

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	1	50
HWY. 5 EROSION REPAIR (GARLAND CO.) (S)						

"A FULLY CONTROLLED ACCESS FACILITY"
 ARKANSAS DEPARTMENT OF TRANSPORTATION
 CONSTRUCTION PLANS FOR STATE HIGHWAY



HWY. 5 EROSION REPAIR (GARLAND CO.) (S)

GARLAND COUNTY

ROUTE 5 SECTION 5

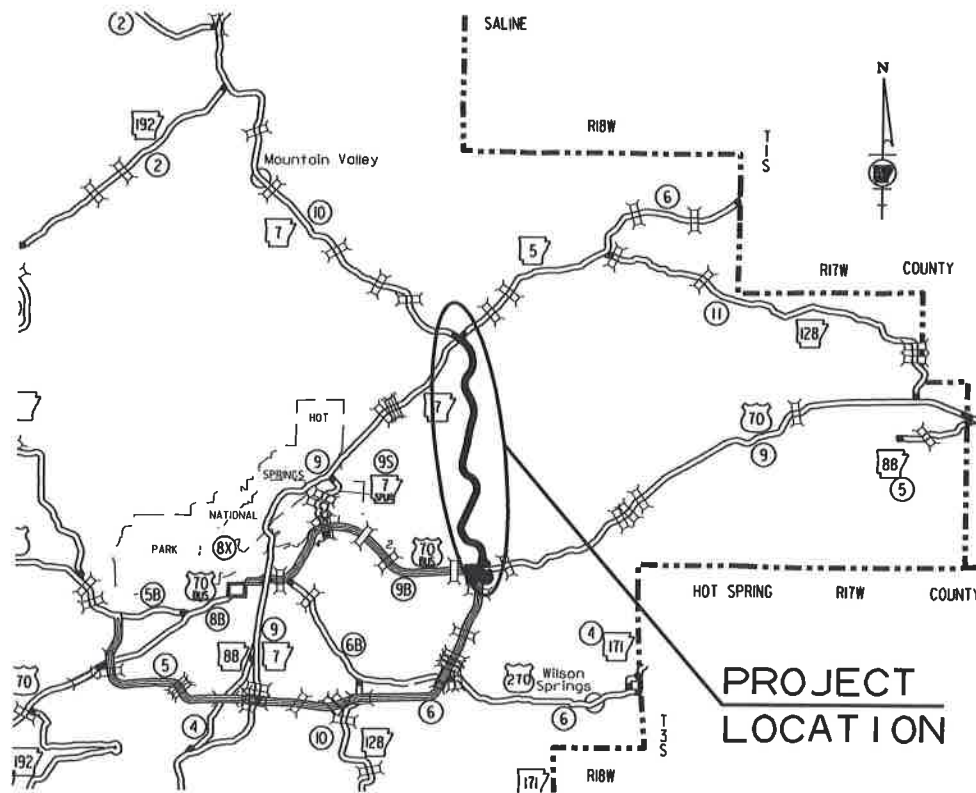
JOB 061855

FED. AID PROJ.

PRTT-0026(53)

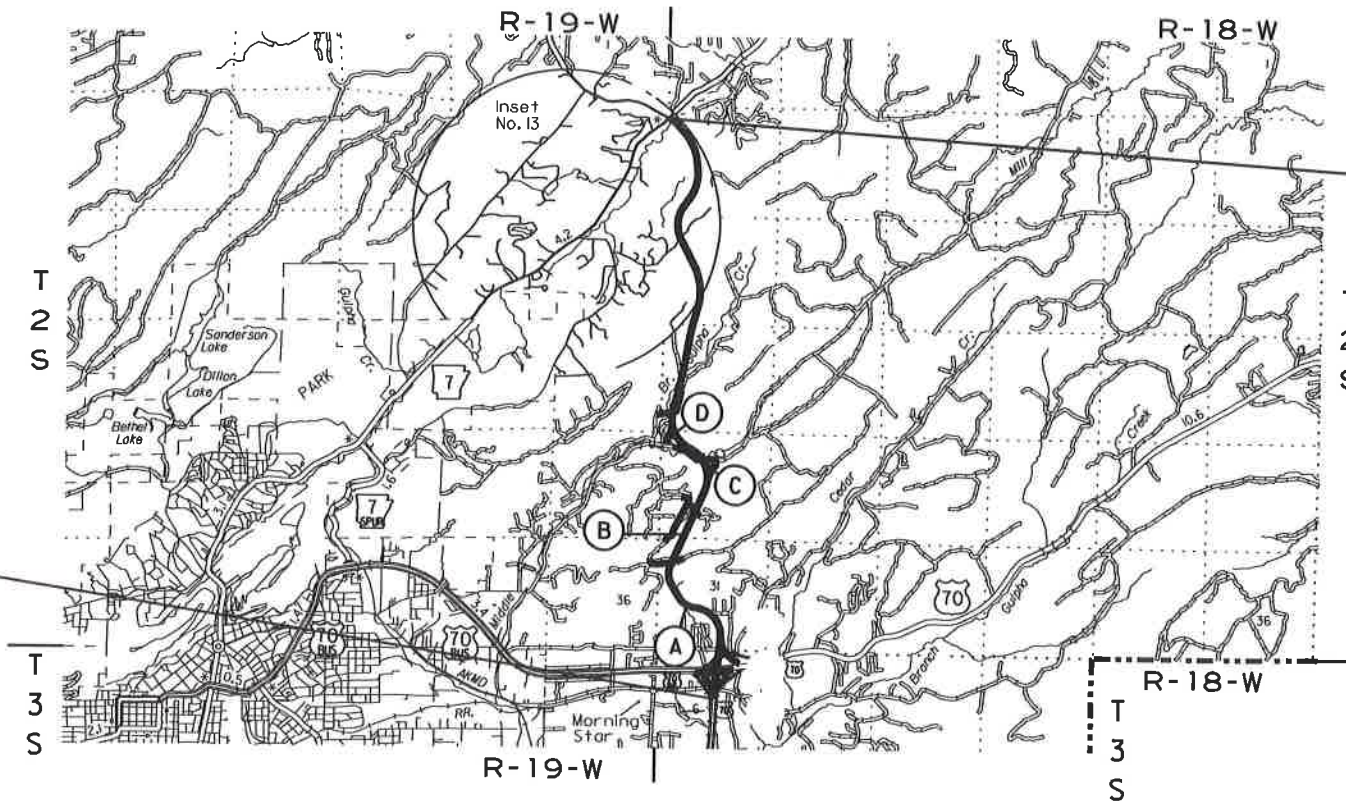


ARK. HWY. DIST. NO. 6



VICINITY MAP

NOT TO SCALE



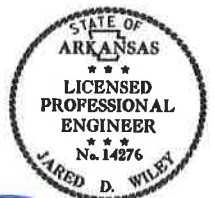
BRIDGE INFORMATION

- ① STA. 720+45.92 - STA. 721+59.21 IN PLACE
120' x 42' CLEAR RDWY. BRIDGE
BR. NO. 07456
- ② STA. 108+08.89 - STA. 113+04.90 IN PLACE
495' x 28' CLEAR RDWY. BRIDGE
BR. NO. 07457
- ③ STA. 112+79.08 - STA. 114+75.41 IN PLACE
195' x 24' CLEAR RDWY. BRIDGE
BR. NO. 07459
- ④ STA. 102+89.16 - STA. 105+11.39 IN PLACE
220' x 24' CLEAR RDWY. BRIDGE
BR. NO. 07460

STA. 615+94.76
BEGIN JOB 061855

STA. 923+05.44
END JOB 061855

APPROVED



Jared D. Wiley
 CHIEF ENGINEER - PRECONSTRUCTION
 JUN 26 2024

BEGINNING OF PROJECT	MID POINT OF PROJECT	END OF PROJECT
LATITUDE = N 34°30'08"	LATITUDE = N 34°32'30"	LATITUDE = N 34°34'41"
LONGITUDE = W 92°58'31"	LONGITUDE = W 92°58'57"	LONGITUDE = W 92°58'55"

GROSS LENGTH OF PROJECT	30710.68 FEET	OR	5.816 MILES
NET " " ROADWAY	29401.95 "	"	5.568 "
NET " " BRIDGES	1308.73 "	"	0.248 "
NET " " PROJECT	30710.68 "	"	5.816 "

dn42608 6/12/2024 R061855.DGN

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	2	50

INDEX OF SHEETS, STANDARD DRAWINGS, GOVERNING SPECIFICATIONS, AND GENERAL NOTES



INDEX OF SHEETS

SHEET NO.	TITLE
1	TITLE SHEET
2	INDEX OF SHEETS, STANDARD DRAWINGS, AND GOVERNING SPECIFICATIONS
3 - 5	SPECIAL DETAILS
6 - 9	TEMPORARY EROSION CONTROL DETAILS
10	MAINTENANCE OF TRAFFIC DETAILS
11 - 12	QUANTITIES
13	SUMMARY OF QUANTITIES AND REVISIONS
14 - 19	SURVEY CONTROL DETAILS
20 - 25	PLAN AND PROFILE SHEETS
26 - 50	CROSS SECTIONS

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
FHWA-1273	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1273	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273	SUPPLEMENT - WAGE RATE DETERMINATION
100-3	CONTRACTOR'S LICENSE
100-4	DEPARTMENT NAME CHANGE
102-2	ISSUANCE OF PROPOSALS
102-3	PREQUALIFICATION OF BIDDERS
103-2	CONTACT INFORMATION FOR MOTORIST DAMAGE CLAIMS
105-4	MAINTENANCE DURING CONSTRUCTION
107-2	RESTRAINING CONDITIONS
108-1	LIQUIDATED DAMAGES
108-2	WORK ALLOWED PRIOR TO ISSUANCE OF WORK ORDER
110-1	PROTECTION OF WATER QUALITY AND WETLANDS
210-1	UNCLASSIFIED EXCAVATION
306-1	QUALITY CONTROL AND ACCEPTANCE
603-1	LANE CLOSURE NOTIFICATION
604-1	RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
604-3	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES (MASH)
620-1	MULCH COVER
802-4	CEMENT
JOB 061855	BIDDING REQUIREMENTS AND CONDITIONS
JOB 061855	BUY AMERICA - CONSTRUCTION MATERIALS
JOB 061855	CARGO PREFERENCE ACT REQUIREMENTS
JOB 061855	CONSTRUCTION IN SPECIAL FLOOD HAZARD AREAS
JOB 061855	DISADVANTAGED BUSINESS ENTERPRISE BIDDER'S RESPONSIBILITIES
JOB 061855	FLEXIBLE BEGINNING OF WORK - CALENDAR DAY CONTRACT
JOB 061855	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB 061855	LIQUIDATED DAMAGES PROCEDURE FOR BID LETTINGS
JOB 061855	MANDATORY ELECTRONIC CONTRACT
JOB 061855	MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
JOB 061855	NESTING SITES OF MIGRATORY BIRDS
JOB 061855	PRE-BID ON SITE INVESTIGATION OF SOIL CONDITIONS
JOB 061855	PRICE ADJUSTMENT FOR FUEL
JOB 061855	PROHIBITION OF CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT
JOB 061855	RIPRAP BASIN
JOB 061855	SOIL STABILIZATION
JOB 061855	SPECIAL SEEDING REQUIREMENTS
JOB 061855	STREAM VANES AND RIPRAP FOR CHANNEL RESTORATION
JOB 061855	TIED CONCRETE BLOCK MATS
JOB 061855	UTILITY ADJUSTMENTS

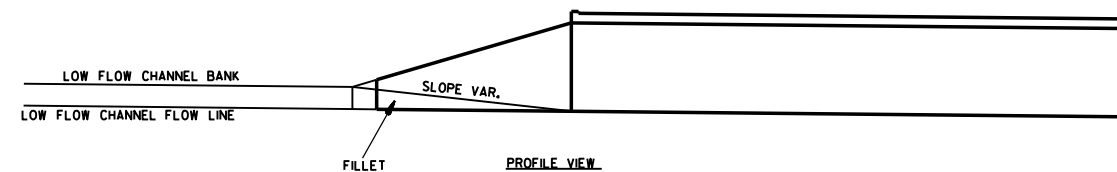
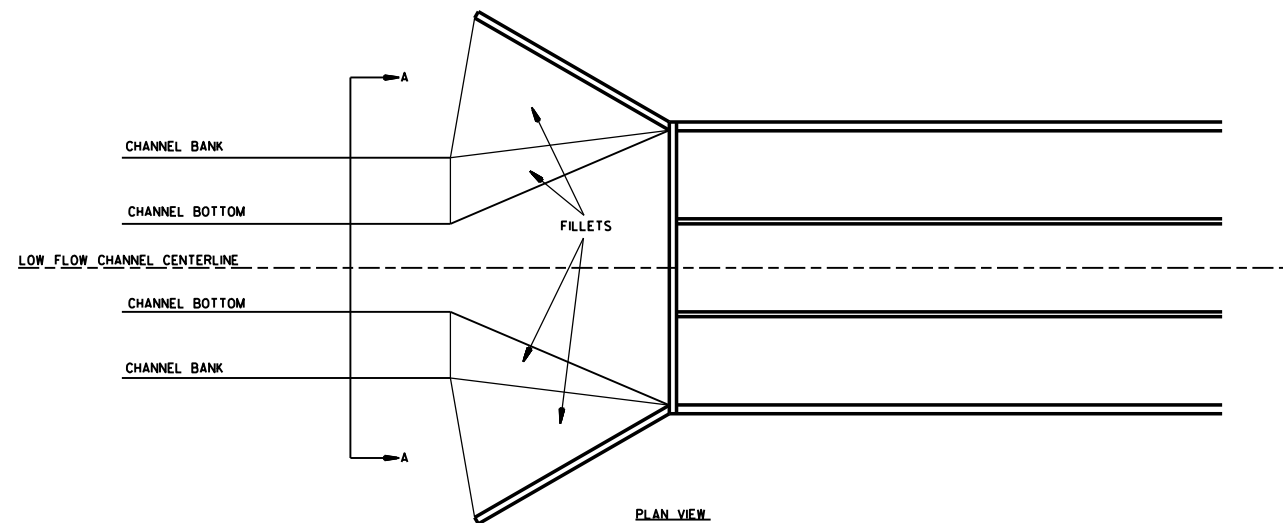
ROADWAY STANDARD DRAWINGS

DRWG.NO.	TITLE	DATE
FES-1	FLARED END SECTION	10-18-96
FES-2	FLARED END SECTION	10-18-96
TC-1	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	11-07-19
TEC-3	TEMPORARY EROSION CONTROL DEVICES	11-03-94
WF-1	WMRE FENCE TYPE A AND B	08-22-02

GENERAL NOTES

- GRADE LINE DENOTES FINISHED GRADE WHERE SHOWN ON PLANS.
- ALL PIPE LINES, POWER, TELEPHONE, AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.
- ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE PROVIDED.
- 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 ENSURE THAT ALL TREES NOT TO BE REMOVED SHALL BE HARMED AS LITTLE AS POSSIBLE DURING THE CONSTRUCTION OPERATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A FENCE TO CONTROL LIVESTOCK IN AREAS WHERE PASTURES ARE SEVERED. WIRE FENCE MAY BE CONSTRUCTED INITIALLY, OR IN LIEU THEREOF, THE CONTRACTOR AT HIS OWN EXPENSE, MAY ELECT TO PROVIDE TEMPORARY FENCING SUITABLE TO CONTAIN LIVESTOCK.
- THIS PROJECT IS COVERED UNDER A SECTION 404 NATIONWIDE 14 PERMIT. REFER TO SECTION 110 OF THE STANDARD SPECIFICATIONS, EDITION OF 2014, FOR PERMIT REQUIREMENTS.

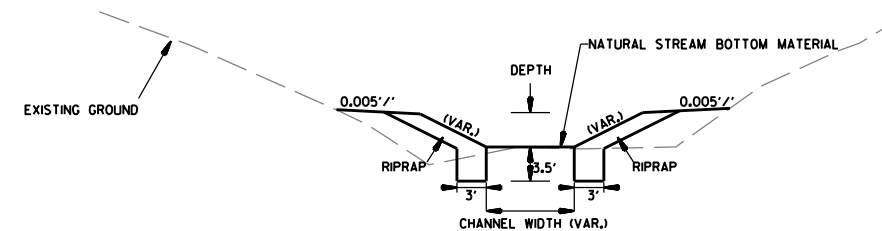
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	3	50
SPECIAL DETAILS						



LOW FLOW CHANNEL FILLET DETAILS

FOR DIMENSIONS OF STRUCTURE REFER TO STRUCTURE DETAILS, PLANS AND STANDARD DRAWINGS.

THE LOW FLOW CHANNEL DIMENSIONS ARE SHOWN ON THE PLAN SHEETS. THE BOTTOM OF THE LOW FLOW CHANNEL SHOULD LINE UP WITH THE BARREL SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE FILLET SLOPE SHOULD INTERSECT THE END OF THE WING WALL AND NOT COVER THE END OF THE WING WALL.



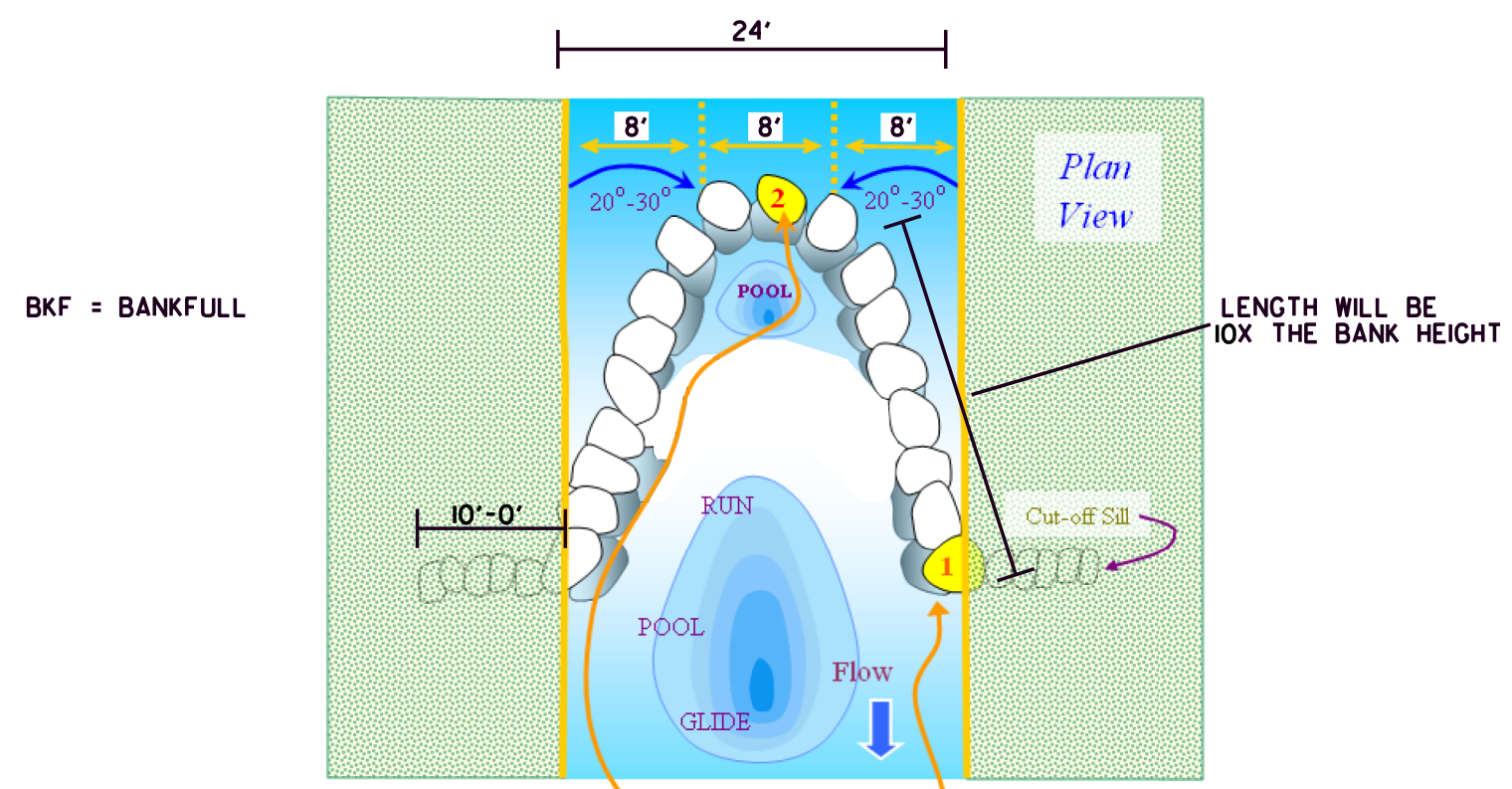
CHANNEL TYPICAL SECTION SECTION A-A

FILLET INSTALLATION LOCATIONS

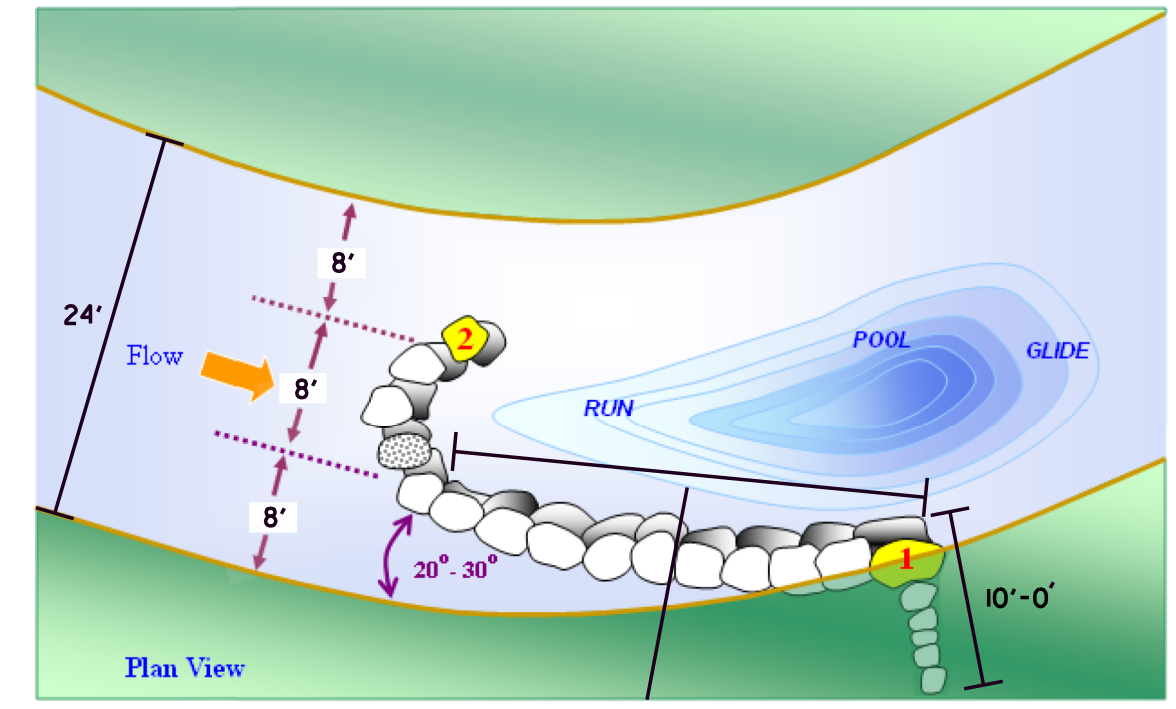
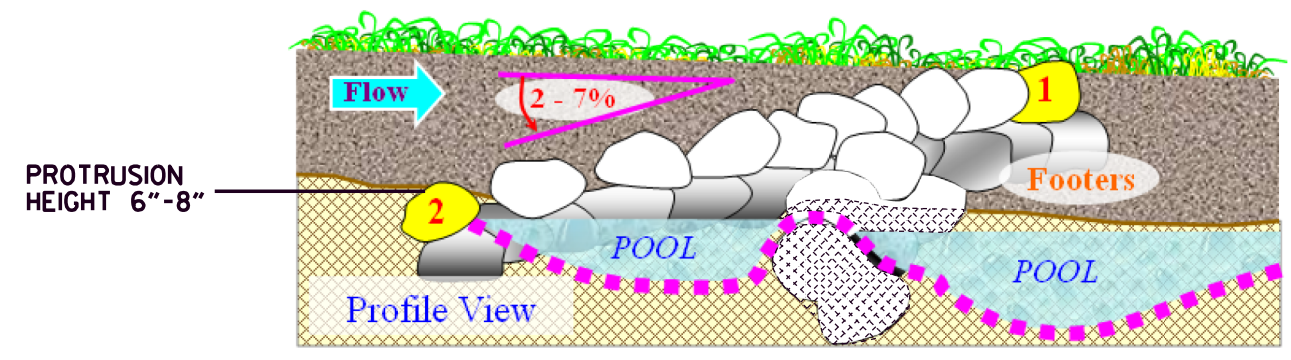
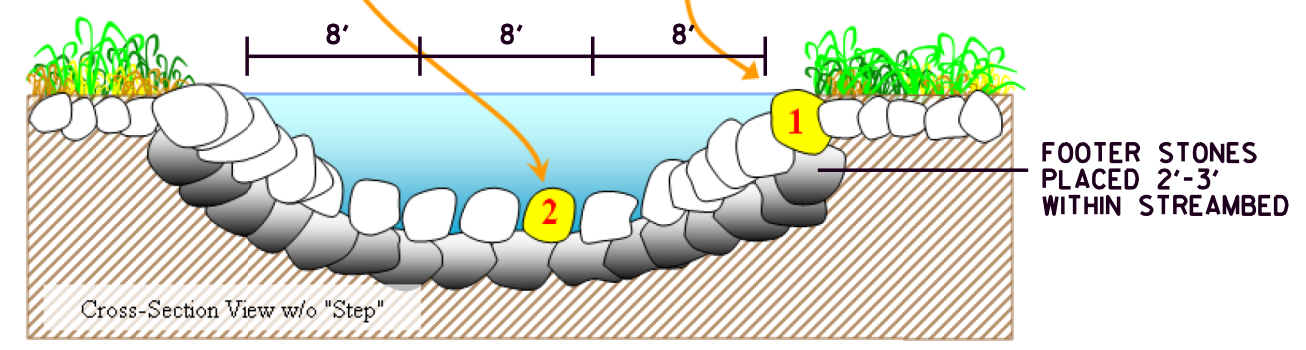
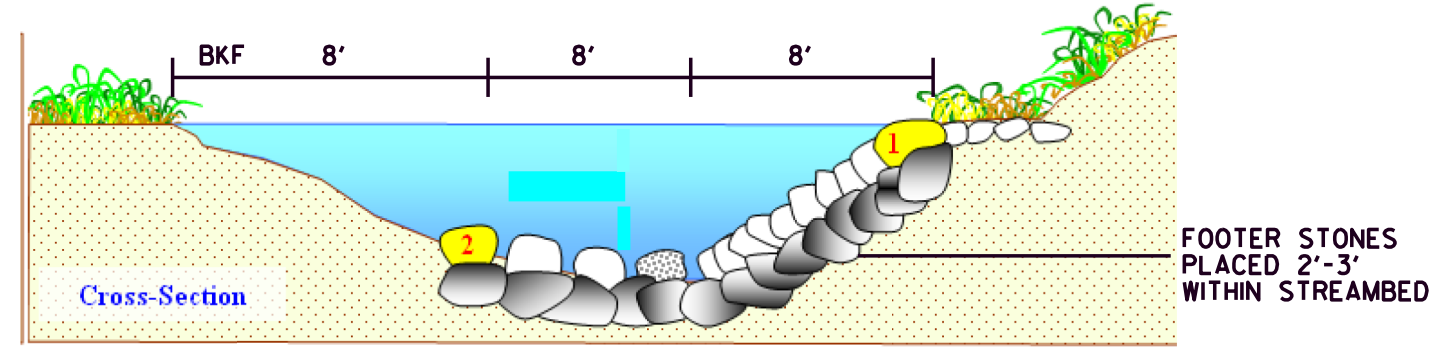
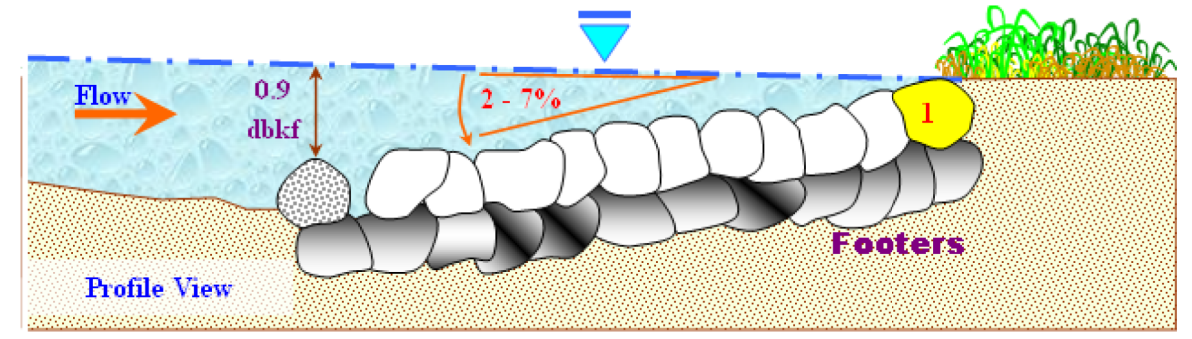
STA.	STA.	LOCATION
736+89	737+20	SITE C-3 MILL CREEK ROAD RAMP 2 RT
741+29	741+94	SITE C-1 MAIN LANES LT
741+77	742+36	SITE C-2 MAIN LANES RT
115+79	116+74	SITE C-2 MILL CREEK ROAD RT
117+67	118+64	SITE C-2 MILL CREEK ROAD RT
767+04	767+91	SITE D-2 MAIN LANES LT
769+19	770+20	SITE D-3 MAIN LANES RT
106+70	107+58	SITE D-3 DENISE LANE RT

THE FILL BEYOND THE RIP RAP SLOPES SHOWN IN THE SPECIAL DETAIL SHOULD BE COMPACTED EMBANKMENT IN THE LOWER LAYERS. THE TOP LAYER SHOULD BE THE LOCAL MATERIAL AND CAN BE A MIX OF SOIL AND ROCK EXCAVATED FROM THE STREAM BED.

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	4	50
SPECIAL DETAILS						



BKF = BANKFULL



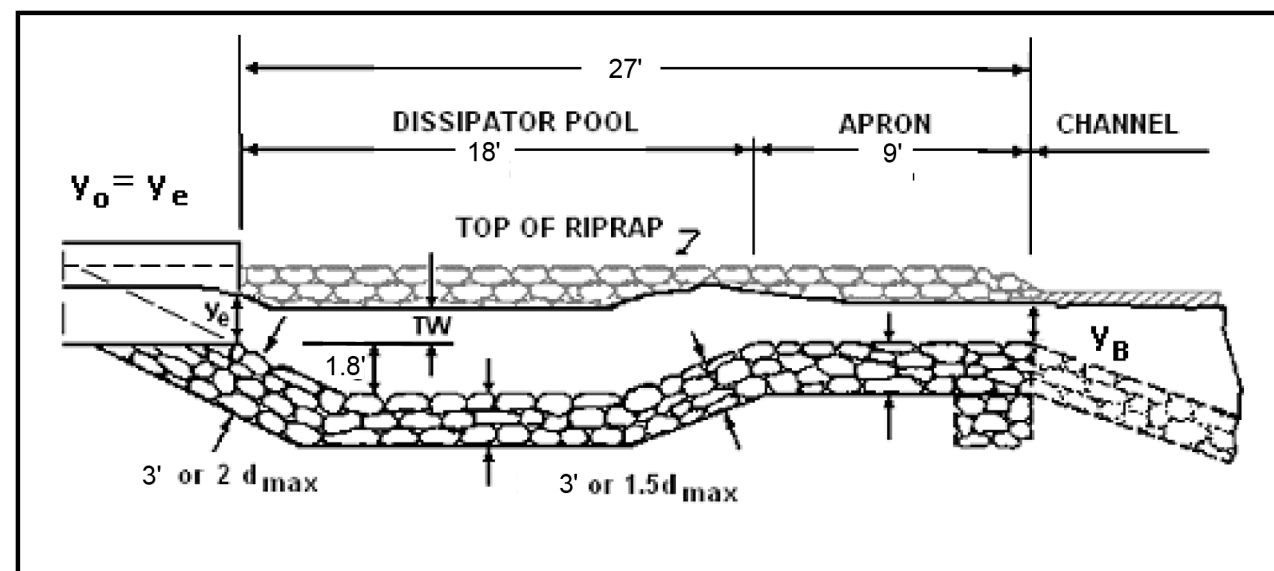
CROSS VANE DETAILS (E-C)

J HOOK VANE DETAILS (E-J)

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	5	50
SPECIAL DETAILS						



- The basin is pre-shaped and lined with riprap that is at least 3' thick.
- The riprap floor is constructed at the approximate depth of scour, 1.8', that would occur in a thick pad of riprap. The h_s/D_{50} of the material should be greater than 2.
- The length of the energy dissipating pool is 18'; the length of the apron is 9'. The overall length of the basin (pool plus apron) is 27'.
- A riprap cutoff wall or sloping apron can be constructed if downstream channel degradation is anticipated as shown in the Riprap Basin Detail.



RIPRAP BASIN DETAILS

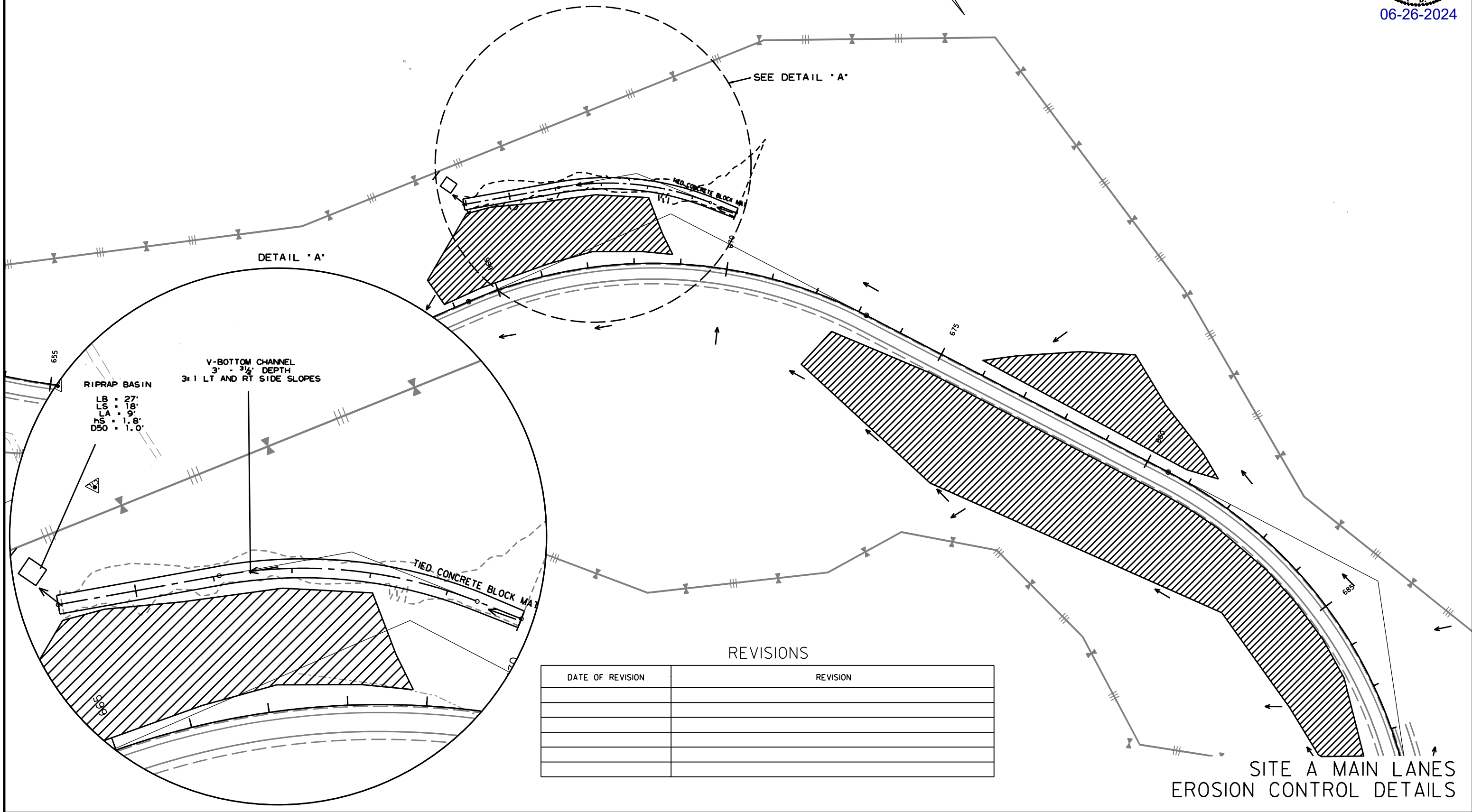
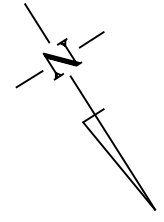
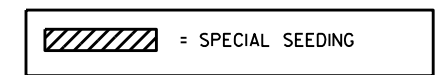
SITE A - STA. 664+67 - STA. 664+95 LT

DATE REVISION	DATE REVISION	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	6	50
EROSION CONTROL DETAILS						



06-26-2024

LEGEND



REVISIONS

DATE OF REVISION	REVISION

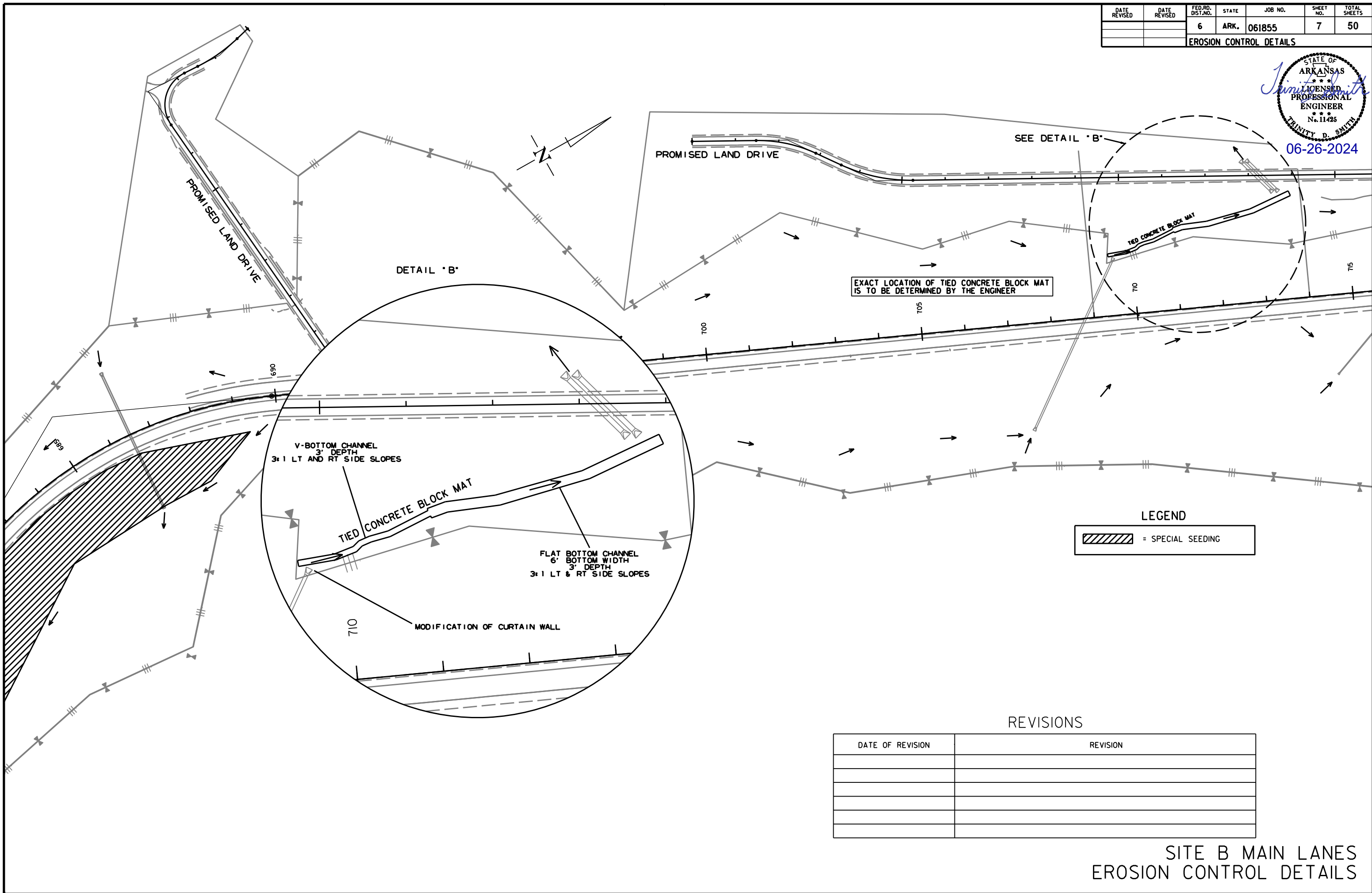
SITE A MAIN LANES
EROSION CONTROL DETAILS

rb43088 6/19/2024
R061855.DCN

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	7	50
EROSION CONTROL DETAILS						



06-26-2024



LEGEND

	= SPECIAL SEEDING
--	-------------------

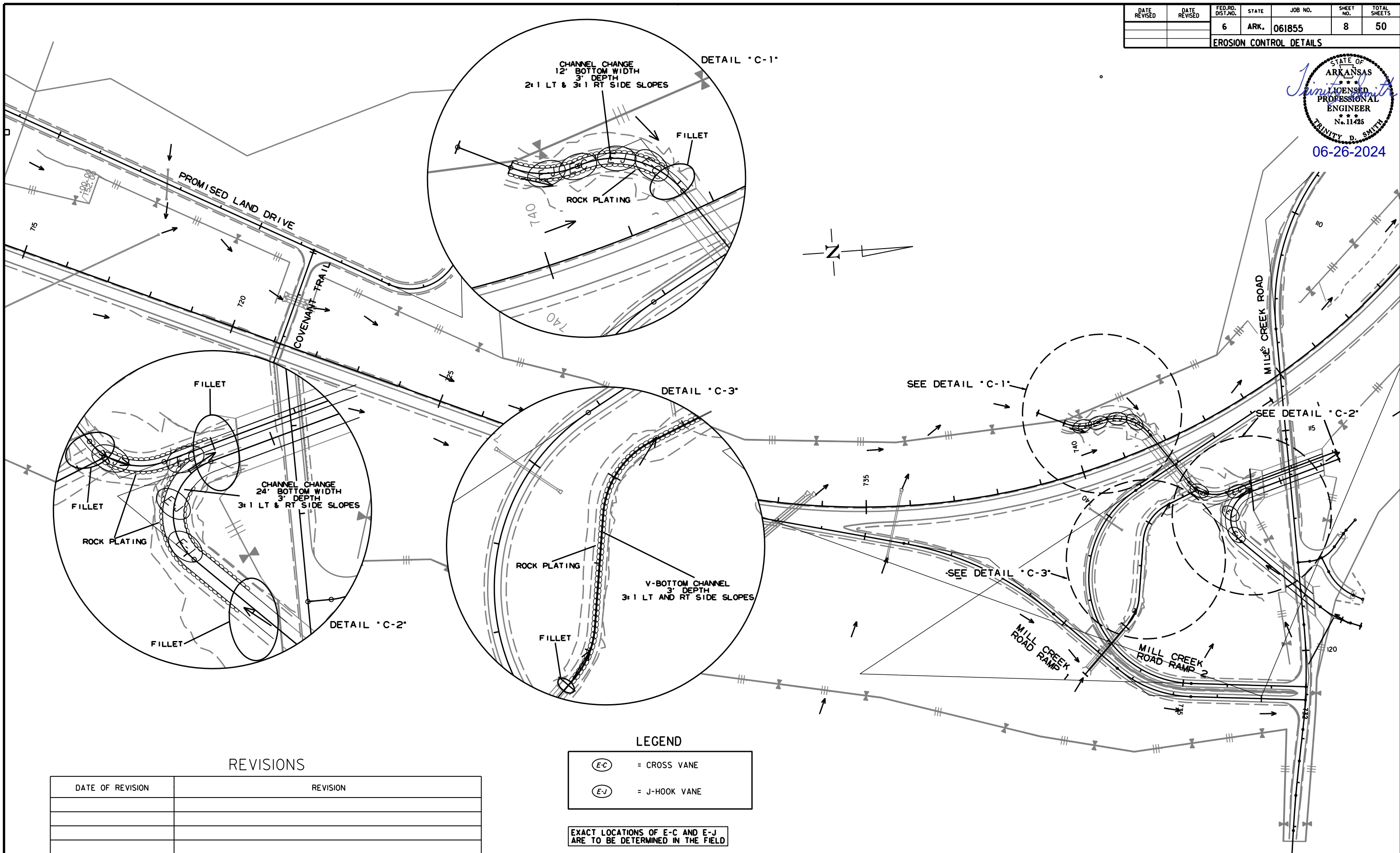
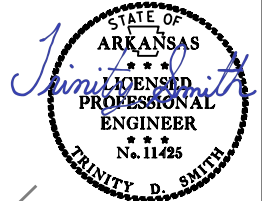
REVISIONS

DATE OF REVISION	REVISION

SITE B MAIN LANES
EROSION CONTROL DETAILS

dn42608 6/12/2024
R061855.DCN

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	8	50
EROSION CONTROL DETAILS						



REVISIONS

DATE OF REVISION	REVISION

LEGEND

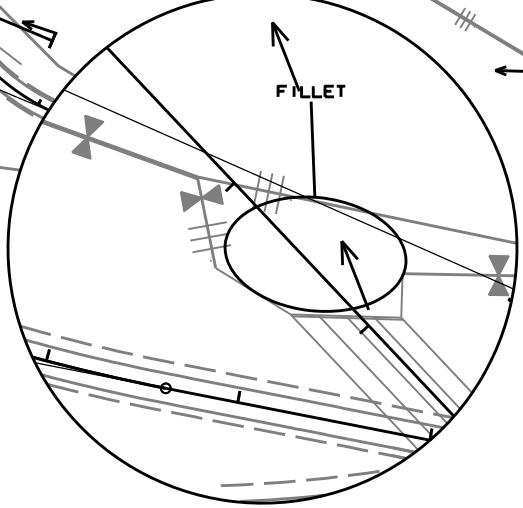
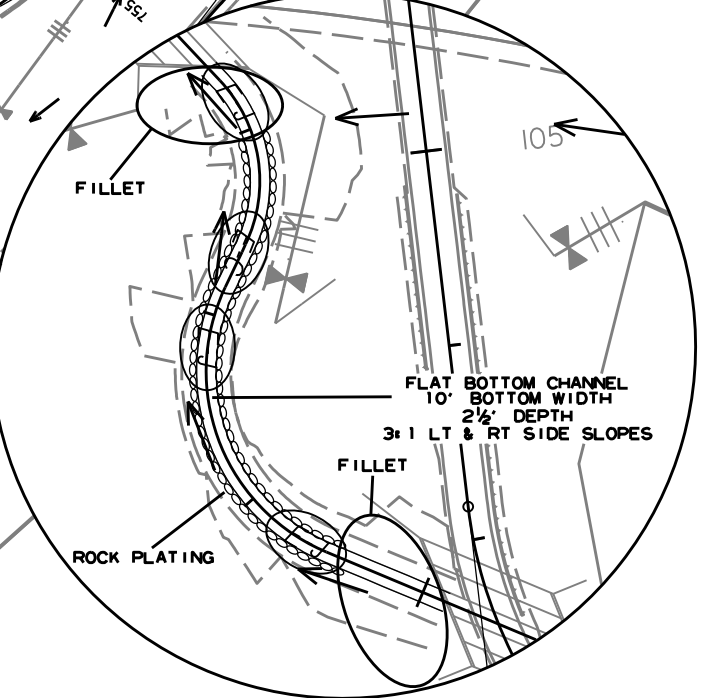
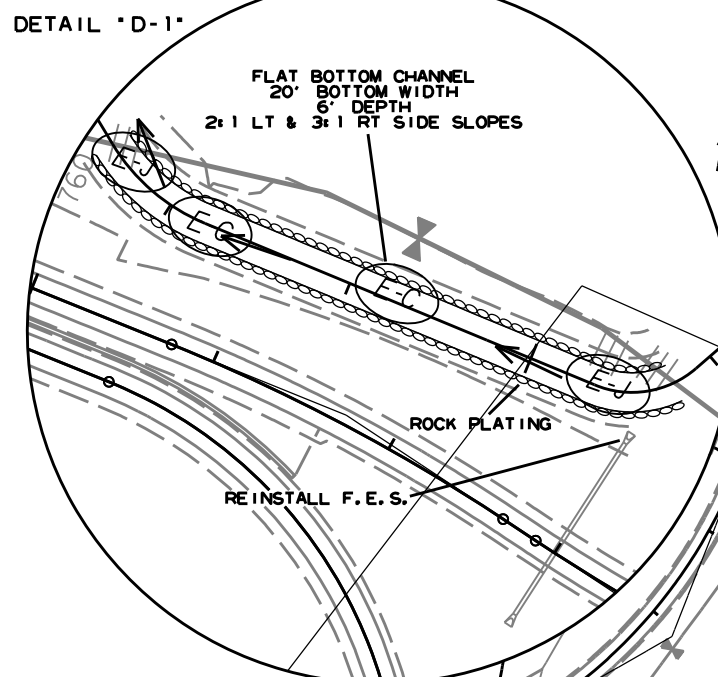
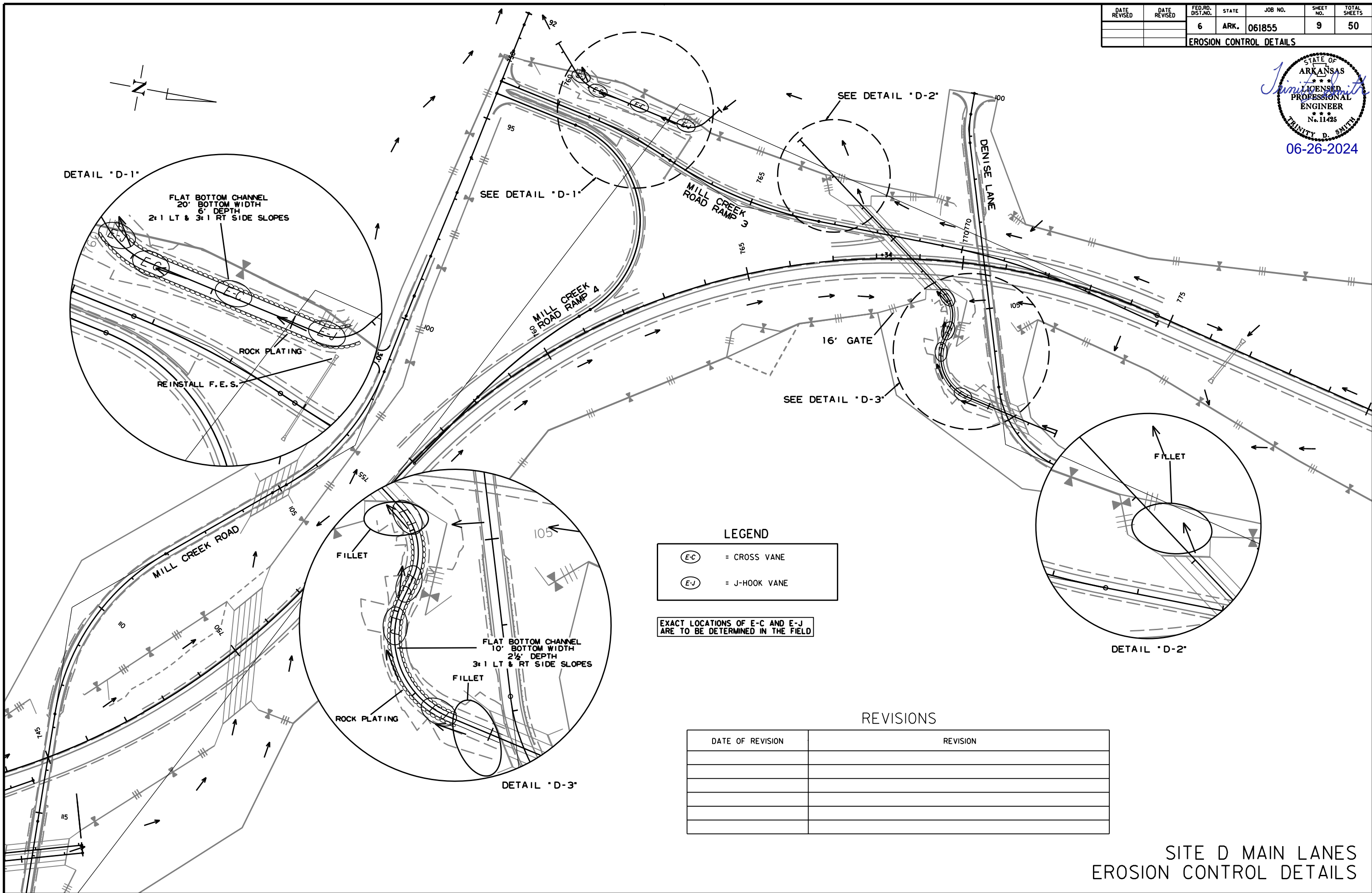
- (E-C) = CROSS VANE
- (E-J) = J-HOOK VANE

EXACT LOCATIONS OF E-C AND E-J ARE TO BE DETERMINED IN THE FIELD

SITE C MAIN LANES
EROSION CONTROL DETAILS

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DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	9	50
EROSION CONTROL DETAILS						



LEGEND

(E-C)	= CROSS VANE
(E-J)	= J-HOOK VANE

EXACT LOCATIONS OF E-C AND E-J ARE TO BE DETERMINED IN THE FIELD

REVISIONS

DATE OF REVISION	REVISION

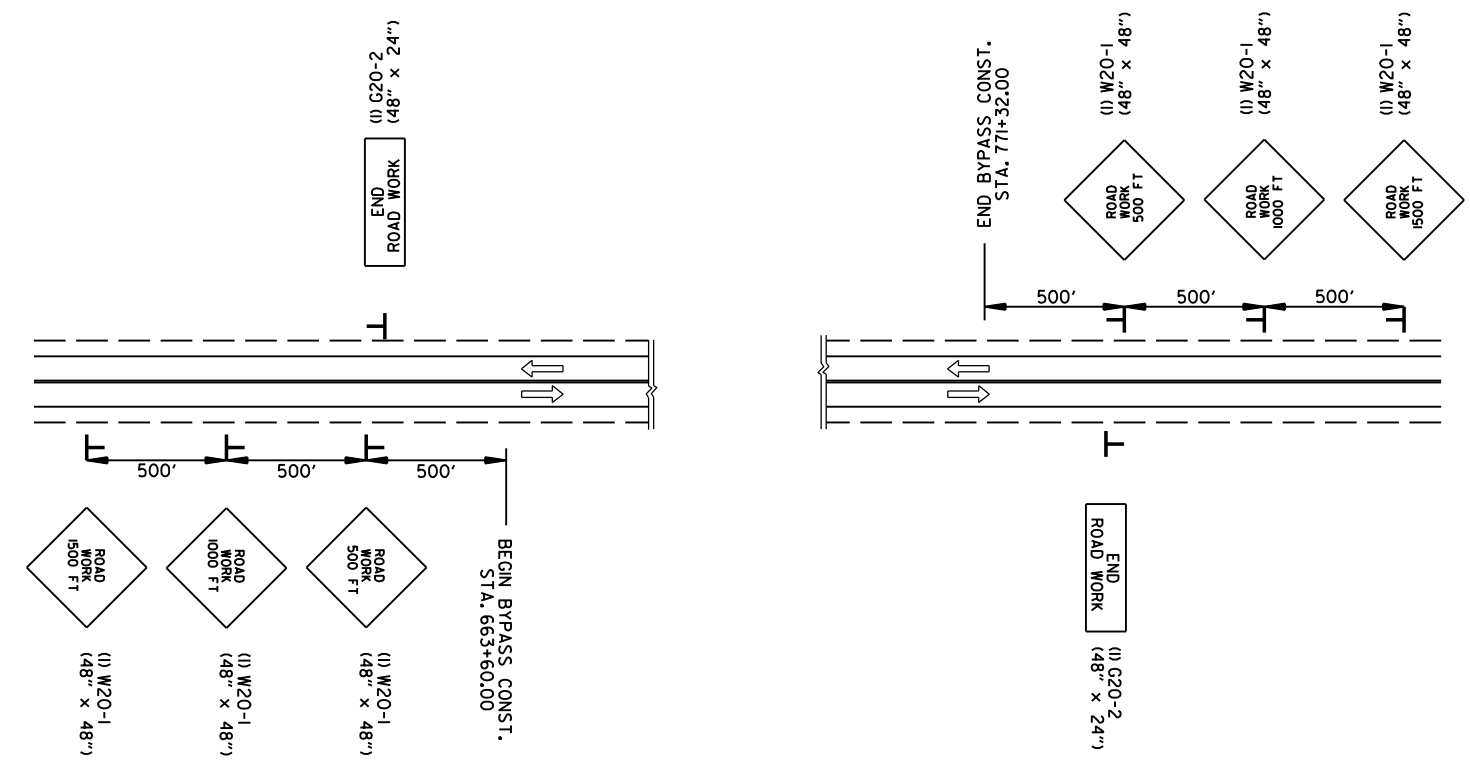
SITE D MAIN LANES
EROSION CONTROL DETAILS

dn42608 6/12/2024 R061855.DCN MicroStation v8.11.9.578



DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	10	50
MAINTENANCE OF TRAFFIC DETAILS						



06-26-2024



ADVANCE WARNING
(ALL STAGES)

- 
 (4) R4-1 (24" X 30") ALL STAGES SPACED AT 1/4 MILE INTERVALS
- 
 (4) W21-5a (36" x 36") ALL STAGES TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

ADVANCE WARNING
MAINTENANCE OF TRAFFIC DETAILS

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	11	50
QUANTITIES						



ADVANCE WARNING SIGNS AND DEVICES

SIGN NUMBER	DESCRIPTION	SIGN SIZE	STAGE 1	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED	
			LIN. FT. - EACH		NO.	SQ. FT.
W20-1	ROAD WORK 1500 FT.	48"x48"	2	2	2	32.0
W20-1	ROAD WORK 1000 FT.	48"x48"	2	2	2	32.0
W20-1	ROAD WORK 500 FT.	48"x48"	2	2	2	32.0
G20-2	END ROAD WORK	48"x24"	2	2	2	16.0
TOTALS:						112.0

NOTE: THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

CLEARING AND GRUBBING

STATION	STATION	LOCATION	CLEARING	GRUBBING
			ACRE	
664+67	670+02	SITE A MAIN LANES LT	1.2	1.2
709+44	713+80	SITE B MAIN LANES LT	0.6	0.6
739+87	741+80	SITE C MAIN LANES LT	0.2	0.2
739+81	743+46	SITE C MAIN LANES RT	0.9	0.9
760+04	763+14	SITE D MILL CREEK ROAD RAMP 3 LT	0.4	0.4
767+04	767+91	SITE D MAIN LANES LT	0.1	0.1
769+50	771+35	SITE D MAIN LANES RT	0.4	0.4
TOTALS:			3.8	3.8

REMOVAL AND DISPOSAL OF FENCE

STATION	STATION	LOCATION	FENCE
			LIN. FT.
709+50	716+00	SITE B MAIN LANES LT	660
768+26	768+42	SITE D-3 MAIN LANES RT	16
TOTALS:			676

FENCING

STATION	STATION	LOCATION	WIRE FENCE	* 16'-0" GATES
			(TYPE A)	EACH
			LIN. FT.	
709+50	716+00	SITE B MAIN LANES LT	803	
768+26	768+42	SITE D-3 MAIN LANES RT		1
TOTALS:			803	1

* DENOTES ALTERNATE BID ITEM.

TIED CONCRETE BLOCK MATS

STATION	STATION	LOCATION	LENGTH LIN. FT.	Width of Top FEET	Width of Bottom FEET	TIED CONCRETE BLOCK MATS (TCBM)		
						FLAT-BOTTOM	V-BOTTOM	
						SQ. YD.	SQ. YD.	
664+79	670+00	SITE A MAIN LANES LT DITCH	521.00	24.00			1389.33	
709+44	711+00	SITE B MAIN LANES LT DITCH	156.00	18.00			312.00	
711+00	713+76	SITE B MAIN LANES LT DITCH	276.00	24.00	6.00		736.00	
TOTALS:							736.00	1701.33

FLOWABLE SELECT MATERIAL

STATION	LOCATION	CU. YD.
741+69	SITE C-1 MAIN LANES LT	50
TOTAL:		50

EROSION CONTROL

STATION	STATION	LOCATION	EROSION CONTROL				
			SPECIAL SEEDING	MULCH COVER	WATER	CROSS VANE	J-HOOK VANE
						(E-C)	(E-J)
			ACRE	ACRE	M.GAL.	LIN. FT.	LIN. FT.
ENTIRE	PROJECT	SLOPE STABILIZATION	8.23	8.23	167.9		
ENTIRE	PROJECT	CHANNEL REPAIR	3.76	3.76	76.7		
739+90	741+80	SITE C-1 MAIN LANES - 3' DIAMETER ROCK				160	120
741+95	743+41	SITE C-2 MAIN LANES - 3' DIAMETER ROCK				150	88
760+10	763+05	SITE D-1 MILL CREEK ROAD RAMP 3 - 3' DIAMETER ROCK				210	158
104+45	107+26	SITE D-3 DENISE LANE - 3' DIAMETER ROCK				74	166
TOTALS:			11.99	11.99	244.6	594	532

BASIS OF ESTIMATE:
WATER.....20.4 M.G. / ACRE OF SPECIAL SEEDING

DUMPED RIPRAP AND FILTER BLANKET

STATION	STATION	LOCATION	DUMPED RIPRAP	RIPRAP BASIN	FILTER BLANKET
			CU. YD.	EACH	SQ. YD.
664+79		SITE A MAIN LANES LT.		1	72
741+29	741+94	SITE C-1 MAIN LANES LT.	222		443
741+77	742+36	SITE C-2 MAIN LANES RT.	280		560
736+90	737+20	SITE C-3 C-1 MILL CREEK ROAD RAMP 2 RT.	420		840
767+04	767+91	SITE D-1 MILLS CREEK ROAD RAMP 3 LT.	350		700
767+04	767+91	SITE D-2 MAIN LANES LT.	151		302
769+19	770+20	SITE D-3 MAIN LANES RT.	364		728
TOTALS:			1787	1	3645

*NOTE: QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS

SEE SPECIAL DETAIL ON SHEET 3 FOR RIPRAP SITES

NOTE: FILTER BLANKET SHALL BE GEOTEXTILE FABRIC (TYPE 5).

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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QUANTITIES						



06-26-2024

EARTHWORK

STATION	STATION	LOCATION / DESCRIPTION	UNCLASSIFIED EXCAVATION	COMPACTED EMBANKMENT
			CU. YD.	
664+67.00	670+00.00	SITE A MAIN LANES SLOPE CORRECTION	16	1448
709+54.00	713+44.00	SITE B MAIN LANES SLOPE CORRECTION	1286	337
739+81.00	743+47.00	SITE C MAIN LANES CHANNEL CHANGE	1546	3047
760+10.00	763+05.00	SITE D-1 MILL CREEK ROAD RAMP 3 CHANNEL CHANGE	394	965
104+45.00	107+26.00	SITE D-3 DENISE LANE CHANNEL CHANGE	8	1847
TOTALS:			3250	7644

NOTE: EARTHWORK QUANTITIES SHALL BE PAID AS PLAN QUANTITY.

SOIL STABILIZATION

STATION	STATION	LOCATION / DESCRIPTION	SOIL STABILIZATION
			TON
ENTIRE	PROJECT	TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER	100
TOTAL:			100

QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.

STRUCTURES

STATION	DESCRIPTION	FLARED END SECTIONS FOR R.C. PIPE CULVERTS		STD. DWG. NOS.
		24"	48"	
		EACH		
709+53	MODIFY CURTAIN WALL - SITE B		1	FES-1, FES-2
763+00	REINSTALL F.E.S. ON LT, SITE D-1 MILL CREEK ROAD RAMP 3	1		FES-1, FES-2
TOTALS:		1	1	

QUANTITIES

SURVEY CONTROL COORDINATES

Project Name: sr60140.a1g
Date: 7/18/2018
Coordinate System: ARKANSAS STATE PLANE - SOUTH ZONE BASED ON GPS CONTROL, PROJECTED TO GROUND.
Units: U.S. SURVEY FOOT

Table with columns: Point Name, Northing, Easting, Elev, Feature Description. Contains 999 entries of survey points and their details.

*Note - Rebar and Cap - Standard - 5/8" Rebar with 2" Aluminum Cap stamped
(standard markings common to all caps), or as indicated
(other markings indicated in the point description of the individual point).
USE CAF = 1.0 FOR STAKEOUT FOR THIS PROJECT
A PROJECT CAF OF 0.9999346105 HAS BEEN USED TO COMPUTE THE ABOVE GROUND COORDINATES.
THIS CAF IS INTENDED FOR USE WITHIN THE PROJECT LIMITS.
GRID DISTANCE = GROUND DISTANCE X CAF.
GRID COORDINATES ARE STORED UNDER FILE NAME sr60140g1.cti
HORIZONTAL DATUM: NAD 83 (1997)
VERTICAL DATUM: NAVD 88 POSITIONAL ACCURACY THIRD ORDER, UNLESS SPECIFIED OTHERWISE
AT A SPECIFIC POINT.

REFERENCE POINTS (1500 SERIES) ARE TO BE USED TO ESTABLISH CONTROL
IF THE PRIMARY CONTROL POINTS LISTED ABOVE HAVE BEEN DESTROYED.
REFERENCE POINTS ARE NOT TO BE USED FOR VERTICAL CONTROL

BASIS OF BEARING:
ARKANSAS STATE PLANE GRID BEARINGS - 0302-SOUTH ZONE
DETERMINED FROM GPS CONTROL POINTS: 260001 - 260020
CONVERGENCE ANGLE: 0.32 43.07319 LEFT AT LT: 34.32-55.07411N LG: 092-58-27.42514W
GRID AZIMUTH = ASTRONOMICAL AZIMUTH - CONVERGENCE ANGLE.

Table with columns: DATE REVISED, DATE FILMED, FED.RD. DIST.NO., STATE, FED.AID PROJ.NO., SHEET NO., TOTAL SHEETS. Values include 6, ARK., 061855, 14, 50.

2 SURVEY CONTROL DETAILS



06-26-2024

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.	061855		15	50

2 SURVEY CONTROL DETAILS



BYPASS ULTIMATE CL

POINT NO.	TYPE	STATION	NORTHING	EASTING
8000	POB	594+13.87	1979629.2689	1018391.1355
8001	PI	612+70.62	1981479.5194	1018546.3631
8002	PI	622+65.40	1982471.3454	1018623.0312
8003	PI	629+30.15	1983133.2914	1018683.9901
8004	PI	635+00.00	1983700.1227	1018742.6178
8005	PC	641+96.70	1984393.6258	1018809.2151
8007	PT	662+34.87	1985854.5337	1017674.9619
8008	PC	664+32.35	1985884.9592	1017479.8436
8010	PT	673+17.94	1986368.0400	1016772.3003
8011	PC	680+50.04	1987000.6755	1016403.8652
8013	PT	689+91.19	1987905.8617	1016353.9321
8014	PC	729+23.58	1991501.0324	1017947.1578
8016	PT	754+07.12	1993623.1798	1017193.1146
8017	PC	754+25.66	1993631.5909	1017176.5904
8019	PT	774+66.51	1995350.1263	1016384.0649
8020	PC	791+59.70	1996996.4805	1016779.5753
8022	PT	798+91.25	1997712.7555	1016927.6421
8023	PC	809+32.01	1998738.1742	1017105.6972
8025	PT	821+25.16	1999900.9899	1017370.5988
8026	PC	826+58.29	2000413.9399	1017515.9079
8028	PT	847+93.38	2002490.2323	1017314.7232
8029	PC	862+24.37	2003766.5564	1016667.6174
8031	PT	878+87.17	2005344.0625	1016786.0107
8032	PC	883+36.15	2005709.7244	1017046.5409
8034	PT	898+99.68	2007191.6480	1017415.2278
8035	PC	916+62.05	2008938.8342	1017184.3509
8037	PT	922+52.40	2009410.3855	1016865.1704
8038	POE	924+43.89	2009504.2219	1016698.2396

SITES D-2 & D-3

POINT NO.	TYPE	STATION	NORTHING	EASTING
8440	POB	773+33.00	1995168.4077	1016695.8892
8441	PC	775+53.50	1994953.0174	1016648.7091
8443	PT	777+15.31	1994877.8526	1016525.0294
8444	PC	777+39.58	1994884.1607	1016501.5978
8446	PT	778+29.56	1994856.1686	1016421.6774
8447	POE	783+14.53	1994465.4494	1016134.3817

SITE A

POINT NO.	TYPE	STATION	NORTHING	EASTING
8400	POB	776+85.22	1994874.4867	1016554.8210
8401	PC	776+84.84	1994874.5015	1016555.1936
8403	PT	776+82.13	1994874.6514	1016557.9023
8404	POE	776+80.13	1994874.8089	1016559.8962

SITE C-1

POINT NO.	TYPE	STATION	NORTHING	EASTING
8405	POB	739+36.00	1992460.3098	1017899.3833
8406	PC	740+00.44	1992518.6458	1017926.7508
8408	PT	740+77.58	1992593.7853	1017930.7321
8409	PC	740+80.39	1992596.4431	1017929.8134
8411	PT	742+09.84	1992711.1267	1017967.1140
8412	PC	743+48.04	1992790.1950	1018080.4599
8414	PT	744+41.47	1992872.7246	1018109.5449
8415	POE	747+06.85	1993127.4691	1018035.1773

SITE C-2

POINT NO.	TYPE	STATION	NORTHING	EASTING
8416	POB	119+55.00	1993154.5515	1018433.3982
8417	PC	119+79.11	1993132.0935	1018424.6399
8419	PT	120+57.37	1993066.5188	1018382.8392
8420	PC	122+89.64	1992898.6679	1018222.2923
8422	PT	124+25.77	1992925.3813	1018112.9242
8423	POE	126+41.55	1993132.5133	1018052.4561

SITE C-3

POINT NO.	TYPE	STATION	NORTHING	EASTING
8424	POB	741+12.00	1992524.9991	1018497.3869
8425	PC	742+63.25	1992631.1563	1018389.6485
8427	PT	743+26.50	1992658.8677	1018333.9650
8428	PC	744+56.00	1992677.6481	1018205.8368
8430	PT	745+74.33	1992752.6313	1018123.2521
8431	POE	746+45.35	1992821.5852	1018106.2354

SITE D-1

POINT NO.	TYPE	STATION	NORTHING	EASTING
8432	POB	723+66.00	1994270.4963	1016099.7055
8433	PC	724+34.47	1994227.6026	1016153.0800
8435	PT	724+93.44	1994174.5524	1016169.7366
8436	PC	726+91.03	1993984.9481	1016114.1095
8438	PT	727+46.99	1993938.3055	1016084.5300
8439	POE	728+39.63	1993876.8121	1016015.2373

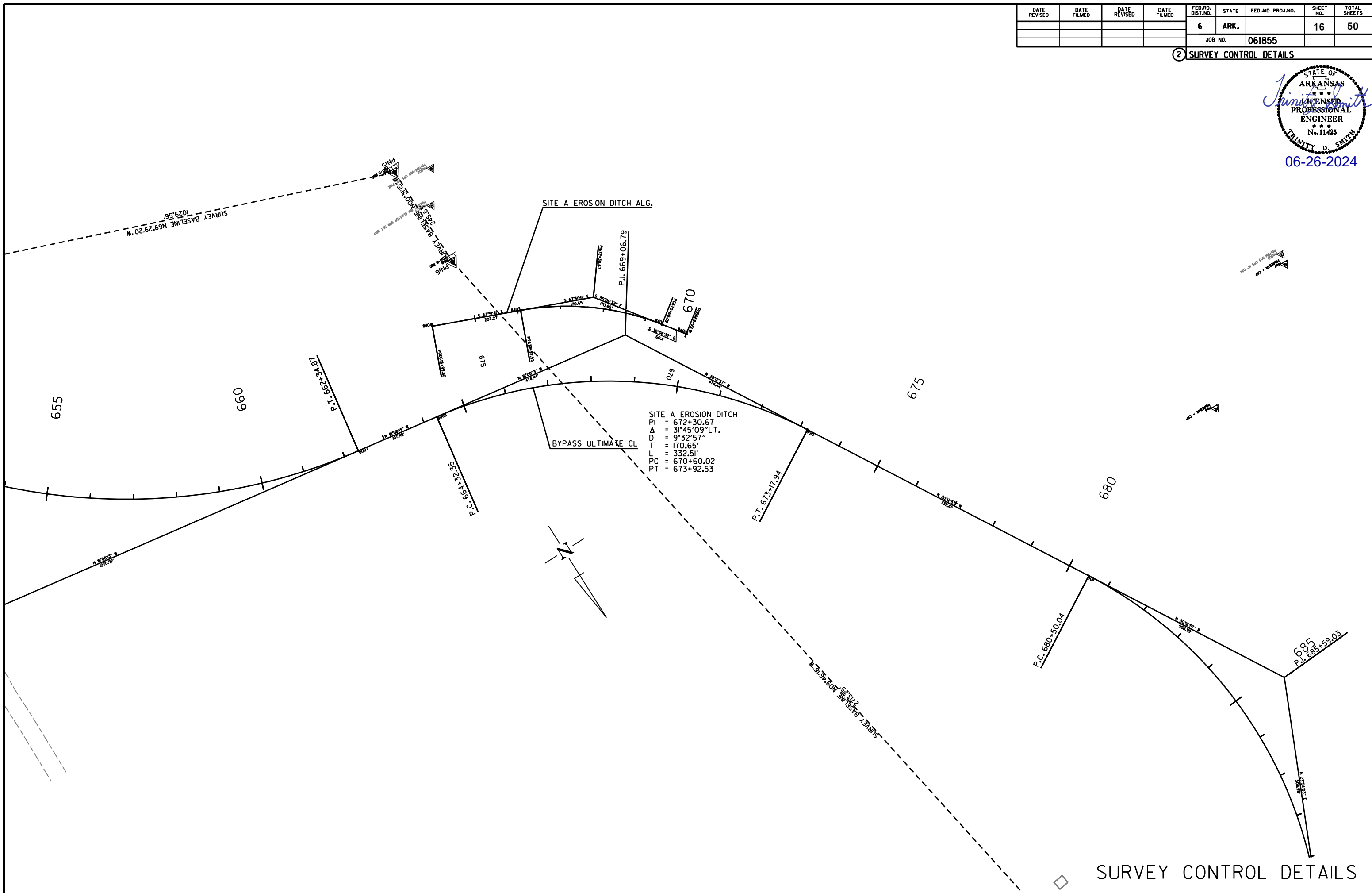
6/19/2024 R061855.DCN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		16	50
				JOB NO.		061855		

② SURVEY CONTROL DETAILS



06-26-2024



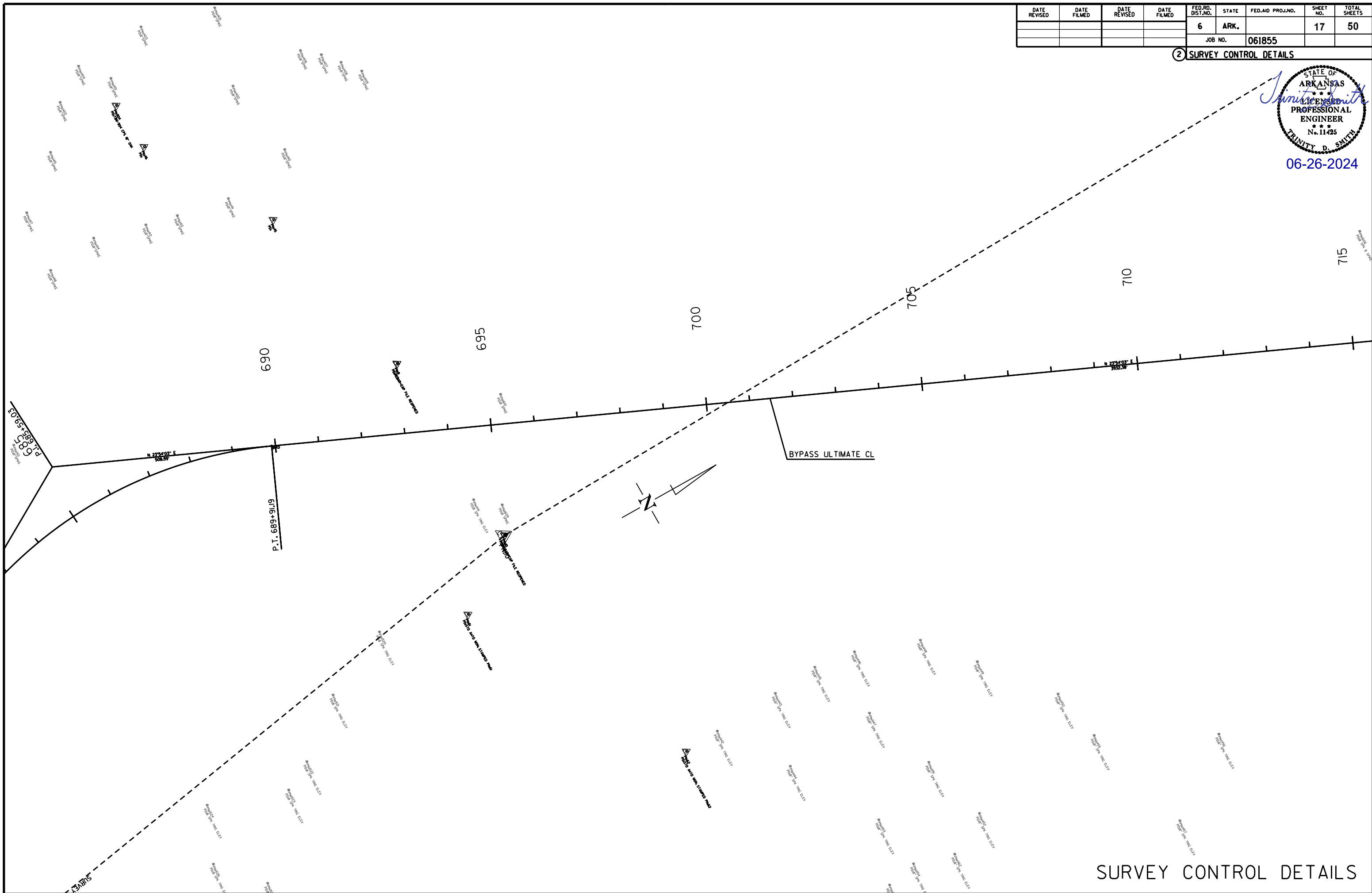
◇ SURVEY CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		17	50
				JOB NO.		061855		

2 SURVEY CONTROL DETAILS



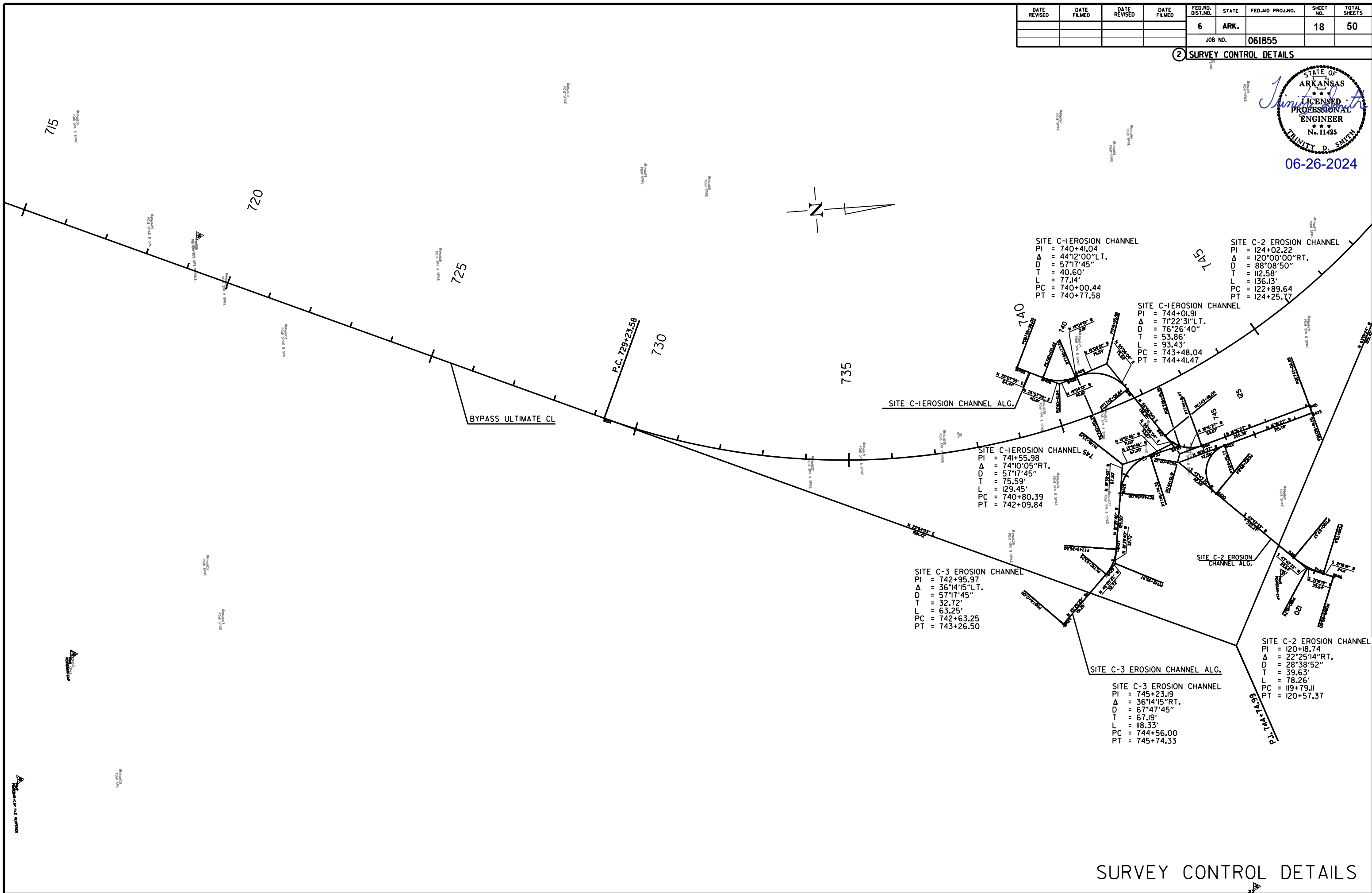
06-26-2024



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.		18	50
				JOB NO.		061855		

2 SURVEY CONTROL DETAILS



SITE C-1 EROSION CHANNEL
 PI = 740+41.04
 Δ = 44°12'00" L.T.
 D = 57°17'45"
 T = 40.60'
 L = 77.14'
 PC = 740+00.44
 PT = 740+77.58

SITE C-2 EROSION CHANNEL
 PI = 124+02.22
 Δ = 120°00'00" R.T.
 D = 88°08'50"
 T = 112.58'
 L = 136.13'
 PC = 122+89.64
 PT = 124+25.77

SITE C-1 EROSION CHANNEL
 PI = 744+01.91
 Δ = 71°22'31" L.T.
 D = 76°26'40"
 T = 53.86'
 L = 93.43'
 PC = 743+48.04
 PT = 744+41.47

SITE C-1 EROSION CHANNEL
 PI = 741+55.98
 Δ = 74°10'05" R.T.
 D = 57°17'45"
 T = 75.59'
 L = 129.45'
 PC = 740+80.39
 PT = 742+09.84

SITE C-3 EROSION CHANNEL
 PI = 742+95.97
 Δ = 36°14'15" L.T.
 D = 57°17'45"
 T = 32.72'
 L = 63.25'
 PC = 742+63.25
 PT = 743+26.50

SITE C-2 EROSION CHANNEL ALG.

SITE C-2 EROSION CHANNEL
 PI = 120+18.74
 Δ = 22°25'14" R.T.
 D = 28°38'52"
 T = 39.63'
 L = 78.26'
 PC = 119+79.11
 PT = 120+57.37

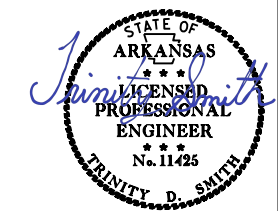
SITE C-3 EROSION CHANNEL ALG.

SITE C-3 EROSION CHANNEL
 PI = 745+23.19
 Δ = 36°14'15" R.T.
 D = 67°47'45"
 T = 67.19'
 L = 118.33'
 PC = 744+56.00
 PT = 745+74.33

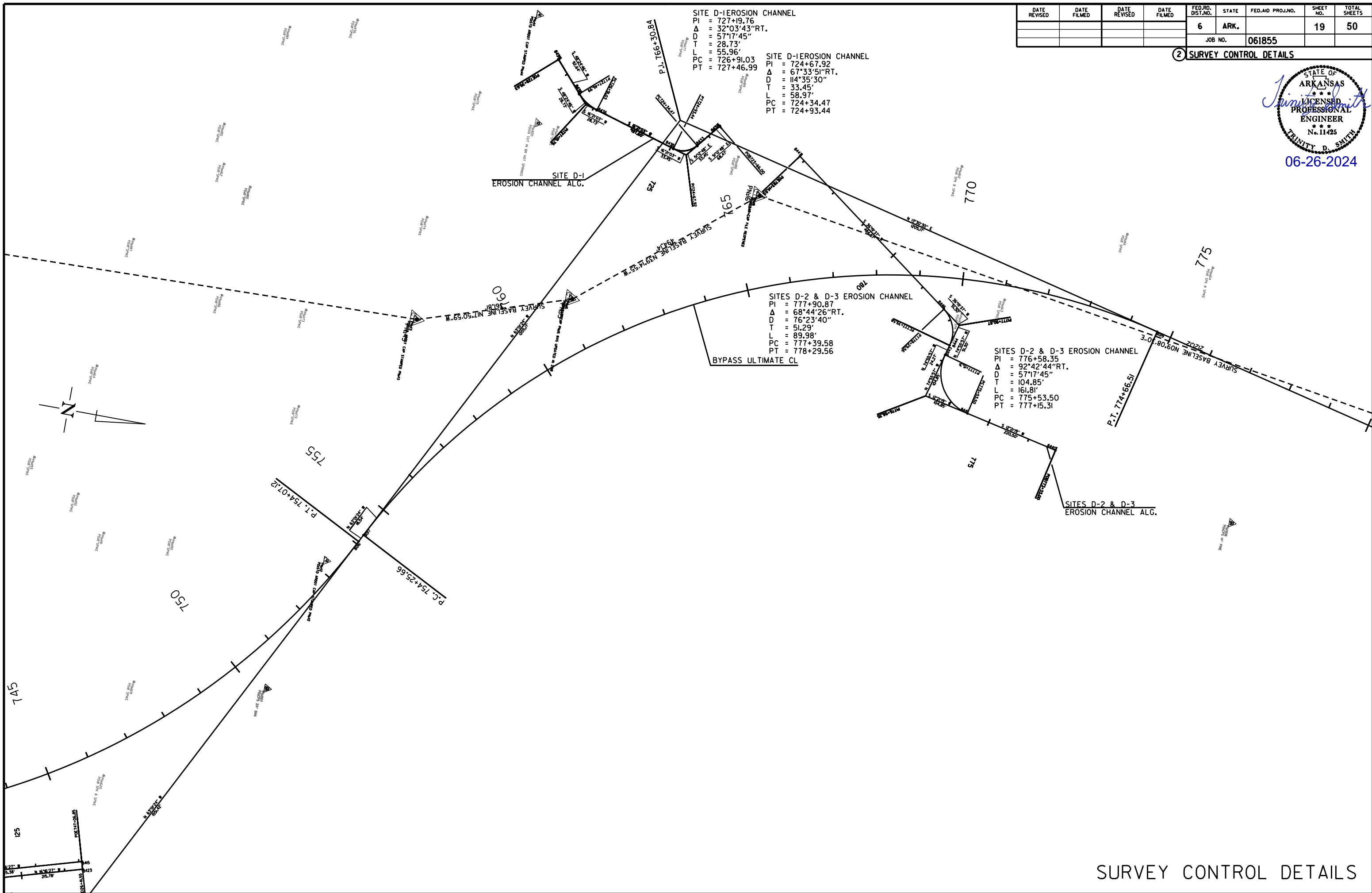
SURVEY CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		19	50
				JOB NO.		061855		

2 SURVEY CONTROL DETAILS



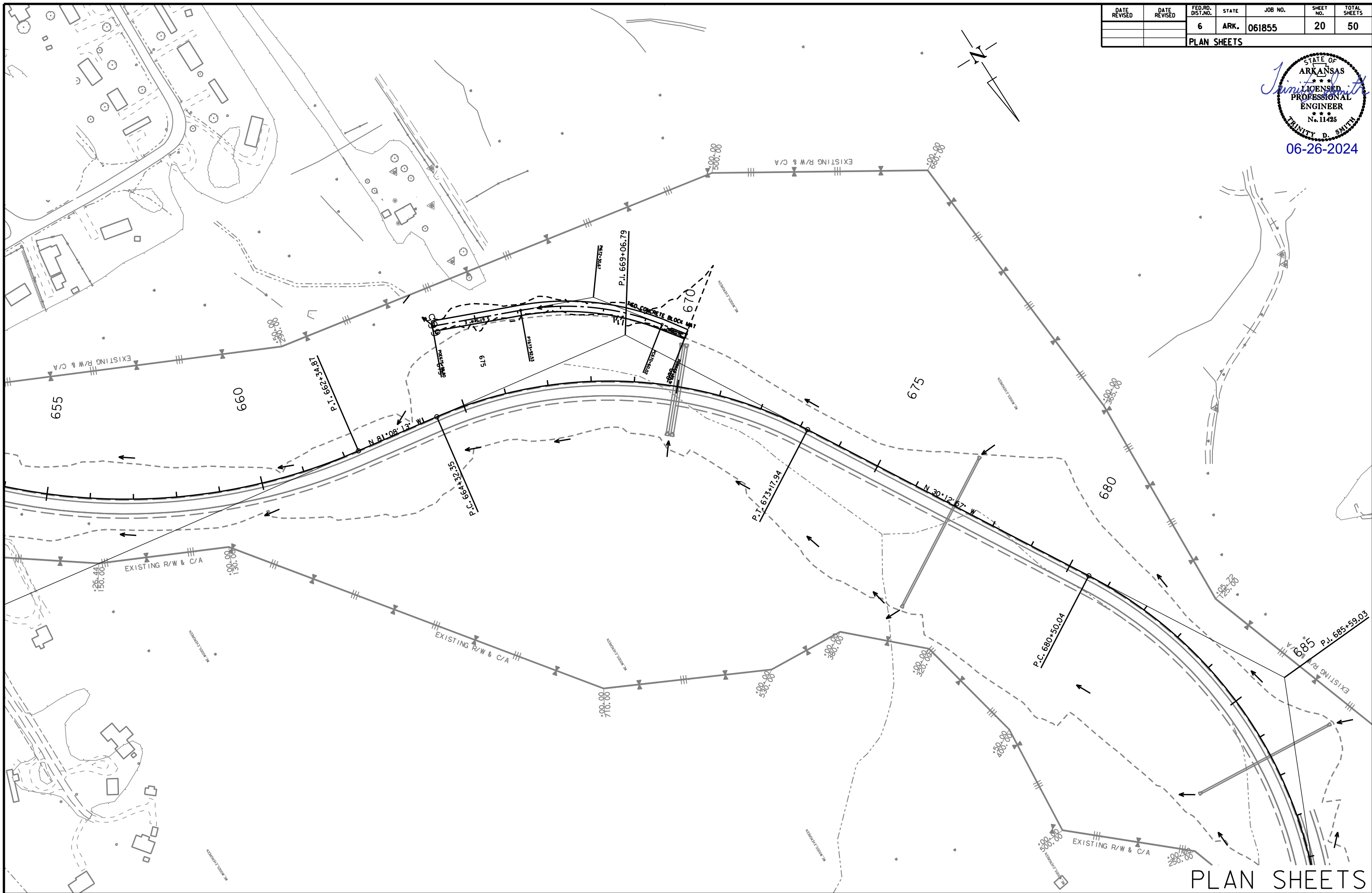
06-26-2024



SURVEY CONTROL DETAILS

6/20/2024 R061855.DCN

DATE REVISION	DATE REVISION	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	20	50
PLAN SHEETS						



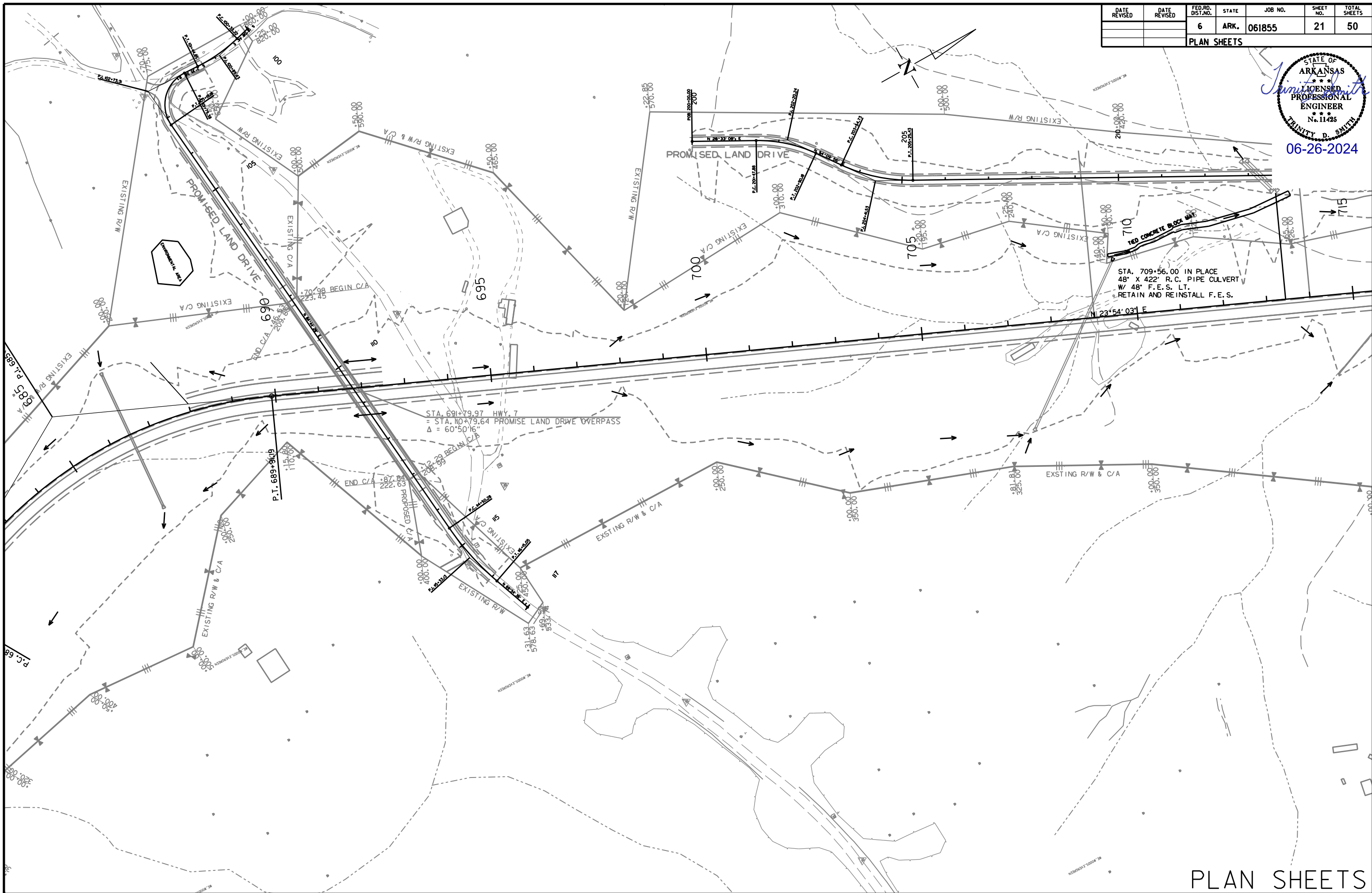
PLAN SHEETS

rb4.3088 6/19/2024 R061855.DCN MicroStation v8.11.9.578

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	21	50
PLAN SHEETS						



06-26-2024



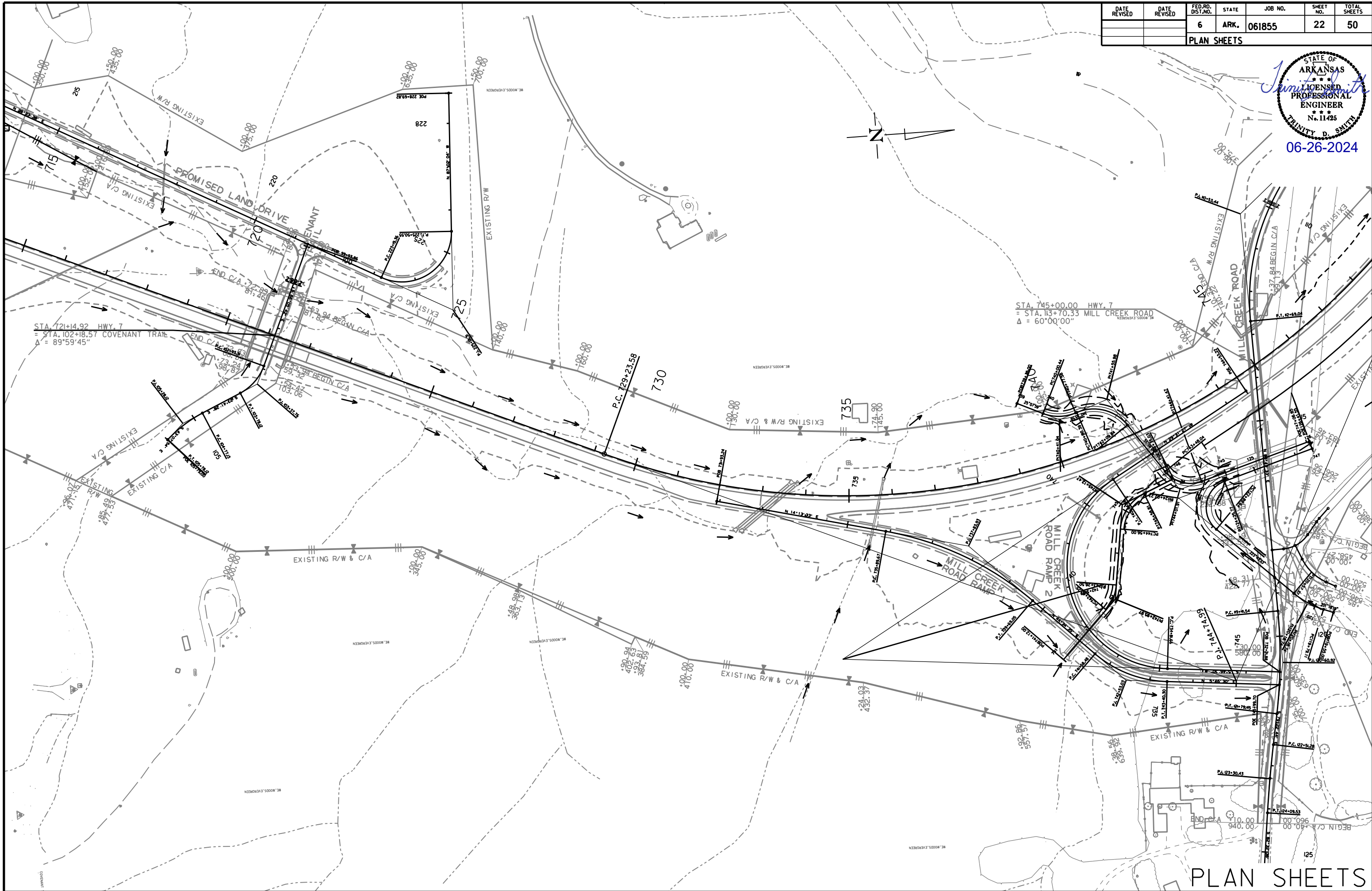
PLAN SHEETS

rb43088 6/19/2024 R061855.DCN MicroStation v8.11.9.578

DATE REVISID	DATE REVISID	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	22	50
PLAN SHEETS						



06-26-2024



PLAN SHEETS

rb43088 6/19/2024 R061855.DCN MicroStation v8.11.9.578

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	23	50
PLAN SHEETS						



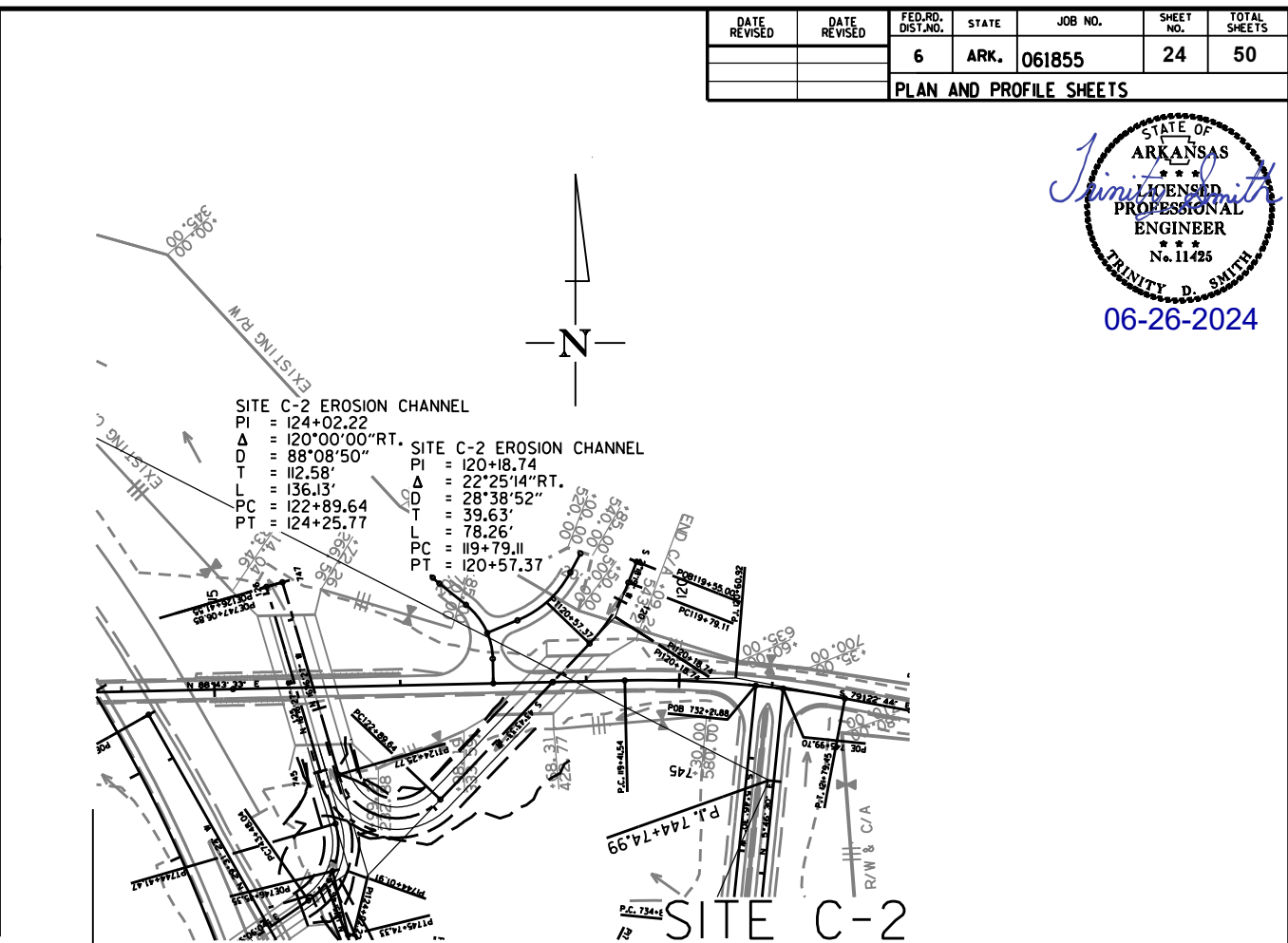
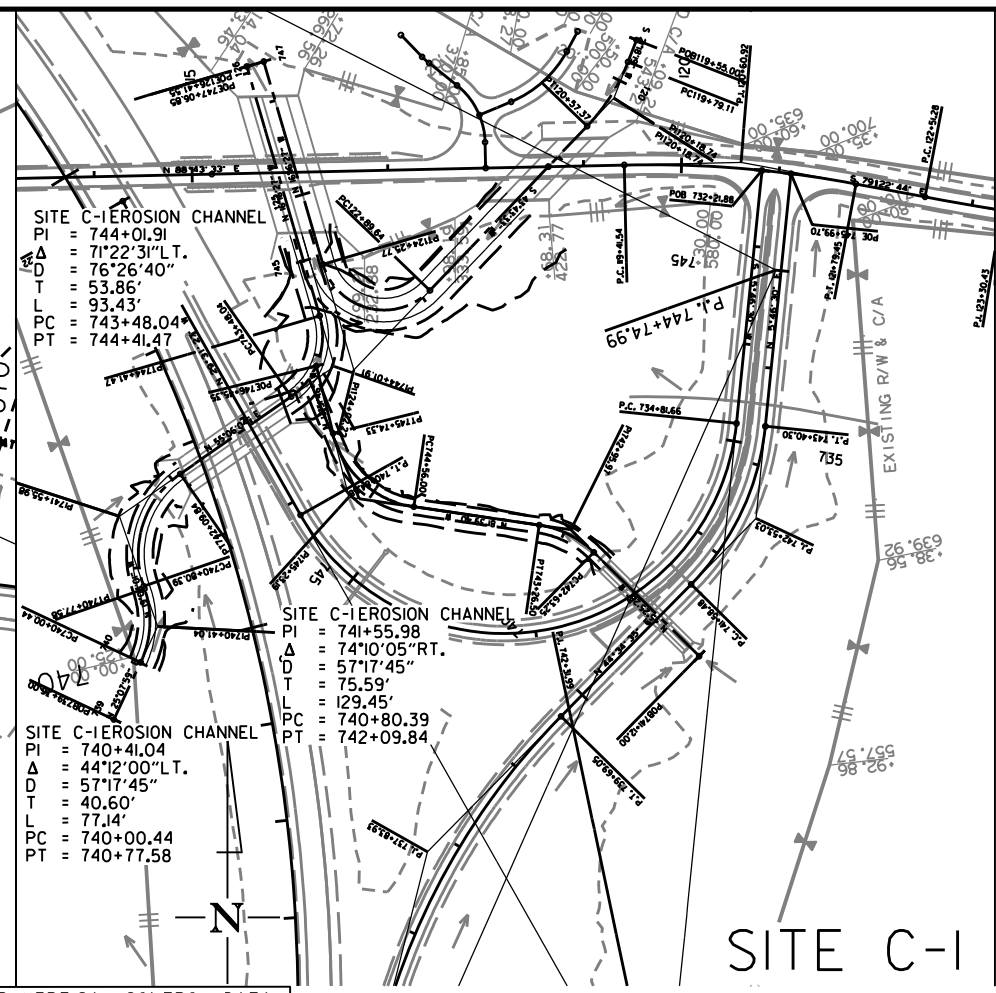
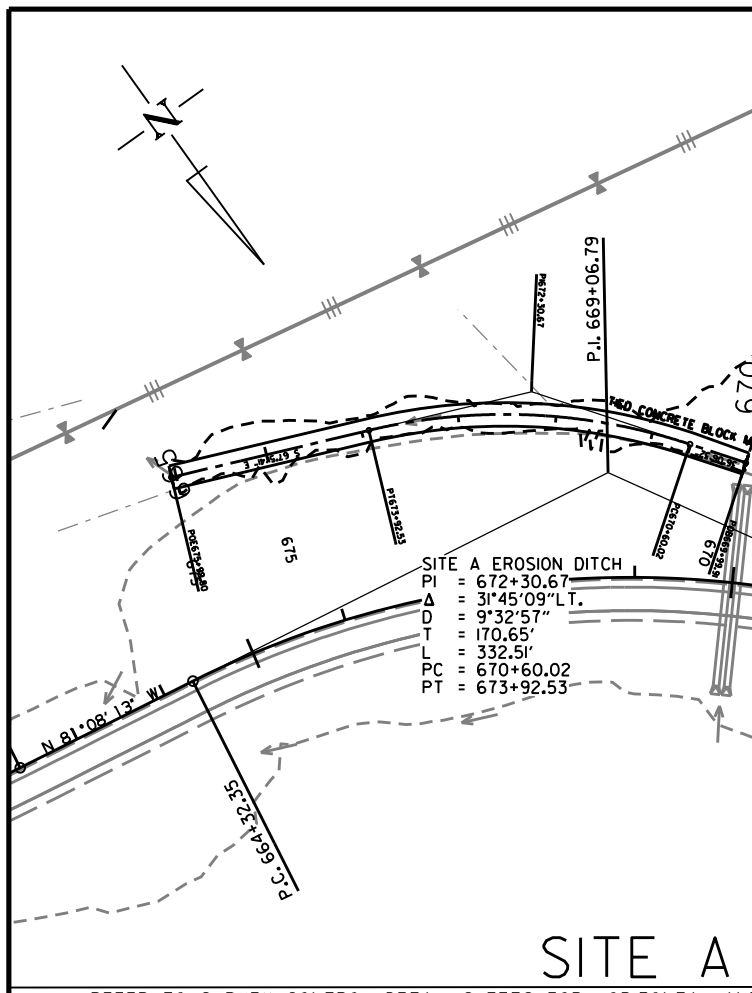
06-26-2024



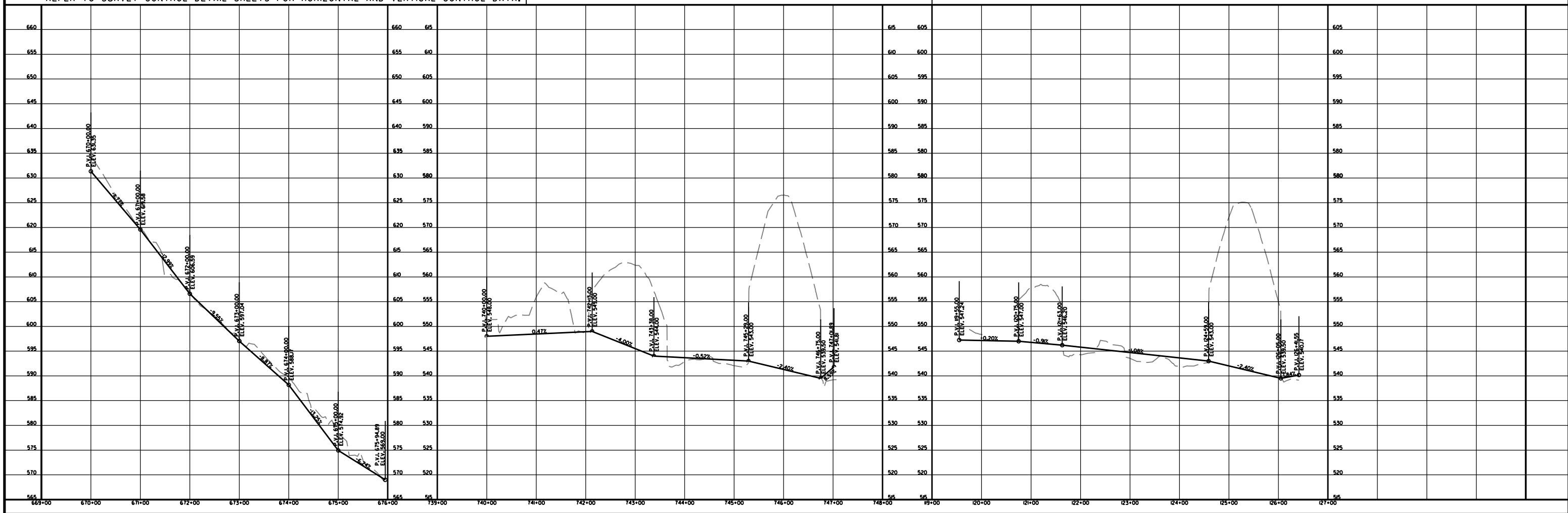
PLAN SHEETS

rb4.3088 6/19/2024 R061855.DCN MicroStation v8.11.9.578

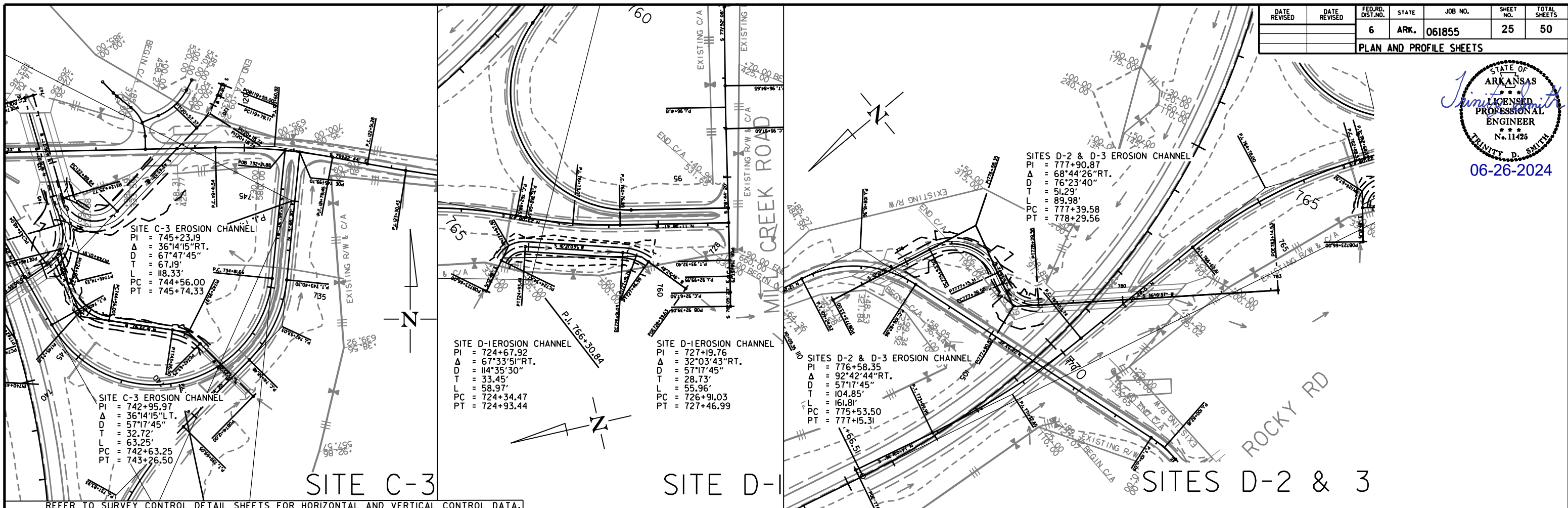
DATE REVISION	DATE REVISION	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	24	50
PLAN AND PROFILE SHEETS						



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



DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	25	50
PLAN AND PROFILE SHEETS						



SITE C-3 EROSION CHANNEL
 PI = 745+23.19
 $\Delta = 36^{\circ}14'15''$ RT.
 D = 67'47'45"
 T = 67.19'
 L = 118.33'
 PC = 744+56.00
 PT = 745+74.33

SITE C-3 EROSION CHANNEL
 PI = 742+95.97
 $\Delta = 36^{\circ}14'15''$ LT.
 D = 57'17'45"
 T = 32.72'
 L = 63.25'
 PC = 742+63.25
 PT = 743+26.50

SITE D-1 EROSION CHANNEL
 PI = 724+67.92
 $\Delta = 67^{\circ}33'51''$ RT.
 D = 114'35'30"
 T = 33.45'
 L = 58.97'
 PC = 724+34.47
 PT = 724+93.44

SITE D-1 EROSION CHANNEL
 PI = 727+19.76
 $\Delta = 32^{\circ}03'43''$ RT.
 D = 57'17'45"
 T = 28.73'
 L = 55.96'
 PC = 726+91.03
 PT = 727+46.99

SITES D-2 & D-3 EROSION CHANNEL
 PI = 776+58.35
 $\Delta = 92^{\circ}42'44''$ RT.
 D = 57'17'45"
 T = 104.85'
 L = 161.81'
 PC = 775+53.50
 PT = 777+15.31

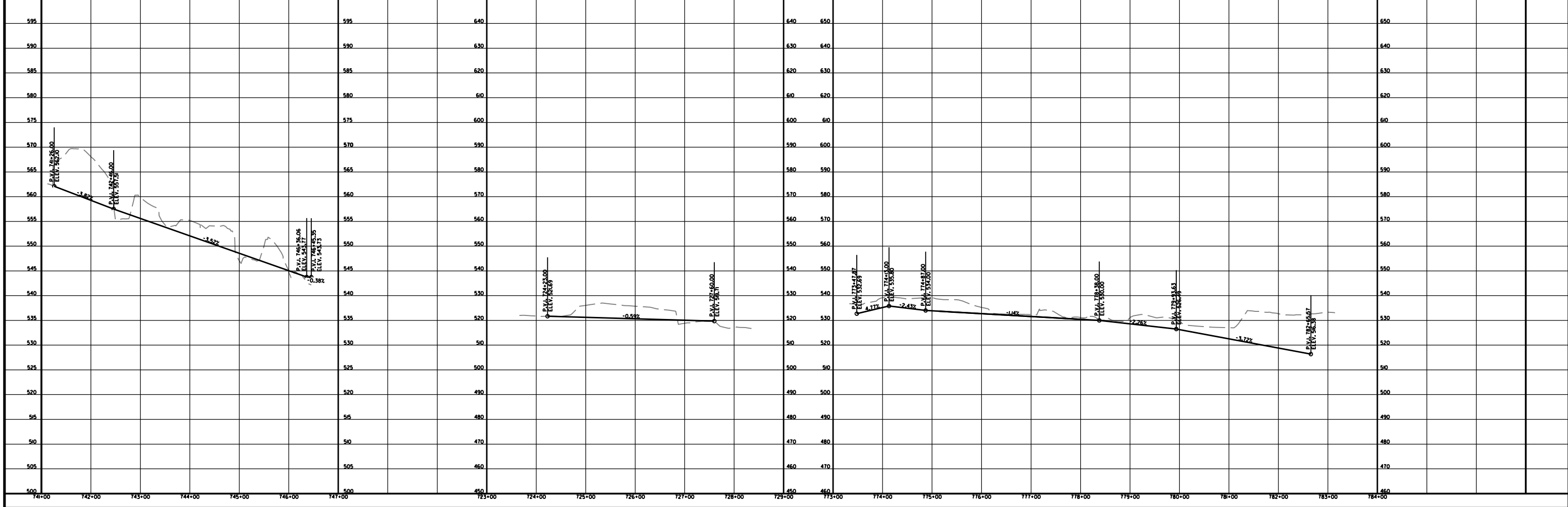
SITES D-2 & D-3 EROSION CHANNEL
 PI = 777+90.87
 $\Delta = 68^{\circ}44'26''$ RT.
 D = 76'23'40"
 T = 51.29'
 L = 89.98'
 PC = 777+39.58
 PT = 778+29.56

SITE C-3

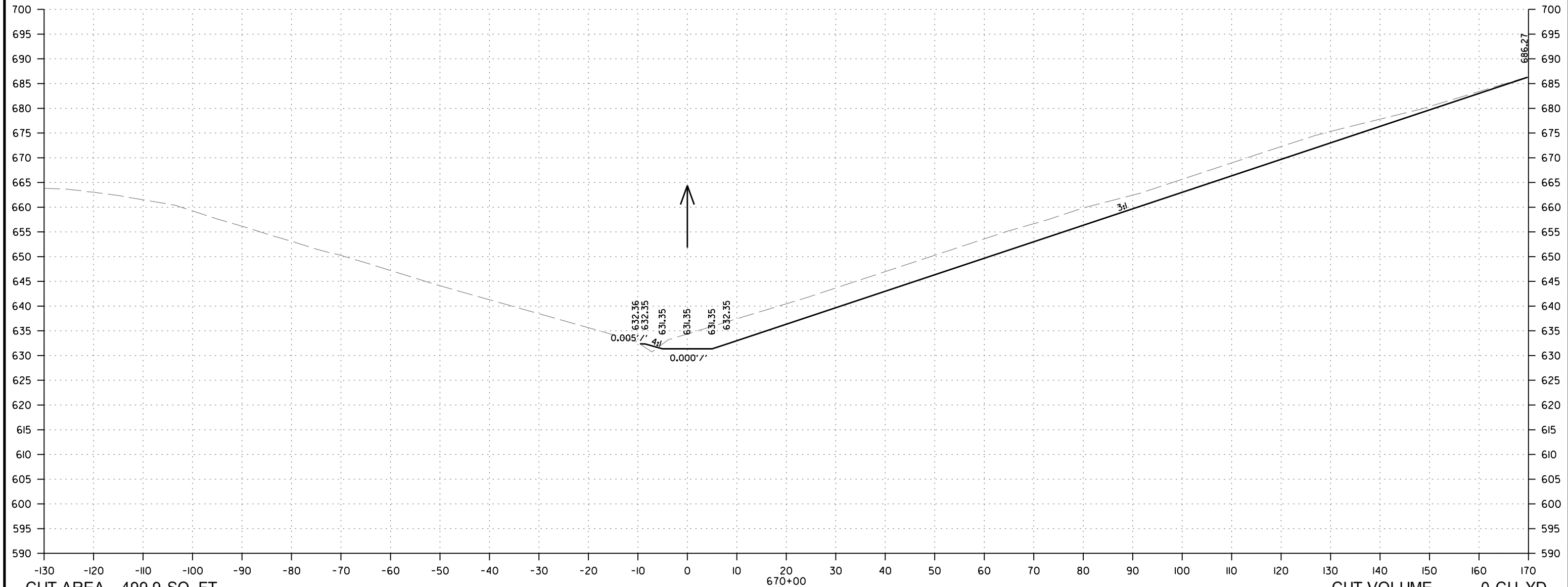
SITE D-1

SITES D-2 & 3

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



DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	26	50
CROSS SECTIONS						



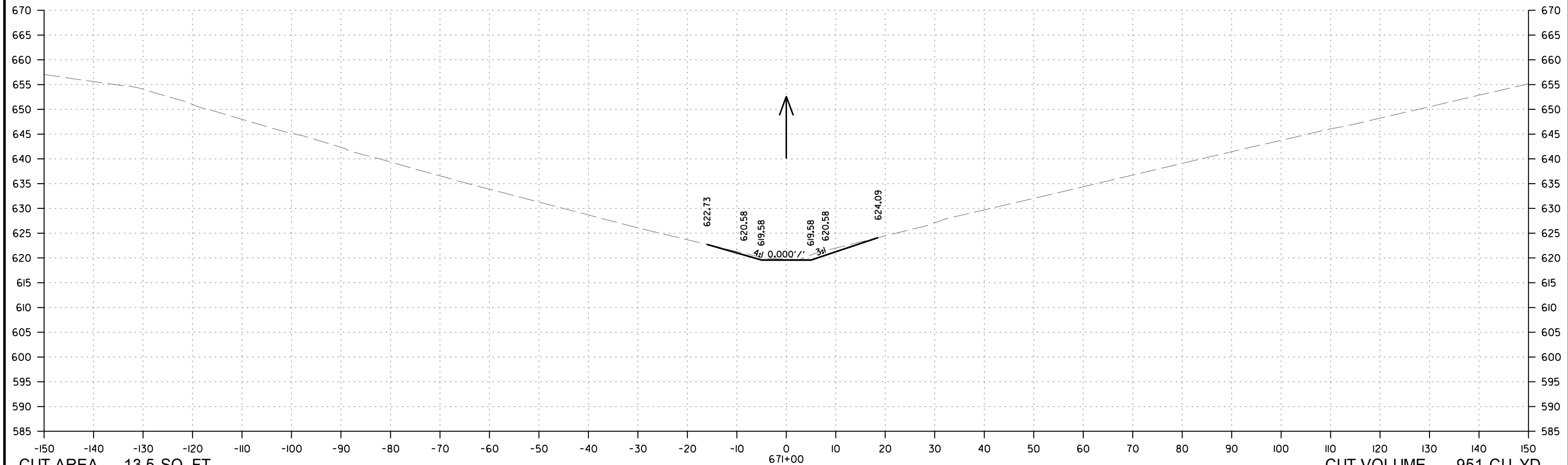
CUT AREA 499.9 SQ. FT.
 FILL AREA 2.47 SQ. FT.

CUT VOLUME 0 CU. YD.
 FILL VOLUME 0 CU. YD.
 SITE A

CROSS SECTION STA. 670+00 TO STA. 670+00

rb43088 6/19/2024 R061855.DCN MicroStation v8.11.9.578

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	27	50
CROSS SECTIONS						



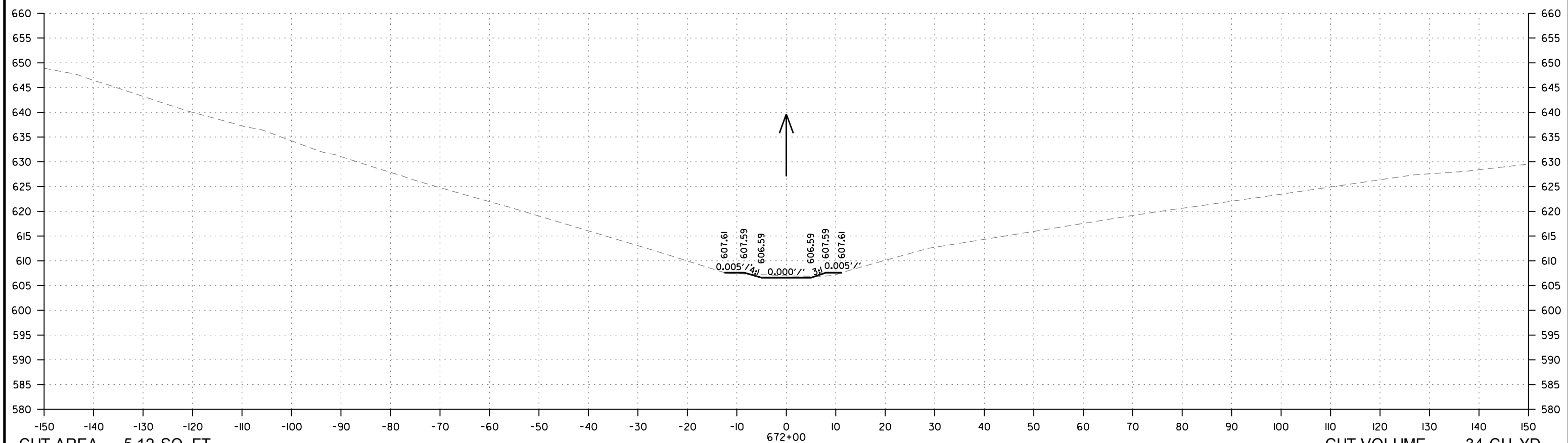
CUT AREA 13.5 SQ. FT.
 FILL AREA 0 SQ. FT.

CUT VOLUME 951 CU. YD.
 FILL VOLUME 5 CU. YD.

SITE A
 CROSS SECTION STA. 671+00 TO STA. 671+00

rb43088 6/19/2024
 R061855.DCN

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	28	50
CROSS SECTIONS						



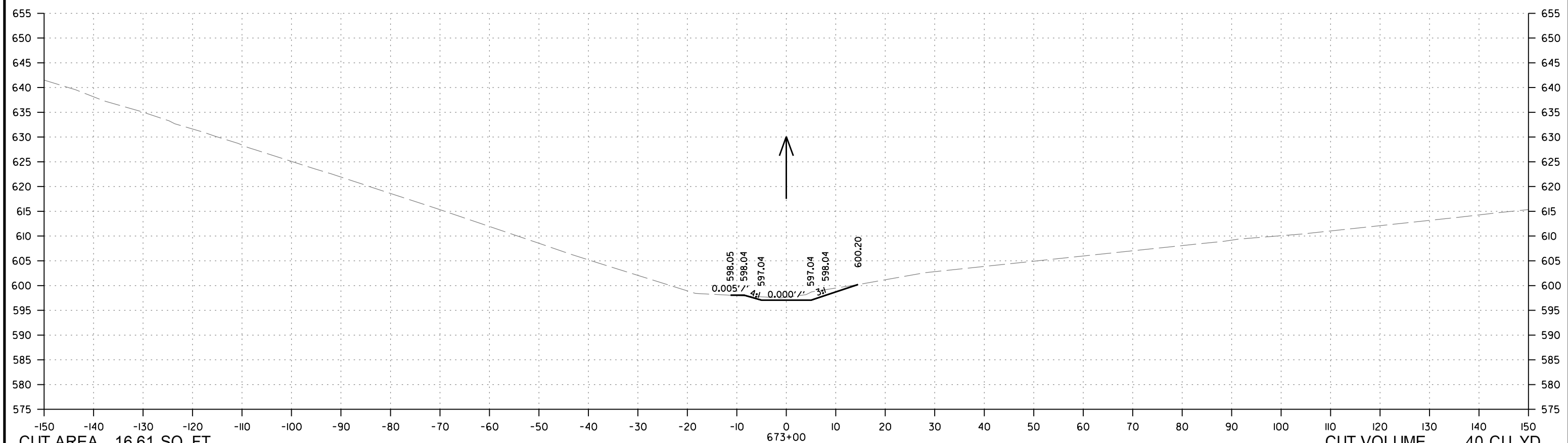
CUT AREA 5.12 SQ. FT.
 FILL AREA 2.89 SQ. FT.

CUT VOLUME 34 CU. YD.
 FILL VOLUME 5 CU. YD.

SITE A
 CROSS SECTION STA. 672+00 TO STA. 672+00

6/19/2024
 rb43088
 R061855.DCN

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	29	50
CROSS SECTIONS						



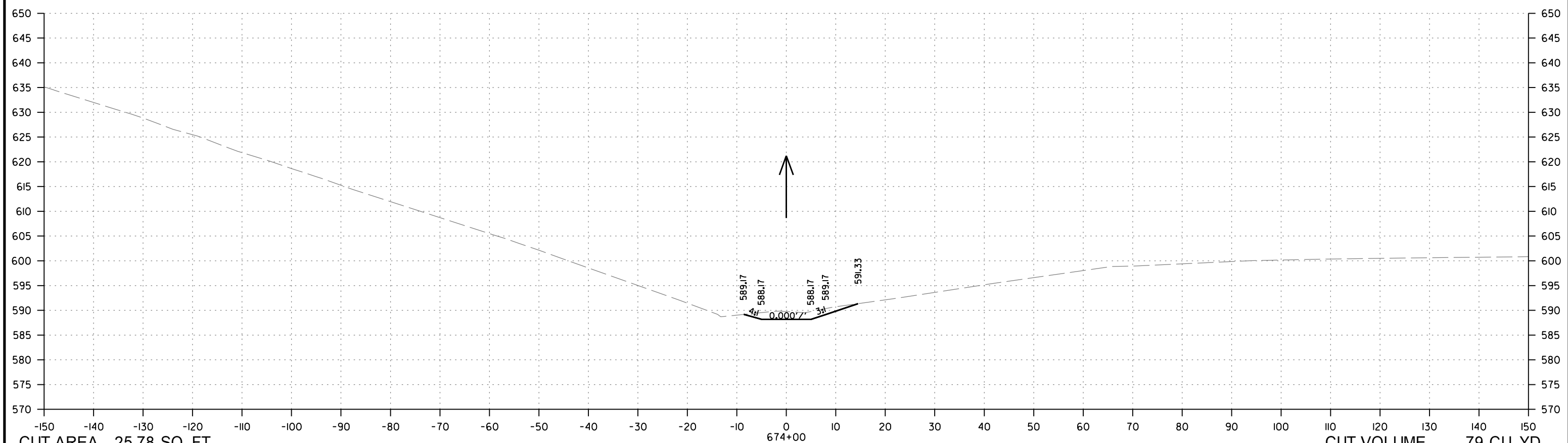
CUT AREA 16.61 SQ. FT.
 FILL AREA 0.21 SQ. FT.

CUT VOLUME 40 CU. YD.
 FILL VOLUME 6 CU. YD.
 SITE A

CROSS SECTION STA. 673+00 TO STA. 673+00

rb43088 6/19/2024
 R061855.DCN

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	30	50
CROSS SECTIONS						



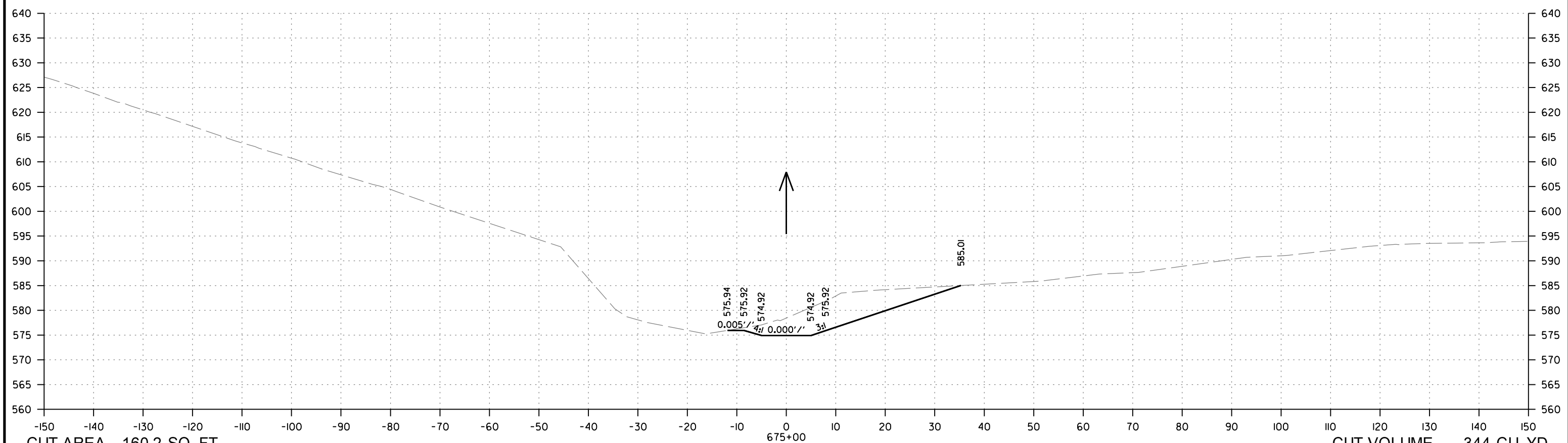
CUT AREA 25.78 SQ. FT.
 FILL AREA 0 SQ. FT.

CUT VOLUME 79 CU. YD.
 FILL VOLUME 0 CU. YD.

SITE A
 CROSS SECTION STA. 674+00 TO STA. 674+00

rb4-3088 6/19/2024
 R061855.DCN

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	31	50
CROSS SECTIONS						



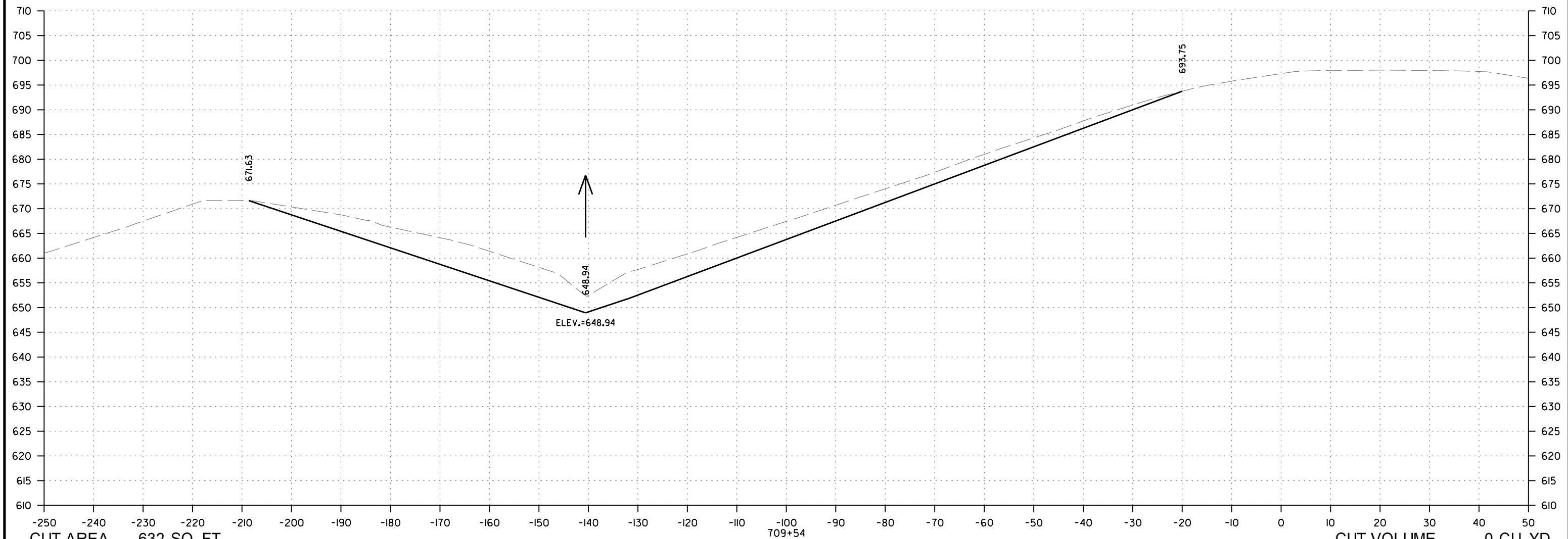
CUT AREA 160.2 SQ. FT.
 FILL AREA 0 SQ. FT.

CUT VOLUME 344 CU. YD.
 FILL VOLUME 0 CU. YD.

SITE A
 CROSS SECTION STA. 675+00 TO STA. 675+00

rb43088 6/19/2024
 R061855.DCN

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	32	50
CROSS SECTIONS						



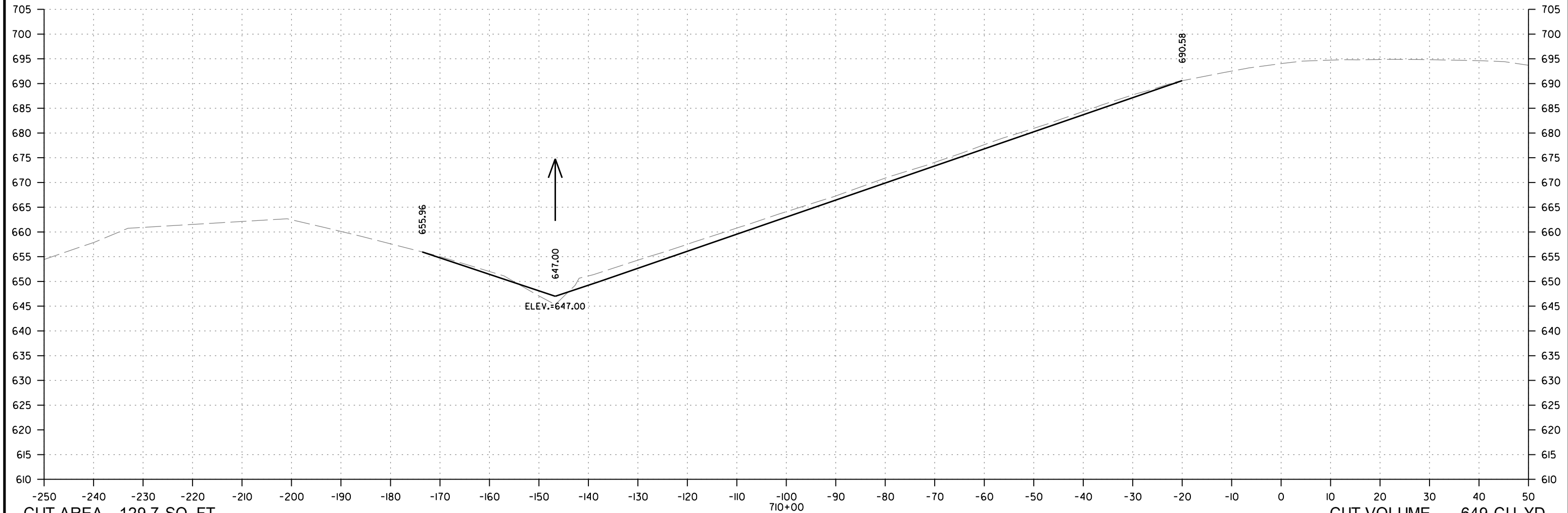
CUT AREA 632 SQ. FT.
 FILL AREA 0 SQ. FT.

CUT VOLUME 0 CU. YD.
 FILL VOLUME 0 CU. YD.

SITE B
 CROSS SECTION STA. 709+54 TO STA. 709+54

rb4-3088 6/19/2024
 R061855.DCN

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	33	50
CROSS SECTIONS						



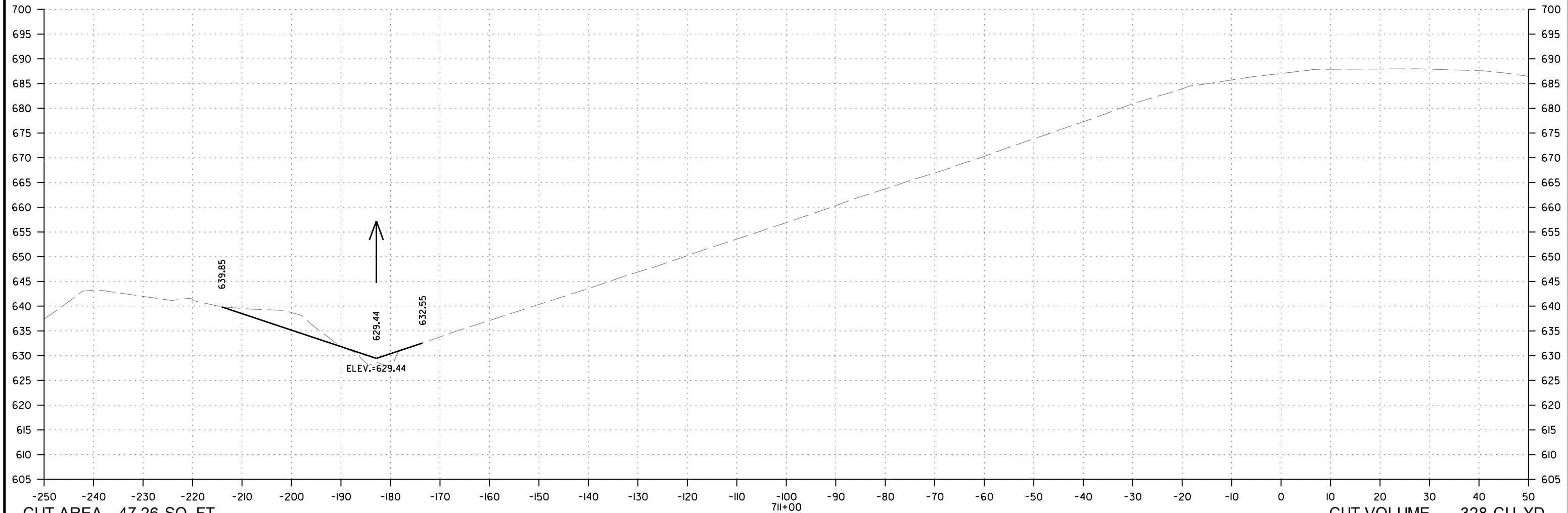
CUT AREA 129.7 SQ. FT.
 FILL AREA 9.01 SQ. FT.

CUT VOLUME 649 CU. YD.
 FILL VOLUME 8 CU. YD.

SITE B
 CROSS SECTION STA. 710+00 TO STA. 710+00

rb4-3088 6/19/2024
 R061855.DCN

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	34	50
CROSS SECTIONS						



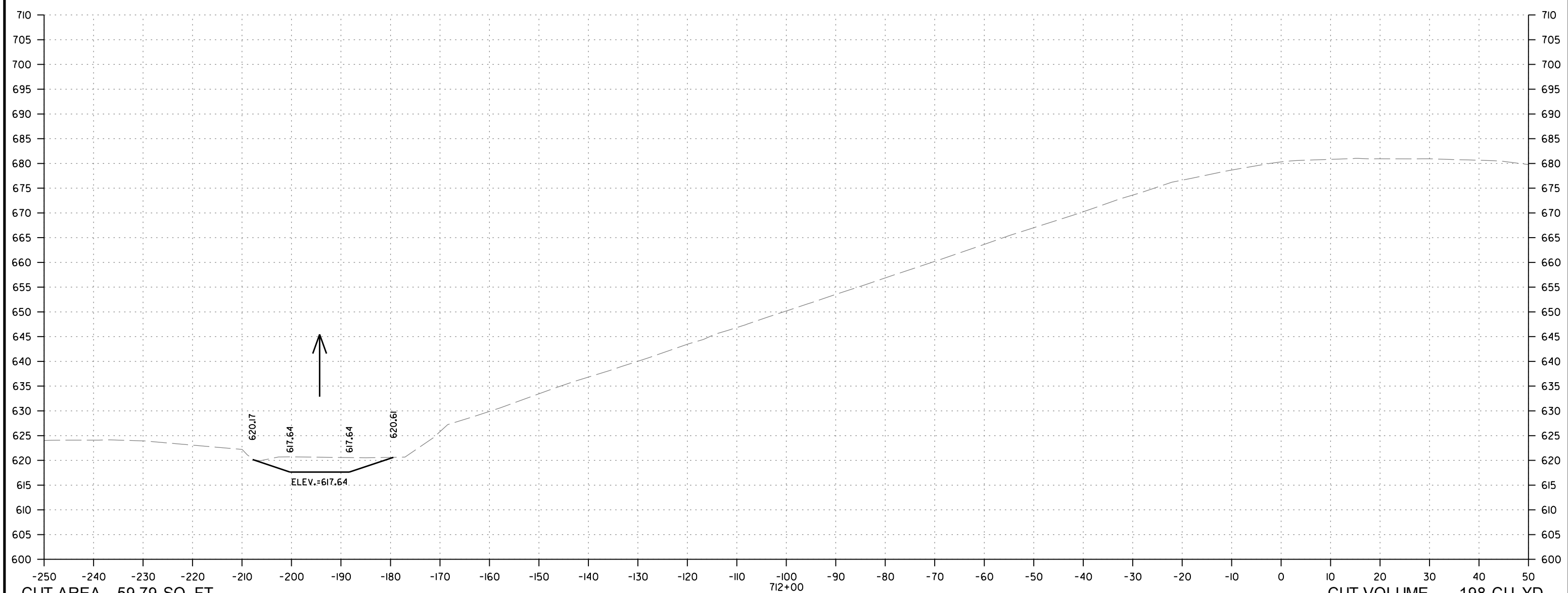
CUT AREA 47.26 SQ. FT.
 FILL AREA 13.1 SQ. FT.

CUT VOLUME 328 CU. YD.
 FILL VOLUME 41 CU. YD.

SITE B
 CROSS SECTION STA. 711+00 TO STA. 711+00

rb43088 6/19/2024
 R061855.DCN

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	35	50
CROSS SECTIONS						



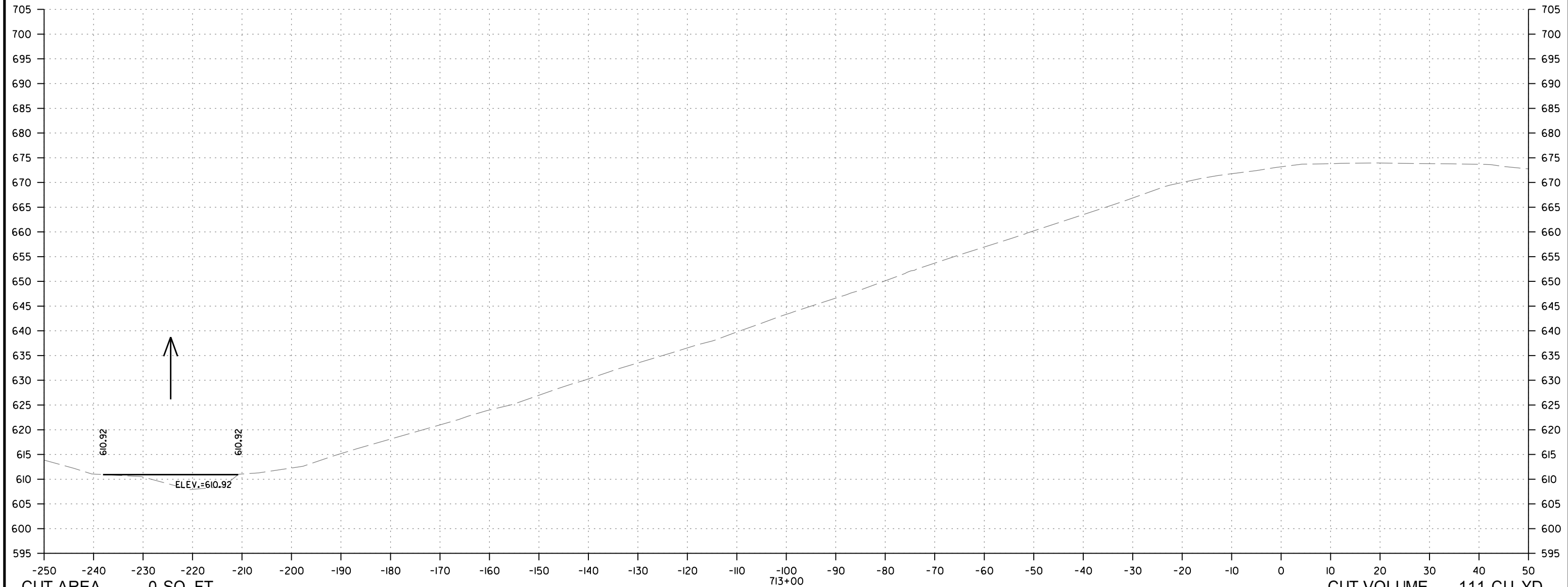
CUT AREA 59.79 SQ. FT.
 FILL AREA 0 SQ. FT.

CUT VOLUME 198 CU. YD.
 FILL VOLUME 24 CU. YD.

SITE B
 CROSS SECTION STA. 712+00 TO STA. 712+00

rb43088 6/19/2024
 R061855.DCN

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	36	50
CROSS SECTIONS						



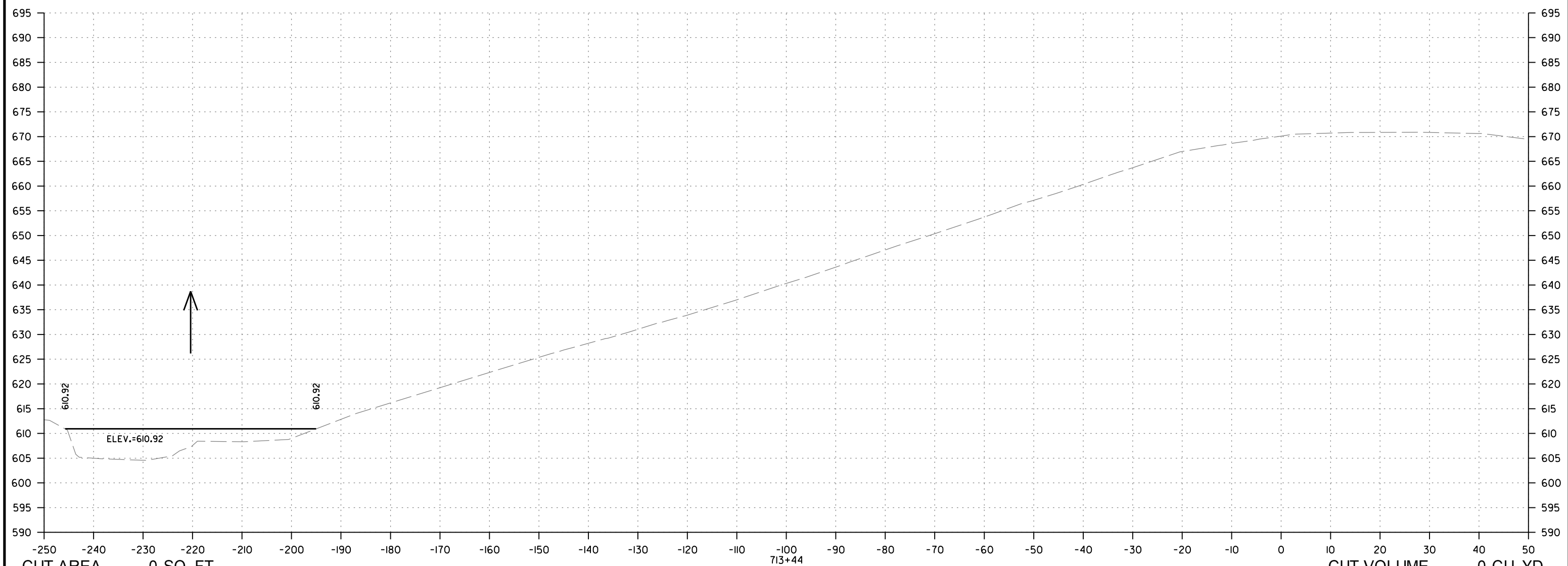
CUT AREA 0 SQ. FT.
 FILL AREA 40.31 SQ. FT.

CUT VOLUME 111 CU. YD.
 FILL VOLUME 75 CU. YD.

SITE B
 CROSS SECTION STA. 713+00 TO STA. 713+00

rb4-3088 6/19/2024
 R061855.DCN

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	37	50
CROSS SECTIONS						



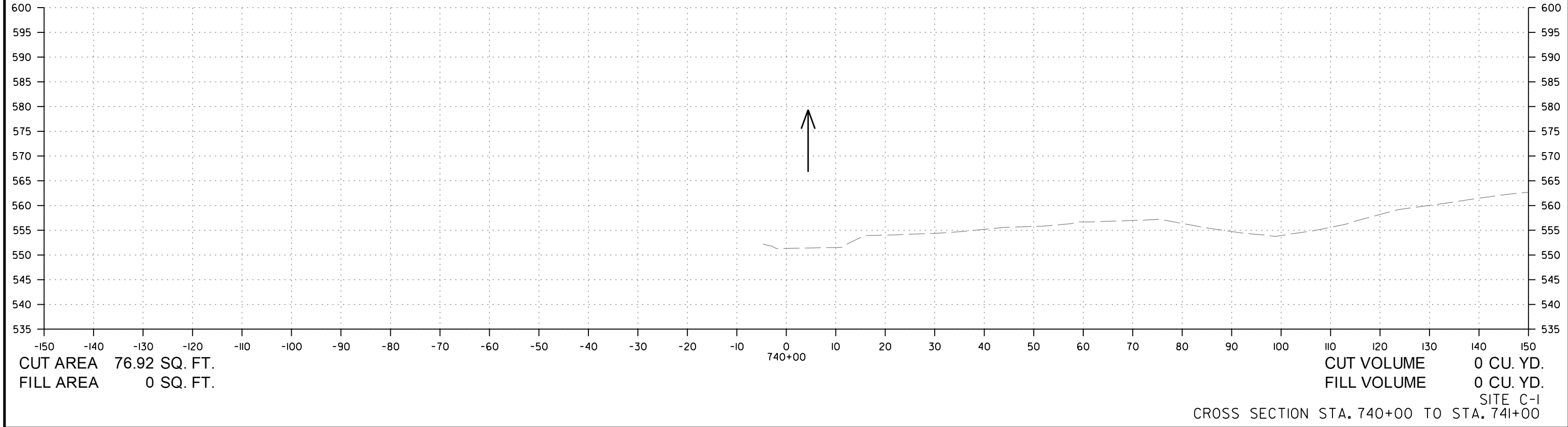
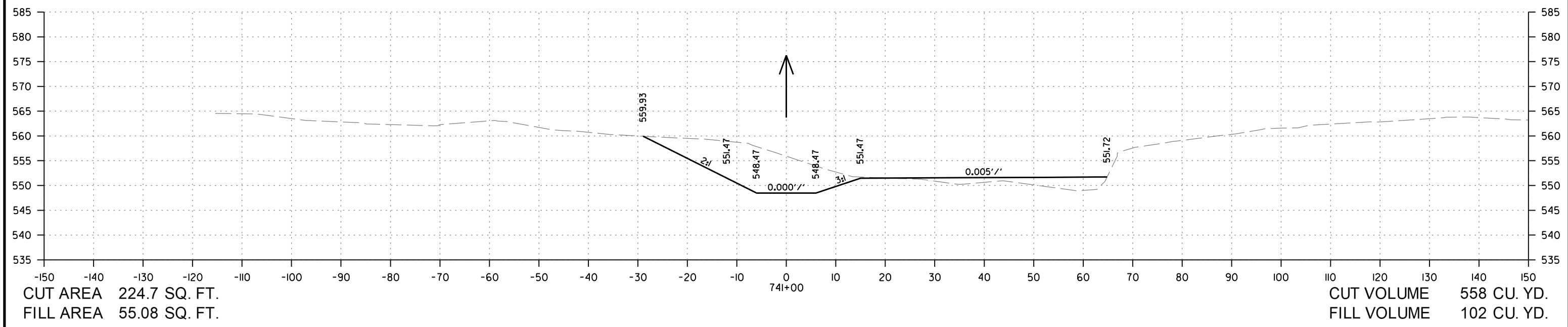
CUT AREA 0 SQ. FT.
 FILL AREA 191.4 SQ. FT.

CUT VOLUME 0 CU. YD.
 FILL VOLUME 189 CU. YD.
 SITE B

CROSS SECTION STA. 713+44 TO STA. 713+44

rb4-3088 6/19/2024
 R061855.DCN

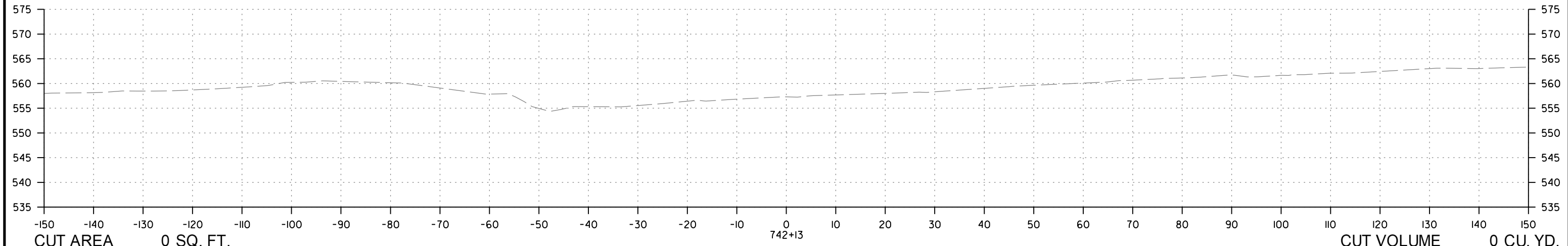
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	38	50
CROSS SECTIONS						



SITE C-1
 CROSS SECTION STA. 740+00 TO STA. 741+00

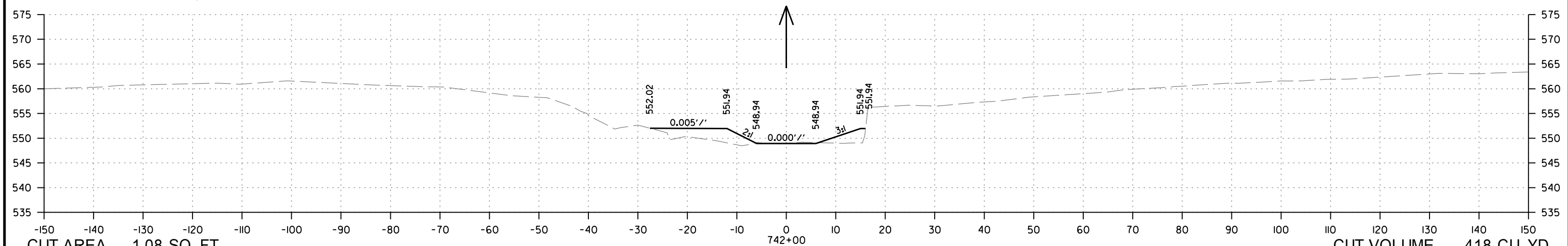
rb43088 6/19/2024
 R061855.DCN

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	39	50
CROSS SECTIONS						



CUT AREA 0 SQ. FT.
 FILL AREA 0 SQ. FT.

CUT VOLUME 0 CU. YD.
 FILL VOLUME 13 CU. YD.



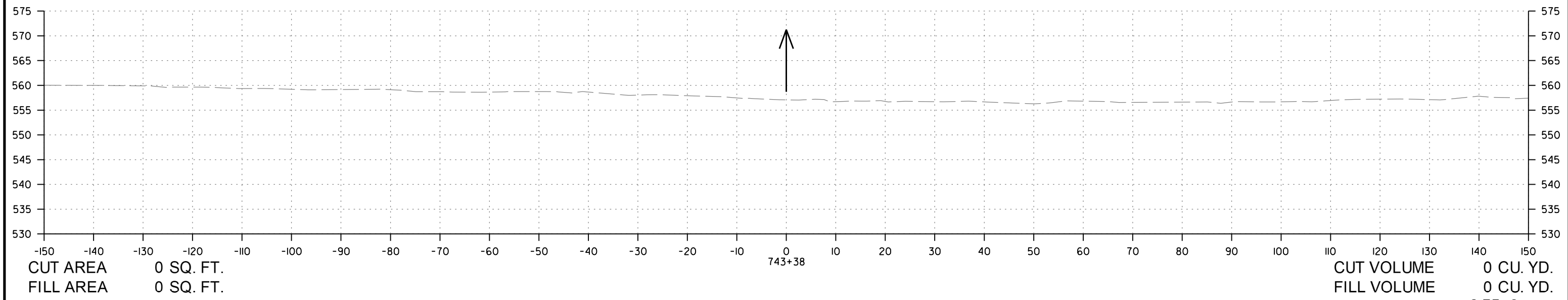
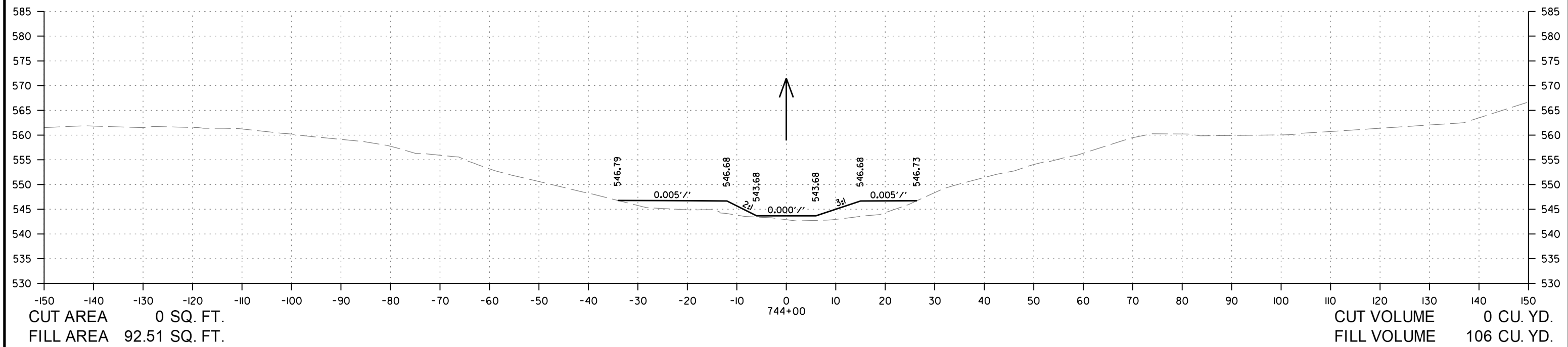
CUT AREA 1.08 SQ. FT.
 FILL AREA 52.5 SQ. FT.

CUT VOLUME 418 CU. YD.
 FILL VOLUME 199 CU. YD.

SITE C-1
 CROSS SECTION STA. 742+00 TO STA. 742+13

rb43088 6/19/2024
 R061855.DCN

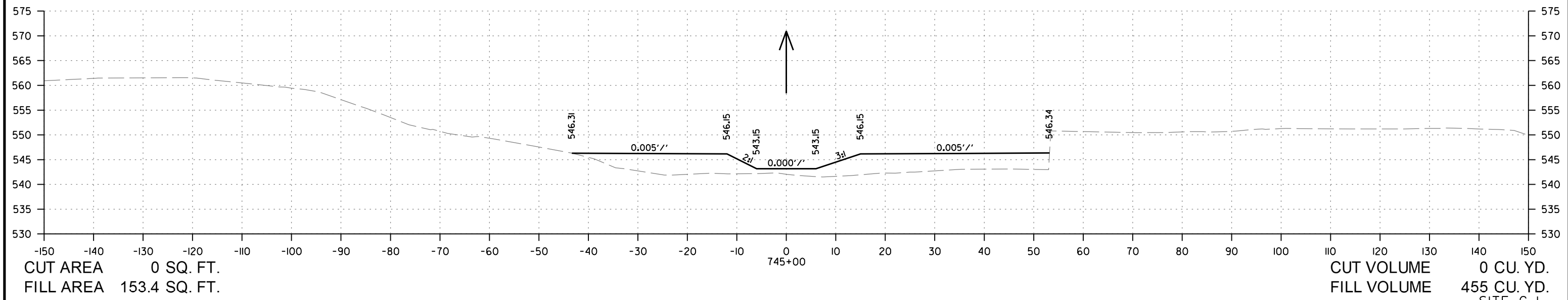
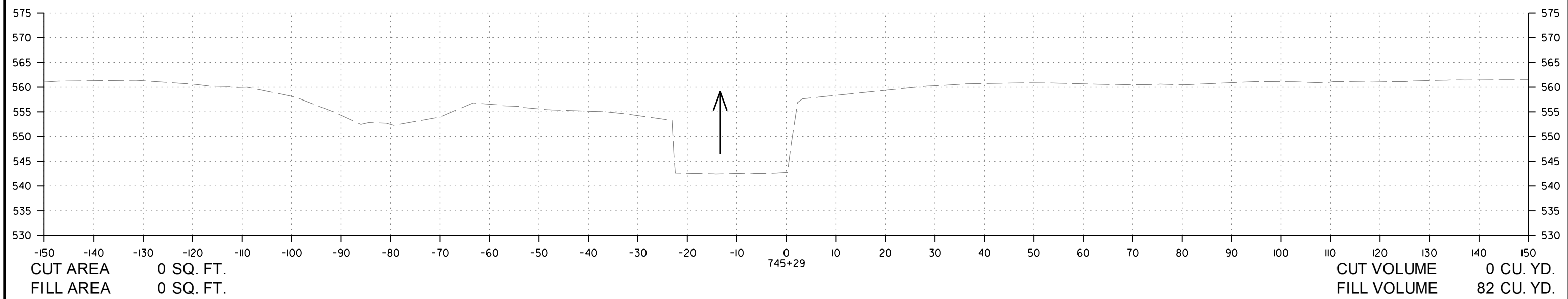
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	40	50
CROSS SECTIONS						



CROSS SECTION STA. 743+38 TO STA. 744+00
SITE C -1

6/19/2024
 R061855.DCN

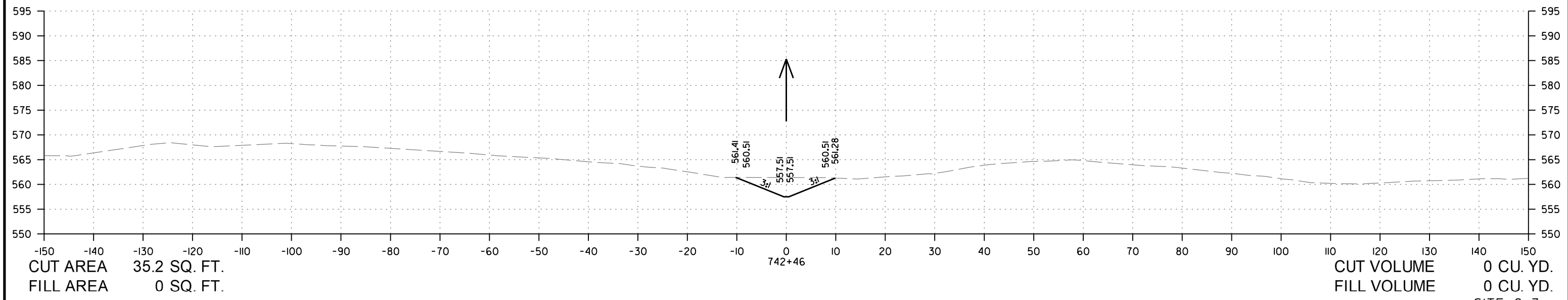
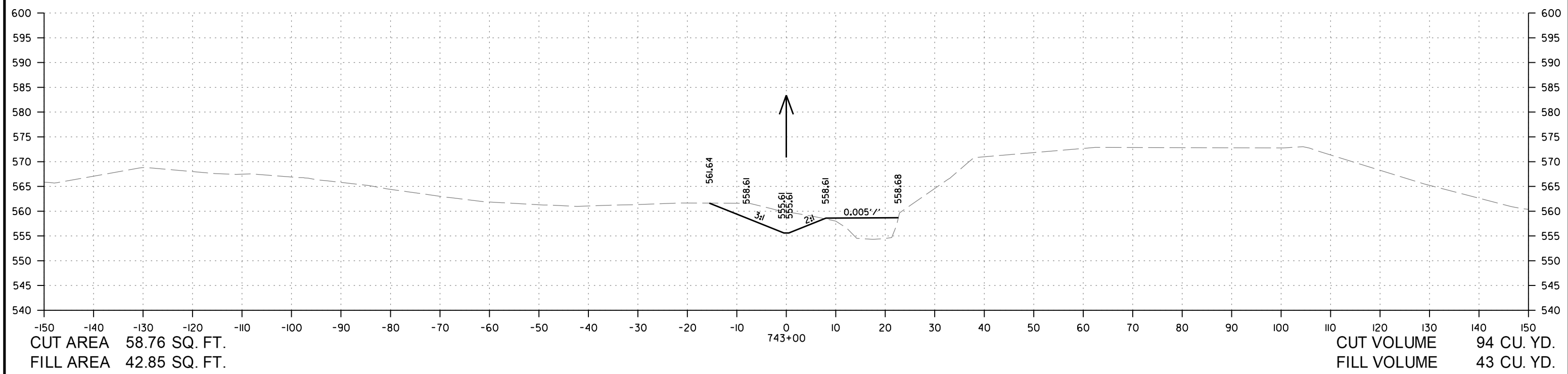
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	41	50
CROSS SECTIONS						



CROSS SECTION STA. 745+00 TO STA. 745+29

rb43088 6/19/2024
R061855.DCN

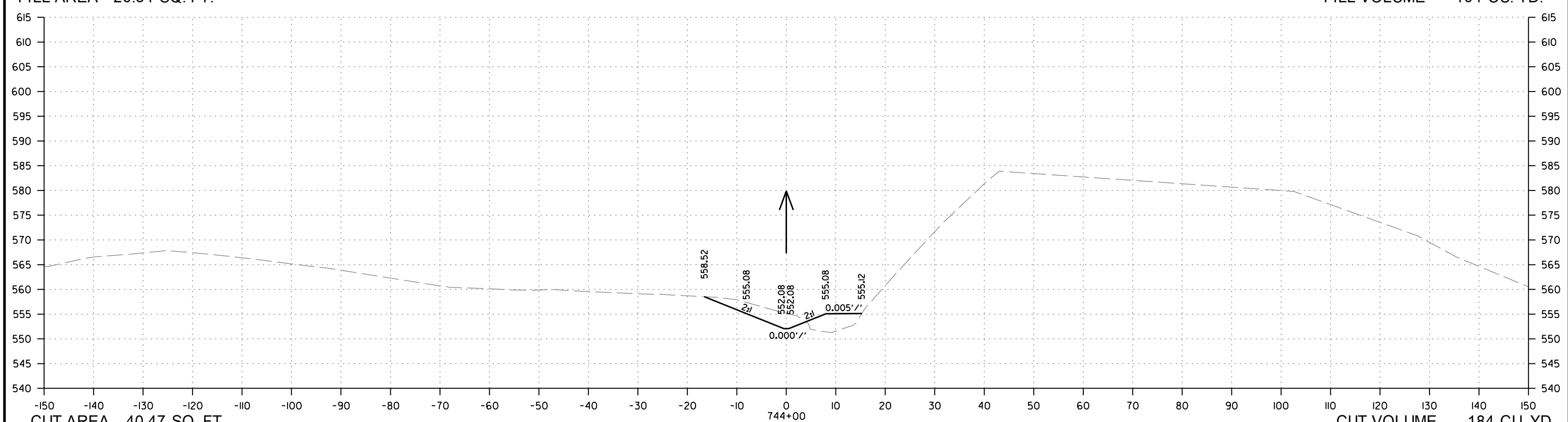
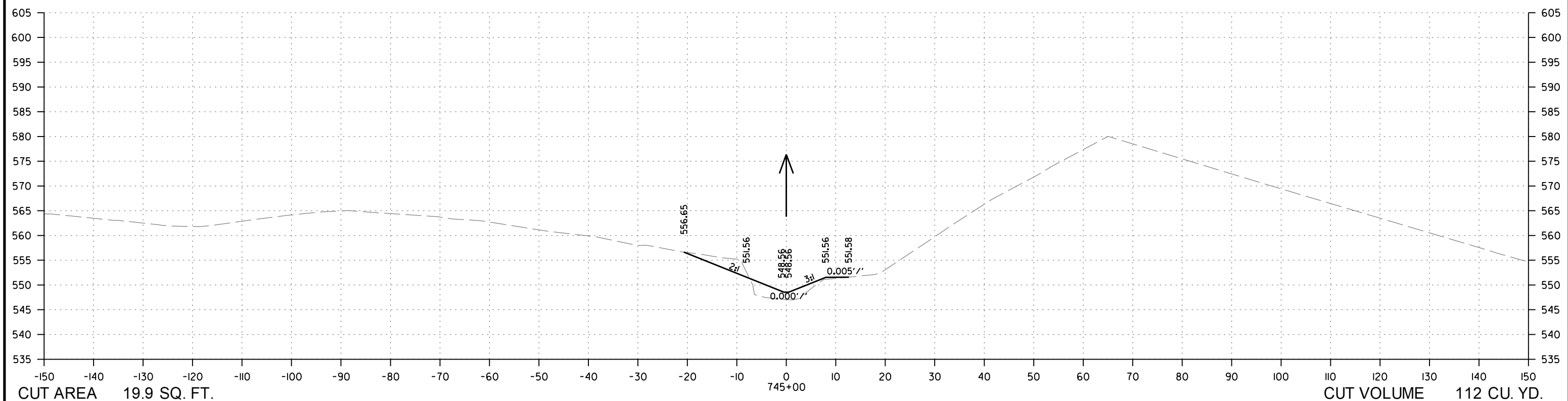
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		6	ARK.	061855	42	50
CROSS SECTIONS						



SITE C-3
 CROSS SECTION STA. 742+46 TO STA. 743+00

rb4-3088 6/19/2024
 R061855.DCN

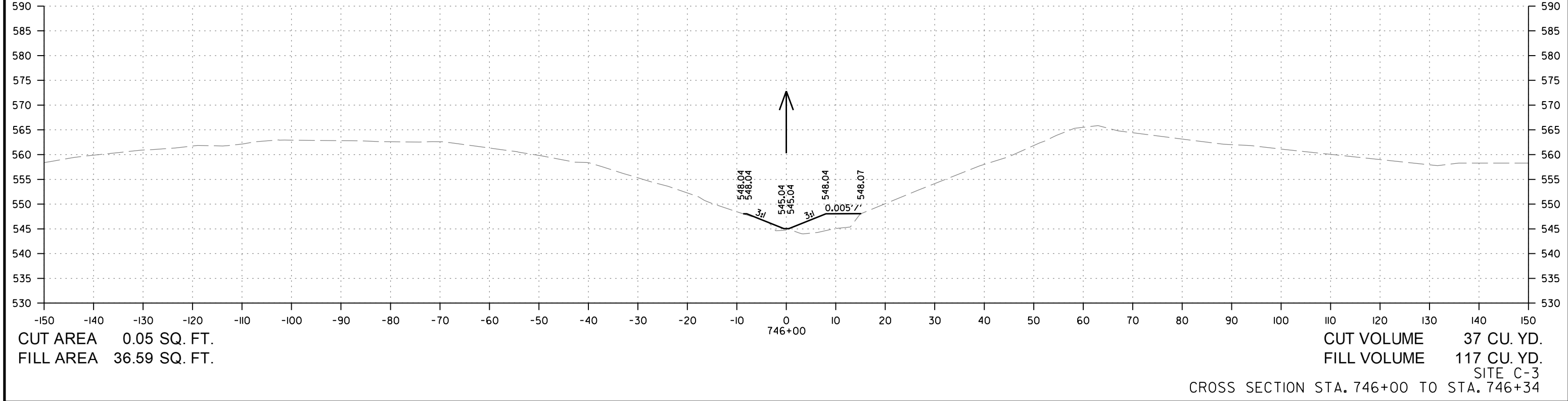
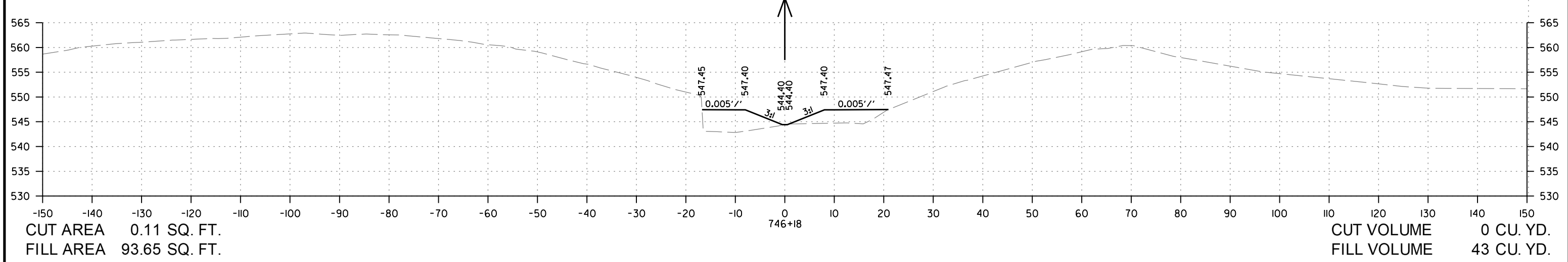
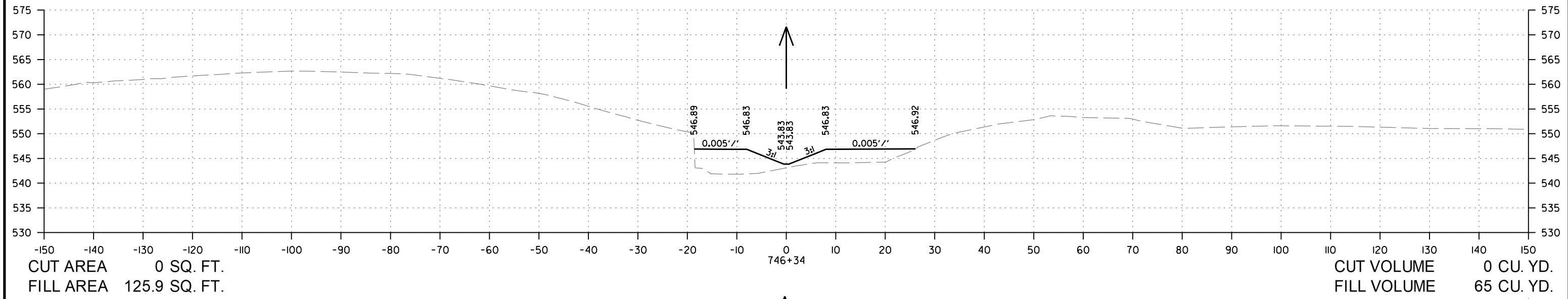
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	43	50
CROSS SECTIONS						



SITE C-3
CROSS SECTION STA. 744+00 TO STA. 745+00

rb4-3088 6/19/2024 R061855.DCN

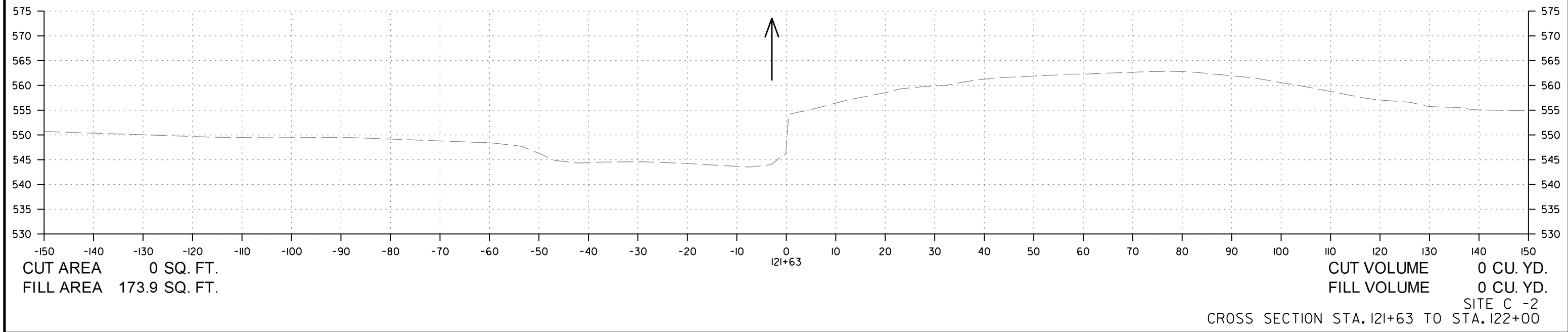
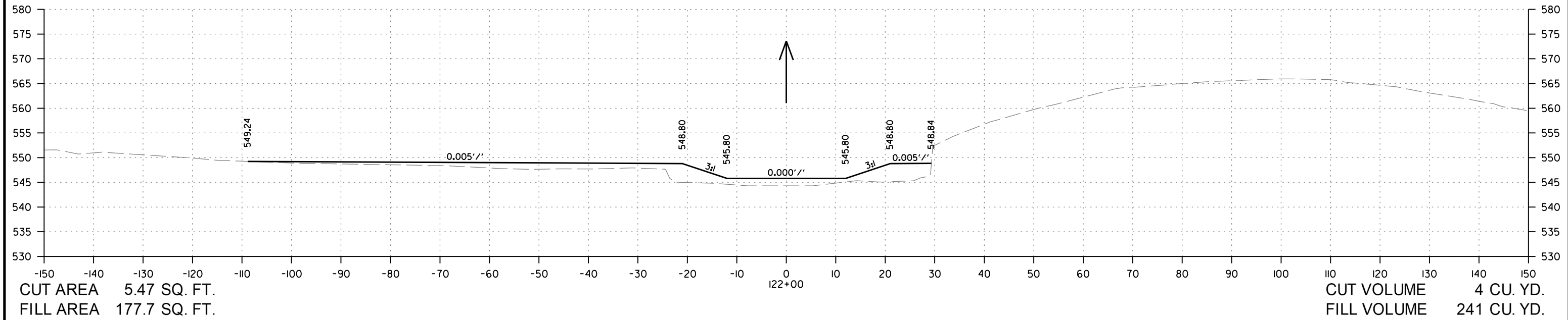
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	44	50
CROSS SECTIONS						



CROSS SECTION STA. 746+00 TO STA. 746+34
 SITE C-3

rb43088 6/19/2024 R061855.DCN

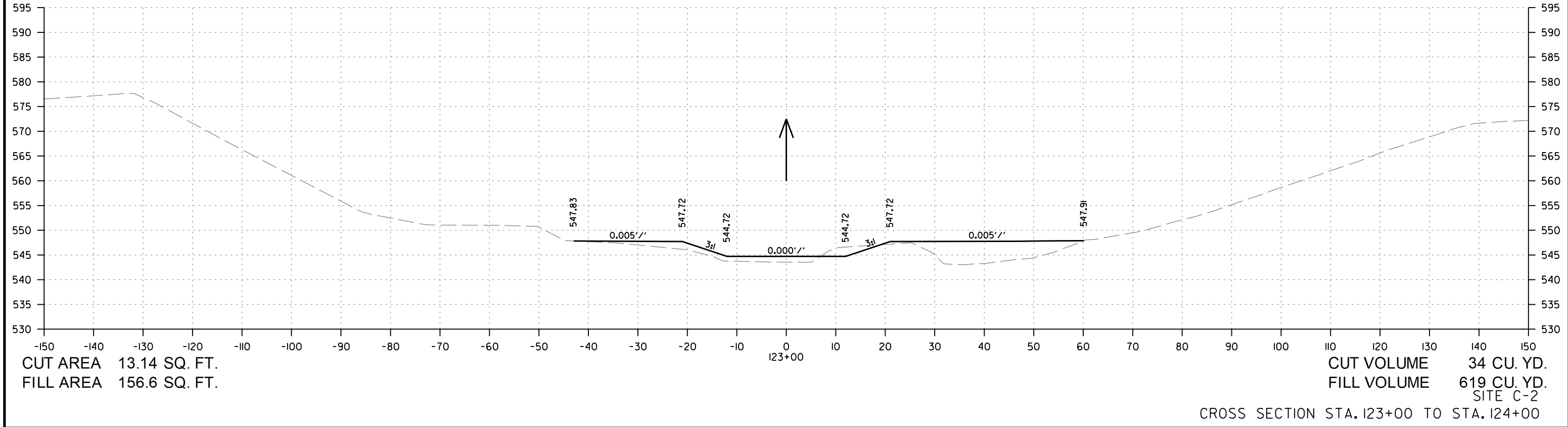
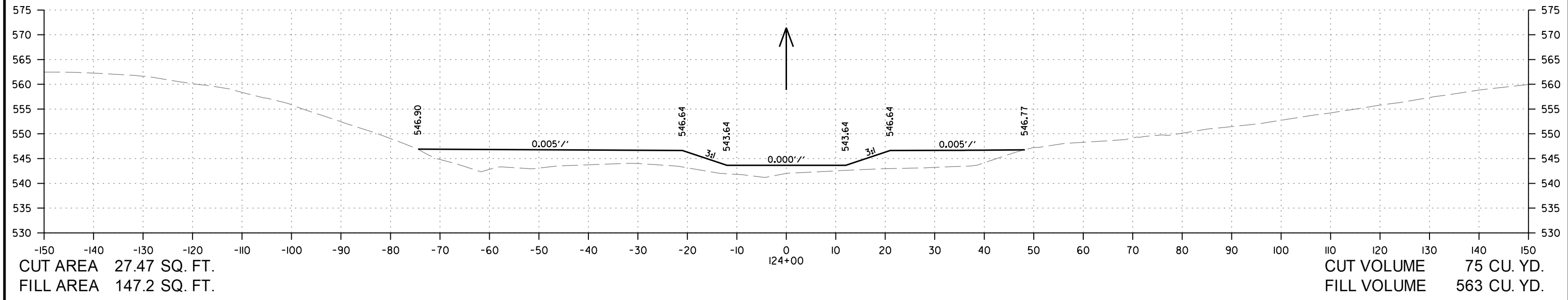
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	45	50
CROSS SECTIONS						



SITE C -2
 CROSS SECTION STA. 121+63 TO STA. 122+00

rb43088 6/19/2024
 R061855.DCN

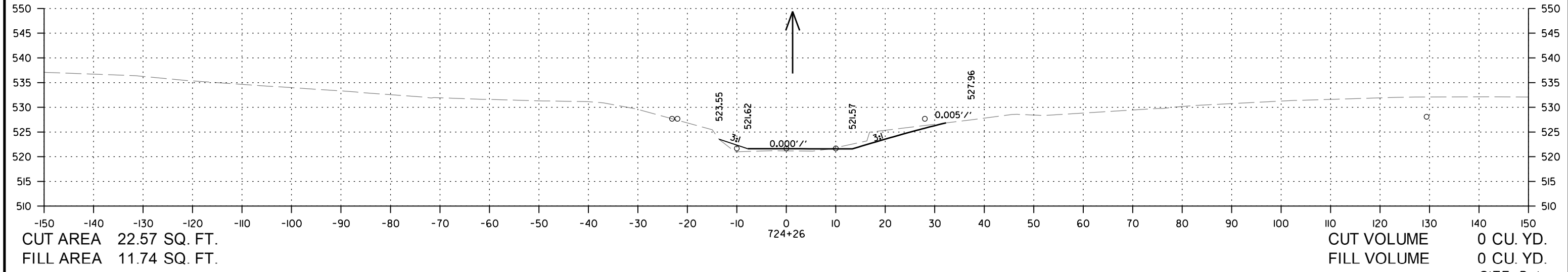
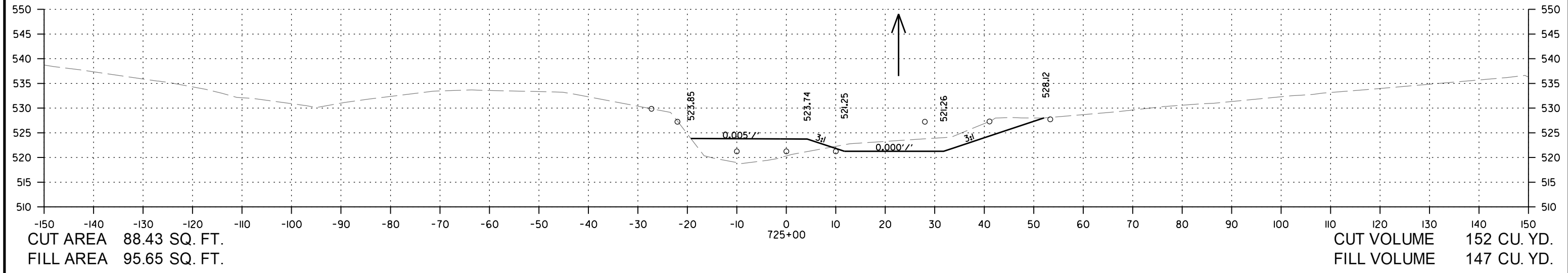
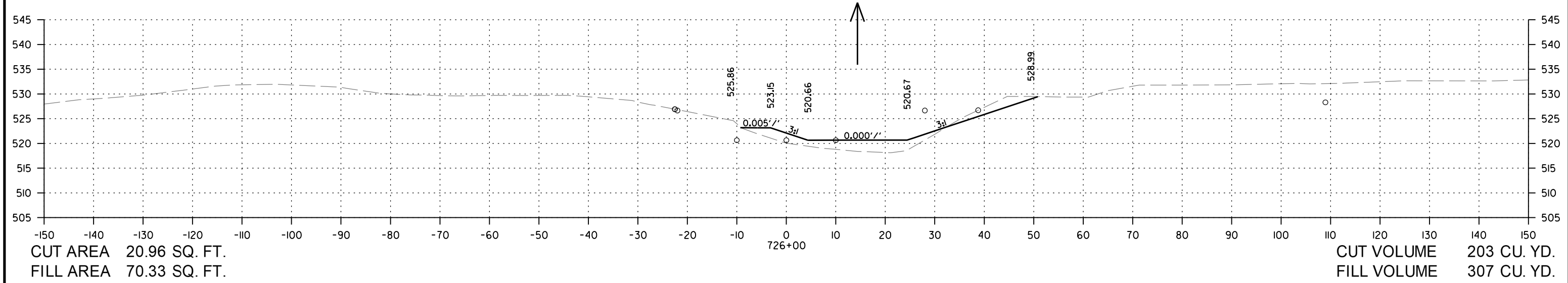
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	46	50
CROSS SECTIONS						



CROSS SECTION STA. 123+00 TO STA. 124+00

rb43088 6/19/2024
 R061855.DCN

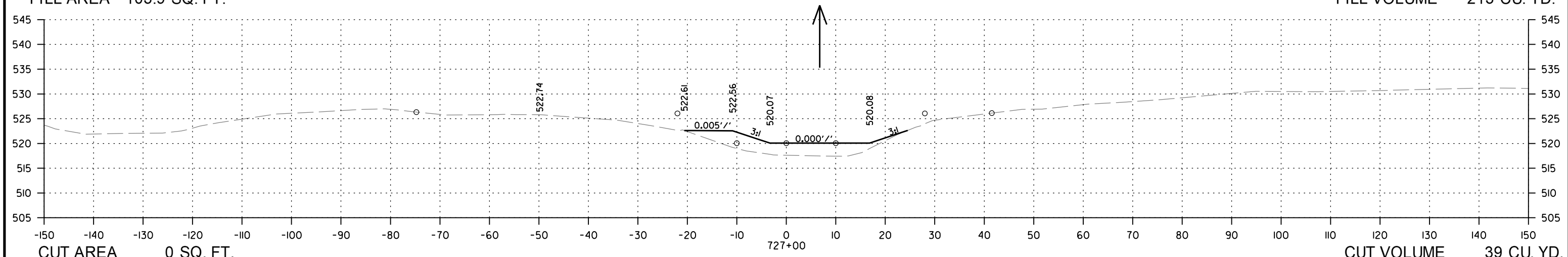
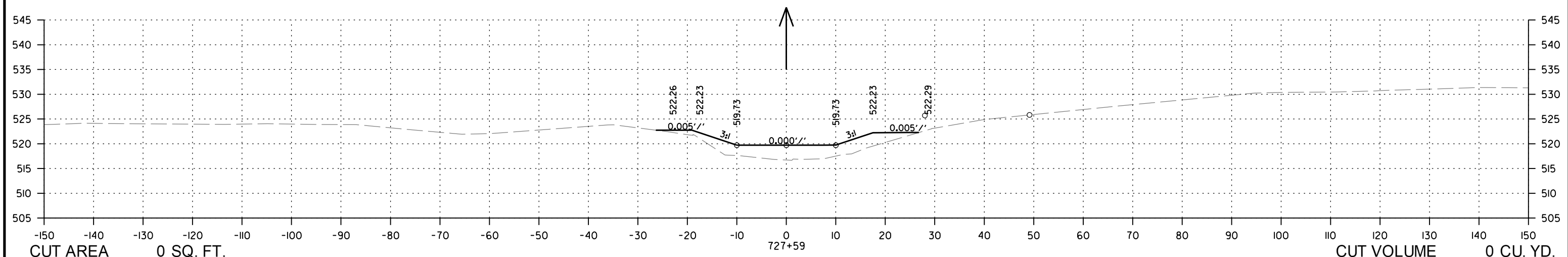
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	47	50
CROSS SECTIONS						



SITE D-1
CROSS SECTION STA. 724+26 TO STA. 726+00

rb43088 6/19/2024 R061855.DCN

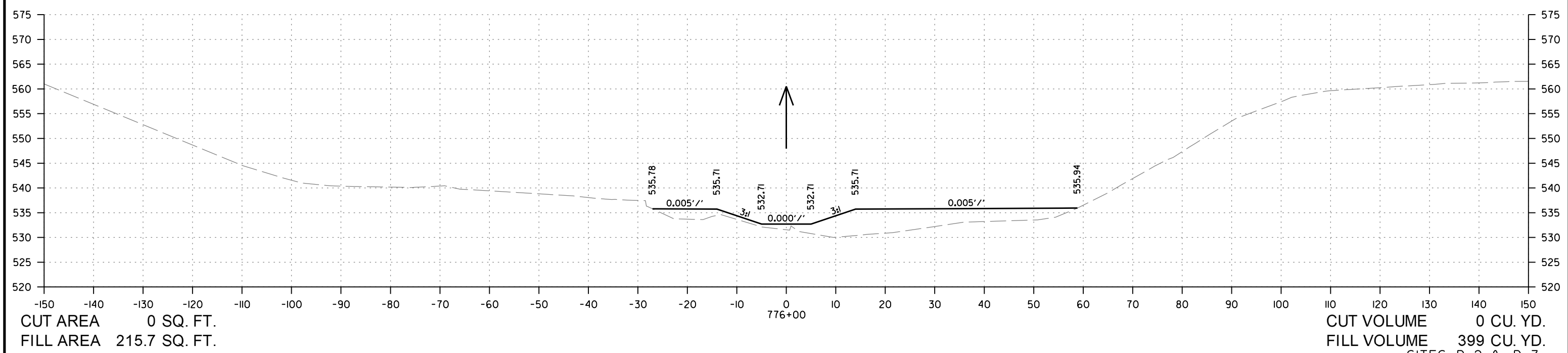
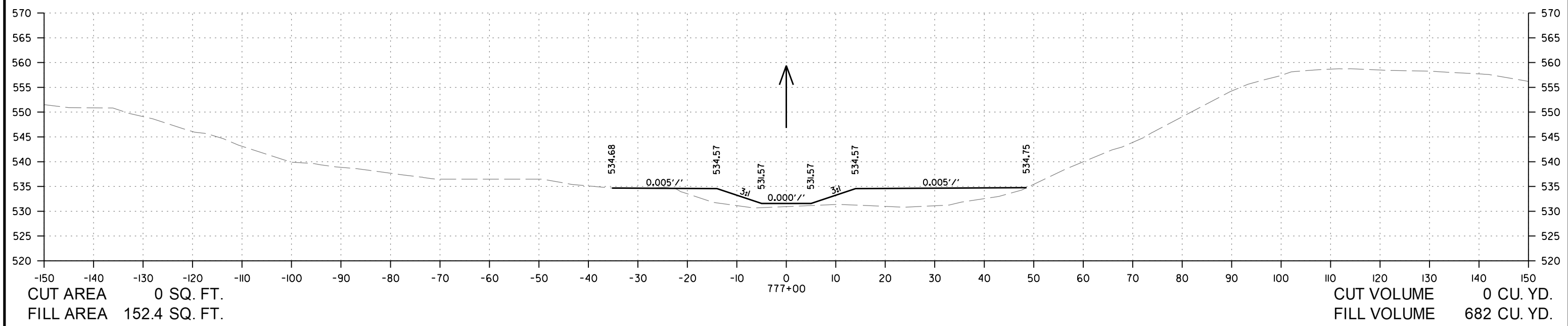
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	48	50
CROSS SECTIONS						



CROSS SECTION STA. 727+00 TO STA. 727+59
SITE D-1

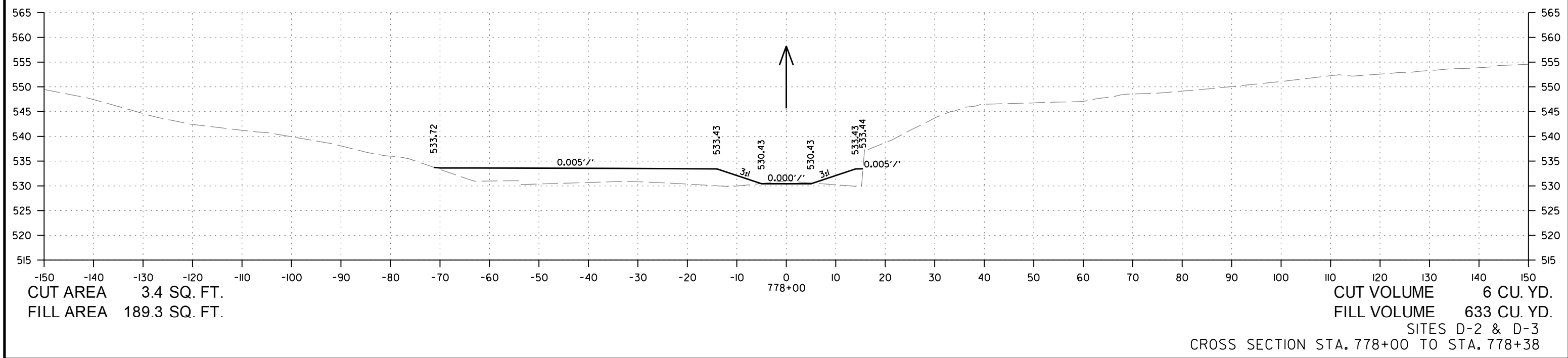
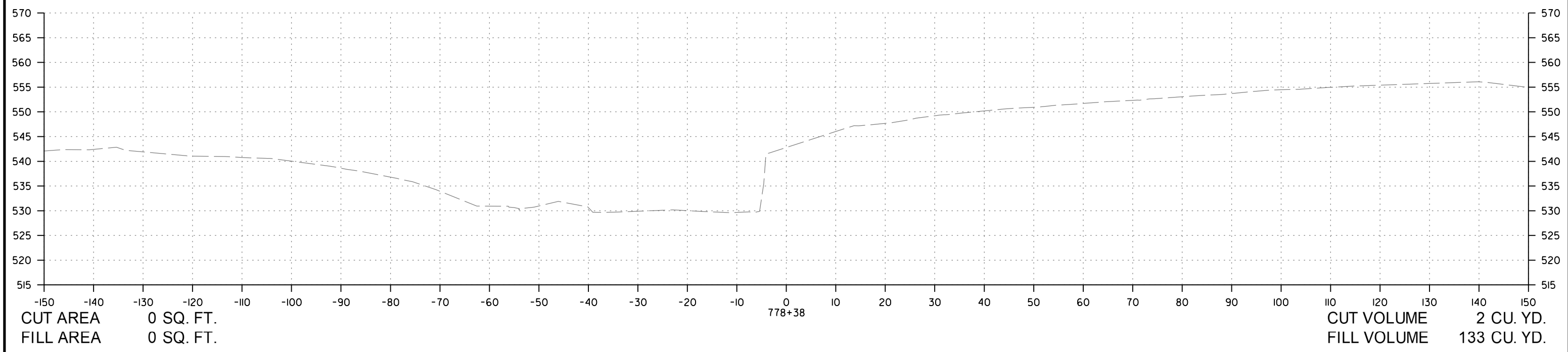
rb43088 6/19/2024
R061855.DCN

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	49	50
CROSS SECTIONS						

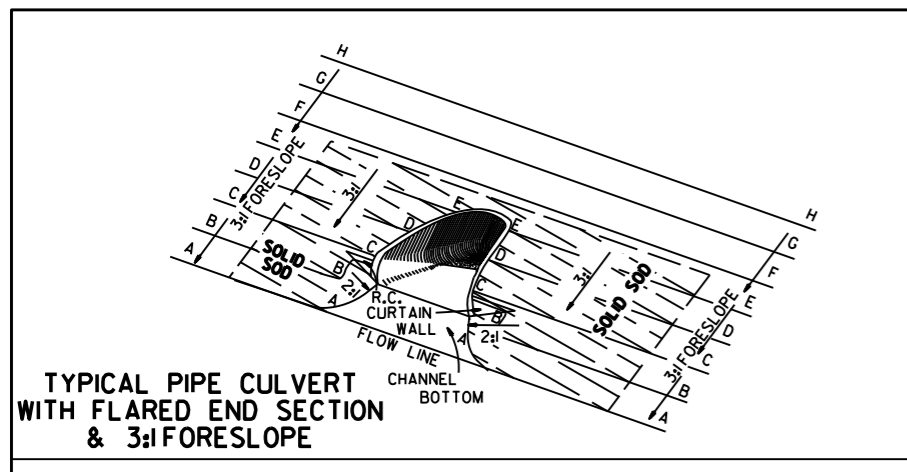


SITES D-2 & D-3
 CROSS SECTION STA. 776+00 TO STA. 777+00

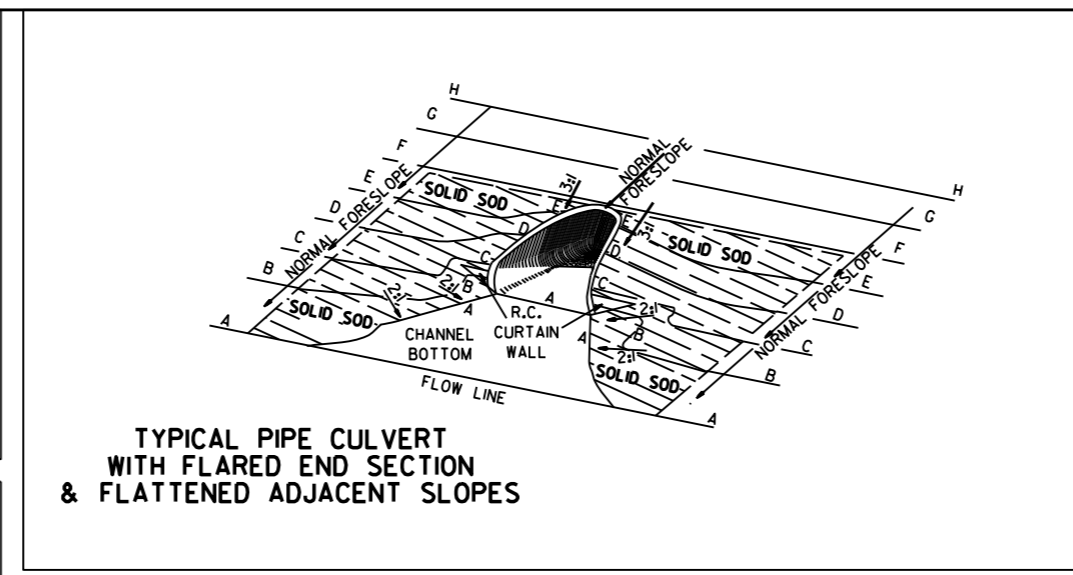
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061855	50	50
CROSS SECTIONS						



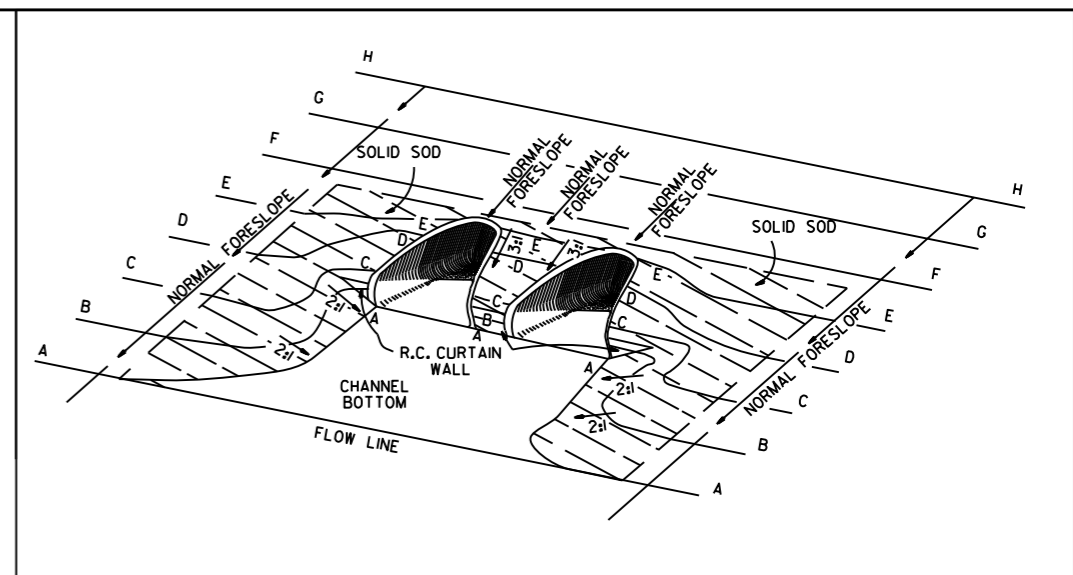
rb43088 6/19/2024
 R061855.DCN



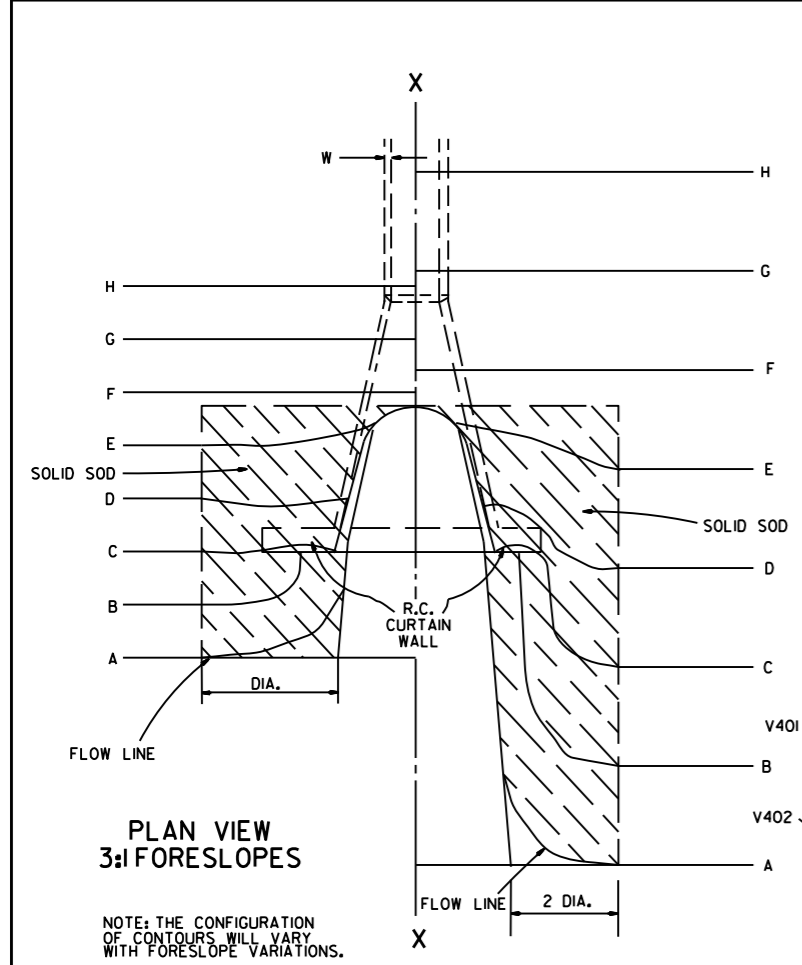
TYPICAL PIPE CULVERT WITH FLARED END SECTION & 3:1 FORESLOPE



TYPICAL PIPE CULVERT WITH FLARED END SECTION & FLATTENED ADJACENT SLOPES

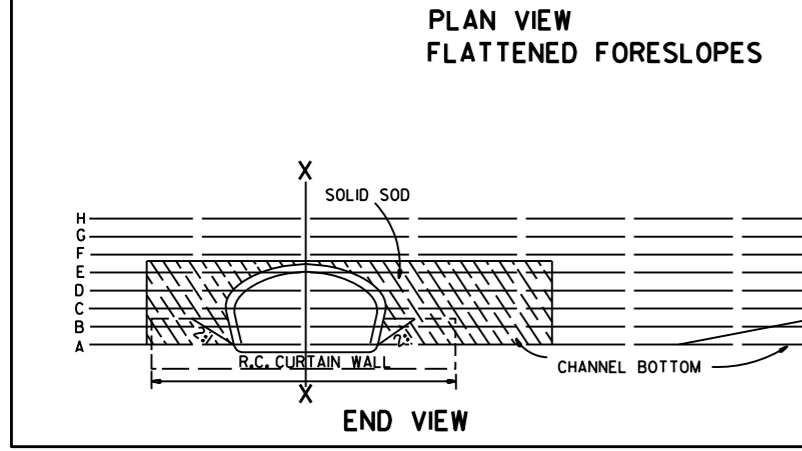


TYPICAL MULTIPLE PIPE CULVERT WITH FLARED END SECTIONS & FLATTENED ADJACENT SLOPES



PLAN VIEW 3:1 FORESLOPES

NOTE: THE CONFIGURATION OF CONTOURS WILL VARY WITH FORESLOPE VARIATIONS.

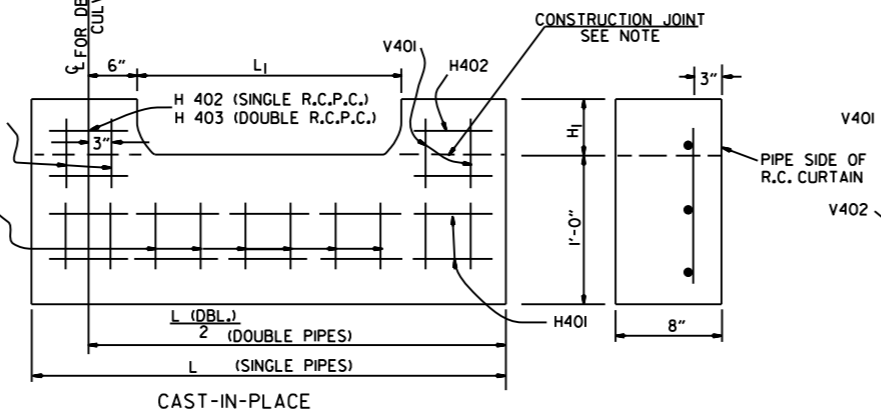


PLAN VIEW FLATTENED FORESLOPES

R.C. CURTAIN WALL DIMENSIONS & QUANTITIES

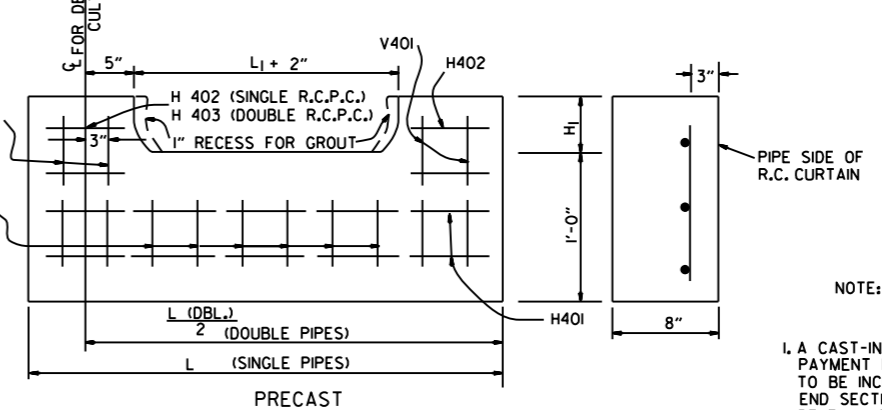
PIPE DIA.	H ₁	L ₁	L	L (DBL.) / 2	SINGLE R.C.P.C.		DOUBLE R.C.P.C.	
					CONC. CU. YDS.	REINF. STEEL LBS.	CONC. CU. YDS.	REINF. STEEL LBS.
18"	11 1/2"	3'-5"	8'-0"	6'-3"	0.31	27.7	0.45	39.5
24"	1'-0 1/2"	4'-6"	9'-6"	7'-6"	0.37	33.4	0.53	48.0
30"	1'-3 1/2"	5'-7"	11'-0"	9'-0"	0.45	39.0	0.67	59.0
36"	1'-7"	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



NOTE: THE PRECAST CURTAIN WALL WILL BE SET AND BACKFILLED WITH COMPACTED MATERIAL. THE FLARED END SECTION SHALL THEN BE SET IN PLACE AND THE 1" RECESS FILLED WITH GROUT. WHERE "L" EXCEEDS 11' THE CURTAIN WALL MAY BE CAST IN TWO (2) OR MORE SECTIONS. THE METHOD OF JOINING THE SECTIONS FOR INSTALLATION SHALL BE APPROVED BY THE ENGINEER.

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.

SOLID SODDING

PIPE DIA.	SINGLE R.C.P.C.						DOUBLE R.C.P.C.					
	3:1	4:1	6:1	3:1	4:1	6:1	3:1	4:1	6:1	3:1	4:1	6:1
18"	5	7	12	6	8	13	5	7	12	6	8	13
24"	8	12	19	9	13	20	8	12	19	9	13	20
30"	13	18	29	14	19	30	13	18	29	14	19	30
36"	17	26	41	18	28	43	17	26	41	18	28	43
42"	23	35	55	25	37	57	23	35	55	25	37	57
48"	29	46	68	31	48	70	29	46	68	31	48	70
54"	35	57	85	37	59	87	35	57	85	37	59	87
60"	45	62	104	48	65	107	45	62	104	48	65	107
72"	64	92	156	67	95	159	64	92	156	67	95	159

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

GENERAL NOTES

1. 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.
2. ALL EXPOSED EDGES SHALL BE CHAMFERED 3/4".
3. 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.
4. WELDED WIRE MESH 3 x 3 W/10 x W/10 MAY BE USED IN LIEU OF REINFORCING BARS.

DATE	REVISION	FILMED	STANDARD DRAWING FES-1
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		

FLARED END SECTION

STANDARD DRAWING FES-1

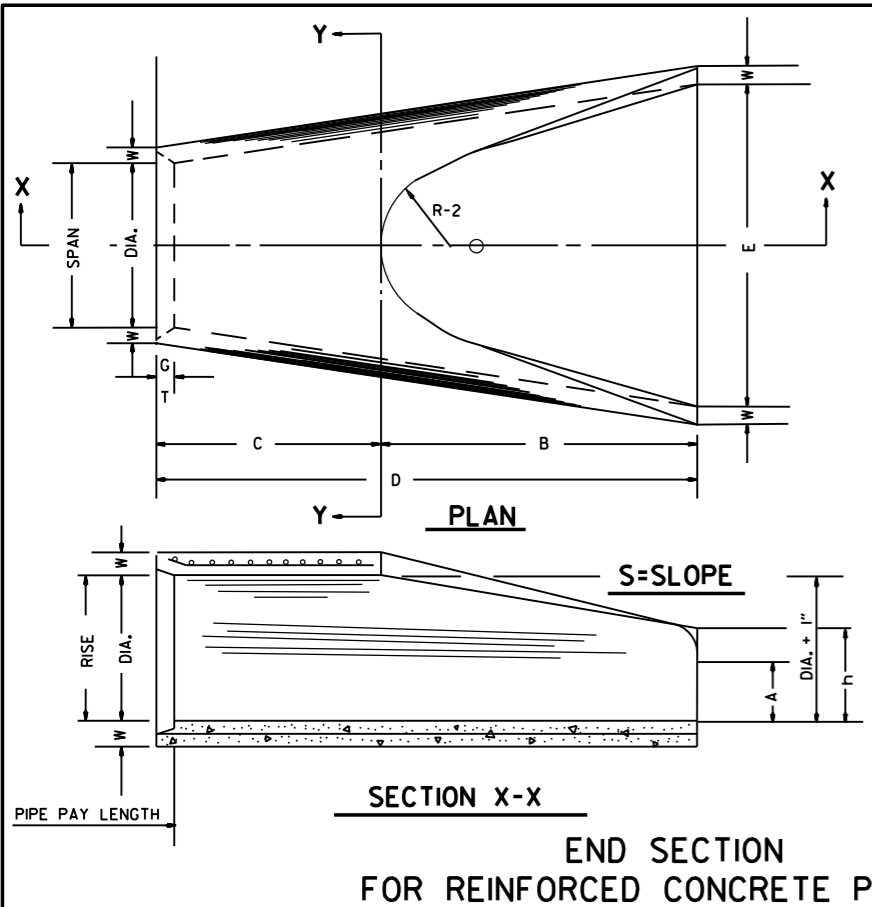
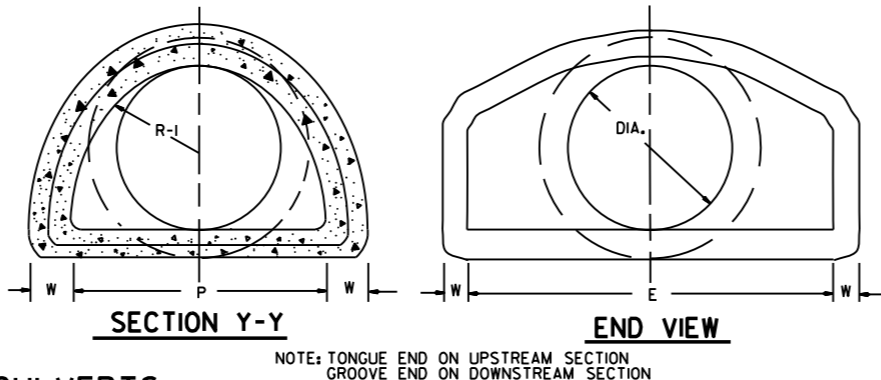


TABLE OF DIMENSIONS

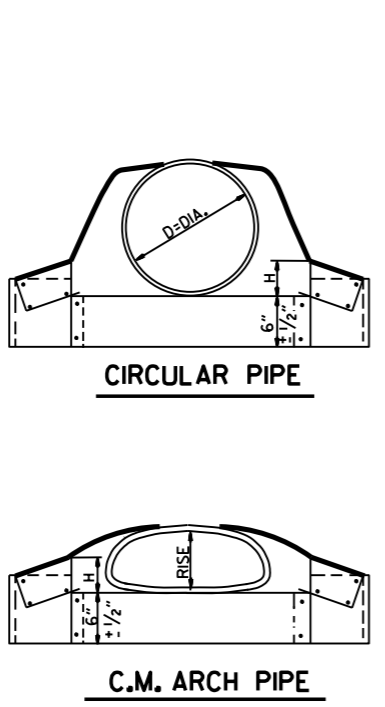
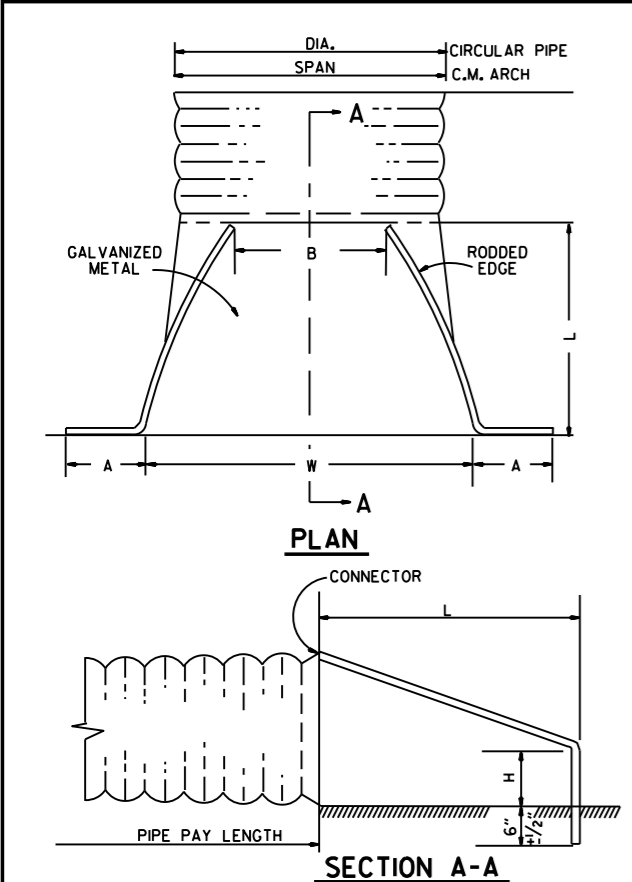
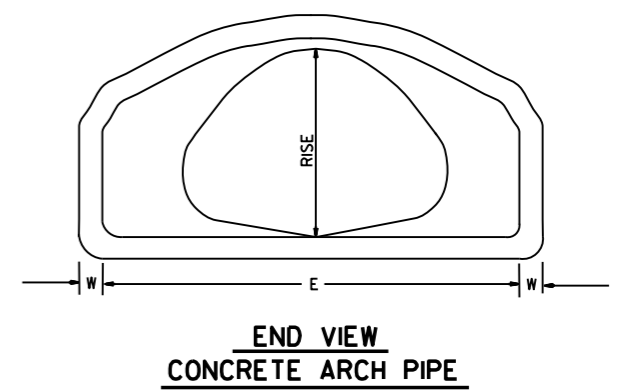
DIA.	WALL	A	B	C	D	E	S	DIA. + 1"	P	R-1	R-2	G-T	WT.	h
18"	2 1/2"	9"	2'-3"	3'-10"	6'-1"	3'-0"	3:1	19"	29"	15 1/2"	12"	2"	1000	1'-0 1/2"
24"	3"	9 1/2"	3'-7 1/2"	2'-6"	6'-1 1/2"	4'-0"	3:1	25"	33 3/8"	16 1/8"	14"	2 1/2"	1600	1'-1 1/2"
30"	3 1/2"	1'-0"	4'-6"	1'-7 3/4"	6'-1 3/4"	5'-0"	3:1	31"	37"	18 1/2"	15"	3 1/4"	1940	1'-4 5/8"
36"	4"	1'-3"	5'-3"	2'-10 3/4"	8'-1 3/4"	6'-0"	3:1	37"	47 1/8"	24 1/8"	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 3/8"	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 3/8"	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 3/8"	38 3/8"	24"	5"	13250	4'-6"



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 3/8"	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 3/8"	22"	3 1/2"	2 1/2:1
42	51 1/8	51	31 3/8	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 3/8"	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 1/2:1
60	73	73	45	45	6"	1'-10"	5'-6"	2'-8"	8'-2"	9'-0"	77 3/8"	24"	5"	2 1/2:1

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

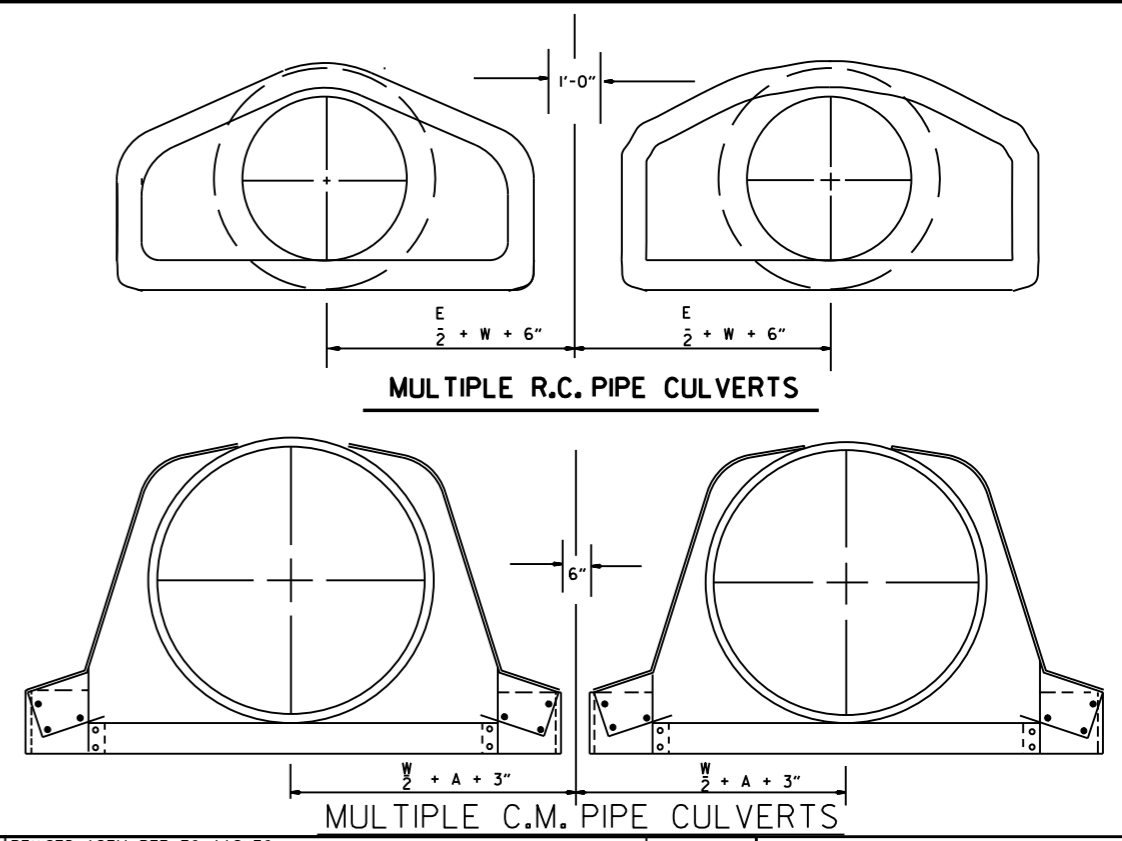


CIRCULAR PIPE

D. DIA.	GAUGE	A	B. MAX.	H	L	W	S
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 3/4:1
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


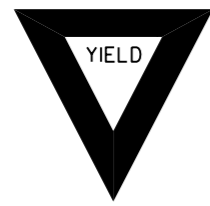







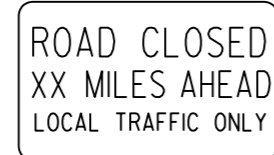
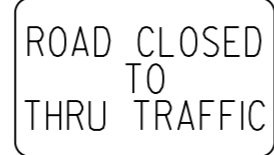

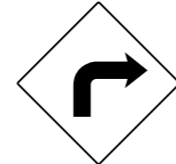



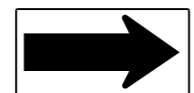

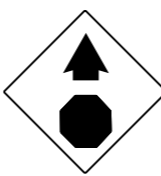
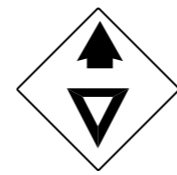
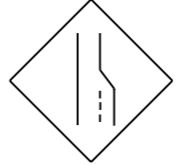

















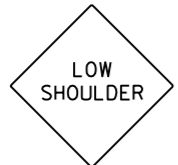
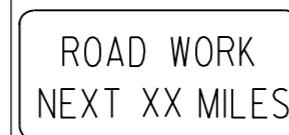
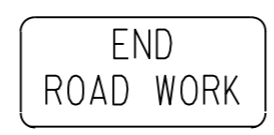
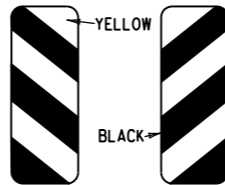


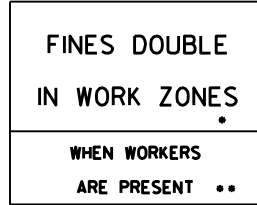
EQUIV. DIA.	SPAN	RISE	INCHES				S	GAUGE	
			A	B MAX.	H	L			
15"	17	13	7	9	6	19	30	2 1/2:1	16
18"	21	15	7	10	6	23	36	2 1/2:1	16
21"	24	18	8	12	6	28	42	2 1/2:1	16
24"	28	20	9	14	6	32	48	2 1/2:1	16
30"	35	24	10	16	6	39	60	2 1/2:1	14
36"	42	29	12	18	8	46	75	2 1/2:1	14
42"	49	33	13	21	9	53	85	2 1/2:1	12
48"	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



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

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	FLARED END SECTION
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	STANDARD DRAWING FES-2
DATE	REVISION	FILMEN	

<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>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>WI-1</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>WI-2</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	
<p>WI-3</p>  <p>STD. 48"x48"</p>	<p>WI-4</p>  <p>STD. 48"x48"</p>	<p>WI-6</p>  <p>STD. 48"x24" SPECIAL 60"x30"</p>	<p>WI-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>18" 500 FEET 24" W16-2</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>WI-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>

ADVANCE DISTANCES
(XXXX)

500 FT	1/2 MILE
1000 FT	3/4 MILE
1500 FT	1 MILE AHEAD

GENERAL NOTES:

- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- FLAGGERS SHALL USE REFLECTORIZED STOP-SLOW PADDLES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.
- 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.
- R55-1 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.

• NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 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.

DATE	REVISION	FILMED
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	

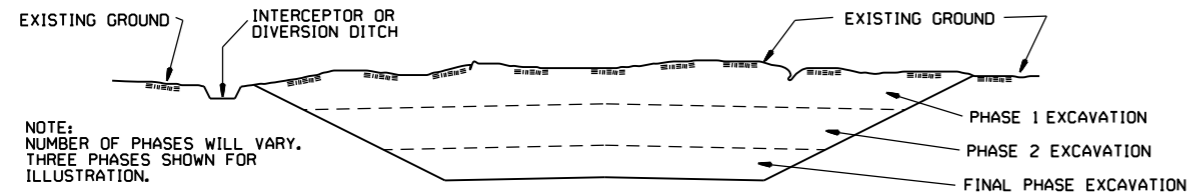
ARKANSAS STATE HIGHWAY COMMISSION
STANDARD TRAFFIC CONTROLS
FOR HIGHWAY CONSTRUCTION
STANDARD DRAWING TC-1

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.

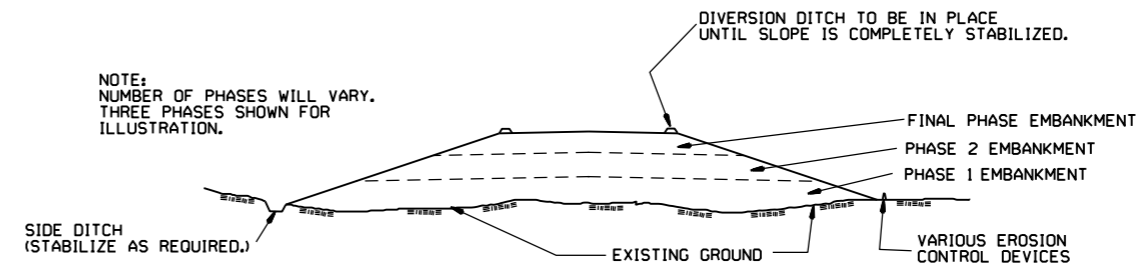
GENERAL NOTE

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.

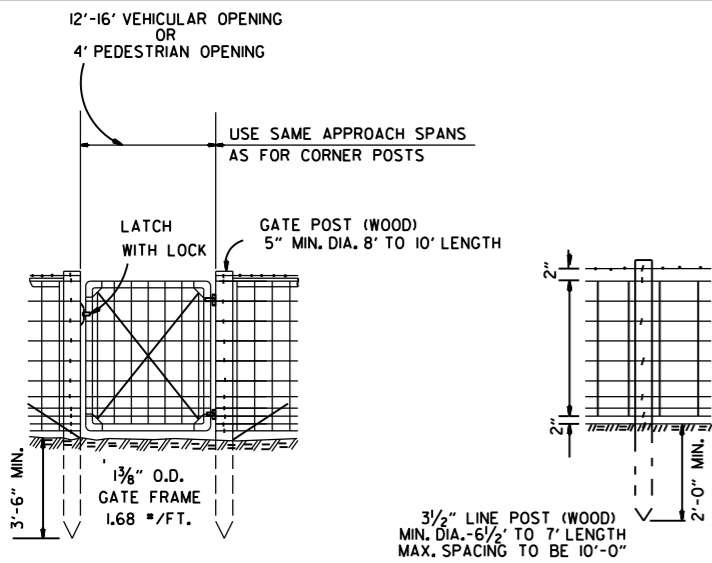
GENERAL NOTE

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.

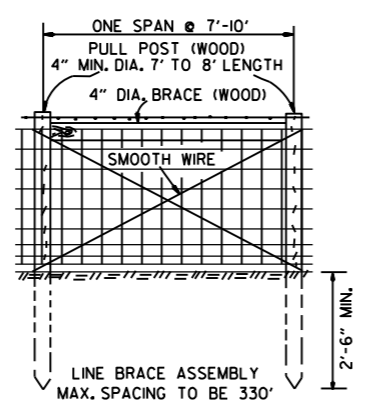
CONSTRUCTION SEQUENCE

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.

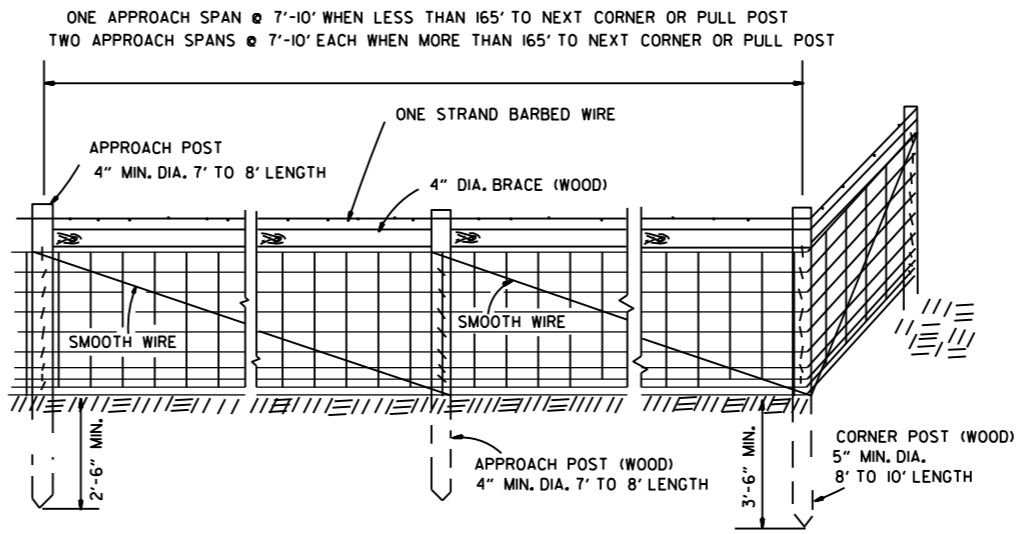
			ARKANSAS STATE HIGHWAY COMMISSION
			TEMPORARY EROSION CONTROL DEVICES
11-03-94	CORRECTED SPELLING		
6-2-94	Drawn & Issued		6-2-94
DATE	REVISION		FILMED
			STANDARD DRAWING TEC-3



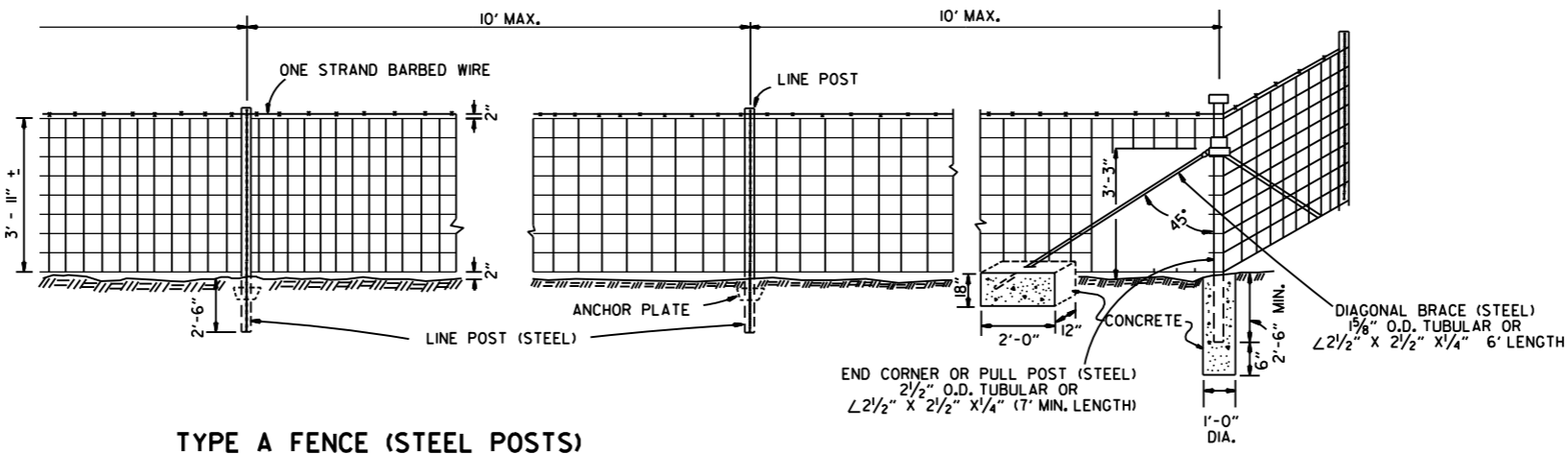
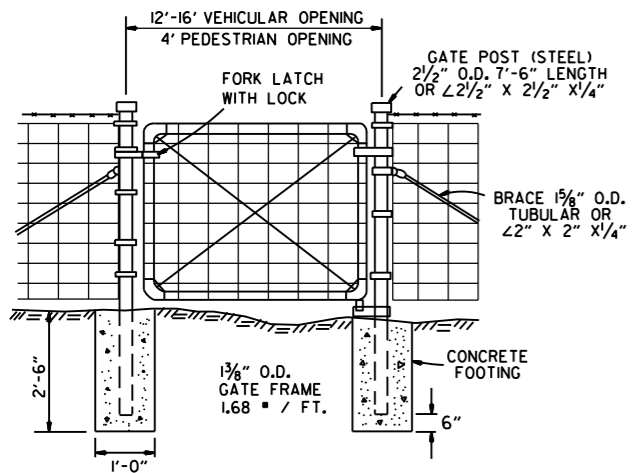
NOTE: STAPLE AT LEAST TOP, BOTTOM AND ALTERNATE WIRES OF WOVEN FABRIC FOR WOOD LINE POSTS.



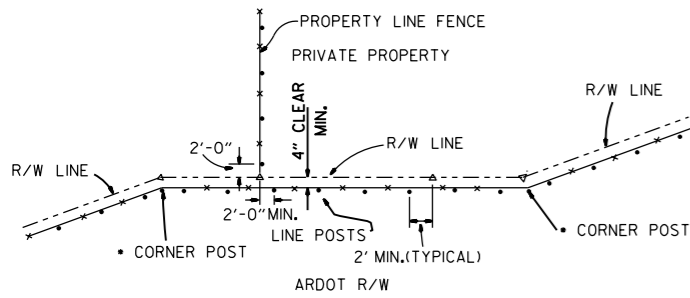
TYPE A FENCE (WOOD POSTS)



GENERAL NOTES:
 STEEL LINE POSTS SHALL BE GALVANIZED, 7 FT. IN LENGTH.
 TUBULAR END, CORNER, PULL, OR DIAGONAL BRACES MUST CONFORM TO THE DIMENSIONS AND WEIGHTS SPECIFIED ON STANDARD DRAWING WF-3 (CHAIN LINK).
 THE CONTRACTOR SHALL FURNISH AT LEAST 25% OF WOOD LINE POSTS OF 7' LENGTHS IN ORDER TO PROVIDE SUFFICIENT SET IN SOFT GROUND OR SMALL DEPRESSIONS.
 GATE HINGES AND LATCHES WITH LOCKS TO BE OF A TYPE APPROVED BY THE ENGINEER. DRIVEWAY GATES, EITHER SINGLE 12' OR 16' OR DOUBLE 6' TO 8' OPENINGS, OF THE SAME TYPE AS THE PEDESTRIAN GATE, SHALL BE INSTALLED ON THE RIGHT SIDE OF EACH THROUGH LANE ROAD AT LARGE CULVERTS OR BRIDGE CROSS FENCE FOR USE BY MAINTENANCE EQUIPMENT. LOCATION OF GATES TO BE SHOWN ON THE PLANS OR AS DESIGNATED BY THE ENGINEER.
 AT STREAM CROSSINGS THE FENCE SHALL NOT BE CONSTRUCTED ACROSS LARGE STREAMS. WHERE CLEARANCE IS SUFFICIENT FROM THE TOP OF BANK TO THE BRIDGE STRUCTURE, A CROSS CONNECTION SHALL BE CONSTRUCTED BETWEEN THE FENCE ON EACH SIDE OF THE ROAD, WHERE THE CLEARANCE IS NOT SUFFICIENT, THE FENCE SHALL BE TERMINATED WITH CROSS CONNECTIONS AND END POSTS ADJACENT TO THE BRIDGE ABUTMENTS OR CULVERT WINGWALLS.
 SPLICE FOR WOVEN WIRE BETWEEN PULL POST SHALL BE BY THE "WESTERN UNION METHOD" AS DESCRIBED AS FOLLOWS: THE VERTICAL WIRES FOR EACH END OF THE FENCE FABRIC SHALL BE PLACED SIDE BY SIDE AND THE PROJECTING HORIZONTAL WIRES SHALL BE WRAPPED A MINIMUM OF 4 TIMES AROUND THE HORIZONTAL WIRES OF THE FIRST WEB.
 SPLICE FOR BARBED WIRE BETWEEN PULL POST ASSEMBLY SHALL BE BY THE "EYE METHOD" AS DESCRIBED AS FOLLOWS: THE ENDS OF THE BARBED WIRE SHALL BE BENT TO FORM A LOOP, THE LOOPS SHALL BE CONNECTED, AFTER THE LOOPS ARE CONNECTED THE ENDS OF THE WIRE SHALL BE WRAPPED AROUND THE PROJECTING WIRE A MINIMUM OF 4 TIMES FOR EACH WIRE LOOP.



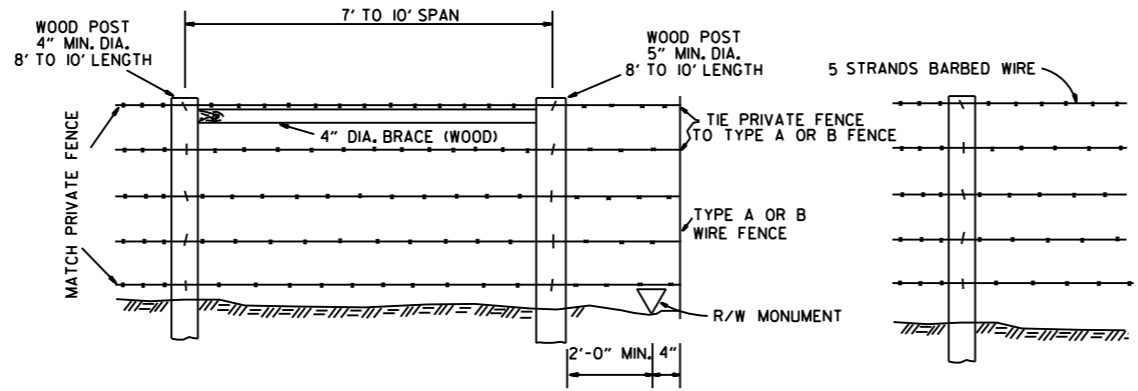
TYPE A FENCE (STEEL POSTS)



*NOTE: RIGHT-OF-WAY MONUMENTS SHALL NOT BE DISTURBED BY FENCE CONSTRUCTION. CORNER POSTS SHALL BE CONSTRUCTED 2' FROM THE RIGHT-OF-WAY MONUMENT OR AS DIRECTED BY THE ENGINEER.

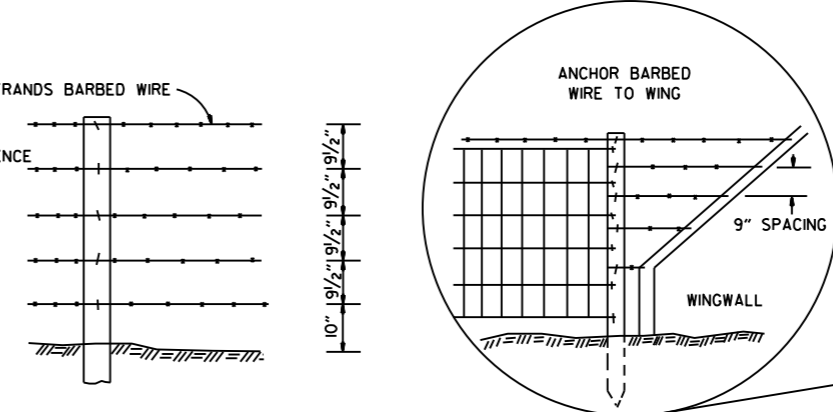
△ - R/W MONUMENTS
 ○ - FENCE POSTS

RIGHT-OF-WAY FENCE LOCATION



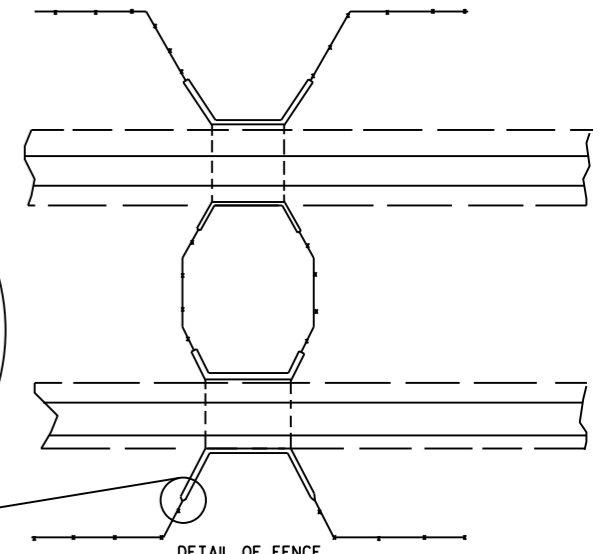
WHERE EXISTING PRIVATE FENCE CONSISTS OF STEEL POSTS, USE END POST ASSEMBLY AS SHOWN WITH TYPE A FENCE OR OTHER END POST ASSEMBLY AS APPROVED BY THE ENGINEER.

PRIVATE FENCE TERMINAL INSTALLATION



SPACING AND SIZE OF POSTS FOR TYPE B FENCE SHALL BE THE SAME AS TYPE A FENCE.

TYPE B FENCE



DETAIL OF FENCE CONSTRUCTION AT LARGE CULVERTS (5' IN HEIGHT AND OVER)

DATE	REVISION	DATE FILMED
8-22-02	REVISED GENERAL NOTES	
10-18-96	REVISED ASTM REF. TO AASHTO	
11-22-95	REVISED R-O-W LOCATION DETAIL	
6-2-94	ADDED CORNER POST NOTE	6-2-94
8-5-93	REVISED R-O-W LOCATION DETAIL	8-5-93
10-1-92	ADDED STAPLE NOTE	
8-2-90	REV'D PULL POST LENGTH	
11-30-89	DELETED CLASS CONC.	
7-15-88	ADDED SPLICE NOTES	
7-15-88	ADDED HEIGHT DIMENSION	
4-3-87	REVISED VARIOUS NOTES AND GENERAL NOTES	
11-1-84	MAX. POST SPACING	
1-4-83	MIN. DIA. LINE POST	
10-2-72	REVISED & REDRAWN	

ARKANSAS STATE HIGHWAY COMMISSION

WIRE FENCE
 TYPE A AND B

STANDARD DRAWING WF-1