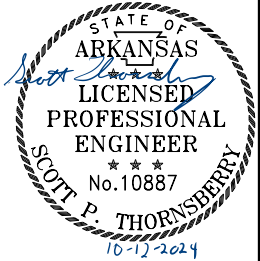


Scott Thornberry 10/4/2024 1:58:48 PM
WORKSPACE: Y:\Projects\VRD\84450_Grand Prairie Irrigation-Seg
REVISED DATE: **REVE DATE**

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	06I467	2	94
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 - 7	TYPICAL SECTIONS OF IMPROVEMENT
8 - 18	SPECIAL DETAILS
19 - 26	TEMPORARY EROSION CONTROL DETAILS
27 - 35	MAINTENANCE OF TRAFFIC DETAILS
36 - 37	PERMANENT PAVEMENT MARKING DETAILS
38 - 40	QUANTITIES
41	SUMMARY OF QUANTITIES AND REVISIONS
42 - 45	SURVEY CONTROL DETAILS
46 - 57	PLAN AND PROFILE SHEETS
58 - 94	CROSS SECTIONS

NOTE: CROSS SECTIONS NOT NORMALLY INCLUDED IN PLANS
SOLD TO PROSPECTIVE BIDDERS, BUT MAY BE HAD UPON REQUEST.

ROADWAY STANDARD DRAWINGS

DRWG.NO.	TITLE	DATE
DR-2	DETAILS OF DRIVEWAYS & STREET TURNOUTS	05-19-22
PCC-1	CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING	02-27-14
PCM-1	METAL PIPE CULVERT FILL HEIGHTS & BEDDING	02-27-14
PCP-1	PLASTIC PIPE CULVERT (HIGH DENSITY POLYETHYLENE)	02-27-14
PCP-2	PLASTIC PIPE CULVERT (PVC F949)	02-27-14
PCP-3	PLASTIC PIPE CULVERT (POLYPROPYLENE)	02-27-20
PM-1	PAVEMENT MARKING DETAILS	02-27-20
RCB-1	REINFORCED CONCRETE BOX CULVERT DETAILS	07-26-12
RCB-2	EXCAVATION PAY LIMITS, BACKFILL, & SOLID SODDING FOR BOX CULVERTS	11-20-03
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
TC-4	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION-TEMPORARY PRECAST BARRIER	11-07-19
TC-5	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION-TEMPORARY PRECAST BARRIER	11-07-19
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
TEC-4	TEMPORARY EROSION CONTROL DEVICES	07-26-12
WF-4	WIRE FENCE TYPE C AND D	08-22-02

Scott.Thornberry\6/16/2025 4:25:45 PM
WORKSPACE: \\P\Projects\VRID\84450_Grand Prairie Irrigation-Seg
REVISED DATE: **REVE DATE**

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEET'S
5-16-2025		6	ARK.	061467	3	94

GOVERNING SPECIFICATIONS & GENERAL NOTES



GOVERNING SPECIFICATIONS

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

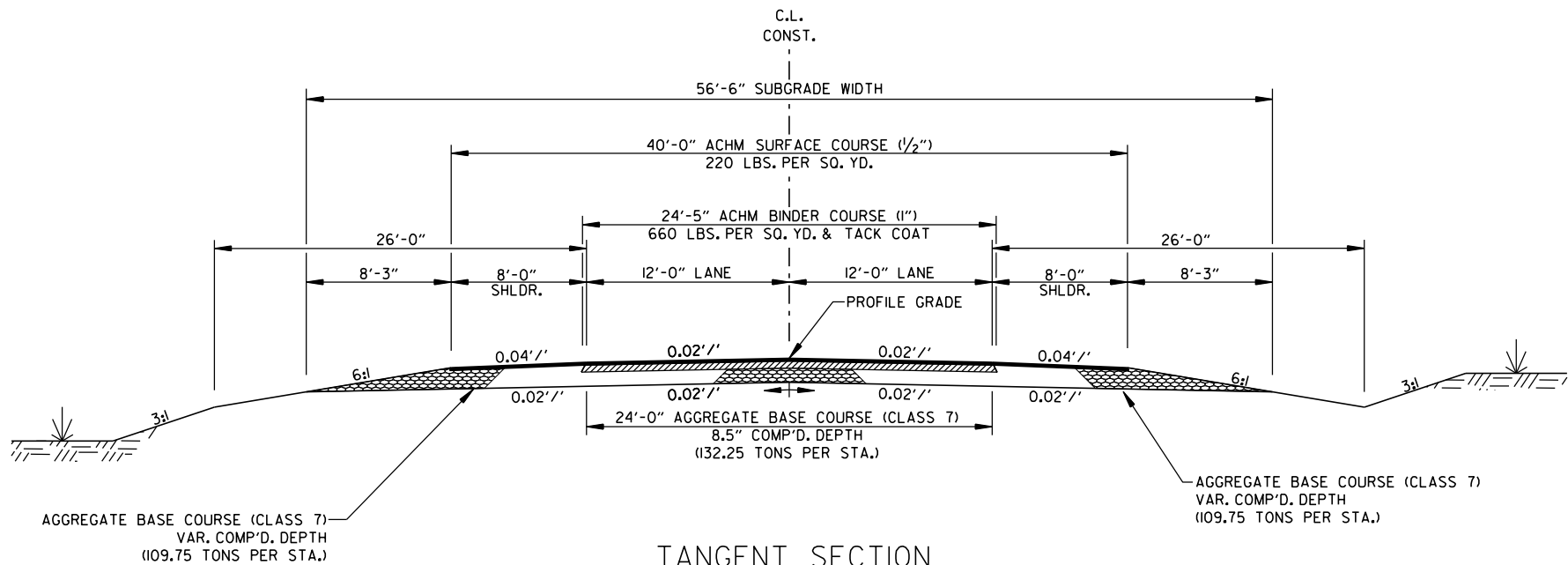
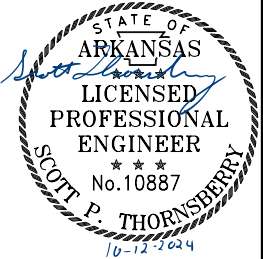
NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
100-3	CONTRACTOR'S LICENSE
100-4	DEPARTMENT NAME CHANGE
102-2	ISSUANCE OF PROPOSALS
102-3	PREQUALIFICATIONS OF BIDDERS
103-2	CONTACT INFORMATION FOR MOTORIST DAMAGE CLAIMS
105-4	MAINTENANCE DURING CONSTRUCTION
107-2	RESTRAINING CONDITIONS
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
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
409-2	ASPHALT LABORATORY FACILITY
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
416-1	RECYCLED ASPHALT PAVEMENT
501-3	PORTLAND CEMENT CONCRETE PAVEMENT
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)
606-1	PIPE CULVERTS FOR SIDE DRAINS
619-1	FENCES
620-1	MULCH COVER
800-1	STRUCTURES
802-5	CONCRETE FOR STRUCTURES
804-2	REINFORCING STEEL FOR STRUCTURES
JOB 061467	BIDDING REQUIREMENTS AND CONDITIONS
JOB 061467	BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB 061467	BROADBAND INTERNET SERVICE FOR FIELD OFFICE
JOB 061467	COLD MILLING – COUNTY PROPERTY
JOB 061467	DESIGN AND QUALITY CONTROL OF ASPHALT MIXTURES
JOB 061467	INSTALLATION OF PRECAST REINFORCED CONCRETE BOX CULVERTS
JOB 061467	LIQUIDATED DAMAGES PROCEDURE FOR BID LETTINGS
JOB 061467	LONGITUDINAL JOINT DENSITIES FOR ACHM SURFACE COURSES
JOB 061467	MANDATORY ELECTRONIC CONTRACT
JOB 061467	MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
JOB 061467	PARTNERING REQUIREMENTS
JOB 061467	PLASTIC PIPE
JOB 061467	PRICE ADJUSTMENT FOR ASPHALT BINDER
JOB 061467	PRICE ADJUSTMENT FOR FUEL
JOB 061467	RUMBLE STRIPS
JOB 061467	SHORING FOR CULVERTS
JOB 061467	STORM WATER POLLUTION PREVENTION PLAN
JOB 061467	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB 061467	UTILITY ADJUSTMENTS
JOB 061467	VALUE ENGINEERING
JOB 061467	WARM MIX ASPHALT

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.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING U. S. MAILBOXES WITHIN THE PROJECT LIMITS IN SUCH A MANNER THAT THE PUBLIC MAY RECEIVE CONTINUED MAIL SERVICE. PAYMENT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS BID ITEMS.
- 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.
- 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.
- ALL FLEXIBLE BASE AND ASPHALTIC PAVEMENTS REMOVED SHALL BE PAID FOR UNDER THE ITEM NO. 210 - UNCLASSIFIED EXCAVATION.
- THE EXISTING ASPHALT PAVEMENT TO BE REMOVED FROM THE REMAINING PAVEMENT SHALL BE SEPARATED BY SAWING ALONG A NEAT LINE. AFTER SAWING, THE PAVEMENT TO BE REMOVED SHALL BE CAREFULLY REMOVED IN A MANNER THAT WILL NOT DAMAGE THE PAVEMENT THAT IS TO REMAIN. ANY DAMAGE OF THE ASPHALT PAVEMENT THAT IS TO REMAIN IN PLACE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 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.
- THE WHITE RIVER IRRIGATION DISTRICT WILL PROVIDE THE RC BOX CULVERT SECTIONS FOR THE CONTRACTOR TO INSTALL. PAYMENT FOR THE RC BOX CULVERT INSTALLATION WILL BE PAID FOR AS INSTALLATION OF PRECAST REINFORCED CONCRETE BOX CULVERTS.

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	4	94

TYPICAL SECTIONS OF IMPROVEMENT

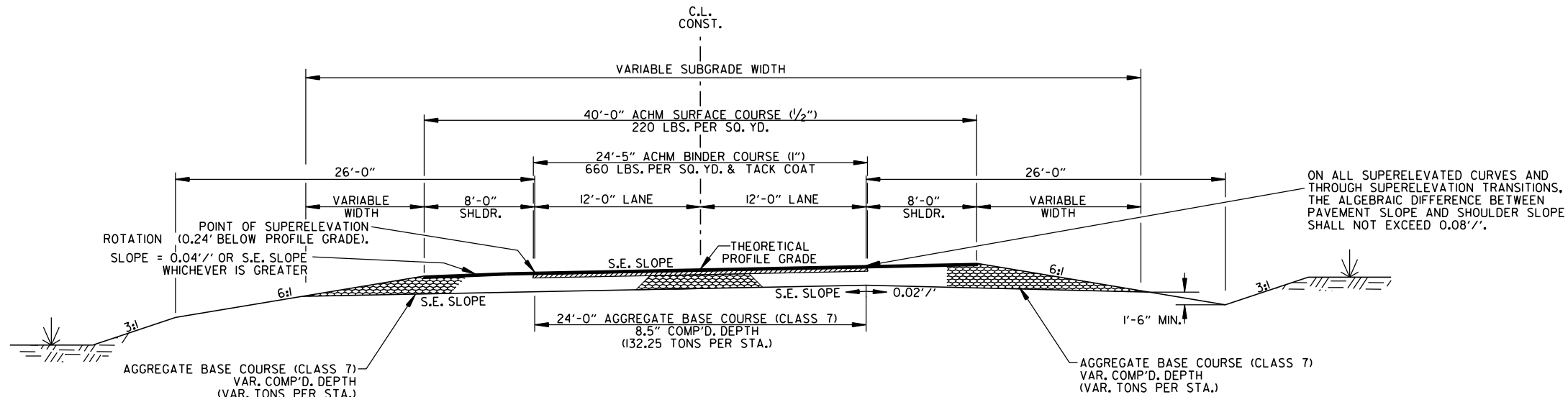


TANGENT SECTION

SITE 1 STA. 8+00.00 TO STA. 20+00.00
SITE 2 STA. 57+50.00 TO STA. 585+50.00

NOTES:

1. REFER TO CROSS SECTIONS FOR DEVIATIONS FROM NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.
2. THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET THE TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.
3. THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT THE LANE LINES.

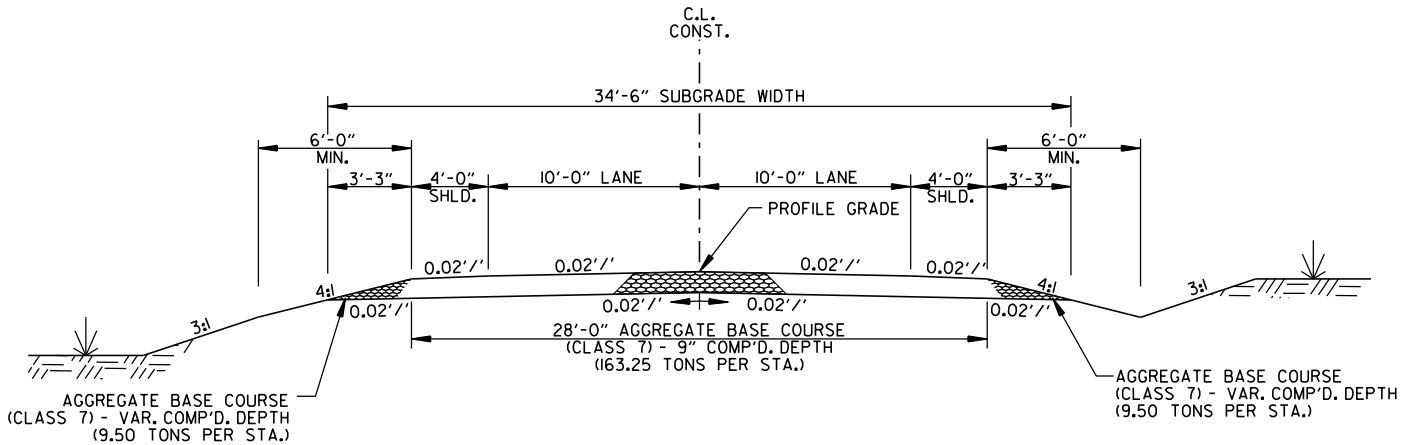


SUPERELEVATION SECTION

TYPICAL SECTIONS OF IMPROVEMENT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEET'S
		6	ARK.	061467	5	94

TYPICAL SECTIONS OF IMPROVEMENT

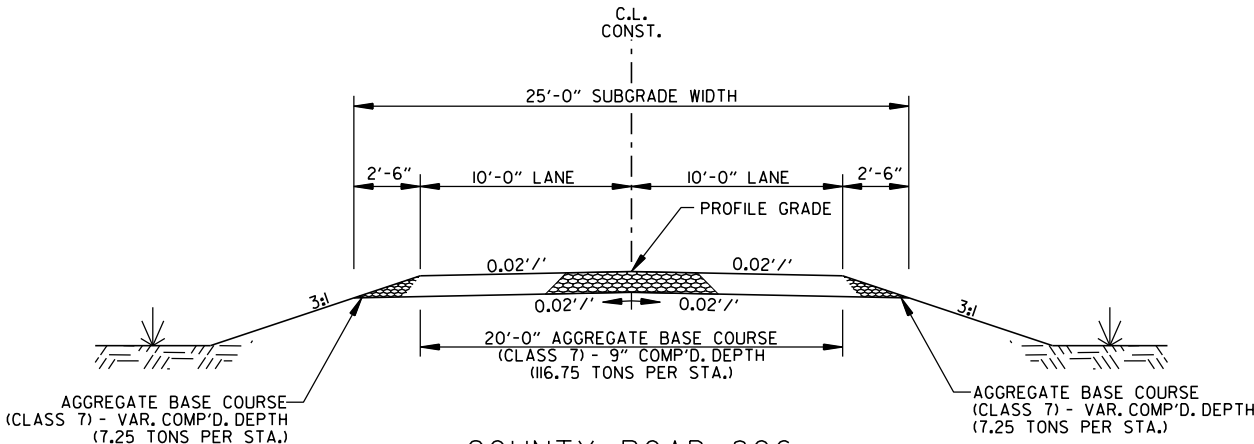


COUNTY ROAD 806
TANGENT SECTION

SITE I STA. 28+12.00 TO STA. 36+00.00

NOTE: CONSTRUCT SHOULDER SLOPES AT 0.02'/'
BECAUSE CO. RD. 806 IS A GRAVEL ROAD.

- NOTES:
1. REFER TO CROSS SECTIONS FOR DEVIATIONS FROM NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.
 2. THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET THE TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.

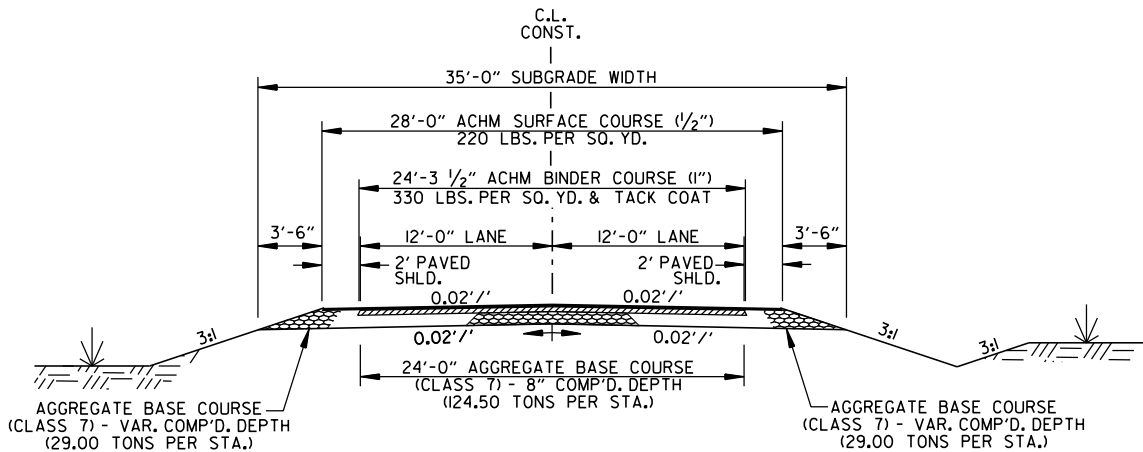


COUNTY ROAD 806
TEMPORARY CONNECTION
TANGENT SECTION

SITE I STA. 80+14.00 TO STA. 82+90.00

TYPICAL SECTIONS OF IMPROVEMENT

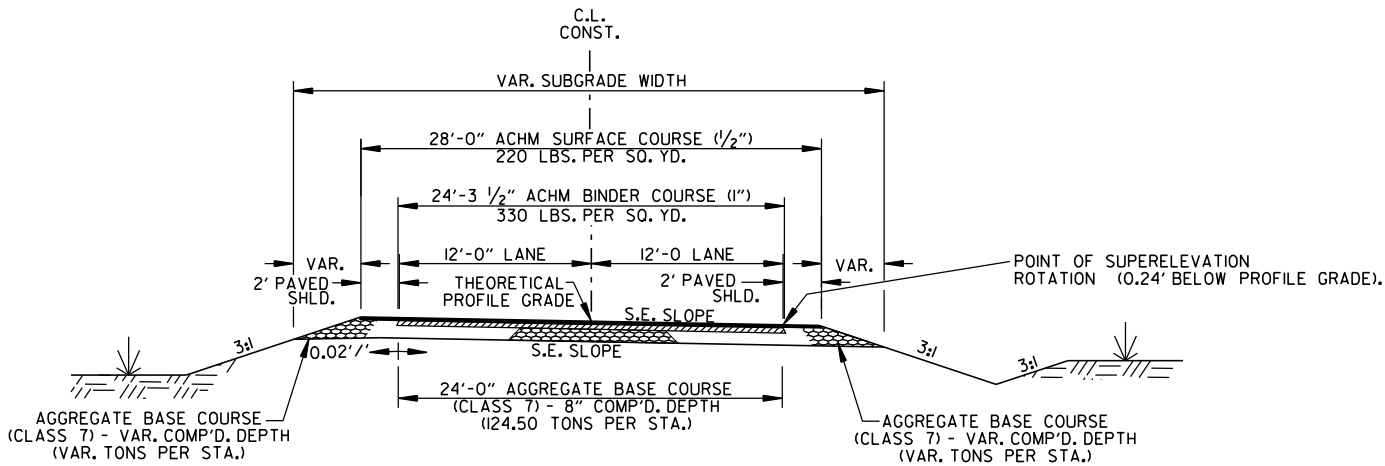
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEET'S
		6	ARK.	061467	6	94
TYPICAL SECTIONS OF IMPROVEMENT						



DETOUR
TANGENT SECTION

HWY. 63 DETOUR STA. 43+61.89 TO 63+52.54
HWY. 70 DETOUR STA. 765+60.17 TO STA. 789+45.71

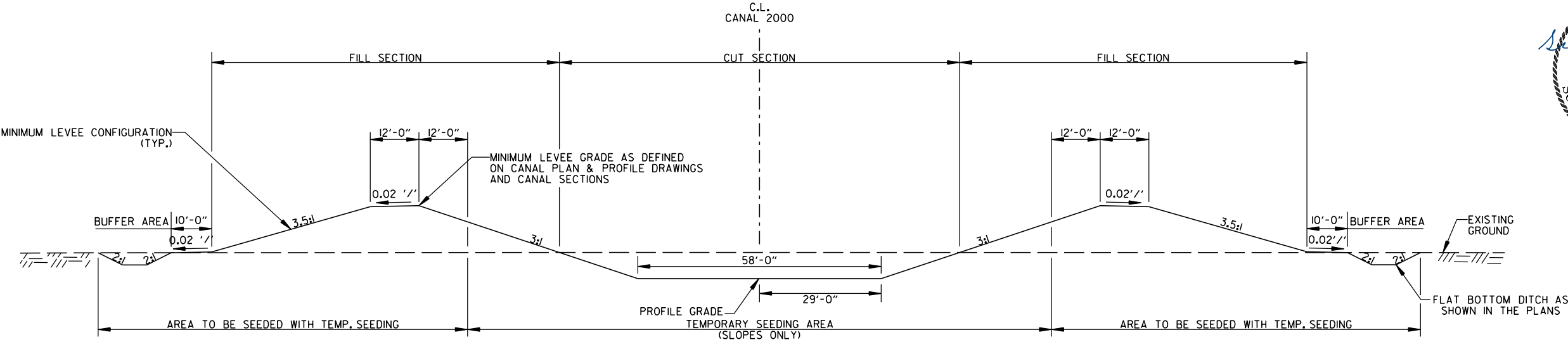
- NOTES:
1. REFER TO CROSS SECTIONS FOR DEVIATIONS FROM NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.
 2. THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET THE TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.
 3. THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT THE LANE LINES.



DETOUR
SUPERELEVATED SECTION

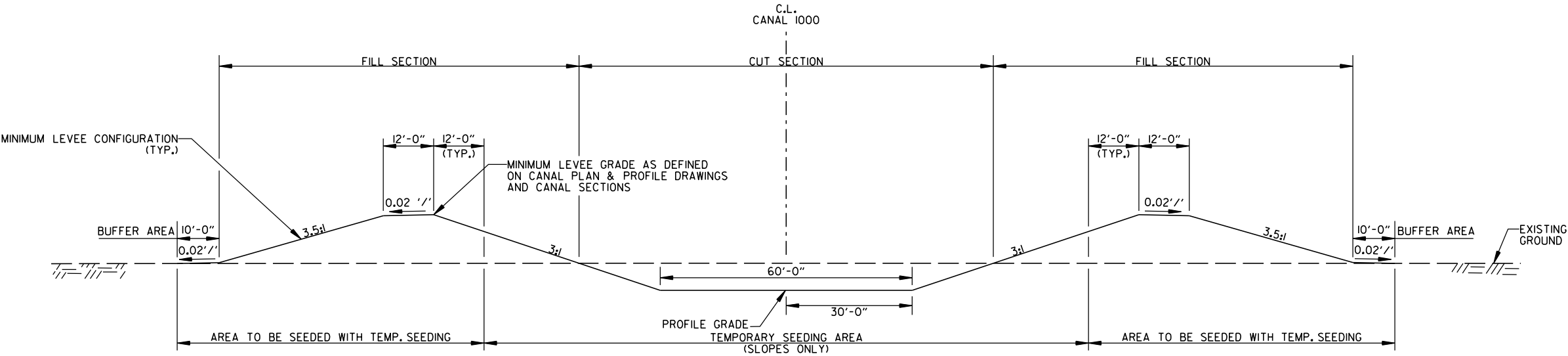
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
5-16-2025		6	ARK.	061467	7	94

TYPICAL SECTIONS OF IMPROVEMENT



TYPICAL SECTION
SITE 1 - CANAL 2000
STA. 363+62.13 TO STA. 366+78.64

NOTE:
SECTIONS 210 AND 212 OF THE STANDARD SPECIFICATIONS
FOR HIGHWAY CONSTRUCTION, 2014 EDITION SHALL APPLY
FOR THE CANAL EMBANKMENT.



TYPICAL SECTION
SITE 2 - CANAL 1000
STA. 257+03.53 TO STA. 258+91.47

TYPICAL SECTIONS OF IMPROVEMENT

Scot:Thornsberr10/4/2024 1:58:58 PM
WORKSPACE: \\projects\VRD\84450_Grand Prairie Irrigation-Seg 1\Drawings\VRD\84467_05_SD_001.dgn
REVISED DATE: **REDATE**

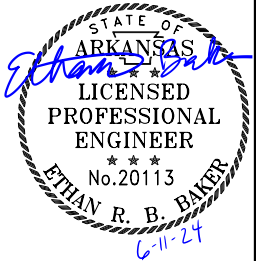
2:1 Slope	20'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
3:1 Slope	30'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"
4:1 Slope	40'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"

Note: For fill depths 10' and under, use Mid-Section full length of box culvert.

* LL = Skewed End Section Length - See "Skewed End Section Details"
Length LL varies with skew angle, overall box width and fill depth and may eliminate the need for some slope section lengths as shown.

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	8	94

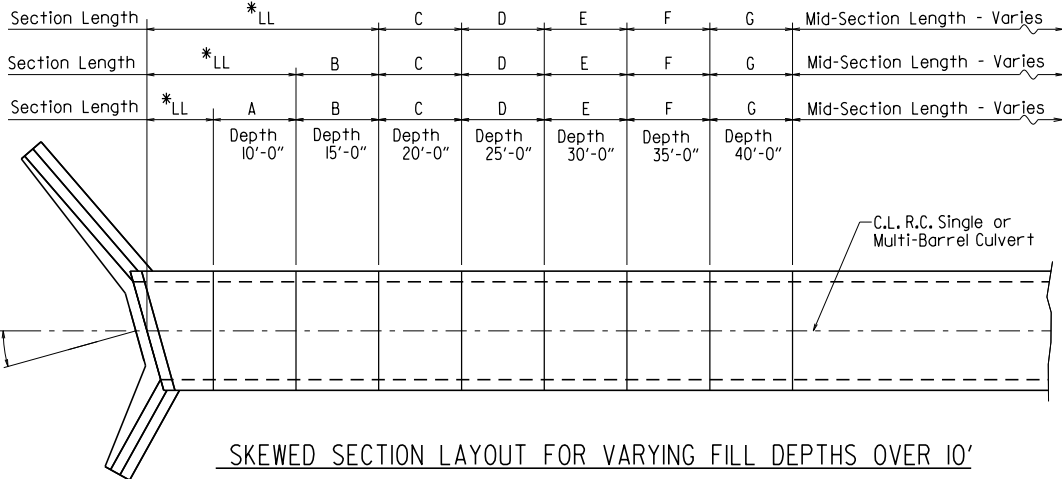
SPECIAL DETAILS



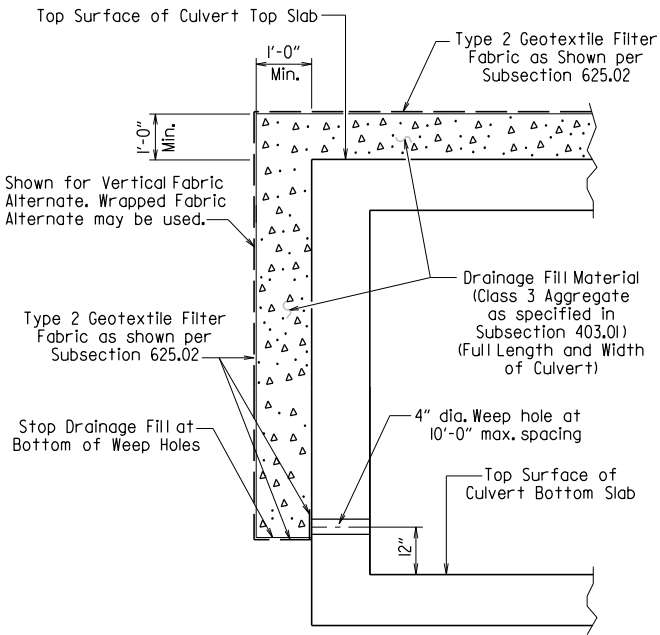
Slope Section Length @ 2:1 Slope	A=12'-0"	B=6'-0"	C=6'-0"	D=6'-0"	E=6'-0"	F=6'-0"	G=6'-0"	Mid-Section Length - Varies
Slope Section Length @ 3:1 Slope	A=22'-0"	B=11'-0"	C=11'-0"	D=11'-0"	E=11'-0"	F=11'-0"	G=11'-0"	Mid-Section Length - Varies
Slope Section Length @ 4:1 Slope	A=32'-0"	B=16'-0"	C=16'-0"	D=16'-0"	E=16'-0"	F=16'-0"	G=16'-0"	Mid-Section Length - Varies

LONGITUDINAL SECTION LENGTH SCHEDULE FOR VARYING FILL DEPTHS OVER 10'

Lengths for Non-Skewed Boxes

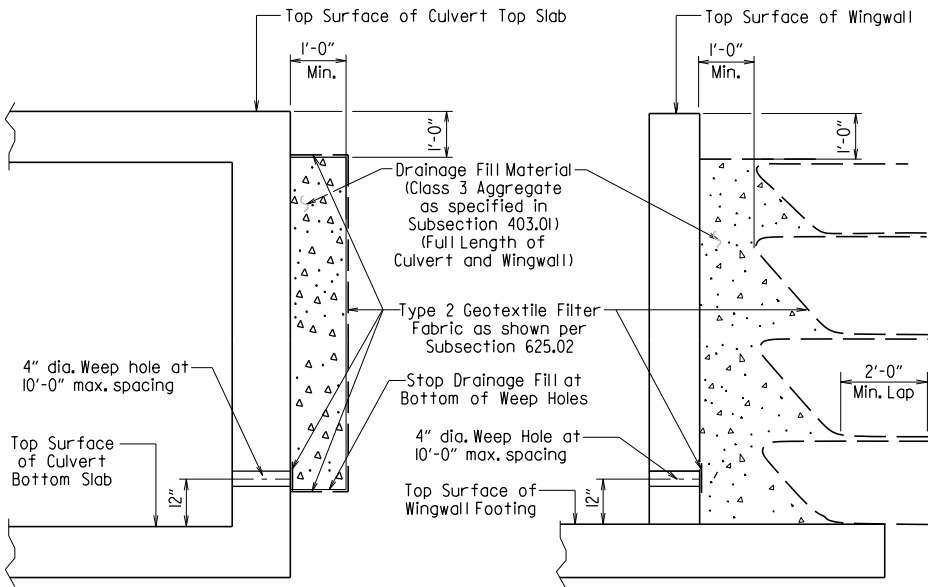


SKewed SECTION LAYOUT FOR VARYING FILL DEPTHS OVER 10'



CULVERT DRAINAGE DETAIL FOR ROCK FILL

This detail shall be used when rock fill is specified for embankment construction.



For Details of Excavation and Pay Limits, see Standard Drawing RCB-2.

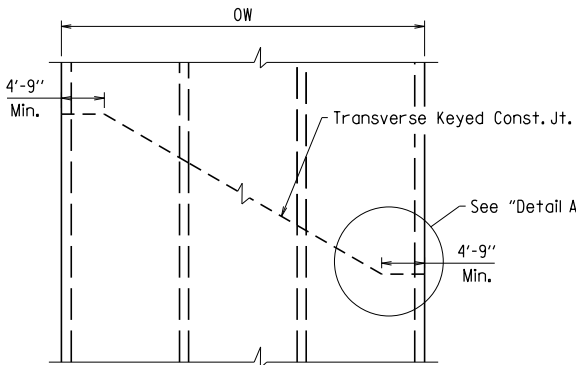
VERTICAL FABRIC ALTERNATE

(Shown for Culvert, Similar for Wingwall)

WRAPPED FABRIC ALTERNATE

(Shown for Wingwall, Similar for Culvert)

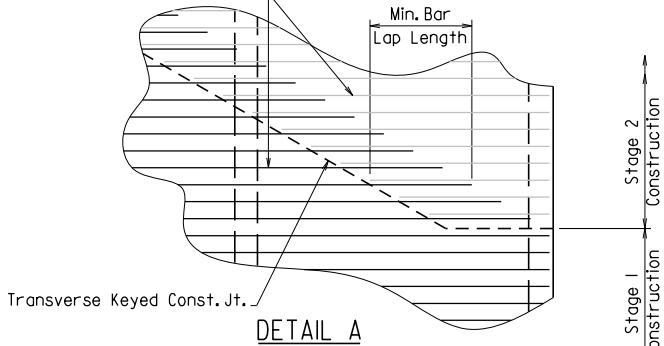
WINGWALL & CULVERT DRAINAGE DETAIL



SKewed TRANSVERSE JOINT DETAIL

This detail shall be used to construct a skewed transverse joint only for Multi-Barrel Culverts and only when required by the Maintenance of Traffic Plans. Otherwise, transverse joints should be made normal to the centerline of the barrel.

Slab bars "a", "b", "c", "d", "bl", or "f". Slab distribution and Wall reinforcing omitted for clarity.



DETAIL A

See Tabular Data Sheets for Minimum Bar Lap Lengths.

Shown for transverse reinforcing, longitudinal reinforcing similar.

GENERAL NOTES:

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2014 edition) with applicable Supplemental Specifications and Special Provisions. Section and Subsection refer to the Standard Construction Specifications unless otherwise noted in the Plans.

DESIGN SPECIFICATIONS: AASHTO LRFD Bridge Design Specifications, Fifth Edition (2010) with 2010 interim revisions.

LIVE LOADING: HL-93

All concrete shall be Class S with a minimum 28-day compressive strength of 3,500 psi and shall be poured in the dry. All exposed corners to have 3/4" chamfers.

Reinforcing Steel shall be Grade 60 (yield strength = 60,000 psi) conforming to AASHTO M31 or M322, Type A, with mill test reports.

Reinforcing Steel Tolerances: The tolerances for reinforcing steel shall meet those listed in 'Manual of Standard Practice' published by Concrete Reinforcing Steel Institute (CRSI) except that the tolerance for truss bars such as Figure 3 on page 7-4 of the CRSI Manual shall be minus zero to plus 1/2 inch.

Excavation and backfilling shall be in accordance with the requirements of Section 801.

Membrane Waterproofing shall conform to the requirements of Section 815. Membrane Waterproofing shall be Type C and as directed by the Engineer applied to all construction joints in the top slab and the sidewalls of R.C. Box culverts and to the construction joint between wingwalls and R.C. Box culvert walls.

Weep Holes in box culvert walls shall have a maximum horizontal spacing of 10'-0" and shall be spaced to clear all reinforcing steel. The drain opening shall be 4" diameter and shall be placed 12" above the top of the bottom slab.

Weep Holes in wingwalls shall have a maximum horizontal spacing of 10'-0" and shall be spaced to clear all reinforcing steel. There shall be a minimum of two (2) weep holes in each wingwall. The drain opening shall be 4" diameter and shall be placed 12" above the top of the wingwall footing.

The barrel components of the culvert may be constructed using continuous pours. For longer culvert construction, the Contractor may use multiple pours with transverse construction joints spaced a minimum of 50 feet apart unless superseded by stage construction or site constraints as approved by the Engineer. Construction joints between footings and walls shall be made only where shown in the Plans. Joints shall be keyed and shall be normal to the centerline of barrel except as noted. Reinforcing shall be continuous through joints unless noted otherwise. Reinforcing through stage construction joints shall provide the minimum bar lap length shown on the Tabular Data Sheets. All longitudinal construction joints shall be submitted to the Engineer for approval.

Membrane Waterproofing, Weep Holes, Geotextile Filter Fabric, and Drainage Fill Material will not be paid for directly but shall be considered subsidiary to Class S Concrete.

When the top slab of the box culvert serves as finished roadway surface, curing and finishing shall be in accordance with subsections 802.17 and 802.20 for bridge roadway surface and a fine finish shall be applied in accordance with subsection 802.19 for Class 5 Tined Bridge Roadway Surface Finish. Curing and finishing shall not be paid for directly, but shall be considered incidental to the item "Class S Concrete-Roadway". Class 1 Protective Surface Treatment shall be applied to the roadway surface and this work shall be paid for under the unit price bid for "Class 1 Protective Surface Treatment".

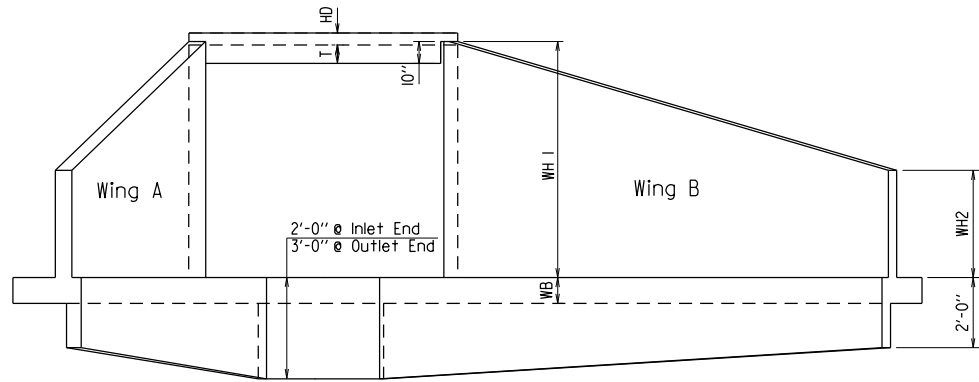
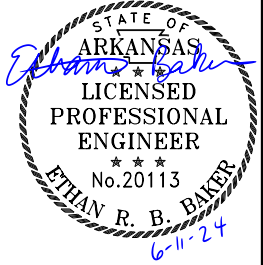
When precast reinforced concrete box culverts are substituted for cast in place box culverts, they shall be manufactured according to ASTM C 1577 and meet the requirements of Section 607. When the top slab of the box culvert serves as the finished roadway surface, a precast reinforced concrete box culvert substitution is not allowed.

SHEET 1 OF 4
GENERAL DETAILS OF R.C. BOX CULVERT
GENERAL NOTES &
LONGITUDINAL SECTION LENGTH SCHEDULE
SPECIAL DETAILS

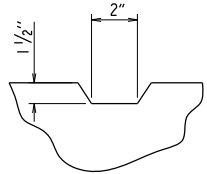


DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	II	94

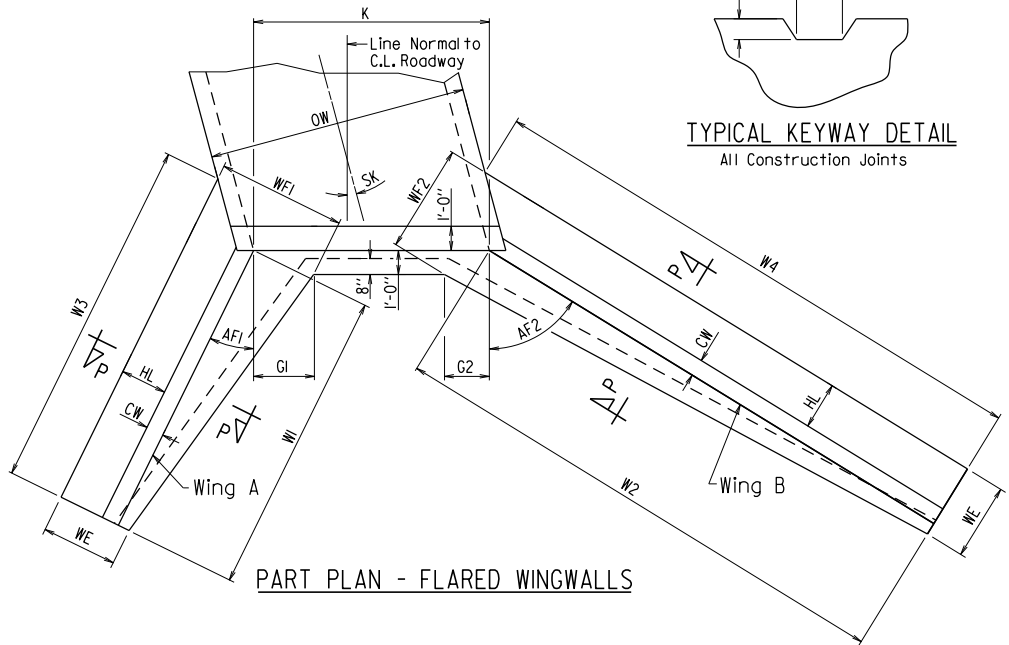
SPECIAL DETAILS



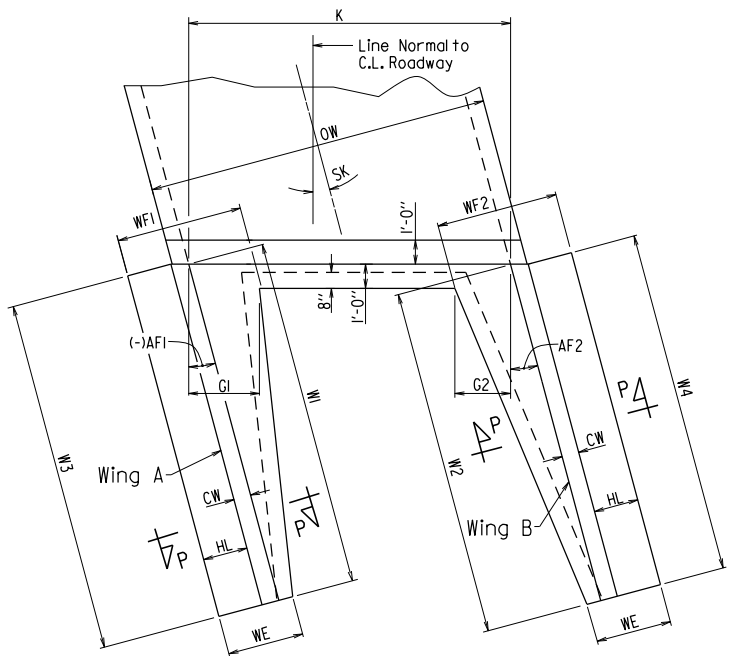
END ELEVATION
Flared Wingwalls Shown



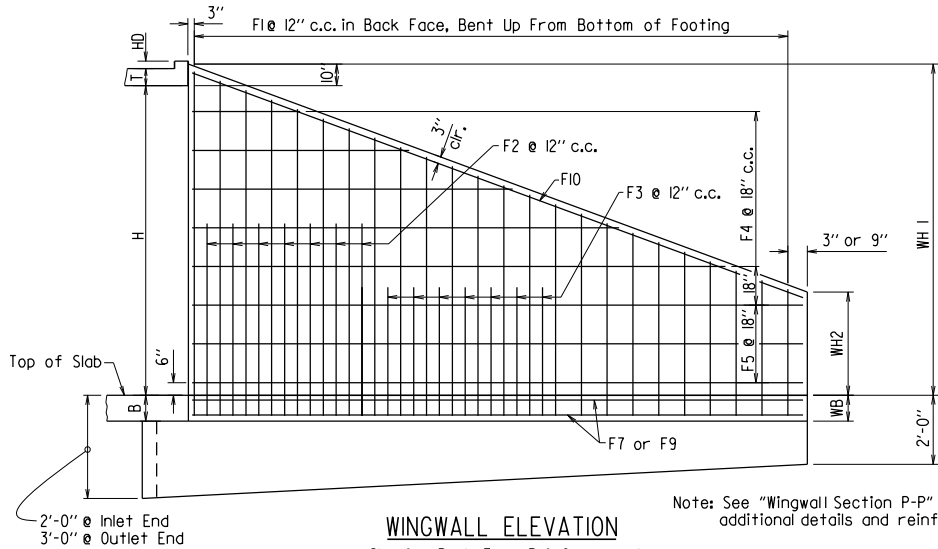
TYPICAL KEYWAY DETAIL
All Construction Joints



PART PLAN - FLARED WINGWALLS

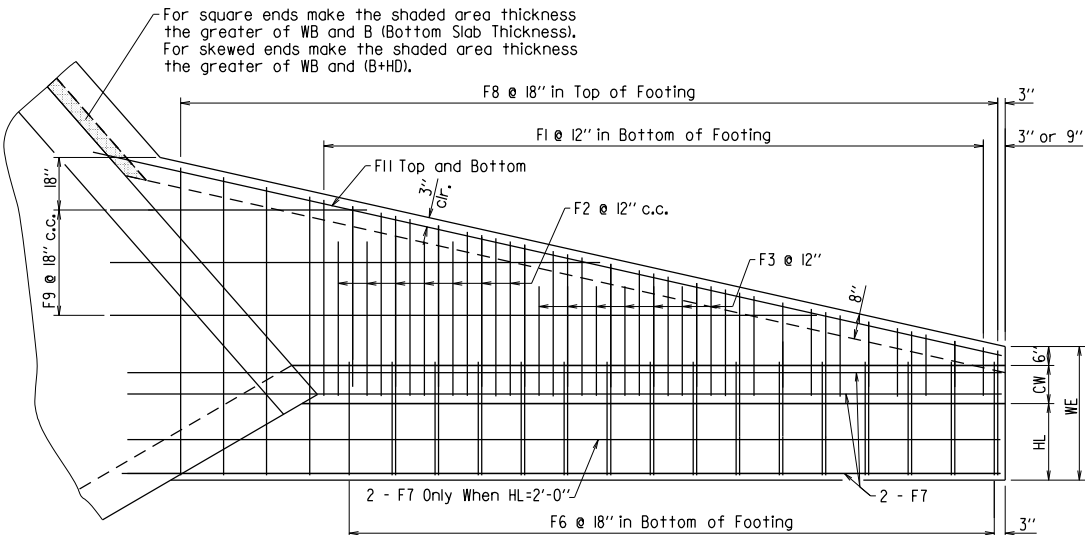


PART PLAN - PARALLEL WINGWALLS

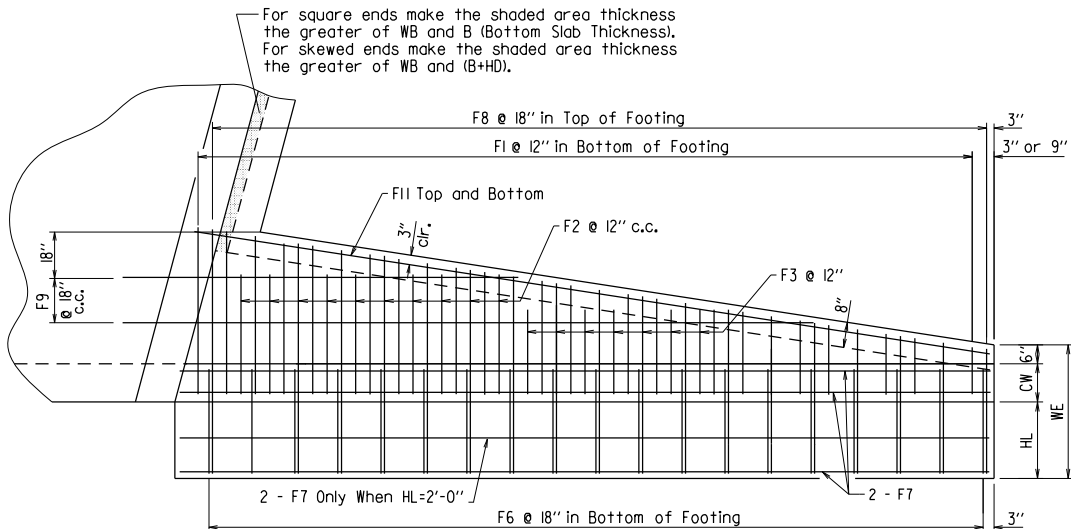


WINGWALL ELEVATION
Showing Back Face Reinforcement

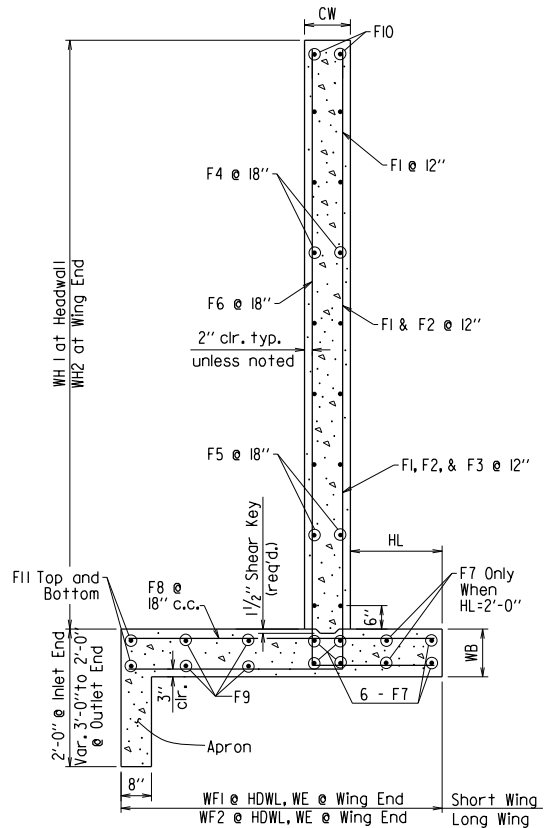
Note: See "Wingwall Section P-P" for additional details and reinforcing.



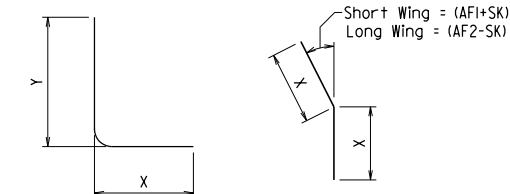
PLAN - FLARED WINGWALLS
Showing Footing Reinforcement



PLAN - PARALLEL WINGWALLS
Showing Footing Reinforcement



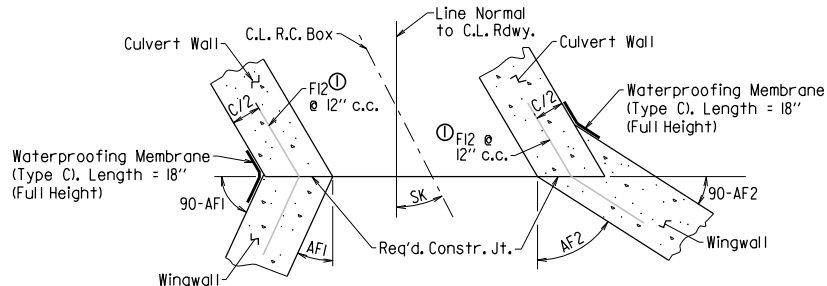
WINGWALL SECTION P-P



FL, F2, F3, & F6 BARS

F12 BAR

F12 is a straight bar for parallel wingwalls



CONSTRUCTION JOINTS
Flared Wingwalls Shown

SHEET 4 OF 4
GENERAL DETAILS OF R.C. BOX CULVERT
DETAILS OF WINGWALLS
SPECIAL DETAILS



INLET WINGWALL TABLE

R.C. BOX SECTION	DESIGN FILL DEPTH (FT.)				CLEAR SPAN (FT.)				CLEAR HEIGHT (FT.)				TOP SLAB THK.		BOTTOM SLAB THK.		SIDE WALL THK.		INTERIOR WALL THK.		OVER ALL WIDTH		OVER ALL HEIGHT		SECTION LENGTH (FT.)		TOP SLAB REINFORCING STEEL								BOTTOM SLAB REINFORCING STEEL								SIDE WALL REINFORCING STEEL				INTERIOR WALL REINFORCING STEEL				TOP SLAB DISTRIBUTION REINF. STEEL			BOTTOM SLAB DISTRIBUTION REINF. STEEL			SIDE WALL DISTRIBUTION REINF. STEEL			INTERIOR WALL DISTRIBUTION REINF. STEEL																																																																																																																																																																																																																																																																																																																																																																	
	D	S	H	T	B	C	W	OW	OH	SL	LENGTH = OW - 4" + BENDS								LENGTH = OW - 4" + BENDS								"f0" LENGTH = OH - 4"				"f1" LENGTH = OH - 4"				"g" LENGTH = SL			"e" LENGTH = SL			"d1" LENGTH = SL			"d2" LENGTH = SL																																																																																																																																																																																																																																																																																																																																																																																	
											"a"		Bent "b"		"c"		SPACING	NO. REQ'D	"d"		Bent "b1"		"f"		SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	LENGTH	SIZE	SPACING	NO. REQ'D	LENGTH	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE

For additional information and outlet sections, see Sheet 2 of 2.

SPECIAL DETAILS



① Any Bar Lap Required for the Skewed End Section shall be considered subsidiary to the item "Reinforcing Steel - Roadway (Grade 60)."

Data shown for Mid-Section, Slope Section(s), and Skewed End Section is based on the design fill depth shown in the table, see PLAN AND PROFILE SHEETS for actual fill depth.

SPECIAL DETAILS



OUTLET SLOPE SECTION(S)

OUTLET SKEWED END SECTION

OUTLET WINGWALL TABLE

[illegible]

Min. Bar Lap Length	
#4	1'-9"
#5	2'-2"
#6	2'-7"
#7	3'-6"
#8	4'-7"

#4	3"
#5	3 3/4"
#6	4 1/2"
#7	5 1/4"
#8	6"

① Any Bar Lap Required for the Skewed End Section shall be considered subsidiary to the item "Reinforcing Steel - Roadway (Grade 60)."

SK	SL	D	S	H	LL	T	HD	B	C	W	OW	OH	TOP SLAB REINFORCING STEEL								BOTTOM SLAB REINFORCING STEEL								SIDE WALL REINFORCING STEEL				INTERIOR WALL REINFORCING STEEL				TOP SLAB DISTRIBUTION REINFORCING STEEL				BOTTOM SLAB DISTRIBUTION REINFORCING STEEL				SIDE WALL DISTRIBUTION REINFORCING STEEL				INTERIOR WALL DISTRIBUTION REINFORCING STEEL				CLASS "S" CONCRETE (includes HDWL)	REINFORCING STEEL (GR 60) (includes HDWL)
													"a"				"c"				"d"				"f"				"f0"				"f1"				"g"				"e"				"d1"				"d2"					
													SIZE	SPACING	LENGTHS VARY	NO. REQ'D	SIZE	SPACING	LENGTHS VARY	NO. REQ'D	SIZE	SPACING	LENGTHS VARY	NO. REQ'D	SIZE	SPACING	NO. REQ'D	LENGTH	SIZE	SPACING	NO. REQ'D	LENGTH	SIZE	SPACING	NO. REQ'D	LENGTHS VARY	SIZE	SPACING	NO. REQ'D	LENGTHS VARY	SIZE	SPACING	NO. REQ'D	LENGTH	SIZE	SPACING	NO. REQ'D	LENGTH						
40	3'-1"	10	10	10	24'-10"	13	3	13	10.5	8	54'-5"	12'-2"	5	8	Max 54'-1" Min 2'-8" 54'-1"	65	5	7	Max 54'-1" Min 2'-8" 54'-1"	74	4	4.5	Max 54'-1" Min 2'-8" 54'-1"	115	4	5.5	Max 54'-1" Min 2'-8" 54'-1"	95	8	9	67	11'-10"	4	12	208	11'-10"	4	8.5	159	Max 47'-6" Min 1'-10"	4	8.5	159	Max 47'-6" Min 1'-10"	4	10	12	LONG 46'-11" SHORT 2'-5"	4	12	20	LONG 38'-4" MID 29'-3" SHORT 11'-0"		
"k1" HDWL BARS							"k2" HDWL BARS					"n" HDWL BARS																																										
SIZE		LENGTH		NO. REQ'D		SIZE		LENGTH		NO. REQ'D		SIZE		LENGTH		Y		NO. REQ'D																																				
5		36'-5"		12		5		36'-5"		12		4		2'-0"		1'-0"		73																																				

[illegible]

	CU. YDS.	CLASS "S" CONCRETE
		REINFORCING STEEL (GR 60)
TOTAL		

SHEET 2 OF 2
DETAILS OF R.C. BOX CULVERT
QUINTUPLE BARREL BOX CULVERT
Sta. 13+92.88

SPECIAL DETAILS



MID-SECTION

MID-SECTION
BAR LAP TABLE

Min. Bar Lap Length	
#4	1'-9"
#5	2'-2"
#6	2'-7"
#7	3'-6"
#8	4'-7"

TABULAR DATA BY: MHA DATE: 05/03/2023
CHECKED BY: SB DATE: 05/10/2023

For additional information and outlet sections, see Sheet 2 of 2.



	CU. YDS.	CLASS "S" CONCRETE (Includes HDWL.)
	LBS.	REINFORCING STEEL (GR 60) (Includes HDWL.)

① Any Bar Lap Required for the Skewed End Section shall be considered subsidiary to the item "Reinforcing Steel - Roadway (Grade 60)."

	CU. YDS.	CLASS "S" CONCRETE
	LBS.	REINFORCING STEEL (GR. 60)
	TOTAL	
0.50	147	

Data shown for Mid-Section, Slope Section(s), and Skewed End Section is based on the design fill depth shown in the table, see PLAN AND PROFILE SHEETS for actual fill depth.

660.28	CU. YDS.	CLASS "S" CONCRETE
79972	LBS.	REINFORCING STEEL (GR. 60)

SPECIAL DETAILS



OUTLET SKEWED END SECTION

OUTLET WINGWALL TABLE

Min. Bar Lap Length	
#4	1'-9"
#5	2'-2"
#6	2'-7"
#7	3'-6"
#8	4'-7"

TABULAR DATA BY: MHA DATE: 05/03/2023
CHECKED BY: SB DATE: 05/10/2023

[illegible]

		CU. YDS.	CLASS "S" CONCRETE
		LBS.	REINFORCING STEEL (GR 60)
		TOTAL	
0.50	147		

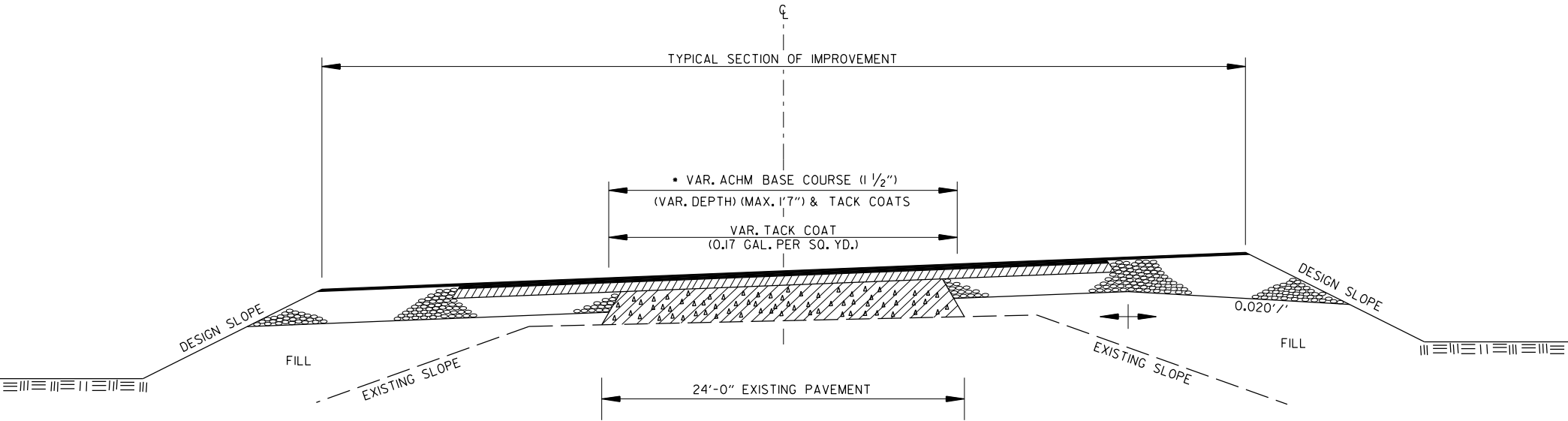
SPECIAL DETAILS



Unless otherwise noted, all dimensions are in inches.

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	16	94

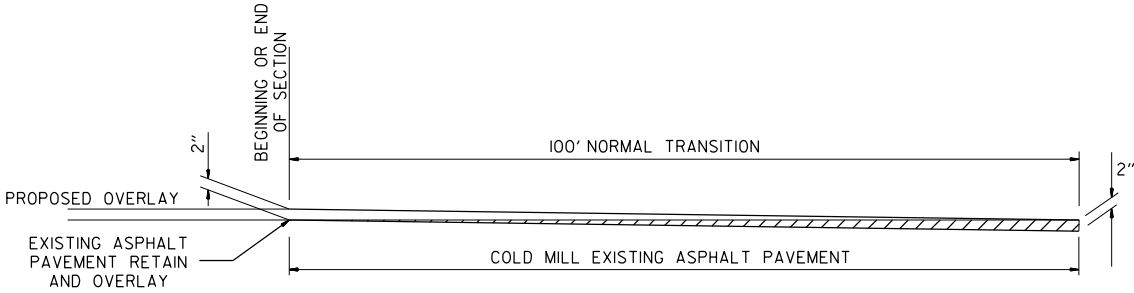
SPECIAL DETAILS



• 7" AGGREGATE BASE COURSE (CLASS 7)
TO BE REPLACED WITH ACHM BASE COURSE (1 1/2")

METHOD OF RAISING GRADE

- NOTES:
- (1) THIS DETAIL TO BE USED ONLY WHERE DIRECTED BY THE ENGINEER.
 - (2) QUANTITIES FOR METHOD OF GRADE RAISE USING ASPHALT WERE CALCULATED ON THIS PROJECT AT LOCATIONS WHERE THE DISTANCE BETWEEN THE EXISTING ASPHALT ROADWAY AND THE PROPOSED SUBGRADE WAS ONE FOOT OR LESS.
 - (3) IN LOCATIONS WHERE THE DISTANCE BETWEEN THE PROPOSED SUBGRADE AND THE EXISTING ASPHALT ROADWAY IS MORE THAN ONE FOOT, SCARIFICATION OF THE EXISTING ASPHALT ROADWAY WILL BE REQUIRED AS STATED IN SECTION 210, SUBSECTION 210.09, OF THE STANDARD SPECIFICATIONS.

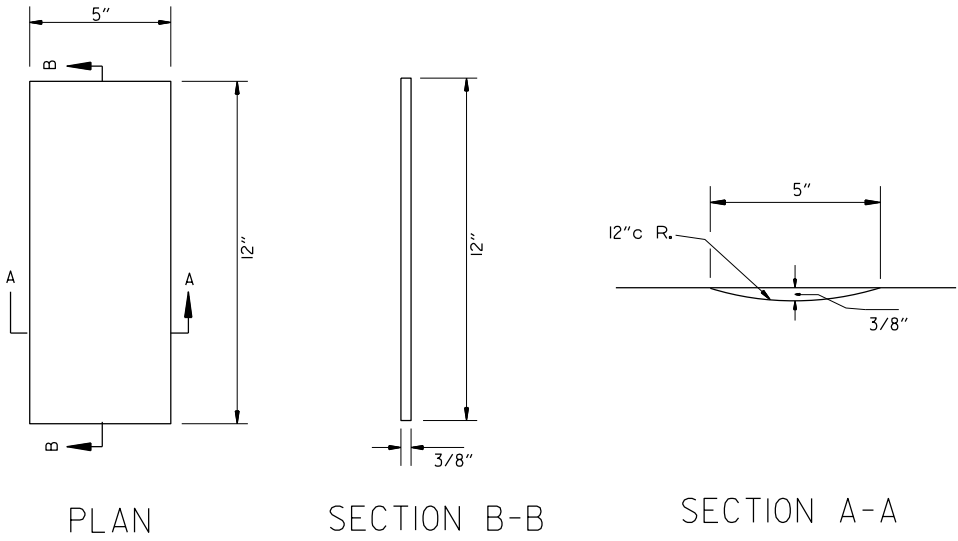


DETAIL FOR TRANSITIONS

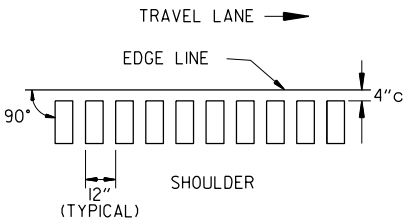
Scott Thornsberry 10/4/2024 1:59:36 PM
WORKSPACE: Y:\Projects\VRD\84450_Grand Profile Irrigation-Seg
REVISED DATE: \$*REVIDATE\$*

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	17	94

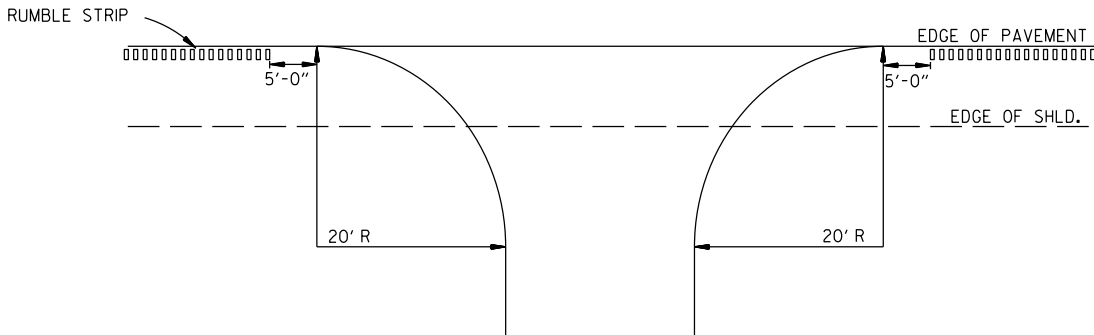
SPECIAL DETAILS



DETAILS OF RUMBLE STRIPS



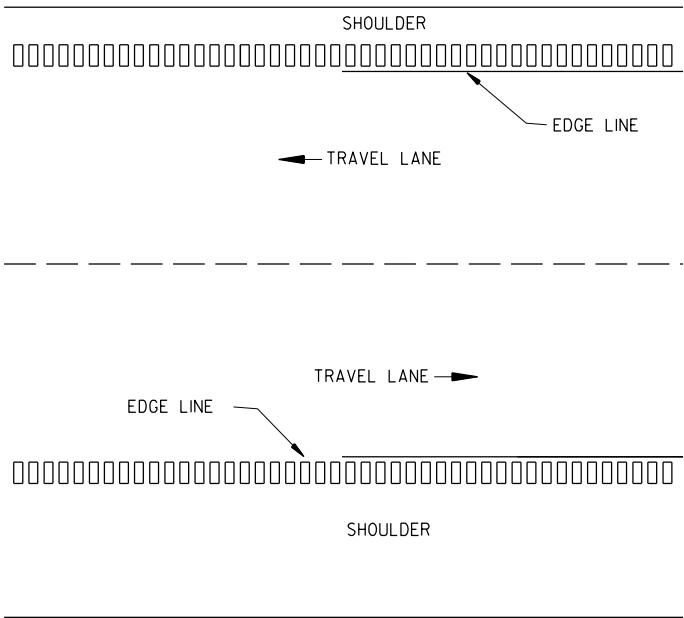
LOCATION PLAN OF RUMBLE STRIPS
LEFT OR RIGHT SHOULDER



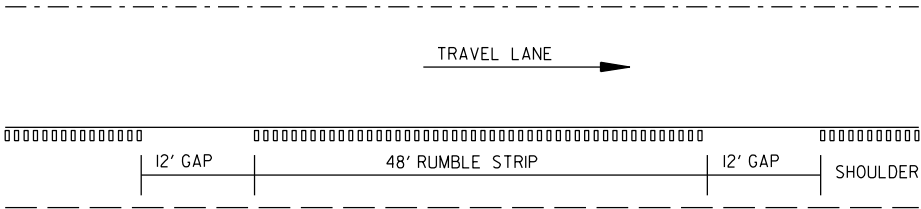
DETAIL FOR RUMBLE STRIP GAP
AT DRIVEWAY TURNOUTS

GENERAL NOTES:

- RUMBLE STRIPS SHALL NOT BE INSTALLED ON CURB SECTIONS, BRIDGE DECKS, APPROACH SLABS, INTERSECTING STREETS OR ROADWAYS, RESIDENTIAL OR COMMERCIAL DRIVEWAYS OR ACROSS TRANSVERSE JOINTS OF CONCRETE SHOULDERS.
- RUMBLE STRIPS SHALL NOT BE INSTALLED ON A PAVED SHOULDER THAT IS USED AS A DECELERATION LANE FOR THE LENGTH DEEMED APPROPRIATE BY THE ENGINEER.
- THE 4" OFFSET FROM THE EDGE LINE MAY BE INCREASED TO AVOID LONGITUDINAL JOINTS. IN ALL CASES, THE LATERAL DEVIATION FROM THE PLANNED OFFSET SHOULD BE KEPT TO A MINIMUM.
- RUMBLE STRIPS SHALL BE MEASURED BY THE LINEAR FOOT LONGITUDINALLY ALONG THE SHOULDER. PAYMENT SHALL ONLY INCLUDE THAT PORTION OF THE SHOULDER ON WHICH RUMBLE STRIPS HAVE BEEN CONSTRUCTED. NO MEASUREMENT OR PAYMENT WILL BE MADE FOR GAPS, DRIVEWAYS, TURNOUTS, OR OTHER PUBLIC ROAD INTERSECTIONS WHERE RUMBLE STRIPS HAVE NOT BEEN CONSTRUCTED.
- THE 3/8" DEPTH SHALL GENERALLY APPLY FOR THE ENTIRE 12" LENGTH. SOME VARIATION TO SUIT SHOULDER SLOPE BREAKS MAY BE NECESSARY.



PLAN VIEW



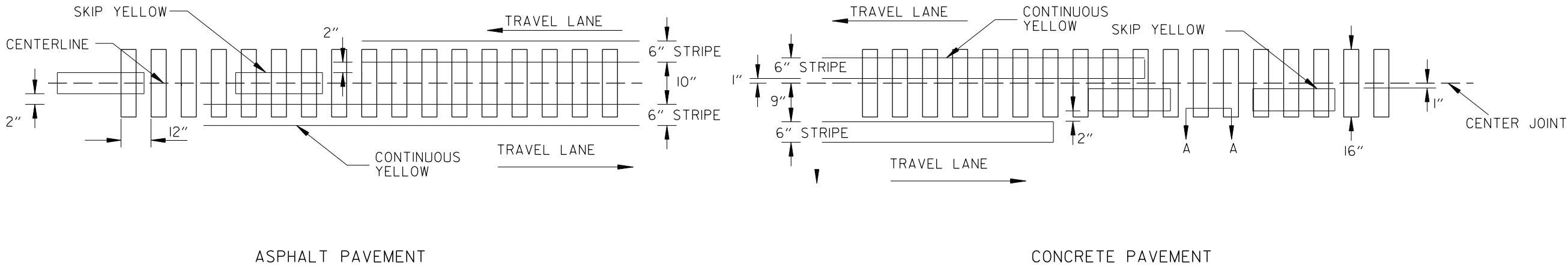
NOTE: GAP PATTERN SHALL BE ADJUSTED BY THE ENGINEER IN THE FIELD ALLOWING FOR DRIVEWAYS TO SERVE AS THE GAP.

DETAIL FOR GAP PATTERN RUMBLE STRIP

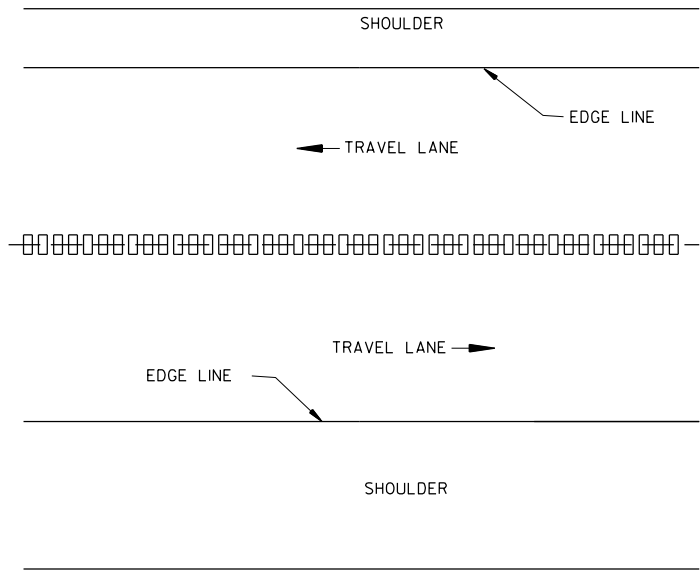
Scott Thornberry 10/4/2024 1:59:36 PM
WORKSPACE: \\projects\VRD\84450_Grand Prairie Irrigation-Seg
REVISED DATE: **REVIDATE**

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	18	94

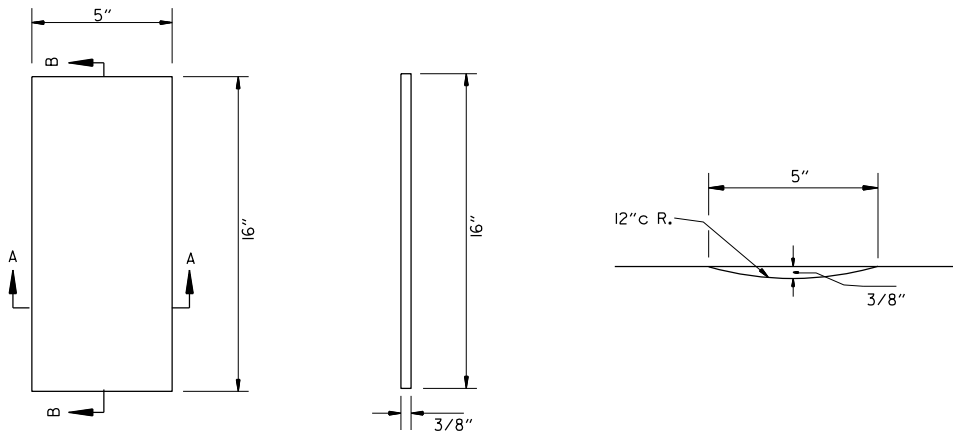
SPECIAL DETAILS



LOCATION PLAN OF CENTERLINE RUMBLE STRIPES



PLAN VIEW



PLAN SECTION B-B SECTION A-A

DETAILS OF CENTERLINE RUMBLE STRIPES

GENERAL NOTES:

1. RUMBLE STRIPES SHALL NOT BE INSTALLED ON BRIDGE DECKS, APPROACH SLABS, INTERSECTING STREETS OR ROADWAYS, OR ACROSS TRANSVERSE JOINTS OF CONCRETE SHOULDERS.
2. RUMBLE STRIPES SHALL BE MEASURED BY THE LINEAR FOOT LONGITUDINALLY ALONG THE CENTERLINE.
3. THE 3/8" DEPTH SHALL GENERALLY APPLY FOR THE ENTIRE 16" LENGTH. SOME VARIATION TO SUIT SLOPE BREAKS MAY BE NECESSARY.

LEGEND

- (E-5) = SAND BAG DITCH CHECK
(E-6) = ROCK DITCH CHECK
(E-11) = SILT FENCE

TEMPORARY EROSION CONTROL GENERAL NOTES:

THE QUANTITIES AND LOCATIONS OF THE EROSION CONTROL DEVICES SHOWN IN THE PLANS ARE ESTIMATED AND MAY BE ALTERED IF AND WHERE DIRECTED BY THE ENGINEER TO MAXIMIZE THEIR EFFECTIVENESS. THE DEVICES ARE TO BE INSTALLED IN AN AREA ONLY WHEN THE SOIL DISTURBING ACTIVITY IN THAT AREA BEGINS.

REFER TO SECTION 110 OF THE STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

EROSION CONTROL MEASURES INSTALLED IN CLEARING AND GRUBBING SHALL REMAIN IN PLACE THROUGHOUT STAGE 1 AND STAGE 2 OR UNTIL FINAL STABILIZATION.

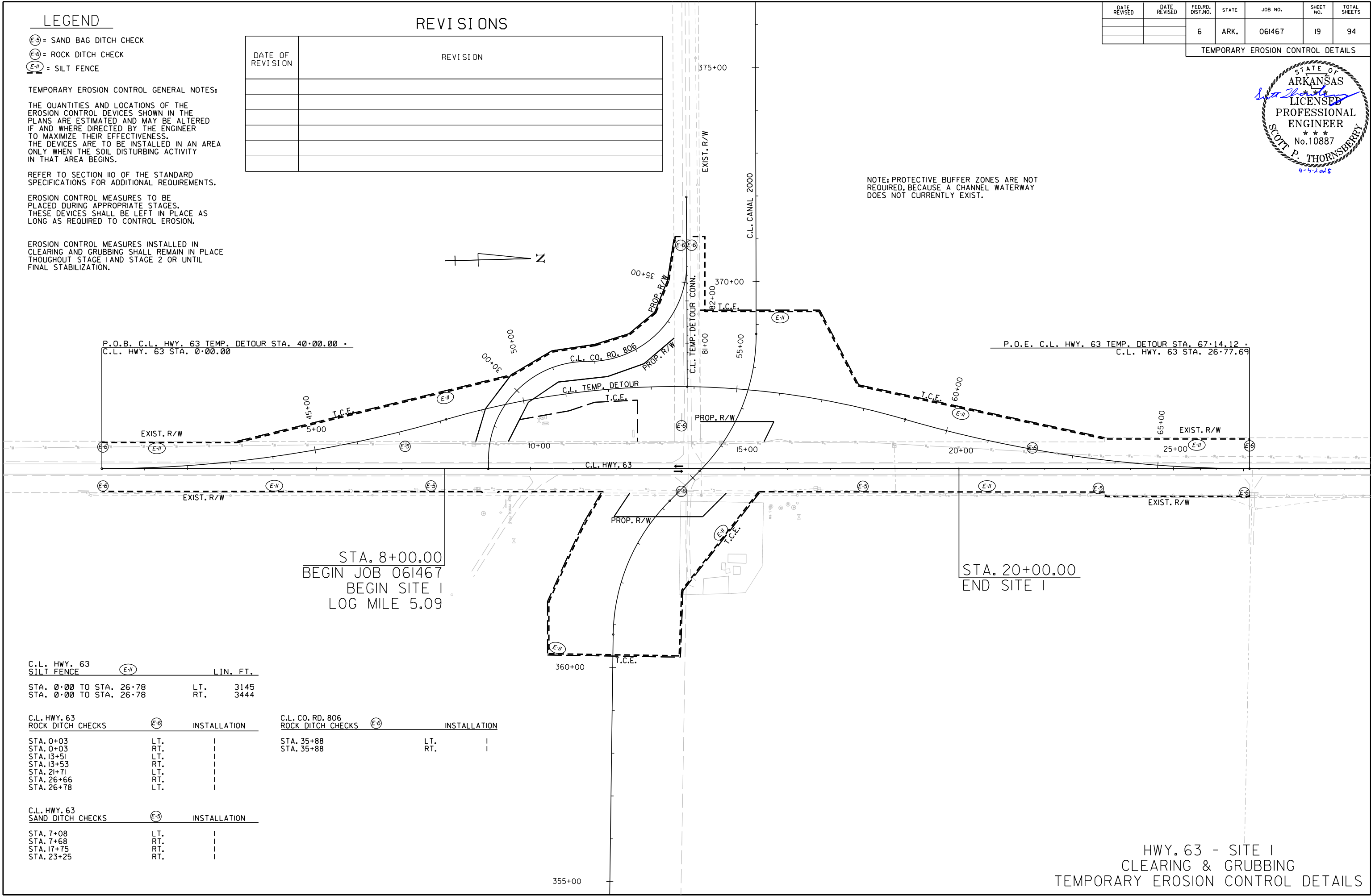
REVISIONS

DATE OF REVISION	REVISION

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	19	94
TEMPORARY EROSION CONTROL DETAILS						



NOTE: PROTECTIVE BUFFER ZONES ARE NOT REQUIRED, BECAUSE A CHANNEL WATERWAY DOES NOT CURRENTLY EXIST.



STA. 8+00.00
BEGIN JOB 061467
BEGIN SITE I
LOG MILE 5.09

STA. 20+00.00
END SITE I

C.L. HWY. 63 SILT FENCE (E-11)	LIN. FT.
STA. 0+00 TO STA. 26+78	LT. 3145
STA. 0+00 TO STA. 26+78	RT. 3444

C.L. HWY. 63 ROCK DITCH CHECKS (E-6)	INSTALLATION
STA. 0+03	LT.
STA. 0+03	RT.
STA. 13+51	LT.
STA. 13+53	RT.
STA. 21+71	LT.
STA. 26+66	RT.
STA. 26+78	LT.

C.L. HWY. 63 SAND DITCH CHECKS (E-5)	INSTALLATION
STA. 7+08	LT.
STA. 7+68	RT.
STA. 17+75	RT.
STA. 23+25	RT.

C.L. CO. RD. 806 ROCK DITCH CHECKS (E-6)	INSTALLATION
STA. 35+88	LT.
STA. 35+88	RT.

HWY. 63 - SITE I
CLEARING & GRUBBING
TEMPORARY EROSION CONTROL DETAILS

Scott Thornberry 4/2025 1:55:24 PM
WORKSPACE: Y:\Projects\VRD\84450_Grand Prairie Irrigation-Seg 1\Drawings\061467_05E_EC1002.dgn
REVISED DATE: \$REDATE\$

LEGEND

- (E-5) = SAND BAG DITCH CHECK
(E-6) = ROCK DITCH CHECK
(E-11) = SILT FENCE

TEMPORARY EROSION CONTROL GENERAL NOTES:

THE QUANTITIES AND LOCATIONS OF THE EROSION CONTROL DEVICES SHOWN IN THE PLANS ARE ESTIMATED AND MAY BE ALTERED IF AND WHERE DIRECTED BY THE ENGINEER TO MAXIMIZE THEIR EFFECTIVENESS. THE DEVICES ARE TO BE INSTALLED IN AN AREA ONLY WHEN THE SOIL DISTURBING ACTIVITY IN THAT AREA BEGINS.

REFER TO SECTION 110 OF THE STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

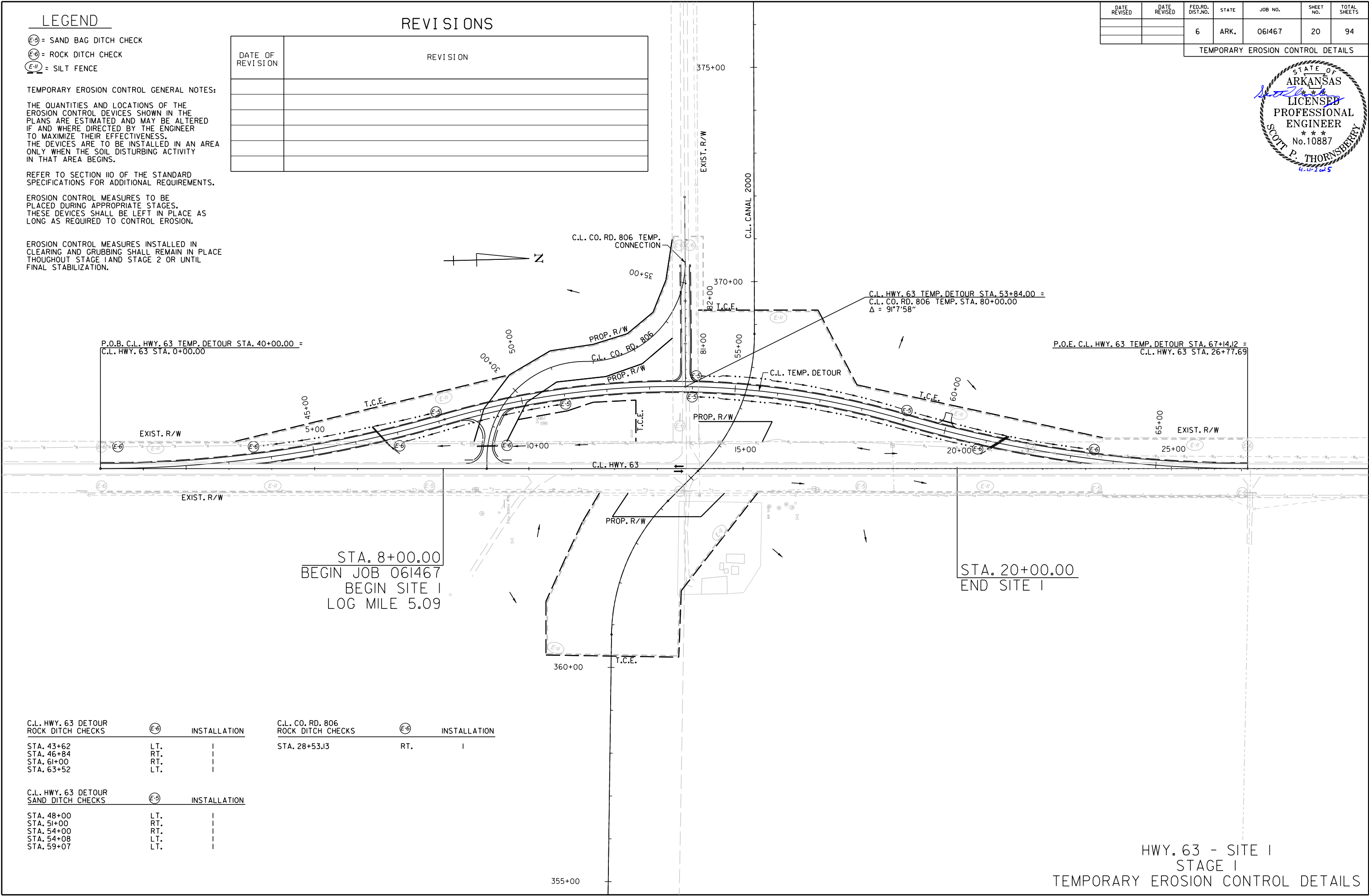
EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

EROSION CONTROL MEASURES INSTALLED IN CLEARING AND GRUBBING SHALL REMAIN IN PLACE THROUGHOUT STAGE 1 AND STAGE 2 OR UNTIL FINAL STABILIZATION.

REVISIONS

DATE OF REVISION	REVISION

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	20	94
TEMPORARY EROSION CONTROL DETAILS						



C.L. HWY. 63 DETOUR ROCK DITCH CHECKS	(E-6)	INSTALLATION
STA. 43+62	LT.	
STA. 46+84	RT.	
STA. 61+00	RT.	
STA. 63+52	LT.	

C.L. CO. RD. 806 ROCK DITCH CHECKS	(E-6)	INSTALLATION
STA. 28+53.13	RT.	

C.L. HWY. 63 DETOUR SAND DITCH CHECKS	(E-5)	INSTALLATION
STA. 48+00	LT.	
STA. 51+00	RT.	
STA. 54+00	RT.	
STA. 54+08	LT.	
STA. 59+07	LT.	

HWY. 63 - SITE I
STAGE I
TEMPORARY EROSION CONTROL DETAILS

Scott Thornberry 4/2025 1:55:25 PM
WORKSPACE: \\projects\VRD\8450_Grand Prairie Irrigation-Seg
REVISED DATE: \$REVIDATE\$

LEGEND

- (E-5) = SAND BAG DITCH CHECK
(E-6) = ROCK DITCH CHECK
(E-11) = SILT FENCE

TEMPORARY EROSION CONTROL GENERAL NOTES:

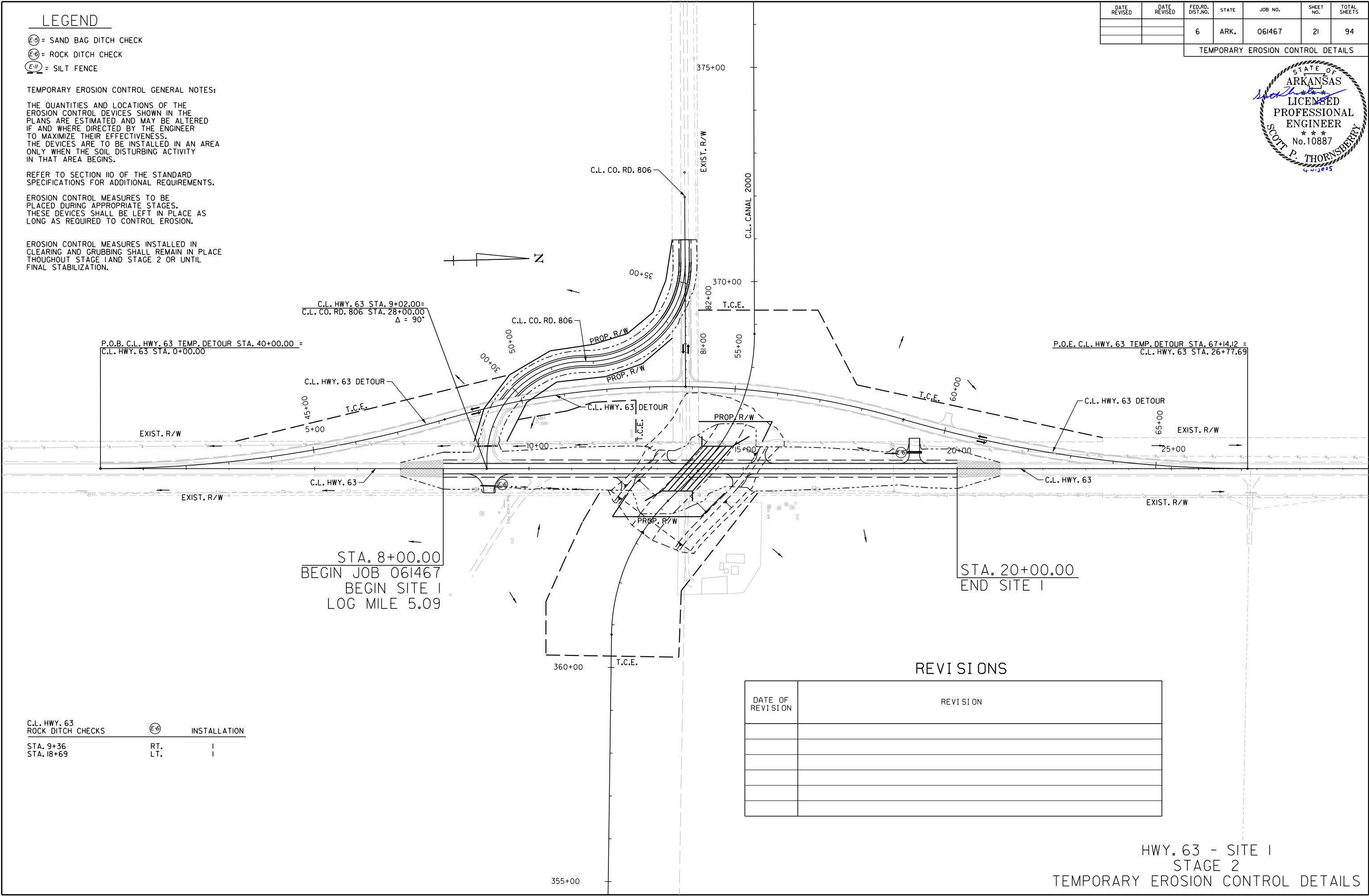
THE QUANTITIES AND LOCATIONS OF THE EROSION CONTROL DEVICES SHOWN IN THE PLANS ARE ESTIMATED AND MAY BE ALTERED IF AND WHERE DIRECTED BY THE ENGINEER TO MAXIMIZE THEIR EFFECTIVENESS. THE DEVICES ARE TO BE INSTALLED IN AN AREA ONLY WHEN THE SOIL DISTURBING ACTIVITY IN THAT AREA BEGINS.

REFER TO SECTION 110 OF THE STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

EROSION CONTROL MEASURES INSTALLED IN CLEARING AND GRUBBING SHALL REMAIN IN PLACE THROUGHOUT STAGE 1 AND STAGE 2 OR UNTIL FINAL STABILIZATION.

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	21	94
TEMPORARY EROSION CONTROL DETAILS						



C.L. HWY. 63 ROCK DITCH CHECKS	(E-6)	INSTALLATION
STA. 9+36	RT.	I
STA. 18+69	LT.	I

HWY. 63 - SITE 1
STAGE 2
TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	22	94
TEMPORARY EROSION CONTROL DETAILS						



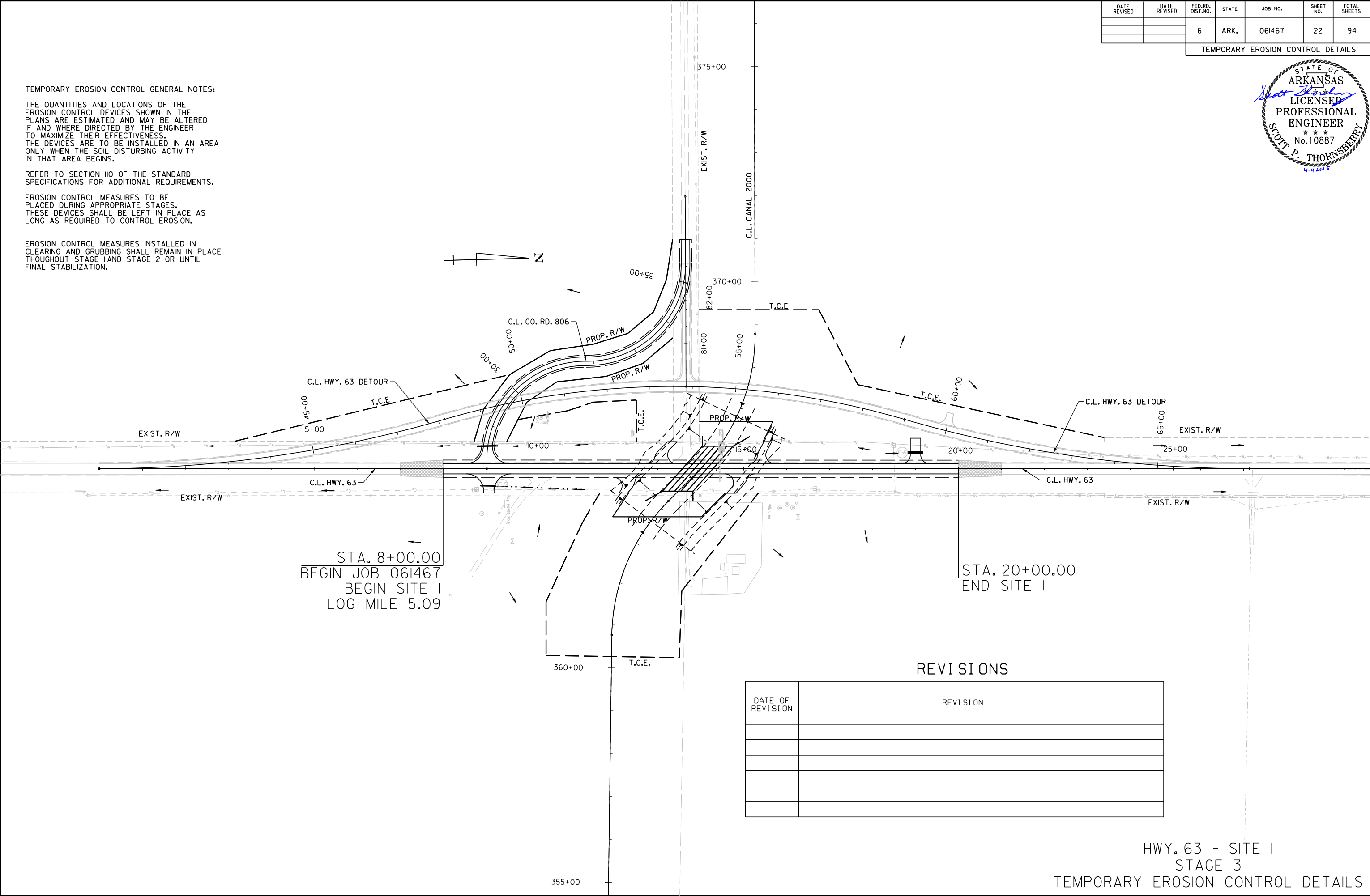
TEMPORARY EROSION CONTROL GENERAL NOTES:

THE QUANTITIES AND LOCATIONS OF THE EROSION CONTROL DEVICES SHOWN IN THE PLANS ARE ESTIMATED AND MAY BE ALTERED IF AND WHERE DIRECTED BY THE ENGINEER TO MAXIMIZE THEIR EFFECTIVENESS. THE DEVICES ARE TO BE INSTALLED IN AN AREA ONLY WHEN THE SOIL DISTURBING ACTIVITY IN THAT AREA BEGINS.

REFER TO SECTION 110 OF THE STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

EROSION CONTROL MEASURES INSTALLED IN CLEARING AND GRUBBING SHALL REMAIN IN PLACE THROUGHOUT STAGE 1 AND STAGE 2 OR UNTIL FINAL STABILIZATION.



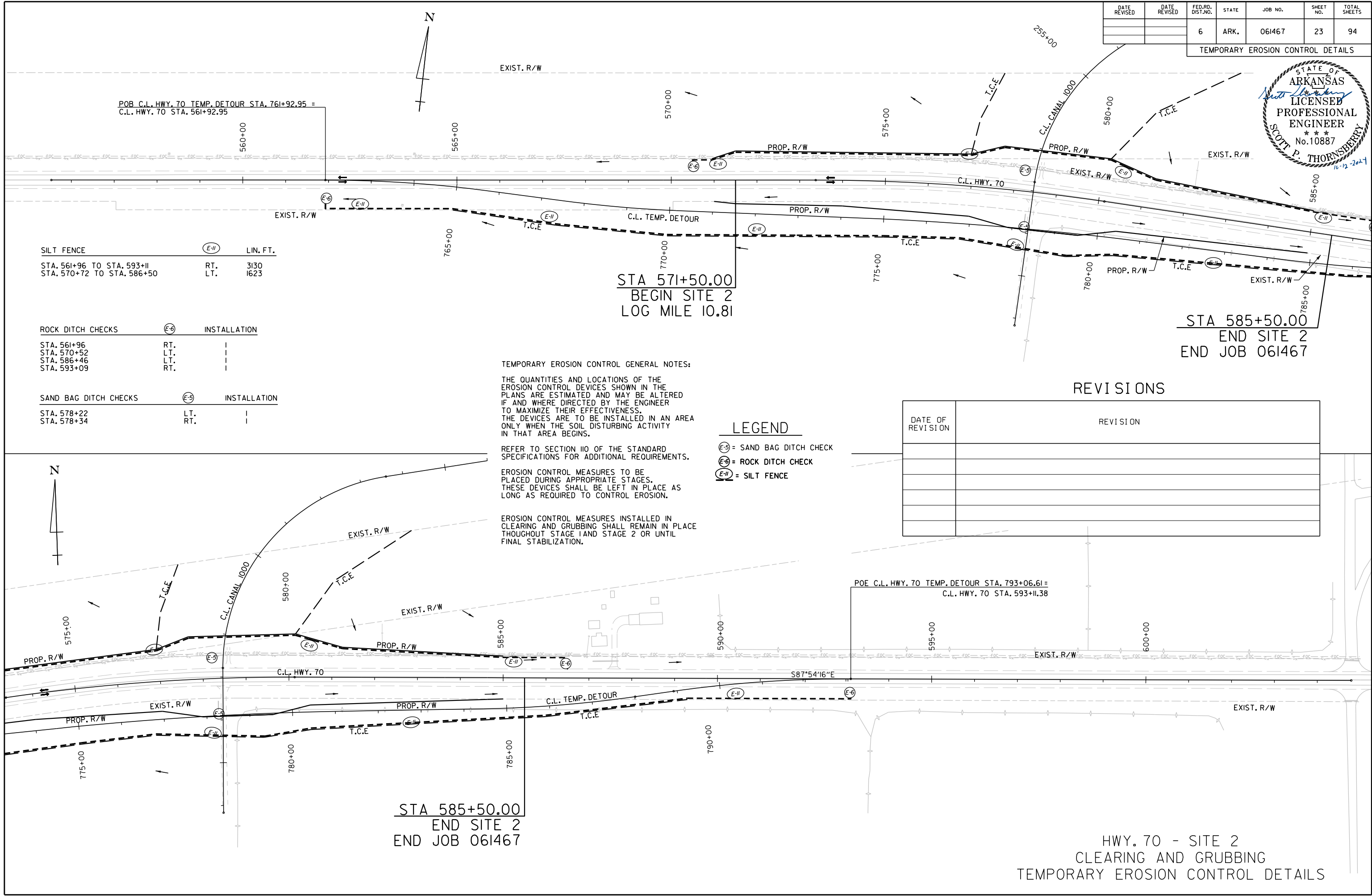
REVISIONS

DATE OF REVISION	REVISION

HWY. 63 - SITE 1
STAGE 3
TEMPORARY EROSION CONTROL DETAILS

Scott Thornberry 4/2025 1:55:25 PM
WORKSPACE: J:\Projects\061467\061467.dgn
PROJECT: V061467_05E.EC1004.dgn
REVISION: 1
REVISED DATE: 4/2025

Scott Thornsberry 10/4/2024 1:59:40 PM
WORKSPACE: \\projects\VRD\84450_Grand Prairie Irrigation-Seg 1\Drawings\VRD\061467_05E_EC2.dgn
REVIS DATE: **REDATE**



DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	23	94

TEMPORARY EROSION CONTROL DETAILS



SILT FENCE	(E-11)	LIN. FT.
STA. 561+96 TO STA. 593+11	RT.	3130
STA. 570+72 TO STA. 586+50	LT.	1623

ROCK DITCH CHECKS	(E-6)	INSTALLATION
STA. 561+96	RT.	
STA. 570+52	LT.	
STA. 586+46	LT.	
STA. 593+09	RT.	

SAND BAG DITCH CHECKS	(E-5)	INSTALLATION
STA. 578+22	LT.	
STA. 578+34	RT.	

TEMPORARY EROSION CONTROL GENERAL NOTES:

THE QUANTITIES AND LOCATIONS OF THE EROSION CONTROL DEVICES SHOWN IN THE PLANS ARE ESTIMATED AND MAY BE ALTERED IF AND WHERE DIRECTED BY THE ENGINEER TO MAXIMIZE THEIR EFFECTIVENESS. THE DEVICES ARE TO BE INSTALLED IN AN AREA ONLY WHEN THE SOIL DISTURBING ACTIVITY IN THAT AREA BEGINS.

REFER TO SECTION 110 OF THE STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

EROSION CONTROL MEASURES INSTALLED IN CLEARING AND GRUBBING SHALL REMAIN IN PLACE THROUGHOUT STAGE 1 AND STAGE 2 OR UNTIL FINAL STABILIZATION.

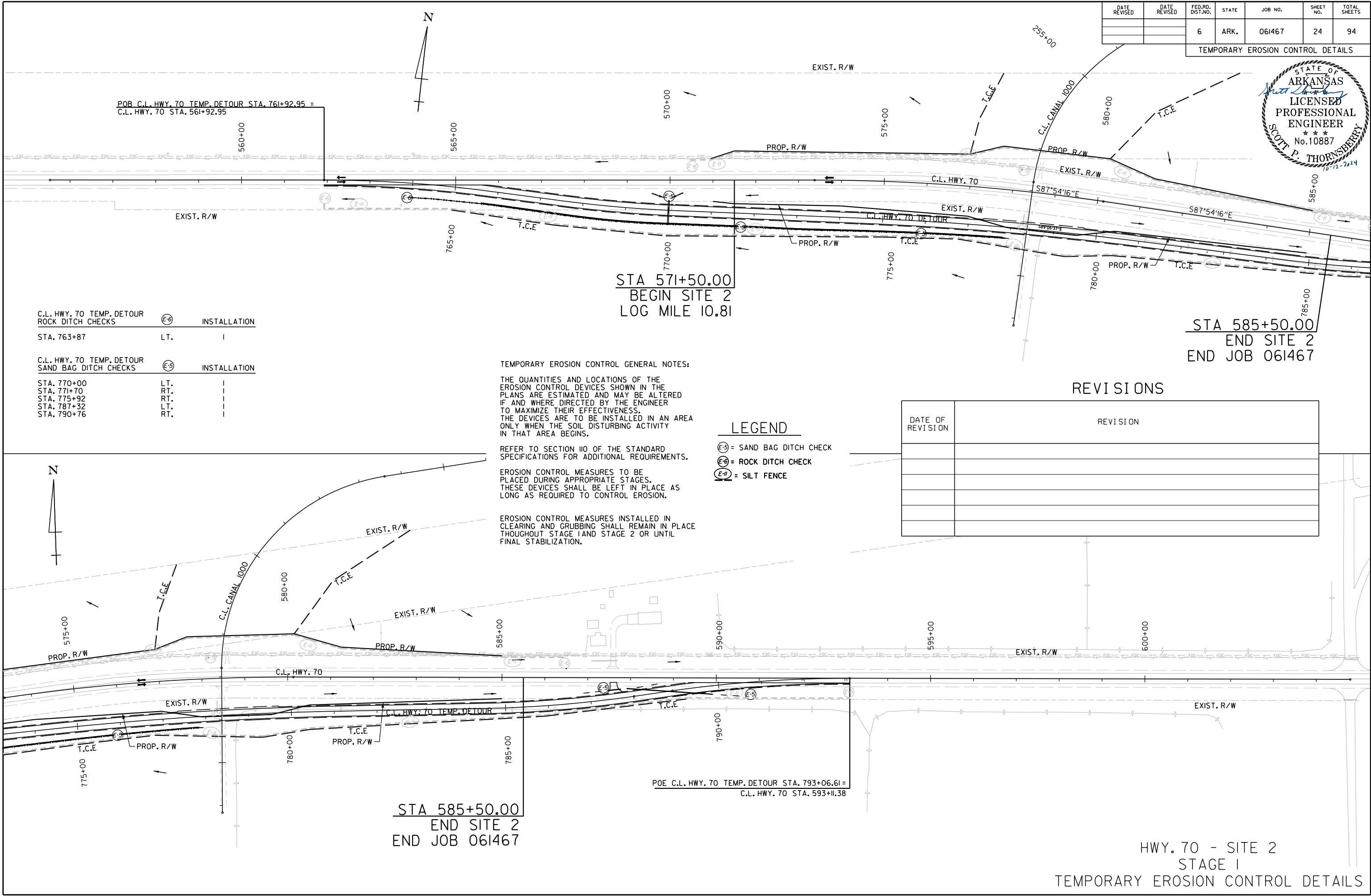
LEGEND

- (E-5) = SAND BAG DITCH CHECK
- (E-6) = ROCK DITCH CHECK
- (E-11) = SILT FENCE

REVISIONS

DATE OF REVISION	REVISION

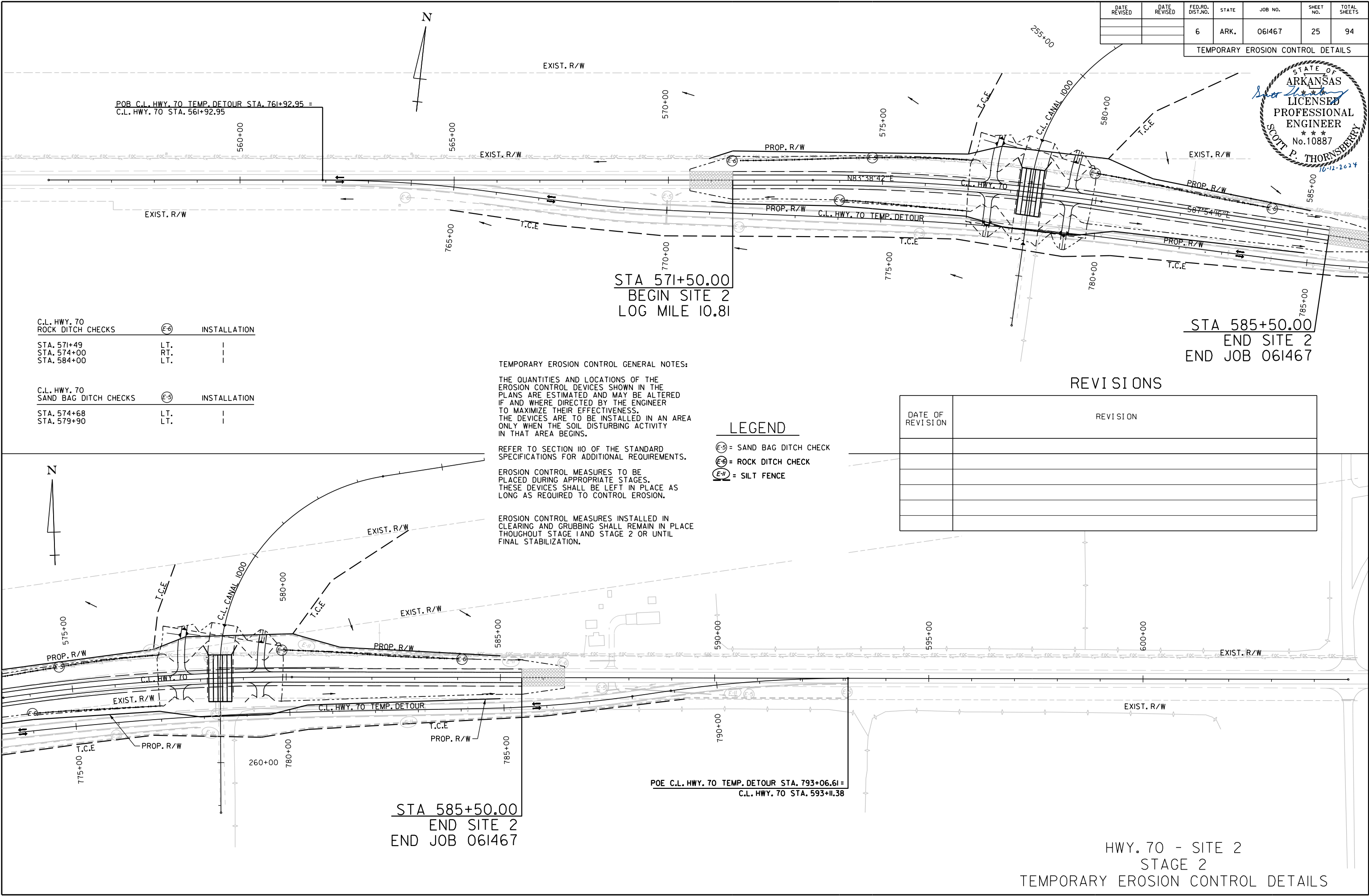
Scott Thornberry 10/4/2024 1:59:41 PM
WORKSPACE: \\projects\VRD\84450_Grand Prairie Irrigation-Seg 1\Civil\Drawings\061467_05E_EC2_002.dgn
REVISED DATE: \$REDATE\$



Scott Thornberry 10/4/2024 1:59:42 PM
WORKSPACE: \\projects\VRD\8450_Grand Prairie Irrigation-Seg 1\Drawings\Drawings\061467_05E_EC2_003.dgn
REVISION DATE: **REDATE**

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	25	94

TEMPORARY EROSION CONTROL DETAILS



POB C.L. HWY. 70 TEMP. DETOUR STA. 761+92.95 =
C.L. HWY. 70 STA. 561+92.95

C.L. HWY. 70 ROCK DITCH CHECKS	(E-6)	INSTALLATION
STA. 571+49	LT.	
STA. 574+00	RT.	
STA. 584+00	LT.	

C.L. HWY. 70 SAND BAG DITCH CHECKS	(E-5)	INSTALLATION
STA. 574+68	LT.	
STA. 579+90	LT.	

STA 571+50.00
BEGIN SITE 2
LOG MILE 10.81

STA 585+50.00
END SITE 2
END JOB 061467

TEMPORARY EROSION CONTROL GENERAL NOTES:

THE QUANTITIES AND LOCATIONS OF THE EROSION CONTROL DEVICES SHOWN IN THE PLANS ARE ESTIMATED AND MAY BE ALTERED IF AND WHERE DIRECTED BY THE ENGINEER TO MAXIMIZE THEIR EFFECTIVENESS. THE DEVICES ARE TO BE INSTALLED IN AN AREA ONLY WHEN THE SOIL DISTURBING ACTIVITY IN THAT AREA BEGINS.

REFER TO SECTION 110 OF THE STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

EROSION CONTROL MEASURES INSTALLED IN CLEARING AND GRUBBING SHALL REMAIN IN PLACE THROUGHOUT STAGE 1 AND STAGE 2 OR UNTIL FINAL STABILIZATION.

LEGEND

- (E-5) = SAND BAG DITCH CHECK
- (E-6) = ROCK DITCH CHECK
- (E-11) = SILT FENCE

REVISIONS

DATE OF REVISION	REVISION

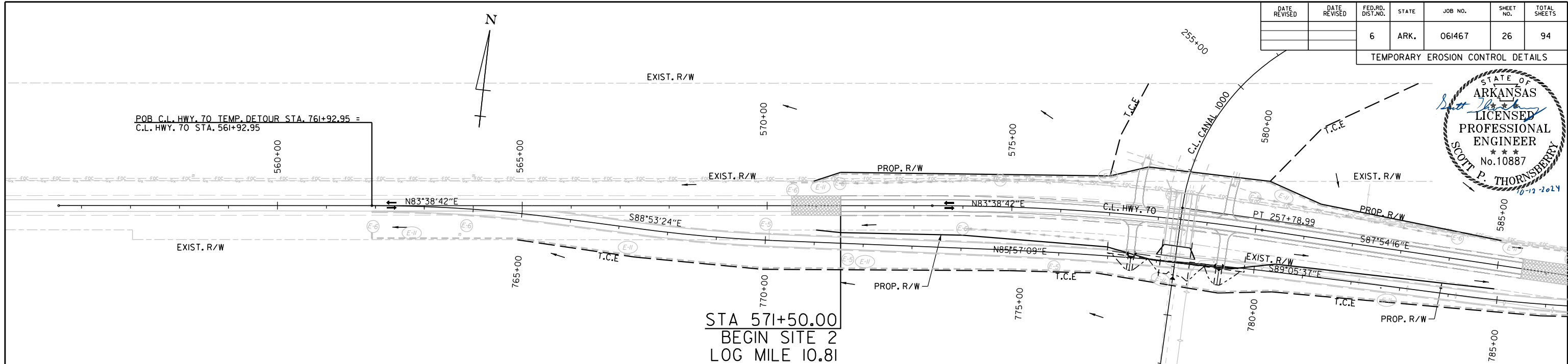
POE C.L. HWY. 70 TEMP. DETOUR STA. 793+06.61 =
C.L. HWY. 70 STA. 593+11.38

STA 585+50.00
END SITE 2
END JOB 061467

HWY. 70 - SITE 2
STAGE 2
TEMPORARY EROSION CONTROL DETAILS

Scott Thornsberry 10/4/2024 1:59:43 PM
WORKSPACE: \\projects\VRD\84450_Grand Prairie Irrigation-Seg 1\Drawings\VRD\061467_05E_EC2_004.dgn
REVISED DATE: **REDATE**

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	26	94
TEMPORARY EROSION CONTROL DETAILS						



TEMPORARY EROSION CONTROL GENERAL NOTES:

THE QUANTITIES AND LOCATIONS OF THE EROSION CONTROL DEVICES SHOWN IN THE PLANS ARE ESTIMATED AND MAY BE ALTERED IF AND WHERE DIRECTED BY THE ENGINEER TO MAXIMIZE THEIR EFFECTIVENESS. THE DEVICES ARE TO BE INSTALLED IN AN AREA ONLY WHEN THE SOIL DISTURBING ACTIVITY IN THAT AREA BEGINS.

REFER TO SECTION 110 OF THE STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

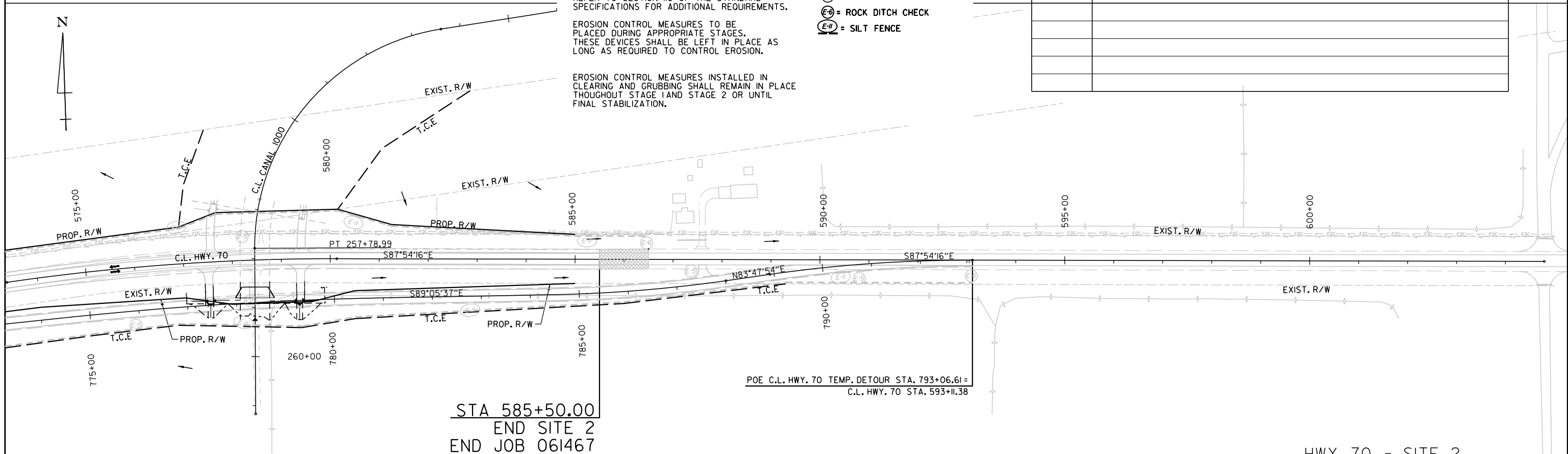
EROSION CONTROL MEASURES INSTALLED IN CLEARING AND GRUBBING SHALL REMAIN IN PLACE THROUGHOUT STAGE 1 AND STAGE 2 OR UNTIL FINAL STABILIZATION.

LEGEND

- (E-6) = SAND BAG DITCH CHECK
- (E-9) = ROCK DITCH CHECK
- (E-11) = SILT FENCE

REVISIONS

DATE OF REVISION	REVISION



HWY. 70 - SITE 2
STAGE 3
TEMPORARY EROSION CONTROL DETAILS

Scott Thornberry 10/4/2024 1:59:43 PM
WORKSPACE: \\projects\VRD\184450_Grand Prairie Irrigation-Seg
REVISED DATE: **REDATE**

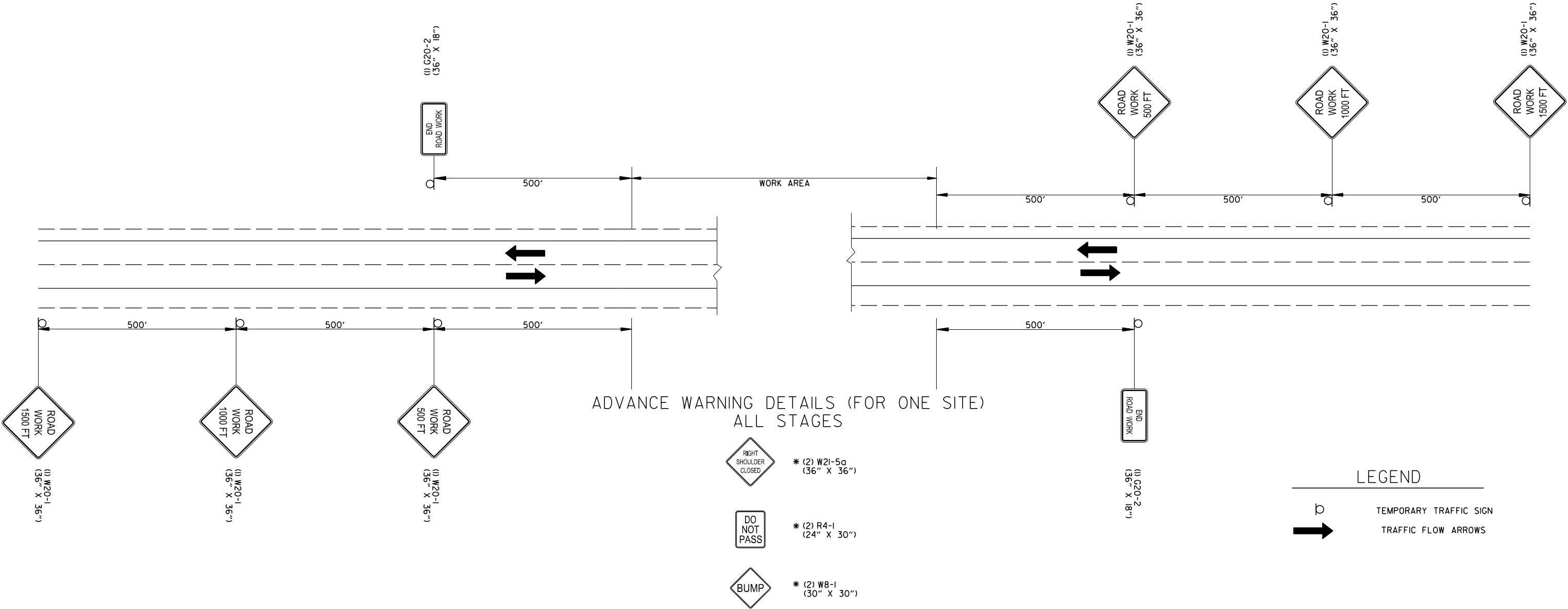
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	27	94

MAINTENANCE OF TRAFFIC DETAILS



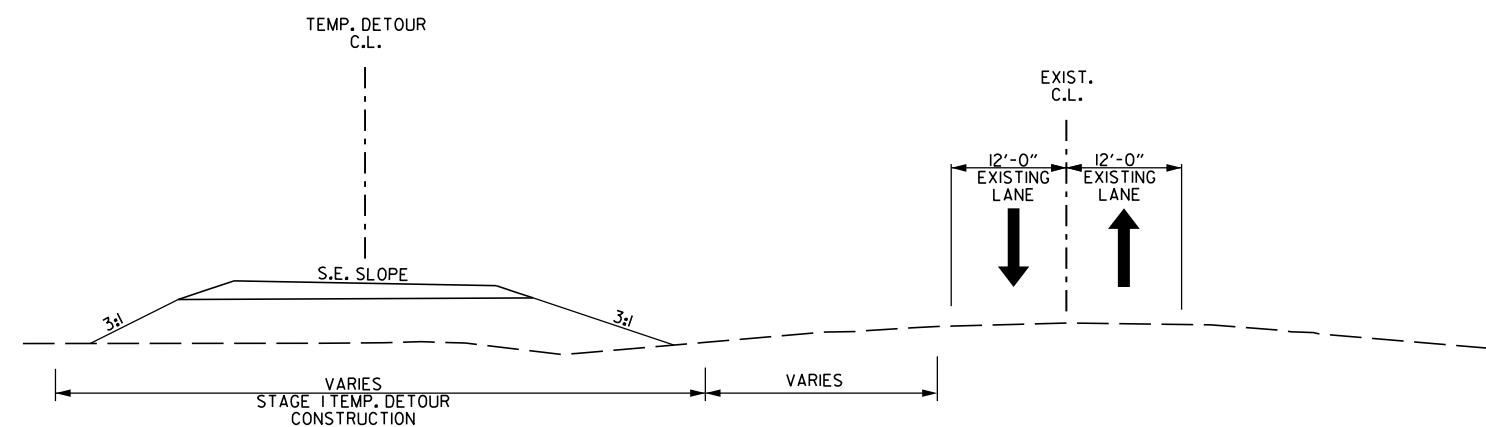
CONSTRUCTION SEQUENCE - HWY. 63 & HWY. 70

- STAGE 1:
- INSTALL ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS AT THE LOCATIONS LISTED ON THE ADVANCE WARNING DETAILS. (BOTH SITES MAY BE WORKED SIMULTANEOUSLY IF & WHERE DIRECTED BY THE ENGINEER IF GAINFUL WORK CAN BE PERFORMED AT BOTH SITES).
- CLEARING AND GRUBBING OPERATIONS MAY BEGIN IF AND WHERE DIRECTED BY THE ENGINEER.
- MAINTAIN TRAFFIC IN EXISTING LANES AND CONSTRUCT TEMPORARY DETOUR AS SHOWN IN THE STAGE 1 MAINTENANCE OF TRAFFIC DETAILS.
- STAGE 2:
- SHIFT TRAFFIC TO TEMPORARY DETOUR AND CONSTRUCT PORTIONS OF PROPOSED ROADWAY AND DRAINAGE, PORTIONS OF CANAL, AND R.C. BOX CULVERT AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.
- STAGE 3:
- SHIFT TRAFFIC TO NEWLY CONSTRUCTED ROADWAY AND BOX CULVERT AND REMOVE TEMPORARY DETOUR.
- CONSTRUCT ROADWAY TIES, FINAL OVERLAY, FINAL GRADING, DRAINAGE, FINAL CANAL, AND STRIPING UNDER TRAFFIC FOR THE PROJECT AS SHOWN IN STAGE 3 MAINTENANCE OF TRAFFIC DETAILS.



ADVANCED WARNING SIGNS
MAINTENANCE OF TRAFFIC DETAILS

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	28	94
MAINTENANCE OF TRAFFIC DETAILS						



STAGE I - TYPICAL SECTIONS

CONSTRUCTION SEQUENCE - HWY. 63 - SITE 1

STAGE 1:

INSTALL ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS AT THE LOCATIONS LISTED ON THE ADVANCE WARNING DETAILS. (BOTH SITES MAY BE WORKED SIMULTANEOUSLY IF & WHERE DIRECTED BY THE ENGINEER IF GAINFUL WORK CAN BE PERFORMED AT BOTH SITES).

CLEARING AND GRUBBING OPERATIONS MAY BEGIN IF AND WHERE DIRECTED BY THE ENGINEER.

MAINTAIN TRAFFIC IN EXISTING LANES AND CONSTRUCT TEMPORARY
DETOUR AS SHOWN IN THE STAGE I MAINTENANCE OF TRAFFIC DETAILS.

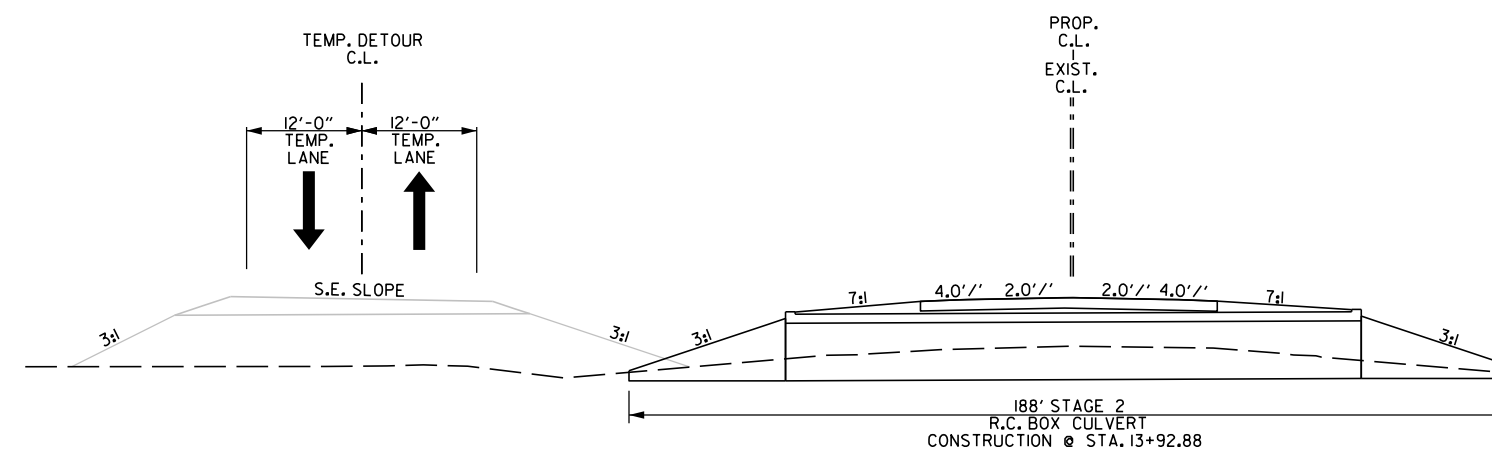
STAGE 2:

SHIFT TRAFFIC TO TEMPORARY DETOUR AND CONSTRUCT PORTIONS
OF PROPOSED ROADWAY AND DRAINAGE, PORTIONS OF CANAL, AND R.C. BOX
CULVERT AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

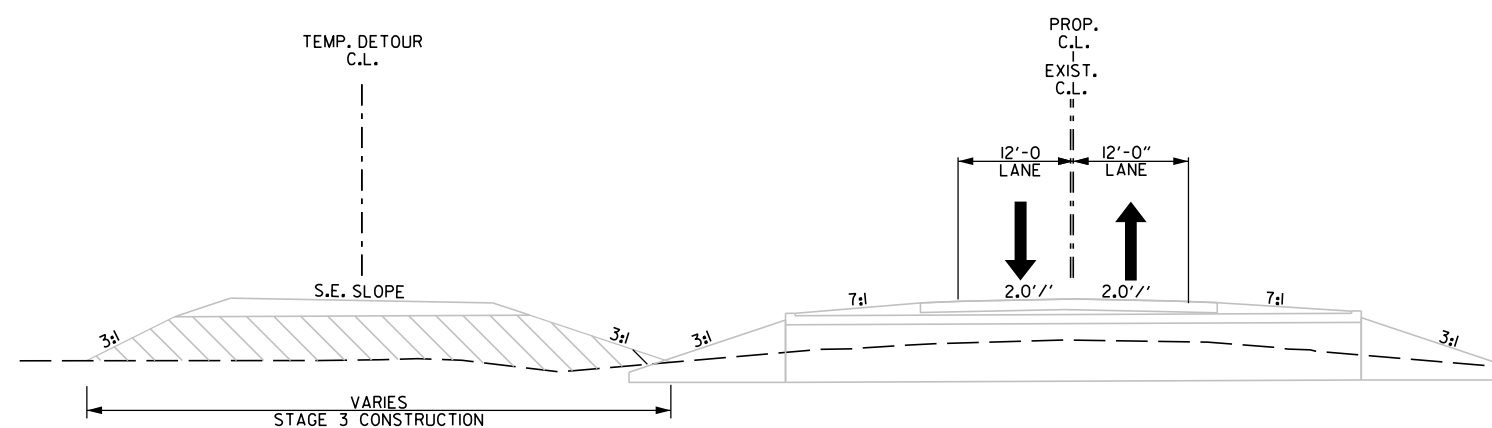
STAGE 3:

SHIFT TRAFFIC TO NEWLY CONSTRUCTED ROADWAY AND BOX CULVERT
AND REMOVE TEMPORARY DETOUR.

CONSTRUCT ROADWAY TIES, FINAL OVERLAY, FINAL GRADING, DRAINAGE, FINAL CANAL, AND STRIPING UNDER TRAFFIC FOR THE PROJECT AS SHOWN IN STAGE 3 MAINTENANCE OF TRAFFIC DETAILS.



STAGE 2 - TYPICAL SECTIONS

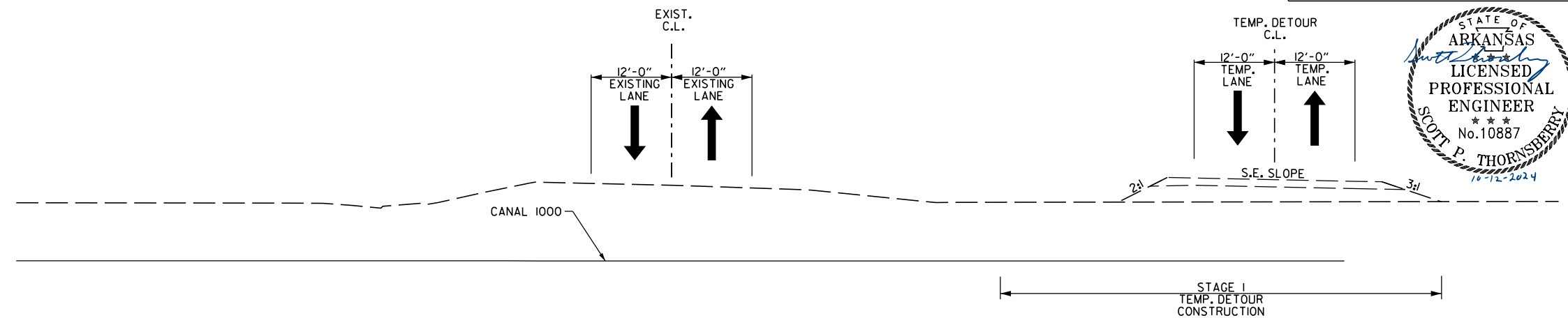


STAGE 3 - TYPICAL SECTIONS

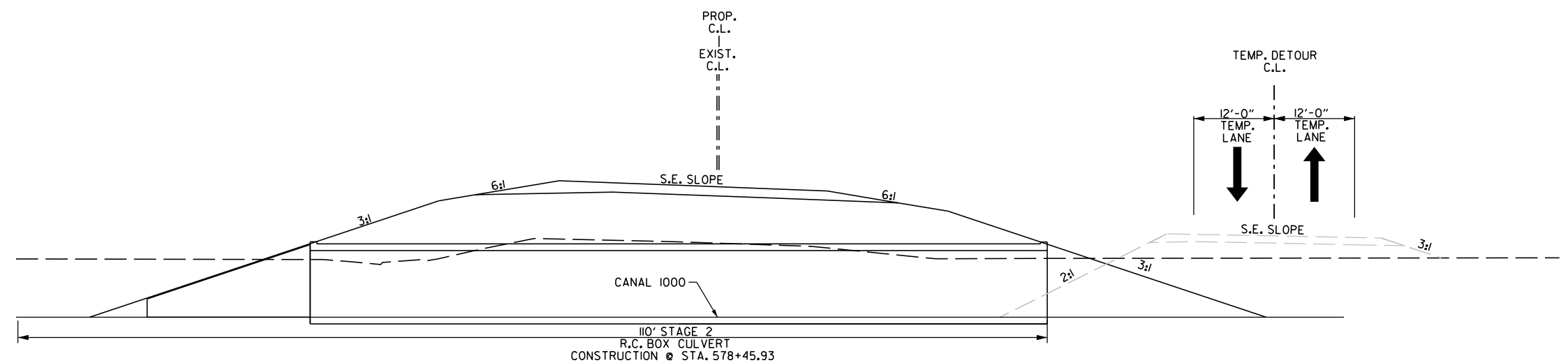
HWY. 63 - SITE 1
TYPICAL SECTION
MAINTENANCE OF TRAFFIC DETAILS

Scott,Thornsberrig/4/2024 15:51:44 PM
C:\Users\scott\OneDrive\Projects\WRD_1894450_Grand Prairie Irrigation-Seg
NHWs70and63brldges\Design\CIVIL\Drawings\RD61467_06_MOT_002.dgn
REVISED DATE: \$\$\$\$REVDATE\$\$\$

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	29	94
MAINTENANCE OF TRAFFIC DETAILS						



STAGE I - TYPICAL SECTIONS



STAGE 2 - TYPICAL SECTIONS

CONSTRUCTION SEQUENCE - HWY. 70 - SITE 2

STAGE I:

INSTALL ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS AT THE LOCATIONS LISTED ON THE ADVANCE WARNING DETAILS. (BOTH SITES MAY BE WORKED SIMULTANEOUSLY IF & WHERE DIRECTED BY THE ENGINEER IF GAINFUL WORK CAN BE PERFORMED AT BOTH SITES).

CLEARING AND GRUBBING OPERATIONS MAY BEGIN IF AND WHERE DIRECTED BY THE ENGINEER.

MAINTAIN TRAFFIC IN EXISTING LANES AND CONSTRUCT TEMPORARY
DETOUR AS SHOWN IN THE STAGE I MAINTENANCE OF TRAFFIC DETAILS.

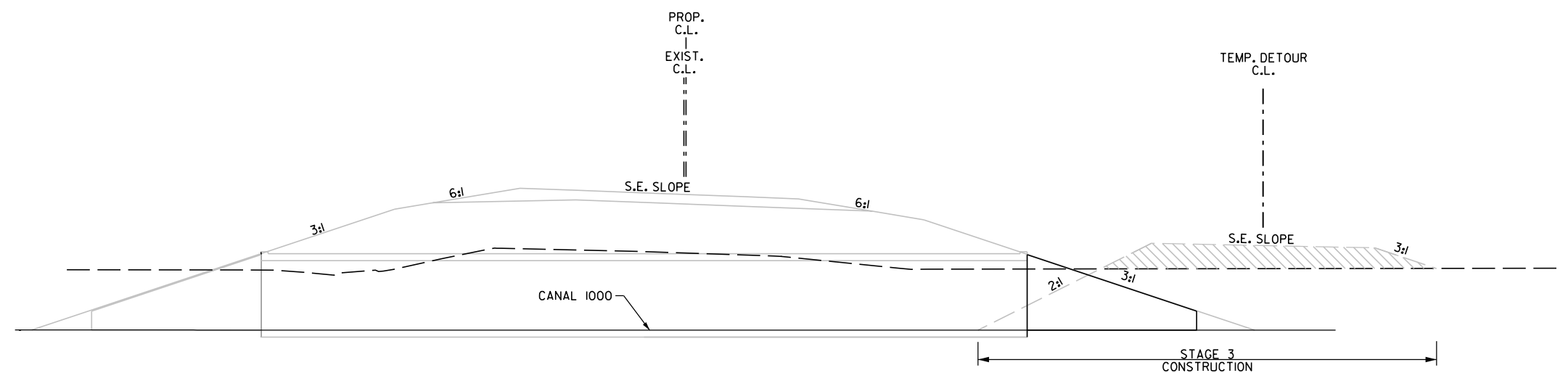
STAGE 2:

SHIFT TRAFFIC TO TEMPORARY DETOUR AND CONSTRUCT PORTIONS
OF PROPOSED ROADWAY AND DRAINAGE, PORTIONS OF CANAL, AND R.C. BOX
CULVERT AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

STAGE 3:

SHIFT TRAFFIC TO NEWLY CONSTRUCTED ROADWAY AND BOX CULVERT
AND REMOVE TEMPORARY DETOUR.

CONSTRUCT ROADWAY TIES, FINAL OVERLAY, FINAL GRADING, DRAINAGE, FINAL CANAL, AND STRIPING UNDER TRAFFIC FOR THE PROJECT AS SHOWN IN STAGE 3 MAINTENANCE OF TRAFFIC DETAILS.



STAGE 3 - TYPICAL SECTIONS

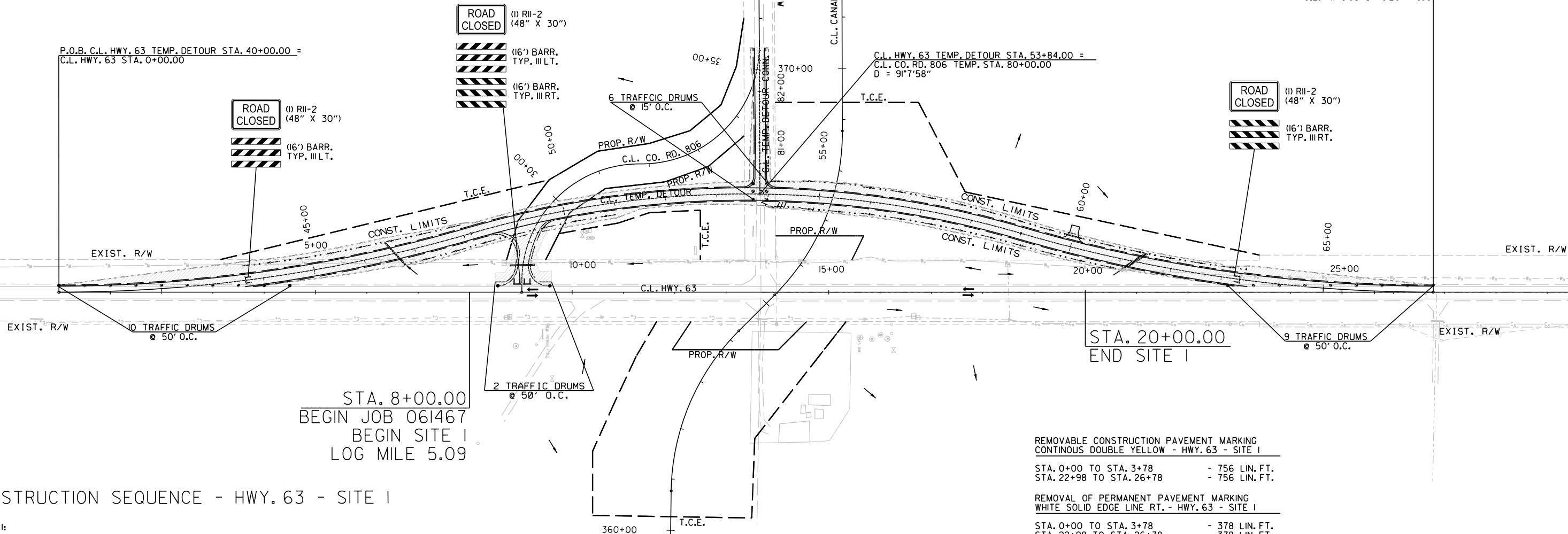
HWY. 70 - SITE 2
TYPICAL SECTION
MAINTENANCE OF TRAFFIC DETAILS

Scott Thornsberry 4/2025 155:29 PM
WORKSPACE: \\projects\VRD\84450_Grand Prairie Irrigation-Seg 1\Drawings\Roads\061467_06_MOTL001.dgn
REVISED DATE: \$REVIDATE\$

LEGEND

- TYPE 3 BARRICADE
- STAGE CONSTRUCTION
- TRAFFIC FLOW ARROWS
- TRAFFIC DRUM

NOTE: THE CONTRACTOR SHALL MAINTAIN ACCESS
TO EXISTING HWY. 63 FOR COUNTY ROAD 806 TRAFFIC.



CONSTRUCTION SEQUENCE - HWY. 63 - SITE 1

STAGE 1:

INSTALL ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS AT THE LOCATIONS LISTED ON THE ADVANCE WARNING DETAILS. (BOTH SITES MAY BE WORKED SIMULTANEOUSLY IF & WHERE DIRECTED BY THE ENGINEER IF GAINFUL WORK CAN BE PERFORMED AT BOTH SITES).

CLEARING AND GRUBBING OPERATIONS MAY BEGIN IF AND WHERE DIRECTED BY THE ENGINEER.

MAINTAIN TRAFFIC IN EXISTING LANES. CONSTRUCT TEMPORARY DETOUR AND NEW COUNTY ROAD ENTRANCE AS SHOWN IN THE STAGE 1 MAINTENANCE OF TRAFFIC DETAILS.

STAGE 2:

SHIFT TRAFFIC TO TEMPORARY DETOUR AND CONSTRUCT PORTIONS OF PROPOSED ROADWAY AND DRAINAGE, PORTIONS OF CANAL, AND R.C. BOX CULVERT AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

STAGE 3:

SHIFT TRAFFIC TO NEWLY CONSTRUCTED ROADWAY AND BOX CULVERT AND REMOVE TEMPORARY DETOUR.

CONSTRUCT ROADWAY TIES, FINAL OVERLAY, FINAL GRADING, DRAINAGE, FINAL CANAL, AND STRIPING UNDER TRAFFIC FOR THE PROJECT AS SHOWN IN STAGE 3 MAINTENANCE OF TRAFFIC DETAILS.

TEMP. DETOUR:

CONSTRUCTION PAVEMENT MARKING
WHITE SOLID EDGE LINE RT. - HWY. 63 - SITE 1

STA. 3+78 TO STA. 22+98 - 1922 LIN. FT.

CONSTRUCTION PAVEMENT MARKING
WHITE SOLID EDGE LINE LT. - HWY. 63 - SITE 1

STA. 3+78 TO STA. 22+98 - 1922 LIN. FT.

CONSTRUCTION PAVEMENT MARKING
CONTINUOUS DOUBLE YELLOW - HWY. 63 - SITE 1

STA. 3+78 TO STA. 22+98 - 3844 LIN. FT.

RAISED PAVEMENT MARKERS (TY. II)

(YEL./YEL.) @ 40' O.C. = 67 EACH
IF AND WHERE DIRECTED
BY THE ENGINEER

TOTALS:

HWY. 63 - STAGE 1 - QUANTITIES - TOTALS

TRAFFIC DRUMS 27 EACH

CONSTRUCTION PAVEMENT MARKINGS 7688 LIN. FT.
(BASED ON DBL. YELLOW C.L. & WHITE LT. & RT.)

RAISED PAVEMENT MARKERS (TY. II) 67 EACH
(YEL./YEL.) @ 40' O.C. ARE USED IF
AND WHERE DIRECTED BY THE
ENGINEER - QUANTITY ESTIMATED:

REMOVABLE CONSTRUCTION PAVEMENT MARKING
WHITE SOLID EDGE LINE RT. - HWY. 63 - SITE 1

STA. 0+00 TO STA. 3+78 - 378 LIN. FT.
STA. 22+98 TO STA. 26+78 - 378 LIN. FT.

REMOVABLE CONSTRUCTION PAVEMENT MARKING
WHITE SOLID EDGE LINE LT. - HWY. 63 - SITE 1

STA. 0+00 TO STA. 3+78 - 378 LIN. FT.
STA. 22+98 TO STA. 26+78 - 378 LIN. FT.

REMOVABLE CONSTRUCTION PAVEMENT MARKING
CONTINUOUS DOUBLE YELLOW - HWY. 63 - SITE 1

STA. 0+00 TO STA. 3+78 - 756 LIN. FT.
STA. 22+98 TO STA. 26+78 - 756 LIN. FT.

REMOVAL OF PERMANENT PAVEMENT MARKING
WHITE SOLID EDGE LINE RT. - HWY. 63 - SITE 1

STA. 0+00 TO STA. 3+78 - 378 LIN. FT.
STA. 22+98 TO STA. 26+78 - 378 LIN. FT.

REMOVAL OF PERMANENT PAVEMENT MARKING
WHITE SOLID EDGE LINE LT. - HWY. 63 - SITE 1

STA. 0+00 TO STA. 3+78 - 378 LIN. FT.
STA. 22+98 TO STA. 26+78 - 378 LIN. FT.

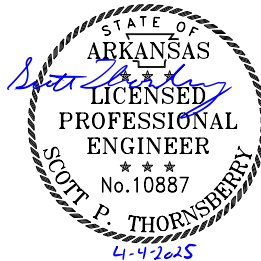
REMOVAL OF PERMANENT PAVEMENT MARKING
CONTINUOUS DOUBLE YELLOW - HWY. 63 - SITE 1

STA. 0+00 TO STA. 3+78 - 756 LIN. FT.
STA. 22+98 TO STA. 26+78 - 756 LIN. FT.

REMOVAL OF PERMANENT PAVEMENT MARKINGS (BASED ON DBL. YELLOW
C.L. & WHITE LT. & RT.) 3024 LIN. FT.

HWY. 63 - SITE 1
STAGE 1
MAINTENANCE OF TRAFFIC DETAILS

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	30	94
MAINTENANCE OF TRAFFIC DETAILS						



CONSTRUCTION SEQUENCE - HWY. 63

STAGE 1:

INSTALL ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS AT THE LOCATIONS LISTED ON THE ADVANCE WARNING DETAILS. (BOTH SITES MAY BE WORKED SIMULTANEOUSLY IF & WHERE DIRECTED BY THE ENGINEER IF GAINFUL WORK CAN BE PERFORMED AT BOTH SITES).

CLEARING AND GRUBBING OPERATIONS MAY BEGIN IF AND WHERE DIRECTED BY THE ENGINEER.

MAINTAIN TRAFFIC IN EXISTING LANES, CONSTRUCT TEMPORARY DETOUR AND NEW COUNTY ROAD ENTRANCE AS SHOWN IN THE STAGE 1 MAINTENANCE OF TRAFFIC DETAILS.

STAGE 2:

SHIFT TRAFFIC TO TEMPORARY DETOUR AND CONSTRUCT PORTIONS OF PROPOSED ROADWAY AND DRAINAGE, PORTIONS OF CANAL, AND R.C. BOX CULVERT AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

STAGE 3:

SHIFT TRAFFIC TO NEWLY CONSTRUCTED ROADWAY AND BOX CULVERT AND REMOVE TEMPORARY DETOUR.

CONSTRUCT ROADWAY TIES, FINAL OVERLAY, FINAL GRADING, DRAINAGE, FINAL CANAL, AND STRIPING UNDER TRAFFIC FOR THE PROJECT AS SHOWN IN STAGE 3 MAINTENANCE OF TRAFFIC DETAILS.

P.O.B. C.L. HWY. 63 TEMP. DETOUR STA. 40+00.00 =
C.L. HWY. 63 STA. 0+00.00

PC 40+00.00

19 TRAFFIC DRUMS @ 20' O.C.

CONST. PAVEMENT MARKINGS (WHITE)

STA. 8+00.00
BEGIN JOB 061467
BEGIN SITE I
LOG MILE 5.09

REMOVAL OF PERMANENT PAVEMENT MARKING
WHITE SOLID EDGE LINE RT./LT. AND DBL. YELLOW - HWY. 63 - SITE I

STA. 0+00	TO	STA. 8+00	- 800	LIN. FT.
STA. 20+00	TO	STA. 26+78	- 678	LIN. FT.

REMOVABLE CONSTRUCTION PAVEMENT MARKING
WHITE SOLID EDGE LINE RT. - HWY. 63 - SITE I - TEMP. DETOUR

STA. 40+00	TO	STA. 43+62	WH. EDGE LN. (RT.)	362 LIN. FT.
STA. 63+53	TO	STA. 67+15	WH. EDGE LN. (RT.)	362 LIN. FT.

REMOVABLE CONSTRUCTION PAVEMENT MARKING
CONTINUOUS DOUBLE YELLOW - HWY. 63 - SITE I - TEMP. DETOUR

STA. 40+00	TO	STA. 42+50	DBL. YELLOW C.L.	500 LIN. FT.
STA. 63+53	TO	STA. 67+15	DBL. YELLOW C.L.	724 LIN. FT.

CONSTRUCTION PAVEMENT MARKING
WHITE SOLID EDGE LINE LT. - HWY. 63 - SITE I - TEMP. DETOUR

STA. 42+50 TO STA. 64+64 - 2214 LIN. FT.

CONSTRUCTION PAVEMENT MARKING
WHITE SOLID EDGE LINE RT. - HWY. 63 - SITE I - TEMP. DETOUR

STA. 43+62 TO 63+53 - 1991 LIN. FT.

CONSTRUCTION PAVEMENT MARKING
CONTINUOUS DOUBLE YELLOW - HWY. 63 - SITE I - TEMP. DETOUR

STA. 42+50 TO STA. 64+64 - 4428 LIN. FT.

RAISED PAVEMENT MARKERS (TY. II)

(YEL./YEL.) @ 40' O.C. = 66 EACH
IF AND WHERE DIRECTED BY THE ENGINEER

LEGEND

- TYPE 3 BARRICADE
- STAGE CONSTRUCTION
- TRAFFIC FLOW ARROWS
- TRAFFIC DRUM
- TEMP. TRAFFIC SIGN



DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	31	94
MAINTENANCE OF TRAFFIC DETAILS						



P.O.E. C.L. HWY. 63 TEMP. DETOUR STA. 67+14.12 =
C.L. HWY. 63 STA. 26+77.69

CONST. PAVEMENT MARKINGS (YELLOW): DBL. C.L.

CONST. PAVEMENT MARKINGS (WHITE)

STA. 20+00.00
END SITE I

CO. RD. 806 TEMP. CONN. - STAGE 2 - QUANTITY - TOTAL

TRAFFIC DRUMS	4	EACH
---------------	---	------

TEMP. HWY. 63 - STAGE 2 - QUANTITIES - TOTALS

TRAFFIC DRUMS	43	EACH
CHEVRON	16	EACH
REM. OF PERMANENT PAVEMENT MARKINGS	1478	LIN. FT.
REMOVABLE CONST. PAVEMENT MARKINGS (BASED ON DBL. YELLOW C.L. & WHITE EDGE LINES LT. & RT.)	1948	LIN. FT.
CONSTRUCTION PAVEMENT MARKINGS (BASED ON DBL. YELLOW C.L. & WHITE LT. & RT.)	8633	LIN. FT.
RAISED PAVEMENT MARKERS (TY. II) (YEL./YEL.) @ 40' O.C. ARE USED IF AND WHERE DIRECTED BY THE ENGINEER - QUANTITY ESTIMATED:	66	EACH

HWY. 63 SITE I
STAGE 2
MAINTENANCE OF TRAFFIC DETAILS

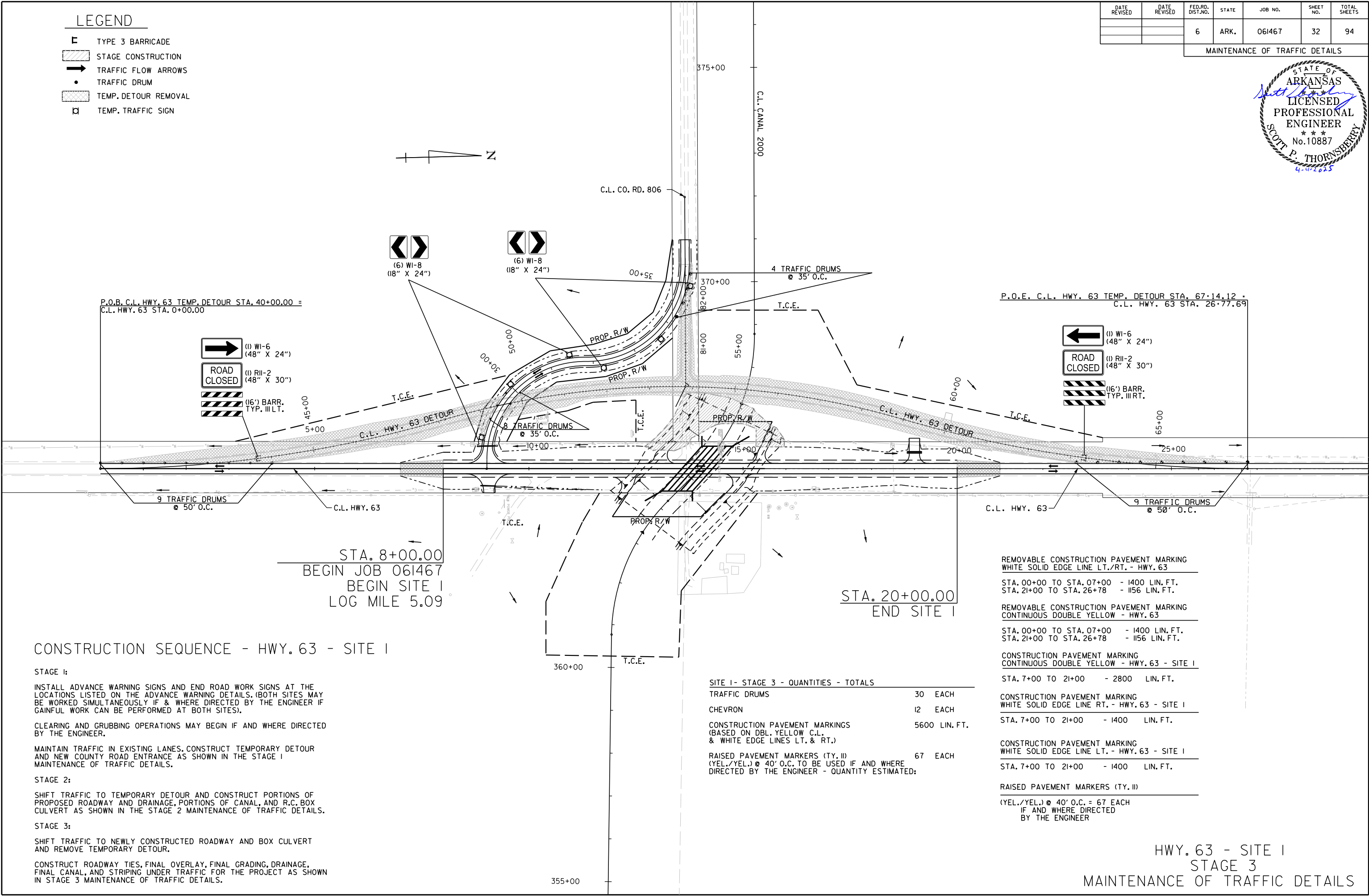
Scott P. Thornberry 4/4/2025 1:55:29 PM
WORKSPACE: \\projects\VRD\061467\Grand Prairie Irrigation-Seg 1\Drawings\Roads\Design\Civil\Drawings\Road\061467_06_MOTL_002.dgn
REVISIONS: 1
REVISED DATE: 4/4/2025

Scott Thornsberry 4/2025 1455:30 PM
WORKSPACE: \\projects\VRD\84450_Grand Profile Irrigation-Seg 1\Drawings\VRD\84467_06_MOTL003.dgn
REVISION DATE: \$REVISION\$

LEGEND

- TYPE 3 BARRICADE
- STAGE CONSTRUCTION
- TRAFFIC FLOW ARROWS
- TRAFFIC DRUM
- TEMP. DETOUR REMOVAL
- TEMP. TRAFFIC SIGN

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	32	94
MAINTENANCE OF TRAFFIC DETAILS						



CONSTRUCTION SEQUENCE - HWY. 63 - SITE I

STAGE 1:

INSTALL ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS AT THE LOCATIONS LISTED ON THE ADVANCE WARNING DETAILS. (BOTH SITES MAY BE WORKED SIMULTANEOUSLY IF & WHERE DIRECTED BY THE ENGINEER IF GAINFUL WORK CAN BE PERFORMED AT BOTH SITES).

CLEARING AND GRUBBING OPERATIONS MAY BEGIN IF AND WHERE DIRECTED BY THE ENGINEER.

MAINTAIN TRAFFIC IN EXISTING LANES. CONSTRUCT TEMPORARY DETOUR AND NEW COUNTY ROAD ENTRANCE AS SHOWN IN THE STAGE 1 MAINTENANCE OF TRAFFIC DETAILS.

STAGE 2:

SHIFT TRAFFIC TO TEMPORARY DETOUR AND CONSTRUCT PORTIONS OF PROPOSED ROADWAY AND DRAINAGE, PORTIONS OF CANAL, AND R.C. BOX CULVERT AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

STAGE 3:

SHIFT TRAFFIC TO NEWLY CONSTRUCTED ROADWAY AND BOX CULVERT AND REMOVE TEMPORARY DETOUR.

CONSTRUCT ROADWAY TIES, FINAL OVERLAY, FINAL GRADING, DRAINAGE, FINAL CANAL, AND STRIPING UNDER TRAFFIC FOR THE PROJECT AS SHOWN IN STAGE 3 MAINTENANCE OF TRAFFIC DETAILS.

SITE I - STAGE 3 - QUANTITIES - TOTALS

TRAFFIC DRUMS	30	EACH
CHEVRON	12	EACH
CONSTRUCTION PAVEMENT MARKINGS (BASED ON DBL. YELLOW C.L. & WHITE EDGE LINES LT. & RT.)	5600	LIN. FT.
RAISED PAVEMENT MARKERS (TY. II) (YEL./YEL.) @ 40' O.C. TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER - QUANTITY ESTIMATED:	67	EACH

REMOVABLE CONSTRUCTION PAVEMENT MARKING
WHITE SOLID EDGE LINE LT./RT. - HWY. 63

STA. 00+00 TO STA. 07+00 - 1400 LIN. FT.
STA. 21+00 TO STA. 26+78 - 1156 LIN. FT.

REMOVABLE CONSTRUCTION PAVEMENT MARKING
CONTINUOUS DOUBLE YELLOW - HWY. 63

STA. 00+00 TO STA. 07+00 - 1400 LIN. FT.
STA. 21+00 TO STA. 26+78 - 1156 LIN. FT.

CONSTRUCTION PAVEMENT MARKING
CONTINUOUS DOUBLE YELLOW - HWY. 63 - SITE I

STA. 7+00 TO 21+00 - 2800 LIN. FT.

CONSTRUCTION PAVEMENT MARKING
WHITE SOLID EDGE LINE RT. - HWY. 63 - SITE I

STA. 7+00 TO 21+00 - 1400 LIN. FT.

CONSTRUCTION PAVEMENT MARKING
WHITE SOLID EDGE LINE LT. - HWY. 63 - SITE I

STA. 7+00 TO 21+00 - 1400 LIN. FT.

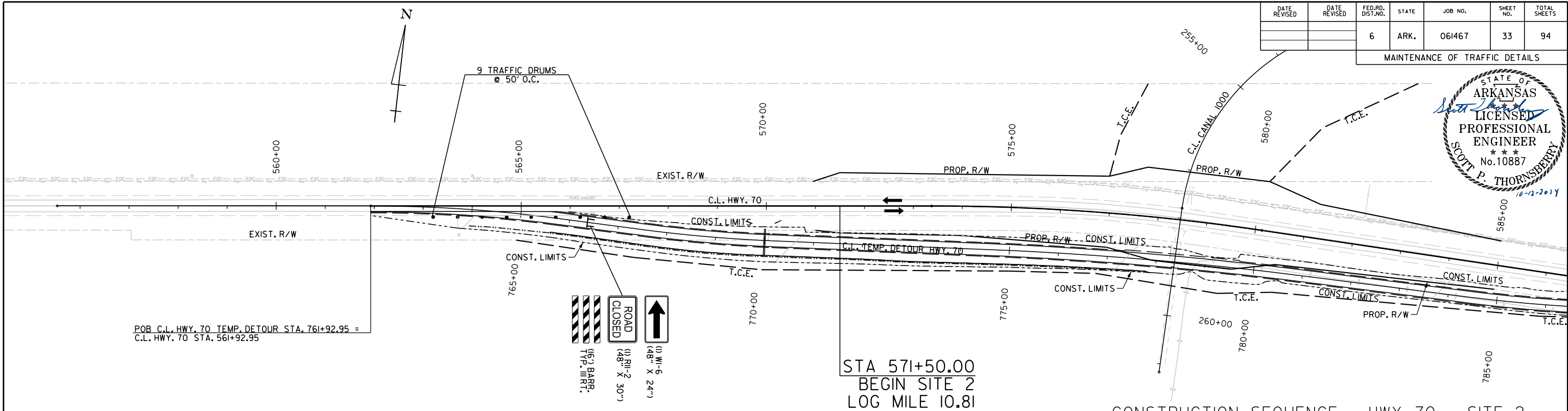
RAISED PAVEMENT MARKERS (TY. II)

(YEL./YEL.) @ 40' O.C. = 67 EACH
IF AND WHERE DIRECTED
BY THE ENGINEER

HWY. 63 - SITE I
STAGE 3
MAINTENANCE OF TRAFFIC DETAILS

Scott Thornberry 10/4/2024 1:59:47 PM
WORKSPACE: \\projects\VRD\84450_Grand Prairie Irrigation-Seg 1\Civil\Drawings\VRD\061467_06_MOT2_001.dgn
Y:\Projects\VRD\84450_Grand Prairie Irrigation-Seg 1\Civil\Drawings\VRD\061467_06_MOT2_001.dgn
REVISED DATE: **REDATE**

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	33	94
MAINTENANCE OF TRAFFIC DETAILS						



CONSTRUCTION SEQUENCE - HWY. 70 - SITE 2

STAGE 1:

INSTALL ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS AT THE LOCATIONS LISTED ON THE ADVANCE WARNING DETAILS. (BOTH SITES MAY BE WORKED SIMULTANEOUSLY IF & WHERE DIRECTED BY THE ENGINEER IF GAINFUL WORK CAN BE PERFORMED AT BOTH SITES).

CLEARING AND GRUBBING OPERATIONS MAY BEGIN IF AND WHERE DIRECTED BY THE ENGINEER.

MAINTAIN TRAFFIC IN EXISTING LANES AND CONSTRUCT TEMPORARY DETOUR AS SHOWN IN THE STAGE 1 MAINTENANCE OF TRAFFIC DETAILS.

STAGE 2:

SHIFT TRAFFIC TO TEMPORARY DETOUR AND CONSTRUCT PORTIONS OF PROPOSED ROADWAY AND DRAINAGE, PORTIONS OF CANAL, AND R.C. BOX CULVERT AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

STAGE 3:

SHIFT TRAFFIC TO NEWLY CONSTRUCTED ROADWAY AND BOX CULVERT AND REMOVE TEMPORARY DETOUR.

CONSTRUCT ROADWAY TIES, FINAL OVERLAY, FINAL GRADING, DRAINAGE, FINAL CANAL, AND STRIPING UNDER TRAFFIC FOR THE PROJECT AS SHOWN IN STAGE 3 MAINTENANCE OF TRAFFIC DETAILS.

LEGEND

- TYPE 3 BARRICADE
- STAGE CONSTRUCTION
- TRAFFIC FLOW ARROWS
- TRAFFIC DRUM

TEMP. DETOUR:

CONSTRUCTION PAVEMENT MARKING
CONTINUOUS DOUBLE YELLOW - HWY. 70 - SITE 2

STA. 561+92 TO STA. 593+12 - 6240 LIN. FT.

CONSTRUCTION PAVEMENT MARKING
WHITE SOLID EDGE LINE RT. - HWY. 70 - SITE 2

STA. 561+92 TO STA. 593+12 - 3120 LIN. FT.

CONSTRUCTION PAVEMENT MARKING
WHITE SOLID EDGE LINE LT. - HWY. 70 - SITE 2

STA. 561+92 TO STA. 593+12 - 3120 LIN. FT.

RAISED PAVEMENT MARKERS (TY. II)

(YEL./YEL.) @ 40' O.C. = 78 EACH
IF AND WHERE DIRECTED
BY THE ENGINEER

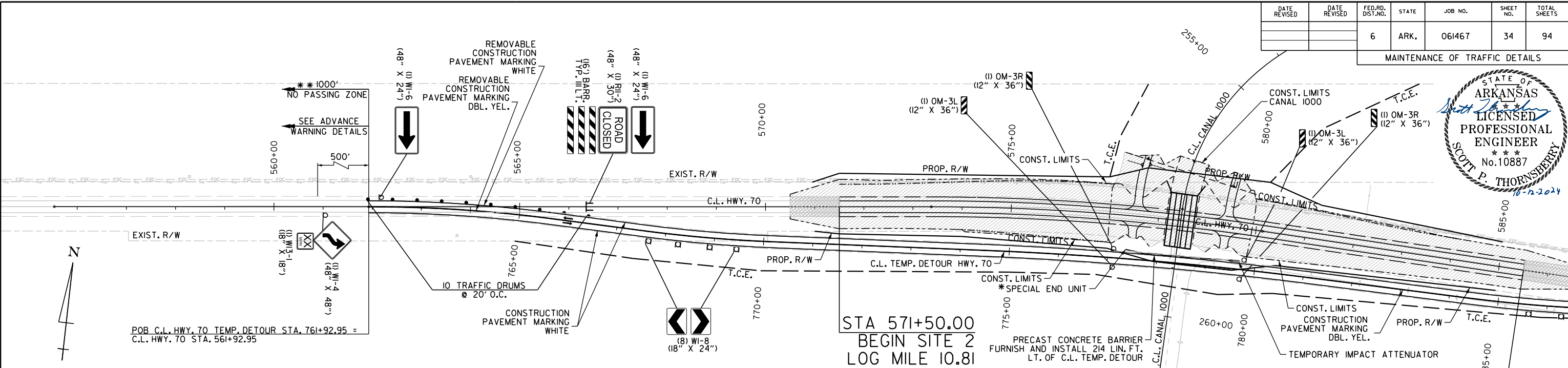
TOTALS:

HWY. 70 - SITE 2 - STAGE 1 - QUANTITIES - TOTALS

TRAFFIC DRUMS	18	EACH
CONSTRUCTION PAVEMENT MARKINGS (BASED ON DBL. YELLOW C.L. & WHITE LT. & RT.)	12480	LIN. FT.
RAISED PAVEMENT MARKERS (TY. II) (YEL./YEL.) @ 40' O.C. ARE USED IF AND WHERE DIRECTED BY THE ENGINEER - QUANTITY ESTIMATED:	78	EACH

STA 585+50.00
END SITE 2
END JOB 061467

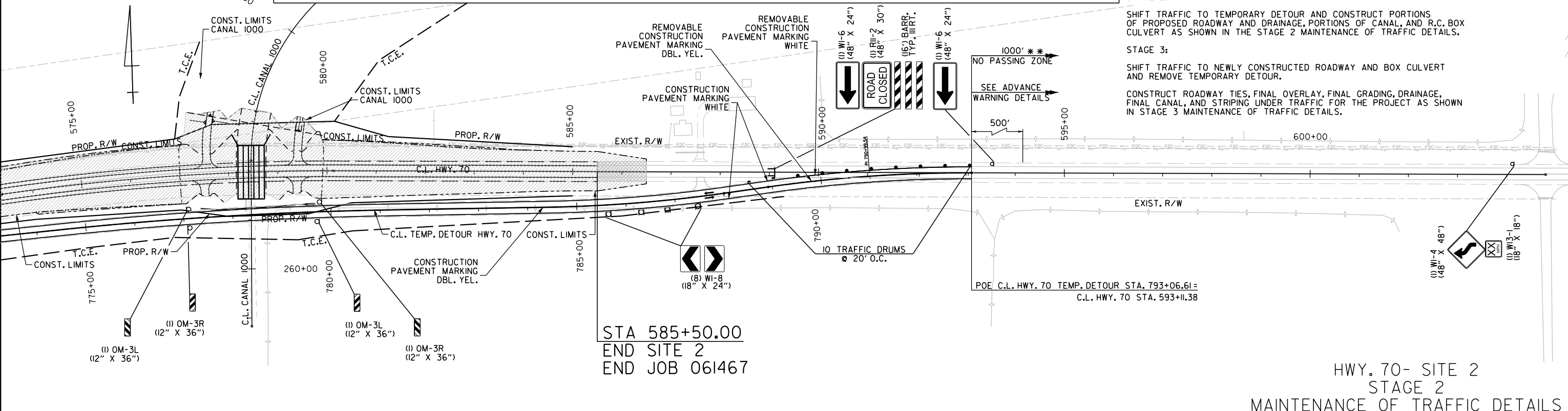
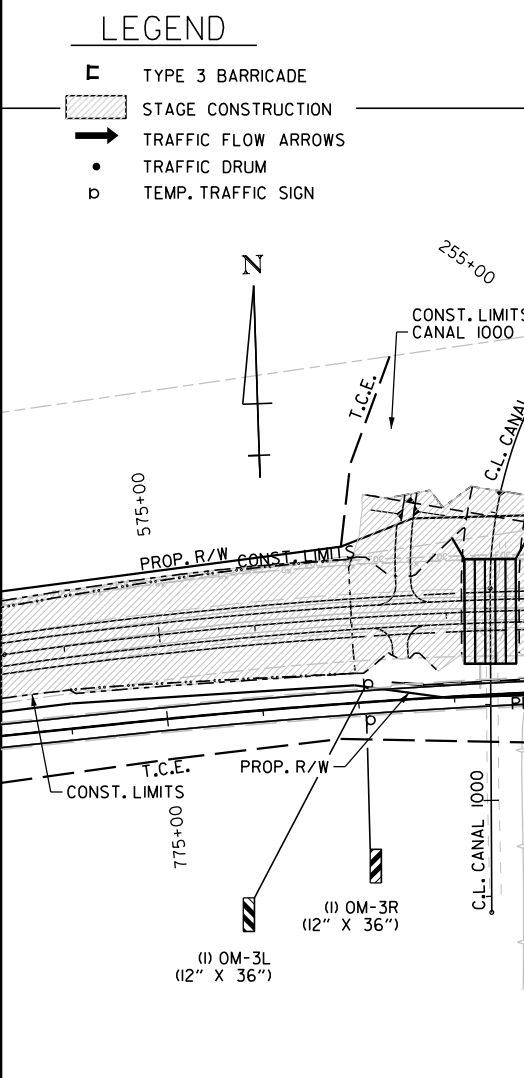
HWY. 70- SITE 2
STAGE 1
MAINTENANCE OF TRAFFIC DETAILS



REMOVAL OF PERMANENT PAVEMENT MARKING WHITE SOLID EDGE LINE RT./LT. AND DBL. YELLOW - HWY. 70 - SITE 2				REMOVABLE CONSTRUCTION PAVEMENT MARKING WHITE SOLID EDGE LINE LT. - HWY. 70 - TEMP. DETOUR - SITE 2			
STA. 561+92	TO	STA. 571+50	- 958	STA. 761+93	TO	STA. 765+60	WH. EDGE LN. (LT.) 367
STA. 585+50	TO	STA. 593+12	- 762	STA. 789+46	TO	STA. 793+07	WH. EDGE LN. (LT.) 361
CONSTRUCTION PAVEMENT MARKING CONTINUOUS DOUBLE YELLOW - HWY. 70 - TEMP. DETOUR - SITE 2				REMOVABLE CONSTRUCTION PAVEMENT MARKING CONTINUOUS DOUBLE YELLOW - HWY. 70 - TEMP. DETOUR - SITE 2			
STA. 764+50	TO	STA. 790+57	- 5214	STA. 761+93	TO	STA. 764+50	DBL. YELLOW C.L. 514
CONSTRUCTION PAVEMENT MARKING WHITE SOLID EDGE LINE RT. - HWY. 70 - TEMP. DETOUR - SITE 2				STA. 789+46	TO	STA. 793+07	DBL. YELLOW C.L. 722
STA. 761+93	TO	793+07	- 3114	HWY. 70 - STAGE 2 - QUANTITIES - TOTALS			
CONSTRUCTION PAVEMENT MARKING WHITE SOLID EDGE LINE LT. - HWY. 70 - TEMP. DETOUR - SITE 2				TRAFFIC DRUMS	20	EACH	REMOVAL OF PERMANENT PAVEMENT MARKINGS 1720
STA. 765+60	TO	789+46	- 2386	CHEVRONS	16	EACH	REMOVABLE CONST. PAVEMENT MARKINGS (BASED ON DBL. YELLOW C.L. & WHITE EDGE LINES LT. & RT.) 1964
RAISED PAVEMENT MARKERS (TY. II) (YEL./YEL.) @ 40' O.C. = 65 EACH IF AND WHERE DIRECTED BY THE ENGINEER				TEMP. IMPACT ATTENUATOR	1	EACH	
				FURNISH AND INSTALL TEMP. CONC. BARRIER	214	LIN. FT.	
				CONSTRUCTION PAVEMENT MARKINGS	10714	LIN. FT.	RAISED PAVEMENT MARKERS (TY. II) (YEL./YEL.) @ 40' O.C. TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER - QUANTITY ESTIMATED: 65

CONSTRUCTION SEQUENCE - HWY. 70 - SITE 2

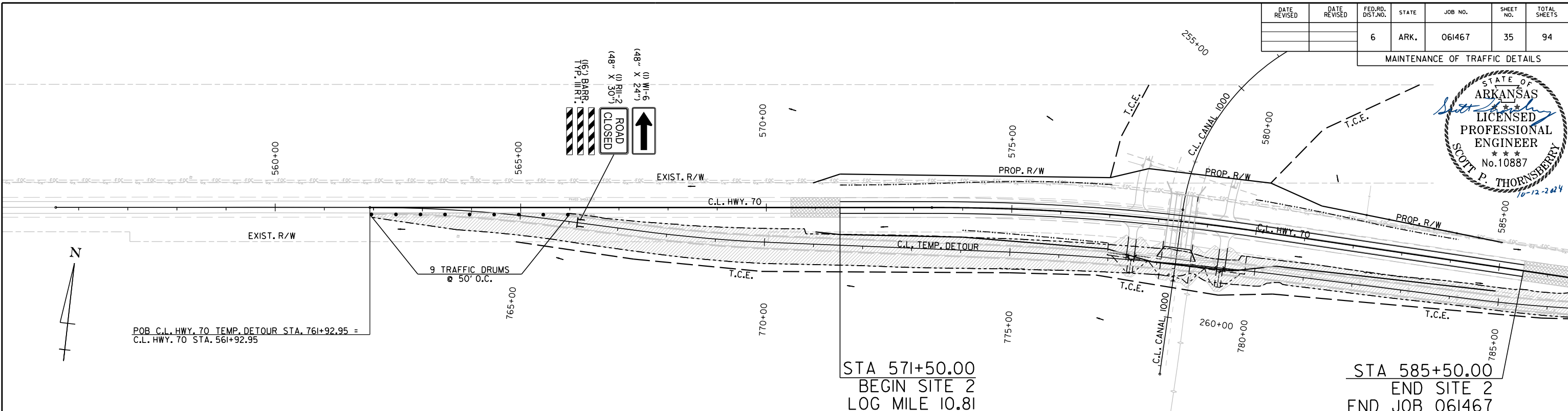
- STAGE 1:
- INSTALL ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS AT THE LOCATIONS LISTED ON THE ADVANCE WARNING DETAILS. (BOTH SITES MAY BE WORKED SIMULTANEOUSLY IF & WHERE DIRECTED BY THE ENGINEER IF GAINFUL WORK CAN BE PERFORMED AT BOTH SITES).
- CLEARING AND GRUBBING OPERATIONS MAY BEGIN IF AND WHERE DIRECTED BY THE ENGINEER.
- MAINTAIN TRAFFIC IN EXISTING LANES AND CONSTRUCT TEMPORARY DETOUR AS SHOWN IN THE STAGE 1 MAINTENANCE OF TRAFFIC DETAILS.
- STAGE 2:
- SHIFT TRAFFIC TO TEMPORARY DETOUR AND CONSTRUCT PORTIONS OF PROPOSED ROADWAY AND DRAINAGE, PORTIONS OF CANAL, AND R.C. BOX CULVERT AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.
- STAGE 3:
- SHIFT TRAFFIC TO NEWLY CONSTRUCTED ROADWAY AND BOX CULVERT AND REMOVE TEMPORARY DETOUR.
- CONSTRUCT ROADWAY TIES, FINAL OVERLAY, FINAL GRADING, DRAINAGE, FINAL CANAL, AND STRIPING UNDER TRAFFIC FOR THE PROJECT AS SHOWN IN STAGE 3 MAINTENANCE OF TRAFFIC DETAILS.



Scott Thornberry 10/4/2024 1:59:47 PM
WORKSPACE: \\projects\VRD\84450_Grand Prairie Irrigation-Seg 1\Civil\Drawings\061467_06_MOT2_002.dgn
Y:\Projects\VRD\84450_Grand Prairie Irrigation-Seg 1\Civil\Drawings\061467_06_MOT2_002.dgn
REVISED DATE: **REDATE**

Scott Thornberry 10/4/2024 1:59:48 PM
WORKSPACE: \\projects\VRD\84450_Grand Prairie Irrigation-Seg
Y:\Projects\VRD\84450_Grand Prairie Irrigation-Seg\Drawings\VRD\061467_06_MOT2_003.dgn
REVISED DATE: \$REVDATE\$

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	35	94
MAINTENANCE OF TRAFFIC DETAILS						



LEGEND

- TYPE 3 BARRICADE
- STAGE CONSTRUCTION
- TRAFFIC FLOW ARROWS
- TRAFFIC DRUM

CONSTRUCTION PAVEMENT MARKING
CONTINUOUS DOUBLE YELLOW - HWY. 70 - SITE 2
STA. 561+92 TO 593+12 - 6240 LIN. FT.

CONSTRUCTION PAVEMENT MARKING
WHITE SOLID EDGE LINE RT. - HWY. 70 - SITE 2
STA. 561+92 TO 593+12 - 3120 LIN. FT.

CONSTRUCTION PAVEMENT MARKING
WHITE SOLID EDGE LINE LT. - HWY. 70 - SITE 2
STA. 561+92 TO 593+12 - 3120 LIN. FT.

RAISED PAVEMENT MARKERS (TY. II)

(YEL./YEL.) @ 40' O.C. = 78 EACH
IF AND WHERE DIRECTED
BY THE ENGINEER

HWY. 70 - STAGE 3 - QUANTITIES - TOTALS

TRAFFIC DRUMS	18	EACH
CONSTRUCTION PAVEMENT MARKINGS (BASED ON DBL. YELLOW C.L. & WHITE EDGE LINES LT. & RT.)	12480	LIN. FT.
RAISED PAVEMENT MARKERS (TY. II) (YEL./YEL.) @ 40' O.C. TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER - QUANTITY ESTIMATED	78	EACH

CONSTRUCTION SEQUENCE - HWY. 70 - SITE 2

STAGE 1:

INSTALL ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS AT THE LOCATIONS LISTED ON THE ADVANCE WARNING DETAILS. (BOTH SITES MAY BE WORKED SIMULTANEOUSLY IF & WHERE DIRECTED BY THE ENGINEER IF GAINFUL WORK CAN BE PERFORMED AT BOTH SITES).

CLEARING AND GRUBBING OPERATIONS MAY BEGIN IF AND WHERE DIRECTED BY THE ENGINEER.

MAINTAIN TRAFFIC IN EXISTING LANES AND CONSTRUCT TEMPORARY DETOUR AS SHOWN IN THE STAGE 1 MAINTENANCE OF TRAFFIC DETAILS.

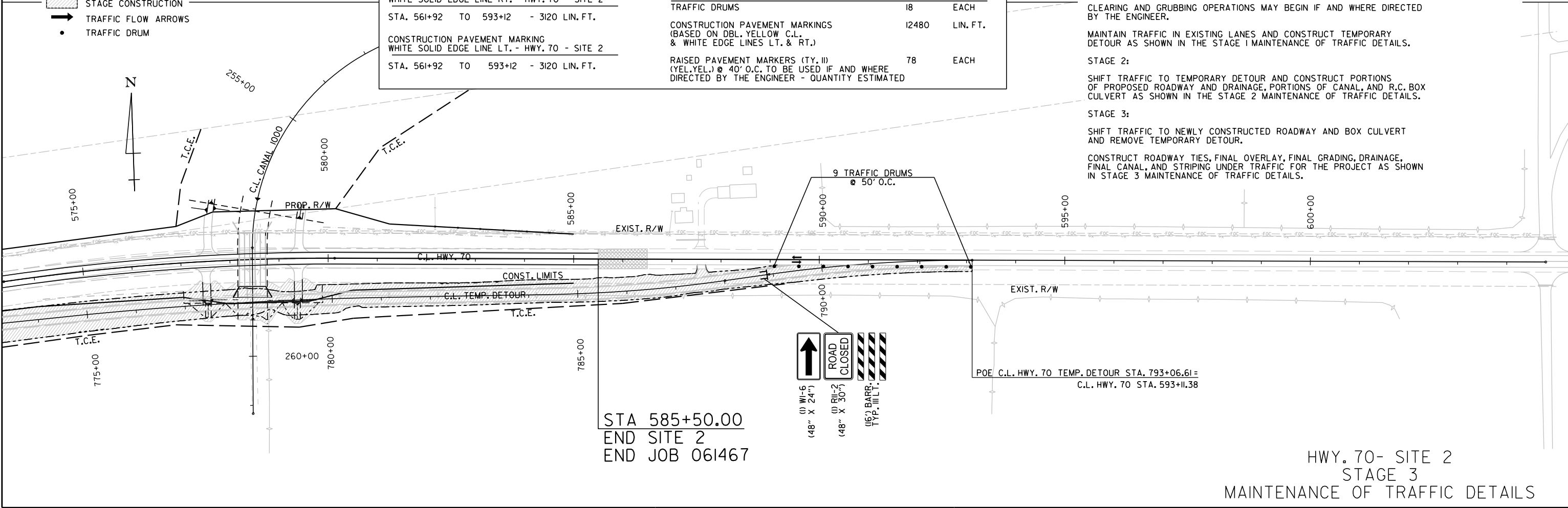
STAGE 2:

SHIFT TRAFFIC TO TEMPORARY DETOUR AND CONSTRUCT PORTIONS OF PROPOSED ROADWAY AND DRAINAGE, PORTIONS OF CANAL, AND R.C. BOX CULVERT AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

STAGE 3:

SHIFT TRAFFIC TO NEWLY CONSTRUCTED ROADWAY AND BOX CULVERT AND REMOVE TEMPORARY DETOUR.

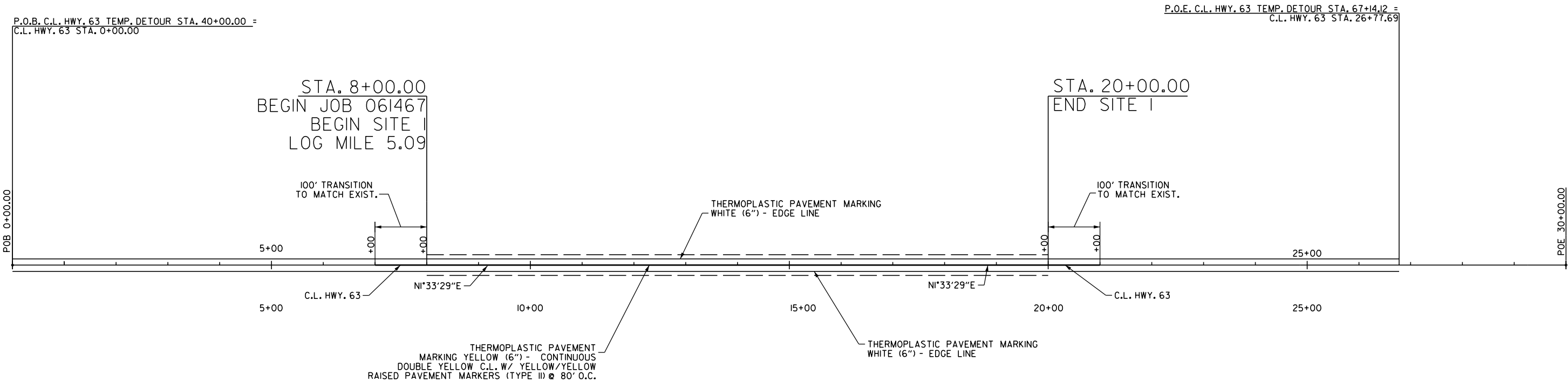
CONSTRUCT ROADWAY TIES, FINAL OVERLAY, FINAL GRADING, DRAINAGE, FINAL CANAL, AND STRIPING UNDER TRAFFIC FOR THE PROJECT AS SHOWN IN STAGE 3 MAINTENANCE OF TRAFFIC DETAILS.



HWY. 70- SITE 2
STAGE 3
MAINTENANCE OF TRAFFIC DETAILS

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	36	94

PERMANENT PAVEMENT MARKING DETAILS



THERMOPLASTIC PAVEMENT
MARKING YELLOW (6'') - CONTINUOUS
DOUBLE YELLOW C.L. W/ YELLOW/YELLOW
RAISED PAVEMENT MARKERS (TYPE II) @ 80' O.C. - HWY. 63 - SITE I

STA. 0+00.00 TO STA. 26+77.69 - 5356 LIN. FT. - 34 R.P.M.

THERMOPLASTIC PAVEMENT MARKING
WHITE (6'') - EDGE LINE RT. - HWY. 63 - SITE I

STA. 0+00.00 TO STA. 26+77.69 - 2678 LIN. FT.

THERMOPLASTIC PAVEMENT MARKING
WHITE (6'') - EDGE LINE LT. - HWY. 63 - SITE I

STA. 0+00.00 TO STA. 26+77.69 - 2678 LIN. FT.

NOTE:

THE 6" YELLOW STRIPING QUANTITY HAS BEEN ESTIMATED BASED ON A DOUBLE YELLOW CENTERLINE STRIPE FOR THE ENTIRE PROJECT. THE PROJECT MUST BE MARKED FOR PASSING/NO PASSING ZONES PRIOR TO THE PLACEMENT OF ANY FINAL STRIPING. CONTACT THE MAINTENANCE DIVISION AFTER THE FINAL LIFT OF SURFACE COURSE HAS BEEN PLACED TO SCHEDULE THE ZONING OF PROJECT.

HWY. 63 & HWY. 70 PROJECT QUANTITY TOTALS:

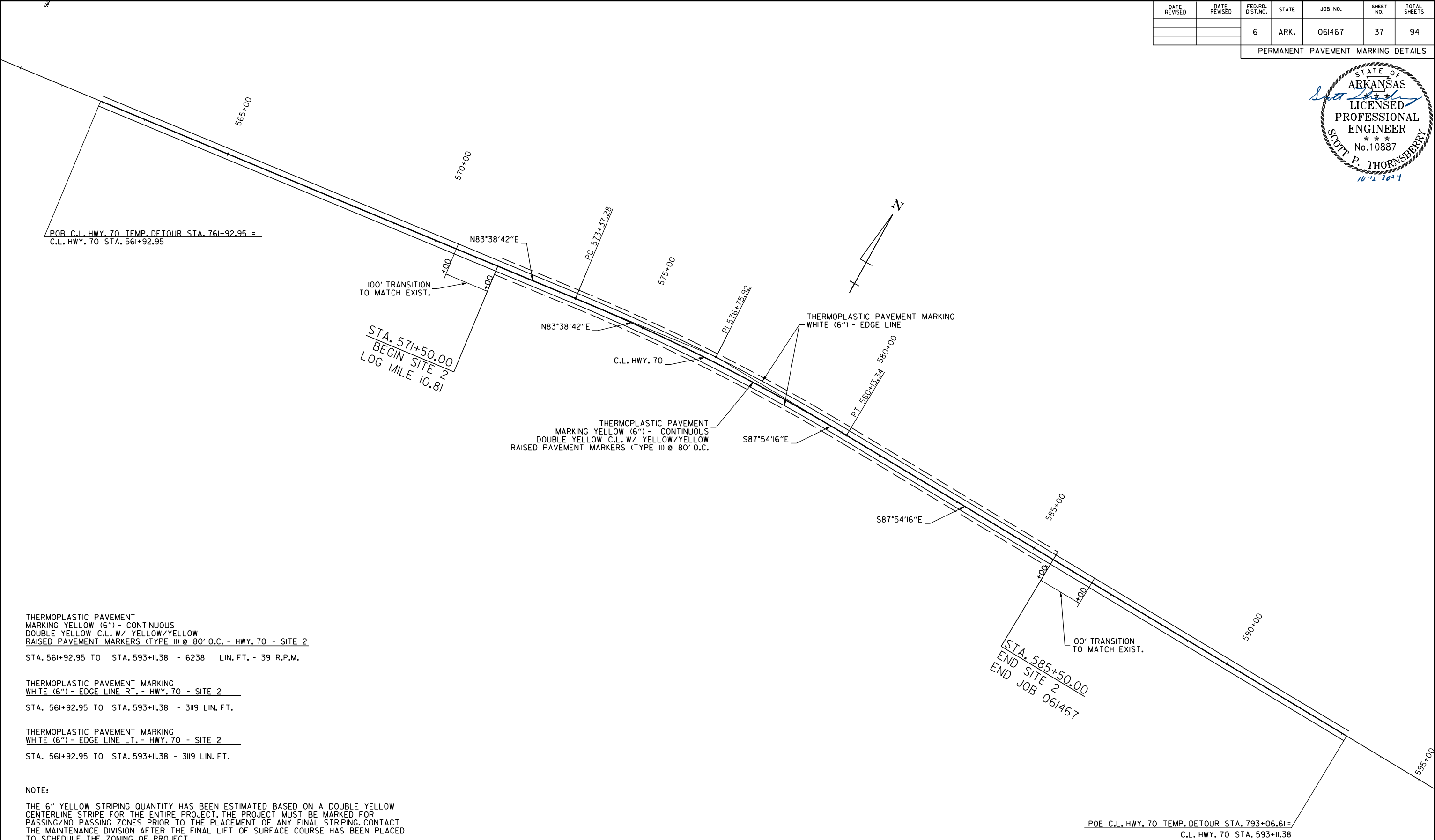
THERMOPLASTIC PAVEMENT MARKINGS
6" WHITE EDGE = 11594 LIN. FT.
6" YELLOW C.L. = 11594 LIN. FT.
YELL/YELL - RAISED PAVEMENT MARKERS (TY. II) = 73

SITE I - HWY. 63
PERMANENT PAVEMENT MARKINGS DETAILS

Scott Thornberry 10/4/2024 1:59:49 PM
Y:\Projects\104450_Grand Prairie Irrigation-Seg 1\Drawings\061467_07_PM_001.dgn
WORKSPACE: 104450_Grand Prairie Irrigation-Seg 1
REVISED DATE: 10/4/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	37	94

PERMANENT PAVEMENT MARKING DETAILS



THERMOPLASTIC PAVEMENT
MARKING YELLOW (6") - CONTINUOUS
DOUBLE YELLOW C.L. W/ YELLOW/YELLOW
RAISED PAVEMENT MARKERS (TYPE II) @ 80' O.C. - HWY. 70 - SITE 2

STA. 561+92.95 TO STA. 593+11.38 - 6238 LIN. FT. - 39 R.P.M.

THERMOPLASTIC PAVEMENT MARKING
WHITE (6") - EDGE LINE RT. - HWY. 70 - SITE 2

STA. 561+92.95 TO STA. 593+11.38 - 3119 LIN. FT.

THERMOPLASTIC PAVEMENT MARKING
WHITE (6") - EDGE LINE LT. - HWY. 70 - SITE 2

STA. 561+92.95 TO STA. 593+11.38 - 3119 LIN. FT.

NOTE:

THE 6" YELLOW STRIPING QUANTITY HAS BEEN ESTIMATED BASED ON A DOUBLE YELLOW CENTERLINE STRIPE FOR THE ENTIRE PROJECT. THE PROJECT MUST BE MARKED FOR PASSING/NO PASSING ZONES PRIOR TO THE PLACEMENT OF ANY FINAL STRIPING. CONTACT THE MAINTENANCE DIVISION AFTER THE FINAL LIFT OF SURFACE COURSE HAS BEEN PLACED TO SCHEDULE THE ZONING OF PROJECT.

HWY. 63 & HWY. 70 PROJECT QUANTITY TOTALS:

THERMOPLASTIC PAVEMENT MARKINGS
6" WHITE EDGE = 11594 LIN. FT.
6" YELLOW C.L. = 11594 LIN. FT.
YELL/YELL - RAISED PAVEMENT MARKERS (TY. II) = 73

SITE 2 - HWY. 70
PERMANENT PAVEMENT MARKINGS DETAILS

Scott Thornsberry 10/4/2024 1:59:49 PM
WORKSPACE: \\projects\VRD\84450_Grand Prairie Irrigation-Seg 1\Drawings\061467_07_PM_002.dgn
REVISIONS: 10/4/2024 1:59:49 PM
REVISED DATE: 10/4/2024 1:59:49 PM

Scott Thornberry 10/4/2024 1:59:50 PM
WORKSPACE: \\projects\VRD\84450_Grand Prairie Irrigation-Seg 1\Drawings\06\467_08E_0TY_001.dgn
PROJECT: VRD\84450_Grand Prairie Irrigation-Seg 1
REVISED DATE: **REDATE**

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	38	94
QUANTITIES						



ADVANCE WARNING SIGNS AND DEVICES														
SIGN NUMBER	DESCRIPTION	SIGN SIZE	STAGE 1	STAGE 2	STAGE 3	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		TRAFFIC DRUMS	BARRICADES (TYPE III)		FURNISHING & INSTALLING PRECAST CONC. BARRIER	TEMPORARY IMPACT ATTENUATION BARRIER	
							NO.	SQ. FT.		EACH	RIGHT			LEFT
											LIN. FT.			LIN. FT.
W20-1	ROAD WORK 1500 FT.	36"x36"	6	6	6	6	6	54.0						
W20-1	ROAD WORK 1000 FT.	36"x36"	6	6	6	6	6	54.0						
W20-1	ROAD WORK 500 FT.	36"x36"	6	6	6	6	6	54.0						
G20-2	END ROAD WORK	36"x18"	6	6	6	6	6	27.0						
W1-4R	REVERSE CURVE RT.	48"x48"		2		2	2	32.0						
W1-4L	REVERSE CURVE LT.	48"x48"		2		2	2	32.0						
W13-1	SPEED LIMIT (ADVISORY)	18"x18"		4		4	4	16.0						
R11-2	ROAD CLOSED	48"x30"	4	6	4	6	6	60.0						
OM-3L	OBJECT MARKER	12"x36"		2		2	2	6.0						
OM-3R	OBJECT MARKER	12"x36"		2		2	2	6.0						
W1-6	LARGE ARROW	48"x24"	2	8	4	8	8	64.0						
W1-8	CHEVRONS	18"x24"		32	12	32	32	96.0						
R4-1	DO NOT PASS	24"x30"	4	4	4	4	4	20.0						
W21-5a	RIGHT SHOULDER CLOSED	36"x36"	4	4	4	4	4	36.0						
W8-1	BUMP	30"x30"	4	4	4	4	4	25.0						
R1-1	STOP	36"x36"		1		1	1	9.0						
	TRAFFIC DRUMS		43	67	48	67			67					
	TYPE III BARRICADE-RT. (8')			4		4				32				
	TYPE III BARRICADE-LT. (8')			4		4					32			
	TYPE III BARRICADE-RT. (16')		2	1	2	2				32				
	TYPE III BARRICADE-LT. (16')		2	1	2	2					32			
	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER			214								214		
	TEMPORARY IMPACT ATTENUATION BARRIER			1									1	
TOTALS:								591.0	67	64	64	214	1	

- NOTES: 1. THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
2. QUANTITIES ARE PROVIDED TO ALLOW THE CONTRACTOR TO WORK AT BOTH SIDES IF AND WHERE APPROVED BY THE ENGINEER IF GAINFUL WORK CAN BE ACCOMPLISHED AT BOTH SITES.

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS										
DESCRIPTION	STAGE 1	STAGE 2	STAGE 3	END OF JOB	REMOVAL OF PERMANENT PAVEMENT MARKINGS	CONSTRUCTION PAVEMENT MARKINGS	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS	THERMOPLASTIC PAVEMENT MARKING	
								TYPE II	6"	
								(YELLOW/YELLOW)	WHITE	YELLOW
								EACH	LIN.FT.	
REMOVAL OF PERMANENT PAVEMENT MARKINGS	3024	3198	0		6222					
CONSTRUCTION PAVEMENT MARKINGS	20168	19347	18080			57595				
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	3024	3912	5112				12048			
RAISED PAVEMENT MARKERS TYPE II (YELLOW/YELLOW)	145	131	145	73				494		
THERMOPLASTIC PAVEMENT MARKING WHITE (6")				11594					11594	
THERMOPLASTIC PAVEMENT MARKING YELLOW (6")				11594						11594
TOTALS:					6222	57595	12048	494	11594	11594

- NOTE: THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
- NOTE: THE 6" YELLOW STRIPING QUANTITY HAS BEEN ESTIMATED BASED ON A DOUBLE YELLOW CENTERLINE STRIPE FOR THE ENTIRE PROJECT.
THE PROJECT MUST BE MARKED FOR PASSING/NO PASSING ZONES PRIOR TO THE PLACEMENT OF ANY FINAL STRIPING.
CONTACT THE MAINTENANCE DIVISION AFTER THE FINAL LIFT OF SURFACE COURSE HAS BEEN PLACED TO SCHEDULE THE ZONING OF THE PROJECT.
- NOTE: NO PERMANENT PAVEMENT MARKINGS SHALL BE PLACED UNTIL A MINIMUM OF 3 DAYS AFTER ALL MAIN LANE PAVING HAS BEEN COMPLETED. IN ADDITION,
NO PERMANENT PAVEMENT MARKINGS SHALL BE PLACED DURING THE TIME PERIOD FROM DECEMBER 21 TO MARCH 15, INCLUSIVE.

QUANTITIES

STATION	STATION	LOCATION	PERMANENT EROSION CONTROL					TEMPORARY EROSION CONTROL						
			SEEDING	LIME	MULCH COVER	WATER	SECOND SEEDING APPLICATION	TEMPORARY SEEDING	MULCH COVER	WATER	SAND BAG DITCH CHECKS	ROCK DITCH CHECKS	SILT FENCE	*SEDIMENT REMOVAL & DISPOSAL
											(E-5) BAG	(E-6) CU.YD.	(E-11) LIN. FT.	CU. YD.
ENTIRE	PROJECT	SITE 1- HWY. 63 - CLEARING AND GRUBBING						28.80	28.80	M.GAL.	88	27	6589	257
ENTIRE	PROJECT	SITE 1- HWY. 63 - STAGE 1	9.55	19.10	9.55	974.1	9.55	19.10	19.10	389.6	110	15		10
ENTIRE	PROJECT	SITE 1- HWY. 63 - STAGE 2	13.85	27.70	13.85	1412.7	13.85	27.70	27.70	565.1		6		2
ENTIRE	PROJECT	SITE 1- HWY. 63 - STAGE 3	13.02	26.04	13.02	1328.0	13.02	26.04	26.04	531.2				
ENTIRE	PROJECT	SITE 2- HWY. 70 - CLEARING AND GRUBBING						15.98	15.98	326.0	44	12	4753	182
ENTIRE	PROJECT	SITE 2- HWY. 70 - STAGE 1	6.07	12.14	6.07	619.1	6.07	12.14	12.14	247.7	110	3		6
ENTIRE	PROJECT	SITE 2- HWY. 70 - STAGE 2	6.86	13.72	6.86	699.7	6.86	13.72	13.72	279.9	44	9		5
ENTIRE	PROJECT	SITE 2- HWY. 70 - STAGE 3	7.87	15.74	7.87	802.7	7.87	15.74	15.74	321.1	44	3		
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.			5.72	11.44	5.72	583.4	5.72	13.04	13.04	266.0	66	9	50	8
TOTALS:			62.94	125.88	62.94	6419.7	62.94	172.26	172.26	3514.1	506	84	11392	470

*QUANTITIES ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.

STATION	DESCRIPTION	TEMPORARY CULVERTS				SPAN	HEIGHT	LENGTH	CLASS S CONCRETE- ROADWAY	REINF. STEEL- ROADWAY (GRADE 60)	UNCL. EXC. FOR STR.- ROADWAY	SOLID SODDING	WATER	STD. DWG. NOS.
		12"	24"	21"x15"	28"x20"									
		LIN. FT.												
46+60	TEMP. CULVERT HWY. 63 DETOUR		60											PCC-1
61+27	DBL. TEMP. ARCH CULVERT HWY. 63 DETOUR			112										PCC-1
770+00	HWY. 70 DETOUR				53									PCC-1
787+87	TEMP. CULVERT HWY. 70 DETOUR	200												PCC-1
SUBTOTALS:		200	60	112	53									
STRUCTURES OVER 20' - 0" SPAN														
13+92.88	HWY. 63 - SITE 1- QUINT. BOX CULVERT					10	10	140	180.00	18000	483	60	0.76	RCB-1, RCB-2, SPECIAL DETAILS PGS 12, 13
578+45.93	HWY. 70 - SITE 2 - QUINT. BOX CULVERT					10	10	110	49.30	4074	289	55	0.69	RCB-1, RCB-2, SPECIAL DETAILS PGS 14, 15
SUBTOTALS:									229.30	22074	772	115	1.45	
TOTALS:		200	60	112	53				229.30	22074	772	115	1.45	

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

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

NOTE: THE WHITE RIVER IRRIGATION DISTRICT WILL PROVIDE THE PRECAST RC BOX CULVERT SECTIONS FOR THE CONTRACTOR TO INSTALL. PAYMENT FOR THE RC BOX CULVERT INSTALLATION WILL BE PAID FOR AS INSTALLATION OF PRECAST REINFORCED CONCRETE BOX CULVERTS.

STATION	SIDE	LOCATION	WIDTH	ACHM SURFACE COURSE (1/2") 220 LBS. PER SQ. YD. (PG 64-22)		AGGREGATE BASE COURSE (CLASS 7)	SIDE DRAINS				STANDARD DRAWINGS
				FEET	SQ. YD.		TON	TON	12"	18"	
9+02	LT	LT. OF C.L. HWY. 63 - CO. RD. 806	28	133.81	14.72	1274.28			54		PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
9+02	RT	RT OF C.L. HWY. 63	24	119.59	13.15	55.40	36				PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
12+30	RT	RT OF C.L. HWY. 63	16	24.73	2.72	38.10					
13+10	LT	LT OF C.L. HWY. 63	16	24.73	2.72	52.61					
14+90	RT	RT OF C.L. HWY. 63	16	24.73	2.72	46.13					
15+40	LT	LT OF C.L. HWY. 63	16	24.73	2.72	50.61					
19+00	LT	LT OF C.L. HWY. 63	24	35.40	3.89	85.88			72		PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
60+00	LT	LT OF C.L. TEMP. HWY. 63	25	56.80	6.25	35.86	32				PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
577+50	LT	LT OF C.L. TEMP. HWY. 63	22	24.73	2.72	49.23					
577+55	RT	RT OF C.L. HWY. 70	16	24.73	2.72	64.23					
579+40	LT	LT OF C.L. HWY. 70	16	24.73	2.72	36.86					
579+40	RT	RT OF C.L. HWY. 70	16	24.73	2.72	54.23					
53+84	LT	LT OF C.L. HWY. 70	16	36.73	4.04	383.96					
787+57	LT	LT OF C.L. TEMP. HWY. 70	16			138.98	30				PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
ENTIRE PROJECT TEMPORARY DRIVES						150.00					
TOTALS:				580.17	63.81	2516.36	30	68	54	72	

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.3% MIN. AGGR.....5.7% ASPHALT BINDER

* QUANTITY ESTIMATED
SEE SECTION 104.03 OF THE STD. SPECS.
TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.

Scott.Thornberry\5/2025 156:03 PM
WORKSPACE: untitled
Y:\Projects\WRD.184450_Gr and Prairie Irrigation-Seg 1\Drawings\Design\CIVIL\Drawings\R061467_08E_0TY_0TY_001.dgn
REVISED DATE: \$\$\$DATE\$\$\$

Scott Thornsberry 4/2/2025 1:56:58 PM
Y:\Projects\VRD_08450_Grand Prairie Irrigation-Seg 1\Drawings\08450_08E_0TY_001.dgn
WORKSPACE: Notified
REVISED DATE: \$*REVDAT\$*

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEET'S
		6	ARK.	061467	40	94
QUANTITIES						



COLD MILLING ASPHALT PAVEMENT

STATION	STATION	LOCATION	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
			FEET	SQ. YD.
07+00.00	08+00.00	C.L. OF HWY. 63	35.00	388.89
20+00.00	21+00.00	C.L. OF HWY. 63	35.00	388.89
570+50.00	571+50.00	C.L. OF HWY. 70	40.00	444.44
585+50.00	586+50.00	C.L. OF HWY. 70	40.00	444.44
TOTAL:				1666.66

NOTE: AVERAGE MILLING DEPTH 1".

REMOVAL AND DISPOSAL OF FENCE

STATION	STATION	LOCATION	FENCE
			LIN. FT.
582+18	584+51	LT OF C.L. HWY. 70	245
TOTAL:			245

FENCING

STATION	STATION	LOCATION	WIRE FENCE
			(TYPE C) LIN. FT.
582+18	584+51	LT. OF C.L. HWY. 70	230
TOTAL:			230

EARTHWORK

STATION	STATION	LOCATION / DESCRIPTION	UNCLASSIFIED EXCAVATION	COMPACTED EMBANKMENT
			CU. YD.	
08+00.00	20+00.00	HWY. 63	243.12	10990.29
40+00.00	67+14.12	TEMP. DETOUR HWY. 63	1162.68	3317.78
40+00.00	67+14.12	TEMP. DETOUR HWY. 63 REMOVAL	5389.72	1105.27
28+12.00	36+00.00	CO. RD. 806	968.38	43.45
360+76.82	368+77.95	CANAL 2000	13686.51	4505.58
571+50.00	585+50.00	HWY. 70	443.39	18652.72
761+92.95	793+06.61	TEMP. DETOUR HWY. 70	1572.52	6485.78
761+92.95	793+06.61	TEMP. DETOUR HWY. 70 REMOVAL	9844.74	1554.56
256+00.00	259+00.00	CANAL 1000	6587.35	4673.70
ENTIRE	PROJECT	APPROACHES		1335
TOTALS:			39898.41	52664.13

NOTE: DETOUR REMOVAL QUANTITIES INCLUDE REMOVAL OF TYPICAL SECTION.
REFER TO GENERAL NOTE NO. 9.

RUMBLE STRIPES IN ASPHALT SHOULDERS

STATION	STATION	LOCATION	* RUMBLE STRIPES IN ASPHALT SHOULDERS
			LIN. FT.
8+00.00	20+00.00	C.L. HWY. 63. RT. SHLD.	1200
8+00.00	20+00.00	C.L. HWY. 63. LT. SHLD.	1200
571+50.00	585+50.00	C.L. HWY. 70. RT. SHLD	1985
5771+50.00	585+50.00	C.L. HWY. 70. LT. SHLD	1985
TOTAL:			6370

* QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.
TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.

CENTERLINE RUMBLE STRIPES IN ASPHALT ROADWAYS

STATION	STATION	LOCATION	* CENTERLINE RUMBLE STRIPES IN ASPHALT ROADWAYS
			LIN. FT.
8+00.00	20+00.00	C.L. HWY. 63. LT. CENTERLINE	1200
TOTAL:			1200

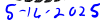
* QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.
TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.

BASE AND SURFACING

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT						ACHM BASE COURSE (1 1/2")				ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (1/2")				TOTAL PG 64-22 TON	
				TON / STATION	TON	(0.05 GAL. PER SQ. YD.)			(0.17 GAL. PER SQ. YD.)			TOTAL GALLONS	AVG. WID. FEET	SQ.YD.	POUND / SQ.YD.	PG 64-22 TON	AVG. WID. FEET	SQ.YD.	POUND / SQ.YD.	PG 64-22 TON	AVG. WID. FEET	SQ.YD.	POUND / SQ.YD.		PG 64-22 TON
						TOTAL WID. FEET	SQ.YD.	GALLON	TOTAL WID. FEET	SQ.YD.	GALLON														
SITE 1- HWY. 63																									
7+00.00	8+00.00	C.L. OF HWY. 63 START TRANSITION	100.00	185.50	185.50				35.00	388.89	66.11	66.11									35.00	388.89	220.00	42.78	42.78
8+00.00	20+00.00	C.L. OF HWY. 63	1200.00	351.75	4221.00	24.42	3256.00	162.80				162.80				24.42	3256.00	660.00	1074.48	40.00	5333.33	220.00	586.67	586.67	
20+00.00	21+00.00	C.L. OF HWY. 63 END TRANSITION	100.00	185.50	185.50				35.00	388.89	66.11	66.11								35.00	388.89	220.00	42.78	42.78	
28+12.00	36+00.00	C.L. OF CO. RD. 806	788.00	182.25	1436.13																				
43+61.89	63+52.54	C.L. OF TEMP. DETOUR HWY. 63	1990.65	182.50	3632.94	24.29	5372.54	268.63				268.63				24.29	5372.54	330.00	886.47	28.00	6193.13	220.00	681.24	681.24	
80+14.00	82+90.00	C.L. OF CO. RD. 806 TEMP. CONNECTION	276.00	131.25	362.25																				
SITE 1- HWY. 70																									
570+50.00	571+50.00	C.L. OF HWY. 70 START TRANSITION	100.00						40.00	444.44	75.55	75.55								40.00	444.44	220.00	48.89	48.89	
571+50.00	585+50.00	C.L. OF HWY. 70	1400.00	351.75	4924.50	24.42	3798.67	189.93				189.93				24.42	3798.67	660.00	1253.56	40.00	6222.22	220.00	684.44	684.44	
585+50.00	586+50.00	C.L. OF HWY. 70 END TRANSITION	100.00						40.00	444.44	75.55	75.55								40.00	444.44	220.00	48.89	48.89	
765+60.17	789+45.71	C.L. OF TEMP. DETOUR HWY. 70	2385.54	182.50	4353.61	24.29	6438.31	321.92				321.92				24.29	6438.31	330.00	1062.32	28.00	7421.68	220.00	816.38	816.38	
ADDITIONAL FOR SUPERELEVATION																									
48+14.24	58+99.88	C.L. OF TEMP. DETOUR HWY. 63	1085.64	53.25	578.10																				
571+12.28	582+38.34	C.L. OF HWY. 70	1126.06	209.75	2361.91																				
766+07.35	772+02.72	C.L. OF TEMP. DETOUR HWY. 70	595.37	58.50	348.29																				
772+60.21	782+76.98	C.L. OF TEMP. DETOUR HWY. 70	1016.77	54.00	549.06																				
782+76.98	789+21.13	C.L. OF TEMP. DETOUR HWY. 70	644.15	58.75	378.44																				
ADDITIONAL FOR GRADE RAISE																									
8+00.00	9+50.00	C.L. OF HWY 63	150.00						VAR.	4.48	0.76	0.76	VAR.	4.48	VAR.	3.08								3.08	
18+00.00	20+00.00	C.L. OF HWY 63	200.00						VAR.	6.51	1.11	1.11	VAR.	6.51	VAR.	36.97								36.97	
TOTALS:					23517.23		18865.52	943.28		1677.65	285.19	1228.47		10.99		40.05		18865.52		4276.83		26837.02		2952.07	2952.07

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.3% MIN. AGGR.....5.7% ASPHALT BINDER
ACHM BINDER COURSE (1").....95.9% MIN. AGGR.....4.1% ASPHALT BINDER
ACHM BASE COURSE (1 1/2").....95.4% MIN. AGGR.....4.6% ASPHALT BINDER
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

SUMMARY OF QUANTITIES AND REVISION BOX



ITEM NUMBER	ITEM	QUANTITY	UNIT
202	REMOVAL AND DISPOSAL OF FENCE	245	LIN. FT.
SP, SS, & 210	UNCLASSIFIED EXCAVATION	39898	CU. YD.
SP & 210	COMPACTED EMBANKMENT	52664	CU. YD.
SP, SS, & 303	AGGREGATE BASE COURSE (CLASS 7)	26034	TON
SS & 401	TACK COAT	1228	GAL.
SP, SS, & 405	MINERAL AGGREGATE IN ACHM BASE COURSE (1 1/2")	38	TON
SP, SS, & 405	ASPHALT BINDER (PG 64-22) IN ACHM BASE COURSE (1 1/2")	2	TON
SP, SS, & 406	MINERAL AGGREGATE IN ACHM BINDER COURSE (1")	4102	TON
SP, SS, & 406	ASPHALT BINDER (PG 64-22) IN ACHM BINDER COURSE (1")	175	TON
SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")	2844	TON
SP, SS, & 407	ASPHALT BINDER (PG 64-22) IN ACHM SURFACE COURSE (1/2")	172	TON
SP & 412	COLD MILLING ASPHALT PAVEMENT	1667	SQ. YD.
601	MOBILIZATION	1.00	LUMP SUM
SP & 602	FURNISHING FIELD OFFICE	1	EACH
SS & 603	MAINTENANCE OF TRAFFIC	1.00	LUMP SUM
603	12" TEMPORARY CULVERT	200	LIN. FT.
603	24" TEMPORARY CULVERT	60	LIN. FT.
603	21" X 15" TEMPORARY CULVERT	112	LIN. FT.
603	28" X 20" TEMPORARY CULVERT	53	LIN. FT.
SS & 604	SIGNS	591	SQ. FT.
SS & 604	BARRICADES	160	LIN. FT.
SS & 604	TRAFFIC DRUMS	67	EACH
SS & 604	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER	214	LIN. FT.
604	CONSTRUCTION PAVEMENT MARKINGS	57595	LIN. FT.
604	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	12048	LIN. FT.
604	REMOVAL OF PERMANENT PAVEMENT MARKINGS	6222	LIN. FT.
SS & 606	12" SIDE DRAIN	30	LIN. FT.
SP, SS, & 606	18" SIDE DRAIN	68	LIN. FT.
SP, SS, & 606	24" SIDE DRAIN	54	LIN. FT.
SS & 606	21" X 15" SIDE DRAIN	72	LIN. FT.
SP & 607	INSTALLATION OF PRECAST REINFORCED CONCRETE BOX CULVERTS (10' X 10')	250	LIN. FT.
SS & 619	WIRE FENCE (TYPE C)	230	LIN. FT.
620	LIME	126	TON
620	SEEDING	62.94	ACRE
SS & 620	MULCH COVER	235.20	ACRE
620	WATER	9935.3	M. GAL.
621	TEMPORARY SEEDING	172.26	ACRE
621	SILT FENCE	11392	LIN. FT.
621	SAND BAG DITCH CHECKS	506	BAG
621	SEDIMENT REMOVAL AND DISPOSAL	470	CU. YD.
621	ROCK DITCH CHECKS	84	CU. YD.
623	SECOND SEEDING APPLICATION	62.94	ACRE
624	SOLID SODDING	115	SQ.YD.
635	ROADWAY CONSTRUCTION CONTROL	1.00	LUMP SUM
SP & 642	RUMBLE STRIPES IN ASPHALT SHOULDERS	6370	LIN. FT.
SP & 642	CENTERLINE RUMBLE STRIPES IN ASPHALT ROADWAYS	1200	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING WHITE (6")	11594	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING YELLOW (6")	11594	LIN. FT.
721	RAISED PAVEMENT MARKERS (TYPE II)	494	EACH
SS & 731	TEMPORARY IMPACT ATTENUATION BARRIER	1	EACH
801	UNCLASSIFIED EXCAVATION FOR STRUCTURES-ROADWAY	772	CU. YD.
SP, SS, & 802	CLASS S CONCRETE-ROADWAY	229.30	CU. YD.
SS & 804	REINFORCING STEEL-ROADWAY (GRADE 60)	22074	POUND

REVISIONS

[illegible]

Scott.Thornsberry/6/2025 1:22:26 PM
WORKSPACE: untitled
Y:\Projects\WRID_184450.Grand Prairie
REVISED DATE: \$\$REVDATE\$\$

SUMMARY OF QUANTITIES AND REVISION BOX

Scott Thornsberry 10/4/2024 1:59:52 PM
WORKSPACE: \\projects\VRD\84450_Grand Profile Irrigation-Seg
Y:\Projects\VRD\84450_Grand Profile Irrigation-Seg
REVISED DATE: **REVE DATE**

SURVEY CONTROL COORDINATES

Project Name: 061467
Coordinate System: ARKANSAS STATE PLANE - SOUTH ZONE
Units: U.S. SURVEY FOOT

Point Name	Northing	Easting	Elev	Feature	Description
2	2082367.9443	1460852.9366	226.89	CTL	RB W/CAP
3	2082277.8700	1463436.6700	223.66	CTL	MONUMENT
5	2078068.8881	1468708.5642	215.36	CTL	MONUMENT
42	2074480.7160	1447180.5060	227.94	CTL	D45K20
43	2074562.2180	1443244.3420	223.82	CTL	D46K
46	2080927.0570	1447424.9460	229.87	CTL	D50K24
177	2082379.2363	1463487.2947	224.12	CTL	5/8" RBR
182	2082381.1376	1463437.3614	224.46	CTL	RB W/CAP
246	2082436.3301	1461959.1919	225.87	CTL	RB W/CAP
262	2082446.1154	1461683.3974	225.04	CTL	RB W/CAP
438	2082385.9796	1459781.7452	224.83	CTL	RB W/CAP

HORIZONTAL DATUM: NAD 83 (1997)
VERTICAL DATUM: NAVD 88 POSITIONAL

BASIS OF BEARING:
ARKANSAS STATE PLANE GRID BEARINGS - 0302-SOUTH ZONE

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	42	94
SURVEY CONTROL DETAILS						



SITE 1				
ALIGNMENT NAME: HWY. 63				
POINT	STATION	TYPE	NORTHING	EASTING
8000	00+00.00	POB	2073092.0980	1447209.1560
8002	30+00.00	POE	2076090.9882	1447290.7176

SITE 1				
ALIGNMENT NAME: HWY. 63 TEMPORARY DETOUR				
POINT	STATION	TYPE	NORTHING	EASTING
8001	40+00.00	PC	2073092.0980	1447209.1560
8046	48+14.24	PRC	2073898.2427	1447116.1036
8048	58+99.88	PRC	2074968.9359	1447145.2236
8050	67+14.12	PT	2075768.8312	1447281.9559

SITE 1				
ALIGNMENT NAME: CO. RD. 806				
POINT	STATION	TYPE	NORTHING	EASTING
8051	28+00.00	POB	2073993.7643	1447233.6789
8052	28+21.02	PC	2073994.3358	1447212.6657
8054	31+83.21	PRC	2074231.8576	1446989.8682
8056	35+46.92	PT	2074469.4156	1446765.5588
8057	37+00.00	POE	2074472.5676	1446612.5121

SITE 1				
ALIGNMENT NAME: CANAL 2000				
POINT	STATION	TYPE	NORTHING	EASTING
8003	346+12.28	POB	2074214.5293	1449092.0145
8004	360+76.82	PC	2074274.2203	1447628.6855
8006	364+24.14	PT	2074414.4178	1447320.2940
8007	365+23.16	PC	2074486.3099	1447252.2094
8009	368+77.95	PT	2074626.7498	1446936.3560
8010	384+86.99	POE	2074665.6489	1445327.7818

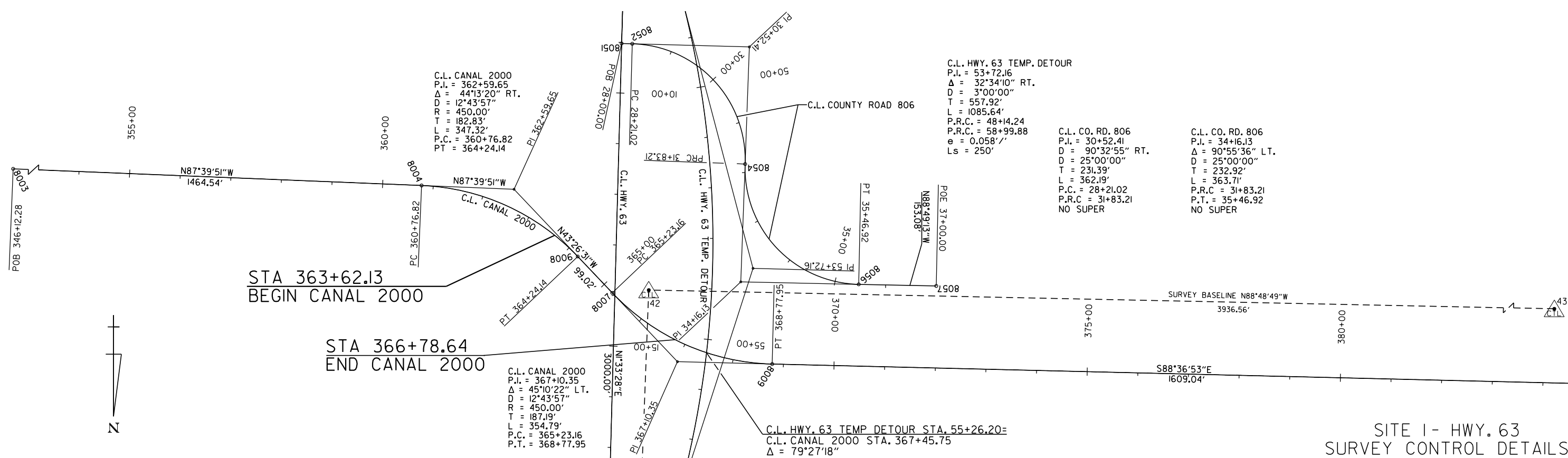
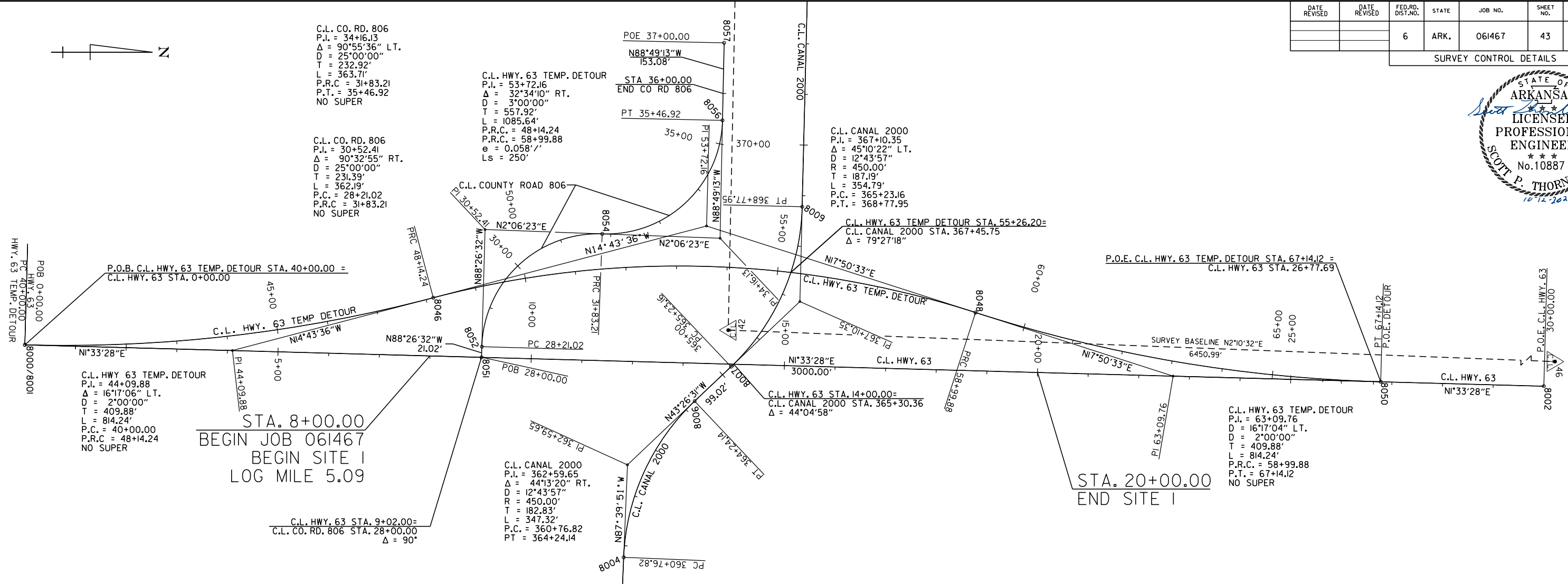
SITE 2				
ALIGNMENT NAME: HWY. 70				
POINT	STATION	TYPE	NORTHING	EASTING
8011	555+53.32	POB	2082197.8683	1458548.6602
8012	573+37.28	PC	2082395.3351	1460321.6547
8014	580+13.34	PT	2082420.4362	1460996.6398
8015	604+79.29	POE	2082330.2600	1463460.9400

SITE 2				
ALIGNMENT NAME: HWY. 70 DETOUR				
POINT	STATION	TYPE	NORTHING	EASTING
8030	761+92.95	PC	2082268.6694	1459184.3613
8032	765+66.20	PT	2082285.7362	1459556.9570
8033	767+57.35	PC	2082282.0336	1459748.0714
8035	770+15.22	PT	2082288.6410	1460005.7655
8036	774+47.71	PC	2082319.1674	1460437.1824
8038	781+08.23	PT	2082337.2643	1461097.2469
8039	784+45.73	PC	2082331.9251	1461434.7011
8041	788+01.13	PT	2082348.3316	1461789.4982
8042	788+91.74	PC	2082358.1198	1461879.5764
8044	793+06.60	PT	2082372.9687	1462293.8135

SITE 2				
ALIGNMENT NAME: CANAL 1000				
POINT	STATION	TYPE	NORTHING	EASTING
8016	137+44.49	POB	2089963.9889	1464852.6975
8017	144+24.98	PC	2089283.8207	1464831.6257
8019	148+10.86	PT	2088906.5248	1464898.3362
8020	159+77.87	PC	2087823.1820	1465332.2645
8022	164+08.72	PT	2087414.1567	1465466.7300
8023	192+86.66	PC	2084628.7394	1466190.6065
8025	209+90.13	PT	2083384.5956	1465344.0384
8026	251+39.61	PC	2082881.3364	1461225.1904
8028	257+78.99	PT	2082447.4199	1460829.9485
8029	261+16.75	POE	2082109.8000	1460820.3700

SITE 1 - HWY. 63
SITE 2 - HWY. 70
SURVEY CONTROL DETAILS

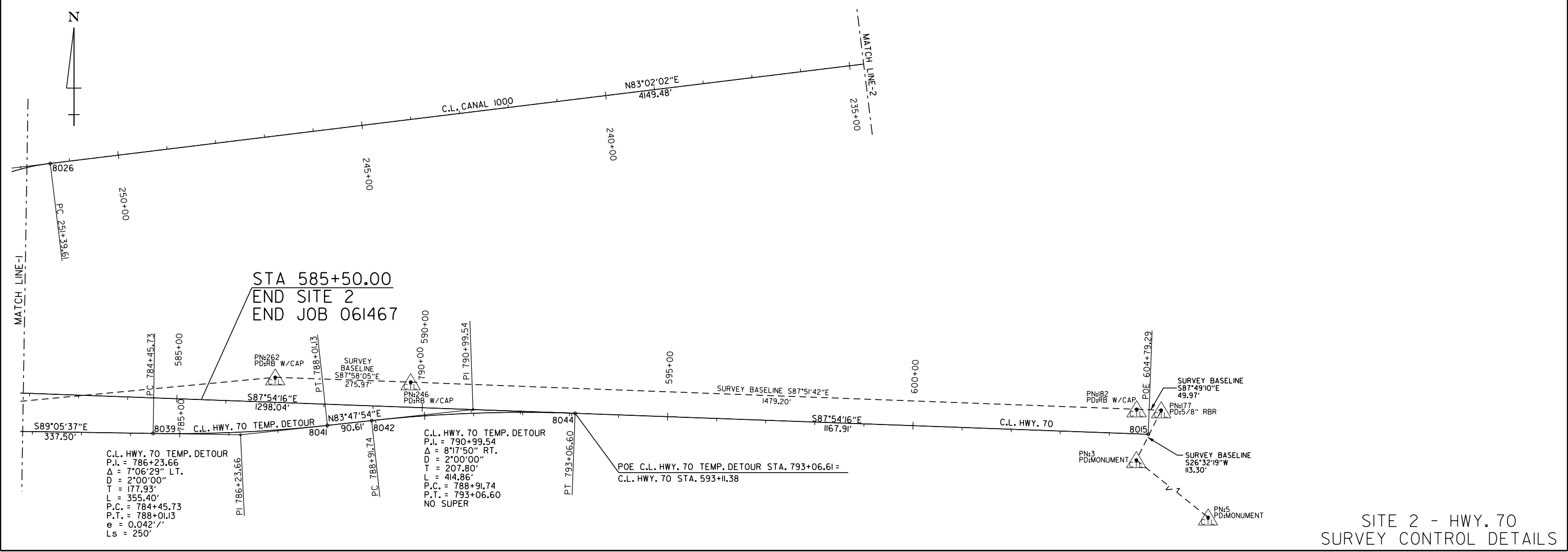
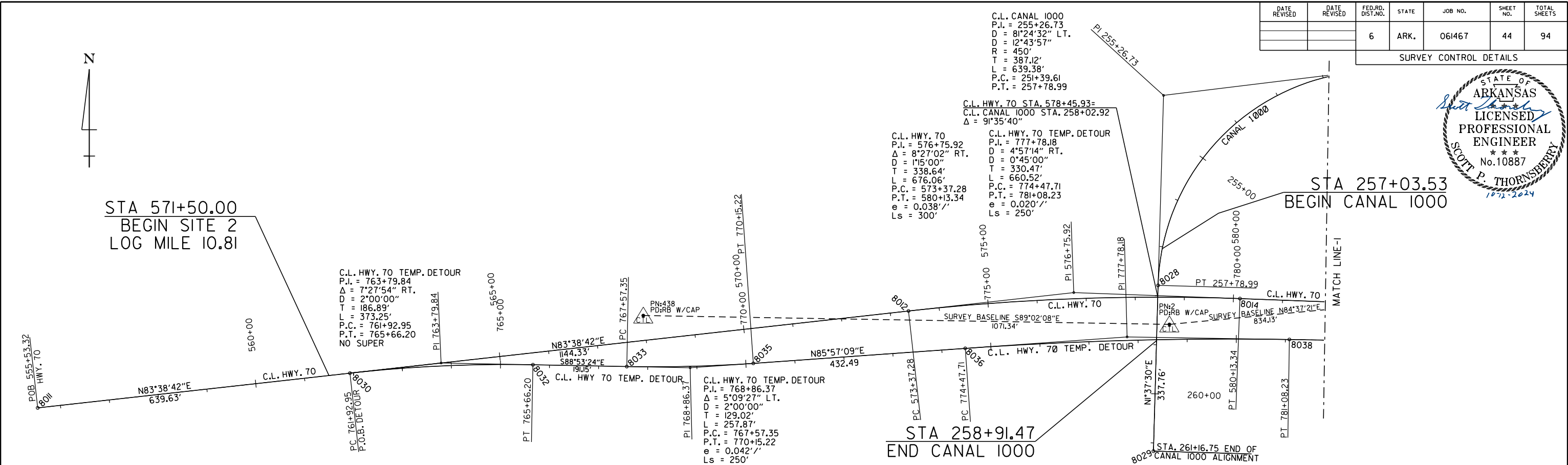
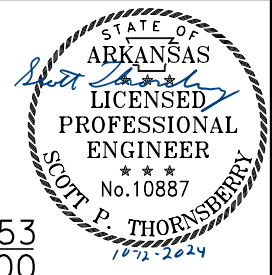
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	43	94
SURVEY CONTROL DETAILS						



SITE I - HWY. 63
SURVEY CONTROL DETAILS

Scott Thornberry 10/14/2024 1:59:52 PM
WORKSPACE: \\projects\VRD\84450_Grand Prairie Irrigation-Seg 1\Civil\Drawings\VRD\061467_IL.SC_002.dgn
Y:\Projects\VRD\84450_Grand Prairie Irrigation-Seg 1\Civil\Drawings\VRD\061467_IL.SC_002.dgn
REVIS DATE: \$REVISDATE\$

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	44	94
SURVEY CONTROL DETAILS						



SITE 2 - HWY. 70
SURVEY CONTROL DETAILS

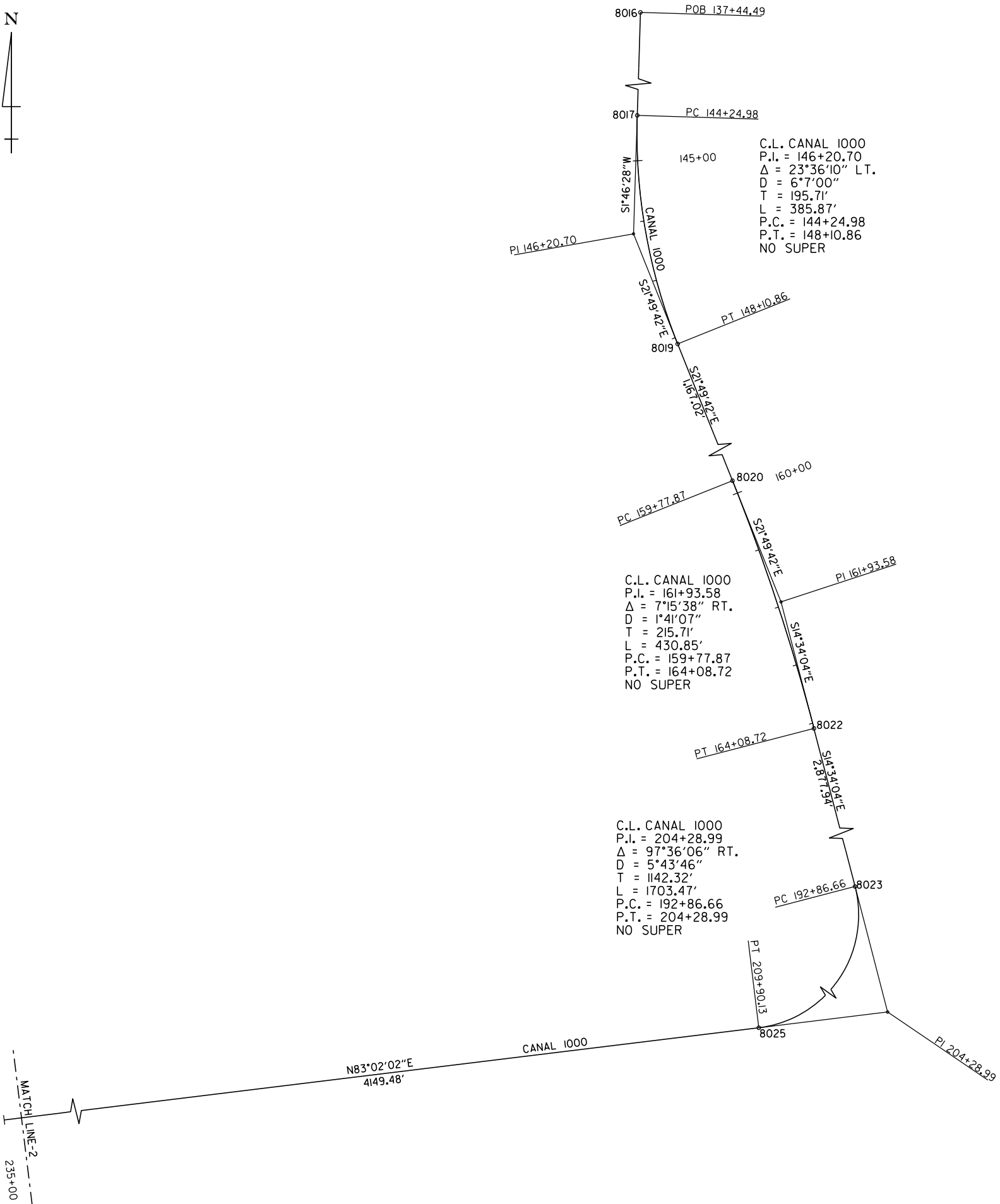
Scott Thornberry 10/4/2024 1:59:53 PM
WORKSPACE: Y:\Projects\VRD\061467\Grand Prairie Irrigation-Seg 1\Civil\Drawings\VRD\061467_IL.SC_003.dgn
REVISED DATE: **REDATE**

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	45	94

SURVEY CONTROL DETAILS



SITE 2 - HWY. 70
SURVEY CONTROL DETAILS



Scott Thornberry 4/2025 1:57:00 PM
WORKSPACE: \\projects\VRD\84450_Grand Prairie Irrigation-Seg
REVISED DATE: \$*REDATE\$*

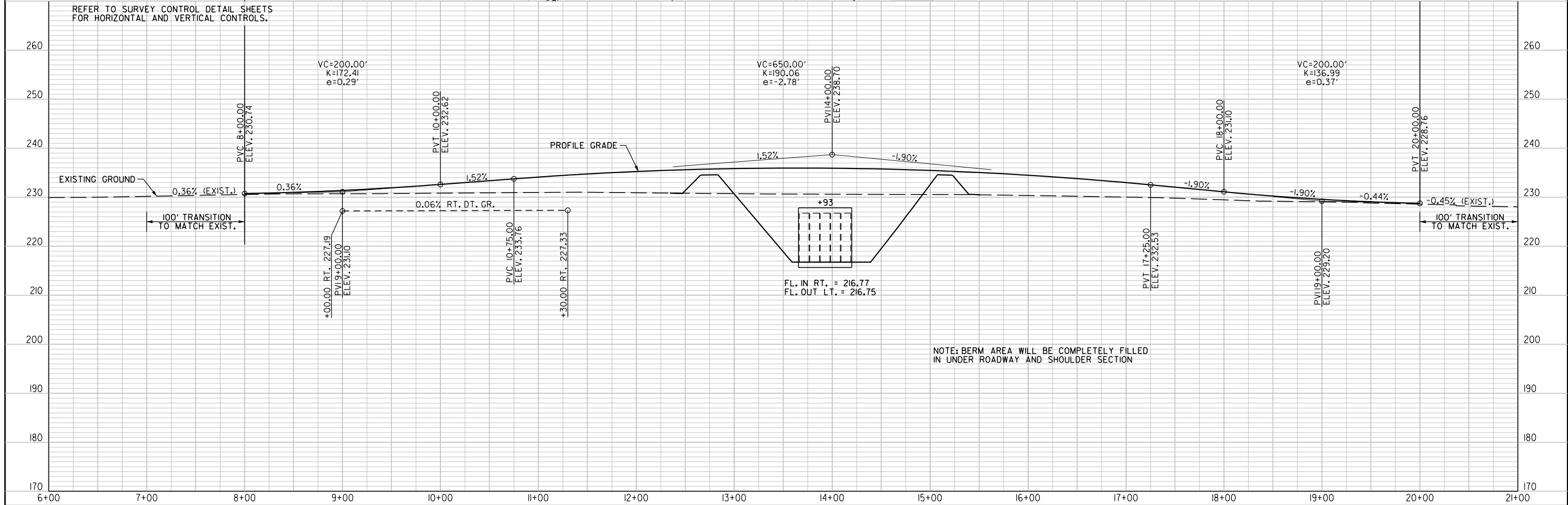
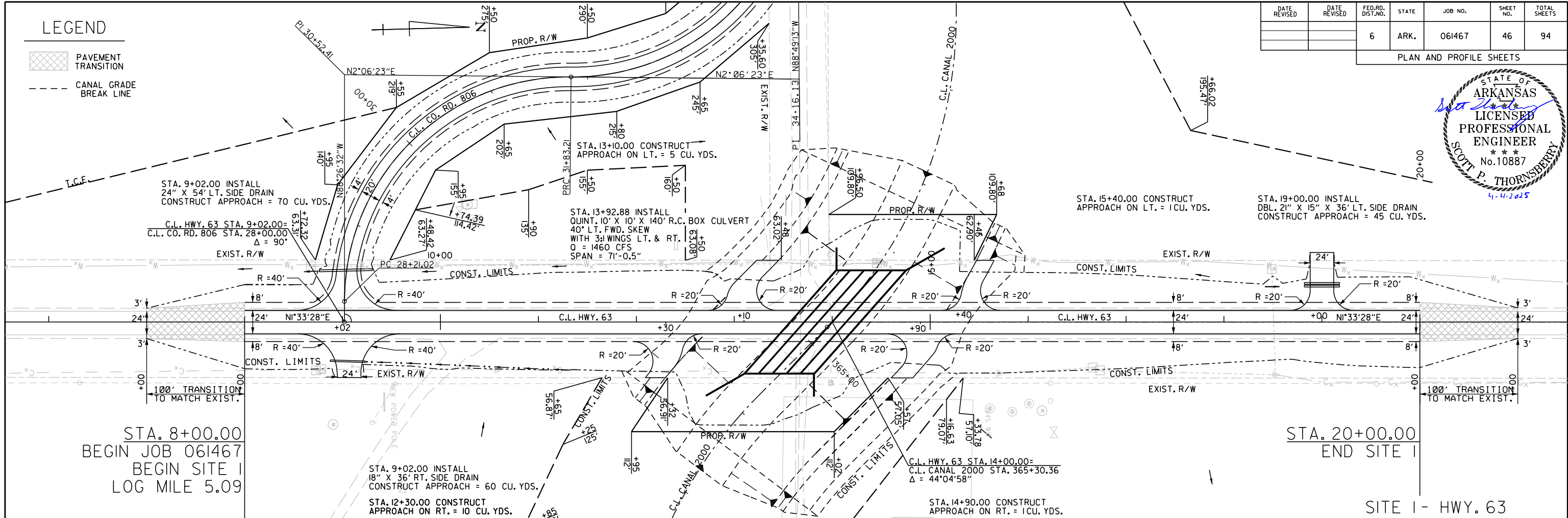
\\projects\VRD\84450_Grand Prairie Irrigation-Seg\Civil\Drawings\061467_12_PP_001.dgn

LEGEND

- PAVEMENT TRANSITION
- CANAL GRADE BREAK LINE

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	46	94

PLAN AND PROFILE SHEETS



Scott Thornberry 10/4/2024 1:59:55 PM
WORKSPACE: \\projects\VRD\84450_Grand Prairie Irrigation-Seg
Y:\Projects\VRD\84450_Grand Prairie Irrigation-Seg
REVISED DATE: **REDATE**

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	47	94

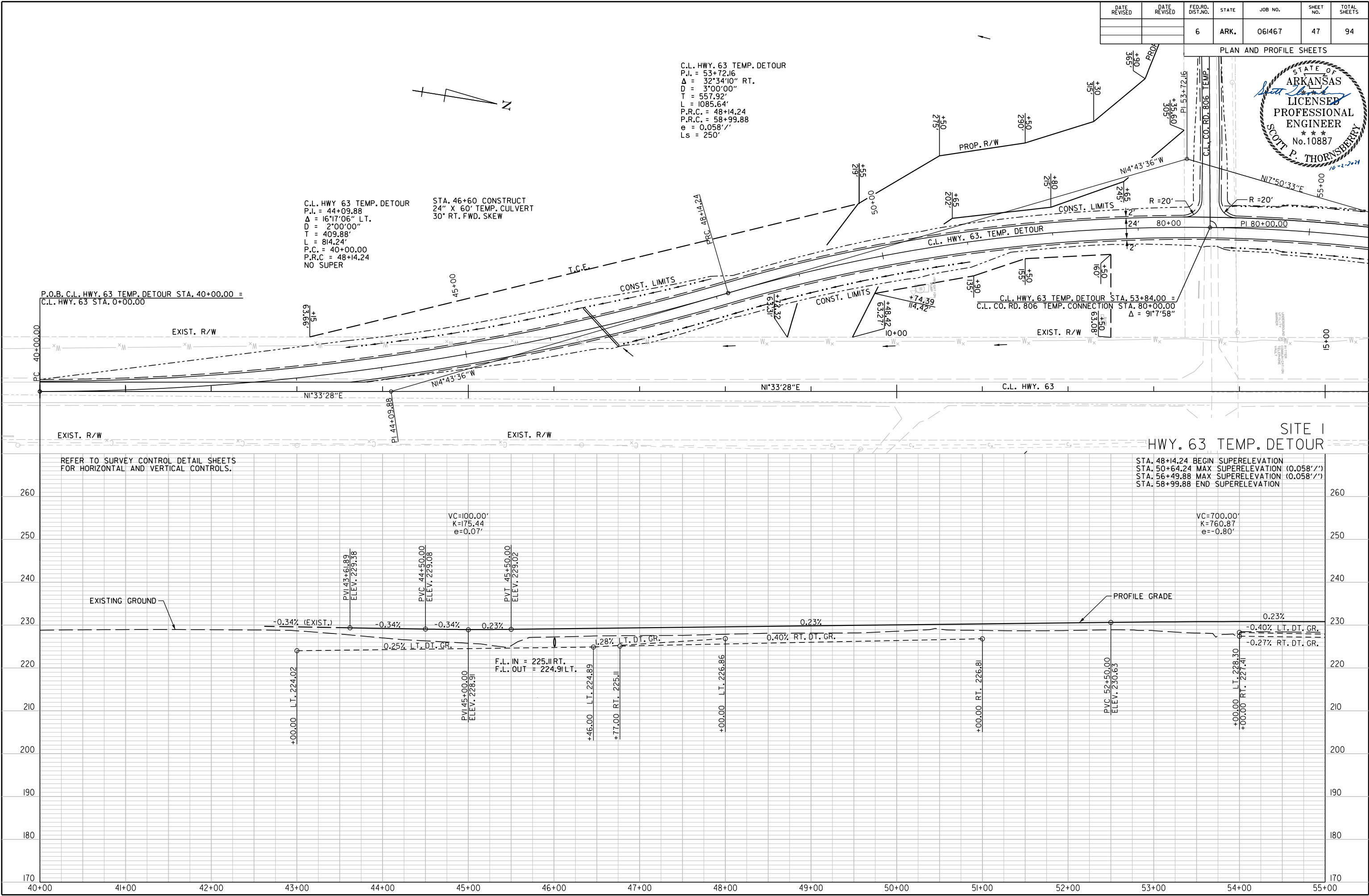
PLAN AND PROFILE SHEETS



C.L. HWY. 63 TEMP. DETOUR
P.I. = 53+72.16
 Δ = 32°34'10" RT.
D = 3°00'00"
T = 557.92'
L = 1085.64'
P.R.C. = 48+14.24
P.R.C. = 58+99.88
e = 0.058'/'
Ls = 250'

C.L. HWY. 63 TEMP. DETOUR
P.I. = 44+09.88
 Δ = 16°17'06" LT.
D = 2°00'00"
T = 409.88'
L = 814.24'
P.C. = 40+00.00
P.R.C. = 48+14.24
NO SUPER

STA. 46+60 CONSTRUCT
24" X 60' TEMP. CULVERT
30° RT. FWD. SKEW



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

STA. 48+14.24 BEGIN SUPERELEVATION
STA. 50+64.24 MAX SUPERELEVATION (0.058'/'')
STA. 56+49.88 MAX SUPERELEVATION (0.058'/'')
STA. 58+99.88 END SUPERELEVATION

VC=700.00'
K=760.87
e=-0.80'

VC=100.00'
K=175.44
e=0.07'

F.L. IN = 225.11 RT.
F.L. OUT = 224.91 LT.

Scott P. Thornberry 4/2025 15:02 PM
WORKSPACE: C:\Users\scott\OneDrive\Documents\Projects\Irrigation\Irrigation-Seg\Drawings\061467_12_PP_004.dgn
REVISIONS: 1.0
REVISED DATE: 4/2025

LEGEND

--- CANAL GRADE
--- BREAK LINE

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	49	94

PLAN AND PROFILE SHEETS

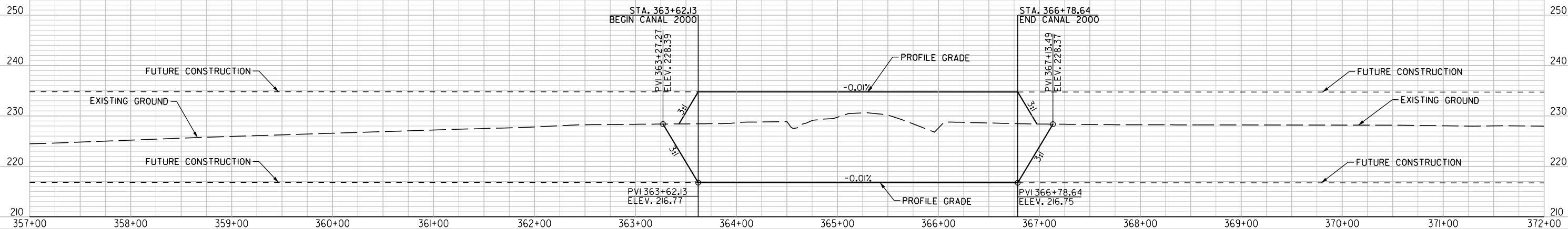


C.L. CANAL 2000
P.I. = 367+10.35
 $\Delta = 45^{\circ}10'22''$ LT.
D = 12'43'57"
R = 450.00'
T = 187.19'
L = 354.79'
P.C. = 365+23.16
P.T. = 368+77.95

C.L. CANAL 2000
P.I. = 362+59.65
 $\Delta = 44^{\circ}13'20''$ RT.
D = 12'43'57"
R = 450.00'
T = 182.83'
L = 347.32'
P.C. = 360+76.82
P.T. = 364+24.14

STA. 13+92.88 INSTALL
QUINT. 10' X 10' X 140' R.C. BOX CULVERT
40° LT. FWD. SKEW
WITH 3d WINGS LT. & RT.
Q = 1460 CFS
SPAN = 71'-0.5"

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

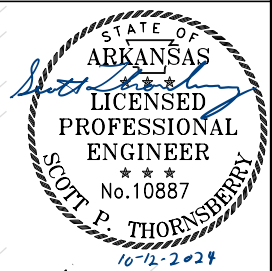


LEGEND

PAVEMENT
TRANSITION

NOTE: CO. RD. 806 DRAINAGE STRUCTURE
IS SHOWN ON HWY.63 PLAN & PROFILE SHEET
● STA. 9+02.00 LT.

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	50	94
PLAN AND PROFILE SHEETS						



C.L. CO. RD. 806
P.I. = 30+52.41
 $\Delta = 90^{\circ}32'55''$ RT.
D = 25'00'00"
T = 231.39'
L = 362.19'
P.C. = 28+21.02
P.R.C. = 31+83.21
NO SUPER

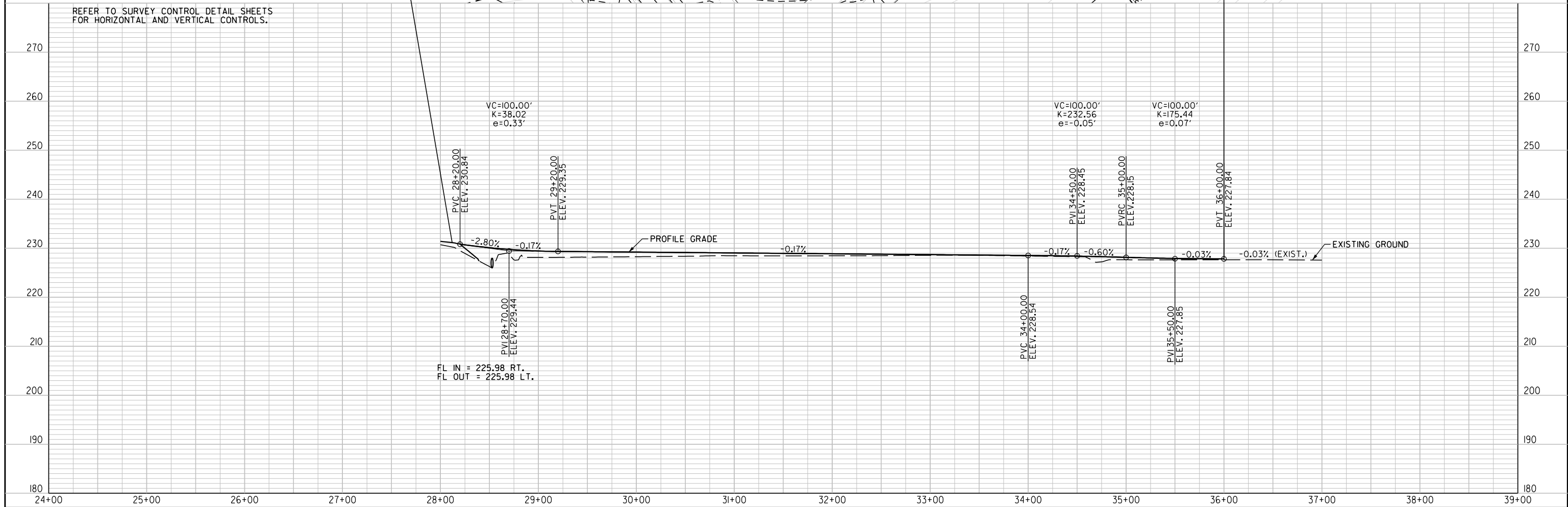
C.L. CO. RD. 806
P.I. = 34+16.13
 $\Delta = 90^{\circ}55'36''$ LT.
D = 25'00'00"
T = 232.92'
L = 363.71'
P.R.C. = 31+83.21
P.T. = 35+46.92
NO SUPER

STA. 28+12.00
BEGIN CO. RD. 806 RD.

STA. 36+00.00
END CO. RD. 806

SITE I
COUNTY ROAD 806

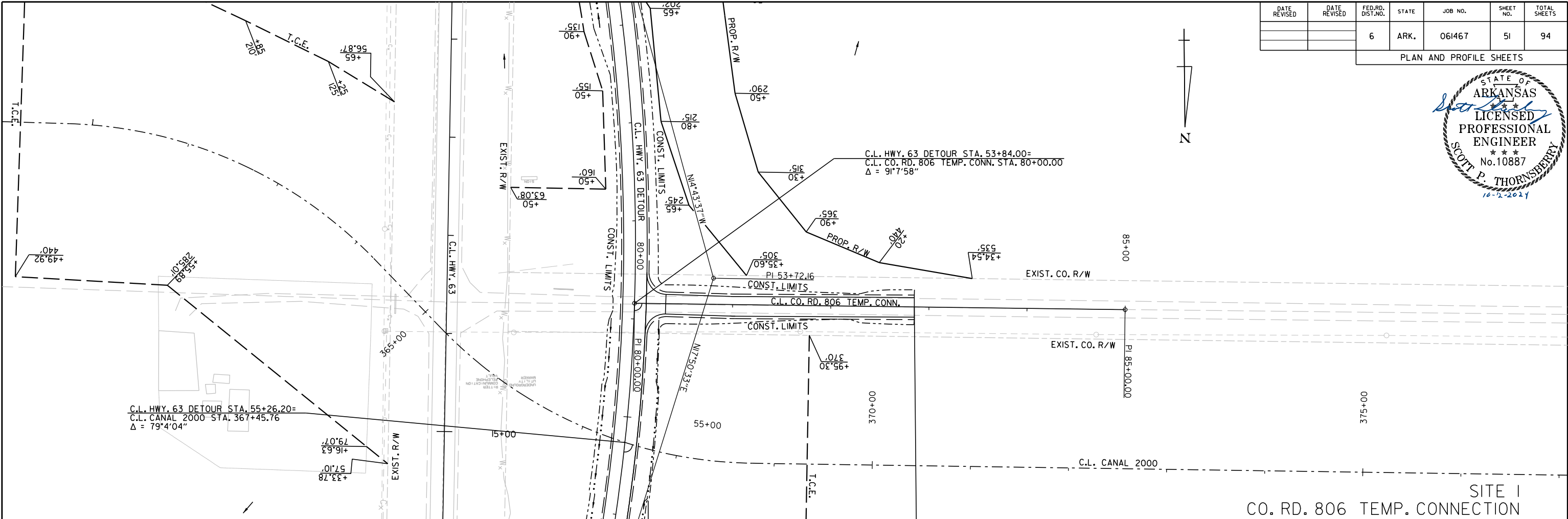
REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROLS.



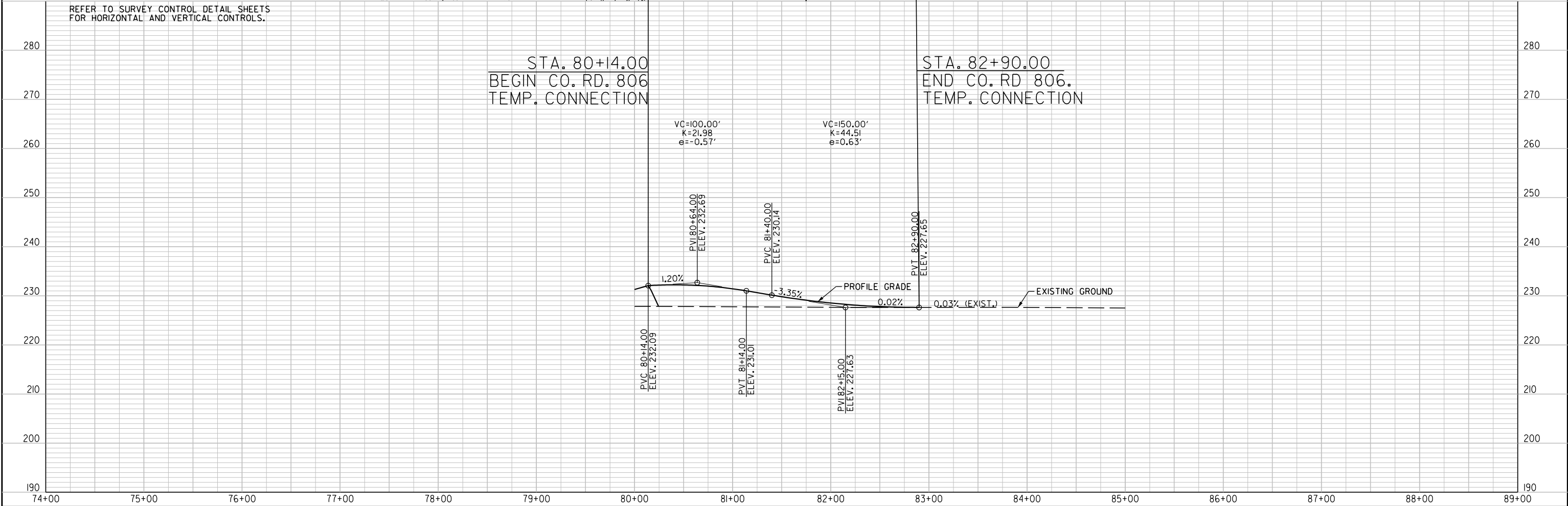
Scott Thornsberry 10/4/2024 1:59:57 PM
WORKSPACE: \\projects\VRD\84450_Grand Prairie Irrigation-Seg
Y:\Projects\VRD\84450_Grand Prairie Irrigation-Seg
REVISED DATE: **REDATE**

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	51	94

PLAN AND PROFILE SHEETS



SITE 1
CO. RD. 806 TEMP. CONNECTION



Scott Thornberry 10/4/2024 1:59:57 PM
WORKSPACE: \\projects\VRD\8450_Grand Profile Irrigation-Seg
REVISED DATE: **REDATE**

LEGEND



EXIST. R/W

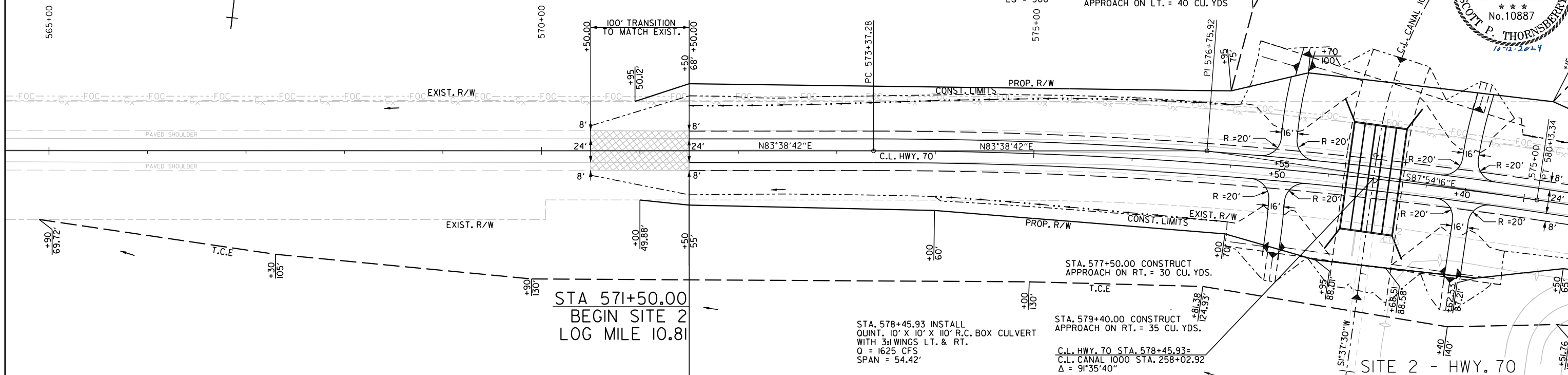
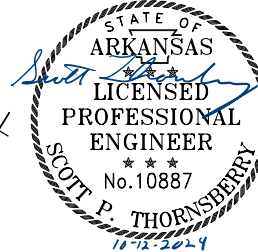
C.L. HWY. 70
P.I. = 576+75.92
 $\Delta = 8^{\circ}27'02''$ RT.
D = 1'15'00"
T = 338.64'
L = 676.06'
P.C. = 573+37.28
P.T. = 580+13.34
 $e = 0.038'/'$
Ls = 300'

STA. 579+40.00 CONSTRUCT
APPROACH ON LT. = 35 CU. YDS.

STA. 577+55.00 CONSTRUCT
APPROACH ON LT. = 40 CU. YDS

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	52	94

PLAN AND PROFILE SHEETS



STA 571+50.00
BEGIN SITE 2
LOG MILE 10.81

STA. 578+45.93 INSTALL
QUINT, 10' X 10' X 10' R.C. BOX CULVERT
WITH 3+1 WINGS LT. & RT.
Q = 1625 CFS
SPAN = 54.42'

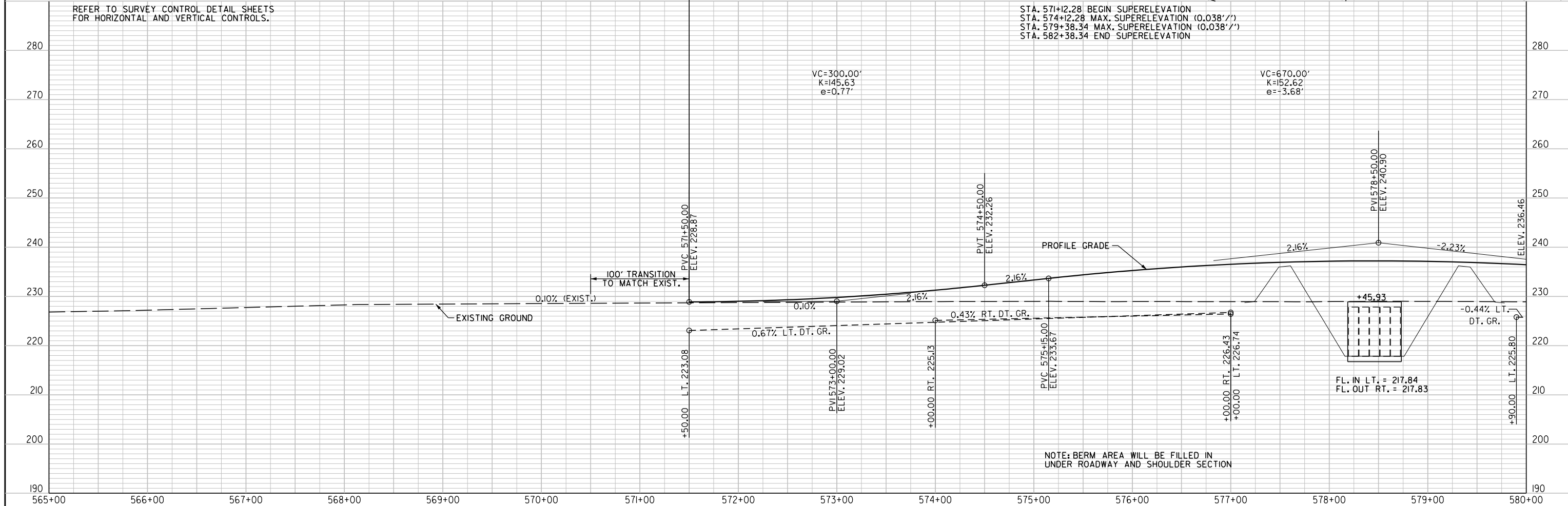
STA. 577+50.00 CONSTRUCT
APPROACH ON RT. = 30 CU. YDS.

STA. 579+40.00 CONSTRUCT
APPROACH ON RT. = 35 CU. YDS.

C.L. HWY. 70 STA. 578+45.93=
C.L. CANAL 1000' STA. 258+02.92
 $\Delta = 91^{\circ}35'40''$

STA. 571+12.28 BEGIN SUPERELEVATION
STA. 574+12.28 MAX. SUPERELEVATION (0.038'/'')
STA. 579+38.34 MAX. SUPERELEVATION (0.038'/'')
STA. 582+38.34 END SUPERELEVATION

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



VC=300.00'
K=145.63
e=0.77'

VC=670.00'
K=152.62
e=-3.68'

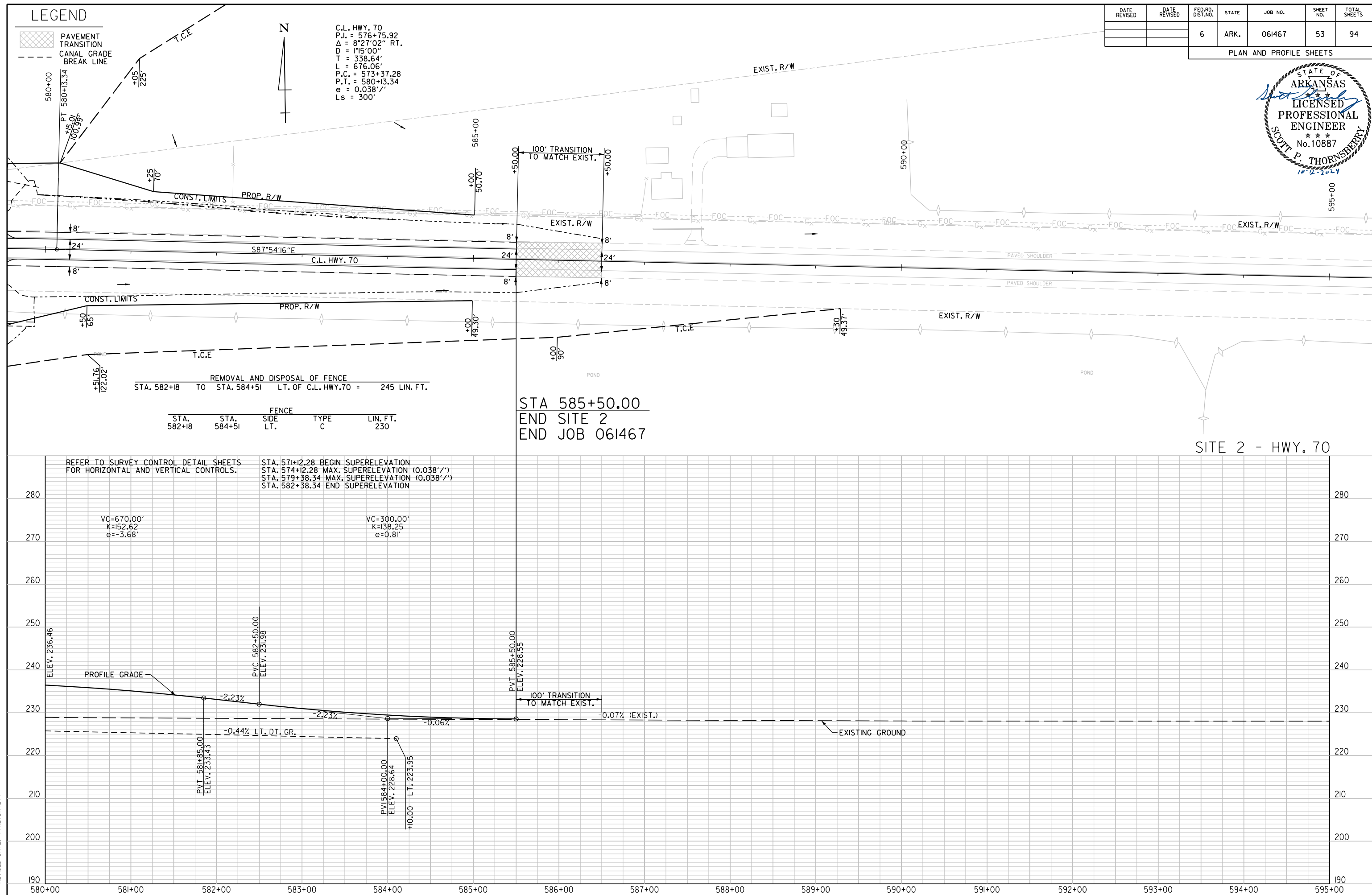
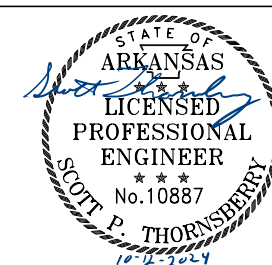
PROFILE GRADE

+45.93
FL. IN LT. = 217.84
FL. OUT RT. = 217.83

NOTE: BERM AREA WILL BE FILLED IN
UNDER ROADWAY AND SHOULDER SECTION

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	53	94

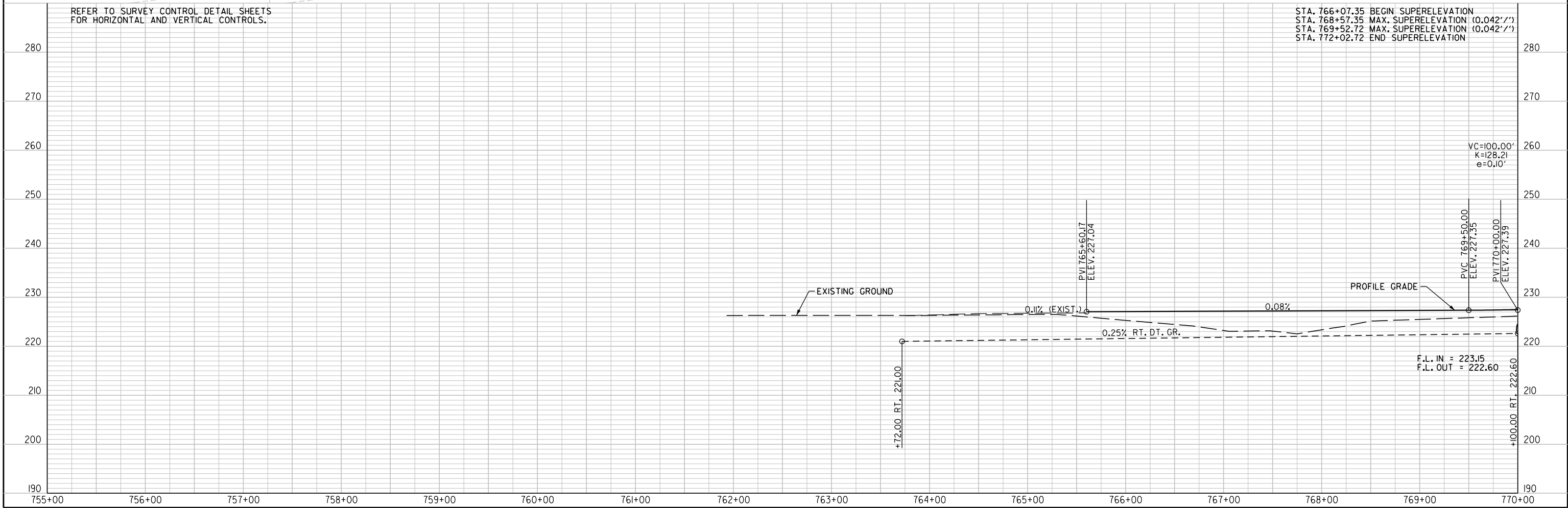
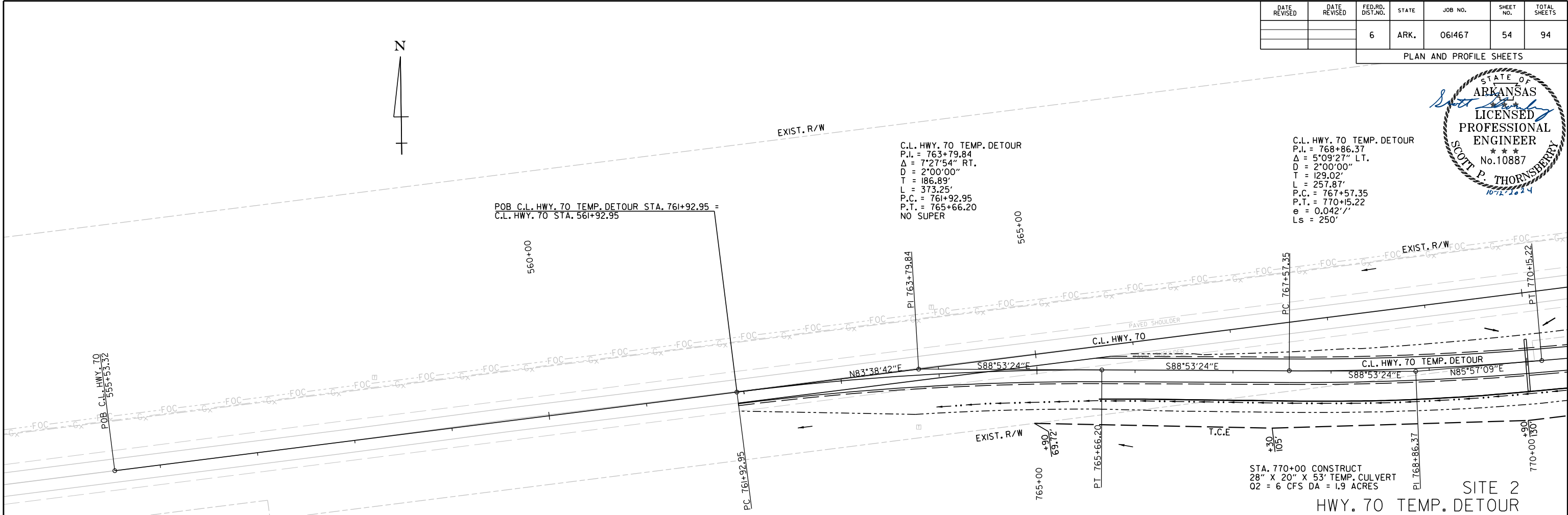
PLAN AND PROFILE SHEETS



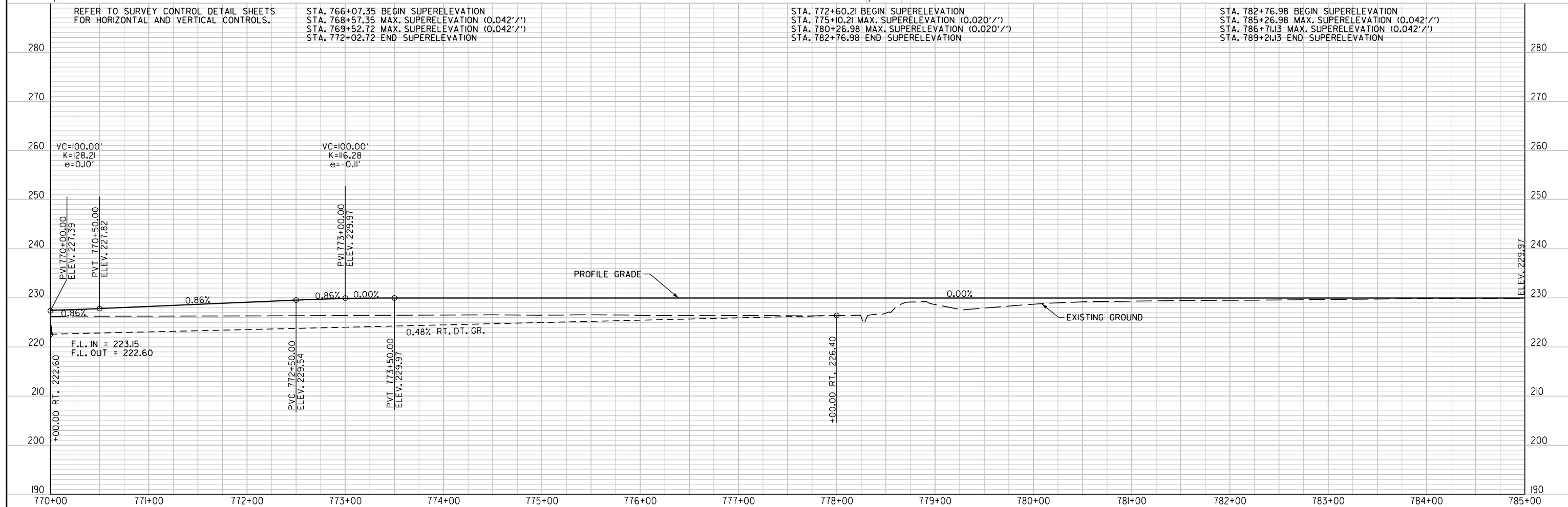
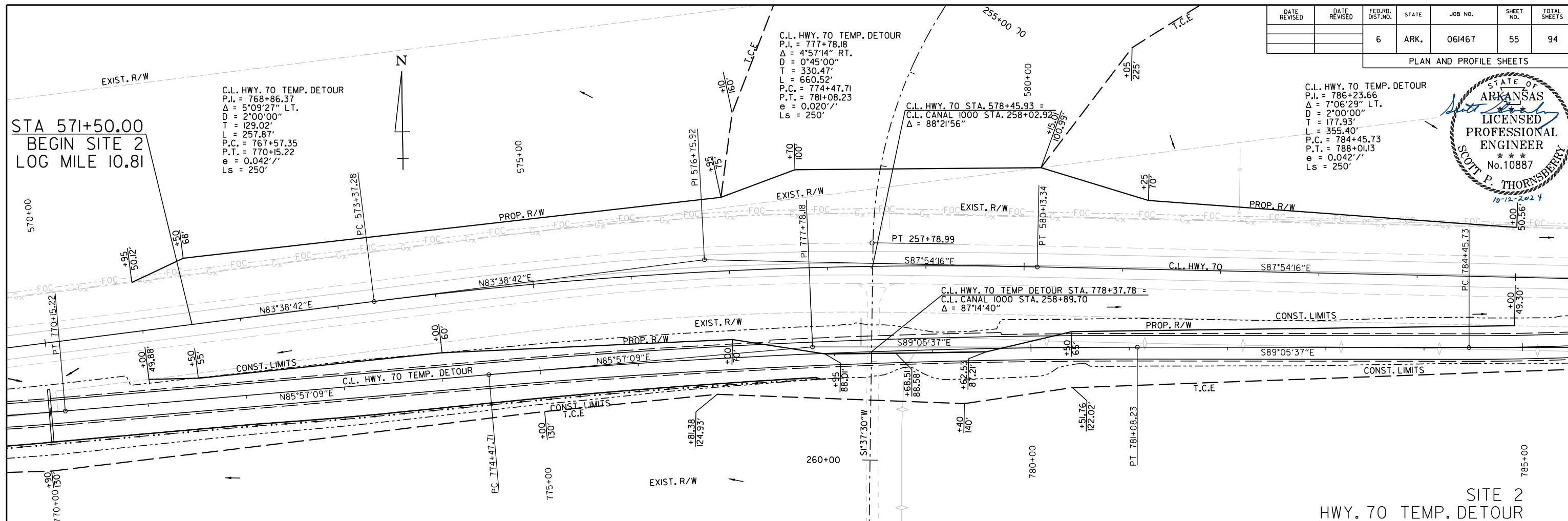
Scott.Thornsberry@4/2024 4:59:58 PM
WORKSPACE: untitled
I:\Projects\WRD.184450_Grand Prairie Irrigation-Seg
REVISED DATE: \$\$REDATE\$\$

Scott Thornsberry 10/4/2024 1:59:58 PM
WORKSPACE: \\projects\VRD\8450_Grand Prairie Irrigation-Seg 1\Drawings\061467_12_PP_009.dgn
REVISED DATE: \$REDATE\$

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	54	94
PLAN AND PROFILE SHEETS						



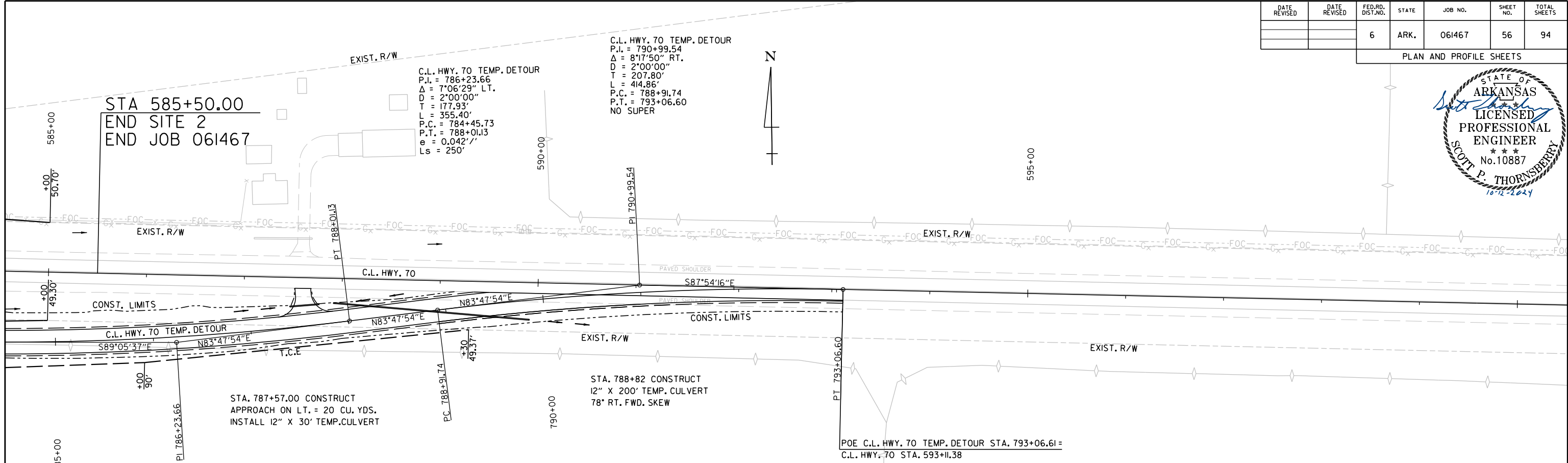
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	55	94



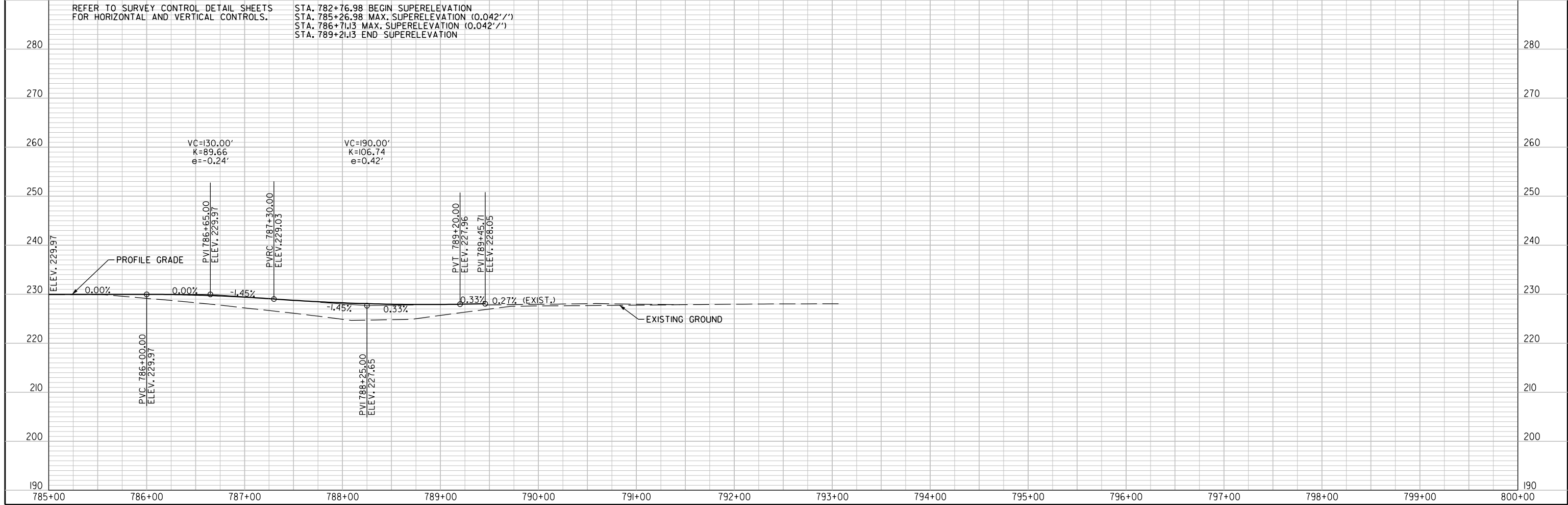
Scott Thornsberry 10/4/2024 1:59:59 PM
WORKSPACE: \\projects\VRD\84450_Grand Prairie Irrigation-Seg
Y:\Projects\VRD\84450_Grand Prairie Irrigation-Seg
REVISED DATE: \$REDATE\$

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	56	94

PLAN AND PROFILE SHEETS



SITE 2
HWY. 70 TEMP. DETOUR



LEGEND

--- CANAL GRADE
--- BREAK LINE

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	57	94

PLAN AND PROFILE SHEETS



C.L. CANAL 1000
P.I. = 255+26.73
 Δ = 81°24'32" LT.
D = 12'43'57"
R = 450'
T = 387.12'
L = 639.38'
P.C. = 251+39.61
P.T. = 257+78.99

STA. 578+45.93 INSTALL
QUINT. 10' X 10' X 110' R.C. BOX CULVERT
WITH 3:1 WINGS LT. & RT.
Q = 1625 CFS
SPAN = 54.42'

STA 257+03.53
BEGIN CANAL 1000

STA 258+91.47
END CANAL 1000

C.L. FUTURE CANAL



SITE 2 - CANAL 1000

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

STA. 257+03.53
BEGIN CANAL 1000

STA. 258+91.47
END CANAL 1000

FUTURE CONSTRUCTION

LEVEE GRADE

FUTURE CONSTRUCTION

FUTURE CONSTRUCTION

EXISTING GROUND

FUTURE CONSTRUCTION

PVI 257+03.53
ELEV. 217.84

FL. IN LT. = 217.84
FL. OUT RT. = 217.83

PVI 258+91.47
ELEV. 217.83

270

260

250

240

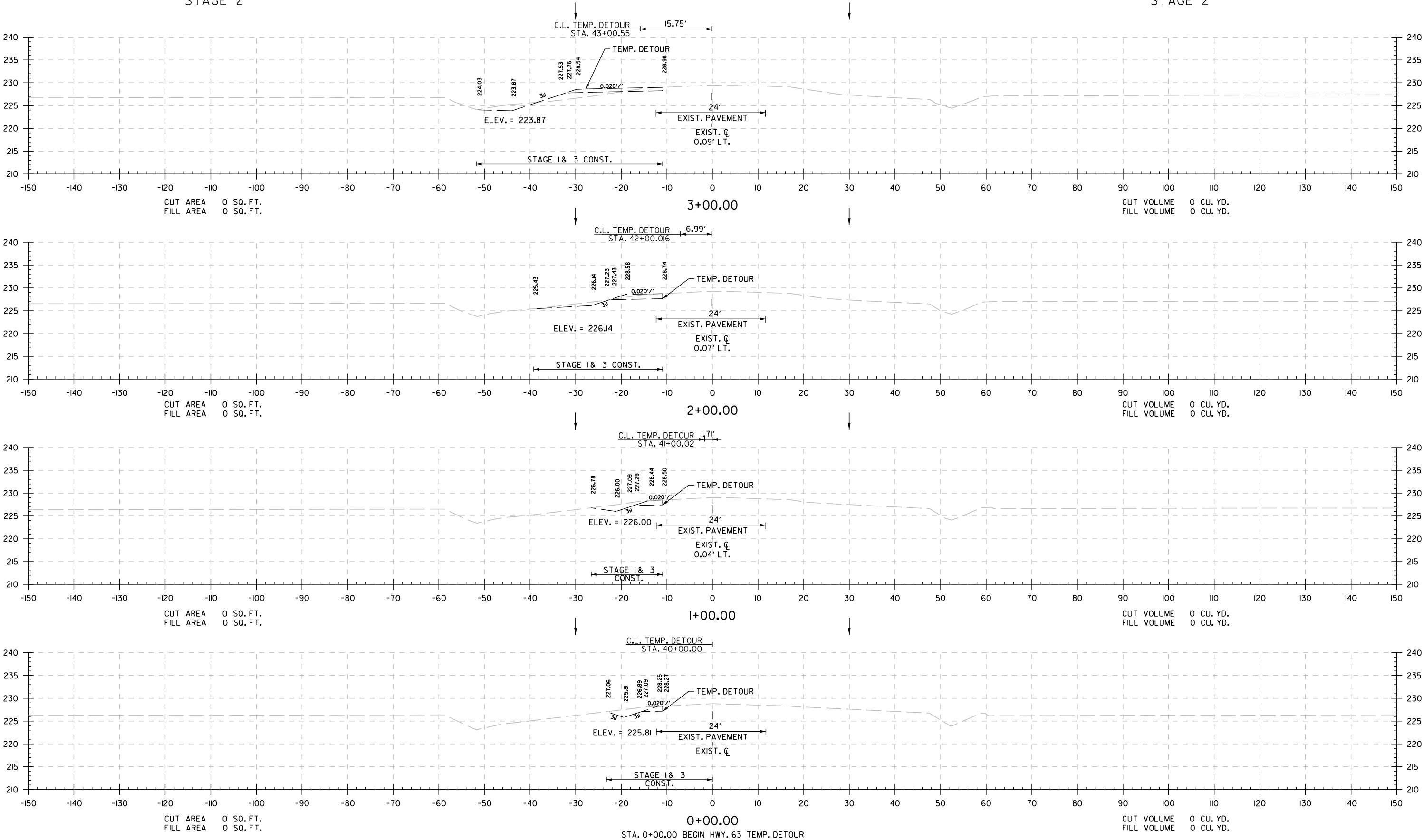
230

Scott Thomsberry 4/2025 1:57:06 PM
WORKSPACE: \\projects\VRD\84450_Grand Prairie Irrigation-Seg 1\Civil\Drawings\061467_2L\CX_001.dgn
REVISED DATE: \$REVDAT\$

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	58	94
CROSS SECTIONS						

STAGE 2

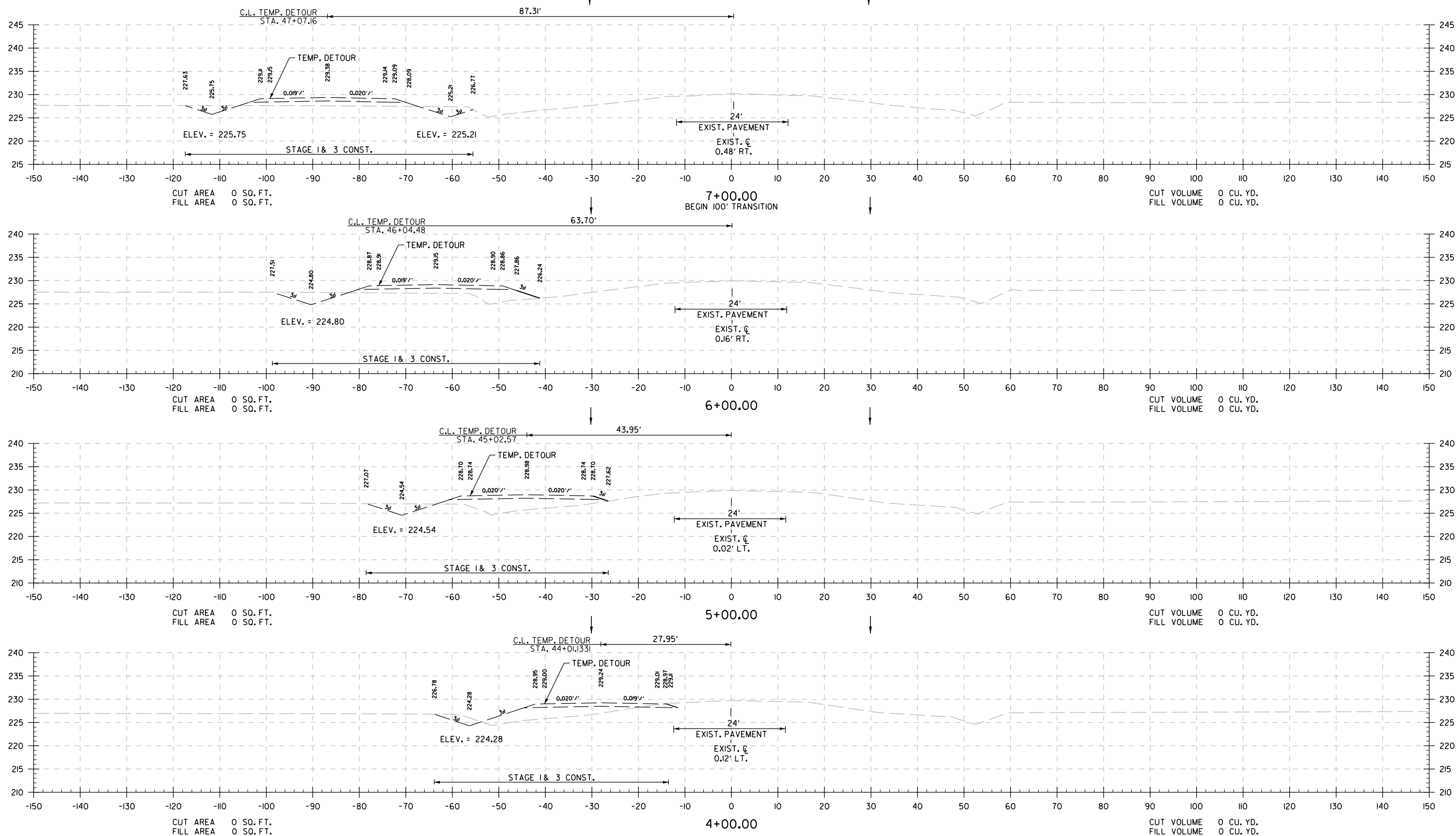
STAGE 2



SITE 1 - HWY. 63
STA. 0+00 TO STA. 3+00

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	06I467	59	94
CROSS SECTIONS						

STAGE 2



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

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

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

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

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

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

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

SITE 1 - HWY. 63

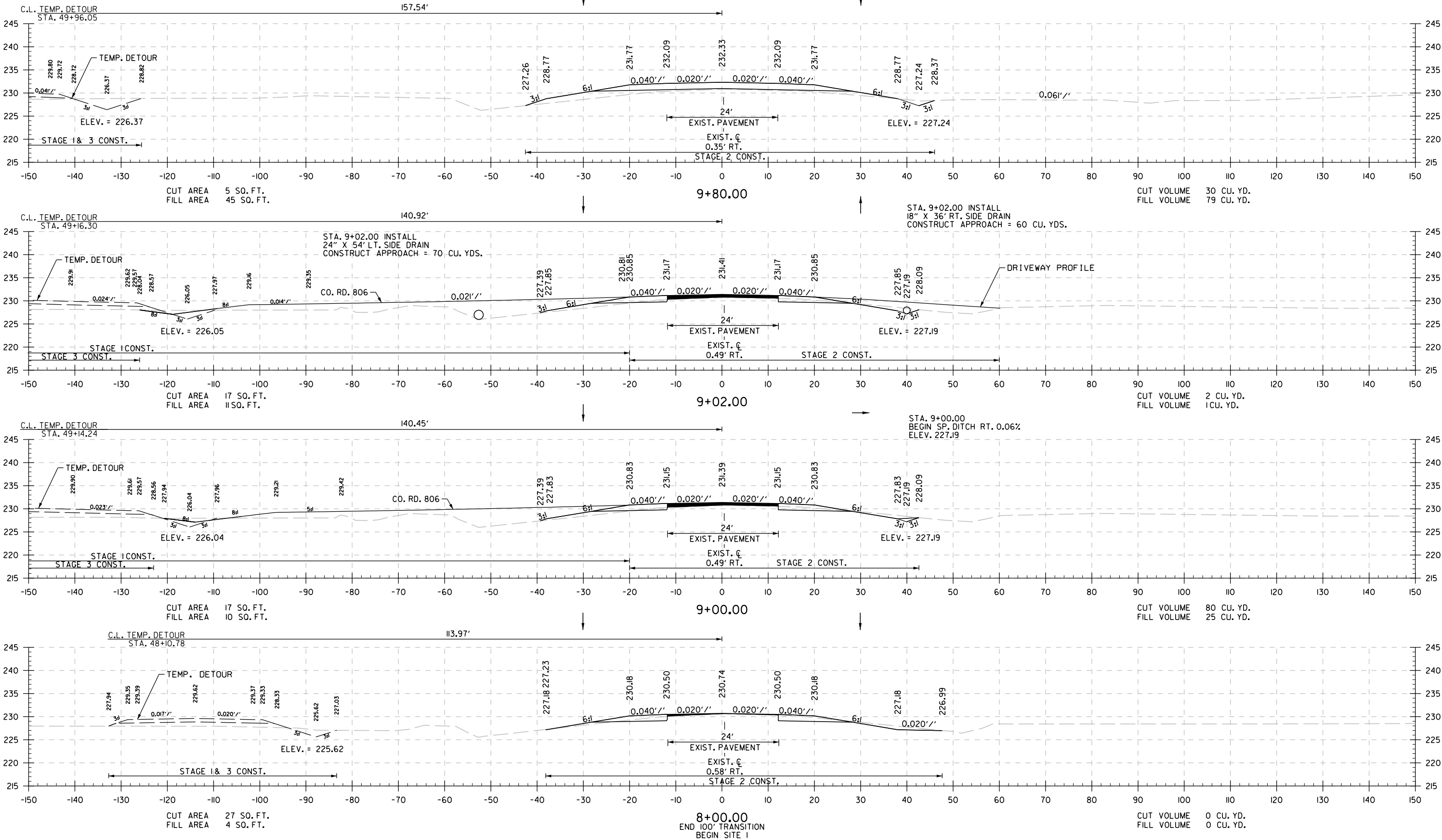
STA. 4+00 TO STA. 7+00

Scot11Thornberry4/2025 157:06 PM
WORKSPACE: \\projects\VRD\84450_Grand Prairie Irrigation-Seg 1\Drawings\061467_2L.CX.001.dgn
Y:\Projects\VRD\84450_Grand Prairie Irrigation-Seg 1\Drawings\061467_2L.CX.001.dgn
REVISED DATE: \$REDATE\$

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	60	94
CROSS SECTIONS						

STAGE 2

STAGE 2

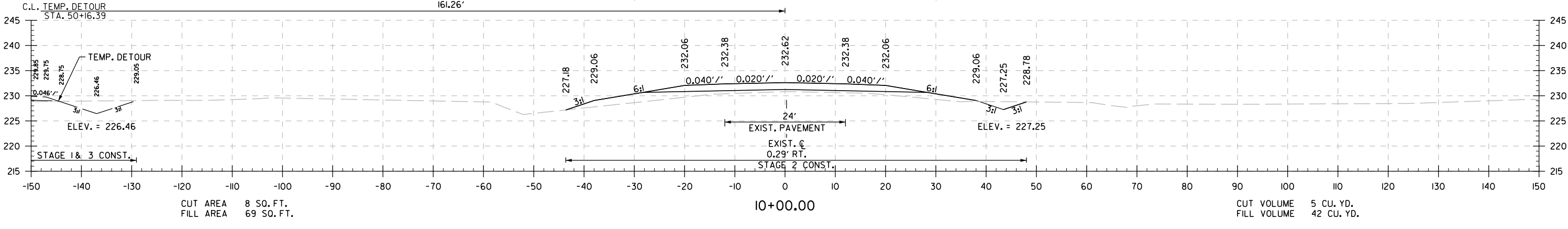
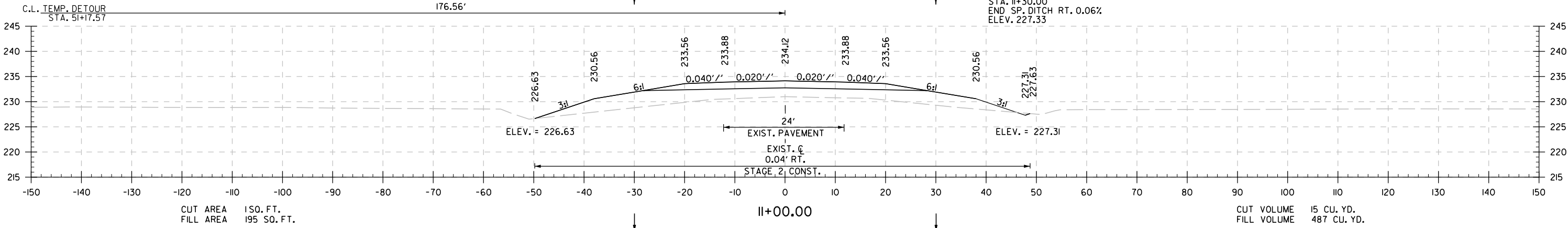
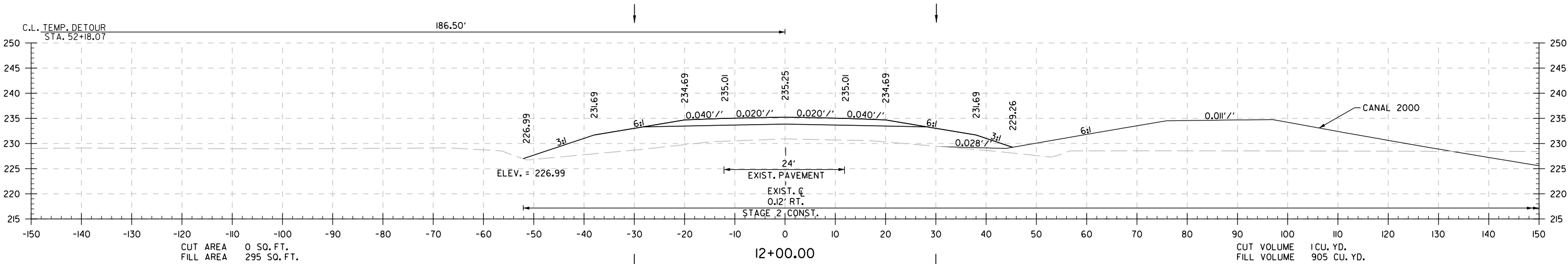


SITE 1 - HWY. 63
STA. 8+00 TO STA. 9+80

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	61	94
CROSS SECTIONS						

STAGE 2

STAGE 2

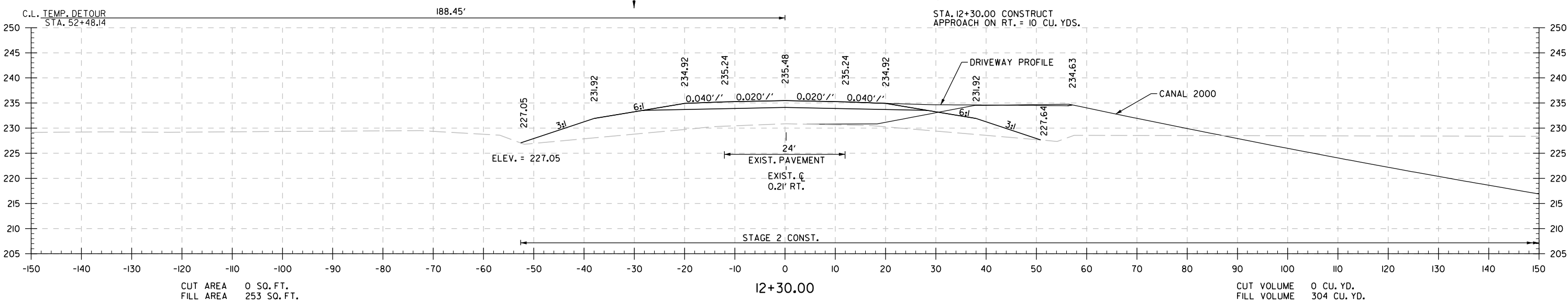
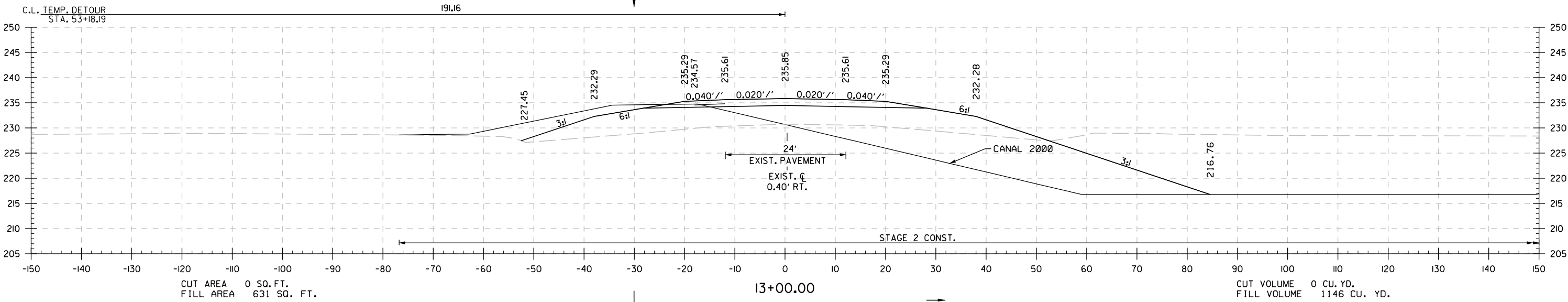
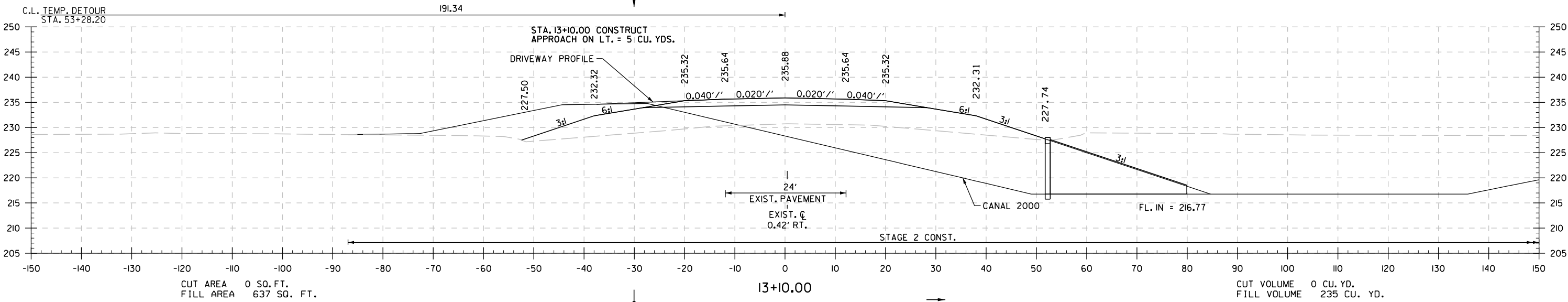


SITE 1 - HWY. 63
STA. 10+00 TO STA. 12+00

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	62	94
CROSS SECTIONS						

STAGE 2

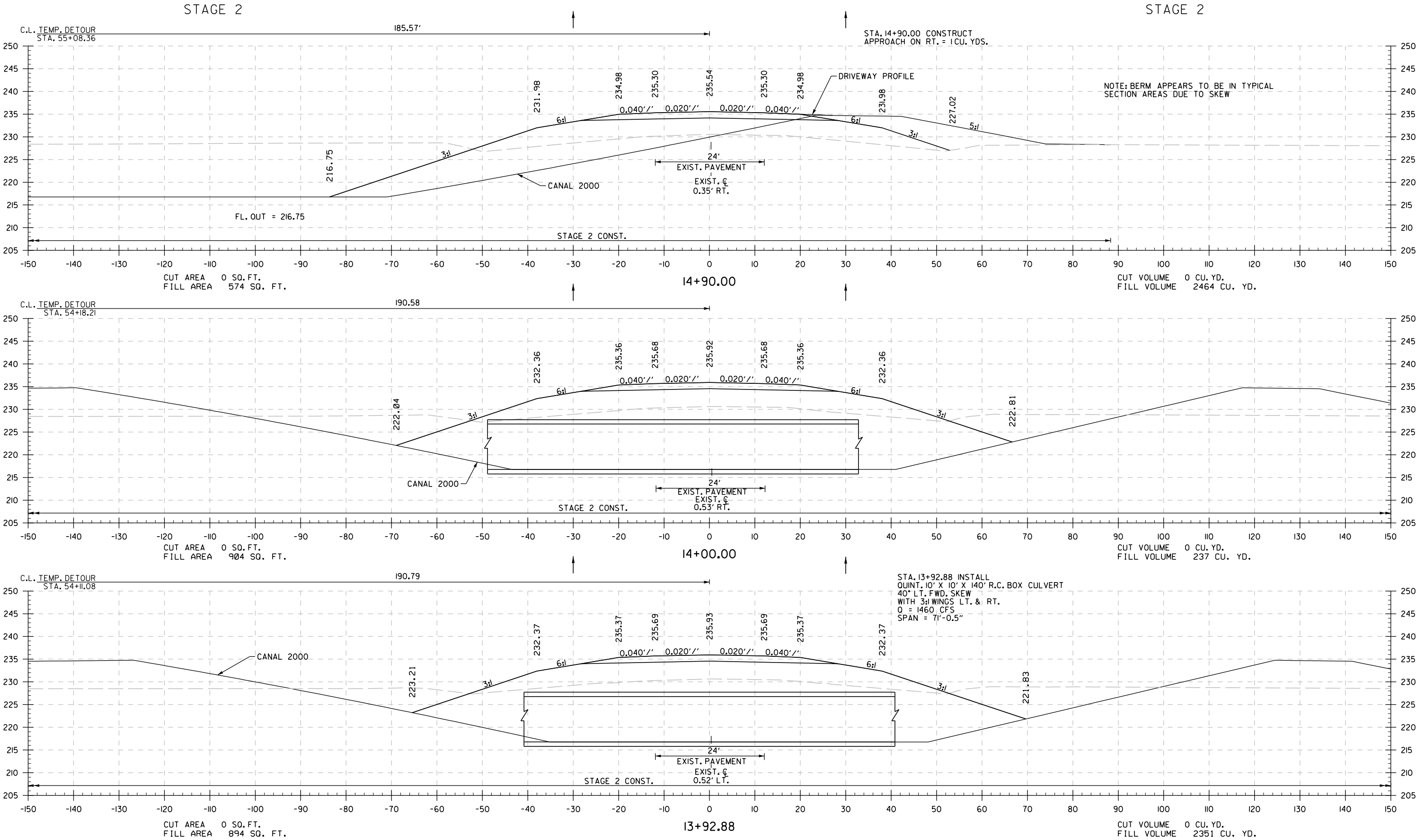
STAGE 2



SITE 1 - HWY. 63
STA. 12+30 TO STA. 13+10

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	63	94

CROSS SECTIONS

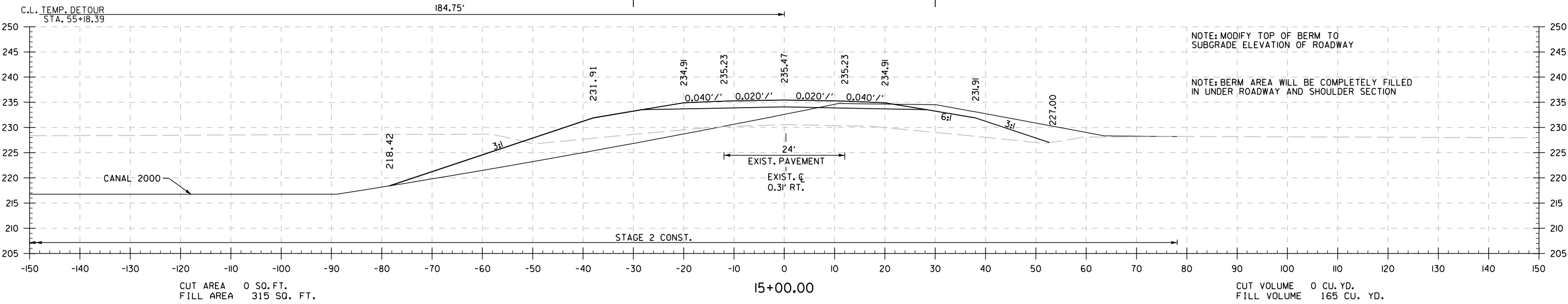
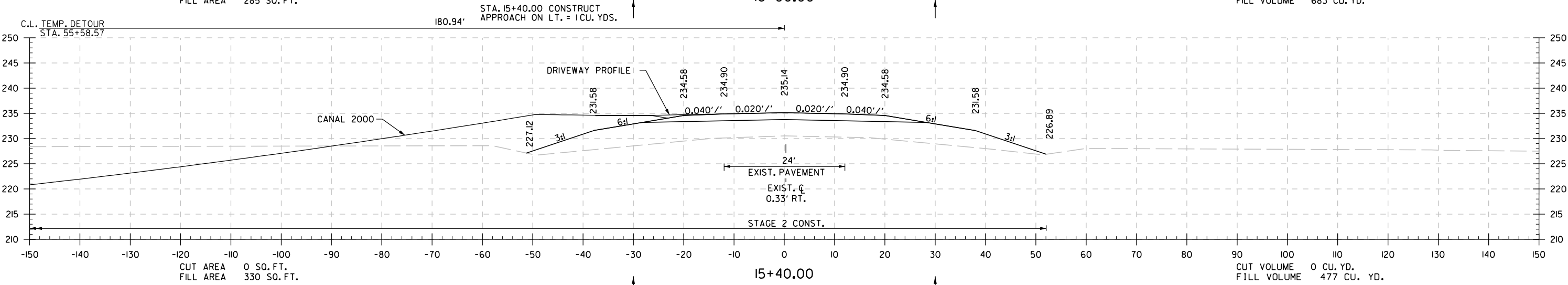
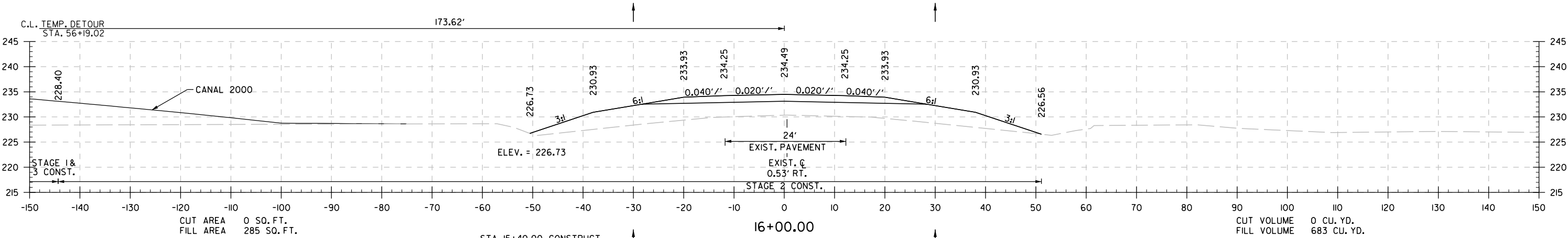


SITE 1 - HWY. 63
STA. 13+93 TO STA. 14+90

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	64	94
CROSS SECTIONS						

STAGE 2

STAGE 2

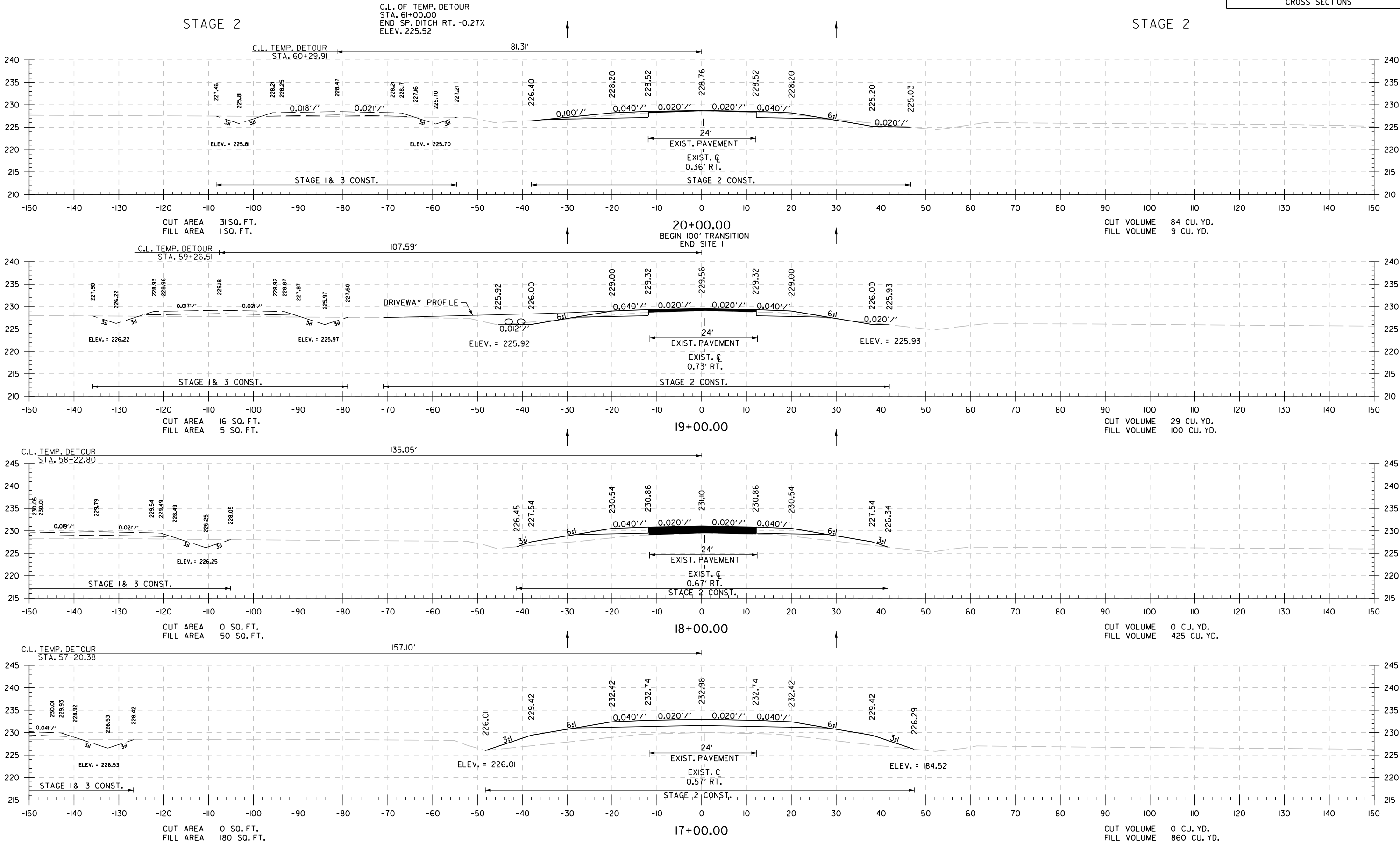


SITE 1 - HWY. 63
STA. 15+00 TO STA. 16+00

Spot 1: Thornsberry 4/7/2025 1:57:07 PM
WORKSPACE: Y:\Projects\WID\184450_Grand Prairie Irrigation-Seg 1\Civil\Drawings\Road\161467_21.CX.001.dgn
REVISED DATE: \$REVIDATE\$

Spot 1: Thornton 4/4/2025 15:10:07 PM
WORKSPACE: \\projects\w\RD\8450_Grand Prairie Irrigation-Seg 1\Drawings\Bridges\Drawings\061467_2L\CX_001.dgn
Y:\Projects\W\RD\8450_Grand Prairie Irrigation-Seg 1\Drawings\Bridges\Drawings\061467_2L\CX_001.dgn
REVISED DATE: \$REDATE\$

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	65	94
CROSS SECTIONS						



SITE 1 - HWY. 63
STA. 17+00 TO STA. 20+00

Scott Thomsen 4/4/2025 1:51:07 PM
WORKSPACE: \\projects\VRD\8450_Grand Prairie Irrigation-Seg 1\Drawings\061467_2L.CX.001.dgn
REVISED DATE: \$REVDAT\$

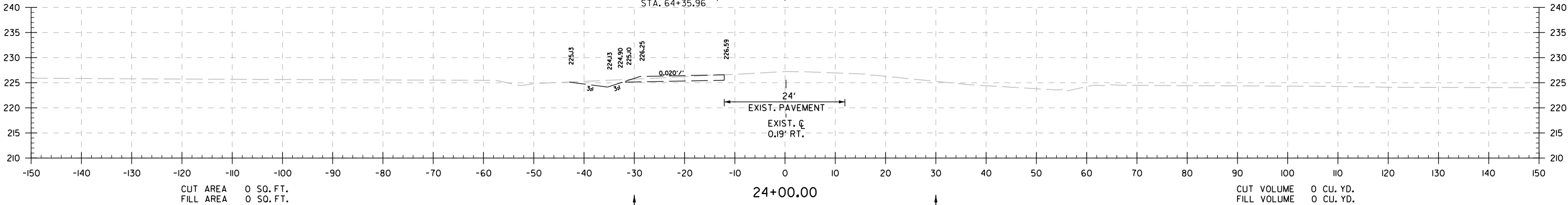
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	66	94
CROSS SECTIONS						

STAGE 2

C.L. OF TEMP. DETOUR
STA. 65+00.00
END SP. DITCH RT. -0.40%
ELEV. 224.13

C.L. TEMP. DETOUR
STA. 64+35.96

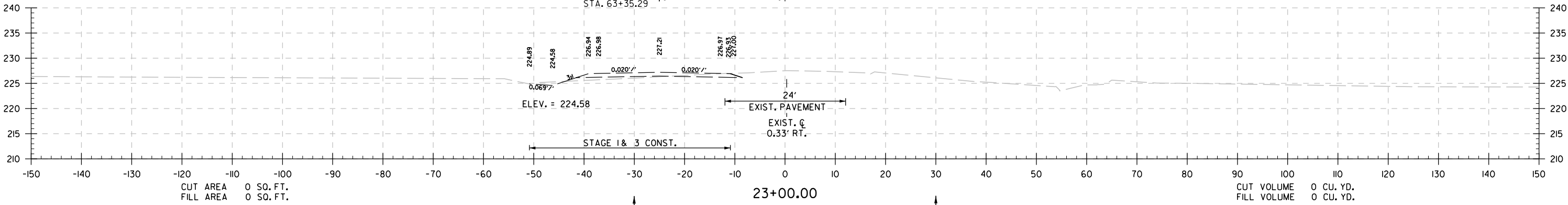
20.27'



STAGE 2

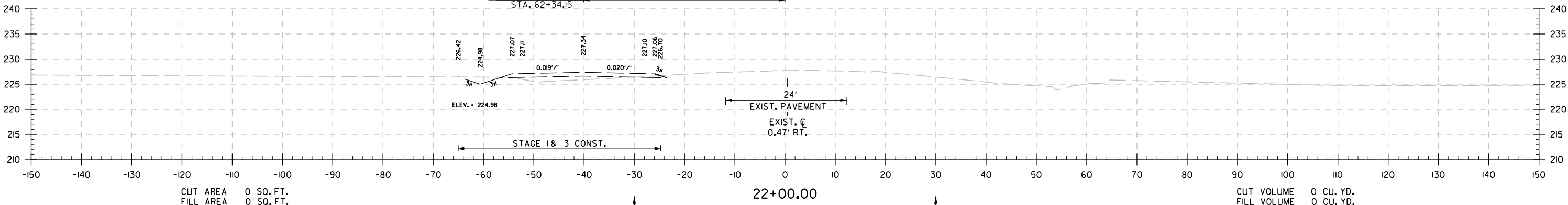
C.L. TEMP. DETOUR
STA. 63+35.29

25.01'



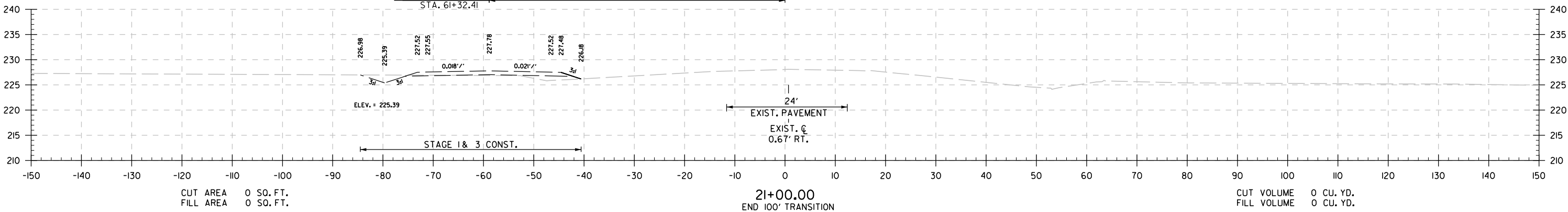
C.L. TEMP. DETOUR
STA. 62+34.15

40.11'



C.L. TEMP. DETOUR
STA. 61+32.41

58.86'



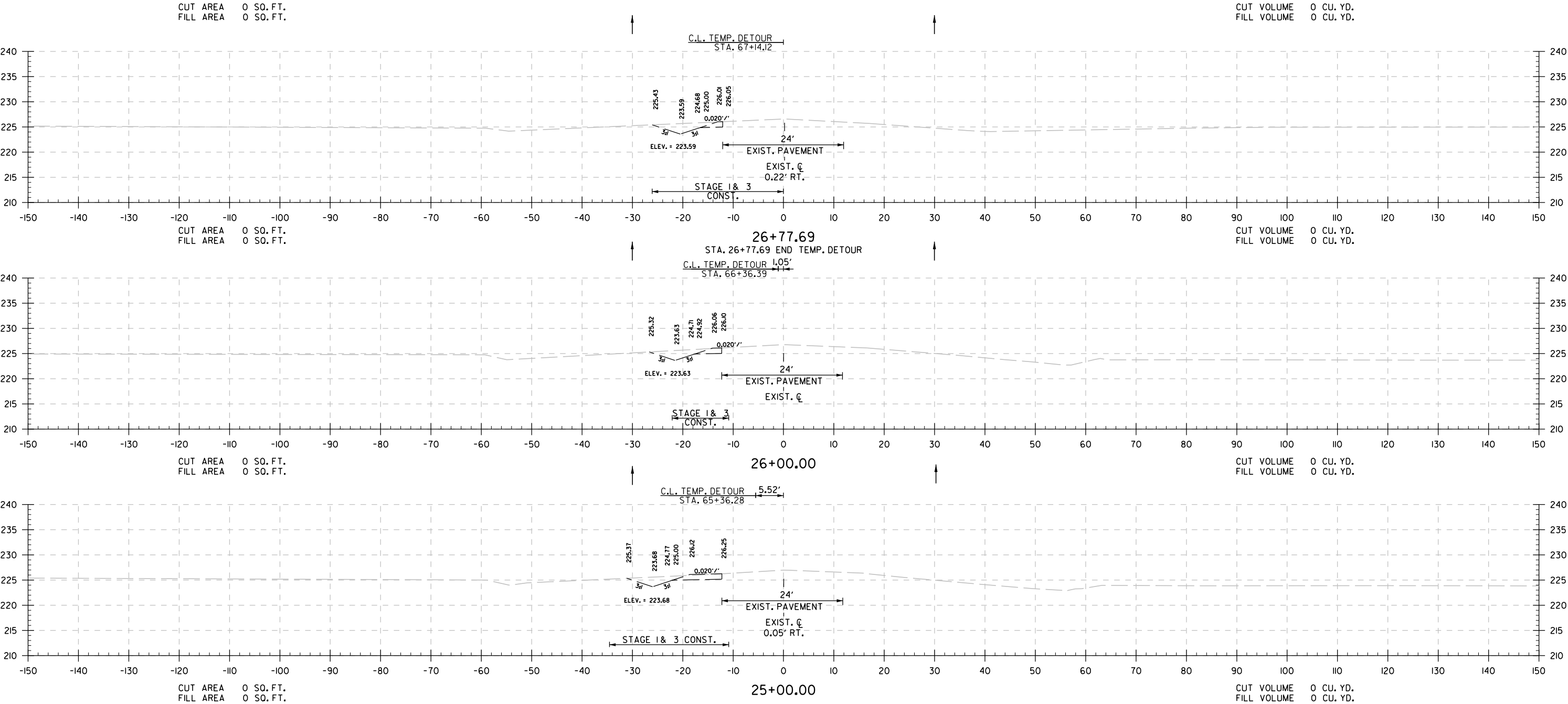
21+00.00
END 100' TRANSITION

SITE 1 - HWY. 63
STA. 21+00 TO STA. 24+00

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	67	94
CROSS SECTIONS						

STAGE 2

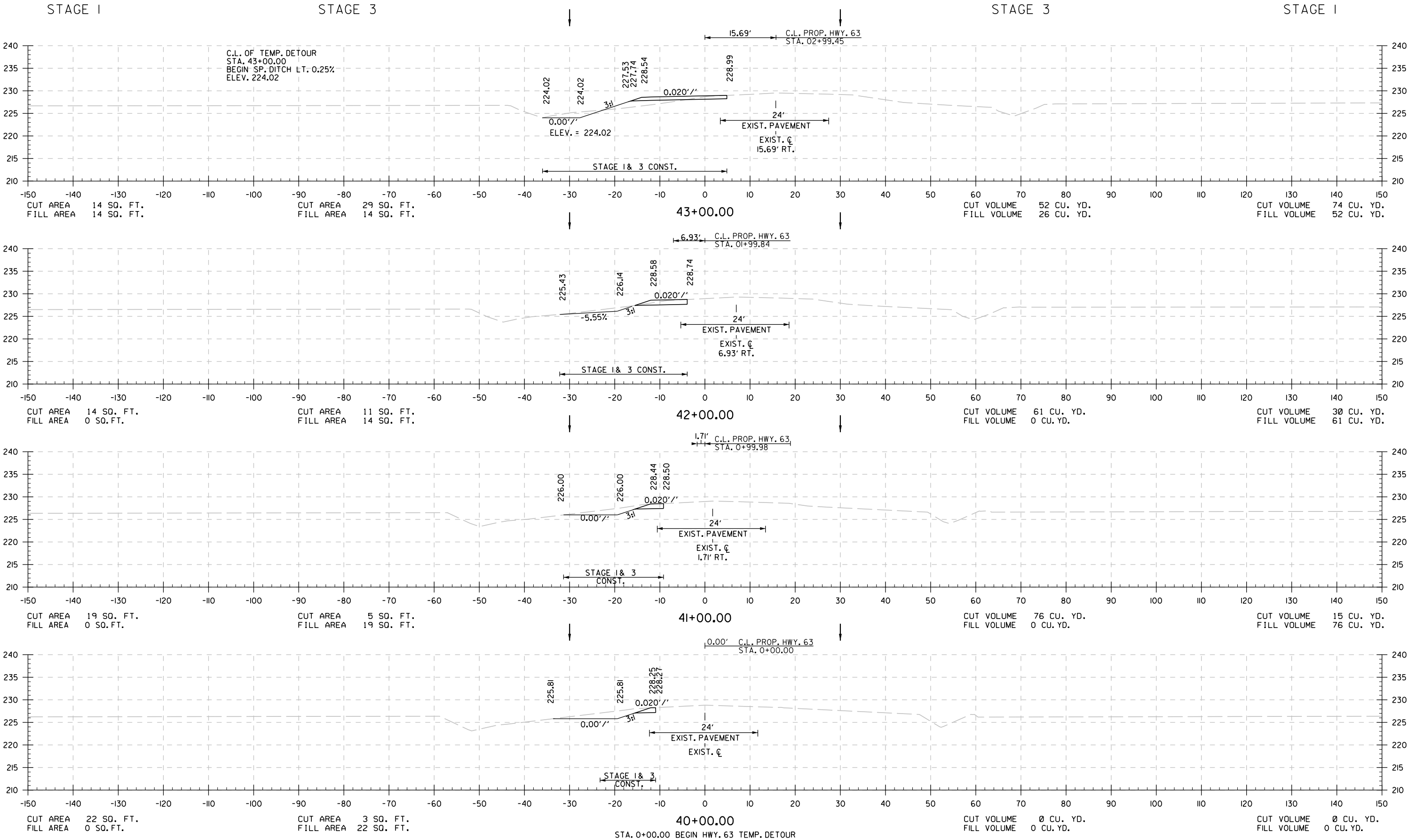
STAGE 2



SITE 1 - HWY. 63
STA. 25+00 TO STA. 26+78

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	68	94

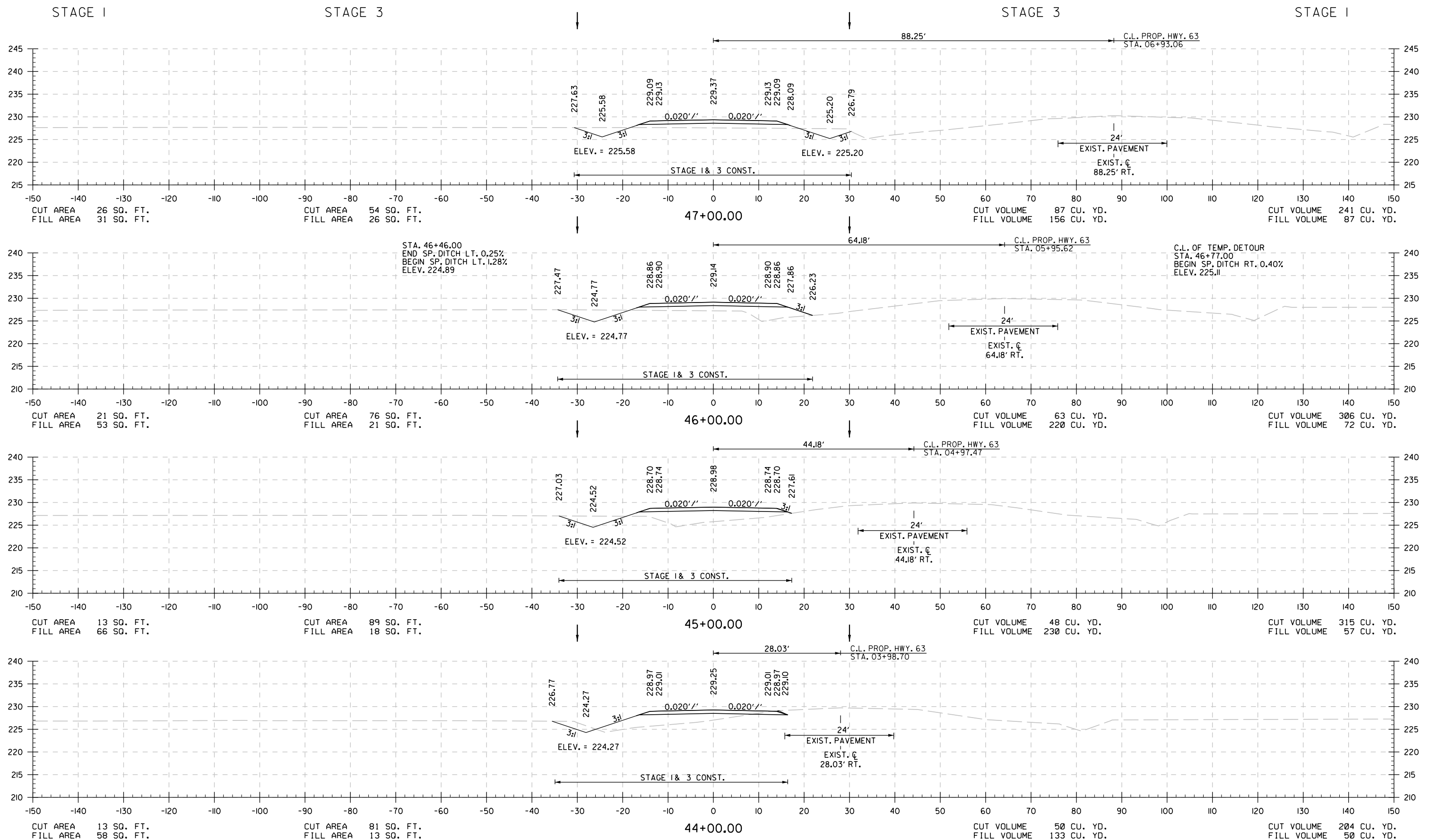
CROSS SECTIONS



SITE I - HWY. 63 DETOUR
STA. 40+00 TO STA. 43+00

Scot11Thornberry/4/2025 1:57:08 PM
WORKSPACE: Y:\Projects\VRD\04450_Grand Prairie Irrigation-Seg 1\Civil\Drawings\061467_2L\CX_002.dgn
REVISED DATE: \$REVIDATE\$

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	69	94
		CROSS SECTIONS				

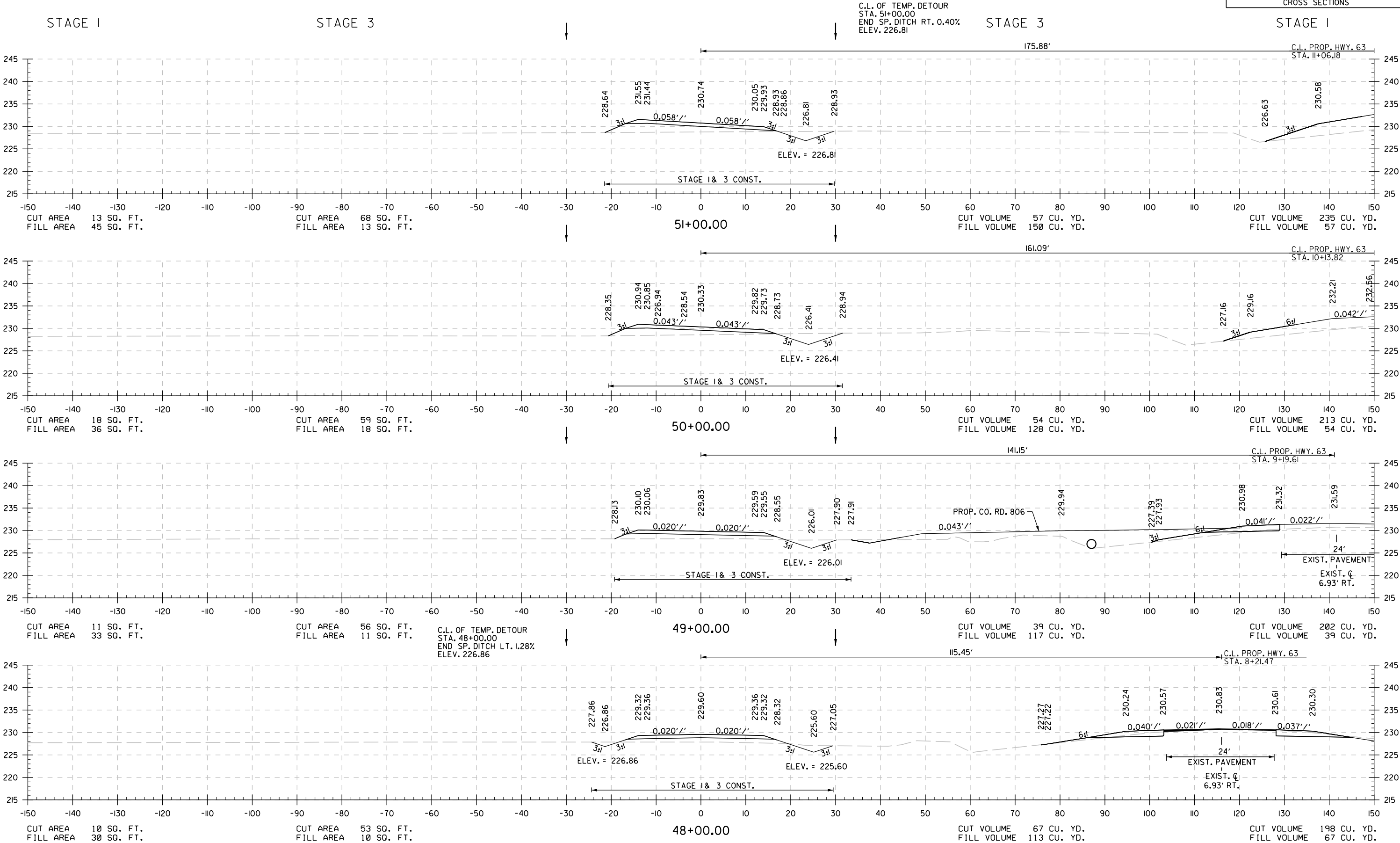


STA. 44+00 TO STA. 47+00

Scot11Thornberry4/2025 151:08 PM
WORKSPACE: \\projects\VRD\8450_Grand Prairie Irrigation-Seg 1\Civil\Drawings\VRD\8450_21.CX.002.dgn
REVISED DATE: **REDATE**

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	70	94

CROSS SECTIONS



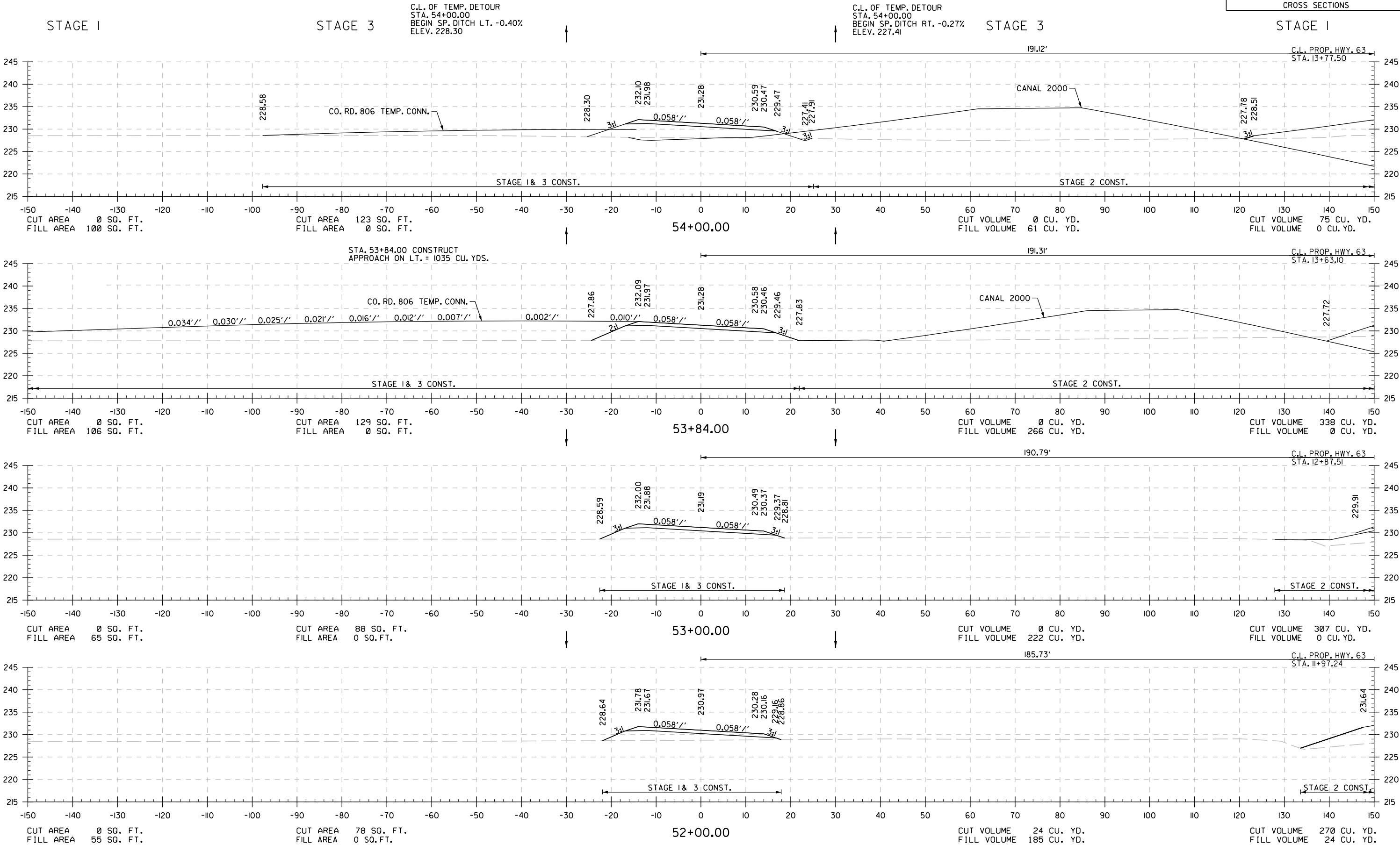
SITE I - HWY. 63 DETOUR

STA. 48+00 TO STA. 51+00

Scott Thomsen 4/2025 15:08 PM
WORKSPACE: \\projects\VRD\8450_Grand_Prairie_Irrigation-Seg\Drawings\061467_2L\CX_002.dgn
REVISED DATE: **REDATE**

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	71	94

CROSS SECTIONS



SITE 1- HWY. 63 DETOUR

STA. 52+00 TO STA. 54+00

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	72	94

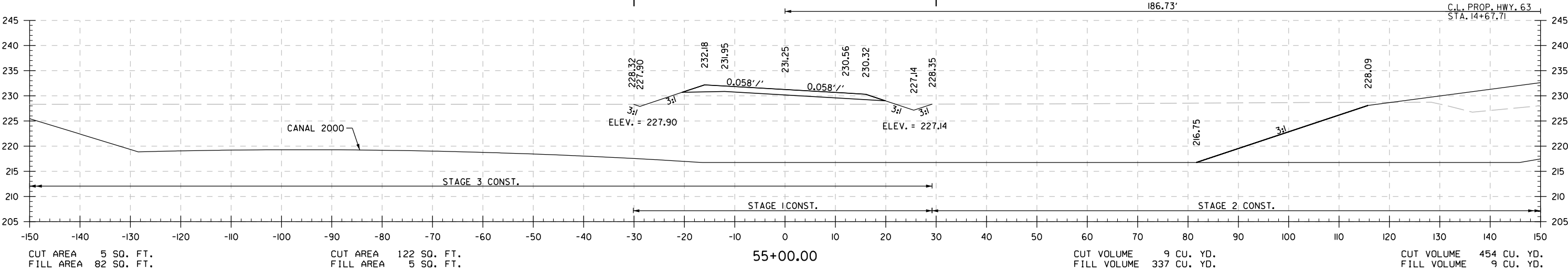
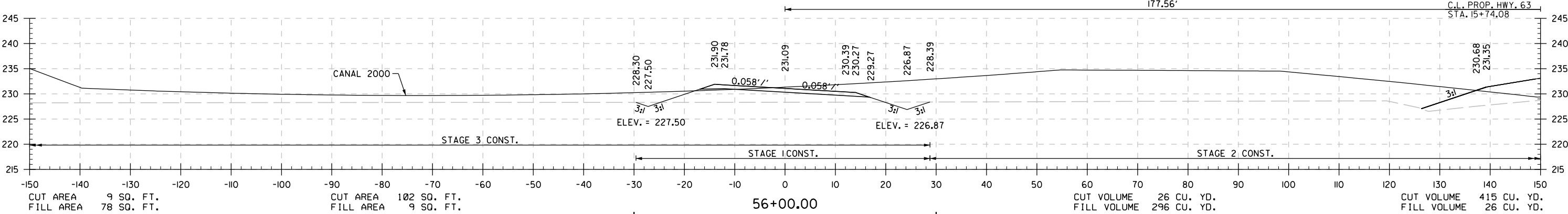
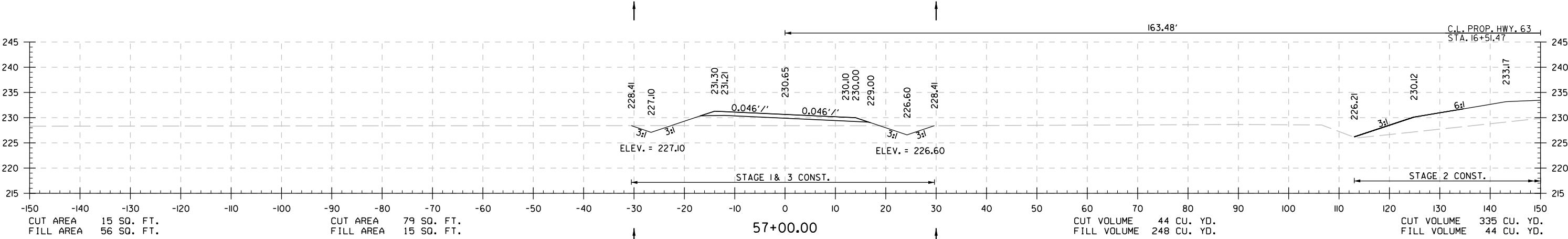
CROSS SECTIONS

STAGE 1

STAGE 3

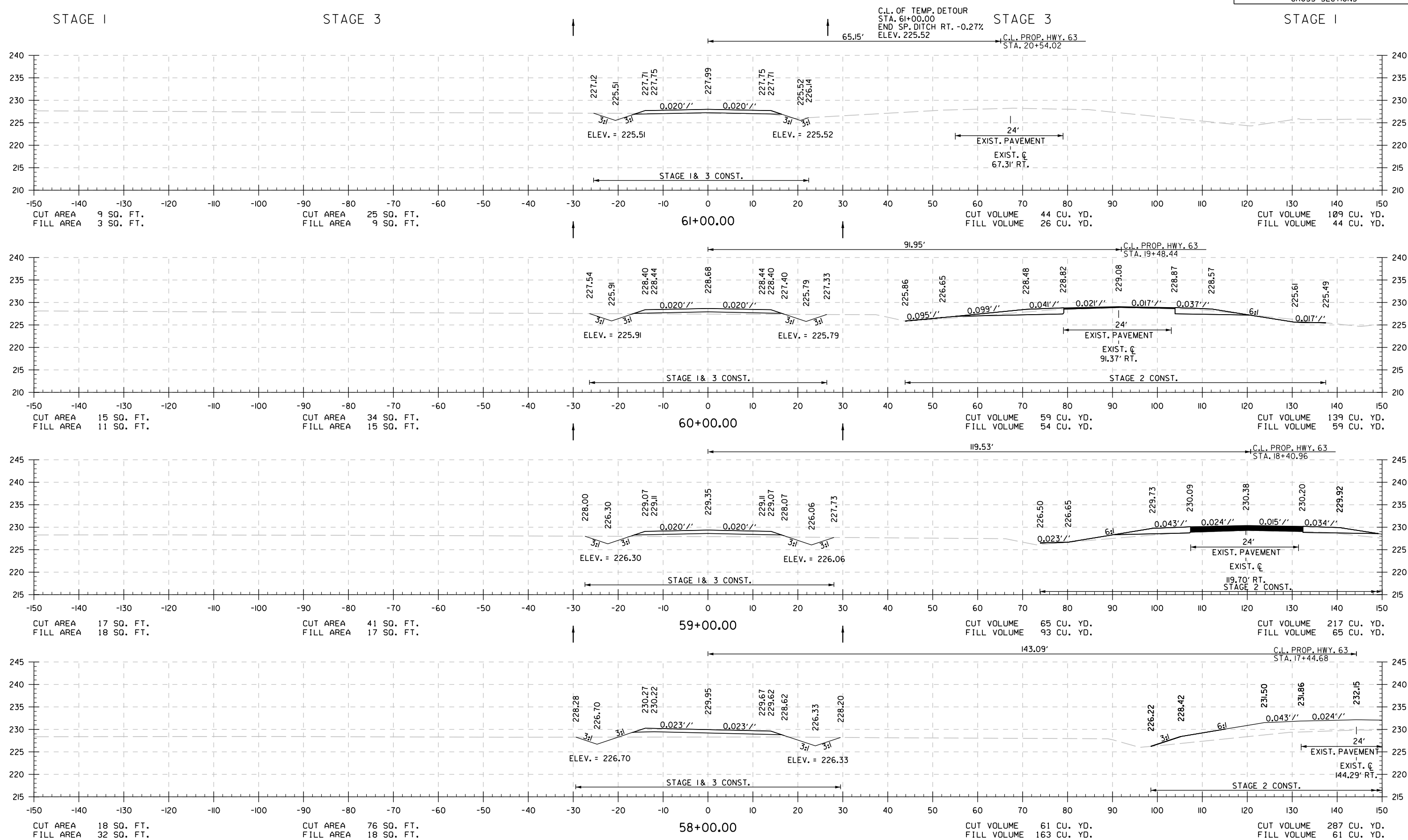
STAGE 3

STAGE 1



SITE 1 - HWY. 63 DETOUR
STA. 55+00 TO STA. 57+00

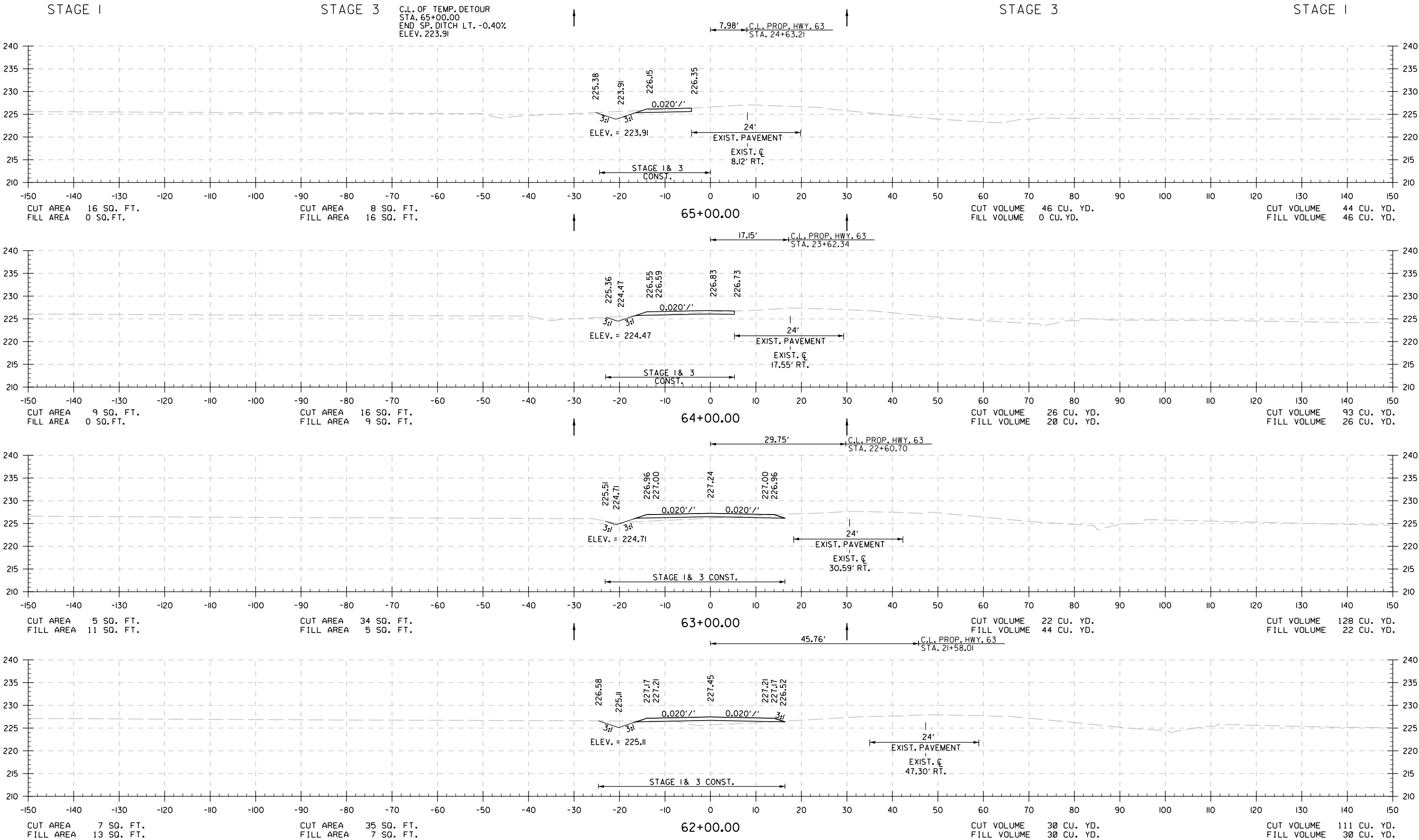
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	06I467	73	94
CROSS SECTIONS						



Scott.Thornsberry 4/4/2025 1:57:09 PM
WORKSPACE: untitled
I:\Projects\WRD.184450_Grand Prairie Irrigation-Seg\Drawings\R061467-21_CX_002.dgn
REVISED DATE: \$\$REDATE\$\$

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	74	94

CROSS SECTIONS



SITE I - HWY. 63 DETOUR
STA. 62+00 TO STA. 65+00

Scott Thomsen 4/2025 15109 PM
WORKSPACE: \\projects\VRD\8450_Grand Prairie Irrigation-Seg 1\Drawings\061467_2L_CX_002.dgn
REVISED DATE: \$REVDAT\$

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	75	94

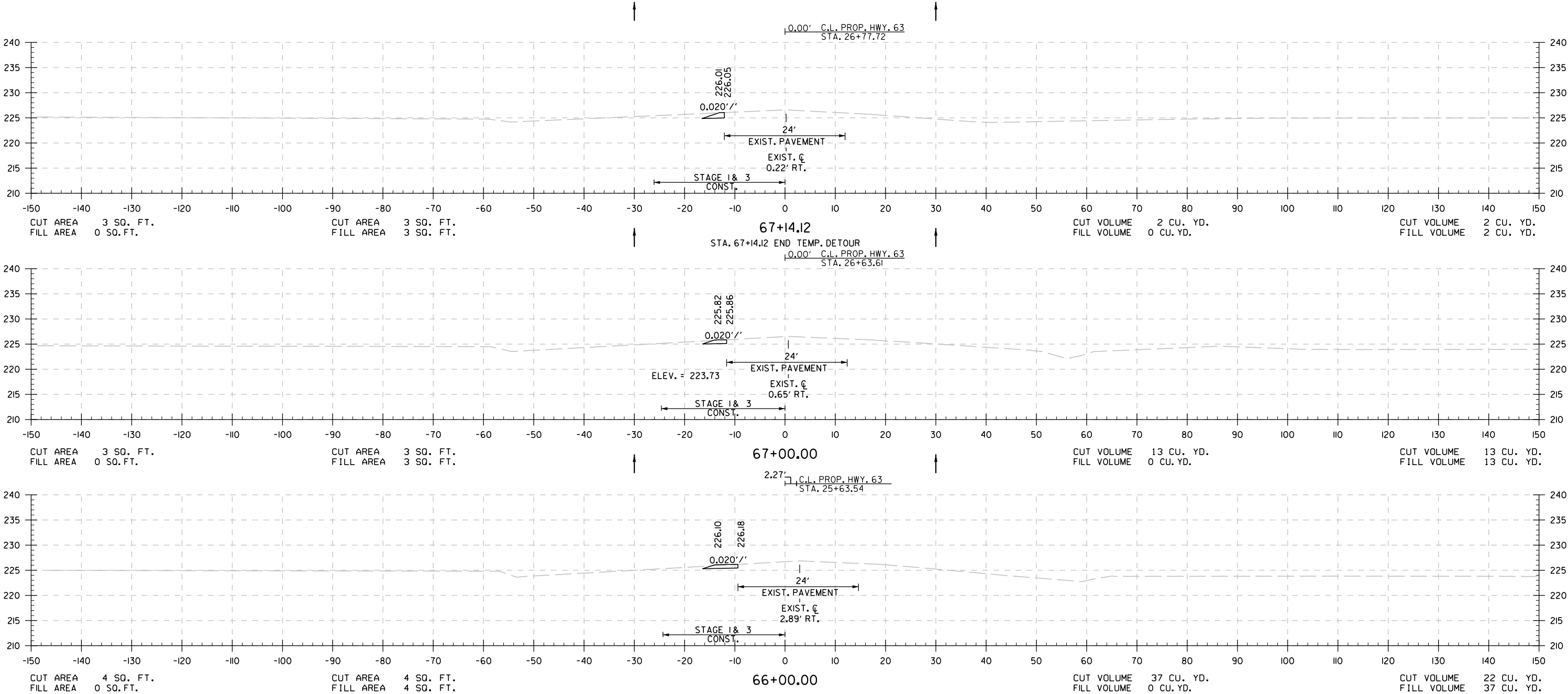
CROSS SECTIONS

STAGE 1

STAGE 3

STAGE 3

STAGE 1



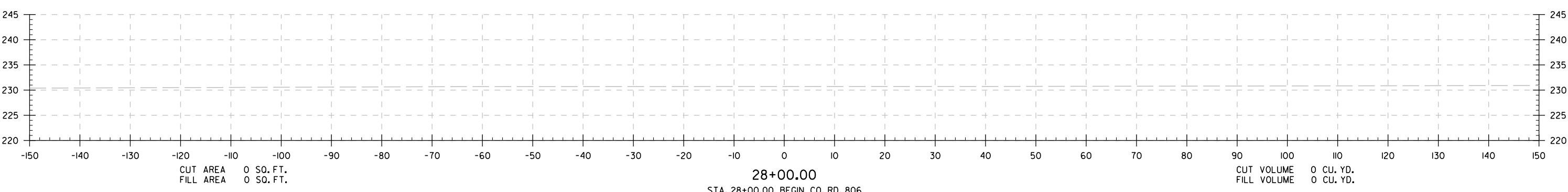
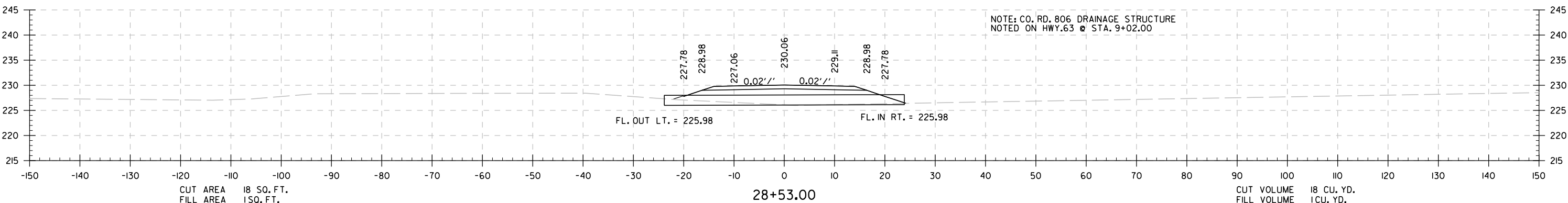
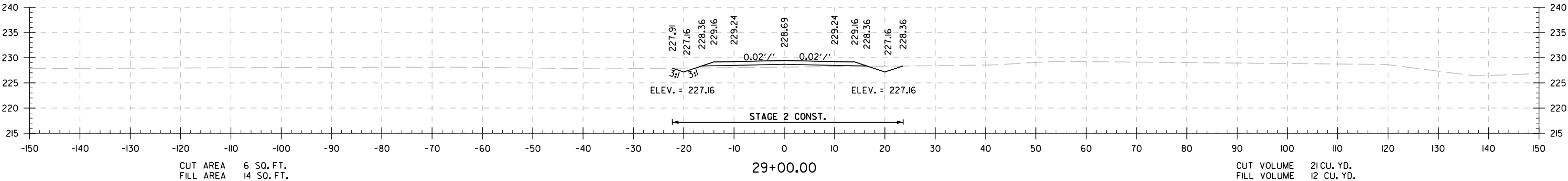
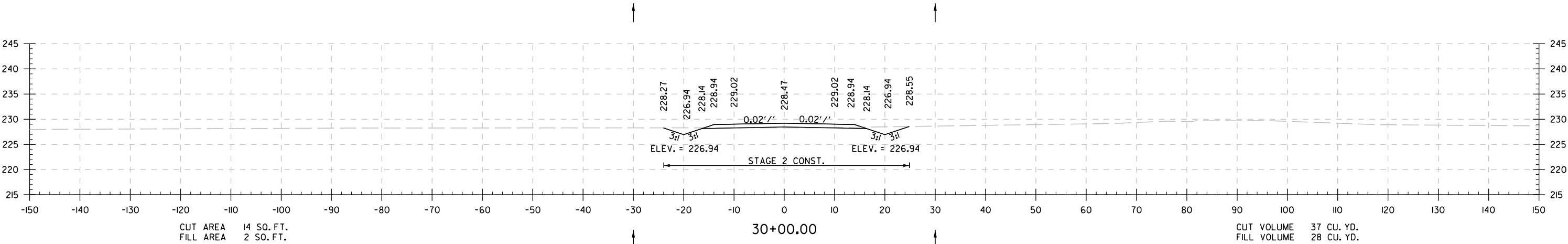
SITE 1 - HWY. 63 DETOUR
STA. 66+00 TO STA. 67+14

Scott Thomsberry 4/7/2025 1:51:09 PM
WORKSPACE: Y:\Projects\VRD\8450_Grand Prairie Irrigation-Seg 1\Civil\Drawings\061467_2L\CX_002.dgn
REVISED DATE: \$REVIDATE\$

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	76	94
CROSS SECTIONS						

STAGE 2

STAGE 2



STA. 28+00.00 BEGIN CO. RD. 806

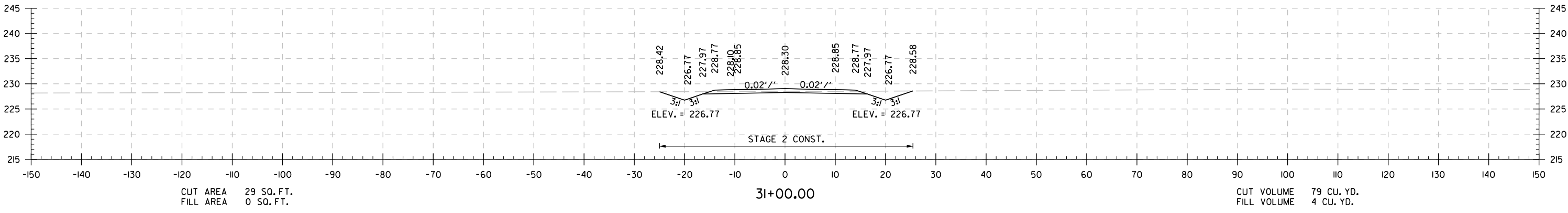
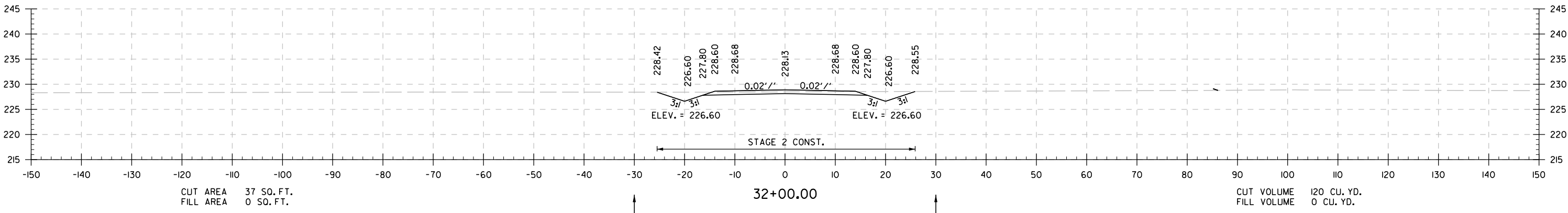
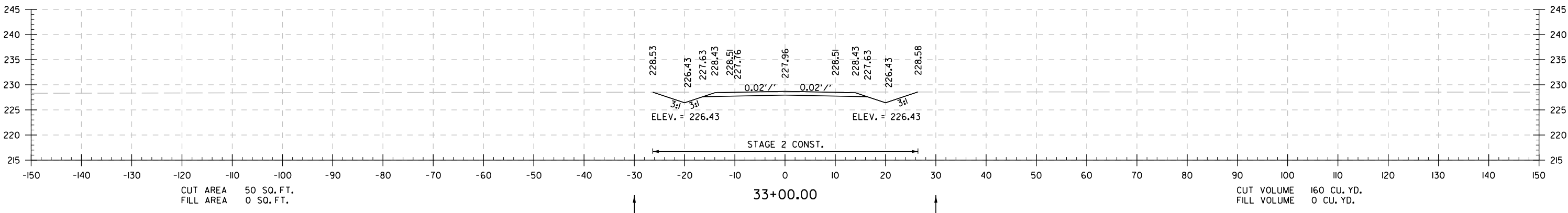
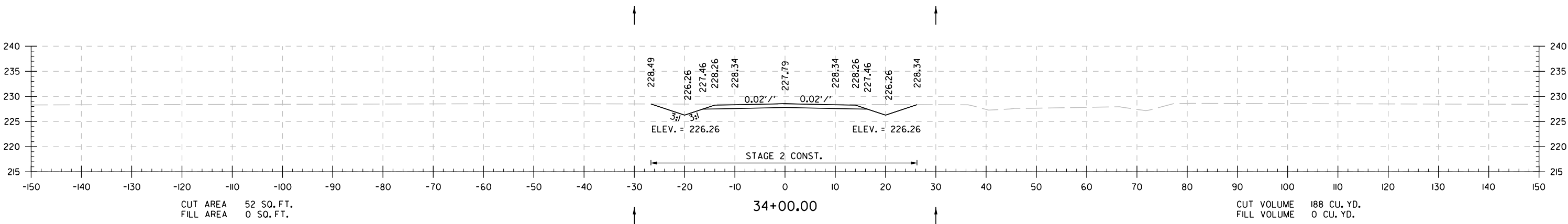
SITE I - CO. RD. 806
STA. 28+00 TO STA. 30+00

Scott Thomsberry 4/2025 1:51:09 PM
WORKSPACE: Y:\Projects\VRD\8450_Grand Prairie Irrigation-Seg
REVISED DATE: \$REVIDATE\$

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	77	94
CROSS SECTIONS						

STAGE 2

STAGE 2



SITE I - CO. RD. 806

STA. 31+00 TO STA. 34+00

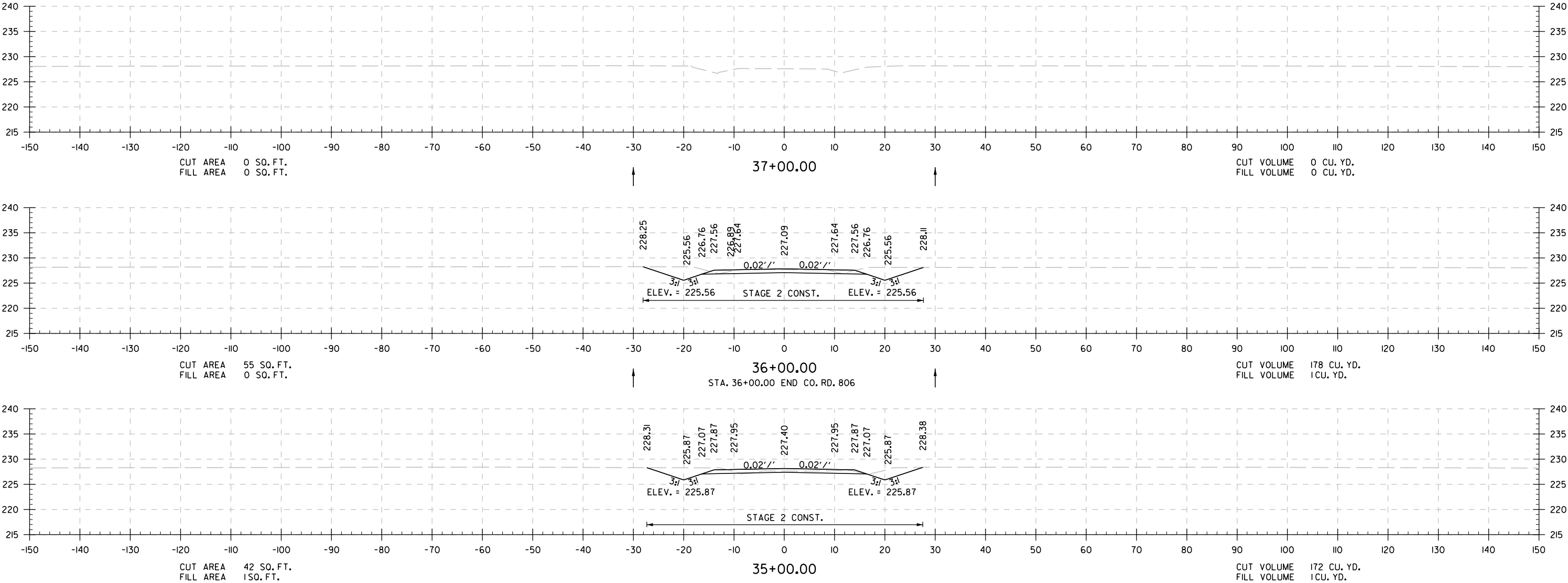
Scot11Thornberry4/2025 1:57:10 PM
Y:\Projects\VRD\84450_Grand Prairie Irrigation-Seg 1\Drawings\Roads\061467_21.CX.003.dgn
REVISED DATE: **REDATE**

Scott Thornberry 4/4/2025 1:57:00 PM
WORKSPACE: Y:\Projects\VRD\84450_Grand Prairie Irrigation-Sag
REVISED DATE: \$REVIDATE\$

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	78	94
CROSS SECTIONS						

STAGE 2

STAGE 2



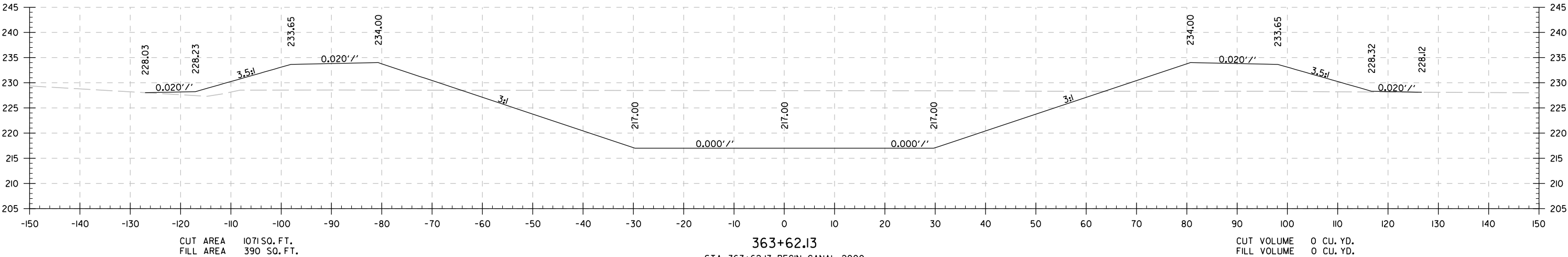
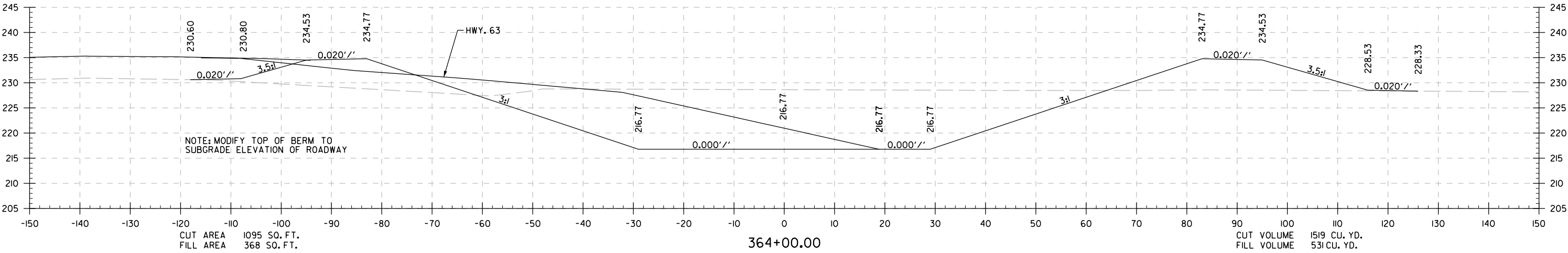
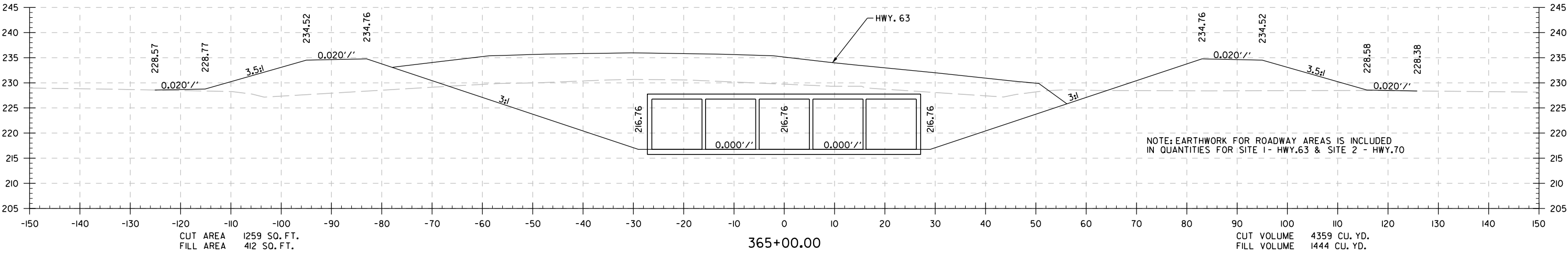
SITE I - CO. RD. 806

STA. 35+00 TO STA. 37+00

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	06I467	79	94
CROSS SECTIONS						

STAGE 2

STAGE 2



STA. 363+62.13 BEGIN CANAL 2000

CANAL 2000

STA. 363+62 TO STA. 365+00

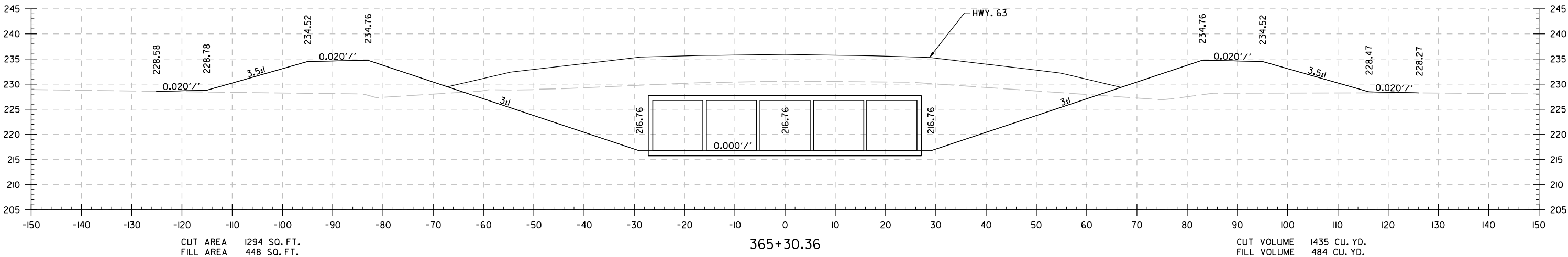
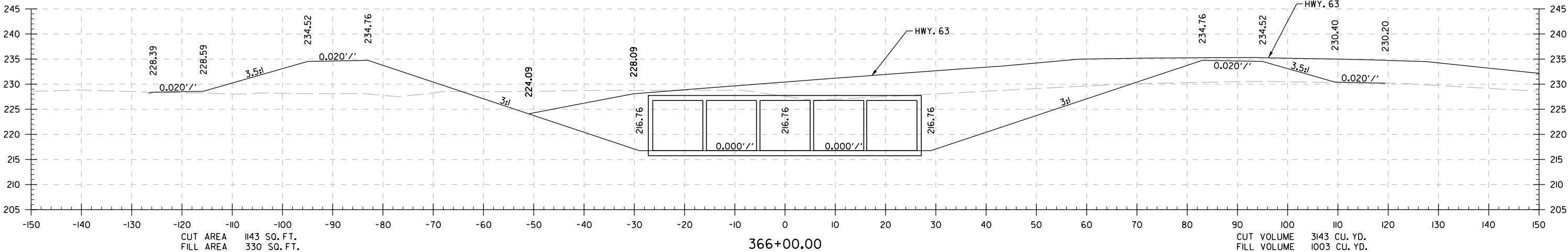
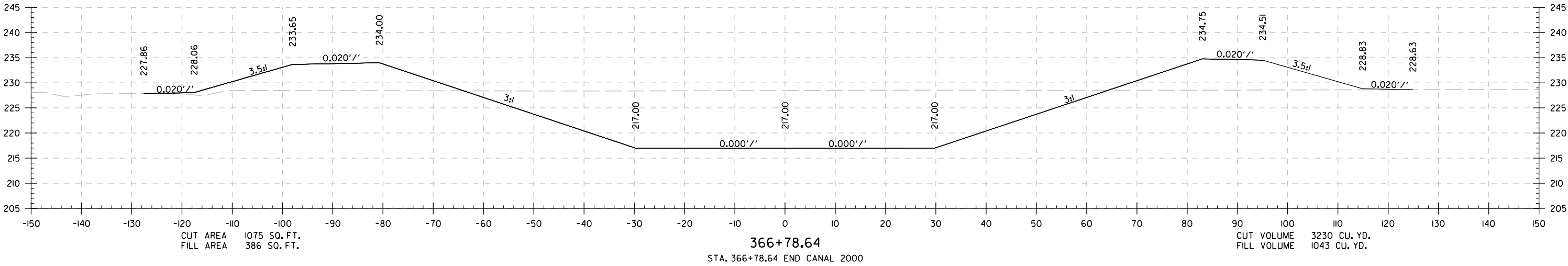
Scott Thornberry 4/7/2025 1:57:10 PM
WORKSPACE: \\projects\VRD\84450_Grand Prairie Irrigation-Seg
REVISED DATE: \$REVIDATE\$\$

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	80	94

CROSS SECTIONS

STAGE 2

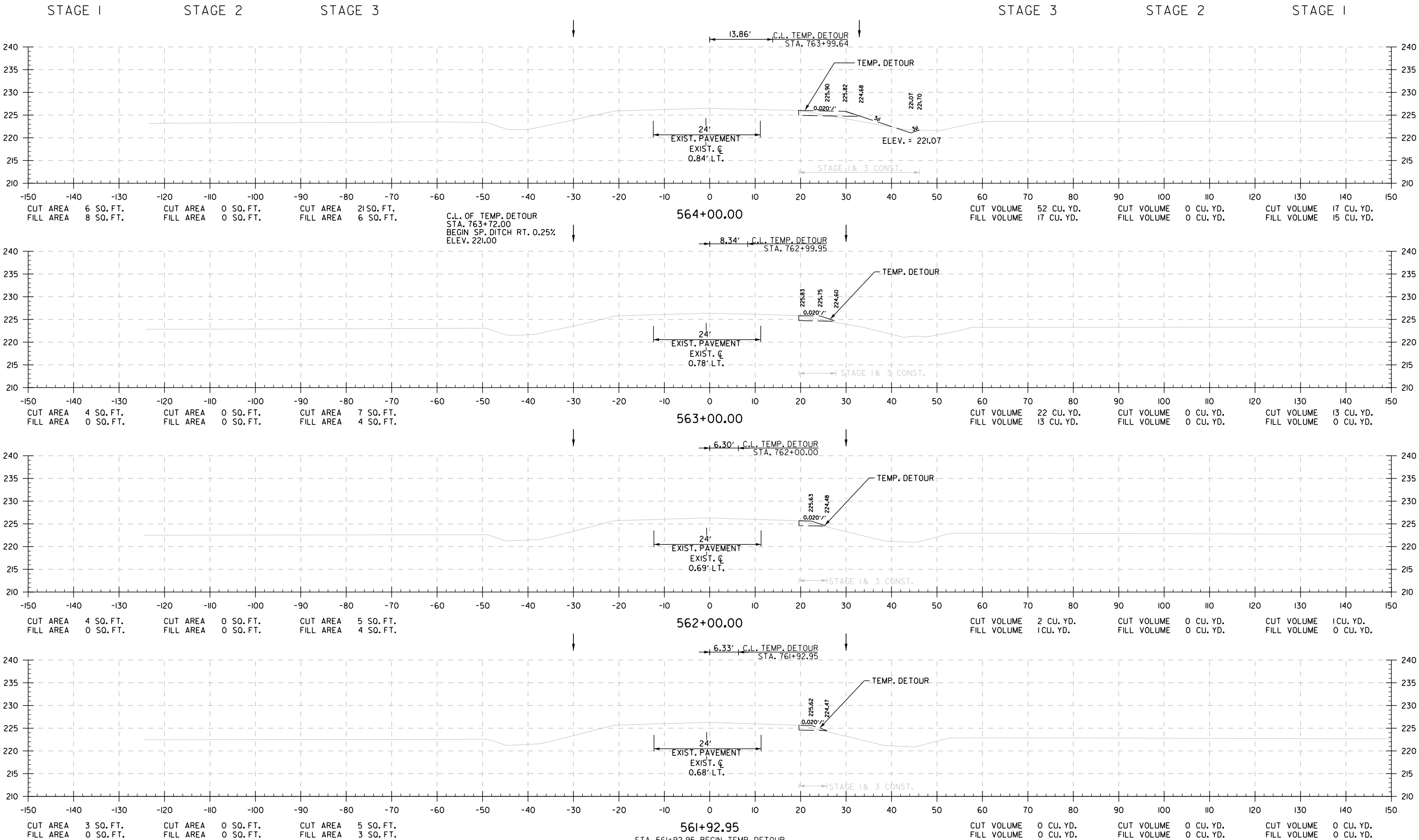
STAGE 2



CANAL 2000

STA. 365+30 TO STA. 366+79

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	81	94
CROSS SECTIONS						



STA 561+92.95 BEGIN TEMP. DETOUR

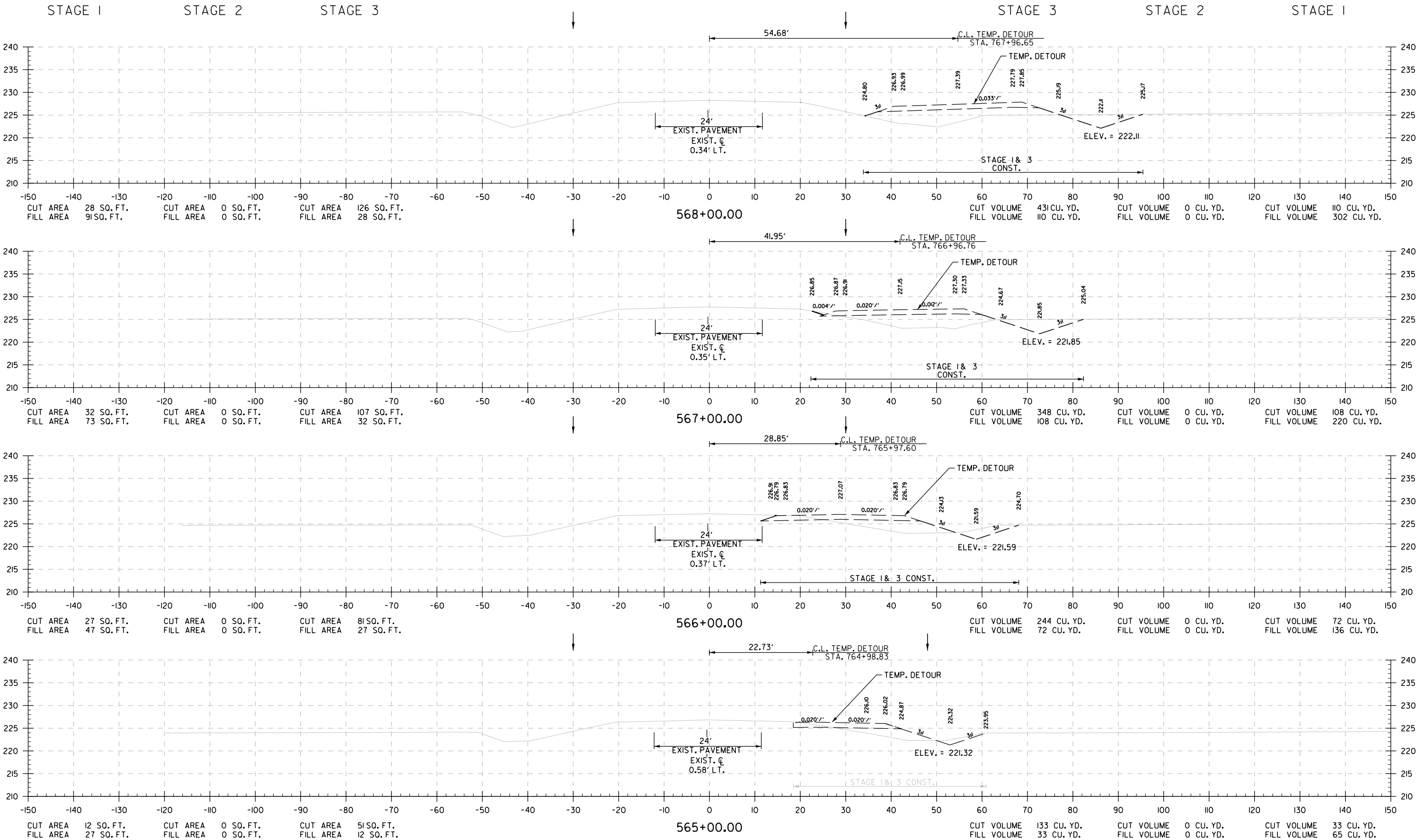
HWY. 70

SITE 2 - HWY. 70
STA. 561+93 TO STA. 564+00

Scot11Thornberry/4/2025 1:57:41PM
WORKSPACE: \\projects\VRD\84450_Grand Prairie Irrigation-Seg 1\Civil\Drawings\061467_2L\CX_005.dgn
REVISED DATE: **REVIDATE**

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	82	94

CROSS SECTIONS



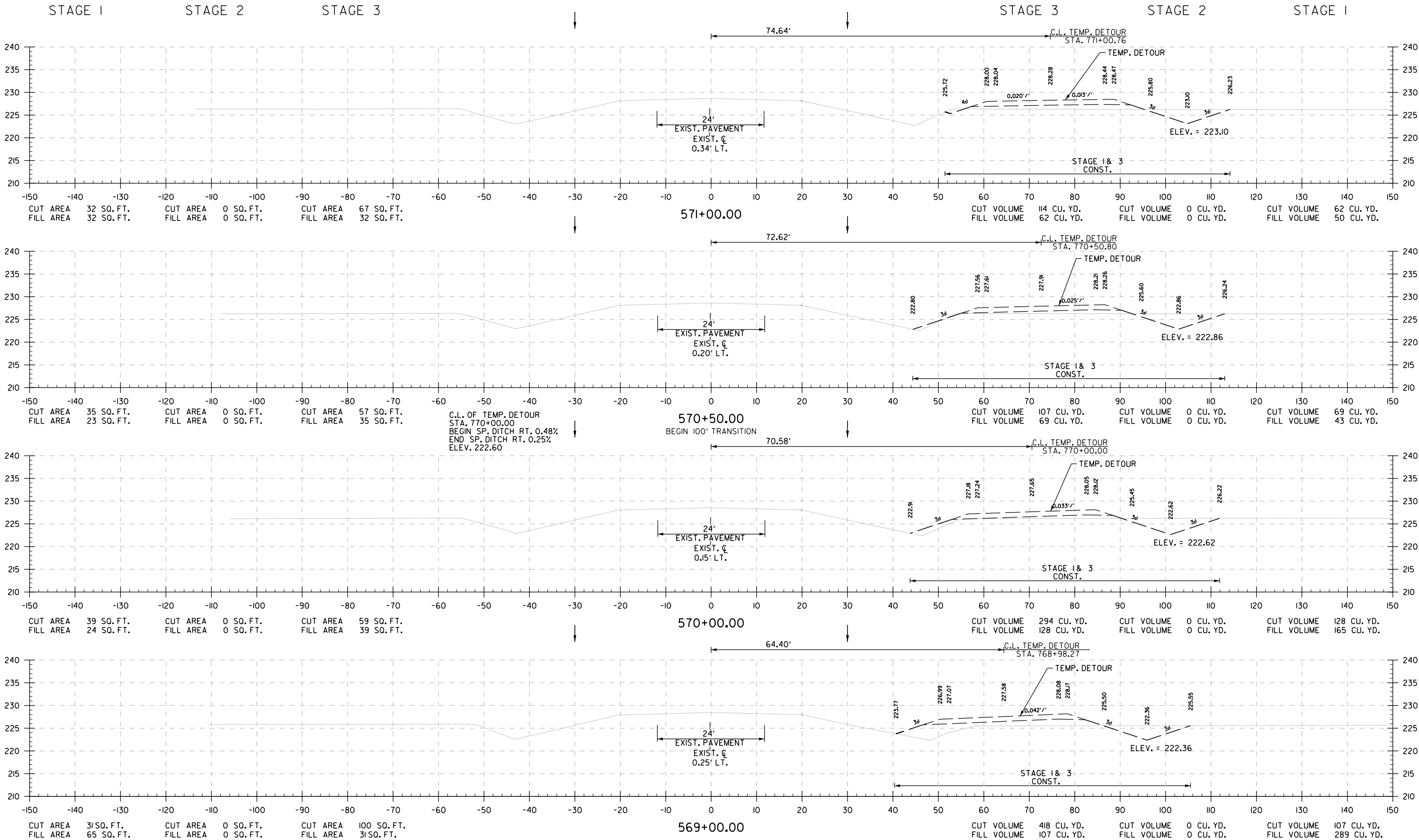
SITE 2 - HWY. 70

STA. 565+00 TO STA. 568+00

Scott Thomsberry 4/2025 1:51:12 PM
WORKSPACE: \\projects\VRD\8450_Grand Prairie Irrigation-Seg 1\Drawings\061467_2L\CX_005.dgn
REVISED DATE: **REDATE**

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	83	94

CROSS SECTIONS



SITE 2 - HWY. 70
STA. 569+00 TO STA. 571+00

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	84	94

CROSS SECTIONS

STAGE 1

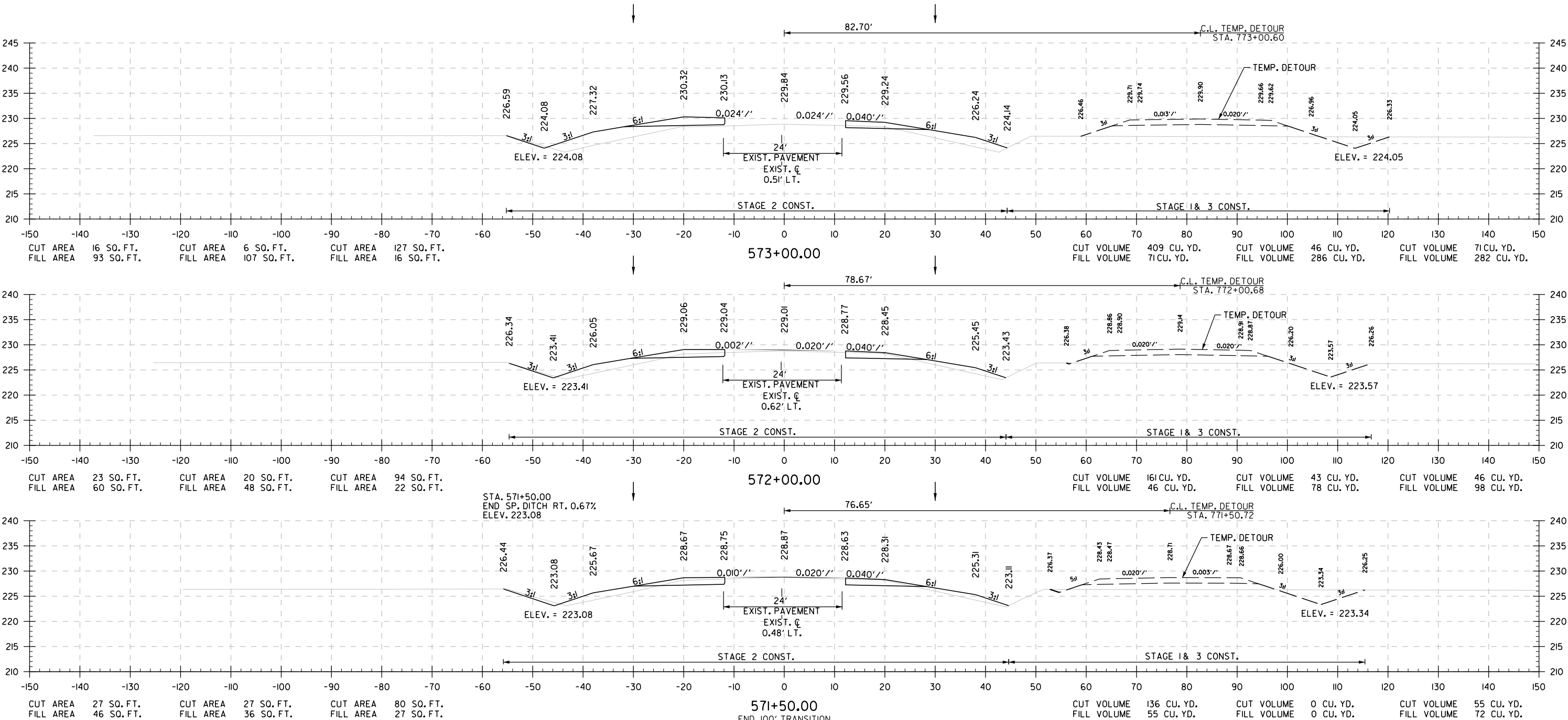
STAGE 2

STAGE 3

STAGE 3

STAGE 2

STAGE 1



SITE 2 - HWY. 70
STA. 571+50 TO STA. 573+00

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	85	94
CROSS SECTIONS						

STAGE 1

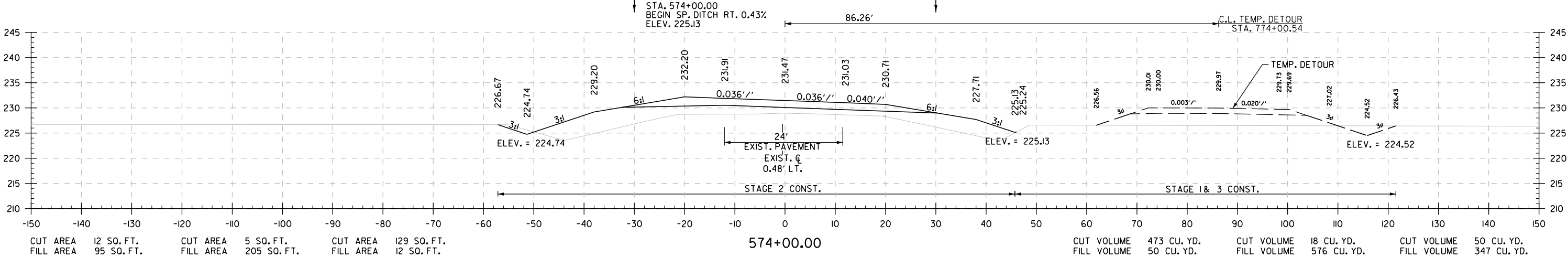
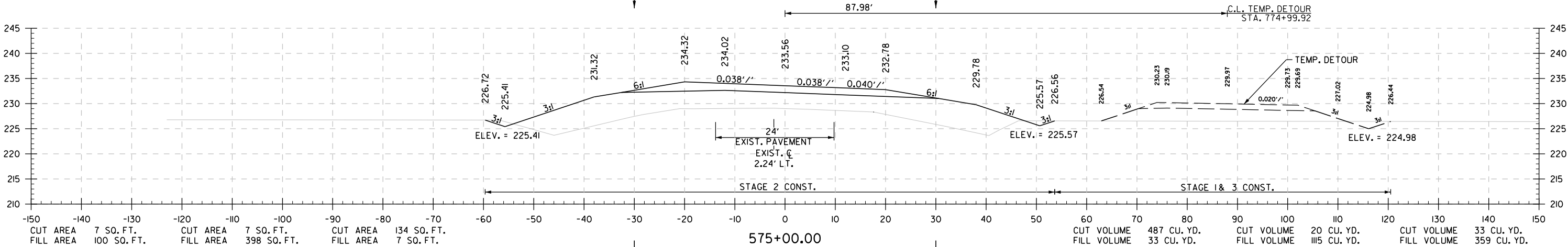
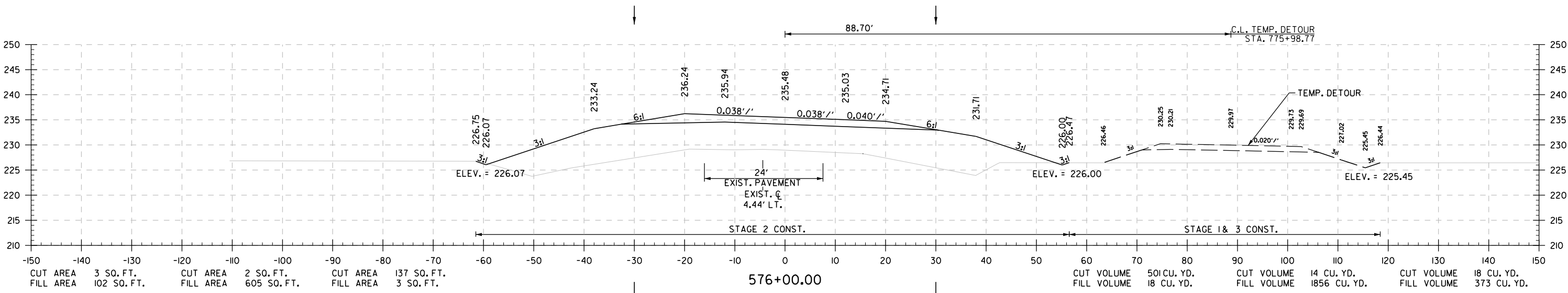
STAGE 2

STAGE 3

STAGE 3

STAGE 2

STAGE 1



SITE 2 - HWY. 70

STA. 574+00 TO STA. 576+00

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	86	94

CROSS SECTIONS

STAGE 1

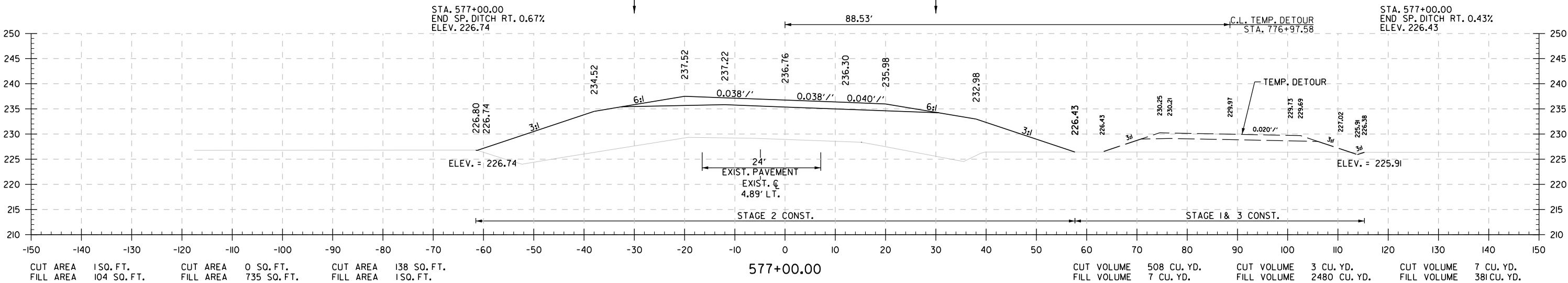
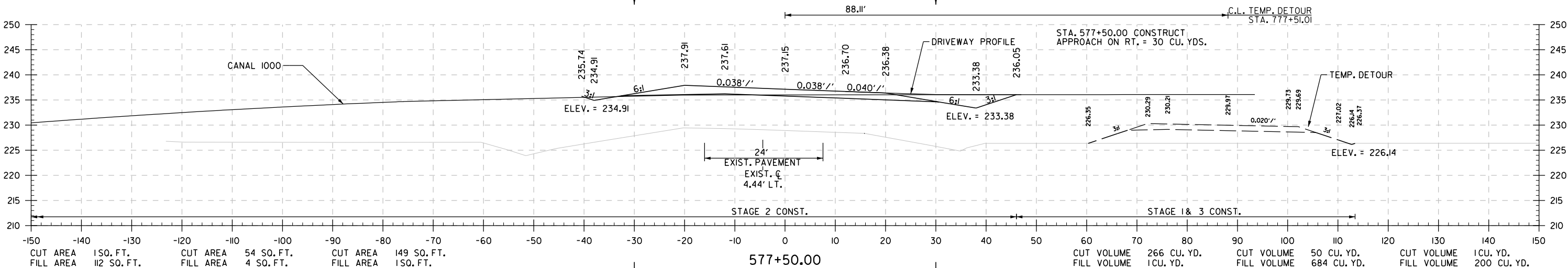
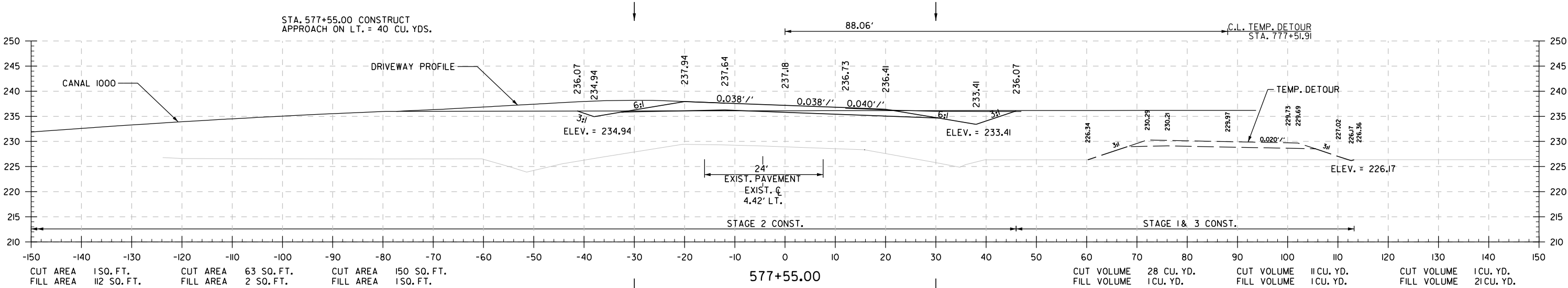
STAGE 2

STAGE 3

STAGE 3

STAGE 2

STAGE 1

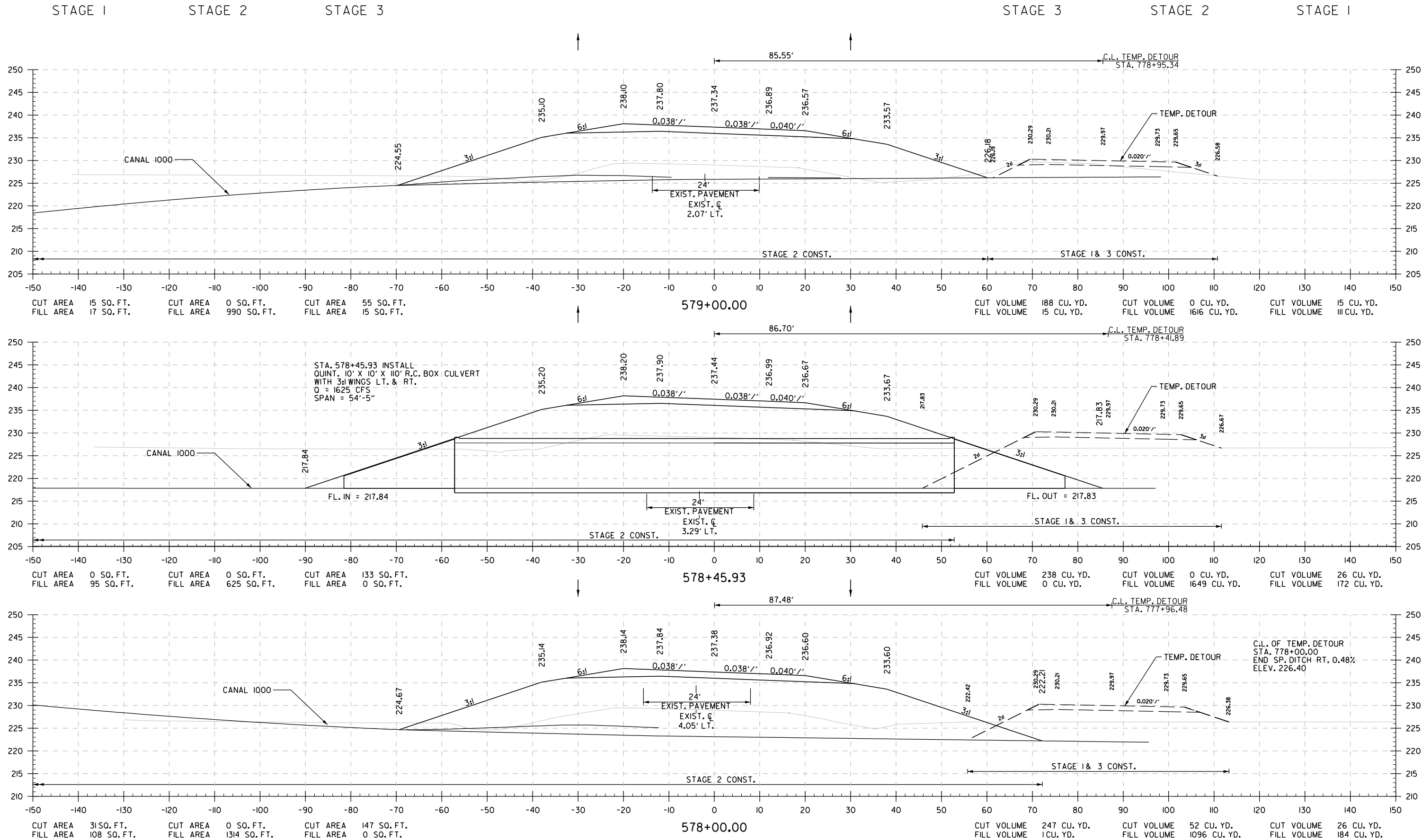


SITE 2 - HWY. 70

STA. 577+00 TO STA. 577+55

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	87	94

CROSS SECTIONS



SITE 2 - HWY. 70
STA. 578+00 TO STA. 579+00

Scot11Thornberry/4/2025 1:51:12 PM
WORKSPACE: Y:\Projects\WID\84450_Grand Prairie Irrigation-Seg 1\Drawings\Bridges\Design\Civil\Drawings\061467_2L\CX_005.dgn
REVISED DATE: **REVDATE**

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	88	94

CROSS SECTIONS

STAGE 1

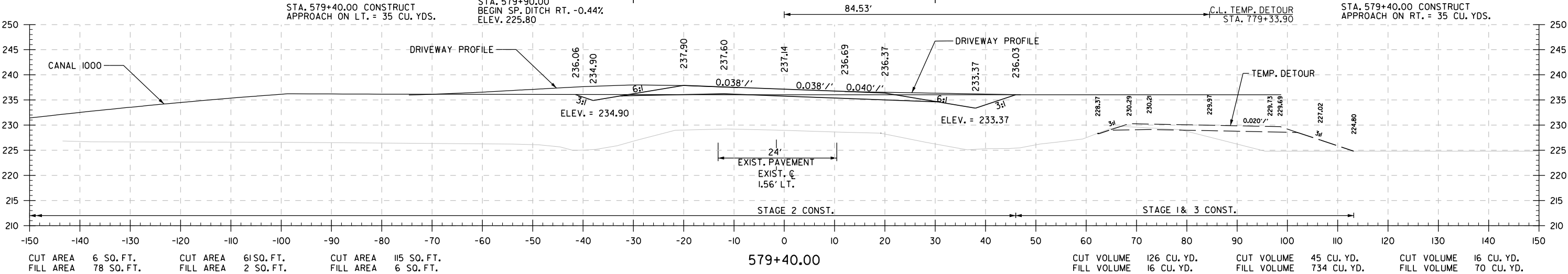
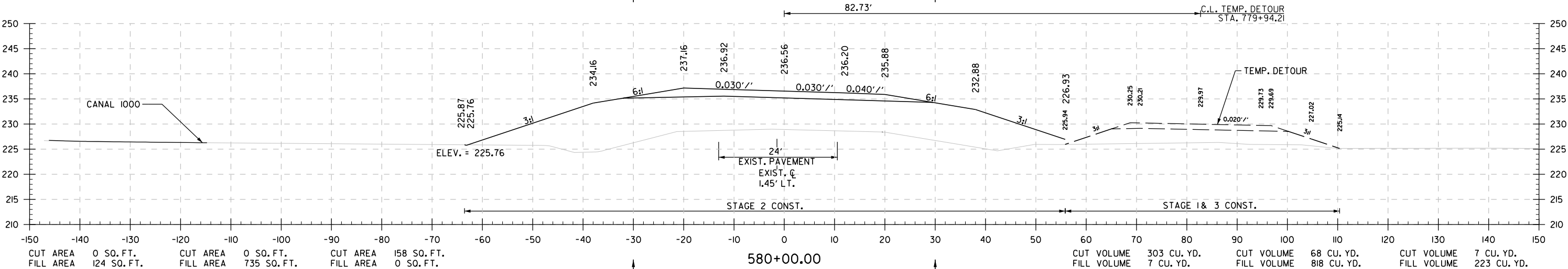
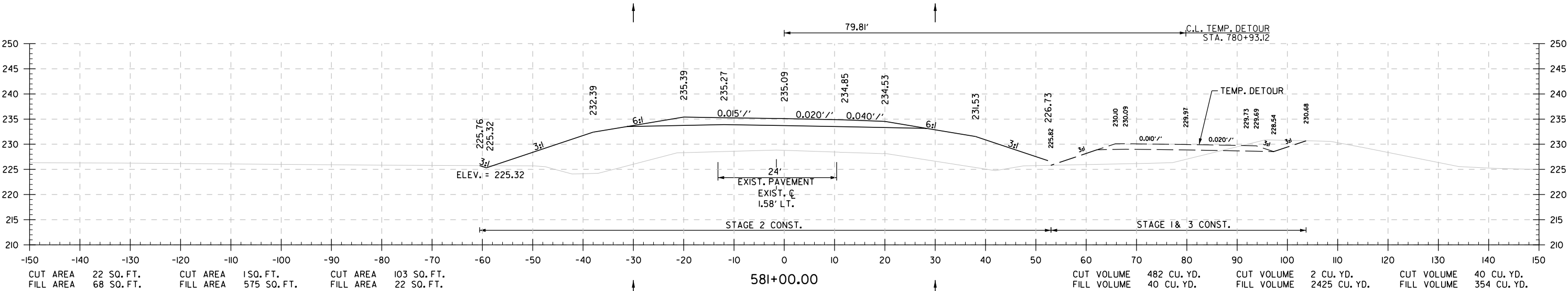
STAGE 2

STAGE 3

STAGE 3

STAGE 2

STAGE 1



SITE 2 - HWY. 70

STA. 579+40 TO STA. 581+00

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	89	94

CROSS SECTIONS

STAGE 1

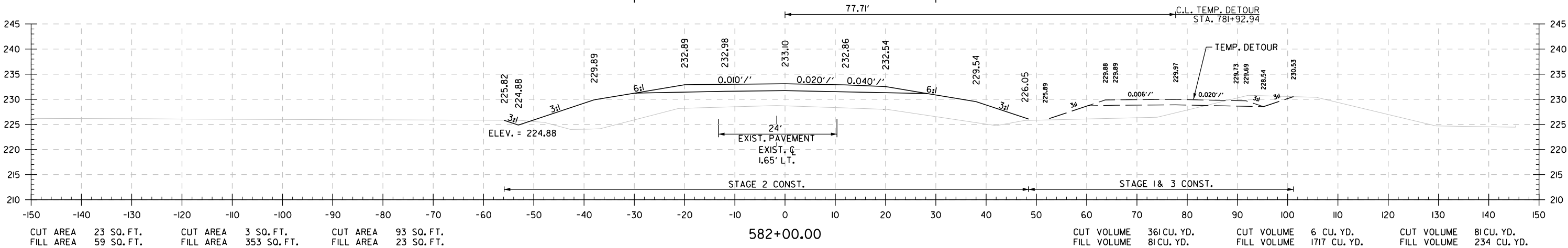
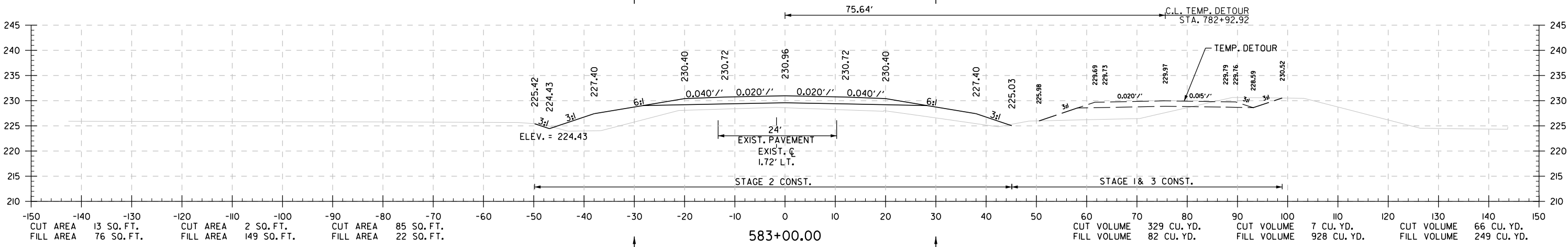
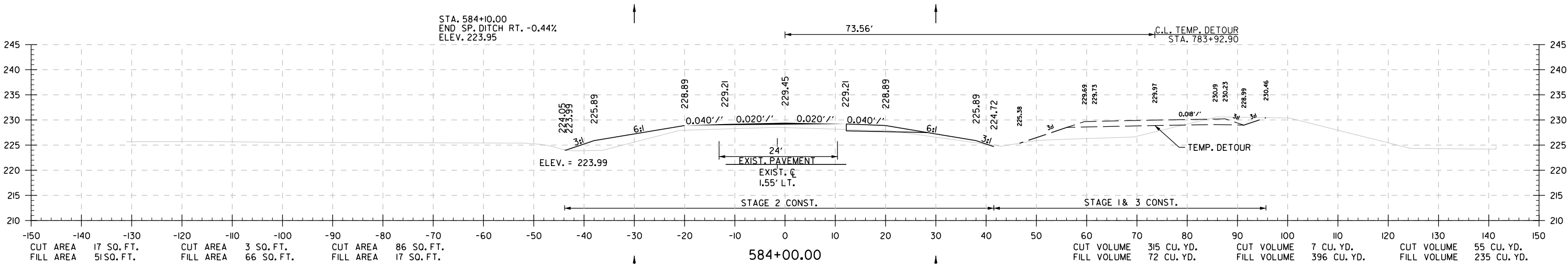
STAGE 2

STAGE 3

STAGE 3

STAGE 2

STAGE 1



SITE 2 - HWY. 70

STA. 582+00 TO STA. 584+00

Scot11Thornberry4/2025 1:51:13 PM
WORKSPACE: \\projects\VRD\8450_Grand Prairie Irrigation-Seg 1\Drawings\Bridges\Design\Civil\Drawings\VRD\061467_21.CX.005.dgn
REVISED DATE: \$REVIDATE\$

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	91	94

CROSS SECTIONS

STAGE 1

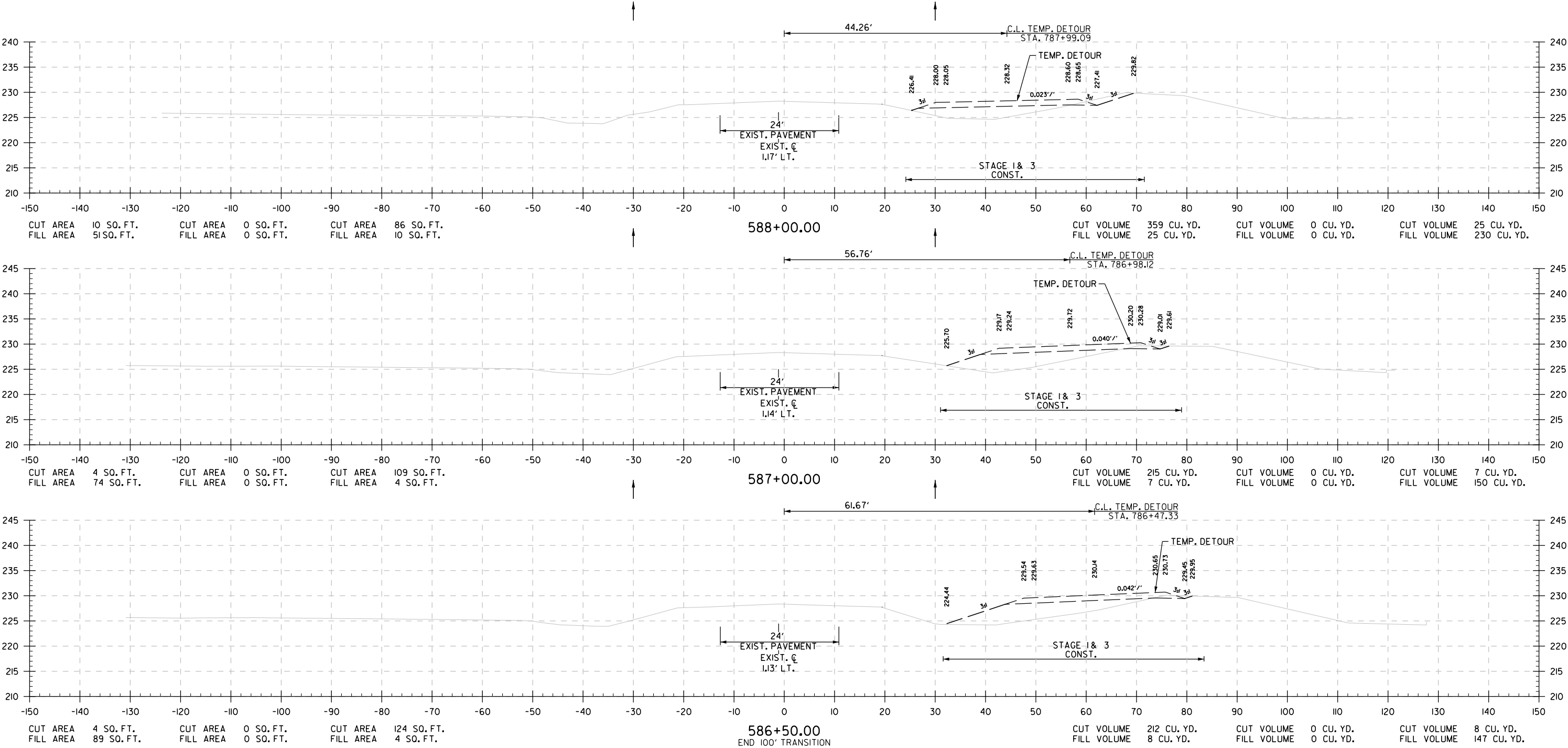
STAGE 2

STAGE 3

STAGE 3

STAGE 2

STAGE 1

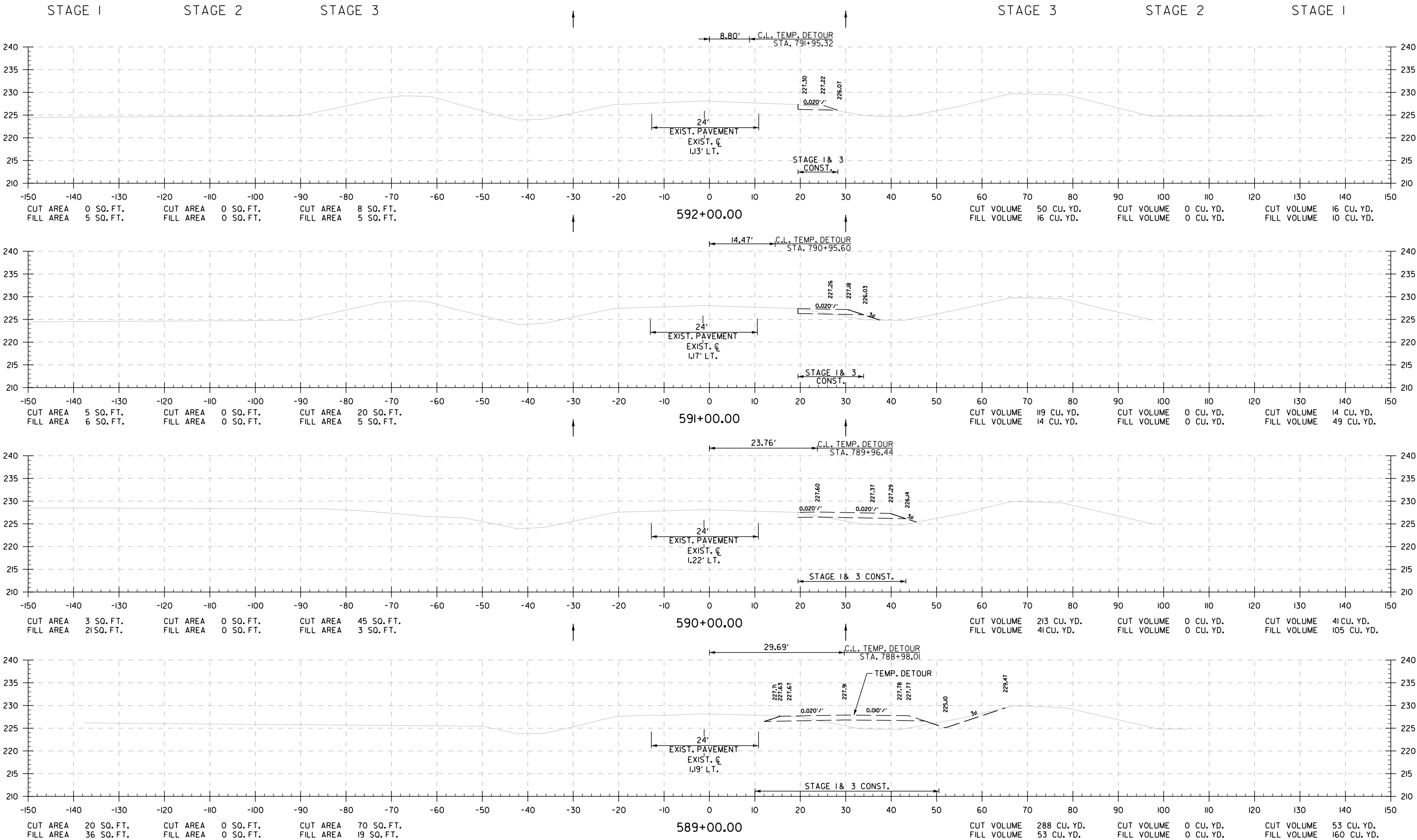


SITE 2 - HWY. 70

STA. 586+50 TO STA. 588+00

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	92	94

CROSS SECTIONS



SITE 2 - HWY. 70
STA. 589+00 TO STA. 592+00

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	93	94

CROSS SECTIONS

STAGE 1

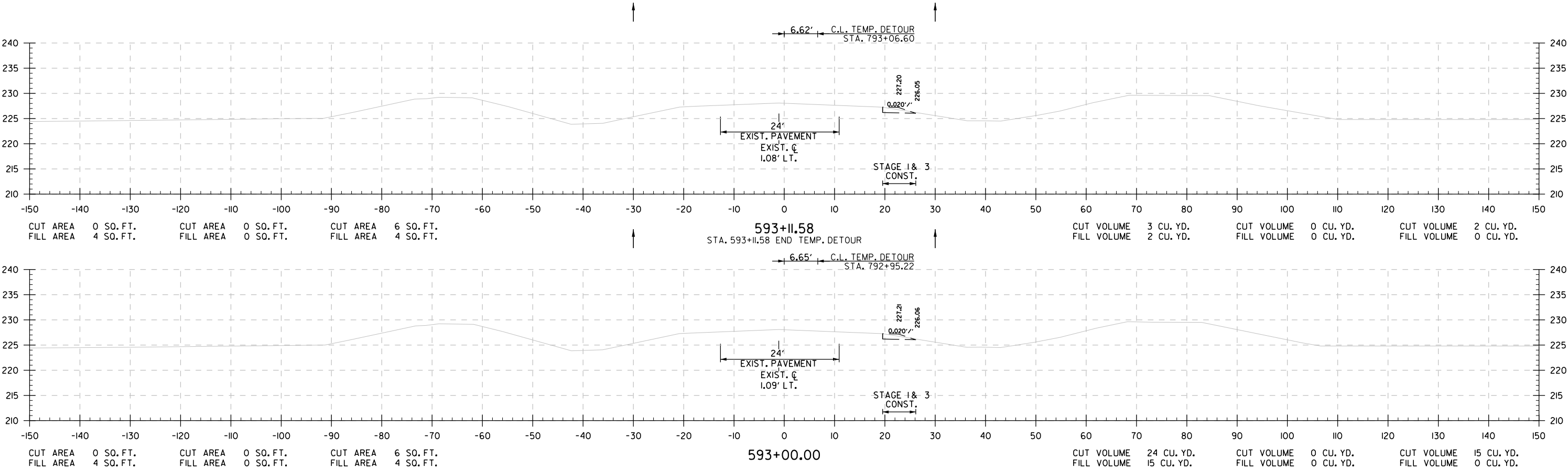
STAGE 2

STAGE 3

STAGE 3

STAGE 2

STAGE 1



SITE 2 - HWY. 70

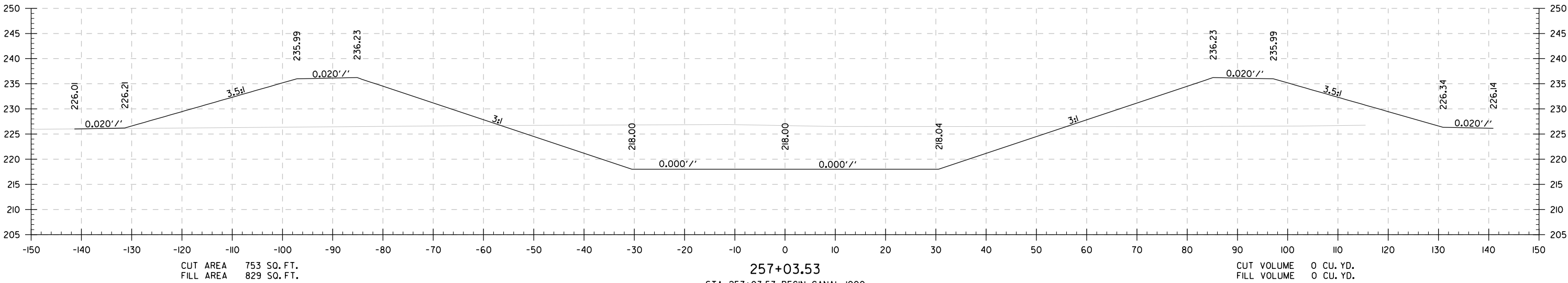
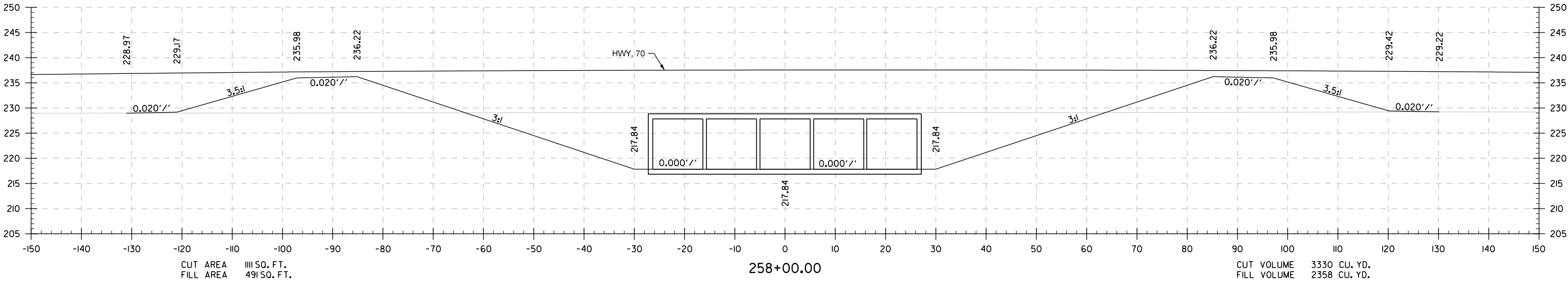
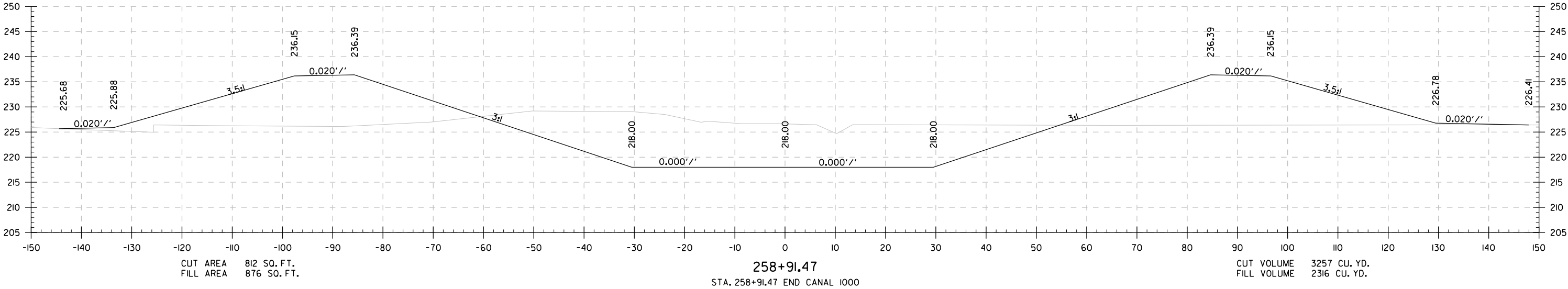
STA. 593+00 TO STA. 593+12

Scott Thornsberry 4/7/2025 1:57:14 PM
WORKSPACE: Y:\Projects\WROD\84450_Grand Prairie Irrigation-Seg
REVISED DATE: **REVIDATE**

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061467	94	94
CROSS SECTIONS						

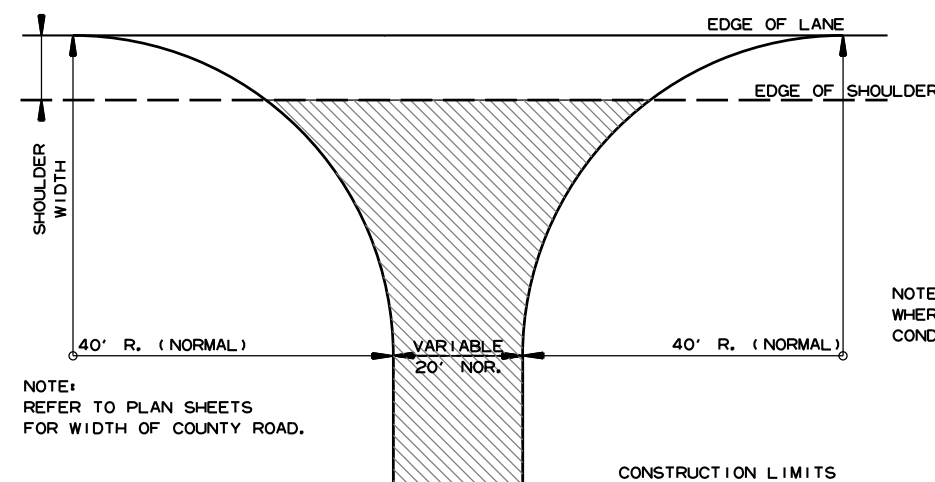
STAGE 2

STAGE 2



257+03.53
STA. 257+03.53 BEGIN CANAL 1000

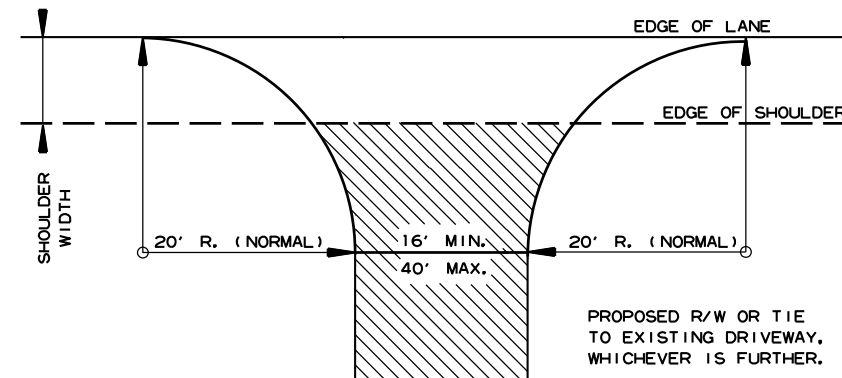
CANAL 1000
STA. 257+04 TO STA. 258+91



NOTE: TURNOUTS SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS AS DIRECTED BY THE ENGINEER.

ACHM SURFACE COURSE (1/2") (220 LBS. PER SQ. YD.) AND AGGREGATE BASE COURSE (CLASS 7) 7" COMP. DEPTH, UNLESS OTHERWISE SPECIFIED IN PLANS.

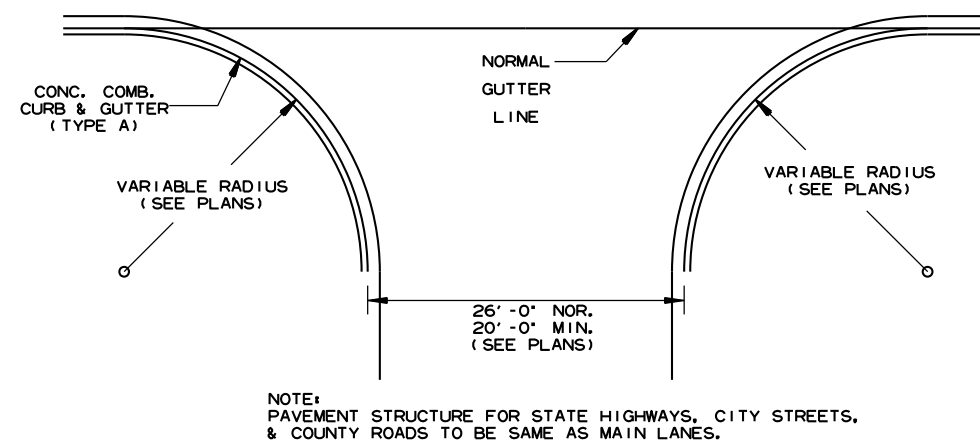
DETAIL FOR COUNTY ROAD TURNOUTS
OPEN SHOULDER SECTION



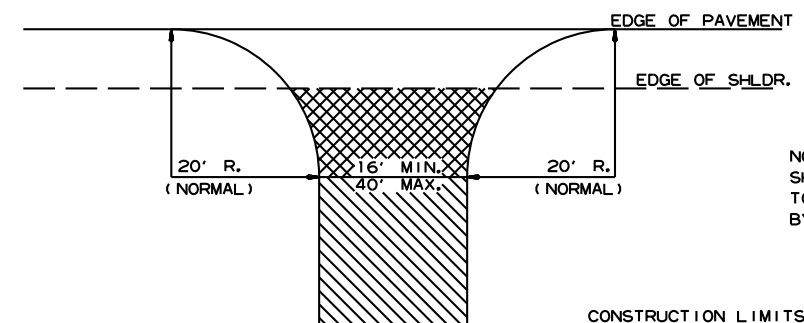
NOTE: TURNOUTS AND PRIVATE DRIVES SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS AS DIRECTED BY THE ENGINEER.

ACHM SURFACE COURSE (1/2") (220 LBS. PER SQ. YD.) AND AGGREGATE BASE COURSE (CLASS 7) 7" COMP. DEPTH IF ASPHALT OR GRAVEL DRIVE EXISTING; OR 6" CONCRETE IF CONCRETE DRIVE EXISTING.

DETAIL FOR DRIVEWAY TURNOUTS
OPEN SHOULDER SECTION
(ARTERIALS)



DETAIL OF TURNOUTS, ASPHALT STREETS,
COUNTY ROADS & STATE HIGHWAYS
CURB & GUTTER SECTION



ASPHALT CONCRETE HOT MIX SURFACE COURSE (220 LBS. PER SQ. YD.) AGGREGATE BASE COURSE (CLASS 7) 7" COMP. DEPTH IF ASPHALT DRIVE EXIST OR 6" CONCRETE IF CONCRETE DRIVE EXIST.

AGGREGATE BASE COURSE (CLASS 7) 9" COMP. DEPTH OR CONFORM TO EXISTING DRIVEWAY

DETAIL FOR DRIVEWAY TURNOUTS
(COLLECTORS)

5-19-22		ISSUED
DATE REV	DATE FILMED	DESCRIPTION

ARKANSAS STATE HIGHWAY COMMISSION
DETAILS OF DRIVEWAYS & STREET
TURNOUTS
STANDARD DRAWING DR-2

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	31¾	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)(1).

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.

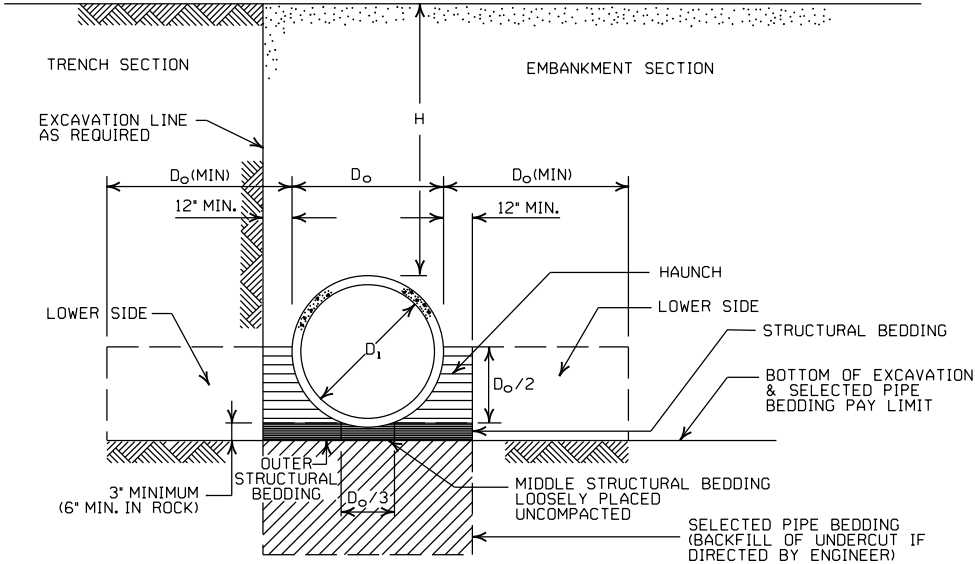
- LEGEND -

D_i = NORMAL INSIDE DIAMETER OF PIPE
D_o = 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

	CLASS OF PIPE			
	CLASS III		CLASS IV	CLASS V
INSTALLATION TYPE	TYPE 1 OR 2	TYPE 3	ALL	ALL
PIPE ID (IN.)	FEET			
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.

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 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.

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.

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	
DATE	REVISION	DATE FILMED

ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE PIPE CULVERT
FILL HEIGHTS & BEDDING

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 3/4 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 3/4 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.)	MAX. HEIGHT OF FILL, "H" (FT.)	MIN. THICKNESS REQUIRED INCHES	① MIN. HEIGHT OF FILL, "H" (FT.)	MAX. HEIGHT OF FILL, "H" (FT.)		
				INSTALLATION	INSTALLATION		INSTALLATION	INSTALLATION		
				TYPE 1	TYPE 1		TYPE 1	TYPE 1		
				2 3/4 INCH BY 1/2 INCH CORRUGATION RIVETED, WELDED, OR HELICAL LOCK-SEAM				2 3/4 INCH BY 1/2 INCH CORRUGATION RIVETED 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	0.135	3	15		
66	77x52	8	0.168	3	15	① FOR MINIMUM COVER VALUES, "H" SHALL ② WHERE THE STANDARD 2 2/3" x 1/2" COR WITH A 3' x 1' OR 5' x 1' CORRUGATION OR GREATER THAN THE MAXIMUM FILL				
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.

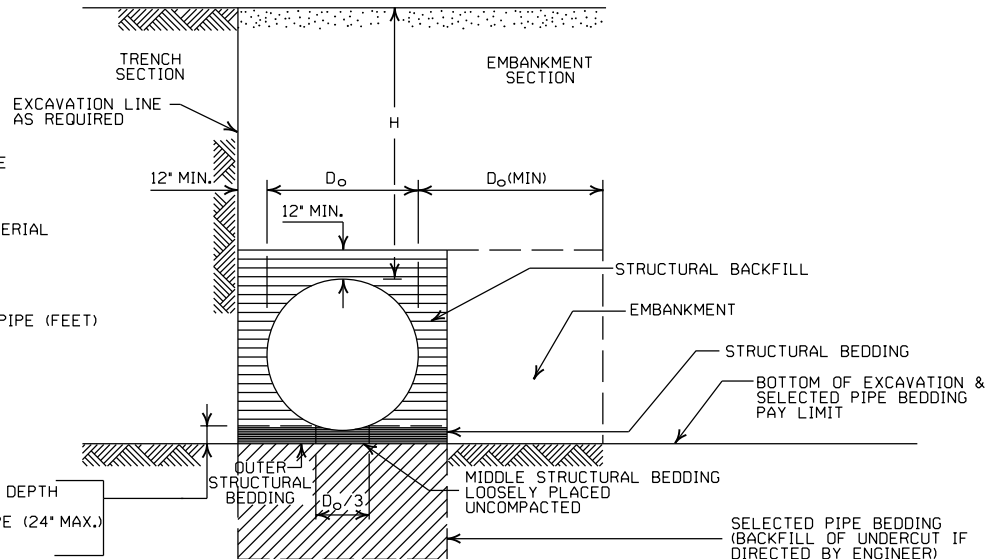
EQUIVALENT METAL THICKNESSES AND GAUGES

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

- LEGEND -

- D_o = OUTSIDE DIAMETER OF PIPE
MAX. = MAXIMUM
MIN. = MINIMUM
===== = STRUCTURAL BACKFILL MATERIAL
||||||| = UNDISTURBED SOIL
EQUIV. DIA. = EQUIVALENT DIAMETER
H = FILL COVER HEIGHT OVER PIPE (FEET)

IN SOIL-MIN. EQUALS TWICE CORRUGATION DEPTH
IN ROCK-MIN. EQUALS GREATER OF:
1/2" PER FOOT OF FILL OVER PIPE (24" MAX.)
TWICE CORRUGATION DEPTH



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 3/4" 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 PERVIOUS 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."

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.

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

ARKANSAS STATE HIGHWAY COMMISSION

METAL PIPE CULVERT
FILL HEIGHTS & BEDDING

STANDARD DRAWING PCM-1



INSTALLATION TYPE	•• MATERIAL REQUIREMENTS FOR STRUCTURAL BACKFILL AND STRUCTURAL BEDDING
TYPE 2	•SELECTED MATERIALS (CLASS SM-1, SM-2 OR SM-4)

- AGGREGATE BASE COURSE (CLASS 4, 5, 6, OR 7) MAY BE USED IN LIEU OF SELECTED MATERIAL.
 - SM3 WILL NOT BE ALLOWED.
 - STRUCTURAL BEDDING MATERIAL SHALL HAVE A MAXIMUM PARTICLE SIZE OF 1/2 INCH. STRUCTURAL BACKFILL MATERIAL SHALL BE FREE OF ORGANIC MATERIAL, STONES LARGER THAN 1.50 INCH IN GREATEST DIMENSION, OR FROZEN LUMPS.
- 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 HDPE PIPE.

MINIMUM TRENCH WIDTH
BASED ON FILL HEIGHT "H"

PIPE DIAMETER	TRENCH WIDTH (FEET)	
	"H" < 10'-0"	"H" ≥ 10'-0"
18"	4'-6"	4'-6"
24"	5'-0"	6'-0"
30"	5'-6"	7'-6"
36"	6'-0"	9'-0"
42"	7'-0"	10'-6"
48"	8'-0"	12'-0"

①NOTE:
18" MIN. (18" - 30" DIAMETERS)
24" MIN. (36" - 48" DIAMETERS)

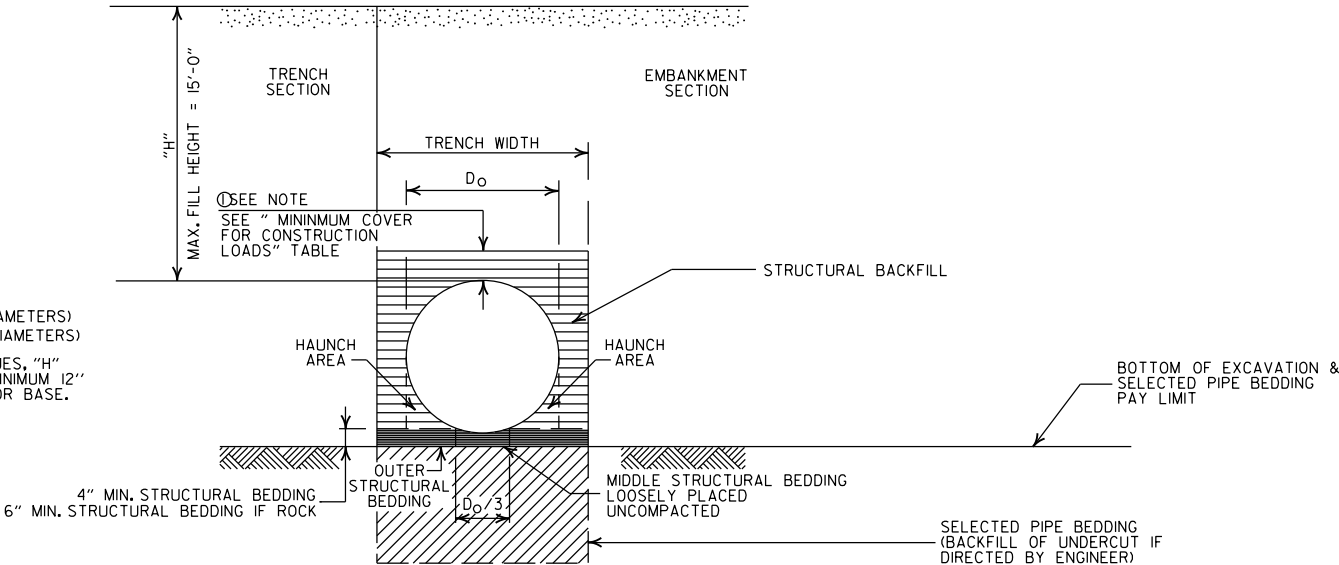
MINIMUM COVER VALUES, "H"
SHALL INCLUDE A MINIMUM 12"
OF PAVEMENT AND/OR BASE.

MULTIPLE INSTALLATION OF
HIGH DENSITY POLYETHYLENE PIPES

PIPE DIAMETER	CLEAR DISTANCE BETWEEN PIPES
18"	1'-6"
24"	2'-0"
30"	2'-6"
36"	3'-0"
42"	3'-6"
48"	4'-0"

PIPE DIAMETER	② MIN. COVER (FEET) FOR INDICATED CONSTRUCTION LOADS			
	18.0-50.0 (KIPS)	50.0-75.0 (KIPS)	75.0-110.0 (KIPS)	110.0-175.0 (KIPS)
36" OR LESS	2'-0"	2'-6"	3'-0"	3'-0"
42" OR GREATER	3'-0"	3'-0"	3'-6"	4'-0"

②MINIMUM COVER SHALL BE MEASURED FROM TOP OF PIPE TO TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE. THE SURFACE SHALL BE MAINTAINED.



TYPE 2 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.

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. THE STRUCTURAL BACKFILL SHALL BE PLACED AND COMPACTED IN LAYERS NOT EXCEEDING 8". THE LAYERS SHALL BE BROUGHT UP EVENLY AND SIMULTANEOUSLY TO THE ELEVATION OF THE MINIMUM COVER.
5. PIPE INSTALLATION MAY REQUIRE THE USE OF RESTRAINTS, WEIGHTING OR OTHER APPROVED METHODS IN ORDER TO HELP MAINTAIN GRADE AND ALIGNMENT.

- LEGEND -

- H = FILL HEIGHT (FT.)
Ø = OUTSIDE DIAMETER OF PIPE
MAX. = MAXIMUM
MIN. = MINIMUM
- ===== = STRUCTURAL BACKFILL MATERIAL
===== = UNDISTURBED SOIL

GENERAL NOTES

1. PIPE SHALL CONFORM TO AASHTO M294, TYPE S. INSTALLATION SHALL CONFORM TO JOB SPECIAL PROVISION "PLASTIC PIPE" AND SECTION 606 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION).
2. PLASTIC PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PLUS A SUFFICIENT WIDTH TO ENSURE WORKING ROOM TO PROPERLY AND SAFELY PLACE AND COMPACT HAUNCHING AND OTHER BACKFILL MATERIAL.
4. 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.
5. 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."
6. 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 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."
7. FOR PIPE TYPES THAT ARE NOT SMOOTH ON THE OUTSIDE (CORRUGATED OR PROFILE WALLS), BACKFILL GRADATIONS SHOULD BE SELECTED THAT WILL PERMIT THE FILLING OF THE CORRUGATION OR PROFILE VALLEY.
8. HIGH DENSITY POLYETHYLENE PIPES OF DIAMETERS OTHER THAN SHOWN WILL NOT BE ALLOWED.
9. JOINTS FOR HDPE PIPE SHALL MEET THE REQUIREMENTS FOR SOIL TIGHTNESS AS SPECIFIED IN AASHTO SECTION 26.4.2.4 AND 30.4.2 "AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS." JOINTS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

			ARKANSAS STATE HIGHWAY COMMISSION
			PLASTIC PIPE CULVERT (HIGH DENSITY POLYETHYLENE)
			STANDARD DRAWING PCP-1
2-27-14	REVISED GENERAL NOTE 1.		
12-15-11	REVISED GENERAL NOTES & MINIMUM COVER NOTE		
11-17-10	ISSUED		
DATE	REVISION	DATE FILMED	

INSTALLATION TYPE	•• MATERIAL REQUIREMENTS FOR STRUCTURAL BACKFILL AND STRUCTURAL BEDDING
TYPE 2	•SELECTED MATERIALS (CLASS SM-1, SM-2, OR SM-4)

- AGGREGATE BASE COURSE (CLASS 4, 5, 6, OR 7) MAY BE USED IN LIEU OF SELECTED MATERIAL.

SM3 WILL NOT BE ALLOWED.
- STRUCTURAL BEDDING MATERIAL SHALL HAVE A MAXIMUM PARTICLE SIZE OF 1/4 INCH. STRUCTURAL BACKFILL MATERIAL SHALL BE FREE OF ORGANIC MATERIAL, STONES LARGER THAN 1.50 INCH IN GREATEST DIMENSION, OR FROZEN LUMPS.

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 PVC PIPE.

MINIMUM TRENCH WIDTH
BASED ON FILL HEIGHT "H"

PIPE DIAMETER	TRENCH WIDTH (FEET)	
	"H" < 10'-0"	"H" ≥ 10'-0"
18"	4'-6"	4'-6"
24"	5'-0"	6'-0"
30"	5'-6"	7'-6"
36"	6'-0"	9'-0"

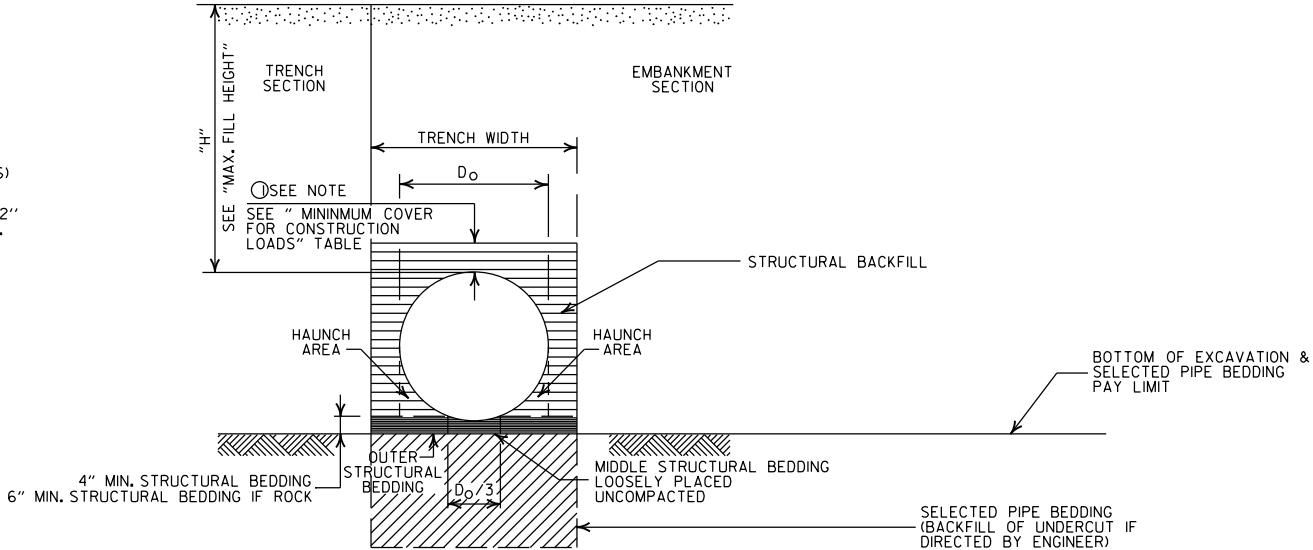
MULTIPLE INSTALLATION OF
PVC PIPES

PIPE DIAMETER	CLEAR DISTANCE BETWEEN PIPES
18"	1'-6"
24"	2'-0"
30"	2'-6"
36"	3'-0"

MAXIMUM FILL HEIGHT
BASED ON STRUCTURAL BACKFILL

PIPE DIAMETER	"H"
18"	45'-0"
24"	45'-0"
30"	40'-0"
36"	40'-0"

- ① NOTE:
12" MIN. (18" - 36" DIAMETERS)
MINIMUM COVER VALUE, "H"
SHALL INCLUDE A MINIMUM 12"
OF PAVEMENT AND/OR BASE.



TYPE 2 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.

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. THE STRUCTURAL BACKFILL SHALL BE PLACED AND COMPACTED IN LAYERS NOT EXCEEDING 8". THE LAYERS SHALL BE BROUGHT UP EVENLY AND SIMULTANEOUSLY TO THE ELEVATION OF THE MINIMUM COVER.
5. PIPE INSTALLATION MAY REQUIRE THE USE OF RESTRAINTS, WEIGHTING OR OTHER APPROVED METHODS IN ORDER TO HELP MAINTAIN GRADE AND ALIGNMENT.

- LEGEND -

H = FILL HEIGHT (FT.)
D_o = OUTSIDE DIAMETER OF PIPE
MAX. = MAXIMUM
MIN. = MINIMUM

===== = STRUCTURAL BACKFILL MATERIAL
XXXXXX = UNDISTURBED SOIL

GENERAL NOTES

1. PIPE SHALL CONFORM TO ASTM F949, CELL CLASS 12454. INSTALLATION SHALL CONFORM TO JOB SPECIAL PROVISION "PLASTIC PIPE" AND SECTION 606 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION).
2. PLASTIC PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PLUS A SUFFICIENT WIDTH TO ENSURE WORKING ROOM TO PROPERLY PLACE AND COMPACT HAUNCHING AND OTHER BACKFILL MATERIAL.
4. 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.
5. 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."
6. 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 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."
7. FOR PIPE TYPES THAT ARE NOT SMOOTH ON THE OUTSIDE (CORRUGATED OR PROFILE WALLS), BACKFILL GRADATIONS SHOULD BE SELECTED THAT WILL PERMIT THE FILLING OF THE CORRUGATION OR PROFILE VALLEY.
8. PVC PIPES OF DIAMETERS OTHER THAN SHOWN WILL NOT BE ALLOWED.
9. JOINTS FOR PVC PIPE SHALL MEET THE REQUIREMENTS FOR SOIL TIGHTNESS AS SPECIFIED IN AASHTO SECTION 26.4.2.4 AND 30.4.2 "AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS." JOINTS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

2-27-14	REVISED GENERAL NOTE 1.	
12-15-11	REV GENERAL NOTES & MINIMUM COVER NOTE; DELETED SM3 MATERIAL	
11-17-10	ISSUED	
DATE	REVISION	DATE FILMED

ARKANSAS STATE HIGHWAY COMMISSION

PLASTIC PIPE CULVERT
(PVC F949)

STANDARD DRAWING PCP-2



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

* SM3 WILL NOT BE ALLOWED.

** STRUCTURAL BEDDING MATERIAL SHALL HAVE A MAXIMUM PARTICLE SIZE OF 1 INCH. STRUCTURAL BACKFILL MATERIAL SHALL BE FREE OF ORGANIC MATERIAL, STONES LARGER THAN 1.50 INCH IN GREATEST DIMENSION, OR FROZEN LUMPS.

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 POLYPROPYLENE PIPE.

MULTIPLE INSTALLATION OF POLYPROPYLENE PIPES

PIPE DIAMETER	CLEAR DISTANCE BETWEEN PIPES
18"	1'-6"
24"	2'-0"
30"	2'-6"
36"	3'-0"
42"	3'-6"
48"	4'-0"
60"	5'-0"

MINIMUM TRENCH WIDTH BASED ON FILL HEIGHT "H"

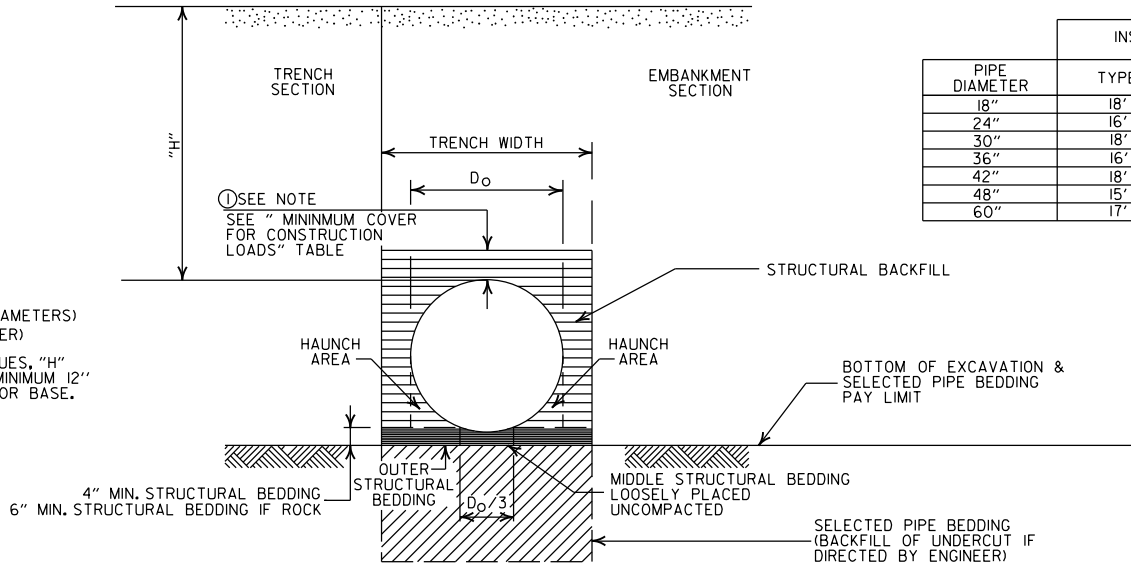
PIPE DIAMETER	TRENCH WIDTH (FEET)	
	"H" < 10'-0"	"H" >OR= 10'-0"
18"	4'-6"	4'-6"
24"	5'-0"	6'-0"
30"	5'-6"	7'-6"
36"	6'-0"	9'-0"
42"	7'-0"	10'-6"
48"	8'-0"	12'-0"
60"	10'-0"	15'-0"

① NOTE:
12" MIN. (18" - 42" DIAMETERS)
24" MIN. (60" DIAMETER)
MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM 12" OF PAVEMENT AND/OR BASE.

MINIMUM COVER FOR CONSTRUCTION LOADS

PIPE DIAMETER	② MIN. COVER (FEET) FOR INDICATED CONSTRUCTION LOADS			
	18.0-50.0 (KIPS)	50.0-75.0 (KIPS)	75.0-110.0 (KIPS)	110.0-150.0 (KIPS)
36" OR LESS	2'-0"	2'-6"	3'-0"	3'-0"
42" OR GREATER	3'-0"	3'-0"	3'-6"	4'-0"

② MINIMUM COVER SHALL BE MEASURED FROM TOP OF PIPE TO TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE. THE SURFACE SHALL BE MAINTAINED.



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.

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. THE STRUCTURAL BACKFILL SHALL BE PLACED AND COMPACTED IN LAYERS NOT EXCEEDING 8". THE LAYERS SHALL BE BROUGHT UP EVENLY AND SIMULTANEOUSLY TO THE ELEVATION OF THE MINIMUM COVER.
5. PIPE INSTALLATION MAY REQUIRE THE USE OF RESTRAINTS, WEIGHTING OR OTHER APPROVED METHODS IN ORDER TO HELP MAINTAIN GRADE AND ALIGNMENT.

GENERAL NOTES

1. PIPE SHALL CONFORM TO AASHTO M330, TYPE S. INSTALLATION SHALL CONFORM TO JOB SPECIAL PROVISION "PLASTIC PIPE" AND SECTION 606 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION).
2. PLASTIC PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SIXTH EDITION (2012) WITH 2013 INTERIMS.
3. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PLUS A SUFFICIENT WIDTH TO ENSURE WORKING ROOM TO PROPERLY AND SAFELY PLACE AND COMPACT HAUNCHING AND OTHER BACKFILL MATERIAL.
4. 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.
5. 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."
6. 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 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."
7. FOR PIPE TYPES THAT ARE NOT SMOOTH ON THE OUTSIDE (CORRUGATED OR PROFILE WALLS), BACKFILL GRADATIONS SHOULD BE SELECTED THAT WILL PERMIT THE FILLING OF THE CORRUGATION OR PROFILE VALLEY.
8. POLYPROPYLENE PIPES OF DIAMETERS OTHER THAN SHOWN WILL NOT BE ALLOWED.
9. JOINTS FOR POLYPROPYLENE PIPE SHALL MEET THE REQUIREMENTS FOR SOIL TIGHTNESS AS SPECIFIED IN SECTION 26.4.2.4 AND 30.4.2 OF THE AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS 3RD EDITION (2010) WITH 2012 INTERIMS. JOINTS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

- LEGEND -

H = FILL HEIGHT (FT.)
Do = OUTSIDE DIAMETER OF PIPE
MAX. = MAXIMUM
MIN. = MINIMUM

===== STRUCTURAL BACKFILL MATERIAL
XXXXXX UNDISTURBED SOIL

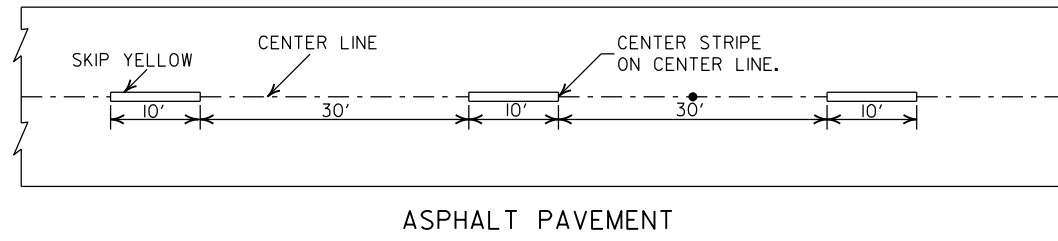
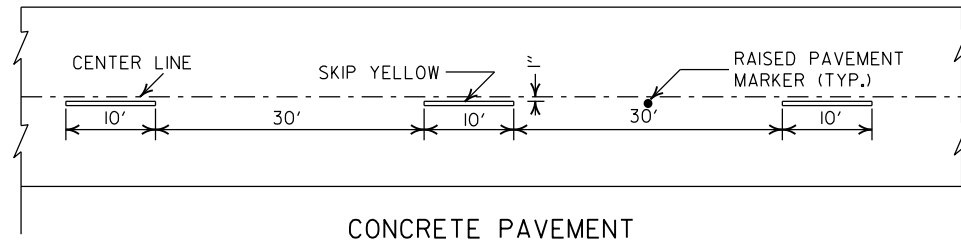
02-27-20	REVISED	
11-07-19	ISSUED	
DATE	REVISION	DATE FILMED

ARKANSAS STATE HIGHWAY COMMISSION

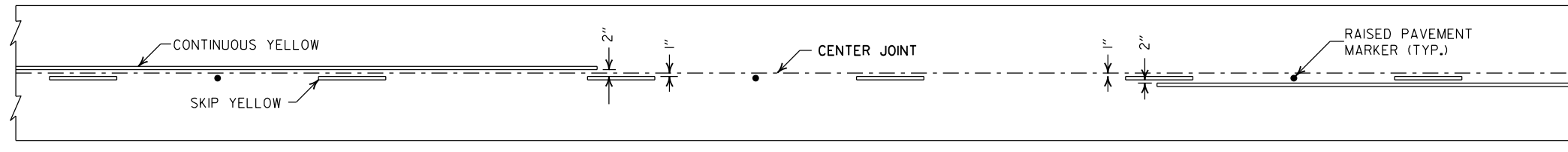
PLASTIC PIPE CULVERT
(POLYPROPYLENE)

STANDARD DRAWING PCP-3

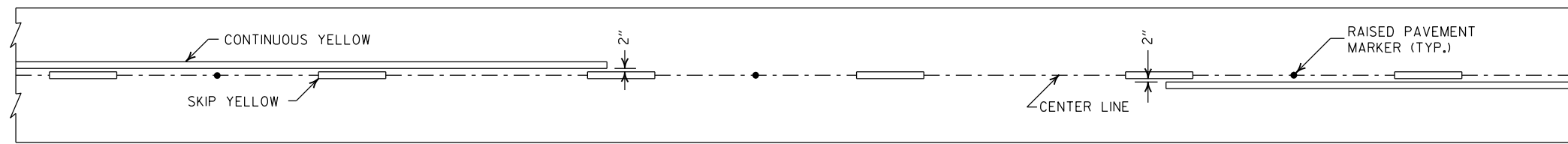




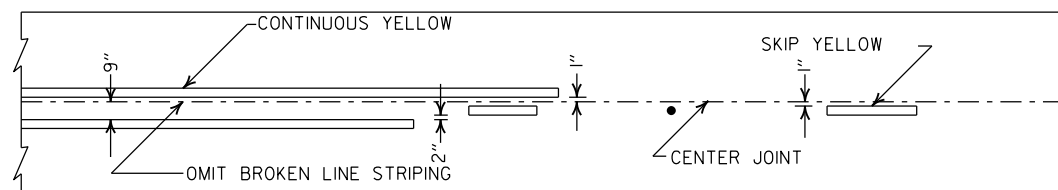
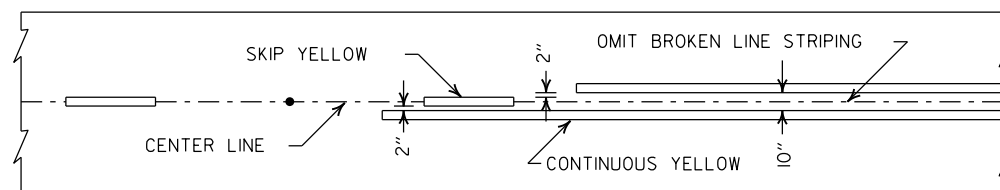
BROKEN LINE STRIPING



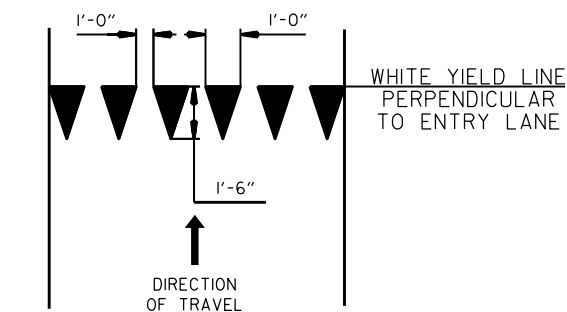
SOLID LINE STRIPING ON CONCRETE PAVEMENT



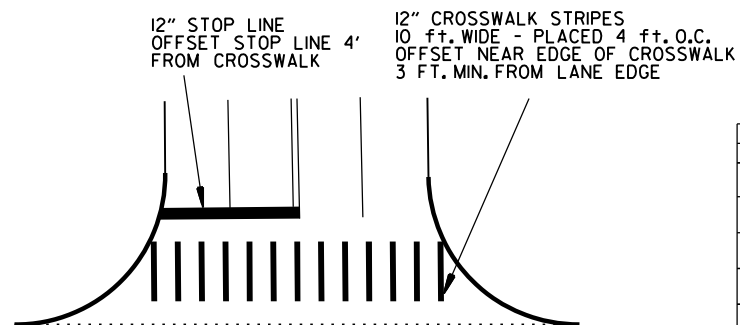
SOLID LINE STRIPING ON ASPHALT PAVEMENT



STRIPING AT ADJACENT NO PASSING LANES



YIELD LINE DETAIL

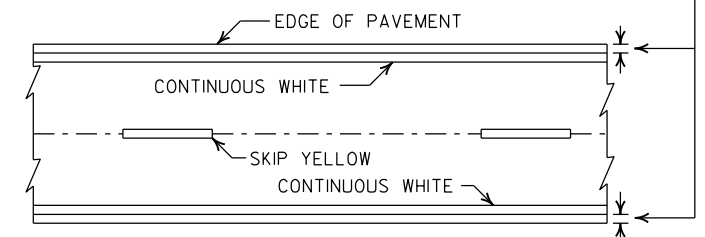


CROSSWALK AND STOP LINE DETAILS

NOTES:

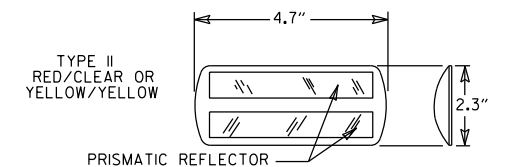
1. REFER TO THE STRIPING DETAILS FOR PAVEMENT MARKING LINE WIDTHS.
2. THIS DRAWING SHALL BE USED IN CONJUNCTION WITH THE LATEST REVISED ADDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
3. RAISED PAVEMENT MARKERS SHALL BE PLACED ON AN 80 FEET SPACING UNLESS OTHERWISE SHOWN IN THE PLANS.

2" FOR ASPHALT OR CONCRETE PAVEMENT
6" FOR BITUMINOUS SURFACE TREATMENT

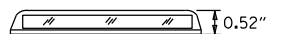


PAVEMENT EDGE LINE MARKING

NOTE:
THE RED LENS OF THE TYPE II R.P.M. SHALL FACE THE INCORRECT TRAFFIC MOVEMENT.



NOTE:
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.



DETAIL OF STANDARD RAISED PAVEMENT MARKERS

2-27-20	REVISED STOP LINE DETAILS	
6-1-17	ADDED YIELD LINE DETAIL	
5-12-16	REVISED LINE WIDTHS, SPACING, & NOTES	
9-12-13	REVISED DETAIL OF STANDARD RAISED PAVEMENT MARKERS	
11-17-10	REVISED GENERAL NOTES & REMOVED PLOWABLE PVMT MRKRS	
11-18-04	REVISED NOTE 2 & GENERAL NOTES	
8-22-02	ADDED CROSSWALK & STOPBAR DTLS.	
7-02-98	ADDED DETAILS OF STD. RAISED PAV'T. MARKERS	
4-26-96	REV. NOTES 3&4; ADDED R.P.M.	
9-30-80	DRAWN	1-9-30-80
DATE	REVISION	FILMED

ARKANSAS STATE HIGHWAY COMMISSION

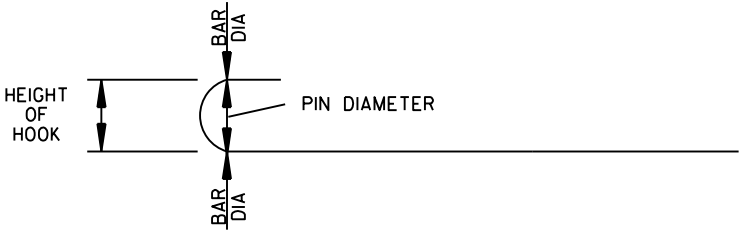
PAVEMENT MARKING DETAILS

STANDARD DRAWING PM-1

STEEL FABRICATION: REINFORCING STEEL FABRICATION SHALL CONFORM TO THE DIMENSIONS LISTED IN THE TABLE BELOW:

BAR SIZE	PIN DIAMETER	HOOK EXTENSION "K"
3	2 1/4"	4"
4	3 "	4 1/2"
5	3 3/4"	5"
6	4 1/2"	6"
7	5 1/4"	7"
8	6"	8"

IF THE OVERALL HEIGHT OF THE HOOK (SEE DIAGRAM BELOW) FOR A "b", "bl", "b2" or "b3" BENT BAR IS GREATER THAN THE CORRESPONDING TOP OR BOTTOM SLAB THICKNESS, LESS 2 3/4 INCHES, EACH BENT BAR SHALL BE REPLACED WITH ONE HOOKED BAR AND ONE STRAIGHT BAR, USING LENGTHS AS SHOWN IN THE TABLE BELOW. THE TWO BARS SHALL BE THE SAME DIAMETER AS, AND PLACED AT THE SAME SPACING AS, THE "b", "bl", "b2" OR "b3" BENT BARS THEY REPLACE.



NOTE: DIMENSIONS OF BARS ARE MEASURED OUT TO OUT OF BARS.

OVERALL HEIGHT OF HOOKED BAR DIAGRAM

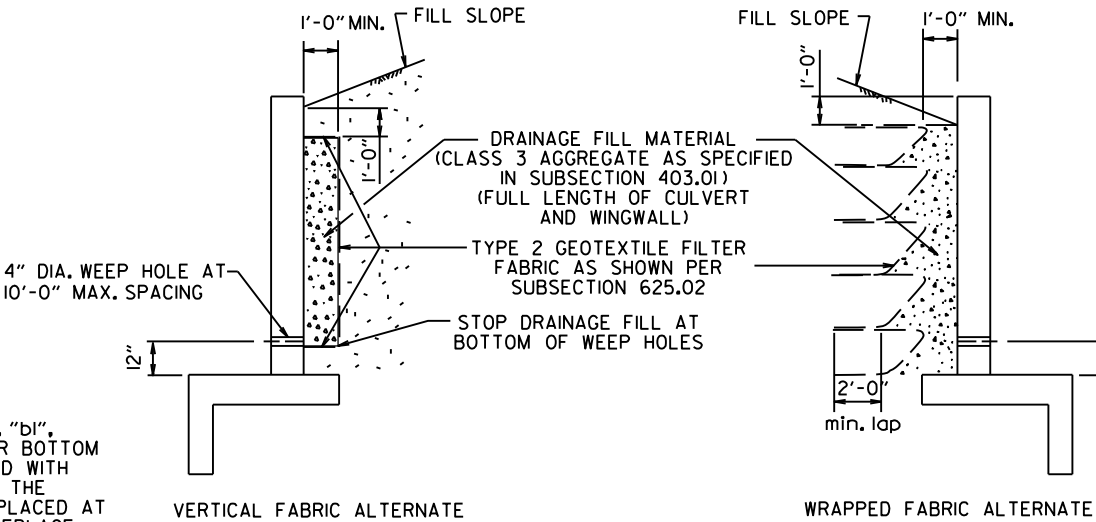
THE HOOKED BARS SHALL BE PLACED IN THE BOTTOM OF THE TOP SLAB AND THE TOP OF THE BOTTOM SLAB. THE STRAIGHT BARS SHALL BE PLACED IN THE TOP OF THE TOP SLAB AND THE BOTTOM OF THE BOTTOM SLAB. SEE TABLE BELOW FOR LENGTHS OF REPLACEMENT HOOKED AND STRAIGHT BARS.

FOR SKEWED CULVERTS, THE REPLACEMENT STRAIGHT BAR MAY HAVE TO BE CUT IN FIELD TO FIT.

REPLACEMENT BAR LENGTHS TABLE

BAR SIZE: "b", "bl", "b2" OR "b3"	LENGTH OF HOOKED BAR	LENGTH OF STRAIGHT BAR
#4	L + 1' - 0"	SEE "c" BAR LENGTH
#5	L + 1' - 2"	SEE "c" BAR LENGTH
#6	L + 1' - 4"	SEE "c" BAR LENGTH
#7	L + 1' - 8"	SEE "c" BAR LENGTH
#8	L + 1' - 10"	SEE "c" BAR LENGTH
#9	L + 2' - 6"	SEE "c" BAR LENGTH

L = "OW" - 3 INCHES



WINGWALL & CULVERT DRAINAGE DETAIL

REINFORCED CONCRETE BOX CULVERT GENERAL NOTES

CONCRETE SHALL BE CLASS S WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3500 PSI.

REINFORCING STEEL SHALL BE AASHTO M 31OR M 53, GRADE 60.

CONSTRUCTION AND MATERIALS FOR WINGWALL & CULVERT DRAINAGE, INCLUDING WEEP HOLES AND GRANULAR MATERIAL, SHALL BE SUBSIDIARY TO THE BID ITEM, "CLASS S CONCRETE".

MEMBRANE WATERPROOFING SHALL CONFORM TO THE REQUIREMENTS OF SECTION 815 OF THE STANDARD SPECIFICATIONS.

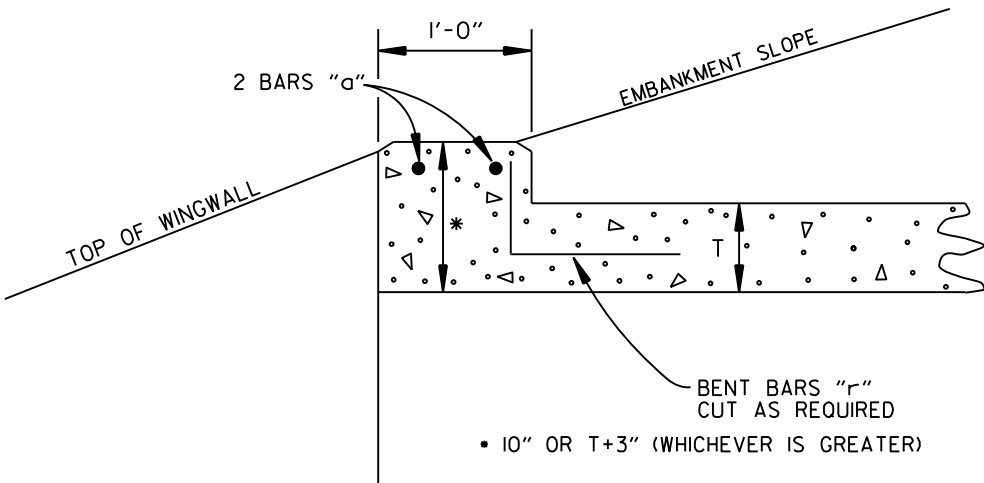
MEMBRANE WATERPROOFING SHALL BE APPLIED TO ALL CONSTRUCTION JOINTS IN THE TOP SLAB AND THE SIDEWALLS OF R.C. BOX CULVERTS AS DIRECTED BY THE ENGINEER. NO PAYMENT SHALL BE MADE FOR THIS ITEM, BUT PAYMENT WILL BE CONSIDERED TO BE INCLUDED IN THE VARIOUS ITEMS BID FOR THE R.C. BOX CULVERT.

REINFORCING STEEL TOLERANCES: THE TOLERANCES FOR REINFORCING STEEL SHALL MEET THOSE LISTED IN "MANUAL OF STANDARD PRACTICE" PUBLISHED BY CONCRETE REINFORCING STEEL INSTITUTE (CRSI) EXCEPT THAT THE TOLERANCE FOR TRUSS BARS SUCH AS FIGURE 3 ON PAGE 7-4 OF THE CRSI MANUAL SHALL BE MINUS ZERO TO PLUS 1/2 INCH.

WEEP HOLES IN BOX CULVERT WALLS SHALL HAVE A MAXIMUM HORIZONTAL SPACING OF 10'-0" AND SHALL BE SPACED TO CLEAR ALL REINFORCING STEEL. THE DRAIN OPENING SHALL BE 4" DIAMETER AND SHALL BE PLACED 12" ABOVE THE TOP OF THE BOTTOM SLAB.

WEEP HOLES IN WINGWALLS SHALL HAVE A MAXIMUM HORIZONTAL SPACING OF 10'-0" AND SHALL BE SPACED TO CLEAR ALL REINFORCING STEEL. THERE SHALL BE A MINIMUM OF TWO (2) WEEP HOLES IN EACH WINGWALL. THE DRAIN OPENING SHALL BE 4" DIAMETER AND SHALL BE PLACED 12" ABOVE THE TOP OF THE WINGWALL FOOTING.

THE REQUIREMENTS SHOWN ON THIS DRAWING SHALL SUPERCEDE THE CORRESPONDING REQUIREMENTS ON ALL REINFORCED CONCRETE BOX CULVERT STANDARD DRAWINGS.



NOTE: FOR ALL SKEWED R.C. BOX CULVERTS THE LENGTH "K" OF THE MODIFIED HEADWALL SHALL BE EQUAL TO THE ROADWAY LENGTH "RL". THE ENDS OF THE HEADWALL SHALL BE CONSTRUCTED PARALLEL TO THE SKEW ANGLE OF THE BOX CULVERT.

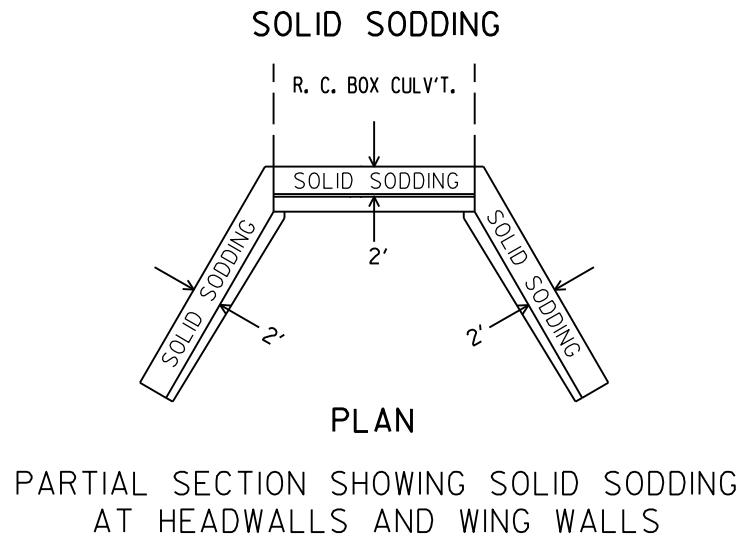
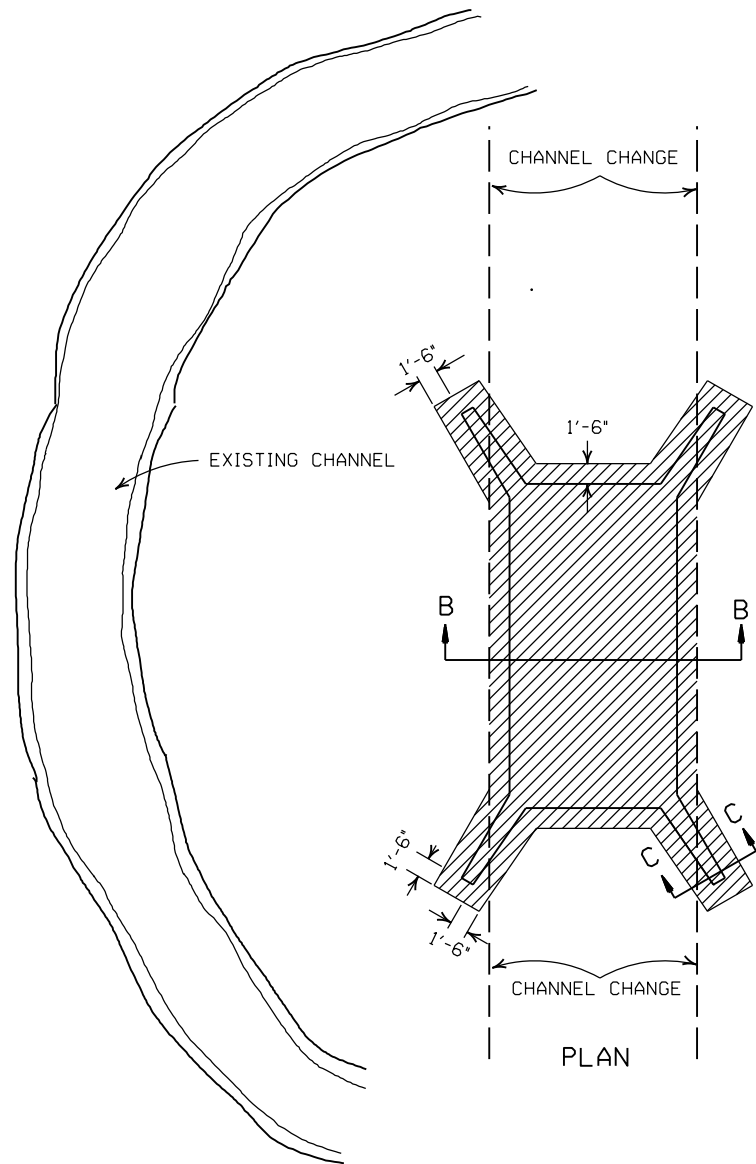
R.C. BOX CULVERT HEADWALL MODIFICATIONS

DATE	REVISION	DATE FILMED
7/26/12	REV. DRAINAGE FILL MATERIAL & DETAIL	
12/15/11	REQUIRE WEEP HOLES IN BOX CULVERT WALLS	
5-25-06	REV. GEN. NOTES AND DETAILS FOR WEEP HOLES; BAR DIAGRAM	
11-16-01	ADDED WINGWALL DRAINAGE DETAIL/EDITED GEN. NOTES	
10-18-96	REV. ASTM REF. TO AASHTO & ADDED BAR DIAGRAM	
10-12-95	MOVED SOLID SODDING DETAIL TO RCB-2	
6-2-94	ADDED SOLID SODDING PLAN DETAIL	
8-5-93	REVISED PIN DIAMETER TO SPECS.	
8-15-91	DRAWN AND ISSUED	

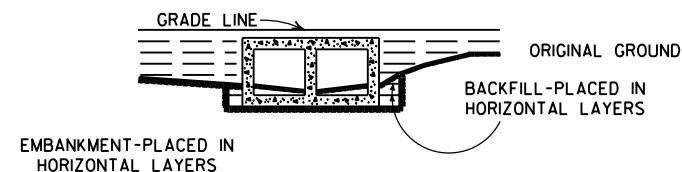
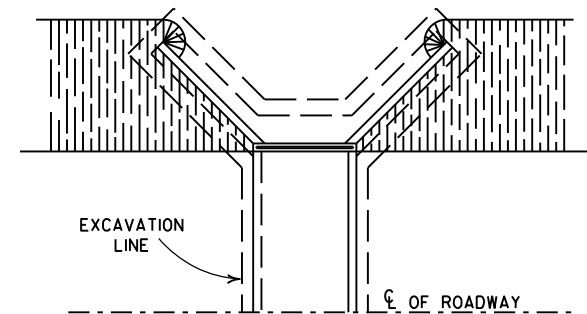
ARKANSAS STATE HIGHWAY COMMISSION

REINFORCED CONCRETE BOX
CULVERT DETAILS

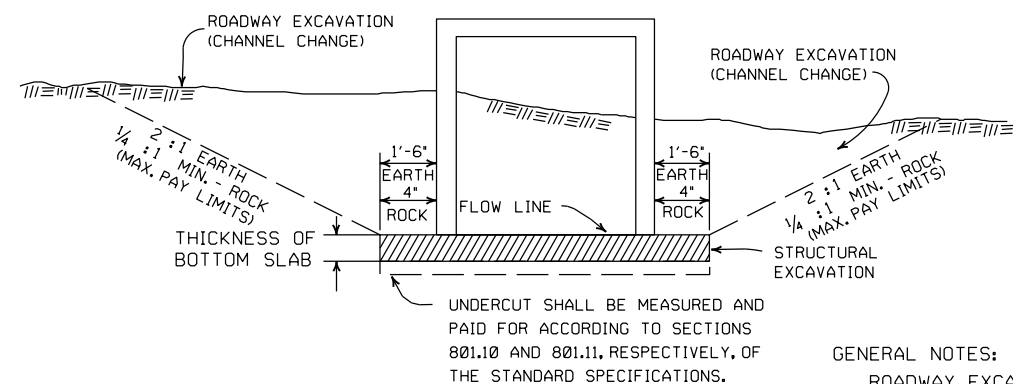
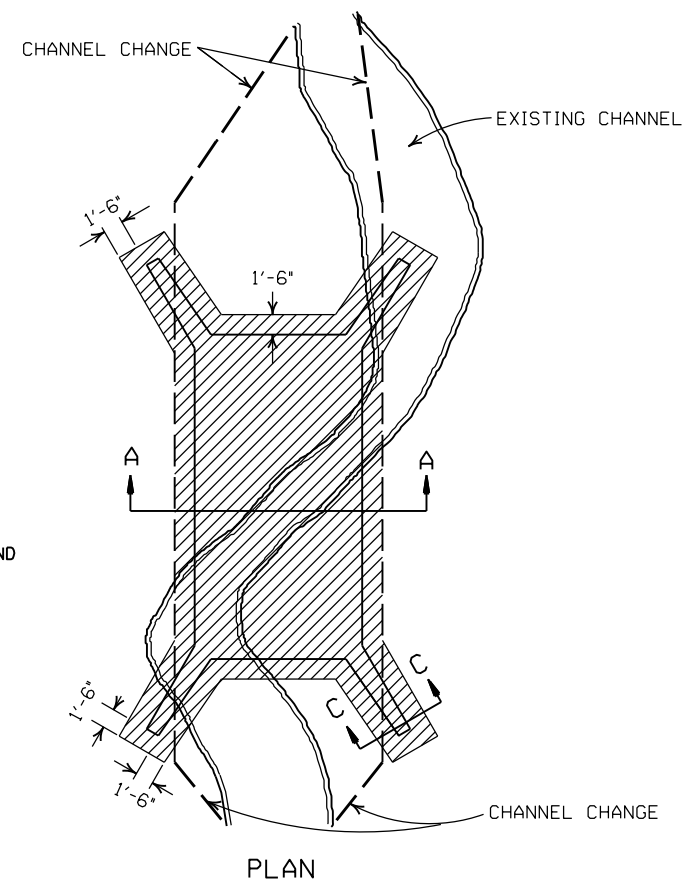
STANDARD DRAWING RCB-1



NOTE: LENGTH MEASURED ALONG THE CENTER OF 2' STRIP OF SOLID SODDING.



BACKFILL DETAILS FOR BOX CULVERT



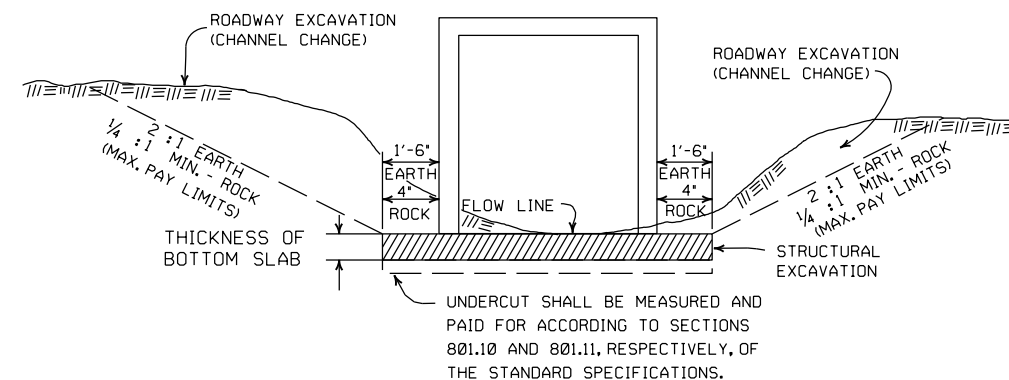
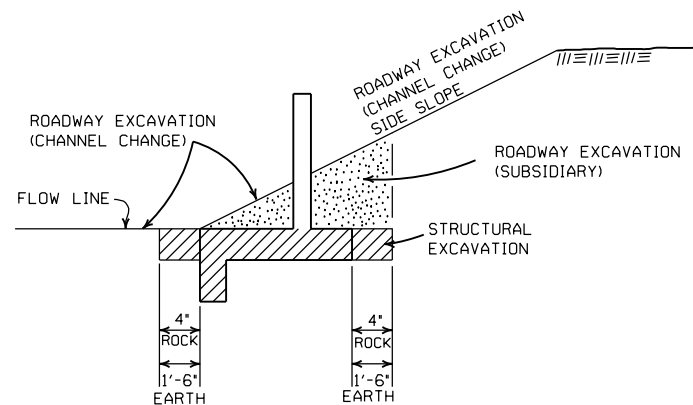
UNDERCUT SHALL BE MEASURED AND PAID FOR ACCORDING TO SECTIONS 801.10 AND 801.11, RESPECTIVELY, OF THE STANDARD SPECIFICATIONS.

GENERAL NOTES:

ROADWAY EXCAVATION (CHANNEL CHANGE) WILL BE PAID FOR AT R.C. BOX CULVERT LOCATIONS. IT WILL BE PAID TO THE LIMITS ACTUALLY CUT AND WILL BE CONFINED TO THAT PORTION OF THE INDICATED AREA THAT IS ABOVE THE FLOW LINE. ROADWAY EXCAVATION (CHANNEL CHANGE) SHALL BE MEASURED BY CROSS SECTIONS AND VOLUMES COMPUTED BY AVERAGE END AREA METHOD. ALL CHANNEL CHANGES SHALL BE BROUGHT TO GRADE PRIOR TO MAKING ANY EXCAVATION FOR STRUCTURES.

EXCAVATION FOR STRUCTURES WILL BE PAID FOR AT ALL R.C. BOX CULVERT LOCATIONS. IT WILL BE PAID TO THE LIMITS SHOWN AND SHALL BE CONFINED TO THAT PORTION OF THE INDICATED AREA THAT IS BELOW THE CHANNEL FLOW LINE.

ROADWAY EXCAVATION SHOWN IN SECTION C-C ABOVE AS SUBSIDIARY WILL NOT BE MEASURED OR PAID FOR DIRECTLY, BUT PAYMENT WILL BE CONSIDERED TO BE INCLUDED IN THE VARIOUS ITEMS OF EXCAVATION.



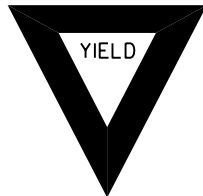
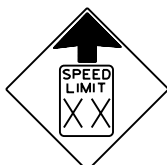
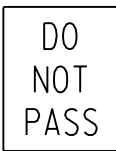
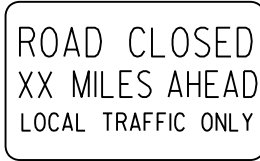
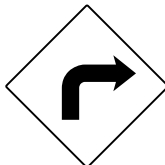
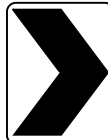
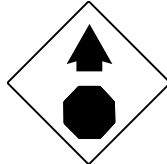
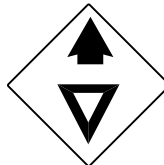
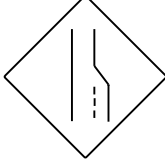
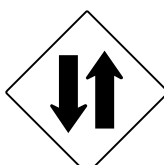
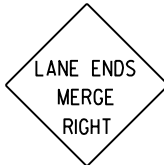
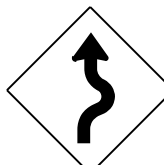
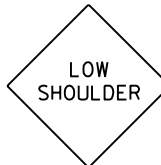
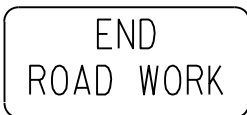
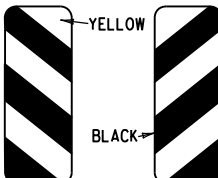
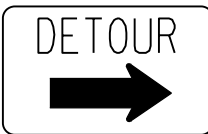
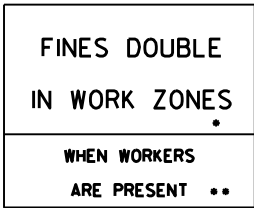
DETAILS THROUGH EXISTING CHANNELS

DATE	REVISION	FILMED
11-20-03	REVISED SECTION A-A NOTE	
8-22-02	REVISED SECTION B-B NOTE	
10-12-95	COMBINED 1891B AND 1888A	
1-4-83	REVISED GENERAL NOTES AND ADDED MAXIMUM PAY LIMIT NOTES.	674-1-4-83
2-2-76	EXCAV. PAY LIMITS	917-2-2-76
10-2-72	REVISED AND REDRAWN	564-10-16-72

ARKANSAS STATE HIGHWAY COMMISSION

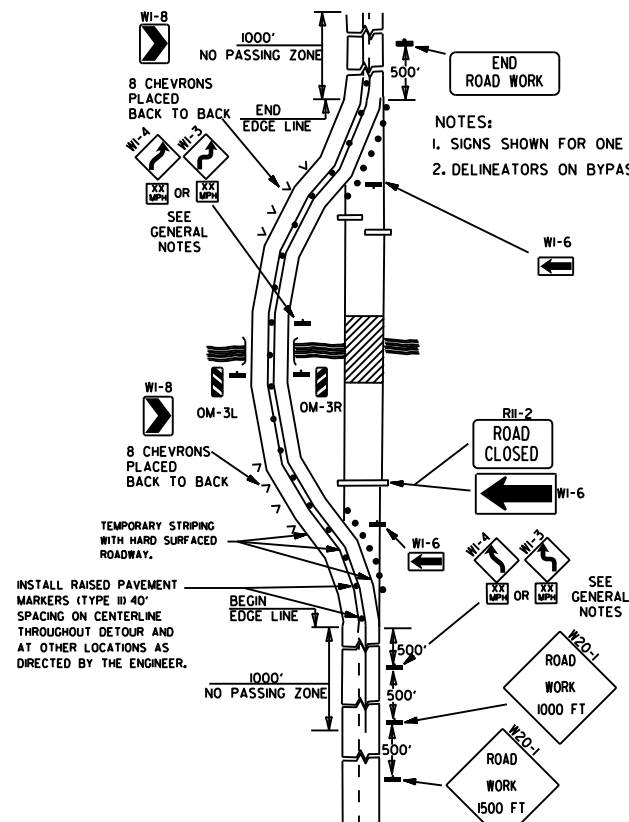
EXCAVATION PAY LIMITS, BACKFILL, & SOLID SODDING FOR BOX CULVERTS

STANDARD DRAWING RCB-2

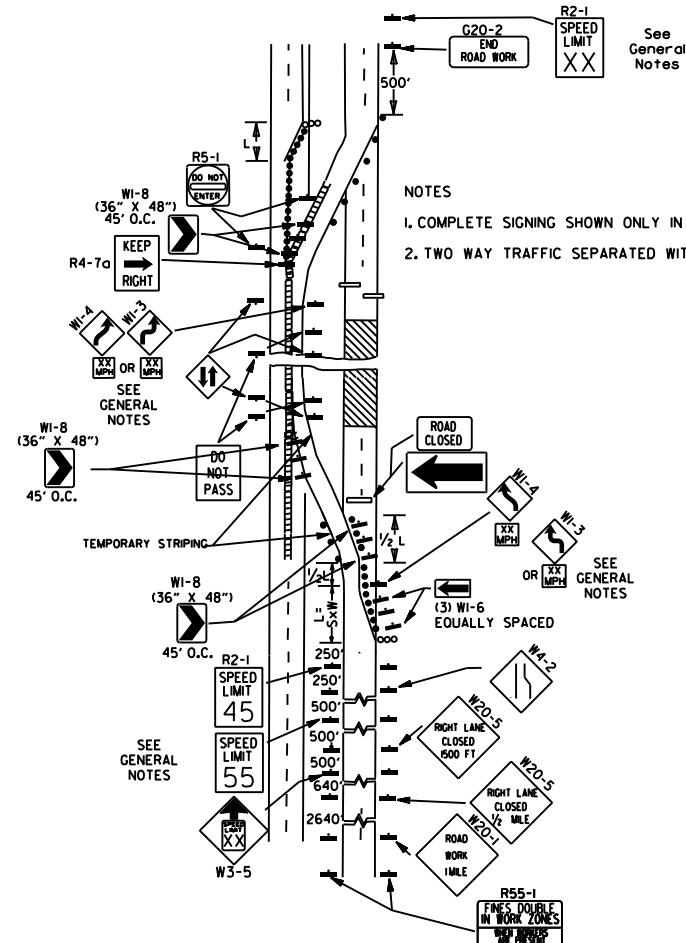
RI-I  STANDARD 30"x30" EXPRESSWAY 36"x36" SPECIAL 48"x48"	RI-2  STD. 36"x36"x36" EXPWY. 48"x48"x48" FWY. 60"x60"x60"	R2-I  STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"	W3-5  STD. 36"x36" EXPWY. 48"x48" FWY. 48"x48"	W3-5a  STD. 36"x36" EXPWY. 48"x48" FWY. 48"x48"	R4-I  STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"	R4-2  STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"	ADVANCE DISTANCES (XXXX) 500 FT 1/2 MILE 1000 FT 3/4 MILE 1500 FT 1 MILE AHEAD GENERAL NOTES: 1. 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. 2. 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. 3. 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. 4. 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. 5. 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. 6. 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. 7. 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. 8. FLAGGERS SHALL USE REFLECTORIZED STOP-SLOW PADDLES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS. 9. 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. 10. 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.
R5-I  STD. 30"x30" EXPWY. 36"x36" SPECIAL 48"x48"	R1I-2  48"x30"	R1I-3A  60"x30"	R1I-4  60"x30"	W2I-5a  STD. 36"x36" FWY. 48"x48"	W1-I  STD. 36"x36" FWY. 48"x48"	W1-2  STD. 36"x36" FWY. 48"x48"	
W1-3  STD. 48"x48"	W1-4  STD. 48"x48"	W1-6  STD. 48"x24" SPECIAL 60"x30"	W1-8  STD. 18"x24" SPECIAL 24"x30" EXPWY. 30"x36" FWY. 36"x48"	W3-I  STD. 36"x36" SPECIAL 48"x48"	W3-2  STD. 36"x36" SPECIAL 48"x48"	W4-2  STD. 36"x36" FWY. 48"x48"	
W5-I  STD. 36"x36" SPECIAL 48"x48"	W6-3  EXPWY. 36"x36" SPECIAL 48"x48"	W8-7  EXPWY. 36"x36" FWY. 48"x48"	W9-2  STD. 36"x36" FWY. 48"x48"	W13-I  STD. 24"x24"	W20-I  STD. 48"x48"	W20-2  STD. 48"x48"	W20-3  STD. 48"x48"
W20-4  STD. 48"x48"	W20-5  STD. 48"x48"	W20-7a  18" 500 FEET 24" W16-2 STD. 36"x36" FWY. 48"x48"	W2I-2  STD. 30"x30" SPECIAL 36"x36"	W2I-5  STD. 30"x30" SPECIAL 36"x36"	W24-I  STD. 36"x36"	W1-4b  STD. 48"x48"	R56-I  STD. 18"x18"
W8-II  STD. 36"x36" FWY. 48"x48"	W8-9  STD. 36"x36" FWY. 48"x48"	G20-I  60"x24"	G20-2  48"x24"	OM-3L OM-3R  12"x36"	M4-9  STD. 30"x24" SPECIAL 48"x36" SPECIAL 60"x48"	M4-10  48"x18"	R55-I  36"x60" • USE 6" C LETTERS •• USE 4" D LETTERS

II-07-19	REVISED FOR MASH	
4-13-17	DELETED RSP-1 & ADDED W2I-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

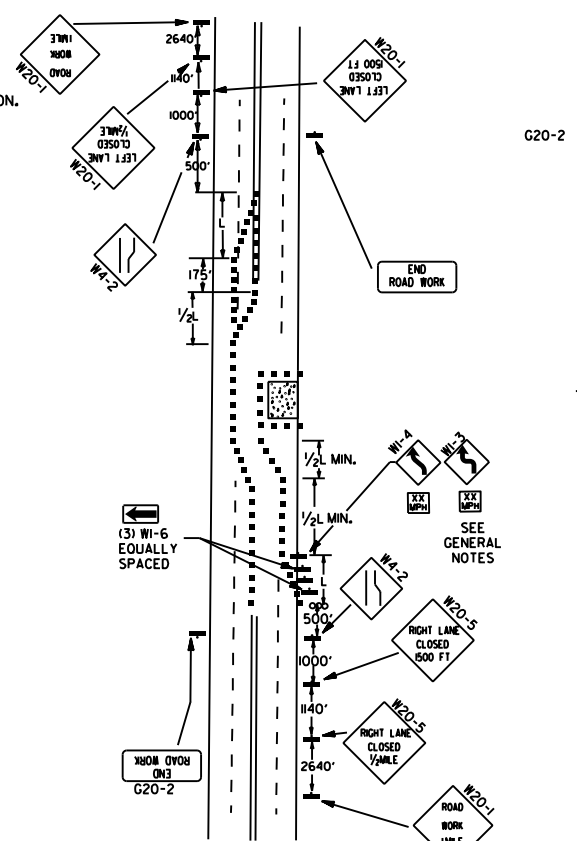
ARKANSAS STATE HIGHWAY COMMISSION
STANDARD TRAFFIC CONTROLS
FOR HIGHWAY CONSTRUCTION
STANDARD DRAWING TC-1



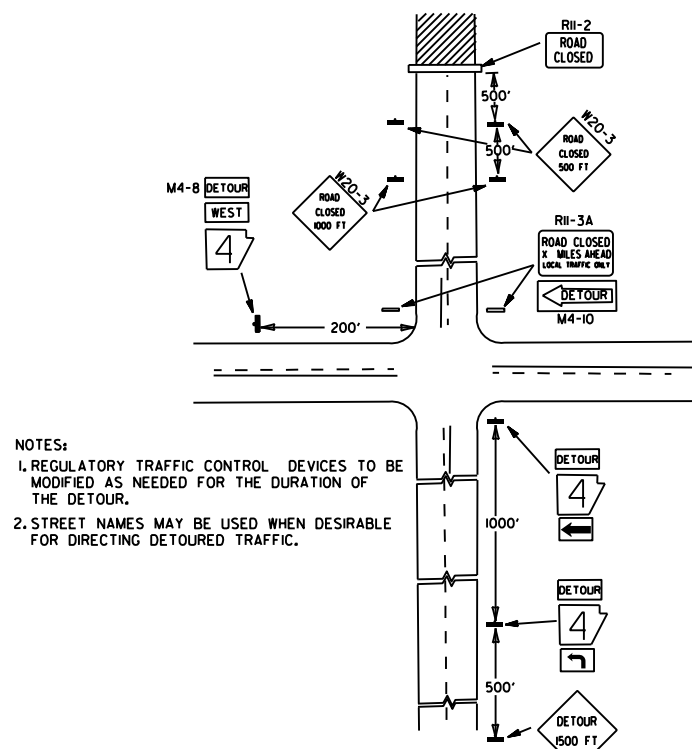
(A) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON A 2-LANE HIGHWAY WHERE THE ENTIRE ROADWAY IS CLOSED AND A BYPASS DETOUR IS PROVIDED.



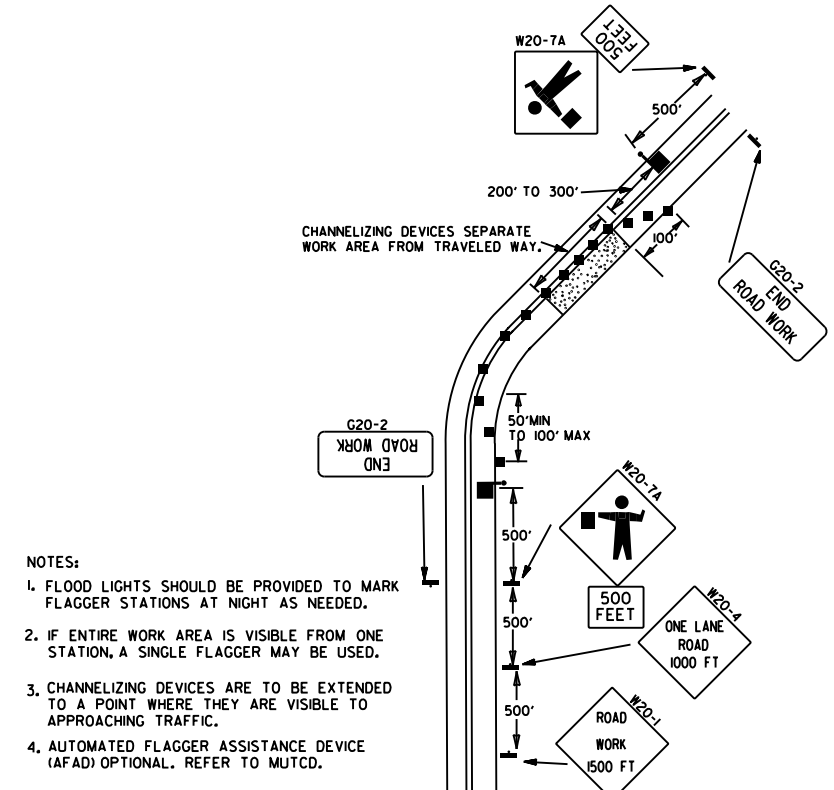
(B) TYPICAL APPLICATION - 4-LANE DIVIDED ROADWAY WHERE ONE ROADWAY IS CLOSED.



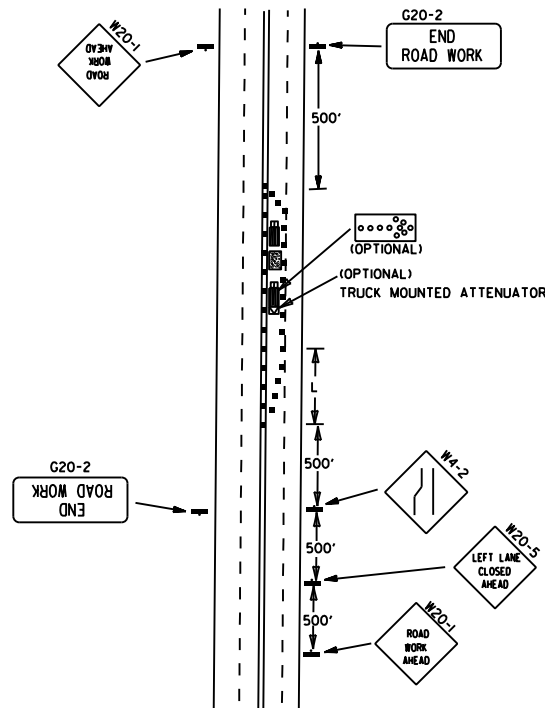
(C) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



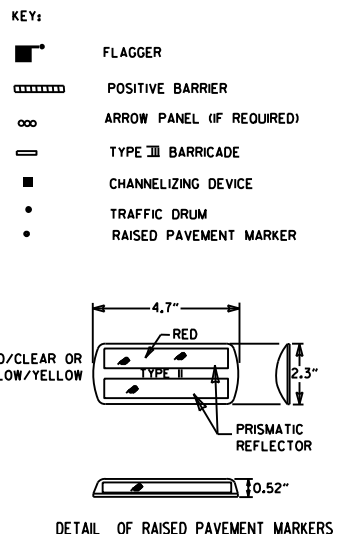
(D) TYPICAL APPLICATION - ROADWAY CLOSED BEYOND DETOUR POINT.



(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.



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:
- 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.
 - WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-1(55) SHALL BE OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-1(45)MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1/2 MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
 - WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-1(65) SHALL BE OMITTED. ADDITIONAL R2-1(55)MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1/2 MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
 - 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.
 - WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
 - PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
 - 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.
 - 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.
 - 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).

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	
DATE	REVISION	FILMED

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

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

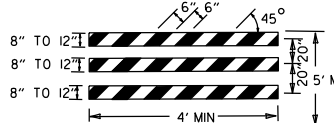
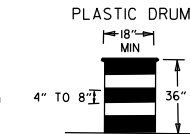
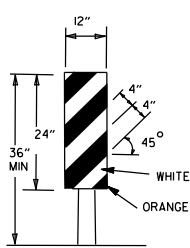
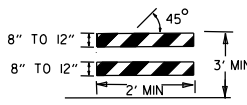
(B) TYPICAL APPLICATION - 3-LANE ONEWAY ROADWAY WHERE CENTER LANE IS CLOSED.

CHANNELIZING DEVICES



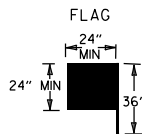
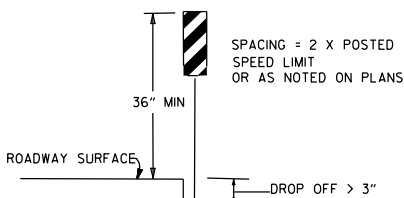
• WHEN CONES ARE USED ON FREEWAYS AND MULTI-LANE HIGHWAYS, THEY SHALL BE 28" MIN. DURING HOURS OF DARKNESS, 28" CONES SHALL BE USED ON ALL ROADWAYS, AND SHALL BE REFLECTORIZED IN ACCORDANCE WITH THE M.U.T.C.D.

CONES



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:

- A SPEED LIMIT REDUCTION MAY BE IMPLEMENTED ONLY WHEN DESIGNATED IN THE PLAN OR WHEN RECOMMENDED BY THE ROADWAY DESIGN DIVISION.
- WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-(55) 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-(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
- WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-(65) 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-(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
- 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.
- WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
- PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
- 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.
- FLAGGERS SHALL USE STOP/SLOW PADDLES FOR CONTROLLING TRAFFIC THROUGH WORK ZONES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.
- ALL PLASTIC DRUMS AND CONES SHALL MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
- 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.
- 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).

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

TRAFFIC CONTROL DEVICES

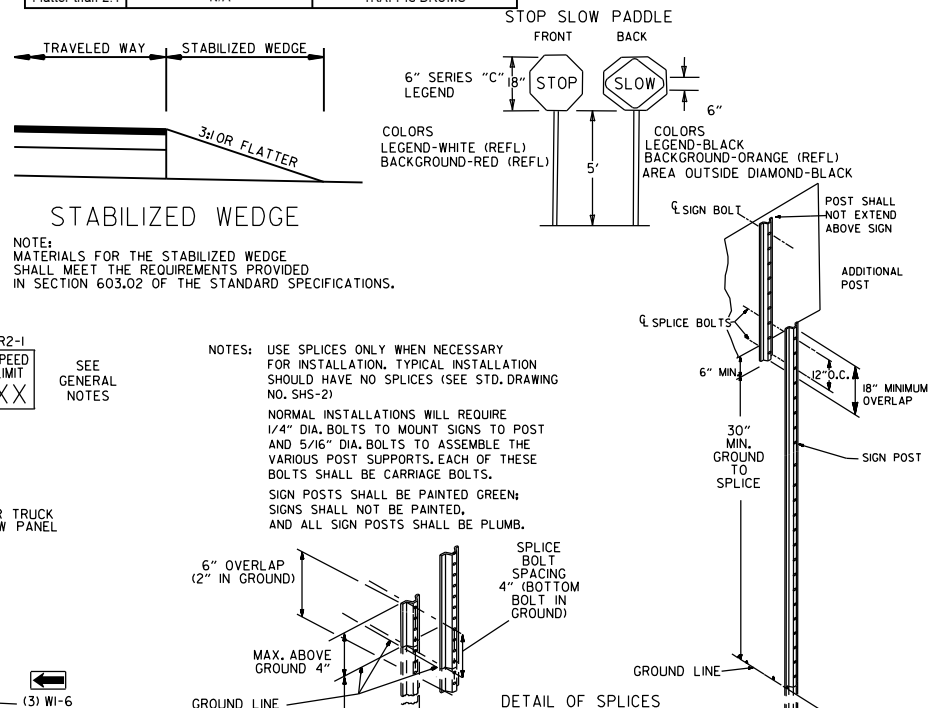
VERTICAL DIFFERENTIAL	LOCATION	TRAFFIC CONTROL	
		≤ 45 MPH	> 45 MPH
≤ 1"	CENTERLINE	W8-11	W8-11
> 1"	CENTERLINE	W8-11 AND CENTERLINE LANE STRIPING	W8-11 AND CENTERLINE LANE STRIPING
≤ 3"	CENTERLINE	STANDARD LANE CLOSURE ⁽⁶⁾	STANDARD LANE CLOSURE ⁽⁶⁾
> 3"	CENTERLINE	STANDARD LANE CLOSURE ⁽⁶⁾	STANDARD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

VERTICAL DIFFERENTIAL	LOCATION	TRAFFIC CONTROL	
		≤ 45 MPH	> 45 MPH
≤ 3"	CENTERLINE	W8-11 AND LANE STRIPING	W8-11 AND LANE STRIPING
≤ 3"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-9, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽²⁾	W8-9, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽²⁾
> 3"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽²⁾	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽²⁾
> 6"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	PRECAST CONCRETE BARRIER & EDGE LINES	PRECAST CONCRETE BARRIER & EDGE LINES

FORESLOPE	HEIGHT	TRAFFIC CONTROL	
		≤ 45 MPH	> 45 MPH
1:1	> 2 FT	PRECAST CONCRETE BARRIER	PRECAST CONCRETE BARRIER
2:1	≤ 5 FT	TRAFFIC DRUMS	TRAFFIC DRUMS
2:1	> 5 FT	PRECAST CONCRETE BARRIER	PRECAST CONCRETE BARRIER
Flatter than 2:1	N/A	TRAFFIC DRUMS	TRAFFIC DRUMS

GENERAL NOTES:

- 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.
- 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.
- 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.
- W21-5, W21-5a, 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).



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 11	
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 W6-18 & 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
STANDARD TRAFFIC CONTROLS
FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-3

3/8"

3" DIA. PLATE 3/8" THICK

BAR 1 1/4" DIA. x 26" LONG

CONNECTING PIN

3/4" DIA. STEEL BAR

1 1/2" x 4" GROOVE

END OF UNIT

1/4"

5/8"

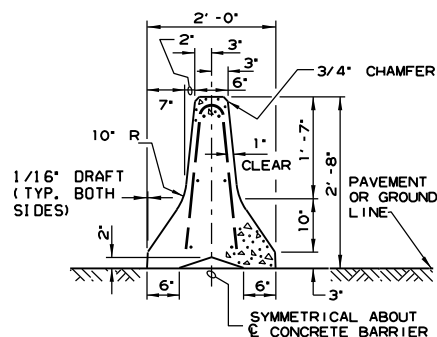
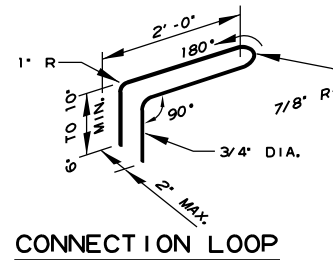
2 3/8"

R=1 1/4"

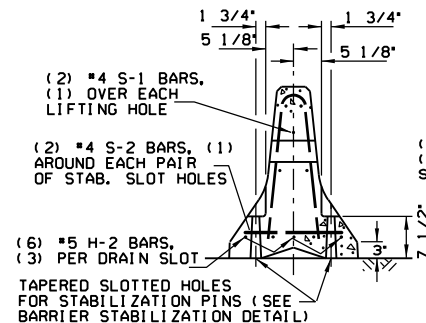
R=7/8"

SECTION E-E

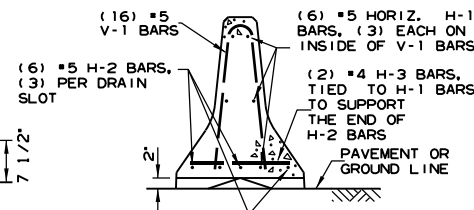
CONNECTION DETAILS



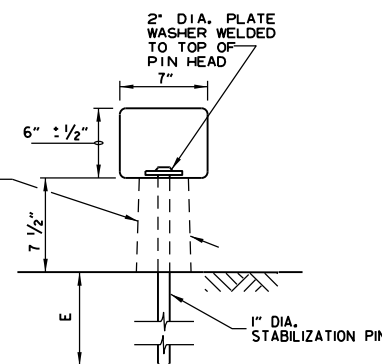
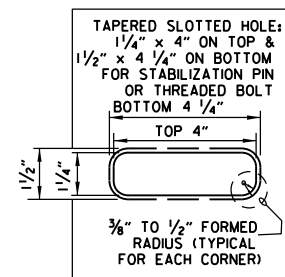
SECTION A-A



SECTION B-B



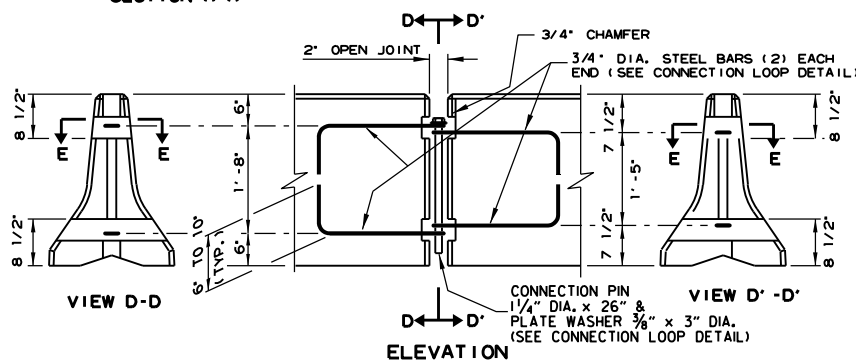
SECTION C-C



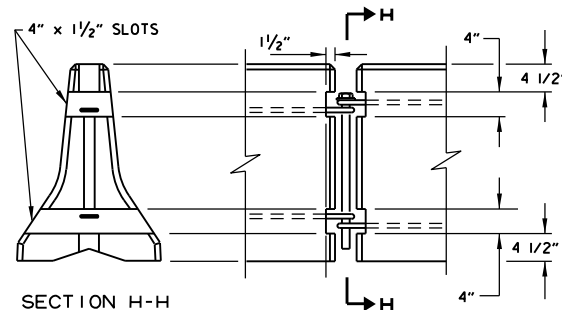
BARRIER STABILIZATION DETAIL

ROADWAY SECTION

(E) 4" - CONCRETE PAVEMENT
8" - ASPHALT PAVEMENT
12" - SHOULDER AREAS



ELEVATION

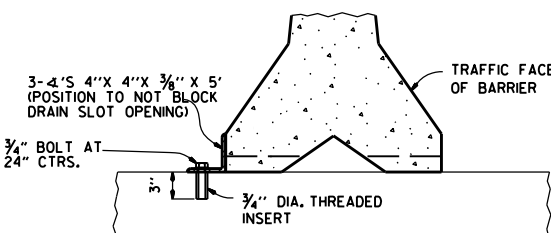


SECTION H-H

ELEVATION

BARRIER REMOVAL SLOT DETAILS

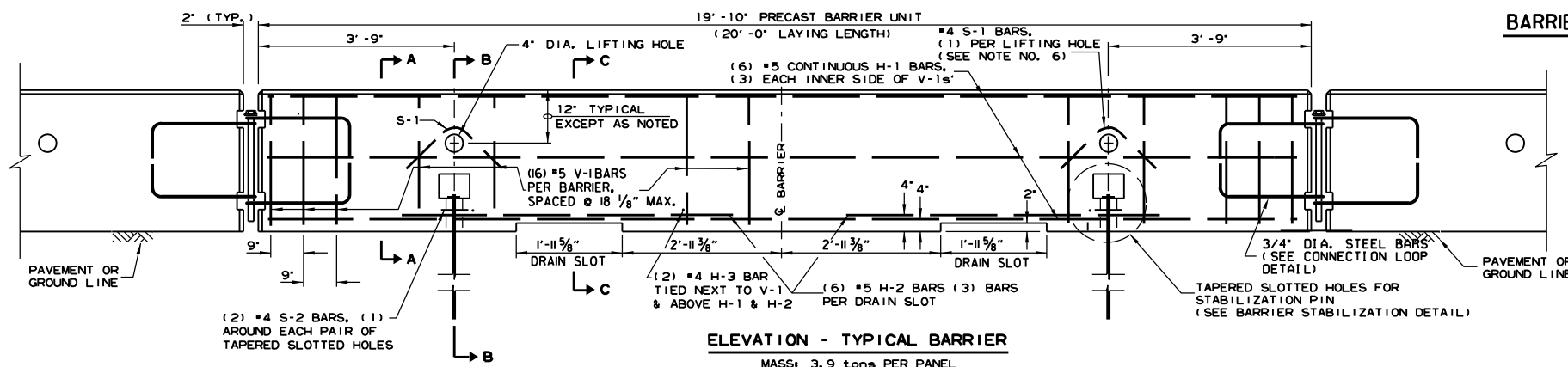
4"



NOTE: " THREADED INSERTS SHALL BE CAST IN PLACE FOR ALL NEW BRIDGE DECKS AND DRILLED AND GROUTED FOR EXISTING BRIDGE DECKS. INSERTS SHALL HAVE A MINIMUM ULTIMATE LOAD CAPACITY OF 8000 LBS. IN TENSION. AFTER REMOVAL OF BARRIER, BOLTS, AND ANGLES, THE INSERTS SHALL BE FILLED WITH APPROVED NON-SHRINK EPOXY.

BARRIER STABILIZATION DETAIL

BRIDGE DECKS



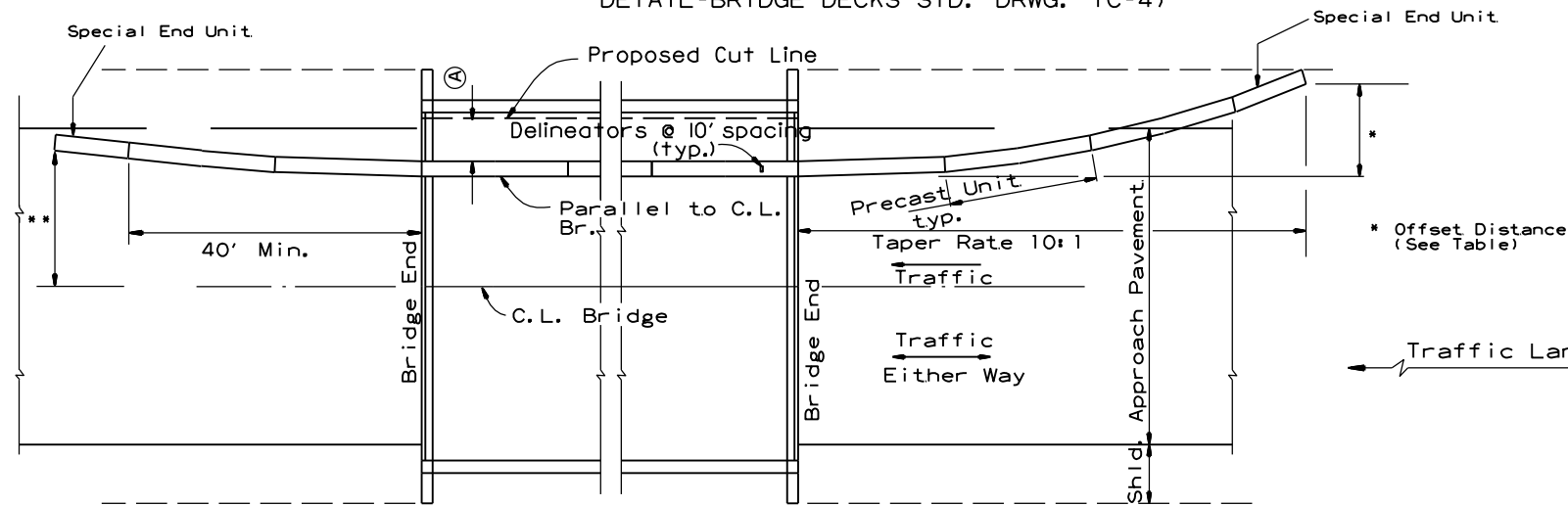
11-07-19	REVISED NOTE 3	
2-27-14	REVISED BARRIER STABILIZATION DETAIL	
10-15-09	ADDED REFERENCE TO MASH	
8-5-09	REV. NOTE 3 CONCERNING DRAIN SLOTS	
11-29-07	REVISED NOTE 3	
5-25-06	DELETED GENERAL NOTE 7	
11-18-04	REVISED BARRIER STABILIZATION DETAIL BRIDGE DECKS	
4-10-03	REVISED GENERAL NOTE 2	
8-22-02	ISSUED NEW DRAWING	
DATE	REVISION	FILE #

ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

STANDARD DRAWING TC-4

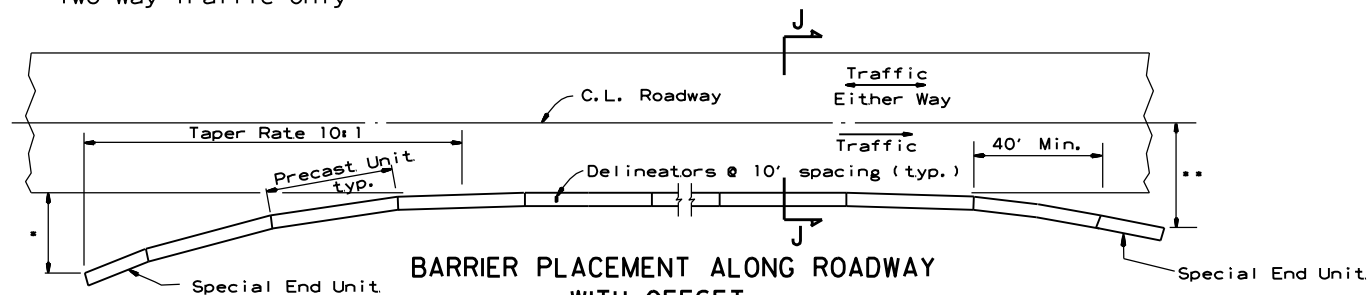
- (A) 4 feet or greater preferred. If less than 4 feet, Precast Units shall be connected to slab (SEE BARRIER STABILIZATION DETAIL-BRIDGE DECKS STD. DRWG. TC-4)



BARRIER PLACEMENT ALONG BRIDGE WITH OFFSET

No Scale

** Offset Distance for Two Way Traffic Only



BARRIER PLACEMENT ALONG ROADWAY WITH OFFSET

No Scale

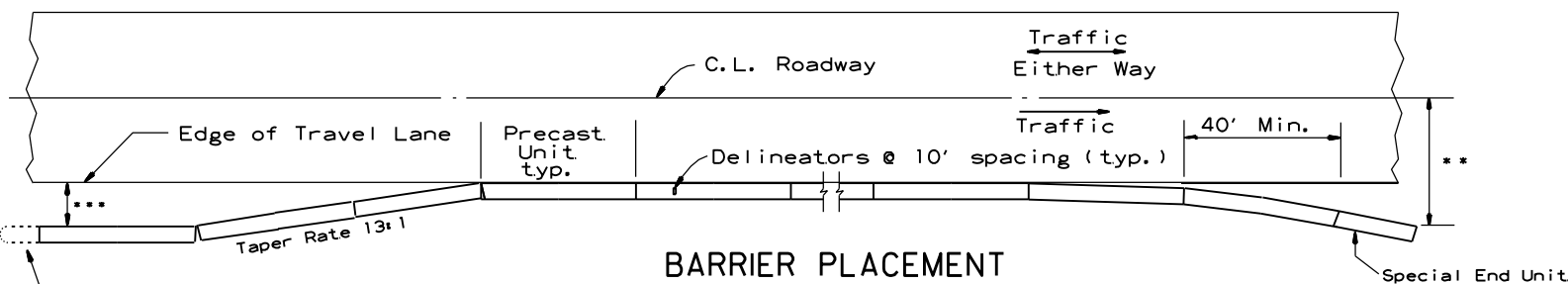
* Offset Distance (See Table)

** Offset Distance For Two Way Traffic Only

Offset Distance Table

Speed (MPH)	Offset Distance (FT.)
≤ 45	12
> 45	18

If offset distance is not attainable, then see "Barrier Placement With Attenuator" Detail shown below.

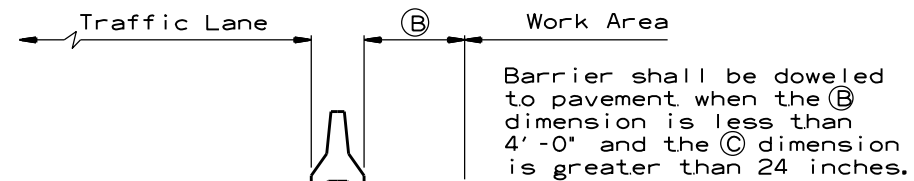


BARRIER PLACEMENT WITH ATTENUATOR

No Scale

** Offset Distance For Two Way Traffic Only

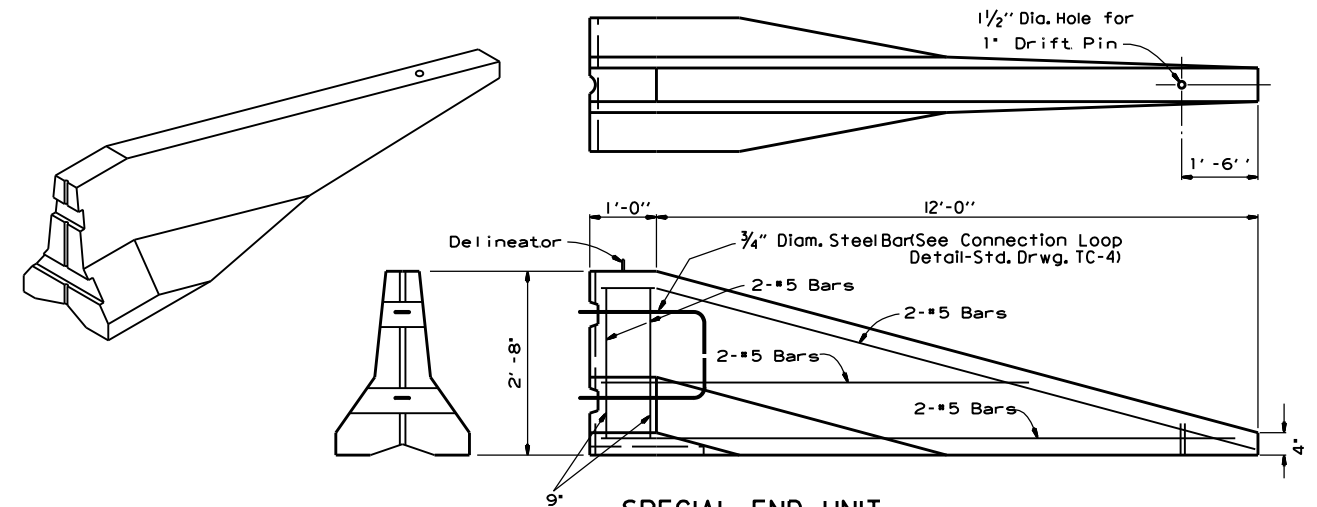
***Min. 3'-0" From Edge of Travel Lane to Nearest Edge of Attenuator



SECTION J-J

No Scale

Barrier shall be doweled to pavement when the B dimension is less than 4'-0" and the C dimension is greater than 24 inches.



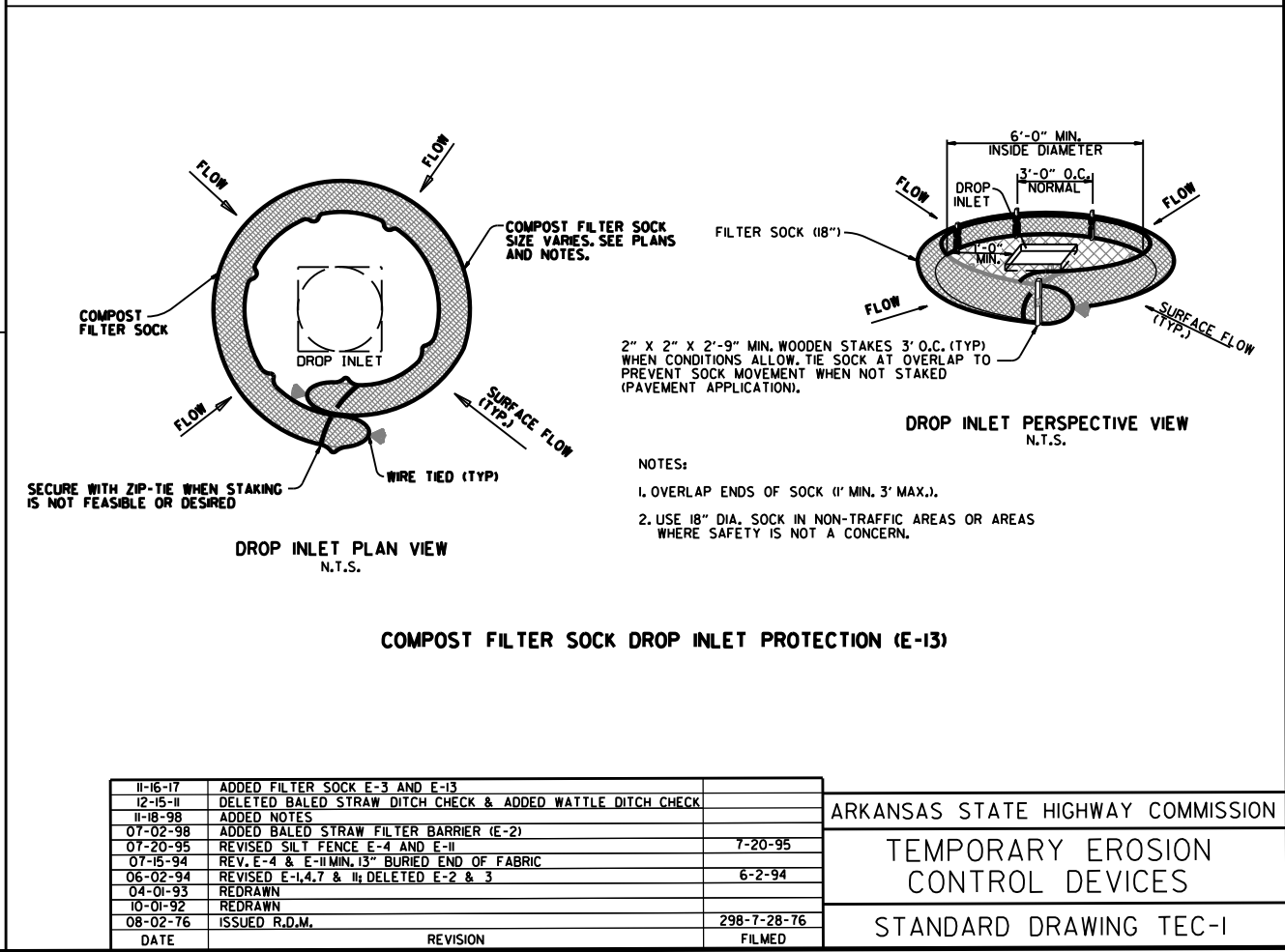
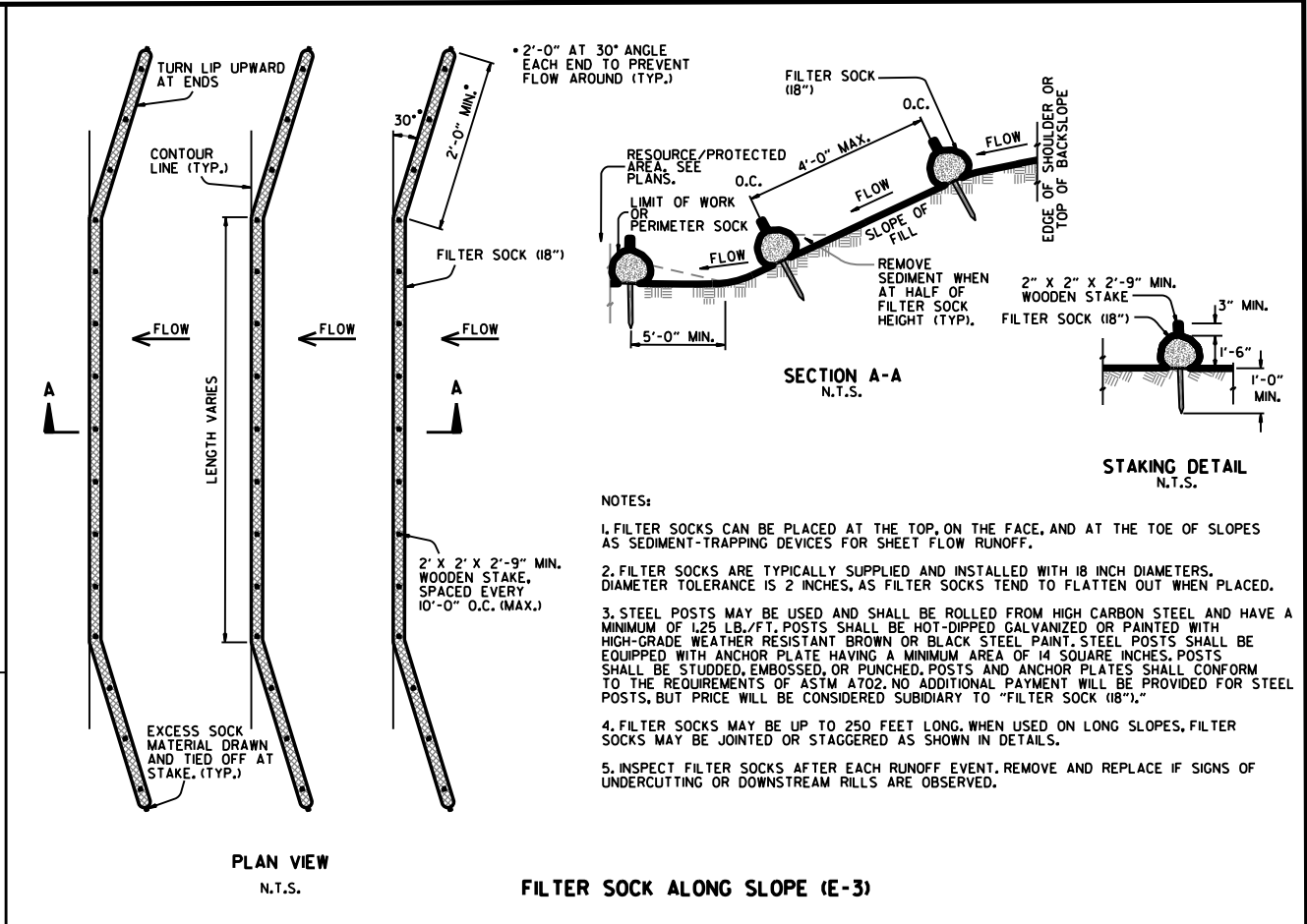
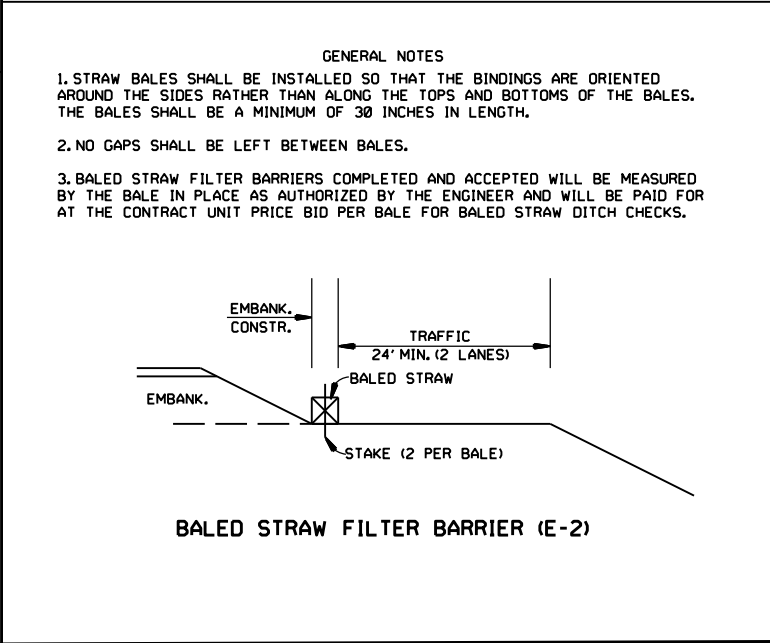
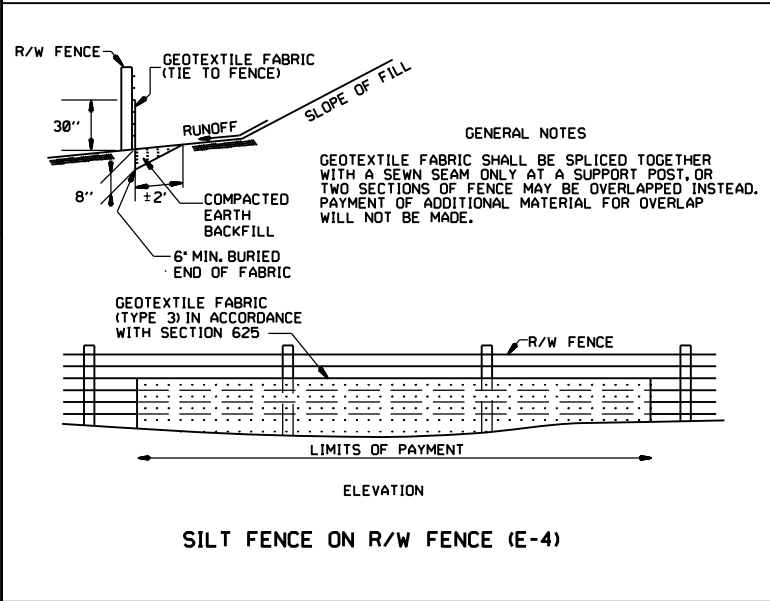
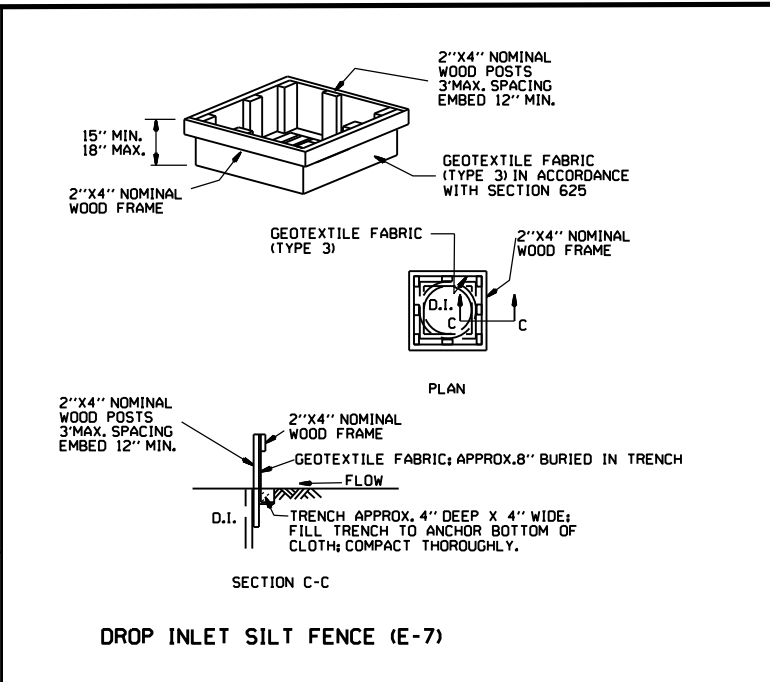
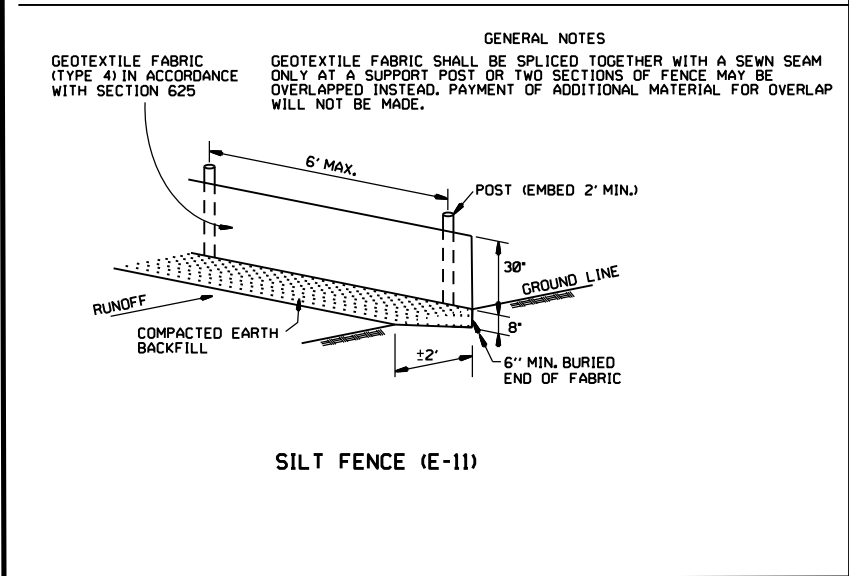
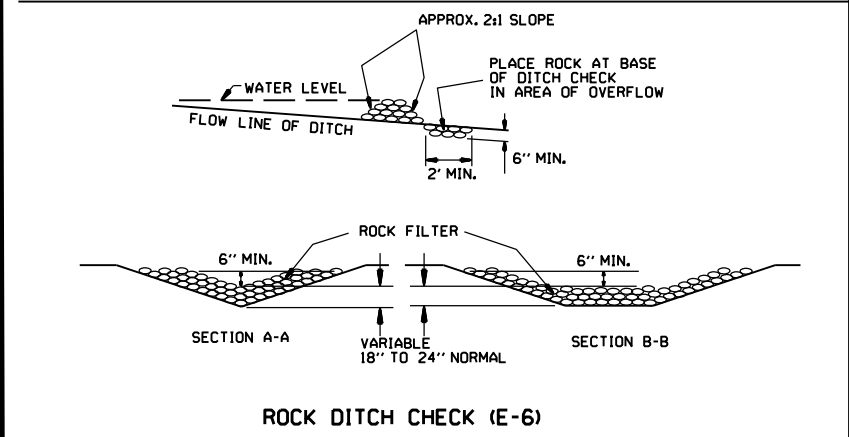
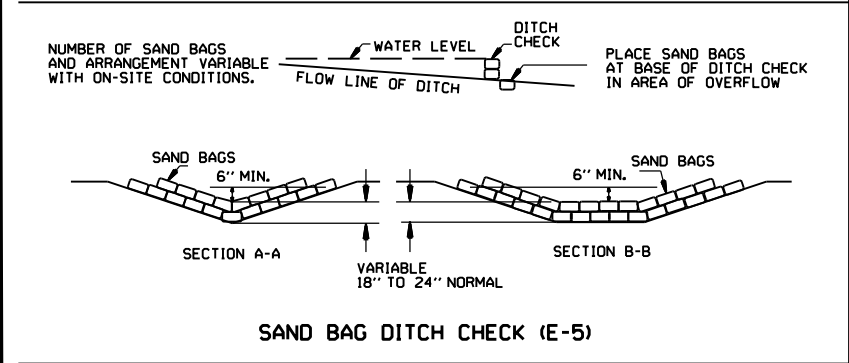
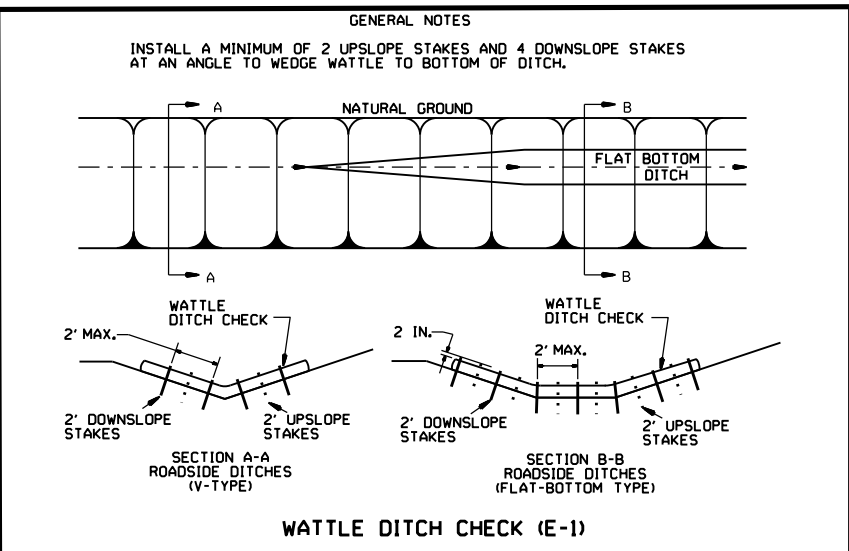
SPECIAL END UNIT

No Scale

General Notes

When shown on the Plans, the ends of the Temporary Precast Concrete Barrier shall be protected with a Manual For Assessing Safety Hardware (MASH) approved Crash Cushion. Payment for Crash Cushions shall be made under the item of "Temporary Impact Attenuation Barrier."

ARIZONA STATE HIGHWAY COMMISSION		
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER		
11-07-19	REVISED NOTE	
10-15-09	ADDED REFERENCE TO MASH	
5-25-06	REVISED BARRIER PLACEMENT	
8-22-02	ISSUED NEW DRAWING	
DATE	REVISION	FILMED
STANDARD DRAWING TC-5		

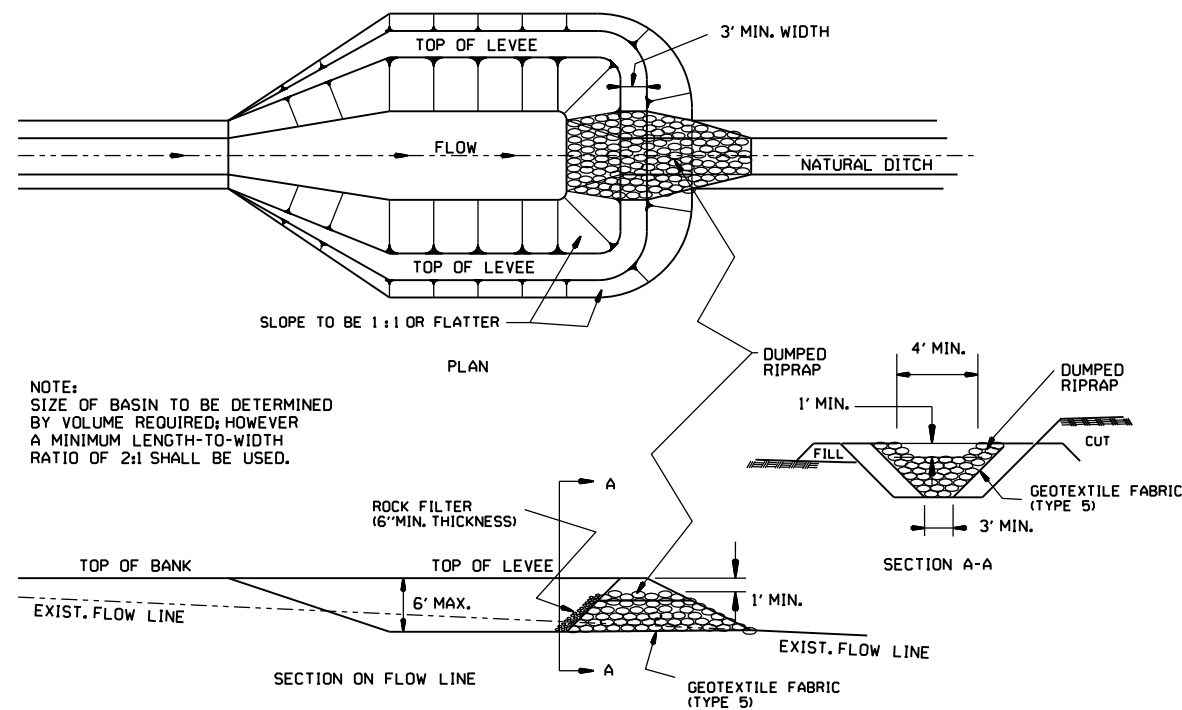


11-16-17	ADDED FILTER SOCK E-3 AND E-13		
12-15-11	DELETED BALED STRAW DITCH CHECK & ADDED WATTLE DITCH CHECK		
11-18-98	ADDED NOTES		
07-02-98	ADDED BALED STRAW FILTER BARRIER (E-2)		
07-20-95	REVISED SILT FENCE E-4 AND E-11	7-20-95	
07-15-94	REV. E-4 & E-11 MIN. 13" BURIED END OF FABRIC		
06-02-94	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	

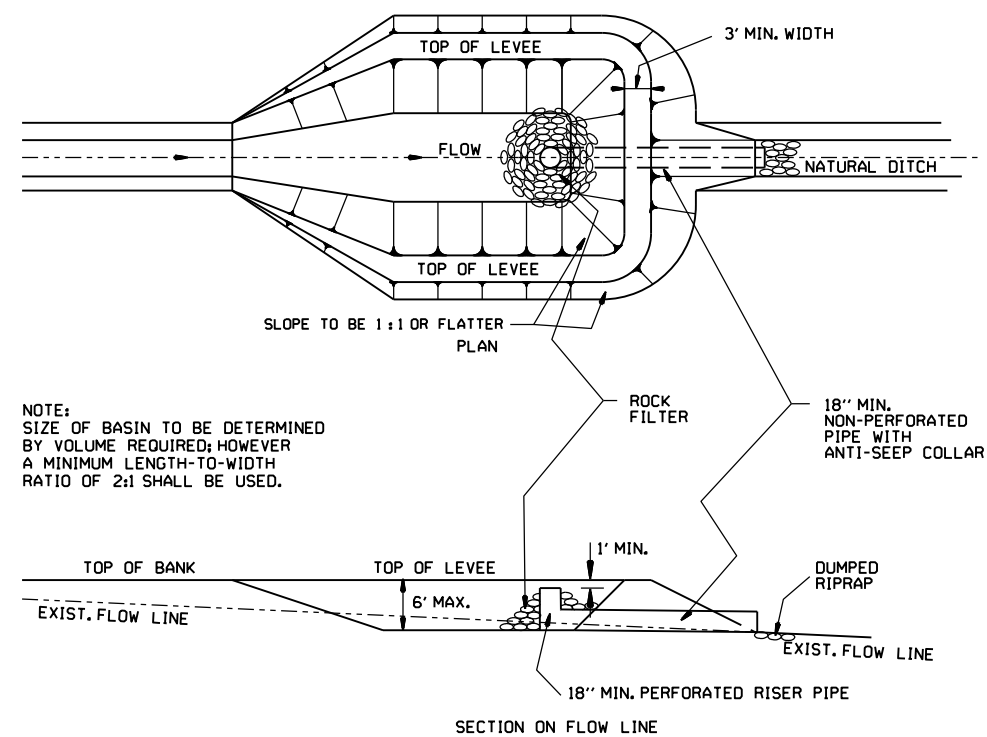
ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

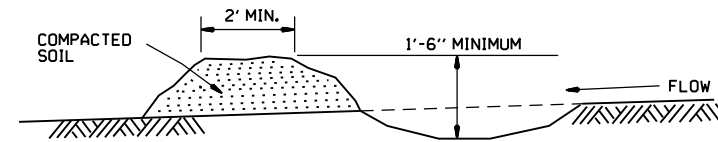
STANDARD DRAWING TEC-1



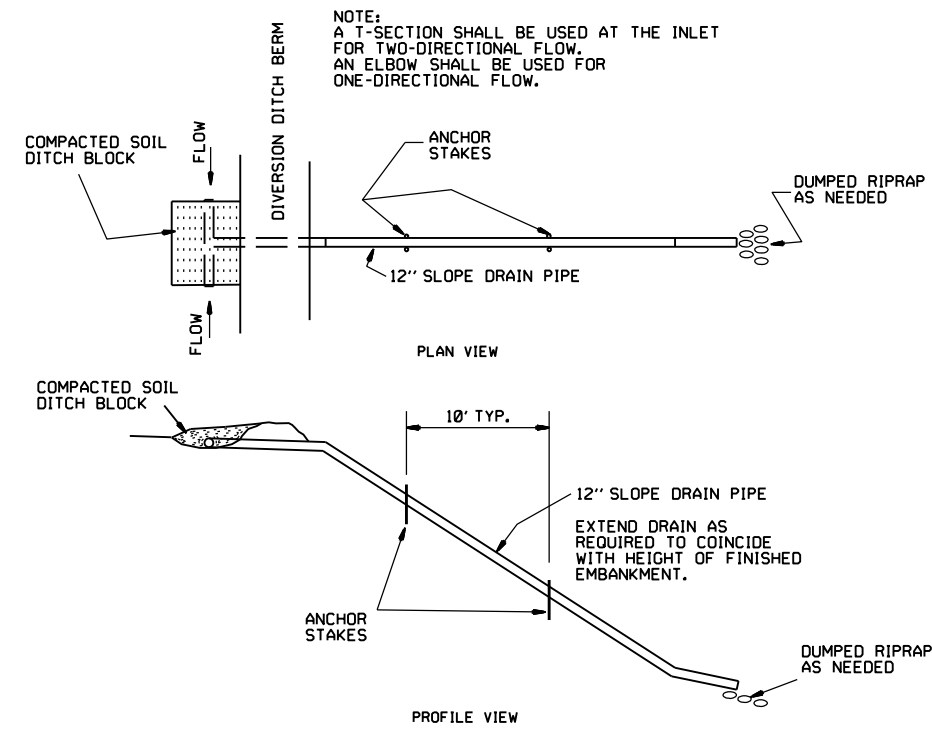
SEDIMENT BASIN WITH RIPRAP OUTLET (E-9)



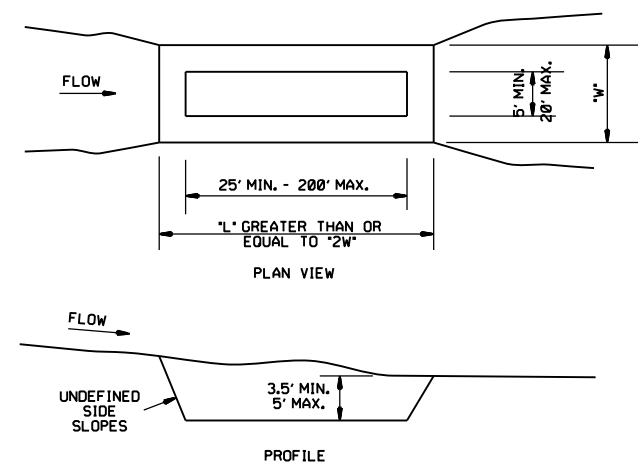
SEDIMENT BASIN WITH PIPE OUTLET (E-10)



DIVERSION DITCH (E-8)



SLOPE DRAIN (E-12)



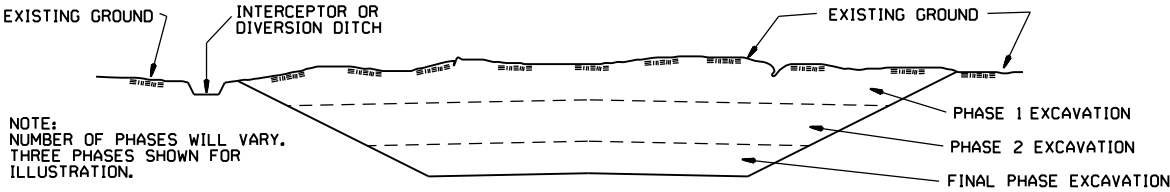
SEDIMENT BASIN (E-14)

			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

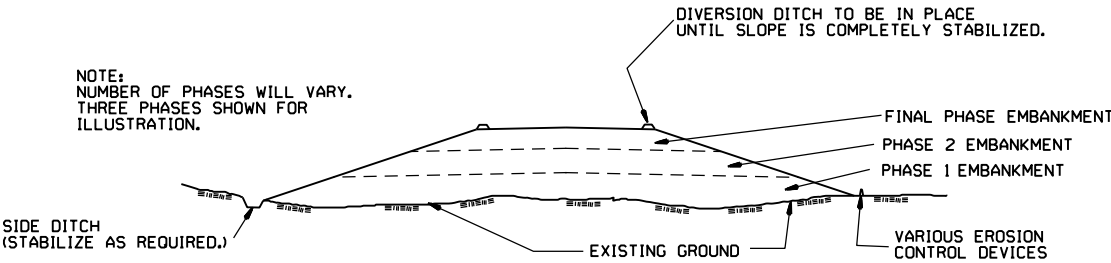


GENERAL NOTE

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

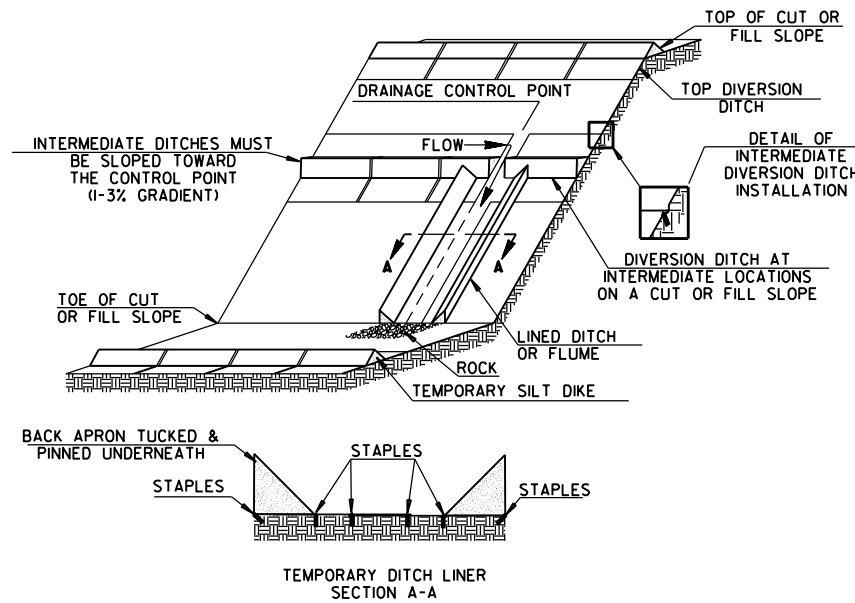


GENERAL NOTE

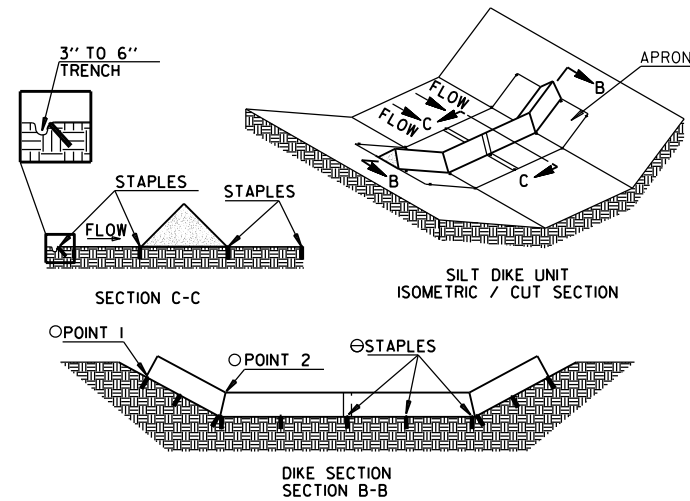
ALL EMBANKMENT SLOPES SHALL BE DRESSED, PREPARED, SEEDED, AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE CONSTRUCTED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

- 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		STANDARD DRAWING TEC-3
6-2-94	Drawn & Issued	6-2-94	
DATE	REVISION	FILMED	

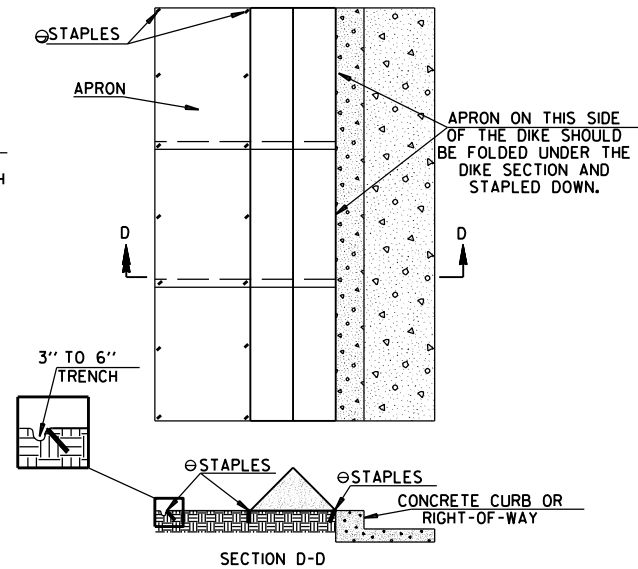


TRIANGULAR SILT DIKE INSTALLATION
FOR
DIVERSION DITCH AND/OR DITCH LINER

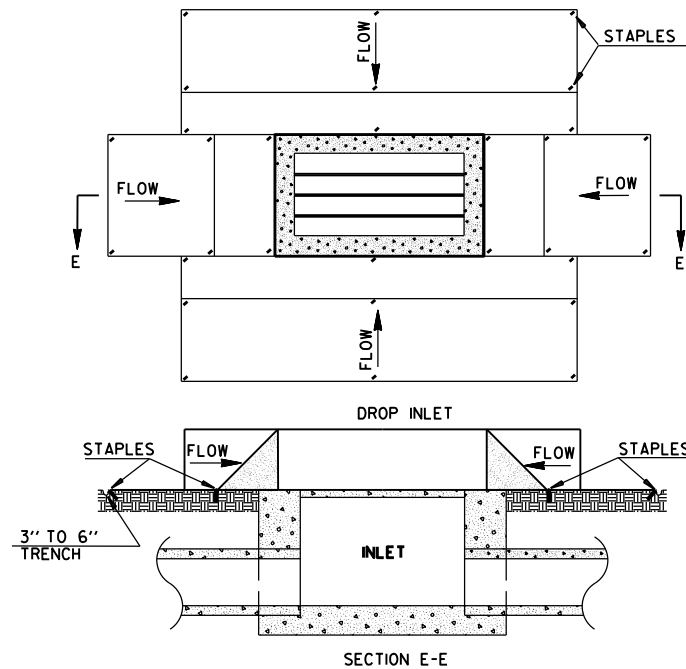


TRIANGULAR SILT DIKE INSTALLATION
FOR
ROADWAY DITCH OR DRAINAGE DITCH

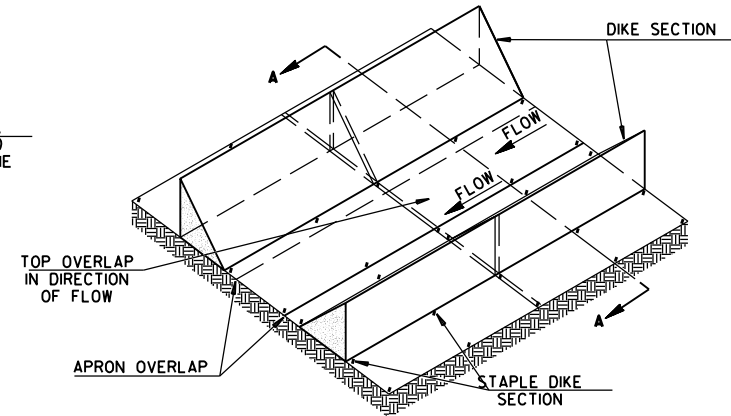
- POINT "1" MUST BE HIGHER THAN POINT "2" TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.
⊗ STAPLES SHALL BE PLACED WHERE THE UNITS OVERLAP AND IN THE CENTER OF THE UNIT AS SHOWN ON THE DIAGRAM.



TRIANGULAR SILT DIKE INSTALLATION
FOR
CONTINUOUS BARRIER



TRIANGULAR SILT DIKE INSTALLATION
FOR
DROP INLETS



TRIANGULAR SILT DIKE INSTALLATION
FOR
TEMPORARY DITCH LINER

GENERAL NOTES

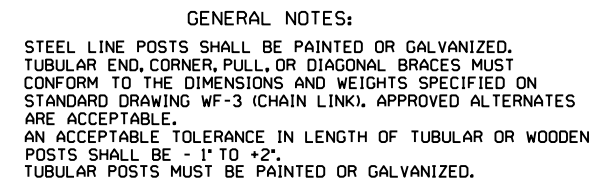
1. THIS WORK SHALL CONSIST OF FURNISHING, INSTALLING, AND MAINTAINING THE TRIANGULAR SILT DIKE. THE DIKES SHALL BE USED AS A CONTINUOUS LINE BARRIER AT THE TOE OF SLOPE OR ACROSS THE ROADWAY DITCH TO CONTAIN SEDIMENT AND MINIMIZE EROSION, OR AS DIRECTED BY THE ENGINEER. THESE DIKES SHALL BE INSTALLED AND LOCATED AS SOON AS CONSTRUCTION WILL ALLOW OR AS DIRECTED BY THE ENGINEER.
2. TRIANGULAR SILT DIKE SHALL BE TRIANGULAR SHAPED HAVING A HEIGHT OF AT LEAST 8" TO 10" IN THE CENTER WITH EQUAL SIDES AND A 16" TO 20" BASE. THE TRIANGULAR SHAPED INNER MATERIAL SHALL BE URETHANE FOAM. THE OUTER COVER SHALL BE A WOVEN GEOTEXTILE FABRIC PLACED AROUND THE INNER MATERIAL & ALLOWED TO EXTEND BEYOND BOTH SIDES OF THE TRIANGLE 24" TO 36". THIS FABRIC SHOULD BE MILDEW RESISTANT, ROT-PROOF AND RESISTANT TO HEAT AND ULTRAVIOLET RADIATION MEETING REQUIREMENTS FOR SEDIMENT CONTROL IN AASHTO M288. THE DIKES SHALL BE ATTACHED TO THE GROUND WITH WIRE STAPLES. THE STAPLES SHALL BE NO. 11 GAUGE WIRE AND BE AT LEAST 6" TO 8" LONG. STAPLES SHALL BE PLACED AS SHOWN ON THESE DETAILS.
3. THE CONTRACTOR SHALL INSPECT ALL DIKES AFTER EACH RAINFALL EVENT OF AT LEAST 0.5" OR GREATER. ANY DEFICIENCIES OR DAMAGE SHALL BE REPAIRED BY THE CONTRACTOR. ACCUMULATED SILT OR DEBRIS SHALL BE REMOVED AND RELOCATED AS DIRECTED BY THE ENGINEER. IF THE DIKES ARE DAMAGED OR INADVERTENTLY MOVED DURING THE SILT REMOVAL PROCESS, THE CONTRACTOR SHALL IMMEDIATELY REPLACE AFTER DAMAGE OCCURS.

SYMBOL
TO BE USED TO DENOTE
DEVICE ON PLANS



NOTE: SILT DIKE SHOULD ONLY BE USED FOR
DROP INLETS IN SUMP LOCATIONS.

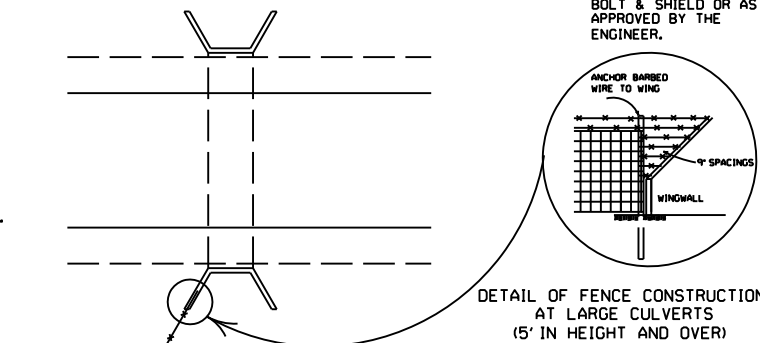
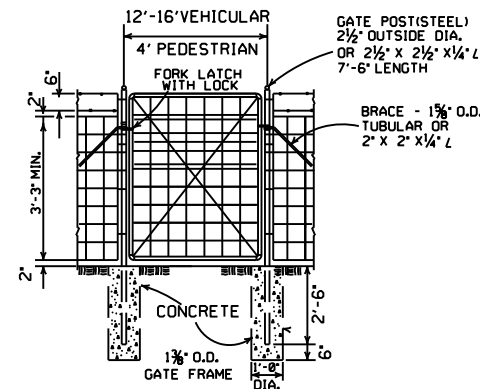
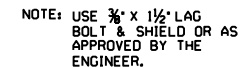
ARKANSAS STATE HIGHWAY COMMISSION		
TEMPORARY EROSION CONTROL DEVICES		
7-26-12 12-15-11 DATE	REVISED GENERAL NOTE 2. ISSUED	REVISION
		FILMED
STANDARD DRAWING TEC-4		



THE CONTRACTOR SHALL FURNISH AT LEAST 25% OF TIMBER LINE POSTS OF 7 FOOT LENGTHS IN ORDER TO PROVIDE SUFFICIENT SET IN SOFT GROUND OR SMALL DEPRESSIONS.

DRIVEWAY GATES, EITHER SINGLE 12' TO 16' OR DOUBLE 6' TO 8' OPENING 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 OF MAINTENANCE EQUIPMENT. LOCATION OF GATES TO BE SHOWN ON PLANS OR AS DESIGNATED BY THE ENGINEER.

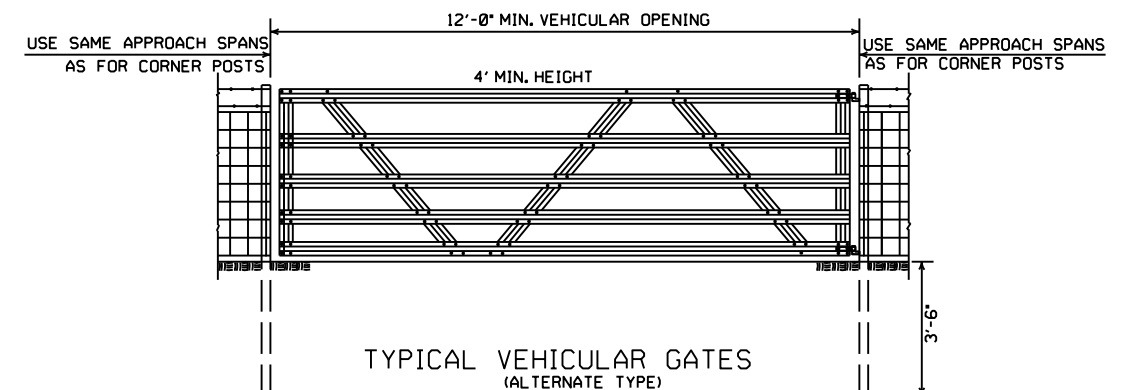
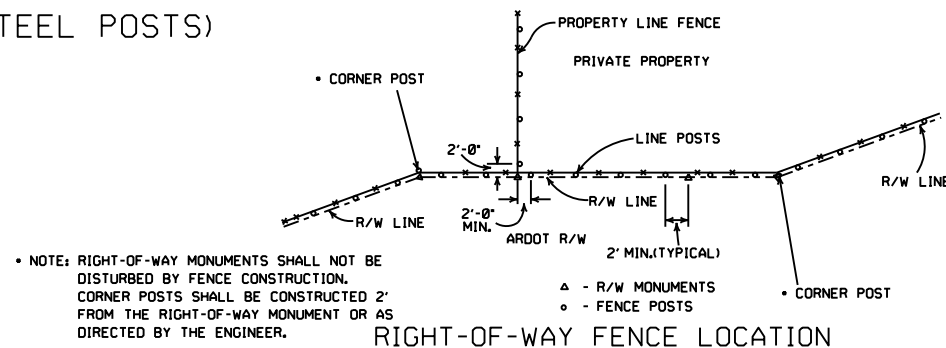
AT STREAM CROSSINGS, THE FENCE SHALL NOT BE CONSTRUCTED ACROSS LARGE STREAMS, WHERE CLEARANCE IS SUFFICIENT FROM THE TOP OF THE BANK TO THE BRIDGE STRUCTURE A CROSS CONNECTION SHALL BE CONSTRUCTED BETWEEN THE FENCE ON EACH SIDE OF THE ROAD, WHERE THE CLEARANCE IS NOT SUFFICIENT, THE FENCE SHALL BE TERMINATED WITH CROSS CONNECTIONS AND END POSTS ADJACENT TO BRIDGE ABUTMENTS OR CULVERT WINGWALLS.



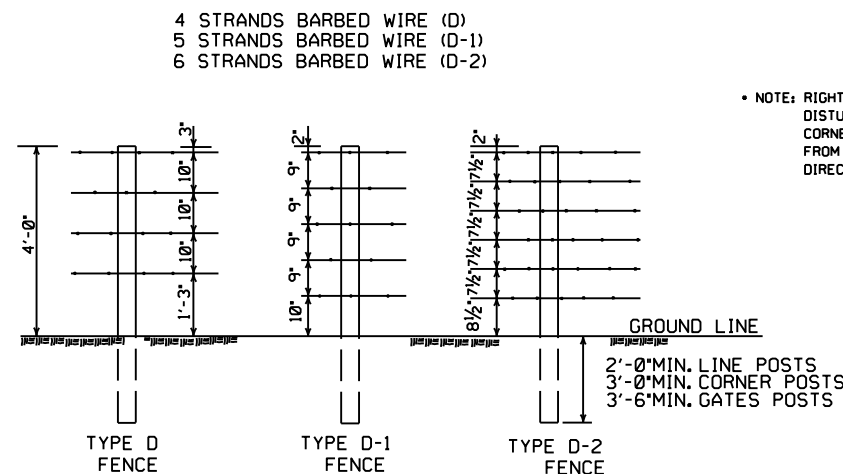
SPlice for BARBED WIRE BETWEEN PULL
POST ASSEMBLY SHALL BE BY THE "EYE
METHOD" AS DESCRIBED AS FOLLOWS:
THE ENDS OF THE BARBED WIRE SHALL BE
BENT TO FORM A LOOP. THE LOOPS SHALL
BE CONNECTED. AFTER THE LOOPS ARE
CONNECTED THE ENDS OF THE WIRE SHALL
BE WRAPPED AROUND THE PROJECTING WIRES
A MINIMUM OF 4 TIMES FOR EACH WIRE
LOOP.

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.

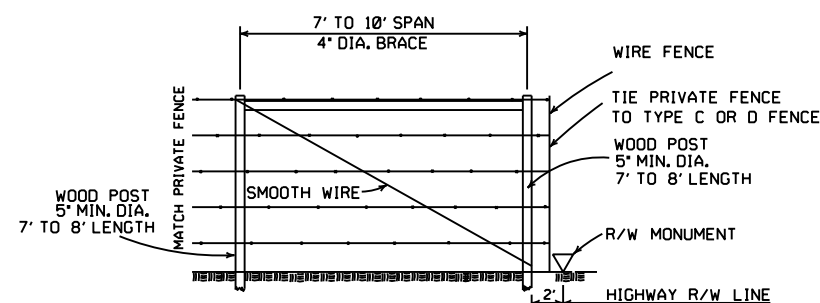
STAPLE AT LEAST TOP,BOTTOM AND ALTERNATE
WIRES OF WOVEN FABRIC FOR WOOD LINE POSTS.



OTHER STYLE VEHICULAR GATES MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
THE METHOD OF SECURING GATE (LATCH AND/OR LOCK) SHALL MEET THE APPROVAL OF THE ENGINEER.



NOTE: SPACING AND SIZE (EXCEPT LENGTH) OF POSTS, APPROACH SPANS, PULL POST ASSEMBLIES, AND CORNER BRACING FOR TYPE D FENCE SHALL CONFORM TO TYPE C FENCE. USE GALVANIZED STAPLES ON WOOD POSTS AND APPROVED FASTENERS ON STEEL POSTS.



PRIVATE FENCE TERMINAL INSTALLATION

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

8-22-02	REVISED GENERAL NOTES	
10-18-96	REVISED AASHTO	
11-22-95	REVISED R-O-W LOCATION DETAIL	
6-2-94	REVISED BARB WIRE AND ADDED CORNER POST NOTES	6-2-94
8-5-93	REVISED R/W INSTALLATION FENCE	8-5-93
10-1-92	ADDED STAPLE NOTE	10-1-92
8-15-91	ADDED TYPE D-2 FENCE	8-15-91
11-30-89	DELETED CLASS CONCRETE	11-30-89
7-15-88	ADDED SPLICE NOTE	700-7-15-88
10-30-87	GENERAL REVISIONS	549-10-30-87
11-1-84	MAX. POST SPACING MIN. WIRE GAUGE	507-11-1-84
1-4-83	MIN. DIA. LINE POST	648-1-4-83
3-2-81	TOLERANCE FOR POST LENGTH	722-3-2-81
12-1-72	ADDED D-1 & FENCE INSTALLATION	564-12-1-72
10-2-72	REVISED AND REDRAWN	540-10-2-72
DATE	REVISION	FILMED

ARKANSAS STATE HIGHWAY COMMISSION

WIRE FENCE
TYPE C AND D

STANDARD DRAWING WF-4