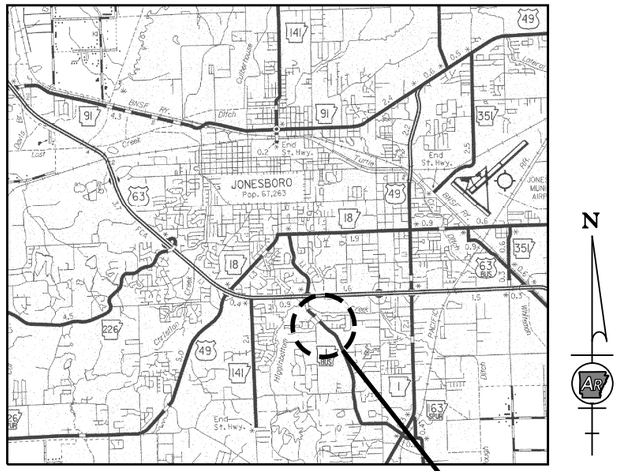
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	1	121
		PARKER RD. - SOUTH (HWY. 1B) (JONESBORO) (S)				

ARKANSAS DEPARTMENT OF TRANSPORTATION
CONSTRUCTION PLANS FOR STATE HIGHWAY

PARKER RD. - SOUTH
(HWY. 1B) (JONESBORO) (S)

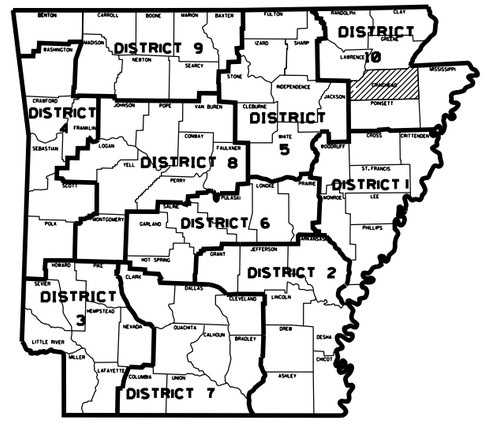
CRAIGHEAD COUNTY
ROUTE 1B SECTION 17B
JOB 100881
FED. AID PROJ. CMF-0058(67)

NOT TO SCALE



VICINITY MAP

PROJECT LOCATION



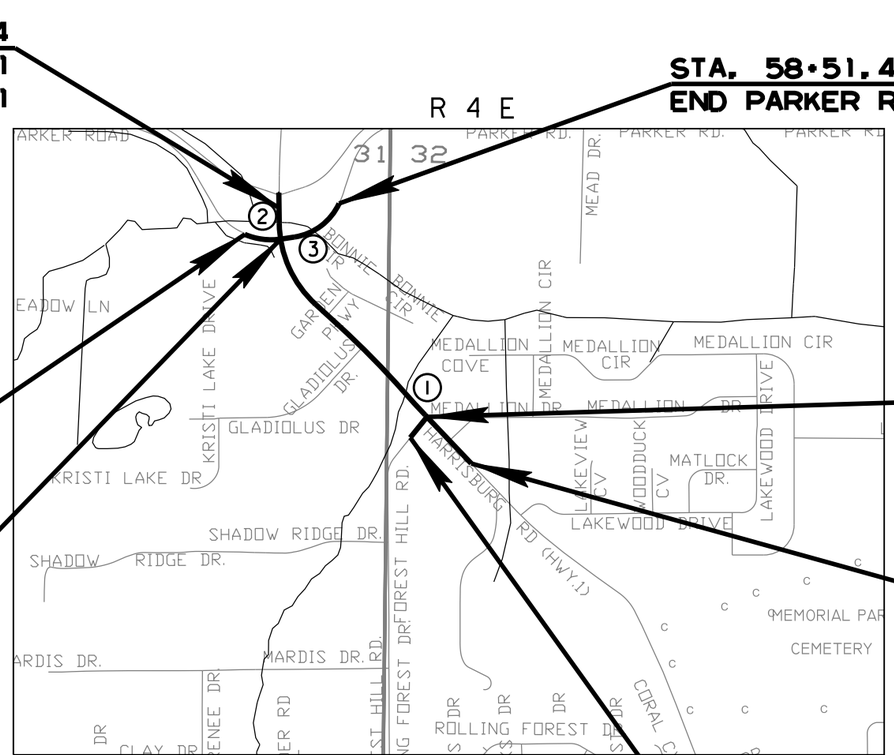
ARKANSAS HIGHWAY DISTRICT 10

HWY. 1B STA. 144+91.64
END JOB 100881
LOG MILE 2.81

STA. 58+51.46
END PARKER RD.

STRUCTURES OVER 20'-0" SPAN

	STATION	DESCRIPTION	SPAN
①	129+64.03	2 @ 12' X 7' X 87' R.C. BOX CULVERT ON A 30° FWD. SKEW W/ 3:1 WINGS LT. & RT.	28.55'
②	144+04.21	3 @ 10' X 10' X 134' R.C. BOX CULVERT W/ 3:1 WINGS LT. & RT.	31.02'
③	55+94.58	4 @ 10' X 11' X 70' R.C. BOX CULVERT ON A 30° FWD. SKEW W/ 3:1 WINGS LT. & RT.	49.04'



HWY. 1B STA. 142+83.32 ▪
PARKER RD. STA. 53+75.07
Δ 88°54' 10"

STA. 51+33.56
BEGIN PARKER RD.

HWY. 1B STA. 127+39.40 ▪
FOREST HILL RD. STA. 76+80.92
Δ 82°24' 29"

HWY. 1B STA. 123+15.00
BEGIN JOB 100881
LOG MILE 2.40

STA. 75+05.00
BEGIN FOREST HILL RD.

DESIGN TRAFFIC DATA

DESIGN YEAR	2046
2026 ADT	13,600
2046 ADT	19,600
2046 DHV	2,156
DIRECTIONAL DISTRIBUTION	60%
TRUCKS	1.0%
DESIGN SPEED	35 MPH

PROJECT LOCATION

	BEGIN	MID-POINT	END
LATITUDE	N35°48' 02"	N35°48' 10"	N35°48' 19"
LONGITUDE	W90°41' 40"	W90°41' 49"	W90°41' 55"

GROSS LENGTH OF PROJECT	3070.46	FEET OR 0.582	MILES
NET LENGTH OF ROADWAY	2961.85	FEET OR 0.561	MILES
NET LENGTH OF BRIDGES	108.61	FEET OR 0.021	MILES
NET LENGTH OF PROJECT	3070.46	FEET OR 0.582	MILES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
12/1/25

tholt 8/28/2025
100881-01-TITLESHEET.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	2	121
		INDEX OF SHEETS AND STANDARD DRAWINGS				

INDEX OF SHEETS

SHEET NO.		TITLE
1		TITLE SHEET
2		INDEX OF SHEETS AND STANDARD DRAWINGS
3		GOVERNING SPECIFICATIONS AND GENERAL NOTES
4	- 6	TYPICAL SECTIONS OF IMPROVEMENT
7	- 13	SPECIAL DETAILS
14	- 19	TEMPORARY EROSION CONTROL DETAILS
20	- 27	MAINTENANCE OF TRAFFIC DETAILS
28	- 30	PERMANENT PAVEMENT MARKING DETAILS
31	- 38	QUANTITIES
39	- 40	SUMMARY OF QUANTITIES AND REVISIONS
41		SURVEY CONTROL DETAILS
42	- 47	PLAN AND PROFILE SHEETS
48		SUMMARY OF TRAFFIC SIGNAL QUANTITIES
49		TRAFFIC SIGNAL NOTES
50	- 53	TRAFFIC SIGNALIZATION DETAIL
54		TRAFFIC SIGNAL QUANTITIES - HWY. 1B AT PARKER RD.
55	- 75	SIGNALIZATION PLAN SHEETS
76		TRAFFIC SIGNAL QUANTITIES - HWY. 1B AT FOREST HILL RD.
77	- 81	SIGNALIZATION PLAN SHEETS
82	- 121	CROSS SECTIONS

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

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
12/16/25

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	05-22-25
DR-2	DETAILS OF DRIVEWAYS & 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
GR-6	GUARDRAIL DETAILS	05-19-22
GR-7	GUARDRAIL DETAILS	11-07-19
GR-9	GUARDRAIL DETAILS	11-07-19
GRT-1	GUARD RAIL DETAILS	11-07-19
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
RCB-3	METHOD OF EXTENDING EXISTING R.C. BOX CULVERTS	10-12-95
SD-5	CONTROLLER CABINET UTILITY DRAWER	09-12-13
SD-6	HEAVY DUTY PULL BOX	02-13-24
SD-7	SPAN WIRE ASSEMBLY WOOD POLE	02-13-24
SD-8	SIGNAL HEAD PLACEMENT	12-08-16
SD-9	SERVICE POINT	11-07-19
SD-11	STEEL POLE WITH MAST ARM	02-13-24
SE-2	TABLES AND METHOD OF SUPERELEVATION FOR TWO-WAY TRAFFIC	11-07-19
SI-3	CONCRETE WALK (TYPE SPECIAL)	11-05-20
TC-1	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	08-14-25
TC-2	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	08-14-25
TC-3	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	08-14-25
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
TC-6	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	11-06-25
TEC-1	TEMPORARY EROSION CONTROL DEVICES	11-16-17
TEC-2	TEMPORARY EROSION CONTROL DEVICES	06-02-94
TEC-3	TEMPORARY EROSION CONTROL DEVICES	11-03-94
WR-1	WHEELCHAIR RAMPS NEW CONSTRUCTION AND ALTERATIONS	11-10-05
W-X003-1	DETAILS OF STANDARD WINGS FOR REINFORCED CONCRETE BOX CULVERTS	05-10-66
W-X003-2	DETAILS OF STANDARD WINGS FOR REINFORCED CONCRETE BOX CULVERTS	12-31-62
W-X004-2	DETAILS OF STANDARD WINGS FOR REINFORCED CONCRETE BOX CULVERTS	01-03-63
R-200X-0	DETAILS OF STANDARD BARREL SECTIONS FOR REINFORCED CONCRETE BOX CULVERTS	02-15-63
R-300X-0	DETAILS OF STANDARD BARREL SECTIONS FOR REINFORCED CONCRETE BOX CULVERTS	02-28-63
R-400X-0	DETAILS OF STANDARD BARREL SECTIONS FOR REINFORCED CONCRETE BOX CULVERTS	03-18-63

tholt 8/28/2025
100881-02-INDEX.SHT

INDEX OF SHEETS
AND STANDARD DRAWINGS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	3	121
		GOVERNING SPECIFICATIONS 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
102-3_____	PREQUALIFICATION OF BIDDERS
103-2_____	CONTACT INFORMATION FOR MOTORIST DAMAGE CLAIMS
105-4_____	MAINTENANCE DURING CONSTRUCTION
107-2_____	RESTRAINING CONDITIONS
108-1_____	LIQUIDATED DAMAGES
108-2_____	WORK ALLOWED PRIOR TO ISSUANCE OF WORK ORDER
110-1_____	PROTECTION OF WATER QUALITY AND WETLANDS
210-1_____	UNCLASSIFIED EXCAVATION
303-1_____	AGGREGATE BASE COURSE
306-1_____	QUALITY CONTROL AND ACCEPTANCE
400-1_____	TACK COATS
400-4_____	DESIGN AND QUALITY CONTROL OF ASPHALT MIXTURES
400-5_____	PERCENT AIR VOIDS FOR ACHM MIX DESIGNS
400-6_____	LIQUID ANTI-STRIP ADDITIVE
400-7_____	TRACKLESS TACK
404-3_____	DESIGN OF ASPHALT MIXTURES
409-2_____	ASPHALT LABORATORY FACILITY
410-1_____	CONSTRUCTION REQUIREMENTS AND ACCEPTANCE OF ASPHALT CONCRETE PLANT MIX COURSES
410-2_____	DEVICES FOR MEASURING DENSITY FOR ROLLING PATTERNS
410-4_____	EVALUATION OF ACHM SUBLOT REPLACEMENT MATERIAL
416-1_____	RECYCLED ASPHALT PAVEMENT
501-3_____	PORTLAND CEMENT CONCRETE PAVEMENT
502-1_____	WELDED WIRE REINFORCEMENT
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
617-1_____	GUARDRAIL TERMINAL (TYPE 2)
617-2_____	GUARDRAIL DELINEATORS
620-1_____	MULCH COVER
621-1_____	FILTER SOCKS
632-1_____	CONCRETE ISLAND
633-1_____	CONCRETE WALKS, CONCRETE STEPS, AND HAND RAILING
634-1_____	CURBING
637-1_____	MAILBOXES
700-2_____	TRAFFIC CONTROL FACILITIES
800-1_____	STRUCTURES
802-5_____	CONCRETE FOR STRUCTURES
804-2_____	REINFORCING STEEL FOR STRUCTURES
JOB 100881___	ACCESSIBLE PEDESTRIAN SIGNAL (APS)
JOB 100881___	ACTUATED CONTROLLER
JOB 100881___	AIRPORT CLEARANCE REQUIREMENTS
JOB 100881___	ARCHITECTURAL FINISH (CAST-IN PLACE RETAINING WALLS)
JOB 100881___	ASSESSMENT OF WORKING DAYS – MAINTENANCE OF TRAFFIC
JOB 100881___	BIDDING REQUIREMENTS AND CONDITIONS
JOB 100881___	BROADBAND INTERNET SERVICE FOR FIELD OFFICE
JOB 100881___	BUY AMERICA - CONSTRUCTION MATERIALS
JOB 100881___	CABINET DRAWER ASSEMBLY
JOB 100881___	CARGO PREFERENCE ACT REQUIREMENTS
JOB 100881___	COLD MILLING – COUNTY PROPERTY
JOB 100881___	CONSTRUCTION IN SPECIAL FLOOD HAZARD AREAS
JOB 100881___	DESIGN AND QUALITY CONTROL ASPHALT MIXTURES
JOB 100881___	DOCUMENTATION OF PAYMENTS MADE TO DISADVANTAGED BUSINESS ENTERPRISES
JOB 100881___	DOCUMENTATION OF PAYMENTS MADE TO SUBCONTRACTORS
JOB 100881___	ELECTRICAL CONDUCTORS FOR LUMINAIRES
JOB 100881___	ELECTRICAL CONDUCTORS-IN-CONDUIT
JOB 100881___	EMERGENCY BATTERY BACKUP SYSTEM INSTALLATION
JOB 100881___	FLEXIBLE BEGINNING OF WORK – CALENDAR DAY CONTRACT

GOVERNING SPECIFICATIONS

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

NUMBER	TITLE
JOB 100881___	HYBRID VIDEO-RADAR DETECTION SYSTEM
JOB 100881___	LED COUNTDOWN PEDESTRIAN SIGNAL HEAD
JOB 100881___	LED LUMINAIRE ASSEMBLY (BUG U0 TYPE)
JOB 100881___	LED TRAFFIC SIGNAL HEAD
JOB 100881___	LIQUIDATED DAMAGES PROCEDURE FOR BID LETTINGS
JOB 100881___	LOCAL RADIO WITH ANTENNA RELOCATION
JOB 100881___	LONGITUDINAL JOINT DENSITIES FOR ACHM SURFACE COURSES
JOB 100881___	MAINTENANCE OF TRAFFIC
JOB 100881___	MANDATORY ELECTRONIC CONTRACT
JOB 100881___	MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
JOB 100881___	OFF-SITE RESTRAINING CONDITIONS FOR INDIANA AND NORTHERN LONG-EARED BATS
JOB 100881___	PARTNERING REQUIREMENTS
JOB 100881___	PLASTIC PIPE
JOB 100881___	PRICE ADJUSTMENT FOR ASPHALT BINDER
JOB 100881___	PRICE ADJUSTMENT FOR FUEL
JOB 100881___	PROHIBITION OF CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT
JOB 100881___	RELOCATION OF TRAFFIC SIGNAL HEAD
JOB 100881___	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT
JOB 100881___	RETROREFLECTIVE BACKPLATES
JOB 100881___	SERVICE POINT ASSEMBLY (TRAFFIC CONTROL DEVICES)
JOB 100881___	SHORING FOR CULVERTS
JOB 100881___	SOIL STABILIZATION
JOB 100881___	STORM WATER POLLUTION PREVENTION PLAN
JOB 100881___	STREET NAME SIGN (MAST ARM MOUNTED)
JOB 100881___	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB 100881___	SYSTEM LOCAL CONTROLLER
JOB 100881___	TEXTURED COATING FINISH (CAST-IN PLACE RETAINING WALLS)
JOB 100881___	UTILITY ADJUSTMENTS
JOB 100881___	VALUE ENGINEERING
JOB 100881___	VIDEO DETECTOR ROTATION
JOB 100881___	WARM MIX ASPHALT
JOB 100881___	WELLHEAD PROTECTION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
11/14/25

GENERAL NOTES

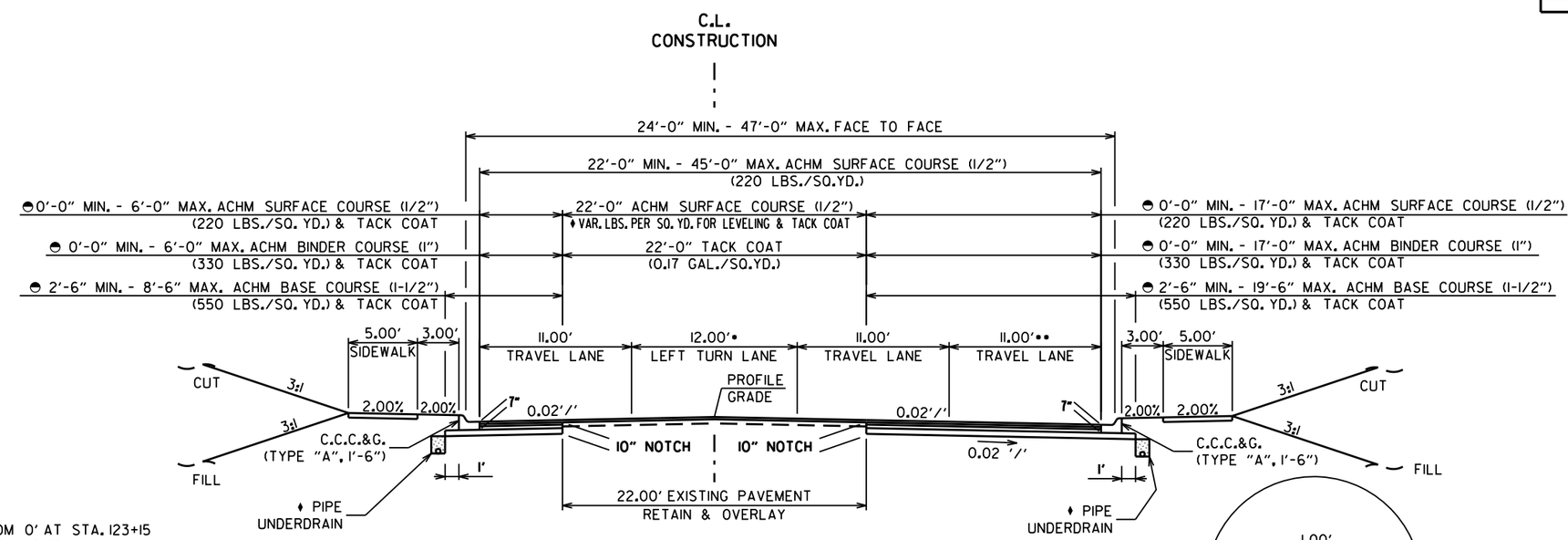
1. GRADE LINE DENOTES FINISHED GRADE WHERE SHOWN ON PLANS.
2. ALL PIPE LINES, POWER, TELEPHONE, AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.
3. ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY 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.

GOVERNING SPECIFICATIONS AND GENERAL NOTES

tholt 8/28/2025
I00088I-03-GDVERNINGSPECS.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	4	121
		TYPICAL SECTIONS OF IMPROVEMENT				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
08/29/25

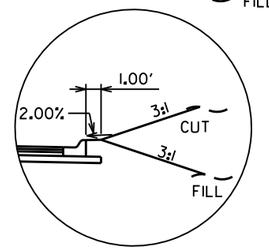


• TRANSITIONS FROM 0' AT STA. I23+I5 TO I2' AT STA. I24+42.32

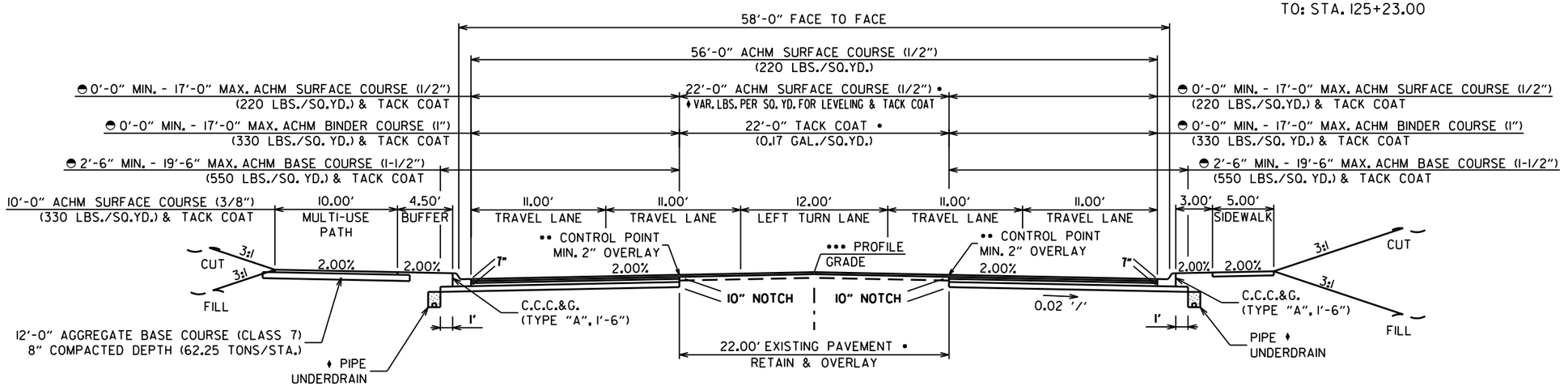
•• 0' FROM STA. I23+I5 TO STA. I24+42.32 AND TRANSITIONS TO II' AT STA. I26+75

TYPICAL SECTION

HWY. IB (I)
FROM: STA. I23+I5.00 TO: STA. I26+75.00



FROM: STA. I23+I5.00
TO: STA. I25+23.00



• EXISTING ASPHALT WIDTH VARIES FROM 22' AT STA. I34+75.00 TO 60' AT STA. I42+07.00 AND REMAINS 60' WIDE TO THE END OF PROJECT

•• STA. I42+I0.00 TO STA. I42+84.80

••• STA. I26+75.00 TO STA. I42+I0.00

TYPICAL SECTION

HWY. IB (2)
FROM: STA. I26+75.00 TO: STA. I42+84.80

♦ TO BE USED IF & WHERE DIRECTED BY THE ENGINEER

◓ P.C.C. BASE TO BE USED IN LOCATIONS WITH A WIDTH OF LESS THAN 4'-0" (SEE SPECIAL DETAIL SHEET FOR DETAILS)

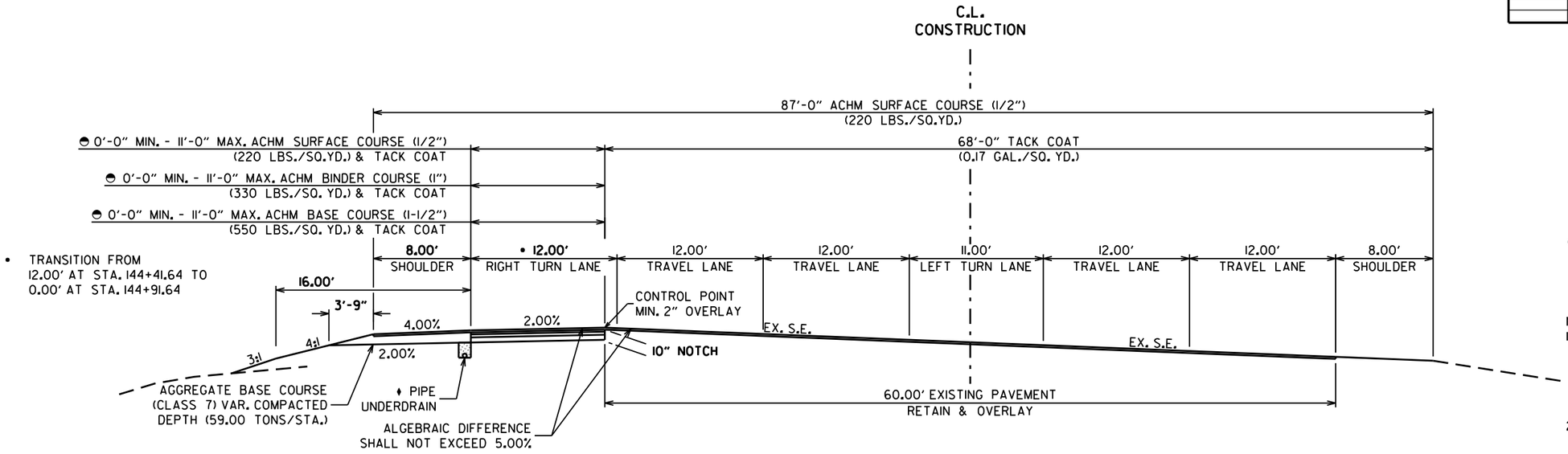
NOTES:

1. 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.
2. 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 WILL BE CONSIDERED INCLUDED IN THE VARIOUS PAY ITEMS.
3. THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.
4. PRIOR TO AND DURING PLACEMENT OF PAVEMENT IN FRONT OF 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 FOR THE VARIOUS CONTRACT ITEMS.
5. 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.
6. REFER TO PLAN SHEETS FOR SIDEWALK LOCATIONS
7. TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE WALKS AT 45' INTERVALS.

TYPICAL SECTIONS OF IMPROVEMENT

tholt 8/28/2025
100881-04-TYPICALSECTIONS.SHT

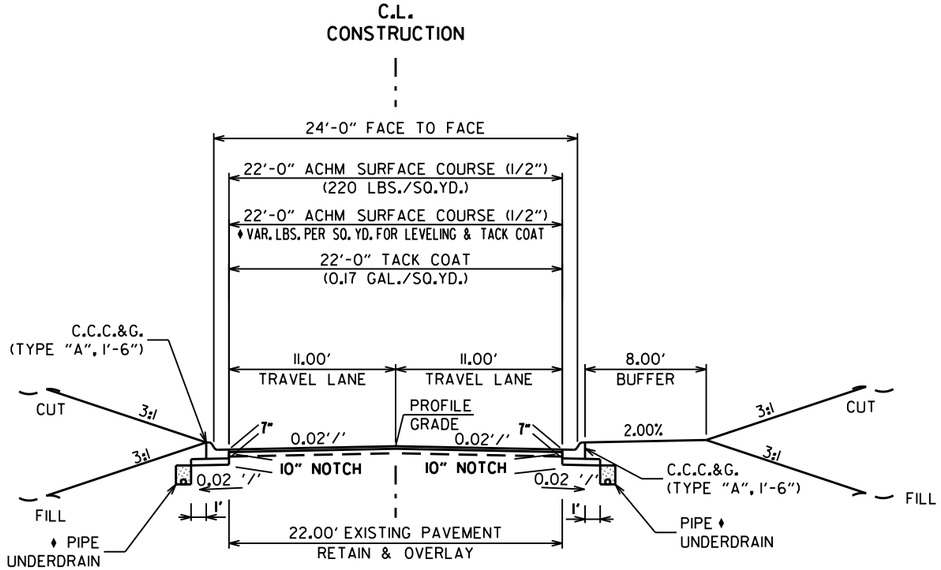
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	5	121
		TYPICAL SECTIONS OF IMPROVEMENT				



TYPICAL SECTION

HWY. IB (3)

FROM: STA. 142+84.80 TO: STA. 144+91.64



TYPICAL SECTION

FOREST HILL ROAD

FROM: STA. 75+00.00 TO: STA. 76+58.73

♦ TO BE USED IF & WHERE DIRECTED BY THE ENGINEER

◓ P.C.C. BASE TO BE USED IN LOCATIONS WITH A WIDTH OF LESS THAN 4'-0" (SEE SPECIAL DETAIL SHEET FOR DETAILS)

NOTES:

1. 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.

2. 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 WILL BE CONSIDERED INCLUDED IN THE VARIOUS PAY ITEMS.

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

4. PRIOR TO AND DURING PLACEMENT OF PAVEMENT IN FRONT OF 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 FOR THE VARIOUS CONTRACT ITEMS.

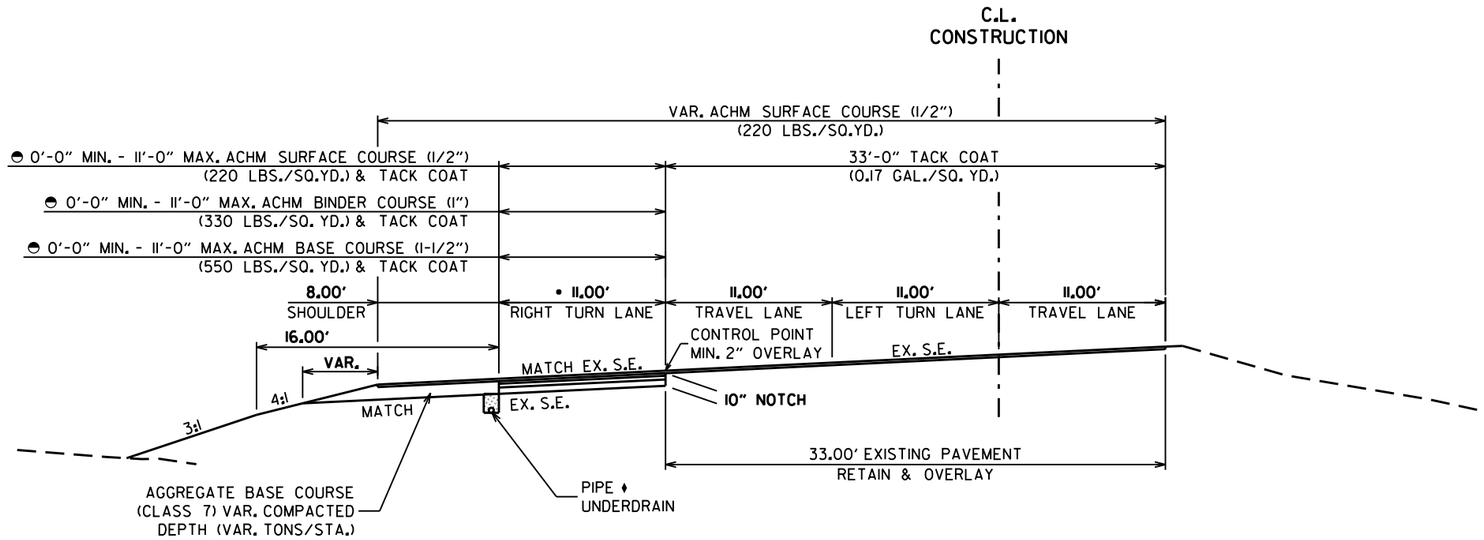
5. THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.

6. 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.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
08/29/25

TYPICAL SECTIONS OF IMPROVEMENT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	6	121
		TYPICAL SECTIONS OF IMPROVEMENT				



• TRANSITION FROM 11.00' AT STA. 57+10.00 TO 0.00' AT STA. 58+51.46

TYPICAL SECTION

EAST PARKER ROAD
FROM: STA. 54+05.57 TO: STA. 58+51.46

STATE OF ARKANSAS
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JASON MacDONALD
08/29/25

♦ TO BE USED IF & WHERE DIRECTED BY THE ENGINEER

◓ P.C.C. BASE TO BE USED IN LOCATIONS WITH A WIDTH OF LESS THAN 4'-0" (SEE SPECIAL DETAIL SHEET FOR DETAILS)

NOTES:

1. 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.

2. 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 WILL BE CONSIDERED INCLUDED IN THE VARIOUS PAY ITEMS.

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4. PRIOR TO AND DURING PLACEMENT OF PAVEMENT IN FRONT OF 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 FOR THE VARIOUS CONTRACT ITEMS.

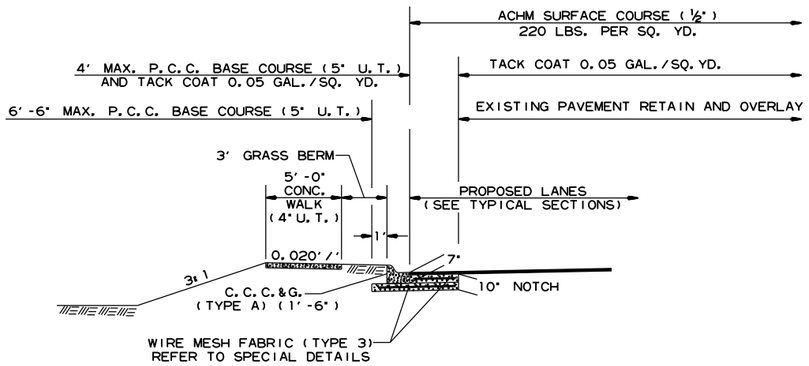
5. THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.

6. 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.

TYPICAL SECTIONS OF IMPROVEMENT

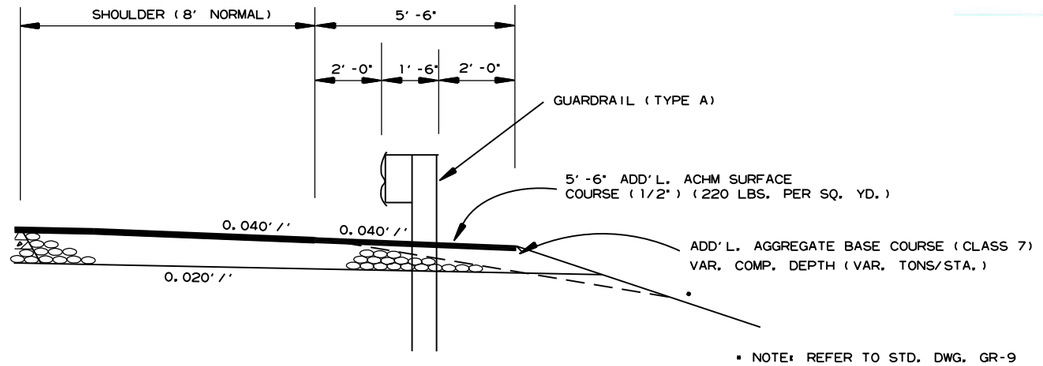
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	7	121
		SPECIAL DETAILS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
09/22/25



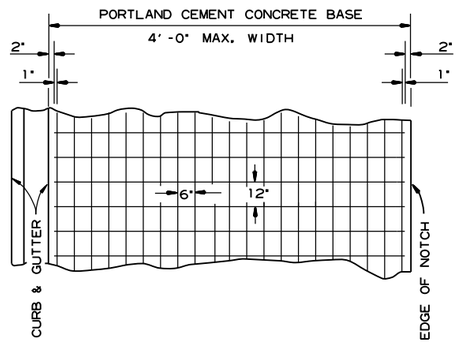
P.C.C. BASE WIDENING DETAIL

P.C.C. BASE WIDENING TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.



▪ NOTE: REFER TO STD. DWG. GR-9 AND CROSS SECTIONS FOR SLOPE REQUIREMENTS BEHIND GUARDRAIL.

WIDENING FOR GUARDRAIL

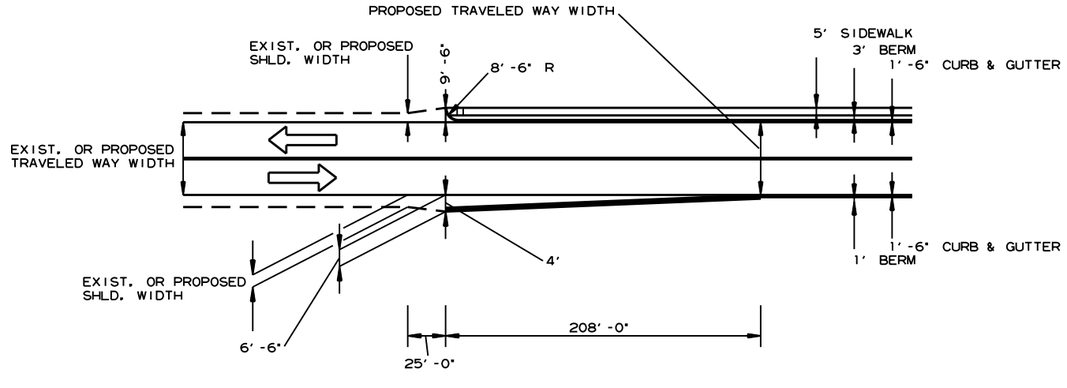


6" X 12" MESH FABRIC (TYPE 3) (W5.5 X W2.9) = 4.26 LBS./SQ. YD.

NOTES:

1. LAP MESH FABRIC MIN. 12" LONGITUDINALLY AND MIN. 6" TRANSVERSELY.
2. MESH FABRIC IS NOT REQUIRED WHEN WIDTH OF PORTLAND CEMENT CONCRETE BASE IS LESS THAN 12".
3. MESH FABRIC (TYPE 3) WILL NOT BE PAID FOR DIRECTLY, BUT FULL COMPENSATION THEREFORE WILL BE CONSIDERED INCLUDED IN THE CONTRACT PRICE BID PER SQ. YD. FOR PORTLAND CEMENT CONCRETE BASE (5" U.T.)

DETAIL OF REINFORCING STEEL FOR PAVEMENT (MESH FABRIC TYPE 3)



TRANSITION FROM OPEN SHOULDER TO CURB & GUTTER SECTION

tholl 8/28/2025
100881-07-SPECIALDETAILS.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	8	121
		SPECIAL DETAILS				

ASYMETRICAL 3 CENTERED CURVES

LOCATION	PARKER RD.		RADIUS	HWY. IB	
	RADIUS	OFFSET		RADIUS	OFFSET
NW QUAD	250'	10'	60'	160'	4'
NE QUAD	-	-	65'	-	-
SW QUAD	-	-	66'	-	-
SE QUAD	601'	16'	75'	201'	4'

NOTE: ALL STATIONS, OFFSETS & DIMENSIONS ARE TO EDGE OF PAVEMENT.

STATE OF ARKANSAS
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N

STA. 144+10.51, 42.00' LT.
HWY. IB

NW
QUAD

R 160.00'

STA. 143+67.25, 48.70' LT.
HWY. IB

STA. 51+33.56, 27.50' LT.
PARKER RD.

R 60.00'

R 250.00'

STA. 52+59.57
38.78' LT.
PARKER RD.

S50°02'02"E

P.I. 52+03.18

P.T. 143+88.80

55

STA. 143+94.87, 30.00' RT.
HWY. IB

NE
QUAD

P.C. 54+68.27

R 65.00'

STA. 54+79.99, 33.00' LT.
PARKER RD.

P.T. 53+81.64

N81°18'26"E

STA. 55+39.05, 11.00' RT.
PARKER RD.

R 601.00'

STA. 54+45.84, 30.02' RT.
PARKER RD.

R 51.00'

STA. 53+01.85, 27.50' RT.
PARKER RD.

R 66.00'

STA. 52+87.11, 33.50' RT.
PARKER RD.

STA. 52+87.11, 38.50' RT.
PARKER RD.

STA. 53+10.66, 48.87' RT.
PARKER RD.

SW
QUAD

R 75.00'

R 85.00'

STA. 142+08.13, 28.00' LT.
HWY. IB

STA. 142+05.54, 32.98' RT.
HWY. IB

SE
QUAD

R 201.00'

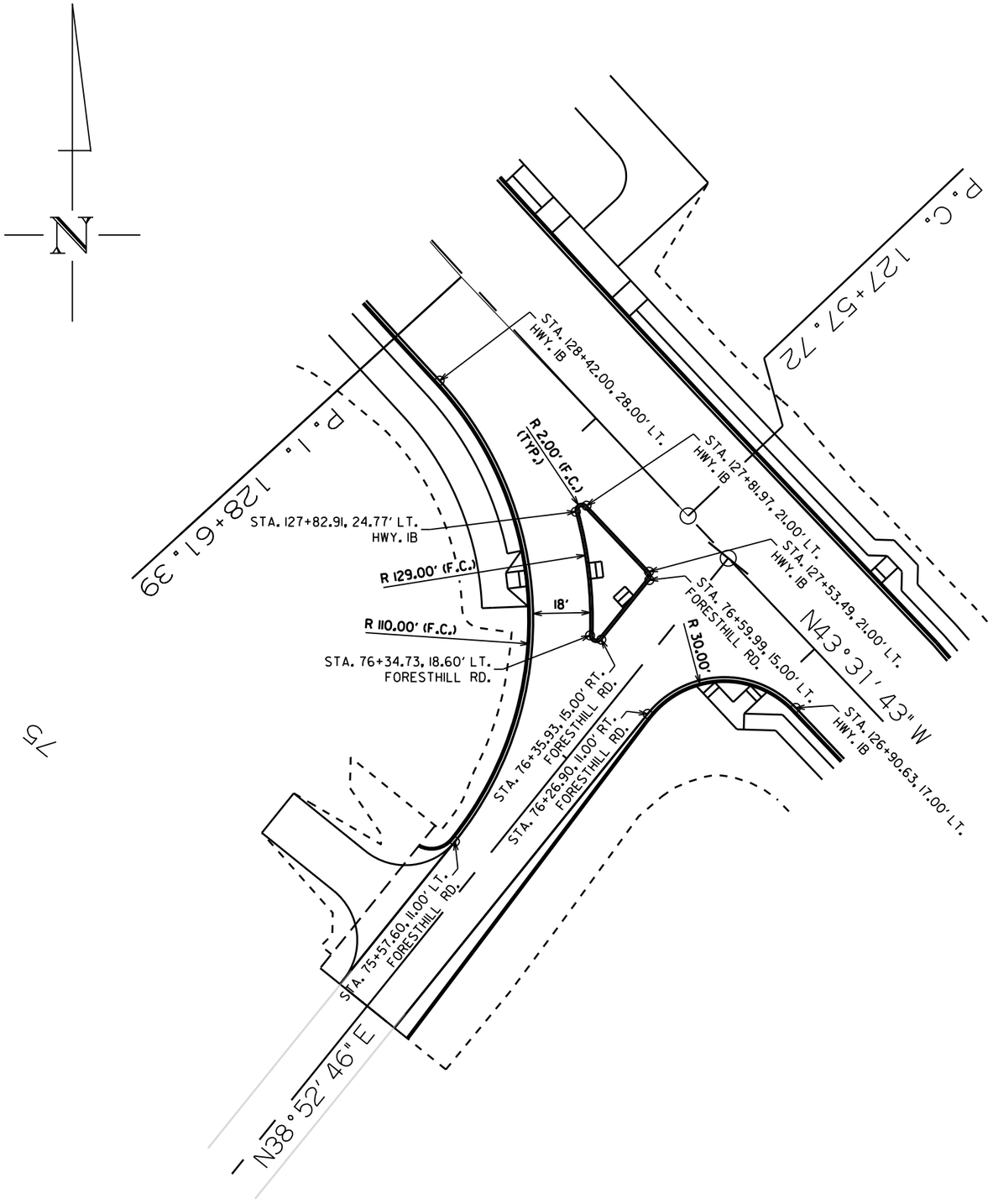
STA. 141+50.78, 28.00' RT.
HWY. IB

INTERSECTION LAYOUT SPECIAL DETAILS

tholt 8/28/2025
100881-09-SPECIALDETAILS-INTERSECTIONLAYOUT.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	9	121
		SPECIAL DETAILS				

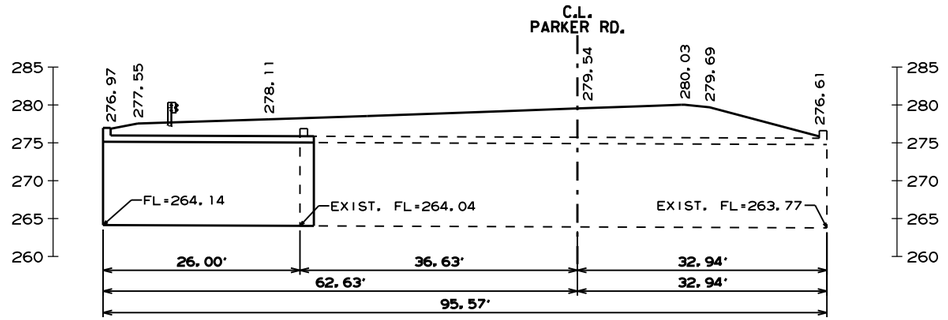
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
08/29/25



INTERSECTION LAYOUT
SPECIAL DETAILS

tholt 8/28/2025
100881-09-SPECIALDETAILS-INTERSECTIONLAYOUT.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	10	121
		SPECIAL DETAILS				

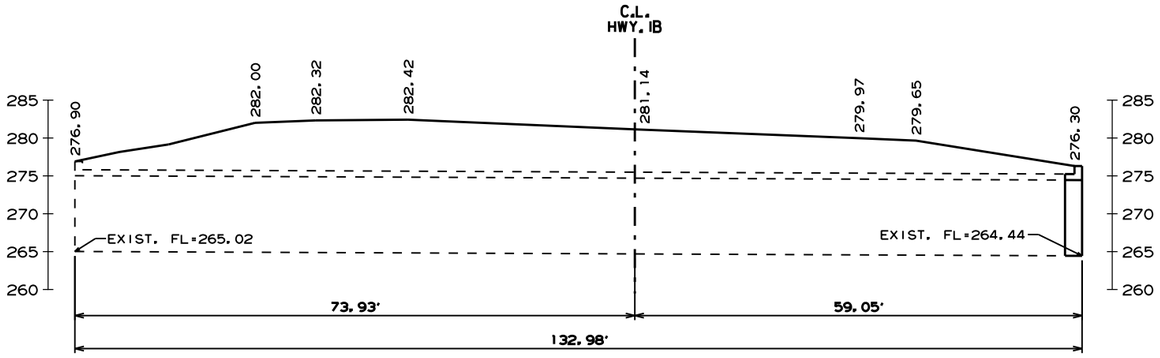


STA. 55+95 PARKER RD.
IN PLACE QUAD. 10' X 11' R.C. BOX CULVERT
30° RT. FWD. SKEW
RETAIN & EXTEND 26' LT.
Q50= 3600 CFS, D.A.= 4.63 SQ. MI.

QUAD. 10' X 11' R.C. BOX CULVERT

SECTION AND LENGTH	CLASS 'S' CONCRETE		REINF. STEEL	UNCLASSIFIED EXCAVATION FOR STRUCTURES	SOLID SODDING	WATER	STANDARD DRAWINGS
	C.Y./L.F.	CU. YD.	LBS.	CU. YD.	SQ. YD.	M.G.	
26.00'	4.598	129.89	21333	250	30	0.38	R-400X-0, W-X003-2, RCB-1,
							RCB-2, RCB-3, SPECIAL DETAIL
WINGS, HDWLS. & APRONS		53.48	3575				
LAP			224				
		183.37	25132	250	30	0.38	

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

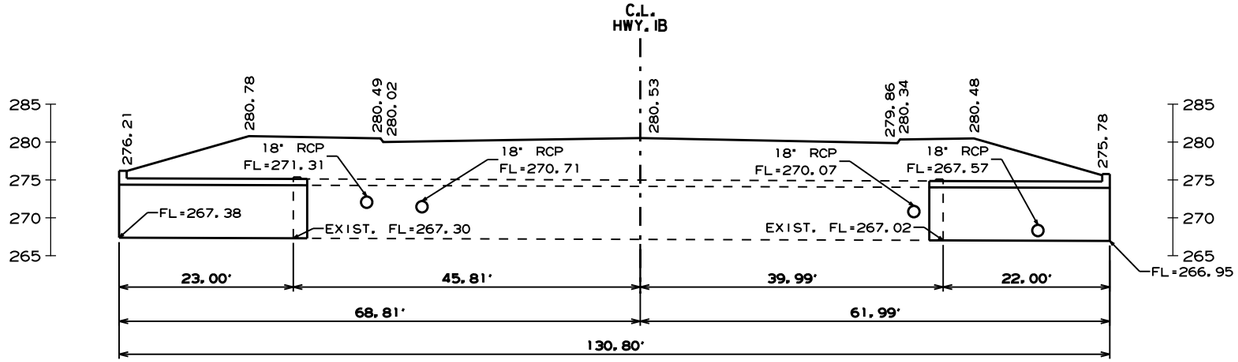


STA. 144+04 HWY. 1B
IN PLACE TRIPLE 10' X 10' R.C. BOX CULVERT
90° RT. FWD. SKEW
RETAIN & REPLACE WINGWALLS RT
WITH 4:1 WINGS
Q50= 3600 CFS, D.A.= 4.63 SQ. MI.

TRIPLE 10' X 10' R.C. BOX CULVERT

SECTION AND LENGTH	CLASS 'S' CONCRETE		REINF. STEEL	UNCLASSIFIED EXCAVATION FOR STRUCTURES	SOLID SODDING	WATER	STANDARD DRAWINGS
	C.Y./L.F.	CU. YD.	LBS.	CU. YD.	SQ. YD.	M.G.	
2.25'	3.332	7.50	1180	20	15	0.19	R-300X-0, W-X004-2, RCB-1,
							RCB-2, RCB-3
WINGS, HDWLS. & APRONS		28.63	2039				
		36.13	3219	20	15	0.19	

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



STA. 129+64 HWY. 1B
IN PLACE DOUBLE 12' X 7' R.C. BOX CULVERT
30° RT. FWD. SKEW
RETAIN & EXTEND 23' LT. & 22' RT.
WITH 3:1 WINGS
Q50= 640 CFS, D.A.= 0.5 SQ. MI.

DOUBLE 12' X 7' R.C. BOX CULVERT

SECTION AND LENGTH	CLASS 'S' CONCRETE		REINF. STEEL	UNCLASSIFIED EXCAVATION FOR STRUCTURES	SOLID SODDING	WATER	STANDARD DRAWINGS
	C.Y./L.F.	CU. YD.	LBS.	CU. YD.	SQ. YD.	M.G.	
45.00'	2.379	117.76	17754	726	32	0.40	R-200X-0, W-X003-1, RCB-1,
							RCB-2, RCB-3
WINGS, HDWLS. & APRONS		23.69	1712				
2 LAPS			210				
		141.45	19676	726	32	0.40	

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

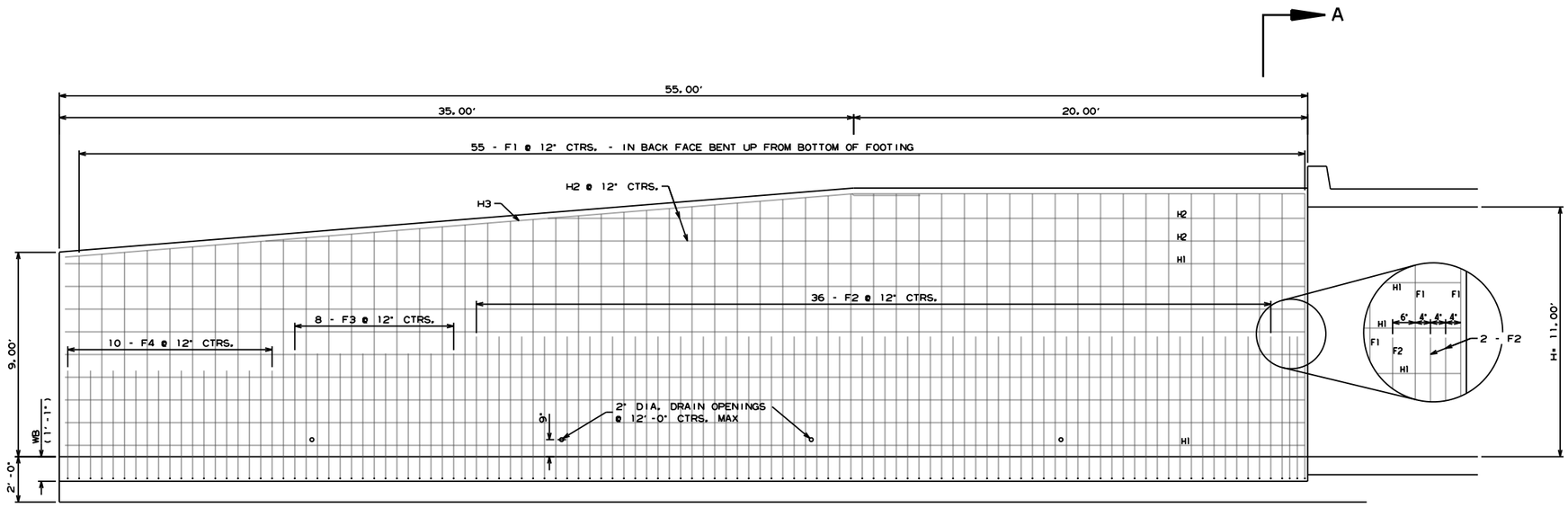
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
08/29/25

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	11	121
		SPECIAL DETAILS				

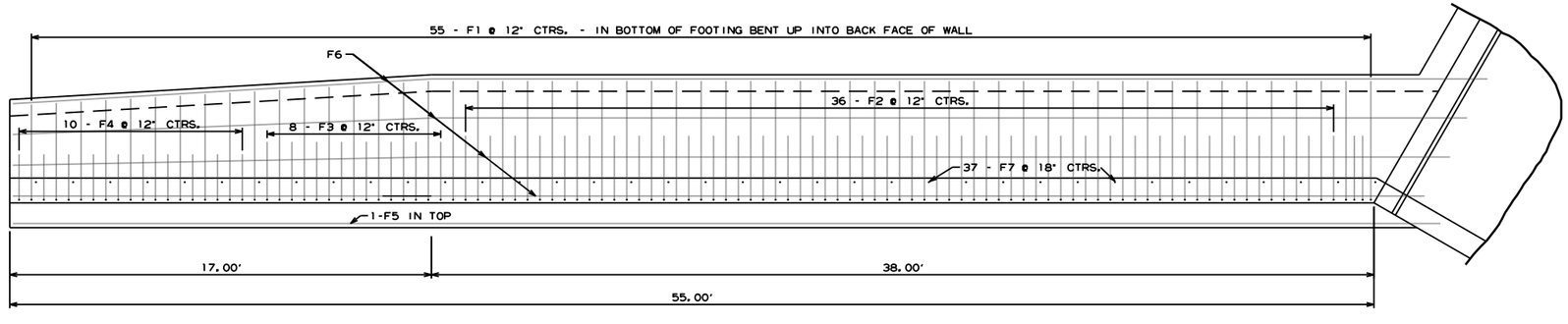
BAR H1: 9 EA. #4 x 54'-8" @ 12" SPACING
BAR H2: 2 EA. #4 x 33'-4¼" MIN., 45'-9½" MAX. @ 12" SPACING
BAR H3: 1 EA. #4 x 54'-8⅞"
BAR F1: 55 EA. #5 x 13'-7¾" MIN., 17'-4" MAX. @ 12" SPACING
BAR F5: 1 EA. #4 x 57'-4½"
BAR F6: 4 EA. #4 x 58'-2½"

SEE STANDARD DRAWING NO. W-X003-2 FOR INFORMATION NOT SHOWN HERE.

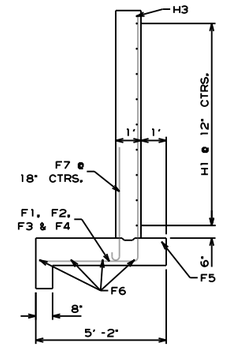
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
08/29/25



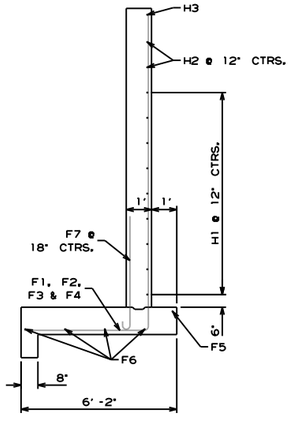
REAR ELEVATION OF WING - SHOWING BACK FACE REINF.



PLAN OF WING - SHOWING FOOTING REINF.



END VIEW OF WING



SECTION A-A

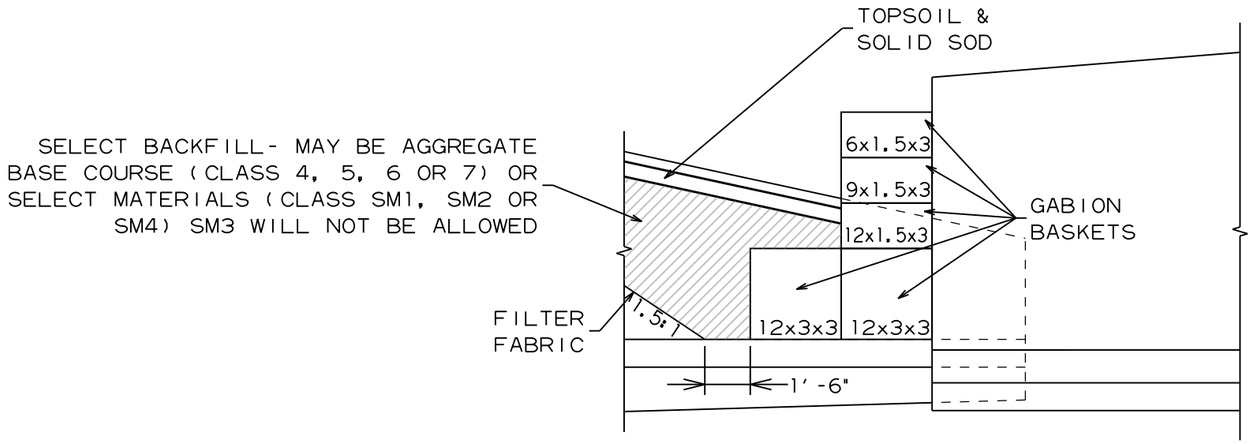
MODIFIED ARDOT STANDARD WINGWALL
FROM STANDARD DRAWING NO. W-X003-2
(QUADRUPLE BARREL 10' X 11')

SPECIAL DETAILS

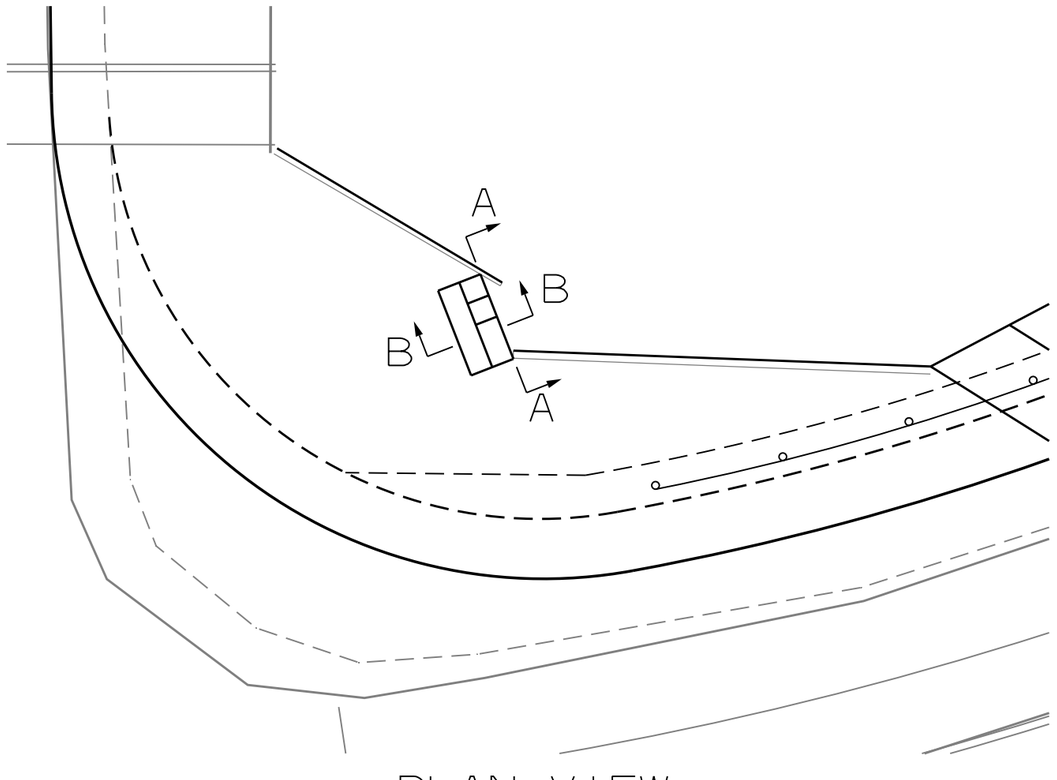
tholt 8/28/2025
100881-12-SPECIALDETAILS-WINGWALL.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	12	121
		SPECIAL DETAILS				

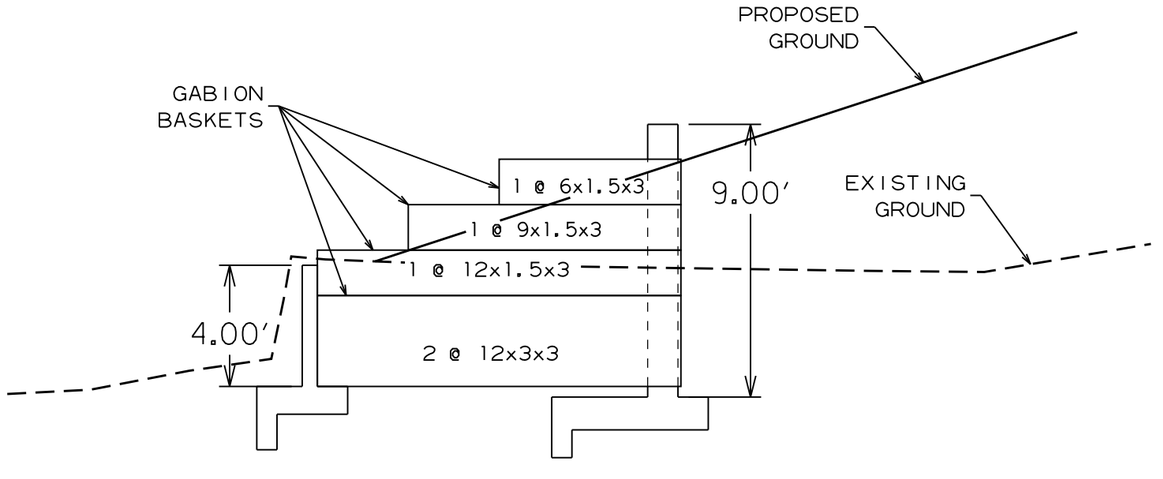
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
08/29/25



SECTION B-B
SCALE: 1" =5'



PLAN VIEW
SCALE: 1" =20'

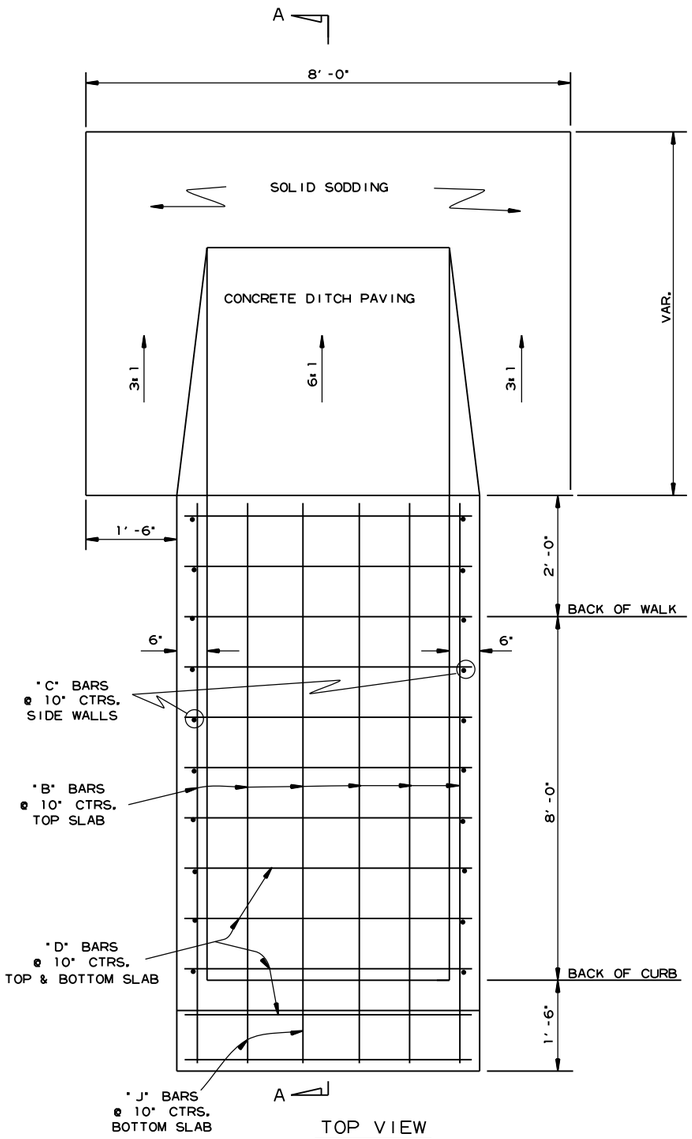


SECTION A-A
SCALE: 1" =5'

GABION WALL LAYOUT
SPECIAL DETAILS

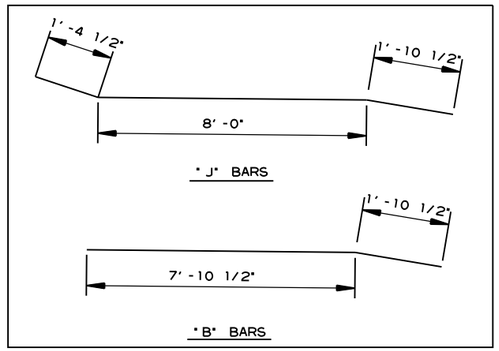
tholt 8/28/2025
100881-13-SPECIALDETAILS-GABION.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	13	121
		SPECIAL DETAILS				



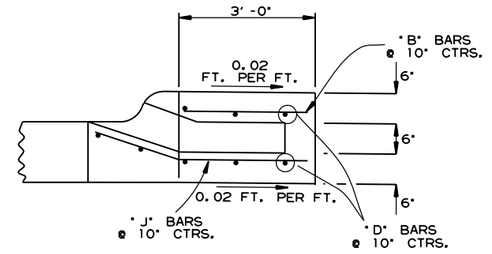
TOP VIEW

BAR DIAGRAM

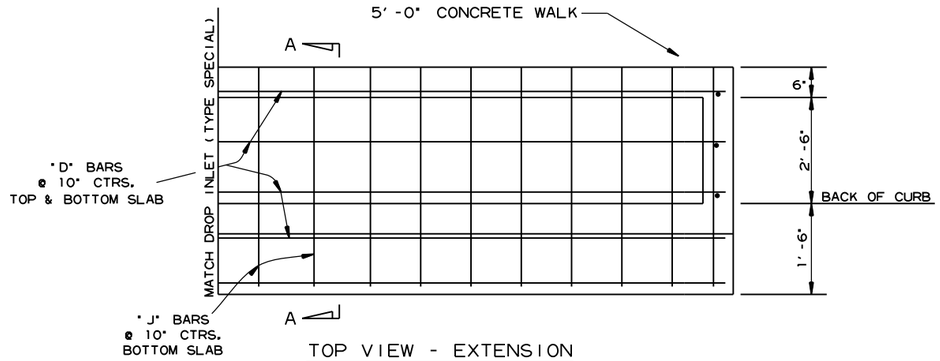


CLASS A CONC.	REINF. STEEL-RDWY. GRADE 60
CU. YDS.	POUND
2.53	207

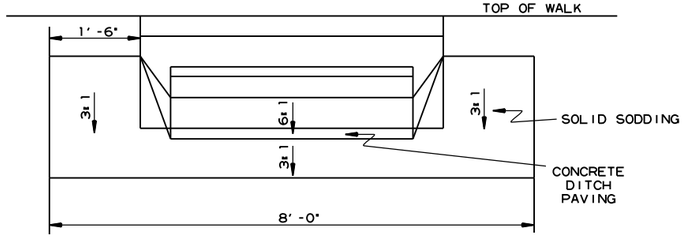
QUANTITIES FOR INFORMATION ONLY
DROP INLET (TYPE SPECIAL)



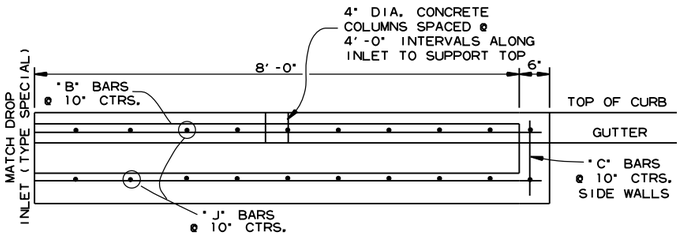
SECTION A-A - EXTENSION



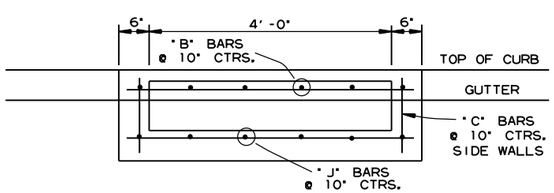
TOP VIEW - EXTENSION



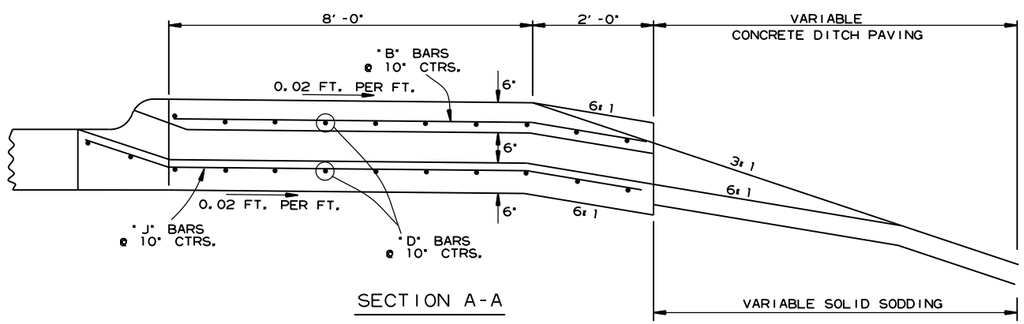
BACK VIEW



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.

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14044 JASON MacDONALD 08/29/25

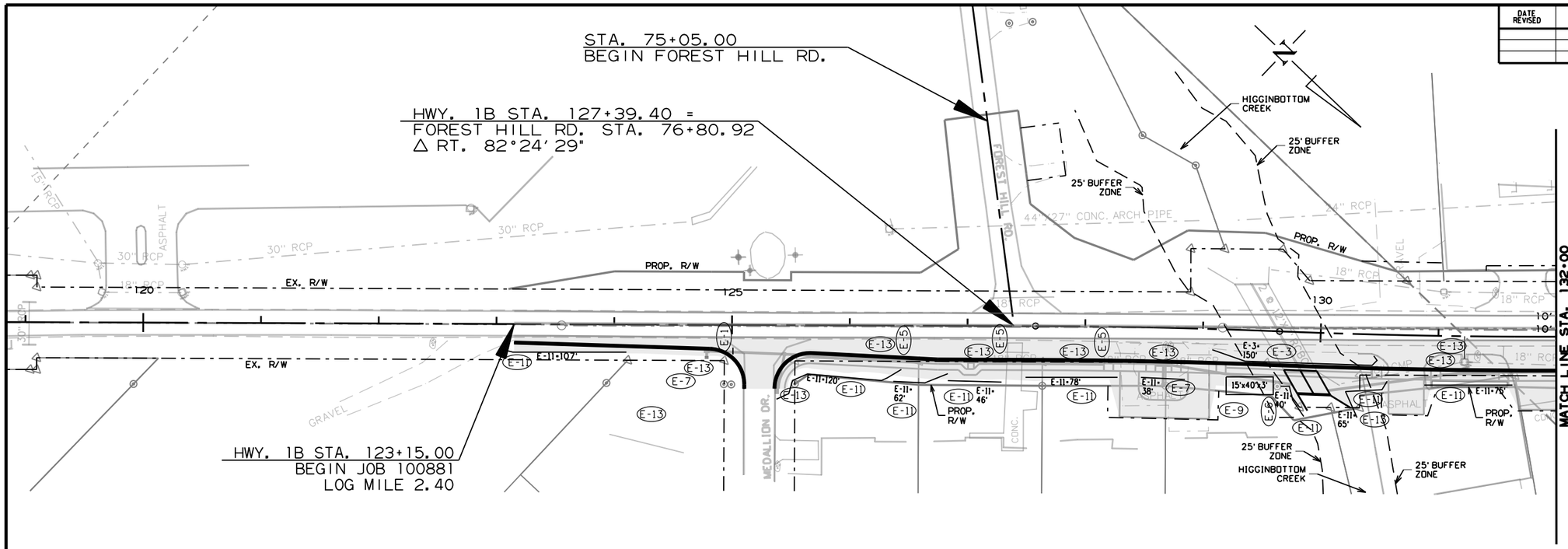
DROP INLET (TYPE SPECIAL)

SPECIAL DETAILS

tholt 8/28/2025
100881-07-SPECIALDETAILS.SHT

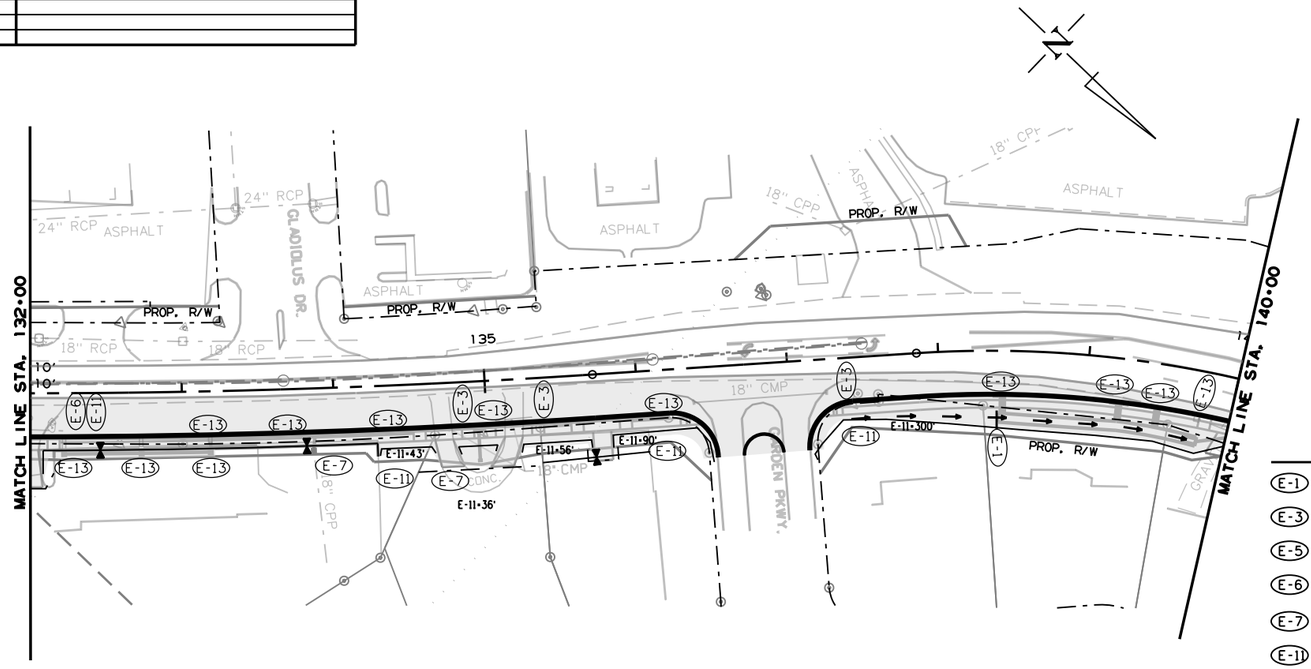
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	14	121
		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
12/08/25



REVISIONS

DATE OF REVISION	REVISION



WATTLE DITCH CHECKS	(E-1)	EACH
STA. 125+00	RT.	1
STA. 138+39	RT.	1

FILTER SOCK (SLOPE PROTECTION)	(E-3)	LIN. FT
STA. 134+85	RT.	20
STA. 135+40	RT.	20
STA. 137+40	RT.	20
STA. 129+10 TO 130+50	RT.	150

SAND BAG DITCH CHECKS	(E-5)	EACH
STA. 125+00	RT.	1
STA. 137+93	RT.	1
STA. 138+85	RT.	1

ROCK DITCH CHECKS	(E-6)	EACH
STA. 129+65	RT.	1
STA. 132+30	RT.	1

LEGEND

- (E-1) — WATTLE DITCH CHECKS
- (E-3) — FILTER SOCK (SLOPE PROTECTION)
- (E-5) SAND BAG DITCH CHECKS
- (E-6) ROCK DITCH CHECKS
- (E-7) DROP INLET SILT FENCE
- (E-11) — SILT FENCE
- (E-13) FILTER SOCK (INLET PROTECTION)
- (E-14) SEDIMENT BASIN

DROP INLET SILT FENCE	(E-7)	LIN. FT
STA. 124+79	RT.	30
STA. 128+67	RT.	30
STA. 133+86	RT.	30
STA. 134+95	RT.	30

SILT FENCE	(E-11)	LIN. FT
STA. 123+00 TO 124+00	RT.	107
STA. 125+40 TO 127+30	RT.	228
STA. 127+50 TO 130+00	RT.	156
STA. 130+20 TO 131+70	RT.	150
STA. 134+30 TO 136+50	RT.	225
STA. 137+00 TO 140+00	RT.	300

FILTER SOCK (INLET PROTECTION)	(E-13)	LIN. FT
STA. 124+79	RT.	6
STA. 125+38	RT.	6
STA. 126+41	RT.	6
STA. 127+15	RT.	10
STA. 128+14	RT.	6
STA. 128+67	RT.	6
STA. 131+22	RT.	6
STA. 131+22	RT.	25
STA. 132+22	RT.	25
STA. 132+73	RT.	25
STA. 133+18	RT.	25
STA. 133+18	RT.	10
STA. 133+87	RT.	14
STA. 134+35	RT.	6
STA. 134+95	RT.	6
STA. 136+18	RT.	6
STA. 138+43	RT.	10
STA. 139+23	RT.	14
STA. 139+50	RT.	6
STA. 139+78	RT.	6

SEDIMENT BASIN	(E-9)	EACH
STA. 129+40	RT.	1

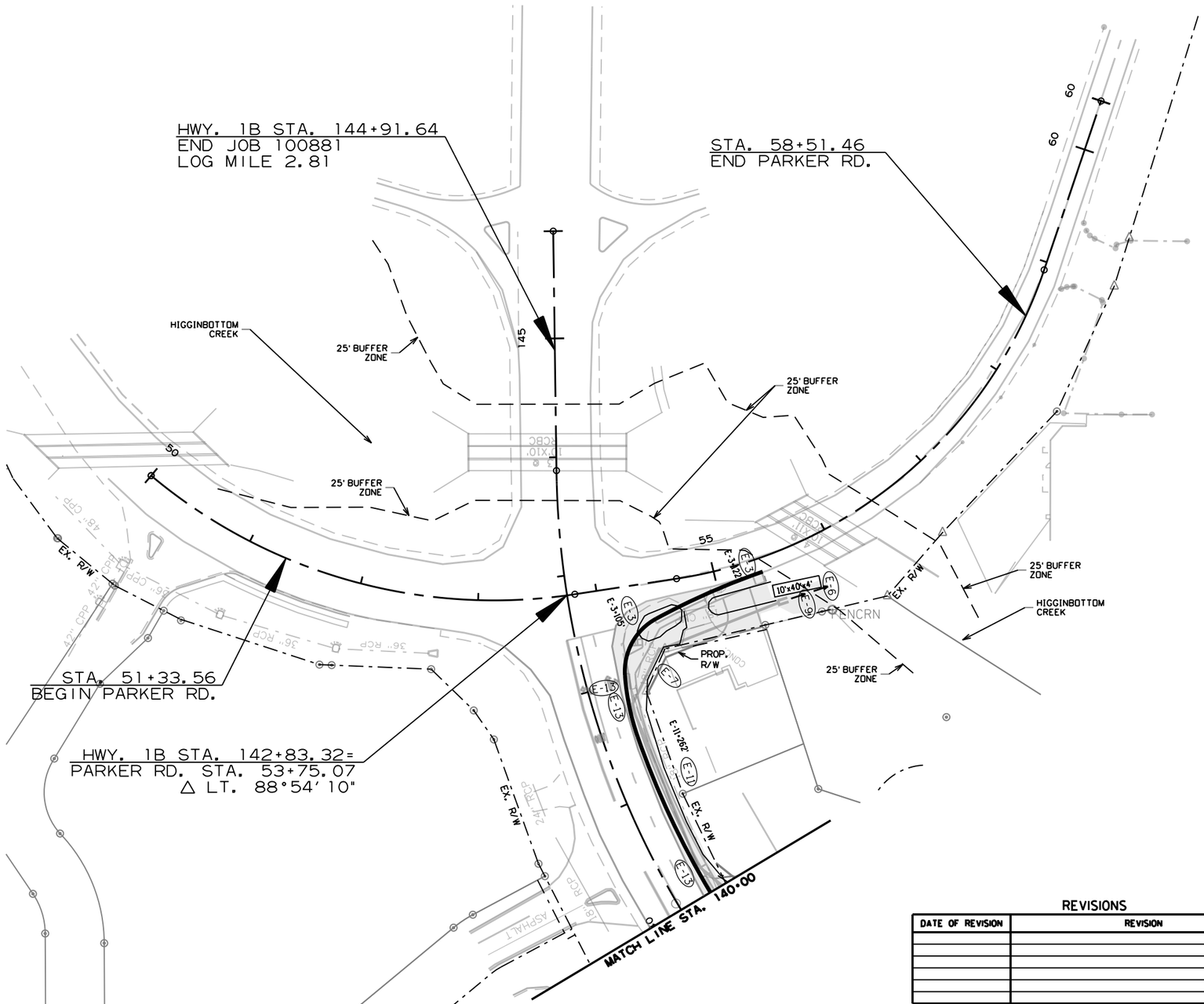
STAGE I

TEMPORARY EROSION CONTROL DETAILS

lholt 8/28/2025
100881-15-EPSC-STAGE1-1.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	15	121

TEMPORARY EROSION CONTROL DETAILS



FILTER SOCK (SLOPE PROTECTION)	E-3	LIN. FT
STA. 54+25 TO 54+70	RT.	105
STA. 54+90 TO 55+45	RT.	122

ROCK DITCH CHECKS	E-6	EACH
STA. 55+80	RT.	1

DROP INLET SILT FENCE	E-7	LIN. FT
STA. 142+27	RT.	30

SILT FENCE	E-11	LIN. FT
STA. 140+00 TO 142+50	RT.	262

FILTER SOCK (INLET PROTECTION)	E-13	LIN. FT
STA. 140+10	RT.	6
STA. 141+89	RT.	6
STA. 141+78	RT.	14

SEDIMENT BASIN	E-9	EACH
STA. 55+61	RT.	1

STATE OF ARKANSAS
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12/08/25

REVISIONS

DATE OF REVISION	REVISION

LEGEND

- E-3 FILTER SOCK (SLOPE PROTECTION)
- E-7 DROP INLET SILT FENCE
- E-11 SILT FENCE
- E-13 FILTER SOCK (INLET PROTECTION)
- E-14 SEDIMENT BASIN

STAGE I

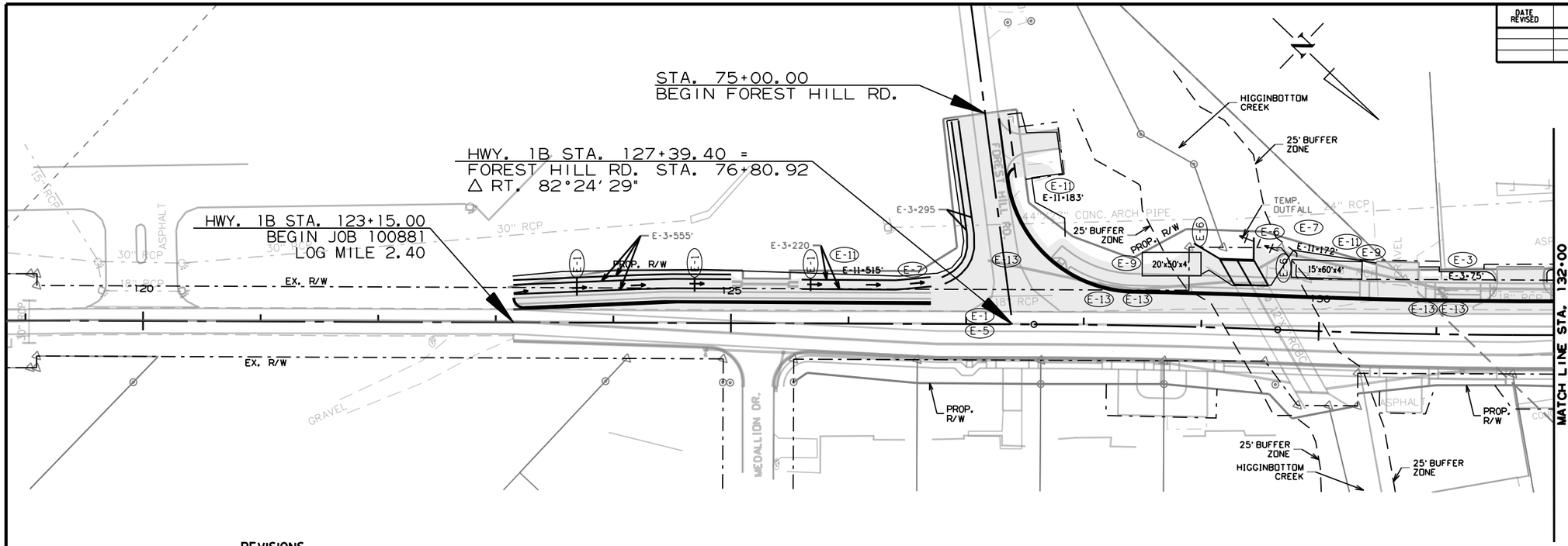
TEMPORARY EROSION CONTROL DETAILS

tholt 8/28/2025
100881-16-EPSC-STAGE1-2.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	16	121

TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
12/08/25

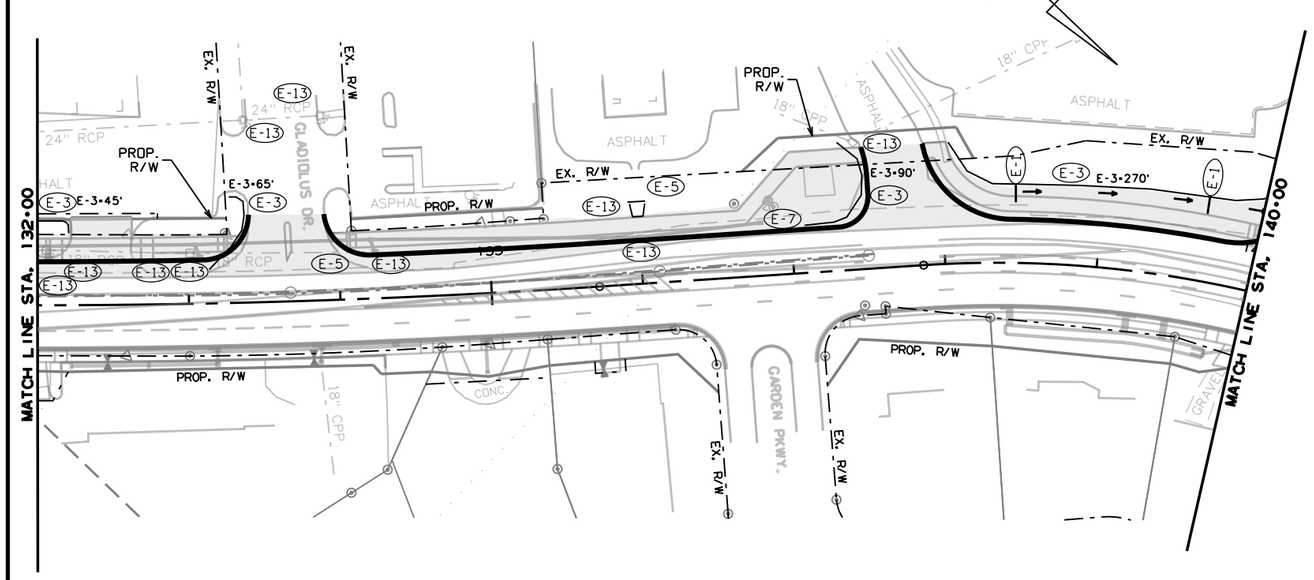


LEGEND

- (E-1) — WATTLE DITCH CHECKS
- (E-3) — FILTER SOCK (SLOPE PROTECTION)
- (E-5) SAND BAG DITCH CHECKS
- (E-6) ROCK DITCH CHECKS
- (E-7) DROP INLET SILT FENCE
- (E-14) SEDIMENT BASIN
- (E-11) — SILT FENCE
- (E-13) FILTER SOCK (INLET PROTECTION)

REVISIONS

DATE OF REVISION	REVISION



WATTLE DITCH CHECKS	(E-1)	LIN. FT
STA. 123+69	LT.	50
STA. 124+69	LT.	50
STA. 125+69	LT.	50
STA. 127+10	LT.	50
STA. 138+45	LT.	50
STA. 139+65	LT.	50

SILT FENCE	(E-11)	LIN. FT
STA. 123+15 TO 75+00+	LT.	515
STA. 75+00+ TO 76+13+	LT.	183
STA. 129+00 TO 130+50	LT.	172

FILTER SOCK (SLOPE PROTECTION)	(E-3)	LIN. FT
STA. 75+00 TO 76+40	LT.	295
STA. 123+15 TO 125+00	LT.	555
STA. 125+60 TO 126+70	LT.	220
STA. 130+85 TO 131+50	LT.	75
STA. 131+93 TO 132+22	LT.	45
STA. 133+14 TO 133+38	LT.	65
STA. 137+09 TO 137+50	LT.	90
STA. 138+05 TO 140+29	LT.	270

FILTER SOCK (INLET PROTECTION)	(E-13)	LIN. FT
STA. 127+15	LT.	6
STA. 128+14	LT.	6
STA. 128+45	LT.	6
STA. 131+04	LT.	25
STA. 131+07	LT.	6
STA. 132+05	LT.	25
STA. 132+08	LT.	6
STA. 133+01	LT.	25
STA. 133+08	LT.	10
STA. 133+42	LT.	6
STA. 133+90	LT.	6
STA. 134+24	LT.	6
STA. 136+00	LT.	6
STA. 136+00	LT.	20
STA. 137+45	LT.	6

SAND BAG DITCH CHECKS	(E-5)	EACH
STA. 127+10	LT.	1
STA. 129+50	LT.	3
STA. 134+18	LT.	1
STA. 136+00	LT.	2

ROCK DITCH CHECKS	(E-6)	EACH
STA. 129+02	LT.	1
STA. 129+50	LT.	3
STA. 129+72	LT.	1

DROP INLET SILT FENCE	(E-7)	LIN. FT
STA. 126+75	LT.	30
STA. 129+69	LT.	30
STA. 136+80	LT.	30

SEDIMENT BASIN	(E-9)	EACH
STA. 128+75	LT.	1
STA. 130+05	LT.	1

STAGE 2

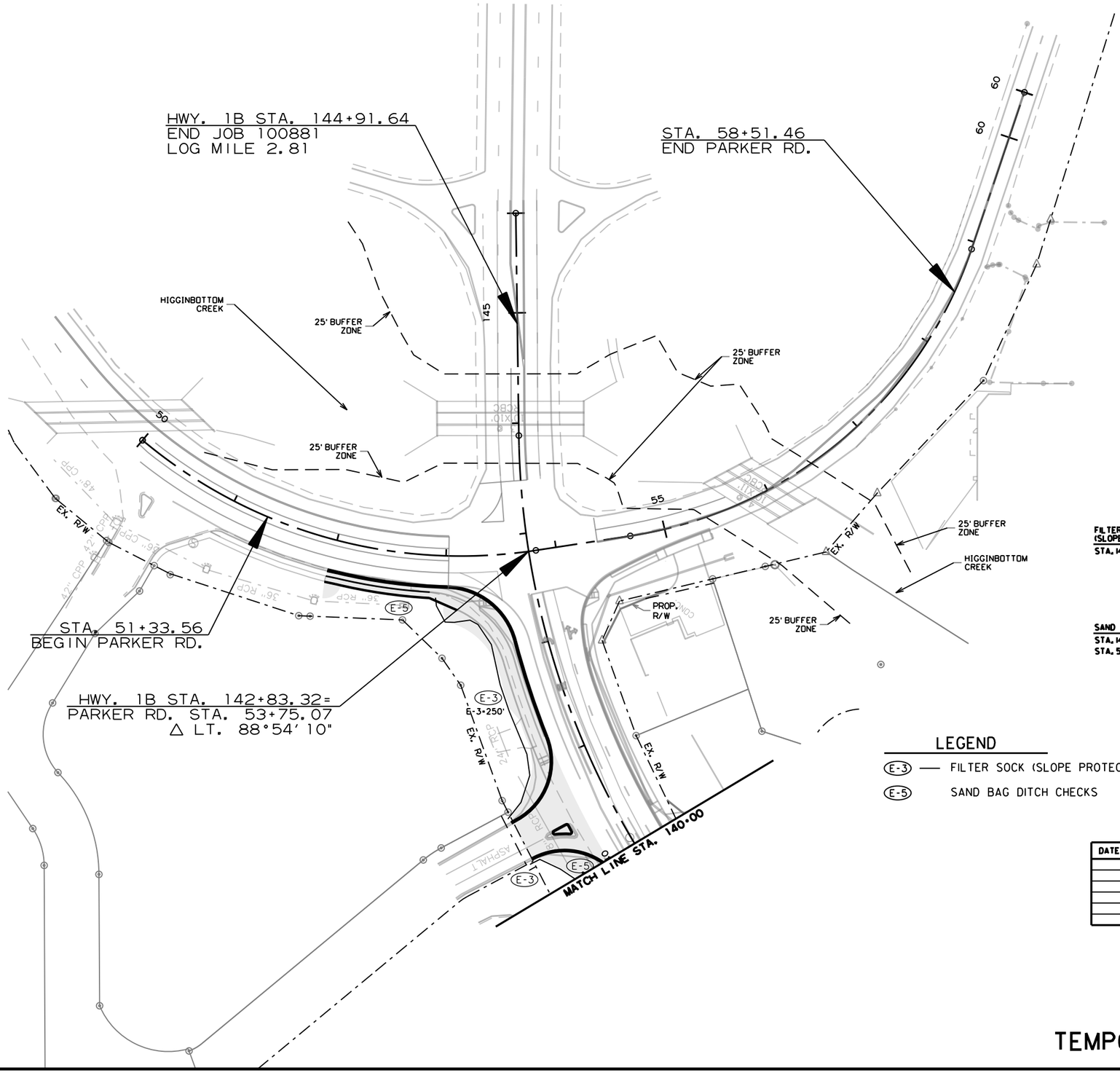
TEMPORARY EROSION CONTROL DETAILS

tholt 8/28/2025
100881-17-EPSC-STAGE2-1.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	17	121

TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
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FILTER SOCK (SLOPE PROTECTION)	E-3	LIN. FT
STA. 140+68 TO 142+60	LT.	250

SAND BAG DITCH CHECKS	E-5	EACH
STA. 140+10	LT.	1
STA. 52+65+	RT.	1

LEGEND

E-3 — FILTER SOCK (SLOPE PROTECTION)

E-5 SAND BAG DITCH CHECKS

REVISIONS

DATE OF REVISION	REVISION

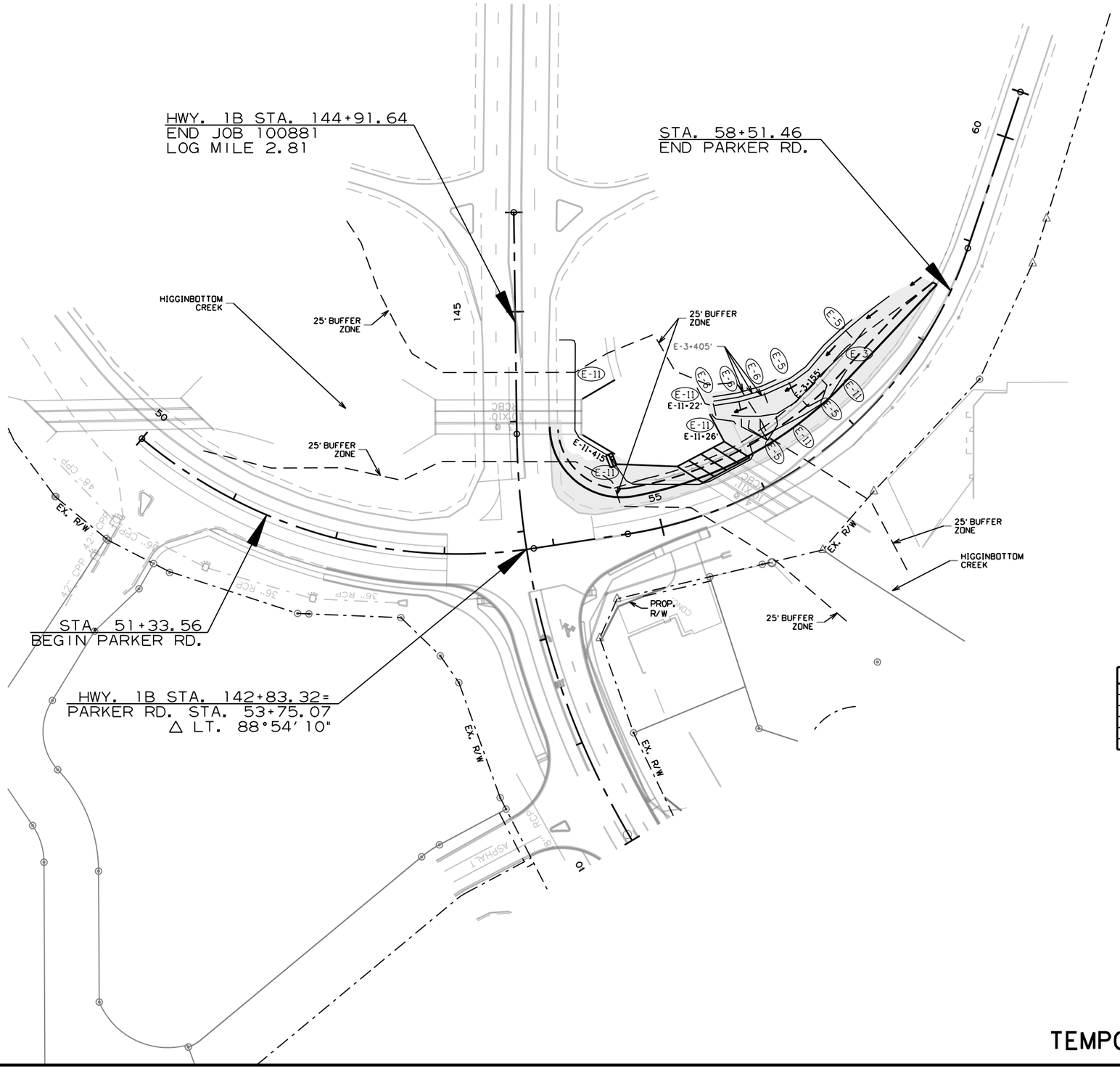
STAGE 2

TEMPORARY EROSION CONTROL DETAILS

tholt 8/28/2025
100881-18-EPSC-STAGE2-2.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	18	121

TEMPORARY EROSION CONTROL DETAILS



N

FILTER SOCK (SLOPE PROTECTION)	E-3	LIN. FT
STA. 56+06 TO 58+25	LT.	560

SAND BAG DITCH CHECKS	E-5	EACH
STA. 56+11	LT.	1
STA. 56+18	LT.	1
STA. 56+28	LT.	1
STA. 56+45	LT.	1
STA. 56+78	LT.	1
STA. 56+79	LT.	1
STA. 57+07	LT.	1
STA. 57+63	LT.	1

ROCK DITCH CHECKS	E-6	EACH
STA. 55+92	LT.	1
STA. 56+20	LT.	1
STA. 56+50	LT.	1

SILT FENCE	E-11	LIN. FT
STA. 144+15+ TO 57+33	RT.	415
STA. 55+86 TO 56+06	LT.	26
STA. 55+84 TO 55+90	LT.	22

REVISIONS

DATE OF REVISION	REVISION

LEGEND

- E-3 — FILTER SOCK (SLOPE PROTECTION)
- E-5 — SAND BAG DITCH CHECKS
- E-6 — ROCK DITCH CHECKS
- E-11 — SILT FENCE

STAGE 3

TEMPORARY EROSION CONTROL DETAILS

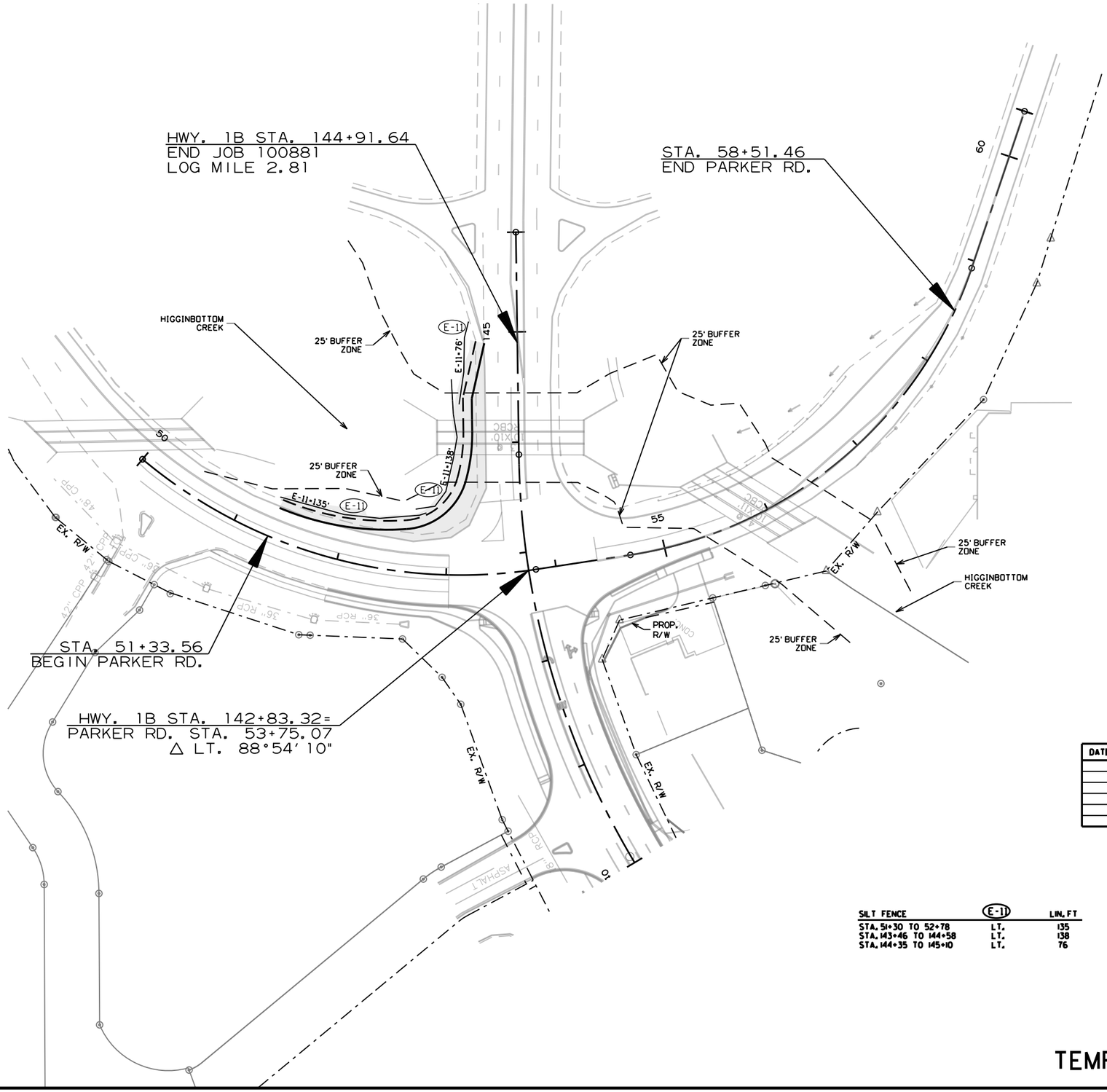
STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14044 JASON MacDONALD 12/08/25

tholt 8/28/2025
100881-19-EPSC-STAGE3.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	19	121

TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
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No. 14044
JASON MacDONALD
12/08/25



SILT FENCE	(E-11)	LIN. FT
STA. 51+30 TO 52+78	LT.	135
STA. 143+46 TO 144+58	LT.	138
STA. 144+35 TO 145+10	LT.	76

REVISIONS

DATE OF REVISION	REVISION

LEGEND

(E-11) —— SILT FENCE

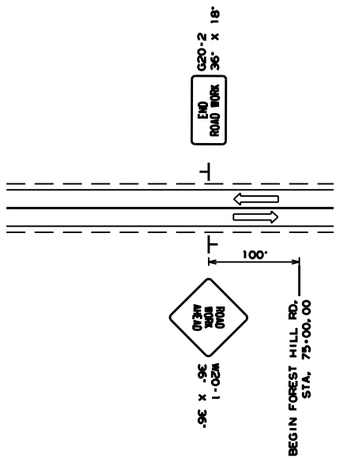
STAGE 4

TEMPORARY EROSION CONTROL DETAILS

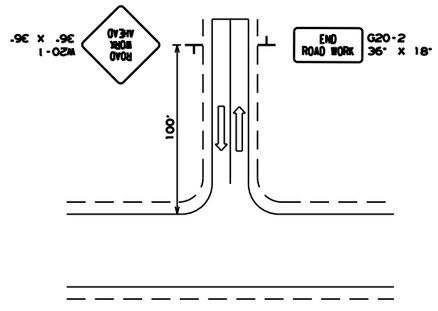
tholt 8/26/2025
100881-20-EPSC-STAGE4.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	20	121
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
08/29/25

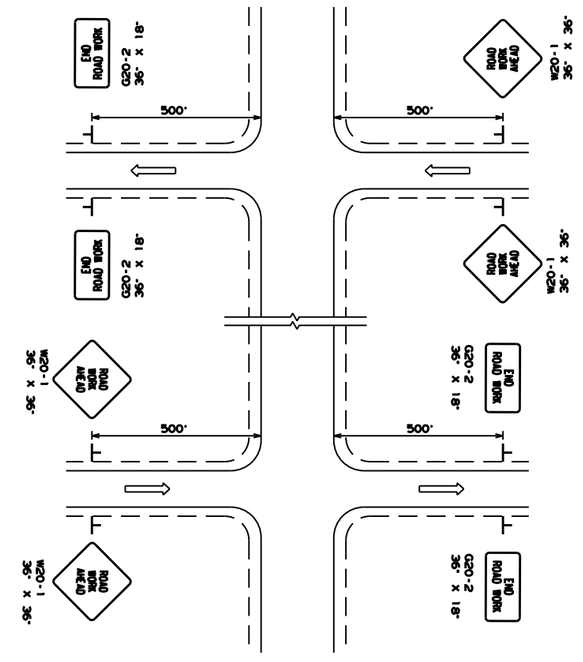


ADVANCE WARNING
FOREST HILL RD. (ALL STAGES)



ADVANCE WARNING - SIDE ROADS
(ALL STAGES)

STA. 125+23.44, MEDALLION DRIVE
STA. 133+65.85, GLADIOLUS DRIVE
STA. 136+81.05, GARDEN PARKWAY



ADVANCE WARNING I-555 RAMPS (ALL STAGES)

2 EACH	RIGHT SHOULDER CLOSED	W21-5a 36" x 36"
2 EACH	DO NOT PASS	R4-1 24" x 30"
4 EACH	BUMP	W8-1 36" x 36"

TO BE USED IF AND WHERE
DIRECTED BY THE ENGINEER

ADVANCE WARNING
MAINTENANCE OF TRAFFIC DETAILS

tholt 8/28/2025
100881-21-MOT-ADVWARN-1.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	21	121
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
08/29/25

CONSTRUCTION SEQUENCE

STAGE 1:

INSTALL ADVANCE WARNING SIGNS AT THE LOCATIONS LISTED ON THE ADVANCE WARNING DETAILS. INSTALL END ROADWORK SIGNS AT THE END OF JOB AS SHOWN ON THE ADVANCE WARNING DETAILS. INSTALL ROAD WORK AHEAD (W20-1) SIGNS ON THE SIDE STREETS AS SHOWN ON THE ADVANCE WARNING DETAILS.

INSTALL LEVELING ASPHALT, CONSTRUCTION PAVEMENT MARKINGS AND TRAFFIC DRUMS AS SHOWN IN THE STAGE 1 MAINTENANCE OF TRAFFIC DETAILS.

CONSTRUCT DRAINAGE STRUCTURES AS SHOWN IN THE STAGE 1 MAINTENANCE OF TRAFFIC DETAILS.

CONSTRUCT RT. OF HWY. 1B FROM STA. 123+15.00 TO STA 142+60.47 AND RT. OF PARKER RD. FROM STA. 54+22.91 TO STA. 55+39.05.

STAGE 2:

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

SHIFT TRAFFIC AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

CONSTRUCT DRAINAGE STRUCTURES AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

CONSTRUCT LT. OF HWY. 1B FROM STA. 123+15.00 TO STA 142+65.50.

STAGE 3:

RETAIN CONSTRUCTION PAVEMENT MARKINGS FROM PREVIOUS STAGE. INSTALL PRECAST CONCRETE BARRIERS AND TRAFFIC DRUMS AS SHOWN IN THE STAGE 3 MAINTENANCE OF TRAFFIC DETAILS.

CONSTRUCT REINFORCED CONCRETE BOX CULVERT EXTENSION AND WINGWALLS.

CONSTRUCT RT. OF HWY. 1B FROM STA. 143+10.89 TO STA 144+01.25 AND LT. OF PARKER RD. FROM STA. 54+26.44 TO STA. 58+51.46

STAGE 4:

RETAIN CONSTRUCTION PAVEMENT MARKINGS FROM PREVIOUS STAGE. INSTALL TRAFFIC DRUMS AS SHOWN IN THE STAGE 4 MAINTENANCE OF TRAFFIC DETAILS.

CONSTRUCT LT. OF HWY. 1B FROM STA. 143+29.08 TO STA.. 144+91.64 AND LT. OF PARKER RD. FROM STA. 51+33.46 TO STA. 53+21.87.

APPLY FINAL 2" OF ACHM AND PLACE PERMANENT PAVEMENT MARKING AS SHOWN IN THE PERMANENT PAVEMENT MARKING DETAILS.

MOT QUANTITIES

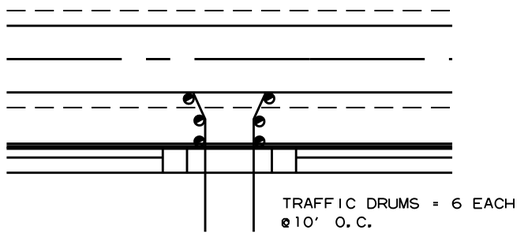
ADVANCED WARNING (ALL STAGES):
SIGNS = 180 SQ. FT.

STAGE 1:
TRAFFIC DRUMS = 92 EACH

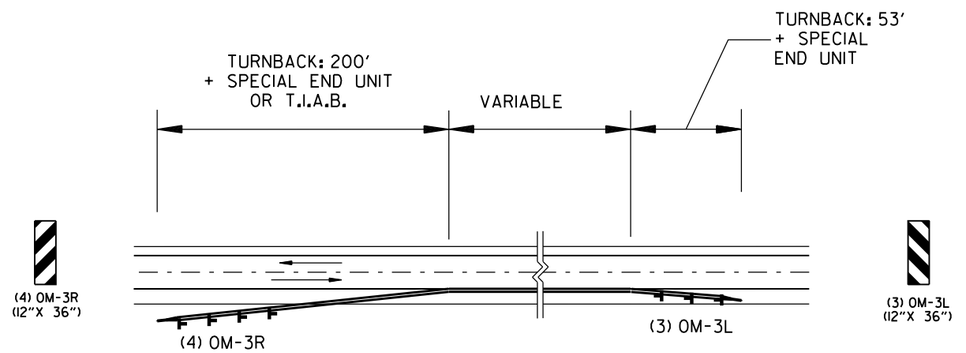
STAGE 2:
TRAFFIC DRUMS = 86 EACH

STAGE 3:
TRAFFIC DRUMS = 10 EACH
PRECAST CONC. BARRIER = 160 L.F.
SPECIAL END UNIT = 1 EACH
TIAB = 1 EACH

STAGE 4:
TRAFFIC DRUMS = 9 EACH



DRIVEWAY/TRAFFIC DRUM DETAIL



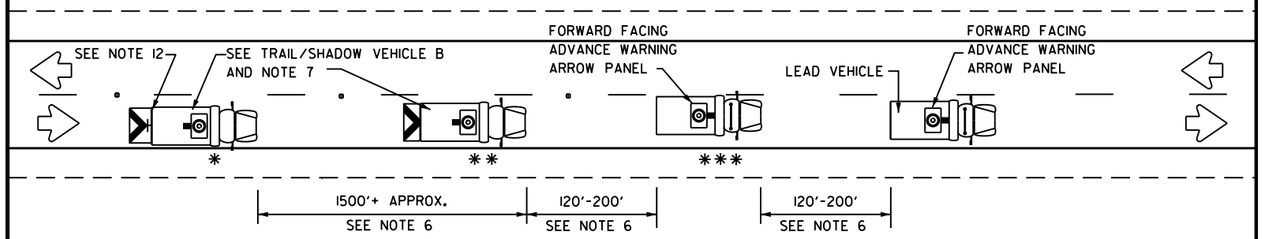
REFER ALSO TO STANDARD DRAWING TC-5 FOR DETAILS OF PLACEMENT OF PCCB TURNBACKS.

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

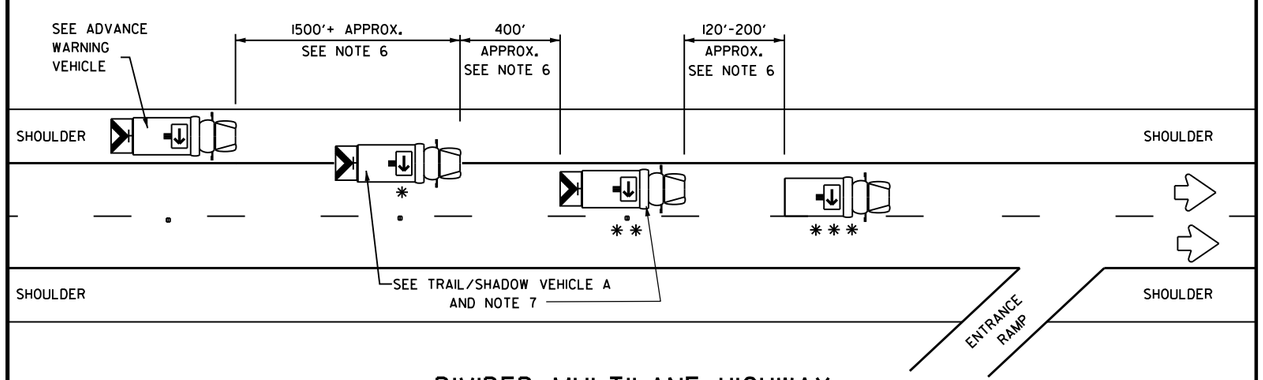
DETAIL OF OBJECT MARKERS
AT PRECAST CONCRETE BARRIER TURNBACKS

ADVANCE WARNING
MAINTENANCE OF TRAFFIC DETAILS

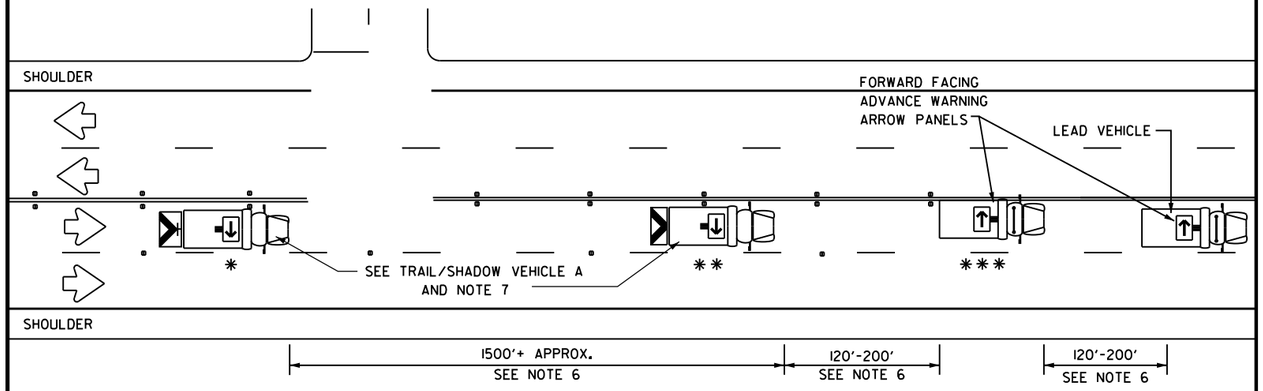
tholt 8/28/2025
100881-22-MOT-ADVWARN-2.SHT



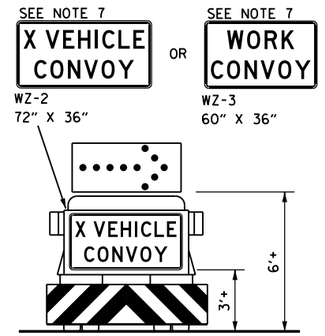
TWO LANE HIGHWAY (WORK ON TRAVEL LANE)



DIVIDED MULTILANE HIGHWAY

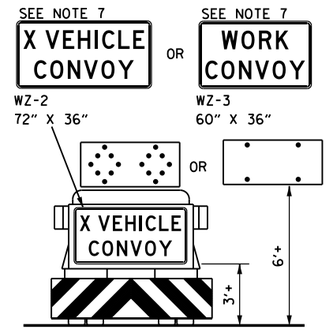


UNDIVIDED MULTILANE HIGHWAY



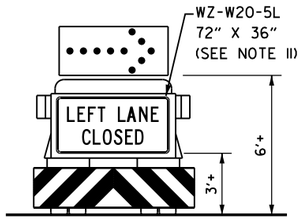
TRAIL/SHADOW VEHICLE A

WITH RIGHT DIRECTIONAL ADVANCE WARNING ARROW PANEL



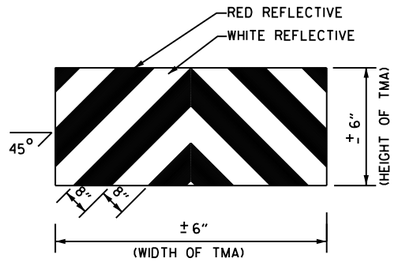
TRAIL/SHADOW VEHICLE B

WITH ADVANCE WARNING ARROW PANEL IN CAUTION MODE



ADVANCE WARNING VEHICLE

WITH RIGHT DIRECTIONAL ADVANCE WARNING ARROW PANEL



STRIPING FOR TMA

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
1/8/2026		6	ARK.	100881	21A	121
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14044 JASON MacDONALD 01/09/26

LEGEND			
*	TRAIL VEHICLE	ADVANCE WARNING ARROW PANEL DISPLAY	
**	SHADOW VEHICLE		
***	WORK VEHICLE		RIGHT DIRECTIONAL
	HEAVY WORK VEHICLE		LEFT DIRECTIONAL
	TRUCK MOUNTED ATTENUATOR (TMA)		DOUBLE ARROW
	TRAFFIC FLOW		CAUTION (ALTERNATING DIAMOND OR 4 CORNER FLASH)

TYPICAL APPLICATION - MOBILE WORK ZONE

GENERAL NOTES:

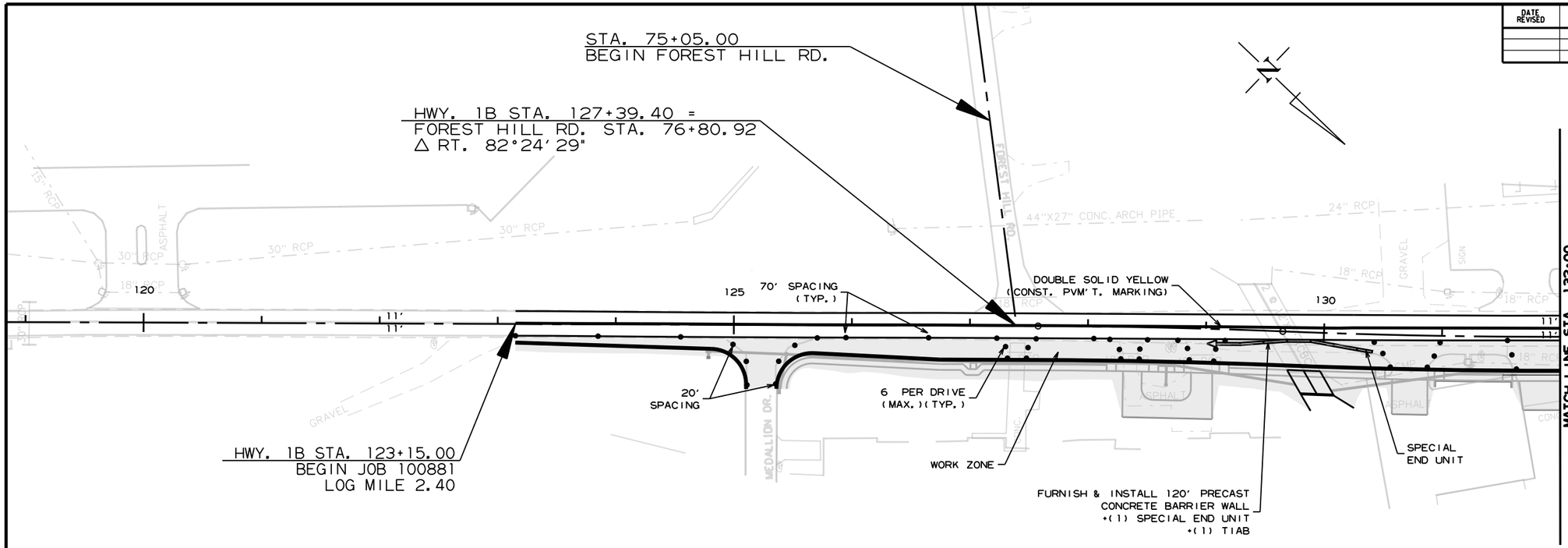
1. TRAIL, SHADOW, AND LEAD VEHICLES SHALL BE EQUIPPED WITH ADVANCE WARNING ARROW PANELS AS ILLUSTRATED.
2. THE USE OF AMBER OR GREEN HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS ON ALL VEHICLES ARE REQUIRED. VEHICLE HAZARD WARNING SIGNALS SHALL NOT BE USED INSTEAD OF THE VEHICLE'S HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS.
3. THE USE OF TRUCK MOUNTED ATTENUATORS (TMA) ON THE SHADOW VEHICLE, ADVANCE WARNING AND TRAIL VEHICLE ARE REQUIRED.
4. EACH VEHICLE SHALL HAVE TWO-WAY RADIO COMMUNICATION CAPABILITY.
5. WHEN WORK CONVOYS MUST CHANGE LANES, THE TRAIL VEHICLE SHOULD CHANGE LANES FIRST TO SHADOW THE OTHER CONVOY VEHICLES. WHEN WORK CONVOY EXITS THE ROADWAY, THE TRAIL VEHICLE SHOULD EXIT LAST.
6. VEHICLE SPACING BETWEEN THE TRAIL VEHICLE AND THE SHADOW VEHICLE WILL VARY DEPENDING ON SIGHT DISTANCE RESTRICTIONS AND QUEUE LENGTHS. MOTORISTS APPROACHING THE CONVOY SHOULD BE ABLE TO SEE THE TRAIL VEHICLE IN TIME TO SLOW DOWN AND/OR CHANGE LANES AS THEY APPROACH THE TRAIL VEHICLE. VEHICLE SPACING BETWEEN THE WORK VEHICLE AND SHADOW VEHICLE AND VEHICLE SPACING BETWEEN THE WORK VEHICLE AND LEAD VEHICLE MAY VARY ACCORDING TO TERRAIN, WORK ACTIVITY AND OTHER FACTORS.
7. X VEHICLE CONVOY (WZ-2) OR WORK CONVOY (WZ-3) SIGNS SHALL BE USED ON TRAIL VEHICLES AND SHADOW VEHICLES AS SHOWN. AS AN OPTION 48" X 48" DIAMOND SHAPED WORK CONVOY (WZ-2A) OR X VEHICLE CONVOY (WZ-3A) SIGNS MAY BE USED WHERE ADEQUATE MOUNTING SPACE EXISTS. WHEN USED, THE X VEHICLE CONVOY SIGN SHALL HAVE THE NUMBER OF THE CONVOY VEHICLES DISPLAYED ON THE SIGN IN THE NUMBER DESIGNATION "X" LOCATION. THE X VEHICLE CONVOY SIGN SHALL NOT BE USED ON THE SHADOW VEHICLE.
8. FOR DIVIDED HIGHWAYS WITH TWO OR THREE LANES IN ONE DIRECTION, THE APPROPRIATE LEFT LANE CLOSED (WZ-W20-5L), RIGHT LANE CLOSED (WZ-W20-5R), OR CENTER LANE CLOSED (WZ-W20-5C) SIGN SHOULD BE USED ON THE ADVANCE WARNING VEHICLE. AS AN OPTION, A PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) OR TRUCK MOUNTED CHANGEABLE MESSAGE SIGN (TMCMS) WITH A MINIMUM CHARACTER HEIGHT OF 12", AND DISPLAYING THE SAME LEGEND MAY BE SUBSTITUTED FOR THESE SIGNS. AN APPROPRIATE DIRECTIONAL ARROW DISPLAY, SIMULATING THE SIZE AND LEGIBILITY OFTHE ADVANCE WARNING ARROW PANEL MAY BE USED IN THE SECOND PHASE OF THE PCMS/TMCMS MESSAGE. WHEN THIS IS DONE, THE ARROW BOARD WILL NOT BE REQUIRED ON THE ADVANCE WARNING VEHICLE.
9. A DOUBLE ARROW SHALL NOT BE DISPLAYED ON THE ADVANCE WARNING ARROW PANEL ON THE ADVANCE WARNING VEHICLE.
10. STANDARD DIAMOND SHAPE VERSIONS OF THE WZ SERIES SIGNS MAY BE USED AS AN OPTION IF THE RECTANGULAR SIGNS SHOWN ARE NOT AVAILABLE.
11. THE ADVANCE WARNING VEHICLE MAY STRADDLE THE EDGELINE WHEN SHOULDER WIDTH MAKES IT NECESSARY.
12. ON TWO-LANE TWO-WAY ROADWAYS, THE WORK AND PROTECTION VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW MOTOR VEHICLE TRAFFIC TO PASS. A DO NOT PASS (R4-1) SIGN SHALL BE PLACED ON THE BACK OF THE REARMOST PROTECTION VEHICLE.
13. MOBILE WORK ZONE METHODS AS DEPICTED IN THIS STANDARD DRAWING SHALL BE UTILIZED ON ALL PROJECTS THAT INCLUDE INSTALLATION OR REMOVAL OF RAISED PAVEMENT MARKERS OR PAVEMENT MARKINGS UNLESS APPROVED BY THE ENGINEER ON PROJECTS LESS THAN 0.5 MILE IN LENGTH.
14. NO DIRECT PAYMENT WILL BE MADE FOR COMPLIANCE WITH THE METHODS DEPICTED IN THIS STANDARD DRAWING (WHICH INCLUDES ALL SIGNS, DEVICES, MATERIALS, LABOR, TOOLS, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLY) BUT SHALL BE CONSIDERED SUBSIDIARY TO THE MAINTENANCE OF TRAFFIC PAY ITEM.

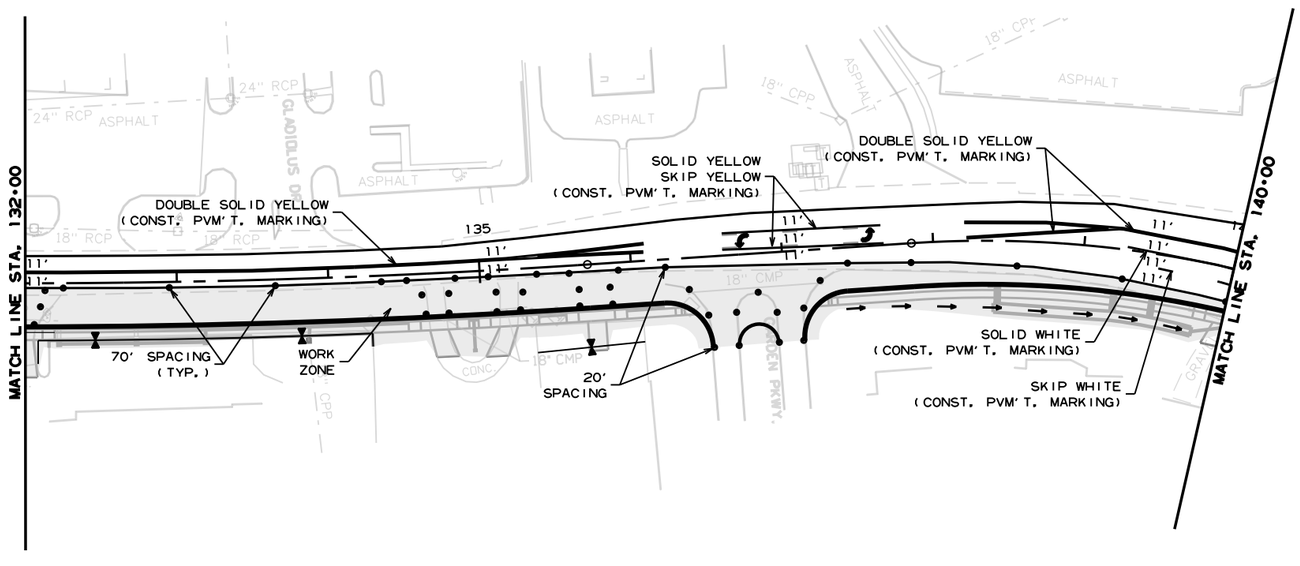
MAINTENANCE OF TRAFFIC DETAILS

tholt 1/9/2026 100881-22-MOT-ADVWARN-2.SHT

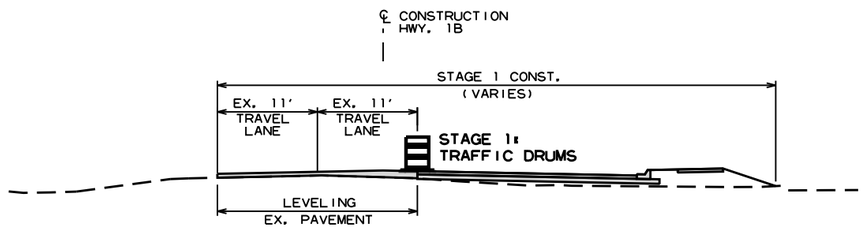
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	22	121
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
08/29/25





MAINT. OF TRAFFIC LEGEND	
SYMBOL	ITEM
▭	WORK ZONE
●	TRAFFIC DRUMS (CHANNELIZING)
▪	VERTICAL PANEL (CHANNELIZING)
⊢	SIGN (CONSTRUCTION)



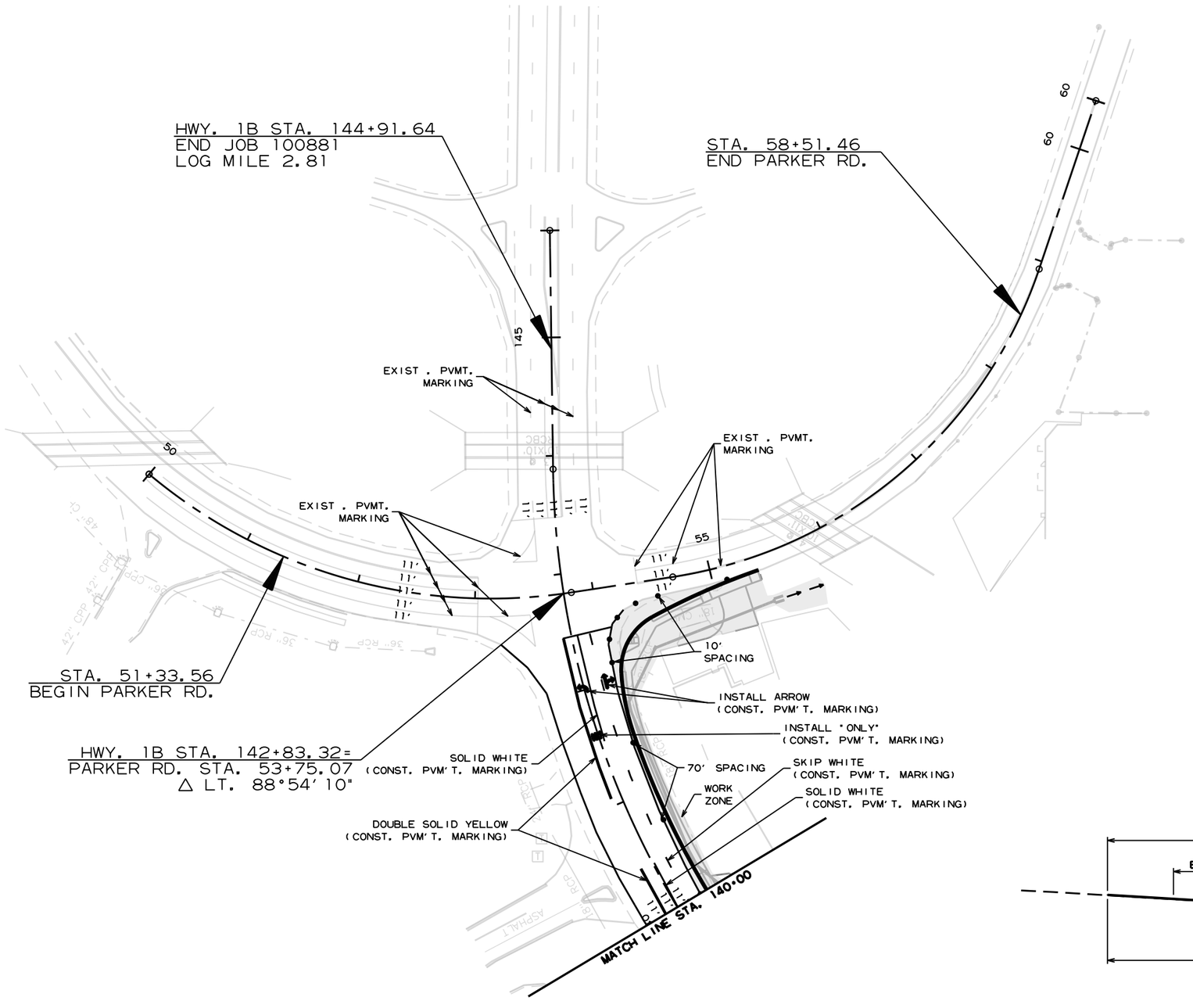
STAGE 1

MAINTENANCE OF TRAFFIC DETAILS

tholt 8/28/2025
100881-23-MOT-STAGE1-1.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	23	121
		MAINTENANCE OF TRAFFIC DETAILS				

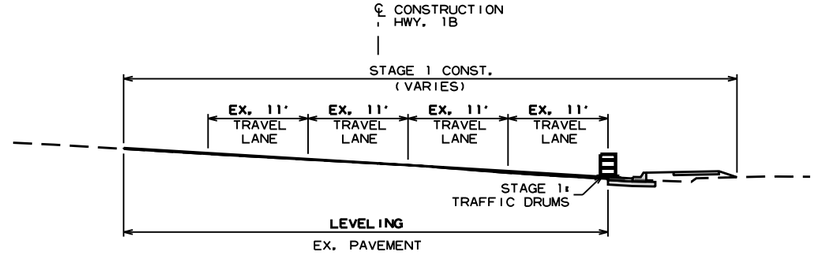
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
08/29/25





MAINT. OF TRAFFIC LEGEND

SYMBOL	ITEM
	WORK ZONE
⊙	TRAFFIC DRUMS (CHANNELIZING)
▪	VERTICAL PANEL (CHANNELIZING)
⊢	SIGN (CONSTRUCTION)



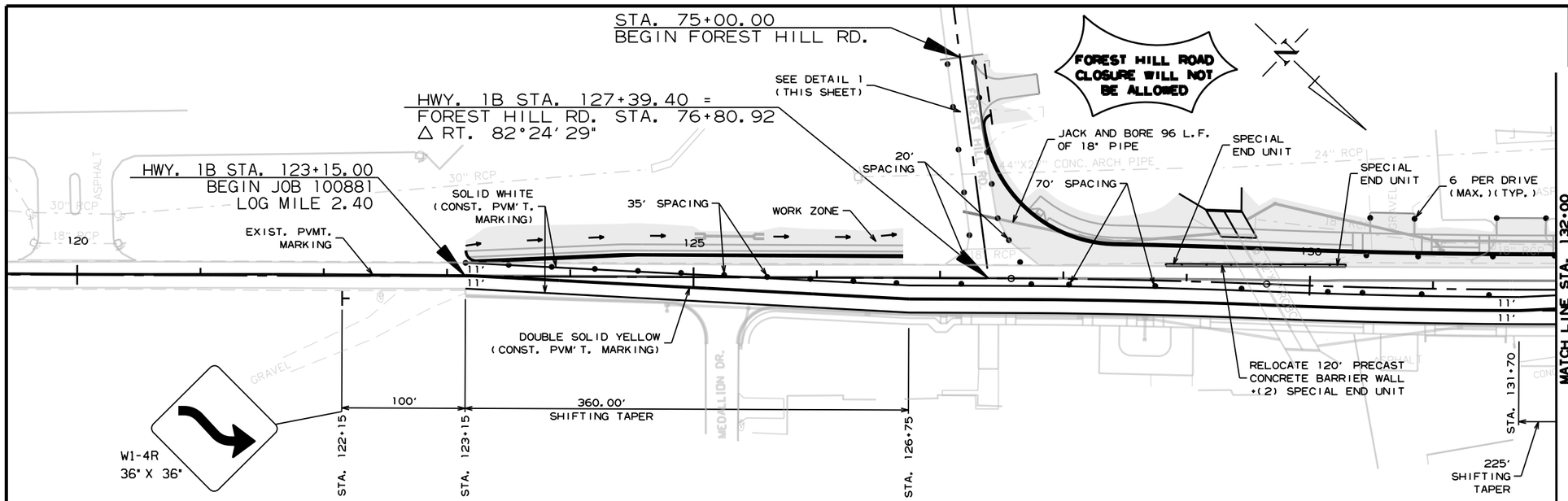
STAGE 1
MAINTENANCE OF TRAFFIC DETAILS

tholl 8/28/2025
100881-24-MOT-STAGE1-2.SHT

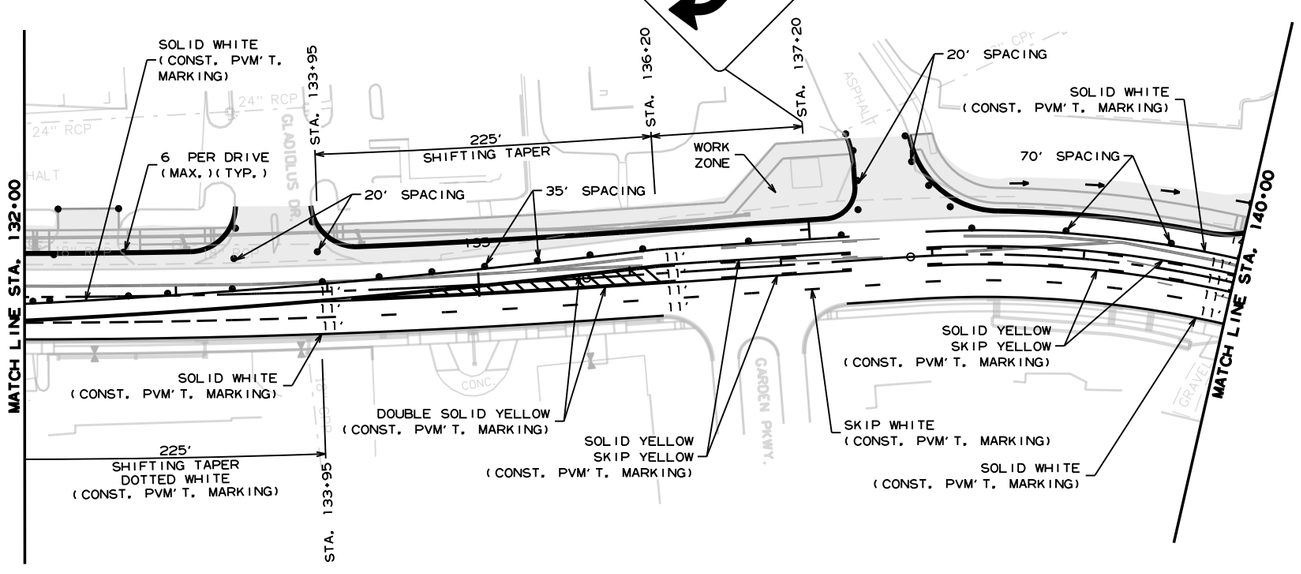
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		6	ARK.	100881	24	121

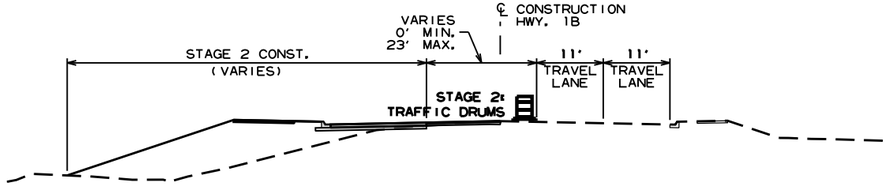
MAINTENANCE OF TRAFFIC DETAILS

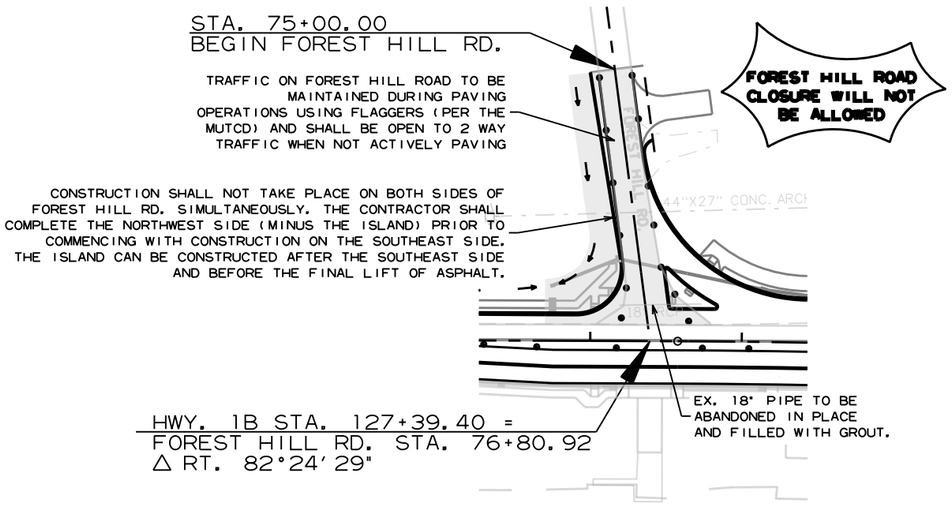
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
08/29/25



MAINT. OF TRAFFIC LEGEND	
SYMBOL	ITEM
▭	WORK ZONE
●	TRAFFIC DRUMS (CHANNELIZING)
▪	VERTICAL PANEL (CHANNELIZING)
⊢	SIGN (CONSTRUCTION)







DETAIL 1

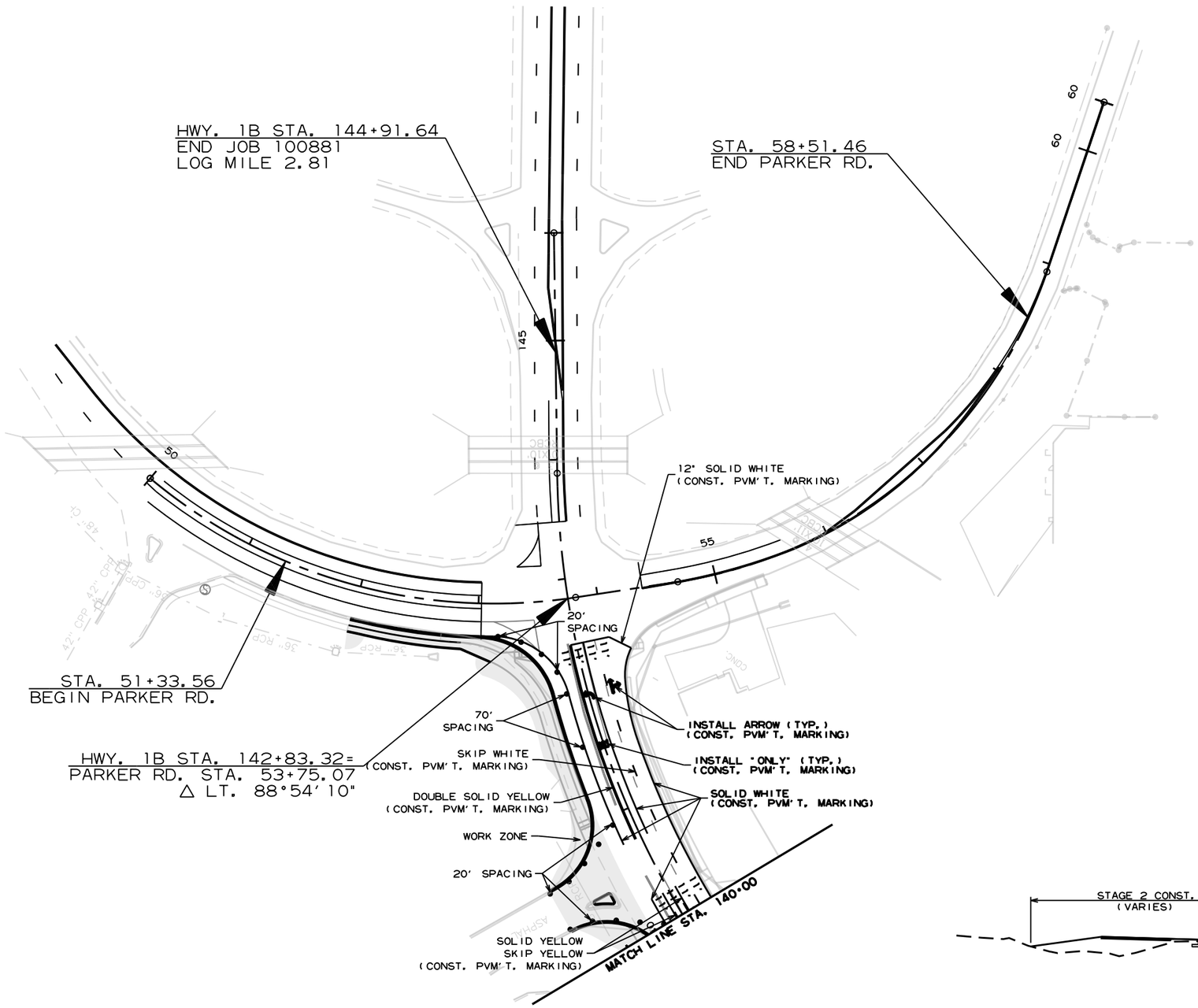
STAGE 2

MAINTENANCE OF TRAFFIC DETAILS

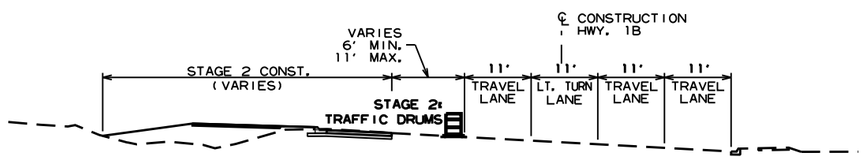
tholl 8/28/2025
100881-25-MOT-STAGE2-1.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	25	121
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
08/29/25



MAINT. OF TRAFFIC LEGEND	
SYMBOL	ITEM
▭	WORK ZONE
⊕	TRAFFIC DRUMS (CHANNELIZING)
•	VERTICAL PANEL (CHANNELIZING)
⊢	SIGN (CONSTRUCTION)



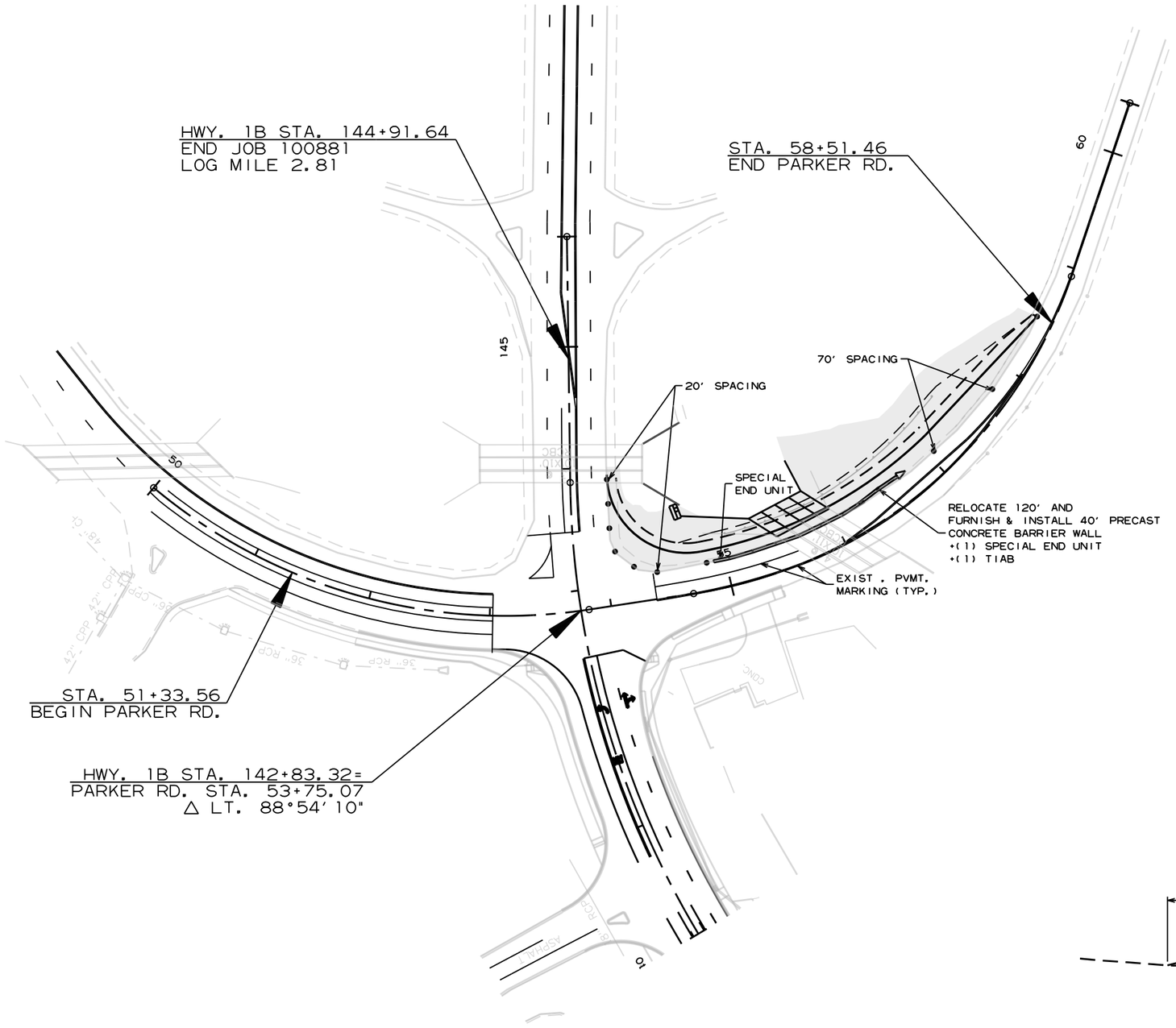
STAGE 2

MAINTENANCE OF TRAFFIC DETAILS

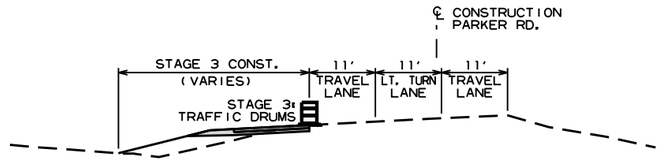
tholt 8/28/2025
100881-26-MOT-STAGE2-2.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	26	121
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
08/29/25



MAINT. OF TRAFFIC LEGEND	
SYMBOL	ITEM
	WORK ZONE
◍	TRAFIC DRUMS (CHANNELIZING)
▪	VERTICAL PANEL (CHANNELIZING)
⊢	SIGN (CONSTRUCTION)
	PRECAST CONCRETE BARRIER



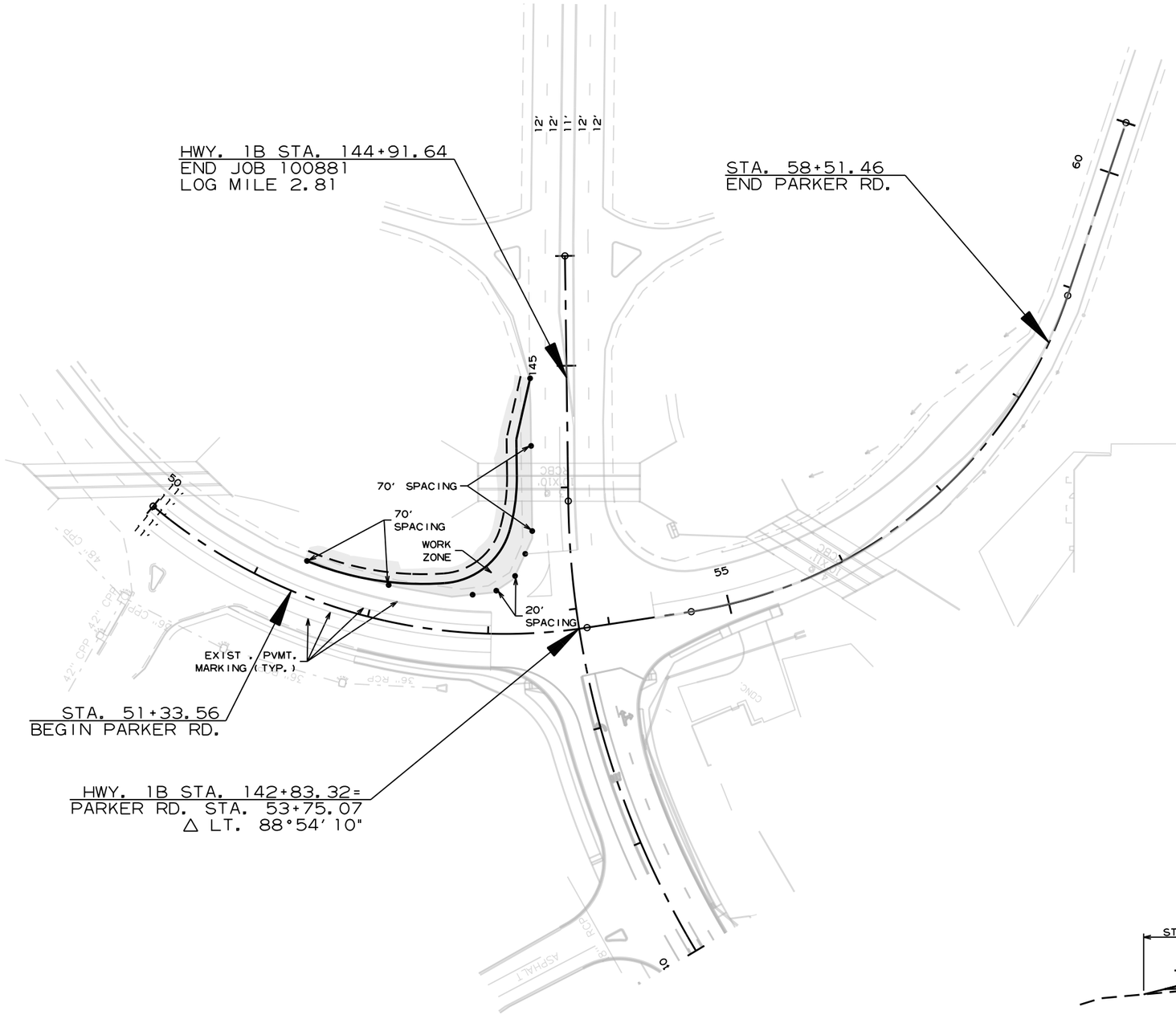
STAGE 3

MAINTENANCE OF TRAFFIC DETAILS

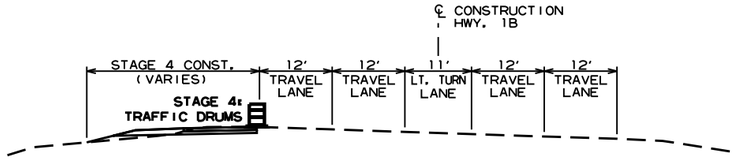
tholt 8/28/2025
100881-27-MDT-STAGE3.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	27	121
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
08/29/25



MAINT. OF TRAFFIC LEGEND	
SYMBOL	ITEM
▭	WORK ZONE
●	TRAFFIC DRUMS (CHANNELIZING)
▪	VERTICAL PANEL (CHANNELIZING)
⊢	SIGN (CONSTRUCTION)



STAGE 4
MAINTENANCE OF TRAFFIC DETAILS

tholt 8/28/2025
100881-28-MOT-STAGE4.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	28	121
		PERMANENT PAVEMENT MARKING DETAILS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
08/29/25

LEGEND
- WORD "ONLY"
- RIGHT TURN ARROW
- LEFT TURN ARROW
- THRU/RIGHT TURN ARROW

STA. 75+00.00
BEGIN FOREST HILL RD.

127.32' TAPER
(6" WHITE)
123+15
124+42.32

150'
(12" WHITE)
300'
(12" DOTTED WHITE)
128+00
129+50
132+50

6" WHITE
THERMOPLASTIC
PAVEMENT MARKING

N38°52'46"E

6" DBL. YELLOW
THERMOPLASTIC PAVEMENT MARKING
WITH R.P.M. (TYPE II)
(YELLOW/YELLOW) 80' O.C.

125

12" WHITE (STOP LINE)
12" WHITE (CROSS WALK)
THERMOPLASTIC PAVEMENT MARKING

130

12" DOTTED WHITE
THERMOPLASTIC PAVEMENT MARKING
WITH R.P.M. (TYPE II) (WHITE/RED) 80' O.C.

6" YELLOW
WITH 6" SKIP YELLOW
THERMOPLASTIC PAVEMENT MARKING
WITH R.P.M. (TYPE II) (YELLOW/YELLOW) 80' O.C.

6" WHITE
THERMOPLASTIC PAVEMENT MARKING
WITH R.P.M. (TYPE II) (WHITE/RED) 80' O.C.

FOREST HILL RD.

P.I. 128+61.39

12" YELLOW
THERMOPLASTIC
PAVEMENT MARKING

HWY. 1B STA. 123+15.00
BEGIN JOB 100881
LOG MILE 2.40

N43°31'43"W

50' GAP

GLADIOLUS DR.

MATCH LINE STA. 134+00

50' GAP

N41°27'20"W

N47°31'08"W

MEDALLION DR.

P.C. 127+57.72

PRC 129+65.03

P.I. 132+68.48

6" DBL. YELLOW
THERMOPLASTIC PAVEMENT MARKING
WITH R.P.M. (TYPE II)
(YELLOW/YELLOW) 80' O.C.

6" WHITE
THERMOPLASTIC PAVEMENT MARKING

6" DOTTED WHITE
THERMOPLASTIC PAVEMENT MARKING
WITH R.P.M. (TYPE II) (WHITE/RED) 80' O.C.

12" WHITE
THERMOPLASTIC PAVEMENT MARKING

6" SKIP WHITE
THERMOPLASTIC PAVEMENT MARKING
WITH R.P.M. (TYPE II) (WHITE/RED) 80' O.C.

123+15
124+42.32
126+75

360' TAPER

127.32' TAPER
(6" DBL. YELLOW)

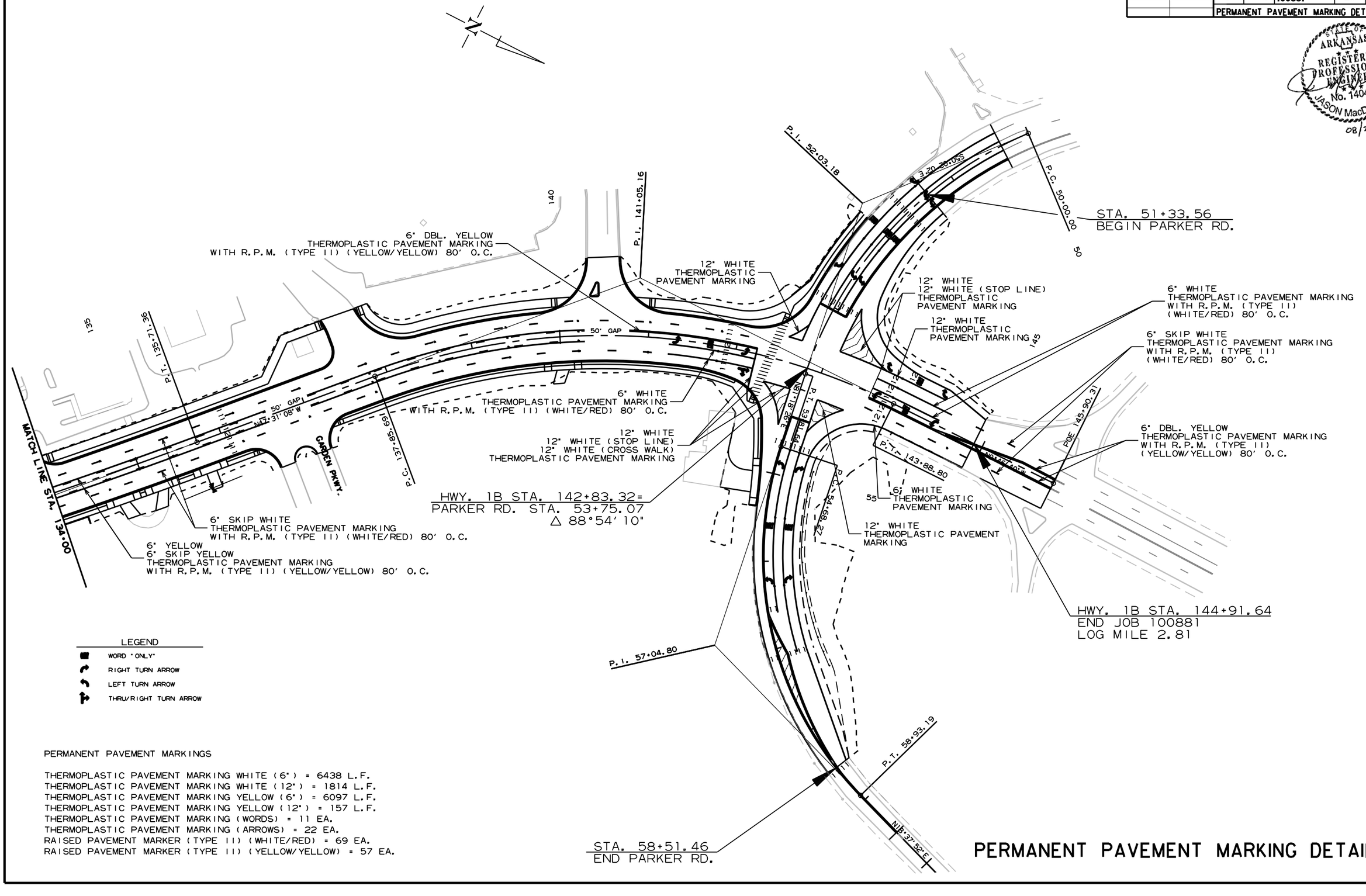
HWY. 1B STA. 127+39.40 =
FOREST HILL RD. STA. 76+80.92
Δ RT. 82°24'29"

PERMANENT PAVEMENT MARKING DETAILS

tholl 8/28/2025
100881-29-PERMPAVEMARKING-1.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	29	121
		PERMANENT PAVEMENT MARKING DETAILS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
08/29/25



LEGEND

- WORD "ONLY"
- RIGHT TURN ARROW
- LEFT TURN ARROW
- THRU/RIGHT TURN ARROW

PERMANENT PAVEMENT MARKINGS

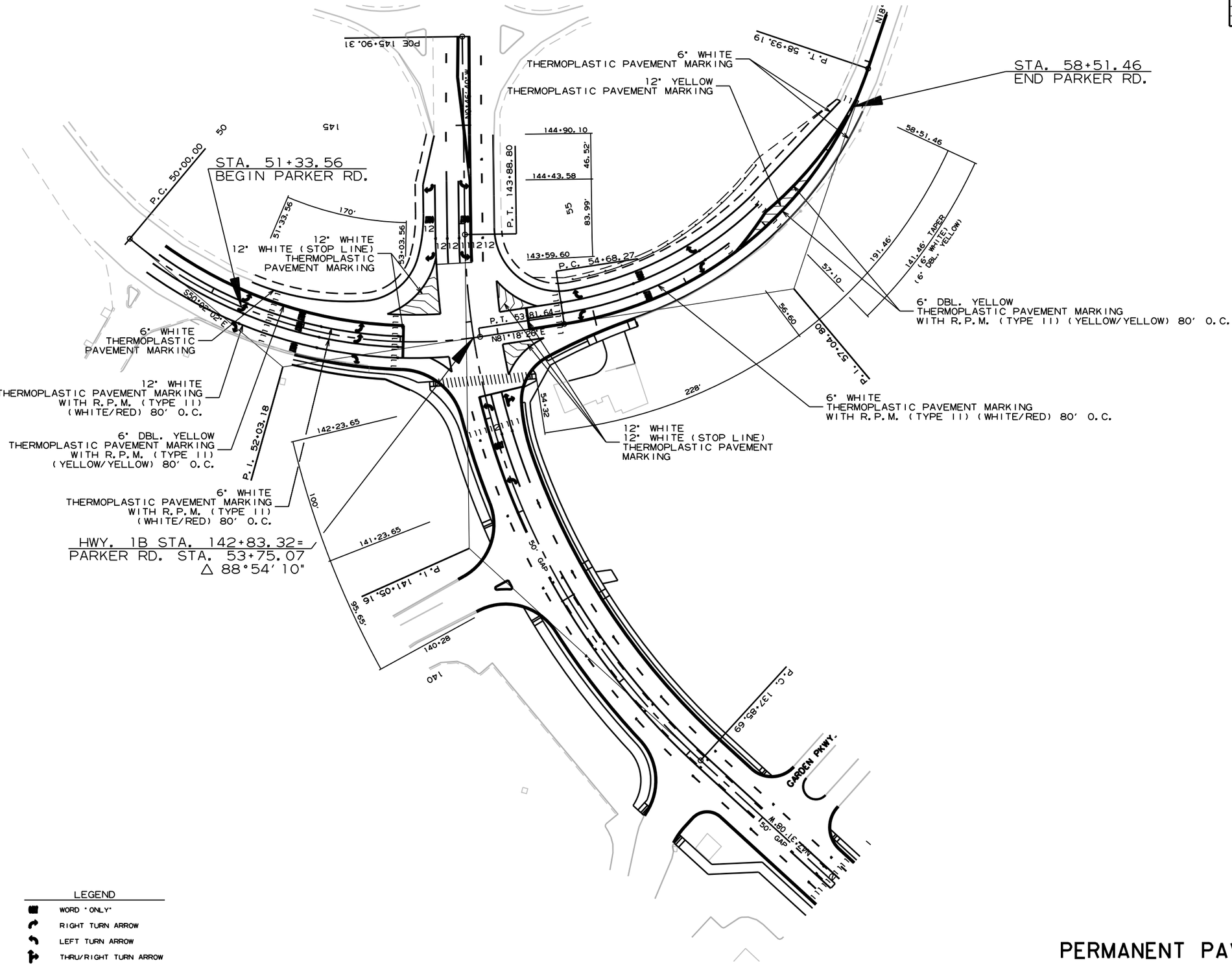
THERMOPLASTIC PAVEMENT MARKING WHITE (6") = 6438 L.F.
THERMOPLASTIC PAVEMENT MARKING WHITE (12") = 1814 L.F.
THERMOPLASTIC PAVEMENT MARKING YELLOW (6") = 6097 L.F.
THERMOPLASTIC PAVEMENT MARKING YELLOW (12") = 157 L.F.
THERMOPLASTIC PAVEMENT MARKING (WORDS) = 11 EA.
THERMOPLASTIC PAVEMENT MARKING (ARROWS) = 22 EA.
RAISED PAVEMENT MARKER (TYPE II) (WHITE/RED) = 69 EA.
RAISED PAVEMENT MARKER (TYPE II) (YELLOW/YELLOW) = 57 EA.

PERMANENT PAVEMENT MARKING DETAILS

lholt 8/28/2025 100881-30-PERMPAVEMARKING-2.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	30	121
		PERMANENT PAVEMENT MARKING DETAILS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
08/29/25



PERMANENT PAVEMENT MARKING DETAILS

tholt 8/28/2025
100881-31-PERMPAVEMARKING-3.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	31	121
		QUANTITIES				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
08/29/25

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	FURNISHING & INSTALLING PRECAST CONC. BARRIER	RELOCATING PRECAST CONCRETE BARRIER	TEMPORARY IMPACT ATTENUATION BARRIER	TEMP. IMPACT ATTEN.BARR. (REPAIR)
			LIN. FT. - EACH					NO.	SQ. FT.	EACH				EACH	
W20-1	ROAD WORK 1500 FT.	36"x36"	4	4	4	4	4	4	36.0						
W20-1	ROAD WORK 1000 FT.	36"x36"	4	4	4	4	4	4	36.0						
W20-1	ROAD WORK 500 FT.	36"x36"	4	4	4	4	4	4	36.0						
W20-1	ROAD WORK AHEAD	36"x36"	8	8	8	8	8	8	72.0						
G20-2	END ROAD WORK	36"x18"	12	12	12	12	12	12	54.0						
W1-4AR	REVERSE CURVE RT.	36"x36"		1			1	1	9.0						
W1-4AL	REVERSE CURVE LT.	36"x36"		1			1	1	9.0						
W21-5a	RIGHT SHOULDER CLOSED	36"x36"	2	2	2	2	2	2	18.0						
R2-11	END HIGHER FINES ZONE	36"x48"	4	4	4	4	4	4	48.0						
R2-6aP	FINES DOUBLE WHEN WORKERS ARE PRESENT	36"x48"	4	4	4	4	4	4	48.0						
R4-1	DO NOT PASS	24"x30"	2	2	2	2	2	2	10.0						
W8-1	BUMP	36"x36"	4	4	4	4	4	4	36.0						
	VERTICAL PANELS		31	30	7	4	31			31					
	TRAFFIC DRUMS		92	90	10	9	92				92				
	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER		133	13	40		186					186			
	RELOCATING PRECAST CONCRETE BARRIER			133	133		266						266		
	TEMPORARY IMPACT ATTENUATION BARRIER		1	1	1		3							3	
	TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)		1	1	1		3								3
TOTALS:									**412.0**	**31**	**92**	**186**	**266**	**3**	**3**

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 POINT WHERE THE VERTICAL DIFFERENTIAL IS 4" OR LESS, AND THEN NOTCH ANOTHER ONE-MILE SECTION. 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	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					
						WORDS	ARROWS		TYPE II (WHITE/RED)	TYPE II (YELLOW/YELLOW)	6" WHITE	6" YELLOW	12" WHITE	12" YELLOW	WORDS	ARROWS
	LIN. FT. - EACH			LIN. FT.		EACH		LIN. FT.	EACH						EACH	
REMOVAL OF PERMANENT PAVEMENT MARKINGS		8144		8144												
CONSTRUCTION PAVEMENT MARKINGS	8144	8580			16724											
CONSTRUCTION PAVEMENT MARKINGS (WORDS)	1	1				2										
CONSTRUCTION PAVEMENT MARKINGS (ARROWS)	2	4					6									
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS		8144						8144								
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)			69						69							
RAISED PAVEMENT MARKERS TYPE II (YELLOW/YELLOW)			57							57						
THERMOPLASTIC PAVEMENT MARKING WHITE (6")			6438								6438					
THERMOPLASTIC PAVEMENT MARKING YELLOW (6")			6097									6097				
THERMOPLASTIC PAVEMENT MARKING WHITE (12")			1814										1814			
THERMOPLASTIC PAVEMENT MARKING YELLOW (12")			157											157		
THERMOPLASTIC PAVEMENT MARKING (WORDS)			11												11	
THERMOPLASTIC PAVEMENT MARKING (ARROWS)			22													22
TOTALS:				**8144**	**16724**	**2**	**6**	**8144**	**69**	**57**	**6438**	**6097**	**1814**	**157**	**11**	**22**

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

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	32	121
		QUANTITIES				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
08/29/25

REMOVAL AND DISPOSAL OF ITEMS (BOX 1 OF 2)

STATION	STATION	LOCATION	CURB	CURB AND GUTTER	CONCRETE PAVEMENT	CONCRETE ISLANDS	CONCRETE DRIVEWAYS	CONCRETE SLABS	MAILBOXES	SIGN FOUNDATIONS	HEADWALLS	CONCRETE HEADWALLS AND WINGWALLS	LUMINAIRE POLE	SWIMMING POOL	SIGNS
			LIN. FT.	LIN. FT.	SQ. YD.	SQ. YD.	SQ. YD.	SQ. YD.	EACH	EACH	EACH	EACH	EACH	EACH	EACH
123+82		HWY. 1B LT													1
123+84		HWY. 1B RT.													1
124+62		HWY. 1B LT.													1
125+09	125+38	HWY. 1B RT. (MEDALLION DR.)	8												
125+41		HWY. 1B RT. (MEDALLION DR.)													1
76+37		FOREST HILL RD. RT.													1
76+60		FOREST HILL RD. LT.													1
127+40		HWY. 1B RT.					110								
128+30		HWY. 1B RT.											1		
128+68		HWY. 1B RT.							1						
128+72		HWY. 1B RT.							1						
129+02	130+17	HWY. 1B LT. & RT.										4			
130+32	130+59	HWY. 1B RT.	65												
130+87	131+69	HWY. 1B RT.	220												
130+95		HWY. 1B RT.								1					1
131+32		HWY. 1B RT.							1						
131+42	131+52	HWY. 1B LT.	28												
131+47		HWY. 1B LT.							1						
131+53		HWY. 1B RT.													1
131+85		HWY. 1B RT.					285								
131+91	132+23	HWY. 1B LT.	69												
132+05	133+49	HWY. 1B RT.	214												
132+13		HWY. 1B RT.							1						
132+22		HWY. 1B RT.						2							
132+62	132+67	HWY. 1B LT.	26												
132+66		HWY. 1B RT.								1					1
132+73		HWY. 1B RT.						2							
133+13	134+19	HWY. 1B LT.			242										
133+18		HWY. 1B RT.						2							
133+22		HWY. 1B LT.								2					1
133+35	133+40	HWY. 1B LT.	25												
133+35		HWY. 1B LT.													1
133+64	133+69	HWY. 1B LT.	56												
133+76		HWY. 1B RT.								2					4
133+91	133+99	HWY. 1B LT.	28												
134+72		HWY. 1B RT.					65								
135+18		HWY. 1B RT.					70								
135+80		HWY. 1B RT.												1	
135+96		HWY. 1B RT.													1
136+22	137+33	HWY. 1B RT. (GARDEN PKWY.)	198												
136+37		HWY. 1B RT.									1				
136+45		HWY. 1B RT.													1
136+81		HWY. 1B RT.													1
137+19		HWY. 1B RT.													1
137+25		HWY. 1B RT.									1				
137+42		HWY. 1B LT.													1
137+49	137+92	HWY. 1B LT.		40											
137+94		HWY. 1B LT.													1
137+34	139+76	HWY. 1B RT.		237											
139+80	139+96	HWY. 1B RT.		16											
140+04		HWY. 1B LT.													1
140+26	141+86	HWY. 1B RT.		153											
140+31	140+66	HWY. 1B LT.		7											
140+39		HWY. 1B LT.				29									
140+77		HWY. 1B LT.													1
140+97		HWY. 1B LT.													1
141+54		HWY. 1B LT.													1
141+92	142+44	HWY. 1B RT.		50											
141+99		HWY. 1B RT.								2					3
142+37		HWY. 1B LT.													1
143+77		HWY. 1B LT.													1
143+77		HWY. 1B RT.										1			
143+87		HWY. 1B RT.													1
144+28		HWY. 1B RT.										1			
144+31		HWY. 1B LT.													1
SUBTOTALS (BOX 1 OF 2):			937	503	242	29	530	6	5	8	2	6	1	1	32

QUANTITIES

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	33	121
		QUANTITIES				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
08/29/25

REMOVAL AND DISPOSAL OF ITEMS (BOX 2 OF 2)

STATION	STATION	LOCATION	CURB	CURB AND GUTTER	CONCRETE PAVEMENT	CONCRETE ISLANDS	CONCRETE DRIVEWAYS	CONCRETE SLABS	MAILBOXES	SIGN FOUNDATIONS	HEADWALLS	CONCRETE HEADWALLS AND WINGWALLS	LUMINAIRE POLE	SWIMMING POOL	SIGNS
			LIN. FT.	LIN. FT.	SQ. YD.	SQ. YD.	SQ. YD.	SQ. YD.	EACH	EACH	EACH	EACH	EACH	EACH	EACH
54+80		PARKER RD. RT					49								
54+95		PARKER RD. LT													1
55+03		PARKER RD. RT							1						
55+17		PARKER RD. LT										1			
55+47		PARKER RD. LT													1
56+02		PARKER RD. LT													1
56+02		PARKER RD. LT										1			
56+44		PARKER RD. LT													1
SUBTOTALS (BOX 2 OF 2):							49		1			2			4
SUBTOTALS (BOX 1 OF 2):			937	503	242	29	530	6	5	8	2	6	1	1	32
TOTALS:			**937**	**503**	**242**	**29**	**579**	**6**	**6**	**8**	**2**	**8**	**1**	**1**	**36**

NOTE: THE QUANTITY SHOWN ABOVE FOR THE REMOVAL AND DISPOSAL OF GUARDRAIL SHALL INCLUDE THE REMOVAL AND DISPOSAL OF ALL GUARDRAIL TERMINALS AND TERMINAL ANCHOR POSTS.

REMOVAL AND DISPOSAL OF FENCE

STATION	STATION	LOCATION	FENCE	GATES
			LIN. FT.	EACH
131+68	134+28	HWY. 1B RT.	255	1
135+35	136+06	HWY. 1B RT.	162	1
TOTALS:			**417**	**2**

REMOVAL AND DISPOSAL OF CULVERTS AND DROP INLETS

STATION	DESCRIPTION	PIPE CULVERTS	DROP INLETS
		EACH	EACH
127+40	RT HWY. 1B	1	
127+46	LT HWY. 1B	1	
128+38	RT HWY. 1B	1	
128+97	RT HWY. 1B	1	
130+29	LT HWY. 1B	1	
130+68	RT HWY. 1B	1	
131+04	LT HWY. 1B		1
131+22	RT HWY. 1B		1
131+56	LT HWY. 1B	1	
131+74	RT HWY. 1B	1	
132+06	LT HWY. 1B		1
132+54	LT HWY. 1B	1	
133+01	LT HWY. 1B		1
133+60	LT HWY. 1B	1	
134+72	RT HWY. 1B	1	
135+18	RT HWY. 1B	1	
135+75	RT HWY. 1B	1	
136+81	RT HWY. 1B	1	
139+79	RT HWY. 1B		1
140+83	RT HWY. 1B	1	
141+29	LT HWY. 1B	1	
141+89	RT HWY. 1B		1
142+15	RT HWY. 1B	1	
54+79	PARKER RD. RT.	1	
TOTALS:		**18**	**6**

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

EARTHWORK

STATION	STATION	LOCATION / DESCRIPTION	UNCLASSIFIED EXCAVATION	COMPACTED EMBANKMENT
			CU. YD.	
ENTIRE	PROJECT	STAGE 1-MAIN LANES	644	1847
ENTIRE	PROJECT	STAGE 2-MAIN LANES	758	1590
ENTIRE	PROJECT	STAGE 3-MAIN LANES	20	
ENTIRE	PROJECT	STAGE 4-MAIN LANES	64	30
ENTIRE	PROJECT	STAGE 2-FOREST HILL	60	85
ENTIRE	PROJECT	STAGE 1-PARKER	132	165
ENTIRE	PROJECT	STAGE 2-PARKER	30	43
ENTIRE	PROJECT	STAGE 3-PARKER	407	2089
ENTIRE	PROJECT	STAGE 4-PARKER	70	12
ENTIRE	PROJECT	APPROACHES	20	360
ENTIRE	PROJECT	TEMPORARY APPROACHES		130
		MEDALLION DRIVE	25	
		GLADIOLUS DRIVE	65	
		GARDEN PARKWAY	50	
		WALMART DRIVE SOUTH	55	
		WALMART DRIVE NORTH	75	
128+97	130+27	CHANNEL CHANGE	726	
143+66	144+37	CHANNEL CHANGE	20	
54+67	55+86	CHANNEL CHANGE	250	
TOTALS:			**3471**	**6351**

* QUANTITY ESTIMATED.
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.

BENCH MARKS

STATION	LOCATION	BENCH MARKS
		EACH
129+28	LT. SIDE HWY. 1B	1
144+03	RT. SIDE HWY. 1B	1
55+58	LT. SIDE PARKER RD.	1
TOTAL:		**3**

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

MAILBOXES

LOCATION	MAILBOXES	MAILBOX SUPPORTS (SINGLE)	MAILBOX SUPPORTS (DOUBLE)
	EACH	EACH	EACH
ENTIRE PROJECT	7	5	1
TOTALS:	**7**	**5**	**1**

CLEARING AND GRUBBING

STATION	STATION	LOCATION	CLEARING	GRUBBING
			STATION	
125+50	127+00	HWY. 1B	2	2
128+75	129+50	HWY. 1B	1	1
133+00	133+40	HWY. 1B	1	1
135+10	136+16	HWY. 1B	2	2
137+30	141+00	HWY. 1B	4	4
55+30	56+00	PARKER ROAD	1	1
TOTALS:			**11**	**11**

GUARDRAIL

STATION	STATION	LOCATION	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE 1)
			LIN. FT.	EACH	
54+85.60	57+40.00	LT. SIDE PARKER RD.	175	1	1
TOTALS:			**175**	**1**	**1**

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QUANTITIES

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	34	121
		QUANTITIES				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
08/29/25

DRIVEWAYS & TURNOUTS

STATION	SIDE	LOCATION	WIDTH	**MODIFIED CURB		PORTLAND CEMENT CONCRETE DRIVEWAY	ACHM SURFACE COURSE (1/2") 220 LBS. PER SQ. YD. (PG 64-22)		AGGREGATE BASE COURSE (CLASS 7)	STANDARD DRAWINGS
			FEET	STATION	STATION	SQ. YD.	SQ. YD.	TON	TON	
128+38	RT	HWY. 1B	16	128+16	128+60	39.11	106.49	11.71	43.48	DR-1
128+97	RT	HWY. 1B	18	128+74	129+20	40.89	119.80	13.18	48.92	DR-1
130+66	LT	HWY. 1B	36	130+34	130+98	103.11			34.99	DR-1
130+73	RT	HWY. 1B	30	130+44	131+02	51.56	98.33	10.82	40.15	DR-1
131+72	LT	HWY. 1B	40	131+38	132+06	109.56	62.04	6.82	25.33	DR-1
131+85	RT	HWY. 1B	40	131+51	132+19	170.13				DR-1
132+43	LT	HWY. 1B	40	132+09	132+77	109.56	62.04	6.82	25.33	DR-1
134+72	RT	HWY. 1B	12	134+52	134+92	59.89				DR-1
135+18	RT	HWY. 1B	12	134+98	135+38	62.93				DR-1
135+75	RT	HWY. 1B	12	135+55	135+95	35.56			13.65	DR-1
140+01	RT	HWY. 1B	14	139+80	140+22	37.33			13.30	DR-1
75+32	LT	FOREST HILL	16				24.73	2.72	37.17	DR-2
55+14	RT	PARKER RD.	24	54+88	55+40	138.86				DR-1
* ENTIRE PROJECT TEMPORARY DRIVES									130.00	
TOTALS:						**958.49**	**473.43**	**52.07**	**412.32**	

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.8% MIN. AGGR.....5.2% ASPHALT BINDER

THE CONTRACTOR, WITH THE APPROVAL OF THE ENGINEER, WILL BE ALLOWED TO SUBSTITUTE A HIGHER PERFORMANCE GRADE ASPHALT SURFACE COURSE FOR DRIVEWAYS AND MINOR SIDE STREET CONSTRUCTION AT NO ADDITIONAL COST TO THE DEPARTMENT.

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

** FOR INFORMATION ONLY

WHEELCHAIR RAMPS

STATION	LOCATION	TYPE 1	TYPE 2	TYPE 3
		SQ.YD.		
123+15	LT. SIDE HWY. 1B			3.6
125+43	RT. SIDE HWY. 1B			3.7
127+03	LT. SIDE HWY. 1B		12.4	
127+03	RT. SIDE HWY. 1B			4.3
127+51	LT. SIDE HWY. 1B			2.9
127+66	LT. SIDE HWY. 1B			2.7
127+78	LT. SIDE HWY. 1B			8.6
133+33	LT. SIDE HWY. 1B			12.8
133+99	LT. SIDE HWY. 1B			12.8
136+38	RT. SIDE HWY. 1B			5.6
137+24	RT. SIDE HWY. 1B			5.6
137+50	LT. SIDE HWY. 1B			8.0
137+91	LT. SIDE HWY. 1B			8.0
140+09	LT. SIDE HWY. 1B			16.4
140+89	LT. SIDE HWY. 1B			16.4
142+32	RT. SIDE HWY. 1B	63.4		
142+45	LT. SIDE HWY. 1B			10.2
TOTALS:		**63.4**	**12.4**	**121.6**

CONCRETE COMBINATION CURB AND GUTTER

STATION	STATION	LOCATION	TYPE A (1' 6")
			LIN. FT.
123+15	126+91	LT. SIDE HWY. 1B	376
123+15	124+81	RT. SIDE HWY. 1B	166
124+81	125+68	RT. SIDE HWY. 1B (MEDALLION DRIVE)	99
125+68	136+20	RT. SIDE HWY. 1B	1052
126+91	128+42	LT. SIDE HWY. 1B (FOREST HILL RD.)	220
128+42	133+10	LT. SIDE HWY. 1B	468
133+10	134+21	LT. SIDE HWY. 1B (GLADIOLUS DR.)	92
134+21	137+32	LT. SIDE HWY. 1B	311
136+20	137+42	RT. SIDE HWY. 1B (GARDEN PKWY.)	95
137+32	138+43	LT. SIDE HWY. 1B (WALMART FUEL CENTER)	111
137+42	142+05	RT. SIDE HWY. 1B	463
138+43	139+78	LT. SIDE HWY. 1B	135
139+78	141+20	LT. SIDE HWY. 1B (WALMART SHOPPING CENTER)	188
141+20	142+08	LT. SIDE HWY. 1B	88
142+05	142+49	RT. SIDE HWY. 1B (PARKER RD.)	58
142+08	142+66	LT. SIDE HWY. 1B (PARKER RD.)	84
75+00	76+27	RT. SIDE FOREST HILL RD	127
54+46	55+39	RT. SIDE PARKER RD.	93
TOTAL:			**4226**

4" PIPE UNDERDRAIN

STATION	STATION	LOCATIONS	4" PIPE UNDERDRAINS	UNDERDRAIN OUTLET PROTECTORS
			LIN. FT.	EACH
123+15	135+10	LT. SIDE HWY. 1B	1195	6
123+15	145+35	RT. SIDE HWY. 1B	2220	10
75+00	76+45	LT. SIDE FOREST HILL ROAD	145	2
75+00	76+45	RT. SIDE FOREST HILL ROAD	145	2
51+33	52+96	LT. SIDE PARKER ROAD	163	2
54+28	58+51	LT. SIDE PARKER ROAD	423	3
* ENTIRE PROJECT TO BE USED IF AND			450	2
WHERE DIRECTED BY THE ENGINEER				
TOTALS:			**4741**	**27**

* 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.

CONCRETE WALKS

STATION	STATION	LOCATION	LENGTH	CONCRETE WALKS
			LIN. FT.	SQ.YD.
123+15	127+22	LT. SIDE HWY. 1B	407	226
125+40	127+18	RT. SIDE HWY. 1B	178	99
127+62	128+16	RT. SIDE HWY. 1B	54	30
128+60	128+74	RT. SIDE HWY. 1B	14	8
129+20	130+45	RT. SIDE HWY. 1B	125	69
134+28	134+52	RT. SIDE HWY. 1B	24	13
134+91	134+98	RT. SIDE HWY. 1B	7	4
135+37	135+55	RT. SIDE HWY. 1B	18	10
135+95	136+41	RT. SIDE HWY. 1B	46	26
137+21	139+80	RT. SIDE HWY. 1B	259	144
140+22	142+05	RT. SIDE HWY. 1B	183	102
TOTAL:				**731**

CONCRETE ISLAND

STATION	LOCATION	CURB FACE TYPE	CONCRETE ISLAND
			SQ.YD.
127+60	LT. SIDE HWY. 1B (FOREST HILL DR.)	B	56
140+40	LT. SIDE HWY. 1B (WALMART SHOPPING	B	13
TOTAL:			**69**

GABIONS AND FILTER BLANKET

STATION	LOCATION	GABION SIZE	GABION	FILTER BLANKET
		FEET	CU. YD.	SQ. YD.
54+63	LT. SIDE PARKER RD.	12' x 3' x 3'	4	50
54+63	LT. SIDE PARKER RD.	12' x 3' x 3'	4	
54+63	LT. SIDE PARKER RD.	12' x 3' x 1.5'	2	
54+63	LT. SIDE PARKER RD.	9' x 3' x 1.5'	2	
54+63	LT. SIDE PARKER RD.	6' x 3' x 1.5'	1	
TOTALS:			**13**	**50**

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

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

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.
130+94	131+60	RT. SIDE HWY. 1B	37	66	132	10
132+15	134+28	RT. SIDE HWY. 1B	118	213	390	28
51+98	53+10	RT. SIDE PARKER RD.	62	112	256	20
TOTALS:			217	391	778	58

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QUANTITIES

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	35	121
		QUANTITIES				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
08/29/25

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.
138+40.00	139+80.00	RT. HWY. 1B	140.00	6.00	93.33	62.22	0.78
TOTALS:					**93.33**	**62.22**	**0.78**

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

STRUCTURES

STATION	DESCRIPTION	SIDE DRAIN		PIPE CULVERT STORM DRAIN ALTERNATES 1, 2, & 3		FLARED END SECTION ALTERNATES FOR PIPE CULVERT ALTERNATES		DROP INLETS TYPE					EXT.		JUNCT. BOXES	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.
		12"	18"	18"	24"	18"	24"	C	E	MO	ST	SPECIAL	4'	8'	(TYPE E)					CU.YD.	POUND	CU.YD.	SQ.YD.	M.GAL.	
		LIN. FT.						EACH										LIN. FT.								
124+79	CONSTRUCT YARD DRAIN ON RT.	4														1										FPC-9, PCM-1
124+79	CONSTRUCT DROP INLET ON RT.			88						1																FPC-9E, FPC-9M, PCC-1, PCM-1
125+29	CONSTRUCT SIDE DRAIN ON LT.		40																							PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
125+37	CONSTRUCT DROP INLET ON RT.			42						1																FPC-9E, FPC-9M, PCC-1, PCM-1
125+70	CONSTRUCT DROP INLET ON RT.			68						1																FPC-9E, FPC-9M, PCC-1, PCM-1
126+41	CONSTRUCT DROP INLET ON RT.			70						1																FPC-9E, FPC-9M, PCC-1, PCM-1
126+75	CONSTRUCT DROP INLET (TYPE SPECIAL) ON LT.											1														SPECIAL DETAILS
126+75	CONSTRUCT DROP INLET ON LT.			44					1																	FPC-9, PCC-1, PCM-1
127+15	CONSTRUCT DROP INLET ON RT.			96						1			1													FPC-9E, FPC-9M, PCC-1, PCM-1
127+20	CONSTRUCT DROP INLET ON LT.			96						1																FPC-9E, FPC-9M, PCC-1, PCM-1
128+14	CONSTRUCT DROP INLET ON LT.			28						1																FPC-9E, FPC-9M, PCC-1, PCM-1
128+14	CONSTRUCT DROP INLET ON RT.			50						1																FPC-9E, FPC-9M, PCC-1, PCM-1
128+45	CONSTRUCT DROP INLET ON LT.			80						1																FPC-9E, FPC-9M, PCC-1, PCM-1
128+67	CONSTRUCT YARD DRAIN ON RT.	16														1										FPC-9, PCM-1
128+67	CONSTRUCT DROP INLET ON RT.			110						1																FPC-9E, FPC-9M, PCC-1, PCM-1
129+69	CONSTRUCT JUNCTION BOX ON LT.				26										1											FPC-9, PCC-1, PCM-1
131+02	CONSTRUCT JUNCTION BOX ON LT.				130										1											FPC-9, PCC-1, PCM-1
131+07	CONSTRUCT DROP INLET ON LT.			8						1																FPC-9E, FPC-9M, PCC-1, PCM-1
131+22	CONSTRUCT DROP INLET ON RT.			116				1																		FPC-9E, PCC-1, PCM-1
132+07	CONSTRUCT JUNCTION BOX ON LT.				102										1											FPC-9, PCC-1, PCM-1
132+08	CONSTRUCT DROP INLET ON LT.			6						1																FPC-9E, FPC-9M, PCC-1, PCM-1
132+22	CONSTRUCT DROP INLET ON RT.			48							1															FPC-9S, PCC-1, PCM-1
132+73	CONSTRUCT DROP INLET ON RT.			42							1															FPC-9S, PCC-1, PCM-1
133+04	CONSTRUCT JUNCTION BOX ON LT.				94										1											FPC-9, PCC-1, PCM-1
133+08	CONSTRUCT DROP INLET ON LT.			6						1			1													FPC-9E, FPC-9M, PCC-1, PCM-1
133+18	CONSTRUCT DROP INLET ON RT.			6							1															FPC-9S, PCC-1, PCM-1
133+18	CONSTRUCT DROP INLET ON RT.			194				1					1													FPC-9E, PCC-1, PCM-1
133+86	CONSTRUCT JUNCTION BOX ON RT.			8											1											FPC-9, PCC-1, PCM-1
133+87	CONSTRUCT DROP INLET ON RT.			66				1					2													FPC-9E, PCC-1, PCM-1
134+21	CONSTRUCT JUNCTION BOX ON LT.				112										1											FPC-9, PCC-1, PCM-1
134+24	CONSTRUCT DROP INLET ON LT.			6						1				1												FPC-9E, FPC-9M, PCC-1, PCM-1
134+35	CONSTRUCT DROP INLET ON RT.			46						1																FPC-9E, FPC-9M, PCC-1, PCM-1
134+95	CONSTRUCT YARD DRAIN ON RT.	20														1										FPC-9, PCM-1
134+95	CONSTRUCT DROP INLET ON RT.			56						1																FPC-9E, FPC-9M, PCC-1, PCM-1
136+00	CONSTRUCT DROP INLET ON LT.			176						1																FPC-9E, FPC-9M, PCC-1, PCM-1
136+18	CONSTRUCT DROP INLET ON RT.			120						1																FPC-9E, FPC-9M, PCC-1, PCM-1
136+80	CONSTRUCT DROP INLET ON LT.			76					1																	FPC-9, PCC-1, PCM-1
138+43	CONSTRUCT DROP INLET (TYPE SPECIAL) ON RT.											1	1													SPECIAL DETAILS
139+23	CONSTRUCT DROP INLET (TYPE SPECIAL) ON RT.											1	2													SPECIAL DETAILS
139+50	CONSTRUCT DROP INLET (TYPE SPECIAL) ON RT.											1														SPECIAL DETAILS
139+80	CONSTRUCT F.E.S. ON RT			46		1																			5	0.06	FES-1, FES-2, PCC-1, PCM-1
140+26	CONSTRUCT DROP INLET ON RT.			144						1																FPC-9E, FPC-9M, PCC-1, PCM-1
141+78	CONSTRUCT DROP INLET ON RT.			50						1			2													FPC-9E, FPC-9M, PCC-1, PCM-1
142+20	CONSTRUCT DROP INLET ON RT.				108		1		1																8	0.10	FES-1, FES-2, PCC-1, PCM-1
SUBTOTALS:		**40**	**40**	**1992**	**572**	**1**	**1**	**3**	**3**	**20**	**3**	**4**	**10**	**1**	**6**	**3**								**13**	**0.16**	
STRUCTURES OVER 20' - 0" SPAN																										
129+64	DOUBLE 12'x7' RC BOX CULVERT EXTEND 23' LT. & 22' RT.																26	7	50	141.45	19676	726	32	0.40	R-200X-0, W-X003-1, RCB-1, RCB-2, RCB-3
55+95	QUAD 10'x11' RC BOX CULVERT - EXTEND 26' LT.																45	11	28	183.37	25132	250	30	0.38	R-400X-0, W-X003-2, RCB-1, RCB-2, RCB-3
																										SPECIAL DETAIL
144+04	TRIPLE 10'x10' RC BOX CULVERT - REPLACE WINGWALLS RT.																34	10	2	36.13	3219	20	15	0.19	R-300X-0, W-X004-2, RCB-1, RCB-2, RCB-3
SUBTOTALS:																				**360.95**	**48027**	**996**	**77**	**0.97**	
TOTALS:		**40**	**40**	**1992**	**572**	**1**	**1**	**3**	**3**	**20**	**3**	**4**	**10**	**1**	**6**	**3**				**360.95**	**48027**	**996**	**90**	**1.13**	

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.

QUANTITIES

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100881-32-QUANTITIES.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	36	121
		QUANTITIES				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
08/29/25

SOIL LOG

STATION	LATITUDE			LONGITUDE			LOCATION	DEPTH	LIQUID LIMIT	PLASTICITY INDEX	AASHTO CLASSIFICATION	COLOR
	DEG	MIN	SEC	DEG	MIN	SEC		FEET				
141+01	35	48	15.45	90	41	54.15	28' RT. HWY. 1B	0'-0.3'	-	-	ASPHALT	-
141+01	35	48	15.45	90	41	54.15	28' RT. HWY. 1B	0.3'-1.0'	-	-	FILL	-
141+01	35	48	15.45	90	41	54.15	28' RT. HWY. 1B	1.0'-10.0'	27	5	A-4 (4)	GRAY/BROWN
141+21	35	48	15.36	90	41	55.09	47' LT. HWY. 1B	0'-0.1'	-	-	ASPHALT	-
141+21	35	48	15.36	90	41	55.09	47' LT. HWY. 1B	0.1'-1.4'	-	-	FILL	-
141+21	35	48	15.36	90	41	55.09	47' LT. HWY. 1B	0.4'-3.5'	-	-	A-7-6*	BROWN
141+21	35	48	15.36	90	41	55.09	47' LT. HWY. 1B	3.5'-7.5'	-	-	A-6*	BROWN/GRAY
137+69	35	48	12.79	90	41	52.05	14' RT. HWY. 1B	0'-0.3'	-	-	ASPHALT	-
137+69	35	48	12.79	90	41	52.05	14' RT. HWY. 1B	0.3'-1.0'	-	-	FILL	-
137+69	35	48	12.79	90	41	52.05	14' RT. HWY. 1B	1.0'-1.5'	-	-	A-2-6*	-
137+69	35	48	12.79	90	41	52.05	14' RT. HWY. 1B	1.5'-2.0'	-	-	A-6*	BROWN
137+69	35	48	12.79	90	41	52.05	14' RT. HWY. 1B	2.0'-6.0'	30	9	A-4 (8)	BROWN
137+69	35	48	12.79	90	41	52.05	14' RT. HWY. 1B	6.0'-10.0'	-	-	A-4*	BROWN
136+97	35	48	12.03	90	41	51.71	22' LT. HWY. 1B	0'-0.4'	-	-	ASPHALT	-
136+97	35	48	12.03	90	41	51.71	22' LT. HWY. 1B	0.4'-1.2'	-	-	FILL	-
136+97	35	48	12.03	90	41	51.71	22' LT. HWY. 1B	1.2'-7.5'	-	-	A-6*	BROWN
132+35	35	48	9.04	90	41	47.48	6' RT. HWY. 1B	0'-0.7'	-	-	ASPHALT	-
132+35	35	48	9.04	90	41	47.48	6' RT. HWY. 1B	0.7'-1.0'	-	-	FILL	-
132+35	35	48	9.04	90	41	47.48	6' RT. HWY. 1B	1.0'-6.0'	-	-	A-4*	GRAY
132+35	35	48	9.04	90	41	47.48	6' RT. HWY. 1B	6.0'-10.0'	-	-	A-6*	GRAY/BROWN
131+91	35	48	8.53	90	41	47.35	21' LT. HWY. 1B	0'-0.6'	-	-	ASPHALT	-
131+91	35	48	8.53	90	41	47.35	21' LT. HWY. 1B	0.6'-1.0'	-	-	FILL	-
131+91	35	48	8.53	90	41	47.35	21' LT. HWY. 1B	1.0'-7.5'	29	9	A-4 (7)	BROWN/GRAY
126+65	35	48	4.88	90	41	42.81	10' RT. HWY. 1B	0'-0.7'	-	-	ASPHALT	-
126+65	35	48	4.88	90	41	42.81	10' RT. HWY. 1B	0.7'-1.0'	-	-	FILL	-
126+65	35	48	4.88	90	41	42.81	10' RT. HWY. 1B	1.0'-3.0'	-	-	A-6*	BROWN
126+65	35	48	4.88	90	41	42.81	10' RT. HWY. 1B	3.0'-6.0'	-	-	A-7-6*	BROWN
126+65	35	48	4.88	90	41	42.81	10' RT. HWY. 1B	6.0'-8.5'	-	-	A-6*	BROWN
126+65	35	48	4.88	90	41	42.81	10' RT. HWY. 1B	8.5'-10.0'	-	-	A-4*	BROWN
126+80	35	48	4.85	90	41	43.10	10' LT. HWY. 1B	0'-0.6'	-	-	ASPHALT	-
126+80	35	48	4.85	90	41	43.10	10' LT. HWY. 1B	0.6'-0.7'	-	-	FILL	-
126+80	35	48	4.85	90	41	43.10	10' LT. HWY. 1B	0.7'-7.5'	32	14	A-6 (12)	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.

tholt 8/28/2025
100881-32-QUANTITIES.SHT

QUANTITIES

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	37	121
		QUANTITIES				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
08/29/25

ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC

LOCATION	TON	TACK COAT GALLON
ENTIRE PROJECT - TO BE USED IF AND WHERE	10	20
DIRECTED BY THE ENGINEER		
TOTALS:	**10**	**20**

BASIS OF ESTIMATE:
ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC....25 TON/MILE
TACK COAT FOR MAINTENANCE OF TRAFFIC.....50 GAL./MILE

ACHM PATCHING OF EXISTING ROADWAY

DESCRIPTION	TON
ENTIRE PROJECT - TO BE USED IF AND WHERE	10
DIRECTED BY THE ENGINEER	
TOTAL:	**10**

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

CONCRETE BASE

STATION	STATION	LOCATION	LENGTH	PORTLAND CEMENT CONCRETE BASE		PORTLAND CEMENT CONCRETE BASE BELOW CURB	
				AVG. WID.	5" U.T.	AVG. WID.	5" U.T.
			FEET	FEET	SQ. YD.	FEET	SQ. YD.
123+15.00	123+94.14	LT. SIDE HWY. 1B	79.14	1.97	17.32	4.47	39.31
125+06.76	125+39.62	RT. SIDE HWY. 1B	32.86	1.16	4.24	3.66	13.36
133+33.35	134+00.77	LT. SIDE HWY. 1B	67.42	0.87	6.52	3.37	25.25
136+00.79	137+40.01	LT. SIDE HWY. 1B	139.22	2.09	32.33	4.59	71.00
136+45.38	137+15.48	RT. SIDE HWY. 1B	70.10	0.54	4.21	3.04	23.68
138+33.28	140+02.66	LT. SIDE HWY. 1B	169.38	0.75	14.12	3.25	61.17
140+44.46	141+93.16	RT. SIDE HWY. 1B	148.70	2.70	44.61	5.20	85.92
140+95.22	142+65.50	LT. SIDE HWY. 1B	170.28			2.50	47.30
143+69.47	143+94.87	RT. SIDE HWY. 1B	25.40	1.22	3.44	3.72	10.50
144+73.65	144+87.53	LT. SIDE HWY. 1B	13.88	1.92	2.96	4.42	6.82
75+49.23	75+90.42	LT. SIDE FOREST HILL ROAD	41.19			2.50	11.44
75+00.00	76+26.90	RT. SIDE FOREST HILL ROAD	126.90			2.50	35.25
76+26.90	76+41.85	RT. SIDE FOREST HILL ROAD	14.95	1.39	2.31	3.89	6.46
51+84.67	52+22.72	LT. SIDE PARKER ROAD	38.05	1.65	6.98	1.65	6.98
54+90.20	55+39.05	RT. SIDE PARKER ROAD	48.85	1.25	6.78	3.75	20.35
58+38.79	58+51.46	LT. SIDE PARKER ROAD	12.67	1.93	2.72	1.93	2.72
TOTALS:					**148.54**		**467.51**

SELECTED PIPE BEDDING

LOCATION	SELECTED PIPE BEDDING CU.YD.
ENTIRE PROJECT TO BE USED IF	
AND WHERE DIRECTED BY THE	200
ENGINEER	
TOTAL:	**200**

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

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)	FILTER SOCK (SLOPE PROTECTION) (E-3)	SAND BAG DITCH CHECKS (E-5)	ROCK DITCH CHECKS (E-6)	DROP INLET SILT FENCE (E-7)	SILT FENCE (E-11)	FILTER SOCK (INLET PROTECTION) (E-13)	SEDIMENT BASIN	DUMPED RIPRAP (E-9)	FILTER BLANKET	OBLITERATION OF SEDIMENT BASIN	*SEDIMENT REMOVAL & DISPOSAL
			ACRE	TON	ACRE	M.GAL.	ACRE	SQ.YD.	ACRE	ACRE	M.GAL.	LIN. FT.	LIN. FT.	BAG	CU.YD.	LIN. FT.	LIN. FT.	LIN. FT.	CU.YD.	CU.YD.	SQ. YD.	CU.YD.	CU. YD.
ENTIRE	PROJECT	STAGE 1	0.41	0.82	0.41	67.1	0.41	2006	0.41	0.41	8.4	18	437	66	9	150	1418	250	190	20	24	190	265
ENTIRE	PROJECT	STAGE 2	0.63	1.26	0.63	102.6	0.63	3044	0.63	0.63	12.9	54	1865	132	15	90	870	165	290	20	24	290	349
ENTIRE	PROJECT	STAGE 3	0.05	0.10	0.05	7.9	0.05	225	0.05	0.05	1.0		560	176	9		463						28
ENTIRE	PROJECT	STAGE 4	0.19	0.38	0.19	30.8	0.19	910	0.19	0.19	3.9						349						13
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.			0.32	0.64	0.32	52.1	0.32	1546	0.32	0.32	6.6	18	716	94	8	60	775	104	120	10	12	120	164
TOTALS:			**1.60**	**3.20**	**1.60**	**260.5**	**1.60**	**7731**	**1.60**	**1.60**	**32.8**	**90**	**3578**	**468**	**41**	**300**	**3875**	**519**	**600**	**50**	**60**	**600**	**819**

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
SAND BAG DITCH CHECKS.....22 BAGS / LOCATION
ROCK DITCH CHECKS.....3 CU.YD./LOCATION
FILTER SOCKS.....23 LIN. FT./ 4' DIA. INLET
27 LIN. FT. / 5' DIA. INLET
30 LIN. FT. / 6' DIA. INLET

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.

QUANTITIES

lholt 8/28/2025
100881-32-QUANTITIES.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	38	121
		QUANTITIES				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
08/29/25

COLD MILLING ASPHALT PAVEMENT

STATION	STATION	LOCATION	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
			FEET	SQ. YD.
122+15.00	123+15.00	MAIN LANES	22.00	244.44
144+90.10	145+90.10	MAIN LANES	60.00	666.67
74+00.00	75+00.00	FOREST HILL ROAD	22.00	244.44
50+33.56	51+33.56	PARKER ROAD	55.00	611.11
58+51.46	59+51.46	PARKER ROAD	22.00	244.44
TOTAL:				**2011.10**

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

BASE AND SURFACING (BOX 1 OF 2)

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT							ACHM BASE COURSE (1 1/2")				ACHM BINDER COURSE (1")			
				TON / STATION	TON	(0.05 GAL. PER SQ. YD.)			(0.17 GAL. PER SQ. YD.)			TOTAL GALLONS	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 64-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 64-22
						TOTAL WID.	SQ.YD.	GALLON	TOTAL WID.	SQ.YD.	GALLON									
			FEET			FEET			FEET				FEET			TON	FEET			TON
MAIN LANES																				
123+15.00	126+75.00	HWY. 1B	360.00			49.50	1980.00	99.00	22.00	880.00	149.60	248.60	21.50	860.00	550.00	236.50	16.50	660.00	330.00	108.90
126+75.00	134+75.00	HWY. 1B	800.00			107.00	9511.11	475.56	22.00	1955.56	332.45	808.01	39.00	3466.67	550.00	953.33	34.00	3022.22	330.00	498.67
134+75.00	142+84.80	HWY. 1B	809.80			51.11	4598.76	229.94	40.63	3655.80	621.49	851.43	20.37	1832.85	550.00	504.03	15.37	1382.96	330.00	228.19
142+84.80	144+91.64	HWY. 1B	206.84	59.00	122.04	41.00	942.27	47.11	60.00	1378.93	234.42	281.53	11.00	252.80	550.00	69.52	11.00	252.80	330.00	41.71
127+71.65	130+34.04	HWY. 1B (MULTI USE PATH)	262.39	62.25	163.34	10.00	291.54	14.58				14.58								
130+98.43	131+37.31	HWY. 1B (MULTI USE PATH)	38.88	62.25	24.20	10.00	43.20	2.16				2.16								
132+05.77	132+08.30	HWY. 1B (MULTI USE PATH)	2.53	62.25	1.57	10.00	2.81	0.14				0.14								
132+76.83	133+35.81	HWY. 1B (MULTI USE PATH)	58.98	62.25	36.72	10.00	65.53	3.28				3.28								
133+95.81	137+51.18	HWY. 1B (MULTI USE PATH)	355.37	62.25	221.22	10.00	394.86	19.74				19.74								
137+90.05	140+13.82	HWY. 1B (MULTI USE PATH)	223.77	62.25	139.30	10.00	248.63	12.43				12.43								
140+83.96	142+63.40	HWY. 1B (MULTI USE PATH)	179.44	62.25	111.70	10.00	199.38	9.97				9.97								
75+00.00	76+58.73	FOREST HILL ROAD	158.73	46.75	74.21	39.55	697.53	34.88	22.81	402.29	68.39	103.27	18.18	320.63	550.00	88.17	13.18	232.45	330.00	38.35
51+33.56	53+32.96	PARKER ROAD	199.40	59.00	117.65	26.64	590.22	29.51	55.00	1218.56	207.16	236.67	8.88	196.74	550.00	54.10	8.88	196.74	330.00	32.46
54+05.57	58+51.46	PARKER ROAD	445.89	59.00	263.08	37.91	1878.19	93.91	36.00	1783.56	303.21	397.12	12.63	625.73	550.00	172.08	12.63	625.73	330.00	103.25
ADDITIONAL FOR LEVELING, SUPERELEVATION AND GUARDRAIL WIDENI																				
123+15.00	143+00.00	HWY. 1B	1985.00																	
75+00.00	76+52.68	FOREST HILL ROAD	152.68																	
54+47.00	58+51.46	PARKER ROAD	404.46	39.00	157.74	6.20	278.63	13.93				13.93								
TOTALS:					**1432.77**		**21722.66**	**1086.14**		**11274.70**	**1916.72**	**3002.86**		**7555.42**		**2077.73**		**6372.90**		**1051.53**

BASE AND SURFACING (BOX 2 OF 2)

STATION	STATION	LOCATION	ACHM SURFACE COURSE (3/8")				ACHM SURFACE COURSE (1/2")								
			AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 64-22	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			TON	FEET			TON	FEET			TON	TON
MAIN LANES															
123+15.00	126+75.00	HWY. 1B					16.50	660.00	220.00	72.60	33.50	1340.00	220.00	147.40	220.00
126+75.00	134+75.00	HWY. 1B					34.00	3022.22	220.00	332.44	56.00	4977.78	220.00	547.56	880.00
134+75.00	142+84.80	HWY. 1B					15.37	1382.96	220.00	152.13	56.00	5038.76	220.00	554.26	706.39
142+84.80	144+91.64	HWY. 1B					11.00	252.80	220.00	27.81	87.00	1999.45	220.00	219.94	247.75
127+71.65	130+34.04	HWY. 1B (MULTI USE PATH)	10.00	291.54	330.00	48.10									
130+98.43	131+37.31	HWY. 1B (MULTI USE PATH)	10.00	43.20	330.00	7.13									
132+05.77	132+08.30	HWY. 1B (MULTI USE PATH)	10.00	2.81	330.00	0.46									
132+76.83	133+35.81	HWY. 1B (MULTI USE PATH)	10.00	65.53	330.00	10.81									
133+95.81	137+51.18	HWY. 1B (MULTI USE PATH)	10.00	394.86	330.00	65.15									
137+90.05	140+13.82	HWY. 1B (MULTI USE PATH)	10.00	248.63	330.00	41.02									
140+83.96	142+63.40	HWY. 1B (MULTI USE PATH)	10.00	199.38	330.00	32.90									
75+00.00	76+58.73	FOREST HILL ROAD					13.18	232.45	220.00	25.57	35.98	634.57	220.00	69.80	95.37
51+33.56	53+32.96	PARKER ROAD					8.88	196.74	220.00	21.64	74.35	1647.27	220.00	181.20	202.84
54+05.57	58+51.46	PARKER ROAD					12.63	625.73	220.00	68.83	56.39	2793.75	220.00	307.31	376.14
ADDITIONAL FOR LEVELING, SUPERELEVATION AND GUARDRAIL WIDENI															
123+15.00	143+00.00	HWY. 1B					30.36	6696.07	220.00	736.57					736.57
75+00.00	76+52.68	FOREST HILL ROAD					19.89	337.42	220.00	37.12					37.12
54+47.00	58+51.46	PARKER ROAD									6.20	278.63	220.00	30.65	30.65
TOTALS:				**1245.95**		**205.57**		**13406.39**		**1474.71**		**18710.21**		**2058.12**	**3532.83**

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (3/8").....94.8% MIN. AGGR.....5.2% ASPHALT BINDER
ACHM SURFACE COURSE (1/2").....94.8% MIN. AGGR.....5.2% ASPHALT BINDER
ACHM BINDER COURSE (1").....95.9% MIN. AGGR.....4.1% ASPHALT BINDER
ACHM BASE COURSE (1 1/2").....96.1% MIN. AGGR.....3.9% ASPHALT BINDER
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RAT

QUANTITIES

tholt 8/28/2025
100881-32-QUANTITIES.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	39	121
		SUMMARY OF QUANTITIES				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
10/30/25

SUMMARY OF QUANTITIES (BOX 1 OF 3)

	ITEM NUMBER	ITEM		QUANTITY	UNIT
	201	CLEARING		11	STATION
	201	GRUBBING		11	STATION
	202	REMOVAL AND DISPOSAL OF CURB		937	LIN. FT.
	202	REMOVAL AND DISPOSAL OF CURB AND GUTTER		503	LIN. FT.
	202	REMOVAL AND DISPOSAL OF FENCE		417	LIN. FT.
	202	REMOVAL AND DISPOSAL OF GATES		2	EACH
	202	REMOVAL AND DISPOSAL OF CONCRETE SLABS		6	SQ. YD.
	202	REMOVAL AND DISPOSAL OF CONCRETE PAVEMENT		242	SQ. YD.
	202	REMOVAL AND DISPOSAL OF CONCRETE ISLANDS		29	SQ. YD.
	202	REMOVAL AND DISPOSAL OF CONCRETE DRIVEWAYS		579	SQ. YD.
	202	REMOVAL AND DISPOSAL OF CONCRETE HEADWALLS AND WINGWALLS		8	EACH
	202	REMOVAL AND DISPOSAL OF SIGN FOUNDATIONS		8	EACH
	202	REMOVAL AND DISPOSAL OF DROP INLETS		6	EACH
	202	REMOVAL AND DISPOSAL OF PIPE CULVERTS		18	EACH
	202	REMOVAL AND DISPOSAL OF HEADWALLS		2	EACH
	202	REMOVAL AND DISPOSAL OF LUMINAIRE POLES		1	EACH
	202	REMOVAL AND DISPOSAL OF SWIMMING POOL		1	EACH
	202	REMOVAL AND DISPOSAL OF SIGNS		36	EACH
	202	REMOVAL AND DISPOSAL OF MAILBOXES		6	EACH
	SP, SS, & 210	UNCLASSIFIED EXCAVATION		3471	CU. YD.
	SP & 210	COMPACTED EMBANKMENT		6351	CU. YD.
	SP & 210	SOIL STABILIZATION		100	TON
	SP, SS, & 303	AGGREGATE BASE COURSE (CLASS 7)		1845	TON
	SP, SS, & 309	PORTLAND CEMENT CONCRETE BASE (5" UNIFORM THICKNESS)		616	SQ. YD.
	SS & 401	TACK COAT		3023	GAL.
	SP, SS, & 405	MINERAL AGGREGATE IN ACHM BASE COURSE (1 1/2")		1997	TON
	SP, SS, & 405	ASPHALT BINDER (PG 64-22) IN ACHM BASE COURSE (1 1/2")		81	TON
	SP, SS, & 406	MINERAL AGGREGATE IN ACHM BINDER COURSE (1")		1009	TON
	SP, SS, & 406	ASPHALT BINDER (PG 64-22) IN ACHM BINDER COURSE (1")		43	TON
	SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (3/8")		195	TON
	SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")		3398	TON
	SP, SS, & 407	ASPHALT BINDER (PG 64-22) IN ACHM SURFACE COURSE (3/8")		11	TON
	SP, SS, & 407	ASPHALT BINDER (PG 64-22) IN ACHM SURFACE COURSE (1/2")		3	TON
	SP, SS, & 407	ASPHALT BINDER (PG 70-22) IN ACHM SURFACE COURSE (1/2")		184	TON
	SP & 412	COLD MILLING ASPHALT PAVEMENT		2011	SQ. YD.
	SP, SS, & 414	ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC		10	TON
	SP, SS, & 415	ACHM PATCHING OF EXISTING ROADWAY		10	TON
	SP, SS, & 505	PORTLAND CEMENT CONCRETE DRIVEWAY		958.49	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
	SS & 604	SIGNS		412	SQ. FT.
	SS & 604	TRAFFIC DRUMS		92	EACH
	SS & 604	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER		186	LIN. FT.
	SS & 604	RELOCATING PRECAST CONCRETE BARRIER		266	LIN. FT.
	604	CONSTRUCTION PAVEMENT MARKINGS		16724	LIN. FT.
	604	CONSTRUCTION PAVEMENT MARKINGS (WORDS)		2	EACH
	604	CONSTRUCTION PAVEMENT MARKINGS (ARROWS)		6	EACH
	604	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS		8144	LIN. FT.
	604	REMOVAL OF PERMANENT PAVEMENT MARKINGS		8144	LIN. FT.
	SS & 604	VERTICAL PANELS		31	EACH
	SP, SS, & 605	CONCRETE DITCH PAVING (TYPE B)		93	SQ. YD.
*	SS & 606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	(ALTERNATE NO. 1)	1992	LIN. FT.
*	SS & 606	18" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE	(ALTERNATE NO. 2)	1992	LIN. FT.
*	SS & 606	18" SMOOTH SPIRAL RIB POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE	(ALTERNATE NO. 3)	1992	LIN. FT.
*	SS & 606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	(ALTERNATE NO. 1)	572	LIN. FT.
*	SS & 606	24" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE	(ALTERNATE NO. 2)	572	LIN. FT.
*	SS & 606	24" SMOOTH SPIRAL RIB POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE	(ALTERNATE NO. 3)	572	LIN. FT.
	SS & 606	12" SIDE DRAIN		40	LIN. FT.
	SP, SS, & 606	18" SIDE DRAIN		40	LIN. FT.
*	SS & 606	18" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS	(ALTERNATE NO. 1)	1	EACH
*	SS & 606	18" FLARED END SECTIONS FOR CORRUGATED STEEL PIPE CULVERTS	(ALTERNATE NO. 2)	1	EACH
*	SS & 606	24" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS	(ALTERNATE NO. 1)	1	EACH
*	SS & 606	24" FLARED END SECTIONS FOR CORRUGATED STEEL PIPE CULVERTS	(ALTERNATE NO. 2)	1	EACH
	SS & 606	SELECTED PIPE BEDDING		200	CU. YD.
	SS & 609	DROP INLETS (TYPE C)		3	EACH
	SS & 609	DROP INLETS (TYPE E)		3	EACH
	SS & 609	DROP INLETS (TYPE MO)		20	EACH
	SS & 609	DROP INLETS (TYPE ST)		3	EACH
	SS & 609	DROP INLETS (TYPE SPECIAL)		4	EACH
	SS & 609	JUNCTION BOXES (TYPE E)		6	EACH
	SS & 609	DROP INLET EXTENSIONS (4')		10	EACH
	SS & 609	DROP INLET EXTENSIONS (8')		1	EACH
	SS & 609	YARD DRAINS		3	EACH
	SS & 611	4" PIPE UNDERDRAINS		4741	LIN. FT.
	SS & 611	UNDERDRAIN OUTLET PROTECTORS		27	EACH
	SS & 617	GUARDRAIL (TYPE A)		175	LIN. FT.
	SS & 617	TERMINAL ANCHOR POSTS (TYPE 1)		1	EACH
	SS & 617	GUARDRAIL TERMINAL (TYPE 2)		1	EACH
	620	LIME		3	TON
	620	SEEDING		1.60	ACRE

* DENOTES ALTERNATE BID ITEMS.

SUMMARY OF QUANTITIES (BOX 2 OF 3)

ITEM NUMBER	ITEM	QUANTITY	UNIT
SS & 620	MULCH COVER	3.20	ACRE
620	WATER	295.2	M. GAL.
621	TEMPORARY SEEDING	1.60	ACRE
621	SILT FENCE	3875	LIN. FT.
621	SAND BAG DITCH CHECKS	468	BAG
621	DROP INLET SILT FENCE	300	LIN. FT.
621	SEDIMENT BASIN	600	CU. YD.
621	OBLITERATION OF SEDIMENT BASIN	600	CU. YD.
621	SEDIMENT REMOVAL AND DISPOSAL	819	CU. YD.
621	ROCK DITCH CHECKS	41	CU. YD.
SS & 621	FILTER SOCK (12")	519	LIN. FT.
SS & 621	FILTER SOCK (18")	3578	LIN. FT.
621	WATTLE (20")	90	LIN. FT.
623	SECOND SEEDING APPLICATION	1.60	ACRE
624	SOLID SODDING	7883	SQ. YD.
629	GABIONS	13	CU. YD.
SP, SS, & 632	CONCRETE ISLAND	69	SQ. YD.
SP, SS, & 633	CONCRETE WALKS	731	SQ. YD.
SP, SS, & 633	CONCRETE WALKS (TYPE SPECIAL)	217	SQ. YD.
SS & 633	HAND RAILING	391	LIN. FT.
SS & 634	CONCRETE COMBINATION CURB AND GUTTER (TYPE A) (1' 6")	4226	LIN. FT.
635	ROADWAY CONSTRUCTION CONTROL	1.00	LUMP SUM
637	MAILBOXES	7	EACH
SS & 637	MAILBOX SUPPORTS (SINGLE)	5	EACH
SS & 637	MAILBOX SUPPORTS (DOUBLE)	1	EACH
SP, SS, & 641	WHEELCHAIR RAMPS (TYPE 1)	63	SQ. YD.
SP, SS, & 641	WHEELCHAIR RAMPS (TYPE 2)	12	SQ. YD.
SP, SS, & 641	WHEELCHAIR RAMPS (TYPE 3)	122	SQ. YD.
SP & 701	SYSTEM LOCAL CONTROLLER TS2-TYPE 2, E-NET (8 PHASES)	3	EACH
SP	ETHERNET SWITCH, T100 HARDENED (8-PORT)	3	EACH
SP	E-NET CABLE (EXTERIOR CAT 5E)	294	LIN. FT.
SP	CELLULAR MODEM	2	EACH
SP	LOCAL RADIO (E-NET 5.8) WITH ANTENNA	2	EACH
SP	LOCAL RADIO WITH ANTENNA RELOCATION	1	EACH
SP	BATTERY BACKUP SYSTEM	1	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	36	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY)	4	EACH
SP	RELOCATION OF TRAFFIC SIGNAL HEAD	6	EACH
SP & 707	CENTRAL CONTROL UNIT	2	EACH
SP & 707	POLE MOUNTED ASSEMBLY	6	EACH
SP & 707	COUNTDOWN PEDESTRIAN SIGNAL HEAD, LED	6	EACH
708	TRAFFIC SIGNAL CABLE (5C/12 A.W.G.)	487	LIN. FT.
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	2831	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7C/14 A.W.G.)	2443	LIN. FT.
708	TRAFFIC SIGNAL CABLE (20C/14 A.W.G.)	898	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., E.G.C.)	1194	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/12 A.W.G., E.G.C.)	617	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.)	164	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	1508	LIN. FT.
709	GALVANIZED STEEL CONDUIT (2")	75	LIN. FT.
709	GALVANIZED STEEL CONDUIT (3")	60	LIN. FT.
710	NON-METALLIC CONDUIT (2")	126	LIN. FT.
710	NON-METALLIC CONDUIT (3")	891	LIN. FT.
SS & 711	CONCRETE PULL BOX (TYPE 1 HD)	3	EACH
SS & 711	CONCRETE PULL BOX (TYPE 2 HD)	13	EACH
SS & 713	SPAN WIRE ASSEMBLY	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (0')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (30')	1	EACH

tholt 8/28/2025
100881-32-QUANTITIES.SHT

SUMMARY OF QUANTITIES

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
1/8/2026		6	ARK.	100881	40	121
		SUMMARY OF QUANTITIES AND REVISIONS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
01/09/26

SUMMARY OF QUANTITIES (BOX 3 OF 3)

ITEM NUMBER	ITEM	QUANTITY	UNIT
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (56')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (60')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (62')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (68')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (34'-42')	1	EACH
SP	LED LUMINAIRE ASSEMBLY	7	EACH
SS & 715	TRAFFIC SIGNAL PEDESTAL POLE WITH FOUNDATION	4	EACH
SP	SERVICE POINT ASSEMBLY (2 CIRCUITS)	3	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	1.00	LUMP SUM
716	TREATED WOOD POLE (CLASS 2, 45')	5	EACH
719	THERMOPLASTIC PAVEMENT MARKING WHITE (6")	6438	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING WHITE (12")	1814	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING YELLOW (6")	6097	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING YELLOW (12")	157	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING (WORDS)	11	EACH
719	THERMOPLASTIC PAVEMENT MARKING (ARROWS)	22	EACH
721	RAISED PAVEMENT MARKERS (TYPE II)	126	EACH
SP	18" STREET NAME SIGN	7	EACH
SS & 731	TEMPORARY IMPACT ATTENUATION BARRIER	3	EACH
SS & 731	TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)	3	EACH
SP	VIDEO DETECTOR ROTATION	2	EACH
SP & 733	VIDEO DETECTOR (IP)	7	EACH
SP & 733	HYBRID VIDEO/RADAR DETECTOR	4	EACH
SP & 733	VIDEO CABLE (EXTERIOR CAT 5E)	2676	LIN. FT.
SP & 733	VIDEO MONITOR (CLR)	3	EACH
SP & 733	CENTRAL CONTROL UNIT (8 CHANNEL)	3	EACH
SP	ARCHITECTURAL FINISH	778	SQ. FT.
SP	TEXTURED COATING FINISH	58	SQ. YD.
SS & 816	FILTER BLANKET	110	SQ. YD.
SS & 816	DUMPED RIPRAP	50	CU. YD.
	STRUCTURES OVER 20' SPAN		
801	UNCLASSIFIED EXCAVATION FOR STRUCTURES-ROADWAY	996	CU. YD.
SP, SS, & 802	CLASS S CONCRETE-ROADWAY	360.95	CU. YD.
SS & 804	REINFORCING STEEL-ROADWAY (GRADE 60)	48027	POUND

REVISIONS

DATE	REVISION	SHEET NUMBER
1/8/2026	ADDED MAINTENANCE OF TRAFFIC DETAIL SHEET	21A, 40

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	41	121
		SURVEY CONTROL DETAILS				

POINT NO.	ALIGNMENT	TYPE	STATION	NORTHING	EASTING
8000	HWY. 1B	POB	118+00.00	536298.8801	1699933.3767
8001	HWY. 1B	PC	127+57.72	536993.2596	1699273.7780
8003	HWY. 1B	PRC	129+65.03	537146.1142	1699133.7519
8005	HWY. 1B	PT	135+71.36	537578.4748	1698709.0637
8006	HWY. 1B	PC	137+85.69	537723.2179	1698551.0004
8008	HWY. 1B	PT	143+88.80	538258.4157	1698311.0537
8009	HWY. 1B	POE	145+90.31	538459.9151	1698308.3183
8010	PARKER RD.	POB/PC	50+00.00	538254.1594	1697969.9255
8012	PARKER RD.	PT	53+81.64	538154.3570	1698326.4944
8013	PARKER RD.	PC	54+68.27	538167.4498	1698412.1297
8015	PARKER RD.	PT	58+93.19	538427.3359	1698721.5115
8016	PARKER RD.	POE	60+43.17	538569.4495	1698769.4237
8017	FOREST HILL RD.	POB	70+00.00	536385.7409	1699027.4635
8018	FOREST HILL RD.	PC	71+99.05	536584.7848	1699025.5302
8020	FOREST HILL RD.	PT	73+35.04	536710.7161	1699069.2892
8021	FOREST HILL RD.	POE	76+80.92	536979.9767	1699286.3956

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
08/29/25

N

1/4 SECTION LINE

POB 70+00.00

8017

FOREST HILL RD.
P.I. 72+69.86
Δ = 39°26'09"RT.
D = 28°59'57"
T = 70.81'
L = 135.99'
P.C. 71+99.05
P.T. 73+35.04

N0°33'23"W 199.05'

N0°33'23"W 70.81'

P.I. 72+69.86

8018

P.C. 71+99.05

8020

P.T. 73+35.04

N38°52'46"E 70.81'

CONSTRUCTION CL
FOREST HILL RD.

HWY. 1B
P.I. 128+61.39
Δ = 02°04'23"RT.
D = 01°00'00"
T = 103.67'
L = 207.31'
P.C. 127+57.72
P.R.C. 129+65.03

SECTION LINE

1/16 SECTION LINE

PN:1112
PD:CPS

PN:1111
PD:5/8" REBAR CAPPED

PN:40513
PD:X CUT IN TOP WIER INLET

N38°52'46"E 345.88'

75

CONSTRUCTION CL
HWY. 1B

P.I. 128+61.39

PN:1113
PD:CPS

N41°27'20"W 130
103.67'

N43°31'43"W 103.67'

125

PN:1114
PD:CPS

PN:1116
PD:CPS

120

PN:1117
PD:CPS

POB 118+00.00

8000

1/4 SECTION LINE

N43°31'43"W 957.72'

PN:1115
PD:CPS

PN:1118
PD:CPS

HWY. 1B STA. 123+15.00
BEGIN JOB 100881
LOG MILE 2.40

HWY. 1B STA. 127+39.40 =
FOREST HILL RD. STA. 76+80.92
Δ 82°24'29"

8001

P.C. 127+57.72

PRC 129+65.03

8003

PN:1
PD:STD AHTD MON. STAMPED PN 1

HWY. 1B
P.I. 132+68.48
Δ = 06°03'48"LT.
D = 01°00'00"
T = 303.45'
L = 606.33'
P.R.C. 129+65.03
P.T. 135+71.36

HWY. 1-B
P.I. 141+05.16
Δ = 46°44'28"RT.
D = 07°45'00"
T = 319.47'
L = 603.11'
P.C. 137+85.69
P.T. 143+88.80
e= 0.070 '/'
LS= 360'

1/16 SECTION LINE

P.T. 135+71.36

8005

135

PN:40520
PD:X CUT IN CONC PAD

PN:2
PD:STD AHTD MON. STAMPED PN 2

PN:1103
PD:5/8" REBAR CAPPED

N47°31'08"W 140
319.47'

P.I. 141+05.16

N0°46'40"W 319.47'

SURVEY BASELINE

N47°31'08"W 214.33'

N41°27'20"W 303.45'

N47°31'08"W 303.45'

P.I. 132+68.48

8006

P.C. 137+85.69

CONSTRUCTION CL
PARKER RD.

STA. 51+33.56
BEGIN PARKER RD.

PARKER RD.
P.I. 52+03.18
Δ = 48°39'32"LT.
D = 12°45'00"
T = 203.18'
L = 381.64'
P.C. 50+00.00
P.T. 53+81.64
MATCH EXIST.
SUPERELEVATION

PN:1106
PD:CPS

P.I. 52+03.18

S50°02'02"E 203.18'

8010

P.C. 50+00.00

N91°18'26"E 203.18'

PN:3
PD:STD AHTD MON. STAMPED PN 3

PN:40521
PD:X CUT IN HW

N0°46'40"W 201.51'

145

POE 145+90.31

8009

8008

8012

8013

N91°18'26"E 86.63'

P.T. 53+81.64

P.C. 54+68.27

HWY. 1B STA. 142+83.32=
PARKER RD. STA. 53+75.07
Δ 88°54'10"

N91°18'26"E 236.53'

PN:1105
PD:4" SPIKE NAIL

P.I. 57+04.80

PN:1109
PD:CPS

PN:1104
PD:5/8" REBAR CAPPED

P.T. 143+88.80

HWY. 1B STA. 144+91.64
END JOB 100881
LOG MILE 2.81

PARKER RD.
P.I. 57+04.80
Δ = 62°40'34"LT.
D = 14°45'00"
T = 236.53'
L = 424.92'
P.C. 54+68.27
P.T. 58+93.19
MATCH EXIST.
SUPERELEVATION

N18°37'52"E 236.53'

PN:1108
PD:CPS

P.T. 58+93.19

8015

N18°37'52"E 149.98'

60

POE 60+43.17

8016

STA. 58+51.46
END PARKER RD.

1/16 SECTION LINE

SECTION LINE

SECTION LINE — SECTION 31
SECTION 30

SURVEY CONTROL COORDINATES

PROJECT NAME: JB10255
DATE: APRIL 07, 2017
COORDINATE SYSTEM: ARKANSAS STATE PLANE NORTH ZONE (0301)
BASED ON THE CITY OF JONESBORO GPS CONTINUOUSLY OPERATING REFERENCE STATION
CORS ID - ARJB
PID - DO9379
NAD 83 (2011) POSITION 35 50 52.51427 (N) 090 44 49.86696 (W)
VERTICAL ORDER - FIRST CLASS II

		North	East	Units	Scale Factor	Converg.
SPC AR N	-	553,647.04	1,683,611.35	sFT	0.9999349540	+0 45 26

		Elev Factor	x	Scale Factor	=	Combined Factor
SPC AR N	-	1.0	x	0.9999349540	=	0.9999349540

Point 01	North	537136.7218	East	1699167.1820	Elevation:	279.1945	Code	CTL	AHTD MON. STAMPED PN 1
Point 02	North	537637.1647	East	1698584.7741	Elevation:	278.2500	Code	CTL	AHTD MON. STAMPED PN 2
Point 03	North	538214.6634	East	1698266.1714	Elevation:	281.3200	Code	CTL	AHTD MON. STAMPED PN 3
Point 40513	North	536850.6080	East	1699299.9560	Elevation:	279.5700	Code	TBM	X CUT IN TOP WIER INLET
Point 40520	North	537621.3510	East	1698559.2820	Elevation:	278.4300	Code	TBM	X CUT IN CONC PAD
Point 40521	North	538290.1910	East	1698237.1730	Elevation:	276.9000	Code	TBM	X CUT IN HW

LOCAL SITE TYPE: GRID
PROJECTION: Lambert Conformal Conic 2 Parallel
DATUM: NAD 1983 (CONUS)
GEOID FILE: G12AUS

CONTROL POINT COURSES			
FROM	TO	BEARING	DISTANCE
1	2	N 49° 19' 43" W	767.88'
2	3	N 28° 53' 07" W	659.55'

SURVEY CONTROL DETAILS

lholt 8/28/2025
100881-42-SURVEY CONTROL.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	42	121
		PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
08/29/25

STA. 127+46 IN PLACE
18" X 54' R.C. PIPE CULVERT
LT. SIDE DRAIN
ABANDON IN PLACE AND
FILL WITH GROUT

STA. 131+04, 37' LT.
IN PLACE DI WITH
18" X 146' R.C. PIPE CULVERT
TO R.C. BOX CULVERT ON LT.
REMOVE

STA. 132+06, 36' LT.
IN PLACE DI WITH
18" X 99' R.C. PIPE CULVERT
TO DI ON LT.
REMOVE

STA. 133+01, 33' LT.
IN PLACE DI WITH
18" X 93' R.C. PIPE CULVERT
TO DI ON LT.
REMOVE

STA. 134+17, 31' LT.
IN PLACE 18" X 115'
R.C. PIPE CULVERT
TO DI ON LT.
REMOVE

STA. 130+66 CONSTRUCT
APPROACH ON LT. = 25 CU. YD.

STA. 131+72 CONSTRUCT
APPROACH ON LT. = 20 CU. YD.

STA. 132+43 CONSTRUCT
APPROACH ON LT. = 5 CU. YD.

STA. 133+65 CONSTRUCT
TURNOUT ON LT. = 65 CU. YD.

STA. 126+75 CONSTRUCT
DROP INLET 36.45' LT.
AND 18" X 44' PIPE OUTLET
CONNECT TO DROP INLET @
STA. 127+20 LT.
DROP INLET H= 3'-3"
TYPE E INLET= 3' X 3'

STA. 127+20 CONSTRUCT
DROP INLET 54.44' LT.
AND 18" X 96' PIPE OUTLET
CONNECT TO DROP INLET @
STA. 128+14 LT.
DROP INLET H= 5'-5"
TYPE MO INLET= 4' DIA.
TYPE C INLET= 4' X 3'

STA. 128+14 CONSTRUCT
DROP INLET 32.82' LT.
AND 18" X 28' PIPE OUTLET
CONNECT TO DROP INLET @
STA. 128+45
DROP INLET H= 5'-1"
TYPE MO INLET= 4' DIA.
TYPE C INLET= 4' X 3'

STA. 128+45 CONSTRUCT
DROP INLET 29.00' LT.
AND 18" X 80' PIPE OUTLET
CONNECT TO R.C. BOX CULVERT ON LT.
DROP INLET H= 5'-5"
TYPE MO INLET= 4' DIA.
TYPE C INLET= 4' X 3'

STA. 129+69 CONSTRUCT
JUNCTION BOX 65.39' LT.
AND 24" X 26' PIPE OUTLET
CONNECT TO R.C. BOX CULVERT ON LT.
JUNCTION BOX H= 4'-3"
TYPE E JUNCTION BOX= 3' X 3'

STA. 131+07 CONSTRUCT
DROP INLET 29.00' LT.
AND 18" X 8' PIPE OUTLET
CONNECT TO JUNCTION BOX @
STA. 131+02 LT.
DROP INLET H= 3'-9"
TYPE MO INLET= 4' DIA.
TYPE C INLET= 4' X 3'

STA. 132+08 CONSTRUCT
DROP INLET 29.00' LT.
AND 18" X 6' PIPE OUTLET
CONNECT TO JUNCTION BOX @
STA. 132+07 LT.
DROP INLET H= 3'-9"
TYPE MO INLET= 4' DIA.
TYPE C INLET= 4' X 3'

STA. 133+08 CONSTRUCT
DROP INLET 29.00' LT.
WITH 4' EXTENSION
AND 18" X 6' PIPE OUTLET
CONNECT TO JUNCTION BOX @
STA. 133+04 LT.
DROP INLET H= 3'-9",
TYPE MO INLET= 4' DIA.
TYPE C INLET= 4' X 3'

STA. 126+75 CONSTRUCT
DROP INLET 18.00' LT.
TYPE SPECIAL INLET= 10' X 4'

STA. 123+15 LT. CONSTRUCT
WHEELCHAIR RAMP
TYPE 3 = 3.6 SQ. YD.

STA. 127+03 LT. CONSTRUCT
WHEELCHAIR RAMP
TYPE 2 = 12.4 SQ. YD.

STA. 127+51 LT. CONSTRUCT
WHEELCHAIR RAMP
TYPE 3 = 2.9 SQ. YD.

STA. 127+66 LT. CONSTRUCT
WHEELCHAIR RAMP
TYPE 3 = 2.7 SQ. YD.

STA. 127+78 LT. CONSTRUCT
WHEELCHAIR RAMP
TYPE 3 = 8.6 SQ. YD.

STA. 131+02 CONSTRUCT
JUNCTION BOX 39.00' LT.
AND 24" X 130' PIPE OUTLET
CONNECT TO JUNCTION BOX @
STA. 129+69 LT.
JUNCTION BOX H= 7'-5"
TYPE E JUNCTION BOX= 3' X 3'

STA. 132+07 CONSTRUCT
JUNCTION BOX 39.00' LT.
AND 24" X 102' PIPE OUTLET
CONNECT TO JUNCTION BOX @
STA. 131+02 LT.
JUNCTION BOX H= 6'-7"
TYPE E JUNCTION BOX= 3' X 3'

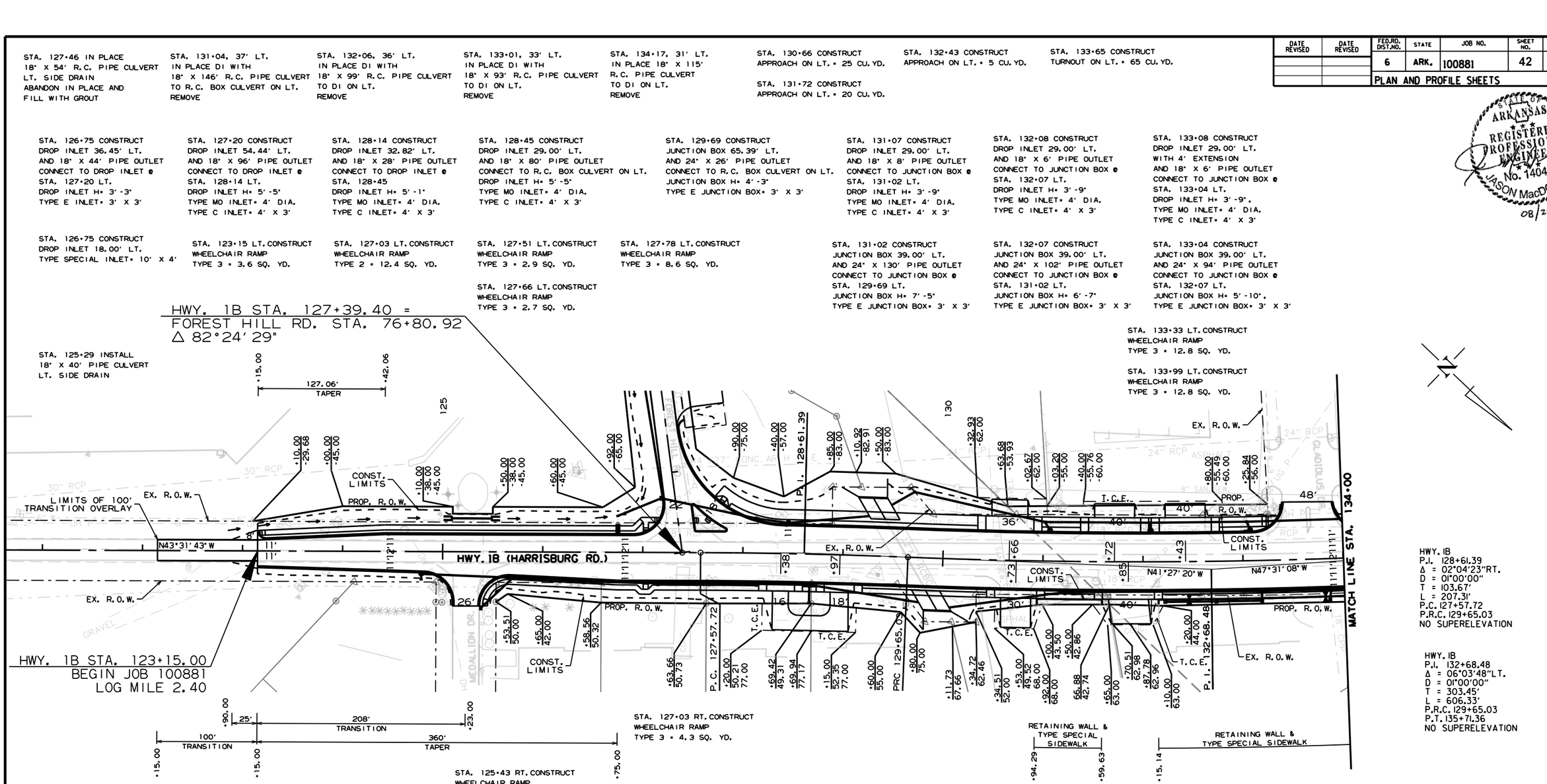
STA. 133+04 CONSTRUCT
JUNCTION BOX 39.00' LT.
AND 24" X 94' PIPE OUTLET
CONNECT TO JUNCTION BOX @
STA. 132+07 LT.
JUNCTION BOX H= 5'-10",
TYPE E JUNCTION BOX= 3' X 3'

STA. 133+33 LT. CONSTRUCT
WHEELCHAIR RAMP
TYPE 3 = 12.8 SQ. YD.

STA. 133+99 LT. CONSTRUCT
WHEELCHAIR RAMP
TYPE 3 = 12.8 SQ. YD.

STA. 125+29 INSTALL
18" X 40' PIPE CULVERT
LT. SIDE DRAIN

HWY. 1B STA. 127+39.40 =
FOREST HILL RD. STA. 76+80.92
Δ 82°24'29"



HWY. 1B
P.I. 128+61.39
Δ = 02°04'23"RT.
D = 01°00'00"
T = 103.67'
L = 207.31'
P.C. 127+57.72
P.R.C. 129+65.03
NO SUPERELEVATION

HWY. 1B
P.I. 132+68.48
Δ = 06°03'48"LT.
D = 01°00'00"
T = 303.45'
L = 606.33'
P.R.C. 129+65.03
P.T. 135+71.36
NO SUPERELEVATION

STA. 124+79 CONSTRUCT
DROP INLET 20.57' RT.
AND 18" X 88' PIPE OUTLET
CONNECT TO DROP INLET @
STA. 125+70 RT.
DROP INLET H= 3'-9"
TYPE MO INLET= 4' DIA.
TYPE C INLET= 4' X 3'

STA. 125+70 CONSTRUCT
DROP INLET 24.06' RT.
AND 18" X 68' PIPE OUTLET
CONNECT TO DROP INLET @
STA. 126+41 RT.
DROP INLET H= 4'-3"
TYPE MO INLET= 4' DIA.
TYPE C INLET= 4' X 3'

STA. 124+79 CONSTRUCT
YARD DRAIN 28.84' RT.
AND 12" X 4' C.M. PIPE OUTLET
CONNECT TO DROP INLET @
STA. 124+79 RT.
YARD DRAIN H=2'-1"

STA. 125+37 CONSTRUCT
DROP INLET 56.06' RT.
AND 18" X 42' PIPE OUTLET
CONNECT TO DROP INLET @
STA. 125+70 RT.
DROP INLET H= 3'-2"
TYPE MO INLET= 4' DIA.
TYPE C INLET= 4' X 3'

STA. 125+43 RT. CONSTRUCT
WHEELCHAIR RAMP
TYPE 3 = 3.7 SQ. YD.

STA. 126+41 CONSTRUCT
DROP INLET 27.41' RT.
AND 18" X 70' PIPE OUTLET
CONNECT TO DROP INLET @
STA. 127+15 RT.
DROP INLET H= 4'-1"
TYPE MO INLET= 4' DIA.
TYPE C INLET= 4' X 3'

STA. 127+15 CONSTRUCT
DROP INLET 29.00' RT.
WITH 4' EXTENSION AND
18" X 96' PIPE OUTLET
CONNECT TO DROP INLET @
STA. 128+14 RT.
DROP INLET H= 3'-9"
TYPE MO INLET= 4' DIA.
TYPE C INLET= 4' X 3'

STA. 128+14 CONSTRUCT
DROP INLET 29.00' RT.
AND 18" X 50' PIPE OUTLET
CONNECT TO DROP INLET @
STA. 128+67 RT.
DROP INLET H= 3'-10"
TYPE MO INLET= 4' DIA.
TYPE C INLET= 4' X 3'

STA. 128+67 CONSTRUCT
DROP INLET 29.00' RT.
AND 18" X 110' PIPE OUTLET
CONNECT TO R.C. BOX CULVERT ON RT.
DROP INLET H= 5'-6"
TYPE MO INLET= 4' DIA.
TYPE C INLET= 4' X 3'

STA. 128+67 CONSTRUCT
YARD DRAIN 43.38' RT.
AND 12" X 16' C.M. PIPE CULVERT
CONNECT TO DROP INLET @
STA. 128+67 RT.
YARD DRAIN H= 2'-2"

STA. 131+22 CONSTRUCT
DROP INLET 29.00' RT.
AND 18" X 116' PIPE OUTLET
CONNECT TO R.C. BOX CULVERT ON RT.
DROP INLET H= 7'-3"
TYPE C INLET= 4' X 3'

STA. 132+22 CONSTRUCT
DROP INLET 40.17' RT.
AND 18" X 48' PIPE OUTLET
CONNECT TO DROP INLET @
STA. 132+73 RT.
DROP INLET H= 3'-0"
TYPE ST INLET= 3' X 3'

STA. 132+73 CONSTRUCT
DROP INLET 40.33' RT.
AND 18" X 42' PIPE OUTLET
CONNECT TO DROP INLET @
STA. 133+18 RT.
DROP INLET H= 3'-3"
TYPE ST INLET= 3' X 3'

STA. 133+18 CONSTRUCT
DROP INLET 40.33' RT.
AND 18" X 6' PIPE OUTLET
CONNECT TO DROP INLET @
STA. 133+18 RT.
DROP INLET H= 3'-5"
TYPE ST INLET= 3' X 3'

STA. 133+18 CONSTRUCT
DROP INLET 29.00' RT.
WITH 4' EXTENSION
AND 18" X 194' PIPE OUTLET
CONNECT TO DROP INLET @
STA. 131+22 RT.
DROP INLET H= 5'-4"
TYPE C INLET= 4' X 3'

STA. 133+87 CONSTRUCT
DROP INLET 29.00' RT.
WITH 2 - 4' EXTENSIONS
AND 18" X 66' PIPE OUTLET
CONNECT TO DROP INLET @
STA. 133+18 RT.
DROP INLET H= 4'-9"
TYPE C INLET= 4' X 3'

STA. 133+86 CONSTRUCT
JUNCTION BOX 41.17' RT.
AND 18" X 8' PIPE OUTLET
CONNECT TO DROP INLET @
STA. 133+87 RT.
DROP INLET H= 3'-2"
TYPE E JUNCTION BOX= 3' X 3'

STA. 129+64 IN PLACE
DOUBLE 12' X 7' X 87' R.C. BOX CULVERT
WITH 3:1 WINGS LT. & RT.
RETAIN & EXTEND 23' LT. & 22' RT.
WITH 3:1 WINGS ON 30° RT. FORWARD SKEW
Q50= 640 CFS, D.A. = 0.5 SQ. MI.

STA. 125+23 CONSTRUCT
TURNOUT ON RT. = 25 CU. YD.

STA. 130+73 CONSTRUCT
APPROACH ON RT. = 45 CU. YD.

STA. 131+85 CONSTRUCT
APPROACH ON RT. = 30 CU. YD.

STA. 127+03 RT. CONSTRUCT
WHEELCHAIR RAMP
TYPE 3 = 4.3 SQ. YD.

FOR ALL R.C. PIPE CULVERT INSTALLATIONS USE
TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED.
FOR ALL C.M. PIPE CULVERT INSTALLATIONS USE
TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.
ALL STORM SEWER PIPES SHALL EITHER BE R.C.
PIPE CULVERTS (ALTERNATE NO. 1), SLPCCS
PIPE CULVERTS (ALTERNATE NO. 2, OR SSRPCCS
PIPE CULVERTS (ALTERNATE NO. 3) UNLESS
OTHERWISE SPECIFIED.

STA. 127+40 IN PLACE
18" X 21' R.C. PIPE CULVERT
RT. SIDE DRAIN
REMOVE

STA. 128+38 IN PLACE
18" X 21' R.C. PIPE CULVERT
RT. SIDE DRAIN
REMOVE
CONSTRUCT APPROACH = 35 CU. YDS.

STA. 128+97 IN PLACE
18" X 21' R.C. PIPE CULVERT
RT. SIDE DRAIN
REMOVE
CONSTRUCT APPROACH = 45 CU. YDS.

STA. 131+22, 22' RT.
IN PLACE DI WITH
18" X 109' C.M. PIPE CULVERT
TO R.C. BOX CULVERT ON RT.
REMOVE

STA. 132+24, 25' RT.
IN PLACE DI WITH
18" X 101' R.C. PIPE CULVERT
TO DI ON RT.
REMOVE

TYPICAL SECTIONS
HWY. 1B (1) FROM STA. 123+15.00 TO STA. 126+75.00
HWY. 1B (2) FROM STA. 126+75.00 TO STA. 134+00.00

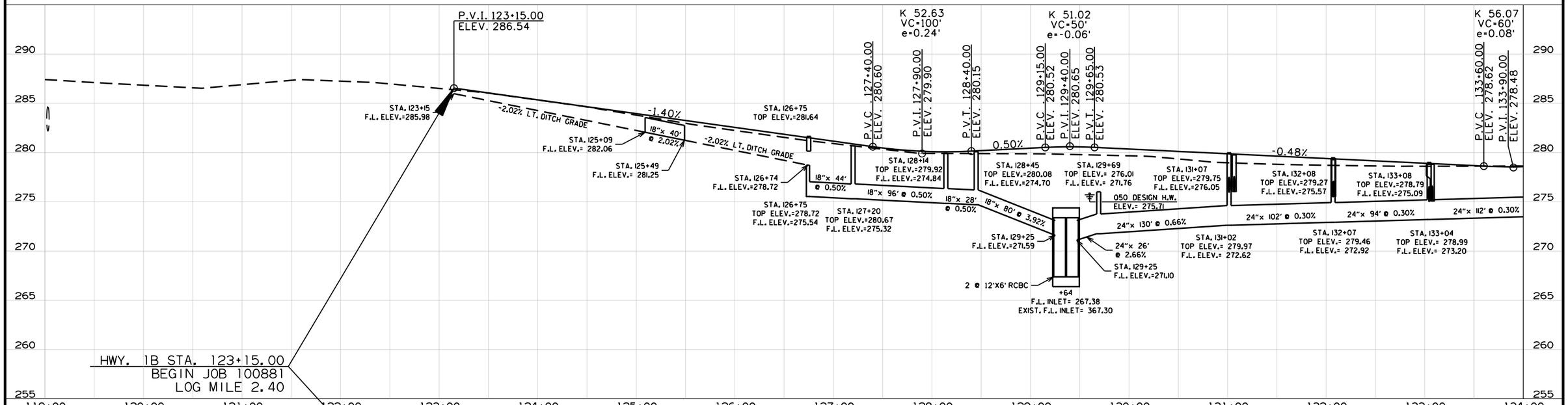
HWY. 1B

tholl 8/28/2025
100881-43-HARRISBURG PLAN-1.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	43	121
		PLAN AND PROFILE SHEETS				

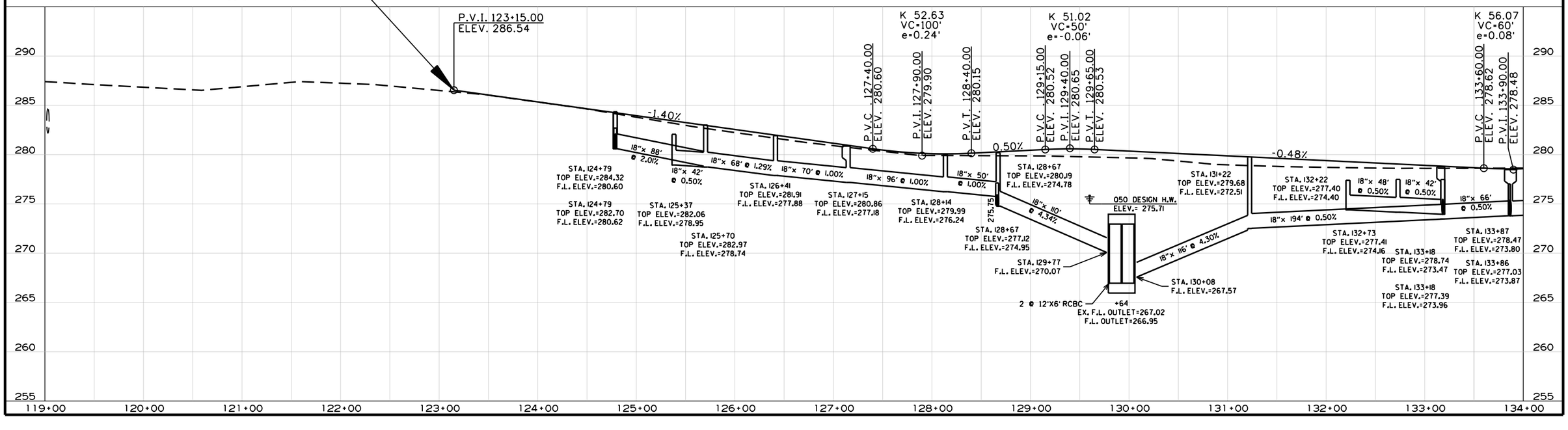
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
08/29/25

LEFT SIDE HWY. 1B



HWY. 1B STA. 123+15.00
BEGIN JOB 100881
LOG MILE 2.40

RIGHT SIDE HWY. 1B



tholt 8/28/2025
100881-44-HARRISBURG PROF-1.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	44	121
		PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
08/29/25

HWY. IB
P.I. 132+68.48
Δ = 06°03'48"LT.
D = 01°00'00"
T = 303.45'
L = 606.33'
P.R.C. 129+65.03
P.T. 135+71.36
NO SUPERELEVATION

STA. 134+17, 31' LT.
IN PLACE 18" X 115'
R.C. PIPE CULVERT
TO DI ON LT.
REMOVE

STA. 137+83 CONSTRUCT
TURNOUT ON LT. = 55 CU. YD.

STA. 137+50 LT. CONSTRUCT
WHEELCHAIR RAMP
TYPE 3 = 8.0 SQ. YD.

STA. 137+91 LT. CONSTRUCT
WHEELCHAIR RAMP
TYPE 3 = 8.0 SQ. YD.

STA. 140+49 IN PLACE
18" X 91' R.C. PIPE CULVERT
LT. SIDE DRAIN
RETAIN
CONSTRUCT TURNOUT ON LT. = 75 CU. YD.

STA. 140+09 LT. CONSTRUCT
WHEELCHAIR RAMP
TYPE 3 = 16.4 SQ. YD.

STA. 140+89 LT. CONSTRUCT
WHEELCHAIR RAMP
TYPE 3 = 16.4 SQ. YD.

STA. 142+45 LT. CONSTRUCT
WHEELCHAIR RAMP
TYPE 3 = 10.2 SQ. YD.

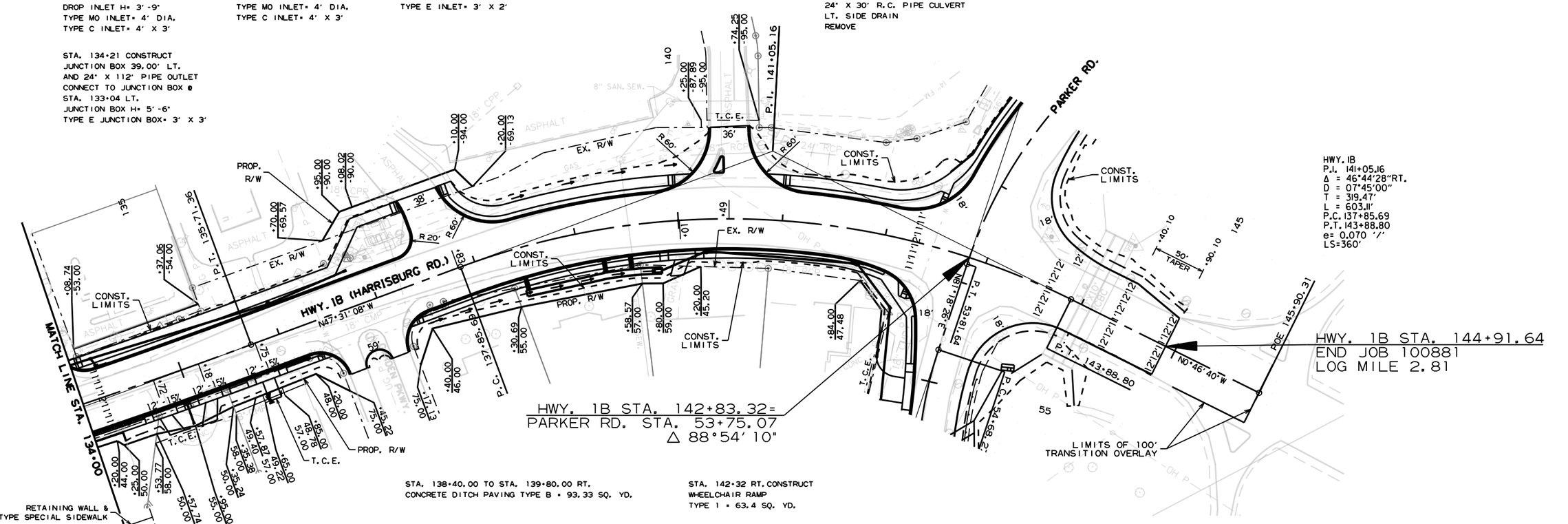
STA. 134+24 CONSTRUCT
DROP INLET 29.00' LT.
WITH 8' EXTENSION
AND 18" X 6' PIPE OUTLET
CONNECT TO JUNCTION BOX @
STA. 134+21 LT.
DROP INLET H= 3'-9"
TYPE MO INLET= 4' DIA.
TYPE C INLET= 4' X 3'

STA. 134+21 CONSTRUCT
JUNCTION BOX 39.00' LT.
AND 24" X 112' PIPE OUTLET
CONNECT TO JUNCTION BOX @
STA. 133+04 LT.
JUNCTION BOX H= 5'-6"
TYPE E JUNCTION BOX= 3' X 3'

STA. 136+00 CONSTRUCT
DROP INLET 29.00' LT.
AND 18" X 176' PIPE OUTLET
CONNECT TO JUNCTION BOX @
STA. 134+21 LT.
DROP INLET H= 5'-3"
TYPE MO INLET= 4' DIA.
TYPE C INLET= 4' X 3'

STA. 136+80 CONSTRUCT
DROP INLET 35.00' LT.
AND 18" X 76' PIPE OUTLET
CONNECT TO DROP INLET @
STA. 136+00 LT.
DROP INLET H= 3'-9"
TYPE E INLET= 3' X 2'

STA. 141+29 IN PLACE
24" X 30' R.C. PIPE CULVERT
LT. SIDE DRAIN
REMOVE



HWY. IB
P.I. 141+05.16
Δ = 46°44'28"RT.
D = 07°45'00"
T = 319.47'
L = 603.11'
P.C. 137+85.69
P.T. 143+88.80
e= 0.070 '/'
LS=360'

RETAINING WALL & TYPE SPECIAL SIDEWALK

STA. 134+35 CONSTRUCT
DROP INLET 29.00' RT.
AND 18" X 46' PIPE OUTLET
CONNECT TO DROP INLET @
STA. 133+87 RT.
DROP INLET H= 4'-8"
TYPE MO INLET= 4' DIA.
TYPE C INLET= 4' X 3'

STA. 134+95 CONSTRUCT
YARD DRAIN 52.23' RT.
AND 12" X 20' C.M. PIPE OUTLET
CONNECT TO DROP INLET @
STA. 134+95 RT.
YARD DRAIN H= 2'-1"

STA. 134+95 CONSTRUCT
DROP INLET 29.00' RT.
AND 18" X 56' PIPE OUTLET
CONNECT TO DROP INLET @
STA. 134+35 RT.
DROP INLET H= 4'-9"
TYPE MO INLET= 4' DIA.
TYPE C INLET= 4' X 3'

STA. 136+18 CONSTRUCT
DROP INLET 29.00' RT.
AND 18" X 120' PIPE OUTLET
CONNECT TO DROP INLET @
STA 134+95
DROP INLET H= 3'-8"
TYPE MO INLET= 4' DIA.
TYPE C INLET= 4' X 3'

STA. 138+40.00 TO STA. 139+80.00 RT.
CONCRETE DITCH PAVING TYPE B = 93.33 SQ. YD.

STA. 138+43 CONSTRUCT
DROP INLET 29.00' RT.
WITH 4' EXTENSION
TYPE SPECIAL INLET

STA. 139+23 CONSTRUCT
DROP INLET 29.00' RT.
WITH 2 - 4' EXTENSIONS
TYPE SPECIAL INLET

STA. 139+50 CONSTRUCT
DROP INLET 29.00' RT.
TYPE SPECIAL INLET

STA. 140+26 CONSTRUCT
DROP INLET 29.00' RT.
WITH 18" X 46' PIPE INLET WITH F.E.S.
AND 24" X 144' PIPE OUTLET
CONNECT TO DROP INLET @
STA. 141+78
DROP INLET H= 4'-7"
TYPE MO INLET= 4' DIA.
TYPE C INLET= 4' X 3'

STA. 142+32 RT. CONSTRUCT
WHEELCHAIR RAMP
TYPE 1 = 63.4 SQ. YD.

STA. 141+78 CONSTRUCT
DROP INLET 30.24' RT.
WITH 2 - 4' EXTENSIONS
AND 24" X 50' PIPE OUTLET
CONNECT TO DROP INLET @
STA. 142+20 RT
DROP INLET H= 5'-6"
TYPE MO INLET= 4' DIA.
TYPE C INLET= 4' X 3'

STA. 142+20 CONSTRUCT
DROP INLET 66.81' RT.
AND 24" X 108' PIPE OUTLET
CONNECT TO F.E.S. @
STA. 55+43 RT. OF PARKER RD.
DROP INLET H= 4'-0"
TYPE E INLET= 3' X 5'

STA. 136+38 RT. CONSTRUCT
WHEELCHAIR RAMP
TYPE 3 = 5.6 SQ. YD.

STA. 137+24 RT. CONSTRUCT
WHEELCHAIR RAMP
TYPE 3 = 5.6 SQ. YD.

STA. 136+80 CONSTRUCT
TURNOUT ON RT. = 50 CU. YD.

STA. 141+89, 39' RT.
IN PLACE DI WITH
18" X 51' R.C. PIPE CULVERT
TO DITCH ON RT.
REMOVE

STA. 140+01
CONSTRUCT APPROACH ON RT. =10 CU. YDS.

STA. 144+04 IN PLACE
3 @ 10' X 10' X 134'
R.C. BOX CULVERT
W/ 4:1 WINGS LT. & RT.
Q50= 3600 CFS, D.A. = 4.63 SQ. MI.
RETAIN & REPLACE WINGWALLS RT.

FOR ALL R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED. FOR ALL C.M. PIPE CULVERT INSTALLATIONS USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED. ALL STORM SEWER PIPES SHALL EITHER BE R.C. PIPE CULVERTS (ALTERNATE NO. 1), SLPCCS PIPE CULVERTS (ALTERNATE NO. 2, OR SSRPCCS PIPE CULVERTS (ALTERNATE NO. 3) UNLESS OTHERWISE SPECIFIED.

STA. 134+72 IN PLACE
18" X 24' C.M. PIPE CULVERT
RT. SIDE DRAIN
REMOVE
CONSTRUCT APPROACH ON RT. =10 CU. YDS.

STA. 135+18 IN PLACE
18" X 24' C.M. PIPE CULVERT
RT. SIDE DRAIN
REMOVE
CONSTRUCT APPROACH ON RT. =15 CU. YDS.

STA. 135+75 IN PLACE
18" X 22' C.M. PIPE CULVERT
RT. SIDE DRAIN
REMOVE
CONSTRUCT APPROACH ON RT. =15 CU. YDS.

STA. 136+80 IN PLACE
18" X 89' R.C. PIPE CULVERT
WITH END WALLS
RT. SIDE DRAIN
REMOVE

STA. 139+79, 31' RT.
IN PLACE DI WITH
18" X 198' R.C. PIPE CULVERT
TO DI ON RT.
REMOVE

TYPICAL SECTIONS
HWY. IB (2) FROM STA. 134+00.00 TO STA. 142+84.80
HWY. IB (3) FROM STA. 142+84.80 TO STA. 144+91.64

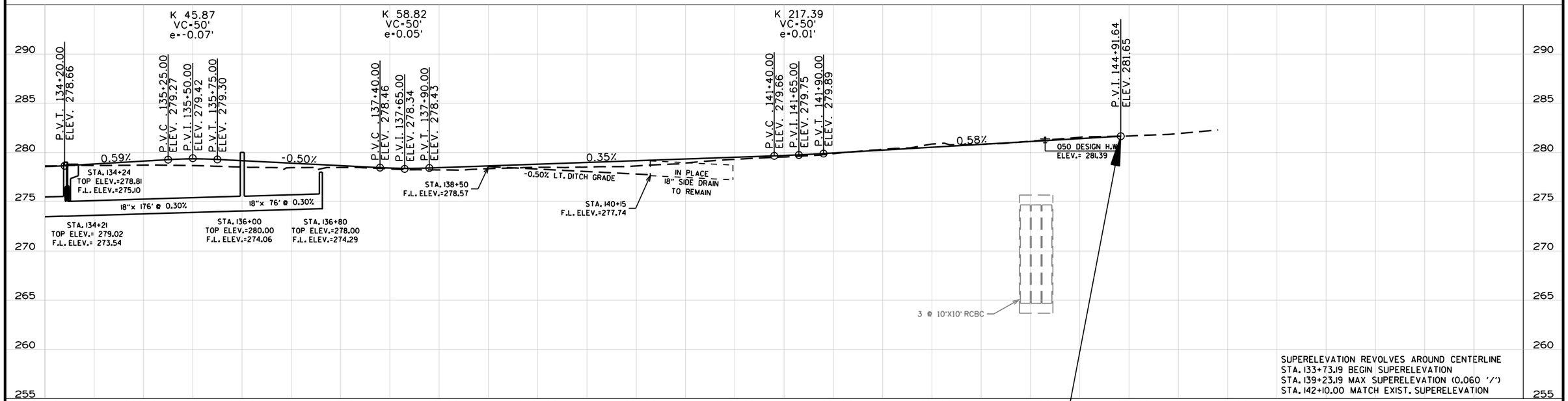
HWY. IB

tholt 8/28/2025 100881-45-HARRISBURG PLAN-2.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	45	121
		PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
08/29/25

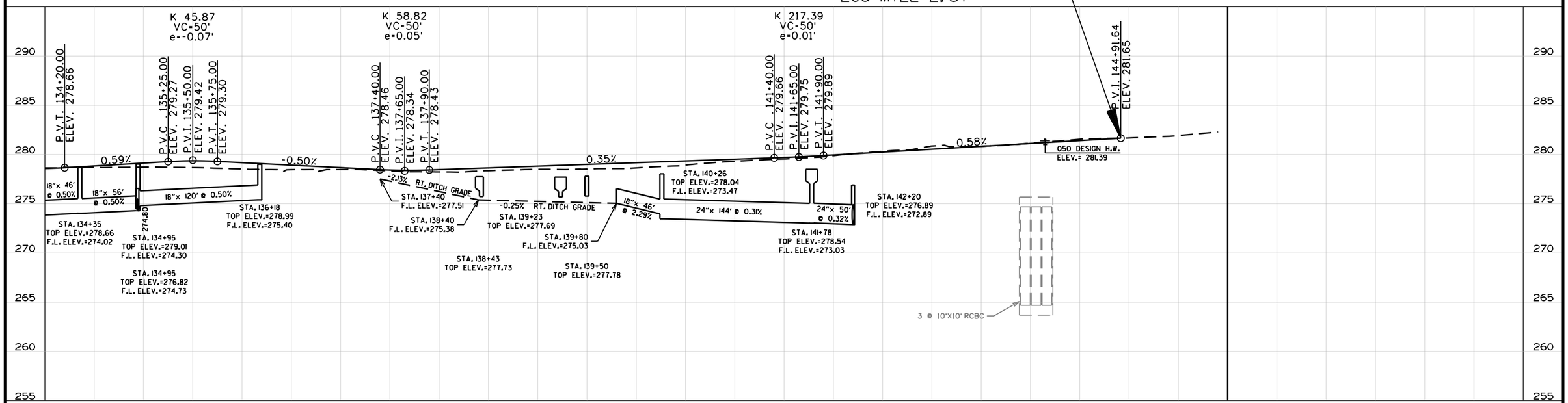
LEFT SIDE HWY. 1B



SUPERELEVATION REVOLVES AROUND CENTERLINE
STA. 133+73.19 BEGIN SUPERELEVATION
STA. 139+23.19 MAX SUPERELEVATION (0.060 '/')
STA. 142+10.00 MATCH EXIST. SUPERELEVATION

HWY. 1B STA. 144+91.64
END JOB 100881
LOG MILE 2.81

RIGHT SIDE HWY. 1B

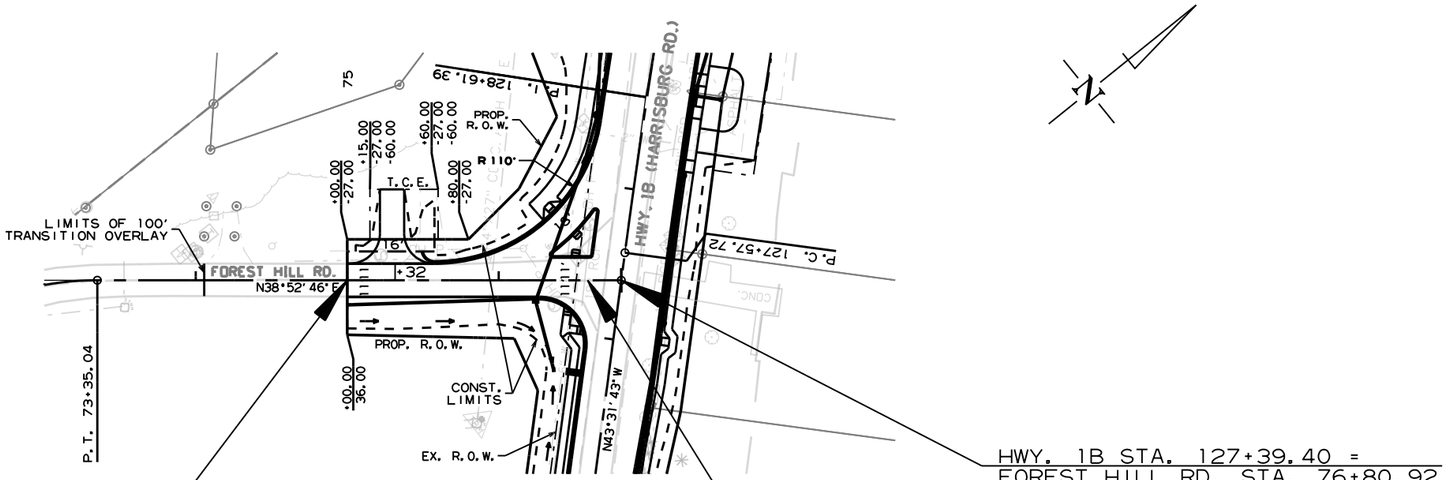


tholt 8/28/2025
100881-46-HARRISBURG PROF-2.SHT

STA. 75+32 CONSTRUCT
APPROACH ON RT. = 10 CU. YD.

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	46	121
		PLAN AND PROFILE SHEETS				

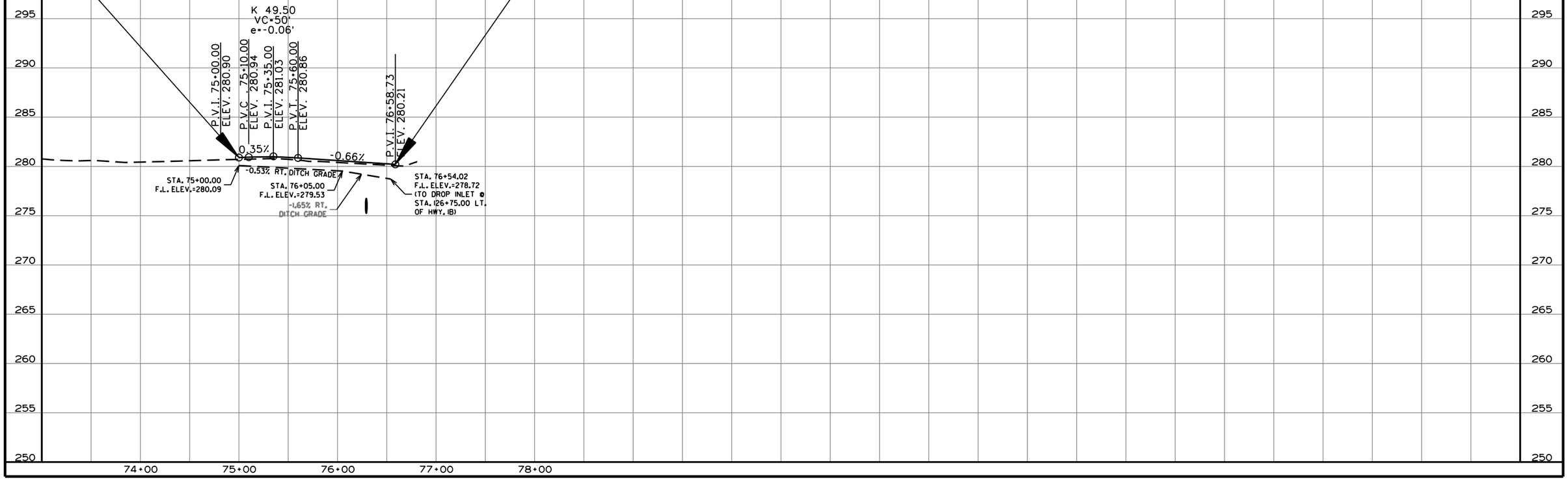
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
08/29/25



STA. 75+00.00
BEGIN FOREST HILL RD.

STA. 76+58.73
END FOREST HILL RD.

FOREST HILL RD.



tholt 8/28/2025
100881-47-FORESTHILL PLANPROF.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	47	121
		PLAN AND PROFILE SHEETS				

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	TERMINAL ANCHOR POST (TYPE I)	GUARDRAIL TERMINAL (TYPE 2)
54+85.60	57+40.00	LT.	175 LIN. FT.	IEA.	IEA.

PARKER RD.
P.I. 52+03.18
Δ = 48°39'32"LT.
D = 12°45'00"
T = 203.18'
L = 381.64'
P.C. 50+00.00
P.T. 53+81.64
MATCH EXISTING SUPERELEVATION

HWY. 1B STA. 142+83.32 =
PARKER RD. STA. 53+75.07
Δ 88°54'10"

PARKER RD.
P.I. 57+04.80
Δ = 62°40'34"LT.
D = 14°45'00"
T = 236.53'
L = 424.92'
P.C. 54+68.27
P.T. 58+93.19
MATCH EXISTING SUPERELEVATION

FOR ALL R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED.
FOR ALL C.M. PIPE CULVERT INSTALLATIONS USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.
ALL STORM SEWER PIPES SHALL EITHER BE R.C. PIPE CULVERTS (ALTERNATE NO. 1), SLPCCS PIPE CULVERTS (ALTERNATE NO. 2, OR SSRPCCS PIPE CULVERTS (ALTERNATE NO. 3) UNLESS OTHERWISE SPECIFIED.

STA. 51+33.56
BEGIN PARKER RD.

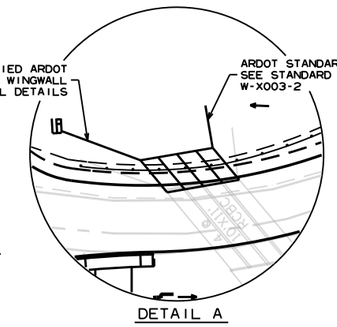
STA. 58+51.46
END PARKER RD.

STA. 55+95 IN PLACE
QUAD. 10' X 11' X 70' R.C. BOX CULVERT
RETAIN & EXTEND 26' LT.
Q50= 3600 CFS, D.A. = 4.63 SQ. MI.

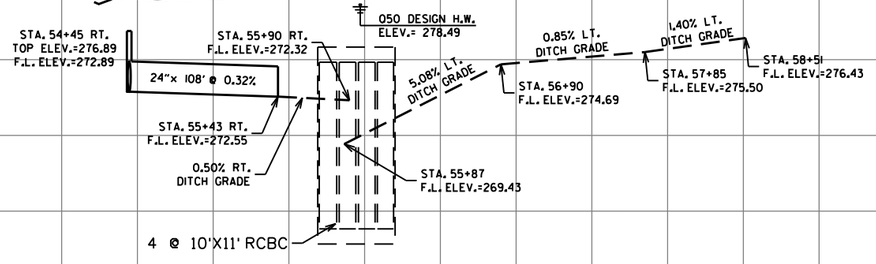
STA. 54+79 IN PLACE
18" X 33' C.M. PIPE CULVERT
RT. SIDE DRAIN
REMOVE
IN PLACE APPROACH
REMOVE

STA. 55+43 CONSTRUCT
24" F.E.S. 40.84' RT.

STA. 55+14 CONSTRUCT
APPROACH ON RT. = 105 CU. YD.



DETAIL A



SUPERELEVATION: MATCH EXISTING

295 290 285 280 275 270 265 260 255 250

50+00 51+00 52+00 53+00 54+00 55+00 56+00 57+00 58+00 59+00 60+00 61+00

PARKER RD.

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14044 JASON MacDONALD 08/29/25

tholl 8/28/2025
100881-48-PARKER PLANPROF.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	48	121
		SUMMARY OF TRAFFIC SIGNAL QUANTITIES				

STATE OF ARKANSAS
MATTHEW MCCARTHUR KENNEDY
LICENSED PROFESSIONAL ENGINEER
No. 20019
10/28/2025

SUMMARY OF TRAFFIC SIGNAL QUANTITIES

ITEM NUMBER	ITEM	HWY. 1B AT PARKER RD.	HWY. 1B AT FOREST HILL RD.	QUANTITY	UNIT
SP & 701	SYSTEM LOCAL CONTROLLER TS2-TYPE 2, E-NET (8 PHASES)	2	1	3	EACH
SP	ETHERNET SWITCH, T100 HARDENED (8-PORT)	2	1	3	EACH
SP	E-NET CABLE (EXTERIOR CAT 5E)	194	100	294	LIN. FT.
SP	CELLULAR MODEM	2		2	EACH
SP	LOCAL RADIO (E-NET 5.8) WITH ANTENNA	1	1	2	EACH
SP	LOCAL RADIO WITH ANTENNA RELOCATION	1		1	EACH
SP	BATTERY BACKUP SYSTEM	1		1	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	30	6	36	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY)	4		4	EACH
SP	RELOCATION OF TRAFFIC SIGNAL HEAD	6		6	EACH
SP & 707	CENTRAL CONTROL UNIT	1	1	2	EACH
SP & 707	POLE MOUNTED ASSEMBLY	2	4	6	EACH
SP & 707	COUNTDOWN PEDESTRIAN SIGNAL HEAD, LED	2	4	6	EACH
708	TRAFFIC SIGNAL CABLE (5C/12 A.W.G.)	197	290	487	LIN. FT.
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	1986	845	2831	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7C/14 A.W.G.)	2374	69	2443	LIN. FT.
708	TRAFFIC SIGNAL CABLE (20C/14 A.W.G.)	706	192	898	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., E.G.C.)	769	425	1194	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/12 A.W.G., E.G.C.)	442	175	617	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.)	128	36	164	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	1118	390	1508	LIN. FT.
709	GALVANIZED STEEL CONDUIT (2")	50	25	75	LIN. FT.
709	GALVANIZED STEEL CONDUIT (3")	60		60	LIN. FT.
710	NON-METALLIC CONDUIT (2")	65	61	126	LIN. FT.
710	NON-METALLIC CONDUIT (3")	606	285	891	LIN. FT.
SS & 711	CONCRETE PULL BOX (TYPE 1 HD)	2	1	3	EACH
SS & 711	CONCRETE PULL BOX (TYPE 2 HD)	7	6	13	EACH
SS & 713	SPAN WIRE ASSEMBLY	1		1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (0')		1	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (30')		1	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (56')	1		1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (60')	1		1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (62')	1		1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (68')	1		1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (34'-42')		1	1	EACH
SP	LED LUMINAIRE ASSEMBLY	4	3	7	EACH
SS & 715	TRAFFIC SIGNAL PEDESTAL POLE WITH FOUNDATION	2	2	4	EACH
SP	SERVICE POINT ASSEMBLY (2 CIRCUITS)	2	1	3	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	1.00		1.00	LUMP SUM
716	TREATED WOOD POLE (CLASS 2, 45')	5		5	EACH
SP	18" STREET NAME SIGN	4	3	7	EACH
SP	VIDEO DETECTOR ROTATION	2		2	EACH
SP & 733	VIDEO DETECTOR (IP)	6	1	7	EACH
SP & 733	HYBRID VIDEO/RADAR DETECTOR	2	2	4	EACH
SP & 733	VIDEO CABLE (EXTERIOR CAT 5E)	2137	539	2676	LIN. FT.
SP & 733	VIDEO MONITOR (CLR)	2	1	3	EACH
SP & 733	CENTRAL CONTROL UNIT (8 CHANNEL)	2	1	3	EACH

tholt 10/28/2025
100881-49-SIGNALQUANTSUMMARY.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	49	121
		TRAFFIC SIGNAL NOTES				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
MATTHEW MCCOY KENNEDY
No. 20019
08/28/2025

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 TSMO 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 SPECIFICATIONS 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.

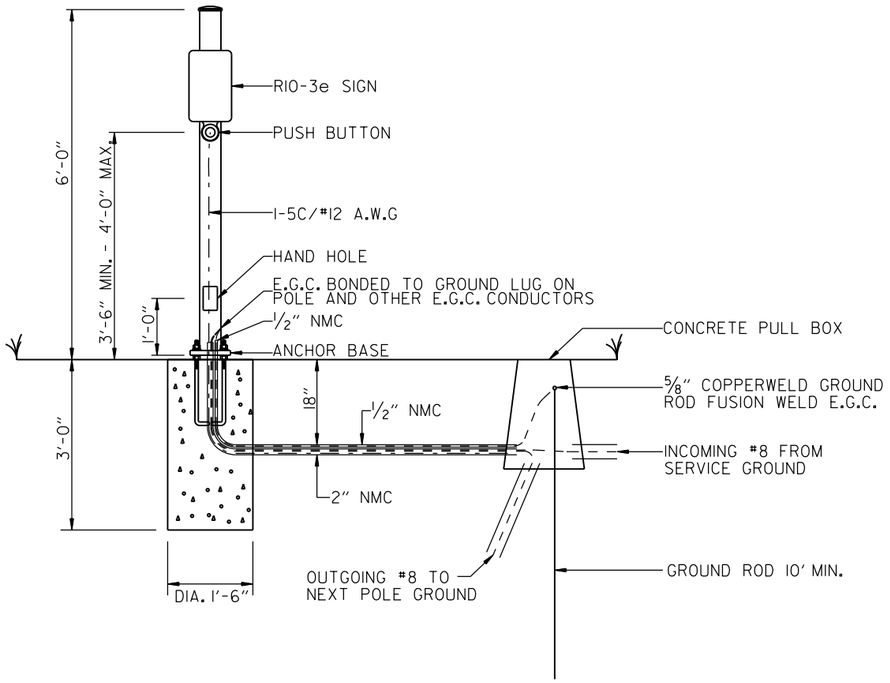
35. ALL SIGNAL HEADS AND SIGNS ON THE TEMPORARY SPAN WIRE SHALL HAVE AN ADDITIONAL TETHER WIRE (NOT SHOWN ON SD-7) AT THE BOTTOM CHORD TO MINIMIZE MOVEMENT DUE TO WIND EFFECTS. THE BOTTOM TETHER, HARDWARE, BRACKETS, AND MATERIALS FOR THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE TEMPORARY SIGNAL. THE BOTTOM TETHER SHALL BE INSTALLED BETWEEN THE MINIMUM AND MAXIMUM HEIGHT CLEARANCE ABOVE THE ROADWAY.

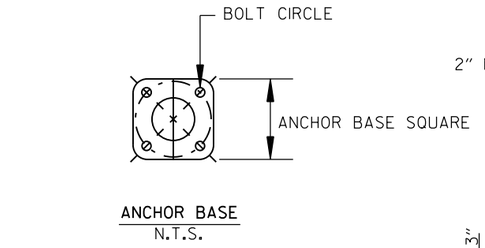
tholt 8/28/2025
100881-50-SIGNALNOTES.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	50	121

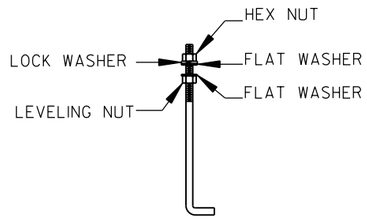
PEDESTRIAN PUSH BUTTON PEDESTAL DETAIL

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20019
MATTHEW MCARTHUR KENNEDY
08/28/2025

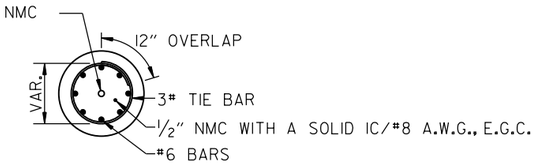


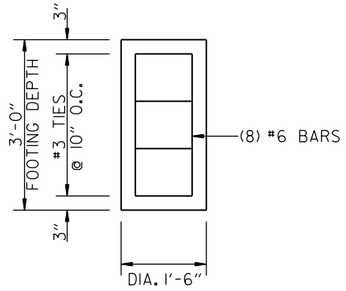


ANCHOR BASE
N.T.S.



ANCHOR BOLT
N.T.S.





PEDESTRIAN PUSH BUTTON PEDESTAL DETAIL

NOTES:

EACH PEDESTRIAN PUSH BUTTON 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.

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.

POLE CAP - POLE CAPS SHALL BE PROVIDED, FABRICATED OF EITHER STEEL OR CAST ALUMINUM.

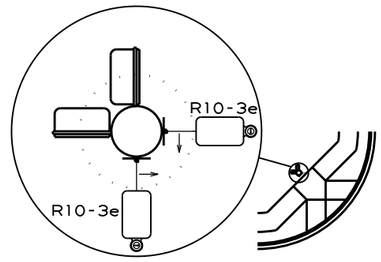
HAND HOLE - HAND HOLES SHALL BE 3 IN. X 5 IN. FOR PED POLES. MINIMUM PLACED APPROXIMATELY 12 INCHES FROM BASE, AND SHALL BE FIXED WITH A BOLT DOWN COVER. A VACUUM FORMED ABS COVER IS AN ACCEPTABLE ALTERNATE TO STEEL.

NUT COVERS - EACH POLE SHALL INCLUDE A BOLT DOWN NUT COVER FOR EACH ANCHOR BOLT.

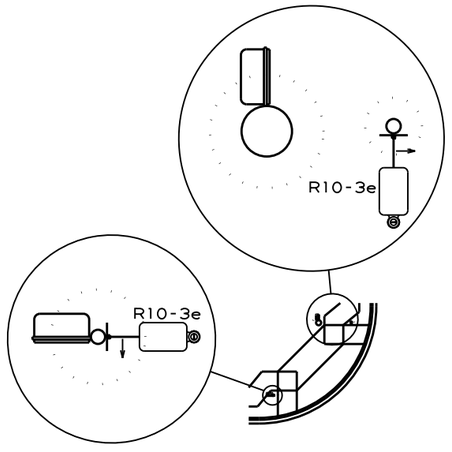
GROUND ROD - A 10' X 5/8" GROUND ROD SHALL BE INSTALLED IN THE CONCRETE PULL BOX FOR EACH POLE AND THE CONTROLLER. PAYMENT FOR THE GROUND ROD AND 1/2" NMC SHALL BE INCLUDED IN ITEM 714 FOR SIGNAL POLES AND ITEM 701 FOR THE CONTROLLER. THE CONCRETE PULL BOX AND CONDUCTOR BOX SHALL BE PAID SEPARATELY.

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 1/4" WEEP HOLE. ALL CONCRETE SHALL BE CLASS "S" OR GREATER.

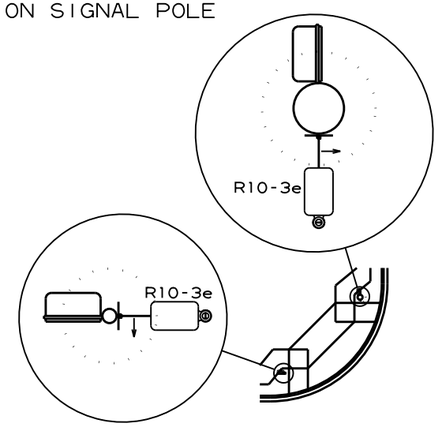
CONCRETE - ALL CONCRETE POLE FOUNDATION SHALL BE CLASS "S" OR GREATER.



TYPICAL MOUNTING PUSH BUTTON ON SIGNAL POLE



TYPICAL MOUNTING PUSH BUTTON ON PEDESTRIAN POLE AND PEDESTRIAN PUSH BUTTON POLE



TYPICAL MOUNTING PUSH BUTTON ON PEDESTRIAN POLE AND SIGNAL POLE

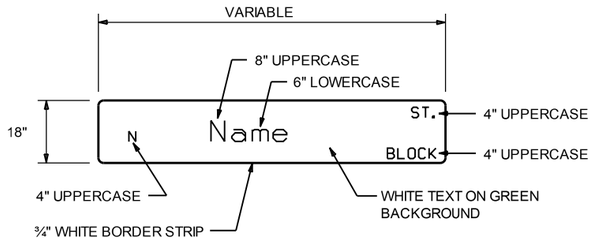
tholt 8/28/2025
100881-51-SIGNALDETAILPED.SHT

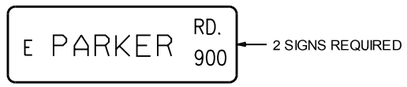
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	51	121
		TRAFFIC SIGNAL STREET NAME SIGNS				

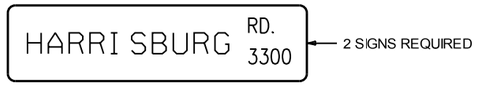
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20019
MATTHEW MCARTHUR KENNEDY
08/28/2025

OVERHEAD STREET NAME MARKER STANDARD MAST ARM MOUNTED

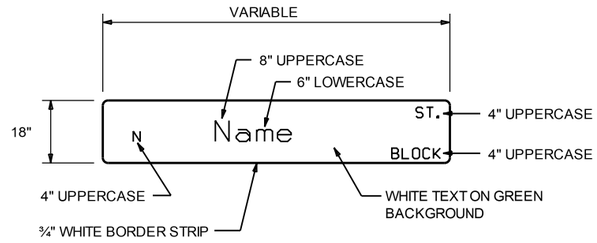
HIGHWAY 1B AND PARKER ROAD INTERSECTION



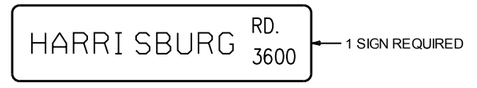




HIGHWAY 1B AND FOREST HILL ROAD INTERSECTION







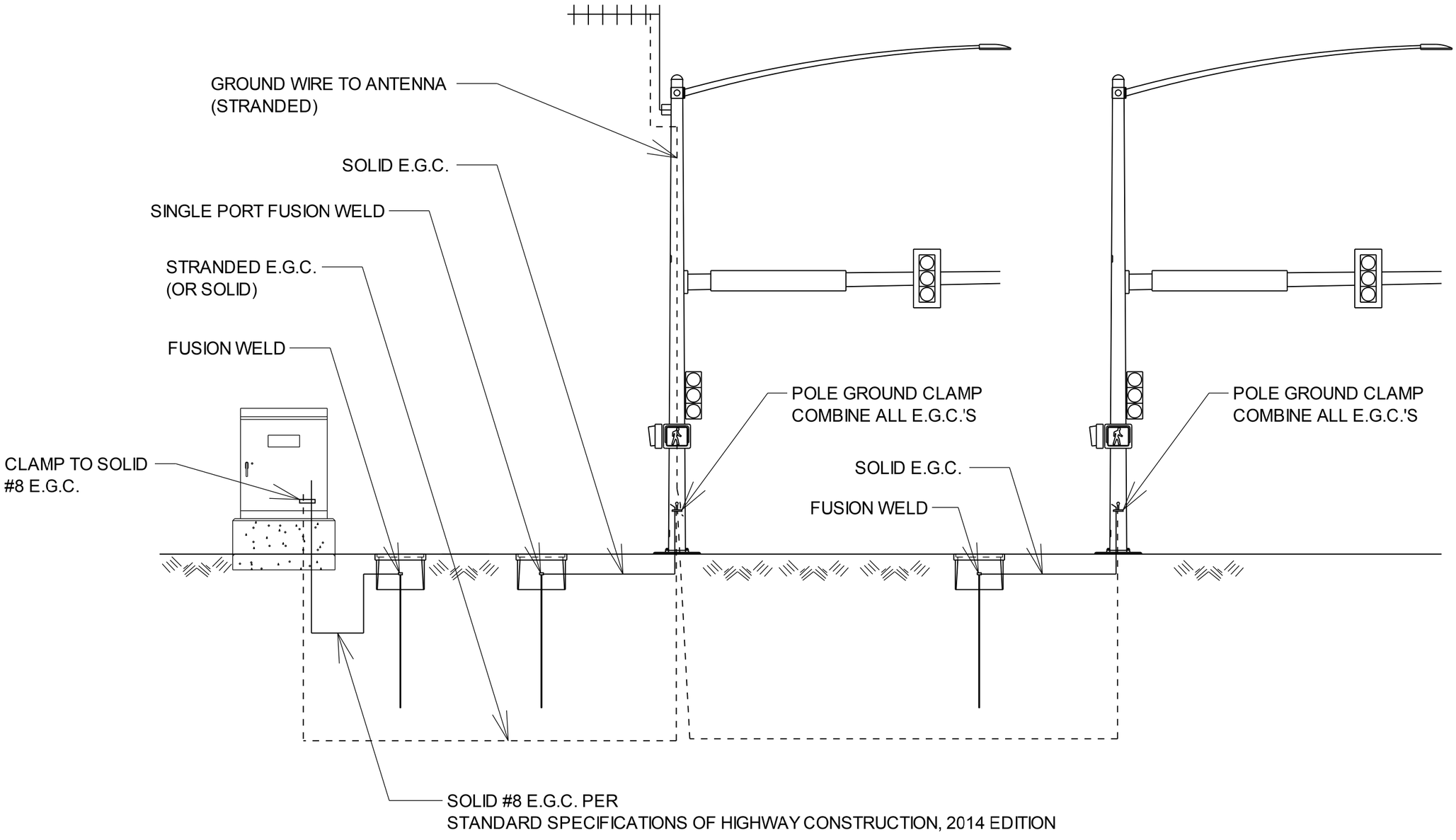
NOTES:

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 REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	52	121
		GROUNDING ARRAY DETAIL				

GROUNDING ARRAY
SINGLE-PORT FUSION WELDS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20019
MATTHEW MCARTHUR KENNEDY
08/28/2025

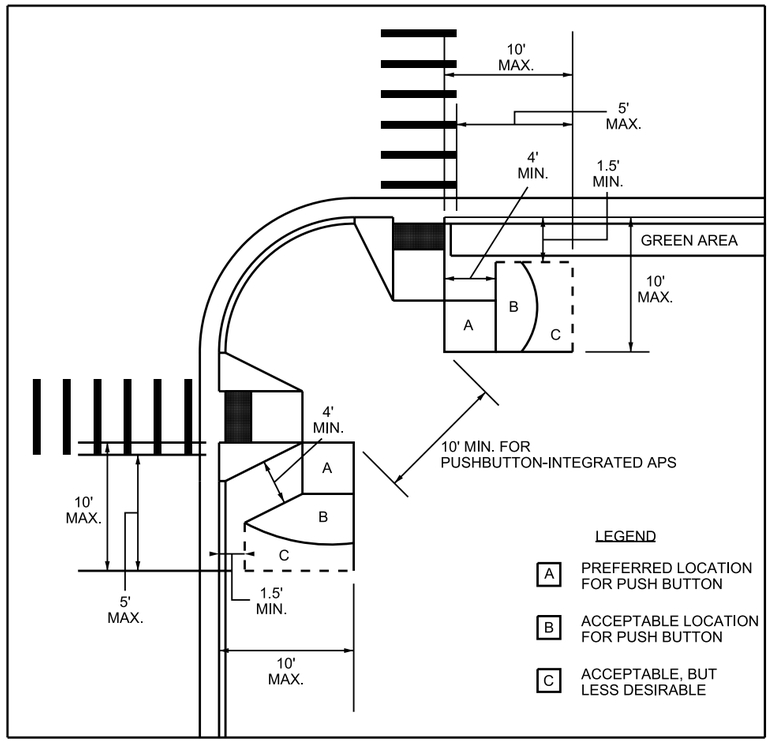


tholt 8/28/2025
100881-53-SIGNALDETAILGROUNDING.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	53	121
		PUSH BUTTON PLACEMENT DETAIL				

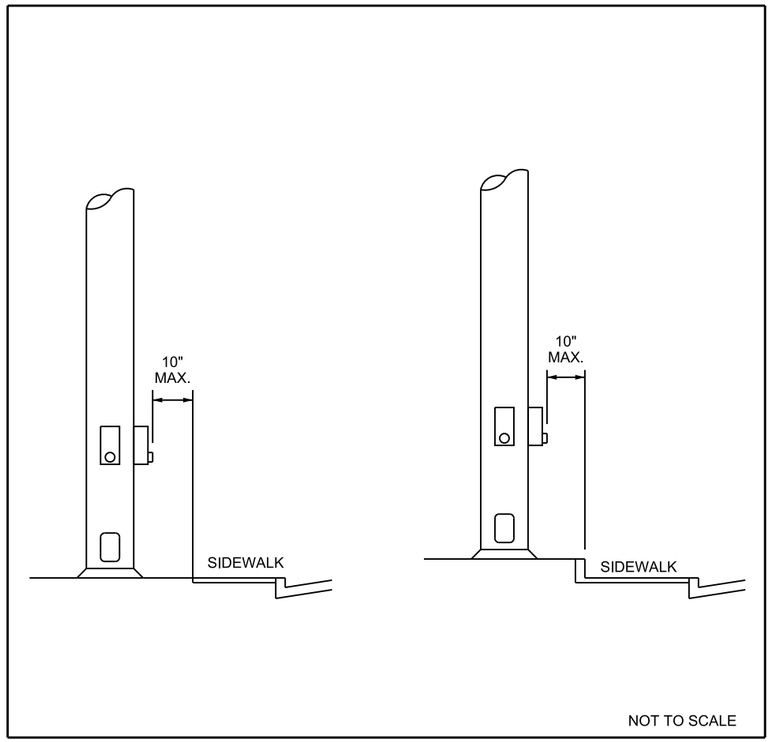
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20019
MATTHEW MCARTHUR KENNEDY
08/28/2025

PUSH BUTTON LOCATION DETAIL



NOTES:
1. THE PUSH BUTTON DETECTOR SHOULD BE LOCATED 5 FEET OR LESS FROM THE OUTSIDE EDGE OF THE MARKED CROSSWALK FARTHEST FROM THE INTERSECTION.
2. THE PUSH BUTTON DETECTOR SHOULD BE LOCATED NO FARTHER FROM THE CROSSWALK THAN THE STOP LINE, IF ONE IS PRESENT.
3. A 4-FOOT MINIMUM UNOBSTRUCTED PEDESTRIAN ACCESS ROUTE SHOULD BE MAINTAINED.
4. THE MAXIMUM (MAX.) AND MINIMUM (MIN.) DIMENSIONS SHOWN IN THIS FIGURE ARE RECOMMENDATIONS.
5. TWO PEDESTRAIN PUSH BUTTONS ON THE SAME CORNER SHOULD BE SEPARATED BY AT LEAST 10 FEET. THE 10-FOOT DIMENSION SHOWN IN THIS FIGURE IS IN REFERENCE TO THE PLACEMENT OF THE PUSH BUTTONS WITHIN THEIR RESPECTIVE AREAS.
6. THE FIGURE SHOWS TYPICAL PUSH BUTTON LOCATIONS.
7. THIS FIGURE IS NOT DRAWN TO SCALE.

SIDE REACH DETAIL



NOTES:
IN THE EVENT THAT A PLAN TRAFFIC SIGNAL POLE LOCATION MUST BE ADJUSTED DUE TO UTILITY CONFLICT, CONSULT WITH PROJECT ENGINEER PRIOR TO MAKING ADJUSTMENTS.

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	54	121
		TRAFFIC SIGNAL QUANTITIES - HWY. 1B AT PARKER RD.				

STATE OF ARKANSAS
MATTHEW MCLAWSON KENNEDY
LICENSED PROFESSIONAL ENGINEER
No. 20019
10/28/2025

STAGE 1 TRAFFIC SIGNAL QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP & 701	SYSTEM LOCAL CONTROLLER TS2-TYPE 2, E-NET (8 PHASES)	1	EACH
SP	ETHERNET SWITCH, T100 HARDENED (8-PORT)	1	EACH
SP	E-NET CABLE (EXTERIOR CAT 5E)	60	LIN. FT.
SP	CELLULAR MODEM	1	EACH
SP	LOCAL RADIO WITH ANTENNA RELOCATION	1	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	15	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY)	2	EACH
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	809	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7C/14 A.W.G.)	2146	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., E.G.C.)	50	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.)	50	LIN. FT.
709	GALVANIZED STEEL CONDUIT (2")	25	LIN. FT.
709	GALVANIZED STEEL CONDUIT (3")	60	LIN. FT.
710	NON-METALLIC CONDUIT (2")	25	LIN. FT.
710	NON-METALLIC CONDUIT (3")	12	LIN. FT.
SS & 711	CONCRETE PULL BOX (TYPE 1 HD)	1	EACH
SS & 713	SPAN WIRE ASSEMBLY	1	EACH
SP	SERVICE POINT ASSEMBLY (2 CIRCUITS)	1	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	0.50	LUMP SUM
716	TREATED WOOD POLE (CLASS 2, 45')	5	EACH
SP & 733	VIDEO DETECTOR (IP)	4	EACH
SP & 733	VIDEO CABLE (EXTERIOR CAT 5E)	1063	LIN. FT.
SP & 733	VIDEO MONITOR (CLR)	1	EACH
SP & 733	CENTRAL CONTROL UNIT (8 CHANNEL)	1	EACH

STAGE 1
EXISTING TRAFFIC SIGNAL TO REMAIN IN OPERATION. INSTALL TEMPORARY TRAFFIC SIGNAL THAT CAN OPERATE FOR ALL STAGES OF CONSTRUCTION. INSTALL FULLY FUNCTIONAL VIDEO DETECTION SYSTEM. AFTER TEMPORARY SIGNAL IS OPERATIONAL REMOVE ALL EXISTING TRAFFIC SIGNAL EQUIPMENT.

MAINTAIN THIS TRAFFIC SIGNAL CONFIGURATION AS SHOWN ON THE STAGE 1 TRAFFIC SIGNAL PLANS. (REFER TO MAINTENANCE OF TRAFFIC DETAILS.)

STAGE 2 TRAFFIC SIGNAL QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP	RELOCATION OF TRAFFIC SIGNAL HEAD	3	EACH
SP	VIDEO DETECTOR ROTATION	1	EACH

STAGE 2
STAGE 1 TEMPORARY TRAFFIC SIGNAL TO REMAIN IN OPERATION. ADJUST NORTHBOUND DETECTION ZONES. ROTATE VIDEO DETECTOR V5. RELOCATE SIGNAL HEADS 14, 15, AND 16 AS SHOWN ON PLANS.

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	3	EACH
SP	VIDEO DETECTOR ROTATION	1	EACH

STAGE 3
STAGE 2 TEMPORARY SIGNAL TO REMAIN IN OPERATION. ADJUST SOUTHBOUND AND WESTBOUND VIDEO DETECTION ZONES. ROTATE VIDEO DETECTOR V3. RELOCATE SIGNAL HEADS 11, 12, AND 13 AS SHOWN ON THE PLANS.

MAINTAIN THIS TRAFFIC SIGNAL CONFIGURATION AS SHOWN ON THE STAGE 3 TRAFFIC SIGNAL PLANS. (REFER TO MAINTENANCE OF TRAFFIC DETAILS.)

TRAFFIC SIGNAL QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP & 701	SYSTEM LOCAL CONTROLLER TS2-TYPE 2, E-NET (8 PHASES)	1	EACH
SP	ETHERNET SWITCH, T100 HARDENED (8-PORT)	1	EACH
SP	E-NET CABLE (EXTERIOR CAT 5E)	134	LIN. FT.
SP	CELLULAR MODEM	1	EACH
SP	LOCAL RADIO (E-NET 5.8) WITH ANTENNA	1	EACH
SP	BATTERY BACKUP SYSTEM	1	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	15	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY)	2	EACH
SP & 707	CENTRAL CONTROL UNIT	1	EACH
SP & 707	POLE MOUNTED ASSEMBLY	2	EACH
SP & 707	COUNTDOWN PEDESTRIAN SIGNAL HEAD, LED	2	EACH
708	TRAFFIC SIGNAL CABLE (5C/12 A.W.G.)	197	LIN. FT.
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	1177	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7C/14 A.W.G.)	228	LIN. FT.
708	TRAFFIC SIGNAL CABLE (20C/14 A.W.G.)	706	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., E.G.C.)	719	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/12 A.W.G., E.G.C.)	442	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.)	78	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	1118	LIN. FT.
709	GALVANIZED STEEL CONDUIT (2")	25	LIN. FT.
710	NON-METALLIC CONDUIT (2")	40	LIN. FT.
710	NON-METALLIC CONDUIT (3")	594	LIN. FT.
SS & 711	CONCRETE PULL BOX (TYPE 1 HD)	1	EACH
SS & 711	CONCRETE PULL BOX (TYPE 2 HD)	7	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (56')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (60')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (62')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (68')	1	EACH
SP	LED LUMINAIRE ASSEMBLY	4	EACH
SS & 715	TRAFFIC SIGNAL PEDESTAL POLE WITH FOUNDATION	2	EACH
SP	SERVICE POINT ASSEMBLY (2 CIRCUITS)	1	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	0.50	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)	1074	LIN. FT.
SP & 733	VIDEO MONITOR (CLR)	1	EACH
SP & 733	CENTRAL CONTROL UNIT (8 CHANNEL)	1	EACH

PERMANENT TRAFFIC SIGNAL:
THE STAGE 4 TEMPORARY TRAFFIC SIGNAL INSTALLATION SHALL REMAIN IN OPERATION UNTIL THE PERMANENT TRAFFIC SIGNAL IS COMPLETED AND OPERATIONAL. INSTALL PERMANENT TRAFFIC SIGNAL AND REMOVE ALL TEMPORARY TRAFFIC SIGNAL EQUIPMENT.

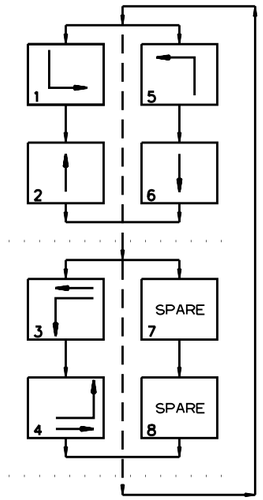
INSTALL ONE (1) LOCAL RADIO (E-NET 5.8) WITH ANTENNA FOR POINT TO POINT CONNECTION WITH LOCAL RADIO (E-NET 5.8) WITH ANTENNA AT THE HIGHWAY 1B AND FOREST HILL ROAD INTERSECTION. REFER TO SYSTEM LOCAL CONTROLLER SPECIAL PROVISION FOR ETHERNET RADIO SPECIFICATIONS.

(REFER TO PERMANENT TRAFFIC SIGNAL PLANS.)

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	55	121

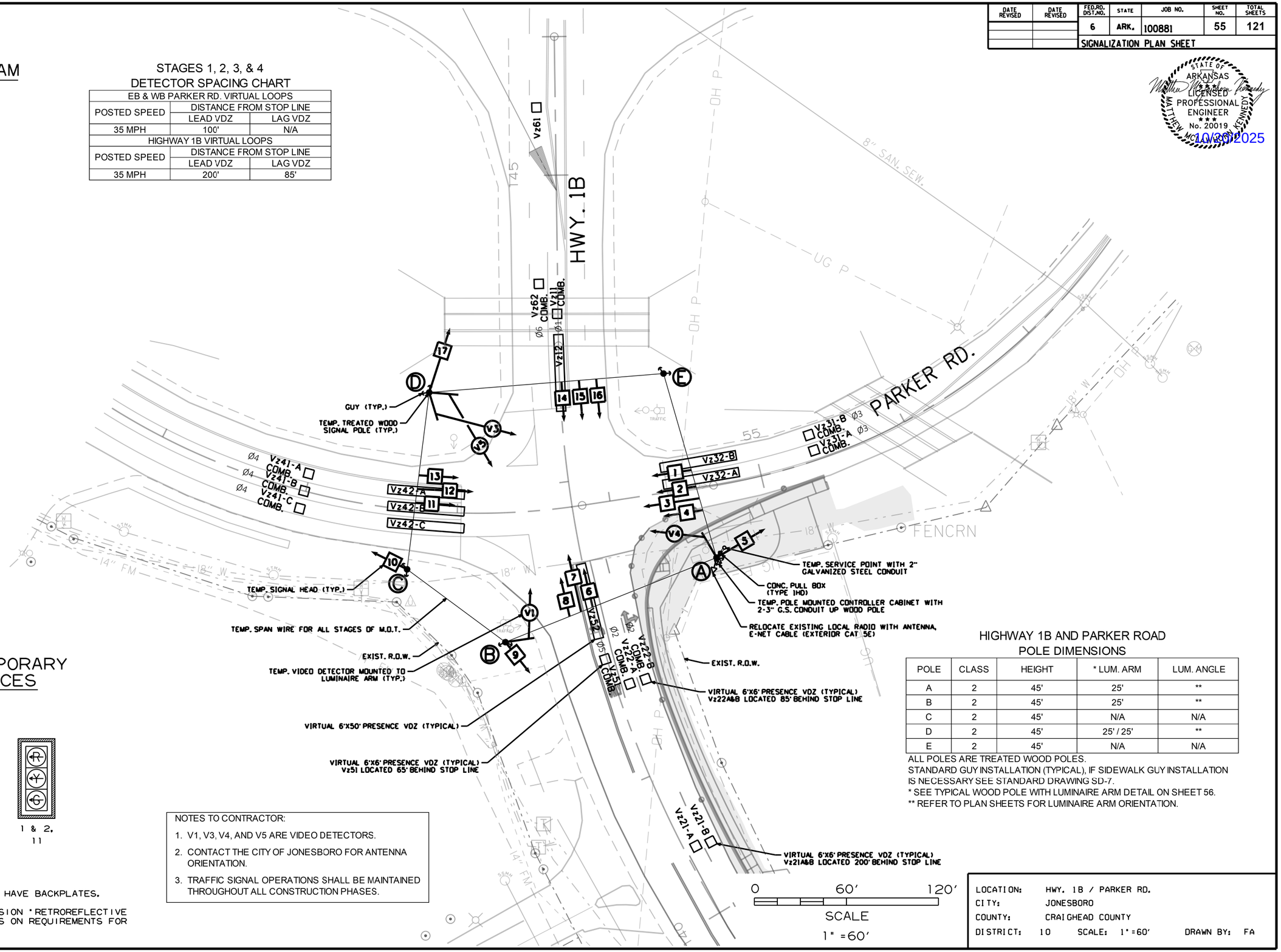
SIGNALIZATION PLAN SHEET

STAGE 1 TEMPORARY PHASING DIAGRAM



STAGES 1, 2, 3, & 4
DETECTOR SPACING CHART

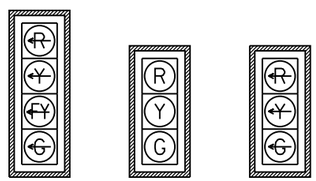
EB & WB PARKER RD. VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
35 MPH	100'	N/A
HIGHWAY 1B VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
35 MPH	200'	85'



0 60' 120'
SCALE
1" = 60'

STAGE 1 TEMPORARY 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.

NOTES TO CONTRACTOR:
1. V1, V3, V4, AND V5 ARE VIDEO DETECTORS.
2. CONTACT THE CITY OF JONESBORO FOR ANTENNA ORIENTATION.
3. TRAFFIC SIGNAL OPERATIONS SHALL BE MAINTAINED THROUGHOUT ALL CONSTRUCTION PHASES.

HIGHWAY 1B AND PARKER ROAD
POLE DIMENSIONS

POLE	CLASS	HEIGHT	* LUM. ARM	LUM. ANGLE
A	2	45'	25'	**
B	2	45'	25'	**
C	2	45'	N/A	N/A
D	2	45'	25' / 25'	**
E	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 56.
** REFER TO PLAN SHEETS FOR LUMINAIRE ARM ORIENTATION.

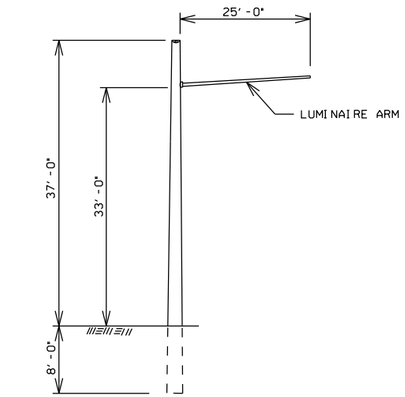
LOCATION: HWY. 1B / PARKER RD.
CITY: JONESBORO
COUNTY: CRAIGHEAD COUNTY
DISTRICT: 10 SCALE: 1"=60' DRAWN BY: FA

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20019
10/30/2025

tholt 8/28/2025
100881-55-SIGNALMOT-STI-60SCALE.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	56	121
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
MATTHEW MCKENNEDY
LICENSED PROFESSIONAL ENGINEER
No. 20019
10/30/2025



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.

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

HWY. 1B
PARKER RD
OH P
FM
55
18" W
SSMH

Vz62 COMB. Ø6
Vz11 COMB. Ø1
Vz12
17
14
15
16
D
E
GUY (TYP.)
TEMP. TREATED WOOD SIGNAL POLE (TYP.)
V3
V5
Vz31-B COMB. Ø3
Vz31-A COMB. Ø3
Ø4 Vz41-A COMB.
Ø4 Vz41-B COMB.
Ø4 Vz41-C COMB.
13
12
11
Vz42-A
Vz42-B
Vz42-C
Vz32-B
Vz32-A
1
2
3
4
V4
5
A
TEMP. SERVICE POINT WITH 2" GALVANIZED STEEL CONDUIT
CONC. PULL BOX (TYPE 1HD)
TEMP. POLE MOUNTED CONTROLLER CABINET WITH 2-3" G.S. CONDUIT UP WOOD POLE
RELOCATE EXISTING LOCAL RADIO WITH ANTENNA, E-NET CABLE (EXTERIOR CAT 5E)
10
C
TEMP. SIGNAL HEAD (TYP.)
TEMP. SPAN WIRE FOR ALL STAGES OF M.O.T.
EXIST. R.O.W.
TEMP. VIDEO DETECTOR MOUNTED TO LUMINAIRE ARM (TYP.)
V1
B
9
7
8
6
Vz52
Ø5 Vz51 COMB.
Ø2 Vz22-B COMB.
Ø2 Vz22-A COMB.
VIRTUAL 6'X50' PRESENCE VDZ (TYPICAL)
VIRTUAL 6'X6' PRESENCE VDZ (TYPICAL) Vz51 LOCATED 65' BEHIND STOP LINE
EXIST. R.O.W.
VIRTUAL 6'X6' PRESENCE VDZ (TYPICAL) Vz22A&B LOCATED 85' BEHIND STOP LINE
N
0 40' 80'
SCALE 1" = 40'

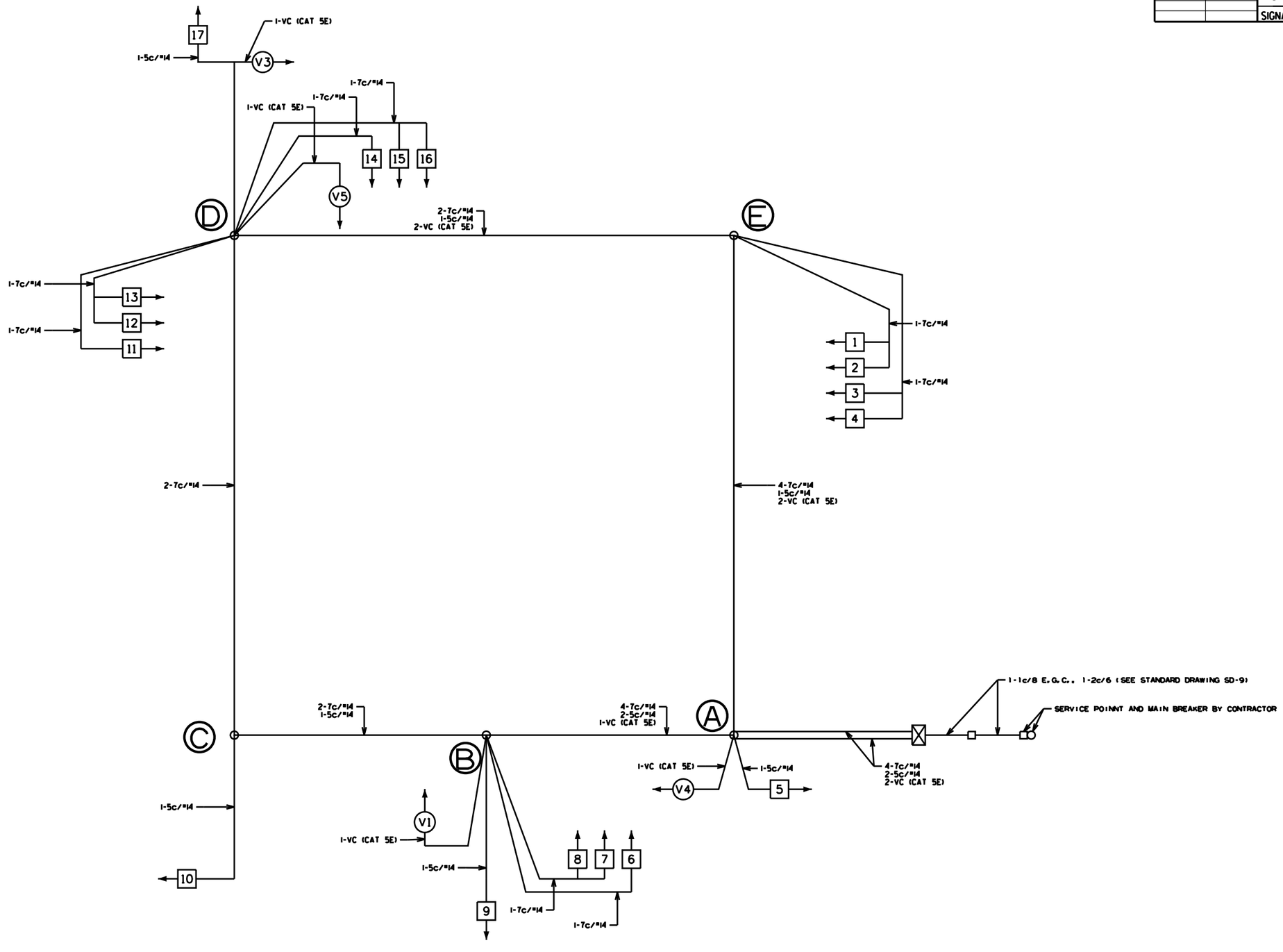
HIGHWAY 1B AND PARKER ROAD
POLE LOCATIONS

POLE	LOCATION & STATION	OFFSET	X, Y COORDINATES
A	HWY. 1B - STA. 142+29.68	86.07' RT.	1698414.08, 538120.30
B	HWY. 1B - STA. 142+08.92	60.78' LT.	1698276.46, 538065.18
C	HWY. 1B - STA. 142+62.92	112.96' LT.	1698212.39, 538112.65
D	HWY. 1B - STA. 143+62.49	85.17' LT.	1698226.81, 538227.94
E	HWY. 1B - STA. 143+67.80	67.95' RT.	1698379.52, 538240.28

tholt 8/28/2025
100881-56-SIGNALMOT-STI-40SCALE.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	57	121
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20019
MATTHEW MCARTHUR KENNEDY
08/28/2025



STAGE 1 TEMPORARY WIRING DIAGRAM

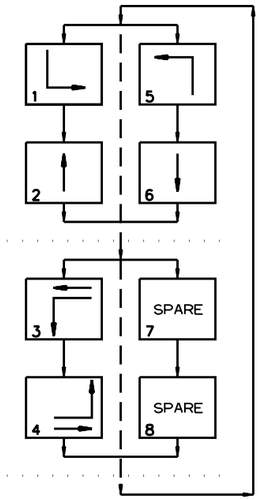
NOTES TO CONTRACTOR:
1. ALL DETECTOR RACK CHANNELS, INCLUDING UNUSED, SHALL BE BROUGHT TO TERMINAL STRIP IN DETECTOR AREA OF CABINET.
2. THE LOCAL GOVERNMENT SHALL BE RESPONSIBLE FOR PROVIDING POWER TO THE SERVICE POINT.

tholl 8/28/2025
100881-57-SIGNALMDT-ST1-WIRING.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	58	121
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
MATTHEW MCKINLEY KENNEDY
LICENSED PROFESSIONAL ENGINEER
No. 20019
08/28/2025

STAGE 1 TEMPORARY PHASING DIAGRAM



STAGES 1, 2, 3, & 4 TEMPORARY DETECTOR CHART

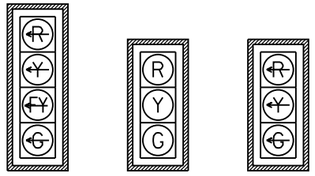
DETECTOR SYSTEM DESCRIPTION: JOB 100881											
HIGHWAY 1B / PARKER RD. DETECTOR ASSIGNMENTS				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
							LOCAL		MASTER SYSTEM DETECTOR NUMBERS		
DET. ID #	LOCATION DIRECTION	TYPE	DET. #	CAB. TRM. #	AMP CHN. #	CON. IMP. #	PHS	SYSTEM DET. #			
Vz11	SB LEFT TURN FAR	COMB.			1	V9	1	1		CAMERA V1	23"
Vz12	SB LEFT TURN	LOCAL			2	V1	1			CAMERA V1	23"
Vz21 A&B	NB FAR	LOCAL			5	V2	2			CAMERA V5	23"
Vz22 A&B	NB NEAR	COMB.			6	V10	2	2		CAMERA V5	23"
Vz31 A&B	WB FAR	COMB.			9	V11	3	3		CAMERA V3	23"
Vz32 A&B	WB NEAR	LOCAL			10	V3	3			CAMERA V3	23"
Vz41 AB&C	EB FAR	COMB.			13	V12	4	4		CAMERA V4	23"
Vz42 AB&C	EB NEAR	LOCAL			14	V4	4			CAMERA V4	23"
Vz51	NB LEFT TURN FAR	COMB.			7	V13	5	5		CAMERA V5	23"
Vz52	NB LEFT TURN NEAR	LOCAL			8	V5	5			CAMERA V5	23"
Vz61	SB FAR	LOCAL			3	V6	6			CAMERA V1	23"
Vz62	SB NEAR	COMB.			4	V14	6	6		CAMERA V1	23"
					SPARE: NONE						

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 1 TEMPORARY SIGNAL FACES

12" LENSES



6, 14 — 3 & 4, 5, 7 & 8, 9 & 10, 12 & 13, 15 & 16, 17 — 1 & 2, 11

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

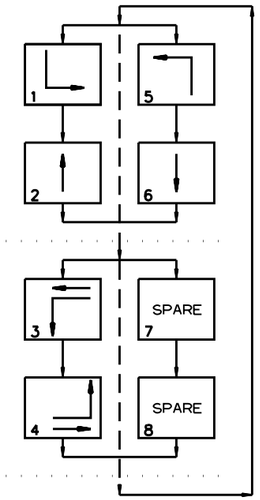
STAGES 1, 2, 3, & 4 TEMPORARY INTERVAL CHART

SIGNAL FACES	HIGHWAY 1B / PARKER RD. 1+5	CLR.	1+6	CLR.	2+5	CLR.	2+6	CLR.	3	CLR.	4	CLR.		FLASH SEQUENCE
1 & 2	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	~~Y~~		~~R~~
3,4, & 10	R	R	R	R	R	R	R	R	R	R	G	Y		R
5,12, & 13	R	R	R	R	R	R	R	R	G	Y	R	R		R
6	~~G~~	*	~~G~~	*	~~FY~~	***	~~FY~~	***	~~R~~	~~R~~	~~R~~	~~R~~		~~R~~
7,8, & 17	R	R	G	**	R	R	G	**	R	R	R	R		R
9,15, & 16	R	R	R	R	G	**	G	**	R	R	R	R		R
11	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	~~Y~~	~~R~~	~~R~~		~~R~~
14	~~G~~	*	~~FY~~	***	~~G~~	*	~~FY~~	***	~~R~~	~~R~~	~~R~~	~~R~~		~~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

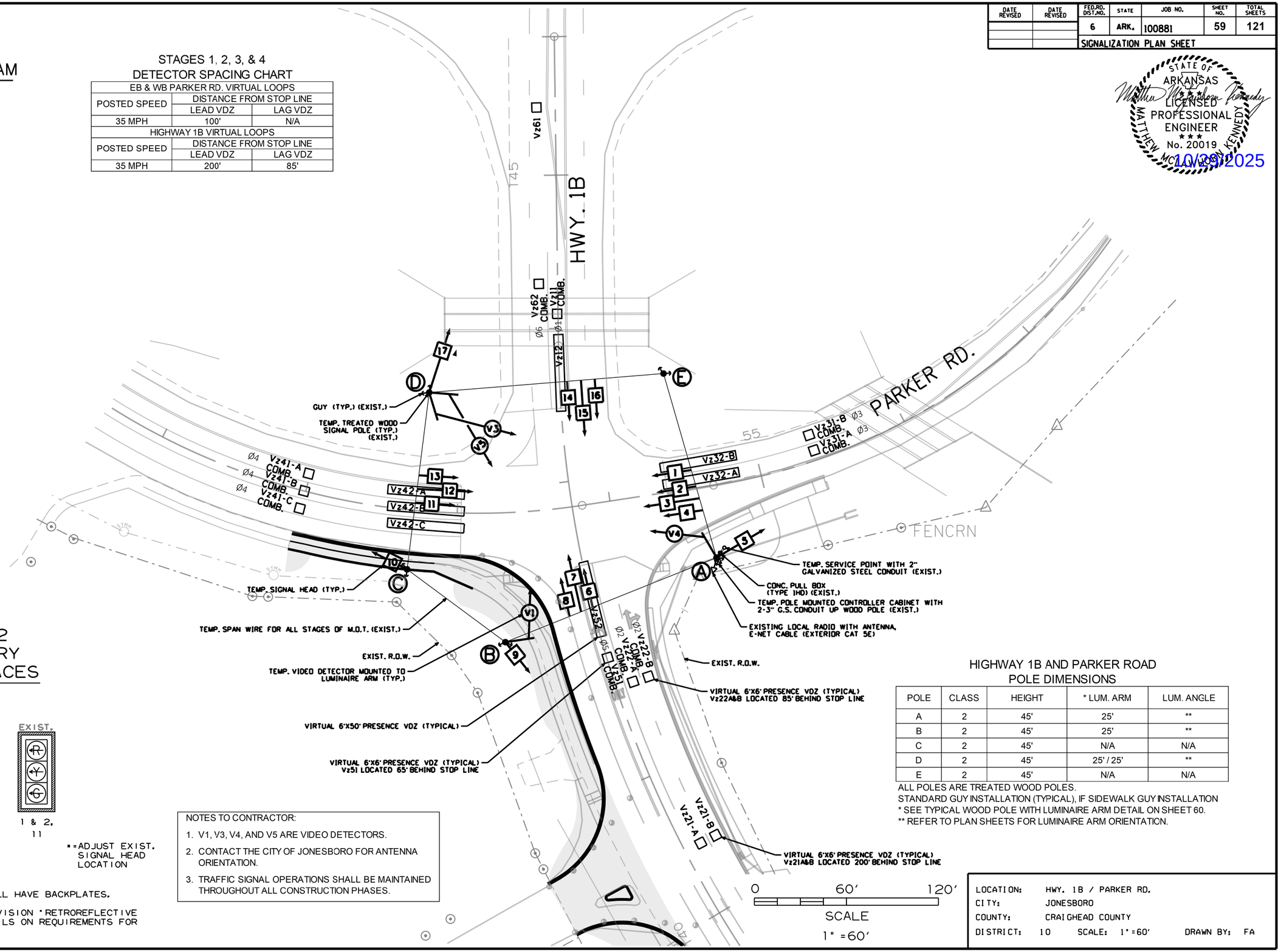
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	59	121
		SIGNALIZATION PLAN SHEET				

STAGE 2 TEMPORARY PHASING DIAGRAM



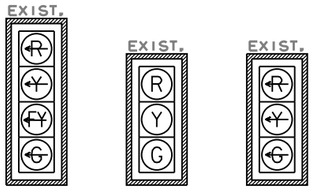
STAGES 1, 2, 3, & 4
DETECTOR SPACING CHART

EB & WB PARKER RD. VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
35 MPH	100'	N/A
HIGHWAY 1B VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
35 MPH	200'	85'



STAGE 2 TEMPORARY 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.

NOTES TO CONTRACTOR:
1. V1, V3, V4, AND V5 ARE VIDEO DETECTORS.
2. CONTACT THE CITY OF JONESBORO FOR ANTENNA ORIENTATION.
3. TRAFFIC SIGNAL OPERATIONS SHALL BE MAINTAINED THROUGHOUT ALL CONSTRUCTION PHASES.

HIGHWAY 1B AND PARKER ROAD
POLE DIMENSIONS

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

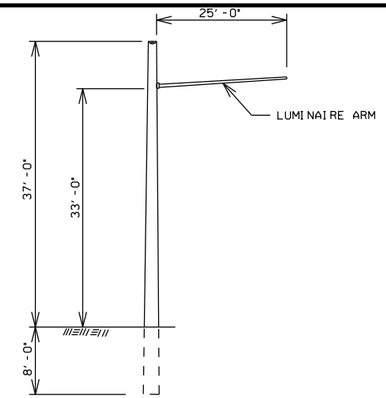
ALL POLES ARE TREATED WOOD POLES.
STANDARD GUY INSTALLATION (TYPICAL), IF SIDEWALK GUY INSTALLATION
* SEE TYPICAL WOOD POLE WITH LUMINAIRE ARM DETAIL ON SHEET 60.
** REFER TO PLAN SHEETS FOR LUMINAIRE ARM ORIENTATION.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20019
MATTHEW MCLAREN KENNEDY
10/28/2025

LOCATION:	HWY. 1B / PARKER RD.
CITY:	JONESBORO
COUNTY:	CRAIGHEAD COUNTY
DISTRICT: 10	SCALE: 1"=60' DRAWN BY: FA

tholt 10/28/2025
100881-59-SIGNALMOT-ST2-60SCALE.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	60	121
		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.

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

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20019
MATTHEW MCLAUGHLIN KENNEDY
10/28/2025

HWY. 1B

PARKER RD

Vz62 COMB. Ø6
Vz11 COMB. Ø1
Vz12
Vz41-A COMB. Ø4
Vz41-B COMB. Ø4
Vz41-C COMB. Ø4
Vz42-A
Vz42-B
Vz42-C
Vz31-B COMB. Ø3
Vz31-A COMB. Ø3
Vz32-B
Vz32-A
Vz52
Vz51 COMB. Ø5
Vz22-A COMB. Ø2
Vz22-B COMB. Ø2

GUY (TYP.) (EXIST.)
TEMP. TREATED WOOD SIGNAL POLE (TYP.) (EXIST.)
TEMP. SIGNAL HEAD (TYP.)
TEMP. SPAN WIRE FOR ALL STAGES OF M.O.T. (EXIST.)
EXIST. R.O.W.
TEMP. VIDEO DETECTOR MOUNTED TO LUMINAIRE ARM (TYP.)
VIRTUAL 6'X50' PRESENCE VDZ (TYPICAL)
VIRTUAL 6'X6' PRESENCE VDZ (TYPICAL) Vz51 LOCATED 65' BEHIND STOP LINE
TEMP. SERVICE POINT WITH 2" GALVANIZED STEEL CONDUIT (EXIST.)
CONC. PULL BOX (TYPE 1HD) (EXIST.)
TEMP. POLE MOUNTED CONTROLLER CABINET WITH 2-3" G.S. CONDUIT UP WOOD POLE (EXIST.)
EXISTING LOCAL RADIO WITH ANTENNA, E-NET CABLE (EXTERIOR CAT 5E)
EXIST. R.O.W.
VIRTUAL 6'X6' PRESENCE VDZ (TYPICAL) Vz22A&B LOCATED 85' BEHIND STOP LINE

N

0 40' 80'
SCALE 1" = 40'

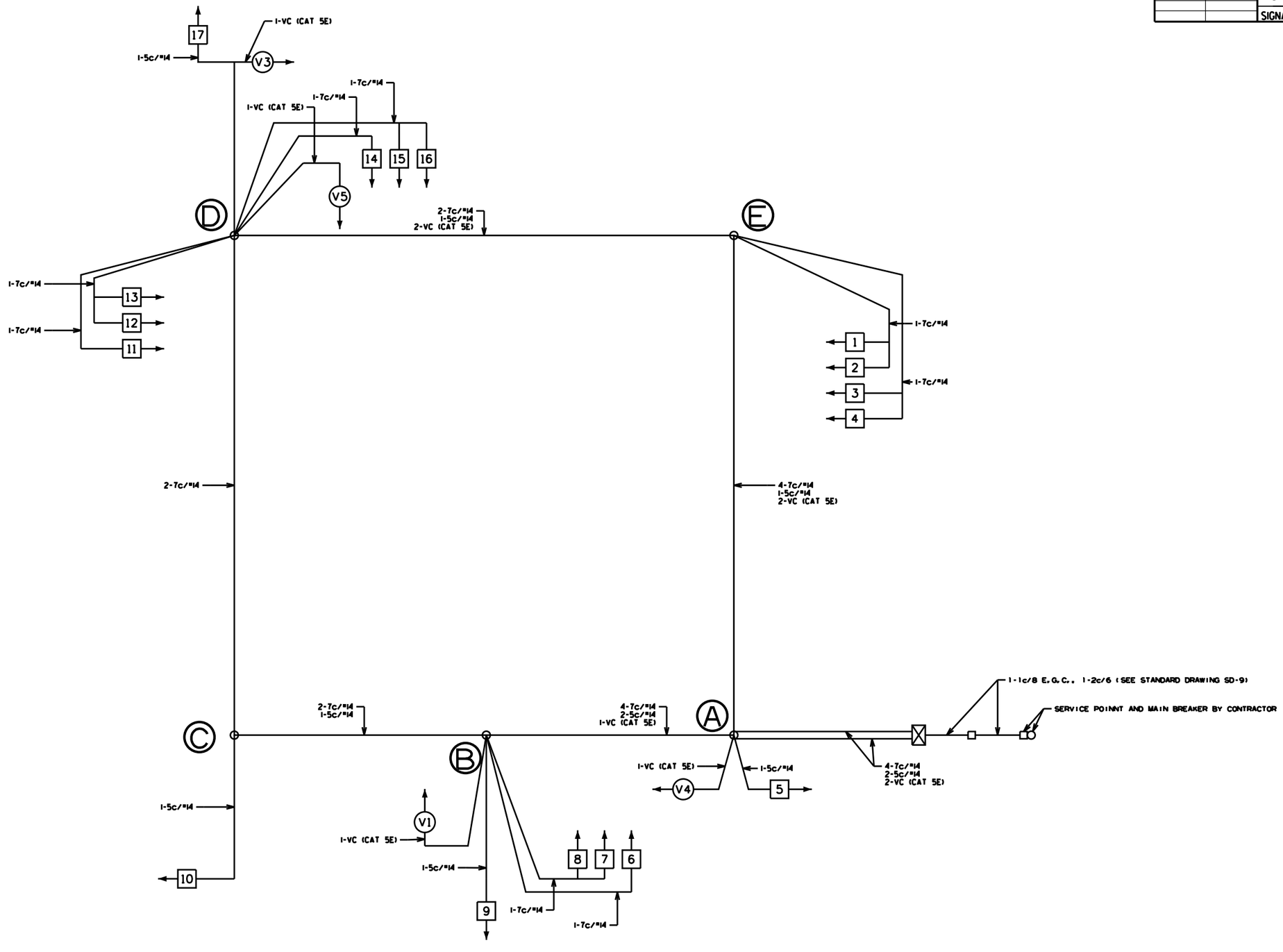
HIGHWAY 1B AND PARKER ROAD
POLE LOCATIONS

POLE	LOCATION & STATION	OFFSET	X, Y COORDINATES
A	HWY. 1B - STA. 142+29.68	86.07' RT.	1698414.08, 538120.30
B	HWY. 1B - STA. 142+08.92	60.78' LT.	1698276.46, 538065.18
C	HWY. 1B - STA. 142+62.92	112.96' LT.	1698212.39, 538112.65
D	HWY. 1B - STA. 143+62.49	85.17' LT.	1698226.81, 538227.94
E	HWY. 1B - STA. 143+67.80	67.95' RT.	1698379.52, 538240.28

tholt 10/28/2025
100881-60-SIGNALMOT-ST2-40SCALE.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	61	121
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20019
MATTHEW MCARTHUR KENNEDY
08/28/2025



STAGE 2 TEMPORARY WIRING DIAGRAM

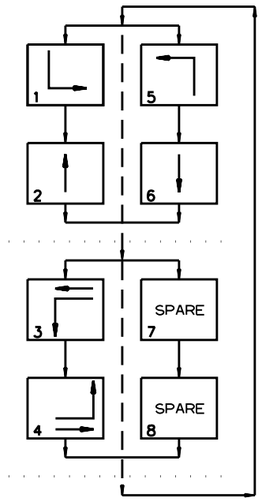
NOTES TO CONTRACTOR:
1. ALL DETECTOR RACK CHANNELS, INCLUDING UNUSED, SHALL BE BROUGHT TO TERMINAL STRIP IN DETECTOR AREA OF CABINET.
2. THE LOCAL GOVERNMENT SHALL BE RESPONSIBLE FOR PROVIDING POWER TO THE SERVICE POINT.

tholl 8/28/2025
100881-61-SIGNALMOT-ST2-WIRING.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	62	121
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
MATTHEW MCARTHUR KENNEDY
LICENSED PROFESSIONAL ENGINEER
No. 20019
08/28/2025

STAGE 2 TEMPORARY PHASING DIAGRAM



STAGES 1, 2, 3, & 4 TEMPORARY DETECTOR CHART

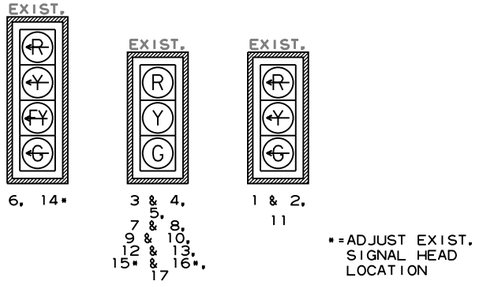
DETECTOR SYSTEM DESCRIPTION: JOB 100881											
HIGHWAY 1B / PARKER RD. DETECTOR ASSIGNMENTS				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
							LOCAL		MASTER SYSTEM		
DET. ID #	LOCATION DIRECTION	TYPE	DET. #	CAB. TRM. #	AMP CHN. #	CON. IMP. #	PHS	SYSTEM DET. #	DETECTOR NUMBERS		
Vz11	SB LEFT TURN FAR	COMB.			1	V9	1	1		CAMERA V1	23"
Vz12	SB LEFT TURN	LOCAL			2	V1	1			CAMERA V1	23"
Vz21 A&B	NB FAR	LOCAL			5	V2	2			CAMERA V5	23"
Vz22 A&B	NB NEAR	COMB.			6	V10	2	2		CAMERA V5	23"
Vz31 A&B	WB FAR	COMB.			9	V11	3	3		CAMERA V3	23"
Vz32 A&B	WB NEAR	LOCAL			10	V3	3			CAMERA V3	23"
Vz41 AB&C	EB FAR	COMB.			13	V12	4	4		CAMERA V4	23"
Vz42 AB&C	EB NEAR	LOCAL			14	V4	4			CAMERA V4	23"
Vz51	NB LEFT TURN FAR	COMB.			7	V13	5	5		CAMERA V5	23"
Vz52	NB LEFT TURN NEAR	LOCAL			8	V5	5			CAMERA V5	23"
Vz61	SB FAR	LOCAL			3	V6	6			CAMERA V1	23"
Vz62	SB NEAR	COMB.			4	V14	6	6		CAMERA V1	23"
					SPARE: NONE						

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 TEMPORARY 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.

STAGES 1, 2, 3, & 4 TEMPORARY INTERVAL CHART

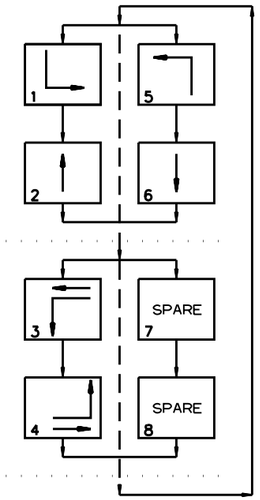
SIGNAL FACES	HIGHWAY 1B / PARKER RD. 1+5	CLR.	1+6	CLR.	2+5	CLR.	2+6	CLR.	3	CLR.	4	CLR.	FLASH SEQUENCE
1 & 2	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←G~~	~~←Y~~	~~←R~~
3,4, & 10	R	R	R	R	R	R	R	R	R	R	G	Y	R
5,12, & 13	R	R	R	R	R	R	R	R	G	Y	R	R	R
6	~~←G~~	*	~~←G~~	*	~~←FY~~	***	~~←FY~~	***	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←R~~
7,8, & 17	R	R	G	**	R	R	G	**	R	R	R	R	R
9,15, & 16	R	R	R	R	G	**	G	**	R	R	R	R	R
11	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←G~~	~~←Y~~	~~←R~~	~~←R~~	~~←R~~
14	~~←G~~	*	~~←FY~~	***	~~←G~~	*	~~←FY~~	***	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←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

tholl 8/28/2025
100881-62-SIGNALMDT-ST2-CHARTS.SHT

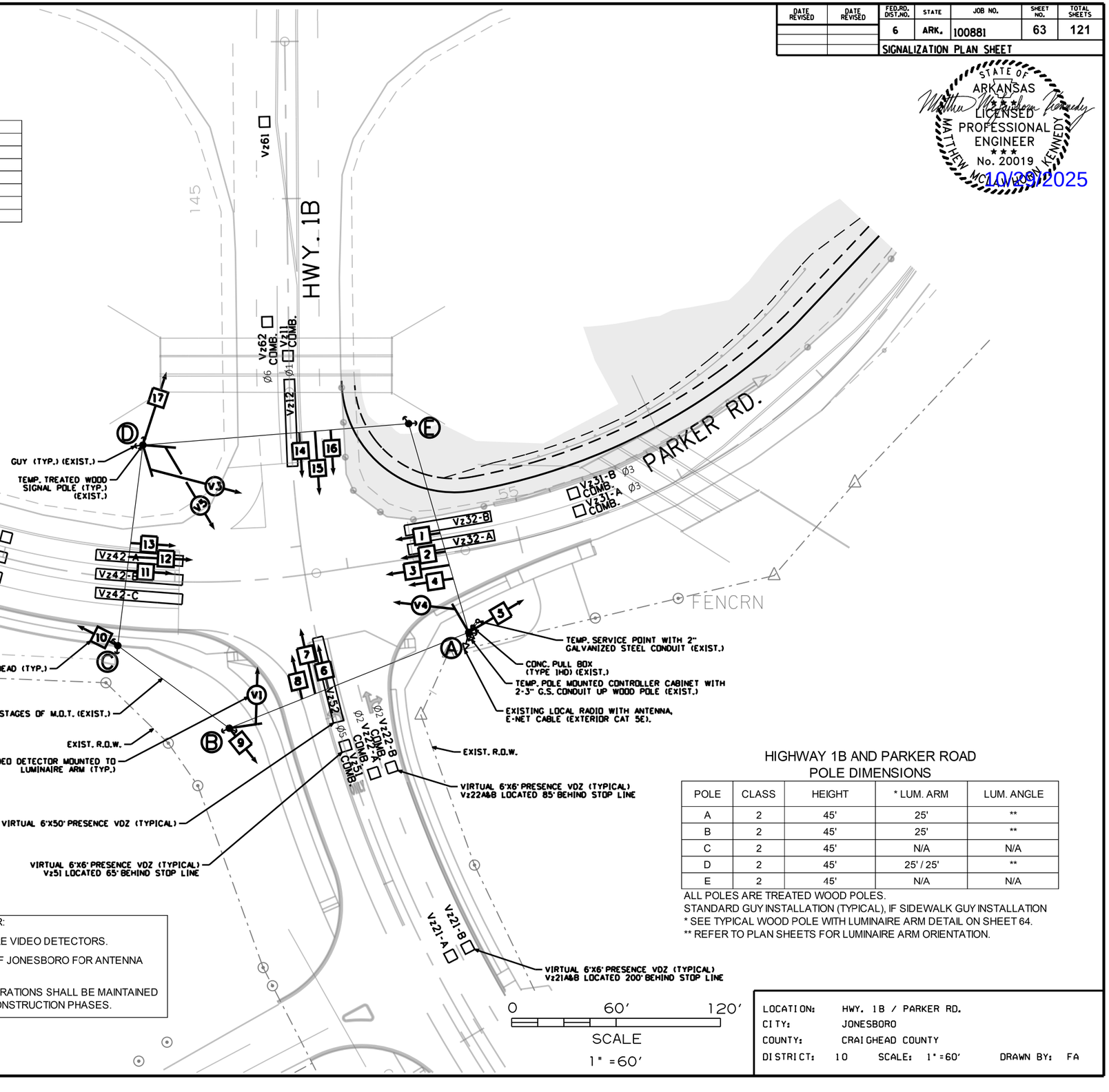
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	63	121
		SIGNALIZATION PLAN SHEET				

STAGE 3 TEMPORARY PHASING DIAGRAM



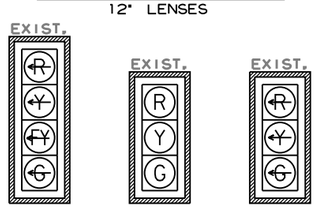
STAGES 1, 2, 3, & 4
DETECTOR SPACING CHART

EB & WB PARKER RD. VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
35 MPH	100'	N/A
HIGHWAY 1B VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
35 MPH	200'	85'



STAGE 3 TEMPORARY SIGNAL FACES

12" LENSES



*=ADJUST EXIST. SIGNAL HEAD LOCATION

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

NOTES TO CONTRACTOR:
1. V1, V3, V4, AND V5 ARE VIDEO DETECTORS.
2. CONTACT THE CITY OF JONESBORO FOR ANTENNA ORIENTATION.
3. TRAFFIC SIGNAL OPERATIONS SHALL BE MAINTAINED THROUGHOUT ALL CONSTRUCTION PHASES.

HIGHWAY 1B AND PARKER ROAD
POLE DIMENSIONS

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

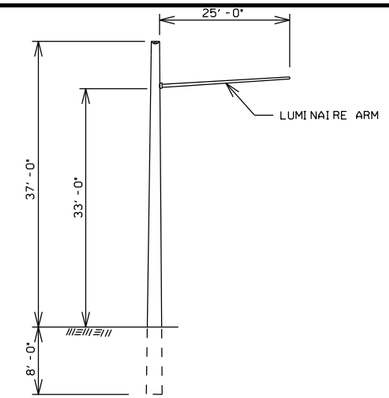
ALL POLES ARE TREATED WOOD POLES.
STANDARD GUY INSTALLATION (TYPICAL), IF SIDEWALK GUY INSTALLATION
* SEE TYPICAL WOOD POLE WITH LUMINAIRE ARM DETAIL ON SHEET 64.
** REFER TO PLAN SHEETS FOR LUMINAIRE ARM ORIENTATION.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
MATTHEW MCCARTHUR KENNEDY
No. 20019
10/28/2025

LOCATION: HWY. 1B / PARKER RD.
CITY: JONESBORO
COUNTY: CRAIGHEAD COUNTY
DISTRICT: 10 SCALE: 1"=60' DRAWN BY: FA

tholt 10/28/2025
100881-63-SIGNALMOT-ST3-60SCALE.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	64	121
		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.

STATE OF ARKANSAS
MATTHEW MCCLAIN KENNEDY
LICENSED PROFESSIONAL ENGINEER
No. 20019
10/28/2025

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

HWY. 1B

PARKER RD

Vz62 COMB. Ø6
Vz11 COMB. Ø1
Vz12
Vz41-A COMB. Ø4
Vz41-B COMB. Ø4
Vz41-C COMB. Ø4
Vz42-A
Vz42-B
Vz42-C
Vz31-B COMB. Ø3
Vz31-A COMB. Ø3
Vz32-B
Vz32-A
Vz52
Vz22-B COMB. Ø2
Vz22-A COMB. Ø2
Vz51 COMB. Ø5

GUY (TYP.) (EXIST.)
TEMP. TREATED WOOD SIGNAL POLE (TYP.) (EXIST.)
TEMP. SIGNAL HEAD (TYP.)
TEMP. SPAN WIRE FOR ALL STAGES OF M.O.T. (EXIST.)
EXIST. R.O.W.
TEMP. VIDEO DETECTOR MOUNTED TO LUMINAIRE ARM (TYP.)
VIRTUAL 6'X50' PRESENCE VDZ (TYPICAL)
VIRTUAL 6'X6' PRESENCE VDZ (TYPICAL) Vz51 LOCATED 65' BEHIND STOP LINE
TEMP. SERVICE POINT WITH 2" GALVANIZED STEEL CONDUIT (EXIST.)
CONC. PULL BOX (TYPE 1HD) (EXIST.)
TEMP. POLE MOUNTED CONTROLLER CABINET WITH 2-3" G.S. CONDUIT UP WOOD POLE (EXIST.)
EXISTING LOCAL RADIO WITH ANTENNA, E-NET CABLE (EXTERIOR CAT 5E).
EXIST. R.O.W.
VIRTUAL 6'X6' PRESENCE VDZ (TYPICAL) Vz22A&B LOCATED 85' BEHIND STOP LINE

N

0 40' 80'
SCALE 1" = 40'

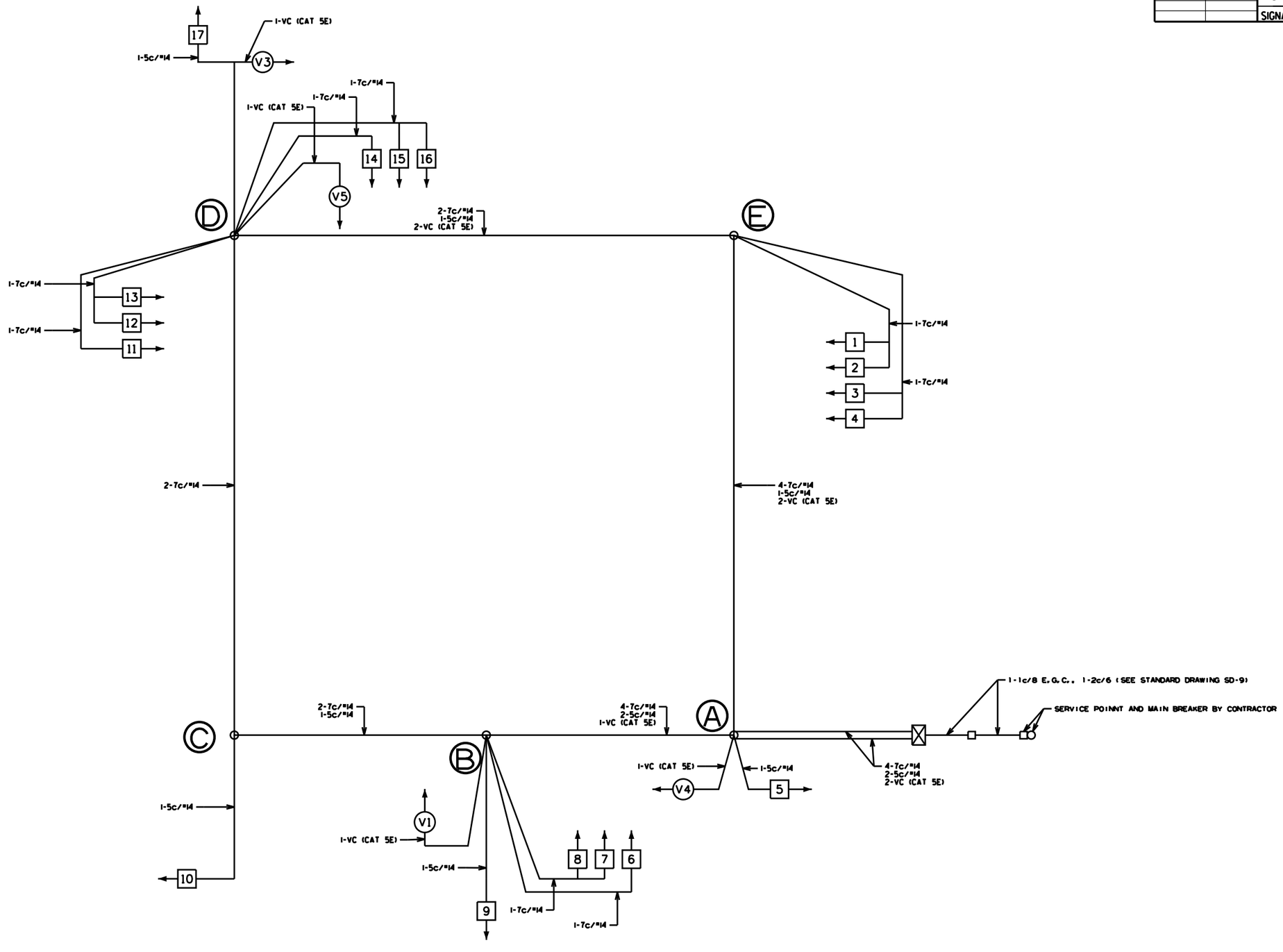
HIGHWAY 1B AND PARKER ROAD
POLE LOCATIONS

POLE	LOCATION & STATION	OFFSET	X, Y COORDINATES
A	HWY. 1B - STA. 142+29.68	86.07' RT.	1698414.08, 538120.30
B	HWY. 1B - STA. 142+08.92	60.78' LT.	1698276.46, 538065.18
C	HWY. 1B - STA. 142+62.92	112.96' LT.	1698212.39, 538112.65
D	HWY. 1B - STA. 143+62.49	85.17' LT.	1698226.81, 538227.94
E	HWY. 1B - STA. 143+67.80	67.95' RT.	1698379.52, 538240.28

tholt 8/28/2025
100881-64-SIGNALMOT-ST3-40SCALE.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	65	121
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20019
MATTHEW MCARTHUR KENNEDY
08/28/2025



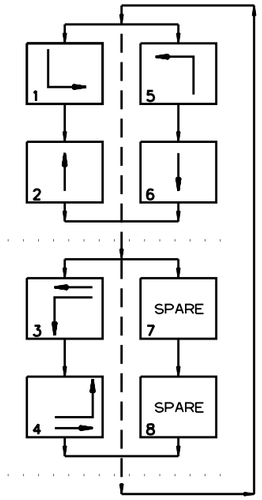
STAGE 3 TEMPORARY WIRING DIAGRAM

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.

tholl 8/28/2025
100881-65-SIGNALMDT-ST3-WIRING.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	66	121
		SIGNALIZATION PLAN SHEET				

STAGE 3 TEMPORARY PHASING DIAGRAM



STAGES 1, 2, 3, & 4 TEMPORARY DETECTOR CHART

DETECTOR SYSTEM DESCRIPTION: JOB 100881											
HIGHWAY 1B / PARKER RD. DETECTOR ASSIGNMENTS				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
							LOCAL		MASTER SYSTEM		
DET. ID #	LOCATION DIRECTION	TYPE	DET. #	CAB. TRM. #	AMP CHN. #	CON. IMP. #	PHS	SYSTEM DET. #	DETECTOR NUMBERS		
Vz11	SB LEFT TURN FAR	COMB.			1	V9	1	1		CAMERA V1	23"
Vz12	SB LEFT TURN	LOCAL			2	V1	1			CAMERA V1	23"
Vz21 A&B	NB FAR	LOCAL			5	V2	2			CAMERA V5	23"
Vz22 A&B	NB NEAR	COMB.			6	V10	2	2		CAMERA V5	23"
Vz31 A&B	WB FAR	COMB.			9	V11	3	3		CAMERA V3	23"
Vz32 A&B	WB NEAR	LOCAL			10	V3	3			CAMERA V3	23"
Vz41 AB&C	EB FAR	COMB.			13	V12	4	4		CAMERA V4	23"
Vz42 AB&C	EB NEAR	LOCAL			14	V4	4			CAMERA V4	23"
Vz51	NB LEFT TURN FAR	COMB.			7	V13	5	5		CAMERA V5	23"
Vz52	NB LEFT TURN NEAR	LOCAL			8	V5	5			CAMERA V5	23"
Vz61	SB FAR	LOCAL			3	V6	6			CAMERA V1	23"
Vz62	SB NEAR	COMB.			4	V14	6	6		CAMERA V1	23"
					SPARE: NONE						

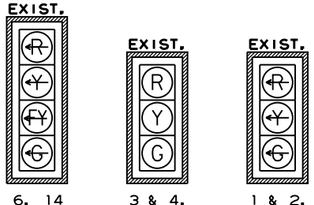
CONTROLLER INPUT ABBREVIATIONS:
V = VEHICLE INPUT
D = SYSTEM OR AUXILIARY INPUT
P = PEDESTRIAN INPUT

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

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20019
MATTHEW MCCAUSLAND KENNEDY
08/28/2025

STAGE 3 TEMPORARY SIGNAL FACES

12" LENSES



*=ADJUST EXIST. SIGNAL HEAD LOCATION

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

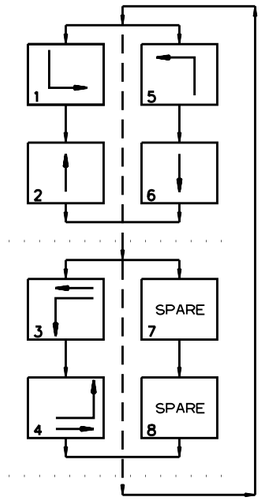
STAGES 1, 2, 3, & 4 TEMPORARY INTERVAL CHART

SIGNAL FACES	HIGHWAY 1B / PARKER RD. 1+5	CLR.	1+6	CLR.	2+5	CLR.	2+6	CLR.	3	CLR.	4	CLR.		FLASH SEQUENCE
1 & 2	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←G~~	~~←Y~~		~~←R~~
3,4, & 10	R	R	R	R	R	R	R	R	R	R	G	Y		R
5,12, & 13	R	R	R	R	R	R	R	R	G	Y	R	R		R
6	~~←G~~	*	~~←G~~	*	~~←FY~~	***	~~←FY~~	***	~~←R~~	~~←R~~	~~←R~~	~~←R~~		~~←R~~
7,8, & 17	R	R	G	**	R	R	G	**	R	R	R	R		R
9,15, & 16	R	R	R	R	G	**	G	**	R	R	R	R		R
11	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←G~~	~~←Y~~	~~←R~~	~~←R~~		~~←R~~
14	~~←G~~	*	~~←FY~~	***	~~←G~~	*	~~←FY~~	***	~~←R~~	~~←R~~	~~←R~~	~~←R~~		~~←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 REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	67	121
		SIGNALIZATION PLAN SHEET				

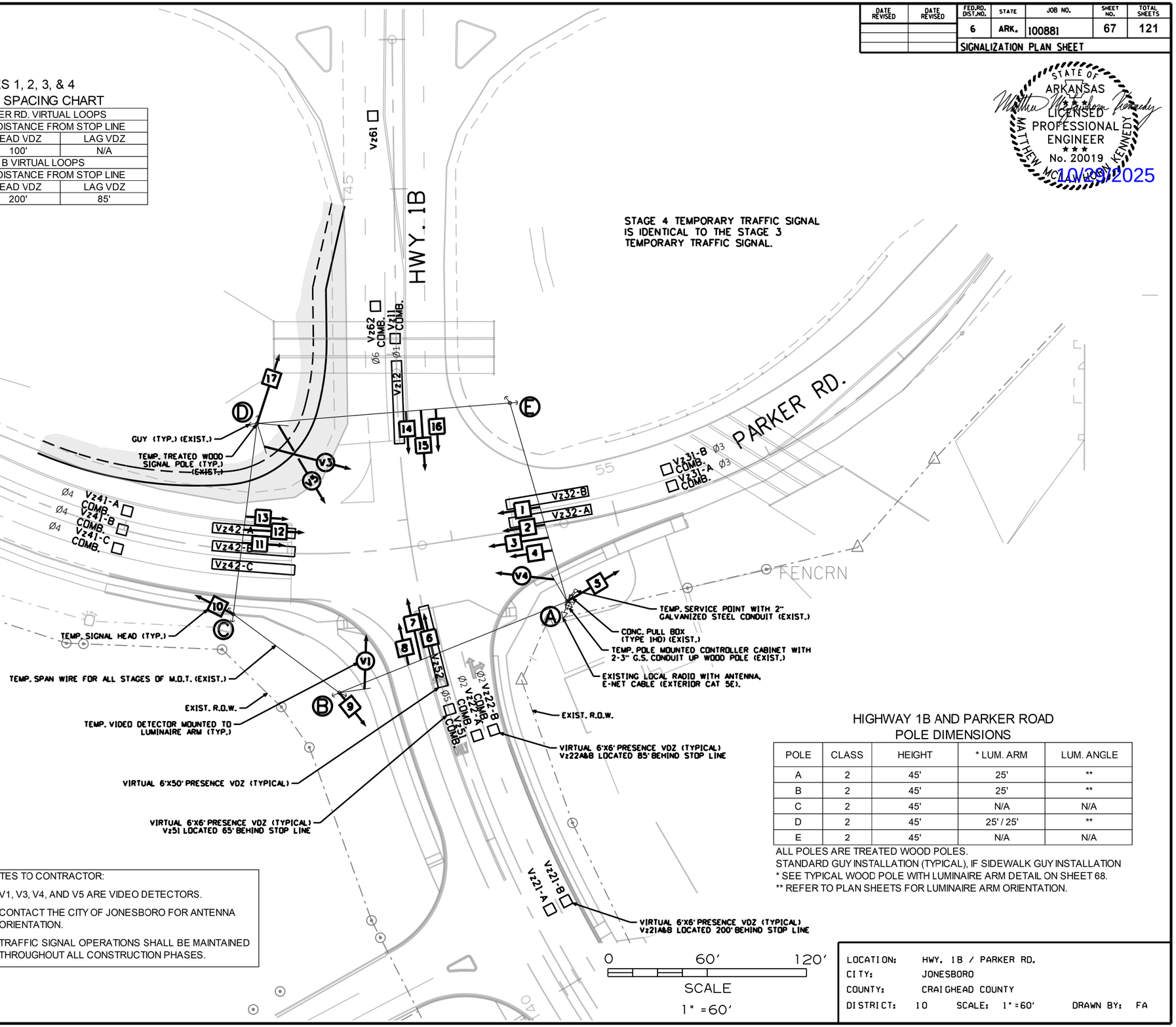
STAGE 4 TEMPORARY PHASING DIAGRAM



STAGES 1, 2, 3, & 4
DETECTOR SPACING CHART

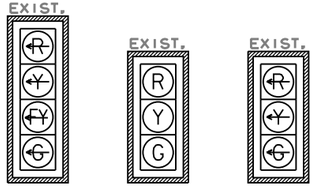
EB & WB PARKER RD. VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
35 MPH	100'	N/A
HIGHWAY 1B VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
35 MPH	200'	85'

STAGE 4 TEMPORARY TRAFFIC SIGNAL IS IDENTICAL TO THE STAGE 3 TEMPORARY TRAFFIC SIGNAL.



STAGE 4 TEMPORARY SIGNAL FACES

12" LENSES



6, 14 | 3 & 4, 5, 7 & 8, 9 & 10, 12 & 13, 15 & 16, 17 | 1 & 2, 11

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

NOTES TO CONTRACTOR:
1. V1, V3, V4, AND V5 ARE VIDEO DETECTORS.
2. CONTACT THE CITY OF JONESBORO FOR ANTENNA ORIENTATION.
3. TRAFFIC SIGNAL OPERATIONS SHALL BE MAINTAINED THROUGHOUT ALL CONSTRUCTION PHASES.

HIGHWAY 1B AND PARKER ROAD
POLE DIMENSIONS

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

ALL POLES ARE TREATED WOOD POLES.
STANDARD GUY INSTALLATION (TYPICAL), IF SIDEWALK GUY INSTALLATION
* SEE TYPICAL WOOD POLE WITH LUMINAIRE ARM DETAIL ON SHEET 68.
** REFER TO PLAN SHEETS FOR LUMINAIRE ARM ORIENTATION.

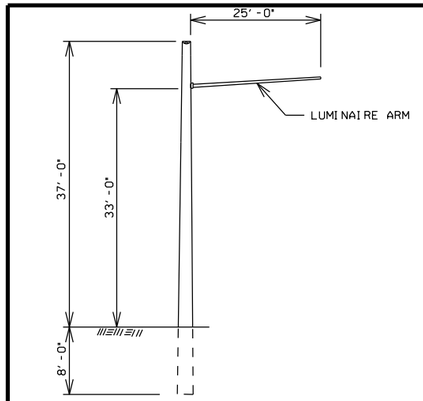
0 60' 120'
SCALE
1" =60'

LOCATION: HWY. 1B / PARKER RD.
CITY: JONESBORO
COUNTY: CRAIGHEAD COUNTY
DISTRICT: 10 SCALE: 1"=60' DRAWN BY: FA

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20019
MATTHEW MCKINLEY KENNEDY
10/29/2025

tholt 10/16/2025
100881-67-SIGNALMDT-ST4-60SCALE.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	68	121
		SIGNALIZATION PLAN SHEET				

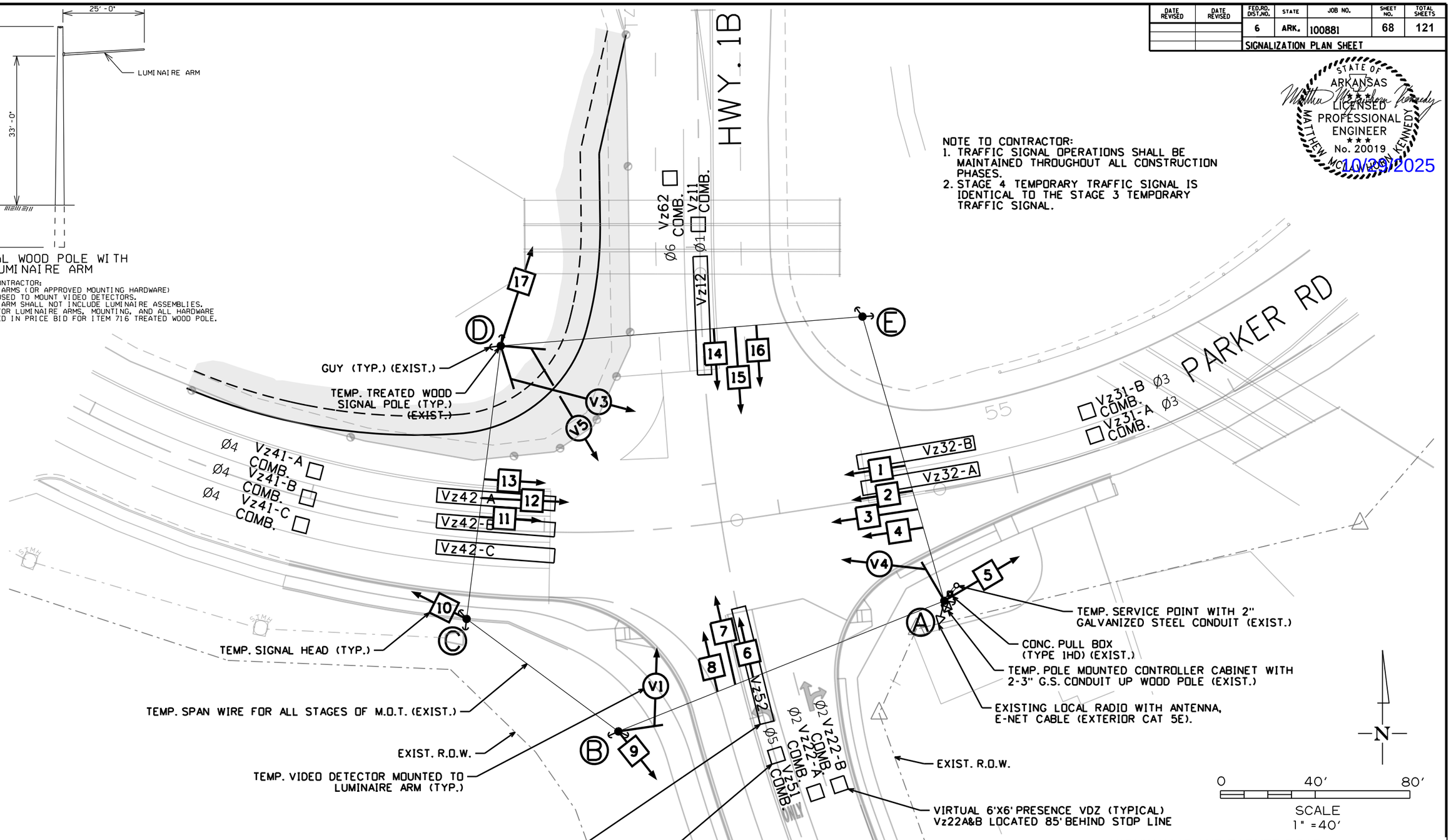


TYPICAL WOOD POLE WITH LUMINAIRE ARM

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.

STATE OF ARKANSAS
MATTHEW KENNEDY
LICENSED PROFESSIONAL ENGINEER
No. 20019
10/28/2025

NOTE TO CONTRACTOR:
1. TRAFFIC SIGNAL OPERATIONS SHALL BE MAINTAINED THROUGHOUT ALL CONSTRUCTION PHASES.
2. STAGE 4 TEMPORARY TRAFFIC SIGNAL IS IDENTICAL TO THE STAGE 3 TEMPORARY TRAFFIC SIGNAL.



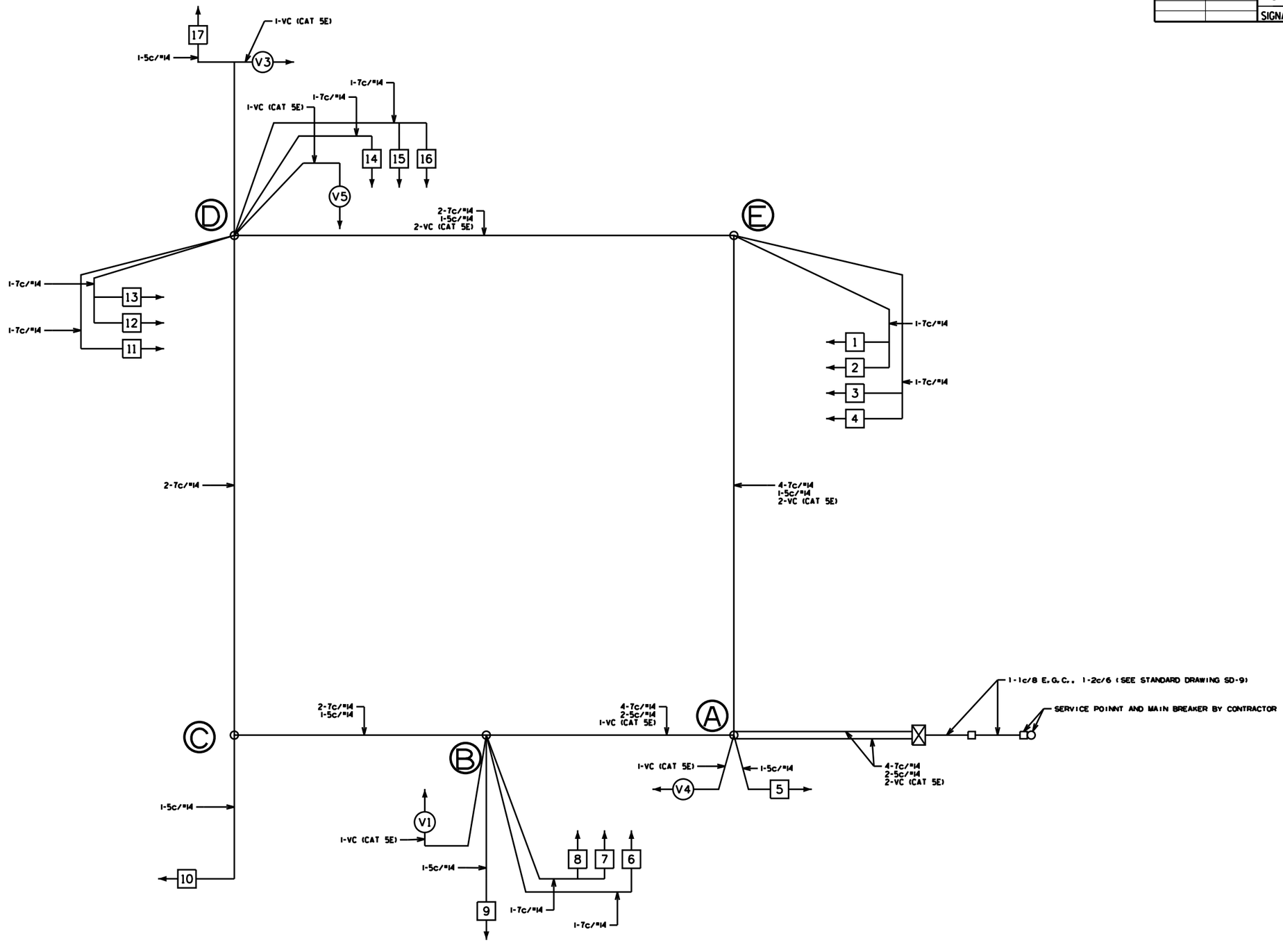
HIGHWAY 1B AND PARKER ROAD
POLE LOCATIONS

POLE	LOCATION & STATION	OFFSET	X, Y COORDINATES
A	HWY. 1B - STA. 142+29.68	86.07' RT.	1698414.08, 538120.30
B	HWY. 1B - STA. 142+08.92	60.78' LT.	1698276.46, 538065.18
C	HWY. 1B - STA. 142+62.92	112.96' LT.	1698212.39, 538112.65
D	HWY. 1B - STA. 143+62.49	85.17' LT.	1698226.81, 538227.94
E	HWY. 1B - STA. 143+67.80	67.95' RT.	1698379.52, 538240.28

tholt 10/28/2025
100881-68-SIGNALMOT-ST4-40SCALE.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	69	121
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20019
MATTHEW MCARTHUR KENNEDY
08/28/2025



STAGE 4 TEMPORARY WIRING DIAGRAM

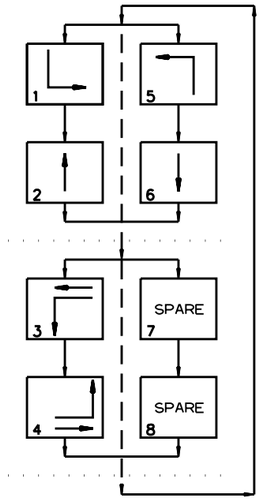
NOTES TO CONTRACTOR:
1. ALL DETECTOR RACK CHANNELS, INCLUDING UNUSED, SHALL BE BROUGHT TO TERMINAL STRIP IN DETECTOR AREA OF CABINET.
2. THE LOCAL GOVERNMENT SHALL BE RESPONSIBLE FOR PROVIDING POWER TO THE SERVICE POINT.

tholl 8/28/2025
100881-69-SIGNALMDT-ST4-WIRING.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	70	121
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20019
MATTHEW MCARTHUR KENNEDY
08/28/2025

STAGE 4 TEMPORARY PHASING DIAGRAM



STAGES 1, 2, 3, & 4 TEMPORARY DETECTOR CHART

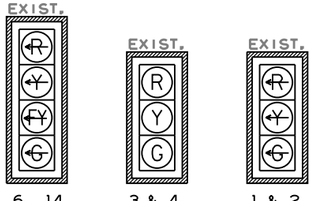
DETECTOR SYSTEM DESCRIPTION: JOB 100881											
HIGHWAY 1B / PARKER RD. DETECTOR ASSIGNMENTS				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
							LOCAL		MASTER SYSTEM DETECTOR NUMBERS		
DET. ID #	LOCATION DIRECTION	TYPE	DET. #	CAB. TRM. #	AMP CHN. #	CON. IMP. #	PHS	SYSTEM DET. #			
Vz11	SB LEFT TURN FAR	COMB.			1	V9	1	1		CAMERA V1	23"
Vz12	SB LEFT TURN	LOCAL			2	V1	1			CAMERA V1	23"
Vz21 A&B	NB FAR	LOCAL			5	V2	2			CAMERA V5	23"
Vz22 A&B	NB NEAR	COMB.			6	V10	2	2		CAMERA V5	23"
Vz31 A&B	WB FAR	COMB.			9	V11	3	3		CAMERA V3	23"
Vz32 A&B	WB NEAR	LOCAL			10	V3	3			CAMERA V3	23"
Vz41 AB&C	EB FAR	COMB.			13	V12	4	4		CAMERA V4	23"
Vz42 AB&C	EB NEAR	LOCAL			14	V4	4			CAMERA V4	23"
Vz51	NB LEFT TURN FAR	COMB.			7	V13	5	5		CAMERA V5	23"
Vz52	NB LEFT TURN NEAR	LOCAL			8	V5	5			CAMERA V5	23"
Vz61	SB FAR	LOCAL			3	V6	6			CAMERA V1	23"
Vz62	SB NEAR	COMB.			4	V14	6	6		CAMERA V1	23"
					SPARE: NONE						

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 TEMPORARY 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.

STAGES 1, 2, 3, & 4 TEMPORARY INTERVAL CHART

SIGNAL FACES	HIGHWAY 1B / PARKER RD. 1+5	CLR.	1+6	CLR.	2+5	CLR.	2+6	CLR.	3	CLR.	4	CLR.		FLASH SEQUENCE
1 & 2	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←G~~	~~←Y~~		~~←R~~
3,4, & 10	R	R	R	R	R	R	R	R	R	R	G	Y		R
5,12, & 13	R	R	R	R	R	R	R	R	G	Y	R	R		R
6	~~←G~~	*	~~←G~~	*	~~←FY~~	***	~~←FY~~	***	~~←R~~	~~←R~~	~~←R~~	~~←R~~		~~←R~~
7,8, & 17	R	R	G	**	R	R	G	**	R	R	R	R		R
9,15, & 16	R	R	R	R	G	**	G	**	R	R	R	R		R
11	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←R~~	~~←G~~	~~←Y~~	~~←R~~	~~←R~~		~~←R~~
14	~~←G~~	*	~~←FY~~	***	~~←G~~	*	~~←FY~~	***	~~←R~~	~~←R~~	~~←R~~	~~←R~~		~~←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

STAGE 4 TEMPORARY TRAFFIC SIGNAL IS IDENTICAL TO THE STAGE 3 TEMPORARY TRAFFIC SIGNAL.

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	71	121
		SIGNALIZATION PLAN SHEET				

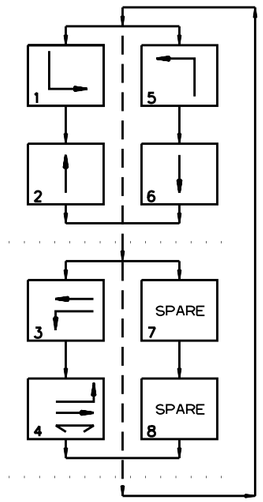
HIGHWAY 1B AND PARKER ROAD
POLE DIMENSIONS

POLE	MAST ARM	* MAST ARM ANGLE	** HAND HOLE	VERT. SHAFT	LUM. ARM	* LUM. ANGLE
A	60'	77°	180°	50'	25'	0°
B	N/A	N/A	N/A	15'	N/A	N/A
C	68'	184°	180°	35'	25'	94°
D	62'	267°	180°	35'	25'	177°
E	56'	351°	180°	35'	25'	261°
F	N/A	N/A	N/A	15'	N/A	N/A

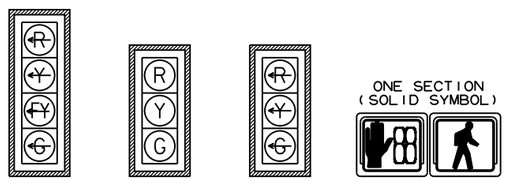
* MAST ARM AND LUMINAIRE ARM ANGLE MEASURED FROM PLAN NORTH = 0°, CLOCKWISE ROTATION.

** HAND HOLE LOCATION MEASURED CLOCKWISE FROM MAST ARM.

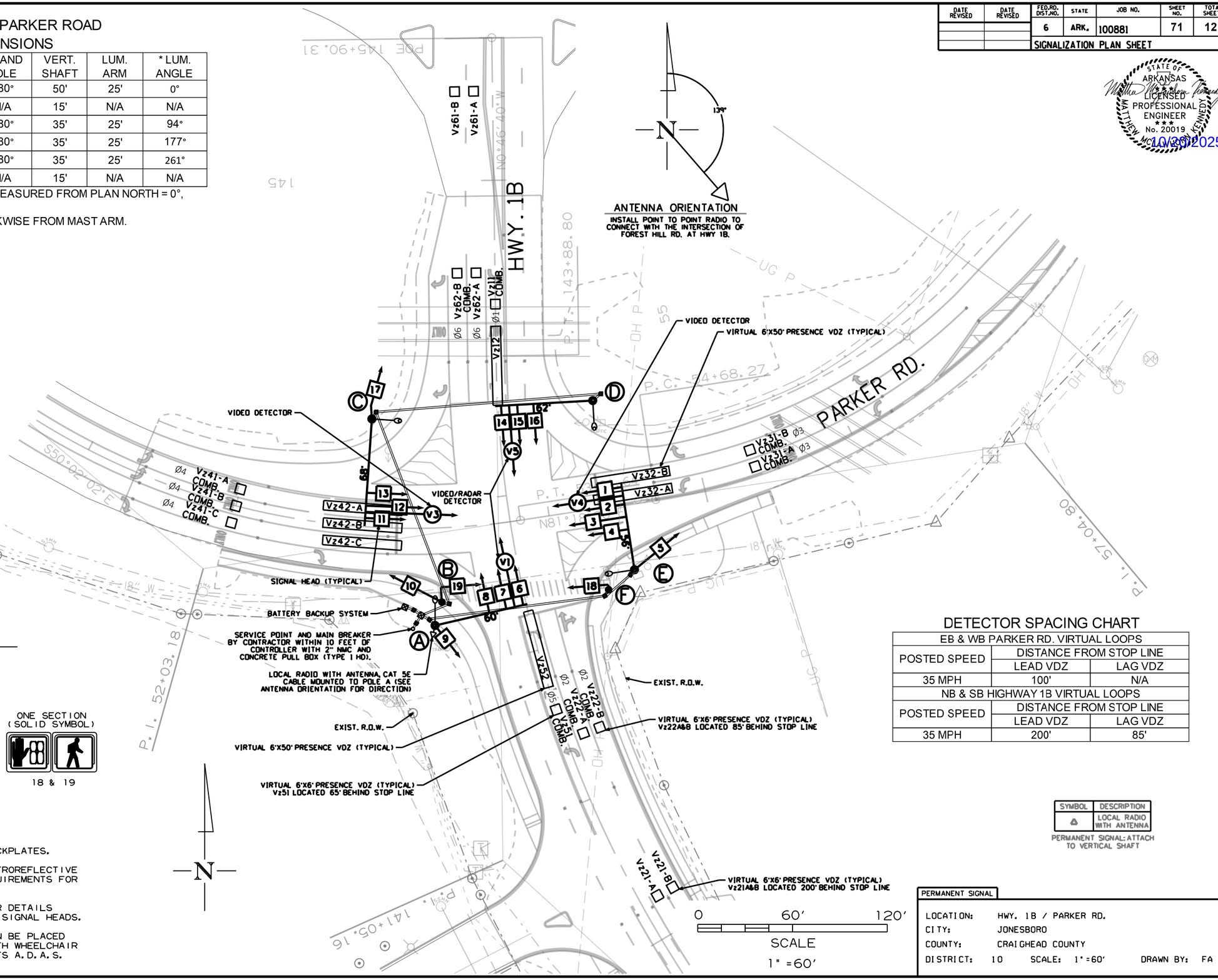
PHASING DIAGRAM



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.
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

EB & WB PARKER RD. VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
35 MPH	100'	N/A
NB & SB HIGHWAY 1B VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
35 MPH	200'	85'

SYMBOL	DESCRIPTION
A	LOCAL RADIO WITH ANTENNA

PERMANENT SIGNAL: ATTACH TO VERTICAL SHAFT

STATE OF ARKANSAS
MATTHEW MCCOY KENNEDY
LICENSED PROFESSIONAL ENGINEER
No. 20019
10/30/2025

PERMANENT SIGNAL

LOCATION: HWY. 1B / PARKER RD.
CITY: JONESBORO
COUNTY: CRAIGHEAD COUNTY
DISTRICT: 10 SCALE: 1"=60' DRAWN BY: FA

tholl 8/28/2025
100881-71-SIGNAL-HP-60SCALE.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	72	121
		SIGNALIZATION PLAN SHEET				

HIGHWAY 1B AND PARKER ROAD
POLE LOCATIONS

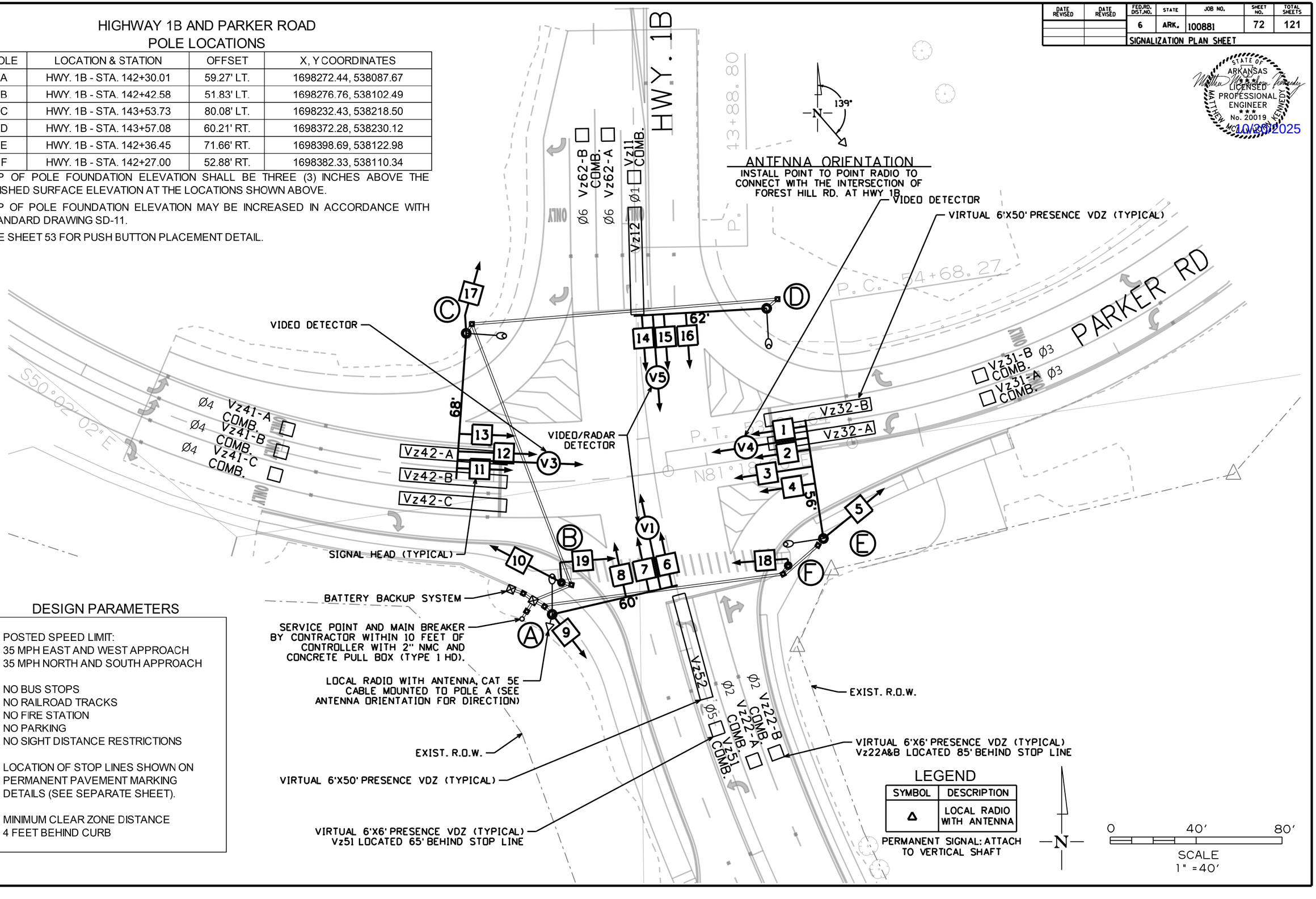
POLE	LOCATION & STATION	OFFSET	X, Y COORDINATES
A	HWY. 1B - STA. 142+30.01	59.27' LT.	1698272.44, 538087.67
B	HWY. 1B - STA. 142+42.58	51.83' LT.	1698276.76, 538102.49
C	HWY. 1B - STA. 143+53.73	80.08' LT.	1698232.43, 538218.50
D	HWY. 1B - STA. 143+57.08	60.21' RT.	1698372.28, 538230.12
E	HWY. 1B - STA. 142+36.45	71.66' RT.	1698398.69, 538122.98
F	HWY. 1B - STA. 142+27.00	52.88' RT.	1698382.33, 538110.34

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.

SEE SHEET 53 FOR PUSH BUTTON PLACEMENT DETAIL.

STATE OF ARKANSAS
MATTHEW MCKINLEY KENNEDY
LICENSED PROFESSIONAL ENGINEER
No. 20019
10/30/2025



DESIGN PARAMETERS

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

NO BUS STOPS
NO RAILROAD TRACKS
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

LEGEND

SYMBOL	DESCRIPTION
△	LOCAL RADIO WITH ANTENNA

PERMANENT SIGNAL: ATTACH TO VERTICAL SHAFT

N

0 40' 80'
SCALE
1" = 40'

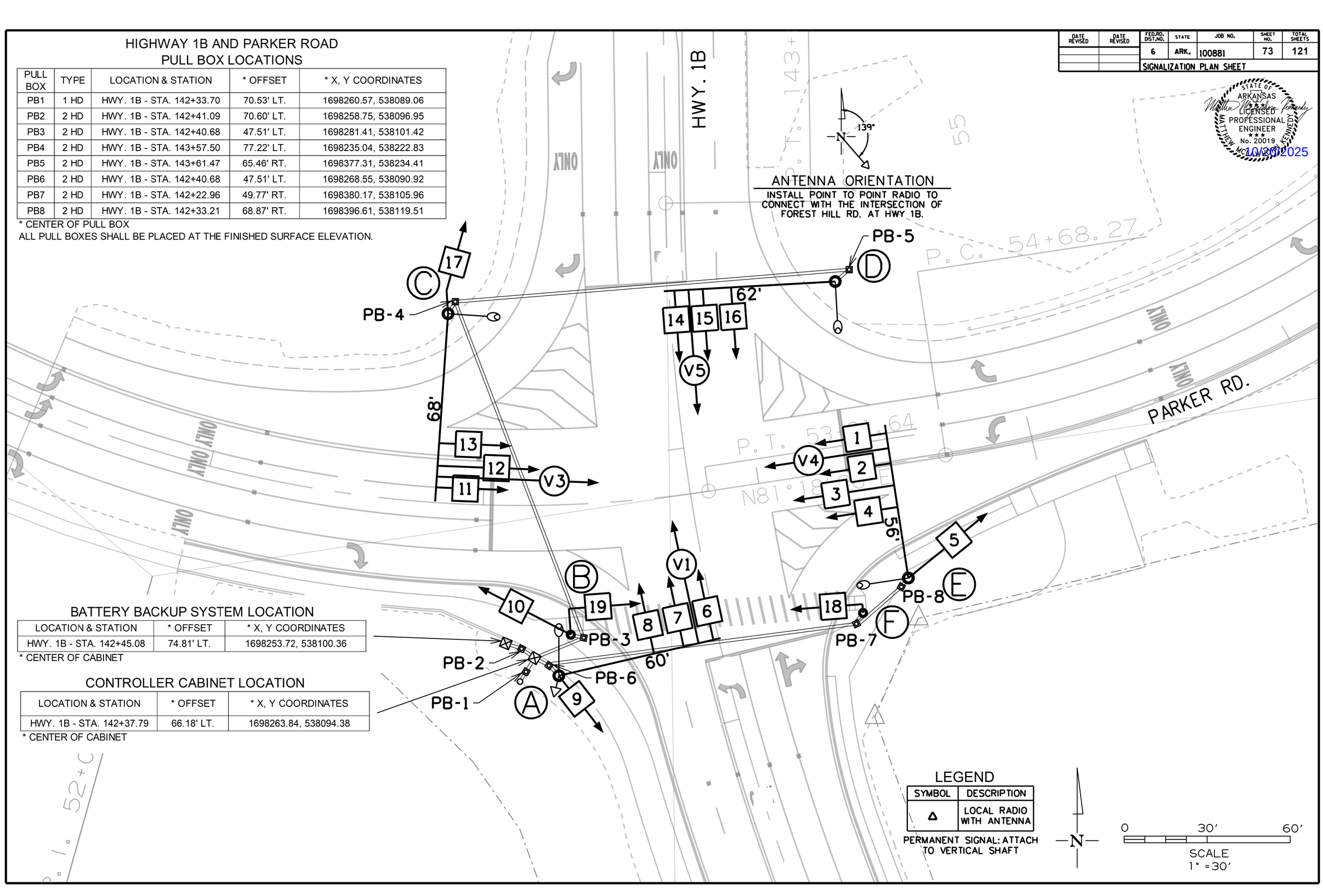
lholt 8/28/2025
100881-72-SIGNAL-HP-40SCALE.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	73	121
		SIGNALIZATION PLAN SHEET				

HIGHWAY 1B AND PARKER ROAD
PULL BOX LOCATIONS

PULL BOX	TYPE	LOCATION & STATION	* OFFSET	* X, Y COORDINATES
PB1	1 HD	HWY. 1B - STA. 142+33.70	70.53' LT.	1698260.57, 538089.06
PB2	2 HD	HWY. 1B - STA. 142+41.09	70.60' LT.	1698258.75, 538096.95
PB3	2 HD	HWY. 1B - STA. 142+40.68	47.51' LT.	1698281.41, 538101.42
PB4	2 HD	HWY. 1B - STA. 143+57.50	77.22' LT.	1698235.04, 538222.83
PB5	2 HD	HWY. 1B - STA. 143+61.47	65.46' RT.	1698377.31, 538234.41
PB6	2 HD	HWY. 1B - STA. 142+40.68	47.51' LT.	1698268.55, 538090.92
PB7	2 HD	HWY. 1B - STA. 142+22.96	49.77' RT.	1698380.17, 538105.96
PB8	2 HD	HWY. 1B - STA. 142+33.21	68.87' RT.	1698396.61, 538119.51

* CENTER OF PULL BOX
ALL PULL BOXES SHALL BE PLACED AT THE FINISHED SURFACE ELEVATION.



BATTERY BACKUP SYSTEM LOCATION

LOCATION & STATION	* OFFSET	* X, Y COORDINATES
HWY. 1B - STA. 142+45.08	74.81' LT.	1698253.72, 538100.36

* CENTER OF CABINET

CONTROLLER CABINET LOCATION

LOCATION & STATION	* OFFSET	* X, Y COORDINATES
HWY. 1B - STA. 142+37.79	66.18' LT.	1698263.84, 538094.38

* CENTER OF CABINET

LEGEND

SYMBOL	DESCRIPTION
△	LOCAL RADIO WITH ANTENNA

PERMANENT SIGNAL: ATTACH TO VERTICAL SHAFT

N

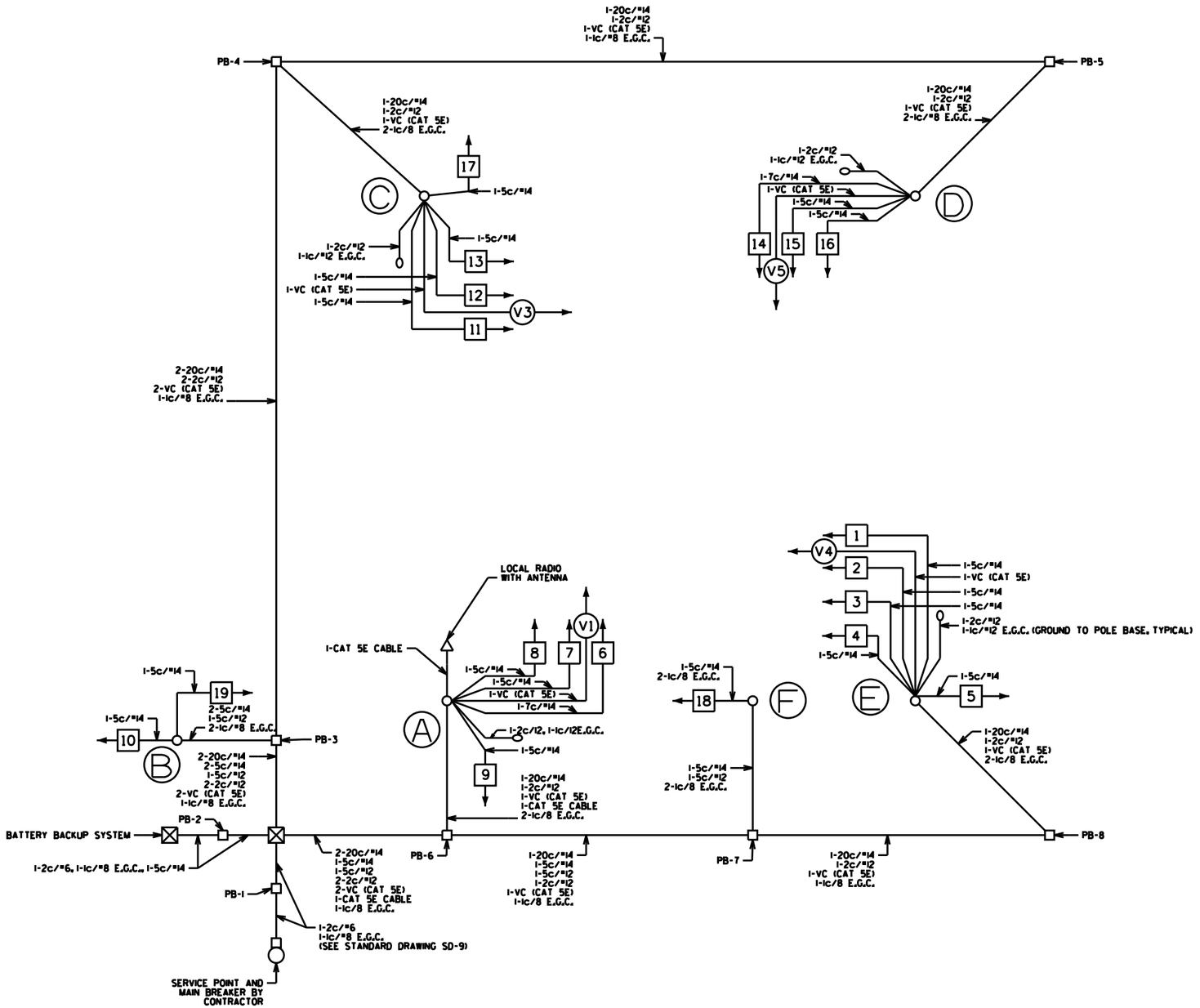
0 30′ 60′
SCALE
1" = 30′

STATE OF ARKANSAS
MATTHEW KENNEDY
LICENSED PROFESSIONAL ENGINEER
No. 20019
10/30/2025

tholt 8/28/2025
100881-73-SIGNAL-HP-30SCALE.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	74	121
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
MATTHEW MCARTHUR KENNEDY
No. 20019
08/28/2025



WIRING DIAGRAM

NOTES TO CONTRACTOR:

1. ONE SEPARATE 1-5c/#12 IS RUN TO EACH POLE FOR THE ACCESSIBLE PEDESTRIAN PUSH BUTTON(S).
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.
4. SEE GROUNDING ARRAY DETAIL ON SHEET 52.

LEGEND

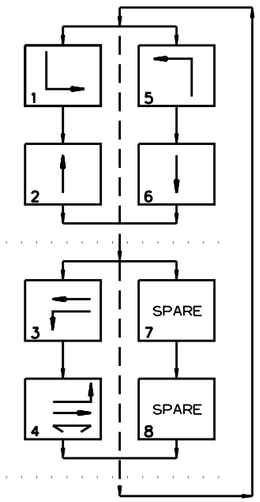
SYMBOL	DESCRIPTION
△	LOCAL RADIO WITH ANTENNA

tholt 8/28/2025
100881-74-SIGNAL-HP-WIRING.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	75	121
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
MATTHEW MCCLAIN KENNEDY
LICENSED PROFESSIONAL ENGINEER
No. 20019
10/30/2025

PHASING DIAGRAM



DETECTOR CHART

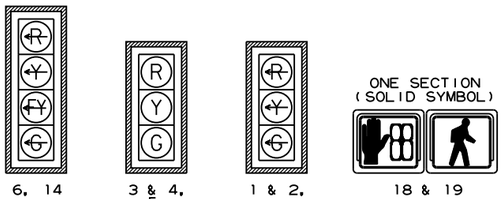
DETECTOR SYSTEM DESCRIPTION: JOB 100881											
HIGHWAY 1B AND PAKER ROAD DETECTOR ASSIGNMENTS				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
							LOCAL		MASTER SYSTEM DETECTOR NUMBERS		
DET. ID #	LOCATION DIRECTION	TYPE	DET. #	CAB. TRM. #	AMP CHN. #	CON. IMP. #	PHS	SYSTEM DET. #			
Vz11	SB LEFT TURN FAR	COMB.				V9	1	1		CAMERA V1	MAST ARM
Vz12	SB LEFT TURN	LOCAL				V1	1			CAMERA V1	MOUNTED
Vz21 A&B	NB ADVANCE	LOCAL				V2	2			CAMERA V5	MAST ARM
Vz22 A&B	NB NEAR	COMB.				V10	2	2		CAMERA V5	MOUNTED
Vz31 A&B	WB ADVANCE	COMB.				V11	3	3		CAMERA V3	46"
Vz32 A&B	WB NEAR	LOCAL				V3	3			CAMERA V3	46"
Vz41 A,B,&C	EB ADVANCE	COMB.				V4	4	4		CAMERA V4	46"
Vz42 A,B,&C	EB NEAR	LOCAL				V12	4			CAMERA V4	46"
Vz51	NB LEFT TURN FAR	COMB.				V13	5	5		CAMERA V5	MAST ARM
Vz52	NB LEFT TURN	LOCAL				V5	5			CAMERA V5	MOUNTED
Vz61 A&B	SB ADVANCE	LOCAL				V6	6			CAMERA V1	MAST ARM
Vz62 A&B	SB NEAR	COMB.				V14	6	6		CAMERA V1	MOUNTED
PB4 A&B	PARKER RD. S. LEG	PED.				P4	4				
					SPARE:						

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

NOTE: 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

SIGNAL FACES

12" LENSES



6, 14 — 3 & 4, 5, 7 & 8, 9 & 10, 12 & 13, 15 & 16, 17 — 1 & 2, 11 — 18 & 19

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.

INTERVAL CHART

SIGNAL FACES	HIGHWAY 1B AND PARKER ROAD													FLASH SEQUENCE
	1+5	CLR.	1+6	CLR.	2+5	CLR.	2+6	CLR.	3	CLR.	4	CLR.		
1, 2	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	~~Y~~		~~R~~
3, 4, & 10	R	R	R	R	R	R	R	R	R	R	G	Y		R
5, 12, & 13	R	R	R	R	R	R	R	R	G	Y	R	R		R
6	~~G~~	*	~~G~~	*	~~FY~~	***	~~FY~~	***	~~R~~	~~R~~	~~R~~	~~R~~		~~R~~
7, 8, & 17	R	R	G	**	R	R	G	**	R	R	R	R		R
9, 15, & 16	R	R	R	R	G	**	G	**	R	R	R	R		R
11	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	~~Y~~	~~R~~	~~R~~		~~R~~
14	~~G~~	*	~~FY~~	***	~~G~~	*	~~FY~~	***	~~R~~	~~R~~	~~R~~	~~R~~		~~R~~
18 & 19	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW		

* 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

tholl 8/28/2025
100881-75-SIGNAL-HP-CHARTS.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	76	121
		TRAFFIC SIGNAL QUANTITIES - HWY. 1B AT FOREST HILL RD.				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20019
MATTHEW MCKINLEY KENNEDY
10/28/2025

TRAFFIC SIGNAL QUANTITIES

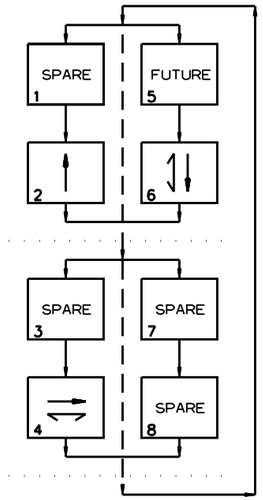
ITEM NUMBER	ITEM	QUANTITY	UNIT
SP & 701	SYSTEM LOCAL CONTROLLER TS2-TYPE 2, E-NET (8 PHASES)	1	EACH
SP	ETHERNET SWITCH, T100 HARDENED (8-PORT)	1	EACH
SP	E-NET CABLE (EXTERIOR CAT 5E)	100	LIN. FT.
SP	LOCAL RADIO (E-NET 5.8) WITH ANTENNA	1	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	6	EACH
SP & 707	CENTRAL CONTROL UNIT	1	EACH
SP & 707	POLE MOUNTED ASSEMBLY	4	EACH
SP & 707	COUNTDOWN PEDESTRIAN SIGNAL HEAD, LED	4	EACH
708	TRAFFIC SIGNAL CABLE (5C/12 A.W.G.)	290	LIN. FT.
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	845	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7C/14 A.W.G.)	69	LIN. FT.
708	TRAFFIC SIGNAL CABLE (20C/14 A.W.G.)	192	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., E.G.C.)	425	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/12 A.W.G., E.G.C.)	175	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.)	36	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	390	LIN. FT.
709	GALVANIZED STEEL CONDUIT (2")	25	LIN. FT.
710	NON-METALLIC CONDUIT (2")	61	LIN. FT.
710	NON-METALLIC CONDUIT (3")	285	LIN. FT.
SS & 711	CONCRETE PULL BOX (TYPE 1 HD)	1	EACH
SS & 711	CONCRETE PULL BOX (TYPE 2 HD)	6	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (0')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (30')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (34'-42')	1	EACH
SP	LED LUMINAIRE ASSEMBLY	3	EACH
SS & 715	TRAFFIC SIGNAL PEDESTAL POLE WITH FOUNDATION	2	EACH
SP	SERVICE POINT ASSEMBLY (2 CIRCUITS)	1	EACH
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)	539	LIN. FT.
SP & 733	VIDEO MONITOR (CLR)	1	EACH
SP & 733	CENTRAL CONTROL UNIT (8 CHANNEL)	1	EACH

PERMANENT TRAFFIC SIGNAL:
INSTALL ONE (1) LOCAL RADIO (E-NET 5.8) WITH ANTENNA FOR POINT TO POINT CONNECTION WITH LOCAL RADIO (E-NET 5.8) WITH ANTENNA AT THE HIGHWAY 1B AND PARKER ROAD INTERSECTION. REFER TO SYSTEM LOCAL CONTROLLER SPECIAL PROVISION FOR ETHERNET RADIO SPECIFICATIONS.
(REFER TO PERMANENT TRAFFIC SIGNAL PLANS.)

tholt 10/28/2025
100881-76-SIGNAL-HF-QUANT.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	77	121
		SIGNALIZATION PLAN SHEET				

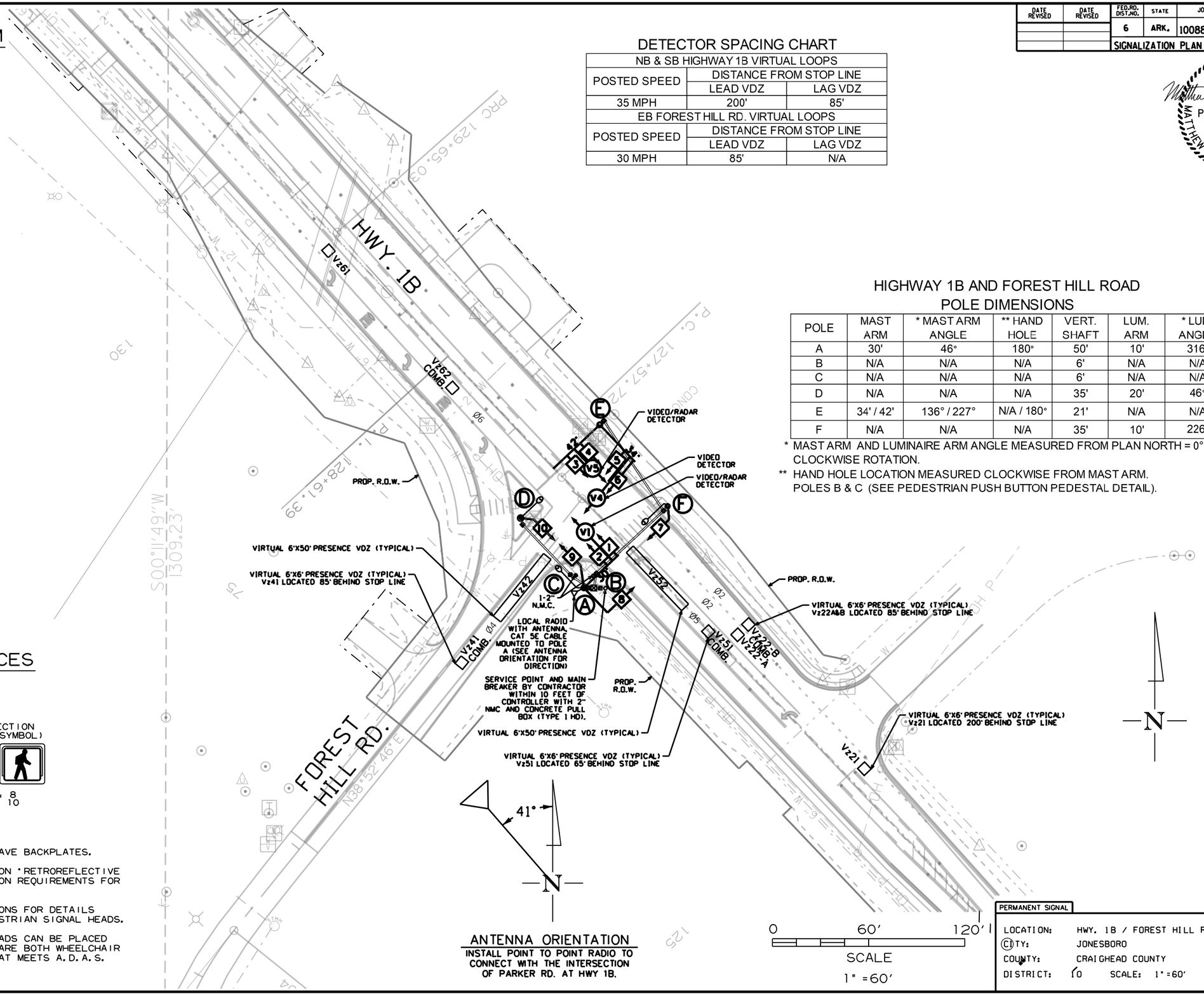
PHASING DIAGRAM



DETECTOR SPACING CHART

NB & SB HIGHWAY 1B VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
35 MPH	200'	85'
EB FOREST HILL RD. VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
30 MPH	85'	N/A

STATE OF ARKANSAS
MATTHEW MCCAWLEY KENNEDY
LICENSED PROFESSIONAL ENGINEER
No. 20019
12/15/2025



HIGHWAY 1B AND FOREST HILL ROAD POLE DIMENSIONS

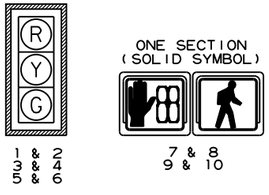
POLE	MAST ARM	* MAST ARM ANGLE	** HAND HOLE	VERT. SHAFT	LUM. ARM	* LUM. ANGLE
A	30'	46°	180°	50'	10'	316°
B	N/A	N/A	N/A	6'	N/A	N/A
C	N/A	N/A	N/A	6'	N/A	N/A
D	N/A	N/A	N/A	35'	20'	46°
E	34' / 42'	136° / 227°	N/A / 180°	21'	N/A	N/A
F	N/A	N/A	N/A	35'	10'	226°

* MAST ARM AND LUMINAIRE ARM ANGLE MEASURED FROM PLAN NORTH = 0°, CLOCKWISE ROTATION.

** HAND HOLE LOCATION MEASURED CLOCKWISE FROM MAST ARM. POLES B & C (SEE PEDESTRIAN PUSH BUTTON PEDESTAL DETAIL).

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.
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.

ANTENNA ORIENTATION

INSTALL POINT TO POINT RADIO TO CONNECT WITH THE INTERSECTION OF PARKER RD. AT HWY 1B.

PERMANENT SIGNAL

LOCATION: HWY. 1B / FOREST HILL ROAD
CITY: JONESBORO
COUNTY: CRAIGHEAD COUNTY
DISTRICT: 10 SCALE: 1"=60' DRAWN BY: FA

tholt 8/28/2025
100881-77-SIGNAL-HF-60SCALE.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	78	121
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20019
MATTHEW MCARTHUR KENNEDY
08/28/2025

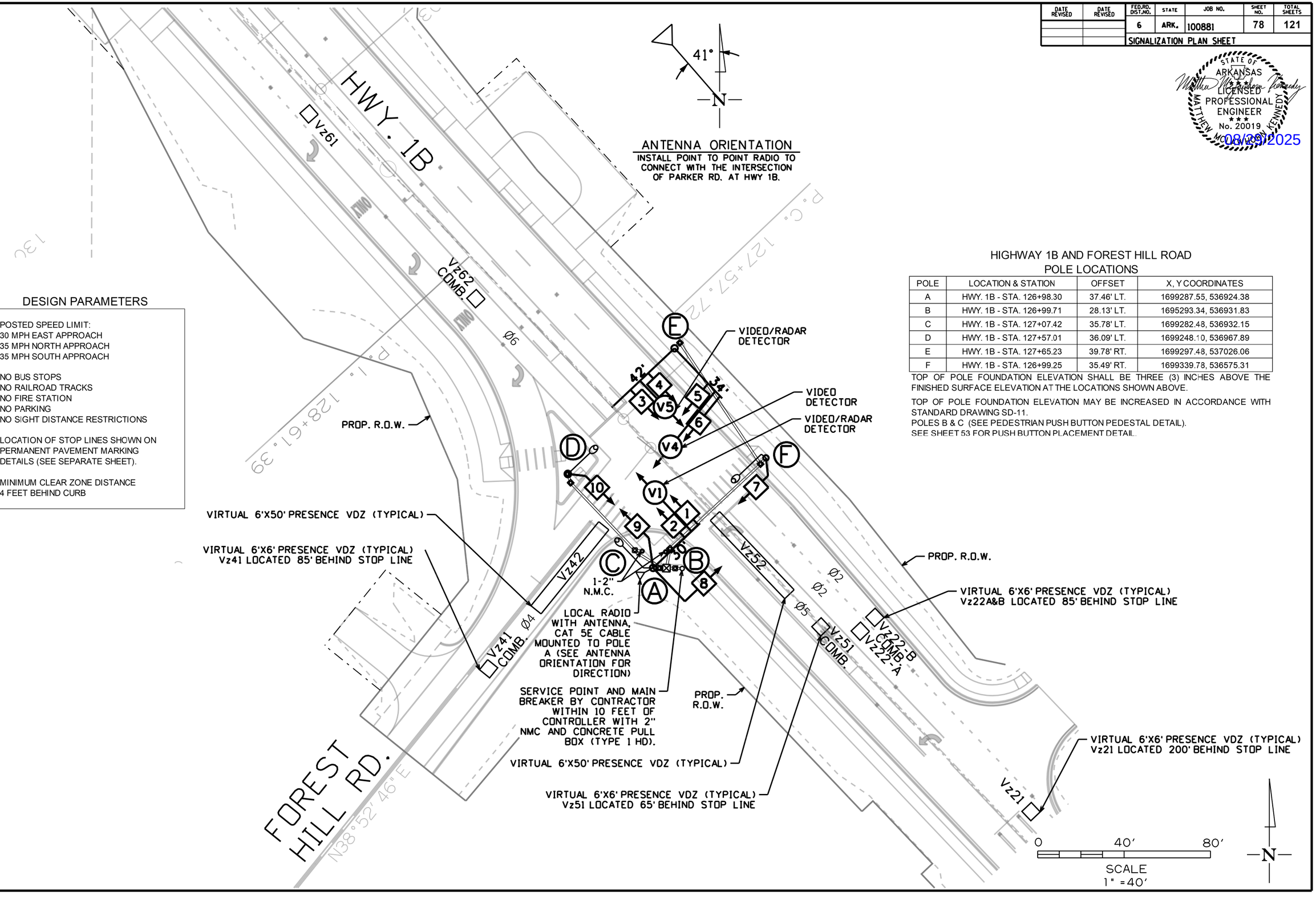
DESIGN PARAMETERS

POSTED SPEED LIMIT:
30 MPH EAST APPROACH
35 MPH NORTH APPROACH
35 MPH SOUTH APPROACH

NO BUS STOPS
NO RAILROAD TRACKS
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



HIGHWAY 1B AND FOREST HILL ROAD
POLE LOCATIONS

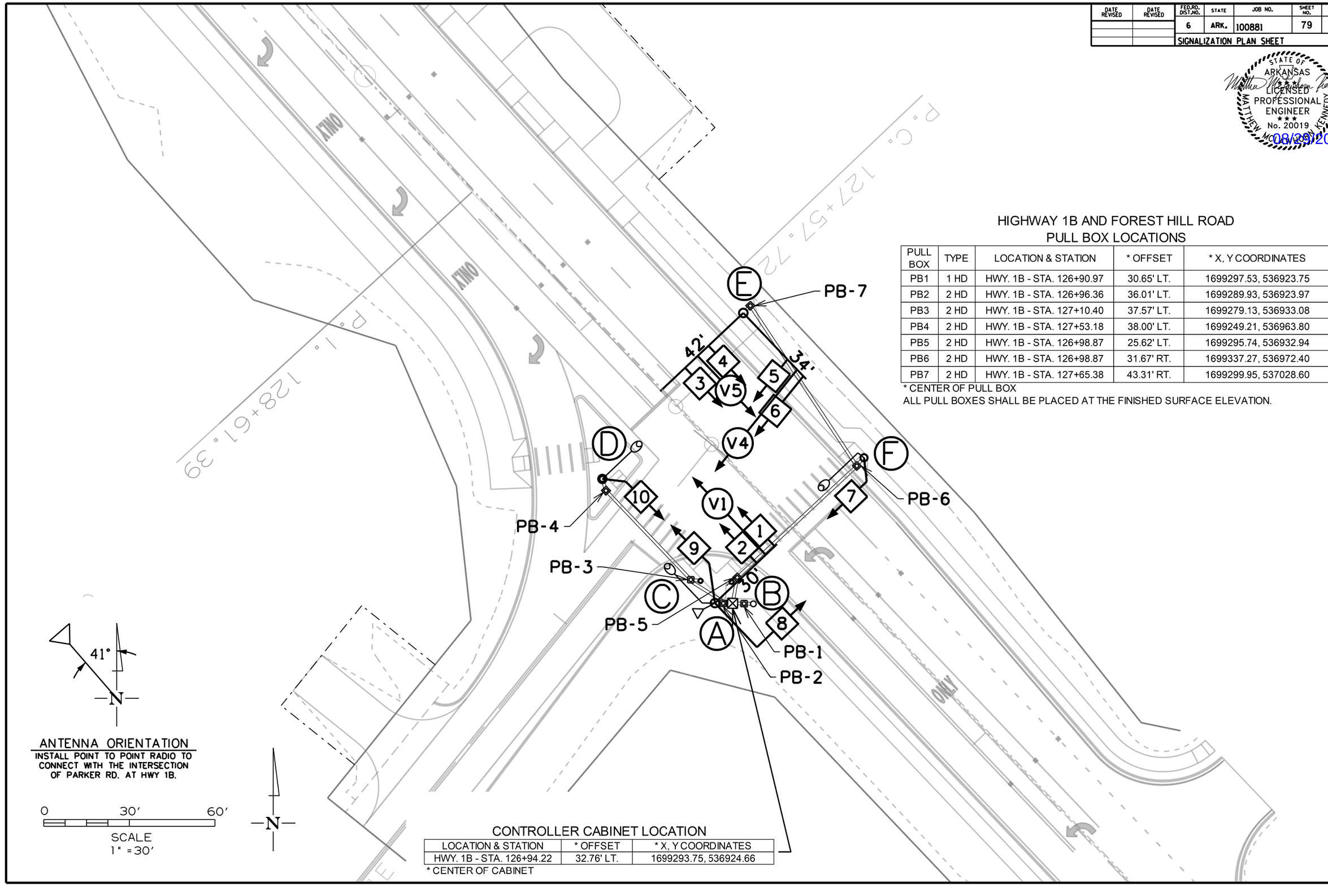
POLE	LOCATION & STATION	OFFSET	X, Y COORDINATES
A	HWY. 1B - STA. 126+98.30	37.46' LT.	1699287.55, 536924.38
B	HWY. 1B - STA. 126+99.71	28.13' LT.	1695293.34, 536931.83
C	HWY. 1B - STA. 127+07.42	35.78' LT.	1699282.48, 536932.15
D	HWY. 1B - STA. 127+57.01	36.09' LT.	1699248.10, 536967.89
E	HWY. 1B - STA. 127+65.23	39.78' RT.	1699297.48, 537026.06
F	HWY. 1B - STA. 126+99.25	35.49' RT.	1699339.78, 536575.31

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.
POLES B & C (SEE PEDESTRIAN PUSH BUTTON PEDESTAL DETAIL).
SEE SHEET 53 FOR PUSH BUTTON PLACEMENT DETAIL.

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	79	121
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20019
MATTHEW MCCUTCHEN KENNEDY
08/28/2025



HIGHWAY 1B AND FOREST HILL ROAD
PULL BOX LOCATIONS

PULL BOX	TYPE	LOCATION & STATION	* OFFSET	* X, Y COORDINATES
PB1	1 HD	HWY. 1B - STA. 126+90.97	30.65' LT.	1699297.53, 536923.75
PB2	2 HD	HWY. 1B - STA. 126+96.36	36.01' LT.	1699289.93, 536923.97
PB3	2 HD	HWY. 1B - STA. 127+10.40	37.57' LT.	1699279.13, 536933.08
PB4	2 HD	HWY. 1B - STA. 127+53.18	38.00' LT.	1699249.21, 536963.80
PB5	2 HD	HWY. 1B - STA. 126+98.87	25.62' LT.	1699295.74, 536932.94
PB6	2 HD	HWY. 1B - STA. 126+98.87	31.67' RT.	1699337.27, 536972.40
PB7	2 HD	HWY. 1B - STA. 127+65.38	43.31' RT.	1699299.95, 537028.60

* CENTER OF PULL BOX
ALL PULL BOXES SHALL BE PLACED AT THE FINISHED SURFACE ELEVATION.

ANTENNA ORIENTATION
INSTALL POINT TO POINT RADIO TO CONNECT WITH THE INTERSECTION OF PARKER RD. AT HWY 1B.

CONTROLLER CABINET LOCATION

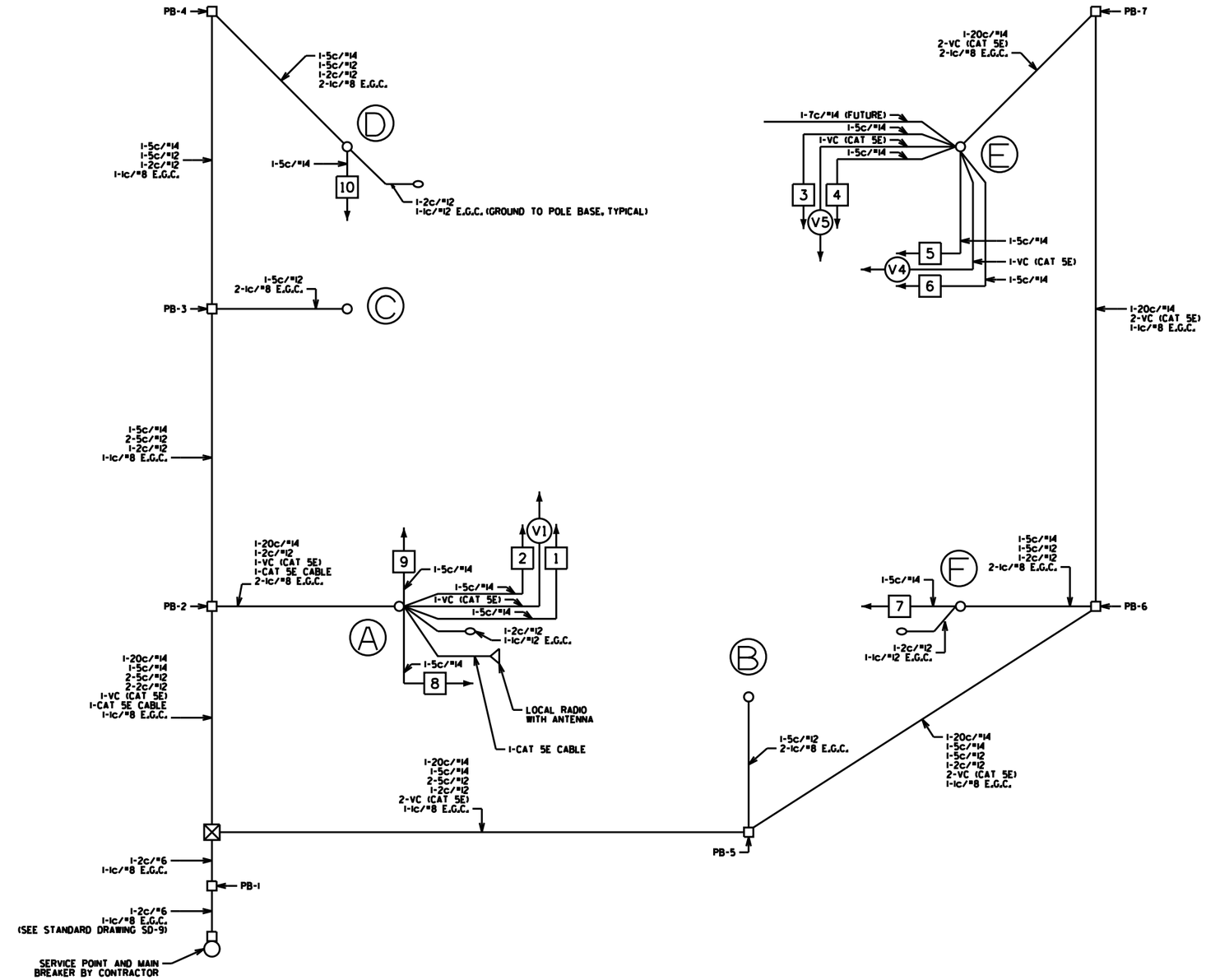
LOCATION & STATION	* OFFSET	* X, Y COORDINATES
HWY. 1B - STA. 126+94.22	32.76' LT.	1699293.75, 536924.66

* CENTER OF CABINET

tholt 8/28/2025
100881-79-SIGNAL-HF-30SCALE.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	80	121
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20019
MATTHEW MCARTHUR KENNEDY
08/28/2025



WIRING DIAGRAM

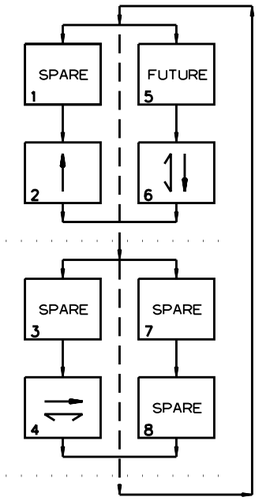
NOTES TO CONTRACTOR:

1. ONE SEPARATE 1-5c/#12 IS RUN TO EACH POLE FOR THE ACCESSIBLE PEDESTRIAN PUSH BUTTON(S).
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.
4. SEE GROUNDING ARRAY DETAIL ON SHEET 52.

tholt 8/28/2025
100881-80-SIGNAL-HF-WIRING.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	81	121
		SIGNALIZATION PLAN SHEET				

PHASING DIAGRAM



DETECTOR SYSTEM DESCRIPTION: JOB 100881											
HIGHWAY 1B AND FOREST HILL ROAD DETECTOR ASSIGNMENTS				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
							LOCAL		MASTER SYSTEM DETECTOR NUMBERS		
DET. ID #	LOCATION DIRECTION	TYPE	DET. #	CAB. TRM. #	AMP CHN. #	CON. IMP. #	PHS	SYSTEM DET. #			
Vz21	NB FAR	LOCAL				V2	2			CAMERA V5	MAST ARM
Vz22 A&B	NB NEAR	COMB.				V10	2	2		CAMERA V5	MOUNTED
Vz41	EB FAR	COMB.				V4	4	4		CAMERA V4	37"
Vz42	EB NEAR	LOCAL				V12	4			CAMERA V4	37"
Vz51	NB LEFT TURN FAR	COMB.				V13	5	5		CAMERA V5	MAST ARM
Vz52	NB LEFT NEAR	LOCAL				V5	5			CAMERA V5	MOUNTED
Vz61	SB ADVANCE	LOCAL				V6	6			CAMERA V1	MAST ARM
Vz62	SB NEAR	COMB.				V14	6	6		CAMERA V1	MOUNTED
PB4 A&B	(HWY 1B) S. LEG	PED.				P4	4				
PB6 A&B	(FOREST HILL) W. LEG	PED.				P6	6				
					SPARE:						

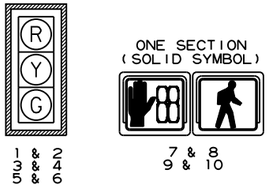
CONTROLLER INPUT ABBREVIATIONS:
V = VEHICLE INPUT
D = SYSTEM OR AUXILIARY INPUT
P = PEDESTRIAN INPUT

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

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
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08/28/2025

SIGNAL FACES

12" LENSES

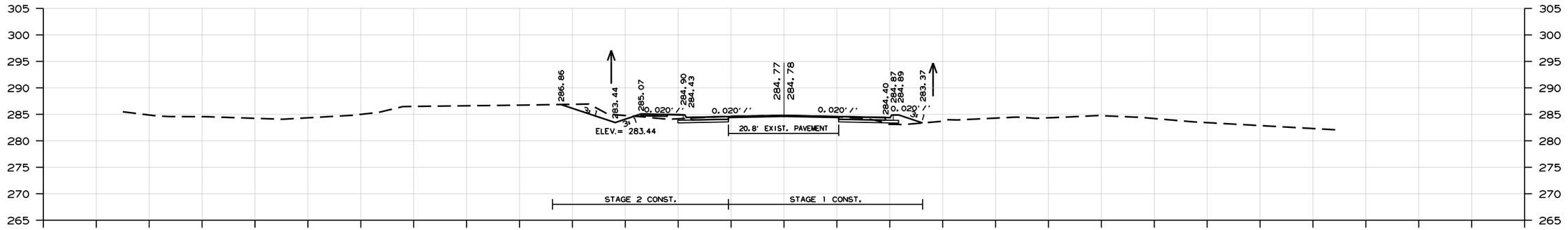


NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.
3. REFER TO SPECIAL PROVISIONS FOR DETAILS ON REQUIREMENTS FOR PEDESTRIAN SIGNAL HEADS.
4. ALL PEDESTRIAN SIGNAL HEADS CAN BE PLACED INTO OPERATION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

INTERVAL CHART

SIGNAL FACES	HIGHWAY 1B AND FOREST HILL ROAD 2+6	CLR.	4	CLR.		FLASH SEQUENCE
1 & 2	G	Y	R	R		R
3 & 4	G	Y	R	R		R
5 & 6	R	R	G	Y		R
7 & 8	DW	DW	W	FDW		BLK
9 & 10	W	FDW	DW	DW		BLK

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	82	121
		CROSS SECTIONS				



STAGE 1
CUT AREA: 6 SQ.FT.
FILL AREA: 6 SQ.FT.

STAGE 2
CUT AREA: 23 SQ.FT.
FILL AREA: 5 SQ.FT.

STAGE 3
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

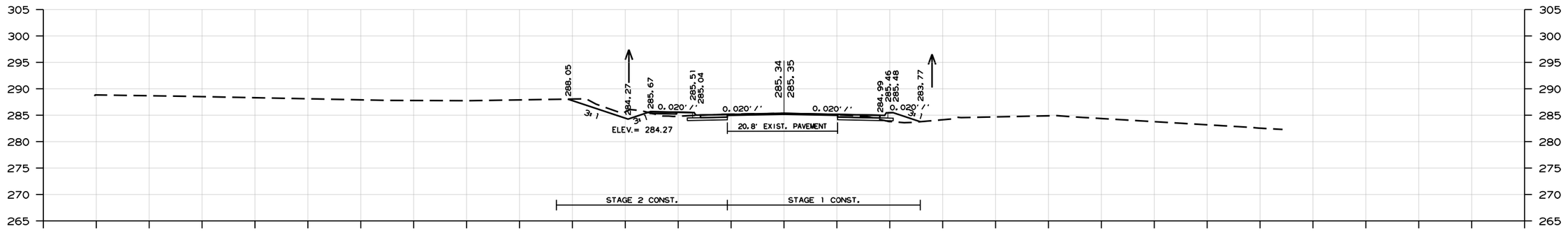
STAGE 4
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 1
CUT VOLUME: 9 CU.YD.
FILL VOLUME: 9 CU.YD.

STAGE 2
CUT VOLUME: 33 CU.YD.
FILL VOLUME: 7 CU.YD.

STAGE 3
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 4
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.



STAGE 1
CUT AREA: 6 SQ.FT.
FILL AREA: 6 SQ.FT.

STAGE 2
CUT AREA: 20 SQ.FT.
FILL AREA: 4 SQ.FT.

STAGE 3
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

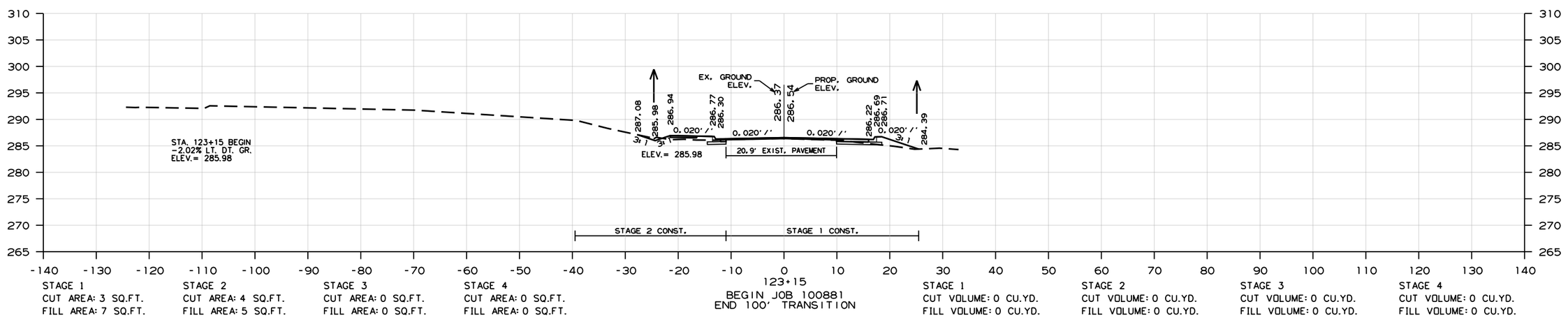
STAGE 4
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 1
CUT VOLUME: 14 CU.YD.
FILL VOLUME: 20 CU.YD.

STAGE 2
CUT VOLUME: 38 CU.YD.
FILL VOLUME: 14 CU.YD.

STAGE 3
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 4
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.



STAGE 1
CUT AREA: 3 SQ.FT.
FILL AREA: 7 SQ.FT.

STAGE 2
CUT AREA: 4 SQ.FT.
FILL AREA: 5 SQ.FT.

STAGE 3
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 4
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 1
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 2
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

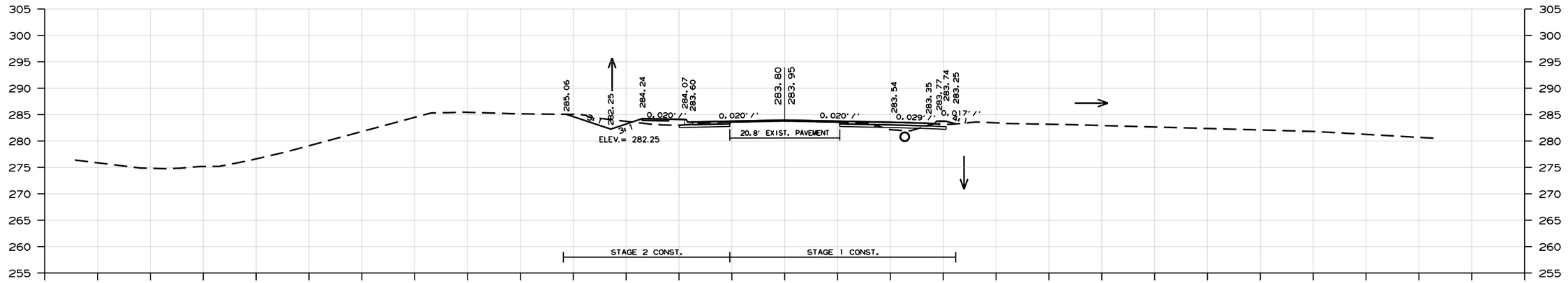
STAGE 3
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 4
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

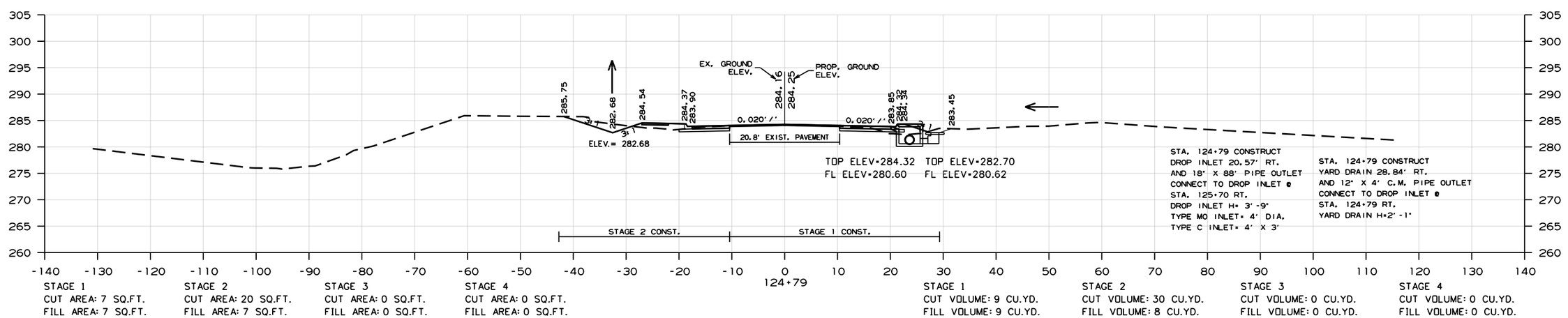
HWY. 1B - CROSS SECTION STA. 123+15 TO STA. 124+41

tholt 8/28/2025
100881-82-XS.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	83	121
		CROSS SECTIONS				



STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 8 SQ.FT.	CUT AREA: 19 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.
FILL AREA: 4 SQ.FT.	FILL AREA: 8 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.
STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT VOLUME: 6 CU.YD.	CUT VOLUME: 15 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL VOLUME: 4 CU.YD.	FILL VOLUME: 6 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.

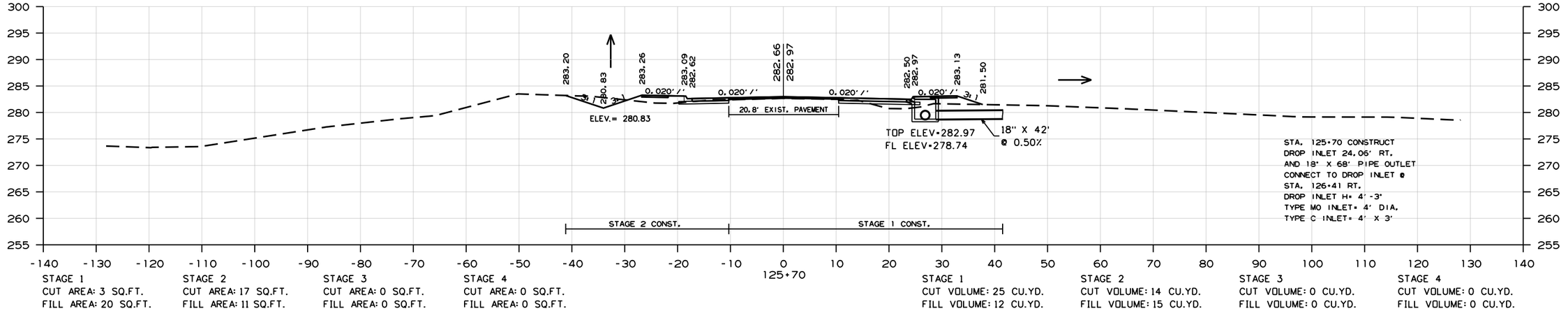


STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 7 SQ.FT.	CUT AREA: 20 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.
FILL AREA: 7 SQ.FT.	FILL AREA: 7 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.
STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT VOLUME: 9 CU.YD.	CUT VOLUME: 30 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL VOLUME: 9 CU.YD.	FILL VOLUME: 8 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.

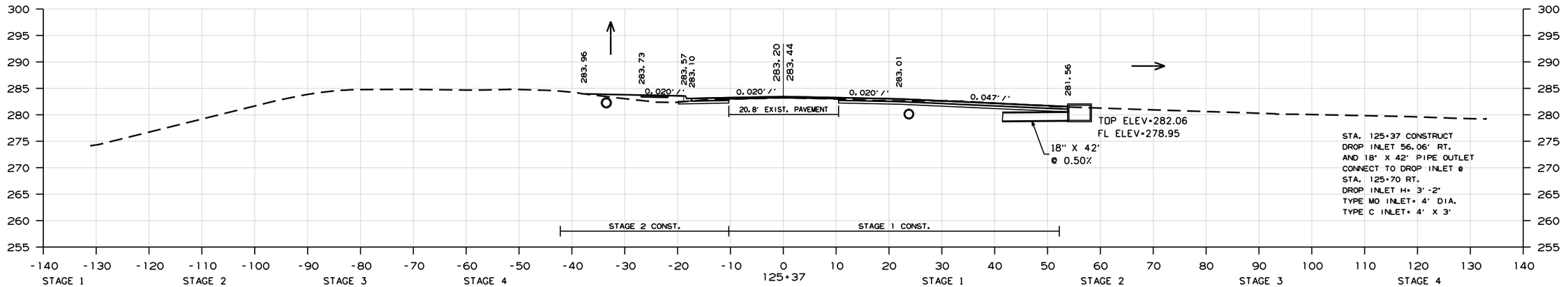
HWY. 1B - CROSS SECTION STA. 124+79 TO STA. 125+00

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100881-82-XS.SHT

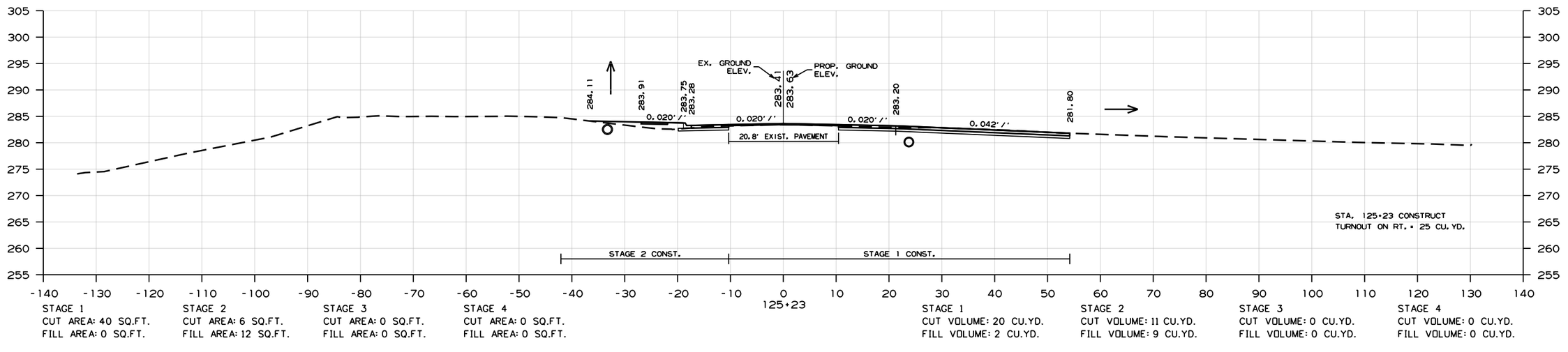
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	84	121
		CROSS SECTIONS				



STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 3 SQ.FT.	CUT AREA: 17 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.
FILL AREA: 20 SQ.FT.	FILL AREA: 11 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.
STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT VOLUME: 25 CU.YD.	CUT VOLUME: 14 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL VOLUME: 12 CU.YD.	FILL VOLUME: 15 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.



STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 38 SQ.FT.	CUT AREA: 6 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.	FILL AREA: 14 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.
STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT VOLUME: 20 CU.YD.	CUT VOLUME: 3 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.	FILL VOLUME: 7 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.

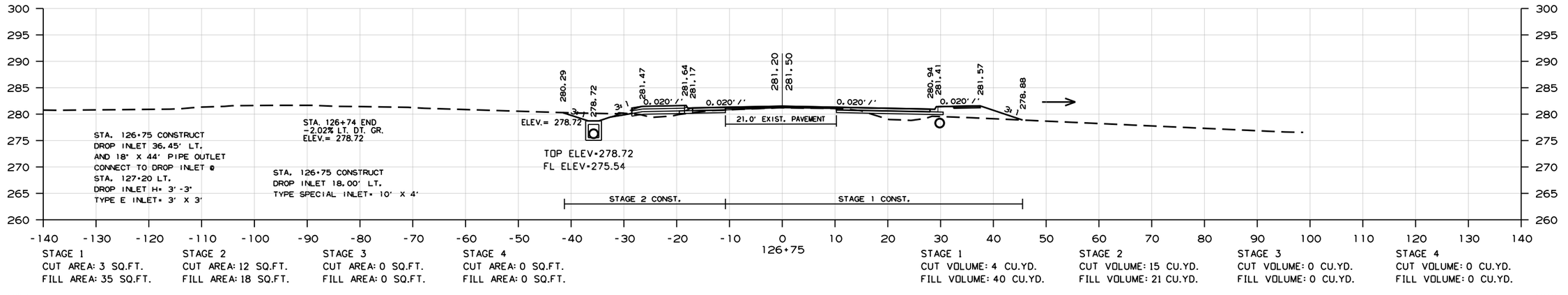


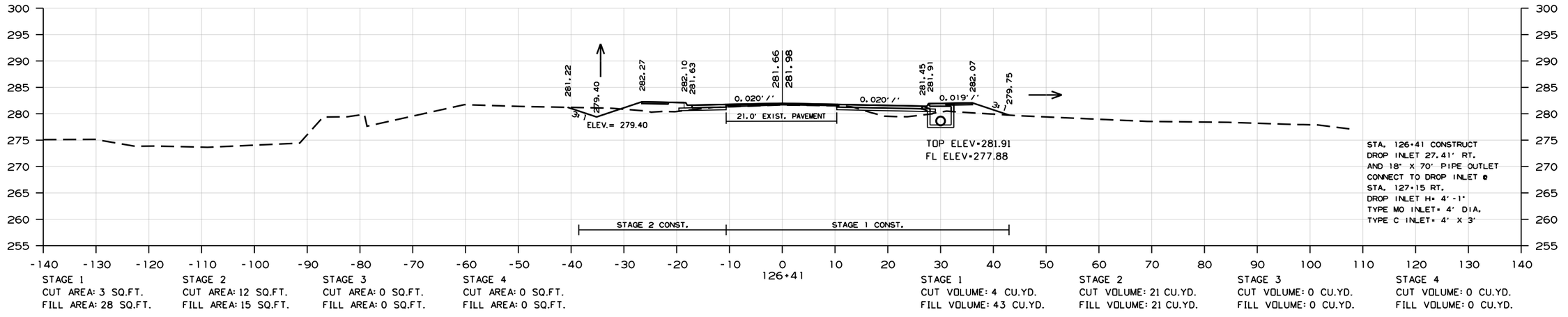
STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 40 SQ.FT.	CUT AREA: 6 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.	FILL AREA: 12 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.
STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT VOLUME: 20 CU.YD.	CUT VOLUME: 11 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL VOLUME: 2 CU.YD.	FILL VOLUME: 9 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.

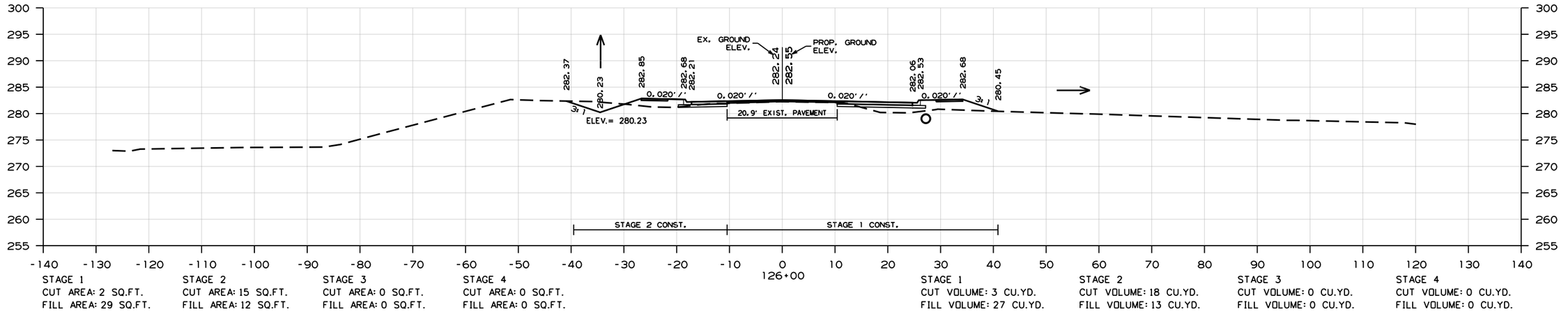
HWY. 1B - CROSS SECTION STA. 125+23 TO STA. 125+70

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100881-82-XS.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	85	121
		CROSS SECTIONS				



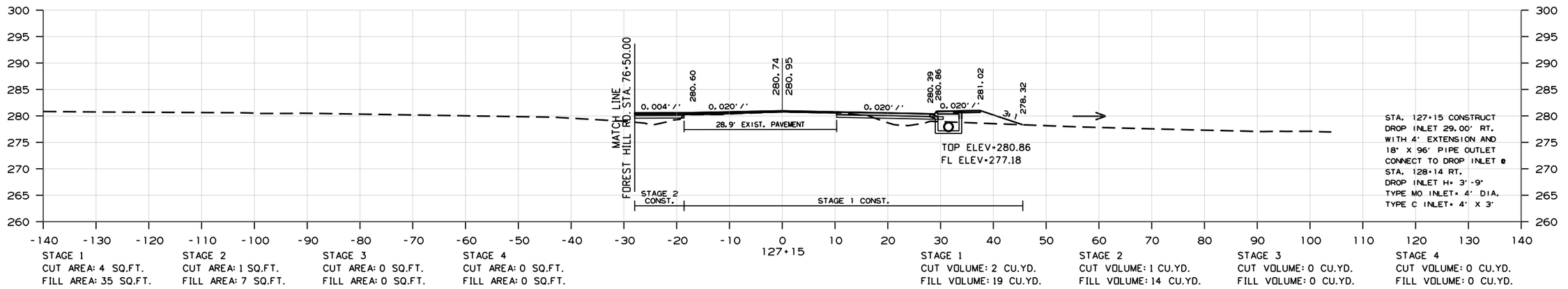




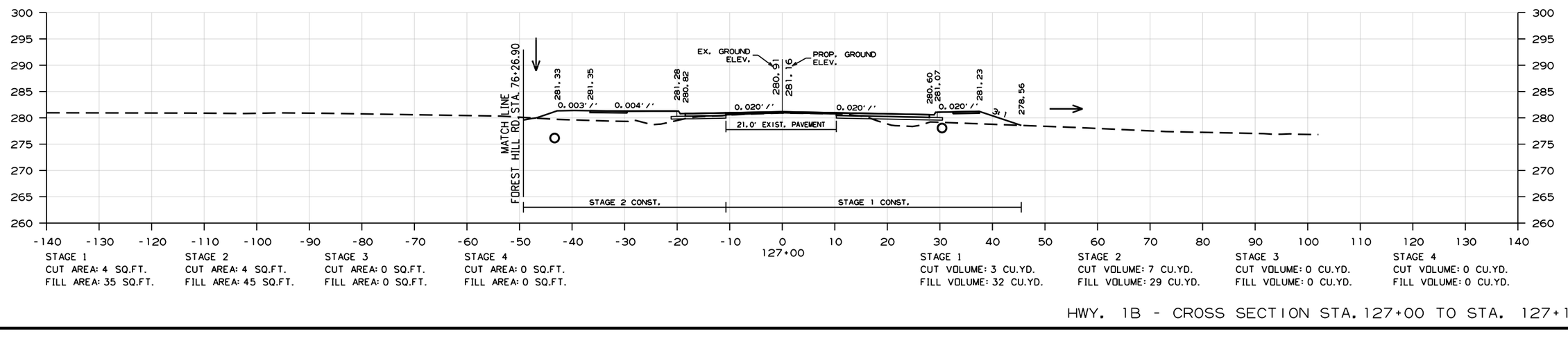
HWY. 1B - CROSS SECTION STA. 126+00 TO STA. 126+75

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100881-82-XS.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	86	121
		CROSS SECTIONS				



STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 4 SQ.FT.	CUT AREA: 1 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 2 CU.YD.	CUT VOLUME: 1 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 35 SQ.FT.	FILL AREA: 7 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 19 CU.YD.	FILL VOLUME: 14 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.

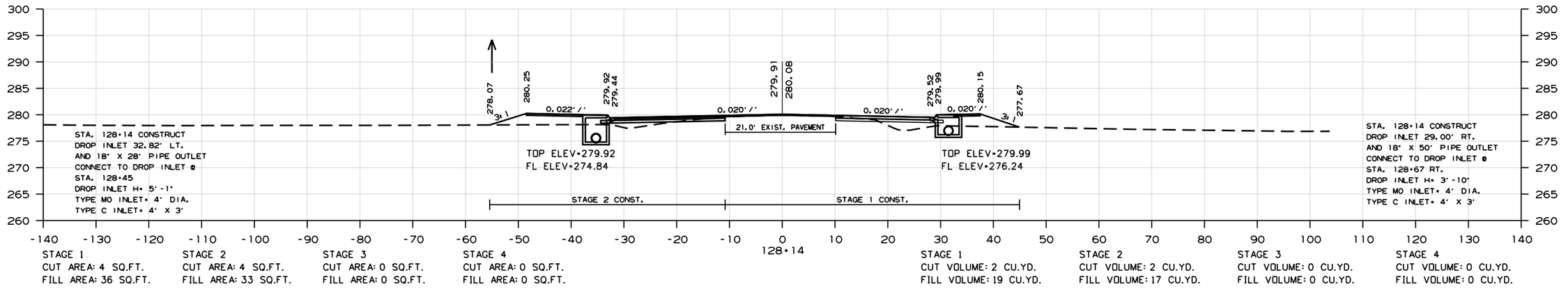


STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 4 SQ.FT.	CUT AREA: 4 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 3 CU.YD.	CUT VOLUME: 7 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 35 SQ.FT.	FILL AREA: 45 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 32 CU.YD.	FILL VOLUME: 29 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.

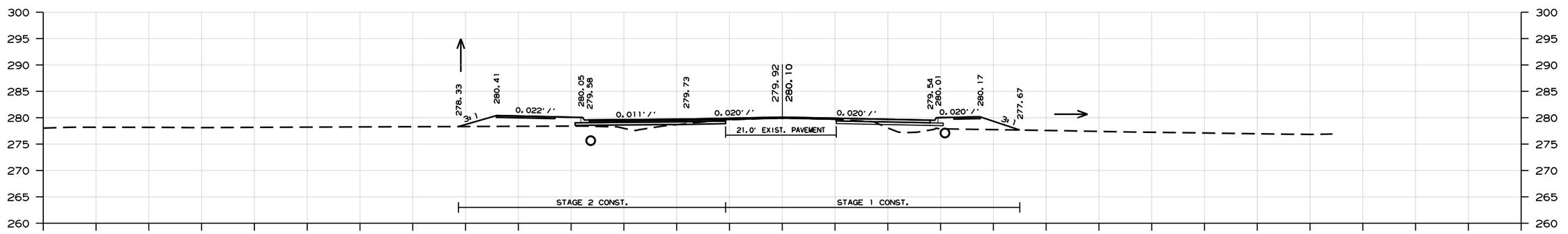
HWY. 1B - CROSS SECTION STA. 127+00 TO STA. 127+15

tholt 8/28/2025
100881-82-XS.SHT

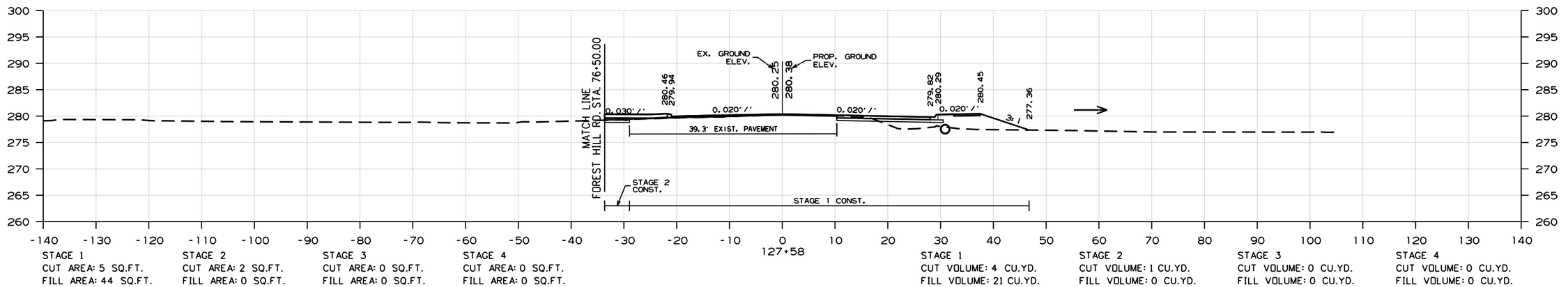
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	87	121
		CROSS SECTIONS				



STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 4 SQ.FT.	CUT AREA: 4 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 2 CU.YD.	CUT VOLUME: 2 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 36 SQ.FT.	FILL AREA: 33 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 19 CU.YD.	FILL VOLUME: 17 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.



STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 5 SQ.FT.	CUT AREA: 3 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 8 CU.YD.	CUT VOLUME: 4 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 36 SQ.FT.	FILL AREA: 34 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 62 CU.YD.	FILL VOLUME: 26 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.

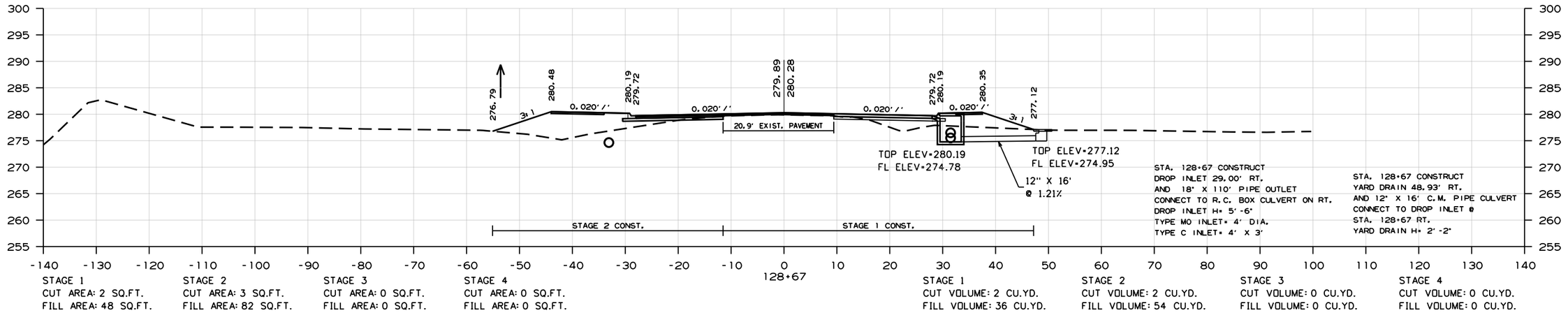


STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 5 SQ.FT.	CUT AREA: 2 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 4 CU.YD.	CUT VOLUME: 1 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 44 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 21 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.

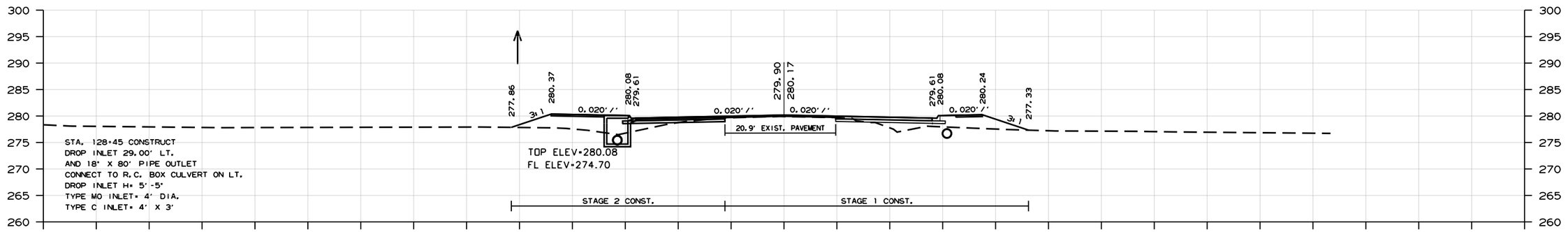
HWY. 1B - CROSS SECTION STA. 127+58 TO STA. 128+14

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100881-82-XS.SHT

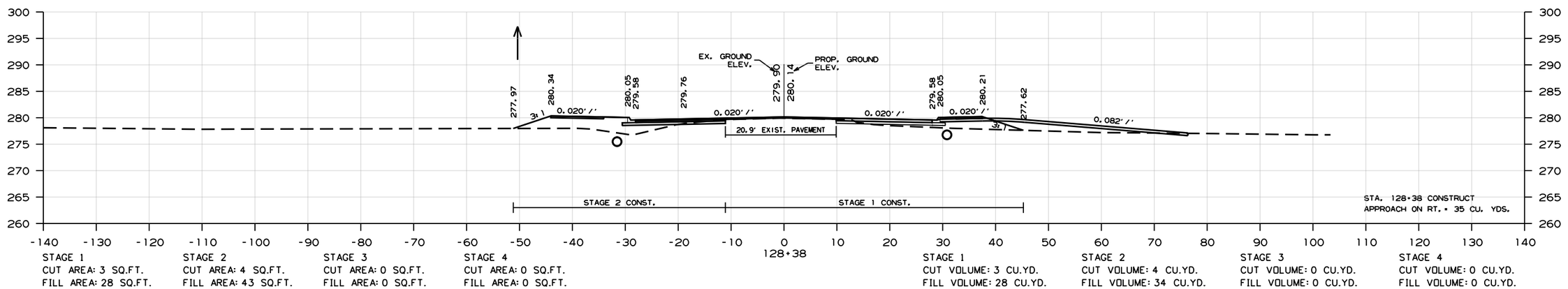
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	88	121
		CROSS SECTIONS				



STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 2 SQ.FT.	CUT AREA: 3 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 2 CU.YD.	CUT VOLUME: 2 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 48 SQ.FT.	FILL AREA: 82 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 36 CU.YD.	FILL VOLUME: 54 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.



STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 3 SQ.FT.	CUT AREA: 3 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 1 CU.YD.	CUT VOLUME: 1 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 40 SQ.FT.	FILL AREA: 51 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 9 CU.YD.	FILL VOLUME: 12 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.

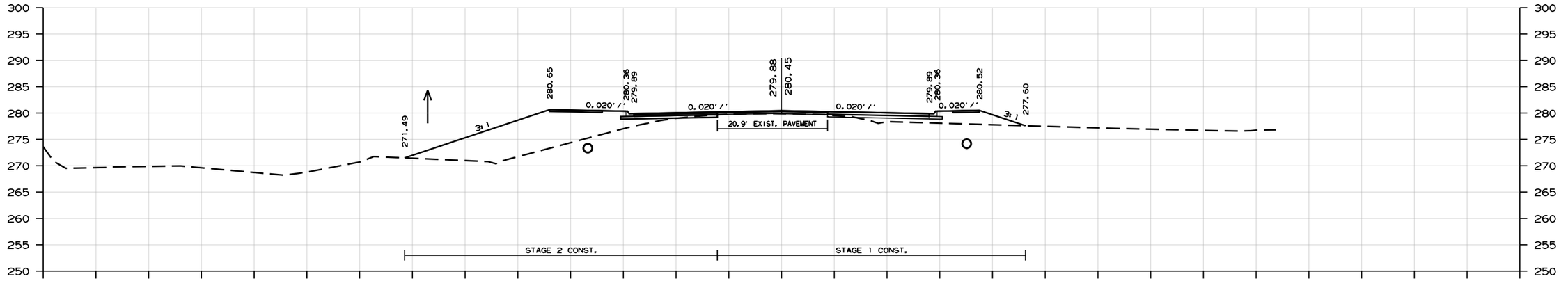


STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 3 SQ.FT.	CUT AREA: 4 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 3 CU.YD.	CUT VOLUME: 4 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 28 SQ.FT.	FILL AREA: 43 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 28 CU.YD.	FILL VOLUME: 34 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.

HWY. 1B - CROSS SECTION STA. 128+38 TO STA. 128+67

tholt 8/28/2025
100881-82-XS.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	89	121
		CROSS SECTIONS				



STAGE 1
CUT AREA: 1 SQ.FT.
FILL AREA: 39 SQ.FT.

STAGE 2
CUT AREA: 2 SQ.FT.
FILL AREA: 201 SQ.FT.

STAGE 3
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 4
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

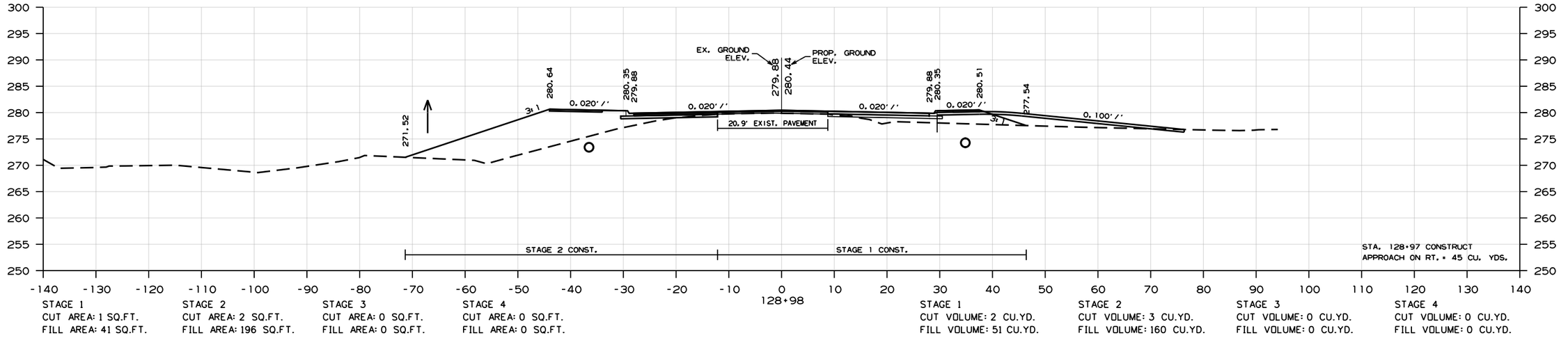
129+00

STAGE 1
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 3 CU.YD.

STAGE 2
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 15 CU.YD.

STAGE 3
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 4
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.



STAGE 1
CUT AREA: 1 SQ.FT.
FILL AREA: 41 SQ.FT.

STAGE 2
CUT AREA: 2 SQ.FT.
FILL AREA: 196 SQ.FT.

STAGE 3
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 4
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

128+98

STAGE 1
CUT VOLUME: 2 CU.YD.
FILL VOLUME: 51 CU.YD.

STAGE 2
CUT VOLUME: 3 CU.YD.
FILL VOLUME: 160 CU.YD.

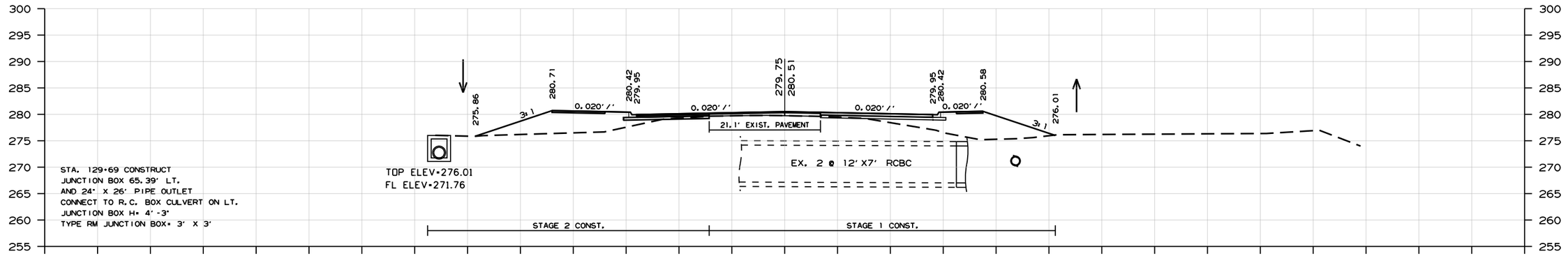
STAGE 3
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 4
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

HWY. 1B - CROSS SECTION STA. 128+98 TO STA. 129+00

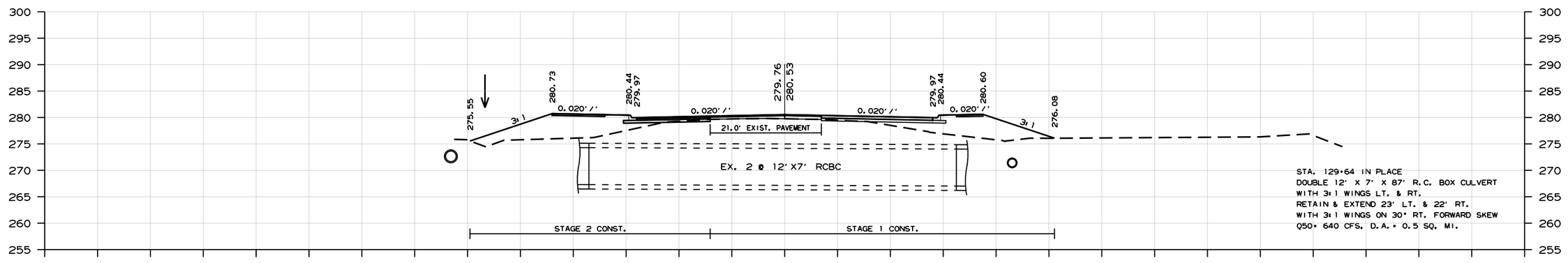
tholl 8/28/2025
100881-82-XS.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	90	121
		CROSS SECTIONS				



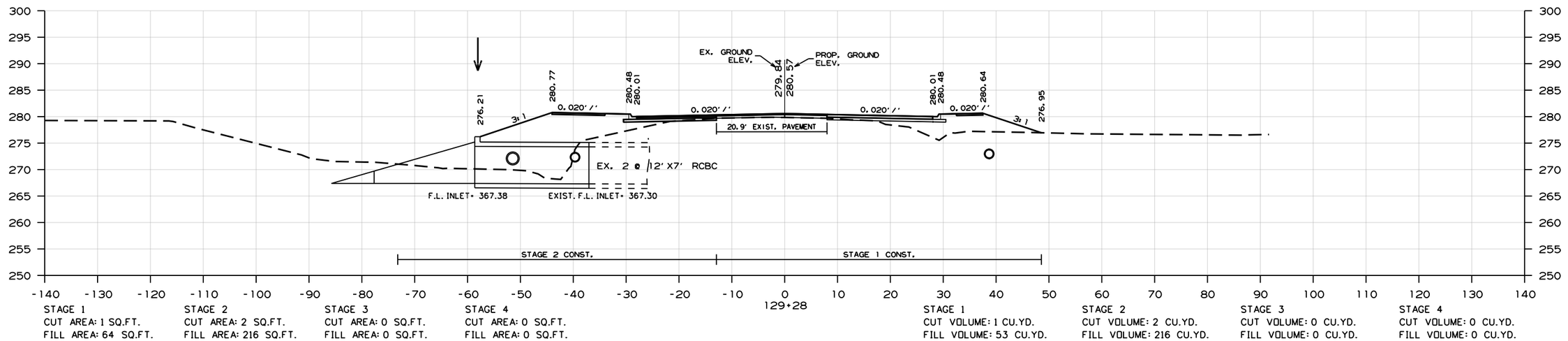
STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 1 SQ.FT.	CUT AREA: 2 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.
FILL AREA: 88 SQ.FT.	FILL AREA: 80 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.

STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL VOLUME: 15 CU.YD.	FILL VOLUME: 16 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.



STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 1 SQ.FT.	CUT AREA: 2 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.
FILL AREA: 77 SQ.FT.	FILL AREA: 94 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.

STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT VOLUME: 1 CU.YD.	CUT VOLUME: 3 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL VOLUME: 94 CU.YD.	FILL VOLUME: 207 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.



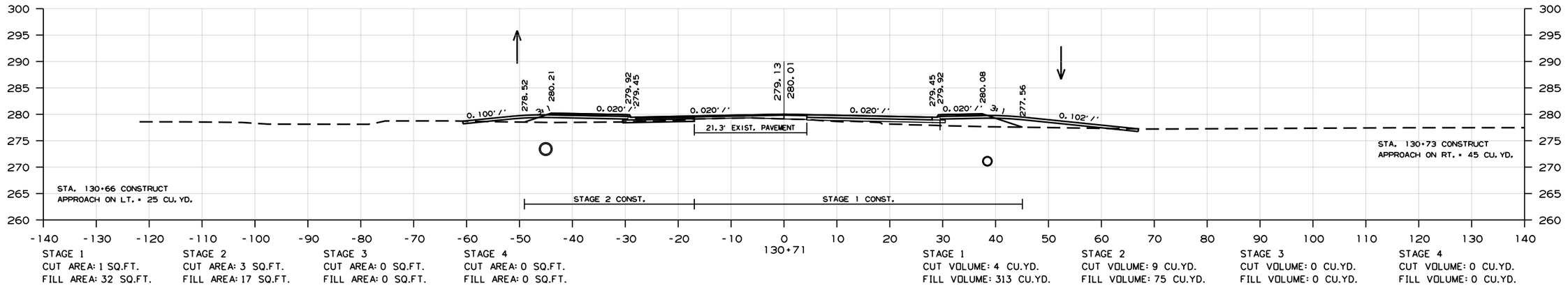
STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 1 SQ.FT.	CUT AREA: 2 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.
FILL AREA: 64 SQ.FT.	FILL AREA: 216 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.

STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT VOLUME: 1 CU.YD.	CUT VOLUME: 2 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL VOLUME: 53 CU.YD.	FILL VOLUME: 216 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.

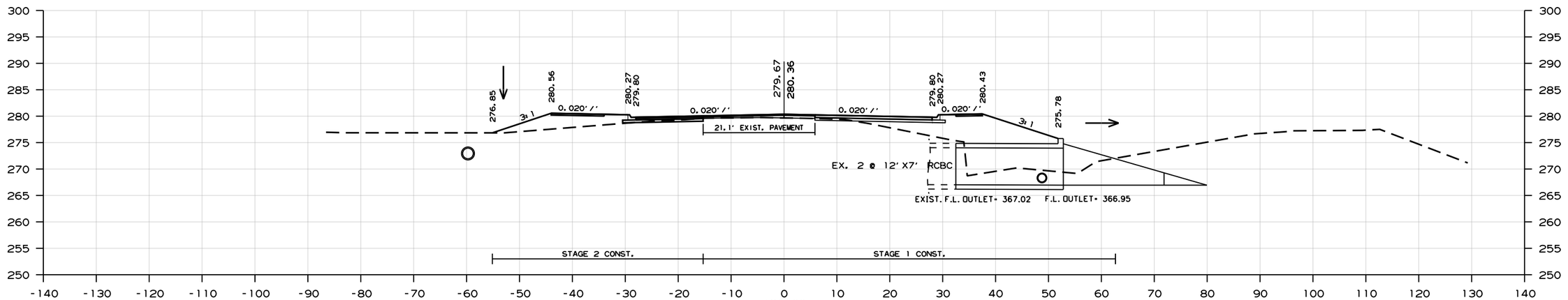
HWY. 1B - CROSS SECTION STA. 129+28 TO STA. 129+69

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100881-82-XS.SHT

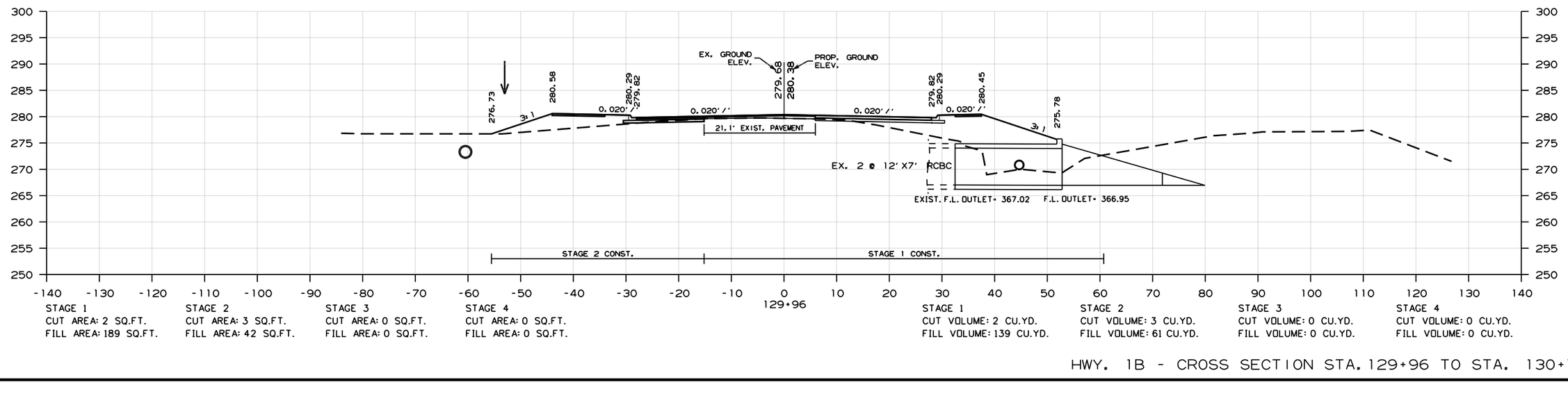
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	91	121
		CROSS SECTIONS				



STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 1 SQ.FT.	CUT AREA: 3 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 4 CU.YD.	CUT VOLUME: 9 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 32 SQ.FT.	FILL AREA: 17 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 313 CU.YD.	FILL VOLUME: 75 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.



STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 2 SQ.FT.	CUT AREA: 4 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 1 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 206 SQ.FT.	FILL AREA: 40 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 29 CU.YD.	FILL VOLUME: 6 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.

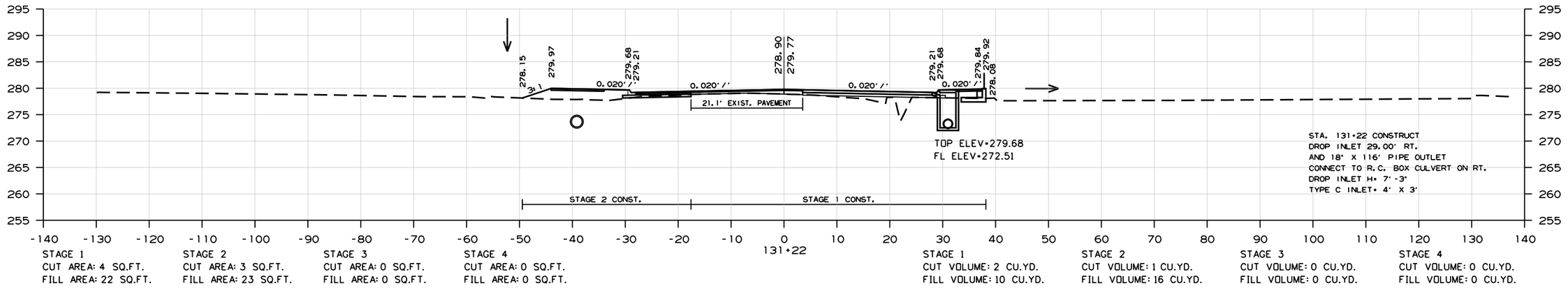


STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 2 SQ.FT.	CUT AREA: 3 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 2 CU.YD.	CUT VOLUME: 3 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 189 SQ.FT.	FILL AREA: 42 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 139 CU.YD.	FILL VOLUME: 61 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.

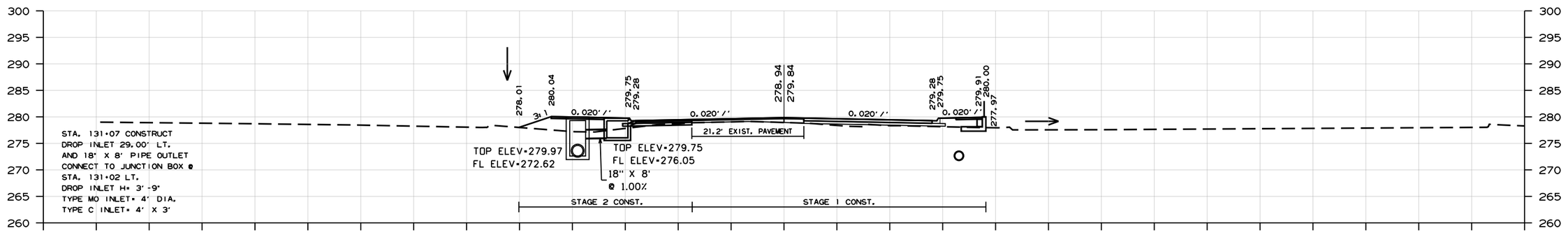
HWY. 1B - CROSS SECTION STA. 129+96 TO STA. 130+71

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100881-82-XS.SHT

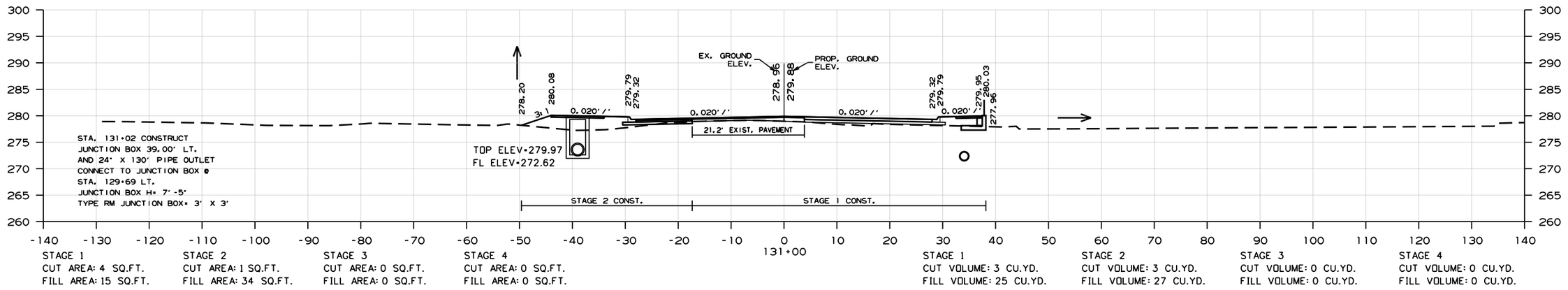
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	92	121
		CROSS SECTIONS				



STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 4 SQ.FT.	CUT AREA: 3 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 2 CU.YD.	CUT VOLUME: 1 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 22 SQ.FT.	FILL AREA: 23 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 10 CU.YD.	FILL VOLUME: 16 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.



STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 4 SQ.FT.	CUT AREA: 2 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 1 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 14 SQ.FT.	FILL AREA: 34 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 4 CU.YD.	FILL VOLUME: 9 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.

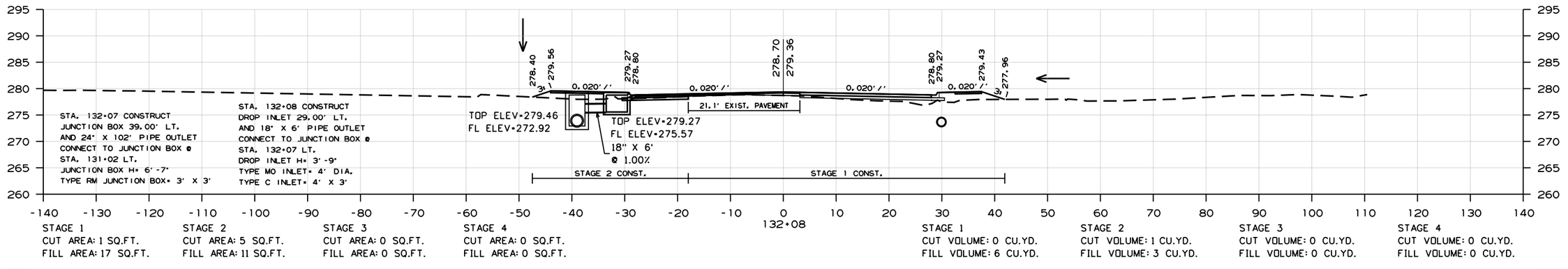


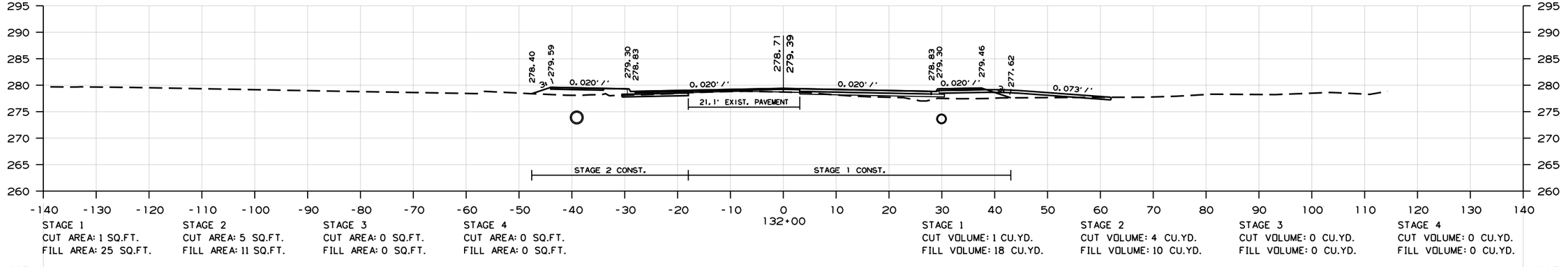
STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 4 SQ.FT.	CUT AREA: 1 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 3 CU.YD.	CUT VOLUME: 3 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 15 SQ.FT.	FILL AREA: 34 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 25 CU.YD.	FILL VOLUME: 27 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.

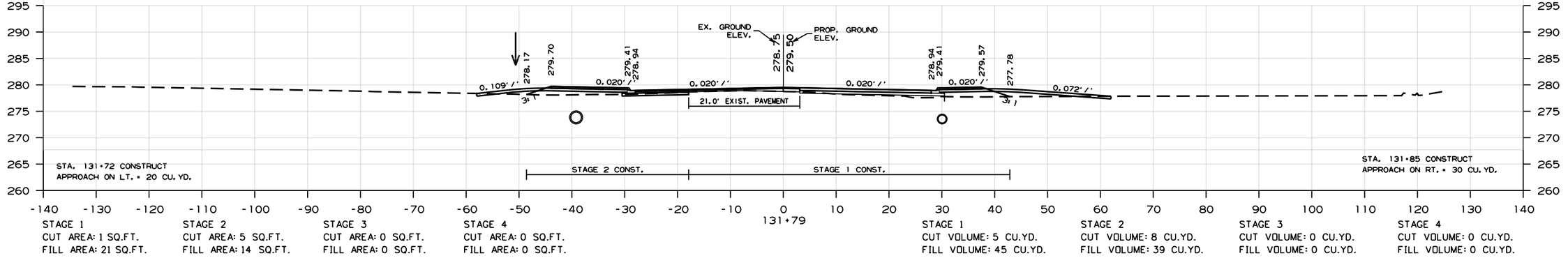
HWY. 1B - CROSS SECTION STA. 131+00 TO STA. 131+22

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	93	121
		CROSS SECTIONS				



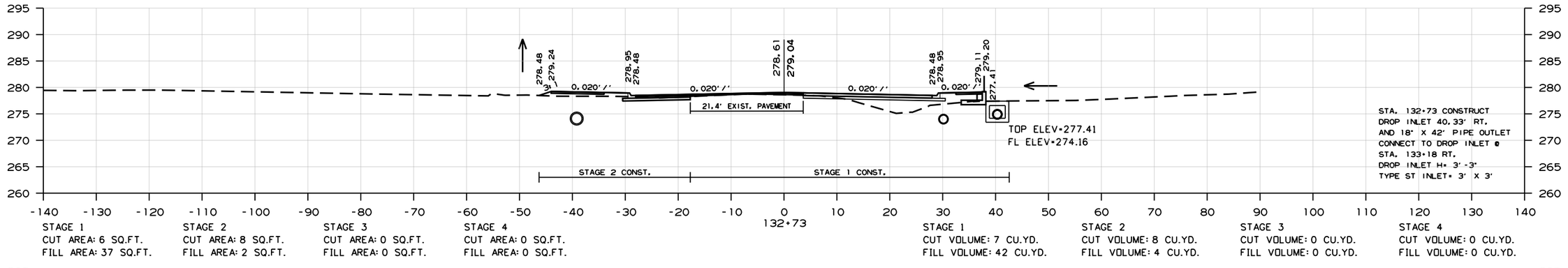




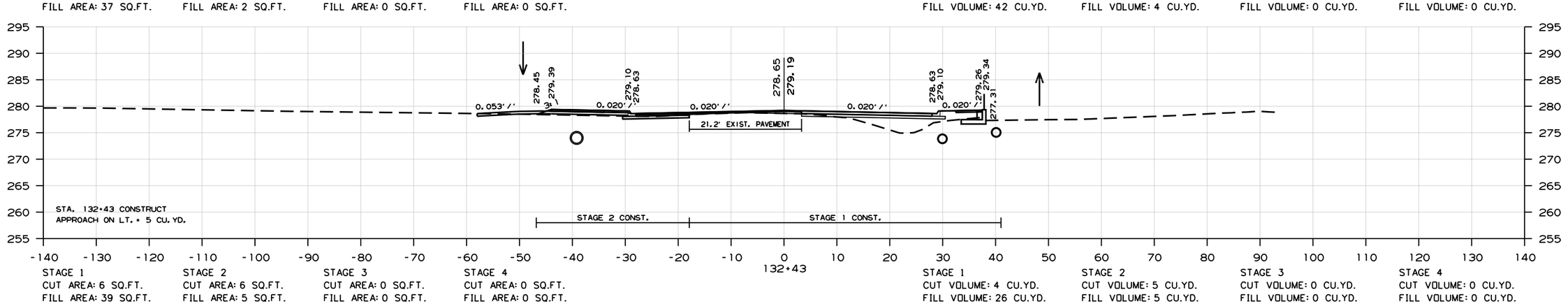
tholt 8/28/2025
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HWY. 1B - CROSS SECTION STA. 131+79 TO STA. 132+08

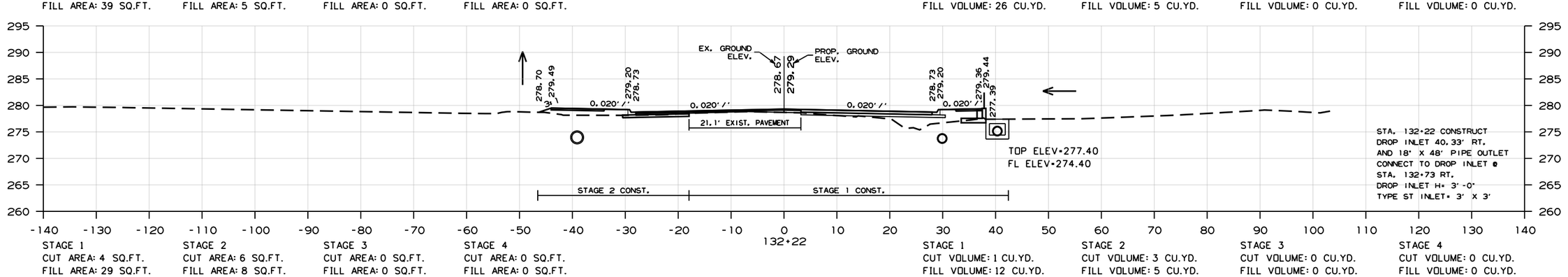
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	94	121
		CROSS SECTIONS				



STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 6 SQ.FT.	CUT AREA: 8 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 7 CU.YD.	CUT VOLUME: 8 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 37 SQ.FT.	FILL AREA: 2 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 42 CU.YD.	FILL VOLUME: 4 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.



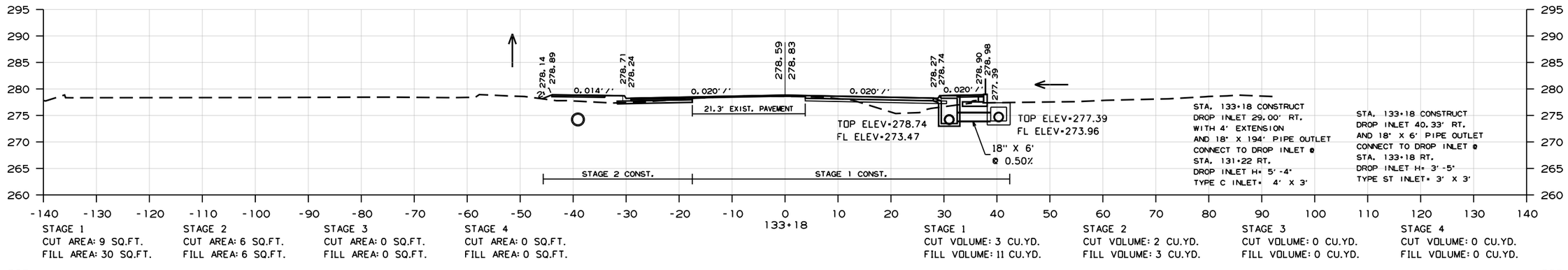
STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 6 SQ.FT.	CUT AREA: 6 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 4 CU.YD.	CUT VOLUME: 5 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 39 SQ.FT.	FILL AREA: 5 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 26 CU.YD.	FILL VOLUME: 5 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.



STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 4 SQ.FT.	CUT AREA: 6 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 1 CU.YD.	CUT VOLUME: 3 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 29 SQ.FT.	FILL AREA: 8 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 12 CU.YD.	FILL VOLUME: 5 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.

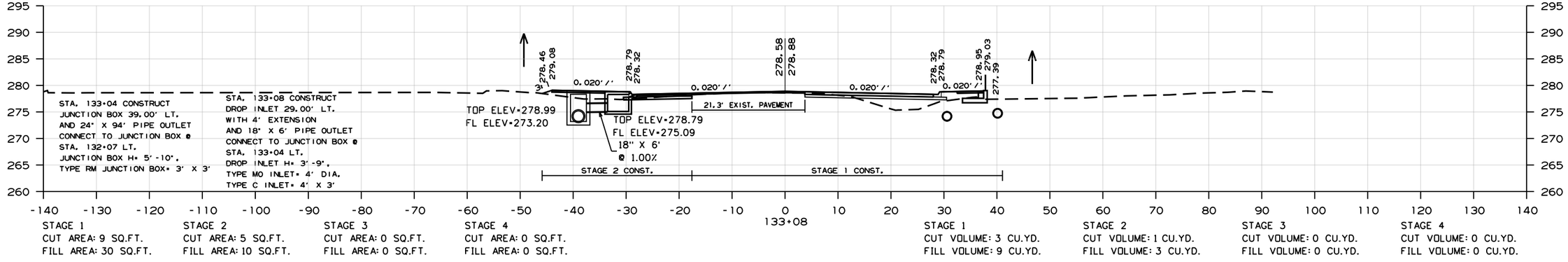
HWY. 1B - CROSS SECTION STA. 132+22 TO STA. 132+73

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	95	121
		CROSS SECTIONS				



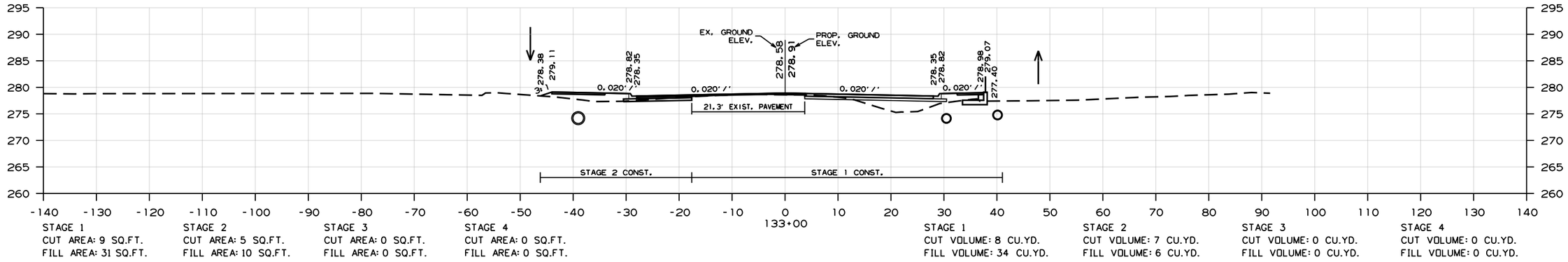
STAGE 1: CUT AREA: 9 SQ.FT. FILL AREA: 30 SQ.FT.
STAGE 2: CUT AREA: 6 SQ.FT. FILL AREA: 6 SQ.FT.
STAGE 3: CUT AREA: 0 SQ.FT. FILL AREA: 0 SQ.FT.
STAGE 4: CUT AREA: 0 SQ.FT. FILL AREA: 0 SQ.FT.

STAGE 1: CUT VOLUME: 3 CU.YD. FILL VOLUME: 11 CU.YD.
STAGE 2: CUT VOLUME: 2 CU.YD. FILL VOLUME: 3 CU.YD.
STAGE 3: CUT VOLUME: 0 CU.YD. FILL VOLUME: 0 CU.YD.
STAGE 4: CUT VOLUME: 0 CU.YD. FILL VOLUME: 0 CU.YD.



STAGE 1: CUT AREA: 9 SQ.FT. FILL AREA: 30 SQ.FT.
STAGE 2: CUT AREA: 5 SQ.FT. FILL AREA: 10 SQ.FT.
STAGE 3: CUT AREA: 0 SQ.FT. FILL AREA: 0 SQ.FT.
STAGE 4: CUT AREA: 0 SQ.FT. FILL AREA: 0 SQ.FT.

STAGE 1: CUT VOLUME: 3 CU.YD. FILL VOLUME: 9 CU.YD.
STAGE 2: CUT VOLUME: 1 CU.YD. FILL VOLUME: 3 CU.YD.
STAGE 3: CUT VOLUME: 0 CU.YD. FILL VOLUME: 0 CU.YD.
STAGE 4: CUT VOLUME: 0 CU.YD. FILL VOLUME: 0 CU.YD.



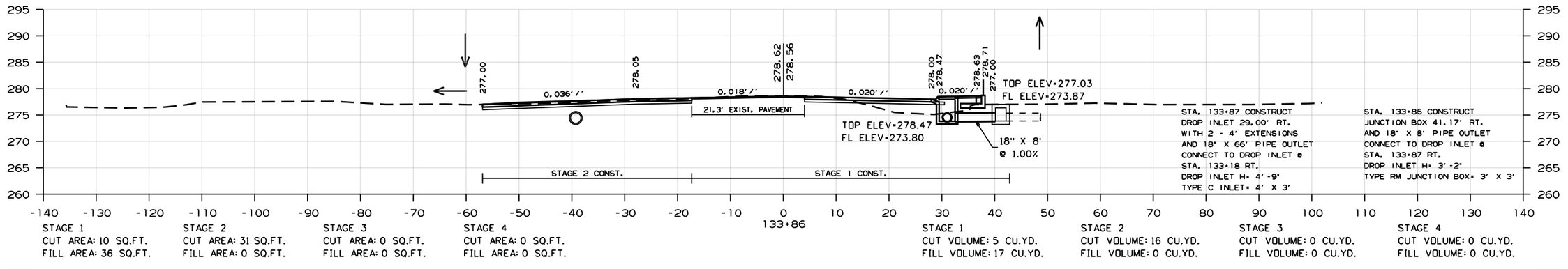
STAGE 1: CUT AREA: 9 SQ.FT. FILL AREA: 31 SQ.FT.
STAGE 2: CUT AREA: 5 SQ.FT. FILL AREA: 10 SQ.FT.
STAGE 3: CUT AREA: 0 SQ.FT. FILL AREA: 0 SQ.FT.
STAGE 4: CUT AREA: 0 SQ.FT. FILL AREA: 0 SQ.FT.

STAGE 1: CUT VOLUME: 8 CU.YD. FILL VOLUME: 34 CU.YD.
STAGE 2: CUT VOLUME: 7 CU.YD. FILL VOLUME: 6 CU.YD.
STAGE 3: CUT VOLUME: 0 CU.YD. FILL VOLUME: 0 CU.YD.
STAGE 4: CUT VOLUME: 0 CU.YD. FILL VOLUME: 0 CU.YD.

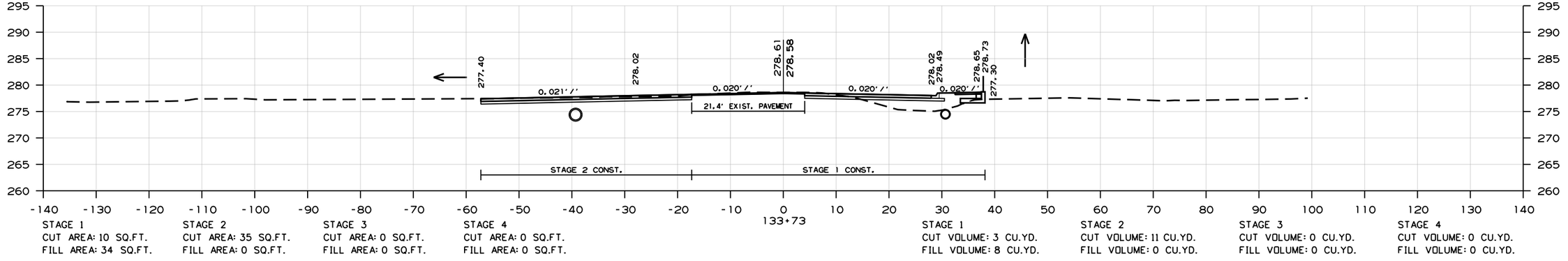
HWY. 1B - CROSS SECTION STA. 133+00 TO STA. 133+18

tholt 8/28/2025
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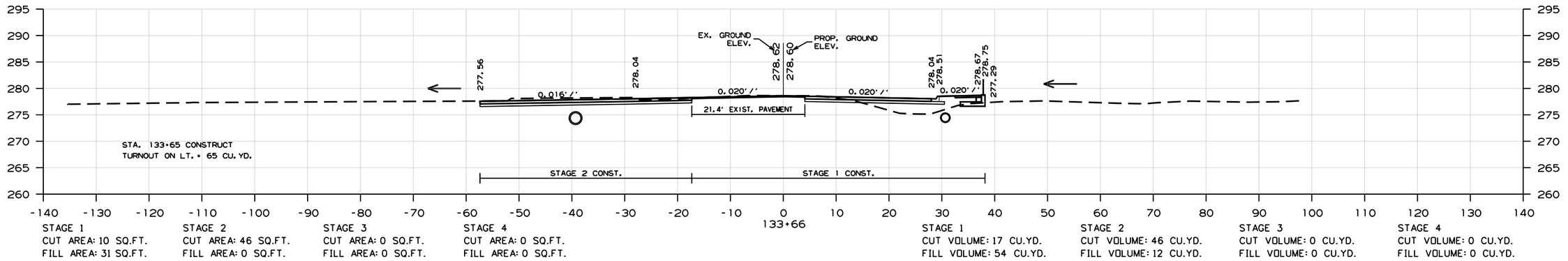
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	96	121
		CROSS SECTIONS				



STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 10 SQ.FT.	CUT AREA: 31 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 5 CU.YD.	CUT VOLUME: 16 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 36 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 17 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.



STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 10 SQ.FT.	CUT AREA: 35 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 3 CU.YD.	CUT VOLUME: 11 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 34 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 8 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.

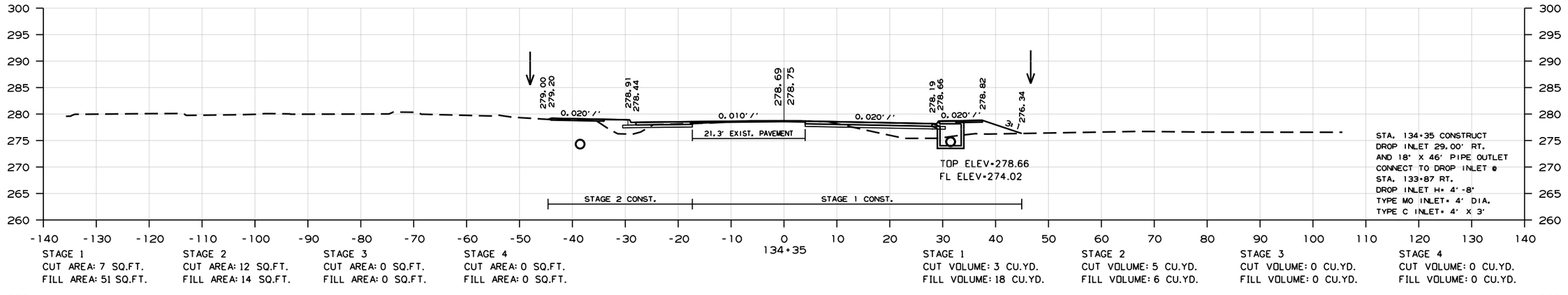


STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 10 SQ.FT.	CUT AREA: 46 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 17 CU.YD.	CUT VOLUME: 46 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 31 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 54 CU.YD.	FILL VOLUME: 12 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.

HWY. 1B - CROSS SECTION STA. 133+66 TO STA. 133+86

tholt 8/28/2025
100881-82-XS.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	97	121
		CROSS SECTIONS				



STAGE 1
CUT AREA: 7 SQ.FT.
FILL AREA: 51 SQ.FT.

STAGE 2
CUT AREA: 12 SQ.FT.
FILL AREA: 14 SQ.FT.

STAGE 3
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

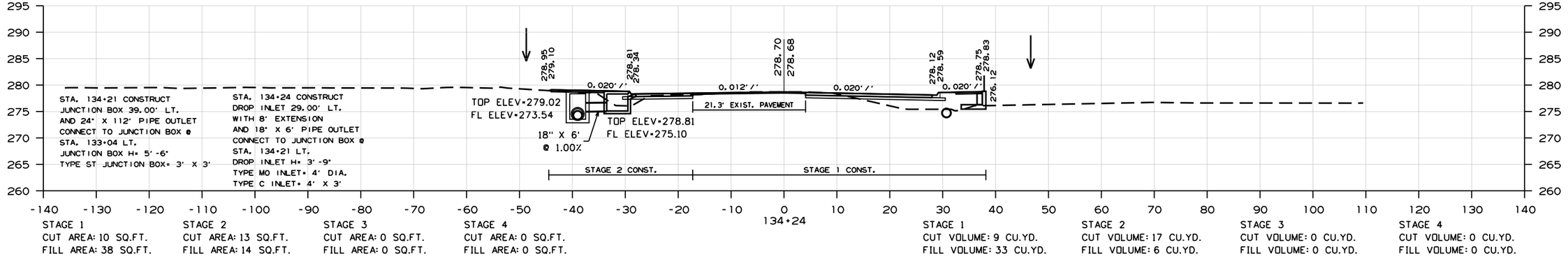
STAGE 4
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 1
CUT VOLUME: 3 CU.YD.
FILL VOLUME: 18 CU.YD.

STAGE 2
CUT VOLUME: 5 CU.YD.
FILL VOLUME: 6 CU.YD.

STAGE 3
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 4
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.



STAGE 1
CUT AREA: 10 SQ.FT.
FILL AREA: 38 SQ.FT.

STAGE 2
CUT AREA: 13 SQ.FT.
FILL AREA: 14 SQ.FT.

STAGE 3
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

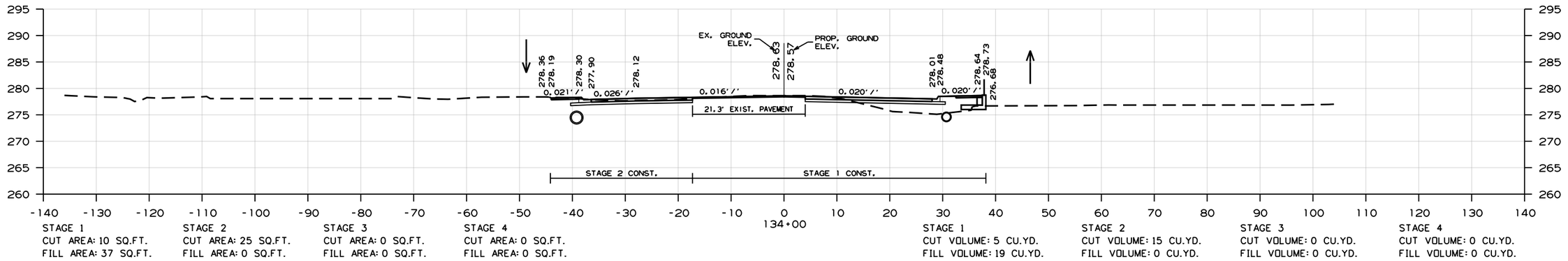
STAGE 4
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 1
CUT VOLUME: 9 CU.YD.
FILL VOLUME: 33 CU.YD.

STAGE 2
CUT VOLUME: 17 CU.YD.
FILL VOLUME: 6 CU.YD.

STAGE 3
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 4
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.



STAGE 1
CUT AREA: 10 SQ.FT.
FILL AREA: 37 SQ.FT.

STAGE 2
CUT AREA: 25 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 3
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 4
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 1
CUT VOLUME: 5 CU.YD.
FILL VOLUME: 19 CU.YD.

STAGE 2
CUT VOLUME: 15 CU.YD.
FILL VOLUME: 0 CU.YD.

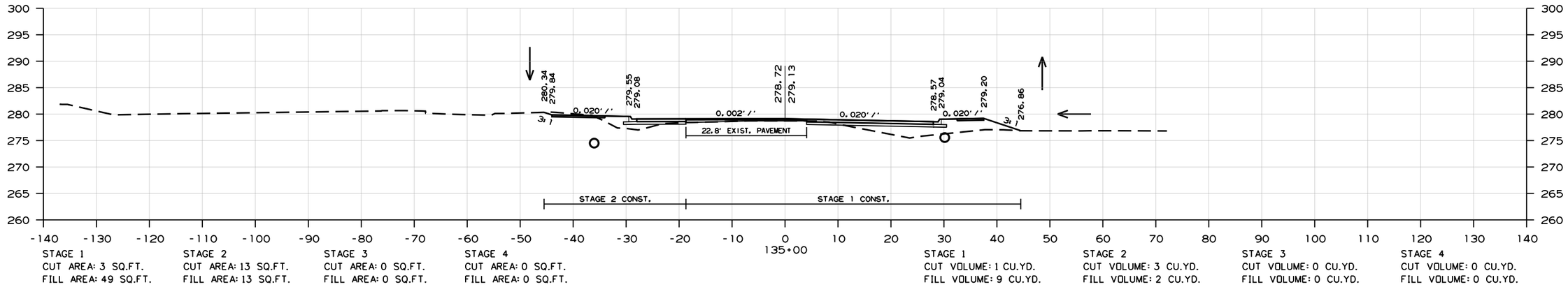
STAGE 3
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 4
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

HWY. 1B - CROSS SECTION STA. 134+00 TO STA. 134+35

tholt 8/28/2025
100881-82-XS.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	98	121
		CROSS SECTIONS				



STAGE 1
CUT AREA: 3 SQ.FT.
FILL AREA: 49 SQ.FT.

STAGE 2
CUT AREA: 13 SQ.FT.
FILL AREA: 13 SQ.FT.

STAGE 3
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

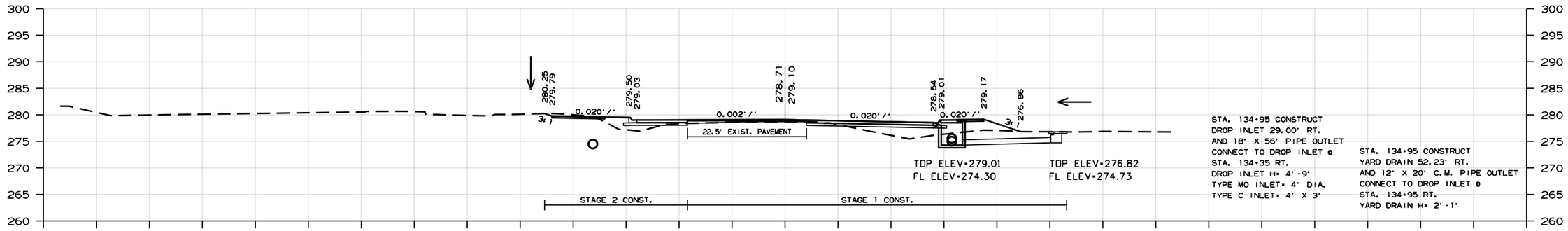
STAGE 4
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 1
CUT VOLUME: 1 CU.YD.
FILL VOLUME: 9 CU.YD.

STAGE 2
CUT VOLUME: 3 CU.YD.
FILL VOLUME: 2 CU.YD.

STAGE 3
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 4
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.



STAGE 1
CUT AREA: 4 SQ.FT.
FILL AREA: 47 SQ.FT.

STAGE 2
CUT AREA: 14 SQ.FT.
FILL AREA: 13 SQ.FT.

STAGE 3
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

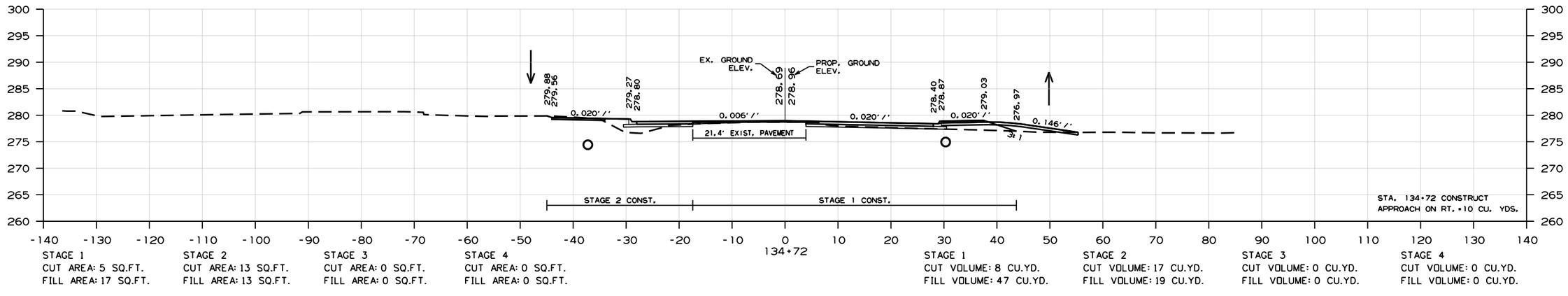
STAGE 4
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 1
CUT VOLUME: 4 CU.YD.
FILL VOLUME: 27 CU.YD.

STAGE 2
CUT VOLUME: 12 CU.YD.
FILL VOLUME: 11 CU.YD.

STAGE 3
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 4
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.



STAGE 1
CUT AREA: 5 SQ.FT.
FILL AREA: 17 SQ.FT.

STAGE 2
CUT AREA: 13 SQ.FT.
FILL AREA: 13 SQ.FT.

STAGE 3
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 4
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 1
CUT VOLUME: 8 CU.YD.
FILL VOLUME: 47 CU.YD.

STAGE 2
CUT VOLUME: 17 CU.YD.
FILL VOLUME: 19 CU.YD.

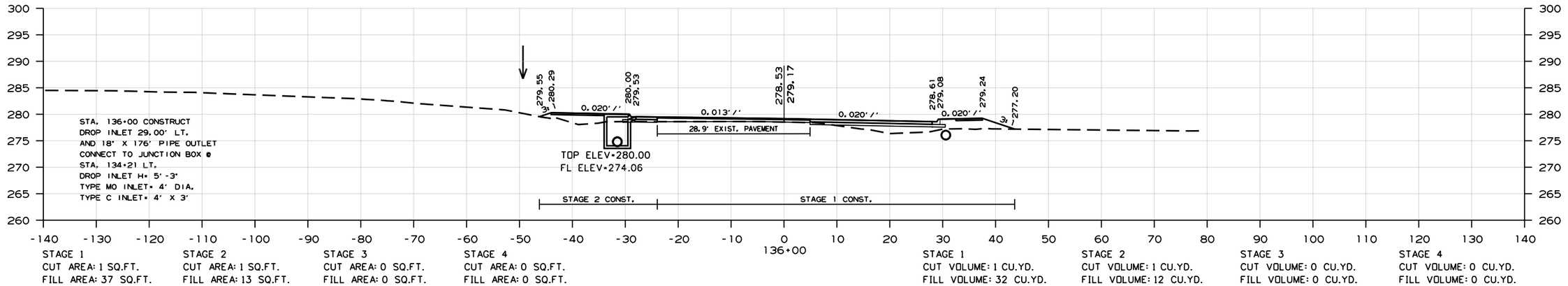
STAGE 3
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 4
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

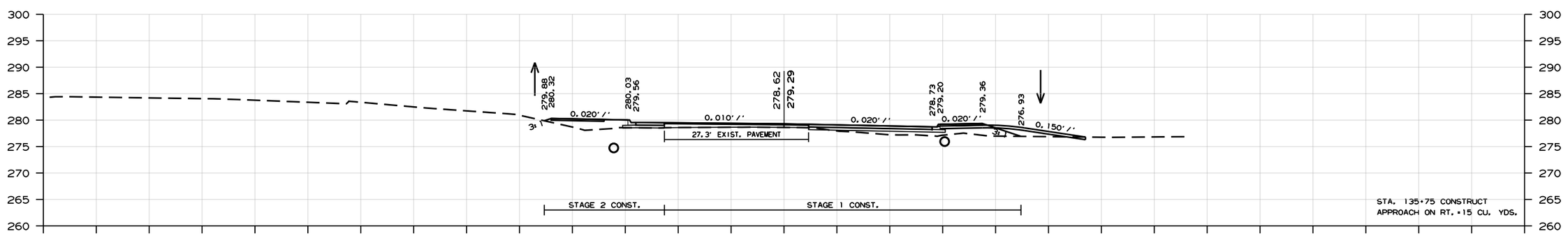
HWY. 1B - CROSS SECTION STA. 134+72 TO STA. 135+00

tholl 8/28/2025
100881-82-XS.SHT

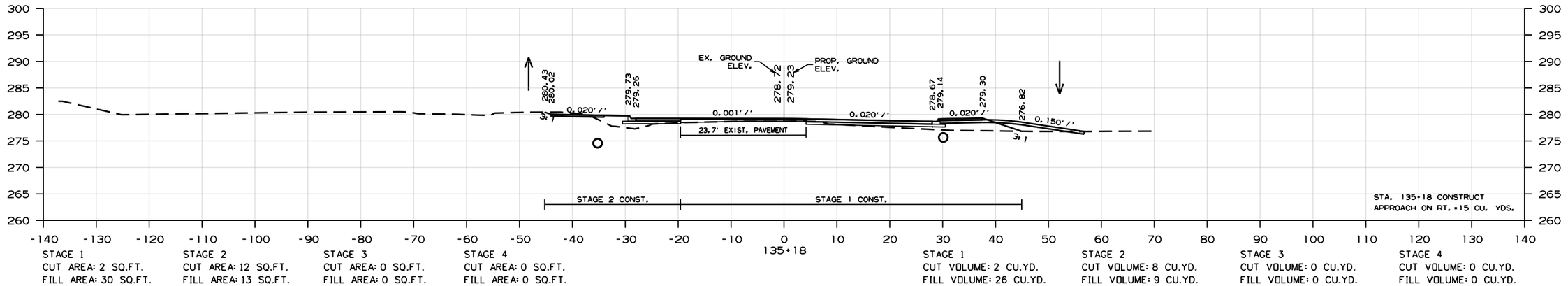
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	99	121
		CROSS SECTIONS				



STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 1 SQ.FT.	CUT AREA: 1 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 1 CU.YD.	CUT VOLUME: 1 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 37 SQ.FT.	FILL AREA: 13 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 32 CU.YD.	FILL VOLUME: 12 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.



STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 1 SQ.FT.	CUT AREA: 1 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 3 CU.YD.	CUT VOLUME: 6 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 32 SQ.FT.	FILL AREA: 13 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 65 CU.YD.	FILL VOLUME: 27 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.

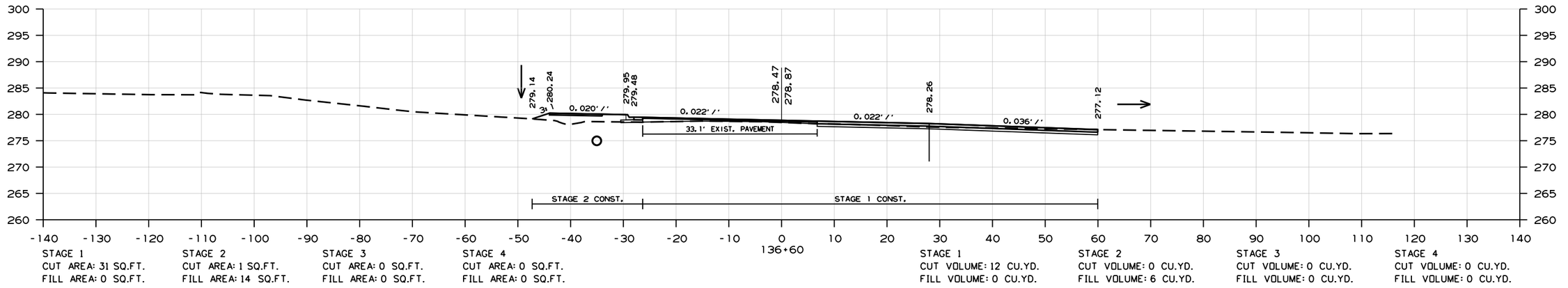


STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 2 SQ.FT.	CUT AREA: 12 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 2 CU.YD.	CUT VOLUME: 8 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 30 SQ.FT.	FILL AREA: 13 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 26 CU.YD.	FILL VOLUME: 9 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.

HWY. 1B - CROSS SECTION STA. 135+18 TO STA. 136+00

tholt 8/28/2025
100881-82-XS.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	100	121
		CROSS SECTIONS				



STAGE 1
CUT AREA: 31 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 2
CUT AREA: 1 SQ.FT.
FILL AREA: 14 SQ.FT.

STAGE 3
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 4
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

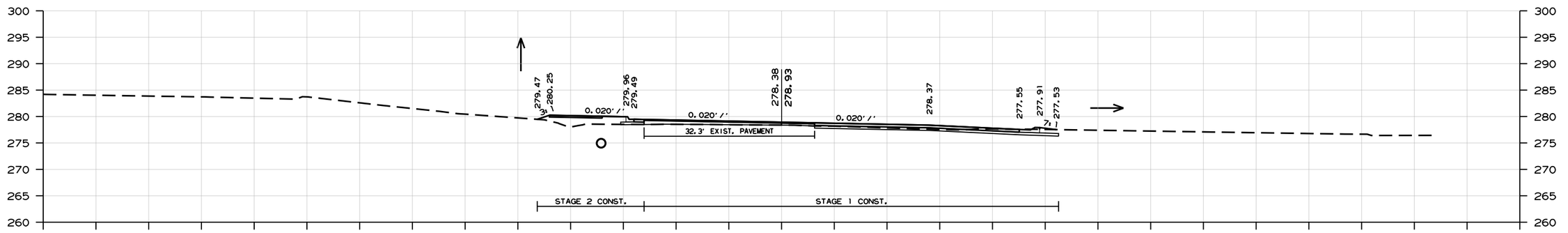
136+60

STAGE 1
CUT VOLUME: 12 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 2
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 6 CU.YD.

STAGE 3
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 4
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.



STAGE 1
CUT AREA: 24 SQ.FT.
FILL AREA: 1 SQ.FT.

STAGE 2
CUT AREA: 1 SQ.FT.
FILL AREA: 14 SQ.FT.

STAGE 3
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 4
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

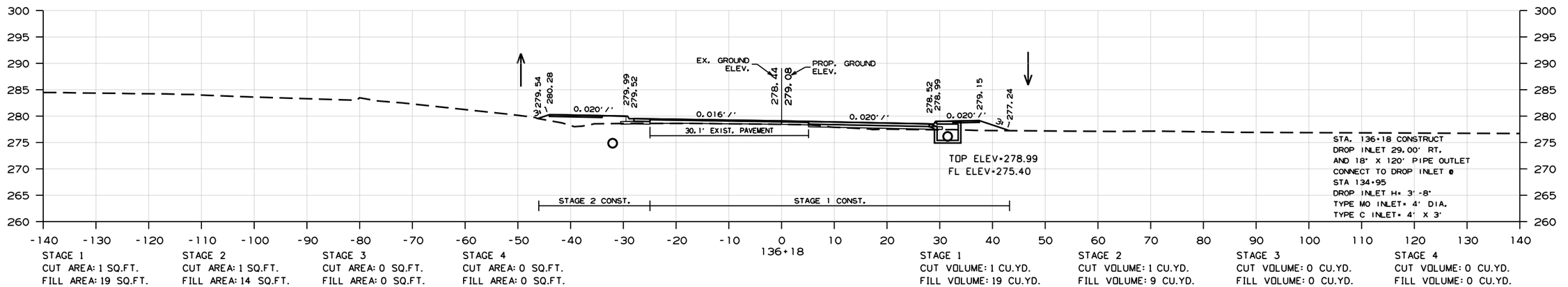
136+48

STAGE 1
CUT VOLUME: 14 CU.YD.
FILL VOLUME: 11 CU.YD.

STAGE 2
CUT VOLUME: 1 CU.YD.
FILL VOLUME: 16 CU.YD.

STAGE 3
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 4
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.



STAGE 1
CUT AREA: 1 SQ.FT.
FILL AREA: 19 SQ.FT.

STAGE 2
CUT AREA: 1 SQ.FT.
FILL AREA: 14 SQ.FT.

STAGE 3
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 4
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

136+18

STAGE 1
CUT VOLUME: 1 CU.YD.
FILL VOLUME: 19 CU.YD.

STAGE 2
CUT VOLUME: 1 CU.YD.
FILL VOLUME: 9 CU.YD.

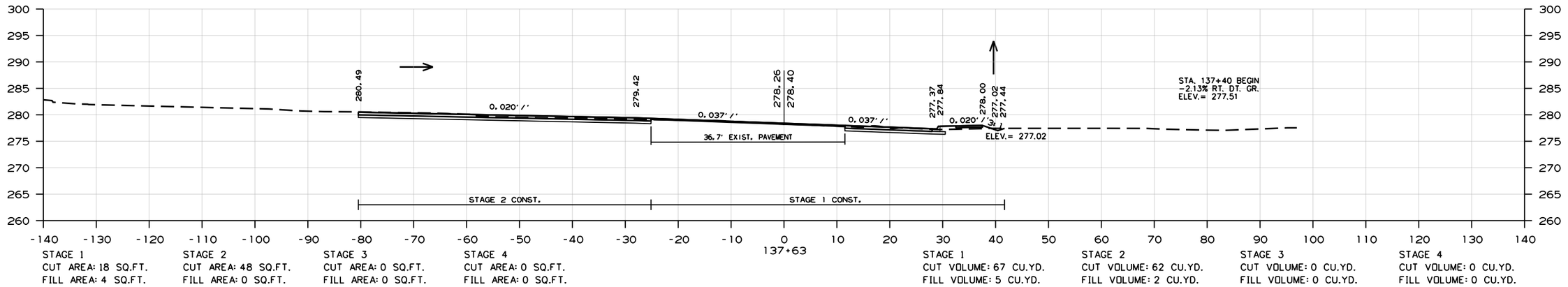
STAGE 3
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 4
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

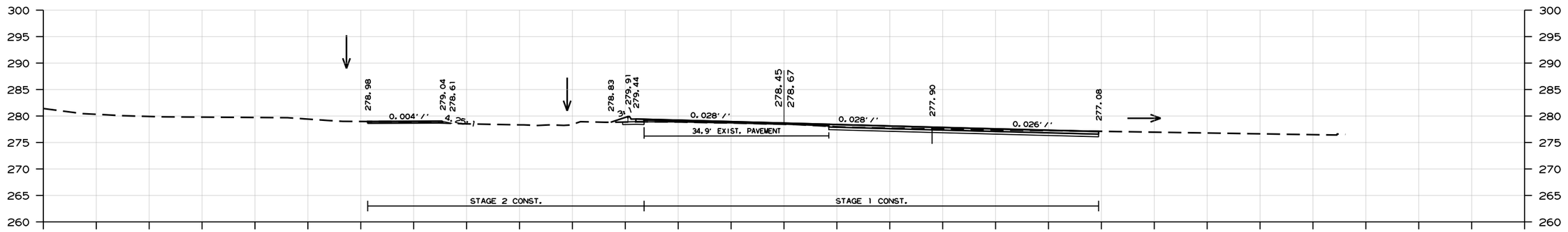
HWY. 1B - CROSS SECTION STA. 136+18 TO STA. 136+60

tholt 8/28/2025
100881-82-XS.SHT

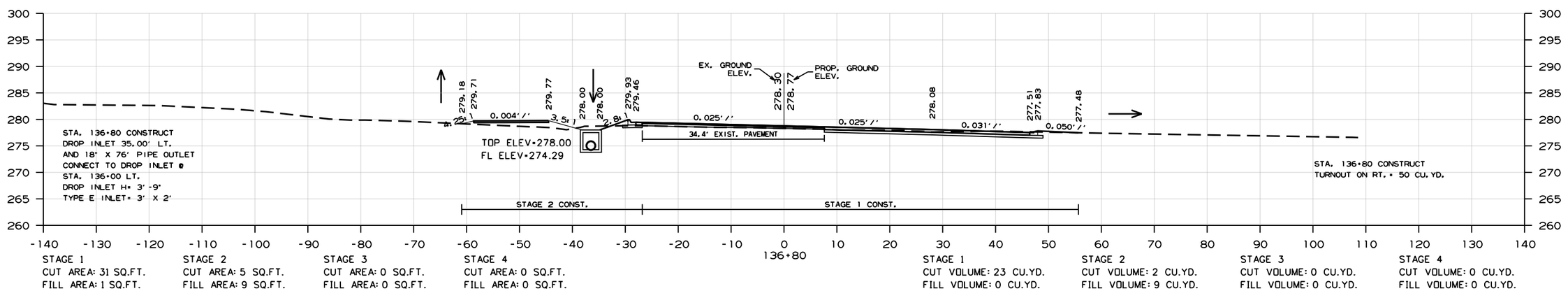
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	101	121
		CROSS SECTIONS				



STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 18 SQ.FT.	CUT AREA: 48 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 67 CU.YD.	CUT VOLUME: 62 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 4 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 5 CU.YD.	FILL VOLUME: 2 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.



STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 39 SQ.FT.	CUT AREA: 12 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 26 CU.YD.	CUT VOLUME: 6 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 0 SQ.FT.	FILL AREA: 2 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 7 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.

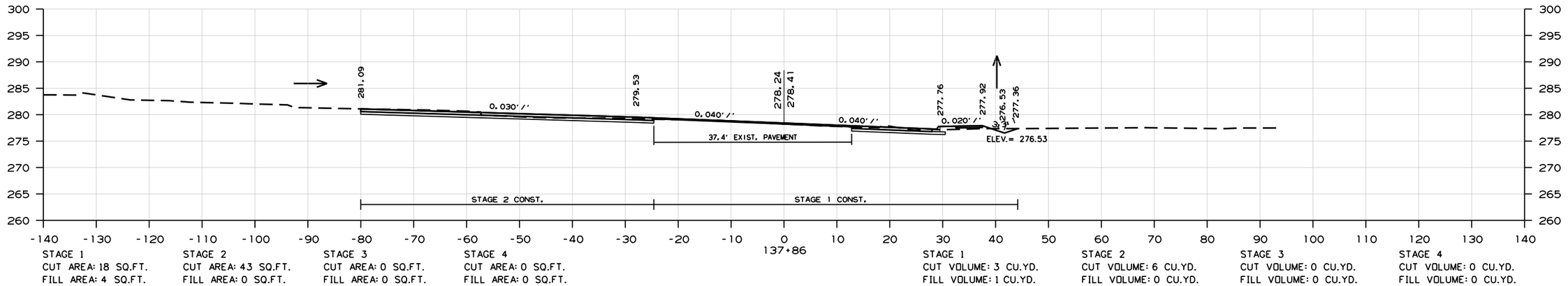


STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 31 SQ.FT.	CUT AREA: 5 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 23 CU.YD.	CUT VOLUME: 2 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 1 SQ.FT.	FILL AREA: 9 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 9 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.

HWY. 1B - CROSS SECTION STA. 136+80 TO STA. 137+63

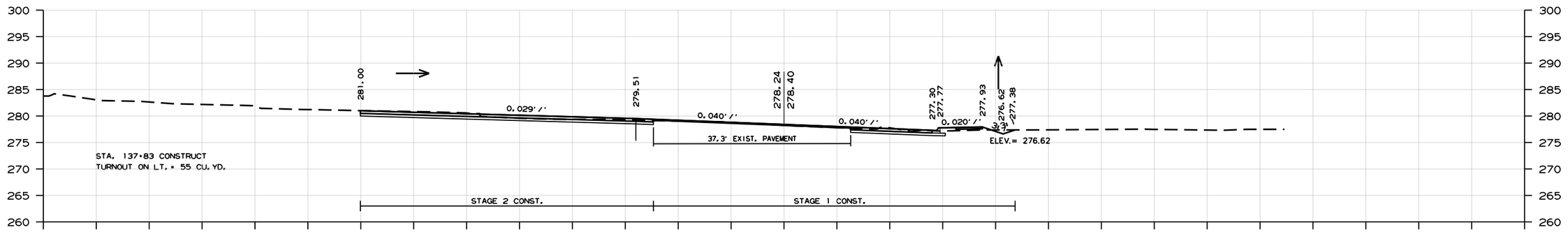
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	102	121
		CROSS SECTIONS				



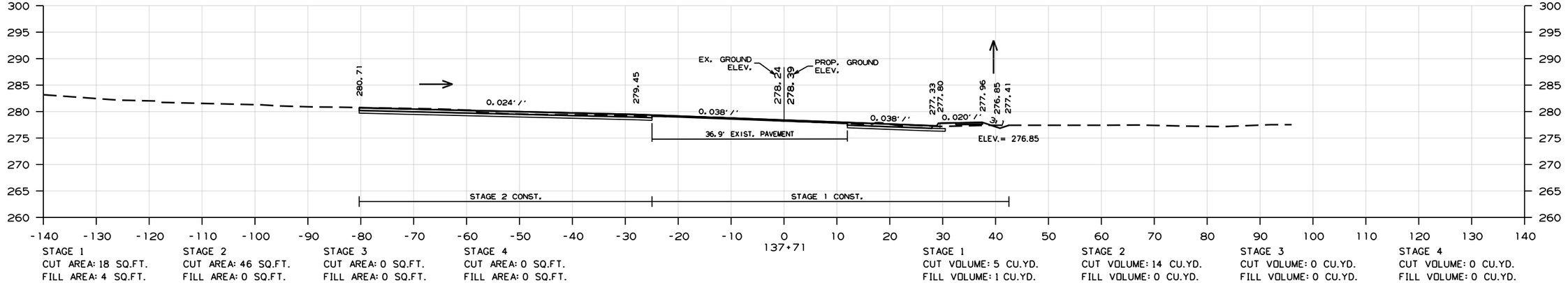
STAGE 1 CUT AREA: 18 SQ.FT. FILL AREA: 4 SQ.FT.
STAGE 2 CUT AREA: 43 SQ.FT. FILL AREA: 0 SQ.FT.
STAGE 3 CUT AREA: 0 SQ.FT. FILL AREA: 0 SQ.FT.
STAGE 4 CUT AREA: 0 SQ.FT. FILL AREA: 0 SQ.FT.

STAGE 1 CUT VOLUME: 3 CU.YD. FILL VOLUME: 1 CU.YD.
STAGE 2 CUT VOLUME: 6 CU.YD. FILL VOLUME: 0 CU.YD.
STAGE 3 CUT VOLUME: 0 CU.YD. FILL VOLUME: 0 CU.YD.
STAGE 4 CUT VOLUME: 0 CU.YD. FILL VOLUME: 0 CU.YD.



STAGE 1 CUT AREA: 18 SQ.FT. FILL AREA: 4 SQ.FT.
STAGE 2 CUT AREA: 44 SQ.FT. FILL AREA: 0 SQ.FT.
STAGE 3 CUT AREA: 0 SQ.FT. FILL AREA: 0 SQ.FT.
STAGE 4 CUT AREA: 0 SQ.FT. FILL AREA: 0 SQ.FT.

STAGE 1 CUT VOLUME: 7 CU.YD. FILL VOLUME: 2 CU.YD.
STAGE 2 CUT VOLUME: 18 CU.YD. FILL VOLUME: 0 CU.YD.
STAGE 3 CUT VOLUME: 0 CU.YD. FILL VOLUME: 0 CU.YD.
STAGE 4 CUT VOLUME: 0 CU.YD. FILL VOLUME: 0 CU.YD.



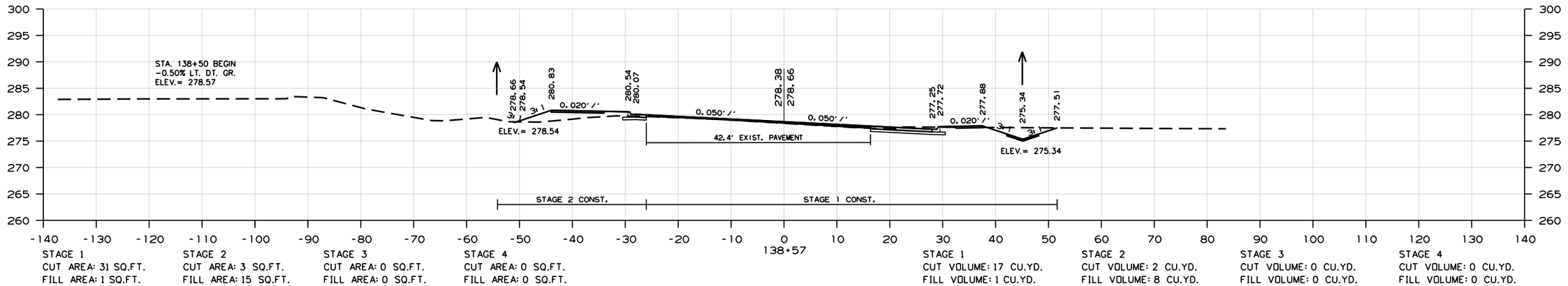
STAGE 1 CUT AREA: 18 SQ.FT. FILL AREA: 4 SQ.FT.
STAGE 2 CUT AREA: 46 SQ.FT. FILL AREA: 0 SQ.FT.
STAGE 3 CUT AREA: 0 SQ.FT. FILL AREA: 0 SQ.FT.
STAGE 4 CUT AREA: 0 SQ.FT. FILL AREA: 0 SQ.FT.

STAGE 1 CUT VOLUME: 5 CU.YD. FILL VOLUME: 1 CU.YD.
STAGE 2 CUT VOLUME: 14 CU.YD. FILL VOLUME: 0 CU.YD.
STAGE 3 CUT VOLUME: 0 CU.YD. FILL VOLUME: 0 CU.YD.
STAGE 4 CUT VOLUME: 0 CU.YD. FILL VOLUME: 0 CU.YD.

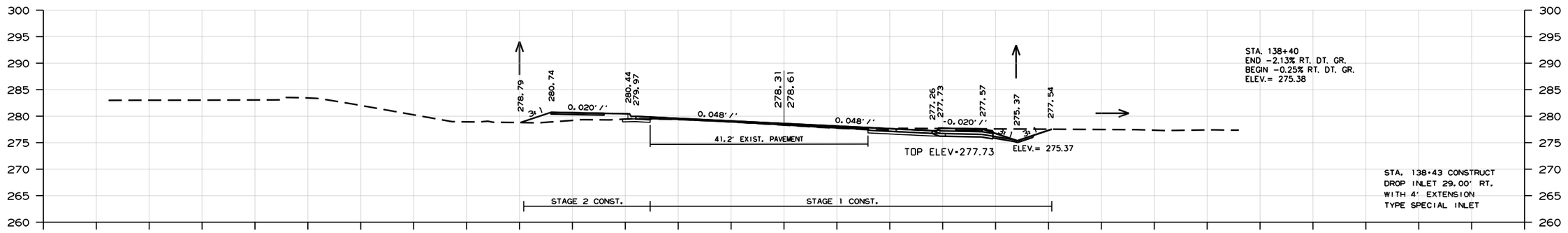
HWY. 1B - CROSS SECTION STA. 137+71 TO STA. 137+86

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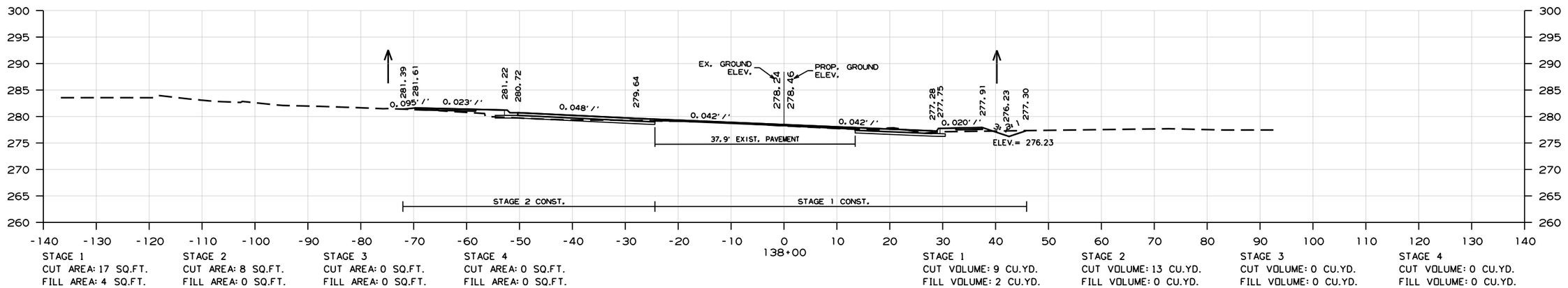
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	103	121
		CROSS SECTIONS				



STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 31 SQ.FT.	CUT AREA: 3 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 17 CU.YD.	CUT VOLUME: 2 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 1 SQ.FT.	FILL AREA: 15 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 1 CU.YD.	FILL VOLUME: 8 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.



STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 33 SQ.FT.	CUT AREA: 3 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 40 CU.YD.	CUT VOLUME: 9 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 1 SQ.FT.	FILL AREA: 15 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 4 CU.YD.	FILL VOLUME: 12 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.

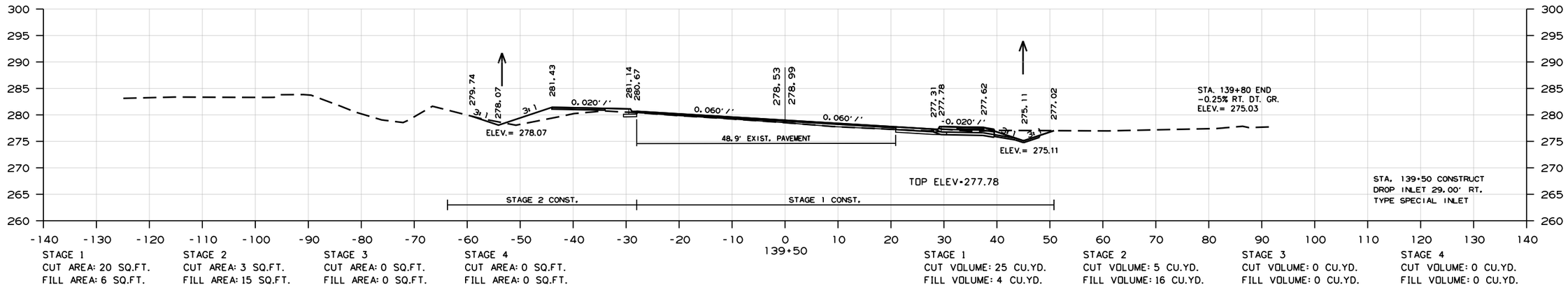


STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 17 SQ.FT.	CUT AREA: 8 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 9 CU.YD.	CUT VOLUME: 13 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 4 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 2 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.

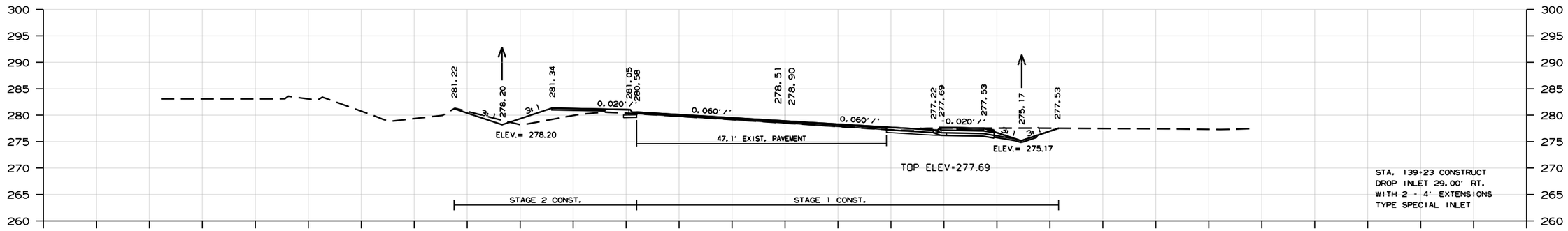
HWY. 1B - CROSS SECTION STA. 138+00 TO STA. 138+57

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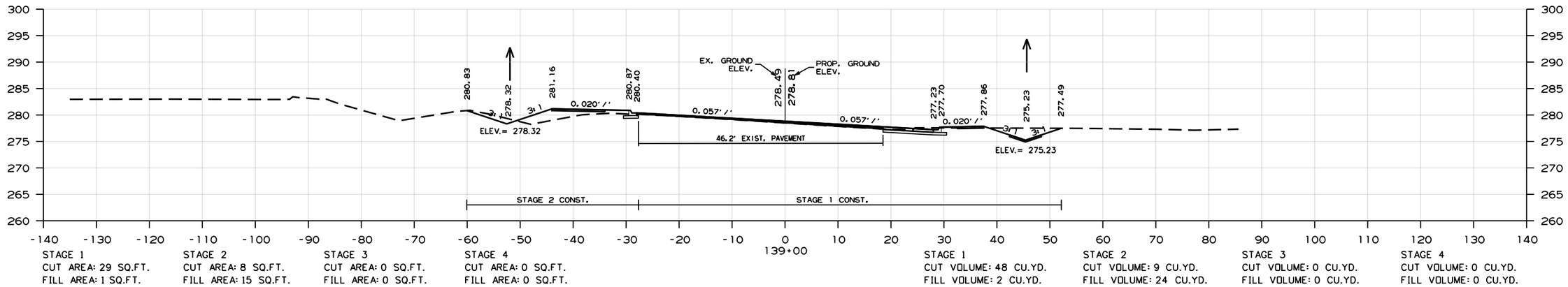
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	104	121
		CROSS SECTIONS				



STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 20 SQ.FT.	CUT AREA: 3 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 25 CU.YD.	CUT VOLUME: 5 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 6 SQ.FT.	FILL AREA: 15 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 4 CU.YD.	FILL VOLUME: 16 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.



STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 30 SQ.FT.	CUT AREA: 7 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 25 CU.YD.	CUT VOLUME: 6 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 1 SQ.FT.	FILL AREA: 16 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 1 CU.YD.	FILL VOLUME: 13 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.

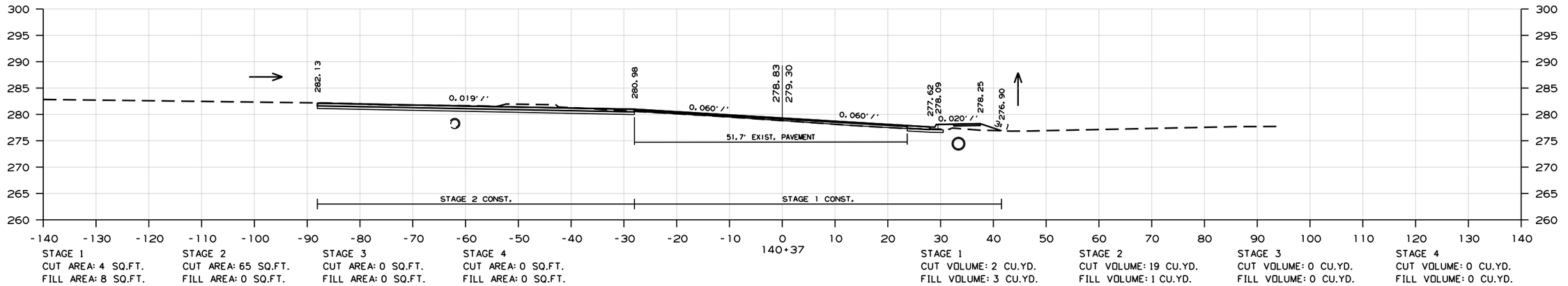


STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 29 SQ.FT.	CUT AREA: 8 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 48 CU.YD.	CUT VOLUME: 9 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 1 SQ.FT.	FILL AREA: 15 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 2 CU.YD.	FILL VOLUME: 24 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.

HWY. 1B - CROSS SECTION STA. 139+00 TO STA. 139+50

tholl 8/28/2025
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	105	121
		CROSS SECTIONS				



STAGE 1
CUT AREA: 4 SQ.FT.
FILL AREA: 8 SQ.FT.

STAGE 2
CUT AREA: 65 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 3
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

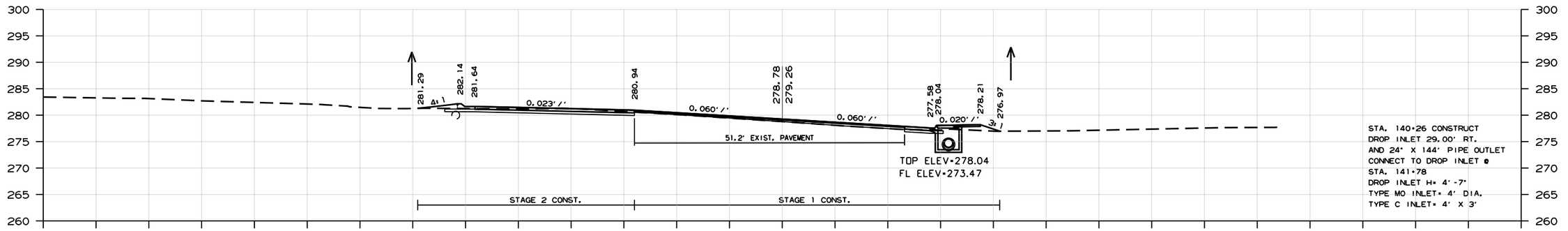
STAGE 4
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 1
CUT VOLUME: 2 CU.YD.
FILL VOLUME: 3 CU.YD.

STAGE 2
CUT VOLUME: 19 CU.YD.
FILL VOLUME: 1 CU.YD.

STAGE 3
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 4
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.



STAGE 1
CUT AREA: 4 SQ.FT.
FILL AREA: 7 SQ.FT.

STAGE 2
CUT AREA: 28 SQ.FT.
FILL AREA: 3 SQ.FT.

STAGE 3
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

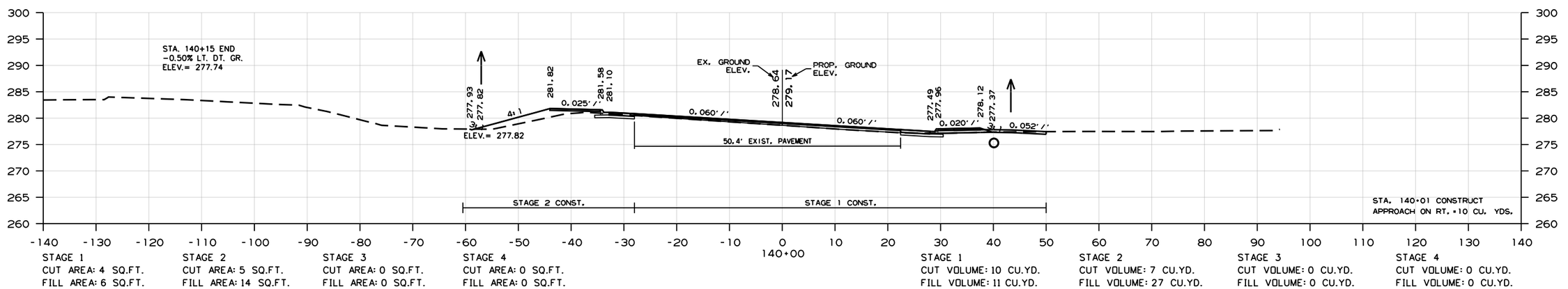
STAGE 4
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 1
CUT VOLUME: 4 CU.YD.
FILL VOLUME: 6 CU.YD.

STAGE 2
CUT VOLUME: 16 CU.YD.
FILL VOLUME: 2 CU.YD.

STAGE 3
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 4
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.



STAGE 1
CUT AREA: 4 SQ.FT.
FILL AREA: 6 SQ.FT.

STAGE 2
CUT AREA: 5 SQ.FT.
FILL AREA: 14 SQ.FT.

STAGE 3
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 4
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 1
CUT VOLUME: 10 CU.YD.
FILL VOLUME: 11 CU.YD.

STAGE 2
CUT VOLUME: 7 CU.YD.
FILL VOLUME: 27 CU.YD.

STAGE 3
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 4
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

HWY. 1B - CROSS SECTION STA. 140+00 TO STA. 140+37

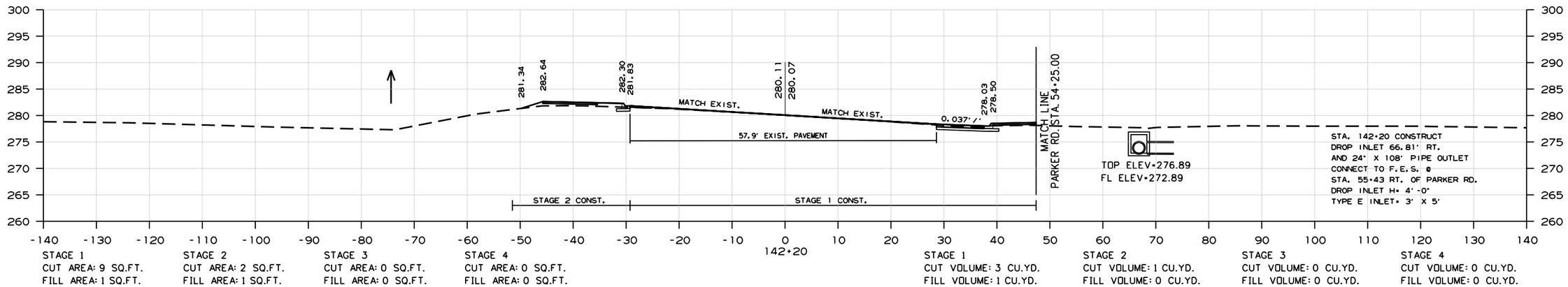
tholl 8/28/2025
100881-82-XS.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	106	121
		CROSS SECTIONS				

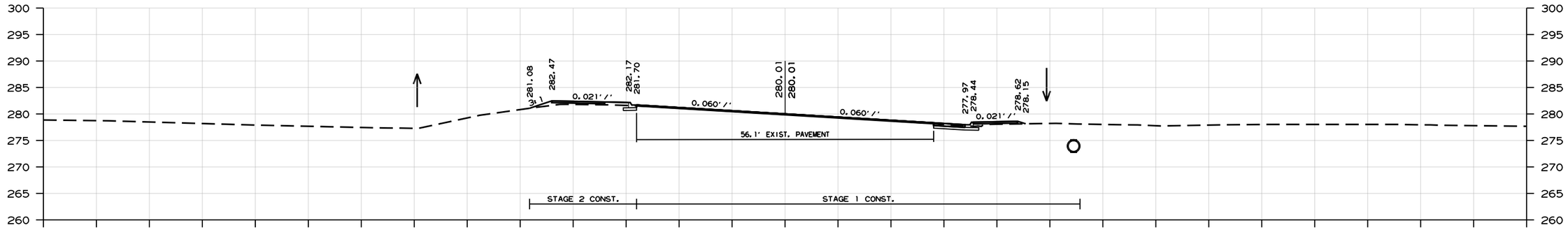
HWY. 1B - CROSS SECTION STA. 140+49 TO STA. 141+78

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100881-82-XS.SHT

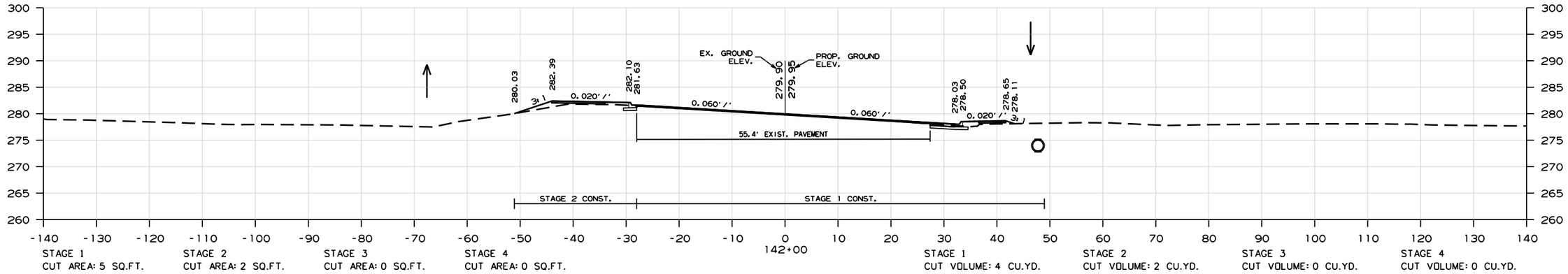
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	107	121
		CROSS SECTIONS				



STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 9 SQ.FT.	CUT AREA: 2 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 3 CU.YD.	CUT VOLUME: 1 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 1 SQ.FT.	FILL AREA: 1 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 1 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.



STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 6 SQ.FT.	CUT AREA: 2 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 2 CU.YD.	CUT VOLUME: 1 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 2 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 1 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.

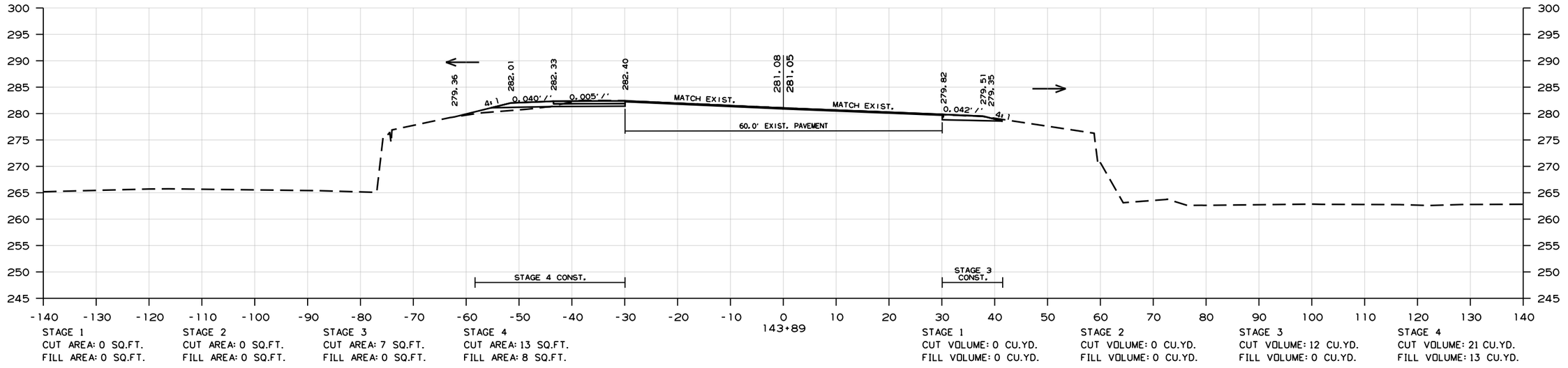


STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 5 SQ.FT.	CUT AREA: 2 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 4 CU.YD.	CUT VOLUME: 2 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 4 SQ.FT.	FILL AREA: 2 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 4 CU.YD.	FILL VOLUME: 1 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.

HWY. 1B - CROSS SECTION STA. 142+00 TO STA. 142+20

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	108	121
		CROSS SECTIONS				



STAGE 1
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 2
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 3
CUT AREA: 7 SQ.FT.
FILL AREA: 0 SQ.FT.

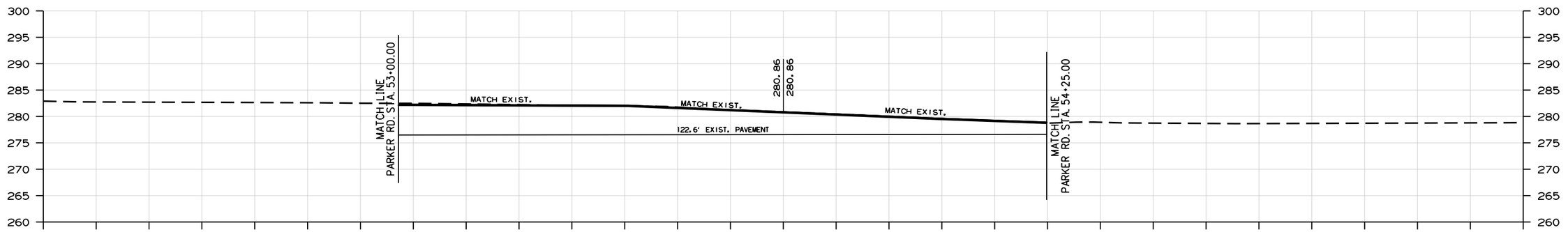
STAGE 4
CUT AREA: 13 SQ.FT.
FILL AREA: 8 SQ.FT.

STAGE 1
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 2
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 3
CUT VOLUME: 12 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 4
CUT VOLUME: 21 CU.YD.
FILL VOLUME: 13 CU.YD.



STAGE 1
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 2
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 3
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

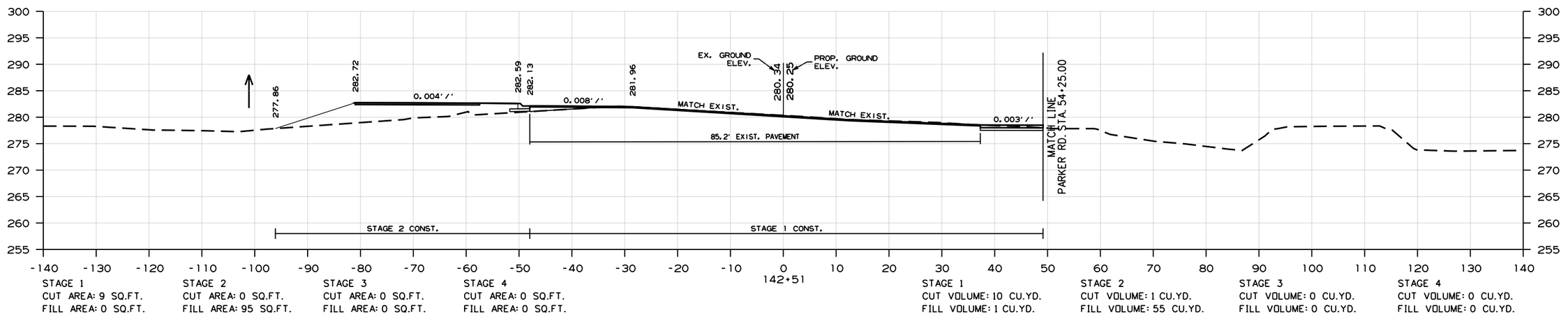
STAGE 4
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 1
CUT VOLUME: 8 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 2
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 93 CU.YD.

STAGE 3
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 4
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.



STAGE 1
CUT AREA: 9 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 2
CUT AREA: 0 SQ.FT.
FILL AREA: 95 SQ.FT.

STAGE 3
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 4
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 1
CUT VOLUME: 10 CU.YD.
FILL VOLUME: 1 CU.YD.

STAGE 2
CUT VOLUME: 1 CU.YD.
FILL VOLUME: 55 CU.YD.

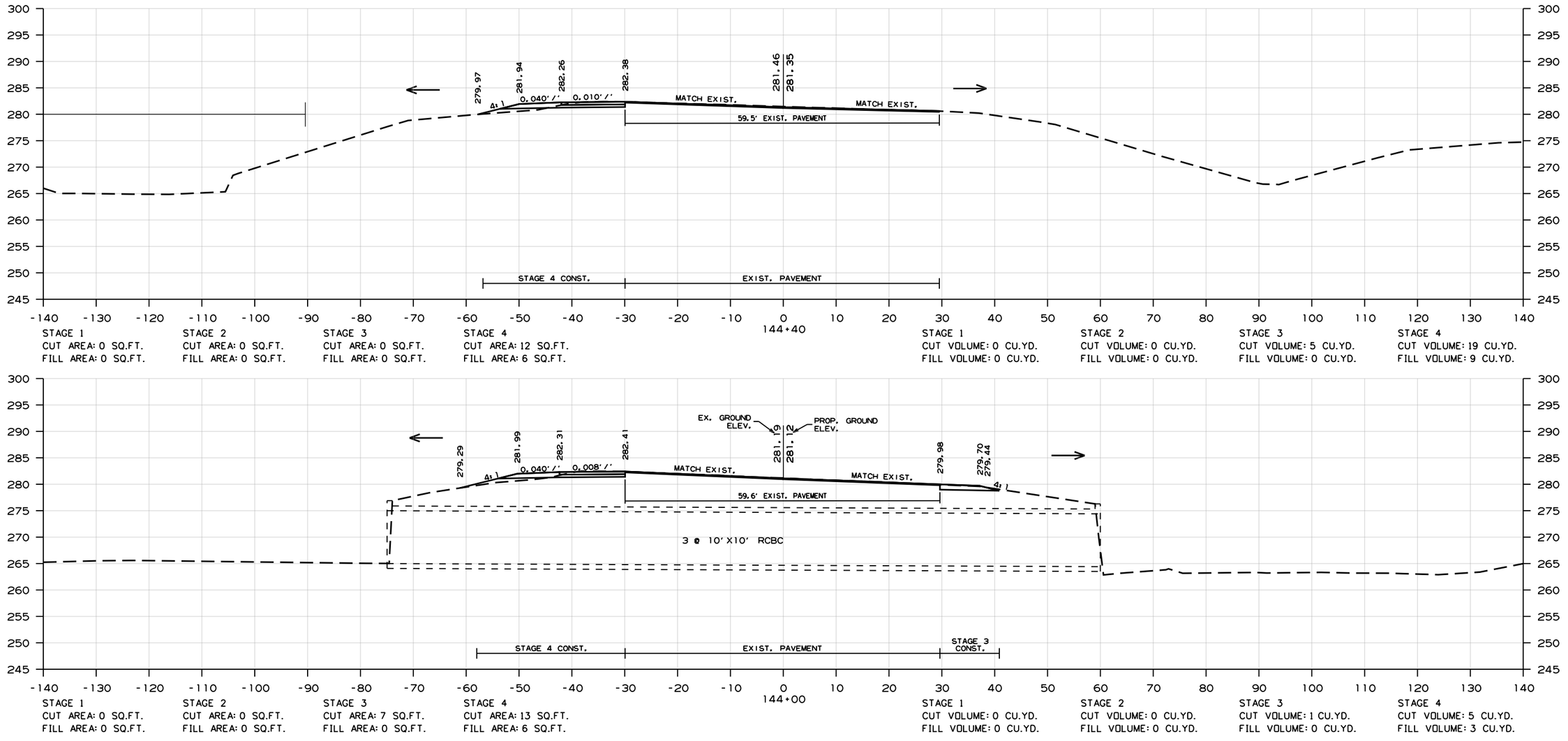
STAGE 3
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 4
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

HWY. 1B - CROSS SECTION STA. 142+51 TO STA. 143+89

tholt 8/28/2025
100881-82-XS.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	109	121
		CROSS SECTIONS				



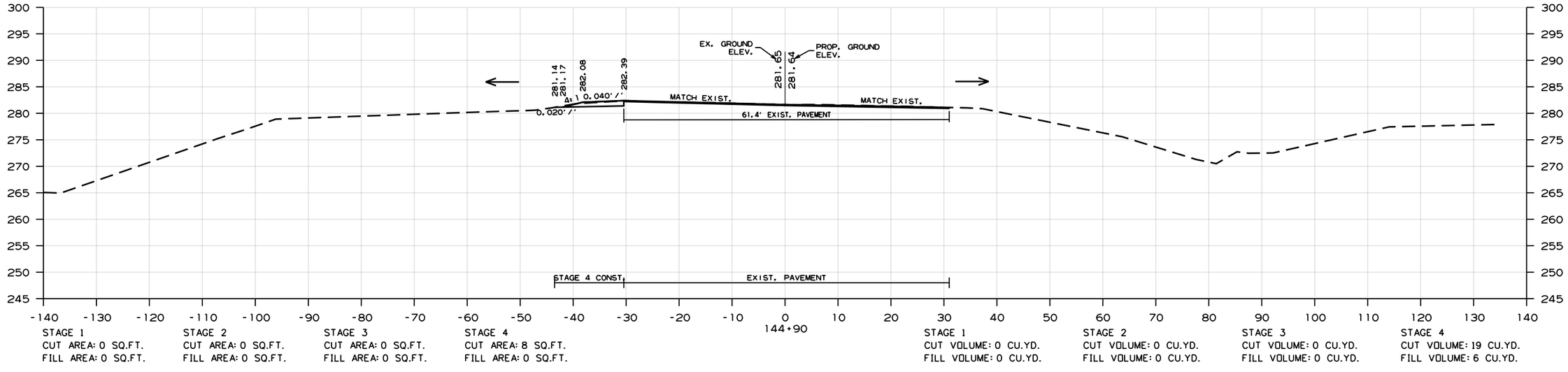
HWY. 1B - CROSS SECTION STA. 144+00 TO STA. 144+40

tholl 8/28/2025
100881-82-XS.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	110	121
		CROSS SECTIONS				

145+91.64
END 100' TRANSITION

144+91.64
END JOB 100881
BEGIN 100' TRANSITION



STAGE 1
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 2
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 3
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 4
CUT AREA: 8 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 1
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 2
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

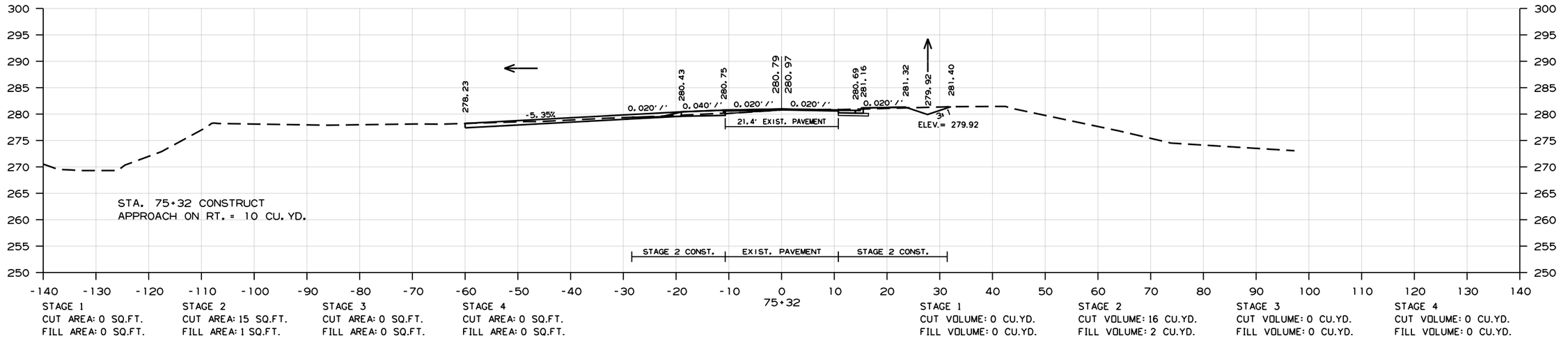
STAGE 3
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

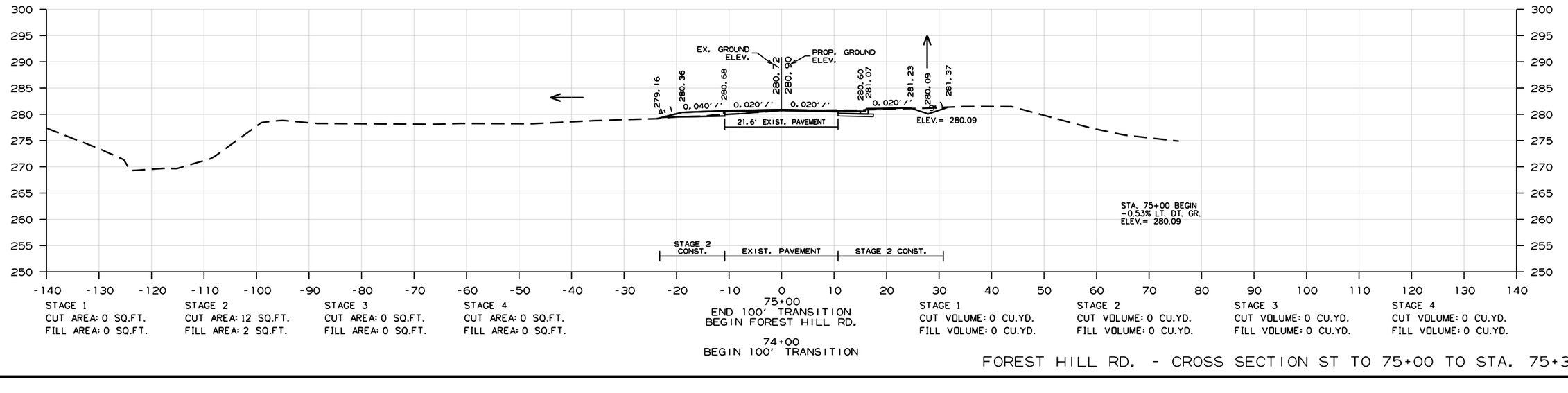
STAGE 4
CUT VOLUME: 19 CU.YD.
FILL VOLUME: 6 CU.YD.

HWY. 1B - CROSS SECTION STA. 144+90 TO STA. 144+90

tholl 8/28/2025
100881-82-XS.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	111	121
		CROSS SECTIONS				

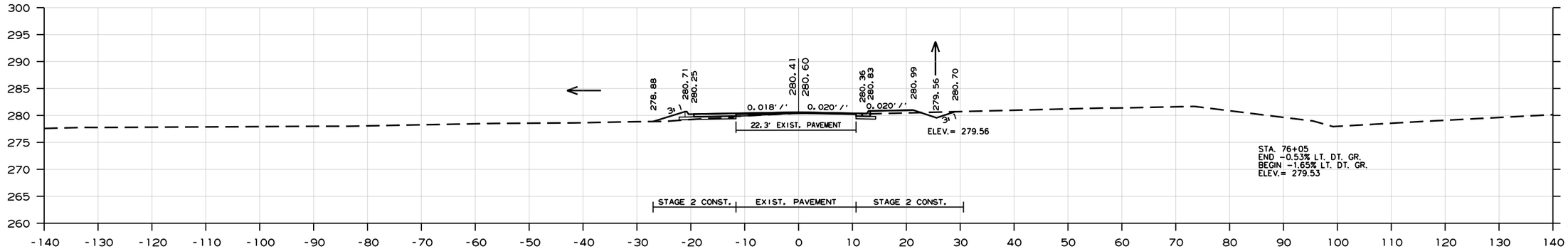




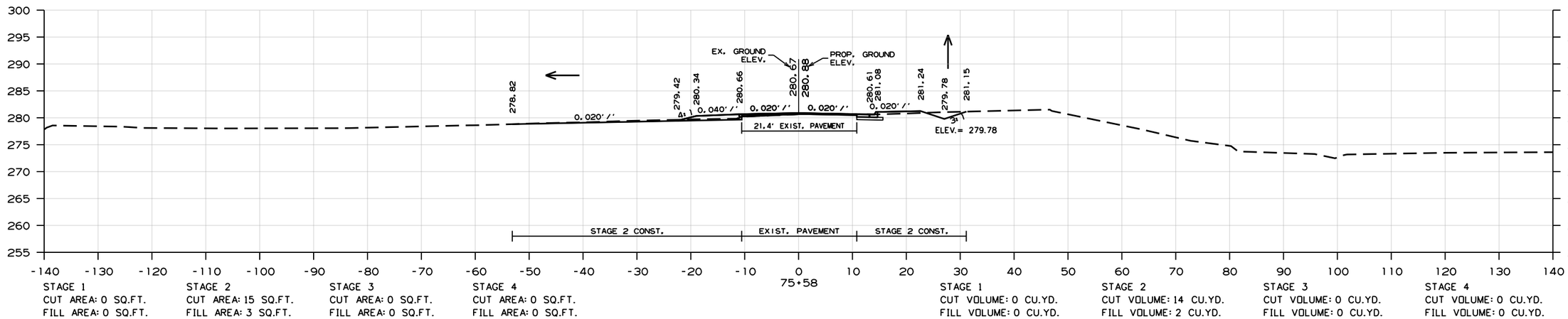
FOREST HILL RD. - CROSS SECTION ST TO 75+00 TO STA. 75+32

tholt 8/28/2025
100881-82-XS.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	112	121
		CROSS SECTIONS				



STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 0 SQ.FT.	CUT AREA: 8 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 18 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 0 SQ.FT.	FILL AREA: 9 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 9 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.



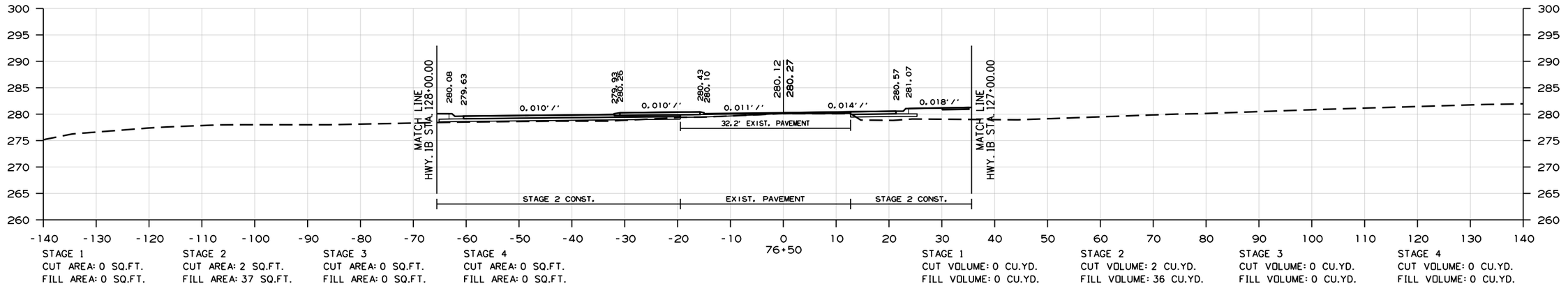
STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 0 SQ.FT.	CUT AREA: 15 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 14 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 0 SQ.FT.	FILL AREA: 3 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 2 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.

FOREST HILL RD. - CROSS SECTION ST TO 75+58 TO STA. 76+00

tholt 8/28/2025
100881-82-XS.SHT

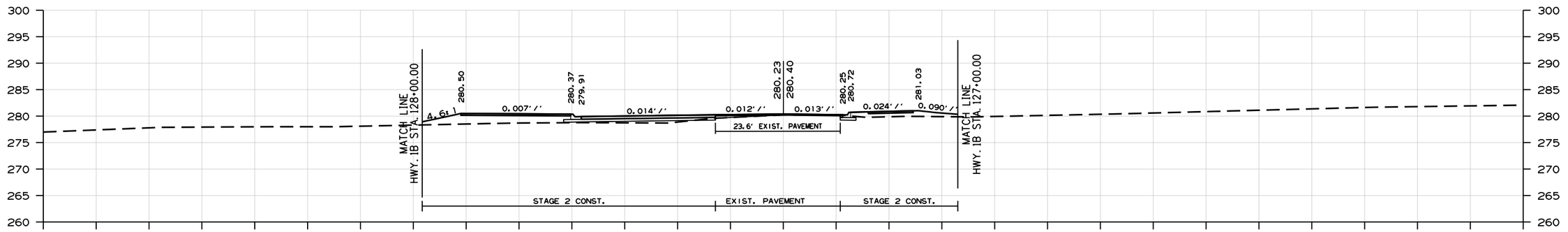
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	113	121
		CROSS SECTIONS				

STA. 76+58.73
END FOREST HILL RD.



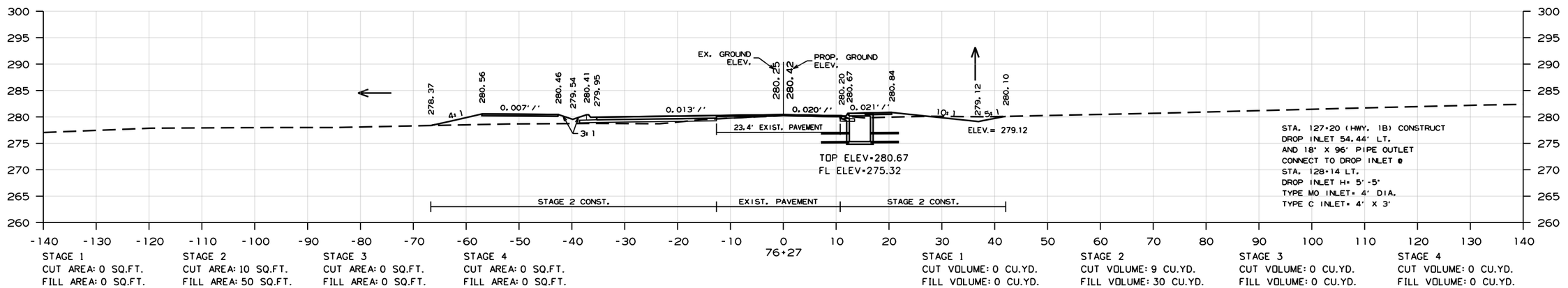
STAGE 1 — CUT AREA: 0 SQ.FT. — FILL AREA: 0 SQ.FT.
STAGE 2 — CUT AREA: 2 SQ.FT. — FILL AREA: 37 SQ.FT.
STAGE 3 — CUT AREA: 0 SQ.FT. — FILL AREA: 0 SQ.FT.
STAGE 4 — CUT AREA: 0 SQ.FT. — FILL AREA: 0 SQ.FT.

STAGE 1 — CUT VOLUME: 0 CU.YD. — FILL VOLUME: 0 CU.YD.
STAGE 2 — CUT VOLUME: 2 CU.YD. — FILL VOLUME: 36 CU.YD.
STAGE 3 — CUT VOLUME: 0 CU.YD. — FILL VOLUME: 0 CU.YD.
STAGE 4 — CUT VOLUME: 0 CU.YD. — FILL VOLUME: 0 CU.YD.



STAGE 1 — CUT AREA: 0 SQ.FT. — FILL AREA: 0 SQ.FT.
STAGE 2 — CUT AREA: 3 SQ.FT. — FILL AREA: 30 SQ.FT.
STAGE 3 — CUT AREA: 0 SQ.FT. — FILL AREA: 0 SQ.FT.
STAGE 4 — CUT AREA: 0 SQ.FT. — FILL AREA: 0 SQ.FT.

STAGE 1 — CUT VOLUME: 0 CU.YD. — FILL VOLUME: 0 CU.YD.
STAGE 2 — CUT VOLUME: 1 CU.YD. — FILL VOLUME: 6 CU.YD.
STAGE 3 — CUT VOLUME: 0 CU.YD. — FILL VOLUME: 0 CU.YD.
STAGE 4 — CUT VOLUME: 0 CU.YD. — FILL VOLUME: 0 CU.YD.



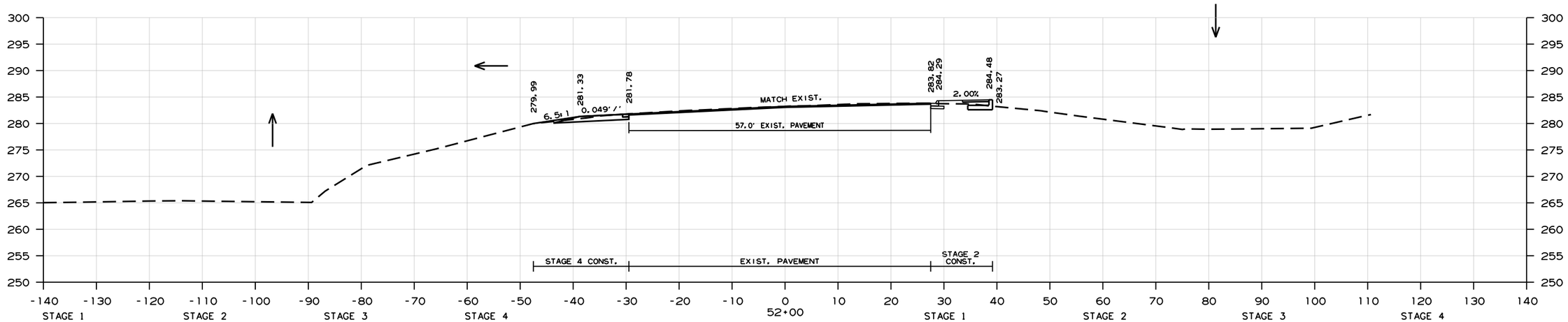
STAGE 1 — CUT AREA: 0 SQ.FT. — FILL AREA: 0 SQ.FT.
STAGE 2 — CUT AREA: 10 SQ.FT. — FILL AREA: 50 SQ.FT.
STAGE 3 — CUT AREA: 0 SQ.FT. — FILL AREA: 0 SQ.FT.
STAGE 4 — CUT AREA: 0 SQ.FT. — FILL AREA: 0 SQ.FT.

STAGE 1 — CUT VOLUME: 0 CU.YD. — FILL VOLUME: 0 CU.YD.
STAGE 2 — CUT VOLUME: 9 CU.YD. — FILL VOLUME: 30 CU.YD.
STAGE 3 — CUT VOLUME: 0 CU.YD. — FILL VOLUME: 0 CU.YD.
STAGE 4 — CUT VOLUME: 0 CU.YD. — FILL VOLUME: 0 CU.YD.

FOREST HILL RD. - CROSS SECTION ST TO 76+27 TO STA. 76+50

tholt 8/28/2025
100881-82-XS.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	114	121
		CROSS SECTIONS				



STAGE 1
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 2
CUT AREA: 6 SQ.FT.
FILL AREA: 6 SQ.FT.

STAGE 3
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

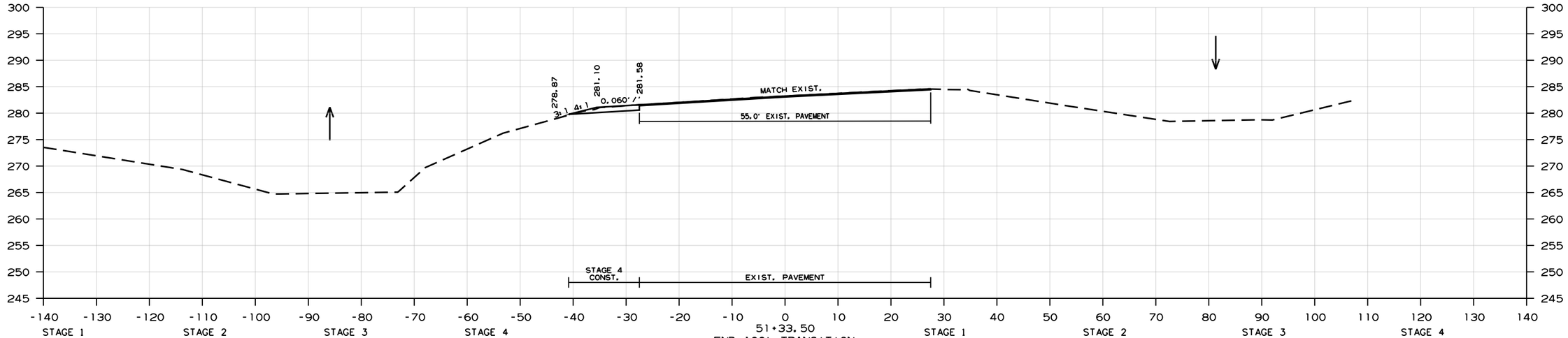
STAGE 4
CUT AREA: 11 SQ.FT.
FILL AREA: 1 SQ.FT.

STAGE 1
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 2
CUT VOLUME: 7 CU.YD.
FILL VOLUME: 7 CU.YD.

STAGE 3
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 4
CUT VOLUME: 26 CU.YD.
FILL VOLUME: 2 CU.YD.



STAGE 1
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 2
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 3
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 4
CUT AREA: 10 SQ.FT.
FILL AREA: 1 SQ.FT.

STAGE 1
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 2
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 3
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

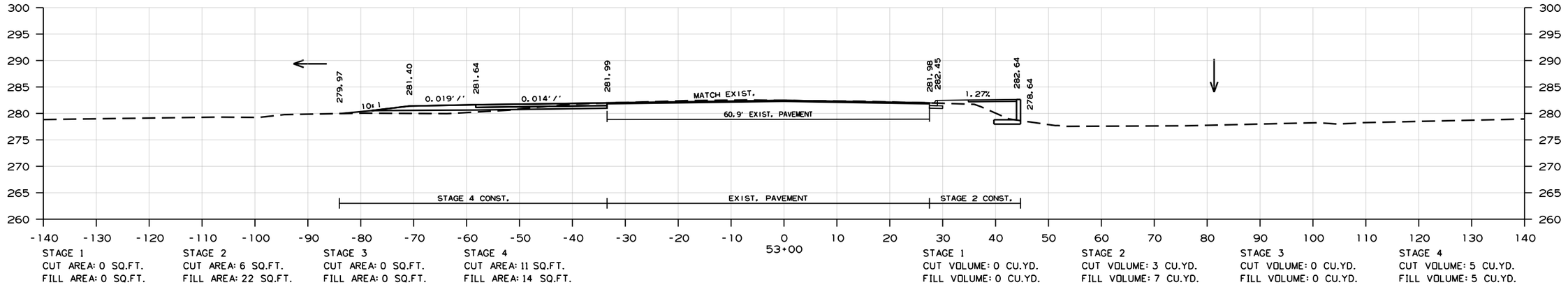
STAGE 4
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

PARKER RD. - CROSS SECTION STA. 51+33.50 TO STA. 52+00

tholl 8/28/2025
100881-82-XS.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	115	121
		CROSS SECTIONS				

HWY. 1B STA. 142+83.32=
PARKER RD. STA. 53+75.07
△ 88°54' 10"



STAGE 1
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 2
CUT AREA: 6 SQ.FT.
FILL AREA: 22 SQ.FT.

STAGE 3
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 4
CUT AREA: 11 SQ.FT.
FILL AREA: 14 SQ.FT.

STAGE 1
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 2
CUT VOLUME: 3 CU.YD.
FILL VOLUME: 7 CU.YD.

STAGE 3
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 4
CUT VOLUME: 5 CU.YD.
FILL VOLUME: 5 CU.YD.



STAGE 1
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 2
CUT AREA: 6 SQ.FT.
FILL AREA: 9 SQ.FT.

STAGE 3
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

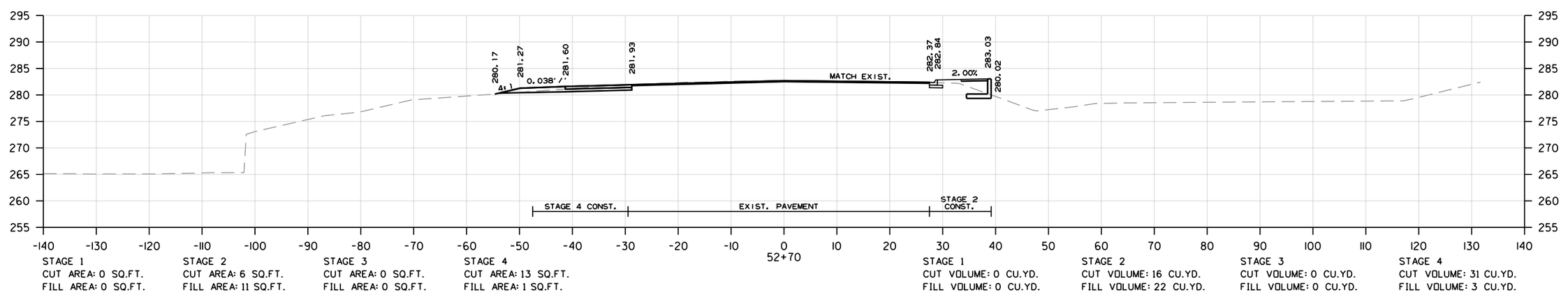
STAGE 4
CUT AREA: 11 SQ.FT.
FILL AREA: 6 SQ.FT.

STAGE 1
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 2
CUT VOLUME: 4 CU.YD.
FILL VOLUME: 6 CU.YD.

STAGE 3
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 4
CUT VOLUME: 8 CU.YD.
FILL VOLUME: 2 CU.YD.



STAGE 1
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 2
CUT AREA: 6 SQ.FT.
FILL AREA: 11 SQ.FT.

STAGE 3
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 4
CUT AREA: 13 SQ.FT.
FILL AREA: 1 SQ.FT.

STAGE 1
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 2
CUT VOLUME: 16 CU.YD.
FILL VOLUME: 22 CU.YD.

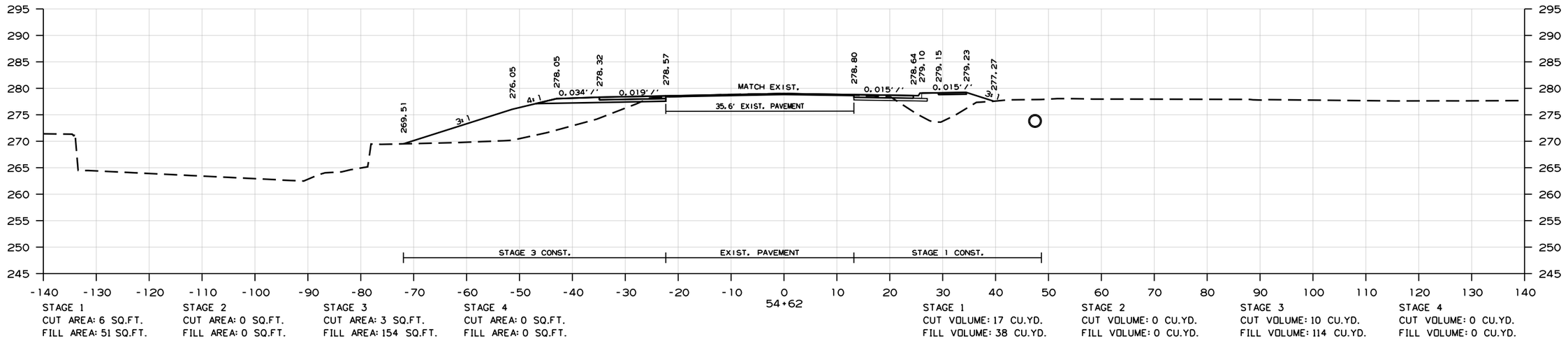
STAGE 3
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 4
CUT VOLUME: 31 CU.YD.
FILL VOLUME: 3 CU.YD.

PARKER RD. - CROSS SECTION STA. 52+70 TO STA. 53+00

tholt 8/28/2025
100881-82-XS.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	116	121
		CROSS SECTIONS				



STAGE 1
CUT AREA: 6 SQ.FT.
FILL AREA: 51 SQ.FT.

STAGE 2
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 3
CUT AREA: 3 SQ.FT.
FILL AREA: 154 SQ.FT.

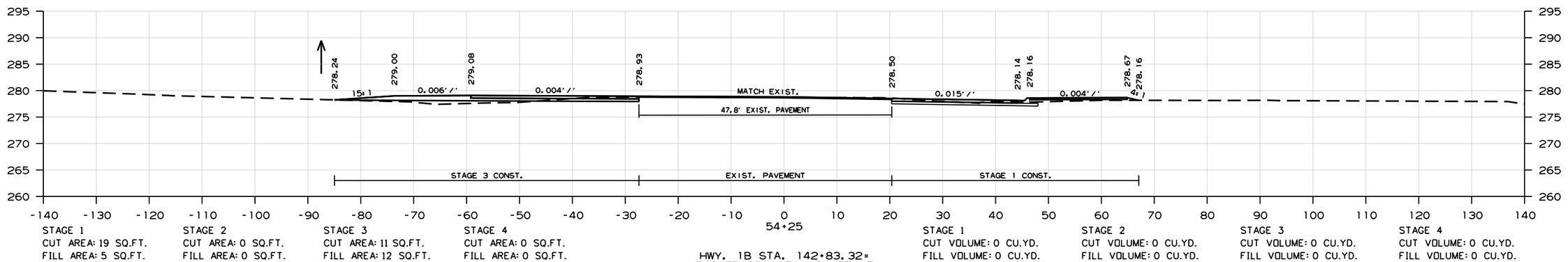
STAGE 4
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 1
CUT VOLUME: 17 CU.YD.
FILL VOLUME: 38 CU.YD.

STAGE 2
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 3
CUT VOLUME: 10 CU.YD.
FILL VOLUME: 114 CU.YD.

STAGE 4
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.



STAGE 1
CUT AREA: 19 SQ.FT.
FILL AREA: 5 SQ.FT.

STAGE 2
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

STAGE 3
CUT AREA: 11 SQ.FT.
FILL AREA: 12 SQ.FT.

STAGE 4
CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.

HWY. 1B STA. 142+83.32=
PARKER RD. STA. 53+75.07
Δ 88°54' 10"

STAGE 1
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 2
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

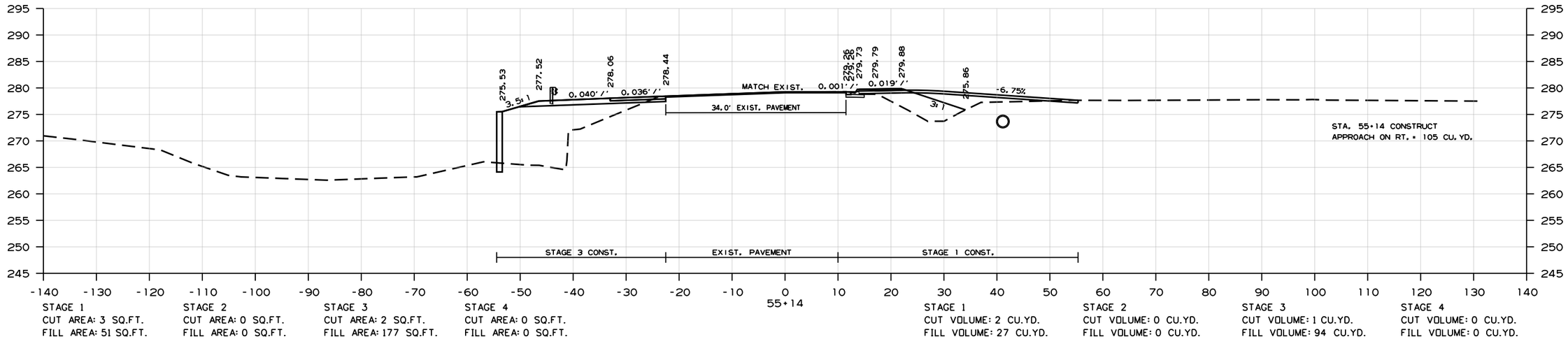
STAGE 3
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

STAGE 4
CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.

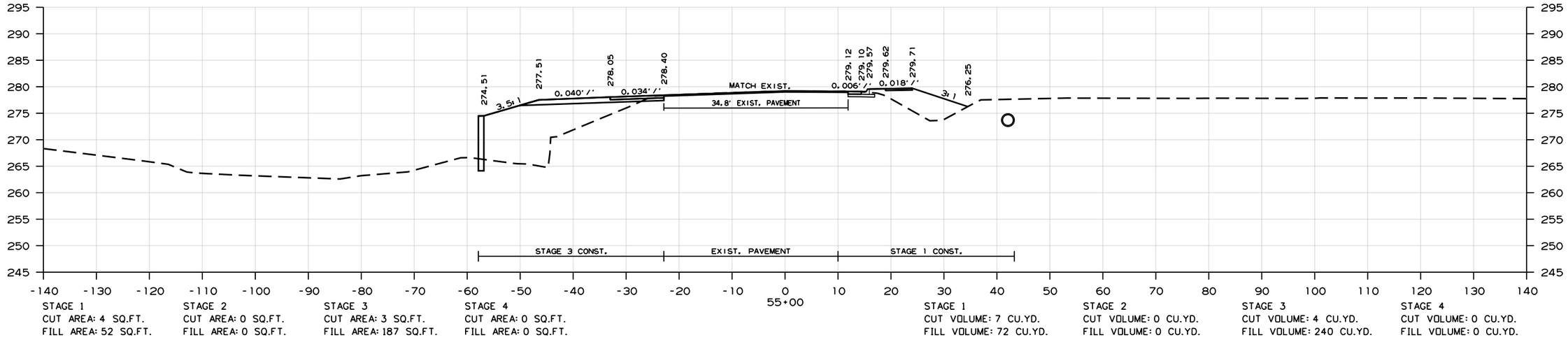
PARKER RD. - CROSS SECTION STA. 54+25 TO STA. 54+62

tholl 8/28/2025
100881-82-XS.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	117	121
		CROSS SECTIONS				



STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 3 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 2 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 2 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 1 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 51 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 177 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 27 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 94 CU.YD.	FILL VOLUME: 0 CU.YD.

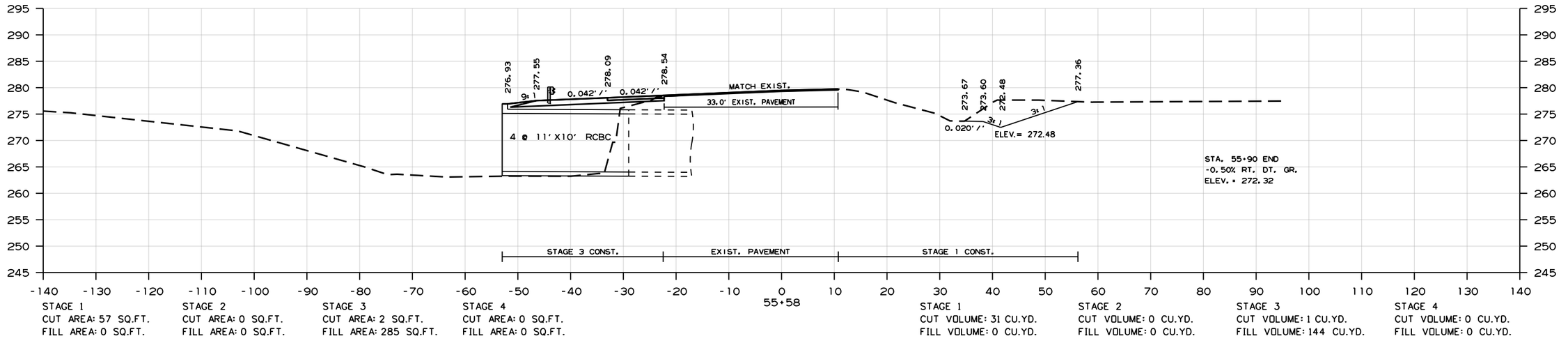


STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 4 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 3 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT VOLUME: 7 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 4 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL AREA: 52 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 187 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL VOLUME: 72 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 240 CU.YD.	FILL VOLUME: 0 CU.YD.

PARKER RD. - CROSS SECTION STA. 55+00 TO STA. 55+14

tholl 8/28/2025
100881-82-XS.SHT

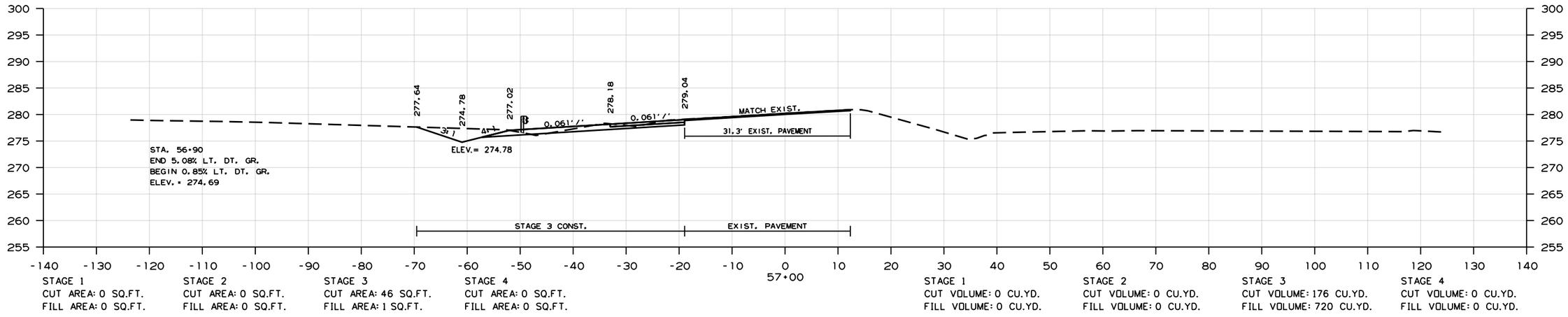
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	118	121
		CROSS SECTIONS				



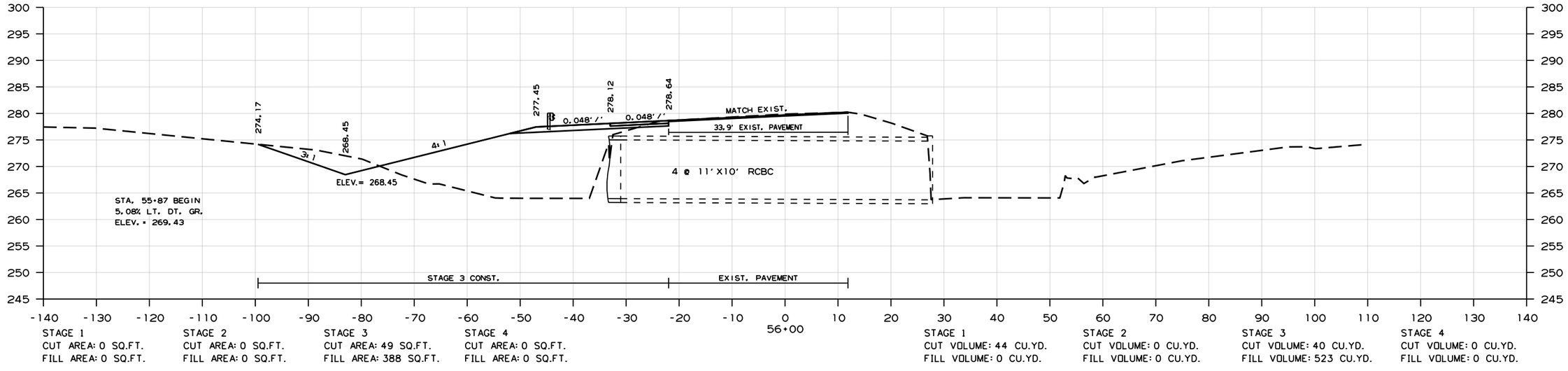
PARKER RD. - CROSS SECTION STA. 55+43 TO STA. 55+58

tholl 8/28/2025
100881-82-XS.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	119	121
		CROSS SECTIONS				



STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 46 SQ.FT.	CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 1 SQ.FT.	FILL AREA: 0 SQ.FT.
CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 176 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 720 CU.YD.	FILL VOLUME: 0 CU.YD.

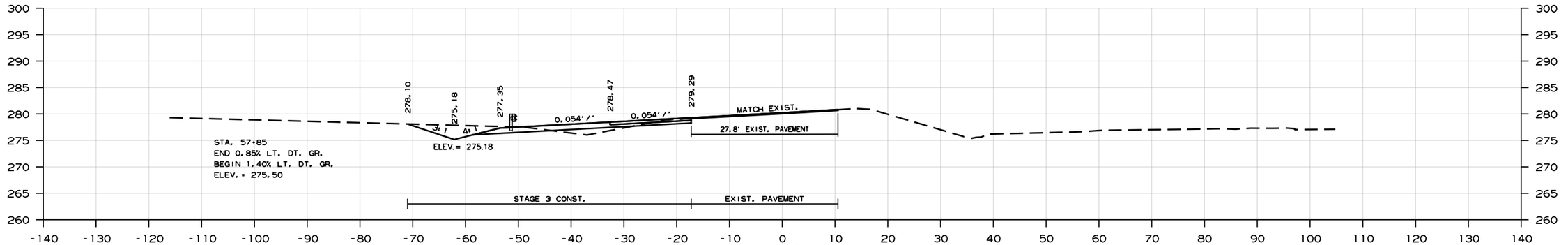


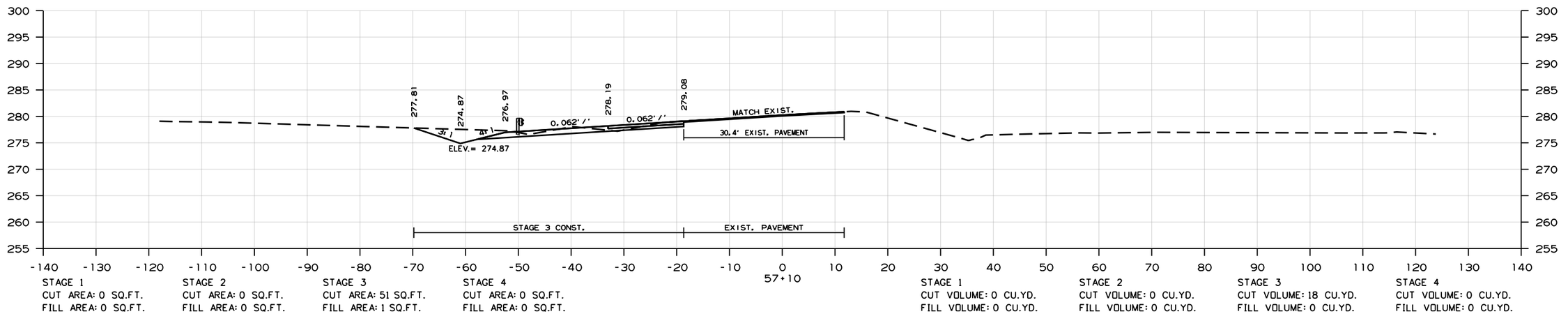
STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 49 SQ.FT.	CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 388 SQ.FT.	FILL AREA: 0 SQ.FT.
CUT VOLUME: 44 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 40 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 523 CU.YD.	FILL VOLUME: 0 CU.YD.

PARKER RD. - CROSS SECTION STA. 56+00 TO STA. 57+00

tholl 8/28/2025
100881-82-XS.SHT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	120	121
		CROSS SECTIONS				





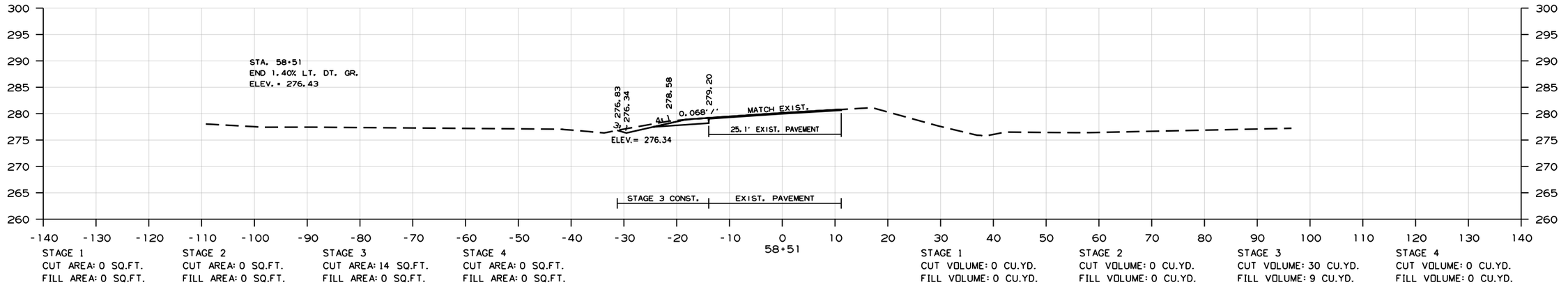
PARKER RD. - CROSS SECTION STA. 57+10 TO STA. 57+50

tholl 8/28/2025
100881-82-XS.SHT

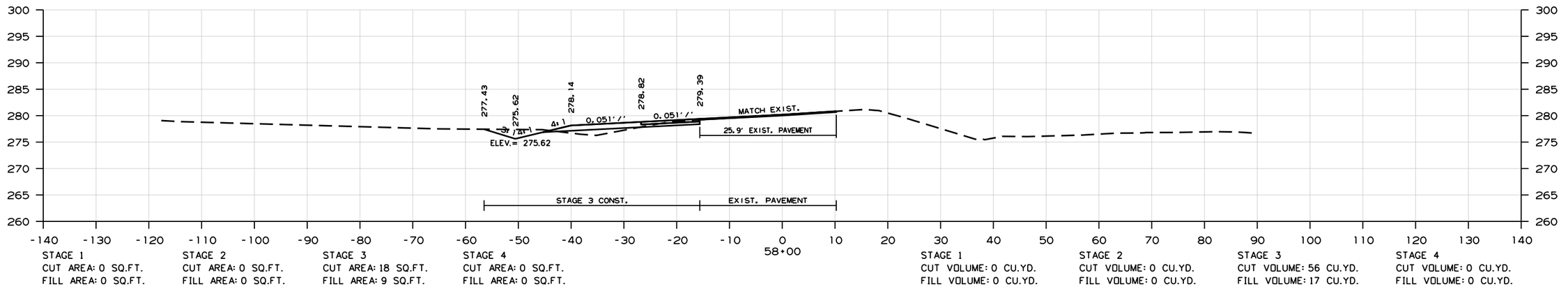
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	100881	121	121
		CROSS SECTIONS				

58+51.46
END PARKER RD.
BEGIN 100' TRANSITION

59+51.46
END 100' TRANSITION



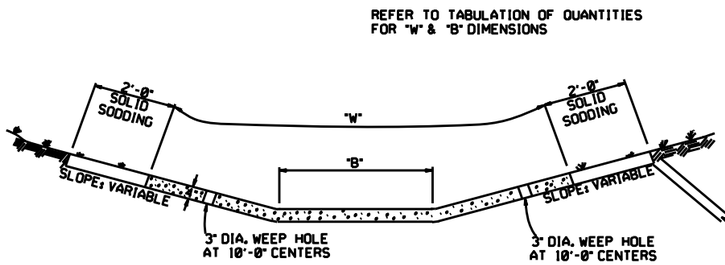
STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 14 SQ.FT.	CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.
CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 30 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 9 CU.YD.	FILL VOLUME: 0 CU.YD.



STAGE 1	STAGE 2	STAGE 3	STAGE 4
CUT AREA: 0 SQ.FT.	CUT AREA: 0 SQ.FT.	CUT AREA: 18 SQ.FT.	CUT AREA: 0 SQ.FT.
FILL AREA: 0 SQ.FT.	FILL AREA: 0 SQ.FT.	FILL AREA: 9 SQ.FT.	FILL AREA: 0 SQ.FT.
CUT VOLUME: 0 CU.YD.	CUT VOLUME: 0 CU.YD.	CUT VOLUME: 56 CU.YD.	CUT VOLUME: 0 CU.YD.
FILL VOLUME: 0 CU.YD.	FILL VOLUME: 0 CU.YD.	FILL VOLUME: 17 CU.YD.	FILL VOLUME: 0 CU.YD.

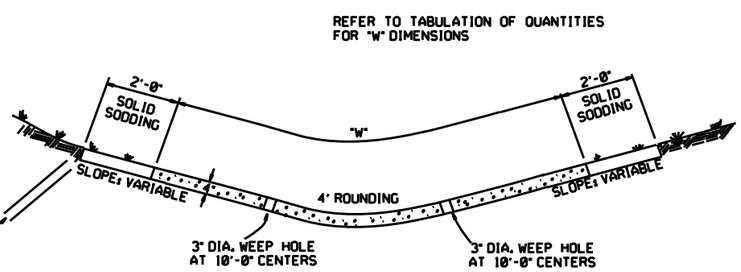
PARKER RD. - CROSS SECTION STA. 58+00 TO STA. 58+51

tholt 8/28/2025
100881-82-XS.SHT



TYPE A

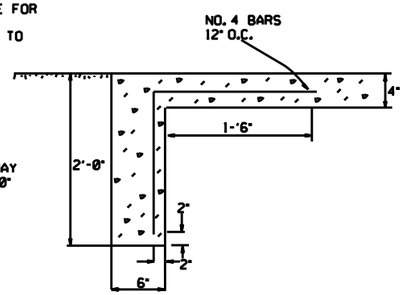
EXCAVATE TO NEAT LINES TO CONSTRUCT DITCH PAVING AND SOLID SODDING.



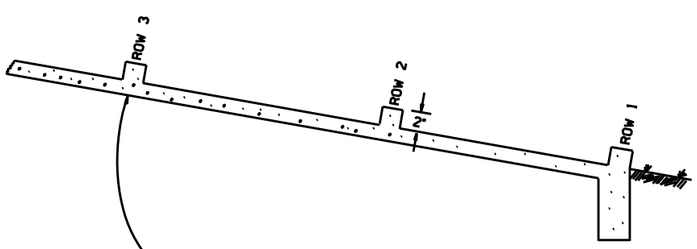
TYPE B

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

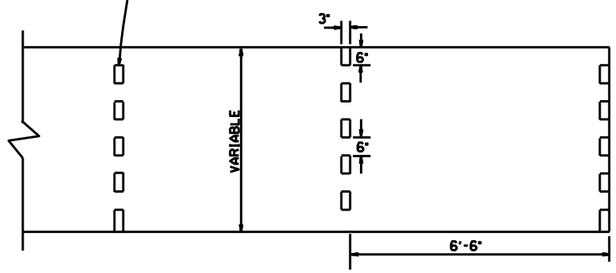


TOE WALL DETAIL FOR CONCRETE DITCH PAVING



NUMBER OF ELEMENTS PER ROW VARIES WITH WIDTH OF PAVING SPECIFIED

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.

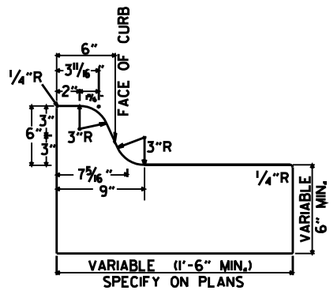
1" WIDE TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE DITCH PAVING AT 45° INTERVALS. THE SPACE SHALL BE FILLED WITH APPROVED JOINT FILLER COMPLYING WITH AASHTO M213.

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.	599-12-1-86
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

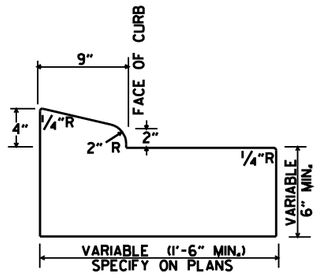
ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE DITCH PAVING

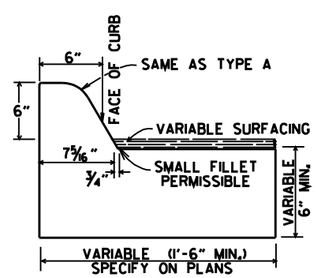
STANDARD DRAWING CDP-1



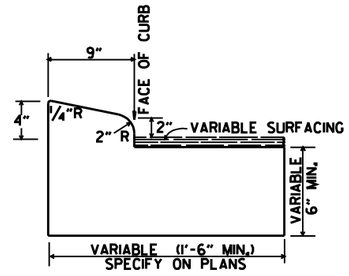
TYPE A



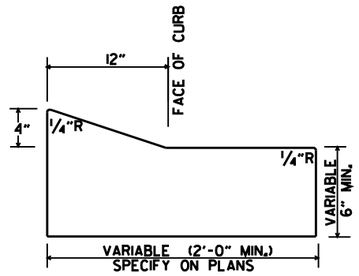
TYPE B-1



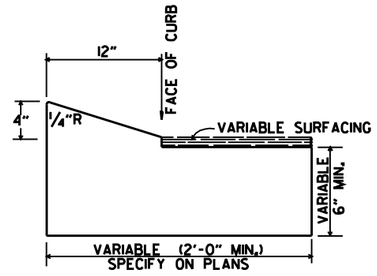
TYPE C



TYPE B-2

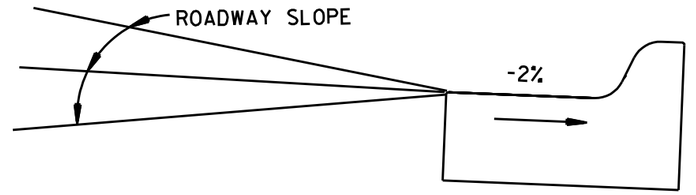


TYPE E-1



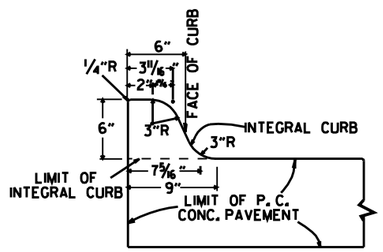
TYPE E-2

CONCRETE COMBINATION CURB AND GUTTER

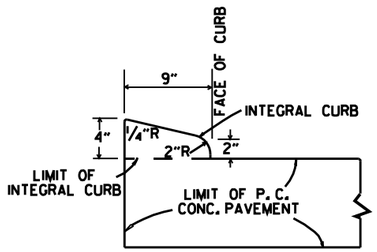


DETAIL OF GUTTER SLOPE

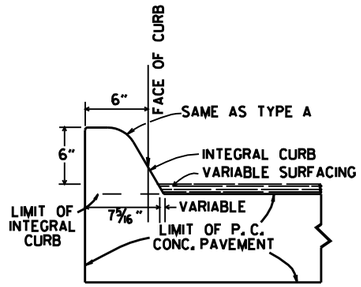
GUTTER SHALL BE CONSTRUCTED ON 2% SLOPE AWAY FROM ROADWAY, REGARDLESS OF ROADWAY SLOPE.



TYPE A

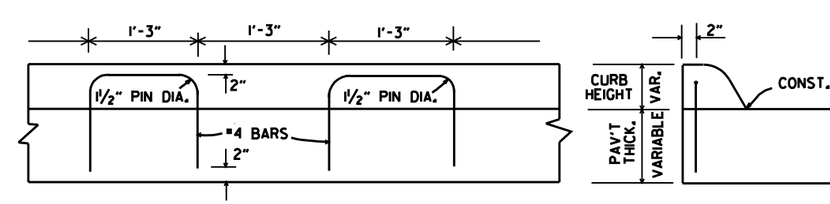


TYPE B

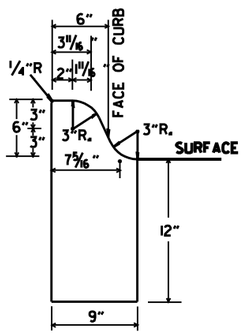


TYPE C

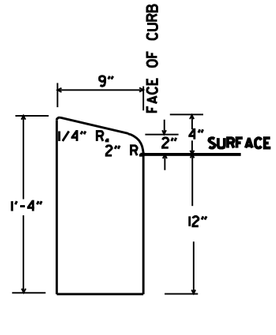
INTEGRAL CURB



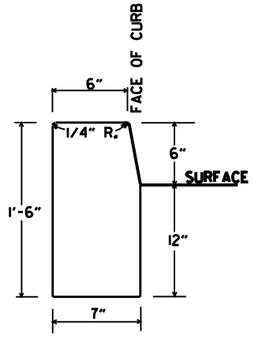
ALTERNATE CONSTRUCTION METHOD FOR INTEGRAL CURB



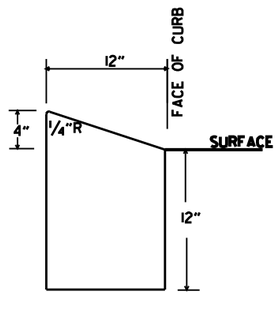
TYPE A



TYPE B

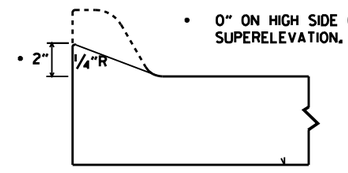


TYPE D



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.

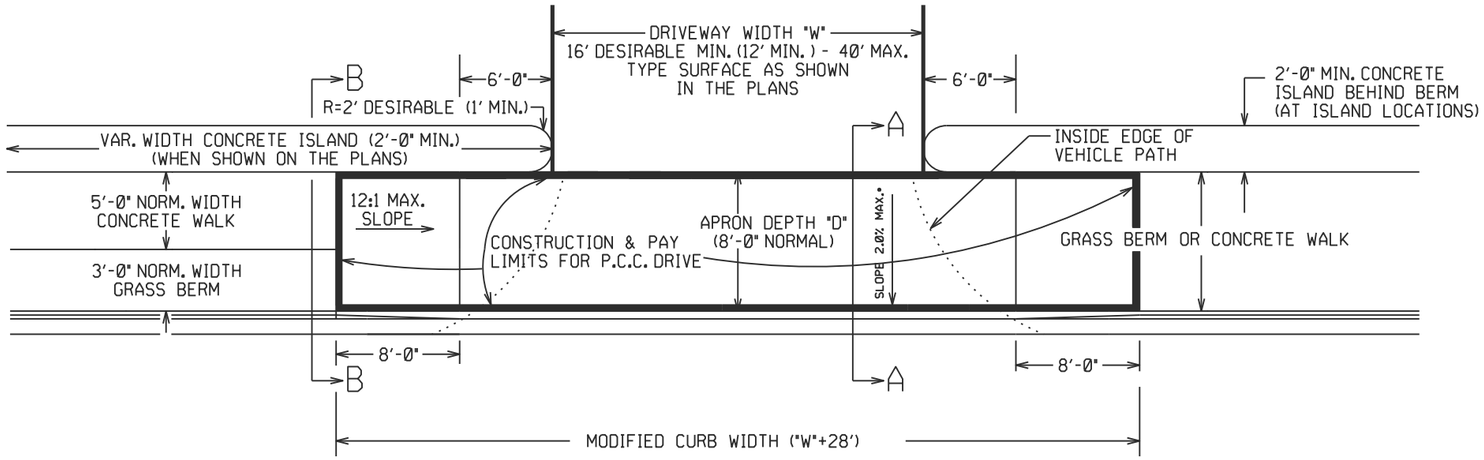
DETAILS OF MODIFIED CURB

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	52-10-2-72

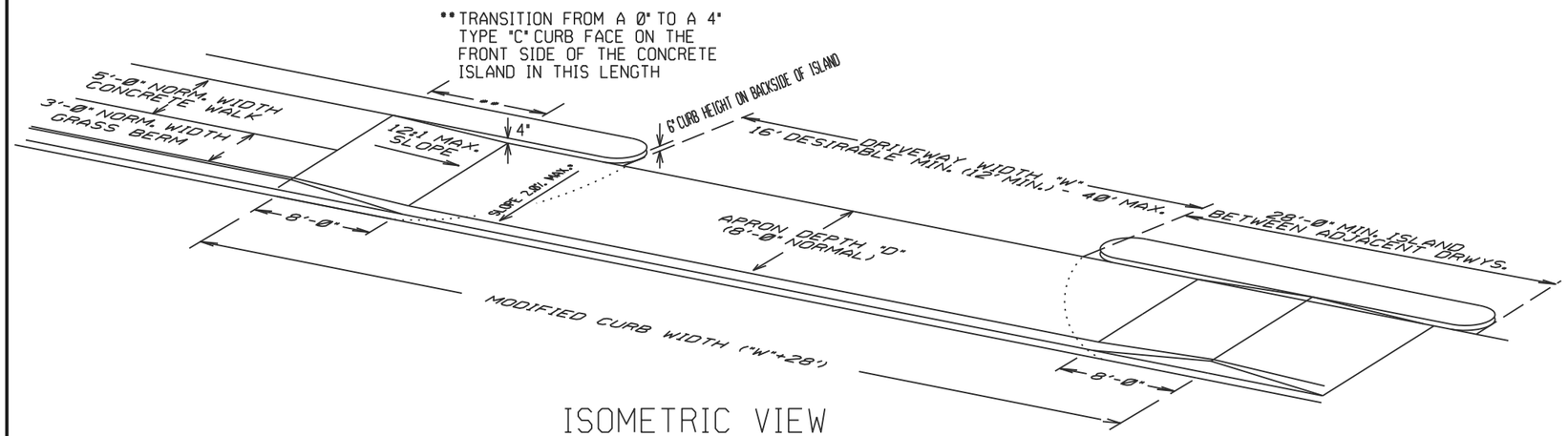
ARKANSAS STATE HIGHWAY COMMISSION

CURBING DETAILS

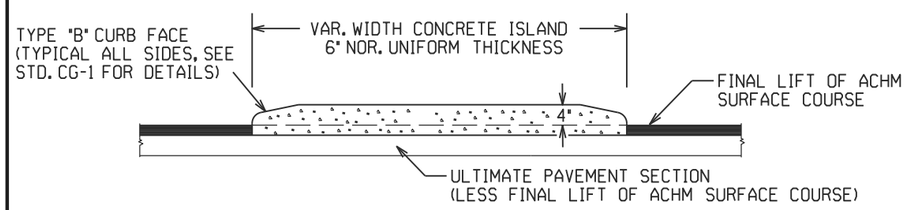
STANDARD DRAWING CG-1



PLAN VIEW



ISOMETRIC VIEW

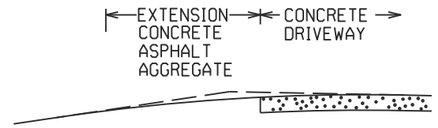


CURBED ISLANDS FOR CHANNELIZATION

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

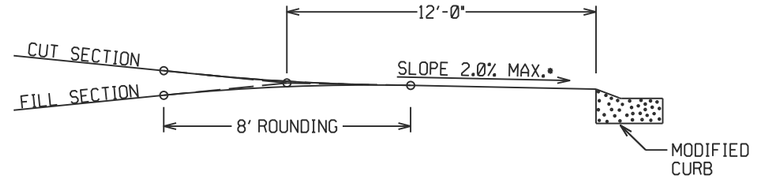
2: ASPHALT - 2" ACHM SURFACE COURSE (1/2")
4" ACHM BINDER COURSE (1") OR
4" ACHM BASE COURSE (1-1/2")

3: ASPHALT - 2" ACHM SURFACE COURSE (1/2")
7" AGGREGATE BASE COURSE

4: AGGREGATE - 6" AGGREGATE BASE COURSE

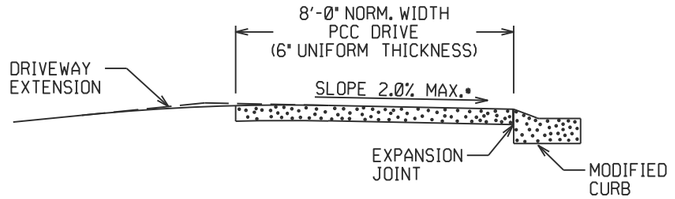
THE TYPE OF EXTENSION SHALL BE AS SHOWN IN THE PLANS. THE CONTRACTOR MAY, WITH THE APPROVAL OF THE ENGINEER, SUBSTITUTE A LOWER NUMBERED TYPE OF EXTENSION IN LIEU OF THE TYPE SPECIFIED IN THE PLANS, BUT AT NO ADDITIONAL COST TO THE DEPARTMENT.

DRIVEWAY EXTENSION DETAILS

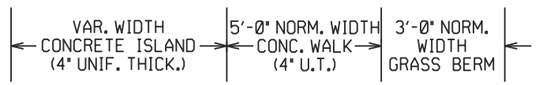


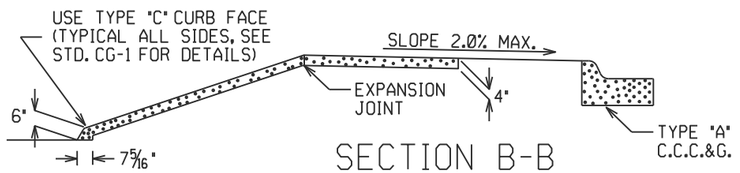
DRIVEWAY VERTICAL ALIGNMENT DETAILS

• 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

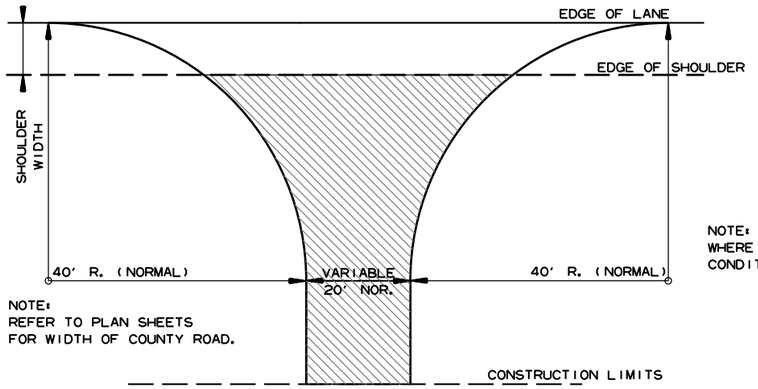
DATE REV	DESCRIPTION
05-22-25	REVISED ISLAND DETAILS & ADDED DESIRABLE MIN. DRIVEWAY WIDTH
05-19-22	REVISED ISLAND NOTES
11-07-19	REVISED WALK DETAILS
02-27-14	REVISED PLAN & ISOMETRIC VIEW
11-29-07	ADDED CHANNELIZATION ISLAND & REVISED DRIVEWAY SLOPE NOTE & VERTICAL ALIGNMENT DETAIL

ARDOT ARKANSAS DEPARTMENT OF TRANSPORTATION

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DRIVEWAYS & ISLANDS

DATE EFFECTIVE	STANDARD DRAWING	DR-1
05-22-2025		

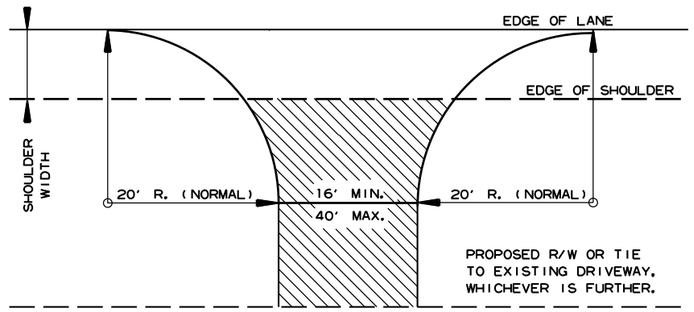


NOTE:
REFER TO PLAN SHEETS
FOR WIDTH OF COUNTY ROAD.

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.

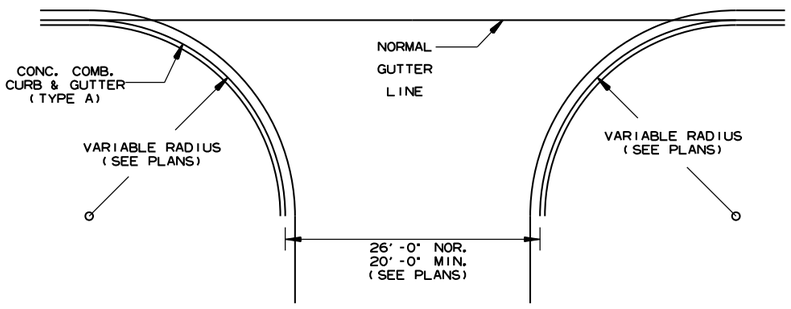
DETAIL FOR COUNTY ROAD TURNOUTS OPEN SHOULDER SECTION



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

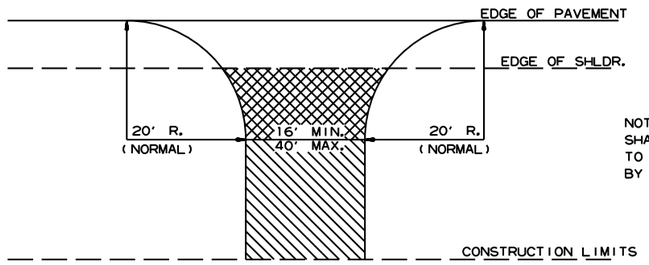
ACHM SURFACE COURSE (1/2")
(220 LBS. PER SQ. YD.) AND
AGGREGATE BASE COURSE (CLASS 7)
7" COMP. DEPTH IF ASPHALT OR
GRAVEL DRIVE EXISTING; OR 6"
CONCRETE IF CONCRETE DRIVE
EXISTING.

DETAIL FOR DRIVEWAY TURNOUTS OPEN SHOULDER SECTION (ARTERIALS)



NOTE:
PAVEMENT STRUCTURE FOR STATE HIGHWAYS, CITY STREETS,
& COUNTY ROADS TO BE SAME AS MAIN LANES.

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

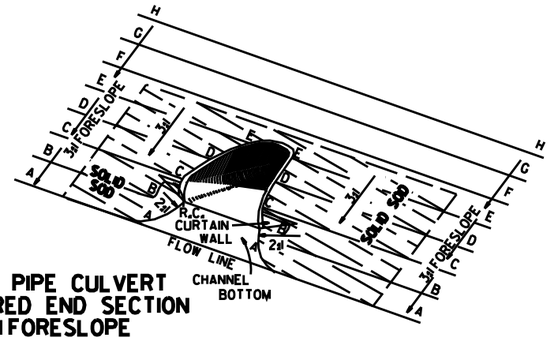
DETAIL FOR DRIVEWAY TURNOUTS (COLLECTORS)

DATE REV	DATE FILMED	DESCRIPTION
5-19-22		ISSUED

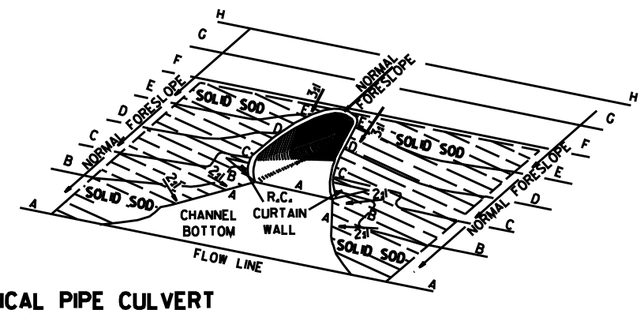
ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DRIVEWAYS & STREET TURNOUTS

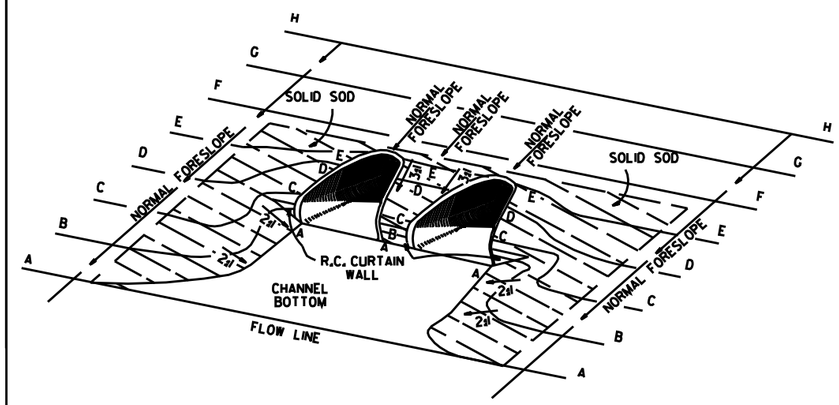
STANDARD DRAWING DR-2



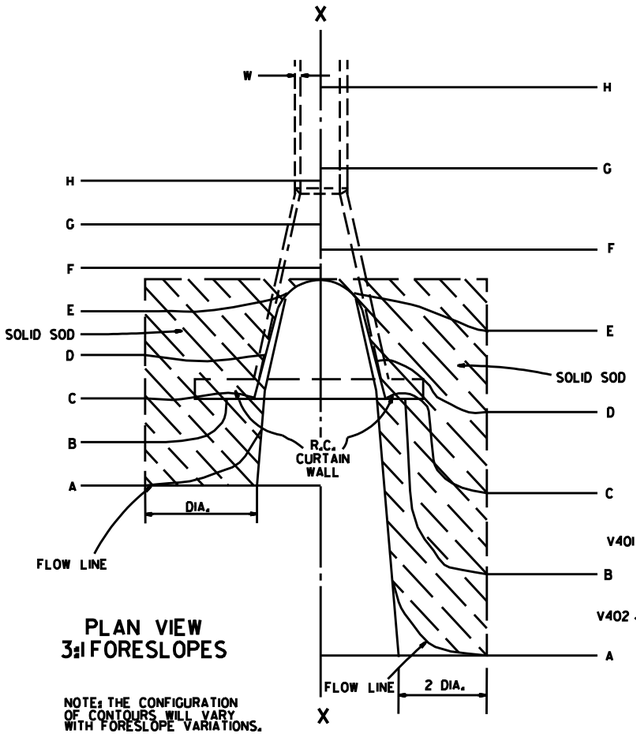
TYPICAL PIPE CULVERT
WITH FLARED END SECTION
& 3:1 FORESLOPE



TYPICAL PIPE CULVERT
WITH FLARED END SECTION
& FLATTENED ADJACENT SLOPES



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



PLAN VIEW
3:1 FORESLOPES

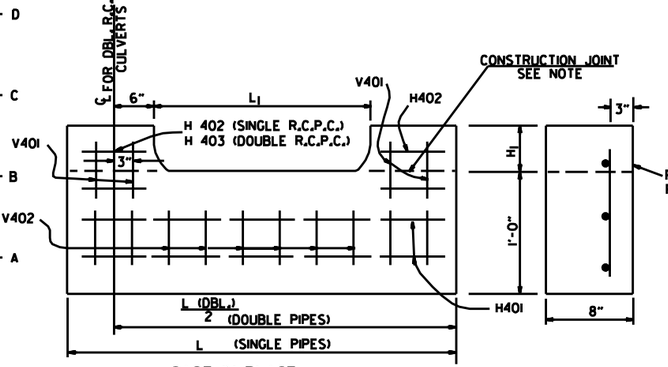
NOTE: THE CONFIGURATION OF CONTOURS WILL VARY WITH FORESLOPE VARIATIONS.

PLAN VIEW
FLATTENED FORESLOPES

R.C. CURTAIN WALL DIMENSIONS & QUANTITIES

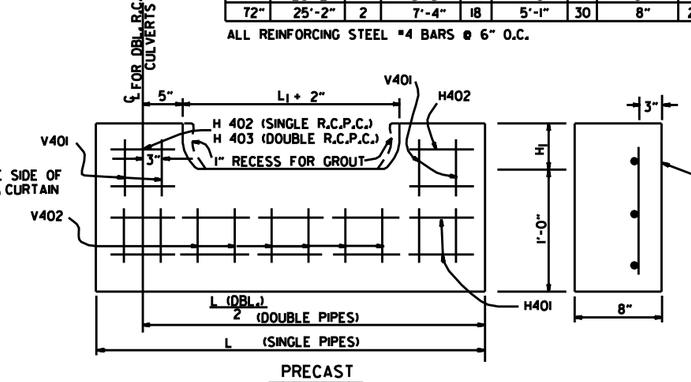
PIPE DIA.	H_1	L_1	L	L (DBL.)/2	SINGLE R.C.P.C. CONC. CU. YDS.	SINGLE R.C.P.C. REINF. STEEL LBS.	DOUBLE R.C.P.C. CONC. CU. YDS.	DOUBLE R.C.P.C. REINF. STEEL LBS.
18"	11½"	3'-5"	8'-0"	6'-3"	0.31	27.7	0.45	39.5
24"	1'-0½"	4'-6"	9'-6"	7'-6"	0.37	33.4	0.53	48.0
30"	1'-3½"	5'-7"	11'-0"	9'-0"	0.45	39.0	0.67	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.



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

REINFORCING STEEL SCHEDULE

PIPE DIA.	SINGLE R.C. PIPE CULVERT H401 L	H401 NO.	H402 L	H402 NO.	V401 L	V401 NO.	V402 L	V402 NO.	DOUBLE R.C. PIPE CULVERT H401 L	H401 NO.	H402 L	H402 NO.	H403 L	H403 NO.	V401 L	V401 NO.	V402 L	V402 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.

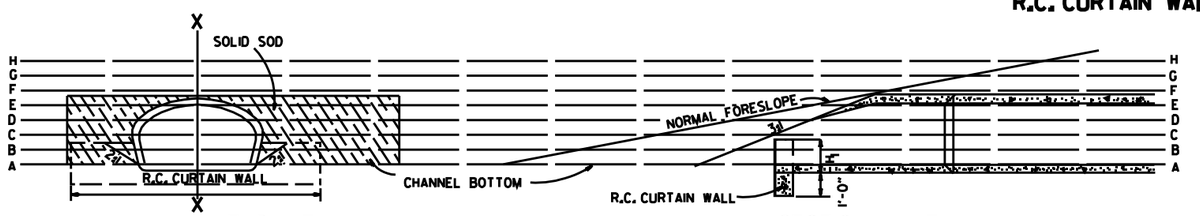
SOLID SODDING

PIPE DIA.	SINGLE R.C.P.C. 3:1	4:1	6:1	DOUBLE R.C.P.C. 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 W10 x W10 MAY BE USED IN LIEU OF REINFORCING BARS.



END VIEW

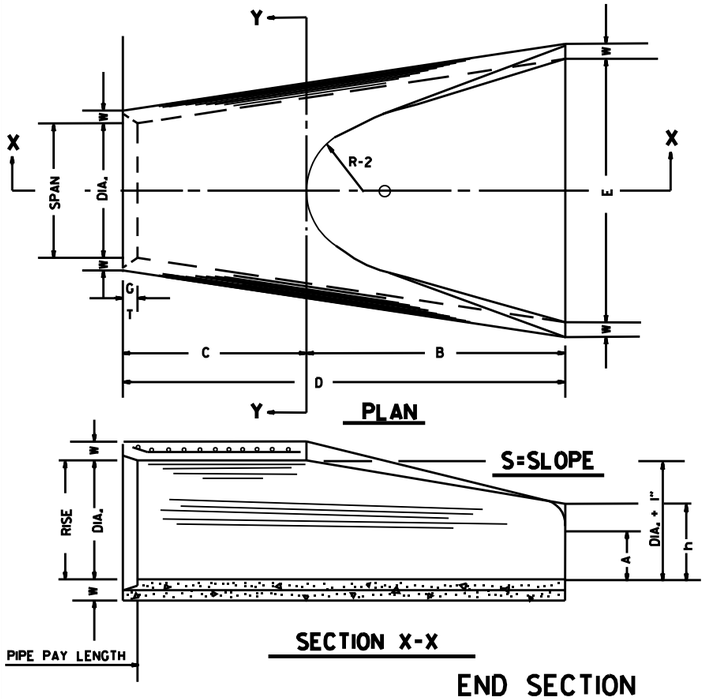
SECTIONAL VIEW "X-X"

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

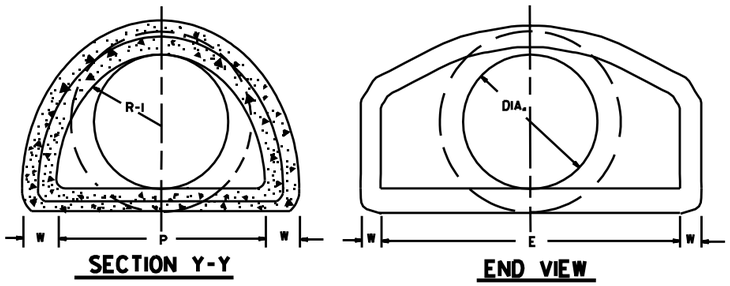
STANDARD DRAWING FES-1



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"	3st	19"	29"	15½"	12"	2"	1000	1'-0½"
24"	3"	9½"	3'-7½"	2'-6"	6'-1½"	4'-0"	3st	25"	33⅜"	16⅛"	14"	2½"	1600	1'-1½"
30"	3½"	1'-0"	4'-6"	1'-7¾"	6'-1¾"	5'-0"	3st	31"	37"	18½"	15"	3¼"	1940	1'-4⅝"
36"	4"	1'-3"	5'-3"	2'-10¾"	8'-1¾"	6'-0"	3st	37"	47⅛"	24⅝"	20"	3½"	4100	1'-8"
42"	4½"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"	3st	43"	53⅞"	27½"	22"	3½"	5380	2'-2½"
48"	5"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	3st	49"	56½"	28½"	22"	3½"	6550	2'-6"
54"	5½"	2'-4"	6'-6"	1'-10"	8'-4"	7'-6"	3st	55"	65½"	33⅛"	24"	4"	8750	2'-10½"
60"	6"	2'-10"	6'-6"	1'-10"	8'-4"	8'-0"	3st	61"	72½"	36⅛"	24"	4"	9270	3'-5"
72"	7"	3'-10"	6'-6"	1'-10"	8'-4"	9'-0"	3st	73"	77⅛"	38⅝"	24"	5"	13250	4'-6"

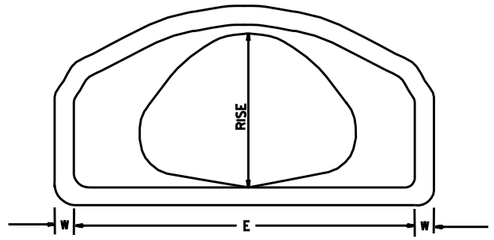


NOTE: TONGUE END ON UPSTREAM SECTION
GROOVE END ON DOWNSTREAM SECTION

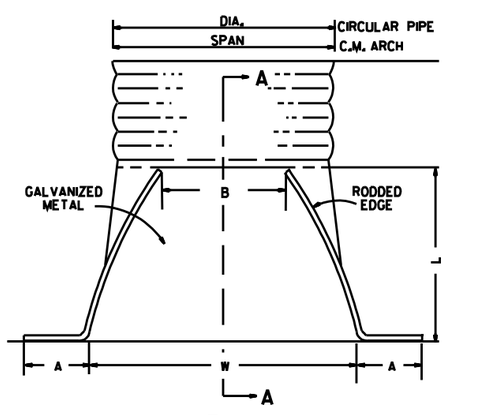
ARCH PIPE

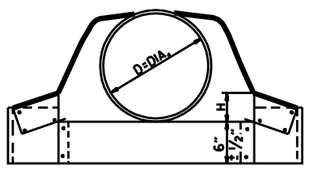
EQUIV. DIA.	• SPAN AASHTO M 206	• SPAN AHD NOMINAL	• RISE AASHTO M 206	• RISE AHD NOMINAL	W	A	B	C	D	E	P	R2	G-T	S
	INCHES													
15	18	18	11	11	2"	4"	2'-0"	4'-0"	6'-0"	3'-0"	29"	12"	1½"	2½st
18	22	22	13½	14	2½"	5"	2'-0"	4'-1"	6'-1"	3'-6"	32⅛"	13"	2½"	2½st
21	26	26	15½	16	2¾"	7"	2'-3"	3'-10"	6'-1"	4'-0"	34⅛"	14"	2½"	2½st
24	28½	29	18	18	3"	9"	2'-3"	3'-10"	6'-1"	5'-0"	36⅛"	15"	2½"	2½st
30	36¼	36	22½	23	3½"	10"	3'-1"	3'-0½"	6'-1½"	6'-0"	47⅛"	20"	3"	2½st
36	43¾	44	26⅝	27	4"	10½"	4'-0"	2'-1½"	6'-1½"	6'-6"	54⅞"	22"	3½"	2½st
42	51⅛	51	31⅝	31	4½"	11½"	4'-7"	1-10¼"	6'-5¼"	7'-2"	59½"	23"	3¾"	2½st
48	58½	59	36	36	5"	1'-3"	5'-3"	2'-10¾"	8'-1¾"	7'-10"	70⅜"	24"	4¼"	2½st
54	65	65	40	40	5½"	1'-7"	5'-3"	2'-11"	8'-2"	8'-6"	72⅛"	24"	4¾"	2¼st
60	73	73	45	45	6"	1'-10"	5'-6"	2'-8"	8'-2"	9'-0"	77⅛"	24"	5"	2¼st

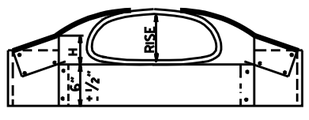
• THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PER CENT FROM THE VALUES SPECIFIED BY AASHTO M 206.



END VIEW
CONCRETE ARCH PIPE







CIRCULAR PIPE

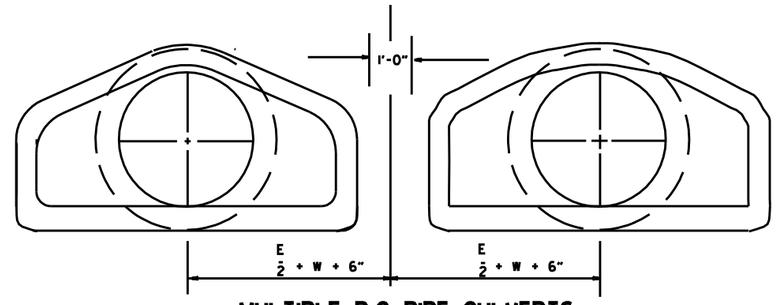
D. DIA.	GAUGE	A 1" ±	B. MAX.	H 1" ±	L 1½" ±	W 2" ±	S
		INCHES					
12	16	6	6	6	21	24	2½st
15	16	7	8	6	26	30	2½st
18	16	8	10	6	31	36	2½st
21	16	9	12	6	36	42	2½st
24	16	10	13	6	41	48	2½st
30	14	12	16	8	51	60	2½st
36	14	14	19	9	60	72	2½st
42	12	16	22	11	69	84	2½st
48	12	18	27	12	78	90	2½st
54	12	18	30	12	84	102	2st
60	12	18	33	12	87	114	1½st
66	12	18	36	12	87	120	1½st
72	12	18	39	12	87	126	1 1/3st

C.M. ARCH PIPE

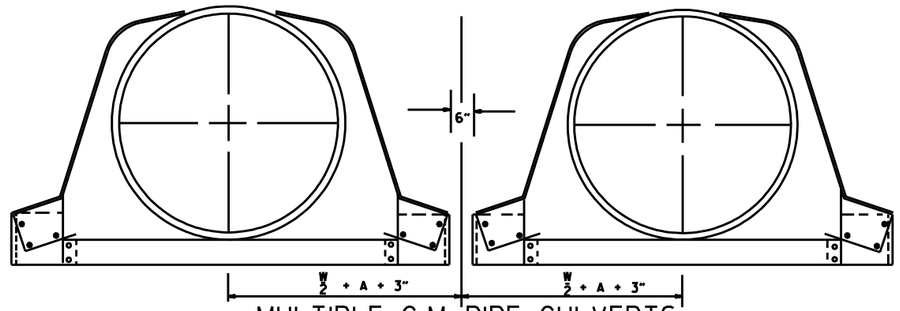
EQUIV. DIA.	SPAN	RISE	A 1" ±	B MAX.	H 1" ±	L 1½" ±	W 2" ±	S	GAUGE
	INCHES								
15"	17	13	7	9	6	19	30	2½st	16
18"	21	15	7	10	6	23	36	2½st	16
21"	24	18	8	12	6	28	42	2½st	16
24"	28	20	9	14	6	32	48	2½st	16
30"	35	24	10	16	6	39	60	2½st	14
36"	42	29	12	18	8	46	75	2½st	14
42"	49	33	13	21	9	53	85	2½st	12
48"	57	38	18	26	12	63	90	2½st	12
54"	64	43	18	30	12	70	102	2½st	12
60"	71	47	18	33	12	77	114	2½st	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



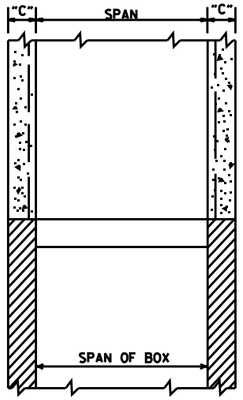
MULTIPLE C.M. PIPE CULVERTS

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

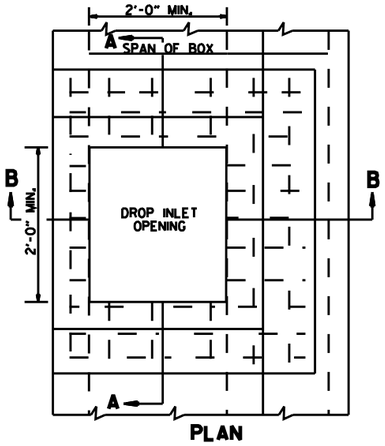
ARKANSAS STATE HIGHWAY COMMISSION

FLARED END SECTION

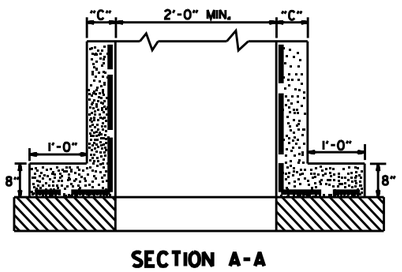
STANDARD DRAWING FES-2



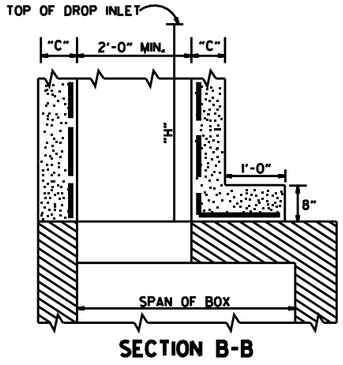
SECTION B-B



PLAN

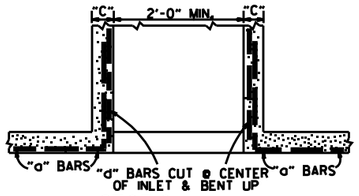


SECTION A-A

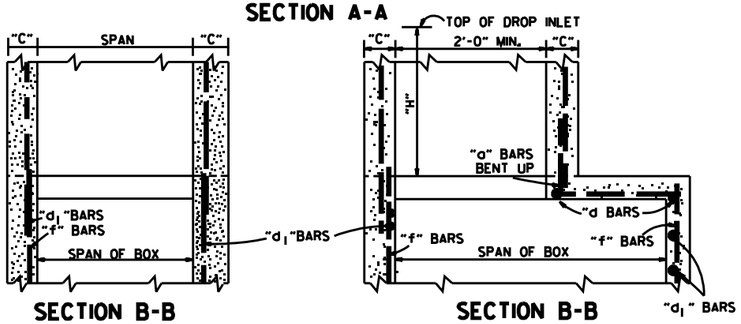


SECTION B-B

METHOD OF CONSTRUCTING DROP INLET ON EXISTING R.C. BOX CULVERT



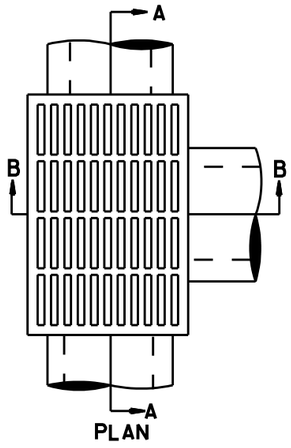
SECTION A-A



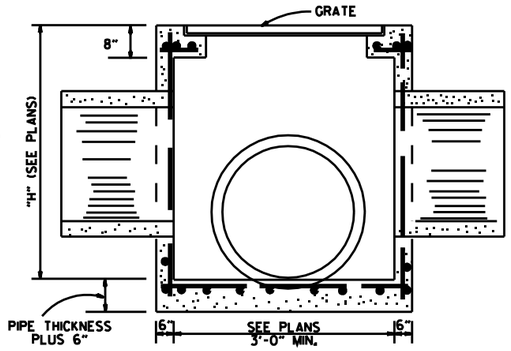
SECTION B-B SECTION B-B

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.

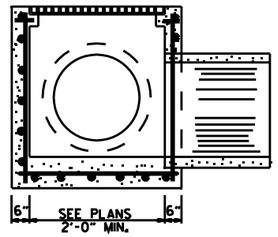


PLAN



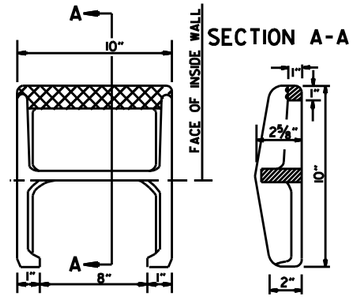
SECTION A-A

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)



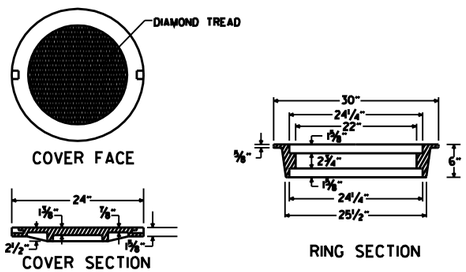
SECTION A-A

APPROX. WEIGHT = 11 LBS. (CAST IRON)

PLAN

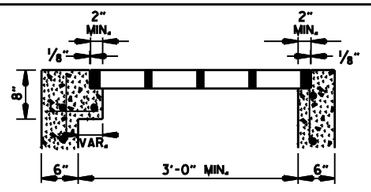
NOTE: THIS DETAIL IS TYPICAL. OTHERS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.

DETAIL OF STEP FOR DROP INLET

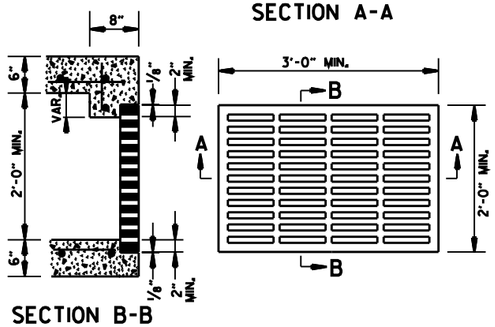


APPROXIMATE TOTAL WEIGHT = 333 LBS.

HEAVY DUTY RING & COVER



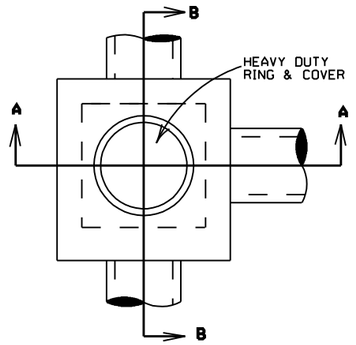
SECTION A-A



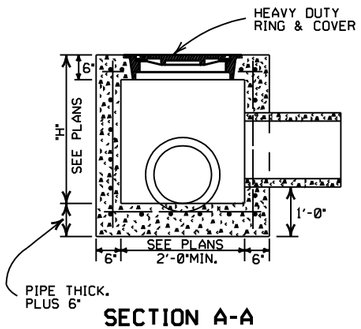
SECTION B-B

APPROXIMATE MINIMUM WATERWAY OPENING = 260 SQ. IN.

GRATE FOR TYPE E DROP INLET

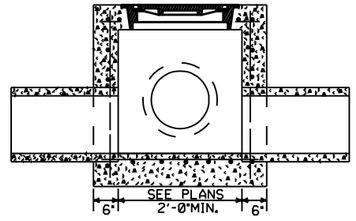


PLAN



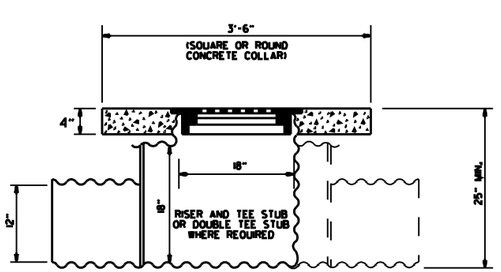
SECTION A-A

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.

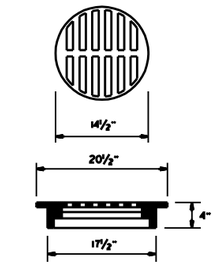


SECTION B-B

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. CU. YDS.	HEIGHT 5'-0" REINF. STEEL POUNDS	PLUS OR MINUS PER LIN. FT. OF HEIGHT CLASS A CONC. CU. YDS.	PLUS OR MINUS PER LIN. FT. OF HEIGHT REINF. STEEL 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.

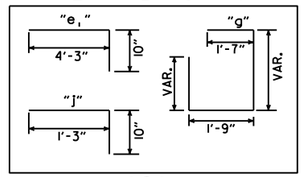
DROP INLET EXTENSION

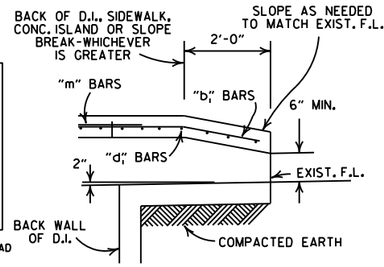
4'-0" CLASS A CONC. CU. YDS.	4'-0" REINF. STEEL POUNDS	8'-0" CLASS A CONC. CU. YDS.	8'-0" REINF. STEEL POUNDS
0.58	38	0.87	72
DEDUCT FROM QUANTITY COMPUTED FOR EACH EXTENSION ADDED.			
0.04	3		

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

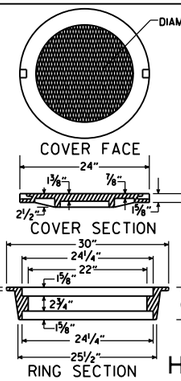
BAR DIAMETER





BACK OPENING

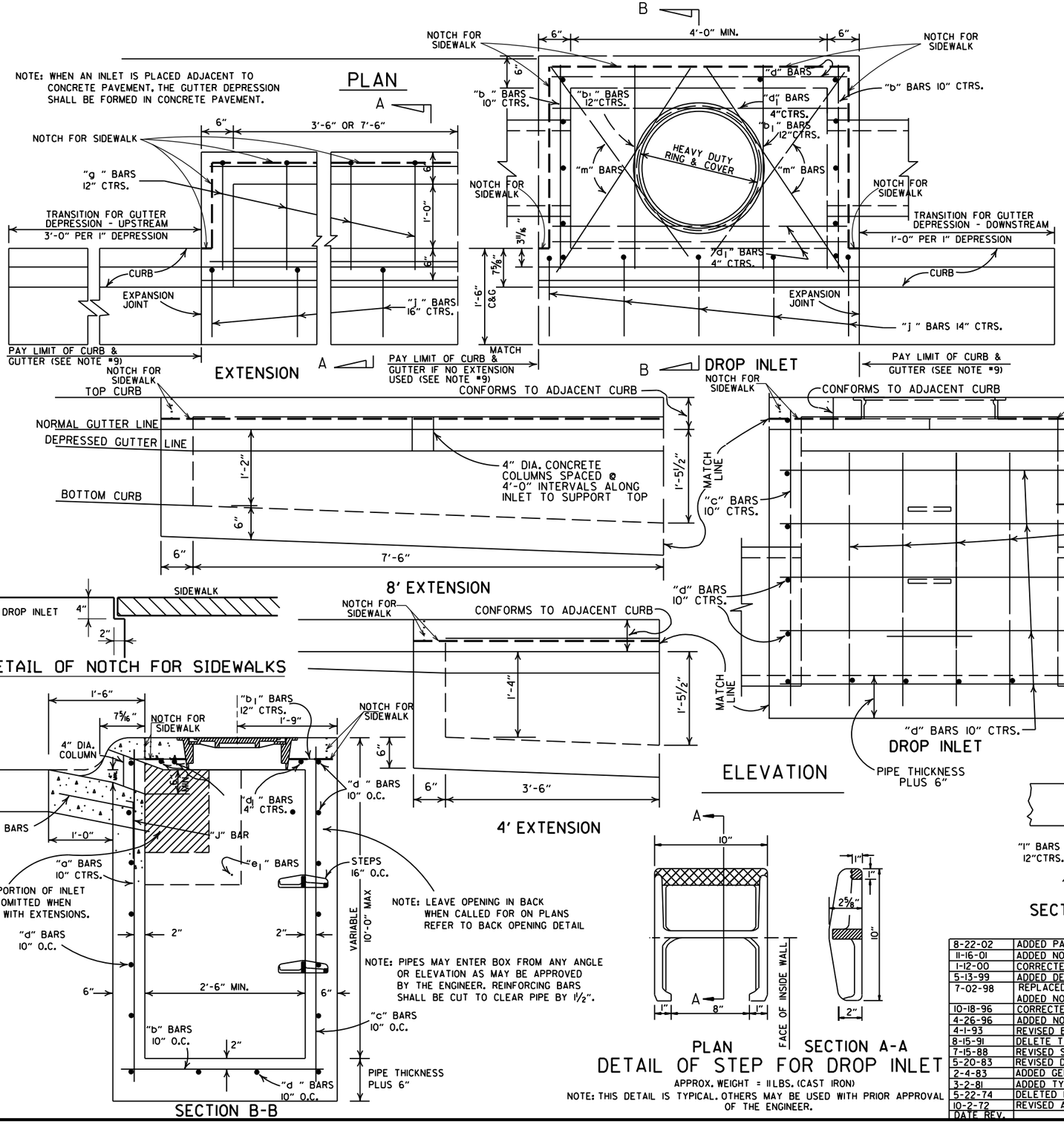
WHEN OPENING IN BACK IS CALLED FOR ON PLANS EXTEND OPENING AS SHOWN IN DETAIL. PAYMENT TO BE INCLUDED IN PRICE BID FOR DROP INLET (TYPE C).



APPROXIMATE TOTAL WEIGHT = 333 LBS.

HEAVY DUTY RING & COVER

GENERAL NOTES:
1. ALL EXPOSED CORNERS TO HAVE ¾" 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 1½" 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.



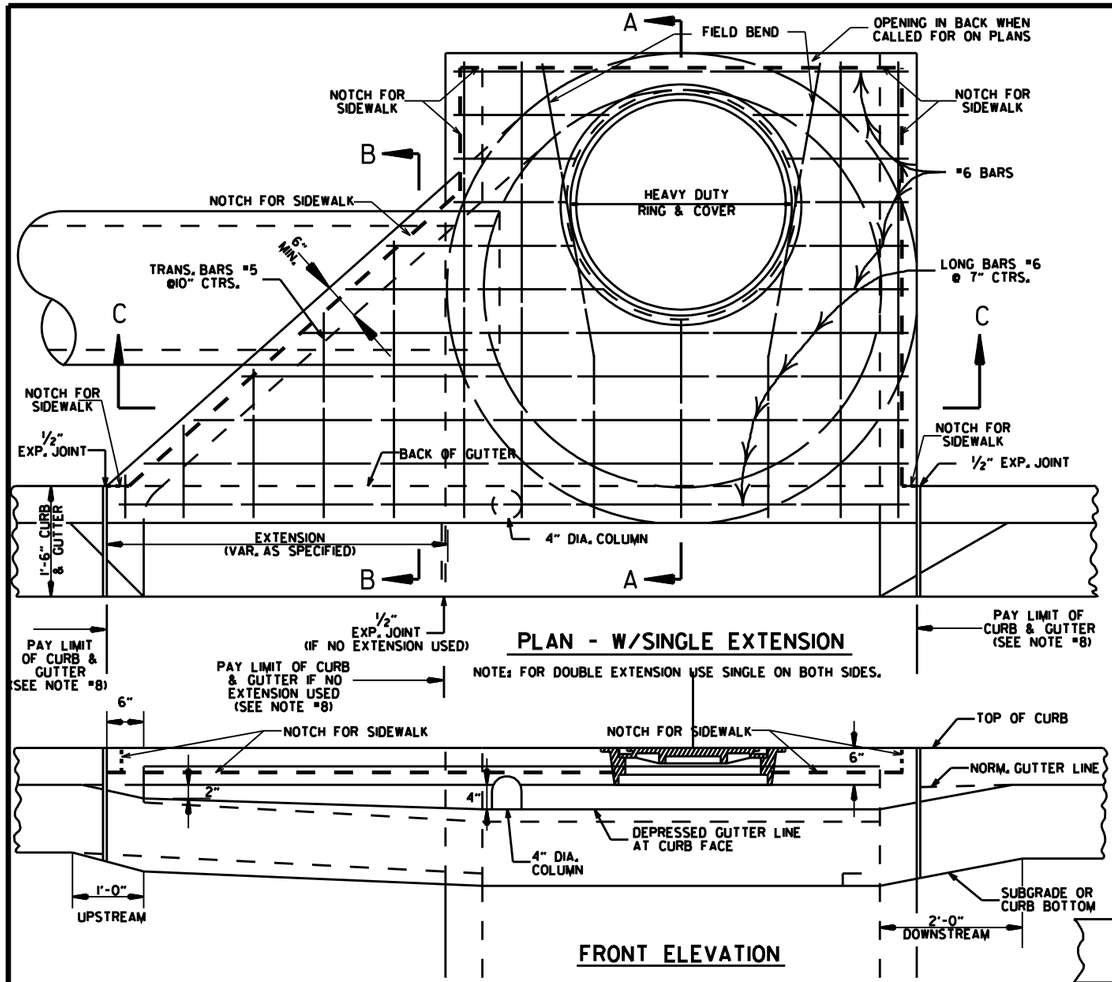
DATE REV.	REVISION	DATE FILMED
8-22-02	ADDED PAY LIMIT CURB NOTES TO SECTIONS A-A & B-B	
11-16-01	ADDED NOTE 13; REVISED SECTION B-B	
1-12-00	CORRECTED DIMENSION ON SECTION B-B & REVISED RING & COVER	
5-13-99	ADDED DETAIL OF NOTCH FOR SIDEWALKS	
7-02-98	REPLACED RING & COVER W/HEAVY DUTY RING & COVER 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)

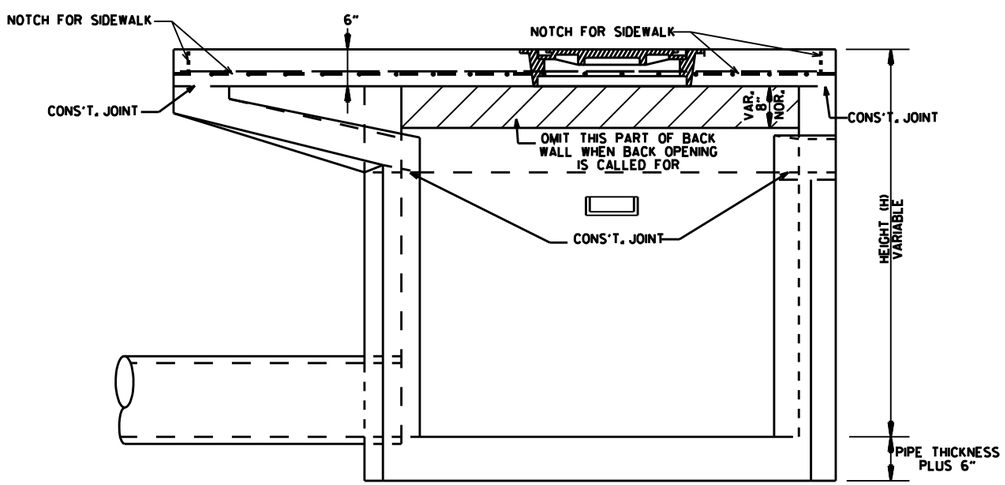
STANDARD DRAWING FPC-9E



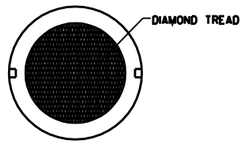
PLAN - W/SINGLE EXTENSION

NOTE: FOR DOUBLE EXTENSION USE SINGLE ON BOTH SIDES.

FRONT ELEVATION



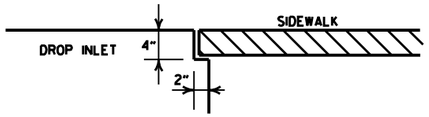
SECTION C-C



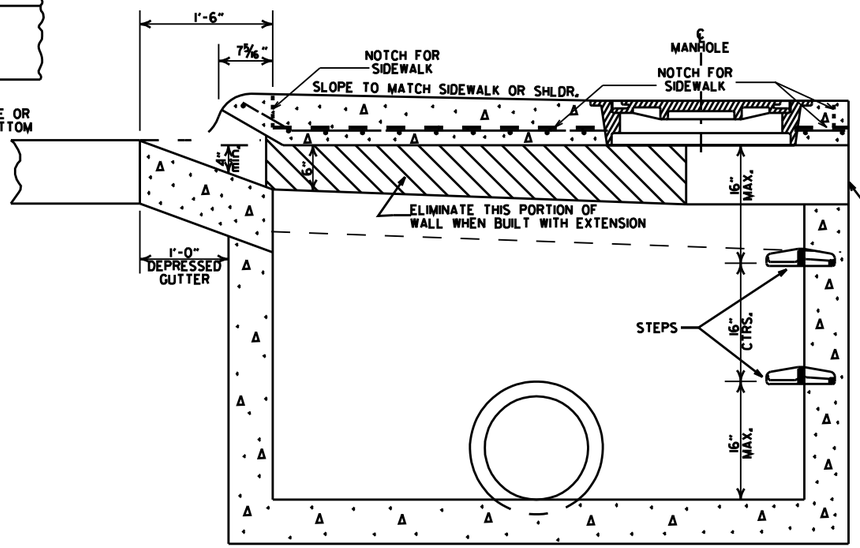
APPROXIMATE TOTAL WEIGHT = 333 LBS.

HEAVY DUTY RING & COVER

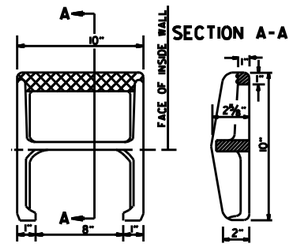
1. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M105 CLASS 35B & AASHTO M306.
2. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
3. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON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



DETAIL OF NOTCH FOR SIDEWALKS



SECTION A-A

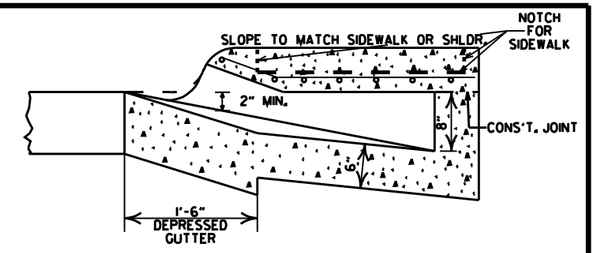


APPROX. WEIGHT = 11 LBS. (CAST IRON)

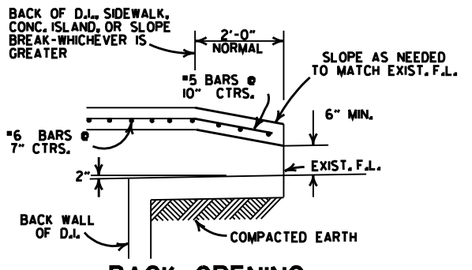
PLAN

NOTE: THIS DETAIL IS TYPICAL, OTHERS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.

DETAIL OF STEP FOR DROP INLET



SECTION B-B



BACK OPENING

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

GENERAL NOTES:

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

LEAVE OPENING IN BACK WHEN CALLED FOR ON PLANS REFER TO BACK OPENING DETAIL

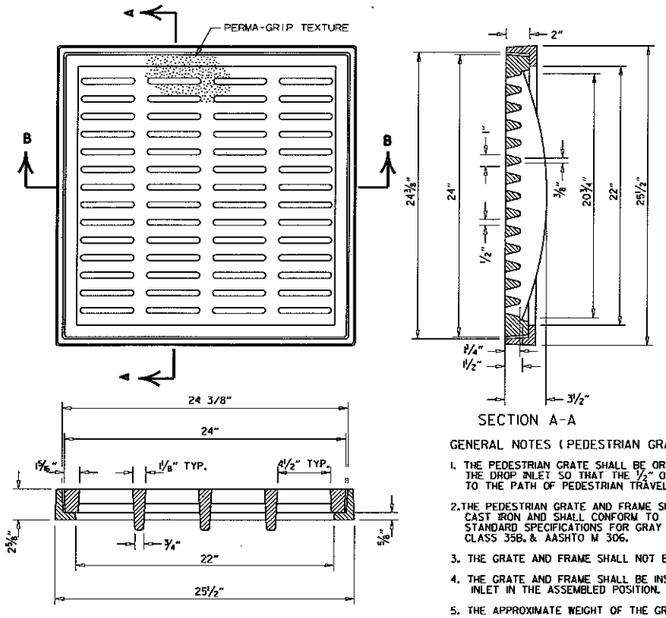
DIA. OF D.I.	DIA. OF OUTLET PIPE	MINIMUM WALL THICKNESS	
		CAST IN PLACE	PRECAST
4' I.D.	12" THRU 27"	6"	5"
5' I.D.	30" THRU 42"	8"	6"
6' I.D.	48" THRU 54"	8"	7"

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, REV. 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 11 & ADJ. OPENING DIMENSION	
10-12-95	CORRECTED *5 BAR SPACING	
7-20-95	CORRECTED DIAMETER OF D.I. IN BOX	
2-2-95	TYPE C TO MO (OPEN BACK DETAIL)	
11-1-94	REVISED GENERAL NOTES	11-1-94
4-1-93	REV BACK OPEN DETAIL & NOTE	4-1-93
8-14-91	REVISED NOTES 11,12 & ADDED BK.OPEN DETAIL	8-14-91
11-20-89	ADDED NOTE NO.12	11-20-89
4-21-89	ADDED NOTE 8 & MINIMUM WALL THICKNESS	4A1-4-21-89
7-25-88	ADDED EXTEND NOTE TO SECTION A-A	4A9-7-25-88
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



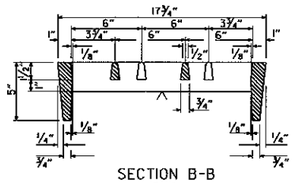
SECTION B-B

SECTION A-A

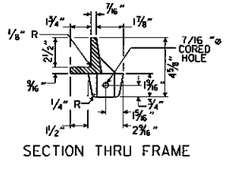
DETAILS OF PEDESTRIAN GRATE AND FRAME

GENERAL NOTES (PEDESTRIAN GRATE & FRAME)

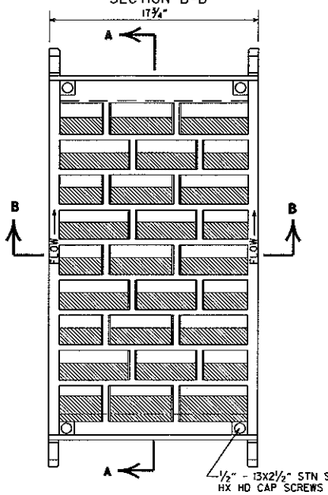
1. THE PEDESTRIAN GRATE SHALL BE ORIENTED IN THE TOP OF THE DROP INLET SO THAT THE ½" OPENINGS ARE PERPENDICULAR TO THE PATH OF PEDESTRIAN TRAVEL.
2. THE PEDESTRIAN GRATE AND FRAME SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS 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 211LBS.
6. THE MINIMUM WATERWAY OPENING SHALL BE 122 SQ. IN.

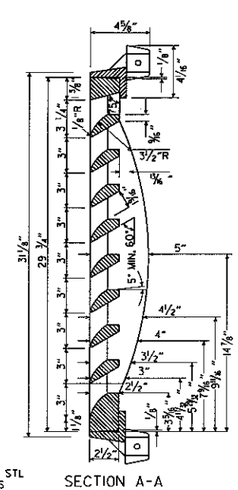


SECTION B-B



SECTION THRU FRAME



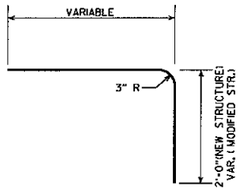


SECTION A-A

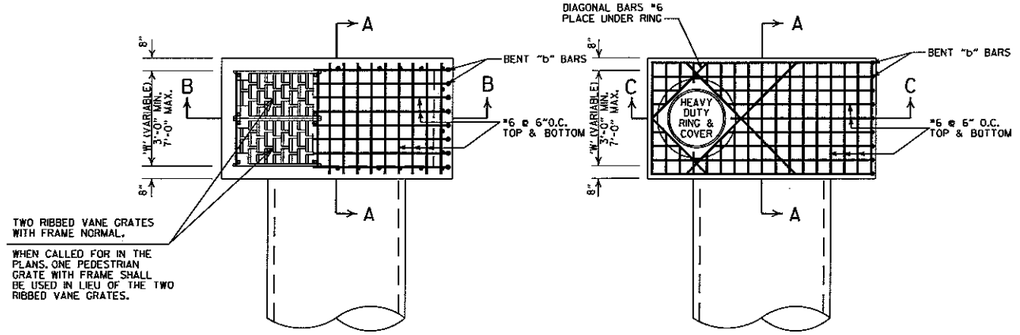
DETAILS OF RIBBED VANE GRATE AND FRAME

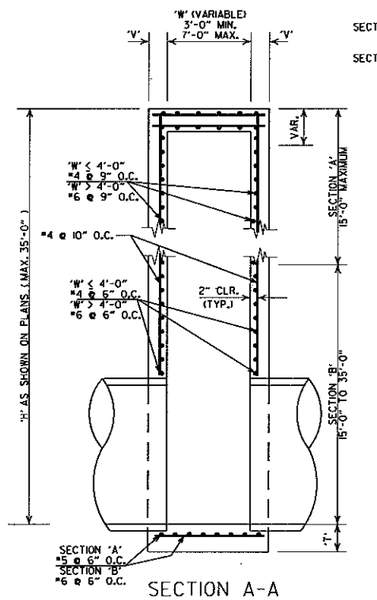
GENERAL NOTES (RIBBED VANE GRATE & FRAME)

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.



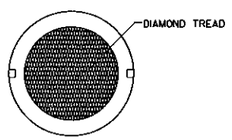
DETAIL OF BENT "b" BAR



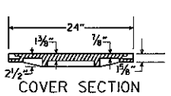


SECTION A-A

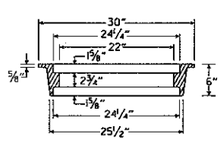
DETAILS OF DROP INLET (TYPE ST)



COVER FACE



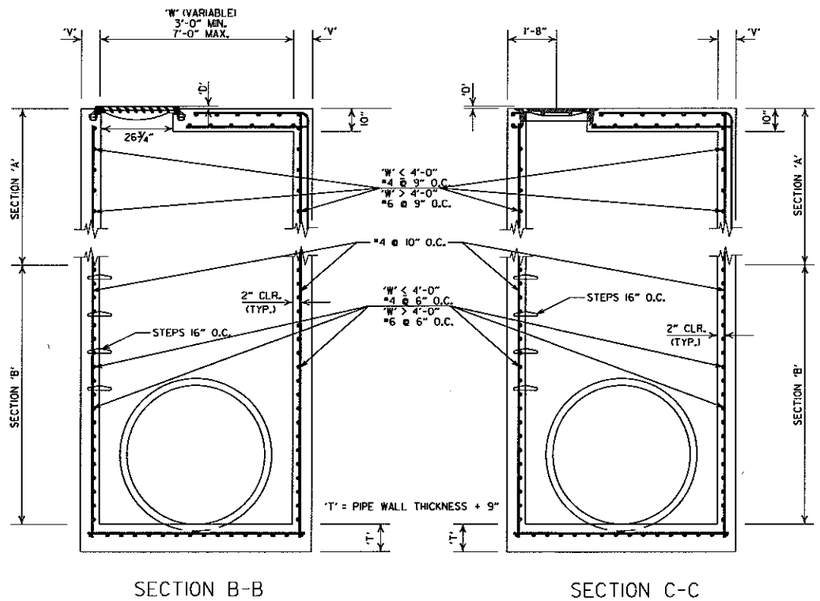
COVER SECTION



RING SECTION

HEAVY DUTY RING & COVER

APPROXIMATE TOTAL WEIGHT = 333 LBS.



SECTION B-B

SECTION C-C

DETAILS OF JUNCTION BOX (TYPE ST)

GENERAL NOTES (TYPE ST DROP INLET & JUNCTION BOX)

1. THE 'D' DIMENSION SHALL MATCH THE FINAL LIFT OF ACHM SURFACE COURSE SHOWN IN THE PLANS WHEN ASPHALT PAVING SURROUNDS THE GRATE OR RING COVER, AND SHALL BE 0" AT OTHER INSTALLATIONS.
2. THE STEPS SHALL BE OMITTED WHERE 'H' IS LESS THAN 4'-0".
3. ALL EXPOSED CORNERS ARE TO HAVE A ¾" CHAMFER.

GENERAL NOTES (HEAVY DUTY RING & COVER):

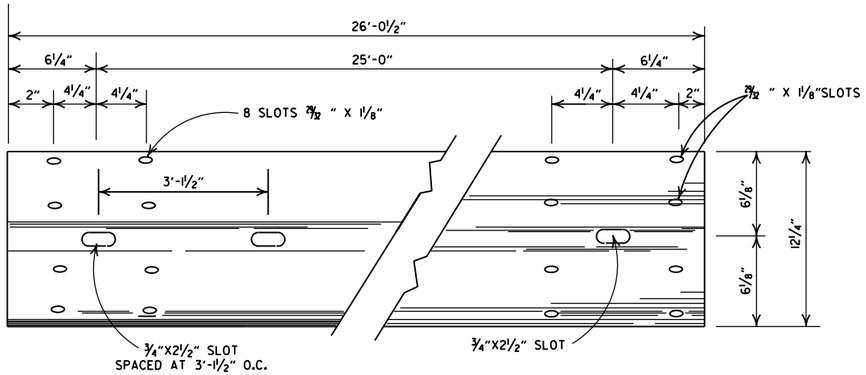
1. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105, CLASS 35B, & AASHTO M 306.
2. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
3. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE 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.

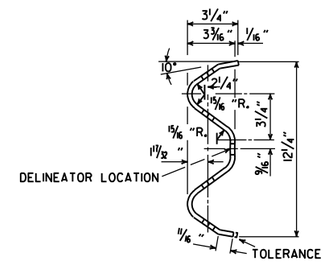
DATE REVISED	DATE FILMED	DESCRIPTION
7-26-12		REMOVED NOTE 4, REVISED 'T', REVISED BOTTOM SLAB REBAR FOR SECTION 'A', SHOWED REBAR CLEARANCE IN SECTIONS
11-16-01		ADDED NOTE 4
1-12-00		REVISED HEAVY DUTY RING & COVER
5-13-99		ADDED PEDESTRIAN FRAME & GRATE
7-02-98		REMOVED NOTE 5, REV. DIMENSIONS, ADDED 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)

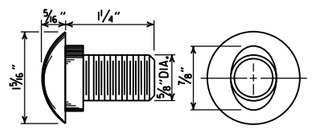
STANDARD DRAWING FPC-9S



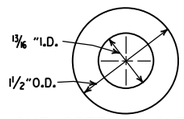


DETAILS OF W-BEAM GUARDRAIL

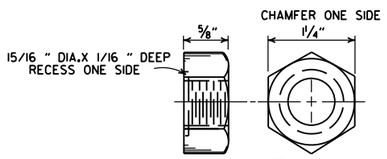
RAIL SECTION OF CLOSELY SIMILAR DIMENSIONS AND COMPARABLE STRENGTH MAY BE SUBSTITUTED IF APPROVED BY THE ENGINEER.



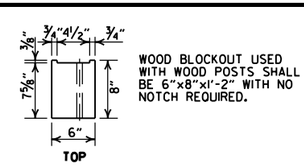
SPLICE BOLT
POST BOLT - SAME EXCEPT LENGTH



CUT STEEL WASHER

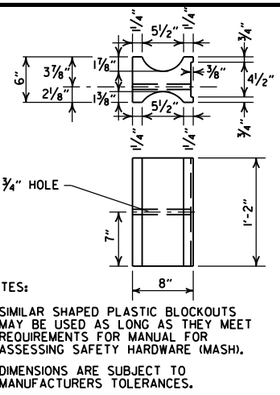


NUT



WOOD BLOCKOUT USED WITH WOOD POSTS SHALL BE 6"x8"x1'-2" WITH NO NOTCH REQUIRED.

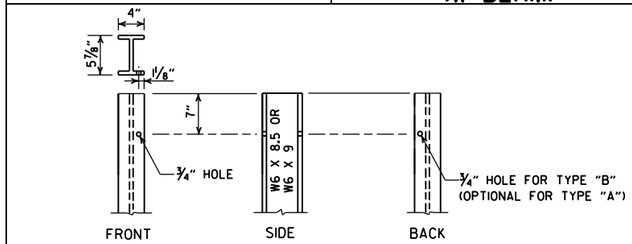
WOOD BLOCKOUT (W-BEAM)



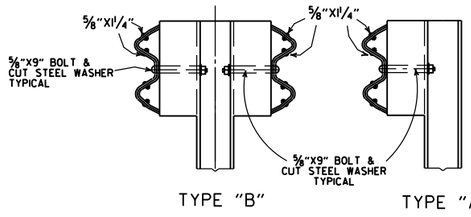
NOTES:

1. SIMILAR SHAPED PLASTIC BLOCKOUTS MAY BE USED AS LONG AS THEY MEET REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
2. DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCES.

PLASTIC BLOCKOUT (W-BEAM)



STEEL POST



DETAILS OF STEEL LINE POST CONNECTIONS (W-BEAM)

-GENERAL NOTES-

ALL BOLTS SHALL BE SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT AND NO MORE THAN ¾" BEYOND IT.

WHERE W-BEAM GUARDRAIL CONTINUES, THE INTERMEDIATE SECTIONS SHALL HAVE A POST SPACING OF 6'-3" UNLESS OTHERWISE NOTED.

W-BEAM GUARDRAIL REPRESENTING INTERMEDIATE SECTIONS WILL BE MEASURED ALONG THE ROADWAY FACE FROM CENTERLINE OF POST TO CENTERLINE OF POST.

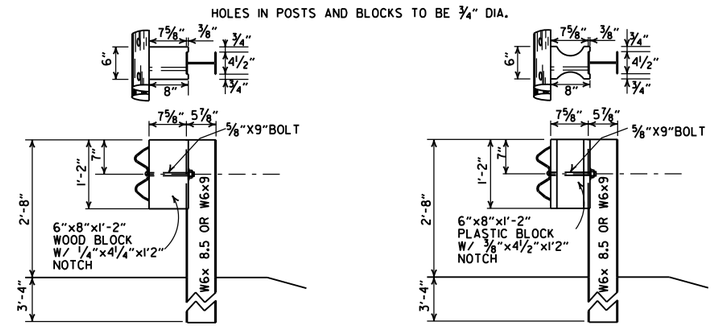
USE W-BEAM GUARDRAIL COMPONENTS OF SAME MATERIAL FOR ENTIRE JOB. FOR EXTENSIONS OR MODIFICATION OF EXISTING GUARDRAIL, W-BEAM GUARDRAIL COMPONENTS OF THE SAME TYPE AS THOSE EXISTING SHALL BE USED.

ANY BACKFILLING UNDER OR AROUND POST SHALL BE DAMP SAND THOROUGHLY TAMPED IN PLACE.

WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7 f (1400 f) OR NO. 1 1350 f SOUTHERN PINE.

CONTRACTOR SHALL HAVE THE OPTION OF USING WOOD BLOCKOUTS FOR W-BEAM GUARDRAIL OR PLASTIC BLOCKOUTS, AS LONG AS BLOCKOUT USED MEETS REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) FOR W-BEAM GUARDRAIL.

DELINEATORS SHALL BE MOUNTED AT 37.5' SPACING ON THE FRONT FACE OF THE GUARDRAIL. SPACING MAY BE REDUCED IN CURVES, AS DIRECTED BY THE ENGINEER. 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 GUARDRAIL.



WOOD BLOCKOUT CONNECTIONS

PLASTIC BLOCKOUT CONNECTIONS

DETAILS OF STEEL LINE POST CONNECTIONS (W-BEAM)

POSTS AND BLOCKS TO BE ROUGH SAWN 6"X8" WITH A TOLERANCE OF + OR - ¼".

WOOD BLOCKOUT CONNECTIONS

PLASTIC BLOCKOUT CONNECTIONS

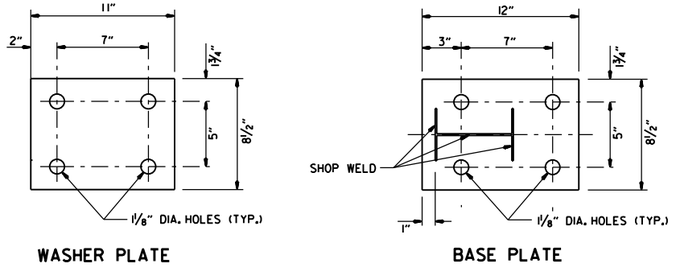
DETAILS OF WOOD LINE POST CONNECTIONS (W-BEAM)

DATE	REVISION	FILMED
05-19-22	REVISED GENERAL NOTES, ADDED DELINEATOR LOCATION.	
11-07-19	RENUMBERED AND RENAMED	
11-16-17	REVISED GENERAL NOTES AND RAISED GUARDRAIL HEIGHT 3"	
07-14-10	RAISED HEIGHT OF GUARDRAIL 1"	
10-15-09	ADDED REFERENCE TO MASH	
04-10-03	REVISED GENERAL NOTES	
08-22-02	REVISED DIMENSION ON WOOD & PLASTIC BLOCKOUT CONNECTIONS & STEEL POST	
11-16-01	REVISED WOOD BLOCKOUT & DETAILS OF WOOD LINE POST CONNECTIONS	
03-30-00	REMOVED GUARDRAIL AT BRIDGE ENDS	
01-12-00	ADDED PLASTIC BLOCKOUT	
08-12-98	REV. BLOCKOUTS TO WOOD, DELETED CONC. POST & REV. GENERAL NOTE, DELETED DET. OF GUARDRAIL REPLACE. BEHIND CURB & DET. OF POST PLACE. IN SOLID ROCK, & ADDED DETAILS OF STEEL LINE POST CONN. REMOVED BACK-UP PLATE, REVISED HOLES IN STEEL POLES	
04-03-97	REMOVED "LAP IN DIRECTION OF TRAFFIC" NOTE & PLACED ARROWS ON WASHERS	
10-18-96	REVISED WOOD POST NOTE	
06-02-94	ADDED ALT. STEEL POST SIZE	
08-05-93	REVISED STEEL POST SIZE	8-5-93
10-01-92	REDRAWN & REVISED	10-1-92
08-15-91	REVISED WASHER NOTE	8-15-91
08-02-90	REV. GEN. NOTE & DEPTH OF ANC. POST IN ROCK	8-2-90
07-15-88	REVISED SECTION 3 & GENERAL NOTES	
03-04-88	REV. ANCHOR POST, ELEV. NOTES & POST IN ROCK	780-3-4-88
10-30-87	REVISED WOOD LINE POST DETAIL	546-10-30-87
10-09-87	REDRAWN & REVISED	802-10-9-87

ARKANSAS STATE HIGHWAY COMMISSION

GUARDRAIL DETAILS

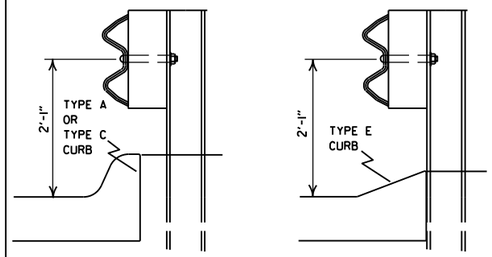
STANDARD DRAWING GR-6



WASHER PLATE

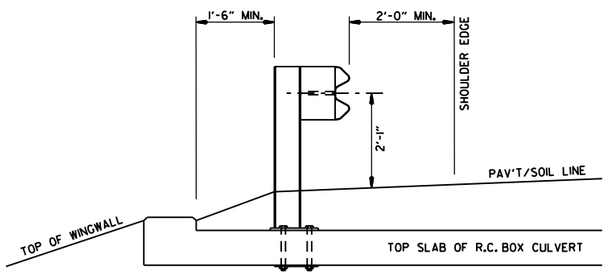
BASE PLATE

Note: Bolts, nuts, washers and plates shall be galvanized in accordance with Section 807 of the Standard Specifications.

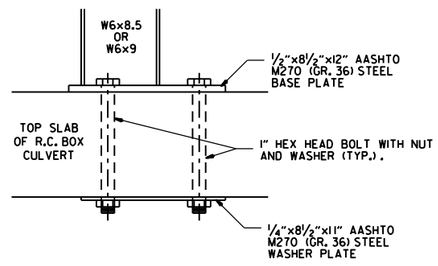


DETAIL OF GUARDRAIL PLACEMENT BEHIND CURB (W-BEAM)

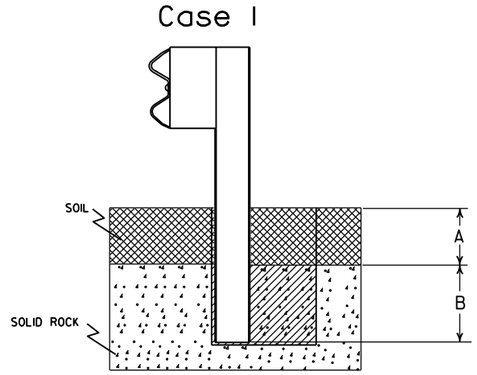
FOR DESIGN SPEEDS OF 50 MPH OR LESS ALL CURB FACES, AS SHOWN ON STD. DRWG. CG-1, MAY BE USED. FOR DESIGN SPEEDS OF 55 MPH OR MORE TYPE "E" CURB FACE SHALL BE USED.



SECTION A-A

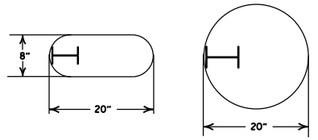


DETAIL OF CONNECTION



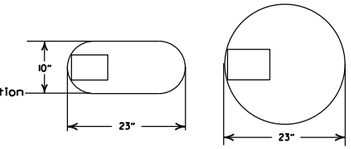
Plan View Steel Posts

Either hole configuration acceptable



Plan View Wood Posts

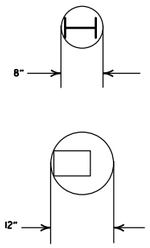
Either hole configuration acceptable



Notes: For overlying soil depths (A) ranging from 0 to 18", the depth of required drilling (B) is equal to 24".

Zone A:
Backfill according to Section 617.03(a).

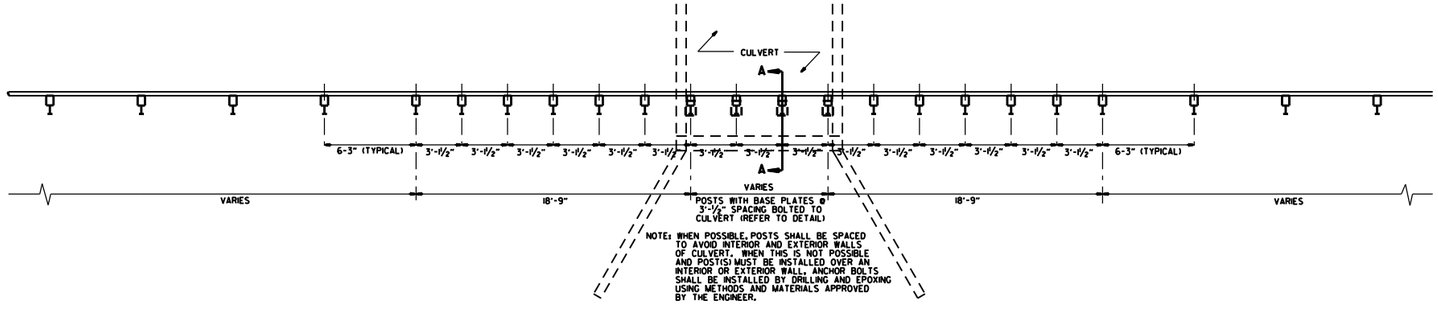
Zone B:
Backfill hole in 6" lifts with material meeting the requirements of Section 802.02(c) - Alternate gradation. Compact to 95% maximum dry density per ASTM D-698.



Notes: For overlying soil depths (A) ranging from 18" to 44", the depth of required drilling (B) is equal to either 12" or 44" minus the depth of soil whichever is less.

Zone A & B:
Backfill according to Section 617.03(a).

DETAIL OF POST PLACEMENT IN SOLID ROCK (W-BEAM)



PLAN LAYOUT OF TYPE A GUARDRAIL AT LOW-FILL CULVERTS

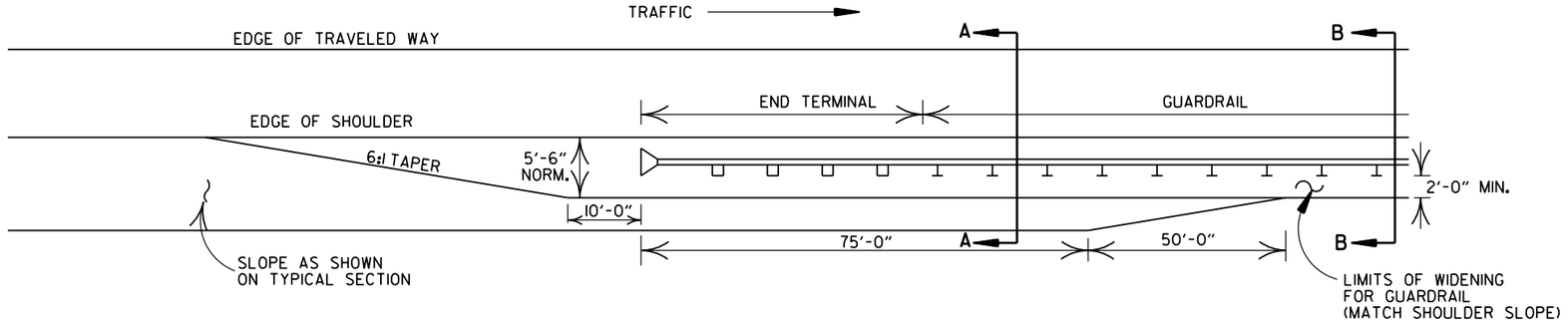
NOTE: THIS DETAIL IS TO BE USED ONLY WHEN THE COVER OVER THE CULVERT DOES NOT PERMIT FULL EMBEDMENT OF GUARDRAIL POSTS AS SHOWN ON STD. DWG. GR-6.

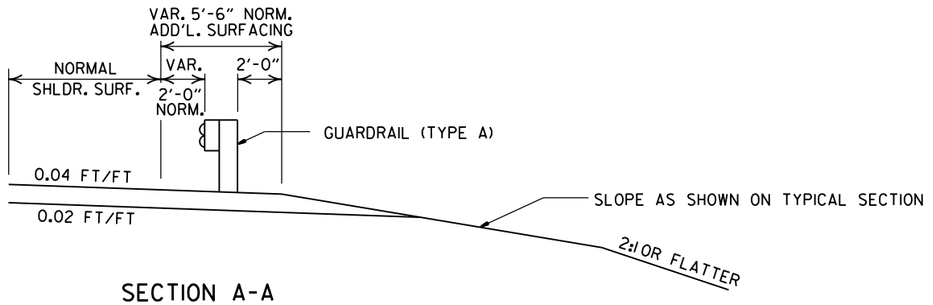
DATE	REVISION	FILMED
11-07-19	RENUMBERED, RENAMED, REVISED REFERENCE	
11-16-17	REVISED GUARDRAIL HEIGHT	
07-14-10	RAISED HEIGHT OF GUARDRAIL 1"	
04-12-07	REVISED DETAIL OF GUARDRAIL PLACEMENT BEHIND CURB	
11-10-05	ADDED GUARDRAIL PLACEMENT BEHIND CURB; REVISED DETAIL OF CONNECTION	
11-18-04	REVISED POST PLACEMENT IN ROCK & CULVERT CONNECTION DETAILS. ADDED DETAIL FOR GUARDRAIL PLACEMENT AT LOW-FILL CULVERTS	
03-30-00	REMOVED CONCRETE INSERT ANCHOR	
08-12-98	CHANGED STEEL SPACER BLOCK TO WOOD BLOCKOUT, ADDED DET. OF GUARDRAIL CONNECTION TO R.C. BOX CULV'T., DELETED DET. OF STEEL LINE POST CONN. & ADDED DET. OF GUARDRAIL PLACE. BEHIND CURB & DET. OF POSTPLACE. IN SOLID ROCK	
04-03-96	PLACED ARROWS AT CUT STEEL WASHERS	4-3-96
10-18-96	REV. ASTM REF. TO AASHTO	
11-22-95	ADDED OPTIONAL HOLES	
06-02-94	REVISED ALTERNATE POST SIZE	
08-05-93	REVISED STEEL POST SIZE	
10-01-92	REDRAWN & REVISED	10-1-92
08-02-90	DEL. WASHER ON ANCHOR ASSEMBLY	8-2-90
07-15-88	CONFORMED TO 1988 SPECS	
03-04-88	REVISED ANCHOR NOTE	
10-30-87	REVISED ANCHOR ASSEMBLY	712-10-30-87
10-30-87	REVISED PLACEMENT BEHIND CURB	547-10-30-87
10-09-87	REDRAWN & REVISED	803-10-9-87

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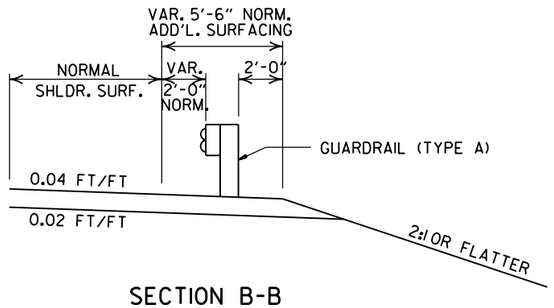
GUARDRAIL DETAILS

STANDARD DRAWING GR-7



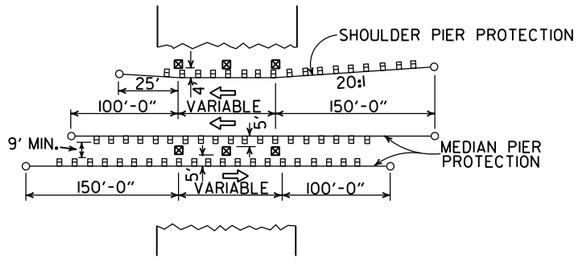


SECTION A-A



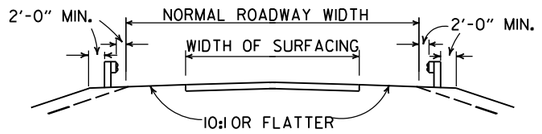
SECTION B-B

DETAILS OF WIDENING FOR GUARDRAIL

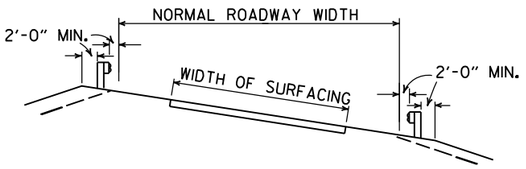


METHOD OF INSTALLATION OF GUARDRAIL AT FIXED OBSTACLE

NOTE: NORMAL SECTION TO BE WIDENED APPROX. 5'-6" EACH SIDE TO SUPPORT GUARDRAIL.



SECTION ON TANGENT



SECTION ON CURVE

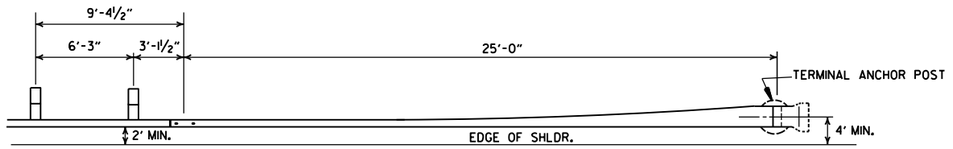
DETAILS SHOWING POSITION OF GUARDRAIL ON HIGHWAY

DATE	REVISION	DATE FILM
11-07-19	RENUMBERED AND RENAMED	
4-17-08	MINOR REVISION	
11-10-05	DRAWN	

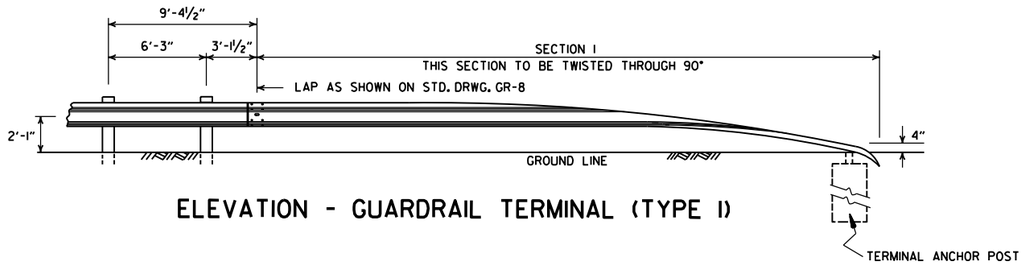
ARKANSAS STATE HIGHWAY COMMISSION

GUARDRAIL DETAILS

STANDARD DRAWING GR-9

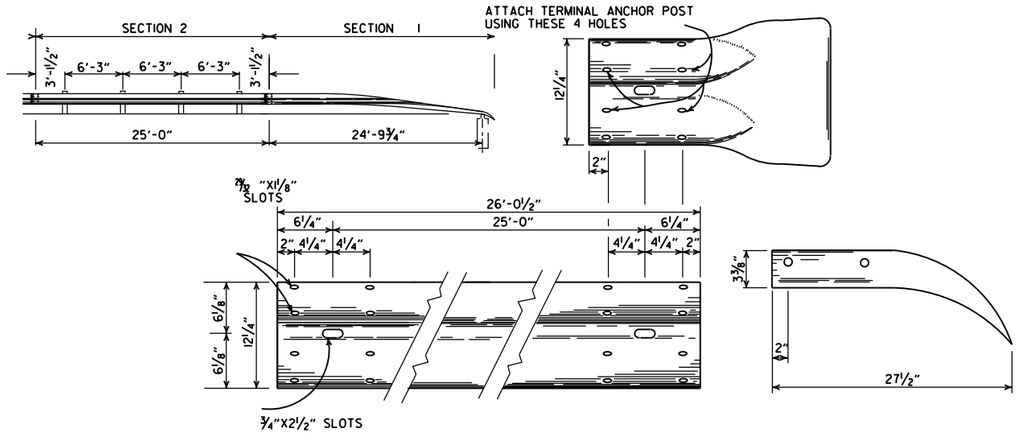


PLAN - GUARDRAIL TERMINAL (TYPE I)



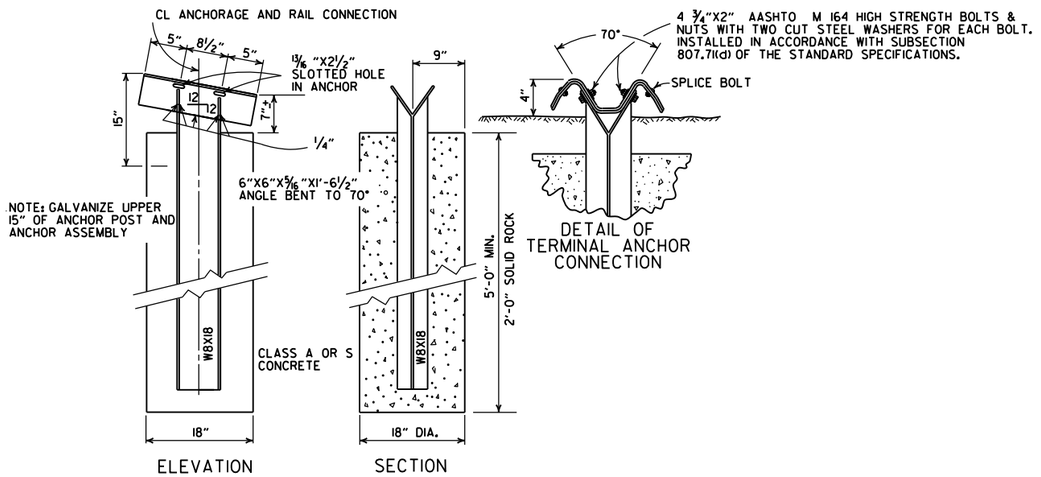
ELEVATION - GUARDRAIL TERMINAL (TYPE I)

NOTE:
SECTIONS I AND 2 OF GUARDRAIL TERMINAL SHALL BE PAID FOR AT THE PRICE BID PER LINEAR FOOT OF THE TYPE OF GUARDRAIL SPECIFIED.



SECTION I

TERMINAL SECTION



NOTE: RAIL MEMBERS MAY BE BOLTED TO ANGLE AT TERMINAL ANCHOR AND THE TWO ASSEMBLIES POSITIONED TO PROPER ALIGNMENT PRIOR TO PLACING CONCRETE AROUND 8 WF 17 POST IF CONTRACTOR SO DESIRES.

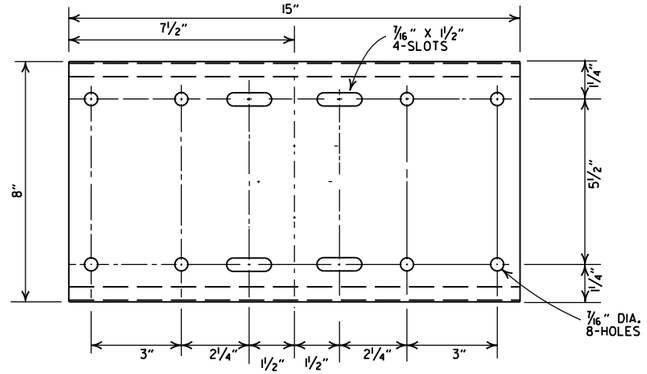
DETAIL OF TERMINAL ANCHOR POST (TYPE I)

DATE	REVISION	FILMED
11-07-19	RENAMED & REVISED REFERENCE.	
11-16-17	REVISED GUARDRAIL HEIGHT AND LOCATION OF POSTS	
07-14-10	RAISED HEIGHT OF GUARDRAIL 1"	
06-26-97	REVISED LAP NOTE	
10-18-96	REVISED ASTM REF. TO AASHTO	
11-03-94	DIMENSION TERMINAL DETAIL	
11-11-92	ADDED NOTE FOR PAYMENT	11-11-92
10-01-92	DRAWN & ISSUED	10-1-92

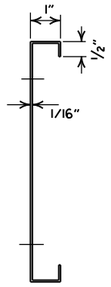
ARKANSAS STATE HIGHWAY COMMISSION

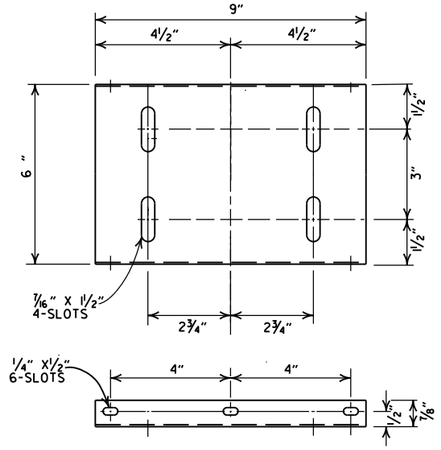
GUARDRAIL DETAILS

STANDARD DRAWING GRT-1

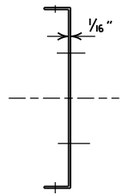


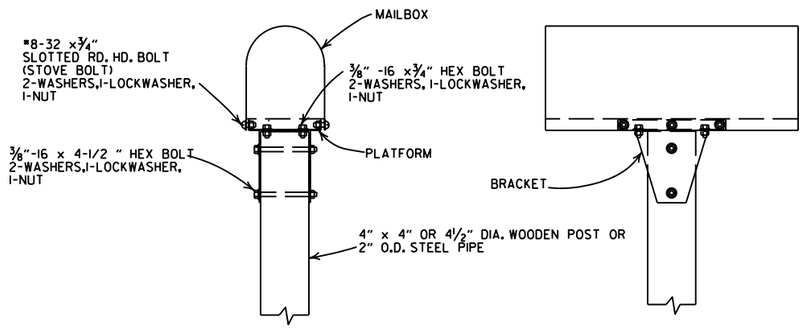
SHELF



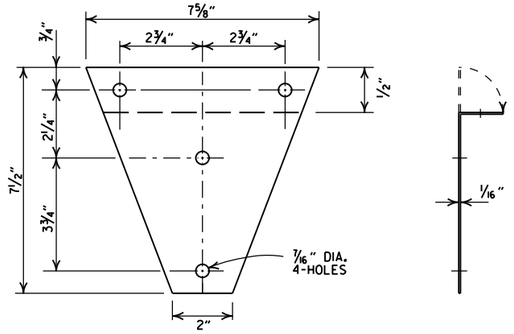


PLATFORM





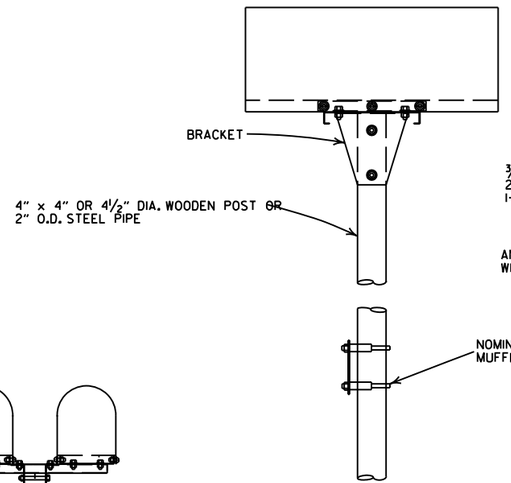
SINGLE INSTALLATION



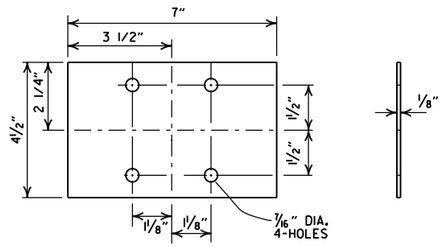
BRACKET

GENERAL NOTES

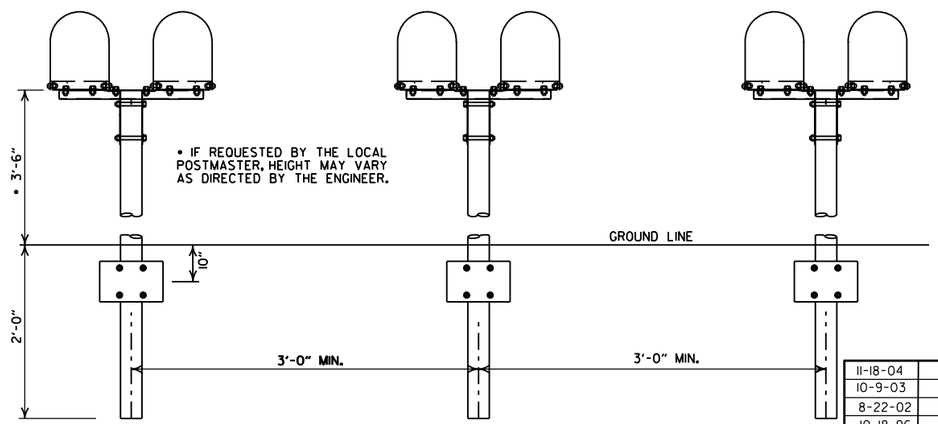
1. MAILBOX POSTS MAY BE WOOD OR METAL. WOOD POSTS SHALL BE PRESSURE TREATED FOR GROUND CONTACT IN ACCORDANCE WITH SECTION 637.02 OF THE STANDARD SPECIFICATIONS.
2. ANTI-TWIST PLATES SHALL BE USED ONLY ON METAL POSTS.
3. MAILBOX SHELF, BRACKET & PLATFORM SHALL BE GALVANIZED OR PAINTED STEEL, HOWEVER TREATED 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.



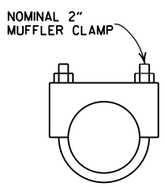
DOUBLE INSTALLATION



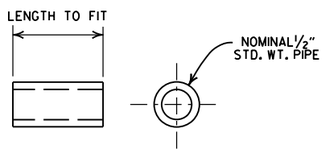
ANTI-TWIST PLATE



SPACING FOR MULTIPLE POST INSTALLATION



CLAMP



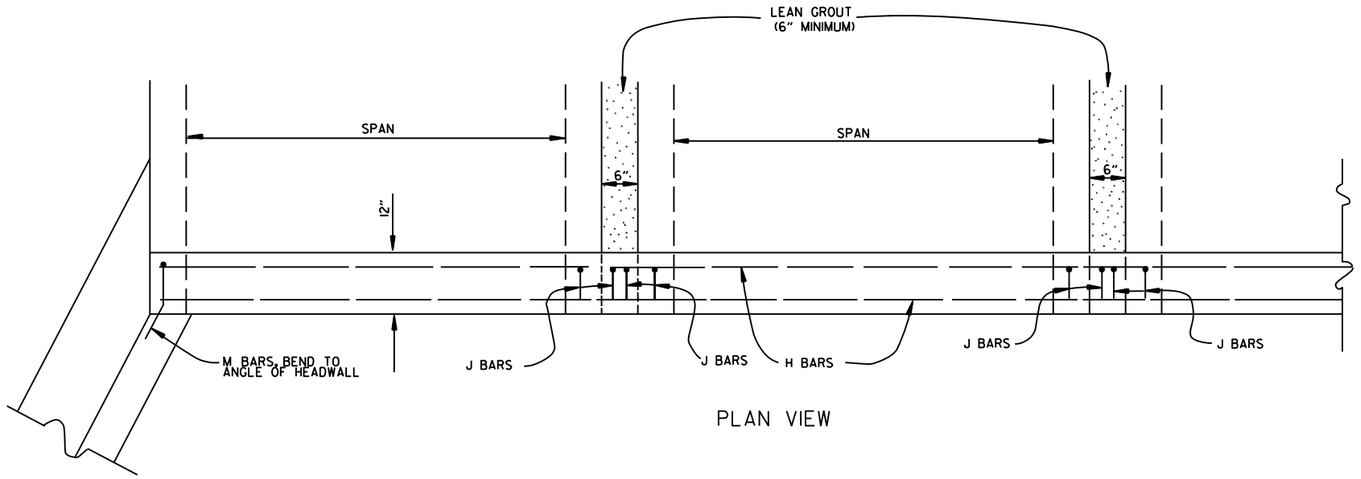
SPACER

DATE	FILMED	REVISION
11-18-04		REVISED NOTES
10-9-03		REVISED NOTE 6
8-22-02		REVISED NOTE 6
10-18-96		CORRECTED AASHTO
10-1-92		CORRECTED SPELLING
9-26-91		NEW PHONE NUMBER
8-15-91		ADDED NOTE
11-30-89		ADJUSTED HEIGHT & ADDED NOTE
2-16-89		DELETED SLOTS FROM SHELF & PLTF
11-17-88	10-1-92	ADJUSTED DIMENSIONS OF STEEL POSTS
7-15-88	20-7-15-88	ISSUED

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MAILBOX DETAILS

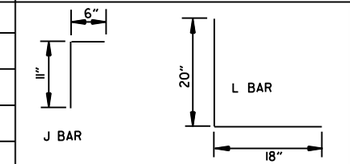
STANDARD DRAWING MB-1



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 ¾" 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.

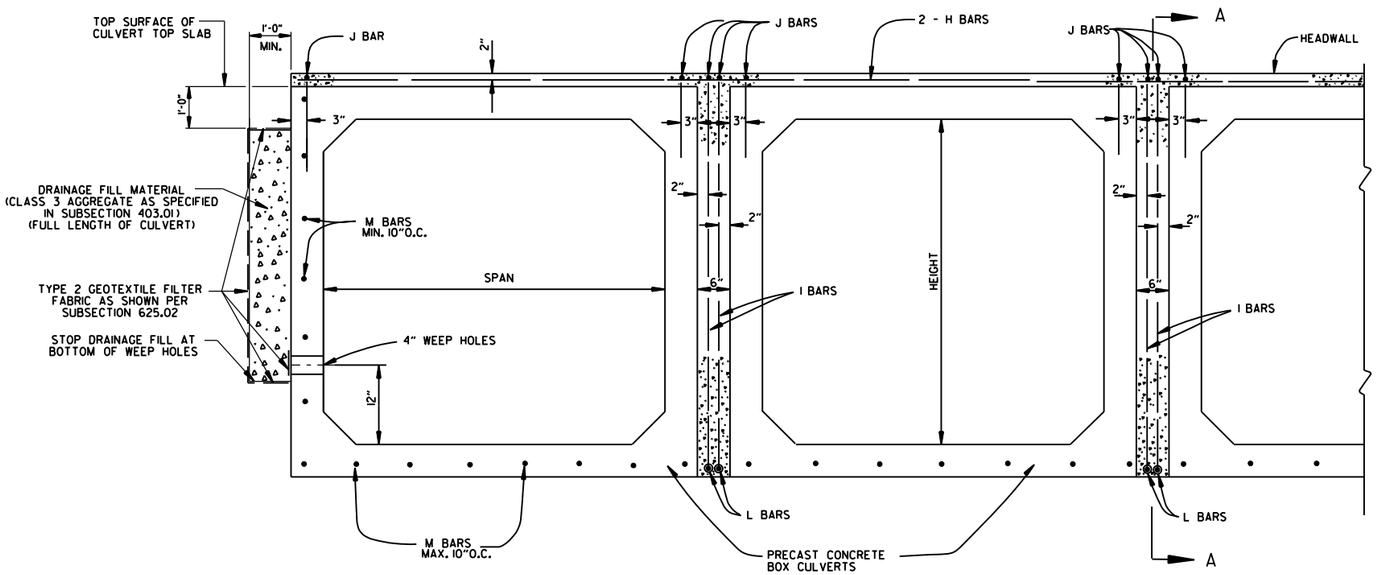
THE MEMBRANE WATERPROOFING WILL BE REQUIRED ON THE TOP EXTERNAL JOINT AND SHALL EXTEND 1 FOOT DOWN THE SIDES OF THE CULVERT.

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.

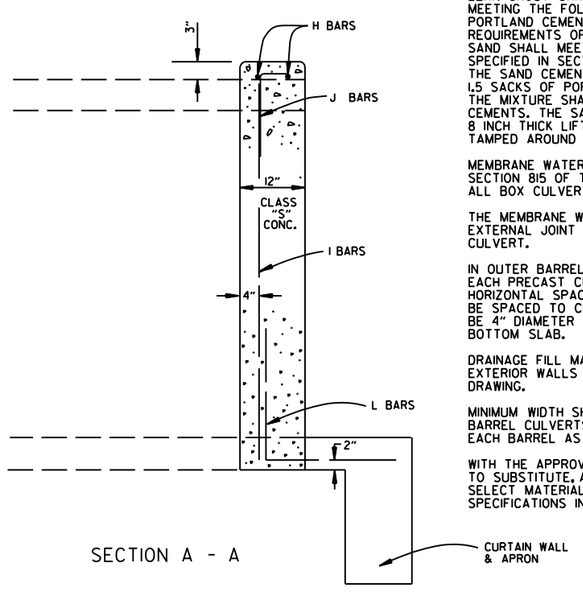
DRAINAGE FILL MATERIAL WITH GEOTEXTILE FABRIC IS REQUIRED AT THE EXTERIOR WALLS OF THE ASSEMBLED CULVERT, SEE DETAILS ON THIS DRAWING.

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	31⅜	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.

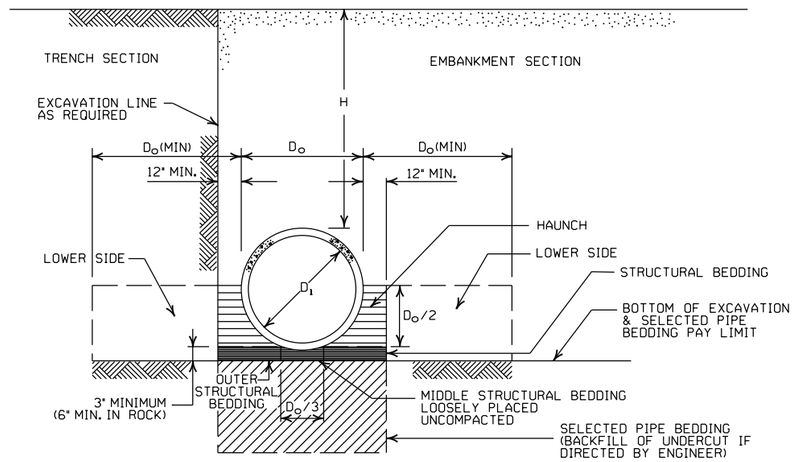
- LEGEND -

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

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

CORRUGATED METAL PIPE ARCHES

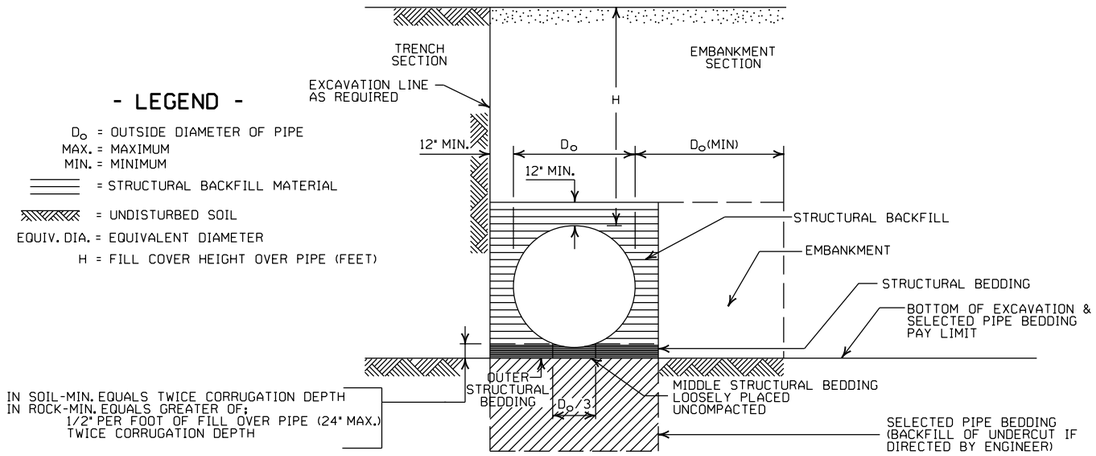
EQUIV. DIA. (INCHES)	PIPE DIMENSION SPAN X RISE (INCHES)	MINUMUM CORNER RADIUS (INCHES)	STEEL				ALUMINUM			
			MIN. THICKNESS REQUIRED INCHES	① MIN. HEIGHT OF FILL, "H" (FT.)	MAX. HEIGHT OF FILL, "H" (FT.)		MIN. THICKNESS REQUIRED INCHES	① MIN. HEIGHT OF FILL, "H" (FT.)	MAX. HEIGHT OF FILL, "H" (FT.)	
				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			

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.

- LEGEND -

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



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."

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 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 HDPE PIPE.

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 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"

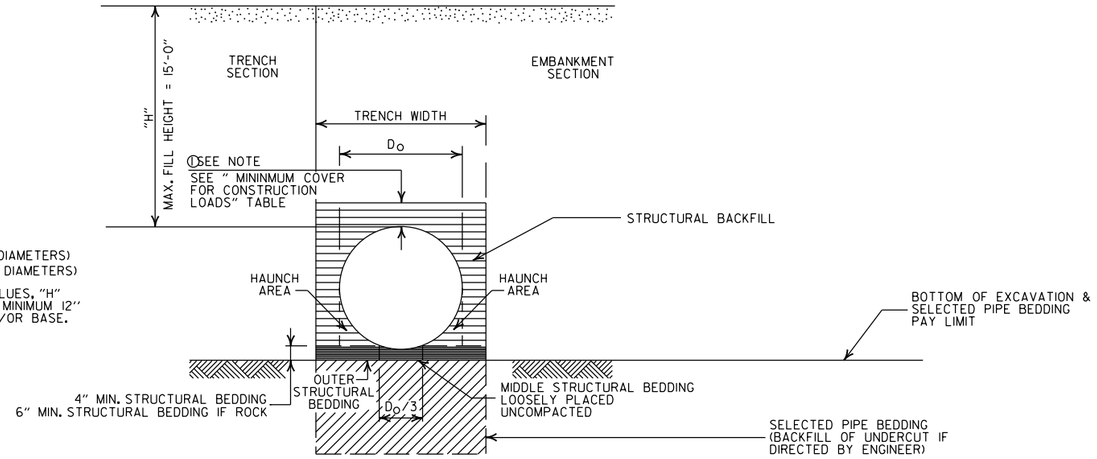
①NOTE:
18" MIN. (18" - 30" DIAMETERS)
24" MIN. (36" - 48" DIAMETERS)

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

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.



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 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.)
D = 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 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 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

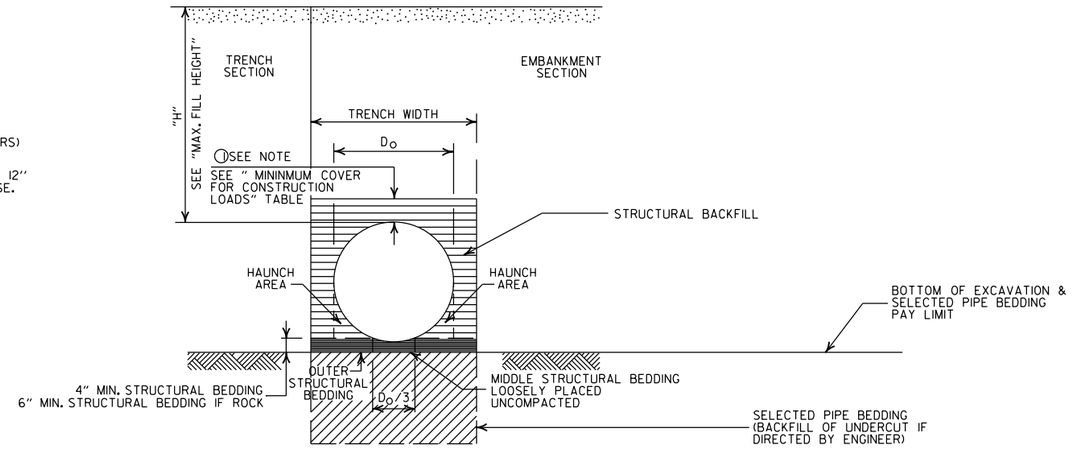
PIPE DIAMETER	"H"
18"	45'-0"
24"	45'-0"
30"	40'-0"
36"	40'-0"

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"

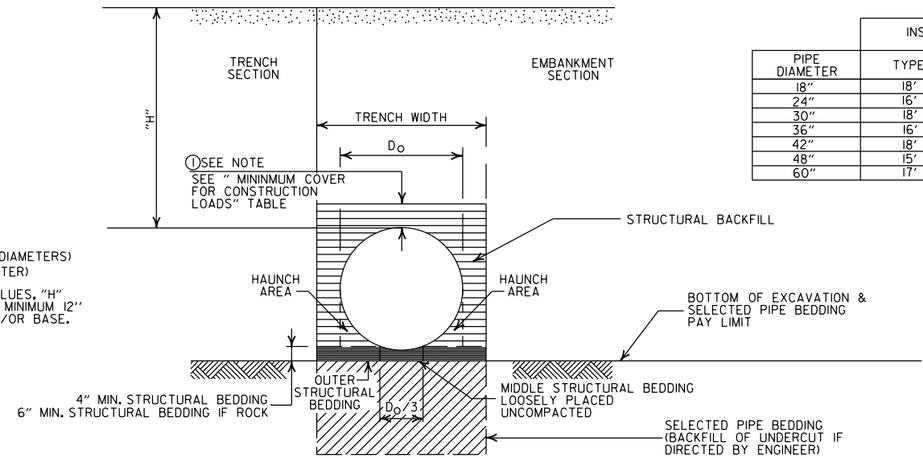
PIPE DIAMETER	TRENCH WIDTH (FEET)	
	"H" < 10'-0"	"H" >OR= 10'-0"
18"	4'-6"	4'-6"
24"	5'-0"	6'-0"
30"	5'-6"	7'-6"
36"	6'-0"	9'-0"
42"	7'-0"	10'-6"
48"	8'-0"	12'-0"
60"	10'-0"	15'-0"

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	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

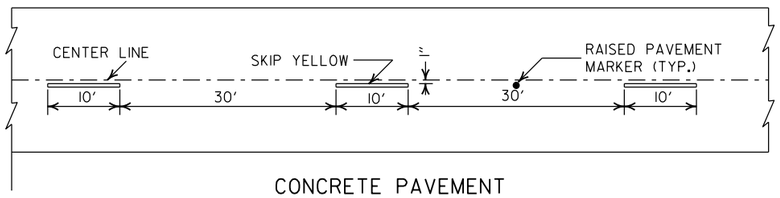
= UNDISTURBED SOIL

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

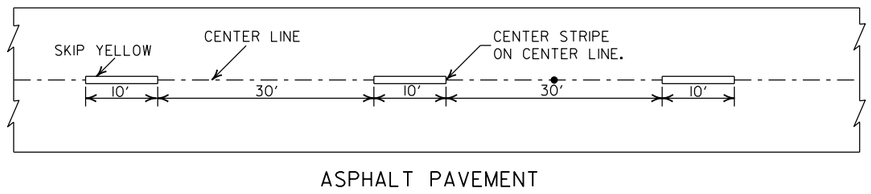
ARKANSAS STATE HIGHWAY COMMISSION

PLASTIC PIPE CULVERT (POLYPROPYLENE)

STANDARD DRAWING PCP-3

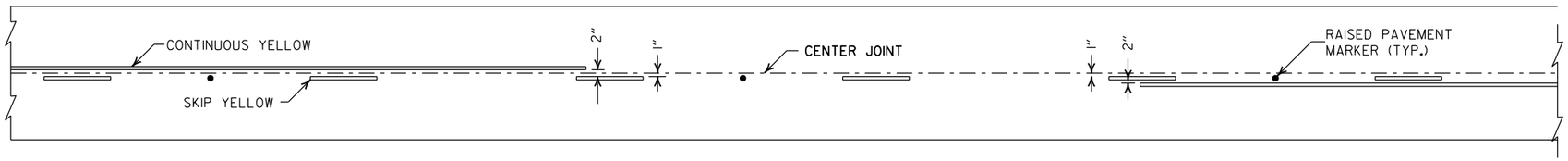


CONCRETE PAVEMENT

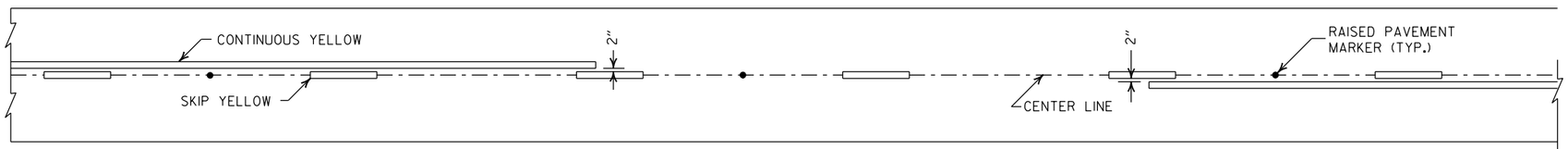


ASPHALT PAVEMENT

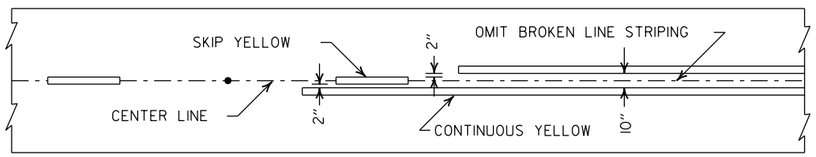
BROKEN LINE STRIPING



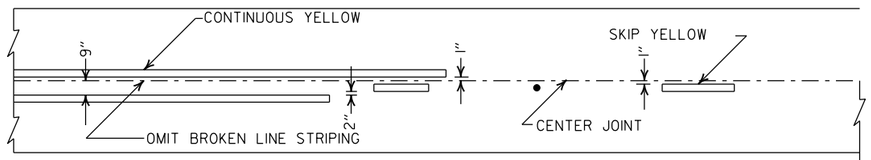
SOLID LINE STRIPING ON CONCRETE PAVEMENT



SOLID LINE STRIPING ON ASPHALT PAVEMENT

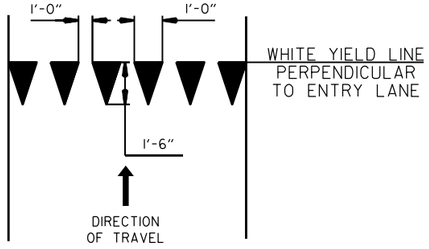


ASPHALT PAVEMENT

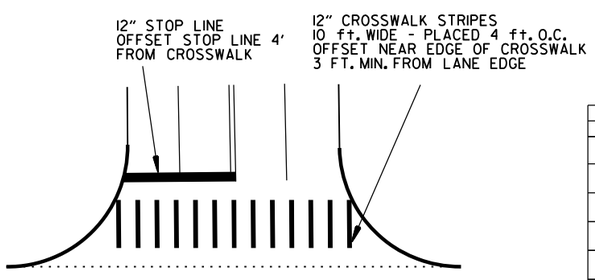


CONCRETE PAVEMENT

STRIPING AT ADJACENT NO PASSING LANES

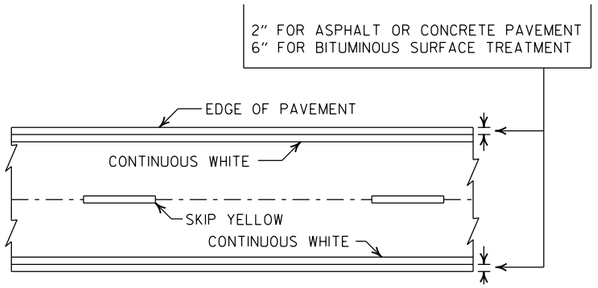


YIELD LINE DETAIL



CROSSWALK AND STOP LINE DETAILS

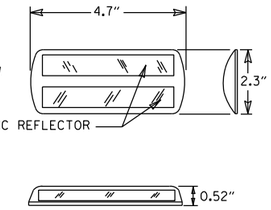
NOTES:
1. REFER TO THE STRIPING DETAILS FOR PAVEMENT MARKING LINE WIDTHS.
2. THIS DRAWING SHALL BE USED IN CONJUNCTION WITH THE LATEST REVISED ADDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
3. RAISED PAVEMENT MARKERS SHALL BE PLACED ON AN 80 FEET SPACING UNLESS OTHERWISE SHOWN IN THE PLANS.



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

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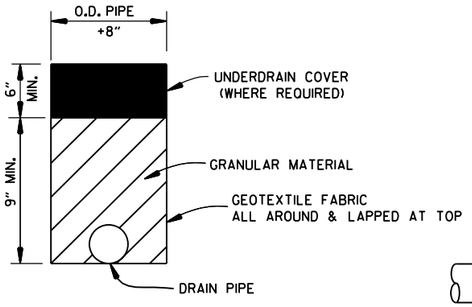
PAVEMENT MARKING DETAILS

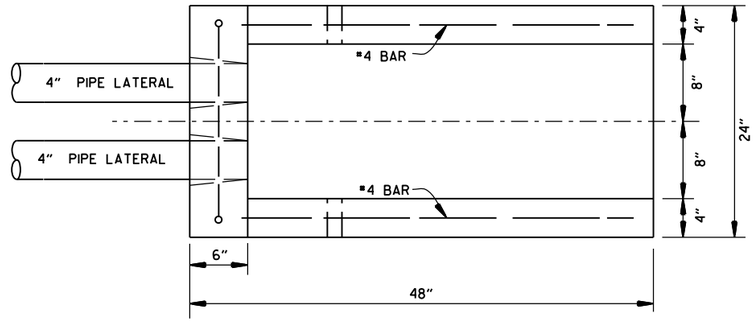
STANDARD DRAWING PM-1

NOTE:

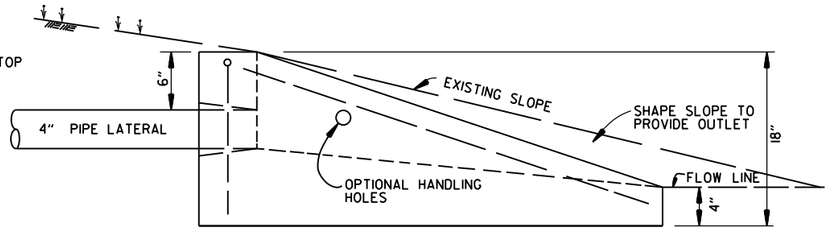
1. UNLESS OTHERWISE SPECIFIED ON THE PLANS, THE UNDERDRAIN COVER SHALL BE THOROUGHLY COMPACTED EARTH AND SHALL BE SUBSIDIARY TO PIPE UNDERDRAIN.

2. GRANULAR MATERIAL SHALL BE WRAPPED WITH GEOTEXTILE FABRIC. LAP FABRIC 12" OR THE WIDTH OF THE TRENCH AT THE TOP.

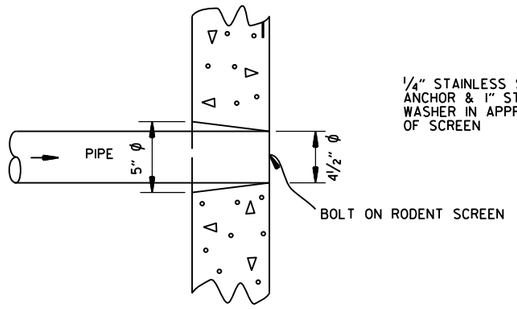




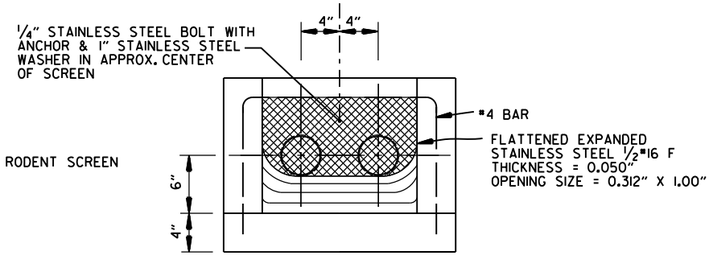
PLAN VIEW



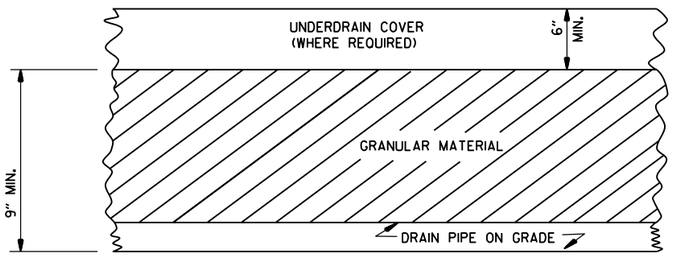
SIDE VIEW



DETAIL OF HOLE
FOR 4" PIPE



FRONT VIEW
(DETAIL OF RODENT SCREEN)



DETAILS OF PIPE UNDERDRAIN

NOTES FOR PIPE UNDERDRAINS

1. GEOTEXTILE FABRIC SHALL MEET THE REQUIREMENTS OF SECTION 625 FOR TYPE 1. 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."

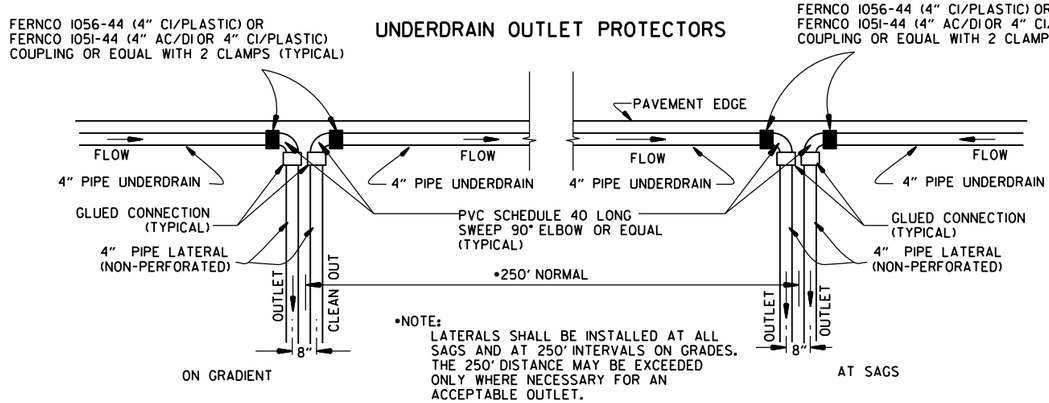
4. THE LOCATION OF ALL LATERALS SHALL BE MARKED WITH 4" X 12" PERMANENT PAVEMENT MARKING TAPE (TYPE III WHITE) AT THE OUTSIDE EDGE OF THE SHOULDER, PLACED TRANSVERSE TO TRAFFIC. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

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.

UNDERDRAIN OUTLET PROTECTORS



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.

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

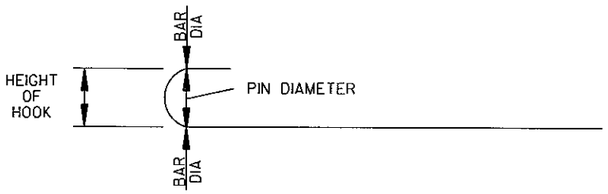
DETAILS OF PIPE UNDERDRAIN

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

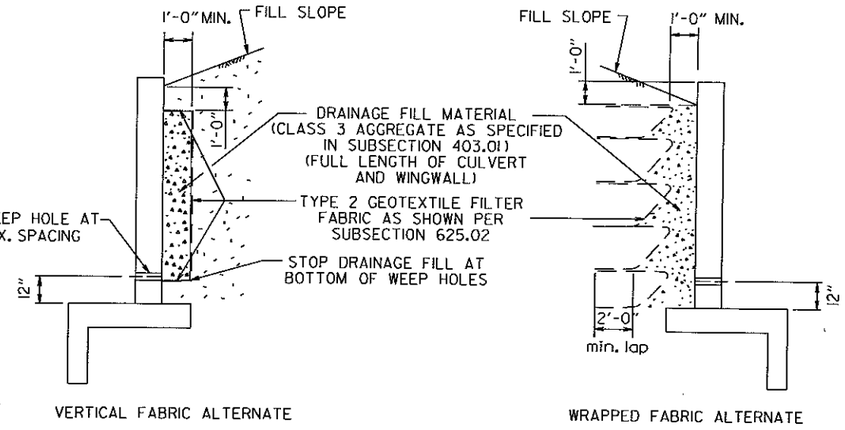
THE HOOKED BARS SHALL BE PLACED IN THE BOTTOM OF THE TOP SLAB AND THE TOP OF THE BOTTOM SLAB. THE STRAIGHT BARS SHALL BE PLACED IN THE TOP OF THE TOP SLAB AND THE BOTTOM OF THE BOTTOM SLAB. SEE TABLE BELOW FOR LENGTHS OF REPLACEMENT HOOKED AND STRAIGHT BARS.

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.

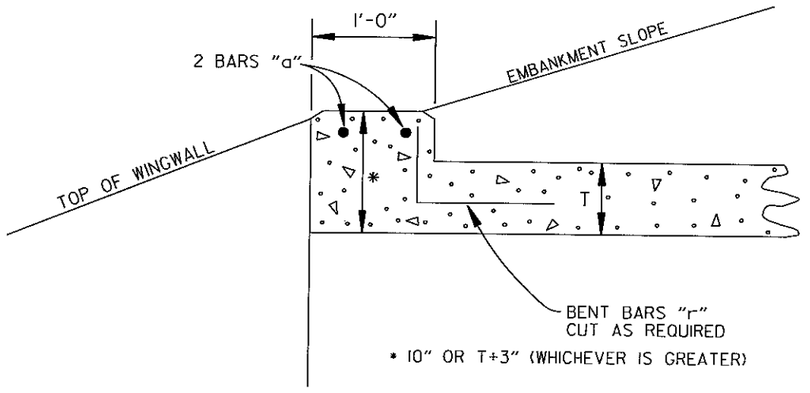
MEMBRANE WATERPROOFING SHALL BE APPLIED TO ALL CONSTRUCTION JOINTS IN THE TOP SLAB AND THE SIDEWALLS OF R.C. BOX CULVERTS AS DIRECTED BY THE ENGINEER. NO PAYMENT SHALL BE MADE FOR THIS ITEM, BUT PAYMENT WILL BE CONSIDERED TO BE INCLUDED IN THE VARIOUS ITEMS BID FOR THE R.C. BOX CULVERT.

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.



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.

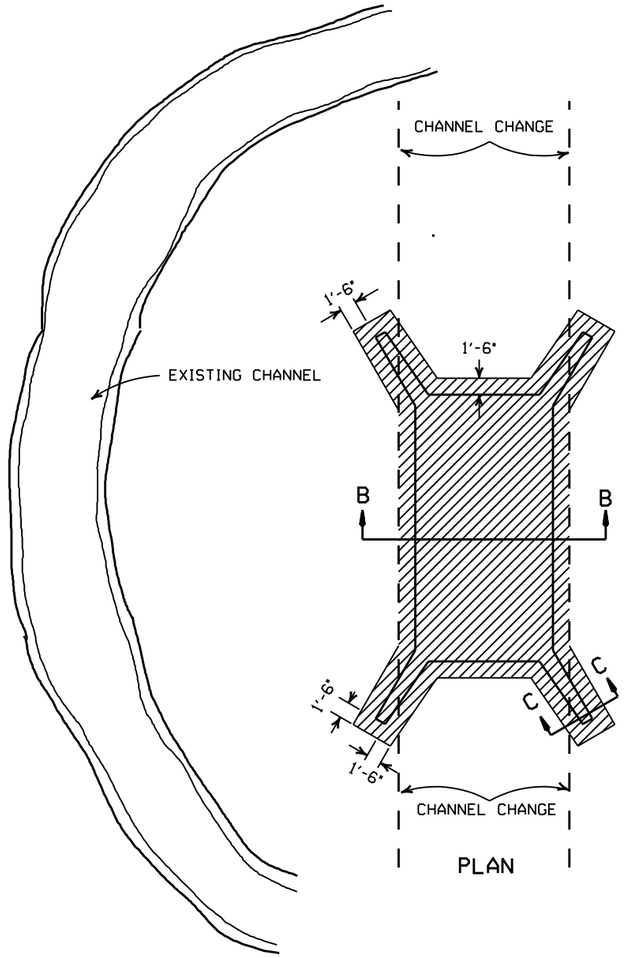
R.C. BOX CULVERT HEADWALL MODIFICATIONS

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	

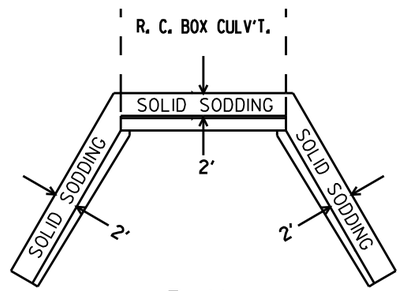
ARKANSAS STATE HIGHWAY COMMISSION

REINFORCED CONCRETE BOX CULVERT DETAILS

STANDARD DRAWING RCB-1



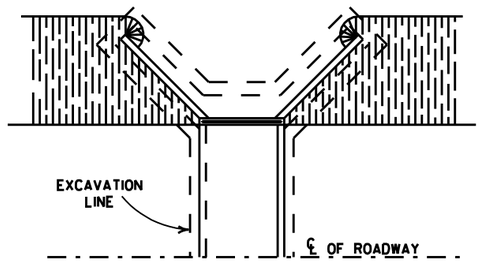
PLAN



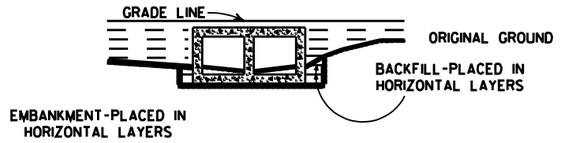
PLAN

PARTIAL SECTION SHOWING SOLID SODDING AT HEADWALLS AND WING WALLS

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

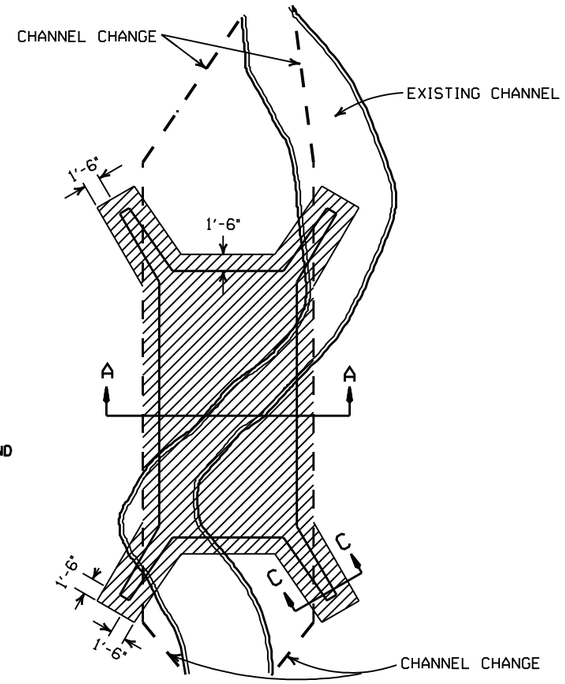


PLAN

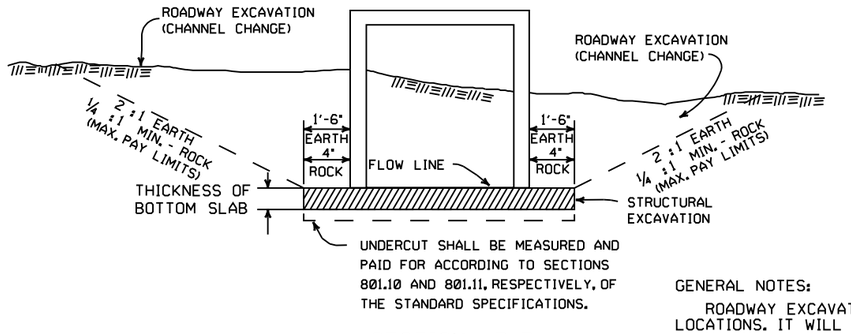


LONGITUDINAL SECTION

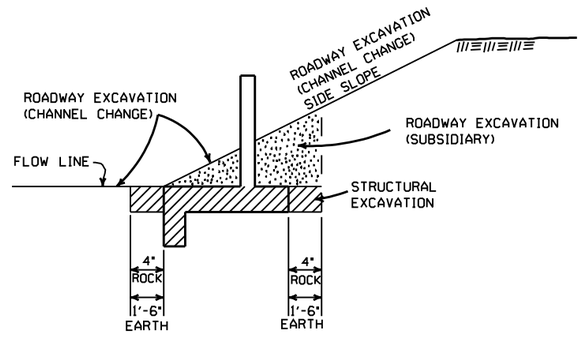
BACKFILL DETAILS FOR BOX CULVERT



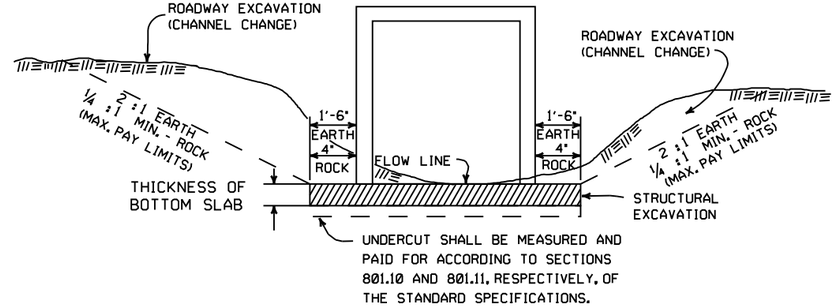
PLAN



SECTION B-B



SECTION C-C



SECTION A-A

DETAILS FOR NEW CHANNELS

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.

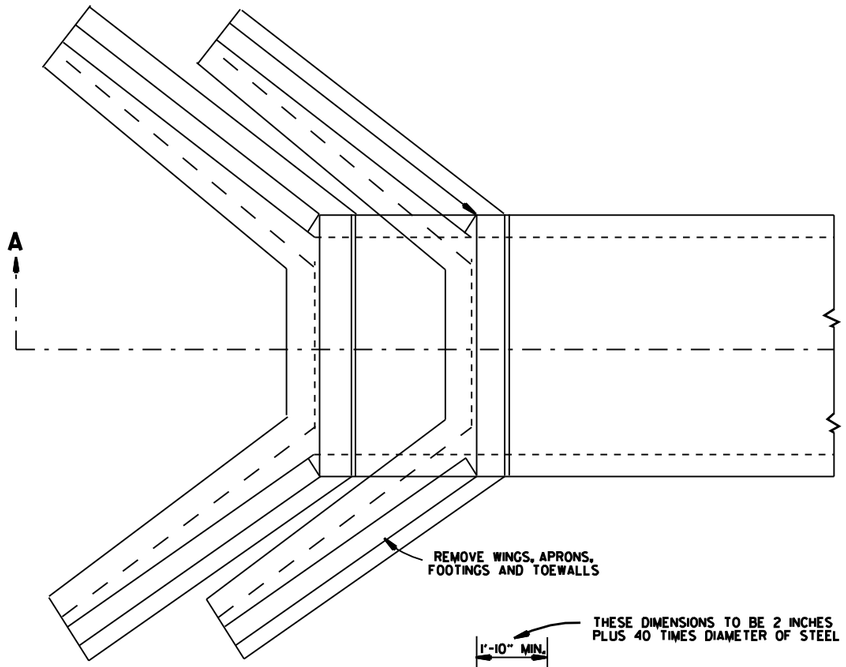
ROADWAY EXCAVATION SHOWN IN SECTION C-C ABOVE AS SUBSIDIARY WILL NOT BE MEASURED OR PAID FOR DIRECTLY, BUT PAYMENT WILL BE CONSIDERED TO BE INCLUDED IN THE VARIOUS ITEMS OF EXCAVATION.

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

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

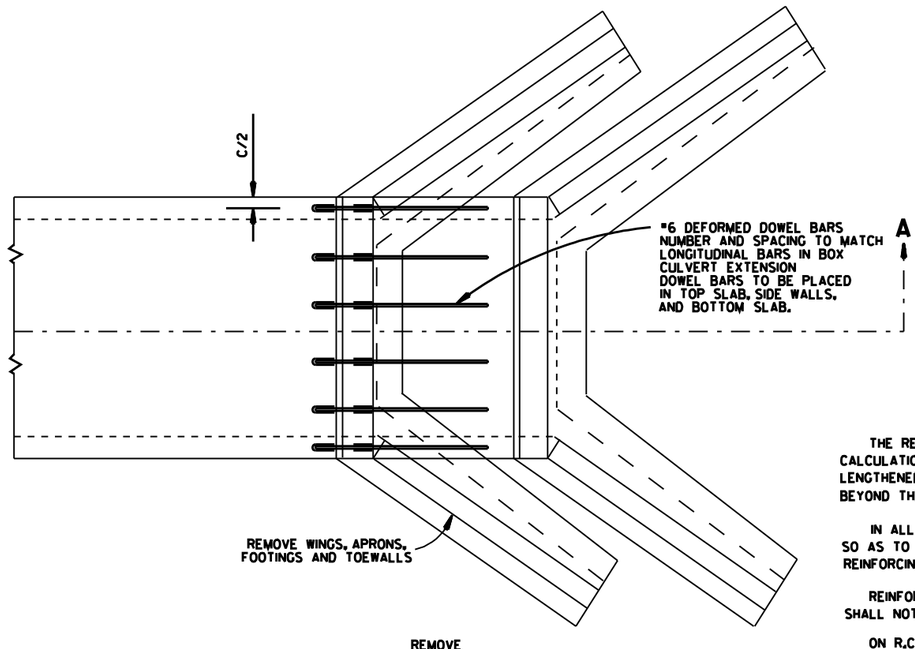
STANDARD DRAWING RCB-2



TOP VIEW
R.C. BOX CULVERT

SECTION A-A

METHOD 1



TOP VIEW
R.C. BOX CULVERT

SECTION A-A

METHOD 2

GENERAL NOTES

	USE FOR METHOD
THE RESIDENT ENGINEER WILL MAKE INDIVIDUAL CALCULATIONS OF QUANTITIES FOR EACH STRUCTURE LENGTHENED, MAKING NO ALLOWANCE FOR OVERBREAKAGE BEYOND THE LINES INDICATED.	1
IN ALL INSTANCES CONCRETE SHALL BE REMOVED SO AS TO PERMIT FULL 40 DIAMETER SPLICE OF REINFORCING STEEL.	1
REINFORCING STEEL REMOVED FROM EXISTING STRUCTURE SHALL NOT BE REUSED IN CONSTRUCTING EXTENSION.	1&2
ON R.C. BOX CULVERTS THAT HAVE AN EXISTING CONCRETE APRON, THE CONCRETE APRON SHALL BE REMOVED WITH THE WINGS. THE COST OF REMOVING ALL OLD CONCRETE WILL BE INCLUDED IN THE PRICE BID PER CUBIC YARD FOR NEW CONCRETE OF THE CLASS SPECIFIED AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.	1&2
MATERIALS FOR SECURING DOWEL BARS SHALL MEET THE REQUIREMENTS OF SECTION 507.02 OF THE STANDARD SPECIFICATIONS.	2
DOWEL BARS SHALL BE INSTALLED AS FOLLOWS: THE DRILLING PROCEDURE SHALL BE APPROVED BY THE ENGINEER. THE FILLING SYSTEM SHALL BE APPROVED BY THE ENGINEER, AND SHALL BE AN INJECTION-TYPE SYSTEM WHICH WILL INSURE THAT SUFFICIENT MATERIAL IS INJECTED SO IT COMPLETELY SURROUNDS THE BARS AND FILLS THE HOLES.	2
THE CONTRACTOR SHALL HAVE THE OPTION OF USING EITHER METHOD 1 OR METHOD 2, REGARDLESS OF WHICH METHOD IS USED, PAY QUANTITIES WILL BE CALCULATED BASED ON METHOD 1.	1&2

NOTE:
NO PART OF THIS STANDARD IS TO BE USED FOR ANY DETAILS RELATIVE TO NEW CONSTRUCTION.

SEE STANDARD DRAWING LISTED IN TABULATION OF STRUCTURES FOR ALL NEW CONSTRUCTION DETAILS.

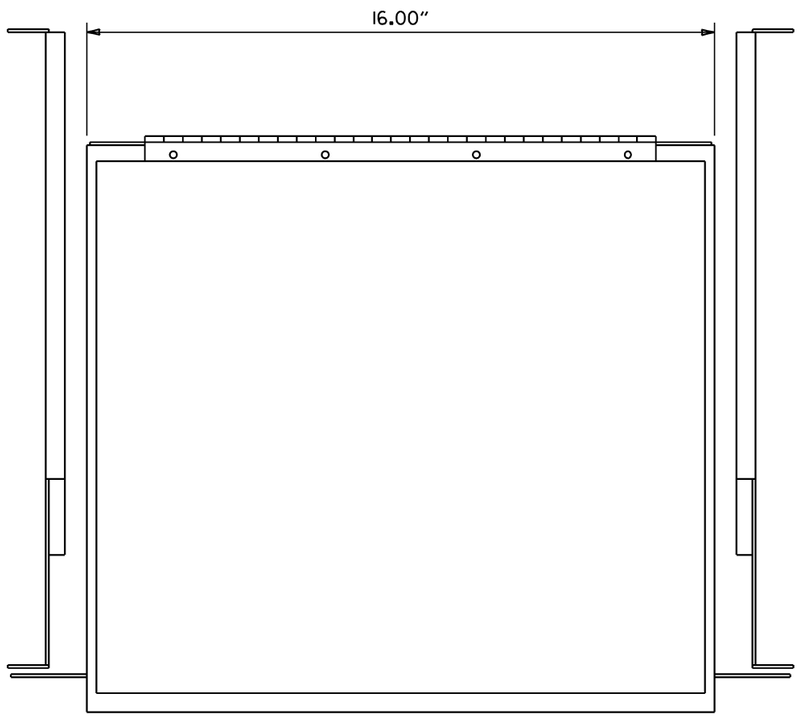
DATE	REVISION	DATE FILM
10-12-95	CHANGED DRAWING # FROM 144-A	
4-1-93	ADDED GENERAL NOTE	
10-1-92	ADDED ALT. METHOD OF EXTENSION	
11-30-89	REDRAWN	
1-4-83	ELIMINATED CONCRETE CLASS	
12-20-56	RETRACED	

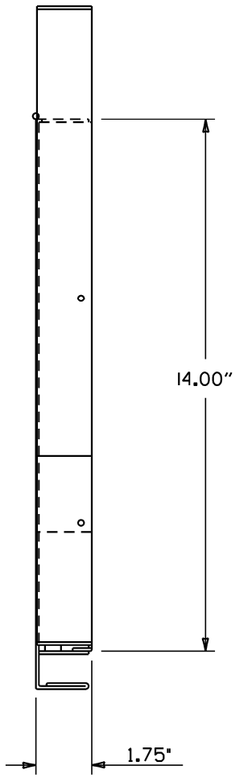
ARKANSAS STATE HIGHWAY COMMISSION

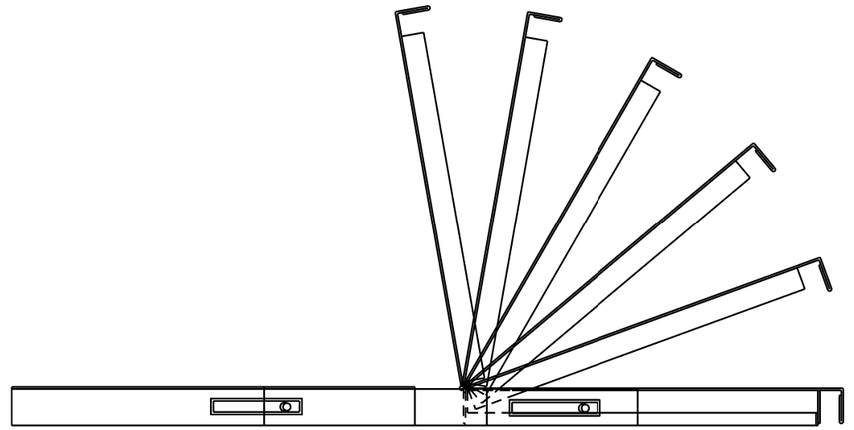
METHOD OF EXTENDING EXISTING R.C. BOX CULVERTS

STANDARD DRAWING RCB-3

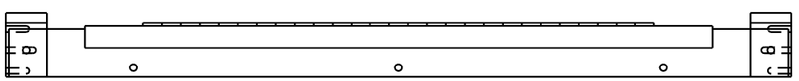
DRAWER PLAN VIEW



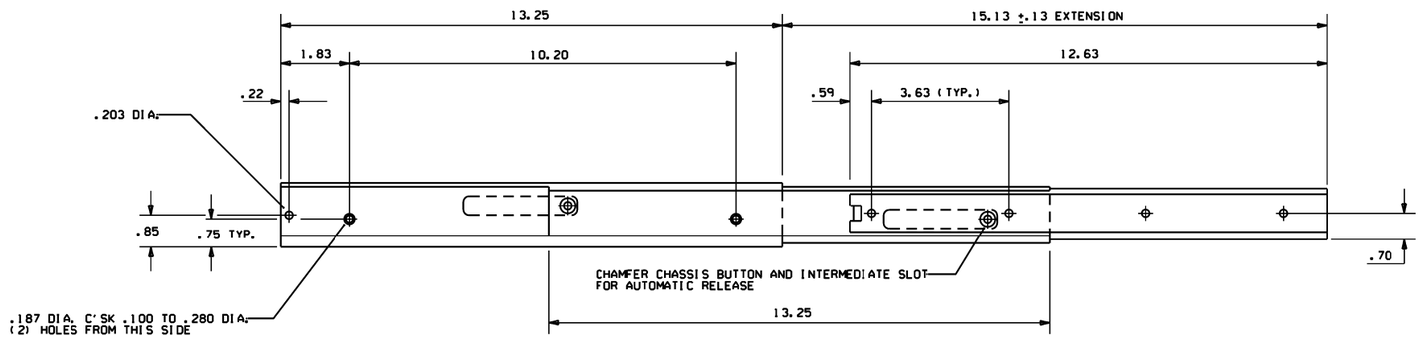




NOTES:
1. RIGHT HAND SLIDE SHOWN, LEFT SLIDE OPPOSITE.
2. GENERAL DEVICES (CC3002-99-0102) OR EQUAL AND CONTAINS (1) RIGHT HAND SLIDE ASSEMBLY, (1) LEFT HAND SLIDE ASSEMBLY.
3. ALL HARDWARE NECESSARY TO FASTEN SLIDE ASSEMBLY TO UNDERSIDE OF CONTROLLER SHELF SHALL BE INCLUDED.



FRONT VIEW



RIGHT SIDE ASSEMBLY

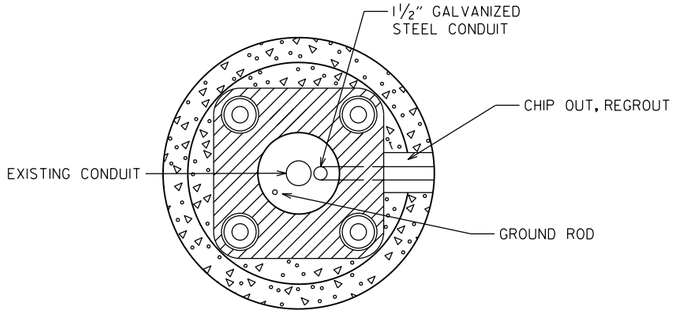
DATE	REVISION	DATE FILM
9-12-13	ISSUED AS STANDARD DRAWING	
6-15-05	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

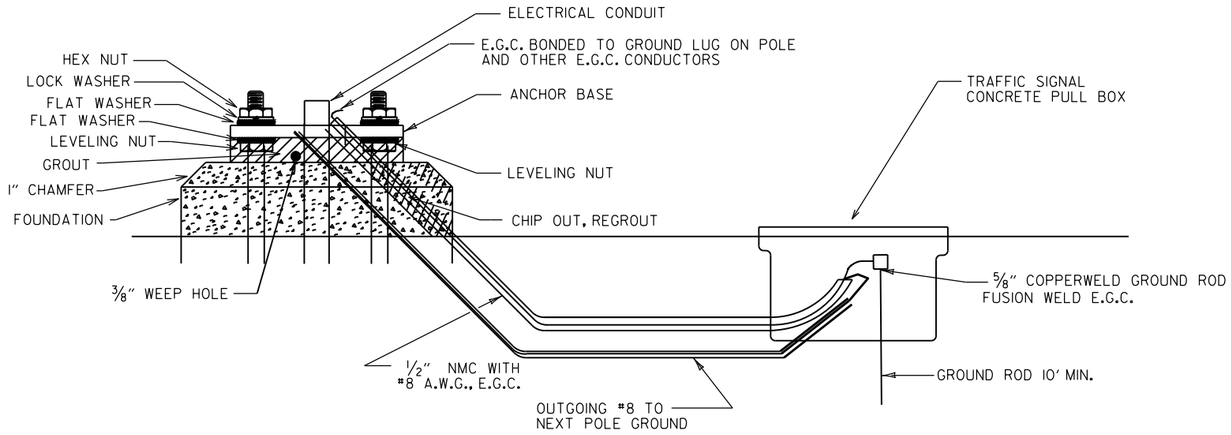
CONTROLLER CABINET UTILITY DRAWER

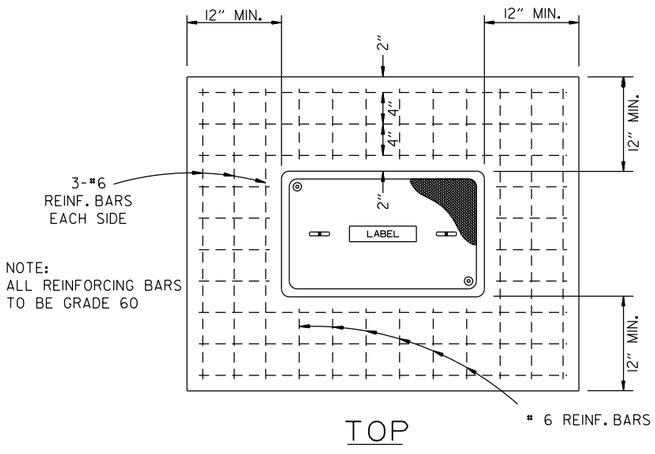
STANDARD DRAWING SD-5

CONDUIT ENTRY TO EXISTING POLE BASE

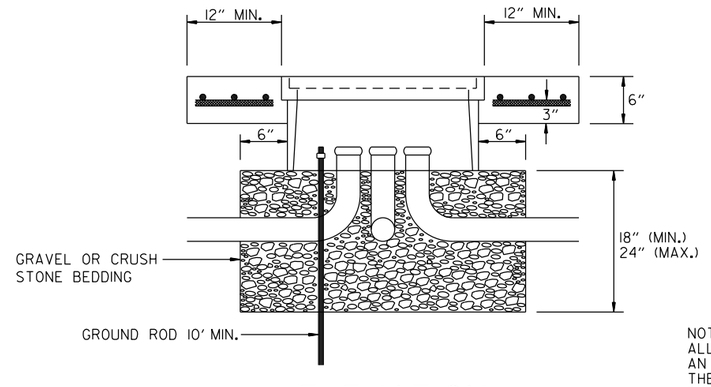


ANCHOR BASE



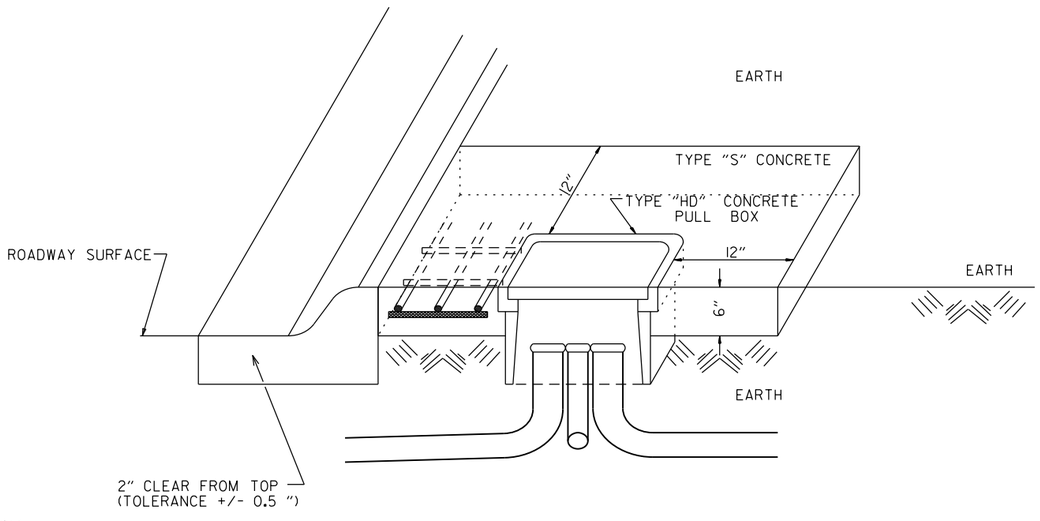


TOP



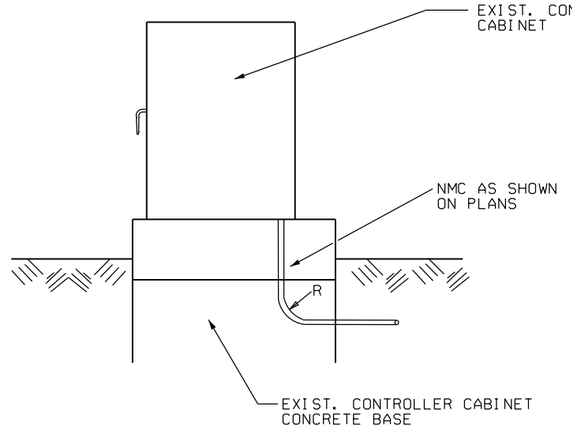
ELEVATION

TYPE "HD" CONCRETE PULL BOX DETAIL



NOTE:
ALL TYPE 1 HD, TYPE 2 HD, AND TYPE 3 HD CONCRETE PULL BOXES ARE INSTALLED WITH AN APRON OF CONCRETE 12" WIDE AND 6" 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.

CONDUIT ENTRY TO EXISTING CONTROLLER CABINET



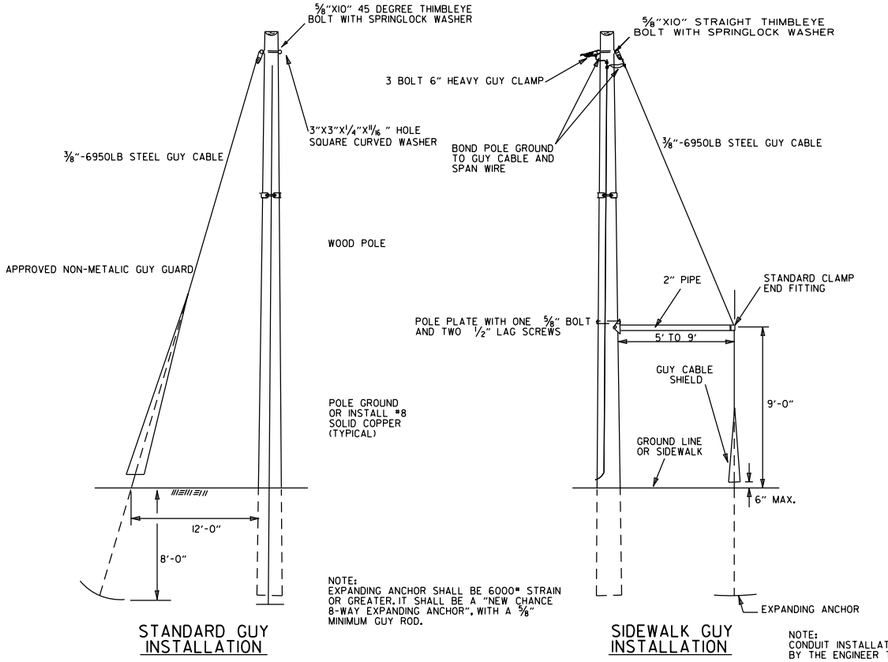
NOTE: ENTRY TO CABINET SHALL BE THROUGH A CUT IN THE BASE SUFFICIENT TO PROVIDE ADEQUATE CONDUIT RADIUS FOR ITEM.

DATE	REVISION	FILMED
02-13-24	REVISED NOTES AND TYPE "HD" CONCRETE PULL BOX DETAILS	
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

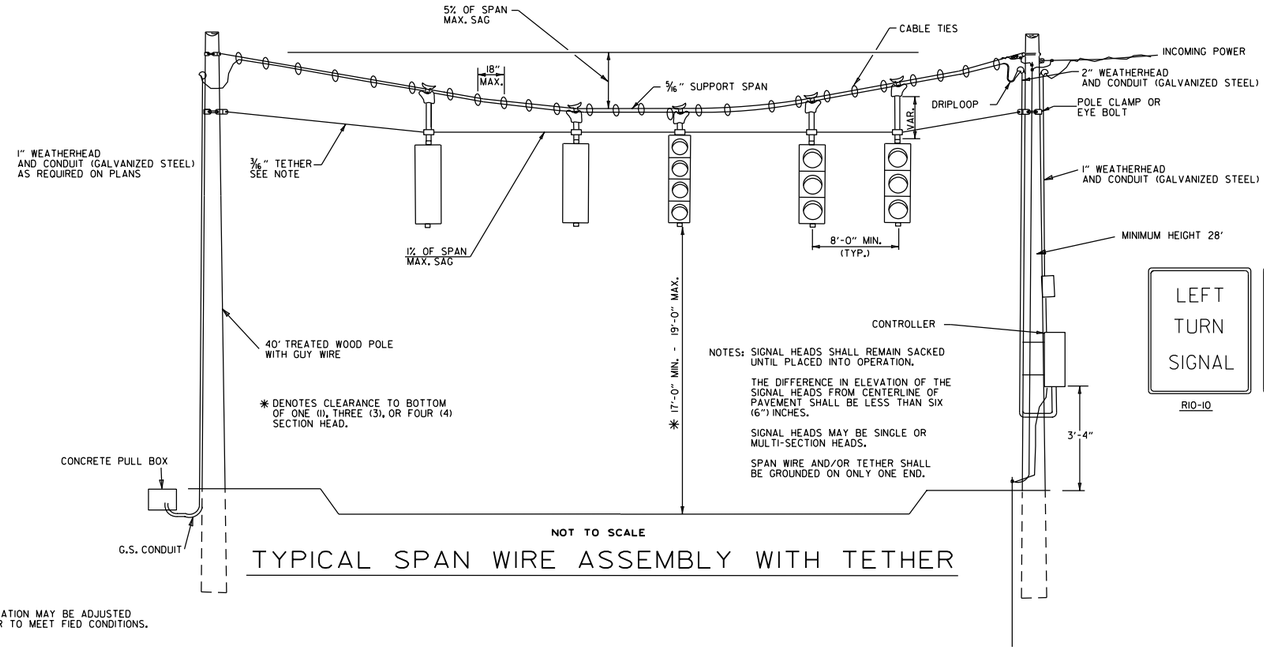
STANDARD DRAWING SD-6



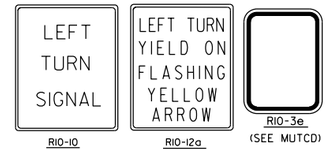
STANDARD GUY INSTALLATION

SIDEWALK GUY INSTALLATION

NOTE: CONDUIT INSTALLATION MAY BE ADJUSTED BY THE ENGINEER TO MEET FIED CONDITIONS.



TYPICAL SPAN WIRE ASSEMBLY WITH TETHER

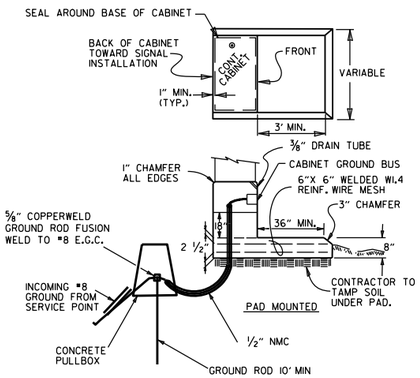


NOTES:
SPAN WIRE POLES SHALL BE MOUNTED A MINIMUM OF FOUR (4') FEET BEHIND CURB OR SHOULDER.

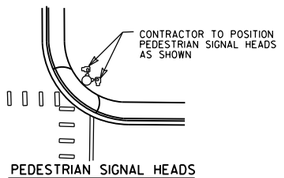
SPAN WIRE ASSEMBLIES WILL REQUIRE TETHER UNLESS OTHERWISE NOTED ON PLAN SHEETS.

CABLE TIES SHALL BE SUITABLE FOR OUTSIDE USE (BLACK).

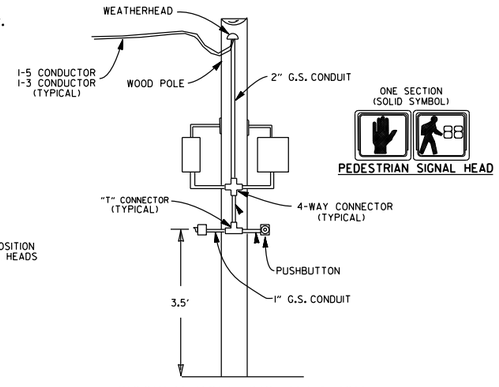
THE CONTROLLER POWER SUPPLY GROUND BUSS SHALL BE BONDED TO THE FOUNDATION GROUND ROD WITH A #8 A.W.G. SOLID COPPER WIRE. ON EXISTING FOUNDATIONS WITH NO GROUND ROD, CONTRACTOR SHALL INSTALL A 10' X 5/8" COPPERWELD GROUND ROD.



CONCRETE BASE MOUNTED CABINET DETAILS

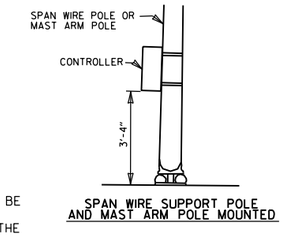


PEDESTRIAN SIGNAL HEADS

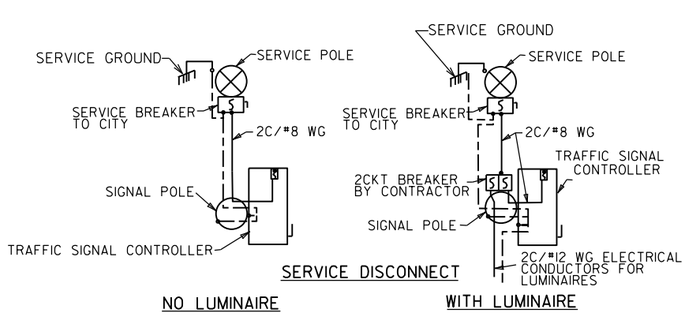


WOODEN POLE INSTALLATION OF PED HEADS

PEDESTRIAN SIGNAL HEAD



SPAN WIRE SUPPORT POLE AND MAST ARM POLE MOUNTED



SERVICE DISCONNECT

NO LUMINAIRE WITH LUMINAIRE

NOTE: ELECTRICAL GROUND CONDUCTOR IS BONDED TO ALL METAL ENCLOSURES

NOTES:

EACH ITEM "TRAFFIC SIGNAL HEAD (4 SEC., 1-WAY)" SHALL INCLUDE A SIGN (R10-12a) 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 BLANKS SHALL BE CONSTRUCTED OF ALUMINUM ALLOY (ASTM DESIGNATION B-209, ALLOY 5052-H38) WITH A THICKNESS OF 0.100 INCH.

ALL SIGN FACES 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.

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 1/2" SHALL MEET THE LONGITUDINAL CHARPY V-NOTCH TEST SPECIFIED IN SUBSECTION 807.05 OF THE STANDARD SPECIFICATIONS.

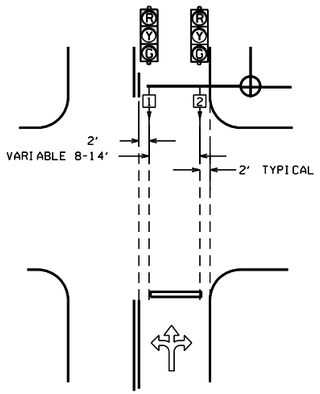
DATE	REVISION	FILMED
02-13-24	REVISED SPECIAL SIGN TO R10-12a SIGN	
11-16-17	REVISED NOTES, ADDED SPAN WIRE SUPPORT POLE DETAIL, ADDED PEDESTRIAN SIGNAL HEAD DETAIL	
02-27-14	REVISED NOTES.	
09-12-13	ISSUED AS STANDARD DRAWING	
07-21-11	REVISED PEDESTRIAN SIGN & GROUNDING	
04-17-08	REVISED TO 2001 AASHTO 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

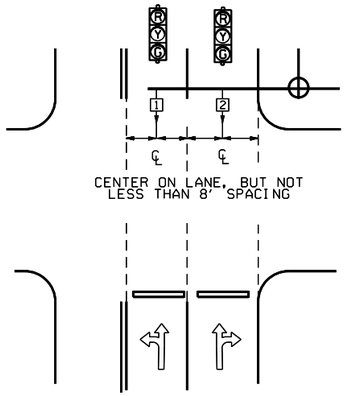
SPAN WIRE ASSEMBLY WOOD POLE

STANDARD DRAWING SD-7

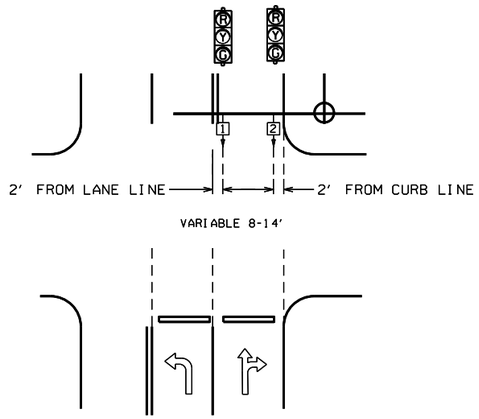
(A)



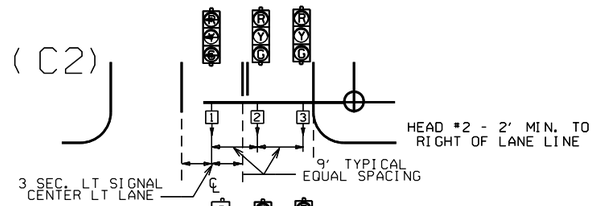
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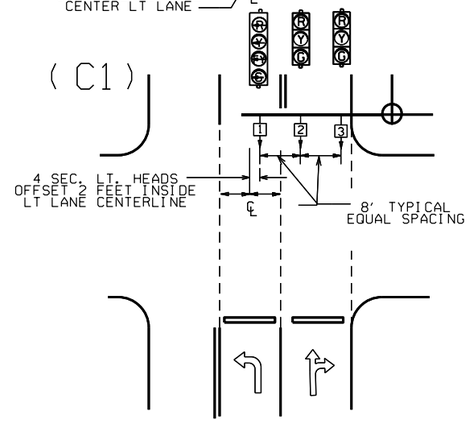
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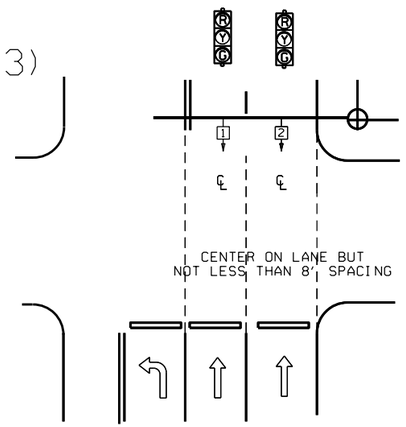
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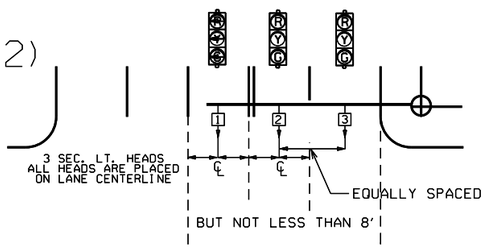
(C1)



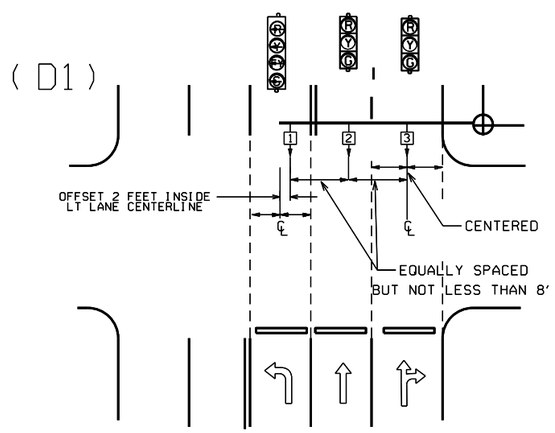
(C3)



(D2)

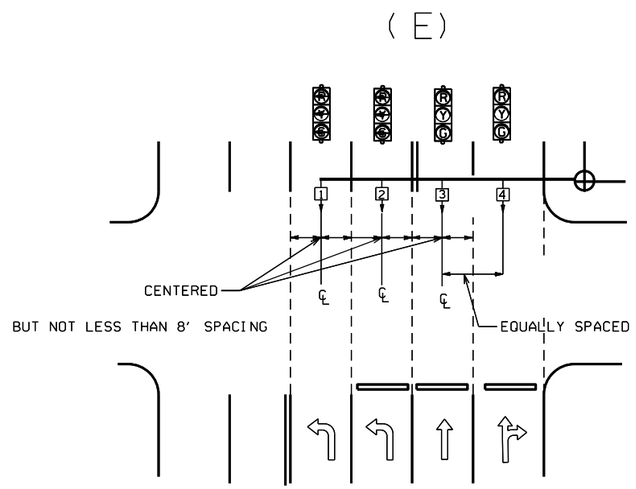


(D1)



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.

(E)



℄ = 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

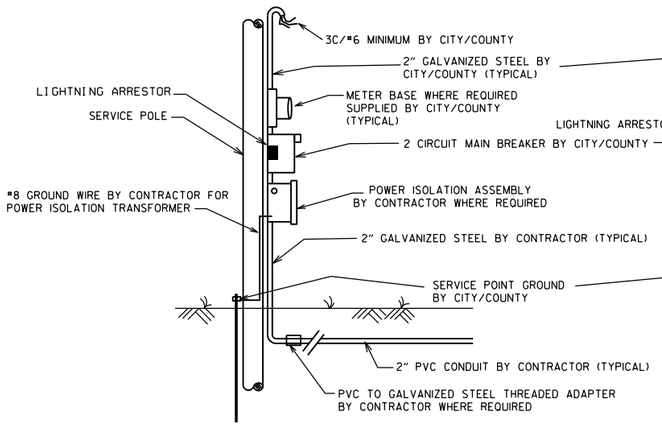
ARKANSAS STATE HIGHWAY COMMISSION

SIGNAL HEAD PLACEMENT

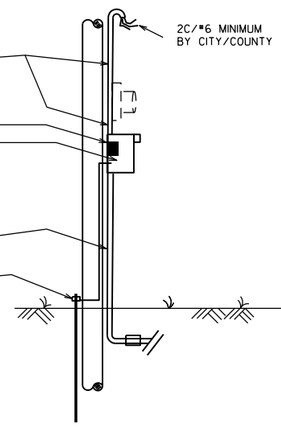
STANDARD DRAWING SD-8

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.

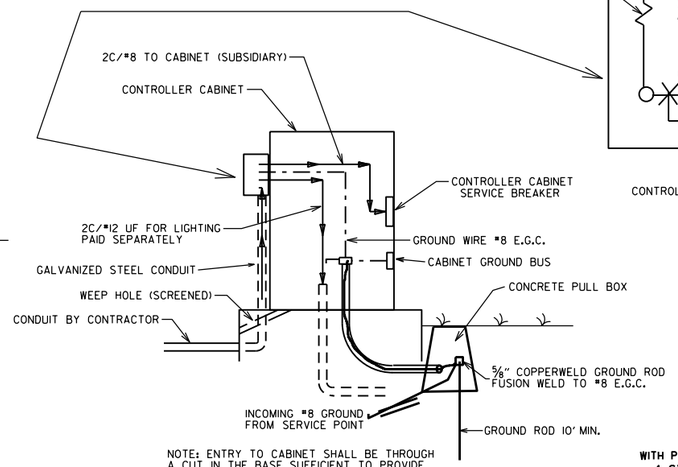
ALL SITUATIONS:
ELECTRICAL SERVICE SHALL BE PROVIDED BY THE CITY/COUNTY TO A SERVICE POLE WITH EXTERNAL RAINTIGHT BREAKER (MAIN BREAKER) AT A MUTUALLY ACCEPTABLE POINT WITHIN THE RIGHT-OF-WAY. SERVICE POINT INCLUDES GALVANIZED STEEL CONDUIT TO A POINT 18" BELOW GROUND LINE, TWO CIRCUIT MAIN BREAKER, 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.

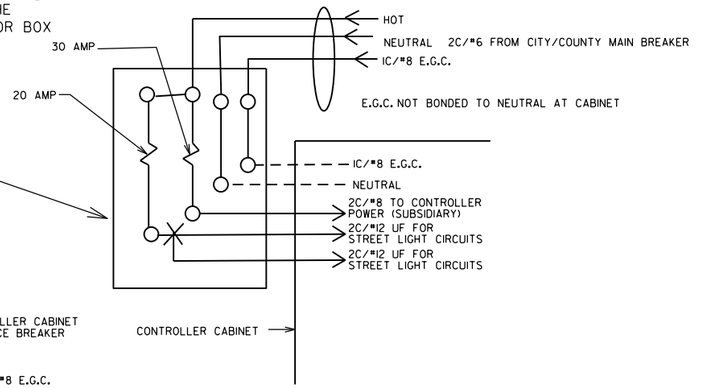
MAIN BREAKER NEAR CONTROLLER CABINET:
ALL COMPONENTS OF THE SERVICE POINT WITH THE EXCEPTION OF THE WIRE AND WIRING ABOVE THE MAIN BREAKER IS FURNISHED AND INSTALLED BY THE CONTRACTOR. WIRING FROM MAIN BREAKER INCLUDING CONNECTION TO THE UTILITY, IS THE RESPONSIBILITY OF THE CITY/COUNTY. IF METER LOOP 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)



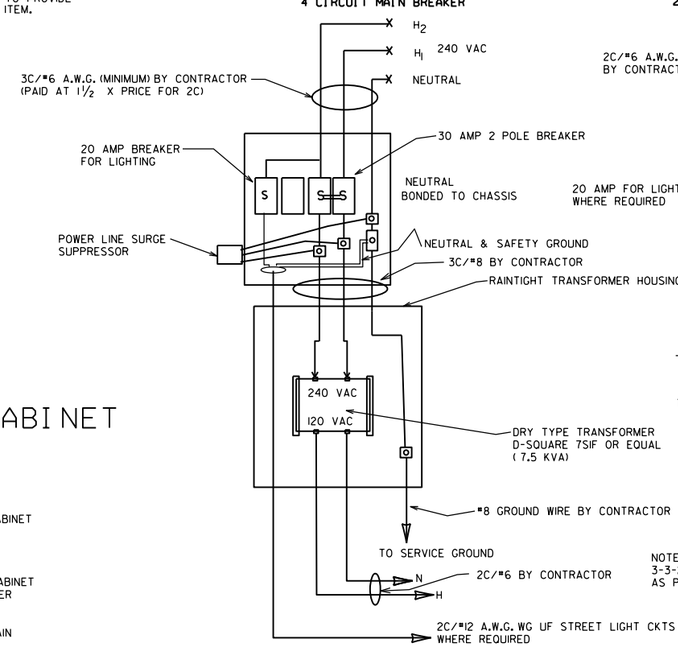
NOTE: ENTRY TO CABINET SHALL BE THROUGH A CUT IN THE BASE SUFFICIENT TO PROVIDE ADEQUATE CONDUIT RADIUS FOR ITEM.



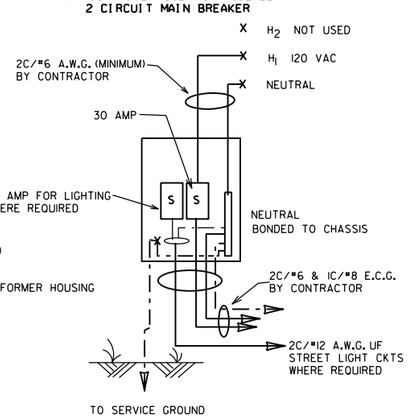
MAIN BREAKER WIRING (TYPICAL)

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

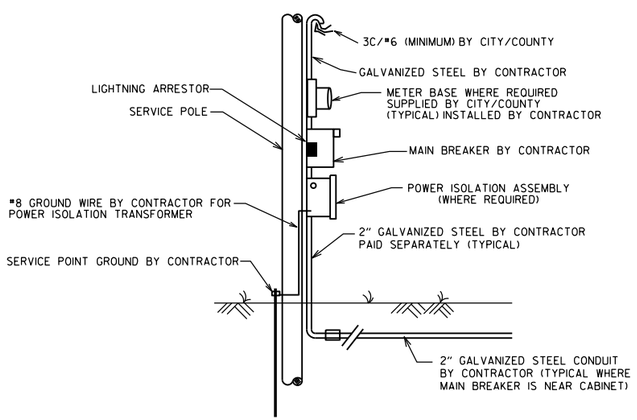


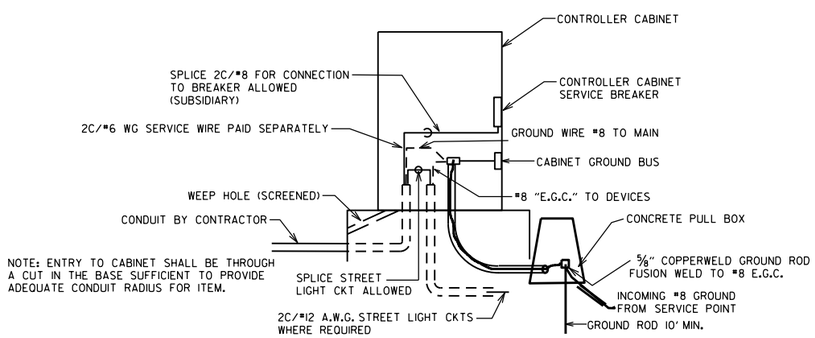
WITHOUT POWER ISOLATION ASSEMBLY
2 CIRCUIT MAIN BREAKER



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 SIGN (RIO-12a) 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 (RIO-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 RIO-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.

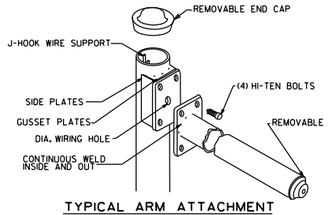
4. POLE/MAST ARM CAP - POLE AND MAST ARM CAPS SHALL BE PROVIDED, FABRICATED OF EITHER STEEL OR CAST ALUMINUM.

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).

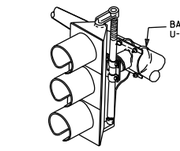
6. POLE/MAST ARM TAPER SLOPE - AVERAGE TAPER OF SIGNAL MAST ARMS AND POLE SHAFT SHALL BE 0.125 TO 0.15 INCHES PER FOOT.

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.

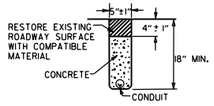
7. NUT COVERS - EACH POLE SHALL INCLUDE A BOLT DOWN NUT COVER FOR EACH ANCHOR BOLT.



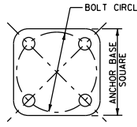
TYPICAL ARM ATTACHMENT



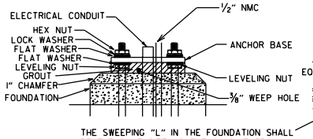
NOTE: THE SIGNAL SHALL BE CONNECTED TO THE MAST ARM BY BRACKETING AS DIRECTED BY THE ENGINEER.

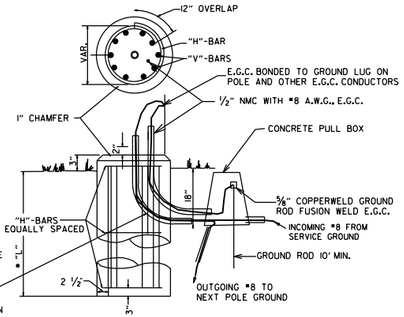


TRENCHING DETAIL
(FOR SAW CUT TRENCH IN ROADWAY)



ANCHOR BASE





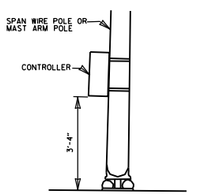
THE SWEEPING "L" IN THE FOUNDATION SHALL BE THE SAME SIZE AS THE CONDUIT FROM THE FOUNDATION TO THE PULL BOX AS SHOWN ON THE PLANS.

THE GROUND ROD SHALL BE FUSION WELDED TO A 1C/#8 A.W.G. SOLID COPPER GROUND WIRE. ATTACHMENT TO THE PRIMARY GROUND MAY BE BY AN APPROVED CLAMP. THE GROUND ROD IS TO BE LOCATED IN THE CONCRETE PULL BOX.

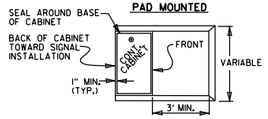
TYPICAL FOUNDATION DETAILS

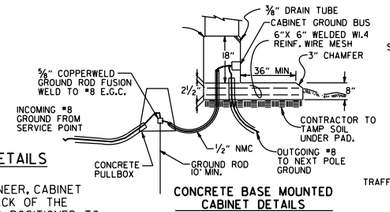
POLE FOUNDATION MINIMUM DIMENSIONS AND STEEL REINFORCING. ALL REINFORCING STEEL SHALL BE GRADE 40 MIN.

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 701FOR 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.

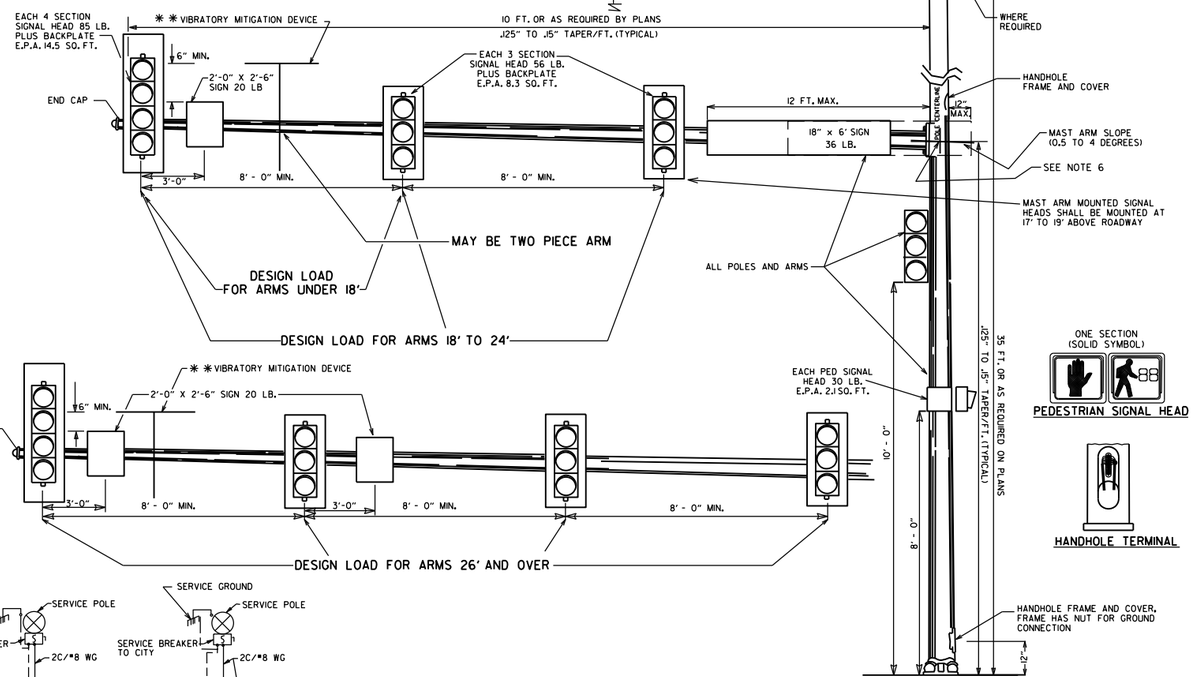
10. CONCRETE - ALL CONCRETE FOR CONTROLLER CABINET AND POLE FOUNDATIONS SHALL BE CLASS "S" OR GREATER.

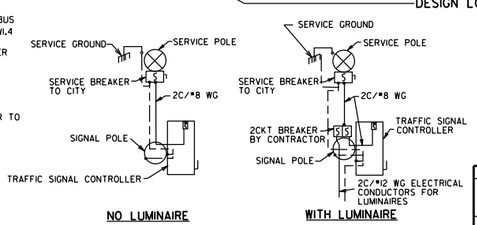
11. PEDESTRIAN PHASES - PEDESTRIAN MOVEMENTS SHALL BE PUSH BUTTON ACTUATED AND CONCURRENTLY TIMED, UNLESS OTHERWISE INDICATED ON THE PLAN SHEET(S). FURNISHING AND INSTALLING PEDESTRIAN PUSH SWITCH SHALL BE CONSIDERED SUBSIDIARY TO THE ITEM 707 PEDESTRIAN SIGNAL HEAD.

* 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.

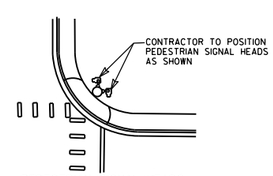
TRUCK-INDUCED GUST LOADS SHALL BE EXCLUDED FOR FATIGUE DESIGN FOR ALL STRUCTURES EXCEPT MAST ARMS MOUNTED OVER FACILITIES WITH POSTED SPEEDS OF 65 MPH OR GREATER AT THE LOCATION OF THE STRUCTURE.





SERVICE DISCONNECT

NOTE: ELECTRICAL GROUND CONDUCTOR IS BONDED TO ALL METAL ENCLOSURES



PEDESTRIAN SIGNAL HEADS

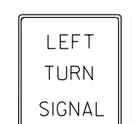
SIGNAL OPERATION NOTES:

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 ALTERATIONS IN FLASH SEQUENCE.

SPECIAL NOTE: 90 MPH WIND ZONE DESIGN, SEE NOTE 3. MINIMUM STRUCTURAL REQUIREMENTS.

DATE	REVISION	FILMED
02-13-24	REVISED SPECIAL SIGN TO RIO-12a SIGN	
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	



RIO-10



RIO-12a



RIO-3e
(SEE MUTCD)

ARKANSAS STATE HIGHWAY COMMISSION

STEEL POLE WITH MAST ARM

STANDARD DRAWING SD-11

SUPERELEVATION TABLE FOR TWO - WAY TRAFFIC

DEGREE OF CURVE	30 MPH			35 MPH			40 MPH			45 MPH			50 MPH			55 MPH			60 MPH			65 MPH			70 MPH			75 MPH		
	e	Ls (FT)		e	Ls (FT)		e	Ls (FT)		e	Ls (FT)		e	Ls (FT)		e	Ls (FT)		e	Ls (FT)		e	Ls (FT)		e	Ls (FT)		e	Ls (FT)	
		MINIMUM	DESIRABLE		MINIMUM	DESIRABLE		MINIMUM	DESIRABLE		MINIMUM	DESIRABLE		MINIMUM	DESIRABLE		MINIMUM	DESIRABLE		MINIMUM	DESIRABLE		MINIMUM	DESIRABLE		MINIMUM	DESIRABLE		MINIMUM	DESIRABLE
0° 15'	NC			NC			NC			NC			NC			NC			NC			NC			NC			NC		
0° 30'	NC			NC			NC			NC			NC			NC			RC	96		RC	96		RC	96		0.022	101	
0° 45'	NC			NC			NC			NC			RC	96		RC	96		0.024	106		0.026	110		0.030	120		0.032	125	
1° 00'	NC			NC			NC			RC	90		0.022	101		0.026	110		0.030	120		0.034	130		0.038	139	300	0.042	149	300
1° 15'	NC			NC			RC	84		0.022	95		0.028	115		0.032	125		0.038	139		0.042	149		0.046	158		0.052	173	
1° 30'	NC			RC	78		0.022	88		0.028	108		0.032	125		0.038	139		0.044	154		0.050	168	300	0.056	182		0.062	197	
1° 45'	RC	72		RC	78		0.026	97		0.030	113		0.036	134		0.044	154		0.050	168	300	0.056	182		0.064	202		0.070	216	
2° 00'	RC	72		0.024	86		0.028	101		0.034	122		0.042	149		0.048	163		0.056	182		0.064	202		0.070	216		0.080	240	
2° 15'	RC	72		0.026	90		0.032	109		0.038	131		0.046	158		0.054	178	300	0.062	197		0.070	216		0.078	235	350	0.088	259	350
2° 30'	0.022	75		0.028	94		0.034	113		0.042	140		0.050	168		0.058	187		0.068	211		0.076	230		0.086	254		0.096	278	
2° 45'	0.024	79		0.030	98		0.038	122		0.046	149	200	0.054	178		0.064	202		0.072	221		0.082	245		0.092	269		0.100	288	400
3° 00'	0.026	83		0.034	105		0.040	126		0.050	158		0.058	187	250	0.068	211		0.078	235		0.088	259		0.098	283	400	D MAX = 2° 45'		
3° 15'	0.028	86		0.036	109		0.044	134		0.052	162		0.062	197		0.072	221		0.082	245		0.092	269		0.100	288				
3° 30'	0.030	90		0.038	113		0.046	139	200	0.056	171		0.066	206		0.076	230		0.086	254		0.096	278	350	D MAX = 3° 30'					
3° 45'	0.032	93		0.040	117		0.050	147		0.058	176		0.070	216		0.080	240		0.090	264		0.098	283							
4° 00'	0.034	97		0.042	121	200	0.052	151		0.062	185		0.072	221		0.084	250		0.094	274	350	0.100	288							
4° 15'	0.036	100		0.044	125		0.054	155		0.064	189		0.076	230		0.086	254	350	0.096	278		D MAX = 4° 15'								
4° 30'	0.036	100		0.046	129		0.056	160		0.068	198		0.078	235		0.090	264		0.098	283										
4° 45'	0.038	104	200	0.048	133		0.060	168		0.070	203		0.082	245		0.092	269		0.100	288										
5° 00'	0.040	108		0.050	137		0.062	172		0.072	207		0.084	250		0.094	274		D MAX = 5° 15'										
5° 30'	0.044	115		0.054	144		0.066	181		0.078	221	250	0.088	259		0.098	283												
6° 00'	0.046	119		0.058	152		0.070	189		0.082	230		0.092	269		0.100	288												
6° 30'	0.050	126		0.062	160		0.074	198		0.086	239		0.096	278	300	D MAX = 6° 30'													
7° 00'	0.052	130		0.064	164		0.078	206		0.090	248		0.098	283															
7° 30'	0.054	133		0.068	172		0.080	210		0.092	252		0.100	288															
8° 00'	0.058	140		0.070	176		0.084	219		0.094	257	300	D MAX = 8° 25'																
8° 30'	0.060	144		0.072	179		0.086	223	250	0.096	261																		
9° 00'	0.062	148		0.076	187		0.088	227		0.098	266																		
9° 30'	0.064	151		0.078	191		0.092	235		0.100	270																		
10° 00'	0.066	155		0.080	195		0.094	240		D MAX = 10° 30'																			
11° 00'	0.070	162		0.084	203		0.096	244																					
12° 00'	0.074	169		0.088	211	250	0.098	248																					
13° 00'	0.076	173		0.090	215		0.100	252	300	D MAX = 13° 45'																			
14° 00'	0.080	180		0.094	222																								
15° 00'	0.082	184		0.096	226																								
16° 00'	0.086	191		0.098	230																								
17° 00'	0.088	194		0.100	234																								
18° 00'	0.090	198	250	D MAX = 19° 30'																									
19° 00'	0.092	202																											
20° 00'	0.094	205																											
21° 00'	0.096	209																											
22° 00'	0.096	209																											
23° 00'	0.098	212																											
24° 00'	0.098	212																											
25° 00'	0.100	216																											
D MAX = 28° 30'																													

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.)

GENERAL NOTES

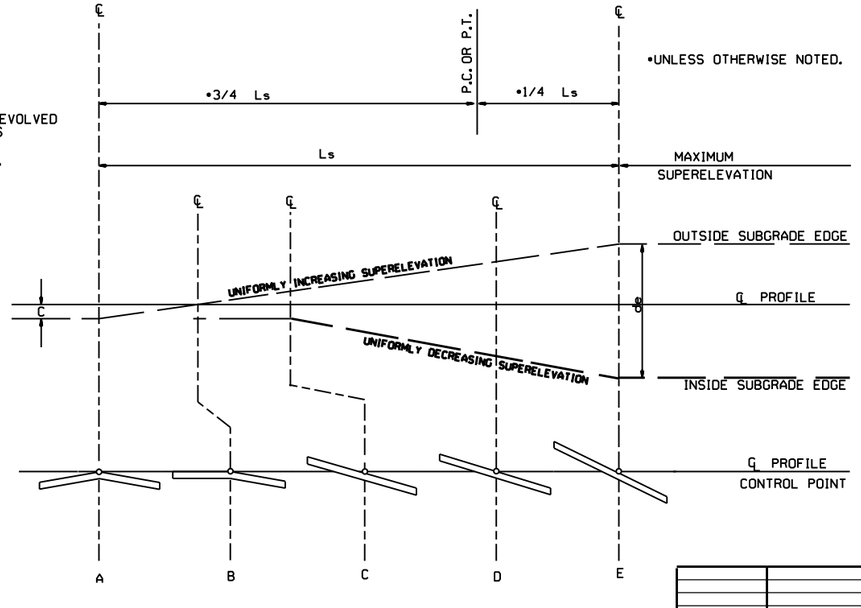
1. ON PAVEMENT WITH TWO-WAY TRAFFIC, THE SUPERELEVATION SHALL BE REVOLVED ON THE INSIDE PAVEMENT EDGE UNLESS OTHERWISE NOTED ON THE PLANS
2. SUPERELEVATION VALUES SHOWN ON THE CROSS SECTIONS ARE VALUES (+) OR (-) TO BE ADDED TO OR SUBTRACTED FROM THE POINT OF CONTROL.
3. LENGTHS FOR L MAY BE ROUNDED 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%

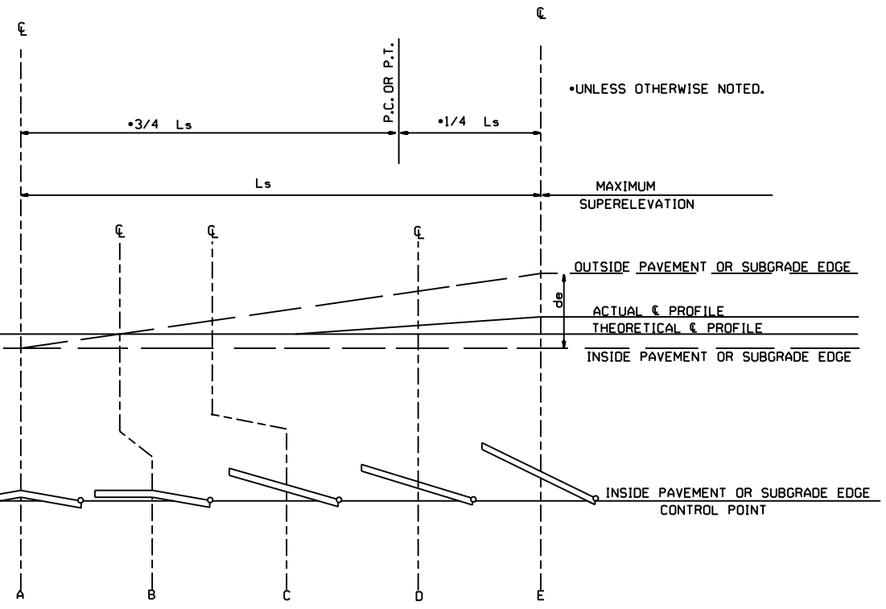
NOTE: MAINTAIN NORMAL CROWN ON INSIDE UNTIL SUPERELEVATION EXCEEDS 2C.

RATE OF SUPERELEVATION SHALL BE COMPUTED ON STRAIGHT LINE METHOD USING APPLICABLE Ls.

SUPERELEVATION FORMULA = $\frac{Lde}{Ls}$



STANDARD METHOD WHEN SUPERELEVATION REVOLVES AROUND CENTER LINE



STANDARD METHOD WHEN SUPERELEVATION REVOLVES AROUND INNER SUBGRADE POINT OR INNER PAVEMENT EDGE

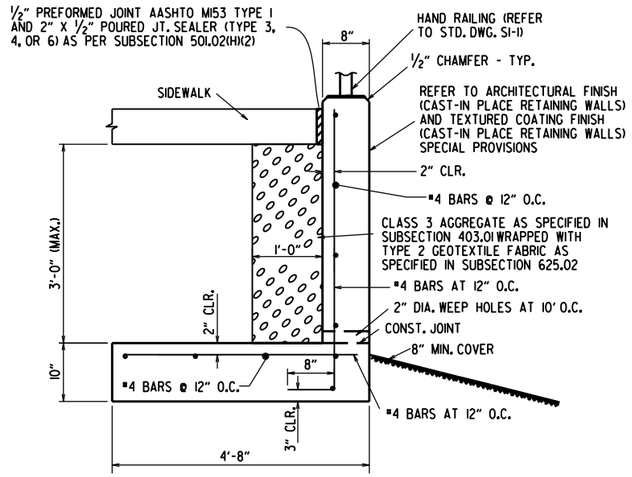
NOTE: MAINTAIN NORMAL CROWN ON INSIDE UNTIL SUPERELEVATION EXCEEDS 2C.

DATE	REVISION	DATE FILLMED
11-07-19	REVISED SUPERELEVATION TABLE	
10-18-96	ADDED FORMULA	
01-09-87	ISSUED	534-1-9-87

ARKANSAS STATE HIGHWAY COMMISSION

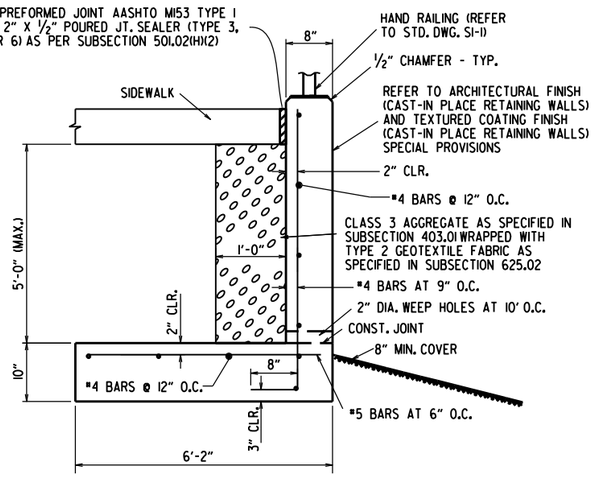
TABLES AND METHOD OF SUPERELEVATION FOR TWO-WAY TRAFFIC

STANDARD DRAWING SE-2



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.

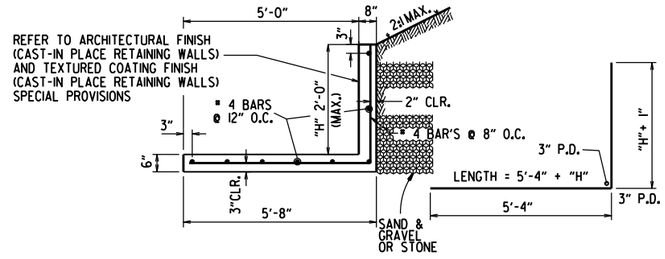
REINFORCING STEEL: ALL REINFORCING STEEL SHALL CONFORM TO AASHTO M31 OR M53, GRADE 60.

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).

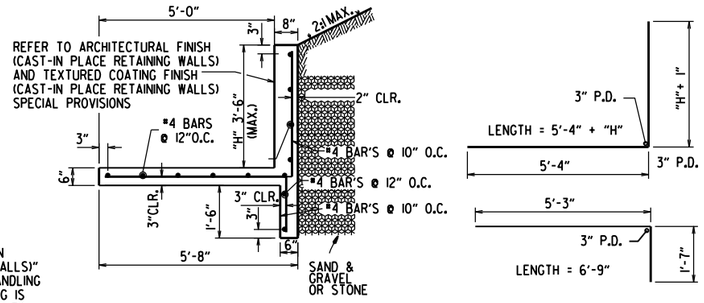
JOINTS IN THE WALL SHALL MATCH TYPE AND SPACING OF THE JOINTS IN THE WALK.

THESE DETAILS ARE NOT INTENDED FOR USE ALONG STREAMS OR DITCHES WITHOUT CONSIDERATION FOR SCOUR.



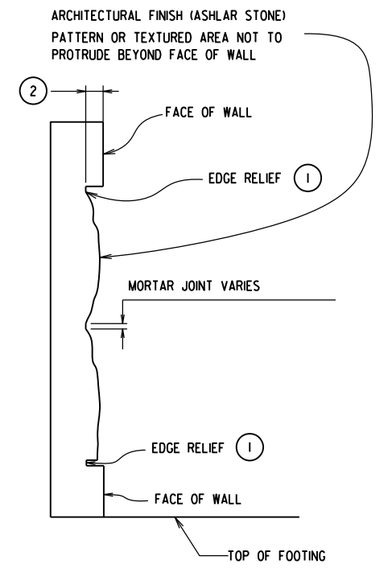
CONCRETE WALK (TYPE SPECIAL) DETAILS MAX HEIGHT 2'-0"

N.T.S.



CONCRETE WALK (TYPE SPECIAL) DETAILS MAX HEIGHT 3'-6"

N.T.S.

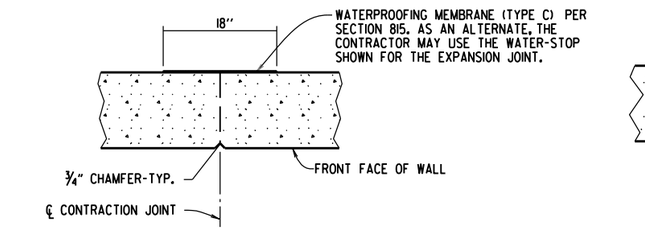


ARCHITECTURAL FINISH DETAILS

N.T.S.

(1) PROVIDE EDGE RELIEF AROUND PERIMETER OF TEXTURE. EDGE RELIEF DIMENSIONS SHALL MATCH MANUFACTURERS EDGE DISTANCE.

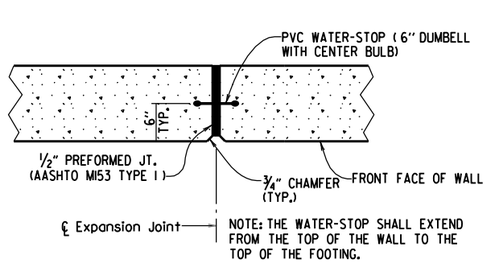
(2) DEPTH OF ASHLAR STONE PATTERN APPROX. 1⅝". SEE SP "ARCHITECTURAL FINISH (CAST-IN PLACE RETAINING WALLS)".



TYPICAL CONTRACTION JOINT DETAIL

N.T.S.

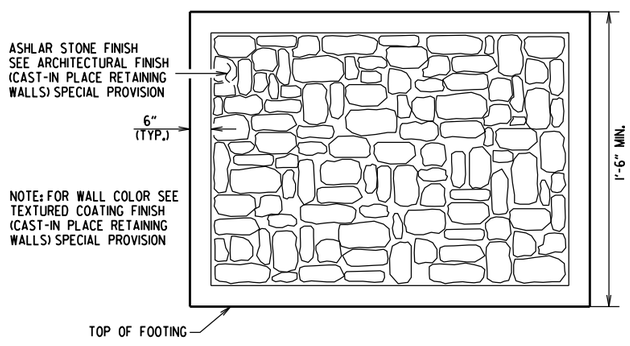
NOTE: 20'-0" MAX. SPACING BETWEEN CONTRACTION JOINTS. HORIZONTAL REINFORCEMENT SHALL BE CONTINUOUS THROUGH CONTRACTION JOINTS.



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)

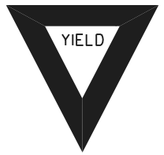
STANDARD DRAWING SI - 3

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"

R2-6aP



48"X36"

*USE 6" C LETTERS
**USE 4" D LETTERS

R5-1



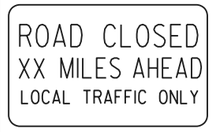
STD. 30"X30"
EXPWY. 36"X36"
SPECIAL 48"X48"

RII-2



48"X30"

RII-3A



60"X30"

RII-4



60"X30"

W21-5a



STD. 36"X36"
FWY. 48"X48"

W1-1



STD. 36"X36"
FWY. 48"X48"

W1-2



STD. 36"X36"
FWY. 48"X48"

R2-11



36"X48"

W1-3



STD. 48"X48"

W1-4



STD. 48"X48"

W1-6



STD. 48"X24"
SPECIAL 60"X30"

W1-8



STD. 18"X24"
SPECIAL 24"X30"
EXPWY. 30"X36"
FWY. 36"X48"

W3-1



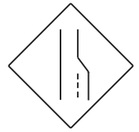
STD. 36"X36"
SPECIAL 48"X48"

W3-2



STD. 36"X36"
SPECIAL 48"X48"

W4-2



STD. 36"X36"
FWY. 48"X48"

R56-1



STD. 18"X18"

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"

W13-1



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"

W1-4b



STD. 48"X48"

W8-11



STD. 36"X36"
FWY. 48"X48"

W8-9



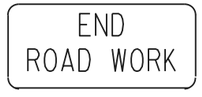
STD. 36"X36"
FWY. 48"X48"

G20-1



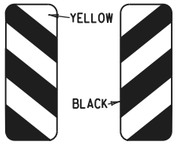
60"X24"

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"

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. R2-6aP PLAQUES SHALL BE MOUNTED BELOW AN APPLICABLE ADVANCE WARNING SIGN THAT IS LOCATED AT LEAST 1500' BUT NOT MORE THAN 1 MILE IN ADVANCE OF THE WORK ZONE. IF A SPEED LIMIT REDUCTION IS IN EFFECT, THE PLAQUE SHALL BE PLACED A MINIMUM OF 500' IN ADVANCE OF THE W3-5 "REDUCED SPEED AHEAD" SIGN. R2-11 SIGNS SHALL BE INSTALLED AT OR NEAR THE DOWNSTREAM END OF THE WORK ZONE. SEE STANDARD DRAWINGS TC-2, TC-3, AND TC-6 FOR TYPICAL PLACEMENT LOCATIONS.

• 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.

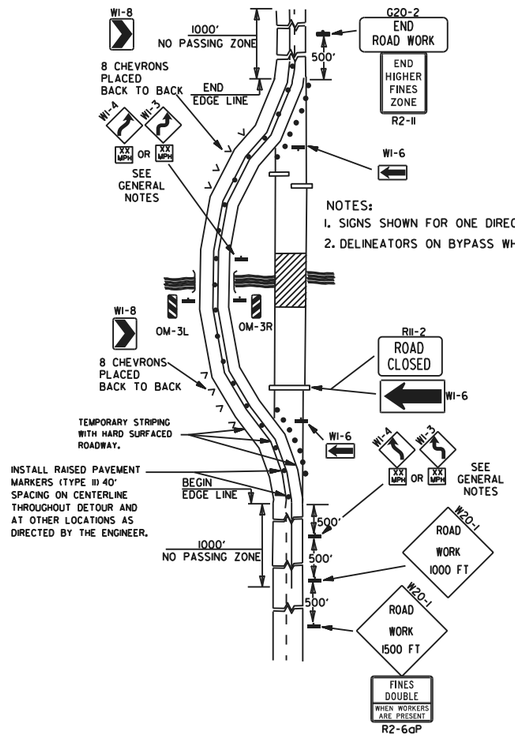
DATE REV	DESCRIPTION
08-14-25	REPLACED R55-1 WITH R2-6aP, ADDED R2-11 & REVISED NOTE 10
11-07-19	REVISED FOR MASH
04-13-17	DELETED RSP-1 & ADDED W21-5a
09-02-15	REVISED REDUCED SPEED LIMIT AHEAD SIGNS, REVISED ROAD WORK NEXT XX MILES
12-15-11	REVISED W24-1

ARDOT ARKANSAS DEPARTMENT OF TRANSPORTATION

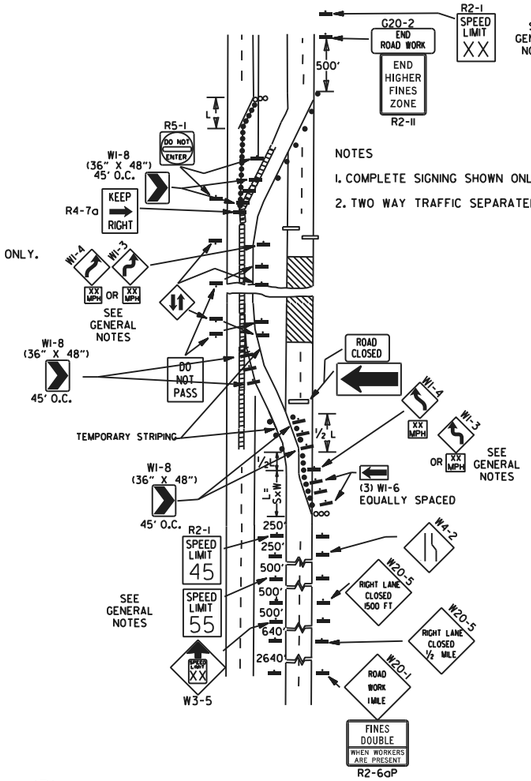
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

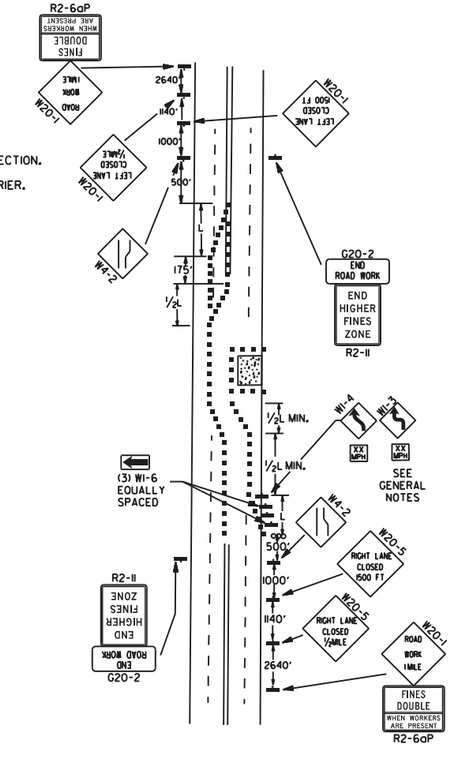
DATE EFFECTIVE	STANDARD DRAWING	TC-1
08-14-2025		



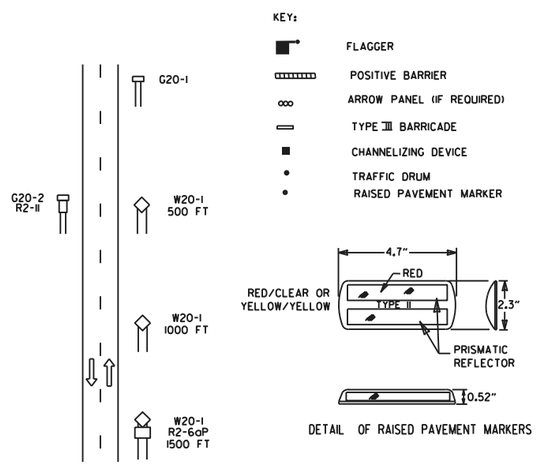
(A) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON A 2-LANE HIGHWAY WHERE THE ENTIRE ROADWAY IS CLOSED AND A BYPASS DETOUR IS PROVIDED.



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



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



TYPICAL ADVANCE WARNING SIGN PLACEMENT

TAPER FORMULAE:

L=SXW FOR SPEEDS OF 45MPH OR MORE.

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

WHERE:

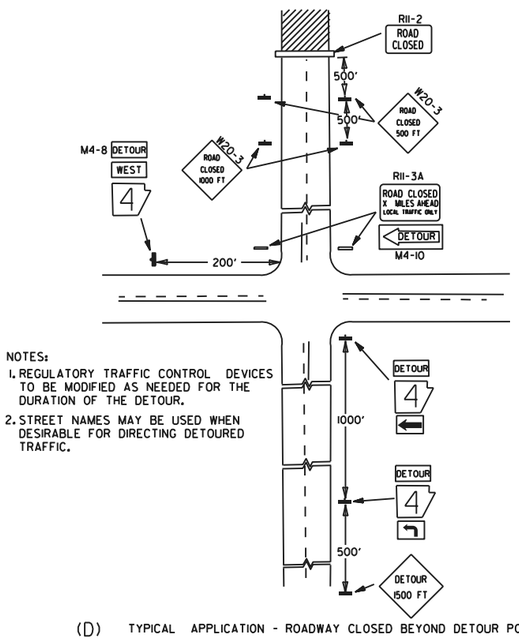
L= MINIMUM LENGTH OF TAPER.

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

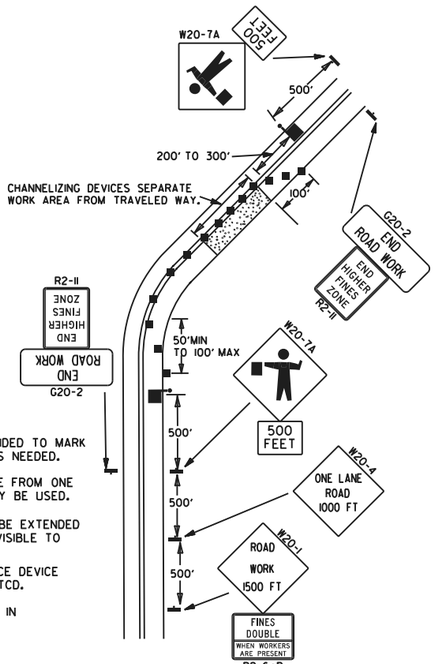
W= WIDTH OF OFFSET.

GENERAL NOTES:

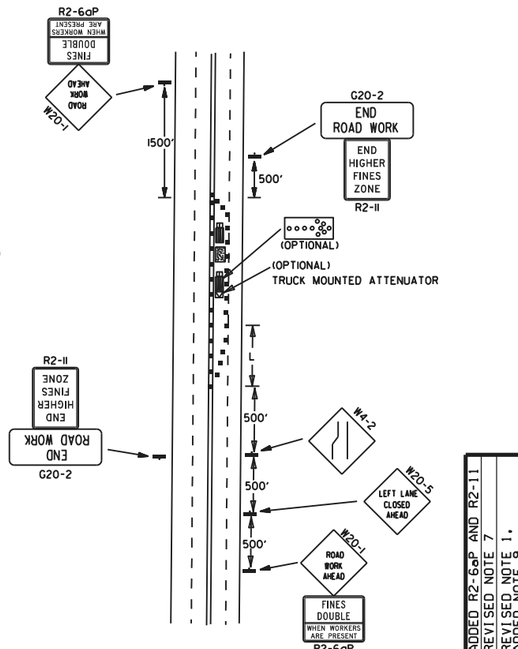
1. THE MAINTENANCE DIVISION SHALL CONDUCT A BALL BANK STUDY TO DETERMINE THE ADVISORY SPEED LIMIT PRIOR TO OPENING TO TRAFFIC. THE ADVISORY SPEED WILL BE POSTED ON W1-3 OR W1-4 CURVE WARNING SIGNS. USE W1-4 WHEN SPEED IS GREATER THAN 30MPH AND W1-3 WHEN 30MPH OR LESS
2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-1(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).



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



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



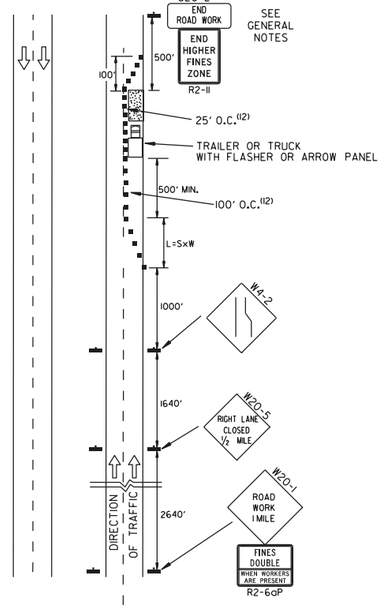
(F) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WITH INSIDE LANE CLOSED.

DATE REV	DESCRIPTION
08-14-25	ADDED R2-6aP AND R2-11
05-20-21	REVISED NOTE 7
11-07-19	REVISED NOTE 1. ADDED NOTE 9
09-02-15	REVISED NOTE 2, ADDED NOTE 8, REVISED DRAWING (AT & REPLACED R2-5A WITH W3-5
09-12-13	REVISED DETAIL OF RAISED PAVEMENT MARKINGS

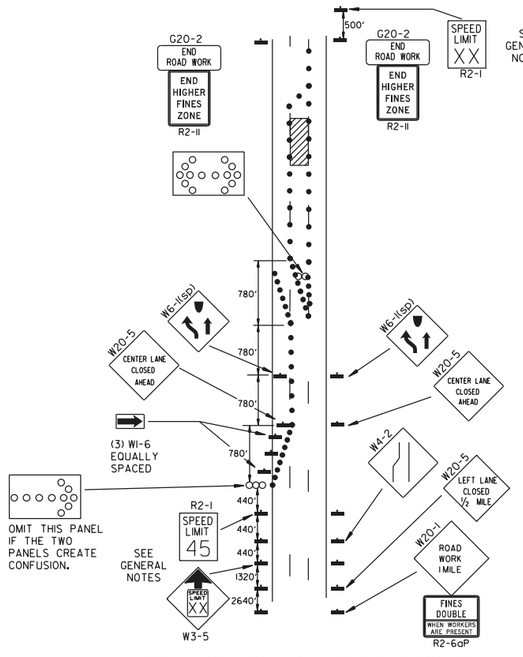
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

DATE EFFECTIVE	STANDARD DRAWING	TC-2
08-14-2025		



(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:

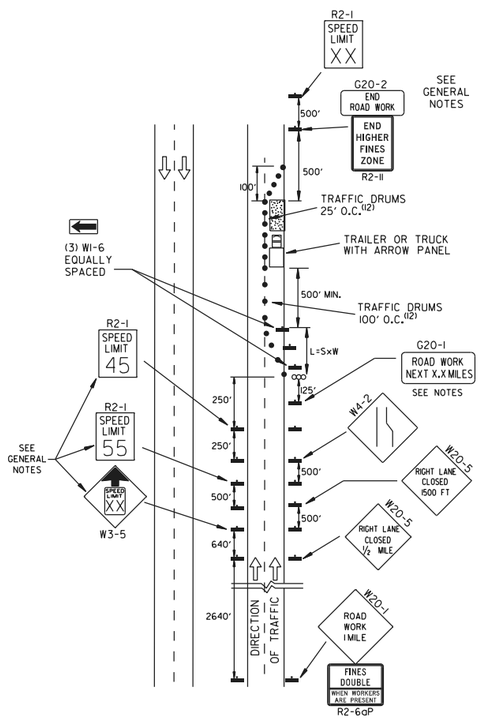
○○○ ARROW PANEL (IF REQUIRED)

■ CHANNELIZING DEVICE

● TRAFFIC DRUM

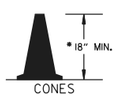
GENERAL NOTES:

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-I(55) SHALL BE OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-I 45MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-I(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-I(45) SHALL BE OMITTED. ADDITIONAL R2-I 55MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-I(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 SHOULD BE INSTALLED ON JOBS OF OVER TWO MILES IN LENGTH. WHEN THE LANE CLOSURE IS NOT AT THE BEGINNING OF THE PROJECT, THE G20-1 SIGN SHALL BE ERECTED 125' IN ADVANCE OF THE JOB LIMIT. ADDITIONAL W20-1 (1 MILE) SIGNS ARE NOT REQUIRED IN ADVANCE OF LANE CLOSURES THAT BEGIN INSIDE THE PROJECT LIMITS. THE DISTANCE DISPLAYED ON THE G20-1 SIGN SHALL BE STATED TO THE NEAREST WHOLE MILE.
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).
12. ONLY WHERE SPACE RESTRICTIONS DO NOT ALLOW FOR TRAFFIC DRUMS, TUBULAR MARKERS MAY BE USED AT 50' O.C. IN STABILIZATION ZONES AND AT 10' O.C. DIRECTLY ADJACENT TO CONSTRUCTION OPERATIONS AND AT EXIT TAPERS. TUBULAR MARKERS SHALL BE STABILIZED WITH WEIGHTED BASES IN ACCORDANCE WITH THE M.U.T.C.D.

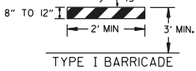


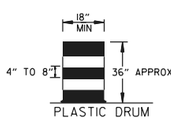
(C) TYPICAL APPLICATION - CONSTRUCTION OPERATIONS OF INTERMEDIATE TO LONG TERM DURATION ON A 4-LANE DIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.

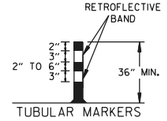
CHANNELIZING DEVICES

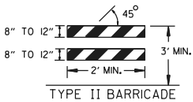


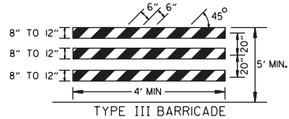
* WHEN CONES ARE USED ON FREEWAYS AND MULTI-LANE HIGHWAYS, THEY SHALL BE 28" MIN. DURING HOURS OF DARKNESS, 28" CONES SHALL BE USED ON ALL ROADWAYS, AND SHALL BE REFLECTORIZED IN ACCORDANCE WITH THE M.U.T.C.D.



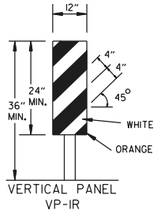


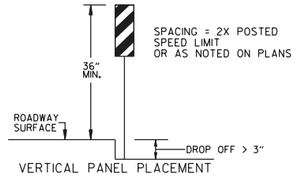


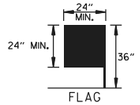




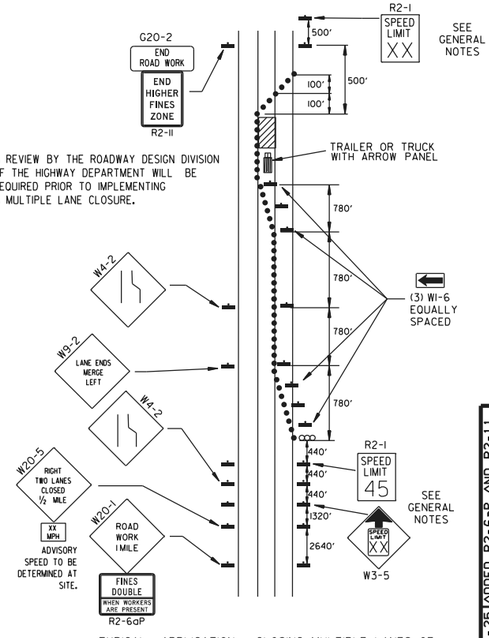
NOTE:
FOR ALL ROAD CLOSURES, THE TYPE III BARRICADES SHALL BE OF SUFFICIENT LENGTH TO EXTEND ACROSS ENTIRE ROADWAY.







FLAG SHALL BE OF GOOD GRADE RED MATERIAL



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

TRAFFIC CONTROL DEVICES

NON-INTERSTATE

VERTICAL DIFFERENTIAL	LOCATION	TRAFFIC CONTROL ≤ 45 MPH	TRAFFIC CONTROL > 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(3)
> 24"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	PRECAST CONCRETE BARRIER(4) & EDGE LINES	PRECAST CONCRETE BARRIER(4) & EDGE LINES

INTERSTATE

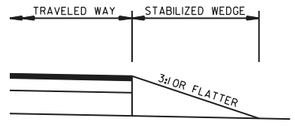
VERTICAL DIFFERENTIAL	LOCATION	TRAFFIC CONTROL
≤ 3"	CENTERLINE	W8-11 AND LANE STRIPING
≤ 3"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-9, EDGE LINE STRIPING, AND TRAFFIC DRUMS(2)
> 3" ≤ 6"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS(2)
> 6"	EDGE OF TRAVELED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

INTERSTATE AND NON-INTERSTATE

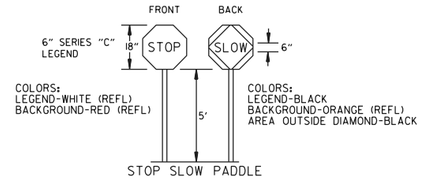
FORESLOPE	HEIGHT	TRAFFIC CONTROL
1:1	> 2 FT	PRECAST CONCRETE BARRIER
2:1	≤ 5 FT	TRAFFIC DRUMS
2:1	> 5 FT	PRECAST CONCRETE BARRIER
Flatter than 2:1	N/A	TRAFFIC DRUMS

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).



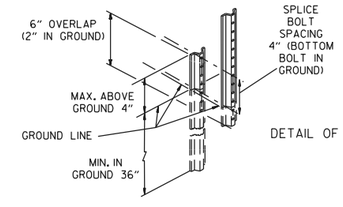
NOTE:
MATERIALS FOR THE STABILIZED WEDGE SHALL MEET THE REQUIREMENTS PROVIDED IN SECTION 603.02 OF THE STANDARD SPECIFICATIONS.

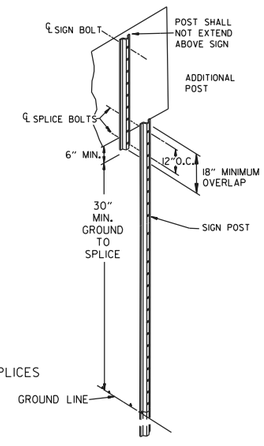


NOTES:
USE SPLICES ONLY WHEN NECESSARY FOR INSTALLATION. TYPICAL INSTALLATION SHOULD HAVE NO SPLICES (SEE STD. DRAWING NO. SHS-2)

NORMAL INSTALLATIONS WILL REQUIRE 1/4" DIA. BOLTS TO MOUNT SIGNS TO POST AND 5/16" DIA. BOLTS TO ASSEMBLE THE VARIOUS POST SUPPORTS. EACH OF THESE BOLTS SHALL BE CARRIAGE BOLTS.

SIGN POSTS SHALL BE PAINTED GREEN; SIGNS SHALL NOT BE PAINTED, AND ALL SIGN POSTS SHALL BE PLUMB.





DATE REV	DESCRIPTION
08-14-25	ADDED R2-6aP AND R2-11
05-22-25	REVISED TRAFFIC CONTROL DEVICES AND NOTES. ADDED NOTE 12
08-12-21	REVISED TRAFFIC CONTROL DEVICES AND NOTES
05-20-21	REVISED NOTE 10
02-27-20	REVISED TRAFFIC CONTROL DEVICES DETAILS

ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

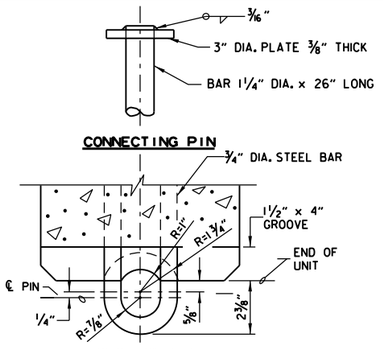
DATE EFFECTIVE 08-14-2025

STANDARD DRAWING

TC-3

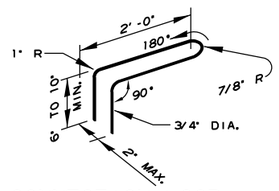
REINFORCING BAR TABLE PER BARRIER UNIT

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°; 1 1/2"; 9"; 2'-1 3/8"; 4 3/8"

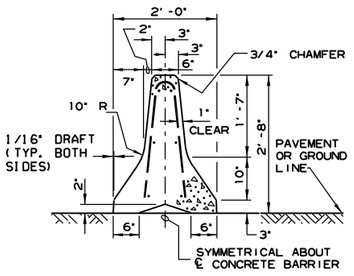


SECTION E-E

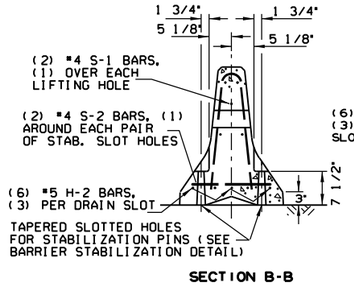
CONNECTION DETAILS



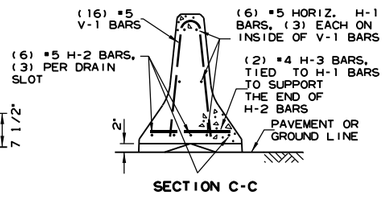
CONNECTION LOOP



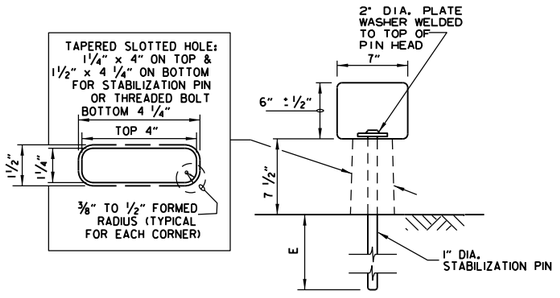
SECTION A-A



SECTION B-B



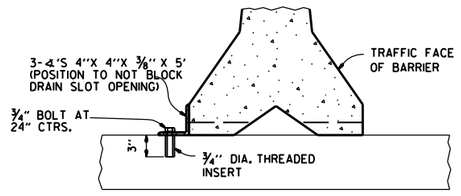
SECTION C-C



BARRIER STABILIZATION DETAIL

ROADWAY SECTION

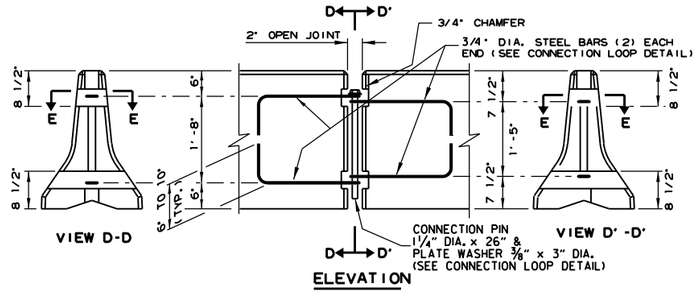
(E) 4" - CONCRETE PAVEMENT
8" - ASPHALT PAVEMENT
12" - SHOULDER AREAS



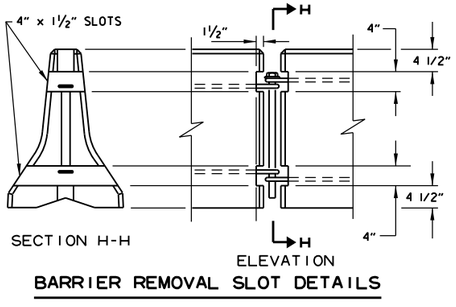
NOTE: " THREADED INSERTS SHALL BE CAST IN PLACE FOR ALL NEW BRIDGE DECKS AND DRILLED AND GROUTED FOR EXISTING BRIDGE DECKS. INSERTS SHALL HAVE A MINIMUM ULTIMATE LOAD CAPACITY OF 8000 LBS. IN TENSION. AFTER REMOVAL OF BARRIER, BOLTS, AND ANGLES, THE INSERTS SHALL BE FILLED WITH APPROVED NON-SHRINK EPOXY.

BARRIER STABILIZATION DETAIL

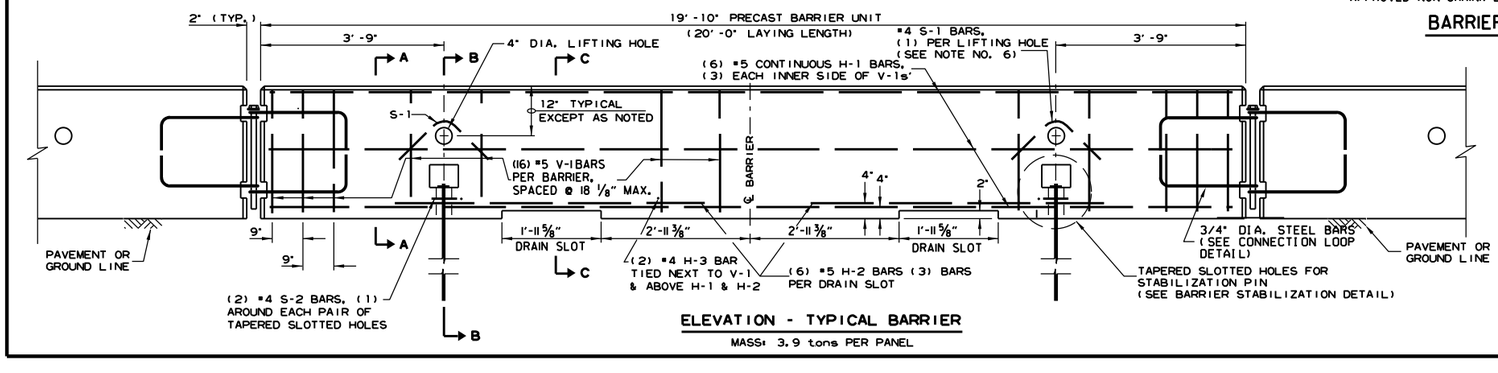
BRIDGE DECKS



ELEVATION



BARRIER REMOVAL SLOT DETAILS



ELEVATION - TYPICAL BARRIER

MASS: 3.9 tons PER PANEL

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.

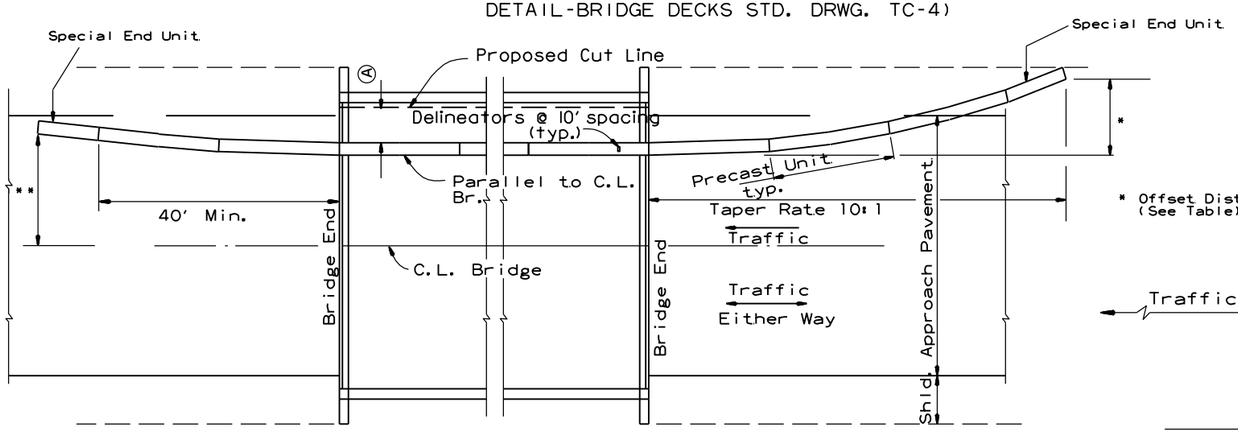
DATE	REVISION	FILMED
11-07-19	REVISED NOTE 3	
2-27-14	REVISED BARRIER STABILIZATION DETAIL	
10-15-09	ADDED REFERENCE TO WASH	
8-5-09	REV. NOTE 3 CONCERNING DRAIN SLOTS	
11-29-07	REVISED NOTE 3	
5-25-06	DELETED GENERAL NOTE 7	
11-18-04	REVISED BARRIER STABILIZATION DETAIL BRIDGE DECKS	
4-10-03	REVISED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

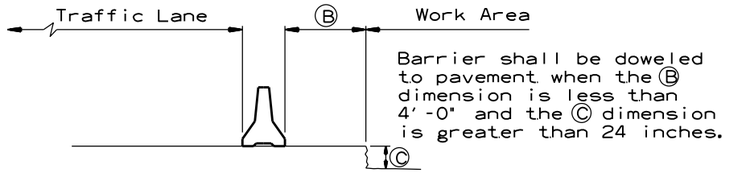
Ⓐ 4 feet or greater preferred. If less than 4 feet, Precast Units shall be connected to slab (SEE BARRIER STABILIZATION DETAIL-BRIDGE DECKS STD. DRWG. TC-4)



* Offset Distance (See Table)

BARRIER PLACEMENT ALONG BRIDGE WITH OFFSET

No Scale

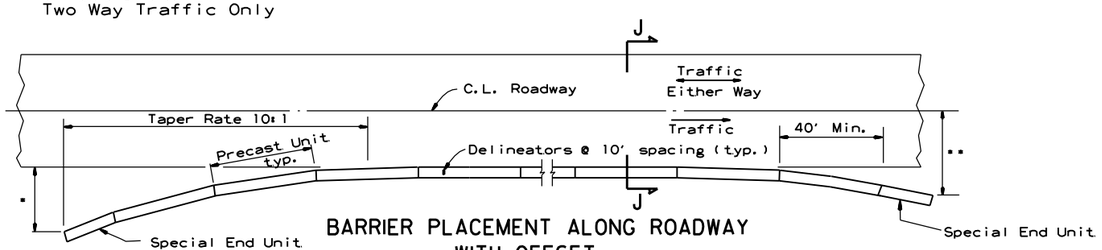


Barrier shall be doweled to pavement when the Ⓑ dimension is less than 4'-0" and the Ⓒ dimension is greater than 24 inches.

SECTION J-J

No Scale

** Offset Distance for Two Way Traffic Only



BARRIER PLACEMENT ALONG ROADWAY WITH OFFSET

No Scale

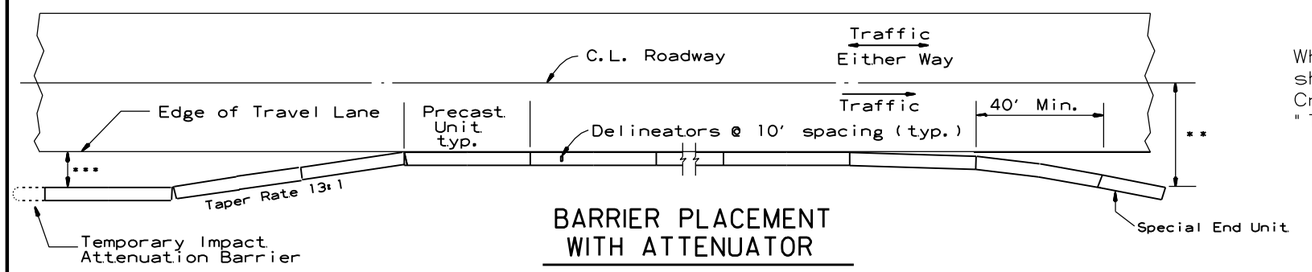
* Offset Distance (See Table)

** Offset Distance For Two Way Traffic Only

Offset Distance Table

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

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

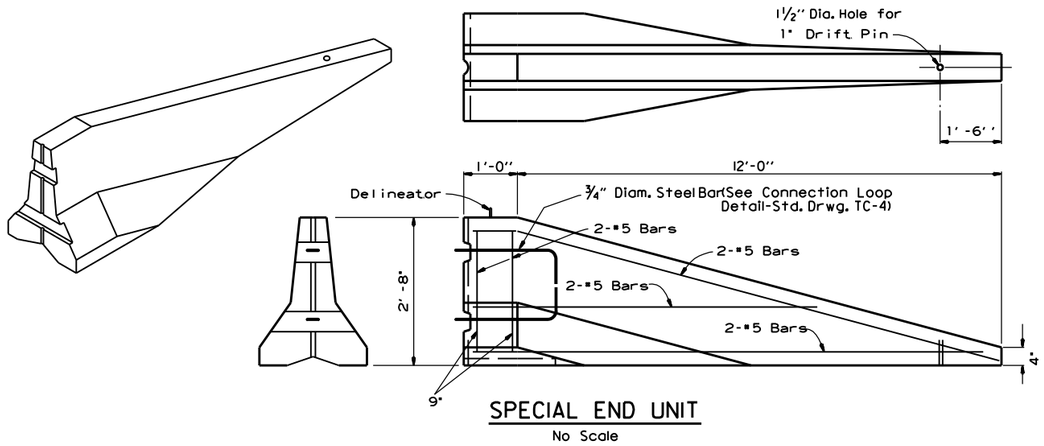


BARRIER PLACEMENT WITH ATTENUATOR

No Scale

** Offset Distance For Two Way Traffic Only

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



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."

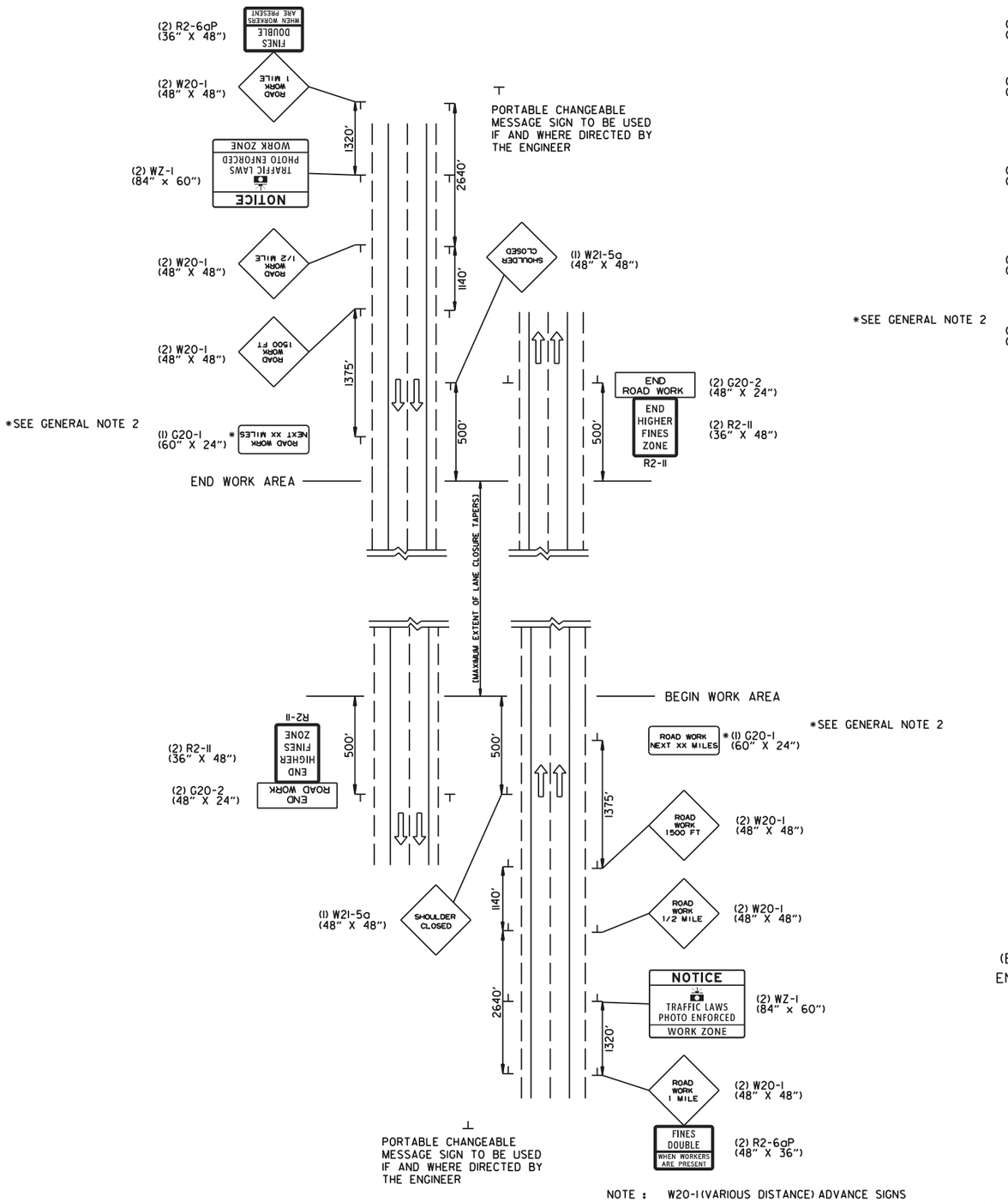
DATE	REVISION	FILMED
11-07-19	REVISED NOTE	
10-15-09	ADDED REFERENCE TO MASH	
5-25-06	REVISED BARRIER PLACEMENT	
8-22-02	ISSUED NEW DRAWING	

ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

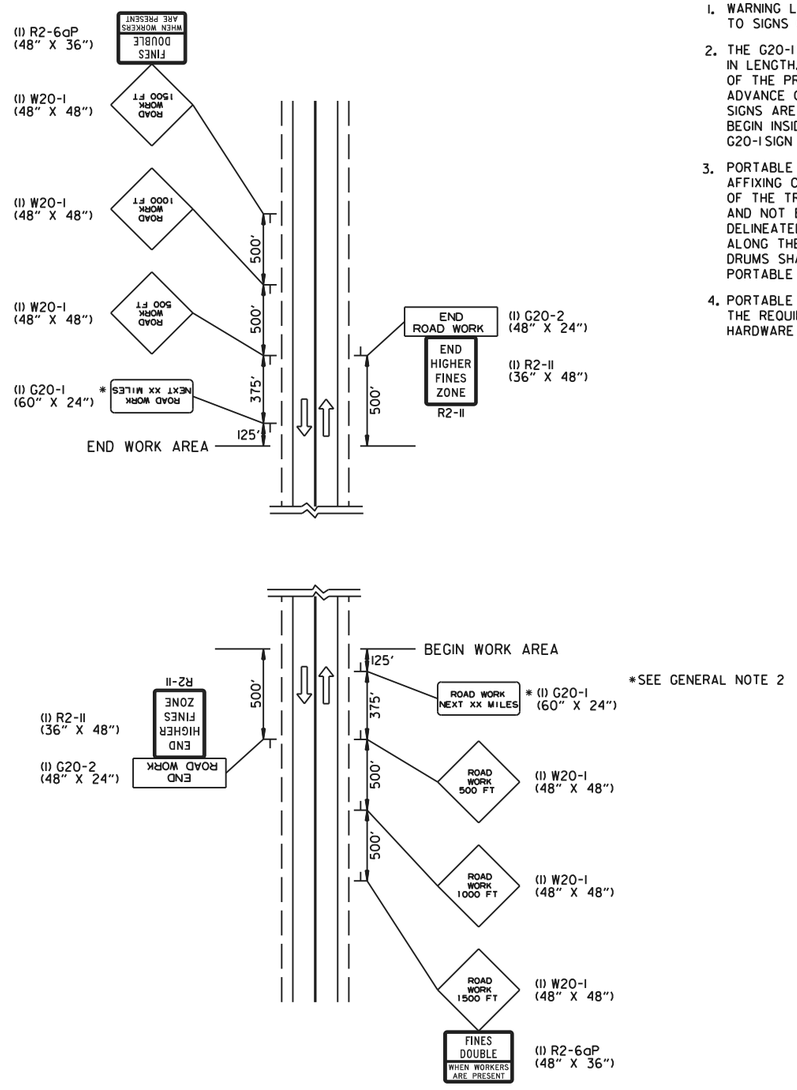
STANDARD DRAWING TC-5

NOTE : W20-1(VARIOUS DISTANCE) ADVANCE SIGNS TO BE REPLACED AS NEEDED BY EQUIVALENT W20-5 SIGNS AS WORKING AREA SHIFTS.



(A) TYPICAL APPLICATION - ADVANCE WARNING SIGNS AT BEGINNING AND END OF JOB (FULLY CONTROLLED ACCESS FACILITIES) (ALL STAGES)

NOTE : W20-1(VARIOUS DISTANCE) ADVANCE SIGNS TO BE REPLACED AS NEEDED BY EQUIVALENT W20-5 SIGNS AS WORKING AREA SHIFTS.



(B) TYPICAL APPLICATION - ADVANCE WARNING SIGNS AT BEGINNING AND END OF JOB (NON-FULLY CONTROLLED ACCESS FACILITIES) (ALL STAGES)

GENERAL NOTES:

1. WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
2. THE G20-1 SIGN SHOULD BE INSTALLED ON JOBS OF OVER TWO MILES IN LENGTH. WHEN THE LANE CLOSURE IS NOT AT THE BEGINNING OF THE PROJECT, THE G20-1 SIGN SHALL BE ERECTED 125' IN ADVANCE OF THE JOB LIMIT. ADDITIONAL W20-1 (1 MILE OR 1500 FT) SIGNS ARE NOT REQUIRED IN ADVANCE OF LANE CLOSURES THAT BEGIN INSIDE THE PROJECT LIMITS. THE DISTANCE DISPLAYED ON THE G20-1 SIGN SHALL BE STATED TO THE NEAREST WHOLE MILE.
3. 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, THIS DEVICE 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 PORTABLE CHANGEABLE MESSAGE SIGNS.
4. PORTABLE CHANGEABLE MESSAGE SIGNS SHALL MEET THE REQUIREMENTS OF THE MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).

DATE REV	DESCRIPTION
08-14-25	ISSUED
11-06-25	REPLACED "SPEED" WITH "TRAFFIC LAWS" ON WZ-1

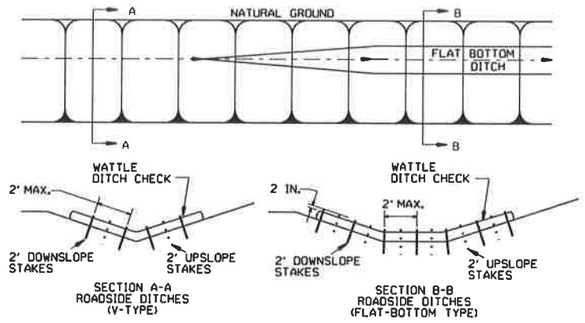
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

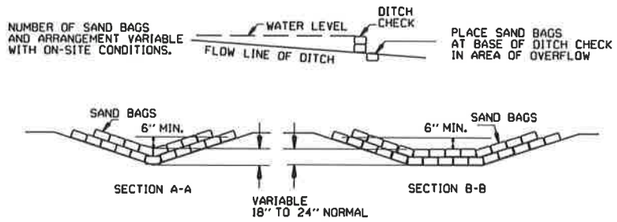
DATE EFFECTIVE	STANDARD DRAWING	TC-6
11-06-2025		

GENERAL NOTES

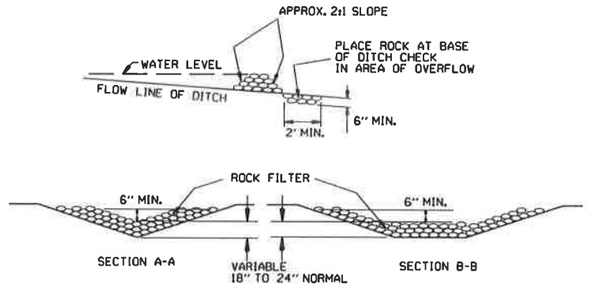
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.



WATTLE DITCH CHECK (E-1)



SAND BAG DITCH CHECK (E-5)

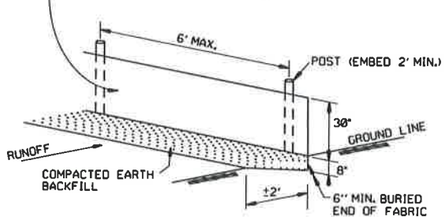


ROCK DITCH CHECK (E-6)

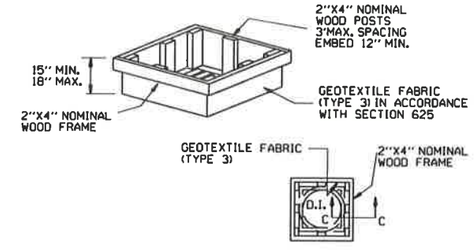
GENERAL NOTES

GEOTEXTILE FABRIC (TYPE 4) IN ACCORDANCE WITH SECTION 625

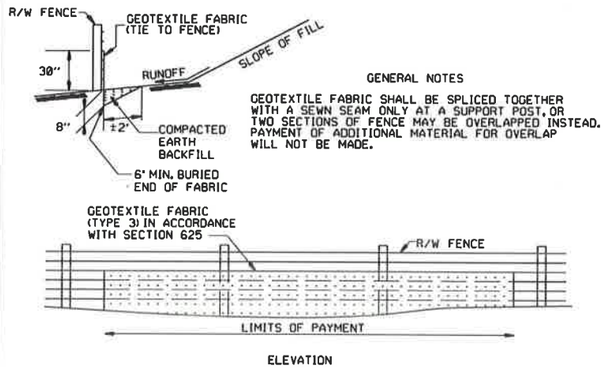
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.



SILT FENCE (E-11)



DROP INLET SILT FENCE (E-7)



GENERAL NOTES

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.

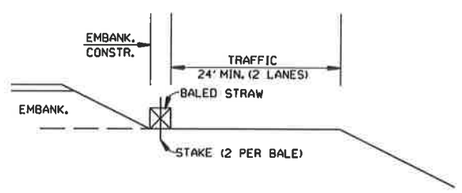
SILT FENCE ON R/W FENCE (E-4)

GENERAL NOTES

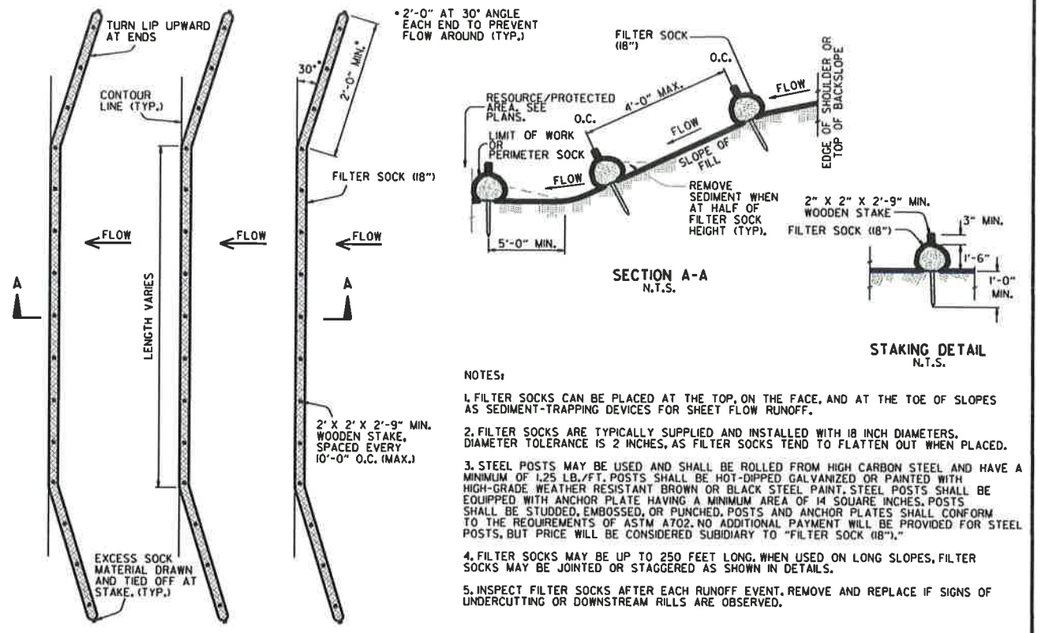
1. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES. THE BALES SHALL BE A MINIMUM OF 30 INCHES IN LENGTH.

2. NO GAPS SHALL BE LEFT BETWEEN BALES.

3. BALED STRAW FILTER BARRIERS COMPLETED AND ACCEPTED WILL BE MEASURED BY THE BALE IN PLACE AS AUTHORIZED BY THE ENGINEER AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER BALE FOR BALED STRAW DITCH CHECKS.



BALED STRAW FILTER BARRIER (E-2)



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.

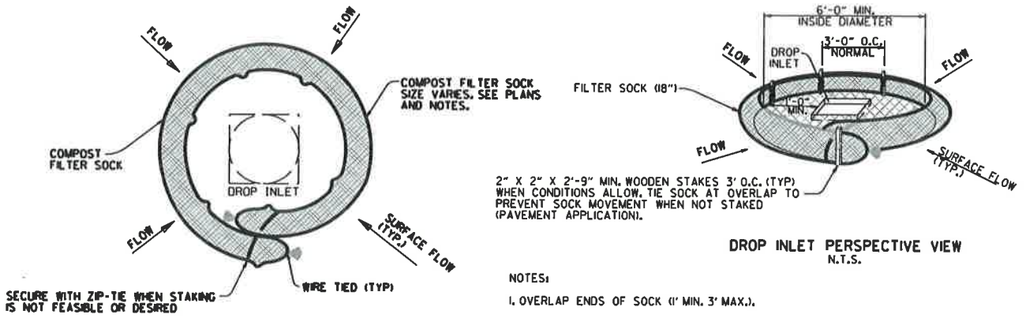
2. FILTER SOCKS ARE TYPICALLY SUPPLIED AND INSTALLED WITH 18 INCH DIAMETERS. DIAMETER TOLERANCE IS 2 INCHES, AS FILTER SOCKS TEND TO FLATTEN OUT WHEN PLACED.

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.

FILTER SOCK ALONG SLOPE (E-3)



NOTES:

1. OVERLAP ENDS OF SOCK (1' MIN. 3' MAX.).

2. USE 18" DIA. SOCK IN NON-TRAFFIC AREAS OR AREAS WHERE SAFETY IS NOT A CONCERN.

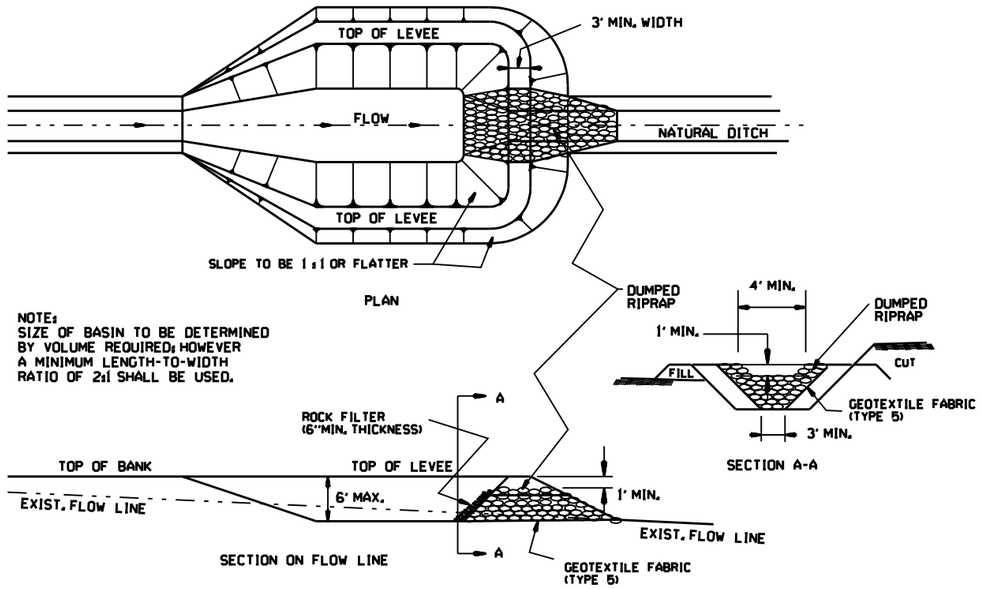
COMPOST FILTER SOCK DROP INLET PROTECTION (E-13)

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

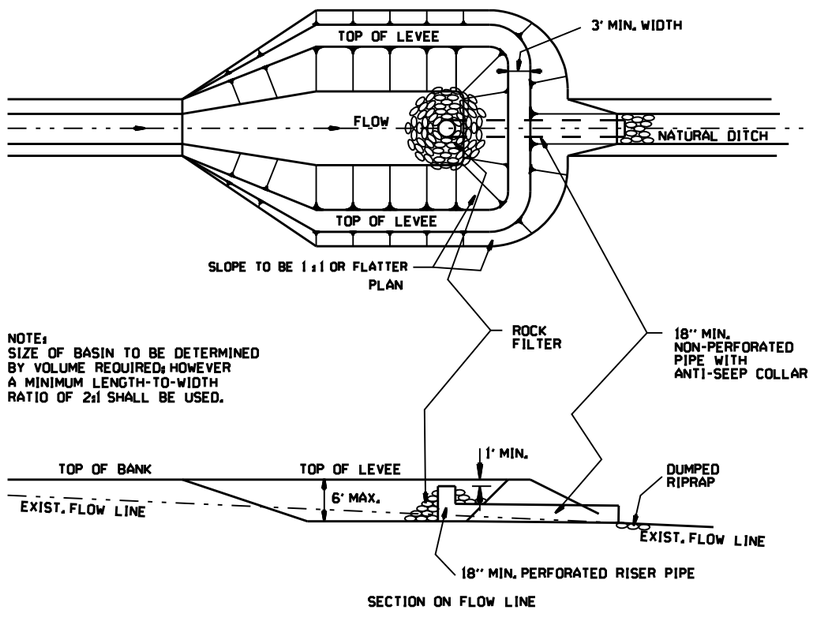
ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

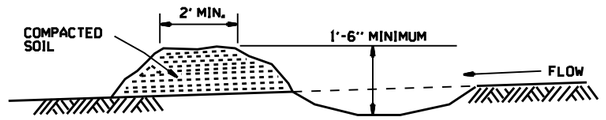
STANDARD DRAWING TEC-1



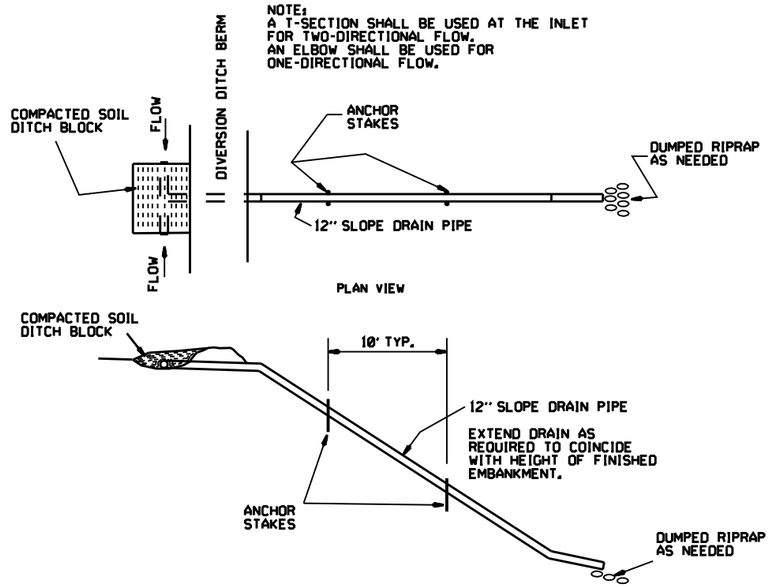
SEDIMENT BASIN WITH RIPRAP OUTLET (E-9)



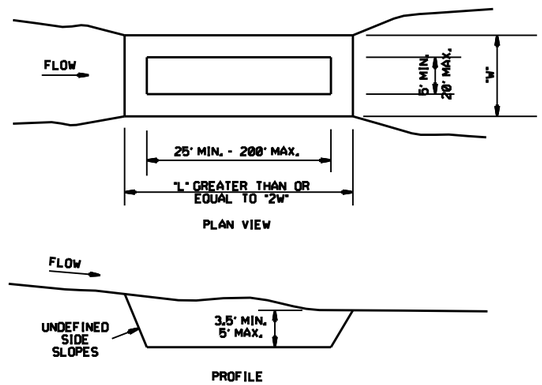
SEDIMENT BASIN WITH PIPE OUTLET (E-10)



DIVERSION DITCH (E-8)



SLOPE DRAIN (E-12)



SEDIMENT BASIN (E-14)

DATE	REVISION	FILMED
6-2-94	Revised E-8 & E-12; Added E-14 & Deleted E-13	
4-1-93	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

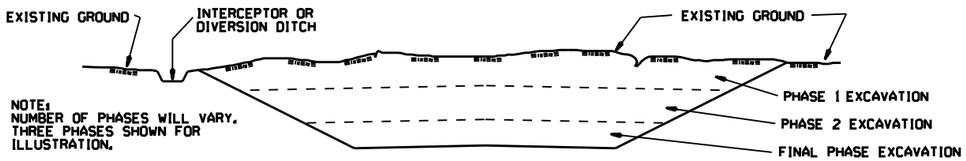
STANDARD DRAWING TEC-2

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



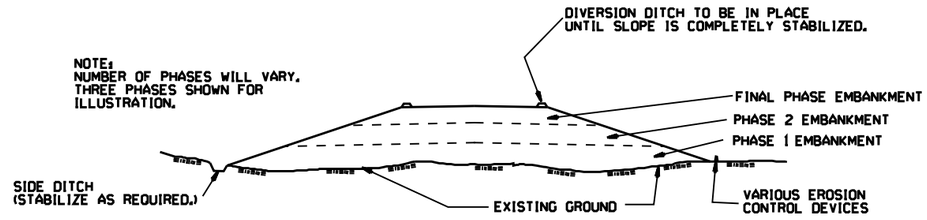
GENERAL NOTE

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

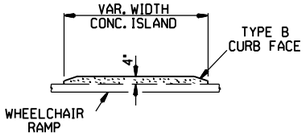
1. CONSTRUCT DIVERSION DITCHES, DITCH CHECKS, SEDIMENT BASINS, SILT FENCES, OR OTHER EROSION CONTROL DEVICES AS SPECIFIED.
2. PLACE PHASE 1 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD 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

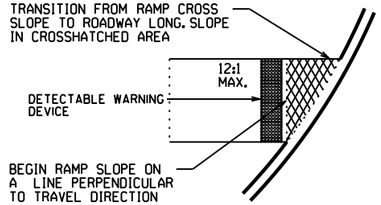
ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

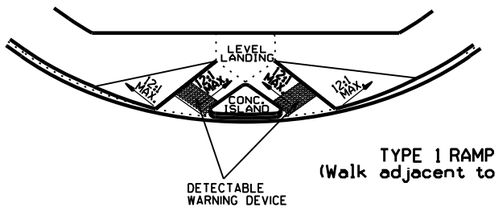
STANDARD DRAWING TEC-3



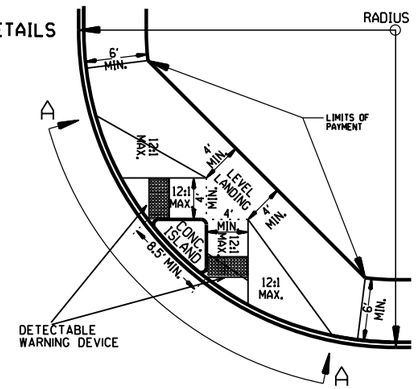
CONCRETE ISLAND DETAIL

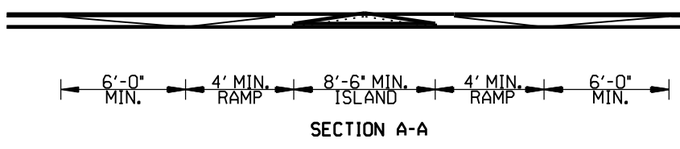


SLOPE TRANSITION DETAILS



TYPE 1 RAMP
(Walk adjacent to curb)

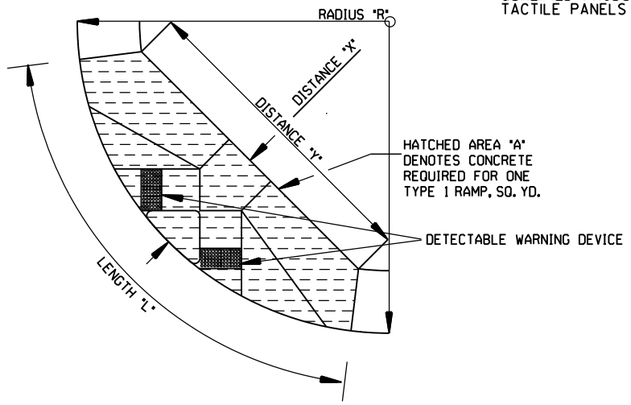




SECTION A-A

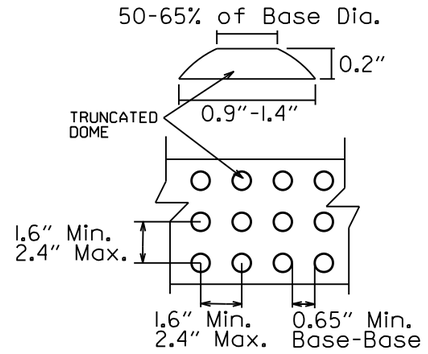
TYPE 1 RAMP DIMENSIONS AND QUANTITIES

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

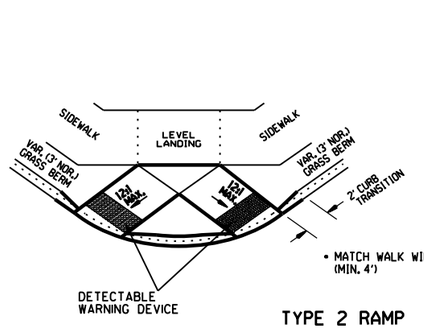
THE DETECTABLE WARNING DEVICE SHALL BE LOCATED SO THAT THE NEAREST EDGE OF THE DEVICE IS 6 TO 8 INCHES FROM THE FACE OF THE CURB.
TRUNCATED DOMES IN THE DETECTABLE WARNING SURFACE SHALL MEET THE REQUIREMENTS OF THE GEOMETRIC CONFIGURATION SHOWN.
DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT 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).



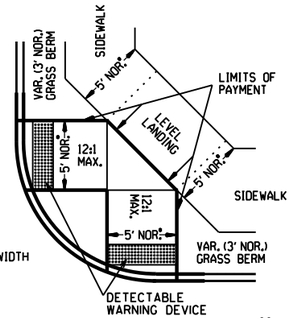
DETECTABLE WARNING DEVICE DETAIL

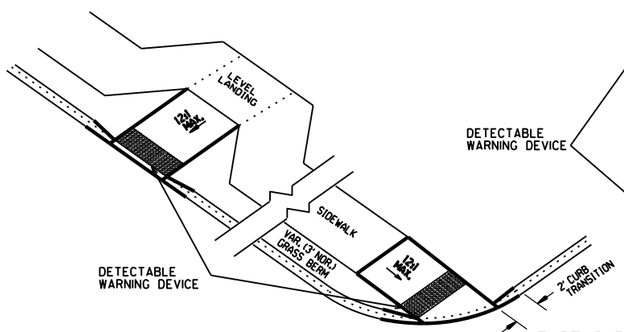
GENERAL NOTES:

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.

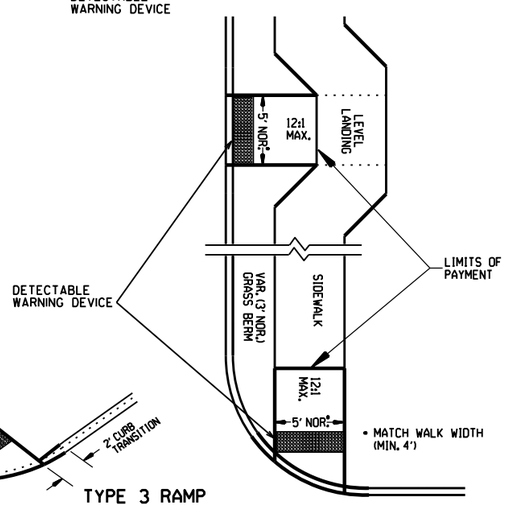


TYPE 2 RAMP

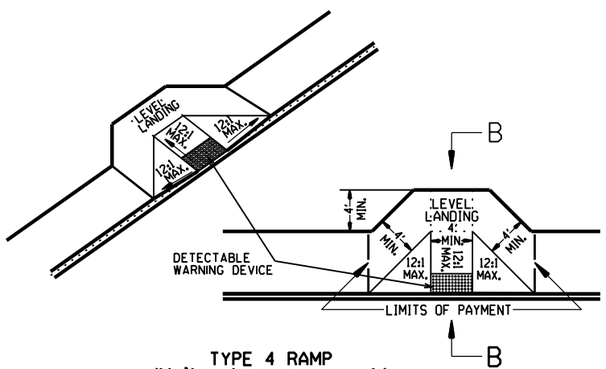




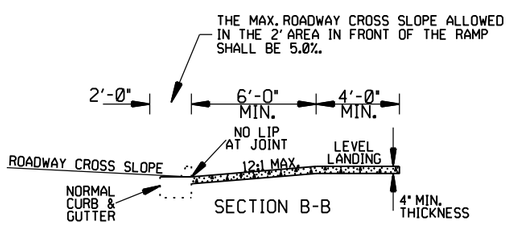
TYPE 3 RAMP



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

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.

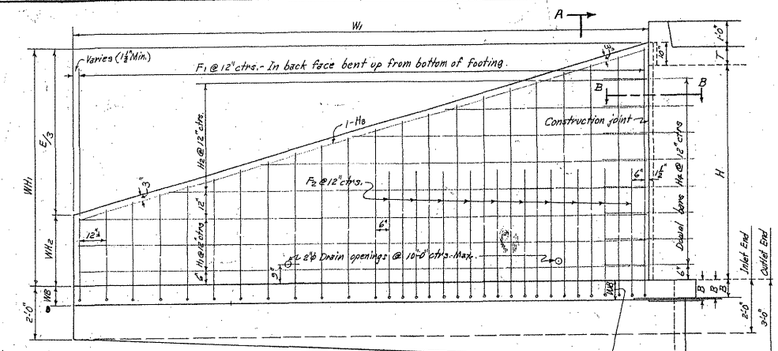
DATE	REVISION	DATE FILM
11-10-05	REVISED TO NEW SIDEWALK POLICY	
10-9-03	REVISED GEN. NOTES & ADDED NOTE	
4-10-03	REV. DETECTABLE WARNING DEVICES	
8-22-02	ADD DETECTABLE WARNING DEVICES	
3-30-00	ADD.SLOPE TRANS. & REV. ISL. DIMS.	
11-18-98	REVISED NOTES	
8-12-98	REVISED TEXTURE	
7-02-98	REDRAWN & REISSUED	
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

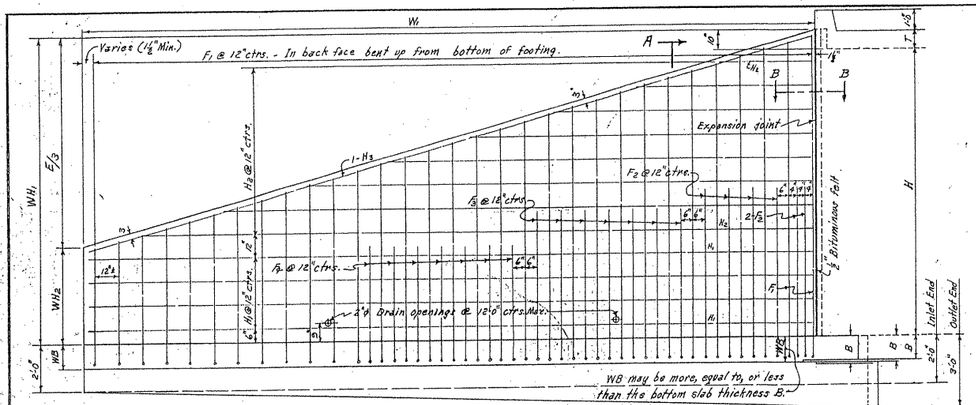
WHEELCHAIR RAMPS NEW CONSTRUCTION AND ALTERATIONS

STANDARD DRAWING WR-1

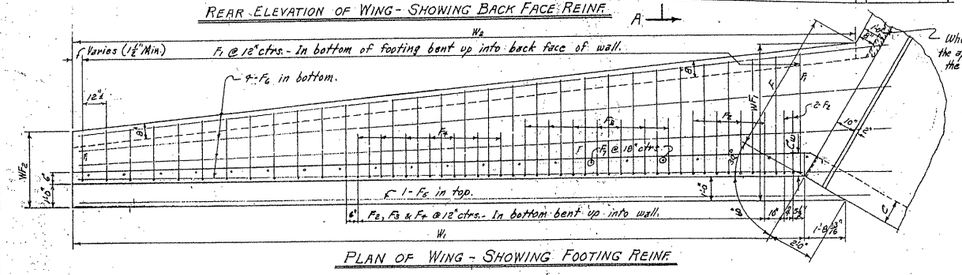
FED. ROAD No.	STATE	FED. AID PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
6	ARK.				
JOB No.					



FED. ROAD No.	STATE	FED. AID PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
6	ARK.				
JOB No:					

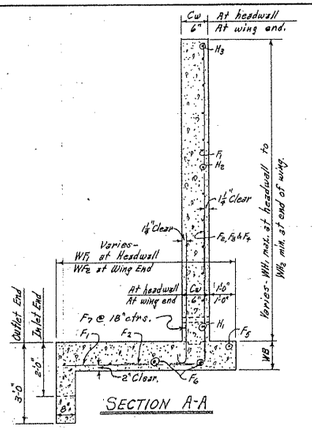


REAR ELEVATION OF WING - SHOWING BACK FACE REINF.

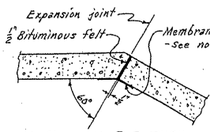


PLAN OF WING - SHOWING FOOTING REINF.

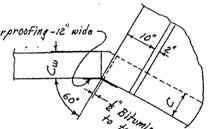
Where B is more than WB, the shaded portion of the apron shall be made the same thickness as the barrel base B.



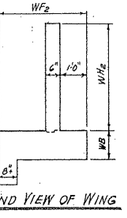
SECTION A-A



SECTION B-B THRU EXPANSION JOINT



DETAIL AT TOP OF WING



END VIEW OF WING

WING DIMENSIONS

CLEAR HEIGHT OF BOX	THICKNESS OF WING FOOTING	THICKNESS OF WING AT HEADWALL = C.	WINGWALL HEIGHTS		WIDTHS OF WING FOOTINGS		PERPENDICULAR FOOTING DIMENSION	PERPENDICULAR DIST. FROM H.W. TO END OF WING	LENGTH OF WINGWALLS	INSIDE FOOTING DIMENSION	* QUANTITY PER WING CLASS S CONCRETE	
			AT HEADWALL	AT END OF WING	AT HEADWALL	AT END OF WING					INLET END	OUTLET END
H	WB	Cw	WH1	WH2	WF1	WF2	F	E	W1	W2	CU.YD.	CU.YD.
9'	10"	9"	9'-10"	3'-0"	5'-2"	2'-10½"	4'-3"	20'-6"	23'-8"	24'-11"	7.492	7.810
10'	11"	10"	10'-10"	3'-4"	5'-8"	3'-0"	4'-10"	22'-6"	25'-11⅞"	27'-6⅝"	9.554	9.905
11'	12"	11"	11'-10"	3'-8"	6'-2"	3'-1⅞"	5'-5"	24'-6"	28'-3⅝"	30'-1⅛"	11.977	12.361
12'	13"	12"	12'-10"	4'-0"	6'-8"	3'-3"	6'-0"	26'-6"	30'-7⅛"	32'-8⅝"	14.791	15.206

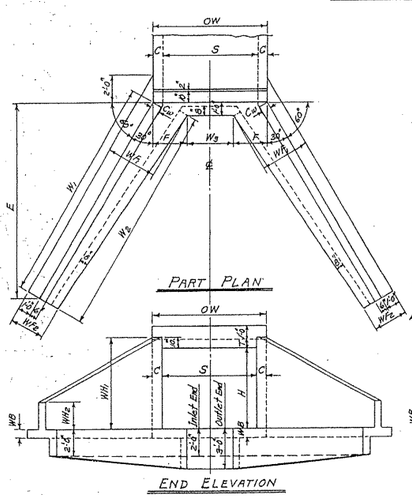
* Quantity per wing does not include headwall or that portion of apron or toewall for the length Ws.

CLEAR SPAN	CLEAR HEIGHT	2 x FOOTING DIMENSION	Ws = (OW - 2F) SINGLE BARREL CULVERT		DOUBLE BARREL CULVERT		TRIPLE BARREL CULVERT		QUADRUPLE BARREL CULVERT		QUINTUPLE BARREL CULVERT	
S	H	2F	OW	Ws	OW	Ws	OW	Ws	OW	Ws	OW	Ws
7'												
	9'	8'-6"	8'-6"	0'-0"	16'-5"	7'-11"	24'-4"	15'-10"	32'-3"	23'-9"	40'-2"	31'-8"
8'	9'	8'-6"	9'-6"	1'-0"	18'-5"	9'-11"	27'-4"	18'-10"	36'-3"	27'-9"	45'-2"	36'-8"
	10'	9'-8"	9'-8"	0'-0"	18'8"	9'-0"	27'-8"	18'-0"	36'-8"	27'-0"	45'-8"	36'-0"
9'	9'	8'-6"	10'-6"	2'-0"	20'-5"	11'-11"	30'-4"	21'-10"	40'-3"	31'-9"	50'-2"	41'-8"
	10'	9'-8"	10'-8"	1'-0"	20'8"	11'-0"	30'-8"	21'-0"	40'-8"	31'-0"	50'-8"	41'-0"
	11'	10'-10"	10'-10"	0'-0"	20'10"	10'0"	30'-10"	20'-0"	40'-10"	30'-0"	50'-10"	40'-0"
10'	9'	8'-6"	11'-6"	3'-0"	22'-5"	13'-11"	33'-4"	24'-10"	44'-3"	35'-9"	55'-2"	46'-8"
	10'	9'-8"	11'-8"	2'-0"	22'-8"	13'-0"	33'-8"	24'-0"	44'-8"	35'-0"	55'-8"	46'-0"
	11'	10'-10"	11'-10"	1'-0"	22'10"	12'-0"	33'10"	23'-0"	44'-10"	34'-0"	55'-10"	45'-0"
	12'	12'-0"	12'-0"	0'-0"	23'-0"	11'-0"	34'-0"	22'-0"	45'-0"	33'-0"	56'-0"	44'-0"
11'	9'	8'-6"	12'-6"	4'-0"	24'-5"	15'-11"	36'-4"	27'-10"	48'-3"	39'-9"		
	10'	9'-8"	12'-8"	3'-0"	24'-8"	15'-0"	36'-8"	27'-0"	48'-8"	39'-0"		
	11'	10'-10"	12'10"	2'-0"	24'10"	14'0"	36'10"	26'-0"	48'10"	38'0"		
	12'	12'-0"	13'-0"	1'-0"	25'-0"	13'-0"	37'-0"	25'-0"	49'-0"	37'-0"		
12'	9'	8'-6"	13'-6"	5'-0"	26'-5"	17'-11"	39'-4"	30'-10"	52'-3"	43'-9"		
	10'	9'-8"	13'-8"	4'-0"	26'-8"	17'-0"	39'-8"	30'-0"	52'-8"	43'-0"		
	11'	10'-10"	13'10"	3'-0"	26'10"	16'-0"	39'10"	29'-0"	52'10"	42'0"		
	12'	12'-0"	14'-0"	2'-0"	27'-0"	15'-0"	40'-0"	28'-0"	53'-0"	41'-0"		

QUANTITIES

CLEAR SPAN	CLEAR HEIGHT	THICKNESS OF WING AT HEADWALL	THICKNESS OF WING FOOTING	REINFORCING STEEL - FOR 4 WINGS @	CLASS S CONCRETE - 4 WINGS HEADWALLS, WINGWALLS, FOOTINGS, TOEWALLS AND APRONS				
					SINGLE BARREL CULVERT	DOUBLE BARREL CULVERT	TRIPLE BARREL CULVERT	QUADRUPLE BARREL CULVERT	QUINTUPLE BARREL CULVERT
S	H	Cw	WB	LB.	CU.YD.	CU.YD.	CU.YD.	CU.YD.	CU.YD.
7'									
	9'	9"	10"	2133.2	31.16	32.84	34.51	36.19	37.87
8'	9'	9"	10"	2133.2	31.39	33.28	35.16	37.05	38.94
	10'	10"	11"	2651.5	39.56	41.98	43.90	45.83	47.25
9'	9'	9"	10"	2133.2	31.61	33.73	35.81	37.91	40.01
	10'	10"	11"	2651.6	39.78	41.93	44.05	46.20	48.33
	11'	11"	12"	3293.1	49.39	51.55	53.70	55.87	58.02
10'	9'	9"	10"	2133.2	31.83	34.17	36.47	38.73	41.12
	10'	10"	11"	2651.5	40.01	42.37	44.70	47.05	49.41
	11'	11"	12"	3293.1	49.62	52.00	54.36	56.73	59.11
	12'	12"	13"	4049.2	60.79	63.19	65.57	67.97	70.37
11'	9'	9"	10"	2133.2	32.04	34.64	37.15	39.68	
	10'	10"	11"	2651.5	40.22	42.83	45.37	47.99	
	11'	11"	12"	3293.1	49.80	52.95	55.02	57.61	
	12'	12"	13"	4049.2	61.01	63.69	66.24	68.85	
12'	9'	9"	10"	2133.2	32.27	35.11	37.84	40.59	
	10'	10"	11"	2651.5	40.54	43.30	46.06	48.82	
	11'	11"	12"	3293.1	50.06	52.92	55.68	58.98	
	12'	12"	13"	4049.2	61.24	64.10	66.90	69.73	

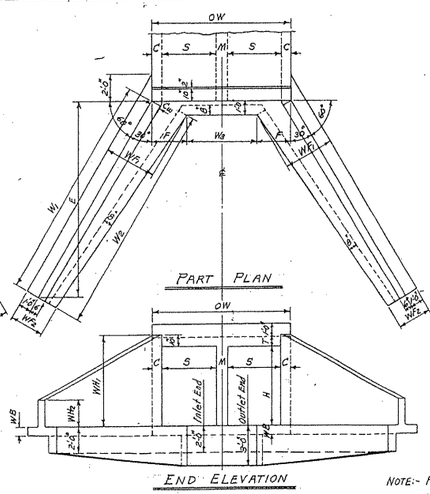
@ For reinforcing steel in Headwalls and Aprons, See Details of Standard Barrel Sections for R.C. Box Culverts for the desired Span and Height.



PART PLAN

END ELEVATION

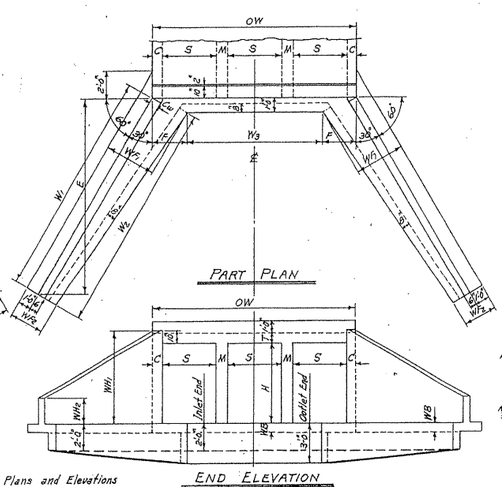
SINGLE BARREL CULVERT



PART PLAN

END ELEVATION

DOUBLE BARREL CULVERT

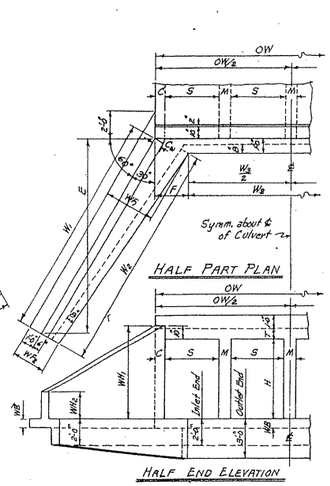


PART PLAN

END ELEVATION

TRIPLE BARREL CULVERT

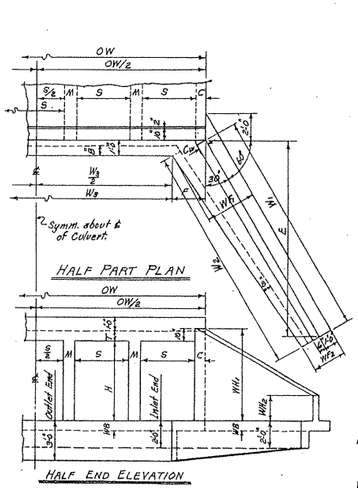
NOTE:- Plans and Elevations are not to scale.



HALF PART PLAN

HALF END ELEVATION

QUADRUPLE BARREL CULVERT



HALF PART PLAN

HALF END ELEVATION

QUINTUPLE BARREL CULVERT

GENERAL NOTES:-

CONCRETE:- All concrete to be Class S, and shall be poured in the dry. All exposed corners to have ¾ chamfers.

REINFORCING STEEL:- Reinforcing steel to be deformed bars of intermediate or hard grade.

CONSTRUCTION JOINTS:- Construction joints between wingwalls, footings and sidewalls shall be only where shown on plans.

MEMBRANE:- A membrane waterproofing 12" wide, consisting of three mopings of waterproofing asphalt and two alternate layers of treated cotton fabric shall be applied to the back face of wing to cover the expansion joints.

Payment for the membrane waterproofing and bituminous felt shall be included in unit price bid for Class S Concrete.

SPECIFICATIONS:- Arkansas State Highway Commission Standard Specifications for Highway Construction and applicable Special Provisions.

UNIT STRESSES:-

Class S Concrete (n=10) 1200#/□"

Reinforcing Steel 20,000#/□"

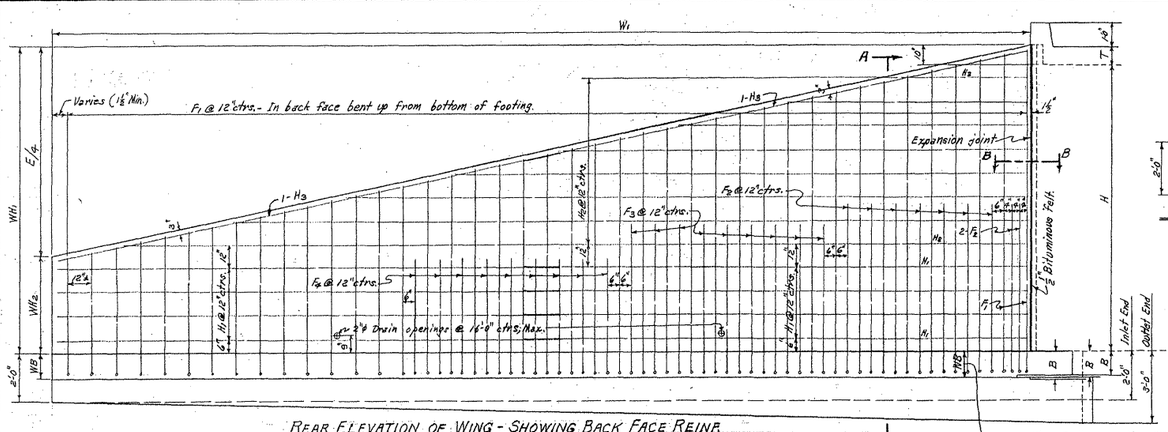
NOTE:- This drawing to be used in conjunction with Standard Barrel Sections, Drawing Nos. as listed below.

SINGLES	DOUBLES	TRIPLES	QUADRUPLES	QUINTUPLES
R-100X-0	R-200X-0	R-300X-0	R-400X-0	R-500X-0
R-100X-X2	R-200X-X2	R-300X-X2	R-400X-X2	
	R-200X-X3	R-300X-X3		

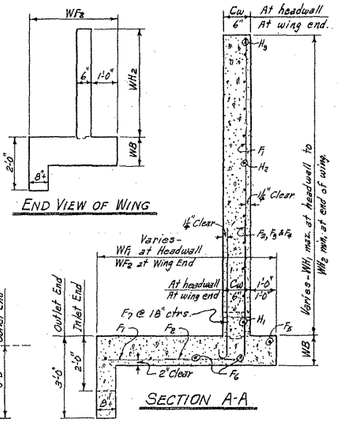
BAR LIST FOR ONE WING - 4 REQUIRED

| CLEAR HEIGHT | F1 BENT: In bottom of footing, bent up into back face of wing. One bar of each length. | | | | | | | F2 BENT: In bottom of footing, bent up into back face of wing. Alt. with F1 bars. | | | | | | F3 BENT: In bottom of footing, bent up into back face of wing. Alt. with F1 bars. | | | | | | F4 BENT: In bottom of footing, bent up into back face of wing. Alt. with F1 bars. | | | | | | F5 STRAIGHT: Longitudinal in top of wing footing heel. | | | F6 STRAIGHT: Longitudinal in bottom of wing footing toe. | | | H1 STRAIGHT: Horizontal in back face of wing. | | | | H2 STRAIGHT: Horizontal in back face of wing. One bar of each length | | | | | | H3 STRAIGHT: In back face of wing at top - on slope | | | F7 BENT: Footing dowels extending up into front face of wing. | | | | | QUANTITY REINFORCING STEEL PER WING | BAR BENDING DIAGRAMS |
|---|---|---|---|---|---|---|---|---|---|---|---|---

FED. ROAD No.	STATE	FED. AID PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
6	ARK.				
JOB No.					



REAR ELEVATION OF WING - SHOWING BACK FACE REINF.

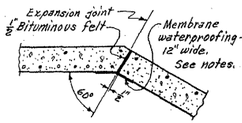


END VIEW OF WING

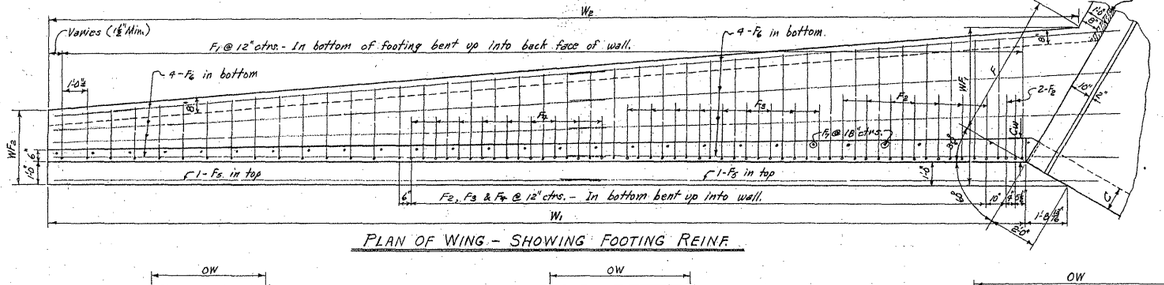
SECTION A-A

A → WB may be more, equal to, or less than the bottom slab thickness B.

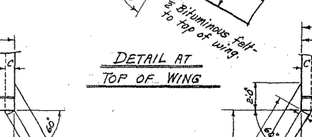
When B is more than WB, the shaded portion of the apron shall be made the same thickness as the barrel base B.



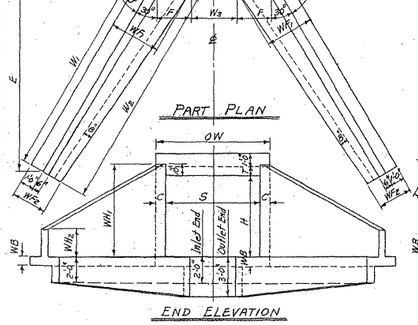
SECTION B-B THRU EXPANSION JOINT



PLAN OF WING - SHOWING FOOTING REINF.



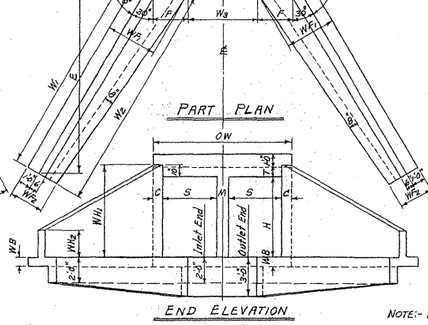
DETAIL AT TOP OF WING



PART PLAN

END ELEVATION

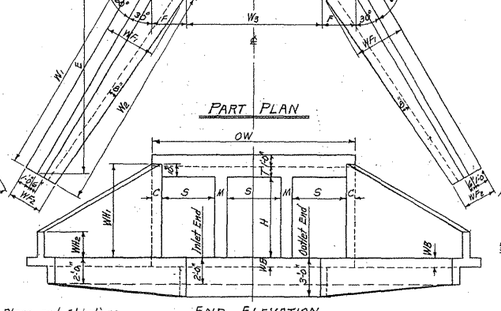
SINGLE BARREL CULVERT



PART PLAN

END ELEVATION

DOUBLE BARREL CULVERT

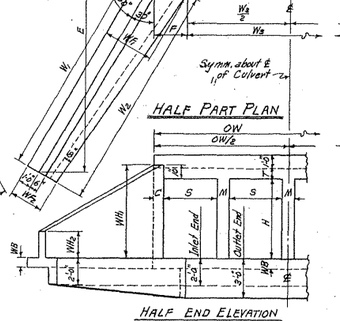


PART PLAN

END ELEVATION

TRIPLE BARREL CULVERT

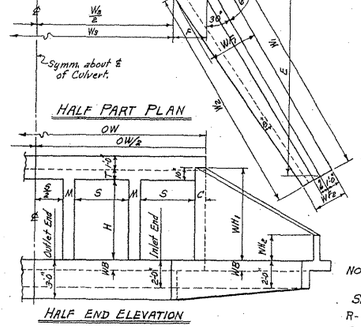
NOTE:- Plans and Elevations are not to scale.



HALF PART PLAN

HALF END ELEVATION

QUADRUPLE BARREL CULVERT



HALF PART PLAN

HALF END ELEVATION

QUINTUPLE BARREL CULVERT

WING DIMENSIONS

CLEAR HEIGHT OF BOX	THICKNESS OF WING FOOTING	THICKNESS OF WING AT HEADWALL = Cw	WINGWALL HEIGHTS		WIDTHS OF WING FOOTINGS		PERPENDICULAR FOOTING DIMENSION	PERPENDICULAR DIST. FROM HDWL TO END OF WING	LENGTH OF WINGWALLS	INSIDE FOOTING DIMENSION	* QUANTITY PER WING, CLASS S CONCRETE	
			AT HEADWALL	AT END OF WING	AT HEADWALL	AT END OF WING					INLET END	OUTLET END
H	WB	Cw	WH1	WH2	WF1	WF2	F	E	W1	W2	CU.YD.	CU.YD.
9'	10"	9"	9'-10"	3'-0"	5'-2"	2'-10½"	4'-3"	27'-4"	31'-6⅜"	32'-9⅜"	9.913	10.328
10'	11"	10"	10'-10"	3'-9"	5'-8"	3'-0"	4'-10"	30'-0"	34'-3⅞"	36'-2⅛"	12.643	13.100
11'	12"	11"	11'-10"	3'-8"	6'-2"	3'-1⅛"	5'-5"	32'-8"	37'-0⅝"	39'-6⅝"	15.850	16.349
12'	13"	12"	12'-10"	4'-0"	6'-8"	3'-3"	6'-0"	35'-4"	40'-0⅝"	42'-11"	19.570	20.110

* Quantity per wing does not include headwall or that portion of apron or toewall for the length W3.

APRON DIMENSION W3

W3 = (OW - 2F)

CLEAR SPAN	CLEAR HEIGHT	2 × FOOTING DIMENSION	SINGLE BARREL CULVERT		DOUBLE BARREL CULVERT		TRIPLE BARREL CULVERT		QUADRUPLE BARREL CULVERT		QUINTUPLE BARREL CULVERT	
S	H	2F	OW	W3	OW	W3	OW	W3	OW	W3	OW	W3
7'												
	9'	8'-6"	8'-6"	0'-0"	16'-5"	7'-11"	24'-4"	15'-10"	32'-3"	23'-9"	40'-2"	31'-8"
8'	9'	8'-6"	9'-6"	1'-0"	18'-5"	9'-11"	27'-3"	18'-10"	36'-3"	27'-9"	45'-2"	36'-8"
	10'	9'-8"	9'-8"	0'-0"	18'-8"	9'-0"	27'-8"	18'-0"	36'-8"	27'-0"	45'-8"	36'-0"
9'	9'	8'-6"	10'-6"	2'-0"	20'-5"	11'-11"	30'-4"	21'-10"	40'-3"	31'-9"	50'-2"	41'-8"
	10'	9'-8"	10'-8"	1'-0"	20'-8"	11'-0"	30'-8"	21'-0"	40'-8"	31'-0"	50'-8"	41'-0"
	11'	10'-10"	10'-10"	0'-0"	20'-10"	10'-0"	30'-10"	20'-0"	40'-10"	30'-0"	50'-10"	40'-0"
10'	9'	8'-6"	11'-6"	3'-0"	22'-5"	13'-11"	33'-4"	24'-10"	44'-3"	35'-9"	55'-2"	46'-8"
	10'	9'-8"	11'-8"	2'-0"	22'-8"	13'-0"	33'-8"	24'-0"	44'-8"	35'-0"	55'-8"	46'-0"
	11'	10'-10"	11'-10"	1'-0"	22'-10"	12'-0"	33'-10"	23'-0"	44'-10"	34'-0"	55'-10"	45'-0"
	12'	12'-0"	12'-0"	0'-0"	23'-0"	11'-0"	34'-0"	22'-0"	45'-0"	33'-0"	56'-0"	44'-0"
11'	9'	8'-6"	12'-6"	4'-0"	24'-5"	15'-11"	36'-4"	27'-10"	48'-3"	39'-9"		
	10'	9'-8"	12'-8"	3'-0"	24'-8"	15'-0"	36'-8"	27'-0"	48'-8"	39'-0"		
	11'	10'-10"	12'-10"	2'-0"	24'-10"	14'-0"	36'-10"	26'-0"	48'-10"	38'-0"		
	12'	12'-0"	13'-0"	1'-0"	25'-0"	13'-0"	37'-0"	25'-0"	49'-0"	37'-0"		
12'	9'	8'-6"	13'-6"	5'-0"	26'-5"	17'-11"	39'-4"	30'-10"	52'-3"	43'-9"		
	10'	9'-8"	13'-8"	4'-0"	26'-8"	17'-0"	39'-8"	30'-0"	52'-8"	43'-0"		
	11'	10'-10"	13'-10"	3'-0"	26'-10"	16'-0"	39'-10"	29'-0"	52'-10"	42'-0"		
	12'	12'-0"	14'-0"	2'-0"	27'-0"	15'-0"	40'-0"	28'-0"	53'-0"	41'-0"		

QUANTITIES

CLEAR SPAN	CLEAR HEIGHT	THICKNESS OF WING AT HEADWALL	THICKNESS OF WING FOOTING	REINFORCING STEEL - LB.	CLASS S CONCRETE - 4 WINGS, HEADWALLS, WINGWALLS, FOOTINGS, TOEWALLS AND APRONS				
					SINGLE BARREL CULVERT	DOUBLE BARREL CULVERT	TRIPLE BARREL CULVERT	QUADRUPLE BARREL CULVERT	QUINTUPLE BARREL CULVERT
S	H	Cw	WB	LB.	CU.YD.	CU.YD.	CU.YD.	CU.YD.	CU.YD.
7'									
	9'	9"	10"	2910.8	41.04	42.72	44.39	46.07	47.75
8'	9'	9"	10"	2910.8	41.27	43.16	45.04	46.93	48.82
	10'	10"	11"	3588.5	52.12	54.45	56.96	57.90	59.82
9'	9'	9"	10"	2910.8	41.49	43.61	45.68	47.79	49.89
	10'	10"	11"	3588.5	52.35	54.49	56.62	58.76	60.90
	11'	11"	12"	4374.9	65.11	67.28	69.42	71.59	73.76
10'	9'	9"	10"	2910.8	41.71	43.05	46.35	48.07	50.99
	10'	10"	11"	3588.5	52.57	54.94	57.27	59.62	61.98
	11'	11"	12"	4374.9	66.34	67.72	70.08	72.95	74.83
	12'	12"	13"	5477.2	80.15	82.55	84.94	87.33	89.73
11'	9'	9"	10"	2910.8	41.92	44.52	47.03	49.53	
	10'	10"	11"	3588.5	52.79	55.40	57.94	60.50	
	11'	11"	12"	4374.9	65.56	68.17	70.74	73.33	
	12'	12"	13"	5477.2	80.37	83.00	85.60	88.22	
12'	9'	9"	10"	2910.8	42.16	44.99	47.72	50.95	
	10'	10"	11"	3588.5	52.01	55.87	58.62	61.39	
	11'	11"	12"	4374.9	65.78	68.64	71.40	74.20	
	12'	12"	13"	5477.2	80.60	83.46	86.27	89.10	

* For reinforcing steel in Headwalls and Aprons, See Details of Standard Barrel Sections for R.C. Box Culverts for the desired Span and Height.

GENERAL NOTES:-

CONCRETE:- All concrete to be Class S, and shall be poured in the dry. All exposed corners to have ¾ chamfers.

REINFORCING STEEL:- Reinforcing steel to be deformed bars of intermediate or hard grade.

CONSTRUCTION JOINTS:- Construction joints between wingwalls, footings and sidewalls shall be only where shown on plans.

MEMBRANE:- A membrane waterproofing 12" wide, consisting of three moppings of waterproofing asphalt and two alternate layers of treated cotton fabric shall be applied to the back face of wing to cover the expansion joints.

Payment for the membrane waterproofing and bituminous felt shall be included in unit price bid for Class S Concrete.

SPECIFICATIONS:- Arkansas State Highway Commission Standard Specifications for Highway Construction and applicable Special Provisions.

UNIT STRESSES:-

Class S Concrete (n=10) 1200 #/□"

Reinforcing Steel 20,000 #/□"

NOTE:- This drawing to be used in conjunction with Standard Barrel Sections, Drawing Nos. as listed below.

SINGLES	DOUBLES	TRIPLES	QUADRUPLES	QUINTUPLES
R-100X-0	R-200X-0	R-300X-0	R-400X-0	R-500X-0
R-100X-X2	R-200X-X2	R-300X-X2	R-400X-X2	
	R-200X-X3	R-300X-X3		

BAR LIST FOR ONE WING - 4 REQUIRED

| CLEAR HEIGHT | F1 Bent: In bottom of footing, bent up into back face of wing. One bar of each length. | | | | | | | F2 Bent: In bottom of footing, bent up into back face of wing. Alt. with F1 bars. | | | | | | F3 Bent: In bottom of footing, bent up into back face of wing. Alt. with F1 bars. | | | | | | F4 Bent: In bottom of footing, bent up into back face of wing. Alt. with F1 bars. | | | | | F5 Straight: Longitudinal in top of wing footing heel. | | | F6 Straight: Longitudinal in bottom of wing footing toe. | | | F7 Bent: Footing dowels extending up into front face of wing. | | | | H1 Straight: Horizontal in back face of wing. | | | | H2 Straight: Horizontal in back face of wing. One bar of each length. | | | | | | H3 Straight: In back face of wing at top - on slope. | | | QUANTITY REINFORCING STEEL PER WING | BAR BENDING DIAGRAMS |
|---|---|---|---|---|---|---|---|---|---|---|---|---

FED. ROAD No.	STATE	FED. AID PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
6	ARK.				
JOB No.					

BAR LIST FOR BARREL SECTION 60'-0" IN LENGTH

| DEPTH OF COVER | CLEAR SPAN | CLEAR HEIGHT | "a" bars STRAIGHT In Top and Bottom Slab of Barrel, 2 Add'l in Apron and Headwall, - Each. | | | | | "b" bars BENT - See Diagram below. In Bottom of Top Slab bent up over Division Wall - hooked. Alternate with "a" and "c" bars. | | | | | | | | "b2" bars BENT - See Diagram below. In Top of Bottom Slab bent down under Division Wall - hooked. Alternate with "a" and "c" bars. | | | | | | | | "c" bars STRAIGHT In Top and Bottom Slab of Barrel. Alternate with "b" and "b2" bars. | | | | "d" bars STRAIGHT Longitudinal in Top Slab of Barrel. | | | | "d1" bars STRAIGHT Longitudinal in Sidewalls and Division Walls. | | | | "e" bars STRAIGHT Longitudinal in Bottom Slab of Barrel. | | | | "f" bars STRAIGHT Vertical in Sidewalls and Division Walls. | | | |
|---|---|---|---|---|---

FED. ROAD No.	STATE	FED. AID PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
6	ARK.				
JOB No.					

BAR LIST FOR BARREL SECTION 60'-0" IN LENGTH

DEPTH OF COVER	SPANS	CLEAR HEIGHT	"a" bars STRAIGHT In Top and Bottom Slab of Barrel, 2 Add'l in Apron and Headwall - Each. SIZE	SPACING	NUMBER REQ'D 3:1	NUMBER REQ'D 4:1	LENGTH
D	S	H					
0'-0" TO 5'-0" MAX. HOM	3 @ 4'	2'			128	128	14'-1"
		3'			128	128	14'-1"
		4'	#5	12"	128	128	14'-1"
		5'			128	128	14'-1"
		6'			128	128	14'-5"
	3 @ 5'	3'			128	128	17'-1"
		4'			128	128	17'-1"
		5'	#6	12"	128	128	17'-1"
		6'			128	128	17'-5"
		7'			128	128	17'-8"
	3 @ 6'	3'			140	140	20'-1"
		4'			190	190	20'-1"
		5'	#6	11"	140	140	20'-1"
		6'			140	140	20'-5"
		7'			140	140	20'-8"
		8'			190	190	20'-9"
	3 @ 7'	4'			128	128	23'-1"
		5'			128	128	23'-1"
		6'	#6	12"	128	128	23'-5"
		7'			128	128	23'-8"
		8'			128	128	23'-9"
		9'			128	128	24'-1"
	3 @ 8'	4'			140	140	26'-1"
		5'			190	190	26'-5"
		6'			140	140	26'-5"
		7'	#6	11"	140	140	26'-8"
		8'			140	140	26'-9"
		9'			140	140	27'-1"
		10'			140	140	27'-5"
	3 @ 9'	5'			190	190	29'-5"
		6'			140	140	29'-8"
		7'			190	190	29'-8"
		8'	#6	11"	140	140	29'-9"
		9'			140	140	30'-1"
		10'			140	140	30'-5"
		11'			190	190	30'-7"
	3 @ 10'	5'			128	128	32'-5"
		6'			128	128	32'-8"
		7'			128	128	32'-8"
		8'	#7	12"	128	128	32'-9"
		9'			128	128	33'-1"
		10'			128	128	33'-5"
		11'			128	128	33'-7"
		12'			128	128	33'-9"
	3 @ 11'	6'			140	140	35'-9"
		7'			140	140	35'-9"
		8'	#7	11"	140	140	35'-9"
		9'			140	140	36'-1"
		10'			140	140	36'-5"
		11'			140	140	36'-7"
		12'			140	140	36'-9"
	3 @ 12'	6'			140	140	38'-9"
		7'			140	140	38'-9"
		8'	#7	11"	140	140	38'-9"
		9'			140	140	39'-1"
		10'			140	140	39'-5"
		11'			140	140	39'-7"
		12'			190	190	39'-9"

DEPTH OF COVER	SPANS	CLEAR HEIGHT	"b" bars BENT - See Diagram below. In Bottom of Top Slab bent up over Division Walls - hooked. Alternate with "a" and "c" bars. SIZE	SPACING	NUMBER REQ'D 3:1	NUMBER REQ'D 4:1	LENGTH	X	Y	Z
D	S	H								
0'-0" TO 5'-0" MAX. HOM	3 @ 4'	2'			59	59	15'-9"	0'-3"	2'-2"	3'-4½"
		3'			59	59	15'-9"	0'-3"	2'-2"	3'-4½"
		4'	#5	12"	59	59	15'-9"	0'-3"	2'-2"	3'-4½"
		5'			59	59	15'-9"	0'-3"	2'-2"	3'-4½"
		6'			59	59	15'-9"	0'-3"	2'-3"	3'-5½"
	3 @ 5'	3'			59	59	18'-5"	0'-3½"	2'-7"	4'-1⅛"
		4'			59	59	18'-5"	0'-3½"	2'-7"	4'-1⅛"
		5'	#6	12"	59	59	18'-5"	0'-3½"	2'-7"	4'-1⅛"
		6'			59	59	18'-9"	0'-3½"	2'-8"	4'-2⅛"
		7'			59	59	19'-0"	0'-3½"	2'-9"	4'-2⅝"
	3 @ 6'	3'			65	65	21'-6"	0'-4"	3'-0"	4'-10⅝"
		4'			65	65	21'-6"	0'-4"	3'-0"	4'-10⅝"
		5'	#6	11"	65	65	21'-6"	0'-4"	3'-0"	4'-10⅝"
		6'			65	65	21'-10"	0'-4"	3'-1"	4'-11⅛"
		7'			65	65	22'-1"	0'-4"	3'-2"	4'-11⅝"
		8'			65	65	22'-5"	0'-4"	3'-2"	5'-0⅛"
	3 @ 7'	4'			59	59	24'-8"	0'-4½"	3'-5"	5'-7"
		5'			59	59	24'-8"	0'-4½"	3'-5"	5'-7"
		6'	#6	12"	59	59	25'-0"	0'-4½"	3'-6"	5'-8"
		7'			59	59	25'-3"	0'-4½"	3'-7"	5'-8½"
		8'			59	59	25'-4"	0'-4½"	3'-7"	5'-9"
		9'			59	59	25'-8"	0'-4½"	3'-8"	5'-10"
	3 @ 8'	4'			65	65	27'-9"	0'-5"	3'-10"	6'-4"
		5'			65	65	28'-1"	0'-5"	3'-11"	6'-5"
		6'	#6	11"	65	65	28'-1"	0'-5"	3'-11"	6'-5"
		7'			65	65	28'-1"	0'-5"	3'-11"	6'-5½"
		8'			65	65	28'-5"	0'-5"	4'-0"	6'-6"
		9'			65	65	28'-9"	0'-5"	4'-1"	6'-7"
		10'			65	65	29'-1"	0'-5"	4'-2"	6'-8"
	3 @ 9'	5'			65	65	31'-2"	0'-5½"	4'-4"	7'-2"
		6'			65	65	31'-5"	0'-5½"	4'-5"	7'-2½"
		7'			65	65	31'-5"	0'-5½"	4'-5"	7'-2½"
		8'	#6	11"	65	65	31'-6"	0'-5½"	4'-5"	7'-3"
		9'			65	65	31'-10"	0'-5½"	4'-6"	7'-4"
		10'			65	65	32'-2"	0'-5½"	4'-7"	7'-5"
		11'			65	65	32'-6"	0'-5½"	4'-7"	7'-6"
	3 @ 10'	5'			59	59	34'-3"	0'-6"	4'-9"	7'-11"
		6'			59	59	34'-6"	0'-6"	4'-10"	7'-11½"
		7'			59	59	34'-6"	0'-6"	4'-10"	7'-11½"
		8'	#7	12"	59	59	34'-7"	0'-6"	4'-10"	8'-0"
		9'			59	59	34'-11"	0'-6"	4'-11"	8'-1"
		10'			59	59	35'-3"	0'-6"	5'-0"	8'-2"
		11'			59	59	35'-5"	0'-6"	5'-0"	8'-3"
		12'			59	59	35'-7"	0'-6"	5'-0"	8'-4"
	3 @ 11'	6'			65	65	37'-8"	0'-6½"	5'-3"	8'-9"
		7'			65	65	37'-8"	0'-6½"	5'-3"	8'-9"
		8'	#7	11"	65	65	37'-8"	0'-6½"	5'-3"	8'-9"
		9'			65	65	38'-0"	0'-6½"	5'-4"	8'-10"
		10'			65	65	38'-4"	0'-6½"	5'-5"	8'-11"
		11'			65	65	38'-6"	0'-6½"	5'-5"	9'-0"
		12'			65	65	38'-8"	0'-6½"	5'-5"	9'-1"
	3 @ 12'	6'			65	65	40'-9"	0'-7"	5'-8"	9'-6"
		7'			65	65	40'-9"	0'-7"	5'-8"	9'-6"
		8'	#7	11"	65	65	40'-9"	0'-7"	5'-8"	9'-6"
		9'			65	65	41'-1"	0'-7"	5'-9"	9'-7"
		10'			65	65	41'-5"	0'-7"	5'-10"	9'-8"
		11'			65	65	41'-7"	0'-7"	5'-10"	9'-9"
		12'			65	65	41'-9"	0'-7"	5'-10"	9'-10"

DEPTH OF COVER	SPANS	CLEAR HEIGHT	"b₂" bars STRAIGHT In Top of Bottom Slab bent down under Division Walls - hooked. Alternate with "a" and "c" bars. SIZE	SPACING	NUMBER REQ'D 3:1	NUMBER REQ'D 4:1	LENGTH	X	Y	Z
D	S	H								
0'-0" TO 5'-0" MAX. HOM	3 @ 4'	2'			59	59	15'-3"	0'-2½"	2'-3"	3'-0½"
		3'			59	59	15'-3"	0'-2½"	2'-3"	3'-0½"
		4'	#5	12"	59	59	15'-3"	0'-2½"	2'-3"	3'-0½"
		5'			59	59	15'-3"	0'-2½"	2'-3"	3'-0½"
		6'			59	59	15'-7"	0'-2½"	2'-4"	3'-1⅝"
	3 @ 5'	3'			59	59	18'-0"	0'-3"	2'-8"	4'-1⅛"
		4'			59	59	18'-0"	0'-3"	2'-8"	4'-1⅛"
		5'	#6	12"	59	59	18'-0"	0'-3"	2'-8"	4'-1⅛"
		6'			59	59	18'-0"	0'-3"	2'-9"	4'-2⅛"
		7'			59	59	18'-11"	0'-3"	2'-10"	4'-2⅝"
	3 @ 6'	3'			65	65	21'-5"	0'-3½"	3'-1"	4'-10⅝"
		4'			65	65	21'-5"	0'-3½"	3'-1"	4'-10⅝"
		5'	#6	11"	65	65	21'-5"	0'-3½"	3'-1"	4'-10⅝"
		6'			65	65	21'-9"	0'-3½"	3'-2"	4'-11⅛"
		7'			65	65	22'-0"	0'-3½"	3'-3"	4'-11⅝"
		8'			65	65	22'-4"	0'-3½"	3'-3"	5'-0⅛"
	3 @ 7'	4'			59	59	24'-3"	0'-4"	3'-5½"	5'-7"
		5'			59	59	24'-8"	0'-4"	3'-5½"	5'-7"
		6'	#6	12"	59	59	25'-0"	0'-4"	3'-6½"	5'-8"
		7'			59	59	25'-3"	0'-4"	3'-7"	5'-8½"
		8'			59	59	25'-7"	0'-4"	3'-7"	5'-9"
		9'			59	59	25'-10"	0'-4"	3'-8"	5'-10"
	3 @ 8'	4'			65	65	27'-9"	0'-5"	3'-10"	6'-4"
		5'			65	65	28'-1"	0'-5"	3'-11"	6'-5"
		6'	#6	11"	65	65	28'-1"	0'-5"	3'-11"	6'-5"
		7'			65	65	28'-1"	0'-5"	3'-11"	6'-5"
		8'			65	65	28'-5"	0'-5"	4'-0"	6'-6"
		9'			65	65	28'-9"	0'-5"	4'-1"	6'-7"
		10'			65	65	29'-1"	0'-5"	4'-2"	6'-8"
	3 @ 9'	5'			65	65	31'-2"	0'-5"	4'-4"	7'-2"
		6'			65	65	31'-5"	0'-5"	4'-5"	7'-2½"
		7'			65	65	31'-5"	0'-5"	4'-5"	7'-2½"
		8'	#6	11"	65	65	31'-6"	0'-5"	4'-5"	7'-3"
		9'			65	65	31'-10"	0'-5"	4'-6"	7'-4"
		10'			65	65	32'-2"	0'-5"	4'-7"	7'-5"
		11'			65	65	32'-6"	0'-5"	4'-7"	7'-6"
	3 @ 10'	5'			59	59	34'-3"	0'-6"	4'-9"	7'-11"
		6'			59	59	34'-6"	0'-6"	4'-10"	7'-11½"
		7'			59	59	34'-6"	0'-6"	4'-10"	7'-11½"
		8'	#7	12"	59	59	34'-7"	0'-6"	4'-10"	8'-0"
		9'			59	59	34'-11"	0'-6"	4'-11"	8'-1"
		10'			59	59	35'-3"	0'-6"	5'-0"	8'-2"
		11'			59	59	35'-5"	0'-6"	5'-0"	8'-3"
		12'			59	59	35'-7"	0'-6"	5'-0"	8'-4"
	3 @ 11'	6'			65	65	37'-8"	0'-6½"	5'-3"	8'-9"
		7'			65	65	37'-8"	0'-6½"	5'-3"	8'-9"
		8'	#7	11"	65	65	37'-8"	0'-6½"	5'-3"	8'-9"
		9'			65	65	38'-0"	0'-6½"	5'-4"	8'-10"
		10'			65	65	38'-4"	0'-6½"	5'-5"	8'-11"
		11'			65	65	38'-6"	0'-6½"	5'-5"	9'-0"
		12'			65	65	38'-8"	0'-6½"	5'-5"	9'-1"
	3 @ 12'	6'			65	65	40'-9"	0'-7"	5'-8"	9'-6"
		7'			65	65	40'-9"	0'-7"	5'-8"	9'-6"
		8'	#7	11"	65	65	40'-9"	0'-7"	5'-8"	9'-6"
		9'			65	65	41'-1"	0'-7"	5'-9"	9'-7"
		10'			65	65	41'-5"	0'-7"	5'-10"	9'-8"
		11'			65	65	41'-7"	0'-7"	5'-10"	9'-9"
		12'			65	65	41'-9"	0'-7"	5'-10"	9'-10"

DEPTH OF COVER	SPANS	CLEAR HEIGHT	"c" bars STRAIGHT In Top and Bottom Slab of Barrel, Alternate with "b" and "b₂" bars. SIZE	SPACING	NUMBER REQ'D 3:1	NUMBER REQ'D 4:1	LENGTH
D	S	H					
0'-0" TO 5'-0" MAX. HOM	3 @ 4'	2'			120	120	9'-4"
		3'			120	120	9'-4"
		4'	#5	12"	120	120	9'-4"
		5'			120	120	9'-4"
		6'			120	120	9'-6"
	3 @ 5'	3'			120	120	11'-0"
		4'			120	120	11'-3"
		5'	#6	12"	120	120	11'-3"
		6'			120	120	11'-7"
		7'			120	120	11'-8"
	3 @ 6'	3'			132	132	13'-4"
		4'			132	132	13'-4"
		5'	#6	11"	132	132	13'-4"
		6'			132	132	13'-6"
		7'			132	132	13'-8"
		8'			132	132	13'-8"
	3 @ 7'	4'			120	120	15'-0"
		5'			120	120	15'-6"
		6'	#6	12"	120	120	15'-6"
		7'			120	120	15'-8"
		8'			120	120	15'-8"
		9'			120	120	15'-10"
	3 @ 8'	4'			132	132	17'-6"
		5'			132	132	17'-6"
		6'	#6	11"	132	132	17'-6"
		7'			132	132	17'-8"
		8'			132	132	17'-8"
		9'			132	132	17'-10"
		10'			132	132	18'-0"
	3 @ 9'	5'			132	132	19'-6"
		6'			132	132	19'-8"
		7'			132	132	19'-8"
		8'	#6	11"	132	132	19'-10"
		9'			132	132	19'-10"
		10'			132	132	20'-0"
		11'			132	132	20'-0"
	3 @ 10'	5'			120	120	21'-6"
		6'			120	120	21'-8"
		7'			120	120	21'-8"
		8'	#7	12"	120	120	21'-8"
		9'			120	120	21'-10"
		10'			120	120	22'-0"
		11'			120	120	22'-0"
		12'			120	120	22'-0"
	3 @ 11'	6'			132	132	23'-8"
		7'			132	132	23'-8"
		8'	#7	11"	132	132	23'-8"
		9'			132	132	23'-8"
		10'			132	132	24'-0"
		11'			132	132	24'-0"
		12'			132	132	24'-0"
	3 @ 12'	6'			132	132	25'-8"
		7'			132	132	25'-8"
		8'	#7	11"	132	132	25'-8"
		9'			132	132	25'-10"
		10'			132	132	26'-0"
		11'			132	132	26'-0"
		12'			132	132	26'-0"

DEPTH OF COVER	SPANS	CLEAR HEIGHT	"d" bars STRAIGHT Longitudinal in Top Slab of Barrel SIZE	SPACING	NO. REQD	LENGTH
D	S	H				
0'-0" TO 5'-0" MAX. HOM	3 @ 4'	2'			12	
		3'			18	
		4'	#5	12"	24	
		5'			30	
		6'			36	
	3 @ 5'	3'			18	
		4'			24	
		5'	#6	11½"	30	
		6'			36	
		7'			42	
	3 @ 6'	3'			18	
		4'			24	
		5'	#6	11"	30	
		6'			36	
		7'			42	
		8'			48	
	3 @ 7'	4'			24	
		5'			30	
		6'	#6	11½"	36	
		7'			42	
		8'			48	
		9'			54	
	3 @ 8'	4'			24	
		5'			30	
		6'	#6	11"	36	
		7'			42	
		8'			48	
		9'			54	
		10'			60	
	3 @ 9'	5'			30	
		6'			36	
		7'			42	
		8'	#6	11½"	48	
		9'			54	
		10'			60	
		11'			66	
	3 @ 10'	5'			30	
		6'			36	
		7'			42	
		8'	#7	11½"	48	
		9'			54	
		10'			60	
		11'			66	
		12'			72	
	3 @ 11'	6'			36	
		7'			42	
		8'	#7	11"	48	
		9'			54	
		10'			60	
		11'			66	
		12'			72	
	3 @ 12'	6'			36	
		7'			42	
		8'	#7	11"	48	
		9'			54	
		10'			60	
		11'			66	
		12'			72	

DEPTH OF COVER	SPANS	CLEAR HEIGHT	"d₁" bars STRAIGHT Longitudinal in Sidewalls and Division Walls SIZE	SPACING	NO. REQD	LENGTH
D	S	H				
0'-0" TO 5'-0" MAX. HOM	3 @ 4'	2'			22	
		3'			22	
		4'	#5	12"	22	
		5'			22	
		6'			22	
	3 @ 5'	3'			22	
		4'			22	
		5'	#6	11½"	22	
		6'			22	
		7'			22	
	3 @ 6'	3'			22	
		4'			22	
		5'	#6	11"	22	
		6'			22	
		7'			22	
		8'			22	
	3 @ 7'	4'			22	
		5'			22	
		6'	#6	11½"	22	
		7'			22	
		8'			22	
		9'			22	
	3 @ 8'	4'			22	
		5'			22	
		6'	#6	11"	22	
		7'			22	
		8'			22	
		9'			22	
		10'			22	
	3 @ 9'	5'			22	
		6'			22	
		7'			22	
		8'	#6	11½"	22	
		9'			22	
		10'			22	
		11'			22	
	3 @ 10'	5'			22	
		6'			22	
		7'			22	
		8'	#7	11½"	22	
		9'			22	
		10'			22	
		11'			22	
		12'			22	
	3 @ 11'	6'			22	
		7'			22	
		8'	#7	11"	22	
		9'			22	
		10'			22	
		11'			22	
		12'			22	
	3 @ 12'	6'			22	
		7'			22	
		8'	#7	11"	22	
		9'			22	
		10'			22	
		11'			22	
		12'			22	

DEPTH OF COVER	SPANS	CLEAR HEIGHT	"e" bars STRAIGHT Longitudinal in Bottom Slab of Barrel. SIZE	SPACING	NO. REQD	LENGTH
D	S	H				
0'-0" TO 5'-0" MAX. HOM	3 @ 4'	2'			22	
		3'			22	
		4'	#4	12"	22	
		5'			22	
		6'			22	
	3 @ 5'	3'			25	
		4'			25	
		5'	#4	12"	25	
		6'			25	
		7'			25	
	3 @ 6'	3'			28	
		4'			28	
		5'	#4	12"	28	
		6'			28	
		7'			28	
		8'			28	
	3 @ 7'	4'			31	
		5'			31	
		6'	#4	12"	31	
		7'			31	
		8'			31	
		9'			31	
	3 @ 8'	4'			35	
		5'			35	
		6'	#4	12"	35	
		7'			35	
		8'			35	
		9'			35	
		10'			35	
	3 @ 9'	5'			40	
		6'			40	
		7'			40	
		8'	#4	12"	40	
		9'			40	
		10'			40	
		11'			40	
	3 @ 10'	5'			46	
		6'			46	
		7'			46	
		8'	#4	12"	46	
		9'			46	
		10'			46	
		11'			46	
		12'			46	
	3 @ 11'	6'			51	
		7'			51	
		8'	#4	12"	51	
		9'			51	
		10'			51	
		11'			51	
		12'			51	
	3 @ 12'	6'			56	
		7'			56	
		8'	#4	12"	56	
		9'			56	
		10'			56	
		11'			56	
		12'			56	

DEPTH OF COVER	SPANS	CLEAR HEIGHT	"f" bars STRAIGHT Vertical in Sidewalls and Division Walls SIZE	SPACING	NUMBER REQ'D 3:1	NUMBER REQ'D 4:1	LENGTH
D	S	H					
0'-0" TO 5'-0" MAX. HOM	3 @ 4'	2'			360	360	2'-10"
		3'			360	360	3'-10"
		4'	#4	12"	360	360	4'-10"
		5'			360	360	5'-10"
		6'			360	360	6'-10"
	3 @ 5'	3'			360	360	3'-11"
		4'			360	360	4'-11"
		5'	#4	12"	360	360	5'-11"
		6'			360	360	6'-11"
		7'			360	360	7'-11"
	3 @ 6'	3'			360	360	4'-0"
		4'			360	360	5'-0"
		5'	#4	12"	360	360	6'-0"
		6'			360	360	7'-0"
		7'			360	360	8'-0"
		8'			360	360	9'-0"
	3 @ 7'	4'			360	360	5'-1"
		5'			360	360	6'-1"
		6'	#4	12"	360	360	7'-1"
		7'			360	360	8'-1"
		8'			360	360	9'-1"
		9'			360	360	10'-1"
	3 @ 8'	4'			360	360	5'-2"
		5'			360	360	6'-2"
		6'	#4	12"	360	360	7'-2"
		7'			360	360	8'-2"
		8'			360	360	9'-2"
		9'			360	360	10'-2"
		10'			360	360	11'-2"
	3 @ 9'	5'			360	360	6'-3"
		6'			360	360	7'-3"
		7'			360	360	8'-3"
		8'	#4	12"	360	360	9'-3"
		9'			360	360	10'-3"
		10'			360	360	11'-3"
		11'			360	360	12'-3"
	3 @ 10'	5'			360	360	6'-4"
		6'			360	360	7'-4"
		7'			360	360	8'-4"
		8'	#4	12"	360	360	9'-4"
		9'			360	360	10'-4"
		10'			360	360	11'-4"
		11'			360	360	12'-4"
		12'			360	360	13'-4"
	3 @ 11'	6'			360	360	7'-5"
		7'			360	360	8'-5"
		8'	#4	12"	360	360	9'-5"
		9'			360	360	10'-5"
		10'			360	360	11'-5"
		11'			360	360	12'-5"
		12'			360	360	13'-5"
	3 @ 12'	6'			360	360	7'-6"
		7'			360	360	8'-6"
		8'	#4	12"	360	360	9'-6"
		9'			360	360	10'-6"
		10'			360	360	11'-6"
		11'			360	360	12'-6"
		12'			360	360	13'-6"

DIMENSIONS

QUANTITIES

MAX. DESIGN DEPTH OF COVER	SPANS	CLEAR HEIGHT	BARREL DIMENSIONS Sq.Ft. OPENING A	OVERALL WIDTH OW	THICKNESS OF TOP SLAB T	THICKNESS OF SIDEWALLS C	THICKNESS OF DIVISION WALLS M	THICKNESS OF BOTTOM SLABS B	OVERALL HEIGHT OH	UNIT QUANTITIES CLASS S CONC. PER LIN. FT. OF BARREL CU.YD.	REINFORCING STEEL PER LIN. FT. OF BARREL LB.	ADDITIONAL PER LAP LB.	ADDITIONAL TWO HEADWALLS & APRONS LB.
D	S	H	A	OW	T	C	M	B	OH	CU.YD.	LB.	LB.	LB.
5'-0"	3 @ 4'	2'	24	14'-8"	6½"	6"	8"	6"	3'-0½"	0.726	137.74	66.63	195.33
		3'	36	14'-8"		6"	8"		3'-10"	0.812	145.78	71.64	195.33
		4'	48	14'-8"		6"	8"		4'-10"	0.899	153.79	76.65	195.33
		5'	60	14'-8"		6"	8"		5'-10"	0.985	161.81	81.66	195.33
		6'	72	14'-8"		7"	9"		7'-0½"	1.158	171.54	86.67	198.11
	3 @ 5'	3'	45	17'-8"	7"	6"	8"	6½"	4'-1½"	0.981	195.23	81.10	298.79
		4'	60	17'-8"		6"	8"		5'-1½"	1.068	203.25	86.11	298.79
		5'	75	17'-8"		6"	8"		6'-1½"	1.154	211.27	91.12	298.79
		6'	90	17'-8"		7"	9"		7'-1½"	1.329	221.98	96.13	302.80
		7'	105	17'-11"		7½"	10"		8'-1½"	1.503	231.27	101.14	305.80
	3 @ 6'	3'	68	20'-9"	7½"	6"	8"	7"	4'-2½"	1.169	236.30	90.56	351.21
		4'	72	20

FED. ROAD No.	STATE	FED. AID PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
6	ARK.				
JOB No.					

BAR LIST FOR BARREL SECTION 60'-0" IN LENGTH

DIMENSIONS — QUANTITIES

| DEPTH OF COVER D | CLEAR SPAN S | CLEAR HEIGHT H | "a" bars STRAIGHT In Top and Bottom Slab of Barrel. 2 Add'l in Apron and Headwall - Each. SIZE | "b" bars BENT - See Diagram below. In Bottom of Top Slab bent up over Division Walls - hooked. Alternate with "a" and "c" bars. SPACING | NUMBER REQ'D 3:1 | NUMBER REQ'D 4:1 | LENGTH | X | Y | Z | "b2" bars BENT - See Diagram below. In Top of Bottom Slab bent down under Division Walls - hooked. Alternate with "a" and "c" bars. SIZE | SPACING | NUMBER REQ'D 3:1 | NUMBER REQ'D 4:1 | LENGTH | X | Y | Z | "c" bars STRAIGHT In Top and Bottom Slab of Barrel. Alternate with "b" and "b2" bars. SIZE | SPACING | NUMBER REQ'D 3:1 | NUMBER REQ'D 4:1 | LENGTH | "d" bars STRAIGHT Longitudinal in Top Slab of Barrel SIZE | SPACING | NO. REQ'D | LENGTH | "d1" bars STRAIGHT Longitudinal in Sidewalls and Division Walls. SIZE | SPACING | NO. REQ'D | LENGTH | "e" bars STRAIGHT Longitudinal in Bottom Slab of Barrel. SIZE | SPACING | NO. REQ'D | LENGTH | "f" bars STRAIGHT Vertical in Sidewalls and Division Walls. SIZE | SPACING | NUMBER REQ'D 3:1 | NUMBER REQ'D 4:1 | LENGTH |
|---|---|---|---|---|---