROPOSED BOX CULVERTS				
NAME	SIZE	LENGTH	SLOPE	DESCRIPTION
STM - 1	36.00" X 36.00"	24.00'	0.85%	CONC. BOX
STM - 2	36.00" X 36.00"	37.83'	0.37%	CONC. BOX
STM - 3	36.00" X 36.00"	16.00'	0.47%	CONC. BOX

KEY NOTES

1. CONCRETE WINGWALLS WITH FLARED WINGS FOR 0° SKEW BOX CULVERTS DETAIL FW-0.
2. SEE HEADWALL MODIFICATION DETAIL.
3. SEE CONCRETE WINGWALLS WITH FLARED WINGS FOR SKEWED BOX CULVERTS DETAIL FW-S.

CULVERT NOTES

1. FOR CULVERTS "STM-1" AND "STM-3" REFER TO SINGLE BOX PRE-CAST DETAIL SPC-3.
2. FOR CUVERT "STM-2" REFER TO SINGLE BOX CAST-IN-PLACE DETAIL SCC-3 & 4.

LOT 1R DOYNE ADDITION
DOYNE ROGER D SR/REGINA
5321 FRAZIER PIKE
LITTLE ROCK, AR 72206-0000

DOYNE JESSE & MARY REVOC
TRUST
5317 FRAZIER PIKE
LITTLE ROCK, AR 72206-0000

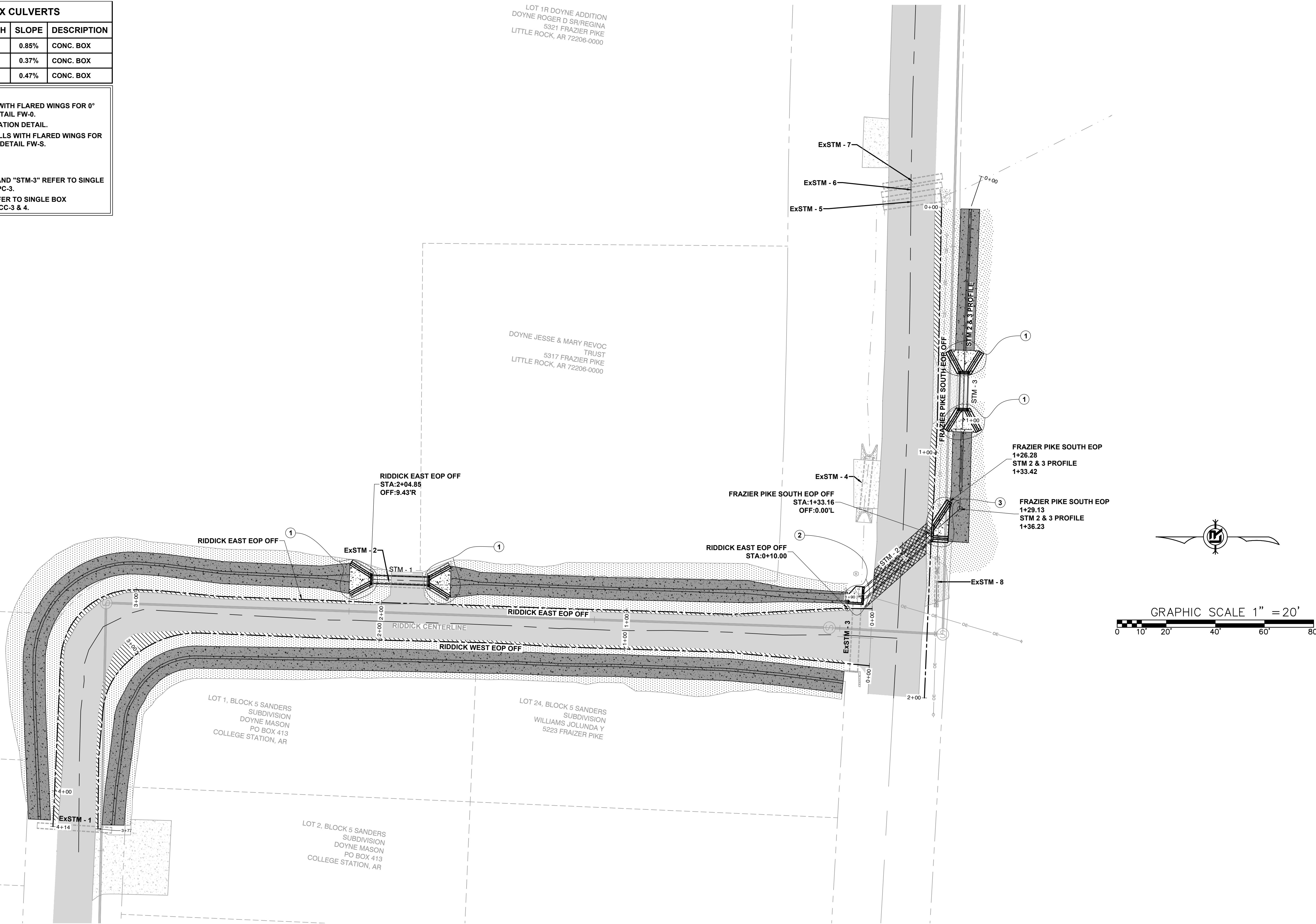
LOT 24, BLOCK 4 SANDERS
SUBDIVISION
DOYNE D & A FAMILY LIMITED
PARTNERSHIP
PO BOX 166
COLLEGE STATION, AR

LOT 1, BLOCK 5 SANDERS
SUBDIVISION
DOYNE MASON
PO BOX 413
COLLEGE STATION, AR

LOT 24, BLOCK 5 SANDERS
SUBDIVISION
WILLIAMS JOLUNDA Y
5223 FRAZIER PIKE

LOT 23, BLOCK 4 SANDERS
SUBDIVISION
HADLEY CURTIS & MARY A
PO BOX 1017
LITTLE ROCK, AR

LOT 2, BLOCK 5 SANDERS
SUBDIVISION
DOYNE MASON
PO BOX 413
COLLEGE STATION, AR



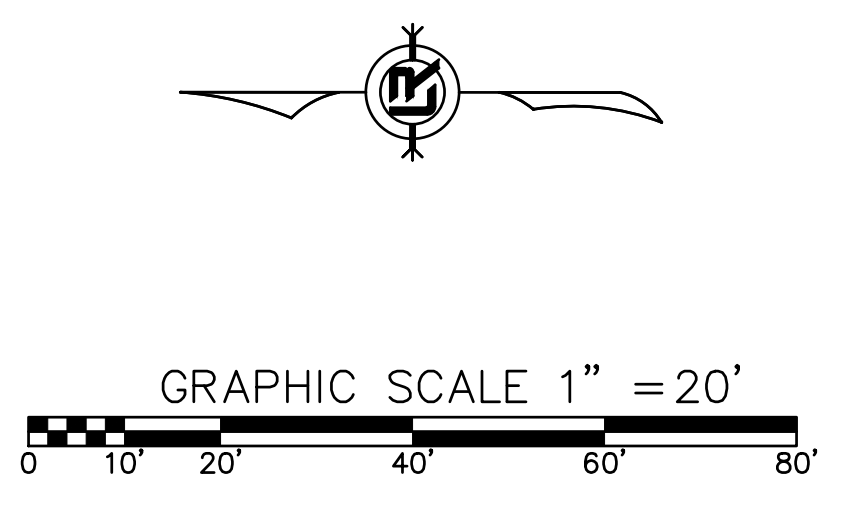
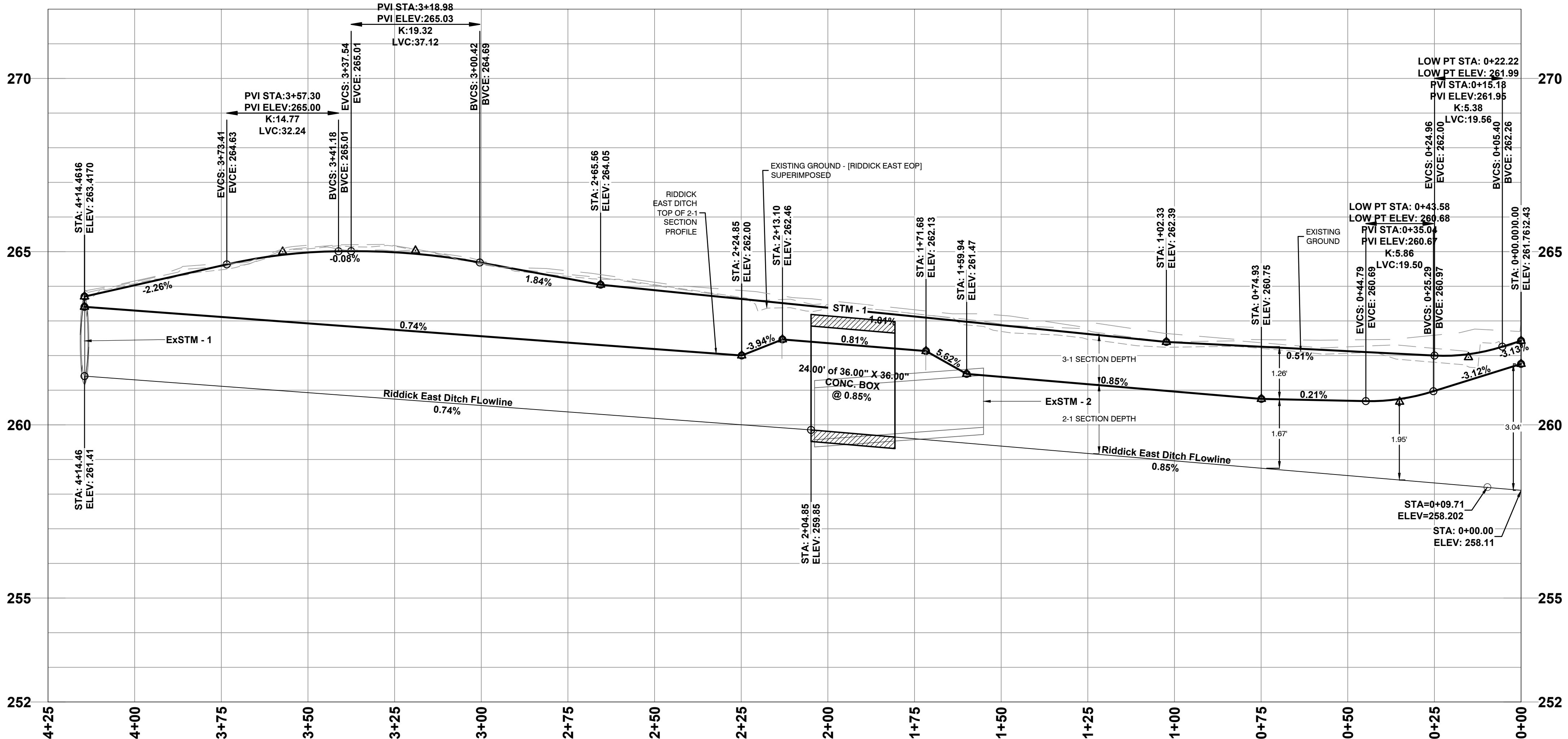
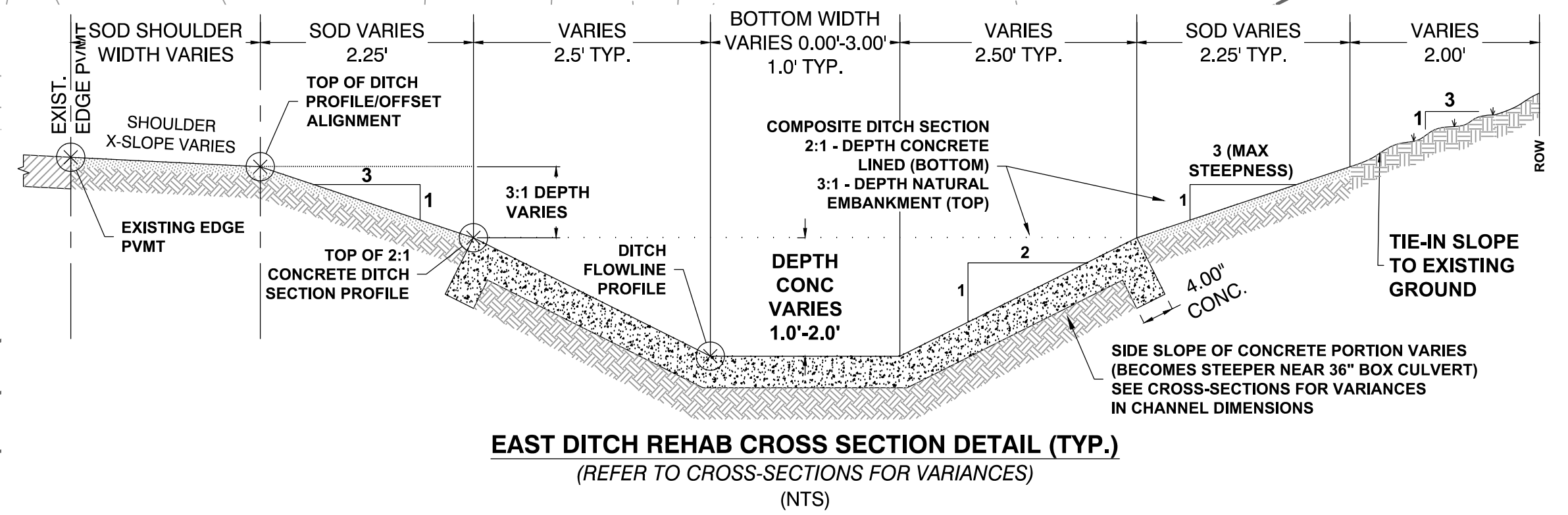
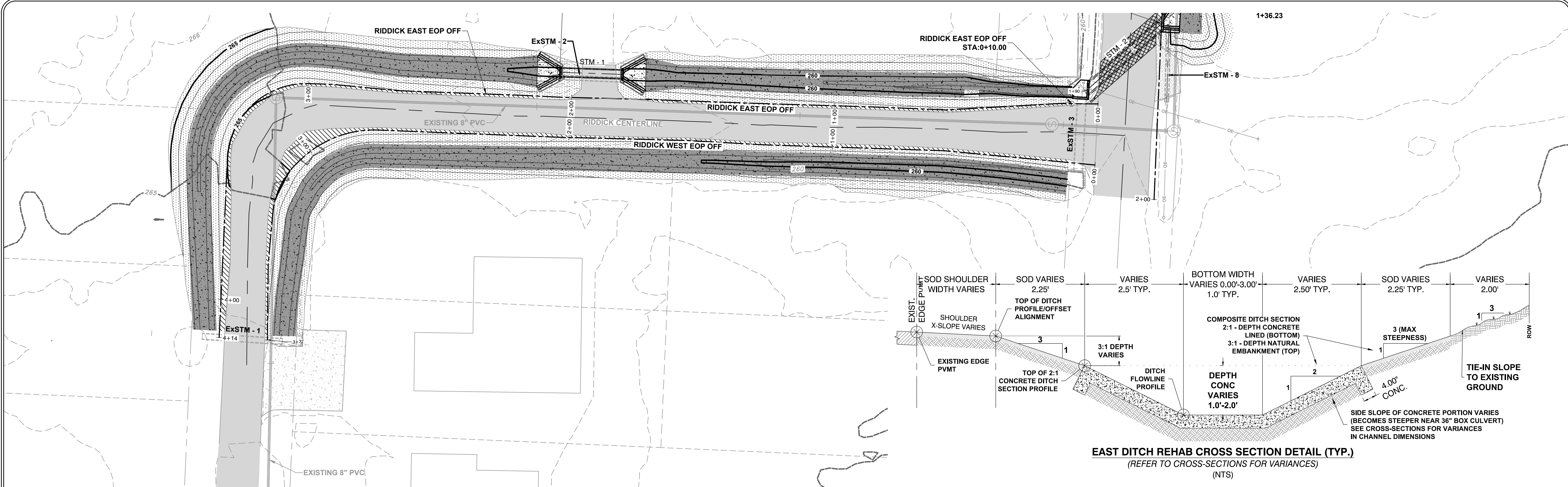
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS
EAST 39TH ST. DRAINAGE IMPROVEMENTS
SITE DETAIL

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PROJECT NO.
CLR # 01-22-DR-01
SHEET NO.
C500



RIDDICK EAST EOP OFF

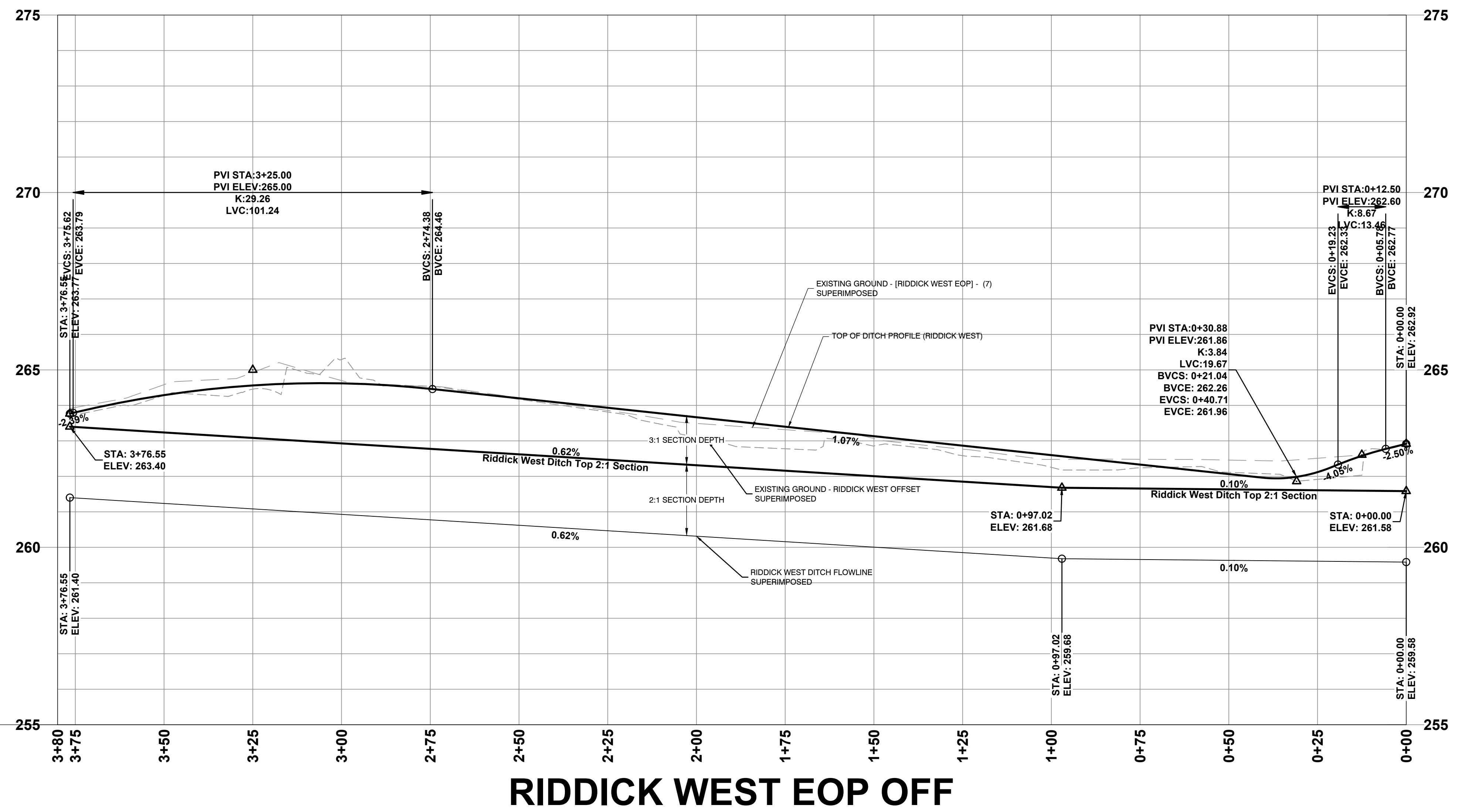
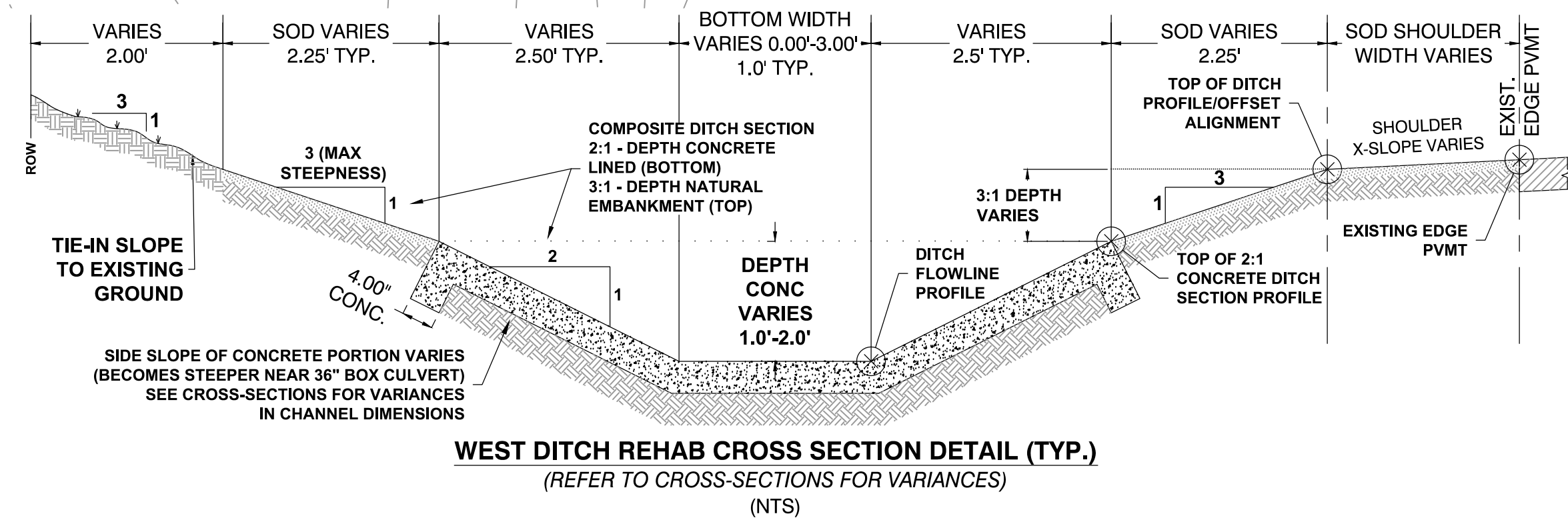
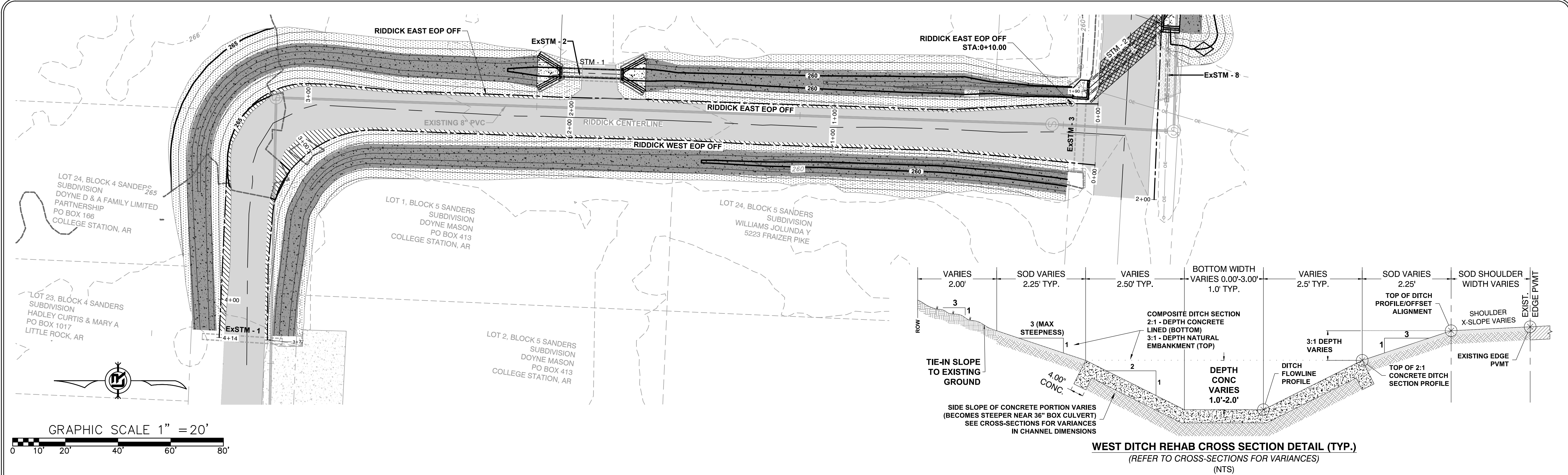
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS
EAST 39TH ST. DRAINAGE IMPROVEMENTS
 DRAINAGE PLAN & PROFILE

DEPARTMENT OF PUBLIC WORKS
 CIVIL ENGINEERING
 701 W. MARKHAM
 LITTLE ROCK, ARKANSAS 72201

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 SCALE
 H: 1" = 20' V: 1" = 2'
 PROJECT NO.
 CLR # 01-22-DR-01
 SHEET NO.
C501



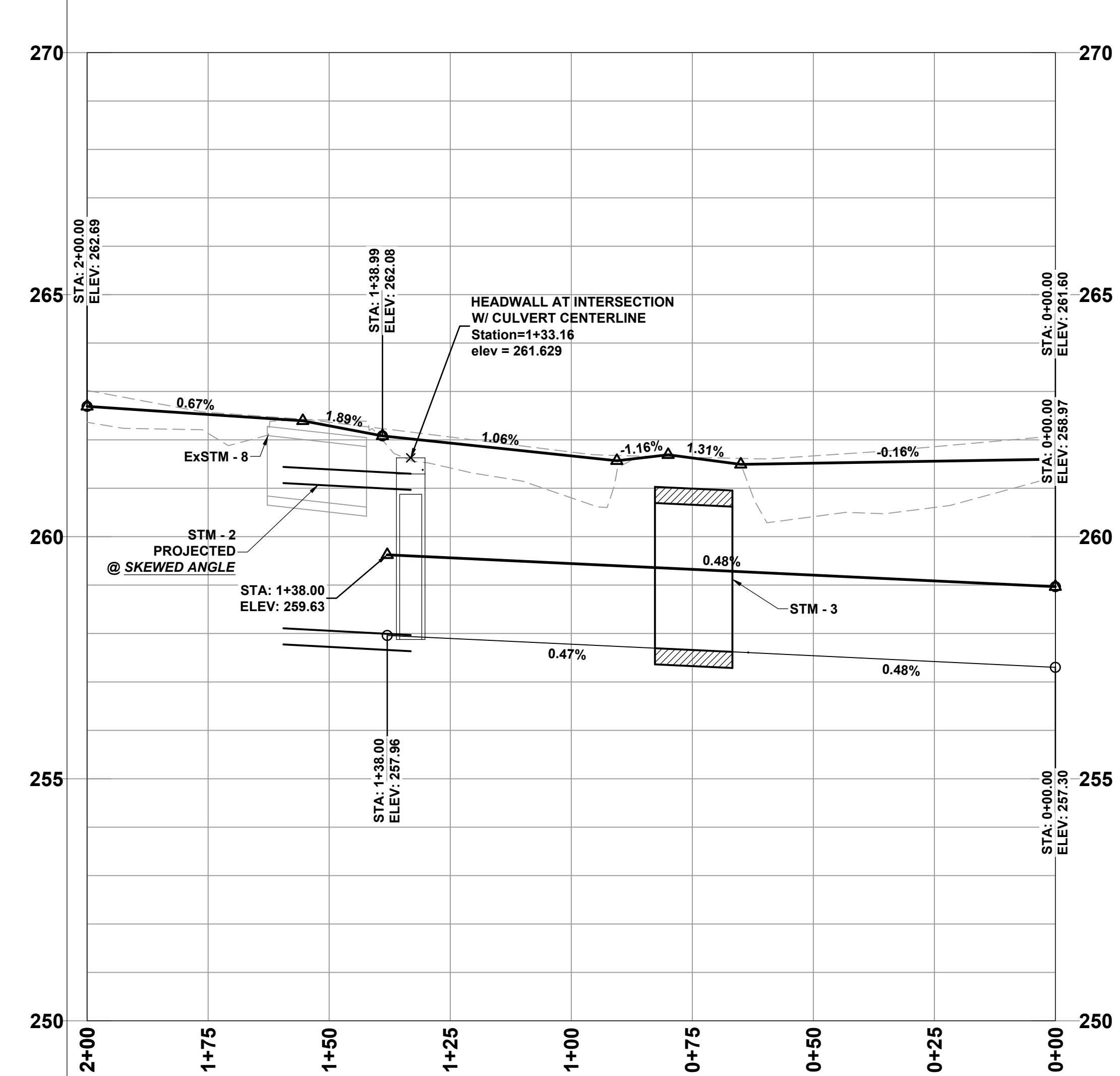
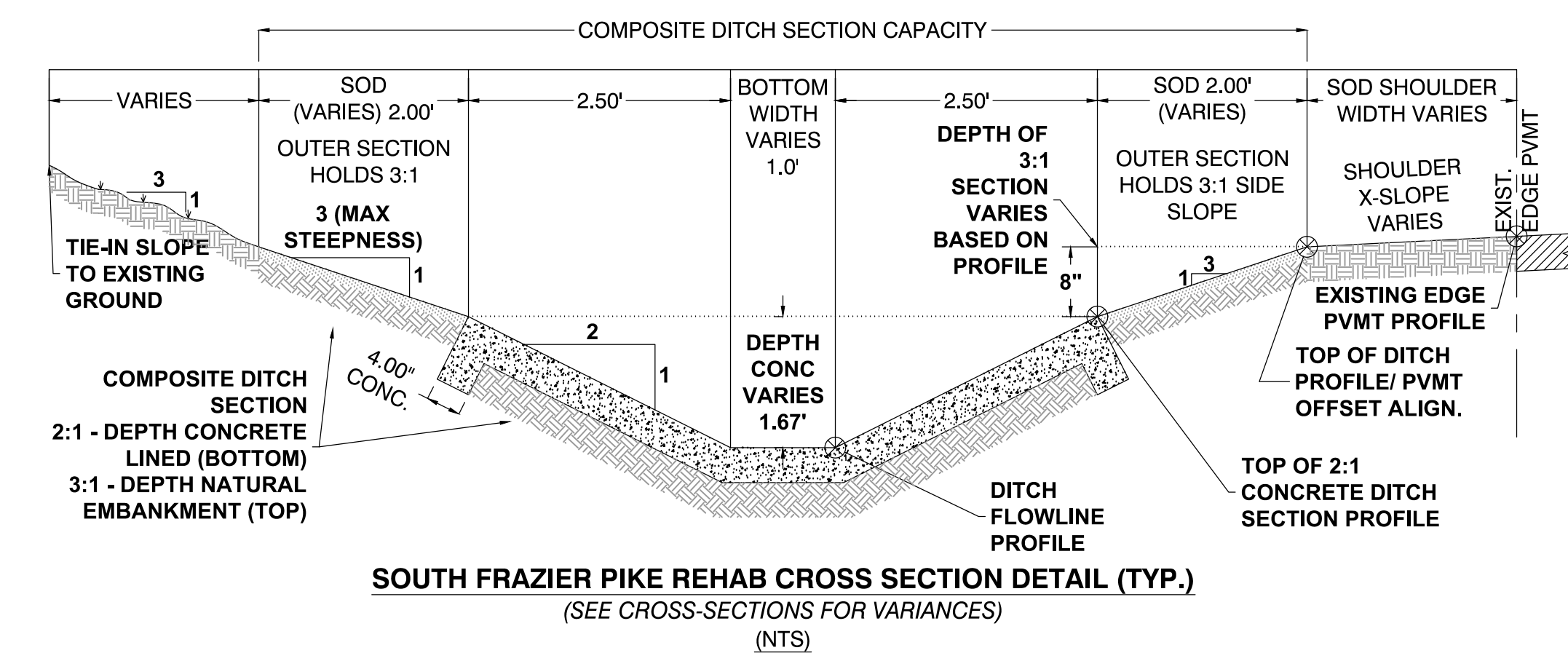
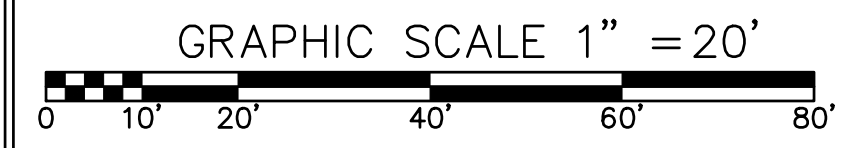
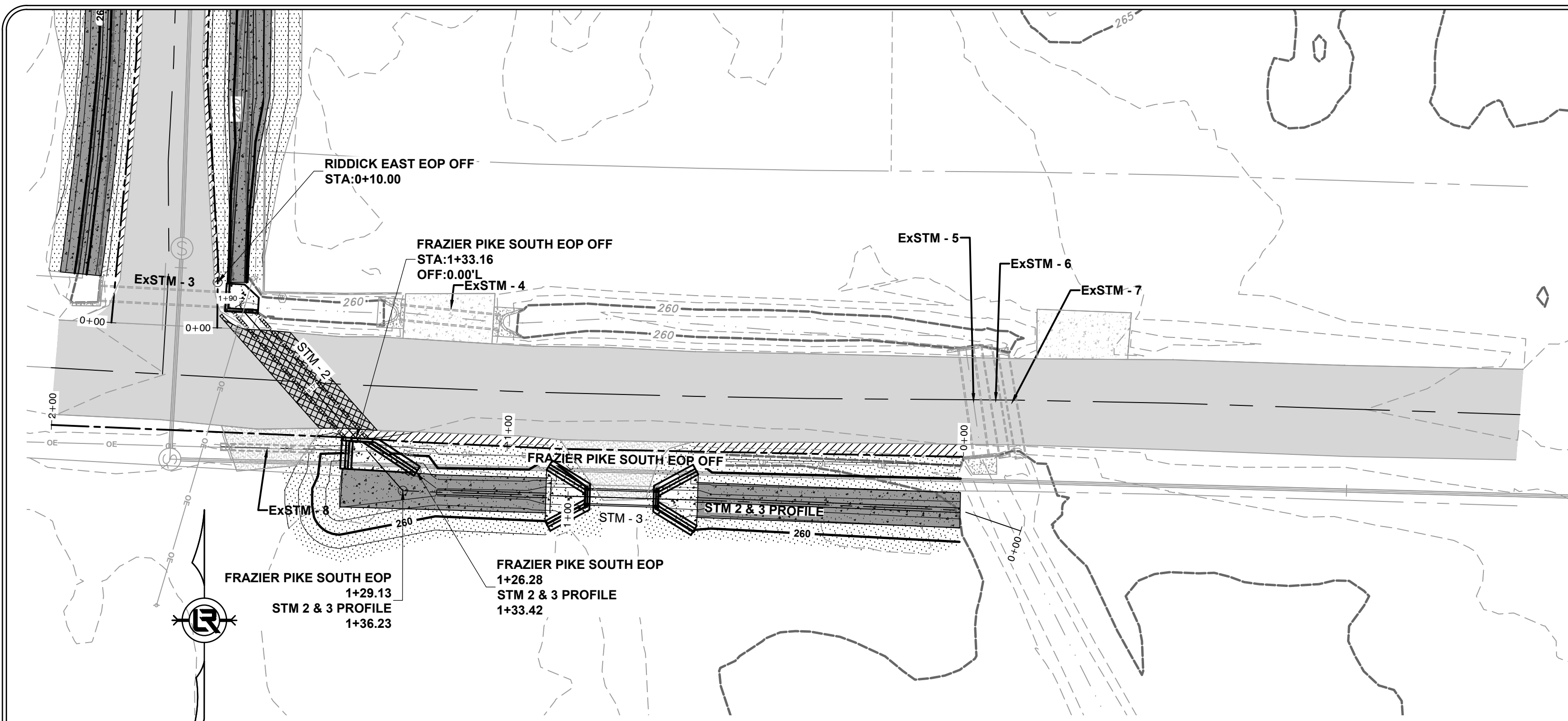
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS
EAST 39TH ST. DRAINAGE IMPROVEMENTS
DRAINAGE PLAN & PROFILE

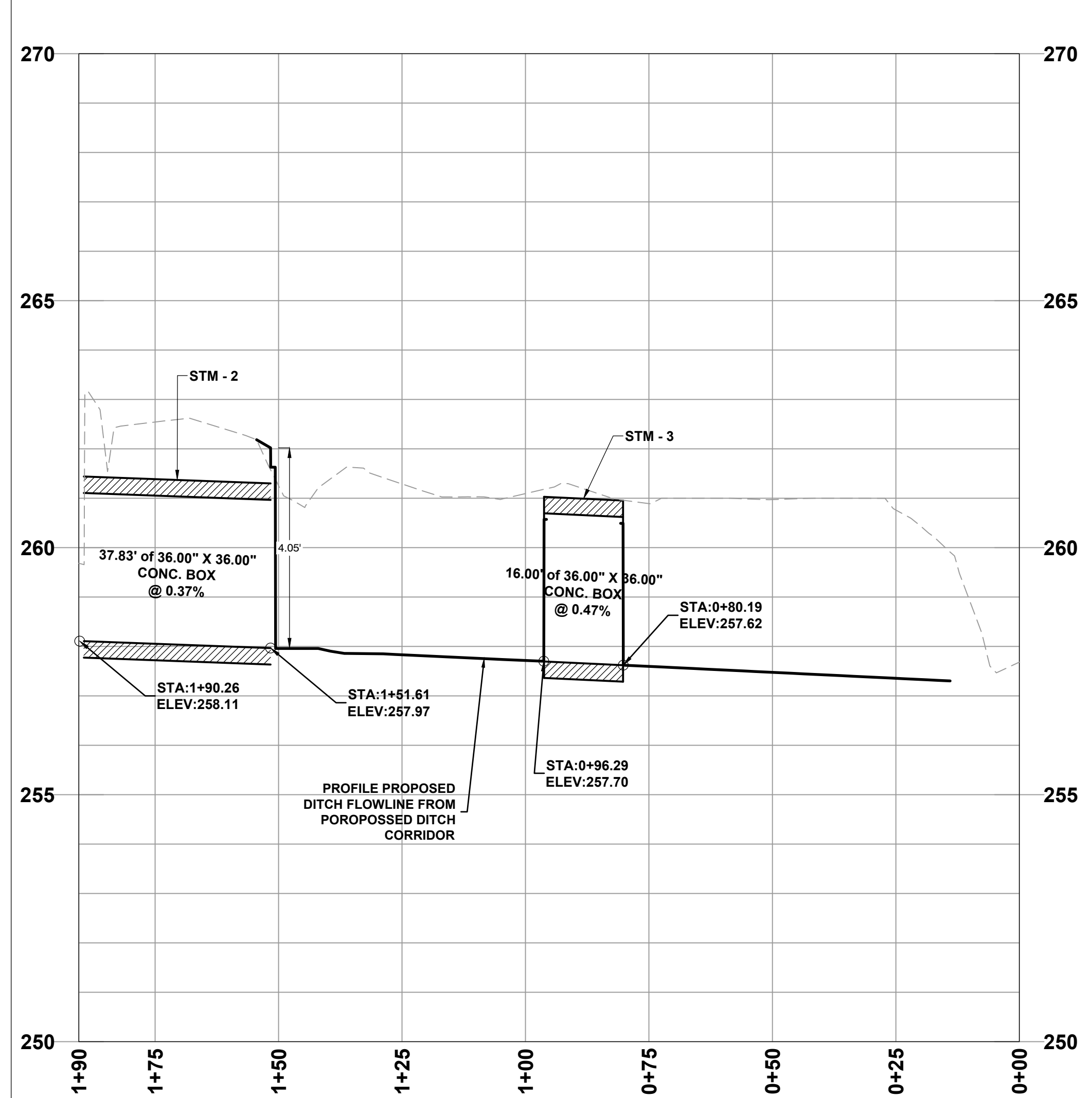
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CIVIL ENGINEERING
701 W. MARKHAM
LITTLE ROCK, ARKANSAS 72201

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DRAWN BY
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DATE
12/31/2024
SCALE
H: 1" = 20' V: 1" = 2'
PROJECT NO.
CLR # 01-22-DR-01
SHEET NO.
C502



FRAZIER PIKE SOUTH EOP OFF



STM 2 & 3 PROFILE

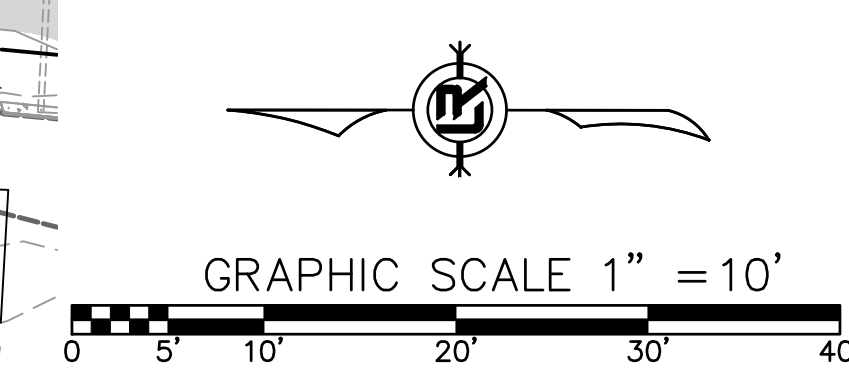
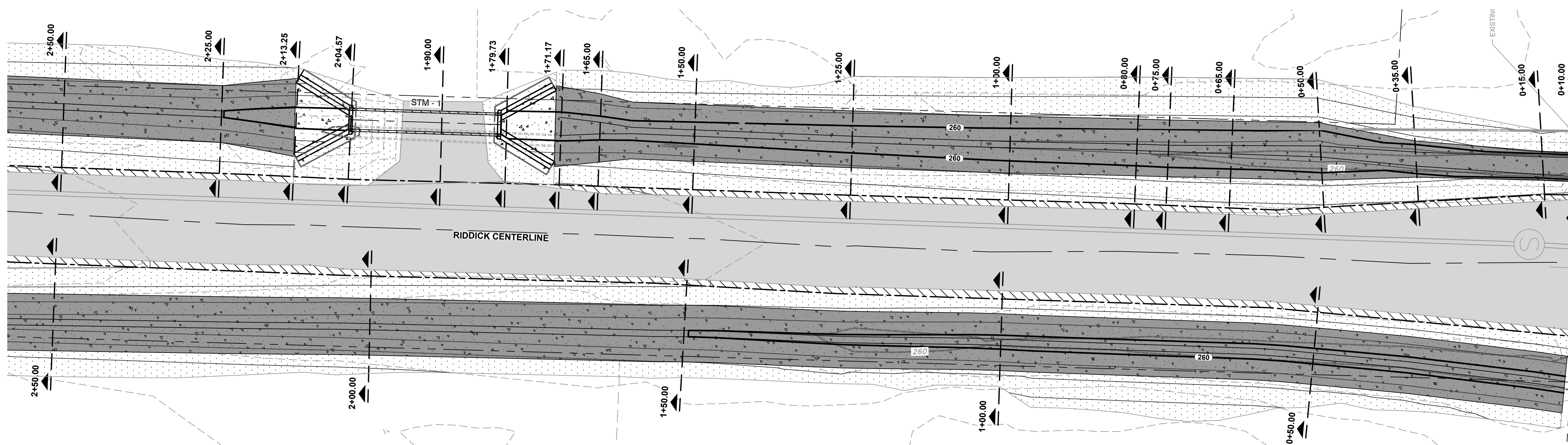
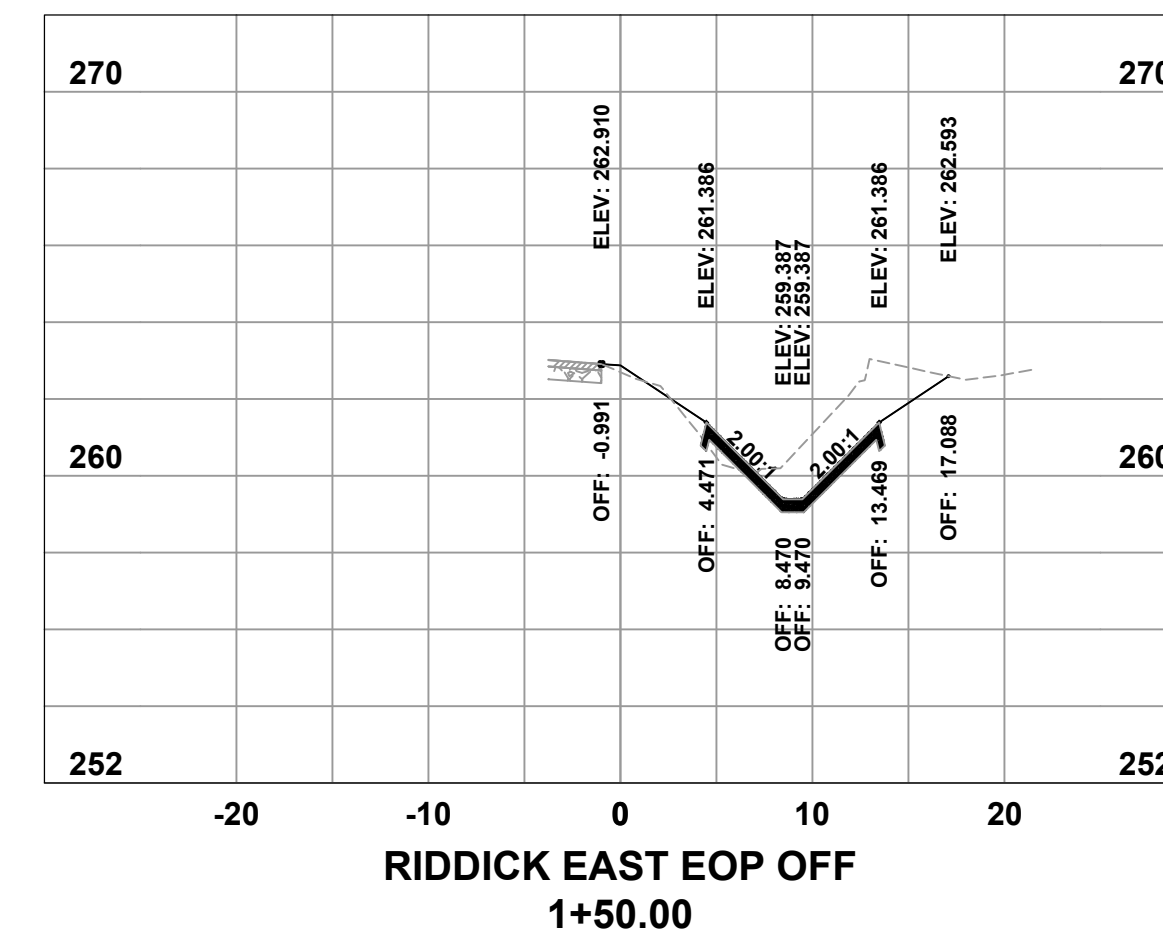
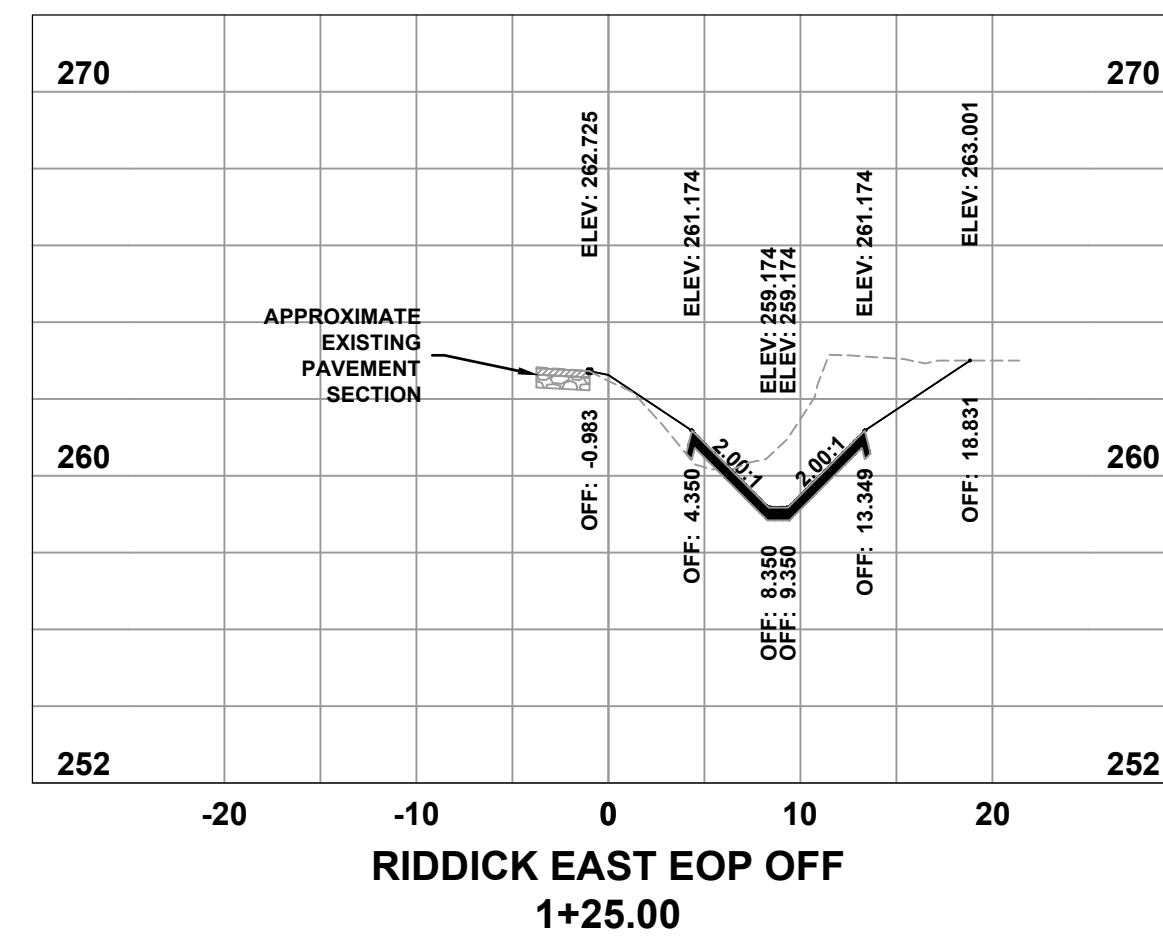
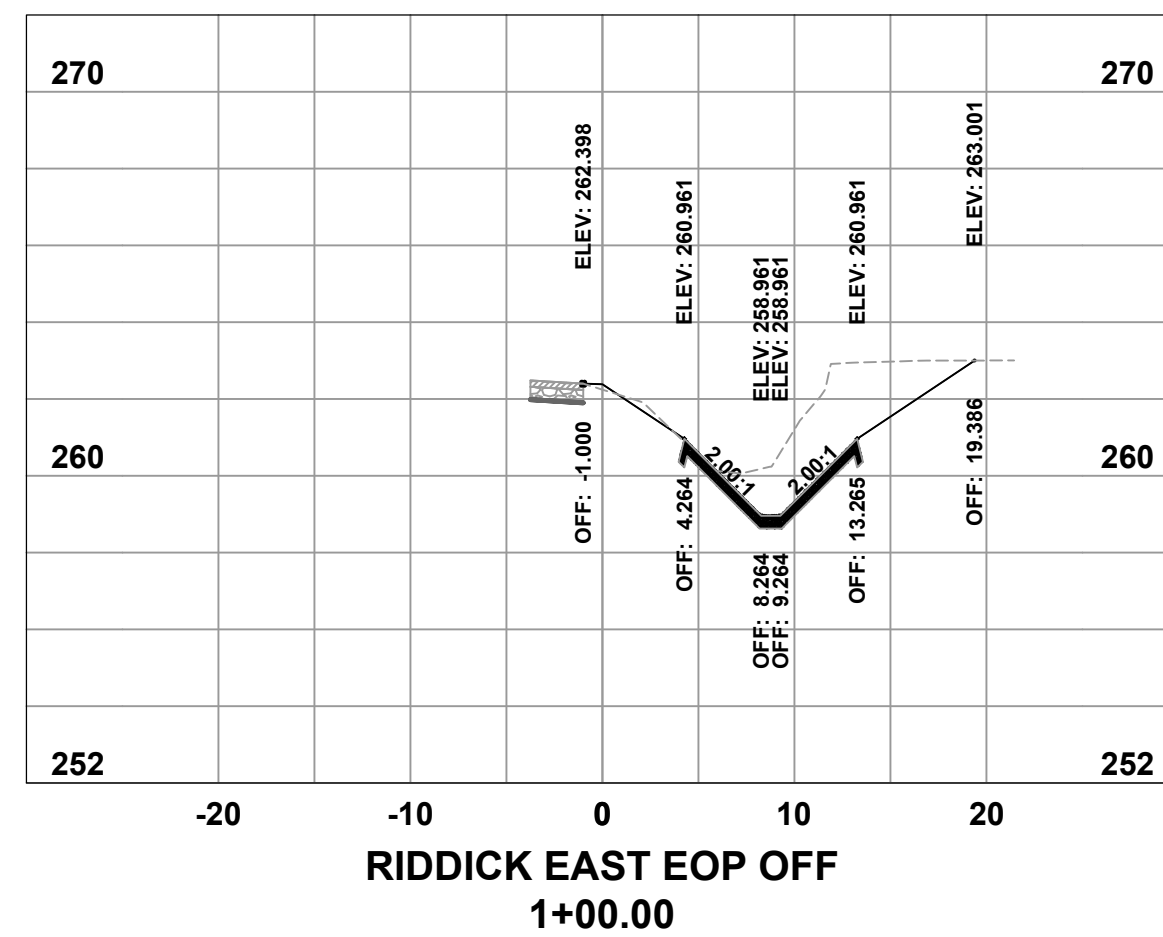
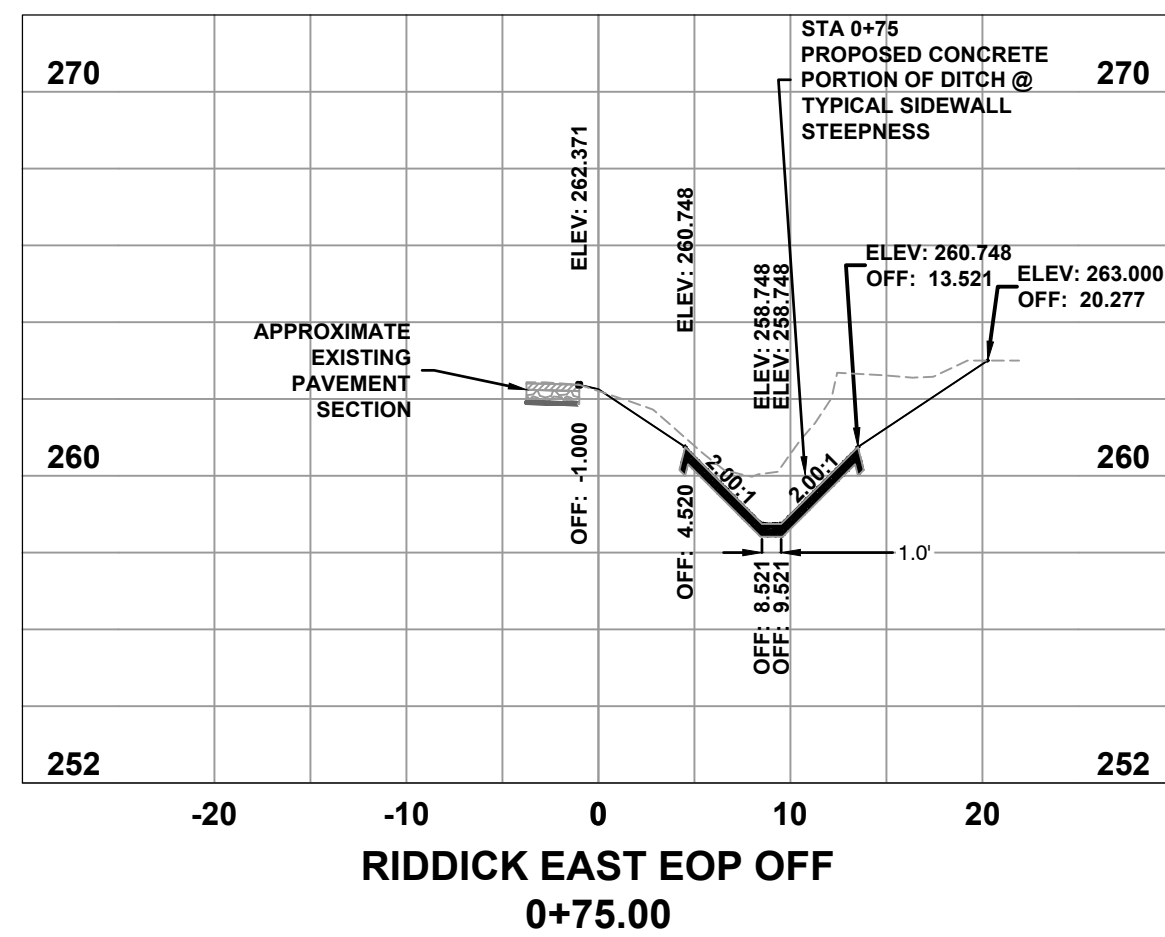
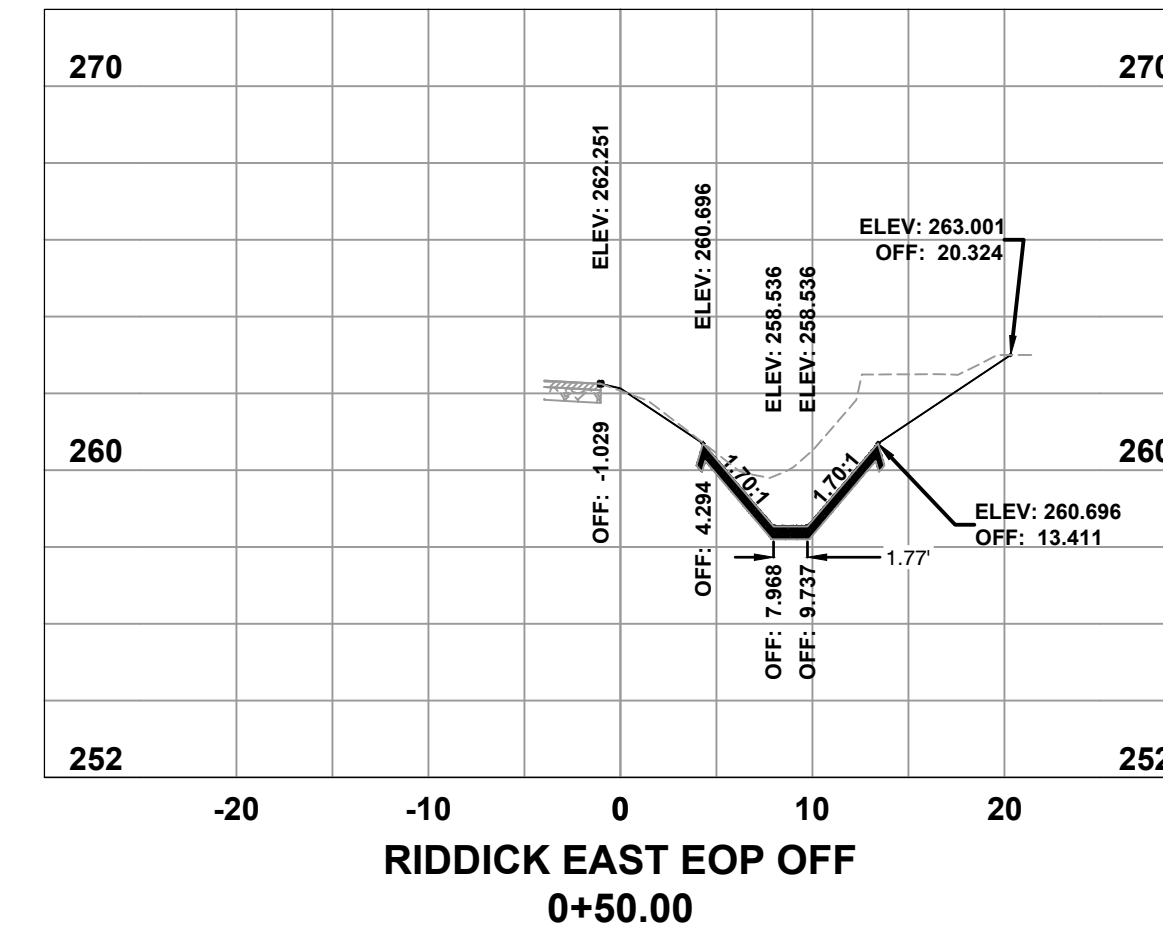
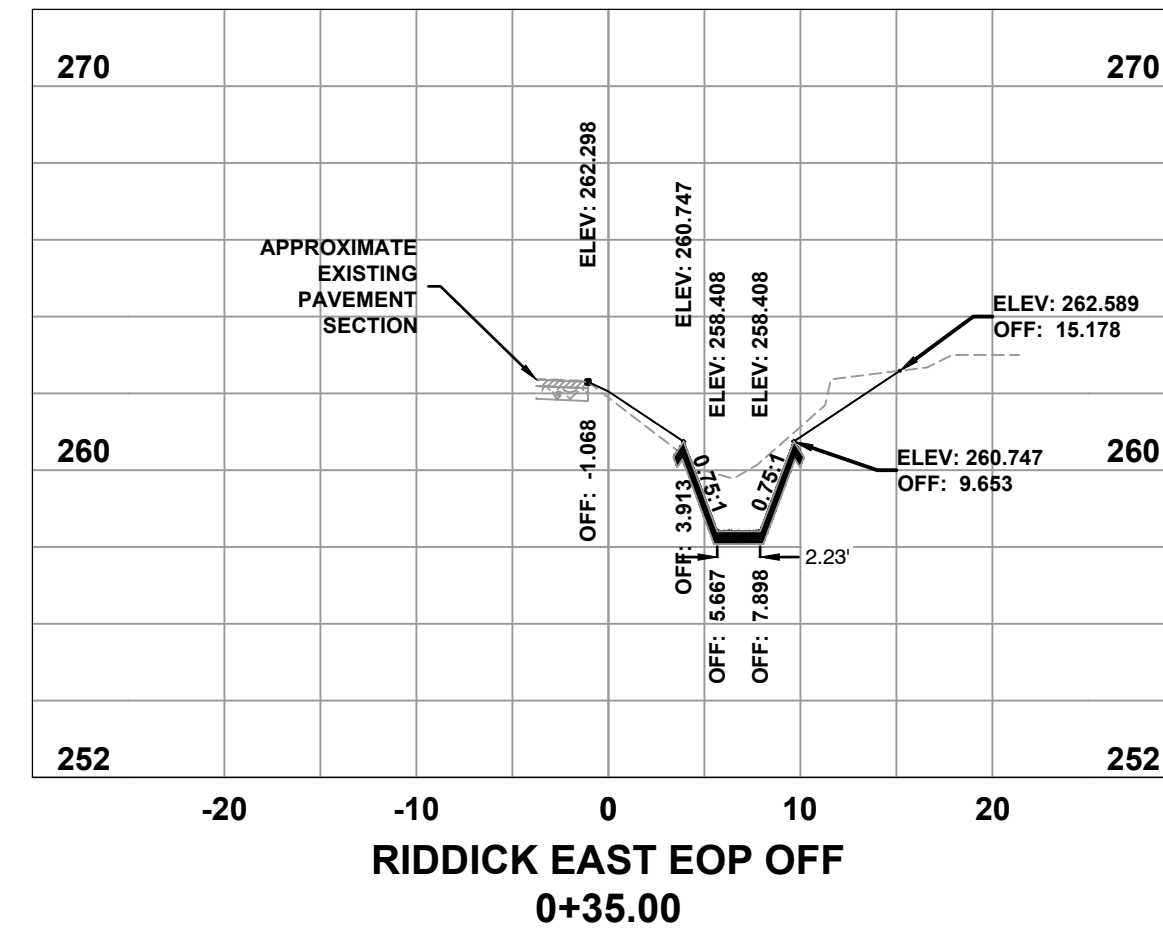
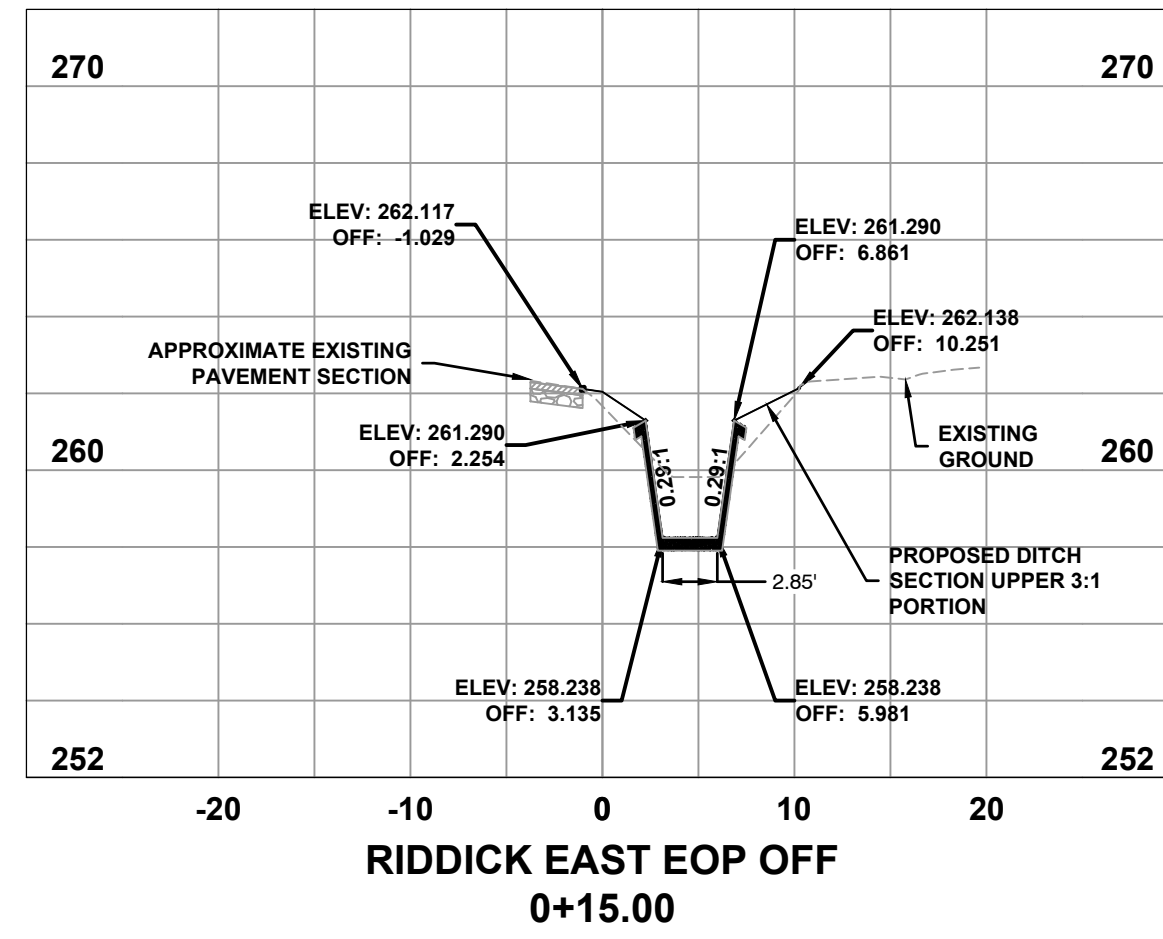
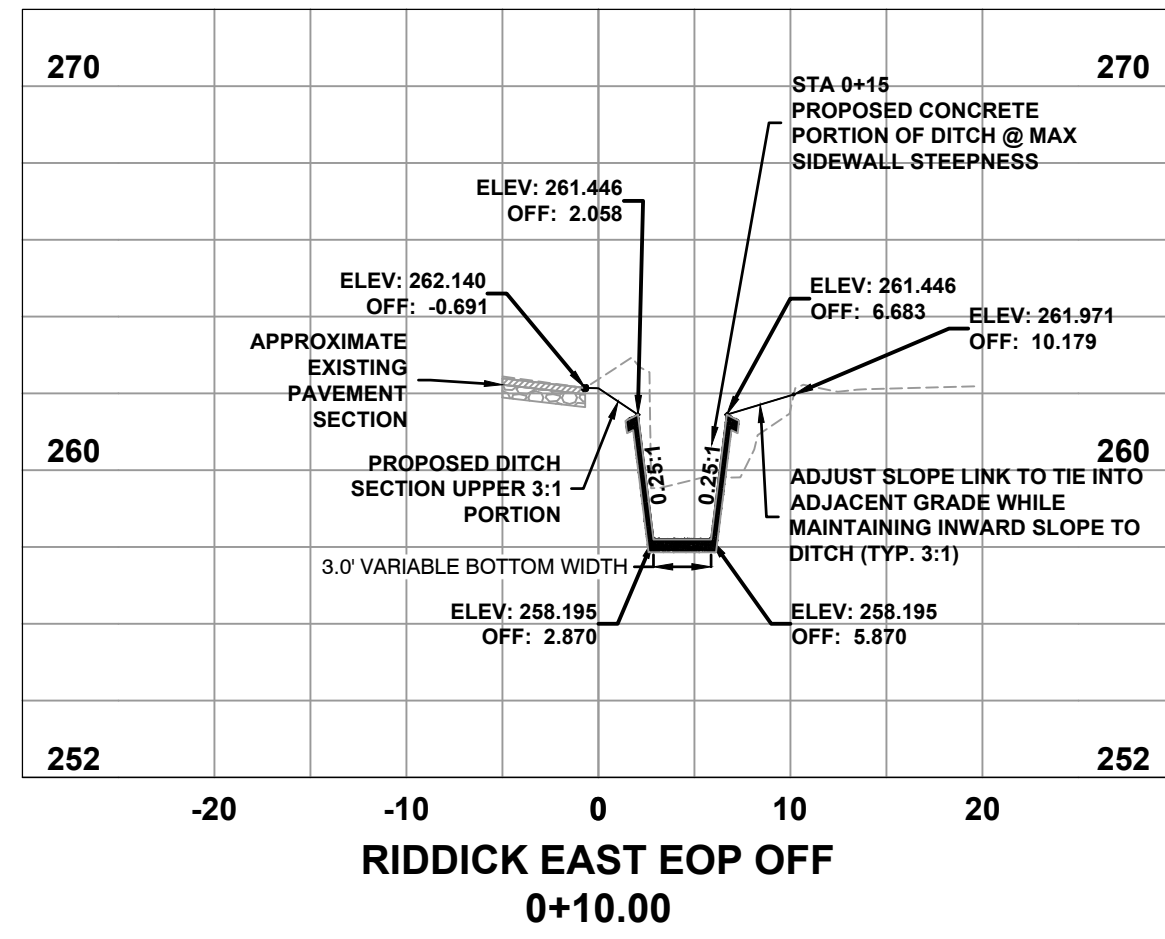
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS
EAST 39TH ST. DRAINAGE IMPROVEMENTS
DRAINAGE PLAN & PROFILE

DEPARTMENT OF PUBLIC WORKS
CIVIL ENGINEERING
701 W. MARKHAM
LITTLE ROCK, ARKANSAS 72201

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SCALE
H: 1" = 20' V: 1" = 2'
PROJECT NO.
CLR # 01-22-DR-01
SHEET NO.
C503



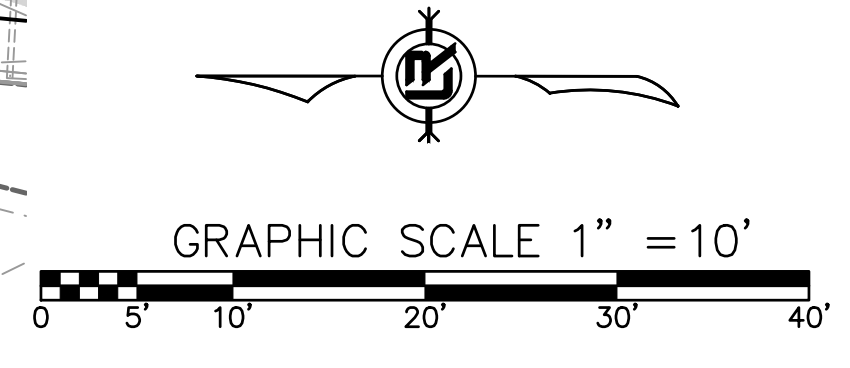
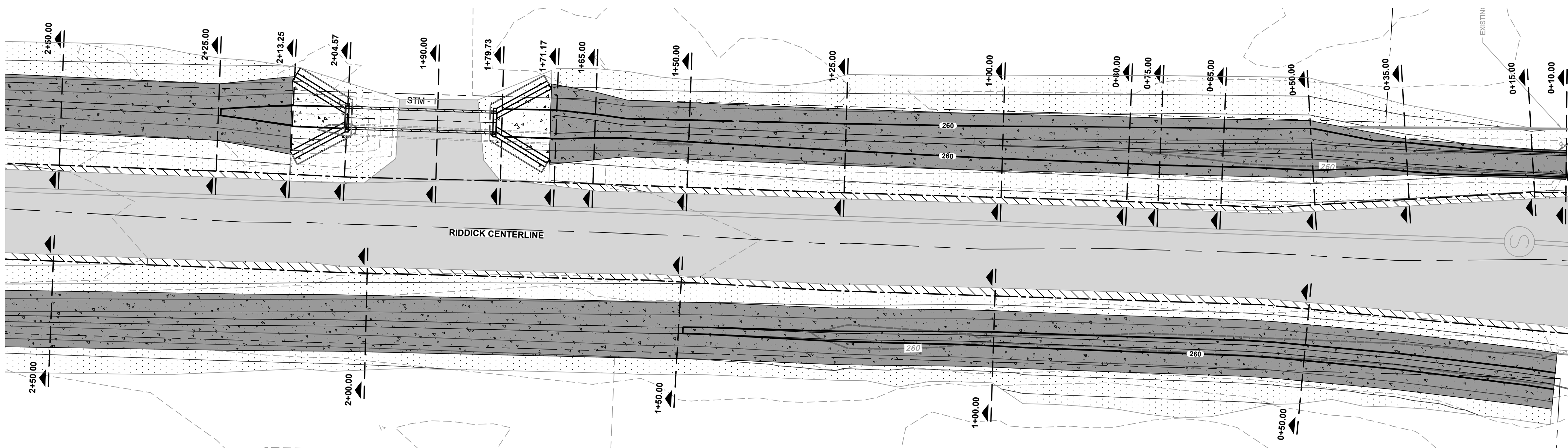
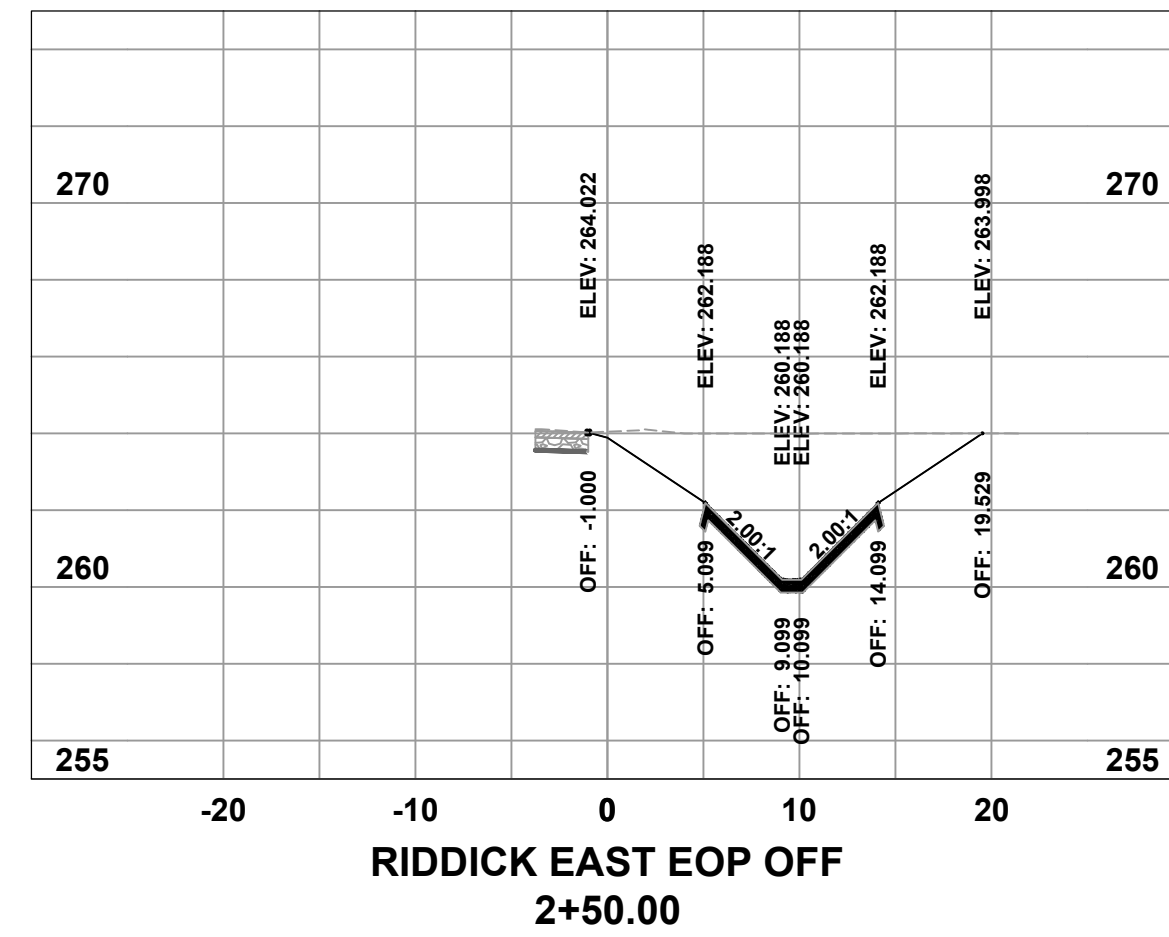
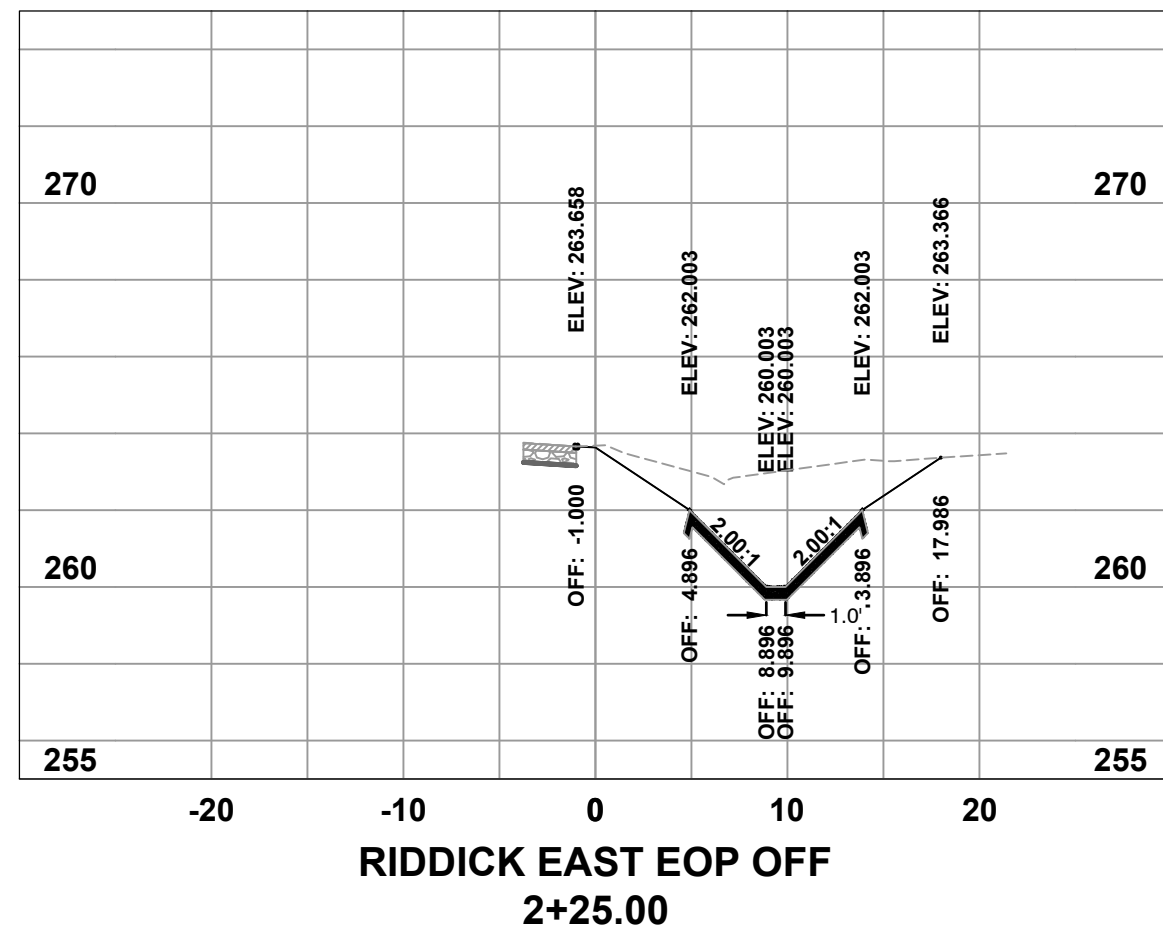
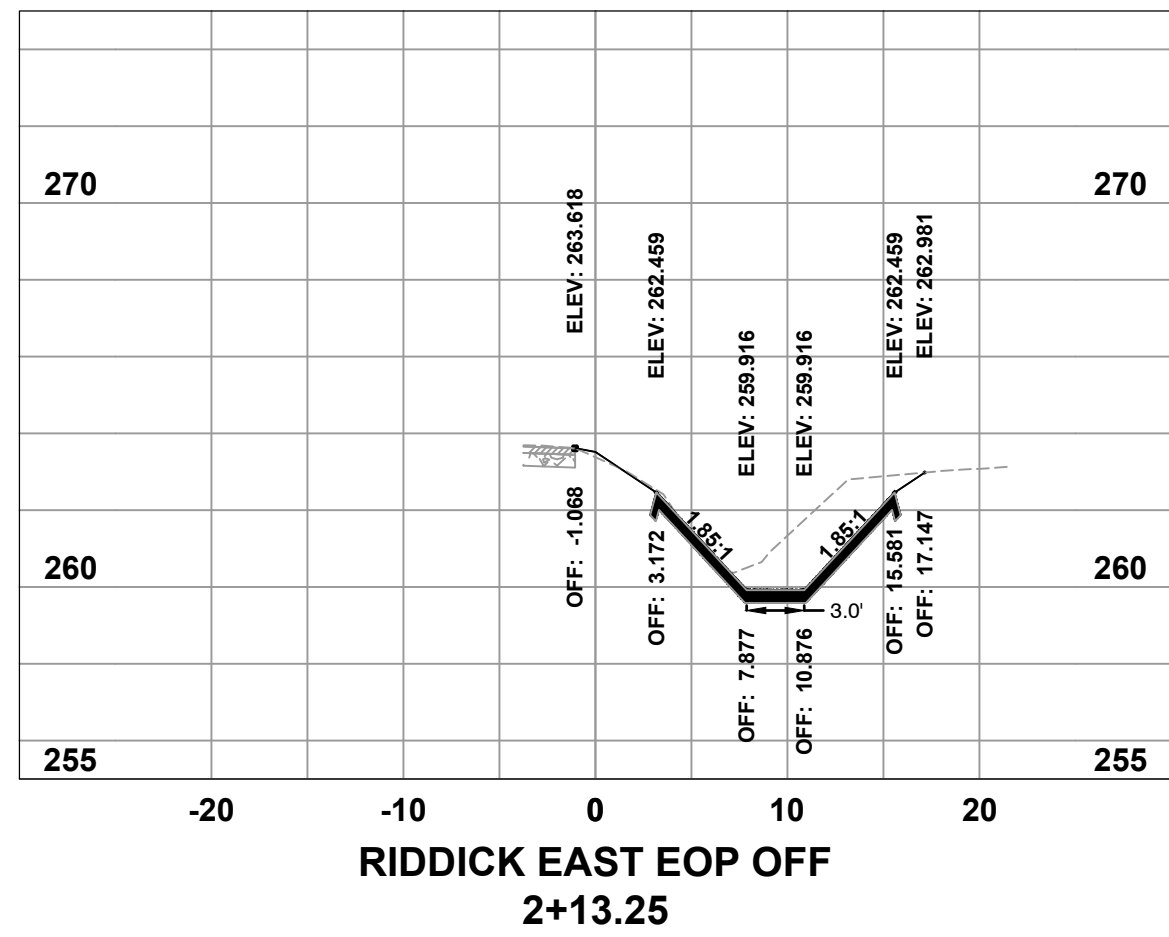
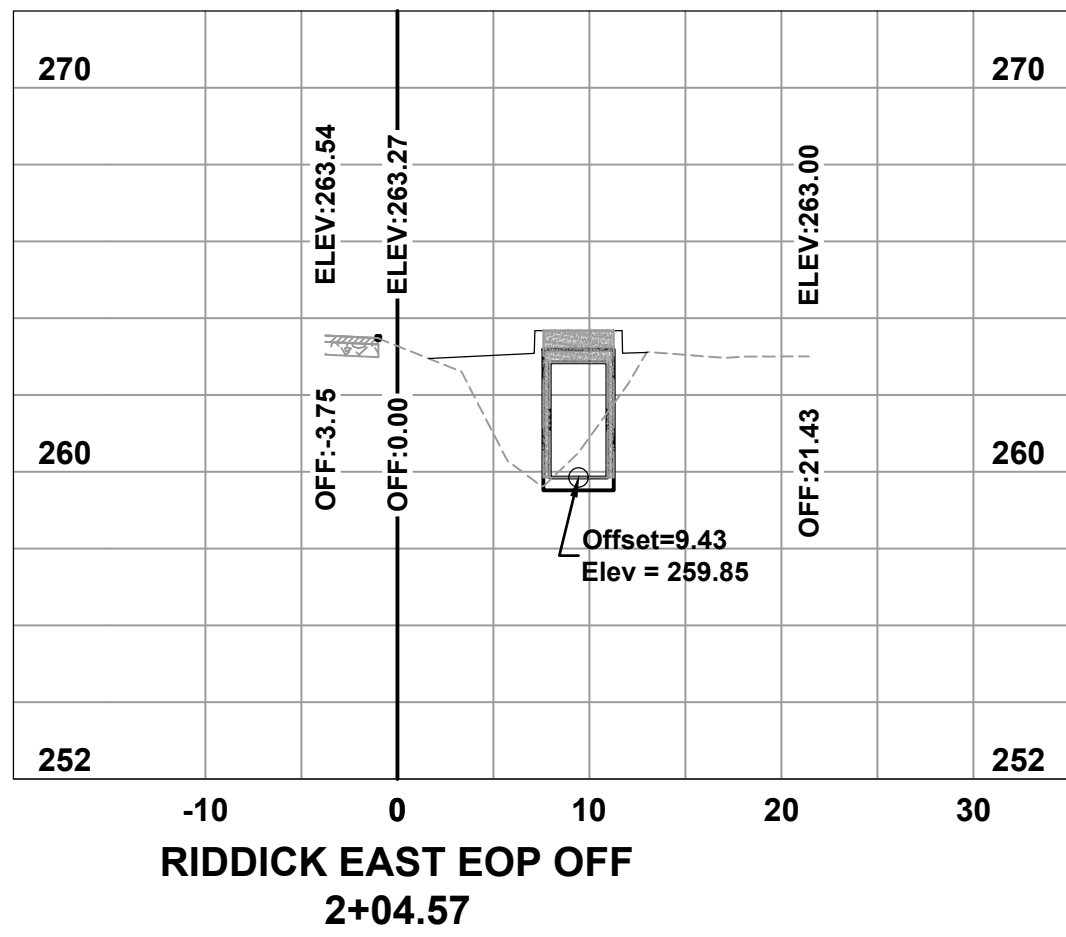
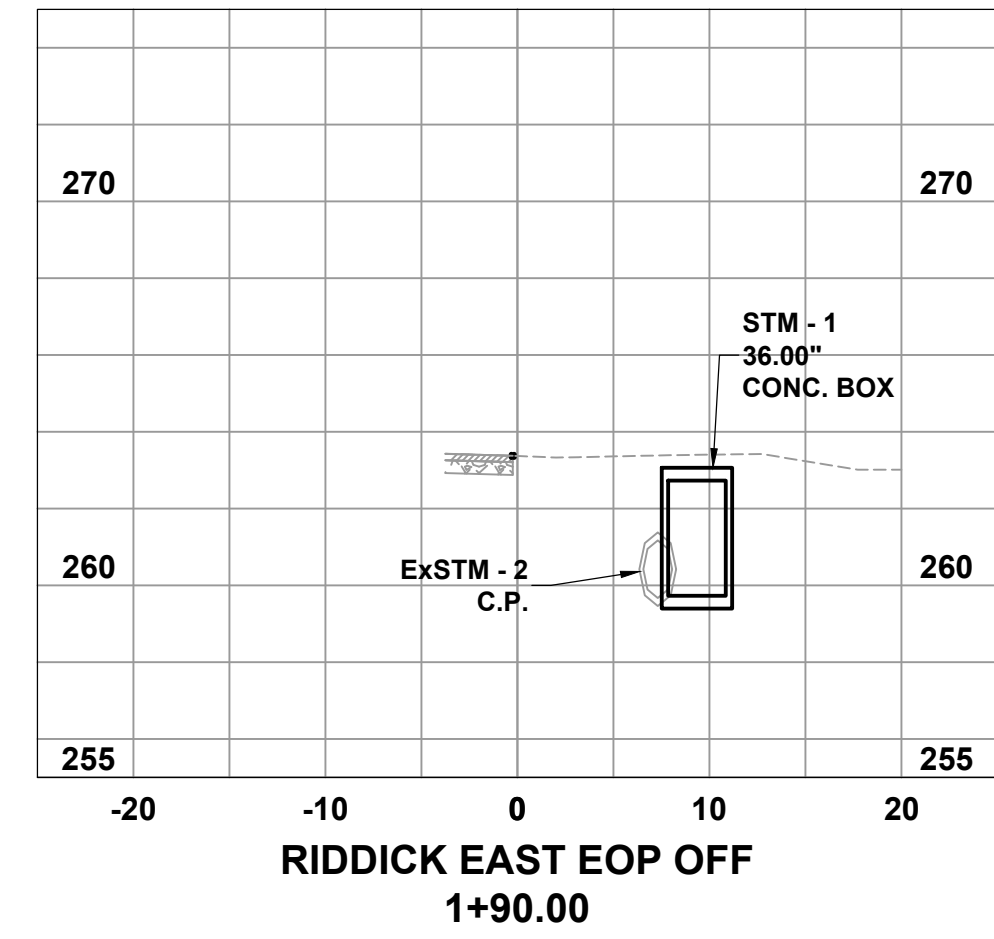
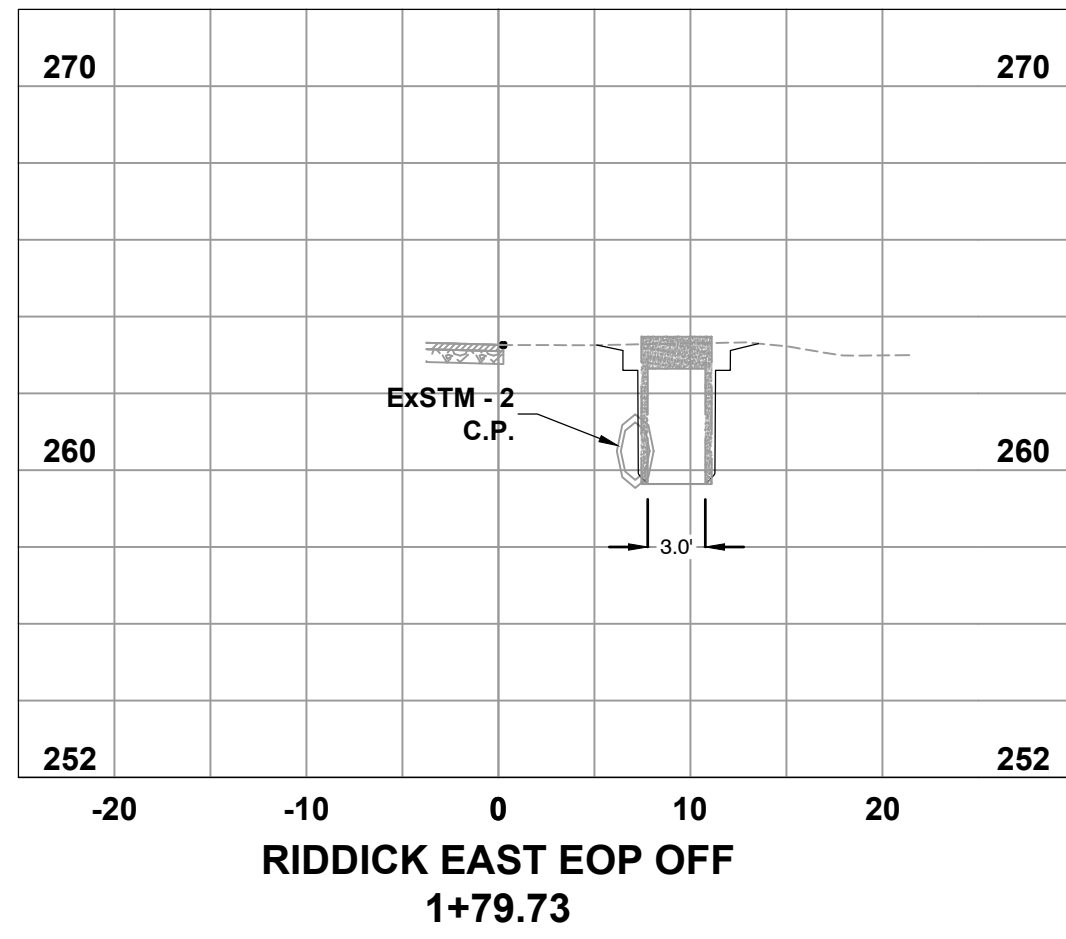
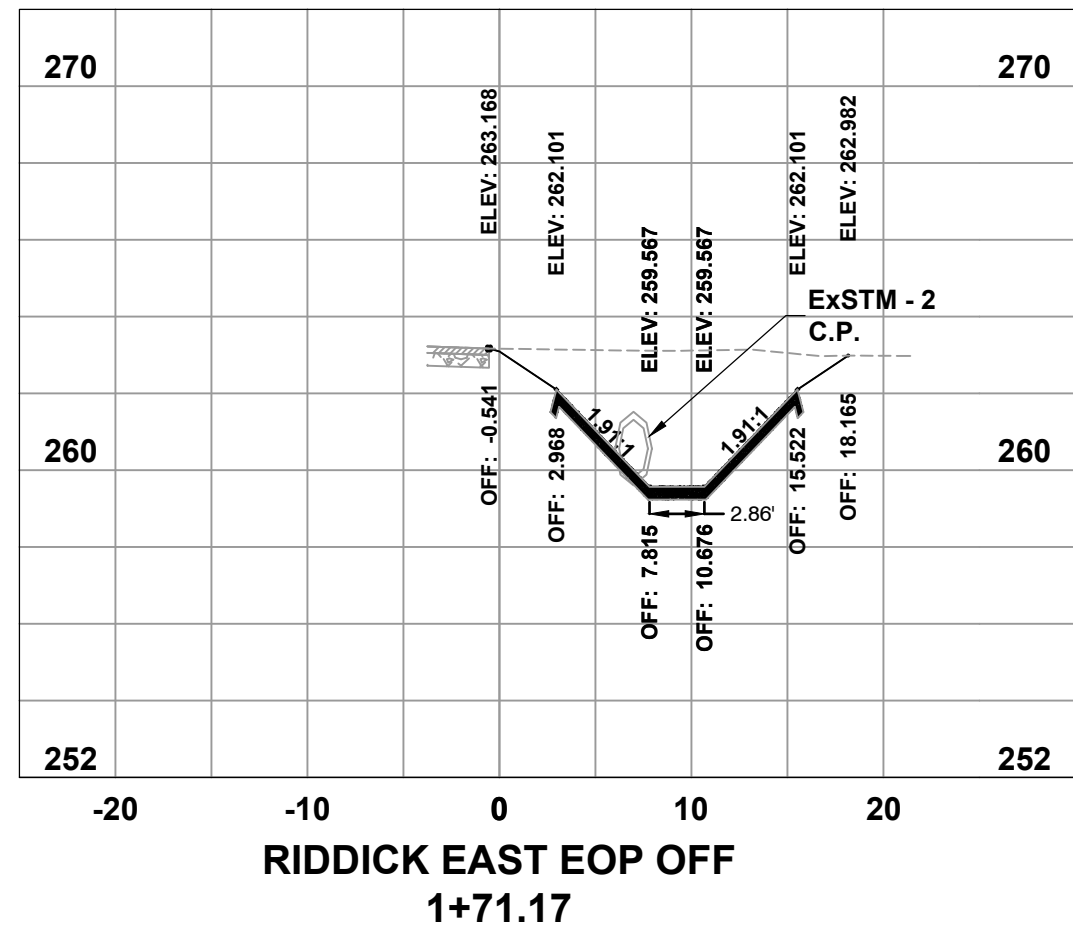
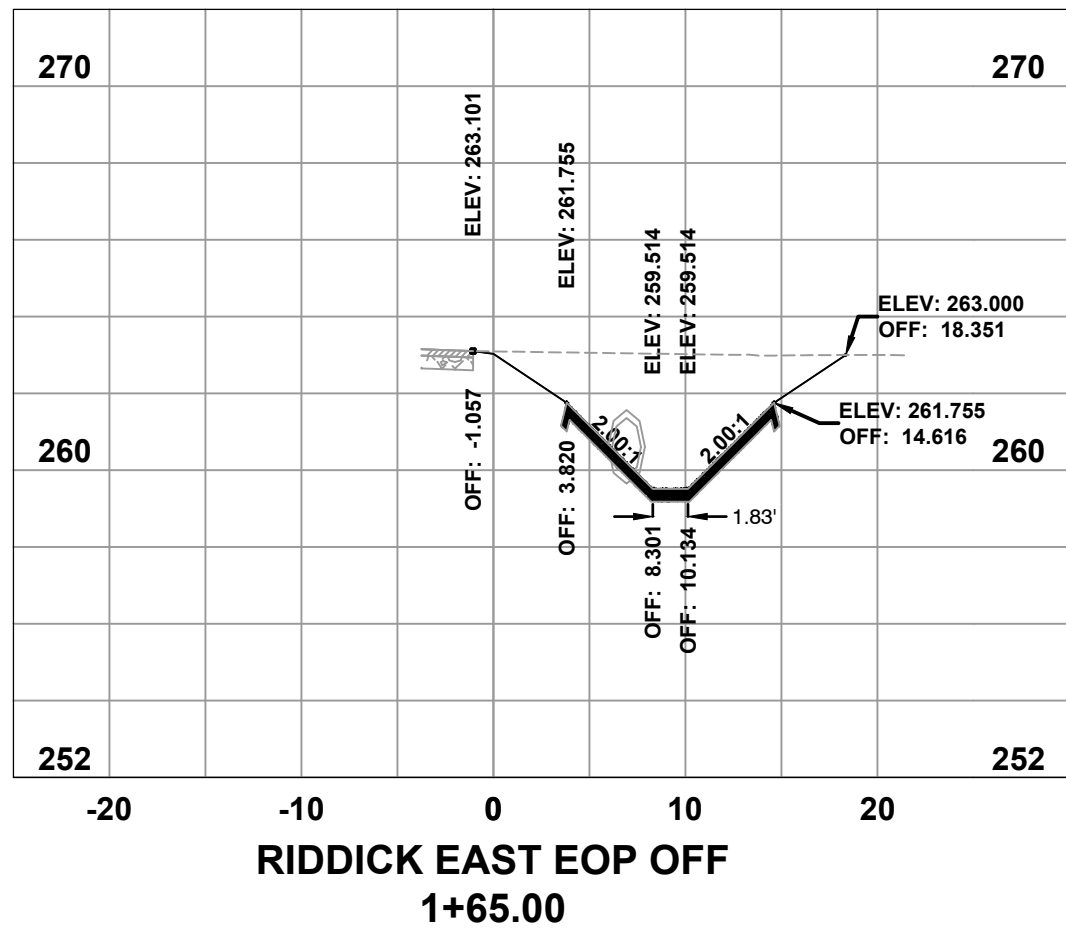
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS
EAST 39TH ST. DRAINAGE IMPROVEMENTS
 CROSS SECTIONS

DEPARTMENT OF PUBLIC WORKS
 CIVIL ENGINEERING
 701 W. MARKHAM
 LITTLE ROCK, ARKANSAS 72201

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 REVIEW
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 SCALE
 H: 1" = 10' V: 1" = 5'
 PROJECT NO.
 CLR # 01-22-DR-01
 SHEET NO.
C601



REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS
EAST 39TH ST. DRAINAGE IMPROVEMENTS
CROSS SECTIONS

DEPARTMENT OF PUBLIC WORKS
CIVIL ENGINEERING
701 W. MARKHAM
LITTLE ROCK, ARKANSAS 72201

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PROJECT NO.
CLR # 01-22-DR-01
SHEET NO.
C602

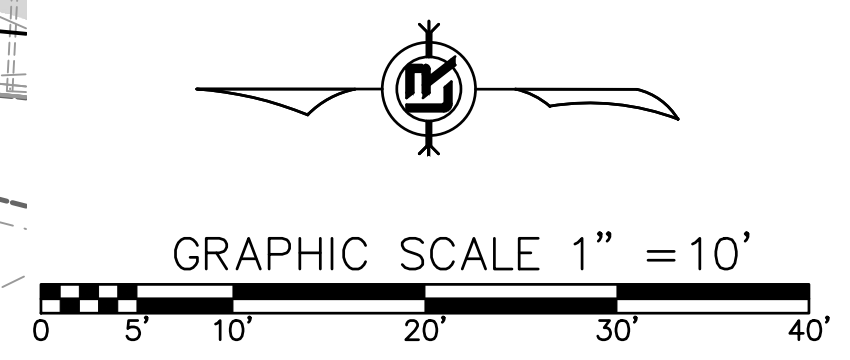
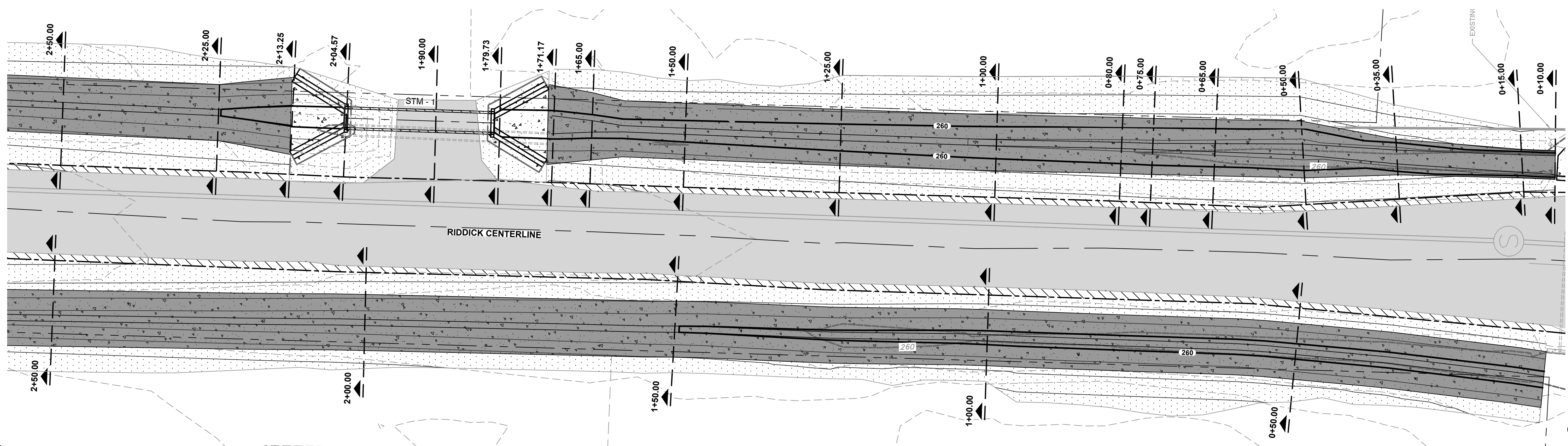
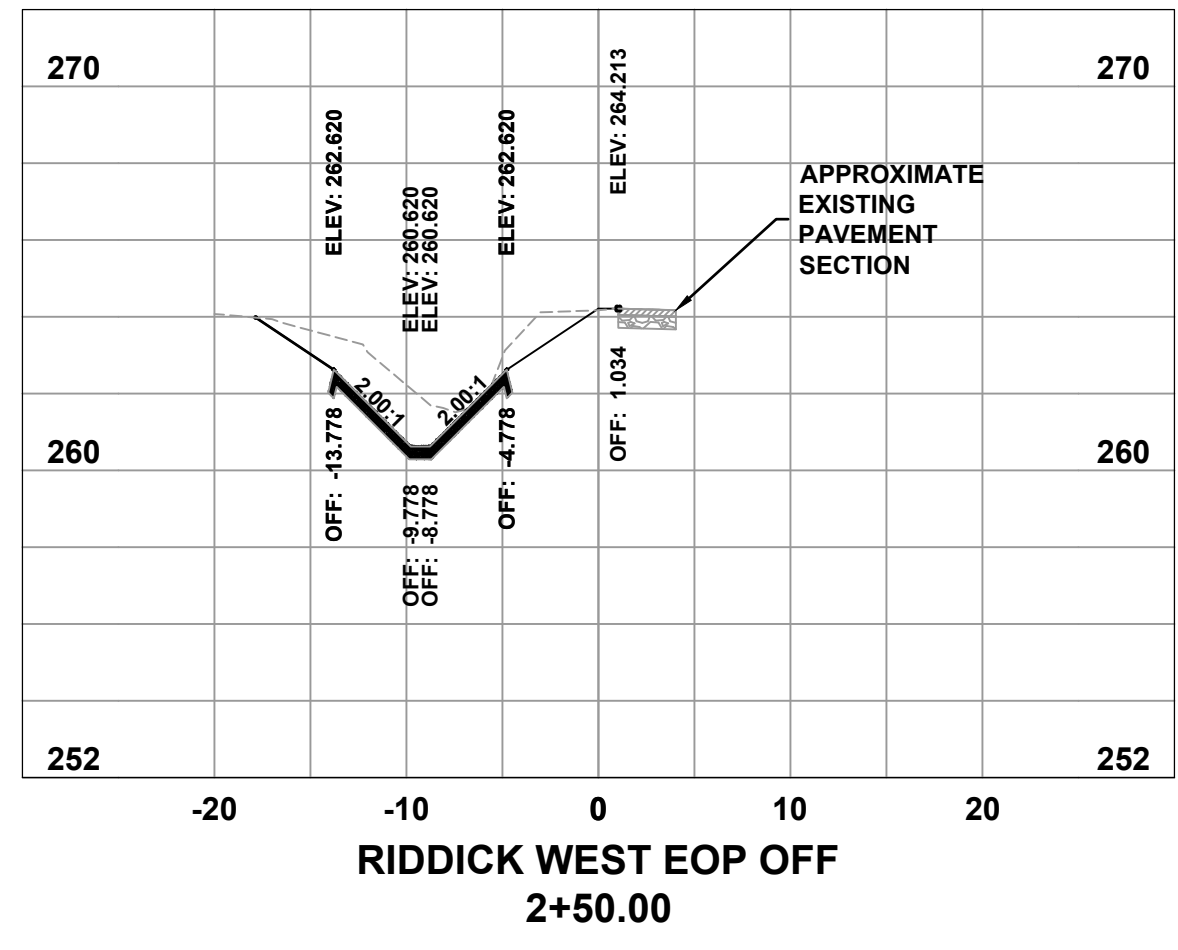
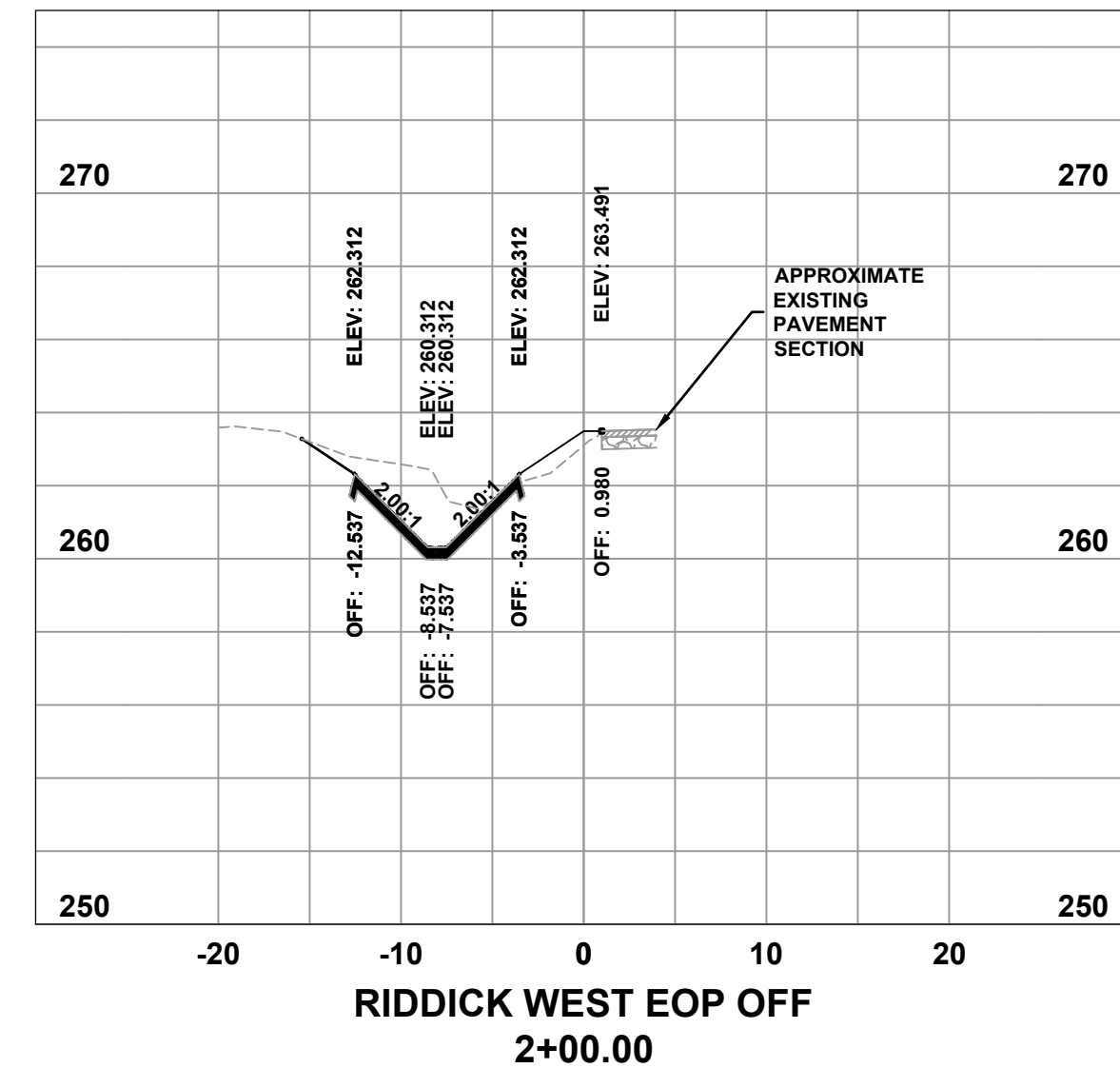
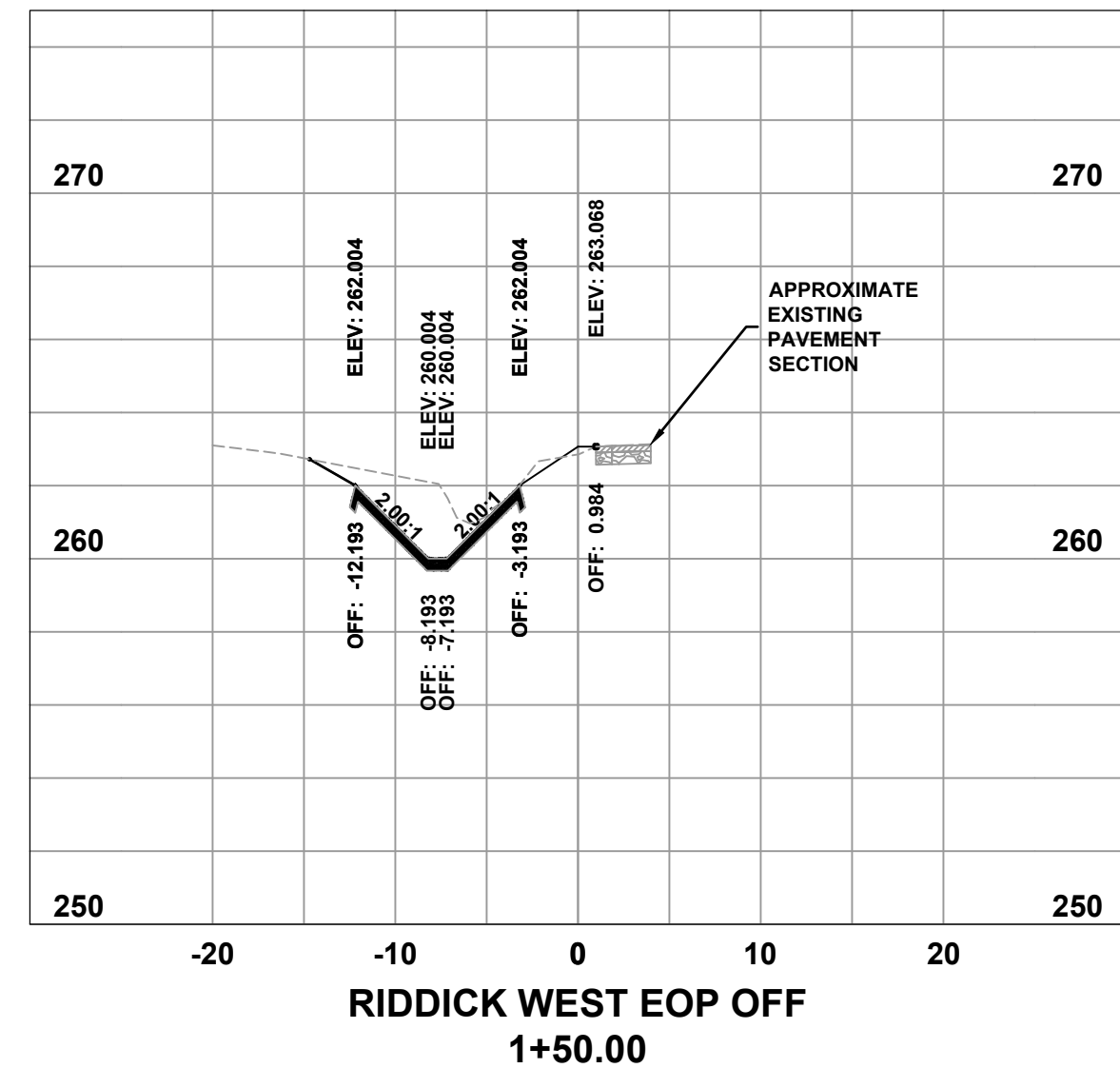
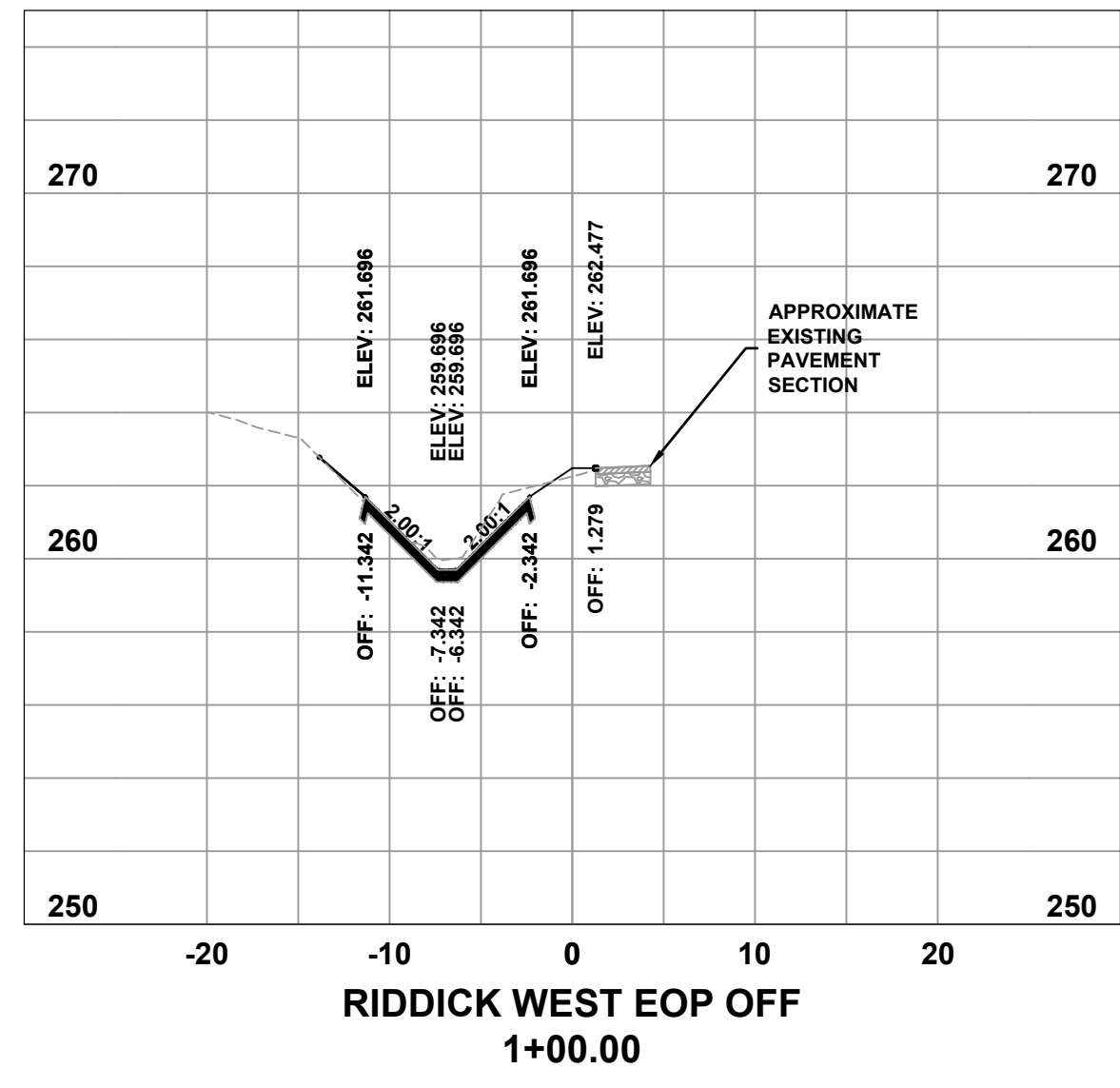
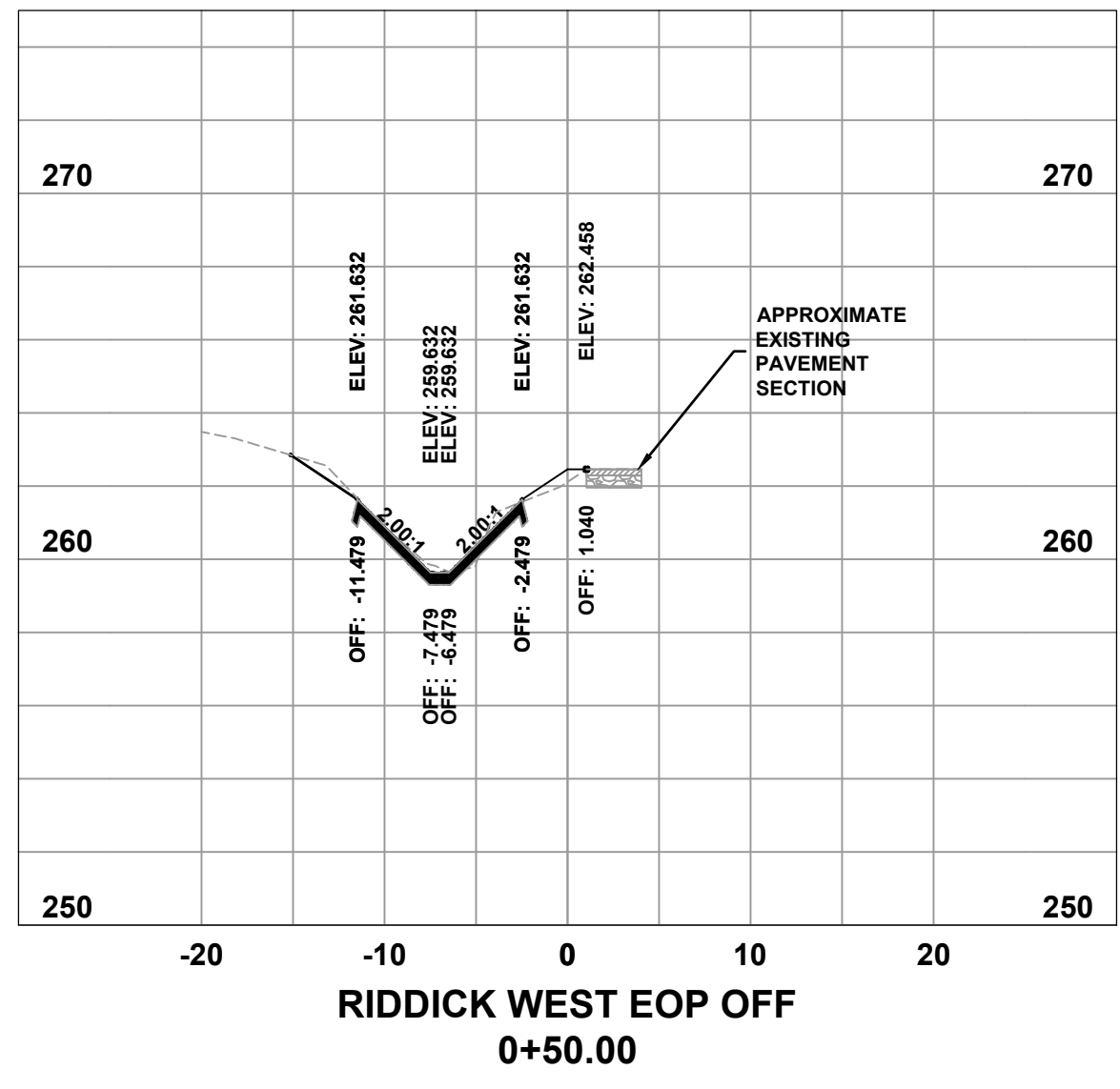
REVISIONS	DATE

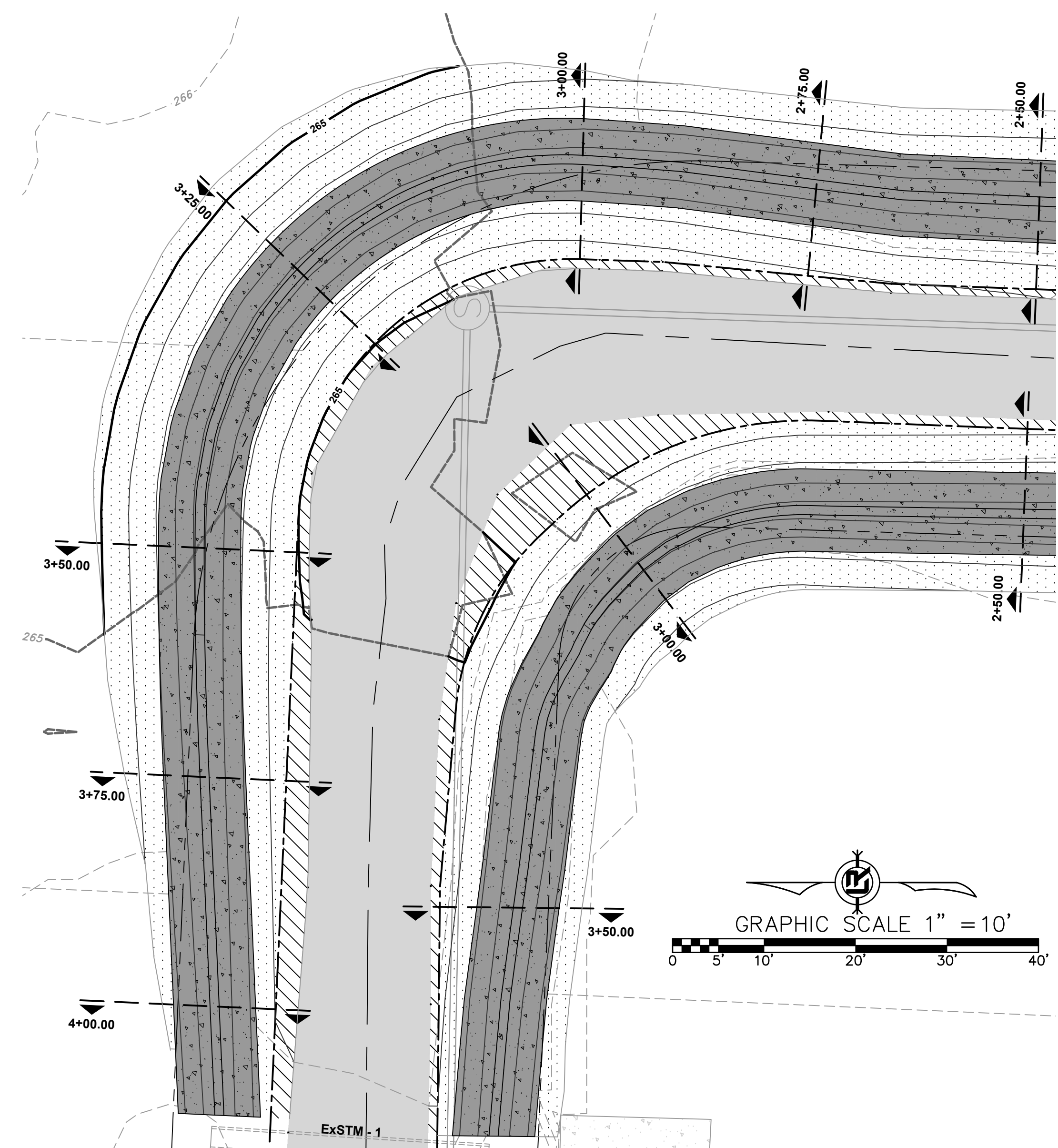
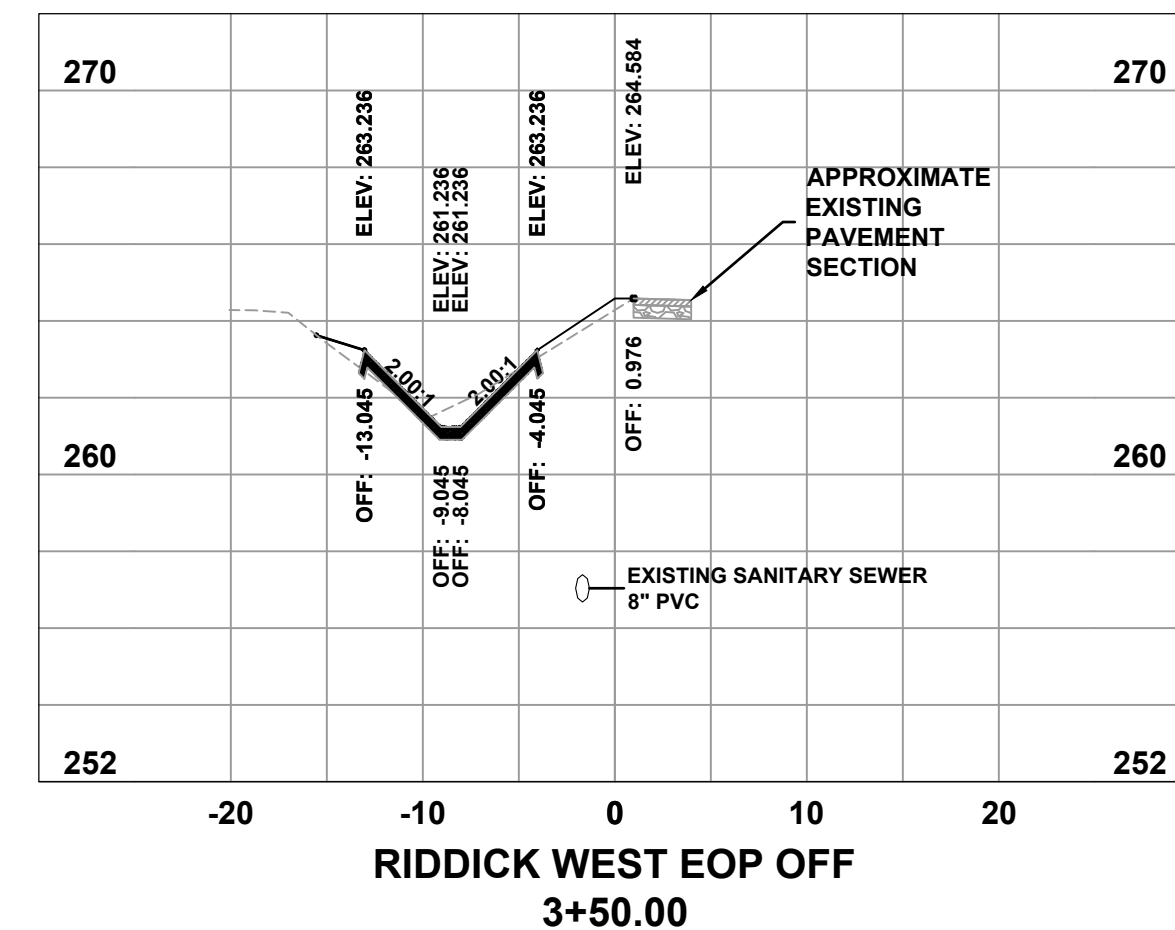
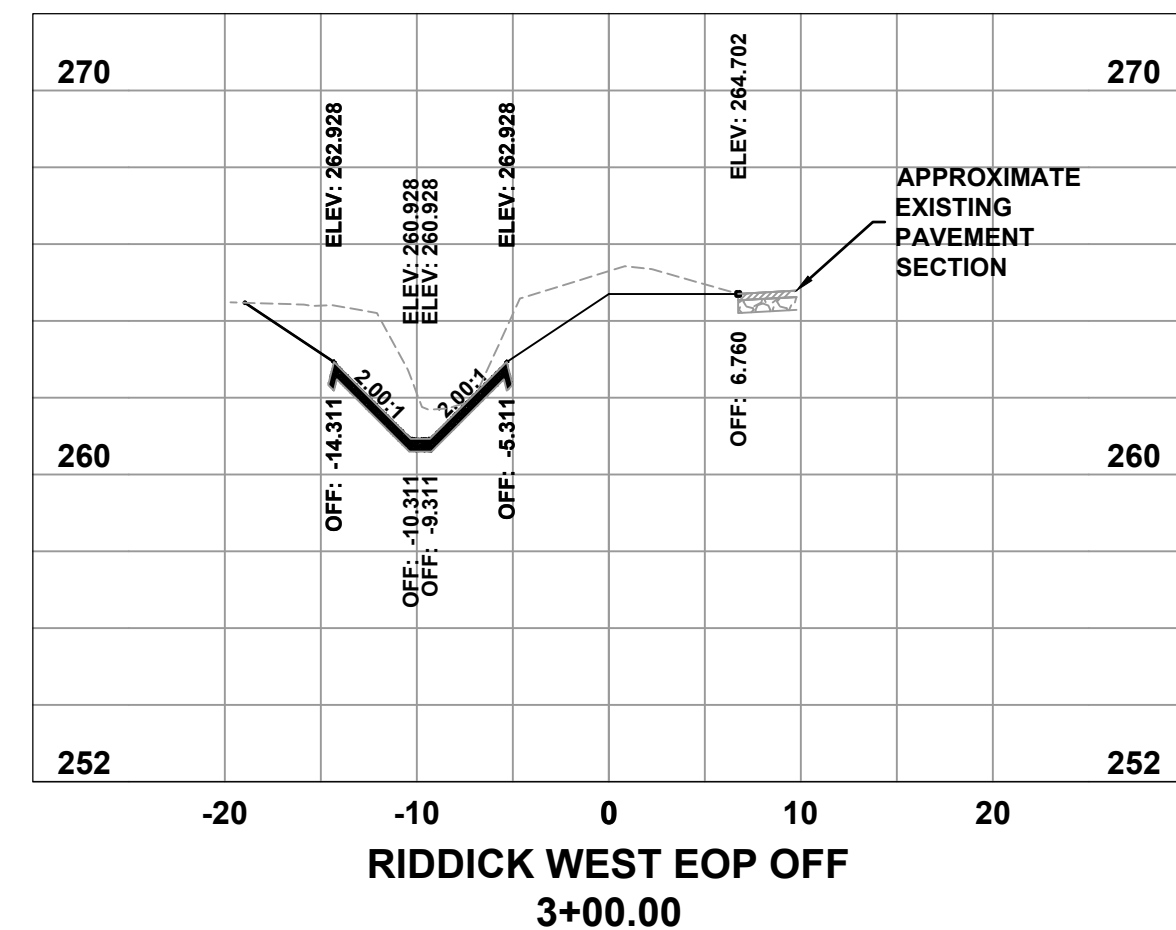
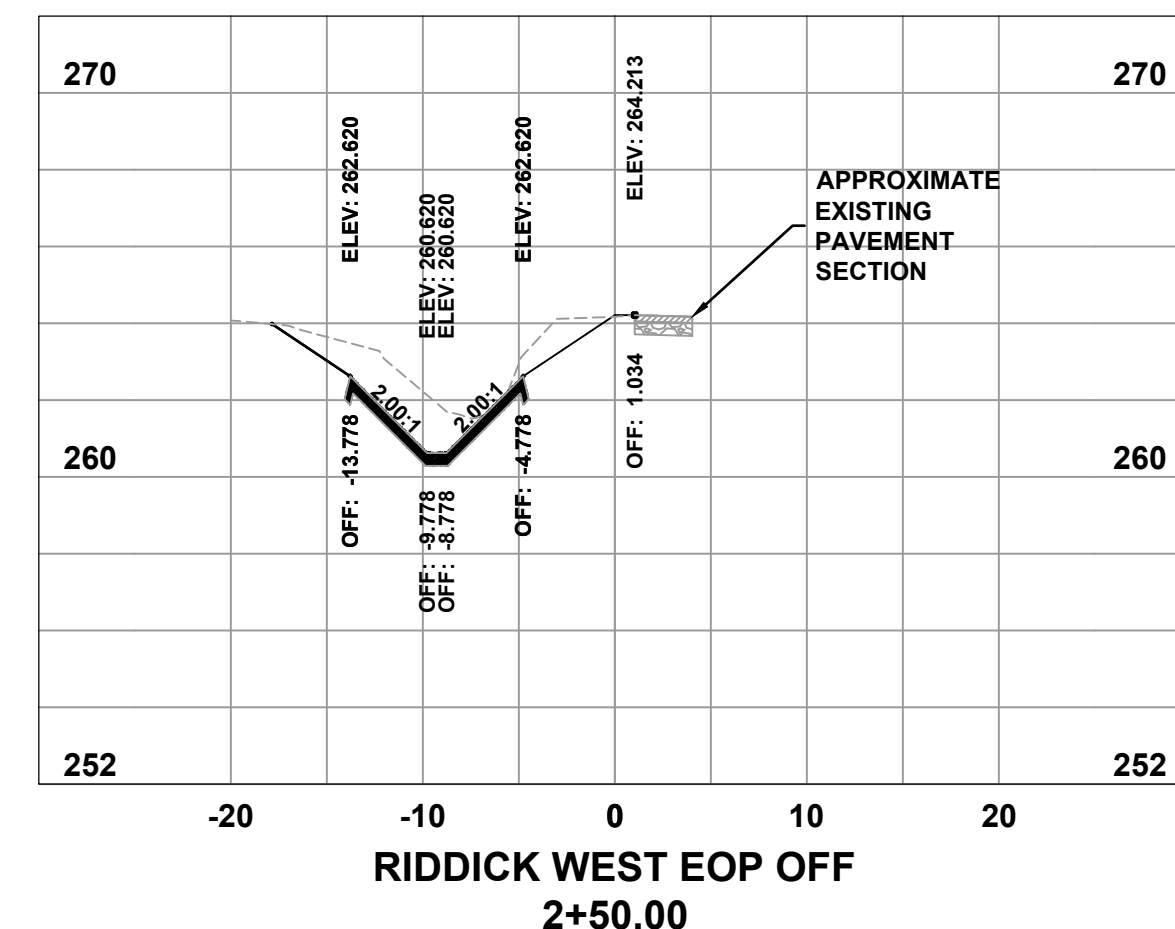
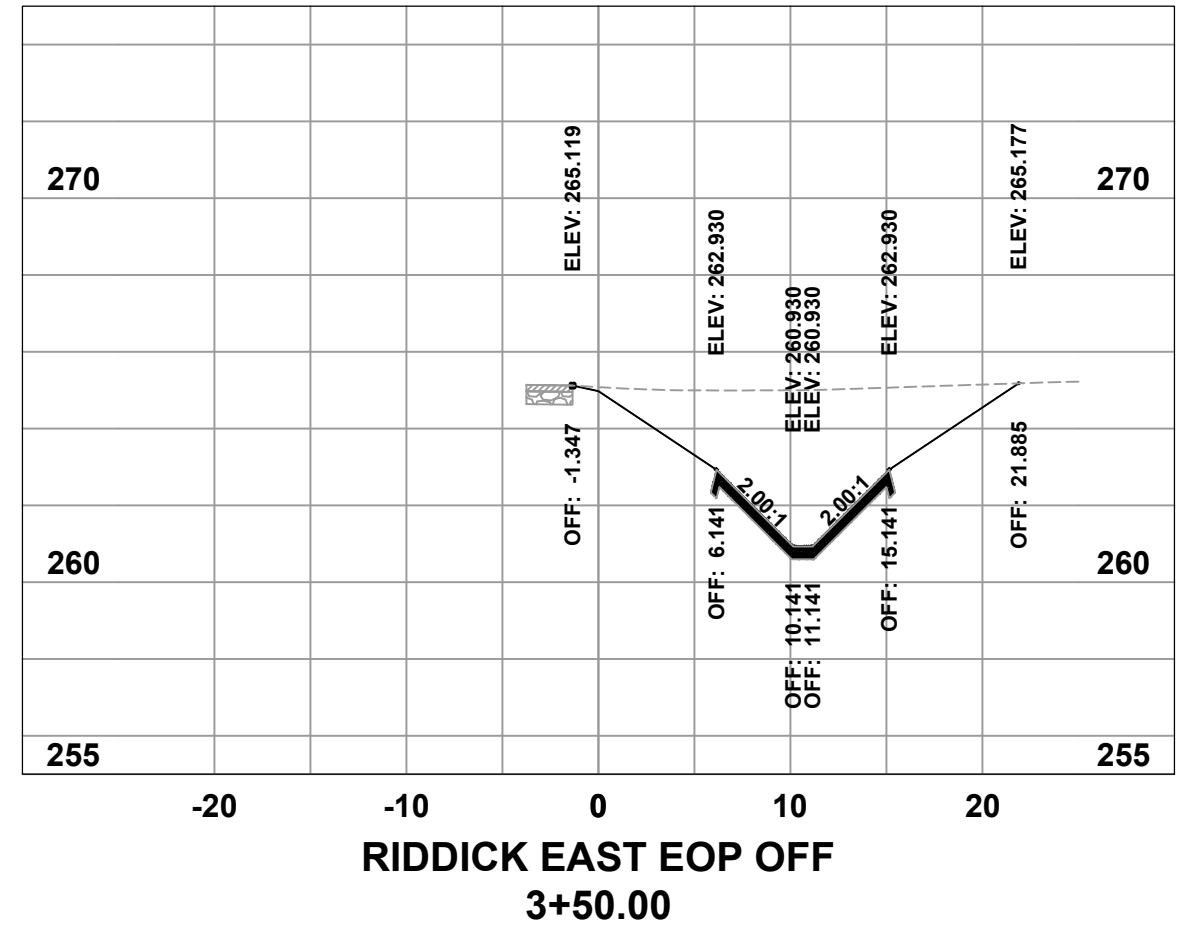
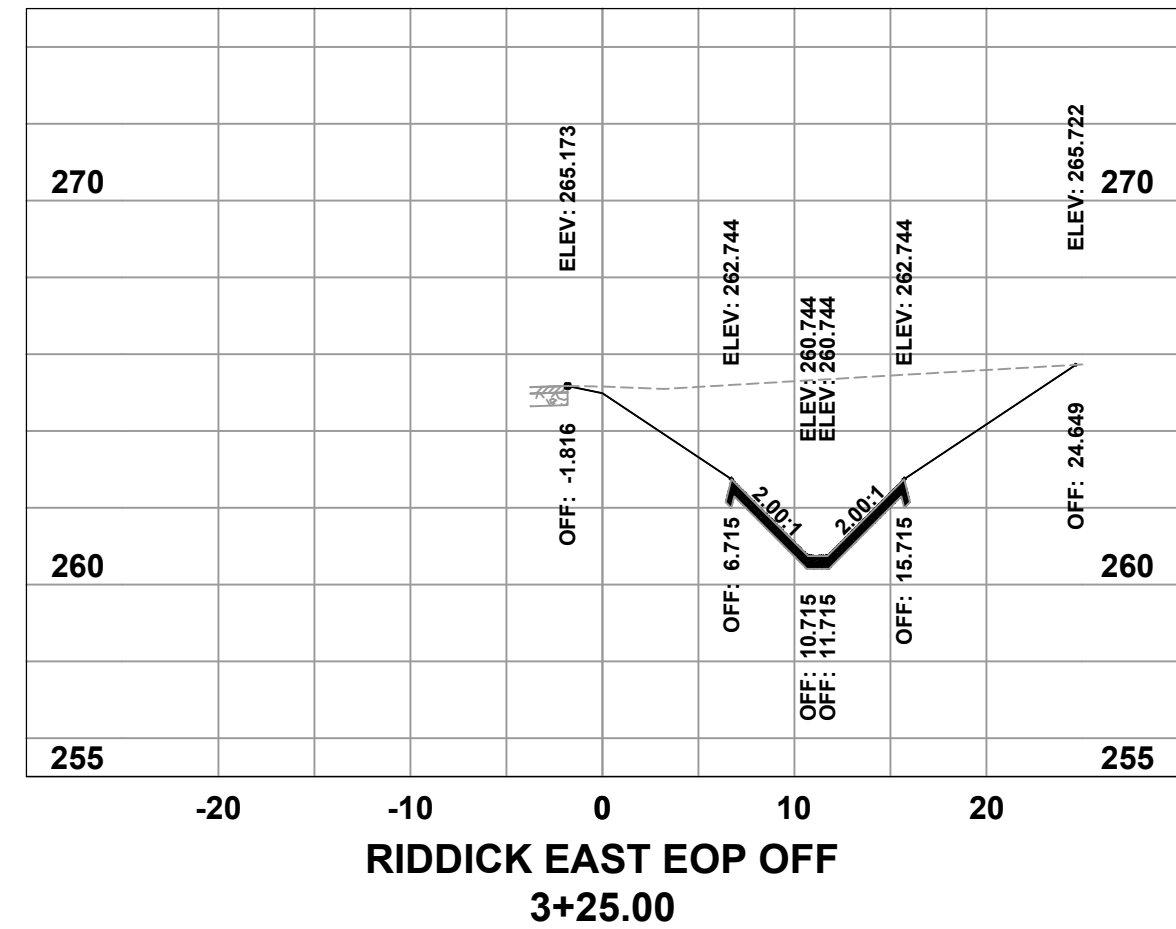
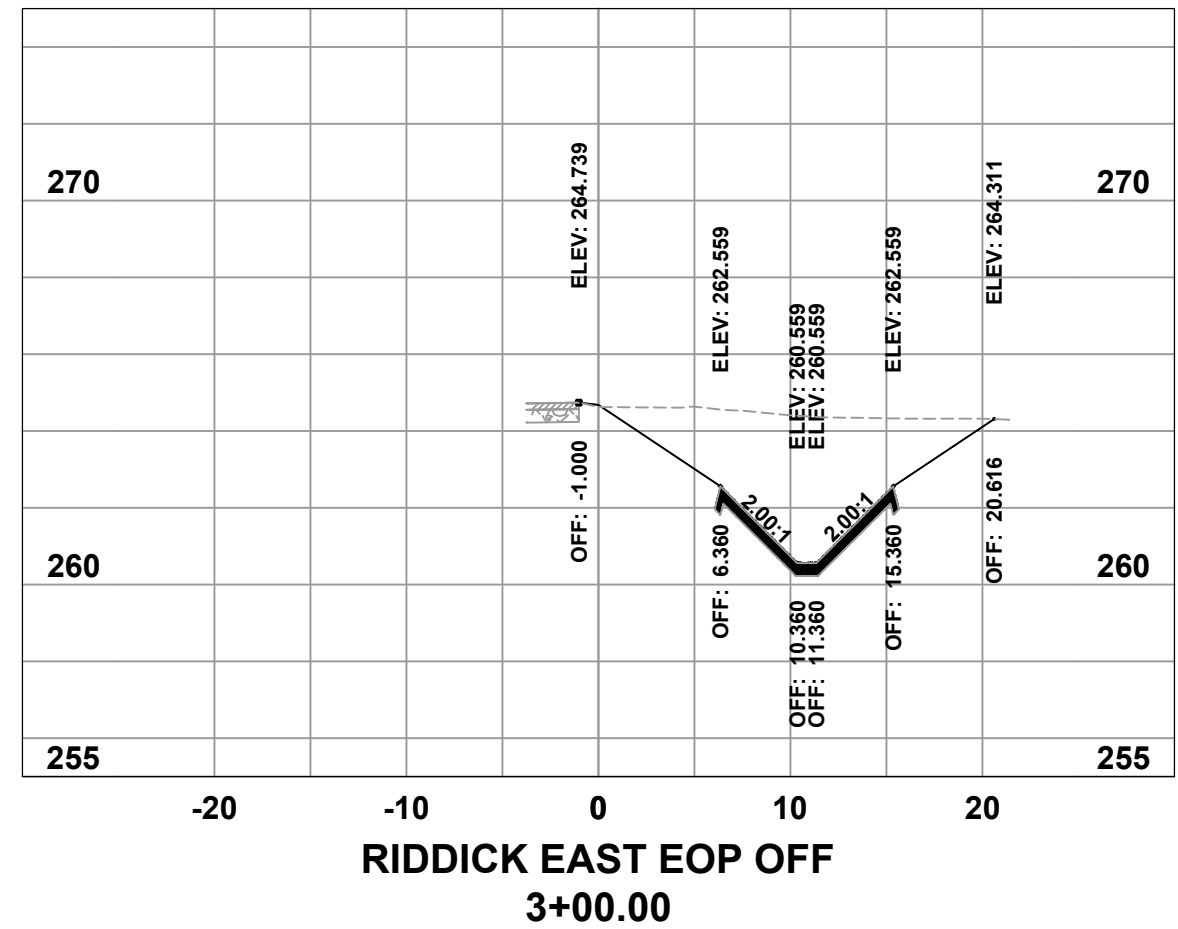
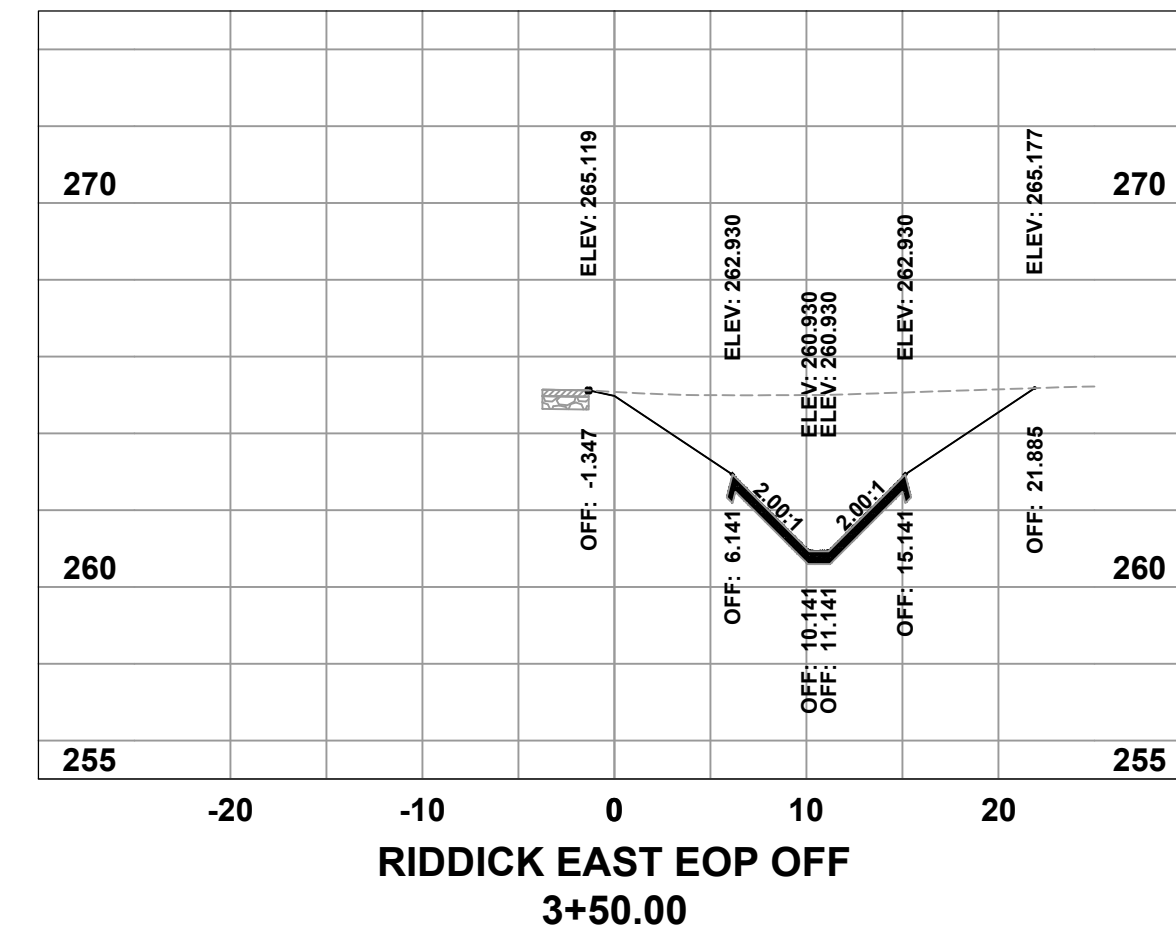
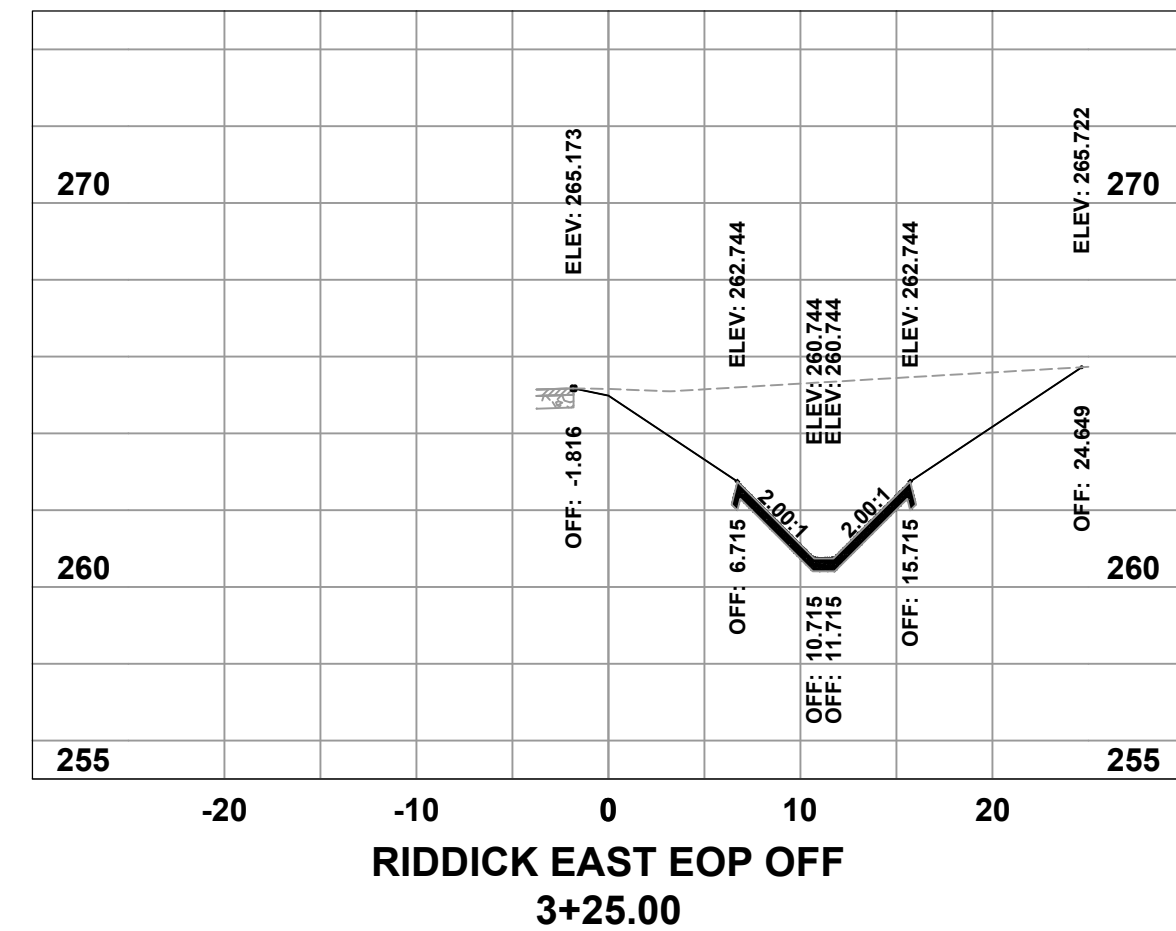
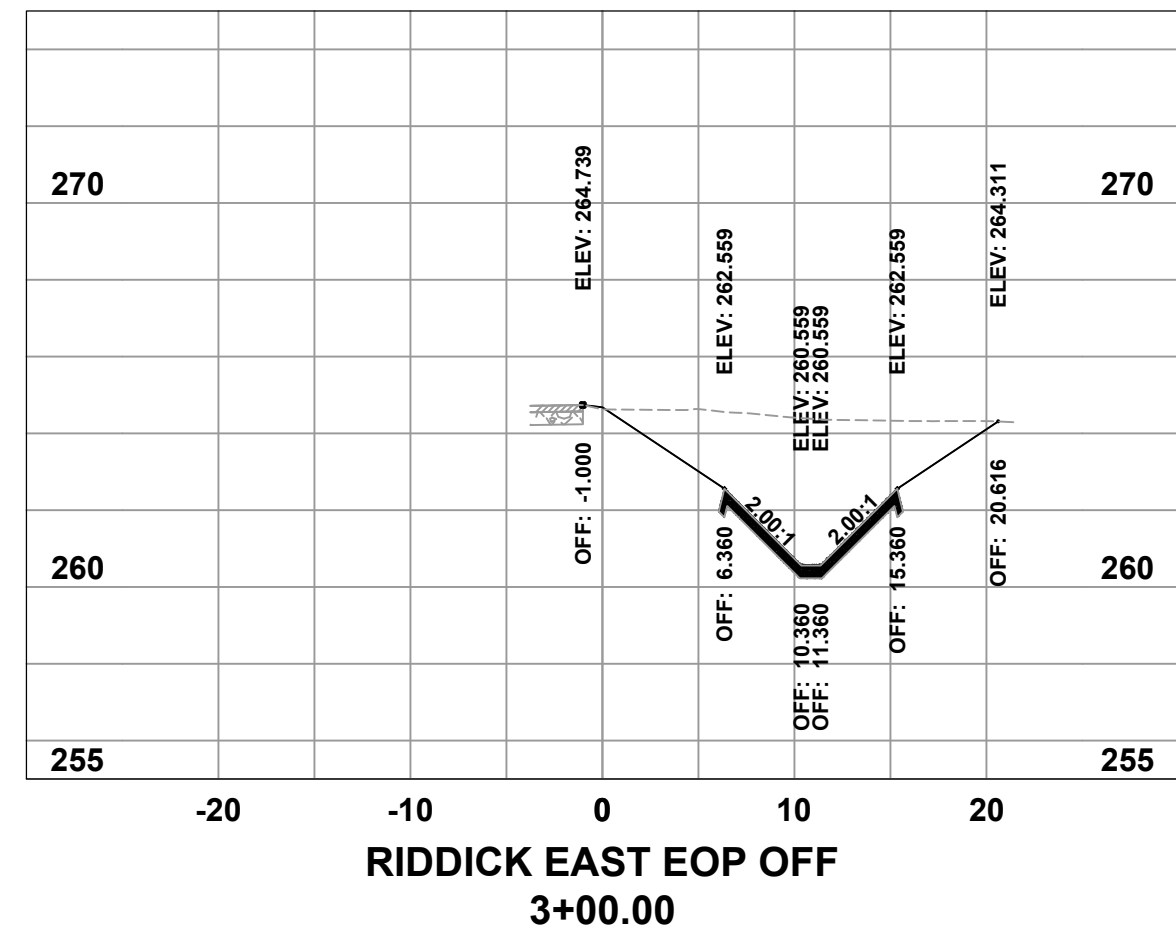
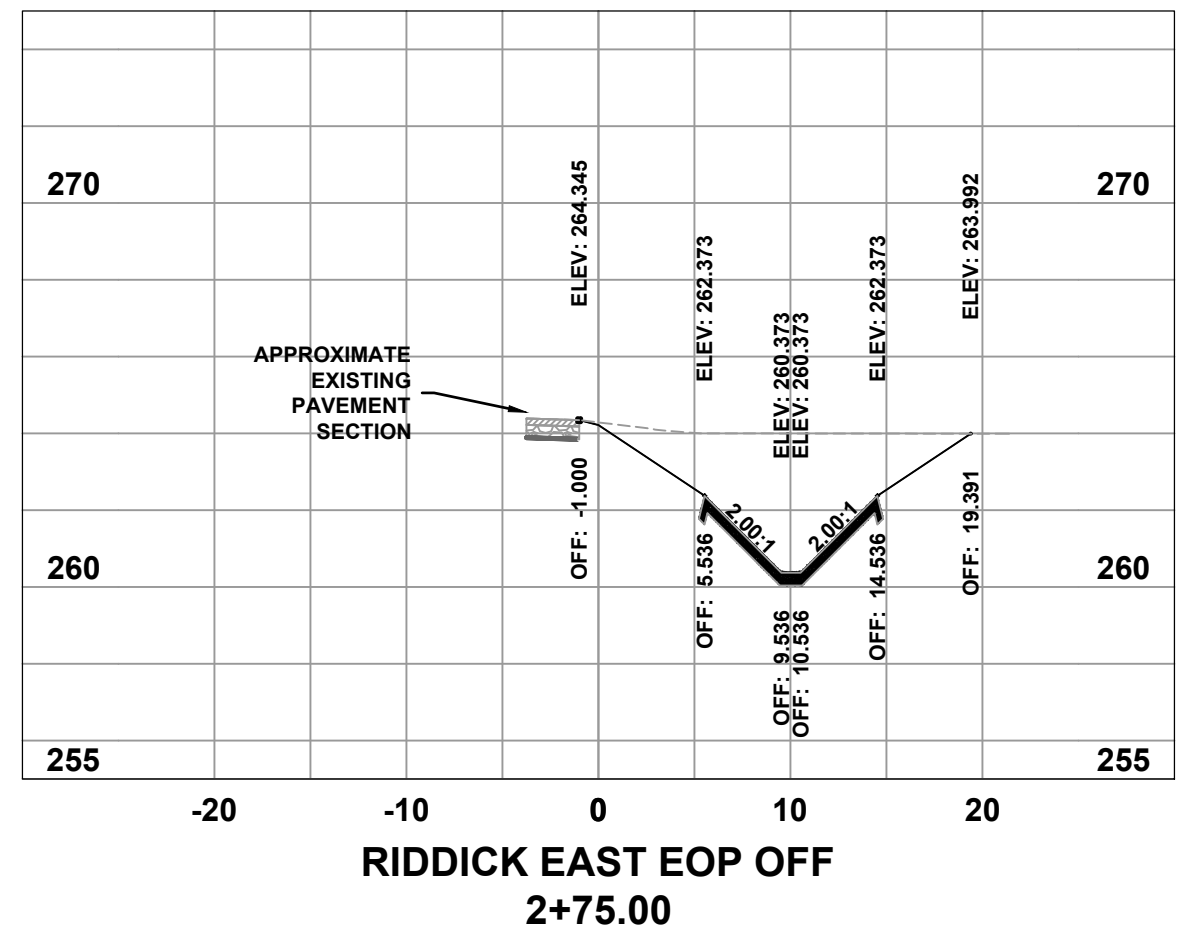
**CITY OF LITTLE ROCK, ARKANSAS
EAST 39TH ST. DRAINAGE IMPROVEMENTS
CROSS SECTIONS**

DEPARTMENT OF PUBLIC WORKS
CIVIL ENGINEERING
701 W. MARKHAM
LITTLE ROCK, ARKANSAS 72201

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DATE
12/31/2024
SCALE
H: 1" = 10' V: 1" = 5'
PROJECT NO.
CLR # 01-22-DR-01
SHEET NO.
C603





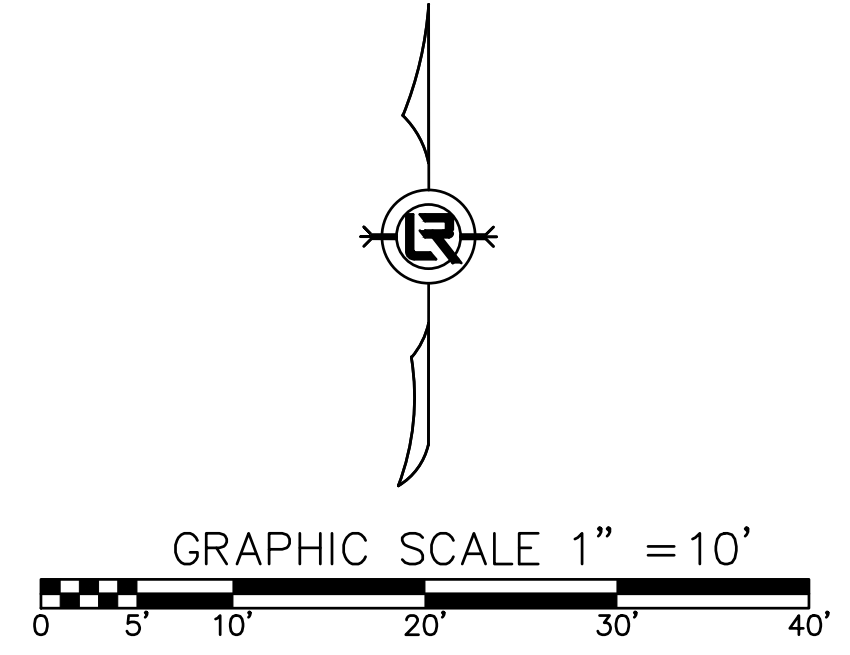
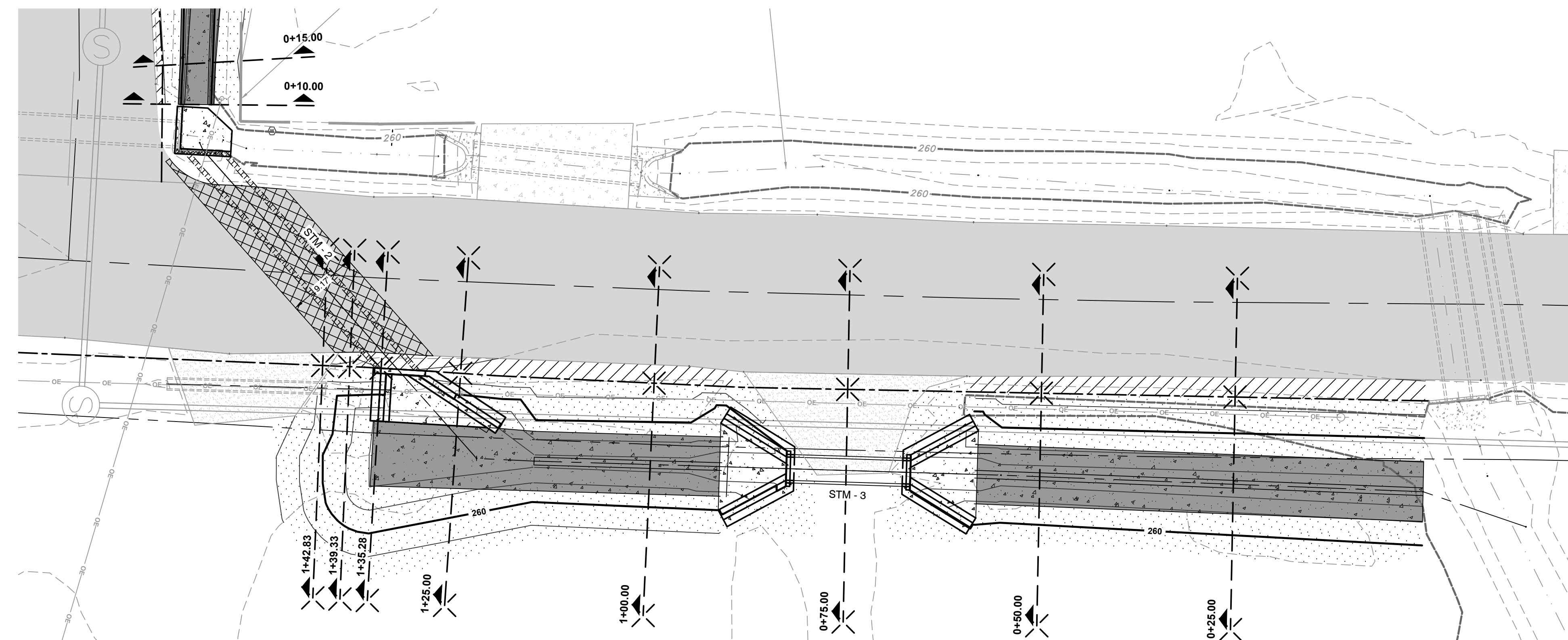
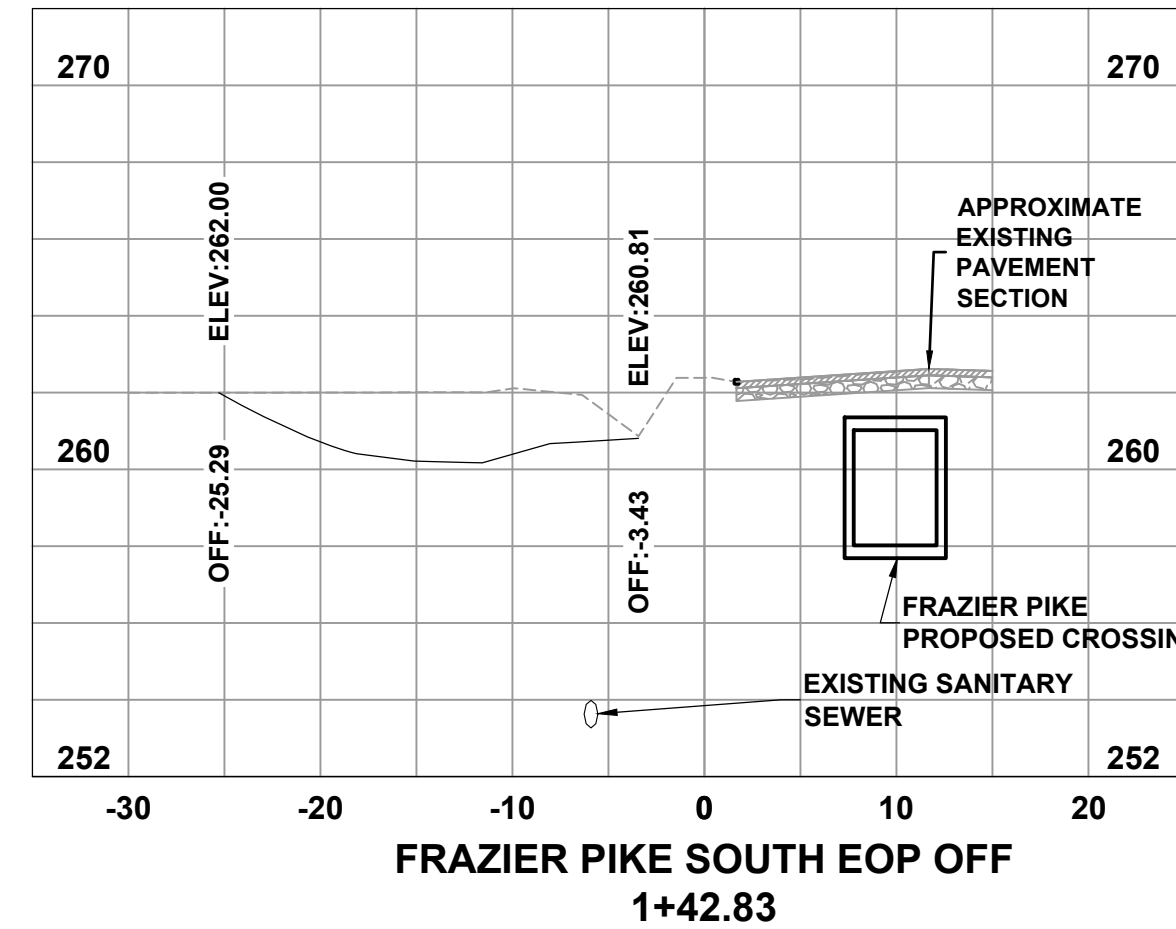
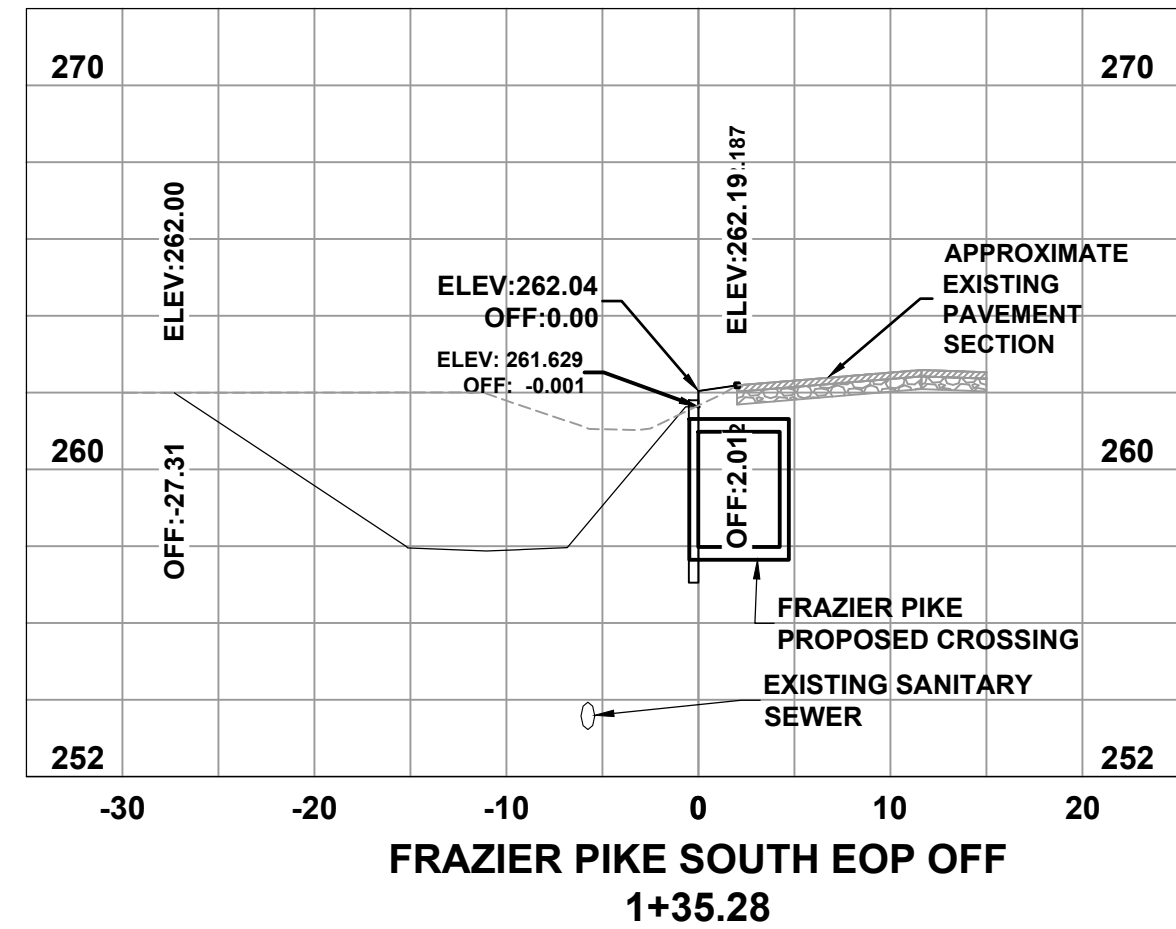
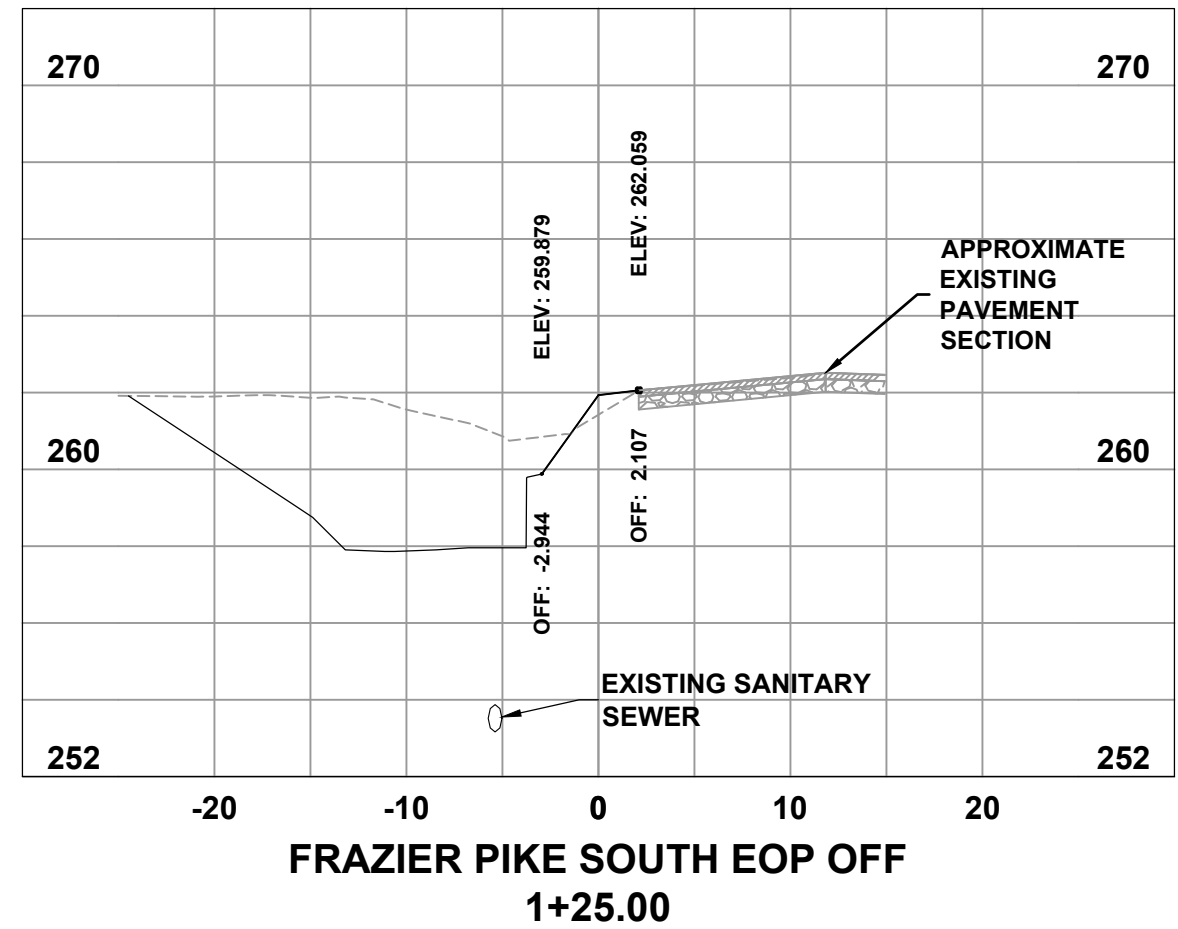
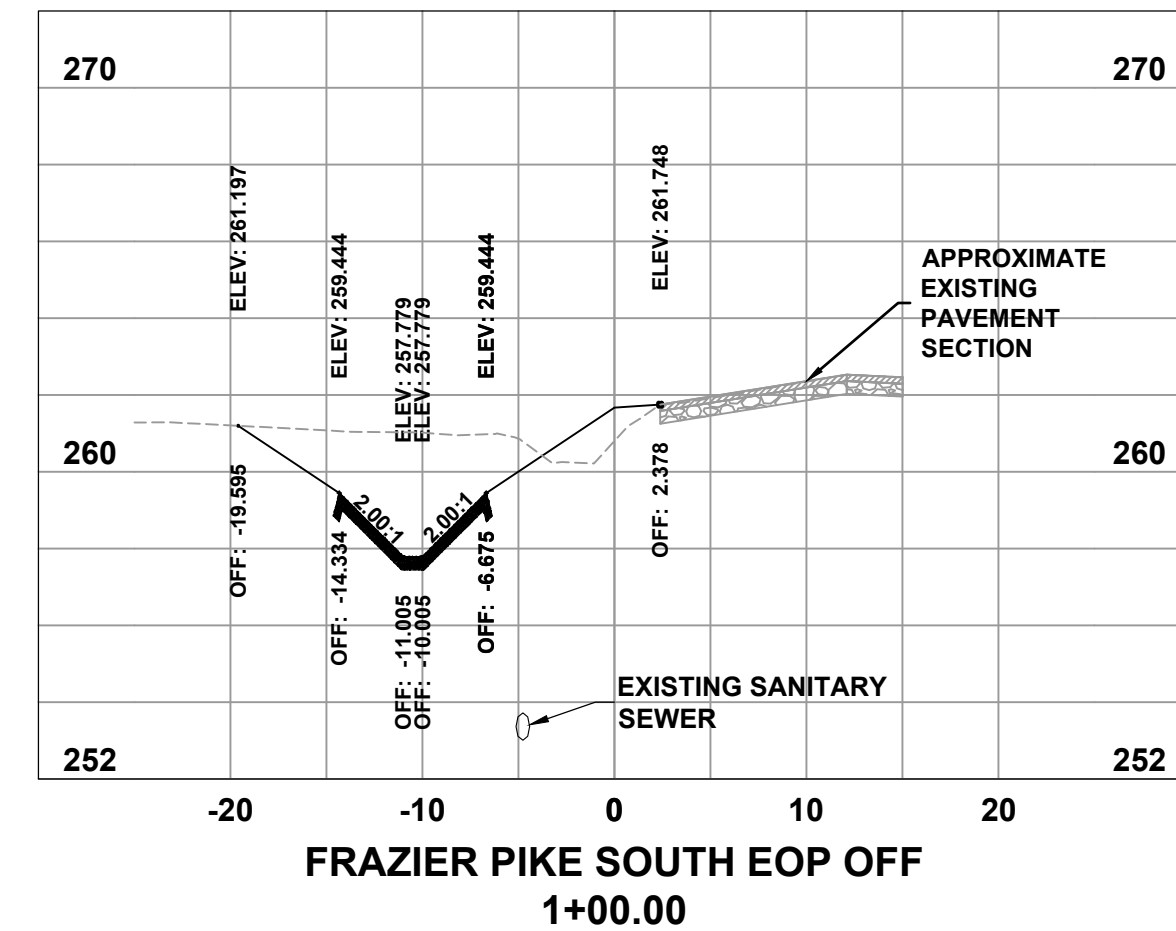
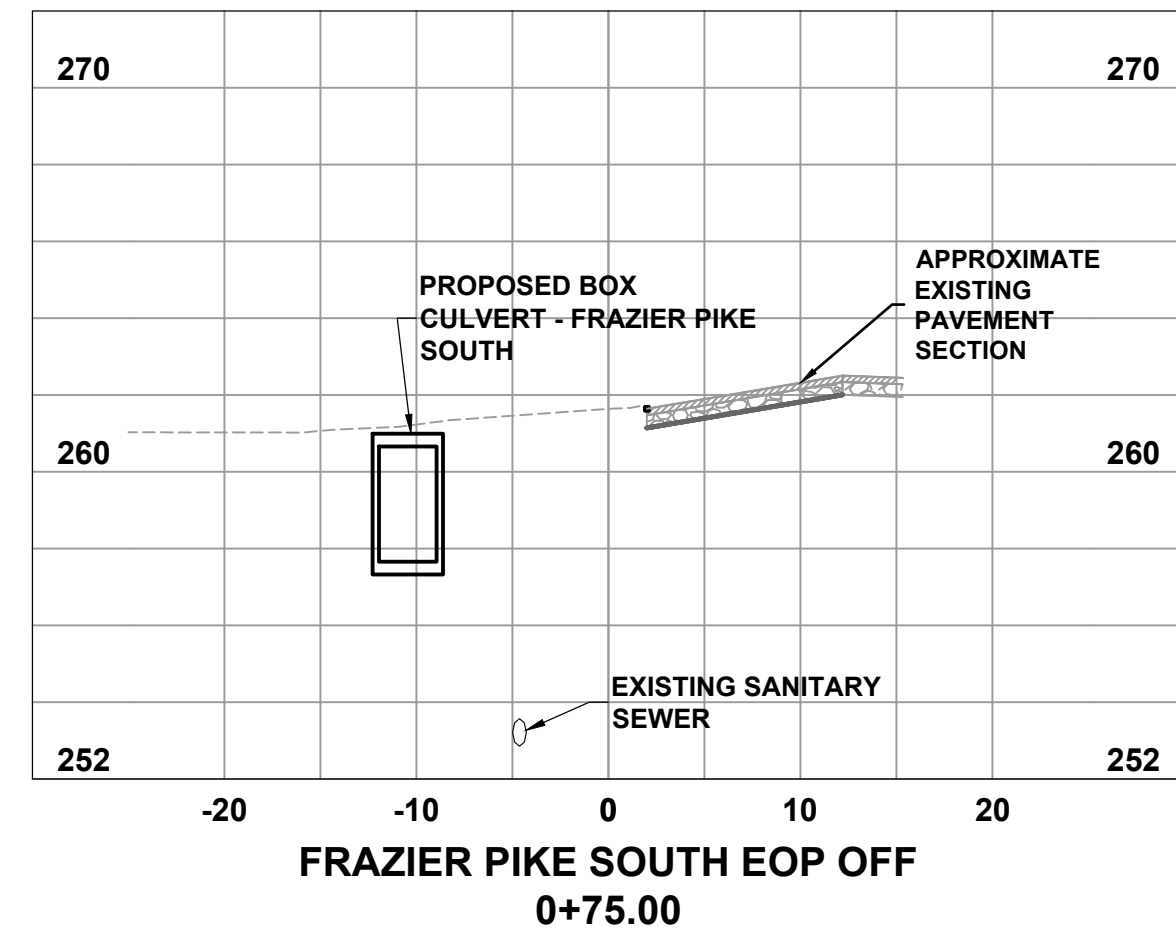
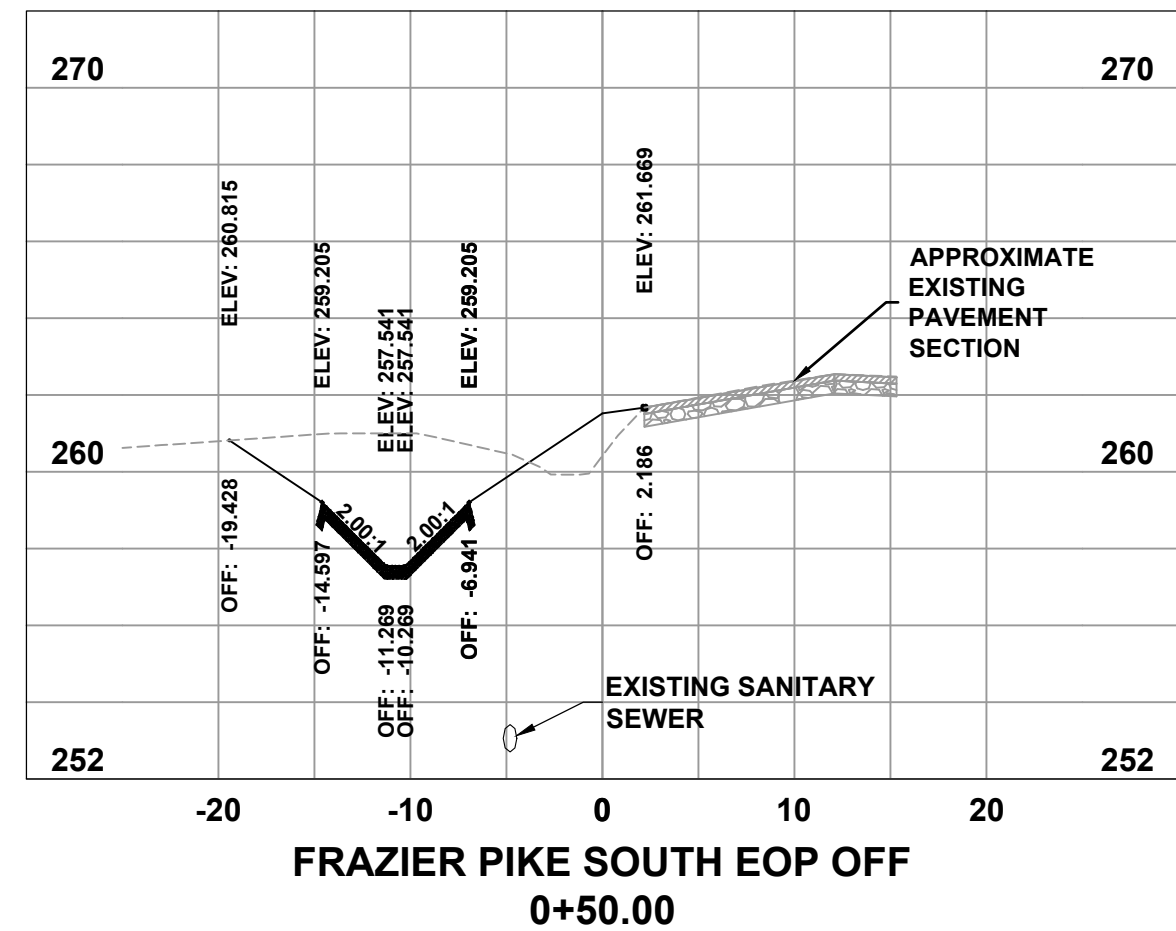
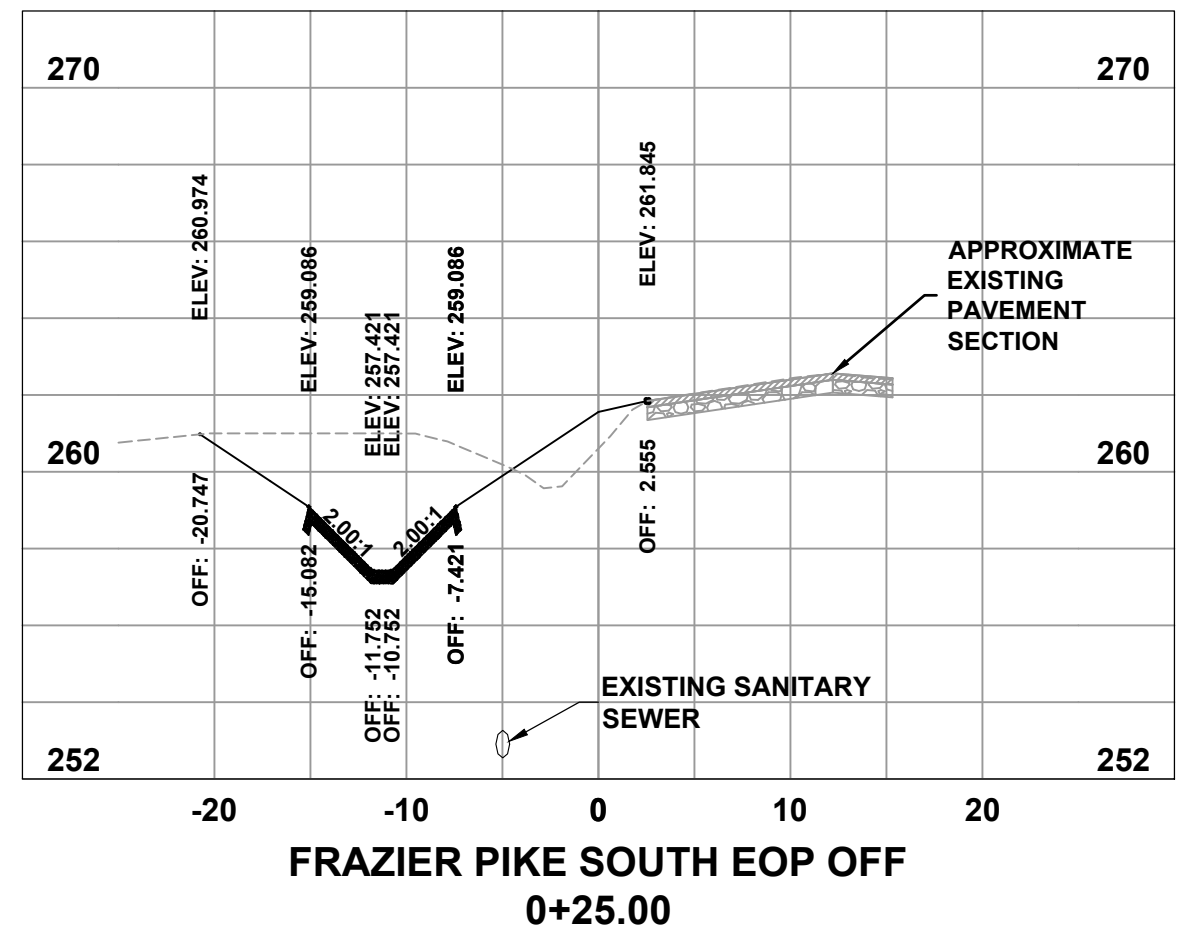
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS
EAST 39TH ST. DRAINAGE IMPROVEMENTS
CROSS SECTIONS

DEPARTMENT OF PUBLIC WORKS
CIVIL ENGINEERING
701 W. MARKHAM
LITTLE ROCK, ARKANSAS 72201

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12/31/2024
SCALE
H: 1" = 10' V: 1" = 5'
PROJECT NO.
CLR # 01-22-DR-01
SHEET NO.
C604



REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS
EAST 39TH ST. DRAINAGE IMPROVEMENTS
CROSS SECTIONS

DEPARTMENT OF PUBLIC WORKS
CIVIL ENGINEERING
701 W. MARKHAM
LITTLE ROCK, ARKANSAS 72201

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12/31/2024
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H: 1" = 10' V: 1" = 5'
PROJECT NO.
CLR # 01-22-DR-01
SHEET NO.
C605

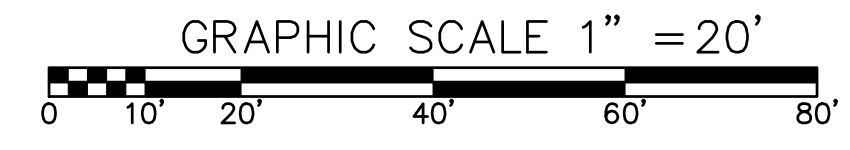
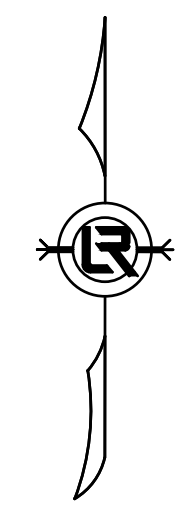
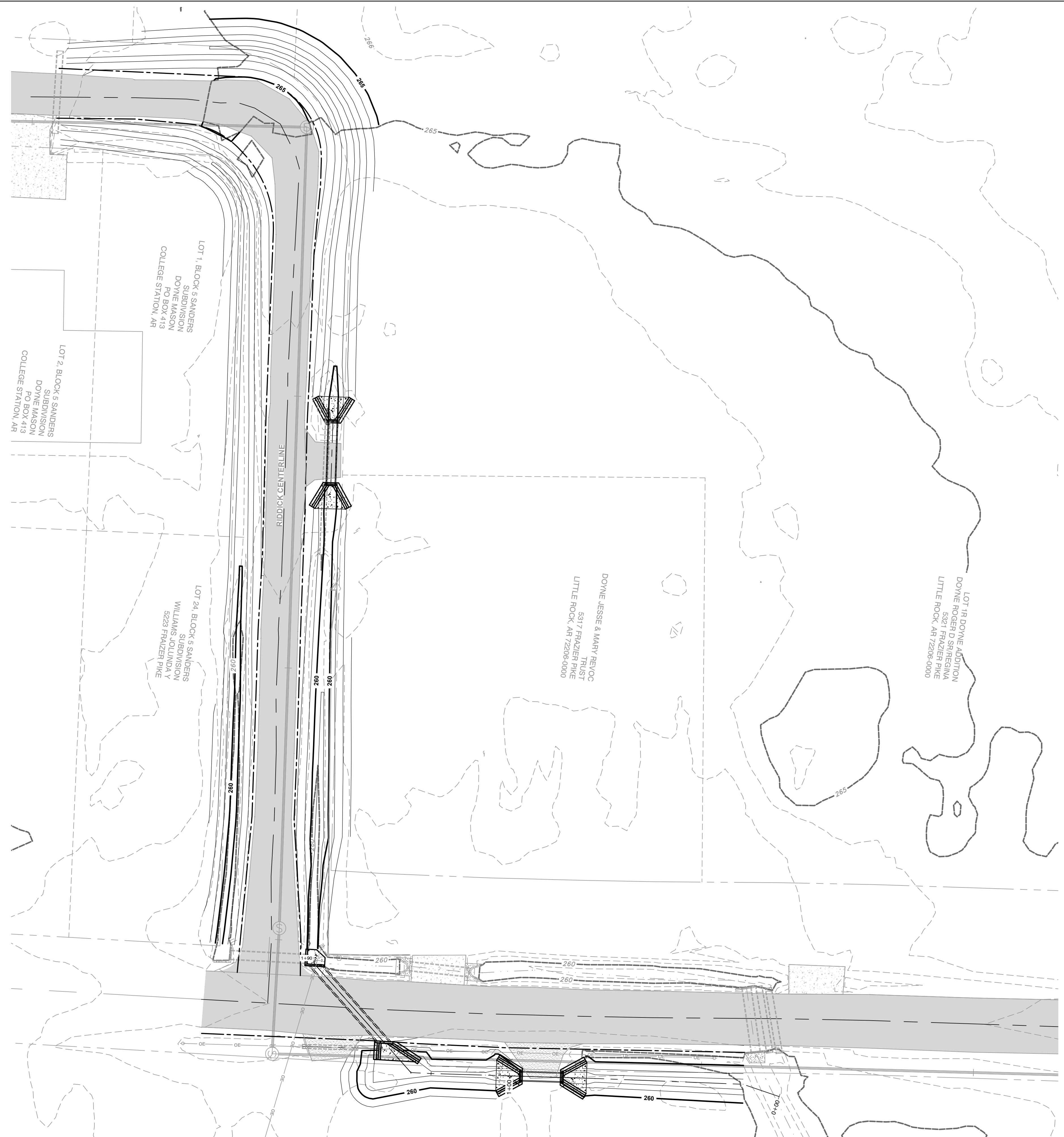
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS
EAST 39TH ST. DRAINAGE IMPROVEMENTS
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DEPARTMENT OF PUBLIC WORKS
 CIVIL ENGINEERING
 701 W. MARKHAM
 LITTLE ROCK, ARKANSAS 72201

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 CLR # 01-22-DR-01
 SHEET NO.
C606

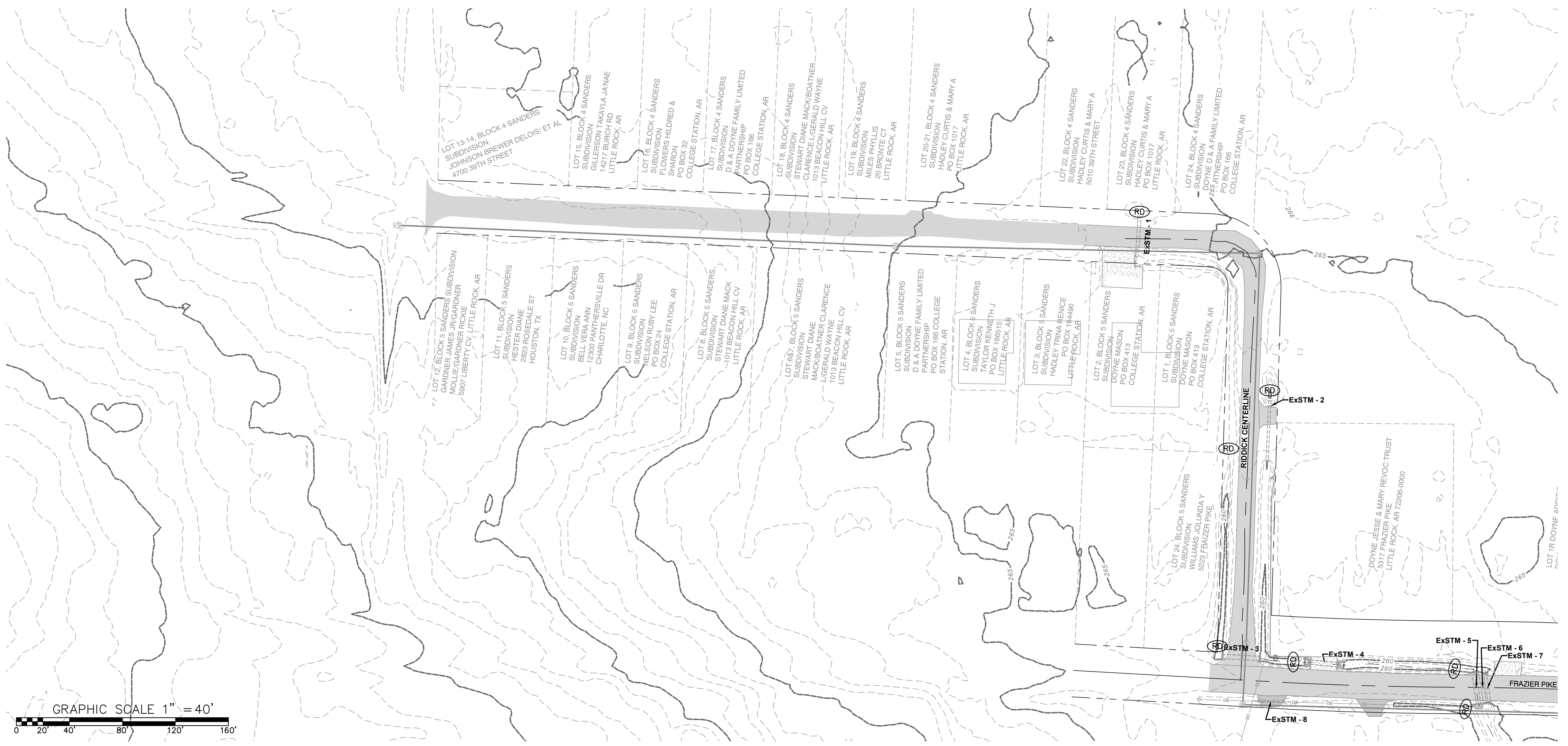


**PHASE 1
CONSTRUCTION EROSION CONTROL
BEST MANAGEMENT PRACTICES**

UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: PARKING, LAY DOWN, PORTA-POTTY, DUMPSTER, ETC., IMMEDIATELY DENOTE THEM ON THE SITE MAPS AND NOTE ANY CHANGES IN LOCATION AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS. IN ADDITION, NOTE ANY OFF-SITE AREA WHERE FILL IS IMPORTED FROM OR SOIL IS EXPORTED TO ON THE SITE MAP.

1. INSTALL CONSTRUCTION ENTRANCE/EXIT PER CITY STANDARD PW-64.
2. INSTALL SWPPP INFORMATION SIGN.
3. INSTALL SILT FENCE(S) ON THE SITE. CLEAR ONLY THOSE AREAS NECESSARY TO INSTALL SILT FENCE.
4. INSTALL STORMWATER DETENTION BASIN AND OUTFALL STRUCTURE.
5. PREPARE TEMPORARY PARKING AND STORAGE AREA.
6. HALT ALL ACTIVITIES AND CONTACT THE CITY OF LITTLE ROCK TO PERFORM INSPECTION AND ACCEPTANCE OF BMP'S.
7. INSTALL AND STABILIZE HYDRAULIC CONTROL STRUCTURES (STORM DRAIN INLET PROTECTION, DIKES, SWALES, CHECK DAMS, ETC.). CLEAR ONLY THOSE AREAS NECESSARY TO INSTALL HYDRAULIC CONTROL DEVICES.

CONSTRUCTION – ENTRANCE/EXIT	(CO)
CHECK DAM	(CD)
DIVERSION BERM	(DI)
DOWNDRAIN STRUCTURE – TEMPORARY	(DN)
ROCK DAM	(RD)
SEDIMENT BARRIER – SILT FENCE	(SD1)
SEDIMENT BARRIER – GRAVEL RING	(SD2)
SEDIMENT BARRIER – BLOCK & GRAVEL	(SD3)
SEDIMENT BARRIER – BLOCK	(SD4)
TEMPORARY SEDIMENT BASIN	(SB1)
SILT FENCE – TYPE A	(SFA)
SILT FENCE – TYPE B	(SFB)
SILT FENCE – TYPE C	(SFC)
STORM DRAIN INTLET PROTECTION	(ST)
SURFACE ROUGHENING	(SU)
DISTURBED AREA STABILIZATION –TEMPORARY STABILIZATION	(TS1)
DISTURBED AREA STABILIZATION –TEMPORARY GRASSING	(TS2)
DISTURBED AREA STABILIZATION –PERMANENT GRASSING	(TS3)
MATting/BLANKETS	(MB)



REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS
EAST 39TH ST. DRAINAGE IMPROVEMENTS
EROSION CONTROL PLAN PHASE 1

DEPARTMENT OF PUBLIC WORKS
CIVIL ENGINEERING
701 W. MARKHAM
LITTLE ROCK, ARKANSAS 72201

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PROJECT NO.
CLR # 01-22-DR-01
SHEET NO.
C701

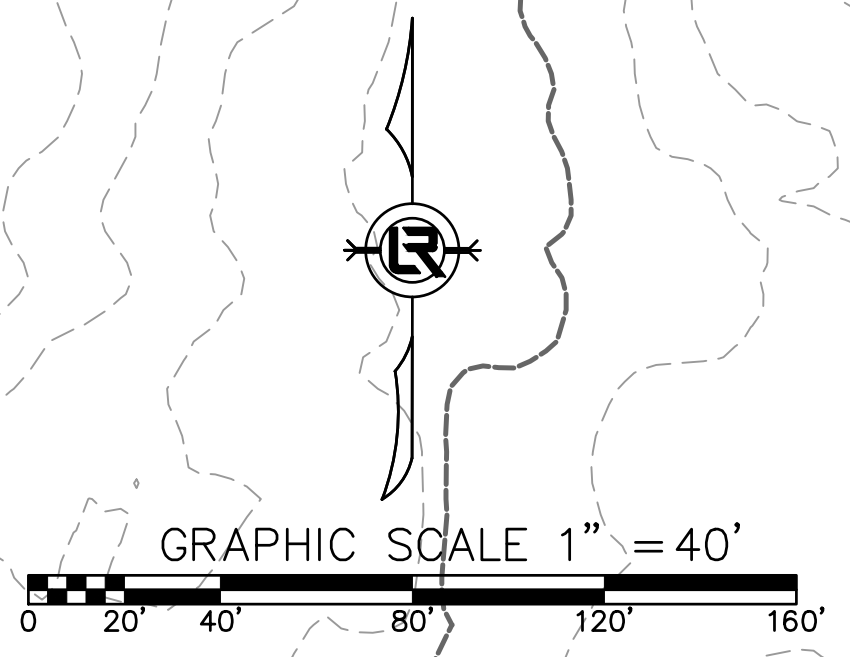
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**PHASE 2
CONSTRUCTION EROSION CONTROL
BEST MANAGEMENT PRACTICES**

UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: PARKING, LAY DOWN, PORTA-POTTY, CONCRETE WASHOUT, DUMPSTER, ETC., IMMEDIATELY DENOTE THEM ON THE SITE MAPS AND NOTE ANY CHANGES IN LOCATION AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS. IN ADDITION, NOTE ANY OFF-SITE AREA WHERE FILL IS IMPORTED FROM OR SOIL IS EXPORTED TO ON THE SITE MAP.

1. INSTALL CONCRETE WASHOUT, RELOCATE DUMPSTER, PORTA-POTTY AND LAY DOWN AREA.
2. TEMPORARY STABILIZATION SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY CEASED, BUT IN NO CASE MORE THAN FOURTEEN (14) CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY CEASED.
3. INSTALL UNDERGROUND UTILITIES.
4. FINISH GRADING AND PREPARE SUBGRADES FOR BUILDING SLABS, PARKING LOT, ETC.
5. MAINTAIN SILT FENCES AND INLET PROTECTION THROUGHOUT CONSTRUCTION.
6. INSTALL CONCRETE FOUNDATIONS, PARKING LOT CURBS, AND BASE MATERIAL. UTILIZE CONCRETE WASHOUT; CONCRETE IS NOT TO BE WASHED ONTO THE GROUND, STREET, OR INTO THE STORM SEWER.
7. INSTALL ASPHALT AND FENCE.
8. INSTALL LANDSCAPING VEGETATION AND MULCH.

CONSTRUCTION - ENTRANCE/EXIT	(CO)
CHECK DAM	(CD)
DIVERSION BERM	(DI)
DOWNDRAIN STRUCTURE - TEMPORARY	(DN)
ROCK DAM	(RD)
SEDIMENT BARRIER - SILT FENCE	(SD1)
SEDIMENT BARRIER - GRAVEL RING	(SD2)
SEDIMENT BARRIER - BLOCK & GRAVEL	(SD3)
SEDIMENT BARRIER - BLOCK	(SD4)
TEMPORARY SEDIMENT BASIN	(SB1)
SILT FENCE - TYPE A	(SFA)
SILT FENCE - TYPE B	(SFB)
SILT FENCE - TYPE C	(SFC)
STORM DRAIN INTLET PROTECTION	(ST)
SURFACE ROUGHENING	(SU)
DISTURBED AREA STABILIZATION - TEMPORARY STABILIZATION	(TS1)
DISTURBED AREA STABILIZATION - TEMPORARY GRASSING	(TS2)
DISTURBED AREA STABILIZATION - PERMANENT GRASSING	(TS3)
MATting/BLANKETS	(MB)



REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS
EAST 39TH ST. DRAINAGE IMPROVEMENTS
EROSION CONTROL PLAN PHASE 2

DEPARTMENT OF PUBLIC WORKS
CIVIL ENGINEERING
701 W. MARKHAM
LITTLE ROCK, ARKANSAS 72201

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PROJECT NO.
CLR # 01-22-DR-01
SHEET NO.
C702

N:_HEL\agency\public\client\Folders A - D\CTLR City of Little Rock\2422 Engineering Serv for LR (4 projects)\01-22-DR-01 East 39th St. Drainage from Park Ave. to Riddick S\Drawings\CTLR East 39th St. Riddick & Frazier Pike 100%.dwg

**PHASE 3
CONSTRUCTION EROSION CONTROL
BEST MANAGEMENT PRACTICES**

UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: PARKING, LAY DOWN, PORTA-POTTY, CONCRETE WASHOUT, DUMPSTER, ETC., IMMEDIATELY DENOTE THEM ON THE SITE MAPS AND NOTE ANY CHANGES IN LOCATION AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS. IN ADDITION, NOTE ANY OFF-SITE AREA WHERE FILL IS IMPORTED FROM OR SOIL IS EXPORTED TO ON THE SITE MAP.

1. STABILIZE ALL DISTURBED AREAS PER THE LANDSCAPING PLANS.
2. CONTINUE TO PERFORM WEEKLY MAINTENANCE INSPECTIONS.
3. REMOVE AND STABILIZE ALL TEMPORARY CONTROL MEASURES UNTIL PERMANENT STABILIZATION ACROSS THE SITE IS ACHIEVED.

CONSTRUCTION – ENTRANCE/EXIT	(CO)
CHECK DAM	(CD)
DIVERSION BERM	(DI)
DOWNDRAIN STRUCTURE – TEMPORARY	(DN)
ROCK DAM	(RD)
SEDIMENT BARRIER – SILT FENCE	(SD1)
SEDIMENT BARRIER – GRAVEL RING	(SD2)
SEDIMENT BARRIER – BLOCK & GRAVEL	(SD3)
SEDIMENT BARRIER – BLOCK	(SD4)
TEMPORARY SEDIMENT BASIN	(SB1)
SILT FENCE – TYPE A	(SFA)
SILT FENCE – TYPE B	(SFB)
SILT FENCE – TYPE C	(SFC)
STORM DRAIN INTLET PROTECTION	(ST)
SURFACE ROUGHENING	(SU)
DISTURBED AREA STABILIZATION –TEMPORARY STABILIZATION	(TS1)
DISTURBED AREA STABILIZATION –TEMPORARY GRASSING	(TS2)
DISTURBED AREA STABILIZATION –PERMANENT GRASSING	(TS3)
MATting/BLANKETS	(MB)

REVISIONS	DATE

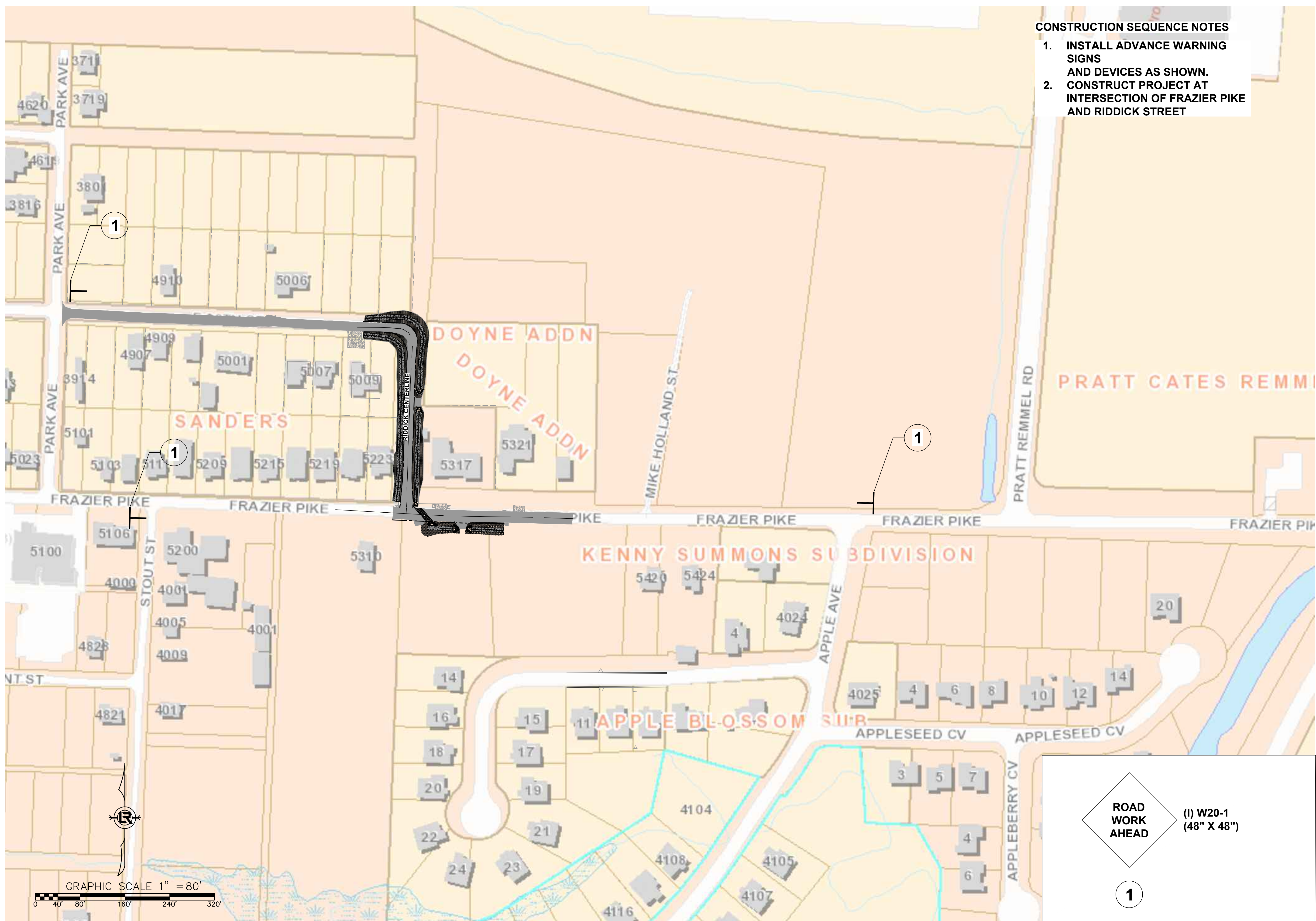
CITY OF LITTLE ROCK, ARKANSAS
EAST 39TH ST. DRAINAGE IMPROVEMENTS
EROSION CONTROL PLAN PHASE 3



DEPARTMENT OF PUBLIC WORKS
CIVIL ENGINEERING
701 W. MARKHAM
LITTLE ROCK, ARKANSAS 72201

**90%
REVIEW
SET**

DRAWN BY
JNS
DESIGNED
JNS
CHECKED
AHR
DATE
12/31/2024
SCALE
AS NOTED
PROJECT NO.
CLR # 01-22-DR-01
SHEET NO.
C703



CONSTRUCTION SEQUENCE NOTES

1. INSTALL ADVANCE WARNING SIGNS AND DEVICES AS SHOWN.
2. CONSTRUCT PROJECT AT INTERSECTION OF FRAZIER PIKE AND RIDDICK STREET

REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS
 EAST 39TH ST. DRAINAGE IMPROVEMENTS
 MAINTENANCE OF TRAFFIC

DEPARTMENT OF PUBLIC WORKS
 CIVIL ENGINEERING
 701 W. MARKHAM
 LITTLE ROCK, ARKANSAS 72201

**90%
 REVIEW
 SET**

DRAWN BY
 JNS
 DESIGNED
 JNS
 CHECKED
 AHR
 DATE
 12/31/2024
 SCALE
 1" = 80'
 PROJECT NO.
 CLR # 01-22-DR-01
 SHEET NO.
C800

