DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	1	150
		I-30 - ALCOA RD. (BENTON) (S)				

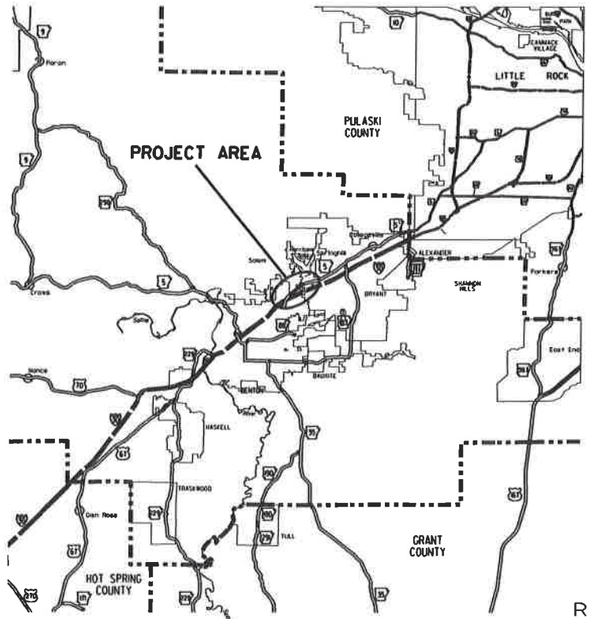
ARKANSAS DEPARTMENT OF TRANSPORTATION
CONSTRUCTION PLANS FOR STATE HIGHWAY

I-30 - ALCOA RD. (BENTON) (S)

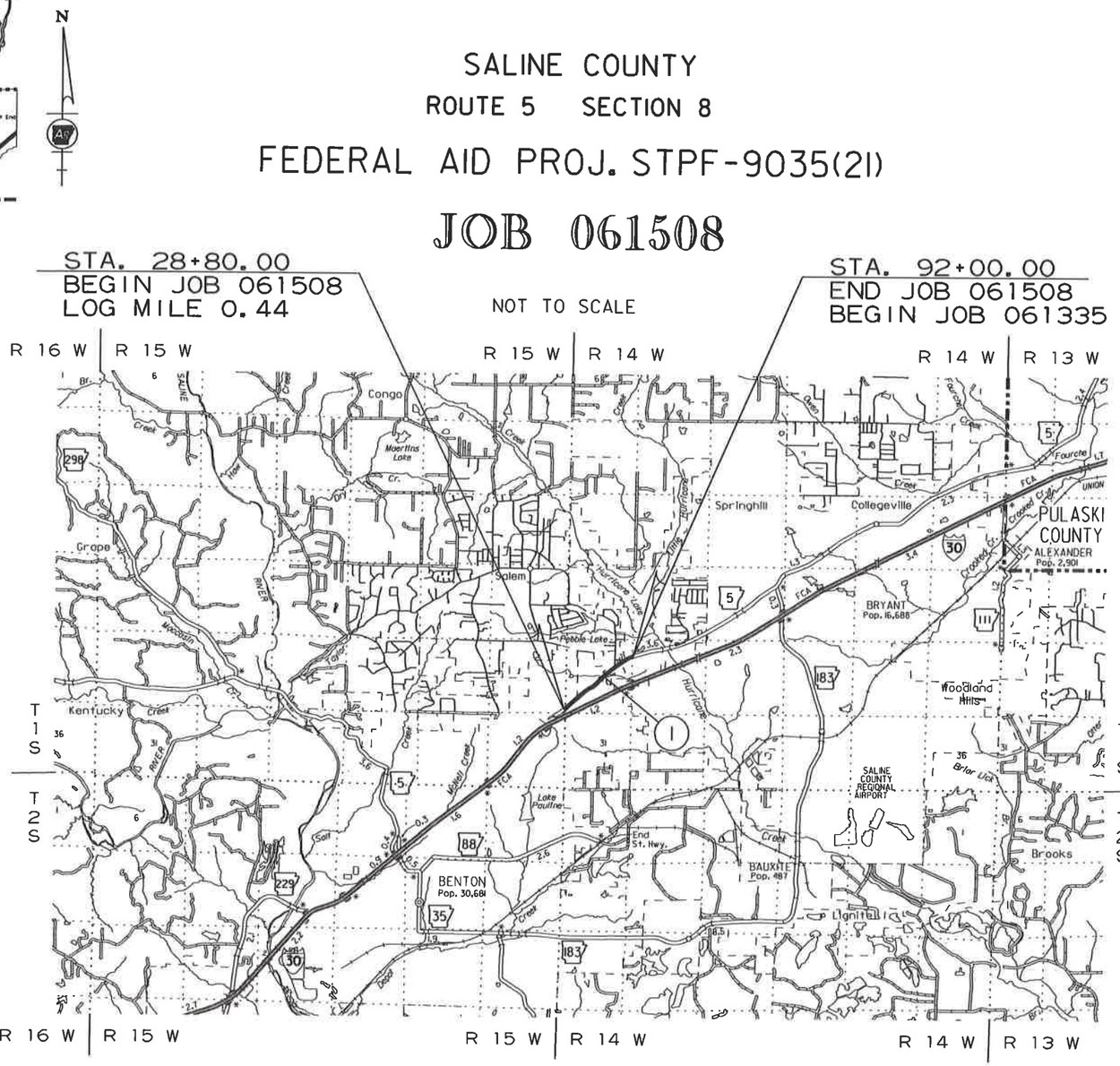
SALINE COUNTY
ROUTE 5 SECTION 8

FEDERAL AID PROJ. STPF-9035(21)

JOB 061508



VICINITY MAP



STRUCTURES OVER 20'-0" SPAN

(1) STA. 65+97 CONSTRUCT
TRI. 8' X 6' X 146' R.C. BOX
ON 45° RT. FWD. SKEW
WITH 3:1 WINGS LT. & RT.
Q50 = 1050 CFS D.A. = 646 ACRES
SPAN = 26'-6"

ARK. HWY. DIST. NO. 6

DESIGN TRAFFIC DATA

DESIGN YEAR	2043
2023 ADT	11,000
2043 ADT	14,000
2043 DHV	1,540
DIRECTIONAL DISTRIBUTION	0.60
TRUCKS	6%
DESIGN SPEED	45 MPH

	BEGIN PROJECT	MID-POINT OF PROJECT	END PROJECT
LATITUDE	N 34°36'03"	N 34°36'23"	N 34°36'40"
LONGITUDE	W 92°33'02"	W 92°32'33"	W 92°32'02"

LENGTH OF PROJECT CALCULATED ALONG C.L.

GROSS LENGTH OF	PROJECT	6320.00	FEET	OR	1.197	MILES
NET	-	ROADWAY	6293.50	"		1.192	MILES
NET	-	BRIDGES	26.50	"		0.005	MILES
NET	-	PROJECT	6320.00	"		1.197	MILES

APPROVED

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 14276
JARED D. WILEY

CHIEF ENGINEER - PRECONSTRUCTION
SEP 19 2023

lw39665 3/15/2023
R061508.DGN 3/15/2023

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10-25-2023				6	ARK.			
				JOB NO.		061508	2	150

(2) INDEX OF SHEETS AND STANDARD DRAWINGS

STATE OF ARKANSAS
TRINITY D. SMITH
No. 11425
REGISTERED PROFESSIONAL ENGINEER

Digitally signed by Trinity Smith
Date: 2023.10.25 15:55:25-05'00'

INDEX OF SHEETS

SHEET NO.		TITLE
1		TITLE SHEET
2		INDEX OF SHEETS AND STANDARD DRAWINGS
3		GOVERNING SPECIFICATIONS AND GENERAL NOTES
4 - 6		TYPICAL SECTIONS OF IMPROVEMENT
7 - 15		SPECIAL DETAILS
16 - 27		TEMPORARY EROSION CONTROL DETAILS
28 - 37		MAINTENANCE OF TRAFFIC DETAILS
38 - 42		PERMANENT PAVEMENT MARKING DETAILS
43 - 49		QUANTITIES
50		SUMMARY OF QUANTITIES AND REVISIONS
51 - 55		SURVEY CONTROL DETAILS
56 - 68		PLAN AND PROFILE SHEETS
69		SUMMARY OF TRAFFIC SIGNAL QUANTITIES
70		TRAFFIC SIGNAL NOTES
71		TRAFFIC SIGNAL STREET NAME SIGNS
72		TRAFFIC SIGNAL QUANTITIES - SALEM RD.
73 - 82		SIGNALIZATION PLAN SHEETS
83		TRAFFIC SIGNAL QUANTITIES - ALCOA RD.
84 - 97		SIGNALIZATION PLAN SHEETS
98 - 150		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
CDP-1	CONCRETE DITCH PAVING	12-08-16
CG-1	CURBING DETAILS	11-29-07
DR-1	DETAILS OF DRIVEWAYS & ISLANDS	05-19-22
DR-2	DETAILS OF DEIRVEWAYS & STREET TURNOUTS	05-19-22
FES-1	FLARED END SECTION	10-18-96
FES-2	FLARED END SECTION	10-18-96
FPC-9	DETAILS OF DROP INLETS & JUNCTION BOXES	11-16-01
FPC-9E	DETAILS OF DROP INLETS (TYPE C)	08-22-02
FPC-9M	DETAILS OF DROP INLET (TYPE MO)	08-22-02
FPC-9S	DETAILS OF DROP INLET & JUNCTION BOX (TYPE ST)	07-26-12
MB-1	MAILBOX DETAILS	11-18-04
PBC-1	PRECAST CONCRETE BOX CULVERTS	01-28-15
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
PU-1	DETAILS OF PIPE UNDERDRAIN	12-08-16
RCB-1	REINFORCED CONCRETE BOX CULVERT DETAILS	07-26-12
RCB-2	EXCAVATION PAY LIMITS, BACKFILL, & SOLID SODDING FOR BOX CULVERTS	11-20-03
SD-1	ANTENNA POLE	11-16-17
SD-5	CONTROLLER CABINET UTILITY DRAWER	09-12-13
SD-6	HEAVY DUTY PULL BOX	11-16-17
SD-7	SPAN WIRE ASSEMELY WOOD POLE	11-16-17
SD-8	SIGNAL HEAD PLACEMENT	12-08-16
SD-9	SERVICE POINT	11-07-19
SD-11	STEEL POLE WITH MAST ARM	11-16-17
SE-3	TABLES AND METHOD OF SUPERELEVATION FOR TWO-WAY TRAFFC (4% MAXIMUM)	11-07-19
SI-1	DETAILS OF SPECIA_ ITEMS	10-25-18
SI-3	CONCRETE WALK (TYPE SPECIAL)	11-05-20
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-3	TEMPORARY EROSION CONTROL DEVICES	11-03-94
WF-3	CHAIN LINK FENCE	11-17-10
WR-1	WHEELCHAIR RAMPS NEW CONSTRUCTION AND ALTERATIONS	11-10-05

7/27/2020

R06508.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10-18-2023				6	ARK.			
				JOB NO.		061508	3	150

(2) GOVERNING SPECS. AND GENERAL NOTES

GOVERNING SPECIFICATIONS

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

NUMBER	TITLE
ERRATA_____	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273__	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273__	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273__	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273__	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273__	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1273__	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273__	SUPPLEMENT - WAGE RATE DETERMINATION
100-3_____	CONTRACTOR'S LICENSE
100-4_____	DEPARTMENT NAME CHANGE
102-2_____	ISSUANCE OF PROPOSALS
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
501-2_____	CEMENT
505-1_____	PORTLAND CEMENT CONCRETE DRIVEWAY
600-2_____	INCIDENTAL CONSTRUCTION
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)
605-1_____	CONCRETE DITCH PAVING
606-1_____	PIPE CULVERTS FOR SIDE DRAINS
620-1_____	MULCH COVER
621-1_____	FILTER SOCKS
632-1_____	CONCRETE ISLAND
633-1_____	CONCRETE WALKS, CONCRETE STEPS, AND HAND RAILING
634-1_____	CURBING
700-2_____	TRAFFIC CONTROL FACILITIES
800-1_____	STRUCTURES
802-4_____	CEMENT
804-2_____	REINFORCING STEEL FOR STRUCTURES
JOB 061508__	ACCESSIBLE PEDESTRIAN SIGNAL (APS)
JOB 061508__	ACTUATED CONTROLLER
JOB 061508__	ANTENNA SUPPORT
JOB 061508__	ARCHITECTURAL FINISH (CAST-IN PLACE RETAINING WALLS)
JOB 061508__	ASSESSMENT OF WORKING DAYS – MAINTENANCE OF TRAFFIC
JOB 061508__	BIDDING REQUIREMENTS AND CONDITIONS
JOB 061508__	BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB 061508__	BROADBAND INTERNET SERVICE FOR FIELD OFFICE
JOB 061508__	BUY AMERICA - CONSTRUCTION MATERIALS
JOB 061508__	CABINET DRAWER ASSEMBLY
JOB 061508__	CARGO PREFERENCE ACT REQUIREMENTS
JOB 061508__	COLD MILLING - COUNTY PROPERTY
JOB 061508__	CONSTRUCTION PROJECT INFORMATION SIGN
JOB 061508__	CONTACT INFORMATION FOR MOTORIST DAMAGE CLAIMS
JOB 061508__	COORDINATION OF WORK
JOB 061508__	DESIGN AND QUALITY CONTROL OF ASPHALT MIXTURES
JOB 061508__	DISADVANTAGED BUSINESS ENTERPRISE BIDDER'S RESPONSIBILITIES
JOB 061508__	ELECTRICAL CONDUCTORS FOR LUMINAIRES
JOB 061508__	ELECTRICAL CONDUCTORS-IN-CONDUIT
JOB 061508__	FLEXIBLE BEGINNING OF WORK – CALENDAR DAY CONTRACT
JOB 061508__	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB 061508__	HYBRID VIDEO/RADAR DETECTION SYSTEM
JOB 061508__	LED COUNTDOWN PEDESTRIAN SIGNAL HEAD
JOB 061508__	LED LUMINAIRE ASSEMBLY (BUG U0 TYPE)
JOB 061508__	LED TRAFFIC SIGNAL HEAD
JOB 061508	LIMITATION OF VIBRATORY EQUIPMENT
JOB 061508__	LIQUIDATED DAMAGES PROCEDURE FOR BID LETTINGS
JOB 061508__	LONGITUDINAL JOINT DENSITIES FOR ACHM SURFACE COURSES
JOB 061508__	MAINTENANCE OF TRAFFIC
JOB 061508__	MANDATORY ELECTRONIC CONTRACT
JOB 061508__	MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
JOB 061508__	NESTING SITES OF MIGRATORY BIRDS
JOB 061508__	PARTNERING REQUIREMENTS
JOB 061508__	PERCENT WITHIN LIMITS/PAVEMENT SMOOTHNESS (IRI)
JOB 061508__	PLASTIC PIPE
JOB 061508__	PRICE ADJUSTMENT FOR ASPHALT BINDER
JOB 061508__	PRICE ADJUSTMENT FOR FUEL
JOB 061508__	PROHIBITION OF CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT
JOB 061508__	PROSECUTION AND PROGRESS WITH BID SCHEDULE
JOB 061508__	RELOCATION OF TRAFFIC SIGNAL HEAD
JOB 061508__	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT
JOB 061508__	RESTRAINING CONDITIONS
JOB 061508__	RETROREFLECTIVE BACKPLATES
JOB 061508__	SERVICE POINT ASSEMBLY (TRAFFIC CONTROL DEVICES)
JOB 061508__	SHORING FOR CULVERTS
JOB 061508__	SITE USE (A+C METHOD) – CALENDAR DAY CONTRACT
JOB 061508__	SOIL STABILIZATION
JOB 061508__	STORM WATER POLLUTION PREVENTION PLAN
JOB 061508__	STREET NAME SIGN (MAST ARM MOUNTED)
JOB 061508__	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB 061508__	SYSTEM LOCAL CONTROLLER
JOB 061508__	TEXTURED COATING FINISH (CAST IN PLACE RETAINING WALLS)
JOB 061508__	TOTAL SOLAR ECLIPSE
JOB 061508__	UTILITY ADJUSTMENTS
JOB 061508__	VALUE ENGINEERING
JOB 061508__	VIDEO DETECTOR ROTATION
JOB 061508__	WARM MIX ASPHALT

STATE OF ARKANSAS
LICENSED
PROFESSIONAL
ENGINEER
No. 11425
TRINITY D. SMITH

Digitally signed by Trinity Smith
Date: 2023.10.19 10:45:26-05'00'

GENERAL NOTES

1. GRADE LINE DENOTES FINISHED GRADE WHERE SHOWN ON PLANS.
2. ALL PIPE LINES, POWER, TELEPHONE, AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.
3. 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.
4. 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.
5. ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
6. 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.
7. 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.
8. 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.
9. ALL FLEXIBLE BASE AND ASPHALTIC PAVEMENTS REMOVED SHALL BE PAID FOR UNDER THE ITEM NO. 210 - UNCLASSIFIED EXCAVATION.
10. 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.
11. 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.

7/27/2020

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GOVERNING SPECIFICATIONS AND GENERAL NOTES

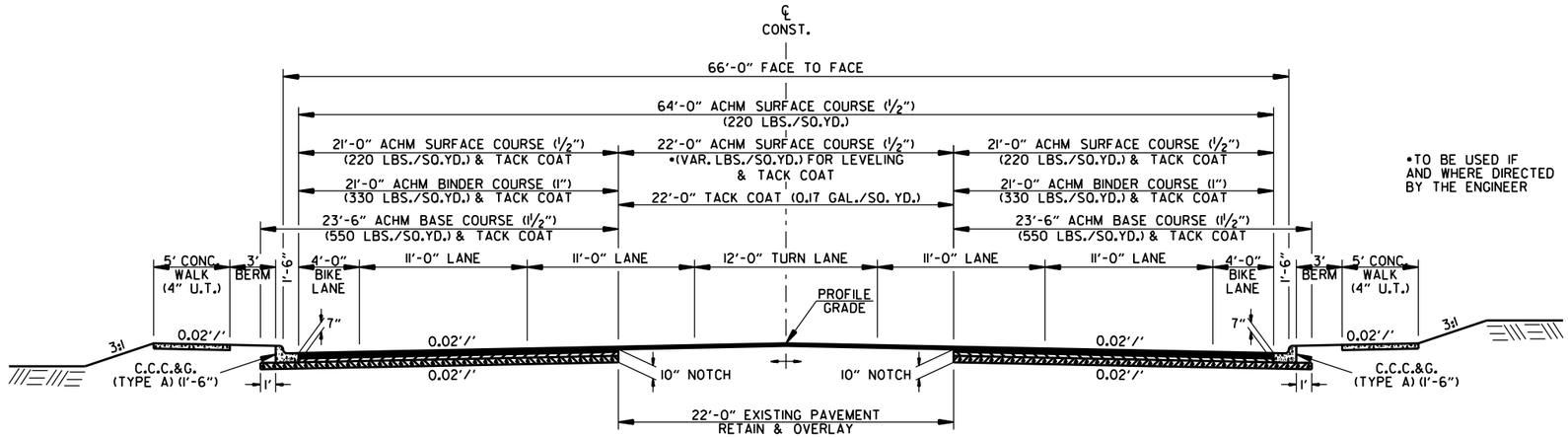
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	4	150

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH

09-15-2023

TRANSITION: STA. 28+80.00 TO STA. 31+11.00



•TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

HWY. 5 - NOTCH, WIDEN, AND OVERLAY SECTION
STA. 31+11.00 TO STA. 55+52.92
STA. 60+87.54 TO STA. 65+40.00
STA. 66+70.00 TO STA. 92+00.00

NOTES:

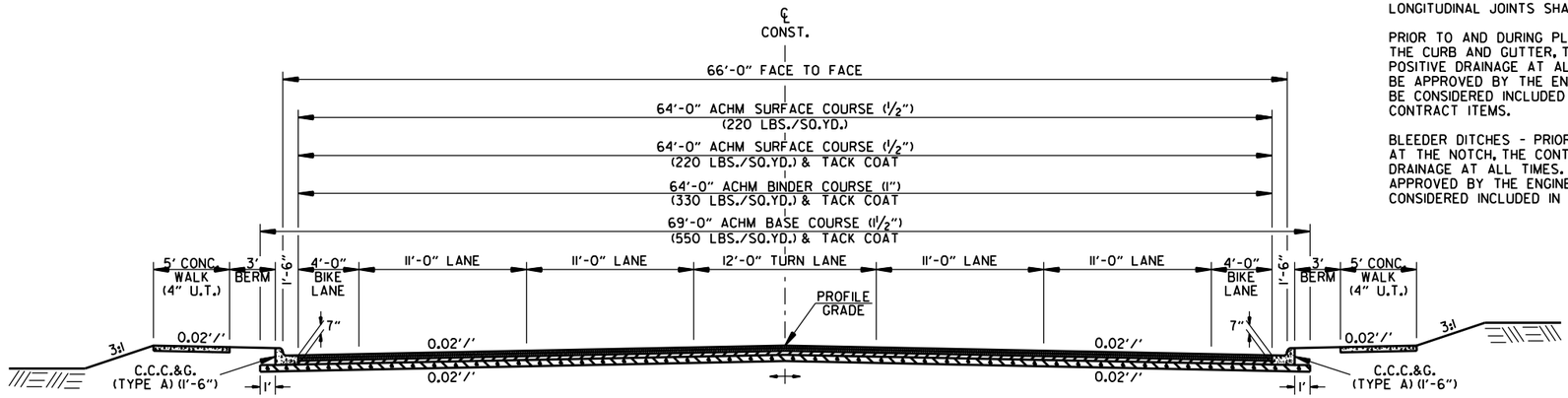
REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

ASPHALT FOR LEVELING OF EXISTING PAVEMENT SHALL BE PLACED ONLY IF AND WHERE DIRECTED BY THE ENGINEER. CALCULATIONS FOR THE AMOUNT OF LEVELING AND LEVELING OPERATIONS SHALL BE PERFORMED BEFORE CONSTRUCTING NOTCH AND WIDENING. CALCULATIONS WILL NOT BE PAID FOR DIRECTLY BUT PAYMENT WILL BE CONSIDERED INCLUDED IN THE VARIOUS PAY ITEMS.

THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.

PRIOR TO AND DURING PLACEMENT OF PAVEMENT IN FRONT OF THE CURB AND GUTTER, THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES. THE METHOD(S) USED SHALL BE APPROVED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

BLEEDER DITCHES - PRIOR TO AND DURING PLACEMENT OF PAVEMENT AT THE NOTCH, THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES. THE METHOD(S) AND SPACING USED SHALL BE APPROVED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.



HWY. 5 - FULL DEPTH SECTION
STA. 55+52.92 TO STA. 60+87.54
STA. 65+40.00 TO STA. 66+70.00

7/27/2020

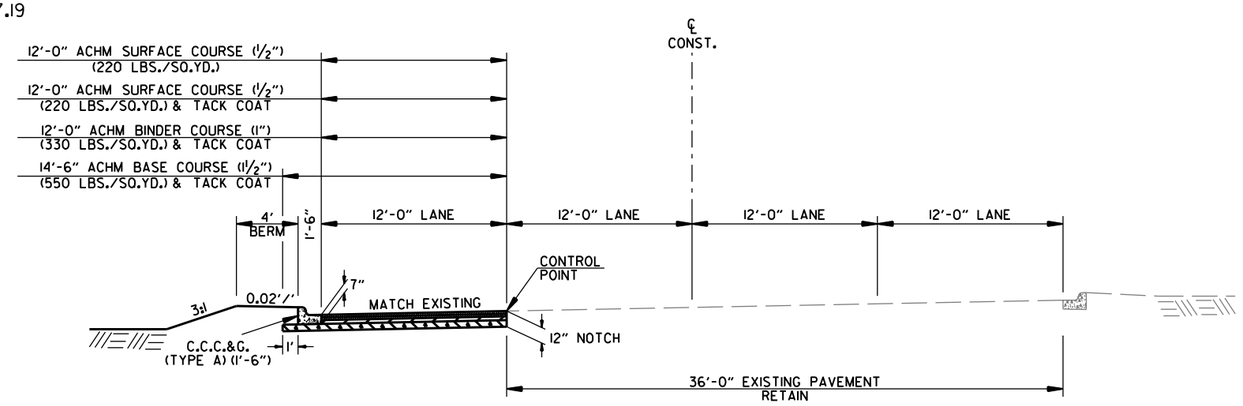
R061508.DGN

TYPICAL SECTIONS OF IMPROVEMENT

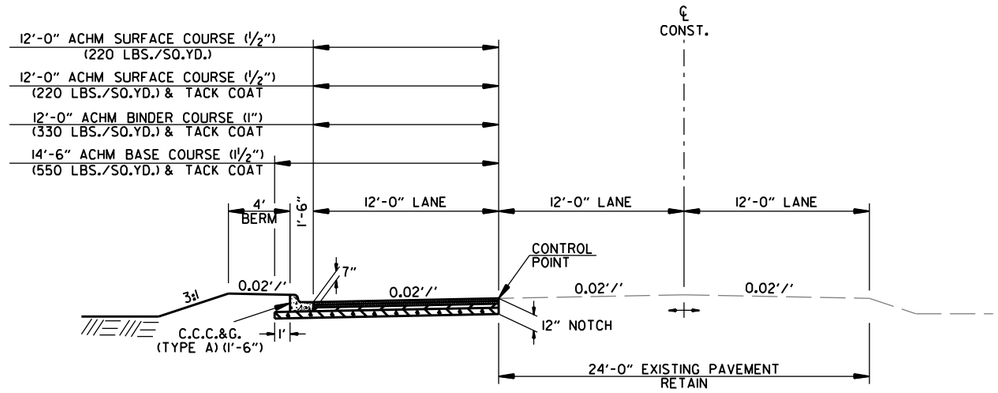
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	5	150

(2) TYPICAL SECTIONS OF IMPROVEMENT

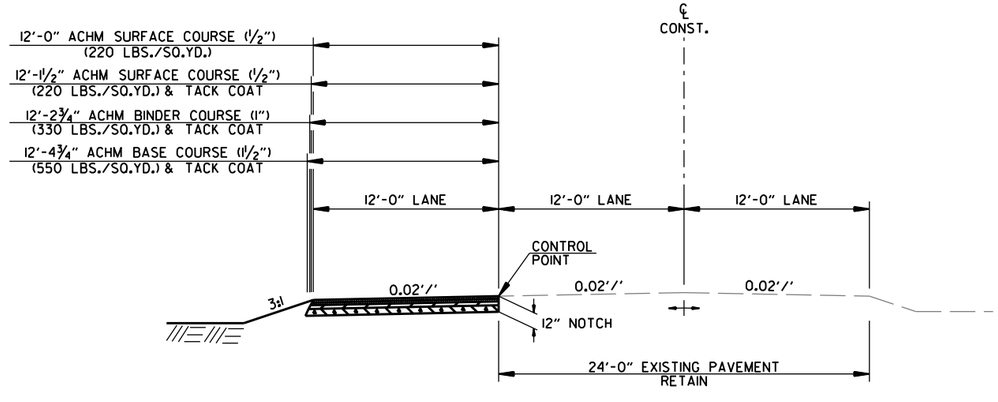
TRANSITION: STA. 211+65.00 TO STA. 213+37.19



ALCOA RD. - NOTCH AND WIDEN SECTION
STA. 201+77.00 TO STA. 211+65.00



SALEM RD. - C.C.C.&G. SECTION
STA. 300+38.85 TO STA. 302+87.44



SALEM RD. - OPEN SHOLDER SECTION
STA. 302+87.44 TO STA. 305+68.00

NOTES:

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

THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.

PRIOR TO AND DURING PLACEMENT OF PAVEMENT IN FRONT OF THE CURB AND GUTTER, THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES. THE METHOD(S) USED SHALL BE APPROVED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

BLEEDER DITCHES - PRIOR TO AND DURING PLACEMENT OF PAVEMENT AT THE NOTCH, THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES. THE METHOD(S) AND SPACING USED SHALL BE APPROVED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

7/27/2020

R061508.DGN

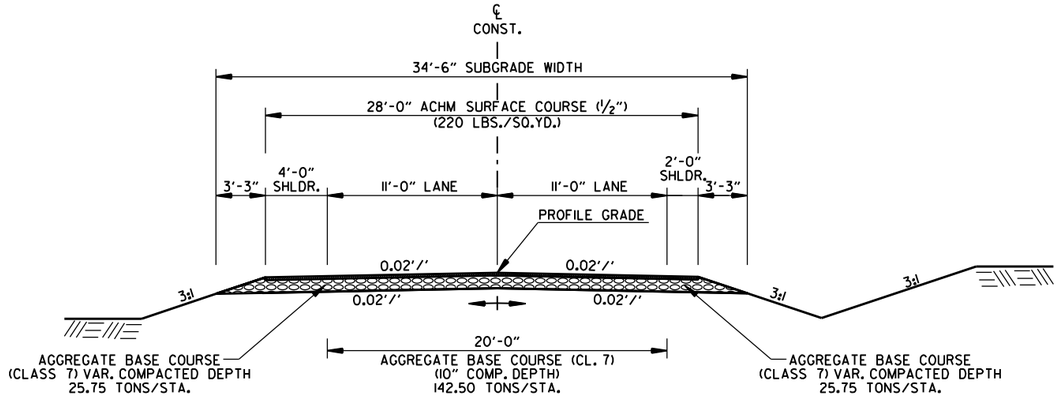
TYPICAL SECTIONS OF IMPROVEMENT

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	6	150

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH

09-15-2023



SITES 2 & 3
TYPICAL SECTION OF IMPROVEMENT
DETOUR - FULL DEPTH
STA. 400+00.00 TO STA. 401+87.96
STA. 405+41.70 TO STA. 407+38.38

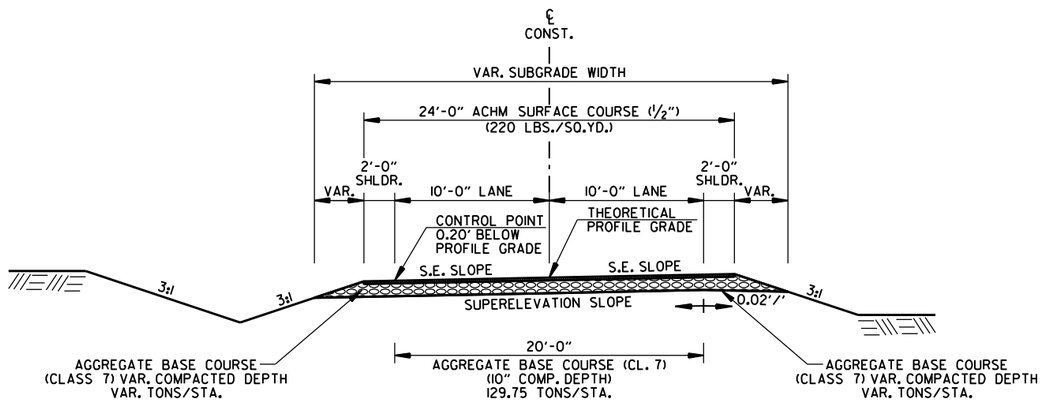
NOTES:

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

THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.

PRIOR TO AND DURING PLACEMENT OF PAVEMENT IN FRONT OF THE CURB AND GUTTER, THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES. THE METHOD(S) USED SHALL BE APPROVED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

BLEEDER DITCHES - PRIOR TO AND DURING PLACEMENT OF PAVEMENT AT THE NOTCH, THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES. THE METHOD(S) AND SPACING USED SHALL BE APPROVED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.



SITES 2 & 3
TYPICAL SECTION OF IMPROVEMENT
DETOUR - FULL DEPTH
SUPERELEVATION
STA. 401+87.96 TO STA. 405+41.70

7/27/2020

R061508.DGN

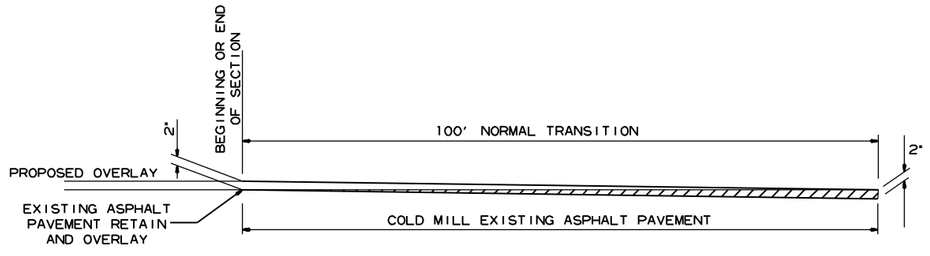
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	7	150

(2) SPECIAL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

6.0" Radius, 1.3" Border, Black on Orange;
"Job XXXXXX" C 2K; "Start Date Mo Year" C 2K;
"Est Completion Mo Year" C 2K; "IDRIVE " Arial;
" ARKANSAS.COM " Arial;

CONSTRUCTION PROJECT INFORMATION SIGN



DETAIL FOR TRANSITIONS

7/27/2020

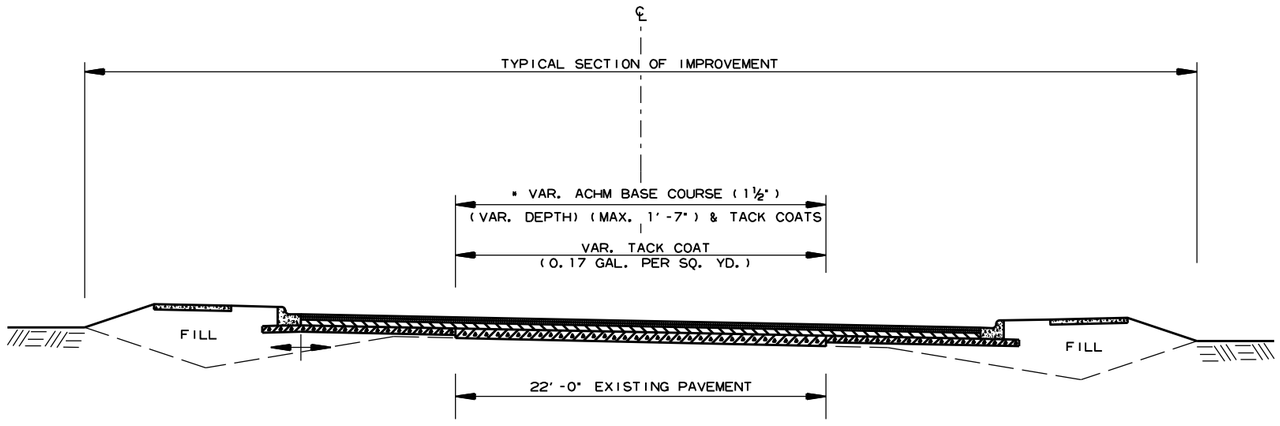
R061508.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	8	150

(2) SPECIAL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH

09-15-2023



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.

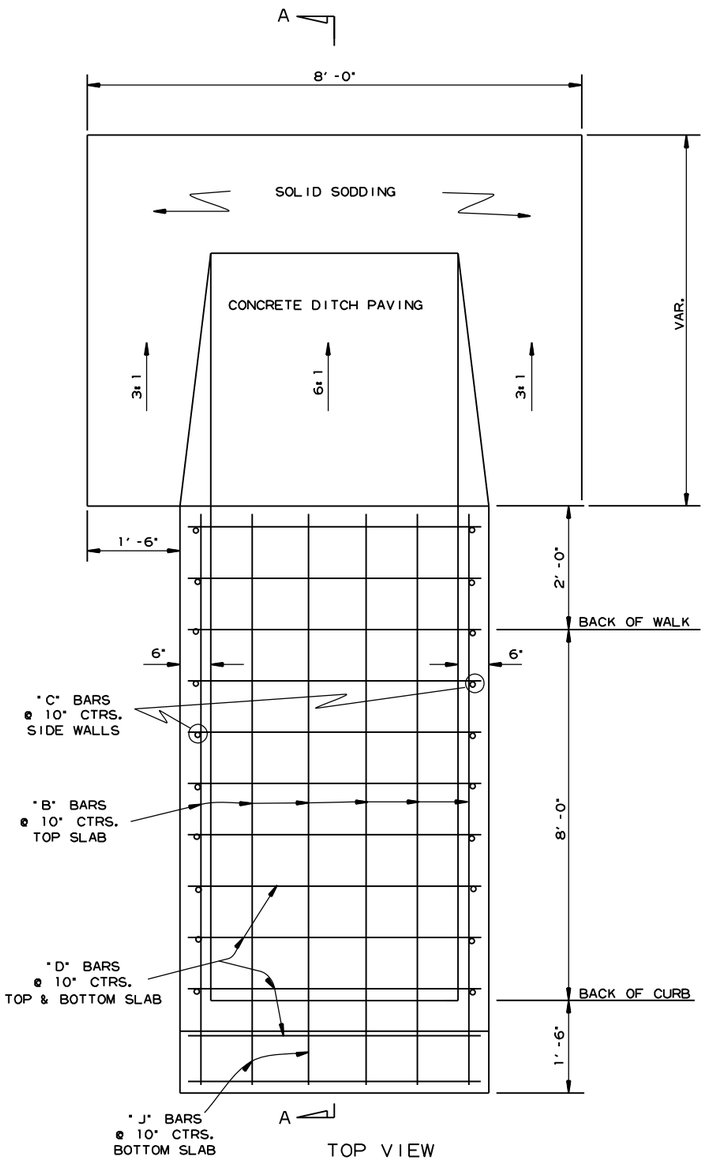
7/27/2020

R061508.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	9	150

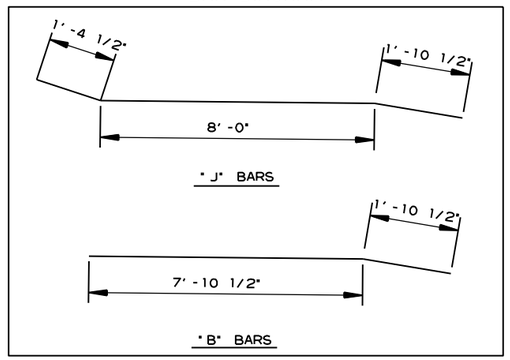
(2) SPECIAL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023



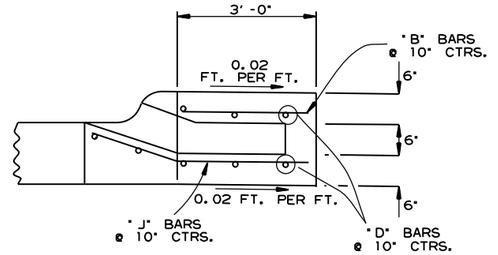
TOP VIEW

BAR DIAGRAM

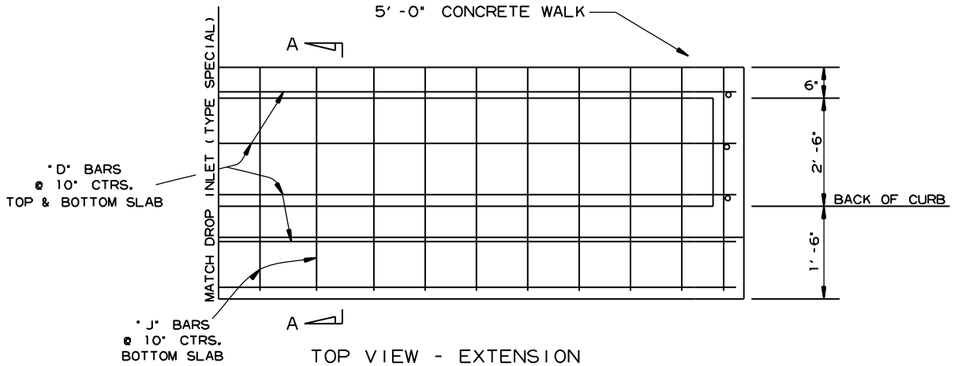


CLASS A CONC.	REINF. STEEL-RDWY. GRADE 60
CU. YDS.	POUND
2.53	207

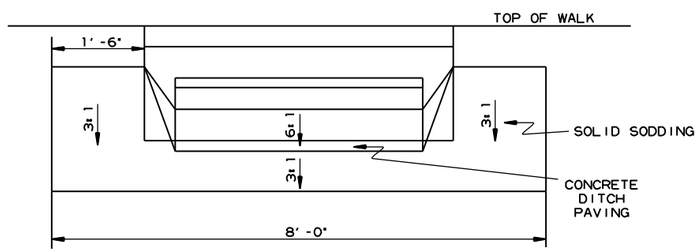
QUANTITIES FOR INFORMATION ONLY
DROP INLET (TYPE SPECIAL)



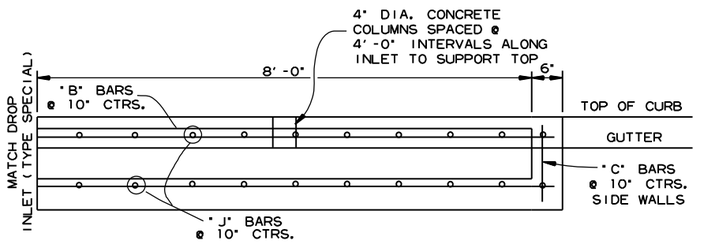
SECTION A-A - EXTENSION



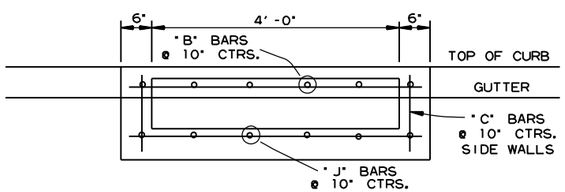
TOP VIEW - EXTENSION



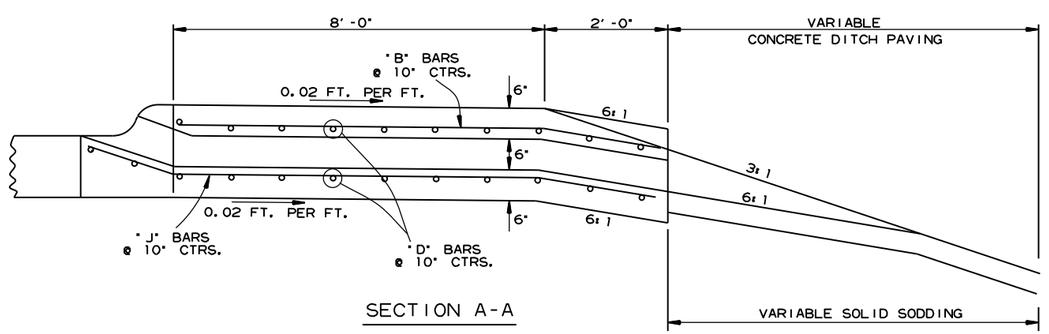
BACK VIEW



FRONT VIEW - EXTENSION



FRONT VIEW



SECTION A-A

GENERAL NOTES:

1. ALL EXPOSED CORNERS TO HAVE 3/4" CHAMFER.
2. ALL REINF. BARS SHALL BE #4 AND HAVE 1 1/2" COVER.
3. DROP INLETS AND EXTENSIONS ON CURVED SECTIONS SHALL CONFORM TO THE CURVATURE OF THE CURB.
4. DURING CONSTRUCTION OF THE ROADWAY THE CONTRACTOR SHALL MAINTAIN DRAINAGE INTO OR AROUND THE DROP INLET AS APPROVED BY THE ENGINEER.
5. PAYMENT FOR CURB AND/OR CURB AND GUTTER WITHIN THE LIMITS OF DROP INLETS AND DROP INLET EXTENSIONS SHALL BE CONSIDERED INCLUDED IN PAYMENT MADE FOR DROP INLETS AND/OR DROP INLET EXTENSIONS.
6. CONCRETE DITCH PAVING & SOLID SODDING SHALL BE PAID FOR SEPARATELY.
7. CONSTRUCT EXTENSIONS UPSTREAM OF DROP INLET UNLESS OTHERWISE SPECIFIED.

DROP INLET (TYPE SPECIAL)

SPECIAL DETAILS

1/27/2020

R061508.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	10	150

1 SPECIAL DETAILS

INLET WINGWALL TABLE

OVER ALL WIDTH	CLEAR HEIGHT	FOOTING THK.	WING WALL THK.	BOX SKEW (DEG.)	SLOPE	HDWL LENGTH	HEEL	WALL HEIGHT AT HDWL	WALL HEIGHT AT WING END	WINGWALL ANGLE (DEGREE) WING A	WINGWALL ANGLE (DEGREE) WING B	FOOTING WIDTH AT WALL END	WIDTH OF WING FOOTINGS AT HDWL WING A	WIDTH OF WING FOOTINGS AT HDWL WING B	FOOTING DIMENSION PARALLEL WITH HDWL WING A	FOOTING DIMENSION PARALLEL WITH HDWL WING B	LENGTH OF WINGWALLS WING A	LENGTH OF WINGWALLS WING B	LENGTH OF FOOTING HEEL WING A	LENGTH OF FOOTING HEEL WING B
OW	H	WB	CW	SK	SL	K	HL	WH1	WH2	AF1	AF2	WE	WF1	WF2	G1	G2	W1	W2	W3	W4
26'-6"	6'-0"	0'-9"	0'-8"	45	3:1	35'-9 7/8"	2'-0"	6'-10"	2'-0"	0	60	3'-2"	3'-2"	3'-9"	0'-6"	0'-5 1/8"	14'-6"	29'-0"	16'-4 1/8"	36'-8 3/8"

CLASS "S" CONCRETE (Includes apron)	REINFORCING STEEL (Includes apron and laps if required)
INLET	INLET
CU.YD	LBS.
12.43	1126

WING	F1 BAR SIZE	F1 MAX SPACING	F1 NO. REQ'D	F1 LENGTHS VARY	F1 LENGTHS	F2 BAR SIZE	F2 SPACING	F2 NO. REQ'D	F2 LENGTHS	F3 BAR SIZE	F3 SPACING	F3 NO. REQ'D	F3 LENGTHS	F4 BAR SIZE	F4 SPACING	F4 NO. REQ'D	F4 LENGTHS VARY	F5 BAR SIZE	F5 SPACING	F5 NO. REQ'D	F5 LENGTHS	F6 BAR SIZE	F6 SPACING	F6 NO. REQ'D	F6 LENGTHS VARY	F6 LENGTHS	F7 BAR SIZE	F7 NO. REQ'D	F7 LENGTHS	F8 BAR SIZE	F8 SPACING	F8 NO. REQ'D	F8 LENGTHS VARY	F9 BAR SIZE	F9 SPACING	F9 NO. REQ'D	F9 LENGTHS	F10 BAR SIZE	F10 NO. REQ'D	F10 LENGTHS	F11 BAR SIZE	F11 NO. REQ'D	F11 LENGTHS	F12 BAR SIZE	F12 SPACING	F12 NO. REQ'D	F12 LENGTHS	REINF. STEEL QTY. PER WING (LBS)
WING A	4	12	15	L Min	3'-0"	-	-	-	L -	-	-	-	L -	4	18	4	Min 4'-10"	4	18	4	14'-2"	4	18	10	L Min 4'-9"		4	8	17'-2"	6	18	10	Min 2'-8"	-	-	-	Min	4	2	14'-10"	4	2	15'-4"	6	12	6	L 3'-4"	384
				L Max	7'-8"																				Max 9'-3"								-													X 1'-8"	
				X Min	0'-9"				X -				X -				-				-				L Min 2'-4"								Max													
				X Max	0'-9"												Max 9'-4"								Max 2'-4"								-													
				Y Min	2'-4"				Y -				Y -				-				-				L Min 2'-6"								Min													
				Y Max	7'-0"												Min 2'-8"								Max 2'-6"								-													
WING B	4	12	29	L Min	3'-0"	-	-	-	L -	-	-	-	L -	4	18	4	Min 9'-10"	4	18	4	28'-8"	4	18	20	L Min 4'-7"		4	8	37'-6"	6	18	20	Min 2'-8"	-	-	-	Min	4	2	28'-11"	4	2	31'-9"	6	12	6	L 3'-4"	742
				L Max	8'-3"																				Max 9'-3"								-													X 1'-8"	
				X Min	0'-9"				X -				X -				-				-				L Min 2'-4"								Max													
				X Max	1'-4"												Max 18'-10"								Max 2'-4"								-													
				Y Min	2'-4"				Y -				Y -				-				-				Y Min 2'-4"								Min													
				Y Max	7'-0"												Min 3'-3"								Max 2'-4"								-													

MID-SECTION BAR LAP TABLE

# of Long. Laps Req'd.	SL = Section Length
0	< 40.0 ft
1	>40.0 ft - 78.0 ft
2	>78.0 ft - 116.0 ft
3	>116.0 ft - 154.0 ft
4	>154.0 ft - 192.0 ft
5	>192.0 ft - 230.0 ft
6	>230.0 ft - 268.0 ft
7	>268.0 ft - 306.0 ft
8	>306.0 ft -344.0 ft

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

Bar Pin Dia. Table	
#4	3"
#5	3 3/4"
#6	4 1/2"
#7	5 1/4"
#8	6"

Ellis, Rick
Jul 14 2020 5:32 PM

STATE OF ARKANSAS
DocuSigned by: LICENSED PROFESSIONAL ENGINEER
No. 9235
CHARLES R. ELLIS

TABULAR DATA BY: DBS DATE: 07/13/2020
CHECKED BY: DKS DATE: 07/13/2020

This drawing to be used in conjunction with
SHEET 1 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'GENERAL NOTES & LONGITUDINAL SECTION LENGTH SCHEDULE',
SHEET 3 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'DETAILS OF MULTI-BARREL R.C. BOX CULVERT',
SHEET 4 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'DETAILS OF WINGWALLS', and
STANDARD DRAWING RCB-2.

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

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

INLET SKEWED END SECTION

SKEW (DEGREE)	SLOPE	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	SECTION LENGTH	TOP SLAB THK.	HDWL DEPTH	BOTTOM SLAB THK.	SIDE WALL THK.	INTERIOR WALL THK.	OVER ALL WIDTH	OVER ALL HEIGHT	TOP SLAB REINFORCING STEEL "a" SIZE	"a" SPACING	"a" LENGTHS VARY	"a" LENGTH	"a" NO. REQ'D	TOP SLAB REINFORCING STEEL "c" SIZE	"c" SPACING	"c" LENGTHS VARY	"c" LENGTH	"c" NO. REQ'D	BOTTOM SLAB REINFORCING STEEL "d" SIZE	"d" SPACING	"d" LENGTHS VARY	"d" LENGTH	"d" NO. REQ'D	BOTTOM SLAB REINFORCING STEEL "f" SIZE	"f" SPACING	"f" LENGTHS VARY	"f" LENGTH	"f" NO. REQ'D	SIDE WALL REINFORCING STEEL "f0" SIZE	"f0" SPACING	"f0" NO. REQ'D	"f0" LENGTH	INTERIOR WALL REINFORCING STEEL "f1" SIZE	"f1" SPACING	"f1" NO. REQ'D	"f1" LENGTH	TOP SLAB DISTRIBUTION REINFORCING STEEL "g" SIZE	"g" SPACING	"g" NO. REQ'D	"g" LENGTHS VARY	BOTTOM SLAB DISTRIBUTION REINFORCING STEEL "e" SIZE	"e" SPACING	"e" NO. REQ'D	"e" LENGTHS VARY	SIDE WALL DISTRIBUTION REINFORCING STEEL "d1" SIZE	"d1" SPACING	"d1" NO. REQ'D	"d1" LENGTH	INTERIOR WALL DISTRIBUTION REINFORCING STEEL "d2" SIZE	"d2" SPACING	"d2" NO. REQ'D	"d2" LENGTH
SK	SL	D	S	H	LL	T	HD	B	C	W	OW	OH																		

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	11	150

(1) SPECIAL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 9235
CHARLES R. ELLIS

Jul 14 2020 5:34 PM
Charles R. Ellis
DocuSign

TABULAR DATA BY: DBS DATE: 07/13/2020
CHECKED BY: DKS DATE: 07/13/2020

OUTLET WINGWALL TABLE

OVER ALL WIDTH	CLEAR HEIGHT	FOOTING THK.	WING WALL THK.	BOX SKEW (DEG.)	SLOPE	HDWL LENGTH	HEEL	WALL HEIGHT AT HDWL	WALL HEIGHT AT WING END	WINGWALL ANGLE (DEGREE) WING A	WINGWALL ANGLE (DEGREE) WING B	FOOTING WIDTH AT WALL END	WIDTH OF WING FOOTINGS AT HDWL WING A	WIDTH OF WING FOOTINGS AT HDWL WING B	FOOTING DIMENSION PARALLEL WITH HDWL WING A	FOOTING DIMENSION PARALLEL WITH HDWL WING B	LENGTH OF WINGWALLS WING A	LENGTH OF WINGWALLS WING B	LENGTH OF FOOTING HEEL WING A	LENGTH OF FOOTING HEEL WING B	CLASS "S" CONCRETE (Includes apron)	REINFORCING STEEL (Includes apron and laps if required)
OW	H	WB	CW	SK	SL	K	HL	WH1	WH2	AF1	AF2	WE	WF1	WF2	G1	G2	W1	W2	W3	W4	OUTLET	OUTLET
26'-6"	6'-0"	0'-9"	0'-8"	45	3:1	35'-9 7/8"	2'-0"	6'-10"	2'-0"	0	60	3'-2"	3'-2"	3'-9"	0'-6"	0'-5 1/8"	14'-6"	29'-0"	16'-4 1/8"	36'-8 3/8"	13.81	1126

WING	F1 BAR SIZE	F1 MAX. SPACING	F1 NO. REQ'D	F1 LENGTHS VARY			F2 BAR SIZE	F2 SPACING	F2 NO. REQ'D	F2 LENGTHS	F3 BAR SIZE	F3 SPACING	F3 NO. REQ'D	F3 LENGTHS	F4 BAR SIZE	F4 SPACING	F4 NO. REQ'D	F4 LENGTHS VARY	F5 BAR SIZE	F5 SPACING	F5 NO. REQ'D	F5 LENGTHS	F6 BAR SIZE	F6 SPACING	F6 NO. REQ'D	F6 LENGTHS VARY			F7 BAR SIZE	F7 NO. REQ'D	F7 LENGTHS	F8 BAR SIZE	F8 SPACING	F8 NO. REQ'D	F8 LENGTHS VARY	F9 BAR SIZE	F9 SPACING	F9 NO. REQ'D	F9 LENGTHS	F10 BAR SIZE	F10 NO. REQ'D	F10 LENGTHS	F11 BAR SIZE	F11 NO. REQ'D	F11 LENGTHS	F12 BAR SIZE	F12 SPACING	F12 NO. REQ'D	F12 LENGTHS		REINF. STEEL QTY. PER WING (LBS)
WING A	4	12	15	L	Min	3'-0"				L -				L -	4	18	4	Min	4	18	4	14'-2"	4	18	10	L	Min	4'-9"	4	8	17'-2"	6	18	10	Min				Min	4	2	14'-10"	4	2	15'-4"	6	12	6	L	3'-4"	384
					Max	7'-8"												4'-10"									Max	9'-3"							2'-8"													
				X	Min	0'-9"				X -				X -												X	Min	2'-4"							-											X	1'-8"	
					Max	0'-9"	-	-	-		-	-	-					Max									Max	2'-4"							Max													
				Y	Min	2'-4"				Y -				Y -				9'-4"									Max	2'-6"							2'-8"													
					Max	7'-0"																					Max	7'-0"							-													
WING B	4	12	29	L	Min	3'-0"				L -				L -	4	18	4	Min	4	18	4	28'-8"	4	18	20	L	Min	4'-7"	4	8	37'-6"	6	18	20	Min				Min	4	2	28'-11"	4	2	31'-9"	6	12	6	L	3'-4"	742
					Max	8'-3"												9'-10"									Max	9'-3"							2'-8"													
				X	Min	0'-9"				X -				X -												X	Min	2'-4"							-											X	1'-8"	
					Max	1'-4"	-	-	-		-	-	-					Max									Max	2'-4"							Max													
				Y	Min	2'-4"				Y -				Y -				18'-10"									Max	2'-4"							3'-3"													
					Max	7'-0"																					Max	7'-0"							-													

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

Bar Pin Dia. Table	
#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)."

OUTLET SKEWED END SECTION

SKEW (DEGREE)	SLOPE	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	SECTION LENGTH	TOP SLAB THK.	HDWL DEPTH	BOTTOM SLAB THK.	SIDE WALL THK.	INTERIOR WALL THK.	OVER ALL WIDTH	OVER ALL HEIGHT	TOP SLAB REINFORCING STEEL "a" SIZE	"a" SPACING	"a" LENGTHS VARY	"a" NO. REQ'D	TOP SLAB REINFORCING STEEL "c" SIZE	"c" SPACING	"c" LENGTHS VARY	"c" NO. REQ'D	BOTTOM SLAB REINFORCING STEEL "d" SIZE	"d" SPACING	"d" LENGTHS VARY	"d" NO. REQ'D	BOTTOM SLAB REINFORCING STEEL "f" SIZE	"f" SPACING	"f" LENGTHS VARY	"f" NO. REQ'D	SIDE WALL REINFORCING STEEL "f0" SIZE	"f0" SPACING	"f0" NO. REQ'D	"f0" LENGTH	INTERIOR WALL REINFORCING STEEL "f1" SIZE	"f1" SPACING	"f1" NO. REQ'D	"f1" LENGTH	TOP SLAB DISTRIBUTION REINFORCING STEEL "g" SIZE	"g" SPACING	"g" NO. REQ'D	"g" LENGTHS VARY	BOTTOM SLAB DISTRIBUTION REINFORCING STEEL "e" SIZE	"e" SPACING	"e" NO. REQ'D	"e" LENGTHS VARY	SIDE WALL DISTRIBUTION REINFORCING STEEL "d1" SIZE	"d1" SPACING	"d1" NO. REQ'D	"d1" LENGTH	INTERIOR WALL DISTRIBUTION REINFORCING STEEL "d2" SIZE	"d2" SPACING	"d2" NO. REQ'D	"d2" LENGTH	CLASS "S" CONCRETE (Includes HDWL) CU. YDS.	(1) REINFORCING STEEL (GR 60) (Includes HDWL) LBS.
SK	SL	D	S	H	LL	T	HD	B	C	W	OW	OH																																											
45	3:1	5	8	6	15'-3"	9	3	9	7	8	26'-6"	7'-6"	4	4	Max 26'-2" Min 2'-2"	73	6	7	Max 26'-2" Min 2'-2"	42	4	6.5	Max 26'-2" Min 2'-2"	45	4	7.5	Max 26'-2" Min 2'-2"	39	4	5.5	68	7'-2"	4	12	64	7'-2"	4	12	53	Max 28'-4" Min 1'-10"	4	12	53	Max 28'-4" Min 1'-10"	4	12	6	LONG 27'-11" SHORT 2'-3"	4	12	12	LONG 19'-5" SHORT 10'-9"	31.68	5353
													26'-2"	6			26'-2"	4			26'-2"	4			26'-2"	4																																		

"k1" HDWL BARS SIZE	"k1" HDWL BARS LENGTH	"k1" HDWL BARS NO. REQ'D	"k2" HDWL BARS SIZE	"k2" HDWL BARS LENGTH	"k2" HDWL BARS NO. REQ'D	"h" HDWL BARS SIZE	"h" HDWL BARS LENGTH	"h" HDWL BARS Y	"h" HDWL BARS NO. REQ'D
5	37'-2"	6	5	37'-2"	6	4	1'-8"	0'-8"	39

OUTLET SLOPE SECTION(S)

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.)	LENGTH = OW - 4" + BENDS "a" SIZE	"a" L	Bent "b" SIZE	Bent "b" L	"c" SIZE	"c" L	"c" SPACING	"c" NO. REQ'D	BOTTOM SLAB REINFORCING STEEL LENGTH = OW - 4" + BENDS "d" SIZE	"d" L	Bent "b1" SIZE	Bent "b1" L	"f" SIZE	"f" L	"f" SPACING	"f" NO. REQ'D	SIDE WALL REINFORCING STEEL "f0" LENGTH = OH - 4" SIZE	"f0" SPACING	"f0" NO. REQ'D	"f0" LENGTH	INTERIOR WALL REINFORCING STEEL "f1" LENGTH = OH - 4" SIZE	"f1" SPACING	"f1" NO. REQ'D	"f1" LENGTH	TOP SLAB DISTRIBUTION REINFORCING STEEL "g" LENGTH = SL SIZE	"g" SPACING	"g" NO. REQ'D	BOTTOM SLAB DISTRIBUTION REINFORCING STEEL "e" LENGTH = SL SIZE	"e" SPACING	"e" NO. REQ'D	SIDE WALL DISTRIBUTION REINFORCING STEEL "d1" LENGTH = SL SIZE	"d1" SPACING	"d1" NO. REQ'D	INTERIOR WALL DISTRIBUTION REINFORCING STEEL "d2" LENGTH = SL SIZE	"d2" SPACING	"d2" NO. REQ'D	CLASS "S" CONCRETE CU. YDS.	REINFORCING STEEL (GR. 60) LBS.
	D	S	H	T	B	C	W	OW	OH	SL																																													

HDWL DEPTH HD	ADDITIONAL REINF. FOR HDWL LBS.	"h" HDWL BARS SIZE	Y	LENGTH	NO. REQ'D

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

The required number of bars and lengths shown are for estimating purpose only. The actual number and length required shall be determined in field.

Unless otherwise noted, all dimensions are in inches.

SHEET 2 OF 2
DETAILS OF R.C. BOX CULVERT

TRIPLE BARREL BOX CULVERT
Sta. 65+97

SPECIAL DETAILS

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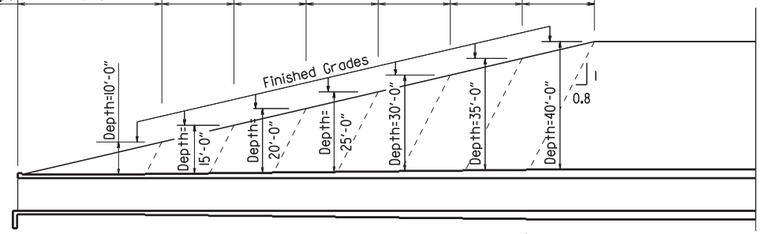
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	12	150

(1) SPECIAL DETAILS

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



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

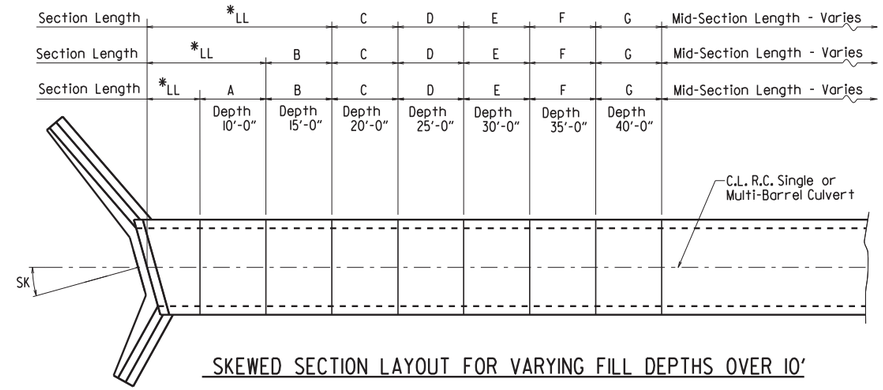
LONGITUDINAL SECTION LENGTH SCHEDULE FOR VARYING FILL DEPTHS OVER 10'

Lengths for Non-Skewed Boxes

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.

Section Length	*LL		C	D	E	F	G	Mid-Section Length - Varies
Section Length	*LL	B	C	D	E	F	G	Mid-Section Length - Varies
Section Length	*LL	A	B	C	D	E	F	G	Mid-Section Length - Varies
		Depth 10'-0"	Depth 15'-0"	Depth 20'-0"	Depth 25'-0"	Depth 30'-0"	Depth 35'-0"	Depth 40'-0"	



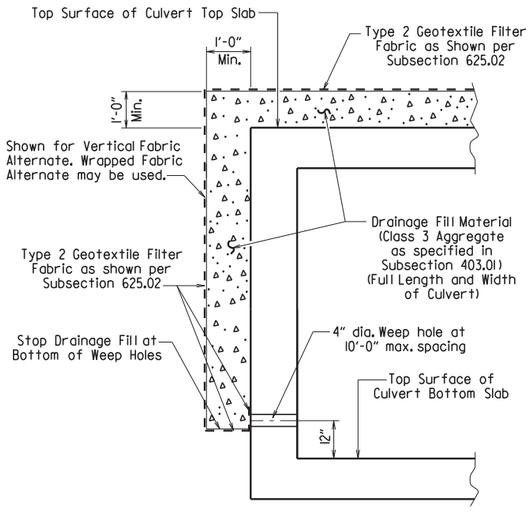
SKEWED SECTION LAYOUT FOR VARYING FILL DEPTHS OVER 10'

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 9235
CHARLES R. ELLIS

Jul 14 2020 5:31 PM

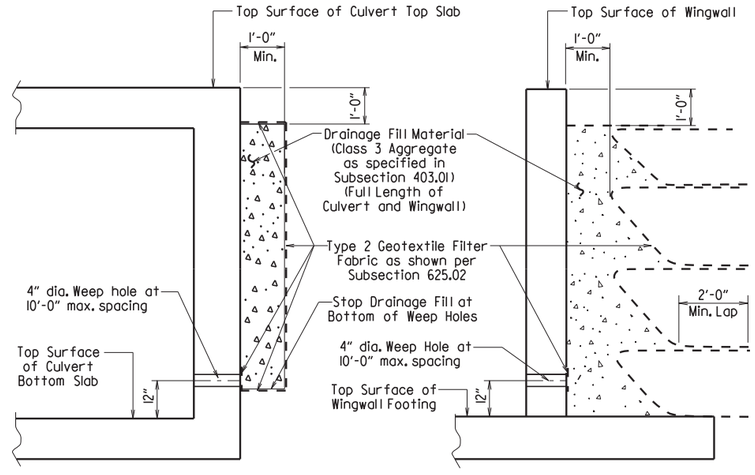
Charles R. Ellis

DocuSign



CULVERT DRAINAGE DETAIL FOR ROCK FILL

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

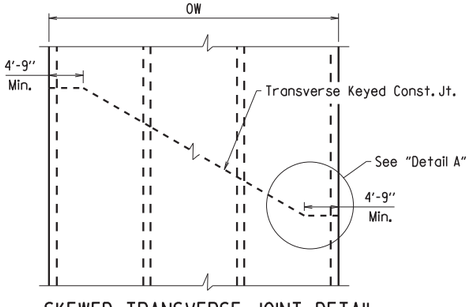


For Details of Excavation and Pay Limits, see Standard Drawing RCB-2.

VERTICAL FABRIC ALTERNATE
(Shown for Culvert, Similar for Wingwall)

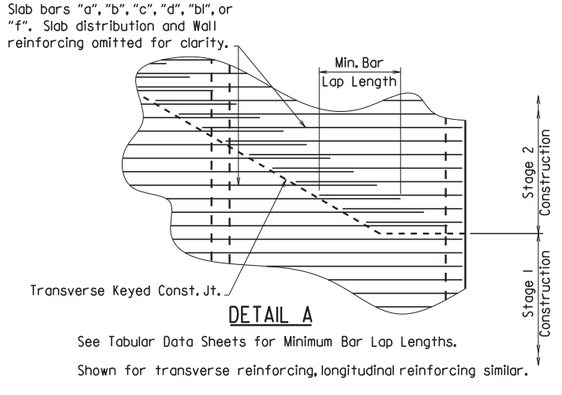
WRAPPED FABRIC ALTERNATE
(Shown for Wingwall, Similar for Culvert)

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.



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 ¾" 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 tine 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

LRFD

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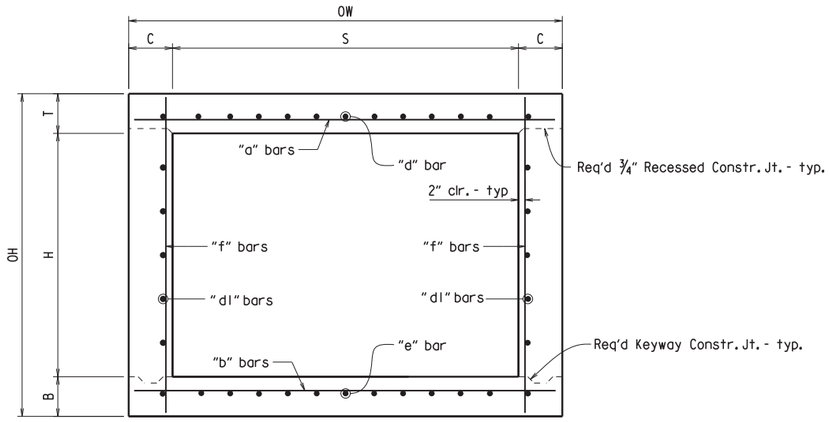
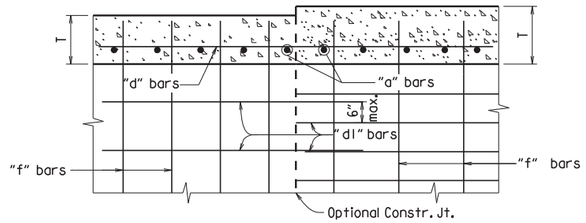
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	13	150
				(1)		SPECIAL DETAILS		

Note: When top slab of culvert serves as finished roadway surface, see General Notes on Sheet 1 of 4.



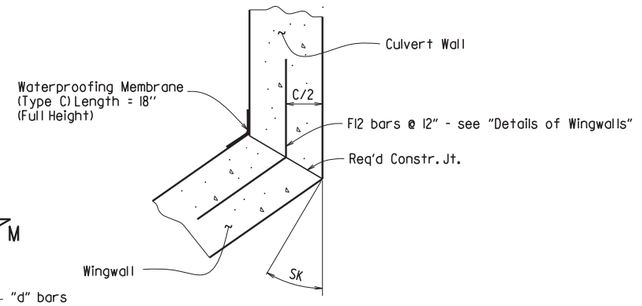
TYPICAL SECTION M-M



Longitudinal Bar Spacing at individual sections shall be maintained, which may result in noncontact bar laps.

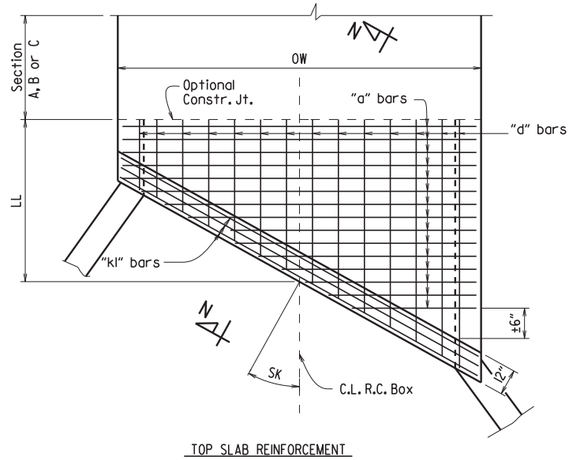
LONGITUDINAL LAP DETAIL AT CHANGE IN SECTIONS

TOP SLAB SHOWN, BOTTOM SLAB SIMILAR

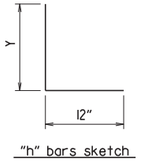


WINGWALL ATTACHMENT

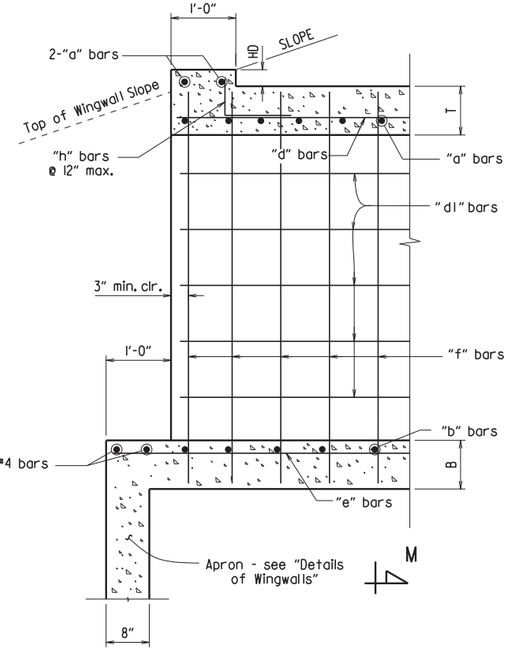
See "Details of Wingwalls" for additional information and wingwall details.



TOP SLAB REINFORCEMENT

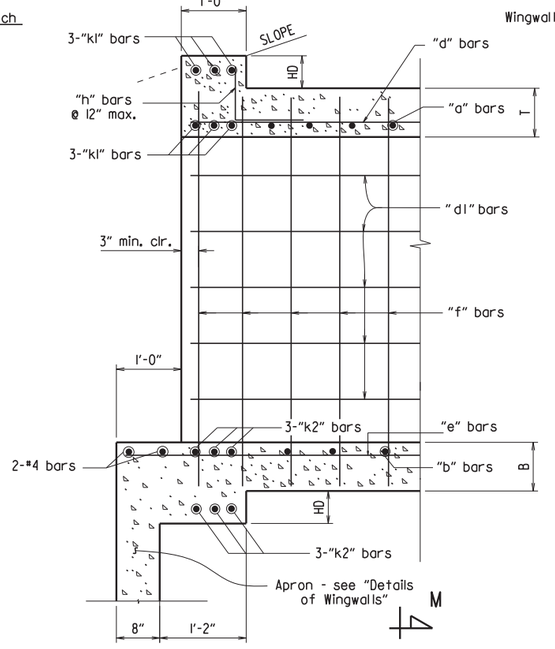


"h" bars sketch



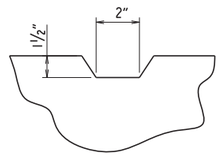
PART LONGITUDINAL SECTION

(Non-Skewed Ends)



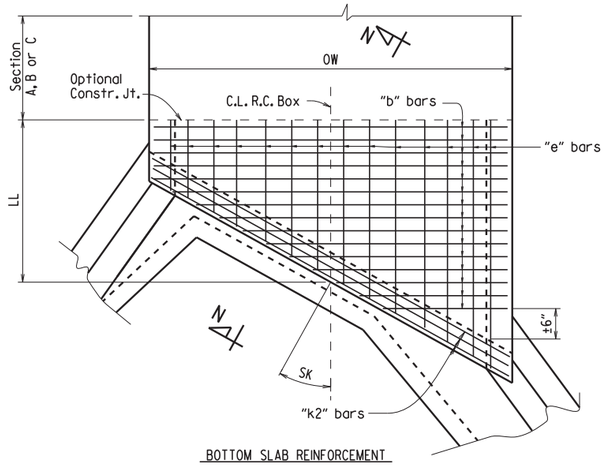
PART LONGITUDINAL SECTION N-N

(Skewed Ends)



TYPICAL KEYWAY DETAIL

(All Construction Joints)



BOTTOM SLAB REINFORCEMENT

SKEWED END SECTION DETAILS

SHEET 2 OF 4
GENERAL DETAILS OF R.C. BOX CULVERT

DETAILS OF SINGLE BARREL
R.C. BOX CULVERT

SPECIAL DETAILS

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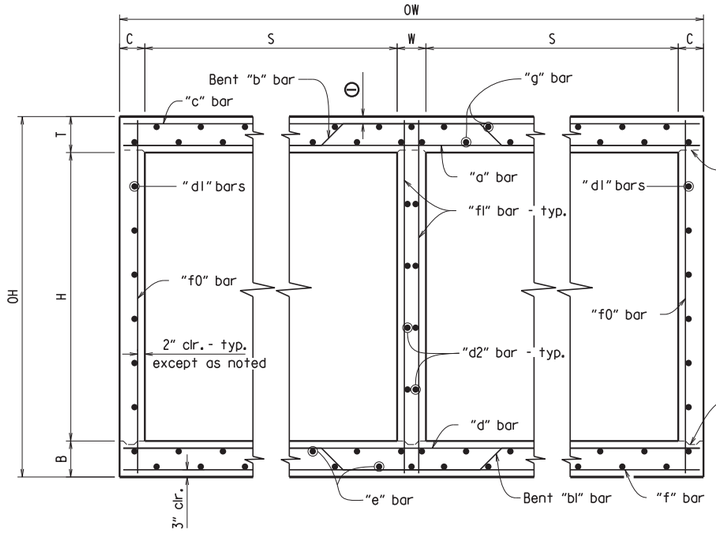
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 9235
CHARLES R. ELLIS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	14	150

① SPECIAL DETAILS

① 2" clr. for fill depth (D) greater than 2 ft.
2½" clr. for fill depth (D) equal to or less than 2 ft.

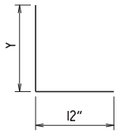
Note: When top slab of culvert serves as finished roadway surface, see General Notes on Sheet 1 of 4.



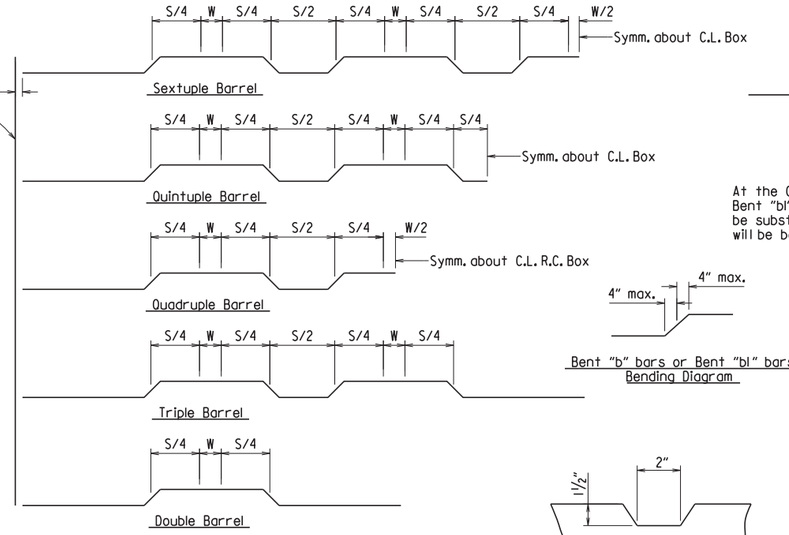
TYPICAL SECTION M-M

Top Slab
Straight "c" bars shall alternate with Bent "b" bars in top.
Straight "a" bars shall alternate with Bent "b" bars in bottom.

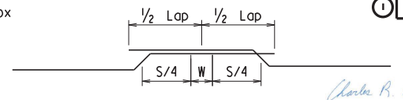
Bottom Slab
Straight "d" bars shall alternate with Bent "bl" bars in top.
Straight "f" bars shall alternate with Bent "bl" bars in bottom.



"h" bars sketch



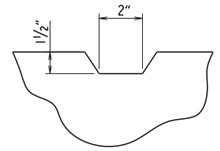
Bent "b" bars or Bent "bl" bars sketch



Lap Detail
For Bent "b" bars and Bent "bl" bars

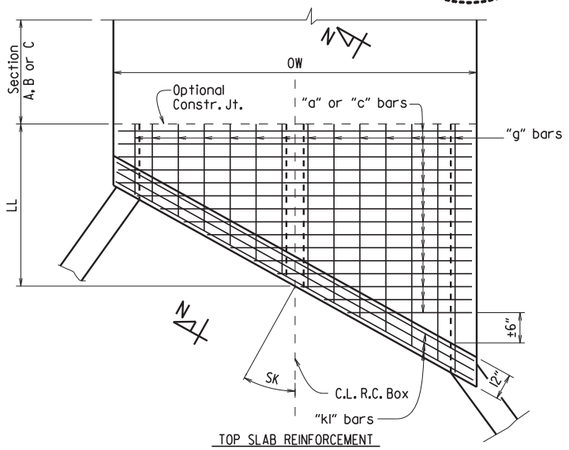
At the Contractor's option in lieu of providing Bent "b" or Bent "bl" bars, one bar top and bottom of equivalent size may be substituted for each bent bar. Payment for the reinforcing will be based on the weight of the "b" or "bl" bar.

Bent "b" bars or Bent "bl" bars Bending Diagram

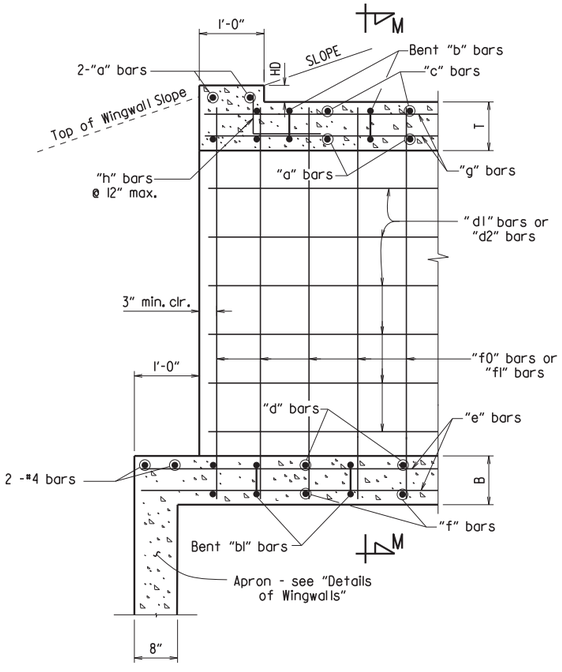


TYPICAL KEYWAY DETAIL

(All Construction Joints)

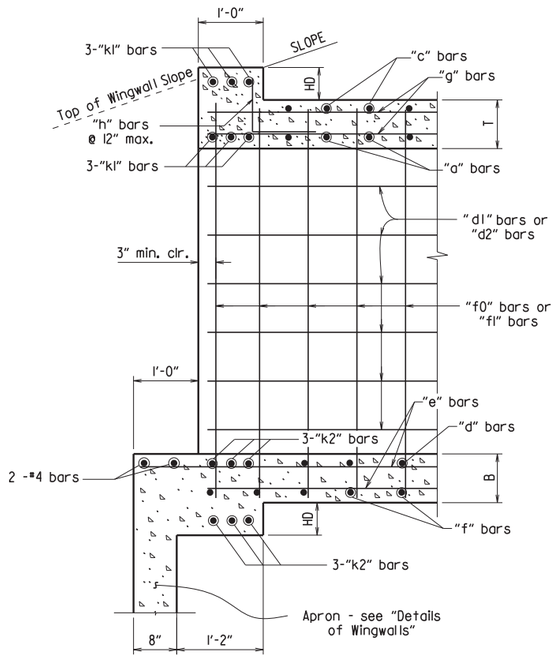


TOP SLAB REINFORCEMENT
Straight "c" bars in top.
Straight "a" bars in bottom.



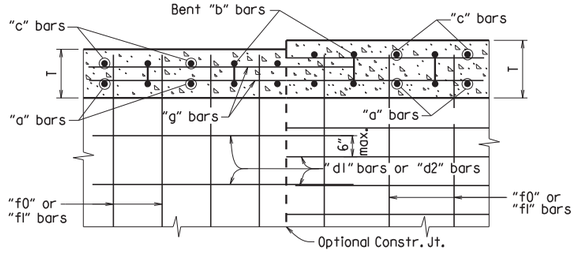
PART LONGITUDINAL SECTION

(Non-Skewed Ends)



PART LONGITUDINAL SECTION N-N

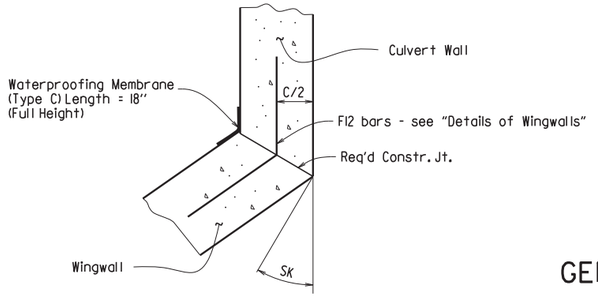
(Skewed Ends)



Longitudinal Bar Spacing at individual sections shall be maintained, which may result in noncontact bar laps.

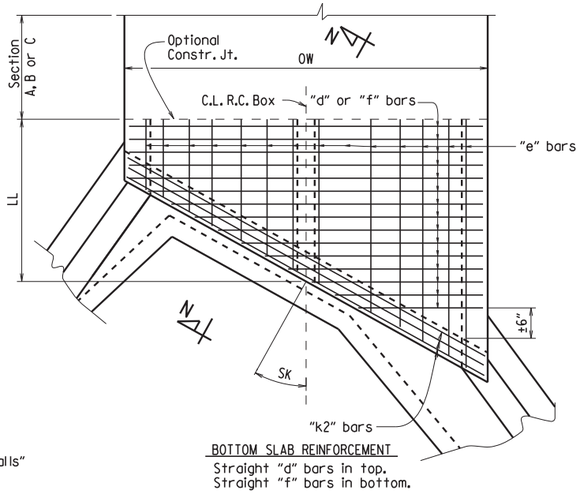
LONGITUDINAL LAP DETAIL AT CHANGE IN SECTIONS

TOP SLAB SHOWN, BOTTOM SLAB SIMILAR



WINGWALL ATTACHMENT

See "Details of Wingwalls" for additional information and wingwall details.



BOTTOM SLAB REINFORCEMENT
Straight "d" bars in top.
Straight "f" bars in bottom.

SKEWED END SECTION DETAILS

SHEET 3 OF 4
GENERAL DETAILS OF R.C. BOX CULVERT

DETAILS OF MULTI-BARREL R.C. BOX CULVERT

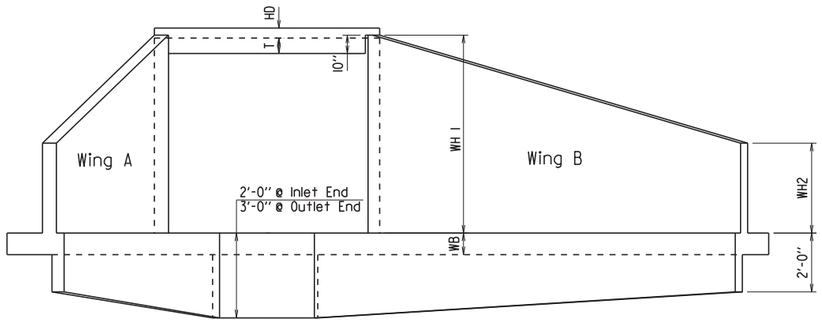
SPECIAL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 9235
CHARLES R. ELLIS
Jul 14 2023 5:31 PM

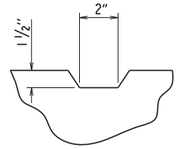
v 1.17 b061508_culvert.dgn

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	15	150

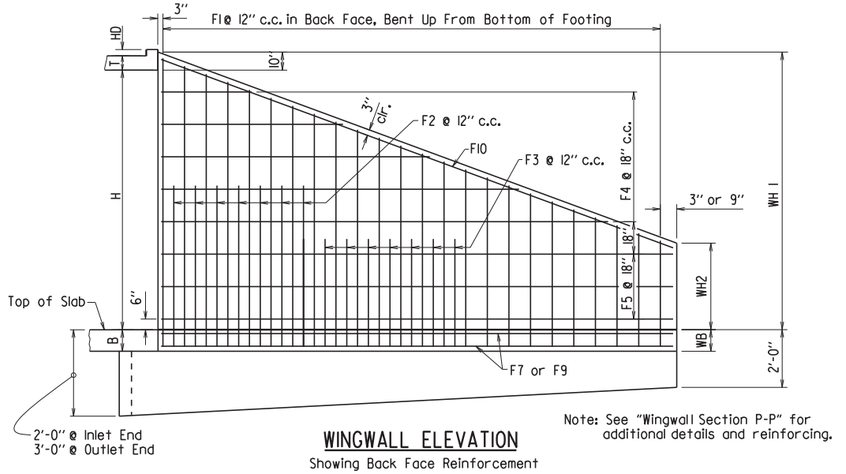
① SPECIAL DETAILS



END ELEVATION
Flared Wingwalls Shown

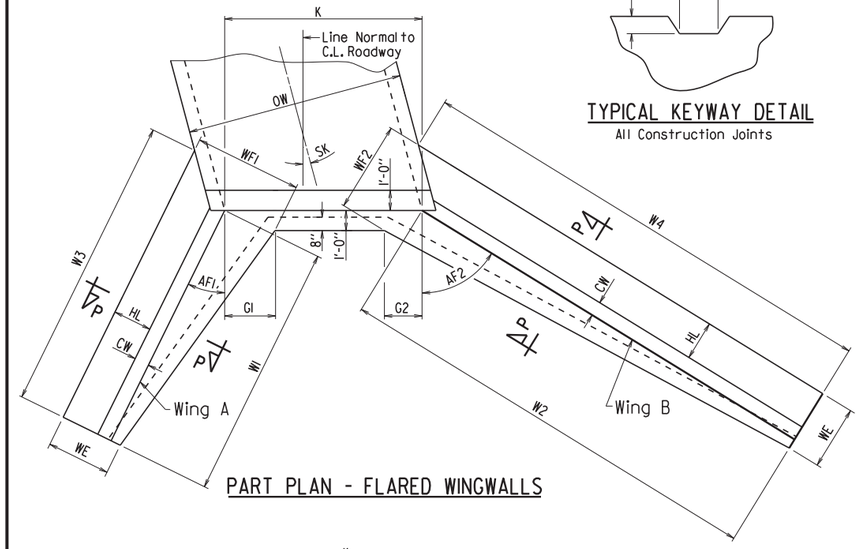


TYPICAL KEYWAY DETAIL
All Construction Joints

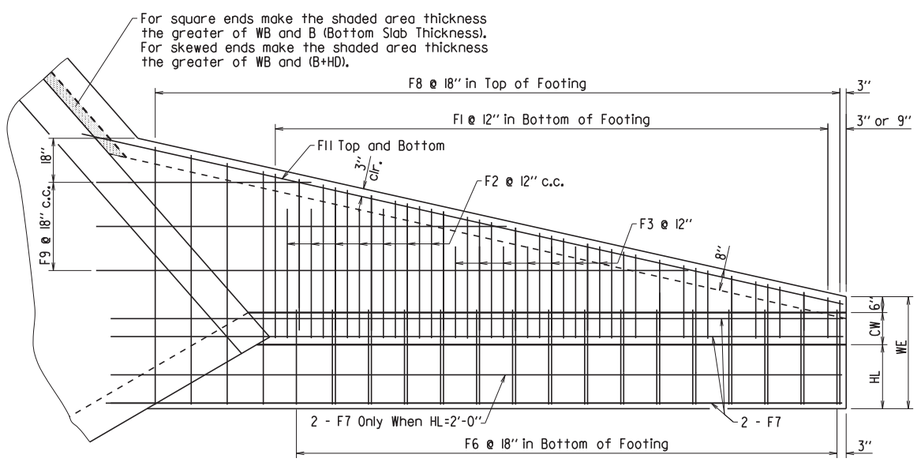


Note: See "Wingwall Section P-P" for additional details and reinforcing.

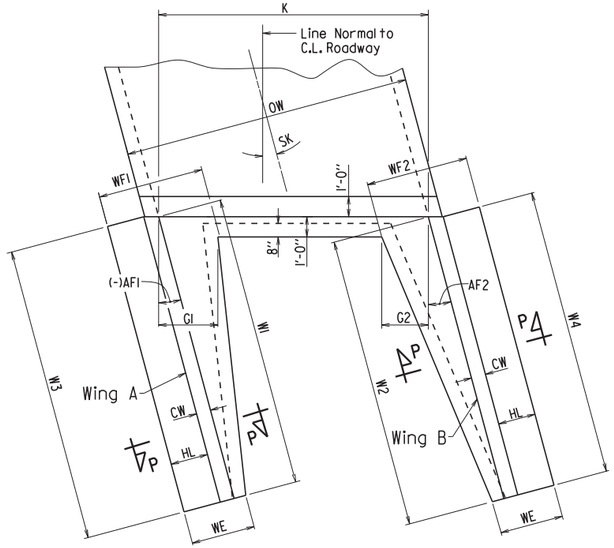
WINGWALL ELEVATION
Showing Back Face Reinforcement



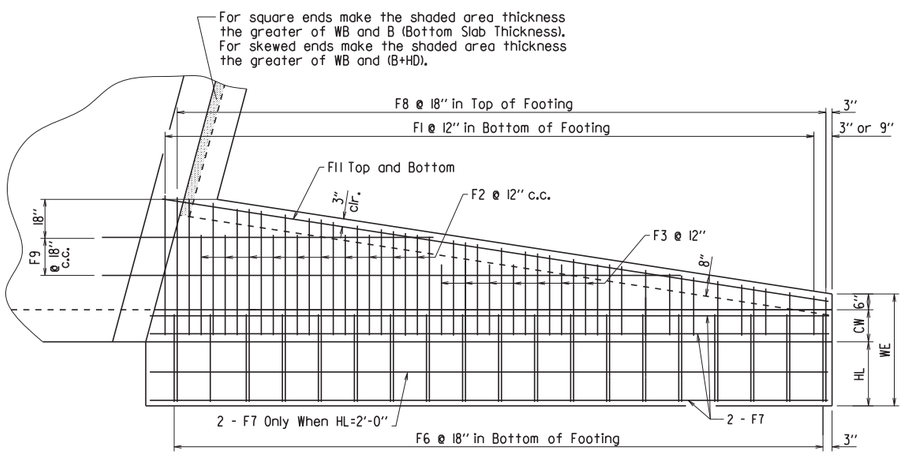
PART PLAN - FLARED WINGWALLS



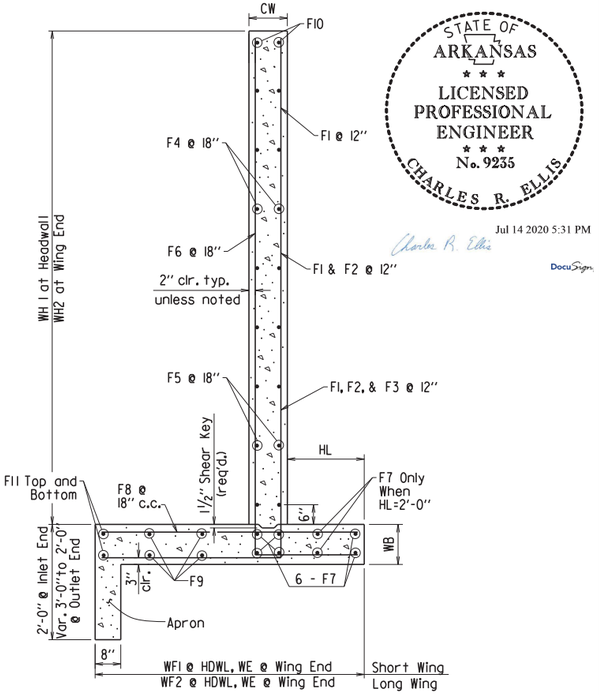
PLAN - FLARED WINGWALLS
Showing Footing Reinforcement



PART PLAN - PARALLEL WINGWALLS

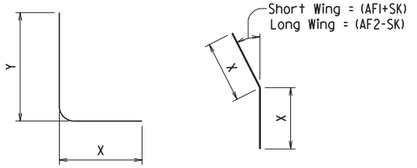


PLAN - PARALLEL WINGWALLS
Showing Footing Reinforcement



STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 9235
CHARLES R. ELLIS
Jul 14 2020 5:31 PM
Charles R. Ellis
DocuSign

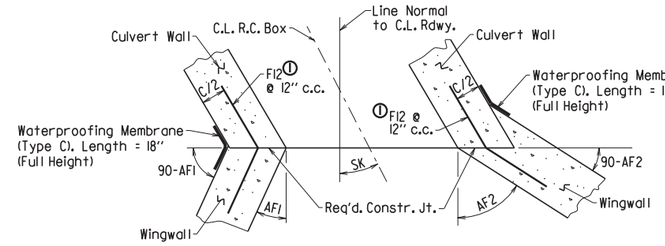
WINGWALL SECTION P-P



F1, F2, F3, & F6 BARS

①F12 BAR

①F12 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

LRFD

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	16	150

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

STA. 28+80.00
BEGIN JOB 061508
LOG MILE 0.44

LEGEND

E-6	= ROCK DITCH CHECKS
E-11	= SILT FENCE

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED. RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

REVISIONS

DATE OF REVISION	REVISION

NOTE: ENVIRONMENTAL RESTRAINING CONDITION. AREA DELINEATED SHALL NOT BE DISTURBED.

CLEARING AND GRUBBING
TEMPORARY EROSION CONTROL DETAILS

7/21/2020

R061508.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	17	150

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

REVISIONS

DATE OF REVISION	REVISION

LEGEND

(E-6) = ROCK DITCH CHECKS
(E-II) = SILT FECE

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED. RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

7/27/2020

R061508.DGN

CLEARING AND GRUBBING
TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	18	150

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

REVISIONS

DATE OF REVISION	REVISION

STA. 92+00.00
END JOB 061508
BEGIN JOB 061335

STA. 305+68.00
END SALEM RD.

LEGEND

E-6 = ROCK DITCH CHECKS
E-11 = SILT FENCE

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED. RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

C.L. HWY. 5 STA. 77+00.00 =
C.L. SALEM RD. STA. 300+00.00
Δ = 90°00'00"

CLEARING AND GRUBBING
TEMPORARY EROSION CONTROL DETAILS

7/21/2020

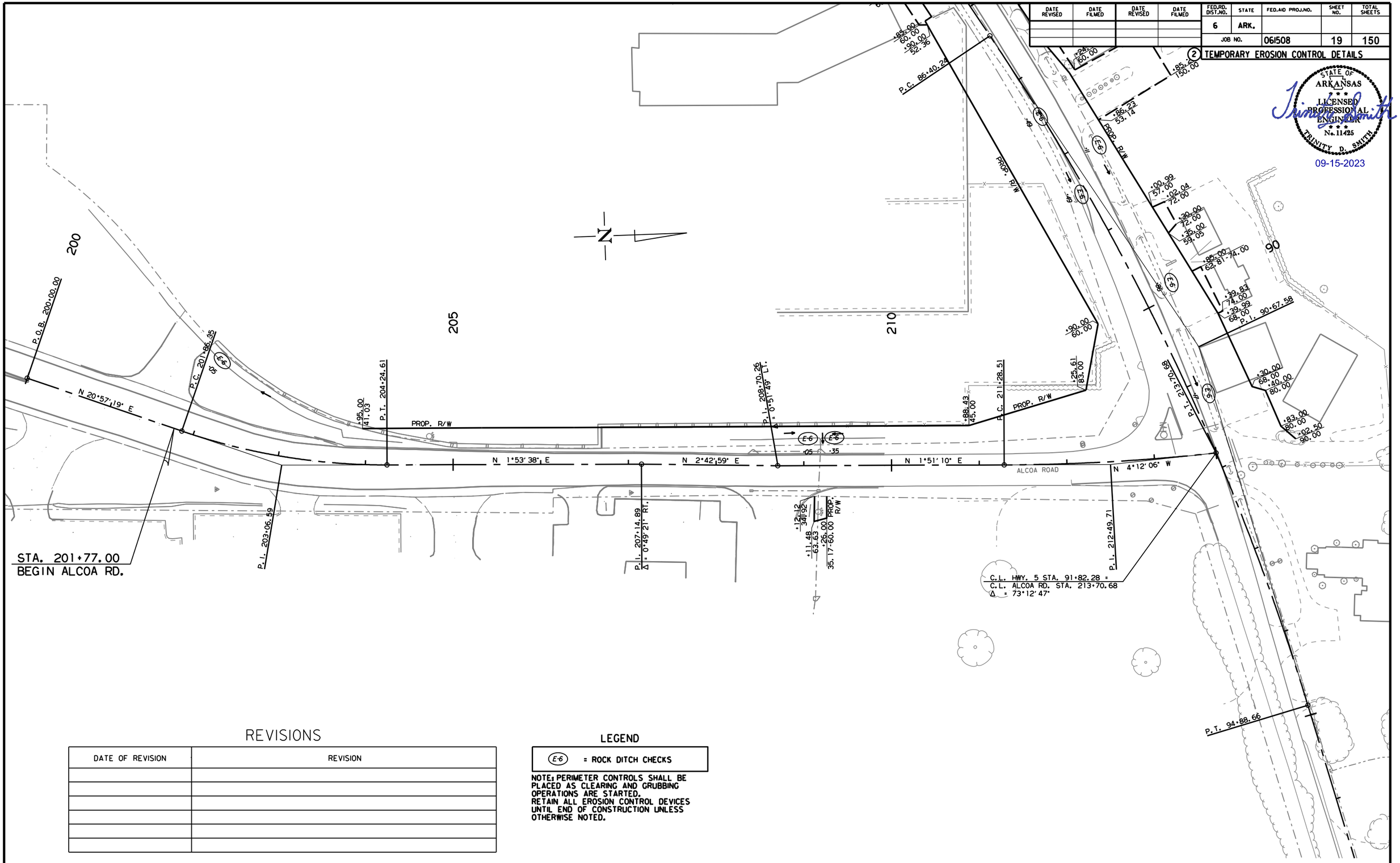
R06508.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	19	150

2 TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH

09-15-2023



REVISIONS

DATE OF REVISION	REVISION

LEGEND

(E-6) = ROCK DITCH CHECKS

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED. RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

CLEARING AND GRUBBING TEMPORARY EROSION CONTROL DETAILS

7/27/2020

R061508.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	20	150

(2) TEMPORARY EROSION CONTROL DETAILS

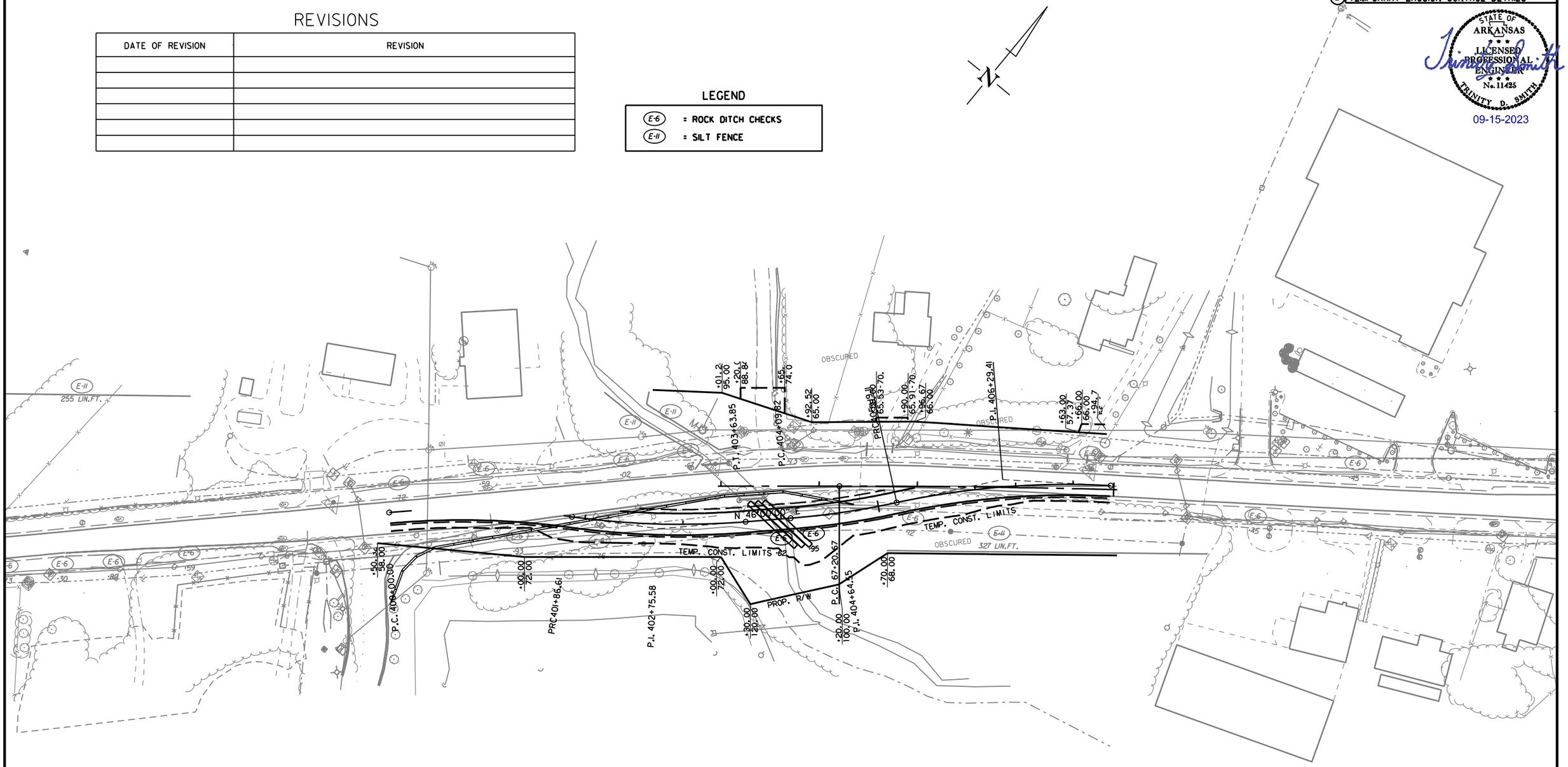
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

REVISIONS

DATE OF REVISION	REVISION

LEGEND

E-6 = ROCK DITCH CHECKS
E-11 = SILT FENCE



STAGE 1
TEMPORARY EROSION CONTROL DETAILS

7/27/2020

R061508.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	21	150

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

STA. 28+80.00
BEGIN JOB 061508
LOG MILE 0.44

LEGEND

E-6	= ROCK DITCH CHECKS
E-11	= SILT FENCE
E-13	= FILTER SOCK

REVISIONS

DATE OF REVISION	REVISION

NOTE: ENVIRONMENTAL RESTRAINING CONDITION. AREA DELINEATED SHALL NOT BE DISTURBED.

7/21/2020

R061508.DGN

STAGE 2
TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	22	150

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

REVISIONS

DATE OF REVISION	REVISION

LEGEND

- (E-6) = ROCK DITCH CHECKS
- (E-11) = SILT FENCE
- (E-13) = FILTER SOCK

STAGE 2
TEMPORARY EROSION CONTROL DETAILS

7/21/2020

R061508.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	23	150

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

REVISIONS

DATE OF REVISION	REVISION

STA. 92+00.00
END JOB 061508
BEGIN JOB 061335

LEGEND

- (E-6) = ROCK DITCH CHECKS
- (E-11) = SILT FENCE
- (E-13) = FILTER SOCK

STA. 305+68.00
END SALEM RD.

C.L. HWY. 5 STA. 77+00.00 =
C.L. SALEM RD. STA. 300+00.00
Δ = 90°00'00"

STAGE 2
TEMPORARY EROSION CONTROL DETAILS

7/21/2020

R061508.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	24	150

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

STA. 28+80.00
BEGIN JOB 061508
LOG MILE 0.44

LEGEND

E-6	= ROCK DITCH CHECKS
E-11	= SILT FENCE
E-13	= FILTER SOCK

REVISIONS

DATE OF REVISION	REVISION

NOTE: ENVIRONMENTAL RESTRAINING CONDITION. AREA DELINEATED SHALL NOT BE DISTURBED.

STAGE 3
TEMPORARY EROSION CONTROL DETAILS

1/21/2020

R061508.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	25	150

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

REVISIONS

DATE OF REVISION	REVISION

LEGEND

E-6 = ROCK DITCH CHECKS
E-11 = SILT FENCE
E-13 = FILTER SOCK

STAGE 3
TEMPORARY EROSION CONTROL DETAILS

1/21/2020

R061508.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	26	150

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

REVISIONS

DATE OF REVISION	REVISION

STA. 92+00.00
END JOB 061508
BEGIN JOB 061335

LEGEND

- (E-6) = ROCK DITCH CHECKS
- (E-11) = SILT FENCE
- (E-13) = FILTER SOCK

C.L. HWY. 5 STA. 77+00.00 =
C.L. SALEM RD. STA. 300+00.00
Δ = 90°00'00"

STA. 305+68.00
END SALEM RD.

STAGE 3
TEMPORARY EROSION CONTROL DETAILS

7/21/2020

R061508.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	27	150

(2) TEMPORARY EROSION CONTROL DETAILS

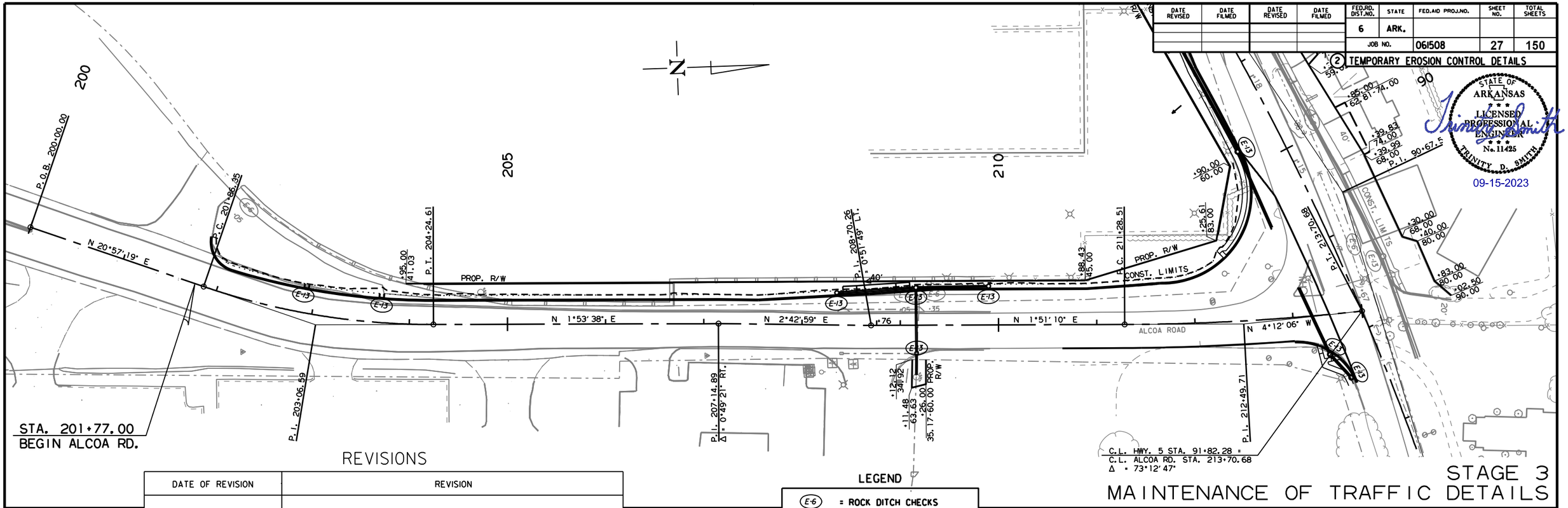
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

REVISIONS

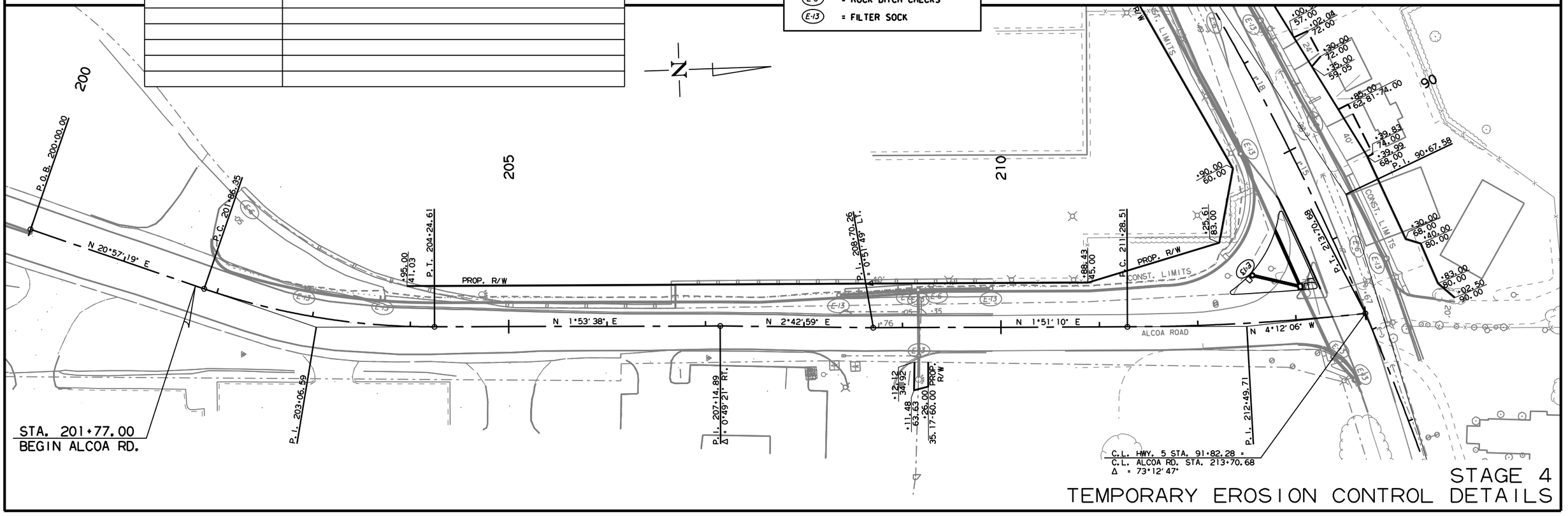
DATE OF REVISION	REVISION

LEGEND

E-6 = ROCK DITCH CHECKS
E-13 = FILTER SOCK



STAGE 3
MAINTENANCE OF TRAFFIC DETAILS



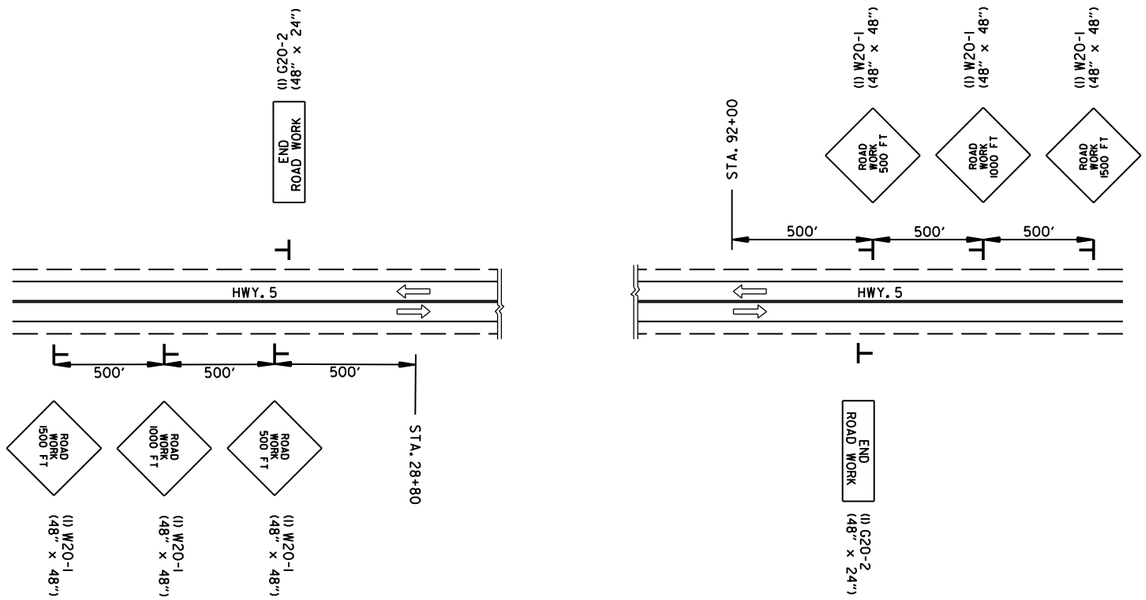
STAGE 4
TEMPORARY EROSION CONTROL DETAILS

1/27/2020

R061508.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	28	150

(2) MAINTENANCE OF TRAFFIC DETAILS



ADVANCE WARNING (ALL STAGES)

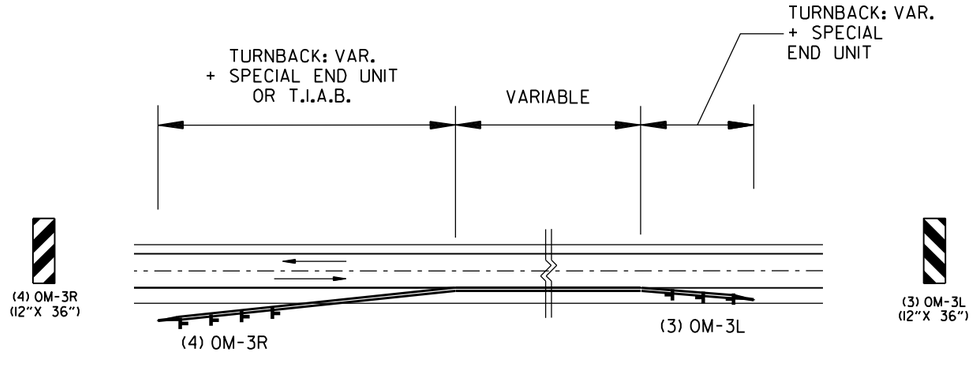
BUMP	(2) W8-1 (30" X 30")	ALL STAGES TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER
RIGHT SHOULDER CLOSED	(2) W21-5a (36" x 36")	ALL STAGES TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER
DO NOT PASS	(4) R4-1 (24" X 30")	ALL STAGES TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

Job 061508
Start Date Mo Year
Est Completion Mo Year
IDRIVE ARKANSAS.COM

(7) SPECIAL (96" x 48")

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH

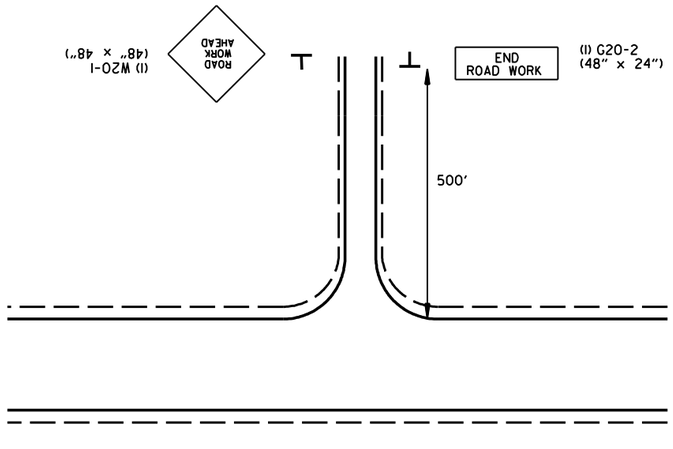
09-15-2023



REFER ALSO TO STANDARD DRAWING TC-5 FOR DETAILS OF PLACEMENT OF PCCB TURNBACKS.

NOTE: OM-3L & OM-3R SIGNS SHALL BE EQUALLY SPACED ALONG P.C.C.B. TURNBACK.

DETAIL OF OBJECT MARKERS
AT PRECAST CONCRETE BARRIER TURNBACKS



ADVANCE WARNING - SIDE ROADS
(ALL STAGES)

STA. 31+84 LT., AUGUSTA DR.
STA. 41+79 LT., SHOAL CREEK DR.
STA. 77+00 LT., SALEM RD.
STA. 91+82 RT., ALCOA RD.
STA. 305+29 LT., SCOTT-SALEM RD.

7/27/2020

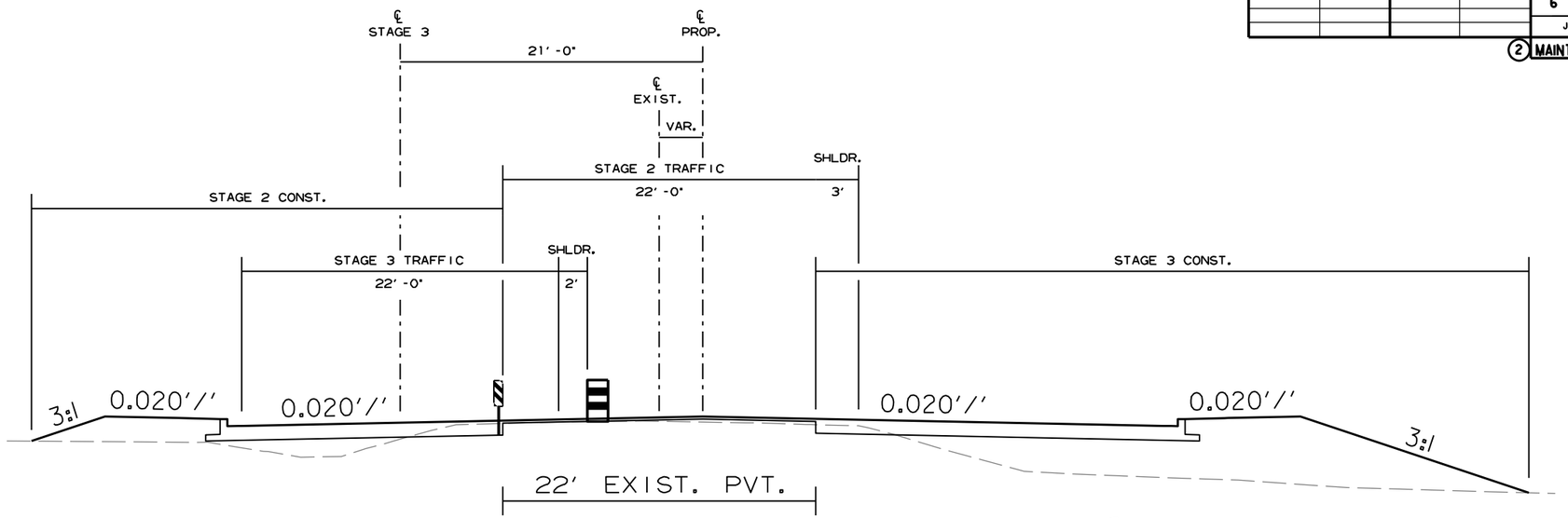
R061508.DGN

ADVANCE WARNING
MAINTENANCE OF TRAFFIC DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	29	150

(2) MAINTENANCE OF TRAFFIC DETAILS

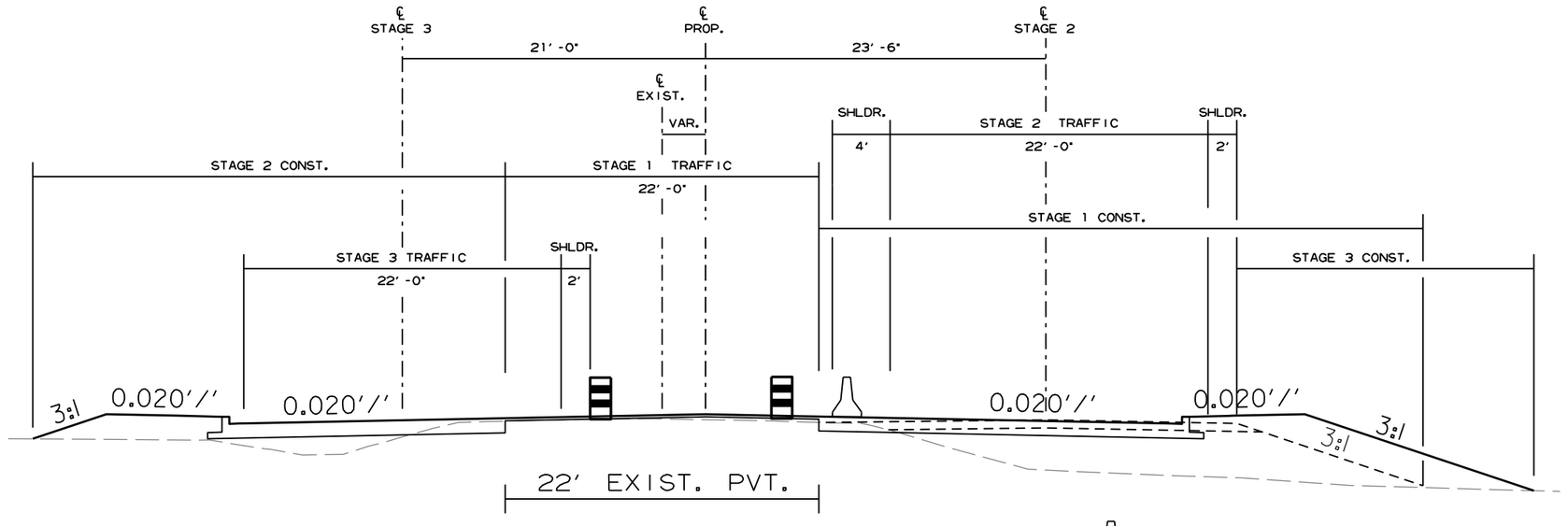
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023



DETAIL FOR STAGE CONSTRUCTION
STA. 28+80.00 - STA. 62+62.22
STA. 69+96.93 - STA. 92+00.00

= VERTICAL PANEL

= TRAFFIC DRUM



DETAIL FOR STAGE CONSTRUCTION
STA. 62+62.22 - STA. 69+96.93

= P.C.C.B.

= TRAFFIC DRUM

7/27/2020

R061508.DGN

ALL STAGES
MAINTENANCE OF TRAFFIC DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	30	150

(2) MAINTENANCE OF TRAFFIC DETAILS

STAGE 1 CONSTRUCTION SEQUENCE:

INSTALL ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS AT THE END OF JOB AS SHOWN ON THE ADVANCE WARNING DETAIL.

MAINTAIN TRAFFIC ON EXISTING LANES.

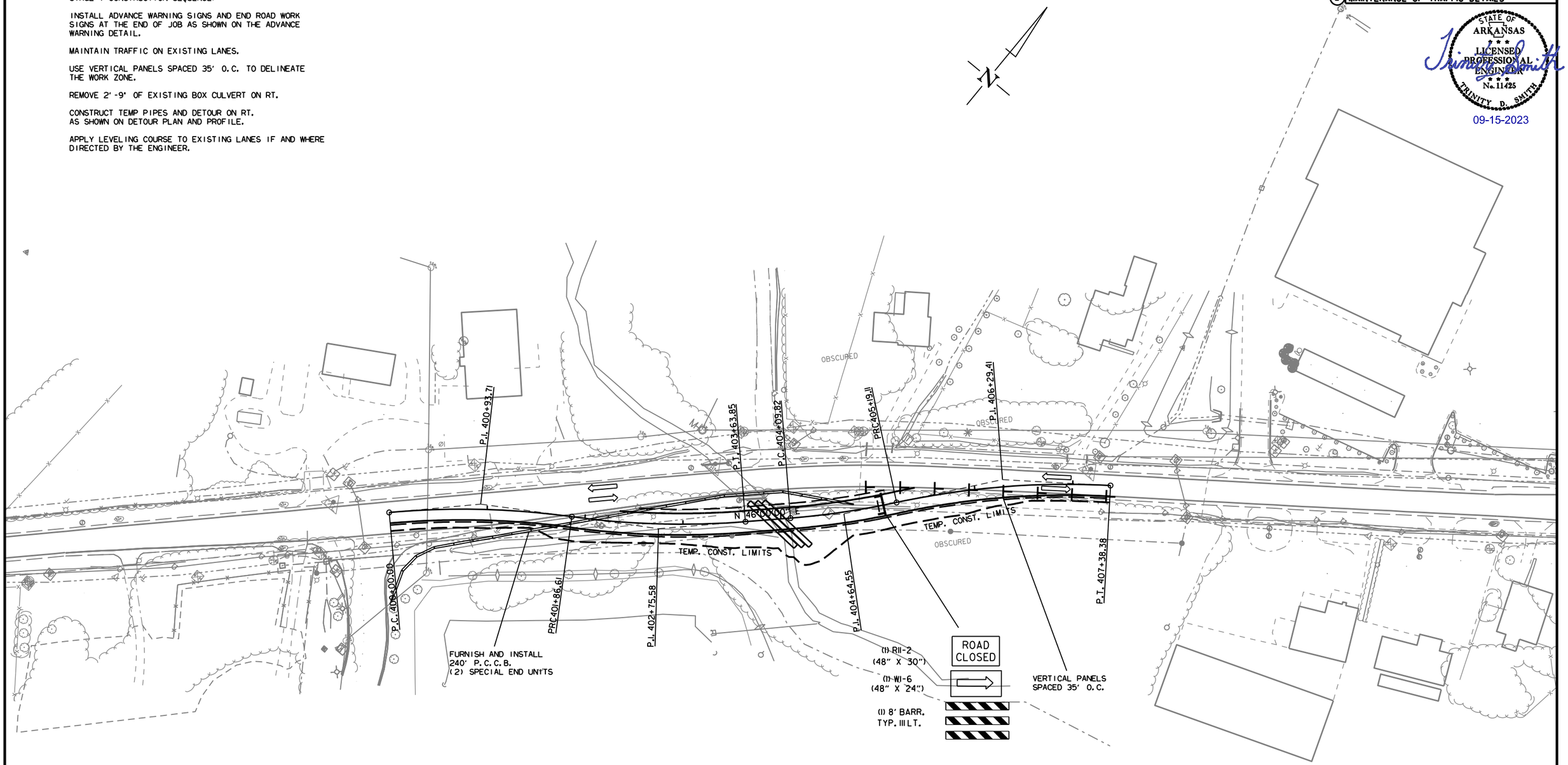
USE VERTICAL PANELS SPACED 35' O.C. TO DELINEATE THE WORK ZONE.

REMOVE 2'-9" OF EXISTING BOX CULVERT ON RT.

CONSTRUCT TEMP PIPES AND DETOUR ON RT. AS SHOWN ON DETOUR PLAN AND PROFILE.

APPLY LEVELING COURSE TO EXISTING LANES IF AND WHERE DIRECTED BY THE ENGINEER.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023



7/27/2020

R061508.DGN

STAGE 1
MAINTENANCE OF TRAFFIC DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	31	150

(2) MAINTENANCE OF TRAFFIC DETAILS

STAGE 2 CONSTRUCTION SEQUENCE:

INSTALL CONSTRUCTION PAVEMENT MARKINGS AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

INSTALL TEMPORARY SIGNALS AT THE INTERSECTIONS OF HWY. 5 WITH SALEM RD. AND ALCOA RD.

FURNISH AND INSTALL P.C.C.B. AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

USE TRAFFIC DRUMS AND VERTICAL PANELS SPACED 35' O.C. TO DELINEATE THE WORK ZONE. USE TRAFFIC DRUMS TO DELINEATE DRIVEWAYS.

NOTCH AND WIDEN HWY. 5 LT. FROM STA. 28+80.00 TO STA. 92+00.00 AND SALEM RD. LT. FROM STA. 300+00.00 TO STA. 305+68.00 AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

APPLY LEVELING COURSE TO EXISTING LANES IF AND WHERE DIRECTED BY THE ENGINEER.

STATE OF ARKANSAS
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No. 11425
TRINITY D. SMITH
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AUGUSTA DR.
EXIST. R/W
N 59°53'49" E
P.I. 26+68.58
STA. 28+80.00
BEGIN JOB 061508
LOG MILE 0.44
VERTICAL PANELS SPACED 35' O.C.
TRAFFIC DRUMS
CONST. LIMITS
PROP. R/W
N 50°34'00" E
SHOAL CREEK DR.
SHOAL CREEK DRIVE
P.C. 44+10.02
P.I. 46+50.35
P.T. 48+90.40
N 55°22'14" E
N 50°33'17" E
RET/WALL

STAGE 2
MAINTENANCE OF TRAFFIC DETAILS

7/27/2020
R06508.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	32	150

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

DETOUR
P.I. = 4+79.81
Δ = 9°05'03" LT.
D = 7°00'00"
T = 65.02'
L = 129.77'
P.C. = 4+14.79
P.R.C. = 5+44.56

DETOUR
P.I. = 0+61.99
Δ = 5°34'29" RT.
D = 4°30'00"
T = 61.99'
L = 123.88'
P.C. = 0+00.00
P.T. = 1+23.88

DETOUR
P.I. = 6+32.22
Δ = 12°13'34" RT.
D = 7°00'00"
T = 87.66'
L = 174.66'
P.R.C. = 5+44.56
P.T. = 7+19.22

ROAD CLOSED

(I) RII-2 (48" X 30")
(I) WI-6 (48" X 24")
(I) 8' BARR. TYP. IIILT.
(I) 8' BARR. TYP. IIIRT.
TRAFFIC DRUMS
CONST. LIMITS
PROP. R/W
TEMP. CONST. LIMITS
OBSCURED
VERTICAL PANELS SPACED 35' O.C.
TRAFFIC DRUMS SPACED 35' O.C.
(I) W24-1R (48"x48")
(I) W24-1L (48"x48")
(I) WI3-1 (24" X 24")
XX M.P.H.
FURNISH AND INSTALL 200' P.C.C.B. (2) SPECIAL END UNITS
GARDEN
T.C.E.

STAGE 2
MAINTENANCE OF TRAFFIC DETAILS

7/27/2020
R061508.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	33	150

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
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VERTICAL PANELS SPACED 35' O.C.

TRAFFIC DRUMS

CONST. LIMITS

PROP. R/W

T.C.E.

P.C. 86+40.24

P.T. 94+88.66

P.T. 213+70.68

P.I. 212+49.71

ALCOA ROAD

STA. 92+00.00
END JOB 061508
BEGIN JOB 061335

C.L. HWY. 5 STA. 77+00.00 =
C.L. SALEM RD. STA. 300+00.00
Δ = 90°00'00"

P.C. 300+58.10

P.I. 301+23.76

P.T. 304+08.45

Δ = 0°32'11" LT.

P.O.E. 306+00.00

SCOTT-SALEM RD.

OBSCURED

GARDEN

STA. 305+68.00
END SALEM RD.

STAGE 2
MAINTENANCE OF TRAFFIC DETAILS

7/21/2020

R061508.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	34	150

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

STAGE 3 CONSTRUCTION SEQUENCE:

INSTALL CONSTRUCTION PAVEMENT MARKINGS AS SHOWN IN THE STAGE 3 MAINTENANCE OF TRAFFIC DETAILS.

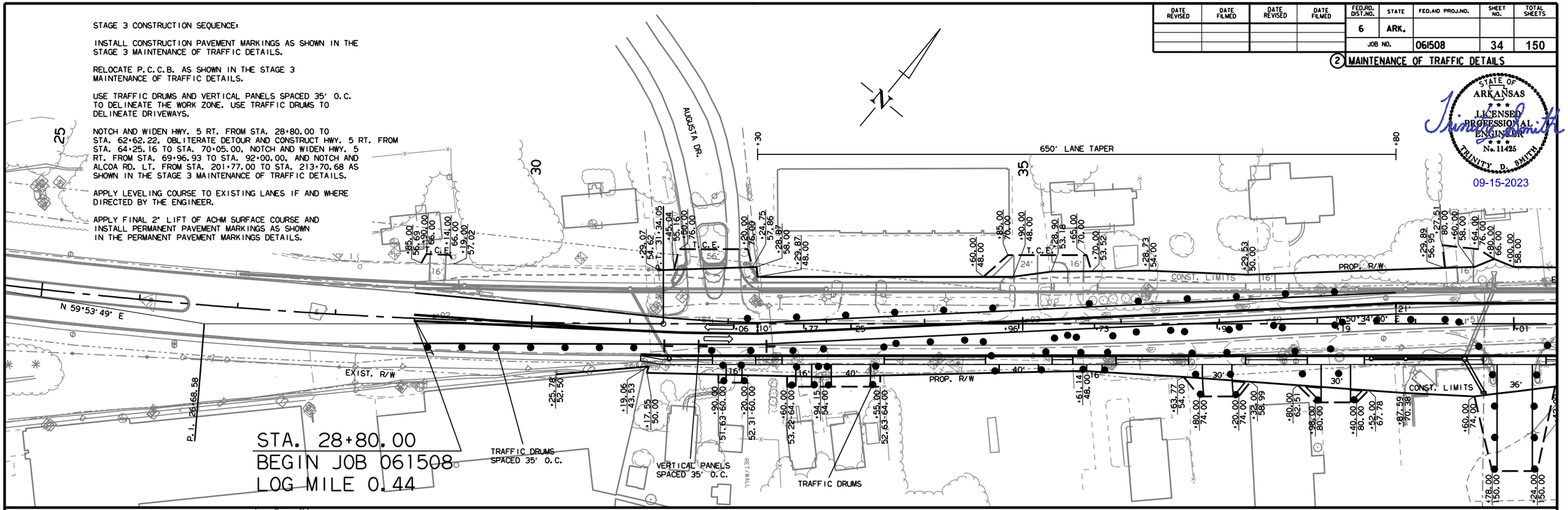
RELOCATE P.C.C.B. AS SHOWN IN THE STAGE 3 MAINTENANCE OF TRAFFIC DETAILS.

USE TRAFFIC DRUMS AND VERTICAL PANELS SPACED 35' O.C. TO DELINEATE THE WORK ZONE. USE TRAFFIC DRUMS TO DELINEATE DRIVEWAYS.

NOTCH AND WIDEN HWY. 5 RT. FROM STA. 28+80.00 TO STA. 62+62.22, OBLITERATE DETOUR AND CONSTRUCT HWY. 5 RT. FROM STA. 64+25.16 TO STA. 70+05.00, NOTCH AND WIDEN HWY. 5 RT. FROM STA. 69+96.93 TO STA. 92+00.00, AND NOTCH AND ALCOA RD. LT. FROM STA. 201+77.00 TO STA. 213+70.68 AS SHOWN IN THE STAGE 3 MAINTENANCE OF TRAFFIC DETAILS.

APPLY LEVELING COURSE TO EXISTING LANES IF AND WHERE DIRECTED BY THE ENGINEER.

APPLY FINAL 2" LIFT OF ACHM SURFACE COURSE AND INSTALL PERMANENT PAVEMENT MARKINGS AS SHOWN IN THE PERMANENT PAVEMENT MARKINGS DETAILS.



STAGE 3
MAINTENANCE OF TRAFFIC DETAILS

7/27/2020

R06508.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	35	150

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

ROAD CLOSED
(1) R11-2 (48" X 30")
(1) W1-6 (48" X 24")
(1) 8' BARR. TYP. III RT.
(1) 8' BARR. TYP. III RT.

RELOCATE 180' P.C.C.B. + (2) SPECIAL END UNITS

ROAD CLOSED
(1) R11-2 (48" X 30")
(1) W1-6 (48" X 24")
(1) 8' BARR. TYP. III LT.
(1) 8' BARR. TYP. III LT.

TRAFFIC DRUMS SPACED 35' O.C.

TRAFFIC DRUMS

TRAFFIC DRUMS SPACED 35' O.C.

VERTICAL PANELS SPACED 35' O.C.

225' TAPER

225' TAPER

110' LANE TAPER

CONST. LIMITS

PROP. R/W

TEMP. CONST. LIMITS

OBSCURED

GARDEN

T.C.E.

P.C. 73+38.56

P.T. 72+99.94

P.C. 67+20.67

P.I. 404+64.45

P.I. 402+75.58

P.I. 400+93.71

P.I. 78+10.78

P.I. 300+58.10

P.I. 301+23.75

P.C. 300+00.00

PRC401+86.61

N 50°33' 07" E

N 33°27' 04" E

N 34°49' 30" E

N 30°10' 11" E

STAGE 3
MAINTENANCE OF TRAFFIC DETAILS

7/27/2020

R061508.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	36	150

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

TRAFFIC DRUMS

VERTICAL PANELS SPACED 35' O.C.

STA. 92+00.00
END JOB 061508
BEGIN JOB 061335

STA. 305+68.00
END SALEM RD.

C.L. HWY. 5 STA. 77+00.00 =
C.L. SALEM RD. STA. 300+00.00
Δ = 90°00'00"

STAGE 3
MAINTENANCE OF TRAFFIC DETAILS

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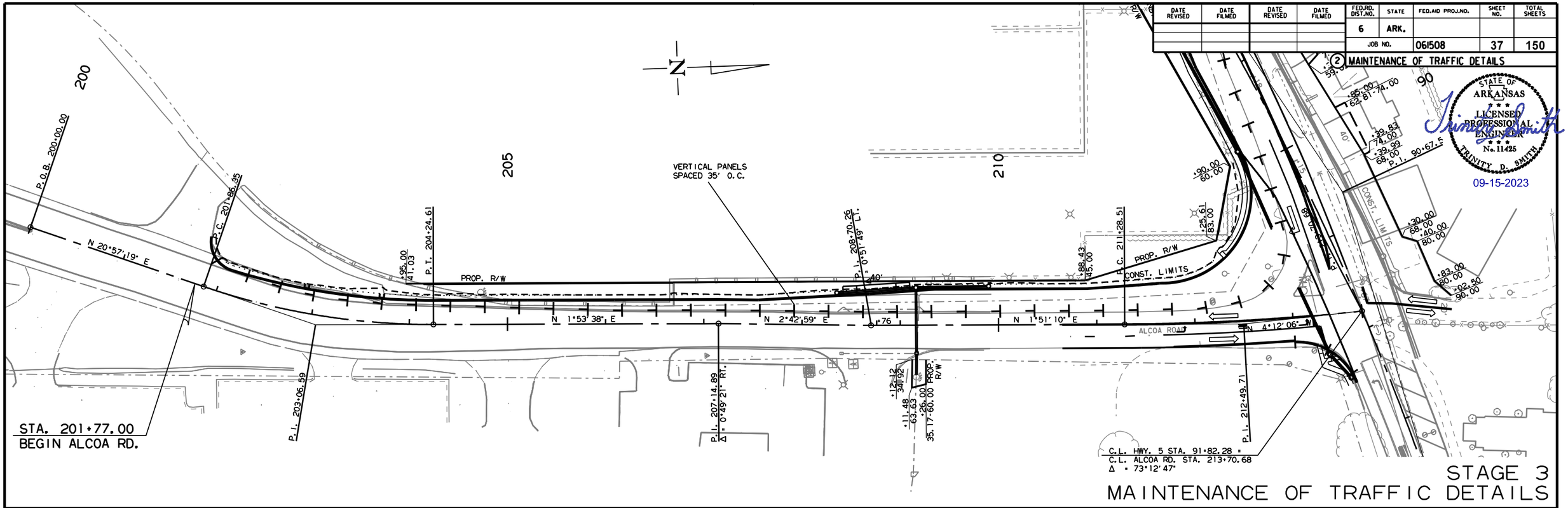
R061508.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	37	150

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

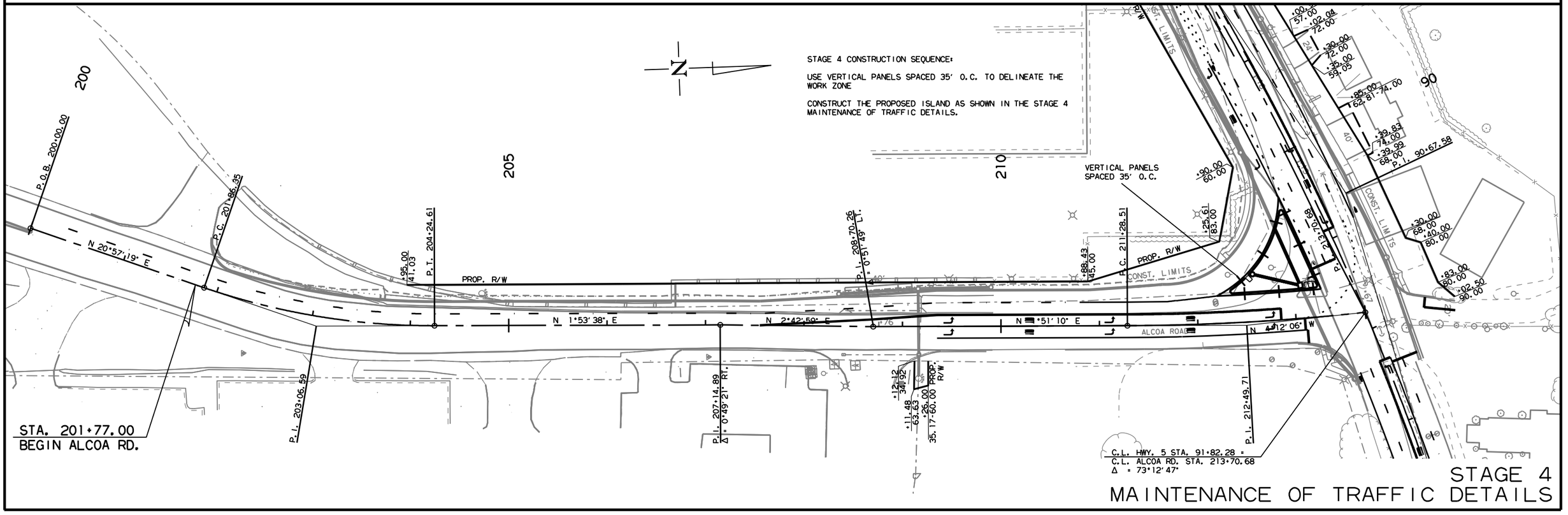


STAGE 3
MAINTENANCE OF TRAFFIC DETAILS

STAGE 4 CONSTRUCTION SEQUENCE:

USE VERTICAL PANELS SPACED 35' O.C. TO DELINEATE THE WORK ZONE

CONSTRUCT THE PROPOSED ISLAND AS SHOWN IN THE STAGE 4 MAINTENANCE OF TRAFFIC DETAILS.



STAGE 4
MAINTENANCE OF TRAFFIC DETAILS

1/21/2020

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	38	150

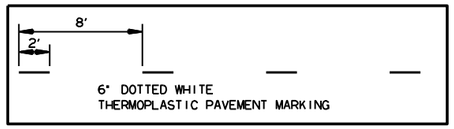
(2) PERMANENT PAVEMENT MARKING DETAILS

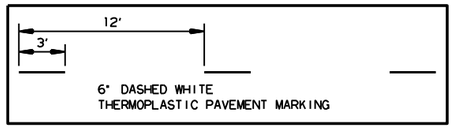
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

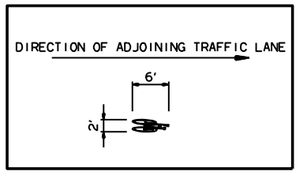
LEGEND

- = 6" WHITE THERMOPLASTIC PAVEMENT MARKING
- = 6" SKIP WHITE THERMOPLASTIC PAVEMENT MARKING & RAISED PAVEMENT MARKERS (TYPE II)(WHITE/RED) SPACED 80' O.C.
- = 12" WHITE (STOP LINE) THERMOPLASTIC PAVEMENT MARKING
- = 12" WHITE (CROSSWALK) THERMOPLASTIC PAVEMENT MARKING
- = 6" SKIP YELLOW WITH 6" YELLOW THERMOPLASTIC PAVEMENT MARKING & RAISED PAVEMENT MARKERS (TYPE II)(YELLOW/YELLOW) SPACED 80' O.C.
- = THERMOPLASTIC PAVEMENT MARKING (BIKE EMBLEM)
- = THERMOPLASTIC PAVEMENT MARKING (WORD)
- = THERMOPLASTIC PAVEMENT MARKING (ARROW)

NOTE: USE THE CORRESPONDING PAVEMENT MARKINGS LISTED ABOVE UNLESS OTHERWISE SPECIFIED IN THE PERMANENT PAVEMENT MARKING DETAILS.



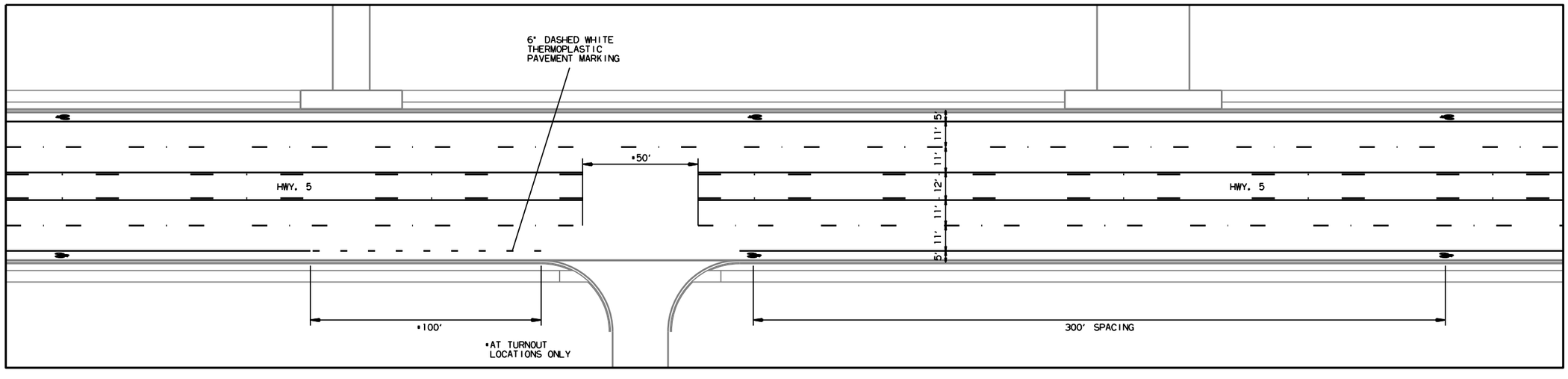




BIKE EMBLEM DETAIL

PERMANENT PAVEMENT MARKINGS

RAISED PAVEMENT MARKERS TYPE II (YEL/YEL) (80' O.C.) = 186 EACH
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) (80' O.C.) = 206 EACH
THERMOPLASTIC PAVEMENT MARKING WHITE (6") = 18695 LIN. FT.
THERMOPLASTIC PAVEMENT MARKING WHITE (8") = 333 LIN. FT.
THERMOPLASTIC PAVEMENT MARKING WHITE (12") = 1197 LIN. FT.
THERMOPLASTIC PAVEMENT MARKING YELLOW (6") = 20118 LIN. FT.
THERMOPLASTIC PAVEMENT MARKING (WORDS) = 13 EACH
THERMOPLASTIC PAVEMENT MARKING (ARROWS) = 22 EACH
THERMOPLASTIC PAVEMENT MARKING (BIKE EMBLEMS) = 45 EACH
REFLECTORIZED PAINT PAVEMENT MARKING WHITE (10") = 264 LIN. FT.



HWY. 5 STRIPING DETAIL

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R061508.DGN

PERMANENT PAVEMENT MARKING DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	39	150

(2) PERMANENT PAVEMENT MARKING DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

STA. 28+80.00
BEGIN JOB 061508
LOG MILE 0.44

20 25 30 35

P.C. 22+01.03
P.T. 20+66.28
N 59°53'49" E
19.51
EXIST. R/W
125' TAPER
45
70
6" DASHED WHITE THERMOPLASTIC PAVEMENT MARKING
AUGUSTA DR.
P.I. 31+34.05
T.C.E. 16'
T.C.E. 56'
T.C.E. 24'
+84
+96
16' 16' 40' PROP. R/W 40'
P.I. 26+68.58
6" DBL. YELLOW THERMOPLASTIC PAVEMENT MARKING & RAISED PAVEMENT MARKERS (TYPE III)(YELLOW/YELLOW) SPACED 80' O.C.

35 40 45 50

SHOAL CREEK DR.

NOTE: ENVIRONMENTAL RESTRAINING CONDITION. AREA DELINEATED SHALL NOT BE DISTURBED.

T.C.E. 24' 16'
CONST. LIMITS 16'
PROP. R/W 16'
EXIST. R/W
PROP. R/W 24'
CONST. LIMITS 40'
P.I. 46+50.35
20'
40'
P.C. 49+98.88
N 50°34'00" E
N 50°34'00" E
N 55°00'14" E
30'
30'
CONST. LIMITS 36'
24'
P.C. 44+10.02
26'
CONST. LIMITS
PROP. R/W
30'
P.T. 48+90.40

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R061508.DGN

PERMANENT PAVEMENT MARKING DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

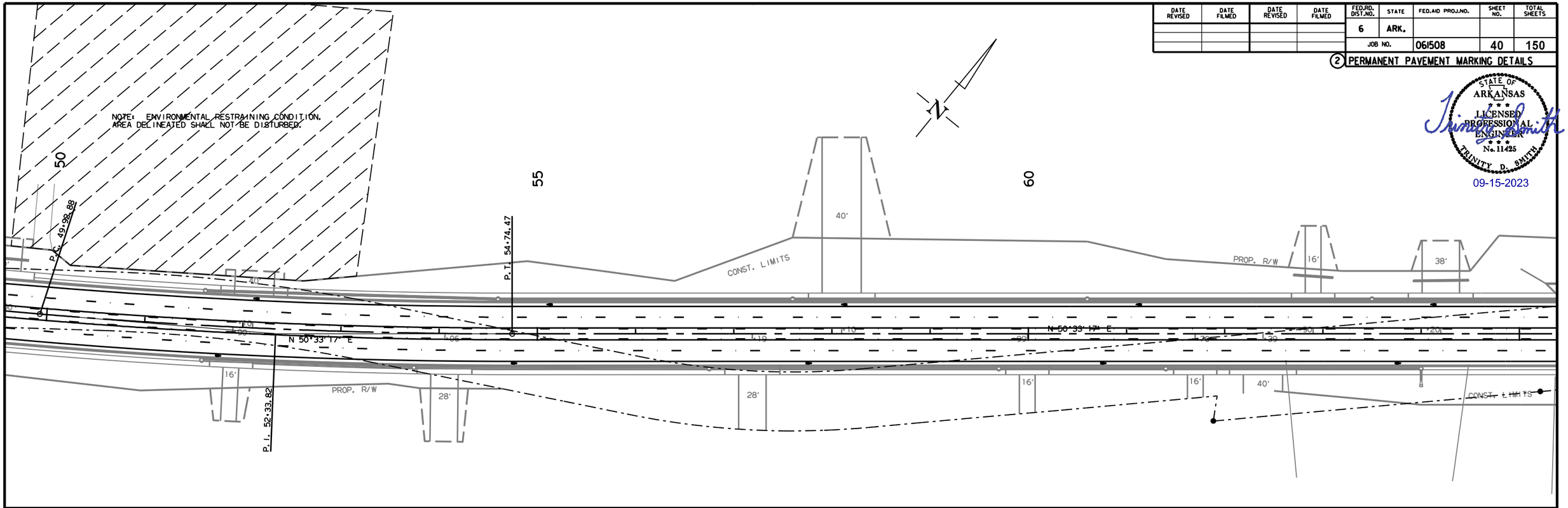
FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	40	150

(2) PERMANENT PAVEMENT MARKING DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH

09-15-2023

NOTE: ENVIRONMENTAL RESTRAINING CONDITION.
AREA DELINEATED SHALL NOT BE DISTURBED.



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PERMANENT PAVEMENT MARKING DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	41	150

(2) PERMANENT PAVEMENT MARKING DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

STA. 92+00.00
END JOB 061508
BEGIN JOB 061335

80 85 90 95

+00.00 51.86-62.00
+45.00 51.43-62.00
+60.00 51.12-62.00
+05.00 51.32-62.00

36' 32' 34' 30' 30' 30' 40' 54' PROP. R/W

T.C.E.

N 58°18'14" E

L.24 L.30 L.14 L.84 L.08 L.10 L.43 L.17 L.56 L.68 L.96

26' 40' 24' T.C.E. 38' 40' CONST. LIMITS PROP. R/W 24'

P.T. 82+82.47

P.C. 86+40.24

6" DBL. YELLOW THERMOPLASTIC PAVEMENT MARKING & RAISED PAVEMENT MARKERS (TYPE I)(YELLOW/YELLOW) SPACED 80' O.C.

6" DASHED WHITE THERMOPLASTIC PAVEMENT MARKING

P.I. 90+67.58

•90 •90 •90 •20

24' 40' CONST. LIMITS

6" DBL. YELLOW THERMOPLASTIC PAVEMENT MARKING & RAISED PAVEMENT MARKERS (TYPE I)(YELLOW/YELLOW) SPACED 80' O.C.

EXISTING PAVEMENT MARKING (RETAIN)

•34 •39 •67

P.I. 213+70.68

24' 24' 60.8'

6" DOTTED WHITE THERMOPLASTIC PAVEMENT MARKING

8" WHITE THERMOPLASTIC PAVEMENT MARKING AND 10" WHITE REFLECTORIZED PAINT ON CURB

N 53°12.06'

P.I. 212+49.71

P.C. 211+28.91

PROP. R/W CONST. LIMITS

6" DBL. YELLOW THERMOPLASTIC PAVEMENT MARKING & RAISED PAVEMENT MARKERS (TYPE I)(YELLOW/YELLOW) SPACED 80' O.C.

•34 •34

P.T. 94+88.66

95 100 105 110

N

EXISTING PAVEMENT MARKING (RETAIN)

•34 •08.55 •08.55

N 75°08'20" E

P.I. 105+54.48

P.T. 94+88.66

P.C. 104+26.60

P.T. 106+82.19

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PERMANENT PAVEMENT MARKING DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	42	150

(2) PERMANENT PAVEMENT MARKING DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

P.T. 72+99.94
P.C. 73+38.56
N 52°37'04" E
CONST. LIMITS
PROP. R/W
75
305
SCOTT-SALEM RD.
P.C. 300+58.10
P.I. 300+92.16
P.T. 301+23.76
T.C.E.
30'
PROP. R/W
CONST. LIMITS 20'
P.I. 304+08.45
Δ = 0°32'11" LT.
T.C.E.
20'
P.O.E. 306+00.00
N 2°52'45" E
N 2°20'34" E
PROP. R/W
N 34°44'
C.L. HWY. 5 STA. 77+00.00 =
C.L. SALEM RD. STA. 300+00.00
Δ = 90°00'00"
70' R.
P.I. 78+10.78
CONST. LIMITS
PROP. R/W
80
6" DBL. YELLOW THERMOPLASTIC PAVEMENT MARKING & RAISED PAVEMENT MARKERS (TYPE I)(YELLOW/YELLOW) SPACED 80' O.C.
STA. 305+68.00
END SALEM RD.

200
P.O.B. 200+00.00
N 20°57'19" E
P.C. 201+86.85
205
P.T. 204+24.61
PROP. R/W
N 1°53'38" E
P.I. 203+06.59
180' TAPER
P.I. 207+14.89
Δ = 0°49'21" RT.
210
P.I. 208+70.26
Δ = 0°51'49" LT.
N 2°42'59" E
N 1°51'10" E
6" DBL. YELLOW THERMOPLASTIC PAVEMENT MARKING & RAISED PAVEMENT MARKERS (TYPE I)(YELLOW/YELLOW) SPACED 80' O.C.
P.C. 211+28.51
PROP. R/W
CONST. LIMITS
P.I. 212+49.71
PROP R/W
N 4°12'06"
90
P.I. 90+67.58
CONST. LIMITS
C.L. HWY. 5 STA. 91+82.28 =
C.L. ALCOA RD. STA. 213+70.68
Δ = 73°12'47"
STA. 201+77.00
BEGIN ALCOA RD.

PERMANENT PAVEMENT MARKING DETAILS

7/27/2020

R061508.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	43	150

(2) QUANTITIES

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

ADVANCE WARNING SIGNS AND DEVICES

SIGN NUMBER	DESCRIPTION	SIGN SIZE	STAGE 1	STAGE 2	STAGE 3	STAGE 4	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		VERTICAL PANELS	TRAFFIC DRUMS	BARRICADES (TYPE III)		FURNISHING & INSTALLING PRECAST CONC. BARRIER	RELOCATING PRECAST CONCRETE BARRIER	CONSTRUCTION PROJECT INFORMATION SIGN UPDATE	* PORTABLE CHANGEABLE MESSAGE SIGN
												RIGHT	LEFT				
			LIN. FT. - EACH					NO.	SQ. FT.	EACH				LIN. FT.		EACH	WEEK
W20-1	ROAD WORK 1500 FT.	48"x48"	2	2	2	2	2	2	32.0								
W20-1	ROAD WORK 1000 FT.	48"x48"	2	2	2	2	2	2	32.0								
W20-1	ROAD WORK 500 FT.	48"x48"	2	2	2	2	2	2	32.0								
W20-1	ROAD WORK AHEAD	48"x48"	5	5	5	5	5	5	80.0								
G20-2	END ROAD WORK	48"x24"	7	7	7	7	7	7	56.0								
R11-2	ROAD CLOSED	48"x30"		2	2		2	2	20.0								
OM-3L	OBJECT MARKER	12"x36"		3	3		3	3	9.0								
OM-3R	OBJECT MARKER	12"x36"		4	4		4	4	12.0								
W1-6	LARGE ARROW	48"x24"		2	2		2	2	16.0								
R4-1	DO NOT PASS	24"x30"	4	4	4	4	4	4	20.0								
W21-5A	RIGHT SHOULDER CLOSED	36"x36"	2	2	2	2	2	2	18.0								
W8-1	BUMP	30"x30"	2	2	2	2	2	2	12.5								
W13-1	ADVISORY SPEED	24"X24"		2			2	2	8.0								
W24-1R	DOUBLE REVERSE CURVE RT.	48"x48"		1			1	1	16.0								
W24-1L	DOUBLE REVERSE CURVE LT.	48"x48"		1			1	1	16.0								
SPECIAL	WORK WITH US SIGN (USE CAUTION, SLOW DOWN)	96"x48"	2	2	2	2	2	2	64.0								
SPECIAL	CONSTRUCTION PROJECT INFORMATION	96"x48"	2	2	2	2	2	2	64.0								
	VERTICAL PANELS		17	141	58	9	141			141							
	TRAFFIC DRUMS			256	327		327				327						
	TYPE III BARRICADE-RT. (8')			2	2		2					16					
	TYPE III BARRICADE-LT. (8')			1	2		2						16				
	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER		240				240							240			
	RELOCATING PRECAST CONCRETE BARRIER			206	206		412								412		
	CONSTRUCTION PROJECT INFORMATION SIGN UPDATE															1	
*	PORTABLE CHANGEABLE MESSAGE SIGN		2				2										2
TOTALS:									**507.5**	**141**	**327**	**16**	**16**	**240**	**412**	**1**	**2**

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

THE QUANTITY OF VERTICAL PANELS PROVIDED IN THE CONTRACT IS FOR ONE SIDE OF THE ROADWAY FOR THE FULL LENGTH OF THE JOB. THIS IS THE MAXIMUM QUANTITY REQUIRED TO ALLOW THE CONTRACTOR TO NOTCH ONE MILE, BACKFILL TO A PONT WHERE THE VERTICAL DIFFERENTIAL IS 4" OR LESS, AND THEN NOTCH ANOTHER ONE-MILE SECTON. THIS IS THE MAXIMUM NUMBER OF VERTICAL PANELS THAT WILL BE PAID FOR. REFER TO SECTION 603.02 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION REQUIREMENTS.

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

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

DESCRIPTION	STAGE 1	STAGE 2	STAGE 3	STAGE 4	END OF JOB	REMOVAL OF PERMANENT PAVEMENT MARKINGS	CONSTRUCTION PAVEMENT MARKINGS	CONSTRUCTION PAVEMENT MARKINGS		REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS		THERMOPLASTIC PAVEMENT MARKING							REFLECTORIZED PAINT PAVEMENT MARKING
								WORDS	ARROWS		TYPE II (WHITE/RED)	TYPE II (YELLOW/YELLOW)	6" WHITE	6" YELLOW	8" WHITE	12" WHITE	WORDS	ARROWS	BIKE EMBLEMS	10" WHITE
	LIN. FT. - EACH					LIN. FT.		EACH		LIN. FT.	EACH		LIN. FT.				EACH			LIN. FT.
REMOVAL OF PERMANENT PAVEMENT MARKINGS			7310			7310														
CONSTRUCTION PAVEMENT MARKINGS		5086	23630				28716													
CONSTRUCTION PAVEMENT MARKINGS (WORDS)			7					7												
CONSTRUCTION PAVEMENT MARKINGS (ARROWS)			12						12											
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS			3975							3975										
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)					206						206									
RAISED PAVEMENT MARKERS TYPE II (YELLOW/YELLOW)					186							186								
THERMOPLASTIC PAVEMENT MARKING WHITE (6")					18695								18695							
THERMOPLASTIC PAVEMENT MARKING YELLOW (6")					20118									20118						
THERMOPLASTIC PAVEMENT MARKING WHITE (8")					333										333					
THERMOPLASTIC PAVEMENT MARKING WHITE (12")					1197											1197				
THERMOPLASTIC PAVEMENT MARKING (WORDS)					15												13			
THERMOPLASTIC PAVEMENT MARKING (ARROWS)					24													22		
THERMOPLASTIC PAVEMENT MARKING (BIKE EMBLEMS)					45														45	
REFLECTORIZED PAINT PAVEMENT MARKING WHITE (10")					264															264
TOTALS:						**7310**	**28716**	**7**	**12**	**3975**	**206**	**186**	**18695**	**20118**	**333**	**1197**	**13**	**22**	**45**	**264**

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

7/21/2020

R061508.DGN

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	44	150

(2) QUANTITIES

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

CLEARING AND GRUBBING

STATION	STATION	LOCATION	CLEARING	GRUBBING
			STATION	
35+55	36+40	HWY. 5	2	2
37+80	40+00	HWY. 5	3	3
43+15	45+60	HWY. 5	3	3
51+50	61+80	HWY. 5	11	11
64+50	71+00	HWY. 5	7	7
81+80	83+00	HWY. 5	2	2
303+10	303+35	SALEM RD.	1	1
TOTALS:			29	29

REMOVAL AND DISPOSAL OF ITEMS

STATION	STATION	LOCATION	CURB	CURB AND GUTTER	RETAINING WALLS	CONCRETE PAVEMENT	CONCRETE DRIVEWAYS	WALKS	SIGN FOUNDATIONS	BUILDINGS	SIGNS	PLANTERS
			LIN. FT.	LIN. FT.	LIN. FT.	SQ. YD.	SQ. YD.	SQ. YD.	EACH	EACH	EACH	EACH
28+80	33+15	HWY. 5 LT.	456	318			137	30			3	3
33+49	33+49	HWY. 5 RT.									1	
33+51	35+63	HWY. 5 LT.	43				158					3
35+51	40+70	HWY. 5 RT.	289				65		1		4	2
41+66	41+81	HWY. 5 LT.	32	32								
42+66	42+66	HWY. 5 RT.									1	
42+15	42+16	HWY. 5 LT.	50	50								
42+81	46+70	HWY. 5 RT.			44	1119	117				1	2
53+86	53+86	HWY. 5 RT.							1		1	
54+07	54+07	HWY. 5 LT.								1		
54+11	54+20	HWY. 5 RT.	18									
54+20	54+50	HWY. 5 RT.					62					
54+47	54+59	HWY. 5 RT.	18									
54+50	54+50	HWY. 5 LT.								1		
60+48	60+48	HWY. 5 LT.							1		1	
61+79	63+65	HWY. 5 RT.					530					
63+43	63+43	HWY. 5 LT.									1	
64+38	64+38	HWY. 5 LT.							1		1	
71+12	71+38	HWY. 5 RT.					63					
71+23	71+27	HWY. 5 LT.	20	20								
71+58	71+60	HWY. 5 LT.	19									
71+60	71+60	HWY. 5 RT.										
71+83	72+09	HWY. 5 RT.					66					
72+14	72+14	HWY. 5 LT.										1
72+37	72+86	HWY. 5 LT.	79									
73+14	73+14	HWY. 5 RT.									1	
73+24	73+27	HWY. 5 LT.	21									
73+88	74+87	HWY. 5 LT.	135									
74+29	74+29	HWY. 5 LT.										1
75+94	83+95	HWY. 5 RT.	327				740		1	1	6	2
83+90	84+30	HWY. 5 LT.					44					
83+37	83+42	HWY. 5 RT.	29									
83+95	90+39	HWY. 5 LT.	213				1222				1	
TOTALS:			1749	420	44	1119	3204	30	5	3	22	14

REMOVAL AND DISPOSAL OF FENCE

STATION	STATION	LOCATION	FENCE	GATES
			LIN. FT.	EACH
32+63	39+77	HWY. 5 RT.	148	
39+31	40+30	HWY. 5 LT.	116	
40+28	45+32	HWY. 5 RT.	609	
45+59	46+24	HWY. 5 LT.	71	
45+59	45+65	HWY. 5 RT.	6	2
58+63	59+90	HWY. 5 LT. & RT.	187	
58+64	62+03	HWY. 5 LT. & RT.	368	
63+73	69+95	HWY. 5 LT.	305	
76+90	84+21	HWY. 5 RT.	306	
84+79	84+82	HWY. 5 LT.	11	
88+02	90+48	HWY. 5 RT.	297	
TOTALS:			2424	2

REMOVAL AND DISPOSAL OF CULVERTS AND DROP INLETS

STATION	DESCRIPTION	PIPE CULVERTS	BOX CULVERTS	JUNCTION BOXES	DROP INLETS
		EACH	EACH	EACH	EACH
29+50	HWY. 5. LT. - DROP INLET AND PIPE OUTLET	1			1
37+49	HWY. 5. LT. - SIDE DRAIN	1			
39+51	HWY. 5. LT. - SIDE DRAIN	1			
39+69	HWY. 5. RT. - SIDE DRAIN	1			
41+72	HWY. 5. LT. - DROP INLET AND PIPE OUTLET	1			1
42+10	HWY. 5. LT. - DROP INLET AND PIPE INLET AND OUTLET	2			1
43+02	HWY. 5. RT. - SIDE DRAIN	1			
45+91	HWY. 5. LT. - SIDE DRAIN	1			
47+76	HWY. 5. RT. - SIDE DRAIN	1			
48+86	HWY. 5. LT. - SIDE DRAIN	1			
49+72	HWY. 5. LT. - SIDE DRAIN	1			
53+38	HWY. 5. LT. - SIDE DRAIN	1			
54+06	HWY. 5. RT. - SIDE DRAIN	1			
57+59	HWY. 5. RT. - SIDE DRAIN	1			
57+80	HWY. 5. RT. - SIDE DRAIN	1			
64+20	HWY. 5. LT. - SIDE DRAIN	1			
65+97	HWY. 5 - BOX CULVERT		1		
66+45	HWY. 5. LT. - SIDE DRAIN	1			
69+74	HWY. 5. LT. - SIDE DRAIN	1			
71+22	HWY. 5. LT. - SIDE DRAIN	1			
71+25	HWY. 5. RT. - SIDE DRAIN	1			
71+42	HWY. 5. LT. - SIDE DRAIN	1			
73+35	HWY. 5. RT. - SIDE DRAIN	1			
73+40	HWY. 5. LT. - DROP INLET AND PIPE INLET AND OUTLET	2			1
73+45	HWY. 5. LT. - DROP INLET				1
74+45	HWY. 5. LT. - DROP INLET AND PIPE OUTLET	1			1
79+55	HWY. 5. LT. - SIDE DRAIN	1			
80+15	HWY. 5. LT. - SIDE DRAIN				
81+14	HWY. 5. RT. - SIDE DRAIN	1			
81+71	HWY. 5. RT. - SIDE DRAIN	1			
82+40	HWY. 5. RT. - SIDE DRAIN	1			
83+08	HWY. 5. RT. - SIDE DRAIN	1			
84+10	HWY. 5. LT. - SIDE DRAIN	1			
85+45	HWY. 5. LT. - SIDE DRAIN	1			
86+50	HWY. 5. LT. - SIDE DRAIN	1			
87+56	HWY. 5. LT. - SIDE DRAIN	1			
89+18	HWY. 5. LT. - SIDE DRAIN	1			
90+15	HWY. 5. LT. - SIDE DRAIN	1			
90+55	HWY. 5. RT. - DROP INLET AND PIPE INLET AND OUTLET	2			1
91+10	HWY. 5. RT. - DROP INLET AND PIPE OUTLET	1			1
91+40	HWY. 5. RT. - JUNCTION BOX AND PIPE OUTLET	1		1	
TOTALS:		41	1	1	8

NOTE: QUANTITIES SHOWN ABOVE SHALL INCLUDE REMOVAL & DISPOSAL OF ALL HEADWALLS AND FLARED END SECTIONS IF APPLICABLE.

BENCH MARKS

STATION	LOCATION	BENCH MARKS
		EACH
65+97	HWY. 5 - HDWL. OF R.C. BOX CULVERT ON RT.	1
TOTAL:		1

NOTE: SHOWN FOR INFORMATION ONLY. BENCH MARKS SHALL BE FURNISHED AND PLACED BY STATE FORCES.

7/27/2020

R06508.DGN

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10-25-2023				6	ARK.			
				JOB NO.		061508	45	150

(2) QUANTITIES

STATE OF ARKANSAS
TRINITY D. SMITH
LICENSED PROFESSIONAL ENGINEER
No. 11425
10-25-2023

EARTHWORK

STATION	STATION	LOCATION / DESCRIPTION	UNCLASSIFIED EXCAVATION	COMPACTED EMBANKMENT
			CU. YD.	
64+25.16	70+05.00	STAGE 1 - DETOUR	56	1885
28+80.00	92+00.00	STAGE 2 - HWY. 5	9347	21706
300+80.00	305+68.00	STAGE 2 - SALEM RD.	286	48
28+80.00	92+00.00	STAGE 3 - HWY. 5	777	10906
201+77.00	213+07.00	STAGE 3 - ALCOA RD.	896	60
ENTIRE	PROJECT	APPROACHES	340	3440
65+97.00	65+97.00	CHANNEL CHANGE - TRI. 8' x 6' x 146' R.C. BOX CULVERT	1435	
54+98.00	67+70.00	HWY. 5 RT. - PAVEMENT OBLITERATION	926	
TOTALS:			14063	38045

SEE SECTION 104.03 OF THE STD. SPECS.

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

SOIL STABILIZATION

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

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

CONCRETE WALKS

STATION	STATION	LOCATION	LENGTH	CONCRETE WALKS
			LIN. FT.	SQ.YD.
29+24	31+34	HWY. 5 LT.	210	116
31+11	84+10	HWY. 5 RT.	3874	2152
35+29	70+35	HWY. 5 LT.	2772	1540
71+70	97+72	HWY. 5 LT.	1359	755
85+93	87+01	HWY. 5 RT.	108	60
87+69	92+48	HWY. 5 RT.	479	266
TOTAL:				4889

CONCRETE WALKS (TYPE SPECIAL)

STATION	STATION	LOCATION	CONCRETE WALKS (TYPE SPECIAL)	HAND RAILING	ARCHITECTURAL FINISH	TEXTURED COATING FINISH
			SQ. YD.	LIN. FT.	SQ. FT.	SQ. YD.
32+22	34+82	HWY. 5 LT.	144		582	65
70+35	71+28	HWY. 5 LT.	52			
84+10	85+41	HWY. 5 RT.	73	131		
TOTALS:			269	131	582	65

SOIL LOG

STATION	LATITUDE			LONGITUDE			LOCATION	DEPTH	LIQUID LIMIT	PLASTICITY INDEX	AASHTO CLASSIFICATION	COLOR
	DEG	MIN	SEC	DEG	MIN	SEC		FEET				
33+00	34	36	5.70	92	32	58.60	06' RT	0-5	35	17	A-6(4)	RED
33+00	34	36	5.70	92	32	58.60	18' RT	0-5	ND	NP	A-4(0)	RED
44+00	34	36	11.20	92	32	51.70	18' LT	0-5	ND	NP	A-4(0)	RED/BROWN
44+00	34	36	11.10	92	32	51.70	60' LT	0-5	38	18	A-6(6)	RED
49+00	34	36	15.80	92	32	43.90	06' RT	0-5	35	22	A-6(4)	RED/BROWN
49+00	34	36	15.80	92	32	43.90	18' RT	0-5	25	9	A-2-4(0)	BROWN
57+00	34	36	20.30	92	32	35.90	06' LT	0-5	ND	NP	A-2-4(0)	RED/BROWN
65+00	34	36	25.60	92	32	28.80	06' RT	0-5	29	14	A-2-6(0)	RED
65+00	34	36	25.50	92	32	28.70	33' RT	0-5	ND	NP	A-2-4(0)	RED
73+00	34	36	30.80	92	32	21.70	06' LT	0-5	30	15	A-6(4)	RED/BROWN
81+00	34	36	35.30	92	32	13.60	06' RT	0-5	ND	NP	A-4(0)	BROWN
89+00	34	36	39.60	92	32	5.60	06' LT	0-5	20	7	A-4(0)	RED/BROWN

SOIL CHARACTERISTICS TABULATED ABOVE ARE REPRESENTATIVE AT THE LOCATION OF THE SAMPLE, AND FROM SURFACE INDICATIONS ARE TYPICAL FOR THE LIMITS SHOWN. THESE DATA ARE SHOWN FOR INFORMATION ONLY. THE STATE WILL NOT BE RESPONSIBLE FOR VARIATIONS IN THE SOIL CHARACTERISTICS AND/OR EXTENT OF SAME DIFFERING FROM THE ABOVE TABULATIONS.
NP - NON-PLASTIC

CONCRETE CURB

STATION	STATION	LOCATION	TYPE A	TYPE A
			LIN. FT.	LIN. FT.
32+33	34+90	HWY. 5 LT. - PROP. R/W	257	
72+38	72+88	HWY. 5 LT. - PROP. R/W	50	
73+90	74+87	HWY. 5 LT. - PROP. R/W	98	
83+31	84+15	HWY. 5 RT. - PROP. R/W	90	
85+85	86+71	HWY. 5 RT. - PROP. R/W	86	
87+33	87+84	HWY. 5 LT. - DRIVEWAY ISLAND		330
88+02	90+48	HWY. 5 RT. - PROP. R/W	255	
90+40	92+02	HWY. 5 LT.	175	
204+14	206+69	ALCOA RD. LT. - PROP. R/W	255	
TOTALS:			1266	330

CONCRETE DITCH PAVING

STATION	STATION	LOCATION	LENGTH	"W"	CONC. DITCH PAVING (TYPE B)	SOLID SODDING	WATER
			LIN. FT.	FEET	SQ. YD.	SQ. YD.	M. GAL.
39+60.00	40+00.00	HWY. 5 LT.	40.00	6.32	28.09	17.78	0.22
45+50.00	45+80.00	HWY. 5 LT.	30.00	6.32	21.07	13.33	0.17
64+50.00	65+00.00	HWY. 5 LT.	50.00	6.32	35.11	22.22	0.28
65+66.00	66+90.00	HWY. 5 LT.	124.00	6.32	87.08	55.11	0.69
302+87.00	304+80.00	SALEM RD. LT.	193.00	6.32	135.53	85.78	1.08
TOTALS:					306.88	194.22	2.44

BASIS OF ESTIMATE:
WATER.....12.6 GAL. / SQ. YD. OF SOLID SODDING.

CONCRETE ISLAND

STATION	LOCATION	CURB FACE TYPE	CONCRETE ISLAND
			SQ.YD.
86+55	HWY. 5 LT - FORESLOPE	A	26
212+90	ALCOA RD. LT. - ISLAND	A	355
TOTAL:			381

CONCRETE COMBINATION CURB AND GUTTER

STATION	STATION	LOCATION	TYPE A (1' 6")
			LIN. FT.
28+80	31+56	HWY. 5 LT.	292
31+11	89+84	HWY. 5 RT.	5865
32+12	41+82	HWY. 5 LT.	996
42+14	76+19	HWY. 5 LT.	3424
77+49	91+96	HWY. 5 LT.	1471
91+81	92+18	HWY. 5 RT.	81
300+33	302+87	SALEM RD. LT.	306
300+44	301+03	SALEM RD. RT.	73
201+78	212+57	ALCOA RD. LT.	1178
TOTALS:			13686

EROSION CONTROL MATTING

STATION	STATION	LOCATION	LENGTH	CLASS 3
			LIN. FT.	SQ. YD.
47+30.00	50+00.00	HWY. 5 LT.	270.00	240.00
74+75.00	76+00.00	HWY. 5 LT.	125.00	111.11
TOTAL:				351.11

NOTE: AVERAGE WIDTH = 8'-0"

7/27/2020

R061508.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	46	150

(2) QUANTITIES

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

EROSION CONTROL

STATION	STATION	LOCATION	PERMANENT EROSION CONTROL						TEMPORARY EROSION CONTROL							
			SEEDING	LIME	MULCH COVER	WATER	SECOND SEEDING APPLICATION	SOLID SODDING	TEMPORARY SEEDING	MULCH COVER	WATER	WATTLE (20") DITCH CHECKS (E-1)	ROCK DITCH CHECKS (E-6)	SILT FENCE (E-11)	FILTER SOCK (12") (E-13)	*SEDIMENT REMOVAL & DISPOSAL
			ACRE	TON	ACRE	M.GAL.	ACRE	SQ.YD.	ACRE	ACRE	M.GAL.	LIN. FT.	CU.YD.	LIN. FT.	LIN. FT.	CU. YD.
ENTIRE	PROJECT	CLEARING AND GRUBBING							13.81	13.81	281.7		222	2509		167
ENTIRE	PROJECT	STAGE 1							0.62	0.62	12.6		6			2
ENTIRE	PROJECT	STAGE 2				20.0		1586	4.27	4.27	87.1		30		370	24
ENTIRE	PROJECT	STAGE 3				28.7		2280	3.70	3.70	75.5		6		270	12
ENTIRE	PROJECT	STAGE 4	2.91	5.82	2.91	296.8	2.91								10	
																22
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.			0.73	1.46	0.73	80.8	0.73	500	2.15	2.15	43.9	198	20	200	50	9
TOTALS:			**3.64**	**7.28**	**3.64**	**426.3**	**3.64**	**4366**	**24.55**	**24.55**	**500.8**	**198**	**284**	**2709**	**700**	**236**

BASIS OF ESTIMATE:
LIME .....2 TONS / ACRE OF SEEDING
WATER.....102.0 M.G. / ACRE OF SEEDING
WATER.....20.4 M.G. / ACRE OF TEMPORARY SEEDING
WATER.....12.6 GAL. / SQ. YD. OF SOLID SODDING
WATTLE DITCH CHECKS.....9 LIN. FT. / LOCATION
ROCK DITCH CHECKS.....3 CU.YD./LOCATION

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

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

WHEELCHAIR RAMPS

STATION	LOCATION	TYPE 3
		SQ.YD.
31+39	HWY. 5 LT.	5.4
32+29	HWY. 5 LT.	5.4
41+66	HWY. 5 LT.	5.4
42+30	HWY. 5 LT.	5.4
76+58	HWY. 5 LT.	3.8
76+58	HWY. 5 RT.	2.7
76+64	HWY. 5 LT.	3.3
77+23	HWY. 5 LT.	3.2
91+30	HWY. 5 RT.	3
91+33	HWY. 5 RT.	2.8
91+60	HWY. 5 LT.	3
92+03	HWY. 5 RT.	3.1
92+16	HWY. 5 RT.	3.1
212+33	ALCOA RD. LT.	2.7
212+56	ALCOA RD. LT.	2.7
TOTAL:		**55.0**

4" PIPE UNDERDRAIN

STATION	STATION	LOCATIONS	4" PIPE UNDERDRAINS
			LIN. FT.
* ENTIRE PROJECT TO BE USED IF AND			3000
WHERE DIRECTED BY THE ENGINEER			
TOTALS:			**3000**

* NOTE: QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.

UNDERDRAINS SHALL BE STUBBED INTO THE PROPOSED DROP INLET IF AND WHERE DIRECTED BY THE ENGINEER. PAYMENT FOR THIS TO BE INCLUDED IN THE UNIT PRICE BID FOR 4" PIPE UNDERDRAIN.

MAILBOXES

LOCATION	MAILBOXES	MAILBOX SUPPORTS (SINGLE)	MAILBOX SUPPORTS (DOUBLE)
		EACH	
ENTIRE PROJECT	15	13	1
TOTALS:	**15**	**13**	**1**

FENCING

STATION	STATION	LOCATION	* 4' CHAIN LINK FENCE	* 16'-0" GATES
			LIN. FT.	EACH
45+59	46+24	HWY. 5 LT.	35	1
58+68	62+02	HWY. 5 LT.	325	1
66+67	67+10	HWY. 5 LT.	39	
68+06	69+95	HWY. 5 LT.	172	
TOTALS:			**571**	**2**

* DENOTES ALTERNATE BID TEM.

SELECTED PIPE BEDDING

LOCATION	SELECTED PIPE BEDDING
	CU.YD.
ENTIRE PROJECT TO BE USED IF	
AND WHERE DIRECTED BY THE	720
ENGINEER	
TOTAL:	**720**

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

1/27/2020

R061508.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10-25-2023				6	ARK.			
				JOB NO.		061508	47	150

(2) QUANTITIES

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-25-2023

STRUCTURES

STATION	DESCRIPTION	REINFORCED CONCRETE PIPE CULVERT (CLASS III) 13"	(CLASS III) 24"	(CLASS III) 30"	(CLASS IV) 18"	(CLASS IV) 24"	(CLASS V) 18"	(CLASS V) 36"	SIDE DRAIN 12"	PIPE CULVERT STORM DRAIN ALTERNATES 1 & 2 18"	24"	30"	36"	42"	48"	FLARED END SECTIONS FOR R.C. PIPE 18"	24"	30"	DROP INLETS TYPE MO	TYPE SP	TYPE ST	EXT. 4'	EXT. 8'	JUNCT. BOXES (TYPE 'E')	YARD DRAINS	SPAN	HEIGHT	LENGTH	CLASS S CONCRETE-ROADWAY	REINF. STEEL-ROADWAY (GRADE 60)	UNCL.EXC. FOR STR.-ROADWAY	SOLID SODDING	WATER	STD. DWG. NOS.
		LIN. FT.								EACH						EACH								EACH			LIN. FT.		CU.YD.	POUND	CU.YD.	SQ.YD.	M.GAL.	
29+30	CONST. DROF INLET ON LT. W/EXT. AND PIPE OUTLET									228									1				1										FPC-9E,FPC-9M, PCC-1,PCM-1
31+00	CONST. DROF INLET ON LT. W/EXT. AND PIPE OUTLET									166									1				1										FPC-9E,FPC-9M, PCC-1,PCM-1
31+40	CONST. DROF INLET ON RT. W/EXT. AND PIPE OUTLET						78												1			1											FPC-9E,FPC-9M, PCC-1
33+00	CONST. DROF INLET ON LT. W/EXT. AND PIPE OUTLET									196									1				1										FPC-9E,FPC-9M, PCC-1,PCM-1
38+40	CONST. DROF INLET ON LT. W/EXT. AND PIPE OUTLET									46									1			1											FPC-9E,FPC-9M, PCC-1,PCM-1
38+55	CONST. DROF INLET ON RT. W/EXT. AND PIPE OUTLET									32									1			1											FPC-9E,FPC-9M, PCC-1,PCM-1
38+90	CONST. DROF INLET ON LT. AND PIPE OUTLET									86									1														FPC-9E,FPC-9M, PCC-1,PCM-1
38+90	CONST. DROF INLET ON RT. AND PIPE OUTLET									56									1														FPC-9E,FPC-9M, PCC-1,PCM-1
39+50	CONST. DROF INLET ON RT. AND PIPE OUTLET												36						1														FPC-9E,FPC-9M, PCC-1,PCM-1
39+69	CONST. JUNCTION BOX ON RT.																							1									FPC-9
39+80	CONST. DROF INLET ON LT. W/PIPE INLET W/FES AND PIPE OUTLET			10				72										1	1												13	0.16	FES-1,FES-2,FPC-9E, FPC-9M,PCC-1
41+49	CONST. DROF INLET ON LT. AND PIPE OUTLET									164									1														FPC-9E,FPC-9M, PCC-1,PCM-1
41+80	CONST. DROF INLET ON LT. AND PIPE OUTLET									36									1														FPC-9E,FPC-9M, PCC-1,PCM-1
42+17	CONST. DROF INLET ON LT. AND PIPE OUTLET									38									1														FPC-9E,FPC-9M, PCC-1,PCM-1
45+65	CONST. DROF INLET ON LT. W/EXT. W/PIPE INLET W/FES AND PIPE OUTLET		8								62						1		1			1									8	0.10	FES-1,FES-2,FPC-9E, FPC-9M,PCC-1, PCM-1
46+30	CONST. DROF INLET ON LT. AND PIPE OUTLET										46								1														FPC-9E,FPC-9M, PCC-1,PCM-1
46+30	CONST. DROF INLET ON RT. W/EXT. AND PIPE OUTLET									46									1			1											FPC-9E,FPC-9M, PCC-1,PCM-1
46+80	CONST. DROF INLET ON LT. AND PIPE OUTLET										46								1														FPC-9E,FPC-9M, PCC-1,PCM-1
46+80	CONST. DROF INLET ON RT. AND PIPE OUTLET									46									1														FPC-9E,FPC-9M, PCC-1,PCM-1
47+30	CONST. DROF INLET ON LT. W/EXT. W/PIPE INLET W/FES AND PIPE OUTLET	10				68													1			1											FES-1,FES-2,FPC-9E, FPC-9M,PCC-1
47+30	CONST. DROF INLET ON RT. W/EXT. AND PIPE OUTLET W/FES		72													1			1			1									5	0.06	FES-1,FES-2,FPC-9E, FPC-9M,PCC-1
51+60	CONST. DROF INLET ON LT. W/EXT. AND PIPE OUTLET									294									1			1											FPC-9E,FPC-9M, PCC-1,PCM-1
51+60	CONST. DROF INLET ON RT. W/EXT. AND PIPE OUTLET									238									1			1											FPC-9E,FPC-9M, PCC-1,PCM-1
53+75	CONST. DROF INLET ON RT. W/EXT. AND PIPE OUTLET									298									1				1										FPC-9E,FPC-9M, PCC-1,PCM-1
54+60	CONST. DROF INLET ON LT. W/EXT. AND PIPE OUTLET									296									1				1										FPC-9E,FPC-9M, PCC-1,PCM-1
56+75	CONST. DROF INLET ON RT. W/EXT. AND PIPE OUTLET									292									1				1										FPC-9E,FPC-9M, PCC-1,PCM-1
57+60	CONST. DROF INLET ON LT. W/EXT. AND PIPE OUTLET									296									1				1										FPC-9E,FPC-9M, PCC-1,PCM-1
59+70	CONST. DROF INLET ON RT. W/EXT. AND PIPE OUTLET									166									1				1										FPC-9E,FPC-9M, PCC-1,PCM-1
60+60	CONST. DROF INLET ON LT. W/EXT. AND PIPE OUTLET									286									1				1										FPC-9E,FPC-9M, PCC-1,PCM-1
61+40	CONST. DROF INLET ON RT. W/EXT. AND PIPE OUTLET									256									1			1											FPC-9E,FPC-9M, PCC-1,PCM-1
63+50	CONST. DROF INLET ON LT. W/EXT. AND PIPE OUTLET									192									1				1										FPC-9E,FPC-9M, PCC-1,PCM-1
64+00	CONST. DROF INLET ON RT. W/EXT. AND PIPE OUTLET W/FES									10						1			1			1									5	0.06	FES-1,FES-2,FPC-9E, FPC-9M,PCC-1, PCM-1
65+62	CONST. DROF INLET ON LT. W/EXT.																		1			1											FPC-9E,FPC-9M, PCC-1,PCM-1
67+95	CONST. DROF INLET ON LT. W/EXT. W/PIPE INLET W/FES AND PIPE OUTLET		10												216		1		1			1									8	0.10	FES-1,FES-2,FPC-9E, FPC-9M,PCC-1, PCM-1
66+34	CONST. DROF INLET ON RT. W/EXT.																		1			1											SPECIAL DETAILS
70+10	CONST. DROF INLET ON LT. AND PIPE OUTLET													210					1														FPC-9E,FPC-9M, PCC-1,PCM-1
70+10	CONST. DROF INLET ON RT.																		1														SPECIAL DETAIL
70+85	CONST. DROF INLET ON LT. W/EXT. AND PIPE OUTLET												70						1				1										FPC-9E,FPC-9M, PCC-1,PCM-1
70+85	CONST. DROF INLET ON RT. AND PIPE OUTLET W/FES	10														1			1												5	0.06	FES-1,FES-2,FPC-9E, FPC-9M,PCC-1
71+60	CONST. DROF INLET ON RT. W/EXT. AND PIPE OUTLET									72									1			1											FPC-9E,FPC-9M, PCC-1,PCM-1
71+75	CONST. DROF INLET ON LT. W/EXT. AND PIPE OUTLET											86							1			1											FPC-9E,FPC-9M, PCC-1,PCM-1
74+60	CONST. DROF INLET ON RT. W/EXT. AND PIPE OUTLET									296									1			1											FPC-9E,FPC-9M, PCC-1,PCM-1
74+75	CONST. DROF INLET ON LT. W/EXT. W/PIPE INLET W/FES AND PIPE OUTLET	2									296					1			1			1									5	0.06	FES-1,FES-2,FPC-9E, FPC-9M,PCC-1, PCM-1
76+15	CONST. DROF INLET ON LT. W/EXT. AND PIPE OUTLET										136								1			1											FPC-9E,FPC-9M, PCC-1,PCM-1
77+60	CONST. DROF INLET ON LT. W/EXT. W/PIPE INLET W/FES AND PIPE OUTLET	2														1			1			1									5	0.06	FES-1,FES-2,FPC-9E, FPC-9M,PCC-1, PCM-1
79+25	CONST. DROF INLET ON LT. W/PIPE INLET W/FES AND PIPE OUTLET	2								222						1			1												5	0.06	FES-1,FES-2,FPC-9E, FPC-9M,PCC-1, PCM-1
81+50	CONST. DROF INLET ON LT. AND PIPE OUTLET				2					216									1														FPC-9E,FPC-9M, PCC-1,PCM-1
83+70	CONST. DROF INLET ON LT. W/EXT. W/PIPE INLET W/FES AND PIPE OUTLET	4								132						1			1			1									5	0.06	FES-1,FES-2,FPC-9E, FPC-9M,PCC-1, PCM-1
84+20	CONST. DROF INLET ON RT. W/EXT. AND PIPE OUTLET									256									1			1											FPC-9E,FPC-9M, PCC-1,PCM-1
85+05	CONST. DROF INLET ON LT. W/PIPE INLET W/FES AND PIPE OUTLET			6								146					1		1													13	0.16	FES-1,FES-2,FPC-9E, FPC-9M,PCC-1, PCM-1
86+55	CONST. DROF INLET ON LT. AND PIPE OUTLET											214							1														FPC-9E,FPC-9M, PCC-1,PCM-1
86+80	CONST. DROF INLET ON RT. W/EXT. W/PIPE INLET W/FES AND PIPE OUTLET	4								292						1			1			1									5	0.06	FES-1,FES-2,FPC-9E, FPC-9M,PCC-1, PCM-1
88+70	CONST. DROF INLET ON LT.W/EXT. AND PIPE OUTLET											270							1			1											FPC-9E,FPC-9M, PCC-1,PCM-1
89+80	CONST. DROF INLET ON RT. W/EXT. AND PIPE OUTLET									144									1			1											FPC-9E,FPC-9M, PCC-1,PCM-1
91+30	CONST. JUNCTION BOX ON RT. W/PIPE OUTLET				76																			1									FPC-9, PCC-1
91+40	CONST. DROF INLET ON LT.W/EXT. AND PIPE OUTLET											108							1			1											FPC-9E,FPC-9M, PCC-1,PCM-1
92+11	CONST. DROF INLET ON RT. W/EXT. AND PIPE OUTLET									28									1				1										FPC-9E,FPC-9M, PCC-1,PCM-1
92+41	CONST. DROF INLET ON RT.																		1														FPC-9E,FPC-9M
202+90	CONST. DROF INLET ON LT.																			1														SPECIAL DETAILS
203+70	CONST. DROF INLET ON LT.																			1														SPECIAL DETAILS
208+35	CONST. DROF INLET ON LT. W/EXT. AND PIPE OUTLET									78									1			1											FPC-9E,FPC-9M, PCC-1,PCM-1
209+16	CONST. DROF INLET ON LT. AND PIPE OUTLET				64														1														FPC-9E,FPC-9M, PCC-1
209+16	CONST. DROF INLET ON RT. AND PIPE OUTLET									22											1												FPC-9S, PCC-1,PCM-1
209+90	CONST. DROF INLET ON LT. W/EXT. AND PIPE OUTLET									70									1				1										FPC-9E,FPC-9M, PCC-1,PCM-1
212+57	CONST. DROF INLET ON LT. W/EXT. AND PIPE OUTLET									46									1			1											FPC-9E,FPC-9M, PCC-1,PCM-1
300+80	CONST. DROF INLET ON LT. AND PIPE OUTLET										76								1														FPC-9E,FPC-9M, PCC-1,PCM-1
301+00	CONST. DROF INLET ON LT. W/PIPE INLET W/FES AND PIPE OUTLET	100								110						1			1			1									5	0.00	FES-1,FES-2,FPC-9E, FPC-9M,PCC-1, PCM-1
*ENTIRE PROJECT TO BE USED AS DIRECTED BY THE ENGINEER									600															6								FPC-9, PCM-1
SUBTOTALS:		134	90	16	142	68	78	72	600	5756	662	824	106	210	216	9	2	2	62	2	1	23	13	2	6						87	1.06	
STRUCTURES OVER 20' - 0" SPAN																																	
65+37	CONST. TRI. 8'X 6' X 146' R.C. BOX CULVERT ON 45° RT. F.S.																									8	6	146	323.81	4377B	138	38	0.48	SPECIAL DETAILS, PBC-1, RCB-1, RCB-2
SUBTOTALS:																													323.81	4377B	138	38	0.48	
TOTALS:		134	90	16	142	68	78	72	600	5756	662	824	106	210	216	9	2	2	62	2	1	23	13	2	6				323.81	4377B	138	125	1.54	

BASIS OF ESTIMATE:
WATER.....12.6 GAL. / SQ. YD.OF SOLID SODDING

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.

7/27/2020

R061508.DGN

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	48	150

(2) QUANTITIES

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

DRIVEWAYS & TURNOUTS

STATION	SIDE	LOCATION	WIDTH	**MODIFIED CURB		PORTLAND CEMENT CONCRETE DRIVEWAY	ACHM SURFACE CCURSE (1/2") 220 LBS. PER SQ. YD. (PG64-22)		AGGREGATE BASE COURSE (CLASS 7)	SIDE DRAINS		STANDARD DRAWINGS
										18"	24"	
			FEET	STATION	STATION	SQ. YD.	SQ. YD.	TON	TON	LIN. FT.		
29+02	LT.	HWY. 5	16	28+80	29+24	86.77						DR-1
31+84	LT.	HWY. 5	32				201.22	22.13	82.16			DR-1
32+06	RT.	HWY. 5	16	31+84	32+28	39.11	32.89	3.62	13.43			DR-1
32+77	RT.	HWY. 5	16	32+55	32+99	39.11	40.00	4.40	16.33			DR-1
33+25	RT.	HWY. 5	40	32+91	33+59	60.44	100.00	11.00	40.83			DR-1
34+96	RT.	HWY. 5	40	34+62	35+30	60.44	35.38	3.89	14.45			DR-1
35+03	LT.	HWY. 5	24	34+77	35+29	46.22	76.00	8.36	31.03			DR-1
35+54	LT.	HWY. 5	16	35+32	35+76	66.43						DR-1
35+73	RT.	HWY. 5	16	35+51	35+95	51.91						DR-1
36+98	RT.	HWY. 5	30	36+69	37+27	51.56	119.78	13.18	48.91			DR-1
37+49	LT.	HWY. 5	16	37+27	37+71	39.11	16.32	1.80	6.66			DR-1
38+19	RT.	HWY. 5	30	37+90	38+48	51.56	149.44	16.44	61.02			DR-1
39+51	LT.	HWY. 5	16	39+29	39+73	39.11	61.33	6.75	25.04			DR-1
40+01	RT.	HWY. 5	36	39+69	40+33	56.89	434.00	47.74	177.22			DR-1
41+79	LT.	HWY. 5	24				218.33	24.02	89.15			DR-1
43+02	RT.	HWY. 5	24	42+76	43+28	127.55						DR-1
44+30	LT.	HWY. 5	40	43+96	44+64	60.44	59.96	6.60	24.48			DR-1
45+58	RT.	HWY. 5	26	45+31	45+85	48.00	107.78	11.86	44.01			DR-1
45+93	LT.	HWY. 5	20	45+69	46+17	42.67	63.33	6.97	25.86			DR-1
47+70	LT.	HWY. 5	40	47+36	48+04	60.44	128.76	14.16	52.58	56		PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
47+76	RT.	HWY. 5	30	47+47	48+05	253.26				56		PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
49+60	LT.	HWY. 5	40	49+26	49+94	60.44	144.44	15.89	58.98			DR-1
51+97	LT.	HWY. 5	40	51+63	52+31	60.44	73.42	8.08	29.98			DR-1
51+90	RT.	HWY. 5	16	51+68	52+12	39.11	96.89	10.66	39.56			DR-1
54+06	RT.	HWY. 5	28	53+78	54+34	262.83						DR-1
57+19	RT.	HWY. 5	28	56+91	57+47	224.31						DR-1
58+10	LT.	HWY. 5	20	57+86	58+34	42.67	352.22	38.74	143.82			DR-1
59+99	RT.	HWY. 5	16	59+77	60+21	39.11	69.62	7.66	28.43			DR-1
61+70	RT.	HWY. 5	16	61+48	61+92	39.11	42.20	4.64	17.23			DR-1
62+39	RT.	HWY. 5	40	62+05	62+73	60.44	80.31	8.83	32.79			DR-1
62+90	LT.	HWY. 5	16	62+68	63+12	39.11	121.78	13.40	49.73	40		PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
64+20	LT.	HWY. 5	38	63+87	64+53	58.67	225.89	24.85	92.24	56		PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
66+45	RT.	HWY. 5	20	66+21	66+69	42.67	130.07	14.31	53.11		46	PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
67+65	LT.	HWY. 5	16	67+43	67+87	39.11	54.72	6.02	22.34			DR-1
69+74	LT.	HWY. 5	16	69+52	69+96	39.11	46.40	5.10	18.95			DR-1
71+25	RT.	HWY. 5	26	70+98	71+52	48.00	140.31	15.43	57.29			DR-1
71+42	LT.	HWY. 5	28	71+14	71+70	49.78	41.97	4.62	17.14			DR-1
71+96	RT.	HWY. 5	26	71+69	72+23	48.00	140.31	15.43	57.29			DR-1
73+03	LT.	HWY. 5	34	72+72	73+34	55.11	80.20	8.82	32.75			DR-1
73+35	RT.	HWY. 5	35	73+04	73+67	56.00	110.87	12.20	45.27			DR-1
74+23	RT.	HWY. 5	16	74+01	74+45	39.11	33.03	3.63	13.49			DR-1
78+48	RT.	HWY. 5	40	78+14	78+82	60.44	135.56	14.91	55.35			DR-1
79+45	RT.	HWY. 5	30	79+16	79+74	51.56	75.07	8.26	30.65			DR-1
79+55	LT.	HWY. 5	24	79+29	79+81	46.22	41.71	4.59	17.03			DR-1
80+15	LT.	HWY. 5	24	79+89	80+41	46.22	54.67	6.01	22.32			DR-1
80+20	RT.	HWY. 5	26	79+93	80+47	132.36						DR-1
81+14	RT.	HWY. 5	40	80+80	81+48	178.31						DR-1
83+08	RT.	HWY. 5	24	82+82	83+34	46.22	77.92	8.57	31.82			DR-1
84+10	LT.	HWY. 5	34	83+79	84+41	55.11	122.78	13.51	50.14			DR-1
85+43	LT.	HWY. 5	30	85+14	85+72	105.69						DR-1
85+60	RT.	HWY. 5	38	85+27	85+93	58.67	88.67	9.75	36.21			DR-1
86+17	LT.	HWY. 5	30	85+88	86+46	112.39						DR-1
86+91	LT.	HWY. 5	30	86+62	87+20	111.69						DR-1
87+35	RT.	HWY. 5	40	87+01	87+69	60.44						DR-1
87+56	LT.	HWY. 5	40	87+22	87+90	423.44						DR-1
89+18	LT.	HWY. 5	24	88+92	89+44	46.22	81.87	9.01	33.43			DR-1
90+15	LT.	HWY. 5	40	89+81	90+49	60.44	126.36	13.90	51.60			DR-1
91+67	LT.	HWY. 5	20				113.83	12.52	46.48			DR-1
208+76	LT.	ALCOA RD.	40	208+42	209+10	60.44						DR-1
302+53	LT.	SALEM RD.	30	302+24	302+82	51.56	1270.00	139.70	518.58			DR-1
303+85	LT.	SALEM RD.	20	303+61	304+09	42.67	497.71	54.75	203.23	42		PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
305+29	LT.	SALEM RD.	20	305+05	305+53	42.67	1189.00	130.79	485.51			DR-1
* ENTIRE PROJECT TEMPORARY DRIVES									600.00			
TOTALS:						**4417.11**	**7704.32**	**847.50**	**3745.90**	**250**	**46**	

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.5% MIN. AGGR.....5.5% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22

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

** FOR INFORMATION ONLY

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

PAVEMENT REPAIR OVER CULVERTS (ASPHALT)

STATION	LOCATION	WIDTH	LENGTH	TON
		FEET		
31+20	HWY. 5	7.92	42	26
39+65	HWY. 5	9.67	32	25
42+00	HWY. 5 LT.	7.92	32	20
47+30	HWY. 5	8.50	30	20
77+00	HWY. 5 LT.	7.92	34	21
91+50	HWY. 5 RT.	7.92	106	67
91+90	HWY. 5 LT.	9.08	32	23
209+16	ALCOA RD.	7.92	36	23
TOTAL:				**225**

AVG. DEPTH = 13"

COLD MILLING ASPHALT PAVEMENT

STATION	STATION	LOCATION	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
			FEET	SQ. YD.
28+80.00	31+11.00	HWY. 5	VAR.	1266.10
210+65.00	211+65.00	ALCOA RD.	36.00	400.00
300+90.00	301+90.00	SALEM RD.	24.00	266.67
TOTAL:				**1932.77**

NOTE: COORDINATE COLD MILLING STOCKPILE LOCATIONS WITH DISTRICT ENGINEER.
STOCKPILE LOCATIONS SHALL BE NO FURTHER THAN FIVE MILES FROM EACH SITE.

ACHM PATCHING OF EXISTING ROADWAY

DESCRIPTION	TON
ENTIRE PROJECT - TO BE USED IF AND WHERE	30
DIRECTED BY THE ENGINEER	
TOTAL:	**30**

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

ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC

LOCATION	TON	TACK COAT
		GALLON
ENTIRE PROJECT - TO BE USED IF AND WHERE	30	60
DIRECTED BY THE ENGINEER		
TOTALS:	**30**	**60**

NOTE: QUANTITIES ARE ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.
BASIS OF ESTIMATE:
ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC...25 TON/MILE
TACK COAT FOR MAINTENANCE OF TRAFFIC.. .....50 GAL./MILE

7/27/2020

R061508.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	49	150

(2) QUANTITIES

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH

09-15-2023

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")								
				TON / STATION	TON	(0.05 GAL. PER SQ. YD.) TOTAL WID.	SQ.YD.	GALLON	(017 GAL. PER SQ. YD.) TOTAL WD.	SQ.YD.	GALLON	TOTAL GALLONS	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 70-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 70-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 70-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 70-22	TOTAL PG 70-22
			FEET			FEET			FEET				FEET			TON	FEET			TON	FEET			TON	FEET			TON	TON
MAIN LANES																													
28+80.00	31+11.00	HWY. 5 - NOTCH, WIDEN, AND INLAY SECTION	231.00			VAR.	1084.83	54.24	VAR.	1266.10	215.24	269.48	VAR.	404.39	550.00	111.21	VAR.	340.22	330.00	56.14	VAR.	340.22	220.00	37.42	VAR.	1606.31	220.00	176.69	214.11
31+11.00	32+30.00	HWY. 5 - NOTCH, WIDEN, AND OVERLAY SECTION	119.00			VAR.	1599.74	79.99				79.99	VAR.	577.32	550.00	158.76	VAR.	511.21	330.00	84.35	VAR.	511.21	220.00	56.23	VAR.	844.91	220.00	92.94	149.17
32+30.00	54+43.69	HWY. 5 - NOTCH, WIDEN, AND OVERLAY SECTION	2213.69			131.00	32221.49	1611.07				1611.07	47.00	11560.38	550.00	3179.10	42.00	10330.55	330.00	1704.54	42.00	10330.55	220.00	1136.36	64.00	15741.80	220.00	1731.60	2867.96
54+43.69	55+52.92	HWY. 5 - NOTCH, WIDEN, AND OVERLAY SECTION	109.23			VAR.	1989.98	99.50				99.50	VAR.	703.78	550.00	193.54	VAR.	643.10	330.00	106.11	VAR.	643.10	220.00	70.74	64.00	776.75	220.00	85.44	156.18
55+52.92	60+87.54	HWY. 5 - FULL DEPTH SECTION	534.62			197.00	11702.24	585.11				585.11	69.00	4098.75	550.00	1127.16	64.00	3801.74	330.00	627.29	64.00	3801.74	220.00	418.19	64.00	3801.74	220.00	418.19	836.38
60+87.54	65+40.00	HWY. 5 - NOTCH, WIDEN, AND OVERLAY SECTION	452.46			VAR.	6784.89	339.24				339.24	VAR.	2429.21	550.00	668.03	VAR.	2177.84	330.00	359.34	VAR.	2177.84	220.00	239.56	64.00	3217.49	220.00	353.92	593.48
65+40.00	66+70.00	HWY. 5 - FULL DEPTH SECTION	130.00			197.00	2845.56	142.28				142.28	69.00	996.67	550.00	274.08	64.00	924.44	330.00	152.53	64.00	924.44	220.00	101.69	64.00	924.44	220.00	101.69	203.38
66+70.00	73+88.00	HWY. 5 - NOTCH, WIDEN, AND OVERLAY SECTION	718.00			131.00	10450.89	522.54				522.54	47.00	3749.56	550.00	1031.13	42.00	3350.67	330.00	552.86	42.00	3350.67	220.00	368.57	64.00	5105.78	220.00	561.64	930.21
73+88.00	79+99.09	HWY. 5 - NOTCH, WIDEN, AND OVERLAY SECTION	611.09			VAR.	8360.53	418.03				418.03	VAR.	3013.17	550.00	828.62	VAR.	2673.68	330.00	441.16	VAR.	2673.68	220.00	294.10	VAR.	4670.39	220.00	513.74	807.84
79+99.09	87+83.91	HWY. 5 - NOTCH, WIDEN, AND OVERLAY SECTION	784.82			131.00	11423.49	571.17				571.17	47.00	4098.50	550.00	1127.09	42.00	3662.49	330.00	604.31	42.00	3662.49	220.00	402.87	64.00	5580.94	220.00	613.90	1016.77
87+83.91	92+00.00	HWY. 5 - NOTCH, WIDEN, AND OVERLAY SECTION	416.09			VAR.	5578.60	278.93				278.93	VAR.	2013.64	550.00	553.75	VAR.	1782.48	330.00	294.11	VAR.	1782.48	220.00	196.07	VAR.	3301.79	220.00	363.20	559.27
201+77.00	206+15.00	ALCOA RD. - NOTCH AND WIDEN SECTION	438.00			VAR.	979.94	49.00				49.00	VAR.	407.76	550.00	112.13	VAR.	286.09	330.00	47.20	VAR.	286.09	220.00	31.47	VAR.	286.09	220.00	31.47	62.94
206+15.00	207+55.00	ALCOA RD. - NOTCH AND WIDEN SECTION	140.00			38.50	598.89	29.94				29.94	14.50	225.56	550.00	62.03	12.00	186.67	330.00	30.80	12.00	186.67	220.00	20.53	12.00	186.67	220.00	20.53	41.06
207+55.00	209+35.00	ALCOA RD. - NOTCH AND WIDEN SECTION	180.00			56.50	1130.00	56.50				56.50	20.50	410.00	550.00	112.75	18.00	360.00	330.00	59.40	18.00	360.00	220.00	39.60	18.00	360.00	220.00	39.60	79.20
209+35.00	210+65.00	ALCOA RD. - NOTCH AND WIDEN SECTION	130.00			74.50	1076.11	53.81				53.81	26.50	382.78	550.00	105.26	24.00	346.67	330.00	57.20	24.00	346.67	220.00	38.13	24.00	346.67	220.00	38.13	76.26
210+65.00	210+90.00	ALCOA RD. - NOTCH AND WIDEN SECTION	25.00			74.50	206.94	10.35	36.00	100.00	17.00	27.35	26.50	73.61	550.00	20.24	24.00	66.67	330.00	11.00	24.00	66.67	220.00	7.33	24.00	66.67	220.00	7.33	
210+90.00	211+65.00	ALCOA RD. - NOTCH AND WIDEN SECTION	75.00			82.00	683.33	34.17	36.00	300.00	51.00	85.17	29.00	241.67	550.00	66.46	26.50	220.83	330.00	36.44	26.50	220.83	220.00	24.29	26.50	220.83	220.00	24.29	48.58
211+65.00	213+37.19	ALCOA RD. - NOTCH, WIDEN, AND OVERLAY SECTION	172.19			VAR.	1859.72	92.99				92.99	VAR.	654.82	550.00	180.08	VAR.	602.45	330.00	99.40	VAR.	602.45	220.00	66.27	VAR.	1543.94	220.00	169.83	236.10
300+38.85	300+90.00	SALEM RD. - C.C.C.&G. SECTION	51.15			VAR.	1021.69	51.08				51.08	VAR.	369.51	550.00	101.62	VAR.	326.09	330.00	53.80	VAR.	326.09	220.00	35.87	VAR.	326.09	220.00	35.87	71.74
300+90.00	301+90.00	SALEM RD. - C.C.C.&G. SECTION	100.00			38.50	427.78	21.39	24.00	266.67	45.33	66.72	14.50	161.11	550.00	44.31	12.00	133.33	330.00	22.00	12.00	133.33	220.00	14.67	12.00	133.33	220.00	14.67	29.34
301+90.00	302+87.44	SALEM RD. - C.C.C.&G. SECTION	97.44			38.50	416.83	20.84				20.84	14.50	156.99	550.00	43.17	12.00	129.92	330.00	21.44	12.00	129.92	220.00	14.29	12.00	129.92	220.00	14.29	
302+87.44	304+68.00	SALEM RD. - OPEN SHOULDER SECTION	180.56			36.76	737.49	36.87				36.87	12.40	248.77	550.00	68.41	12.23	245.36	330.00	40.48	12.13	243.35	220.00	26.77	12.00	240.75	220.00	26.48	53.25
304+68.00	305+68.00	SALEM RD. - OPEN SHOULDER SECTION	100.00			18.76	208.44	10.42				10.42	6.40	71.11	550.00	19.56	6.23	69.22	330.00	11.42	6.13	68.11	220.00	7.49	6.00	66.67	220.00	7.33	14.82
ADDITIONAL FOR LEVELING & GRADE RAISE																													
31+11.00	41+00.00	HWY. 5 - LEVELING	989.00			22.00	2417.56	120.88	22.00	2417.56	410.99	531.87									22.00	2417.56	VAR.	230.91					250.91
41+00.00	45+00.00	HWY. 5 - GRADE RAISE	400.00			66.00	2933.33	146.67	22.00	977.78	166.22	312.89	22.00	977.78	VAR.	246.01	22.00	977.78	330.00	161.33	22.00	977.78	220.00	107.56					107.56
45+00.00	48+00.00	HWY. 5 - LEVELING	300.00			22.00	733.33	36.67	22.00	733.33	124.67	161.34									22.00	733.33	VAR.	118.32					118.32
48+00.00	55+00.00	HWY. 5 - GRADE RAISE	700.00			66.00	5133.33	256.67	22.00	1711.11	290.89	547.56	22.00	1711.11	VAR.	313.05	22.00	1711.11	330.00	282.33	22.00	1711.11	220.00	138.22					188.22
61+00.00	63+00.00	HWY. 5 - LEVELING	200.00			31.00	688.89	34.44	31.00	688.89	117.11	151.55									31.00	688.89	VAR.	46.49					46.49
63+00.00	70+10.00	HWY. 5 - GRADE RAISE	710.00			75.00	5916.67	295.83	25.00	1972.22	335.28	631.11	25.00	1972.22	VAR.	462.65	25.00	1972.22	330.00	325.42	25.00	1972.22	220.00	216.94					216.94
70+10.00	75+00.00	HWY. 5 - LEVELING	490.00			22.50	1225.00	61.25	22.50	1225.00	208.25	269.50									22.50	1225.00	VAR.	195.45					195.45
75+00.00	80+00.00	HWY. 5 - GRADE RAISE	500.00			91.50	5083.33	254.17	30.50	1694.44	288.05	542.22	30.50	1694.44	VAR.	411.94	30.50	1694.44	330.00	279.58	30.50	1694.44	220.00	136.39					186.39
80+00.00	92+00.00	HWY. 5 - LEVELING	1200.00			51.00	6800.00	340.00	25.50	3400.00	578.00	918.00									25.50	3400.00	VAR.	857.20					867.20
211+65.00	213+37.19	ALCOA RD. - LEVELING	172.19			VAR.	1089.27	54.46	VAR.	1089.27	185.18	239.64									VAR.	1089.27	VAR.	179.73					179.73
ADDITIONAL FOR DETOUR CONSTRUCTION																													
62+62.22	65+15.00	HWY. 5 DETOUR - TRANS.	252.78	VAR.	119.75																				VAR.	242.45	220.00	26.67	26.67
65+15.00	67+66.00	HWY. 5 DETOUR	251.00	194.00	486.94																				28.00	780.89	220.00	85.90	85.90
67+66.00	69+96.93	HWY. 5 DETOUR - TRANS.	230.93	VAR.	152.75																				VAR.	233.63	220.00	25.70	25.70
ADDITIONAL FOR DETOUR CONSTRUCTION - SUPERELEVATION																													
64+49.71	68+01.29	HWY. 5 DETOUR	351.58	7.75	27.25																								
TOTALS:					**786.69**		**135410.11**	**6770.50**		**17842.37**	**3033.21**	**9803.71**		**43404.61**		**11622.14**		**39527.27**		**6521.98**		**49078.20**		**6605.72**		**50736.97**		**5581.04**	**11543.52**

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.5% MIN. AGGR.....5.5% ASPHALT BINDER
ACHM BINDER COURSE (1").....95.5% MIN. AGGR.....4.5% ASPHALT BINDER
ACHM BASE COURSE (1 1/2").....96.0% MIN. AGGR.....4.0% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 160 FOR PG 70-22
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

7/27/2020

R061508.DGN

QUANTITIES

R06508.DGN 7/27/2020

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED
10-18-2023			
10-25-2023			

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	50	150

(2) SUMMARY OF QUANTITIES AND REVISIONS

STATE OF ARKANSAS
TRINITY D. SMITH
REGISTERED PROFESSIONAL ENGINEER
No. 11425
10-25-2023

SUMMARY OF QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
201	CLEARING	29	STATION
201	GRUBBING	29	STATION
202	REMOVAL AND DISPOSAL OF CURB	1749	LIN.FT.
202	REMOVAL AND DISPOSAL OF CURB AND GUTTER	420	LIN.FT.
202	REMOVAL AND DISPOSAL OF FENCE	29424	LIN.FT.
202	REMOVAL AND DISPOSAL OF GUARDRAIL	2	EACH
202	REMOVAL AND DISPOSAL OF RETAINING WALLS	44	LIN.FT.
202	REMOVAL AND DISPOSAL OF CONCRETE PAVEMENT	1119	SQ.YD.
202	REMOVAL AND DISPOSAL OF CONCRETE DRIVEWAYS	3204	SQ.YD.
202	REMOVAL AND DISPOSAL OF WALKS	30	SQ.YD.
202	REMOVAL AND DISPOSAL OF SIGN FOUNDATIONS	5	EACH
202	REMOVAL AND DISPOSAL OF TRAFFIC SIGNALS	1	EACH
202	REMOVAL AND DISPOSAL OF DROP INLETS	8	EACH
202	REMOVAL AND DISPOSAL OF PPE CJLVERTS	41	EACH
202	REMOVAL AND DISPOSAL OF BOX CULVERTS	1	EACH
202	REMOVAL AND DISPOSAL OF BULDINGS	3	EACH
202	REMOVAL AND DISPOSAL OF SIGNS	22	EACH
202	REMOVAL AND DISPOSAL OF PLANTERS	22	EACH
SP SS, & 210	MINERAL AGGREGATE (PG 70-22) IN ACHM BASE COURSE (1 1/2")	1483	CU.YD.
SP & 210	COMPACTED EMBANKMENT	38045	CU.YD.
SP & 210	SOIL STABILIZATION	100	TON
SP SS, & 303 SS & 401	AGGREGATE BASE COURSE (CLASS 7) TACK COAT	4576 9884	TON GAL
SP SS, & 405	MINERAL AGGREGATE IN ACHM BASE COURSE (1 1/2")	11457	TON
SP SS, & 406	MINERAL AGGREGATE (PG 70-22) IN ACHM BINDER COURSE (1 1/2")	7004	TON
SP SS, & 406	MINERAL AGGREGATE IN ACHM BINDER COURSE (1/2")	6229	TON
SP SS, & 406	ASPHALT BINDER (PG 70-22) IN ACHM BINDER COURSE (1")	293	TON
SP SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")	11721	TON
SP SS, & 407	ASPHALT BINDER (PG 64-22) IN ACHM SURFACE COURSE (1/2")	47	TON
SP SS, & 407	ASPHALT BINDER (PG 70-22) IN ACHM SURFACE COURSE (1/2")	635	TON
SP & 412	COLD MILLING ASPHALT PAVEMENT	1933	SQ.YD.
SP SS, & 414	ASPHALT BINDER (PG 70-22) IN ASPHALT STABILIZED BASE (MARY LEMMON, JR. PKWY.)	100	TON
SP SS, & 415	ACHM PATCHING OF EXISTING ROADWAY	30	TON
SP SS, & 595	PORTLAND CEMENT CONCRETE DRIVEWAY	4417.11	SQ.YD.
601	MOBILIZATION	1.00	LUMP SUM
SP & 602	FURNISHING FIELD OFFICE	1	EACH
SP SS, & 603	MAINTENANCE OF TRAFFIC	1.00	LUMP SUM
SP & 604	CONSTRUCTION SIGNS	598	SQ.FT.
SS & 604	BARRICADES	32	LIN.FT.
SS & 604	TRAFFIC DRUMS	327	EACH
SS & 604	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER	240	LIN.FT.
SS & 604	RELOCATING PRECAST CONCRETE BARRIER	412	LIN.FT.
604	CONSTRUCTION PAVEMENT MARKINGS	28716	LIN.FT.
604	CONSTRUCTION PAVEMENT MARKINGS (WORDS)	1	EACH
604	CONSTRUCTION PAVEMENT MARKINGS (ARROWS)	12	EACH
604	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	3975	LIN.FT.
604	REMOVAL OF PERMANENT PAVEMENT MARKINGS	7310	LIN.FT.
SP, SS, & 604	PORTABLE CHANGEABLE MESSAGE SIGN	2	WEEK
SS & 604	VERTICAL PANELS	141	EACH
SP SS, & 605	CONCRETE (TYPE A) PAVING (TYPE B)	2000	SQ.YD.
SS & 606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	134	LIN.FT.
SS & 606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	5756	LIN.FT.
SS & 606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	6756	LIN.FT.
SS & 606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS V)	142	LIN.FT.
SS & 606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS V)	76	LIN.FT.
SS & 606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	60	LIN.FT.
SS & 606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	662	LIN.FT.
SS & 606	24" SMOOTH LINED POLYMER RECOATED METALLIC COATED CORRUGATED STEEL PIPE	662	LIN.FT.
SS & 606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS V)	68	LIN.FT.
SS & 606	30" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	16	LIN.FT.
SS & 606	30" SMOOTH LINED POLYMER RECOATED METALLIC COATED CORRUGATED STEEL PIPE	624	LIN.FT.
SS & 606	30" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	624	LIN.FT.
SS & 606	36" SMOOTH LINED POLYMER RECOATED METALLIC COATED CORRUGATED STEEL PIPE	106	LIN.FT.
SS & 606	36" REINFORCED CONCRETE PIPE CULVERTS (CLASS V)	72	LIN.FT.
SS & 606	42" SMOOTH LINED POLYMER RECOATED METALLIC COATED CORRUGATED STEEL PIPE	210	LIN.FT.
SS & 606	42" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	210	LIN.FT.
SS & 606	48" SMOOTH LINED POLYMER RECOATED METALLIC COATED CORRUGATED STEEL PIPE	216	LIN.FT.
SS & 606	48" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	216	LIN.FT.
SP, SS, & 606	12" SIDE DRAIN	600	LIN.FT.
SP, SS, & 606	18" SIDE DRAIN	250	LIN.FT.
SP, SS, & 606	24" SIDE DRAIN	46	LIN.FT.
SS & 606	18" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS	9	EACH
SS & 606	24" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS	2	EACH
SS & 606	SLOPE PAVING SECTIONS FOR CORRUGATED STEEL PIPE CULVERTS	2	EACH
SS & 608	CONCRETE WALKS (TYPE SIDEWALK)	720	CU.YD.
SS & 609	DROP INLETS (TYPE MO)	62	EACH
SP & 609	DROP INLETS (TYPE SPECIAL)	2	EACH
SS & 609	DROP INLETS (TYPE ST)	1	EACH
SS & 609	JUNCTION BOXES (TYPE B)	2	EACH
SS & 609	DROP INLET EXTENSIONS (4')	29	EACH
SS & 609	DROP INLET EXTENSIONS (6')	13	EACH
SS & 609	YARD DRAINS	6	EACH
SS & 611	4" PIPE UNDERDRAINS	3000	LIN.FT.
SS & 615	PAVEMENT REPAIR OVER CULVERTS (ASPHALT)	225	TON
SS & 619	4' STEEL CHAIN LINK FENCE	571	LIN.FT.
SS & 619	4' ALUMINUM CHAIN LINK FENCE	571	LIN.FT.
SS & 619	18' STEEL GATES	2	EACH
SS & 619	18' ALUMINUM GATES	2	EACH
620	LIME	2	TON
620	SEEDING	3.64	ACRE
620	MULCH COVER	28.19	ACRE
620	WATER	931.1	M. GAL
621	TEMPORARY SEEDING	24.55	ACRE
621	SILT FENCE	2709	LIN.FT.
621	SILT FENCE REMOVAL AND DISPOSAL	2709	LIN.FT.
621	ROCK DITCH CHECKS	284	CU.YD.
SS & 621	FILTER SOCK (12")	760	LIN.FT.
621	WATTLE (20')	198	LIN.FT.
623	SECOND SEEDING APPLICATION	3.64	ACRE
624	SOLID SODDING	4685	SQ.YD.
624	SOD STAPLING MATTING (CLASS 3)	3511	SQ.YD.
SP, SS, & 632	CONCRETE ISLAND	381	SQ.YD.
SP, SS, & 633	CONCRETE WALKS	4889	SQ.YD.
SS & 633	HAND RAILING	269	SQ.YD.
SS & 634	CONCRETE CURB (TYPE A)	131	LIN.FT.
SS & 634	CONCRETE COMBINATION CURB AND GUTTER (TYPE A) (1'-6")	1598	LIN.FT.
SS & 634	ROADWAY CONSTRUCTION CONTROL	15866	LIN.FT.
637	MAILBOXES	1.00	LUMP SUM
637	MAILBOX SUPPORTS (SINGLE)	15	EACH
637	MAILBOX SUPPORTS (DOUBLE)	13	EACH
SP, SS, & 641	WHEELCHAIR RAMPS (TYPE 3)	1	EACH
SP & 701	SYSTEM LOCAL CONTROLLER TS2 TYPE 2 (8 PHASES)	55	SQ YD
SP	SIGNAL MAST ARM AND POLE WITH FOUNDATION (50' - 55' Ht.)	4	EACH
SP	LOCAL RADIO WITH ANTENNA	4	EACH
SP	ANTENNA CABLE (TYPE 9)	4	LIN.FT.
SP & 706	TRAFFIC SIGNAL HEAD, LED (3 SECTION 1 WAY)	240	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED (3 SECTION 1 WAY)	28	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED (3 SECTION, 1 WAY)	10	EACH
SP & 707	CENTRAL CONTROL UNIT, SIGNAL HEAD	2	EACH
SP & 707	CENTRAL CONTROL UNIT	11	EACH
SP & 707	POLE MOUNTED ASSEMBLY	2	EACH
SP & 707	INFRARED PROGRAMMING DEVICE	12	EACH
SP & 707	COUNTDOWN PEDESTRIAN SIGNAL HEAD, LED	12	EACH
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	6413	LIN.FT.
708	TRAFFIC SIGNAL CABLE (7C/14 A.W.G.)	2003	LIN.FT.
708	TRAFFIC SIGNAL CABLE (12C/14 A.W.G.)	1139	LIN.FT.
708	TRAFFIC SIGNAL CABLE (20C/14A.W.G.)	761	LIN.FT.
SP	ELECTRICAL CONDUCTORS IN CONDUIT (1C/8 A.W.G., E.G.C.)	1526	LIN.FT.
SP	ELECTRICAL CONDUCTORS IN CONDUIT (1C/12 A.W.G., E.G.C.)	379	LIN.FT.
SP	ELECTRICAL CONDUCTORS IN CONDUIT (2C/6 A.W.G.)	203	LIN.FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	1343	LIN.FT.
709	GALVANIZED STEEL CONDUIT (2")	150	LIN.FT.
710	NON-METALLIC CONDUIT (2)	140	LIN.FT.
710	NON-METALLIC CONDUIT (3")	243	LIN.FT.
SS & 711	CONCRETE PULL BOX (TYPE 1 HD)	930	LIN.FT.
SS & 711	CONCRETE PULL BOX (TYPE 2 HD)	1	EACH
SS & 711	CONCRETE PULL BOX (TYPE 3 HD)	10	EACH
SS & 713	SPAN WIRE ASSEMBLY	1	EACH
SS & 713	POLE WITH FOUNDATION (39')	2	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (42')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (46')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (50')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (44'-44')	1	EACH
SS & 715	LED LUMINAIRE ASSEMBLY	2	EACH
SP	TRAFFIC SIGNAL PEDESTAL POLE WITH FOUNDATION	7	EACH
SP	SERVICE POINT ASSEMBLY (2 CIRCUITS)	7	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	5	EACH
716	TREATED WOOD POLE (CLASS 3, 45')	2	EACH
718	RETROREFLECTORIZED PAINT PAVEMENT MARKING WHITE (10")	10	EACH
719	THERMOPLASTIC PAVEMENT MARKING WHITE (8")	1	EACH
719	THERMOPLASTIC PAVEMENT MARKING WHITE (12")	2	EACH
719	THERMOPLASTIC PAVEMENT MARKING WHITE (24")	1	EACH
719	THERMOPLASTIC PAVEMENT MARKING YELLOW (6")	1	EACH
719	THERMOPLASTIC PAVEMENT MARKING (WORDS)	1	EACH
719	THERMOPLASTIC PAVEMENT MARKING (ARROWS)	2	EACH
719	THERMOPLASTIC PAVEMENT MARKING (BIKE EMBLEMS)	10	EACH
SP	RAISED REFLECTIVE PAVEMENT MARKERS (TYPE B)	4	EACH
SP	LIGHTING SERVICE METER	4	EACH
SP	VIDEO DETECTOR ROTATION	582	SQ.FT.
SP & 733	VIDEO DETECTOR (P)	65	SQ.YD.
SP & 733	HYBRID VIDEO/RADAR DETECTOR		
SP & 733	VIDEO CABLE (EXTERIOR CAT 5)		
SP & 733	VIDEO CONTROL UNIT		
SP & 733	CENTRAL COMMUNICATIONS UNIT (8 CHANNEL)		
SP	ARCHITECTURAL FINISH		
SP	TEXTURED COATING FINISH		
	STRUCTURES OVER 20' SPAN		
801	UNCLASSIFIED EXCAVATION FOR STRUCTURES-ROADWAY	138	CU.YD.
SP, SS, & 802	CLASS S CONCRETE-ROADWAY	323.81	CU.YD.
SS & 804	REINFORCING STEEL-ROADWAY (GRADE 60)	43778	POUND

* DENOTES ALTERNATE BID ITEMS.

REVISIONS

DATE	REVISION	SHEET NUMBER
10-18-2023 SMOOTHNESS (IRI)", "PROSECUTION AND PROGRESS WITH BID SCHEDULE", AND "RESTRAINING CONDITIONS" REVISED STANDARD DRAWING 'DR-1' DETAILS OF DRIVEWAYS AND ISLANDS". REVISED RIGHT OF WAY AT STA. 63+39.	REMOVED "HISTORIC PROPERTY" MONITORING" SPECIAL PROVISION. REVISED "ELECTRICAL CONDUCTORS IN CONDUIT", "LED LUMINAIRE ASSEMBLY (BUCKEYE) TYPE I", "LIMITATION OF VIBRATORY EQUIPMENT", "PERCENT WITH IN LIMITS OF	3, 50, & 60
10-25-2023	REVISED STANDARD DRAWING 'DR-4' DETAILS OF DROP INLETS (TYPE ST)". ADDED PAY ITEMS "DROP INLETS (TYPE SPECIAL)" AND "DROP INLETS (TYPE MO)".	2, 47, & 60
	ADDED STANDARD DRAWING 'FPC-2S' DETAILS OF DROP INLET & JUNCTION BOX (TYPE ST).	

SUMMARY OF QUANTITIES AND REVISIONS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	51	150

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

SURVEY CONTROL COORDINATES

Project Name: s061508
Date: 3/30/2017
Coordinate System: ARKANSAS STATE PLANE - SOUTH ZONE BASED ON GPS CONTROL, 620019A-620043 &

620043A-620044
PROJECTED TO GROUND.
Units: U.S. SURVEY FOOT

Point Name	Northing	Easting	Elev	Feature	Description
17	2021544.6093	1157064.1103	414.612	CTL	AHTD STD. MON. STAMPED PN:17
24	2020177.2604	1151095.4884	421.457	CTL	AHTD STD. MON. STAMPED PN:24
25	2019611.8246	1150324.6916	422.063	CTL	AHTD STD. MON. STAMPED PN:25
35	2019284.5289	1149826.7132	418.801	CTL	AHTD STD. MON. STAMPED PN:35
36	2018768.5484	1149252.4834	427.783	CTL	AHTD STD. MON. STAMPED PN:36
37	2018310.4230	1148770.7942	461.459	CTL	AHTD STD. MON. STAMPED PN:37
38	2018089.3737	1148301.7535	479.466	CTL	AHTD STD. MON. STAMPED PN:38
39	2017596.9030	1147684.6811	480.094	CTL	AHTD STD. MON. STAMPED PN:39
40	2016556.1227	1146421.6833	462.834	CTL	AHTD STD. MON. STAMPED PN:40
100	2020952.0439	1154202.2917	375.263	GPS	AHTD GPS MON 620019A
101	2016040.6422	1145679.0483	484.312	GPS	AHTD GPS MON 620043
102	2017028.1905	1147097.4249	481.281	GPS	AHTD GPS MON 620043A
103	2020015.3325	1156396.0186	404.479	GPS	AHTD GPS MON 620044
900	2019045.6128	1149527.9869	419.761	TBM	SQ CUT IN CENTER N HW
901	2016251.5851	1145997.2993	466.919	TBM	SQ CUT IN TRAFFIC ISLAND
9902	2021969.8495	1156852.3587	421.813	TBM	CH SQ EDGE CONC STRM DRAIN BASIN

*Note - Rebar and Cap - Standard - 5/8" Rebar with 2" Aluminum Cap stamped
*(standard markings common to all caps), or as indicated
(other markings indicated in the point description of the individual point).
ALL DISTANCES ARE GROUND.
USE CAF = 1.0 FOR STAKEOUT FOR THIS PROJECT.
A PROJECT CAF OF 0.9999621733 HAS BEEN USED TO COMPUTE THE ABOVE GROUND COORDINATES.
THIS CAF IS INTENDED FOR USE WITHIN THE PROJECT LIMITS.
GRID DISTANCE = GROUND DISTANCE X CAF.
GRID COORDINATES ARE STORED UNDER FILE NAME. s061508gi.CTL
HORIZONTAL DATUM: NAD 83 (1997)
VERTICAL DATUM: NAVD 88 POSITIONAL ACCURACY THIRD ORDER, UNLESS SPECIFIED OTHERWISE
AT A SPECIFIC POINT.

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

BASIS OF BEARING:
ARKANSAS STATE PLANE GRID BEARINGS - 0302-SOUTH ZONE
DETERMINED FROM GPS CONTROL POINTS: 620019A-620043 & 620043A-620044
CONVERGENCE ANGLE: 0-18-12 LEFT AT PN:36 LT:N 34-36-23 LG:W092-32-31
GRID AZIMUTH = ASTRONOMICAL AZIMUTH - CONVERGENCE ANGLE.

HWY. 5

POINT NO.	TYPE	STATION	NORTHING	EASTING
8000	POB	9+95.40	2015324.2578	1145594.9675
8001	PC	13+72.39	2015700.8480	1145612.4036
8003	PT	20+66.28	2016269.5511	1145957.8257
8004	PC	22+01.03	2016337.1383	1146074.4052
8006	PT	31+34.05	2016868.6131	1146840.0031
8007	PC	44+10.02	2017679.0779	1147825.5100
8009	PT	48+90.40	2017968.3066	1148208.8923
8010	PC	49+92.88	2018026.5435	1148293.2186
8012	PT	54+74.47	2018316.5356	1148677.5290
8013	PC	67+20.67	2019108.2967	1149639.8811
8015	PT	72+99.94	2019464.8708	1150096.3218
8016	PC	73+38.56	2019487.8687	1150127.3461
8018	PT	82+82.47	2020018.1266	1150907.9130
8019	PC	86+40.24	2020206.8131	1151211.8843
8021	PT	94+88.66	2020541.7901	1151988.0049
8022	PC	104+26.60	2020782.3480	1152894.5696
8024	PT	106+82.19	2020836.8019	1153144.2121
8025	POE	132+42.32	2021270.3167	1155667.3637

SALEM RD.

POINT NO.	TYPE	STATION	NORTHING	EASTING
8026	POB	300+00.00	2019698.4967	1150421.0565
8027	PC	300+58.10	2019746.2405	1150387.9456
8029	PT	301+23.76	2019808.2512	1150370.2447
8030	PI	304+08.45	2020092.5758	1150384.5438
8031	POE	306+00.00	2020283.9694	1150392.3738

ALCOA RD.

POINT NO.	TYPE	STATION	NORTHING	EASTING
8032	POB	200+00.00	2019095.6132	1151562.6674
8033	PC	201+86.35	2019269.6336	1151629.3121
8035	PT	204+24.61	2019502.1040	1151676.2906
8036	PI	207+14.89	2019792.2188	1151685.8843
8037	PI	208+70.26	2019947.4217	1151693.2477
8038	PC	211+28.51	2020205.5333	1151701.5968
8040	PT	213+70.68	2020447.5409	1151696.6354

DETOUR

POINT NO.	TYPE	STATION	NORTHING	EASTING
8041	PC	0+00.00	2018811.5554	1149318.5881
8043	PT	1+23.88	2018894.7894	1149410.2772
8044	PC	4+14.79	2019079.6139	1149634.9235
8046	PRC	5+44.56	2019169.6475	1149728.1970
8048	PT	7+19.22	2019287.2334	1149856.8957

7/27/2020

R061508.DGN

SURVEY CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	52	150

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

20 25 30 35

STA. 28+80.00
BEGIN JOB 061508
LOG MILE 0.44

HWY. 5
P.I. = 26+68.58
Δ = 9°19'49" LT.
D = 1°00'00"
T = 467.55'
L = 933.02'
P.C. = 22+01.03
P.T. = 31+34.05
MATCH EXIST SUPER

N 59°53'49" E
379.01'
8003
N 59°53'49" E
134.75'
P.C. 22+01.03
8004
SURVEY BASELINE N 55°14'04" E
904.01'
P.T. 20+66.28
PN:901
PD:SQ CUT IN TRAFFIC ISLAND BRYANT
PN:40
PD:STD AHTD MON. STAMPED PN:40 BRYANT
N 59°53'49" E
467.54'
P.I. 26+68.58
N 50°34'00" E
467.54'
SURVEY BASELINE N 55°03'44" E
824.30'
P.T. 31+34.05
8006
N 50°34'00" E
1275.96'
SURVEY BASELINE N 45°55'09" E
817.50'
PN:102
PD:AHTD GPS MON 620043A

HWY. 5
P.I. = 17+51.40
Δ = 57°14'46" RT.
D = 8°15'00"
T = 379.01'
L = 693.89'
P.C. = 13+72.39
P.T. = 20+66.28

SURVEY BASELINE
HWY. 5

35 40 45 50

PN:39
PD:STD AHTD MON. STAMPED PN:39 BRYANT
N 50°34'00" E
1275.96'
SURVEY BASELINE N 45°55'09" E
817.50'
HWY. 5
P.C. 44+10.02
8007
N 50°34'00" E
240.33'
P.I. 46+50.35
SURVEY BASELINE N 51°24'27" E
789.50'
N 55°22'14" E
240.33'
8009
N 55°22'14" E
102.48'
8010
P.C. 49+92.88
P.T. 48+90.40

HWY. 5
P.I. = 46+50.35
Δ = 4°48'14" RT.
D = 1°00'00"
T = 240.33'
L = 480.38'
P.C. = 44+10.02
P.T. = 48+90.40
NO SUPER

SURVEY CONTROL DETAILS

7/27/2020
R06508.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	53	150

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

HWY. 5
P. I. = 52+33.82
Δ = 4°48'57" LT.
D = 1°00'00"
T = 240.94'
L = 481.59'
P. C. = 49+92.88
P. T. = 54+74.47
NO SUPER

50 55 60 65

P.C. 49+92.88
PN:38 PDiSTD AHTD MON. STAMPED PN:38 BRYANT
8010
N 55°22'14" E 240.94'
P.I. 52+33.82
SURVEY BASELINE N 64°45'59" E 518.52'
N 50°33'17" E 240.94'
P.T. 54+74.47
8012
HWY. 5
PN:37 PDiSTD AHTD MON. STAMPED PN:37 BRYANT
SURVEY BASELINE N 46°26'11" E 664.76'
N 50°33'17" E 1246.20'
SURVEY BASELINE
PN:36 PDiSTD AHTD MON. STAMPED PN:36 BRYANT
SURVEY BASELINE N 48°03'30" E 771.99'
P.I. 0+61.99
8041
N 44°58'48" E 61.99'
N 50°33'17" E 61.99'
8043
N 50°33'17" E 290.91'
DETOUR

DETOUR
P. I. = 0+61.99
Δ = 5°34'29" RT.
D = 4°30'00"
T = 61.99'
L = 123.88'
P. C. = 0+00.00
P. T. = 1+23.88
NO SUPER

P.C. 0+00.00
P.T. 1+23.88

DETOUR
P. I. = 4+79.81
Δ = 9°05'03" LT.
D = 7°00'00"
T = 65.02'
L = 129.77'
P. C. = 4+14.79
P. R. C. = 5+44.56
NO SUPER

65 5 70 75 80

PN:900 PDiSO CUT IN CENTER N HW SEC 5-8 LM 1.17
P.C. 4+14.79
P.R.C. 5+44.56
P.I. 6+32.22
P.I. 70+10.36
N 53°41'48" E 87.66'
N 41°28'14" E 87.66'
SURVEY BASELINE N 48°03'30" E 771.99'
N 50°33'17" E 1246.20'
8013
8046
N 50°33'17" E 289.70'
8048
SURVEY BASELINE N 56°41'06" E 595.91'
N 53°27'04" E 38.62'
8015
8016
N 53°27'04" E 289.70'
N 53°27'04" E 472.22'
300
N 50°33'17" E 290.91'
8044
N 50°33'17" E 65.02'
N 41°28'14" E 65.02'
P.C. 67+20.67
P.I. 4+79.81
DETOUR
HWY. 5
P.T. 72+99.94
P.C. 73+38.56
SURVEY BASELINE
PN:25 PDiAHTD STD. MON. STAMPED PN:25
P.C. 300+00.00
8026
SURVEY BASELINE N 53°44'14" E 955.95'
N 58°10'14" E 472.22'
N 34°44'30" W 58.10'
N 34°44'30" W 34.06'
N 2°52'45" E 34.06'
8029
P.I. 300+92.16
P.T. 301+23.76
P.C. 300+58.10
8027
P.I. 78+10.78
SALEM RD.
N 2°52'45" E 284.06'

PN:35 PDiSTD AHTD MON. STAMPED PN:35 BRYANT
P.T. 7+19.22

DETOUR
P. I. = 6+32.22
Δ = 12°13'34" RT.
D = 7°00'00"
T = 87.66'
L = 174.66'
P. R. C. = 5+44.56
P. T. = 7+19.22
NO SUPER

HWY. 5
P. I. = 70+10.36
Δ = 2°53'47" RT.
D = 0°30'00"
T = 289.69'
L = 579.27'
P. C. = 67+20.67
P. T. = 72+99.94
NO SUPER

C.L. HWY. 5 STA. 77+00.00 =
C.L. SALEM RD. STA. 300+00.00
Δ = 90°00'00"

HWY. 5
P. I. = 78+10.78
Δ = 4°43'10" RT.
D = 0°30'00"
T = 472.22'
L = 943.91'
P. C. = 73+38.56
P. T. = 82+82.47
NO SUPER

7/21/2020
R061508.DGN

SURVEY CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	54	150

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

80 85 90

SURVEY BASELINE

PK24 FDLAHTD STD. MON. STAMPED PK24

SURVEY BASELINE N 53°44'14" E 955.95'

N 58°10' 14" E 472.22'

8018

N 58°10' 14" E 357.77'

8019

N 58°10' 14" E 427.34'

P.I. 90+67.58

P.T. 213+70.68

C.L. HWY. 5 STA. 91+82.28 =
C.L. ALCOA RD. STA. 213+70.68
Δ = 73°12' 47"

N 75°08' 20" E 427.34'

8020

N 75°08' 20" E 937.94'

8021

HWY. 5
P.I. = 78+10.78
Δ = 4°43' 10" RT.
D = 0°30' 00"
T = 472.22'
L = 943.91'
P.C. = 73+38.56
P.T. = 82+82.47
NO SUPER

HWY. 5

P.T. 82+82.47

P.C. 86+40.24

HWY. 5
P.I. = 90+67.58
Δ = 16°58' 06" RT.
D = 2°00' 00"
T = 427.34'
L = 848.42'
P.C. = 86+40.24
P.T. = 94+88.66
NO SUPER

P.T. 94+88.66

8040

N 4°12' 06" W 121.20'

P.I. 212+49.71

8038

N 1°51' 10" E 121.20'

P.C. 211+28.51

ALCOA RD.

210

STA. 92+00.00
END JOB 061508
BEGIN JOB 061335

DETOUR

95 100 105 110

N 75°08' 20" E 937.94'

8021

P.T. 94+88.66

HWY. 5

8022

P.C. 104+26.60

N 75°08' 20" E 127.88'

P.I. 105+54.48

N 80°15' 03" E 127.88'

8024

P.T. 106+82.19

N 80°15' 03" E 2560.12'

HWY. 5
P.I. = 105+54.48
Δ = 5°06' 43" RT.
D = 2°00' 00"
T = 127.88'
L = 255.60'
P.C. = 104+26.60
P.T. = 106+82.19

7/27/2020

R061508.DGN

SURVEY CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	55	150

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

75

HWY. 5

300

N 53°27'04" E 472.22'

P.I. 300+92.16

N 34°44'30" W 34.06'

N 2°52'45" E 34.06'

8029

N 2°52'45" E 284.68'

P.I. 304+08.45
Δ = 0°32'11" LT.

8030

N 2°20'34" E 191.55'

P.O.E. 306+00.00

8031

305

P.O.B. 300+00.00

PK-N25
PDIAHTD STD. MON. STAMPED PK-N25

N 34°44'30" W 58.10'

8027

P.C. 300+58.10

P.T. 301+23.76

P.I. 78+10.78

8026

SURVEY BASELINE

SURVEY BASELINE N 53°44'14" E 955.95'

SALEM RD.
P.I. = 300+92.16
Δ = 37°37'15" RT.
R = 100'
T = 34.06'
L = 65.66'
P.C. = 300+58.10
P.T. = 301+23.76
NO SUPER

SALEM RD.

STA. 305+68.00
END SALEM RD.

C.L. HWY. 5 STA. 77+00.00 =
C.L. SALEM RD. STA. 300+00.00
Δ = 90°00'00"

80

STA. 201+77.00
BEGIN ALCOA RD.

200

ALCOA RD.
P.I. = 203+06.59
Δ = 19°03'41" LT.
D = 8°00'00"
T = 120.24'
L = 238.26'
P.C. = 201+86.35
P.T. = 204+24.61
MATCH EXIST SUPER

P.O.B. 200+00.00

8032

N 20°57'19" E 186.35'

P.C. 201+86.35

8033

N 20°57'19" E 120.24'

P.T. 204+24.61

205

ALCOA RD.

N 1°53'38" E 120.24'

8035

N 1°53'38" E 290.27'

P.I. 203+06.59

P.I. 207+14.89
Δ = 0°49'21" RT.

8036

N 2°42'59" E 155.38'

P.I. 208+70.26
Δ = 0°51'49" LT.

8037

N 1°51'10" E 258.25'

210

P.C. 211+28.51

8038

N 1°51'10" E 121.20'

N 4°12'06" W 121.20'

8040

P.I. 212+49.71

HWY. 5

C.L. HWY. 5 STA. 91+82.28 =
C.L. ALCOA RD. STA. 213+70.68
Δ = 73°12'47"

ALCOA RD.
P.I. = 212+49.71
Δ = 6°03'16" LT.
D = 2°30'00"
T = 121.20'
L = 242.17'
P.C. = 211+28.51
P.T. = 213+70.68
NO SUPER

P.T. 213+70.68

P.I. 90+67.58

N 58°10'14" E 427.34'

90

N 75°08'20" E 427.34'

7/21/2020

R061508.DGN

SURVEY CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	56	150

(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

STA. 28+80.00
BEGIN JOB 061508
LOG MILE 0.44

HWY. 5
P.I. = 26+68.58
Δ = 9°19'49" LT.
D = 1°00'00"
T = 467.55'
L = 933.02'
P.C. = 22+01.03
P.T. = 31+34.05
MATCH EXIST SUPER

STA. 29+02 CONSTRUCT
APPROACH ON LT. = 10 CU. YD. UNCL. EXC.

STA. 29+30 CONSTRUCT
DROP INLET ON LT.
WITH 8' EXTENSION
AND 18" X 228' PIPE OUTLET
CONNECT TO EXIST. DROP INLET @ STA. 26+98
DROP INLET H = 3'-8"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 228 LIN. FT.
18" SLCPPS = 228 LIN. FT.

STA. 29+50 IN PLACE
DROP INLET ON LT.
18" X 246' R.C. PIPE OUTLET
REMOVE

STA. 31+00 CONSTRUCT
DROP INLET ON LT.
WITH 8' EXTENSION
AND 18" X 166' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 29+30
DROP INLET H = 4'-0"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 166 LIN. FT.
18" SLCPPS = 166 LIN. FT.

STA. 31+29 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP ON LT.
= 5.4 SQ. YDS.

STA. 32+29 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP ON LT.
= 5.4 SQ. YDS.

STA. 31+84 CONSTRUCT
TURNOUT ON LT. = 85 CU. YD. UNCL. EXC.

STA. 33+00 CONSTRUCT
DROP INLET ON LT.
WITH 8' EXTENSION
AND 18" X 196' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 31+00
DROP INLET H = 2'-3"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 196 LIN. FT.
18" SLCPPS = 196 LIN. FT

STA. 32+33 TO STA. 34+90 CONSTRUCT
TYPE A CURB ON LT.
TYPE A = 257 LIN. FT.

STA. 34+82.00
END RETAINING WALL

STA. 35+03 CONSTRUCT
APPROACH ON LT. = 30 CU. YD. UNCL. EXC.

STA. 35+54 CONSTRUCT
APPROACH ON LT. = 5 CU. YD.

STA. 37+49 IN PLACE
18" X 20' R.C. PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND CONSTRUCT
APPROACH ON LT. = 5 CU. YD.

STA. 38+40 CONSTRUCT
DROP INLET ON LT.
WITH 4' EXTENSION
AND 18" X 46' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 38+90
DROP INLET H = 2'-3"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 46 LIN. FT.
18" SLCPPS = 46 LIN. FT

STA. 38+90 CONSTRUCT
DROP INLET ON LT.
AND 18" X 86' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 39+80
DROP INLET H = 2'-7"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 86 LIN. FT.
18" SLCPPS = 86 LIN. FT

STA. 39+51 IN PLACE
18" X 20' C.M. PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND CONSTRUCT
APPROACH ON LT. = 30 CU. YD.

STA. 39+60.00 TO STA. 40+00.00 ON LT.
CONC. DITCH PAVING (TYPE B) = 28.09 SQ. YD.

STA. 39+80 CONSTRUCT
DROP INLET ON LT.
AND 30" X 10' PIPE INLET WITH F.E.S.
AND 36" X 72' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 39+50 RT.
DROP INLET H = 5'-4"
Q50 = 25 CFS D.A. = 9 ACRES
TYPE MO DROP INLET = 5' DIA.
TYPE C DROP INLET = 4' X 3'
30" R.C. PIPE = 10 LIN. FT.
36" R.C. PIPE (CLASS V) = 72 LIN. FT.
30" F.E.S. = 1 EACH

STA. 32+06 CONSTRUCT
APPROACH ON RT. = 5 CU. YD.

STA. 32+77 CONSTRUCT
APPROACH ON RT. = 5 CU. YD.

STA. 31+40 CONSTRUCT
DROP INLET ON RT.
WITH 4' EXTENSION
AND 18" X 78' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 31+00 LT.
DROP INLET H = 3'-9"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE (CLASS V) = 78 LIN. FT.

STA. 33+25 CONSTRUCT
APPROACH ON RT. = 15 CU. YD.

STA. 34+96 CONSTRUCT
APPROACH ON RT. = 5 CU. YD.

STA. 35+73 CONSTRUCT
APPROACH ON RT. = 5 CU. YD.

STA. 36+98 CONSTRUCT
APPROACH ON RT. = 35 CU. YD.

STA. 38+19 CONSTRUCT
APPROACH ON RT. = 90 CU. YD.

STA. 38+55 CONSTRUCT
DROP INLET ON RT.
WITH 4' EXTENSION
AND 18" X 32' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 38+90
DROP INLET H = 2'-3"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 32 LIN. FT.
18" SLCPPS = 32 LIN. FT

STA. 38+90 CONSTRUCT
DROP INLET ON RT.
AND 18" X 56' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 39+50
DROP INLET H = 2'-7"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 56 LIN. FT.
18" SLCPPS = 56 LIN. FT

STA. 39+50 CONSTRUCT
DROP INLET ON RT.
AND 36" X 36' PIPE OUTLET
CONNECT TO JUNCTION BOX @ STA. 39+69
DROP INLET H = 8'-0"
TYPE MO DROP INLET = 5' DIA.
TYPE C DROP INLET = 4' X 3'
36" R.C. PIPE = 36 LIN. FT.
36" SLCPPS = 36 LIN. FT

STA. 39+69 CONSTRUCT
JUNCTION BOX ON RT.
AND 24" PIPE OUTLET
CONNECT EXIST. PIPE ON RT.
JUNCTION BOX H = 5'-0"
TYPE E JUNCTION BOX = 5' X 2'

STA. 39+69 IN PLACE
DROP INLET ON RT.
AND 24" X 66' C.M. PIPE INLET
REMOVE

REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	LIN. FT.
32+63	39+77	RT.	148
39+31	39+77	LT.	116

ALL R.C. PIPE CULVERTS SHALL BE CLASS III UNLESS OTHERWISE SPECIFIED.
FOR ALL R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED.
FOR ALL SLPCCS PIPE CULVERT INSTALLATIONS USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.

6/21/2023

R061508.DGN

HWY. 5

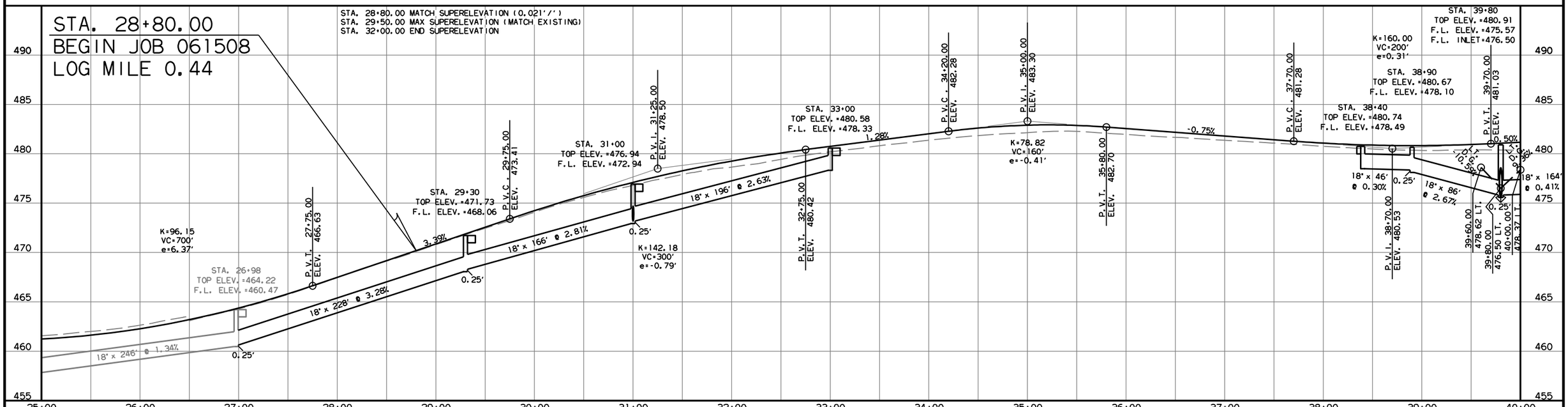
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	57	150

(2) PLAN AND PROFILE SHEETS

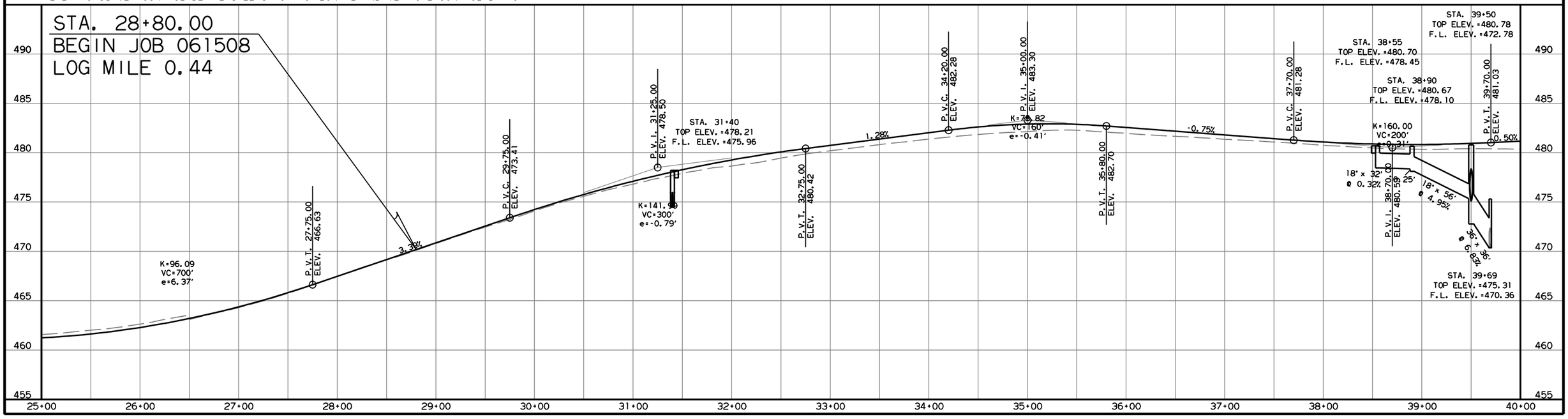
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

LEFT SIDE OF HWY. 5



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

RIGHT SIDE OF HWY. 5



6/21/2023

R061508.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	58	150

(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

STA. 42+10 IN PLACE
DROP INLET ON LT.
18" X 10' R.C. PIPE INLET
24" X 35' R.C. PIPE OUTLET
REMOVE

REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	LIN. FT.
45+59	46+24	LT.	71

STA. 41+49 CONSTRUCT
DROP INLET ON LT.
AND 18" X 164' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 39+80
DROP INLET H = 5'-0"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 164 LIN. FT.
18" SLCPPS = 164 LIN. FT

STA. 41+80 CONSTRUCT
DROP INLET ON LT.
AND 18" X 36' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 41+49
DROP INLET H = 4'-0"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 36 LIN. FT.
18" SLCPPS = 36 LIN. FT

STA. 41+66 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP ON LT.
= 5.4 SQ. YDS.

STA. 41+79 CONSTRUCT
TURNOUT ON LT. = 5 CU. YD.

STA. 41+72 IN PLACE
DROP INLET ON LT.
18" X 10' R.C. PIPE OUTLET
REMOVE

STA. 42+17 CONSTRUCT
DROP INLET ON LT.
AND 18" X 38' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 41+80
DROP INLET H = 3'-9"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 38 LIN. FT.
18" SLCPPS = 38 LIN. FT

STA. 42+30 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP ON LT.
= 5.4 SQ. YDS.

STA. 44+30 CONSTRUCT
APPROACH ON LT. = 5 CU. YD.

STA. 45+65 CONSTRUCT
DROP INLET ON LT.
WITH 4' EXTENSION
AND 24" X 8' PIPE INLET WITH F.E.S.
AND 24" X 62' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 46+30
DROP INLET H = 3'-9"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
24" R.C. PIPE = 8 LIN. FT.
24" R.C. PIPE (CLASS V) = 62 LIN. FT.
24" F.E.S. = 1 EACH

STA. 45+93 IN PLACE
18" X 24' C.M. PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND CONSTRUCT
APPROACH ON LT. = 5 CU. YD.

STA. 45+50.00 TO STA. 45+80.00 ON LT.
CONC. DITCH PAVING (TYPE B) = 21.07 SQ. YD.

STA. 46+30 CONSTRUCT
DROP INLET ON LT.
AND 24" X 46' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 46+80
DROP INLET H = 3'-11"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
24" R.C. PIPE = 46 LIN. FT.
24" SLCPPS = 46 LIN. FT

STA. 46+80 CONSTRUCT
DROP INLET ON LT.
AND 24" X 46' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 47+30
DROP INLET H = 4'-3"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
24" R.C. PIPE = 46 LIN. FT.
24" SLCPPS = 46 LIN. FT

STA. 47+30 CONSTRUCT
DROP INLET ON LT.
WITH 4' EXTENSION
AND 18" X 10' PIPE INLET WITH F.E.S.
AND 24" X 68' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 47+30 RT.
DROP INLET H = 4'-9"
Q50 = 13 CFS D.A. = 6 ACRES
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 10 LIN. FT.
24" R.C. PIPE (CLASS IV) = 68 LIN. FT.
18" F.E.S. = 1 EACH

STA. 47+70 INSTALL
18" X 56' PIPE CULVERT
CONSTRUCT APPROACH ON LT. = 35 CU. YD.

STA. 47+46 IN PLACE
18" X 47' R.C. PIPE CULVERT
PLUG AND ABANDON

STA. 48+86 IN PLACE
24" X 25' R.C. PIPE CULVERT
WITH HDWLS LT. AND RT.
LT. SIDE DRAIN
REMOVE

STA. 49+50 IN PLACE
18" X 13' C.M. PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
18" X 56' PIPE CULVERT
CONSTRUCT APPROACH ON LT. = 50 CU. YD.

STA. 51+60 CONSTRUCT
DROP INLET ON LT.
WITH 4' EXTENSION
AND 18" X 294' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 54+60
DROP INLET H = 2'-3"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 294 LIN. FT.
18" SLCPPS = 294 LIN. FT

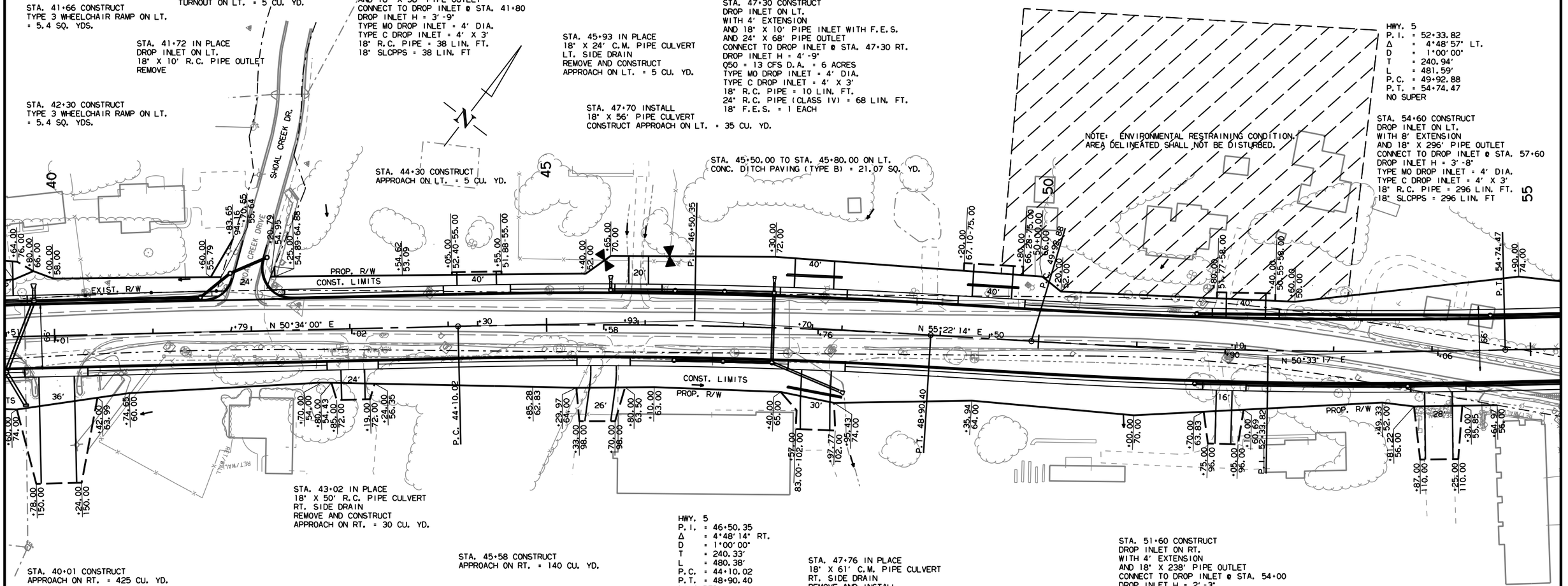
STA. 52+10 CONSTRUCT
APPROACH ON LT. = 5 CU. YD.

STA. 53+38 IN PLACE
12" X 24' C.M. PIPE CULVERT
LT. SIDE DRAIN
REMOVE

HWY. 5
P.I. = 52+33.82
Δ = 4°48'57" LT.
D = 1°00'00"
T = 240.94'
L = 481.59'
P.C. = 49+92.88
P.T. = 54+74.47
NO SUPER

NOTE: ENVIRONMENTAL RESTRAINING CONDITION.
AREA DELINEATED SHALL NOT BE DISTURBED.

STA. 54+60 CONSTRUCT
DROP INLET ON LT.
WITH 8' EXTENSION
AND 18" X 296' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 57+60
DROP INLET H = 3'-8"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 296 LIN. FT.
18" SLCPPS = 296 LIN. FT



STA. 40+01 CONSTRUCT
APPROACH ON RT. = 425 CU. YD.

REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	LIN. FT.	GATES
40+28	45+32	RT.	609	
45+59	46+24	LT.	71	
45+59	45+65	LT.	6	2

ALL R.C. PIPE CULVERTS SHALL BE
CLASS III UNLESS OTHERWISE SPECIFIED.
FOR ALL R.C. PIPE CULVERT INSTALLATIONS
USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED.
FOR ALL SLPCCS PIPE CULVERT INSTALLATIONS
USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.

STA. 43+02 IN PLACE
18" X 50' R.C. PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND CONSTRUCT
APPROACH ON RT. = 30 CU. YD.

STA. 45+58 CONSTRUCT
APPROACH ON RT. = 140 CU. YD.

HWY. 5
P.I. = 46+50.35
Δ = 4°48'14" RT.
D = 1°00'00"
T = 240.33'
L = 480.38'
P.C. = 44+10.02
P.T. = 48+90.40
NO SUPER

STA. 46+30 CONSTRUCT
DROP INLET ON RT.
WITH 4' EXTENSION
AND 18" X 46' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 46+80
DROP INLET H = 2'-3"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 46 LIN. FT.
18" SLCPPS = 46 LIN. FT

STA. 46+80 CONSTRUCT
DROP INLET ON RT.
AND 18" X 46' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 47+30
DROP INLET H = 2'-6"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 46 LIN. FT.
18" SLCPPS = 46 LIN. FT

STA. 47+30 CONSTRUCT
DROP INLET ON RT.
WITH 4' EXTENSION
AND 24" X 72' PIPE OUTLET WITH F.E.S.
DROP INLET H = 6'-1"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
24" R.C. PIPE = 72 LIN. FT.
24" F.E.S. = 1 EACH

STA. 47+76 IN PLACE
18" X 61' C.M. PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
18" X 56' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH ON RT. = 220 CU. YD.

STA. 51+60 CONSTRUCT
DROP INLET ON RT.
WITH 4' EXTENSION
AND 18" X 238' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 54+00
DROP INLET H = 2'-3"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 238 LIN. FT.
18" SLCPPS = 238 LIN. FT

STA. 51+90 CONSTRUCT
APPROACH ON RT. = 85 CU. YD.

STA. 54+06 IN PLACE
18" X 62' R.C. PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND CONSTRUCT
APPROACH ON RT. = 100 CU. YD.

STA. 53+75 CONSTRUCT
DROP INLET ON RT.
WITH 8' EXTENSION
AND 18" X 298' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 56+75
DROP INLET H = 3'-8"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 298 LIN. FT.
18" SLCPPS = 298 LIN. FT

6/2/2023
R061508.DGN

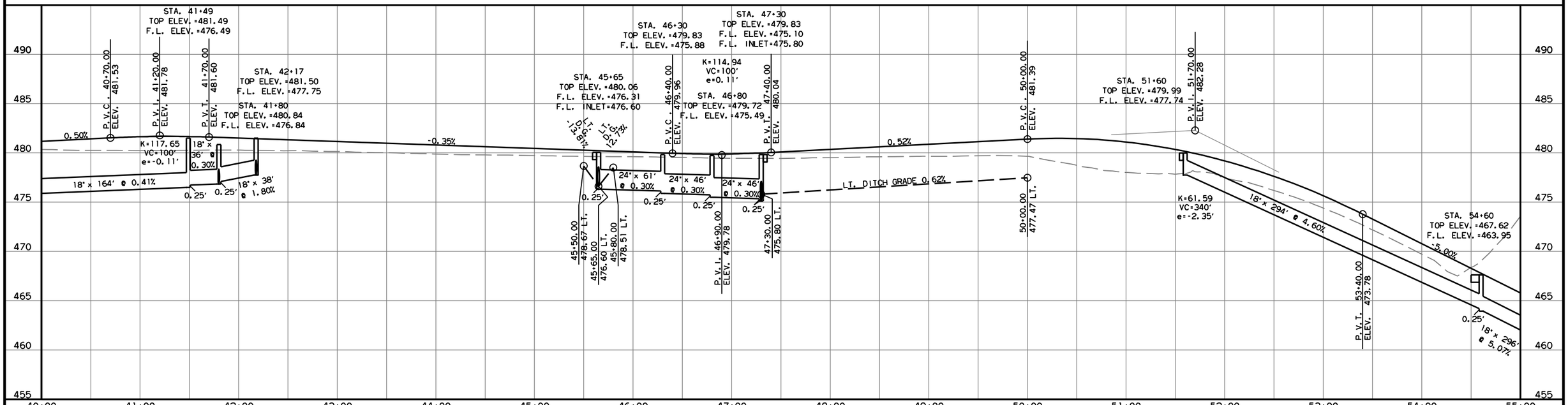
HWY. 5

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	59	150

(2) PLAN AND PROFILE SHEETS

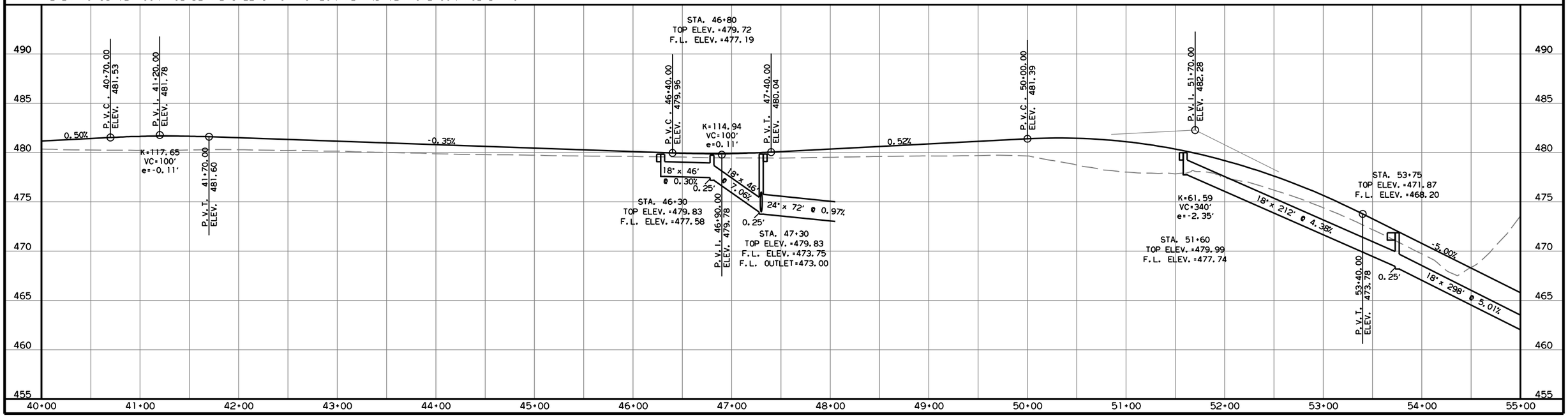
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

LEFT SIDE OF HWY. 5



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

RIGHT SIDE OF HWY. 5



6/21/2023

R061508.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10-18-2023				6	ARK.			
				JOB NO.		061508	60	150

(2) PLAN AND PROFILE SHEETS

OBLITERATE EXISTING PAVEMENT

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-19-2023

STA. 57+60 CONSTRUCT
DROP INLET ON LT.
WITH 8' EXTENSION
AND 18" X 296' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 60+60
DROP INLET H = 3'-8"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 296 LIN. FT.
18" SLCPPS = 296 LIN. FT

STA. 58+10 CONSTRUCT
APPROACH ON LT. = 1430 CU. YD.

STA. 60+60 CONSTRUCT
DROP INLET ON LT.
WITH 8' EXTENSION
AND 18" X 286' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 63+50
DROP INLET H = 3'-8"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 296 LIN. FT.
18" SLCPPS = 296 LIN.

STA. 62+90 INSTALL
18" X 40' PIPE CULVERT
CONSTRUCT APPROACH ON LT. = 160 CU. YD.

STA. 64+50.00 TO STA. 65+00.00 ON LT.
CONC. DITCH PAVING (TYPE B) = 35.11 SQ. YD.

STA. 65+66.00 TO STA. 66+90.00 ON LT.
CONC. DITCH PAVING (TYPE B) = 87.08 SQ. YD.

STA. 63+50 CONSTRUCT
DROP INLET ON LT.
WITH 8' EXTENSION
AND 18" X 192' PIPE OUTLET
CONNECT TO BOX CULVERT @ STA. 65+45
DROP INLET H = 3'-8"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 192 LIN. FT.
18" SLCPPS = 192 LIN.

STA. 64+20 IN PLACE
18" X 46' R.C. PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
18" X 56' PIPE CULVERT
CONSTRUCT APPROACH ON LT. = 155 CU. YD.

STA. 65+62 CONSTRUCT
DROP INLET ON LT.
WITH 4' EXTENSION
IN TOP OF BOX CULVERT
DROP INLET H = 3'-10"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'

STA. 66+45 IN PLACE
24" X 41' C.M. PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
18" X 48" PIPE CULVERT
CONSTRUCT APPROACH ON LT. = 125 CU. YD.

STA. 67+65 IN PLACE
24" X 29' R.C. PIPE CULVERT
WITH HDWLS LT. AND RT.
LT. SIDE DRAIN
REMOVE AND CONSTRUCT
APPROACH ON LT. = 35 CU. YD.

STA. 67+95 CONSTRUCT
DROP INLET ON LT.
WITH 4' EXTENSION
AND 24" X 10' PIPE INLET WITH F.E.S.
AND 48" X 216' PIPE OUTLET
CONNECT TO BOX CULVERT @ STA. 65+45
DROP INLET H = 7'-8"
TYPE MO DROP INLET = 6' DIA.
TYPE C DROP INLET = 4' X 5'
24" R.C. PIPE = 10 LIN. FT.
48" R.C. PIPE = 216 LIN. FT.
48" SLCPPS = 216 LIN. FT.
24" F.E.S. = 1 EACH

STA. 69+74 IN PLACE
18" X 21' R.C. PIPE CULVERT
WITH HDWLS LT. AND RT.
LT. SIDE DRAIN
REMOVE AND CONSTRUCT
APPROACH ON LT. = 15 CU. YD.

DETOUR
P.I. = 4+79.81
Δ = 9°05'03" LT.
D = 7°00'00"
T = 65.02'
L = 129.77'
P.C. = 4+14.79
P.R.C. = 5+44.56

ALL R.C. PIPE CULVERTS SHALL BE
CLASS III UNLESS OTHERWISE SPECIFIED.
FOR ALL R.C. PIPE CULVERT INSTALLATIONS
USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED.
FOR ALL SLPCCS PIPE CULVERT INSTALLATIONS
USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.

REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	LIN. FT.
58+63	59+90	LT & RT.	187
58+64	62+03	LT.& RT.	368
63+73	69+95	LT.	305

STA. 57+19 IN PLACE
18" X 50' C.M. PIPE CULVERT
RT. SIDE DRAIN
RETAIN AND CONSTRUCT
APPROACH ON RT. = 65 CU. YD.

STA. 57+59 IN PLACE
18" X 20' C.M. PIPE CULVERT
RT. SIDE DRAIN
REMOVE

STA. 59+99 IN PLACE
18" X 27' R.C. PIPE CULVERT
RT. SIDE DRAIN
RETAIN AND CONSTRUCT
APPROACH ON RT. = 10 CU. YD.

STA. 61+70 CONSTRUCT
APPROACH ON RT. = 5 CU. YD.

STA. 62+39 CONSTRUCT
APPROACH ON RT. = 10 CU. YD.

DETOUR
P.I. = 0+61.99
Δ = 5°34'29" RT.
D = 4°30'00"
T = 61.99'
L = 123.88'
P.C. = 0+00.00
P.T. = 1+23.88

DETOUR
P.I. = 6+32.22
Δ = 12°13'34" RT.
D = 7°00'00"
T = 87.66'
L = 174.66'
P.R.C. = 5+44.56
P.T. = 7+19.22

STA. 56+75 CONSTRUCT
DROP INLET ON RT.
WITH 8' EXTENSION
AND 18" X 292' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 59+70
DROP INLET H = 3'-8"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 292 LIN. FT.
18" SLCPPS = 292 LIN. FT

STA. 57+80 IN PLACE
18" X 20' C.M. PIPE CULVERT
RT. SIDE DRAIN
REMOVE

STA. 59+70 CONSTRUCT
DROP INLET ON RT.
WITH 8' EXTENSION
AND 18" X 166' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 61+40
DROP INLET H = 3'-8"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 166 LIN. FT.
18" SLCPPS = 166 LIN. FT

STA. 61+40 CONSTRUCT
DROP INLET ON RT.
WITH 4' EXTENSION
AND 18" X 256' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 64+00
DROP INLET H = 3'-8"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 256 LIN. FT.
18" SLCPPS = 256 LIN. FT

STA. 63+20 IN PLACE
R.C. PIPE CULVERT
RT. SIDE DRAIN
RETAIN

STA. 64+00 CONSTRUCT
DROP INLET ON RT.
WITH 4' EXTENSION
AND 18" X 10' PIPE OUTLET WITH F.E.S.
DROP INLET H = 3'-8"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 10 LIN. FT.
18" SLCPPS = 10 LIN.

STA. 65+97 IN PLACE
18' X 5' X 53' R.C. BOX CULVERT
REMOVE AND CONSTRUCT
TRI. 8' X 6' X 146' R.C. BOX
ON 45° RT. FWD. SKEW
WITH 3:1 WINGS LT. & RT.
Q50 = 1050 CFS D.A. = 646 ACRES
SPAN = 26'-6"

STA. 66+34 CONSTRUCT
DROP INLET ON RT.
WITH 4' EXTENSION
IN TOP OF BOX CULVERT
DROP INLET H = 3'-11"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'

HWY. 5
P.I. = 70+10.36
Δ = 2°53'47" RT.
D = 0°30'00"
T = 289.69'
L = 579.27'
P.C. = 67+20.67
P.T. = 72+99.94
NO SUPER

10/18/2023

R06508.DGN

HWY. 5

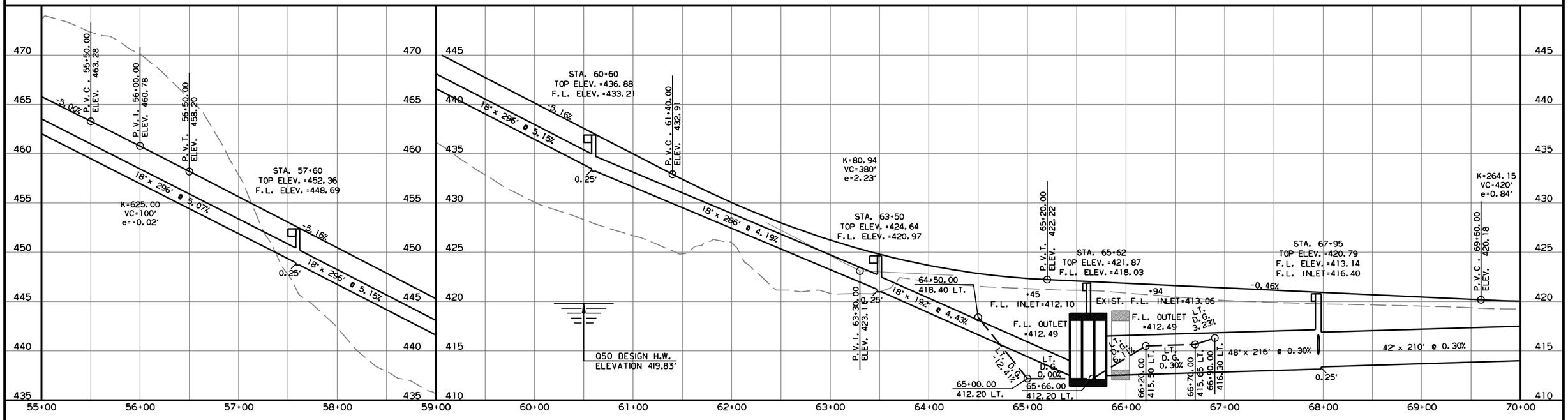
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	61	150

(2) PLAN AND PROFILE SHEETS

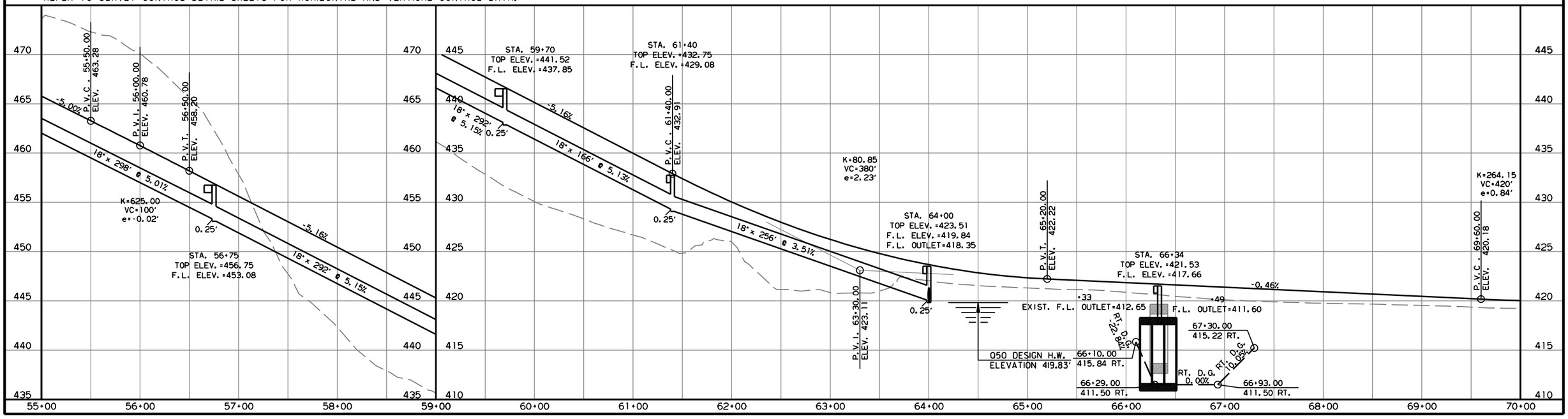
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

LEFT SIDE OF HWY. 5



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

RIGHT SIDE OF HWY. 5



6/21/2023

R061508.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	62	150

(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
TRINITY D. SMITH
No. 11425
09-15-2023

STA. 70+10 CONSTRUCT DROP INLET ON LT. AND 42" X 210' PIPE OUTLET CONNECT TO DROP INLET @ STA. 67+95 DROP INLET H = 5'-10" TYPE MO DROP INLET = 5' DIA. TYPE C DROP INLET = 4' X 5' 42" R.C. PIPE = 210 LIN. FT. 42" SLCPPS = 210 LIN. FT.

STA. 70+48 IN PLACE DROP INLET ON LT. 18" X 52' R.C. PIPE OUTLET CONNECT TO DROP INLET @ STA. 70+10

STA. 70+85 CONSTRUCT DROP INLET ON LT. WITH 8' EXTENSION AND 36" X 70' PIPE OUTLET CONNECT TO DROP INLET @ STA. 70+10 DROP INLET H = 5'-3" TYPE MO DROP INLET = 5' DIA. TYPE C DROP INLET = 4' X 3' 36" R.C. PIPE = 70 LIN. FT. 36" SLCPPS = 70 LIN.

STA. 71+22 IN PLACE DROP INLET ON LT. 18" X 21' R.C. PIPE OUTLET REMOVE

STA. 71+42 IN PLACE 24" X 64' R.C. PIPE CULVERT LT. SIDE DRAIN REMOVE AND CONSTRUCT APPROACH ON LT. = 5 CU. YD. UNCL. EXC.

STA. 71+75 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION AND 30" X 86' PIPE OUTLET CONNECT TO DROP INLET @ STA. 70+85 DROP INLET H = 4'-9" TYPE MO DROP INLET = 5' DIA. TYPE C DROP INLET = 4' X 3' 30" R.C. PIPE = 86 LIN. FT. 30" SLCPPS = 86 LIN. FT.

STA. 73+03 CONSTRUCT APPROACH ON LT. = 15 CU. YD. UNCL. EXC.

STA. 73+40 IN PLACE DROP INLET ON LT. 24" X 131' R.C. PIPE INLET 24" X 70' R.C. PIPE OUTLET REMOVE

STA. 73+45 IN PLACE 18" X 155' R.C. PIPE INLET REMOVE

STA. 72+38 TO STA. 72+88 CONSTRUCT TYPE A CURB ON LT. TYPE A = 50 LIN. FT.

STA. 73+90 TO STA. 74+87 CONSTRUCT TYPE A CURB ON LT. TYPE A = 98 LIN. FT.

STA. 74+45 IN PLACE DROP INLET ON LT. 18" X 103' R.C. PIPE OUTLET REMOVE

STA. 74+75 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION AND 18" X 2' PIPE INLET WITH F.E.S. AND 24" X 296' PIPE OUTLET CONNECT TO DROP INLET @ STA. 71+75 DROP INLET H = 4'-2" TYPE MO DROP INLET = 4' DIA. TYPE C DROP INLET = 4' X 3' 18" R.C. PIPE = 2 LIN. FT. 18" R.C. PIPE = 296 LIN. FT. 18" SLCPPS = 296 LIN. FT. 18" F.E.S. = 1 EACH

STA. 76+15 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION AND 24" X 136' PIPE OUTLET CONNECT TO DROP INLET @ STA. 74+75 DROP INLET H = 4'-2" TYPE MO DROP INLET = 4' DIA. TYPE C DROP INLET = 4' X 3' 24" R.C. PIPE = 136 LIN. FT. 24" SLCPPS = 136 LIN. FT.

STA. 76+58 CONSTRUCT TYPE 3 WHEELCHAIR RAMP ON LT. = 2.7 SQ. YDS.

STA. 76+64 CONSTRUCT TYPE 3 WHEELCHAIR RAMP ON LT. = 3.3 SQ. YDS.

STA. 77+23 CONSTRUCT TYPE 3 WHEELCHAIR RAMP ON LT. = 3.2 SQ. YDS.

STA. 302+87.00 TO STA. 304+80.00 ON LT. CONC. DITCH PAVING (TYPE B) = 135.53 SQ. YD.

STA. 77+60 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION AND 18" X 2' PIPE INLET WITH F.E.S. AND 18" X 90' PIPE OUTLET CONNECT TO DROP INLET @ STA. 300+80 DROP INLET H = 3'-9" TYPE MO DROP INLET = 4' DIA. TYPE C DROP INLET = 4' X 3' 18" R.C. PIPE (CLASS IV) = 2 LIN. FT. 18" R.C. PIPE = 90 LIN. FT. 18" F.E.S. = 1 EACH

STA. 78+48 CONSTRUCT APPROACH ON RT. = 30 CU. YD.

STA. 79+25 CONSTRUCT DROP INLET ON LT. AND 18" X 2' PIPE INLET WITH F.E.S. AND 18" X 222' PIPE OUTLET CONNECT TO DROP INLET @ STA. 81+50 DROP INLET H = 2'-6" TYPE MO DROP INLET = 4' DIA. TYPE C DROP INLET = 4' X 3' 18" R.C. PIPE = 2 LIN. FT. 18" R.C. PIPE = 222 LIN. FT. 18" SLCPPS PIPE = 222 LIN FT. 18" F.E.S. = 1 EACH

STA. 79+45 CONSTRUCT APPROACH ON RT. = 15 CU. YD.

STA. 79+55 IN PLACE 18" X 24' C.M. PIPE CULVERT LT. SIDE DRAIN REMOVE AND CONSTRUCT APPROACH ON LT. = 5 CU. YD.

STA. 80+15 IN PLACE 18" X 24' C.M. PIPE CULVERT LT. SIDE DRAIN REMOVE AND CONSTRUCT APPROACH ON LT. = 5 CU. YD.

STA. 80+20 CONSTRUCT APPROACH ON RT. = 30 CU. YD.

STA. 81+50 CONSTRUCT DROP INLET ON LT. AND 18" X 216' PIPE OUTLET CONNECT TO DROP INLET @ STA. 83+70 DROP INLET H = 2'-10" TYPE MO DROP INLET = 4' DIA. TYPE C DROP INLET = 4' X 3' 18" R.C. PIPE = 216 LIN. FT. 18" SLCPPS = 216 LIN. FT.

STA. 81+14 IN PLACE 18" X 80' R.C. PIPE CULVERT RT. SIDE DRAIN REMOVE AND CONSTRUCT APPROACH ON RT. = 40 CU. YD.

STA. 81+71 IN PLACE 18" X 31' R.C. PIPE CULVERT RT. SIDE DRAIN REMOVE

STA. 82+40 IN PLACE 18" X 80' R.C. PIPE CULVERT RT. SIDE DRAIN REMOVE

STA. 83+08 IN PLACE 18" X 40' R.C. PIPE CULVERT RT. SIDE DRAIN REMOVE AND CONSTRUCT APPROACH ON RT. = 15 CU. YD.

STA. 83+31 TO STA. 84+15 CONSTRUCT TYPE A CURB ON RT. TYPE A = 90 LIN. FT.

STA. 83+70 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION AND 18" X 4' PIPE INLET WITH F.E.S. AND 18" X 132' PIPE OUTLET CONNECT TO DROP INLET @ STA. 85+05 DROP INLET H = 3'-8" TYPE MO DROP INLET = 4' DIA. TYPE C DROP INLET = 4' X 3' 18" R.C. PIPE = 4 LIN. FT. 18" R.C. PIPE = 132 LIN. FT. 18" SLCPPS = 132 LIN. FT. 18" F.E.S. = 1 EACH

STA. 84+10 IN PLACE 24" X 58' PLASTIC PIPE CULVERT LT. SIDE DRAIN REMOVE AND CONSTRUCT APPROACH ON LT. = 25 CU. YD.

STA. 84+20 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION AND 18" X 216' PIPE OUTLET CONNECT TO DROP INLET @ STA. 86+40 DROP INLET H = 4'-11" TYPE MO DROP INLET = 4' DIA. TYPE C DROP INLET = 4' X 3' 18" R.C. PIPE = 4 LIN. FT. 18" R.C. PIPE = 256 LIN. FT. 18" SLCPPS = 256 LIN. FT.

STA. 84+65 IN PLACE 18" X 58' C.M. PIPE CULVERT RT. SIDE DRAIN REMOVE

STA. 84+10.00 BEGIN RETAINING WALL AND HAND RAIL

STA. 78+58 CONSTRUCT TYPE 3 WHEELCHAIR RAMP ON RT. = 2.7 SQ. YDS.

C.L. HWY. 5 STA. 77+00.00 = C.L. SALEM RD. STA. 300+00.00
Δ = 90°00'00"

STA. 74+60 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION AND 18" X 296' PIPE OUTLET CONNECT TO DROP INLET @ STA. 71+60 DROP INLET H = 2'-3" TYPE MO DROP INLET = 4' DIA. TYPE C DROP INLET = 4' X 3' 18" R.C. PIPE = 296 LIN. FT. 18" SLCPPS = 296 LIN. FT.

STA. 71+96 IN PLACE 18" X 29' C.M. PIPE CULVERT RT. SIDE DRAIN REMOVE AND CONSTRUCT APPROACH ON RT. = 75 CU. YD.

STA. 73+35 IN PLACE 24" X 30' C.M. PIPE CULVERT RT. SIDE DRAIN REMOVE AND CONSTRUCT APPROACH ON RT. = 30 CU. YD.

STA. 75+85 IN PLACE JUNCTION BOX ON RT. 8" X 112' PLASTIC PIPE INLET 8" X 925' PLASTIC PIPE OUTLET FILL AND ABANDON

STA. 76+58 CONSTRUCT WHEELCHAIR RAMP (TYPE 3) = 2.7 SQ. YD.

STA. 74+23 CONSTRUCT APPROACH ON RT. = 5 CU. YD.

STA. 71+25 IN PLACE 18" X 30' C.M. PIPE CULVERT RT. SIDE DRAIN REMOVE AND CONSTRUCT APPROACH ON RT. = 90 CU. YD.

STA. 71+60 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION AND 18" X 72' PIPE OUTLET CONNECT TO DROP INLET @ STA. 70+85 DROP INLET H = 3'-8" TYPE MO DROP INLET = 4' DIA. TYPE C DROP INLET = 4' X 3' 18" R.C. PIPE = 72 LIN. FT. 18" SLCPPS = 72 LIN. FT.

STA. 70+85 CONSTRUCT DROP INLET ON RT. AND 18" X 10' PIPE OUTLET WITH F.E.S. DROP INLET H = 4'-0" TYPE MO DROP INLET = 4' DIA. TYPE C DROP INLET = 4' X 3' 18" R.C. PIPE = 10 LIN. FT. 18" F.E.S. = 1 EACH

STA. 70+10 CONSTRUCT DROP INLET TYPE SPECIAL ON RT. DROP INLET H = 1'-0" TYPE SPECIAL DROP INLET = 4' X 8'

HWY. 5
P.I. = 70+10.36
Δ = 2°53'47" RT.
D = 0°30'00"
T = 289.69'
L = 579.27'
P.C. = 67+20.67
P.T. = 72+99.94
NO SUPER

HWY. 5
P.I. = 78+10.78
Δ = 4°43'10" RT.
D = 0°30'00"
T = 472.22'
L = 943.91'
P.C. = 73+38.56
P.T. = 82+82.47
NO SUPER

REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	LIN. FT.
76+90	84+21	RT.	306
84+79	84+82	LT.	11

ALL R.C. PIPE CULVERTS SHALL BE CLASS III UNLESS OTHERWISE SPECIFIED.
FOR ALL R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED.
FOR ALL SLPCCS PIPE CULVERT INSTALLATIONS USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.

SCOTT-SALEM RD. 305 100' TAPER
STA. 70+35.00 BEGIN RETAINING WALL
STA. 71+28.00 END RETAINING WALL
100' TRANSITION
CONST. LIMITS PROP. R/W
T.C.E.
GARDEN
N 53°27'04" E
N 34°44'30" W
N 2°52'45" E
N 22°34' E
N 58°10'14" E
P.I. 407+38.38
P.T. 72+99.94
P.C. 73+38.56
P.T. 82+82.47
SCOTT-SALEM RD. 300

6/21/2023
R061508.DGN

HWY. 5

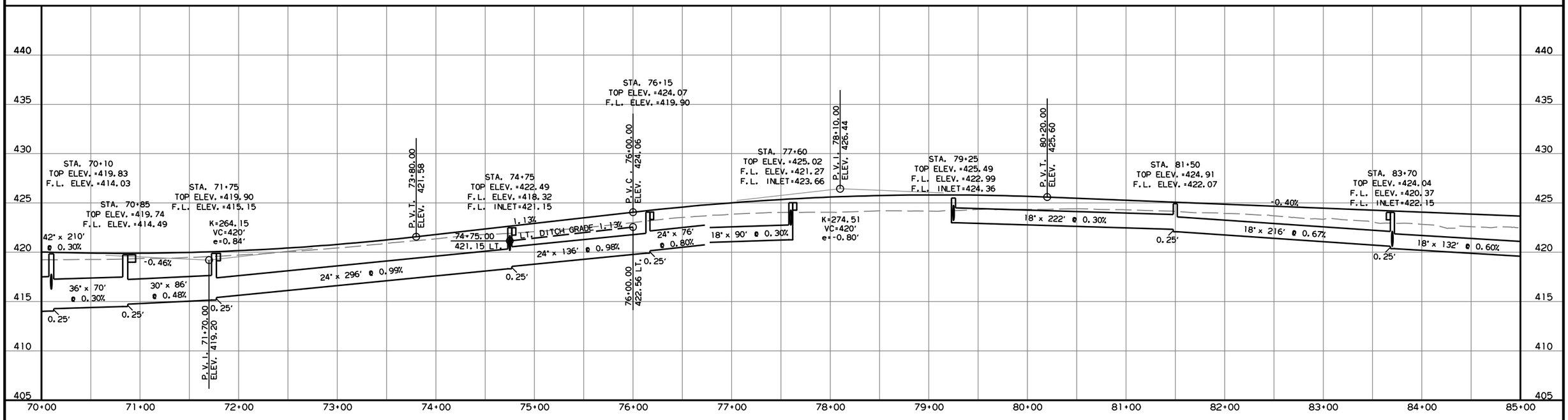
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	63	150

(2) PLAN AND PROFILE SHEETS

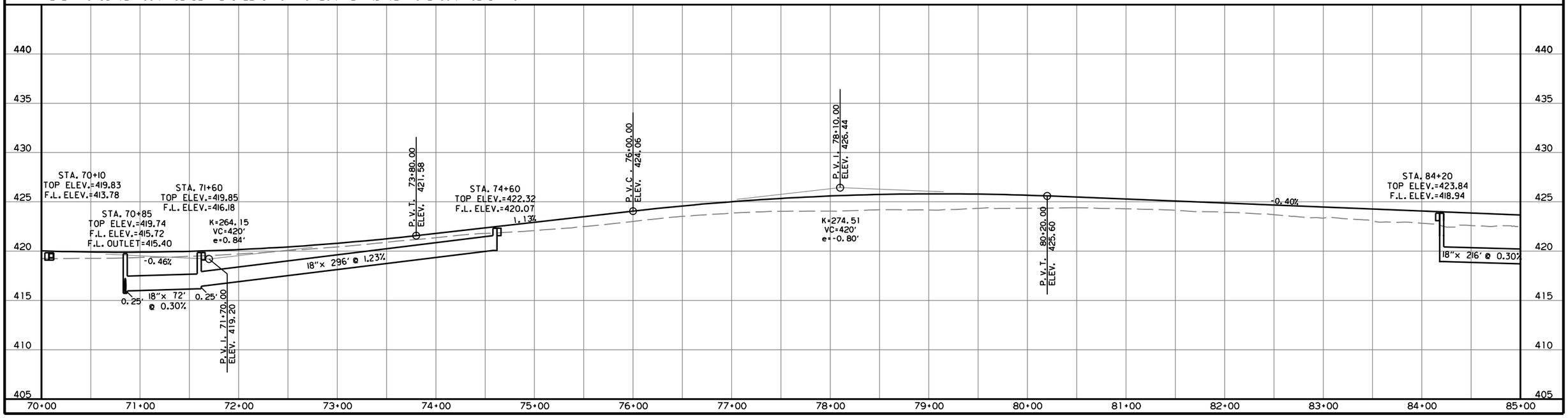
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

LEFT SIDE OF HWY. 5



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

RIGHT SIDE OF HWY. 5



6/21/2023

R061508.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	64	150

(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH

09-15-2023

STA. 85+05 CONSTRUCT
DROP INLET ON LT.
AND 30" X 6' PIPE INLET WITH F.E.S.
AND 30" X 146' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 86+55
DROP INLET H = 4'-2"
TYPE MO DROP INLET = 5' DIA.
TYPE C DROP INLET = 4' X 4'
30" R.C. PIPE = 4 LIN. FT.
30" R.C. PIPE = 146 LIN. FT.
18" SLCPPS = 146 LIN. FT.
30" F.E.S. = 1 EACH

STA. 86+91 CONSTRUCT
APPROACH ON LT. = 5 CU. YD.

STA. 87+56 IN PLACE
36" X 81' PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND CONSTRUCT
APPROACH ON LT. = 15 CU. YD.
= 20 CU. YD. UNCL. EXC.
TYPE A CURB ON LT. = 330 LIN. FT.

STA. 90+15 IN PLACE
24" X 41' R.C. PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND CONSTRUCT
APPROACH ON LT. = 35 CU. YD.

STA. 91+67 CONSTRUCT
TURNOUT ON LT. = 20 CU. YD.

STA. 85+43 IN PLACE
24" X 40' PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND CONSTRUCT
APPROACH ON LT. = 40 CU. YD.

STA. 88+70 CONSTRUCT
DROP INLET ON LT.
WITH 4' EXTENSION
AND 30" X 270' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 91+40
DROP INLET H = 4'-9"
TYPE MO DROP INLET = 5' DIA.
TYPE C DROP INLET = 4' X 4'
30" R.C. PIPE = 270 LIN. FT.
30" SLCPPS = 270 LIN. FT.

STA. 91+40 CONSTRUCT
DROP INLET ON LT.
WITH 4' EXTENSION
AND 30" X 108' PIPE OUTLET
CONNECT TO EXIST. DROP INLET @ STA. 92+48
DROP INLET H = 9'-3"
TYPE MO DROP INLET = 5' DIA.
TYPE C DROP INLET = 4' X 4'
30" R.C. PIPE = 108 LIN. FT.
30" SLCPPS = 108 LIN. FT.

STA. 91+60 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP ON RT.
= 3.0 SQ. YDS.

STA. 86+17 CONSTRUCT
APPROACH ON LT. = 10 CU. YD.

STA. 86+50 IN PLACE
18" X 100' PIPE CULVERT
LT. SIDE DRAIN
REMOVE

STA. 89+18 IN PLACE
24" X 41' R.C. PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND CONSTRUCT
APPROACH ON LT. = 20 CU. YD.

STA. 90+40 TO STA. 92+02 CONSTRUCT
TYPE A CURB ON LT.
TYPE A = 175 LIN. FT.

STA. 86+55 CONSTRUCT
DROP INLET ON LT.
AND 30" X 214' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 88+70
DROP INLET H = 4'-3"
TYPE MO DROP INLET = 5' DIA.
TYPE C DROP INLET = 4' X 4'
30" R.C. PIPE = 214 LIN. FT.
30" SLCPPS = 214 LIN. FT.

C.L. HWY. 5 STA. 91+82.28 =
C.L. ALCOA RD. STA. 213+70.68
Δ = 73°12'47"

RETAIN ISLAND

90' TAPER

PROP. R/W

CONST. LIMITS

T.C.E.

100' TAPER

HWY. 5
P.I. = 90+67.58
Δ = 16°58'06" RT.
D = 2°00'00"
T = 427.34'
L = 848.42'
P.C. = 86+40.24
P.T. = 94+88.66
NO SUPER

P.C. 96+40.24

P.I. 213+70.68

P.I. 212+49.71

P.I. 94+88.66

N 58°10'14" E 1160.43'

N 4°12'06" W

N 1°51'10" E

N 75°08'20" E

ALCOA ROAD

STA. 92+00.00
END JOB 061508
BEGIN JOB 061335

STA. 85+85 TO STA. 86+71 CONSTRUCT
TYPE A CURB ON RT.
TYPE A = 86 LIN. FT.

STA. 86+96 CONSTRUCT
MODIFIED CURB ON RT.

STA. 90+55 IN PLACE
DROP INLET ON RT.
18" X 198' R.C. PIPE INLET
18" X 78' R.C. PIPE OUTLET
REMOVE

STA. 85+60 CONSTRUCT
APPROACH ON RT. = 20 CU. YD.

STA. 91+10 IN PLACE
DROP INLET ON RT.
18" X 30' R.C. PIPE OUTLET
REMOVE

STA. 85+41.00
END RETAINING WALL
AND HAND RAIL

STA. 86+40 CONSTRUCT
DROP INLET ON RT.
WITH 4' EXTENSION
AND 18" X 4' PIPE INLET WITH F.E.S.
AND 18" X 332' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 89+80
DROP INLET H = 4'-11"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 4 LIN. FT.
18" R.C. PIPE = 332 LIN. FT.
18" SLCPPS = 332 LIN. FT.
18" F.E.S. = 1 EACH

STA. 91+40 IN PLACE
JUNCTION BOX ON RT.
18" X 166' R.C. PIPE OUTLET
REMOVE

STA. 88+02 TO STA. 90+48 CONSTRUCT
TYPE A CURB ON RT.
TYPE A = 255 LIN. FT.

STA. 91+30 CONSTRUCT
JUNCTION BOX ON RT.
AND 18" X 76' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 92+11
JUNCTION BOX H = 5'-0"
TYPE E JUNCTION BOX = 3' X 3'
18" R.C. PIPE (CLASS IV) = 76 LIN. FT.

ALL R.C. PIPE CULVERTS SHALL BE
CLASS III UNLESS OTHERWISE SPECIFIED.
FOR ALL R.C. PIPE CULVERT INSTALLATIONS
USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED.
FOR ALL SLPCCS PIPE CULVERT INSTALLATIONS
USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.

STA. 92+11 CONSTRUCT
DROP INLET ON RT.
WITH 8' EXTENSION
AND 18" X 28' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 92+41
DROP INLET H = 4'-11"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 28 LIN. FT.
18" SLCPPS = 28 LIN. FT.

STA. 92+41 CONSTRUCT
DROP INLET ON RT.
CONNECT DROP INLET TO 18" X 88' EXIST. PIPE
DROP INLET H = 5'-2"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'

STA. 212+33 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP ON RT.
= 2.7 SQ. YDS.

STA. 212+56 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP ON RT.
= 2.7 SQ. YDS.

STA. 208+76 CONSTRUCT
MODIFIED CURB ON LT.

STA. 89+80 CONSTRUCT
DROP INLET ON RT.
WITH 4' EXTENSION
AND 18" X 144' PIPE OUTLET
CONNECT TO JUNCTION BOX @ STA. 91+30
DROP INLET H = 4'-6"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE (CLASS IV) = 144 LIN. FT.

STA. 91+30 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP ON RT.
= 3.0 SQ. YDS.

STA. 91+33 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP ON RT.
= 2.8 SQ. YDS.

STA. 92+03 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP ON RT.
= 3.1 SQ. YDS.

STA. 92+16 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP ON RT.
= 3.1 SQ. YDS.

REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	LIN. FT.
88+02	90+48	RT.	297

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HWY. 5

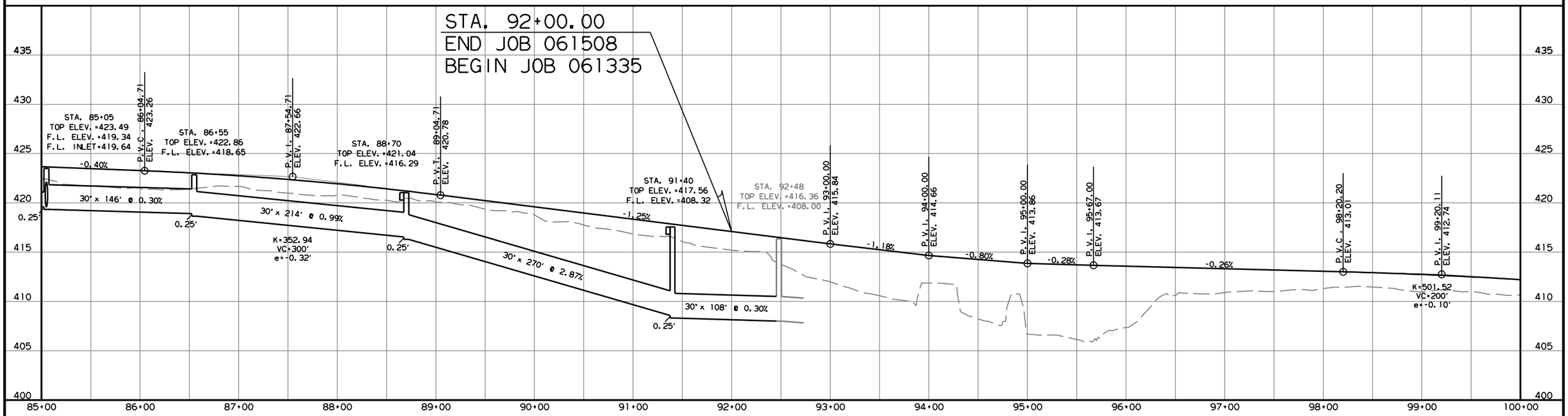
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	65	150

(2) PLAN AND PROFILE SHEETS

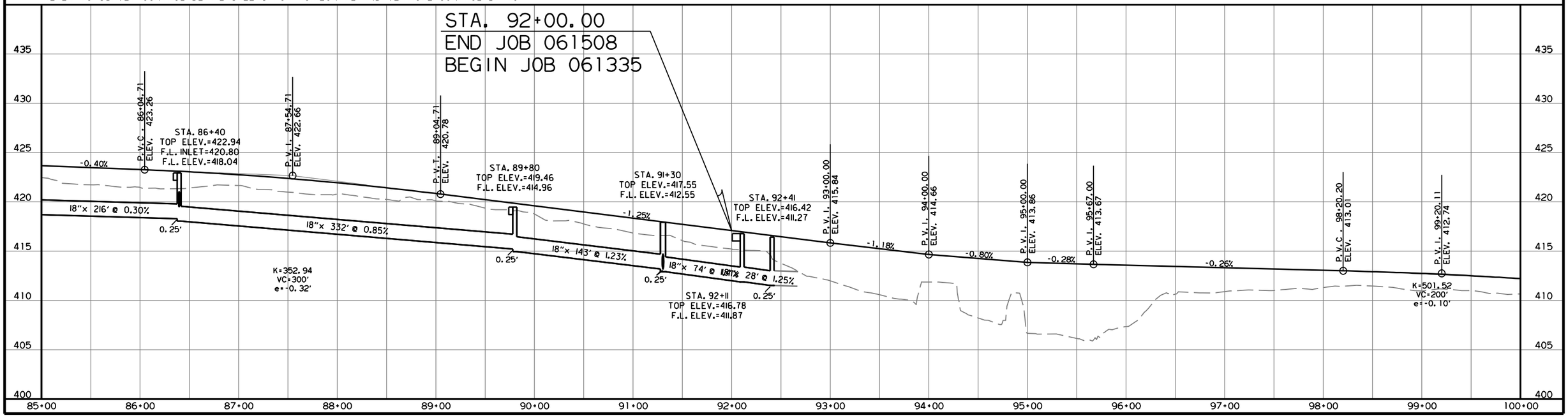
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

LEFT SIDE OF HWY. 5



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

RIGHT SIDE OF HWY. 5



6/21/2023

R061508.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	66	150

(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
TRINITY D. SMITH
No. 11425
09-15-2023

STA. 203+70 CONSTRUCT
DROP INLET TYPE SPECIAL ON LT.
DROP INLET H = 1'-0"
TYPE SPECIAL DROP INLET = 4' X 8'

STA. 208+35 CONSTRUCT
DROP INLET ON LT.
WITH 4' EXTENSION
AND 18" X 78' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 209+16
DROP INLET H = 2'-3"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 78 LIN. FT.
18" SLCPPS = 78 LIN. FT.

STA. 209+90 CONSTRUCT
DROP INLET ON LT.
WITH 8' EXTENSION
AND 18" X 70' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 209+16
DROP INLET H = 2'-3"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 70 LIN. FT.
18" SLCPPS = 70 LIN. FT.

ALCOA RD.
P.I. 212+49.71
Δ 6°03'16" LT.
D 2°30'00"
T 121.20'
L 242.17'
P.C. 211+28.51
P.T. 213+70.68
NO SUPER

STA. 202+90 CONSTRUCT
DROP INLET TYPE SPECIAL ON LT.
DROP INLET H = 1'-0"
TYPE SPECIAL DROP INLET = 4' X 8'

STA. 209+16 CONSTRUCT
DROP INLET ON LT.
AND 18" X 64' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 209+16 RT.
DROP INLET H = 3'-9"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 64 LIN. FT.

ALCOA RD.
P.I. = 203+06.59
Δ = 19°03'41" LT.
D = 8°00'00"
T = 120.24'
L = 238.26'
P.C. = 201+86.35
P.T. = 204+24.61
MATCH EXIST SUPER

STA. 208+42 IN PLACE
DROP INLET ON LT.
AND 18" X 75' PIPE OUTLET
REMOVE

STA. 209+19 IN PLACE
DROP INLET ON LT.
AND 18" X 11' PIPE INLET
AND 18" X 43' PIPE OUTLET
REMOVE

STA. 204+14 TO STA. 212+57 CONSTRUCT
TYPE A CURB ON LT.
TYPE A = 255 LIN. FT.

STA. 208+76 CONSTRUCT
MODIFIED CURB ON LT.

STA. 208+40 IN PLACE
DROP INLET ON RT.
AND 18" X 73' PIPE OUTLET
RETAIN AND STUB INTO
DROP INLET @ STA. 209+16 RT.

STA. 209+16 CONSTRUCT
DROP INLET ON RT.
AND 18" X 22' PIPE OUTLET
CONNECT TO EXIST. JUNCTION BOX @ STA. 209+16 RT.
DROP INLET H = 4'-3"
TYPE ST DROP INLET = 3' X 3'
18" R.C. PIPE = 22 LIN. FT.
18" SLCPPS = 22 LIN. FT.

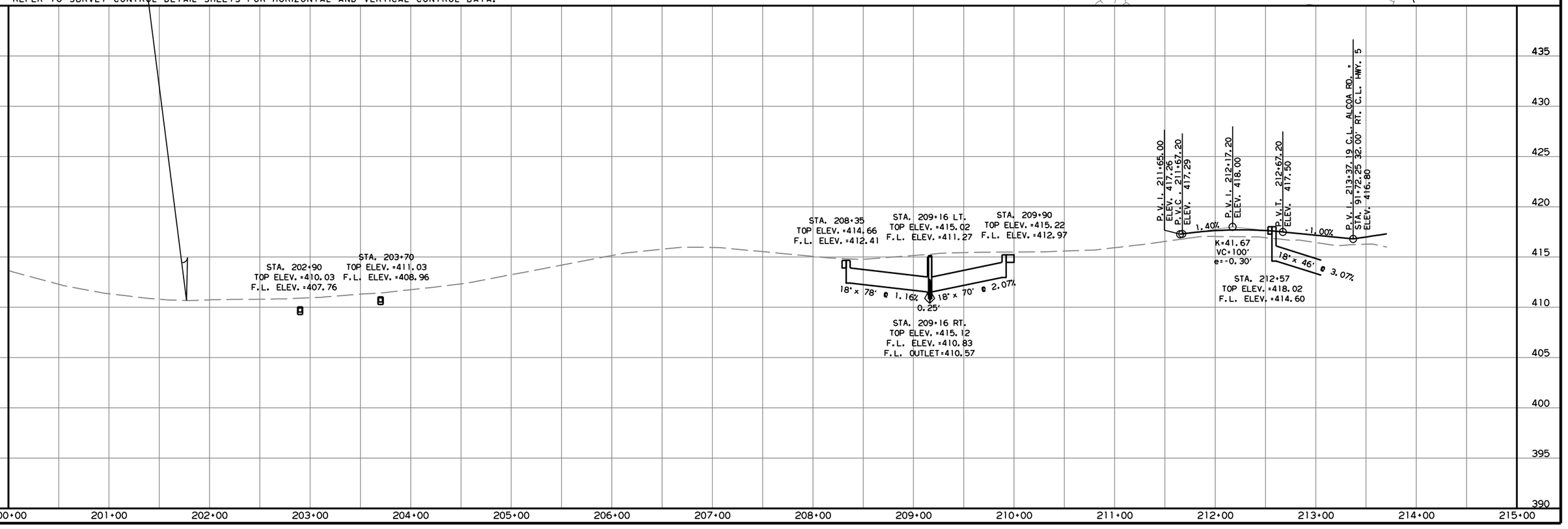
STA. 212+57 CONSTRUCT
DROP INLET ON LT.
WITH 4' EXTENSION
AND 18" X 46' PIPE OUTLET
CONNECT TO JUNCTION BOX @ STA. 91+30
DROP INLET H = 3'-5"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 46 LIN. FT.
18" SLCPPS = 46 LIN. FT.

C.L. HWY. 5 STA. 91+82.28 =
C.L. ALCOA RD. STA. 213+70.68
Δ = 73°12'47"

STA. 201+77.00
BEGIN ALCOA RD.

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

ALCOA RD.



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FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	67	150

(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-15-2023

STA. 300+80 CONSTRUCT
DROP INLET ON LT.
AND 24' X 76' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 76+15
DROP INLET H = 4'-6"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 4'
24" R.C. PIPE = 76 LIN. FT.
24" SLCPPS = 76 LIN. FT.

STA. 301+88 CONSTRUCT
DROP INLET ON LT.
WITH 4' EXTENSION
AND 18" X 100' PIPE INLET WITH F.E.S.
AND 18" X 118' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 300+80
DROP INLET H = 3'-9"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 100 LIN. FT.
18" R.C. PIPE = 118 LIN. FT.
18" SLCPPS = 118 LIN. FT.
18" F.E.S. = 1 EACH

STA. 303+85 IN PLACE
18" X 40' R.C. PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
18" X 42' PIPE CULVERT
CONSTRUCT APPROACH ON LT. = 20 CU. YD.

STA. 305+29 CONSTRUCT
TURNOUT ON LT. = 5 CU. YD. UNCL. EXC.

STA. 300+58 CONSTRUCT
WHEELCHAIR RAMP (TYPE 2) = 8.0 SQ. YD.

STA. 302+53 CONSTRUCT
TURNOUT ON LT. = 5 CU. YD. UNCL. EXC.

STA. 300+58 CONSTRUCT
WHEELCHAIR RAMP (TYPE 3) = 3.2 SQ. YD.

SALEM RD.
P.I. = 300+92.16
Δ = 37°37'15" RT.
R = 100'
T = 34.06'
L = 65.66'
P.C. = 300+58.10
P.T. = 301+23.76
NO SUPER

C.L. HWY. 5 STA. 77+00.00 =
C.L. SALEM RD. STA. 300+00.00
Δ = 90°00'00"

STA. 305+68.00
END SALEM RD.

SALEM RD.

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

STA. 300+38.85 C.L. SALEM RD. =
STA. 77+00.00 38.85' LT. C.L. HWY. 5
ELEV. 424.23

P.V.I. 300+90.00
ELEV. 425.44

STA. 301+88
TOP ELEV. =426.56
F.L. ELEV. =422.85
F.L. INLET=423.40

STA. 300+80
TOP ELEV. =425.21
F.L. ELEV. =420.75

2.37%
18" x 118' @ 1.59%
18" x 100' @ 0.30%
0.25'
0.25'
LT. DITCH GRADE 0.06%
LT. D.G. 3.66%

302+87.00
423.40 LT.

304+00.00
423.46 LT.

304+80.00
426.39 LT.

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				6	ARK.			
				JOB NO.		061508	68	150

(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
TRINITY D. SMITH
No. 11425
09-15-2023

DETOUR
P.I. = 404+64.55
Δ = 7°39'01" LT.
D = 7°00'00"
T = 54.73'
L = 109.29'
P.C. = 404+09.82
P.R.C. = 405+19.11

C.L. HWY. 5 STA. 62+62.22 (26.83' RT.) = C.L. DETOUR STA. 400+00.00

C.L. HWY. 5 STA. 69+96.93 (3.95' LT.) = C.L. DETOUR STA. 407+38.38

N 50°33'17" E

N 46°00'00" E

N 53°27'04" E

CONST. LIMITS

TEMP. CONST. LIMITS

PROP. R/W

OBSCURED

T.C.E.

DETOUR
P.I. = 400+93.71
Δ = 13°03'45" RT.
D = 7°00'00"
T = 93.71'
L = 186.61'
P.C. = 400+00.00
P.T. = 401+86.61

DETOUR
P.I. = 406+29.41
Δ = 15°20'55" RT.
D = 7°00'00"
T = 110.29'
L = 219.26'
P.R.C. = 405+19.11
P.T. = 407+38.38

OBLITERATE DETOUR PAVEMENT

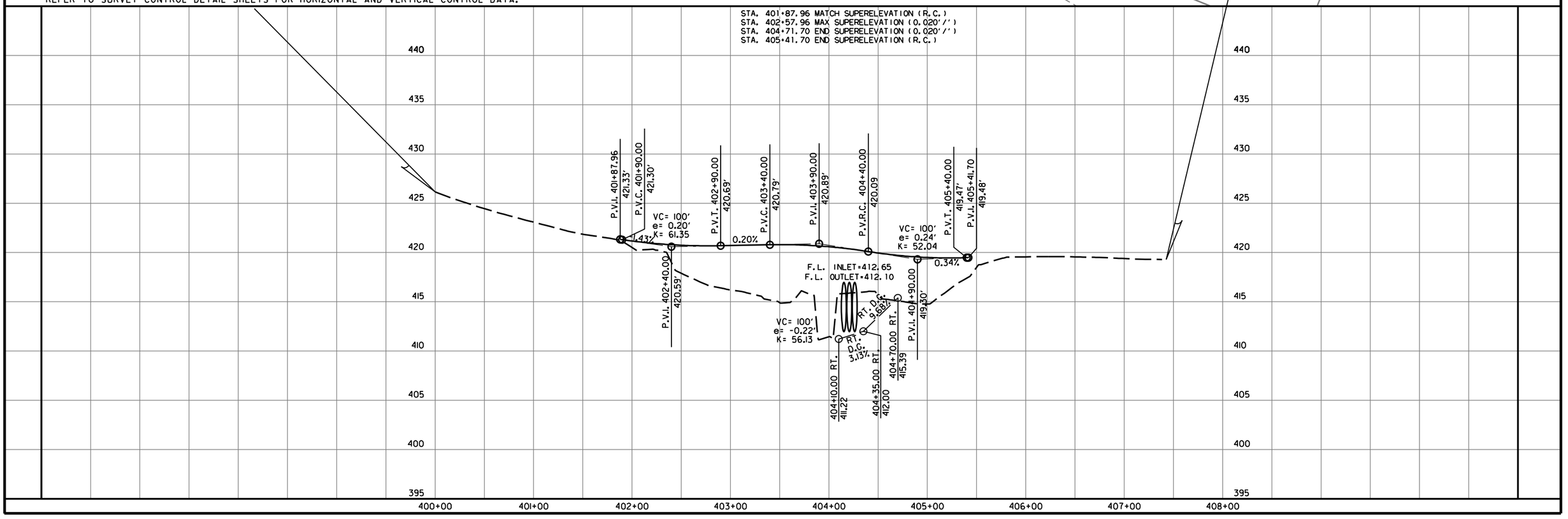
STA. 400+00.00
BEGIN DETOUR

STA. 407+38.38
END DETOUR

STA. 403+94 INSTALL
TRI. 60" X 74' TEMP. PIPE CULVERT
ON 45° RT. FWD. SKEW

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

STA. 401+87.96 MATCH SUPERELEVATION (R.C.)
STA. 402+57.96 MAX SUPERELEVATION (0.020'/')
STA. 404+71.70 END SUPERELEVATION (0.020'/')
STA. 405+41.70 END SUPERELEVATION (R.C.)



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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	69	150

(2) SUMMARY OF TRAFFIC SIGNAL QUANTITIES

STATE OF ARKANSAS
TRINITY D. SMITH
LICENSED PROFESSIONAL ENGINEER
No. 11425
09-26-2023

SUMMARY OF TRAFFIC SIGNAL QUANTITIES

ITEM NUMBER	ITEM	HWY. 5/SALEM RD.	HWY. 5/ALCOA RD.	QUANTITY	UNIT
SP & 701	SYSTEM LOCAL CONTROLLER TS2-TYPE 2 (8 PHASES)	2	2	4	EACH
SP	ANTENNA SUPPORT (SHOE BASE, 50' HT.)		1	1	EACH
SP	LOCAL RADIO WITH ANTENNA	2	2	4	EACH
SP	ANTENNA CABLE (TYPE 6)	110	130	240	LIN. FT.
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	10	18	28	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY)	4	6	10	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (5 SECTION, 1 WAY)	2		2	EACH
SP	RELOCATION OF TRAFFIC SIGNAL HEAD	6	5	11	EACH
SP & 707	CENTRAL CONTROL UNIT	1	1	2	EACH
SP & 707	POLE MOUNTED ASSEMBLY	4	8	12	EACH
SP & 707	INFRARED PROGRAMMING DEVICE	1	1	2	EACH
SP & 707	COUNTDOWN PEDESTRIAN SIGNAL HEAD, LED	4	8	12	EACH
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	2719	3694	6413	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7C/14 A.W.G.)	770	1233	2003	LIN. FT.
708	TRAFFIC SIGNAL CABLE (12C/14 A.W.G.)	36		36	LIN. FT.
708	TRAFFIC SIGNAL CABLE (20C/14 A.W.G.)	241	520	761	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., E.G.C.)	612	914	1526	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/12 A.W.G., E.G.C.)	155	224	379	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.)	110	93	203	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	601	742	1343	LIN. FT.
709	GALVANIZED STEEL CONDUIT (2")	75	75	150	LIN. FT.
709	GALVANIZED STEEL CONDUIT (3")	70	70	140	LIN. FT.
710	NON-METALLIC CONDUIT (2")	130	113	243	LIN. FT.
710	NON-METALLIC CONDUIT (3")	367	563	930	LIN. FT.
SS & 711	CONCRETE PULL BOX (TYPE 1 HD)	1		1	EACH
SS & 711	CONCRETE PULL BOX (TYPE 2 HD)	2	8	10	EACH
SS & 711	CONCRETE PULL BOX (TYPE 3 HD)	1		1	EACH
SS & 713	SPAN WIRE ASSEMBLY	1	1	2	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (28')		1	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (42')		1	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (46')	1		1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (50')		2	2	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (44'-44')	1		1	EACH
SP	LED LUMINAIRE ASSEMBLY	3	4	7	EACH
SS & 715	TRAFFIC SIGNAL PEDESTAL POLE WITH FOUNDATION	3	2	5	EACH
SP	SERVICE POINT ASSEMBLY (2 CIRCUITS)	1	1	2	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	0.50	0.50	1.00	LUMP SUM
716	TREATED WOOD POLE (CLASS 2, 45')	4	6	10	EACH
SP	18" STREET NAME SIGN	3	4	7	EACH
SP	VIDEO DETECTOR ROTATION		2	2	EACH
SP & 733	VIDEO DETECTOR (IP)	4	6	10	EACH
SP & 733	HYBRID VIDEO/RADAR DETECTOR	2	2	4	EACH
SP & 733	VIDEO CABLE (EXTERIOR CAT 5E)	990	1570	2560	LIN. FT.
SP & 733	VIDEO MONITOR (CLR)	2	2	4	EACH
SP & 733	CENTRAL CONTROL UNIT (8 CHANNEL)	2	2	4	EACH

DATE: 07-31-2023 FILE NAME: t061508_job.dgn

LOCATION: I-30 - ALCOA RD.
CITY: BENTON
COUNTY: SALINE
DISTRICT: 6 SCALE: N/A DRAWN BY: GWE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	70	150

(2) TRAFFIC SIGNAL NOTES

STATE OF ARKANSAS
TRINITY D. SMITH
LICENSED PROFESSIONAL ENGINEER
No. 11425

09-26-2023

TRAFFIC SIGNAL NOTES:

1. THE TRAFFIC SIGNAL SHALL NOT BE PUT INTO OPERATION OR SWITCHED TO THE NEXT CONSTRUCTION STAGE PRIOR TO THE FOLLOWING:
   A. ALL TRAFFIC SIGNAL EQUIPMENT HAS BEEN INSTALLED ACCORDING TO THE PLANS, SPECIAL PROVISIONS, AND PROPERLY FUNCTIONAL. THIS INCLUDES BUT NOT LIMITED TO: CABINETS, PULL BOXES, JUNCTION BOXES, POLES, MAST ARMS, FOUNDATIONS, LUMINAIRES, SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS, PUSH BUTTONS, DETECTION SYSTEM, CONDUITS, CONDUCTORS, CABLES, TRAFFIC CONTROLLER, CONFLICT MONITOR, COMMUNICATION SYSTEM, SERVICE POINT, AND RAILROAD INTERCONNECT SYSTEM.
   B. THE DETECTION SYSTEM SHALL BE INSTALLED, SETUP, AND CONFIGURED BY THE CONTRACTOR OR THEIR SUPPLIER PER PLANS. A TRAFFIC OPERATIONS INSPECTOR SHALL INSPECT AND PROVIDE APPROVAL IN ORDER TO PUT THE TRAFFIC SIGNAL INTO OPERATION.
   C. THE TRAFFIC CONTROLLER AND CONFLICT MONITOR SHALL BE PROGRAMMED TO OPERATE AS REQUIRED PER THE PLANS (PHASING DIAGRAM, INTERVAL CHART, AND ANY ADDITIONAL NOTES), SPECIAL PROVISIONS AND ARDOT SPECIFICATIONS.
   D. TIMING SETTINGS HAVE BEEN PROGRAMMED AND APPROVED AS REQUIRED BY ITS MANAGEMENT SECTION-MAINTENANCE DIVISION.
   E. THE TRAFFIC SIGNAL HAS BEEN INSPECTED AND APPROVED BY A TRAFFIC OPERATIONS INSPECTOR.
   F. ALL REQUIRED DOCUMENTS RELATED TO THE TRAFFIC SIGNAL EQUIPMENT, THIS INCLUDES BUT NOT LIMITED TO: TEST RESULTS, CONFIGURATION/DATA REPORTS, WARRANTIES, AND ANY OTHER DOCUMENTATION REQUIRED PER PLANS AND SPECIAL PROVISIONS.
2. CONTRACTOR SHALL NOTIFY ALL EXISTING UTILITY OWNERS BEFORE BEGINNING WORK ON THIS PROJECT.
3. TRAFFIC SIGNAL CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER OR ASSIGNED DEPARTMENT PROJECT INSPECTOR EACH DAY PRIOR TO SIGNAL RELATED WORK. NO WORK ON TRAFFIC SIGNALS WILL BE ALLOWED OR APPROVED WITHOUT THIS PRIOR NOTIFICATION.
4. THE CONTRACTOR SHALL PERFORM ALL WORK POSSIBLE THAT WILL MINIMIZE THE TIME THAT THE TRAFFIC SIGNAL IS OUT OF OPERATION. IF, IN THE OPINION OF THE ENGINEER, TRAFFIC CONDITIONS WARRANT, THE CONTRACTOR SHALL PROVIDE FLAGMEN TO DIRECT TRAFFIC WHILE THE TRAFFIC SIGNAL IS OUT OF OPERATION.
5. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE NFPA 70 (CURRENT EDITION) NATIONAL ELECTRICAL CODE, NFPA 101 (CURRENT EDITION) LIFE SAFETY CODE, STATE ELECTRICAL CODE AND LOCAL ELECTRICAL CODE.
6. EXTEND GREEN EQUIPMENT GROUNDING CONDUCTOR (E.G.C.) FROM GROUND BAR AT MAIN BREAKER TO CONTROL PANEL AND TO FIRST POLE. SOLIDLY BOND E.G.C. TO GROUND LUG OF CONTROL CABINET AND TO POLE GROUND. ENSURE THAT ONLY ONE NEUTRAL-TO-GROUND BOND EXISTS IN THE SYSTEM AND THAT IT IS AT THE MAIN BREAKER.
7. ELECTRICAL SERVICE SHALL BE PROVIDED BY THE CITY/COUNTY TO A SERVICE POLE WITH EXTERNAL RAINTIGHT BREAKER (MAIN BREAKER), GALVANIZED STEEL SERVICE RISER, METER LOOP (IF REQUIRED), AND WEATHERHEAD AT A MUTUALLY ACCEPTABLE POINT WITHIN THE RIGHT-OF-WAY. IF THE SERVICE POINT IS OVER 10 FEET FROM THE CONTROLLER, THE CONTRACTOR SHALL PROVIDE AND INSTALL A SEPARATE TWO CIRCUIT EXTERNAL BREAKER (SECONDARY BREAKER) ON OR NEAR THE TRAFFIC SIGNAL CONTROLLER CABINET AND SHALL INSTALL CONDUIT, ELECTRICAL SERVICE WIRE (2c/#6 A.W.G. USE RATED, WITH GROUND TYPICAL), AND PERFORM WIRING TO TAP INTO THE CITY'S/ COUNTY'S MAIN BREAKER AS PART OF THIS CONTRACT. CONDUIT IS PAID FOR AS A SEPARATE ITEM OF THIS CONTRACT. TWO CIRCUIT BREAKERS, CONSIDERED SUBSIDIARY TO THE CONTROL EQUIPMENT, ARE NEEDED WHERE STREET LIGHTING IS INCLUDED. AS PART OF THE SIGNAL INSTALLATION, STREET LIGHTING CIRCUIT (2c/#12 A.W.G. UF RATED, TYPICAL) SHALL BE KEPT FROM THE CIRCUIT SERVING THE TRAFFIC SIGNAL CONTROL EQUIPMENT FROM THE POINT OF TIE-IN AT THE SECONDARY BREAKER PROVIDED BY THE CONTRACTOR.
8. CONTRACTOR SHALL CONNECT A SEPARATE NEUTRAL FOR EACH LOAD SWITCH REPRESENTED ON EACH SIGNAL POLE.
9. TRAFFIC CONTROLLER CABINET AND LAYOUT SHALL BE SUCH THAT IT IS NOT NECESSARY TO SHUT DOWN POWER OR REMOVE LOAD SWITCHES IN ORDER TO EASILY TEST OR MODIFY DETECTOR INPUTS TO THE CONTROLLER.
10. CONTROLLER CABINET SHALL BE WIRED SUCH THAT DURING FLASH OPERATIONS POWER TO THE LOAD SWITCHES CANNOT BACKFEED TO LOAD SWITCH POWER BUSS.
11. ALL PARTS OF THIS INSTALLATION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, STANDARD DRAWINGS, AND WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION.
12. CONTROLLER CABINET LAYOUT AND ORIENTATION SHALL CONFORM TO IMSA STANDARDS.
13. DOOR PANEL TEST PUSH BUTTONS SHALL ACTUATE INDICATED PHASES. DETECTOR ASSIGNMENTS AND/OR SIDE PANEL JUMPERS MAY REQUIRE MODIFICATION.
14. ALL SYSTEM DETECTOR RACKS AND ASSOCIATED EQUIPMENT SHALL BE PROTECTED BY THE MAIN CONTROLLER CABINET POWER SURGE PROTECTION.
15. ONE VIDEO PROGRAMMNG MODULE SHALL BE PROVIDED FOR AIMING AND SETUP OF DETECTORS IF THE VIDEO SYSTEM CANNOT BE ADJUSTED THROUGH HARDWARE AND SOFTWARE PROVIDED BY ITEMS WITHIN THE JOB.
16. HARDWARE INPUTS MAY BE DETERMINED BY SUPPLIER. EACH DETECTOR OUTPUT SHALL INPUT THE CONTROLLER THROUGH A SEPARATE INPUT UNLESS OTHERWISE NOTED AND BE PROGRAMMED TO ACTUATE THE ASSOCIATED PHASE. COMBINATION (COMB.) DETECTORS SHALL ALSO BE PROGRAMMED TO PROVIDE VEHICLE COUNT/OCCUPANCY DATA.
17. THE LOCAL RADIO WITH ANTENNA AND TRAFFIC SIGNAL CONTROLLER SHALL BE COMPATIBLE WITH THE EXISTING COORDINATION SYSTEM IN THE CITY/COUNTY.
18. CONDUIT INSTALLED UNDER ROADWAY SURFACES SHALL BE INSTALLED BY PUSHING OR BORING METHOD OR AS DIRECTED BY THE ENGINEER. PVC OR HDPE CONDUIT SHALL BE USED AND SHALL BE UL LISTED. PVC CONDUIT SHALL BE MARKED "DIR. BORING" OR "DIRECTIONAL BORING" PER NEC. IF THE ENGINEER DETERMINES THIS IS NOT FEASIBLE, THEN A TRENCHING METHOD AS SHOWN IN THE STANDARD DRAWINGS MAY BE USED. THE ENGINEER SHALL GRANT A WRITTEN APPROVAL PRIOR TO USING THE TRENCHING METHOD.
19. ALL CONDUIT SHALL BE THREE (3") INCH DIAMETER UNLESS SPECIFIED ON PLANS. ALL CONDUIT UNDER THE ROADWAY, SIDEWALKS, AND DRIVEWAYS SHALL HAVE A MINIMUM DEPTH OF 24' FROM THE TOP OF THE CONDUIT TO THE FINISHED GRADE. CONDUIT DEPTH MAY NEED TO INCREASE NEAR DRAINAGE STRUCTURES.
20. CONDUIT BELL END FITTINGS SHALL BE INSTALLED ON ALL TERMINATING ENDS OF NON-METALLIC CONDUIT RUNS. THIS INCLUDES PULL BOXES, POLE BASES, AND TRAFFIC SIGNAL CABINETS. THE COST OF THE FITTINGS SHALL BE CONSIDERED SUBSIDARY TO THE PAY ITEM. ALL NON-METALLIC CONDUIT SHALL USE LONG SWEEP 90 DEGREE ELBOWS ON ALL CONDUIT BENDS.
21. ALL CONCRETE PULL BOXES SHALL BE (TYPE 2 HD) UNLESS OTHERWISE INDICATED. PULL BOX LIDS SHALL CLOSE FLUSH WITHOUT PINCHING ANY CONDUCTORS. CONDUIT LENGTHS IN PULL BOXES SHALL BE SET ACCORDINGLY. ANY CONDUCTORS THAT HAVE BEEN DAMAGED BY PINCHING SHALL BE COMPLETELY REPLACED AT THE CONTRACTOR'S EXPENSE.
22. ALL CONCRETE PULL BOXES SHALL BE SET ON A GRAVEL OR CRUSHED STONE BEDDING AS SPECIFIED IN SECTION 711, CONCRETE PULL BOX, OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2014.
23. CONTRACTOR SHALL ATTACH A PERMANENT TAG OF RIGID PLASTIC OR NON-FERROUS METAL TO EACH CONDUIT AT PULLBOXES, POLE BASES, JUNCTION BOXES AND CONTROLLER CABINETS. TAGS SHALL BE EMBOSSED, STAMPED OR ENGRAVED WITH LETTERS 1/4" OR GREATER IN HEIGHT AND SECURED TO THE CONDUIT WITH NYLON OR PLASTIC TIES. EACH TAG SHALL INDICATE THE END LOCATION OF CONDUIT RUN. THE COST OF THE TAGS SHALL BE SUBSIDIARY TO THE CONDUIT PAY ITEM.
    EXAMPLES FOR CONDUIT IN SIDE CABINET: "TO POLE A AND B" OR "TO POLE C"
    EXAMPLES FOR CONDUIT IN PULL BOX: "TO POLE A" OR "TO TRAFFIC CABINET"
24. ALL STEEL POLES SHALL BE DESIGNED TO MEET THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 4th EDITION (2001) WITH 2003 AND 2006 INTERIMS.
25. ALL TRAFFIC SIGNAL POLES SHALL BE GALVANIZED.
26. CONNECTION OF TRAFFIC SIGNAL DISPLAY TO FIELD WIRING SHALL UTILIZE AN APPROVED TERMINAL STRIP BEHIND HAND-HOLE COVER AT BASE OF POLE. TERMINAL STRIP SHALL PROVIDE PROTECTION TO PREVENT EXPOSURE TO THE PUBLIC IN THE EVENT THAT POLE COVER IS MISSING. PAYMENT FOR TERMINAL STRIPS SHALL BE INCLUDED IN ITEM 714 TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION OF THE STANDARD SPECIFCATIONS FOR HIGHWAY CONSTRUCTION, CURRENT EDITION.
27. FOUNDATION FOR ALL POLES SHALL BE EXTENDED IF NECESSARY TO ACCOMMODATE THE REQUIREMENTS FOR SIGNAL HEAD CLEARANCE ABOVE ROADWAY ONLY AT LOCATIONS WHERE THE GROUND ELEVATION AT THE POLE IS BELOW THE ELEVATION OF THE ROADWAY (SEE NOTES ON STANDARD DRAWING). PAYMENT WILL BE INCLUDED IN SECTION 714 TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, CURRENT EDITION.
28. TO DETERMINE UTILITY CLEARANCES ABOVE THE TRAFFIC SIGNAL POLE, REFER TO THE POLE SCHEDULE FOR VERTICAL SHAFT HEIGHT. WHERE THE POLE SCHEDULE INDICATES THAT A LUMINAIRE ARM WILL BE USED, THIRTY-EIGHT (38') FEET SHOULD BE USED TO DETERMINE UTILITY CLEARANCE ABOVE THE LUMINAIRE ARM. WHERE THE POLE SCHEDULE INDICATES A TRAFFIC SIGNAL POLE WITHOUT A LUMINAIRE ARM, A HEIGHT OF TWENTY-ONE (21') FEET SHOULD BE USED TO DETERMINE UTILITY CLEARANCE ABOVE THE TRAFFIC SIGNAL MAST ARM. AN ADDITIONAL SIX (6') FEET SHOULD BE USED DIRECTLY ABOVE "VIDEO DETECTOR" AT LOCATIONS SHOWN ON THE SIGNAL PLANS.
29. THE DESIRABLE MINIMUM DISTANCE FROM THE FACE OF ROADWAY CURB OR SHOULDER EDGE TO THE FACE OF NON-BREAKAWAY POLE OR OBSTRUCTION IS SIX (6') FEET. REFER TO TRAFFIC SIGNAL PLANS FOR SPECIFIC LOCATION OF POLES, CONTROLLER AND ANY OTHER NON-BREAKAWAY OBSTRUCTIONS. REFER TO "DESIGN PARAMETERS, MINIMUM CLEAR ZONE DISTANCE" FOR MINIMUM DISTANCE FROM THE EDGE OF TRAVELED WAY TO THE FACE OF A NON-BREAKAWAY POLE OR OBSTRUCTION. TRAFFIC SIGNAL POLES OR ANY OTHER NON-BREAKAWAY OBSTRUCTION SHALL NOT BE INSTALLED WITHIN THE CLEAR ZONE.
30. AS DETERMINED BY THE ENGINEER, FOUNDATION EMBEDMENT MAY BE DECREASED BY A MAXIMUM OF TWO FEET IF COMPETENT ROCK IS ENCOUNTERED PRIOR TO ACHIEVING PLAN EMBEDMENT AND AT LEAST HALF OF THE REMAINING PLAN EMBEDMENT LENGTH IS KEYED INTO COMPETENT ROCK.
31. LED LUMINAIRE ASSEMBLIES SHALL HAVE A BUG RATING OF U0.
32. BACKPLATES SHALL BE SUPPLIED FOR ALL TRAFFIC SIGNAL HEADS, REFER TO THE RETROREFLECTIVE BACKPLATES SPECIAL PROVISION FOR REQUIREMENTS.
33. PAVEMENT MARKINGS SHOWN FOR REFERENCE ONLY. SEE PERMANENT PAVEMENT MARKING DETAILS.
34. BEFORE FINAL ACCEPTANCE OF THE TRAFFIC SIGNAL, THE CONTRACTOR SHALL PROVIDE TWO (2) SETS OF LEDGER SIZE (11" X 17") AS-BUILT TRAFFIC SIGNAL PLANS TO THE MAINTENANCE AUTHORITY AND ARDOT.

DATE: 07-31-2023 FILE NAME: t061508_job.dgn

LOCATION: I-30 - ALCOA RD.
CITY: BENTON
COUNTY: SALINE
DISTRICT: 6 SCALE: N/A DRAWN BY: GWE

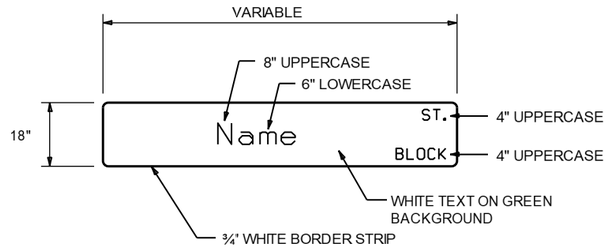
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	71	150

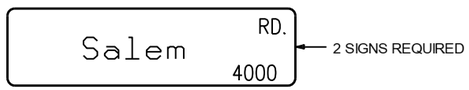
(2) TRAFFIC SIGNAL STREET NAME SIGNS

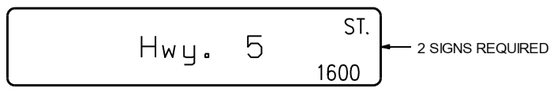
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-26-2023

OVERHEAD STREET NAME MARKER STANDARD MAST ARM MOUNT

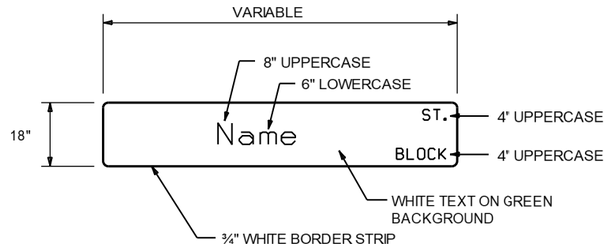
HIGHWAY 5 AND SALEM RD. INTERSECTION

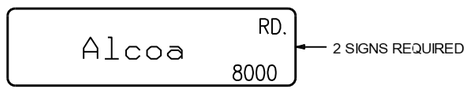


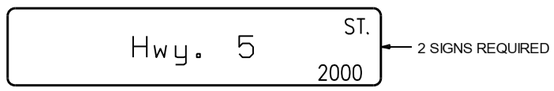




HIGHWAY 5 AND ALCOA RD. INTERSECTION







NOTES:

1. REFLECTIVE SHEETING SHALL COMPLY WITH ASTM 4956 TYPE 8 OR 9 REFLECTIVE SHEETING. SHEETING AND LEGEND SHALL BE APPLIED IN SUCH A MANNER TO PROVIDE WRINKLE AND BUBBLE FREE SURFACES. APPLICATION OF SHEETING IS CAUSE FOR REJECTION OF MATERIALS DUE TO WORKMANSHIP.
2. ALUMINUM SIGN BLANK SHALL BE ALLOY 6061-T6 OR 5052-H38. THE ALUMINUM SIGN SHALL BE ALSO ALODIZED. THE ALUMINUM SHEETING SHALL BE 0.100 INCH NOMINAL THICKNESS AND OF THE SIZE SHOWN WITH 1.5" CORNER RADII. PRIOR TO FABRICATION OF THE SIGNS, THE LAYOUT SHALL FIRST BE APPROVED BY AN AGENT OF THE CITY/ COUNTY.
3. WHEN CROSSROAD HAS TWO NAMES, THE SIGN FOR THE CROSSROAD TO THE LEFT MAY BE INSTALLED ON THE BACKSIDE OF THE MAST ARM ON THE NEARSIDE LEFT POLE. SEE STANDARD DRAWING SHEET FOR MORE INFORMATION FOR MOUNTING ON MAST ARM ASSEMBLY.
4. THE SERIES C 2000 STANDARD ALPHABET SHALL BE USED FOR ALL LETTERS.

DATE: 07-31-2023 FILE NAME: t061508_job.dgn

LOCATION: I-30 - ALCOA RD.
CITY: BENTON
COUNTY: SALINE
DISTRICT: 6 SCALE: N/A DRAWN BY: GWE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	72	150

(2) TRAFFIC SIGNAL QUANTITIES - SALEM RD.

STATE OF ARKANSAS
TRINITY D. SMITH
LICENSED PROFESSIONAL ENGINEER
No. 11425
09-26-2023

STAGE 2 TRAFFIC SIGNAL QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP & 701	SYSTEM LOCAL CONTROLLER TS2-TYPE 2 (8 PHASES)	1	EACH
SP	LOCAL RADIO WITH ANTENNA	1	EACH
SP	ANTENNA CABLE (TYPE 6)	35	LIN. FT.
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	5	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY)	2	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (5 SECTION, 1 WAY)	1	EACH
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	968	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7C/14 A.W.G.)	562	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., E.G.C.)	100	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.)	60	LIN. FT.
709	GALVANIZED STEEL CONDUIT (2")	55	LIN. FT.
709	GALVANIZED STEEL CONDUIT (3")	70	LIN. FT.
710	NON-METALLIC CONDUIT (2")	45	LIN. FT.
SS & 711	CONCRETE PULL BOX (TYPE 3 HD)	1	EACH
SS & 713	SPAN WIRE ASSEMBLY	1	EACH
SP	SERVICE POINT ASSEMBLY (2 CIRCUITS)	1	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	0.25	LUMP SUM
716	TREATED WOOD POLE (CLASS 2, 45')	4	EACH
SP & 733	VIDEO DETECTOR (IP)	3	EACH
SP & 733	VIDEO CABLE (EXTERIOR CAT 5E)	500	LIN. FT.
SP & 733	VIDEO MONITOR (CLR)	1	EACH
SP & 733	CENTRAL CONTROL UNIT (8 CHANNEL)	1	EACH

STAGE 2:
INSTALL ALL TEMPORARY TRAFFIC SIGNAL EQUIPMENT, INCLUDING THE PERMANENT SERVICE POINT ASSEMBLY (2 CIRCUITS) WITH ALL ASSOCIATED ITEMS AS SHOWN ON THE STAGE 2 TEMPORARY SIGNAL PLANS. ROMOVE ALL EXISTING TRAFFIC SIGNAL EQUIPMENT.
MAINTAIN THIS TRAFFIC SIGNAL CONFIGURATION AS SHOWN ON THE STAGE 2 TRAFFIC SIGNAL PLANS.
(REFER TO MAINTENANCE OF TRAFFIC DETAILS.)

STAGE 3 TRAFFIC SIGNAL QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP	RELOCATION OF TRAFFIC SIGNAL HEAD	6	EACH

STAGE 3:
NOTES:
RELOCATE TRAFFIC SIGNAL HEADS 1, 2, 3, 6, 7, AND 8, TO ACCOMMODATE STAGE 3 MAINTENANCE OF TRAFFIC.
MAINTAIN THIS TRAFFIC SIGNAL CONFIGURATION AS SHOWN ON THE STAGE 3 TRAFFIC SIGNAL PLANS.
(REFER TO MAINTENANCE OF TRAFFIC DETAILS.)

PERMANENT TRAFFIC SIGNAL QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP & 701	SYSTEM LOCAL CONTROLLER TS2-TYPE 2 (8 PHASES)	1	EACH
SP	LOCAL RADIO WITH ANTENNA	1	EACH
SP	ANTENNA CABLE (TYPE 6)	75	LIN. FT.
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	5	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY)	2	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (5 SECTION, 1 WAY)	1	EACH
SP & 707	CENTRAL CONTROL UNIT	1	EACH
SP & 707	POLE MOUNTED ASSEMBLY	4	EACH
SP & 707	INFRARED PROGRAMMING DEVICE	1	EACH
SP & 707	COUNTDOWN PEDESTRIAN SIGNAL HEAD, LED	4	EACH
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	1751	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7C/14 A.W.G.)	208	LIN. FT.
708	TRAFFIC SIGNAL CABLE (12C/14 A.W.G.)	36	LIN. FT.
708	TRAFFIC SIGNAL CABLE (20C/14 A.W.G.)	241	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., E.G.C.)	512	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/12 A.W.G., E.G.C.)	155	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.)	50	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	601	LIN. FT.
709	GALVANIZED STEEL CONDUIT (2")	20	LIN. FT.
710	NON-METALLIC CONDUIT (2")	85	LIN. FT.
710	NON-METALLIC CONDUIT (3")	367	LIN. FT.
SS & 711	CONCRETE PULL BOX (TYPE 1 HD)	1	EACH
SS & 711	CONCRETE PULL BOX (TYPE 2 HD)	2	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (46')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (44'-44')	1	EACH
SP	LED LUMINAIRE ASSEMBLY	3	EACH
SS & 715	TRAFFIC SIGNAL PEDESTAL POLE WITH FOUNDATION	3	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	0.25	LUMP SUM
SP	18" STREET NAME SIGN	3	EACH
SP & 733	VIDEO DETECTOR (IP)	1	EACH
SP & 733	HYBRID VIDEO/RADAR DETECTOR	2	EACH
SP & 733	VIDEO CABLE (EXTERIOR CAT 5E)	490	LIN. FT.
SP & 733	VIDEO MONITOR (CLR)	1	EACH
SP & 733	CENTRAL CONTROL UNIT (8 CHANNEL)	1	EACH

PERMANENT TRAFFIC SIGNAL:
THE TEMPORARY TRAFFIC SIGNAL INSTALLATION FOR STAGE 3 SHALL REMAIN IN OPERATION UNTIL THE PERMANENT TRAFFIC SIGNAL IS COMPLETED AND OPERATIONAL. INSTALL THE PERMANENT TRAFFIC SIGNAL WITH ALL ASSOCIATED EQUIPMENT, UTILIZE THE SERVICE POINT ASSEMBLY (2 CIRCUITS) INSTALLED IN STAGE 2, AND REMOVE THE TEMPORARY TRAFFIC SIGNAL AND COMPONENTS THAT WERE IN USE FOR STAGE 2 AND 3 TEMPORARY TRAFFIC CONTROL.
(REFERTO PERMANENT TRAFFIC SIGNAL PLANS.)

DATE: 07-31-2023 FILE NAME: t061508_01.dgn

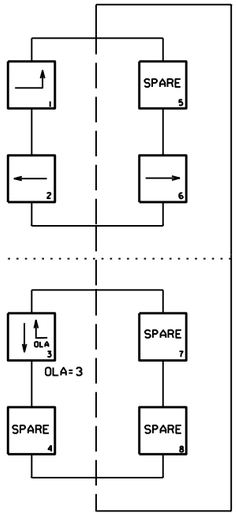
LOCATION: HWY. 5/SALEM RD.
CITY: BENTON
COUNTY: SALINE
DISTRICT: 6 SCALE: N/A DRAWN BY: GWE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	73	150

(2) SIGNALIZATION PLAN SHEET

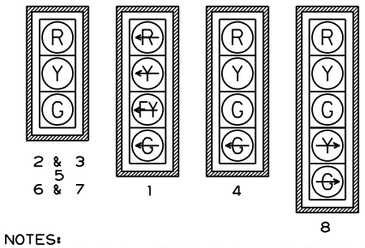
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-26-2023

STAGES 2 AND 3 PHASING DIAGRAM



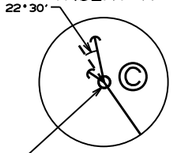
STAGES 2 AND 3 SIGNAL FACES

12" LENSES



NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.
3. REFER TO SPECIAL PROVISIONS FOR DETAILS ON REQUIREMENTS FOR PEDESTRIAN SIGNAL HEADS.

INSERT A



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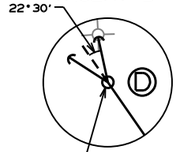
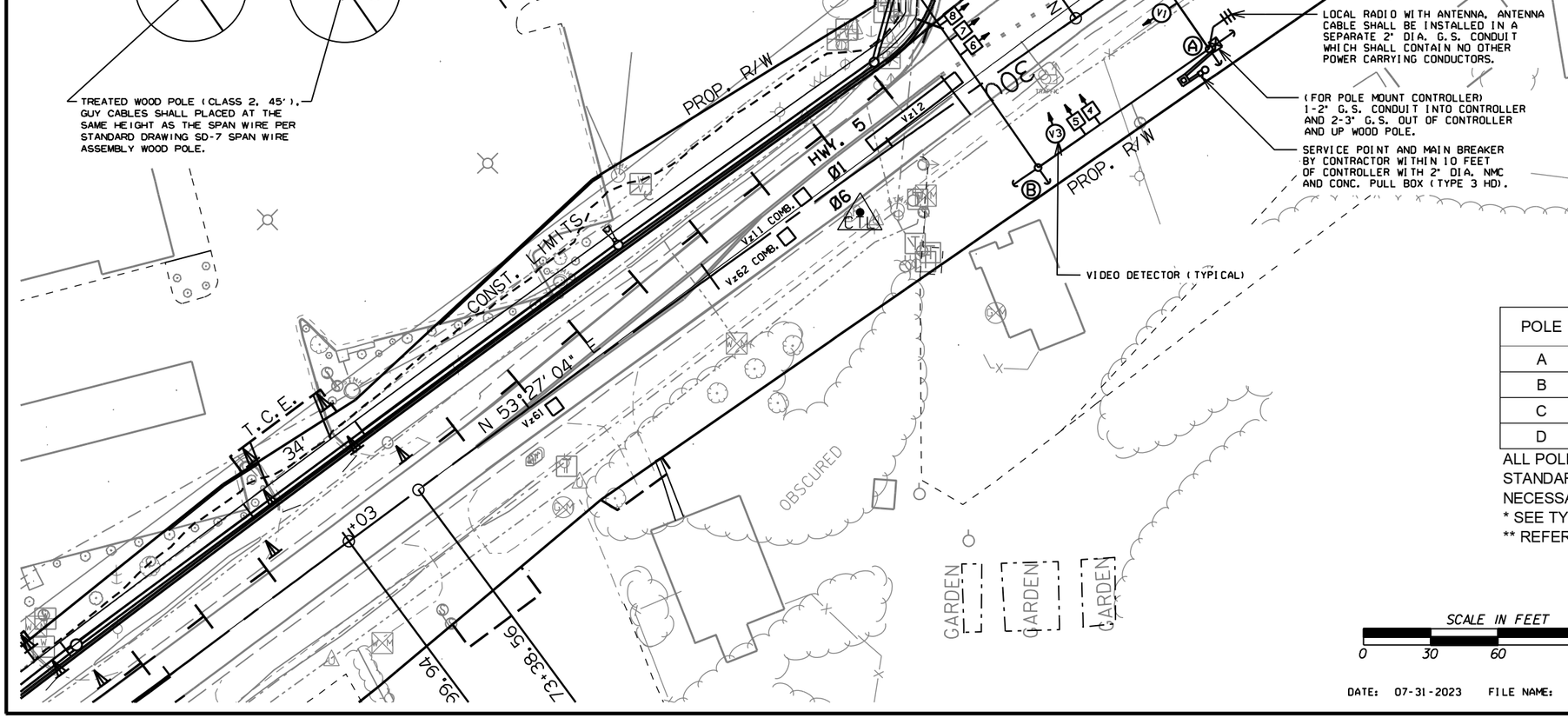


TREATED WOOD POLE (CLASS 2, 45'), GUY CABLES SHALL PLACED AT THE SAME HEIGHT AS THE SPAN WIRE PER STANDARD DRAWING SD-7 SPAN WIRE ASSEMBLY WOOD POLE.



STAGES 2 AND 3 DETECTOR SPACING CHART

ARDOT HWY. 5 MAIN LANE VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
40 MPH	230'	100'
SALEM RD. MAIN LANE VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
35 MPH	85'	N/A

HWY. 5/SALEM RD. POLE DIMENSIONS

POLE	CLASS	HEIGHT	* LUM. ARM	LUM. ANGLE
A	2	45'	25'	**
B	2	45'	25'	**
C	2	45'	25'	**
D	2	45'	N/A	N/A

ALL POLES ARE TREATED WOOD POLES.
STANDARD GUY INSTALLATION (TYPICAL), IF SIDEWALK GUY INSTALLATION IS NECESSARY SEE STANDARD DRAWING SD-7.
* SEE TYPICAL WOOD POLE WITH LUMINAIRE ARM DETAIL ON SHEET 74.
** REFER TO PLAN SHEETS FOR LUMINAIRE ARM ORIENTATION.

STAGE 2 TRAFFIC SIGNAL

SCALE IN FEET
0 30 60 120

DATE: 07-31-2023 FILE NAME: t061508_01.dgn

LOCATION: HWY. 5/SALEM RD.
CITY: BENTON
COUNTY: SALINE
DISTRICT: 6 SCALE: 1"=60' DRAWN BY: GWE

ZBDRDER.CEL 8/30/2010

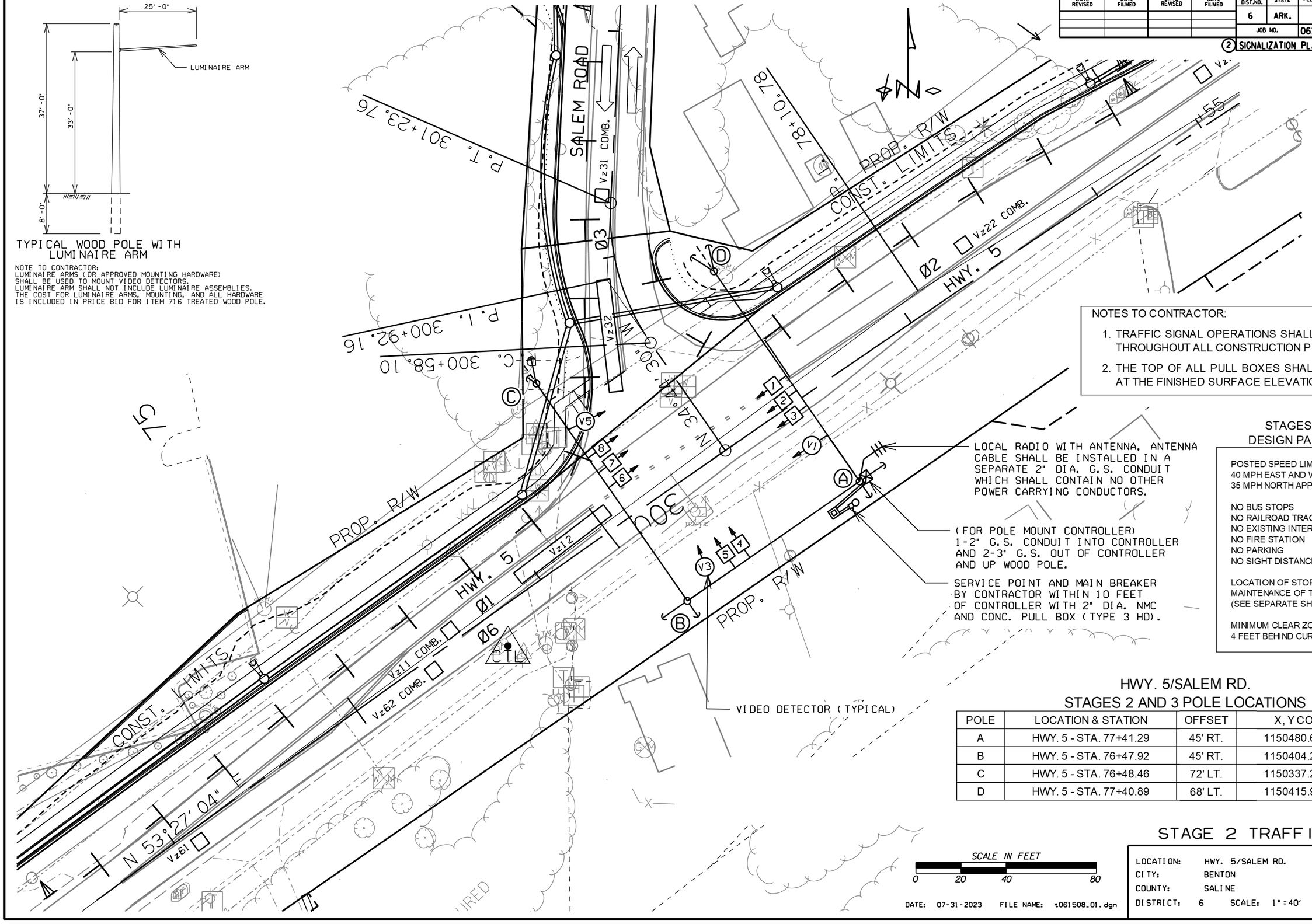
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	74	150

(2) SIGNALIZATION PLAN SHEET

TYPICAL WOOD POLE WITH LUMINAIRE ARM

NOTE TO CONTRACTOR:
LUMINAIRE ARMS (OR APPROVED MOUNTING HARDWARE) SHALL BE USED TO MOUNT VIDEO DETECTORS. LUMINAIRE ARM SHALL NOT INCLUDE LUMINAIRE ASSEMBLIES. THE COST FOR LUMINAIRE ARMS, MOUNTING, AND ALL HARDWARE IS INCLUDED IN PRICE BID FOR ITEM 716 TREATED WOOD POLE.



NOTES TO CONTRACTOR:

1. TRAFFIC SIGNAL OPERATIONS SHALL BE MAINTAINED THROUGHOUT ALL CONSTRUCTION PHASES.
2. THE TOP OF ALL PULL BOXES SHALL BE INSTALLED AT THE FINISHED SURFACE ELEVATION.

LOCAL RADIO WITH ANTENNA, ANTENNA CABLE SHALL BE INSTALLED IN A SEPARATE 2" DIA. G.S. CONDUIT WHICH SHALL CONTAIN NO OTHER POWER CARRYING CONDUCTORS.

(FOR POLE MOUNT CONTROLLER) 1-2" G.S. CONDUIT INTO CONTROLLER AND 2-3" G.S. OUT OF CONTROLLER AND UP WOOD POLE.

SERVICE POINT AND MAIN BREAKER BY CONTRACTOR WITHIN 10 FEET OF CONTROLLER WITH 2" DIA. NMC AND CONC. PULL BOX (TYPE 3 HD).

STAGES 2 AND 3
DESIGN PARAMETERS

POSTED SPEED LIMIT:
40 MPH EAST AND WEST APPROACH
35 MPH NORTH APPROACH

NO BUS STOPS
NO RAILROAD TRACKS
NO EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

LOCATION OF STOP LINES SHOWN ON MAINTENANCE OF TRAFFIC DETAILS (SEE SEPARATE SHEET).

MINIMUM CLEAR ZONE DISTANCE
4 FEET BEHIND CURB

HWY. 5/SALEM RD.
STAGES 2 AND 3 POLE LOCATIONS

POLE	LOCATION & STATION	OFFSET	X, Y COORDINATES
A	HWY. 5 - STA. 77+41.29	45' RT.	1150480.63, 2019684.77
B	HWY. 5 - STA. 76+47.92	45' RT.	1150404.20, 2019631.77
C	HWY. 5 - STA. 76+48.46	72' LT.	1150337.29, 2019728.28
D	HWY. 5 - STA. 77+40.89	68' LT.	1150415.99, 2019777.98

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-26-2023

SCALE IN FEET
0 20 40 80

DATE: 07-31-2023 FILE NAME: t061508_01.dgn

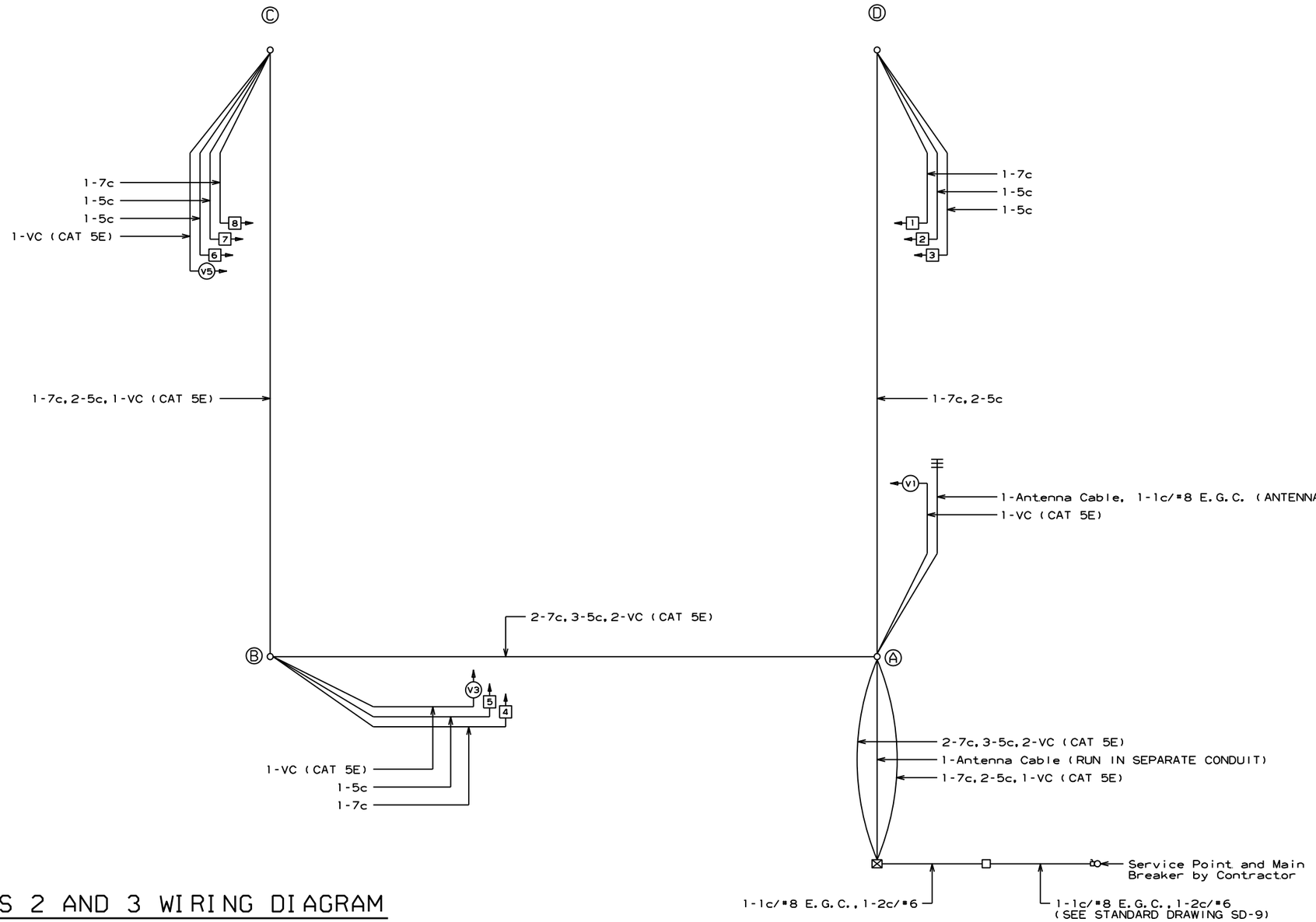
STAGE 2 TRAFFIC SIGNAL

LOCATION: HWY. 5/SALINE RD.
CITY: BENTON
COUNTY: SALINE
DISTRICT: 6 SCALE: 1"=40' DRAWN BY: GWE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	75	150

(2) SIGNALIZATION PLAN SHEET

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-26-2023



STAGES 2 AND 3 WIRING DIAGRAM

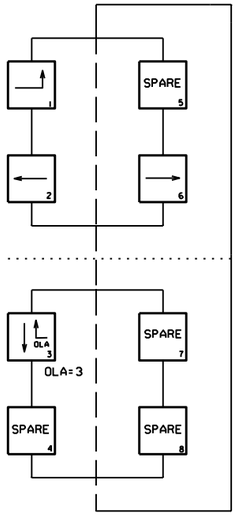
NOTES TO CONTRACTOR:

1. ALL DETECTOR RACK CHANNELS, INCLUDING UNUSED, SHALL BE BROUGHT TO TERMINAL STRIP IN DETECTOR AREA OF CABINET.
2. THE LOCAL GOVERNMENT SHALL BE RESPONSIBLE FOR PROVIDING POWER TO THE SERVICE POINT.

DATE: 07-31-2023 FILE NAME: t061508_01.dgn

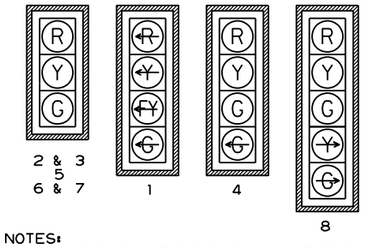
LOCATION:	HWY. 5/SALEM RD.			
CITY:	BENTON			
COUNTY:	SALINE			
DISTRICT:	6	SCALE: N/A	DRAWN BY:	GWE

STAGES 2 AND 3 PHASING DIAGRAM



STAGES 2 AND 3 SIGNAL FACES

12" LENSES



NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.
3. REFER TO SPECIAL PROVISIONS FOR DETAILS ON REQUIREMENTS FOR PEDESTRIAN SIGNAL HEADS.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	76	150

(2) SIGNALIZATION PLAN SHEET

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-26-2023

STAGE 2 AND 3 DETECTOR CHART

DETECTOR SYSTEM DESCRIPTION: JOB 061508											
HWY. 5 AND SALEM RD. DETECTOR ASSIGNMENTS				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
							LOCAL		MASTER SYSTEM		
DET. ID #	LOCATION DIRECTION	TPYE	DET. #	CAB. TRM. #	AMP CHN. #	CON. IMP. #	PHS	SYSTEM DET. #	DETECTOR NUMBERS		
Vz11	EB LEFT TURN FAR	COMB.			1	V9	1	1		CAMERA V1	23"
Vz12	EB LEFT TURN	LOCAL			2	V1	1			CAMERA V1	23"
Vz21 A&B	WB ADVANCE	LOCAL			5	V2	2			CAMERA V5	23"
Vz22 A&B	WB NEAR	COMB.			6	V10	2	2		CAMERA V5	23"
Vz31 A&B	SB LEFT TURN FAR	COMB.			9	V11	3	3		CAMERA V3	23"
Vz32 A&B	SB LEFT TURN	LOCAL			10	V3	3			CAMERA V3	23"
Vz61 A&B	EB ADVANCE	LOCAL			3	V6	6			CAMERA V1	23"
Vz62 A&B	EB NEAR	COMB.			4	V14	6	6		CAMERA V1	23"
					SPARE 7,8,11,12,13,14,15, & 16						

CONTROLLER INPUT ABBREVIATIONS:
V = VEHICLE INPUT
D = SYSTEM OR AUXILIARY INPUT
P = PEDESTRIAN INPUT

NOTE: "AMP CHN =" REFERS TO THE RACK OUTPUT POSITION.
THIS IS WIRED TO CONTROLLER INPUT DETECTOR NUMBER WHICH IS PROGRAMMED TO ACTUATE THE DESIGNATED PHASE.
EXAMPLE: V9 = SYSTEM DETECTOR 1, V10 = SYSTEM DETECTOR 2

STAGE 2 AND 3 INTERVAL CHART

SIGNAL FACES	HWY. 5 AND SALEM RD. 1+6	CLR.	2+6	CLR.	4+7	4+8		FLASH SEQUENCE
1	~~G~~	~~Y~~	~~FY~~	***	~~R~~	~~R~~		~~R~~
2 & 3	G	**	G	**	R	R		R
4	R	R	R	R	G / ~~G~~	Y		R
5	R	R	R	R	G	Y		R
6 & 7	R	R	G	Y	R	R		R
8	R	R	G	Y	R / ~~G~~	R / ~~Y~~		R

** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE
*** DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON NEXT PHASE

DATE: 07-31-2023 FILE NAME: t061508_01.dgn

LOCATION: HWY. 5/SALEM RD.
CITY: BENTON
COUNTY: SALINE
DISTRICT: 6 SCALE: N/A DRAWN BY: GWE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	77	150

(2) SIGNALIZATION PLAN SHEET

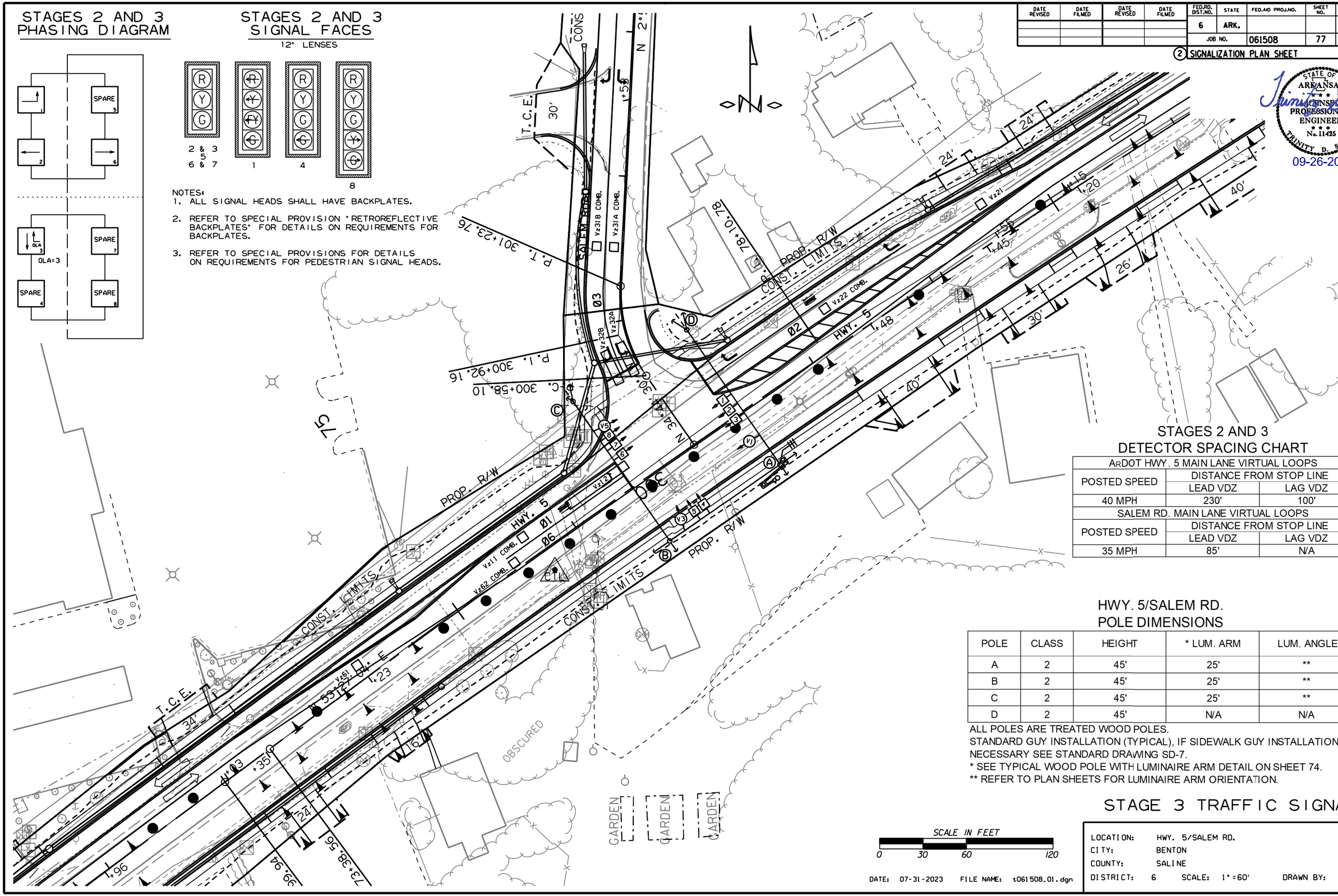
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-26-2023

STAGES 2 AND 3 PHASING DIAGRAM

STAGES 2 AND 3 SIGNAL FACES

12" LENSES

NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.
3. REFER TO SPECIAL PROVISIONS FOR DETAILS ON REQUIREMENTS FOR PEDESTRIAN SIGNAL HEADS.



STAGES 2 AND 3 DETECTOR SPACING CHART

ARDOT HWY. 5 MAIN LANE VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
40 MPH	230'	100'
SALEM RD. MAIN LANE VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
35 MPH	85'	N/A

HWY. 5/SALEM RD. POLE DIMENSIONS

POLE	CLASS	HEIGHT	* LUM. ARM	LUM. ANGLE
A	2	45'	25'	**
B	2	45'	25'	**
C	2	45'	25'	**
D	2	45'	N/A	N/A

ALL POLES ARE TREATED WOOD POLES.
STANDARD GUY INSTALLATION (TYPICAL), IF SIDEWALK GUY INSTALLATION IS NECESSARY SEE STANDARD DRAWING SD-7.
* SEE TYPICAL WOOD POLE WITH LUMINAIRE ARM DETAIL ON SHEET 74.
** REFER TO PLAN SHEETS FOR LUMINAIRE ARM ORIENTATION.

STAGE 3 TRAFFIC SIGNAL

SCALE IN FEET
0 30 60 120

DATE: 07-31-2023 FILE NAME: t061508_01.dgn

LOCATION: HWY. 5/SALINE RD.
CITY: BENTON
COUNTY: SALINE
DISTRICT: 6 SCALE: 1"=60' DRAWN BY: GWE

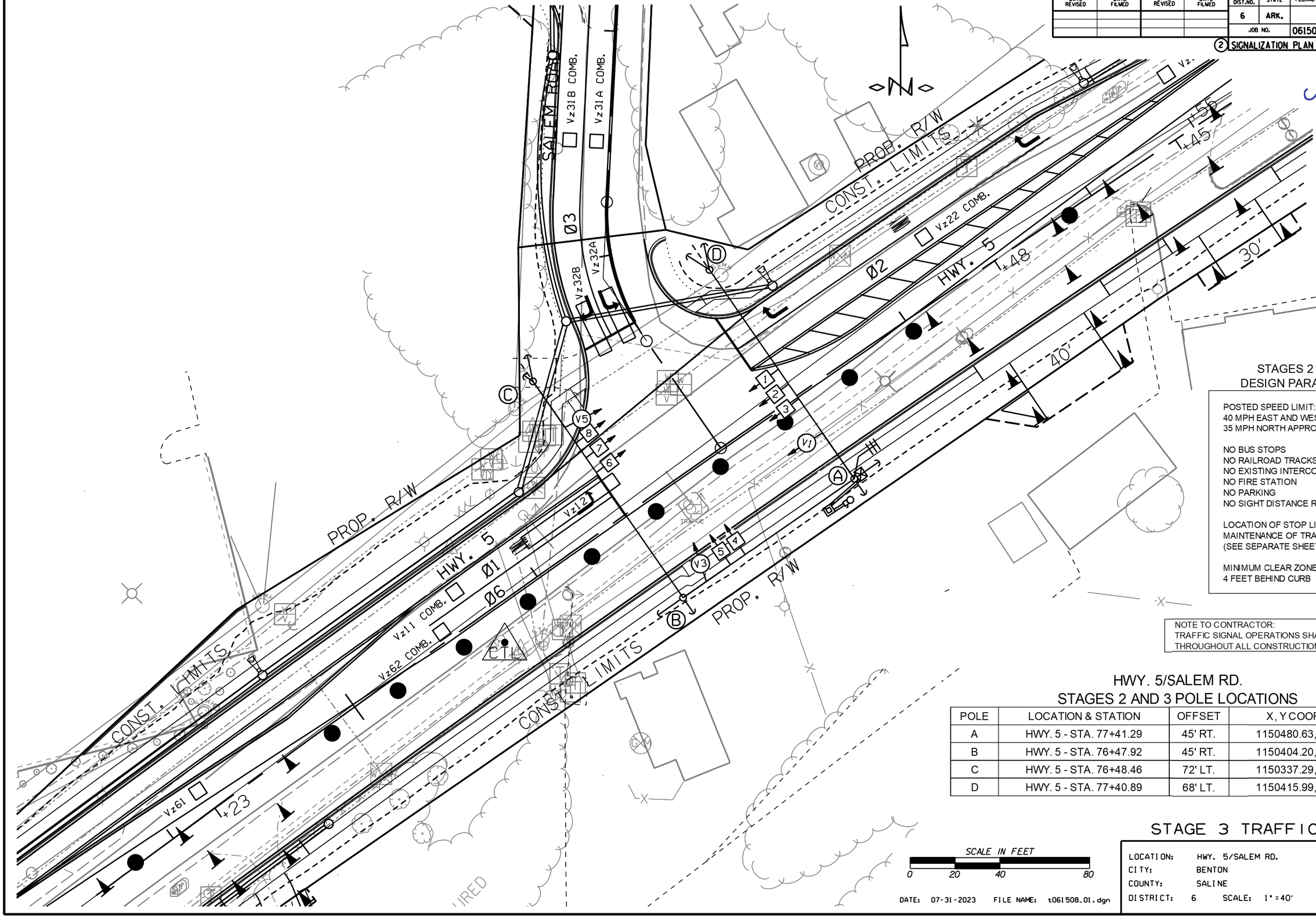
ZBORDER.CEL 8/30/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	78	150

(2) SIGNALIZATION PLAN SHEET

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-26-2023



STAGES 2 AND 3 DESIGN PARAMETERS

POSTED SPEED LIMIT:
40 MPH EAST AND WEST APPROACH
35 MPH NORTH APPROACH

NO BUS STOPS
NO RAILROAD TRACKS
NO EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

LOCATION OF STOP LINES SHOWN ON MAINTENANCE OF TRAFFIC DETAILS (SEE SEPARATE SHEET).

MINIMUM CLEAR ZONE DISTANCE
4 FEET BEHIND CURB

NOTE TO CONTRACTOR:
TRAFFIC SIGNAL OPERATIONS SHALL BE MAINTAINED THROUGHOUT ALL CONSTRUCTION PHASES.

HWY. 5/SALEM RD.
STAGES 2 AND 3 POLE LOCATIONS

POLE	LOCATION & STATION	OFFSET	X, Y COORDINATES
A	HWY. 5 - STA. 77+41.29	45' RT.	1150480.63, 2019684.77
B	HWY. 5 - STA. 76+47.92	45' RT.	1150404.20, 2019631.77
C	HWY. 5 - STA. 76+48.46	72' LT.	1150337.29, 2019728.28
D	HWY. 5 - STA. 77+40.89	68' LT.	1150415.99, 2019777.98

SCALE IN FEET
0 20 40 80

DATE: 07-31-2023 FILE NAME: t061508_01.dgn

STAGE 3 TRAFFIC SIGNAL

LOCATION: HWY. 5/SALEM RD.
CITY: BENTON
COUNTY: SALINE
DISTRICT: 6 SCALE: 1"=40' DRAWN BY: GWE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	79	150

(2) SIGNALIZATION PLAN SHEET

PHASING DIAGRAM

SIGNAL FACES

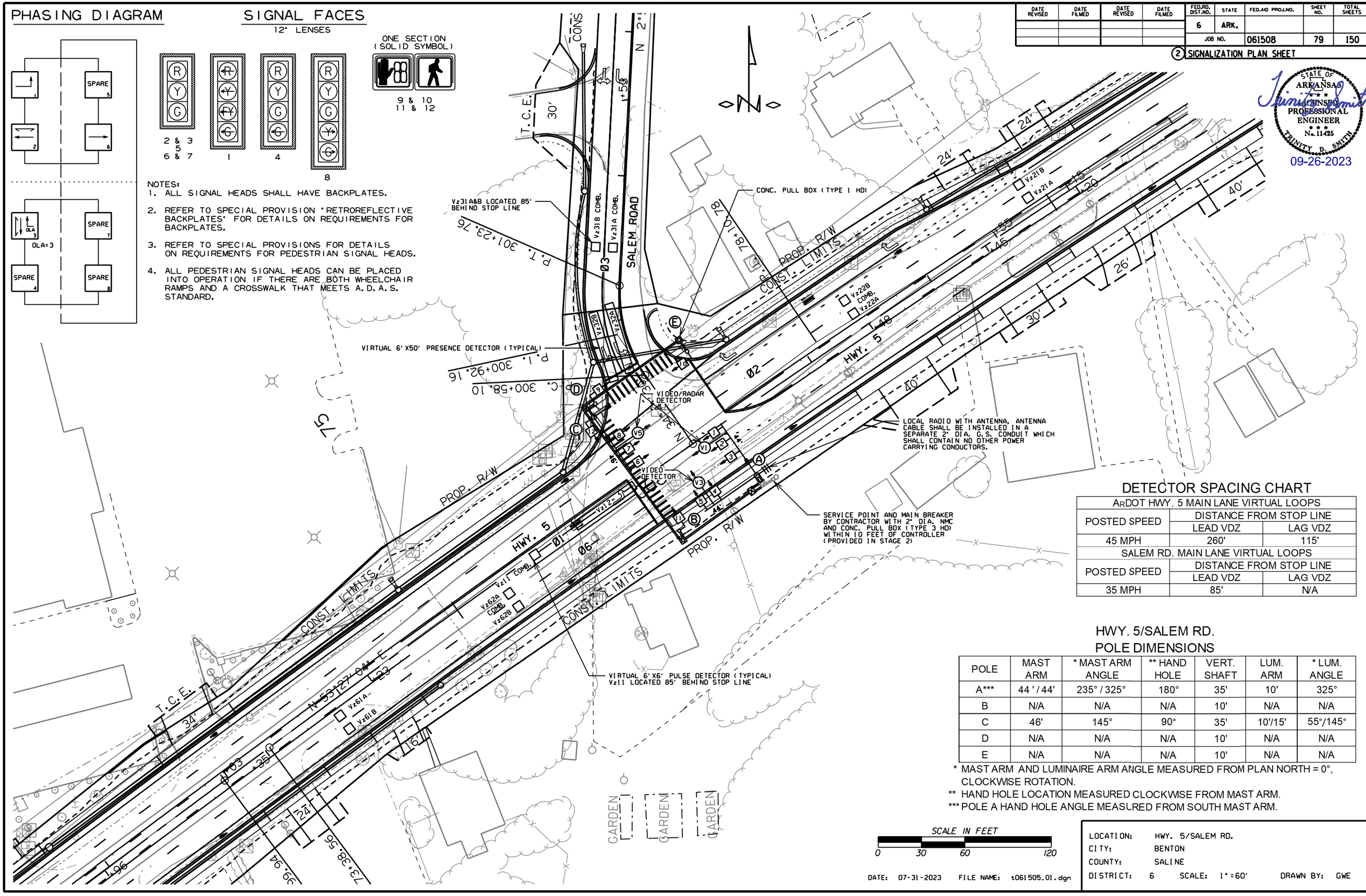
12" LENSES

ONE SECTION
(SOLID SYMBOL)

9 & 10
11 & 12

NOTES:

1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.
3. REFER TO SPECIAL PROVISIONS FOR DETAILS ON REQUIREMENTS FOR PEDESTRIAN SIGNAL HEADS.
4. ALL PEDESTRIAN SIGNAL HEADS CAN BE PLACED INTO OPERATION IF THERE ARE BOTH WHEELCHAIR RAMPS AND A CROSSWALK THAT MEETS A.D.A.S. STANDARD.



STATE OF ARKANSAS
TRINITY D. SMITH
LICENSED PROFESSIONAL ENGINEER
No. 11425
09-26-2023

DETECTOR SPACING CHART

ARDOT HWY. 5 MAIN LANE VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
45 MPH	260'	115'
SALEM RD. MAIN LANE VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
35 MPH	85'	N/A

HWY. 5/SALEM RD. POLE DIMENSIONS

POLE	MAST ARM	* MAST ARM ANGLE	** HAND HOLE	VERT. SHAFT	LUM. ARM	* LUM. ANGLE
A***	44'/44'	235°/325°	180°	35'	10'	325°
B	N/A	N/A	N/A	10'	N/A	N/A
C	46'	145°	90°	35'	10'/15'	55°/145°
D	N/A	N/A	N/A	10'	N/A	N/A
E	N/A	N/A	N/A	10'	N/A	N/A

* MAST ARM AND LUMINAIRE ARM ANGLE MEASURED FROM PLAN NORTH = 0°, CLOCKWISE ROTATION.
** HAND HOLE LOCATION MEASURED CLOCKWISE FROM MAST ARM.
*** POLE A HAND HOLE ANGLE MEASURED FROM SOUTH MAST ARM.

SCALE IN FEET
0 30 60 120

DATE: 07-31-2023 FILE NAME: t061505_01.dgn

LOCATION: HWY. 5/SALEM RD.
CITY: BENTON
COUNTY: SALINE
DISTRICT: 6 SCALE: 1"=60' DRAWN BY: GWE

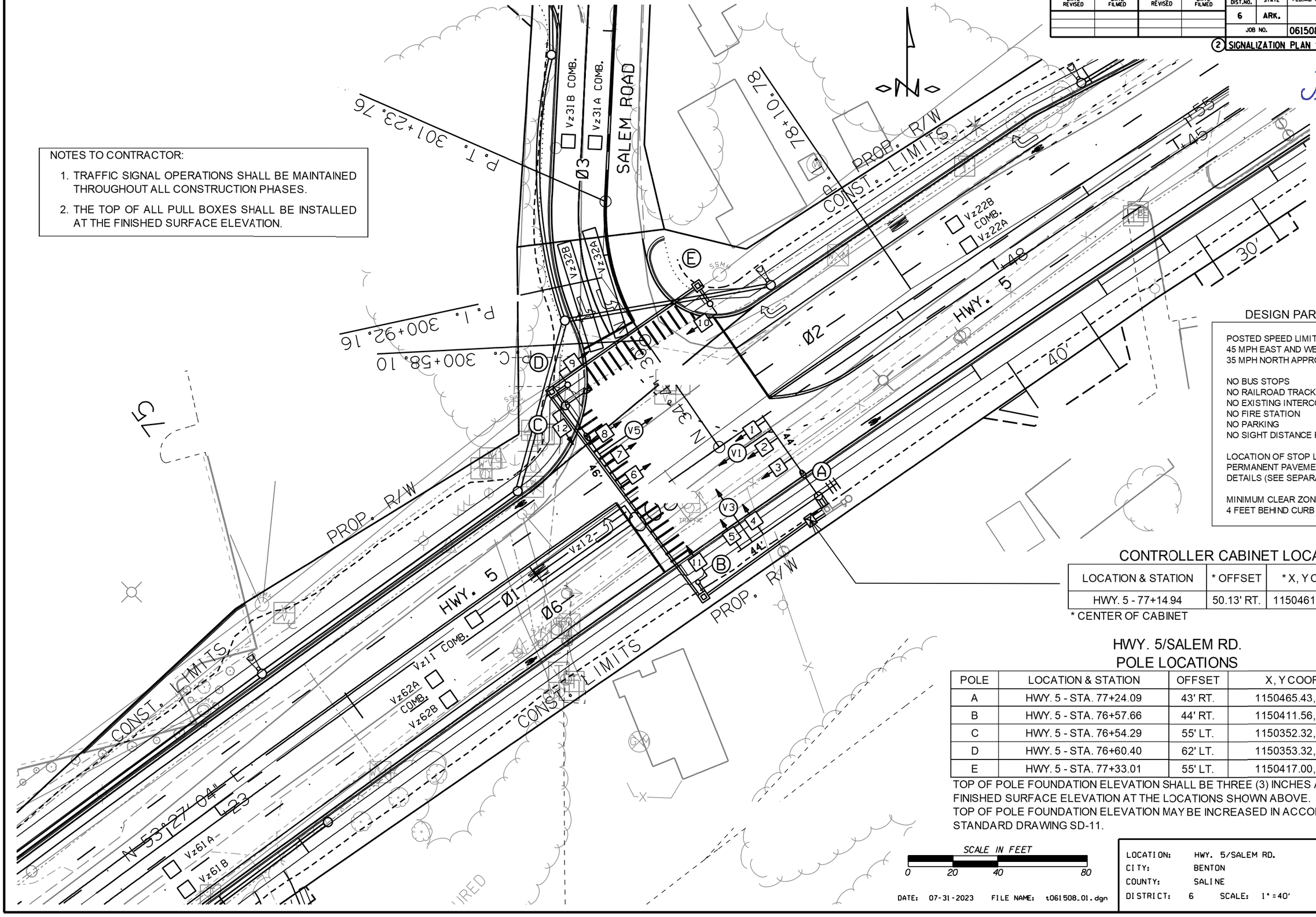
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	80	150

(2) SIGNALIZATION PLAN SHEET

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-26-2023

NOTES TO CONTRACTOR:

1. TRAFFIC SIGNAL OPERATIONS SHALL BE MAINTAINED THROUGHOUT ALL CONSTRUCTION PHASES.
2. THE TOP OF ALL PULL BOXES SHALL BE INSTALLED AT THE FINISHED SURFACE ELEVATION.



DESIGN PARAMETERS

POSTED SPEED LIMIT:
45 MPH EAST AND WEST APPROACH
35 MPH NORTH APPROACH

NO BUS STOPS
NO RAILROAD TRACKS
NO EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

LOCATION OF STOP LINES SHOWN ON PERMANENT PAVEMENT MARKING DETAILS (SEE SEPARATE SHEET).

MINIMUM CLEAR ZONE DISTANCE
4 FEET BEHIND CURB

CONTROLLER CABINET LOCATION

LOCATION & STATION	* OFFSET	* X, Y COORDINATES
HWY. 5 - 77+14.94	50.13' RT.	1150461,.85, 2019665.77

* CENTER OF CABINET

HWY. 5/SALEM RD. POLE LOCATIONS

POLE	LOCATION & STATION	OFFSET	X, Y COORDINATES
A	HWY. 5 - STA. 77+24.09	43' RT.	1150465.43, 2019676.63
B	HWY. 5 - STA. 76+57.66	44' RT.	1150411.56, 2019638.19
C	HWY. 5 - STA. 76+54.29	55' LT.	1150352.32, 2019717.02
D	HWY. 5 - STA. 76+60.40	62' LT.	1150353.32, 2019726.31
E	HWY. 5 - STA. 77+33.01	55' LT.	1150417.00, 2019762.56

TOP OF POLE FOUNDATION ELEVATION SHALL BE THREE (3) INCHES ABOVE THE FINISHED SURFACE ELEVATION AT THE LOCATIONS SHOWN ABOVE.
TOP OF POLE FOUNDATION ELEVATION MAY BE INCREASED IN ACCORDANCE WITH STANDARD DRAWING SD-11.

SCALE IN FEET
0 20 40 80

DATE: 07-31-2023 FILE NAME: t061508_01.dgn

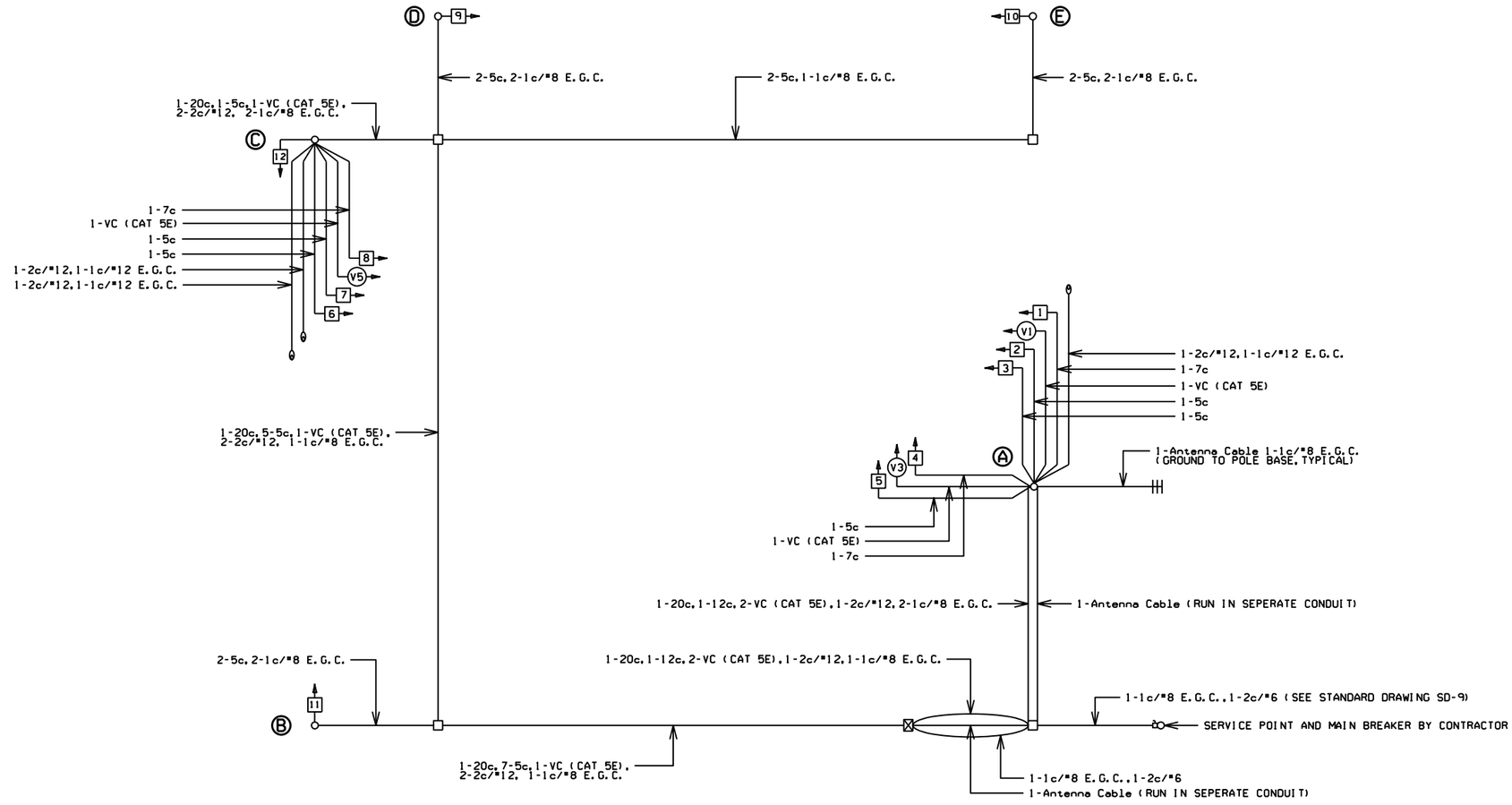
LOCATION: HWY. 5/SALEM RD.
CITY: BENTON
COUNTY: SALINE
DISTRICT: 6 SCALE: 1"=40' DRAWN BY: GWE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

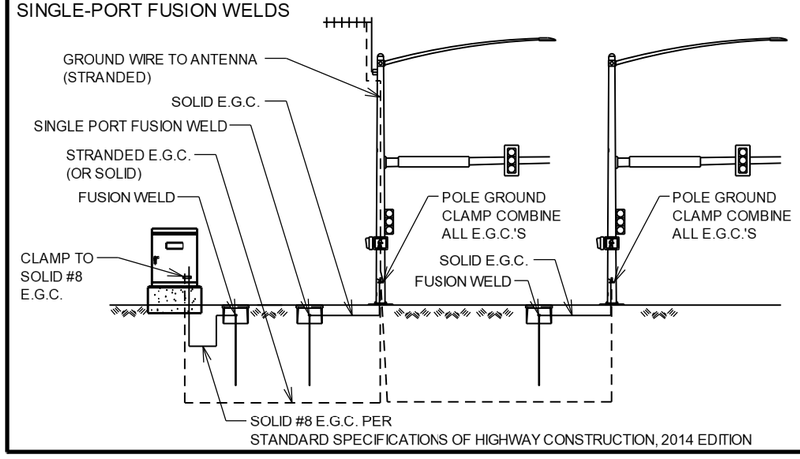
FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	81	150

(2) SIGNALIZATION PLAN SHEET

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-26-2023



GROUNDING ARRAY
SINGLE-PORT FUSION WELDS



WIRING DIAGRAM

NOTES TO CONTRACTOR:

1. ONE SEPARATE 1-5c IS RUN TO EACH POLE FOR THE PEDESTRIAN PUSH BUTTON.
2. ALL DETECTOR RACK CHANNELS, INCLUDING UNUSED, SHALL BE BROUGHT TO TERMINAL STRIP IN DETECTOR AREA OF CABINET.
3. THE LOCAL GOVERNMENT SHALL BE RESPONSIBLE FOR PROVIDING POWER TO THE SERVICE POINT.

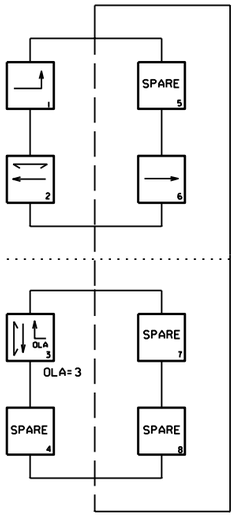
DATE: 07-31-2023 FILE NAME: t061508_01.dgn

LOCATION:	HWY. 5/SALEM RD.		
CITY:	BENTON		
COUNTY:	SALINE		
DISTRICT:	6	SCALE: N/A	DRAWN BY: GWE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	82	150

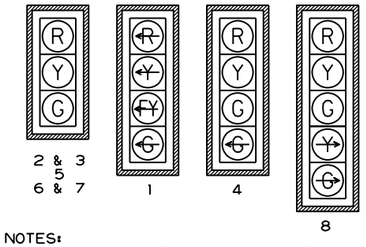
(2) SIGNALIZATION PLAN SHEET

PHASING DIAGRAM



SIGNAL FACES

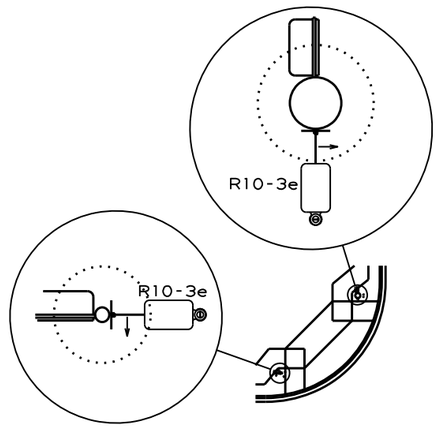
12" LENSES



ONE SECTION
(SOLID SYMBOL)

9 & 10
11 & 12

NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.
3. REFER TO SPECIAL PROVISIONS FOR DETAILS ON REQUIREMENTS FOR PEDESTRIAN SIGNAL HEADS.
4. ALL PEDESTRIAN SIGNAL HEADS CAN BE PLACED INTO OPERATION IF THERE ARE BOTH WHEELCHAIR RAMPS AND A CROSSWALK THAT MEETS A.D.A.S. STANDARD.



TYPICAL MOUNTING PUSH BUTTON
ON PEDESTRIAN POLE
AND SIGNAL POLE

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-26-2023

DETECTOR CHART

DETECTOR SYSTEM DESCRIPTION: JOB 061508											
HWY. 5 AND SALEM RD. DETECTOR ASSIGNMENTS				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
							LOCAL		MASTER SYSTEM DETECTOR NUMBERS		
DET. ID #	LOCATION DIRECTION	TPYE	DET. #	CAB. TRM. #	AMP CHN. #	CON. IMP. #	PHS	SYSTEM DET. #			
Vz11	EB LEFT TURN FAR	COMB.				V9	1	1		V1	23"
Vz12	EB LEFT TURN	LOCAL				V1	1			V1	23"
Vz21 A&B	WB ADVANCE	LOCAL				V2	2			V5	23"
Vz22 A&B	WB NEAR	COMB.				V10	2	2		V5	23"
Vz31 A&B	SB LEFT TURN FAR	COMB.				V11	3	3		V3	58"
Vz32 A&B	SB LEFT TURN	LOCAL				V3	3			V3	58"
Vz61 A&B	EB ADVANCE	LOCAL				V6	6			V1	23"
Vz62 A&B	EB NEAR	COMB.				V14	6	6		V1	23"
PB2 A&B	SALEM RD. N. LEG	PED.				P2	2				
PB3 A&B	HWY. 5 W. LEG	PED.				P3	3				
					SPARE						

CONTROLLER INPUT ABBREVIATIONS:
V = VEHICLE INPUT
D = SYSTEM OR AUXILIARY INPUT
P = PEDESTRIAN INPUT

NOTE: "AMP CHN =" REFERS TO THE RACK OUTPUT POSITION.
THIS IS WIRED TO CONTROLLER INPUT DETECTOR NUMBER WHICH IS PROGRAMMED TO ACTUATE THE DESIGNATED PHASE.
EXAMPLE: V9 = SYSTEM DETECTOR 1, V10 = SYSTEM DETECTOR 2

INTERVAL CHART

SIGNAL FACES	HWY. 5 AND SALEM RD. 1+6	CLR.	2+6	CLR.	3	CLR.	FLASH SEQUENCE
1	~~G~~	~~Y~~	~~FY~~	***	~~R~~	~~R~~	~~R~~
2 & 3	G	**	G	**	R	R	R
4	R	R	R	R	G / ~~G~~	Y	R
5	R	R	R	R	G	Y	R
6 & 7	R	R	G	Y	R	R	R
8	R	R	G	Y	R / ~~G~~	R / ~~Y~~	R
9 & 10	DW	DW	W	FDW	DW	DW	BLK
11 & 12	DW	DW	DW	DW	W	FDW	BLK

** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE
*** DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON NEXT PHASE

DATE: 07-31-2023 FILE NAME: t061508_01.dgn

LOCATION: HWY. 5/SALEM RD.
CITY: BENTON
COUNTY: SALINE
DISTRICT: 6 SCALE: N/A DRAWN BY: GWE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	83	150

(2) TRAFFIC SIGNAL QUANTITIES - ALCOA RD.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-26-2023

STAGE 2 AND 3 TRAFFIC SIGNAL QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP & 701	SYSTEM LOCAL CONTROLLER TS2-TYPE 2 (8 PHASES)	1	EACH
SP	LOCAL RADIO WITH ANTENNA	1	EACH
SP	ANTENNA CABLE (TYPE 6)	40	LIN. FT.
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	8	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY)	2	EACH
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	1575	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7C/14 A.W.G.)	757	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., E.G.C.)	90	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.)	50	LIN. FT.
709	GALVANIZED STEEL CONDUIT (2")	55	LIN. FT.
709	GALVANIZED STEEL CONDUIT (3")	70	LIN. FT.
710	NON-METALLIC CONDUIT (2")	35	LIN. FT.
SS & 711	CONCRETE PULL BOX (TYPE 2 HD)	1	EACH
SS & 713	SPAN WIRE ASSEMBLY	1	EACH
SP	SERVICE POINT ASSEMB_Y (2 CIRCUITS)	1	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	0.25	LUMP SUM
716	TREATED WOOD POLE (CLASS 2, 45')	6	EACH
SP & 733	VIDEO DETECTOR (IP)	4	EACH
SP & 733	VIDEO CABLE (EXTERIOR CAT 5E)	750	LIN. FT.
SP & 733	VIDEO MONITOR (CLR)	1	EACH
SP & 733	CENTRAL CONTROL UNIT (8 CHANNEL)	1	EACH

STAGE 2 & 3:
INSTALL ALL TEMPORARY TRAFFIC SIGNAL EQUIPMENT, INCLUDING THE PERMANENT SERVICE POINT ASSEMBLY (2 CIRCUITS) WITH ALL ASSOCIATED ITEMS AS SHOWN CN THE STAGE 2 AND 3 TEMPORARY SIGNAL PLANS. REMOVE ALL EXISTING TRAFFIC SIGNAL EQUIPMENT.
MAINTAIN THIS TRAFFIC SIGNAL CONFIGURATION AS SHOWN ON THE STAGE 2 AND 3 TRAFFIC SIGNAL PLANS.
(REFER TO MAINTENANCE OF TRAFFIC DETAILS).

STAGE 4 TRAFFIC SIGNAL QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	1	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY)	1	EACH
SP	RELOCATION OF TRAFFIC SIGNAL HEAD	5	EACH
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	133	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7C/14 A.W.G.)	237	LIN. FT.
SP	VIDEO DETECTOR ROTATION	2	EACH

STAGE 4:
INSTALL NEW SIGNAL HEADS 11 AND 12 AS SHOWN IN STAGE 4 TRAFFIC SIGNAL PLANS. RELOCATE TRAFFIC SIGNAL HEADS 2, 3, 5, 6, AND 7 USED IN STAGES 2 AND 3. ROTATE VIDEO DETECTORS V1 AND V5 AS SHOWN IN STAGE 4 TRAFFIC SIGNAL PLANS.
MAINTAIN THIS TRAFFIC SIGNAL CONFIGURATION AS SHOWN ON THE STAGE 4 TRAFFIC SIGNAL PLANS.
(REFER TO MAINTENANCE OF TRAFFIC DETAILS.)

PERMANENT TRAFFIC SIGNAL QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP & 701	SYSTEM LOCAL CONTROLLER TS2-TYPE 2 (8 PHASES)	1	EACH
SP	ANTENNA SUPPORT (SHOE BASE, 50' HT.)	1	EACH
SP	LOCAL RADIO WITH ANTENNA	1	EACH
SP	ANTENNA CABLE (TYPE 6)	90	LIN. FT.
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	9	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY)	3	EACH
SP & 707	CENTRAL CONTROL UNIT	1	EACH
SP & 707	POLE MOUNTED ASSEMBLY	8	EACH
SP & 707	INFRARED PROGRAMMING DEVICE	1	EACH
SP & 707	COUNTDOWN PEDESTRIAN SIGNAL HEAD, LED	8	EACH
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	1986	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7C/14 A.W.G.)	239	LIN. FT.
708	TRAFFIC SIGNAL CABLE (20C/14 A.W.G.)	520	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., E.G.C.)	824	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/12 A.W.G., E.G.C.)	224	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.)	43	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	742	LIN. FT.
709	GALVANIZED STEEL CONDUIT (2")	20	LIN. FT.
710	NON-METALLIC CONDUIT (2")	78	LIN. FT.
710	NON-METALLIC CONDUIT (3")	563	LIN. FT.
SS & 711	CONCRETE PULL BOX (TYPE 2 HD)	7	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (28')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (42')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (50')	2	EACH
SP	LED LUMINAIRE ASSEMBLY	4	EACH
SS & 715	TRAFFIC SIGNAL PEDESTAL POLE WITH FOUNDATION	2	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	0.25	LUMP SUM
SP	18" STREET NAME SIGN	4	EACH
SP & 733	VIDEO DETECTOR (IP)	2	EACH
SP & 733	HYBRID VIDEO/RADAR DETECTOR	2	EACH
SP & 733	VIDEO CABLE (EXTERIOR CAT 5E)	820	LIN. FT.
SP & 733	VIDEO MONITOR (CLR)	1	EACH
SP & 733	CENTRAL CONTROL UNIT (8 CHANNEL)	1	EACH

PERMANENT TRAFFIC SIGNAL:
THE TEMPORARY TRAFFIC SIGNAL INSTALLATION FOR STAGE 4 SHALL REMAIN IN OPERATION UNTIL THE PERMANENT TRAFFIC SIGNAL IS COMPLETED AND OPERATIONAL. INSTALL THE PERMANENT TRAFFIC WITH ALL ASSOCIATED EQUIPMENT, UTILIZE THE SERVICE POINT ASSEMBLY (2 CIRCUITS) INSTALLED IN STAGE 2, AND REMOVE THE TEMPORARY TRAFFIC SIGNAL AND COMPONENTS THAT WERE UED FOR STAGE 2, 3 AND 4 TEMPORARY TRAFFIC CONTROL.
(REFER TO PERMANENT TRAFFIC SIGNAL PLANS.)

LOCATION: HWY. 5/ALCOA RD.
CITY: BENTON
COUNTY: SALINE
DISTRICT: 6 SCALE: N/A DRAWN BY: GWE

DATE: 07-31-2023 FILE NAME: t061508_02.dgn

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	84	150

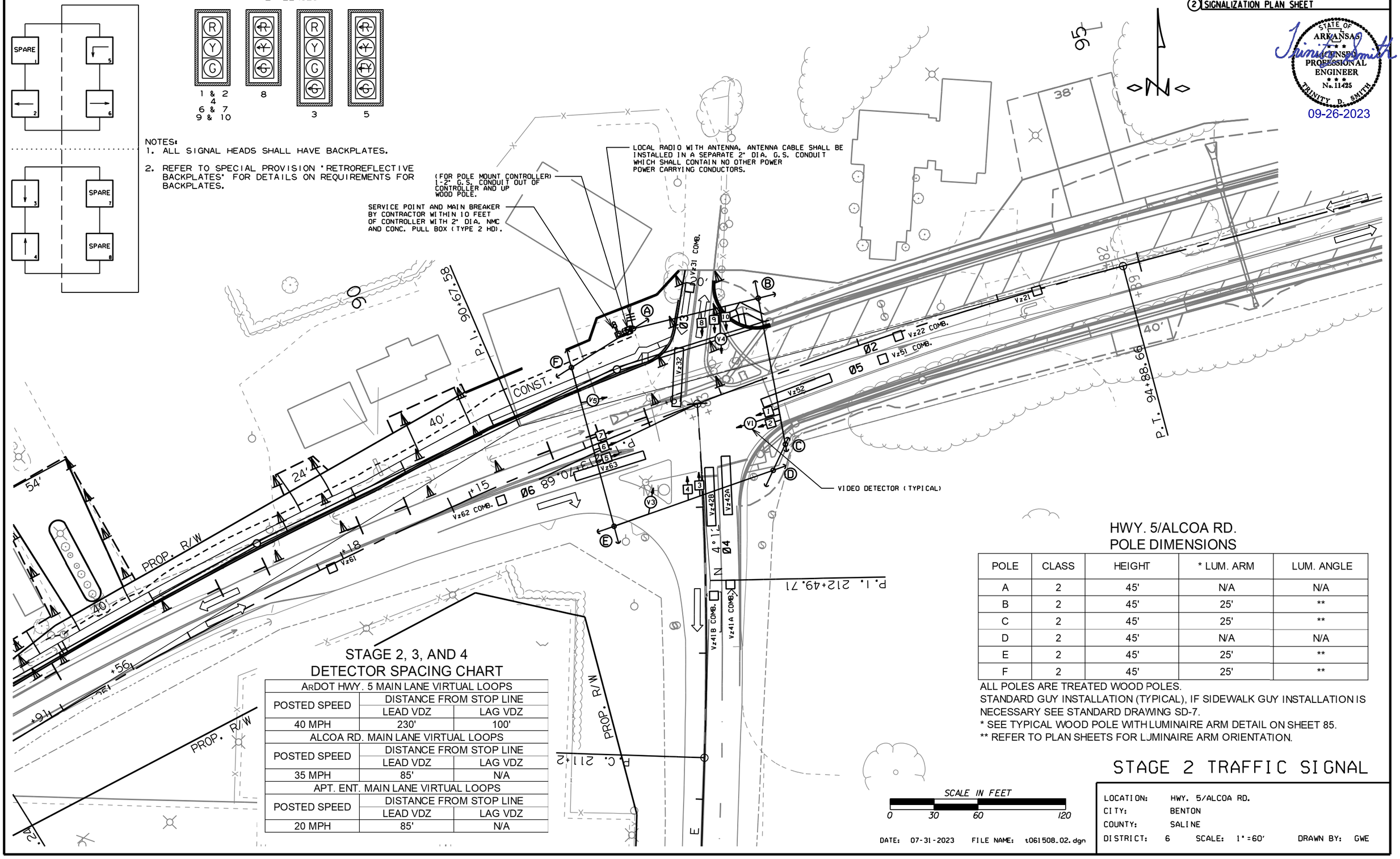
(2) SIGNALIZATION PLAN SHEET

STAGE 2 AND 3 PHASING DIAGRAM

STAGE 2 AND 3 SIGNAL FACES

12" LENSES

NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.



STAGE 2, 3, AND 4 DETECTOR SPACING CHART

ARDOT HWY. 5 MAIN LANE VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
40 MPH	230'	100'
ALCOA RD. MAIN LANE VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
35 MPH	85'	N/A
APT. ENT. MAIN LANE VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
20 MPH	85'	N/A

HWY. 5/ALCOA RD. POLE DIMENSIONS

POLE	CLASS	HEIGHT	* LUM. ARM	LUM. ANGLE
A	2	45'	N/A	N/A
B	2	45'	25'	**
C	2	45'	25'	**
D	2	45'	N/A	N/A
E	2	45'	25'	**
F	2	45'	25'	**

ALL POLES ARE TREATED WOOD POLES.
STANDARD GUY INSTALLATION (TYPICAL), IF SIDEWALK GUY INSTALLATION IS NECESSARY SEE STANDARD DRAWING SD-7.
* SEE TYPICAL WOOD POLE WITH LUMINAIRE ARM DETAIL ON SHEET 85.
** REFER TO PLAN SHEETS FOR LUMINAIRE ARM ORIENTATION.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-26-2023

SCALE IN FEET
0 30 60 120

DATE: 07-31-2023 FILE NAME: t061508_02.dgn

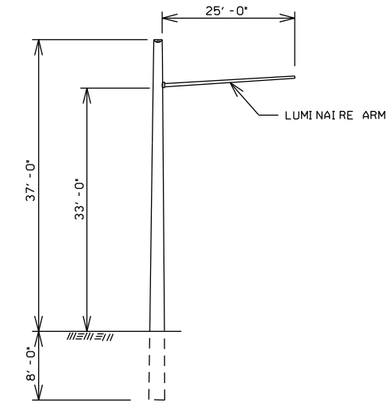
STAGE 2 TRAFFIC SIGNAL

LOCATION: HWY. 5/ALCOA RD.
CITY: BENTON
COUNTY: SALINE
DISTRICT: 6 SCALE: 1"=60' DRAWN BY: GWE

ZBORDER.CEL 8/30/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	85	150

(2) SIGNALIZATION PLAN SHEET



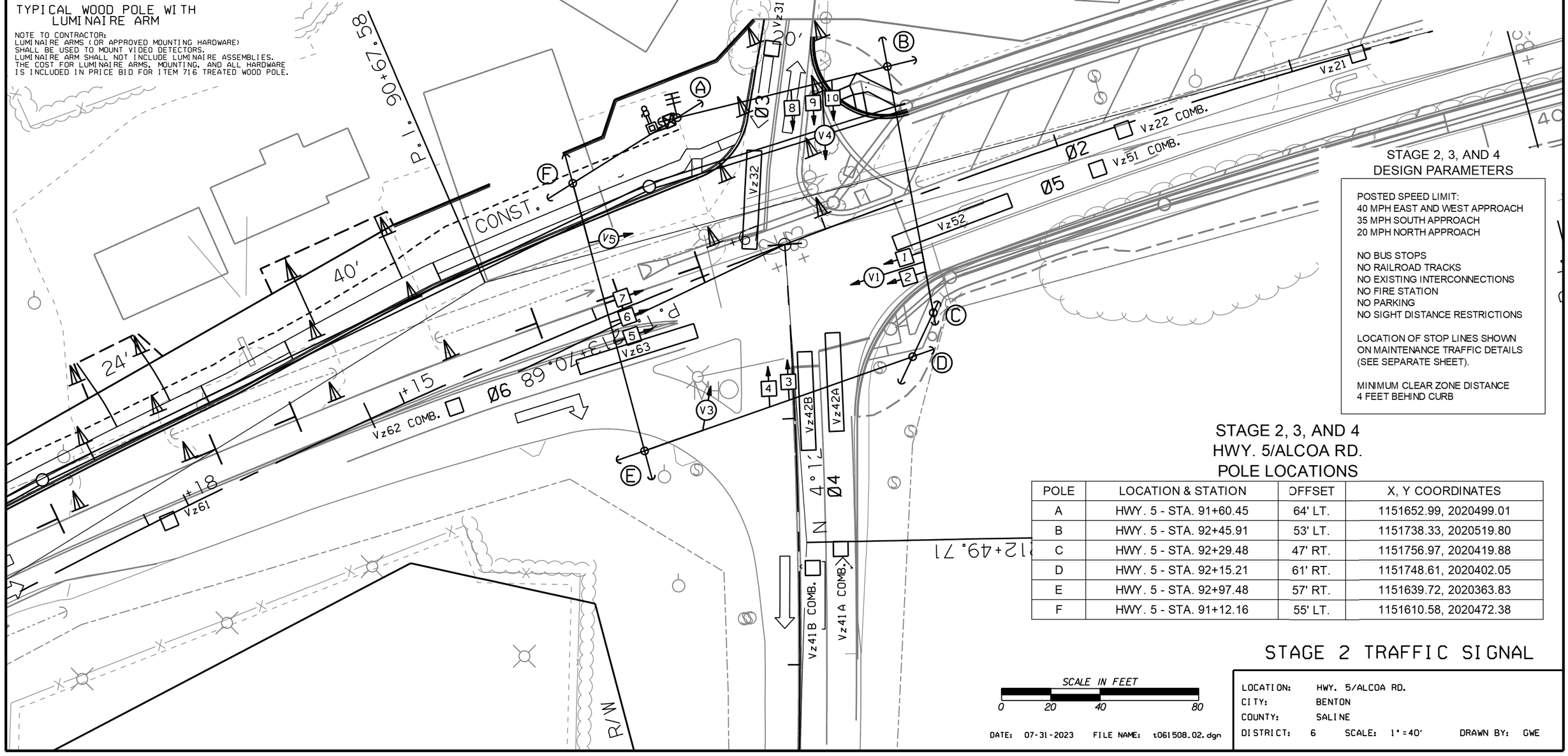
TYPICAL WOOD POLE WITH LUMINAIRE ARM

NOTE TO CONTRACTOR:
LUMINAIRE ARMS (OR APPROVED MOUNTING HARDWARE) SHALL BE USED TO MOUNT VIDEO DETECTORS. LUMINAIRE ARM SHALL NOT INCLUDE LUMINAIRE ASSEMBLIES. THE COST FOR LUMINAIRE ARMS, MOUNTING, AND ALL HARDWARE IS INCLUDED IN PRICE BID FOR ITEM 716 TREATED WOOD POLE.

NOTES TO CONTRACTOR:

1. TRAFFIC SIGNAL OPERATIONS SHALL BE MAINTAINED THROUGHOUT ALL CONSTRUCTION PHASES.
2. THE TOP OF ALL PULL BOXES SHALL BE INSTALLED AT THE FINISHED SURFACE ELEVATION.

STATE OF ARKANSAS
TRINITY D. SMITH
LICENSED PROFESSIONAL ENGINEER
No. 11425
09-26-2023



STAGE 2, 3, AND 4
DESIGN PARAMETERS

POSTED SPEED LIMIT:
40 MPH EAST AND WEST APPROACH
35 MPH SOUTH APPROACH
20 MPH NORTH APPROACH

NO BUS STOPS
NO RAILROAD TRACKS
NO EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

LOCATION OF STOP LINES SHOWN ON MAINTENANCE TRAFFIC DETAILS (SEE SEPARATE SHEET).

MINIMUM CLEAR ZONE DISTANCE
4 FEET BEHIND CURB

STAGE 2, 3, AND 4
HWY. 5/ALCOA RD.
POLE LOCATIONS

POLE	LOCATION & STATION	OFFSET	X, Y COORDINATES
A	HWY. 5 - STA. 91+60.45	64' LT.	1151652.99, 2020499.01
B	HWY. 5 - STA. 92+45.91	53' LT.	1151738.33, 2020519.80
C	HWY. 5 - STA. 92+29.48	47' RT.	1151756.97, 2020419.88
D	HWY. 5 - STA. 92+15.21	61' RT.	1151748.61, 2020402.05
E	HWY. 5 - STA. 91+97.48	57' RT.	1151639.72, 2020363.83
F	HWY. 5 - STA. 91+12.16	55' LT.	1151610.58, 2020472.38

STAGE 2 TRAFFIC SIGNAL

SCALE IN FEET
0 20 40 80

DATE: 07-31-2023 FILE NAME: t061508_02.dgn

LOCATION: HWY. 5/ALCOA RD.
CITY: BENTON
COUNTY: SALINE
DISTRICT: 6 SCALE: 1"=40' DRAWN BY: GWE

STAGE 2 AND 3 WIRING DIAGRAM

NOTES TO CONTRACTOR:

1. ALL DETECTOR RACK CHANNELS, INCLUDING UNUSED, SHALL BE BROUGHT TO TERMINAL STRIP IN DETECTOR AREA OF CABINET.
2. THE LOCAL GOVERNMENT SHALL BE RESPONSIBLE FOR PROVIDING POWER TO THE SERVICE POINT.

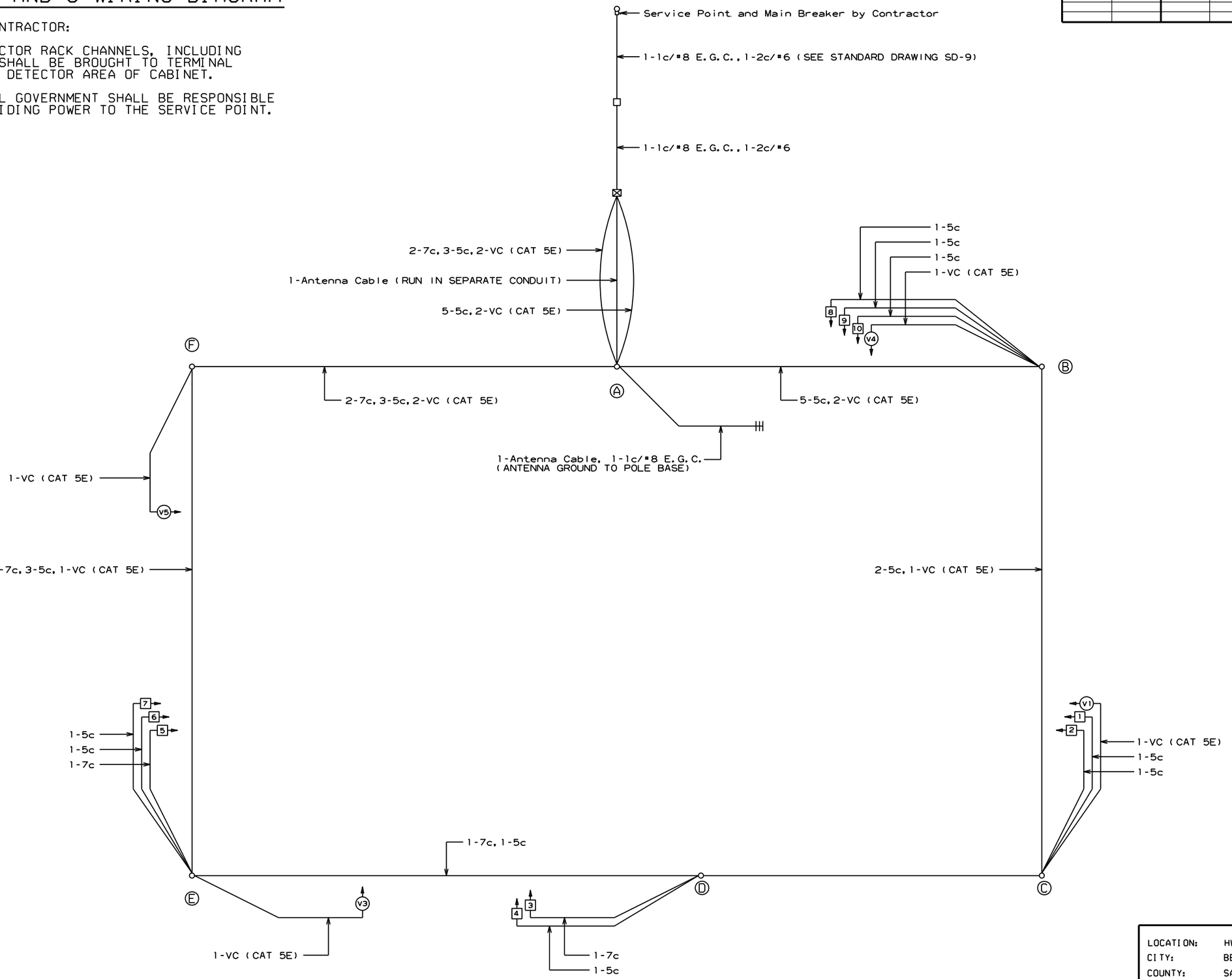
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	86	150

(2) SIGNALIZATION PLAN SHEET

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 11425 TRINITY D. SMITH

09-26-2023



DATE: 07-31-2023 FILE NAME: t061508_02.dgn

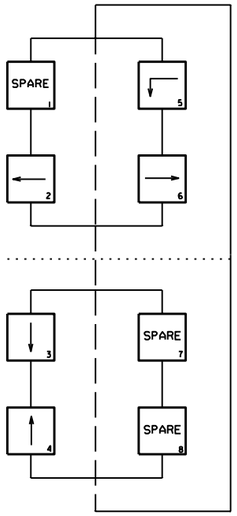
LOCATION: HWY. 5/ALCOA RD.
CITY: BENTON
COUNTY: SALINE
DISTRICT: 6 SCALE: N/A DRAWN BY: GWE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	87	150

(2) SIGNALIZATION PLAN SHEET

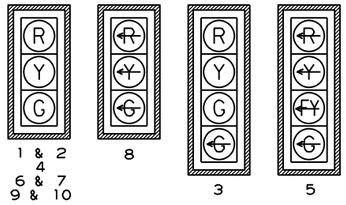
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-26-2023

STAGE 2 AND 3 PHASING DIAGRAM



STAGE 2 AND 3 SIGNAL FACES

12" LENSES



NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.

STAGE 2 AND 3 DETECTOR CHART

DETECTOR SYSTEM DESCRIPTION: JOB 061508											
HWY. 5 AND ALCOA RD. DETECTOR ASSIGNMENTS				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS LOCAL		MASTER SYSTEM DETECTOR NUMBERS	COMMENTS	TUBE LENGTHS
DET. ID #	LOCATION DIRECTION	TPYE	DET. #	CAB. TRM. #	AMP CHN. #	CON. IMP. #	PHS	SYSTEM DET. #			
Vz21	WB ADVANCE	LOCAL			5	V2	2			CAMERA V5	23"
Vz22	WB NEAR	COMB.			6	V10	2	2		CAMERA V5	23"
Vz31	SB ADVANCE	COMB.			9	V11	3	3		CAMERA V3	23"
Vz32	SB NEAR	LOCAL			10	V3	3			CAMERA V3	23"
Vz41A&B	NB ADVANCE	COMB.			13	V4	4			CAMERA V4	23"
Vz42A&B	NB NEAR	LOCAL			14	V12	4	4		CAMERA V4	23"
Vz51	WB LEFT TURN FAR	COMB.			7	V13	5	5		CAMERA V5	23"
Vz52	WB LEFT TURN	LOCAL			8	V5	5			CAMERA V5	23"
Vz61	EB ADVANCE	LOCAL			3	V6	6			CAMERA V1	23"
Vz62	EB INTERMEDIATE	COMB.			4	V14	6	6		CAMERA V1	23"
Vz63	EB NEAR	LOCAL			1	V1	6			CAMERA V1	23"
					SPARE 2, 11, 12, 15 & 16						

CONTROLLER INPUT ABBREVIATIONS:
V = VEHICLE INPUT
D = SYSTEM OR AUXILIARY INPUT
P = PEDESTRIAN INPUT

NOTE: "AMP CHN =" REFERS TO THE RACK OUTPUT POSITION.
THIS IS WIRED TO CONTROLLER INPUT DETECTOR NUMBER WHICH IS PROGRAMMED TO ACTUATE THE DESIGNATED PHASE.
EXAMPLE: V9 = SYSTEM DETECTOR 1, V10 = SYSTEM DETECTOR 2

STAGE 2 AND 3 INTERVAL CHART

SIGNAL FACES	HIGHWAY 5 AND ALCOA ROAD. 2+5	CLR.	2+6	CLR.	3	CLR.	4	CLR.	FLASH SEQUENCE
1 & 2	R	R	G	Y	R	R	R	R	R
3	R	R	R	R	G ~~G~~	Y	R	R	R
4	R	R	R	R	G	Y	R	R	R
5	~~G~~	~~Y~~	~~FY~~	***	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~
6 & 7	G	**	G	**	R	R	R	R	R
8	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	~~Y~~	~~R~~
9 & 10	R	R	R	R	R	R	G	Y	R

** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE
*** DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON NEXT PHASE

DATE: 07-31-2023 FILE NAME: t061508_02.dgn

LOCATION: HWY. 5/ALCOA RD.
CITY: BENTON
COUNTY: SALINE
DISTRICT: 6 SCALE: N/A DRAWN BY: GWE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	88	150

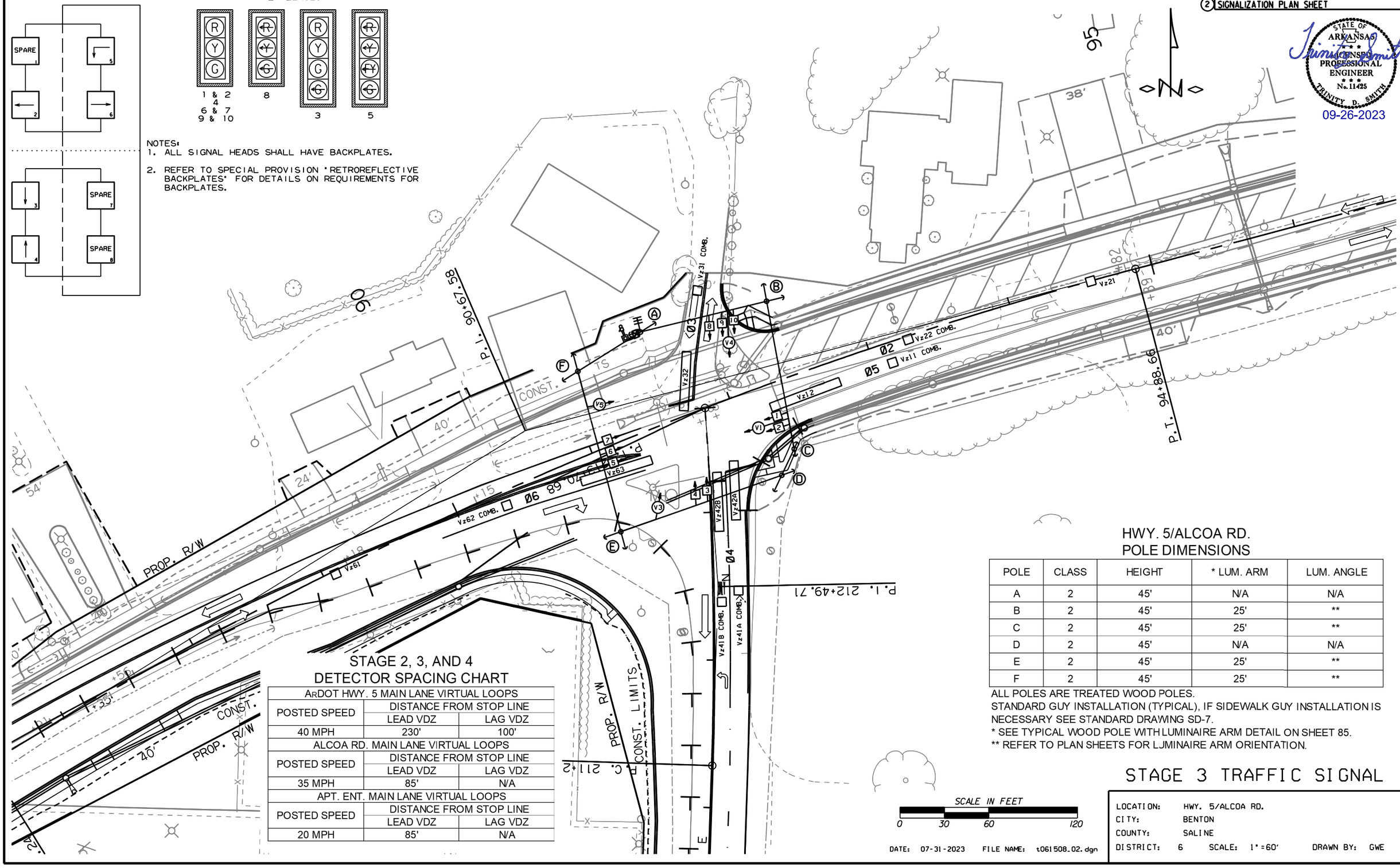
(2) SIGNALIZATION PLAN SHEET

STAGE 2 AND 3 PHASING DIAGRAM

STAGE 2 AND 3 SIGNAL FACES

12" LENSES

NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.



STAGE 2, 3, AND 4 DETECTOR SPACING CHART

ARDOT HWY. 5 MAIN LANE VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
40 MPH	230'	100'
ALCOA RD. MAIN LANE VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
35 MPH	85'	N/A
APT. ENT. MAIN LANE VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
20 MPH	85'	N/A

HWY. 5/ALCOA RD. POLE DIMENSIONS

POLE	CLASS	HEIGHT	* LUM. ARM	LUM. ANGLE
A	2	45'	N/A	N/A
B	2	45'	25'	**
C	2	45'	25'	**
D	2	45'	N/A	N/A
E	2	45'	25'	**
F	2	45'	25'	**

ALL POLES ARE TREATED WOOD POLES.
STANDARD GUY INSTALLATION (TYPICAL), IF SIDEWALK GUY INSTALLATION IS NECESSARY SEE STANDARD DRAWING SD-7.
* SEE TYPICAL WOOD POLE WITH LUMINAIRE ARM DETAIL ON SHEET 85.
** REFER TO PLAN SHEETS FOR LUMINAIRE ARM ORIENTATION.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-26-2023

SCALE IN FEET
0 30 60 120

DATE: 07-31-2023 FILE NAME: t061508_02.dgn

STAGE 3 TRAFFIC SIGNAL

LOCATION: HWY. 5/ALCOA RD.
CITY: BENTON
COUNTY: SALINE
DISTRICT: 6 SCALE: 1"=60' DRAWN BY: GWE

ZBORDER.CEL 8/30/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	89	150

(2) SIGNALIZATION PLAN SHEET

STAGE 2, 3, AND 4
DESIGN PARAMETERS

POSTED SPEED LIMIT:
40 MPH EAST AND WEST APPROACH
35 MPH SOUTH APPROACH
20 MPH NORTH APPROACH

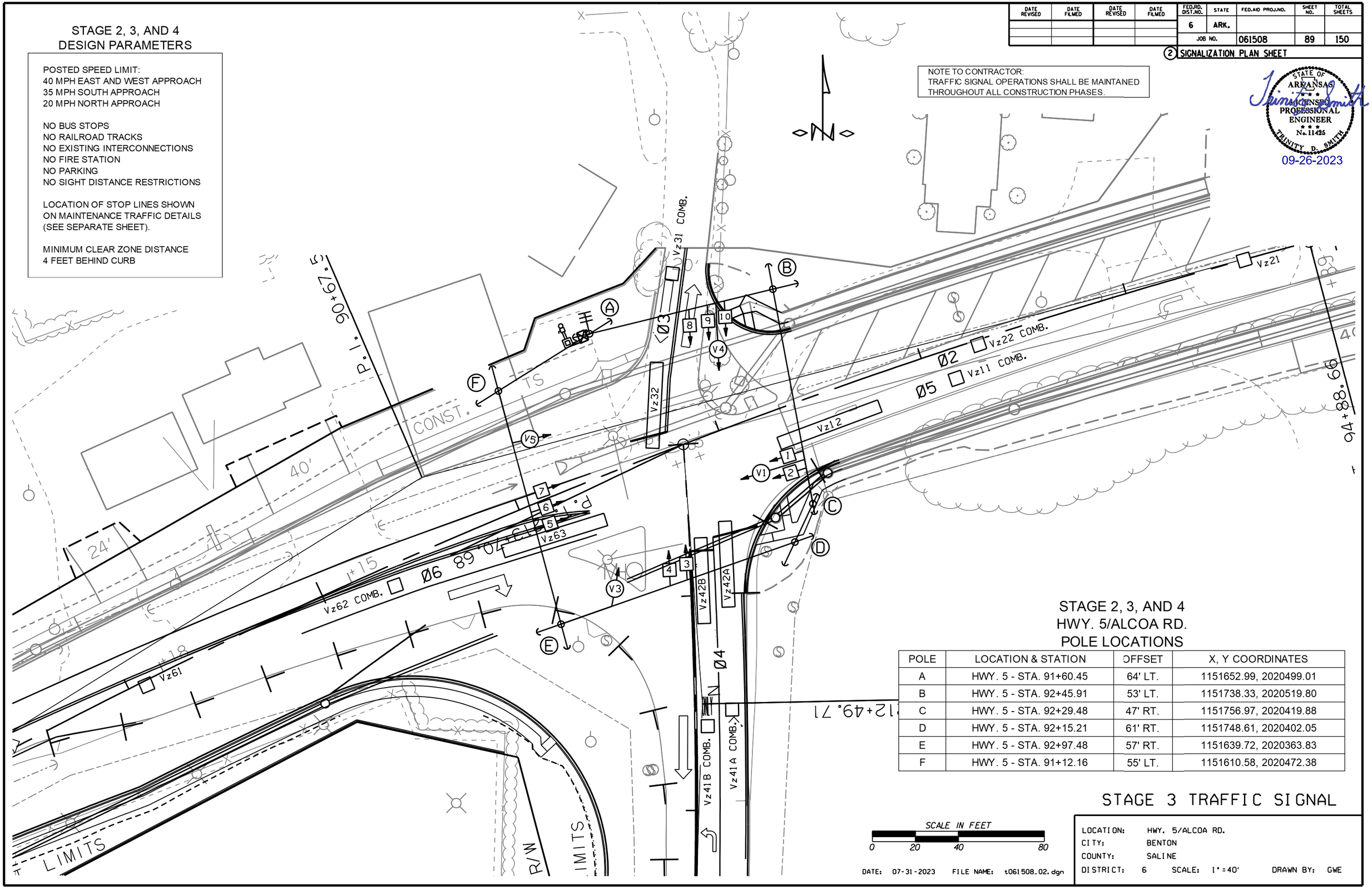
NO BUS STOPS
NO RAILROAD TRACKS
NO EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

LOCATION OF STOP LINES SHOWN ON MAINTENANCE TRAFFIC DETAILS (SEE SEPARATE SHEET).

MINIMUM CLEAR ZONE DISTANCE
4 FEET BEHIND CURB

NOTE TO CONTRACTOR:
TRAFFIC SIGNAL OPERATIONS SHALL BE MAINTANED THROUGHOUT ALL CONSTRUCTION PHASES.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-26-2023



STAGE 2, 3, AND 4
HWY. 5/ALCOA RD.
POLE LOCATIONS

POLE	LOCATION & STATION	OFFSET	X, Y COORDINATES
A	HWY. 5 - STA. 91+60.45	64' LT.	1151652.99, 2020499.01
B	HWY. 5 - STA. 92+45.91	53' LT.	1151738.33, 2020519.80
C	HWY. 5 - STA. 92+29.48	47' RT.	1151756.97, 2020419.88
D	HWY. 5 - STA. 92+15.21	61' RT.	1151748.61, 2020402.05
E	HWY. 5 - STA. 92+97.48	57' RT.	1151639.72, 2020363.83
F	HWY. 5 - STA. 91+12.16	55' LT.	1151610.58, 2020472.38

STAGE 3 TRAFFIC SIGNAL

SCALE IN FEET
0 20 40 80

DATE: 07-31-2023 FILE NAME: t061508_02.dgn

LOCATION: HWY. 5/ALCOA RD.
CITY: BENTON
COUNTY: SALINE
DISTRICT: 6 SCALE: 1"=40' DRAWN BY: GWE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

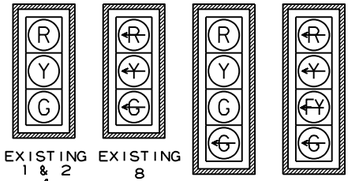
FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	90	150

(2) SIGNALIZATION PLAN SHEET

STAGE 4 PHASING DIAGRAM

STAGE 4 SIGNAL FACES

12" LENSES

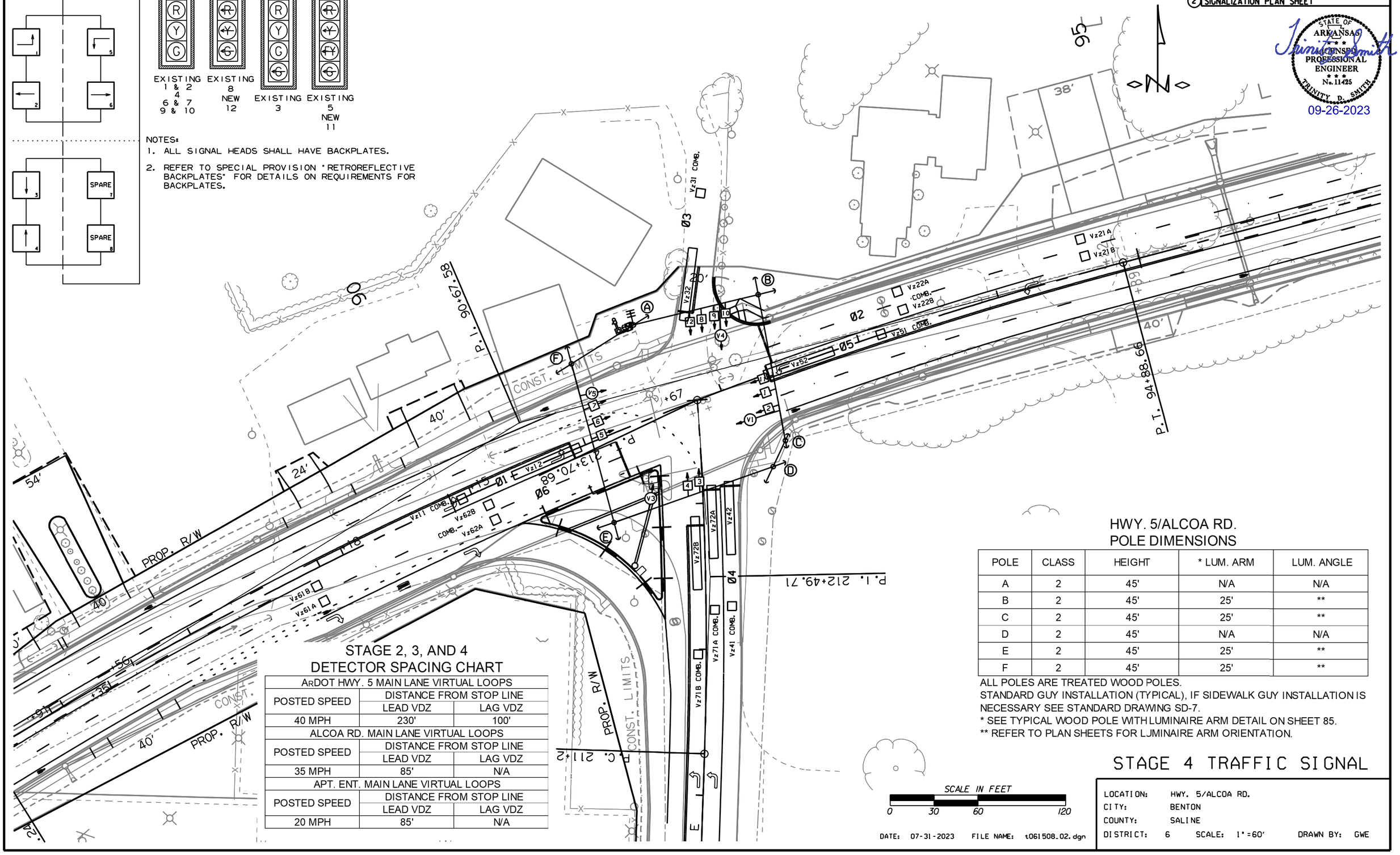


EXISTING 1 & 2 4 6 & 7 9 & 10 | EXISTING 8 NEW 12 | EXISTING 3 | EXISTING 5 NEW 11

NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 11425 TRINITY D. SMITH

09-26-2023



STAGE 2, 3, AND 4 DETECTOR SPACING CHART

ARDOT HWY. 5 MAIN LANE VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
40 MPH	230'	100'
ALCOA RD. MAIN LANE VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
35 MPH	85'	N/A
APT. ENT. MAIN LANE VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
20 MPH	85'	N/A

HWY. 5/ALCOA RD. POLE DIMENSIONS

POLE	CLASS	HEIGHT	* LUM. ARM	LUM. ANGLE
A	2	45'	N/A	N/A
B	2	45'	25'	**
C	2	45'	25'	**
D	2	45'	N/A	N/A
E	2	45'	25'	**
F	2	45'	25'	**

ALL POLES ARE TREATED WOOD POLES.
STANDARD GUY INSTALLATION (TYPICAL), IF SIDEWALK GUY INSTALLATION IS NECESSARY SEE STANDARD DRAWING SD-7.
* SEE TYPICAL WOOD POLE WITH LUMINAIRE ARM DETAIL ON SHEET 85.
** REFER TO PLAN SHEETS FOR LUMINAIRE ARM ORIENTATION.

SCALE IN FEET
0 30 60 120

DATE: 07-31-2023 FILE NAME: t061508_02.dgn

STAGE 4 TRAFFIC SIGNAL

LOCATION: HWY. 5/ALCOA RD.
CITY: BENTON
COUNTY: SALINE
DISTRICT: 6 SCALE: 1"=60' DRAWN BY: GWE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	91	150

(2) SIGNALIZATION PLAN SHEET

STAGE 2, 3, AND 4
DESIGN PARAMETERS

POSTED SPEED LIMIT:
40 MPH EAST AND WEST APPROACH
35 MPH SOUTH APPROACH
20 MPH NORTH APPROACH

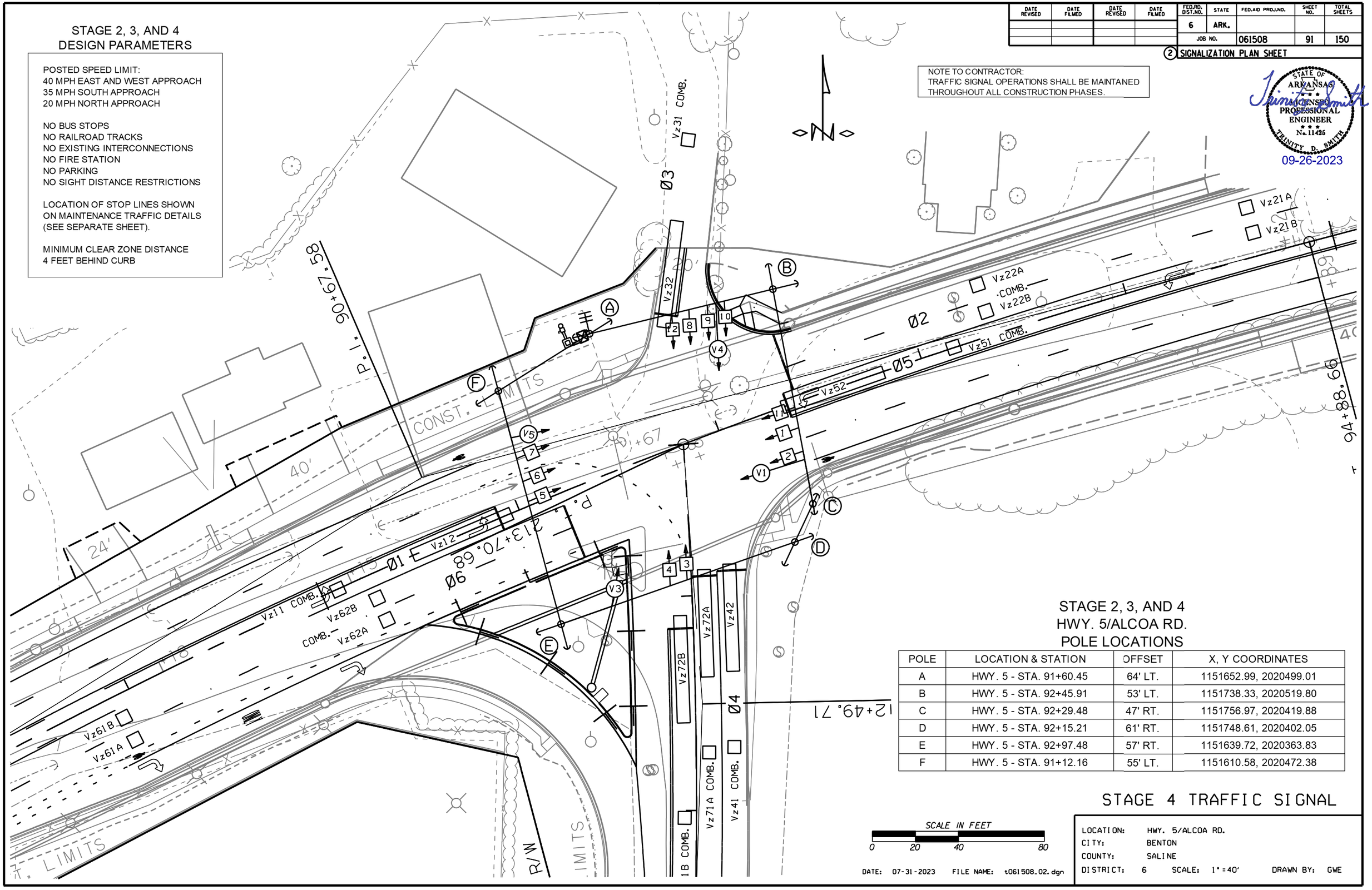
NO BUS STOPS
NO RAILROAD TRACKS
NO EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

LOCATION OF STOP LINES SHOWN ON MAINTENANCE TRAFFIC DETAILS (SEE SEPARATE SHEET).

MINIMUM CLEAR ZONE DISTANCE
4 FEET BEHIND CURB

NOTE TO CONTRACTOR:
TRAFFIC SIGNAL OPERATIONS SHALL BE MAINTANED THROUGHOUT ALL CONSTRUCTION PHASES.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-26-2023



STAGE 2, 3, AND 4
HWY. 5/ALCOA RD.
POLE LOCATIONS

POLE	LOCATION & STATION	OFFSET	X, Y COORDINATES
A	HWY. 5 - STA. 91+60.45	64' LT.	1151652.99, 2020499.01
B	HWY. 5 - STA. 92+45.91	53' LT.	1151738.33, 2020519.80
C	HWY. 5 - STA. 92+29.48	47' RT.	1151756.97, 2020419.88
D	HWY. 5 - STA. 92+15.21	61' RT.	1151748.61, 2020402.05
E	HWY. 5 - STA. 91+97.48	57' RT.	1151639.72, 2020363.83
F	HWY. 5 - STA. 91+12.16	55' LT.	1151610.58, 2020472.38

STAGE 4 TRAFFIC SIGNAL

SCALE IN FEET
0 20 40 80

DATE: 07-31-2023 FILE NAME: t061508_02.dgn

LOCATION: HWY. 5/ALCOA RD.
CITY: BENTON
COUNTY: SALINE
DISTRICT: 6 SCALE: 1"=40' DRAWN BY: GWE

STAGE 4 WIRING DIAGRAM

NOTES TO CONTRACTOR:

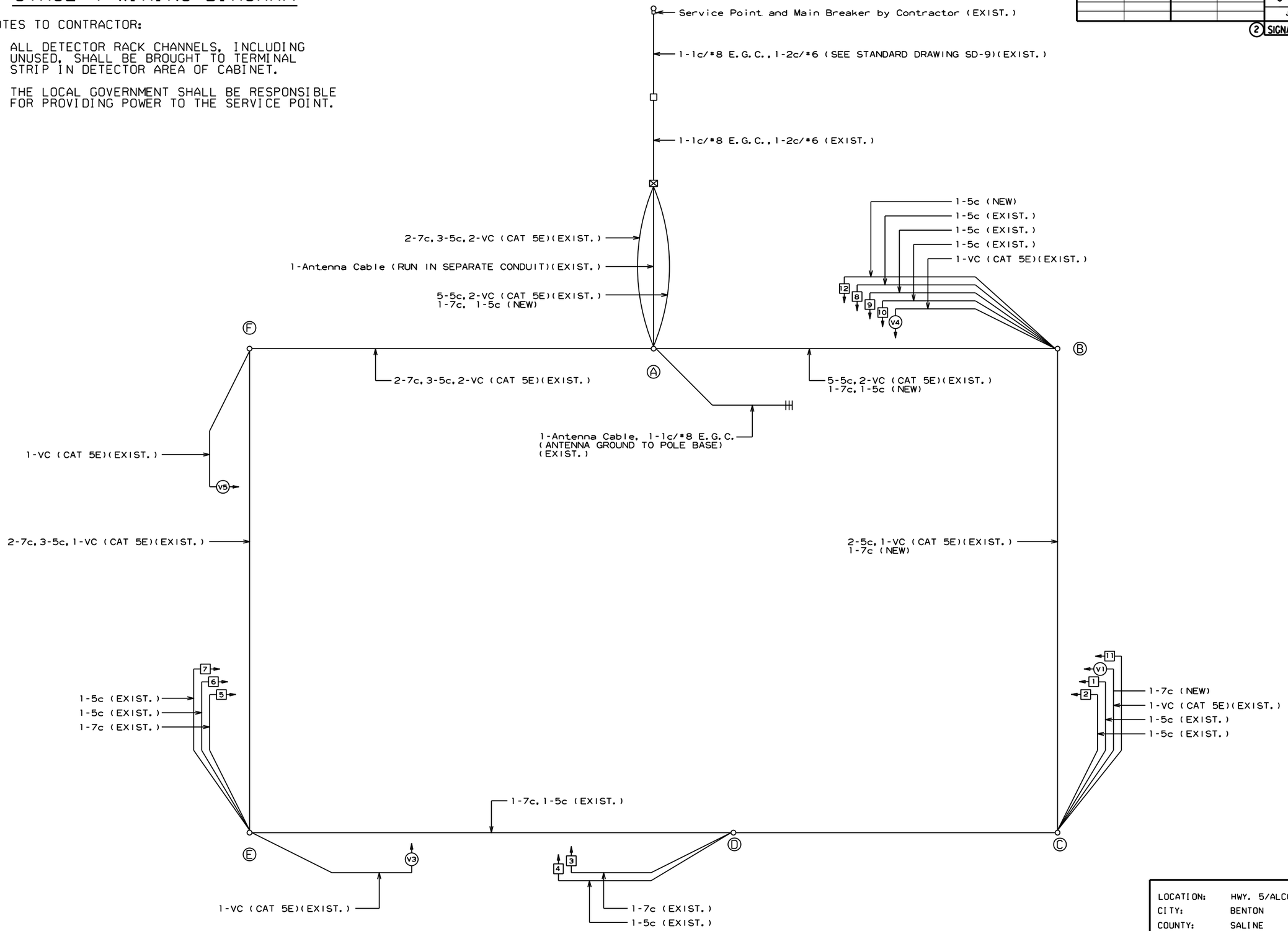
1. ALL DETECTOR RACK CHANNELS, INCLUDING UNUSED, SHALL BE BROUGHT TO TERMINAL STRIP IN DETECTOR AREA OF CABINET.
2. THE LOCAL GOVERNMENT SHALL BE RESPONSIBLE FOR PROVIDING POWER TO THE SERVICE POINT.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	92	150

(2) SIGNALIZATION PLAN SHEET

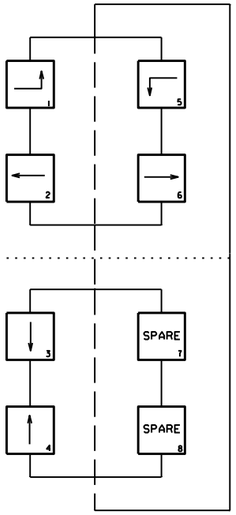
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-26-2023



DATE: 07-31-2023 FILE NAME: t061508_02.dgn

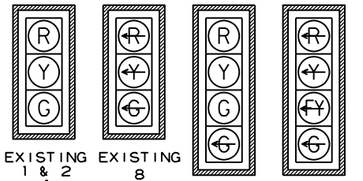
LOCATION: HWY. 5/ALCOA RD.
CITY: BENTON
COUNTY: SALINE
DISTRICT: 6 SCALE: N/A DRAWN BY: GWE

STAGE 4 PHASING DIAGRAM



STAGE 4 SIGNAL FACES

12" LENSES



EXISTING 1 & 2 4 6 & 7 9 & 10 | EXISTING 8 NEW 12 | EXISTING 3 | EXISTING 5 NEW 11

NOTES:

1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	93	150

(2) SIGNALIZATION PLAN SHEET

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 11425 TRINITY D. SMITH

09-26-2023

STAGE 4 DETECTOR CHART

DETECTOR SYSTEM DESCRIPTION: JOB 061508											
HWY. 5 AND ALCOA RD. DETECTOR ASSIGNMENTS				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
							LOCAL		MASTER SYSTEM DETECTOR NUMBERS		
DET. ID #	LOCATION DIRECTION	TPYE	DET. #	CAB. TRM. #	AMP CHN. #	CON. IMP. #	PHS	SYSTEM DET. #			
Vz11	EB LEFT TURN FAR	COMB.			1	V9	1	1		CAMERA V1	23"
Vz12	EB LEFT TURN	LOCAL			2	V1	1			CAMERA V1	23"
Vz21 A&B	WB ADVANCE	LOCAL			5	V2	2			CAMERA V5	23"
Vz22 A&B	WB NEAR	COMB.			6	V10	2	2		CAMERA V5	23"
Vz31	SB ADVANCE	COMB.			9	V11	3	3		CAMERA V3	23"
Vz32	SB NEAR	LOCAL			10	V3	3			CAMERA V3	23"
Vz41	NB ADVANCE	COMB.			13	V4	4			CAMERA V4	23"
Vz42	NB NEAR	LOCAL			14	V12	4	4		CAMERA V4	23"
Vz51	WB LEFT TURN FAR	COMB.			7	V13	5	5		CAMERA V5	23"
Vz52	WB LEFT TURN	LOCAL			8	V5	5			CAMERA V5	23"
Vz61 A&B	EB ADVANCE	LOCAL			3	V6	6			CAMERA V1	23"
Vz62 A&B	EB NEAR	COMB.			4	V14	6	6		CAMERA V1	23"
Vz71A&B	NB LEFT TURN FAR	COMB.			15	V15	7	4		CAMERA V4	23"
Vz72A&B	NB LEFT TURN	LOCAL			16	V7	7			CAMERA V4	23"
					SPARE 11 & 12						

CONTROLLER INPUT ABBREVIATIONS:
V = VEHICLE INPUT
D = SYSTEM OR AUXILIARY INPUT
P = PEDESTRIAN INPUT

NOTE: "AMP CHN =" REFERS TO THE RACK OUTPUT POSITION.
THIS IS WIRED TO CONTROLLER INPUT DETECTOR NUMBER WHICH IS PROGRAMMED TO ACTUATE THE DESIGNATED PHASE.
EXAMPLE: V9 = SYSTEM DETECTOR 1, V10 = SYSTEM DETECTOR 2

STAGE 4 INTERVAL CHART

SIGNAL FACES	HIGHWAY 5 AND ALCOA ROAD.												FLASH SEQUENCE
	1+5	CLR.	1+6	CLR.	2+5	CLR.	2+6	CLR.	3	CLR.	4	CLR.	
11	~~← G~~	*	~~← G~~	*	~~← FY~~	***	~~← FY~~	***	~~← R~~	~~R~~	~~← R~~	~~← R~~	~~← R~~
1 & 2	R	R	G	**	R	R	G	**	R	R	R	R	R
3	R	R	R	R	R	R	R	R	G / ~~← G~~	Y	R	R	R
4	R	R	R	R	R	R	R	R	G	Y	R	R	R
5	~~← G~~	*	~~← FY~~	***	~~← G~~	*	~~← FY~~	***	~~← R~~	~~R~~	~~← R~~	~~← R~~	~~← R~~
6 & 7	R	R	R	R	G	**	G	**	R	R	R	R	R
8 & 12	~~← R~~	~~← R~~	~~← R~~	~~← R~~	~~← R~~	~~← R~~	~~← R~~	~~← R~~	~~← R~~	~~R~~	~~← G~~	~~← Y~~	~~← R~~
9 & 10	R	R	R	R	R	R	R	R	R	R	G	Y	R

* DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE
** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE
*** DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON NEXT PHASE

DATE: 07-31-2023 FILE NAME: t061508_02.dgn

LOCATION: HWY. 5/ALCOA RD.
CITY: BENTON
COUNTY: SALINE
DISTRICT: 6 SCALE: N/A DRAWN BY: GWE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	94	150

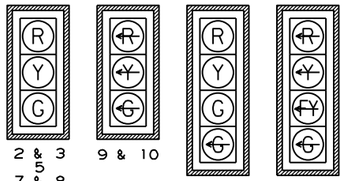
(2) SIGNALIZATION PLAN SHEET

STATE OF ARKANSAS
TRINITY D. SMITH
LICENSED PROFESSIONAL ENGINEER
No. 11425
09-26-2023

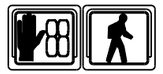
PHASING DIAGRAM

SIGNAL FACES

12" LENSES

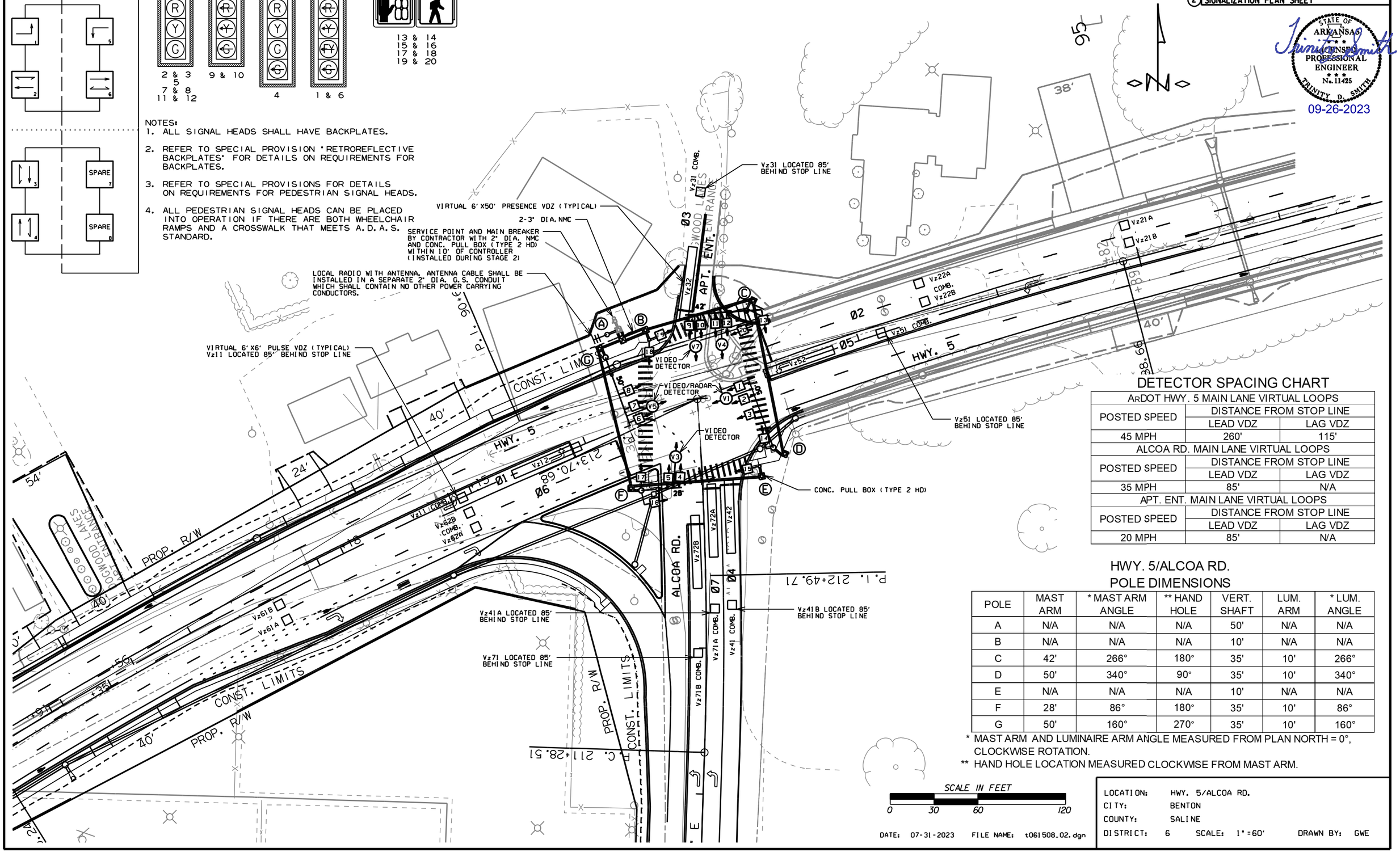


ONE SECTION (SOLID SYMBOL)



13 & 14
15 & 16
17 & 18
19 & 20

NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.
3. REFER TO SPECIAL PROVISIONS FOR DETAILS ON REQUIREMENTS FOR PEDESTRIAN SIGNAL HEADS.
4. ALL PEDESTRIAN SIGNAL HEADS CAN BE PLACED INTO OPERATION IF THERE ARE BOTH WHEELCHAIR RAMPS AND A CROSSWALK THAT MEETS A.D.A.S. STANDARD.



DETECTOR SPACING CHART

ARDOT HWY. 5 MAIN LANE VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
45 MPH	260'	115'
ALCOA RD. MAIN LANE VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
35 MPH	85'	N/A
APT. ENT. MAIN LANE VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
20 MPH	85'	N/A

HWY. 5/ALCOA RD. POLE DIMENSIONS

POLE	MAST ARM	* MAST ARM ANGLE	** HAND HOLE	VERT. SHAFT	LUM. ARM	* LUM. ANGLE
A	N/A	N/A	N/A	50'	N/A	N/A
B	N/A	N/A	N/A	10'	N/A	N/A
C	42'	266°	180°	35'	10'	266°
D	50'	340°	90°	35'	10'	340°
E	N/A	N/A	N/A	10'	N/A	N/A
F	28'	86°	180°	35'	10'	86°
G	50'	160°	270°	35'	10'	160°

* MAST ARM AND LUMINAIRE ARM ANGLE MEASURED FROM PLAN NORTH = 0°, CLOCKWISE ROTATION.
** HAND HOLE LOCATION MEASURED CLOCKWISE FROM MAST ARM.

SCALE IN FEET
0 30 60 120

DATE: 07-31-2023 FILE NAME: t061508_02.dgn

LOCATION: HWY. 5/ALCOA RD.
CITY: BENTON
COUNTY: SALINE
DISTRICT: 6 SCALE: 1"=60' DRAWN BY: GWE

ZBDRDER.CEL 8/30/2010

NOTES TO CONTRACTOR:

1. TRAFFIC SIGNAL OPERATIONS SHALL BE MAINTAINED THROUGHOUT ALL CONSTRUCTION PHASES.
2. THE TOP OF ALL PULL BOXES SHALL BE INSTALLED AT THE FINISHED SURFACE ELEVATION.

CONTROLLER CABINET LOCATION

LOCATION & STATION	* OFFSET	* X, Y COORDINATES
HWY. 5 - STA. 91+49.76	56.56' LT.	1151645.48, 2020488.29

* CENTER OF CABINET

DESIGN PARAMETERS

POSTED SPEED LIMIT:
45 MPH EAST AND WEST APPROACH
35 MPH SOUTH APPROACH
20 MPH NORTH APPROACH

NO BUS STOPS
NO RAILROAD TRACKS
NO EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

LOCATION OF STOP LINES SHOWN ON PERMANENT PAVEMENT MARKING DETAILS (SEE SEPARATE SHEET).

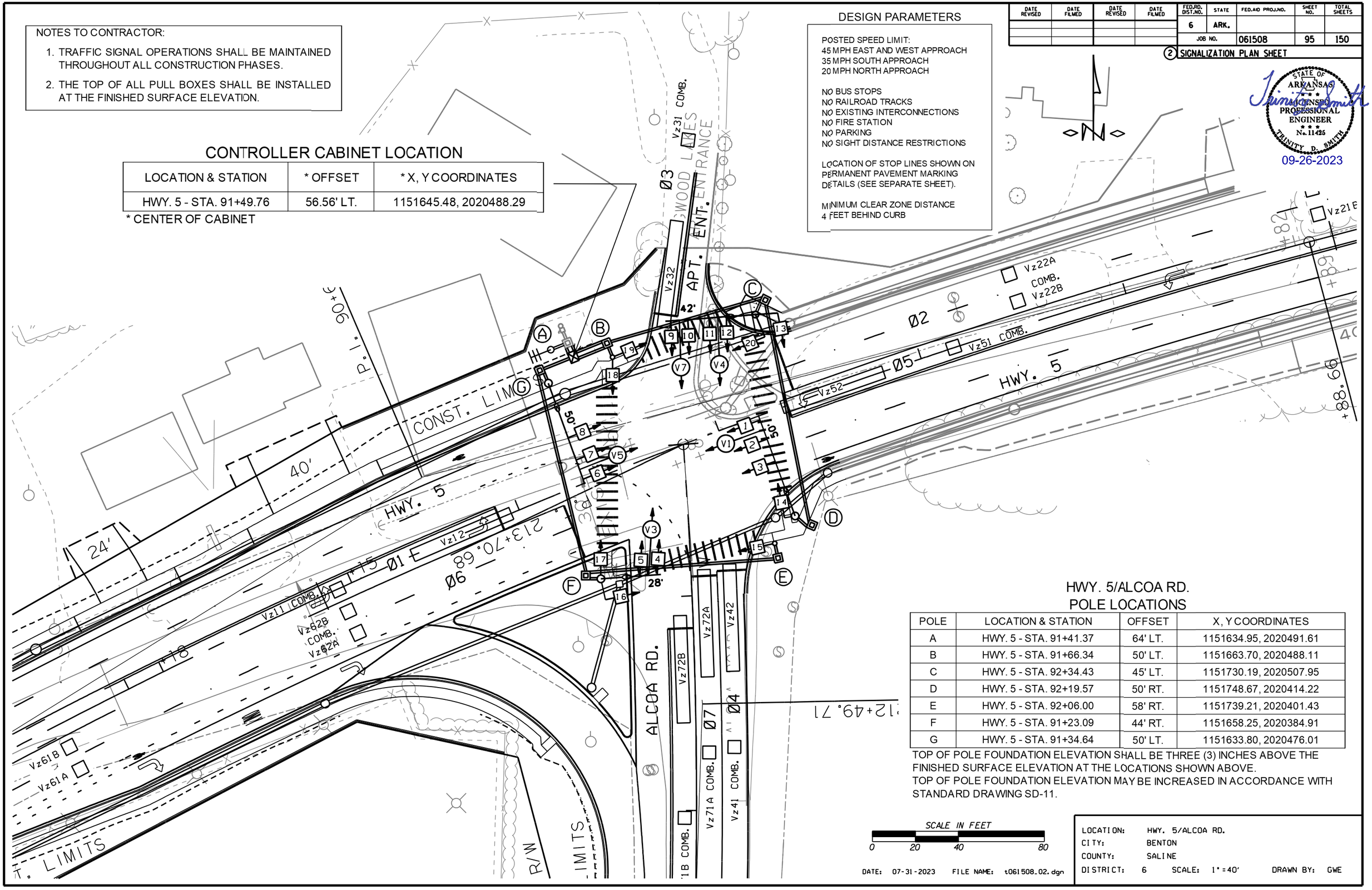
MINIMUM CLEAR ZONE DISTANCE
4 FEET BEHIND CURB

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	95	150

(2) SIGNALIZATION PLAN SHEET

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-26-2023



HWY. 5/ALCOA RD.
POLE LOCATIONS

POLE	LOCATION & STATION	OFFSET	X, Y COORDINATES
A	HWY. 5 - STA. 91+41.37	64' LT.	1151634.95, 2020491.61
B	HWY. 5 - STA. 91+66.34	50' LT.	1151663.70, 2020488.11
C	HWY. 5 - STA. 92+34.43	45' LT.	1151730.19, 2020507.95
D	HWY. 5 - STA. 92+19.57	50' RT.	1151748.67, 2020414.22
E	HWY. 5 - STA. 92+06.00	58' RT.	1151739.21, 2020401.43
F	HWY. 5 - STA. 91+23.09	44' RT.	1151658.25, 2020384.91
G	HWY. 5 - STA. 91+34.64	50' LT.	1151633.80, 2020476.01

TOP OF POLE FOUNDATION ELEVATION SHALL BE THREE (3) INCHES ABOVE THE FINISHED SURFACE ELEVATION AT THE LOCATIONS SHOWN ABOVE.
TOP OF POLE FOUNDATION ELEVATION MAY BE INCREASED IN ACCORDANCE WITH STANDARD DRAWING SD-11.

SCALE IN FEET
0 20 40 80

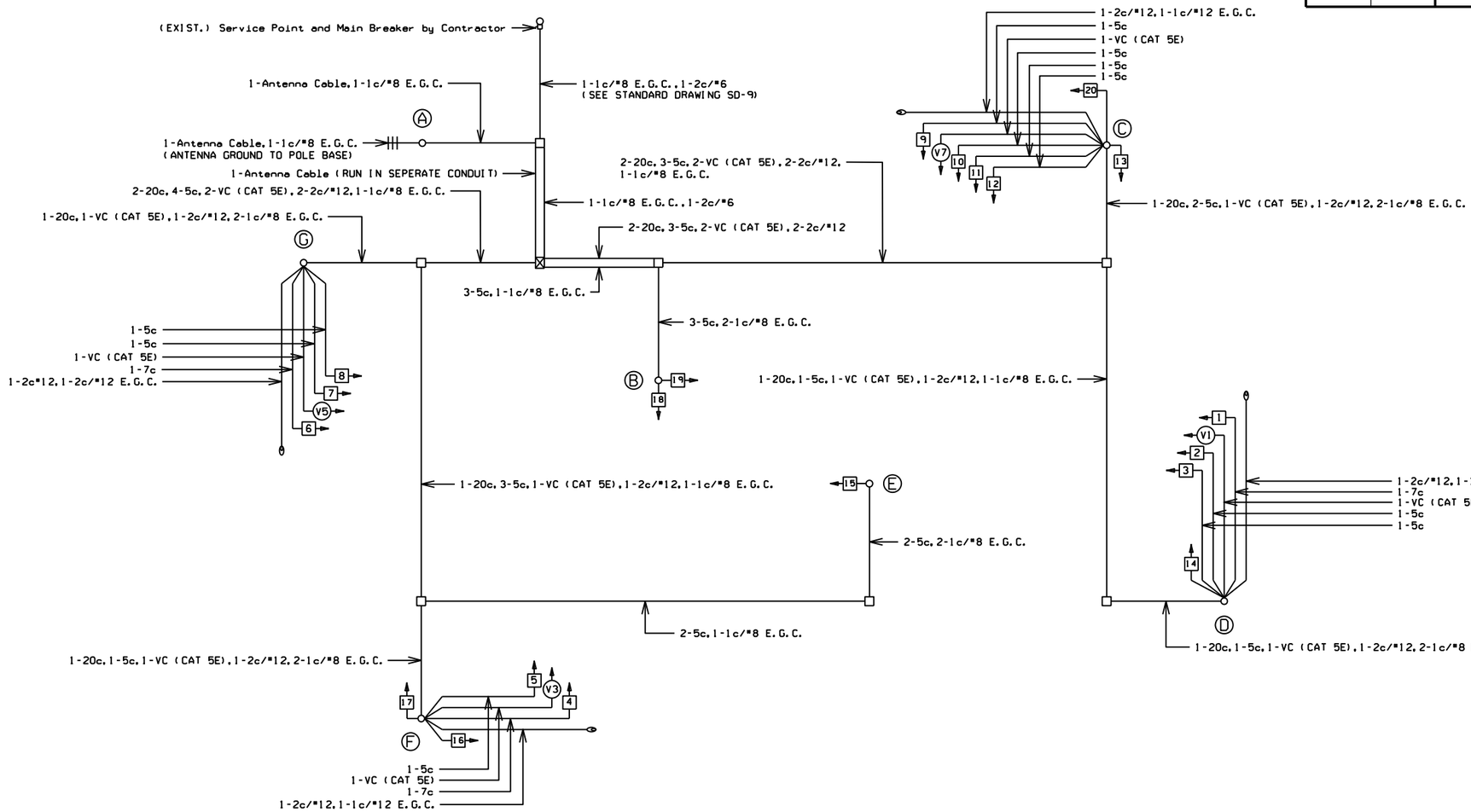
DATE: 07-31-2023 FILE NAME: t061508_02.dgn

LOCATION: HWY. 5/ALCOA RD.
CITY: BENTON
COUNTY: SALINE
DISTRICT: 6 SCALE: 1"=40' DRAWN BY: GWE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

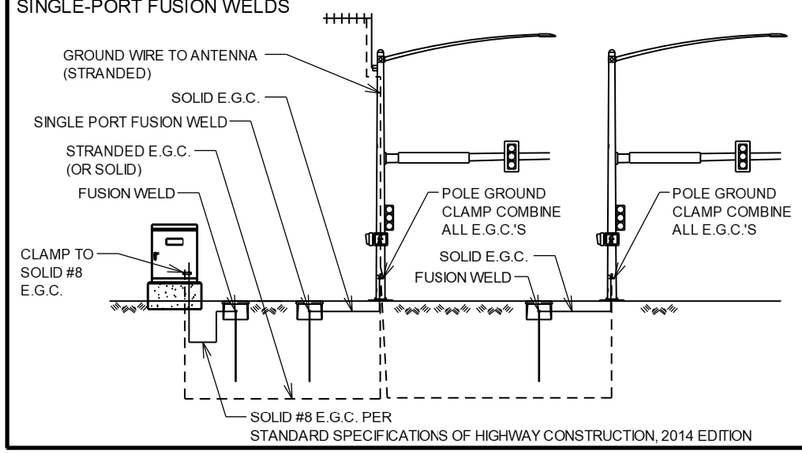
FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061508	96	150

(2) SIGNALIZATION PLAN SHEET



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-26-2023

GROUNDING ARRAY
SINGLE-PORT FUSION WELDS



WIRING DIAGRAM

NOTES TO CONTRACTOR:

1. ONE SEPARATE 1-5c IS RUN TO EACH POLE FOR THE PEDESTRIAN PUSH BUTTON.
2. ALL DETECTOR RACK CHANNELS, INCLUDING UNUSED, SHALL BE BROUGHT TO TERMINAL STRIP IN DETECTOR AREA OF CABINET.
3. THE LOCAL GOVERNMENT SHALL BE RESPONSIBLE FOR PROVIDING POWER TO THE SERVICE POINT.

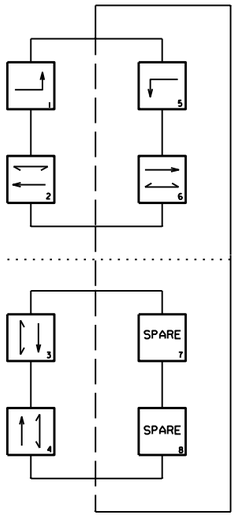
DATE: 07-31-2023 FILE NAME: t061508_02.dgn

LOCATION: HWY. 5/ALCOA RD.
CITY: BENTON
COUNTY: SALINE
DISTRICT: 6 SCALE: N/A DRAWN BY: GWE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061508	97	150

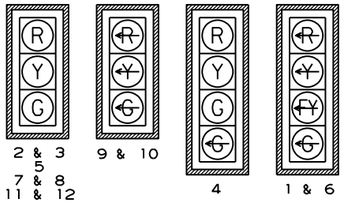
(2) SIGNALIZATION PLAN SHEET

PHASING DIAGRAM



SIGNAL FACES

12" LENSES



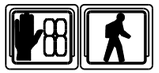
2 & 3
5
7 & 8
11 & 12

9 & 10

4

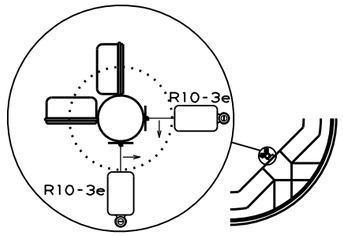
1 & 6

ONE SECTION
(SOLID SYMBOL)

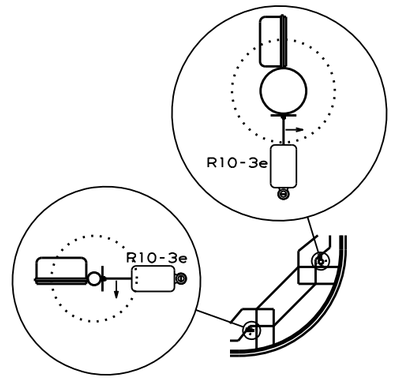


13 & 14
15 & 16
17 & 18
19 & 20

NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.
3. REFER TO SPECIAL PROVISIONS FOR DETAILS ON REQUIREMENTS FOR PEDESTRIAN SIGNAL HEADS.
4. ALL PEDESTRIAN SIGNAL HEADS CAN BE PLACED INTO OPERATION IF THERE ARE BOTH WHEELCHAIR RAMPS AND A CROSSWALK THAT MEETS A.D.A.S. STANDARD.



TYPICAL MOUNTING PUSH BUTTON ON SIGNAL POLE



TYPICAL MOUNTING PUSH BUTTON ON PEDESTRIAN POLE AND SIGNAL POLE

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
09-26-2023

DETECTOR CHART

DETECTOR SYSTEM DESCRIPTION: JOB 061508											
HWY. 5 AND ALCOA RD. DETECTOR ASSIGNMENTS				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS LOCAL		MASTER SYSTEM DETECTOR NUMBERS	COMMENTS	TUBE LENGTHS
DET. ID #	LOCATION DIRECTION	TPYE	DET. #	CAB. TRM. #	AMP CHN. #	CON. IMP. #	PHS	SYSTEM DET. #			
Vz11	EB LEFT TURN FAR	COMB.				V9	1	1		V1	23"
Vz12	EB LEFT TURN	LOCAL				V1	1			V1	23"
Vz21 A&B	WB ADVANCE	LOCAL				V2	2			V5	23"
Vz22 A&B	WB NEAR	COMB.				V10	2	2		V5	23"
Vz31	SB ADVANCE	COMB.				V11	3	3		V3	46"
Vz32	SB NEAR	LOCAL				V3	3			V3	46"
Vz41	NB ADVANCE	COMB.				V4	4			V7	58"
Vz42	NB NEAR	LOCAL				V12	4	4		V7	58"
Vz51	WB LEFT TURN FAR	COMB.				V13	5	5		V5	23"
Vz52	WB LEFT TURN	LOCAL				V5	5			V5	23"
Vz61 A&B	EB ADVANCE	LOCAL				V6	6			V1	23"
Vz62 A&B	EB NEAR	COMB.				V14	6	6		V1	23"
Vz71A&B	NB LEFT TURN FAR	COMB.				V15	7	4		V7	58"
Vz72A&B	NB LEFT TURN	LOCAL				V7	7			V7	58"
PB3 A&B	HWY. 5 W. LEG	PED.				P3	3				
PB2 A&B	APT. ENT. N. LEG	PED.				P2	2				
PB4 A&B	HWY. 5 E. LEG	PED.				P4	4				
PB6 A&B	ALCOA RD. S. LEG	PED.				P6	6				
					SPARE						

CONTROLLER INPUT ABBREVIATIONS:
V = VEHICLE INPUT
D = SYSTEM OR AUXILIARY INPUT
P = PEDESTRIAN INPUT

NOTE: "AMP CHN =" REFERS TO THE RACK OUTPUT POSITION.
THIS IS WIRED TO CONTROLLER INPUT DETECTOR NUMBER WHICH IS PROGRAMMED TO ACTUATE THE DESIGNATED PHASE.
EXAMPLE: V9 = SYSTEM DETECTOR 1, V10 = SYSTEM DETECTOR 2

INTERVAL CHART

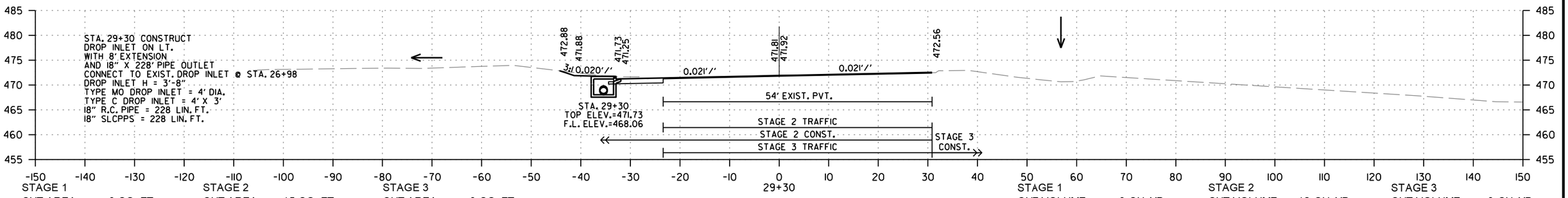
SIGNAL FACES	HIGHWAY 5 AND ALCOA ROAD.												FLASH SEQUENCE
	~~1+5~~	CLR.	~~1+6~~	CLR.	~~2+5~~	CLR.	~~2+6~~	CLR.	3	CLR.	4	CLR.	
1	~~G~~	*	~~G~~	*	~~FY~~	***	~~FY~~	***	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~
2 & 3	R	R	G	**	R	R	G	**	R	R	R	R	R
4	R	R	R	R	R	R	R	R	G ~~G~~	Y	R	R	R
5	R	R	R	R	R	R	R	R	G	Y	R	R	R
6	~~G~~	*	~~FY~~	***	~~G~~	*	~~FY~~	***	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~
7 & 8	R	R	R	R	G	**	G	**	R	R	R	R	R
9 & 10	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	~~Y~~	~~R~~
11 & 12	R	R	R	R	R	R	R	R	R	R	G	Y	R
13 & 14	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	BLK
15 & 16	DW	DW	W	FDW	DW	DW	W	FDW	DW	DW	DW	DW	BLK
17 & 18	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	BLK
19 & 20	DW	DW	DW	DW	W	FDW	W	FDW	DW	DW	DW	DW	BLK

* DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE
** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE
*** DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON NEXT PHASE

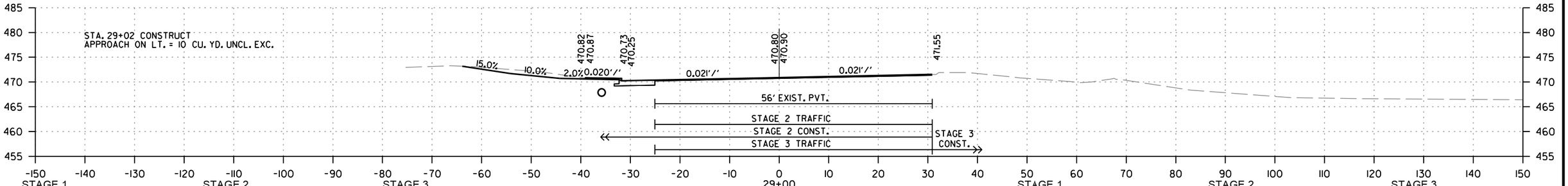
LOCATION: HWY. 5/ALCOA RD.
CITY: BENTON
COUNTY: SALINE
DISTRICT: 6 SCALE: N/A DRAWN BY: GWE

DATE: 07-31-2023 FILE NAME: t061508_02.dgn

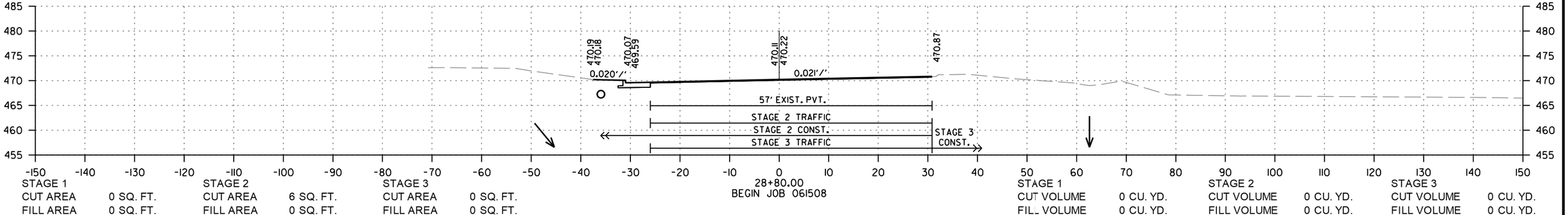
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	98	150
		CROSS SECTIONS				



STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	15 SQ. FT.	CUT AREA	0 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	12 CU. YD.	CUT VOLUME	0 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	0 SQ. FT.	FILL AREA	0 SQ. FT.	FILL VOLUME	0 CU. YD.	FILL VOLUME	1 CU. YD.	FILL VOLUME	0 CU. YD.



STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	7 SQ. FT.	CUT AREA	0 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	5 CU. YD.	CUT VOLUME	0 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	2 SQ. FT.	FILL AREA	0 SQ. FT.	FILL VOLUME	0 CU. YD.	FILL VOLUME	1 CU. YD.	FILL VOLUME	0 CU. YD.

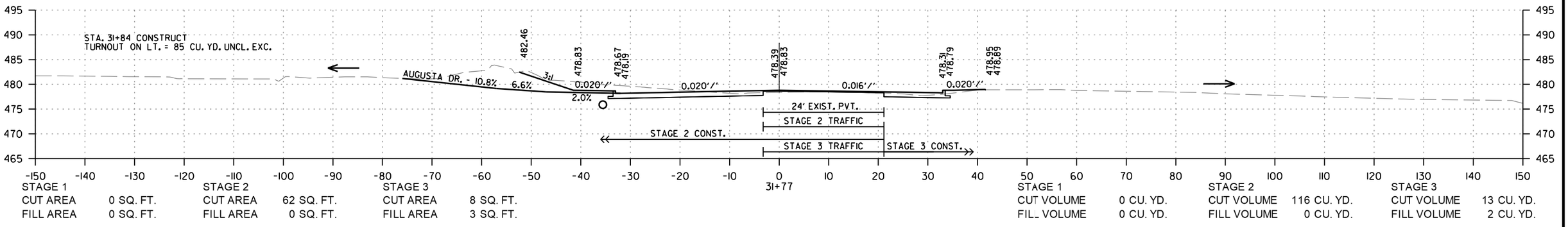


STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	6 SQ. FT.	CUT AREA	0 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	0 SQ. FT.	FILL AREA	0 SQ. FT.	FILL VOLUME	0 CU. YD.	FILL VOLUME	0 CU. YD.	FILL VOLUME	0 CU. YD.

HWY. 5
STA. 28+80 TO STA. 29+30

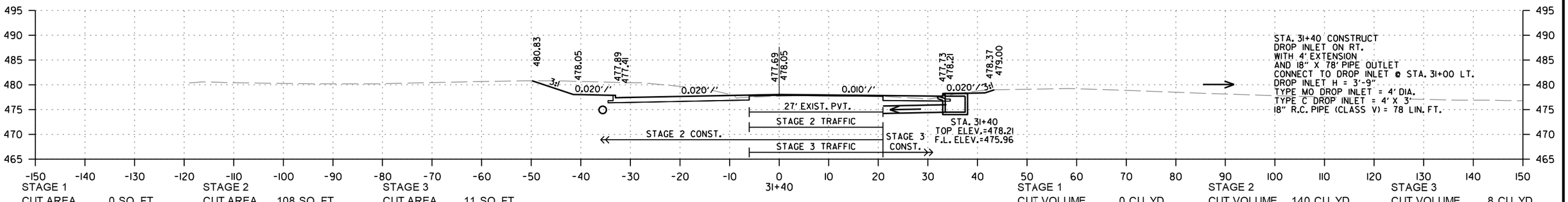
tw39665 3/1/2023
R061508.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	99	150
		CROSS SECTIONS				



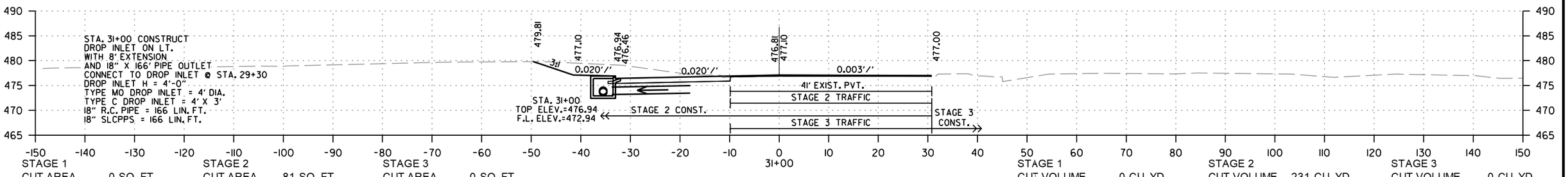
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	62 SQ. FT.	CUT AREA	8 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	0 SQ. FT.	FILL AREA	3 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	116 CU. YD.	CUT VOLUME	13 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	0 CU. YD.	FILL VOLUME	2 CU. YD.



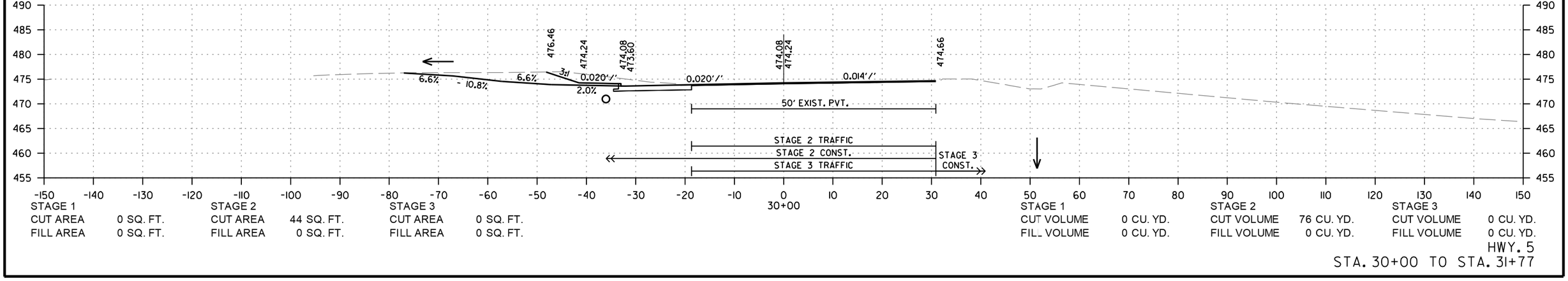
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	108 SQ. FT.	CUT AREA	11 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	0 SQ. FT.	FILL AREA	0 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	140 CU. YD.	CUT VOLUME	8 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	0 CU. YD.	FILL VOLUME	0 CU. YD.



STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	81 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	0 SQ. FT.	FILL AREA	0 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	231 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	0 CU. YD.	FILL VOLUME	0 CU. YD.



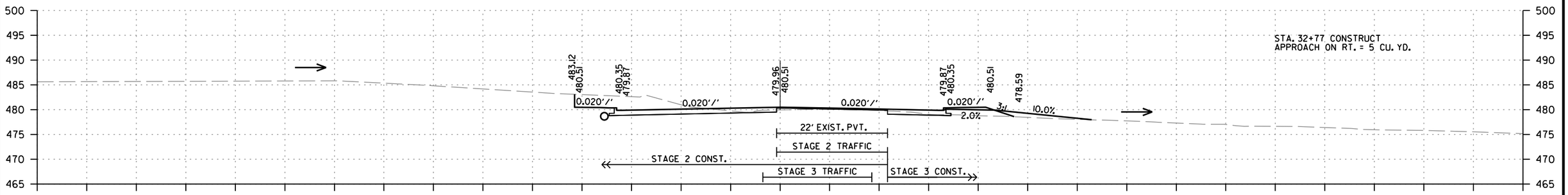
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	44 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	0 SQ. FT.	FILL AREA	0 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	76 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	0 CU. YD.	FILL VOLUME	0 CU. YD.

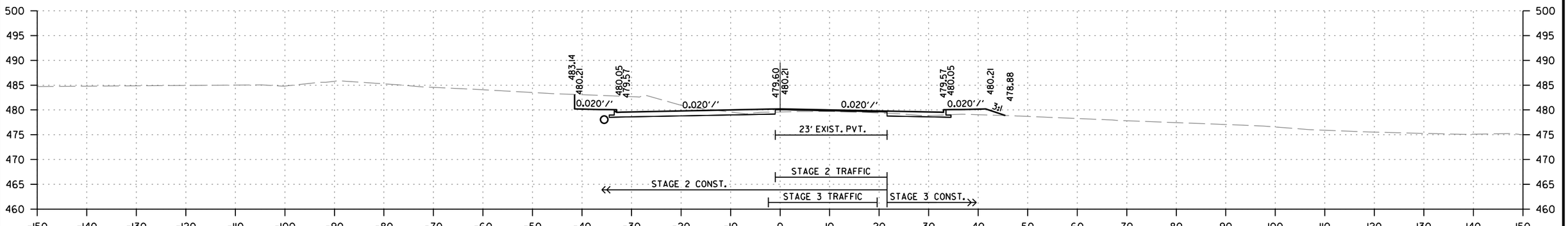
HWY. 5
STA. 30+00 TO STA. 31+77

tw39665 3/1/2023
R061508.DGN

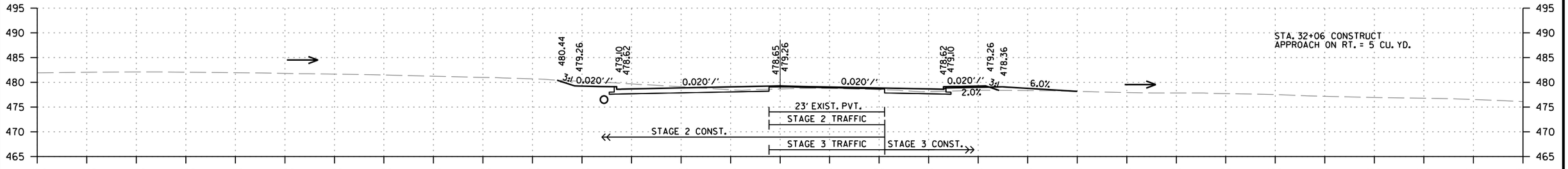
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	100	150
		CROSS SECTIONS				



STAGE 1		STAGE 2		STAGE 3		32+82	STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	78 SQ. FT.	CUT AREA	5 SQ. FT.		CUT VOLUME	0 CU. YD.	CUT VOLUME	71 CU. YD.	CUT VOLUME	4 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	0 SQ. FT.	FILL AREA	17 SQ. FT.		FIL_ VOLUME	0 CU. YD.	FILL VOLUME	0 CU. YD.	FILL VOLUME	12 CU. YD.



STAGE 1		STAGE 2		STAGE 3		32+59	STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	89 SQ. FT.	CUT AREA	5 SQ. FT.		CUT VOLUME	0 CU. YD.	CUT VOLUME	145 CU. YD.	CUT VOLUME	13 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	0 SQ. FT.	FILL AREA	11 SQ. FT.		FIL_ VOLUME	0 CU. YD.	FILL VOLUME	0 CU. YD.	FILL VOLUME	21 CU. YD.

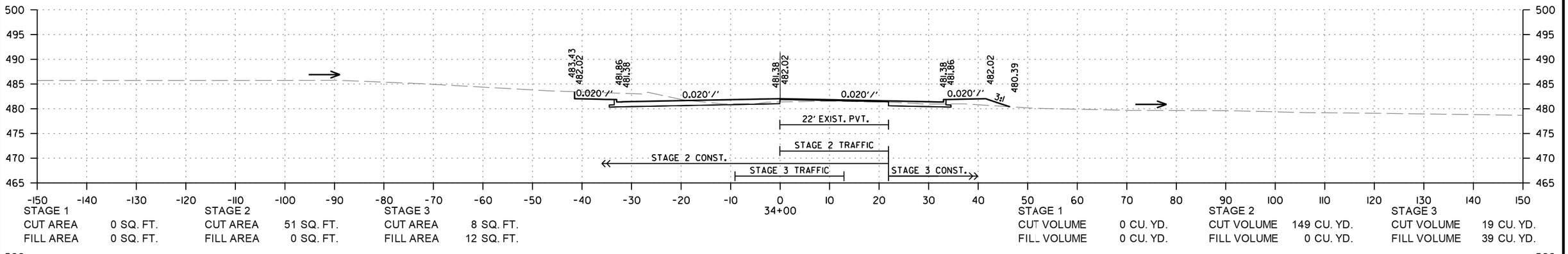


STAGE 1		STAGE 2		STAGE 3		32+00	STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	44 SQ. FT.	CUT AREA	7 SQ. FT.		CUT VOLUME	0 CU. YD.	CUT VOLUME	45 CU. YD.	CUT VOLUME	6 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	0 SQ. FT.	FILL AREA	8 SQ. FT.		FIL_ VOLUME	0 CU. YD.	FILL VOLUME	0 CU. YD.	FILL VOLUME	5 CU. YD.

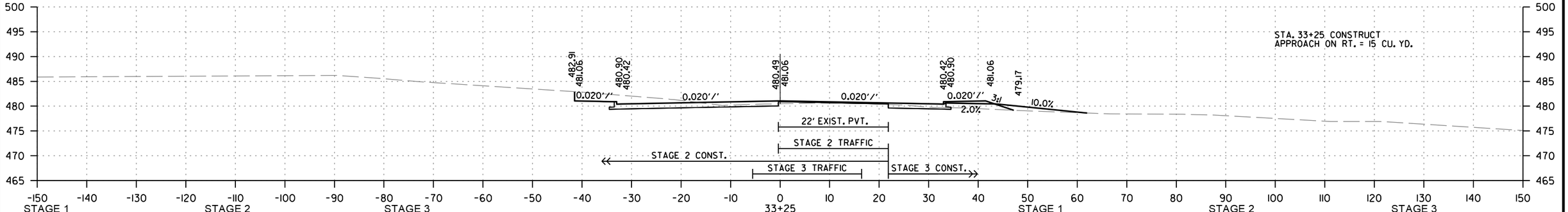
HWY. 5
STA. 32+00 TO STA. 32+82

lw39665 3/1/2023
R061508.DGN

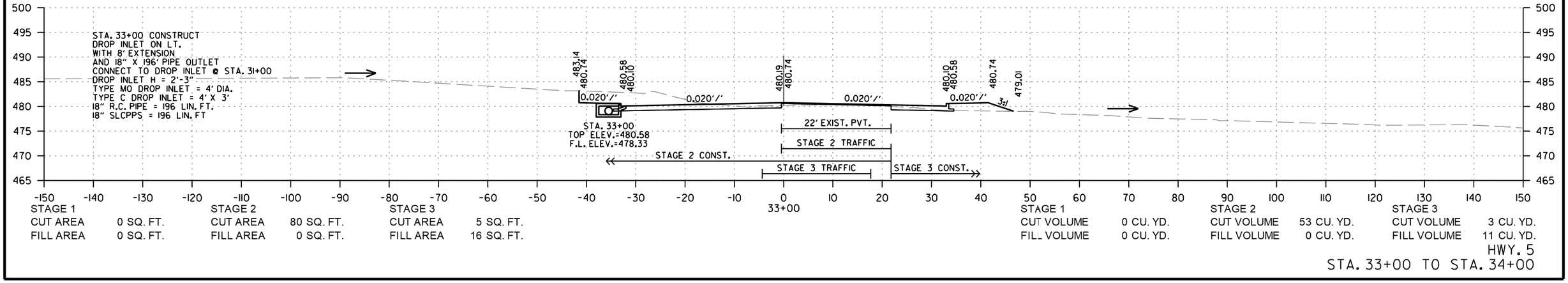
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	101	150
		CROSS SECTIONS				



STAGE 1		STAGE 2		STAGE 3		34+00	STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	51 SQ. FT.	CUT AREA	8 SQ. FT.		CUT VOLUME	0 CU. YD.	CUT VOLUME	149 CU. YD.	CUT VOLUME	19 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	0 SQ. FT.	FILL AREA	12 SQ. FT.		FIL_ VOLUME	0 CU. YD.	FILL VOLUME	0 CU. YD.	FILL VOLUME	39 CU. YD.



STAGE 1		STAGE 2		STAGE 3		33+25	STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	56 SQ. FT.	CUT AREA	6 SQ. FT.		CUT VOLUME	0 CU. YD.	CUT VOLUME	63 CU. YD.	CUT VOLUME	5 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	0 SQ. FT.	FILL AREA	16 SQ. FT.		FIL_ VOLUME	0 CU. YD.	FILL VOLUME	0 CU. YD.	FILL VOLUME	15 CU. YD.

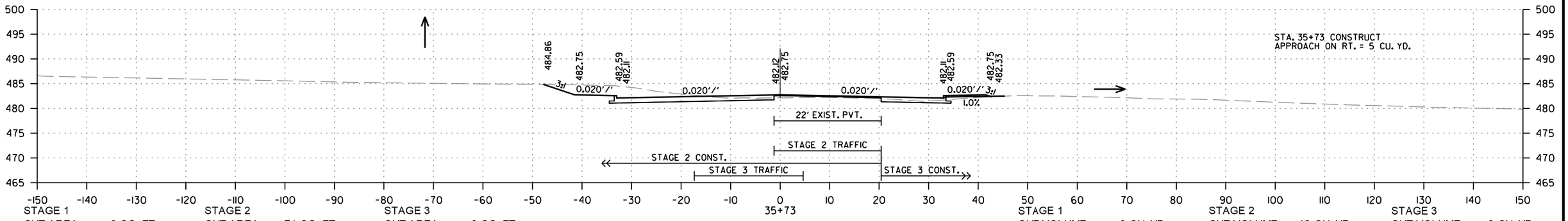


STAGE 1		STAGE 2		STAGE 3		33+00	STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	80 SQ. FT.	CUT AREA	5 SQ. FT.		CUT VOLUME	0 CU. YD.	CUT VOLUME	53 CU. YD.	CUT VOLUME	3 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	0 SQ. FT.	FILL AREA	16 SQ. FT.		FIL_ VOLUME	0 CU. YD.	FILL VOLUME	0 CU. YD.	FILL VOLUME	11 CU. YD.

HWY. 5
STA. 33+00 TO STA. 34+00

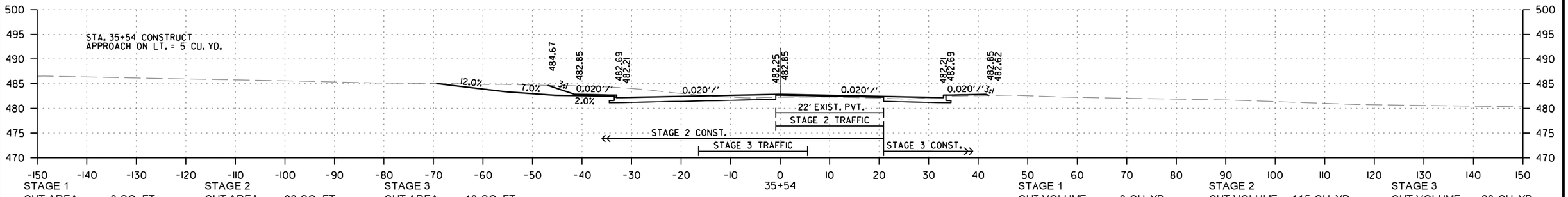
lw39665 3/1/2023
R061508.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	102	150
		CROSS SECTIONS				



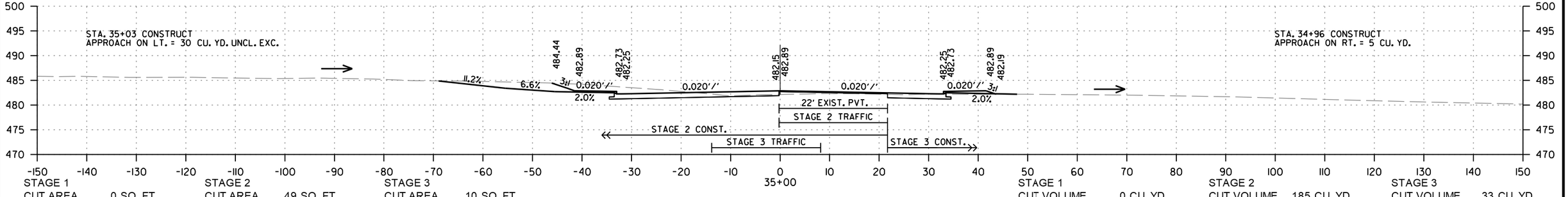
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	71 SQ. FT.	CUT AREA	6 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	0 SQ. FT.	FILL AREA	5 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	48 CU. YD.	CUT VOLUME	6 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	0 CU. YD.	FILL VOLUME	2 CU. YD.



STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	66 SQ. FT.	CUT AREA	10 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	0 SQ. FT.	FILL AREA	2 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	115 CU. YD.	CUT VOLUME	20 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	0 CU. YD.	FILL VOLUME	8 CU. YD.



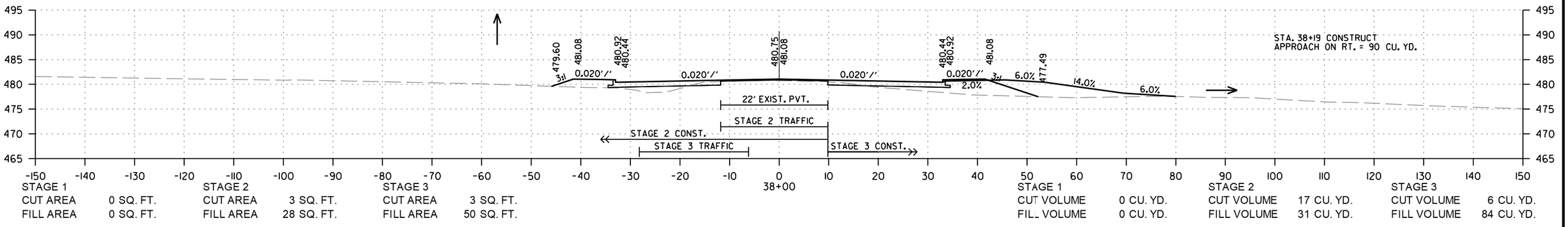
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	49 SQ. FT.	CUT AREA	10 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	0 SQ. FT.	FILL AREA	6 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	185 CU. YD.	CUT VOLUME	33 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	0 CU. YD.	FILL VOLUME	33 CU. YD.

HWY. 5
STA. 35+00 TO STA. 35+73

tw39665 3/1/2023
R061508.DGN

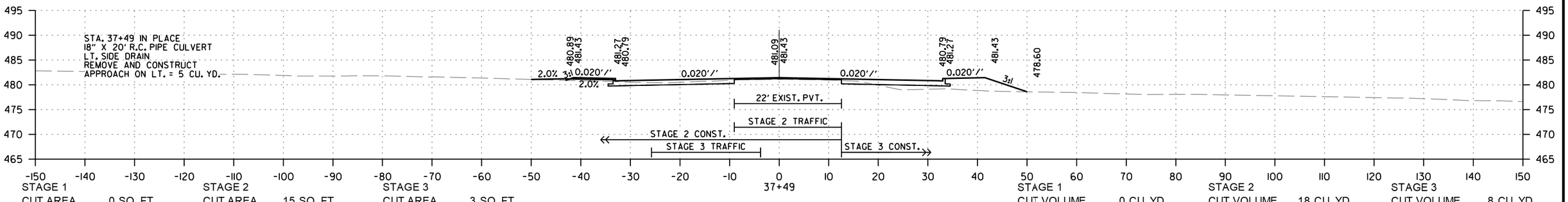
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	103	150
		CROSS SECTIONS				



38+00

STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	3 SQ. FT.	CUT AREA	3 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	28 SQ. FT.	FILL AREA	50 SQ. FT.

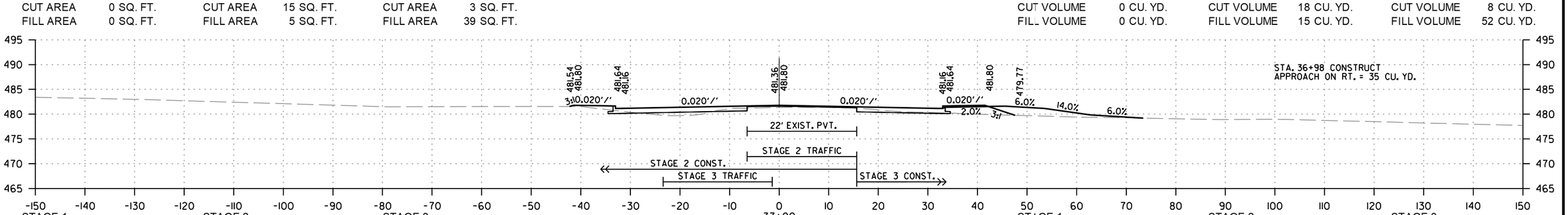
STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	17 CU. YD.	CUT VOLUME	6 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	31 CU. YD.	FILL VOLUME	84 CU. YD.



37+49

STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	15 SQ. FT.	CUT AREA	3 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	5 SQ. FT.	FILL AREA	39 SQ. FT.

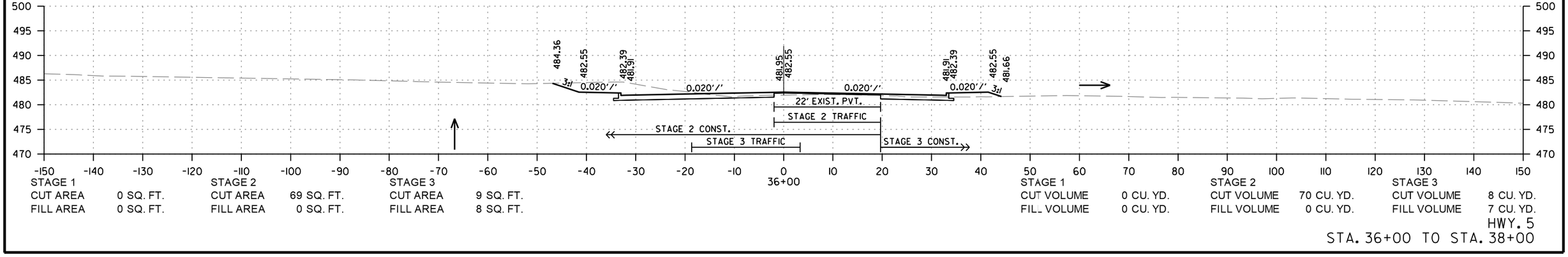
STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	18 CU. YD.	CUT VOLUME	8 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	15 CU. YD.	FILL VOLUME	52 CU. YD.



37+00

STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	5 SQ. FT.	CUT AREA	6 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	11 SQ. FT.	FILL AREA	18 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	137 CU. YD.	CUT VOLUME	28 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	20 CU. YD.	FILL VOLUME	48 CU. YD.



36+00

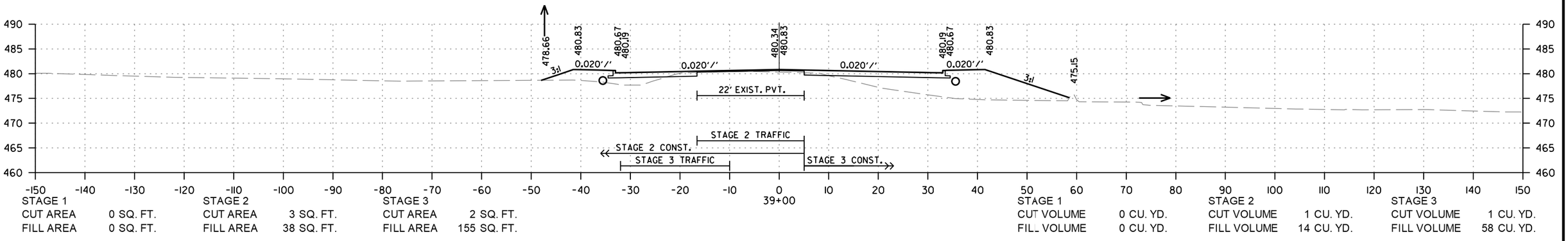
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	69 SQ. FT.	CUT AREA	9 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	0 SQ. FT.	FILL AREA	8 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	70 CU. YD.	CUT VOLUME	8 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	0 CU. YD.	FILL VOLUME	7 CU. YD.

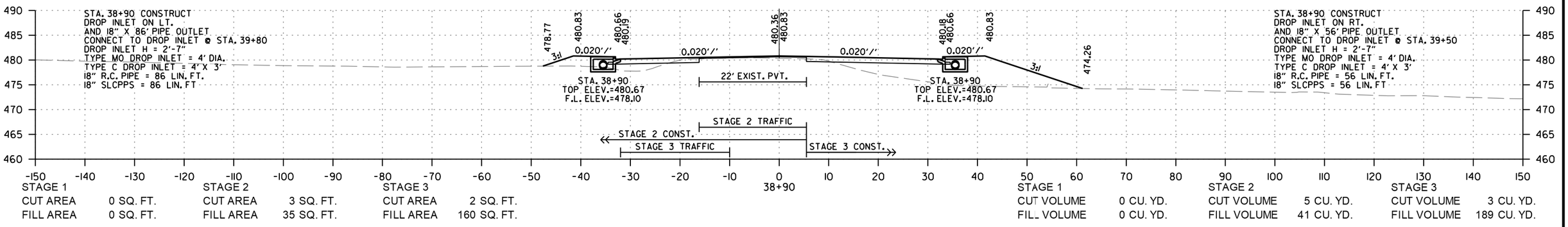
HWY. 5
STA. 36+00 TO STA. 38+00

tw39665 3/1/2023
R061508.DGN

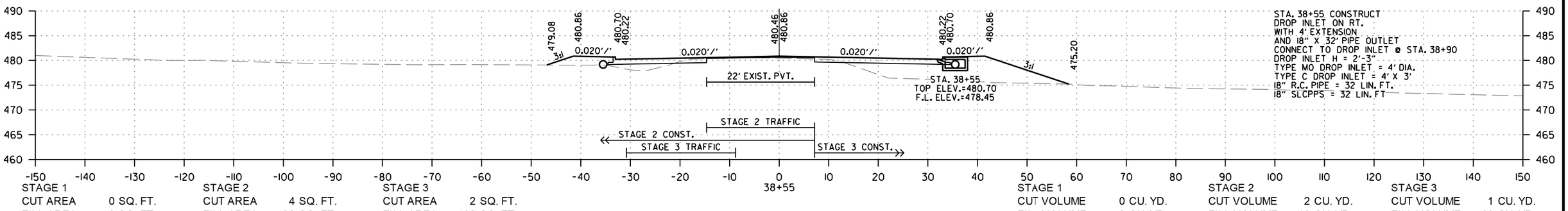
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	104	150
		CROSS SECTIONS				



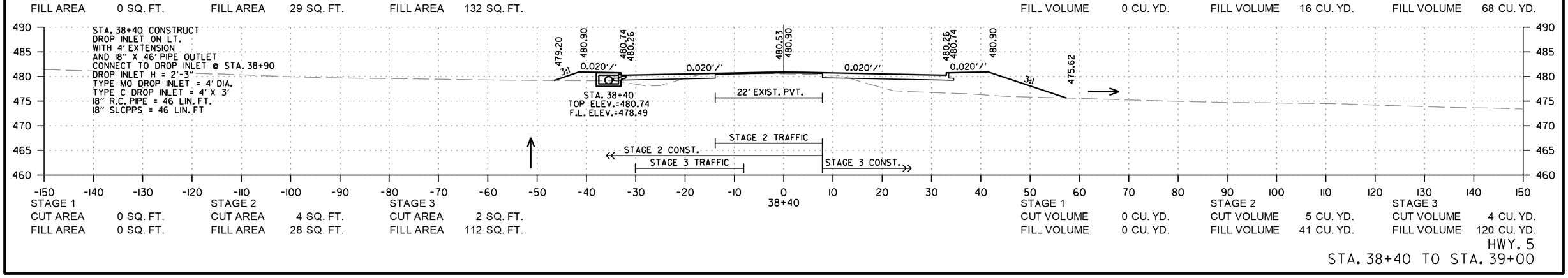
STAGE 1		STAGE 2		STAGE 3		39+00	STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	3 SQ. FT.	CUT AREA	2 SQ. FT.		CUT VOLUME	0 CU. YD.	CUT VOLUME	1 CU. YD.	CUT VOLUME	1 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	38 SQ. FT.	FILL AREA	155 SQ. FT.		FILL VOLUME	0 CU. YD.	FILL VOLUME	14 CU. YD.	FILL VOLUME	58 CU. YD.



STAGE 1		STAGE 2		STAGE 3		38+90	STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	3 SQ. FT.	CUT AREA	2 SQ. FT.		CUT VOLUME	0 CU. YD.	CUT VOLUME	5 CU. YD.	CUT VOLUME	3 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	35 SQ. FT.	FILL AREA	160 SQ. FT.		FILL VOLUME	0 CU. YD.	FILL VOLUME	41 CU. YD.	FILL VOLUME	189 CU. YD.



STAGE 1		STAGE 2		STAGE 3		38+55	STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	4 SQ. FT.	CUT AREA	2 SQ. FT.		CUT VOLUME	0 CU. YD.	CUT VOLUME	2 CU. YD.	CUT VOLUME	1 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	29 SQ. FT.	FILL AREA	132 SQ. FT.		FILL VOLUME	0 CU. YD.	FILL VOLUME	16 CU. YD.	FILL VOLUME	68 CU. YD.

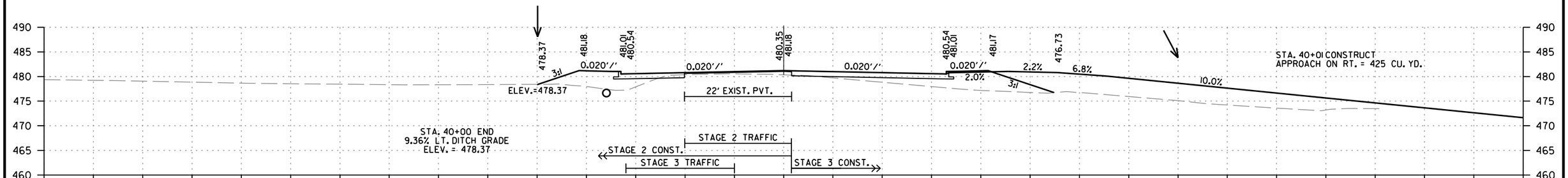


STAGE 1		STAGE 2		STAGE 3		38+40	STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	4 SQ. FT.	CUT AREA	2 SQ. FT.		CUT VOLUME	0 CU. YD.	CUT VOLUME	5 CU. YD.	CUT VOLUME	4 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	28 SQ. FT.	FILL AREA	112 SQ. FT.		FILL VOLUME	0 CU. YD.	FILL VOLUME	41 CU. YD.	FILL VOLUME	120 CU. YD.

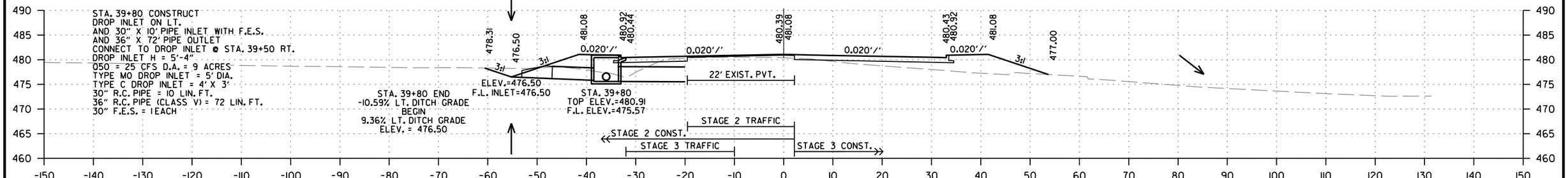
HWY. 5
STA. 38+40 TO STA. 39+00

tw39665 3/1/2023
R061508.DGN

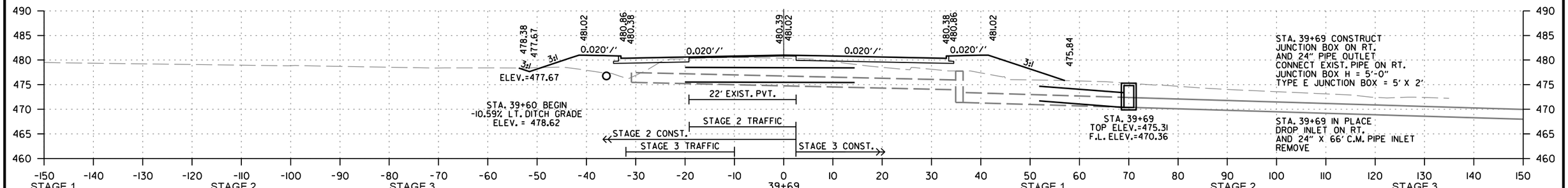
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	105	150
		CROSS SECTIONS				



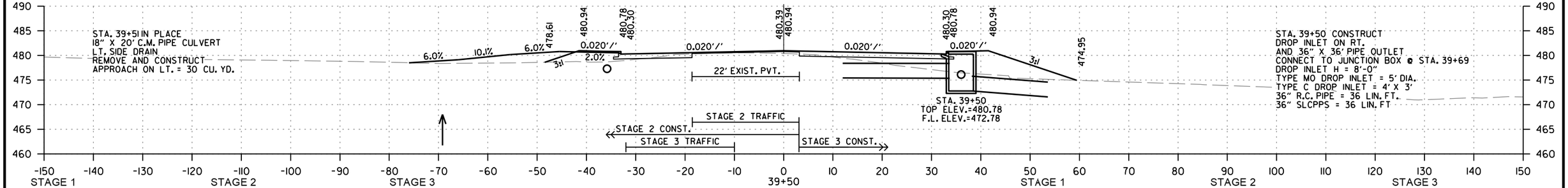
STAGE 1		STAGE 2		STAGE 3			STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	2 SQ. FT.	CUT AREA	0 SQ. FT.	40+00	CUT VOLUME	0 CU. YD.	CUT VOLUME	5 CU. YD.	CUT VOLUME	0 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	51 SQ. FT.	FILL AREA	83 SQ. FT.		FILL VOLUME	0 CU. YD.	FILL VOLUME	38 CU. YD.	FILL VOLUME	59 CU. YD.



STAGE 1		STAGE 2		STAGE 3			STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	12 SQ. FT.	CUT AREA	1 SQ. FT.	39+80	CUT VOLUME	0 CU. YD.	CUT VOLUME	3 CU. YD.	CUT VOLUME	0 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	52 SQ. FT.	FILL AREA	75 SQ. FT.		FILL VOLUME	0 CU. YD.	FILL VOLUME	21 CU. YD.	FILL VOLUME	33 CU. YD.



STAGE 1		STAGE 2		STAGE 3			STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	5 SQ. FT.	CUT AREA	1 SQ. FT.	39+69	CUT VOLUME	0 CU. YD.	CUT VOLUME	3 CU. YD.	CUT VOLUME	1 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	53 SQ. FT.	FILL AREA	85 SQ. FT.		FILL VOLUME	0 CU. YD.	FILL VOLUME	27 CU. YD.	FILL VOLUME	70 CU. YD.

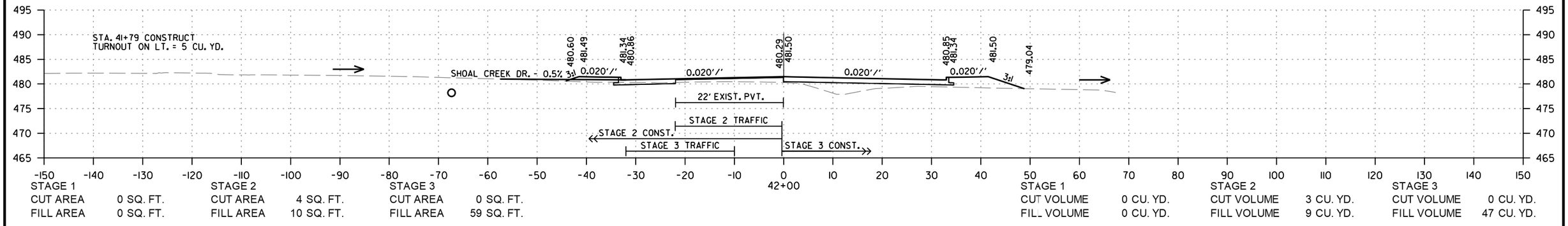


STAGE 1		STAGE 2		STAGE 3			STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	4 SQ. FT.	CUT AREA	2 SQ. FT.	39+50	CUT VOLUME	0 CU. YD.	CUT VOLUME	6 CU. YD.	CUT VOLUME	4 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	25 SQ. FT.	FILL AREA	113 SQ. FT.		FILL VOLUME	0 CU. YD.	FILL VOLUME	58 CU. YD.	FILL VOLUME	248 CU. YD.

HWY. 5
STA. 39+50 TO STA. 40+00

tw39665 3/1/2023
R061508.DGN

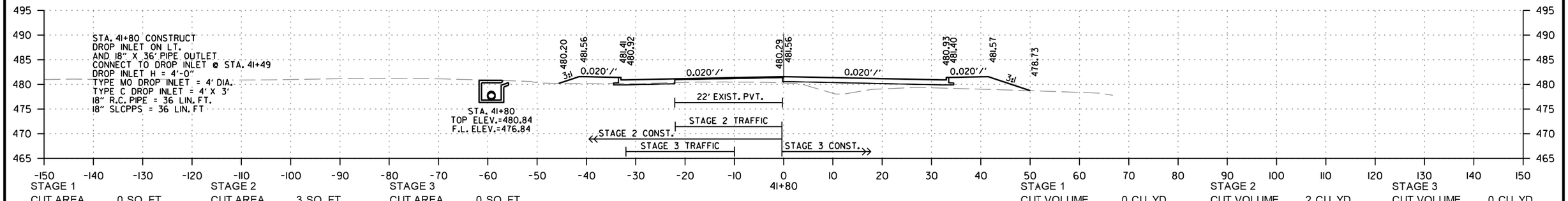
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	106	150
		CROSS SECTIONS				



42+00

STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	4 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	10 SQ. FT.	FILL AREA	59 SQ. FT.

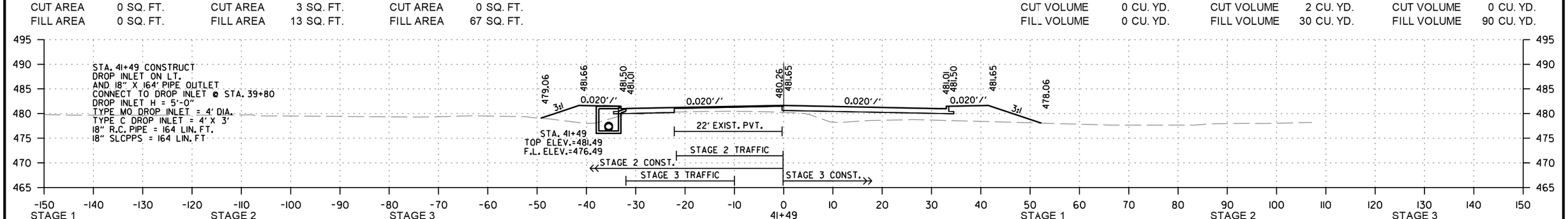
STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	3 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	9 CU. YD.	FILL VOLUME	47 CU. YD.



41+80

STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	3 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	13 SQ. FT.	FILL AREA	67 SQ. FT.

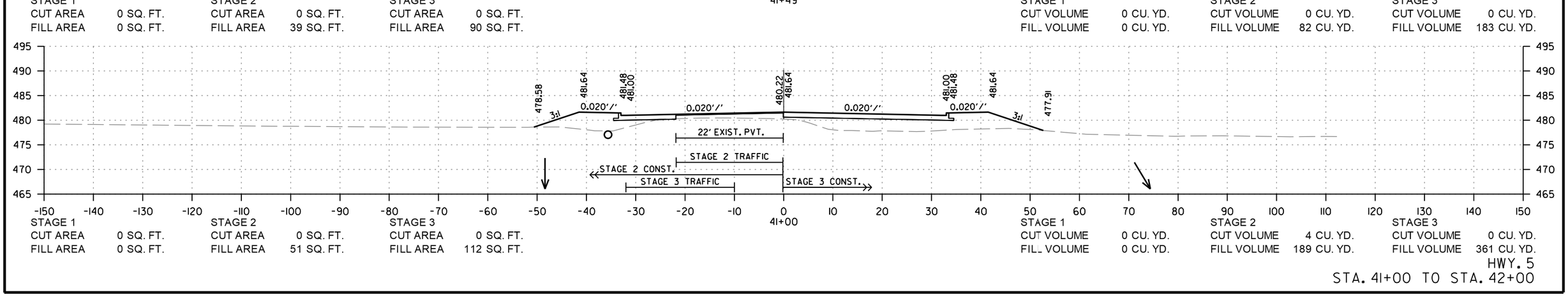
STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	2 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	30 CU. YD.	FILL VOLUME	90 CU. YD.



41+49

STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	39 SQ. FT.	FILL AREA	90 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	82 CU. YD.	FILL VOLUME	183 CU. YD.



41+00

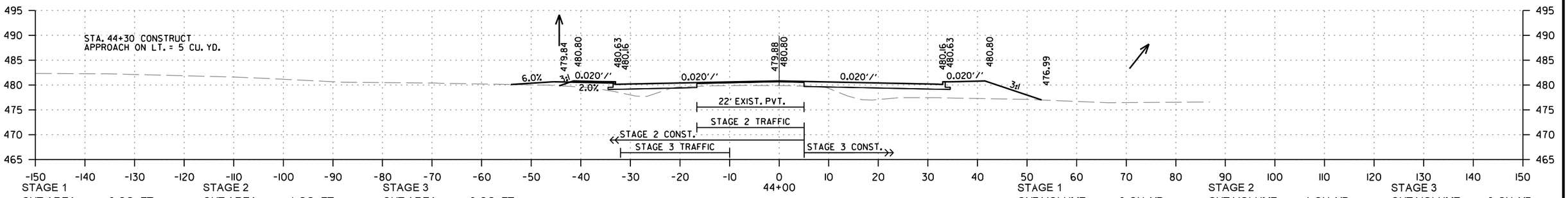
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	51 SQ. FT.	FILL AREA	112 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	4 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	189 CU. YD.	FILL VOLUME	361 CU. YD.

HWY. 5
STA. 41+00 TO STA. 42+00

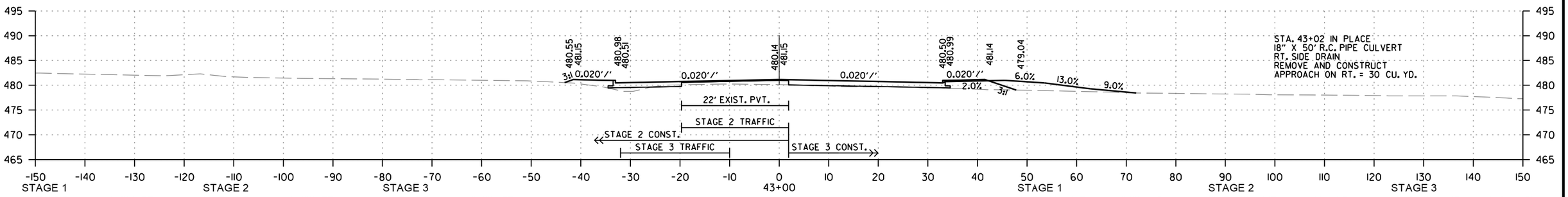
tw39665 3/1/2023
R061508.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	107	150
		CROSS SECTIONS				



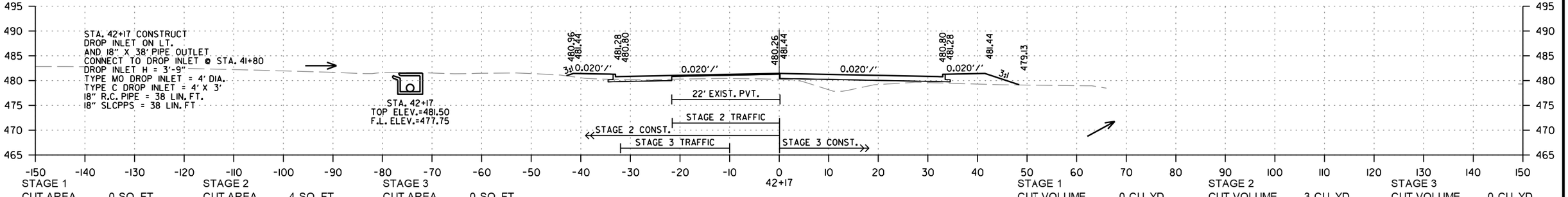
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	1 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	24 SQ. FT.	FILL AREA	89 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	4 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	69 CU. YD.	FILL VOLUME	206 CU. YD.



STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	1 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	13 SQ. FT.	FILL AREA	22 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	8 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	32 CU. YD.	FILL VOLUME	117 CU. YD.



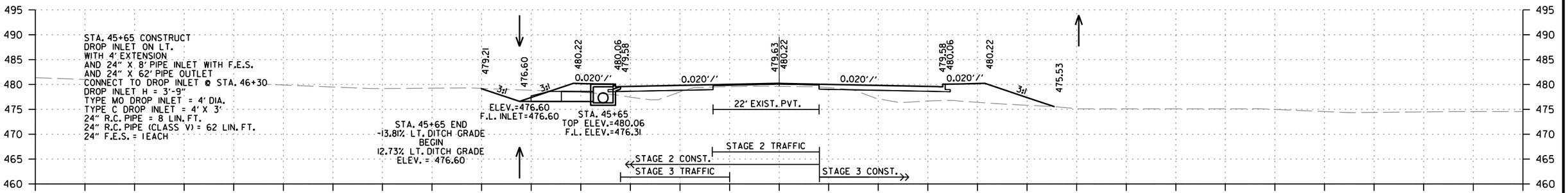
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	4 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	8 SQ. FT.	FILL AREA	54 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	3 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	6 CU. YD.	FILL VOLUME	36 CU. YD.

HWY. 5
STA. 42+17 TO STA. 44+00

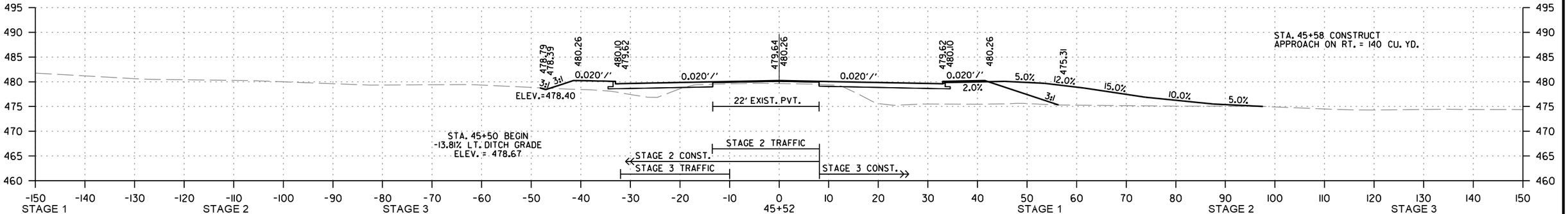
tw39665 3/1/2023
R061508.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	108	150
		CROSS SECTIONS				



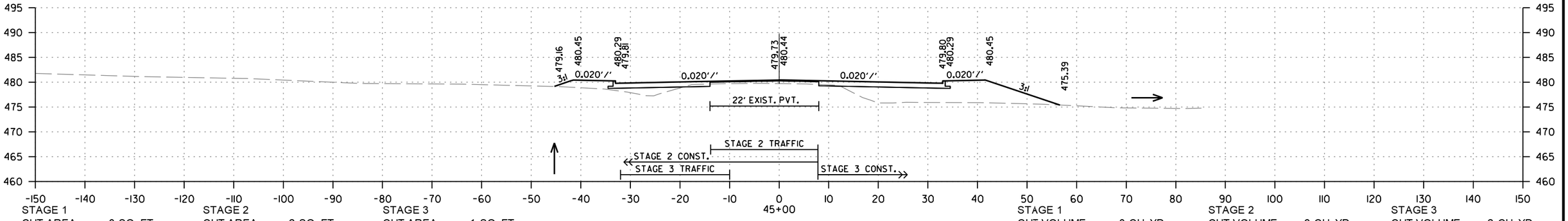
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	19 SQ. FT.	CUT AREA	1 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	35 SQ. FT.	FILL AREA	87 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	5 CU. YD.	CUT VOLUME	0 CU. YD.
FIL_ VOLUME	0 CU. YD.	FILL VOLUME	17 CU. YD.	FILL VOLUME	52 CU. YD.



STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	3 SQ. FT.	CUT AREA	1 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	36 SQ. FT.	FILL AREA	127 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	5 CU. YD.	CUT VOLUME	2 CU. YD.
FIL_ VOLUME	0 CU. YD.	FILL VOLUME	63 CU. YD.	FILL VOLUME	242 CU. YD.



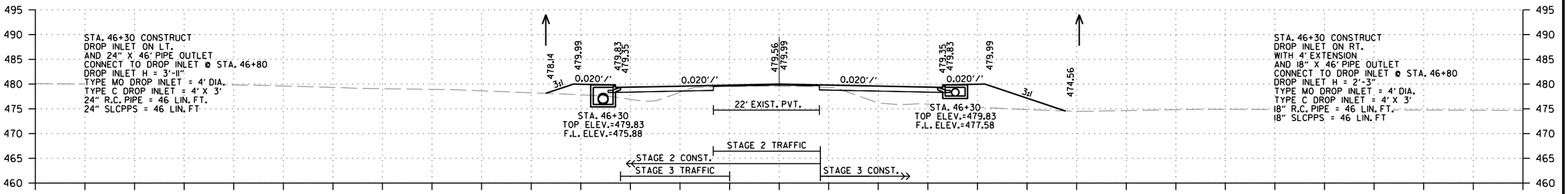
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	2 SQ. FT.	CUT AREA	1 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	29 SQ. FT.	FILL AREA	124 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	6 CU. YD.	CUT VOLUME	2 CU. YD.
FIL_ VOLUME	0 CU. YD.	FILL VOLUME	98 CU. YD.	FILL VOLUME	394 CU. YD.

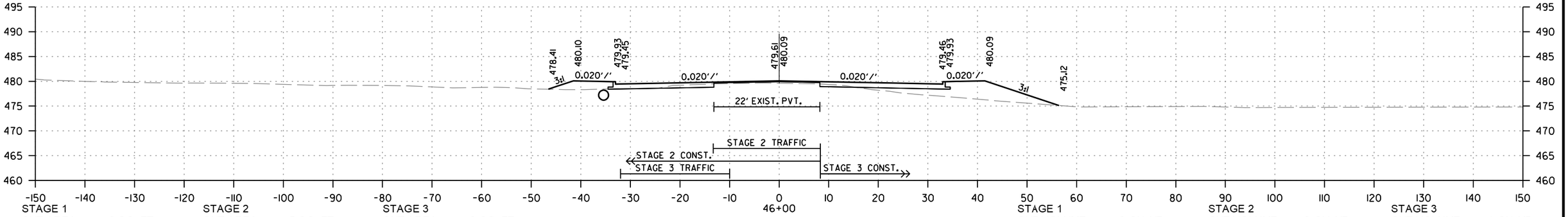
HWY. 5
STA. 45+00 TO STA. 45+65

lw39665 3/1/2023
R061508.DGN

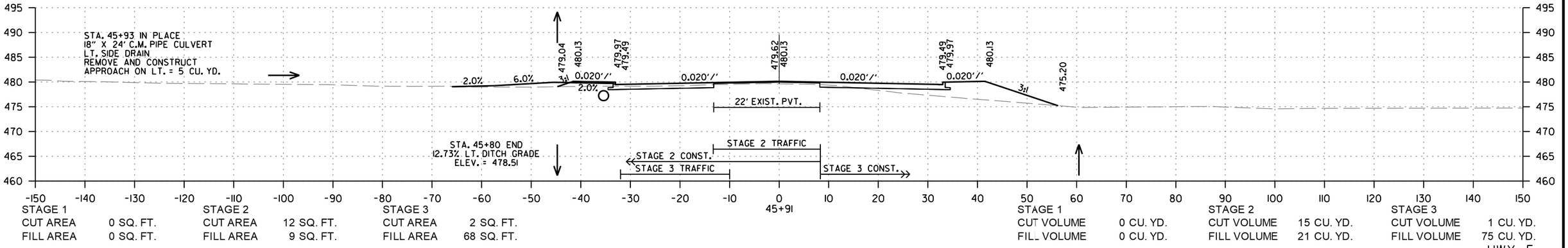
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	109	150
		CROSS SECTIONS				



STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	3 SQ. FT.	CUT AREA	2 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	4 CU. YD.	CUT VOLUME	3 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	42 SQ. FT.	FILL AREA	117 SQ. FT.	FIL_ VOLUME	0 CU. YD.	FILL VOLUME	33 CU. YD.	FILL VOLUME	104 CU. YD.



STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	5 SQ. FT.	CUT AREA	3 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	3 CU. YD.	CUT VOLUME	1 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	17 SQ. FT.	FILL AREA	71 SQ. FT.	FIL_ VOLUME	0 CU. YD.	FILL VOLUME	4 CU. YD.	FILL VOLUME	23 CU. YD.

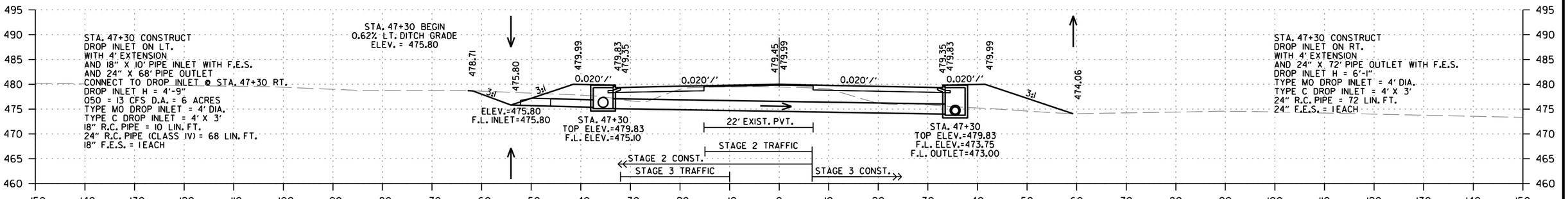


STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	12 SQ. FT.	CUT AREA	2 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	15 CU. YD.	CUT VOLUME	1 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	9 SQ. FT.	FILL AREA	68 SQ. FT.	FIL_ VOLUME	0 CU. YD.	FILL VOLUME	21 CU. YD.	FILL VOLUME	75 CU. YD.

HWY. 5
STA. 45+91 TO STA. 46+30

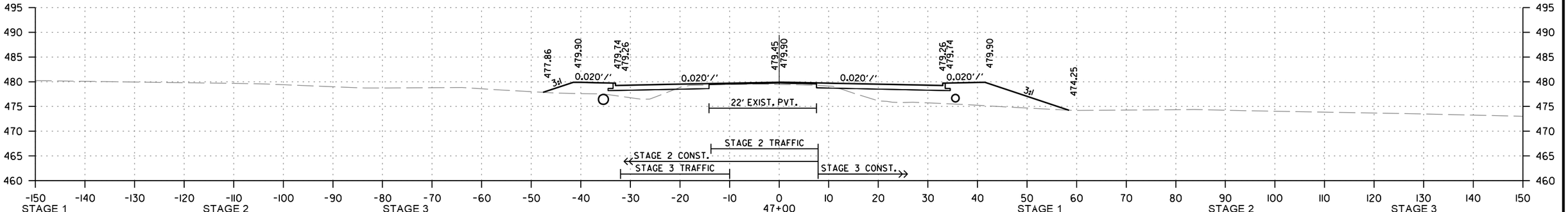
lw39665 3/1/2023
R061508.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	110	150
		CROSS SECTIONS				



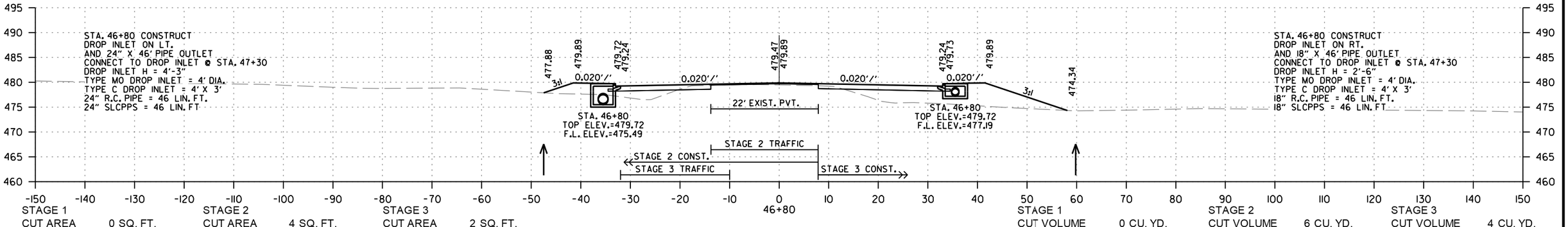
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	22 SQ. FT.	CUT AREA	1 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	40 SQ. FT.	FILL AREA	124 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	14 CU. YD.	CUT VOLUME	2 CU. YD.
FIL_ VOLUME	0 CU. YD.	FILL VOLUME	45 CU. YD.	FILL VOLUME	136 CU. YD.



STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	4 SQ. FT.	CUT AREA	2 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	41 SQ. FT.	FILL AREA	120 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	3 CU. YD.	CUT VOLUME	1 CU. YD.
FIL_ VOLUME	0 CU. YD.	FILL VOLUME	30 CU. YD.	FILL VOLUME	87 CU. YD.



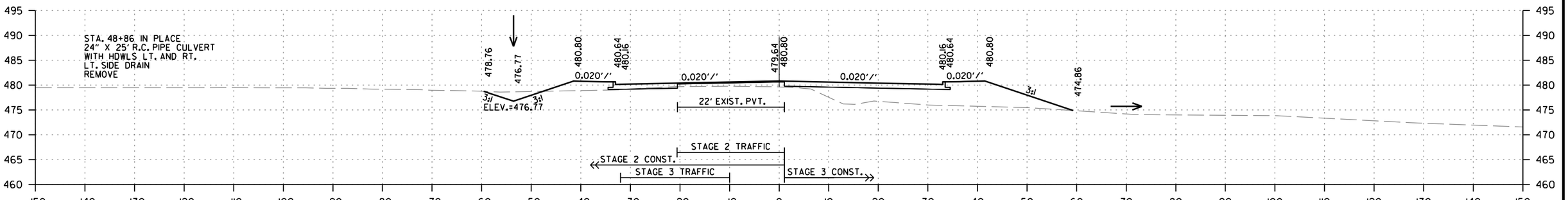
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	4 SQ. FT.	CUT AREA	2 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	41 SQ. FT.	FILL AREA	115 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	6 CU. YD.	CUT VOLUME	4 CU. YD.
FIL_ VOLUME	0 CU. YD.	FILL VOLUME	77 CU. YD.	FILL VOLUME	215 CU. YD.

HWY. 5
STA. 46+80 TO STA. 47+30

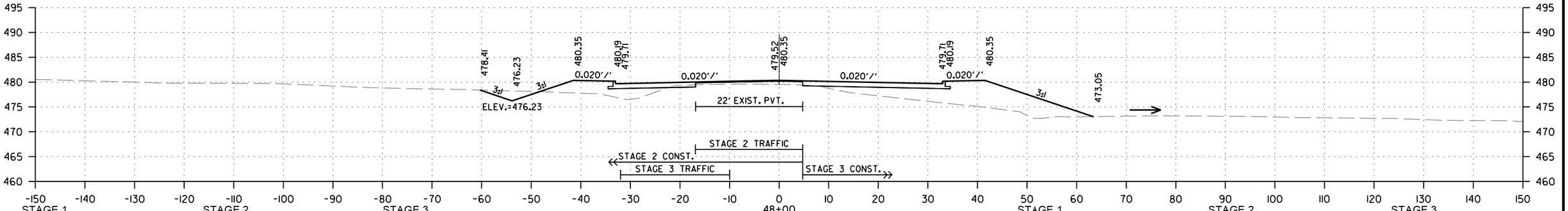
lw39665 3/1/2023
R061508.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	111	150
		CROSS SECTIONS				



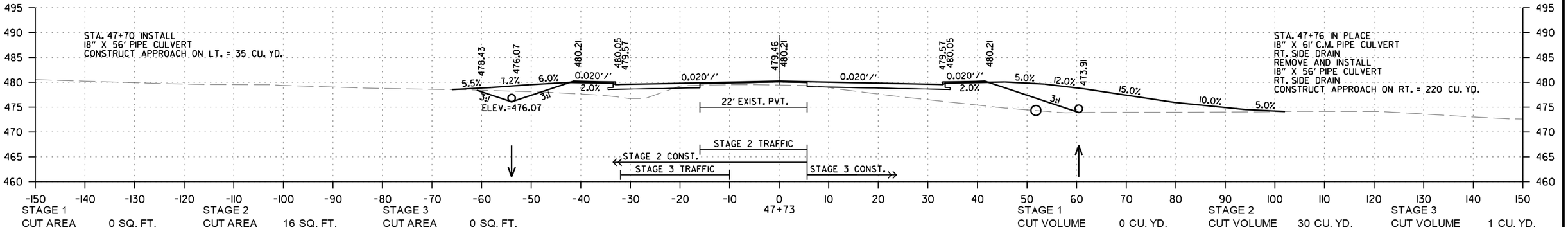
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	13 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	20 SQ. FT.	FILL AREA	158 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	43 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	105 CU. YD.	FILL VOLUME	494 CU. YD.



STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	14 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	46 SQ. FT.	FILL AREA	152 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	15 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	46 CU. YD.	FILL VOLUME	134 CU. YD.



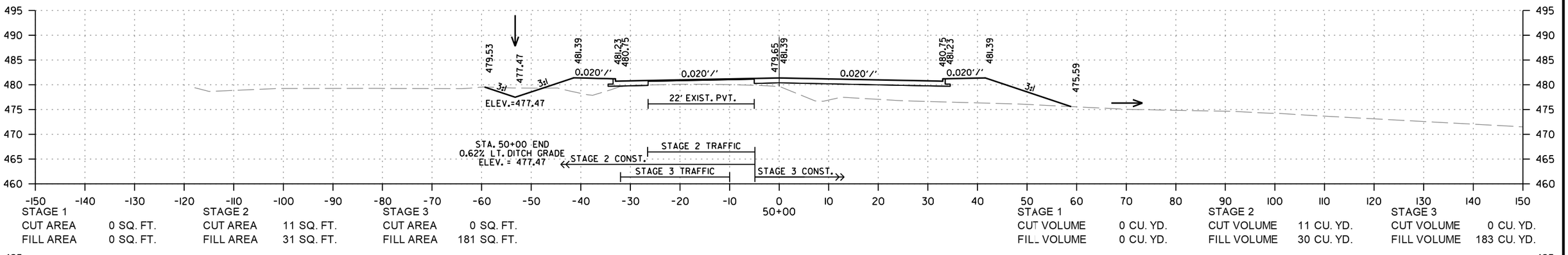
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	16 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	45 SQ. FT.	FILL AREA	116 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	30 CU. YD.	CUT VOLUME	1 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	68 CU. YD.	FILL VOLUME	191 CU. YD.

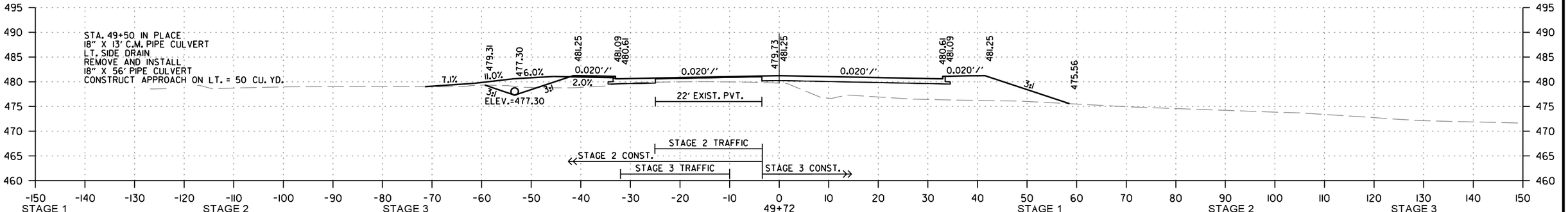
HWY. 5
STA. 47+73 TO STA. 48+86

lw39665 3/1/2023
R061508.DGN

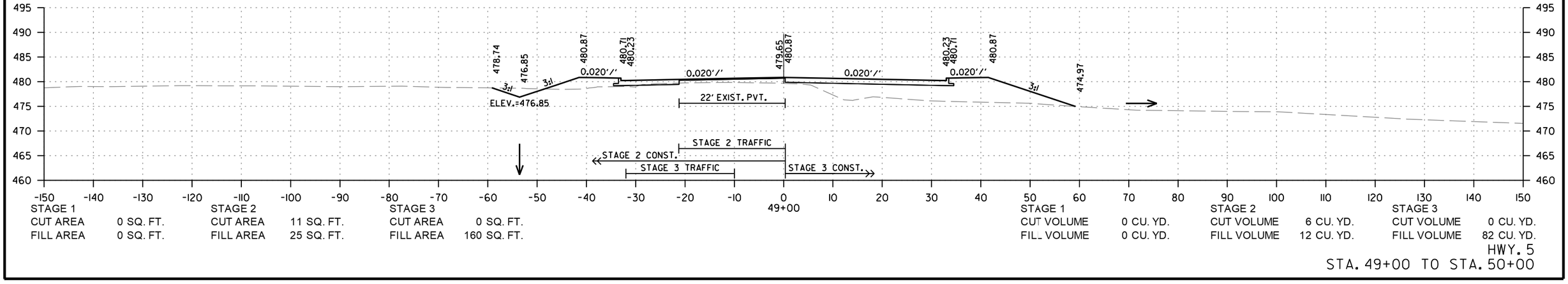
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	112	150
		CROSS SECTIONS				



STAGE 1		STAGE 2		STAGE 3		50+00	STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	11 SQ. FT.	CUT AREA	0 SQ. FT.		CUT VOLUME	0 CU. YD.	CUT VOLUME	11 CU. YD.	CUT VOLUME	0 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	31 SQ. FT.	FILL AREA	181 SQ. FT.		FILL VOLUME	0 CU. YD.	FILL VOLUME	30 CU. YD.	FILL VOLUME	183 CU. YD.



STAGE 1		STAGE 2		STAGE 3		49+72	STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	11 SQ. FT.	CUT AREA	0 SQ. FT.		CUT VOLUME	0 CU. YD.	CUT VOLUME	29 CU. YD.	CUT VOLUME	0 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	26 SQ. FT.	FILL AREA	172 SQ. FT.		FILL VOLUME	0 CU. YD.	FILL VOLUME	68 CU. YD.	FILL VOLUME	443 CU. YD.

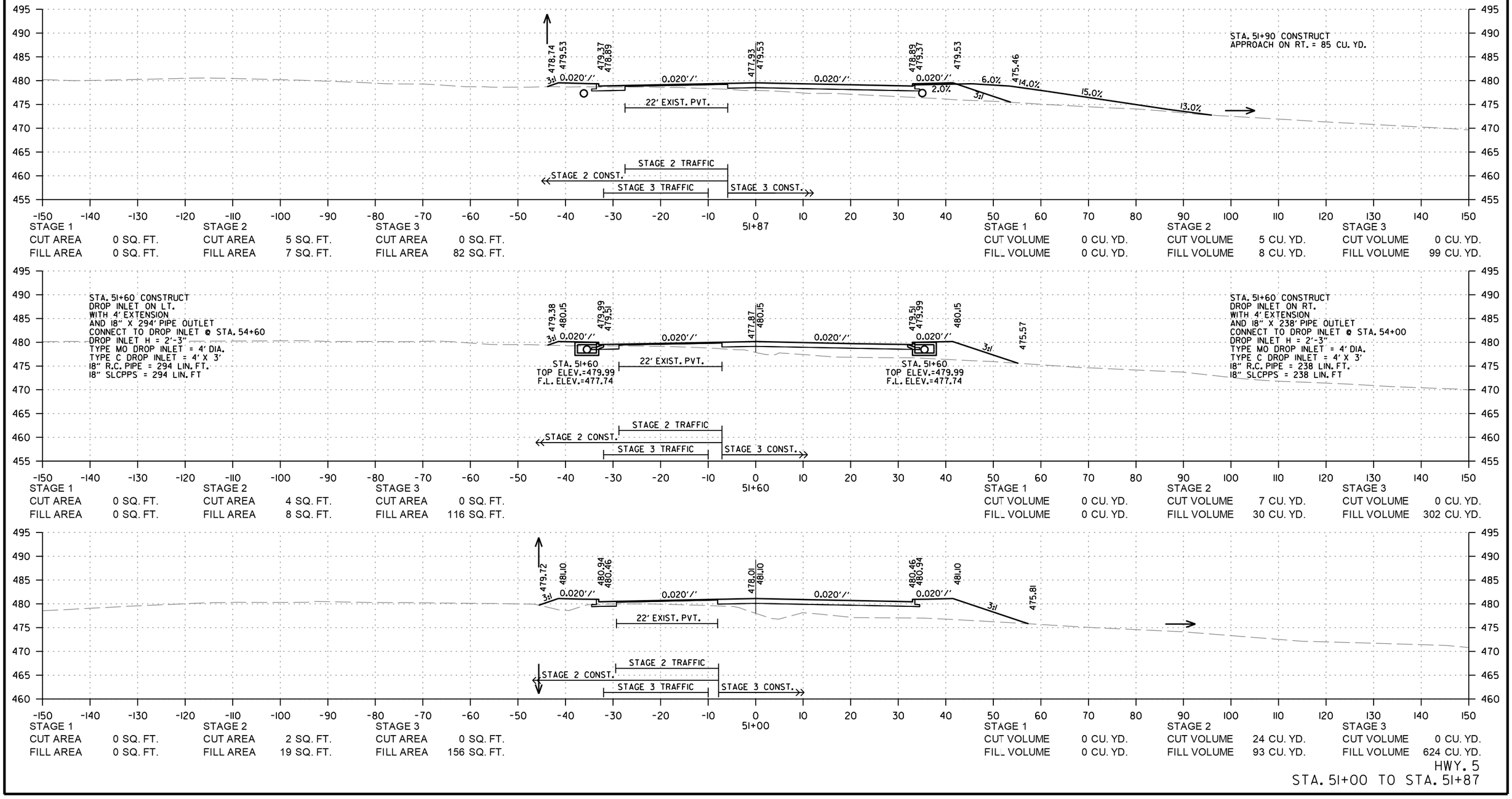


STAGE 1		STAGE 2		STAGE 3		49+00	STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	11 SQ. FT.	CUT AREA	0 SQ. FT.		CUT VOLUME	0 CU. YD.	CUT VOLUME	6 CU. YD.	CUT VOLUME	0 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	25 SQ. FT.	FILL AREA	160 SQ. FT.		FILL VOLUME	0 CU. YD.	FILL VOLUME	12 CU. YD.	FILL VOLUME	82 CU. YD.

HWY. 5
STA. 49+00 TO STA. 50+00

lw39665 3/1/2023
R061508.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	113	150
		CROSS SECTIONS				



51+87	STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
	CUT AREA	0 SQ. FT.	CUT AREA	5 SQ. FT.	CUT AREA	0 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	5 CU. YD.	CUT VOLUME	0 CU. YD.
	FILL AREA	0 SQ. FT.	FILL AREA	7 SQ. FT.	FILL AREA	82 SQ. FT.	FILL VOLUME	0 CU. YD.	FILL VOLUME	8 CU. YD.	FILL VOLUME	99 CU. YD.

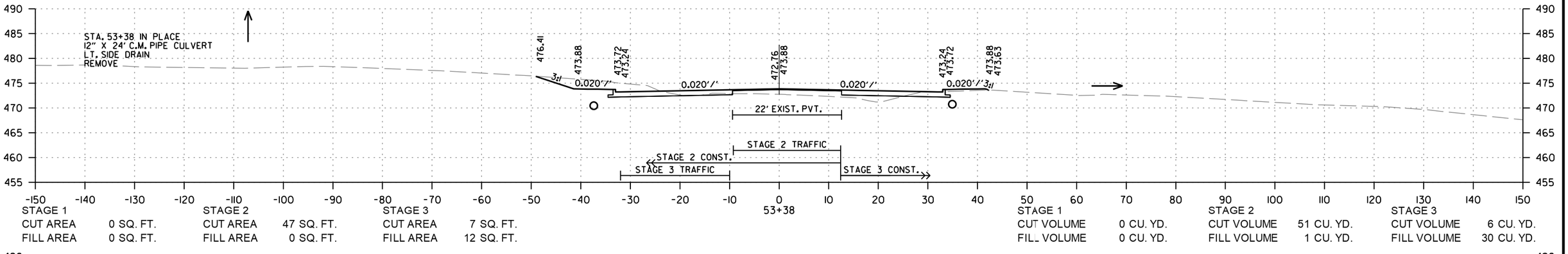
51+60	STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
	CUT AREA	0 SQ. FT.	CUT AREA	4 SQ. FT.	CUT AREA	0 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	7 CU. YD.	CUT VOLUME	0 CU. YD.
	FILL AREA	0 SQ. FT.	FILL AREA	8 SQ. FT.	FILL AREA	116 SQ. FT.	FILL VOLUME	0 CU. YD.	FILL VOLUME	30 CU. YD.	FILL VOLUME	302 CU. YD.

51+00	STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
	CUT AREA	0 SQ. FT.	CUT AREA	2 SQ. FT.	CUT AREA	0 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	24 CU. YD.	CUT VOLUME	0 CU. YD.
	FILL AREA	0 SQ. FT.	FILL AREA	19 SQ. FT.	FILL AREA	156 SQ. FT.	FILL VOLUME	0 CU. YD.	FILL VOLUME	93 CU. YD.	FILL VOLUME	624 CU. YD.

HWY. 5
STA. 51+00 TO STA. 51+87

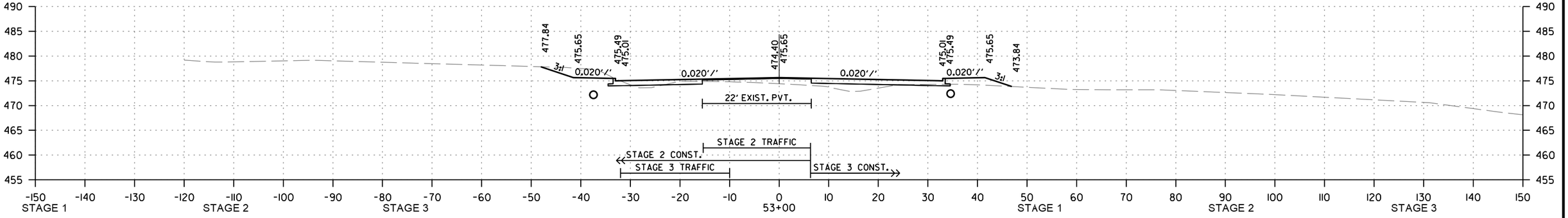
lw39665 3/1/2023
R061508.DGN

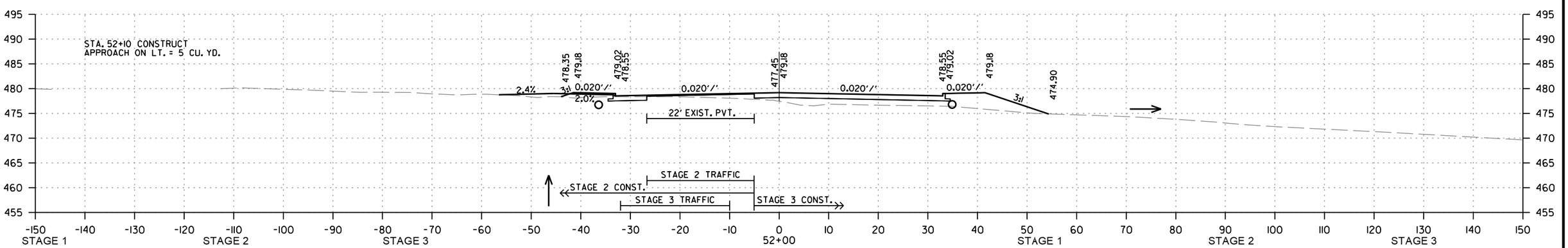
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	114	150
		CROSS SECTIONS				



STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	47 SQ. FT.	CUT AREA	7 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	0 SQ. FT.	FILL AREA	12 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	51 CU. YD.	CUT VOLUME	6 CU. YD.
FIL_ VOLUME	0 CU. YD.	FILL VOLUME	1 CU. YD.	FILL VOLUME	30 CU. YD.





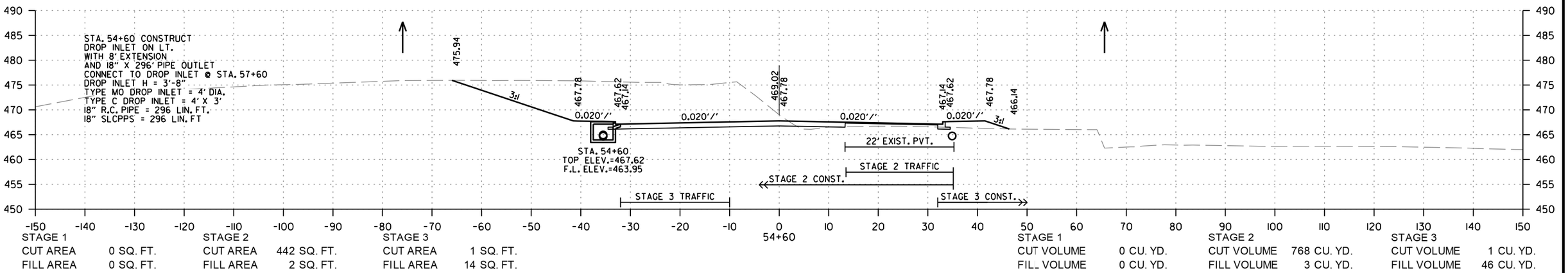
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	6 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	8 SQ. FT.	FILL AREA	86 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	3 CU. YD.	CUT VOLUME	0 CU. YD.
FIL_ VOLUME	0 CU. YD.	FILL VOLUME	4 CU. YD.	FILL VOLUME	40 CU. YD.

HWY. 5
STA. 52+00 TO STA. 53+38

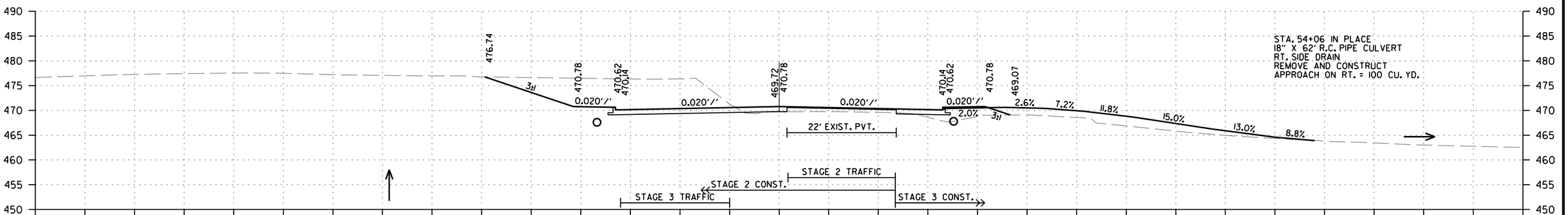
lw39665 3/1/2023
R061508.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	115	150
		CROSS SECTIONS				



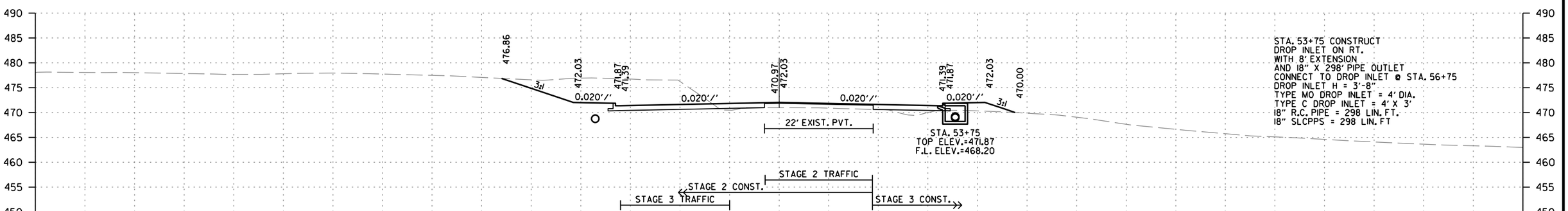
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	442 SQ. FT.	CUT AREA	1 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	2 SQ. FT.	FILL AREA	14 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	768 CU. YD.	CUT VOLUME	1 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	3 CU. YD.	FILL VOLUME	46 CU. YD.



STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	249 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	1 SQ. FT.	FILL AREA	27 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	198 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	1 CU. YD.	FILL VOLUME	23 CU. YD.



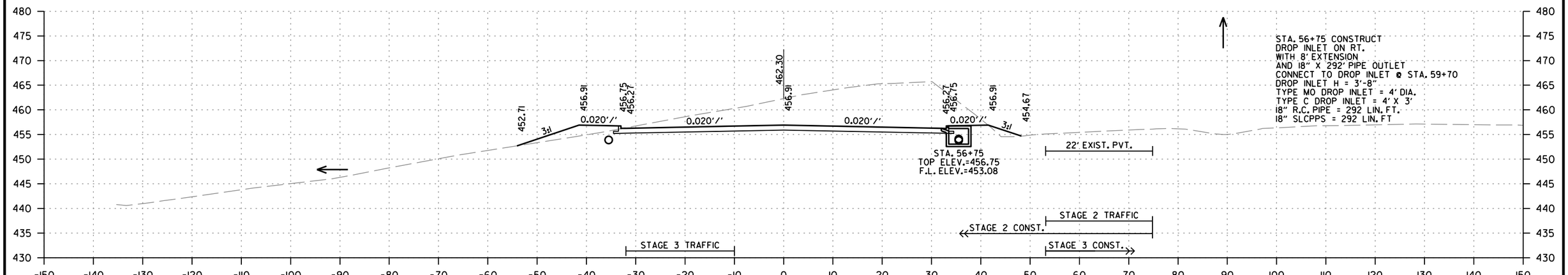
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	178 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	1 SQ. FT.	FILL AREA	23 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	154 CU. YD.	CUT VOLUME	5 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	1 CU. YD.	FILL VOLUME	24 CU. YD.

HWY. 5
STA. 53+75 TO STA. 54+60

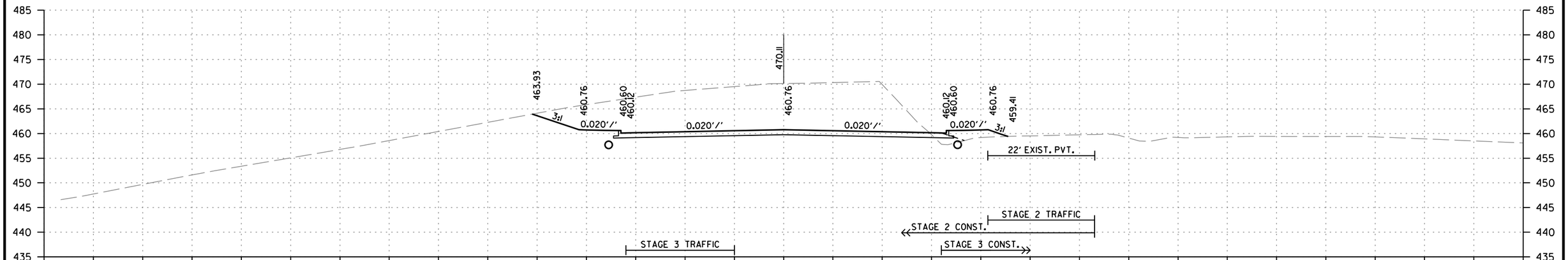
lw39665 3/1/2023
R061508.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	116	150
		CROSS SECTIONS				



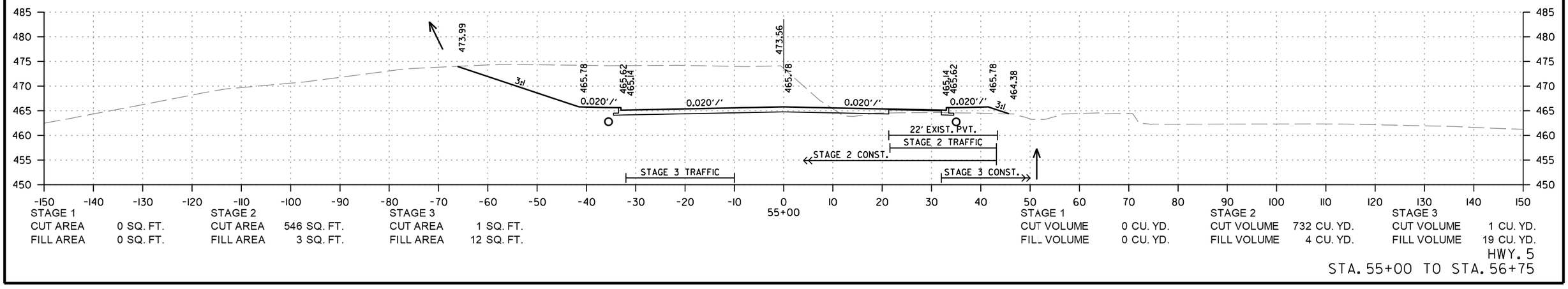
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	444 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	30 SQ. FT.	FILL AREA	0 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	1522 CU. YD.	CUT VOLUME	0 CU. YD.
FIL_ VOLUME	0 CU. YD.	FILL VOLUME	49 CU. YD.	FILL VOLUME	22 CU. YD.



STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	652 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	5 SQ. FT.	FILL AREA	16 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	2219 CU. YD.	CUT VOLUME	2 CU. YD.
FIL_ VOLUME	0 CU. YD.	FILL VOLUME	15 CU. YD.	FILL VOLUME	52 CU. YD.



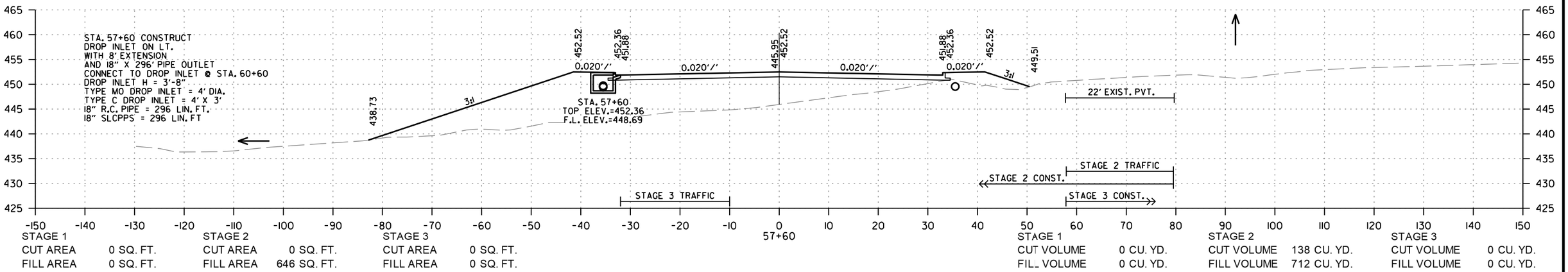
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	546 SQ. FT.	CUT AREA	1 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	3 SQ. FT.	FILL AREA	12 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	732 CU. YD.	CUT VOLUME	1 CU. YD.
FIL_ VOLUME	0 CU. YD.	FILL VOLUME	4 CU. YD.	FILL VOLUME	19 CU. YD.

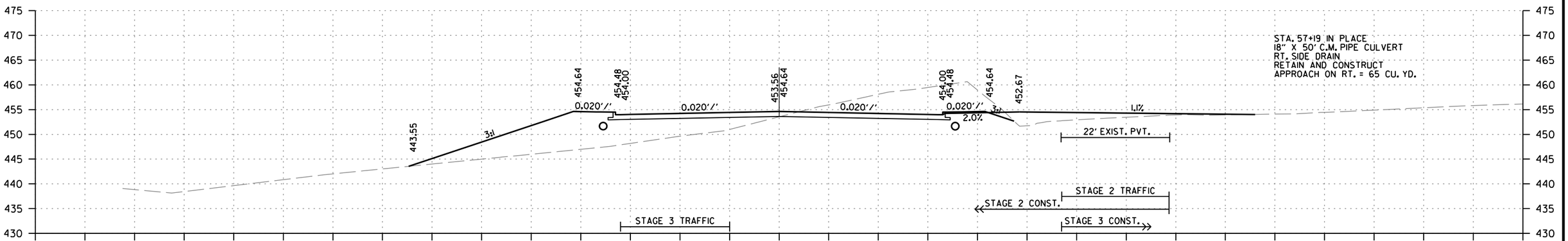
HWY. 5
STA. 55+00 TO STA. 56+75

lw39665 3/1/2023
R061508.DGN

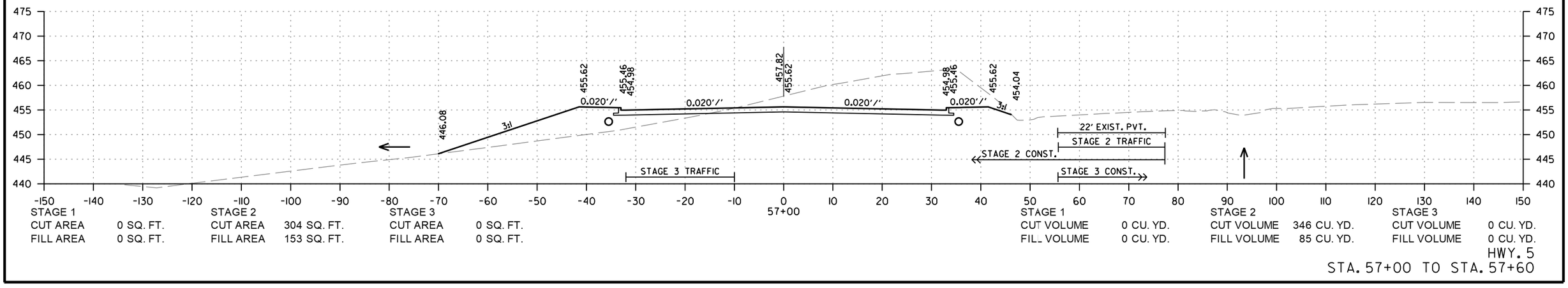
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	117	150
		CROSS SECTIONS				



STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	138 CU. YD.	CUT VOLUME	0 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	646 SQ. FT.	FILL AREA	0 SQ. FT.	FILL VOLUME	0 CU. YD.	FILL VOLUME	712 CU. YD.	FILL VOLUME	0 CU. YD.



STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	182 SQ. FT.	CUT AREA	0 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	171 CU. YD.	CUT VOLUME	0 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	292 SQ. FT.	FILL AREA	0 SQ. FT.	FILL VOLUME	0 CU. YD.	FILL VOLUME	157 CU. YD.	FILL VOLUME	0 CU. YD.

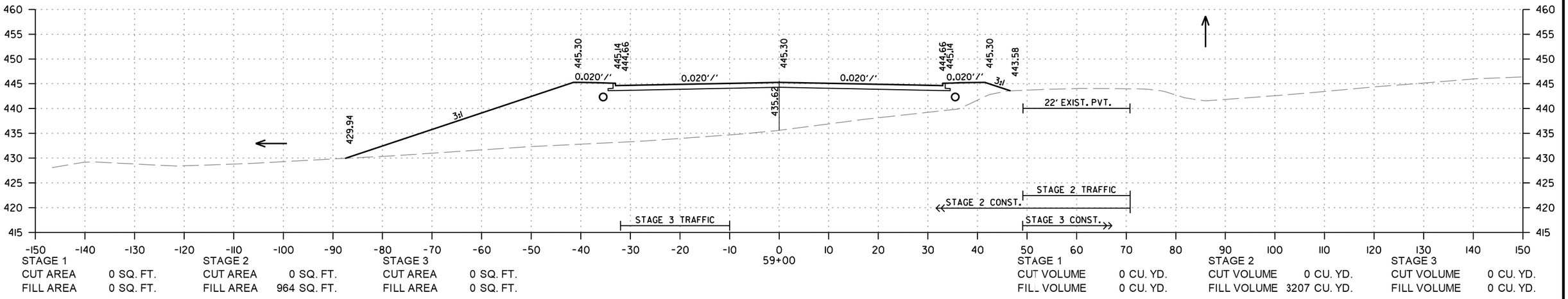


STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	304 SQ. FT.	CUT AREA	0 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	346 CU. YD.	CUT VOLUME	0 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	153 SQ. FT.	FILL AREA	0 SQ. FT.	FILL VOLUME	0 CU. YD.	FILL VOLUME	85 CU. YD.	FILL VOLUME	0 CU. YD.

HWY. 5
STA. 57+00 TO STA. 57+60

lw39665 3/1/2023
R061508.DGN

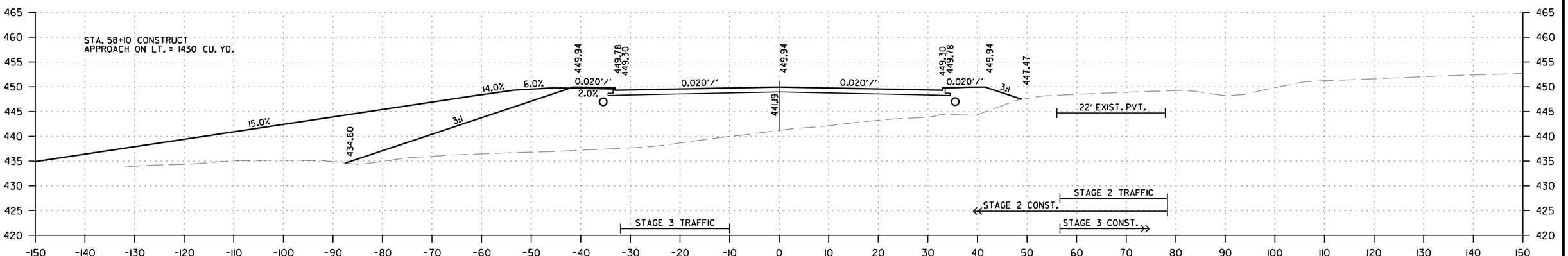
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	118	150
		CROSS SECTIONS				



STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	964 SQ. FT.	FILL AREA	0 SQ. FT.	FIL_ VOLUME	0 CU. YD.	FILL VOLUME	3207 CU. YD.	FILL VOLUME	0 CU. YD.

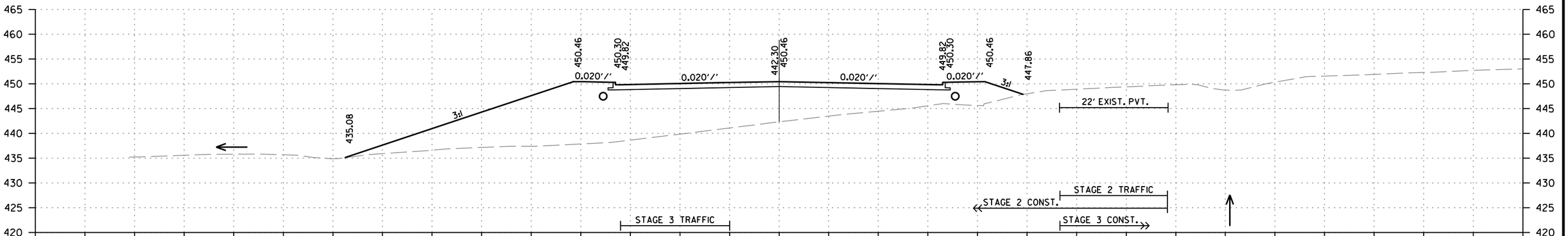
59+00

STA. 58+10 CONSTRUCT
APPROACH ON LT. = 1430 CU. YD.



STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	960 SQ. FT.	FILL AREA	0 SQ. FT.	FIL_ VOLUME	0 CU. YD.	FILL VOLUME	343 CU. YD.	FILL VOLUME	0 CU. YD.

58+10



STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	894 SQ. FT.	FILL AREA	0 SQ. FT.	FIL_ VOLUME	0 CU. YD.	FILL VOLUME	1141 CU. YD.	FILL VOLUME	0 CU. YD.

58+00

HWY. 5
STA. 58+00 TO STA. 59+00

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R061508.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	119	150
		CROSS SECTIONS				

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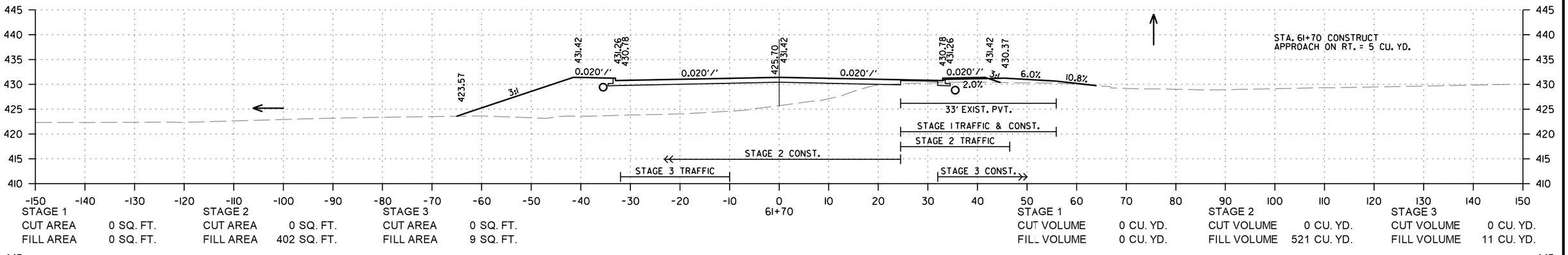
R061508.DGN

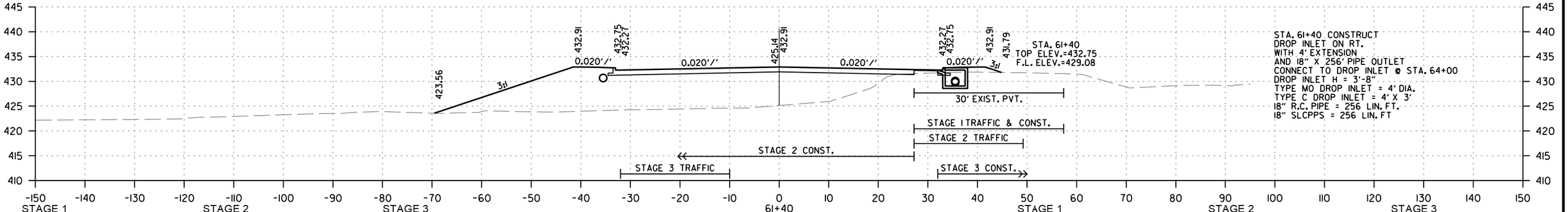
HWY. 5
STA. 59+70 TO STA. 60+60

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	120	150
		CROSS SECTIONS				



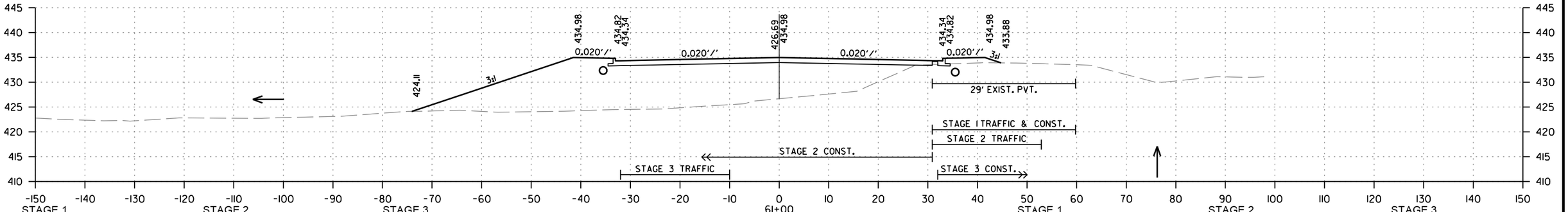
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	402 SQ. FT.	FILL AREA	9 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.
FIL_ VOLUME	0 CU. YD.	FILL VOLUME	521 CU. YD.	FILL VOLUME	11 CU. YD.



STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	535 SQ. FT.	FILL AREA	10 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.
FIL_ VOLUME	0 CU. YD.	FILL VOLUME	838 CU. YD.	FILL VOLUME	15 CU. YD.



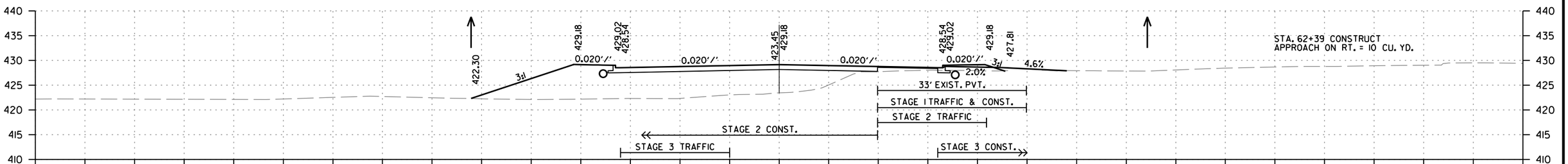
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	596 SQ. FT.	FILL AREA	10 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.
FIL_ VOLUME	0 CU. YD.	FILL VOLUME	1037 CU. YD.	FILL VOLUME	16 CU. YD.

HWY. 5
STA. 61+00 TO STA. 61+70

lw39665 3/1/2023
R061508.DGN

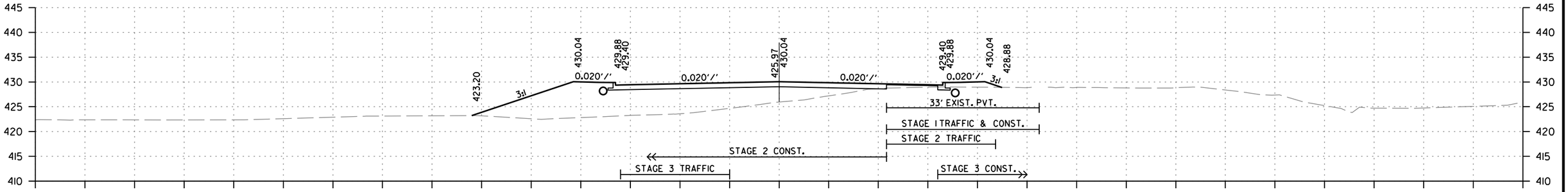
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	121	150
		CROSS SECTIONS				



62+20

STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	352 SQ. FT.	FILL AREA	12 SQ. FT.

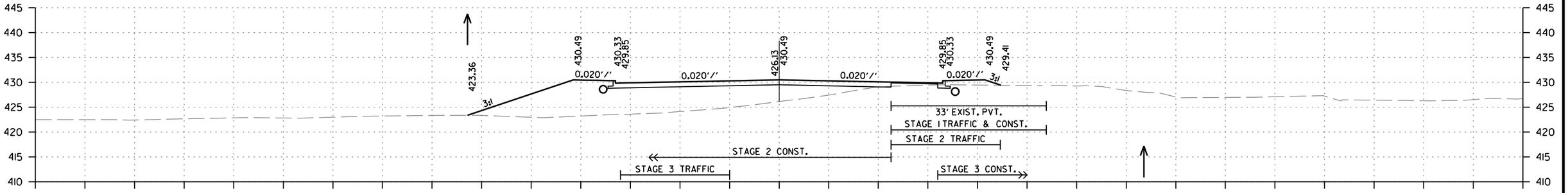
STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.
FIL_ VOLUME	0 CU. YD.	FILL VOLUME	248 CU. YD.	FILL VOLUME	8 CU. YD.



62+00

STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	318 SQ. FT.	FILL AREA	10 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.
FIL_ VOLUME	0 CU. YD.	FILL VOLUME	120 CU. YD.	FILL VOLUME	4 CU. YD.



61+90

STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	329 SQ. FT.	FILL AREA	9 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.
FIL_ VOLUME	0 CU. YD.	FILL VOLUME	271 CU. YD.	FILL VOLUME	7 CU. YD.

HWY. 5
STA. 61+90 TO STA. 62+20

lw39665 3/1/2023
R061508.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	122	150
		CROSS SECTIONS				

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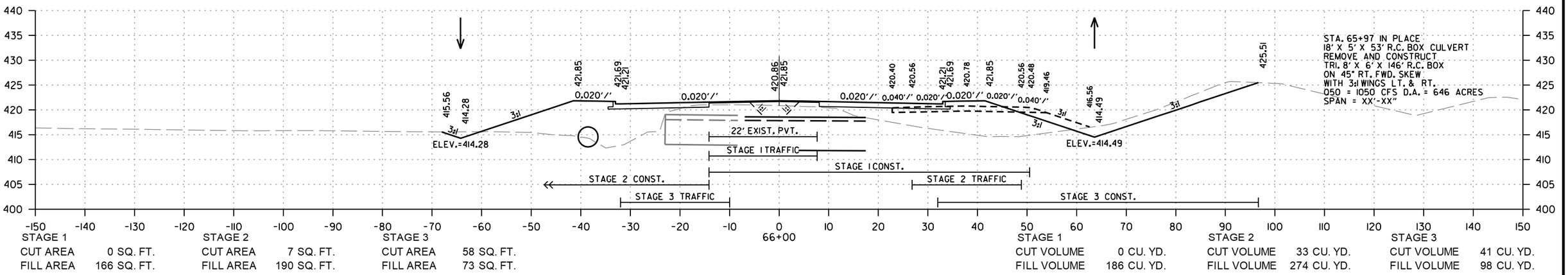
R061508.DGN

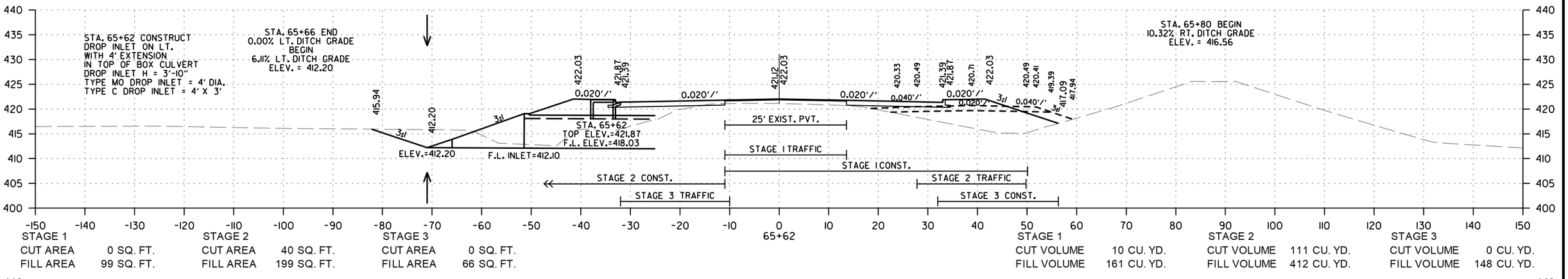
HWY. 5
STA. 63+00 TO STA. 64+00

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	123	150
		CROSS SECTIONS				



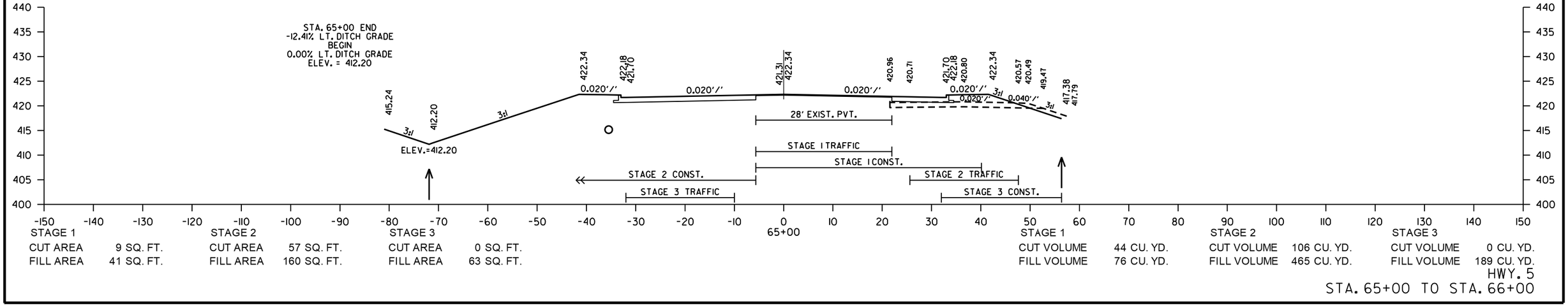
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	7 SQ. FT.	CUT AREA	58 SQ. FT.
FILL AREA	166 SQ. FT.	FILL AREA	190 SQ. FT.	FILL AREA	73 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	33 CU. YD.	CUT VOLUME	41 CU. YD.
FILL VOLUME	186 CU. YD.	FILL VOLUME	274 CU. YD.	FILL VOLUME	98 CU. YD.



STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	40 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	99 SQ. FT.	FILL AREA	199 SQ. FT.	FILL AREA	66 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	10 CU. YD.	CUT VOLUME	111 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	161 CU. YD.	FILL VOLUME	412 CU. YD.	FILL VOLUME	148 CU. YD.



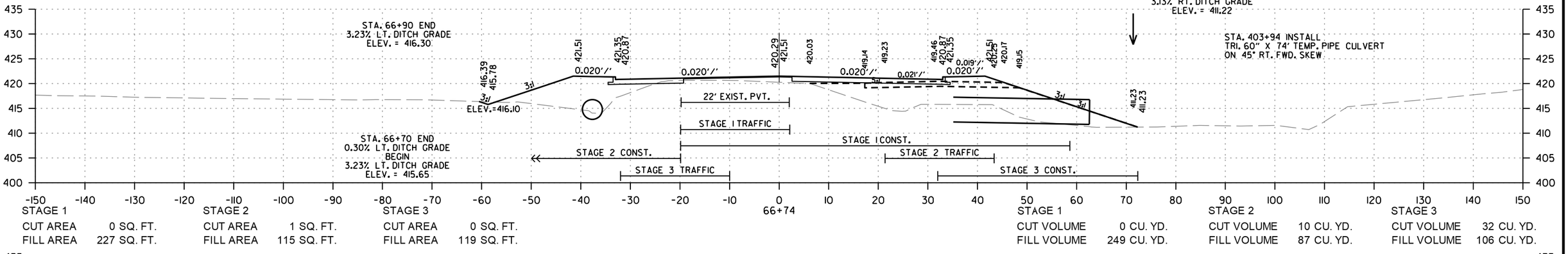
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	9 SQ. FT.	CUT AREA	57 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	41 SQ. FT.	FILL AREA	160 SQ. FT.	FILL AREA	63 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	44 CU. YD.	CUT VOLUME	106 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	76 CU. YD.	FILL VOLUME	465 CU. YD.	FILL VOLUME	189 CU. YD.

HWY. 5
STA. 65+00 TO STA. 66+00

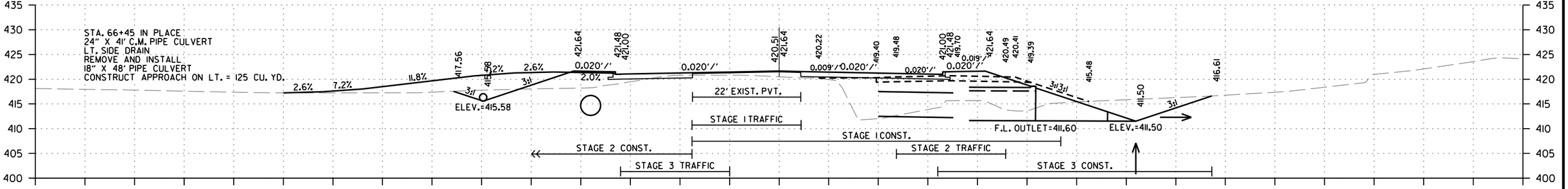
lw39665 3/1/2023
R061508.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	124	150
		CROSS SECTIONS				



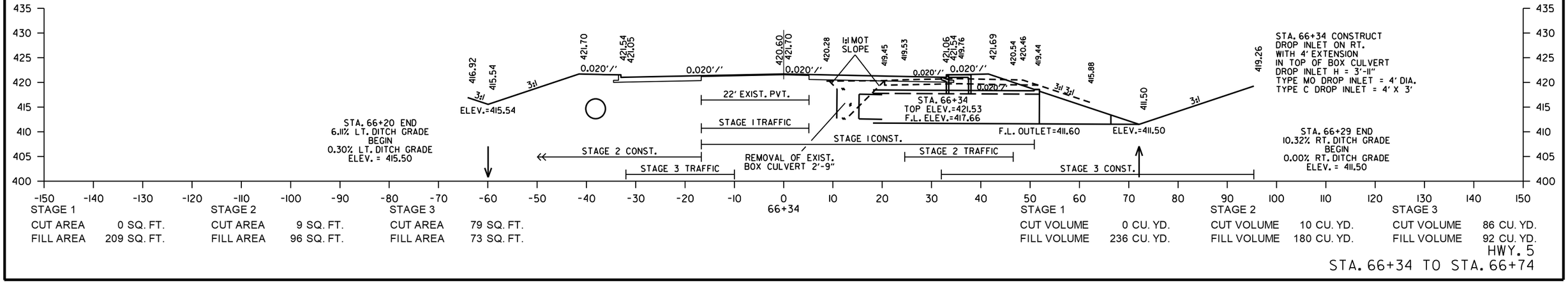
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	1 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	227 SQ. FT.	FILL AREA	115 SQ. FT.	FILL AREA	119 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	10 CU. YD.	CUT VOLUME	32 CU. YD.
FILL VOLUME	249 CU. YD.	FILL VOLUME	87 CU. YD.	FILL VOLUME	106 CU. YD.



STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	18 SQ. FT.	CUT AREA	60 SQ. FT.
FILL AREA	237 SQ. FT.	FILL AREA	47 SQ. FT.	FILL AREA	78 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	6 CU. YD.	CUT VOLUME	28 CU. YD.
FILL VOLUME	91 CU. YD.	FILL VOLUME	29 CU. YD.	FILL VOLUME	31 CU. YD.



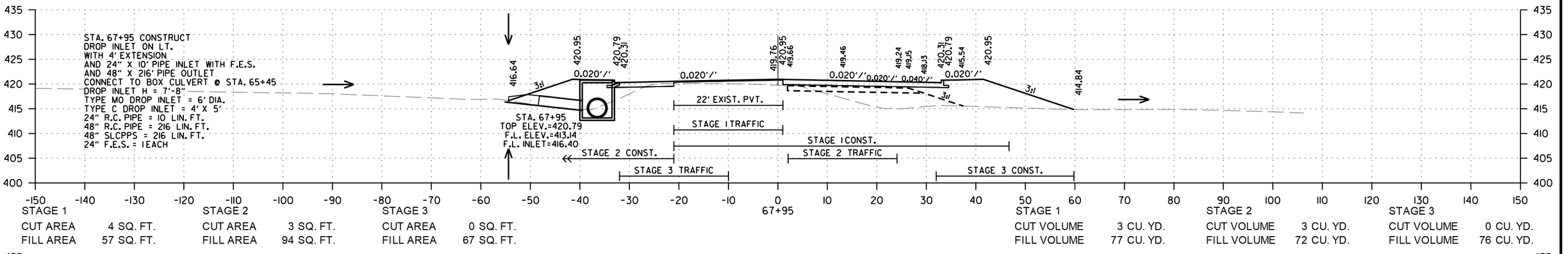
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	9 SQ. FT.	CUT AREA	79 SQ. FT.
FILL AREA	209 SQ. FT.	FILL AREA	96 SQ. FT.	FILL AREA	73 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	10 CU. YD.	CUT VOLUME	86 CU. YD.
FILL VOLUME	236 CU. YD.	FILL VOLUME	180 CU. YD.	FILL VOLUME	92 CU. YD.

HWY. 5
STA. 66+34 TO STA. 66+74

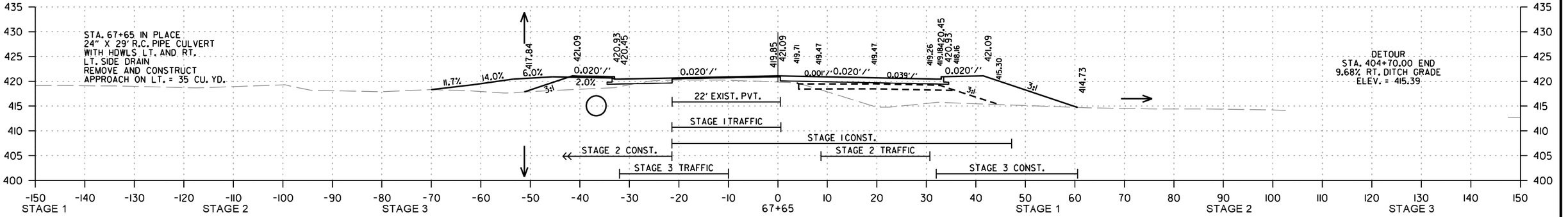
lw39665 3/1/2023
R061508.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	125	150
		CROSS SECTIONS				



STAGE 1		STAGE 2		STAGE 3	
CUT AREA	4 SQ. FT.	CUT AREA	3 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	57 SQ. FT.	FILL AREA	94 SQ. FT.	FILL AREA	67 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	3 CU. YD.	CUT VOLUME	3 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	77 CU. YD.	FILL VOLUME	72 CU. YD.	FILL VOLUME	76 CU. YD.



STAGE 1		STAGE 2		STAGE 3	
CUT AREA	2 SQ. FT.	CUT AREA	3 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	81 SQ. FT.	FILL AREA	35 SQ. FT.	FILL AREA	69 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	2 CU. YD.	CUT VOLUME	6 CU. YD.	CUT VOLUME	33 CU. YD.
FILL VOLUME	254 CU. YD.	FILL VOLUME	181 CU. YD.	FILL VOLUME	194 CU. YD.

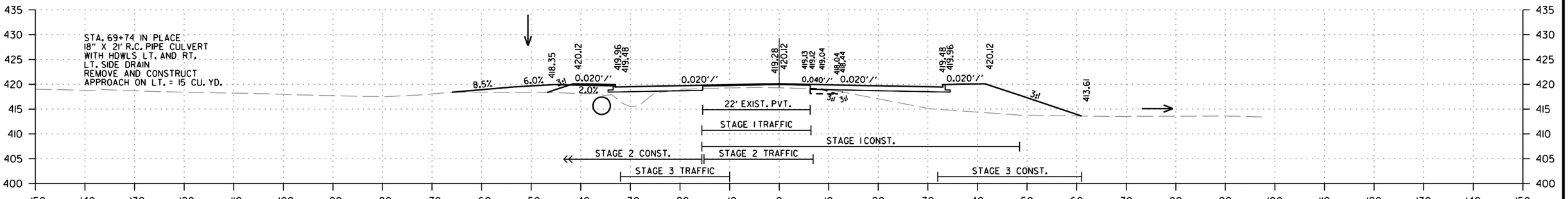
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	2 SQ. FT.	CUT AREA	27 SQ. FT.
FILL AREA	130 SQ. FT.	FILL AREA	115 SQ. FT.	FILL AREA	92 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	1 CU. YD.	CUT VOLUME	13 CU. YD.
FILL VOLUME	172 CU. YD.	FILL VOLUME	111 CU. YD.	FILL VOLUME	102 CU. YD.

HWY. 5
STA. 67+00 TO STA. 67+95

lw39665 3/1/2023
R061508.DGN

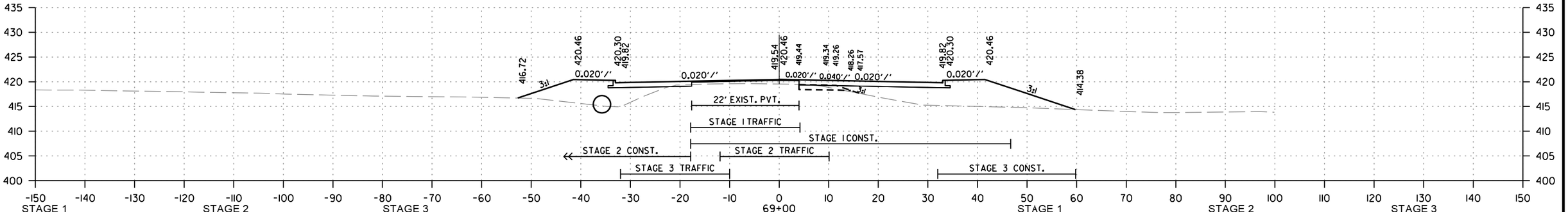
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	126	150
		CROSS SECTIONS				



STAGE 1		STAGE 2		STAGE 3	
CUT AREA	4 SQ. FT.	CUT AREA	2 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	38 SQ. FT.	FILL AREA	72 SQ. FT.

69+74

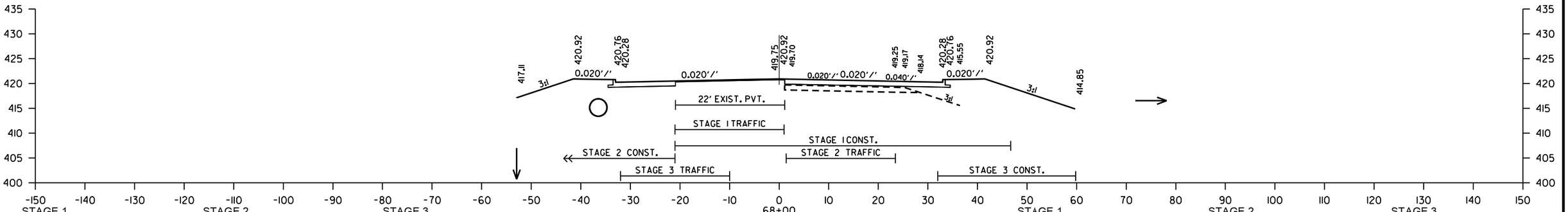
STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	14 CU. YD.	CUT VOLUME	4 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	1 CU. YD.	FILL VOLUME	174 CU. YD.	FILL VOLUME	189 CU. YD.



STAGE 1		STAGE 2		STAGE 3	
CUT AREA	6 SQ. FT.	CUT AREA	1 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	1 SQ. FT.	FILL AREA	89 SQ. FT.	FILL AREA	66 SQ. FT.

69+00

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	19 CU. YD.	CUT VOLUME	7 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	94 CU. YD.	FILL VOLUME	324 CU. YD.	FILL VOLUME	246 CU. YD.



STAGE 1		STAGE 2		STAGE 3	
CUT AREA	4 SQ. FT.	CUT AREA	3 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	50 SQ. FT.	FILL AREA	86 SQ. FT.	FILL AREA	67 SQ. FT.

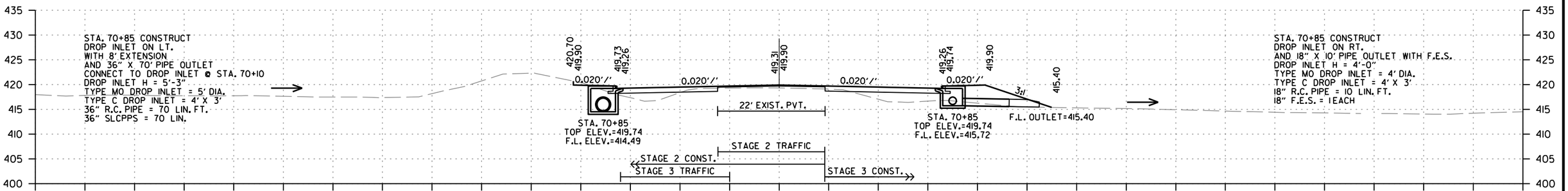
68+00

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	1 CU. YD.	CUT VOLUME	1 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	10 CU. YD.	FILL VOLUME	17 CU. YD.	FILL VOLUME	12 CU. YD.

HWY. 5
STA. 68+00 TO STA. 69+74

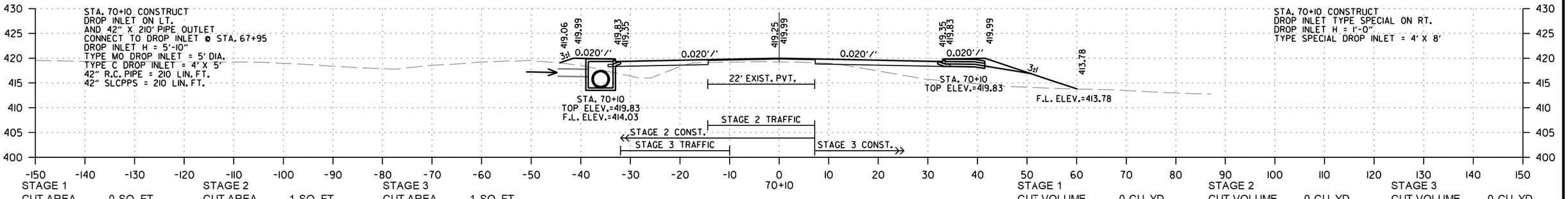
lw39665 3/1/2023
R061508.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	127	150
		CROSS SECTIONS				



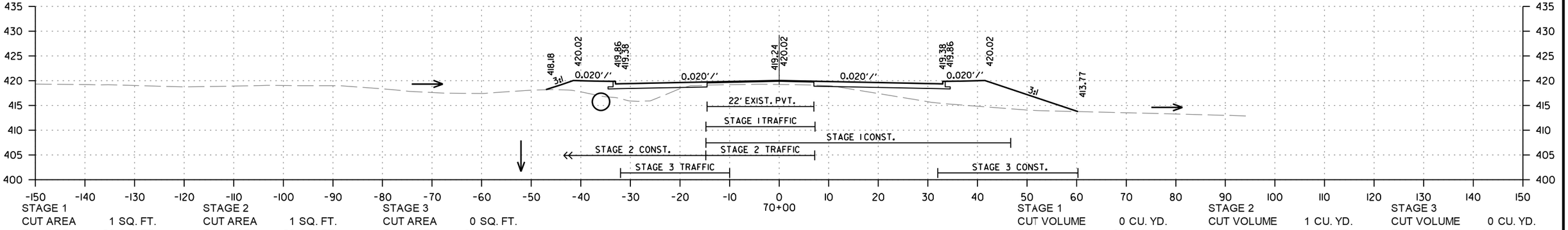
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	5 SQ. FT.	CUT AREA	2 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	17 SQ. FT.	FILL AREA	81 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	8 CU. YD.	CUT VOLUME	4 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	79 CU. YD.	FILL VOLUME	286 CU. YD.



STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	1 SQ. FT.	CUT AREA	1 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	40 SQ. FT.	FILL AREA	125 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	10 CU. YD.	FILL VOLUME	17 CU. YD.	FILL VOLUME	36 CU. YD.



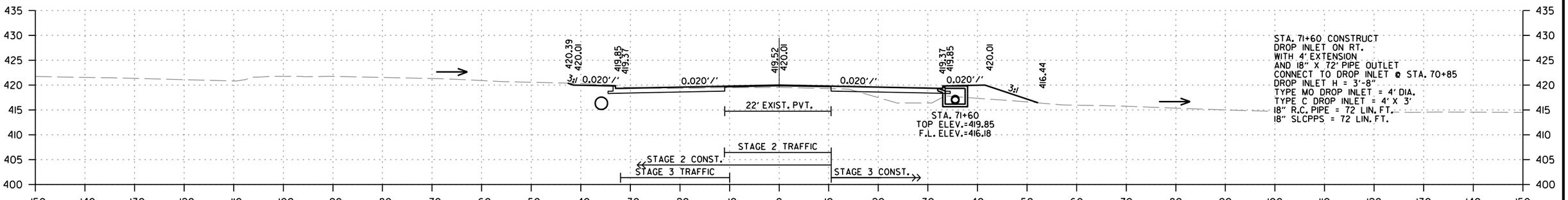
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	1 SQ. FT.	CUT AREA	1 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	56 SQ. FT.	FILL AREA	53 SQ. FT.	FILL AREA	69 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	1 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	63 CU. YD.	FILL VOLUME	44 CU. YD.	FILL VOLUME	68 CU. YD.

HWY. 5
STA. 70+00 TO STA. 70+85

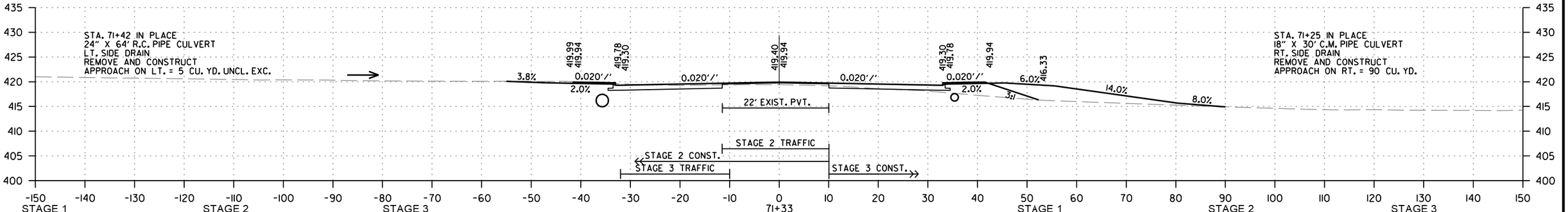
tw39665 3/1/2023
R061508.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	128	150
		CROSS SECTIONS				



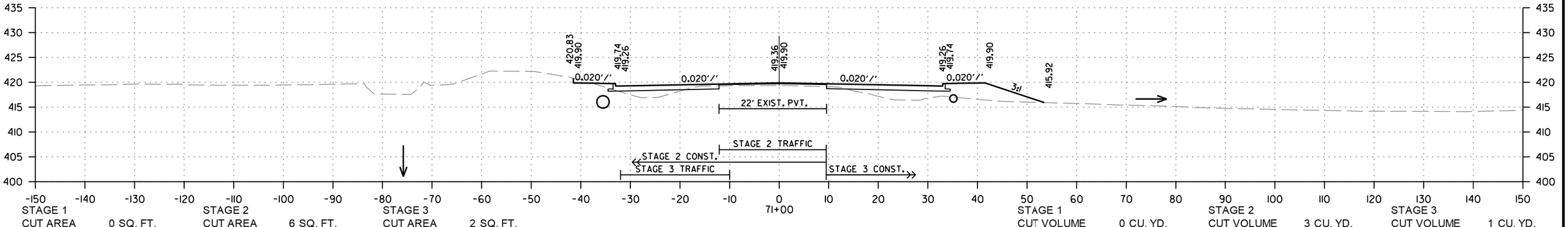
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	20 SQ. FT.	CUT AREA	2 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	2 SQ. FT.	FILL AREA	59 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	20 CU. YD.	CUT VOLUME	2 CU. YD.
FIL_ VOLUME	0 CU. YD.	FILL VOLUME	1 CU. YD.	FILL VOLUME	48 CU. YD.



STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	19 SQ. FT.	CUT AREA	2 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	0 SQ. FT.	FILL AREA	36 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	15 CU. YD.	CUT VOLUME	2 CU. YD.
FIL_ VOLUME	0 CU. YD.	FILL VOLUME	9 CU. YD.	FILL VOLUME	65 CU. YD.



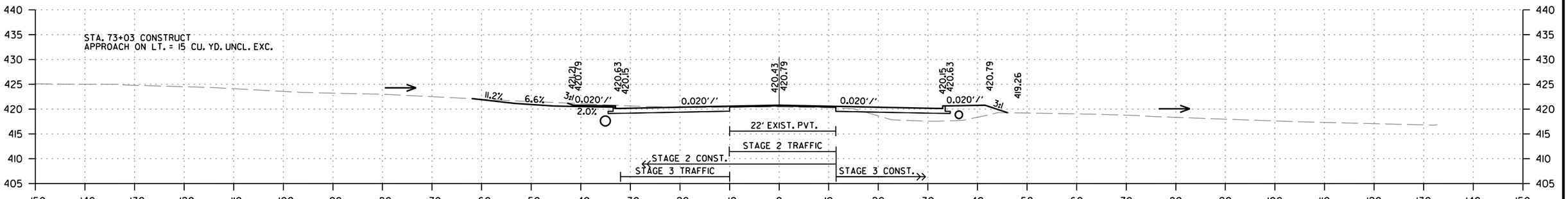
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	6 SQ. FT.	CUT AREA	2 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	15 SQ. FT.	FILL AREA	71 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	3 CU. YD.	CUT VOLUME	1 CU. YD.
FIL_ VOLUME	0 CU. YD.	FILL VOLUME	9 CU. YD.	FILL VOLUME	42 CU. YD.

HWY. 5
STA. 71+00 TO STA. 71+60

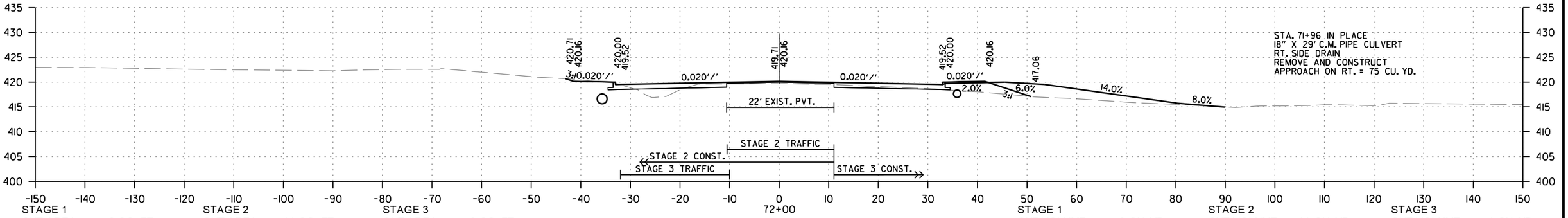
lw39665 3/1/2023
R061508.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	129	150
		CROSS SECTIONS				



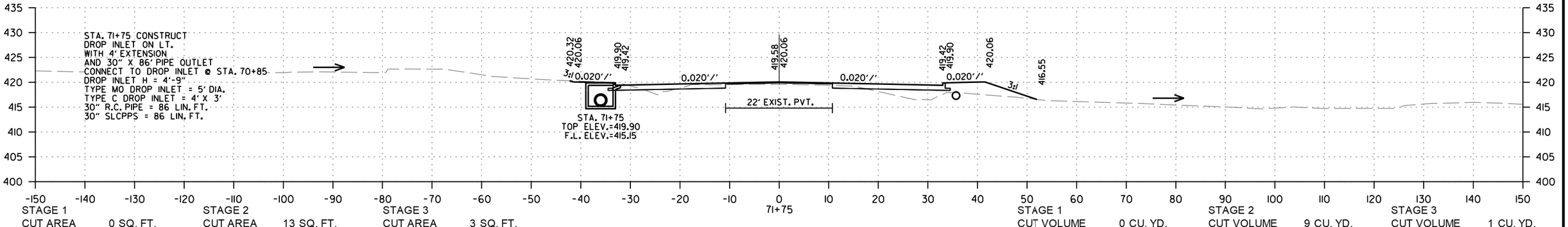
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	29 SQ. FT.	CUT AREA	3 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	0 SQ. FT.	FILL AREA	47 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	74 CU. YD.	CUT VOLUME	17 CU. YD.
FIL_ VOLUME	0 CU. YD.	FILL VOLUME	20 CU. YD.	FILL VOLUME	133 CU. YD.



STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	11 SQ. FT.	CUT AREA	6 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	11 SQ. FT.	FILL AREA	25 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	11 CU. YD.	CUT VOLUME	4 CU. YD.
FIL_ VOLUME	0 CU. YD.	FILL VOLUME	6 CU. YD.	FILL VOLUME	35 CU. YD.



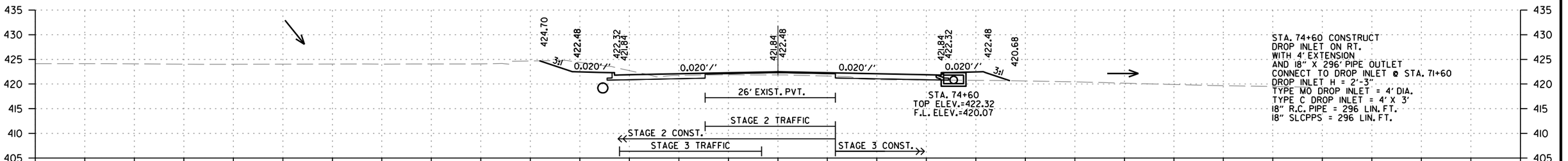
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	13 SQ. FT.	CUT AREA	3 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	3 SQ. FT.	FILL AREA	50 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	9 CU. YD.	CUT VOLUME	1 CU. YD.
FIL_ VOLUME	0 CU. YD.	FILL VOLUME	1 CU. YD.	FILL VOLUME	30 CU. YD.

HWY. 5
STA. 71+75 TO STA. 73+00

lw39665 3/1/2023
R061508.DGN

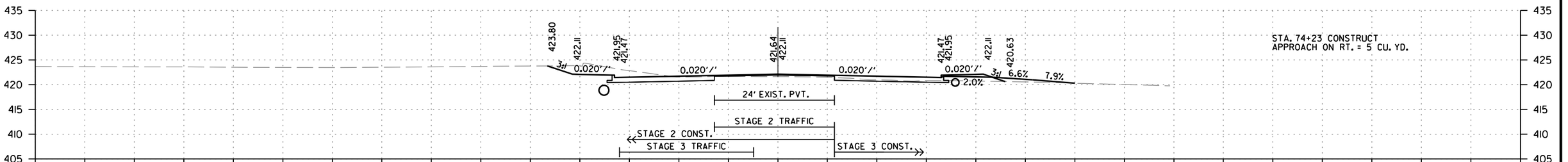
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	130	150
		CROSS SECTIONS				



74+60

STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	42 SQ. FT.	CUT AREA	1 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	0 SQ. FT.	FILL AREA	19 SQ. FT.

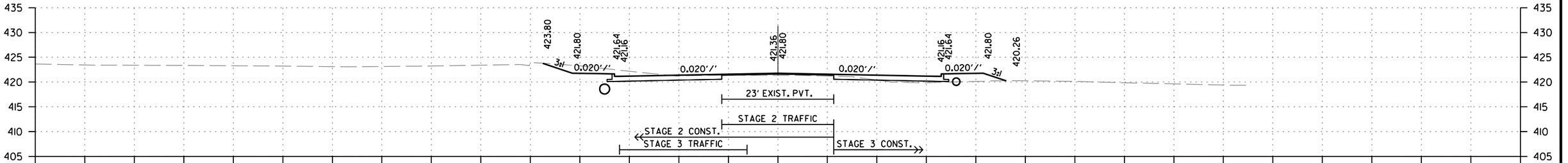
STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	56 CU. YD.	CUT VOLUME	5 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	0 CU. YD.	FILL VOLUME	20 CU. YD.



74+27

STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	50 SQ. FT.	CUT AREA	7 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	0 SQ. FT.	FILL AREA	13 SQ. FT.

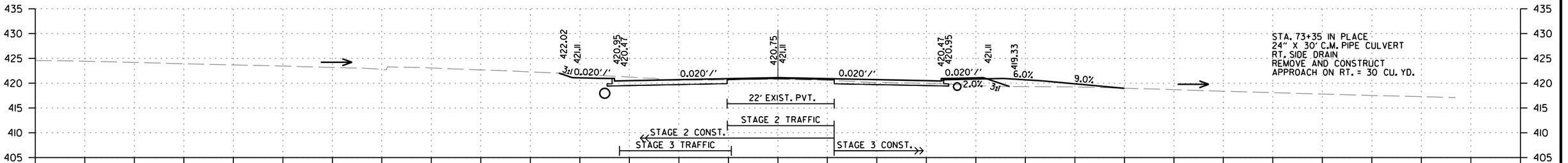
STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	47 CU. YD.	CUT VOLUME	6 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	0 CU. YD.	FILL VOLUME	17 CU. YD.



74+00

STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	44 SQ. FT.	CUT AREA	4 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	0 SQ. FT.	FILL AREA	20 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	94 CU. YD.	CUT VOLUME	18 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	0 CU. YD.	FILL VOLUME	42 CU. YD.



73+35

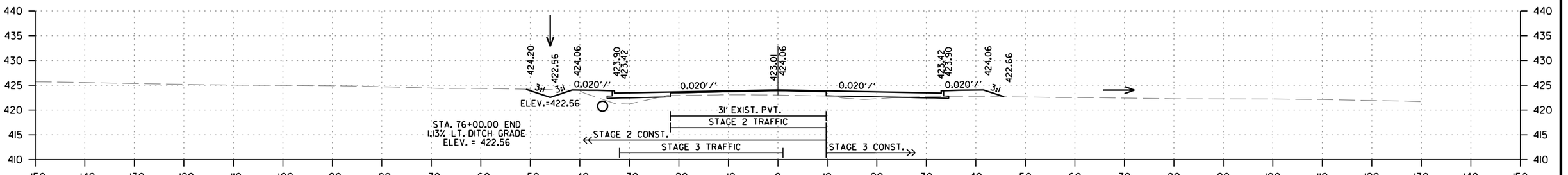
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	34 SQ. FT.	CUT AREA	11 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	0 SQ. FT.	FILL AREA	15 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	41 CU. YD.	CUT VOLUME	9 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	0 CU. YD.	FILL VOLUME	40 CU. YD.

HWY. 5
STA. 73+35 TO STA. 74+60

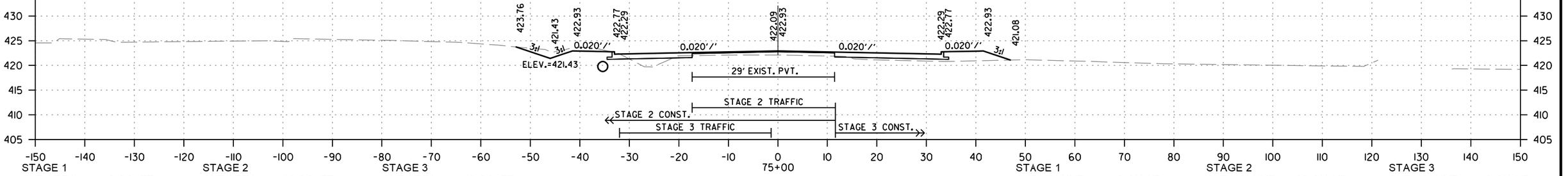
tw39665 3/1/2023
R061508.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	131	150
		CROSS SECTIONS				



STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	7 SQ. FT.	CUT AREA	2 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	16 SQ. FT.	FILL AREA	17 SQ. FT.

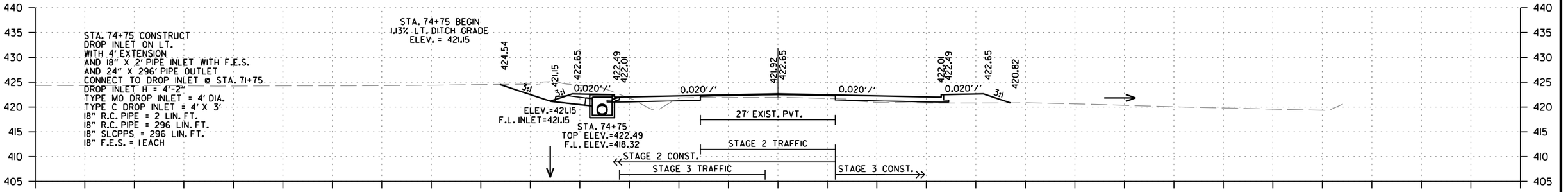
STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	48 CU. YD.	CUT VOLUME	4 CU. YD.
FIL_ VOLUME	0 CU. YD.	FILL VOLUME	46 CU. YD.	FILL VOLUME	85 CU. YD.



STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	19 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	9 SQ. FT.	FILL AREA	29 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	33 CU. YD.	CUT VOLUME	0 CU. YD.
FIL_ VOLUME	0 CU. YD.	FILL VOLUME	7 CU. YD.	FILL VOLUME	24 CU. YD.

STA. 74+75 CONSTRUCT
DROP INLET ON LT.
WITH 4' EXTENSION
AND 18" X 2' PIPE INLET WITH F.E.S.
AND 24" X 296' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 71+75
DROP INLET H = 4'-2"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 2 LIN. FT.
18" R.C. PIPE = 296 LIN. FT.
18" SLCPPS = 296 LIN. FT.
18" F.E.S. = 1EACH



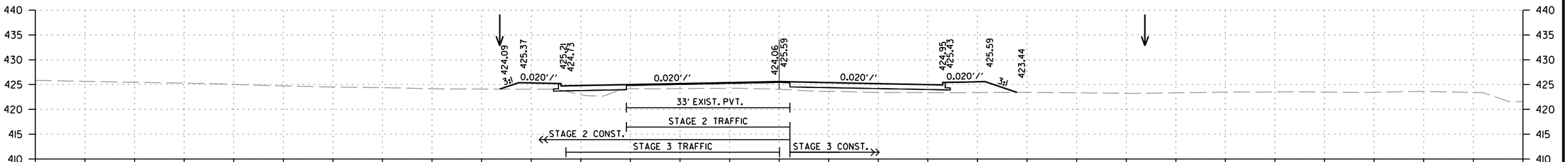
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	52 SQ. FT.	CUT AREA	1 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	7 SQ. FT.	FILL AREA	23 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	26 CU. YD.	CUT VOLUME	1 CU. YD.
FIL_ VOLUME	0 CU. YD.	FILL VOLUME	2 CU. YD.	FILL VOLUME	12 CU. YD.

HWY. 5
STA. 74+75 TO STA. 76+00

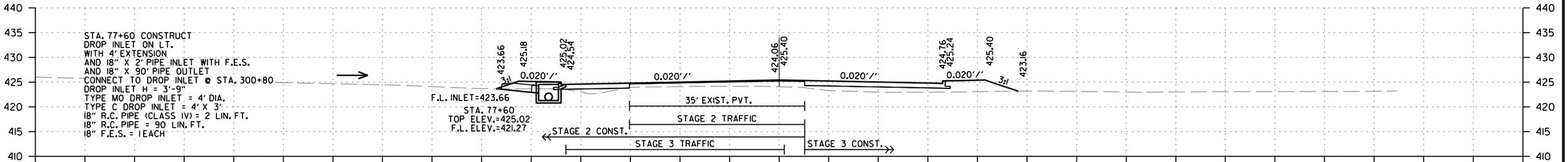
lw39665 3/1/2023
R061508.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	132	150
		CROSS SECTIONS				



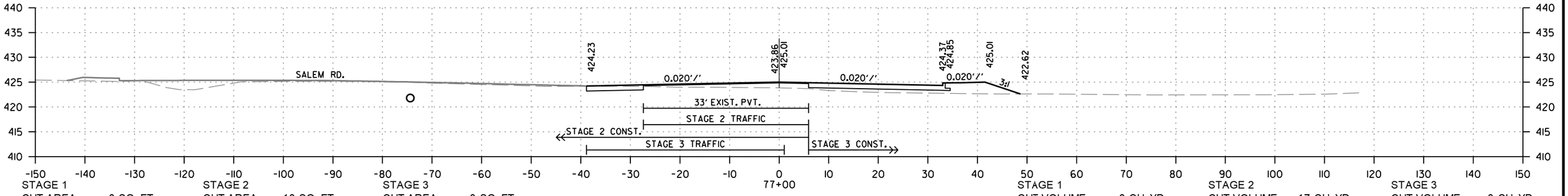
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	20 SQ. FT.	FILL AREA	46 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	30 CU. YD.	FILL VOLUME	72 CU. YD.



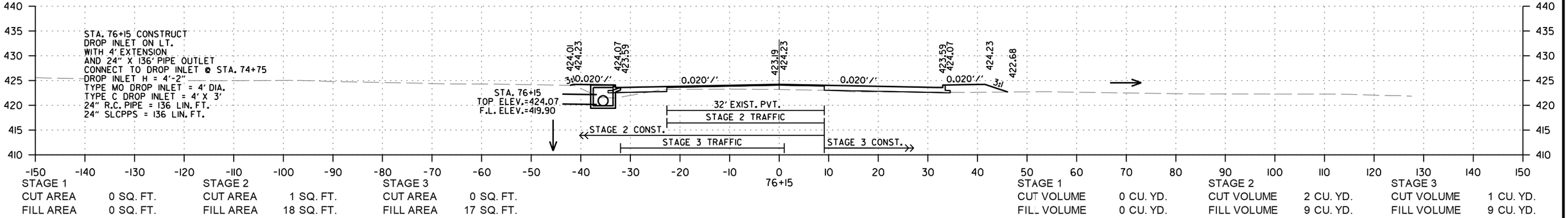
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	21 SQ. FT.	FILL AREA	51 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	11 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	23 CU. YD.	FILL VOLUME	103 CU. YD.



STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	10 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	0 SQ. FT.	FILL AREA	42 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	17 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	28 CU. YD.	FILL VOLUME	93 CU. YD.



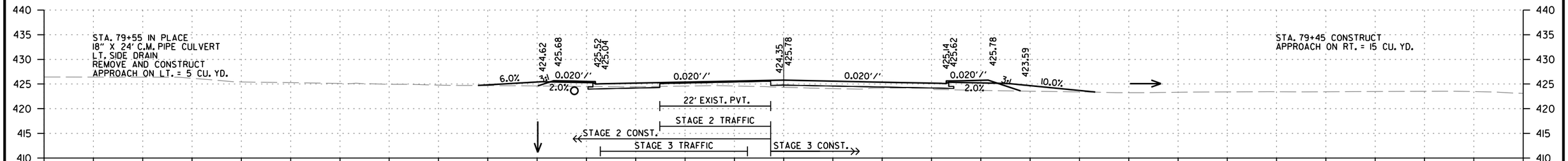
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	1 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	18 SQ. FT.	FILL AREA	17 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	2 CU. YD.	CUT VOLUME	1 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	9 CU. YD.	FILL VOLUME	9 CU. YD.

HWY. 5
STA. 76+15 TO STA. 78+00

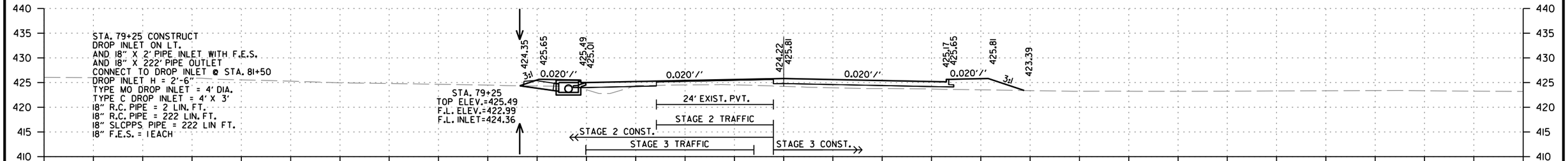
tw39665 3/1/2023
R061508.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	133	150
		CROSS SECTIONS				



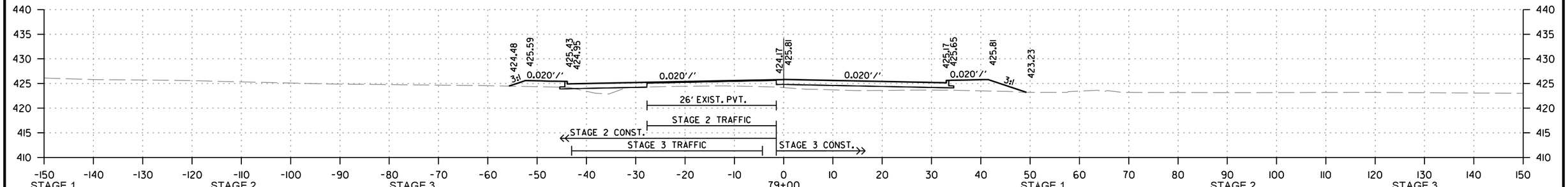
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	5 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	10 SQ. FT.	FILL AREA	33 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	3 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	16 CU. YD.	FILL VOLUME	40 CU. YD.



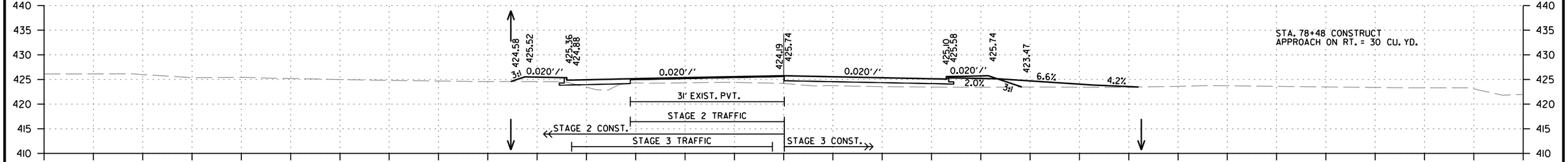
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	22 SQ. FT.	FILL AREA	0 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	19 CU. YD.	FILL VOLUME	46 CU. YD.



STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	1 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	18 SQ. FT.	FILL AREA	52 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	2 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	31 CU. YD.	FILL VOLUME	99 CU. YD.



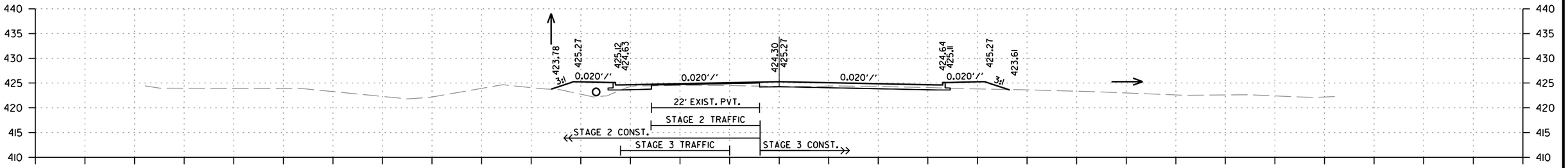
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	1 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	14 SQ. FT.	FILL AREA	51 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	1 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	30 CU. YD.	FILL VOLUME	86 CU. YD.

HWY. 5
STA. 78+48 TO STA. 79+52

tw39665 3/1/2023
R061508.DGN

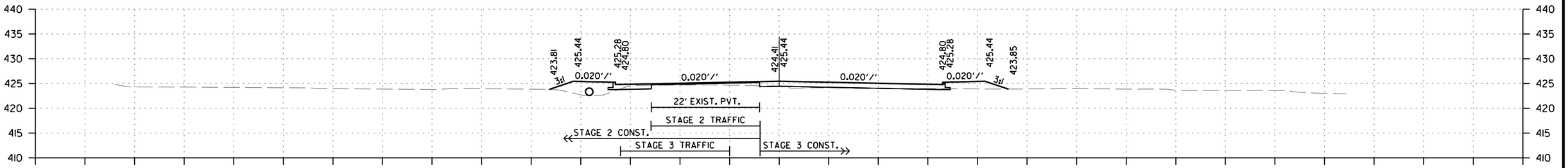
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	134	150
		CROSS SECTIONS				



STAGE 1 CUT AREA 0 SQ. FT. FILL AREA 0 SQ. FT.
STAGE 2 CUT AREA 4 SQ. FT. FILL AREA 26 SQ. FT.
STAGE 3 CUT AREA 12 SQ. FT. FILL AREA 14 SQ. FT.

81+00

STAGE 1 CUT VOLUME 0 CU. YD. FILL VOLUME 0 CU. YD.
STAGE 2 CUT VOLUME 6 CU. YD. FILL VOLUME 40 CU. YD.
STAGE 3 CUT VOLUME 9 CU. YD. FILL VOLUME 24 CU. YD.



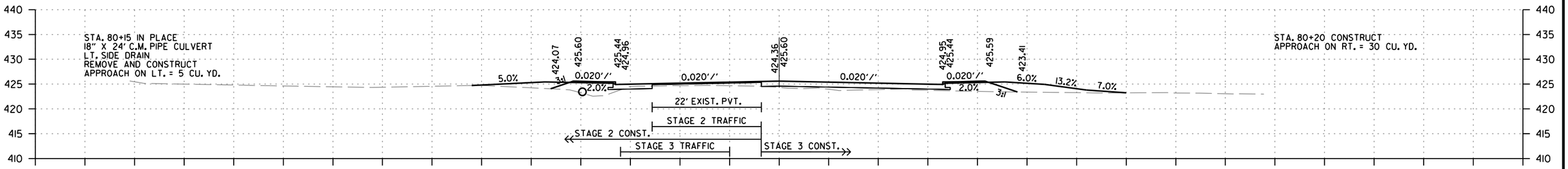
STAGE 1 CUT AREA 0 SQ. FT. FILL AREA 0 SQ. FT.
STAGE 2 CUT AREA 4 SQ. FT. FILL AREA 26 SQ. FT.
STAGE 3 CUT AREA 0 SQ. FT. FILL AREA 17 SQ. FT.

80+58

STAGE 1 CUT VOLUME 0 CU. YD. FILL VOLUME 0 CU. YD.
STAGE 2 CUT VOLUME 5 CU. YD. FILL VOLUME 35 CU. YD.
STAGE 3 CUT VOLUME 0 CU. YD. FILL VOLUME 35 CU. YD.

STA. 80+15 IN PLACE
18" X 24' C.M. PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND CONSTRUCT
APPROACH ON LT. = 5 CU. YD.

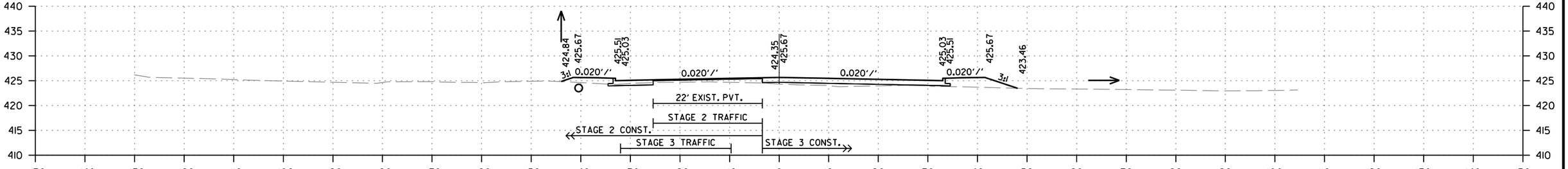
STA. 80+20 CONSTRUCT
APPROACH ON RT. = 30 CU. YD.



STAGE 1 CUT AREA 0 SQ. FT. FILL AREA 0 SQ. FT.
STAGE 2 CUT AREA 3 SQ. FT. FILL AREA 24 SQ. FT.
STAGE 3 CUT AREA 0 SQ. FT. FILL AREA 33 SQ. FT.

80+20

STAGE 1 CUT VOLUME 0 CU. YD. FILL VOLUME 0 CU. YD.
STAGE 2 CUT VOLUME 2 CU. YD. FILL VOLUME 13 CU. YD.
STAGE 3 CUT VOLUME 0 CU. YD. FILL VOLUME 24 CU. YD.



STAGE 1 CUT AREA 0 SQ. FT. FILL AREA 0 SQ. FT.
STAGE 2 CUT AREA 3 SQ. FT. FILL AREA 10 SQ. FT.
STAGE 3 CUT AREA 0 SQ. FT. FILL AREA 32 SQ. FT.

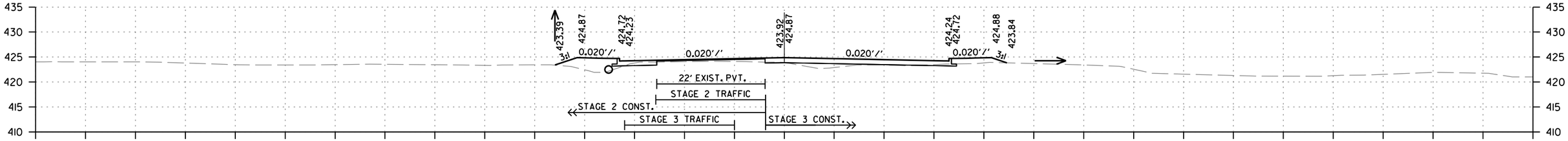
80+00

STAGE 1 CUT VOLUME 0 CU. YD. FILL VOLUME 0 CU. YD.
STAGE 2 CUT VOLUME 7 CU. YD. FILL VOLUME 18 CU. YD.
STAGE 3 CUT VOLUME 0 CU. YD. FILL VOLUME 58 CU. YD.

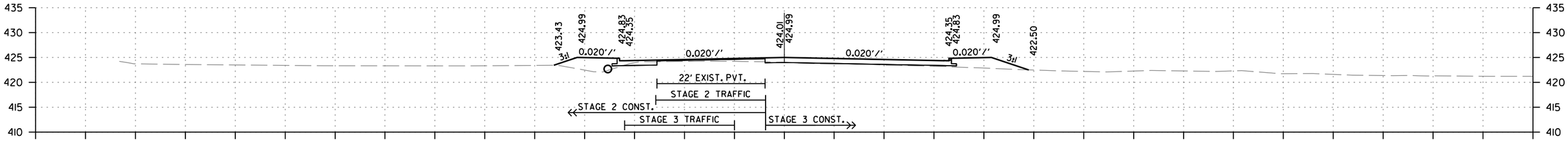
HWY. 5
STA. 80+00 TO STA. 81+00

tw39665 3/1/2023
R061508.DGN

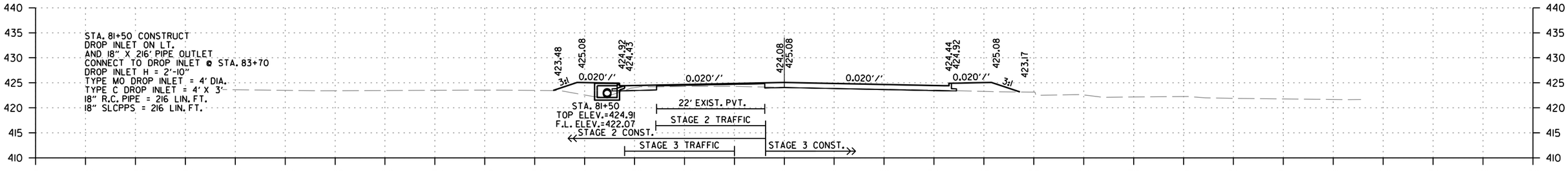
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	135	150
		CROSS SECTIONS				



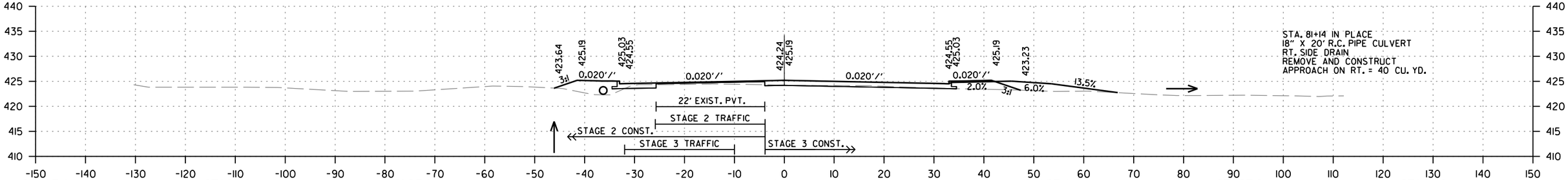
STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	4 SQ. FT.	CUT AREA	2 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	4 CU. YD.	CUT VOLUME	1 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	25 SQ. FT.	FILL AREA	19 SQ. FT.	FIL_ VOLUME	0 CU. YD.	FILL VOLUME	27 CU. YD.	FILL VOLUME	24 CU. YD.



STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	4 SQ. FT.	CUT AREA	0 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	3 CU. YD.	CUT VOLUME	0 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	25 SQ. FT.	FILL AREA	26 SQ. FT.	FIL_ VOLUME	0 CU. YD.	FILL VOLUME	19 CU. YD.	FILL VOLUME	17 CU. YD.



STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	4 SQ. FT.	CUT AREA	0 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	4 CU. YD.	CUT VOLUME	2 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	25 SQ. FT.	FILL AREA	18 SQ. FT.	FIL_ VOLUME	0 CU. YD.	FILL VOLUME	26 CU. YD.	FILL VOLUME	19 CU. YD.

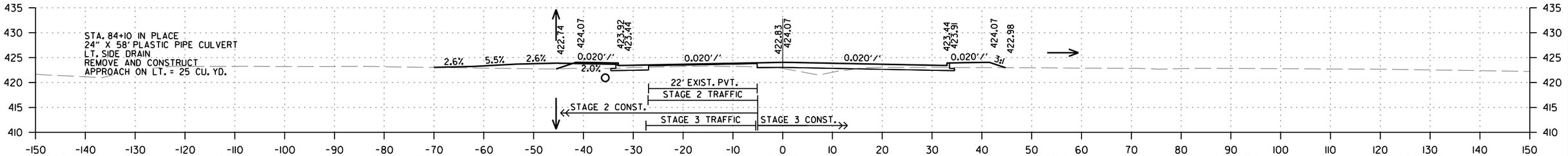


STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	4 SQ. FT.	CUT AREA	3 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	3 CU. YD.	CUT VOLUME	6 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	26 SQ. FT.	FILL AREA	18 SQ. FT.	FIL_ VOLUME	0 CU. YD.	FILL VOLUME	21 CU. YD.	FILL VOLUME	13 CU. YD.

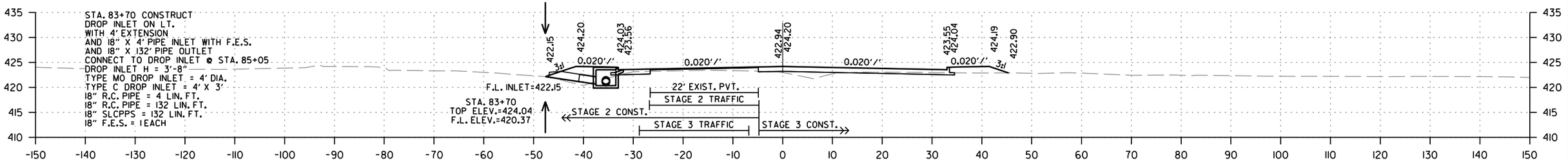
HWY. 5
STA. 81+22 TO STA. 82+00

tw39665 3/1/2023
R061508.DGN

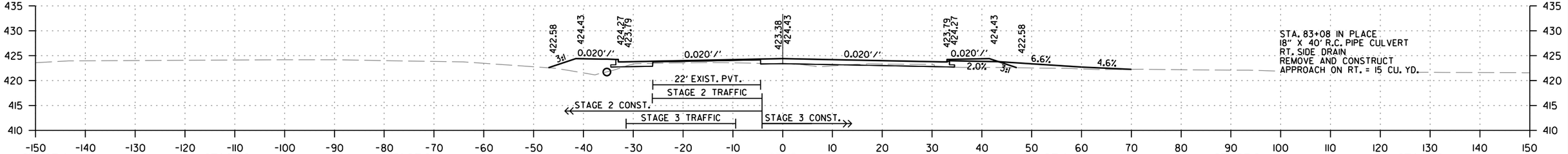
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	136	150
		CROSS SECTIONS				



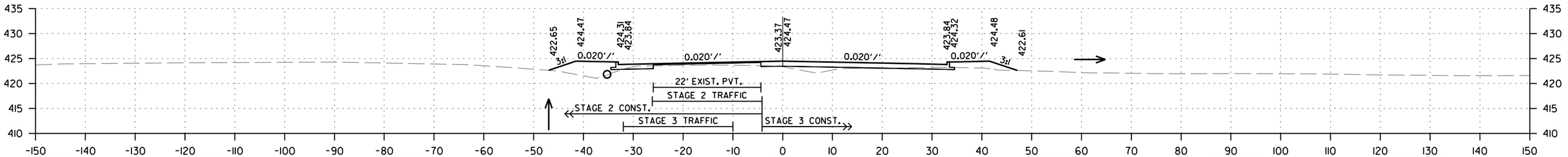
STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	4 SQ. FT.	CUT AREA	8 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	4 CU. YD.	CUT VOLUME	8 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	12 SQ. FT.	FILL AREA	21 SQ. FT.	FIL_ VOLUME	0 CU. YD.	FILL VOLUME	25 CU. YD.	FILL VOLUME	23 CU. YD.



STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	3 SQ. FT.	CUT AREA	6 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	6 CU. YD.	CUT VOLUME	12 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	33 SQ. FT.	FILL AREA	21 SQ. FT.	FILL VOLUME	0 CU. YD.	FILL VOLUME	67 CU. YD.	FILL VOLUME	45 CU. YD.



STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	3 SQ. FT.	CUT AREA	5 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	1 CU. YD.	CUT VOLUME	2 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	29 SQ. FT.	FILL AREA	21 SQ. FT.	FILL VOLUME	0 CU. YD.	FILL VOLUME	13 CU. YD.	FILL VOLUME	10 CU. YD.

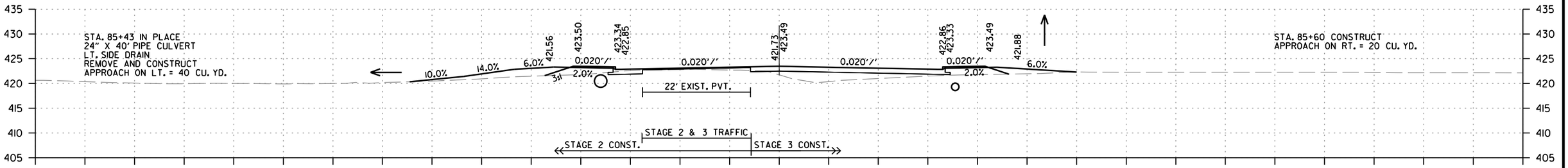


STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	3 SQ. FT.	CUT AREA	3 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	13 CU. YD.	CUT VOLUME	9 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	30 SQ. FT.	FILL AREA	24 SQ. FT.	FILL VOLUME	0 CU. YD.	FILL VOLUME	102 CU. YD.	FILL VOLUME	80 CU. YD.

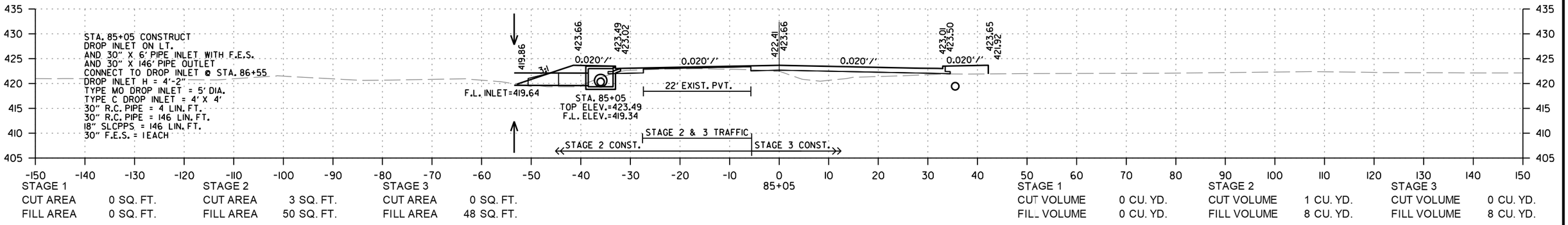
HWY. 5
STA. 83+00 TO STA. 84+00

lw39665 3/1/2023
R061508.DGN

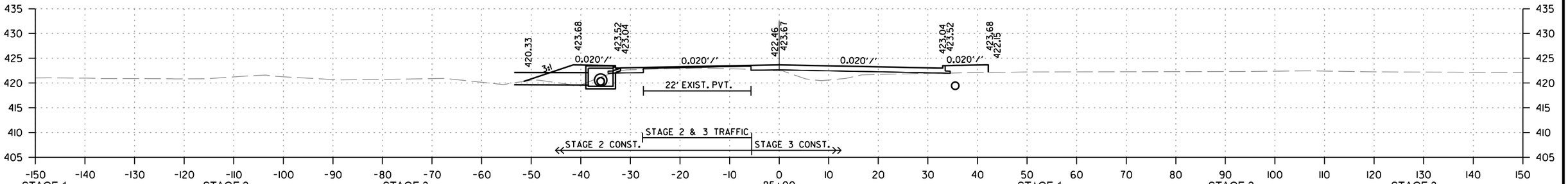
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	137	150
		CROSS SECTIONS				



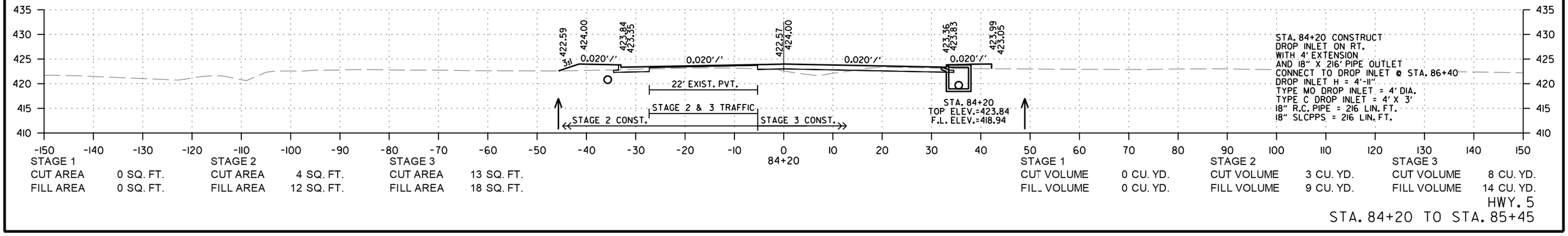
STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	4 SQ. FT.	CUT AREA	0 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	5 CU. YD.	CUT VOLUME	0 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	16 SQ. FT.	FILL AREA	58 SQ. FT.	FIL_ VOLUME	0 CU. YD.	FILL VOLUME	49 CU. YD.	FILL VOLUME	79 CU. YD.



STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	3 SQ. FT.	CUT AREA	0 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	1 CU. YD.	CUT VOLUME	0 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	50 SQ. FT.	FILL AREA	48 SQ. FT.	FIL_ VOLUME	0 CU. YD.	FILL VOLUME	8 CU. YD.	FILL VOLUME	8 CU. YD.



STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	3 SQ. FT.	CUT AREA	0 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	10 CU. YD.	CUT VOLUME	19 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	41 SQ. FT.	FILL AREA	41 SQ. FT.	FIL_ VOLUME	0 CU. YD.	FILL VOLUME	79 CU. YD.	FILL VOLUME	87 CU. YD.



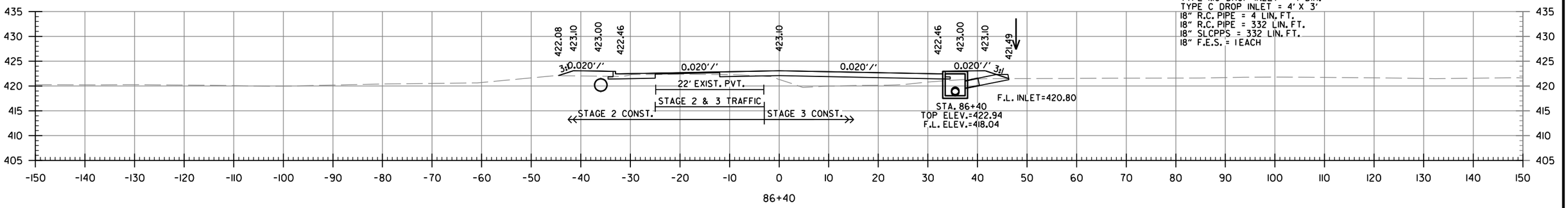
STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	4 SQ. FT.	CUT AREA	13 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	3 CU. YD.	CUT VOLUME	8 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	12 SQ. FT.	FILL AREA	18 SQ. FT.	FIL_ VOLUME	0 CU. YD.	FILL VOLUME	9 CU. YD.	FILL VOLUME	14 CU. YD.

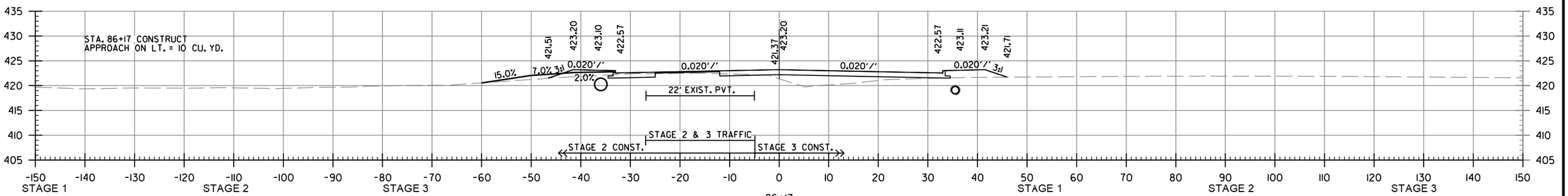
HWY. 5
STA. 84+20 TO STA. 85+45

tw39665 3/1/2023
R061508.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	138	150
		CROSS SECTIONS				

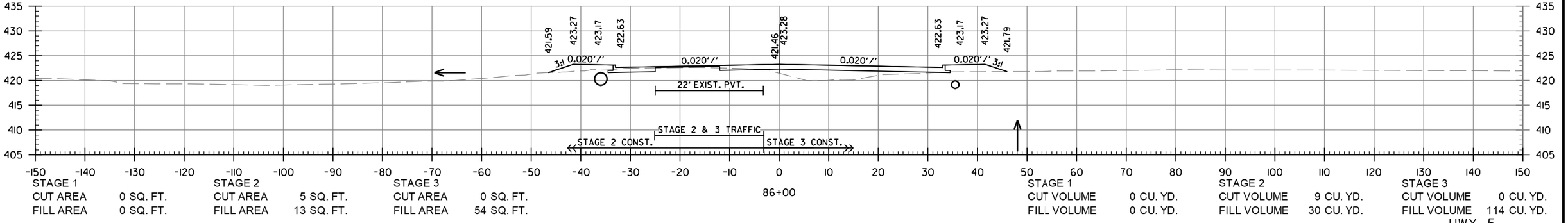
STA. 86+40 CONSTRUCT
DROP INLET ON RT.
WITH 4' EXTENSION
AND 18" X 4' PIPE INLET WITH F.E.S.
AND 18" X 332' PIPE OUTLET
CONNECT TO DROP INLET @ STA. 89+80
DROP INLET H = 4'-11"
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 3'
18" R.C. PIPE = 4 LIN. FT.
18" R.C. PIPE = 332 LIN. FT.
18" SLCPPS = 332 LIN. FT.
18" F.E.S. = 1EACH





STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	5 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	13 SQ. FT.	FILL AREA	52 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	3 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	8 CU. YD.	FILL VOLUME	33 CU. YD.



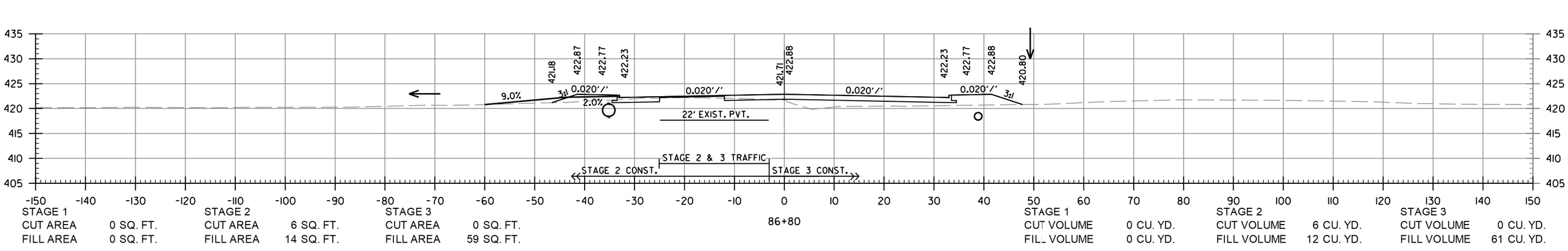
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	5 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	13 SQ. FT.	FILL AREA	54 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	9 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	30 CU. YD.	FILL VOLUME	114 CU. YD.

HWY. 5
CROSS SECTION STA. 86+00 TO STA. 86+40

tw39665 3/1/2023
R061508.DGN

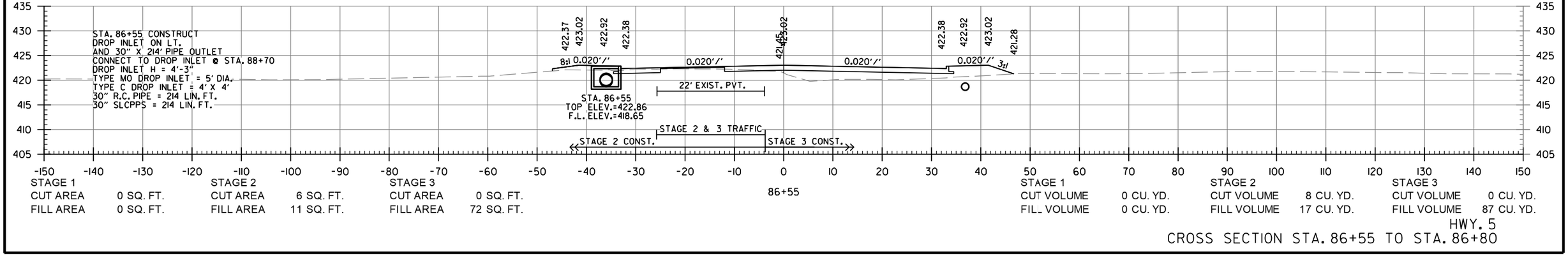
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	139A	150
		CROSS SECTIONS				



STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	6 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	14 SQ. FT.	FILL AREA	59 SQ. FT.

86+80

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	6 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	12 CU. YD.	FILL VOLUME	61 CU. YD.



STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	6 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	11 SQ. FT.	FILL AREA	72 SQ. FT.

86+55

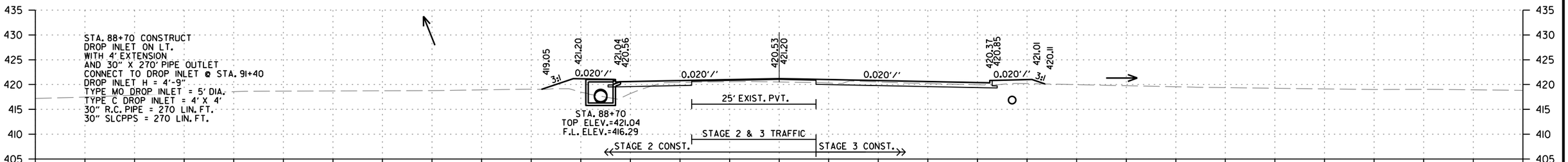
STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	8 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	17 CU. YD.	FILL VOLUME	87 CU. YD.

HWY. 5

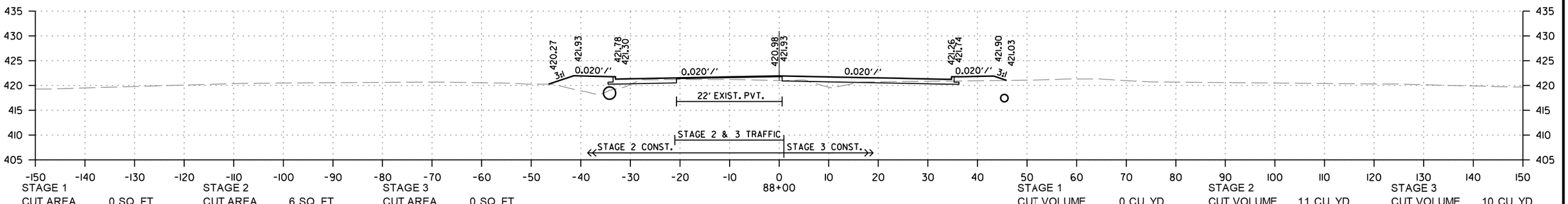
CROSS SECTION STA. 86+55 TO STA. 86+80

tw39665 3/1/2023
R061508.DGN

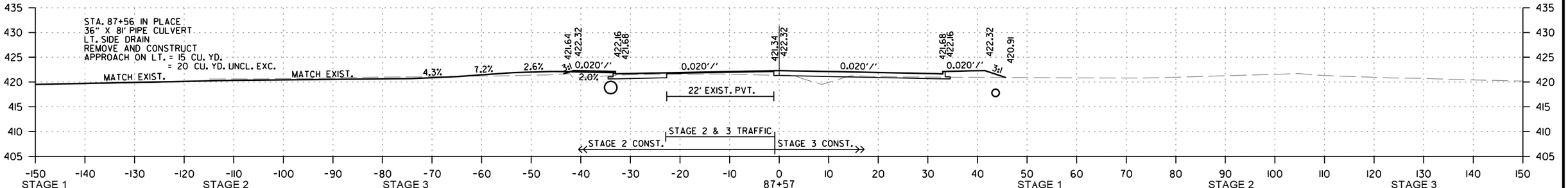
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	139	150
		CROSS SECTIONS				



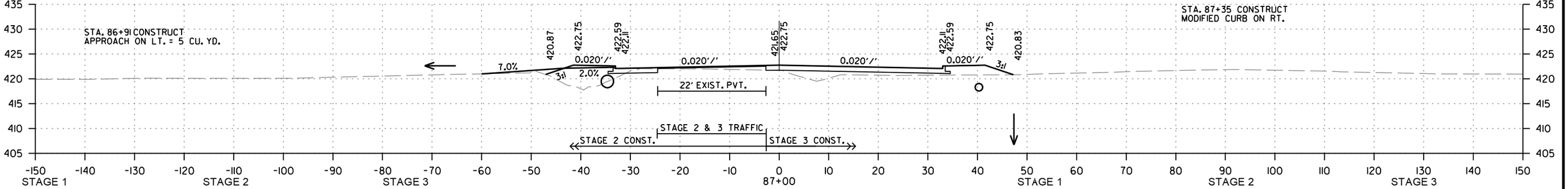
STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	4 SQ. FT.	CUT AREA	21 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	13 CU. YD.	CUT VOLUME	36 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	41 SQ. FT.	FILL AREA	8 SQ. FT.	FILL VOLUME	0 CU. YD.	FILL VOLUME	97 CU. YD.	FILL VOLUME	29 CU. YD.



STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	6 SQ. FT.	CUT AREA	0 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	11 CU. YD.	CUT VOLUME	10 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	34 SQ. FT.	FILL AREA	0 SQ. FT.	FILL VOLUME	0 CU. YD.	FILL VOLUME	35 CU. YD.	FILL VOLUME	29 CU. YD.



STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	8 SQ. FT.	CUT AREA	6 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	13 CU. YD.	CUT VOLUME	6 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	10 SQ. FT.	FILL AREA	22 SQ. FT.	FILL VOLUME	0 CU. YD.	FILL VOLUME	59 CU. YD.	FILL VOLUME	71 CU. YD.

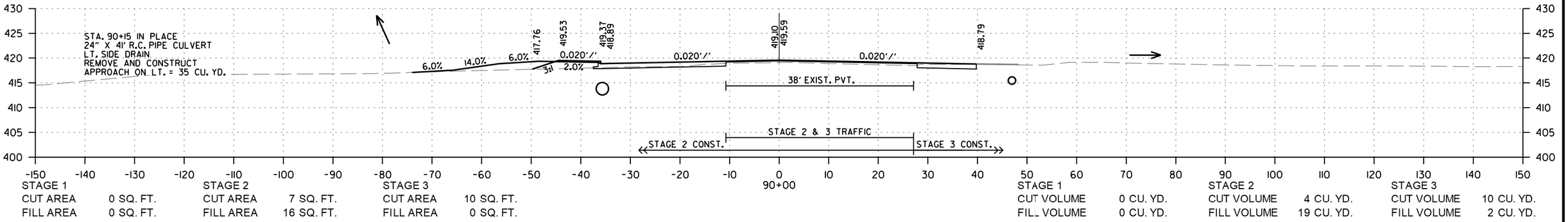


STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	4 SQ. FT.	CUT AREA	0 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	4 CU. YD.	CUT VOLUME	0 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	46 SQ. FT.	FILL AREA	45 SQ. FT.	FILL VOLUME	0 CU. YD.	FILL VOLUME	22 CU. YD.	FILL VOLUME	39 CU. YD.

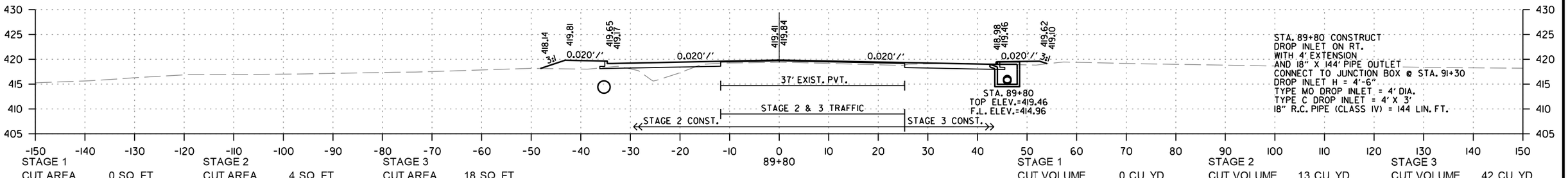
HWY. 5
STA. 87+00 TO STA. 88+70

tw39665 3/1/2023
R061508.DGN

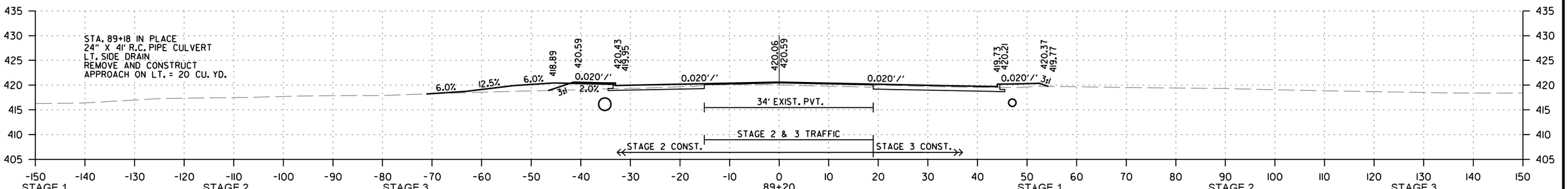
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	140	150
		CROSS SECTIONS				



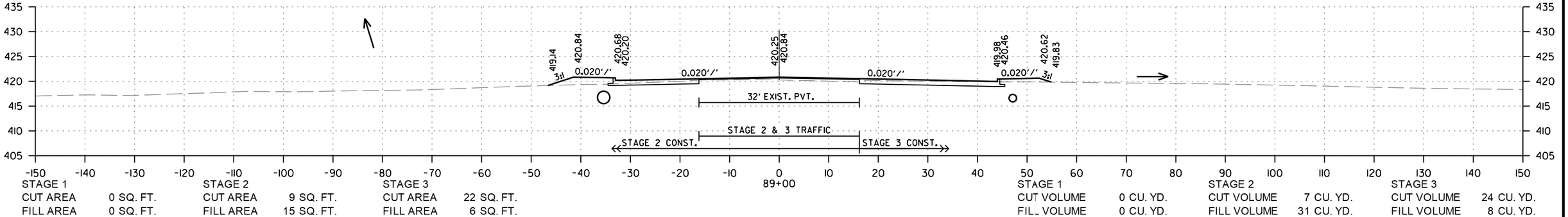
STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	7 SQ. FT.	CUT AREA	10 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	4 CU. YD.	CUT VOLUME	10 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	16 SQ. FT.	FILL AREA	0 SQ. FT.	FIL_ VOLUME	0 CU. YD.	FILL VOLUME	19 CU. YD.	FILL VOLUME	2 CU. YD.



STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	4 SQ. FT.	CUT AREA	18 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	13 CU. YD.	CUT VOLUME	42 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	35 SQ. FT.	FILL AREA	6 SQ. FT.	FIL_ VOLUME	0 CU. YD.	FILL VOLUME	56 CU. YD.	FILL VOLUME	13 CU. YD.



STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	8 SQ. FT.	CUT AREA	20 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	6 CU. YD.	CUT VOLUME	16 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	15 SQ. FT.	FILL AREA	6 SQ. FT.	FIL_ VOLUME	0 CU. YD.	FILL VOLUME	11 CU. YD.	FILL VOLUME	4 CU. YD.

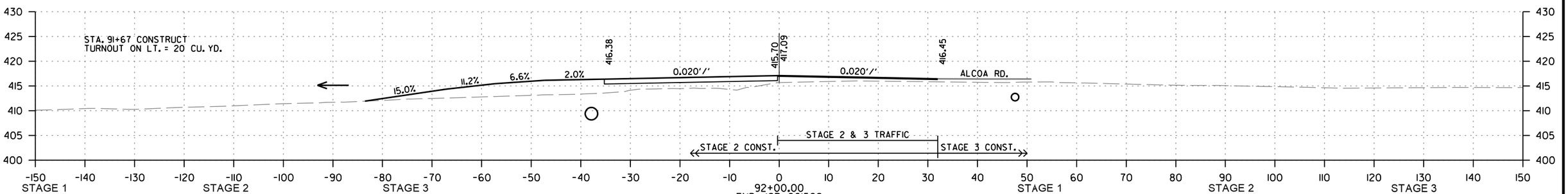


STAGE 1		STAGE 2		STAGE 3		STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	9 SQ. FT.	CUT AREA	22 SQ. FT.	CUT VOLUME	0 CU. YD.	CUT VOLUME	7 CU. YD.	CUT VOLUME	24 CU. YD.
FILL AREA	0 SQ. FT.	FILL AREA	15 SQ. FT.	FILL AREA	6 SQ. FT.	FIL_ VOLUME	0 CU. YD.	FILL VOLUME	31 CU. YD.	FILL VOLUME	8 CU. YD.

HWY. 5
STA. 89+00 TO STA. 90+00

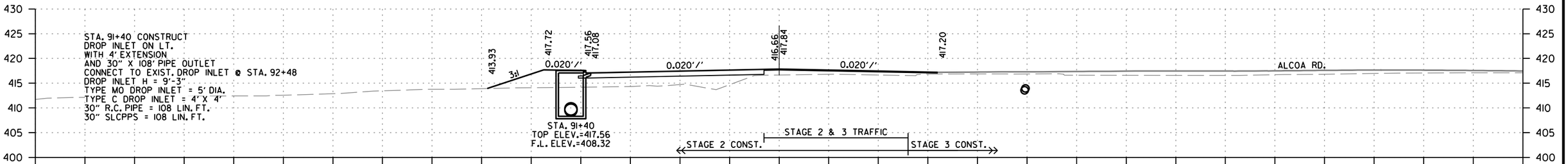
tw39665 3/1/2023
R061508.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	141	150
		CROSS SECTIONS				



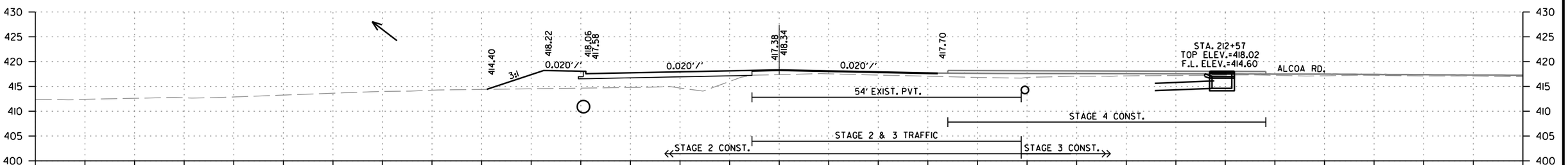
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	45 SQ. FT.	FILL AREA	0 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	174 CU. YD.	FILL VOLUME	0 CU. YD.



STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	112 SQ. FT.	FILL AREA	0 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.	CUT VOLUME	0 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	166 CU. YD.	FILL VOLUME	0 CU. YD.



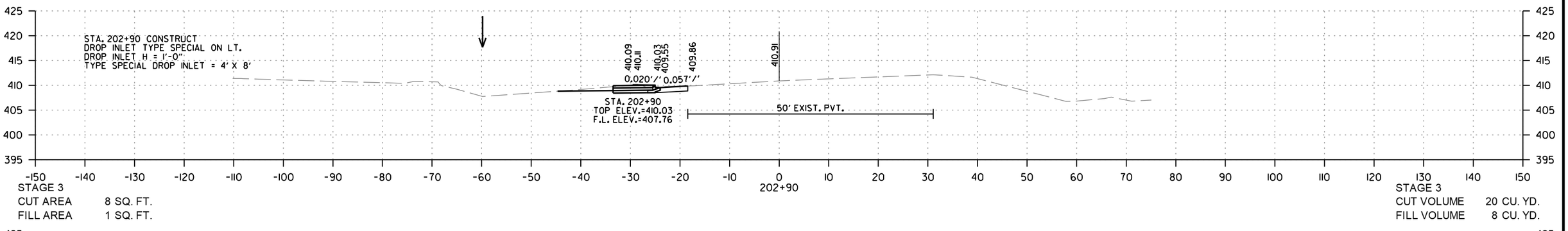
STAGE 1		STAGE 2		STAGE 3	
CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.	CUT AREA	0 SQ. FT.
FILL AREA	0 SQ. FT.	FILL AREA	112 SQ. FT.	FILL AREA	0 SQ. FT.

STAGE 1		STAGE 2		STAGE 3	
CUT VOLUME	0 CU. YD.	CUT VOLUME	13 CU. YD.	CUT VOLUME	19 CU. YD.
FILL VOLUME	0 CU. YD.	FILL VOLUME	237 CU. YD.	FILL VOLUME	0 CU. YD.

HWY. 5
STA. 91+00 TO STA. 92+00

lw39665 3/1/2023
R061508.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	142	150
		CROSS SECTIONS				

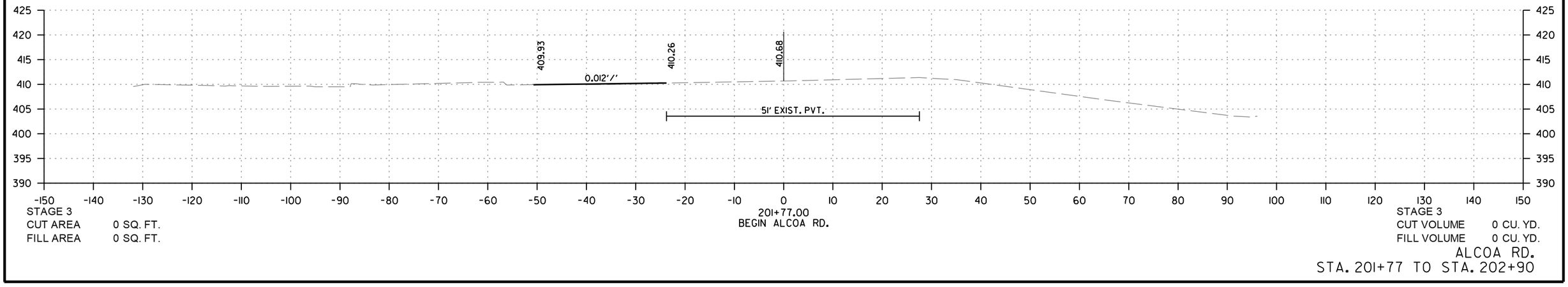


STAGE 3
CUT AREA 8 SQ. FT.
FILL AREA 1 SQ. FT.

STAGE 3
CUT VOLUME 20 CU. YD.
FILL VOLUME 8 CU. YD.

STAGE 3
CUT AREA 4 SQ. FT.
FILL AREA 4 SQ. FT.

STAGE 3
CUT VOLUME 0 CU. YD.
FILL VOLUME 0 CU. YD.



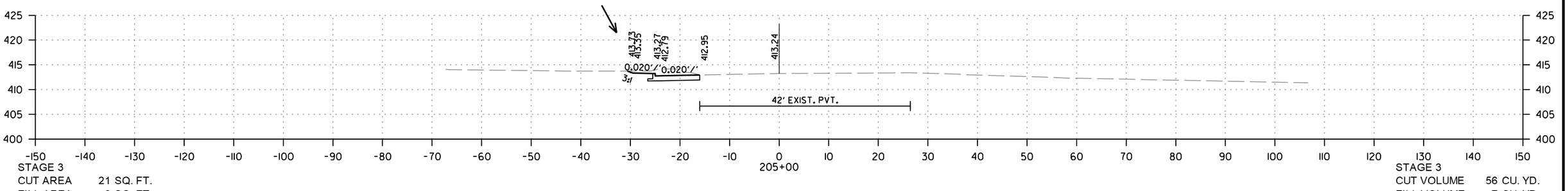
STAGE 3
CUT AREA 0 SQ. FT.
FILL AREA 0 SQ. FT.

STAGE 3
CUT VOLUME 0 CU. YD.
FILL VOLUME 0 CU. YD.

ALCOA RD.
STA. 201+77 TO STA. 202+90

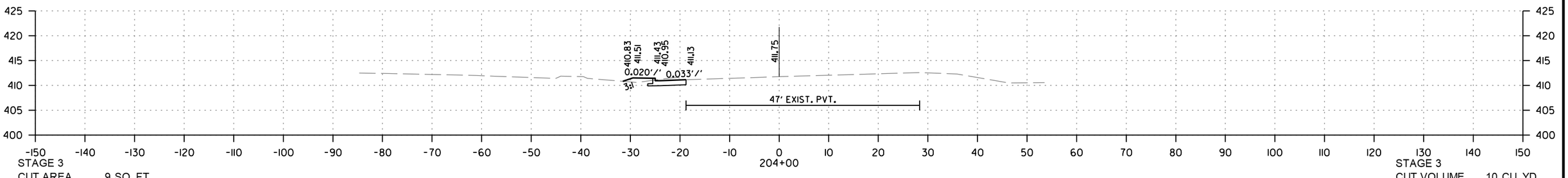
lw39665 3/1/2023
R061508.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	143	150
		CROSS SECTIONS				



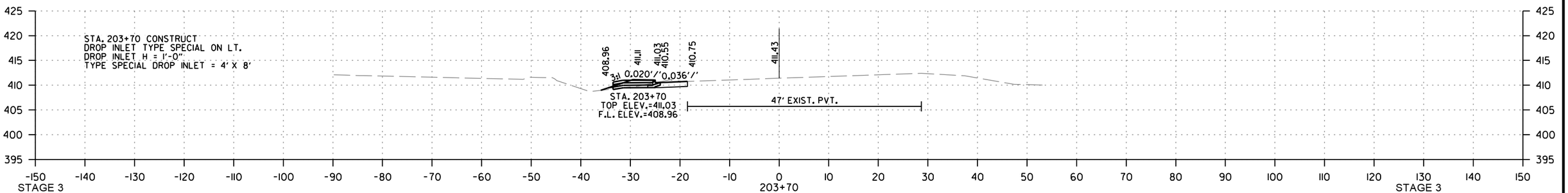
STAGE 3
CUT AREA 21 SQ. FT.
FILL AREA 0 SQ. FT.

STAGE 3
CUT VOLUME 56 CU. YD.
FILL VOLUME 7 CU. YD.



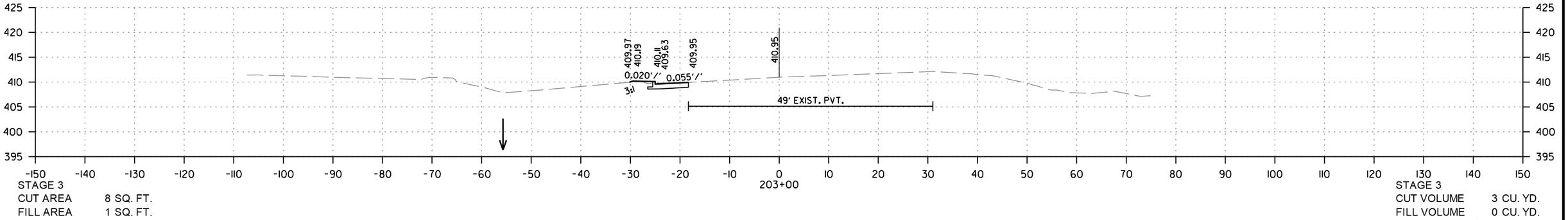
STAGE 3
CUT AREA 9 SQ. FT.
FILL AREA 4 SQ. FT.

STAGE 3
CUT VOLUME 10 CU. YD.
FILL VOLUME 7 CU. YD.



STAGE 3
CUT AREA 9 SQ. FT.
FILL AREA 9 SQ. FT.

STAGE 3
CUT VOLUME 22 CU. YD.
FILL VOLUME 13 CU. YD.



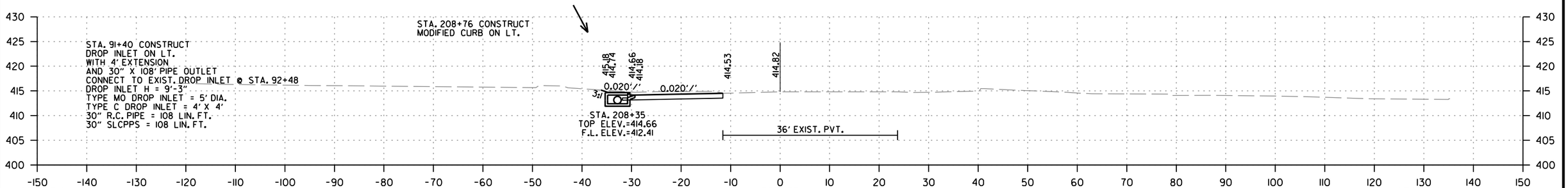
STAGE 3
CUT AREA 8 SQ. FT.
FILL AREA 1 SQ. FT.

STAGE 3
CUT VOLUME 3 CU. YD.
FILL VOLUME 0 CU. YD.

ALCOA RD.
STA. 203+00 TO STA. 205+00

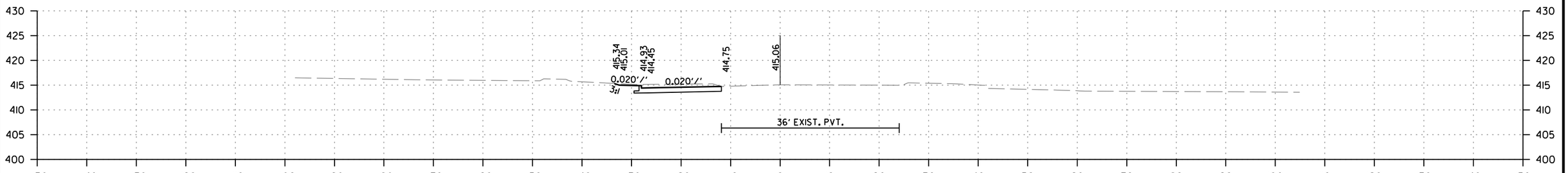
tw39665 3/1/2023
R061508.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	144	150
		CROSS SECTIONS				



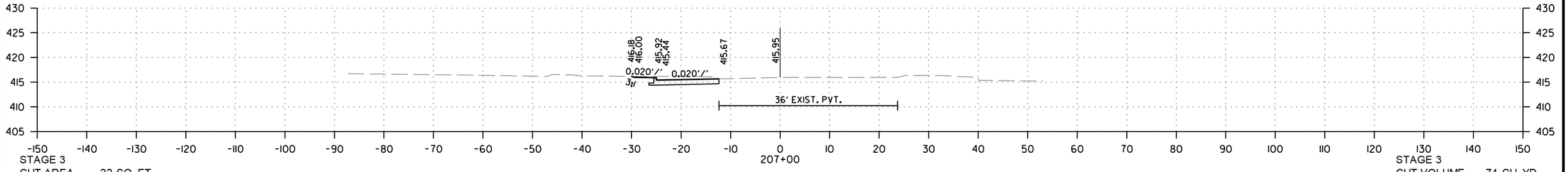
STAGE 3
CUT AREA 31 SQ. FT.
FILL AREA 0 SQ. FT.

STAGE 3
CUT VOLUME 38 CU. YD.
FILL VOLUME 0 CU. YD.



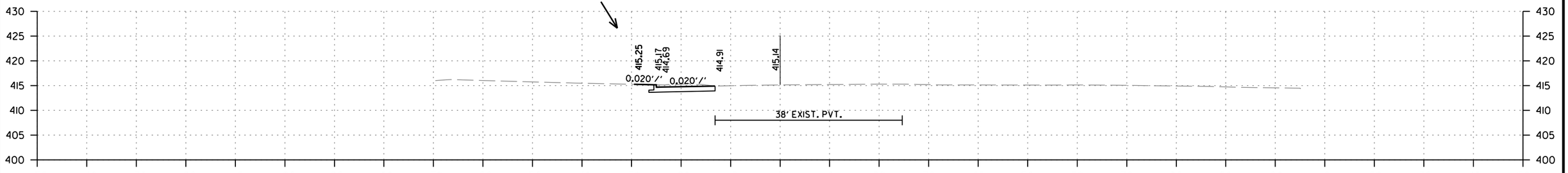
STAGE 3
CUT AREA 28 SQ. FT.
FILL AREA 0 SQ. FT.

STAGE 3
CUT VOLUME 93 CU. YD.
FILL VOLUME 0 CU. YD.



STAGE 3
CUT AREA 22 SQ. FT.
FILL AREA 0 SQ. FT.

STAGE 3
CUT VOLUME 74 CU. YD.
FILL VOLUME 0 CU. YD.



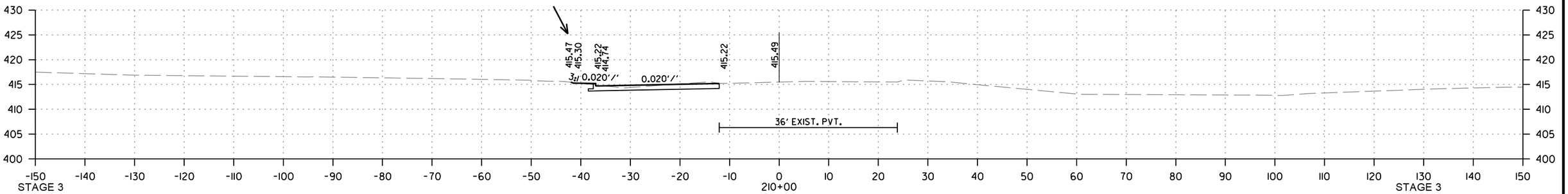
STAGE 3
CUT AREA 18 SQ. FT.
FILL AREA 0 SQ. FT.

STAGE 3
CUT VOLUME 72 CU. YD.
FILL VOLUME 0 CU. YD.

ALCOA RD.
STA. 206+00 TO STA. 208+35

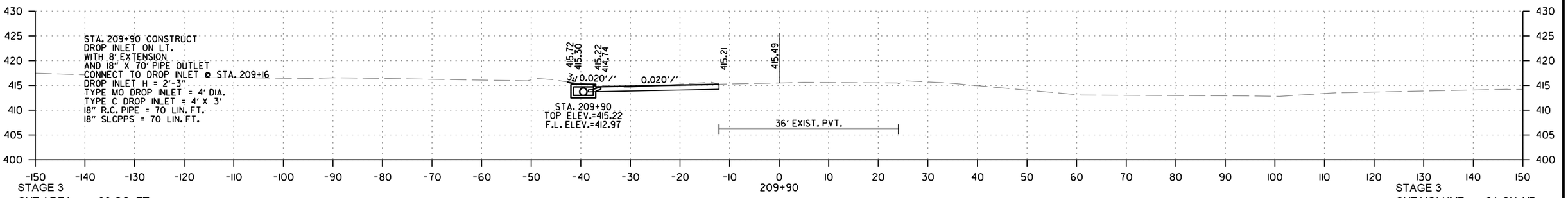
tw39665 3/1/2023
R061508.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	145	150
		CROSS SECTIONS				



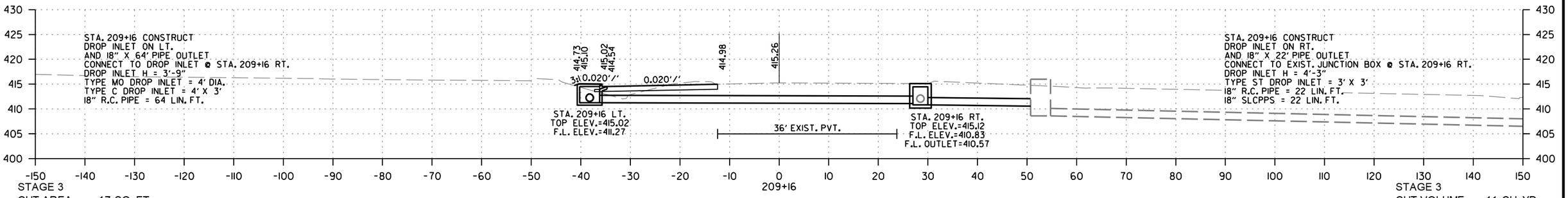
STAGE 3
CUT AREA 29 SQ. FT.
FILL AREA 0 SQ. FT.

STAGE 3
CUT VOLUME 11 CU. YD.
FILL VOLUME 0 CU. YD.



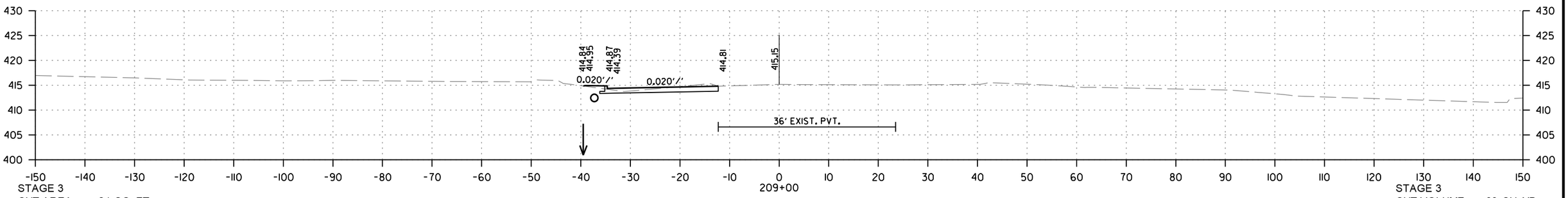
STAGE 3
CUT AREA 30 SQ. FT.
FILL AREA 0 SQ. FT.

STAGE 3
CUT VOLUME 64 CU. YD.
FILL VOLUME 16 CU. YD.



STAGE 3
CUT AREA 17 SQ. FT.
FILL AREA 12 SQ. FT.

STAGE 3
CUT VOLUME 11 CU. YD.
FILL VOLUME 4 CU. YD.



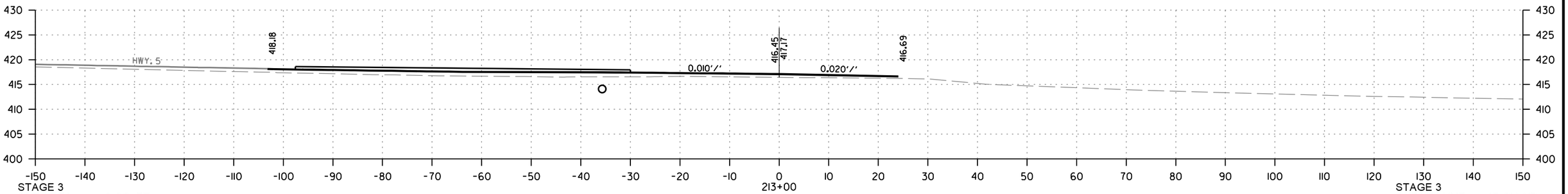
STAGE 3
CUT AREA 21 SQ. FT.
FILL AREA 2 SQ. FT.

STAGE 3
CUT VOLUME 63 CU. YD.
FILL VOLUME 2 CU. YD.

ALCOA RD.
STA. 209+00 TO STA. 210+00

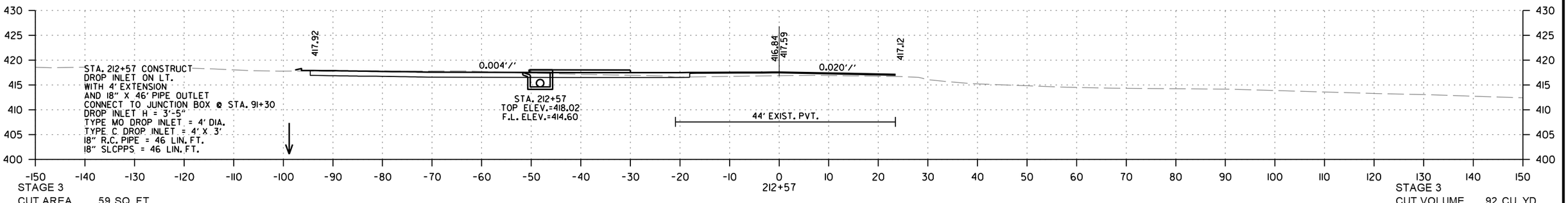
tw39665 3/1/2023
R061508.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	146	150
		CROSS SECTIONS				



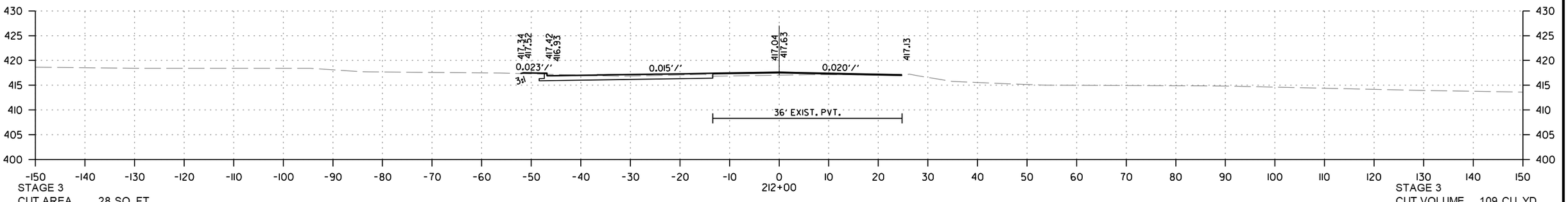
STAGE 3
CUT AREA 0 SQ. FT.
FILL AREA 0 SQ. FT.

STAGE 3
CUT VOLUME 47 CU. YD.
FILL VOLUME 0 CU. YD.



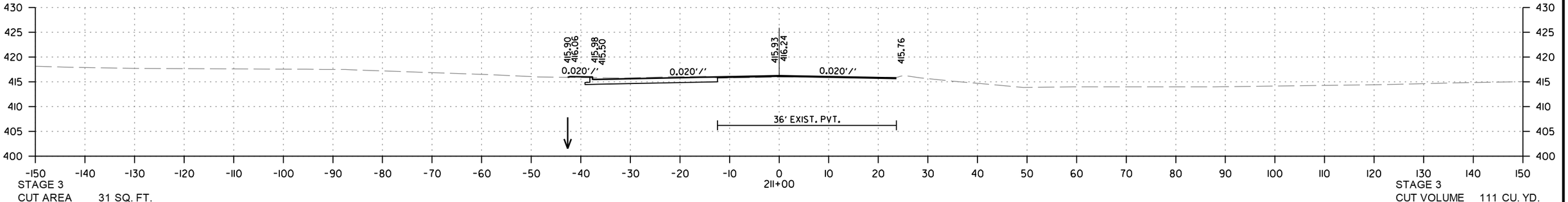
STAGE 3
CUT AREA 59 SQ. FT.
FILL AREA 0 SQ. FT.

STAGE 3
CUT VOLUME 92 CU. YD.
FILL VOLUME 1 CU. YD.



STAGE 3
CUT AREA 28 SQ. FT.
FILL AREA 1 SQ. FT.

STAGE 3
CUT VOLUME 109 CU. YD.
FILL VOLUME 2 CU. YD.



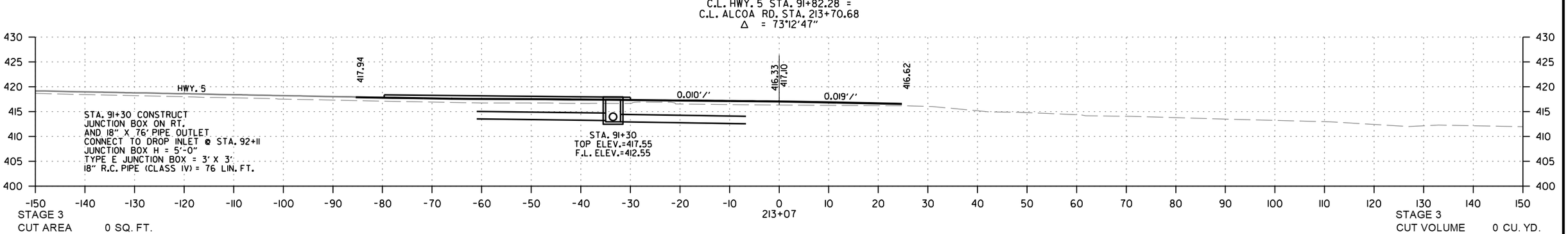
STAGE 3
CUT AREA 31 SQ. FT.
FILL AREA 0 SQ. FT.

STAGE 3
CUT VOLUME 111 CU. YD.
FILL VOLUME 0 CU. YD.

ALCOA RD.
STA. 211+00 TO STA. 213+00

tw39665 3/1/2023
R061508.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	147	150
		CROSS SECTIONS				



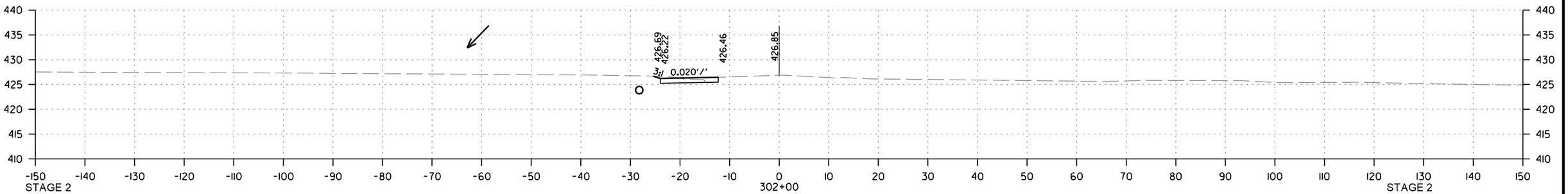
STAGE 3
CUT AREA 0 SQ. FT.
FILL AREA 0 SQ. FT.

STAGE 3
CUT VOLUME 0 CU. YD.
FILL VOLUME 0 CU. YD.

ALCOA RD.
STA. 213+07 TO STA. 213+07

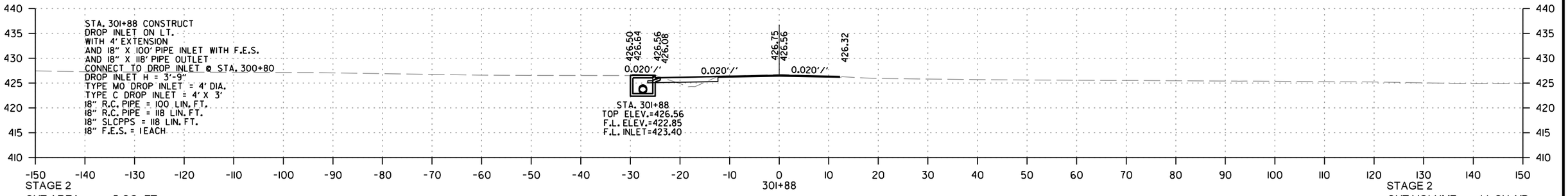
tw39665 3/1/2023
R061508.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	148	150
		CROSS SECTIONS				



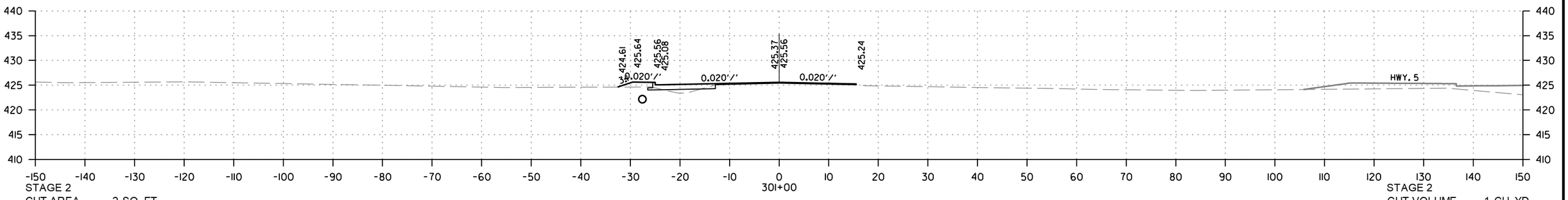
STAGE 2
CUT AREA 11 SQ. FT.
FILL AREA 0 SQ. FT.

STAGE 2
CUT VOLUME 4 CU. YD.
FILL VOLUME 1 CU. YD.



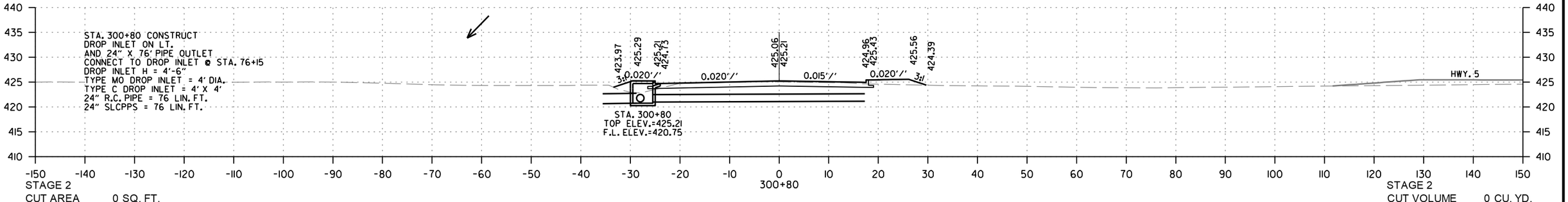
STAGE 2
CUT AREA 5 SQ. FT.
FILL AREA 4 SQ. FT.

STAGE 2
CUT VOLUME 11 CU. YD.
FILL VOLUME 21 CU. YD.



STAGE 2
CUT AREA 2 SQ. FT.
FILL AREA 9 SQ. FT.

STAGE 2
CUT VOLUME 1 CU. YD.
FILL VOLUME 12 CU. YD.



STAGE 2
CUT AREA 0 SQ. FT.
FILL AREA 24 SQ. FT.

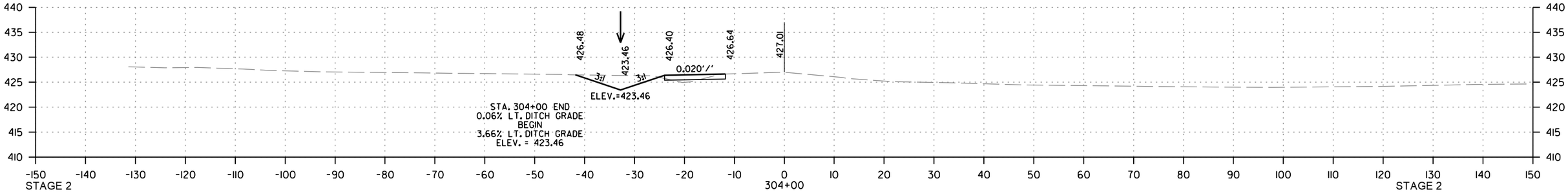
C.L. HWY. 5 STA. 77+00.00 =
C.L. SALEM RD. STA. 300+00.00
Δ = 90°00'00"

STAGE 2
CUT VOLUME 0 CU. YD.
FILL VOLUME 0 CU. YD.

SALEM RD.
STA. 300+80 TO STA. 302+00

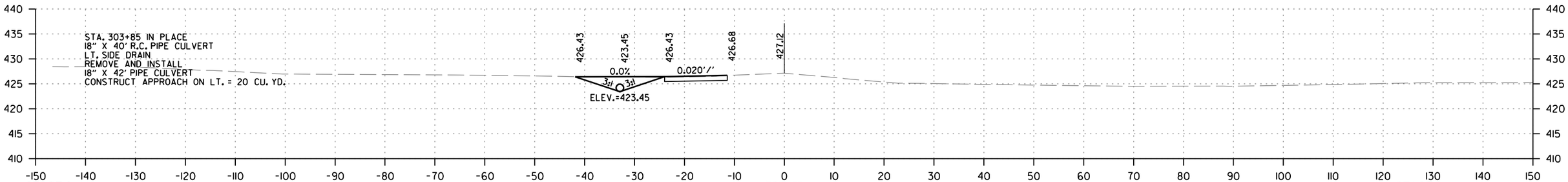
tw39665 3/1/2023
R061508.DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	149	150
		CROSS SECTIONS				



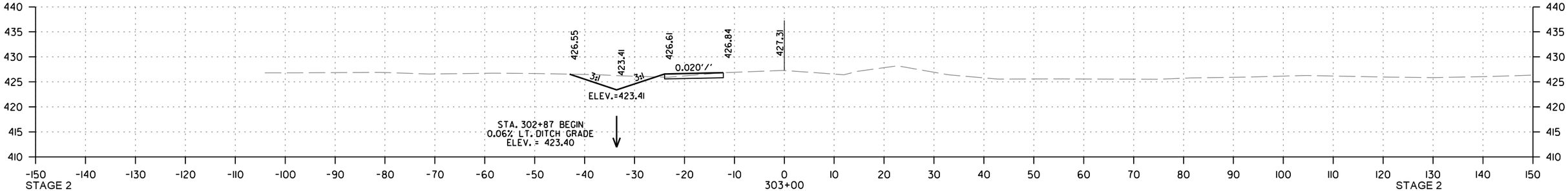
STAGE 2
CUT AREA 28 SQ. FT.
FILL AREA 2 SQ. FT.

STAGE 2
CUT VOLUME 30 CU. YD.
FILL VOLUME 1 CU. YD.



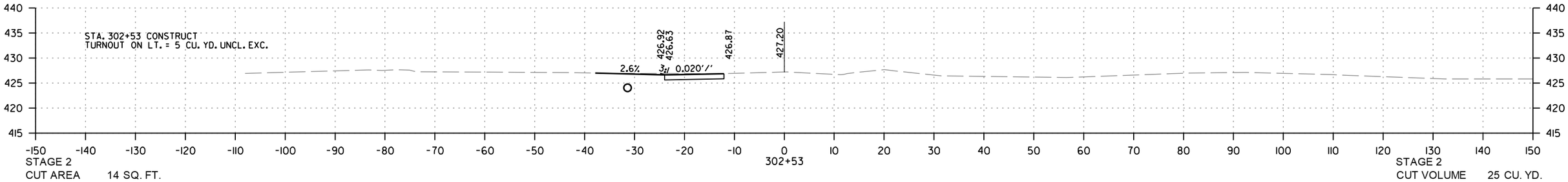
STAGE 2
CUT AREA 36 SQ. FT.
FILL AREA 0 SQ. FT.

STAGE 2
CUT VOLUME 101 CU. YD.
FILL VOLUME 0 CU. YD.



STAGE 2
CUT AREA 37 SQ. FT.
FILL AREA 0 SQ. FT.

STAGE 2
CUT VOLUME 44 CU. YD.
FILL VOLUME 0 CU. YD.



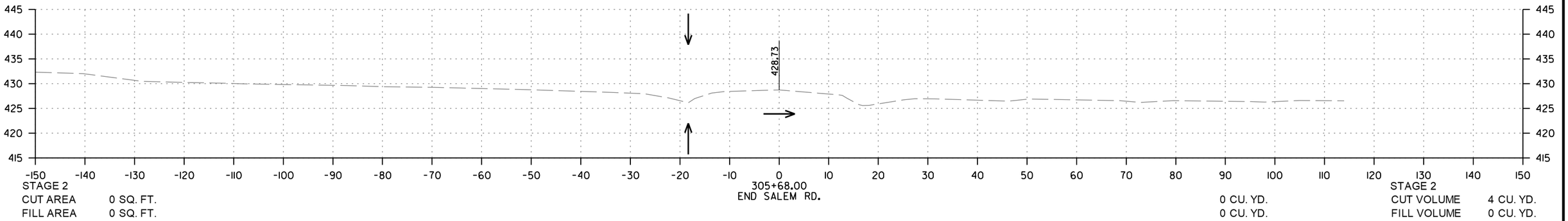
STAGE 2
CUT AREA 14 SQ. FT.
FILL AREA 0 SQ. FT.

STAGE 2
CUT VOLUME 25 CU. YD.
FILL VOLUME 0 CU. YD.

SALEM RD.
STA. 302+53 TO STA. 304+00

tw39665 3/1/2023
R061508.DGN

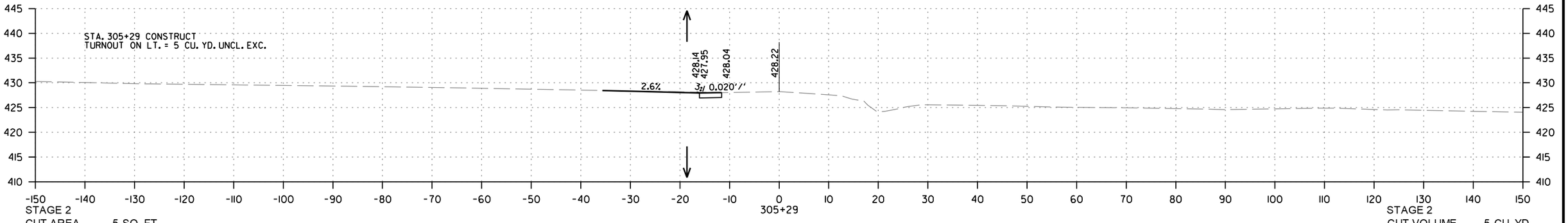
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061508	150	150
		CROSS SECTIONS				



STAGE 2
CUT AREA 0 SQ. FT.
FILL AREA 0 SQ. FT.

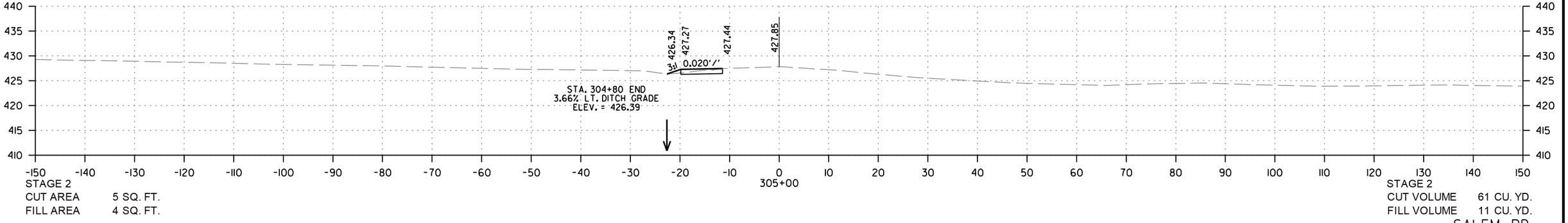
0 CU. YD.
0 CU. YD.

STAGE 2
CUT VOLUME 4 CU. YD.
FILL VOLUME 0 CU. YD.



STAGE 2
CUT AREA 5 SQ. FT.
FILL AREA 0 SQ. FT.

STAGE 2
CUT VOLUME 5 CU. YD.
FILL VOLUME 2 CU. YD.

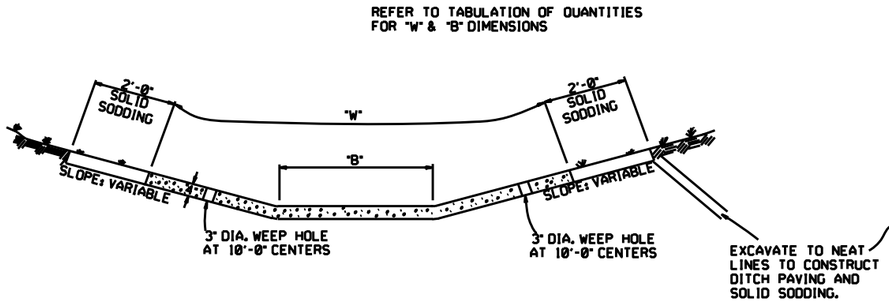


STAGE 2
CUT AREA 5 SQ. FT.
FILL AREA 4 SQ. FT.

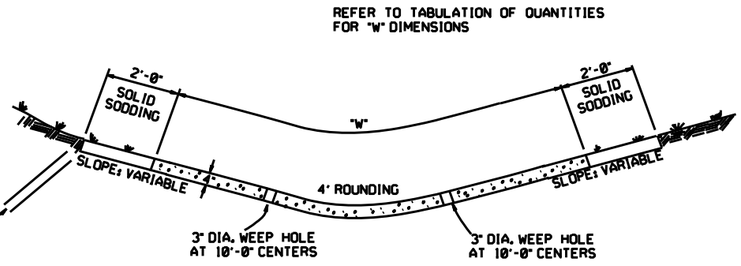
STAGE 2
CUT VOLUME 61 CU. YD.
FILL VOLUME 11 CU. YD.

SALEM RD.
STA. 305+00 TO STA. 305+68

tw39665 3/1/2023
R061508.DGN

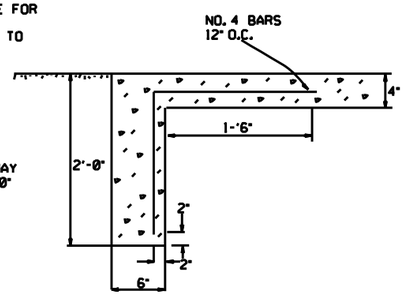


TYPE A



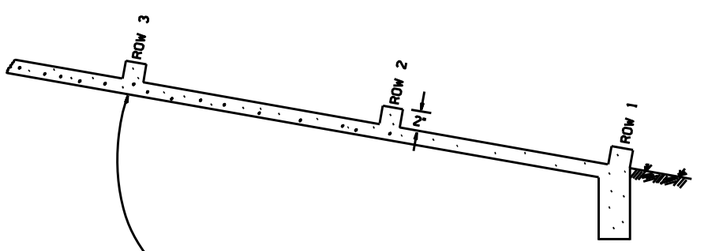
TYPE B

THE STEEL AND ADDITIONAL CONCRETE FOR THE WALLS SHALL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID FOR "CONCRETE DITCH PAVING."

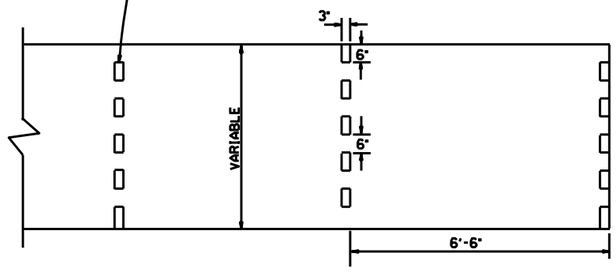


TOE WALL DEPTH MAY BE ALTERED TO 1'-0" WHEN DIRECTED BY THE ENGINEER IN ROCK EXCAVATION

TOE WALL DETAIL FOR CONCRETE DITCH PAVING



ENERGY DISSIPATORS TO BE USED FOR THE ENTIRE LENGTH OF DITCH WHEN SLOPE OF DITCH PAVING EXCEEDS 7%. THE DISSIPATORS WILL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID FOR CONCRETE DITCH PAVING.



ENERGY DISSIPATORS
(NO SCALE)

GENERAL NOTES:

THE FULL WIDTH OF EACH SECTION SHALL BE POURED MONOLITHICALLY.

TOE WALLS TO BE CONSTRUCTED FULL WIDTH AT EACH END OF DITCH PAVING, AND POURED MONOLITHICALLY.

SOLID SOD ALONG DITCH PAVING TO BE PLACED WITHIN 14 DAYS OF DITCH PAVING CONSTRUCTION.

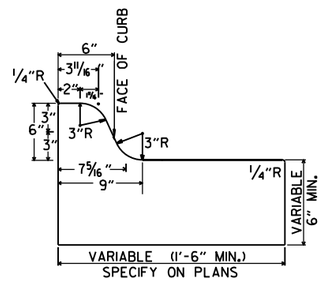
1" WIDE TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE DITCH PAVING AT 45' INTERVALS. THE SPACE SHALL BE FILLED WITH APPROVED JOINT FILLER COMPLYING WITH AASHTO M213.

DATE	REVISION	DATE FILM'D
12-8-16	CORRECTED ENERGY DISSIPATOR DRAWING AND NOTE	
11-17-10	ADDED GENERAL NOTE	
6-2-94	ADDED GENERAL NOTE ABOUT SOLID SODDING	
11-30-8	ELIMINATED MIN. ROWS OF ELEMENTS	111-30-89
7-15-88	REVISED DISSIPATOR NOTE	653-7-15-88
4-3-87	REVISED ENERGY DISSIPATOR	671-4-3-87
1-9-87	MODIFIED NOTE ON ENERGY DISS.	532-1-9-87
11-3-86	ADDED NOTE TO ENERGY DISS.	499-12-1-86
11-1-84	ENERGY DISSIPATOR DETAILS ADDED	508-11-1-84
11-1-84	EXCAVATION DETAILS ADDED TYPED A & B	
10-2-72	REVISED AND REDRAWN	508-10-2-72

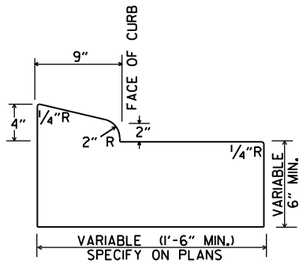
ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE DITCH PAVING

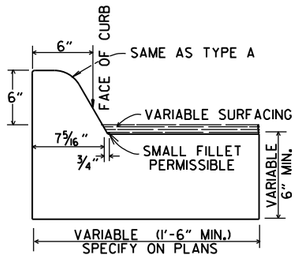
STANDARD DRAWING CDP-1



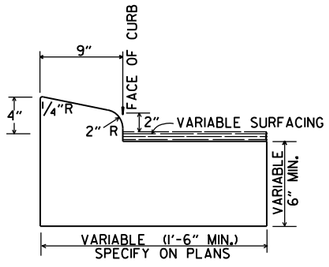
TYPE A



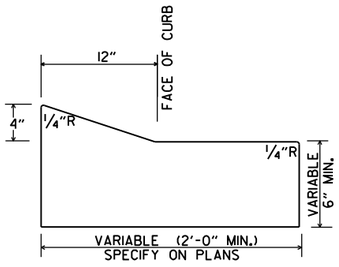
TYPE B-I



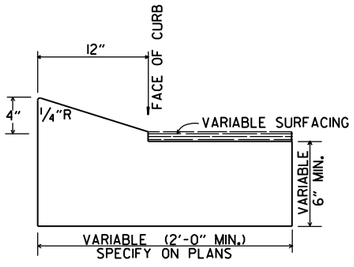
TYPE C



TYPE B-2

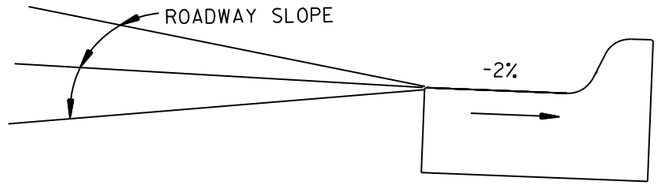


TYPE E-1



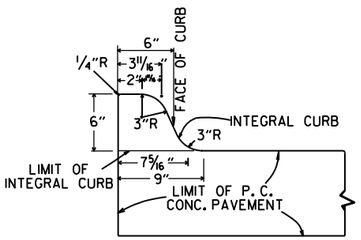
TYPE E-2

CONCRETE COMBINATION CURB AND GUTTER

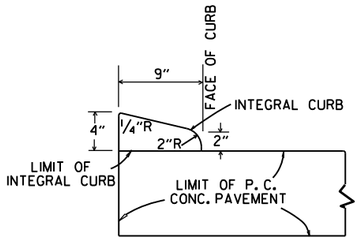


DETAIL OF GUTTER SLOPE

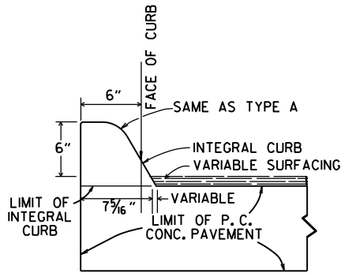
GUTTER SHALL BE CONSTRUCTED ON 2% SLOPE AWAY FROM ROADWAY, REGARDLESS OF ROADWAY SLOPE.



TYPE A

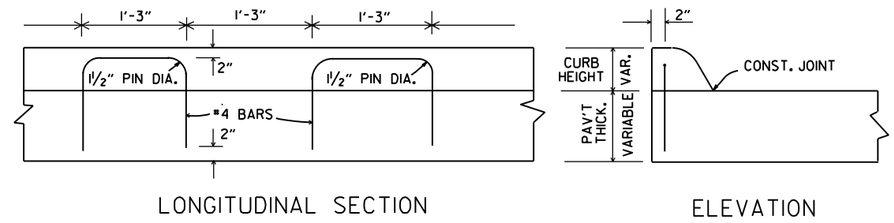


TYPE B



TYPE C

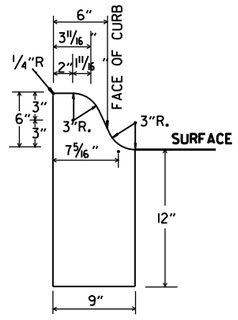
INTEGRAL CURB



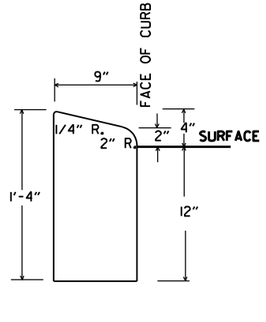
LONGITUDINAL SECTION

ELEVATION

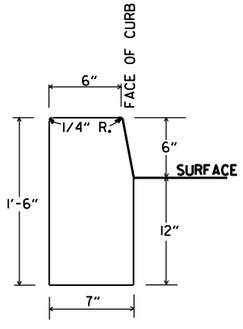
ALTERNATE CONSTRUCTION METHOD FOR INTEGRAL CURB



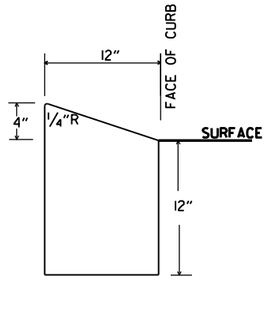
TYPE A



TYPE B

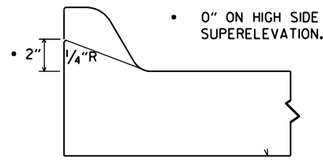


TYPE D



TYPE E

CONCRETE CURB



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

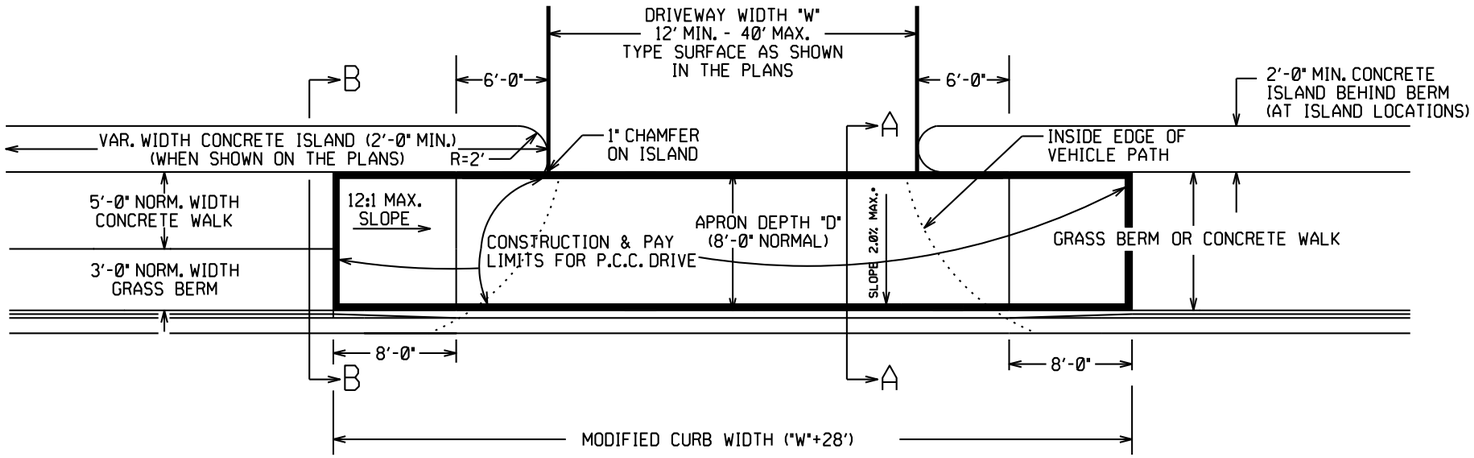
DETAILS OF MODIFIED CURB

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

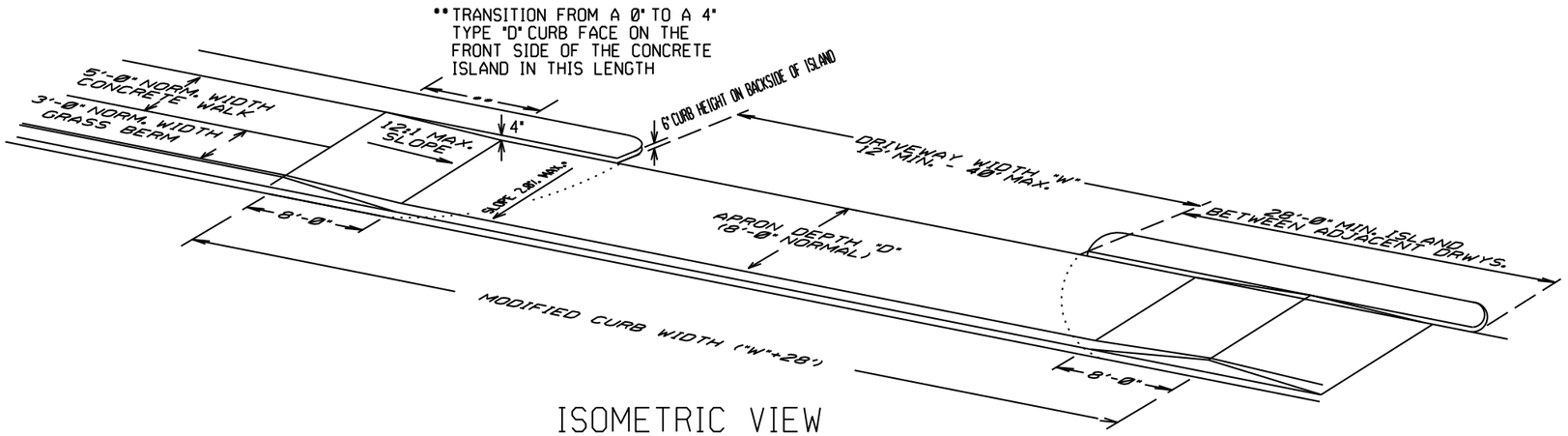
ARKANSAS STATE HIGHWAY COMMISSION

CURBING DETAILS

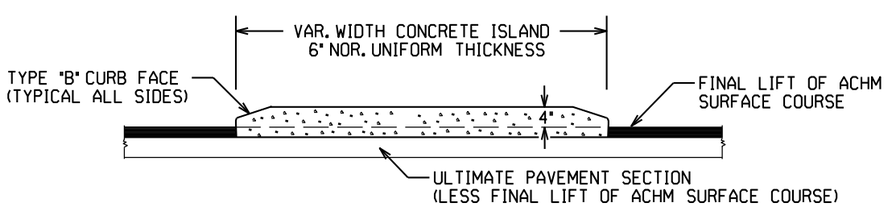
STANDARD DRAWING CG-1



PLAN VIEW



ISOMETRIC VIEW

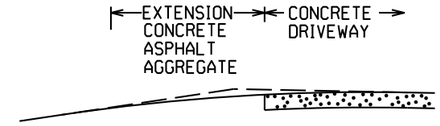


CURBED ISLANDS FOR CHANNELIZATION

CONCRETE ISLAND NOTES:

1. REFER TO PLANS FOR TYPE OF CURB FACE TO BE USED. NO DIRECT PAYMENT WILL BE MADE FOR THE CURB FACES SHOWN ON THE ISLAND DETAILS. PAYMENT FOR THE CURB FACE WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE ITEM "CONCRETE ISLAND".

2. TRANSVERSE EXPANSION JOINTS, NOT LESS THAN 1/2" WIDE, SHALL BE PLACED AT MINIMUM INTERVAL OF 45'. TRANSVERSE JOINT SHALL BE CONSTRUCTED USING A JOINT FILLER COMPLYING WITH AASHTO M213.



EXTENSION TYPICAL SECTIONS

1: CONCRETE - 6" P.C. CONCRETE DRIVEWAY

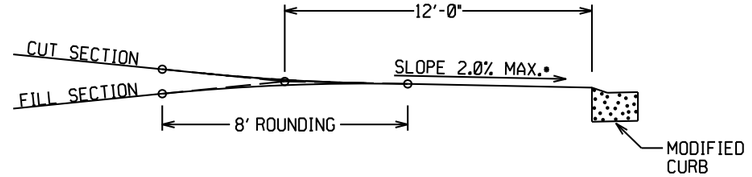
2: ASPHALT - 2" ACHM SURFACE COURSE (1/2")
4" ACHM BINDER COURSE (1") OR
4" ACHM BASE COURSE (1-1/2")

3: ASPHALT - 2" ACHM SURFACE COURSE (1/2")
7" AGGREGATE BASE COURSE

4: AGGREGATE - 6" AGGREGATE BASE COURSE

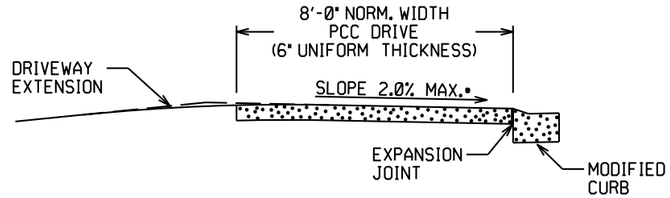
THE TYPE OF EXTENSION SHALL BE AS SHOWN IN THE PLANS. THE CONTRACTOR MAY, WITH THE APPROVAL OF THE ENGINEER, SUBSTITUTE A LOWER NUMBERED TYPE OF EXTENSION IN LIEU OF THE TYPE SPECIFIED IN THE PLANS, BUT AT NO ADDITIONAL COST TO THE DEPARTMENT.

DRIVEWAY EXTENSION DETAILS

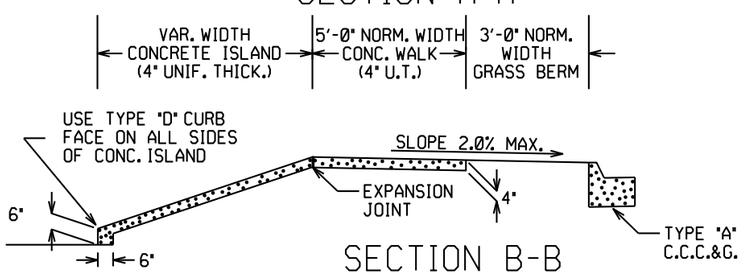


DRIVEWAY VERTICAL ALIGNMENT DETAILS

• NOTE: DRIVEWAYS MAY NOT BE SLOPED AWAY FROM THE ROADWAY UNLESS APPROVED BY THE ENGINEER.



SECTION A-A



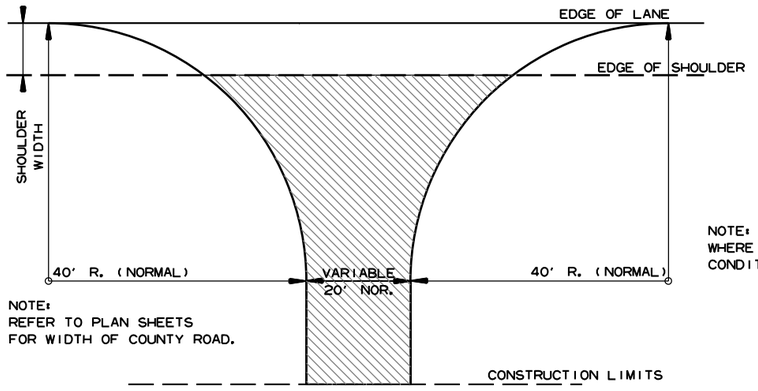
SECTION B-B
CURBED ISLAND BEHIND WALK

DATE REV	DATE FILMED	DESCRIPTION
5-19-22		REVISED ISLAND NOTES
11-07-19		REVISED WALK DETAILS
2-27-14		REVISED PLAN & ISOMETRIC VIEW
11-29-07		ADDED CHANNELIZATION ISLAND WITH TYPE C CURB FACE & REVISED DRIVEWAY SLOPE NOTE & VERTICAL ALIGNMENT DETAIL
11-10-05		REV. APRON SLOPE & DEPTH OF AGG. BASE.
8-22-02		ADDED ISLAND DETAILS & NOTES
3-30-00		REV. MOD. CURB WIDTH & TRANS. NOTE
11-19-98		REVISED NOTES
11-18-98		REDRAWN AND REISSUED

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DRIVEWAYS & ISLANDS

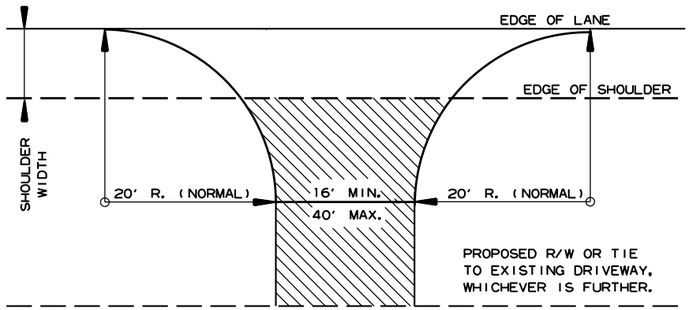
STANDARD DRAWING DR-1



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.

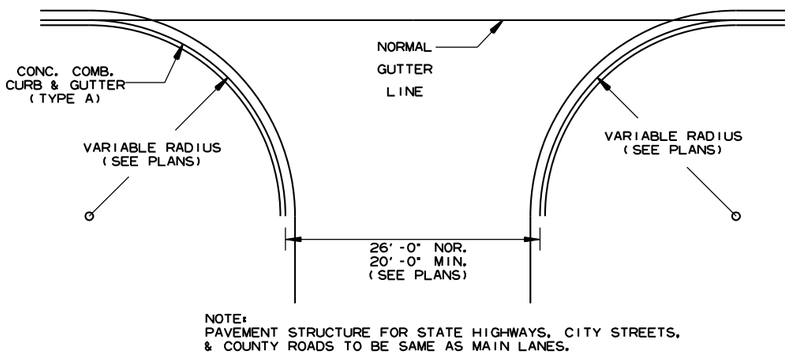
DETAIL FOR COUNTY ROAD TURNOUTS OPEN SHOULDER SECTION



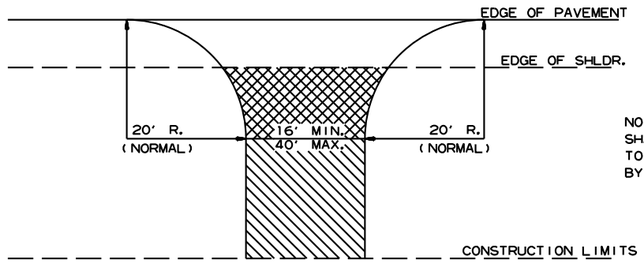
NOTE: TURNOUTS AND PRIVATE DRIVES SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS AS DIRECTED BY THE ENGINEER.

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



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

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

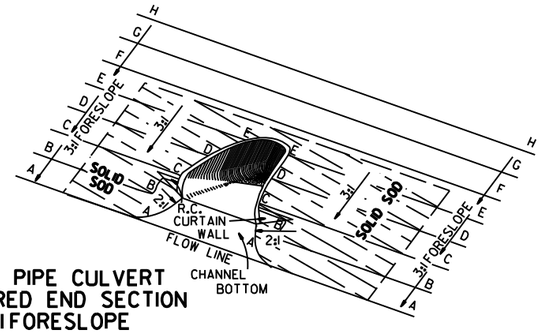
DETAIL FOR DRIVEWAY TURNOUTS (COLLECTORS)

DATE REV	DATE FILMED	DESCRIPTION
5-19-22		ISSUED

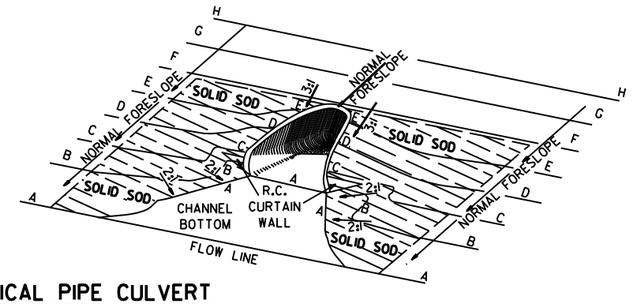
ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DRIVEWAYS & STREET TURNOUTS

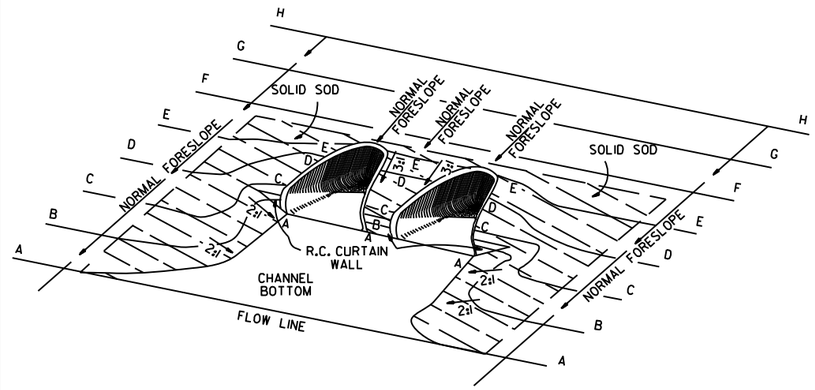
STANDARD DRAWING DR-2



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



TYPICAL PIPE CULVERT
WITH FLARED END SECTION
& FLATTENED ADJACENT SLOPES



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

R.C. CURTAIN WALL DIMENSIONS & QUANTITIES

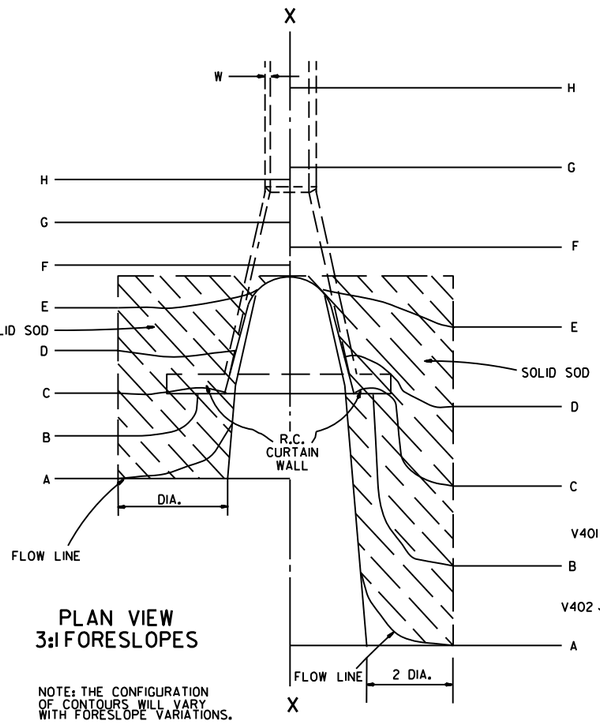
PIPE DIA.	H_1	L_1	L	L (DBL.)/2	SINGLE R.C.P.C.		DOUBLE R.C.P.C.	
					CONC.	REINF. STEEL	CONC.	REINF. STEEL
					CU. YDS.	LBS.	CU. YDS.	LBS.
18"	11½"	3'-5"	8'-0"	6'-3"	0.31	27.7	0.45	39.5
24"	1'-0½"	4'-6"	9'-6"	7'-6"	0.37	33.4	0.53	48.0
30"	1'-3½"	5'-7"	11'-0"	9'-0"	0.45	39.0	0.67	59.0
36"	1'-7"	6'-8"	13'-0"	10'-6"	0.58	52.6	0.83	73.9
42"	2'-1½"	7'-3"	15'-6"	12'-0"	0.82	77.1	1.10	100.7
48"	2'-5"	7'-10"	17'-0"	13'-0"	0.98	94.9	1.27	120.4
54"	2'-9½"	8'-5"	18'-6"	14'-0"	1.16	115.8	1.47	143.7
60"	3'-4"	9'-0"	20'-6"	15'-6"	1.47	149.7	1.84	180.3
72"	4'-5"	10'-2"	25'-6"	18'-6"	2.31	232.6	2.73	271.0

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

REINFORCING STEEL SCHEDULE

PIPE DIA.	SINGLE R.C. PIPE CULVERT								DOUBLE R.C. PIPE CULVERT											
	H401		H402		V401		V402		H401		H402		H403		V401		V402	
	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.
18"	7'-8"	2	1'-11½"	4	1'-7½"	8	8"	8	12'-2"	2	1'-11½"	4	8"	2	1'-7½"	10	8"	14
24"	9'-2"	2	2'-2"	4	1'-8½"	10	8"	9	14'-8"	2	2'-2"	4	8"	2	1'-8½"	12	8"	18
30"	10'-8"	2	2'-4½"	4	1'-11½"	10	8"	12	17'-8"	2	2'-4½"	4	8"	2	1'-11½"	14	8"	22
36"	12'-8"	2	2'-10"	6	2'-3"	12	8"	14	20'-8"	2	2'-10"	6	8"	3	2'-3"	14	8"	28
42"	15'-2"	2	3'-9½"	8	2'-9½"	16	8"	15	23'-8"	2	3'-9½"	8	8"	4	2'-9½"	18	8"	30
48"	16'-8"	2	4'-3"	10	3'-1"	18	8"	16	25'-8"	2	4'-3"	10	8"	5	3'-1"	20	8"	32
54"	18'-2"	2	4'-8½"	12	3'-5½"	20	8"	17	27'-8"	2	4'-9"	12	8"	6	3'-5½"	22	8"	34
60"	20'-2"	2	5'-5"	14	4'-0"	24	8"	18	30'-8"	2	5'-5"	14	8"	7	4'-0"	26	8"	36
72"	25'-2"	2	7'-4"	18	5'-1"	30	8"	20	36'-8"	2	7'-4"	18	8"	9	5'-1"	33	8"	40

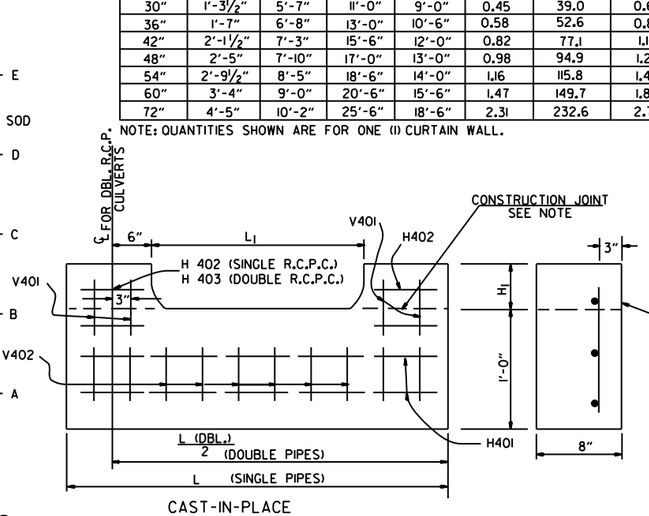
ALL REINFORCING STEEL #4 BARS @ 6" O.C.



PLAN VIEW
3:1 FORESLOPES

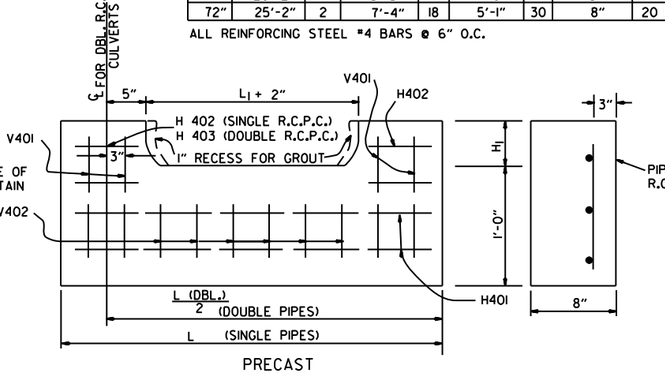
NOTE: THE CONFIGURATION OF CONTOURS WILL VARY WITH FORESLOPE VARIATIONS.

PLAN VIEW
FLATTENED FORESLOPES



CAST-IN-PLACE

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



PRECAST

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

R.C. CURTAIN WALL DETAILS

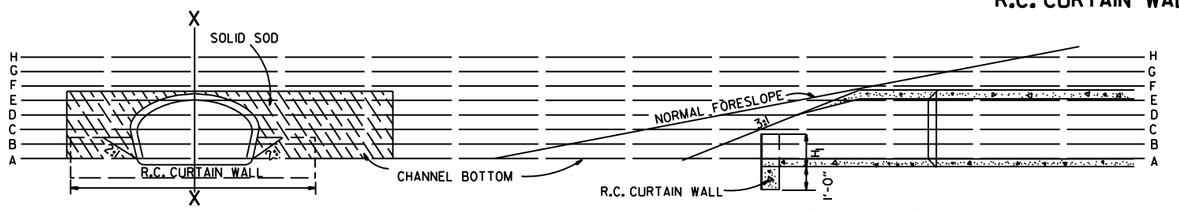
SOLID SODDING

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

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

GENERAL NOTES

1. A CAST-IN-PLACE OR PRECAST CURTAIN WALL MAY BE USED. PAYMENT FOR THE CURTAIN WALL SHALL BE CONSIDERED TO BE INCLUDED IN THE UNIT PRICE BID EACH FOR FLARED END SECTIONS OF THE SEVERAL SIZES, WHICH PRICE SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIALS INCLUDING REINFORCING STEEL AND CONCRETE; FOR FORMS, MIXING AND PLACING; FOR EXCAVATION AND BACKFILL, AND FOR ALL LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.
2. ALL EXPOSED EDGES SHALL BE CHAMFERED ¾".
3. CONCRETE FOR CURTAIN WALL SHALL MEET THE REQUIREMENTS FOR CLASS A OR S CONCRETE AS PROVIDED IN SECTION 802 OF THE STANDARD SPECIFICATIONS OR FOR PAVING CONCRETE AS PROVIDED IN SECTION 501 OF THE STANDARD SPECIFICATIONS.
4. WELDED WIRE MESH 3 x 3 W/10 x W10 MAY BE USED IN LIEU OF REINFORCING BARS.



END VIEW

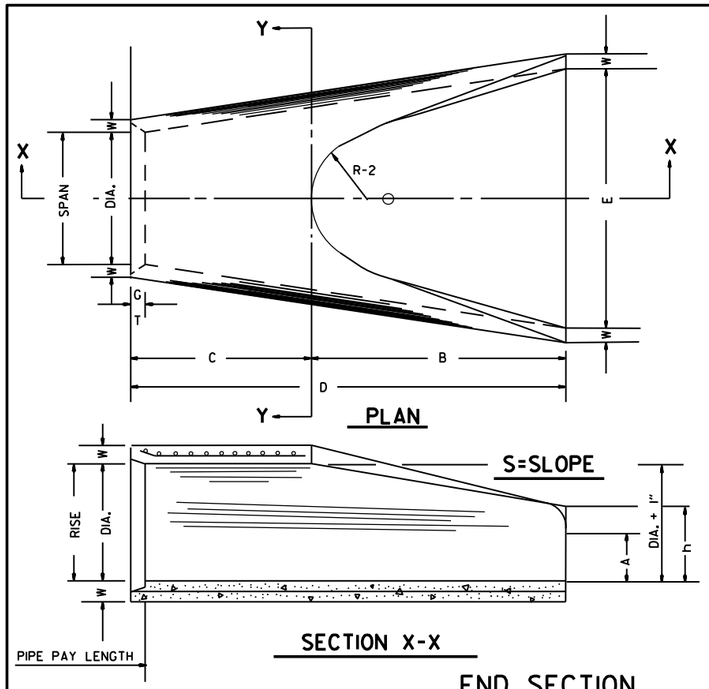
SECTIONAL VIEW "X-X"

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

ARKANSAS STATE HIGHWAY COMMISSION

FLARED END SECTION

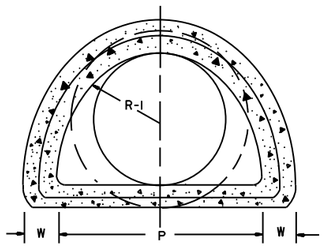
STANDARD DRAWING FES-1



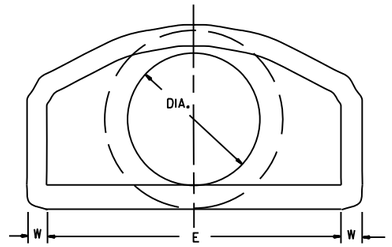
END SECTION FOR REINFORCED CONCRETE PIPE CULVERTS

TABLE OF DIMENSIONS

DIA.	WALL	A	B	C	D	E	S	DIA. + 1"	P	R-1	R-2	G-T	WT.	h
18"	2½"	9"	2'-3"	3'-10"	6'-1"	3'-0"	3:1	19"	29"	15½"	12"	2"	1000	1'-0½"
24"	3"	9½"	3'-7½"	2'-6"	6'-1½"	4'-0"	3:1	25"	33⅜"	16⅛"	14"	2½"	1600	1'-1½"
30"	3½"	1'-0"	4'-6"	1'-7¾"	6'-1¾"	5'-0"	3:1	31"	37"	18½"	15"	3¼"	1940	1'-4⅝"
36"	4"	1'-3"	5'-3"	2'-10¾"	8'-1¾"	6'-0"	3:1	37"	47⅛"	24⅝"	20"	3½"	4100	1'-8"
42"	4½"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"	3:1	43"	53⅛"	27½"	22"	3½"	5380	2'-2½"
48"	5"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	3:1	49"	56½"	28½"	22"	3½"	6550	2'-6"
54"	5½"	2'-4"	6'-6"	1'-10"	8'-4"	7'-6"	3:1	55"	65½"	33⅛"	24"	4"	8750	2'-10½"
60"	6"	2'-10"	6'-6"	1'-10"	8'-4"	8'-0"	3:1	61"	72½"	36⅛"	24"	4"	9270	3'-5"
72"	7"	3'-10"	6'-6"	1'-10"	8'-4"	9'-0"	3:1	73"	77⅛"	38⅝"	24"	5"	13250	4'-6"



SECTION Y-Y



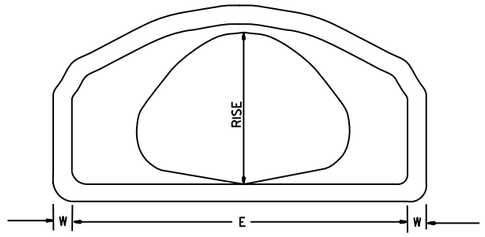
END VIEW

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

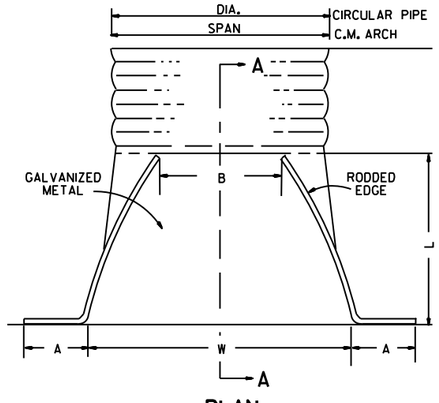
ARCH PIPE

EQUIV. DIA.	• SPAN AASHTO M 206	• SPAN AHD NOMINAL	• RISE AASHTO M 206	• RISE AHD NOMINAL	W	A	B	C	D	E	P	R2	G-T	S
INCHES														
15	18	18	11	11	2"	4"	2'-0"	4'-0"	6'-0"	3'-0"	29"	12"	1½"	2½:1
18	22	22	13½	14	2½"	5"	2'-0"	4'-1"	6'-1"	3'-6"	32⅛"	13"	2½"	2½:1
21	26	26	15½	16	2¾"	7"	2'-3"	3'-10"	6'-1"	4'-0"	34⅛"	14"	2½"	2½:1
24	28½	29	18	18	3"	9"	2'-3"	3'-10"	6'-1"	5'-0"	36⅛"	15"	2½"	2½:1
30	36¼	36	22½	23	3½"	10"	3'-1"	3'-0½"	6'-1½"	6'-0"	47⅛"	20"	3"	2½:1
36	43¾	44	26⅝	27	4"	10½"	4'-0"	2'-1½"	6'-1½"	6'-6"	54⅜"	22"	3½"	2½:1
42	51⅛	51	31⅝	31	4½"	11½"	4'-7"	1-10¼"	6'-5¼"	7'-2"	59½"	23"	3¾"	2½:1
48	58½	59	36	36	5"	1'-3"	5'-3"	2'-10¾"	8'-1¾"	7'-10"	70⅝"	24"	4¼"	2½:1
54	65	65	40	40	5½"	1'-7"	5'-3"	2'-11"	8'-2"	8'-6"	72⅛"	24"	4¾"	2¼:1
60	73	73	45	45	6"	1'-10"	5'-6"	2'-8"	8'-2"	9'-0"	77⅛"	24"	5"	2¼:1

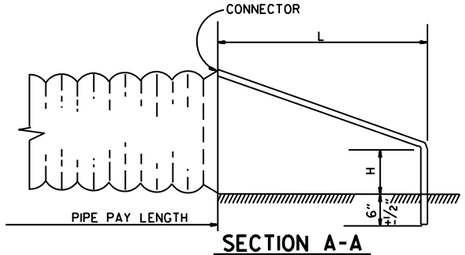
• THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PER CENT FROM THE VALUES SPECIFIED BY AASHTO M 206.



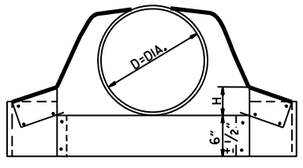
END VIEW
CONCRETE ARCH PIPE



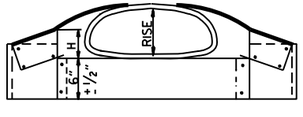
PLAN



SECTION A-A



CIRCULAR PIPE



C.M. ARCH PIPE

CIRCULAR PIPE

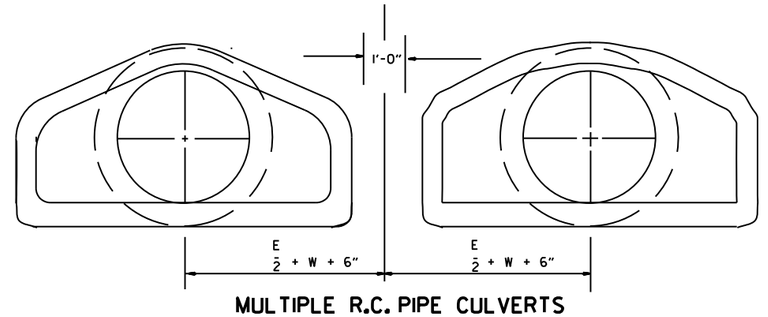
D. DIA.	GAUGE	A 1" ±	B. MAX.	H 1" ±	L 1½" ±	W 2" ±	S
		INCHES					
12	16	6	6	6	21	24	2½:1
15	16	7	8	6	26	30	2½:1
18	16	8	10	6	31	36	2½:1
21	16	9	12	6	36	42	2½:1
24	16	10	13	6	41	48	2½:1
30	14	12	16	8	51	60	2½:1
36	14	14	19	9	60	72	2½:1
42	12	16	22	11	69	84	2½:1
48	12	18	27	12	78	90	2½:1
54	12	18	30	12	84	102	2:1
60	12	18	33	12	87	114	1¾:1
66	12	18	36	12	87	120	1½:1
72	12	18	39	12	87	126	1 1/3:1

C.M. ARCH PIPE

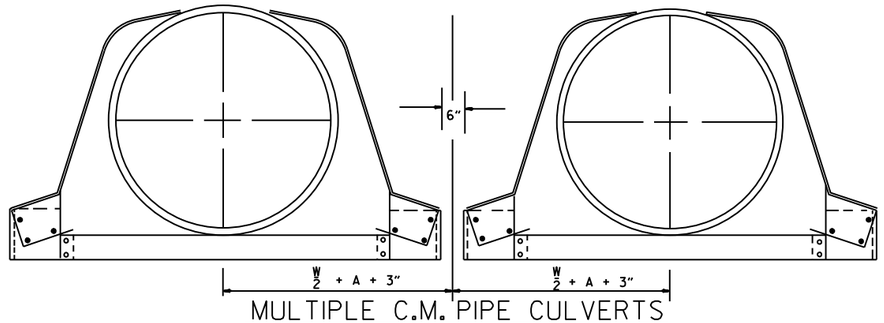
EQUIV. DIA.	SPAN	RISE	A 1" ±	B MAX.	H 1" ±	L 1½" ±	W 2" ±	S	GAUGE
	INCHES								
15"	17	13	7	9	6	19	30	2½:1	16
18"	21	15	7	10	6	23	36	2½:1	16
21"	24	18	8	12	6	28	42	2½:1	16
24"	28	20	9	14	6	32	48	2½:1	16
30"	35	24	10	16	6	39	60	2½:1	14
36"	42	29	12	18	8	46	75	2½:1	14
42"	49	33	13	21	9	53	85	2½:1	12
48"	57	38	18	26	12	63	90	2½:1	12
54"	64	43	18	30	12	70	102	2¼:1	12
60"	71	47	18	33	12	77	114	2¼:1	12

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

END SECTIONS FOR CORRUGATED METAL PIPE CULVERTS



MULTIPLE R.C. PIPE CULVERTS



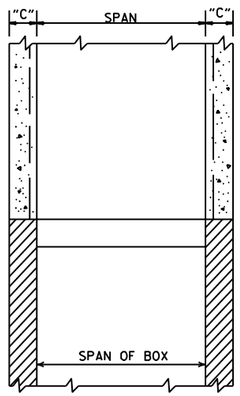
MULTIPLE C.M. PIPE CULVERTS

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

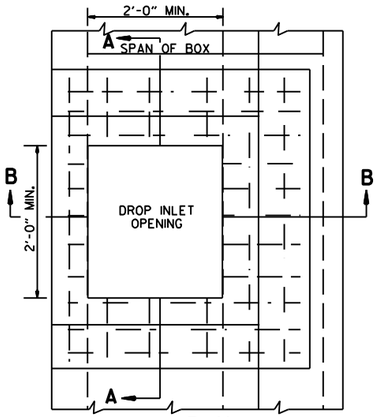
ARKANSAS STATE HIGHWAY COMMISSION

FLARED END SECTION

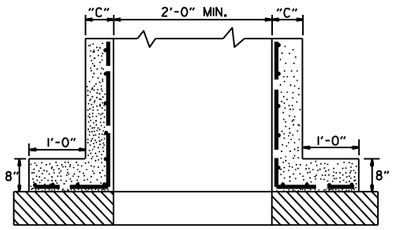
STANDARD DRAWING FES-2



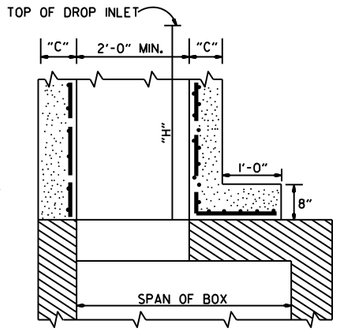
SECTION B-B



PLAN

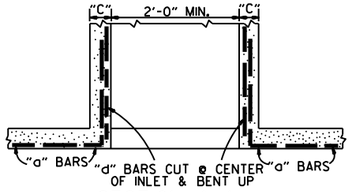


SECTION A-A

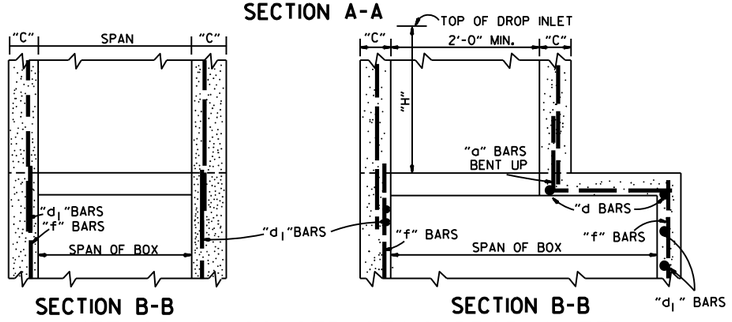


SECTION B-B

METHOD OF CONSTRUCTING DROP INLET ON EXISTING R.C. BOX CULVERT



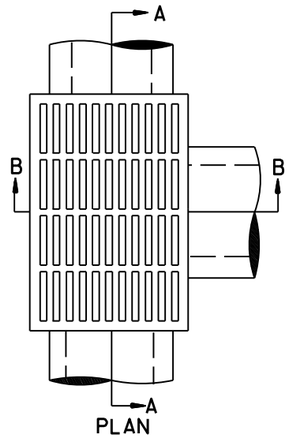
SECTION A-A



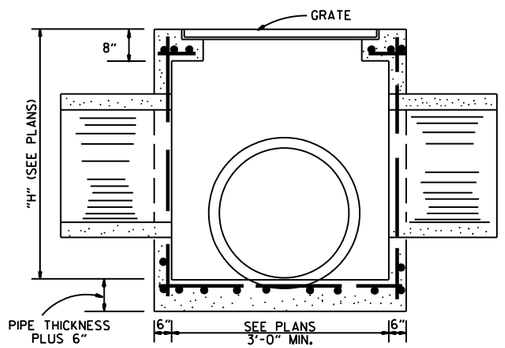
SECTION B-B SECTION B-B

METHOD OF CONSTRUCTING DROP INLET ON NEW R.C. BOX CULVERT

NOTE: "C" DIMENSIONS AND REINFORCING BAR SIZES, SHALL CONFORM TO THOSE SHOWN ON STANDARD DRAWING FOR DROP INLET.

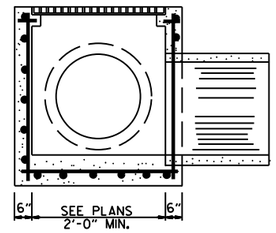


PLAN



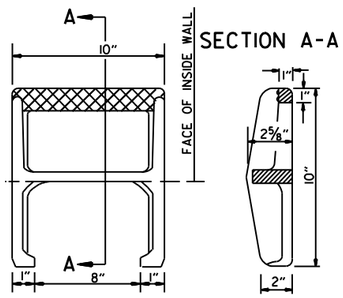
SECTION A-A

NOTE: REINF. BARS TO BE #4 BARS ON 6" CTRS. WITH 1½" MIN. COVER. THIS TYPE DROP INLET TO BE USED WHERE NOT SUBJECTED TO TRAFFIC.



SECTION B-B

DROP INLET (TYPE E)

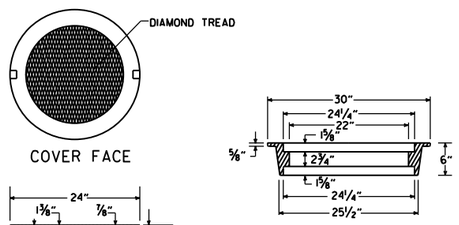


APPROX. WEIGHT = 11LBS. (CAST IRON)

PLAN

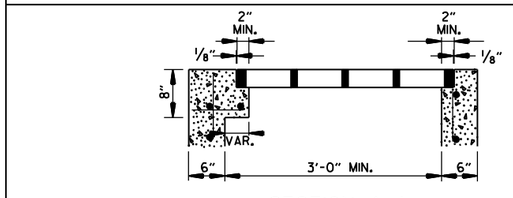
NOTE: THIS DETAIL IS TYPICAL. OTHERS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.

DETAIL OF STEP FOR DROP INLET

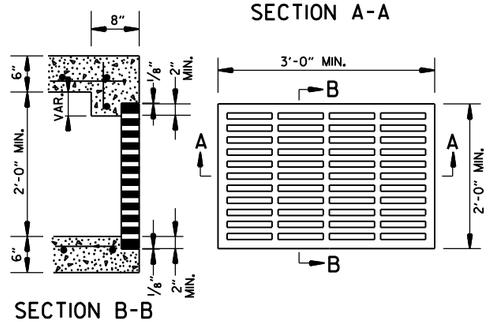


APPROXIMATE TOTAL WEIGHT = 333 LBS.

HEAVY DUTY RING & COVER



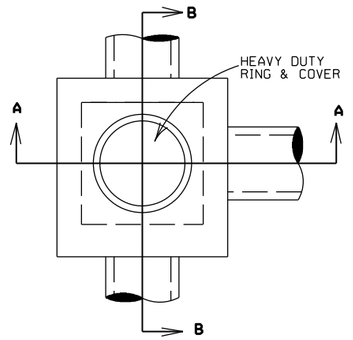
SECTION A-A



SECTION B-B

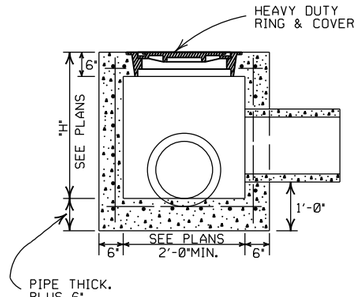
APPROXIMATE MINIMUM WATERWAY OPENING = 260 SQ. IN.

GRATE FOR TYPE E DROP INLET

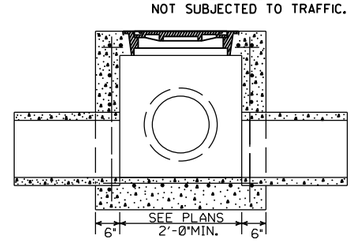


PLAN

NOTE: REINF. BARS TO BE #4 BARS ON 6" CTRS. WITH 1½" MIN. COVER. THIS TYPE JUNCTION BOX TO BE USED WHERE NOT SUBJECTED TO TRAFFIC.

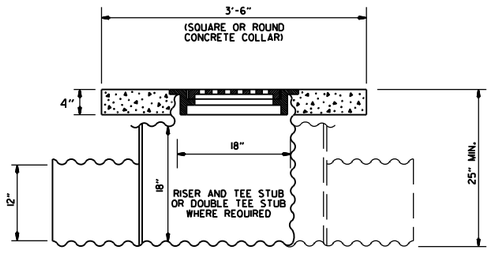


SECTION A-A

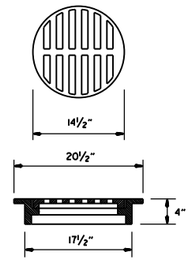


SECTION B-B

JUNCTION BOX (TYPE E)



NOTE: CONCRETE COLLAR TO BE CAST IN PLACE. 12" PIPE CULVERTS TO BE MEASURED AND PAID FOR AS " 12" SIDE DRAIN ".



USE NEENAH R-5901-C OR EQUIVALENT BICYCLE SAFE FRAME AND GRATE

DETAIL OF YARD DRAIN

GENERAL NOTES:

1. ALL EXPOSED CORNERS SHALL BE ¾" CHAMFERED.
2. STEPS SHALL BE INSTALLED ON 16" CENTERS ON ALL INLETS 4'-0" HIGH OR OVER, OR AS APPROVED BY THE ENGINEER.
3. EXPANSION JOINT MATERIAL SHALL BE ¾" PREFORMED FIBER.
4. GRATE OR GRATE AND FRAME SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105 CLASS 35B. GRATE MAY BE USED WITHOUT FRAME.
5. GRATE AND FRAME SHALL NOT BE PAINTED.
6. GRATE SHALL BE BICYCLE SAFE.
7. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.
8. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M105 CLASS 35B & AASHTO M306.
9. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
10. DIMENSIONS SHOWN FOR RING AND COVER ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR CASTINGS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR CASTING DESIGNS MAY BE MADE BY REFERRING TO PREVIOUSLY APPROVED DRAWINGS.

DATE REV.	REVISION	DATE FILMED
11-16-01	ADDED NOTE 10	
1-12-00	REVISED HEAVY DUTY RING & COVER	
7-02-98	CHANGED GRATE DETAIL. DELETED DI(TYPE D), REPLACED RING & COVER W/HEAVY DUTY RING & COVER, ADDED JUNCTION BOX (TYPE E)	
6-26-97	ADDED DIMENSION TO TYPE IV-A	
10-18-96	ADDED DETAIL OF YARD DRAIN	
8-15-91	DELETE TYPE IV GRATE	
7-15-88	REVISED STEP DETAIL	
5-20-83	REVISED DETAILS OF GRATES (TYPE IV & IV-A)	
2-4-83	ADDED GENERAL NOTE NO. 4	
3-2-81	ADDED TYPE IV-A GRATE	
5-22-74	DELETED INLET (TYPE F) & GRATE (TYPE III)	
10-2-72	REVISED AND REDRAWN	

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLETS & JUNCTION BOXES

STANDARD DRAWING FPC-9

4'-0" LENGTH DROP INLET

PIPE SIZE	MIN. WIDTH	HEIGHT 5'-0" CLASS A CONC.	HEIGHT 5'-0" REINF. STEEL	PLUS OR MINUS PER LIN. FT. OF HEIGHT CLASS A CONC.	PLUS OR MINUS PER LIN. FT. OF HEIGHT REINF. STEEL
		CU. YDS.	POUNDS	CU. YDS.	POUNDS
18"	2'-6"	1.77	156	0.28	22
24"	2'-6"	1.79	156	0.28	22
30"	3'-2"	2.39	205	0.30	26
36"	3'-8"	2.63	236	0.32	28
42"	4'-4"	2.95	250	0.34	30
48"	4'-10"	3.21	265	0.36	32

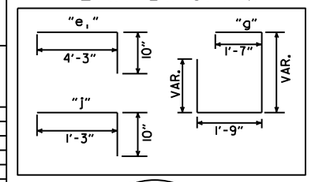
NOTE: QUANTITIES ARE APPROXIMATE AND ARE SHOWN FOR BIDDER INFORMATION ONLY.

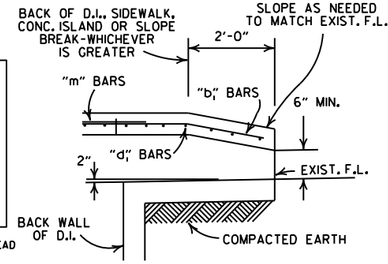
DROP INLET EXTENSION

4'-0" CLASS A CONC.	4'-0" REINF. STEEL	8'-0" CLASS A CONC.	8'-0" REINF. STEEL
CU. YDS.	POUNDS	CU. YDS.	POUNDS
0.58	38	0.87	72
DEDUCT FROM QUANTITY COMPUTED FOR EACH EXTENSION ADDED.			
0.04	3		

DEDUCT FROM QUANTITY COMPUTED FOR EACH PIPE ENTERING INLET		
INSIDE DIA. PIPE	CLASS A CONC.	REINF. STEEL
INCHES	CU. YDS.	POUNDS
18	0.05	2
24	0.09	3
30	0.13	4
42	0.24	8

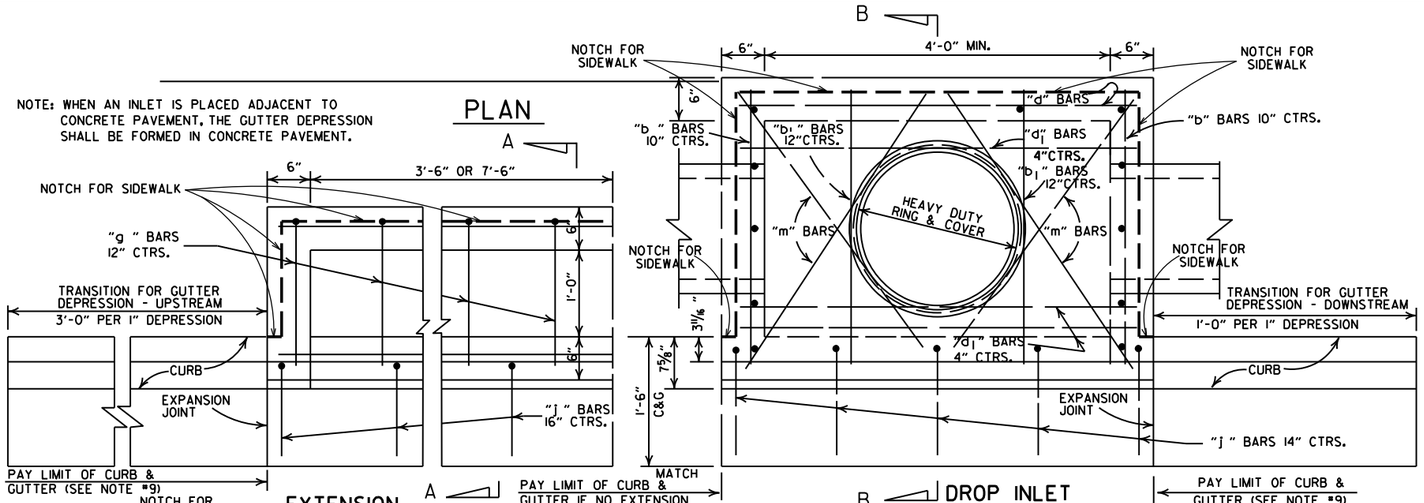
BAR DIAGRAM

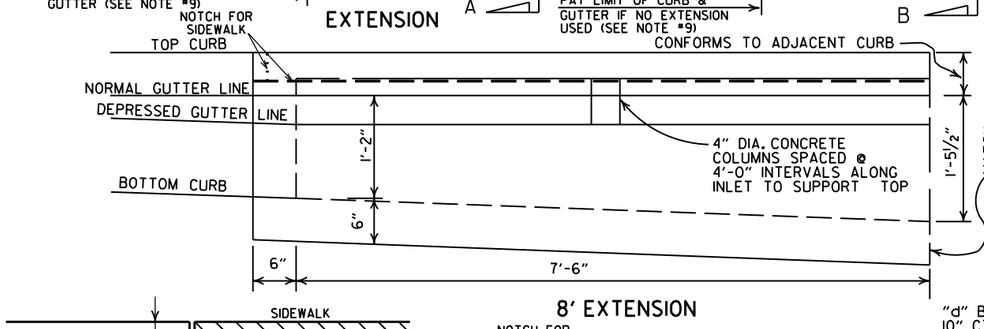


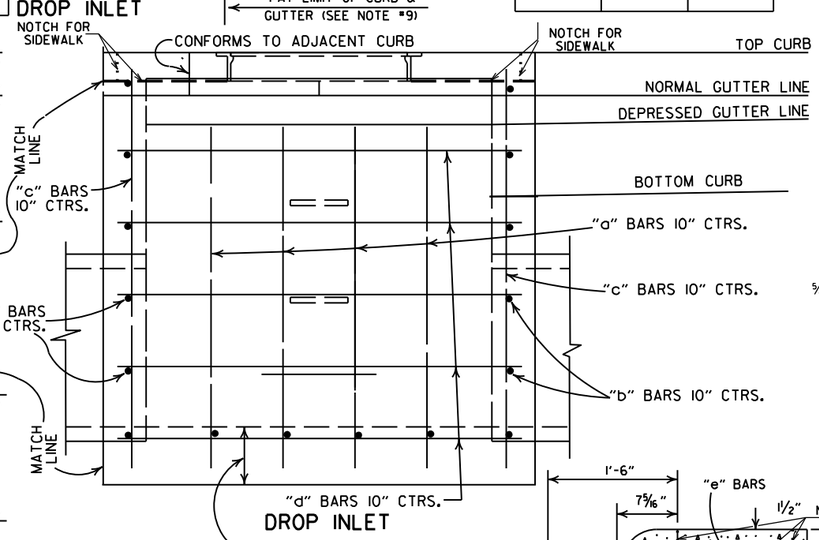


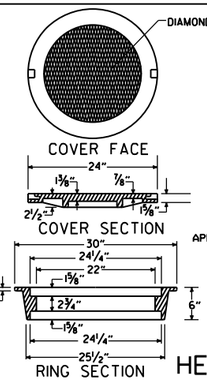
BACK OPENING

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



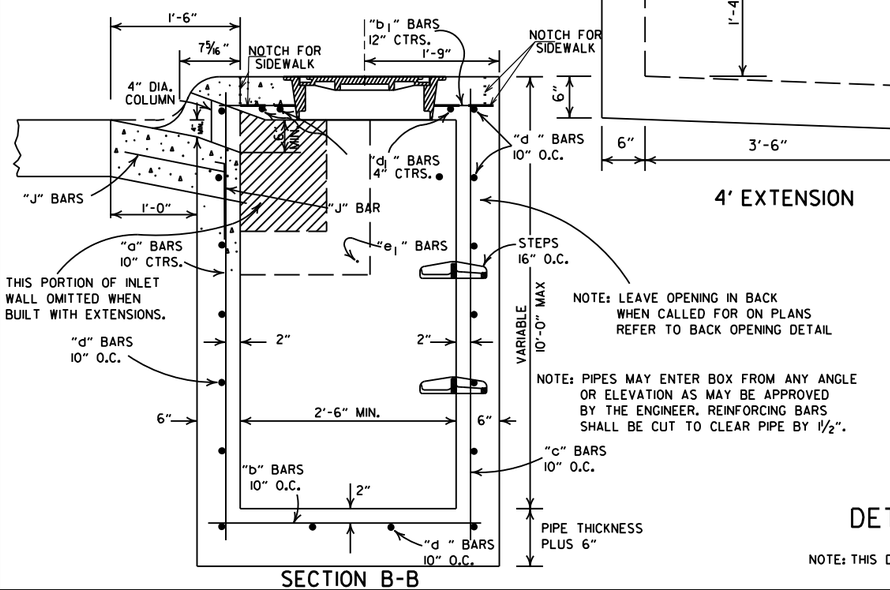


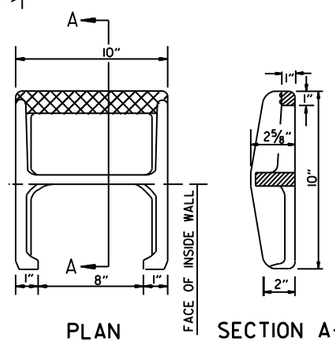




APPROXIMATE TOTAL WEIGHT = 333 LBS.

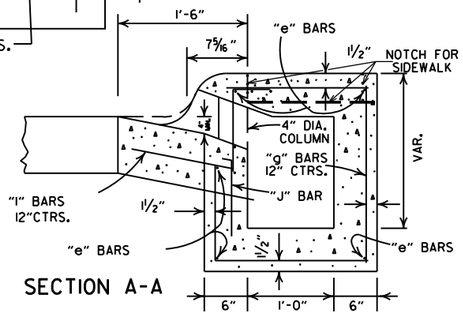
HEAVY DUTY RING & COVER





APPROX. WEIGHT = 11 LBS. (CAST IRON)

NOTE: THIS DETAIL IS TYPICAL. OTHERS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.



GENERAL NOTES:

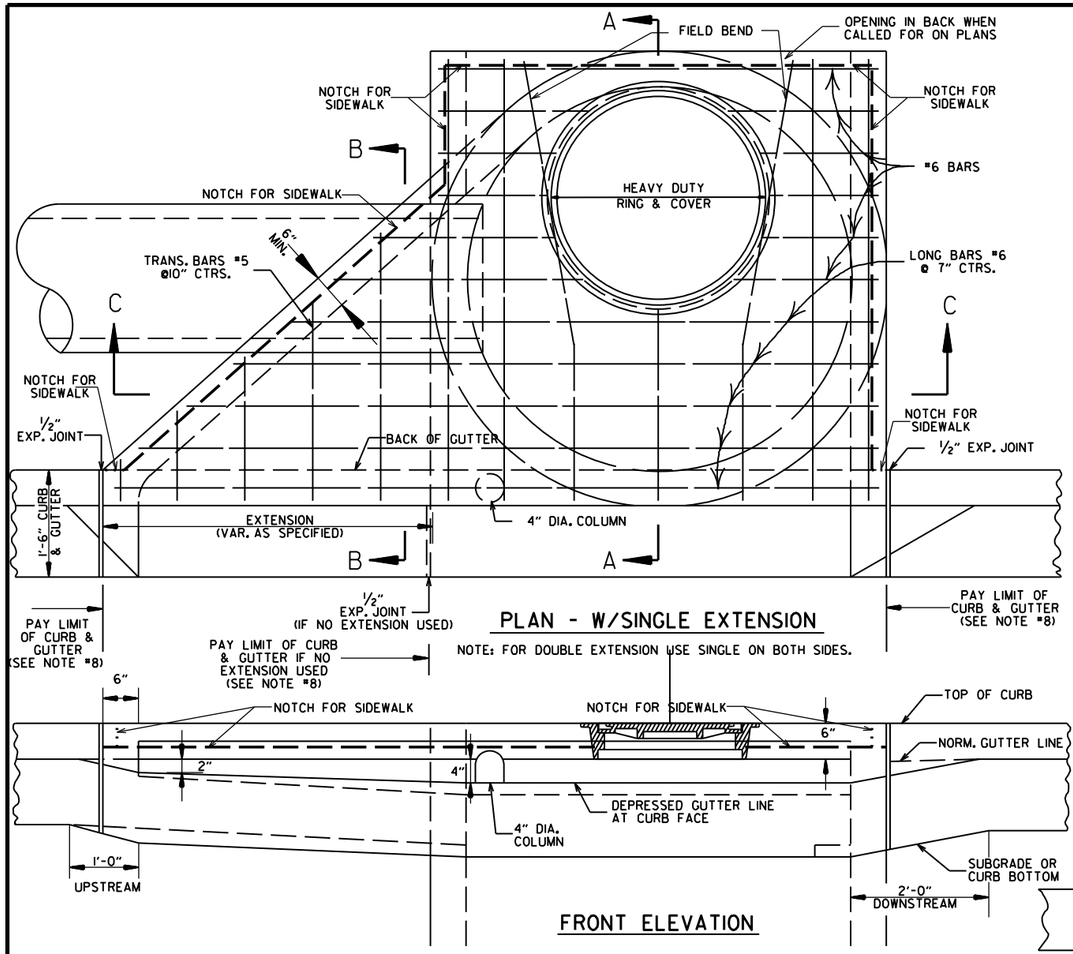
1. ALL EXPOSED CORNERS TO HAVE 3/4" CHAMFER.
2. STEPS SHALL BE INSTALLED IN ALL INLETS 4'-0" HIGH AND OVER OF AS APPROVED BY THE ENGINEER.
3. ALL REINF. BARS SHALL BE #4 AND HAVE 1 1/2" COVER.
4. DROP INLETS AND EXTENSION ON CURVED SECTIONS SHALL CONFORM TO THE CURVATURE OF THE CURB.
5. THIS DROP INLET MAY BE CONSTRUCTED ON NEW OR EXISTING R.C. BOX CULVERT AS SHOWN ON F.P.C.-9.
6. WHEN PLANS CALL FOR DROP INLET OVER 10'-0" HIGH, FLOOR AND WALLS SHALL BE CONSTRUCTED AS SHOWN FOR TYPE "RM" DROP INLET (FPC-9D).
7. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.
8. DURING CONSTRUCTION OF THE ROADWAY THE CONTRACTOR SHALL MAINTAIN DRAINAGE INTO OR AROUND THE DROP INLET AS APPROVED BY THE ENGINEER.
9. PAYMENT FOR CURB AND/OR CURB AND GUTTER WITHIN THE LIMITS OF DROP INLETS AND DROP INLET EXTENSIONS SHALL BE CONSIDERED INCLUDED IN PAYMENT MADE FOR DROP INLETS AND/OR DROP INLET EXTENSIONS.
10. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M105 CLASS 35B & AASHTO M306.
11. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
12. 4"×2" NOTCH SHALL BE FORMED IN ALL DROP INLETS TO SUPPORT SIDEWALK CONSTRUCTION. REFER TO DETAIL OF NOTCH FOR SIDEWALKS.
13. DIMENSIONS SHOWN FOR RING AND COVER ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR CASTINGS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR CASTING DESIGNS MAY BE MADE BY REFERRING TO PREVIOUSLY APPROVED DRAWINGS.

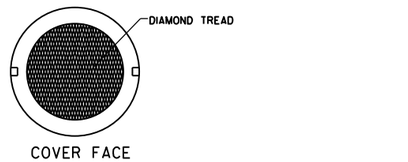
DATE REV.	REVISION	DATE FILMED
8-22-02	ADDED PAY LIMIT CURB NOTES TO SECTIONS A-A & B-B	
11-16-01	ADDED NOTE 13; REVISED SECTION B-B	
1-12-00	CORRECTED DIMENSION ON SECTION B-B & REVISED RING & COVER	
5-13-99	ADDED DETAIL OF NOTCH FOR SIDEWALKS	
7-02-98	REPLACED RING & COVER W/HEAVY DUTY RING & COVER ADDED NOTES 9,10,&11	
10-18-96	CORRECTED SPELLING	
4-26-96	ADDED NOTE 8 & REVISED (4')(8') EXTENSION TITLES	10-18-96
4-1-93	REVISED BACK OPENING & NOTE	
8-15-91	DELETE TYPE IV GRATE	
7-15-88	REVISED STEP DETAIL	
5-20-83	REVISED DETAILS OF GRATES (TYPE IV & IV-A)	
2-4-83	ADDED GENERAL NOTE NO. 4	
3-2-81	ADDED TYPE IV-A GRATE	
5-22-74	DELETED INLET (TYPE F) & GRATE (TYPE III)	
10-2-72	REVISED AND REDRAWN	

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLETS (TYPE C)

STANDARD DRAWING FPC-9E

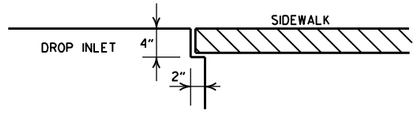




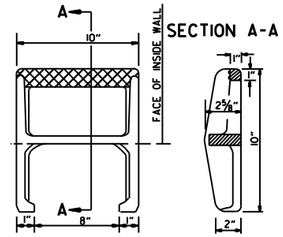
APPROXIMATE TOTAL WEIGHT = 333 LBS.

HEAVY DUTY RING & COVER

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



DETAIL OF NOTCH FOR SIDEWALKS

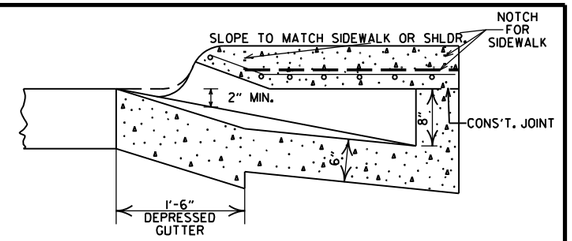


APPROX. WEIGHT = 11 LBS. (CAST IRON)

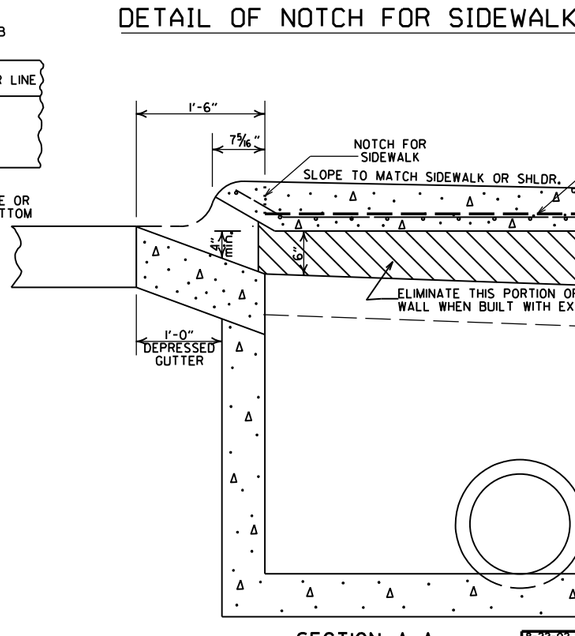
PLAN

NOTE: THIS DETAIL IS TYPICAL. OTHERS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.

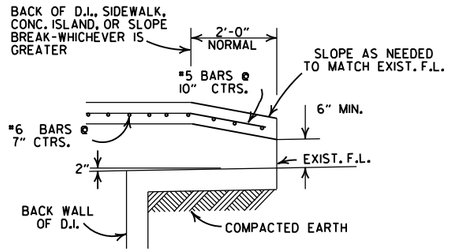
DETAIL OF STEP FOR DROP INLET



SECTION B-B



SECTION A-A



BACK OPENING

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

GENERAL NOTES:

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

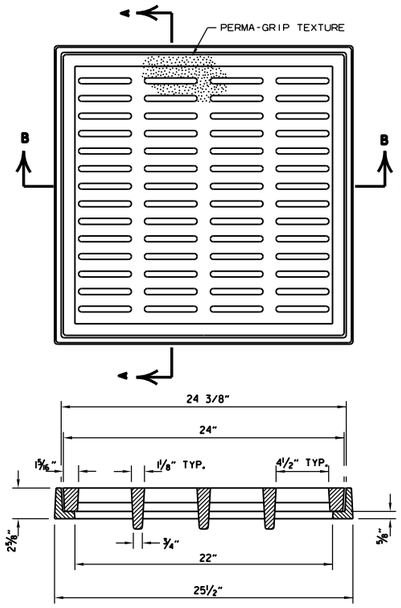
DIA. OF D.I.	DIA. OF OUTLET PIPE	MINIMUM WALL THICKNESS	
		CAST IN PLACE	PRECAST
4' I.D.	12" THRU 27"	6"	5"
5' I.D.	30" THRU 42"	8"	6"
6' I.D.	48" THRU 54"	8"	7"

DATE	REVISIONS	DATE FILMED
8-22-02	ADDED PAY LIMIT CURB NOTES TO SECTIONS A-A & B-B	
11-16-01	ADDED NOTE 13	
1-12-00	REVISED HEAVY DUTY RING & COVER	
5-13-99	ADDED NOTCH DETAIL FOR SIDEWALKS	
7-02-98	REP. NOTE 8, REM. PLAN DET., REV. PICTURE FOR NEW RING & COVER, ADDED HEAVY DUTY RING & COVER AND DETAIL OF STEP FOR DROP INLET	
4-26-96	ADDED NOTE 12 ADJ. OPENING DIMENSION	
10-12-95	CORRECTED #6 BAR SPACING	
7-20-95	CORRECTED DIAMETER OF D.I. IN BOX	
2-2-95	TYPE C TO MO (OPEN BACK DETAIL)	
11-3-94	REVISED GENERAL NOTES	11-3-94
4-1-93	REV. BACK OPEN. DETAIL & NOTE	4-1-93
8-16-91	REVISED NOTES 11,12 & ADDED BK.OPEN DETAIL	8-15-91
11-30-89	ADDED NOTE NO. 12	11-30-89
5-23-89	ADDED NOTE & MINIMUM WALL THICKNESS	513-5-23-89
7-15-88	ADDED EXTEND NOTE TO SECTION A-A	628-7-15-88
1-14-87	MODIFIED WALL THICKNESS	783-1-14-87
6-12-87	ISSUED	4-6-12-87

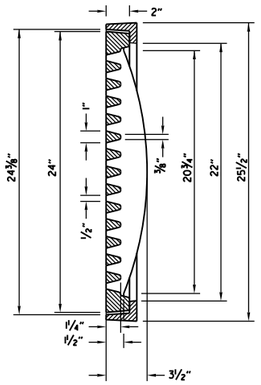
ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLET (TYPE MO)

STANDARD DRAWING FPC-9M



SECTION B-B

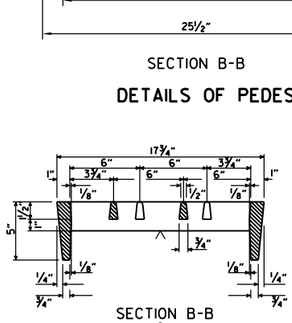


SECTION A-A

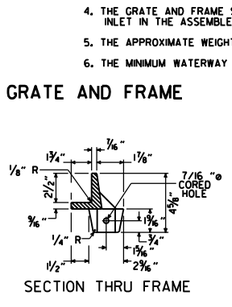
GENERAL NOTES (PEDESTRIAN GRATE & FRAME)

1. THE PEDESTRIAN GRATE SHALL BE ORIENTED IN THE TOP OF THE DROP INLET SO THAT THE ½" OPENINGS ARE PERPENDICULAR TO THE PATH OF PEDESTRIAN TRAVEL.
2. THE PEDESTRIAN GRATE AND FRAME SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105, CLASS 35B, & AASHTO M 306.
3. THE GRATE AND FRAME SHALL NOT BE PAINTED.
4. THE GRATE AND FRAME SHALL BE INSTALLED IN THE DROP INLET IN THE ASSEMBLED POSITION.
5. THE APPROXIMATE WEIGHT OF THE GRATE AND FRAME SHALL BE 218 LBS.
6. THE MINIMUM WATERWAY OPENING SHALL BE 122 SQ. IN.

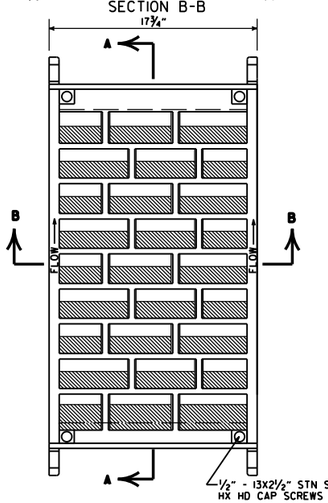
DETAILS OF PEDESTRIAN GRATE AND FRAME

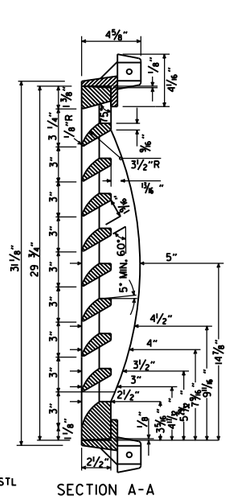


SECTION B-B



SECTION THRU FRAME



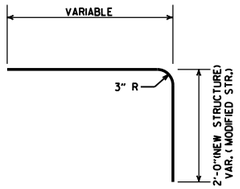


SECTION A-A

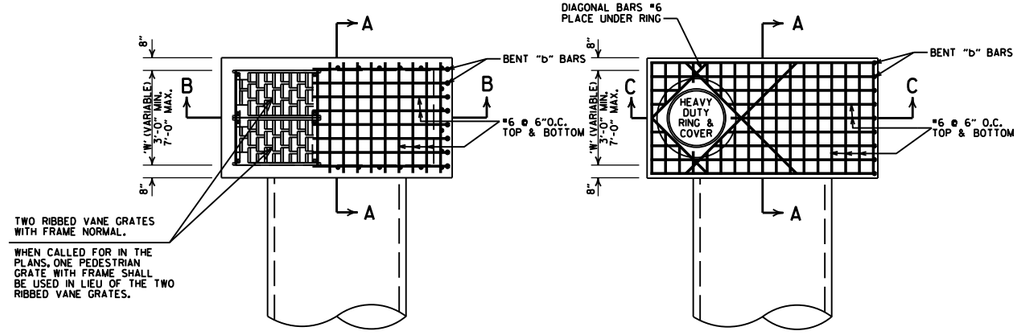
DETAILS OF RIBBED VANE GRATE AND FRAME

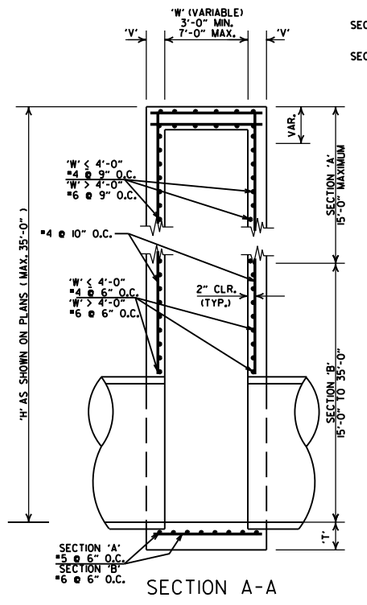
GENERAL NOTES (RIBBED VANE GRATE & FRAME)

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



DETAIL OF BENT "b" BAR



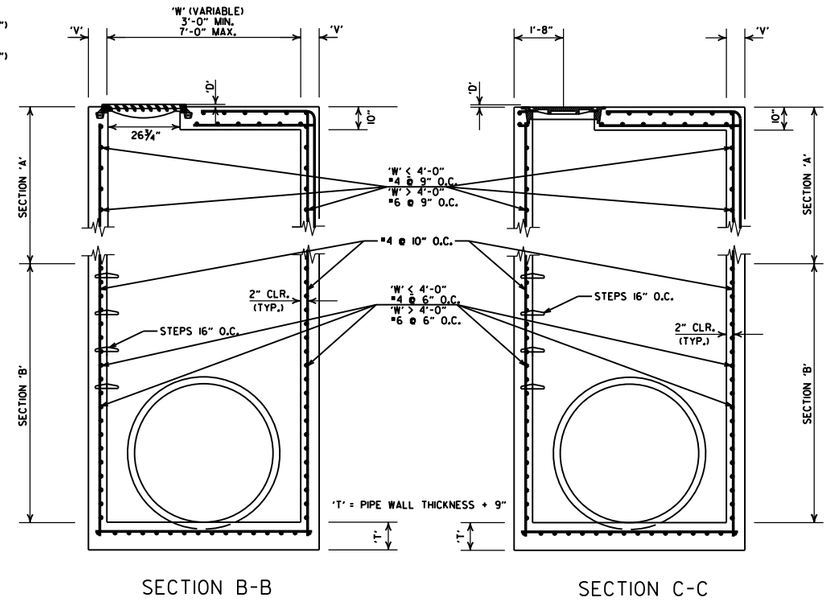


SECTION A-A

SECTION 'A'
'V' = 8"

SECTION 'B' (W≤4'-0")
'V' = 8"

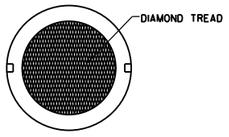
SECTION 'B' (W>4'-0")
'V' = 10"



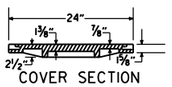
SECTION B-B

SECTION C-C

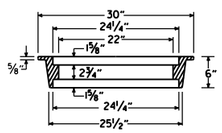
DETAILS OF DROP INLET (TYPE ST)



COVER FACE



COVER SECTION



RING SECTION

HEAVY DUTY RING & COVER

APPROXIMATE TOTAL WEIGHT = 333 LBS.

DETAILS OF JUNCTION BOX (TYPE ST)

GENERAL NOTES (TYPE ST DROP INLET & JUNCTION BOX)

1. THE 'D' DIMENSION SHALL MATCH THE FINAL LIFT OF ACHM SURFACE COURSE SHOWN IN THE PLANS WHEN ASPHALT PAVING SURROUNDS THE GRATE OR RING COVER, AND SHALL BE 0" AT OTHER INSTALLATIONS.
2. THE STEPS SHALL BE OMITTED WHERE 'H' IS LESS THAN 4'-0".
3. ALL EXPOSED CORNERS ARE TO HAVE A ¾" CHAMFER.

GENERAL NOTES (HEAVY DUTY RING & COVER):

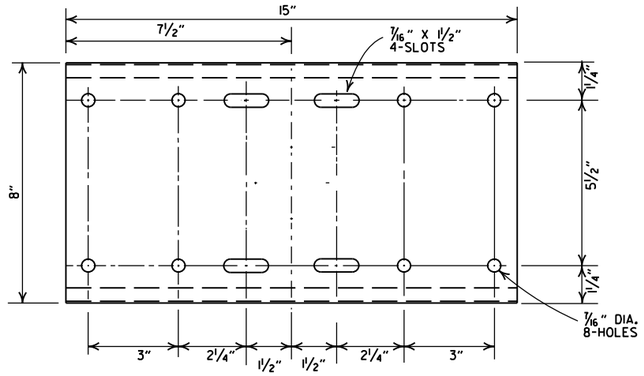
1. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105, CLASS 35B, & AASHTO M 306.
2. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
3. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE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

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

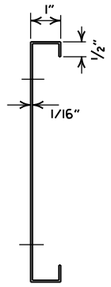
ARKANSAS STATE HIGHWAY COMMISSION

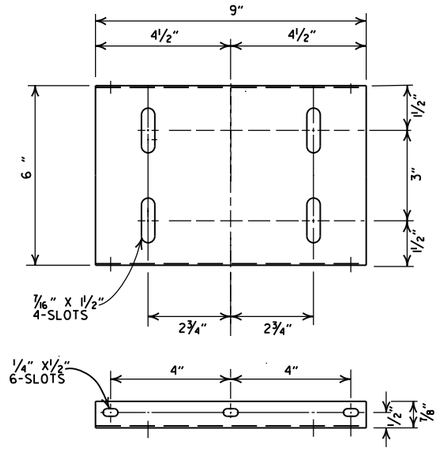
DETAILS OF DROP INLET & JUNCTION BOX (TYPE ST)

STANDARD DRAWING FPC-9S

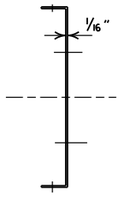


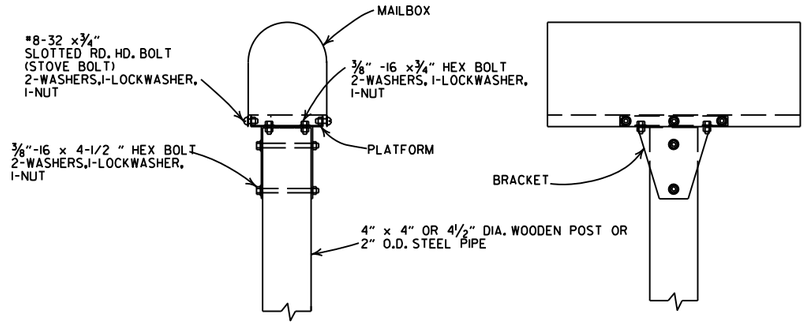
SHELF



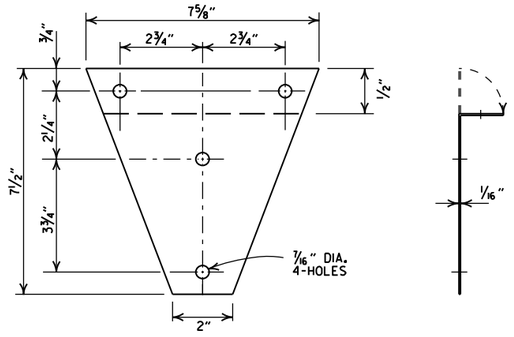


PLATFORM





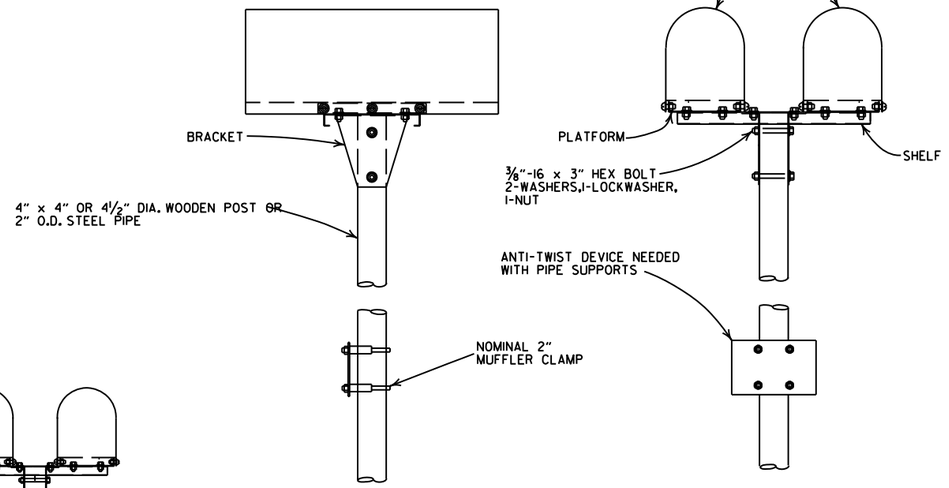
SINGLE INSTALLATION



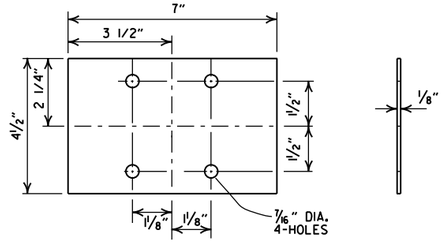
BRACKET

GENERAL NOTES

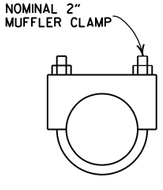
1. MAILBOX POSTS MAY BE WOOD OR METAL. WOOD POSTS SHALL BE PRESSURE TREATED FOR GROUND CONTACT IN ACCORDANCE WITH SECTION 637.02 OF THE STANDARD SPECIFICATIONS.
2. ANTI-TWIST PLATES SHALL BE USED ONLY ON METAL POSTS.
3. MAILBOX SHELF, BRACKET & PLATFORM SHALL BE GALVANIZED OR PAINTED STEEL, HOWEVER TREATED WOOD MAY BE USED WITH WOODEN POSTS. THE WOODEN SHELF, BRACKET & PLATFORM SHALL BE A MINIMUM OF ¾" THICK AND SHALL BE ASSEMBLED WITH BOLTS OF THE APPROPRIATE LENGTH WITH SIX 8 X¾" FLATHEAD WOOD SCREWS USED TO ATTACH THE MAILBOX TO THE PLATFORM.
4. THE MAILBOX SHELF AND PLATFORM THAT IS SHOWN IS FOR STANDARD SIZE MAILBOXES. THE SHELF AND PLATFORM SIZE SHALL BE MODIFIED TO FIT MAILBOXES OF A DIFFERENT SIZE.
5. METAL PIPE FOR MAILBOX SUPPORT SHALL BE 2" OUTSIDE DIAMETER STEEL WITH A WALL THICKNESS OF 0.145" AND A WEIGHT OF 2.72 LBS PER FT. OUTSIDE DIAMETER AND WEIGHT SHALL HAVE A TOLERANCE OF +/- 5% ACCORDING TO AASHTO M 181.
6. MAILBOX SUPPORT SYSTEM DIFFERING FROM THOSE SHOWN MAY BE USED, PROVIDED THEY ARE ON THE ARDOT QUALIFIED PRODUCTS LIST FOR MAILBOX SUPPORTS.



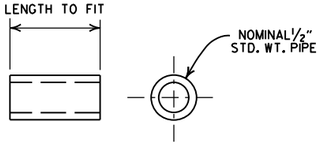
DOUBLE INSTALLATION



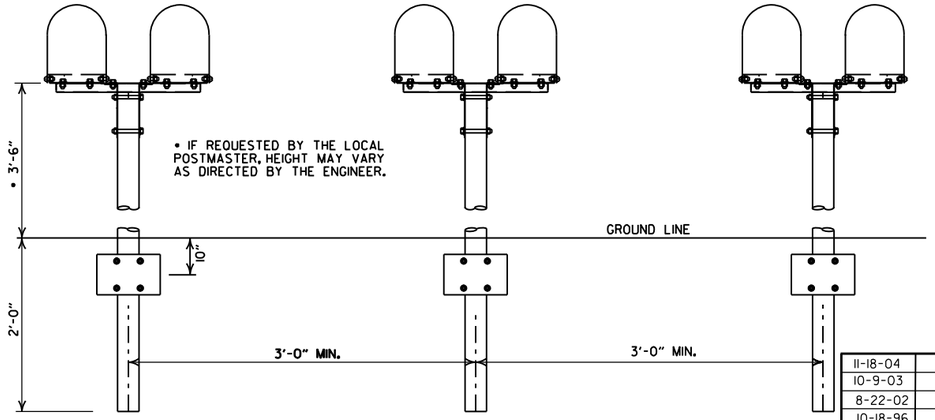
ANTI-TWIST PLATE



CLAMP



SPACER



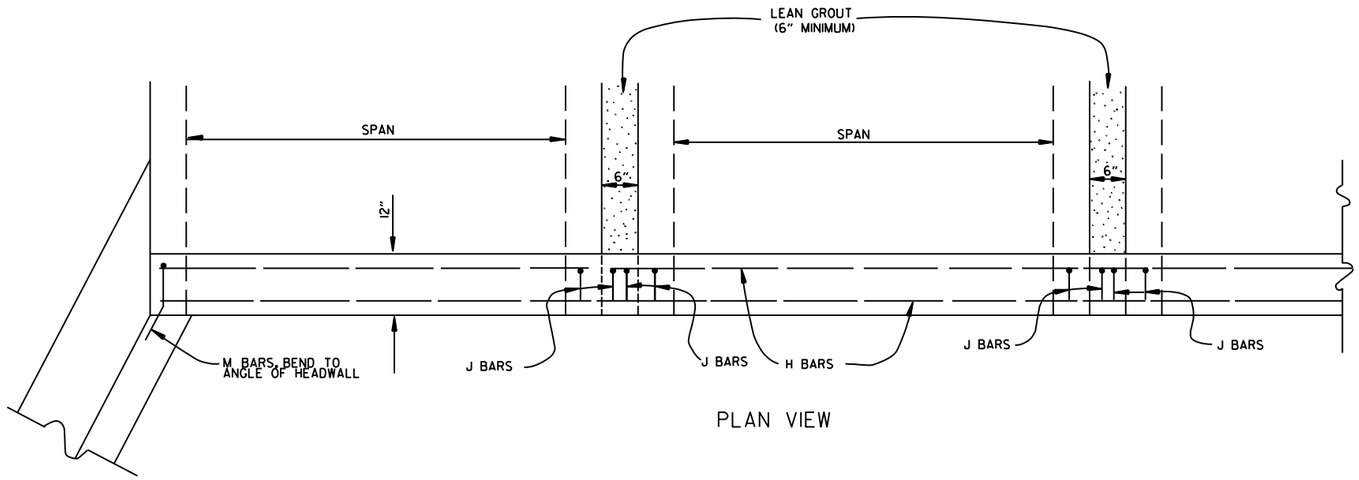
SPACING FOR MULTIPLE POST INSTALLATION

DATE	FILMED	REVISION
11-18-04		REVISED NOTES
10-9-03		REVISED NOTE 6
8-22-02		REVISED NOTE 6
10-18-96		CORRECTED AASHTO
10-1-92		CORRECTED SPELLING
9-26-91		NEW PHONE NUMBER
8-15-91		ADDED NOTE
11-30-89		ADJUSTED HEIGHT & ADDED NOTE
2-16-89		DELETED SLOTS FROM SHELF & PLTF
11-17-88	10-1-92	ADJUSTED DIMENSIONS OF STEEL POSTS
7-15-88	20-7-15-88	ISSUED

ARKANSAS STATE HIGHWAY COMMISSION

MAILBOX DETAILS

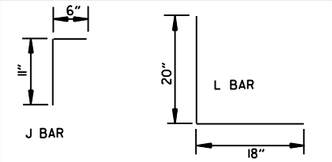
STANDARD DRAWING MB-1



PLAN VIEW

BAR LIST

BAR	NO.	SIZE	LENGTH	BAR BENDING DIAGRAM
H	2	#4	•	
I	•	#4	•	
J	•	#4	1'-5"	
L	•	#4	3'-2"	
M	•	#4	1'-8"	



• NOTE: LENGTH AND NUMBER OF BARS VARIES WITH SIZE OF CULVERT

GENERAL NOTES

WINGS, CURTAIN WALLS AND APRONS SHALL BE TIED TO THE PRECAST CULVERT SECTION BY CASTING BARS IN CULVERT END SECTIONS AS SHOWN OR BY DOWELING AND GROUTING. J BARS AND M BARS SHALL BE EMBEDDED A MINIMUM OF 10" IN PRECAST BOX.

WINGS, FOOTINGS, APRONS AND CURTAIN WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE WING DRAWING. STEEL AND CONCRETE QUANTITIES WILL BE ADJUSTED TO FIT THE IN-PLACE WIDTH & HEIGHT OF THE PRECAST CONCRETE BOX CULVERTS.

ALL EXPOSED CORNERS TO HAVE 3/4" CHAMFERS.

WINGWALLS AND FOOTINGS MAY BE ADJUSTED IN THE FIELD AS DIRECTED BY THE ENGINEER.

ALL CONCRETE, REINFORCING STEEL, LEAN GROUT, MEMBRANE WATERPROOFING, DRAINAGE FILL MATERIAL, GEOTEXTILE FILTER FABRIC, LABOR, MATERIALS AND EQUIPMENT REQUIRED FOR INSTALLING PRECAST BOX CULVERTS WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID FOR THE ITEMS AS SPECIFIED IN SECTION 607 OF THE STANDARD SPECIFICATIONS.

LEAN GROUT SHALL CONSIST OF A SAND CEMENT MIXTURE MEETING THE FOLLOWING REQUIREMENTS:
PORTLAND CEMENT SHALL BE TYPE I AND SHALL MEET THE REQUIREMENTS OF AASHTO M 85.
SAND SHALL MEET THE REQUIREMENTS OF FINE AGGREGATE AS SPECIFIED IN SECTION 802.02 OF THE STANDARD SPECIFICATIONS.
THE SAND CEMENT MIXTURE SHALL CONSIST OF NOT LESS THAN 1.5 SACKS OF PORTLAND CEMENT PER TON OF MATERIAL MIXTURE.
THE MIXTURE SHALL CONTAIN SUFFICIENT WATER TO HYDRATE THE CEMENTS. THE SAND CEMENT MIXTURE SHALL BE PLACED IN MAXIMUM 8 INCH THICK LIFTS, LOOSE MEASURE, AND THOROUGHLY RODDED AND TAMPED AROUND BOX TO THOROUGHLY FILL ALL VOIDS.

MEMBRANE WATERPROOFING CONFORMING TO THE REQUIREMENTS OF SECTION 815 OF THE STANDARD SPECIFICATIONS SHALL BE APPLIED TO ALL BOX CULVERT JOINTS.

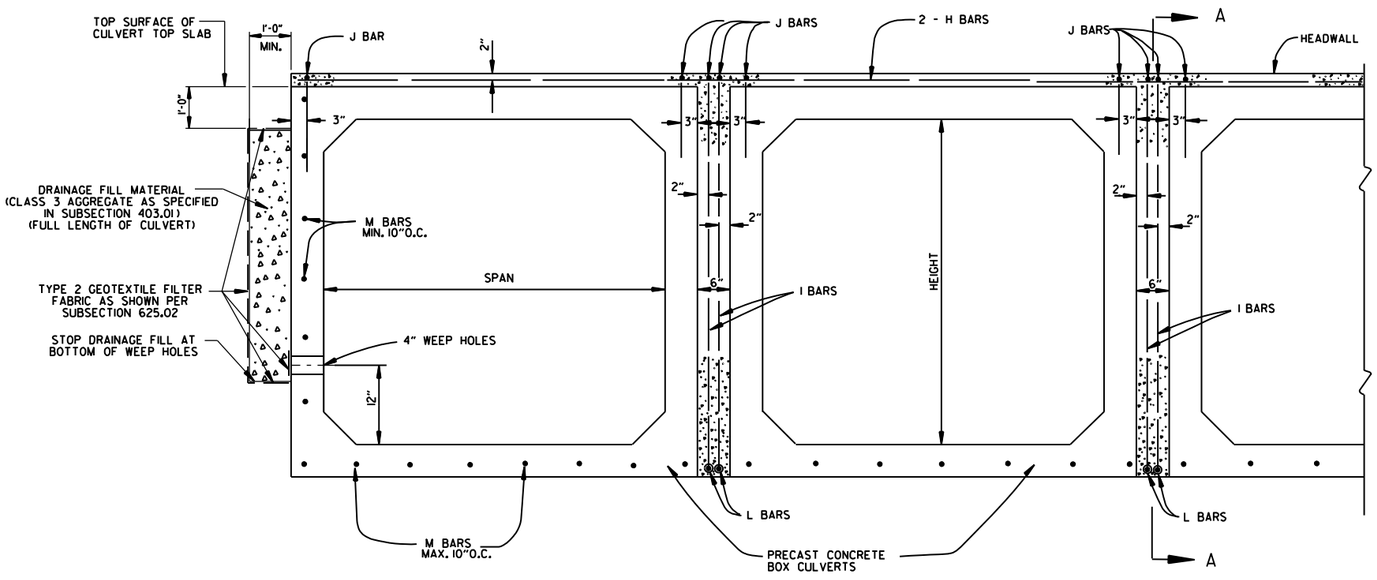
THE MEMBRANE WATERPROOFING WILL BE REQUIRED ON THE TOP EXTERNAL JOINT AND SHALL EXTEND 1 FOOT DOWN THE SIDES OF THE CULVERT.

IN OUTER BARRELS, ONE WEEP HOLE IS REQUIRED IN EXTERIOR WALLS OF EACH PRECAST CULVERT SECTION. WEEP HOLES SHALL HAVE A MAXIMUM HORIZONTAL SPACING OF 10'-0" IN THE ASSEMBLED CULVERT 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.

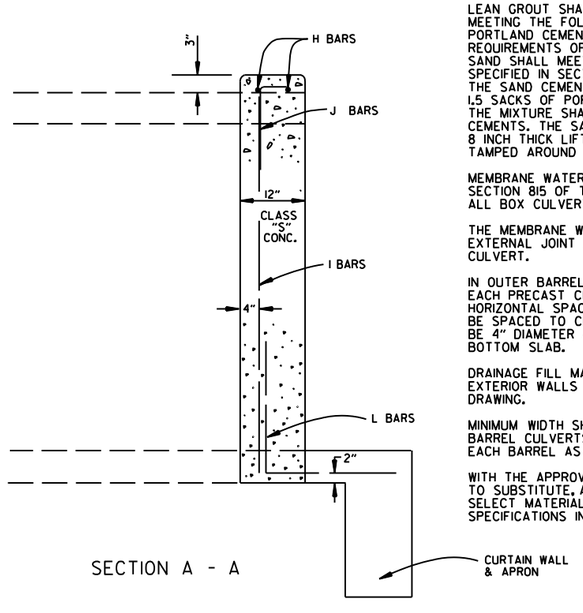
DRAINAGE FILL MATERIAL WITH GEOTEXTILE FABRIC IS REQUIRED AT THE EXTERIOR WALLS OF THE ASSEMBLED CULVERT, SEE DETAILS ON THIS DRAWING.

MINIMUM WIDTH SHALL BE 12" (6" ON EACH SIDE OF JOINT). ON MULTIPLE BARREL CULVERTS, MEMBRANE WATERPROOFING SHALL BE APPLIED TO EACH BARREL AS DESCRIBED ABOVE.

WITH THE APPROVAL OF THE ENGINEER, THE CONTRACTOR WILL BE ALLOWED TO SUBSTITUTE, AT NO ADDITIONAL COST TO THE DEPARTMENT, FLOWABLE SELECT MATERIAL CONFORMING TO SECTION 206 OF THE STANDARD SPECIFICATIONS IN LIEU OF LEAN GROUT.



END VIEW



SECTION A - A

DATE	REVISION	DATE FILMED
1-28-15	REVISED GEOTEXTILE FABRIC PLACEMENT	
12-15-11	ADDED NOTE & DTLS FOR WEEP HOLE AND DRAINAGE FILL	
10-15-09	ADDED GENERAL NOTE	
11-10-05	REVISED SPACING OF "M" BARS	
4-10-03	REVISED GENERAL NOTES	
10-18-96	CORRECTED AASHTO REF.	
10-1-92	ADDED NOTE FOR MEMBRANE WATERPROOFING	
8-15-91	ADDED NOTE FOR LEAN GROUT	
11- 8-90	REVISED FOR 1991 SPECS	
11-30-89	ISSUED: JABE	

ARKANSAS STATE HIGHWAY COMMISSION

PRECAST CONCRETE BOX CULVERTS

STANDARD DRAWING PBC-1

REINFORCED CONCRETE ARCH PIPE DIMENSIONS

EQUIV. DIA.	SPAN		RISE	
	AASHTO M 206	ARDOT NOMINAL	AASHTO M 206	ARDOT NOMINAL
INCHES	INCHES			
15	18	18	11	11
18	22	22	13½	14
21	26	26	15½	16
24	28½	29	18	18
30	36¼	36	22½	23
36	43⅜	44	26⅝	27
42	51⅛	51	31⅝	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	87⅛	87
120	154	154	96⅞	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.

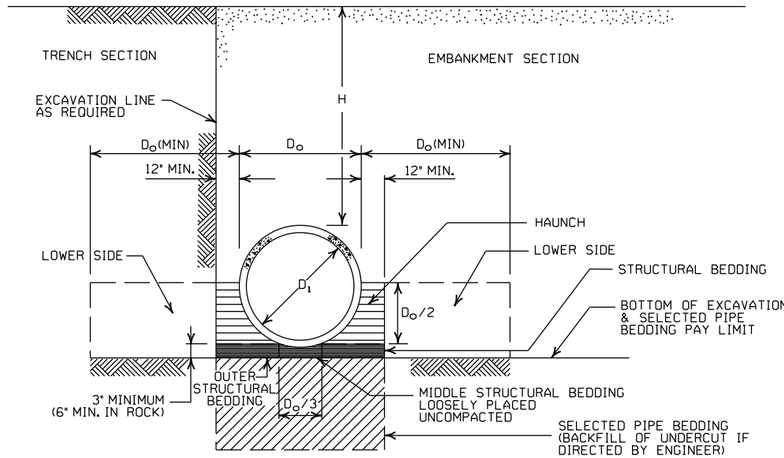
- LEGEND -

D_1 = 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.

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

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

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

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

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

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

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

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

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

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

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

ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING

STANDARD DRAWING PCC-1

CORRUGATED STEEL PIPE (ROUND)

PIPE DIAMETER (INCHES)	① MINUMUM 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
2⅔ INCH BY ½ 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 MINUMUM 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 ⅔ INCH BY ½ 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)	MINUMUM 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 ⅔ INCH BY ½ INCH CORRUGATION RIVETED, WELDED, OR HELICAL LOCK-SEAM			2 ⅔ INCH BY ½ 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	3½	0.079	3	12	0.105	3	12
42	49x33	4	0.079	3	12	0.105	3	12
48	57x38	5	0.109	3	13	0.135	3	13
54	64x43	6	0.109	3	14	0.135	3	14
60	71x47	7	0.138	3	15	0.164	3	15
66	77x52	8	0.168	3	15			
72	83x57	9	0.168	3	15			
			② 3 INCH BY 1 INCH OR 5 INCH BY 1 INCH CORRUGATION RIVETED, WELDED, OR HELICAL LOCK-SEAM					
				INSTALLATION	INSTALLATION			
				TYPE 2	TYPE 1	TYPE 2	TYPE 1	
36	40x31	5	0.079	3	2	12	15	
42	46x36	6	0.079	3	2	13	15	
48	53x41	7	0.079	3	2	13	15	
54	60x46	8	0.079	3	2	13	15	
60	66x51	9	0.079	3	2	13	15	
66	73x55	12	0.079	3	2	15	15	
72	81x59	14	0.079	3	2	15	15	
78	87x63	14	0.079	3	2	15	15	
84	95x67	16	0.109	3	2	15	15	
90	103x71	16	0.109	3	2	15	15	
96	112x75	18	0.109	3	2	15	15	
102	117x79	18	0.109	3	2	15	15	
108	128x83	18	0.138	3	2	15	15	

CONSTRUCTION SEQUENCE

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

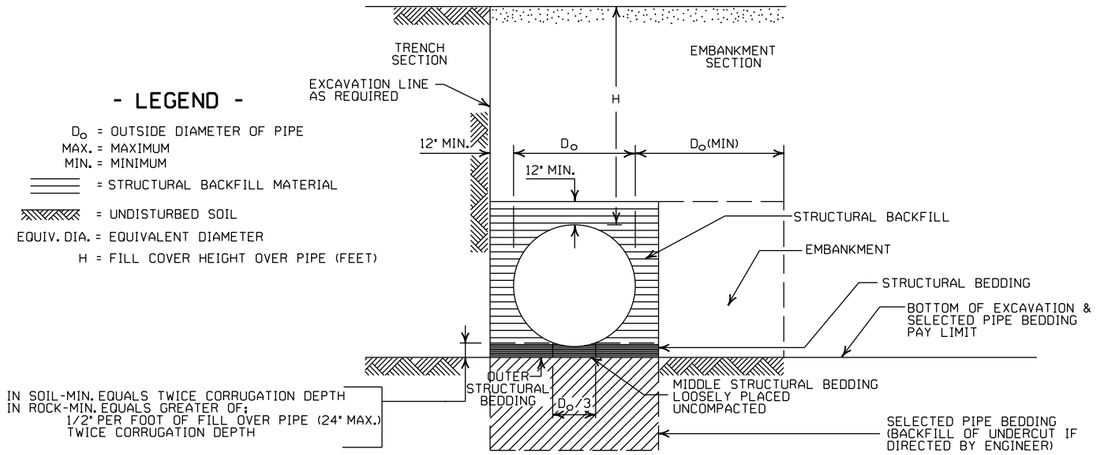
NOTE: STRUCTURAL BACKFILL AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF METAL PIPE.

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

③ SM-3 WILL NOT BE ALLOWED.

EQUIVALENT METAL THICKNESSES AND GAUGES

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



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. INSTALALTION TYPE 1 SHALL BE USED FOR CORRUGATED STEEL OR ALUMINUM PIPE ARCHES WITH 2⅔" X ½" 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 ½" 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.

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

ARKANSAS STATE HIGHWAY COMMISSION

METAL PIPE CULVERT FILL HEIGHTS & BEDDING

STANDARD DRAWING PCM-1

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 INCH. STRUCTURAL BACKFILL MATERIAL SHALL BE FREE OF ORGANIC MATERIAL, STONES LARGER THAN 1.50 INCH IN GREATEST DIMENSION, OR FROZEN LUMPS.

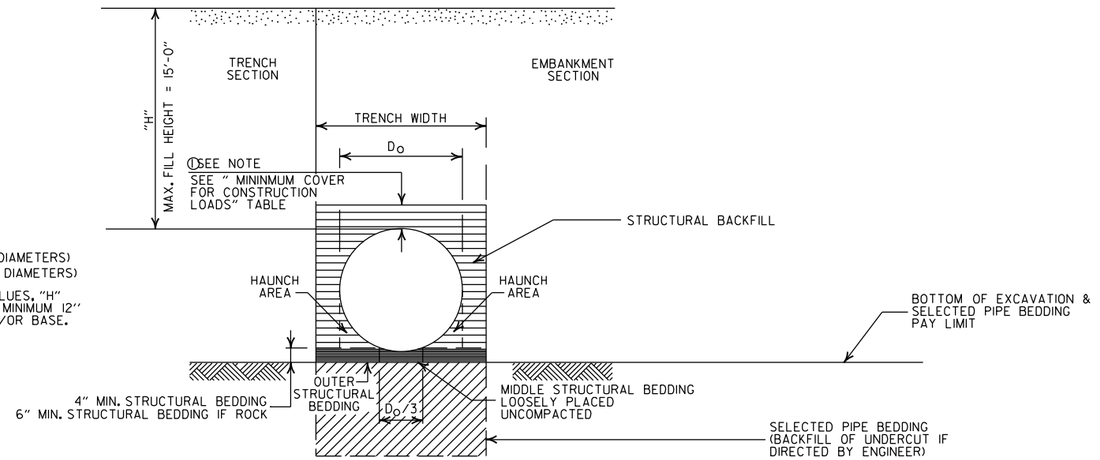
STRUCTURAL BACKFILL AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF HDPE PIPE.

MINIMUM TRENCH WIDTH BASED ON FILL HEIGHT "H"

PIPE DIAMETER	TRENCH WIDTH (FEET) "H" < 10'-0"	"H" >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"

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.



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.

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"

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)	110.0-175.0 (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.

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 M294, TYPE S. INSTALLATION SHALL CONFORM TO JOB SPECIAL PROVISION "PLASTIC PIPE" AND SECTION 606 OF THE STANDARD SPECIFICIATIONS 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.

- LEGEND -

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

= STRUCTURAL BACKFILL MATERIAL

= UNDISTURBED SOIL

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

ARKANSAS STATE HIGHWAY COMMISSION

PLASTIC PIPE CULVERT (HIGH DENSITY POLYETHYLENE)

STANDARD DRAWING PCP-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 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" >OR= 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

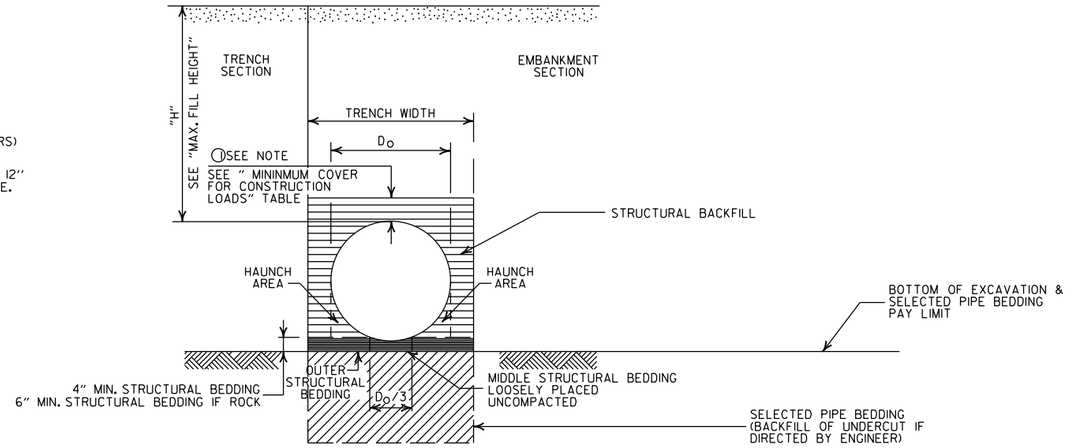
PIPE DIAMETER	"H"
18"	45'-0"
24"	45'-0"
30"	40'-0"
36"	40'-0"

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

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)	110.0-175.0 (KIPS)
18" THRU 36"	2'-0"	2'-6"	3'-0"	3'-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.

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 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. 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.

- LEGEND -

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

= STRUCTURAL BACKFILL MATERIAL

= UNDISTURBED SOIL

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

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 1INCH. 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

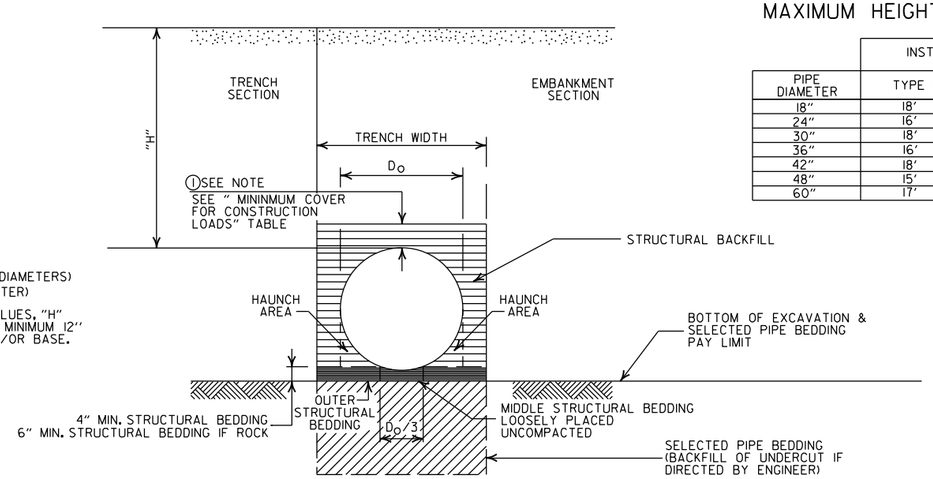
PIPE DIAMETER	CLEAR DISTANCE BETWEEN PIPES
18"	1'-6"
24"	2'-0"
30"	2'-6"
36"	3'-0"
42"	3'-6"
48"	4'-0"
60"	5'-0"

MINIMUM TRENCH WIDTH BASED ON FILL HEIGHT "H"

PIPE DIAMETER	TRENCH WIDTH (FEET) "H" < 10'-0"	TRENCH WIDTH (FEET) "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"

①NOTE:
12" MIN. (18" - 42" DIAMETERS)
24" MIN. (60" DIAMETER)

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



MAXIMUM HEIGHT OF FILL "H"

PIPE DIAMETER	INSTALLATION TYPE TYPE 1	INSTALLATION TYPE TYPE 2
18"	18'	14'
24"	16'	12'
30"	18'	14'
36"	16'	12'
42"	18'	13'
48"	15'	11'
60"	17'	12'

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"

②MINIMUM 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 SPECIFICIATIONS 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.)
D_o = OUTSIDE DIAMETER OF PIPE
MAX. = MAXIMUM
MIN. = MINIMUM

= STRUCTURAL BACKFILL MATERIAL

= UNDISTURBED SOIL

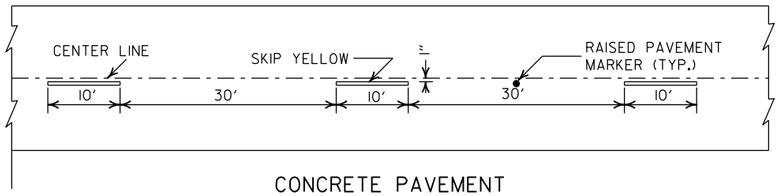
DATE	REVISION	DATE FILMED
02-27-20	REVISED	
11-07-19	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

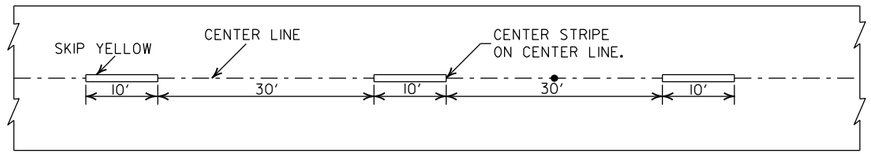
PLASTIC PIPE CULVERT (POLYPROPYLENE)

STANDARD DRAWING PCP-3

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.

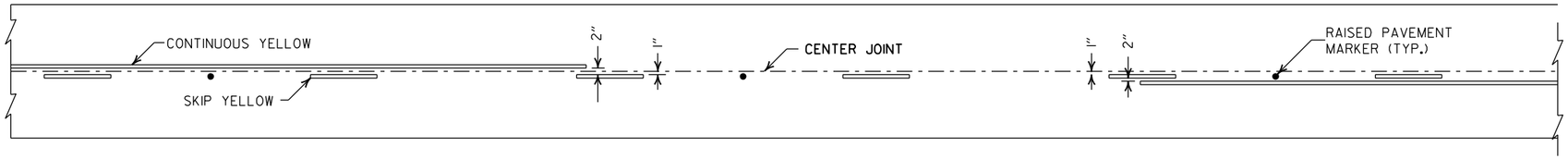


CONCRETE PAVEMENT

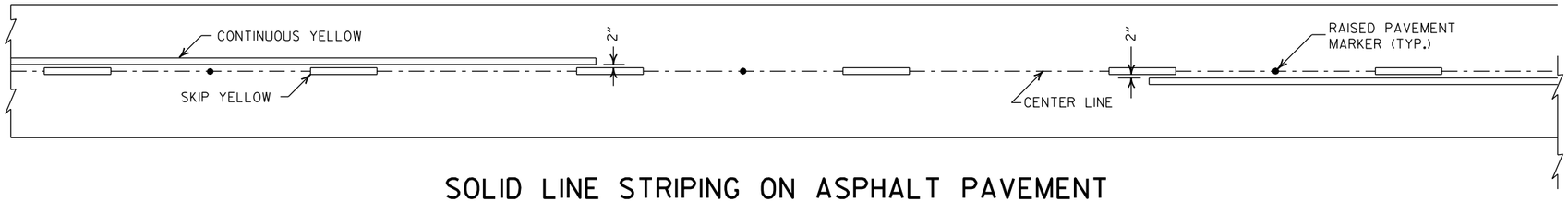


ASPHALT PAVEMENT

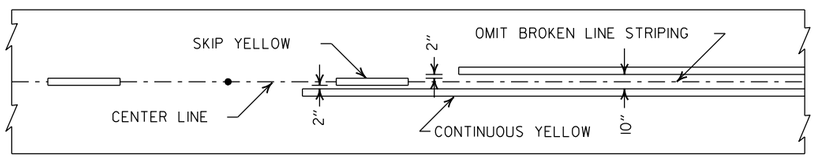
BROKEN LINE STRIPING



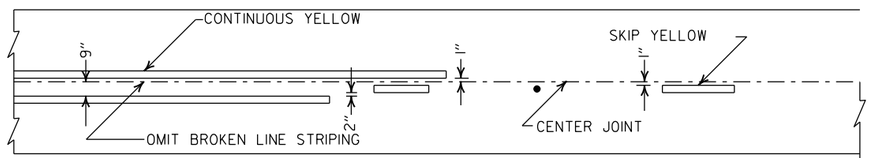
SOLID LINE STRIPING ON CONCRETE PAVEMENT



SOLID LINE STRIPING ON ASPHALT PAVEMENT

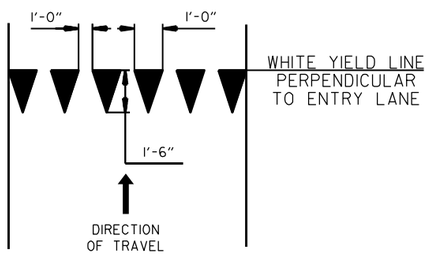


ASPHALT PAVEMENT

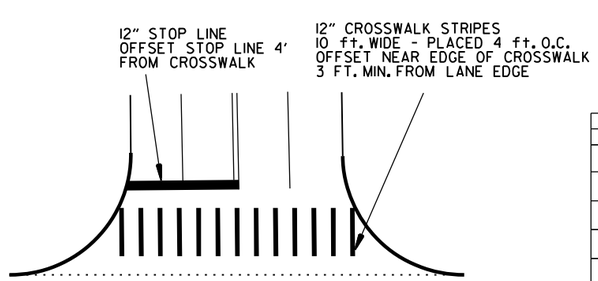


CONCRETE PAVEMENT

STRIPING AT ADJACENT NO PASSING LANES

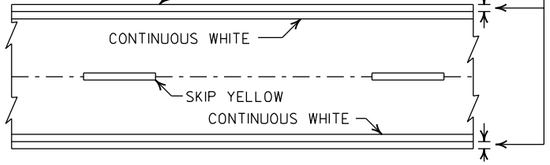


YIELD LINE DETAIL



CROSSWALK AND STOP LINE DETAILS

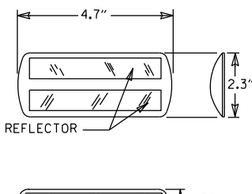
2" FOR ASPHALT OR CONCRETE PAVEMENT
6" FOR BITUMINOUS SURFACE TREATMENT



PAVEMENT EDGE LINE MARKING

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

TYPE II
RED/CLEAR OR
YELLOW/YELLOW



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

DATE	REVISION	FILMED
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

ARKANSAS STATE HIGHWAY COMMISSION

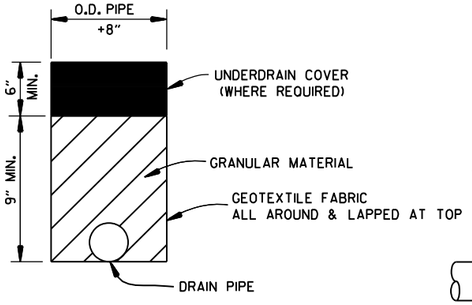
PAVEMENT MARKING DETAILS

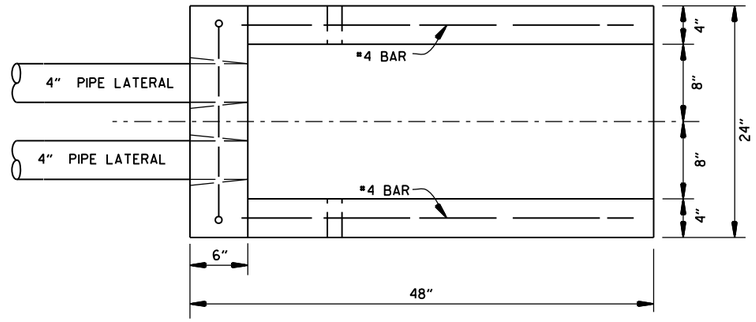
STANDARD DRAWING PM-1

NOTE:

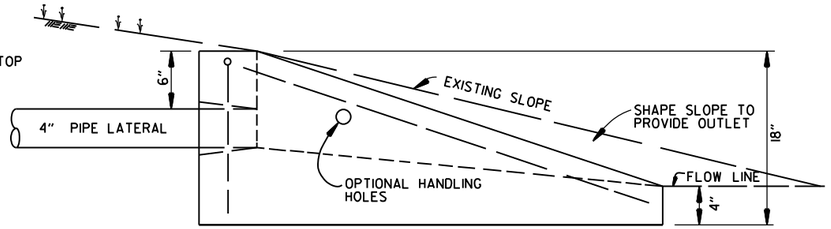
1. UNLESS OTHERWISE SPECIFIED ON THE PLANS, THE UNDERDRAIN COVER SHALL BE THOROUGHLY COMPACTED EARTH AND SHALL BE SUBSIDIARY TO PIPE UNDERDRAIN.

2. GRANULAR MATERIAL SHALL BE WRAPPED WITH GEOTEXTILE FABRIC. LAP FABRIC 12" OR THE WIDTH OF THE TRENCH AT THE TOP.

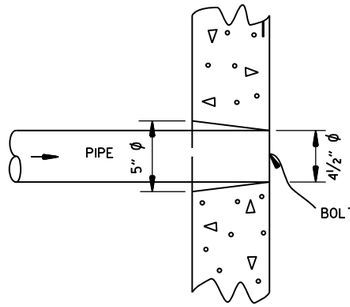




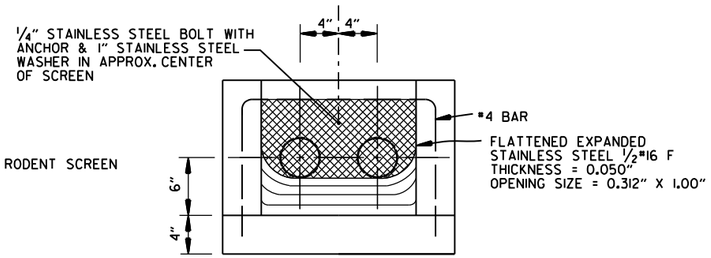
PLAN VIEW



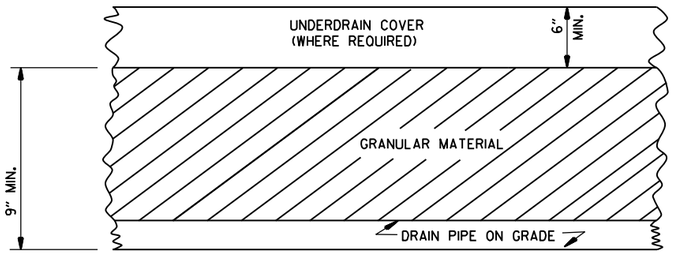
SIDE VIEW



DETAIL OF HOLE FOR 4" PIPE

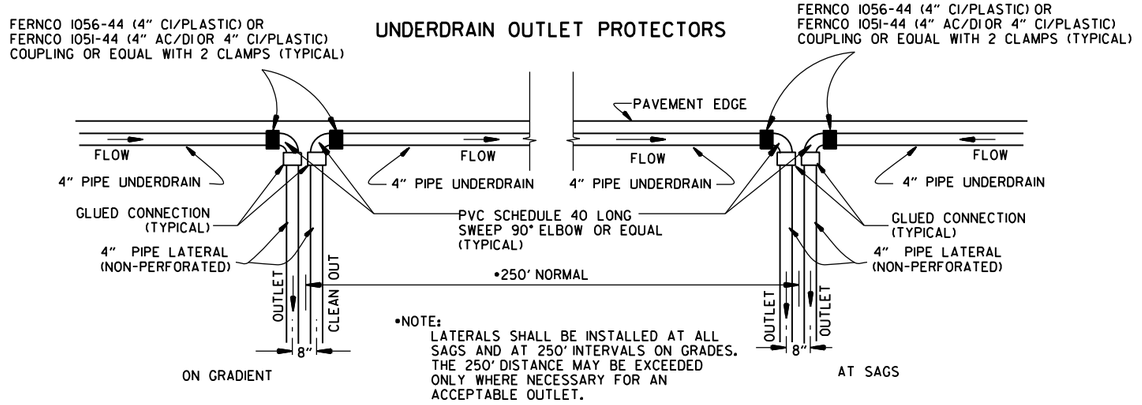


FRONT VIEW
(DETAIL OF RODENT SCREEN)



DETAILS OF PIPE UNDERDRAIN

UNDERDRAIN OUTLET PROTECTORS



•NOTE: LATERALS SHALL BE INSTALLED AT ALL SAGS AND AT 250' INTERVALS ON GRADES. THE 250' DISTANCE MAY BE EXCEEDED ONLY WHERE NECESSARY FOR AN ACCEPTABLE OUTLET.

DETAIL OF PIPE UNDERDRAIN LATERALS WHEN PLACED ALONG PAVEMENT EDGE

NOTE: PVC PIPE FOR LATERALS SHALL MEET THE REQUIREMENTS OF ASTM D 1785 (LATEST REVISION) FOR SCHEDULE 40 PIPE.

NOTES FOR PIPE UNDERDRAINS

1. GEOTEXTILE FABRIC SHALL MEET THE REQUIREMENTS OF SECTION 625 FOR TYPE I. PAYMENT FOR GEOTEXTILE FABRIC AND GRANULAR FILTER MATERIAL SHALL BE INCLUDED IN THE PRICE BID PER LIN. FT. FOR "4" PIPE UNDERDRAINS" IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.

2. 4" NON-PERFORATED SCHEDULE 40 PVC PIPE LATERALS WITH OUTLET PROTECTORS SHALL BE INSTALLED AS SHOWN HEREON. LATERALS WILL BE MEASURED AND PAID FOR AS "4" PIPE UNDERDRAINS." UNDERDRAIN OUTLET PROTECTORS WILL BE MEASURED AND PAID FOR BY THE UNIT IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.

3. EXISTING 4" PIPE UNDERDRAINS MAY BE CONNECTED TO PROPOSED DROP INLETS OR EXTENDED WHERE DIRECTED BY THE ENGINEER. PAYMENT FOR CONNECTING TO DROP INLETS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR "4" PIPE UNDERDRAINS."

4. THE LOCATION OF ALL LATERALS SHALL BE MARKED WITH 4" X 12" PERMANENT PAVEMENT MARKING TAPE (TYPE III WHITE) AT THE OUTSIDE EDGE OF THE SHOULDER, PLACED TRANSVERSE TO TRAFFIC. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

5. PAYMENT FOR THE RODENT SCREEN SHALL BE INCLUDED IN THE PRICE BID PER EACH FOR "UNDERDRAIN OUTLET PROTECTORS."

6. ANY EXISTING UNDERDRAINS THAT INTERFERE WITH INSTALLATION OF THE NEW UNDERDRAIN SYSTEM SHALL BE REMOVED AND DISPOSED OF AS DIRECTED BY THE ENGINEER. PAYMENT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS. EXISTING UNDERDRAIN OUTLET PROTECTORS SHALL BE REMOVED UNDER THE ITEM "REMOVAL AND DISPOSAL OF UNDERDRAIN OUTLET PROTECTORS."

7. AT LOCATIONS WHERE A SINGLE LATERAL IS USED THE CONTRACTOR SHALL HAVE THE FOLLOWING OPTIONS: 1. INSTALL OUTLET PROTECTOR AS SHOWN ON STANDARD DRAWING PU-1 AND GROUT THE UNUSED HOLE OR 2. INSTALL AN OUTLET PROTECTOR WITH A SINGLE HOLE.

DATE	REVISION	DATE FILMED
12-8-16	ADDED NOTES FOR PIPE UNDERDRAINS, REVISED RODENT SCREEN DETAIL AND NOTES, REMOVED NOTE 1 FOR GRANULAR MATERIAL, ADDED NOTE FOR GEOTEXTILE FABRIC	
4-10-03	REVISED NOTE 3	
1-12-00	REVISED DETAIL OF UNDERDRAIN LATERALS	
11-18-98	REVISED NOTE	
10-18-96	REVISED MIN. DEPTH & GEOTEXTILE FABRIC	
4-26-96	ADDED LATERAL NOTE; 5½" TO 5"	
11-22-95	REVISED LATERALS	
7-20-95	REVISED LATERALS & ADDED NOTE	
11- 3-94	REVISED FOR DUAL LATERALS	11- 3-94
10- 1-92	SUBSTITUTED GEOTEXTILE	10- 1-92
8-15-91	ADDED POLYEDTHYLENE PIPE	8-15-91
11- 8-90	DELETED ALTERNATE NOTE	11- 8-90
1-25-90	ADDED 4" SNAP ADAPTER	1-25-90
11-30-89	DEL. (SUBGRADE); ADDED (WHERE REQUIRED)	11-30-89
7-15-88	ISSUED P.L.M.	647-7-15-88

ARKANSAS STATE HIGHWAY COMMISSION

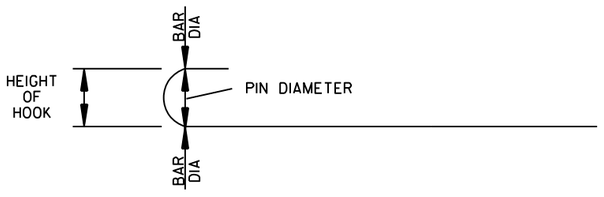
DETAILS OF PIPE UNDERDRAIN

STANDARD DRAWING PU-1

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

BAR SIZE	PIN DIAMETER	HOOK EXTENSION "K"
3	2¼"	4"
4	3 "	4½"
5	3¾"	5"
6	4½"	6"
7	5¼"	7"
8	6"	8"

IF THE OVERALL HEIGHT OF THE HOOK (SEE DIAGRAM BELOW) FOR A "b", "b1", "b2" or "b3" BENT BAR IS GREATER THAN THE CORRESPONDING TOP OR BOTTOM SLAB THICKNESS, LESS 2¾ 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", "b1", "b2" OR "b3" BENT BARS THEY REPLACE.



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

OVERALL HEIGHT OF HOOKED BAR DIAGRAM

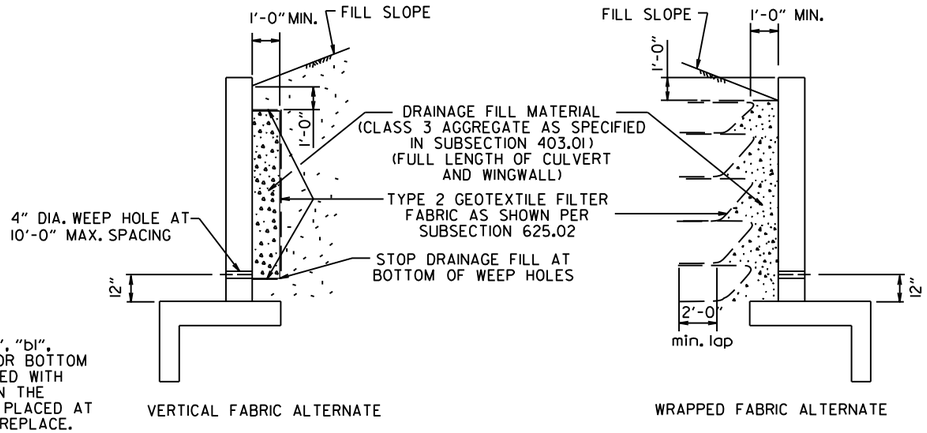
THE HOOKED BARS SHALL BE PLACED IN THE BOTTOM OF THE TOP SLAB AND THE TOP OF THE BOTTOM SLAB. THE STRAIGHT BARS SHALL BE PLACED IN THE TOP OF THE TOP SLAB AND THE BOTTOM OF THE BOTTOM SLAB. SEE TABLE BELOW FOR LENGTHS OF REPLACEMENT HOOKED AND STRAIGHT BARS.

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

REPLACEMENT BAR LENGTHS TABLE

BAR SIZE: "b", "b1", "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 31 OR 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.

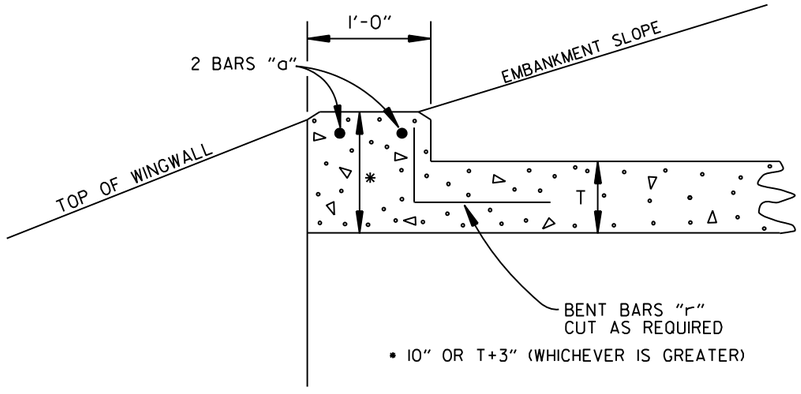
MEMBRANE WATERPROOFING SHALL BE APPLIED TO ALL CONSTRUCTION JOINTS IN THE TOP SLAB AND THE SIDEWALLS OF R.C. BOX CULVERTS AS DIRECTED BY THE ENGINEER. NO PAYMENT SHALL BE MADE FOR THIS ITEM, BUT PAYMENT WILL BE CONSIDERED TO BE INCLUDED IN THE VARIOUS ITEMS BID FOR THE R.C. BOX CULVERT.

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 ½ 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.



* 10" OR T+3" (WHICHEVER IS GREATER)

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.

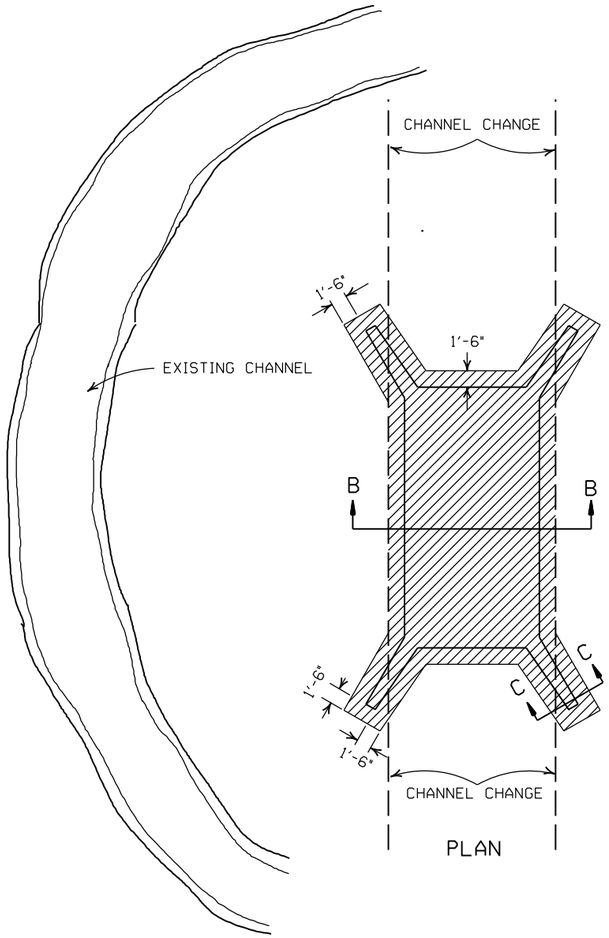
R.C. BOX CULVERT HEADWALL MODIFICATIONS

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

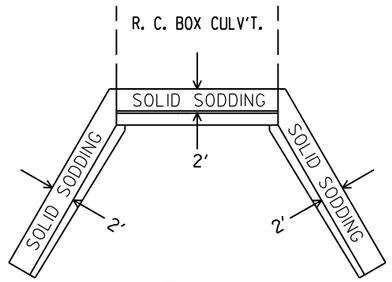
REINFORCED CONCRETE BOX CULVERT DETAILS

STANDARD DRAWING RCB-1



PLAN

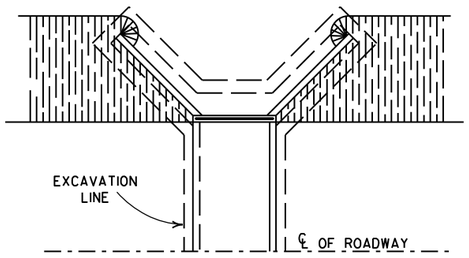
SOLID SODDING



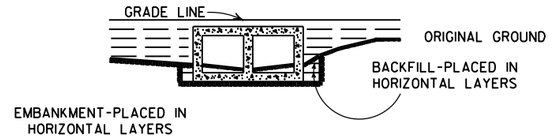
PLAN

PARTIAL SECTION SHOWING SOLID SODDING AT HEADWALLS AND WING WALLS

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

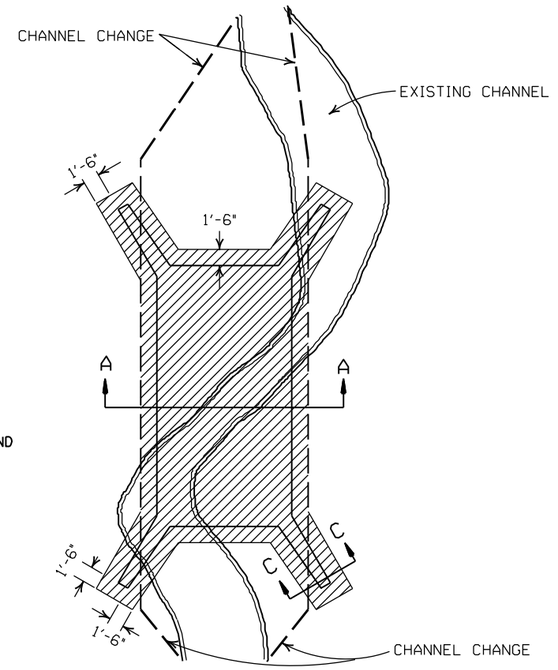


PLAN

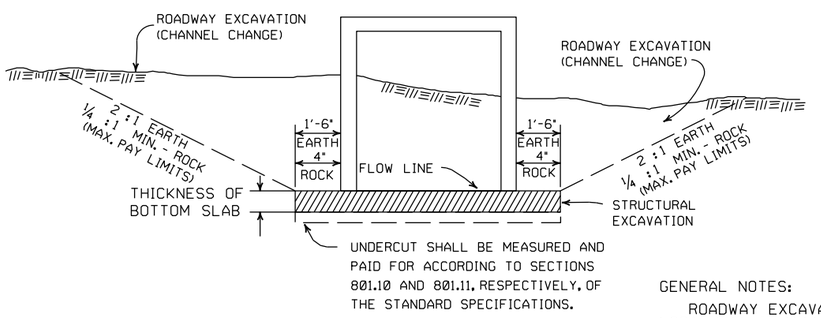


LONGITUDINAL SECTION

BACKFILL DETAILS FOR BOX CULVERT

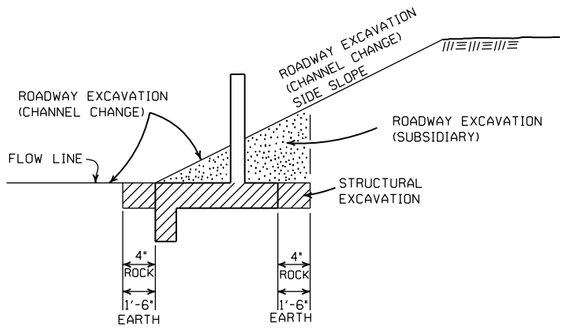


PLAN

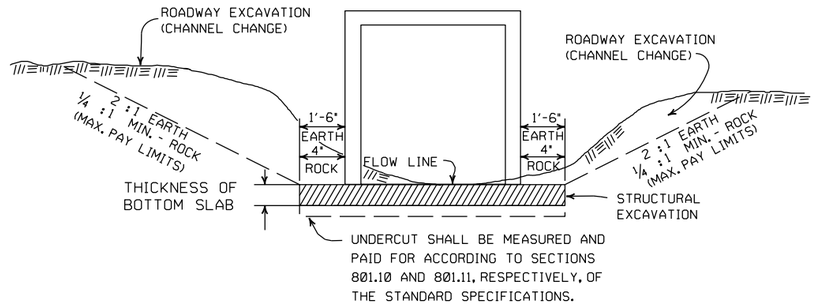


SECTION B-B

DETAILS FOR NEW CHANNELS



SECTION C-C



SECTION A-A

DETAILS THROUGH EXISTING CHANNELS

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.

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	674-1-4-83
	AND ADDED MAXIMUM PAY	
	LIMIT NOTES.	
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

MINIMUM STRUCTURAL REQUIREMENTS:

DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 4TH EDITION (2001) WITH 2003 AND 2006 INTERIMS.

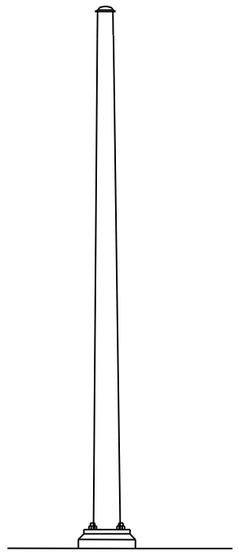
USE FATIGUE CATEGORY II.

CONSTRUCTION SPECIFICATIONS: STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION) WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.

BASE WIND SPEED: 90 MPH

STEEL MEMBERS CONSIDERED MAIN LOAD CARRYING MEMBERS WITH A THICKNESS GREATER THAN ½" SHALL MEET THE LONGITUDINAL CHARPY V-NOTCH TEST SPECIFIED IN SUBSECTION 807.05 OF THE STANDARD SPECIFICATIONS.

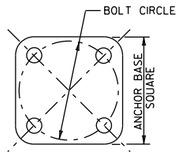
THE GROUND ROD SHALL BE FUSION WELDED TO A IC/#8 A.W.G. SOLID COPPER GROUND WIRE. ATTACHMENT TO THE PRIMARY GROUND MAY BE BY AN APPROVED CLAMP. THE ROD IS TO BE LOCATED IN THE CONCRETE PULL BOX PAID FOR SEPARATELY AS SHOWN ON THE PLANS.



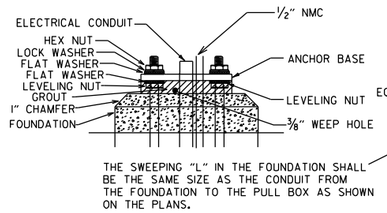
ANTENNA POLE

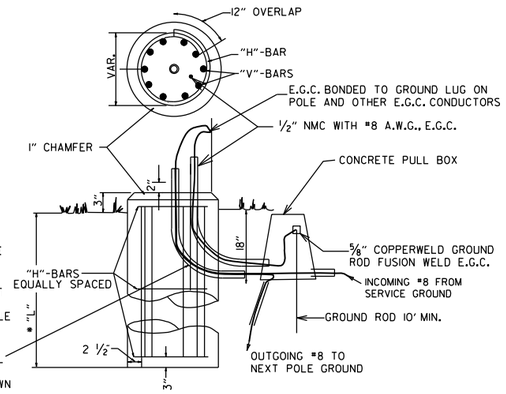
NOTE:

COMMUNICATION CABLE SHIELD SHALL BE TIED TO THE GROUND AT ONE ONE POINT (MASTER CABINET). THE SHIELD SHALL BE MAINTAINED CONTINUOUS (THROUGH ALL SPLICES). PLEASE REFER TO TESTING PROCEDURES IN SPECIAL PROVISIONS.



ANCHOR BASE





TYPICAL FOUNDATION DETAILS

POLE FOUNDATION MINIMUM DIMENSIONS AND STEEL REINFORCING.

POLE HEIGHT	FOUNDATION DIAMETER	DEPTH "L"	VERTICAL	HORIZONTAL	TIE SPACING
20.0'	30"	5'-6"	12-#7	#4	5 SP @ 12"
25.0'	30"	6'-0"	12-#7	#4	6 SP @ 11"
30.0'	30"	6'-6"	12-#7	#4	6 SP @ 12"
35.0'	30"	7'-0"	12-#7	#4	7 SP @ 11"
40.0'	30"	7'-6"	12-#7	#4	7 SP @ 12"
45.0'	36"	8'-6"	13-#8	#4	8 SP @ 12"
50.0'	36"	9'-6"	13-#8	#4	9 SP @ 12"
55.0'	36"	10'-0"	13-#8	#4	10 SP @ 11"
60.0'	36"	10'-6"	13-#8	#4	10 SP @ 12"
65.0'	36"	11'-0"	13-#8	#4	12 SP @ 10 ½"
70.0'	36"	11'-6"	13-#8	#4	11 SP @ 12"
75.0'	42"	13'-0"	18-#8	#4	14 SP @ 10 ½"
80.0'	42"	13'-6"	18-#8	#4	13 SP @ 12"
85.0'	42"	14'-6"	18-#8	#4	14 SP @ 12"
90.0'	42"	15'-0"	18-#8	#4	18 SP @ 9 ½"

ALL CONCRETE SHALL BE CLASS "S" WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH F'C=3500 PSI. CONCRETE SHALL BE POURED IN THE DRY AND ALL EXPOSED CORNERS CHAMFERED ¾" UNLESS NOTED OTHERWISE.

ALL REINFORCING STEEL SHALL CONFORM TO AASHTO M31 OR M53, GRADE 40 (YIELD STRENGTH=40,000 PSI).

PROVIDE 3" CLEAR TIES. DETAIL 3" TO FIRST TIE AT TOP OF SHAFT.

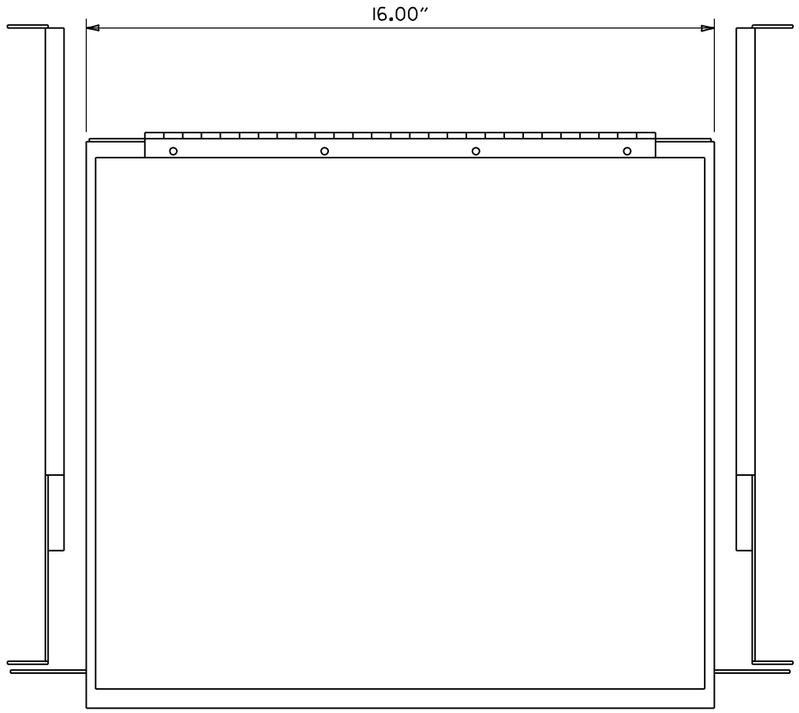
DATE	REVISION	FILMED
11-16-17	REVISED NOTES	
02-27-14	REVISED NOTES.	
09-12-13	ISSUED AS STANDARD DRAWING	
05-21-09	REVISED GROUNDING	
07-31-08	REVISED GROUNDING	
04-18-08	REVISED AASHTO NOTES	
04-17-08	REVISED TO 2001 AASHTO STANDARDS	
09-06-00	ISSUED	

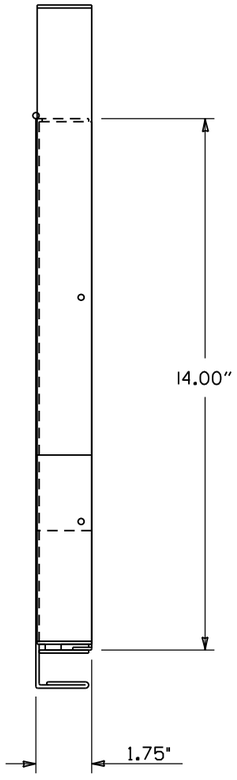
ARKANSAS STATE HIGHWAY COMMISSION

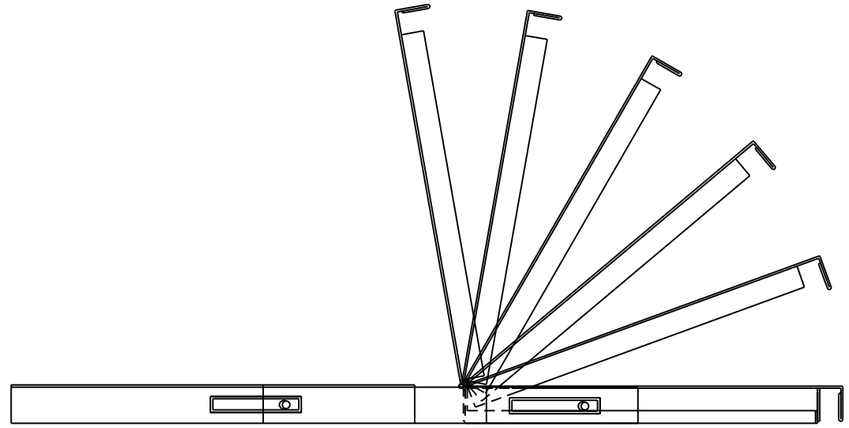
ANTENNA POLE

STANDARD DRAWING SD-1

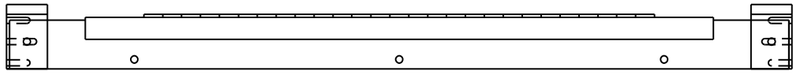
DRAWER PLAN VIEW



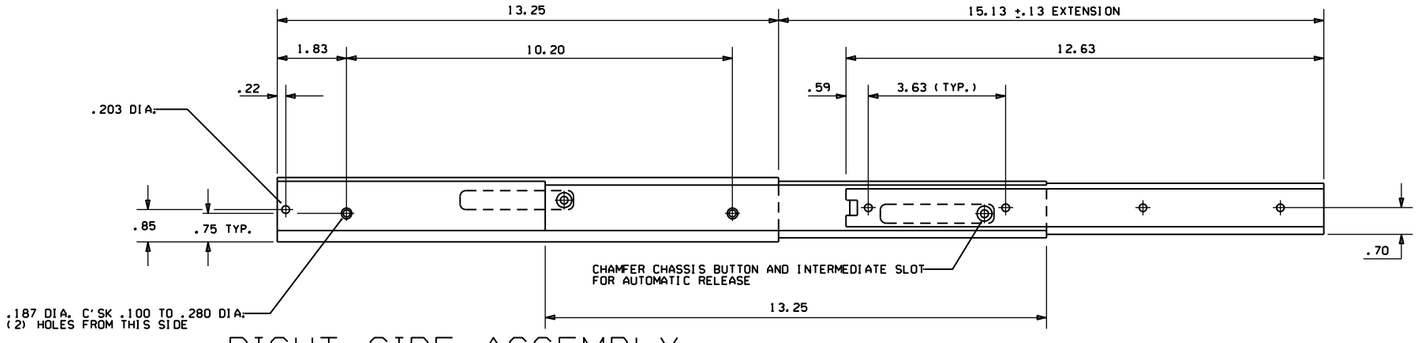




NOTES:
1. RIGHT HAND SLIDE SHOWN, LEFT SLIDE OPPOSITE.
2. GENERAL DEVICES (CC3002-99-0102) OR EQUAL AND CONTAINS (1) RIGHT HAND SLIDE ASSEMBLY, (1) LEFT HAND SLIDE ASSEMBLY.
3. ALL HARDWARE NECESSARY TO FASTEN SLIDE ASSEMBLY TO UNDERSIDE OF CONTROLLER SHELF SHALL BE INCLUDED.



FRONT VIEW



RIGHT SIDE ASSEMBLY

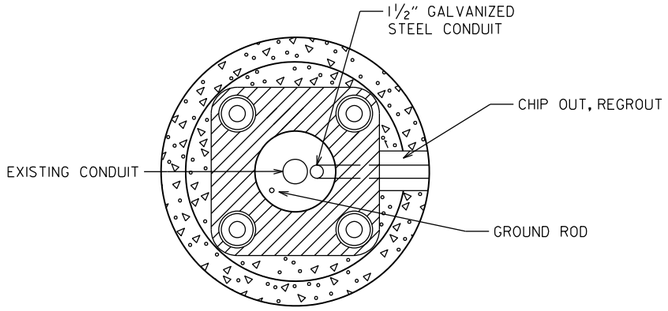
DATE	REVISION	DATE FILM
9-12-13	ISSUED AS STANDARD DRAWING	
6-15-05	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

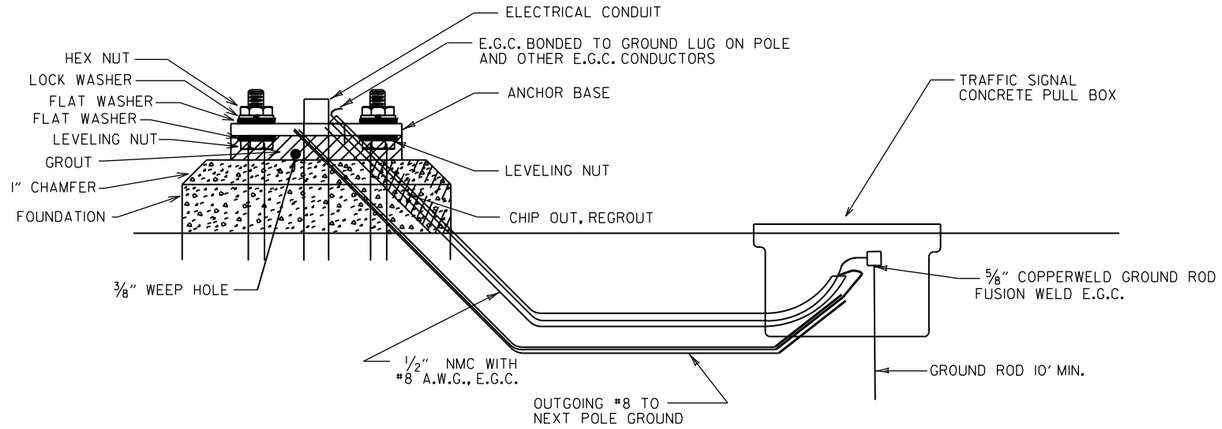
CONTROLLER CABINET UTILITY DRAWER

STANDARD DRAWING SD-5

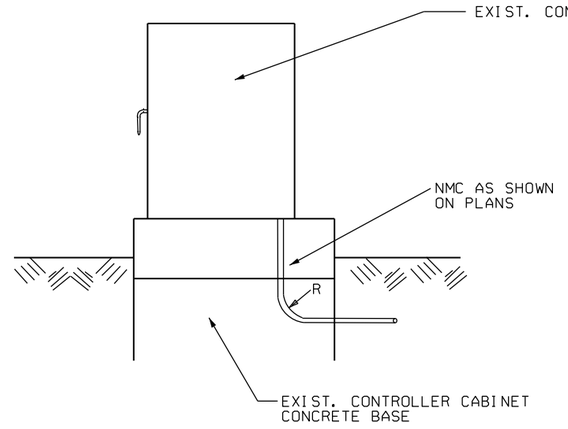
CONDUIT ENTRY TO EXISTING POLE BASE



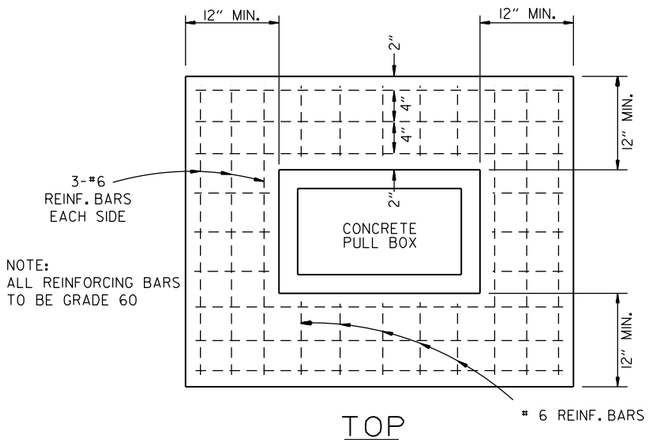
ANCHOR BASE



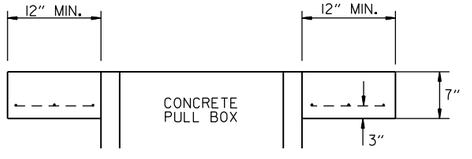
CONDUIT ENTRY TO EXISTING CONTROLLER CABINET



NOTE: ENTRY TO CABINET SHALL BE THROUGH A CUT IN THE BASE SUFFICIENT TO PROVIDE ADEQUATE CONDUIT RADIUS FOR ITEM.

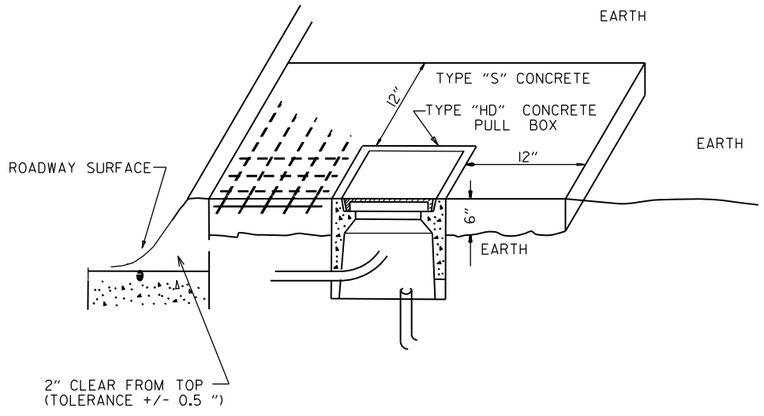


TOP



ELEVATION

TYPE "HD" CONCRETE PULL BOX DETAIL



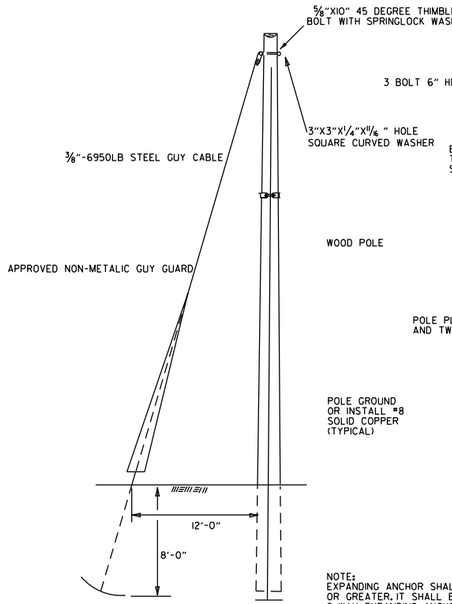
NOTE:
ALL TYPE 1AND TYPE 2 HD CONCRETE PULL BOXES ARE INSTALLED WITH AN APRON OF CONCRETE 12" WIDE AND 7" IN DEPTH. ALL PAYMENT SHALL BE INCLUDED IN THE PRICE OF THE TYPE HD CONCRETE PULL BOX. THE CONCRETE PULL BOX SHALL BE INSTALLED FLUSH TO SURROUNDING GRADE UNLESS OTHERWISE INSTRUCTED BY THE ENGINEER. THE CONCRETE SHALL BE CLASS "S". THREE #6 REINFORCING BARS IN THE APRON ON ALL SIDES OF THE CONCRETE PULL BOX IS REQUIRED IN CONCRETE.

DATE	REVISION	FILMED
11-16-17	REVISED NOTES	
09-02-15	REVISED PULL BOX DEPTH	
09-12-13	ISSUED AS STANDARD DRAWING	
05-21-09	REVISED GROUNDING	
07-31-08	ADDED & REVISED CONDUIT ENTRY	
06-23-04	REVISED CLEARANCE AT CURB ENTRY	
01-04-02	ADDED REINFORCING TO BOX APRON	
07-02-01	REVISED	
12-27-99	REVISED NOTES	
11-18-98	ISSUED	

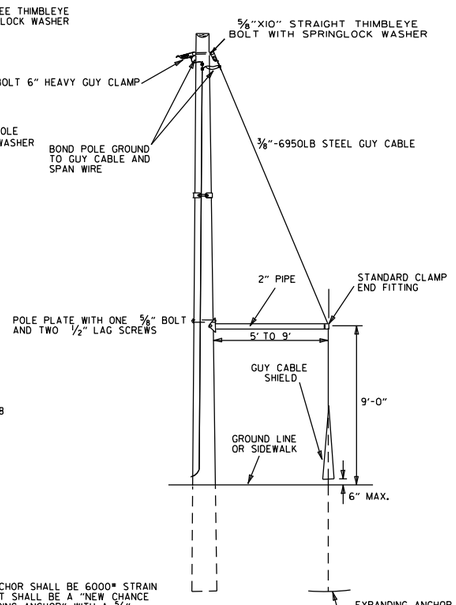
ARKANSAS STATE HIGHWAY COMMISSION

HEAVY DUTY PULL BOX

STANDARD DRAWING SD-6

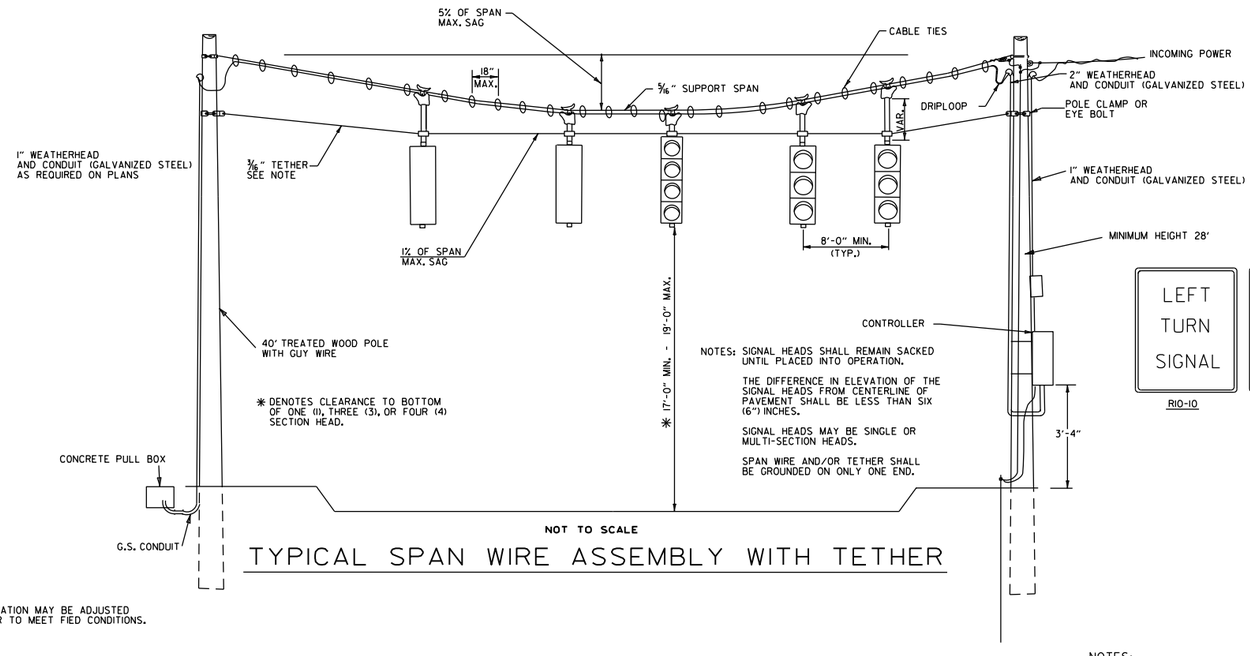


STANDARD GUY INSTALLATION



NOTE:
EXPANDING ANCHOR SHALL BE 6000# STRAIN OR GREATER. IT SHALL BE A "NEW CHANCE 8-WAY EXPANDING ANCHOR", WITH A ⅝" MINIMUM GUY ROD.

SIDEWALK GUY INSTALLATION



* DENOTES CLEARANCE TO BOTTOM OF ONE (1), THREE (3), OR FOUR (4) SECTION HEAD.

NOTES: SIGNAL HEADS SHALL REMAIN SACKED UNTIL PLACED INTO OPERATION.

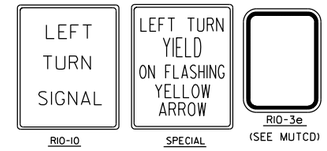
THE DIFFERENCE IN ELEVATION OF THE SIGNAL HEADS FROM CENTERLINE OF PAVEMENT SHALL BE LESS THAN SIX (6") INCHES.

SIGNAL HEADS MAY BE SINGLE OR MULTI-SECTION HEADS.

SPAN WIRE AND/OR TETHER SHALL BE GROUNDED ON ONLY ONE END.

NOT TO SCALE

TYPICAL SPAN WIRE ASSEMBLY WITH TETHER

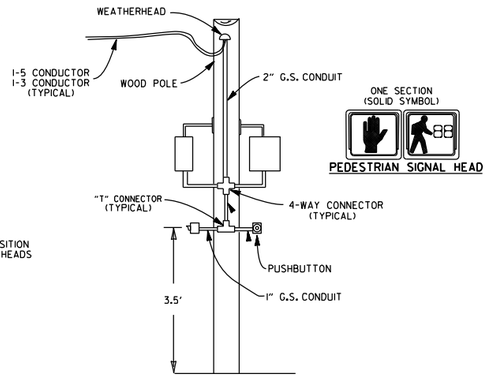


NOTES:
SPAN WIRE POLES SHALL BE MOUNTED A MINIMUM OF FOUR (4') FEET BEHIND CURB OR SHOULDER.

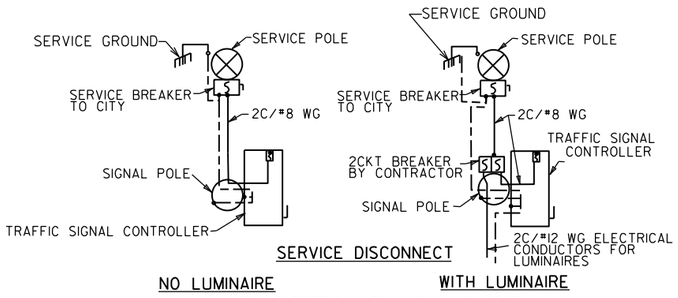
SPAN WIRE ASSEMBLIES WILL REQUIRE TETHER UNLESS OTHERWISE NOTED ON PLAN SHEETS.

CABLE TIES SHALL BE SUITABLE FOR OUTSIDE USE (BLACK).

THE CONTROLLER POWER SUPPLY GROUND BUSS SHALL BE BONDED TO THE FOUNDATION GROUND ROD WITH A #8 A.W.G. SOLID COPPER WIRE. ON EXISTING FOUNDATIONS WITH NO GROUND ROD, CONTRACTOR SHALL INSTALL A 10' X ⅝" COPPERWELD GROUND ROD.



WOODEN POLE INSTALLATION OF PED HEADS



NOTE: ELECTRICAL GROUND CONDUCTOR IS BONDED TO ALL METAL ENCLOSURES

NOTES:

EACH ITEM "TRAFFIC SIGNAL HEAD (4 SEC., 1-WAY)" SHALL INCLUDE A SPECIAL SIGN AS SHOWN, ATTACHED TO THE MAST ARM OR SPAN ASSEMBLY 12" TO THE RIGHT OF THE SIGNAL HEAD UNLESS REMOVED WITHIN SIGNAL PLAN NOTES.

EACH ITEM "TRAFFIC SIGNAL HEAD (3 SEC., 1-WAY)", TO BE USED AS A LEFT TURN INDICATION ONLY, SHALL INCLUDE A SIGN (R10-10) AS SHOWN, ATTACHED TO THE MAST ARM OR SPAN ASSEMBLY 12" TO THE RIGHT OF THE SIGNAL HEAD.

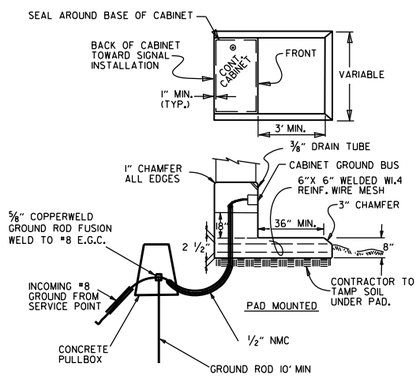
ALL SIGN BLANK SHALL BE CONSTRUCTED OF ALUMINUM ALLOY (ASTM DESIGNATION B-209, ALLOY 5052-H38) WITH A THICKNESS OF 0.100 INCH.

ALL SIGN FACE SHALL BE CONSTRUCTED OF HIGH INTENSITY SHEETING (TYPE III) WITH SILKSCREEN LEGEND AND BORDER.

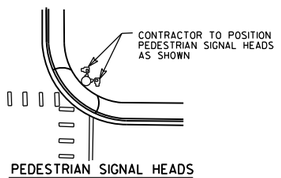
SIGNAL OPERATION NOTES:

FLASHING OPERATION - PRIOR TO NORMAL OPERATION, SIGNAL SHALL BE FLASHED FOR A PERIOD OF 3 TO 5 WORK DAYS. SIGNAL SHALL BE PLACED IN OPERATION ONLY ON A REGULAR WORK DAY, EXCEPT FRIDAY.

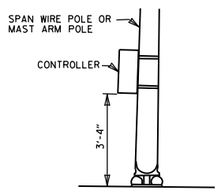
THE CONTRACTOR MAY BE REQUIRED TO ALTER THE FLASHING DISPLAY DURING THE TEMPORARY FLASH PERIOD. AT THE TIME THE INTERSECTION IS PLACED IN PERMANENT OPERATION, THE FLASH SEQUENCE SHALL THEN BE RETURNED TO THAT INDICATED ON THE PLAN SHEETS. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR THESE ALTERATIONS IN FLASH SEQUENCE.



CONCRETE BASE MOUNTED CABINET DETAILS



PEDESTRIAN SIGNAL HEADS



SPAN WIRE SUPPORT POLE AND MAST ARM POLE MOUNTED

CABINET NOTE:

UNLESS OTHERWISE DIRECTED BY THE ENGINEER, CABINET ORIENTATION SHALL BE SUCH THAT THE BACK OF THE CABINET IS PARALLEL TO THE STREET AND POSITIONED TO ALLOW VISIBILITY OF THE SIGNAL DISPLAY WHILE OBSERVING THE CONTROLLER FRONT PANEL.

MINIMUM STRUCTURAL REQUIREMENTS:

DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 4TH EDITION (2001) WITH 2003 AND 2006 INTERIMS.

CONSTRUCTION SPECIFICATIONS: STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION) WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.

BASE WIND SPEED: 90 MPH

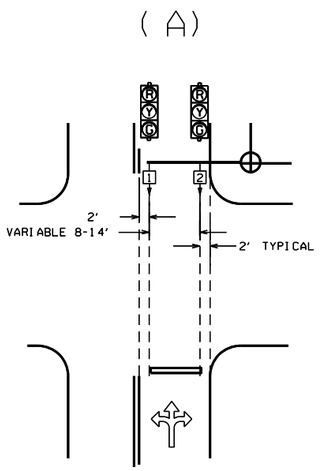
STEEL MEMBERS CONSIDERED MAIN LOAD CARRYING MEMBERS WITH THICKNESS GREATER THAN ½" SHALL MEET THE LONGITUDINAL CHARPY V-NOTCH TEST SPECIFIED IN SUBSECTION 807.05 OF THE STANDARD SPECIFICATIONS.

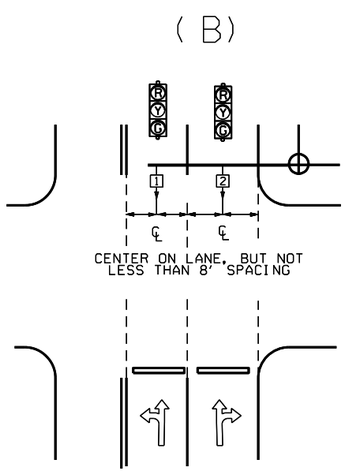
DATE	REVISION	FILMED
11-16-17	REVISED NOTES, ADDED SPAN WIRE SUPPORT POLE DETAIL, ADDED PEDESTRIAN SIGNAL HEAD DETAIL	
02-27-14	REVISED NOTES.	
09-12-13	ISSUED AS STANDARD DRAWING	
07-21-11	REVISED PEDESTRIAN SIGN & GROUNDING	
04-17-08	REVISED TO 2001 AASHTO STANDARDS	
10-12-04	REV. CABINET ORIENTATION & SIGNAL OPERATION	
05-22-02	REV. TYP. SPAN WIRE ASSEMBLY	
12-27-99	REVISED	
11-18-98	REVISION TO NOTES	
11-21-95	ISSUED	

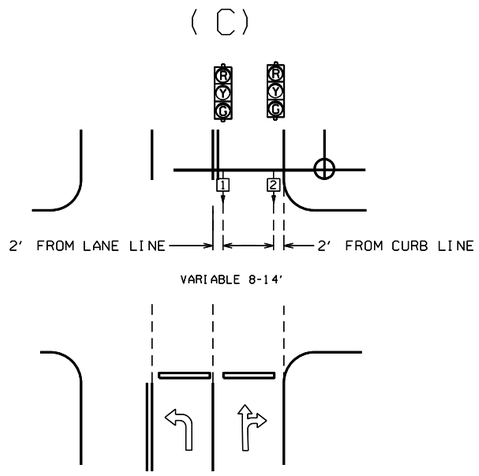
ARKANSAS STATE HIGHWAY COMMISSION

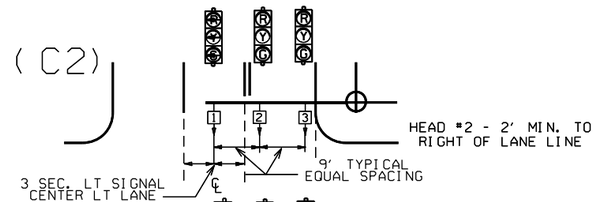
SPAN WIRE ASSEMBLY WOOD POLE

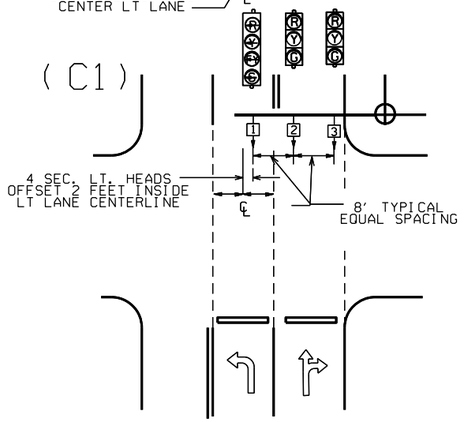
STANDARD DRAWING SD-7

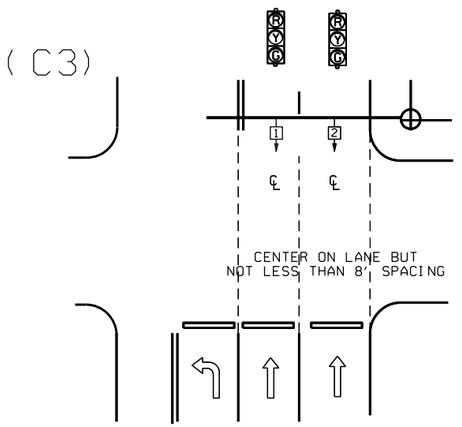


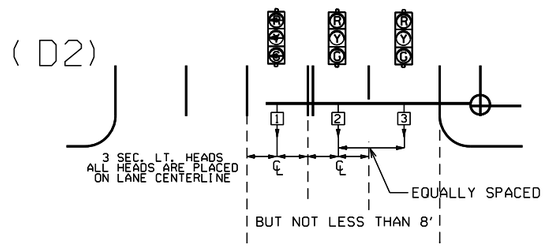


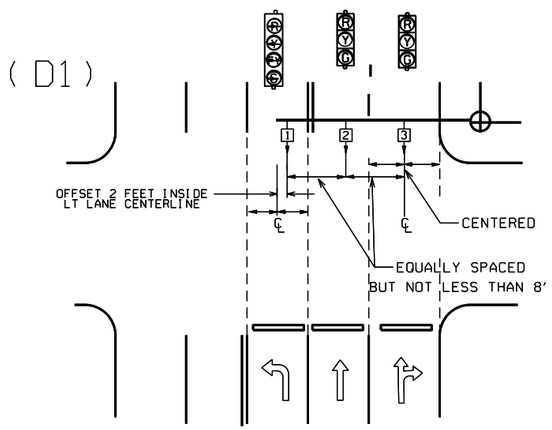




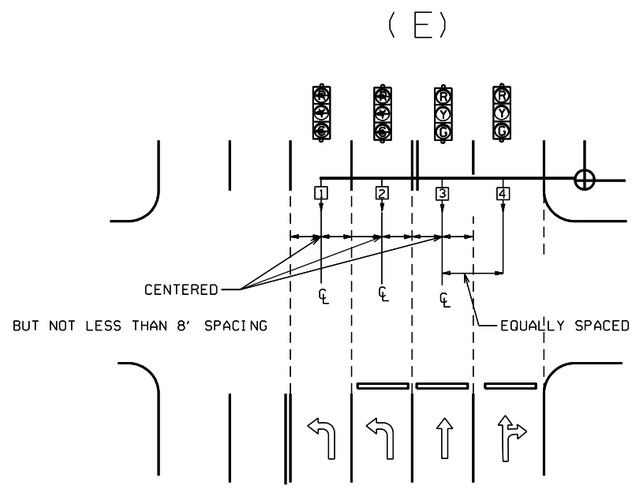








NOTE: WHERE LEFT TURN HEAD (HEAD 1 ON D1 AND D2) IS NOT CALLED FOR ON PLANS, MAST ARM LENGTH MAY STILL BE ALLOWED FOR FUTURE INSTALLATION. HEADS FOR THROUGH MOVEMENTS SHALL STILL BE ALIGNED WITH THROUGH LANES AS SHOWN ON DETAILS.



℄ = CENTER OF LANE FROM APPROACH SIDE

GENERAL NOTES:

1. FOUR SECTION "PROTECTED/PERMISSIVE" LEFT TURN HEADS SHOULD BE PLACED A MINIMUM OF TWO (2') FEET TO THE RIGHT OF THE CENTERLINE OF THE APPROACHING LEFT TURN LANE.

2. THREE SECTION "PROTECTED" LEFT TURN HEADS SHOULD BE PLACED ON THE CENTERLINE OF THE APPROACHING LEFT TURN LANE.

3. WHEN IT IS NECESSARY TO PLACE POLES OTHER THAN AS SHOWN ON PLAN SHEET(S) RESULTING IN MAST ARM EXTENDING MORE THAN TWO FEET PAST (TO THE LEFT OF) THE CENTERLINE OF THE APPROACHING LEFT TURN LANE, MAST ARM SHALL BE CUT TO APPROPRIATE LENGTH AS DETERMINED BY THE ENGINEER, AND A NEW END CAP PROVIDED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THIS PRIOR TO INSTALLING THE MAST ARM IF ADDITIONAL COMPENSATION IS REQUIRED.

4. SIGNAL HEAD SPACING SHALL, IN NO CASE, BE LESS THAN EIGHT (8') FEET BETWEEN HEADS ON CENTER, MEASURED HORIZONTALLY PERPENDICULAR TO THE APPROACH.

5. ALL SIGNAL HEADS SHOWN ON THIS DETAIL SHEET SHALL BE LOCATED ACCORDING TO THE DIMENSIONS SHOWN IN RELATION TO THE APPROACH SIDE OF THE INTERSECTION.

6. MAXIMUM MOUNTING HEIGHT OF SIGNAL FACES LOCATED BETWEEN 40 FEET AND 53 FEET FROM STOP BAR SHALL BE IN ACCORDANCE WITH FIGURE 4D-5 OF 2009 MUTCD.

12-8-16	REVISED NOTE 6	
9-12-13	ISSUED AS STANDARD DRAWING	
3-11-10	2009 MUTCD	
12-9-99	ISSUED	
DATE	REVISION	DATE FILM

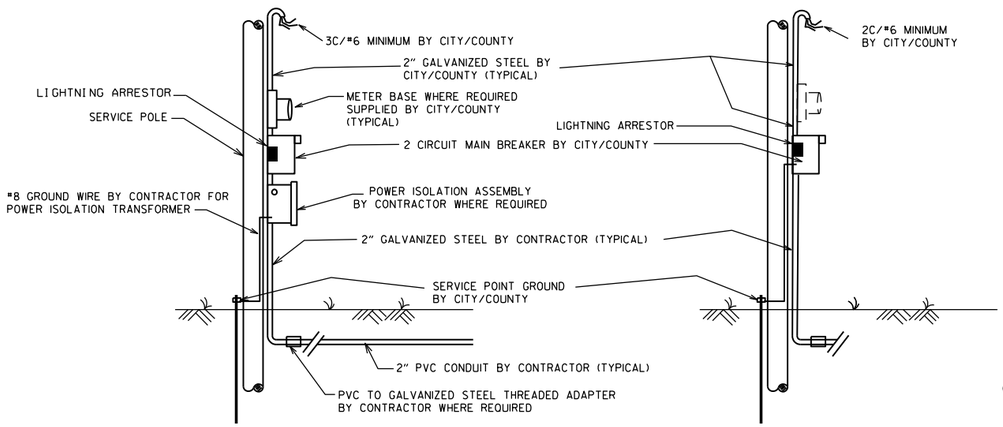
ARKANSAS STATE HIGHWAY COMMISSION

SIGNAL HEAD PLACEMENT

STANDARD DRAWING SD-8

MAIN BREAKER NOT NEAR CONTROLLER CABINET SECONDARY REQUIRED

WITH POWER ISOLATION ASSEMBLY



WITHOUT POWER ISOLATION ASSEMBLY

NOTES TO CONTRACTOR AND AGENCY RESPONSIBLE FOR MAINTENANCE OF THE INTERSECTION (CITY/COUNTY):

ELECTRICAL SERVICE TYPICALLY FALLS INTO TWO CATEGORIES:
MAIN BREAKER NEAR CONTROLLER CABINET; AND MAIN BREAKER NOT NEAR CONTROLLER CABINET. THE CONTRACTOR'S AND THE CITY'S/COUNTY'S RESPONSIBILITY VARIES ACCORDINGLY AS INDICATED ON THESE DETAILS.

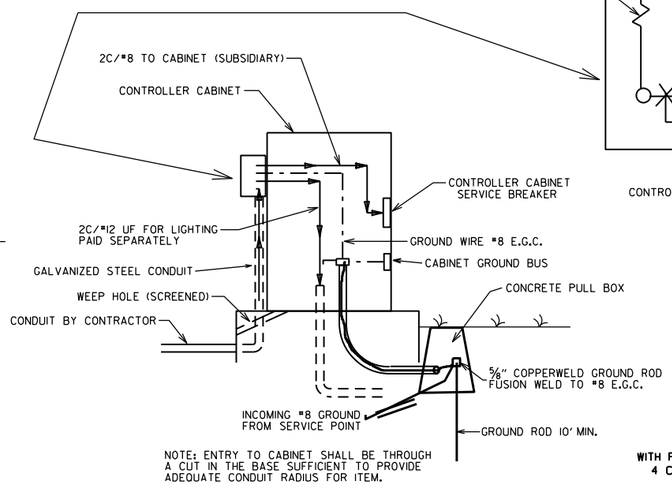
ALL SITUATIONS:
ELECTRICAL SERVICE SHALL BE PROVIDED BY THE CITY/COUNTY TO A SERVICE POLE WITH EXTERNAL RAINTIGHT BREAKER (MAIN BREAKER) AT A MUTUALLY ACCEPTABLE POINT WITHIN THE RIGHT-OF-WAY. SERVICE POINT INCLUDES GALVANIZED STEEL CONDUIT TO A POINT 18" BELOW GROUND LINE, TWO CIRCUIT MAIN BREAKER, LIGHTNING ARRESTOR, POWER ISOLATION ASSEMBLY WHERE REQUIRED, METER LOOP IF REQUIRED BY LOCAL UTILITY COMPANY, ELECTRICAL CONDUCTORS AND WEATHERHEAD. WHERE STREET LIGHTING IS INCLUDED AS PART OF SIGNAL INSTALLATION STREET LIGHTING CIRCUIT (2C/#12 A.W.G. UF RATED, TYPICAL) SHALL BE KEPT SEPARATE FROM THE CIRCUIT SERVING TRAFFIC SIGNAL. SERVICE WIRE AND WIRING FROM THE CONTROLLER TO MAIN BREAKER IS PROVIDED BY THE CONTRACTOR AS A PART OF THIS CONTRACT. WIRE AND WIRING FROM MAIN BREAKER, AND CONNECTION TO THE UTILITY IS THE RESPONSIBILITY OF THE CITY/COUNTY.

MAIN BREAKER NOT NEAR CONTROLLER CABINET:
THE MAIN BREAKER ASSEMBLY, GALVANIZED STEEL CONDUIT. WEATHERHEAD AND WIRE ABOVE MAIN BREAKER AND CONNECTION TO THE UTILITY SHALL BE PROVIDED BY CITY/COUNTY. CONTRACTOR SHALL PROVIDE AS PART OF CONTRACT SECONDARY BREAKER, CONDUIT, WIRE AND WIRING TO THE MAIN BREAKER.

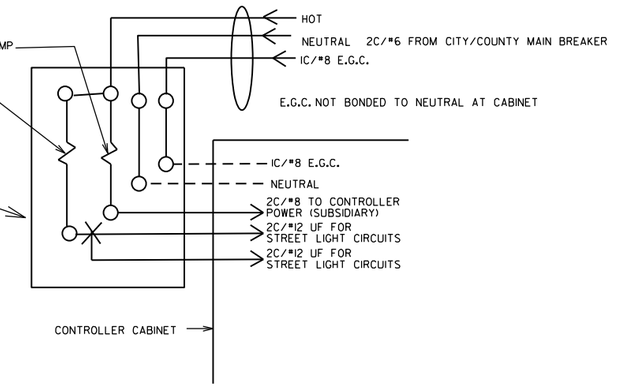
MAIN BREAKER NEAR CONTROLLER CABINET:
ALL COMPONENTS OF THE SERVICE POINT WITH THE EXCEPTION OF THE WIRE AND WIRING ABOVE THE MAIN BREAKER IS FURNISHED AND INSTALLED BY THE CONTRACTOR. WIRING FROM MAIN BREAKER INCLUDING CONNECTION TO THE UTILITY, IS THE RESPONSIBILITY OF THE CITY/COUNTY. IF METER LOOP IS REQUIRED, METER BASE AND HARDWARE IS PROVIDED BY THE CITY/COUNTY AND INSTALLED BY THE CONTRACTOR.

GROUND ROD - A 10' X 5/8" GROUND ROD SHALL BE INSTALLED IN THE CONCRETE PULL BOX FOR EACH POLE AND THE CONTROLLER. PAYMENT FOR THE GROUND ROD AND 1/2" NMC SHALL BE INCLUDED IN ITEM 701. THE CONCRETE PULL BOX AND CONDUCTOR BOX SHALL BE PAID FOR SEPARATELY.

SECONDARY BREAKER BY CONTRACTOR (SUBSIDIARY)



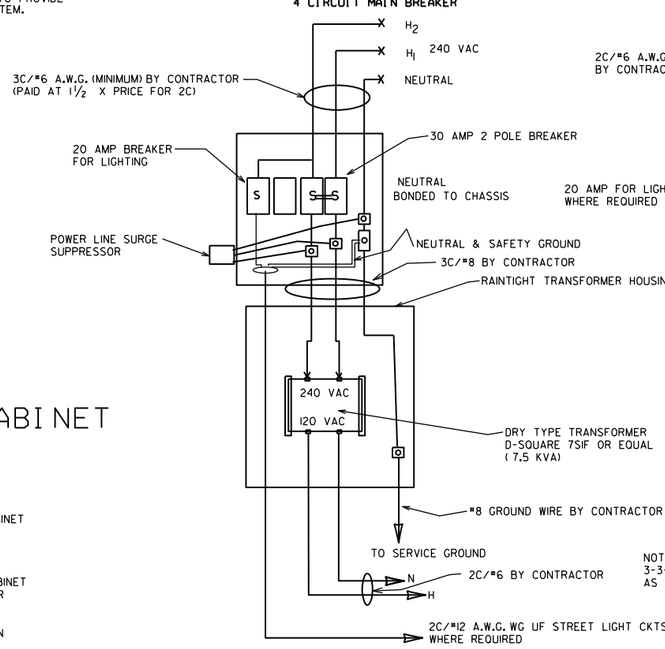
NOTE: ENTRY TO CABINET SHALL BE THROUGH A CUT IN THE BASE SUFFICIENT TO PROVIDE ADEQUATE CONDUIT RADIUS FOR ITEM.



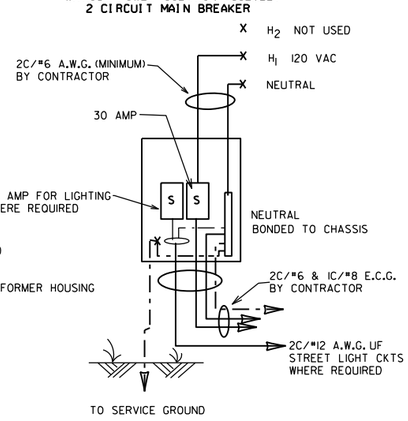
MAIN BREAKER WIRING (TYPICAL)

SERVICE GROUND IS TYPICALLY TIED TO NEUTRAL AT THE MAIN BREAKER. AS SUCH, CONTROLLER GROUND IS NOT TIED TO NEUTRAL AT SECONDARY BREAKER OR IN CONTROLLER CABINET.

WITH POWER ISOLATION ASSEMBLY
4 CIRCUIT MAIN BREAKER

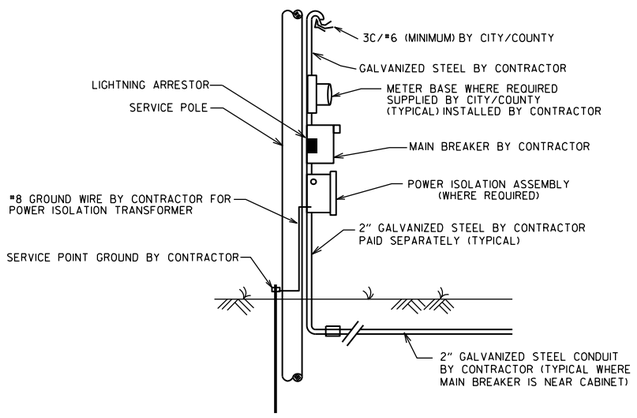


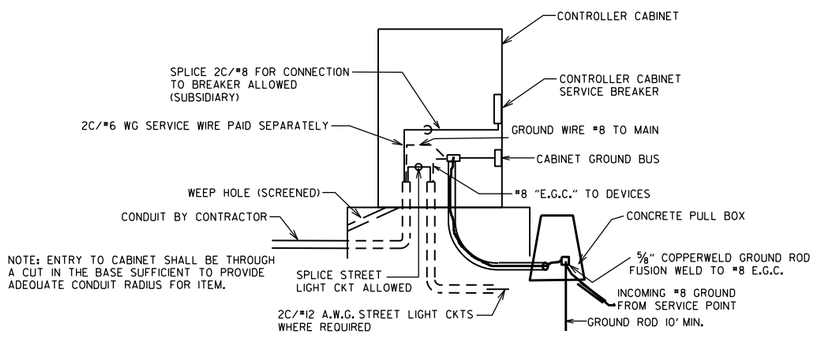
WITHOUT POWER ISOLATION ASSEMBLY
2 CIRCUIT MAIN BREAKER



NOTE: ELECTRICAL GROUND CONDUCTOR (E.C.G.) ADDED 3-3-2003, CONSISTING OF A IC/#8 A.W.G. CU GREEN WIRE AS PER NATIONAL ELECT. CODES.

MAIN BREAKER NEAR CONTROLLER CABINET SECONDARY NOT REQUIRED





NOTE: ENTRY TO CABINET SHALL BE THROUGH A CUT IN THE BASE SUFFICIENT TO PROVIDE ADEQUATE CONDUIT RADIUS FOR ITEM.

DATE	REVISION	FILMED
11-07-19	REVISED	
11-16-17	REVISED NOTES	
09-12-13	ISSUED AS STANDARD DRAWING	
04-18-13	ADDED LIGHTNING ARRESTOR	
05-21-09	REVISED GROUNDING	
07-31-08	REVISED GROUNDING	
03-03-03	ADDED EGC NOTE	
09-26-01	REVISED	
12-27-99	REVISED	
07-28-99	REVISED	
02-05-99	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

SERVICE POINT

STANDARD DRAWING SD-9

NOTES:
PEDESTRIAN AND TRAFFIC SIGNAL HEAD SIGNS:
EACH ITEM "TRAFFIC SIGNAL HEAD (4 SEC., 1-WAY)" SHALL INCLUDE A SPECIAL SIGN AS SHOWN, ATTACHED TO THE MAST ARM OR SPAN ASSEMBLY 12" TO THE RIGHT OF THE SIGNAL HEAD UNLESS REMOVED WITHIN THE SIGNAL PLAN NOTES.

EACH ITEM "TRAFFIC SIGNAL HEAD (3 SEC., 1-WAY)" TO BE USED AS A LEFT TURN INDICATION ONLY SHALL INCLUDE A SIGN (R10-10) AS SHOWN, ATTACHED TO THE MAST ARM OR SPAN ASSEMBLY 12" TO THE RIGHT OF THE SIGNAL HEAD.

EACH PEDESTRIAN PUSHBUTTON SHALL HAVE ONE R10-3E SIGN ATTACHED TO THE POLE ABOVE THE BUTTON. ALL SIGNS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 723 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

ALL SIGN BLANKS SHALL BE CONSTRUCTED OF ALUMINUM ALLOY (ASTM DESIGNATION B-209. ALLOY 5052-H38) WITH THICKNESS OF 0.100 INCH.

GENERAL NOTES:
1. MAST ARM POLES SHALL BE MOUNTED A MINIMUM OF FOUR (4') FEET BEHIND CURB OR SHOULDER.

2. OCTAGONAL POLES AND ARMS MEETING THE REQUIREMENTS OF THE PLANS SPECIFICATIONS CAN BE INSTALLED IN LIEU OF ROUND. ALL POLES AND ARMS IN A JOB MUST BE THE SAME SHAPE.

3. MINIMUM STRUCTURAL REQUIREMENTS:
DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 4TH EDITION (2001) WITH 2003 AND 2006 INTERIMS.

USE FATIGUE CATEGORY I FOR ALL STRUCTURES ON ROUTES WHERE THE SPEED LIMIT IS 65 MPH AND GREATER AT THE STRUCTURE LOCATION AND ON ROUTES WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH WITH AN MAST ARM OF 60' OR LONGER.

USE FATIGUE CATEGORY II FOR ALL STRUCTURES ON ROUTES WHERE THE SPEED LIMIT IS LESS THAN 65 MPH AND GREATER THAN 45 MPH WITH MAST ARMS LESS THAN 60' AND ON ROUTES WHERE THE SPEED LIMITS OF 45 MPH AND LESS WITH AN MAST ARM OF 60' OR LONGER.

USE FATIGUE CATEGORY III FOR ALL STRUCTURES WHERE THE SPEED LIMIT IS 45 MPH AND LESS AND MAST ARMS LESS THAN 60'.

CONSTRUCTION SPECIFICATIONS:
STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION) WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.

BASE WIND SPEED: 90 MPH.

STEEL MEMBERS CONSIDERED MAIN LOAD CARRYING MEMBERS WITH A THICKNESS GREATER THAN ½" SHALL MEET THE LONGITUDINAL CHARPY V-NOTCH TEST SPECIFIED IN SUBSECTION 807.05 OF THE STANDARD SPECIFICATIONS.

DEAD LOAD: AS A MINIMUM, DESIGN SHALL BE BASED ON THE FIXED ATTACHMENTS SHOWN BELOW OR AS MODIFIED IN THE PLANS.

ALL SIGNAL HEADS TO BE ONE WAY, TWELVE (12") INCH AND HAVE FIVE (5") INCH BACK PLATES:

SIGNAL HEADS AT THE END OF MAST ARM - ONE 4 SEC., 85 LB., 14.5 SQ.FT., ONE SIGN MOUNTED 3 FEET FROM SIGNAL HEAD (2'-0" X 2'-6"; 20 LB.) REMAINING SIGNAL HEADS SPACED AT 8 FT. (3 SEC., 56 LB., 8.3 SQ.FT.):
DESIGN TO ACCOMMODATE:
2 SIGNAL HEADS FOR MAST ARMS 10 FT. TO 16 FT.
3 SIGNAL HEADS FOR MAST ARMS 18 FT. TO 24 FT.
4 SIGNAL HEADS FOR MAST ARMS OVER 26 FT.

STREET NAME SIGN - 72" X 18", 36 LB., MOUNTED SUCH THAT OUTSIDE EDGE IS NOT GREATER THAT 12 FT. FROM POLE. DEPENDING UPON POSITION OF SIGNAL HEAD ADJACENT TO POLE, SIGN MAY OVERLAP POLE SHAFT.
ROADWAY LUMINAIRES (WHERE REQUIRED ON PLAN SHEET) - VARIABLE ARM LENGTH (MAX. WT. 75 LB., 3.3 SQ. FT.)
PEDESTRIAN SIGNALS - TWO 1 SEC., 12 INCH MOUNTED 8 FT. FROM BASE OF POLE. POST MOUNTED 3 SEC. SIGNAL HEAD AT 10 FT. ON SIDE OF POLE.

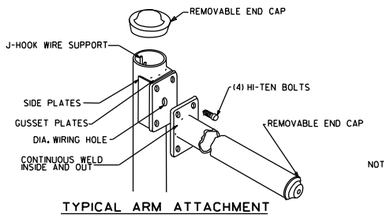
4. POLE/MAST ARM CAP - POLE AND MAST ARM CAPS SHALL BE PROVIDED, FABRICATED OF EITHER STEEL OR CAST ALUMINUM.

5. HAND HOLE - HAND HOLES SHALL BE 4 IN. X 6 IN. FOR STANDARD, AND 3 IN. X 5 IN. FOR PED POLES. MINIMUM PLACED APPROXIMATELY 12 INCHES FROM BASE, AND SHALL BE FIXED WITH A BOLT DOWN COVER. A VACCUM FORMED ABS COVER IS AN ACCEPTABLE ALTERNATE TO STEEL. POLES GREATER THAN 21FT. IN HEIGHT (FOR ROADWAY LUMINAIRE ATTACHMENT) SHALL INCLUDED A HAND HOLE WITHIN 12 INCHES OF MAST ARM(S) ATTACHMENT(S).

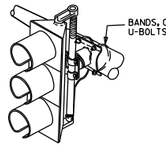
6. POLE/MAST ARM TAPER SLOPE - AVERAGE TAPER OF SIGNAL MAST ARMS AND POLE SHAFT SHALL BE 0.125 TO 0.15 INCHES PER FOOT.

MAST ARM CENTERLINE ANGLE AT ATTACHMENT POINT WITH POLE SHALL MAINTAIN NOT LESS THAN 0.5 DEGREES OR MORE THAN 4 DEGREES POSITIVE SLOPE WITH A LINE PERPENDICULAR TO THE POLE CENTERLINE. THE MAST ARM SHALL MAINTAIN A POSITIVE SLOPE AFTER IT IS PLACED UNDER LOAD.

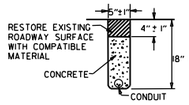
7. NUT COVERS - EACH POLE SHALL INCLUDE A BOLT DOWN NUT COVER FOR EACH ANCHOR BOLT.



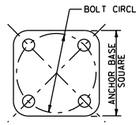
TYPICAL ARM ATTACHMENT



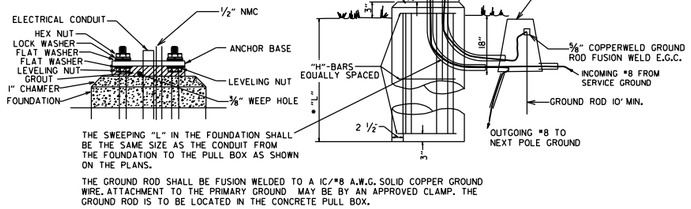
NOTE: THE SIGNAL SHALL BE CONNECTED TO THE MAST ARM BY BRACKETING AS DIRECTED BY THE ENGINEER.



TRENCHING DETAIL
(FOR SAW CUT TRENCH IN ROADWAY)



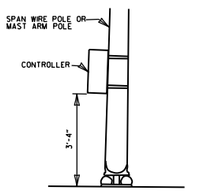
ANCHOR BASE



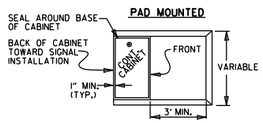
TYPICAL FOUNDATION DETAILS

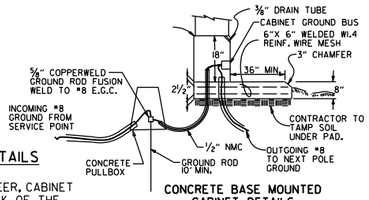
POLE FOUNDATION MINIMUM DIMENSIONS AND STEEL REINFORCING. ALL REINFORCING STEEL SHALL BE GRADE 40 MIN.

ARM LENGTH	FOUNDATION DIAMETER	DEPTH "L"*	STEEL		
			VERTICAL	HORIZONTAL	O.C.
PED	30"	7'-0"	12-#7 (6'-6")	10-#4	8.44"
2' TO 12'	30"	10'-6"	12-#7 (10'-0")	15-#4	8.42"
OVER 12' TO 20'	30"	11'-6"	12-#7 (11'-0")	16-#4	8.66"
OVER 20' TO 35'	36"	12'-6"	13-#8 (12'-0")	17-#4	8.88"
OVER 35' TO 50'	36"	13'-6"	13-#8 (13'-0")	19-#4	8.56"
OVER 50' TO 72'	42"	14'-6"	18-#8 (14'-0")	20-#4	8.74"
TWINS TO 20'	30"	16'-0"	12-#6 (15'-6")	22-#4	8.76"
TWINS OVER 20' TO 44'	36"	16'-0"	13-#8 (15'-6")	22-#4	8.76"
TWINS OVER 44' TO 50'	42"	16'-0"	18-#8 (15'-6")	22-#4	8.76"
TWINS OVER 50' TO 72'	42"	16'-6"	18-#8 (16'-0")	23-#4	8.64"



SPAN WIRE SUPPORT POLE AND MAST ARM POLE MOUNTED





CONCRETE BASE MOUNTED CABINET DETAILS

CONTROLLER CABINET MOUNTING DETAILS

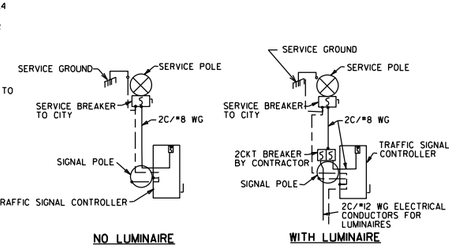
NOTE:
UNLESS OTHERWISE DIRECTED BY THE ENGINEER, CABINET ORIENTATION SHALL BE SUCH THAT THE BACK OF THE CABINET IS PARALLEL TO THE STREET AND POSITIONED TO ALLOW VISIBILITY OF THE SIGNAL DISPLAY WHILE OBSERVING THE CONTROLLER FRONT PANEL.

8. GROUND ROD - A 10' X ⅝" GROUND ROD SHALL BE INSTALLED IN THE CONCRETE PULL BOX FOR EACH POLE AND THE CONTROLLER. PAYMENT FOR THE GROUND ROD AND ½" NMC SHALL BE INCLUDED IN ITEM 714 FOR SIGNAL POLES AND ITEM 701 FOR THE CONTROLLER. THE CONCRETE PULL BOX AND CONDUCTOR BOX SHALL BE PAID SEPERATELY.

9. POLE BASE/FOUNDATION - ANCHOR BOLTS SHALL INCLUDE AS A MINIMUM, ONE LEVELING NUT, TWO FLAT WASHERS, ONE LOCK WASHER, AND ONE HEX NUT. PERIMETER OF ANCHOR BASE SHALL BE GROUTED WITH A ¼" WEEP HOLE. ALL CONCRETE SHALL BE CLASS "S" OR GREATER.

10. CONCRETE - ALL CONCRETE FOR CONTROLLER CABINET AND POLE FOUNDATIONS SHALL BE CLASS "S" OR GREATER.

11. PEDESTRIAN PHASES - PEDESTRIAN MOVEMENTS SHALL BE PUSH BUTTON ACTUATED AND CONCURRENTLY TIMED, UNLESS OTHERWISE INDICATED ON THE PLAN SHEET(S). FURNISHING AND INSTALLING PEDESTRIAN PUSH SWITCH SHALL BE CONSIDERED SUBSIDIARY TO THE ITEM 707 PEDESTRIAN SIGNAL HEAD.



SERVICE DISCONNECT
NOTE: ELECTRICAL GROUND CONDUCTOR IS BONDED TO ALL METAL ENCLOSURES

* WHEN THE GROUND ELEVATION AT THE POLE IS LOWER THAN THE ROADWAY ELEVATION, THE LENGTH OF FOUNDATION ABOVE THE GROUND MAY BE INCREASED TO PROVIDE THE REQUIRED SIGNAL HEAD CLEARANCE ABOVE THE ROADWAY. WHEN THE REQUIRED LENGTH OF FOUNDATION ABOVE THE GROUND IS 18" OR LESS, NO INCREASE IN DEPTH "L" WILL BE REQUIRED. WHEN THE REQUIRED LENGTH OF FOUNDATION ABOVE THE GROUND IS 5'-6" OR LESS, INCREASE DEPTH "L" BY 1'-0". FOR LENGTHS GREATER THAN 5'-6", DEPTH "L" SHALL BE ADJUSTED AS DIRECTED BY THE ENGINEER. LONGITUDINAL REINFORCING, AS SHOWN IN THE TABLE, SHALL BE PROVIDED FOR THE LENGTH OF THE EXTENDED SHAFT AND #4 TIES SHALL BE PROVIDED AT A SPACING NOT TO EXCEED 9" ON CENTERS. PAYMENT WILL BE IN ACCORDANCE WITH SECTION 714 TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION OF THE STANDARD SPECIFICATIONS.

** IN LIEU OF DESIGNING THE STRUCTURE TO RESIST PERIODIC GALLOPING, A VIBRATORY MITIGATION DEVICE MAY BE PROVIDED BY THE POLE MANIFACTURER. THE VIBRATORY MITIGATION DEVICE SHALL BE AN ANTI-GALLOPING PANEL CONSISTING OF A 60" X 16" X 0.125" SIGN BLANK MOUNTED NEAR THE END OF THE MAST ARM NOT TO EXCEED ONE QUARTER OF THE LENGTH OF THE MAST ARM FROM THE END OF THE MAST ARM WITH THE LONG AXIS OF THE PANEL COLLINEAR WITH THE LONG AXIS OF THE MAST ARM. THE PANEL SHOULD BE MOUNTED AT SUCH THE HEIGHT AS TO PROVIDE AT LEAST 6" CLEAR FROM THE TOP OF ANY SIGNAL ASSEMBLY OF SIGN PANEL LOCATED ON THE MAST ARM WITHIN THE LENGTH OF THE ANTI-GALLOPING PANEL.

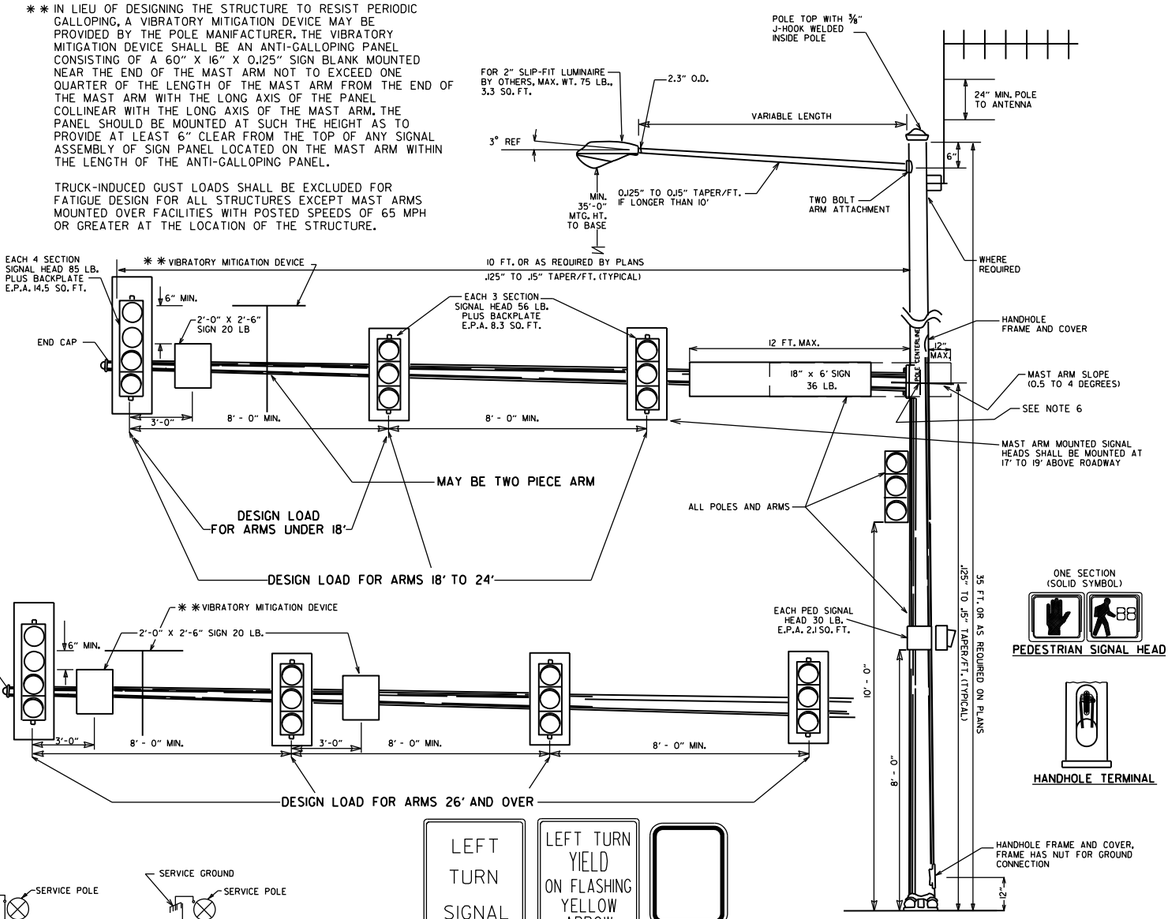
TRUCK-INDUCED GUST LOADS SHALL BE EXCLUDED FOR FATIGUE DESIGN FOR ALL STRUCTURES EXCEPT MAST ARMS MOUNTED OVER FACILITIES WITH POSTED SPEEDS OF 65 MPH OR GREATER AT THE LOCATION OF THE STRUCTURE.

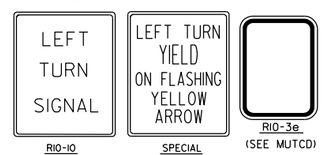
SIGNAL OPERATION NOTES:

FLASHING OPERATION - PRIOR TO NORMAL OPERATION, SIGNAL SHALL BE FLASHED FOR A PERIOD OF 3 TO 5 WORK DAYS OR AS DIRECTED BY THE ENGINEER. SIGNAL SHALL BE PLACED IN OPERATION ONLY ON A REGULAR WORK DAY, EXCEPT FRIDAY.

THE CONTRACTOR MAY BE REQUIRED TO ALTER THE FLASHING DISPLAY DURING THE TEMPORARY FLASH PERIOD. AT THE TIME THE INTERSECTION IS PLACED IN PERMANENT OPERATION, THE FLASH SEQUENCE SHALL THEN BE RETURNED TO THAT INDICATED ON THE PLAN SHEETS. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR THESE ALTERATION IN FLASH SEQUENCE.

SPECIAL NOTE: 90 MPH WIND ZONE DESIGN, SEE NOTE 3. MINIMUM STRUCTURAL REQUIREMENTS.





DATE	REVISION	FILMED
11-16-17	REVISED NOTES, ADDED PEDESTRIAN SIGNAL HEAD DETAIL, ADDED HANDHOLE TERMINAL DETAIL, ADDED TRENCHING DETAIL	
02-27-14	REVISED NOTES.	
09-12-13	ISSUED AS STANDARD DRAWING	
12-08-16	REVISED NOTES	
02-27-14	REVISED NOTES	
09-12-13	ISSUED AS STANDARD DRAWING	
07-21-11	REVISED VMD, SIGNAL HEADS	
05-21-09	REVISED GROUNDING	
07-31-08	REVISED GROUNDING	
04-25-08	ADDED VIBRATORY MITIGATION DEVICE & NOTES	
04-18-08	REVISED AASHTO NOTES	
04-17-08	REVISED TO 2001 AASHTO STANDARDS	
10-12-04	REVISED CABINET ORIENTATION	
06-23-04	REVISED	
05-11-04	REV. NOTE 3/AASHTO REQUIREMENTS	
06-11-01	REV. NOTES & POLE MAST ARM SLOPE	
04-11-01	REVISED POLE TAPERS	
04-25-00	REV. NOTES & SIGNAL HEAD PLACEMENT	
11-22-99	REVISED FOUNDATION DETAILS	
11-17-98	REVISED DETAILS AND NOTES	
11-21-95	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

STEEL POLE WITH MAST ARM

STANDARD DRAWING SD-11

SUPERELEVATION TABLE FOR TWO - WAY TRAFFIC (4% MAXIMUM)

DEGREE OF CURVE	30 MPH e	30 MPH Ls (FT) MINIMUM	30 MPH Ls (FT) DESIRABLE
0° 15'	NC		
0° 30'			
0° 45'			
1° 00'			
1° 15'			
1° 30'			
1° 45'			
2° 00'			
2° 15'	RC	72	100
2° 30'			
2° 45'			
3° 00'			
3° 15'	0.022	75	
3° 30'			
3° 45'	0.024	79	
4° 00'			
4° 15'			
4° 30'			
4° 45'	0.026	83	
5° 00'			
5° 30'			
6° 00'	0.028	86	125
6° 30'			
7° 00'	0.030	90	
7° 30'			
8° 00'			
8° 30'	0.032	93	
9° 00'			
9° 30'			
10° 00'	0.034	97	
10° 30'			
11° 00'			
11° 30'			
12° 00'	0.036	100	
12° 30'			
13° 00'			
13° 30'			
14° 00'	0.038	104	
14° 30'			
15° 00'			
15° 30'			
16° 00'			
16° 30'	0.040	108	150

D MAX = 22° 45'

DEGREE OF CURVE	35 MPH e	35 MPH Ls (FT) MINIMUM	35 MPH Ls (FT) DESIRABLE
0° 15'	NC		
0° 30'			
0° 45'			
1° 00'			
1° 15'			
1° 30'			
1° 45'	RC	78	100
2° 00'			
2° 15'			
2° 30'	0.022	82	
2° 45'	0.024	86	
3° 00'			
3° 15'			
3° 30'	0.026	90	
3° 45'			
4° 00'			
4° 15'	0.028	94	125
4° 30'			
4° 45'			
5° 00'	0.030	98	
5° 30'			
6° 00'	0.032	101	
6° 30'			
7° 00'	0.034	105	
7° 30'			
8° 00'			
8° 30'	0.036	109	
9° 00'			150
9° 30'	0.038	113	
10° 00'			
10° 30'			
11° 00'			
11° 30'	0.040	117	

D MAX = 15° 15'

DEGREE OF CURVE	40 MPH e	40 MPH Ls (FT) MINIMUM	40 MPH Ls (FT) DESIRABLE
0° 15'	NC		
0° 30'			
0° 45'			
1° 00'			
1° 15'	RC	84	100
1° 30'			
1° 45'			
2° 00'	0.022	88	
2° 15'	0.024	92	
2° 30'	0.026	97	
2° 45'			
3° 00'	0.028	101	125
3° 15'			
3° 30'			
3° 45'	0.030	105	
4° 00'			
4° 15'			
4° 30'	0.032	109	
4° 45'			
5° 00'	0.034	113	
5° 30'			150
6° 00'	0.036	118	
6° 30'			
7° 00'	0.038	122	
7° 30'			
8° 00'	0.040	126	

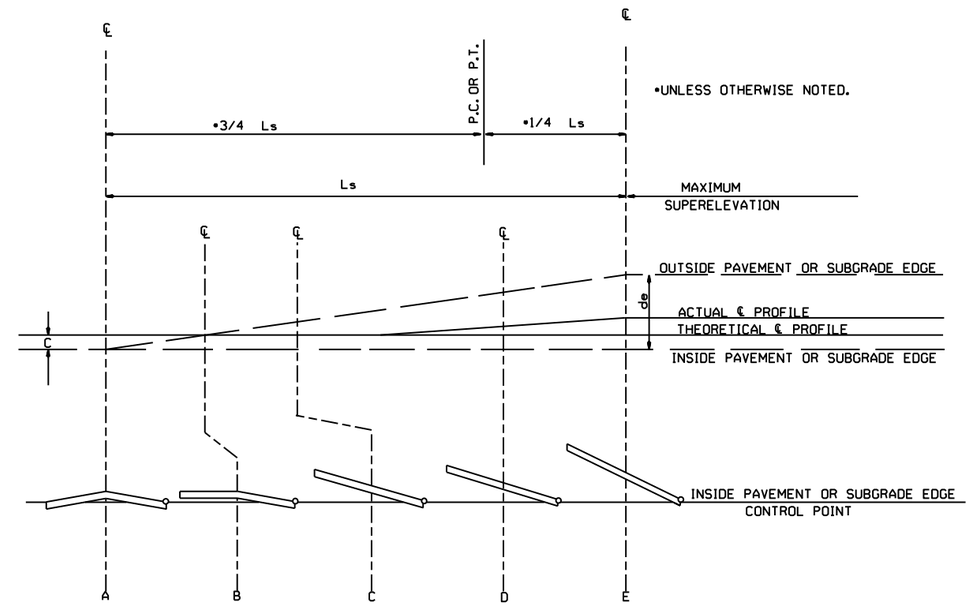
D MAX = 10° 30'

DEGREE OF CURVE	45 MPH e	45 MPH Ls (FT) MINIMUM	45 MPH Ls (FT) DESIRABLE
0° 15'	NC		
0° 30'			
0° 45'			
1° 00'	RC	90	125
1° 15'			
1° 30'	0.022	95	
1° 45'	0.024	99	
2° 00'	0.026	104	
2° 15'			
2° 30'	0.028	108	
2° 45'	0.030	113	
3° 00'			
3° 15'	0.032	117	
3° 30'			
3° 45'	0.034	122	150
4° 00'			
4° 15'			
4° 30'	0.036	126	
4° 45'			
5° 00'	0.038	131	
5° 30'			
6° 00'	0.040	135	

D MAX = 8° 00'

ABBREVIATIONS

NC - NORMAL CROWN
RC - REVERSE CROWN, SUPERELEVATION AT NORMAL CROWN SLOPE
e - RATE OF SUPERELEVATION (FT. PER FT.)
Ls - LENGTH OF SUPERELEVATION TRANSITION (FT.)
L - DISTANCE FROM BEGINNING OF SUPERELEVATION TRANSITION TO ANY POINT (FT.)
d - WIDTH OF PAVEMENT (FT.) OR WIDTH OF SUBGRADE (FT.)
C - NORMAL CROWN (FT.)



STANDARD METHOD WHEN SUPERELEVATION REVOLVES AROUND INNER SUBGRADE POINT OR INNER PAVEMENT EDGE

NOTE: MAINTAIN NORMAL CROWN ON INSIDE UNTIL SUPERELEVATION EXCEEDS 2C.

SUPERELEVATION FORMULA = $\frac{Lde}{Ls}$

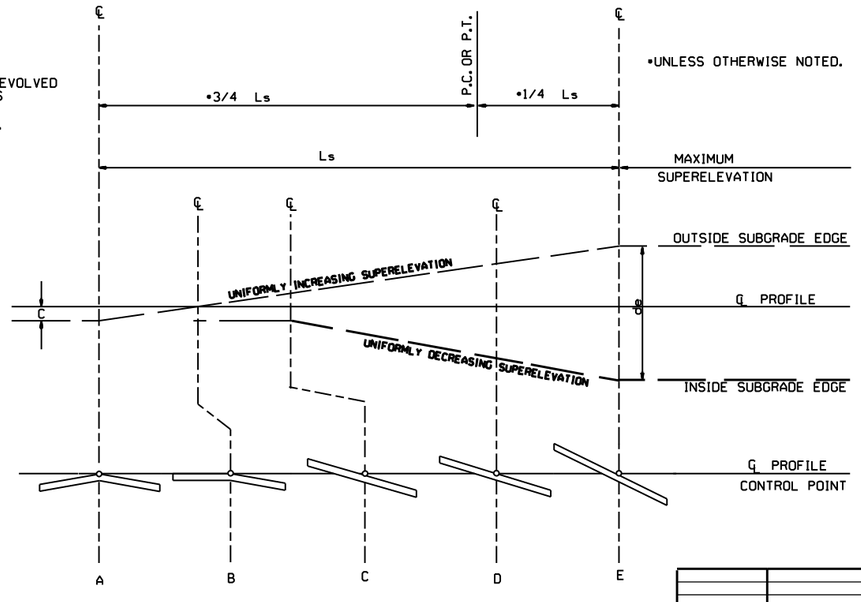
GENERAL NOTES

1. ON PAVEMENT WITH TWO-WAY TRAFFIC, THE SUPERELEVATION SHALL BE REVOLVED ON THE INSIDE PAVEMENT EDGE UNLESS OTHERWISE NOTED ON THE PLANS
2. SUPERELEVATION VALUES SHOWN ON THE CROSS SECTIONS ARE VALUES (+) OR (-) TO BE ADDED TO OR SUBTRACTED FROM THE POINT OF CONTROL.
3. LENGTHS FOR L MAY BE ROUNDED IN MULTIPLES OF 25 FT. OR 50 FT. TO PERMIT SIMPLER CALCULATIONS.
4. PAVEMENTS WIDER THAN 2 LANES SHALL HAVE ADDITIONAL TRANSITION LENGTHS AS FOLLOWS:

3 LANE UNDIVIDED - - - - - +20%
4 LANE UNDIVIDED - - - - - +50%
5 LANE UNDIVIDED - - - - - +80%
6 LANE UNDIVIDED - - - - - +100%

NOTE: MAINTAIN NORMAL CROWN ON INSIDE UNTIL SUPERELEVATION EXCEEDS 2C.

RATE OF SUPERELEVATION SHALL BE COMPUTED ON STRAIGHT LINE METHOD USING APPLICABLE Ls.



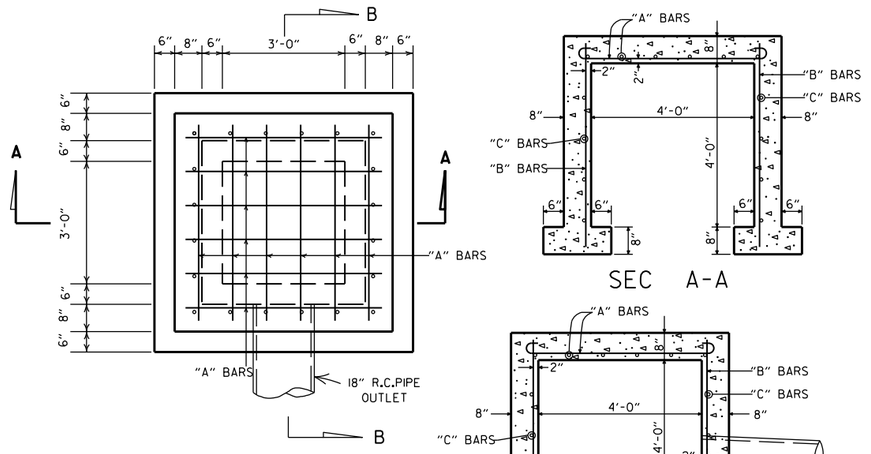
STANDARD METHOD WHEN SUPERELEVATION REVOLVES AROUND CENTER LINE

DATE	REVISION	DATE FILMED
11-07-19	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

TABLES AND METHOD OF SUPERELEVATION FOR TWO-WAY TRAFFIC (4% MAXIMUM)

STANDARD DRAWING SE-3

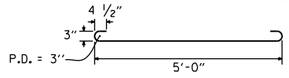


NOTE: MAX FILL HEIGHT ABOVE TOP OF BOX = 13'-0".

STEEL SCHEDULE

BARS	NUMBER	LENGTH	SPACING
"A"	12	6'-0"	10"
"B"	20	5'-0"	10 ½"
"C"	16	5'-0"	12"

ALL STEEL TO BE #4 BARS

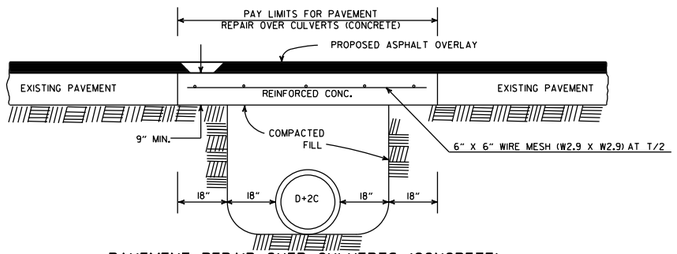


QUANTITIES

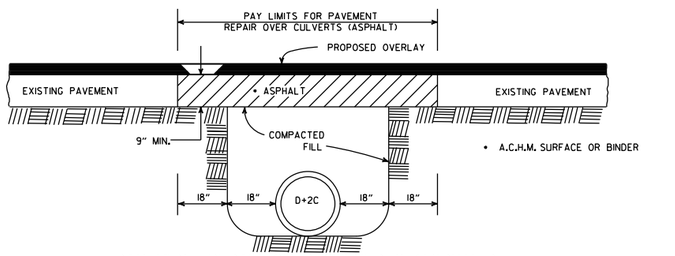
CONCRETE 3.31 CU. YDS.
REINFORCING STEEL 168 LB.

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

REINFORCED CONCRETE SPRING BOX



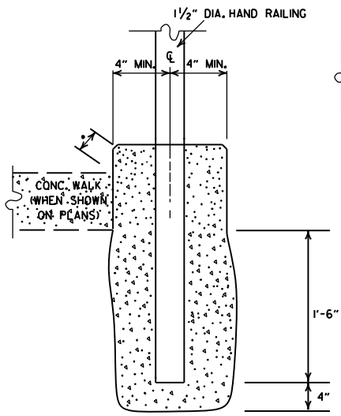
PAVEMENT REPAIR OVER CULVERTS (CONCRETE)



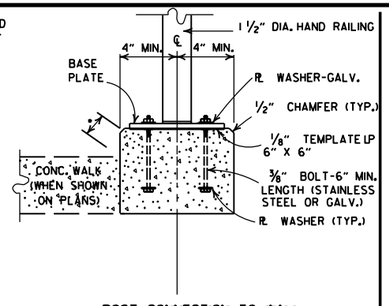
PAVEMENT REPAIR OVER CULVERTS (ASPHALT)

DETAIL SHOWING REPAIR OF EXISTING PAVEMENT AT CULVERT INSTALLATIONS

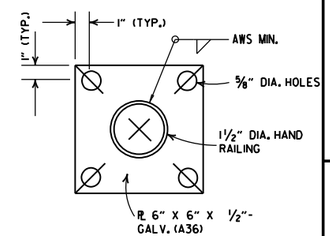
• A 2" MIN. HIGH CURB IS REQUIRED WHEN CONCRETE WALK IS ADJACENT TO THE HAND RAILING. PAYMENT FOR CURB SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR CONCRETE WALKS.



DETAIL OF HAND RAILING SET IN CONCRETE

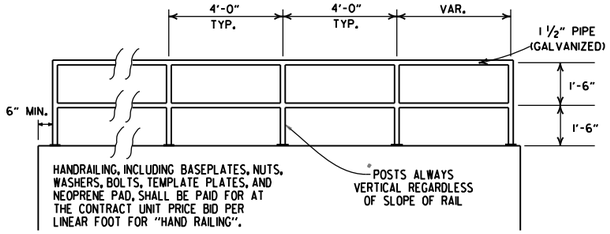


POST CONNECTION TO WALL

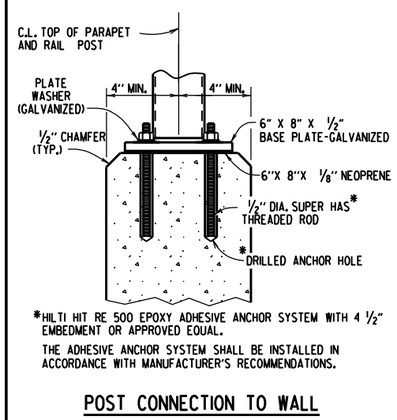


BASE PLATE

POST CONNECTION DETAILS



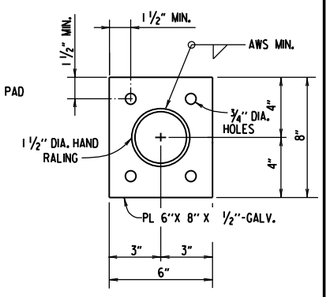
HAND RAILING SHALL CONFORM TO SECTION 633.



*HILTI HIT RE 500 EPOXY ADHESIVE ANCHOR SYSTEM WITH 4 ½" EMBEDMENT OR APPROVED EQUAL.

THE ADHESIVE ANCHOR SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

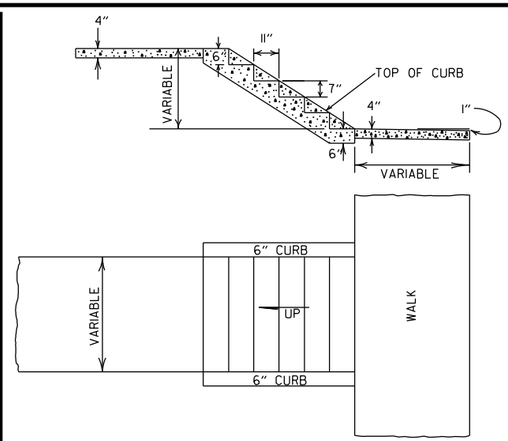
POST CONNECTION TO WALL



BASE PLATE

DETAILS OF ALTERNATE POST ANCHOR SYSTEM
(EPOXY ADHESIVE ANCHORS)

HAND RAILING DETAILS



GENERAL NOTES

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

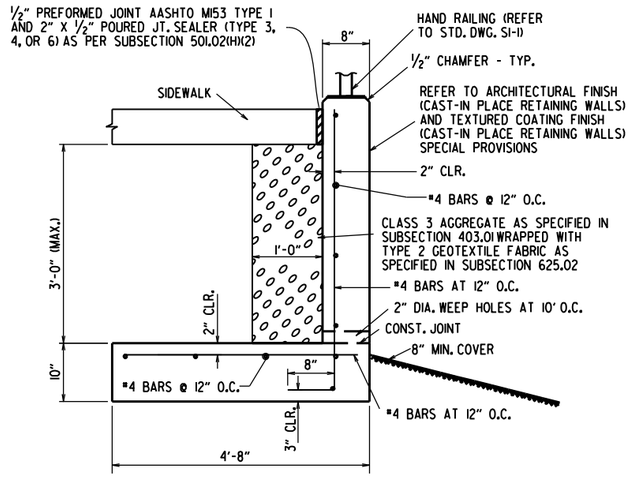
DETAILS OF CONCRETE STEPS & WALKS

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

ARKANSAS STATE HIGHWAY COMMISSION

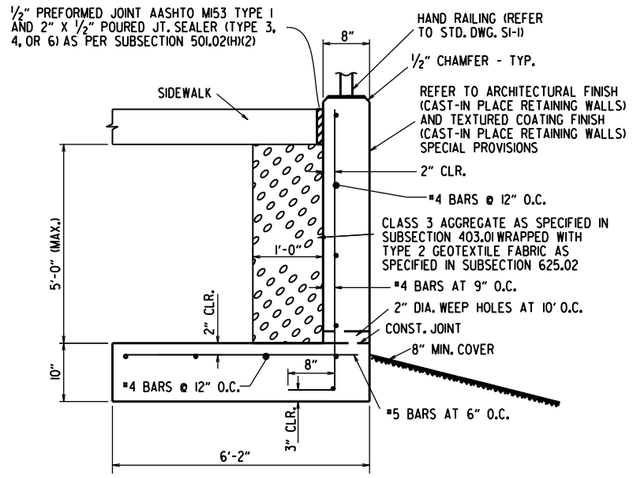
DETAILS OF SPECIAL ITEMS

STANDARD DRAWING SI-1



CONCRETE WALK (TYPE SPECIAL) DETAIL MAX HEIGHT 3'-0"

N.T.S.



CONCRETE WALK (TYPE SPECIAL) DETAIL MAX HEIGHT 5'-0"

N.T.S.

GENERAL NOTES

CONSTRUCTION SPECIFICATIONS: 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.

DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SIXTH EDITION (2012).

LIVE LOAD: LIVE LOAD SURCHARGE IS NOT INCLUDED IN THE DESIGN OF THESE WALLS. VEHICULAR LIVE LOAD SHALL NOT BE ALLOWED WITHIN A DISTANCE EQUAL TO ONE-HALF THE HEIGHT OF THE WALL.

CONCRETE: CONCRETE SHALL BE POURED IN THE DRY AND ALL EXPOSED CORNERS TO BE CHAMFERED ½". ALL CONCRETE SHALL BE CLASS S WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH F'C = 3,500 PSI. A CLASS 2 SURFACE FINISH SHALL BE USED ON ALL SURFACES OF THE CONCRETE UNLESS OTHERWISE NOTED. REFER TO ARCHITECTURAL FINISH (CAST-IN PLACE RETAINING WALLS) AND TEXTURED COATING FINISH (CAST-IN PLACE RETAINING WALLS) SPECIAL PROVISIONS.

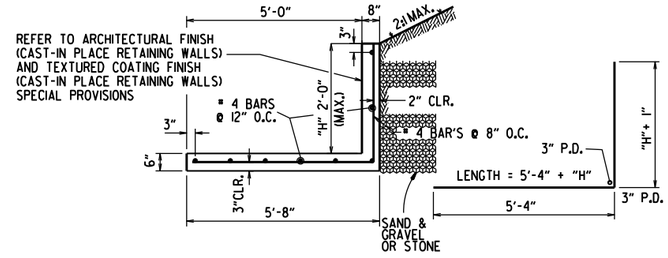
REINFORCING STEEL: ALL REINFORCING STEEL SHALL CONFORM TO AASHTO M31 OR M53, GRADE 60.

FOUNDATIONS FOR FOOTINGS SHALL BE PREPARED IN ACCORDANCE WITH SUBSECTION 801.04. BACKFILL FOR RETAINING WALLS SHALL BE IN ACCORDANCE WITH SUBSECTION 801.08.

WATERPROOF MEMBRANE (TYPE C), WATERSTOPS, PREFORMED JOINTS, PREFORMED JOINT FILLER, WEEP HOLES, CLASS 3 AGGREGATE, REINF. STEEL, CONCRETE, & GEOTEXTILE FABRIC SHALL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED SUBSIDIARY TO CONCRETE WALKS (TYPE SPECIAL).

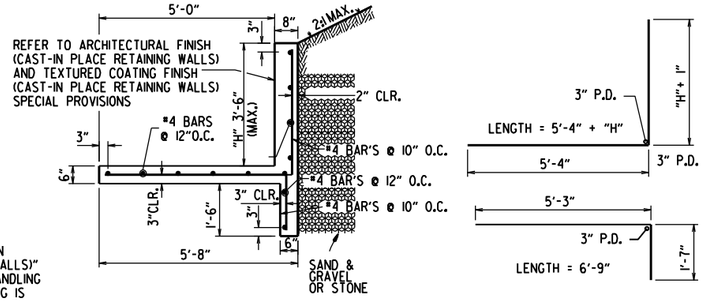
JOINTS IN THE WALL SHALL MATCH TYPE AND SPACING OF THE JOINTS IN THE WALK.

THESE DETAILS ARE NOT INTENDED FOR USE ALONG STREAMS OR DITCHES WITHOUT CONSIDERATION FOR SCOUR.



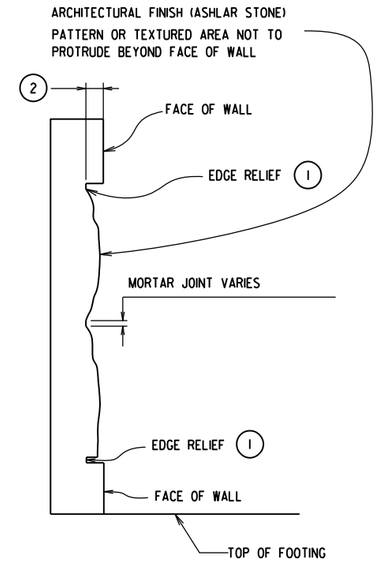
CONCRETE WALK (TYPE SPECIAL) DETAILS MAX HEIGHT 2'-0"

N.T.S.



CONCRETE WALK (TYPE SPECIAL) DETAILS MAX HEIGHT 3'-6"

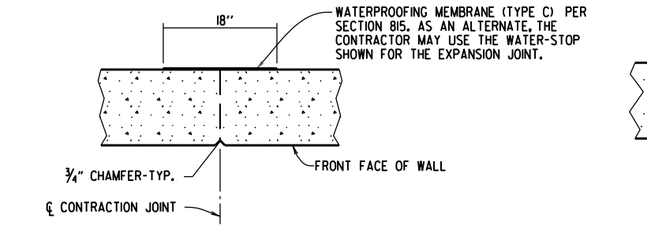
N.T.S.



ARCHITECTURAL FINISH DETAILS

N.T.S.

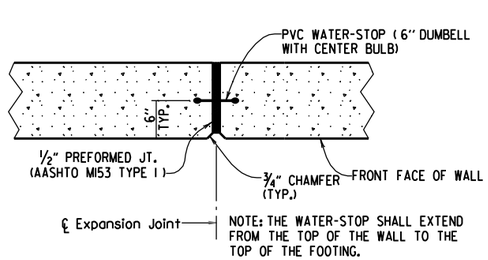
1. PROVIDE EDGE RELIEF AROUND PERIMETER OF TEXTURE. EDGE RELIEF DIMENSIONS SHALL MATCH MANUFACTURERS EDGE DISTANCE.
2. DEPTH OF ASHLAR STONE PATTERN APPROX. 1⅝". SEE SP "ARCHITECTURAL FINISH (CAST-IN PLACE RETAINING WALLS)".



TYPICAL CONTRACTION JOINT DETAIL

N.T.S.

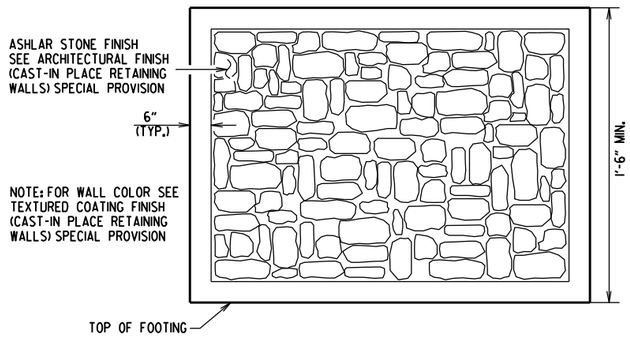
NOTE: 20'-0" MAX. SPACING BETWEEN CONTRACTION JOINTS. HORIZONTAL REINFORCEMENT SHALL BE CONTINUOUS THROUGH CONTRACTION JOINTS.



TYPICAL EXPANSION JOINT DETAIL

N.T.S.

NOTE: 60'-0" MAX. SPACING BETWEEN EXPANSION JOINTS. HORIZONTAL REINFORCING SHALL STOP 2" FROM ℄ EXPANSION JOINT.



ASHLAR STONE FINISH DETAIL

NOTES:

WALL PATTERN SHALL BE APPLIED TO THE EXPOSED SURFACES OF WALL IN ACCORDANCE WITH SP "ARCHITECTURAL FINISH (CAST-IN PLACE RETAINING WALLS)" AND AS SHOWN IN THE PLANS. CARE SHALL BE TAKEN WITH FORM LINER HANDLING AND INSTALLATION TO ENSURE AESTHETIC QUALITY OF THE WALL TEXTURING IS MAINTAINED. WHERE FORM LINER PANELS REQUIRE MODIFICATION TO CONFORM TO THE LOCATION, DIMENSIONS AND LINES SHOWN IN THE PLANS, THE CONTRACTOR SHALL PROVIDE EDGE RELIEF MATCHING THAT OF THE UNALTERED FORM LINER. PAYMENT FOR WALL TEXTURING SHALL BE IN ACCORDANCE WITH SP "ARCHITECTURAL FINISH (CAST-IN PLACE RETAINING WALLS)".

NO ADJUSTMENTS WILL BE MADE IN CONCRETE VOLUME DUE TO THE USE OF "ARCHITECTURAL FINISH". CLASS "S" CONCRETE SHALL BE MEASURED IN ACCORDANCE WITH SUBSECTION 802.24(A). CARE SHALL BE TAKEN IN PLACING CONCRETE TO AVOID SEGREGATION AND TO ELIMINATE FLOW LINES.

CLASS 3 TEXTURED COATING FINISH SHALL BE APPLIED TO WALL SURFACES AS SPECIFIED IN SP "TEXTURED COATING FINISH (CAST-IN PLACE RETAINING WALLS)" AND IN ACCORDANCE WITH SUBSECTION 802.19(B)(3).

DATE	REVISION	DATE FILMED
11-05-20	REVISED GENERAL NOTES	
5-14-20	DRAWING ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

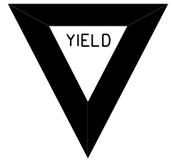
CONCRETE WALK (TYPE SPECIAL)

STANDARD DRAWING SI - 3

R1-1

STANDARD 30"X30"
EXPRESSWAY 36"X36"
SPECIAL 48"X48"

R1-2



STD. 36"X36"X36"
EXPWY. 48"X48"X48"
FWY. 60"X60"X60"

R2-1

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"

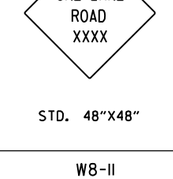
R4-1

STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R4-2

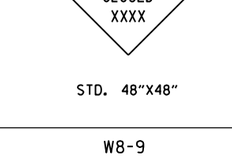
STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R5-1



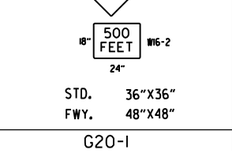
STD. 30"X30"
EXPWY. 36"X36"
SPECIAL 48"X48"

RII-2



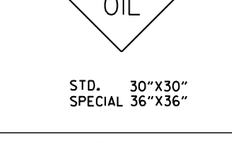
48"X30"

RII-3A



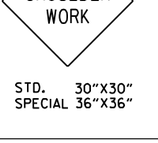
60"X30"

RII-4



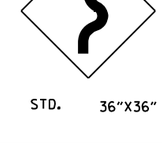
60"X30"

W21-5a



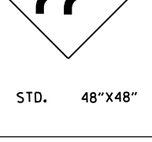
STD. 36"X36"
FWY. 48"X48"

WI-1



STD. 36"X36"
FWY. 48"X48"

WI-2

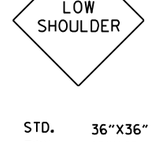


STD. 36"X36"
FWY. 48"X48"

WI-3

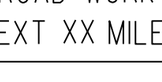
STD. 48"X48"

WI-4



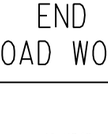
STD. 48"X48"

WI-6



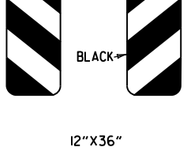
STD. 48"X24"
SPECIAL 60"X30"

WI-8



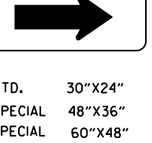
STD. 18"X24"
SPECIAL 24"X30"
EXPWY. 30"X36"
FWY. 36"X48"

W3-1



STD. 36"X36"
SPECIAL 48"X48"

W3-2



STD. 36"X36"
SPECIAL 48"X48"

W4-2

STD. 36"X36"
FWY. 48"X48"

W5-1

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"

WI3-1

STD. 24"X24"

W20-1

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

STD. 36"X36"
FWY. 48"X48"

W21-2

STD. 30"X30"
SPECIAL 36"X36"

W21-5

STD. 30"X30"
SPECIAL 36"X36"

W24-1

STD. 36"X36"

WI-4b

STD. 48"X48"

R56-1

STD. 18"X18"

W8-11

STD. 36"X36"
FWY. 48"X48"

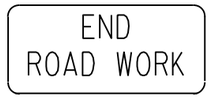
W8-9

STD. 36"X36"
FWY. 48"X48"

G20-1

60"X24"

G20-2



48"X24"

OM-3L OM-3R

12"X36"

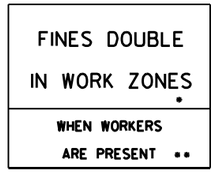
M4-9

STD. 30"X24"
SPECIAL 48"X36"
SPECIAL 60"X48"

M4-10

48"X18"

R55-1



36"X60"

• USE 6" C LETTERS
•• USE 4" D LETTERS

ADVANCE DISTANCES
(XXXX)

500 FT	½ MILE
1000 FT	¾ 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.

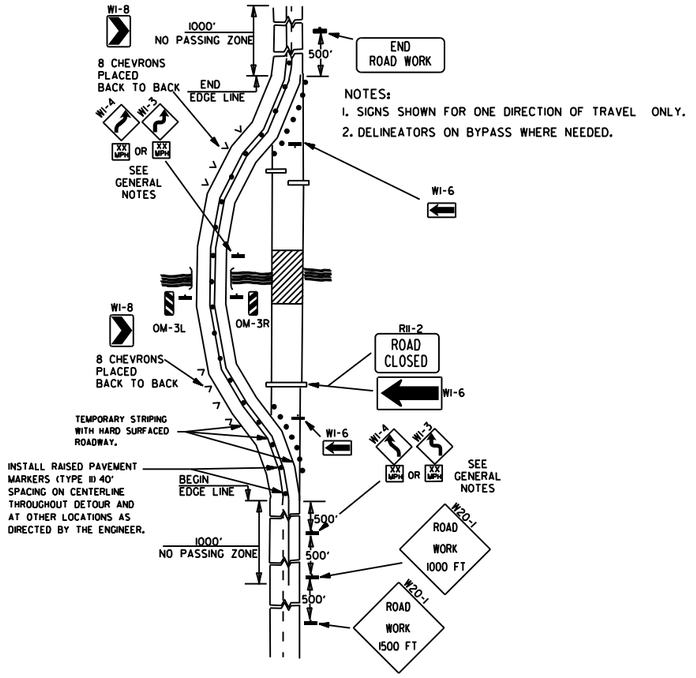
• NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) IS REQUIRED FOR ALL PROJECTS.

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

ARKANSAS STATE HIGHWAY COMMISSION

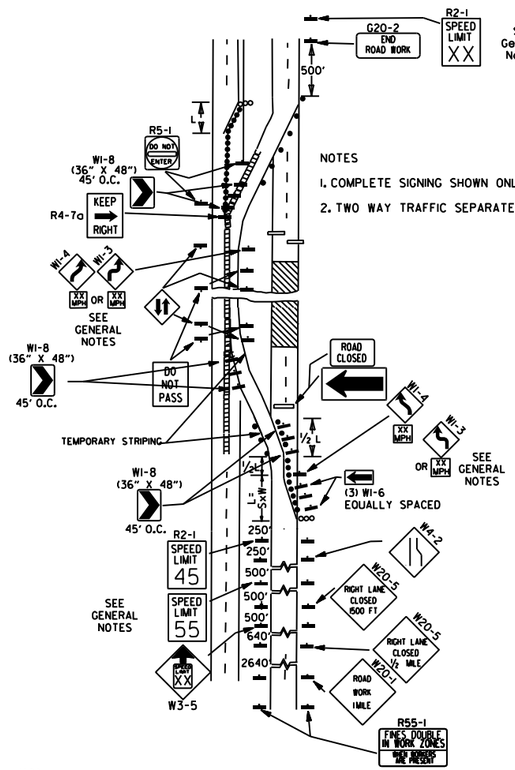
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-1



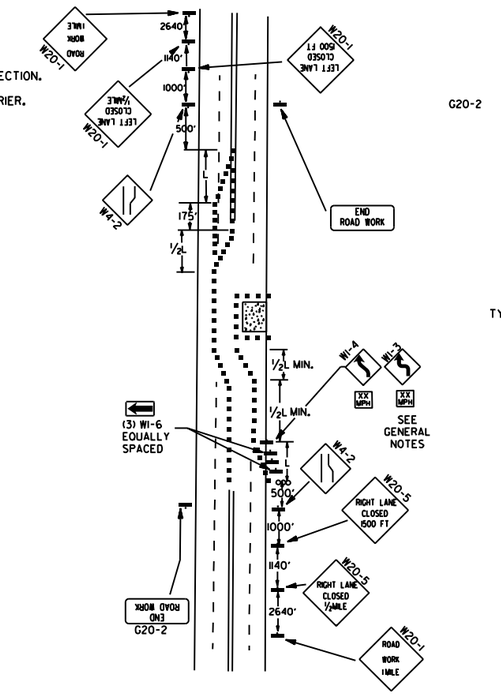
NOTES:
1. SIGNS SHOWN FOR ONE DIRECTION OF TRAVEL ONLY.
2. DELINEATORS ON BYPASS WHERE NEEDED.

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

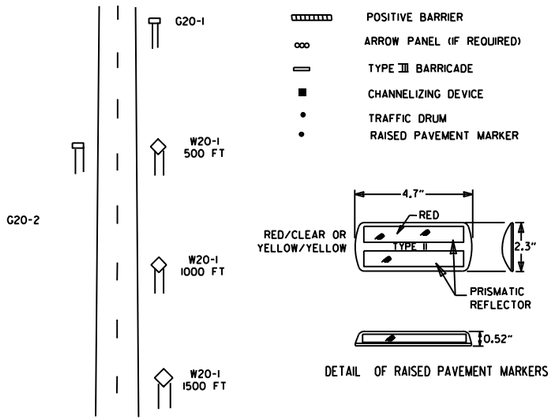


NOTES
1. COMPLETE SIGNING SHOWN ONLY IN CROSSOVER DIRECTION.
2. TWO WAY TRAFFIC SEPARATED WITH POSITIVE BARRIER.

(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.



DETAIL OF RAISED PAVEMENT MARKERS

TYPICAL ADVANCE WARNING SIGN PLACEMENT

TAPER FORMULAE:

L=SXW FOR SPEEDS OF 45MPH OR MORE.

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

WHERE:

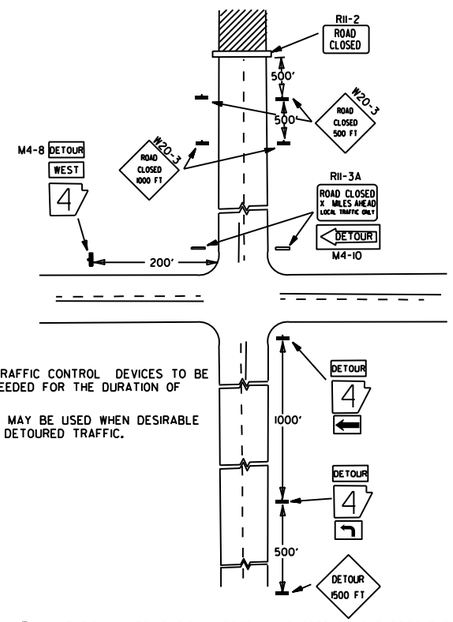
L= MINIMUM LENGTH OF TAPER.

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

W= WIDTH OF OFFSET.

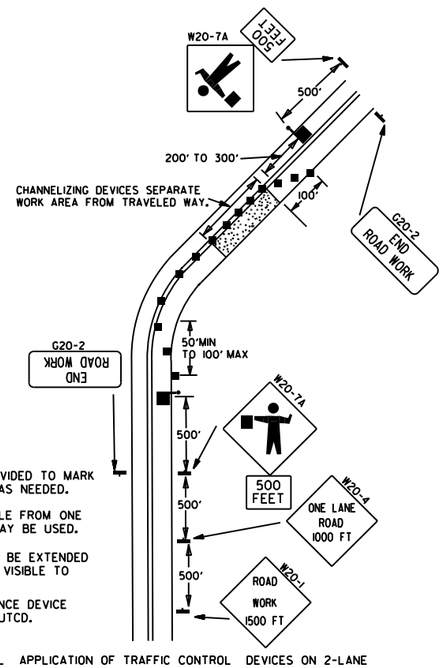
GENERAL NOTES:

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



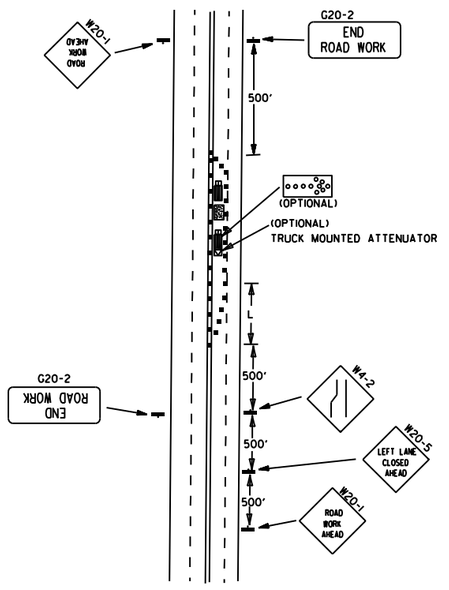
NOTES:
1. REGULATORY TRAFFIC CONTROL DEVICES TO BE MODIFIED AS NEEDED FOR THE DURATION OF THE DETOUR.
2. STREET NAMES MAY BE USED WHEN DESIRABLE FOR DIRECTING DETOURED TRAFFIC.

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



NOTES:
1. FLOOD LIGHTS SHOULD BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT AS NEEDED.
2. IF ENTIRE WORK AREA IS VISIBLE FROM ONE STATION, A SINGLE FLAGGER MAY BE USED.
3. CHANNELIZING DEVICES ARE TO BE EXTENDED TO A POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC.
4. AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD) OPTIONAL. REFER TO MUTCD.

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



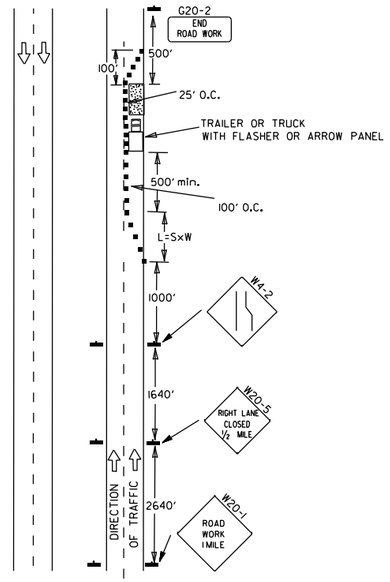
(F) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WITH INSIDE LANE CLOSED.

DATE	REVISION	FILMED
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 (c) BEHIND G20-2	
6-8-95	CORRECTED SIGN IDENT. ON W1-4A	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

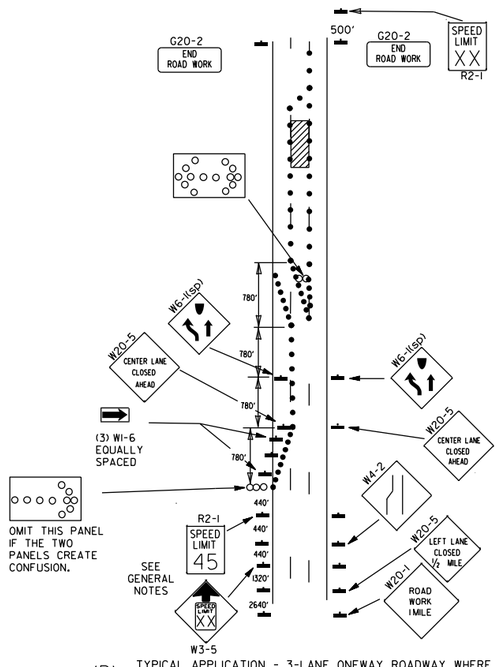
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-2



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



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

KEY:

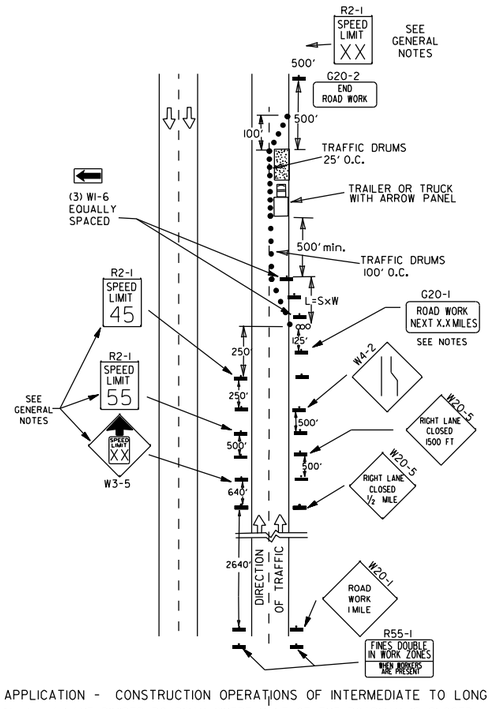
ooo ARROW PANEL (IF REQUIRED)

■ CHANNELIZING DEVICE

● TRAFFIC DRUM

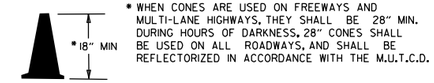
GENERAL NOTES:

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

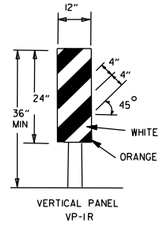


(C) TYPICAL APPLICATION - CONSTRUCTION OPERATIONS OF INTERMEDIATE TO LONG TERM DURATION ON A 4-LANE DIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.

CHANNELIZING DEVICES

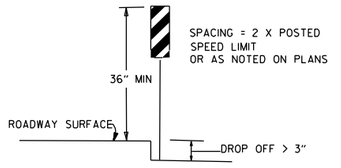


* WHEN CONES ARE USED ON FREEWAYS AND MULTI-LANE HIGHWAYS, THEY SHALL BE 28" MIN. DURING HOURS OF DARKNESS, 28" CONES SHALL BE USED ON ALL ROADWAYS, AND SHALL BE REFLECTORIZED IN ACCORDANCE WITH THE M.U.T.C.D.

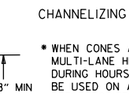


NOTE:
FOR ALL ROAD CLOSURES, THE TYPE III BARRICADES SHALL BE OF SUFFICIENT LENGTH TO EXTEND ACROSS ENTIRE ROADWAY.

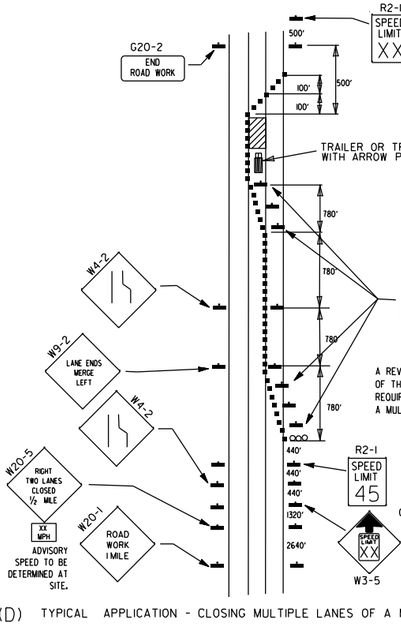
VERTICAL PANEL PLACEMENT



FLAG



FLAG SHALL BE OF GOOD GRADE RED MATERIAL



A REVIEW BY THE ROADWAY DESIGN DIVISION OF THE HIGHWAY DEPARTMENT WILL BE REQUIRED PRIOR TO IMPLEMENTING A MULTIPLE LANE CLOSURE.

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

TRAFFIC CONTROL DEVICES

NON-INTERSTATE			
VERTICAL DIFFERENTIAL	LOCATION	TRAFFIC CONTROL	
		≤ 45 MPH	> 45 MPH
≤ 1"	CENTERLINE	W8-11	W8-11
> 1" ≤ 3"	CENTERLINE	W8-11 AND CENTERLINE LANE STRIPING	W8-11 AND CENTERLINE LANE STRIPING
> 3"	CENTERLINE	STANDARD LANE CLOSURE[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" ≤ 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[1]
> 6" ≤ 18"	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" ≤ 24"	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[5]
> 24"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	PRECAST CONCRETE BARRIER[4] & EDGE LINES	PRECAST CONCRETE BARRIER[4] & EDGE LINES

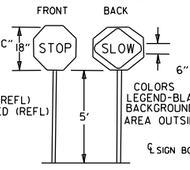
INTERSTATE		
VERTICAL DIFFERENTIAL	LOCATION	TRAFFIC CONTROL
≤ 3"	CENTERLINE	W8-11 AND LANE STRIPING
≤ 3"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-9, EDGE LINE STRIPING, AND TRAFFIC DRUMS[2]
> 3" ≤ 6"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS[2]
> 6"	EDGE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

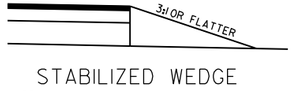
INTERSTATE AND NON-INTERSTATE		
FORESLOPE	HEIGHT	TRAFFIC CONTROL
1:1	> 2 FT	PRECAST CONCRETE BARRIER
2:1	≤ 5 FT	TRAFFIC DRUMS
2:1	> 5 FT	PRECAST CONCRETE BARRIER
Flatter than 2:1	N/A	TRAFFIC DRUMS

GENERAL NOTES:

1. WHEN THE SHOULDER AREA IS USED AS PART OF THE TRAVELED LANE AND THERE IS INSUFFICIENT WIDTH TO PLACE TRAFFIC DRUMS ON THE REMAINING SHOULDER WIDTH, THEN VERTICAL PANELS SHALL BE USED.
2. WHEN THERE IS INSUFFICIENT WIDTH TO PLACE TRAFFIC DRUMS ON THE REMAINING SHOULDER WIDTH, A STABILIZED WEDGE SHALL BE USED.
3. 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.
4. 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.
5. W21-5, W21-5a, AND/OR W21-5b SIGNS SHALL BE USED WHERE THE ROADWAY IS UNOBSTRUCTED IF AND WHERE DIRECTED BY THE ENGINEER.
6. TIME LIMITATIONS MUST CONFORM TO SECTION 603 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION).

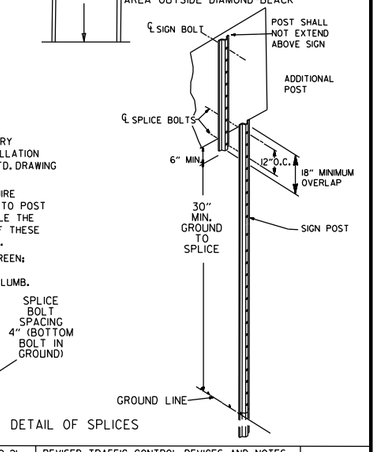
STOP SLOW PADDLE





STABILIZED WEDGE

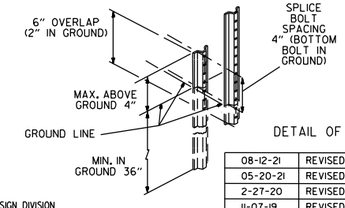
NOTE:
MATERIALS FOR THE STABILIZED WEDGE SHALL MEET THE REQUIREMENTS PROVIDED IN SECTION 603.02 OF THE STANDARD SPECIFICATIONS.



NOTES: USE SPLICES ONLY WHEN NECESSARY FOR INSTALLATION. TYPICAL INSTALLATION SHOULD HAVE NO SPLICES (SEE STD. DRAWING NO. SHS-21)

NORMAL INSTALLATIONS WILL REQUIRE 1/4" DIA. BOLTS TO MOUNT SIGNS TO POST AND 5/16" DIA. BOLTS TO ASSEMBLE THE VARIOUS POST SUPPORTS. EACH OF THESE BOLTS SHALL BE CARRIAGE BOLTS.

SIGN POSTS SHALL BE PAINTED GREEN; SIGNS SHALL NOT BE PAINTED, AND ALL SIGN POSTS SHALL BE PLUMB.



DETAIL OF SPLICES

DATE	REVISION	FILMED
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 W6-1& REVISED TRAFFIC CONTROL DEVICES NOTE	
10-18-96	ADDED R55-1	
10-12-95	MOVED UPPER SPLICE	
6-8-95	REVISED SPLICE DETAIL, TEXT	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

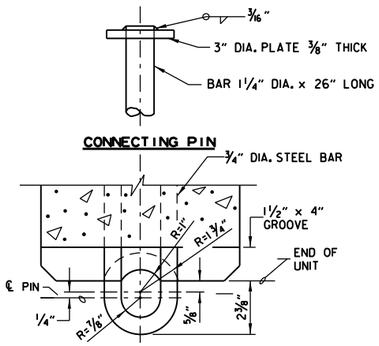
ARKANSAS STATE HIGHWAY COMMISSION

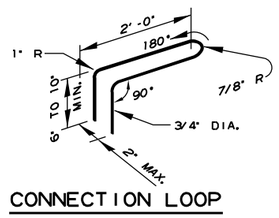
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

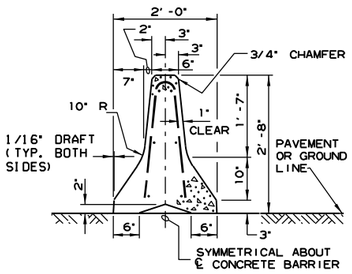
STANDARD DRAWING TC-3

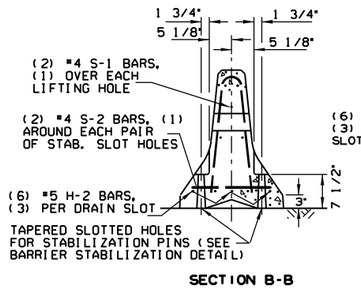
REINFORCING BAR TABLE PER BARRIER UNIT

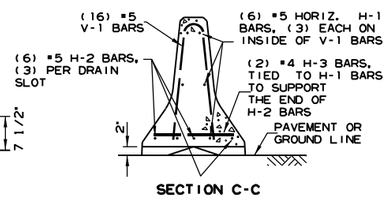
MARK	LOCATION	BAR SIZE	(NO. BARS)	SKETCH
H-1	HORIZONTAL IN BARRIER TIED INSIDE V-1 BARS	#5	(6)	19'-3"
H-2	CENTERED ABOVE DRAIN SLOTS LONG. & TRANSVERSELY	#5	(6)	6'-6"
H-3	TIED ABOVE H-1 BARS TO SUPPORT H-2. TIED TO V-1	#4	(2)	1'-6"
S-1	OVER LIFT HOLES	#4	(2)	2'-5", LIFTING HOLE, 90°, 3 3/8" R
S-2	HORIZ. AROUND SLOTS BETWEEN V-1'S @ DRAIN SLOTS	#4	(2)	1 1/2" R, SLOTS, 7", 1'-6", 1" MIN. CLEAR TO BAR; 5'-1" BAR W/(4) 1 1/2" R BENDS & MIN. 1'-0" OVERLAP
V-1	VERTICAL IN BARRIER(3) EACH END & (2) AT EACH DRAIN SLOTS	#5	(16)	TOTAL LENGTH 4'-9", 2 3/16" R, 12°, 9 1/2", 2'-1 3/8", 4 3/8"

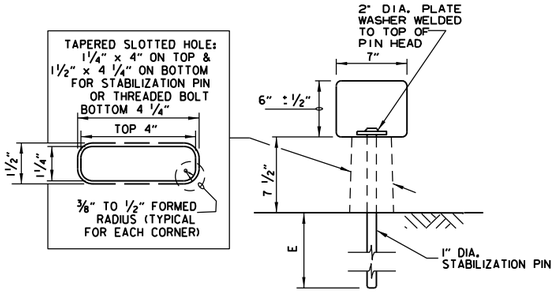




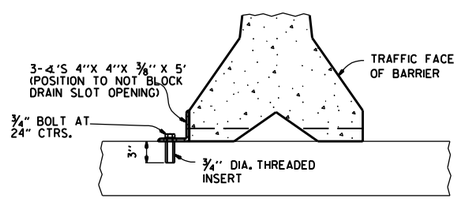






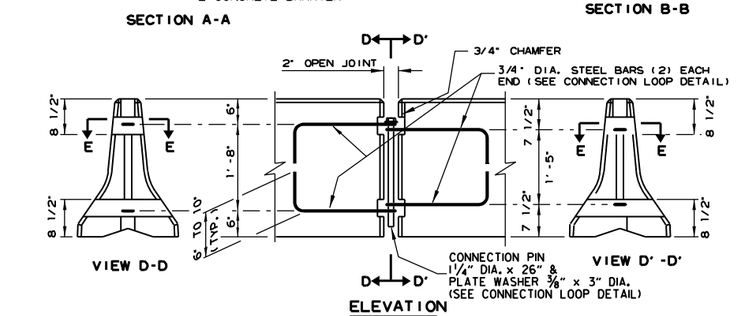


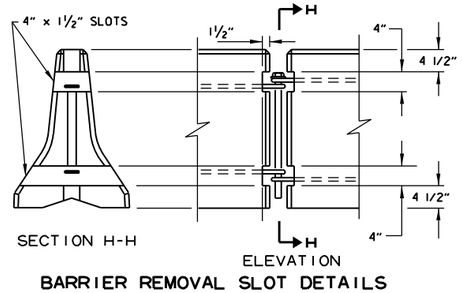
Ⓔ 4" - CONCRETE PAVEMENT
8" - ASPHALT PAVEMENT
12" - SHOULDER AREAS

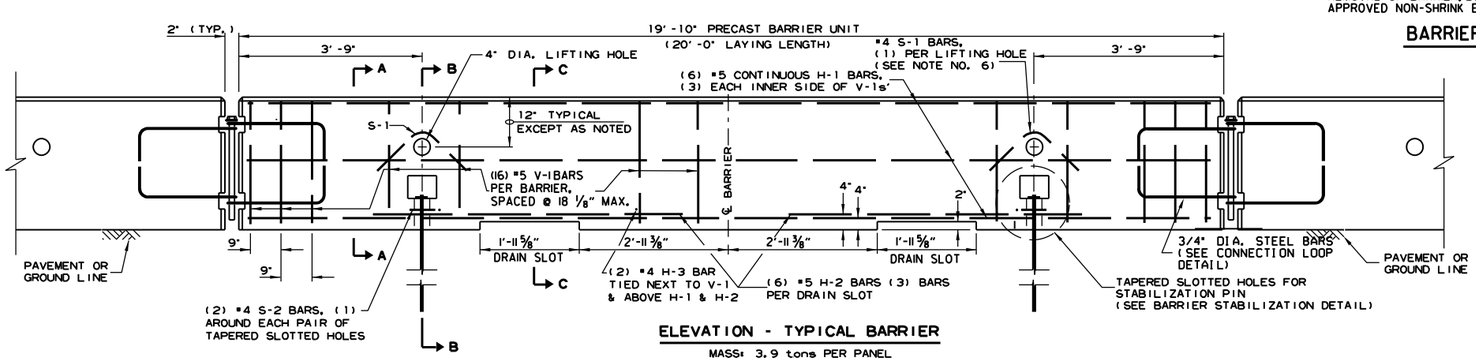


NOTE: " THREADED INSERTS SHALL BE CAST IN PLACE FOR ALL NEW BRIDGE DECKS AND DRILLED AND GROUTED FOR EXISTING BRIDGE DECKS. INSERTS SHALL HAVE A MINIMUM ULTIMATE LOAD CAPACITY OF 8000 LBS. IN TENSION. AFTER REMOVAL OF BARRIER, BOLTS, AND ANGLES, THE INSERTS SHALL BE FILLED WITH APPROVED NON-SHRINK EPOXY.

BARRIER STABILIZATION DETAIL
BRIDGE DECKS







GENERAL NOTES

1. THE CONTRACTOR SHALL FURNISH THE PRECAST CONCRETE BARRIER UNITS AND SHALL BE RESPONSIBLE FOR THE MANUFACTURE, SHIPMENT, STORAGE, PLACEMENT AND REMOVAL. AT THE COMPLETION OF THE PROJECT, THE PRECAST UNITS WILL REMAIN THE PROPERTY OF THE CONTRACTOR.

2. MATERIALS SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS:
   CONCRETE: 2500 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
   REINFORCING STEEL: AASHTO M 31 OR M 53, GRADE 60
   STRUCTURAL STEEL: AASHTO-M270 GRADE 36 SHALL BE USED FOR THE CONNECTION PIN, CONNECTION LOOPS, AND STABILIZATION PINS. A ONE PIECE PIN WITH A 3" ROUNDED TOP MAY BE USED IN PLACE OF THE DETAILED CONNECTION PIN.
   DELINEATORS: DELINEATORS SHALL BE MOUNTED AT 10' SPACING ON TOP OF PRECAST BARRIER.

   IN APPLICATIONS WHERE BARRIER WALL IS WITHIN 6 FEET OF A TRAFFIC LANE, ADDITIONAL DELINEATORS SHALL BE PLACED ON THE BARRIER AT 10' SPACING APPROXIMATELY ONE (1) FOOT FROM THE TOP OF THE BARRIER. DELINEATORS SHALL BE ON THE ARDOT QUALIFIED PRODUCTS LIST FOR CONSTRUCTION CONCRETE BARRIER MARKERS.
   DELINEATOR COLOR SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
   PAYMENT FOR DELINEATORS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID PER LIN. FT. FOR "FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER". THE CONTRACTOR SHALL CERTIFY TO THE ENGINEER THAT THE MATERIAL AND THE DESIGN USED IN THE PRECAST BARRIER UNITS MEETS THE REQUIREMENTS AS SHOWN ON THIS STANDARD DRAWING.

3. OTHER PRECAST CONCRETE BARRIERS THAT HAVE BEEN CRASH TESTED AND APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION TO MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) WILL BE ACCEPTED IN LIEU OF THE BARRIER SHOWN. DRAIN SLOTS SHALL BE PROVIDED AS NEEDED OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH A CERTIFICATION OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) COMPLIANCE FOR ANY OTHER TYPES OF PRECAST BARRIER TO BE USED. THE CERTIFICATION SHALL STATE THAT THE PRECAST CONCRETE BARRIER MEETS THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH). MIXING OF SHAPES WILL NOT BE ALLOWED IN A CONTINUOUS LINE OF UNITS.

4. DOWEL HOLES IN PAVEMENT OR BRIDGE SLABS THAT ARE TO REMAIN IN PLACE SHALL BE FILLED. HOLES IN CONCRETE PAVEMENT AND BRIDGE SLABS SHALL BE FILLED WITH AN APPROVED NON-SHRINK EPOXY GROUT. HOLES IN ASPHALT PAVEMENT SHALL BE FILLED WITH AN APPROVED ASPHALT JOINT FILLER. PAYMENT FOR DRILLING AND FILLING HOLES TO BE INCLUDED IN THE PRICE FOR VARIOUS BARRIER ITEMS.

5. ATTACH UNITS TO ROADWAY SURFACE WITH STABILIZATION PINS AND TO DECK SLABS USING BOLTS WHEN REQUIRED.

6. A 4" WHITE PVC SLEEVE MAY BE USED TO FORM THE LIFTING HOLE AND IF USED THE SLEEVE IS TO BE LEFT IN PLACE.

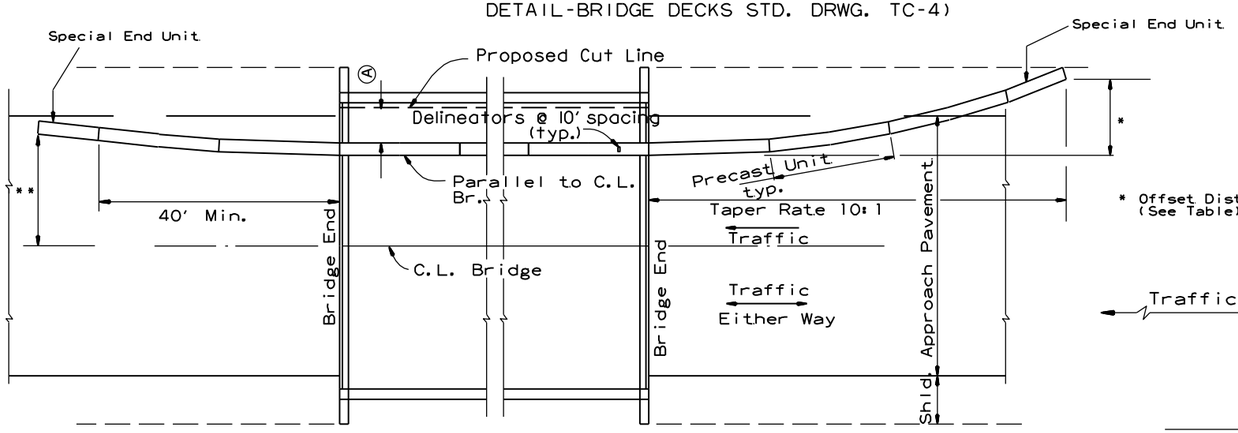
DATE	REVISION	FILMED
11-07-19	REVISED NOTE 3	
2-27-14	REVISED BARRIER STABILIZATION DETAIL	
10-15-09	ADDED REFERENCE TO MASH	
8-5-09	REV. NOTE 3 CONCERNING DRAIN SLOTS	
11-29-07	REVISED NOTE 3	
5-25-06	DELETED GENERAL NOTE 7	
11-18-04	REVISED BARRIER STABILIZATION DETAIL BRIDGE DECKS	
4-10-03	REVISED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

ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

STANDARD DRAWING TC-4

Ⓐ 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)

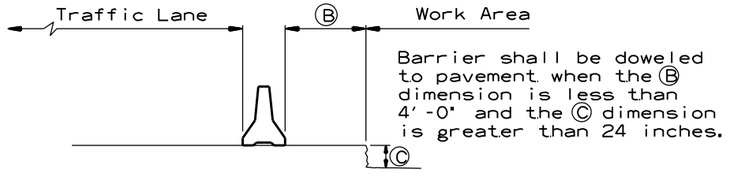


BARRIER PLACEMENT ALONG BRIDGE WITH OFFSET

No Scale

* Offset Distance (See Table)

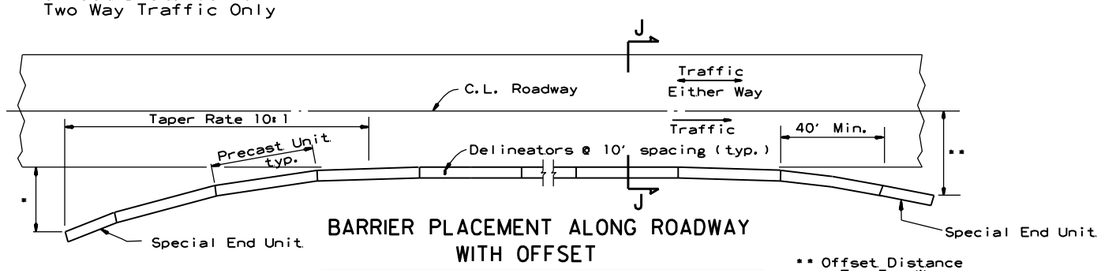
** Offset Distance for Two Way Traffic Only



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

SECTION J-J

No Scale



BARRIER PLACEMENT ALONG ROADWAY WITH OFFSET

No Scale

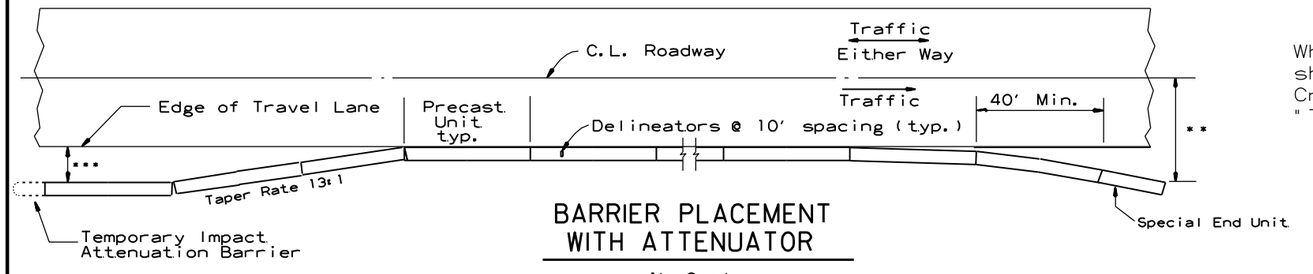
* Offset Distance (See Table)

** 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.

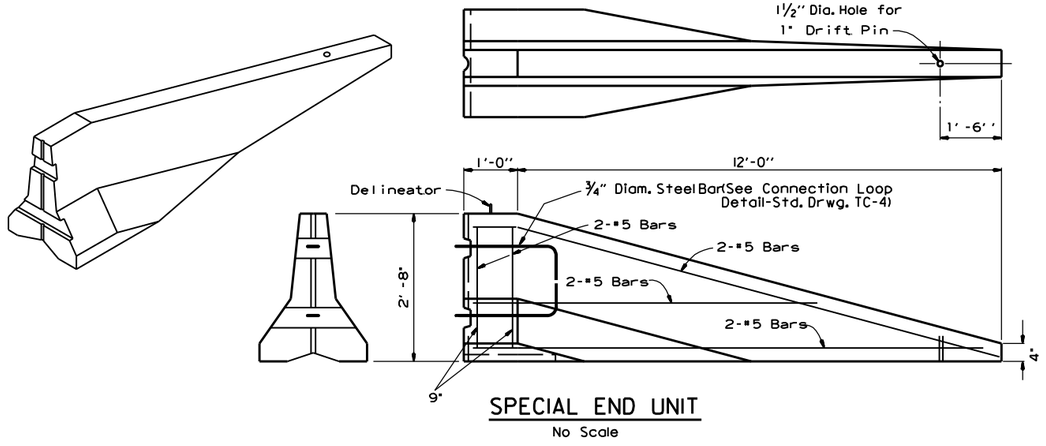


BARRIER PLACEMENT WITH ATTENUATOR

No Scale

** Offset Distance For Two Way Traffic Only

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



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."

DATE	REVISION	FILMED
11-07-19	REVISED NOTE	
10-15-09	ADDED REFERENCE TO MASH	
5-25-06	REVISED BARRIER PLACEMENT	
8-22-02	ISSUED NEW DRAWING	

ARKANSAS STATE HIGHWAY COMMISSION

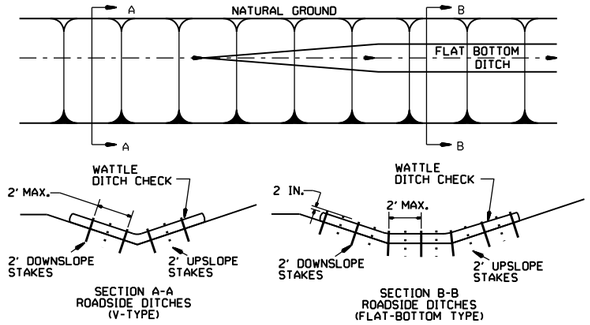
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

STANDARD DRAWING TC-5

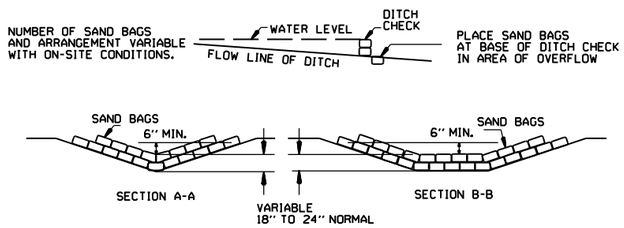
WATTLE DITCH CHECK (E-1)

GENERAL NOTES

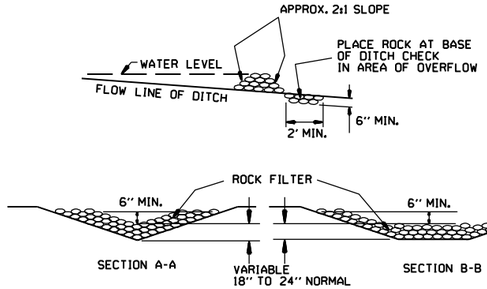
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.



SAND BAG DITCH CHECK (E-5)



ROCK DITCH CHECK (E-6)

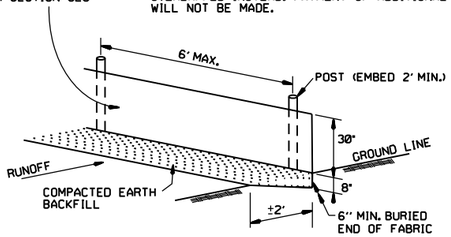


SILT FENCE (E-11)

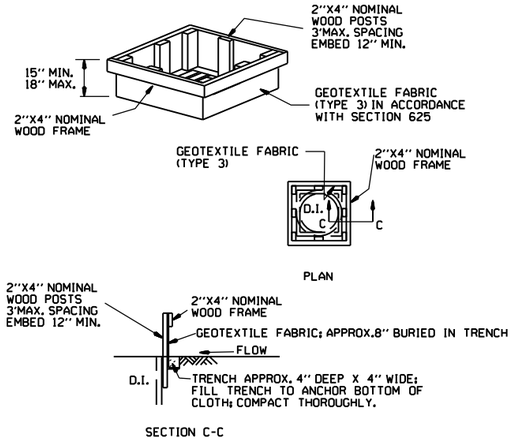
GENERAL NOTES

GEOTEXTILE FABRIC (TYPE 4) IN ACCORDANCE WITH SECTION 625

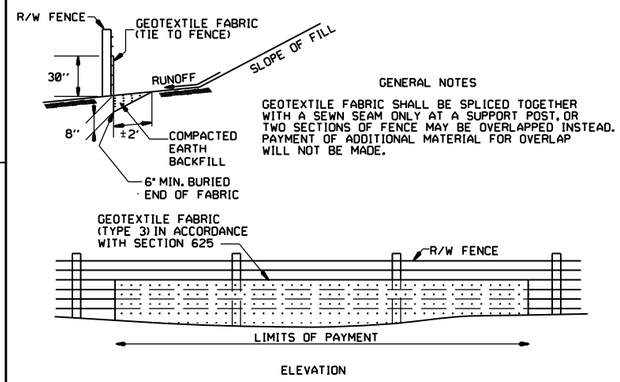
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.



DROP INLET SILT FENCE (E-7)



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



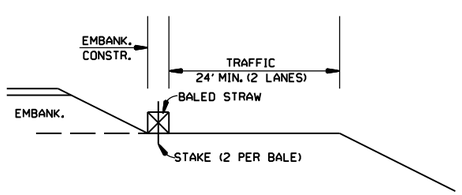
BALED STRAW FILTER BARRIER (E-2)

GENERAL NOTES

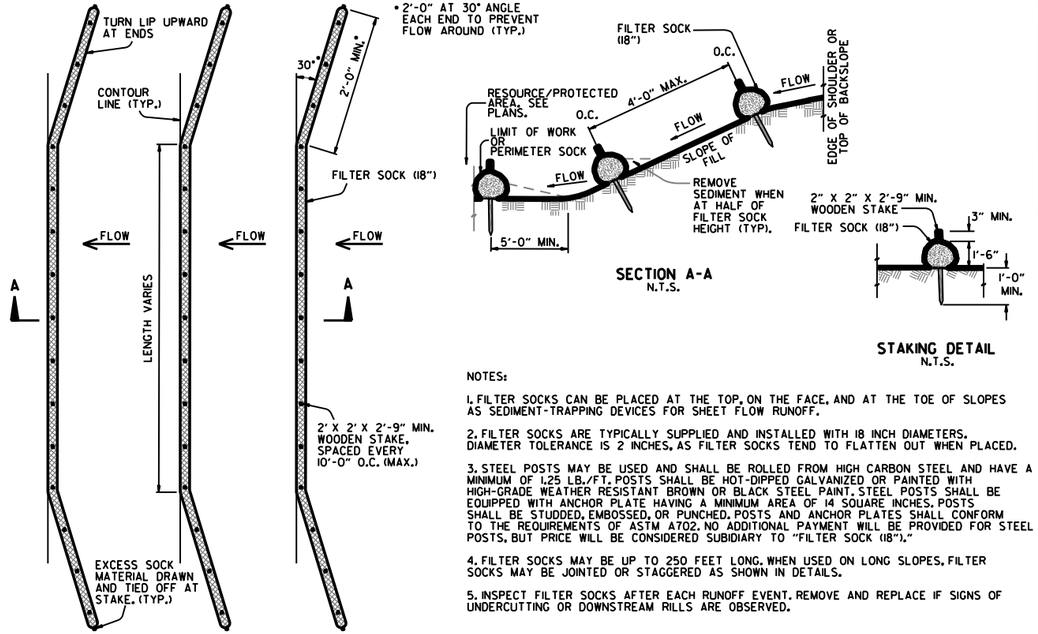
1. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES. THE BALES SHALL BE A MINIMUM OF 30 INCHES IN LENGTH.

2. NO GAPS SHALL BE LEFT BETWEEN BALES.

3. BALED STRAW FILTER BARRIERS COMPLETED AND ACCEPTED WILL BE MEASURED BY THE BALE IN PLACE AS AUTHORIZED BY THE ENGINEER AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER BALE FOR BALED STRAW DITCH CHECKS.



FILTER SOCK ALONG SLOPE (E-3)



NOTES:

1. FILTER SOCKS CAN BE PLACED AT THE TOP, ON THE FACE, AND AT THE TOE OF SLOPES AS SEDIMENT-TRAPPING DEVICES FOR SHEET FLOW RUNOFF.

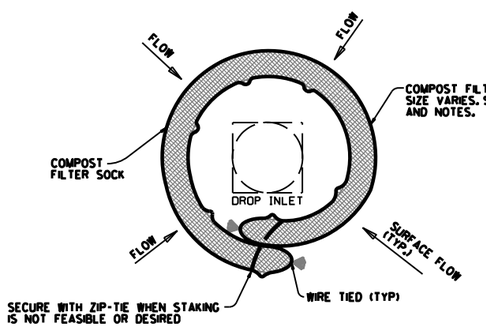
2. FILTER SOCKS ARE TYPICALLY SUPPLIED AND INSTALLED WITH 18 INCH DIAMETERS. DIAMETER TOLERANCE IS 2 INCHES, AS FILTER SOCKS TEND TO FLATTEN OUT WHEN PLACED.

3. STEEL POSTS MAY BE USED AND SHALL BE ROLLED FROM HIGH CARBON STEEL AND HAVE A MINIMUM OF 1.25 LB./FT. POSTS SHALL BE HOT-DIPPED GALVANIZED OR PAINTED WITH HIGH-GRADE WEATHER RESISTANT BROWN OR BLACK STEEL PAINT. STEEL POSTS SHALL BE EQUIPPED WITH ANCHOR PLATE HAVING A MINIMUM AREA OF 14 SQUARE INCHES. POSTS SHALL BE STUDDED, EMBOSSED, OR PUNCHED. POSTS AND ANCHOR PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A702. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR STEEL POSTS, BUT PRICE WILL BE CONSIDERED SUBIDIARY TO "FILTER SOCK (18")."

4. FILTER SOCKS MAY BE UP TO 250 FEET LONG. WHEN USED ON LONG SLOPES, FILTER SOCKS MAY BE JOINTED OR STAGGERED AS SHOWN IN DETAILS.

5. INSPECT FILTER SOCKS AFTER EACH RUNOFF EVENT. REMOVE AND REPLACE IF SIGNS OF UNDERCUTTING OR DOWNSTREAM RILLS ARE OBSERVED.

COMPOST FILTER SOCK DROP INLET PROTECTION (E-13)



NOTES:

1. OVERLAP ENDS OF SOCK (1' MIN. 3' MAX.).

2. USE 18" DIA. SOCK IN NON-TRAFFIC AREAS OR AREAS WHERE SAFETY IS NOT A CONCERN.

DATE	REVISION	FILMED
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

ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

STANDARD DRAWING TEC-1

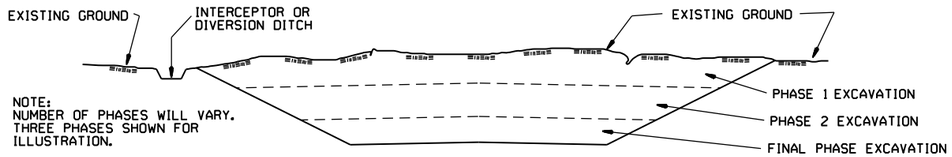
CLEARING AND GRUBBING

CONSTRUCTION SEQUENCE

1. PLACE PERIMETER CONTROLS (I.E. SILT FENCES , DIVERSION DITCHES, SEDIMENT BASINS, ETC.)

2. PERFORM CLEARING AND GRUBBING OPERATION.

EXCAVATION



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

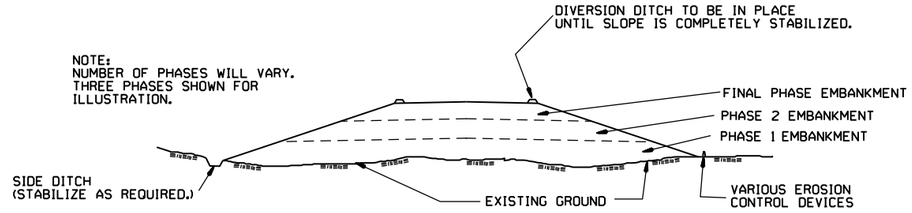
1. EXCAVATE AND STABILIZE INTERCEPTOR AND/OR DIVERSION DITCHES.

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.

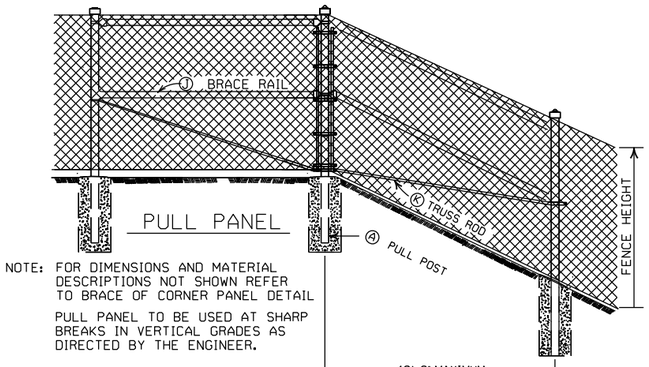
4. PLACE FINAL PHASE OF EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PLACE DIVERSION DITCHES AND SLOPE DRAINS AND MAINTAIN UNTIL ENTIRE SLOPE IS STABILIZED.

DATE	REVISION	FILMED
11-03-94	CORRECTED SPELLING	
6-2-94	Drawn & Issued	6-2-94

ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

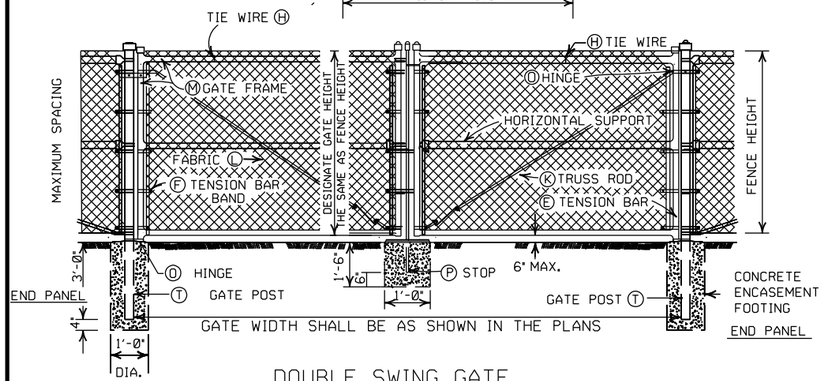
STANDARD DRAWING TEC-3



PULL PANEL

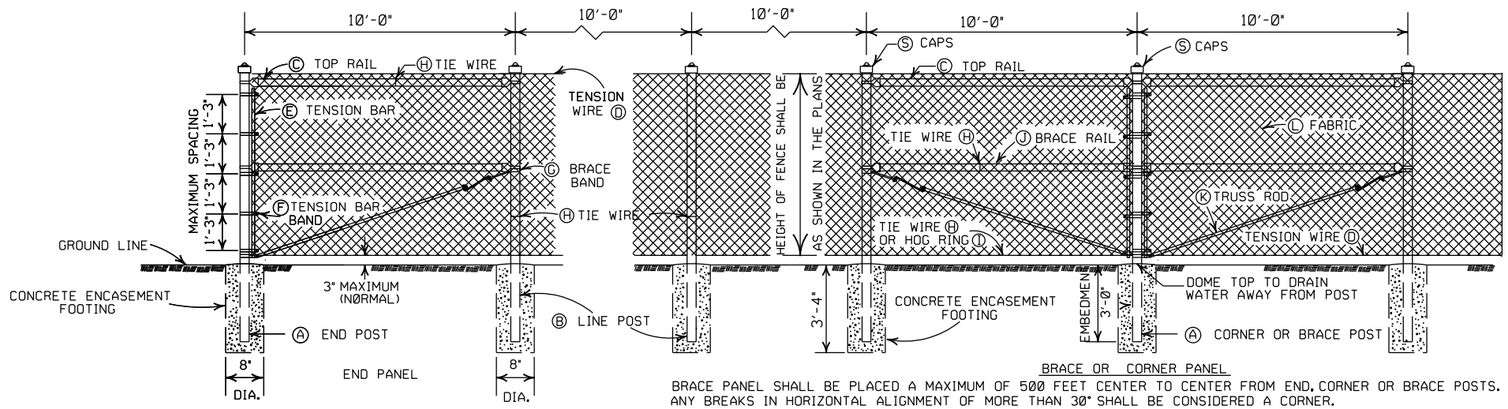
NOTE: FOR DIMENSIONS AND MATERIAL DESCRIPTIONS NOT SHOWN REFER TO BRACE OF CORNER PANEL DETAIL

PULL PANEL TO BE USED AT SHARP BREAKS IN VERTICAL GRADES AS DIRECTED BY THE ENGINEER.



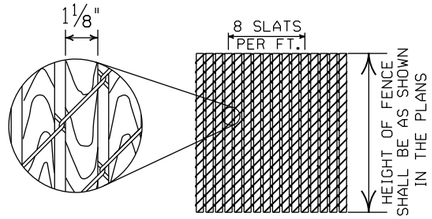
DOUBLE SWING GATE

POST SPACING DETAIL



BRACE OR CORNER PANEL

BRACE PANEL SHALL BE PLACED A MAXIMUM OF 500 FEET CENTER TO CENTER FROM END, CORNER OR BRACE POSTS. ANY BREAKS IN HORIZONTAL ALIGNMENT OF MORE THAN 30° SHALL BE CONSIDERED A CORNER.



1⅛" X ¼" REDWOOD SLATS(LENGTH TO MATCH HEIGHT OF FENCE)

DETAIL OF REDWOOD SLAT INSTALLATION

(WHERE APPLICABLE)

GENERAL NOTES:

(C) CHAIN LINK FENCE BEING PLACED ON PRIVATE PROPERTY SHALL INCLUDE A TOP RAIL. ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER LIN. FT. OF CHAIN LINK FENCE.

(D) TENSION WIRE: SHALL BE SECURED TO ALL TERMINAL, PULL, BRACE OR CORNER POSTS WITH TENSION BAR BANDS.

(J) BRACE RAIL: BRACE RAILS SHALL BE PROVIDED AT ALL TERMINAL, PULL, BRACE OR CORNER POSTS HALFWAY BETWEEN THE TOP RAIL AND GROUND LEVEL WHEN TOPRAIL IS SPECIFIED AND TWELVE INCHES (12") DOWN FROM TOP OF FABRIC WHEN TOP TENSION WIRE IS SPECIFIED. BRACE RAIL SHALL EXTEND FROM SUCH POST TO THE FIRST ADJACENT LINE POST.

(L) FABRIC: SHALL CONFORM TO THE SPECIFICATIONS.

(M) GATE FRAMES: SHALL BE CONSTRUCTED OF TUBULAR MEMBERS ASSEMBLED BY USE OF HEAVY PRESSED STEEL, MALLEABLE FITTINGS OR BY WELDING. ALL GATES SHALL HAVE ONE HORIZONTAL SUPPORT EXTENDING THE WIDTH OF THE GATE AT THE MIDPOINTS OF VERTICAL FRAME MEMBERS. THE COMPLETE FRAME SHALL BE RIGID AND HAVE AMPLE STRENGTH TO BE FREE FROM SAG AND TWIST.

(O) HINGES: SHALL BE OF HEAVY PATTERN, OF ADEQUATE STRENGTH FOR GATE, AND WITH LARGE BEARING SURFACES FOR CLAMPING IN POSITION. THE HINGE SHALL BE OF THE PROPER TYPE TO ALLOW FOR THE DESIGNATED DEGREE OF SWING. THE HINGE SHALL NOT TWIST OR TURN UNDER THE ACTION OF THE GATE. THE GATES SHALL BE CAPABLE OF BEING OPENED AND CLOSED EASILY BY ONE PERSON.

(P) LATCHES AND STOPS: SHALL BE PROVIDED FOR ALL GATES. GATES SHALL HAVE A DROP BAR LATCH. LATCHES SHALL BE ARRANGED FOR LOCKING. THE STOP FOR DROP BAR LATCHES SHALL BE SET IN CONCRETE AND ENGAGE THE PLUNGER OF THE BAR LATCH.

(S) CAPS: ALL POSTS, EXCEPT ROLL FORMED POSTS AND 'T' POSTS SHALL BE CAPPED OVER THE EXTERIOR OF THE POST, AND SHALL CONFORM TO ASTM F626.

CONCRETE REQUIRED FOR THE EMBEDMENT OF ALL POSTS SHALL NOT BE PAID FOR DIRECTLY BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR CHAIN LINK FENCE.

POSTS SHALL BE SPACED EQUIDISTANT ON A MAXIMUM OF 10' CENTERS.

EXCAVATION FOR POSTS: IN OTHER THAN ROCK SHALL BE OF THE DIMENSIONS INDICATED. IF ROCK IS ENCOUNTERED BEFORE REACHING THE REQUIRED DEPTH, THE EXCAVATION SHALL BE CONTINUED TO THE DEPTH INDICATED OR 1'-6" INTO THE ROCK, WHICHEVER IS LESS, AND SHALL BE A MINIMUM OF 8 INCHES IN DIAMETER.

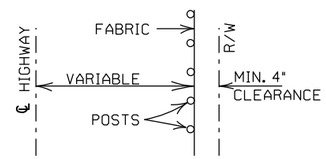
HEIGHT OF FENCE FABRIC	(A) END, PULL, CORNER OR BRACE POST	(B) LINE POSTS		(C) TOP RAIL			(D) TENSION WIRE		(E) TENSION BAR		(F) TENSION BAR BAND			(G) BRACE BAND	
		SIZE	TIE SPACING	SIZE	TIE SPACING	MIN. LENGTH	SIZE	TIE SPACING	SIZE	LENGTH	SIZE	BOLT SIZE	SPACING	SIZE	BOLT SIZE
6' AND LESS	2½" O.D.	2" O.D.	1 TIE EVERY 1'-2" OF FABRIC HEIGHT	1⅝" O.D.	1 TIE EVERY 2'-0"	10'-0"	7 GAUGE COIL SPRING WIRE	1 TIE EVERY 1'-0"	MIN. OF 3/16" X ¾"	MIN. OF 2" LESS THAN FABRIC HEIGHT	MIN. OF ¾" X 0.074	5/16" X 1¼"	1 BAND AT TOP AND BOTTOM 15" MAX. INTERVAL BETWEEN BANDS	MIN. OF ¾" X 0.105	5/16" X 1¼"
OVER 6' TO 12' INCL.	3 " O.D.	2½" O.D.													

HEIGHT OF FENCE FABRIC	(H) TIE WIRE	(I) HOG RING	(J) BRACE RAIL SIZE	(J) BRACE RAIL TIE SPACING	(K) TRUSS ROD	(L) FABRIC SIZE	(L) FABRIC MESH	(L) FABRIC SELVAGE	(M) GATE FRAME SIZE	(M) GATE FRAME TIE SPACING	(N) HORIZONTAL SUPPORT SIZE	(N) HORIZONTAL SUPPORT TIE SPACING	(O) HINGE TYPE 180° SWING	(T) GATE POST GATE WIDTH 12' AND LESS	(T) GATE POST GATE WIDTH OVER 12' TO 24' INCL.
6' AND LESS	MIN. OF 12 GA. STEEL OR 9 GA. ALUM.	SAME GAUGE AS FABRIC	1⅞" O.D.	1 TIE EVERY 2'-0"	MIN. OF 5/16" ROUND WITH TIGHTNERS AND FITTINGS	9 GA.	2"	KNUCK -ING AND/OR TWIST -ING	2" O.D.	1 TIE EVERY 1'-0"	2" O.D.	1 TIE EVERY 1'-0"	OFFSET	3" O.D.	4" O.D.
OVER 6' TO 12' INCL.														4" O.D.	

NOTE: POST SIZES SHOWN ARE FOR STEEL. WHERE ALUMINUM IS PROVIDED, LINE POSTS SHALL HAVE AN OUT SIDE DIAMETER OF 2½" FOR FENCE HEIGHT OF 6' AND LESS, AN OUTSIDE DIAMETER OF 3" FOR FENCE HEIGHT OF 6' TO 12'. END, PULL, CORNER OR BRACE POSTS SHALL HAVE AN OUTSIDE DIAMETER OF 3" FOR FENCE HEIGHT OF 6' AND LESS; AN OUTSIDE DIAMETER OF 3½" FOR FENCE HEIGHTS OF 6' TO 12'. GATE POSTS WHERE GATE WIDTH IS 12' AND LESS SHALL HAVE AN OUTSIDE DIAMETER OF 3½" FOR FENCE HEIGHT OF 6' AND LESS. ALUMINUM TENSION WIRE SHALL BE 0.192" IN DIAMETER. MINIMUM THICKNESS OF MATERIAL FROM WHICH EXPANSION SLEEVES SHALL BE MADE WILL BE 0.078". POSTS AND RAILS MAY HAVE ANY CROSS-SECTIONAL SHAPE THAT WILL MEET THE SPECIFICATIONS.

OTHER DETAILS APPLY TO BOTH STEEL AND ALUMINUM FENCE.

ALL MISCELLANEOUS FITTINGS AND HARDWARE SHALL MEET THE REQUIREMENTS AND PRODUCTION TOLERANCES AS SET FORTH IN THE SPECIFICATIONS. 9 GAUGE ALUMINUM WIRE SHALL BE ACCEPTABLE FOR TIEING FABRIC TO TUBULAR AND ROLL FORMED MEMBERS OF STEEL FENCE.



INSTALLATION MAY BE MODIFIED AS SHOWN IN THE PLANS

TYPICAL INSTALLATION DIAGRAM

POSTS AND RAILS

SIZE O.D.	GRADE 1 AND ALUMINUM ALLOY O.D. INCHES	WALL THICKNESS	LBS. PER LINEAR FT. STEEL	LBS. PER LINEAR FT. ALUMINUM	GRADE 2 O.D. INCHES	WALL THICKNESS	LBS. PER LINEAR FT.
1⅝	1.660	0.140	2.27	0.786	1.660	0.111	1.84
2	1.900	0.145	2.72	0.940	1.900	0.120	2.28
2½	2.375	0.154	3.65	1.264	2.375	0.130	3.11
3	2.875	0.203	5.79	2.004	2.875	0.160	4.64
3½	3.500	0.216	7.58	2.621	3.500	0.160	5.71
4	4.000	0.226	9.11	3.151	4.000	0.160	6.56

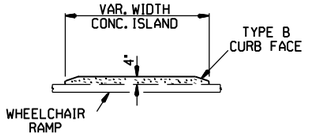
TOLERANCES ON DIMENSIONS AND WEIGHTS ACCORDING TO AASHTO M 181

DATE	REVISION	FILMED
11-17-10	REVISED TRUSS ROD	
12-10-09	REVISED POSTS & RAILS TABLE	
5-21-09	ADDED TABLE & GEN. NOTE (C)	
8-22-02	REVISED NOTES, REMOVED TABLE, & REMOVED FENCE ALTERNATE	
4-3-97	REVISED BRACE RAIL NOTE	
10-18-96	REVISED AASHTO & ASTM REF.	
11-3-94	REVISED NOTE (L)	
10-1-92	DELETED ALTERNATE POST	10-1-92
8-15-91	DELETED ROLL FORMED POST DETAIL & ADDED NOTE	8-15-91 8-15-91
11-30-89	DELETED CLASS CONCRETE	11-30-89
11-17-88	REVISED O.D. SIZES	668-11-17-88
10-30-87	GENERAL REVISIONS	548-10-30-87
4-20-79	REVISED TOP RAIL & TENSION WIRE	695-4-20-79
10-2-72	REVISED AND REDRAWN	530-10-2-72

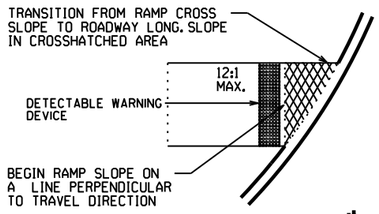
ARKANSAS STATE HIGHWAY COMMISSION

CHAIN LINK FENCE

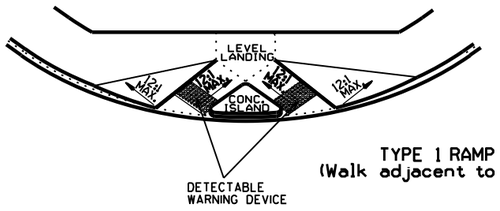
STANDARD DRAWING WF-3



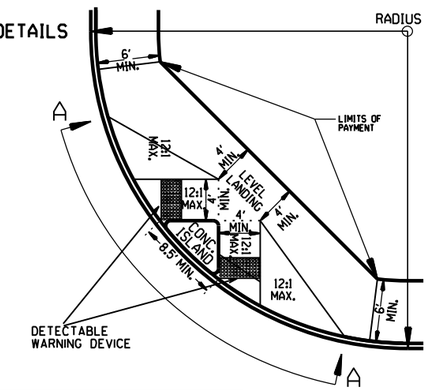
CONCRETE ISLAND DETAIL



SLOPE TRANSITION DETAILS



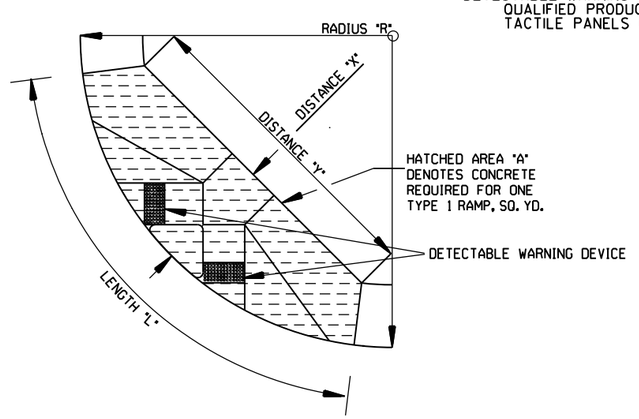
TYPE 1 RAMP
(Walk adjacent to curb)



SECTION A-A

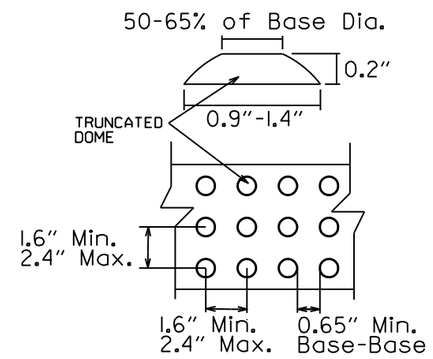
TYPE 1 RAMP DIMENSIONS AND QUANTITIES

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

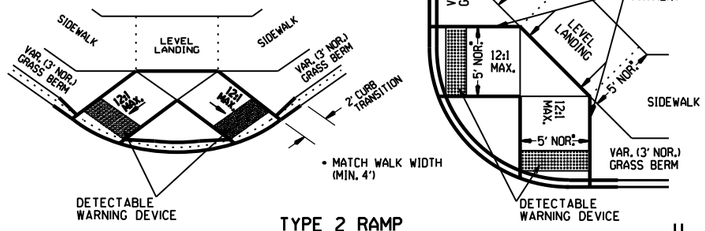


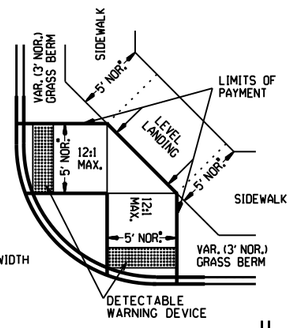
GENERAL NOTES FOR DETECTABLE WARNING DEVICES

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

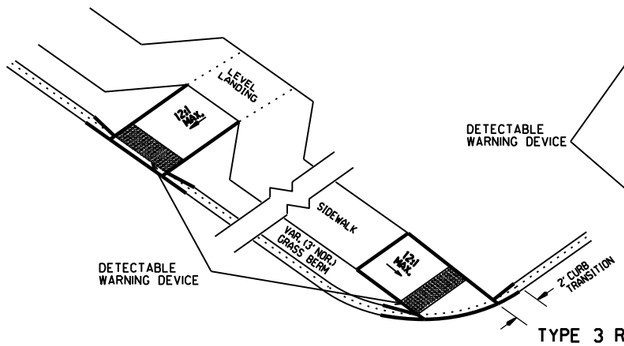


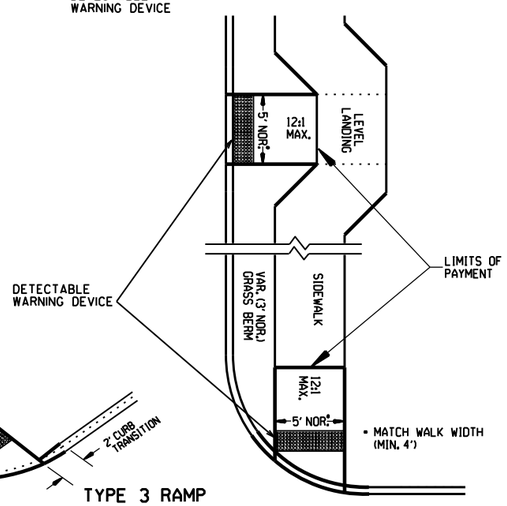
DETECTABLE WARNING DEVICE DETAIL





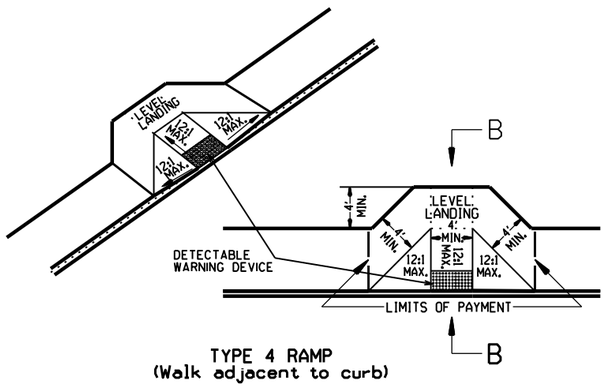
TYPE 2 RAMP



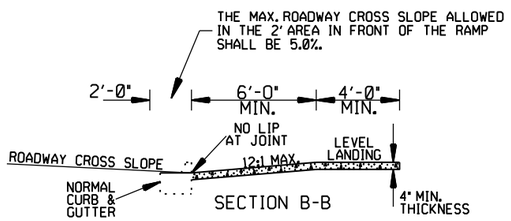


TYPE 3 RAMP

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



TYPE 4 RAMP
(Walk adjacent to curb)



SECTION B-B

GENERAL NOTES:

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

RAMP SELECTION CRITERIA

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

NOTE: IN ALTERATIONS, THE SELECTION OF THE TYPE OF WHEELCHAIR RAMP TO BE CONSTRUCTED SHALL BE BASED ON THE AMOUNT OF RIGHT-OF-WAY AVAILABLE, AND ON THE PRESENCE OF OTHER SITE CONSTRAINTS (UTILITIES, BUILDINGS, ETC.). THE TABLE ABOVE LISTS THE ORDER IN WHICH THE RAMPS ARE TO BE CONSIDERED.

AN ALTERATION IS DEFINED AS A PROJECT THAT CHANGES OR AFFECTS THE USE OF A PEDESTRIAN PATHWAY (OVERLAYS, SIGNALIZATION PROJECTS, ETC.) BUT DOES NOT REQUIRE THE PURCHASE OF ADDITIONAL RIGHT-OF-WAY. ALL PROJECTS THAT REQUIRE THE PURCHASE OF ADDITIONAL RIGHT-OF-WAY WILL USUALLY BE CONSIDERED NEW CONSTRUCTION FOR THE PURPOSES OF THE CHART ABOVE.

DATE	REVISION	DATE FILM
11-10-05	REVISED TO NEW SIDEWALK POLICY	
10-9-03	REVISED GEN. NOTES & ADDED NOTE	
4-10-03	REV. DETECTABLE WARNING DEVICES	
8-22-02	ADD DETECTABLE WARNING DEVICES	
3-30-00	ADD.SLOPE TRANS. & REV. ISL. DIMS.	
11-18-98	REVISED NOTES	
8-12-98	REVISED TEXTURE	
7-02-98	REDRAWN & REISSUED	
10-18-96	CORRECTED DIMENSIONS	10-18-96
5-24-90	FROM8%TO12%MAX.SLOPES	5-24-90
7-15-88	ADJUSTED MAX. SLOPE	652-7-15-88
7-14-88	INCLUD."CONC. ISLD."IN PAY ITEM	------
6-02-76	ISSUED-P.H.D.	299-7-28-76

ARKANSAS STATE HIGHWAY COMMISSION

WHEELCHAIR RAMPS
NEW CONSTRUCTION
AND ALTERATIONS

STANDARD DRAWING WR-1