

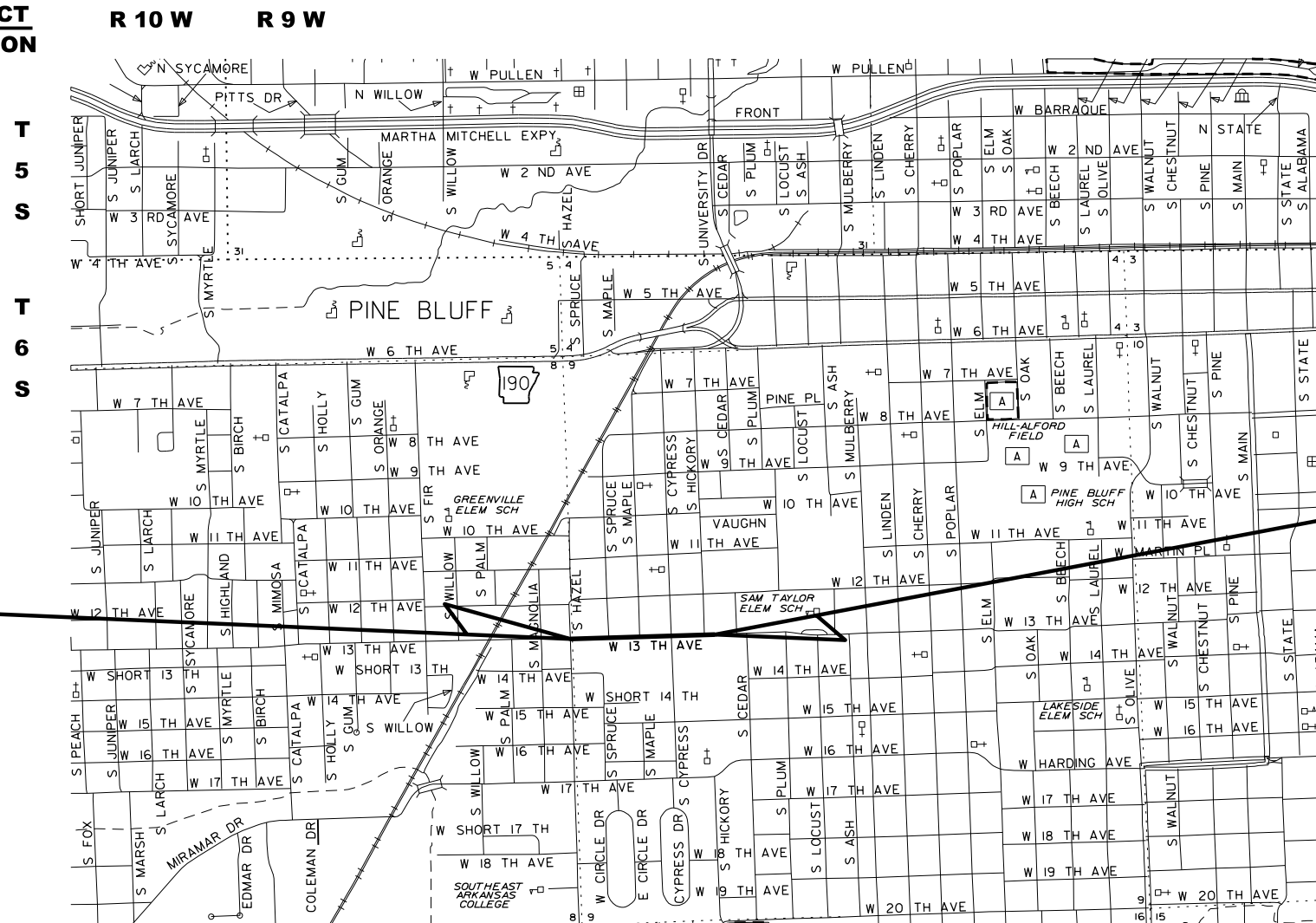
VICINITY MAP

PROJECT LOCATION

ARKANSAS DEPARTMENT OF TRANSPORTATION  
CONSTRUCTION PLANS FOR PROPOSED CITY STREET

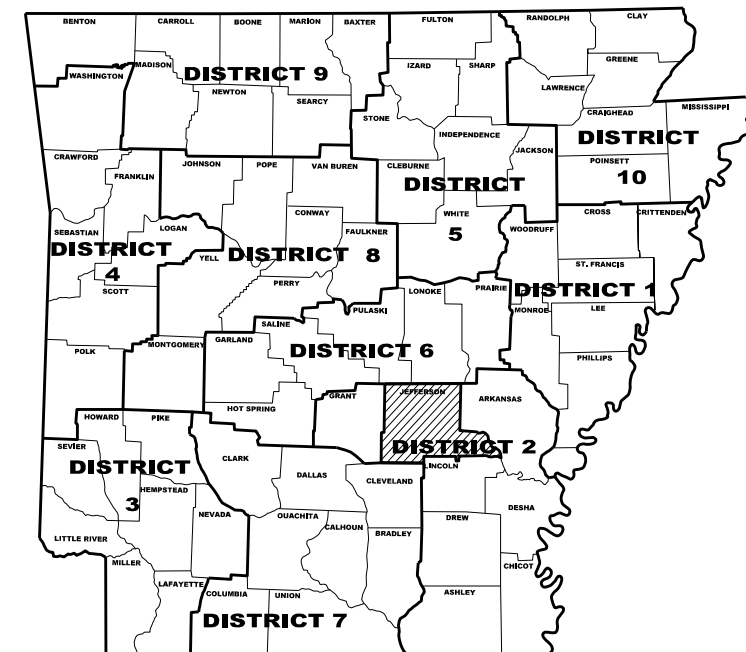
**PINE BLUFF 13TH AVE.  
RECONSTRUCTION (S)**

**JEFFERSON COUNTY  
JOB C35002  
NOT TO SCALE**



**STA. 100+00.00 BEGIN JOB C35002**

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10-05-2021				6	ARK.			
						JOB NO.	C35002	1
						4 PINE BLUFF 13TH AVE. RECONSTRUCTION (S)		



**ARKANSAS HIGHWAY DIST. 2**

**DESIGN TRAFFIC DATA**

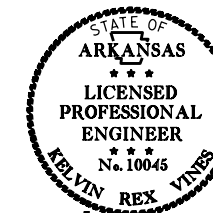
<b>DESIGN YEAR</b>	<b>2042</b>
<b>2022 ADT</b>	<b>7000</b>
<b>2042 ADT</b>	<b>7900</b>
<b>2042 DHV</b>	<b>1185</b>
<b>DIRECTIONAL DISTRIBUTION</b>	<b>0.60</b>
<b>TRUCKS</b>	<b>1%</b>
<b>DESIGN SPEED</b>	<b>35 MPH</b>

**STA. 114+25.00 END JOB C35002**

	BEGIN	MID-POINT	END
<b>LATITUDE</b>	<b>N34°12'59.1"</b>	<b>N34°12'59.1"</b>	<b>N34°12'59.1"</b>
<b>LONGITUDE</b>	<b>W92°01'29.4"</b>	<b>W92°01'21.0"</b>	<b>W92°01'12.6"</b>

<b>GROSS LENGTH OF PROJECT</b>	<b>1425.00 FEET OR 0.270 MILES</b>
<b>NET ROADWAY</b>	<b>1425.00 : : 0.270</b>
<b>NET BRIDGE</b>	<b>0000.00 : : 0.000</b>
<b>NET PROJECT</b>	<b>1425.00 : : 0.270</b>

APPROVED



*Melvin Rex Vines*

Nov 1 2021 2:54 PM

DEPUTY DIRECTOR  
AND CHIEF ENGINEER

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
06-08-21				6	ARK.			
10-05-2021								
02-07-2022						JOB NO. C35002	2	41

④ INDEX OF SHEETS AND STANDARD DRAWINGS



### INDEX OF SHEETS

SHEET NO.	TITLE
1	TITLE SHEET
2	INDEX OF SHEETS AND STANDARD DRAWINGS
3	GOVERNING SPECIFICATIONS AND GENERAL NOTES
4 - 5	TYPICAL SECTIONS OF IMPROVEMENT
6 - 7	TEMPORARY EROSION CONTROL DETAILS
8 - 11	QUANTITIES
12	SUMMARY OF QUANTITIES AND REVISIONS
13 - 15	SURVEY CONTROL DETAILS
16 - 23	PLAN AND PROFILE SHEETS
24 - 41	CROSS SECTIONS

NOTE: CROSS SECTIONS NOT INCLUDED IN PROSPECTIVE BIDDERS' PLANS MAY BE OBTAINED UPON REQUEST.

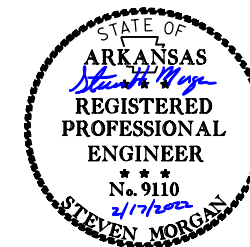
### ROADWAY STANDARD DRAWINGS

DRWG. NO.	TITLE	DATE
CG-1	CURBING DETAILS	11-29-07
FES-1	FLARED END SECTION	10-18-96
FES-2	FLARED END SECTION	10-18-96
FPC-9M	DETAILS OF DROP INLETS (TYPE MO)	08-22-02
FPC-9S	DETAILS OF DROP INLET & JUNCTION BOX (TYPE ST)	07-26-12
MB-1	MAILBOX DETAILS	11-18-04
PCC-1	CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING	02-27-14
PCM-1	METAL PIPE CULVERT FILL HEIGHTS & BEDDING	02-27-14
SHS-1	STANDARD HIGHWAY SIGNS AND SUPPORT ASSEMBLIES	09-12-13
SHS-2	U-CHANNEL POST ASSEMBLIES	07-25-19
SI-1	DETAILS OF SPECIAL ITEMS	10-25-18
TC-1	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	11-07-19
TC-2	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	05-20-21
TC-3	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	08-12-21
TEC-1	TEMPORARY EROSION CONTROL DEVICES	11-16-17
TEC-2	TEMPORARY EROSION CONTROL DEVICES	06-02-94
TEC-3	TEMPORARY EROSION CONTROL DEVICES	11-03-94
WR-1	WHEELCHAIR RAMPS NEW CONSTRUCTION AND ALTERATIONS	11-10-05

**INDEX OF SHEETS AND STANDARD DRAWINGS**

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10-05-2021				6	ARK.			
02-07-2022								
						JOB NO.	C35002	3
							41	

4 GOVERNING SPECS. AND GENERAL NOTES



### GOVERNING SPECIFICATIONS

ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2014, AND THE FOLLOWING SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS:

NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
100-3	CONTRACTOR'S LICENSE
100-4	DEPARTMENT NAME CHANGE
102-2	ISSUANCE OF PROPOSALS
105-4	MAINTENANCE DURING CONSTRUCTION
107-2	RESTRAINING CONDITIONS
108-1	LIQUIDATED DAMAGES
108-2	WORK ALLOWED PRIOR TO ISSUANCE OF WORK ORDER
210-1	UNCLASSIFIED EXCAVATION
303-1	AGGREGATE BASE COURSE
306-1	QUALITY CONTROL AND ACCEPTANCE
400-1	TACK COATS
400-4	DESIGN AND QUALITY CONTROL OF ASPHALT MIXTURES
400-5	PERCENT AIR VOIDS FOR ACHM MIX DESIGNS
400-6	LIQUID ANTI-STRIP ADDITIVE
400-7	TRACKLESS TACK
404-3	DESIGN OF ASPHALT MIXTURES
410-1	CONSTRUCTION REQUIREMENTS AND ACCEPTANCE OF ASPHALT CONCRETE PLANT MIX COURSES
410-2	DEVICES FOR MEASURING DENSITY FOR ROLLING PATTERNS
410-4	EVALUATION OF ACHM SUBLOT REPLACEMENT MATERIAL
505-1	PORTLAND CEMENT CONCRETE DRIVEWAY
600-2	INCIDENTAL CONSTRUCTION
604-1	RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
604-3	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES (MASH)
621-1	FILTER SOCKS
633-1	CONCRETE WALKS, CONCRETE STEPS, AND HAND RAILING
634-1	CURBING
723-1	GENERAL REQUIREMENTS FOR SIGNS
729-1	CHANNEL POST SIGN SUPPORT
JOB C35002	BIDDING REQUIREMENTS AND CONDITIONS
JOB C35002	BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB C35002	BROADBAND INTERNET SERVICE FOR FIELD OFFICE
JOB C35002	DENSITIES FOR ACHM SURFACE COURSE
JOB C35002	ESTABLISHING CONTRACT TIME - WORKING DAY CONTRACT
JOB C35002	LIQUIDATED DAMAGES PROCEDURE FOR BID LETTINGS
JOB C35002	MANDATORY ELECTRONIC CONTRACT
JOB C35002	MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
JOB C35002	RECYCLED ASPHALT SHINGLES
JOB C35002	SHORING FOR CULVERTS
JOB C35002	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB C35002	WARM MIX ASPHALT
JOB C35002	WELLHEAD PROTECTION

### GENERAL NOTES

- GRADE LINE DENOTES FINISHED GRADE WHERE SHOWN IN PLANS
- UTILITIES INTERFERING WITH CONSTRUCTION SHALL BE MOVED BY THE OWNERS.
- THE CONTRACTOR SHALL MAINTAIN MAILBOXES WITHIN THE PROJECT LIMITS SUCH THAT THE PUBLIC MAY RECEIVE CONTINUED MAIL SERVICE. THE CONTRACTOR SHALL REMOVE AND RESTORE TO THE PROPER HEIGHT THE EXISTING MAILBOX POSTS AND MAILBOXES AS DIRECTED BY THE ENGINEER. ITEMS DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT NO COST TO THE DEPARTMENT. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE CONSIDERED INCLUDED IN THE CONTRACT PRICES BID FOR OTHER ITEMS OF THE CONTRACT.
- ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
- ALL TREES THAT DO NOT DIRECTLY INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE SPARED AS DIRECTED BY THE ENGINEER. CARE AND DISCRETION SHALL BE USED TO INSURE THAT ALL TREES NOT TO BE REMOVED SHALL BE HARMED AS LITTLE AS POSSIBLE DURING THE CONSTRUCTION OPERATIONS.
- PAVEMENT TO BE REMOVED SHALL BE SEPARATED BY SAWING ALONG A NEAT LINE. PAVEMENT SHALL BE REMOVED IN A MANNER THAT WILL NOT DAMAGE THE PAVEMENT RETAINED. ANY DAMAGE TO RETAINED PAVEMENT SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- THE ROAD SHALL BE MAINTAINED AND REMAIN OPEN TO TRAFFIC THROUGHOUT THE PROJECT.
- THE SEQUENCE AS SHOWN ON THE MAINTENANCE OF TRAFFIC PLANS IS A GENERAL OUTLINE FOR THE CONSTRUCTION OF THIS PROJECT, AND IN NO WAY IS IT INTENDED TO COVER EVERY ITEM IN THE PROJECT. ITEMS NOT CRITICAL TO THE CONSTRUCTION SEQUENCE MAY BE CONSTRUCTED IN ANY STAGE AS APPROVED BY THE RESIDENT ENGINEER.
- DRIVEWAY EXCAVATION AND DISPOSAL OF MATERIAL PRODUCED FROM DRIVEWAY EXCAVATION SHALL BE AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE CONSIDERED INCLUDED IN THE CONTRACT PRICES BID FOR OTHER ITEMS OF THE CONTRACT.
- ASPHALT AND OTHER DEBRIS RESULTING FROM PREPARATORY WORK SHALL BE REMOVED FROM THE PROJECT. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE CONSIDERED INCLUDED IN THE CONTRACT PRICES BID FOR OTHER ITEMS OF THE CONTRACT.
- ALL SALVAGEABLE PIPE CULVERTS SHALL BE STORED ON THE RIGHT-OF-WAY AND REMAIN THE PROPERTY OF THE CITY OF PINE BLUFF.
- INSTALLATION OF PERMANENT TRAFFIC SAFETY SIGNS NOT SHOWN IN THE PLANS IS THE RESPONSIBILITY OF THE CITY OF PINE BLUFF.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MINIMIZING THE PONDING OF WATER ON THE EXISTING SURFACE THROUGHOUT THE PROJECT. PAYMENT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS BID ITEMS.

**GOVERNING SPECIFICATIONS AND GENERAL NOTES**

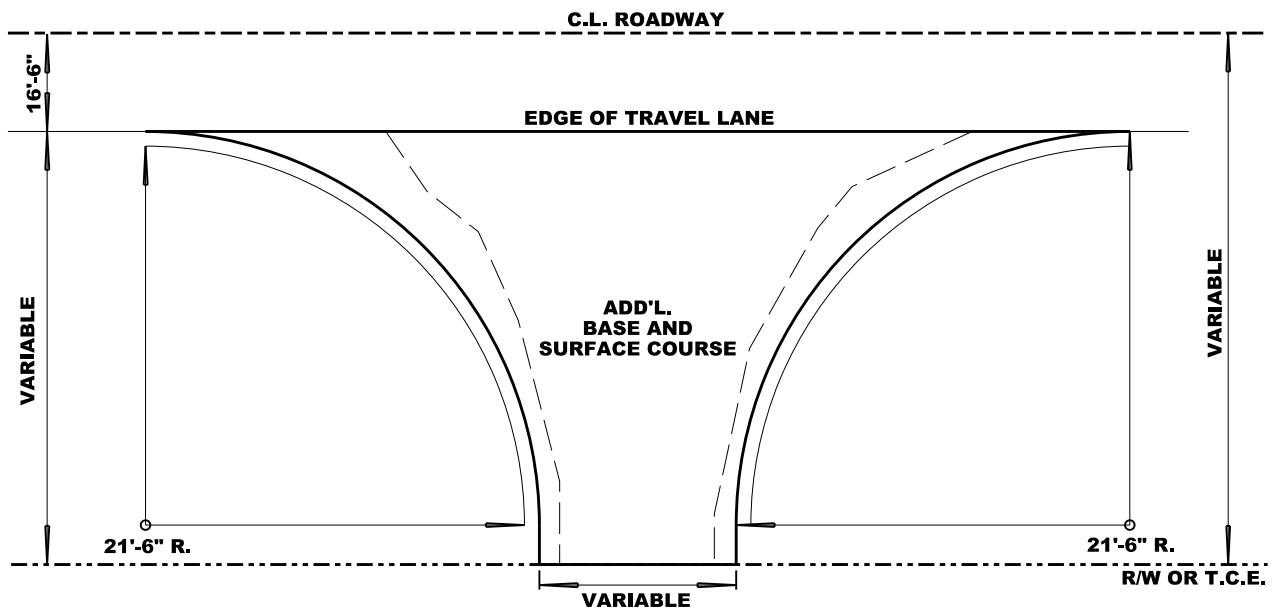
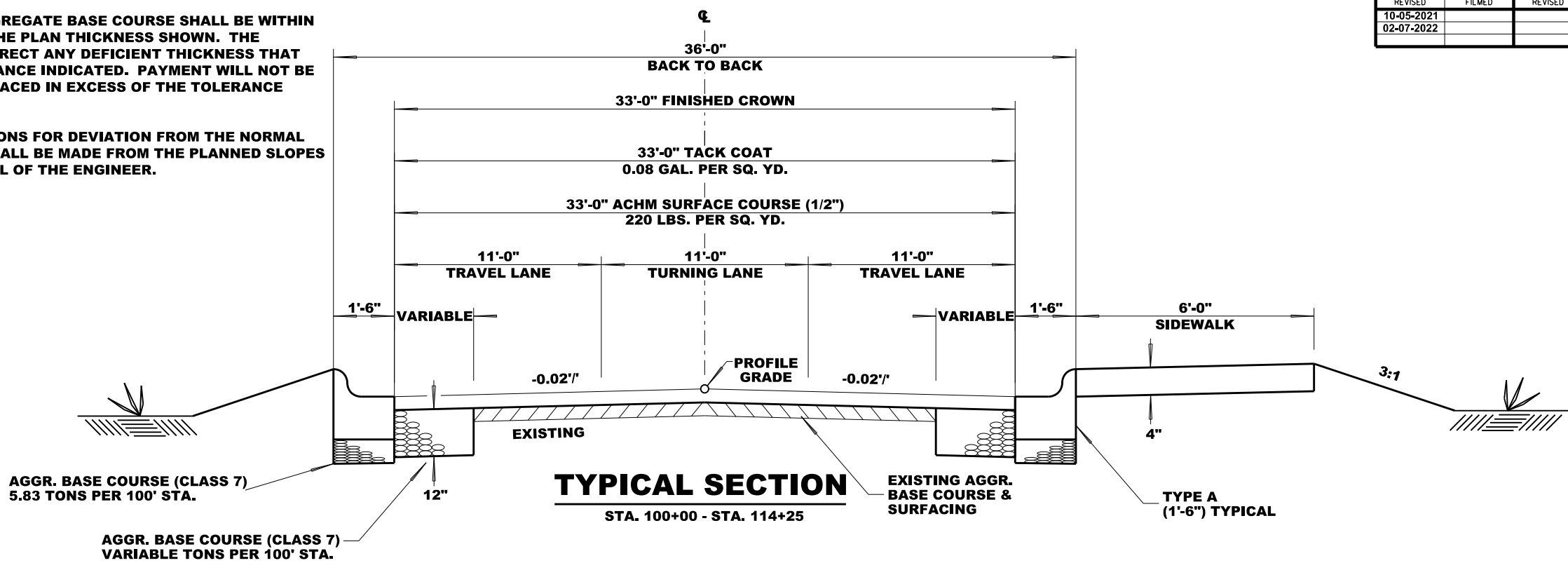
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10-05-2021				6	ARK.			
02-07-2022								

④ TYPICAL SECTIONS OF IMPROVEMENT



**NOTE: THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS 1" OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.**

**REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGE SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.**

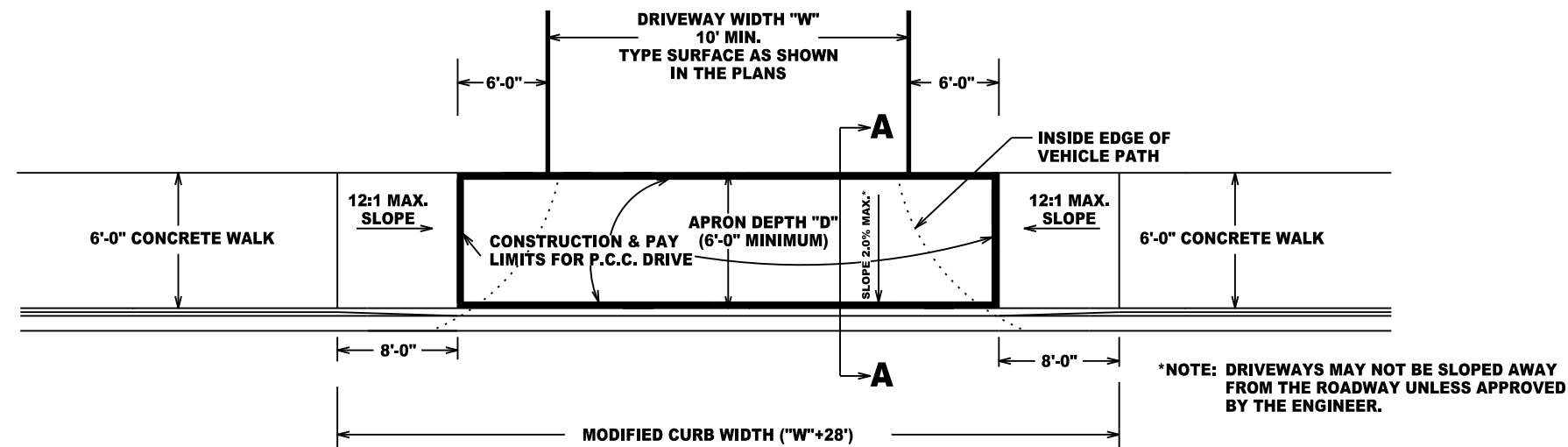


**DETAIL OF CITY STREET TURNOUT**

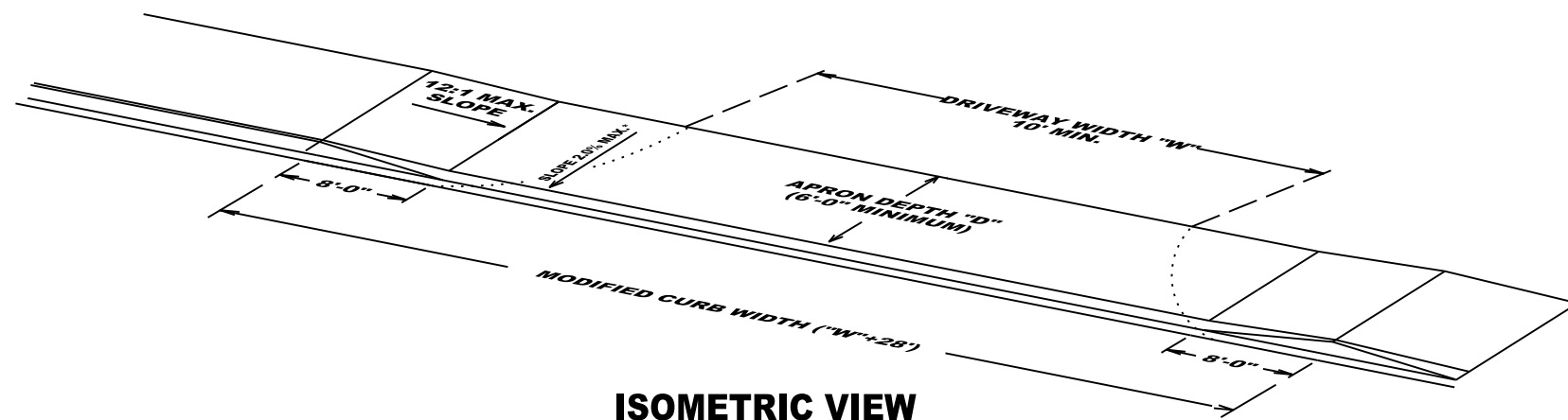
**TYPICAL SECTIONS OF IMPROVEMENT**

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
02-07-2022				6	ARK.			
JOB NO.						C35002	5	41

④ TYPICAL SECTIONS OF IMPROVEMENT



**PLAN VIEW**



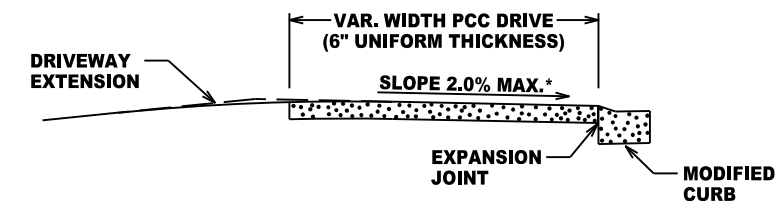
**ISOMETRIC VIEW**



**EXTENSION TYPICAL SECTIONS**

CONCRETE - 6" P.C. CONCRETE DRIVEWAY

**DRIVEWAY EXTENSION DETAILS**



**SECTION A-A**

**TYPICAL SECTIONS OF IMPROVEMENT**

**TEMPORARY EROSION CONTROL DEVICES**

**SAND BAG DITCH CHECKS (E-5)**

STA. 103+96 LT. = 6 BAGS  
 STA. 104+20 LT. = 6 BAGS  
 STA. 107+11 LT. = 6 BAGS

**SEDIMENT REMOVAL AND DISPOSAL**

1 CU. YD.  
 1 CU. YD.  
 1 CU. YD.

**DROP INLET SILT FENCE (E-7)**

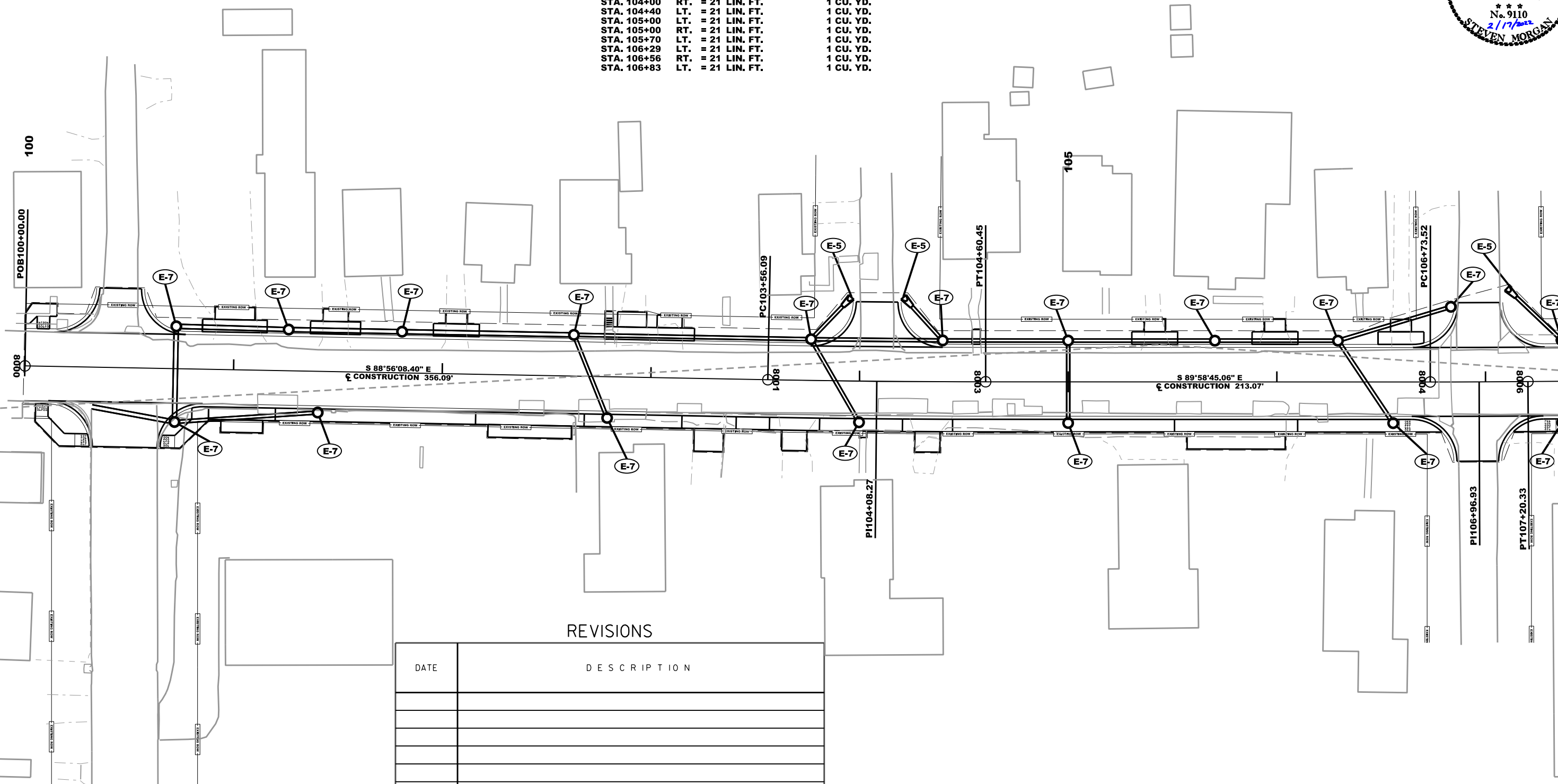
STA. 100+72 LT. = 21 LIN. FT.  
 STA. 100+72 RT. = 21 LIN. FT.  
 STA. 101+26 LT. = 21 LIN. FT.  
 STA. 101+41 RT. = 21 LIN. FT.  
 STA. 101+80 LT. = 21 LIN. FT.  
 STA. 102+63 LT. = 21 LIN. FT.  
 STA. 102+79 RT. = 21 LIN. FT.  
 STA. 103+77 LT. = 21 LIN. FT.  
 STA. 104+00 RT. = 21 LIN. FT.  
 STA. 104+40 LT. = 21 LIN. FT.  
 STA. 105+00 LT. = 21 LIN. FT.  
 STA. 105+00 RT. = 21 LIN. FT.  
 STA. 105+70 LT. = 21 LIN. FT.  
 STA. 106+29 LT. = 21 LIN. FT.  
 STA. 106+56 RT. = 21 LIN. FT.  
 STA. 106+83 LT. = 21 LIN. FT.

**SEDIMENT REMOVAL AND DISPOSAL**

1 CU. YD.  
 1 CU. YD.  
 1 CU. YD.  
 1 CU. YD.  
 1 CU. YD.  
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 1 CU. YD.  
 1 CU. YD.

DATE REVISION	DATE FILMED	DATE REVISION	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
02-07-2022				6	ARK.			
						JOB NO.	C35002	6 41

4 TEMPORARY EROSION CONTROL DETAILS



**REVISIONS**

DATE	DESCRIPTION

**TEMPORARY EROSION CONTROL DETAILS**

REVISIONS

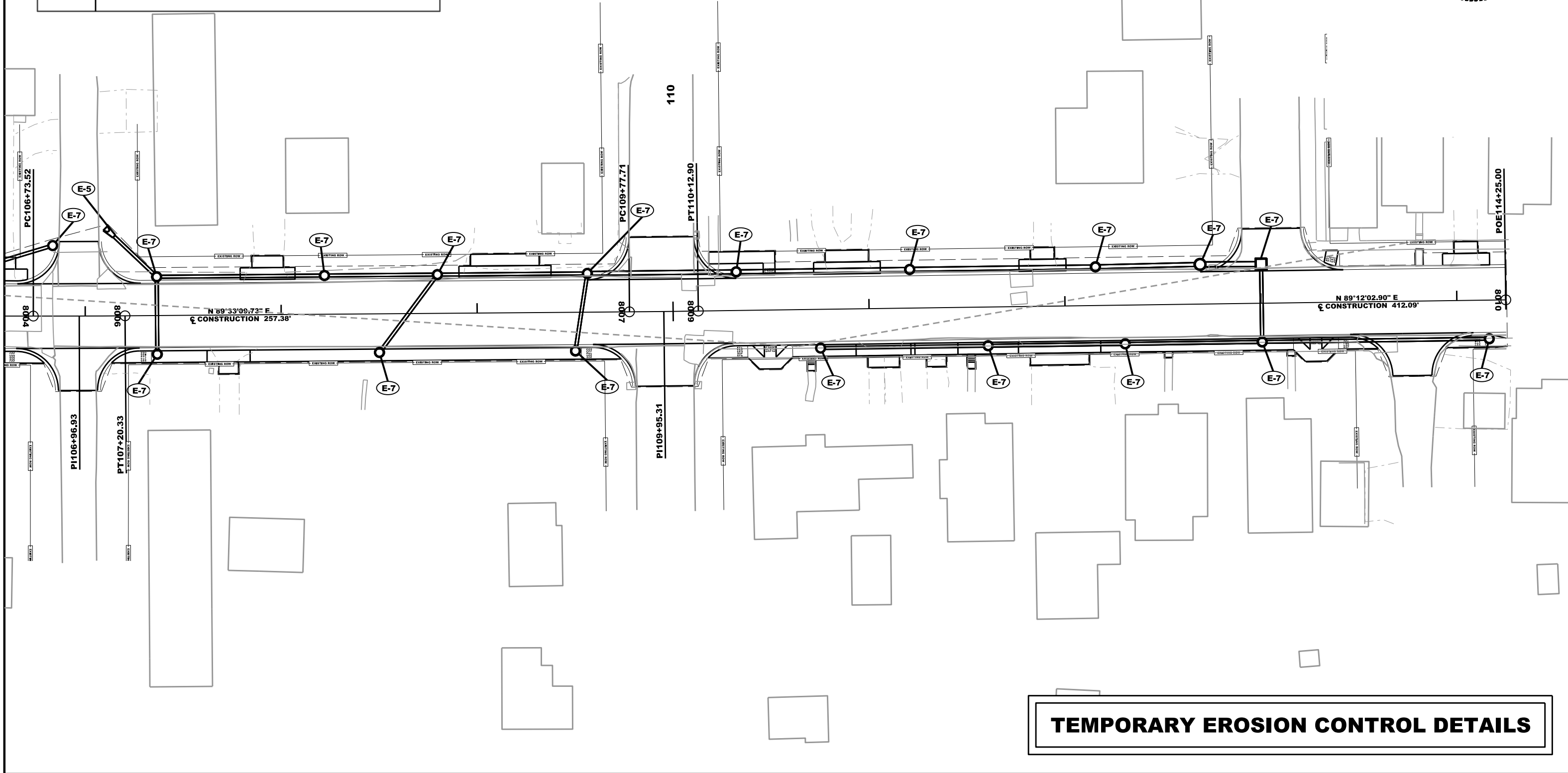
DATE	DESCRIPTION

TEMPORARY EROSION CONTROL DEVICES

DROP INLET SILT FENCE (E-7)		SEDIMENT REMOVAL AND DISPOSAL
STA. 107+37	LT. = 21 LIN. FT.	1 CU. YD.
STA. 107+37	RT. = 21 LIN. FT.	1 CU. YD.
STA. 108+22	LT. = 21 LIN. FT.	1 CU. YD.
STA. 108+50	RT. = 21 LIN. FT.	1 CU. YD.
STA. 108+80	LT. = 21 LIN. FT.	1 CU. YD.
STA. 109+50	RT. = 21 LIN. FT.	1 CU. YD.
STA. 109+56	LT. = 21 LIN. FT.	1 CU. YD.
STA. 110+33	LT. = 21 LIN. FT.	1 CU. YD.
STA. 110+75	RT. = 21 LIN. FT.	1 CU. YD.
STA. 111+21	LT. = 21 LIN. FT.	1 CU. YD.
STA. 111+61	RT. = 21 LIN. FT.	1 CU. YD.
STA. 112+16	LT. = 21 LIN. FT.	1 CU. YD.
STA. 112+30	RT. = 21 LIN. FT.	1 CU. YD.
STA. 112+69	LT. = 25 LIN. FT.	1 CU. YD.
STA. 113+00	LT. = 25 LIN. FT.	1 CU. YD.
STA. 113+00	RT. = 21 LIN. FT.	1 CU. YD.
STA. 114+16	RT. = 21 LIN. FT.	1 CU. YD.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
02-07-2022				6	ARK.			
						JOB NO. C35002	7	41

4 TEMPORARY EROSION CONTROL DETAILS



**TEMPORARY EROSION CONTROL DETAILS**

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	
02-07-2022				6	ARK.				
						JOB NO.	C35002	8	41

④ QUANTITIES

## FENCE REMOVED AND RECONSTRUCTED

STATION	STATION	DESCRIPTION	FENCE REMOVED AND RECONSTRUCTED
			LIN. FT.
112+19	112+51	3 RAIL WOOD FENCE ON RT.	32
<b>TOTAL:</b>			<b>32</b>

## SOLID SODDING

STATION	STATION	LOCATION	*SOLID SODDING	*WATER	*TOPSOIL FURNISHED AND PLACED
			SQ. YD.	M. GAL.	CU. YD.
100+00	114+25	ENTIRE PROJECT	800	10.1	40
<b>TOTALS:</b>			<b>800</b>	<b>10.1</b>	<b>40</b>

BASIS OF ESTIMATE:

WATER: 12.6 GAL. PER SQ. YD. SOLID SODDING.

\* QUANTITIES ARE ESTIMATED AND SHALL BE PLACED IF AND WHERE DIRECTED BY THE ENGINEER. SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS.



## TEMPORARY EROSION CONTROL

STATION	STATION	LOCATION	*FILTER SOCK (18") (E-13)	SAND BAG DITCH CKECKS (E-5)	DROP INLET SILT FENCE (E-7)	SEDIMENT REMOVAL & DISPOSAL	STANDARD DRAWING NUMBER
			LIN. FT.	BAG	LIN. FT.	CU. YD.	
100+00	114+25	MAIN LANES	100	18	701	39	TEC-1, 2 & 3
<b>TOTALS:</b>			<b>100</b>	<b>18</b>	<b>701</b>	<b>39</b>	

NOTE: THE TEMPORARY EROSION CONTROL DEVICES SHOWN ABOVE AND ON THE PLANS SHALL BE INSTALLED IN SUCH A SEQUENCE AS TO DETER EROSION AND SEDIMENTATION ON U.S. WATERWAYS AS EXPLAINED BY THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT.

\* QUANTITIES ARE ESTIMATED AND SHALL BE PLACED IF AND WHERE DIRECTED BY THE ENGINEER. SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS.

## WHEELCHAIR RAMPS

STATION	DESCRIPTION	TYPE 3	TYPE 4
		SQ. YD.	SQ. YD.
100+08	13" AVENUE ON LT.	4.0	
100+08	13" AVENUE ON RT.	4.0	
100+27	HAZEL STREET ON RT.	4.4	
100+69	HAZEL STREET ON RT.	4.4	
106+68	MAPLE STEET ON RT.	10.6	
107+24	MAPLE STEET ON RT.	10.6	
109+63	CYPRESS STEET ON RT.	10.6	
110+28	CYPRESS STEET ON RT.	10.6	
110+49	13" AVENUE ON LT.	4.0	
110+49	13" AVENUE ON RT.		22.6
113+28	13" AVENUE ON RT.		22.6
113+35	13" AVENUE ON LT.	4.8	
113+49	HICKORY STEET ON RT.	10.6	
114+05	HICKORY STEET ON RT.	10.6	
<b>TOTALS:</b>		<b>89.2</b>	<b>45.2</b>

USE: 89 45

## CONCRETE WALKS AND STEPS

STATION	STATION	DESCRIPTION	LENGTH	CONCRETE WALKS	CONCRETE STEPS
			LIN. FT.	SQ. YD.	SQ. YD.
100+00	100+15	CONCRETE WALK ON LT.	15	10.7	
100+05	100+25	CONCRETE WALK ON RT.	20	14.2	
100+72	100+88	CONCRETE WALK ON RT.	16	16.4	
101+20	102+16	CONCRETE WALK ON RT.	96	64.0	
102+68	103+15	CONCRETE WALK ON RT.	47	31.3	
102+78	102+82	CONCRETE WALK ON LT.	4	1.4	
102+80		CONCRETE STEPS ON LT.			1.8
103+41	103+57	CONCRETE WALK ON RT.	16	10.7	
103+81	104+21	CONCRETE WALK ON RT.	40	26.7	
104+00	104+04	CONCRETE WALK ON RT.	4	1.3	
104+45	105+51	CONCRETE WALK ON RT.	106	70.7	
104+54	104+58	CONCRETE WALK ON LT.	4	3.0	
106+10	106+59	CONCRETE WALK ON RT.	49	32.7	
107+34	107+62	CONCRETE WALK ON RT.	28	18.7	
107+84	109+53	CONCRETE WALK ON RT.	169	112.7	
110+19	110+52	CONCRETE WALK ON LT.	33	22.4	
110+61	110+93	CONCRETE WALK ON RT.	32	21.3	
110+68	110+72	CONCRETE WALK ON RT.	4	1.4	
110+70		CONCRETE STEPS ON RT.			1.8
111+21	111+23	CONCRETE WALK ON RT.	2	1.3	
111+45	111+76	CONCRETE WALK ON RT.	31	20.7	
111+50	111+54	CONCRETE WALK ON RT.	4	1.4	
111+52		CONCRETE STEPS ON RT.			1.8
112+18	113+16	CONCRETE WALK ON RT.	98	65.3	
112+51	112+55	CONCRETE WALK ON RT.	4	1.4	
113+13	113+17	CONCRETE WALK ON RT.	4	1.4	
113+79	113+83	CONCRETE WALK ON LT.	4	3.6	
114+14	114+25	CONCRETE WALK ON RT.	11	6.4	
<b>TOTALS:</b>				<b>561.1</b>	<b>5.4</b>

USE: 561 5

## EARTHWORK

STATION	STATION	UNCLASSIFIED EXCAVATION			COMPACTED EMBANKMENT		
		MAIN LANES	ADDITIONAL	TOTAL	MAIN LANES	ADDITIONAL	TOTAL
		CU. YD.					
100+00	114+25	133		133	331		331
100+85	101+16		10	10			
100+88	101+20		5	5			
101+37	101+61		5	5			
101+95	102+17		6	6			
102+16	102+68		5	5			
102+78	103+00		8	8			
103+00	103+21		6	6			
103+15	103+41						
103+57	103+81					7	7
104+21	104+45					5	5
105+51	106+10					5	5
105+30	105+52					15	15
105+88	106+10		6	6			
106+48	106+70		5	5			
107+62	107+84		6	6			
107+79	108+07		5	5			
108+91	109+38		5	5			
110+72	111+06		5	5		5	5
110+93	111+21		5	5			
111+23	111+45		5	5			
111+76	112+18		5	5			
111+77	112+01		5	5			
113+93	114+17		5	5			
<b>TOTALS:</b>		<b>133</b>	<b>108</b>	<b>241</b>	<b>331</b>	<b>42</b>	<b>373</b>

NOTE: EARTHWORK QUANTITIES SHOWN SHALL BE PAID AS PLAN QUANTITY.

**QUANTITIES**



DATE REVISION	DATE FILMED	DATE REVISION	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	
02-07-2022				6	ARK.				
03-10-2022									
						JOB NO.	C35002	9	41

4 QUANTITIES

## STRUCTURES



STATION	DESCRIPTION	REINFORCED CONCRETE PIPE CULVERT ALTERNATE NO. 1						PIPE CULVERT ALTERNATE NO. 2			F.E.S. ALTERNATES		DROP INLETS			*SELECTED PIPE BEDDING	STANDARD DRAWING NUMBER		
		CLASS III		CLASS IV		CLASS V		S.L.P.M.C.C.S.P.			R.C. F.E.S.	ALTERNATE	TYPE		CU. YD.				
		18"	24"	18"	24"	30"	18"	24"	18"	24"	30"	18"	18"	MO				4'	8'
		LIN. FT.						LIN. FT.			EACH		EACH						
100+72	DROP INLET ON LT.				42					42					1			4	FPC-9M,PCC-1,PCM-1
100+72	DROP INLET ON RT.				38					38					1			4	FPC-9M,PCC-1,PCM-1
101+26	DROP INLET ON LT.				50					50					1				FPC-9M,PCC-1,PCM-1
101+41	DROP INLET ON RT.			65						65					1				FPC-9M,PCC-1,PCM-1
101+80	DROP INLET ON LT.				50					50					1	1			FPC-9M,PCC-1,PCM-1
102+63	DROP INLET ON LT.							78		78					1	1			FPC-9M,PCC-1,PCM-1
102+79	DROP INLET ON RT.			39						39					1		1	3	FPC-9M,PCC-1,PCM-1
103+77	DROP INLET ON LT.			130						130		1	1		1				FES-1&2,FPC-9M,PCC-1,PCM-1
104+00	DROP INLET ON RT.						42			42					1	1		3	FPC-9M,PCC-1,PCM-1
104+40	DROP INLET ON LT.				79					79		1	1		1				FES-1&2,FPC-9M,PCC-1,PCM-1
105+00	DROP INLET ON LT.				56					56					1	1			FPC-9M,PCC-1,PCM-1
105+00	DROP INLET ON RT.						35			35					1		1	3	FPC-9M,PCC-1,PCM-1
105+70	DROP INLET ON LT.				66					66					1	1			FPC-9M,PCC-1,PCM-1
106+29	DROP INLET ON LT.				55					55					1	1			FPC-9M,PCC-1,PCM-1
106+56	DROP INLET ON RT.				44					44					1			3	FPC-9M,PCC-1,PCM-1
106+83	DROP INLET ON LT.						52			52					1				FPC-9M,PCC-1,PCM-1
107+37	DROP INLET ON LT.	110								110		1	1		1	1			FES-1&2,FPC-9M,PCC-1,PCM-1
107+37	DROP INLET ON RT.	36								36					1			3	FPC-9M,PCC-1,PCM-1
108+22	DROP INLET ON LT.	54								54					1	1			FPC-9M,PCC-1,PCM-1
108+50	DROP INLET ON RT.				46					46					1		1	3	FPC-9M,PCC-1,PCM-1
108+80	DROP INLET ON LT.	73								73					1		1		FPC-9M,PCC-1,PCM-1
109+50	DROP INLET ON RT.				36					36					1	1		3	FPC-9M,PCC-1,PCM-1
109+56	DROP INLET ON LT.				72					72					1		1		FPC-9M,PCC-1,PCM-1
110+33	DROP INLET ON LT.				85					85					1	1			FPC-9M,PCC-1,PCM-1
110+75	DROP INLET ON RT.	82								82					1		1		FPC-9M,PCC-1,PCM-1
111+21	DROP INLET ON LT.				91					91					1	1			FPC-9M,PCC-1,PCM-1
111+61	DROP INLET ON RT.	66								66					1	1			FPC-9M,PCC-1,PCM-1
112+16	DROP INLET ON LT.				49					49					1	1			FPC-9M,PCC-1,PCM-1
112+30	DROP INLET ON RT.	66								66					1	1			FPC-9M,PCC-1,PCM-1
112+69	DROP INLET ON LT.						26								1		1		FPC-9M,PCC-1,PCM-1
113+00	DROP INLET ON LT.																1		FPC-9S
113+00	DROP INLET ON RT.	35								35					1		1	3	FPC-9M,PCC-1,PCM-1
114+16	DROP INLET ON RT.				112					112					1			8	FPC-9M,PCC-1,PCM-1
<b>TOTALS:</b>		<b>522</b>	<b>297</b>	<b>728</b>	<b>180</b>	<b>26</b>	<b>129</b>	<b>78</b>	<b>1379</b>	<b>555</b>	<b>26</b>	<b>3</b>	<b>3</b>	<b>32</b>	<b>15</b>	<b>8</b>	<b>1</b>	<b>40</b>	

NOTE: FOR R.C. PIPE CULVERT INSTALLATIONS, USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED. FOR C.M. PIPE CULVERT INSTALLATIONS, USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.

\*QUANTITIES ARE ESTIMATED AND SHALL BE PLACED IF AND WHERE DIRECTED BY THE ENGINEER. SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS.

## TRAFFIC CONTROL DEVICES

LOCATION	W20-1								G20-1	G20-2	TRAFFIC DRUMS	BARRICADES	STANDARD DRAWING NUMBER					
	500'		1000'		1500'		AHEAD											
	NO.	SQ. FT.	NO.	SQ. FT.	NO.	SQ. FT.	NO.	SQ. FT.										
STA. 85+00														TC-1, 2, & 3				
STA. 90+00														TC-1, 2, & 3				
STA. 95+00	1	16												TC-1, 2, & 3				
STA. 98+75								1	10					TC-1, 2, & 3				
STA. 100+30							1	16						TC-1, 2, & 3				
STA. 100+60							1	16						TC-1, 2, & 3				
STA. 103+93							1	16						TC-1, 2, & 3				
STA. 106+81							1	16						TC-1, 2, & 3				
STA. 107+11							1	16						TC-1, 2, & 3				
STA. 109+74							1	16						TC-1, 2, & 3				
STA. 110+15							1	16						TC-1, 2, & 3				
STA. 112+84							1	16						TC-1, 2, & 3				
STA. 113+65							1	16						TC-1, 2, & 3				
STA. 115+50								1	10					TC-1, 2, & 3				
STA. 119+25	1	16										1	8	TC-1, 2, & 3				
STA. 124+25			1	16										TC-1, 2, & 3				
STA. 129+25					1	16								TC-1, 2, & 3				
<b>ENTIRE JOB</b>														TC-1, 2, & 3				
<b>TOTALS:</b>	<b>2</b>	<b>32</b>	<b>2</b>	<b>32</b>	<b>2</b>	<b>32</b>	<b>9</b>	<b>144</b>	<b>2</b>	<b>20</b>	<b>2</b>	<b>16</b>		<b>100</b>	<b>64</b>			

QUANTITIES

# REMOVAL AND DISPOSAL OF ITEMS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
02-07-2022				6	ARK.			
				JOB NO.	C35002	10	41	

④ QUANTITIES

STATION	STATION	LOCATION	DESCRIPTION	CURB AND GUTTER	FENCE	CONCRETE DRIVES	STEPS	JUNCTION BOXES	DROP INLETS	PIPE CULVERTS	HEADWALLS	CONCRETE WALKS	SIGNS
				LIN. FT.	LIN. FT.	SQ. YD.	SQ. YD.	EACH	EACH	EACH	EACH	SQ. YD.	EACH
100+00	100+35	LT.	CURB AND GUTTER	47									
100+00	100+32	RT.	CURB AND GUTTER	45									
100+00	100+33	LT.	CONCRETE WALK									16.7	
100+25		RT.	SIGN										1
100+35		LT.	SIGN										1
100+56		LT.	DROP INLET						1				
100+56		LT.	PIPE INLET							1			
100+56		LT.	PIPE INLET							1			
100+56		LT.	PIPE OUTLET							1			
100+65	100+73	RT.	CURB AND GUTTER	15									
100+66		RT.	SIGN										1
100+72		LT.	SIGN										1
101+48		LT.	SIDE DRAIN							1			
101+48		RT.	DROP INLET						1				
102+05		LT.	SIDE DRAIN							1			
102+29		LT.	SIDE DRAIN							1			
102+64		RT.	SIGN										1
102+65	102+65	RT.	CHAIN LINK FENCE		5								
102+80		LT.	CONCRETE STEPS				1.8					5.3	
102+83	102+84	LT.	CURB AND GUTTER	8									
102+83	103+00	LT.	CONCRETE DRIVE			24.7							
102+97		LT.	SIDE DRAIN							1			
103+61		LT.	SIGN										1
103+97		LT.	CONCRETE HEADWALL								1		
103+99		LT.	SIGN										1
104+00	104+04	RT.	CONCRETE WALK									1.0	
104+09		LT.	SIDE DRAIN							1			
104+21		LT.	CONCRETE HEADWALL								1		
104+24	104+24	LT.	CHAIN LINK FENCE		15								
104+27	104+39	RT.	CONCRETE DRIVE			6.6							
104+42		LT.	SIDE DRAIN							1			
104+54	104+58	LT.	CONCRETE WALK									5.0	
105+42		LT.	SIDE DRAIN							1			
105+92	106+07	LT.	CONCRETE DRIVE			14.7							
106+00		LT.	SIDE DRAIN							1			
106+23		RT.	SIGN										1
106+52		LT.	CONCRETE HEADWALL								1		
106+60		LT.	SIDE DRAIN							1			
106+80		LT.	SIGN										1
106+97		LT.	SIDE DRAIN							1			
107+20		RT.	SIGN										1
107+36		RT.	SIGN										1
107+63	107+87	RT.	CONCRETE DRIVE			20.3							
108+01		RT.	SIGN										1
108+46		LT.	SIGN										1
108+90		RT.	SIGN										1
109+65		LT.	DROP INLET						1				
109+65		LT.	PIPE OUTLET							1			
109+69		LT.	SIGN										1
109+69		RT.	SIGN										1
109+73	109+80	RT.	CURB AND GUTTER	16									
110+11	110+31	RT.	CURB AND GUTTER	29									
110+12		RT.	SIGN										1
110+12		LT.	DROP INLET						1				
110+12	CENTER		CROSS DRAIN							1			
110+12	110+13	LT.	CURB AND GUTTER	6									
110+17	113+52	RT.	CONCRETE WALK									179.4	
110+18	110+24	LT.	CONCRETE WALK									6.5	
110+25		LT.	SIGN										1
110+68	110+72	RT.	CONCRETE WALK									1.7	
110+70		RT.	CONCRETE STEPS				1.8						
110+94	111+07	RT.	CONCRETE DRIVE			24.7							
111+50	111+54	RT.	CONCRETE WALK									1.8	
111+52		RT.	CONCRETE STEPS				1.8						
111+81	111+97	LT.	CONCRETE DRIVE			16.8							
112+50		LT.	SIGN										1
112+51	112+55	RT.	CONCRETE WALK									0.9	
112+74		LT.	PIPE INLET							1			
112+76		LT.	DROP INLET						1				
112+78	112+90	LT.	CURB AND GUTTER	26									
112+87		LT.	SIGN										1
112+99		LT.	PIPE INLET							1			
113+00		LT.	JUNCTION BOX					1					
113+08		RT.	SIGN										1
113+13	113+17	RT.	CONCRETE WALK									1.3	
113+23	113+29	LT.	CURB AND GUTTER	9									
113+23	113+29	LT.	CONCRETE WALK									2.1	
113+66	113+71	LT.	CURB AND GUTTER	5									
113+77	113+87	LT.	CURB AND GUTTER	10									
113+79	113+83	LT.	CONCRETE WALK									3.2	
113+95	114+25	RT.	CONCRETE WALK									11.3	
113+97	114+13	LT.	CONCRETE DRIVE			9.1							
113+99	114+11	LT.	CONCRETE WALK									6.2	
114+00		RT.	SIGN										1
<b>TOTALS:</b>				216	20	116.9	5.4	1	5	17	3	242.4	22

USE:	216	20	117	5	1	5	17	3	242	22
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QUANTITIES



**SUMMARY OF QUANTITIES**

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
06-08-21		03-10-2022		6	ARK.			
10-05-2021								
02-07-2022								

④ SUMMARY OF QUANTITIES AND REVISIONS



ITEM NO.	ITEM	QUANTITY	UNIT
202	REMOVAL AND DISPOSAL OF CURB AND GUTTER	216	LIN. FT.
202	REMOVAL AND DISPOSAL OF FENCE	20	LIN. FT.
202	REMOVAL AND DISPOSAL OF CONCRETE DRIVEWAYS	117	SQ. YD.
202	REMOVAL AND DISPOSAL OF STEPS	5	SQ. YD.
202	REMOVAL AND DISPOSAL OF JUNCTION BOXES	1	EACH
202	REMOVAL AND DISPOSAL OF DROP INLETS	5	EACH
202	REMOVAL AND DISPOSAL OF PIPE CULVERTS	17	EACH
202	REMOVAL AND DISPOSAL OF HEADWALLS	3	EACH
202	REMOVAL AND DISPOSAL OF CONCRETE WALKS	242	SQ. YD.
202	REMOVAL AND DISPOSAL OF SIGNS	22	EACH
208	FENCE REMOVED AND RECONSTRUCTED	32	LIN. FT.
SS & 210	UNCLASSIFIED EXCAVATION	241	CU. YD.
210	COMPACTED EMBANKMENT	373	CU. YD.
SS & 303	AGGREGATE BASE COURSE (CLASS 7)	754	TON
SS & 401	TACK COAT	443	GAL.
SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")	1018	TON
SP, SS, & 407	ASPHALT BINDER (PG 64-22) IN ACHM SURFACE COURSE (1/2")	55	TON
SS & 505	PORTLAND CEMENT CONCRETE DRIVEWAY	750.00	SQ. YD.
601	MOBILIZATION	1.00	LUMP SUM
SP & 602	FURNISHING FIELD OFFICE	1	EACH
603	MAINTENANCE OF TRAFFIC	1.00	LUMP SUM
SS & 604	SIGNS	276	SQ. FT.
SS & 604	BARRICADES	64	LIN. FT.
SS & 604	TRAFFIC DRUMS	100	EACH
606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS III) (ALTERNATE NO. 1)	522	LIN. FT.
606	18" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE (ALTERNATE NO. 2)	522	LIN. FT.
606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS IV) (ALTERNATE NO. 1)	728	LIN. FT.
606	18" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE (ALTERNATE NO. 2)	728	LIN. FT.
606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS V) (ALTERNATE NO. 1)	129	LIN. FT.
606	18" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE (ALTERNATE NO. 2)	129	LIN. FT.
606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS III) (ALTERNATE NO. 1)	297	LIN. FT.
606	24" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE (ALTERNATE NO. 2)	297	LIN. FT.
606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS IV) (ALTERNATE NO. 1)	180	LIN. FT.
606	24" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE (ALTERNATE NO. 2)	180	LIN. FT.
606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS V) (ALTERNATE NO. 1)	78	LIN. FT.
606	24" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE (ALTERNATE NO. 2)	78	LIN. FT.
606	30" REINFORCED CONCRETE PIPE CULVERTS (CLASS IV) (ALTERNATE NO. 1)	26	LIN. FT.
606	30" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE (ALTERNATE NO. 2)	26	LIN. FT.
606	18" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS (ALTERNATE NO. 1)	3	EACH
606	18" FLARED END SECTIONS FOR CORRUGATED STEEL PIPE CULVERTS (ALTERNATE NO. 2)	3	EACH
606	SELECTED PIPE BEDDING	40	CU. YD.
SS & 609	DROP INLETS (TYPE MO)	32	EACH
SS & 609	DROP INLETS (TYPE ST)	1	EACH
SS & 609	DROP INLET EXTENSIONS (4')	15	EACH
SS & 609	DROP INLET EXTENSIONS (8')	8	EACH
620	WATER	10.1	M. GAL.
621	SAND BAG DITCH CHECKS	18	BAG
621	DROP INLET SILT FENCE	701	LIN. FT.
621	SEDIMENT REMOVAL AND DISPOSAL	39	CU. YD.
SS & 621	FILTER SOCK (18")	100	LIN. FT.
624	SOLID SODDING	800	SQ. YD.
628	TOPSOIL FURNISHED AND PLACED	40	CU. YD.
SS & 633	CONCRETE WALKS	561	SQ. YD.
SS & 633	CONCRETE STEPS	5	SQ. YD.
SS & 634	CONCRETE COMBINATION CURB AND GUTTER (TYPE A) (1' 6")	2846	LIN. FT.
635	ROADWAY CONSTRUCTION CONTROL	1.00	LUMP SUM
641	WHEELCHAIR RAMPS (TYPE 3)	89	SQ. YD.
641	WHEELCHAIR RAMPS (TYPE 4)	45	SQ. YD.
SP	REMOVING AND REINSTALLING SIGNS	9	EACH
SS & 726	STANDARD SIGN	124.44	SQ. FT.
SS & 729	CHANNEL POST SIGN SUPPORT (TYPE A)	19	EACH

\* DENOTES ALTERNATE BID ITEMS

**REVISIONS**

DATE	REVISION	SHEET NUMBER
6/8/2021	REVISED STANDARD DRAWINGS TC-2 AND TC-3.	2 & 12
10/5/2021	ADDED SUPPLEMENTAL SPECIFICATIONS 400-1, 400-4, 400-5, 400-6, 400-7, 404-3, 410-1, AND 410-2. ADDED SPECIAL PROVISIONS: BOADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT, DENSITIES FOR ACHM SURFACE COURSE, ESTABLISHING CONTRACT TIME - WORKING DAY CONTRACT, RECYCLED ASPHALT SHINGLES, SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS, AND WARM MIX ASPHALT. ADDED MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2"). ADDED ASPHALT BINDER (PG 64-22) IN ACHM SURFACE COURSE (1/2"). REVISED TYPICAL SECTIONS. REVISED QUANTITIES. REVISED STAMP. REVISED CROSS SECTIONS. REVISED DESIGN YEAR. REVISED STANDARD DRAWING TC-3.	1, 2, 3, 4, 11, 12, & 24-41
2/7/2022	ADDED SUPPLEMENTAL SPECIFICATIONS 105-4, 107-2, AND 410-4. ADDED SPECIAL PROVISION LIQUIDATED DAMAGES PROCEDURES FOR BID LETTING. REVISED STAMP	2-15
3/10/2022	REMOVED MAILBOXES QUANTITY BOX.	9 & 12

**SUMMARY OF QUANTITIES AND REVISIONS**

**SURVEY CONTROL COORDINATES**

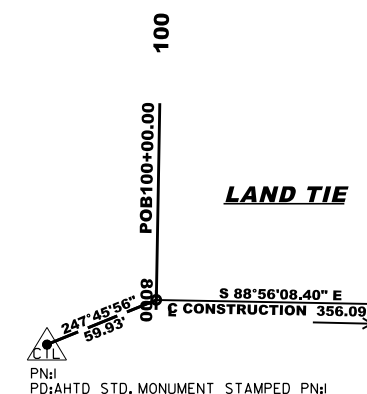
Project Name: C35002  
 Date: 4/8/2015  
 Coordinate System: Arkansas State Plane Coordinates  
 Based on AHTD GPS PTS : 350031 & 350031A  
 Projected to Ground Coordinates  
 Units: U.S. Survey Foot

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
02-07-2022				6	ARK.			
				JOB NO.	C35002	13	41	

**4 SURVEY CONTROL DETAILS**

**COORDINATES LISTED BELOW ARE GROUND (Localized) COORDINATES !!!!**

Point No.	Northing	SY	Easting	SX	Elevation	SZ	Feature Code	Point Description
1	1876392.0604	0.0075	1304873.9409	0.0054	224.96	0.006	CTL	PD:AHTD STD. MONUMENT STAMPED PN:1
2	1876424.9431	0.0071	1305473.5337	0.0058	226.70	0.007	CTL	PD:AHTD STD. MONUMENT STAMPED PN:2
3	1876391.5531	0.0064	1305993.2534	0.0060	225.87	0.007	CTL	PD:AHTD STD. MONUMENT STAMPED PN:3
100	1876387.8468	0.0001	1304280.4786	0.0001	228.97	0.005	GPS	PD:AHTD GPS #350031
101	1876445.8840	0.0001	1306312.0895	0.0001	224.25	0.007	GPS	PD:AHTD GPS #350031A
999	1874744.5223	0.0001	1303162.2037	0.0001	231.99	0.000	BM	PD:NGS 2ND ORDER BM C 11



\*Standard Primary Control Monument - Rebar and Cap - Standard - 5/8"x 24" Rebar with 2" Aluminum Cap stamped: "(include all common information here)" plus other markings indicated in the point description of the individual point. AHTD monuments will be stamped "Arkansas Hwy & Trans Dept" with "PN: ####" & "Job #####". Monuments that are set by Consultants will be stamped "Arkansas Hwy & Trans Dept" with "PN:####", "Job#####", & "PS#####". The consultant Professional Surveyor in charge will stamp his/her PS license number on the cap.

\*\*Standard GPS Control Point Monument - 5/8" x 48" Rebar with 2.5" Aluminum Cap stamped: "(include all common information here)" plus other markings indicated in the point description of the individual point. These monuments will be stamped "Ark. State Hwy Trans. Dept.", "GPS Survey", & "Point No. #####".

SX, SY, SZ – Represents the standard error estimate of the coordinate values of each point at the 67% confidence level (one sigma) based on the least squares analysis of the control network. See the AASHTO SDMS Technical Data Guide data tag definition for SX:, SY:, and SZ: for additional information. These values shall be used when control points are added and the entire network is reprocessed using least square analysis. A value of 0.001 is defined as fixed (no adjustment) in the least square analysis process. A value of 30 is defined as location by handheld GPS device or scaled from USGS Quadmap.

Reference Control points (1500 series) shall be used to re-establish horizontal datum if the primary control has been destroyed. These reference control points shall not be used for vertical control unless the elevation has been established from the project datum with 3-wire level techniques.

All additional project control shall be occupied, measured, and adjusted with direct survey ties to at least two of the control points listed in the table above. New survey control shall not be independent of the survey control listed above. This includes horizontal coordinates and elevations.

Positional Accuracy:	Horizontal - GPS (1.0 cm± 1PPM)	PN: 100-101
	Horizontal - Primary (2.0cm± 20PPM):	PN:1-3
	Horizontal - Secondary (3 cm ± 50PPM):	PN:N/A
	Vertical - NGS 1st Order (±4mm x √dist in km)	PN:N/A
	Vertical - NGS 2nd Order (±6mm x √dist in km)	PN:999
	Vertical - NGS 3rd Order (±8mm x √dist in km)	PN:1-101

Horizontal Datum: NAD 1983 (1997) State Plane Zone: 0302 - South Zone  
*The adjustment year is based on metadata in the SDMS Control file*  
 A project CAF of: 0.99991677 has been used to compute the above coordinates.  
*The project CAF shall have a minimum precision of 9 digits right of the decimal.*  
 This CAF is intended for use within the project limits only.  
 Grid Distance = Ground Distance X CAF  
 If Coordinates are listed as Ground:  
 To compute Grid Coordinates, multiply the Ground Coordinates by CAF about the origin of X=0 & Y=0  
 If Coordinates are listed as Grid:  
 To compute Ground Coordinates, divide the Grid Coordinates by CAF about the origin of X=0 & Y=0

Vertical Datum: NAVD 1988 based NGS BM: C 11 (2nd Order)  
 A project Elevation Factor of: 0.9999891360 has been computed and incorporated in the above CAF.  
 This is based on the average elevation of the project: 227.12 Feet  
 3-Wire Leveling techniques have been used to establish elevations on  
 Points: 1-3, 100,101 From NGS BM: C 11 (2nd Order)

Basis of Bearing: Grid Bearings based on AHTD GPS points: 350031 & 350031A  
 Convergence Angle is: 0°0'46.45" Left at PN: 2  
 LT: 34-12-59.13 N LG: 92-01-22.98 W  
 Grid Azimuth = Astronomical Azimuth - Convergence Angle

**Construction Centerline**

POINT NAME	STATION	NORTHING	EASTING
8000	POB 100+00.00	1876414.73700	1304929.41302
8001	PC 103+56.09	1876408.12251	1305285.44627
8002	CC	1882136.71193	1305391.87361
8003	PT 104+60.45	1876407.13436	1305389.79186
8004	PC 106+73.52	1876407.05694	1305602.86495
8005	CC	1882136.63451	1305604.94670
8006	PT 107+20.33	1876407.23116	1305649.67584
8007	PC 109+77.71	1876409.24045	1305907.04892
8008	CC	1882138.64381	1305862.31978
8009	PT 110+12.90	1876409.62323	1305942.23674
8010	POE 114+25.00	1876415.37118	1306354.29064

**SURVEY CONTROL DETAILS**

*Note: Information in Italics is for clarification only. It is not to be part of the actual Control Table or Control Detail Sheets.*

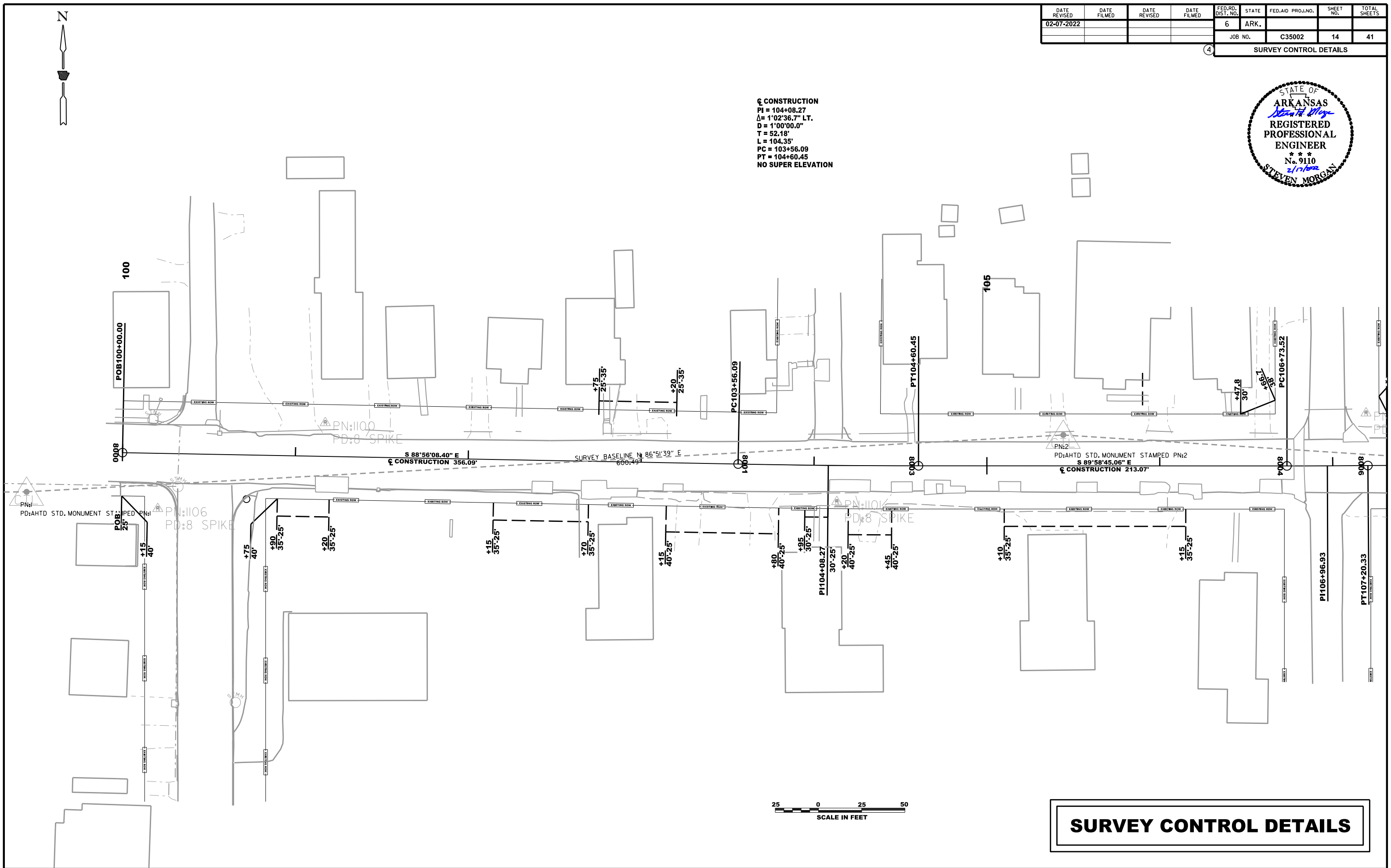


DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	
02-07-2022				6	ARK.				
						JOB NO.	C35002	14	41

4 SURVEY CONTROL DETAILS



☒ CONSTRUCTION  
PI = 104+08.27  
Δ = 1'02'36.7" LT.  
D = 1'00'00.0"  
T = 52.18'  
L = 104.35'  
PC = 103+56.09  
PT = 104+60.45  
NO SUPER ELEVATION



**SURVEY CONTROL DETAILS**

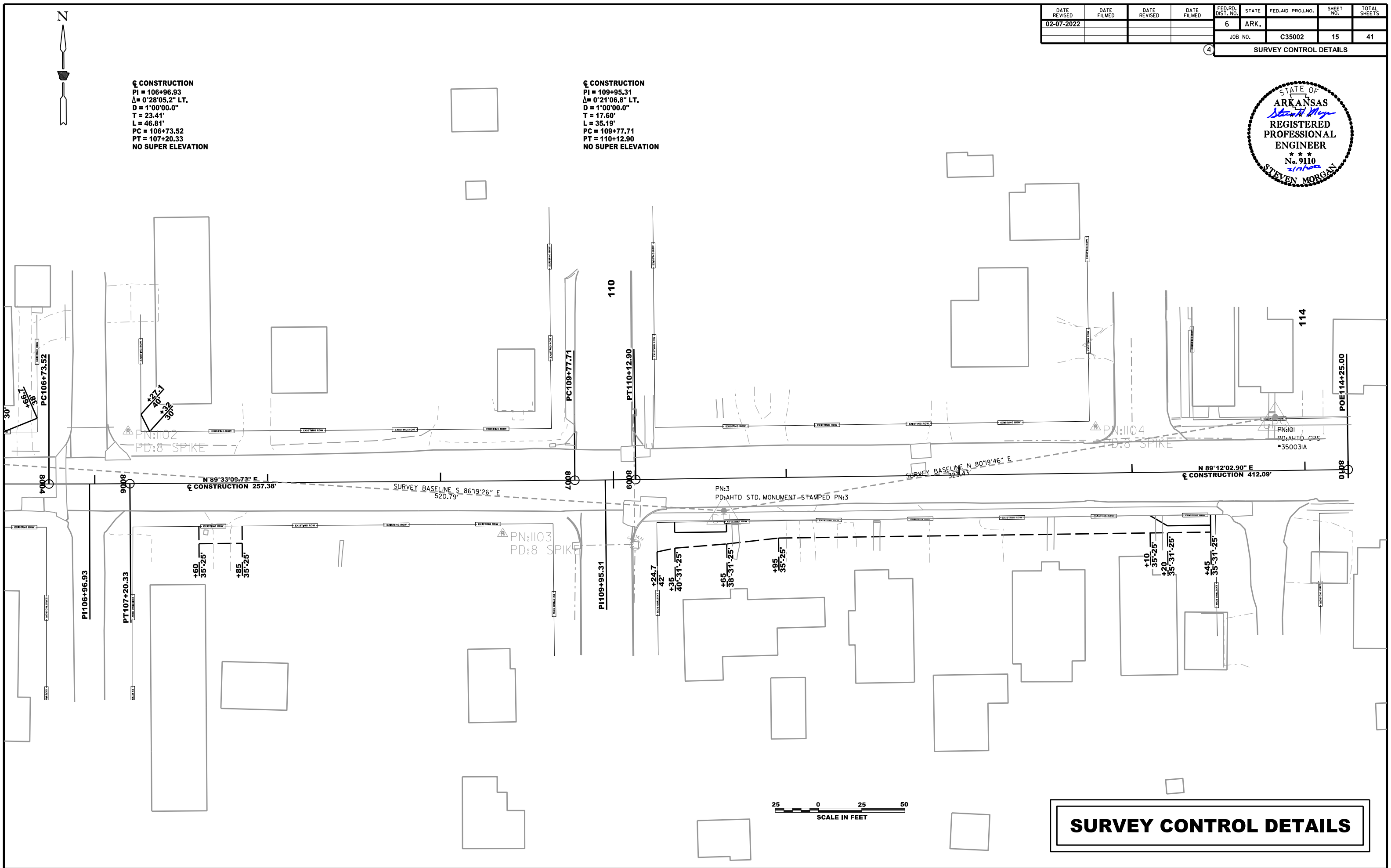
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
02-07-2022				6	ARK.			
						JOB NO.	C35002	15
						41		

4 SURVEY CONTROL DETAILS



**☒ CONSTRUCTION**  
 PI = 106+96.93  
 $\Delta = 0^\circ 28' 05.2''$  LT.  
 D = 1'00'00.0"  
 T = 23.41'  
 L = 46.81'  
 PC = 106+73.52  
 PT = 107+20.33  
 NO SUPER ELEVATION

**☒ CONSTRUCTION**  
 PI = 109+95.31  
 $\Delta = 0^\circ 21' 06.8''$  LT.  
 D = 1'00'00.0"  
 T = 17.60'  
 L = 35.19'  
 PC = 109+77.71  
 PT = 110+12.90  
 NO SUPER ELEVATION



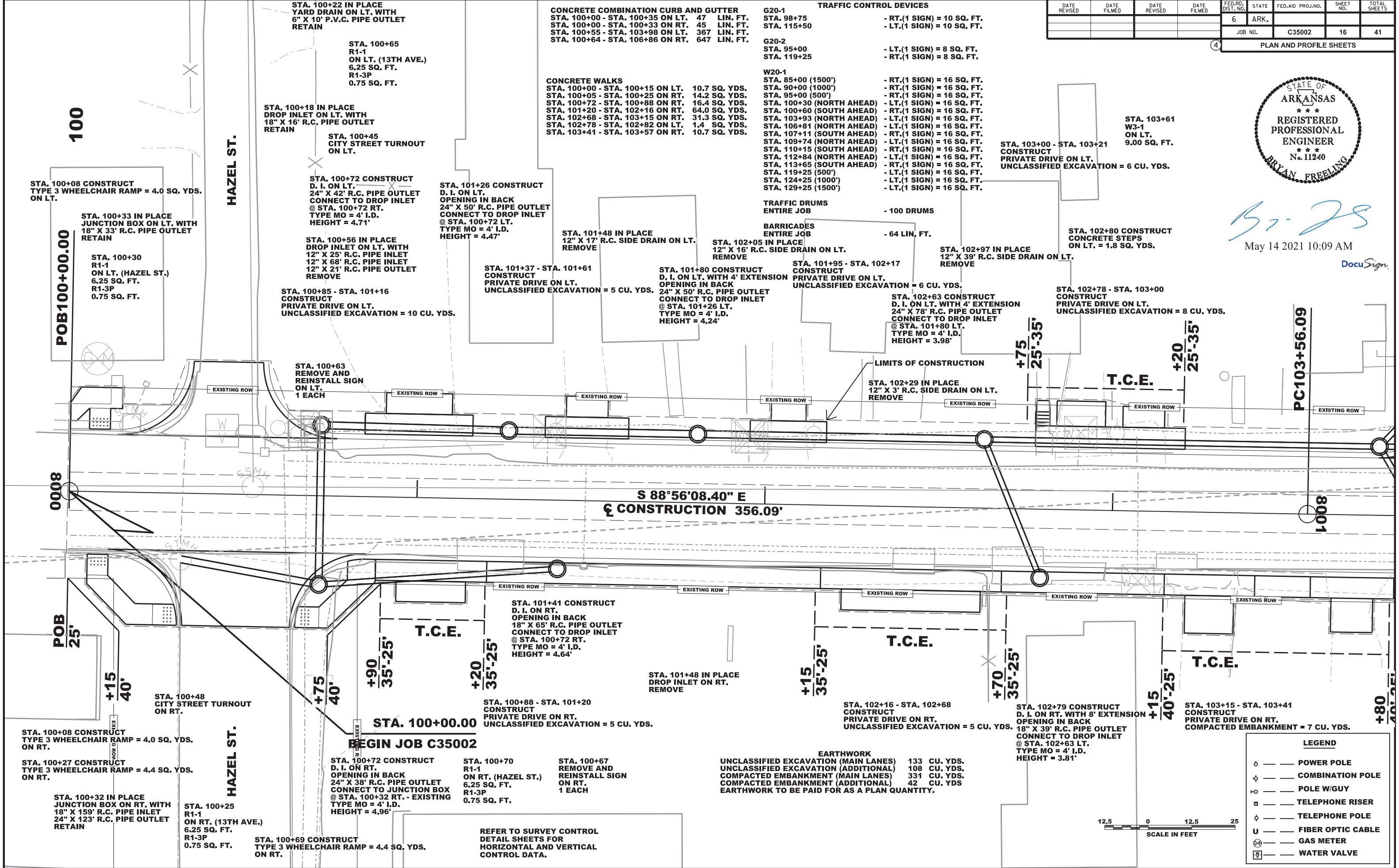
**SURVEY CONTROL DETAILS**

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO.	C35002	16
						PLAN AND PROFILE SHEETS		



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- CONCRETE COMBINATION CURB AND GUTTER**  
 STA. 100+00 - STA. 100+35 ON LT. 47 LIN. FT.  
 STA. 100+00 - STA. 100+33 ON RT. 45 LIN. FT.  
 STA. 100+55 - STA. 103+98 ON LT. 367 LIN. FT.  
 STA. 100+64 - STA. 106+86 ON RT. 647 LIN. FT.
- CONCRETE WALKS**  
 STA. 100+00 - STA. 100+15 ON LT. 10.7 SQ. YDS.  
 STA. 100+05 - STA. 100+25 ON RT. 14.2 SQ. YDS.  
 STA. 100+72 - STA. 100+88 ON RT. 16.4 SQ. YDS.  
 STA. 101+20 - STA. 102+16 ON RT. 64.0 SQ. YDS.  
 STA. 102+68 - STA. 103+15 ON RT. 31.3 SQ. YDS.  
 STA. 102+78 - STA. 102+82 ON LT. 1.4 SQ. YDS.  
 STA. 103+41 - STA. 103+57 ON RT. 10.7 SQ. YDS.
- TRAFFIC CONTROL DEVICES**  
**G20-1**  
 STA. 98+75 - RT.(1 SIGN) = 10 SQ. FT.  
 STA. 115+50 - LT.(1 SIGN) = 10 SQ. FT.  
**G20-2**  
 STA. 95+00 - LT.(1 SIGN) = 8 SQ. FT.  
 STA. 119+25 - RT.(1 SIGN) = 8 SQ. FT.  
**W20-1**  
 STA. 85+00 (1500') - RT.(1 SIGN) = 16 SQ. FT.  
 STA. 90+00 (1000') - RT.(1 SIGN) = 16 SQ. FT.  
 STA. 95+00 (500') - RT.(1 SIGN) = 16 SQ. FT.  
 STA. 100+30 (NORTH AHEAD) - LT.(1 SIGN) = 16 SQ. FT.  
 STA. 100+60 (SOUTH AHEAD) - RT.(1 SIGN) = 16 SQ. FT.  
 STA. 103+93 (NORTH AHEAD) - LT.(1 SIGN) = 16 SQ. FT.  
 STA. 106+81 (NORTH AHEAD) - LT.(1 SIGN) = 16 SQ. FT.  
 STA. 107+11 (SOUTH AHEAD) - RT.(1 SIGN) = 16 SQ. FT.  
 STA. 109+74 (NORTH AHEAD) - LT.(1 SIGN) = 16 SQ. FT.  
 STA. 110+15 (SOUTH AHEAD) - RT.(1 SIGN) = 16 SQ. FT.  
 STA. 112+84 (NORTH AHEAD) - LT.(1 SIGN) = 16 SQ. FT.  
 STA. 113+65 (SOUTH AHEAD) - RT.(1 SIGN) = 16 SQ. FT.  
 STA. 119+25 (500') - LT.(1 SIGN) = 16 SQ. FT.  
 STA. 124+25 (1000') - LT.(1 SIGN) = 16 SQ. FT.  
 STA. 129+25 (1500') - LT.(1 SIGN) = 16 SQ. FT.



S 88°56'08.40" E  
 C CONSTRUCTION 356.09'

STA. 100+08 CONSTRUCT  
 TYPE 3 WHEELCHAIR RAMP = 4.0 SQ. YDS.  
 ON LT.

STA. 100+33 IN PLACE  
 JUNCTION BOX ON LT. WITH  
 18" X 33' R.C. PIPE OUTLET  
 RETAIN

STA. 100+30  
 R1-1  
 ON LT. (HAZEL ST.)  
 6.25 SQ. FT.  
 R1-3P  
 0.75 SQ. FT.

STA. 100+63  
 REMOVE AND  
 REINSTALL SIGN  
 ON LT.  
 1 EACH

STA. 100+08 CONSTRUCT  
 TYPE 3 WHEELCHAIR RAMP = 4.0 SQ. YDS.  
 ON RT.

STA. 100+27 CONSTRUCT  
 TYPE 3 WHEELCHAIR RAMP = 4.4 SQ. YDS.  
 ON RT.

STA. 100+32 IN PLACE  
 JUNCTION BOX ON RT. WITH  
 18" X 159' R.C. PIPE INLET  
 24" X 123' R.C. PIPE OUTLET  
 RETAIN

STA. 100+48  
 CITY STREET TURNOUT  
 ON RT.

STA. 100+25  
 R1-1  
 ON RT. (13TH AVE.)  
 6.25 SQ. FT.  
 R1-3P  
 0.75 SQ. FT.

STA. 100+69 CONSTRUCT  
 TYPE 3 WHEELCHAIR RAMP = 4.4 SQ. YDS.  
 ON RT.

STA. 100+72 CONSTRUCT  
 D. I. ON RT.  
 24" X 38' R.C. PIPE OUTLET  
 CONNECT TO JUNCTION BOX  
 @ STA. 100+32 RT. - EXISTING  
 TYPE MO = 4' I.D.  
 HEIGHT = 4.96'

STA. 100+70  
 R1-1  
 ON RT. (HAZEL ST.)  
 6.25 SQ. FT.  
 R1-3P  
 0.75 SQ. FT.

STA. 100+67  
 REMOVE AND  
 REINSTALL SIGN  
 ON RT.  
 1 EACH

STA. 100+22 IN PLACE  
 YARD DRAIN ON LT. WITH  
 6" X 10' P.V.C. PIPE OUTLET  
 RETAIN

STA. 100+18 IN PLACE  
 DROP INLET ON LT. WITH  
 18" X 16' R.C. PIPE OUTLET  
 RETAIN

STA. 100+45  
 CITY STREET TURNOUT  
 ON LT.

STA. 100+72 CONSTRUCT  
 D. I. ON LT.  
 24" X 42' R.C. PIPE OUTLET  
 CONNECT TO DROP INLET  
 @ STA. 100+72 RT.  
 TYPE MO = 4' I.D.  
 HEIGHT = 4.71'

STA. 100+56 IN PLACE  
 DROP INLET ON LT. WITH  
 12" X 25' R.C. PIPE INLET  
 12" X 68' R.C. PIPE INLET  
 12" X 21' R.C. PIPE OUTLET  
 REMOVE

STA. 100+85 - STA. 101+16  
 CONSTRUCT  
 PRIVATE DRIVE ON LT.  
 UNCLASSIFIED EXCAVATION = 10 CU. YDS.

STA. 101+26 CONSTRUCT  
 D. I. ON LT.  
 OPENING IN BACK  
 24" X 50' R.C. PIPE OUTLET  
 CONNECT TO DROP INLET  
 @ STA. 100+72 LT.  
 TYPE MO = 4' I.D.  
 HEIGHT = 4.47'

STA. 101+37 - STA. 101+61  
 CONSTRUCT  
 PRIVATE DRIVE ON LT.  
 UNCLASSIFIED EXCAVATION = 5 CU. YDS.

STA. 101+80 CONSTRUCT  
 D. I. ON LT. WITH 4' EXTENSION  
 OPENING IN BACK  
 24" X 50' R.C. PIPE OUTLET  
 CONNECT TO DROP INLET  
 @ STA. 101+26 LT.  
 TYPE MO = 4' I.D.  
 HEIGHT = 4.24'

STA. 101+41 CONSTRUCT  
 D. I. ON RT.  
 OPENING IN BACK  
 18" X 65' R.C. PIPE OUTLET  
 CONNECT TO DROP INLET  
 @ STA. 100+72 RT.  
 TYPE MO = 4' I.D.  
 HEIGHT = 4.64'

STA. 101+48 IN PLACE  
 DROP INLET ON RT.  
 REMOVE

STA. 100+88 - STA. 101+20  
 CONSTRUCT  
 PRIVATE DRIVE ON RT.  
 UNCLASSIFIED EXCAVATION = 5 CU. YDS.

STA. 102+29 IN PLACE  
 12" X 3' R.C. SIDE DRAIN ON LT.  
 REMOVE

STA. 102+05 IN PLACE  
 12" X 16' R.C. SIDE DRAIN ON LT.  
 REMOVE

STA. 101+95 - STA. 102+17  
 CONSTRUCT  
 PRIVATE DRIVE ON LT.  
 UNCLASSIFIED EXCAVATION = 6 CU. YDS.

STA. 102+63 CONSTRUCT  
 D. I. ON LT. WITH 4' EXTENSION  
 24" X 78' R.C. PIPE OUTLET  
 CONNECT TO DROP INLET  
 @ STA. 101+80 LT.  
 TYPE MO = 4' I.D.  
 HEIGHT = 3.98'

STA. 102+78 - STA. 103+00  
 CONSTRUCT  
 PRIVATE DRIVE ON LT.  
 UNCLASSIFIED EXCAVATION = 8 CU. YDS.

STA. 102+79 CONSTRUCT  
 D. I. ON RT. WITH 8' EXTENSION  
 OPENING IN BACK  
 18" X 39' R.C. PIPE OUTLET  
 CONNECT TO DROP INLET  
 @ STA. 102+63 LT.  
 TYPE MO = 4' I.D.  
 HEIGHT = 3.81'

STA. 101+26 CONSTRUCT  
 D. I. ON LT.  
 OPENING IN BACK  
 24" X 50' R.C. PIPE OUTLET  
 CONNECT TO DROP INLET  
 @ STA. 100+72 LT.  
 TYPE MO = 4' I.D.  
 HEIGHT = 4.47'

STA. 101+37 - STA. 101+61  
 CONSTRUCT  
 PRIVATE DRIVE ON LT.  
 UNCLASSIFIED EXCAVATION = 5 CU. YDS.

STA. 101+80 CONSTRUCT  
 D. I. ON LT. WITH 4' EXTENSION  
 OPENING IN BACK  
 24" X 50' R.C. PIPE OUTLET  
 CONNECT TO DROP INLET  
 @ STA. 101+26 LT.  
 TYPE MO = 4' I.D.  
 HEIGHT = 4.24'

STA. 101+41 CONSTRUCT  
 D. I. ON RT.  
 OPENING IN BACK  
 18" X 65' R.C. PIPE OUTLET  
 CONNECT TO DROP INLET  
 @ STA. 100+72 RT.  
 TYPE MO = 4' I.D.  
 HEIGHT = 4.64'

STA. 101+48 IN PLACE  
 DROP INLET ON RT.  
 REMOVE

STA. 100+88 - STA. 101+20  
 CONSTRUCT  
 PRIVATE DRIVE ON RT.  
 UNCLASSIFIED EXCAVATION = 5 CU. YDS.

STA. 101+41 CONSTRUCT  
 D. I. ON RT.  
 OPENING IN BACK  
 18" X 65' R.C. PIPE OUTLET  
 CONNECT TO DROP INLET  
 @ STA. 100+72 RT.  
 TYPE MO = 4' I.D.  
 HEIGHT = 4.64'

STA. 101+48 IN PLACE  
 DROP INLET ON RT.  
 REMOVE

STA. 102+16 - STA. 102+68  
 CONSTRUCT  
 PRIVATE DRIVE ON RT.  
 UNCLASSIFIED EXCAVATION = 5 CU. YDS.

STA. 102+79 CONSTRUCT  
 D. I. ON RT. WITH 8' EXTENSION  
 OPENING IN BACK  
 18" X 39' R.C. PIPE OUTLET  
 CONNECT TO DROP INLET  
 @ STA. 102+63 LT.  
 TYPE MO = 4' I.D.  
 HEIGHT = 3.81'

STA. 103+15 - STA. 103+41  
 CONSTRUCT  
 PRIVATE DRIVE ON RT.  
 COMPACTED EMBANKMENT = 7 CU. YDS.

STA. 103+15 - STA. 103+41  
 CONSTRUCT  
 PRIVATE DRIVE ON RT.  
 COMPACTED EMBANKMENT = 7 CU. YDS.

STA. 103+15 - STA. 103+41  
 CONSTRUCT  
 PRIVATE DRIVE ON RT.  
 COMPACTED EMBANKMENT = 7 CU. YDS.

STA. 103+15 - STA. 103+41  
 CONSTRUCT  
 PRIVATE DRIVE ON RT.  
 COMPACTED EMBANKMENT = 7 CU. YDS.

STA. 103+15 - STA. 103+41  
 CONSTRUCT  
 PRIVATE DRIVE ON RT.  
 COMPACTED EMBANKMENT = 7 CU. YDS.

**EARTHWORK**  
 UNCLASSIFIED EXCAVATION (MAIN LANES) 133 CU. YDS.  
 UNCLASSIFIED EXCAVATION (ADDITIONAL) 108 CU. YDS.  
 COMPACTED EMBANKMENT (MAIN LANES) 331 CU. YDS.  
 COMPACTED EMBANKMENT (ADDITIONAL) 42 CU. YDS.  
 EARTHWORK TO BE PAID FOR AS A PLAN QUANTITY.

REFER TO SURVEY CONTROL  
 DETAIL SHEETS FOR  
 HORIZONTAL AND VERTICAL  
 CONTROL DATA.



**LEGEND**

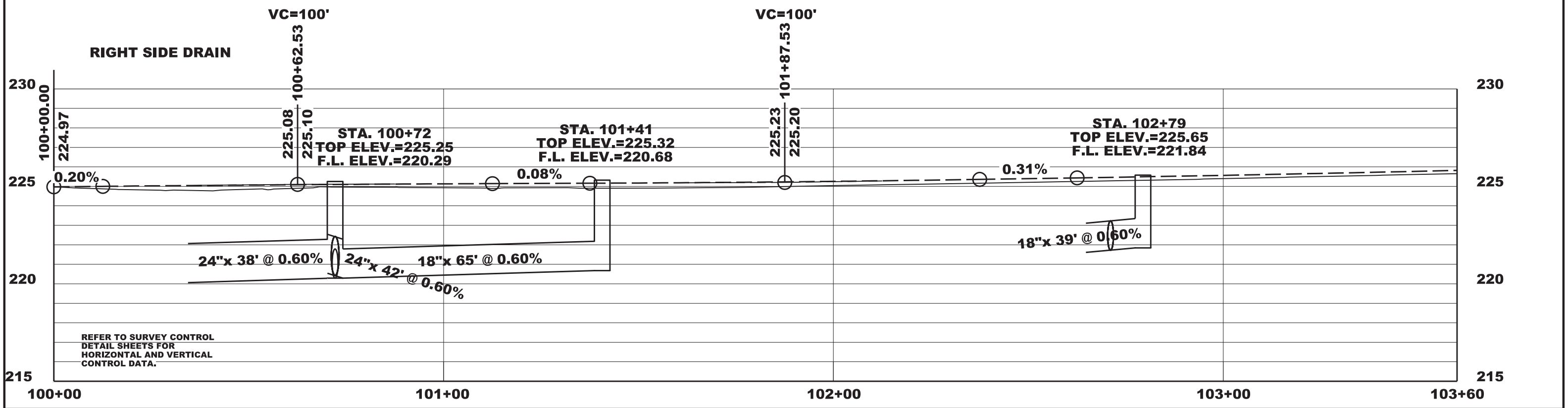
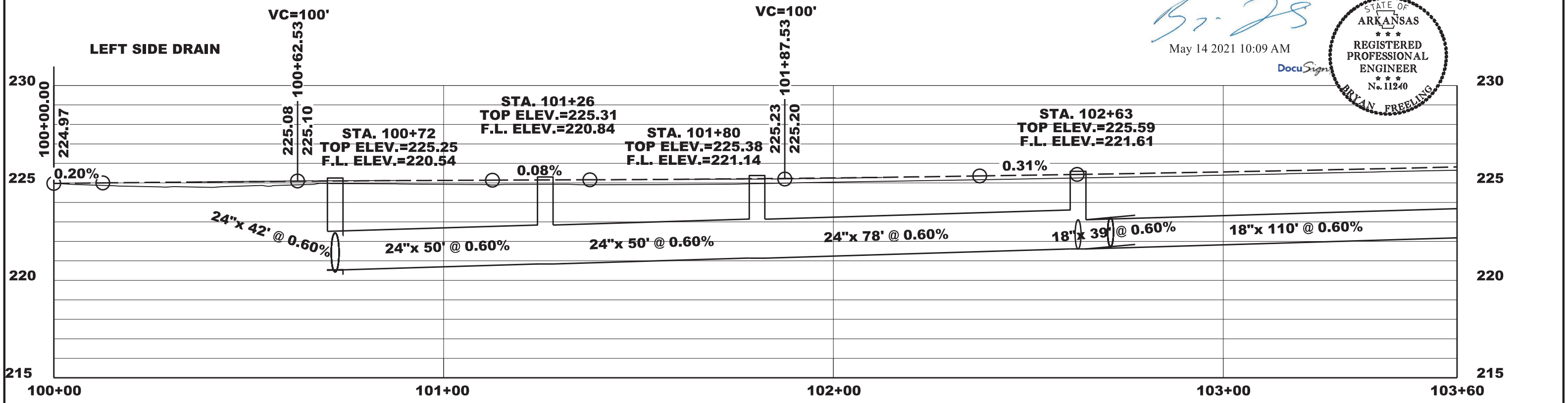
○	POWER POLE
◇	COMBINATION POLE
○	POLE W/GUY
□	TELEPHONE RISER
◇	TELEPHONE POLE
U	FIBER OPTIC CABLE
⊗	GAS METER
⊕	WATER VALVE



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. C35002	17	41

PLAN AND PROFILE SHEETS

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REFER TO SURVEY CONTROL  
 DETAIL SHEETS FOR  
 HORIZONTAL AND VERTICAL  
 CONTROL DATA.

STA. 103+90  
R1-1  
ON LT. (SPRUCE ST.)  
6.25 SQ. FT.

CONCRETE COMBINATION CURB AND GUTTER  
STA. 104+18 - STA. 106+87 ON LT. 293 LIN. FT.  
STA. 107+06 - STA. 109+81 ON RT. 299 LIN. FT.

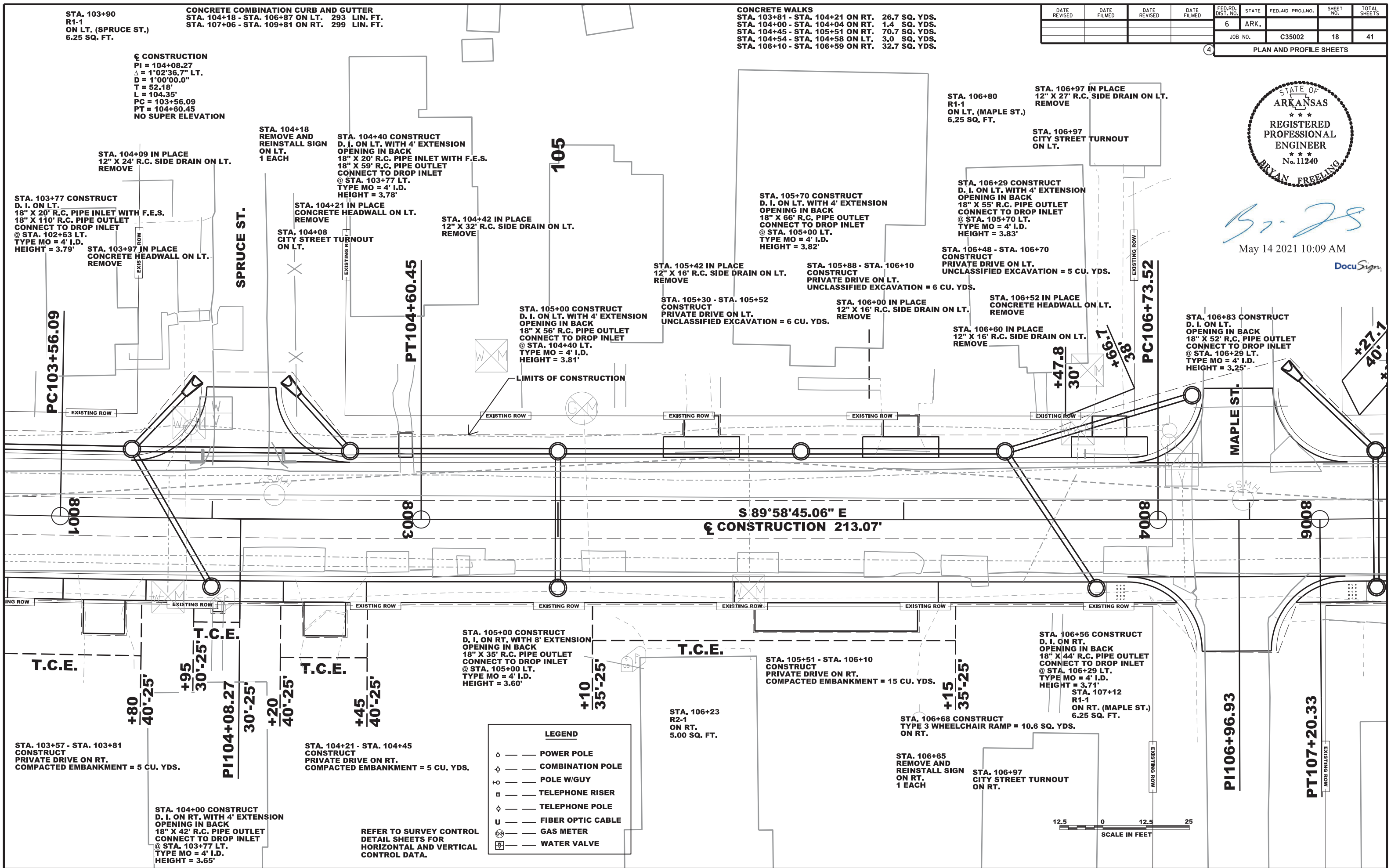
CONCRETE WALKS  
STA. 103+81 - STA. 104+21 ON RT. 26.7 SQ. YDS.  
STA. 104+00 - STA. 104+04 ON RT. 1.4 SQ. YDS.  
STA. 104+45 - STA. 105+51 ON RT. 70.7 SQ. YDS.  
STA. 104+54 - STA. 104+58 ON LT. 3.0 SQ. YDS.  
STA. 106+10 - STA. 106+59 ON RT. 32.7 SQ. YDS.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO.	C35002	18
						PLAN AND PROFILE SHEETS		

☒ CONSTRUCTION  
PI = 104+08.27  
Δ = 1°02'36.7" LT.  
D = 1°00'00.0"  
T = 52.18'  
L = 104.35'  
PC = 103+56.09  
PT = 104+60.45  
NO SUPER ELEVATION



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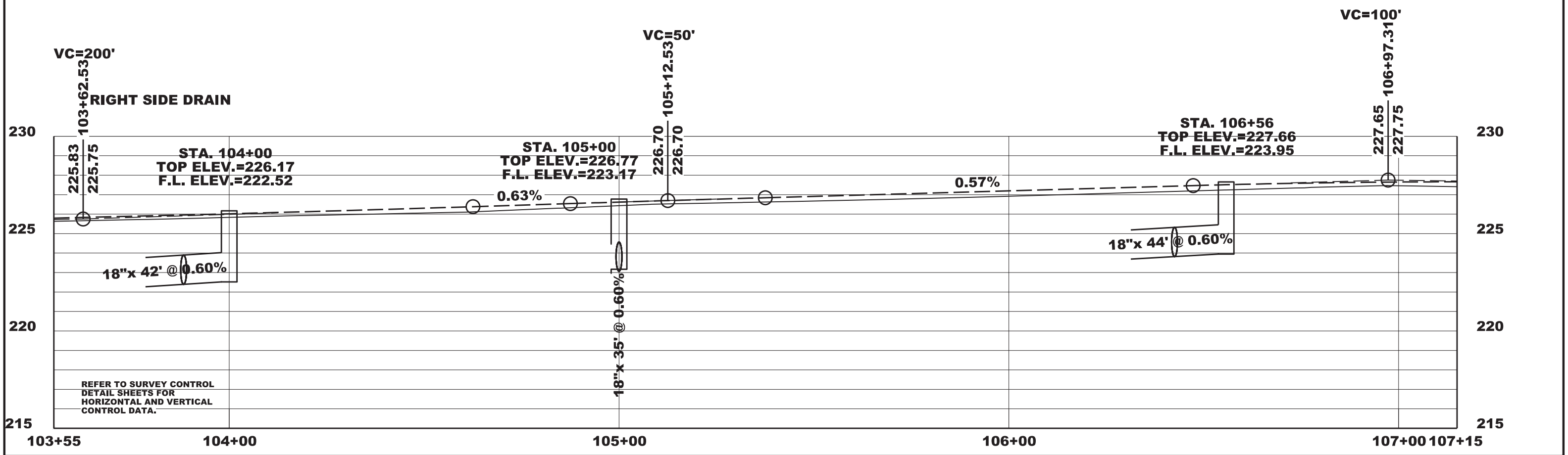
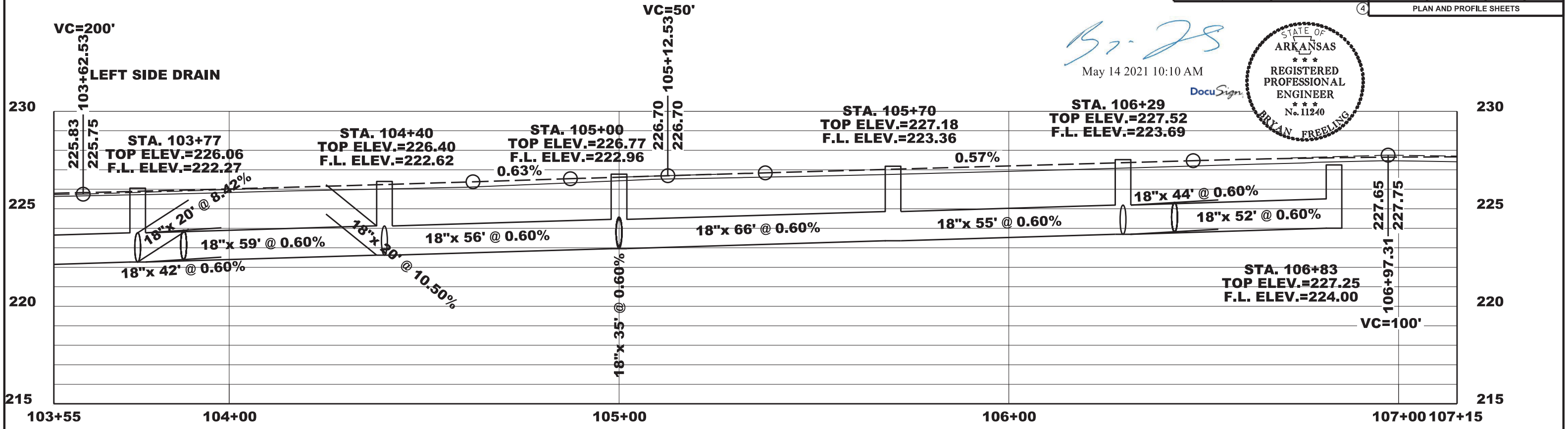
**LEGEND**

- — POWER POLE
- ◊ — COMBINATION POLE
- ⊕ — POLE W/GUY
- ⊞ — TELEPHONE RISER
- ⊠ — TELEPHONE POLE
- U — FIBER OPTIC CABLE
- ⊗ — GAS METER
- ⊞ — WATER VALVE



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO.	C35002	19
						PLAN AND PROFILE SHEETS		

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 DETAIL SHEETS FOR  
 HORIZONTAL AND VERTICAL  
 CONTROL DATA.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		20	41
				JOB NO.	C35002			

PLAN AND PROFILE SHEETS



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**CONCRETE WALKS**  
 STA. 107+34 - STA. 107+62 ON RT. 18.7 SQ. YDS.  
 STA. 107+84 - STA. 109+53 ON RT. 112.7 SQ. YDS.  
 STA. 110+19 - STA. 110+52 ON LT. 22.4 SQ. YDS.  
 STA. 110+61 - STA. 110+93 ON RT. 21.3 SQ. YDS.  
 STA. 110+68 - STA. 110+72 ON RT. 1.4 SQ. YDS.

STA. 107+37 CONSTRUCT D. I. ON LT. WITH 4' EXTENSION OPENING IN BACK 18" X 28' R.C. PIPE INLET WITH F.E.S. 18" X 82' R.C. PIPE OUTLET CONNECT TO DROP INLET @ STA. 108+22 LT. TYPE MO = 4' I.D. HEIGHT = 4.99'

**CONCRETE COMBINATION CURB AND GUTTER**  
 STA. 107+07 - STA. 109+78 ON LT. 295 LIN. FT.  
 STA. 110+10 - STA. 113+67 ON RT. 381 LIN. FT.

STA. 109+56 CONSTRUCT D. I. ON LT. WITH 8' EXTENSION OPENING IN BACK 24" X 72' R.C. PIPE OUTLET CONNECT TO DROP INLET @ STA. 110+33 LT. TYPE MO = 4' I.D. HEIGHT = 5.43'

STA. 110+25 REMOVE AND REINSTALL SIGN ON LT. 1 EACH  
 STA. 110+20 R1-1 ON LT. (13TH AVE.) 6.25 SQ. FT.  
 R1-3P 0.75 SQ. FT.

STA. 109+71 R1-1 ON LT. (CYPRESS ST.) 6.25 SQ. FT.  
 R1-3P 0.75 SQ. FT.

STA. 109+95 CITY STREET TURNOUT ON LT.

STA. 110+12 IN PLACE DROP INLET ON LT. WITH 6" X 75' P.V.C. PIPE OUTLET REMOVE

☐ CONSTRUCTION  
 PI = 106+96.93  
 Δ = 0°28'05.2" LT.  
 D = 1'00'00.0"  
 T = 23.41'  
 L = 46.81'  
 PC = 106+73.52  
 PT = 107+20.33  
 NO SUPER ELEVATION

STA. 107+79 - STA. 108+07 CONSTRUCT PRIVATE DRIVE ON LT. UNCLASSIFIED EXCAVATION = 5 CU. YDS.

STA. 108+80 CONSTRUCT D. I. ON LT. WITH 8' EXTENSION OPENING IN BACK 18" X 73' R.C. PIPE OUTLET CONNECT TO DROP INLET @ STA. 109+56 LT. TYPE MO = 4' I.D. HEIGHT = 5.33'

STA. 109+65 IN PLACE DROP INLET ON LT. WITH 14" X 48' R.C. PIPE OUTLET REMOVE

STA. 108+91 - STA. 109+38 CONSTRUCT PRIVATE DRIVE ON LT. COMPACTED EMBANKMENT = 5 CU. YDS. UNCLASSIFIED EXCAVATION = 5 CU. YDS.

STA. 108+22 CONSTRUCT D. I. ON LT. WITH 4' EXTENSION OPENING IN BACK 18" X 54' R.C. PIPE OUTLET CONNECT TO DROP INLET @ STA. 108+80 LT. TYPE MO = 4' I.D. HEIGHT = 5.24'

☐ CONSTRUCTION  
 PI = 109+95.31  
 Δ = 0°21'06.8" LT.  
 D = 1'00'00.0"  
 T = 17.60'  
 L = 35.19'  
 PC = 109+77.71  
 PT = 110+12.90  
 NO SUPER ELEVATION

STA. 110+49 CONSTRUCT TYPE 3 WHEELCHAIR RAMP = 4.0 SQ. YDS. ON LT.

STA. 110+33 CONSTRUCT D. I. ON LT. WITH 4' EXTENSION OPENING IN BACK 24" X 85' R.C. PIPE OUTLET CONNECT TO DROP INLET @ STA. 111+21 LT. TYPE MO = 4' I.D. HEIGHT = 5.50'

N 89°33'09.73" E  
 ☐ CONSTRUCTION 257.38'

STA. 107+37 CONSTRUCT D. I. ON RT. OPENING IN BACK 18" X 36' R.C. PIPE OUTLET CONNECT TO DROP INLET @ STA. 107+37 LT. TYPE MO = 4' I.D. HEIGHT = 4.78'

STA. 107+62 - STA. 107+84 CONSTRUCT PRIVATE DRIVE ON RT. UNCLASSIFIED EXCAVATION = 6 CU. YDS.

STA. 107+36 W3-1 ON RT. 9.00 SQ. FT.

STA. 108+50 CONSTRUCT D. I. ON RT. WITH 8' EXTENSION 18" X 46' R.C. PIPE OUTLET CONNECT TO DROP INLET @ STA. 108+80 LT. TYPE MO = 4' I.D. HEIGHT = 5.19'

STA. 109+50 CONSTRUCT D. I. ON RT. WITH 4' EXTENSION 18" X 36' R.C. PIPE OUTLET CONNECT TO DROP INLET @ STA. 109+56 LT. TYPE MO = 4' I.D. HEIGHT = 5.24'

STA. 108+90 R8-3 ON RT. 3.00 SQ. FT.

STA. 109+69 R1-1 ON RT. (13TH AVE.) 6.25 SQ. FT.  
 R1-3P 0.75 SQ. FT.

STA. 109+69 REMOVE AND REINSTALL SIGN ON RT. 1 EACH

STA. 109+95 CITY STREET TURNOUT ON RT.

STA. 109+63 CONSTRUCT TYPE 3 WHEELCHAIR RAMP = 10.6 SQ. YDS. ON RT.

STA. 110+17 R1-1 ON RT. (CYPRESS ST.) 6.25 SQ. FT.  
 R1-3P 0.75 SQ. FT.

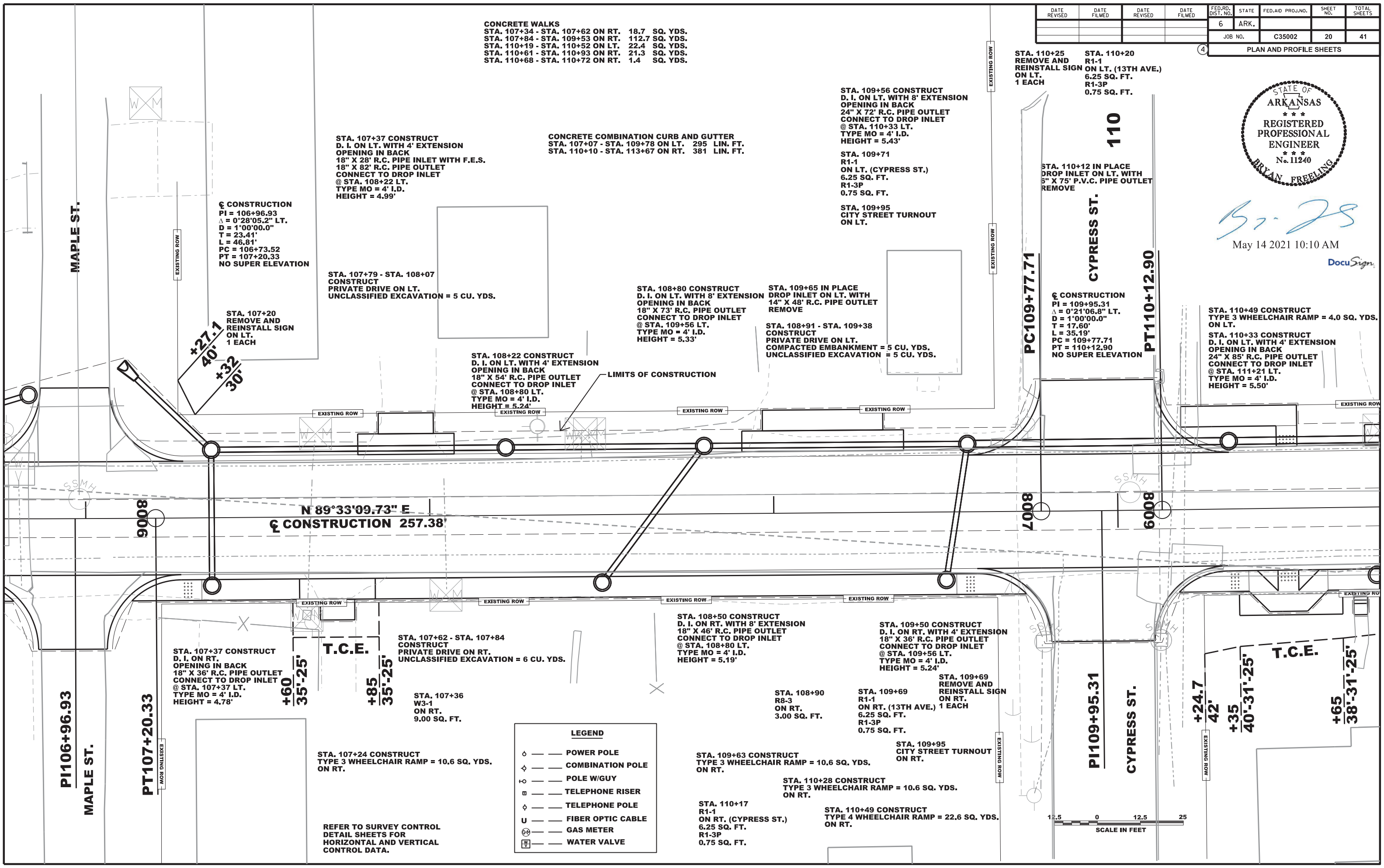
STA. 110+28 CONSTRUCT TYPE 3 WHEELCHAIR RAMP = 10.6 SQ. YDS. ON RT.

STA. 110+49 CONSTRUCT TYPE 4 WHEELCHAIR RAMP = 22.6 SQ. YDS. ON RT.

**LEGEND**

○	POWER POLE
◇	COMBINATION POLE
⊖	POLE W/GUY
⊞	TELEPHONE RISER
◇	TELEPHONE POLE
U	FIBER OPTIC CABLE
⊗	GAS METER
⊕	WATER VALVE

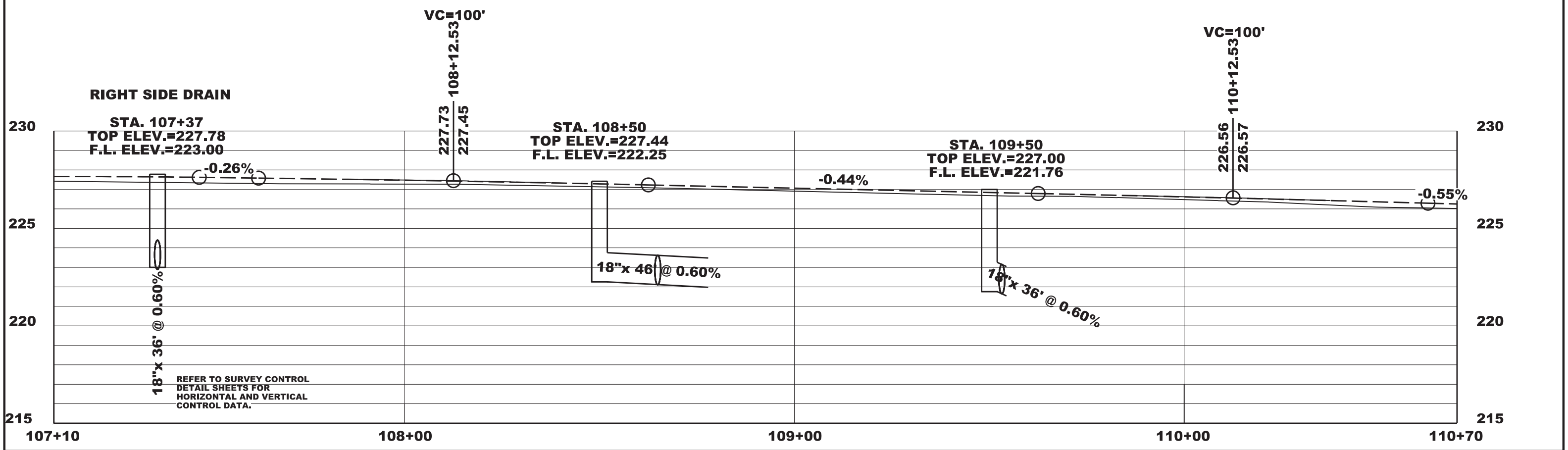
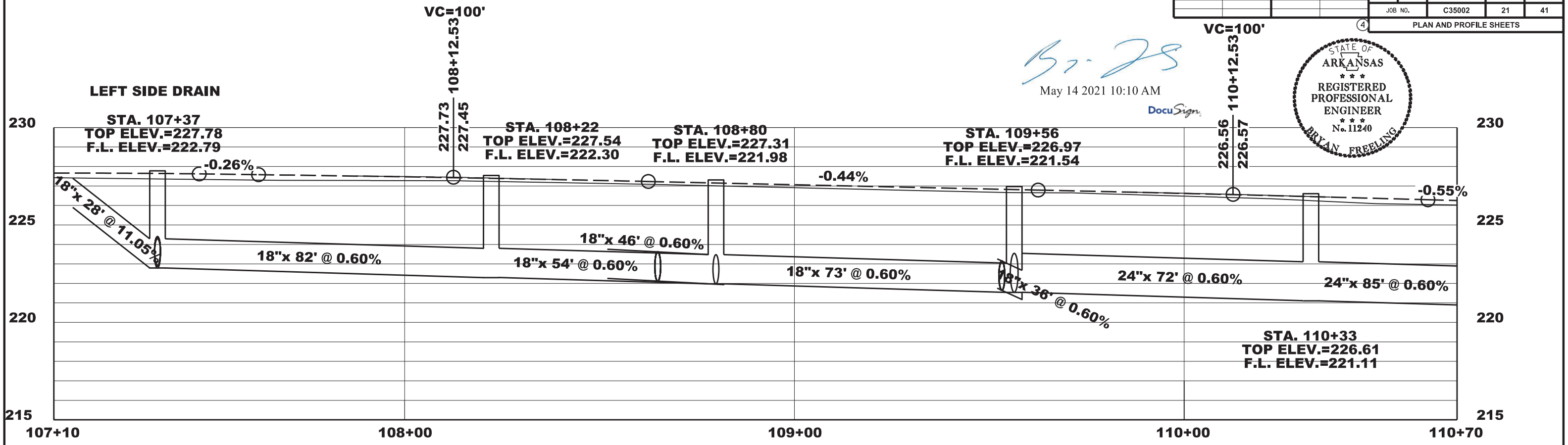
REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	C35002	21	41	



*B. J. S.*  
 May 14 2021 10:10 AM  
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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		22	41
				JOB NO. C35002				
PLAN AND PROFILE SHEETS								

**CONCRETE WALKS**  
 STA. 111+21 - STA. 111+23 ON RT. 1.3 SQ. YDS.  
 STA. 111+45 - STA. 111+76 ON RT. 20.7 SQ. YDS.  
 STA. 111+50 - STA. 111+54 ON RT. 1.4 SQ. YDS.  
 STA. 112+18 - STA. 113+16 ON RT. 65.3 SQ. YDS.  
 STA. 112+51 - STA. 112+55 ON RT. 1.4 SQ. YDS.  
 STA. 113+13 - STA. 113+17 ON RT. 1.4 SQ. YDS.  
 STA. 113+79 - STA. 113+83 ON LT. 3.6 SQ. YDS.  
 STA. 114+14 - STA. 114+25 ON RT. 6.4 SQ. YDS.

**CONCRETE COMBINATION CURB AND GUTTER**  
 STA. 110+11 - STA. 112+91 ON LT. 304 LIN. FT.  
 STA. 113+21 - STA. 114+25 ON LT. 117 LIN. FT.  
 STA. 113+87 - STA. 114+25 ON RT. 51 LIN. FT.



*B. Freeling*  
 May 14 2021 10:10 AM  
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**LEGEND**

- — POWER POLE
- ◇ — COMBINATION POLE
- ◊ — POLE W/GUY
- — TELEPHONE RISER
- ◇ — TELEPHONE POLE
- U — FIBER OPTIC CABLE
- ⊗ — GAS METER
- ⊕ — WATER VALVE

STA. 112+50  
 W3-1  
 ON LT.  
 9.00 SQ. FT.

STA. 110+72 - STA. 111+06  
 CONSTRUCT  
 PRIVATE DRIVE ON LT.  
 UNCLASSIFIED EXCAVATION = 5 CU. YDS.  
 COMPACTED EMBANKMENT = 5 CU. YDS.

STA. 111+77 - STA. 112+01  
 CONSTRUCT  
 PRIVATE DRIVE ON LT.  
 UNCLASSIFIED EXCAVATION = 5 CU. YDS.

STA. 113+00 CONSTRUCT  
 D. I. ON LT.  
 30" X 396' R.C. PIPE OUTLET - EXISTING  
 CONNECT TO DROP INLET - EXISTING  
 @ STA. 116+96 LT.  
 TYPE ST = 5' X 5'  
 HEIGHT = 5.25'

STA. 112+84  
 R1-1  
 ON LT. (HICKORY ST.)  
 6.25 SQ. FT.

STA. 113+00 IN PLACE  
 JUNCTION BOX ON LT. WITH  
 12" X 21" R.C. PIPE INLET  
 REMOVE

STA. 114+25.00  
 END JOB C35002

STA. 113+35  
 REMOVE AND  
 REINSTALL SIGN  
 ON LT.  
 1 EACH

STA. 113+93 - STA. 114+17  
 CONSTRUCT  
 PRIVATE DRIVE ON LT.  
 UNCLASSIFIED EXCAVATION = 5 CU. YDS.

STA. 113+35 CONSTRUCT  
 TYPE 3 WHEELCHAIR RAMP = 4.8 SQ. YDS.  
 ON LT.

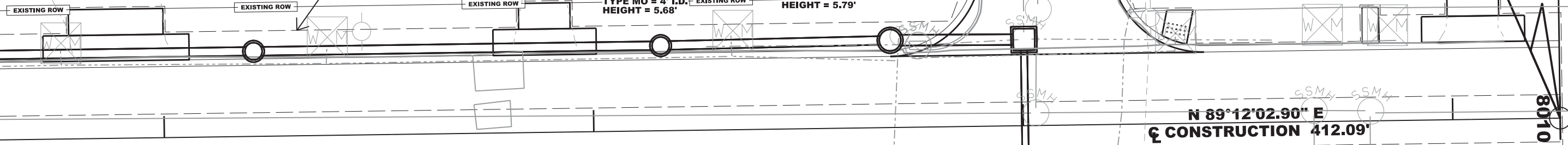
STA. 113+06  
 CITY STREET TURNOUT  
 ON LT.

STA. 112+76 IN PLACE  
 DROP INLET ON LT. WITH  
 12" X 48" R.C. PIPE INLET  
 REMOVE

STA. 111+21 CONSTRUCT  
 D. I. ON LT. WITH 4' EXTENSION  
 24" X 91" R.C. PIPE OUTLET  
 CONNECT TO DROP INLET  
 @ STA. 112+16 LT.  
 TYPE MO = 4' I.D.  
 HEIGHT = 5.53'

STA. 112+16 CONSTRUCT  
 D. I. ON LT. WITH 4' EXTENSION  
 OPENING IN BACK  
 24" X 49" R.C. PIPE OUTLET  
 CONNECT TO DROP INLET  
 @ STA. 112+69 LT.  
 TYPE MO = 4' I.D.  
 HEIGHT = 5.68'

STA. 112+69 CONSTRUCT  
 D. I. ON LT. WITH 8' EXTENSION  
 OPENING IN BACK  
 30" X 26" R.C. PIPE OUTLET  
 CONNECT TO DROP INLET  
 @ STA. 113+00 LT.  
 TYPE MO = 5' I.D.  
 HEIGHT = 5.79'



+65  
 38'-31'-25"

+95  
 35'-25"

STA. 111+76 - STA. 112+18  
 CONSTRUCT  
 PRIVATE DRIVE ON RT.  
 UNCLASSIFIED EXCAVATION = 5 CU. YDS.

STA. 111+61 CONSTRUCT  
 D. I. ON RT. WITH 4' EXTENSION  
 18" X 66" R.C. PIPE OUTLET  
 CONNECT TO DROP INLET  
 @ STA. 112+30 RT.  
 TYPE MO = 4' I.D.  
 HEIGHT = 5.32'

STA. 112+30 CONSTRUCT  
 D. I. ON RT. WITH 4' EXTENSION  
 18" X 66" R.C. PIPE OUTLET  
 CONNECT TO DROP INLET  
 @ STA. 113+00 RT.  
 TYPE MO = 4' I.D.  
 HEIGHT = 5.48'

STA. 112+98  
 M6-4  
 ON RT.  
 2.19 SQ. FT.

STA. 113+97  
 R1-1  
 ON RT. (HICKORY ST.)  
 6.25 SQ. FT.

STA. 114+16 CONSTRUCT  
 D. I. ON RT.  
 OPENING IN BACK  
 18" X 112" R.C. PIPE OUTLET  
 CONNECT TO DROP INLET  
 @ STA. 113+00 RT.  
 TYPE MO = 4' I.D.  
 HEIGHT = 3.86'

STA. 113+49 CONSTRUCT  
 TYPE 3 WHEELCHAIR RAMP = 10.6 SQ. YDS.  
 ON RT.

STA. 110+70 CONSTRUCT  
 CONCRETE STEPS  
 ON RT. = 1.8 SQ. YDS.

STA. 110+93 - STA. 111+21  
 CONSTRUCT  
 PRIVATE DRIVE ON RT.  
 UNCLASSIFIED EXCAVATION = 5 CU. YDS.

STA. 111+23 - STA. 111+45  
 CONSTRUCT  
 PRIVATE DRIVE ON RT.  
 UNCLASSIFIED EXCAVATION = 5 CU. YDS.

REFER TO SURVEY CONTROL  
 DETAIL SHEETS FOR  
 HORIZONTAL AND VERTICAL  
 CONTROL DATA.

STA. 113+28 CONSTRUCT  
 TYPE 4 WHEELCHAIR RAMP = 22.6 SQ. YDS.  
 ON RT.

STA. 114+05 CONSTRUCT  
 TYPE 3 WHEELCHAIR RAMP = 10.6 SQ. YDS.  
 ON RT.



POE 114+25.00

HICKORY ST.

T.C.E.

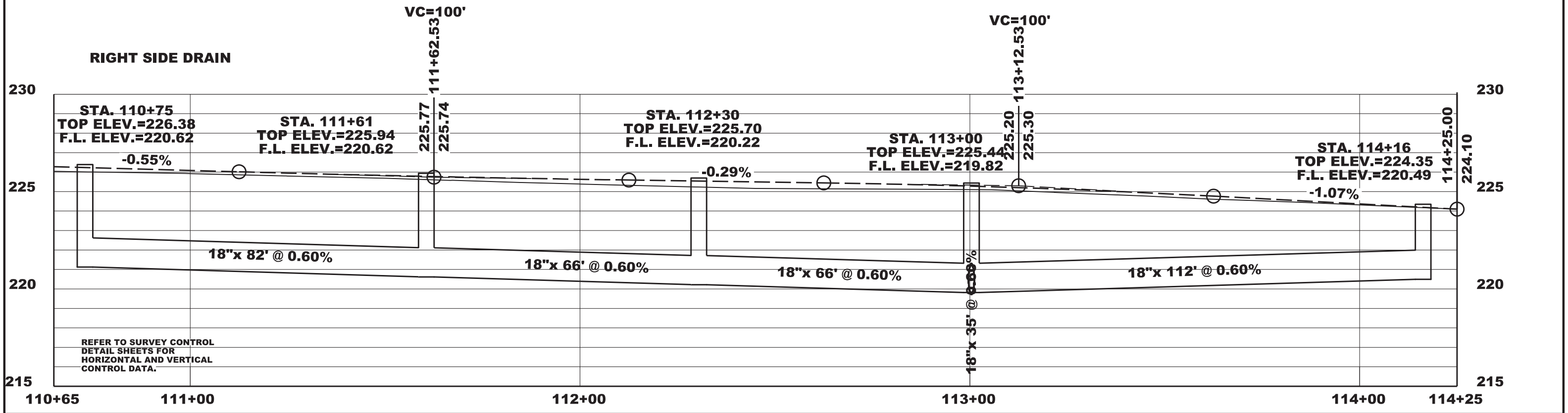
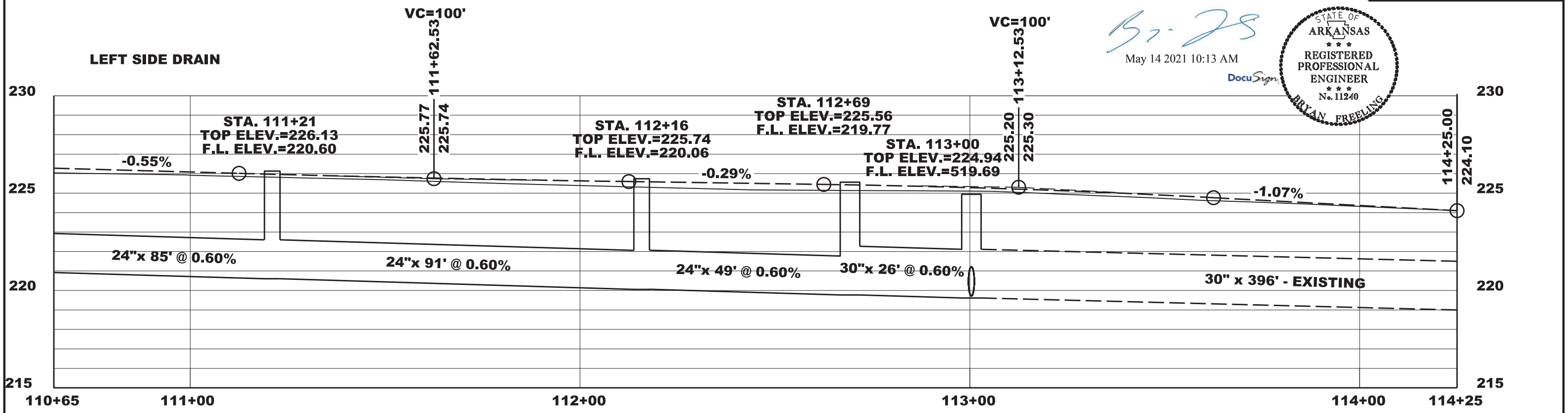
T.C.E.

T.C.E.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. C35002	23	41

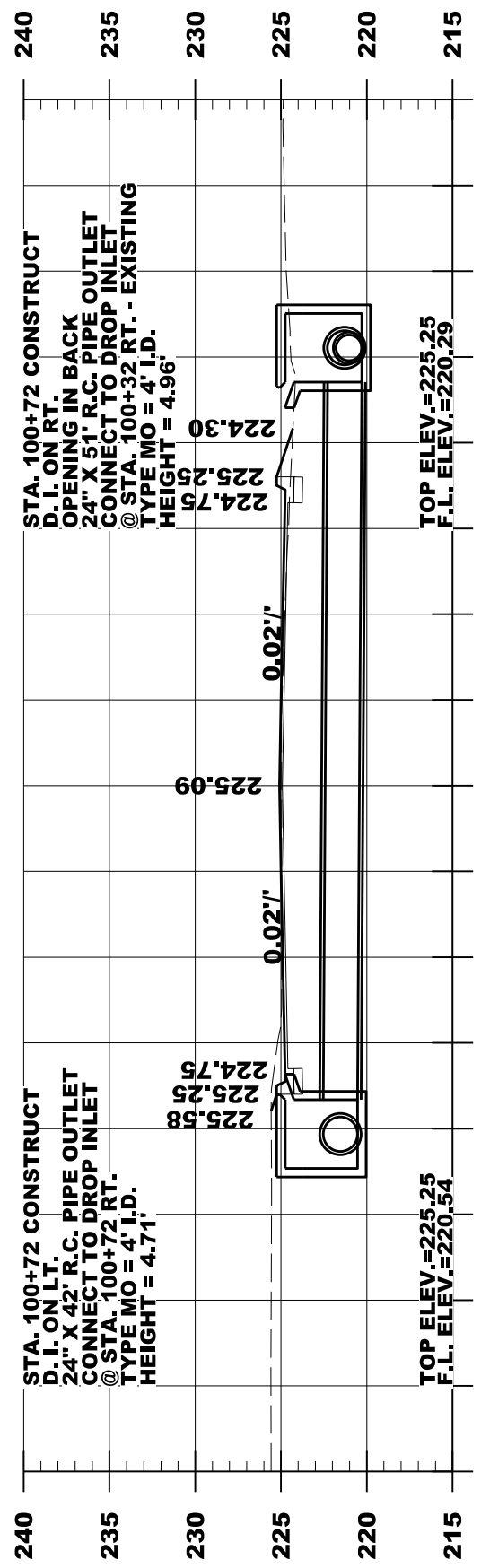
PLAN AND PROFILE SHEETS

*Bryant*  
May 14 2021 10:13 AM



REFER TO SURVEY CONTROL  
DETAIL SHEETS FOR  
HORIZONTAL AND VERTICAL  
CONTROL DATA.

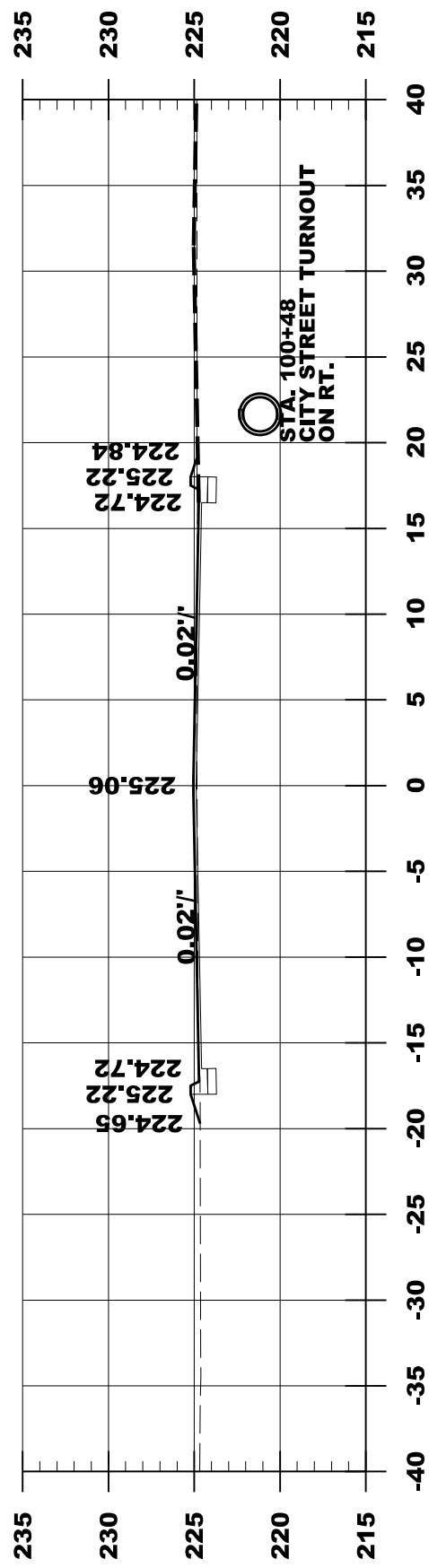
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10-05-2021				6	ARK.		24	41
				JOB NO.		C35002		



**100+72**

AREA CUT 7.27  
AREA FILL 1.33

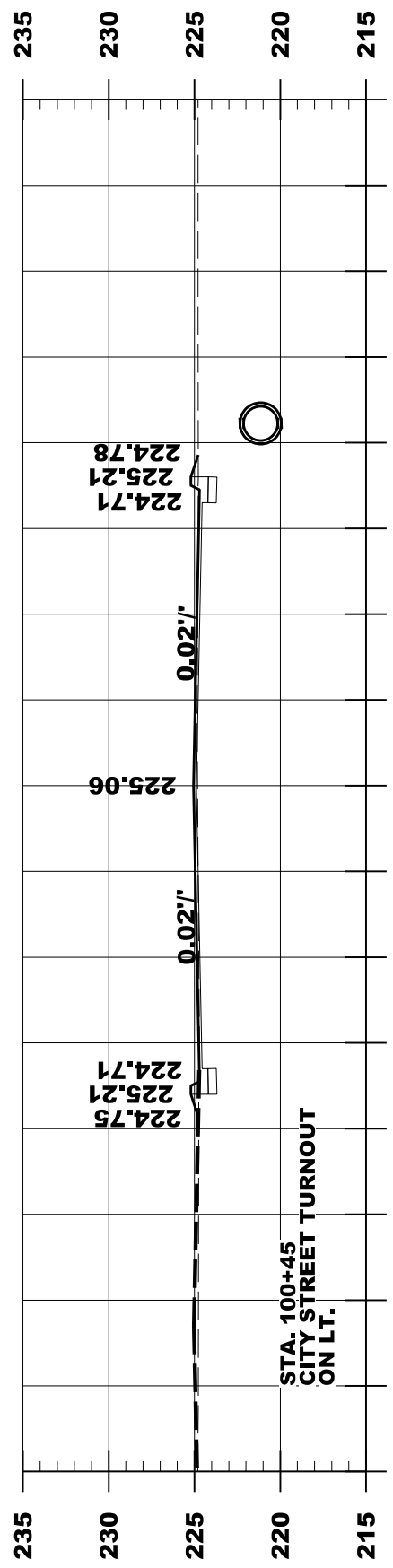
CUT VOLUME 5.12  
FILL VOLUME 0.97



**100+48**

AREA CUT 4.40  
AREA FILL 0.88

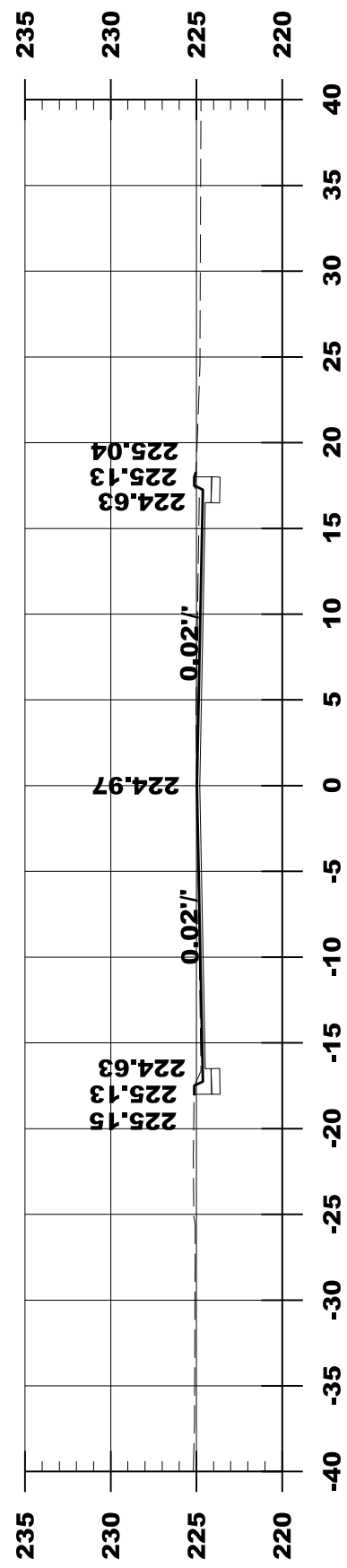
CUT VOLUME 0.51  
FILL VOLUME 0.11



**100+45**

AREA CUT 3.96  
AREA FILL 0.88

CUT VOLUME 12.64  
FILL VOLUME 0.75



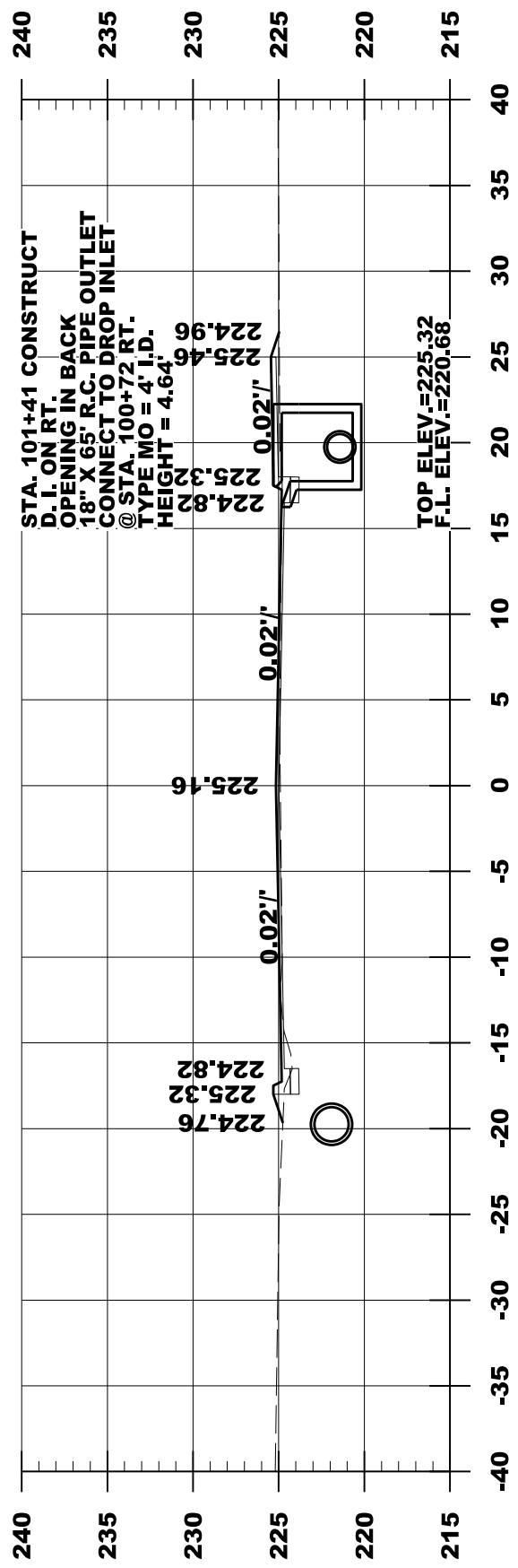
**100+00  
BEGIN JOB C35002**

AREA CUT 11.14  
AREA FILL 0.01

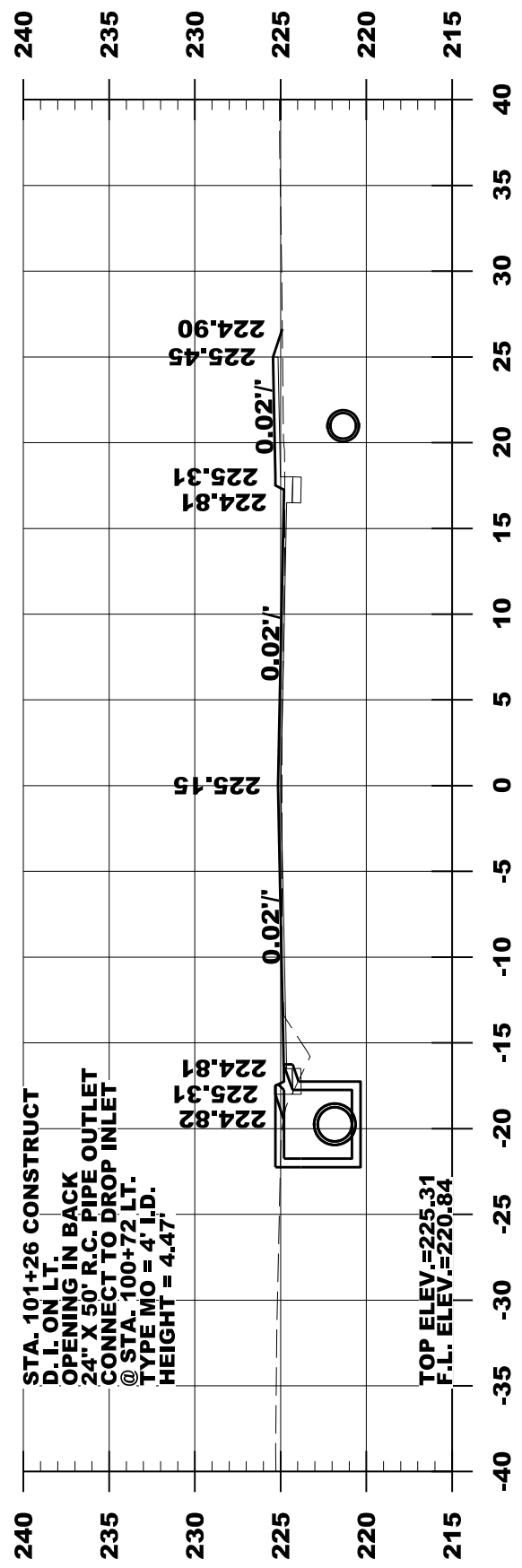
CUT VOLUME 0.00  
FILL VOLUME 0.00



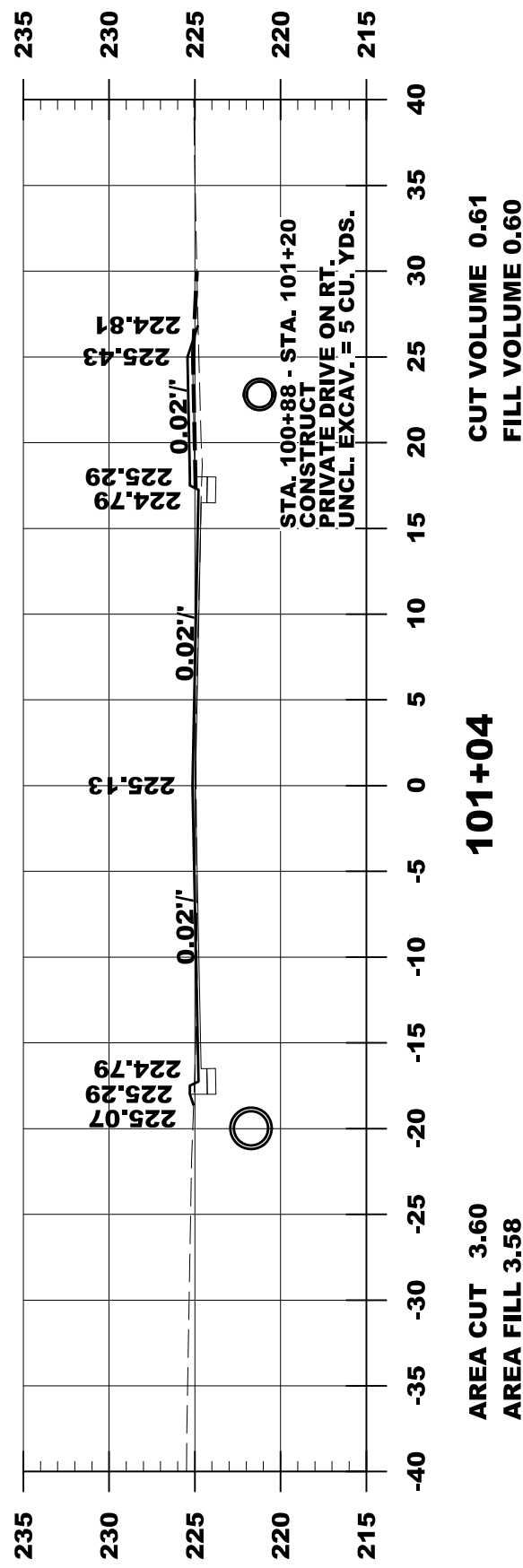
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10-05-2021				6	ARK.		25	41
				JOB NO.		C35002		



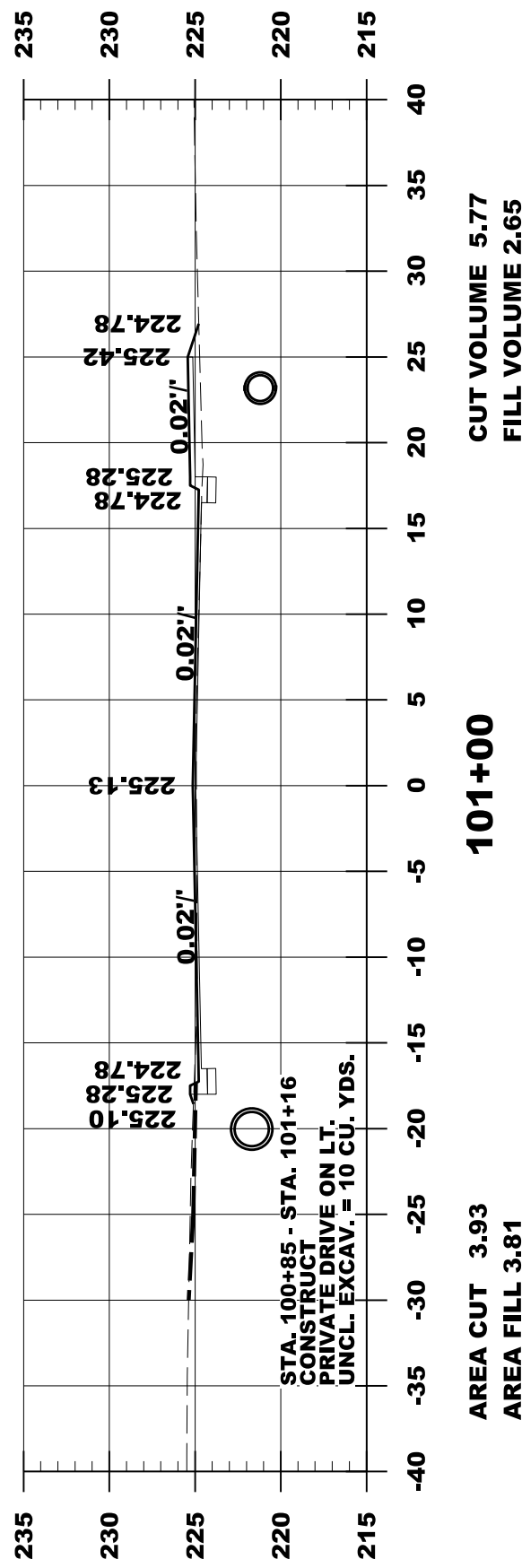
**101+41**  
 AREA CUT 2.36  
 AREA FILL 3.34  
 CUT VOLUME 1.19  
 FILL VOLUME 2.49



**101+26**  
 AREA CUT 2.04  
 AREA FILL 5.88  
 CUT VOLUME 2.26  
 FILL VOLUME 3.80

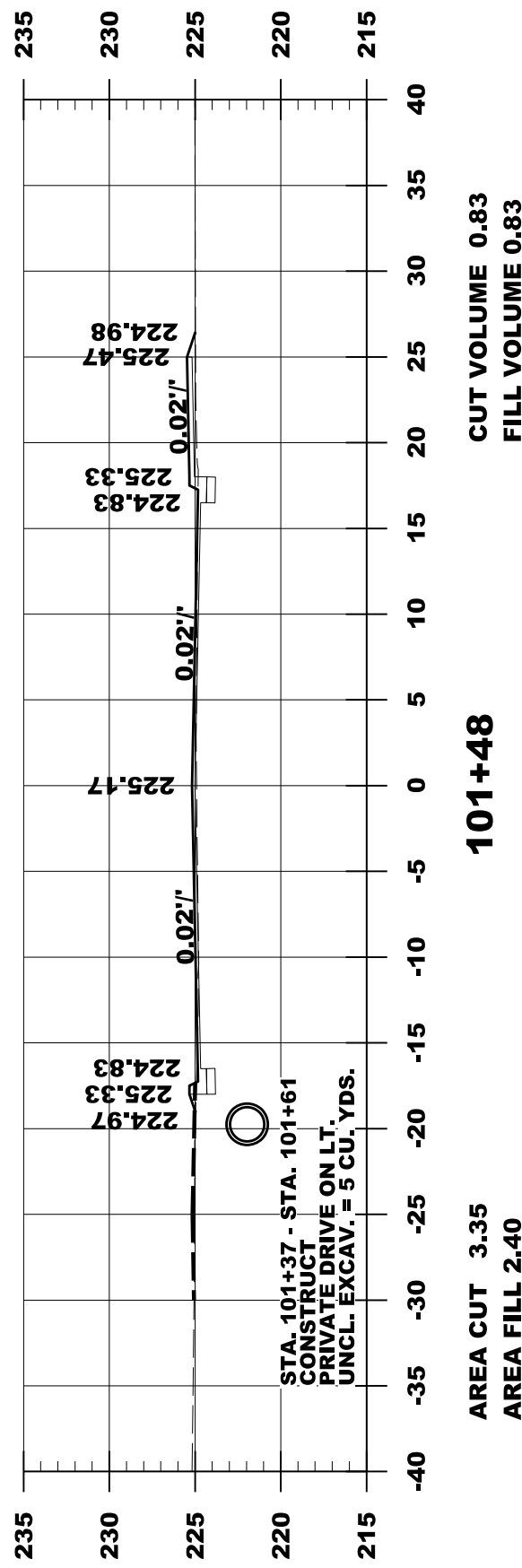
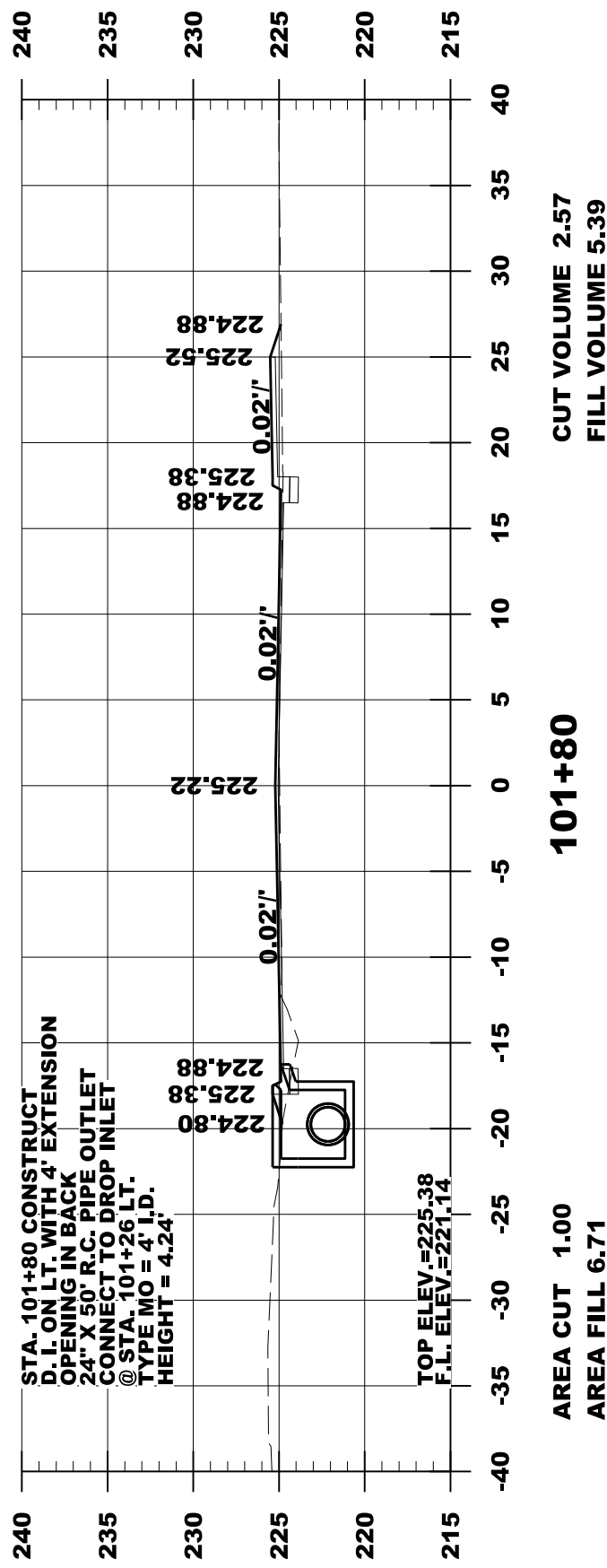
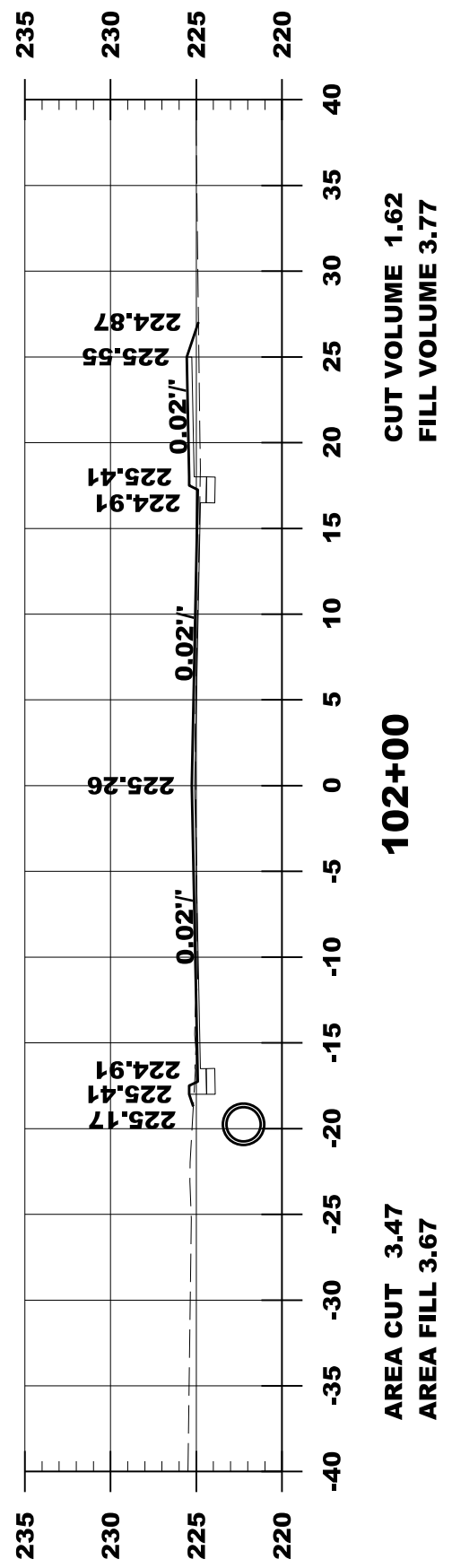
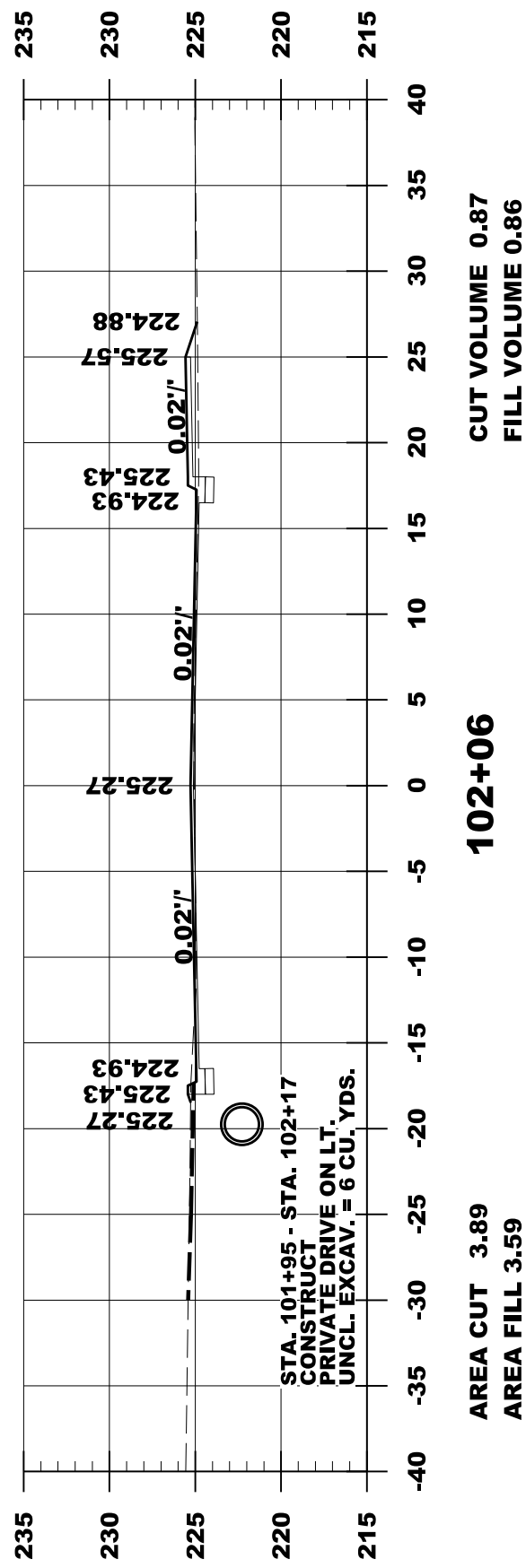


**101+04**  
 AREA CUT 3.60  
 AREA FILL 3.58  
 CUT VOLUME 0.61  
 FILL VOLUME 0.60

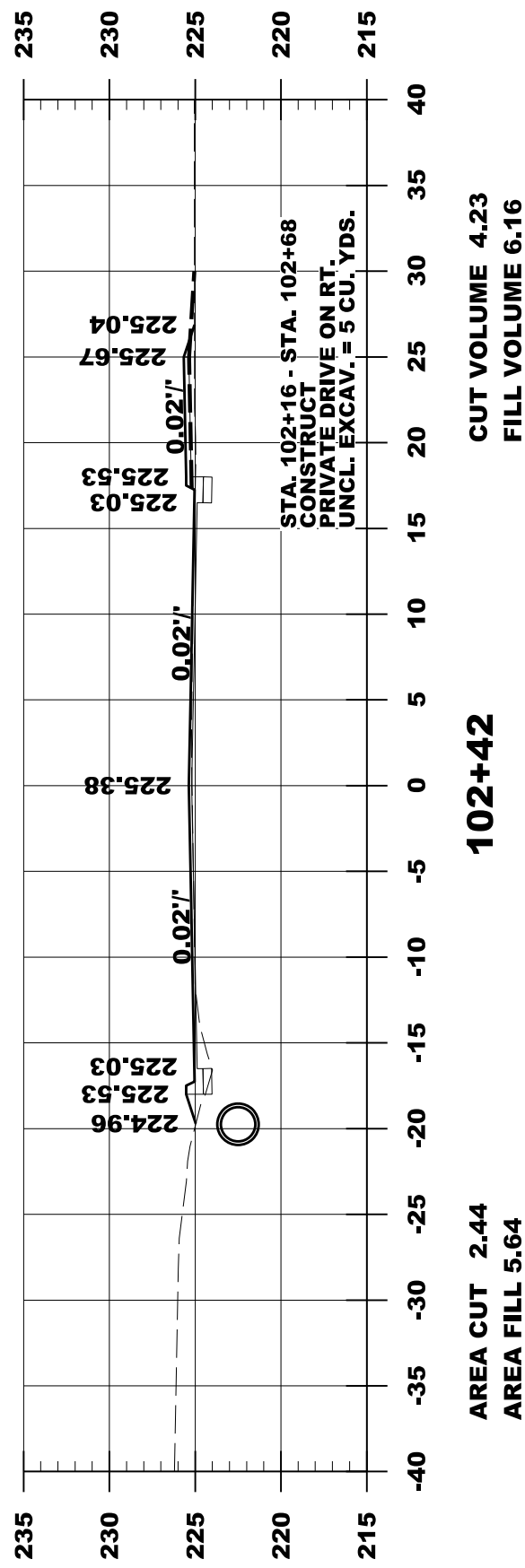
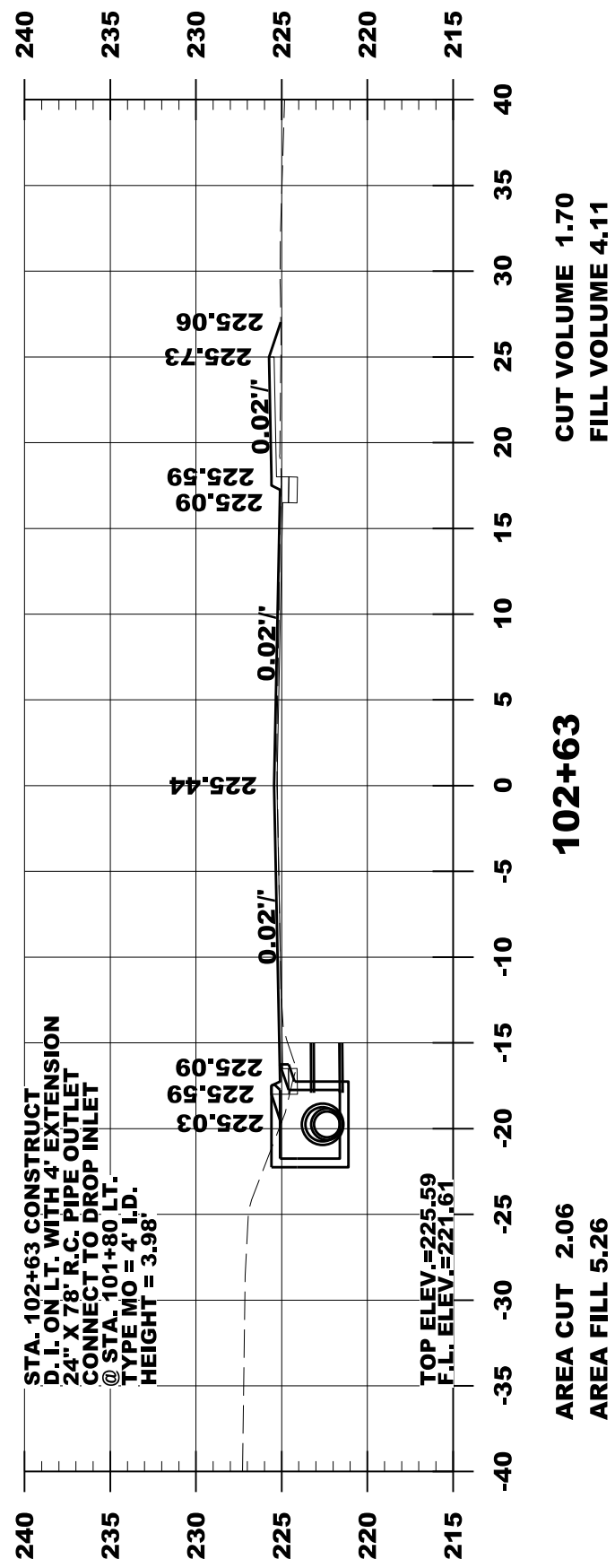
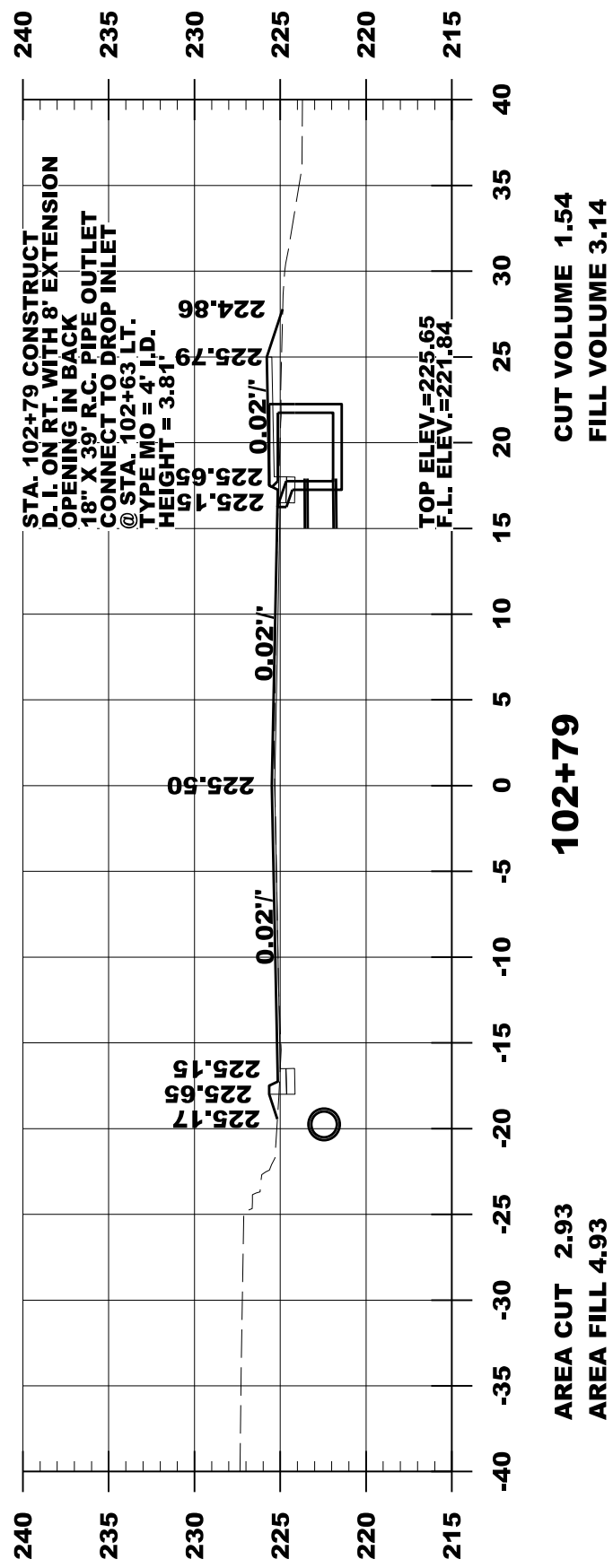
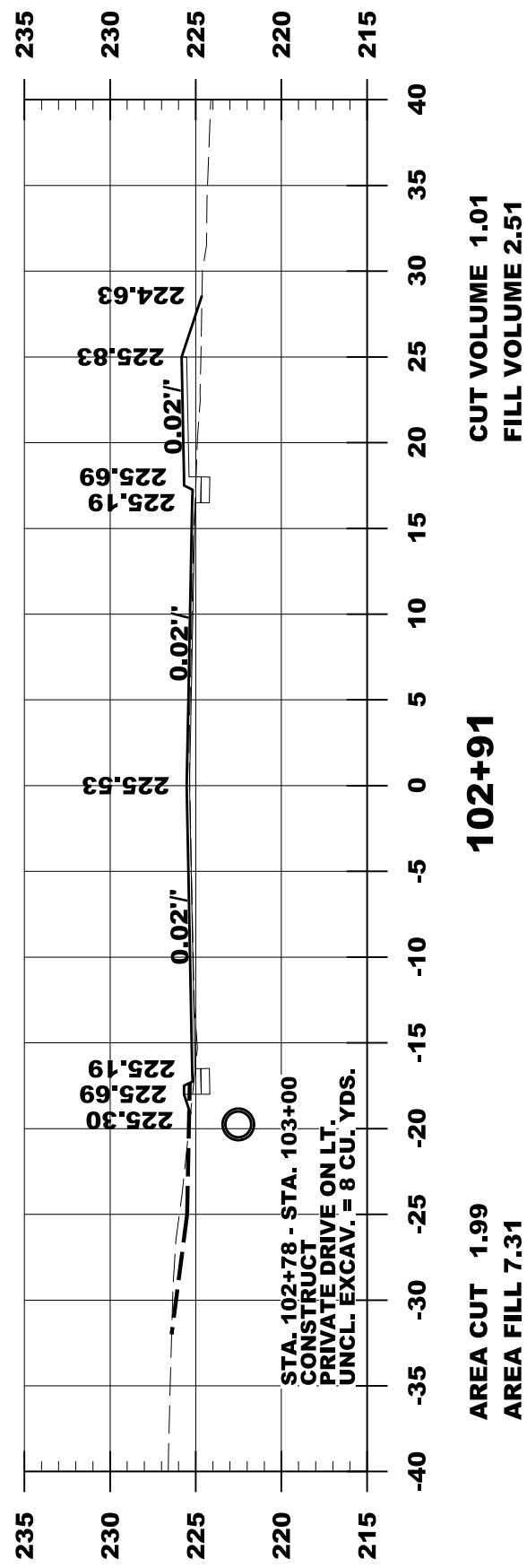


**101+00**  
 AREA CUT 3.93  
 AREA FILL 3.81  
 CUT VOLUME 5.77  
 FILL VOLUME 2.65

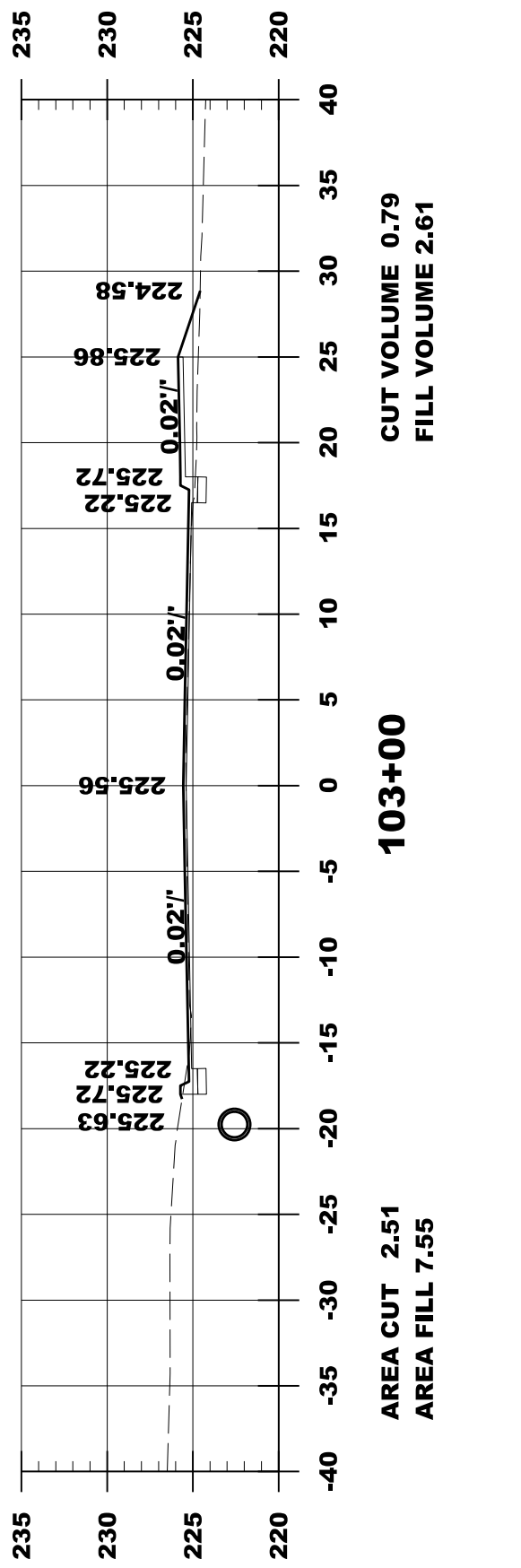
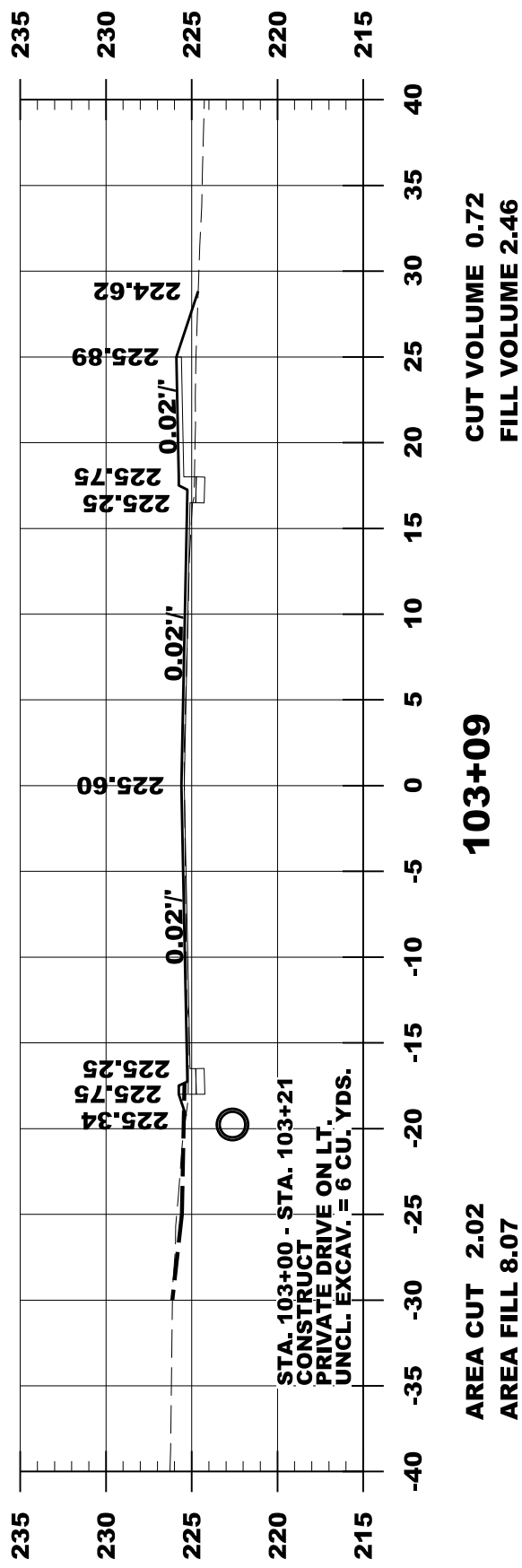
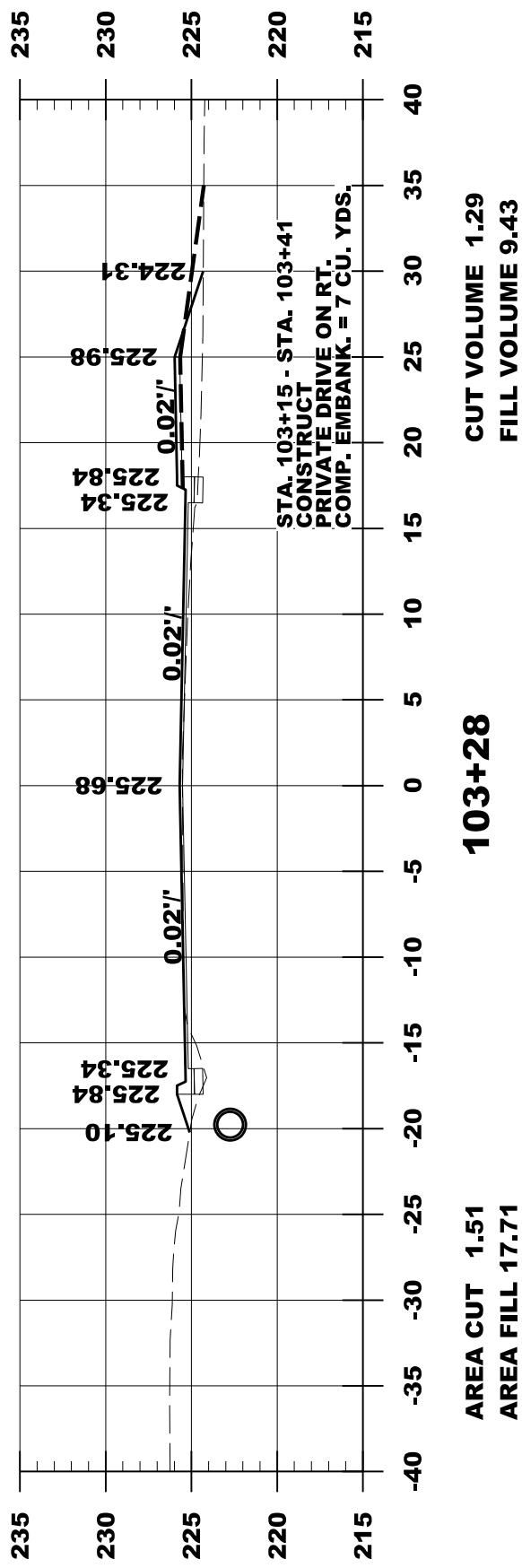
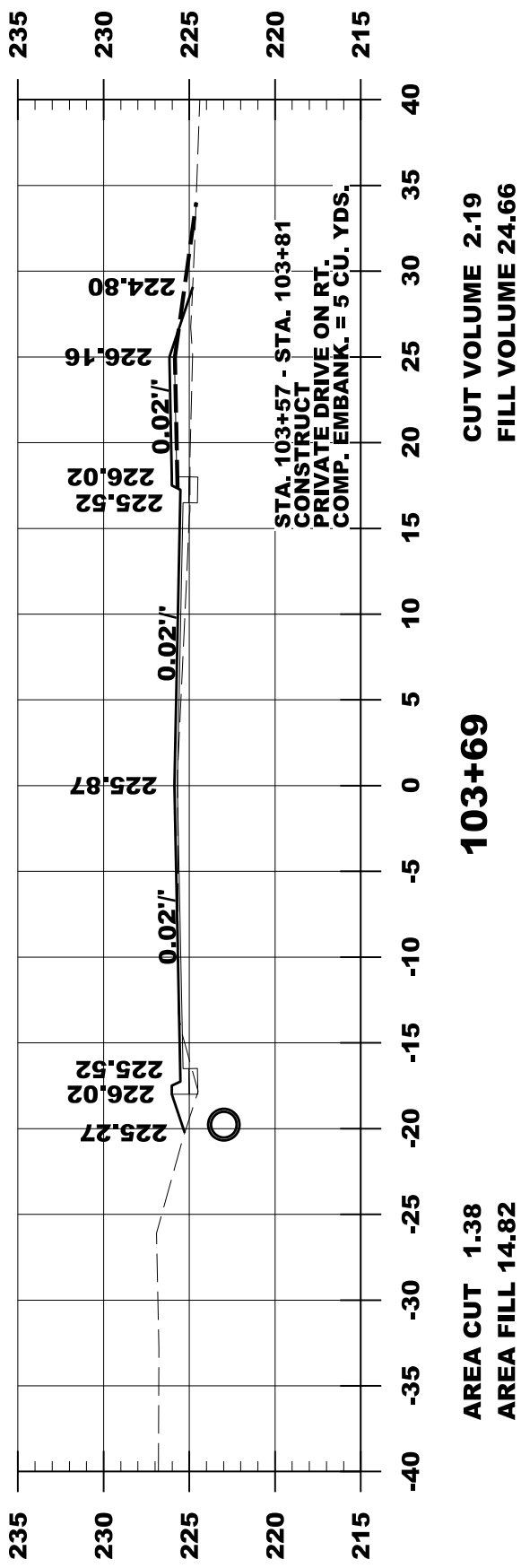
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10-05-2021				6	ARK.			
						JOB NO. C35002	26	41



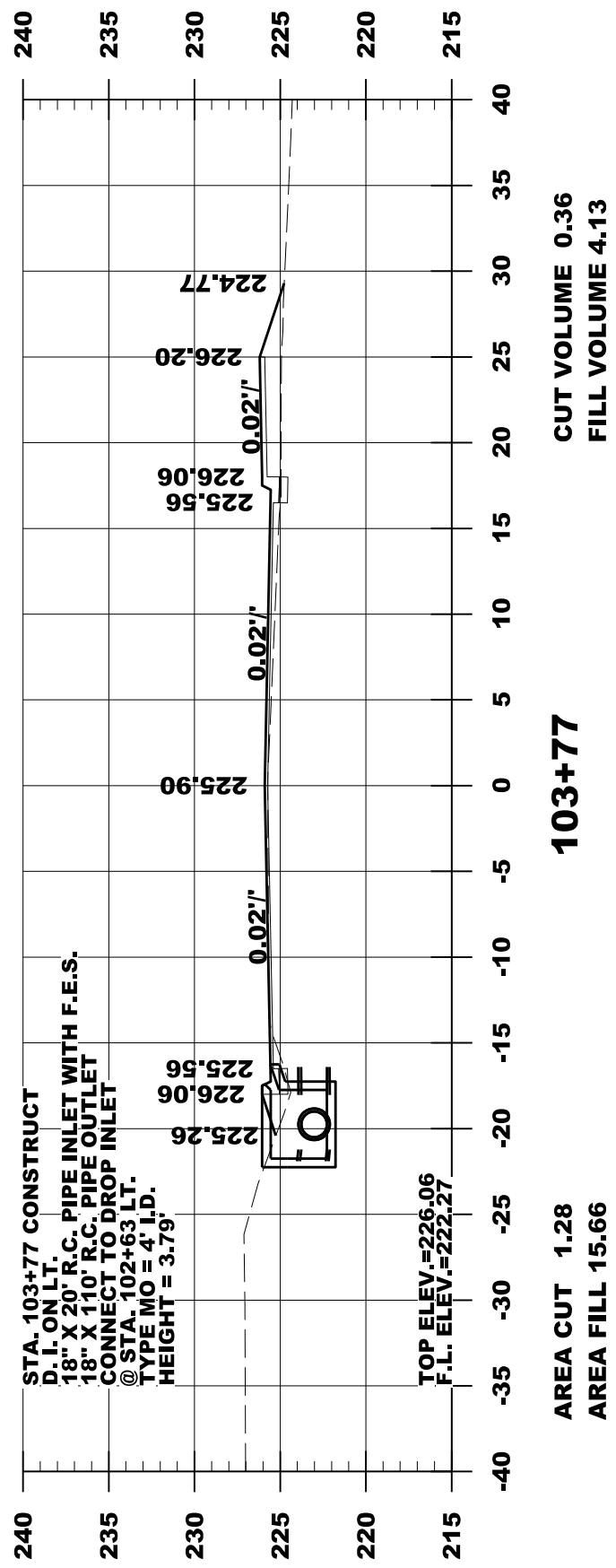
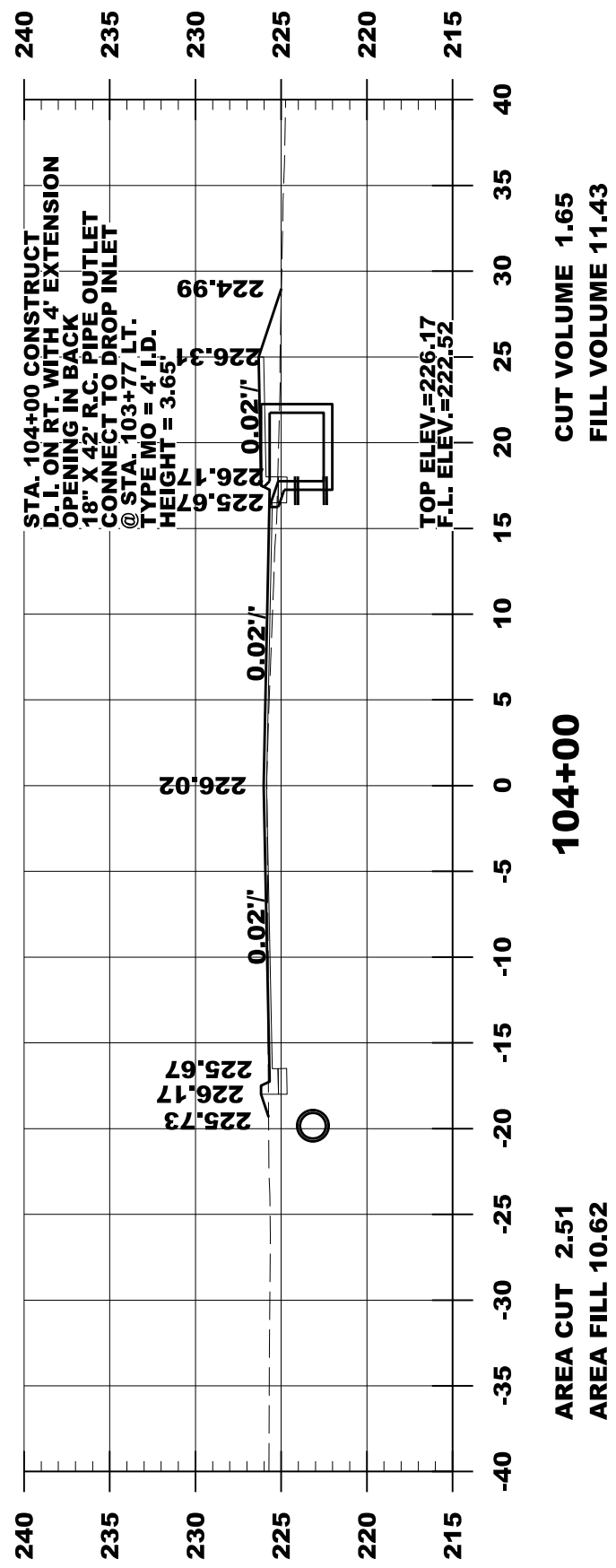
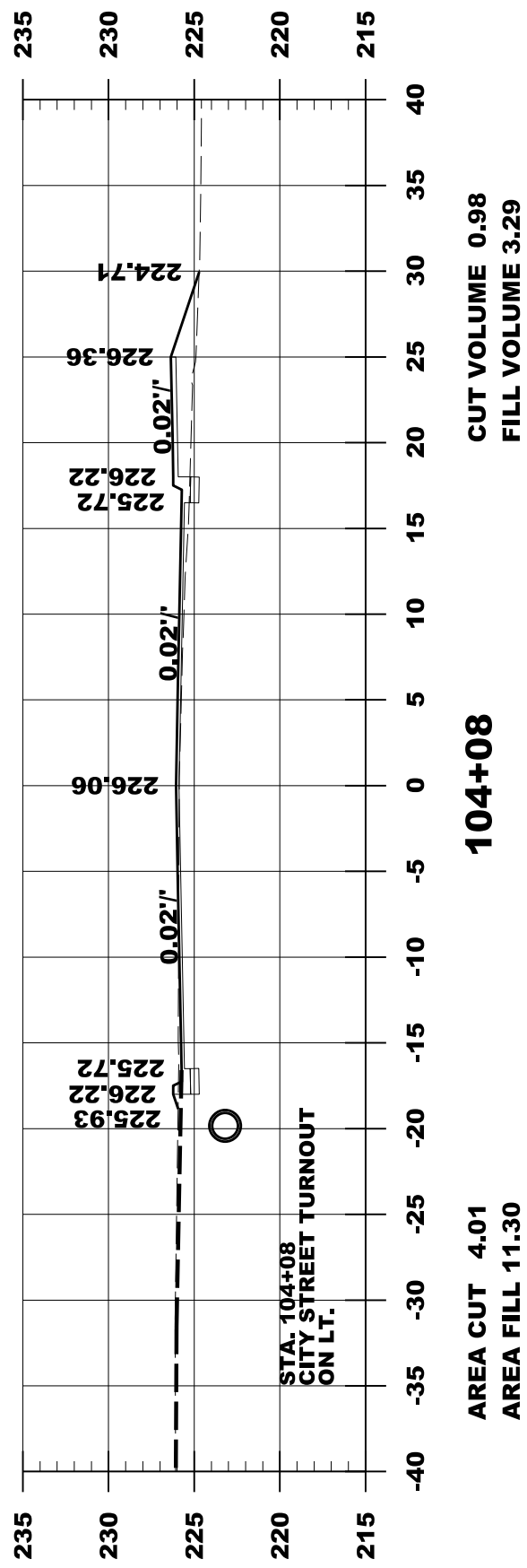
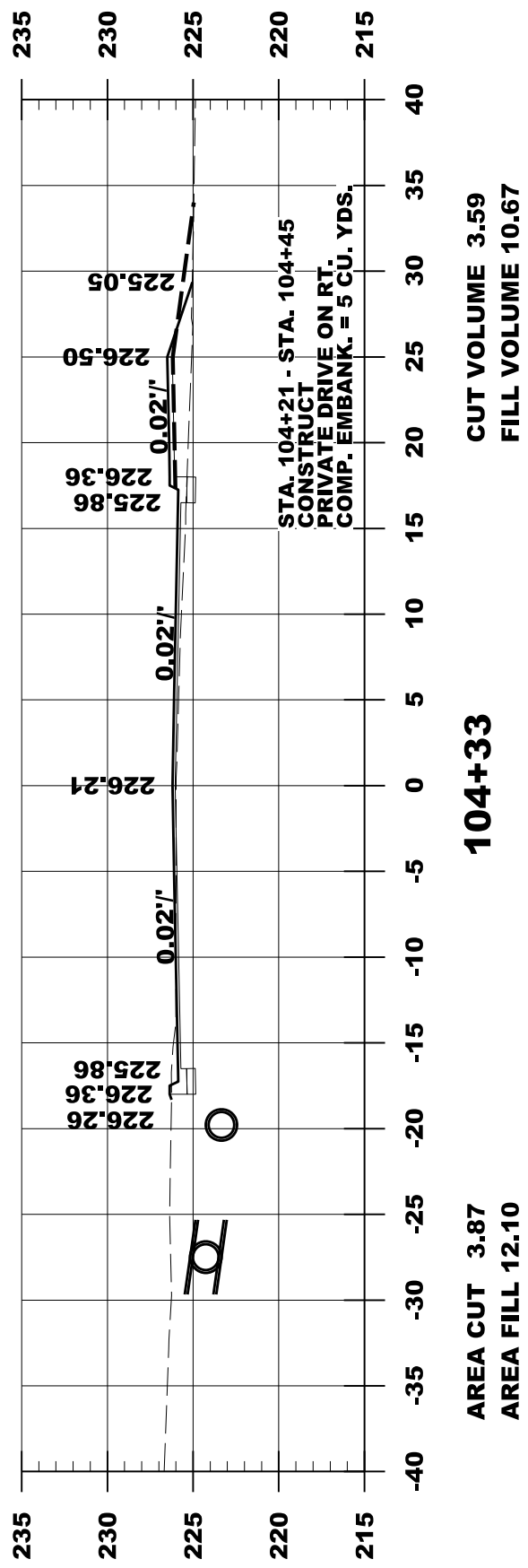
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10-05-2021				6	ARK.		27	41
				JOB NO.		C35002		



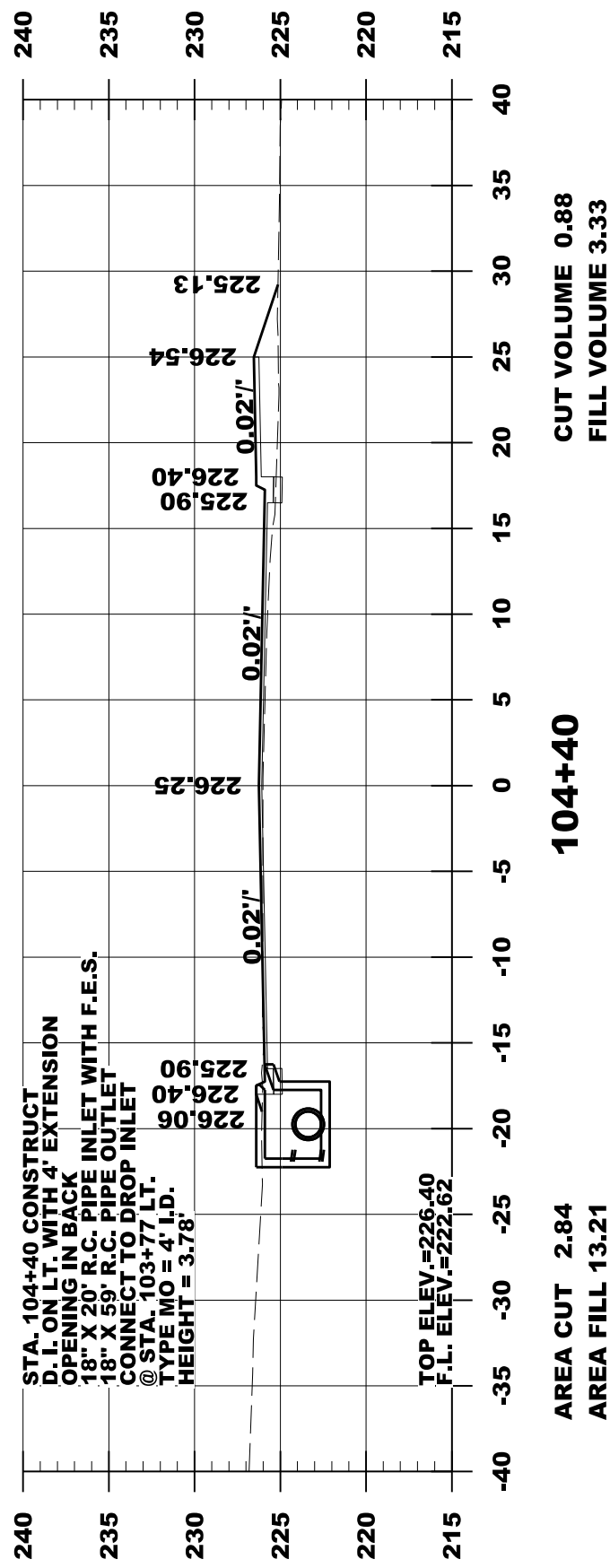
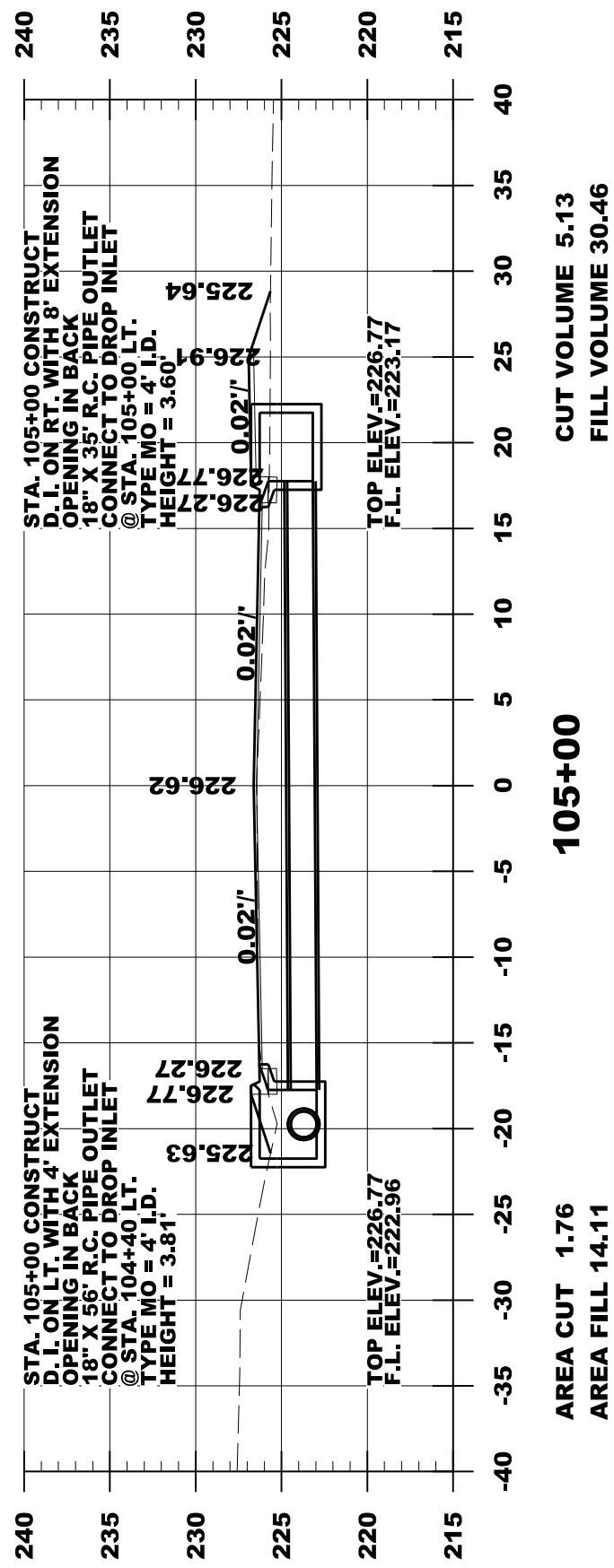
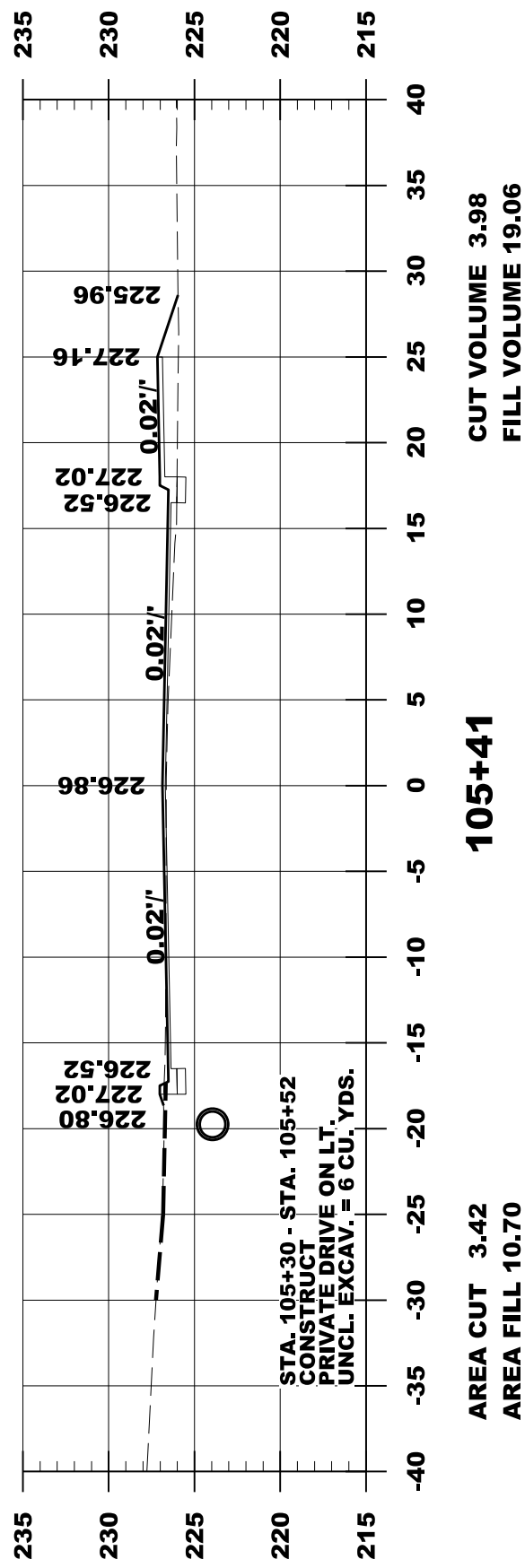
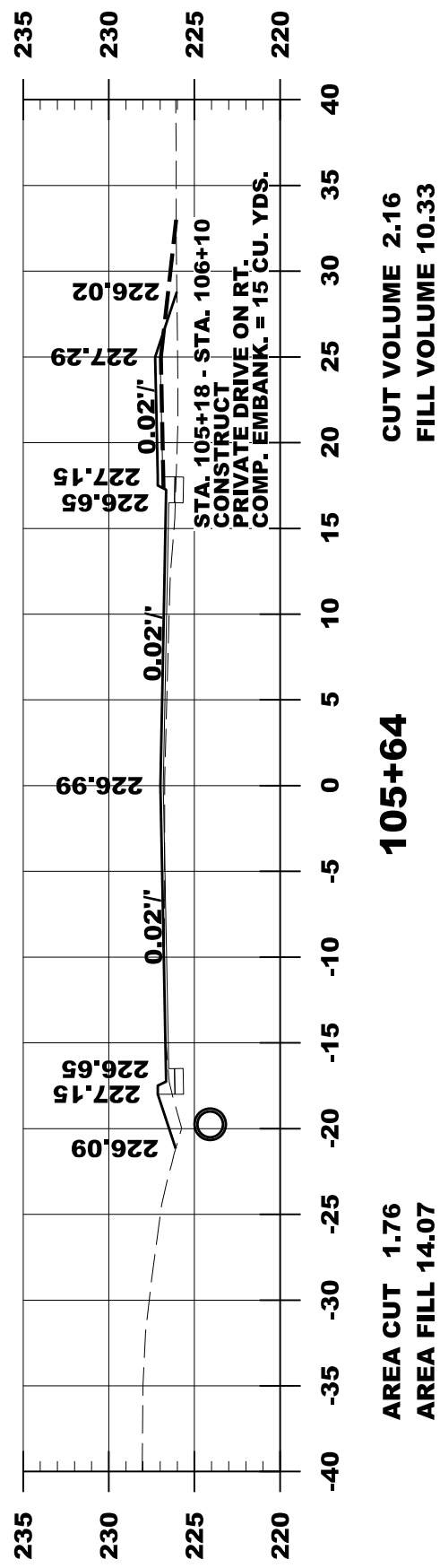
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10-05-2021				6	ARK.			
						JOB NO. C35002	28	41



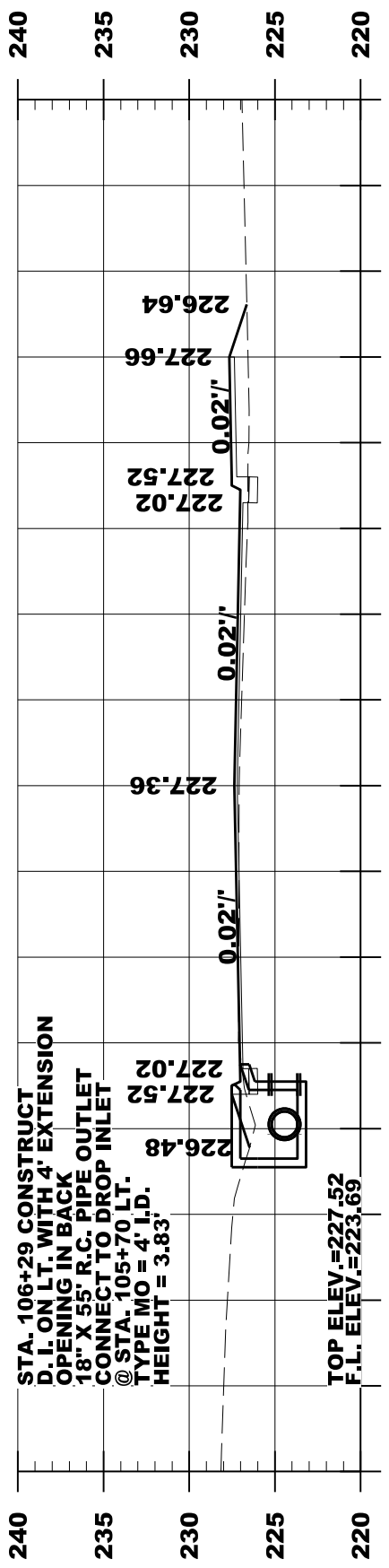
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10-05-2021				6	ARK.		29	41
				JOB NO.		C35002		



DATE REVISION	DATE FILMED	DATE REVISION	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10-05-2021				6	ARK.		30	41
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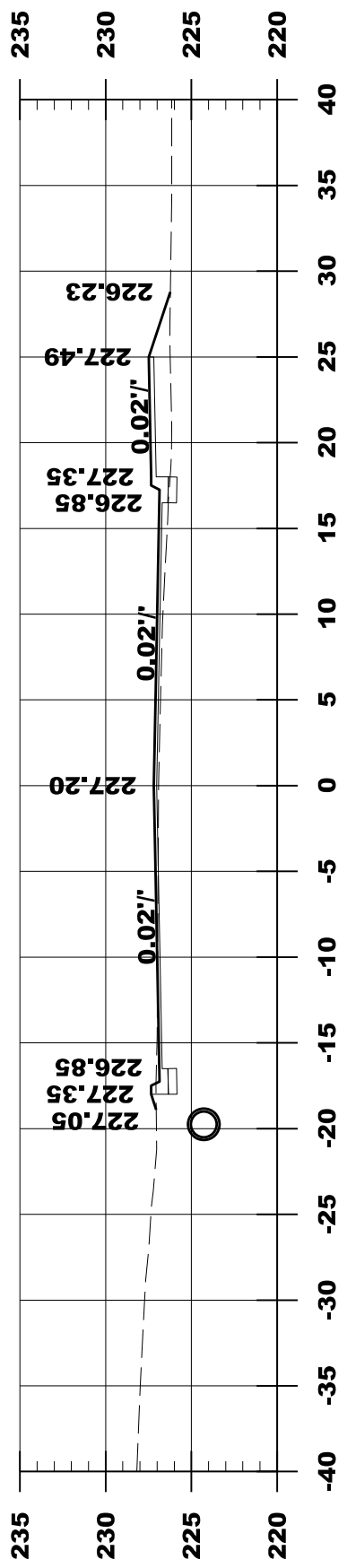
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10-05-2021				6	ARK.			
				JOB NO.	C35002		31	41



**106+29**

AREA CUT 1.93  
AREA FILL 12.46

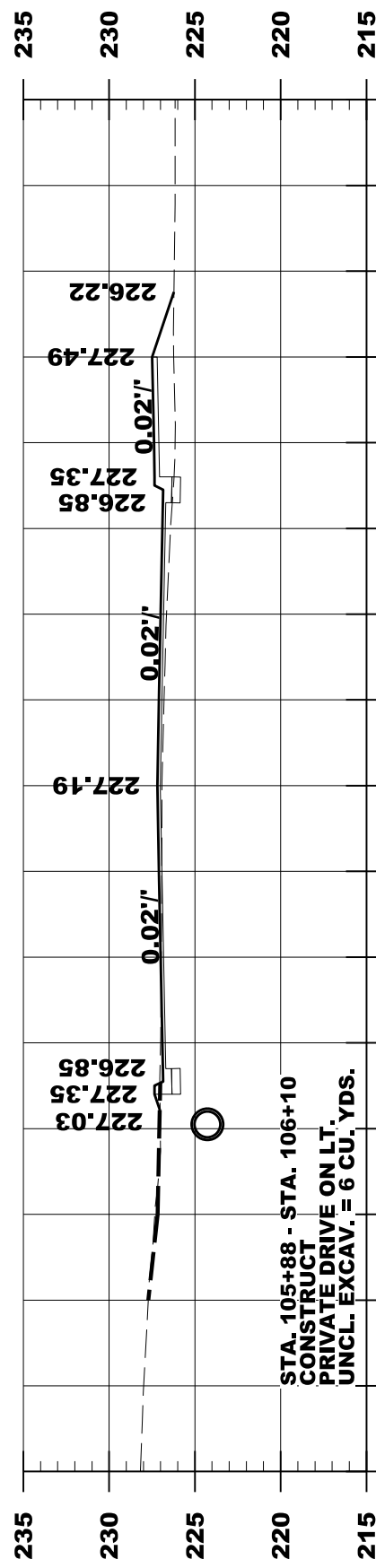
CUT VOLUME 2.63  
FILL VOLUME 13.52



**106+00**

AREA CUT 2.92  
AREA FILL 12.47

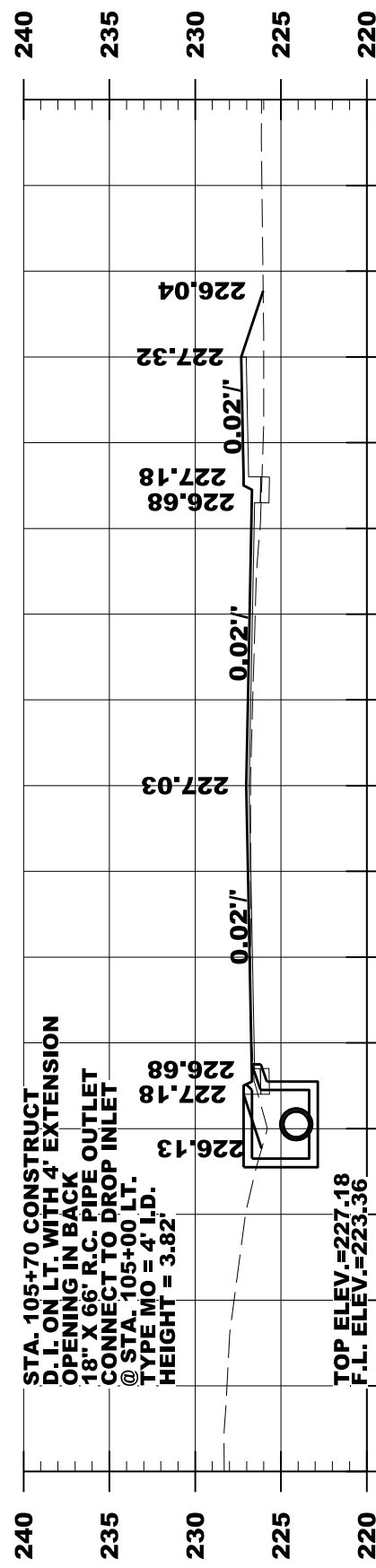
CUT VOLUME 0.10  
FILL VOLUME 0.41



**105+99**

AREA CUT 2.89  
AREA FILL 12.51

CUT VOLUME 2.47  
FILL VOLUME 14.27

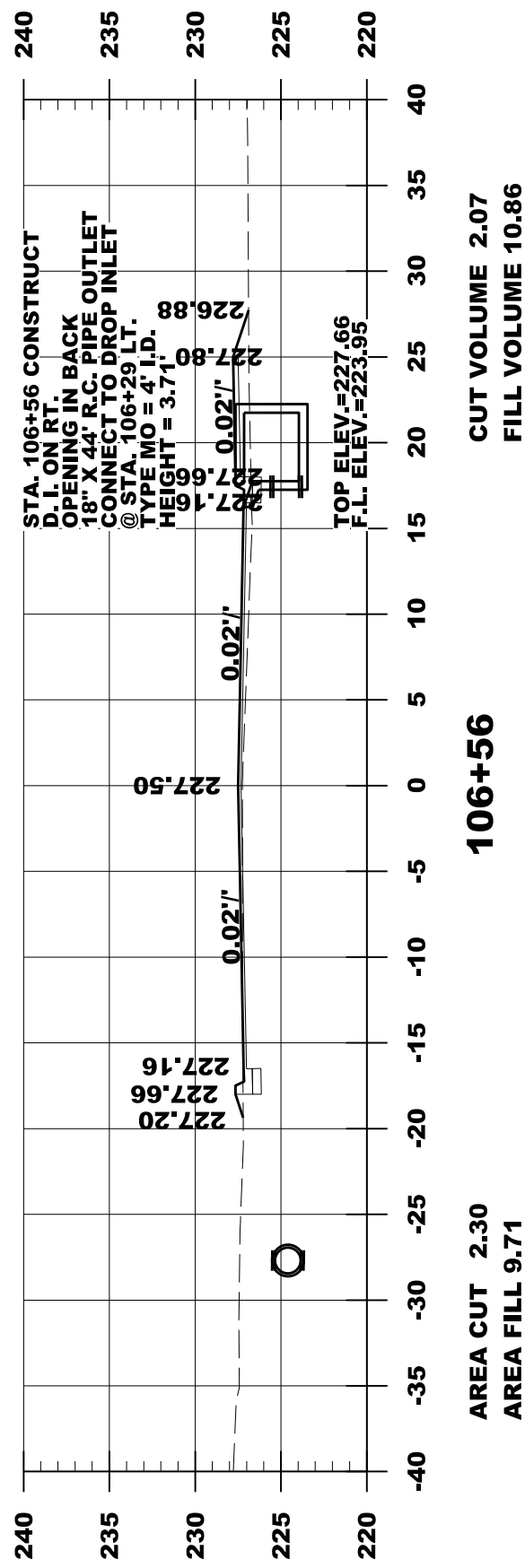
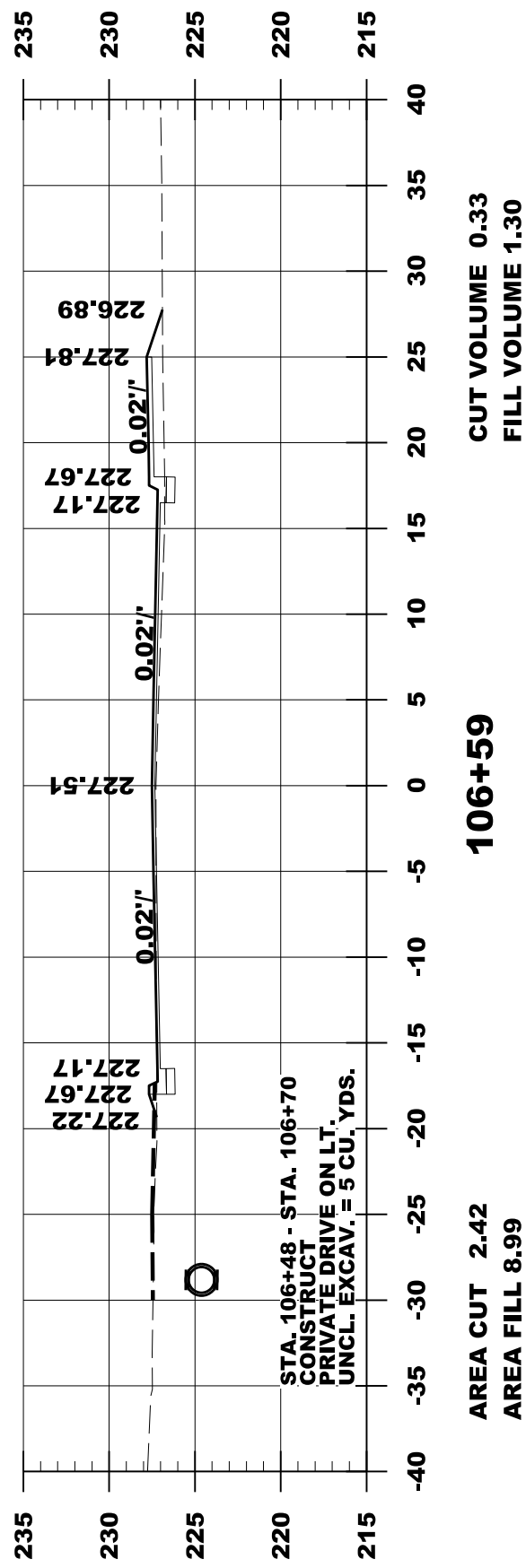
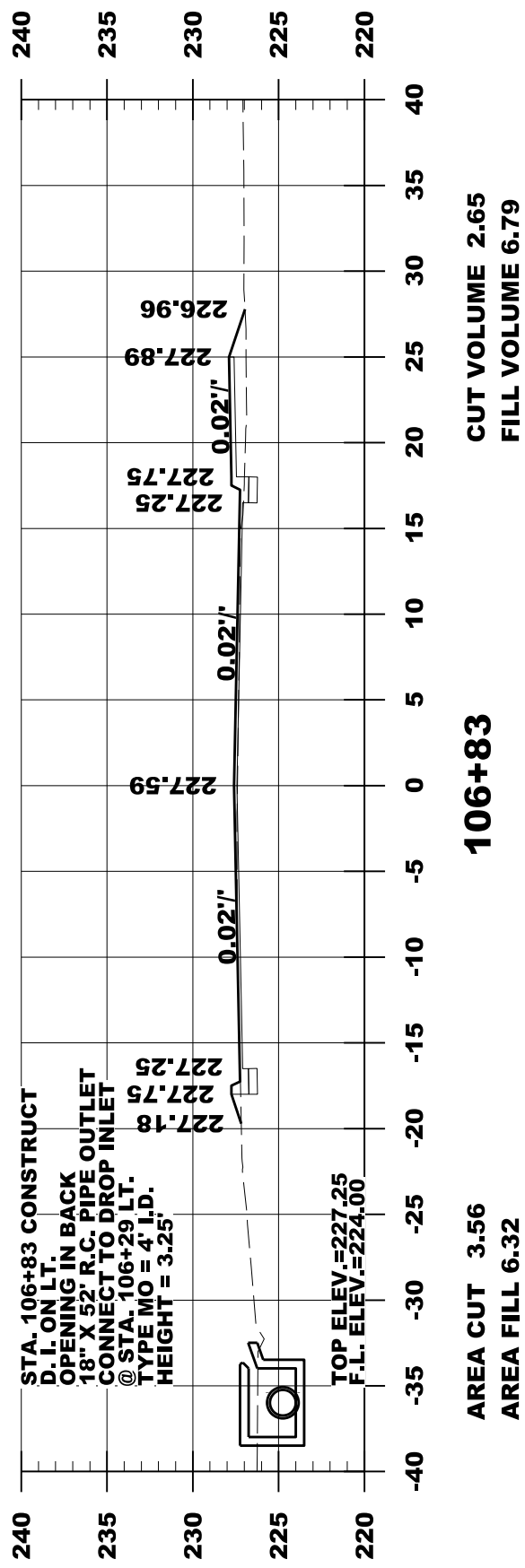
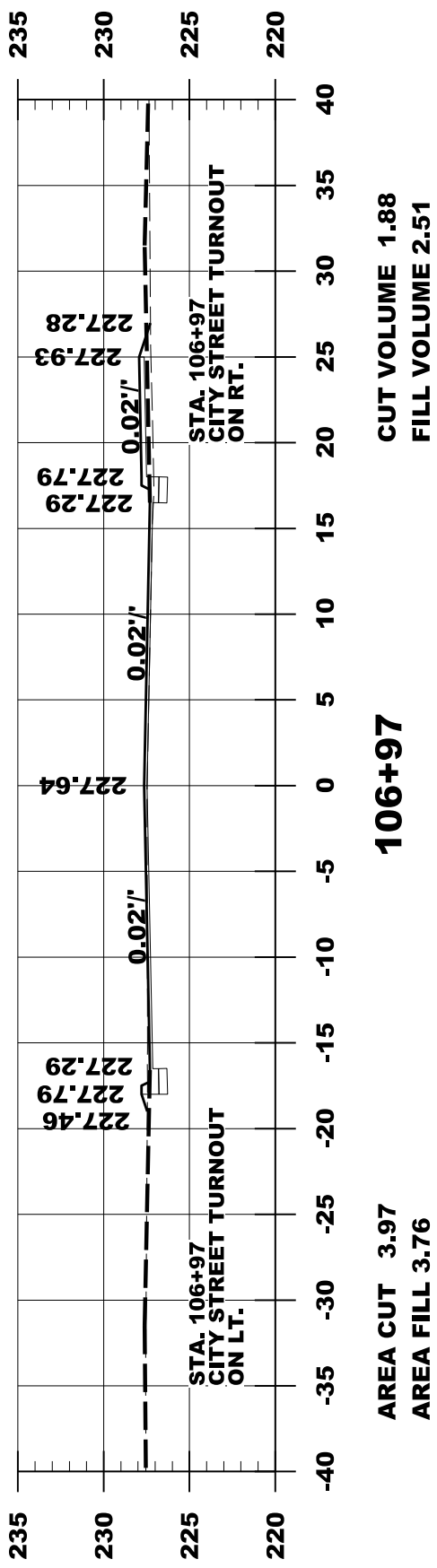


**105+70**

AREA CUT 1.74  
AREA FILL 14.21

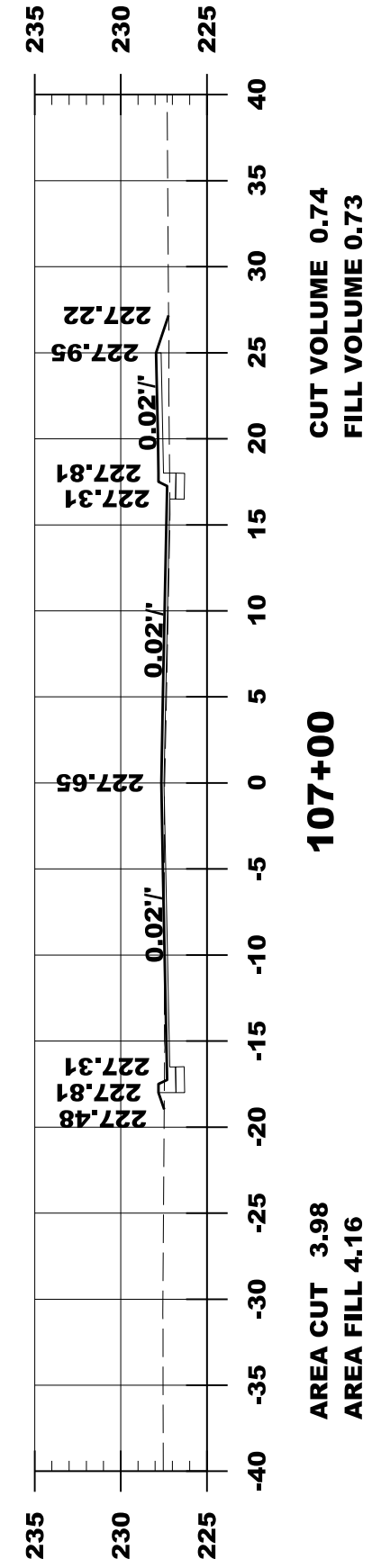
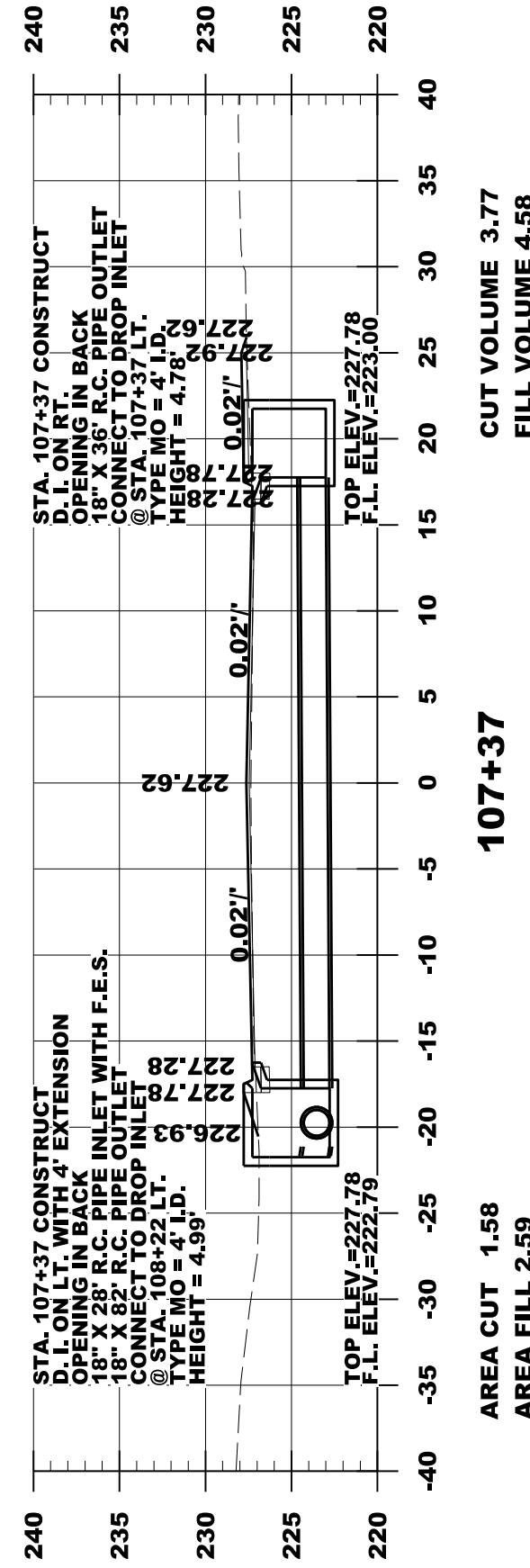
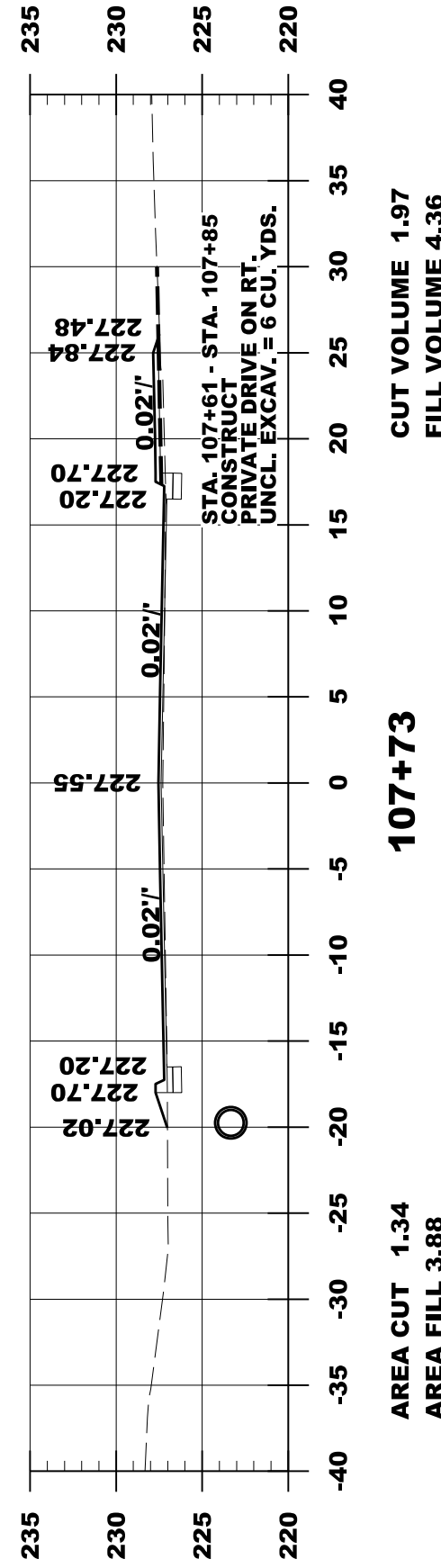
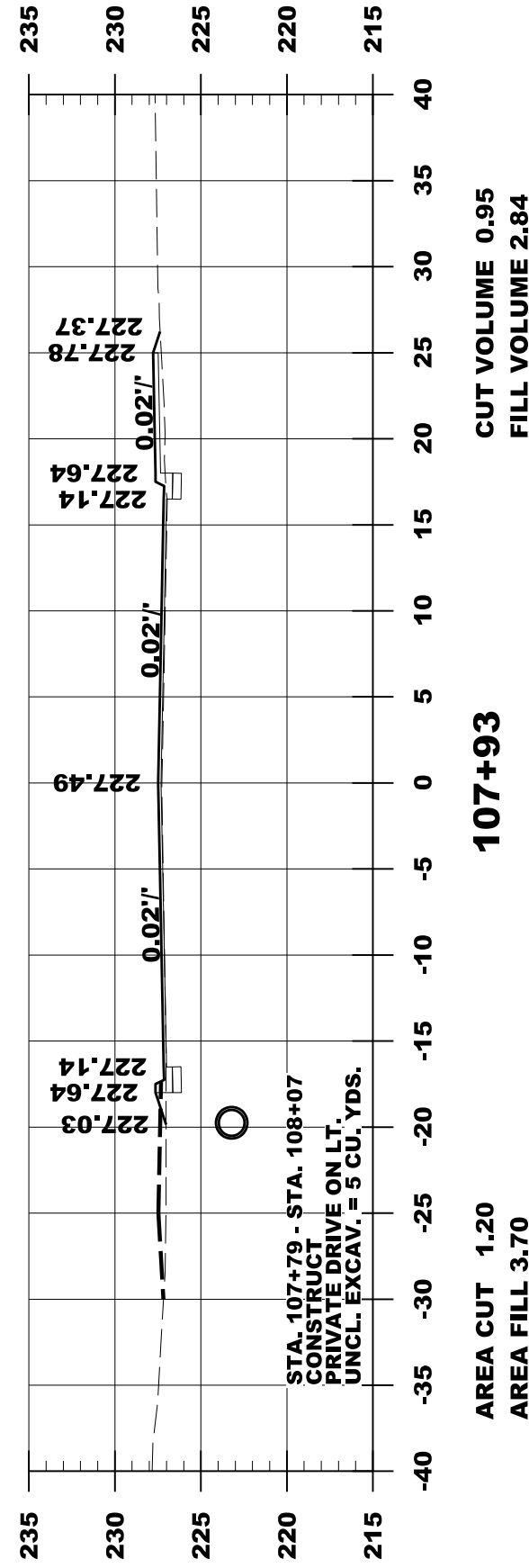
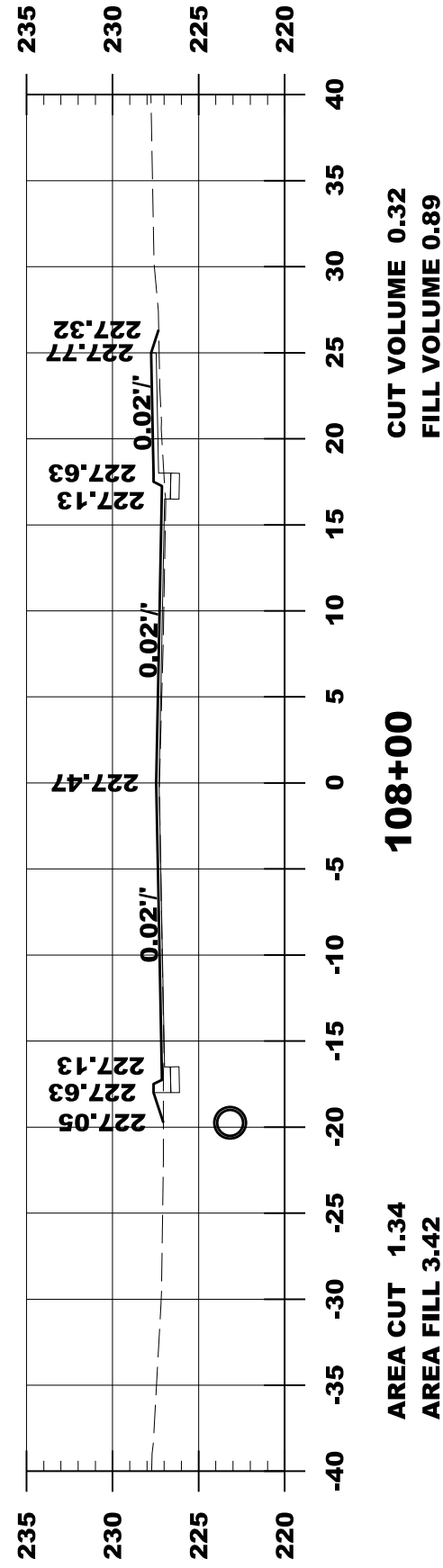
CUT VOLUME 0.41  
FILL VOLUME 3.30

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10-05-2021				6	ARK.		32	41
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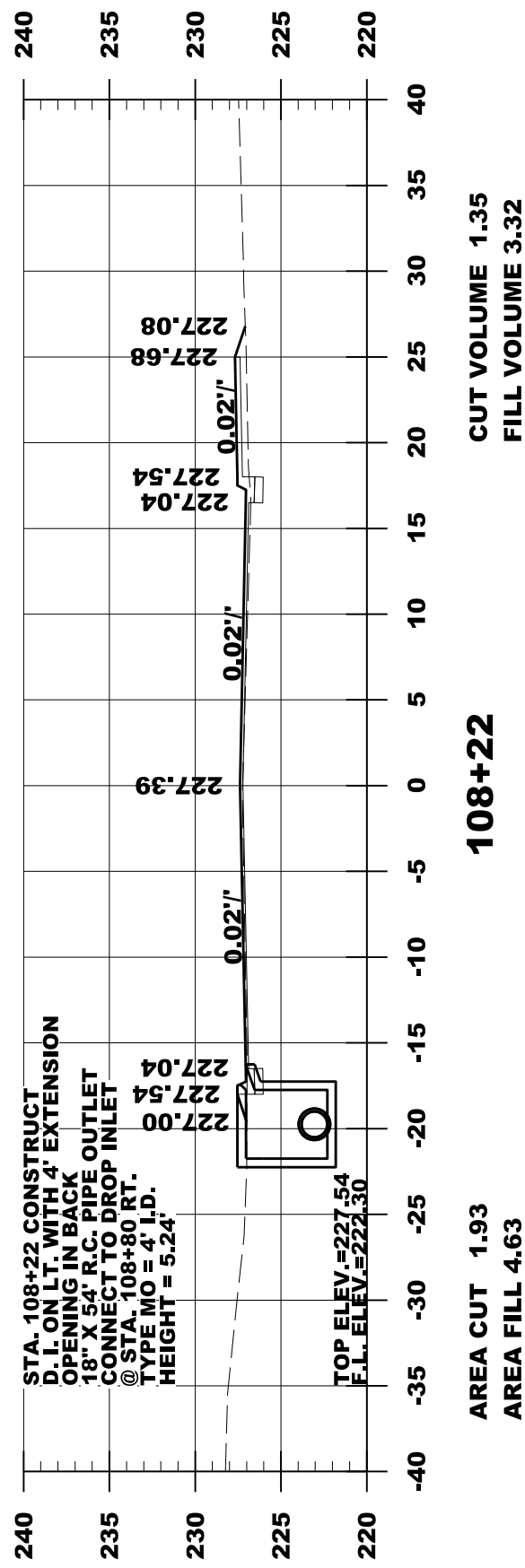
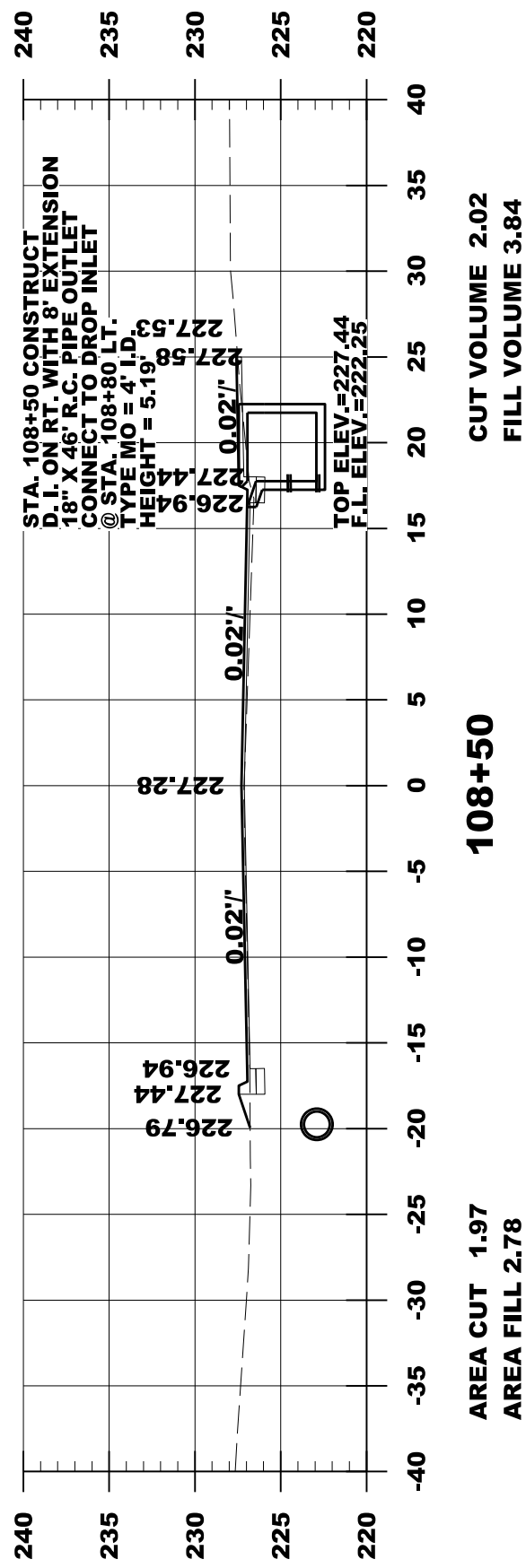
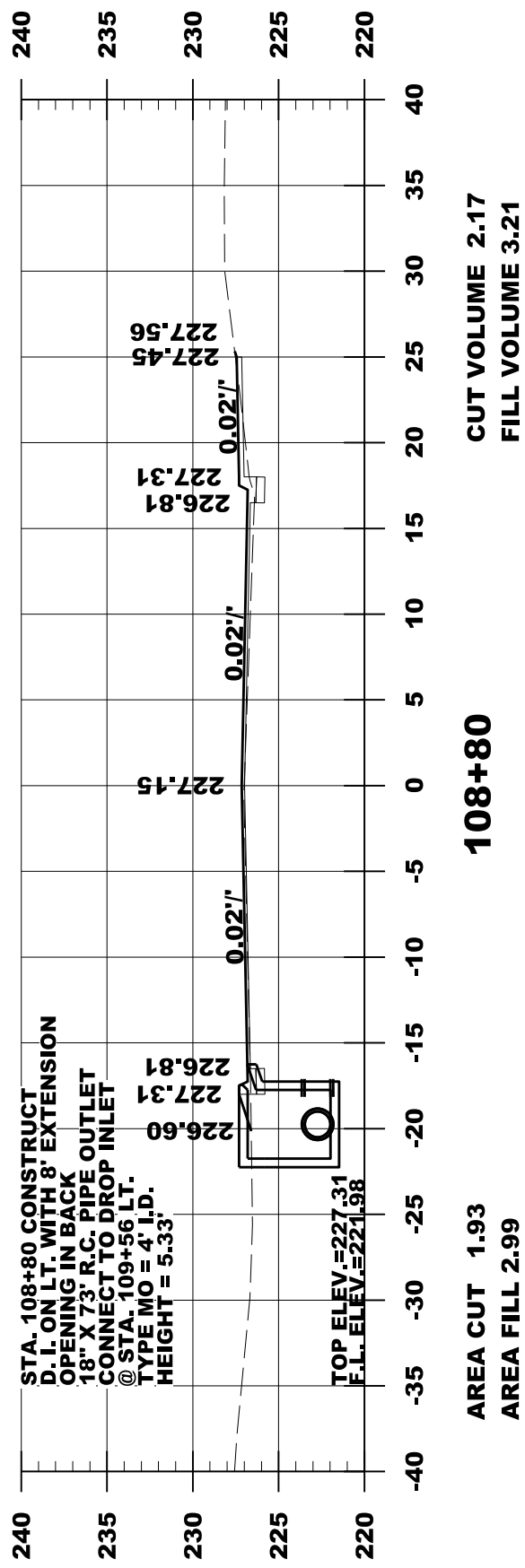
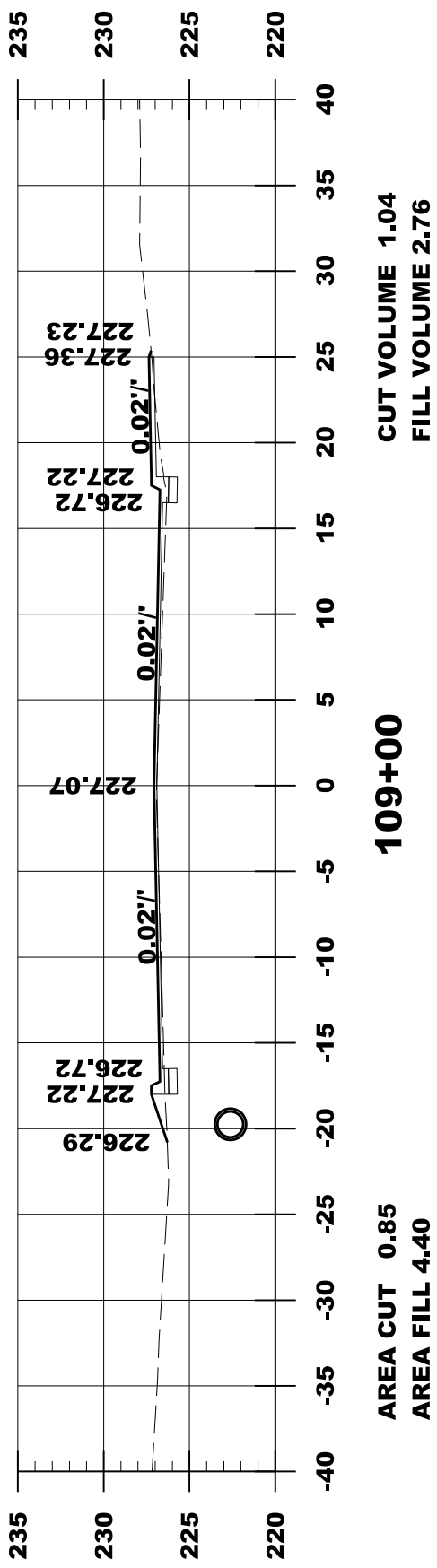




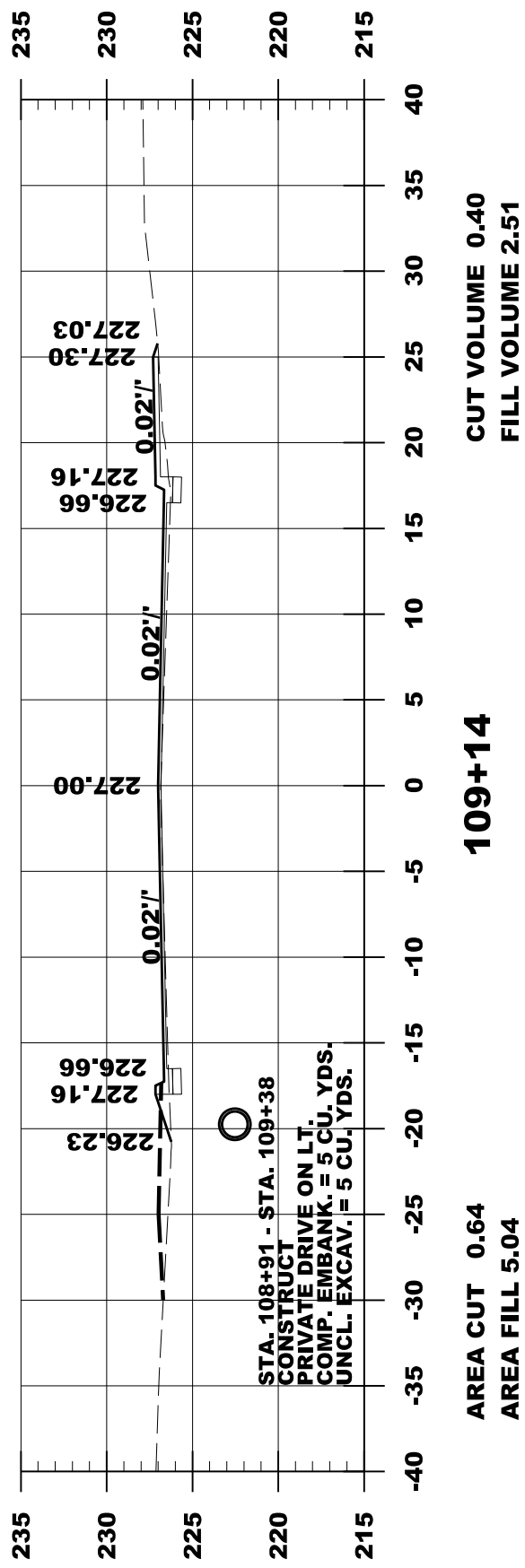
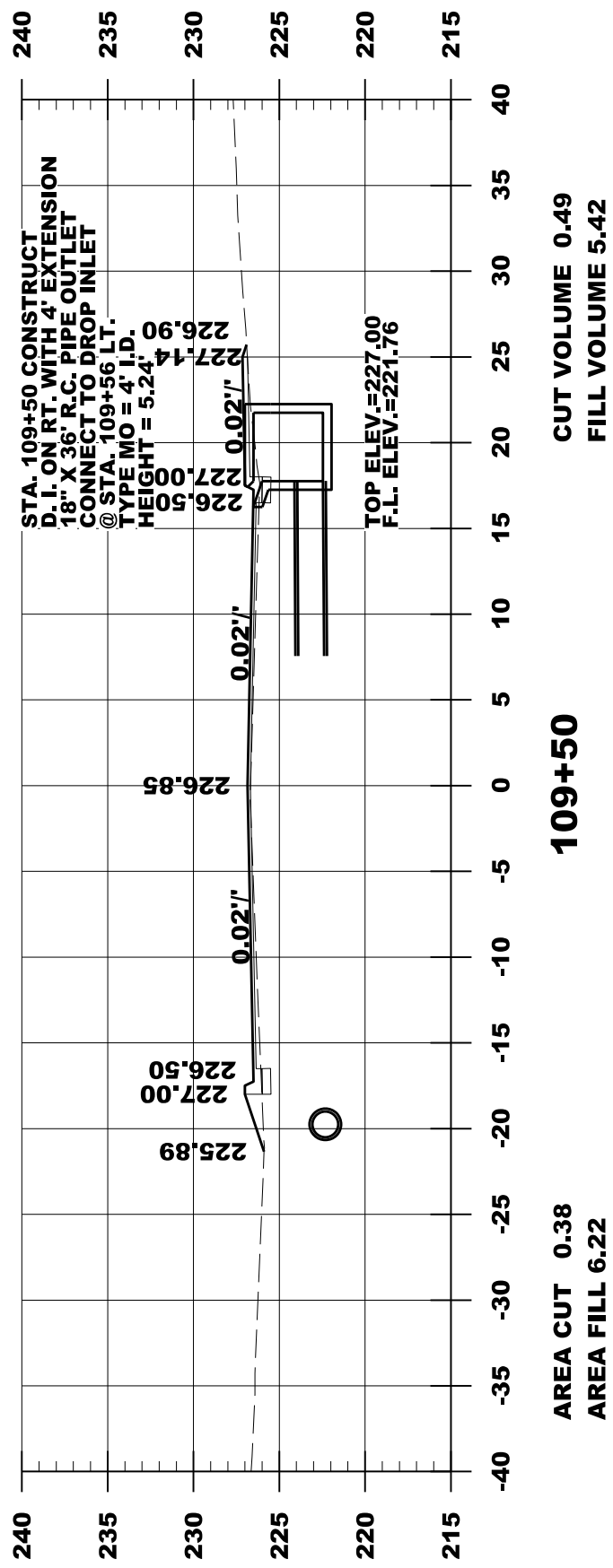
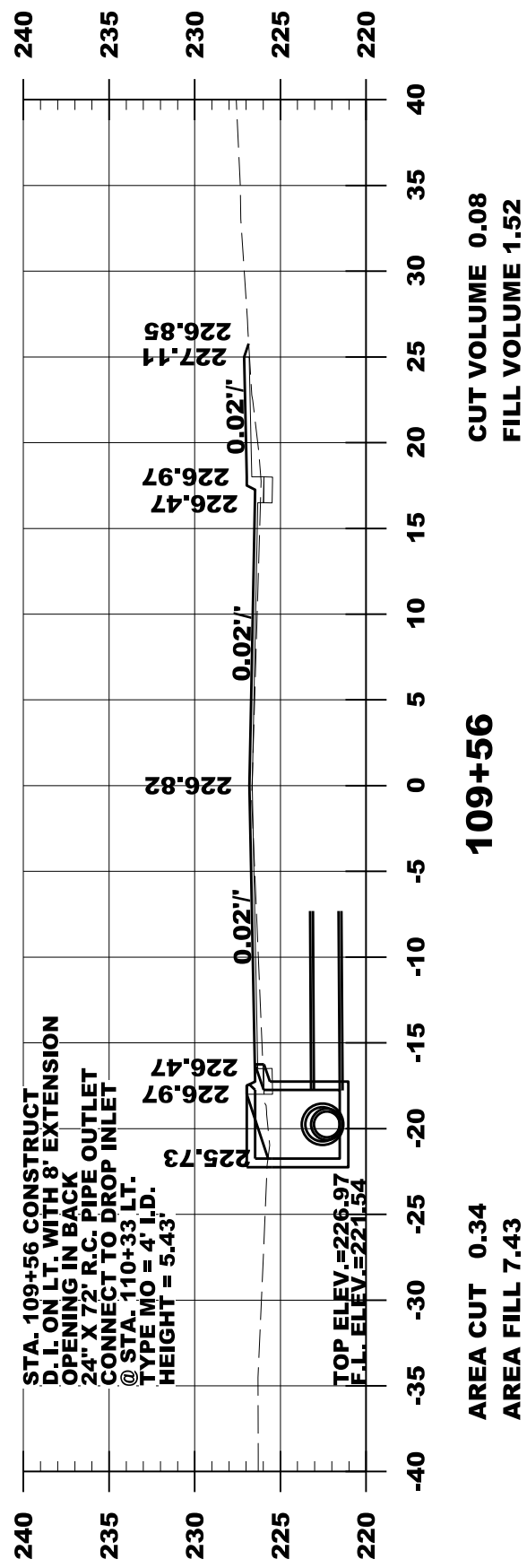
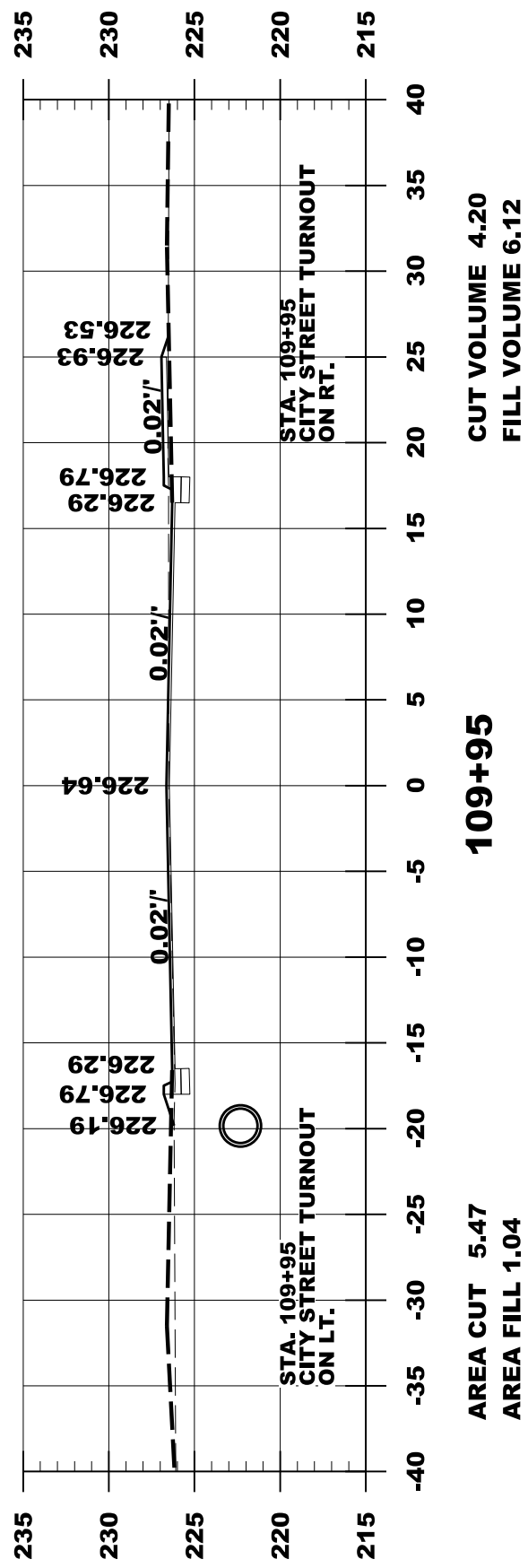
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10-05-2021				6	ARK.		33	41
				JOB NO.		C35002		



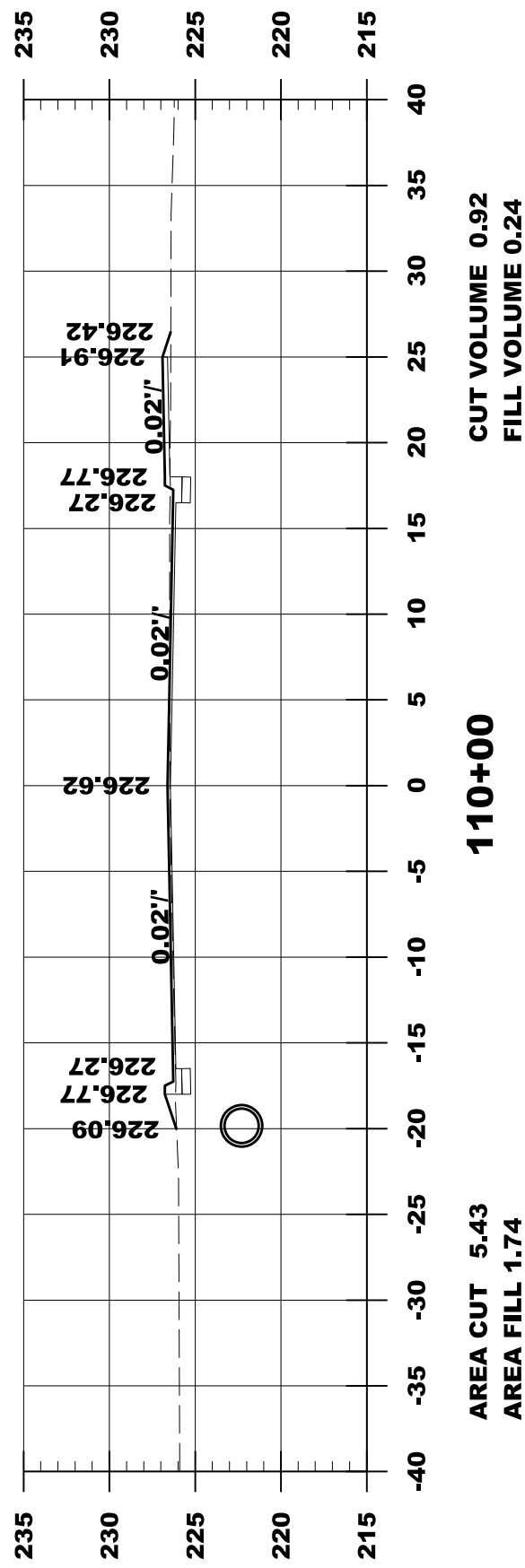
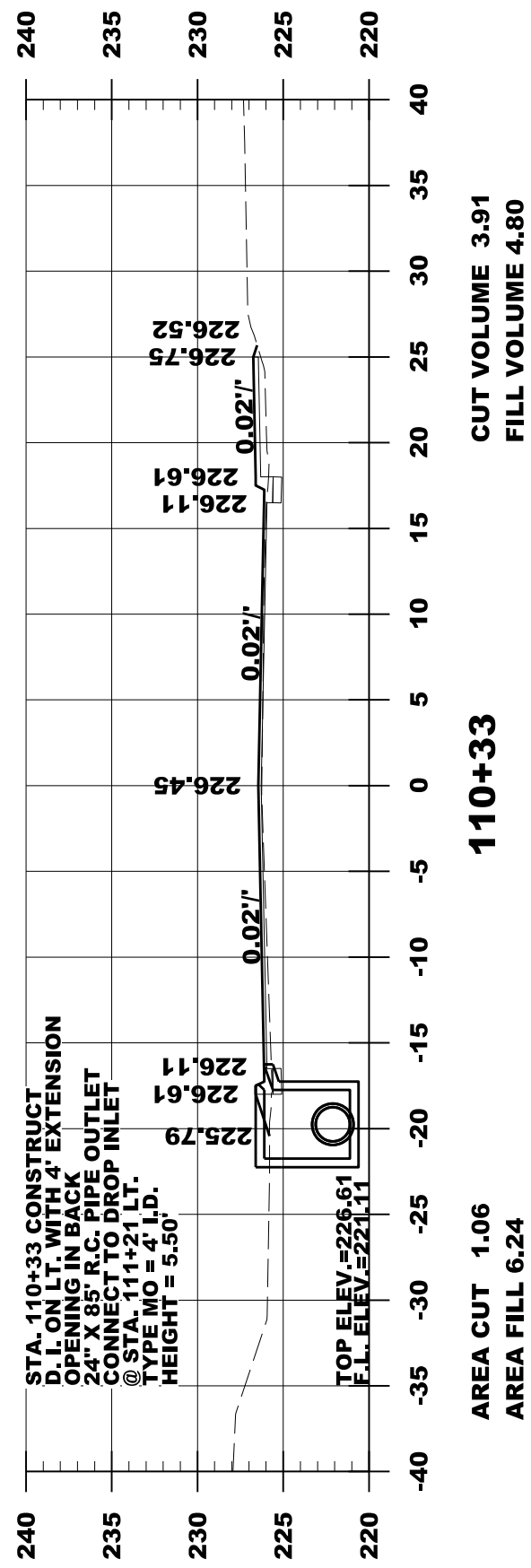
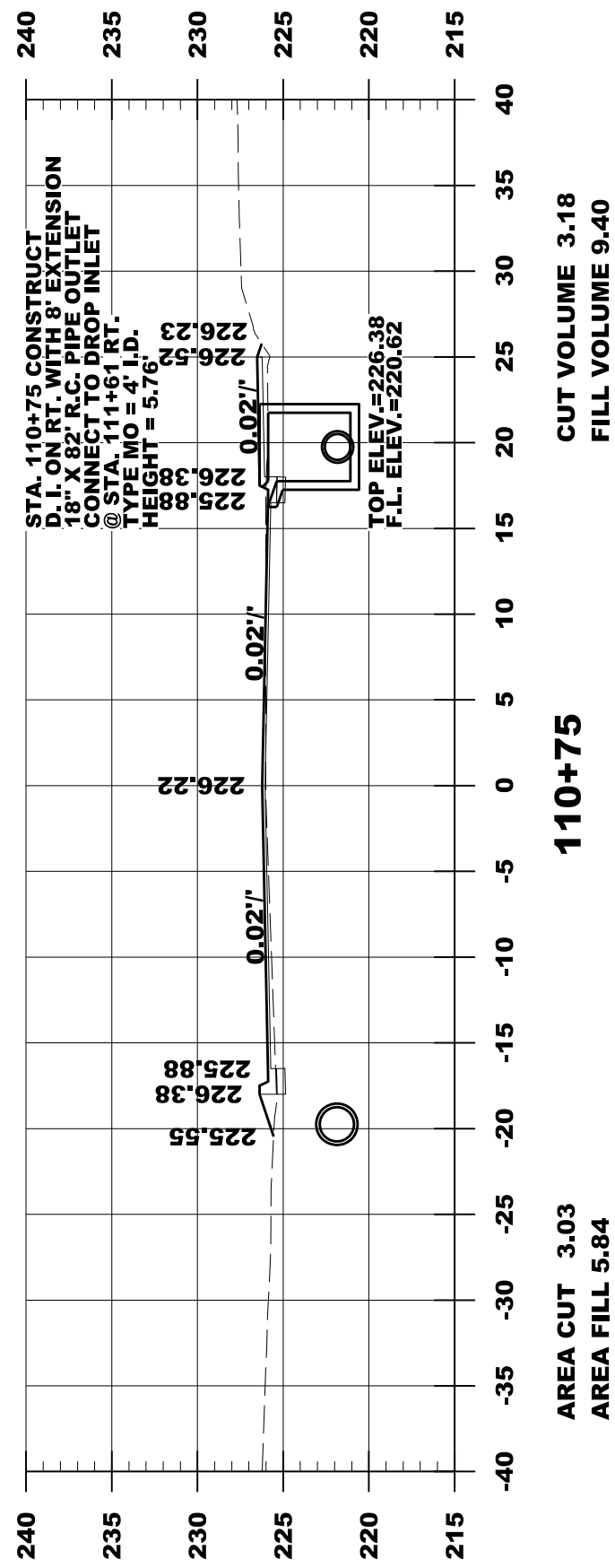
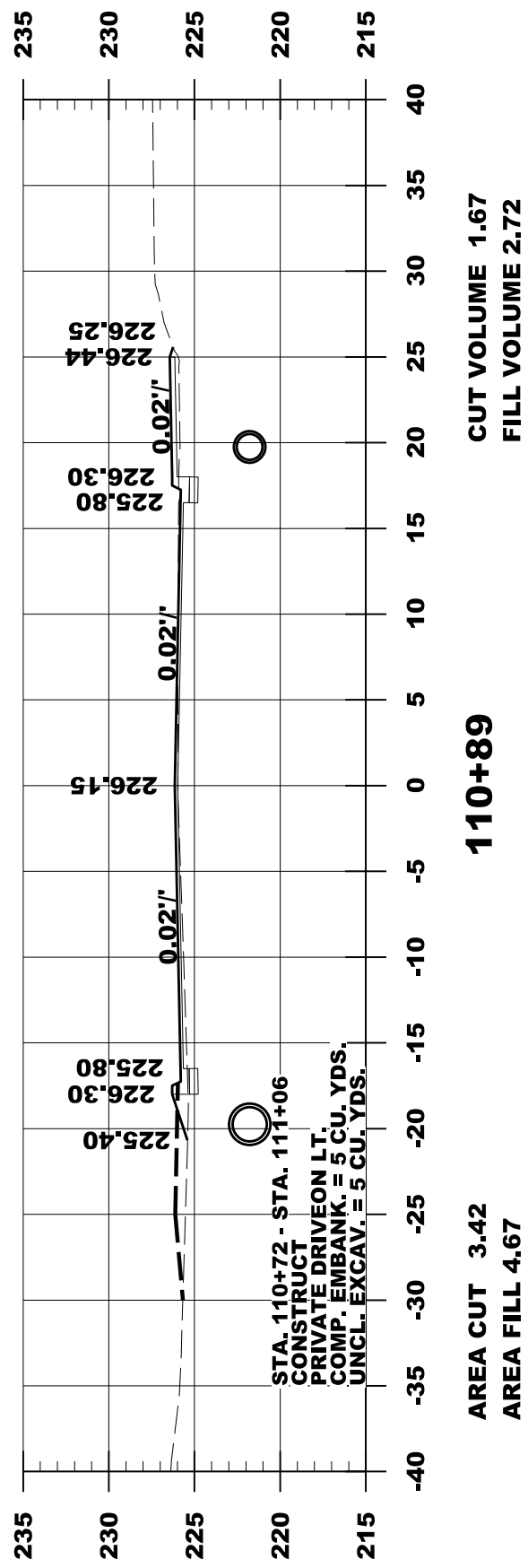
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10-05-2021				6	ARK.		34	41
				JOB NO.		C35002		



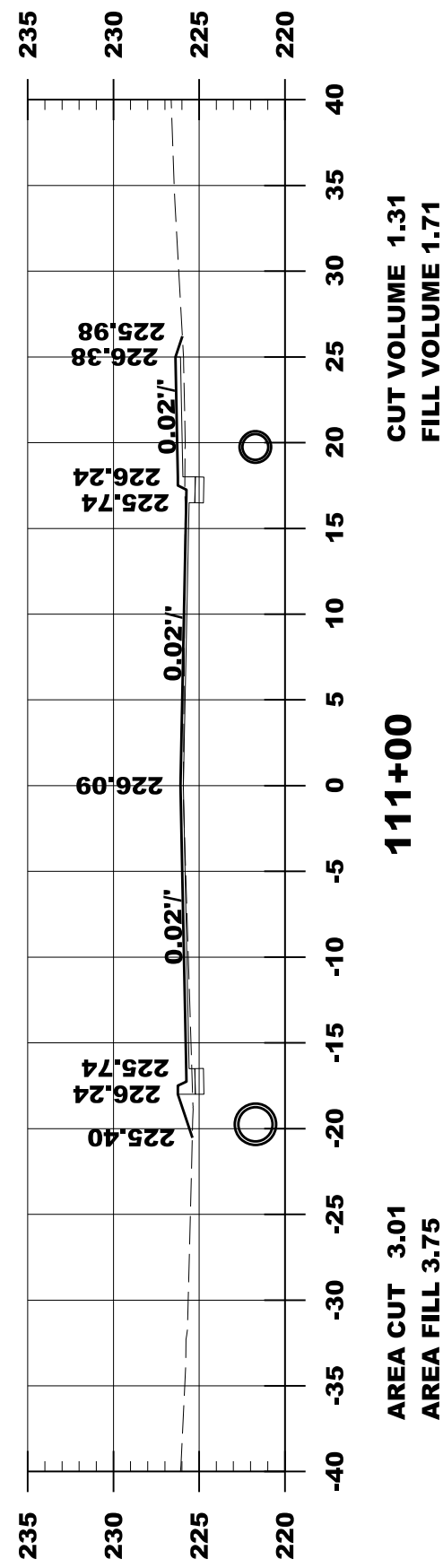
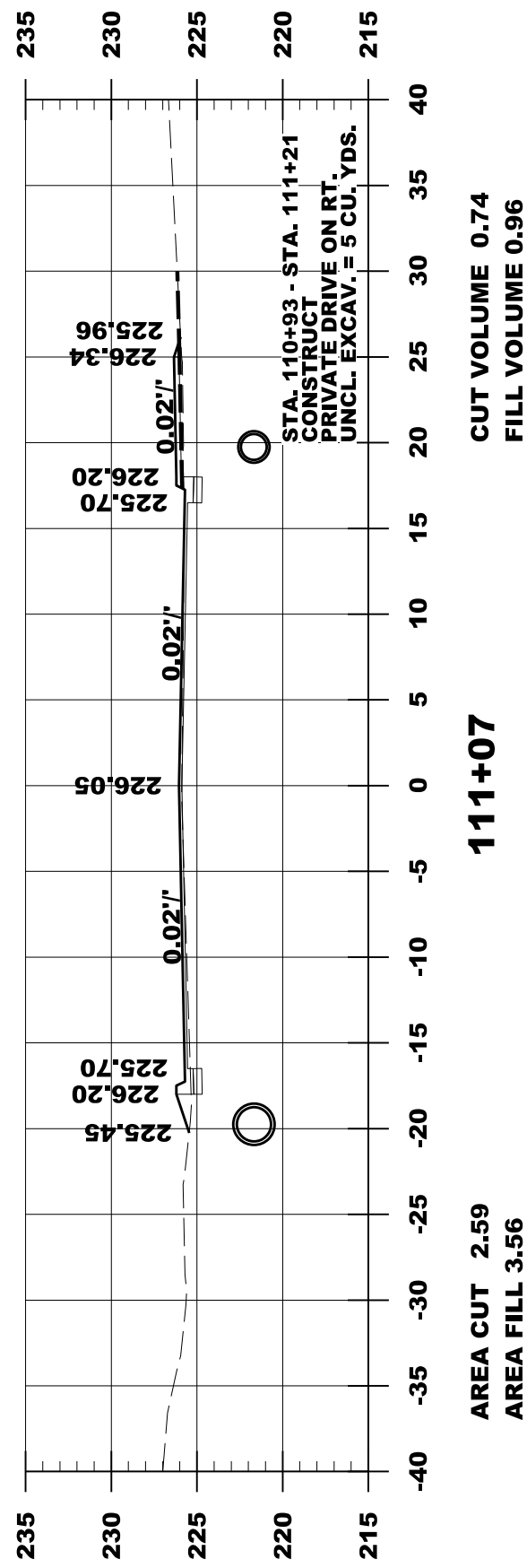
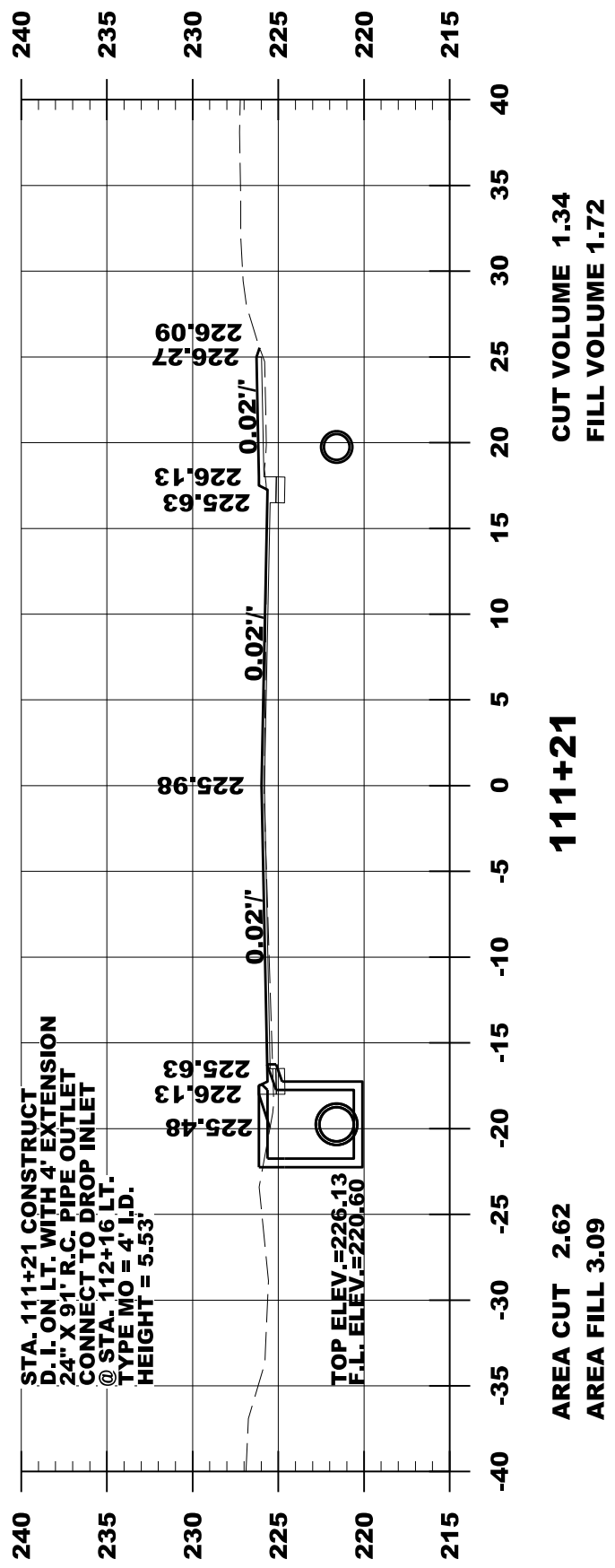
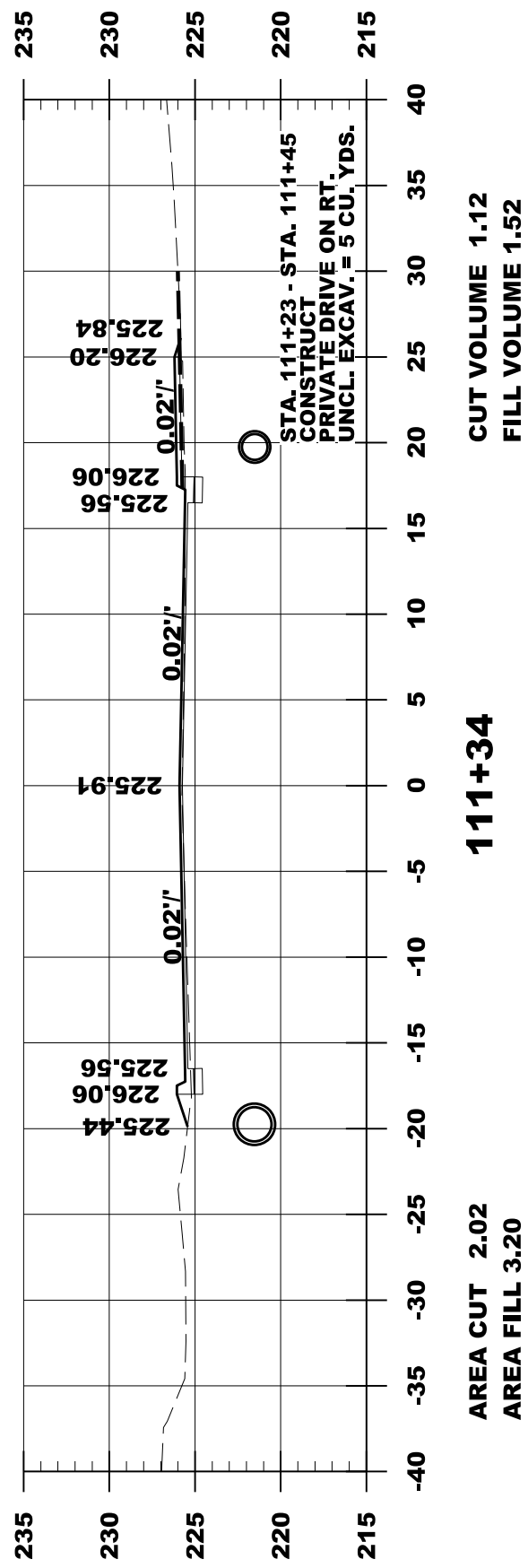
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10-05-2021				6	ARK.		35	41
				JOB NO.	C35002			



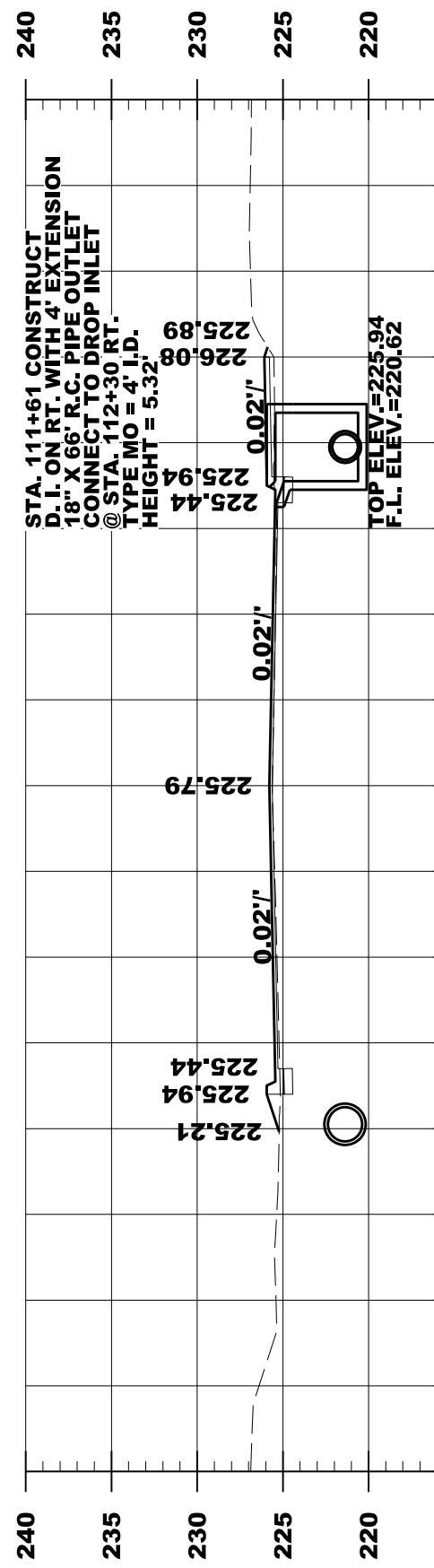
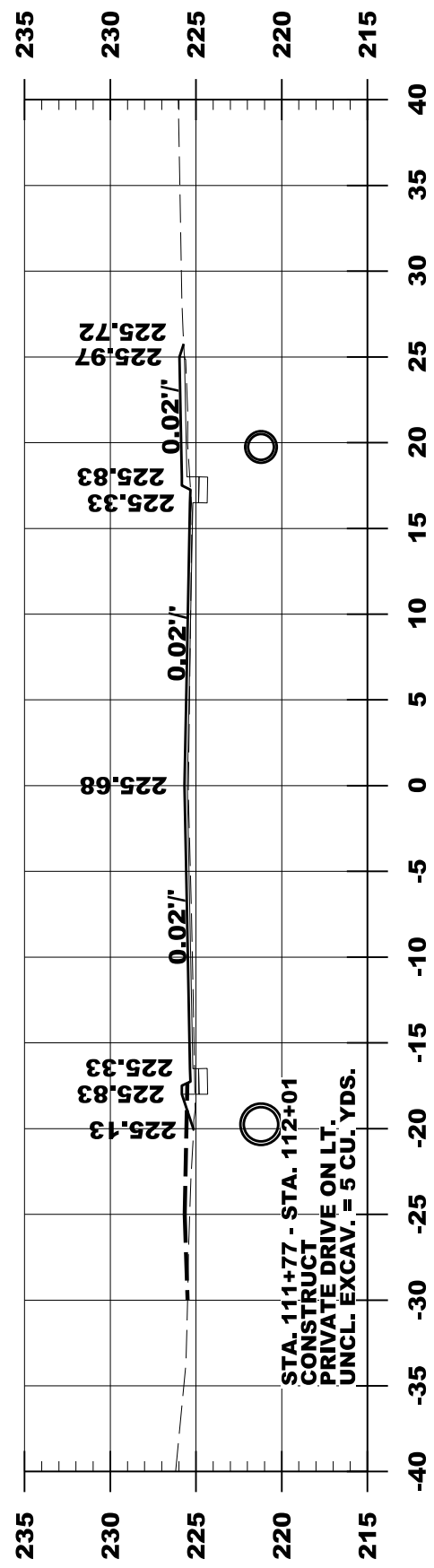
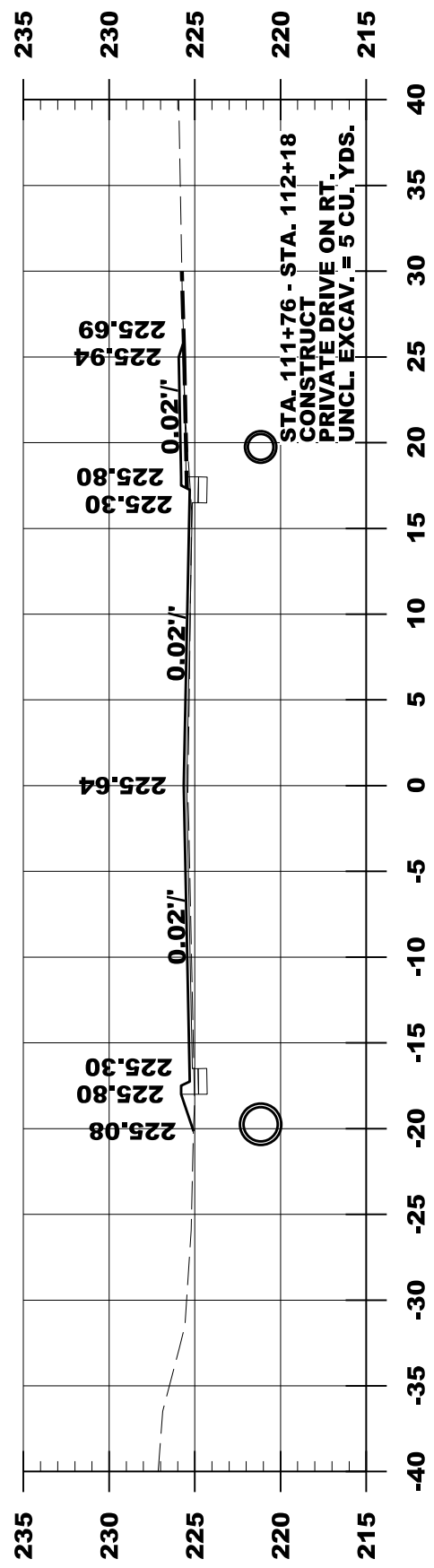
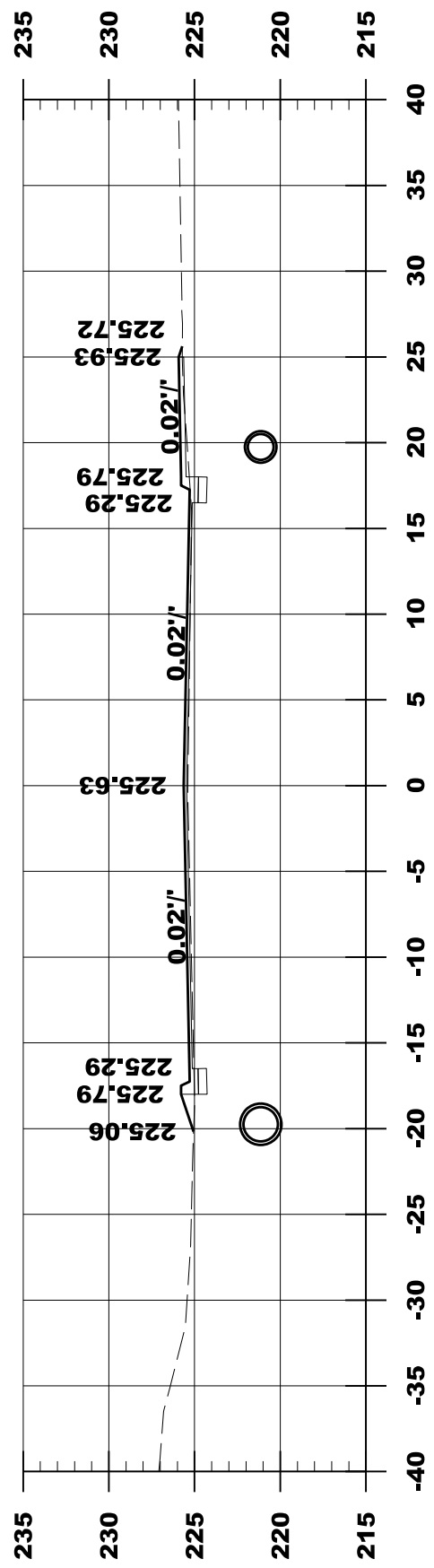
DATE REVISION	DATE FILMED	DATE REVISION	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10-05-2021				6	ARK.			
						JOB NO. C35002	36	41



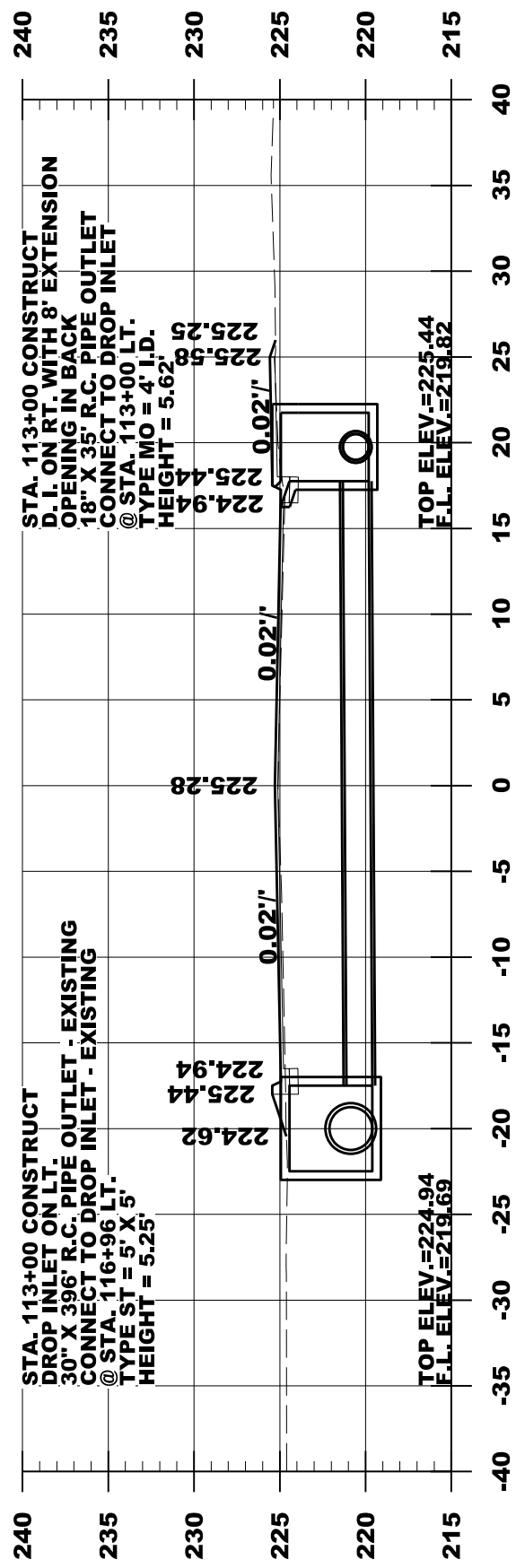
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10-05-2021				6	ARK.		37	41
				JOB NO.		C35002		



DATE REVISION	DATE FILMED	DATE REVISION	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10-05-2021				6	ARK.		38	41
				JOB NO.		C35002		



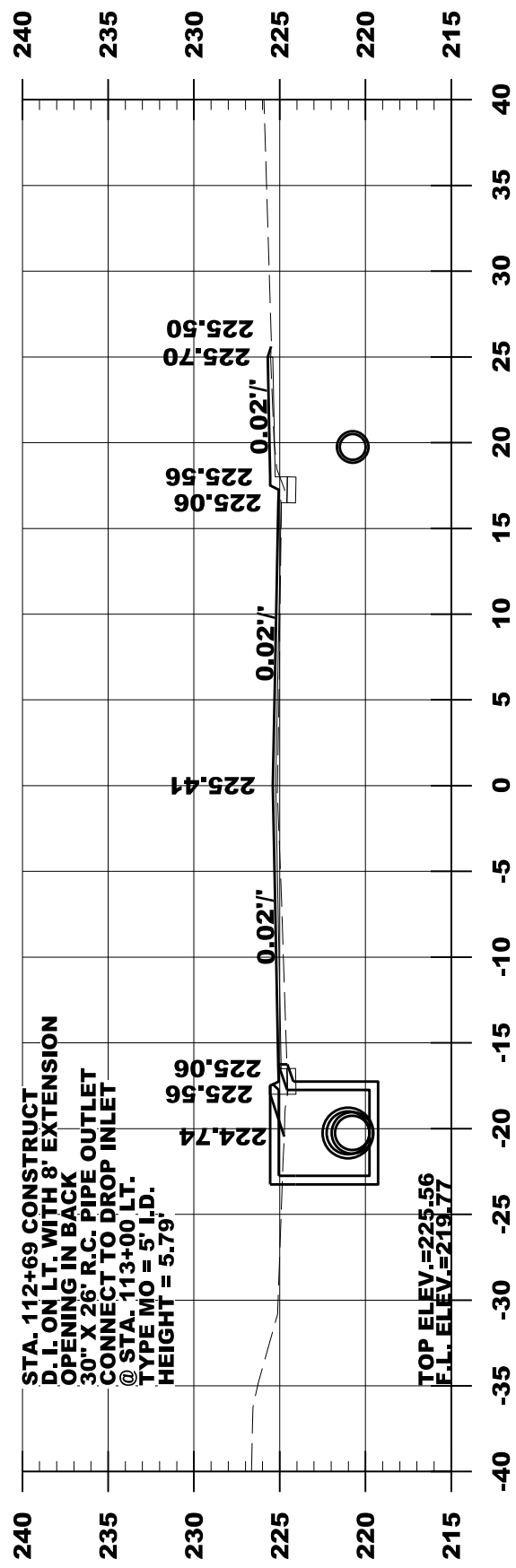
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10-05-2021				6	ARK.		39	41
				JOB NO.		C35002		



**113+00**

AREA CUT 0.89  
AREA FILL 3.43

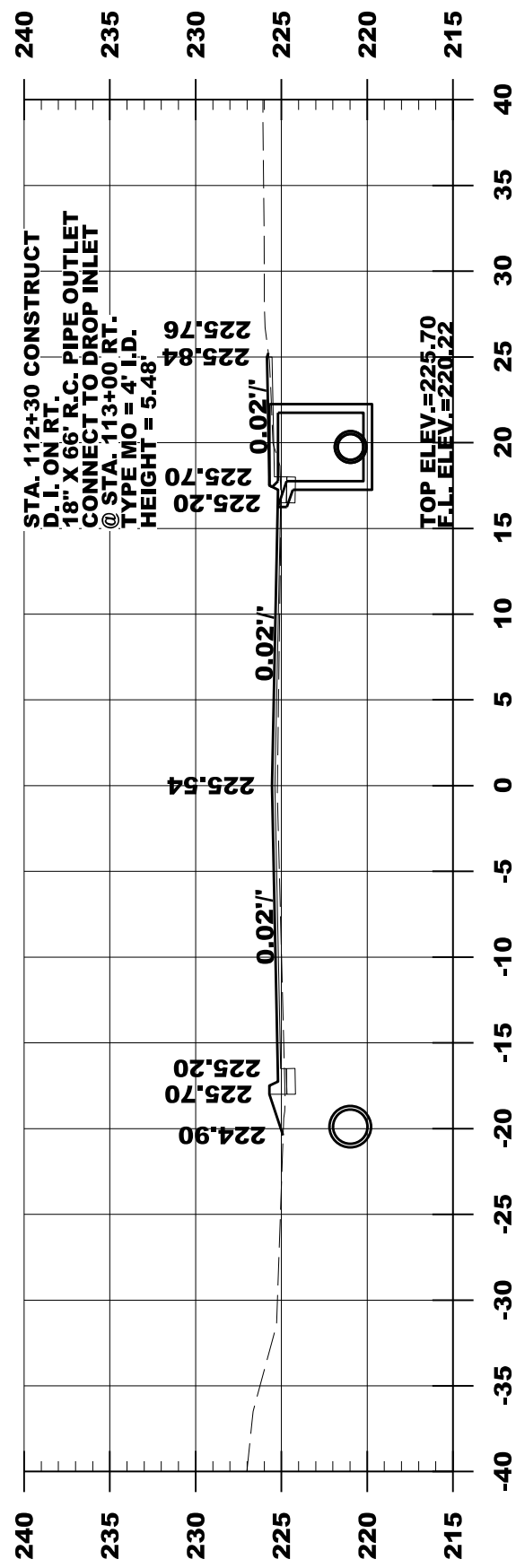
CUT VOLUME 0.97  
FILL VOLUME 5.42



**112+69**

AREA CUT 0.81  
AREA FILL 6.10

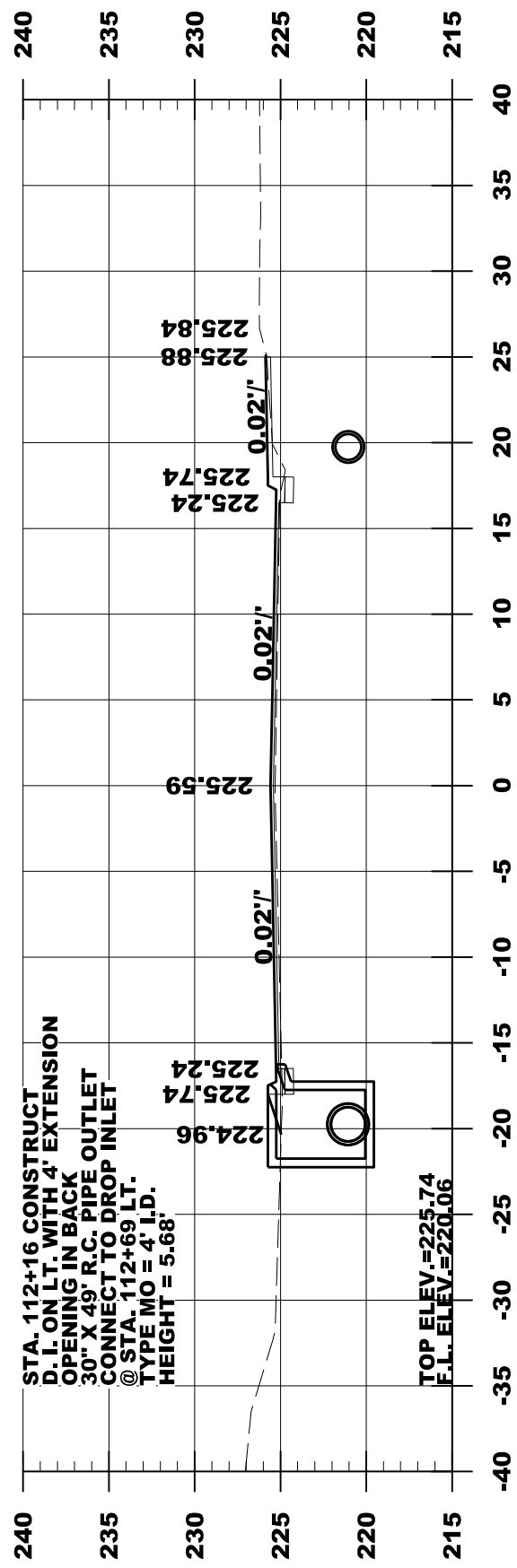
CUT VOLUME 1.45  
FILL VOLUME 8.47



**112+30**

AREA CUT 1.20  
AREA FILL 5.70

CUT VOLUME 0.63  
FILL VOLUME 2.97

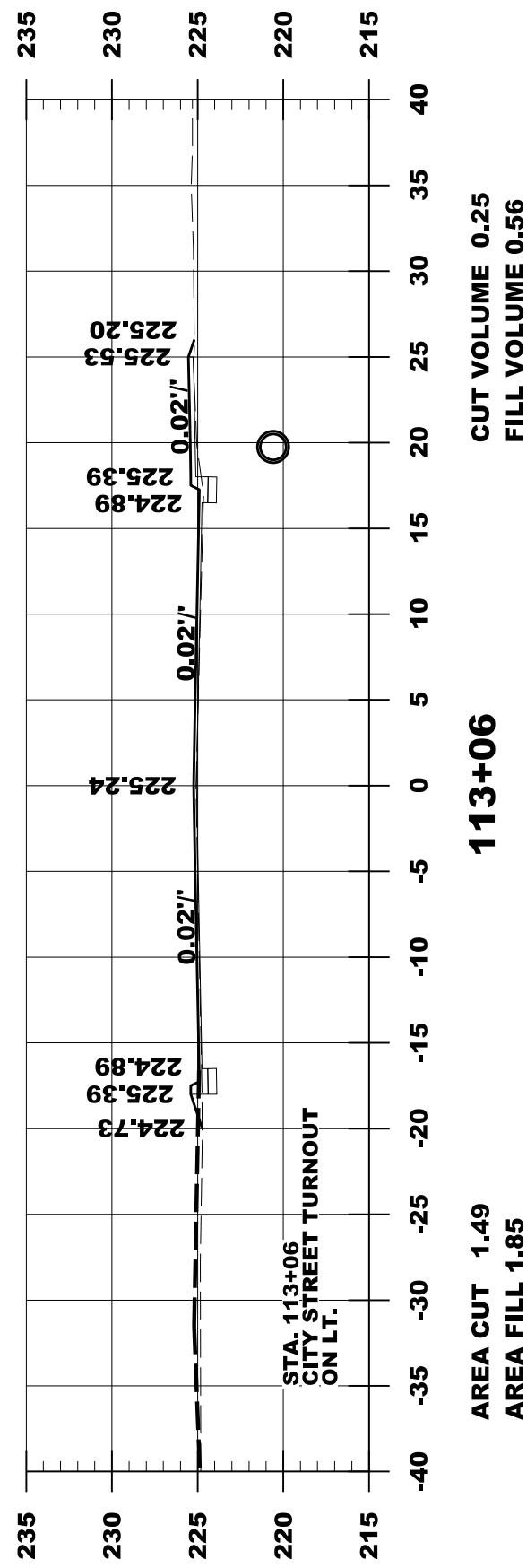
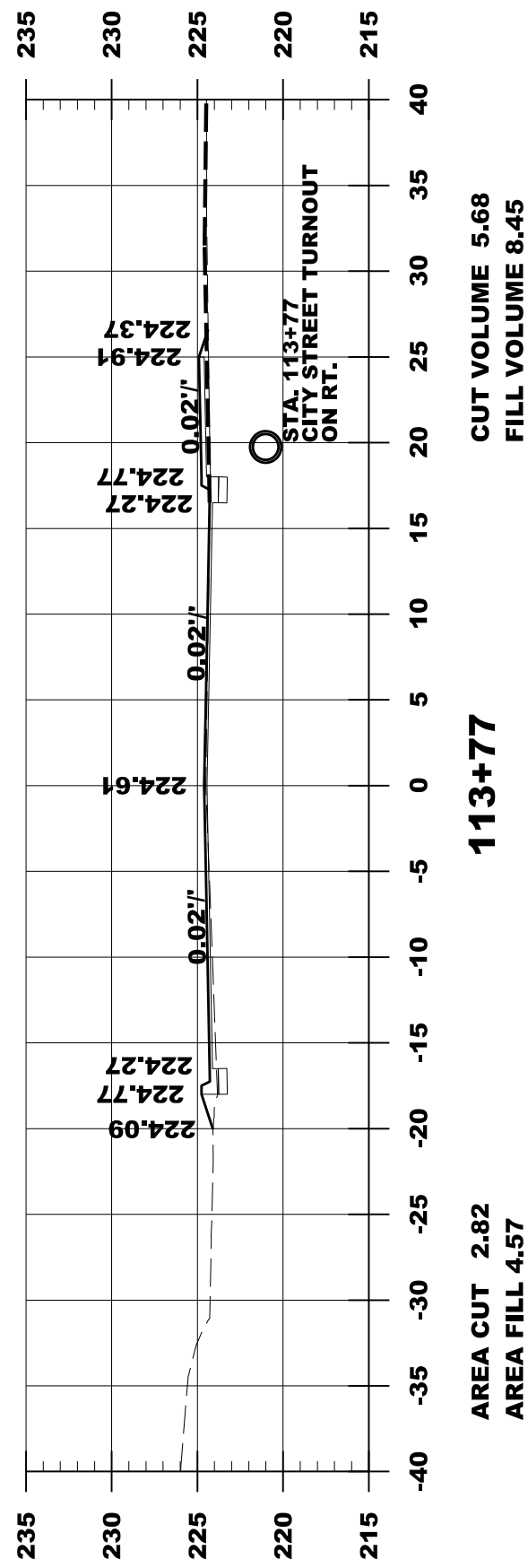
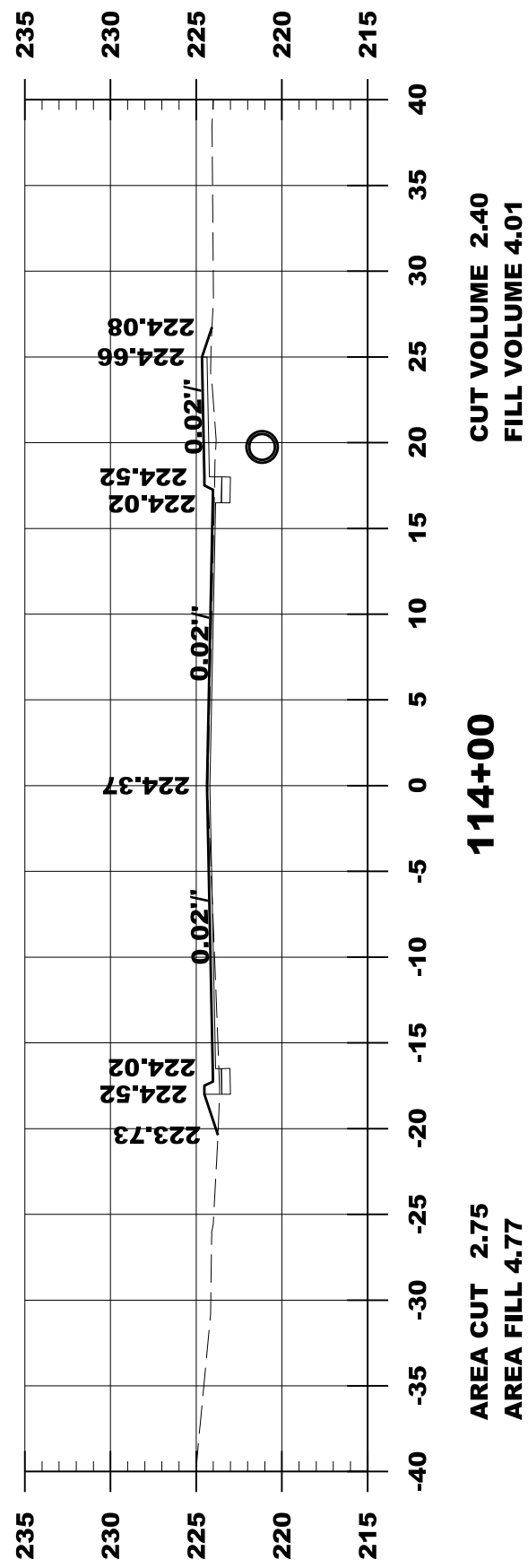
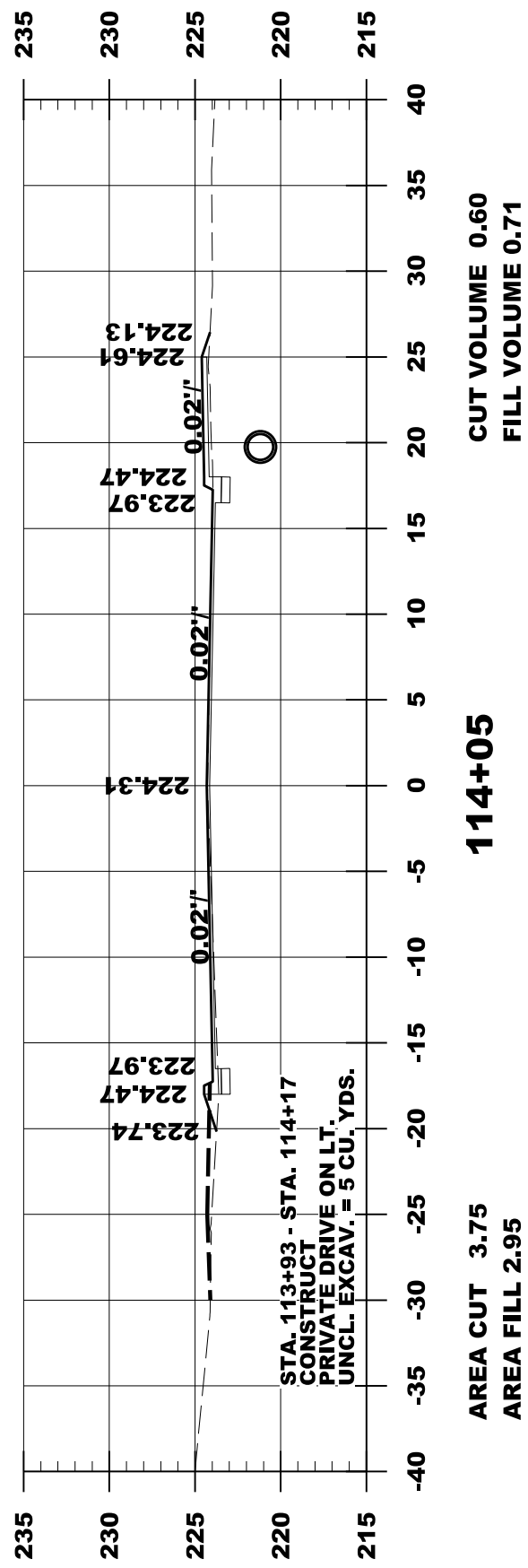


**112+16**

AREA CUT 1.12  
AREA FILL 5.25

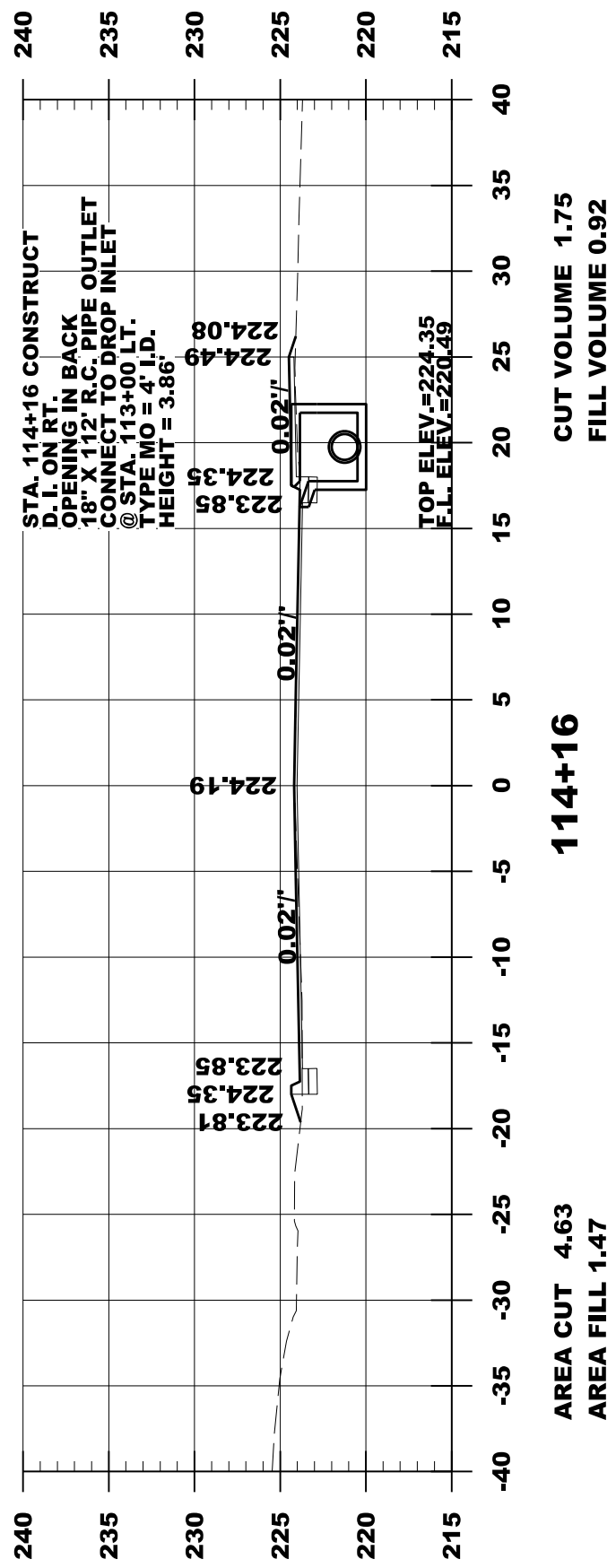
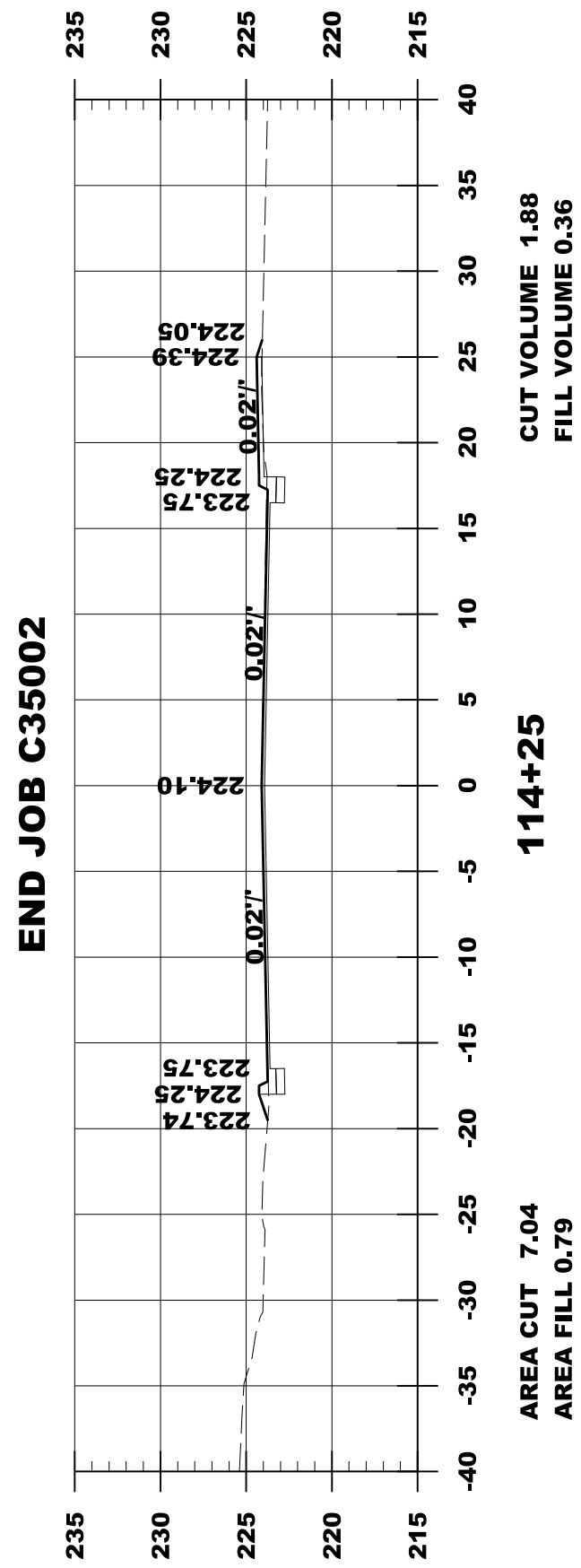
CUT VOLUME 0.72  
FILL VOLUME 2.43

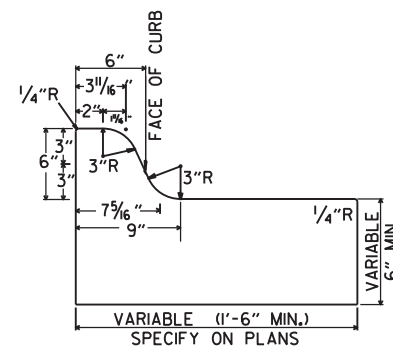
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10-05-2021				6	ARK.		40	41
				JOB NO.		C35002		



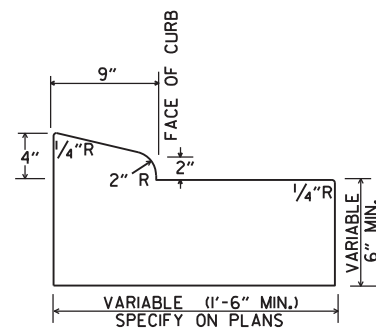


DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10-05-2021				6	ARK.		41	41
				JOB NO.		C35002	41	41

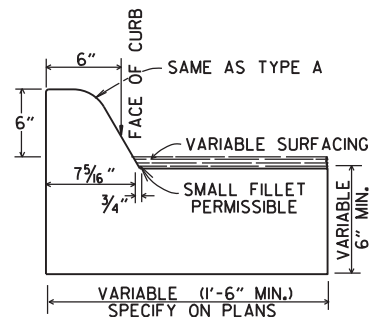




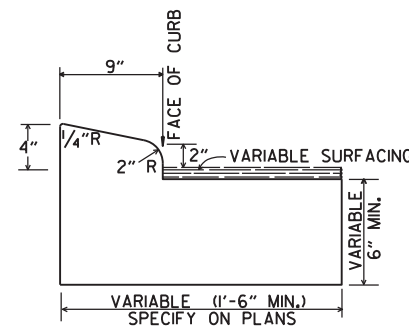
TYPE A



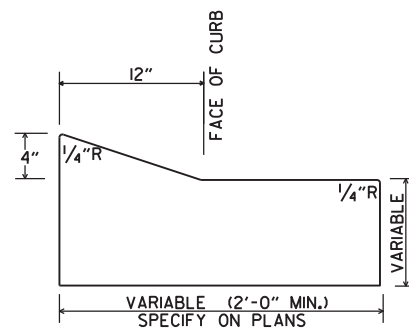
TYPE B-1



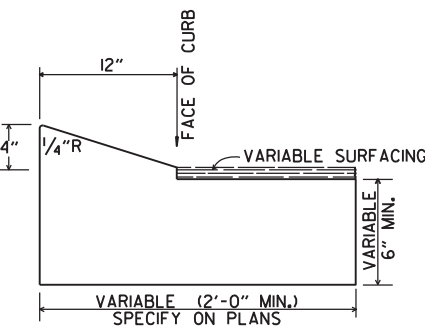
TYPE C



TYPE B-2

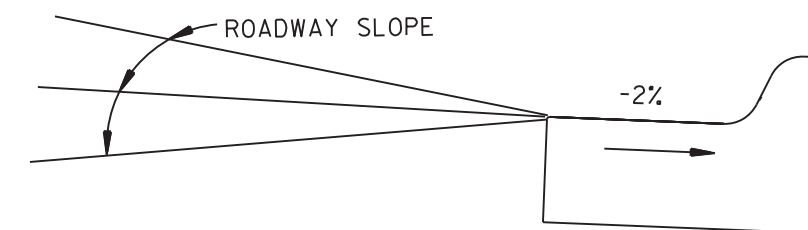


TYPE E-1

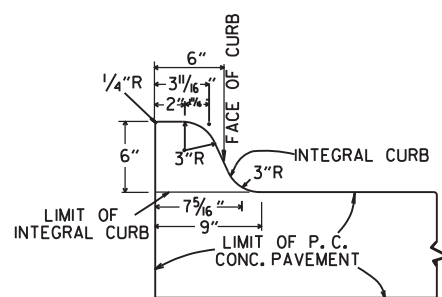


TYPE E-2

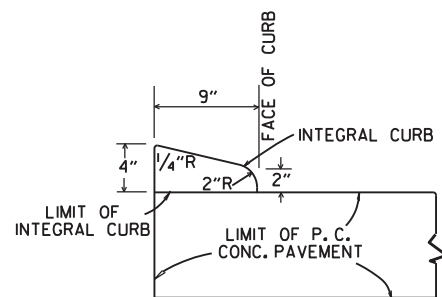
CONCRETE COMBINATION CURB AND GUTTER



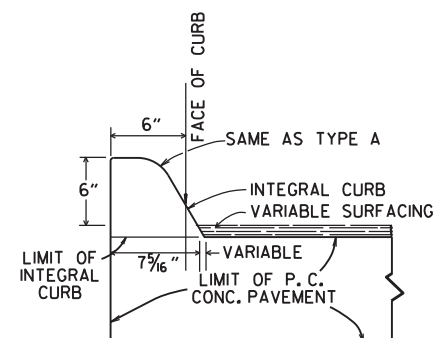
DETAIL OF GUTTER SLOPE  
GUTTER SHALL BE CONSTRUCTED ON 2% SLOPE AWAY FROM ROADWAY, REGARDLESS OF ROADWAY SLOPE.



TYPE A

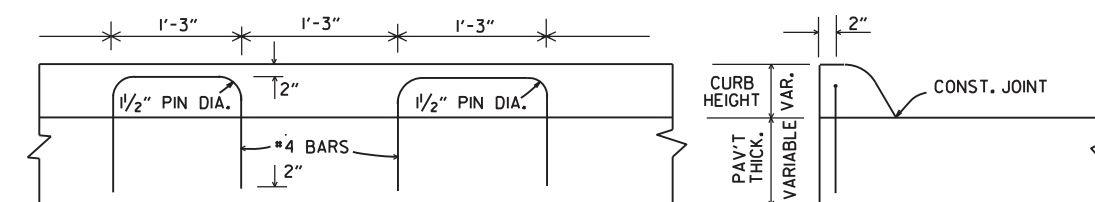


TYPE B



TYPE C

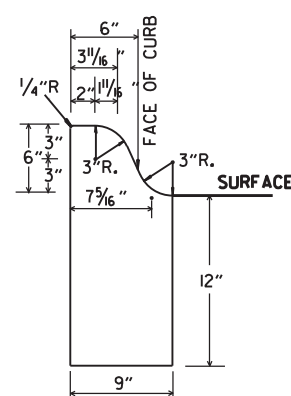
INTEGRAL CURB



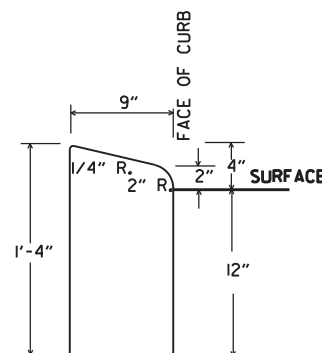
LONGITUDINAL SECTION

ELEVATION

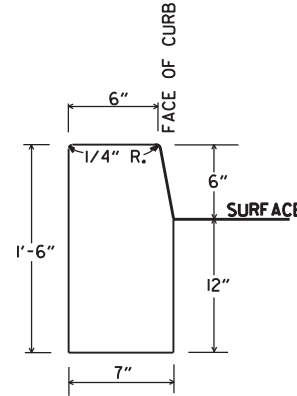
ALTERNATE CONSTRUCTION METHOD FOR INTEGRAL CURB



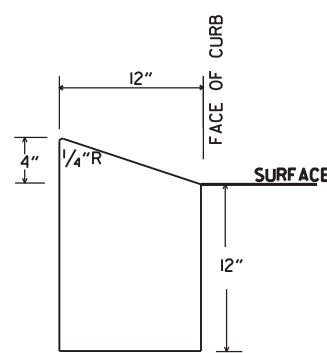
TYPE A



TYPE B

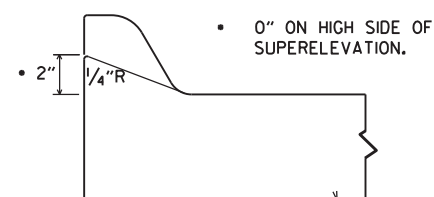


TYPE D



TYPE E

CONCRETE CURB



NOTE: USE MODIFIED CURB AS SPECIFIED ON STD. DR-1. COMPENSATION FOR MODIFIED CURB WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE TYPE OF CURB OR CURB AND GUTTER SPECIFIED.

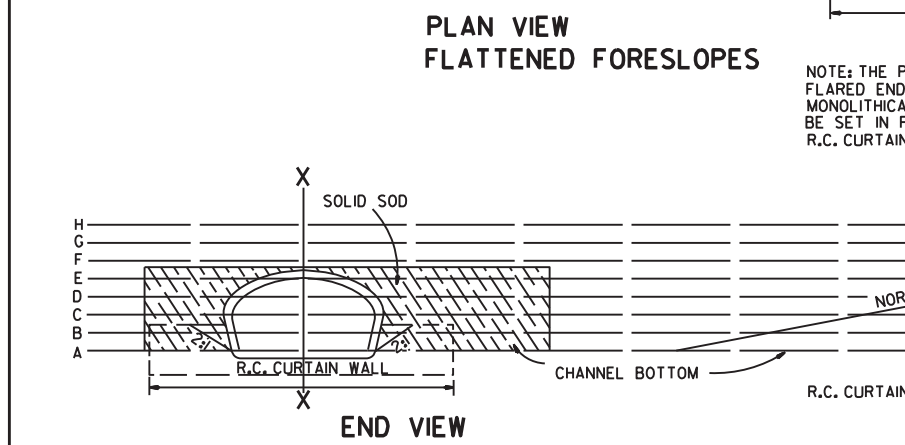
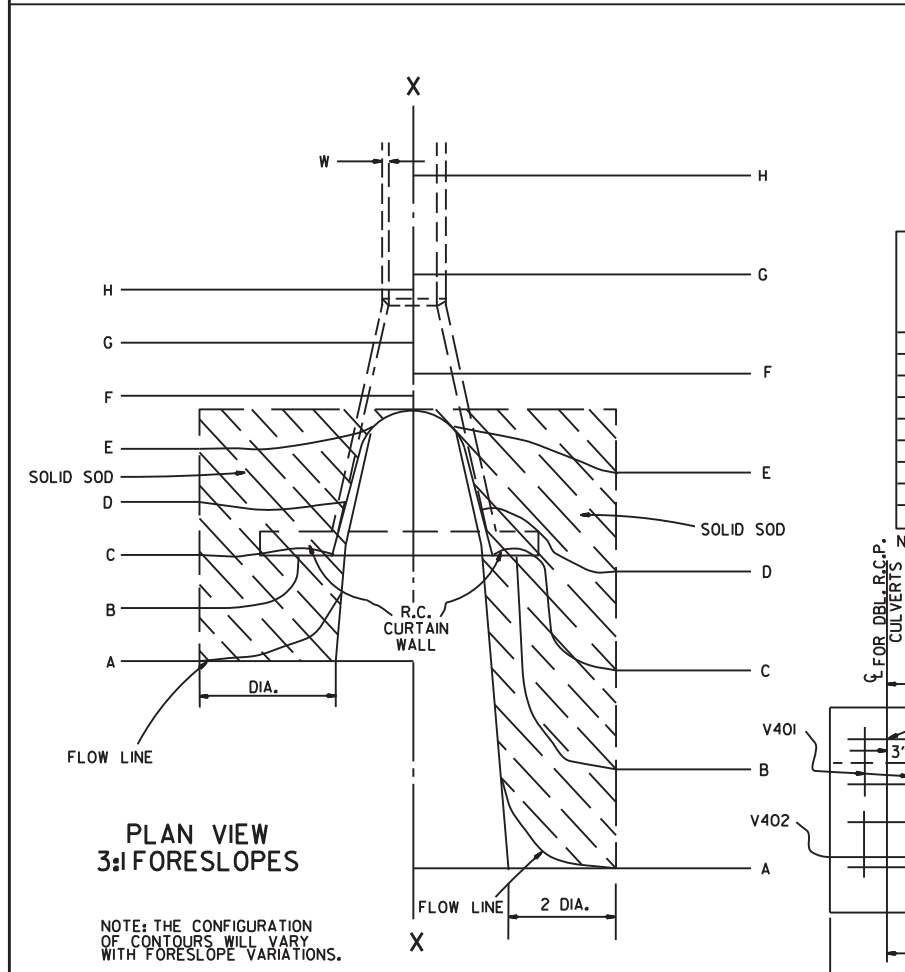
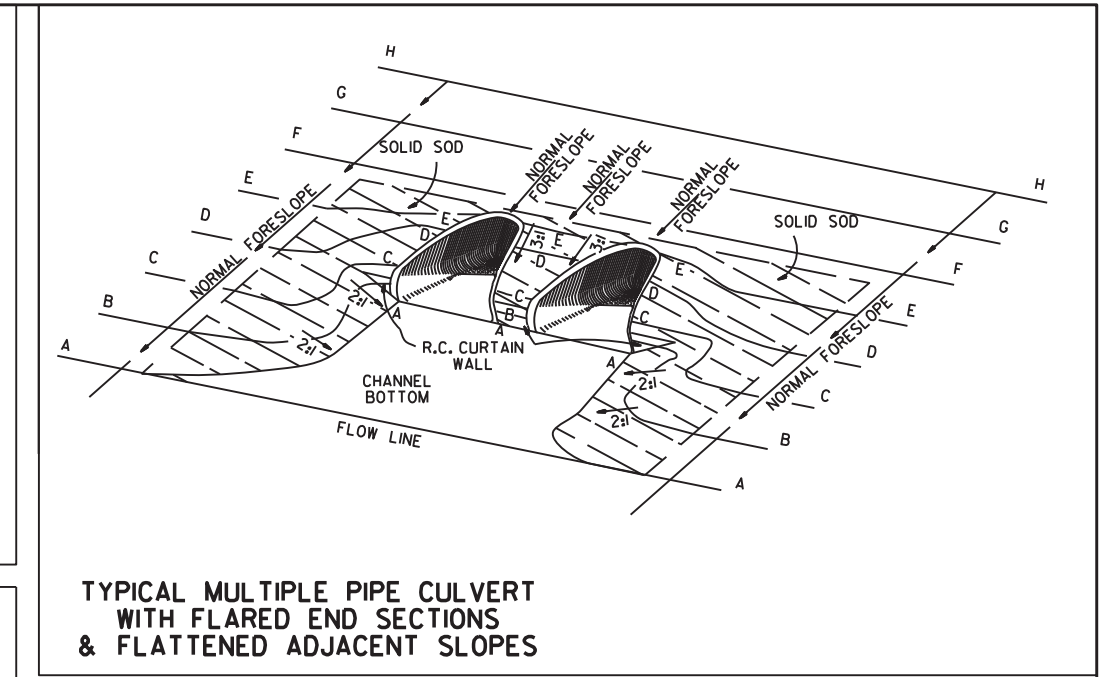
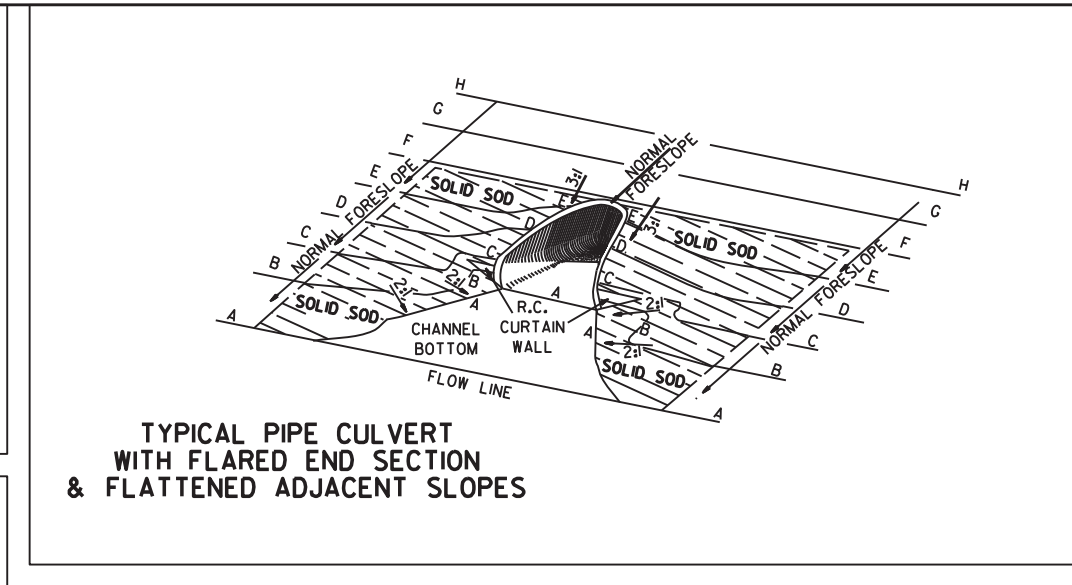
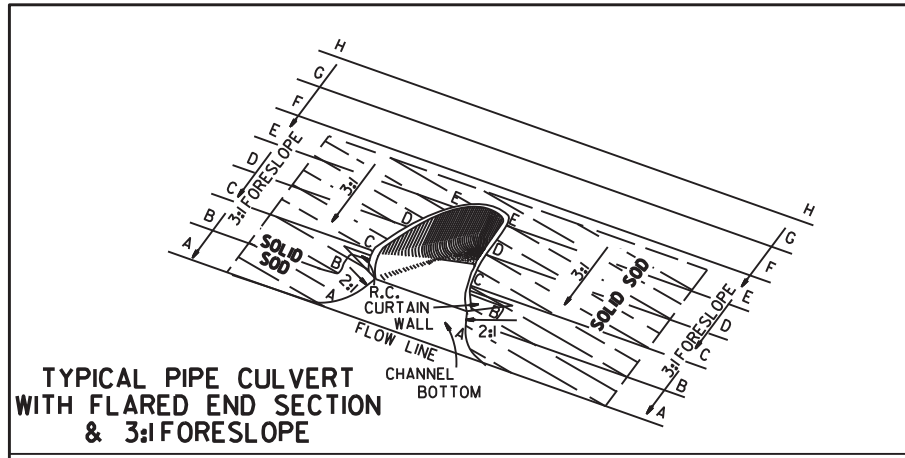
DETAILS OF MODIFIED CURB

DATE	REVISION	DATE FILMED
11-29-07	REVISED GUTTER SLOPE & MODIFIED CURB DETAILS	
11-10-05	ADDED DETAILS OF TYPE E CURBS	
11-16-01	REVISED CONCRETE CURB TYPE B	
11-18-98	REVISED MODIFIED CURB	
6-2-94	ADDED NOTE TO SPECIAL MODIFIED CURB	
8-5-93	CORRECTED GUTTER SLOPE	8-5-93
10-1-92	ADDED DETAILS OF GUTTER SLOPE	10-1-92
5-24-90	ADDED DETAILS OF MODIFIED CURB	5-24-90
11-30-89	VARIABLE DEPTH TYPE A & B 1	11-30-89
7-15-88	REVISED MODIFIED CURB	630-7-15-88
11-1-73	REVISED MODIFIED CURB	500-11-1-73
10-2-72	REVISED AND REDRAWN	512-10-2-72

ARKANSAS STATE HIGHWAY COMMISSION

CURBING DETAILS

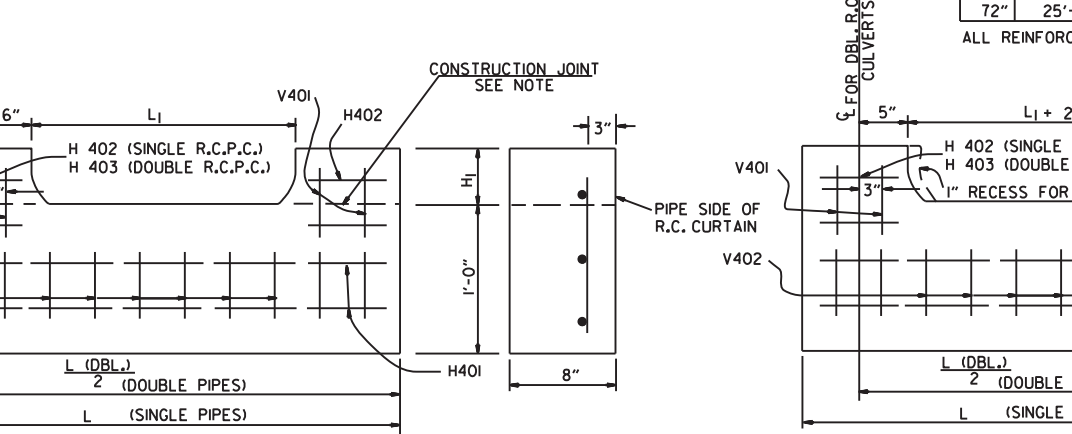
STANDARD DRAWING CG-1



### R.C. CURTAIN WALL DIMENSIONS & QUANTITIES

PIPE DIA.	H <sub>1</sub>	L <sub>1</sub>	L	L (DBL.) 2	SINGLE R.C.P.C.		DOUBLE R.C.P.C.	
					CONC.	REINF. STEEL	CONC.	REINF. STEEL
					CU. YDS.	LBS.	CU. YDS.	LBS.
18"	11 1/2"	3'-5"	8'-0"	6'-3"	0.31	27.7	0.45	39.5
24"	1'-0 1/2"	4'-6"	9'-6"	7'-6"	0.37	33.4	0.53	48.0
30"	1'-3 1/2"	5'-7"	11'-0"	9'-0"	0.45	39.0	0.67	59.0
36"	1'-7"	6'-8"	13'-0"	10'-6"	0.58	52.6	0.83	73.9
42"	2'-1 1/2"	7'-3"	15'-6"	12'-0"	0.82	77.1	1.10	100.7
48"	2'-5"	7'-10"	17'-0"	13'-0"	0.98	94.9	1.27	120.4
54"	2'-9 1/2"	8'-5"	18'-6"	14'-0"	1.16	115.8	1.47	143.7
60"	3'-4"	9'-0"	20'-6"	15'-6"	1.47	149.7	1.84	180.3
72"	4'-5"	10'-2"	25'-6"	18'-6"	2.31	232.6	2.73	271.0

NOTE: QUANTITIES SHOWN ARE FOR ONE (1) CURTAIN WALL.



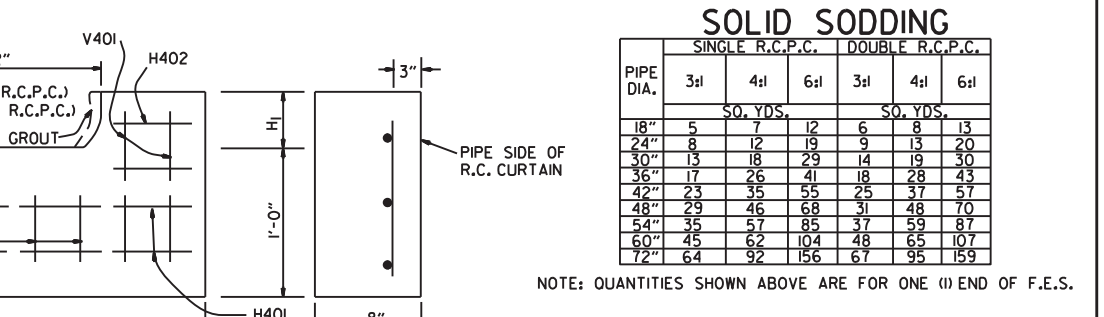
NOTE: THE PORTION OF THE R.C. CURTAIN WALL BENEATH THE FLARED END SECTION (LOWER 1'-0") SHALL BE PLACED MONOLITHICALLY. THE FLARED END SECTION SHALL THEN BE SET IN PLACE & THE REMAINING PORTIONS OF THE R.C. CURTAIN WALL PLACED.

**R.C. CURTAIN WALL DETAILS**

### REINFORCING STEEL SCHEDULE

PIPE DIA.	SINGLE R.C. PIPE CULVERT								DOUBLE R.C. PIPE CULVERT									
	H401		H402		V401		V402		H401		H402		H403		V401		V402	
	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.
18"	7'-8"	2	1'-11 1/2"	4	1'-7 1/2"	8	8"	8	12'-2"	2	1'-11 1/2"	4	8"	2	1'-7 1/2"	10	8"	14
24"	9'-2"	2	2'-2"	4	1'-8 1/2"	10	8"	9	14'-8"	2	2'-2"	4	8"	2	1'-8 1/2"	12	8"	18
30"	10'-8"	2	2'-4 1/2"	4	1'-11 1/2"	10	8"	12	17'-8"	2	2'-4 1/2"	4	8"	2	1'-11 1/2"	14	8"	22
36"	12'-8"	2	2'-10"	6	2'-3"	12	8"	14	20'-8"	2	2'-10"	6	8"	3	2'-3"	14	8"	28
42"	15'-2"	2	3'-9 1/2"	8	2'-9 1/2"	16	8"	15	23'-8"	2	3'-9 1/2"	8	8"	4	2'-9 1/2"	18	8"	30
48"	16'-8"	2	4'-3"	10	3'-1"	18	8"	16	25'-8"	2	4'-3"	10	8"	5	3'-1"	20	8"	32
54"	18'-2"	2	4'-8 1/2"	12	3'-5 1/2"	20	8"	17	27'-8"	2	4'-9"	12	8"	6	3'-5 1/2"	22	8"	34
60"	20'-2"	2	5'-5"	14	4'-0"	24	8"	18	30'-8"	2	5'-5"	14	8"	7	4'-0"	26	8"	36
72"	25'-2"	2	7'-4"	18	5'-1"	30	8"	20	36'-8"	2	7'-4"	18	8"	9	5'-1"	33	8"	40

ALL REINFORCING STEEL #4 BARS @ 6" O.C.



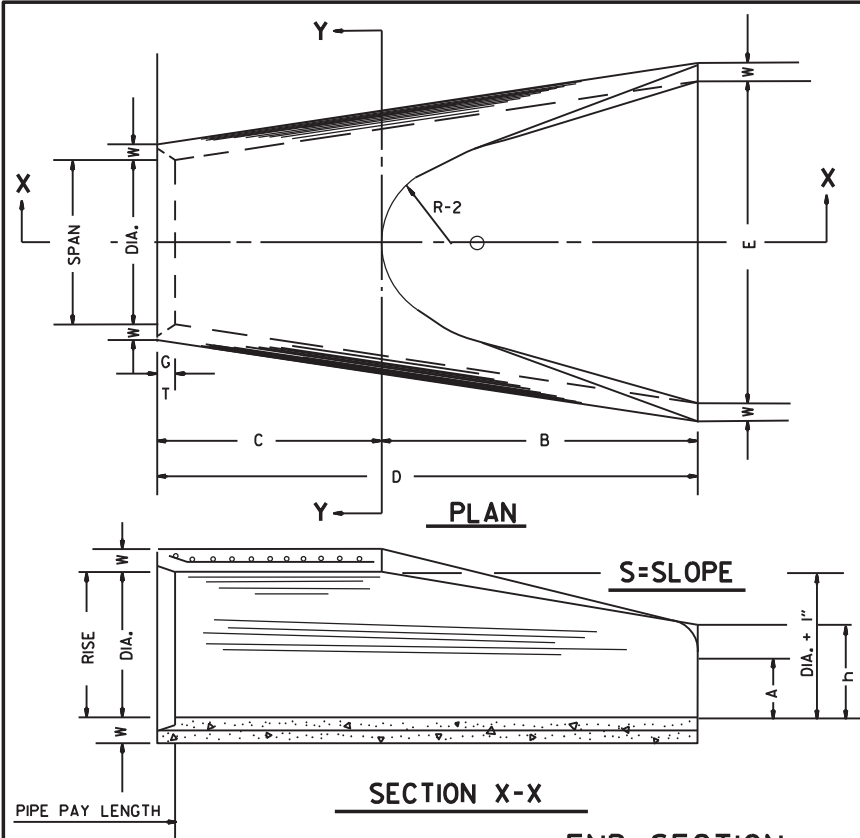
NOTE: QUANTITIES SHOWN ABOVE ARE FOR ONE (1) END OF F.E.S.

**SOLID SODDING**

GENERAL NOTES

- A CAST-IN-PLACE OR PRECAST CURTAIN WALL MAY BE USED. PAYMENT FOR THE CURTAIN WALL SHALL BE CONSIDERED TO BE INCLUDED IN THE UNIT PRICE BID EACH FOR FLARED END SECTIONS OF THE SEVERAL SIZES, WHICH PRICE SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIALS INCLUDING REINFORCING STEEL AND CONCRETE; FOR FORMS, MIXING AND PLACING; FOR EXCAVATION AND BACKFILL, AND FOR ALL LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.
- ALL EXPOSED EDGES SHALL BE CHAMFERED 3/4".
- CONCRETE FOR CURTAIN WALL SHALL MEET THE REQUIREMENTS FOR CLASS A OR S CONCRETE AS PROVIDED IN SECTION 802 OF THE STANDARD SPECIFICATIONS OR FOR PAVING CONCRETE AS PROVIDED IN SECTION 501 OF THE STANDARD SPECIFICATIONS.
- WELDED WIRE MESH 3 x 3 W/10 x W10 MAY BE USED IN LIEU OF REINFORCING BARS.

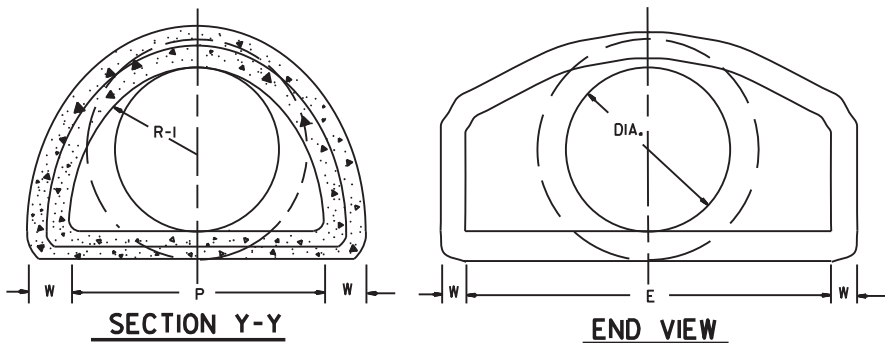
10-18-96	ADDED NOTE TO SOLID SODDING		ARKANSAS STATE HIGHWAY COMMISSION
10-12-95	CORRECTED SPELLING		
11-3-94	ADDED GENERAL NOTE NO. 4		
8-15-91	REV. CURTAIN WALL QUANT., STEEL SCH. & SOLID SOD QUANT.		
3-2-81	ALLOW PRECAST IN 2 OR MORE PIECES CHAMFER EDGES		
5-15-80	ADDED PRECAST WALL & GENERAL NOTES		
10-2-72	REVISED AND REDRAWN		
DATE	REVISION	FILMED	STANDARD DRAWING FES-1



**END SECTION FOR REINFORCED CONCRETE PIPE CULVERTS**

**TABLE OF DIMENSIONS**

DIA.	WALL	A	B	C	D	E	S	DIA. + 1"	P	R-1	R-2	G-T	WT.	h
18"	2 1/2"	9"	2'-3"	3'-10"	6'-1"	3'-0"	3:1	19"	29"	15 1/2"	12"	2"	1000	1'-0 1/2"
24"	3"	9 1/2"	3'-7 1/2"	2'-6"	6'-1 1/2"	4'-0"	3:1	25"	33 3/8"	16 1/8"	14"	2 1/2"	1600	1'-1 1/2"
30"	3 1/2"	1'-0"	4'-6"	1'-7 3/4"	6'-1 3/4"	5'-0"	3:1	31"	37"	18 1/2"	15"	3 1/4"	1940	1'-4 1/8"
36"	4"	1'-3"	5'-3"	2'-10 3/4"	8'-1 3/4"	6'-0"	3:1	37"	47 1/8"	24 3/8"	20"	3 1/2"	4100	1'-8"
42"	4 1/2"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"	3:1	43"	53 1/8"	27 1/2"	22"	3 1/2"	5380	2'-2 1/2"
48"	5"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	3:1	49"	56 1/2"	28 1/2"	22"	3 1/2"	6550	2'-6"
54"	5 1/2"	2'-4"	6'-6"	1'-10"	8'-4"	7'-6"	3:1	55"	65 1/2"	33 1/8"	24"	4"	8750	2'-10 1/2"
60"	6"	2'-10"	6'-6"	1'-10"	8'-4"	8'-0"	3:1	61"	72 1/2"	36 1/8"	24"	4"	9270	3'-5"
72"	7"	3'-10"	6'-6"	1'-10"	8'-4"	9'-0"	3:1	73"	77 1/8"	38 1/8"	24"	5"	13250	4'-6"

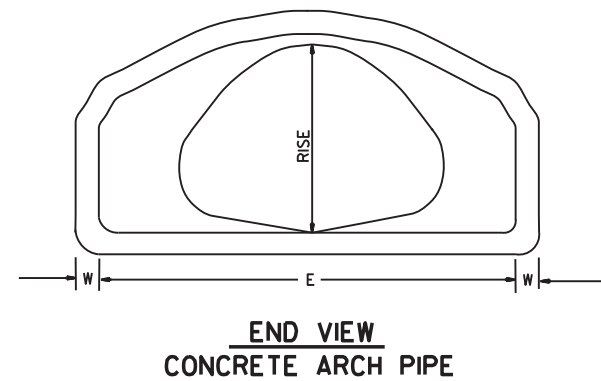


NOTE: TONGUE END ON UPSTREAM SECTION  
GROOVE END ON DOWNSTREAM SECTION

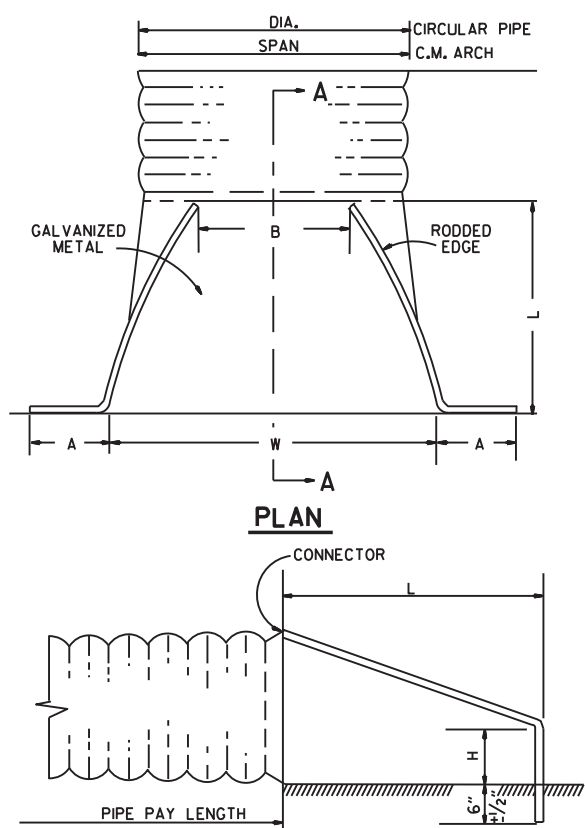
**ARCH PIPE**

EQUIV. DIA.	• SPAN		• RISE		W	A	B	C	D	E	P	R2	G-T	S
	AASHTO M 206	AHD NOMINAL	AASHTO M 206	AHD NOMINAL										
INCHES														
15	18	18	11	11	2"	4"	2'-0"	4'-0"	6'-0"	3'-0"	29"	12"	1 1/2"	2 1/2:1
18	22	22	13 1/2	14	2 1/2"	5"	2'-0"	4'-1"	6'-1"	3'-6"	32 1/8"	13"	2 1/2"	2 1/2:1
21	26	26	15 1/2	16	2 3/4"	7"	2'-3"	3'-10"	6'-1"	4'-0"	34 1/8"	14"	2 1/2"	2 1/2:1
24	28 1/2	29	18	18	3"	9"	2'-3"	3'-10"	6'-1"	5'-0"	36 1/8"	15"	2 1/2"	2 1/2:1
30	36 1/4	36	22 1/2	23	3 1/2"	10"	3'-1"	3'-0 1/2"	6'-1 1/2"	6'-0"	47 1/8"	20"	3"	2 1/2:1
36	43 3/4	44	26 3/8	27	4"	10 1/2"	4'-0"	2'-11 1/2"	6'-1 1/2"	6'-6"	54 1/8"	22"	3 1/2"	2 1/2:1
42	51 1/8	51	31 1/8	31	4 1/2"	11 1/2"	4'-7"	1'-10 1/4"	6'-5 1/4"	7'-2"	59 1/2"	23"	3 3/4"	2 1/2:1
48	58 1/2	59	36	36	5"	1'-3"	5'-3"	2'-10 3/4"	8'-1 3/4"	7'-10"	70 1/8"	24"	4 1/4"	2 1/2:1
54	65	65	40	40	5 1/2"	1'-7"	5'-3"	2'-11"	8'-2"	8'-6"	72 1/8"	24"	4 3/4"	2 1/4:1
60	73	73	45	45	6"	1'-10"	5'-6"	2'-8"	8'-2"	9'-0"	77 1/8"	24"	5"	2 1/4:1

\* THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PER CENT FROM THE VALUES SPECIFIED BY AASHTO M 206.



**END VIEW CONCRETE ARCH PIPE**



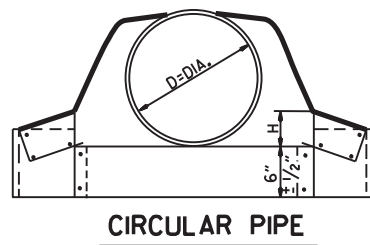
**SECTION A-A**

NOTE: ALTERNATE CONNECTIONS TO THE PIPE CULVERTS, IN ACCORDANCE WITH MANUFACTURER'S STANDARD PRACTICES, MAY BE MADE SUBJECT TO THE APPROVAL OF THE ENGINEER.

**END SECTIONS FOR CORRUGATED METAL PIPE CULVERTS**

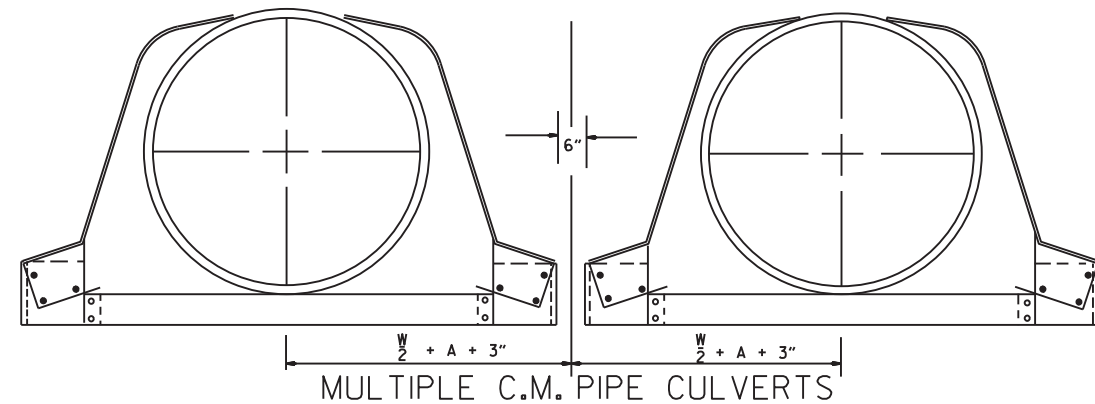
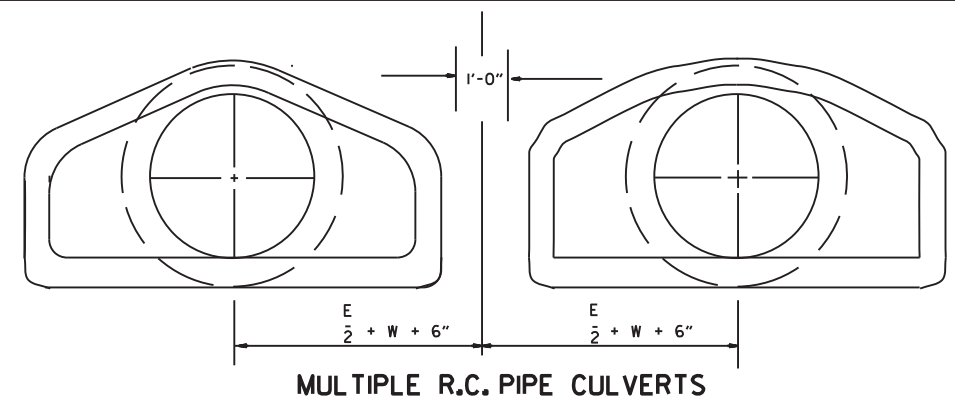
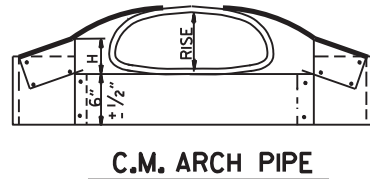
**CIRCULAR PIPE**

D. DIA.	GAUGE	A	B. MAX.	H	L	W	S
INCHES							
12	16	6	6	6	21	24	2 1/2:1
15	16	7	8	6	26	30	2 1/2:1
18	16	8	10	6	31	36	2 1/2:1
21	16	9	12	6	36	42	2 1/2:1
24	16	10	13	6	41	48	2 1/2:1
30	14	12	16	8	51	60	2 1/2:1
36	14	14	19	9	60	72	2 1/2:1
42	12	16	22	11	69	84	2 1/2:1
48	12	18	27	12	78	90	2 1/2:1
54	12	18	30	12	84	102	2:1
60	12	18	33	12	87	114	1 1/2:1
66	12	18	36	12	87	120	1 1/2:1
72	12	18	39	12	87	126	1 1/3:1

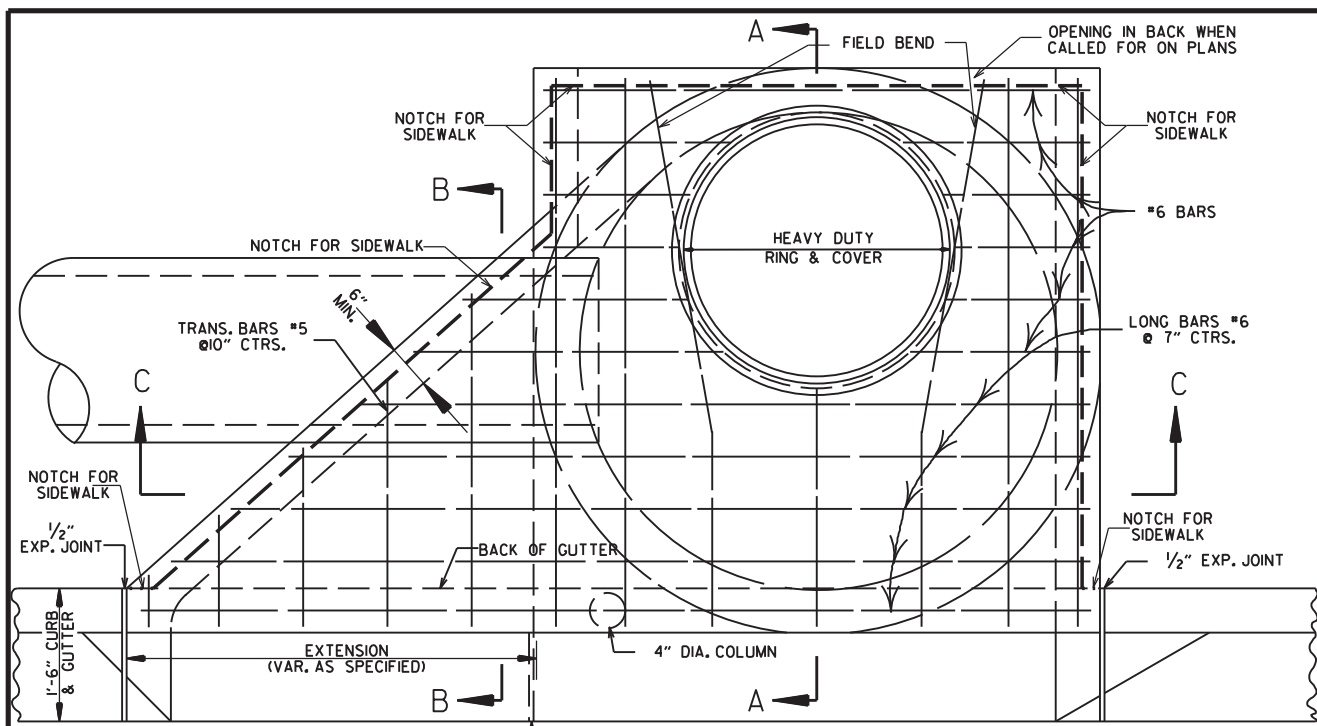


**C.M. ARCH PIPE**

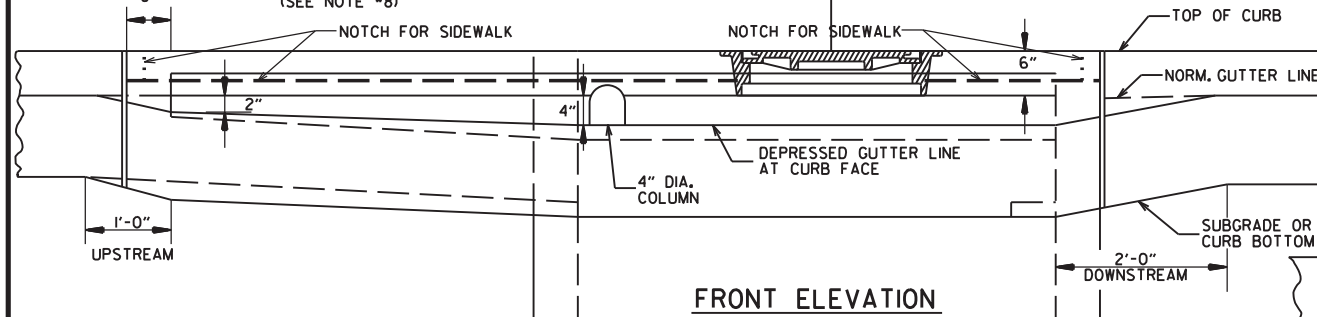
EQUIV. DIA.	SPAN	RISE	A	B. MAX.	H	L	W	S	GAUGE
INCHES									
15"	17	13	7	9	6	19	30	2 1/2:1	16
18"	21	15	7	10	6	23	36	2 1/2:1	16
21"	24	18	8	12	6	28	42	2 1/2:1	16
24"	28	20	9	14	6	32	48	2 1/2:1	16
30"	35	24	10	16	6	39	60	2 1/2:1	14
36"	42	29	12	18	8	46	75	2 1/2:1	14
42"	49	33	13	21	9	53	85	2 1/2:1	12
48"	57	38	18	26	12	63	90	2 1/2:1	12
54"	64	43	18	30	12	70	102	2 1/4:1	12
60"	71	47	18	33	12	77	114	2 1/4:1	12



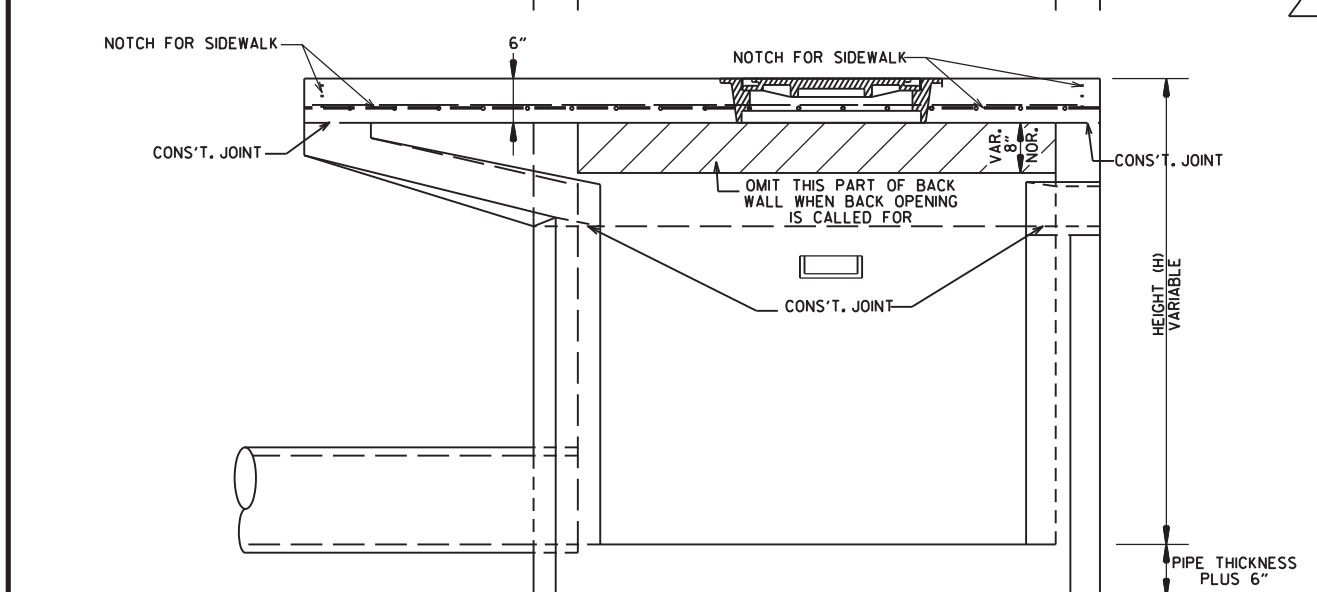
10-18-96	REVISED ASTM REF. TO AASHTO		ARKANSAS STATE HIGHWAY COMMISSION
5-15-80	REVISED DISTANCE BETWEEN MULTIPLE R.C.P. F.E.S.	664-5-15-80	
7-14-78	C.M. ARCH SIZES TO CONFORM WITH AASHTO SIZES	752-7-14-78	
8-22-75	ADDED MULTIPLE PIPE CULVERTS	517-8-22-75	
12-5-74	REMOVED NOTE RE REINF. FOR R.C. F.E.S.	500-12-5-74	
5-24-73	CMP END SECTION, SHOW PIPE PAY LENGTH	627-5-24-73	
10-2-72	REVISED AND REDRAWN	760-10-2-72	
DATE	REVISION	FILED	<b>FLARED END SECTION</b>
			<b>STANDARD DRAWING FES-2</b>



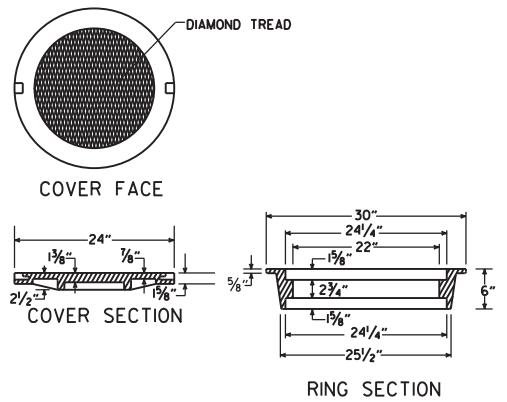
**PLAN - W/SINGLE EXTENSION**  
 PAY LIMIT OF CURB & GUTTER (SEE NOTE #8)  
 PAY LIMIT OF CURB & GUTTER IF NO EXTENSION USED (SEE NOTE #8)  
 NOTE: FOR DOUBLE EXTENSION USE SINGLE ON BOTH SIDES.



**FRONT ELEVATION**

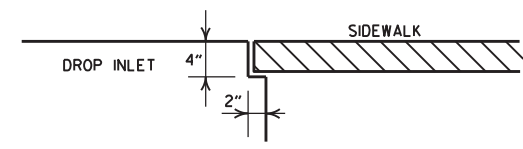


**SECTION C-C**

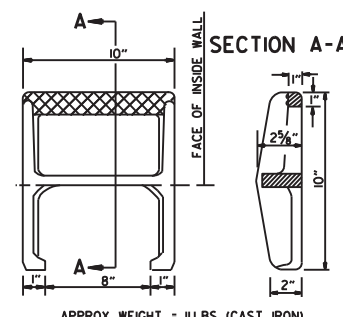


**HEAVY DUTY RING & COVER**  
 APPROXIMATE TOTAL WEIGHT = 333 LBS.

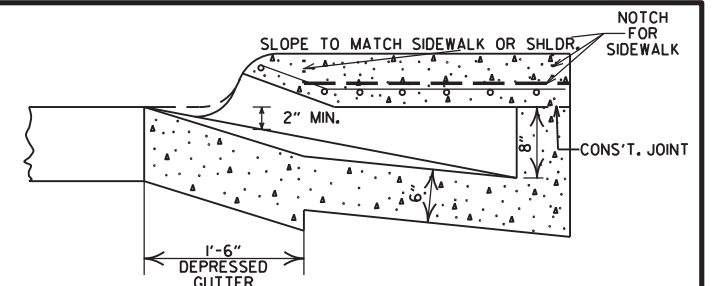
1. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M105 CLASS 35B & AASHTO M306.
2. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
3. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.



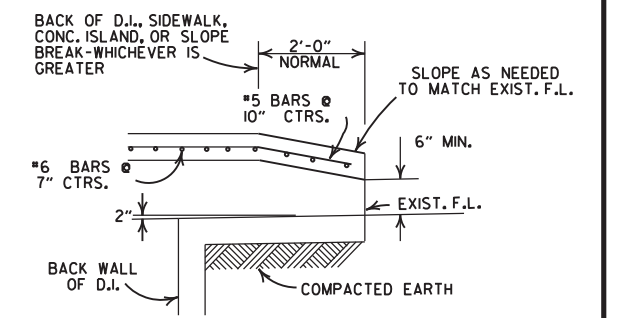
**DETAIL OF NOTCH FOR SIDEWALKS**



**DETAIL OF STEP FOR DROP INLET**  
 NOTE: THIS DETAIL IS TYPICAL. OTHERS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.



**SECTION B-B**

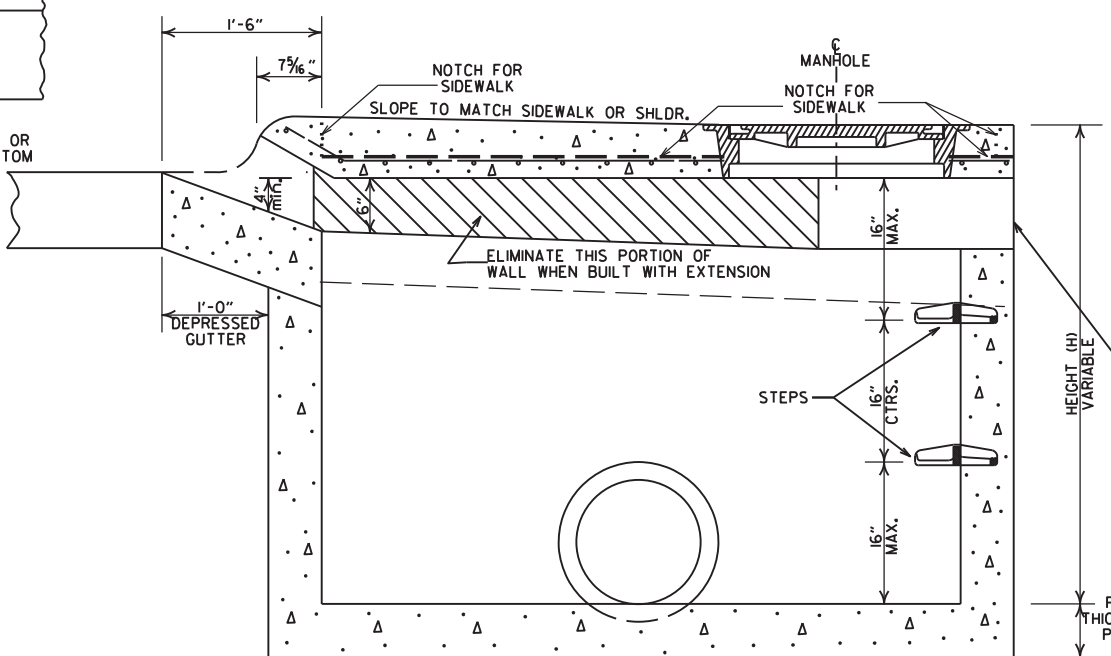


**BACK OPENING**

WHEN OPENING IN BACK IS CALLED FOR ON PLANS EXTEND OPENING AS SHOWN IN DETAIL. PAYMENT TO BE INCLUDED IN PRICE BID FOR DROP INLET (TYPE MO).

- GENERAL NOTES:
1. ALL EXPOSED CORNERS TO HAVE 3/4" CHAMFER.
  2. STEPS SHALL BE INSTALLED IN ALL INLETS 4'-0" HIGH AND OVER OR AS DIRECTED BY THE ENGINEER.
  3. ALL REINFORCING BARS SHALL BE GRADE 60 AND HAVE MIN. 1/2" COVER.
  4. DROP INLETS AND EXTENSION ON CURVED SECTIONS SHALL CONFORM TO THE CURVATURE OF THE CURB.
  5. 4" DIA. COLUMNS SPACED AT MAX. 4'-0" INTERVALS SHALL BE INSTALLED ALONG INLET AND EXTENSION TO SUPPORT TOP.
  6. BASE AND INLET WALLS SHALL BE CAST MONOLITHICALLY.
  7. THE THROAT SHALL BE CAST INTEGRALLY WITH THE GUTTER.
  8. PAYMENT FOR CURB AND/OR CURB AND GUTTER WITHIN THE LIMITS OF DROP INLETS AND DROP INLET EXTENSIONS SHALL BE CONSIDERED INCLUDED IN PAYMENT MADE FOR DROP INLETS AND/OR DROP INLET EXTENSIONS.
  9. PIPES MAY ENTER DROP INLET FROM ANY ANGLE OR ELEVATION AS MAY BE APPROVED BY THE ENGINEER.
  10. APPROPRIATE SIZE TYPE C DROP INLETS MAY BE SUBSTITUTED FOR TYPE MO DROP INLETS AS APPROVED BY THE ENGINEER. PAYMENT TO BE AS DROP INLET (TYPE MO).
  11. DURING CONSTRUCTION OF THE ROADWAY THE CONTRACTOR SHALL MAINTAIN DRAINAGE INTO OR AROUND THE DROP INLET AS APPROVED BY THE ENGINEER.
  12. 4"x2" NOTCH SHALL BE FORMED IN ALL DROP INLETS TO SUPPORT SIDEWALK CONSTRUCTION. REFER TO DETAIL OF NOTCH FOR SIDEWALKS.
  13. DIMENSIONS SHOWN FOR RING AND COVER ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR CASTINGS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR CASTING DESIGNS MAY BE MADE BY REFERRING TO PREVIOUSLY APPROVED DRAWINGS.

MINIMUM WALL THICKNESS			
DIA. OF D.I.	DIA. OF OUTLET PIPE	CAST IN PLACE	PRECAST
4" L.D.	12" THRU 27"	6"	5"
5" L.D.	30" THRU 42"	8"	6"
6" L.D.	48" THRU 54"	8"	7"



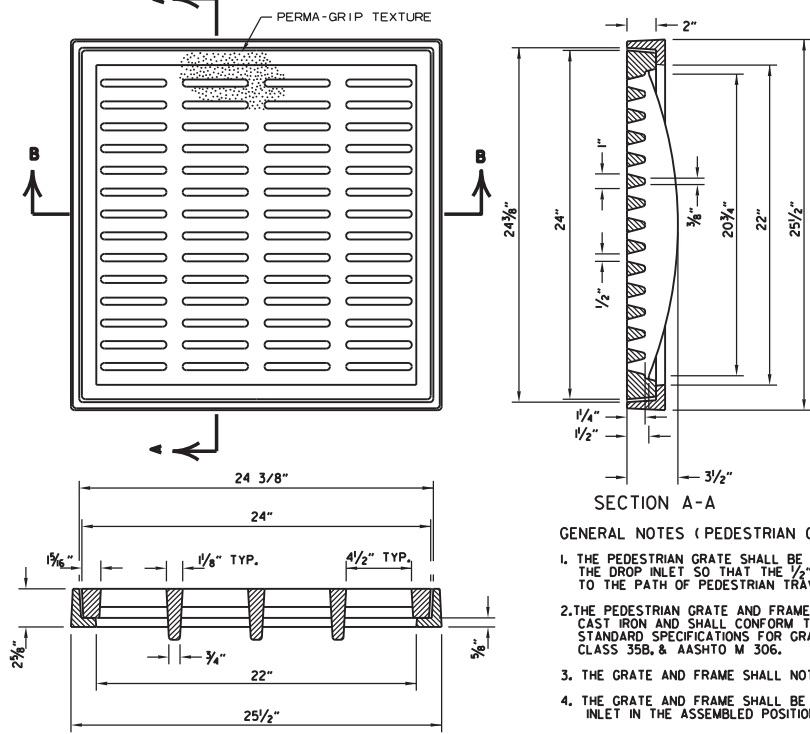
**SECTION A-A**

DATE	REVISIONS	DATE FILMED
8-22-02	ADDED PAY LIMIT CURB NOTES TO SECTIONS A-A & B-B	
11-16-01	ADDED NOTE 13	
1-12-00	REVISED HEAVY DUTY RING & COVER	
5-13-99	ADDED NOTCH DETAIL FOR SIDEWALKS	
7-02-98	REP. NOTE 8; REM. PLAN DET.; REV. PICTURE FOR NEW RING & COVER; ADDED HEAVY DUTY RING & COVER AND DETAIL OF STEP FOR DROP INLET	
7-26-96	ADDED NOTE 11; ADJ. OPENING DIMENSION	
10-12-95	CORRECTED #6 BAR SPACING	
7-20-95	CORRECTED DIAMETER OF D.I. IN BOX	
2-2-95	TYPE C TO MO (OPEN BACK DETAIL)	
11-3-94	REVISED GENERAL NOTES	11-3-94
4-1-93	REV. BACK OPEN DETAIL & NOTE	4-1-93
8-15-91	REVISED NOTES 11, 12 & ADDED BK. OPEN DETAIL	8-15-91
11-30-89	ADDED NOTE NO. 12	11-30-89
4-23-89	ADDED NOTE & MINIMUM WALL THICKNESS	5/13/2008
1-25-89	ADDED EXTEND NOTE TO SECTION A-A	6/29/2008
11-14-87	MODIFIED WALL THICKNESS	7/31/2007
6-12-87	ISSUED	7-6-12-87

ARKANSAS STATE HIGHWAY COMMISSION

**DETAILS OF DROP INLET (TYPE MO)**

STANDARD DRAWING FPC-9M

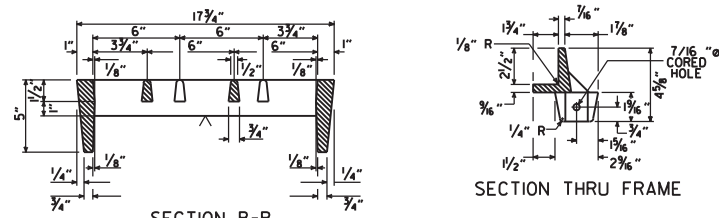


**SECTION A-A**

**GENERAL NOTES (PEDESTRIAN GRATE & FRAME)**

1. THE PEDESTRIAN GRATE SHALL BE ORIENTED IN THE TOP OF THE DROP INLET SO THAT THE  $\frac{1}{2}$ " OPENINGS ARE PERPENDICULAR TO THE PATH OF PEDESTRIAN TRAVEL.
2. THE PEDESTRIAN GRATE AND FRAME SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105, CLASS 35B, & AASHTO M 306.
3. THE GRATE AND FRAME SHALL NOT BE PAINTED.
4. THE GRATE AND FRAME SHALL BE INSTALLED IN THE DROP INLET IN THE ASSEMBLED POSITION.
5. THE APPROXIMATE WEIGHT OF THE GRATE AND FRAME SHALL BE 21 LBS.
6. THE MINIMUM WATERWAY OPENING SHALL BE 122 SQ. IN.

**SECTION B-B**  
**DETAILS OF PEDESTRIAN GRATE AND FRAME**

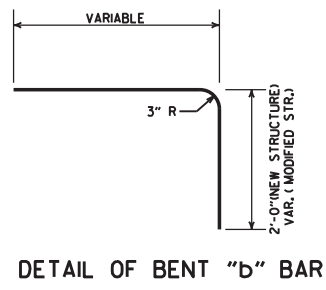


**SECTION A-A**

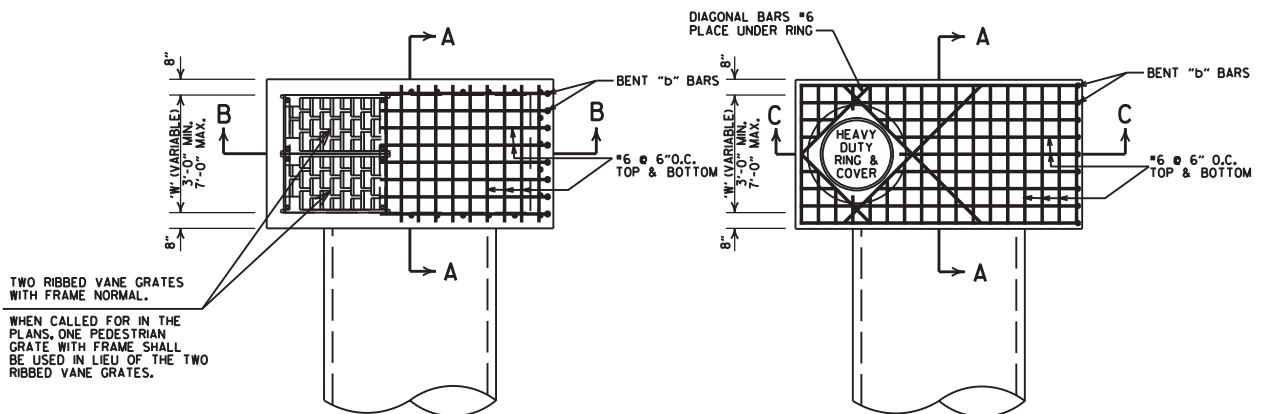
**GENERAL NOTES (RIBBED VANE GRATE & FRAME)**

1. RIBBED VANE GRATE AND FRAME SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105, CLASS 35B, & AASHTO M 306.
2. GRATE AND FRAME SHALL NOT BE PAINTED.
3. GRATE AND FRAME SHALL BE INSTALLED IN DROP INLET IN ASSEMBLED POSITION.
4. APPROXIMATE WEIGHT OF GRATE SHALL BE 170 LBS.

**SECTION B-B**  
**DETAILS OF RIBBED VANE GRATE AND FRAME**



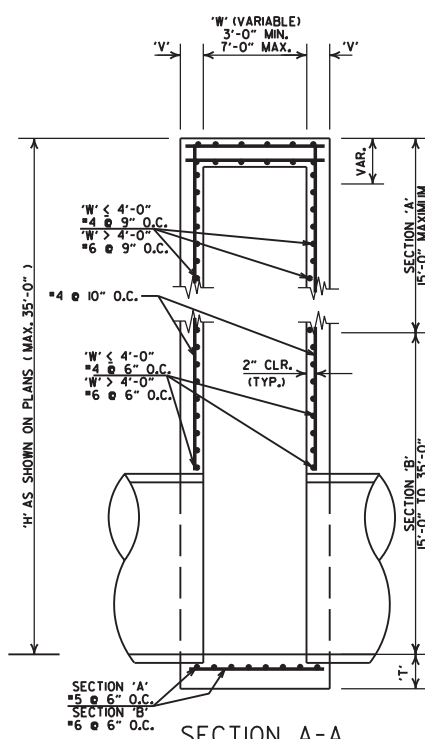
**DETAIL OF BENT "b" BAR**



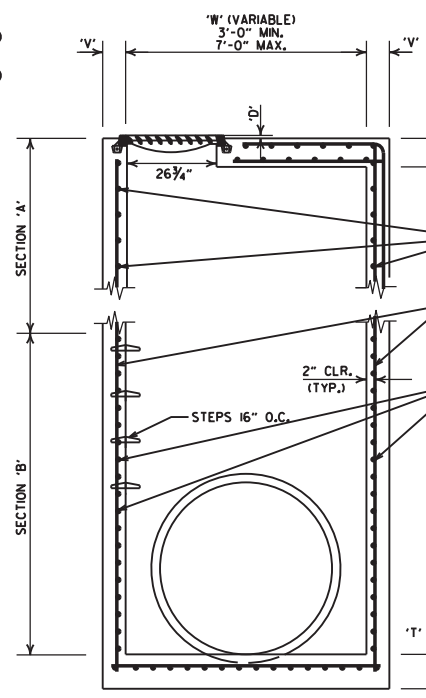
**SECTION 'A'**  
'V' = 8"

**SECTION 'B' (W < 4'-0")**  
'V' = 8"

**SECTION 'B' (W > 4'-0")**  
'V' = 10"



**SECTION A-A**  
**DETAILS OF DROP INLET (TYPE ST)**



**SECTION B-B**

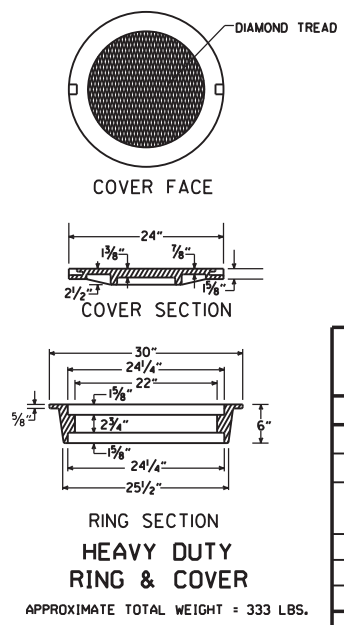
**SECTION C-C**  
**DETAILS OF JUNCTION BOX (TYPE ST)**

**GENERAL NOTES (TYPE ST DROP INLET & JUNCTION BOX)**

1. THE 'D' DIMENSION SHALL MATCH THE FINAL LIFT OF ACHM SURFACE COURSE SHOWN IN THE PLANS WHEN ASPHALT PAVING SURROUNDS THE GRATE OR RING COVER, AND SHALL BE 0" AT OTHER INSTALLATIONS.
2. THE STEPS SHALL BE OMITTED WHERE 'H' IS LESS THAN 4'-0".
3. ALL EXPOSED CORNERS ARE TO HAVE A  $\frac{3}{4}$ " CHAMFER.

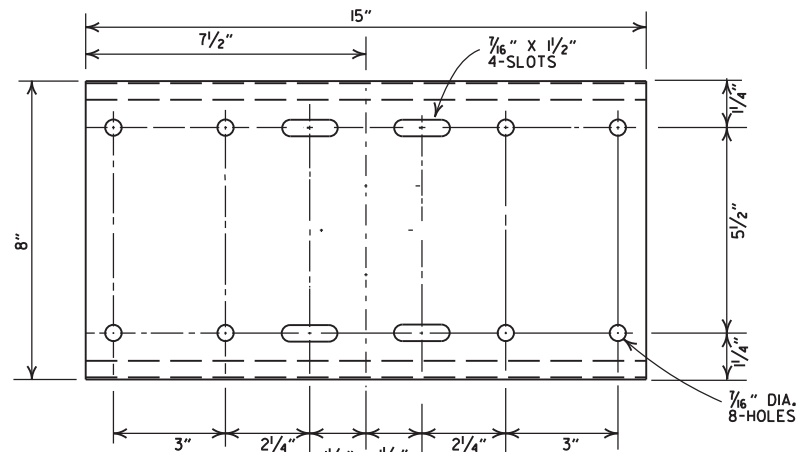
**GENERAL NOTES (HEAVY DUTY RING & COVER):**

1. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105, CLASS 35B, & AASHTO M 306.
2. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
3. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.
4. DIMENSIONS SHOWN FOR RING AND COVER ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR CASTINGS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR CASTING DESIGNS MAY BE MADE BY REFERRING TO PREVIOUSLY APPROVED DRAWINGS.

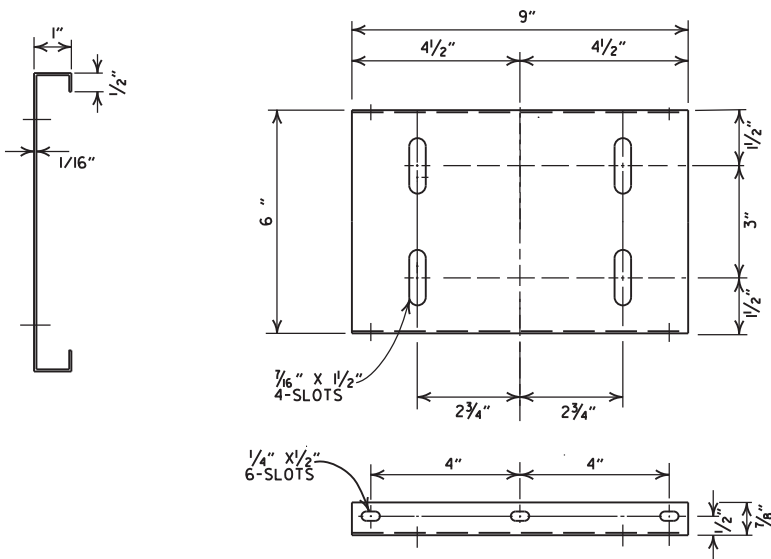


**RING SECTION**  
**HEAVY DUTY RING & COVER**  
APPROXIMATE TOTAL WEIGHT = 333 LBS.

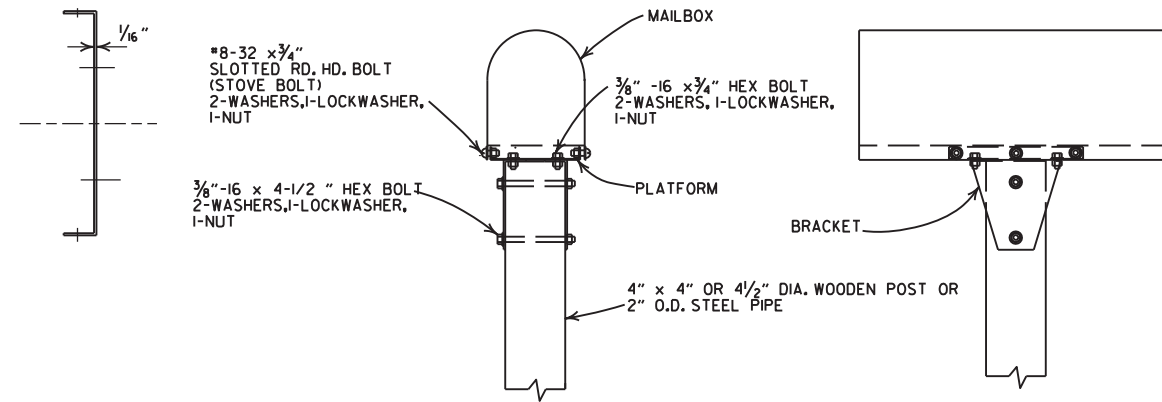
DATE REVISED	DATE FILMED	DESCRIPTION
7-26-12		REMOVED NOTE 4, REVISED 'T', REVISED BOTTOM SLAB REBAR FOR SECTION 'A', SHOWED REBAR CLEARANCE IN SECTIONS
11-16-01		ADDED NOTE 4
1-12-00		REVISED HEAVY DUTY RING & COVER
5-13-99		ADDED PEDESTRIAN FRAME & GRATE
7-02-98		REMOVED NOTE 5, REV. DIMENSIONS, ADDED HEAVY DUTY RING & COVER ADDED AASHTO REF. REVISED GRATE
10-18-96		REVISED ASTM REF. TO AASHTO
10-1-92		REVISED & REISSUED
8-15-91	8-15-91	REVISED & REISSUED



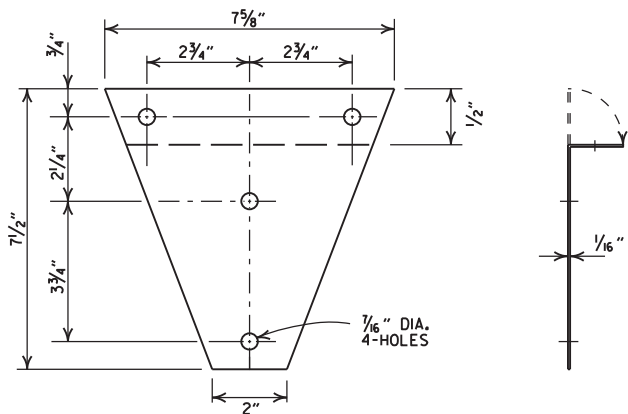
SHELF



PLATFORM

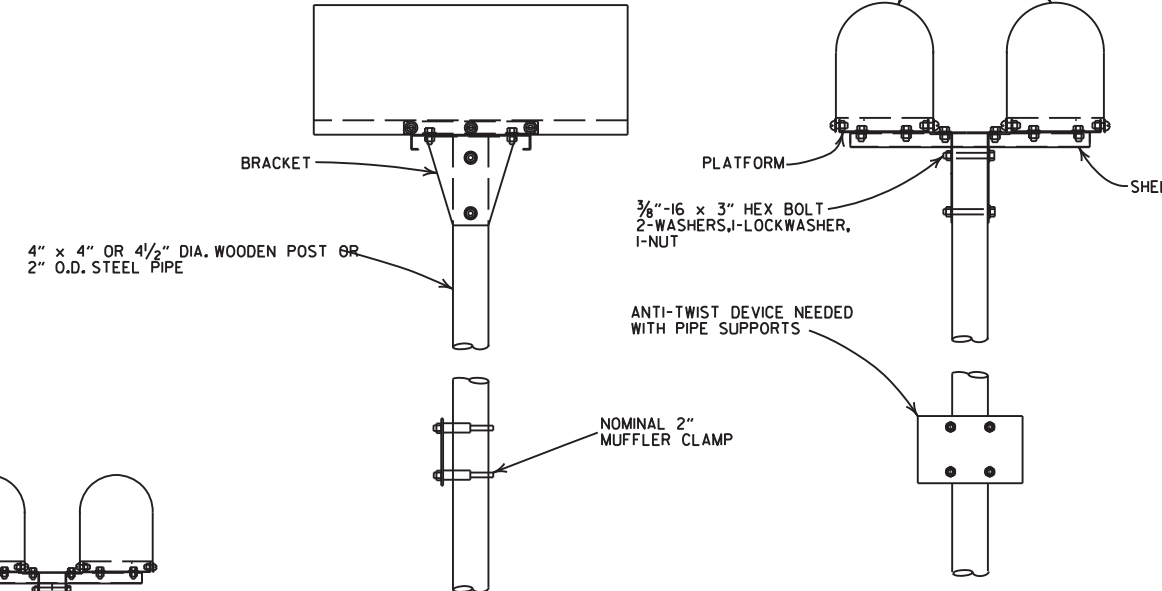


SINGLE INSTALLATION

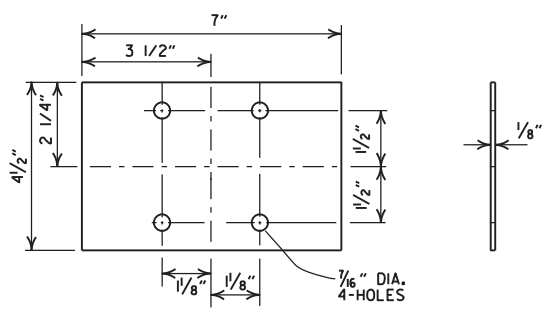


BRACKET

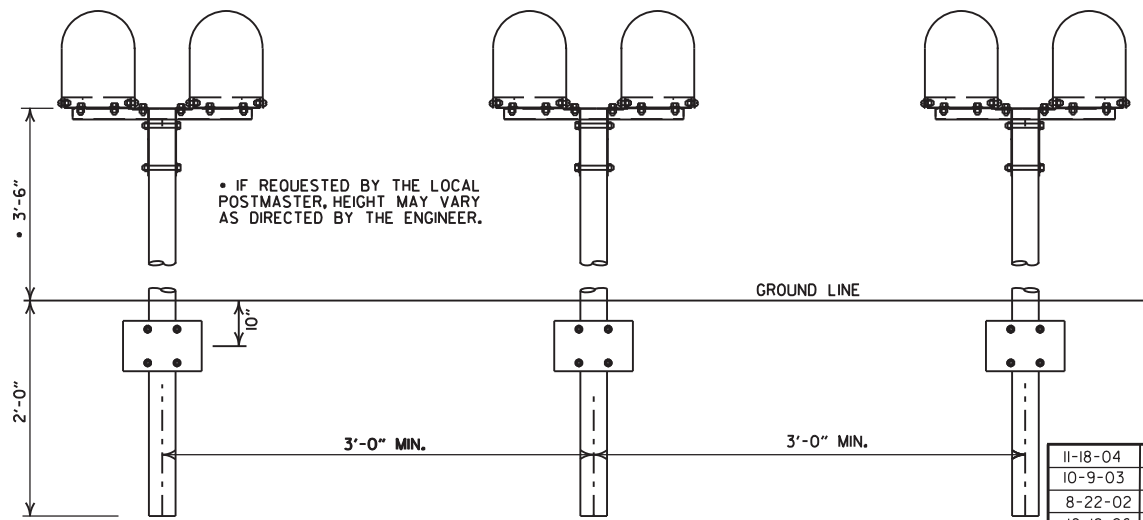
- GENERAL NOTES**
- MAILBOX POSTS MAY BE WOOD OR METAL. WOOD POSTS SHALL BE PRESSURE TREATED FOR GROUND CONTACT IN ACCORDANCE WITH SECTION 637.02 OF THE STANDARD SPECIFICATIONS.
  - ANTI-TWIST PLATES SHALL BE USED ONLY ON METAL POSTS.
  - MAILBOX SHELF, BRACKET & PLATFORM SHALL BE GALVANIZED OR PAINTED STEEL, HOWEVER TREATED WOOD MAY BE USED WITH WOODEN POSTS. THE WOODEN SHELF, BRACKET & PLATFORM SHALL BE A MINIMUM OF 3/4" THICK AND SHALL BE ASSEMBLED WITH BOLTS OF THE APPROPRIATE LENGTH WITH SIX 8 x 3/4" FLATHEAD WOOD SCREWS USED TO ATTACH THE MAILBOX TO THE PLATFORM.
  - THE MAILBOX SHELF AND PLATFORM THAT IS SHOWN IS FOR STANDARD SIZE MAILBOXES. THE SHELF AND PLATFORM SIZE SHALL BE MODIFIED TO FIT MAILBOXES OF A DIFFERENT SIZE.
  - METAL PIPE FOR MAILBOX SUPPORT SHALL BE 2" OUTSIDE DIAMETER STEEL WITH A WALL THICKNESS OF 0.145" AND A WEIGHT OF 2.72 LBS PER FT. OUTSIDE DIAMETER AND WEIGHT SHALL HAVE A TOLERANCE OF +/- 5% ACCORDING TO AASHTO M 181.
  - MAILBOX SUPPORT SYSTEM DIFFERING FROM THOSE SHOWN MAY BE USED, PROVIDED THEY ARE ON THE ARDOT QUALIFIED PRODUCTS LIST FOR MAILBOX SUPPORTS.



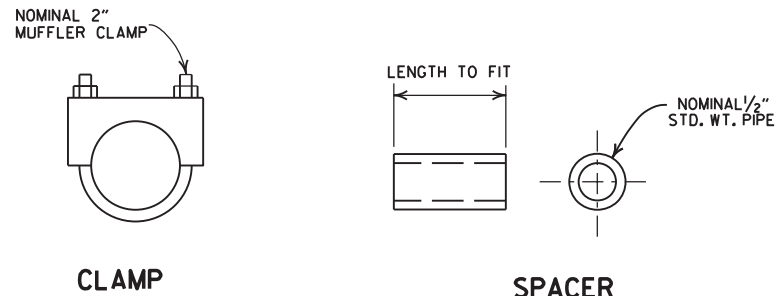
DOUBLE INSTALLATION



ANTI-TWIST PLATE



SPACING FOR MULTIPLE POST INSTALLATION



CLAMP

SPACER

DATE	FILMED	REVISION
11-18-04		REVISED NOTES
10-9-03		REVISED NOTE 6
8-22-02		REVISED NOTE 6
10-18-96		CORRECTED AASHTO
10-1-92		CORRECTED SPELLING
9-26-91		NEW PHONE NUMBER
8-15-91		ADDED NOTE
11-30-89		ADJUSTED HEIGHT & ADDED NOTE
2-16-89		DELETED SLOTS FROM SHELF & PLTF
11-17-88	10-1-92	ADJUSTED DIMENSIONS OF STEEL POSTS
7-15-88	10-7-15-88	ISSUED

ARKANSAS STATE HIGHWAY COMMISSION

MAILBOX DETAILS  
STANDARD DRAWING MB-1

**REINFORCED CONCRETE ARCH PIPE DIMENSIONS**

EQUIV. DIA.	SPAN		RISE	
	AASHTO M 206	ARDOT NOMINAL	AASHTO M 206	ARDOT NOMINAL
INCHES	INCHES			
15	18	18	11	11
18	22	22	13½	14
21	26	26	15½	16
24	28½	29	18	18
30	36¼	36	22½	23
36	43¾	44	26¾	27
42	51½	51	31½	31
48	58½	59	36	36
54	65	65	40	40
60	73	73	45	45
72	88	88	54	54
84	102	102	62	62
90	115	115	72	72
96	122	122	77½	77
108	138	138	87½	87
120	154	154	96¾	97
132	168¾	169	106½	107

THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN +.2 PERCENT FROM THE VALUES SPECIFIED BY AASHTO M206.

**REINFORCED CONCRETE HORIZONTAL ELLIPTICAL PIPE DIMENSIONS**

EQUIV. DIA.	AASHTO M 207	
	SPAN	RISE
INCHES	INCHES	
18	23	14
24	30	19
27	34	22
30	38	24
33	42	27
36	45	29
39	49	32
42	53	34
48	60	38
54	68	43
60	76	48
66	83	53
72	91	58
78	98	63
84	106	68

THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PERCENT FROM THE VALUES SPECIFIED BY AASHTO M207.

**CONSTRUCTION SEQUENCE**

1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
2. INSTALL PIPE TO GRADE.
3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. PLACE AND COMPACT THE HAUNCH AREA UP TO THE MIDDLE OF THE PIPE.
5. COMPLETE BACKFILL ACCORDING TO SUBSECTION 606.03.(F)(II).

NOTE: HAUNCH AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF CONCRETE PIPE.

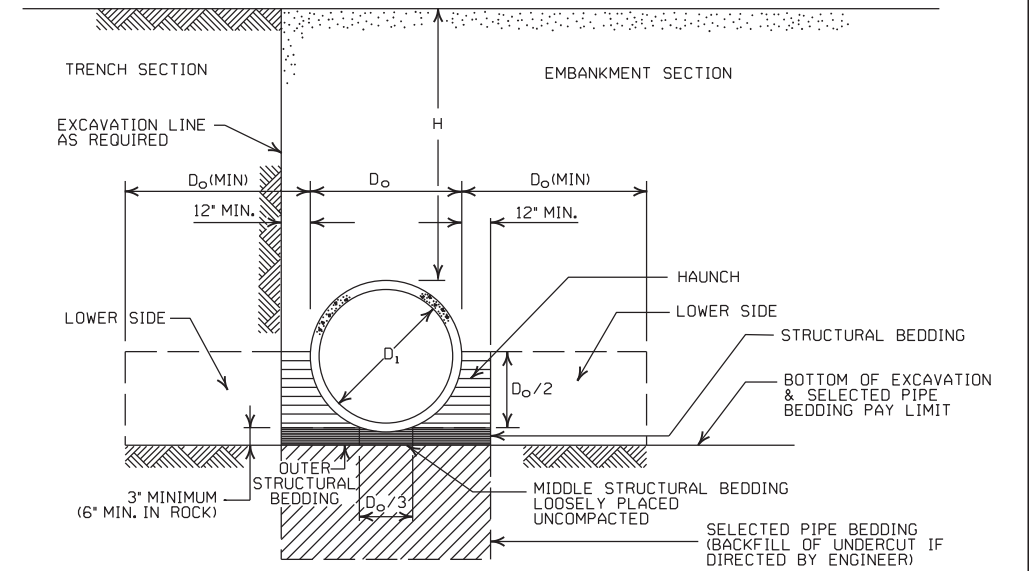
**- LEGEND -**

- D<sub>i</sub> = NORMAL INSIDE DIAMETER OF PIPE
- D<sub>o</sub> = OUTSIDE DIAMETER OF PIPE
- H = FILL COVER HEIGHT OVER PIPE (FEET)
- MIN. = MINIMUM
- = UNDISTURBED SOIL

INSTALLATION TYPE	MATERIAL REQUIREMENTS FOR HAUNCH AND STRUCTURAL BEDDING
TYPE 1	AGGREGATE BASE COURSE (CLASS 5 OR CLASS 7)
TYPE 2	SELECTED MATERIALS (CLASS SM-1, SM-2, OR SM-4) OR TYPE 1 INSTALLATION MATERIAL*
TYPE 3**	AASHTO CLASSIFICATION A-1 THRU A-6 SOIL OR TYPE 1 OR 2 INSTALLATION MATERIAL

\*SM-3 WILL NOT BE ALLOWED.

\*\* MATERIALS SHALL NOT INCLUDE ORGANIC MATERIALS OR STONES LARGER THAN 3 INCHES.



**EMBANKMENT AND TRENCH INSTALLATIONS**

1. MATERIAL IN THE HAUNCH AND OUTER STRUCTURAL BEDDING SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.
2. FOR TRENCHES WITH WALLS OF NATURAL SOIL, THE DENSITY OF THE SOIL IN THE LOWER SIDE ZONE SHALL BE AS FIRM AS THE 95% DENSITY REQUIRED FOR THE HAUNCH. IF THE EXISTING SOIL DOES NOT MEET THIS CRITERIA, IT SHALL BE REMOVED AND RECOMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OF MATERIAL USED.
3. FOR EMBANKMENTS, THE MATERIAL IN THE LOWER SIDE ZONE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.

**GENERAL NOTES**

1. CONCRETE PIPE CULVERT CONSTRUCTION SHALL CONFORM TO ARKANSAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION), WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS. UNLESS OTHERWISE NOTED IN THE PLANS, SECTION AND SUBSECTION REFER TO THE STANDARD CONSTRUCTION SPECIFICATIONS.
2. CONCRETE PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. ALL PIPE SHALL CONFORM TO SECTION 606, CIRCULAR R.C. PIPE CULVERTS SHALL CONFORM TO AASHTO M170, R.C. ARCH PIPE CULVERTS SHALL CONFORM TO AASHTO M206 AND HORIZONTAL ELLIPTICAL PIPE CULVERTS SHALL CONFORM TO AASHTO M207.
4. ALL PIPE SHALL BE PROTECTED DURING CONSTRUCTION BY A COVER SUFFICIENT TO PREVENT DAMAGE FROM PASSAGE OF EQUIPMENT.
5. THE MINIMUM TRENCH WIDTH SHALL BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 24 INCHES. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PRACTICABLE FOR WORKING CONDITIONS.
6. MULTIPLE PIPE CULVERTS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 24 INCHES BETWEEN STRINGS OF PIPE. REFER TO STD. DWG. FES-2 FOR MINIMUM CLEARANCE WHERE FLARED END SECTIONS ARE USED.
7. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
8. NOT MORE THAN ONE LIFTING HOLE MAY BE PROVIDED IN CONCRETE PIPE TO FACILITATE HANDLING. HOLE MAY BE CAST IN PLACE, CUT INTO THE FRESH CONCRETE AFTER FORMS ARE REMOVED, OR DRILLED. THE HOLE SHALL NOT BE MORE THAN TWO INCHES IN DIAMETER OR TWO INCHES SQUARE. CUTTING OR DISPLACEMENT OF REINFORCEMENT WILL NOT BE PERMITTED. SPALLED AREAS AROUND THE HOLE SHALL BE REPAIRED IN A WORKMANLIKE MANNER. LIFTING HOLE SHALL BE FILLED WITH MORTAR, CONCRETE, OR OTHER METHOD AS APPROVED BY THE ENGINEER.
9. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS "STRUCTURAL BEDDING" ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING."
10. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED ABOVE AS THE HAUNCH), BORROW MATERIAL OR MATERIAL FROM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE. IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF "SELECTED PIPE BACKFILL."

**MINIMUM HEIGHT OF FILL "H" OVER CIRCULAR R.C. PIPE CULVERTS**

INSTALLATION TYPE	CLASS OF PIPE			
	CLASS III		CLASS IV	CLASS V
PIPE ID (IN.)	FEET			
	TYPE 1 OR 2	TYPE 3	ALL	ALL
12-15	2	2.5	2	1
18-24	2.5	3	2	1
27-33	3	4	2	1
36-42	3.5	5	2	1
48	4.5	5.5	2	1
54-60	5	7	2	1
66-78	6	8	2	1
84-108	7.5	8	2	1

NOTE: FOR MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM OF 12" OF PAVEMENT AND/OR BASE.

**MAXIMUM HEIGHT OF FILL "H" OVER CIRCULAR R.C. PIPE CULVERTS**

INSTALLATION TYPE	CLASS OF PIPE		
	CLASS III	CLASS IV	CLASS V
	FEET		
TYPE 1	21	32	50
TYPE 2	16	25	39
TYPE 3	12	20	30

NOTE: IF FILL HEIGHT EXCEEDS 50 FEET, A SPECIAL DESIGN CONCRETE PIPE WILL BE REQUIRED USING TYPE 1 INSTALLATION.

**MINIMUM HEIGHT OF FILL "H" OVER R.C. ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS**

INSTALLATION TYPE	CLASS OF PIPE	
	CLASS III	CLASS IV
	FEET	
TYPE 2 OR TYPE 3	2.5	1.5

NOTE: TYPE 1 INSTALLATION WILL NOT BE ALLOWED FOR ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS.

NOTE: FOR MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM OF 12" OF PAVEMENT AND/OR BASE.

**MAXIMUM HEIGHT OF FILL "H" OVER R.C. ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS**

INSTALLATION TYPE	CLASS OF PIPE	
	CLASS III	CLASS IV
	FEET	
TYPE 2	13	21
TYPE 3	10	16

NOTE: TYPE 1 INSTALLATION WILL NOT BE ALLOWED FOR ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS.

DATE	REVISION	DATE FILMED
2-27-14	REVISED GENERAL NOTE 1.	
12-15-11	REVISED FOR LRFD DESIGN SPECIFICATIONS	
5-18-00	REVISED TYPE 3 BEDDING & ADDED NOTE	
3-30-00	REVISED INSTALLATIONS	
11-06-97	ISSUED	

**ARKANSAS STATE HIGHWAY COMMISSION**

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**CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING**

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STANDARD DRAWING PCC-1



**CORRUGATED STEEL PIPE (ROUND)**

PIPE DIAMETER (INCHES)	① MINIMUM COVER TOP OF PIPE TO TOP OF GROUND "H" (FEET)	MAX. FILL HEIGHT "H" ABOVE TOP OF PIPE (FEET)				
		METAL THICKNESS (INCHES)				
		0.064	0.079	0.109	0.138	0.168
2 3/8 INCH BY 1/2 INCH CORRUGATION RIVETED, WELDED, OR HELICAL LOCK-SEAM						
12	1	84	91			
15	1	67	73			
18	1	56	61			
24	1	42	46	59		
30	2	34	36	47		
36	2		30	39	41	
42	2		43	67	70	73
48	2		37	58	61	64
② 3 INCH BY 1 INCH OR 5 INCH BY 1 INCH CORRUGATION RIVETED, WELDED, BOLTED, OR HELICAL LOCK-SEAM						
36	1	48	60	88	111	118
42	1	41	51	72	90	102
48	1	36	45	64	77	85
54	2	32	40	59	71	79
60	2	29	36	53	64	71
66	2	26	33	47	58	64
72	2	24	30	44	53	59
78	2		28	41	49	54
84	2		26	38	45	51
90	2		24	35	43	45
96	2		22	33	40	44
102	2			31	38	42
108	2			30	35	39
114	2			28	34	37
120	2			27	32	35

**CORRUGATED ALUMINUM PIPE (ROUND)**

PIPE DIAMETER (INCHES)	① MINIMUM COVER TOP OF PIPE TO TOP OF GROUND "H" (FEET)	MAX. FILL HEIGHT "H" ABOVE TOP OF PIPE (FEET)				
		METAL THICKNESS IN INCHES				
		0.060	0.075	0.105	0.135	0.164
2 3/8 INCH BY 1/2 INCH CORRUGATION RIVETED OR HELICAL LOCK-SEAM						
12	1	45	45			
18	2	30	30	52		
24	2	22	22	39	41	
30	2		18	31	32	34
36	2.5		15	26	27	28
42	2			43	43	44
48	2			40	41	43
54	2			35	37	38
60	2				33	34
66	2					31
72	2					29

**CORRUGATED METAL PIPE ARCHES**

EQUIV. DIA. (INCHES)	PIPE DIMENSION SPAN X RISE (INCHES)	MINIMUM CORNER RADIUS (INCHES)	STEEL				ALUMINUM		
			MIN. THICKNESS REQUIRED INCHES	① MIN. HEIGHT OF FILL, "H" (FT.)		MIN. THICKNESS REQUIRED INCHES	① MIN. HEIGHT OF FILL, "H" (FT.)		
				INSTALLATION			INSTALLATION		
				TYPE 1	TYPE 1		TYPE 1	TYPE 1	
2 3/8 INCH BY 1/2 INCH CORRUGATION RIVETED, WELDED, OR HELICAL LOCK-SEAM									
15	17x13	3	0.064	2	15	0.060	2	15	
18	21x15	3	0.064	2	15	0.060	2	15	
21	24x18	3	0.064	2,25	15	0.060	2,25	15	
24	28x20	3	0.064	2.5	15	0.075	2.5	15	
30	35x24	3	0.079	3	12	0.075	3	12	
36	42x29	3 1/2	0.079	3	12	0.105	3	12	
42	49x33	4	0.079	3	12	0.105	3	12	
48	57x38	5	0.109	3	13	0.135	3	13	
54	64x43	6	0.109	3	14	0.135	3	14	
60	71x47	7	0.138	3	15	0.164	3	15	
66	77x52	8	0.168	3	15				
72	83x57	9	0.168	3	15				
② 3 INCH BY 1 INCH OR 5 INCH BY 1 INCH CORRUGATION RIVETED, WELDED, OR HELICAL LOCK-SEAM									
			INSTALLATION		INSTALLATION				
			TYPE 2	TYPE 1	TYPE 2	TYPE 1			
36	40x31	5	0.079	3	2	12	15		
42	46x36	6	0.079	3	2	13	15		
48	53x41	7	0.079	3	2	13	15		
54	60x46	8	0.079	3	2	13	15		
60	66x51	9	0.079	3	2	13	15		
66	73x55	12	0.079	3	2	15	15		
72	81x59	14	0.079	3	2	15	15		
78	87x63	14	0.079	3	2	15	15		
84	95x67	16	0.109	3	2	15	15		
90	103x71	16	0.109	3	2	15	15		
96	112x75	18	0.109	3	2	15	15		
102	117x79	18	0.109	3	2	15	15		
108	128x83	18	0.138	3	2	15	15		

**CONSTRUCTION SEQUENCE**

1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
2. INSTALL PIPE TO GRADE.
3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. COMPLETE STRUCTURAL BACKFILL OPERATION BY WORKING FROM SIDE TO SIDE OF THE PIPE. THE SIDE TO SIDE STRUCTURAL BACKFILL DIFFERENTIAL SHALL NOT EXCEED 24 INCHES OR 1/3 THE SIZE OF THE PIPE, WHICHEVER IS LESS.

NOTE: STRUCTURAL BACKFILL AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF METAL PIPE.

INSTALLATION TYPE	MATERIAL REQUIREMENTS FOR STRUCTURAL BACKFILL AND STRUCTURAL BEDDING
TYPE 1	AGGREGATE BASE COURSE (CLASS 4, 5, 6, OR 7)
TYPE 2	SELECTED MATERIALS (CLASS SM-1, SM-2, OR SM-4) OR TYPE 1 INSTALLATION MATERIAL ③

③ SM-3 WILL NOT BE ALLOWED.

**EQUIVALENT METAL THICKNESSES AND GAUGES**

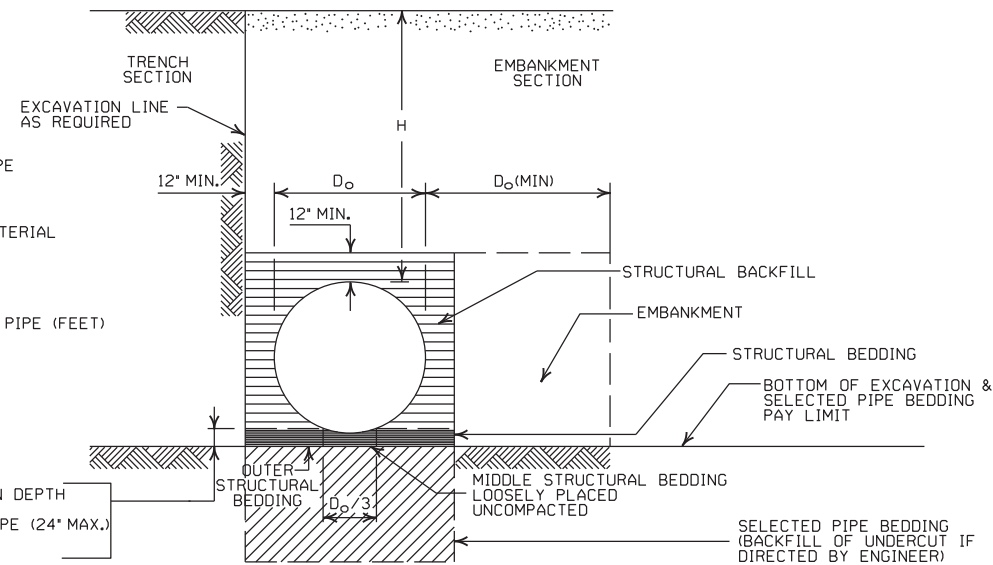
METAL THICKNESS IN INCHES			GAUGE NUMBER
STEEL			
ZINC COATED	UNCOATED	ALUMINUM	
0.064	0.0598	0.060	16
0.079	0.0747	0.075	14
0.109	0.1046	0.105	12
0.138	0.1345	0.135	10
0.168	0.1644	0.164	8

① FOR MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM 12" OF PAVEMENT AND/OR BASE.

② WHERE THE STANDARD 2 2/3 x 1/2 CORRUGATION AND GAUGE IS SPECIFIED FOR A GIVEN DIAMETER, A PIPE OF THE SAME DIAMETER WITH A 3' x 1' OR 5' x 1' CORRUGATION MAY BE SUBSTITUTED, PROVIDING IT IS GAUGED FOR A FILL HEIGHT CONDITION EQUAL TO OR GREATER THAN THE MAXIMUM FILL HEIGHT CONDITION FOR THE SPECIFIED GAUGE AND CORRUGATION.

**- LEGEND -**

- D<sub>o</sub> = OUTSIDE DIAMETER OF PIPE
- MAX. = MAXIMUM
- MIN. = MINIMUM
- [Symbol] = STRUCTURAL BACKFILL MATERIAL
- [Symbol] = UNDISTURBED SOIL
- EQUIV. DIA. = EQUIVALENT DIAMETER
- H = FILL COVER HEIGHT OVER PIPE (FEET)



**EMBANKMENT AND TRENCH INSTALLATIONS**

1. STRUCTURAL BACKFILL, EMBANKMENT, AND OUTER STRUCTURAL BEDDING MATERIAL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.
2. INSTALLATION TYPE 1 OR 2 MAY BE USED FOR CORRUGATED STEEL OR ALUMINUM PIPE (ROUND).
3. INSTALLATION TYPE 1 SHALL BE USED FOR CORRUGATED STEEL OR ALUMINUM PIPE ARCHES WITH 2 3/8" x 1/2" CORRUGATION.
4. INSTALLATION TYPE 1 OR 2 MAY BE USED FOR CORRUGATED STEEL OR ALUMINUM PIPE ARCHES WITH 3" x 1" OR 5" x 1" CORRUGATION.

**GENERAL NOTES**

1. METAL PIPE CULVERT CONSTRUCTION SHALL CONFORM TO ARKANSAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION), WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS, UNLESS OTHERWISE NOTED IN THE PLANS, SECTION AND SUBSECTION REFER TO THE STANDARD CONSTRUCTION SPECIFICATIONS.
2. METAL PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. METAL PIPE CULVERT MATERIALS AND INSTALLATIONS SHALL CONFORM TO SECTION 606 AND JOB SPECIAL PROVISION "METAL PIPE".
4. ALL PIPE SHALL BE PROTECTED DURING CONSTRUCTION BY A COVER SUFFICIENT TO PREVENT DAMAGE FROM PASSAGE OF EQUIPMENT.
5. THE MINIMUM TRENCH WIDTH SHALL BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 24 INCHES. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PRACTICABLE FOR WORKING CONDITIONS.
6. MULTIPLE PIPE CULVERTS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 24 INCHES BETWEEN STRINGS OF PIPE. REFER TO STD. DWG. FES-2 FOR MINIMUM CLEARANCE WHERE FLARED END SECTIONS ARE USED.
7. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
8. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS "STRUCTURAL BEDDING" ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING."
9. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED AS STRUCTURAL BACKFILL), BORROW MATERIAL OR MATERIAL FROM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE. IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF "SELECTED PIPE BACKFILL."







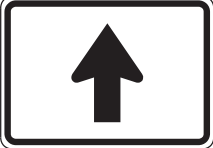






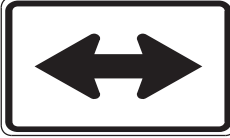







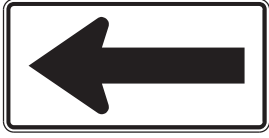






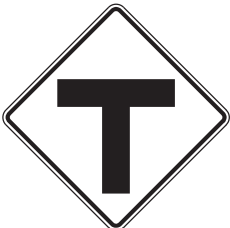

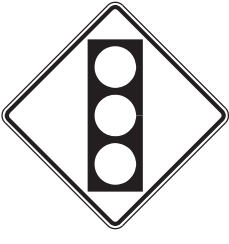



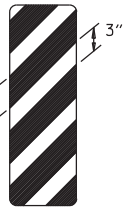
DATE	REVISION	DATE FILMED
2-27-14	REVISED GENERAL NOTE 1	
12-15-11	REVISED FOR LRFD DESIGN SPECS	
3-30-00	REVISED INSTALLATIONS	
11-06-97	ISSUED	

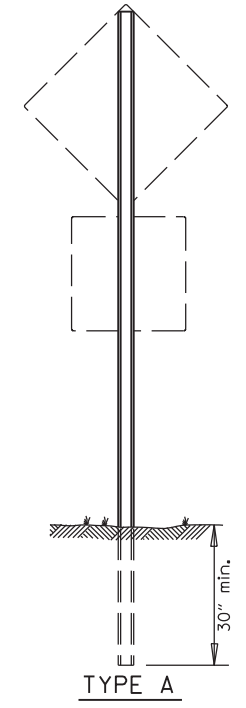
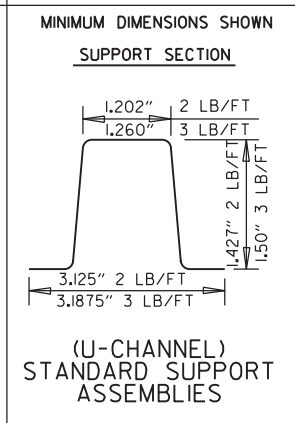
ARKANSAS STATE HIGHWAY COMMISSION

**METAL PIPE CULVERT  
FILL HEIGHTS & BEDDING**

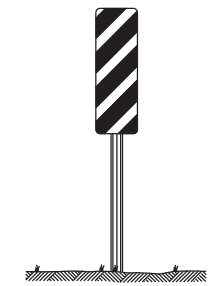
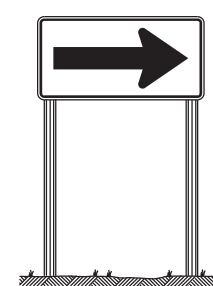
STANDARD DRAWING PCM-1



 RI-1 30"x30"	 WI-3 30"x30" (LT. OR RT.)	 WI-8 18"x24"	 W2-5 30"x30"	 W3-1 36"x36"	 W5-1 36"x36"	 M6-3 21"x15"
 RI-2 36"x36"x36"	 WI-4 30"x30" (LT. OR RT.)	 W2-1 30"x30"	 SI-1 36"x36"	 W3-2 36"x36"	 LASSEN 16 COUNTY County Route Marker MI-6 24"x24"	 M6-4 21"x15"
 R2-1 24"x30"	 WI-5 30"x30" (LT. OR RT.)	 W2-2 30"x30"	 W5-2 36"x36"	 W8-3 36"x36"	NOTE: REFLECTORIZED YELLOW LEGEND (COUNTY NAME, ROUTE LETTER & NUMBER) & BORDER ON A BLUE BACKGROUND.	 RI-3P 18"x6"
 WI-1 30"x30" (LT. OR RT.)	 WI-6 48"x24"	 W2-3 30"x30" (LT. OR RT.)	 W5-3 36"x36"	 W13-IP 18"x18"	NOTE: ALL M6 SIGNS TO BE MADE WITH REFLECTORIZED YELLOW ARROW & BORDER WITH BLUE BACKGROUND.	 M6-6 21"x15"
 WI-2 30"x30" (LT. OR RT.)	 WI-7 48"x24"	 W2-4 30"x30"	 W10-1 36" DIAMETER	 W3-3 36"x36"	 M6-2 21"x15"	 S4-3P 24"x8"
						 S4-2P 24"x10"
						 OM-3 12"x36" (LT. OR RT.)



NOTE: LENGTH OF SIGN POSTS SHALL BE DETERMINED SO AS TO PROVIDE FOR MINIMUM VERTICAL CLEARANCES AS CALLED FOR IN THE SPECIFICATIONS PLUS A MINIMUM VERTICAL PENETRATION OF 30" IN THE SOIL.



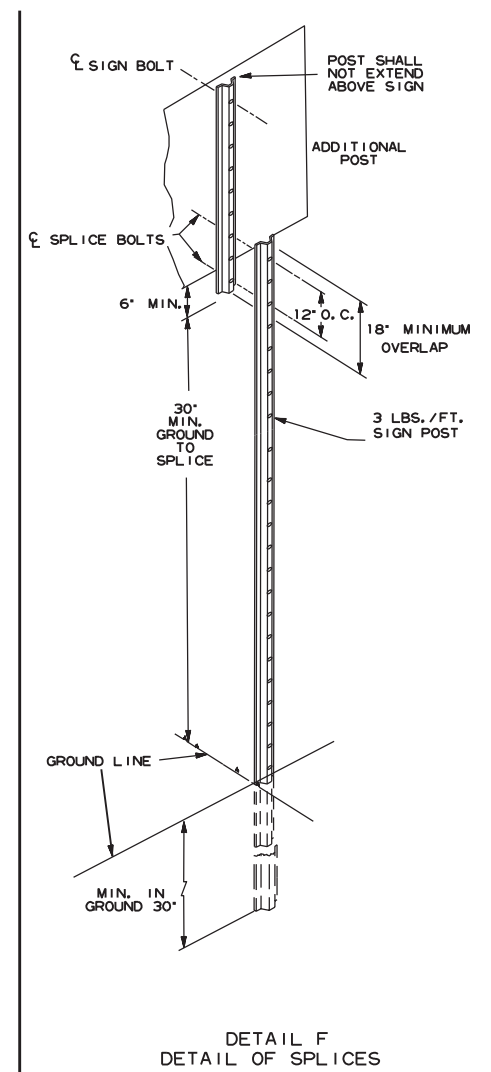
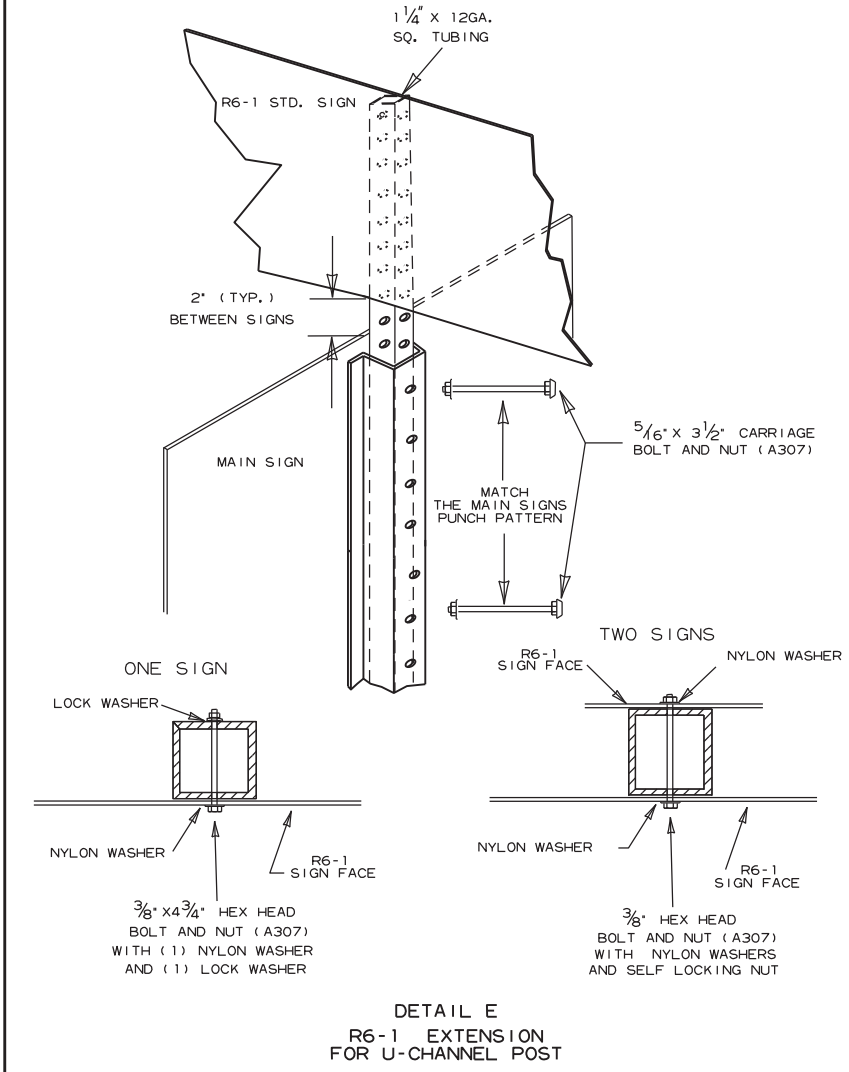
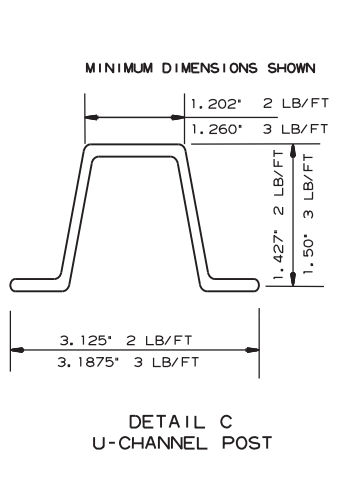
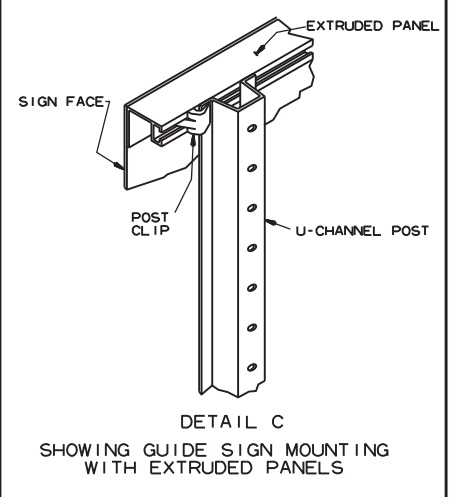
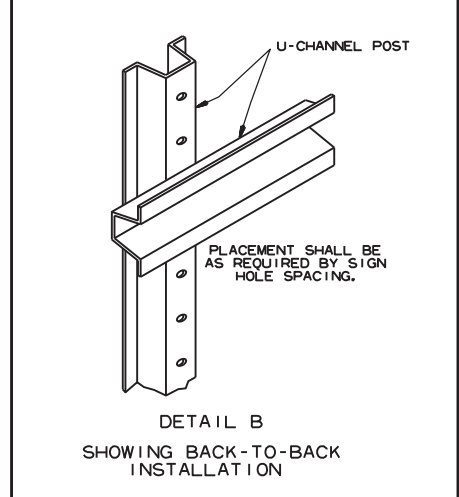
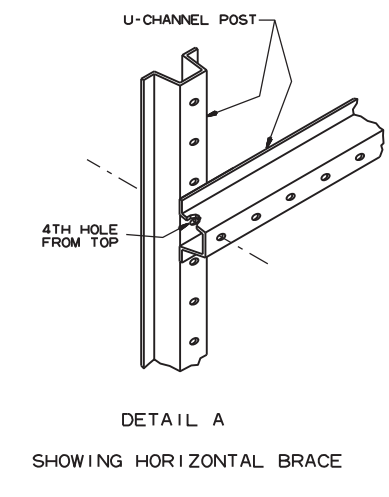
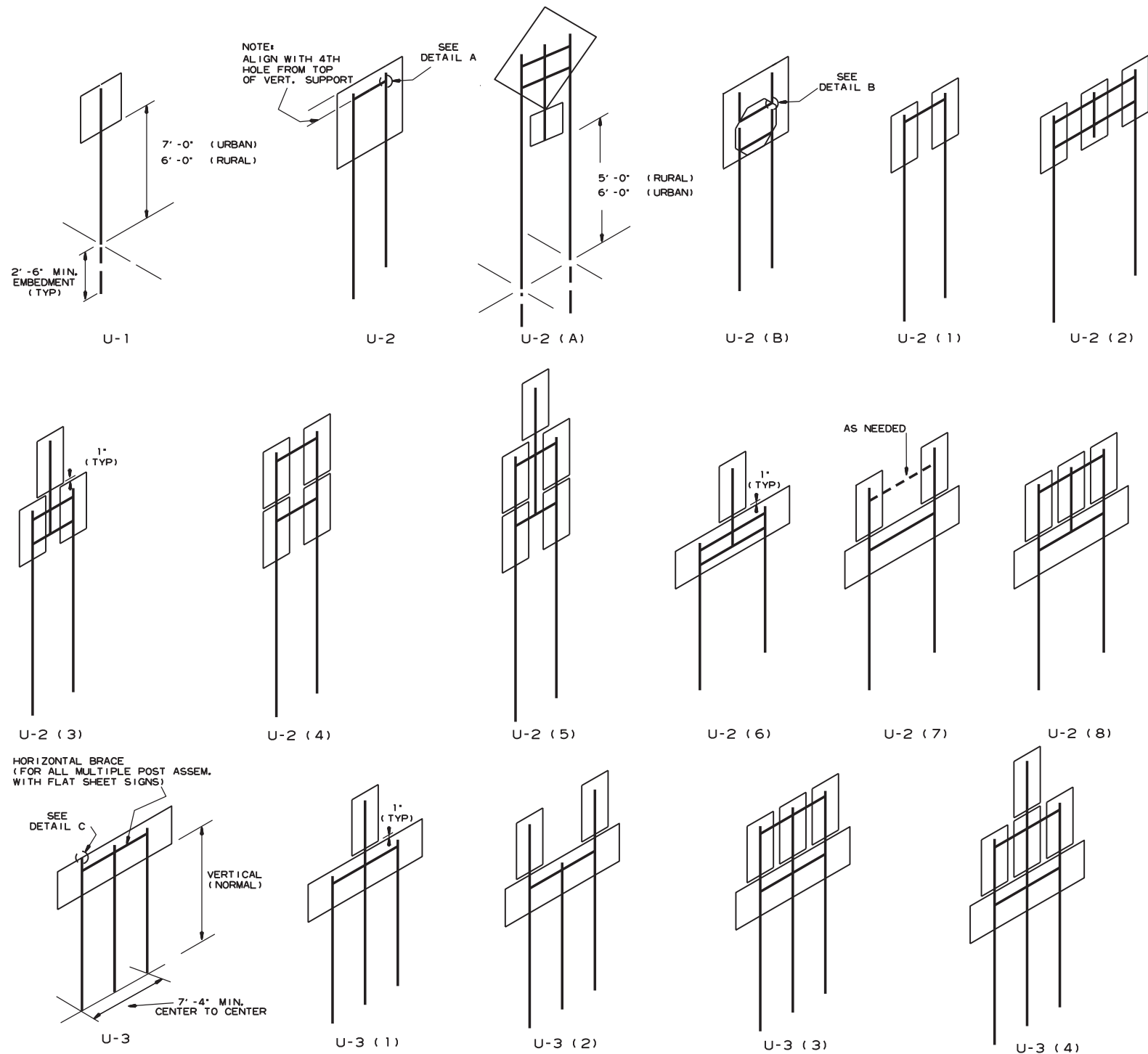
MINIMUM WEIGHT  
TYPE A & B = 3 LBS./FT.  
TYPE C = 2 LBS./FT.

STANDARD HIGHWAY SIGNS

SUPPORT ASSEMBLIES

9-12-13	DELETED JOB NO. BLOCK; REVISED RI-3 TO RI-3P	
4-17-08	REVISED SIGN DESIGNATION - W3-1 & W3-2	
4-10-03	REVISED W5-2, W8-3, OM-3; ADDED WI-8	
1-5-81	REDRAWN	960-1-15-81
9-15-78	ADDED W14-3	877-9-15-78
9-2-76	POST WT.	623-9-3-76
5-3-76	STEEL POST WT. FROM 2*-3*; ADDED S4-2 & S4-3	504-5-3-76
8-12-74	REV. HT. TYPE "C" ASSEMBLY	500-8-21-74
12-21-72	ADDED M6-2,3,4,5,6	500-12-21-72
12-1-72	ISSUED	562-12-1-72
DATE	REVISION	DATE FILMED

ARKANSAS STATE HIGHWAY COMMISSION  
STANDARD HIGHWAY SIGNS  
AND SUPPORT ASSEMBLIES  
STANDARD DRAWING SHS-1



NOTES:

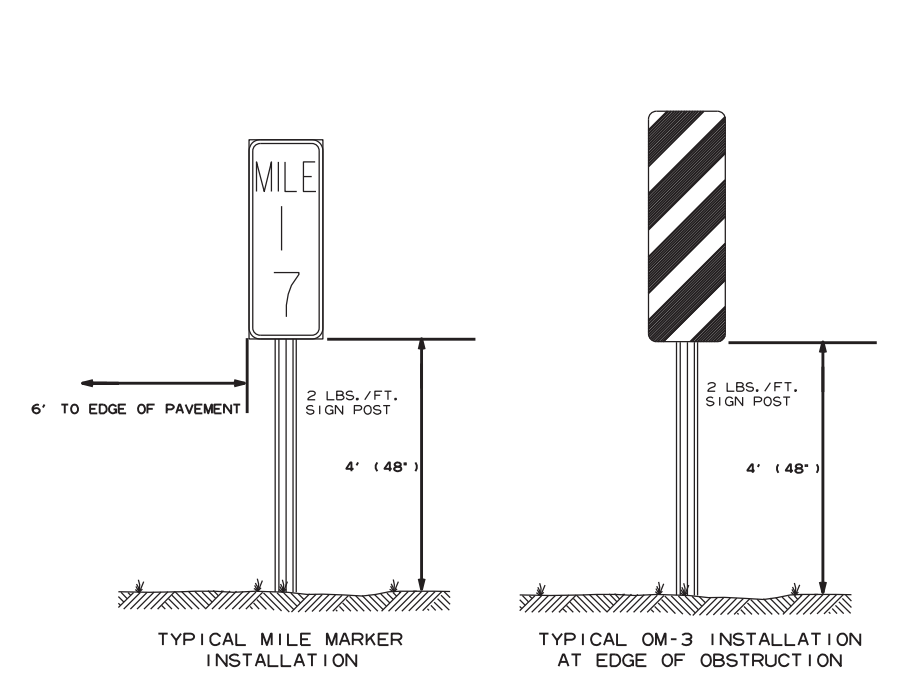
SIGNS AT LEAST 8' IN LENGTH MAY BE INSTALLED ON THREE 3 LB. POST. IN NO CASE SHALL THERE BE MORE THAN TWO 3 LB. POSTS WITHIN A 7' PATH.

SPLICES NECESSARY TO ATTAIN PROPER MOUNTING HEIGHT SHALL BE AS SHOWN IN DETAIL ( F ).

NORMAL INSTALLATIONS WILL REQUIRE 5/16" DIA. CARRIAGE BOLTS TO MOUNT SIGNS TO POST AND TO ASSEMBLE THE VARIOUS POST SUPPORTS.

ALL SIGN POSTS SHALL BE PLUMB.

THE POST FOR 'TYPE U' SUPPORTS SHALL BE HOT DIP GALVANIZED.

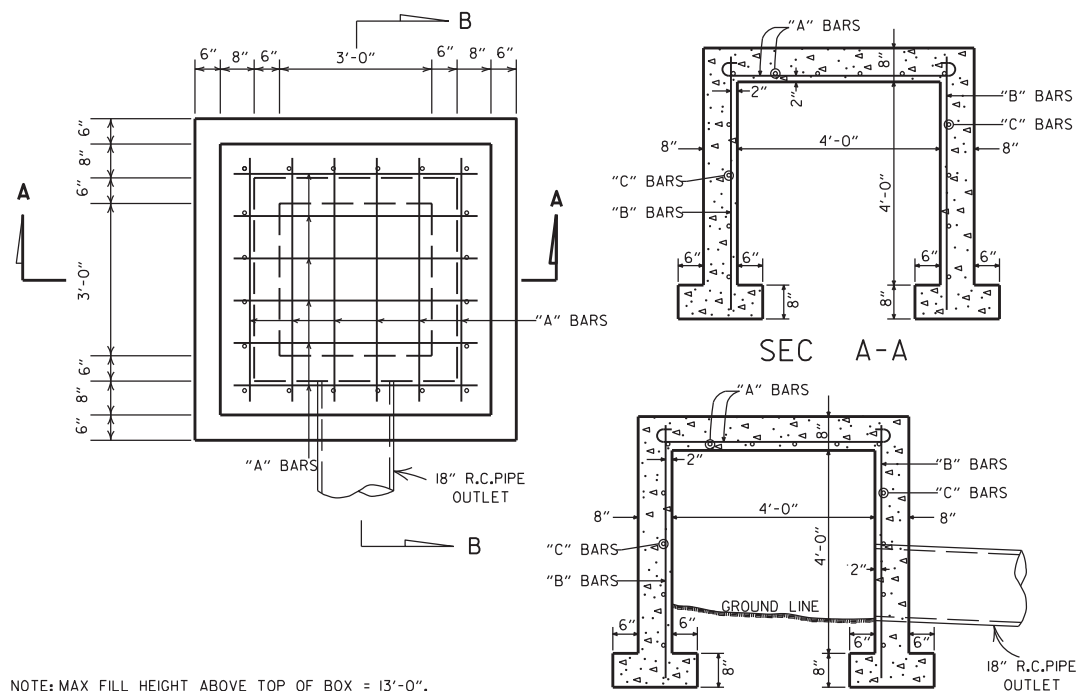


DATE	REVISION	FILED
7-25-19	REVISED CARRIAGE BOLT WITH MATERIAL REQUIREMENT	
2-27-14	REVISED NOTES.	
9-12-13	REVISED U-2(3), U-2(6), U-3(1), DETAIL D; ADDED DETAILS E & F; ADDED TYPICAL MARKERS	
10-9-03	REMOVED ROUND POST & REVISED SPACING	
10-12-95	MOVED UPPER SPLICE	
6-8-95	REVISED SPLICE DETAIL	6-8-95
2-2-95	REDRAWN	2-2-95

ARKANSAS STATE HIGHWAY COMMISSION

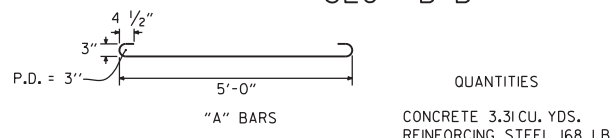
U-CHANNEL POST ASSEMBLIES

STANDARD DRAWING SHS-2



NOTE: MAX FILL HEIGHT ABOVE TOP OF BOX = 13'-0".

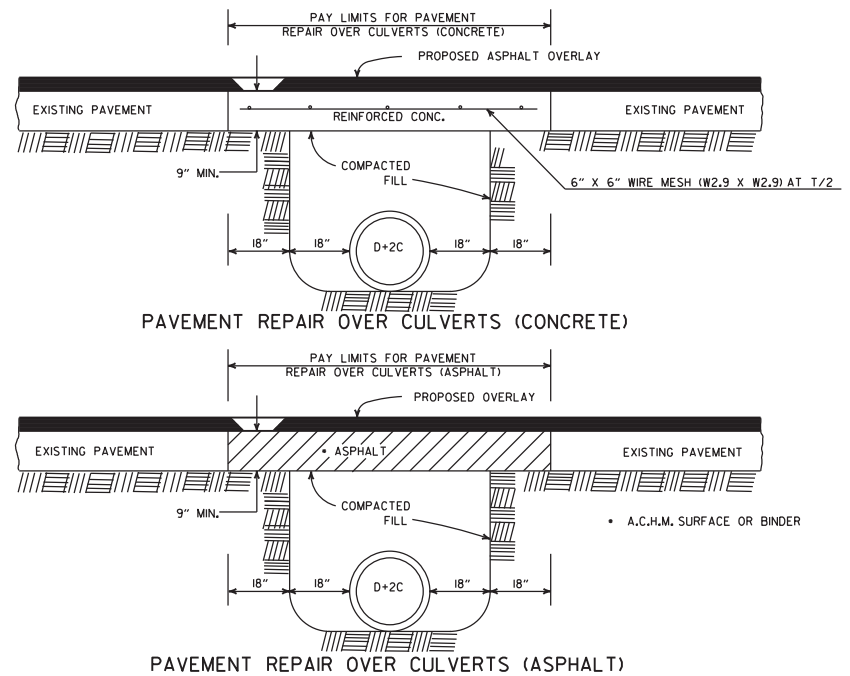
STEEL SCHEDULE			
BAR	NUMBER	LENGTH	SPACING
"A"	12	6'-0"	10"
"B"	20	5'-0"	10 1/2"
"C"	16	5'-0"	12"



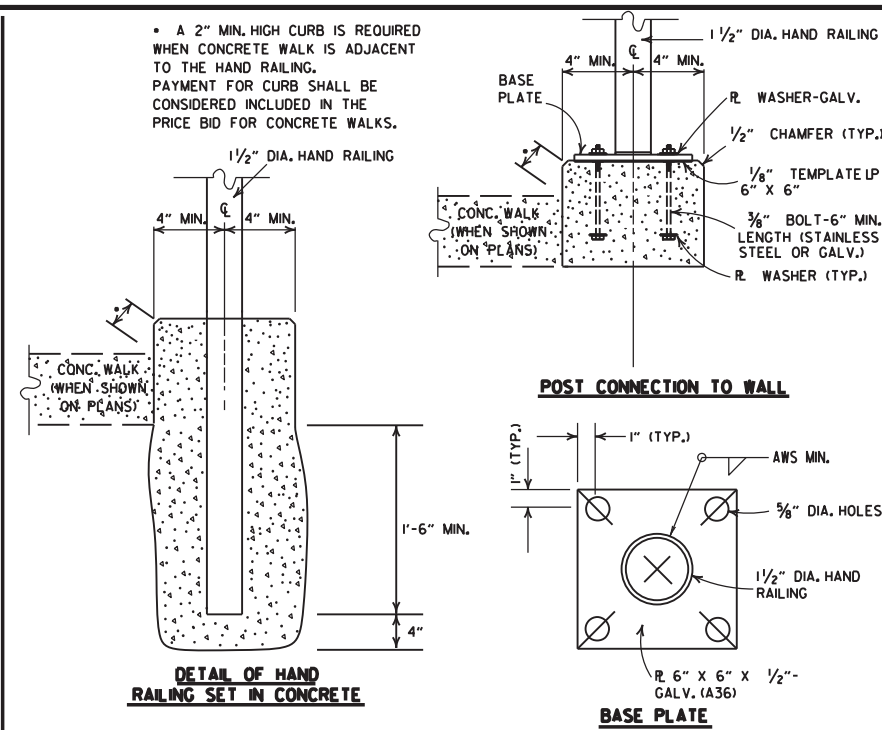
QUANTITIES  
CONCRETE 3.31 CU. YDS.  
REINFORCING STEEL 168 LB.

GENERAL NOTE:  
THE PAY ITEMS FOR REINFORCED CONCRETE SPRING BOXES SHALL BE FOR THE QUANTITIES OF CONCRETE OF THE CLASS SPECIFIED, REINFORCING STEEL, EXCAVATION FOR STRUCTURES AND 18" R.C. PIPE CULVERT.

**REINFORCED CONCRETE SPRING BOX**



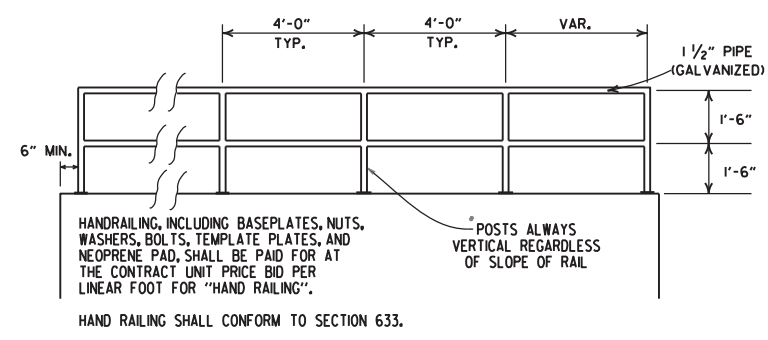
**DETAIL SHOWING REPAIR OF EXISTING PAVEMENT AT CULVERT INSTALLATIONS**



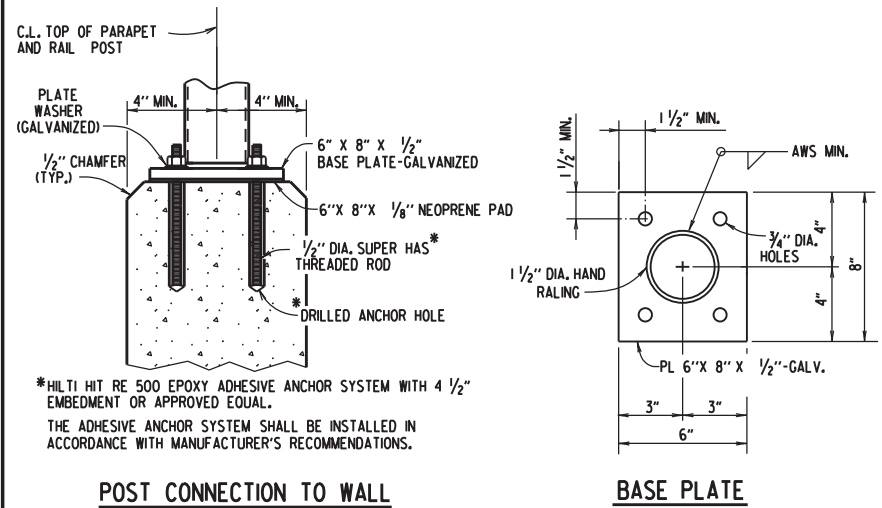
**DETAIL OF HAND RAILING SET IN CONCRETE**

**POST CONNECTION TO WALL**

**POST CONNECTION DETAILS**



HAND RAILING SHALL CONFORM TO SECTION 633.

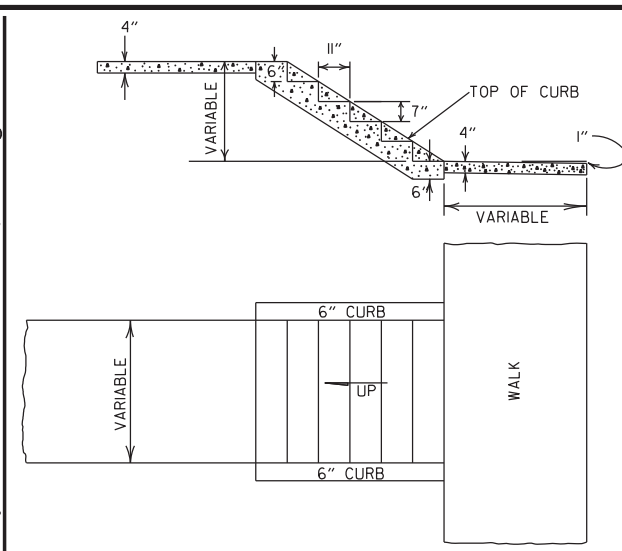


**POST CONNECTION TO WALL**

**BASE PLATE**

**DETAILS OF ALTERNATE POST ANCHOR SYSTEM (EPOXY ADHESIVE ANCHORS)**

**HAND RAILING DETAILS**



**DETAILS OF CONCRETE STEPS & WALKS**






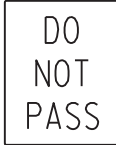



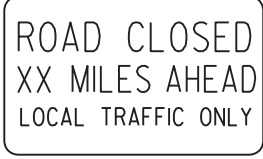


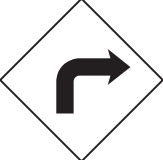





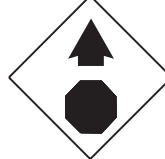
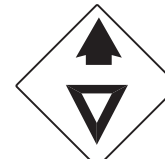
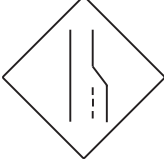

















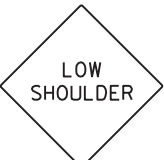

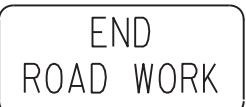
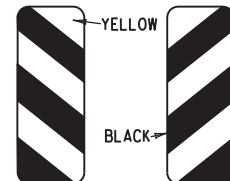


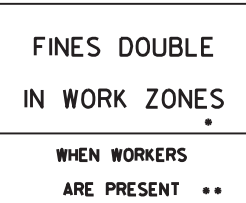
GENERAL NOTES  
1. RISE AND TREAD DIMENSIONS OF STEPS MAY BE VARIED AS DIRECTED BY THE ENGINEER, HOWEVER, TREAD WIDTHS SHALL BE 11" MIN. ALL STEPS IN A FLIGHT SHALL HAVE CONSISTENT TREAD & RISER DIMENSIONS.  
2. 1" TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE WALKS AT 45' INTERVALS.

DATE	REVISION	DATE FILMED
10-25-18	REVISED DETAIL SHOWING REPAIR OF EXISTING PAVEMENT AT CULVERT INSTALLATIONS	
9-12-13	REVISED REINFORCED CONCRETE SPRING BOX	
7-26-12	REMOVED RETAINING WALL DETAILS & REVISED HAND RAILING DETAILS	
4-17-08	REV. JOINT & FOOTING STEP DETAILS	
11-29-07	REVISED RETAINING WALL DRAINAGE	
5-25-06	REVISED PVMT REPAIR OVER CULVERTS (CONC); REVISED REINFORCED CONC SPRING BOX	
10-9-03	REVISED PIPE RAILING DETAILS TO HAND RAILING DETAILS	
4-10-03	REVISED RETAINING WALL DRAWING	
8-22-02	ADDED HAND RAILING DETAIL	
11-16-01	REVISED PVMT REPAIR OVER CULVERTS (CONC); CORRECTED SPELLING IN GENERAL NOTES	
11-18-98	ADDED GENERAL NOTES TO CONCRETE STEPS & WALKS	
7-02-98	ENLARGED PIPE	
4-03-97	ADDED NOTE TO STEEL BAR SCHED.	
10-18-96	CORRECTED SPELLING	
4-26-96	ADD WEEP HOLE; REV. JOINT SPACING IN RET. WALL	
6-2-94	CHANGED CONST. TO CONTRACTION JOINT	10-1-92
10-1-92	CHANGED MESH FABRIC TO WIRE MESH	8-15-91
8-15-91	DELETED HDWL MODIFICATION DETAIL	11-8-90
11-8-90	DELETED COLD MIX FROM CULV'T. REPAIR	11-30-89
11-30-89	REV. RETAINING WALL STEEL SCHEDULE	665-11-78
11-17-88	V. BARS BEHIND ARROW	649-7-15-88
7-15-88	REV. PAVEMENT REPAIR ADDED HDWL. MODS, DEL. PIPE UNDERDRAINS	
11-1-84	REV. TRENCH FOR PIPE UNDERDRAIN	510-11-1-84
1-4-83	ELIMINATED CONC. CLASS & ADDED CHAMFER NOTE	682-1-4-83
3-2-81	SPELLING OF "UNDERDRAIN"	721-3-2-81
4-20-79	REV. UNDERDRAIN DET & PAVEMENT REPAIR	674-4-20-79
2-2-76	12" MIN. GRAN. MAT'L. OVER PIPE	919-2-2-76
4-10-75	REM. SPECS. FOR GRAN. MAT'L.	568-4-10-75-853
5-22-74	GRANULAR MAT'L. TO BE SB-3	567-5-22-74-740
10-2-72	REVISED AND REDRAWN	564-10-16-72

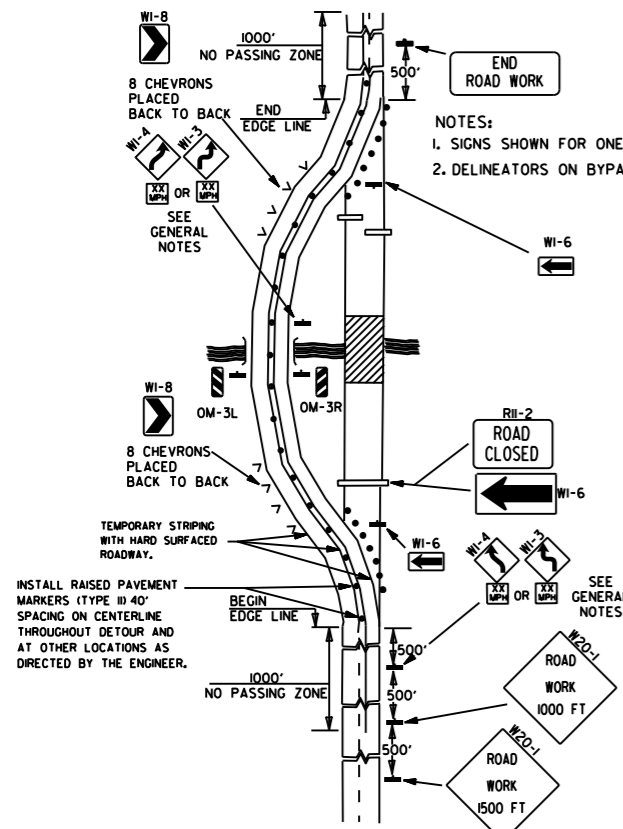
ARKANSAS STATE HIGHWAY COMMISSION

**DETAILS OF SPECIAL ITEMS**

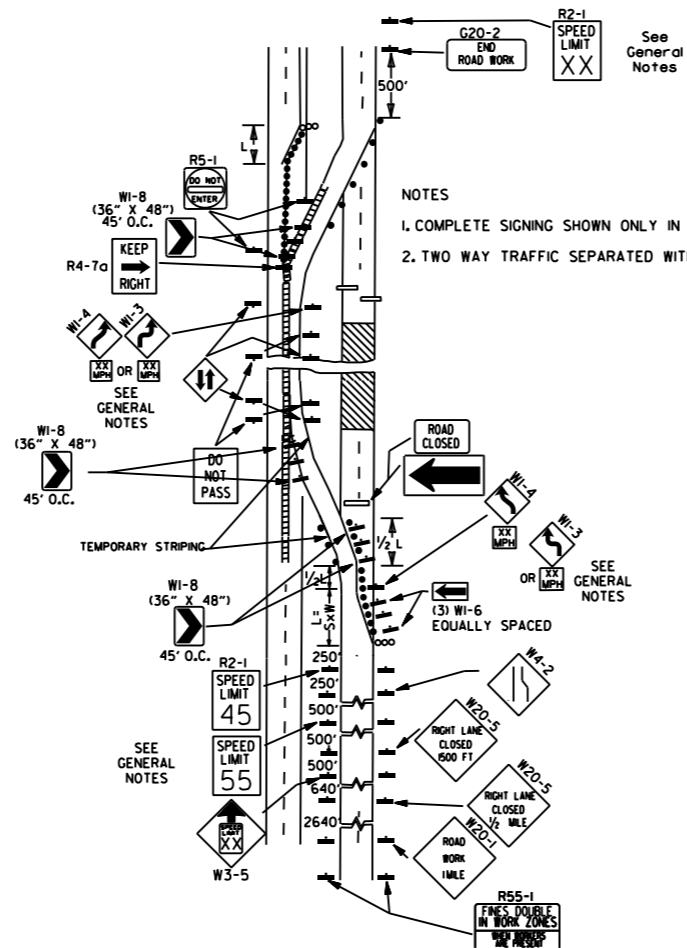
STANDARD DRAWING SI - 1

							ADVANCE DISTANCES (XXXX)		
<p>RI-1</p>  <p>STANDARD 30"x30" EXPRESSWAY 36"x36" SPECIAL 48"x48"</p>	<p>RI-2</p>  <p>STD. 36"x36"x36" EXPWY. 48"x48"x48" FWY. 60"x60"x60"</p>	<p>R2-1</p>  <p>STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"</p>	<p>W3-5</p>  <p>STD. 36"x36" EXPWY. 48"x48" FWY. 48"x48"</p>	<p>W3-5a</p>  <p>STD. 36"x36" EXPWY. 48"x48" FWY. 48"x48"</p>	<p>R4-1</p>  <p>STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"</p>	<p>R4-2</p>  <p>STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"</p>	<p>500 FT      1/2 MILE 1000 FT     3/4 MILE 1500 FT     1 MILE                  AHEAD</p>		
<p>GENERAL NOTES:</p> <ol style="list-style-type: none"> <li>ALL TRAFFIC CONTROL DEVICES USED ON ROAD CONSTRUCTION SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND TO THE STANDARD HIGHWAY SIGNS, LATEST EDITION, OR AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION.</li> <li>TRAFFIC CONTROL DEVICES SHALL BE SET UP JUST BEFORE THE START OF CONSTRUCTION OPERATIONS AND SHALL BE PROPERLY MAINTAINED DURING THE TIME SUCH CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS NEEDED AND REMOVED THEREAFTER.</li> <li>EXISTING SIGNS AND CONSTRUCTION SIGNS SHALL BE KEPT IN PROPER POSITION, AND BE CLEAN AND LEGIBLE AT ALL TIMES. SIGNS THAT DO NOT APPLY TO EXISTING CONDITIONS SHALL BE REMOVED. SIGNS THAT ARE DAMAGED, DEFACED, OR THAT ACCUMULATE DIRT DURING CONSTRUCTION SHALL BE CLEANED, REPAIRED, OR REPLACED.</li> <li>SIGNS ARE USUALLY MOUNTED ON A SINGLE POST, ALTHOUGH THOSE WIDER THAN 36" OR LARGER THAN 10 SQ. FT. SHALL BE MOUNTED ON TWO POSTS OR ABOVE A TYPE III BARRICADE.</li> <li>SIGN POSTS DIRECT BURIED IN SOIL SHALL BE 2 LB. MINIMUM CHANNEL POST OR 4"x4" WOOD POSTS. CHANNEL POSTS SHALL BE PAINTED GREEN. WOOD POSTS SHALL BE PAINTED WHITE. ALL POSTS SHALL BE NEATLY CONSTRUCTED, AND SHALL BE REPLUMBED, CLEANED, OR REPAIRED AS NEEDED FOR THE DURATION OF THE JOB. THERE SHALL NOT BE MORE THAN 2 POSTS IN A 7' PATH FOR WOOD OR CHANNEL POSTS. ANY CHANNEL POST SPLICE SHALL BE IN ACCORDANCE WITH STANDARD DRAWING TC-3.</li> <li>POST MOUNTED SIGNS IN RURAL AREAS SHALL BE CONSTRUCTED WITH THE NEAR EDGE OF THE SIGN FROM 6 TO 12 FEET FROM THE PAVEMENT EDGE. SIGNS IN URBAN AREAS AND BARRICADE MOUNTED SIGNS SHALL BE MOUNTED A MINIMUM OF 2 FEET FROM THE PAVEMENT EDGE.</li> <li>ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN URBAN AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN RURAL AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE. EXCEPT A MINIMUM OF 6' SHALL BE USED WHEN MOUNTING AN ADVISORY SIGN BELOW A WARNING SIGN. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR INTERMEDIATE TERM STATIONARY WORK CONDITIONS. THE SIGNS MINIMUM MOUNTING HEIGHT SHALL BE 5'. RETROREFLECTIVE DEVICES SHALL BE USED. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR SHORT-TERM, SHORT DURATION, AND MOBILE CONDITIONS. THEY SHALL BE NO LESS THAN ONE (1) FOOT ABOVE THE TRAVELED WAY. LONG-TERM STATIONARY SIGNS SHALL BE DIRECT BURIED IN SOIL, UNLESS CONDITIONS NECESSITATE THE USE OF PORTABLE SIGNS, OR AS APPROVED BY THE ENGINEER. CONCRETE PADS, CONCRETE OR ROCK BALLAST, OR OTHER SOLID MATERIALS SHALL NOT BE UTILIZED WITH PORTABLE SIGN SUPPORTS.</li> <li>FLAGGERS SHALL USE REFLECTORIZED STOP-SLOW PADDLES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.</li> <li>MOST OF THE SIGNS SHOWN ARE ORIENTED TO THE RIGHT. HOWEVER, THIS DOES NOT PRECLUDE THE USE OF MIRROR IMAGES OF THESE SIGNS WHERE THE REVERSE ORIENTATION MIGHT BETTER CONVEY TO MOTORISTS THE PROPER DIRECTION OF MOVEMENT.</li> <li>R55-SIGNS SHALL BE PLACED AT LEAST 1500' BUT NOT MORE THAN 1 MILE IN ADVANCE OF THE WORK ZONE. IF A SPEED LIMIT REDUCTION IS IN EFFECT, THE SIGN SHALL BE PLACED A MINIMUM OF 500' IN ADVANCE OF THE "REDUCED SPEED AHEAD" SIGN.</li> </ol> <p>• NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 &amp; 5, BUT MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) IS REQUIRED FOR ALL PROJECTS.</p>									
<p>R5-1</p>  <p>STD. 30"x30" EXPWY. 36"x36" SPECIAL 48"x48"</p>	<p>R11-2</p>  <p>48"x30"</p>	<p>R11-3A</p>  <p>60"x30"</p>	<p>R11-4</p>  <p>60"x30"</p>	<p>W21-5a</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W1-1</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W1-2</p>  <p>STD. 36"x36" FWY. 48"x48"</p>			
<p>W1-3</p>  <p>STD. 48"x48"</p>	<p>W1-4</p>  <p>STD. 48"x48"</p>	<p>W1-6</p>  <p>STD. 48"x24" SPECIAL 60"x30"</p>	<p>W1-8</p>  <p>STD. 18"x24" SPECIAL 24"x30" EXPWY. 30"x36" FWY. 36"x48"</p>	<p>W3-1</p>  <p>STD. 36"x36" SPECIAL 48"x48"</p>	<p>W3-2</p>  <p>STD. 36"x36" SPECIAL 48"x48"</p>	<p>W4-2</p>  <p>STD. 36"x36" FWY. 48"x48"</p>			
<p>W5-1</p>  <p>STD. 36"x36" SPECIAL 48"x48"</p>	<p>W6-3</p>  <p>EXPWY. 36"x36" SPECIAL 48"x48"</p>	<p>W8-7</p>  <p>EXPWY. 36"x36" FWY. 48"x48"</p>	<p>W9-2</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W13-1</p>  <p>STD. 24"x24"</p>	<p>W20-1</p>  <p>STD. 48"x48"</p>	<p>W20-2</p>  <p>STD. 48"x48"</p>	<p>W20-3</p>  <p>STD. 48"x48"</p>		
<p>W20-4</p>  <p>STD. 48"x48"</p>	<p>W20-5</p>  <p>STD. 48"x48"</p>	<p>W20-7a</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W21-2</p>  <p>STD. 30"x30" SPECIAL 36"x36"</p>	<p>W21-5</p>  <p>STD. 30"x30" SPECIAL 36"x36"</p>	<p>W24-1</p>  <p>STD. 36"x36"</p>	<p>W1-4b</p>  <p>STD. 48"x48"</p>	<p>R56-1</p>  <p>STD. 18"x18"</p>		
<p>W8-11</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W8-9</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>G20-1</p>  <p>60"x24"</p>	<p>G20-2</p>  <p>48"x24"</p>	<p>OM-3L    OM-3R</p>  <p>12"x36"</p>	<p>M4-9</p>  <p>STD. 30"x24" SPECIAL 48"x36" SPECIAL 60"x48"</p>	<p>M4-10</p>  <p>48"x18"</p>	<p>R55-1</p>  <p>36"x60"</p> <p>• USE 6" C LETTERS •• USE 4" D LETTERS</p>		

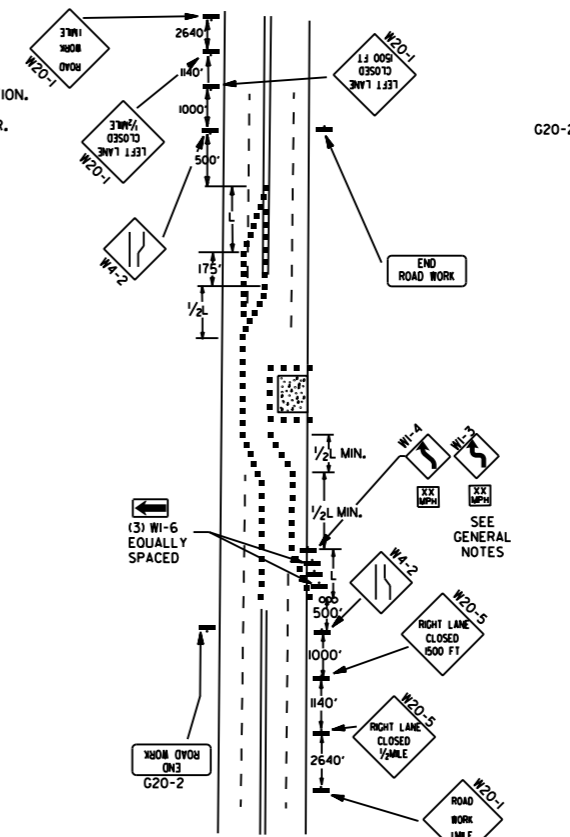
11-07-19	REVISED FOR MASH	
4-13-17	DELETED RSP-1 & ADDED W21-5a	
9-2-15	REVISED REDUCED SPEED LIMIT AHEAD SIGNS REVISED ROAD WORK NEXT XX MILES	
12-15-11	REVISED W24-1	
11-17-10	DELETED W8-9a & ADDED W8-9	
10-15-09	ADDED REFERENCE TO MASH & ADDED SIGN W24-1	
4-17-08	REVISED SIGN DESIGNATIONS	
11-18-04	REVISED NOTES	
10-9-03	REVISED NOTE 1	
11-16-01	REVISED NOTE 7	
9-28-00	REVISED NOTE	
11-18-98	ADDED NOTE	
6-26-97	REVISED NOTE 5	
4-03-97	REVISED NOTE 5	
10-18-96	ADDED CONTROLLED ACCESS HWY. SIGN & TO NOTE 7	
10-12-95	ADDED R55-1	
6-8-95	REVISED TO CORRECT SIGN ILLUSTRATIONS	6-8-95
2-2-95	REVISED PER PART VI, MUTCD SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	
DATE	REVISION	FILMED



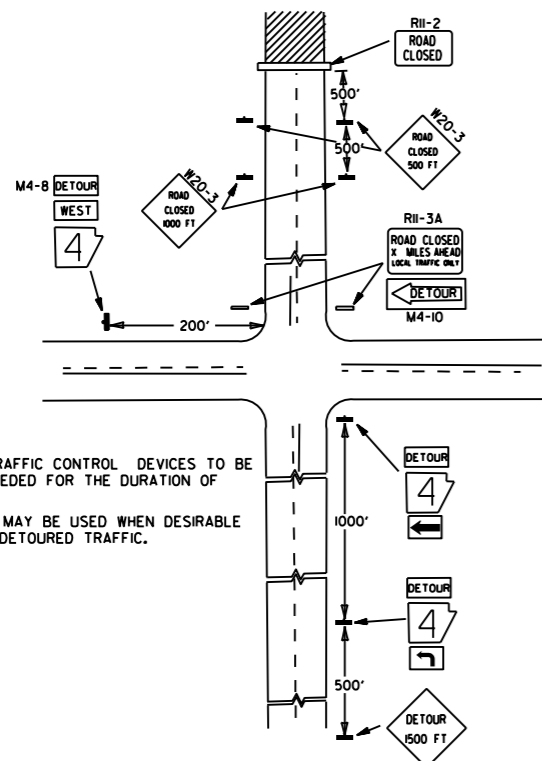
(A) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON A 2-LANE HIGHWAY WHERE THE ENTIRE ROADWAY IS CLOSED AND A BYPASS DETOUR IS PROVIDED.



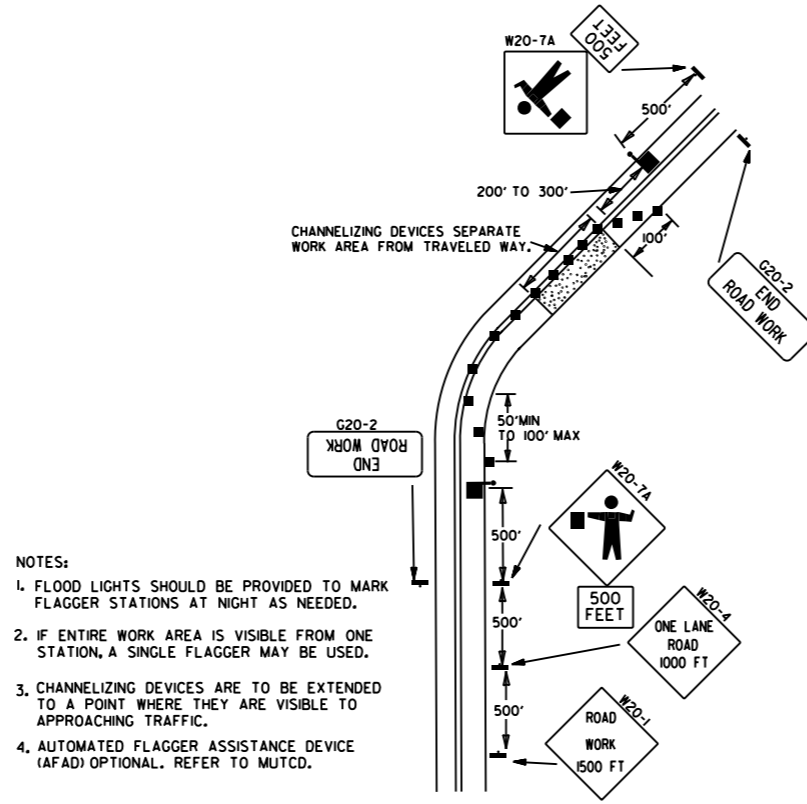
(B) TYPICAL APPLICATION - 4-LANE DIVIDED ROADWAY WHERE ONE ROADWAY IS CLOSED.



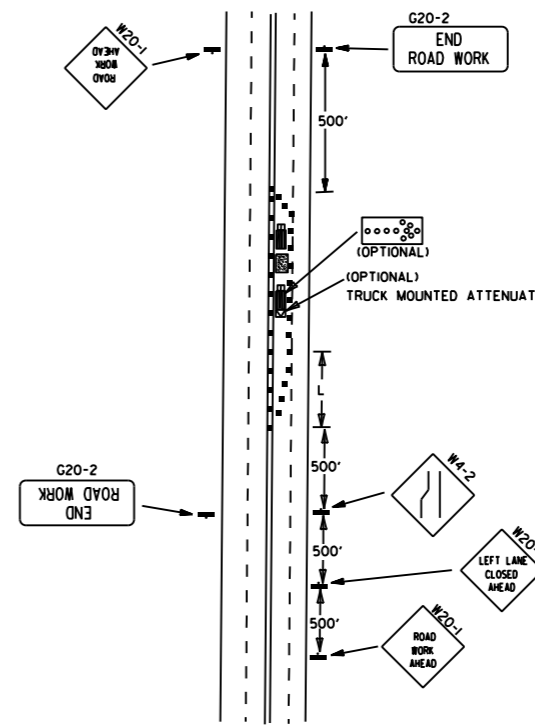
(C) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



(D) TYPICAL APPLICATION - ROADWAY CLOSED BEYOND DETOUR POINT.

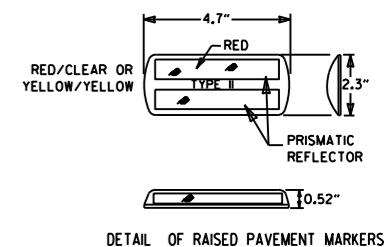


(E) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON 2-LANE HIGHWAY WHERE ONE LANE IS CLOSED AND FLAGGING IS PROVIDED.



(F) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WITH INSIDE LANE CLOSED.

- KEY:
- FLAGGER
  - ▬ POSITIVE BARRIER
  - ∞ ARROW PANEL (IF REQUIRED)
  - ▬ TYPE III BARRICADE
  - CHANNELIZING DEVICE
  - TRAFFIC DRUM
  - RAISED PAVEMENT MARKER



TYPICAL ADVANCE WARNING SIGN PLACEMENT

TAPER FORMULAE:

$L = SXW$  FOR SPEEDS OF 45MPH OR MORE.

$L = \frac{WS^2}{60}$  FOR SPEEDS OF 40MPH OR LESS.

WHERE:

L = MINIMUM LENGTH OF TAPER.

S = NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK OR 85TH PERCENTILE SPEED.

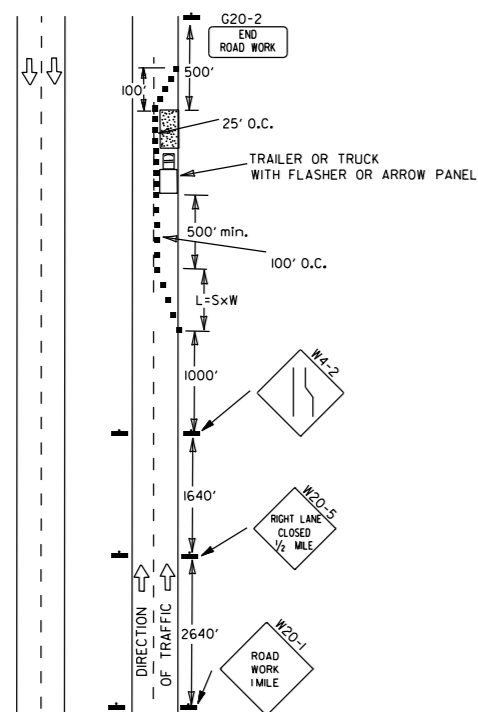
W = WIDTH OF OFFSET.

GENERAL NOTES:

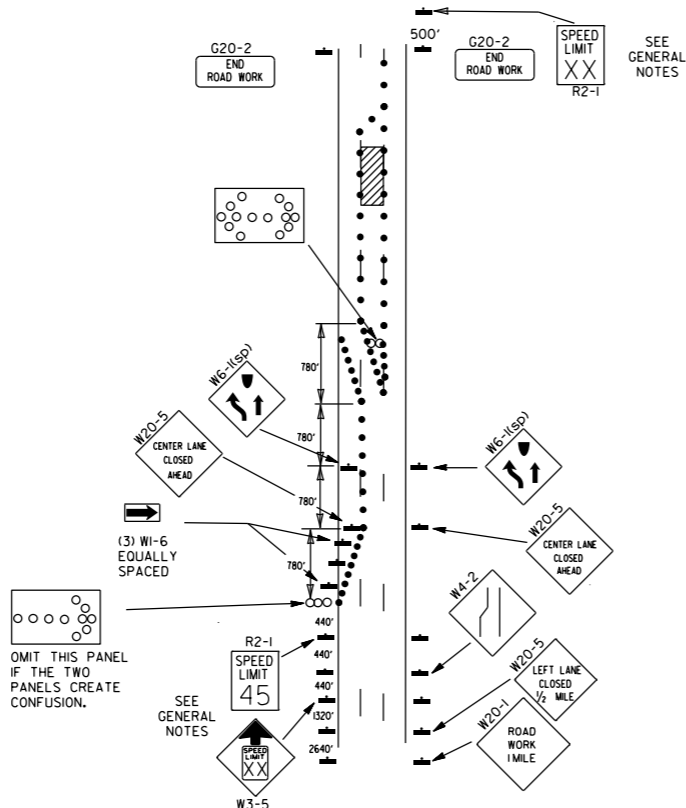
1. THE MAINTENANCE DIVISION SHALL CONDUCT A BALL BANK STUDY TO DETERMINE THE ADVISORY SPEED LIMIT PRIOR TO OPENING TO TRAFFIC. THE ADVISORY SPEED WILL BE POSTED ON W1-3 OR W1-4 CURVE WARNING SIGNS. USE W1-4 WHEN SPEED IS GREATER THAN 30MPH AND W1-3 WHEN 30MPH OR LESS.
2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-1(K55) SHALL BE OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-1(45MPH) SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(KXX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
3. WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-1(K65) SHALL BE OMITTED. ADDITIONAL R2-1(55MPH) SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(KXX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
4. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT. BEYOND THE TAPER, MAXIMUM SPACING SHALL BE TWO TIMES THE SPEED LIMIT, OR AS DIRECTED BY THE ENGINEER.
5. WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
6. PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
7. TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE DELINEATED BY AFFIXING CONSPICUITY MATERIAL IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER, WHEN PLACED ON OR ADJACENT TO THE SHOULDER AND NOT BEHIND A POSITIVE BARRIER, THESE DEVICES SHALL BE DELINEATED BY PLACING FIVE (5) TRAFFIC DRUMS, EQUALLY SPACED ALONG THE TRAFFIC SIDE OF THE DEVICE. PAYMENT FOR TRAFFIC DRUMS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR VARIOUS TRAILER MOUNTED DEVICES.
8. DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE ARDOT QUALIFIED PRODUCTS LIST.
9. ALL TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL MEET THE REQUIREMENTS OF THE MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).

DATE	REVISION	FILED
05-20-21	REVISED NOTE 7	
11-07-19	REVISED NOTE 1, ADDED NOTE 9	
9-2-15	REVISED NOTE 2, ADDED NOTE 8, REVISED DRAWING (A) & REPLACED R2-5A WITH W3-5	
9-12-13	REVISED DETAIL OF RAISED PAVEMENT MARKERS	
3-11-10	ADDED (AFAD)	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED GENERAL NOTE	
10-18-96	ADDED R55-1	
4-26-96	CORRECTED (a) BEHIND G20-2	
6-8-95	CORRECTED SIGN IDENT. ON W1-4A	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

ARKANSAS STATE HIGHWAY COMMISSION  
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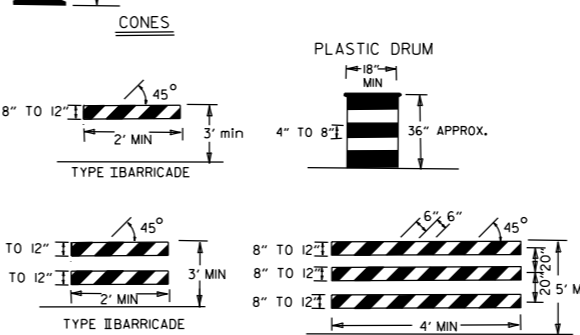
(A) TYPICAL APPLICATION - DAYTIME MAINTENANCE OPERATIONS OF SHORT DURATION ON A 4-LANE DIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



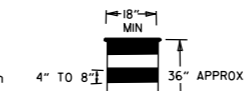
(B) TYPICAL APPLICATION - 3-LANE ONEWAY ROADWAY WHERE CENTER LANE IS CLOSED.

CHANNELIZING DEVICES

WHEN CONES ARE USED ON FREEWAYS AND MULTI-LANE HIGHWAYS, THEY SHALL BE 28" MIN. DURING HOURS OF DARKNESS, 28" CONES SHALL BE USED ON ALL ROADWAYS, AND SHALL BE REFLECTORIZED IN ACCORDANCE WITH THE M.U.T.C.D.

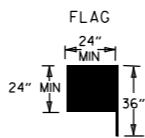
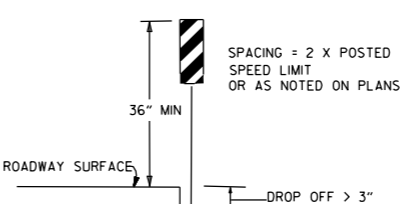


PLASTIC DRUM



NOTE: FOR ALL ROAD CLOSURES, THE TYPE III BARRICADES SHALL BE OF SUFFICIENT LENGTH TO EXTEND ACROSS ENTIRE ROADWAY.

VERTICAL PANEL PLACEMENT



FLAG SHALL BE OF GOOD GRADE RED MATERIAL

KEY:

- ARROW PANEL (IF REQUIRED)
- CHANNELIZING DEVICE
- TRAFFIC DRUM

GENERAL NOTES:

1. A SPEED LIMIT REDUCTION MAY BE IMPLEMENTED ONLY WHEN DESIGNATED IN THE PLAN OR WHEN RECOMMENDED BY THE ROADWAY DESIGN DIVISION.
2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-(45) SHALL BE OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-1 45MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1/2 MILE INTERVALS. AT THE END OF THE WORK AREA A R2-(45) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
3. WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-(45) SHALL BE OMITTED. ADDITIONAL R2-1 55MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1/2 MILE INTERVALS. AT THE END OF THE WORK AREA A R2-(45) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
4. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT. BEYOND THE TAPER, MAXIMUM SPACING SHALL BE TWO TIMES THE SPEED LIMIT OR AS DIRECTED BY THE ENGINEER.
5. WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
6. PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHOULD BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
7. THE G20-1 SIGN WILL BE REQUIRED ON JOBS OF OVER TWO MILES IN LENGTH. WHEN THE LANE CLOSURE IS NOT AT THE BEGINNING OF THE PROJECT, THE G20-1 SIGN SHALL BE ERECTED 125' IN ADVANCE OF THE JOB LIMIT. ADDITIONAL W20-1 (1/2 MILE) SIGNS ARE NOT REQUIRED IN ADVANCE OF LANE CLOSURES THAT BEGIN INSIDE THE PROJECT LIMITS.
8. FLAGGERS SHALL USE STOP/SLOW PADDLES FOR CONTROLLING TRAFFIC THROUGH WORK ZONES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.
9. ALL PLASTIC DRUMS AND CONES SHALL MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
10. TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE DELINEATED BY AFFIXING CONSPICUITY MATERIAL IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER. WHEN PLACED ON OR ADJACENT TO THE SHOULDER AND NOT BEHIND A POSITIVE BARRIER, THESE DEVICES SHALL BE DELINEATED BY PLACING FIVE (5) TRAFFIC DRUMS, EQUALLY SPACED ALONG THE TRAFFIC SIDE OF THE DEVICE. PAYMENT FOR TRAFFIC DRUMS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR VARIOUS TRAILER MOUNTED DEVICES.
11. ALL TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL MEET THE REQUIREMENTS OF THE MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).

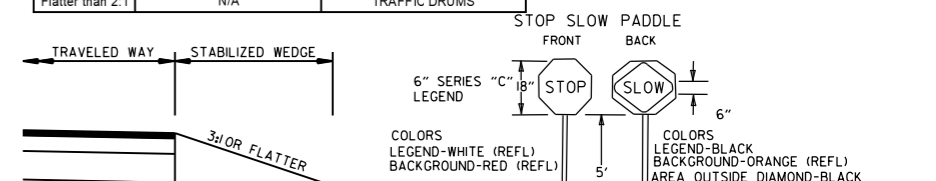
TRAFFIC CONTROL DEVICES

VERTICAL DIFFERENTIAL	LOCATION	TRAFFIC CONTROL	
		≤ 45 MPH	> 45 MPH
≤ 1"	CENTERLINE	W8-11	W8-11
> 1" ≤ 3"	CENTERLINE	W8-11 AND CENTERLINE LANE STRIPING	W8-11 AND CENTERLINE LANE STRIPING
> 3"	CENTERLINE	STANDARD LANE CLOSURE <sup>(6)</sup>	STANDARD LANE CLOSURE <sup>(6)</sup>
≤ 3"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-9 AND TRAFFIC DRUMS <sup>(1)</sup>	W8-9 AND TRAFFIC DRUMS <sup>(1)</sup>
> 3"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS <sup>(1)</sup>	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS <sup>(1)</sup>
> 6"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS <sup>(1)</sup>	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS <sup>(2)</sup>
> 18"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS <sup>(1)</sup>	A STABILIZED WEDGE, W8-17, EDGE LINE STRIPING AND TRAFFIC DRUMS <sup>(3)</sup>
> 24"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	PRECAST CONCRETE BARRIER <sup>(4)</sup> & EDGE LINES	PRECAST CONCRETE BARRIER <sup>(4)</sup> & EDGE LINES

VERTICAL DIFFERENTIAL	LOCATION	TRAFFIC CONTROL
≤ 3"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-9, EDGE LINE STRIPING, AND TRAFFIC DRUMS <sup>(2)</sup>
> 3"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS <sup>(2)</sup>
> 6"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	PRECAST CONCRETE BARRIER & EDGE LINES

FORESLOPE	HEIGHT	TRAFFIC CONTROL
1:1	> 2 FT	PRECAST CONCRETE BARRIER
2:1	≤ 5 FT	TRAFFIC DRUMS
2:1	> 5 FT	PRECAST CONCRETE BARRIER
Flatter than 2:1	N/A	TRAFFIC DRUMS

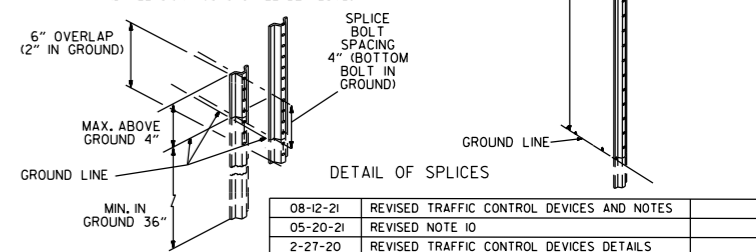
- GENERAL NOTES:
1. WHEN THE SHOULDER AREA IS USED AS PART OF THE TRAVELED LANE AND THERE IS INSUFFICIENT WIDTH TO PLACE TRAFFIC DRUMS ON THE REMAINING SHOULDER WIDTH, THEN VERTICAL PANELS SHALL BE USED.
  2. WHEN THERE IS INSUFFICIENT WIDTH TO PLACE TRAFFIC DRUMS ON THE REMAINING SHOULDER WIDTH, A STABILIZED WEDGE SHALL BE USED. PRECAST CONCRETE BARRIER WALL CAN BE USED IN LIEU OF A STABILIZED WEDGE, W8-17 SIGN, EDGE LINE STRIPING, AND TRAFFIC DRUMS, IF AND WHERE DIRECTED BY THE ENGINEER.
  3. A STABILIZED WEDGE, W8-17 SIGN, EDGE LINE STRIPING, AND TRAFFIC DRUMS CAN BE USED IN LIEU OF PRECAST CONCRETE BARRIER WALL, IF AND WHERE DIRECTED BY THE ENGINEER.
  4. W21-5, W21-50, AND/OR W21-5b SIGNS SHALL BE USED WHERE THE ROADWAY IS UNOBSTRUCTED IF AND WHERE DIRECTED BY THE ENGINEER. TIME LIMITATIONS MUST CONFORM TO SECTION 603 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION).



STABILIZED WEDGE

NOTE: MATERIALS FOR THE STABILIZED WEDGE SHALL MEET THE REQUIREMENTS PROVIDED IN SECTION 603.02 OF THE STANDARD SPECIFICATIONS.

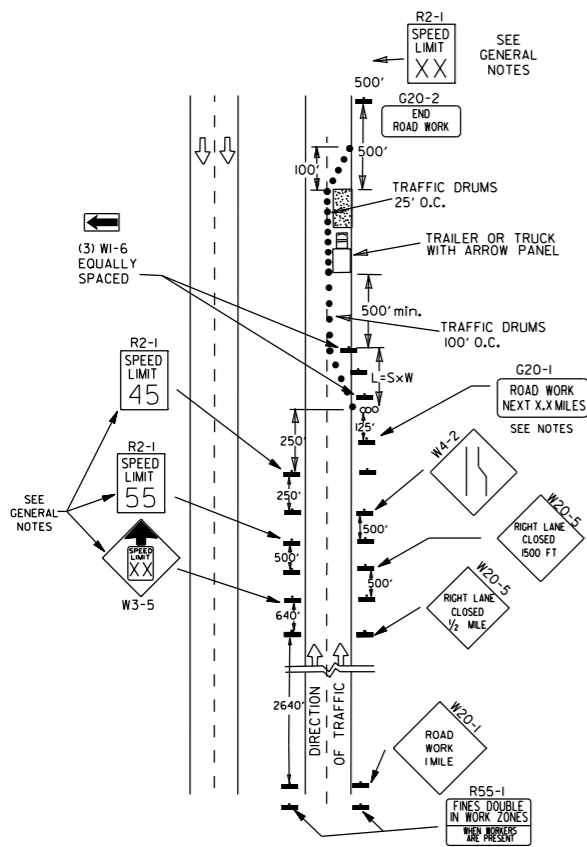
NOTES: USE SPLICES ONLY WHEN NECESSARY FOR INSTALLATION. TYPICAL INSTALLATION SHOULD HAVE NO SPLICES (SEE STD. DRAWING NO. SHS-2) NORMAL INSTALLATIONS WILL REQUIRE 1/4" DIA. BOLTS TO MOUNT SIGNS TO POST AND 5/16" DIA. BOLTS TO ASSEMBLE THE VARIOUS POST SUPPORTS. EACH OF THESE BOLTS SHALL BE CARriage BOLTS. SIGN POSTS SHALL BE PAINTED GREEN; SIGNS SHALL NOT BE PAINTED, AND ALL SIGN POSTS SHALL BE PLUMB.



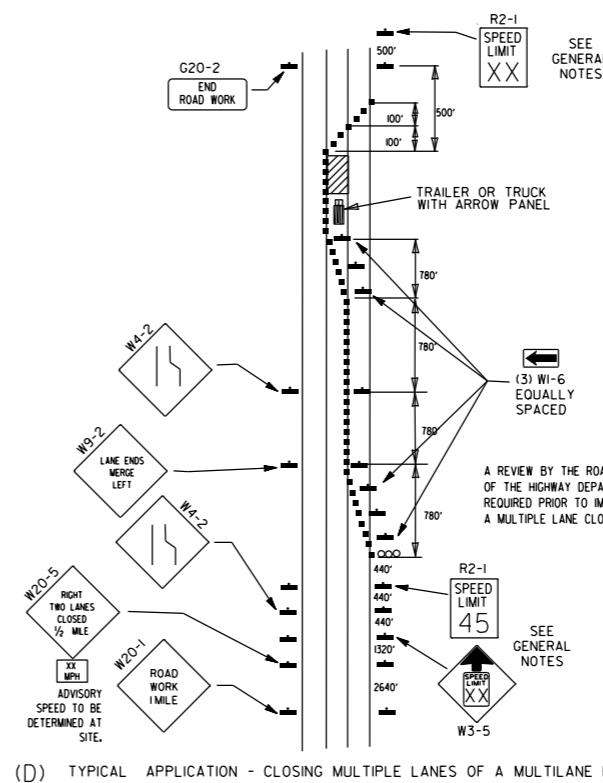
DETAIL OF SPLICES

DATE	REVISION	FILED
08-12-21	REVISED TRAFFIC CONTROL DEVICES AND NOTES	
05-20-21	REVISED NOTE 10	
2-27-20	REVISED TRAFFIC CONTROL DEVICES DETAILS	
11-07-19	REVISED NOTE 9, ADDED NOTE II	
7-25-19	REVISED TRAFFIC CONTROL DEVICES DETAILS	
9-2-15	REVISED NOTE 2 & REPLACED R2-5A WITH W3-5	
10-15-09	ADDED REFERENCE TO MASH	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED NOTE	
10-1-98	ADDED NOTE	
4-03-97	ADDED (SP) TO W6-1 & REVISED TRAFFIC CONTROL DEVICES NOTE	
10-18-96	ADDED R55-1	
10-12-95	MOVED UPPER SPLICE	
6-8-95	REVISED SPLICE DETAIL, TEXT	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

ARKANSAS STATE HIGHWAY COMMISSION  
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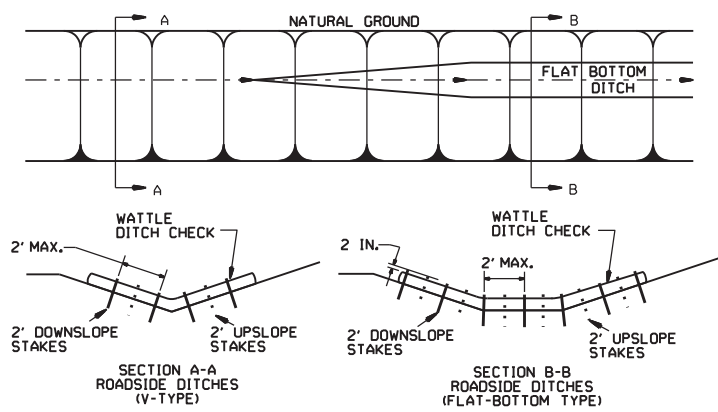
(C) TYPICAL APPLICATION - CONSTRUCTION OPERATIONS OF INTERMEDIATE TO LONG TERM DURATION ON A 4-LANE DIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



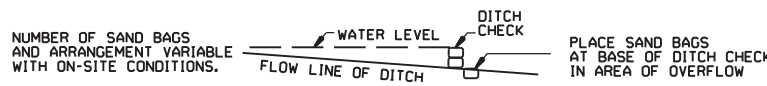
(D) TYPICAL APPLICATION - CLOSING MULTIPLE LANES OF A MULTILANE HIGHWAY.

**GENERAL NOTES**

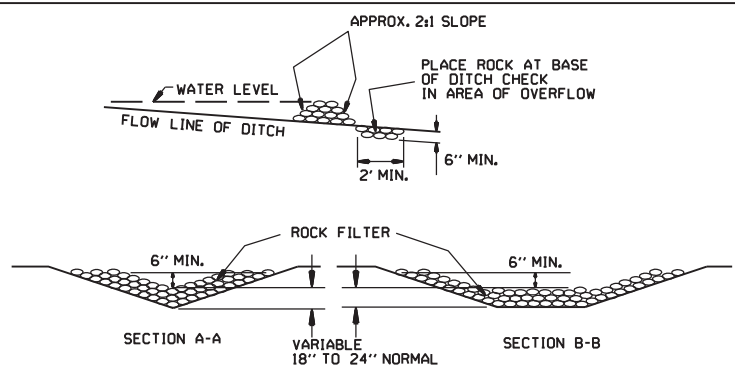
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.



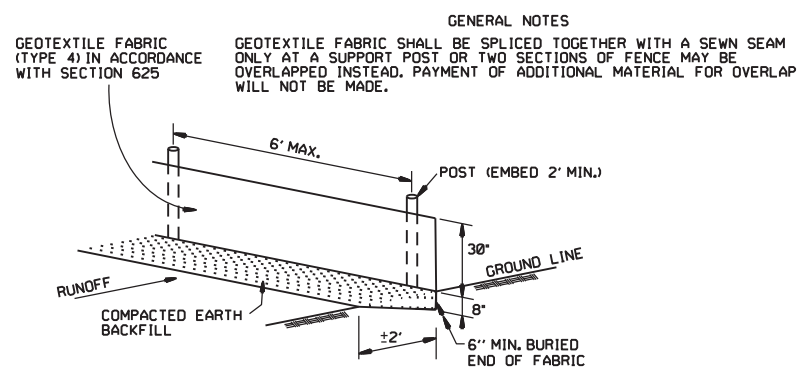
**WATTLE DITCH CHECK (E-1)**



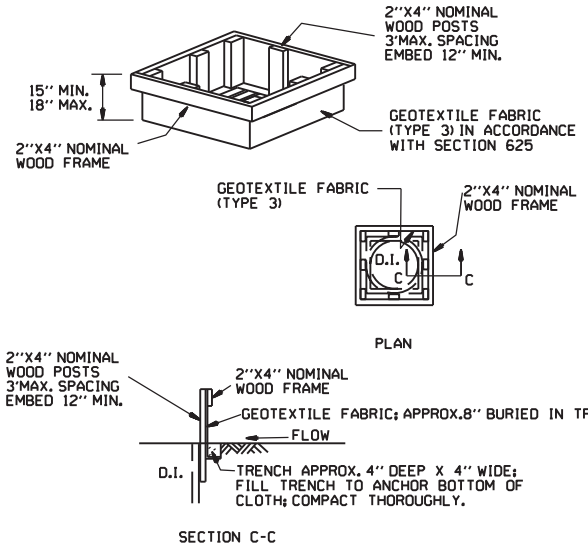
**SAND BAG DITCH CHECK (E-5)**



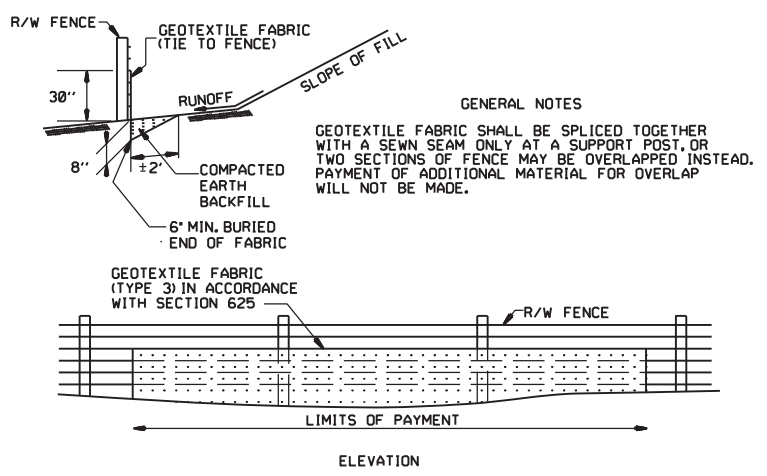
**ROCK DITCH CHECK (E-6)**



**SILT FENCE (E-11)**

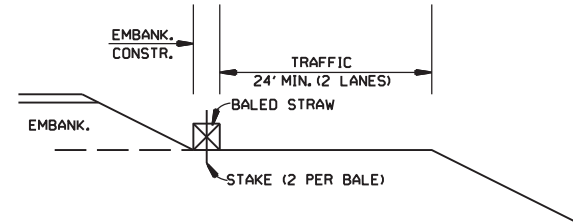


**DROP INLET SILT FENCE (E-7)**

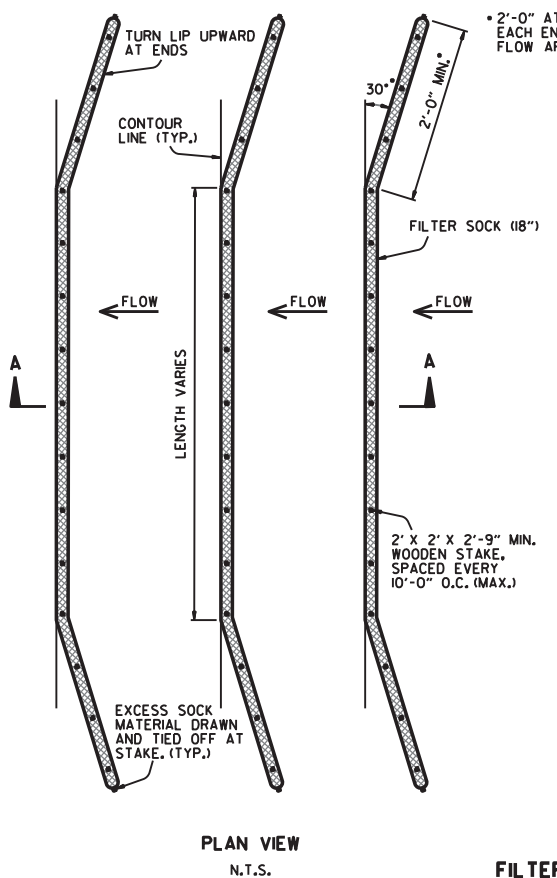


**SILT FENCE ON R/W FENCE (E-4)**

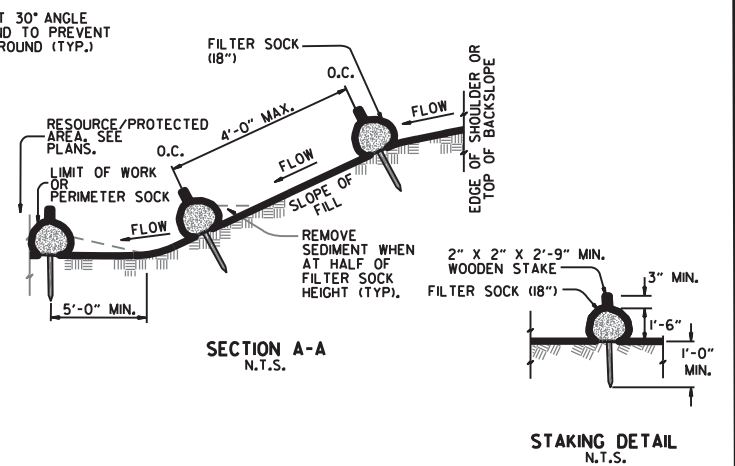
- GENERAL NOTES**
1. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES. THE BALES SHALL BE A MINIMUM OF 30 INCHES IN LENGTH.
  2. NO GAPS SHALL BE LEFT BETWEEN BALES.
  3. BALED STRAW FILTER BARRIERS COMPLETED AND ACCEPTED WILL BE MEASURED BY THE BALE IN PLACE AS AUTHORIZED BY THE ENGINEER AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER BALE FOR BALED STRAW DITCH CHECKS.



**BALED STRAW FILTER BARRIER (E-2)**



**PLAN VIEW N.T.S.**

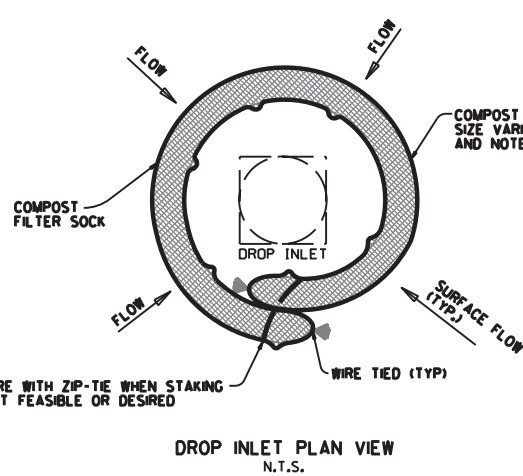


**SECTION A-A N.T.S.**

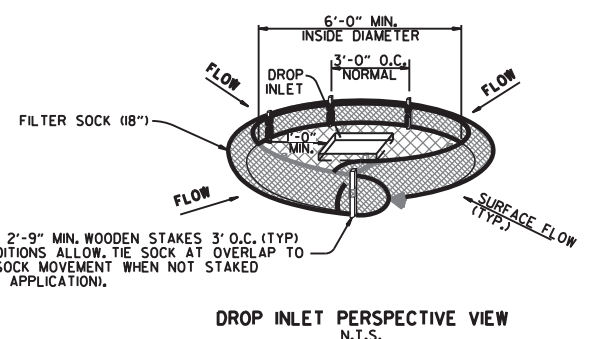
**STAKING DETAIL N.T.S.**

- NOTES:**
1. FILTER SOCKS CAN BE PLACED AT THE TOP, ON THE FACE, AND AT THE TOE OF SLOPES AS SEDIMENT-TRAPPING DEVICES FOR SHEET FLOW RUNOFF.
  2. FILTER SOCKS ARE TYPICALLY SUPPLIED AND INSTALLED WITH 18 INCH DIAMETERS. DIAMETER TOLERANCE IS 2 INCHES, AS FILTER SOCKS TEND TO FLATTEN OUT WHEN PLACED.
  3. STEEL POSTS MAY BE USED AND SHALL BE ROLLED FROM HIGH CARBON STEEL AND HAVE A MINIMUM OF 1.25 LB./FT. POSTS SHALL BE HOT-DIPPED GALVANIZED OR PAINTED WITH HIGH-GRADE WEATHER RESISTANT BROWN OR BLACK STEEL PAINT. STEEL POSTS SHALL BE EQUIPPED WITH ANCHOR PLATE HAVING A MINIMUM AREA OF 14 SQUARE INCHES. POSTS SHALL BE STUDDED, EMBOSSED, OR PUNCHED. POSTS AND ANCHOR PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A702. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR STEEL POSTS, BUT PRICE WILL BE CONSIDERED SUBIADINARY TO "FILTER SOCK (18\"/>

**FILTER SOCK ALONG SLOPE (E-3)**



**DROP INLET PLAN VIEW N.T.S.**



**DROP INLET PERSPECTIVE VIEW N.T.S.**

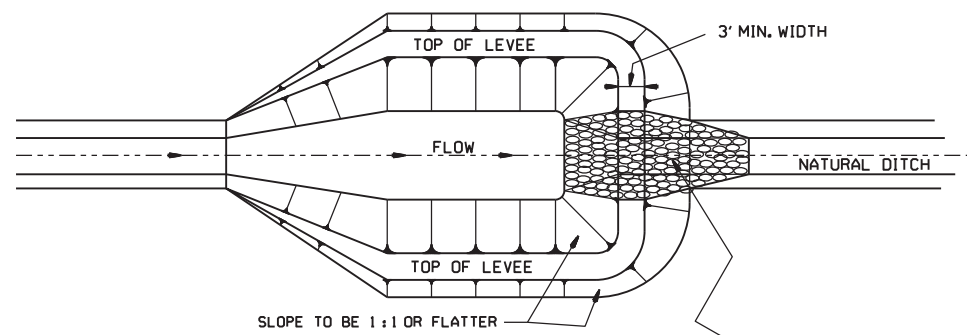
- NOTES:**
1. OVERLAP ENDS OF SOCK (1' MIN. 3' MAX.).
  2. USE 18" DIA. SOCK IN NON-TRAFFIC AREAS OR AREAS WHERE SAFETY IS NOT A CONCERN.

**COMPOST FILTER SOCK DROP INLET PROTECTION (E-13)**

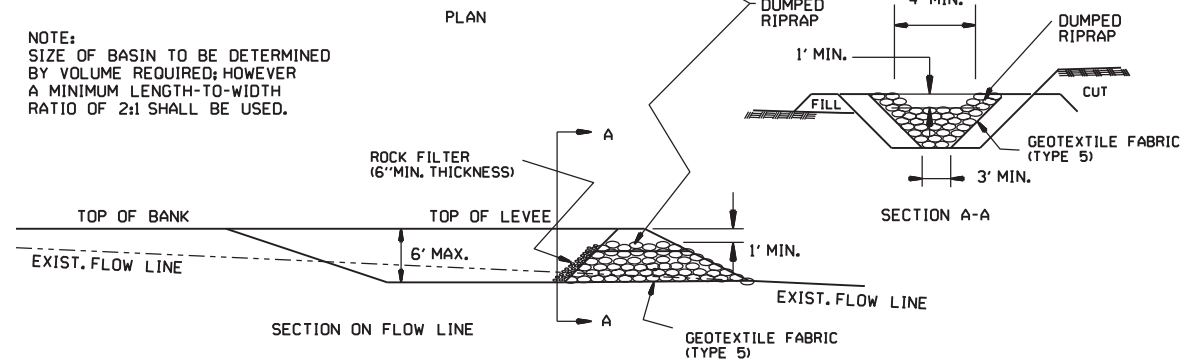
11-16-17	ADDED FILTER SOCK E-3 AND E-13	
12-15-11	DELETED BALED STRAW DITCH CHECK & ADDED WATTLE DITCH CHECK	
11-18-98	ADDED NOTES	
07-02-98	ADDED BALED STRAW FILTER BARRIER (E-2)	
07-20-95	REVISED SILT FENCE E-4 AND E-11	7-20-95
07-15-94	REV. E-4 & E-11 MIN. 13" BURIED END OF FABRIC	
06-02-94	REVISED E-1, 4, 7 & 11 DELETED E-2 & 3	6-2-94
04-01-93	REDRAWN	
10-01-92	REDRAWN	
08-02-76	ISSUED R.D.M.	298-7-28-76
DATE	REVISION	FILMED

ARKANSAS STATE HIGHWAY COMMISSION  
 TEMPORARY EROSION CONTROL DEVICES  
 STANDARD DRAWING TEC-1

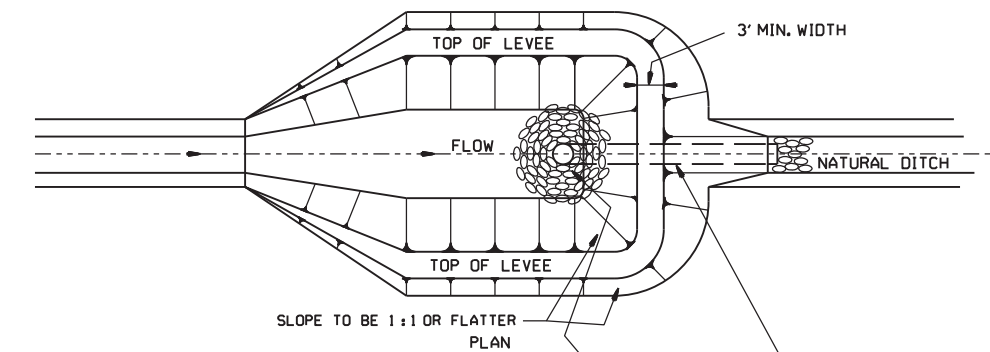




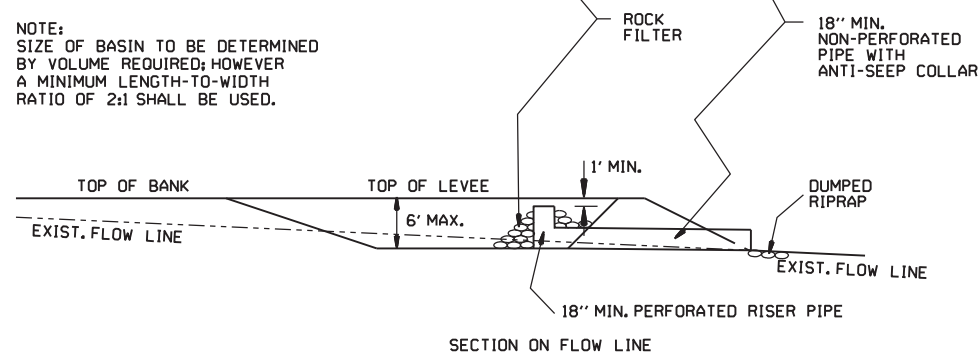
NOTE:  
SIZE OF BASIN TO BE DETERMINED  
BY VOLUME REQUIRED; HOWEVER  
A MINIMUM LENGTH-TO-WIDTH  
RATIO OF 2:1 SHALL BE USED.



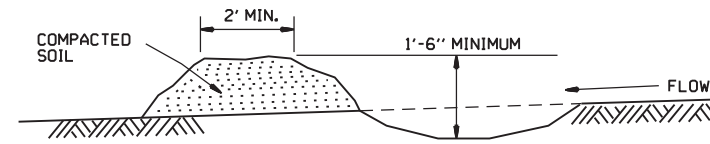
SEDIMENT BASIN WITH RIPRAP OUTLET (E-9)



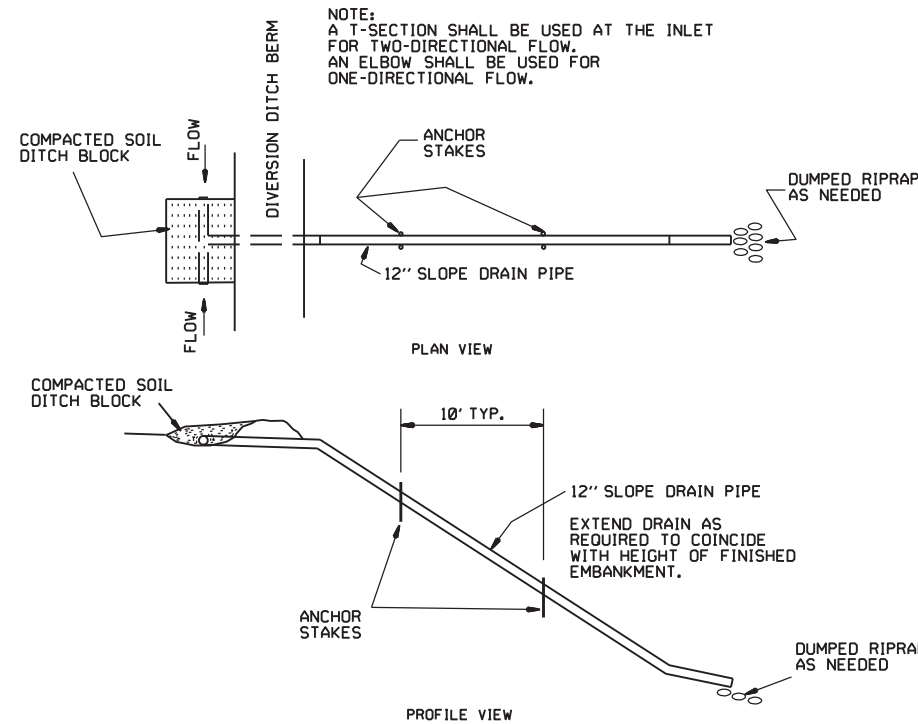
NOTE:  
SIZE OF BASIN TO BE DETERMINED  
BY VOLUME REQUIRED; HOWEVER  
A MINIMUM LENGTH-TO-WIDTH  
RATIO OF 2:1 SHALL BE USED.



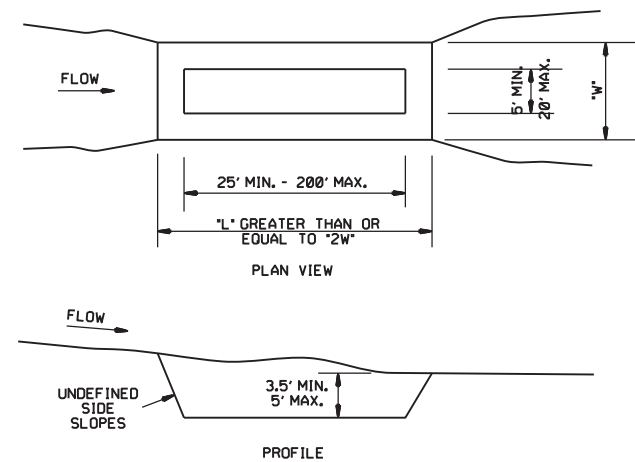
SEDIMENT BASIN WITH PIPE OUTLET (E-10)



DIVERSION DITCH (E-8)



SLOPE DRAIN (E-12)



SEDIMENT BASIN (E-14)

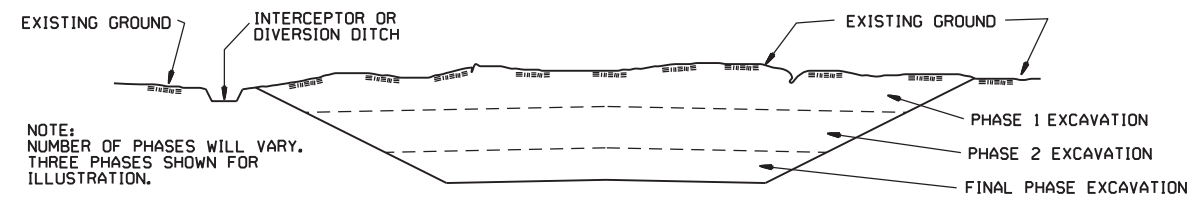
ARKANSAS STATE HIGHWAY COMMISSION		
TEMPORARY EROSION CONTROL DEVICES		
STANDARD DRAWING TEC-2		
6-2-94	Revised E-8 & E-12; Added E-14 & Deleted E-13	
4-1-93	ISSUED	
DATE	REVISION	FILMED

## CLEARING AND GRUBBING

### CONSTRUCTION SEQUENCE

1. PLACE PERIMETER CONTROLS (I.E. SILT FENCES, DIVERSION DITCHES, SEDIMENT BASINS, ETC.)
2. PERFORM CLEARING AND GRUBBING OPERATION.

## EXCAVATION



NOTE:  
NUMBER OF PHASES WILL VARY.  
THREE PHASES SHOWN FOR  
ILLUSTRATION.

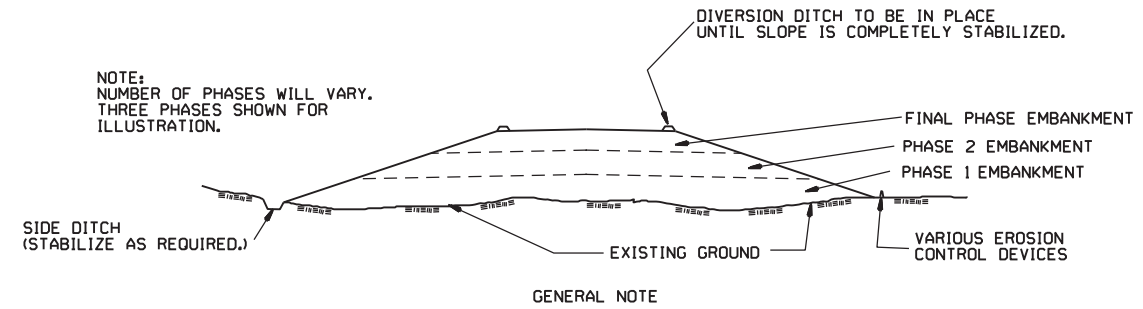
### GENERAL NOTE

ALL CUT SLOPES SHALL BE DRESSED, PREPARED, SEEDED, AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE EXCAVATED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

### CONSTRUCTION SEQUENCE

1. EXCAVATE AND STABILIZE INTERCEPTOR AND/OR DIVERSION DITCHES.
2. PERFORM PHASE 1 EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING.
3. PERFORM PHASE 2 EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING.
4. PERFORM FINAL PHASE OF EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING. STABILIZE DITCHES, CONSTRUCT DITCH CHECKS, DIVERSION DITCHES, SEDIMENT BASINS, OR OTHER EROSION CONTROL DEVICES AS REQUIRED.

## EMBANKMENT



NOTE:  
NUMBER OF PHASES WILL VARY.  
THREE PHASES SHOWN FOR  
ILLUSTRATION.

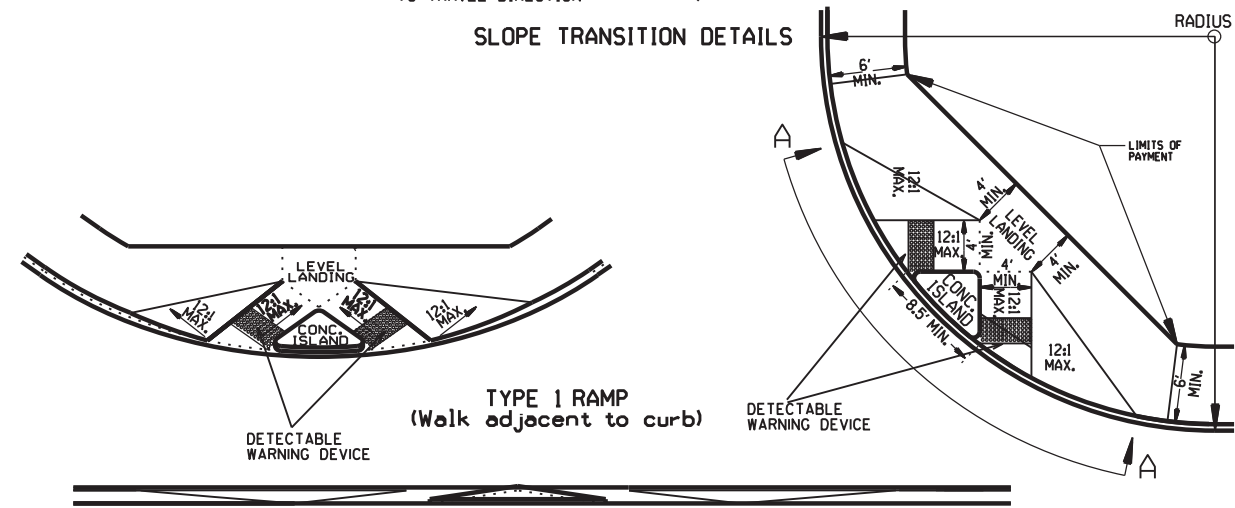
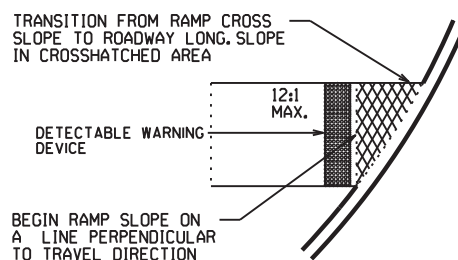
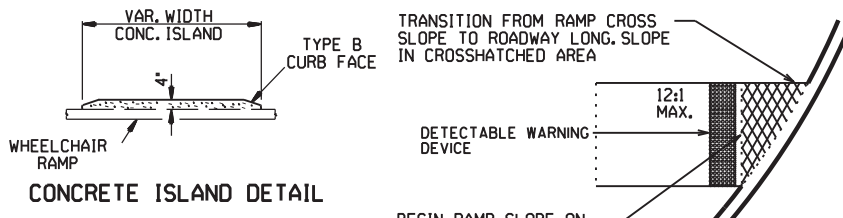
### GENERAL NOTE

ALL EMBANKMENT SLOPES SHALL BE DRESSED, PREPARED, SEEDED, AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE CONSTRUCTED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

### CONSTRUCTION SEQUENCE

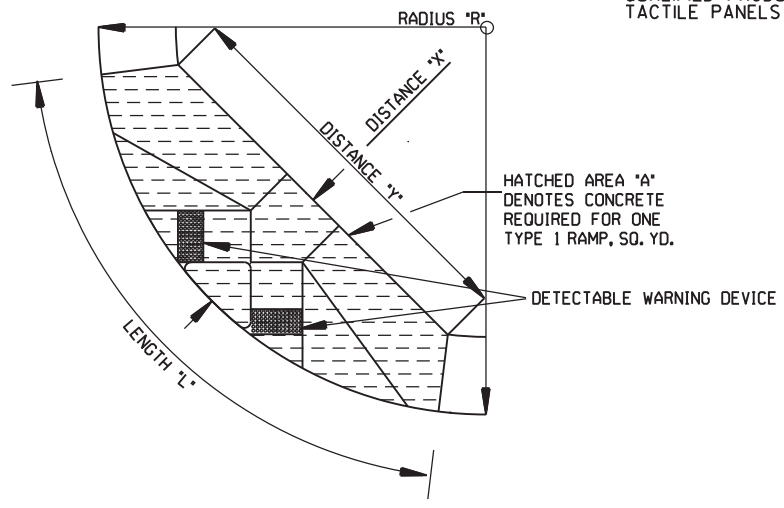
1. CONSTRUCT DIVERSION DITCHES, DITCH CHECKS, SEDIMENT BASINS, SILT FENCES, OR OTHER EROSION CONTROL DEVICES AS SPECIFIED.
2. PLACE PHASE 1 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 21 DAYS.
3. PLACE PHASE 2 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 21 DAYS.
4. PLACE FINAL PHASE OF EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PLACE DIVERSION DITCHES AND SLOPE DRAINS AND MAINTAIN UNTIL ENTIRE SLOPE IS STABILIZED.

		ARKANSAS STATE HIGHWAY COMMISSION	
		TEMPORARY EROSION CONTROL DEVICES	
		STANDARD DRAWING TEC-3	
11-03-94	CORRECTED SPELLING		
6-2-94	Drawn & Issued	6-2-94	
DATE	REVISION	FILMED	

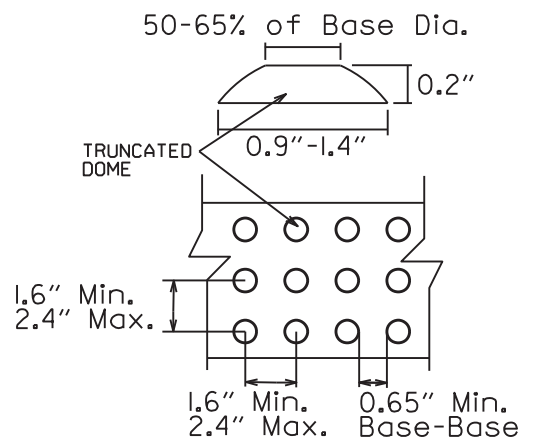


TYPE 1 RAMP DIMENSIONS AND QUANTITIES

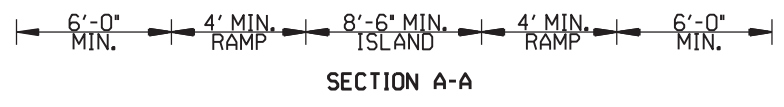
RADIUS "R"	DISTANCE "X"	DISTANCE "Y"	LENGTH "L"	RAMP AREA "A"
FEET	FEET	FEET	FEET	SQ. YD.
15	11.67	18.82	32.18	26.21
20	11.52	22.28	35.46	30.07
25	11.43	26.60	38.77	33.80
30	11.37	30.26	40.93	36.90
35	11.33	33.51	43.11	39.77
40	11.30	36.45	45.26	42.45
45	11.27	39.16	47.34	44.97
50	11.25	41.69	49.36	47.35
55	11.24	44.07	51.31	49.63
60	11.22	46.33	53.21	51.80



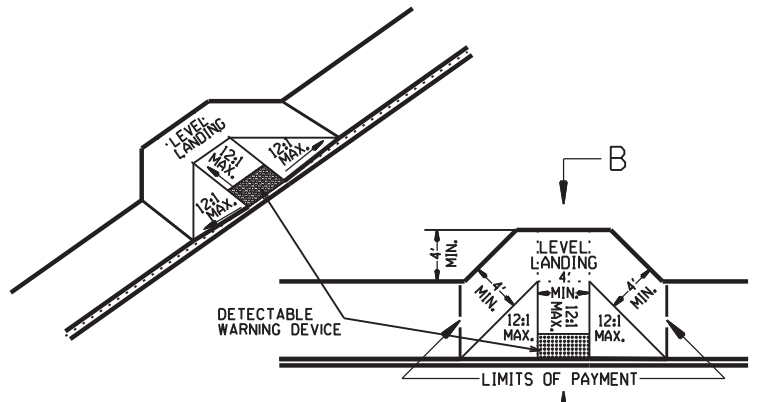
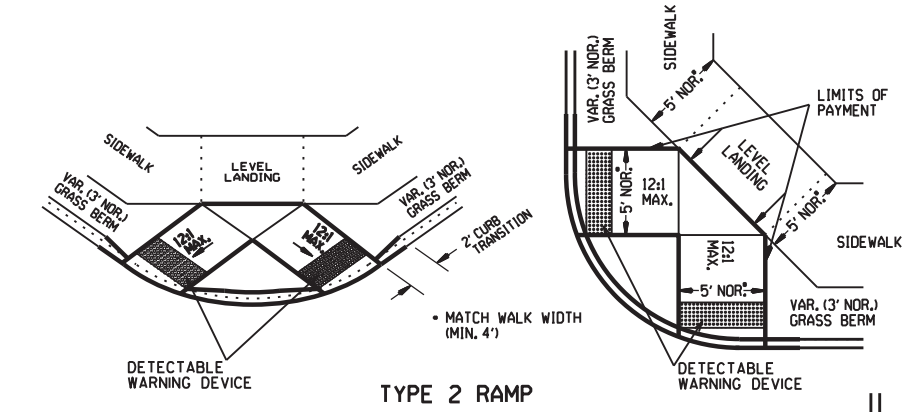
GENERAL NOTES FOR DETECTABLE WARNING DEVICES  
THE DETECTABLE WARNING DEVICE SHALL BE LOCATED SO THAT THE NEAREST EDGE OF THE DEVICE IS 6 TO 8 INCHES FROM THE FACE OF THE CURB.  
TRUNCATED DOMES IN THE DETECTABLE WARNING SURFACE SHALL MEET THE REQUIREMENTS OF THE GEOMETRIC CONFIGURATION SHOWN.  
DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES.  
DETECTABLE WARNING DEVICE SHALL BE 24 INCHES IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE.  
DETECTABLE WARNING DEVICE SHALL BE ON THE ARDOT QUALIFIED PRODUCTS LIST FOR CAST-IN-PLACE TACTILE PANELS (ADA DETECTABLE WARNING).



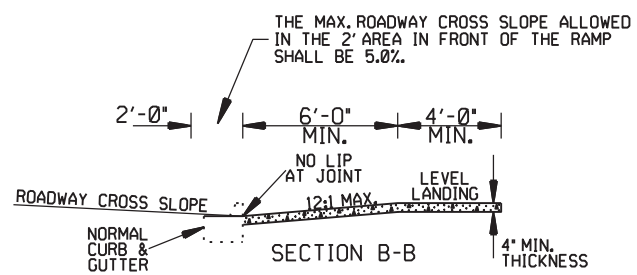
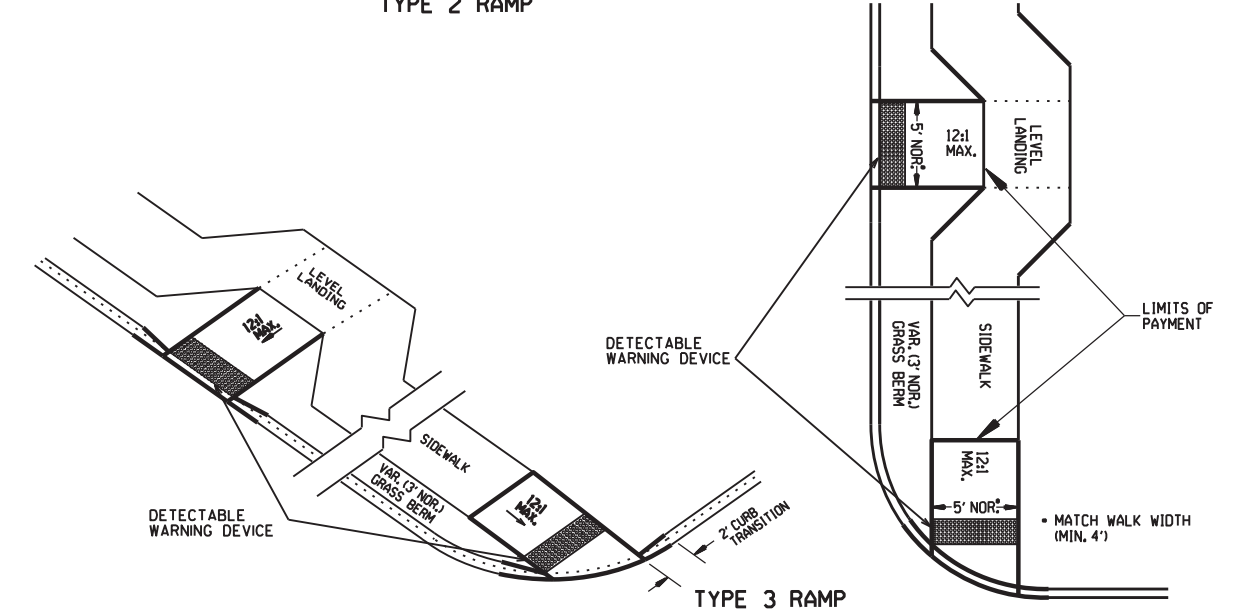
DETECTABLE WARNING DEVICE DETAIL



NOTE: THE CROSS SLOPE OF THE RAMPS, LEVEL LANDINGS, AND SIDEWALKS SHALL NOT EXCEED 2.0% UNLESS REQUIRED TO MATCH STREET LONGITUDINAL GRADE.



TYPE 4 RAMP (Walk adjacent to curb)



GENERAL NOTES:

IN NEW CONSTRUCTION, UNLESS OTHERWISE INDICATED ON THE PLANS, WHEELCHAIR RAMPS ARE TO BE PROVIDED AT ALL CORNERS OF CURBED STREET INTERSECTIONS AND MID-BLOCK CROSSWALK LOCATIONS.  
IN ALTERATIONS WHEELCHAIR RAMPS ARE TO BE PROVIDED AT CURBED STREET INTERSECTIONS WITH PEDESTRIAN TRAFFIC AND MID-BLOCK CROSSWALK LOCATIONS.  
THE LENGTH OF THE RAMP SHALL BE SUCH THAT THE SLOPE DOES NOT EXCEED 12:1. THE SURFACE TEXTURE OF THE RAMP SHALL CONFORM TO A CLASS 6 FINISH ACCORDING TO SECTION 802.19.  
THE NORMAL GUTTER GRADE SHALL BE MAINTAINED THROUGH THE AREA OF THE RAMP.  
ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.  
THE MINIMUM THICKNESS OF THE RAMP, WALK, & LANDING SHALL BE 4". THE MINIMUM WIDTH OF THE RAMPS SHALL BE THE WALK WIDTH OR 36", WHICHEVER IS GREATER.  
RAMPS SHALL BE MODIFIED AS NECESSARY TO INSURE THAT THEY ARE PARALLEL TO A LINE DRAWN FROM THE CENTER OF ONE RAMP TO THE CENTER OF THE RAMP ON THE OPPOSITE SIDE OF THE INTERSECTION.  
THE DIMENSIONS AND QUANTITIES SHOWN ON THIS DRAWING ARE FOR A 90° INTERSECTION ONLY. DIMENSIONS AND QUANTITIES FOR SKEWED INTERSECTIONS WILL VARY, AND ARE TO BE DETERMINED BY THE ENGINEER.

RAMP SELECTION CRITERIA

CHOICE	TYPE	DESCRIPTION
FIRST CHOICE	TYPE 1	CORNER LOCATIONS WITH THE WALK ADJACENT TO THE CURB (BOTH NEW CONSTRUCTION AND ALTERATIONS).
	TYPE 2	CORNER LOCATIONS WITH THE WALK OFFSET FROM THE CURB A DISTANCE INSUFFICIENT TO ALLOW THE REQUIRED RAMP SLOPE (BOTH NEW CONSTRUCTION AND ALTERATIONS).
	TYPE 3	CORNER LOCATIONS WITH THE WALK OFFSET FROM THE CURB A DISTANCE SUFFICIENT TO ALLOW THE REQUIRED RAMP SLOPE (BOTH NEW CONSTRUCTION AND ALTERATIONS).
	TYPE 4	TANGENT LOCATIONS (BOTH NEW CONSTRUCTION AND ALTERATIONS).
SECOND CHOICE	TYPE 5	TANGENT LOCATIONS (ALTERATIONS ONLY).
THIRD CHOICE	TYPE 6	CORNER LOCATIONS (ALTERATIONS ONLY). THIS RAMP MAY BE USED ONLY IF THE TYPE 5 RAMPS CANNOT BE PLACED AT THE ENDS OF THE RADIUS.
FOURTH CHOICE		IF SITE CONSTRAINTS PREVENT THE CONSTRUCTION OF ANY OF THE TYPES LISTED, THEN AND ONLY THEN CAN THE 12:1 MAX. SLOPE ON THE RAMP BE EXCEEDED TO PROVIDE ACCESS TO THE STREET LEVEL (ALTERATIONS ONLY). THE SLOPE CAN BE STEEPENED TO A 10:1 MAX. FOR A MAX. LENGTH OF 5' OR A 8:1 MAX. FOR A MAX. LENGTH OF 2'. SLOPES STEEPER THAN 8:1 ARE NOT ALLOWED UNDER ANY CIRCUMSTANCES.

NOTE: IN ALTERATIONS, THE SELECTION OF THE TYPE OF WHEELCHAIR RAMP TO BE CONSTRUCTED SHALL BE BASED ON THE AMOUNT OF RIGHT-OF-WAY AVAILABLE, AND ON THE PRESENCE OF OTHER SITE CONSTRAINTS (UTILITIES, BUILDINGS, ETC.). THE TABLE ABOVE LISTS THE ORDER IN WHICH THE RAMPS ARE TO BE CONSIDERED.  
AN ALTERATION IS DEFINED AS A PROJECT THAT CHANGES OR AFFECTS THE USE OF A PEDESTRIAN PATHWAY (OVERLAYS, SIGNALIZATION PROJECTS, ETC.) BUT DOES NOT REQUIRE THE PURCHASE OF ADDITIONAL RIGHT-OF-WAY. ALL PROJECTS THAT REQUIRE THE PURCHASE OF ADDITIONAL RIGHT-OF-WAY WILL USUALLY BE CONSIDERED NEW CONSTRUCTION FOR THE PURPOSES OF THE CHART ABOVE.

DATE	REVISION	DATE FILM
11-10-05	REVISED TO NEW SIDEWALK POLICY	
10-9-03	REVISED GEN. NOTES & ADDED NOTE	
4-10-03	REV. DETECTABLE WARNING DEVICES	
8-22-02	ADD DETECTABLE WARNING DEVICES	
3-30-00	ADD SLOPE TRANS. & REV. ISL. DIMS.	
11-18-98	REVISED NOTES	
8-12-98	REVISED TEXTURE	
7-02-98	REDRAWN & REVISED	
10-18-96	CORRECTED DIMENSIONS	10-18-96
5-24-90	FROM 10:1 MAX. SLOPES	5-24-90
7-15-88	ADJUSTED MAX. SLOPE	652-7-15-88
7-14-88	INCLUD. "CONC. ISLD." IN PAY ITEM	
6-02-76	ISSUED-P.H.D.	299-7-28-76

ARKANSAS STATE HIGHWAY COMMISSION

WHEELCHAIR RAMPS  
NEW CONSTRUCTION  
AND ALTERATIONS

STANDARD DRAWING WR-1