"A FULLY CONTROLLED ACCESS FACILITY"

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
CONSTRUCTION PLANS FOR STATE HIGHWAY

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0806	1	82
				(2)		ATKINS-PLUMERVILLE (S)		

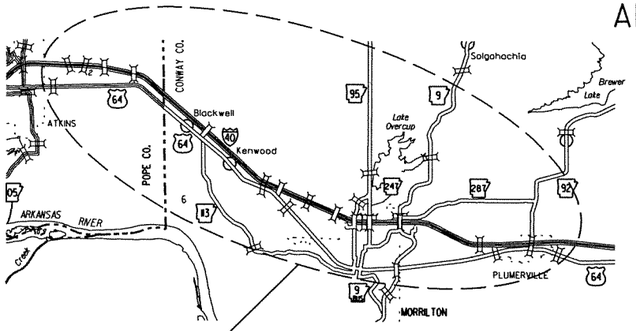
ATKINS-PLUMERVILLE (S)

CONWAY & POPE COUNTIES

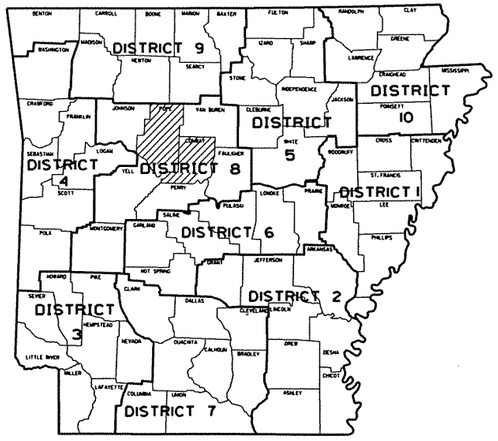
ROUTE 40 SECTION 22 & 31

FEDERAL AID PROJ. BIM-B40-0(225) & HSIP-40-3(133)95

JOB BB0806



VICINITY MAP



ARK. HWY. DIST. NO. 8

EXCEPTION TO JOB BB0806 (BRIDGES)

① STA. 5078+83.44 BR. END
120.00' BRIDGE NO. A3997
39'-0" CLEAR ROADWAY
STA. 5080+03.44 BR. END

② STA. 5077+96.07 BR. END
120.00' BRIDGE NO. B3997
39'-0" CLEAR ROADWAY
STA. 5079+16.07 BR. END

TOTAL LENGTH OF EXCEPTIONS
120.00' MEASURED ALONG CENTERLINE

STRUCTURES OVER 20'-0" SPAN

△1 STA. 5049+57 IN PLACE
DBL. 10' X 5' X 211' R.C. BOX CULVERT
45° RT. FWD. SKEW SPAN = 31'-0"
D.A. 600 AC., C = 0.8
RETAIN

△2 STA. 5465+77 IN PLACE
TRIPLE 8' X 10' X 268' R.C. BOX CULVERT
(30° RT. FWD. SKEW)
WITH TYPE T DROP INLET IN MED.
3'-0" X 2'-6" X H = 9'-2"
1200 C.F.S. MAX FLOOD FLOW
SPAN = 31.94
RETAIN

△3 STA. 5655+23 IN PLACE
DBL. 12' X 8' X 234' R.C. BOX CULVERT
(30° LT. FWD. SKEW)
WITH TYPE T DROP INLET IN MED.
3'-0" X 2'-6" X H = 2'-3I"2"
D.A. 1350 AC., C=0.8
RETAIN

BRIDGE DATA

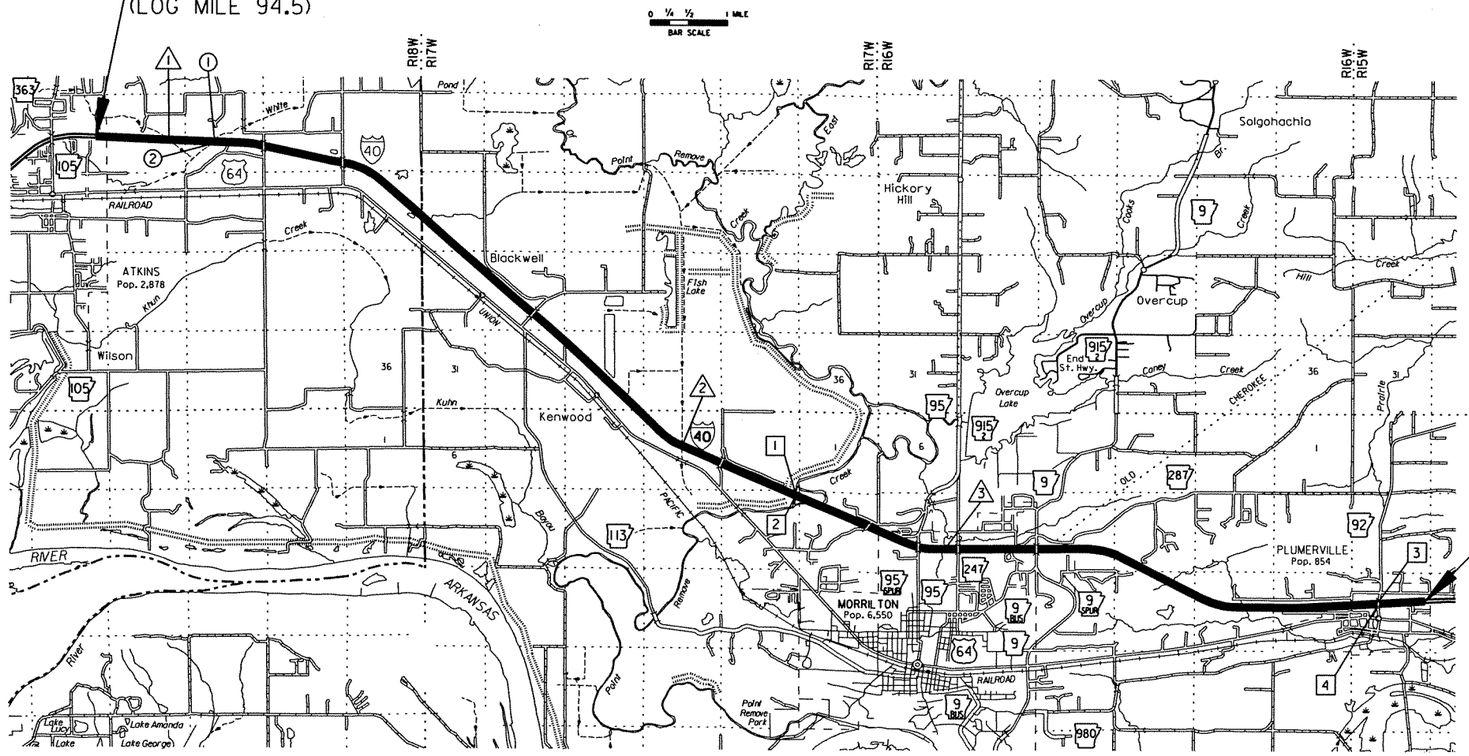
1 STA. 5548+31.71 BR. END
EXISTING 208' BRIDGE NO. A5033
40'-0" CLEAR ROADWAY
STA. 5550+39.71 BR. END
REHABILITATE BRIDGE DECK-HYDRODEMOLITION

2 STA. 5548+57.07 BR. END
EXISTING 208' BRIDGE NO. B5033
40'-0" CLEAR ROADWAY
STA. 5550+65.07 BR. END
REHABILITATE BRIDGE DECK-HYDRODEMOLITION

3 STA. 5954+57.62 BR. END
EXISTING 184' BRIDGE NO. A5032
40'-0" CLEAR ROADWAY
STA. 5956+41.62 BR. END
REHABILITATE BRIDGE DECK-HYDRODEMOLITION

4 STA. 5954+37.69 BR. END
EXISTING 184' BRIDGE NO. B5032
40'-0" CLEAR ROADWAY
STA. 5956+21.69 BR. END
REHABILITATE BRIDGE DECK-HYDRODEMOLITION

STA. 5003+48.78
BEGIN JOB BB0806
(LOG MILE 94.5)



STA. 5986+05.69
END JOB BB0806
(LOG MILE 113.1)

DESIGN TRAFFIC DATA

DESIGN YEAR	2033
2013 ADT	32,000
2033 ADT	40,000
2033 DHV	4,400
DIRECTIONAL DISTRIBUTION	0.60
TRUCKS	28%
DESIGN SPEED	70 MPH

BEGINNING OF PROJECT
LATITUDE = N 35° 15' 09"
LONGITUDE = W 92° 56' 20"

MID POINT OF PROJECT
LATITUDE = N 35° 11' 36"
LONGITUDE = W 92° 47' 38"

END OF PROJECT
LATITUDE = N 35° 09' 47"
LONGITUDE = W 92° 37' 52"

LENGTH OF PROJECT CALCULATED ALONG C.L.

GROSS LENGTH OF PROJECT		98256.91	FEET OR	18.609	MILES
NET	" " ROADWAY	97744.91	"	18.513	"
NET	" " BRIDGES	392.00	"	0.074	"
NET	" " PROJECT	98136.91	"	18.587	"

P.E. BB0806
NON-PART.

APPROVED

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 3917
FRANK VOTEL

1/18/13

DEPUTY DIRECTOR
AND CHIEF ENGINEER

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
02/19/13				6	ARK.			
				JOB NO.		BB0806	2	82

(2) INDEX OF SHEETS, GOV. SPECS, & GEN. NOTES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-19-13

INDEX OF SHEETS

GENERAL NOTES

1. 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.

2. ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.

3. ALL FLEXIBLE BASE AND ASPHALTIC PAVEMENTS REMOVED SHALL BE PAID FOR UNDER THE ITEM NO. 210 - UNCLASSIFIED EXCAVATION.

4. ANY REQUIRED EROSION CONTROL MEASURES FROM WASTING MATERIALS SHALL BE AT THE CONTRACTOR'S EXPENSE.

GOVERNING SPECIFICATIONS

ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2003, 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
100-2	MANUAL FOR ASSESSING SAFETY HARDWARE (MASH)
102-1	BIDDING REQUIREMENTS AND CONDITIONS
103-1	DETERMINATION OF DBE PARTICIPATION
105-1	CONSTRUCTION CONTROL MARKINGS
105-2	EQUIPMENT AND MATERIAL STORAGE ON BRIDGE STRUCTURES
105-3	CONTROL OF WORK
107-1	WORKER VISIBILITY
108-1	LIQUIDATED DAMAGES
110-1	PROTECTION OF WATER QUALITY AND WETLANDS
303-1	AGGREGATE BASE COURSE
404-1	PRODUCTION VERIFICATION OF ASPHALT CONCRETE HOT MIX
404-2	DESIGN AND QUALITY CONTROL OF ASPHALT MIXTURES
409-1	MINERAL AGGREGATES
410-3	DENSITY TESTING FOR ACHM LEVELING COURSES AND BOND BREAKERS
600-1	WATER FOR VEGETATION
603-1	MAINTENANCE OF TRAFFIC
604-1	RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
604-2	INSPECTION OF TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
606-2	PIPE CULVERTS
718-2	REFLECTORIZED PAINT PAVEMENT MARKINGS
804-1	INSTALLATION OF DOWEL BARS AND TIE BARS
JOB BB0806	BRIDGE DECK REPAIR
JOB BB0806	BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB BB0806	BROADBAND INTERNET SERVICE FOR FIELD OFFICE
JOB BB0806	CONCRETE DITCH PAVING
JOB BB0806	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB BB0806	HIGH PERFORMANCE PAVEMENT MARKING
JOB BB0806	HYDRODEMOLITION
JOB BB0806	INTERNET BIDDING
JOB BB0806	MAINTENANCE OF TRAFFIC
JOB BB0806	MANAGEMENT OF HYDRODEMOLITION WASTEWATER
JOB BB0806	NESTING SITES OF MIGRATORY BIRDS
JOB BB0806	PARTNERING REQUIREMENTS
JOB BB0806	SEQUENCE OF CONSTRUCTION
JOB BB0806	SILICONE JOINT SEALANT
JOB BB0806	SITE USE (A + C METHOD)
JOB BB0806	SPECIAL SAFETY REQUIREMENTS FOR BRIDGES
JOB BB0806	STORM WATER POLLUTION PREVENTION PLAN
JOB BB0806	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB BB0806	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
JOB BB0806	UNDERDRAIN FLUSHING AND REHABILITATION
JOB BB0806	UTILITY ADJUSTMENTS
JOB BB0806	VALUE ENGINEERING
JOB BB0806	VERY EARLY STRENGTH LATEX MODIFIED CONCRETE OVERLAY
JOB BB0806	WARM MIX ASPHALT
JOB BB0806	WIRE ROPE SAFETY FENCE MAINTENANCE MATERIALS
JOB BB0806	WIRE ROPE SAFETY FENCE (WRSF) SPECIFICATIONS
JOB BB0806	WRSF TRAINING WORKSHOP

2/19/2013

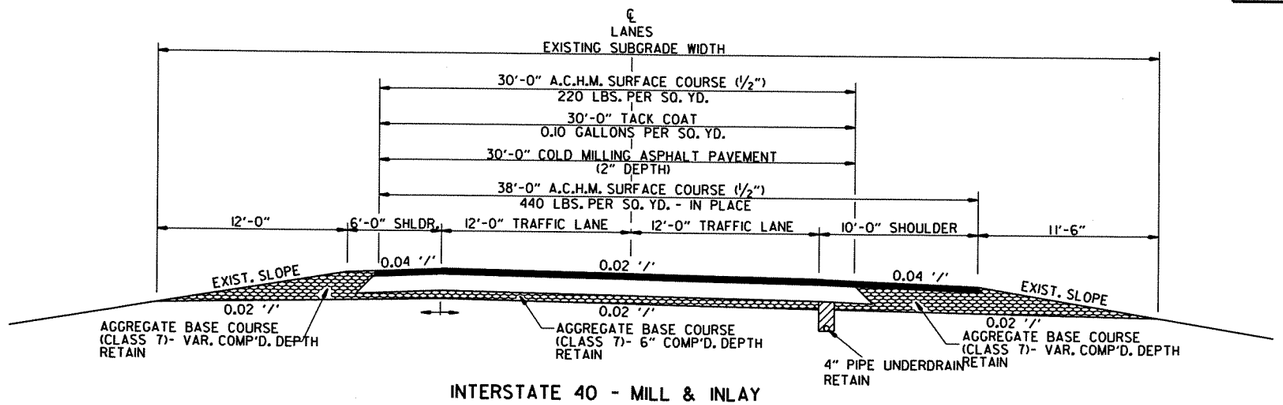
RBB0806.DGN

INDEX OF SHEETS, GOVERNING SPECIFICATIONS, & GENERAL NOTES

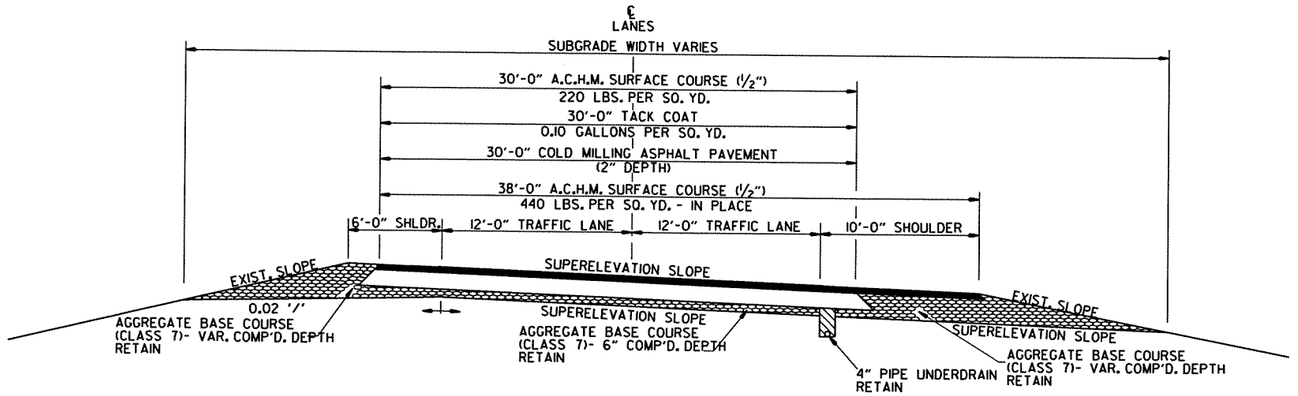
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		B80806	3	82

(2) TYPICAL SECTIONS OF IMPROVEMENT

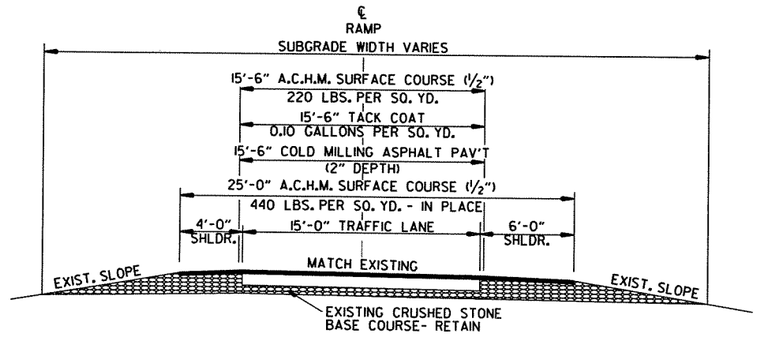
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13



INTERSTATE 40 - MILL & INLAY
(SHOWN IN DIRECTION OF TRAFFIC)



INTERSTATE 40 WITH SUPERELEVATION - MILL & INLAY
(SHOWN IN DIRECTION OF TRAFFIC)



TYPICAL RAMP - MILL & INLAY
(SHOWN IN DIRECTION OF TRAFFIC)

1/9/2013

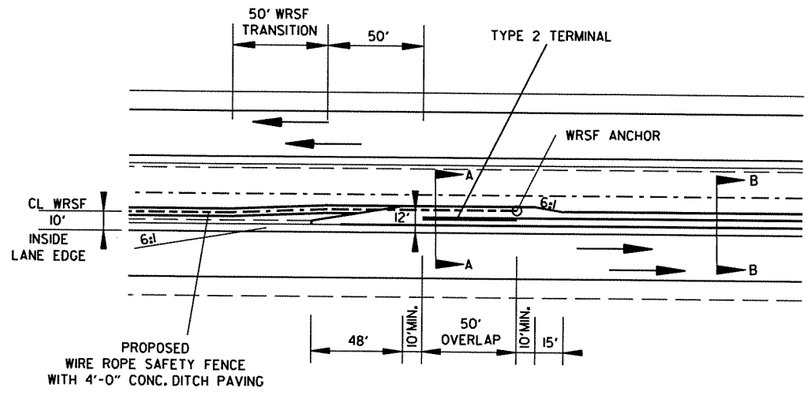
RBB0806.DGN

TYPICAL SECTIONS OF IMPROVEMENT

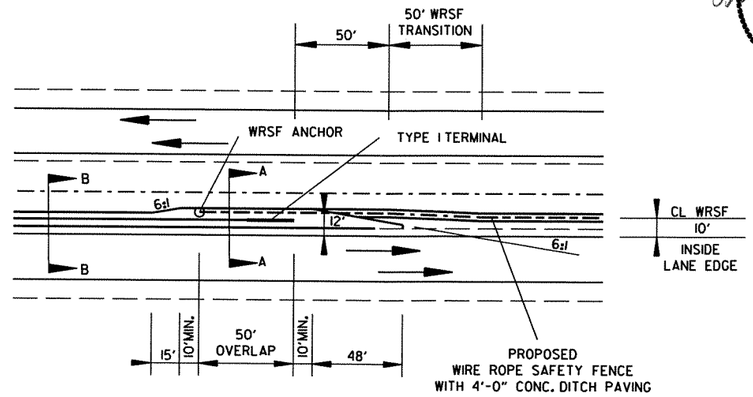
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0806	4	82

(2) SPECIAL DETAILS

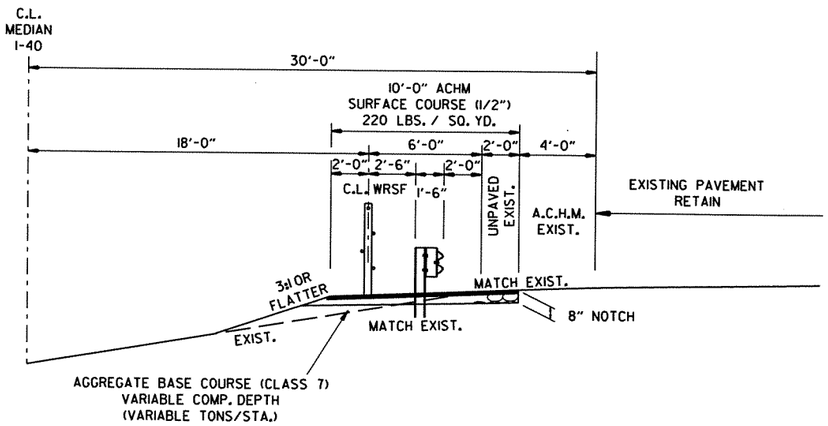
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13



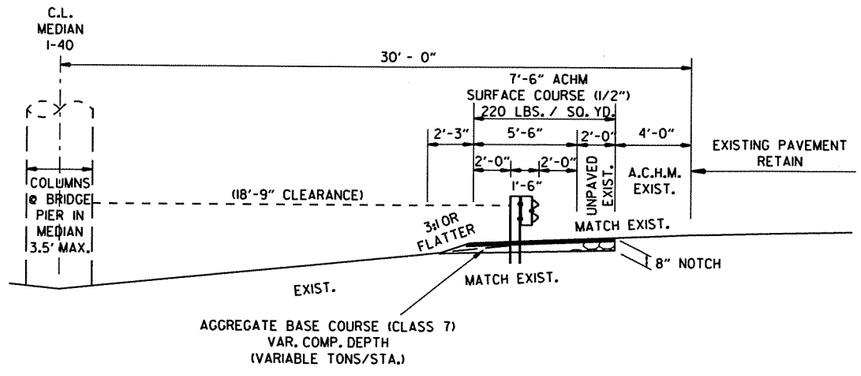
WRSF AND GUARDRAIL APPROACH FOR OVERPASS



WRSF AND GUARDRAIL DEPARTURE FOR OVERPASS



SECTION A-A



SECTION B-B

DETAILS OF SHOULDER WIDENING FOR GUARDRAIL AND OVERLAPS WITH ENDS OF WIRE ROPE SAFETY FENCE

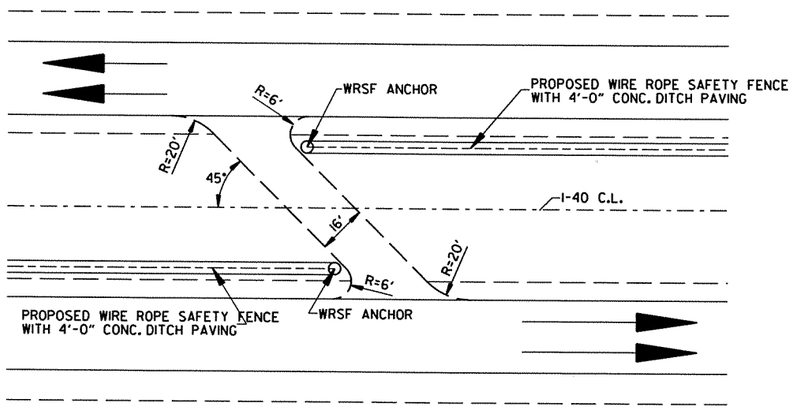
1/9/2013

RBB0806.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0806	5	82

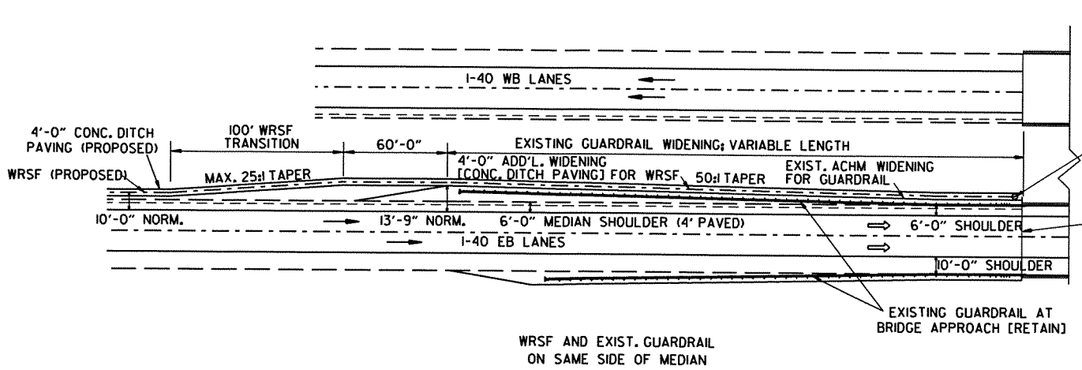
(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13

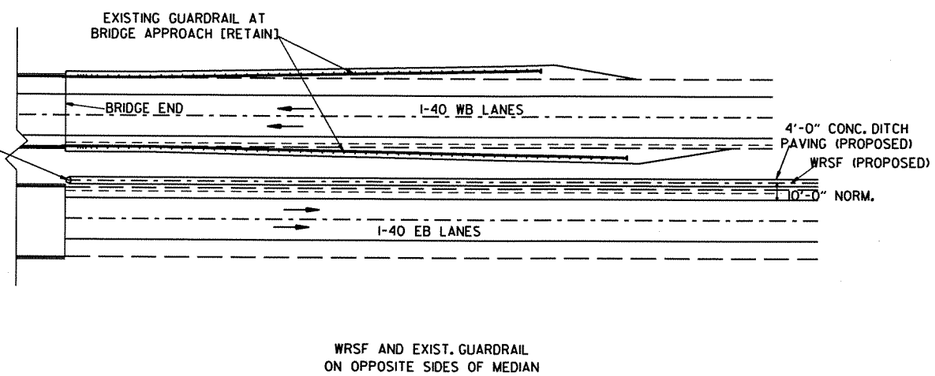


DETAIL OF PAVED MEDIAN CROSSING

NOTE:
MEDIAN CROSSING TO BE CONSTRUCTED OF AGGREGATE BASE COURSE (CLASS 7)- 7" COMPACTED DEPTH & ACHM SURFACE COURSE (1/2")- 220 LBS. PER SQ. YD.



WRSF AND EXIST. GUARDRAIL ON SAME SIDE OF MEDIAN



WRSF AND EXIST. GUARDRAIL ON OPPOSITE SIDES OF MEDIAN

DETAIL OF WIRE ROPE SAFETY FENCE AT EXISTING BRIDGE ENDS

REFER TO PLANS FOR RELATIVE PLACEMENT OF GUARDRAIL AND WIRE ROPE SAFETY FENCE AT EACH BRIDGE END

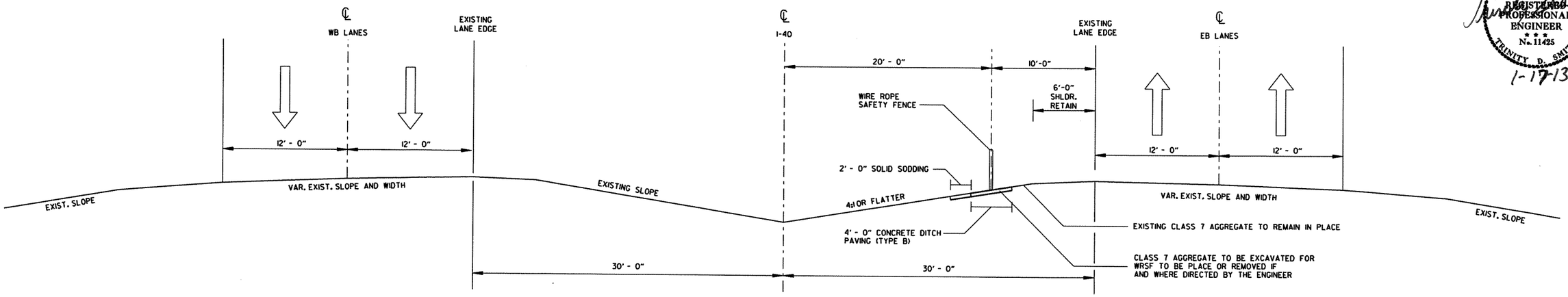
1/9/2013

RBB0806.DGN

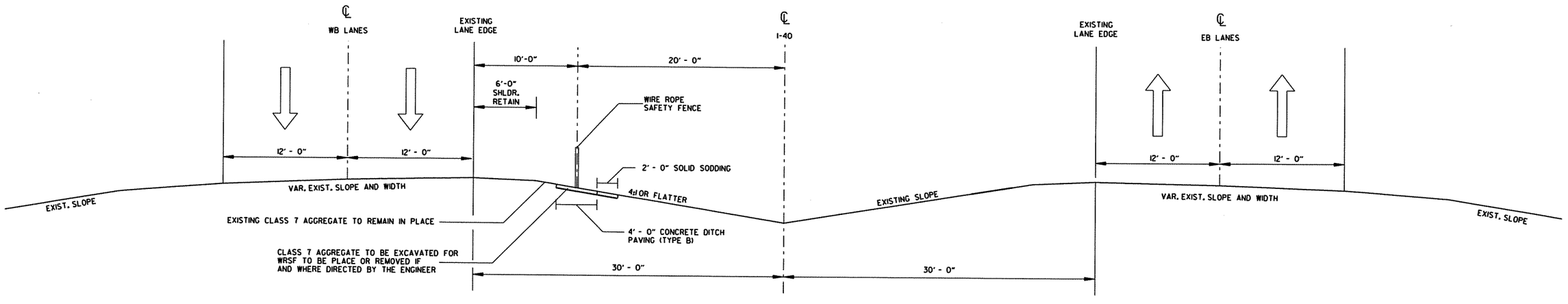
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0806	6	82

(2) SPECIAL DETAILS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 11425 TRINITY D. SMITH
1-17-13



TYPICAL SECTION OF IMPROVEMENT
FOR WIRE ROPE SAFETY FENCE RIGHT OF CENTERLINE

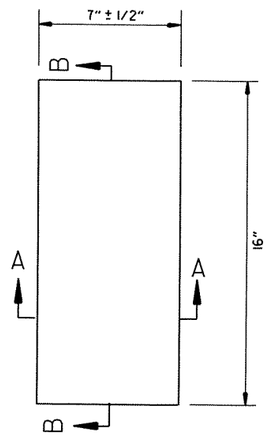


TYPICAL SECTION OF IMPROVEMENT
FOR WIRE ROPE SAFETY FENCE LEFT OF CENTERLINE

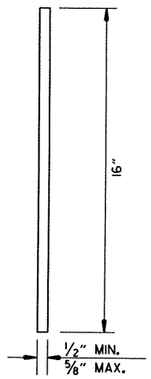
1/9/2013
RBB0806.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
02/21/13				6	ARK.			
				JOB NO.		BB0806	6A	82

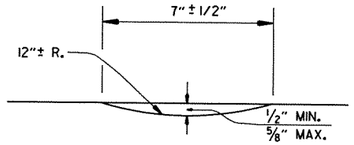
(2) SPECIAL DETAILS



PLAN

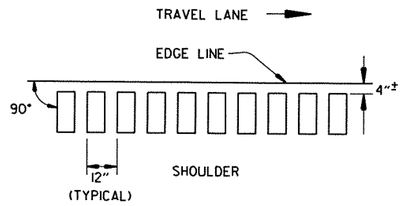


SECTION B-B

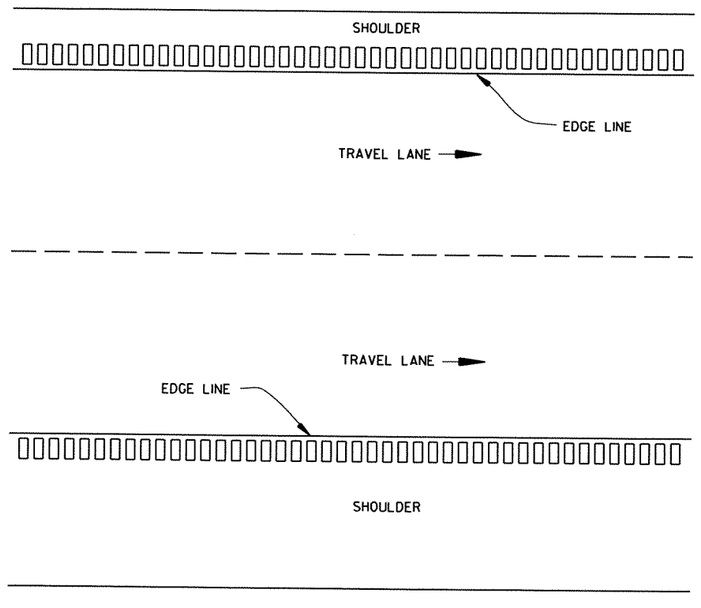


SECTION A-A

DETAILS OF RUMBLE STRIPS



LOCATION PLAN OF RUMBLE STRIPS
LEFT OR RIGHT SHOULDER



PLAN VIEW

NOTES:

1. ALIGNMENT OF RUMBLE STRIPS SHALL GENERALLY BE STRAIGHT AND OFFSET APPROXIMATELY 4" FROM THE OUTER EDGE OF THE EDGE LINE. THIS OFFSET MAY BE ADJUSTED TO ACCOMMODATE VARIATIONS IN THE EDGE LINE.
2. THE 1/2" DEPTH SHALL GENERALLY APPLY FOR THE ENTIRE 16" LENGTH. SOME VARIATION TO SUIT SHOULDER SLOPE BREAKS MAY BE NECESSARY.
3. RUMBLE STRIPS SHALL NOT BE INSTALLED ON BRIDGE DECKS, APPROACH SLABS, OR ACROSS TRANSVERSE JOINTS OF CONCRETE SHOULDERS.

2/21/2013

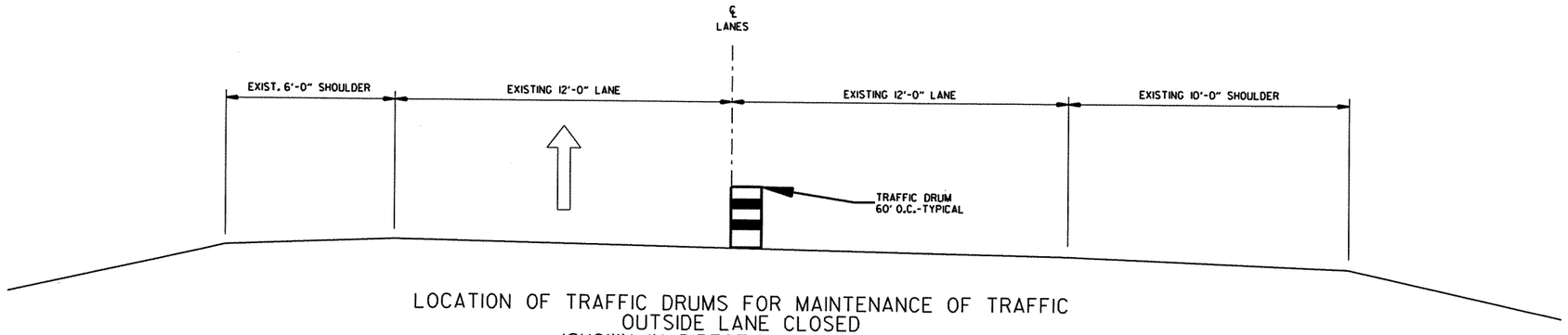
RBB0806.DGN

SPECIAL DETAILS

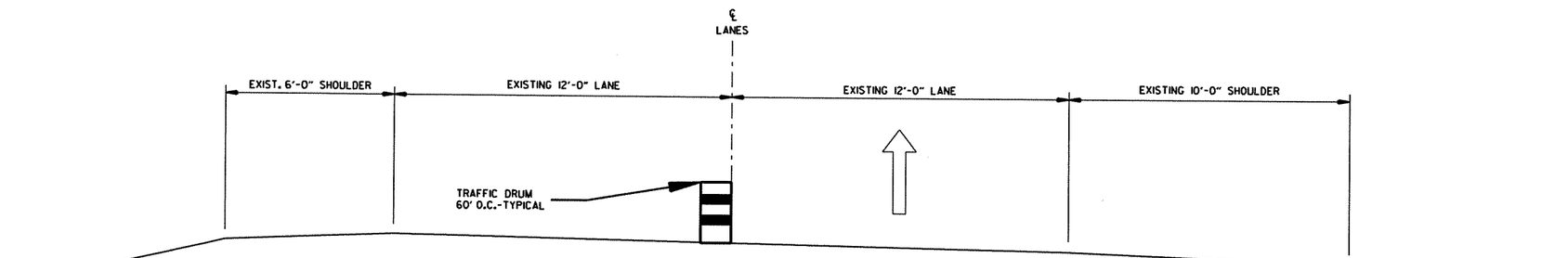
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		B80806	7	82

(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13



LOCATION OF TRAFFIC DRUMS FOR MAINTENANCE OF TRAFFIC
OUTSIDE LANE CLOSED
(SHOWN IN DIRECTION OF TRAFFIC)



LOCATION OF TRAFFIC DRUMS FOR MAINTENANCE OF TRAFFIC
INSIDE LANE CLOSED
(SHOWN IN DIRECTION OF TRAFFIC)

1/9/2013

RBB0806.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
02/19/13				6	ARK.			
				JOB NO.		BB0806	8	82

(2) MAINTENANCE OF TRAFFIC

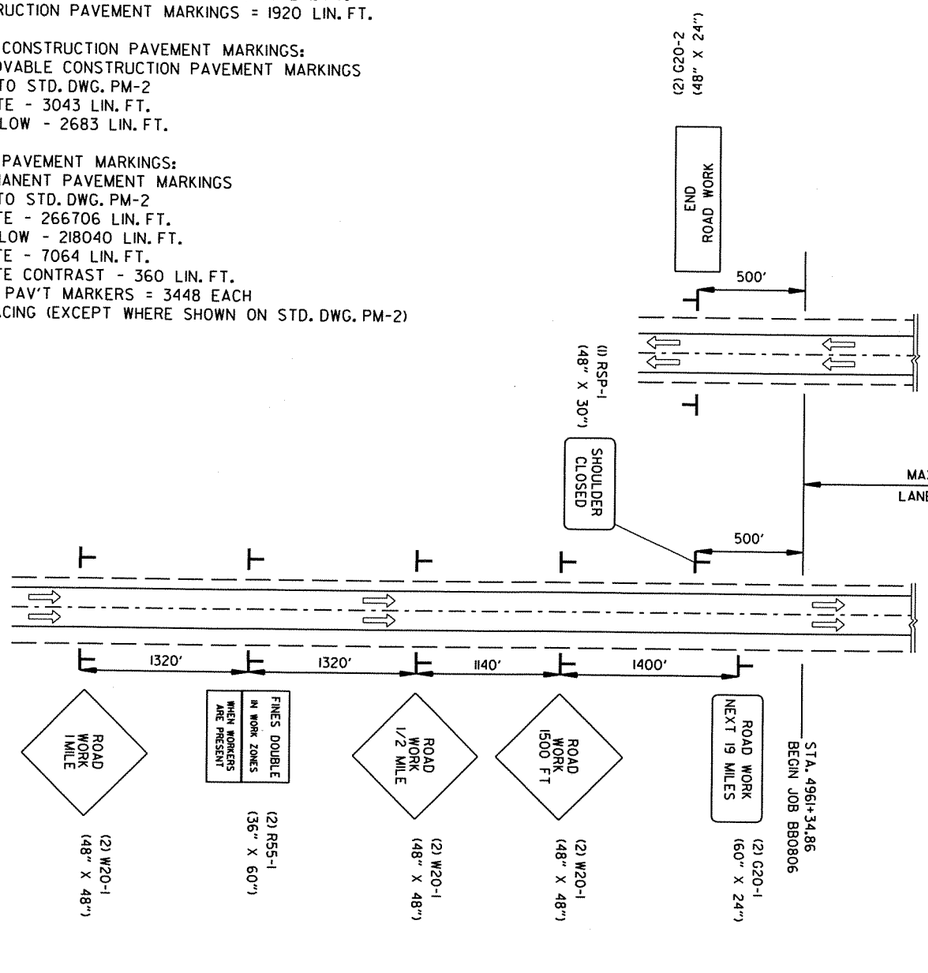
CONSTRUCTION PAVEMENT MARKINGS:
APPLY CONSTRUCTION PAVEMENT MARKINGS
ACCORDING TO STD. DWG. PM-2
- 4" WHITE - 267066 LIN. FT.
- 4" YELLOW - 218040 LIN. FT.
- 8" WHITE - 7064 LIN. FT.

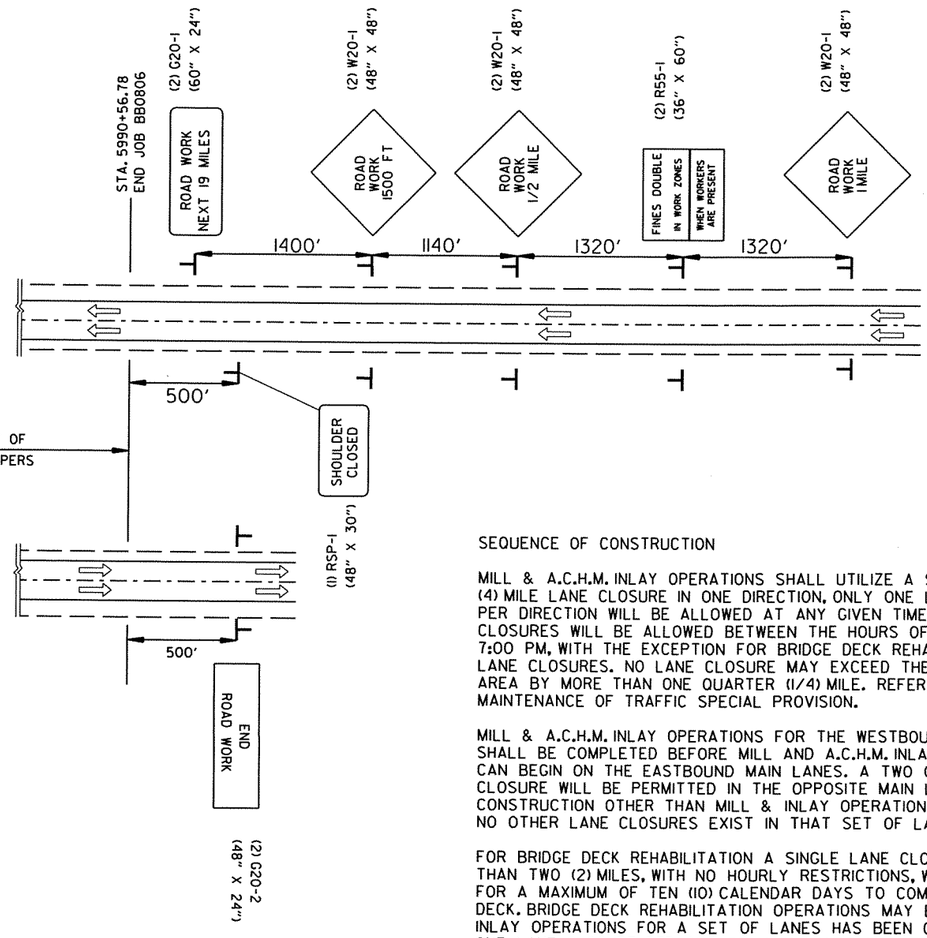
REMOVAL OF PAVEMENT MARKING
- PERMANANT PAVEMENT MARKINGS = 1076 LIN. FT.
- CONSTRUCTION PAVEMENT MARKINGS = 1920 LIN. FT.

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS:
APPLY REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
ACCORDING TO STD. DWG. PM-2
- 4" WHITE - 3043 LIN. FT.
- 4" YELLOW - 2683 LIN. FT.

PERMANENT PAVEMENT MARKINGS:
APPLY PERMANENT PAVEMENT MARKINGS
ACCORDING TO STD. DWG. PM-2
- 4" WHITE - 266706 LIN. FT.
- 4" YELLOW - 218040 LIN. FT.
- 8" WHITE - 7064 LIN. FT.
- 4" WHITE CONTRAST - 360 LIN. FT.
- RAISED PAV'T MARKERS = 3448 EACH
- 80' SPACING (EXCEPT WHERE SHOWN ON STD. DWG. PM-2)

NOTE:
CONSTRUCTION PAVEMENT MARKINGS QUANTITY BASED ON ONE APPLICATION OF EXISTING PAVEMENT MARKINGS.
FOR ADDITIONAL INFORMATION, SEE STD. DRG. PM-2.





PORTABLE CHANGEABLE MESSAGE SIGN
PLACED AS DIRECTED BY THE ENGINEER

PORTABLE CHANGEABLE MESSAGE SIGN
PLACED AS DIRECTED BY THE ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-19-13

SEQUENCE OF CONSTRUCTION

MILL & A.C.H.M. INLAY OPERATIONS SHALL UTILIZE A SINGLE FOUR (4) MILE LANE CLOSURE IN ONE DIRECTION. ONLY ONE LANE CLOSURE PER DIRECTION WILL BE ALLOWED AT ANY GIVEN TIME. NO LANE CLOSURES WILL BE ALLOWED BETWEEN THE HOURS OF 2:00PM AND 7:00 PM, WITH THE EXCEPTION FOR BRIDGE DECK REHABILITATION LANE CLOSURES. NO LANE CLOSURE MAY EXCEED THE ACTIVE WORK AREA BY MORE THAN ONE QUARTER (1/4) MILE. REFER TO THE MAINTENANCE OF TRAFFIC SPECIAL PROVISION.

MILL & A.C.H.M. INLAY OPERATIONS FOR THE WESTBOUND MAIN LANES SHALL BE COMPLETED BEFORE MILL AND A.C.H.M. INLAY OPERATIONS CAN BEGIN ON THE EASTBOUND MAIN LANES. A TWO (2) MILE LANE CLOSURE WILL BE PERMITTED IN THE OPPOSITE MAIN LANES FOR CONSTRUCTION OTHER THAN MILL & INLAY OPERATIONS AS LONG AS NO OTHER LANE CLOSURES EXIST IN THAT SET OF LANES.

FOR BRIDGE DECK REHABILITATION A SINGLE LANE CLOSURE OF NO MORE THAN TWO (2) MILES, WITH NO HOURLY RESTRICTIONS, WILL BE PERMITTED FOR A MAXIMUM OF TEN (10) CALENDAR DAYS TO COMPLETE EACH BRIDGE DECK. BRIDGE DECK REHABILITATION OPERATIONS MAY BEGIN WHEN MILL & INLAY OPERATIONS FOR A SET OF LANES HAS BEEN COMPLETED. ONLY ONE LANE CLOSURE PER SET OF MAIN LANES WILL BE ALLOWED AND SHALL NOT EXCEED THE ACTIVE WORK AREA BY MORE THAN ONE QUARTER (1/4) MILE. PRECAST CONCRETE BARRIER WALL WILL BE PROVIDED FOR BRIDGE DECK REHABILITATION AS SHOWN IN THE PLANS. REFER TO THE MAINTENANCE OF TRAFFIC SPECIAL PROVISION.

THE WESTBOUND MAIN LANE BRIDGES ARE TO BE COMPLETED BEFORE EASTBOUND MAIN LANE BRIDGE DECK REHABILITATION BEGINS. WHILE BRIDGE DECK OPERATIONS ARE UNDERWAY IN ONE DIRECTION, A TWO (2) MILE LANE CLOSURE WILL BE PERMITTED IN THE OPPOSITE MAIN LANES FOR CONSTRUCTION ACTIVITIES OTHER THAN BRIDGE DECK REHABILITATION, AS LONG AS NO OTHER LANE CLOSURE EXISTS IN THAT SET OF LANES. AS THE CONTRACTOR PROCEEDS WITH BRIDGE DECK REHABILITATION IN THE EASTBOUND LANES, BRIDGE DECK GROOVING WILL BE PERMITTED ON THE WESTBOUND LANES BRIDGES UTILIZING THE PERMITTED SINGLE TWO (2) MILE LANE CLOSURE.

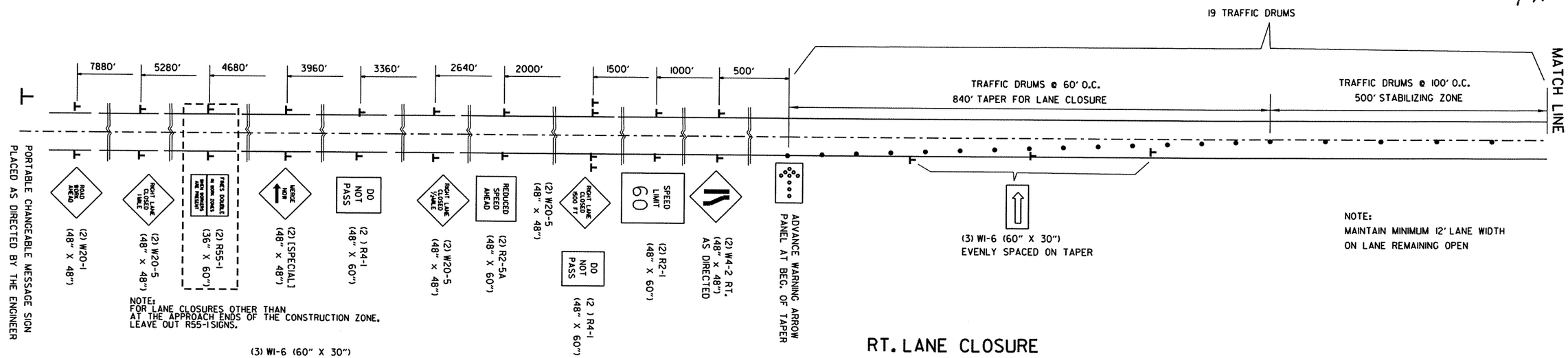
MAINTENANCE OF TRAFFIC ADVANCE SIGNS AT JOB ENDS

RBB0806.DGN 2/14/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0806	9	82

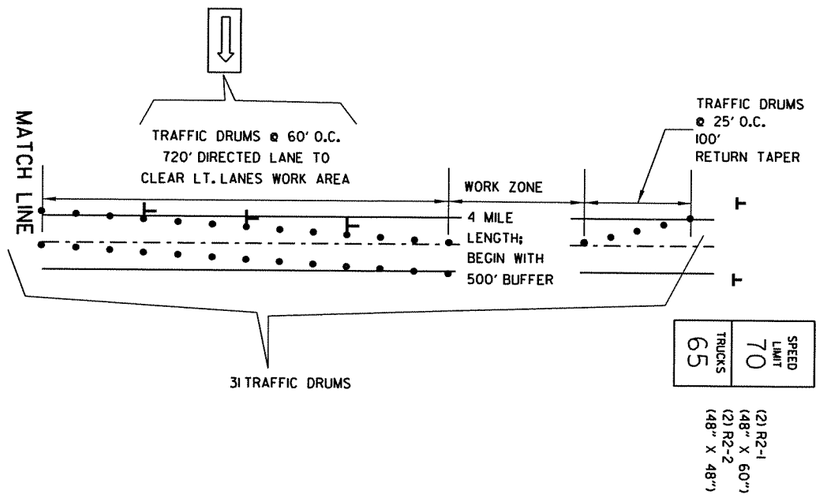
(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13



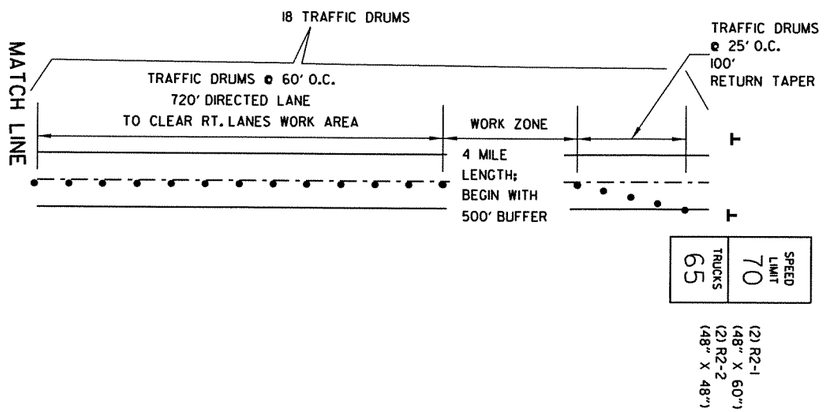
RT. LANE CLOSURE

1 SET OF THIS NEEDED FOR JOB BB0806.



DIVERSION FOR LT. LANE WORK ZONE

1 SET OF THIS NEEDED FOR JOB BB0806



DIVERSION FOR RT. LANE WORK ZONE

1 SET OF THIS NEEDED FOR JOB BB0806

1/9/2013

RBB0806.DGN

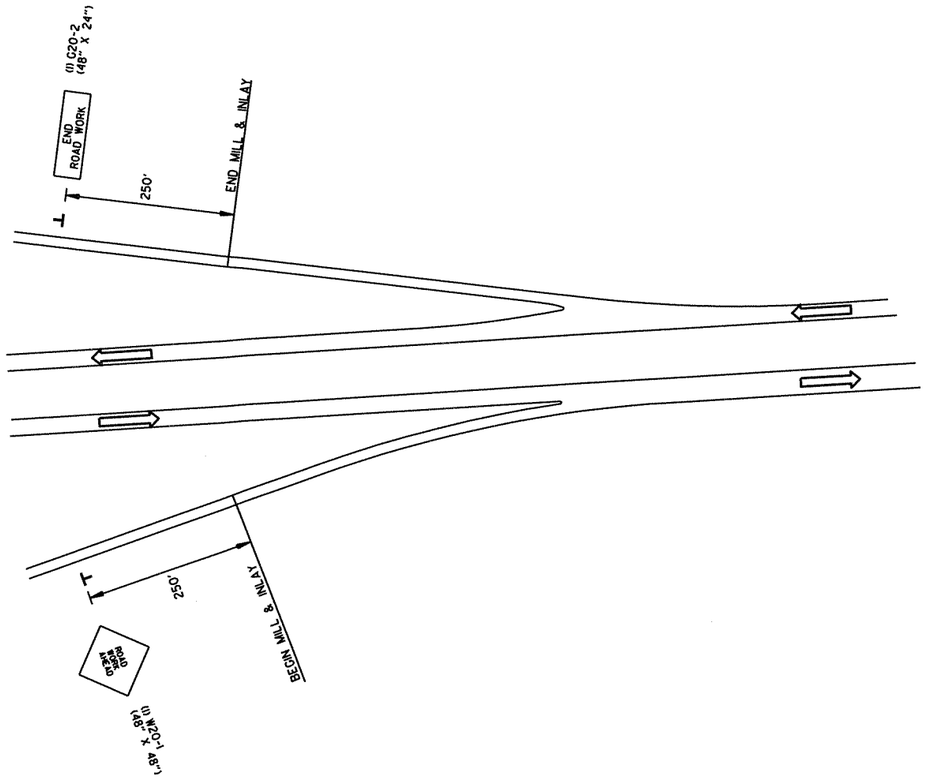
MAINTENANCE OF TRAFFIC WORK ZONE - LANE CLOSURE

ADVANCE WARNING SIGNS FOR ENTRANCE AND EXIT RAMPS
ROAD WORK AHEAD (10) = 160 SQ. FT.
END ROAD WORK (10) = 80 SQ. FT.

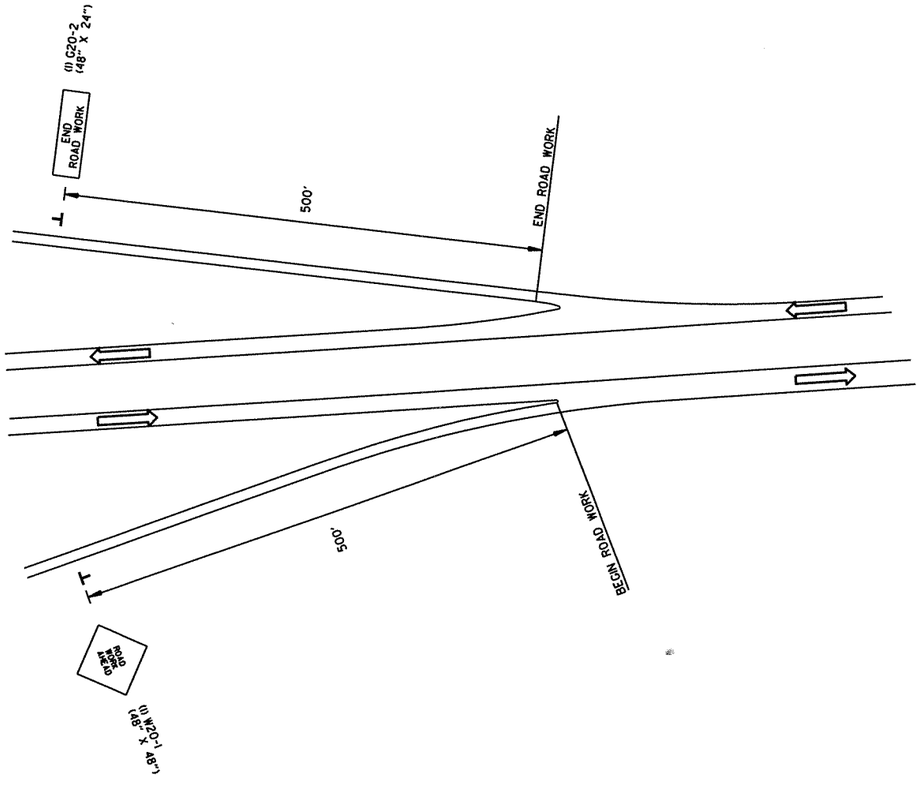
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0806	10	82

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13



DETAIL OF ENTRANCE AND EXIT RAMPS
EXIT 101
EXIT 107
EXIT 108
EXIT 112



DETAIL OF ENTRANCE AND EXIT RAMPS
EXIT 94

1/9/2013

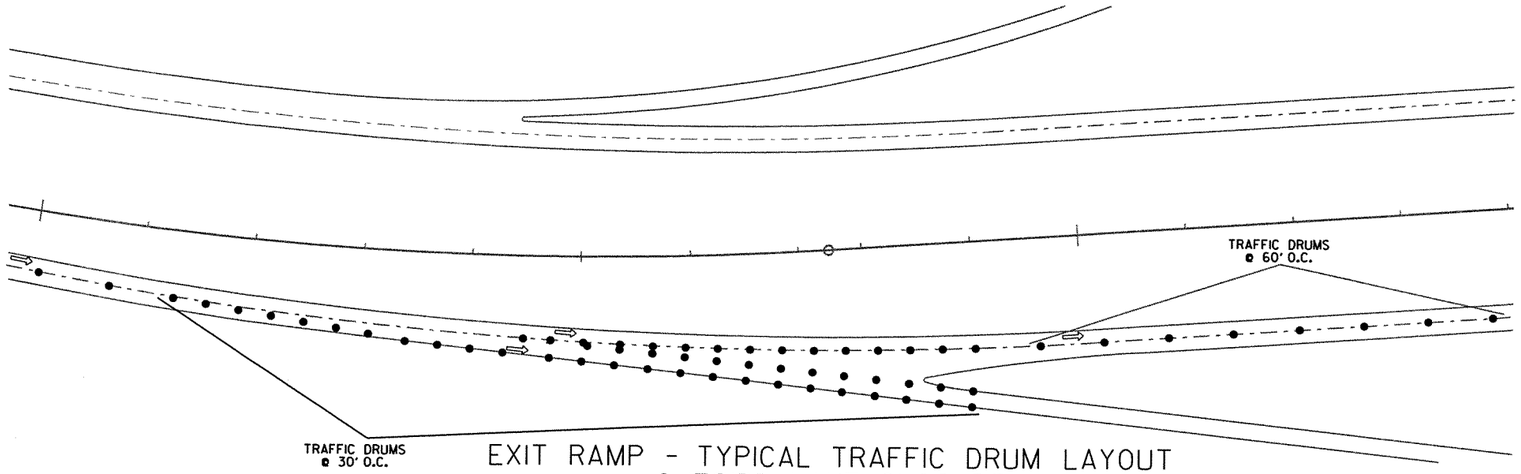
RBB0806.DGN

MAINTENANCE OF TRAFFIC
DETAIL OF RAMPS

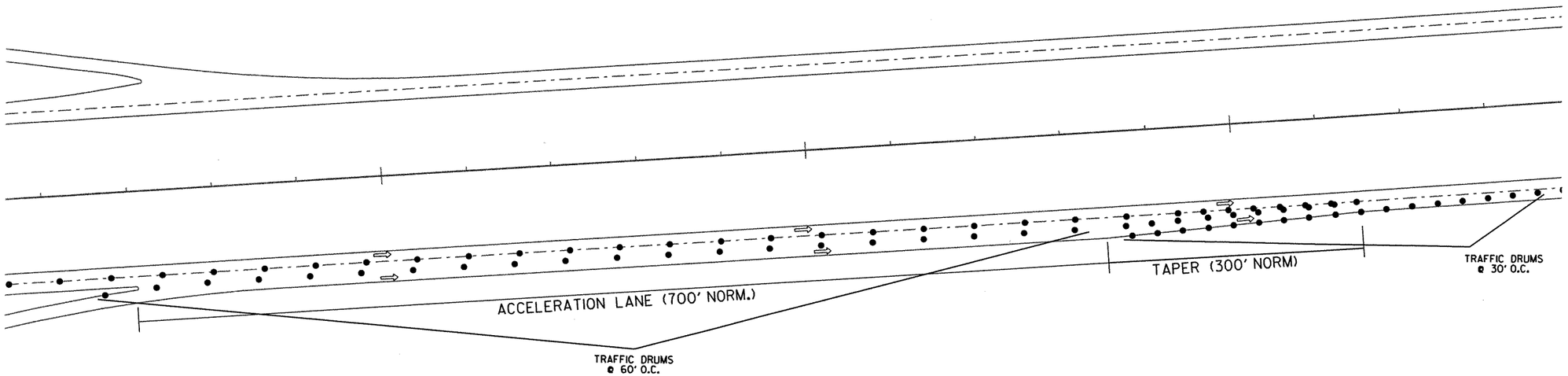
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0806	11	82

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13



EXIT RAMP - TYPICAL TRAFFIC DRUM LAYOUT
OUTSIDE LANE CLOSURE



ENTRANCE RAMP - TYPICAL TRAFFIC DRUM LAYOUT
OUTSIDE LANE CLOSURE

EXIT 101:
EASTBOUND EXIT = 24 TRAFFIC DRUMS
EASTBOUND ENTRANCE = 37 TRAFFIC DRUMS

WESTBOUND EXIT = 24 TRAFFIC DRUMS
WESTBOUND ENTRANCE = 37 TRAFFIC DRUMS

EXIT 107:
EASTBOUND EXIT = 24 TRAFFIC DRUMS
EASTBOUND ENTRANCE = 37 TRAFFIC DRUMS

WESTBOUND EXIT = 24 TRAFFIC DRUMS
WESTBOUND ENTRANCE = 37 TRAFFIC DRUMS

EXIT 108:
EASTBOUND EXIT = 24 TRAFFIC DRUMS
EASTBOUND ENTRANCE = 37 TRAFFIC DRUMS

WESTBOUND EXIT = 24 TRAFFIC DRUMS
WESTBOUND ENTRANCE = 37 TRAFFIC DRUMS

EXIT 112:
EASTBOUND EXIT = 24 TRAFFIC DRUMS
EASTBOUND ENTRANCE = 37 TRAFFIC DRUMS

WESTBOUND EXIT = 24 TRAFFIC DRUMS
WESTBOUND ENTRANCE = 37 TRAFFIC DRUMS

1/9/2013

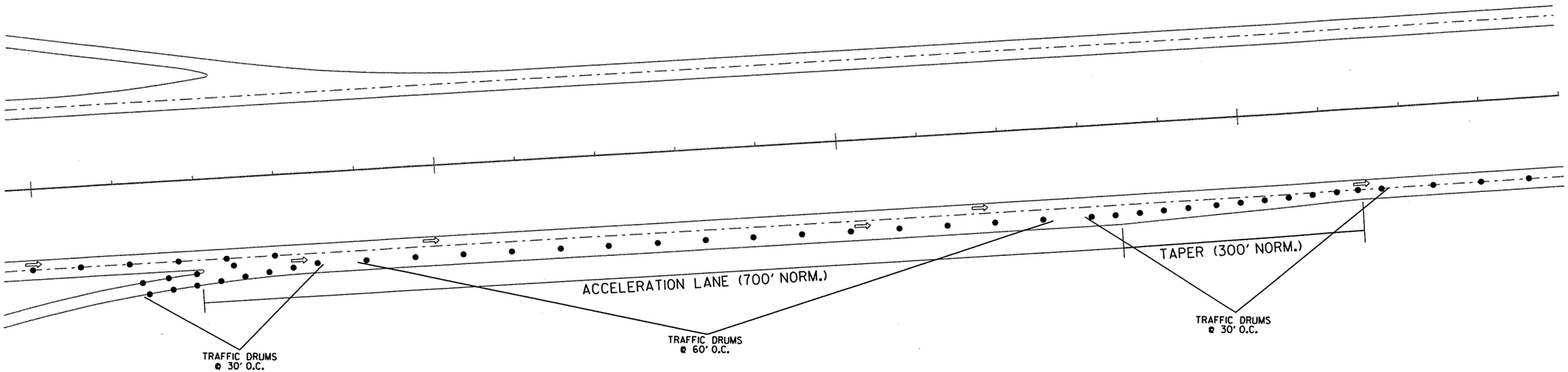
RBB0806.DGN

MAINTENANCE OF TRAFFIC
DETAIL OF RAMPS WITH LANE CLOSURE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0806	12	82

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13



ENTRANCE RAMP - TYPICAL TRAFFIC DRUM LAYOUT
ACCELERATION LANE CLOSURE

EXIT 101:
EASTBOUND ENTRANCE = 24 TRAFFIC DRUMS

WESTBOUND ENTRANCE = 24 TRAFFIC DRUMS

EXIT 107:
EASTBOUND ENTRANCE = 24 TRAFFIC DRUMS

WESTBOUND ENTRANCE = 24 TRAFFIC DRUMS

EXIT 108:
EASTBOUND ENTRANCE = 24 TRAFFIC DRUMS

WESTBOUND ENTRANCE = 24 TRAFFIC DRUMS

EXIT 112:
EASTBOUND ENTRANCE = 24 TRAFFIC DRUMS

WESTBOUND ENTRANCE = 24 TRAFFIC DRUMS

1/9/2013

RBB0806.DGN

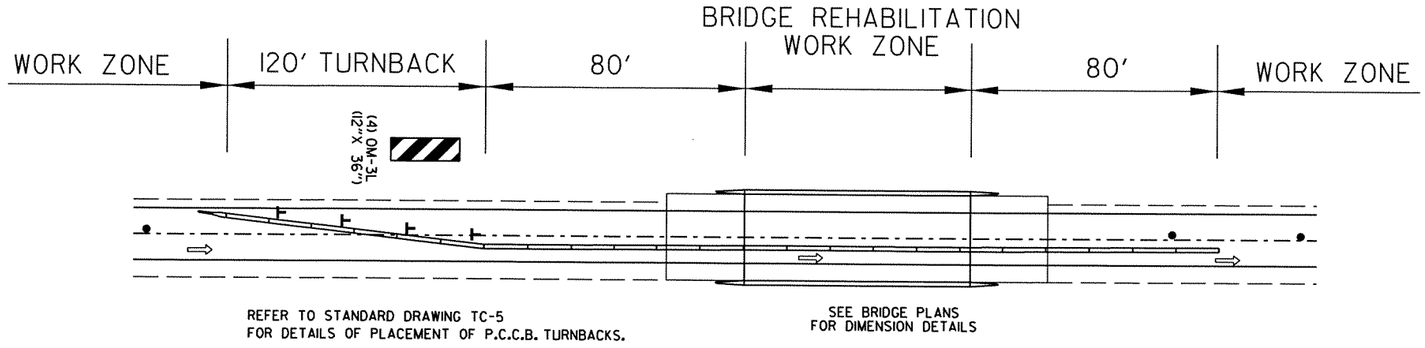
MAINTENANCE OF TRAFFIC
DETAIL OF RAMPS WITH LANE CLOSURE

PRECAST CONCRETE BARRIER WALL (4 LOCATIONS - 8 INSTALLATIONS)
(1) FURNISH AND INSTALL = 513 LIN. FT.
(7) RELOCATE = 513 LIN. FT. (PER INSTALLATION)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0806	13	82

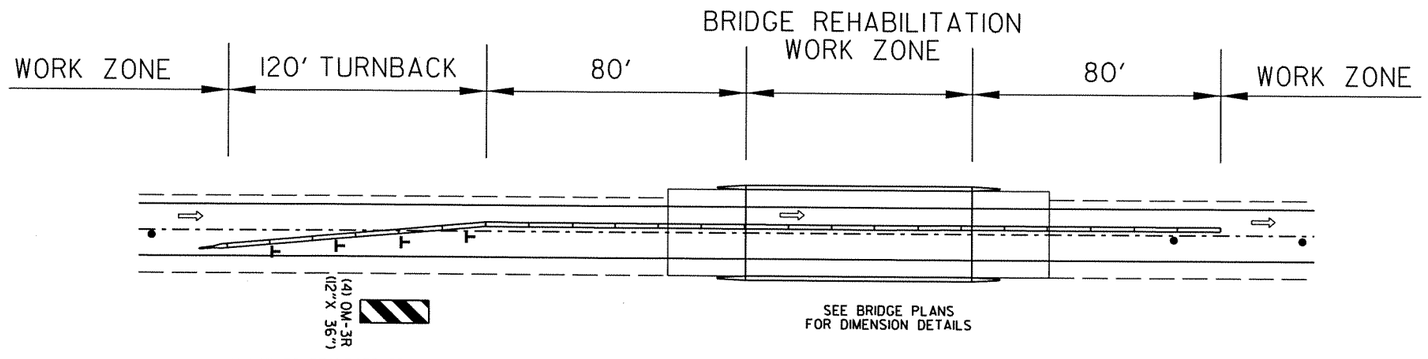
(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13



DIVERSION FOR LT. LANE BRIDGE DECK REHABILITATION

1 SET OF THIS NEEDED FOR JOB BB0806.



DIVERSION FOR RT. LANE BRIDGE DECK REHABILITATION

1 SET OF THIS NEEDED FOR JOB BB0806.

NOTE:
BRIDGE DECK REHABILITATION CAN BE PERFORMED FOLLOWING THE COMPLETION OF MAIN LANE MILL & INLAY OPERATIONS. REFER TO SHEET 9 FOR DETAIL OF TRAFFIC SHIFT USING TRAFFIC DRUMS. REFER TO SHEET 8 FOR SEQUENCE OF CONSTRUCTION DETAILS.

1/9/2013
RBB0806.DGN

MAINTENANCE OF TRAFFIC DETAILS
WORK ZONE - BRIDGE DECK REHABILITATION

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0806	14	82

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13

STRUCTURES

STATION	DESCRIPTION	REINFORCED CONCRETE PIPE CULVERT (CLASS III) 24" LIN. FT.	SAFETY END SECTIONS FOR SIDE DRAIN PIPE CULVERTS (CLASS 2) 24" EACH	SOLID SODDING SQ.YD.	WATER M.GAL	STD. DWG. NOS.
5140+00	MEDIAN CROSSING	84	2	19	0.24	PCC-1,SES-1
5510+00	MEDIAN CROSSING	84	2	19	0.24	PCC-1,SES-1
TOTALS:		168	4	38	0.48	

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.

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

DESCRIPTION	ENTIRE JOB	REMOVAL OF PERMANENT PAVEMENT MARKINGS	CONSTRUCTION PAVEMENT MARKINGS	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS	HIGH PERFORMANCE CONTRAST PAVEMENT MARKING	HIGH PERFORMANCE PAVEMENT MARKING		
						TYPE II (WHITE/RED	4" WHITE	4" WHITE	4" YELLOW	8" WHITE
	LIN. FT. - EACH	LIN. FT.				EACH	LIN. FT.	LIN. FT.		
REMOVAL OF PERMANENT PAVEMENT MARKINGS	1076	1076								
CONSTRUCTION PAVEMENT MARKINGS	492170		492170							
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	1920			1920						
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	5726				5726					
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)	3448					3448				
HIGH PERFORMANCE CONTRAST PAVEMENT MARKING WHITE (4")	360						360			
HIGH PERFORMANCE PAVEMENT MARKING WHITE (4")	266706							266706		
HIGH PERFORMANCE PAVEMENT MARKING YELLOW (4")	218040								218040	
HIGH PERFORMANCE PAVEMENT MARKING WHITE (8")	7064									7064
TOTALS:		1076	492170	1920	5726	3448	360	266706	218040	7064

NOTE: THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2003 EDITION.

ADVANCE WARNING SIGNS AND DEVICES

SIGN NUMBER	DESCRIPTION	SIGN SIZE	ENTIRE PROJECT	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		TRAFFIC DRUMS	FURNISHING & INSTALLING PRECAST CONC. BARRIER	RELOCATING PRECAST CONC. BARRIER	ADVANCE WARNING ARROW PANEL	PORTABLE CHANGEABLE MESSAGE SIGN
			LIN. FT. - EACH		NO.	SQ. FT.	EACH	LIN. FT.	LIN. FT.	DAY	WEEK
W20-1	ROAD WORK 1500 FT.	48"x48"	4	4	4	64.0					
W20-1	ROAD WORK 1/2 MILE FT.	48"x48"	4	4	4	64.0					
W20-1	ROAD WORK 1 MILE FT.	48"x48"	4	4	4	64.0					
W20-1	ROAD WORK AHEAD	48"x48"	14	14	14	224.0					
G20-2	END ROAD WORK	48"x24"	14	14	14	112.0					
G20-1	ROAD WORK NEXT XX MILES	60"x24"	2	2	2	20.0					
W20-5	RIGHT LANE CLOSED 1 MILE	48"x48"	4	4	4	64.0					
W20-5	RIGHT LANE CLOSED 1/2 MILE	48"x48"	4	4	4	64.0					
W20-5	RIGHT LANE CLOSED 1500 FT	48"x48"	4	4	4	64.0					
R55-1	FINES DOUBLE IN WORK ZONES	36"x60"	4	4	4	60.0					
SPECIAL	MERGE NOW W/ARROW	48"x48"	4	4	4	64.0					
R2-5A	REDUCED SPEED AHEAD	48"x60"	4	4	4	80.0					
W1-6	LARGE ARROW	48"x24"	9	9	9	72.0					
R1-2	YIELD	60"x60"x60"	4	4	4	43.3					
R4-1	DO NOT PASS	24"x30"	8	8	8	160.0					
R2-1	SPEED LIMIT 60 MPH	48"x60"	4	4	4	80.0					
R2-1	SPEED LIMIT 70 MPH	48"x60"	4	4	4	80.0					
R2-2	TRUCK SPEED LIMIT 65 MPH	48"x60"	4	4	4	80.0					
RSP-1	SHOULDER CLOSED	48"x30"	2	2	2	20.0					
OM-3R	OBJECT MARKER	12"x36"	4	4	4	12.0					
OM-3L	OBJECT MARKER	12"x36"	4	4	4	12.0					
	TRAFFIC DRUMS		800	800			800				
	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER		513	513				513			
	RELOCATING PRECAST CONCRETE BARRIER		3591	3591					3591		
	ADVANCE WARNING ARROW PANEL		2	2						190	
	PORTABLE CHANGEABLE MESSAGE SIGN		6	6							150
TOTALS:						1503.3	800	513	3591	190	150

NOTE: THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2003 EDITION.

1/16/2013

RBB0806.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
02/19/13				6	ARK.			
				JOB NO.		B80806	15	82

(2) QUANTITIES

COLD MILLING ASPHALT PAVEMENT

STATION	STATION	LOCATION	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
			FEET	SQ. YD.
		MAIN LANES		
5003+48.78	5077+61.53	RIGHT MAIN LANES	30.0	24709.3
5079+54.59	5314+73.24	RIGHT MAIN LANES	30.0	78395.7
5314+73.24	5320+50.93	RIGHT MAIN LANES	VARIES	2667.2
5320+50.93	5344+06.01	RIGHT MAIN LANES	30.0	7850.3
5344+06.01	5354+06.01	RIGHT MAIN LANES	VARIES	4485.7
5354+06.01	5548+19.88	RIGHT MAIN LANES	30.0	64713.0
5550+77.17	5624+05.98	RIGHT MAIN LANES	30.0	24429.3
5624+05.98	5629+27.59	RIGHT MAIN LANES	VARIES	2230.1
5629+27.59	5650+29.45	RIGHT MAIN LANES	30.0	7006.3
5650+29.45	5660+25.58	RIGHT MAIN LANES	VARIES	4658.1
5660+25.58	5700+08.00	RIGHT MAIN LANES	30.0	13274.7
5700+08.00	5704+85.51	RIGHT MAIN LANES	VARIES	2196.9
5704+85.51	5731+27.53	RIGHT MAIN LANES	30.0	8806.7
5731+27.53	5741+27.53	RIGHT MAIN LANES	VARIES	4488.5
5741+27.53	5940+38.24	RIGHT MAIN LANES	30.0	66369.0
5940+38.24	5944+47.70	RIGHT MAIN LANES	VARIES	1974.3
5944+47.70	5954+01.26	RIGHT MAIN LANES	30.0	3178.7
5956+58.42	5967+50.05	RIGHT MAIN LANES	30.0	3638.7
5967+50.05	5977+50.05	RIGHT MAIN LANES	VARIES	4479.2
5977+50.05	5985+56.78	RIGHT MAIN LANES	30.0	2689.0
5003+48.78	5078+44.78	LEFT MAIN LANES	30.0	24986.7
5080+37.84	5309+71.18	LEFT MAIN LANES	30.0	76444.3
5309+71.18	5319+71.18	LEFT MAIN LANES	VARIES	4468.7
5319+71.18	5342+36.15	LEFT MAIN LANES	30.0	7550.0
5342+36.15	5348+12.17	LEFT MAIN LANES	VARIES	2678.9
5348+12.17	5547+95.66	LEFT MAIN LANES	30.0	66611.7
5550+76.66	5613+86.18	LEFT MAIN LANES	30.0	21031.7
5613+86.18	5623+86.18	LEFT MAIN LANES	VARIES	4484.5
5623+86.18	5647+98.08	LEFT MAIN LANES	30.0	8039.7
5647+98.08	5654+57.95	LEFT MAIN LANES	VARIES	3058.8
5654+57.95	5693+31.30	LEFT MAIN LANES	30.0	12911.3
5693+31.30	5703+31.30	LEFT MAIN LANES	VARIES	4521.2
5703+31.30	5728+01.50	LEFT MAIN LANES	30.0	8234.0
5728+01.50	5734+83.74	LEFT MAIN LANES	VARIES	3368.7
5734+83.74	5934+17.41	LEFT MAIN LANES	30.0	66445.7
5934+17.41	5944+17.41	LEFT MAIN LANES	VARIES	4500.1
5944+17.41	5954+20.68	LEFT MAIN LANES	30.0	3344.3
5956+77.68	5966+00.86	LEFT MAIN LANES	30.0	3077.3
5966+00.86	5971+52.66	LEFT MAIN LANES	VARIES	2734.4
5971+52.66	5986+05.69	LEFT MAIN LANES	30.0	4843.3
		RAMPS		
5319+40.36	5324+90.36	FISHLAKE RD. INTERCHANGE (EXIT 101) RAMP 1	15.5	947.2
5338+56.98	5344+06.98	FISHLAKE RD. INTERCHANGE (EXIT 101) RAMP 2	15.5	947.2
5338+00.06	5343+50.06	FISHLAKE RD. INTERCHANGE (EXIT 101) RAMP 3	15.5	947.2
5319+69.35	5325+19.35	FISHLAKE RD. INTERCHANGE (EXIT 101) RAMP 4	15.5	947.2
5628+31.59	5633+81.59	HWY. 95 INTERCHANGE (EXIT 107) RAMP 1	15.5	947.2
5644+80.12	5650+30.12	HWY. 95 INTERCHANGE (EXIT 107) RAMP 2	15.5	947.2
5644+25.49	5649+75.49	HWY. 95 INTERCHANGE (EXIT 107) RAMP 3	15.5	947.2
5623+85.53	5629+35.53	HWY. 95 INTERCHANGE (EXIT 107) RAMP 4	15.5	947.2
5704+13.80	5709+63.80	HWY. 9 INTERCHANGE (EXIT 108) RAMP 1	15.5	947.2
5725+78.53	5731+28.53	HWY. 9 INTERCHANGE (EXIT 108) RAMP 2	15.5	947.2
5724+77.17	5730+27.17	HWY. 9 INTERCHANGE (EXIT 108) RAMP 3	15.5	947.2
5703+30.63	5708+80.63	HWY. 9 INTERCHANGE (EXIT 108) RAMP 4	15.5	947.2
5943+93.22	5949+43.22	HWY. 92 INTERCHANGE (EXIT 112) RAMP 1	15.5	947.2
5962+00.89	5967+50.89	HWY. 92 INTERCHANGE (EXIT 112) RAMP 2	15.5	947.2
5961+91.18	5967+41.18	HWY. 92 INTERCHANGE (EXIT 112) RAMP 3	15.5	947.2
5944+16.44	5949+66.44	HWY. 92 INTERCHANGE (EXIT 112) RAMP 4	15.5	947.2
TOTAL:				680731.2

NOTE: THE AVERAGE MILLING DEPTH FOR THE PROJECT IS 2". THE DEPTH OF MILLING SHALL BE AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL HAUL THE MATERIAL GENERATED FROM COLD MILLING OPERATIONS TO LOCATIONS DESIGNATED BY THE ENGINEER, AND DISTRIBUTE IT EVENLY UNTIL EACH LOCATION IS FULL. ONCE PLACED, THE MATERIAL WILL BECOME PROPERTY OF THE DEPARTMENT. THE MATERIAL SHALL BE PLACED AT THE DESIGNATED LOCATIONS AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL STOCK PILE THE MATERIAL IN SUCH A WAY THAT IT CAN BE EASILY MEASURED USING THE AVERAGE END AREA METHOD. THE AREAS DESIGNATED FOR COLD MILLING MATERIAL STORAGE FOR THIS PROJECT ARE AS FOLLOWS: NE QUADRANT OF EXIT 94 (12,000 CUBIC YARDS), SE QUADRANT OF EXIT 101 (15,000 CUBIC YARDS), NW QUADRANT OF EXIT 108 BETWEEN RAMP AND SERVICE ROAD (4,500 CUBIC YARDS), SW QUADRANT OF EXIT 112 (4,500 CUBIC YARDS).

EARTHWORK

STATION	LOCATION / DESCRIPTION	UNCLASSIFIED EXCAVATION	COMPACTED EMBANKMENT
		CU. YD.	
* 5140+00	MEDIAN CROSSOVER	15	260
* 5510+00	MEDIAN CROSSOVER	15	260
* 5231+15	MEDIAN CROSSOVER (REMOVAL)	115	
* 5810+49	MEDIAN CROSSOVER (REMOVAL)	115	
TOTALS:		260	520

* QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.
NOTE: EARTHWORK QUANTITIES SHOWN ABOVE SHALL BE PAID AS PLAN QUANTITY.

ACHM PATCHING OF EXISTING ROADWAY

DESCRIPTION	TON
ENTIRE PROJECT - TO BE USED IF AND WHERE	100
DIRECTED BY THE ENGINEER	
TOTAL:	100

PG BINDER FOR ACHM PATCHING SHALL MATCH PG BINDER FOR THE ACHM SURFACE COURSE USED ON THE MAIN LANES

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

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-19-13

WIRE ROPE SAFETY FENCE

STATION	STATION	LOCATION	WIRE ROPE SAFETY FENCE	* WRSF ANCHOR	WRSF MAINTENANCE MATERIALS
			LIN. FT	EACH	LUMP SUM
4971+44.23	5078+11.28	LEFT OF RIGHT MAIN LANES	10667.05	2	
5079+49.72	5110+54.91	LEFT OF RIGHT MAIN LANES	3105.19	2	
5114+54.91	5140+04.45	LEFT OF RIGHT MAIN LANES	2549.54	2	
5139+95.08	5166+94.12	RIGHT OF LEFT MAIN LANES	2699.04	2	
5168+52.49	5328+21.08	LEFT OF RIGHT MAIN LANES	15968.59	2	
5334+71.03	5494+07.99	RIGHT OF LEFT MAIN LANES	15936.96	2	
5495+58.05	5510+04.57	LEFT OF RIGHT MAIN LANES	1446.52	2	
5509+95.20	5548+27.10	RIGHT OF LEFT MAIN LANES	3831.90	2	
5550+55.10	5600+80.89	RIGHT OF LEFT MAIN LANES	5025.79	2	
5604+80.89	5637+17.69	RIGHT OF LEFT MAIN LANES	3236.80	2	
5641+17.69	5663+92.09	RIGHT OF LEFT MAIN LANES	2274.40	2	
5665+41.60	5714+27.56	LEFT OF RIGHT MAIN LANES	4885.96	2	
5718+27.56	5954+31.99	LEFT OF RIGHT MAIN LANES	23604.43	2	
ENTIRE	PROJECT				1.00
TOTALS:			95232.17	26	1.00

* SHOWN FOR INFORMATION ONLY.

SELECTED PIPE BEDDING

LOCATION	SELECTED PIPE BEDDING
	CU.YD.
ENTIRE PROJECT TO BE USED IF	
AND WHERE DIRECTED BY THE	15
ENGINEER	
TOTAL:	15

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	SAND BAG DITCH CHECKS (E-5)	ROCK DITCH CHECKS (E-6)	DROP INLET SILT FENCE (E-7)	*SEDIMENT REMOVAL & DISPOSAL
			ACRE	TON	ACRE	M.GAL.	ACRE	BAG	CU.YD.	LIN. FT.	CU. YD.
ENTIRE	PROJECT	MAIN LANES	22.50	45.00	22.50	2295.0	22.50	3586	492	2950	436
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.			5.63	11.26	5.63	574.3	5.63	902	123	750	28
TOTALS:			28.13	56.26	28.13	2869.3	28.13	4488	615	3700	464

BASIS OF ESTIMATE:
LIME .....2 TONS / ACRE OF SEEDING
WATER.....102.0 M.G. / ACRE OF SEEDING.
DROP INLET SILT FENCE.....25 LIN. FT. / LOCATION
SAND BAG DITCH CHECKS.....22 BAGS / LOCATION
ROCK DITCH CHECKS.....3 CU.YD./LOCATION

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

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

2/19/2013

RBB0806.DGN

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0806	16	82

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13

RUMBLE STRIPS IN ASPHALT SHOULDERS

STATION	STATION	LOCATION	* RUMBLE STRIPS IN ASPHALT SHOULDERS
			LIN.FT.
5003+49	5077+40	RIGHT OF RIGHT MAIN LANES	7391
5079+42	5319+39	RIGHT OF RIGHT MAIN LANES	23997
5320+51	5344+06	RIGHT OF RIGHT MAIN LANES	2355
5344+08	5548+23	RIGHT OF RIGHT MAIN LANES	20415
5551+06	5628+31	RIGHT OF RIGHT MAIN LANES	7725
5629+28	5650+29	RIGHT OF RIGHT MAIN LANES	2101
5650+31	5704+13	RIGHT OF RIGHT MAIN LANES	5382
5704+86	5731+28	RIGHT OF RIGHT MAIN LANES	2642
5731+29	5943+92	RIGHT OF RIGHT MAIN LANES	21263
5944+48	5953+97	RIGHT OF RIGHT MAIN LANES	949
5956+56	5967+50	RIGHT OF RIGHT MAIN LANES	1094
5967+52	5986+06	RIGHT OF RIGHT MAIN LANES	1854
5003+49	5077+73	LEFT OF RIGHT MAIN LANES	7424
5079+72	5140+04	LEFT OF RIGHT MAIN LANES	6032
5140+48	5510+04	LEFT OF RIGHT MAIN LANES	36956
5510+50	5548+16	LEFT OF RIGHT MAIN LANES	3766
5550+99	5954+04	LEFT OF RIGHT MAIN LANES	40305
5956+62	5986+06	LEFT OF RIGHT MAIN LANES	2944
5003+49	5078+28	RIGHT OF LEFT MAIN LANES	7479
5080+26	5139+51	RIGHT OF LEFT MAIN LANES	5925
5139+96	5509+50	RIGHT OF LEFT MAIN LANES	36954
5509+96	5547+98	RIGHT OF LEFT MAIN LANES	3802
5550+81	5954+17	RIGHT OF LEFT MAIN LANES	40336
5956+75	5986+05	RIGHT OF LEFT MAIN LANES	2930
5003+49	5078+57	LEFT OF LEFT MAIN LANES	7508
5080+59	5319+68	LEFT OF LEFT MAIN LANES	23909
5319+81	5342+36	LEFT OF LEFT MAIN LANES	2255
5343+51	5547+91	LEFT OF LEFT MAIN LANES	20440
5550+74	5623+84	LEFT OF LEFT MAIN LANES	7310
5623+86	5647+98	LEFT OF LEFT MAIN LANES	2412
5649+77	5703+29	LEFT OF LEFT MAIN LANES	5352
5703+31	5728+02	LEFT OF LEFT MAIN LANES	2471
5730+28	5944+15	LEFT OF LEFT MAIN LANES	21387
5944+17	5954+23	LEFT OF LEFT MAIN LANES	1006
5956+83	5966+01	LEFT OF LEFT MAIN LANES	918
5967+42	5986+06	LEFT OF LEFT MAIN LANES	1864
TOTAL:			388853

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

REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER

STATION	LOCATION	EACH
4970+75	HWY. 105 OVERPASS	2
5113+75	S. UNION GROVE RD. OVERPASS	2
5167+73	TALLEY LN. OVERPASS	2
5494+83	COUNTY RD. 536	2
5601+50	MONASTERY RIDGE RD.	2
5638+00	HWY. 95 OVERPASS	2
5664+67	HWY. 247 OVERPASS	2
5717+53	HWY. 9 OVERPASS	2
TOTAL:		16

FLUSHING UNDERDRAIN

STA.	STA.	LOCATION	LIN. FT.
5003+49	5077+96	RIGHT MAIN LANES	7447
5079+16	5548+57	RIGHT MAIN LANES	46941
5550+64	5954+38	RIGHT MAIN LANES	40374
5956+22	5985+57	RIGHT MAIN LANES	2935
5003+49	5078+83	LEFT MAIN LANES	7534
5080+03	5548+32	LEFT MAIN LANES	46829
5550+40	5954+58	LEFT MAIN LANES	40418
5956+42	5985+57	LEFT MAIN LANES	2915
TOTAL:			195393

GUARDRAIL

STATION	STATION	LOCATION	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE 1)
			LIN. FT.	EACH	
4966+94.23	4971+94.23	LEFT OF RIGHT MAIN LANES	450	1	1
4969+58.60	4974+58.60	RIGHT OF LEFT MAIN LANES	450	1	1
5110+04.91	5115+04.91	LEFT OF RIGHT MAIN LANES	450	1	1
5112+45.69	5117+45.69	RIGHT OF LEFT MAIN LANES	450	1	1
5164+02.49	5169+02.49	LEFT OF RIGHT MAIN LANES	450	1	1
5166+44.12	5171+44.12	RIGHT OF LEFT MAIN LANES	450	1	1
5327+71.08	5332+71.08	LEFT OF RIGHT MAIN LANES	450	1	1
5330+21.04	5335+21.04	RIGHT OF LEFT MAIN LANES	450	1	1
5491+08.05	5496+08.05	LEFT OF RIGHT MAIN LANES	450	1	1
5493+57.99	5498+57.99	RIGHT OF LEFT MAIN LANES	450	1	1
5597+68.91	5602+68.91	LEFT OF RIGHT MAIN LANES	450	1	1
5600+30.89	5605+30.89	RIGHT OF LEFT MAIN LANES	450	1	1
5634+30.96	5639+30.96	LEFT OF RIGHT MAIN LANES	450	1	1
5636+67.69	5641+67.69	RIGHT OF LEFT MAIN LANES	450	1	1
5660+91.60	5665+91.60	LEFT OF RIGHT MAIN LANES	450	1	1
5663+42.09	5668+42.09	RIGHT OF LEFT MAIN LANES	450	1	1
5713+77.56	5718+77.56	LEFT OF RIGHT MAIN LANES	450	1	1
5716+27.95	5721+27.92	RIGHT OF LEFT MAIN LANES	450	1	1
TOTALS:			8100	18	18

CONCRETE DITCH PAVING

STATION	STATION	LOCATION	LENGTH	WIDTH	CONC. DITCH PAVING (TYPE B)	SOLID SODDING	WATER
			LIN. FT.	FEET	SQ. YD.	SQ. YD.	M. GAL.
4971+44.23	5078+11.28	LEFT OF RIGHT MAIN LANES	10667.05	4	4740.91	2370.46	29.87
5079+49.72	5110+54.91	LEFT OF RIGHT MAIN LANES	3105.19	4	1380.08	690.04	8.69
5114+54.91	5140+04.45	LEFT OF RIGHT MAIN LANES	2549.54	4	1133.13	566.56	7.14
5139+95.08	5166+94.12	RIGHT OF LEFT MAIN LANES	2699.04	4	1199.57	599.79	7.56
5168+52.49	5328+21.08	LEFT OF RIGHT MAIN LANES	15968.59	4	7097.15	3548.58	44.71
5334+71.03	5494+07.99	RIGHT OF LEFT MAIN LANES	15936.96	4	7083.09	3541.55	44.62
5495+58.05	5510+04.57	LEFT OF RIGHT MAIN LANES	1446.52	4	642.90	321.45	4.05
5509+95.20	5548+27.10	RIGHT OF LEFT MAIN LANES	3831.90	4	1703.07	851.53	10.73
5550+55.10	5600+80.89	RIGHT OF LEFT MAIN LANES	5025.79	4	2233.68	1116.84	14.07
5604+80.89	5637+17.69	RIGHT OF LEFT MAIN LANES	3236.80	4	1438.58	719.29	9.06
5641+17.69	5663+92.09	RIGHT OF LEFT MAIN LANES	2274.40	4	1010.84	505.42	6.37
5665+41.60	5714+27.56	LEFT OF RIGHT MAIN LANES	4885.96	4	2171.54	1085.77	13.68
5718+27.56	5954+31.99	LEFT OF RIGHT MAIN LANES	23604.43	4	10490.86	5245.43	66.09
TOTALS:					42325.40	21162.71	266.64

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

1/10/2013

RBB0806.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		B80806	17	82

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13

BASE AND SURFACING

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT				ACHM SURFACE COURSE (1/2")			
				TON / STATION	TON	AVG. WID.	SQ.YD.	GALLONS / SQ.YD.	GALLON	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22
			FEET			FEET				FEET			TON
MAIN LANES													
5003+48.78	5077+61.53	RIGHT MAIN LANES	7412.8			30.0	24709.3	0.10	2470.9	30.0	24709.3	220.0	2718.0
5079+54.59	5314+73.24	RIGHT MAIN LANES	23518.7			30.0	78395.7	0.10	7839.6	30.0	78395.7	220.0	8623.5
5314+73.24	5320+50.93	RIGHT MAIN LANES	577.7			VARIES	2667.2	0.10	266.7	VARIES	2667.2	220.0	293.4
5320+50.93	5344+06.01	RIGHT MAIN LANES	2355.1			30.0	7850.3	0.10	785.0	30.0	7850.3	220.0	863.5
5344+06.01	5354+06.01	RIGHT MAIN LANES	1000.0			VARIES	4485.7	0.10	448.6	VARIES	4485.7	220.0	493.4
5354+06.01	5548+19.88	RIGHT MAIN LANES	19413.9			30.0	64713.0	0.10	6471.3	30.0	64713.0	220.0	7118.4
5550+77.17	5624+05.98	RIGHT MAIN LANES	7328.8			30.0	24429.3	0.10	2442.9	30.0	24429.3	220.0	2687.2
5624+05.98	5629+27.59	RIGHT MAIN LANES	521.6			VARIES	2230.1	0.10	223.0	VARIES	2230.1	220.0	245.3
5629+27.59	5650+29.45	RIGHT MAIN LANES	2101.9			30.0	7006.3	0.10	700.6	30.0	7006.3	220.0	770.7
5650+29.45	5660+25.58	RIGHT MAIN LANES	996.1			VARIES	4658.1	0.10	465.8	VARIES	4658.1	220.0	512.4
5660+25.58	5700+08.00	RIGHT MAIN LANES	3982.4			30.0	13274.7	0.10	1327.5	30.0	13274.7	220.0	1460.2
5700+08.00	5704+85.51	RIGHT MAIN LANES	477.5			VARIES	2196.9	0.10	219.7	VARIES	2196.9	220.0	241.7
5704+85.51	5731+27.53	RIGHT MAIN LANES	2642.0			30.0	8806.7	0.10	880.7	30.0	8806.7	220.0	968.7
5731+27.53	5741+27.53	RIGHT MAIN LANES	1000.0			VARIES	4488.5	0.10	448.9	VARIES	4488.5	220.0	493.7
5741+27.53	5940+38.24	RIGHT MAIN LANES	19910.7			30.0	66369.0	0.10	6636.9	30.0	66369.0	220.0	7300.6
5940+38.24	5944+47.70	RIGHT MAIN LANES	409.5			VARIES	1974.3	0.10	197.4	VARIES	1974.3	220.0	217.2
5944+47.70	5954+01.26	RIGHT MAIN LANES	953.6			30.0	3178.7	0.10	317.9	30.0	3178.7	220.0	349.7
5956+58.42	5967+50.05	RIGHT MAIN LANES	1091.6			30.0	3638.7	0.10	363.9	30.0	3638.7	220.0	400.3
5967+50.05	5977+50.05	RIGHT MAIN LANES	1000.0			VARIES	4479.2	0.10	447.9	VARIES	4479.2	220.0	492.7
5977+50.05	5985+56.78	RIGHT MAIN LANES	806.7			30.0	2689.0	0.10	268.9	30.0	2689.0	220.0	295.8
5003+48.78	5078+44.78	LEFT MAIN LANES	7496.0			30.0	24986.7	0.10	2498.7	30.0	24986.7	220.0	2748.5
5080+37.84	5309+71.18	LEFT MAIN LANES	22933.3			30.0	76444.3	0.10	7644.4	30.0	76444.3	220.0	8408.9
5309+71.18	5319+71.18	LEFT MAIN LANES	1000.0			VARIES	4468.7	0.10	446.9	VARIES	4468.7	220.0	491.6
5319+71.18	5342+36.15	LEFT MAIN LANES	2265.0			30.0	7550.0	0.10	755.0	30.0	7550.0	220.0	830.5
5342+36.15	5348+12.17	LEFT MAIN LANES	576.0			VARIES	2678.9	0.10	267.9	VARIES	2678.9	220.0	294.7
5348+12.17	5547+95.66	LEFT MAIN LANES	19983.5			30.0	66611.7	0.10	6661.2	30.0	66611.7	220.0	7327.3
5550+76.66	5613+86.18	LEFT MAIN LANES	6309.5			30.0	21031.7	0.10	2103.2	30.0	21031.7	220.0	2313.5
5613+86.18	5623+86.18	LEFT MAIN LANES	1000.0			VARIES	4484.5	0.10	448.5	VARIES	4484.5	220.0	493.3
5623+86.18	5647+98.08	LEFT MAIN LANES	2411.9			30.0	8039.7	0.10	804.0	30.0	8039.7	220.0	884.4
5647+98.08	5654+57.95	LEFT MAIN LANES	659.9			VARIES	3058.8	0.10	305.9	VARIES	3058.8	220.0	336.5
5654+57.95	5693+31.30	LEFT MAIN LANES	3873.4			30.0	12911.3	0.10	1291.1	30.0	12911.3	220.0	1420.2
5693+31.30	5703+31.30	LEFT MAIN LANES	1000.0			VARIES	4521.2	0.10	452.1	VARIES	4521.2	220.0	497.3
5703+31.30	5728+01.50	LEFT MAIN LANES	2470.2			30.0	8234.0	0.10	823.4	30.0	8234.0	220.0	905.7
5728+01.50	5734+83.74	LEFT MAIN LANES	682.2			VARIES	3368.7	0.10	336.9	VARIES	3368.7	220.0	370.6
5734+83.74	5934+17.41	LEFT MAIN LANES	19933.7			30.0	66445.7	0.10	6644.6	30.0	66445.7	220.0	7309.0
5934+17.41	5944+17.41	LEFT MAIN LANES	1000.0			VARIES	4500.1	0.10	450.0	VARIES	4500.1	220.0	495.0
5944+17.41	5954+20.68	LEFT MAIN LANES	1003.3			30.0	3344.3	0.10	334.4	30.0	3344.3	220.0	367.9
5956+77.68	5966+00.86	LEFT MAIN LANES	923.2			30.0	3077.3	0.10	307.7	30.0	3077.3	220.0	338.5
5966+00.86	5971+52.66	LEFT MAIN LANES	551.8			VARIES	2734.4	0.10	273.4	VARIES	2734.4	220.0	300.8
5971+52.66	5986+05.69	LEFT MAIN LANES	1453.0			30.0	4843.3	0.10	484.3	30.0	4843.3	220.0	532.8
ADDITIONAL FOR RAMPS													
5319+40.36	5324+90.36	FISHLAKE RD. INTERCHANGE (EXIT 101) RAMP 1	550.0			15.5	947.2	0.10	94.7	15.5	947.2	220.0	104.2
5338+56.98	5344+06.98	FISHLAKE RD. INTERCHANGE (EXIT 101) RAMP 2	550.0			15.5	947.2	0.10	94.7	15.5	947.2	220.0	104.2
5338+00.06	5343+50.06	FISHLAKE RD. INTERCHANGE (EXIT 101) RAMP 3	550.0			15.5	947.2	0.10	94.7	15.5	947.2	220.0	104.2
5319+69.35	5325+19.35	FISHLAKE RD. INTERCHANGE (EXIT 101) RAMP 4	550.0			15.5	947.2	0.10	94.7	15.5	947.2	220.0	104.2
5628+31.59	5633+81.59	HWY. 95 INTERCHANGE (EXIT 107) RAMP 1	550.0			15.5	947.2	0.10	94.7	15.5	947.2	220.0	104.2
5644+80.12	5650+30.12	HWY. 95 INTERCHANGE (EXIT 107) RAMP 2	550.0			15.5	947.2	0.10	94.7	15.5	947.2	220.0	104.2
5644+25.49	5649+75.49	HWY. 95 INTERCHANGE (EXIT 107) RAMP 3	550.0			15.5	947.2	0.10	94.7	15.5	947.2	220.0	104.2
5623+85.53	5629+35.53	HWY. 95 INTERCHANGE (EXIT 107) RAMP 4	550.0			15.5	947.2	0.10	94.7	15.5	947.2	220.0	104.2
5704+13.80	5709+63.80	HWY. 9 INTERCHANGE (EXIT 108) RAMP 1	550.0			15.5	947.2	0.10	94.7	15.5	947.2	220.0	104.2
5725+78.53	5731+28.53	HWY. 9 INTERCHANGE (EXIT 108) RAMP 2	550.0			15.5	947.2	0.10	94.7	15.5	947.2	220.0	104.2
5724+77.17	5730+27.17	HWY. 9 INTERCHANGE (EXIT 108) RAMP 3	550.0			15.5	947.2	0.10	94.7	15.5	947.2	220.0	104.2
5703+30.63	5708+80.63	HWY. 9 INTERCHANGE (EXIT 108) RAMP 4	550.0			15.5	947.2	0.10	94.7	15.5	947.2	220.0	104.2
5943+93.22	5949+43.22	HWY. 92 INTERCHANGE (EXIT 112) RAMP 1	550.0			15.5	947.2	0.10	94.7	15.5	947.2	220.0	104.2
5962+00.89	5967+50.89	HWY. 92 INTERCHANGE (EXIT 112) RAMP 2	550.0			15.5	947.2	0.10	94.7	15.5	947.2	220.0	104.2
5961+91.18	5967+41.18	HWY. 92 INTERCHANGE (EXIT 112) RAMP 3	550.0			15.5	947.2	0.10	94.7	15.5	947.2	220.0	104.2
5944+16.44	5949+66.44	HWY. 92 INTERCHANGE (EXIT 112) RAMP 4	550.0			15.5	947.2	0.10	94.7	15.5	947.2	220.0	104.2
ADDITIONAL FOR WIDENING FOR GUARDRAIL													
4966+34.86	4972+50.86	LEFT OF RIGHT MAIN LANES	616.0	28.17	173.5					VARIES	530.5	220.0	58.4
4969+00.60	4975+16.60	RIGHT OF LEFT MAIN LANES	616.0	25.59	157.6					VARIES	473.7	220.0	52.1
5109+46.91	5115+62.91	LEFT OF RIGHT MAIN LANES	616.0	28.17	173.5					VARIES	530.5	220.0	58.4
5111+87.69	5118+03.69	RIGHT OF LEFT MAIN LANES	616.0	25.59	157.6					VARIES	473.7	220.0	52.1
5163+44.49	5169+60.49	LEFT OF RIGHT MAIN LANES	616.0	26.20	161.4					VARIES	501.0	220.0	55.1
5165+86.12	5172+02.12	RIGHT OF LEFT MAIN LANES	616.0	26.20	161.4					VARIES	501.0	220.0	55.1
5327+13.08	5333+29.08	LEFT OF RIGHT MAIN LANES	616.0	26.20	161.4					VARIES	501.0	220.0	55.1
5329+63.04	5335+79.04	RIGHT OF LEFT MAIN LANES	616.0	26.20	161.4					VARIES	501.0	220.0	55.1
5490+50.05	5496+66.05	LEFT OF RIGHT MAIN LANES	616.0	26.20	161.4					VARIES	501.0	220.0	55.1
5492+99.99	5499+15.99	RIGHT OF LEFT MAIN LANES	616.0	26.20	161.4					VARIES	501.0	220.0	55.1
5597+10.91	5603+26.91	LEFT OF RIGHT MAIN LANES	616.0	26.20	161.4					VARIES	501.0	220.0	55.1
5599+72.89	5605+88.89	RIGHT OF LEFT MAIN LANES	616.0	26.20	161.4					VARIES	501.0	220.0	55.1
5633+72.96	5639+88.96	LEFT OF RIGHT MAIN LANES	616.0	25.59	157.6					VARIES	473.7	220.0	52.1
5636+09.69	5642+25.69	RIGHT OF LEFT MAIN LANES	616.0	28.17	173.5					VARIES	530.5	220.0	58.4
5660+33.60	5666+49.60	LEFT OF RIGHT MAIN LANES	616.0	26.20	161.4					VARIES	501.0	220.0	55.1
5662+84.09	5669+00.09	RIGHT OF LEFT MAIN LANES	616.0	26.20	161.4					VARIES	501.0	220.0	55.1
5713+19.56	5719+35.56	LEFT OF RIGHT MAIN LANES	616.0	28.17	173.5					VARIES	530.5	220.0	58.4
5715+69.59	5721+85.59	RIGHT OF LEFT MAIN LANES	616.0	25.59	157.6					VARIES	473.7	220.0	52.1
ADDITIONAL FOR MEDIAN TURNAROUNDS													
5140+00.00		I-40 MAIN LANE MEDIAN	60.0	VARIES	75.2					16.0	162.7	220.0	17.9
5510+00.00		I-40 MAIN LANE MEDIAN	60.0	VARIES	75.2					16.0	162.7	220.0	17.9
TOTALS:					**3088.8**		**680731.2**		**68072.9**		**690083.4**		**75909.4**

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.4% MIN. AGGR.....5.6% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22

1/9/2013

RBB0806.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0806	18	82

(1) A5032, B5032 - QUANTITIES - 53525
A5033, B5033

SCHEDULE OF BRIDGE QUANTITIES - JOB BB0806

LOG MILE	UNIT OF STRUCTURE	ITEM NO. / ITEM / UNIT	802	803	SS & 804	SP JOB BB0806	SP JOB BB0806	SP JOB BB0806	SP JOB BB0806	SP JOB BB0806
			GROOVING	CLASS 3 PROTECTIVE SURFACE TREATMENT	REINFORCING STEEL - BRIDGE (GRADE 60)	HYDRODEMOLITION	BRIDGE DECK REPAIR	VERY EARLY STRENGTH LATEX MODIFIED CONCRETE OVERLAY (1½" THICK)	VERY EARLY STRENGTH LATEX MODIFIED CONCRETE (VARIABLE DEPTH)	SILICONE JOINT SEALANT
			SQ. YD.	LIN. FT.	LBS.	SQ. YD.	SQ. FT.	SQ. YD.	CU. YD.	LIN. FT.
112.5	EXISTING BRIDGE NO. A5032		747	364	500	807.4	1090	809.0	11	86
112.5	EXISTING BRIDGE NO. B5032		747	364	500	807.4	1090	809.0	11	86
104.8	EXISTING BRIDGE NO. A5033		845	411	500	913.6	1233	915.5	12	86
104.8	EXISTING BRIDGE NO. B5033		845	411	500	913.6	1233	915.5	12	86
	TOTALS FOR JOB NO. BB0806		3184	1550	2000 (1)	3442.0	4646 (1)	3449.0	46 (1)	344

(1) This quantity shown is for estimating and bidding purposes only. Actual quantity, if any, will be determined in the field.

JIM TRIBO
DESIGN SECTION SUPERVISOR

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7510
1/7/13
CARL J. FUSELIER

BRIDGE ENGINEER

SCHEDULE OF BRIDGE QUANTITIES
ATKINS - PLUMERVILLE (S)
CONWAY AND POPE COUNTIES

ROUTE 40 SEC. 22 & 31

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MRE DATE: 12/17/12 FILENAME: bbb0806_ql.dgn
CHECKED BY: DATE: 1/7/13 SCALE: NO SCALE
DESIGNED BY: — DATE: —

BRIDGE NO. A5032, B5032
A5033, B5033

DRAWING NO. 53525

PRINT DATE: 07-JAN-2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
02/19/13				6	ARK.			
02/21/13				JOB NO.		BB0806	19	82

(2) SUMMARY OF QUANTITES AND REVISIONS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-21-13

ITEM NUMBER	ITEM		QUANTITY	UNIT
202	REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER		16	EACH
210	UNCLASSIFIED EXCAVATION		260	CU. YD.
210	COMPACTED EMBANKMENT		520	CU. YD.
SS & 303	AGGREGATE BASE COURSE (CLASS 7)		3089	TON
401	TACK COAT		68073	GAL.
SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")		71658	TON
SP, SS, & 407	ASPHALT BINDER (PG 76-22) IN ACHM SURFACE COURSE (1/2")		4251	TON
412	COLD MILLING ASPHALT PAVEMENT		680731	SQ. YD.
SP, SS, & 415	ACHM PATCHING OF EXISTING ROADWAY		100	TON
601	MOBILIZATION		1.00	LUMP SUM
SP & 602	FURNISHING FIELD OFFICE		1	EACH
SP, SS, & 603	MAINTENANCE OF TRAFFIC		1.00	LUMP SUM
603	TRAFFIC CONTROL SUPERVISOR		1.00	LUMP SUM
SS & 604	SIGNS		1503	SQ. FT.
SS & 604	TRAFFIC DRUMS		800	EACH
SS & 604	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER		513	LIN. FT.
SS & 604	RELOCATING PRECAST CONCRETE BARRIER		3591	LIN. FT.
SS & 604	CONSTRUCTION PAVEMENT MARKINGS		492170	LIN. FT.
604	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS		5726	LIN. FT.
604	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS		1920	LIN. FT.
604	REMOVAL OF PERMANENT PAVEMENT MARKINGS		1076	LIN. FT.
SS & 604	ADVANCE WARNING ARROW PANEL		190	DAY
SP, SS, & 604	PORTABLE CHANGEABLE MESSAGE SIGN		150	WEEK
SP & 605	CONCRETE DITCH PAVING (TYPE B)		42325	SQ. YD.
SS & 606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)		168	LIN. FT.
606	24" SAFETY END SECTIONS FOR SIDE DRAIN PIPE CULVERTS (CLASS 2)		4	EACH
606	SELECTED PIPE BEDDING		15	CU. YD.
SS & 617	GUARDRAIL (TYPE A)		8100	LIN. FT.
SS & 617	GUARDRAIL TERMINAL (TYPE 2)		18	EACH
SS & 617	TERMINAL ANCHOR POSTS (TYPE 1)		18	EACH
SP	WIRE ROPE SAFETY FENCE		95232	LIN. FT.
SP	WIRE ROPE SAFETY FENCE MAINTENANCE MATERIALS		1.00	LUMP SUM
620	LIME		56	TON
620	SEEDING		28.13	ACRE
620	MULCH COVER		28.13	ACRE
SS & 620	WATER		3136.4	M.GAL.
621	SAND BAG DITCH CHECKS		4488	BAG
621	DROP INLET SILT FENCE		3700	LIN. FT.
621	SEDIMENT REMOVAL AND DISPOSAL		464	CU. YD.
621	ROCK DITCH CHECKS		615	CU. YD.
623	SECOND SEEDING APPLICATION		28.13	ACRE
624	SOLID SODDING		21201	SQ. YD.
635	ROADWAY CONSTRUCTION CONTROL		1.00	LUMP SUM
642	RUMBLE STRIPS IN ASPHALT SHOULDERS		388853	LIN. FT.
* SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING WHITE (4")	(ALTERNATE NO. 1)	266706	LIN. FT.
* SP	HIGH PERFORMANCE MARKING TAPE WHITE (4")	(ALTERNATE NO. 2)	266706	LIN. FT.
* SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING YELLOW (4")	(ALTERNATE NO. 1)	218040	LIN. FT.
* SP	HIGH PERFORMANCE MARKING TAPE YELLOW (4")	(ALTERNATE NO. 2)	218040	LIN. FT.
* SP & 719	INVERTED PROFILE THERMOPLASTIC CONTRAST PAVEMENT MARKING WHITE (4")	(ALTERNATE NO. 1)	360	LIN. FT.
* SP	HIGH PERFORMANCE CONTRAST MARKING TAPE WHITE (4")	(ALTERNATE NO. 2)	360	LIN. FT.
* SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING WHITE (8")	(ALTERNATE NO. 1)	7064	LIN. FT.
* SP	HIGH PERFORMANCE MARKING TAPE WHITE (8")	(ALTERNATE NO. 2)	7064	LIN. FT.
721	RAISED PAVEMENT MARKERS (TYPE II)		3448	EACH
SP	FLUSHING UNDERDRAIN		195393	LIN. FT.
	STRUCTURES OVER 20' SPAN			
636	BRIDGE CONSTRUCTION CONTROL		1.00	LUMP SUM
802	GROOVING		3184	SQ. YD.
803	CLASS 3 PROTECTIVE SURFACE TREATMENT		1550	LIN. FT.
SS & 804	REINFORCING STEEL-BRIDGE (GRADE 60)		2000	POUND
SP	HYDRODEMOLITION		3442.0	SQ. YD.
SP	BRIDGE DECK REPAIR		4646	SQ. FT.
SP	VERY EARLY STRENGTH LATEX MODIFIED CONCRETE OVERLAY (1 1/2" THICK)		3449.0	SQ. YD.
SP	VERY EARLY STRENGTH LATEX MODIFIED CONCRETE (VARIABLE DEPTH)		46	CU. YD.
SP	SILICONE JOINT SEALANT		344	LIN. FT.

* DENOTES ALTERNATE BID ITEMS

REVISIONS

DATE	REVISION	SHEET NUMBER
2/19/2013	REVISED SEQUENCE OF CONSTRUCTION NOTE. ADDED NOTE TO "ACHM PATCHING OF EXISTING ROADWAY" QUANTITY BOX. DELETED "SUPPLEMENT - TRAINING PROGRAM - JOB BB0806" FROM SP LIST.	2, 8, 15, 19
2/21/2013	ADDED SHEET 6A TO SPECIAL DETAILS	6A, 19

2/21/2013

RBB0806.DGN

SUMMARY OF QUANTITIES & REVISIONS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0806	20	82

(2) PLAN SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13

STA. 4974+21 IN PLACE
DBL. 6' X 4' X 234' R.C. BOX CULVERT
WITH TYPE K DROP INLET IN MED.
4'-0" X 4'-0" X 1'-0"
30° RT. FWD. SKEW
D.A. 152 AC., C = 1.0
RETAIN

REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER
STA. 4970+75 C.L. OF I-40 = 2 EACH

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 1)	GUARDRAIL TERMINAL (TYPE 2)
4966+94.23	4971+94.23	R.M.L. - LT.	450 LIN. FT.	1 EA.	1 EA.
4969+58.60	4974+58.60	L.M.L. - RT.	450 LIN. FT.	1 EA.	1 EA.

HWY. 105

700' ACCELERATION LANE

STA. 4971+44.25
BEGIN WIRE ROPE SAFETY FENCE

4965 E-5 -00
E-7
4970
E-6 -00
E-7
4975
E-6 -00
E-5 -00
4980
E-6 -00

PI = 4970+00.83
Δ = 44°58'29.00" RT.
D = 1° 15' 00"
T = 1897.43'
L = 3597.98'
PC = 4951+03.40
PT = 4987+01.38

TEMPORARY EROSION CONTROL REVISIONS

DATE OF REVISION	REVISION

LEGEND

- E-5 SAND BAG DITCH CHECKS
- E-6 ROCK DITCH CHECKS
- E-7 DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

FRONTAGE RD.

4980 E-6 -00
E-7
E-5 -00
4985
E-6 -00
E-5 -00
4990
E-7
E-6 -00
S 86°05'55" E
4995
E-5 -00

PT 4987+01.38

700' ACCELERATION LANE

300' TAPER

WIRE ROPE SAFETY FENCE & CONCRETE DITCH PAVING

STA. 4982+51 IN PLACE
24" X 90' R.C. PIPE CULVERT
WITH TYPE N DROP INLET IN MED.
4'-0" X 4'-0" X 2'-10"
RETAIN

STA. 4991+34 IN PLACE
24" X 92' R.C. PIPE CULVERT
UNDER RT. LANE
WITH TYPE N DROP INLET IN MED.
4'-0" X 4'-0" X 2'-0"
RETAIN

STA. 4992+23 IN PLACE
5' X 4' X 174' R.C. BOX CULVERT
D.A. 56 AC., C = 0.8
RETAIN

I-40

1/9/2013

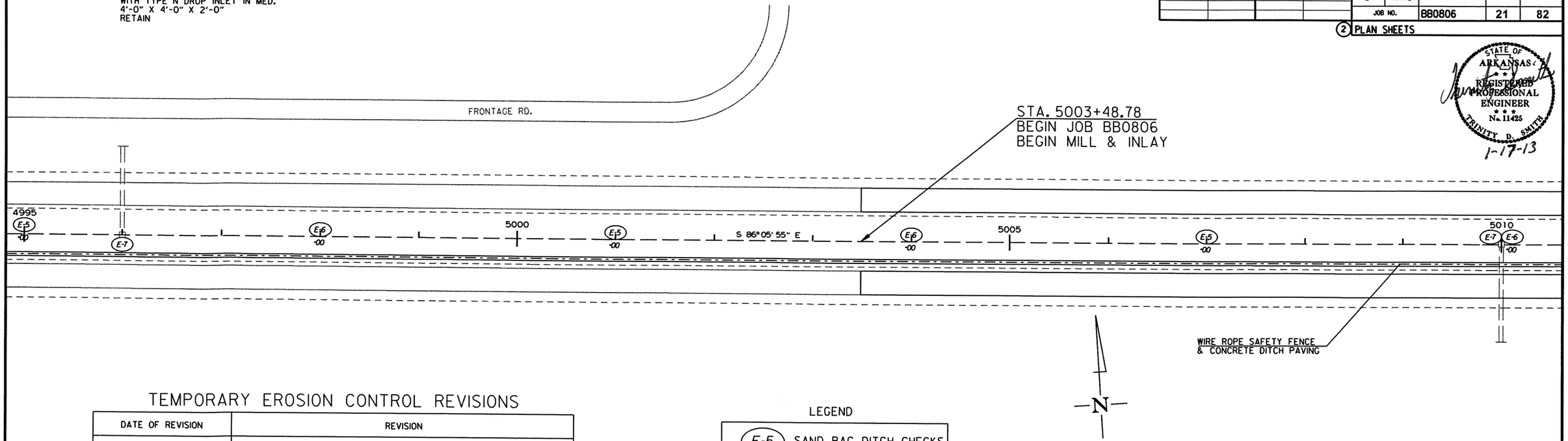
RBB0806.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0806	21	82

(2) PLAN SHEETS

STA. 4996+00 IN PLACE
24" X 86' R.C. PIPE CULVERT
UNDER LT. LANE
WITH TYPE N DROP INLET IN MED.
4'-0" X 4'-0" X 2'-0"
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13



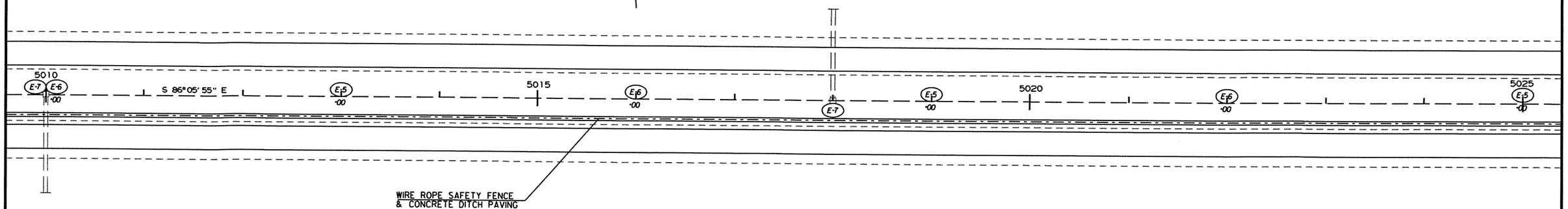
TEMPORARY EROSION CONTROL REVISIONS

DATE OF REVISION	REVISION

LEGEND

- E-5 SAND BAG DITCH CHECKS
- E-6 ROCK DITCH CHECKS
- E-7 DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.



STA. 5010+00 IN PLACE
24" X 100' R.C. PIPE CULVERT
UNDER RT. LANE
WITH TYPE N DROP INLET IN MED.
4'-0" X 4'-0" X 3'-3"
RETAIN

STA. 5018+00 IN PLACE
24" X 86' R.C. PIPE CULVERT
UNDER LT. LANE
WITH TYPE N DROP INLET IN MED.
4'-0" X 4'-0" X 4'-5"
RETAIN

1/9/2013

RBB0806.DGN

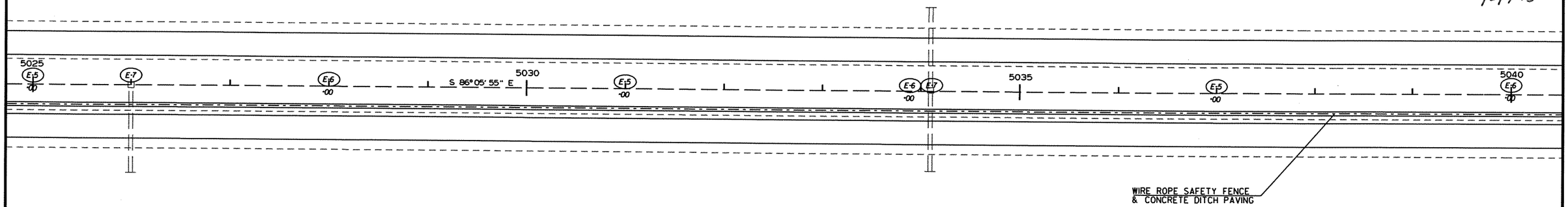
STA. 5026+00 IN PLACE
24" X 86' R.C. PIPE CULVERT
UNDER RT. LANE
WITH TYPE N DROP INLET IN MED.
4'-0" X 4'-0" X 2'-10"
RETAIN

STA. 5034+10 IN PLACE
24" X 160' R.C. PIPE CULVERT
WITH TYPE N DROP INLET IN MED.
4'-0" X 4'-0" X 2'-0"
RETAIN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		B80806	22	82

(2) PLAN SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13



WIRE ROPE SAFETY FENCE
& CONCRETE DITCH PAVING

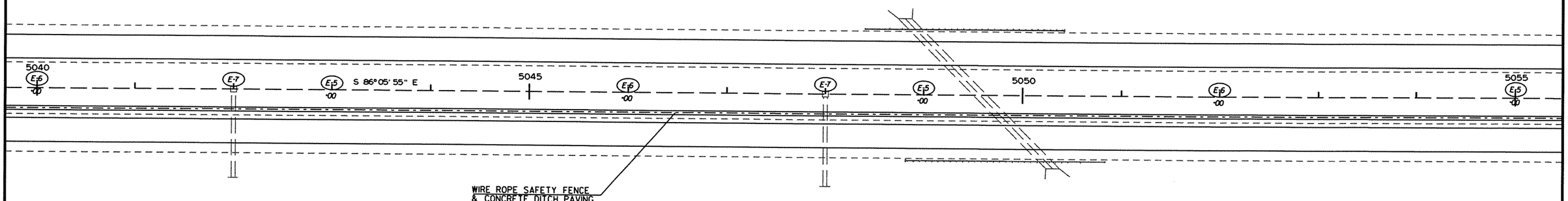
TEMPORARY EROSION CONTROL REVISIONS

DATE OF REVISION	REVISION

LEGEND

- E-5 SAND BAG DITCH CHECKS
- E-6 ROCK DITCH CHECKS
- E-7 DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.



WIRE ROPE SAFETY FENCE
& CONCRETE DITCH PAVING

STA. 5042+00 IN PLACE
24" X 86' R.C. PIPE CULVERT
UNDER RT. LANE
WITH TYPE N DROP INLET IN MED.
4'-0" X 4'-0" X 2'-0"
RETAIN

STA. 5048+00 IN PLACE
24" X 90' R.C. PIPE CULVERT
UNDER RT. LANE
WITH TYPE N DROP INLET IN MED.
4'-0" X 4'-0" X 2'-0"
RETAIN

STA. 5049+57 IN PLACE
DBL. 10' X 5' X 211' R.C. BOX CULVERT
45° RT. FWD. SKEW SPAN = 31'-0"
D.A. 600 AC., C = 0.8
RETAIN

1/9/2013

RBB0806.DGN

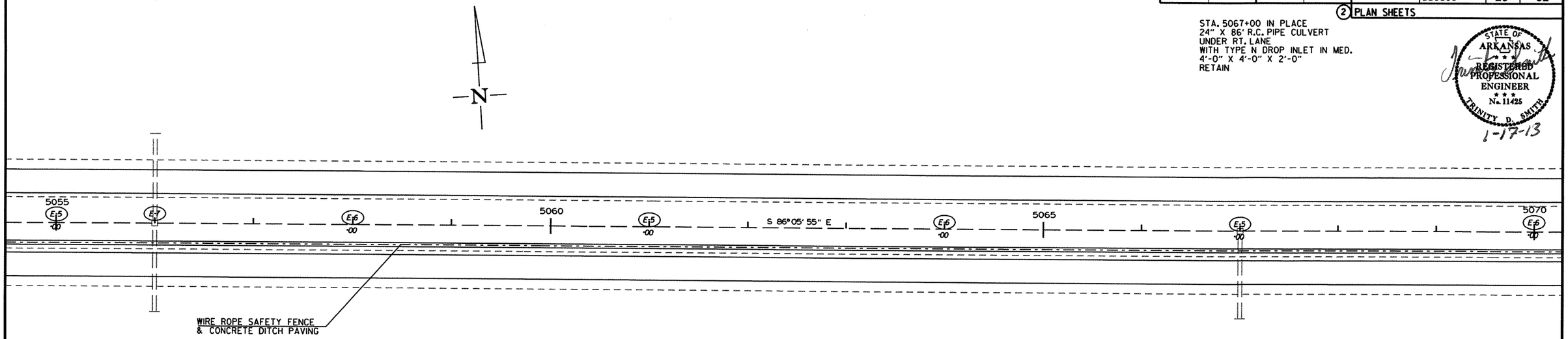
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0806	23	82

(2) PLAN SHEETS

STA. 5056+00 IN PLACE
24" X 180' R.C. PIPE CULVERT
WITH TYPE N DROP INLET IN MED.
4'-0" X 4'-0" X 2'-0"
RETAIN

STA. 5067+00 IN PLACE
24" X 86' R.C. PIPE CULVERT
UNDER RT. LANE
WITH TYPE N DROP INLET IN MED.
4'-0" X 4'-0" X 2'-0"
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13



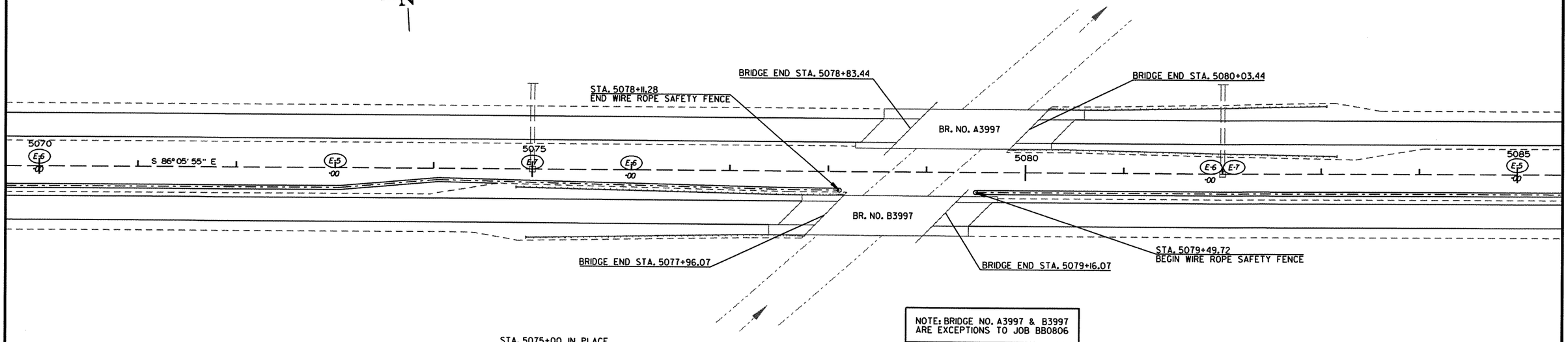
TEMPORARY EROSION CONTROL REVISIONS

DATE OF REVISION	REVISION

LEGEND

- E-5 SAND BAG DITCH CHECKS
- E-6 ROCK DITCH CHECKS
- E-7 DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.



NOTE: BRIDGE NO. A3997 & B3997 ARE EXCEPTIONS TO JOB BB0806

STA. 5075+00 IN PLACE
24" X 84' R.C. PIPE CULVERT
UNDER LT. LANE
WITH TYPE N DROP INLET IN MED.
4'-0" X 4'-0" X 2'-0"
RETAIN

STA. 5082+00 IN PLACE
24" X 88' R.C. PIPE CULVERT
UNDER LT. LANE
WITH TYPE N DROP INLET IN MED.
4'-0" X 4'-0" X 2'-0"
RETAIN

1/9/2013

RBB0806.DGN

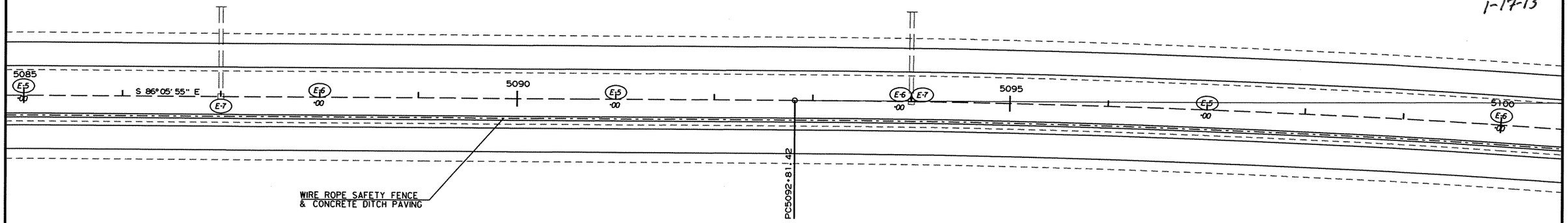
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		880806	24	82

(2) PLAN SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13

STA. 5087+00 IN PLACE
24" X 88' R.C. PIPE CULVERT
UNDER LT. LANE
WITH TYPE N DROP INLET IN MED.
4'-0" X 4'-0" X 2'-0"
RETAIN

STA. 5094+00 IN PLACE
24" X 88' R.C. PIPE CULVERT
UNDER LT. LANE
WITH TYPE N DROP INLET IN MED.
4'-0" X 4'-0" X 2'-0"
RETAIN



TEMPORARY EROSION CONTROL REVISIONS

DATE OF REVISION	REVISION

LEGEND

- E-5 SAND BAG DITCH CHECKS
- E-6 ROCK DITCH CHECKS
- E-7 DROP INLET SILT FENCE

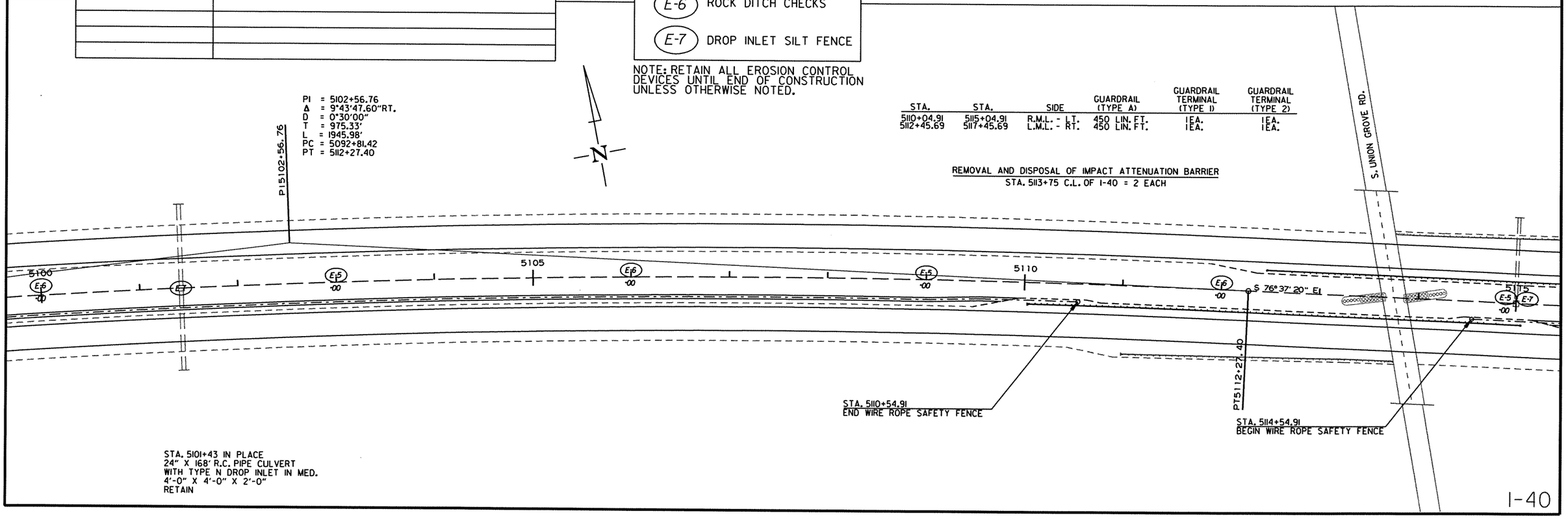
NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

PI = 5102+56.76
Δ = 9°43'47.60"RT.
D = 0°30'00"
T = 975.33'
L = 1945.98'
PC = 5092+81.42
PT = 5112+27.40

P.I. 5102+56.76

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE I)	GUARDRAIL TERMINAL (TYPE 2)
5110+04.91	5115+04.91	R.M.L. - LT.	450 LIN. FT.	1EA.	1EA.
5112+45.69	5117+45.69	L.M.L. - RT.	450 LIN. FT.	1EA.	1EA.

REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER
STA. 5113+75 C.L. OF I-40 = 2 EACH



STA. 5101+43 IN PLACE
24" X 168' R.C. PIPE CULVERT
WITH TYPE N DROP INLET IN MED.
4'-0" X 4'-0" X 2'-0"
RETAIN

1/9/2013
RBB0806.DGN

I-40

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		880806	25	82

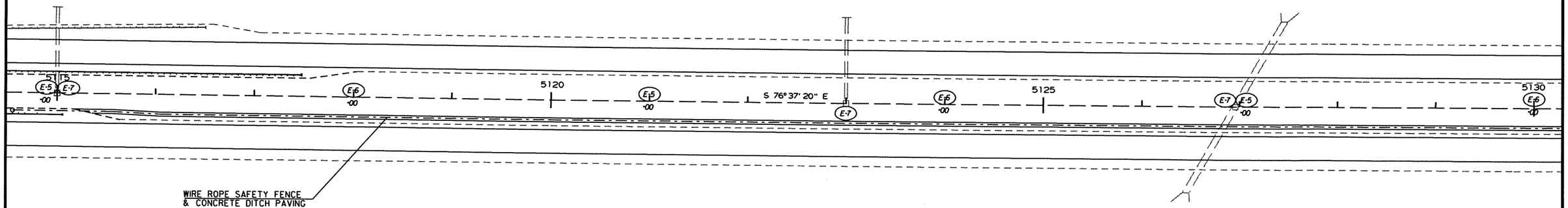
(2) PLAN SHEETS

STA. 5115+00 IN PLACE
24" X 84' R.C. PIPE CULVERT
UNDER LT. LANE
WITH TYPE N DROP INLET IN MED.
4'-0" X 4'-0" X 2'-0"
RETAIN

STA. 5123+00 IN PLACE
24" X 84' R.C. PIPE CULVERT
UNDER LT. LANE
WITH TYPE N DROP INLET IN MED.
4'-0" X 4'-0" X 2'-10"
RETAIN

STA. 5126+96 IN PLACE
5' X 4' X 206' R.C. BOX CULVERT
WITH TYPE K DROP INLET IN MED.
4'-0" X 4'-0" X 1'-5"
30° LT. FWD. SKEW
D.A. 125 AC., C = 0.5
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13



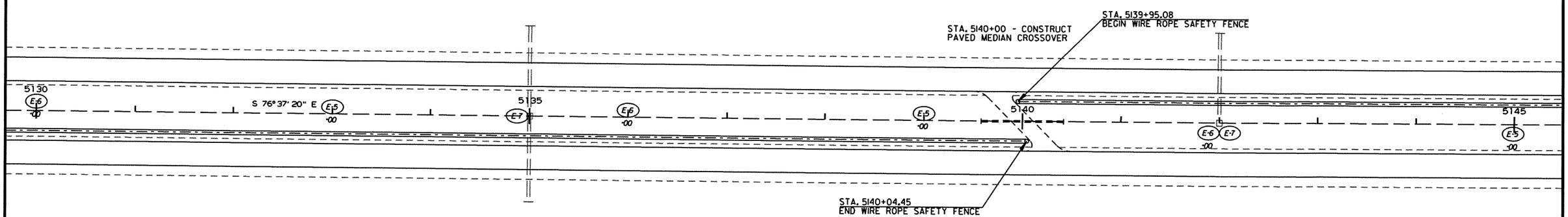
TEMPORARY EROSION CONTROL REVISIONS

DATE OF REVISION	REVISION

LEGEND

- (E-5) SAND BAG DITCH CHECKS
- (E-6) ROCK DITCH CHECKS
- (E-7) DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.



STA. 5135+00 IN PLACE
48" X 178' R.C. PIPE CULVERT
RETAIN

STA. 5140+00 CONSTRUCT
24" x 84' REINFORCED CONCRETE PIPE CULVERT
(CLASS III) (TYPE III BEDDING)
SAFETY END SECTIONS LT. & RT.

STA. 5142+00 IN PLACE
24" X 88' R.C. PIPE CULVERT
UNDER LT. LANE
WITH TYPE N DROP INLET IN MED.
4'-0" X 4'-0" X 2'-0"
RETAIN

1/9/2013

RBB0806.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		B80806	26	82

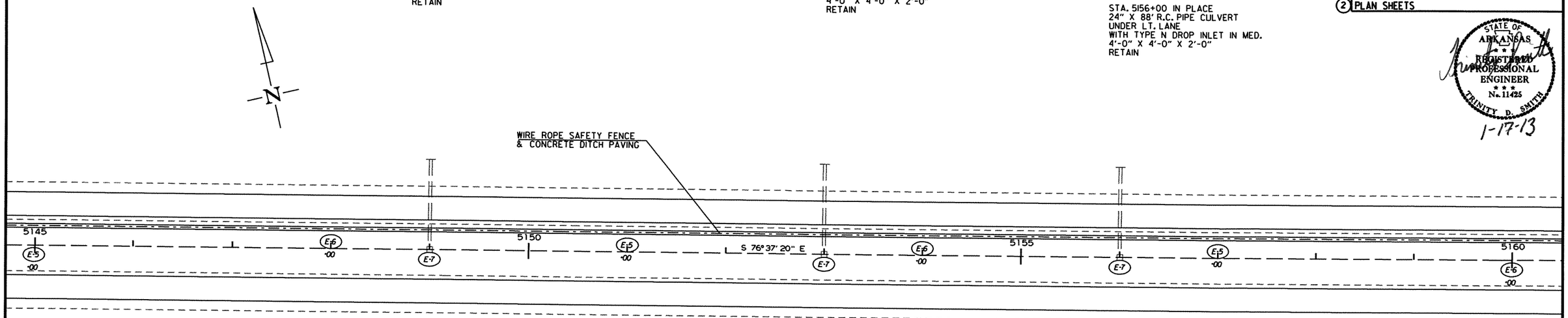
(2) PLAN SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13

STA. 5149+00 IN PLACE
24" X 88' R.C. PIPE CULVERT
UNDER LT. LANE
WITH TYPE N DROP INLET IN MED.
4'-0" X 4'-0" X 2'-0"
RETAIN

STA. 5153+00 IN PLACE
24" X 88' R.C. PIPE CULVERT
UNDER LT. LANE
WITH TYPE N DROP INLET IN MED.
4'-0" X 4'-0" X 2'-0"
RETAIN

STA. 5156+00 IN PLACE
24" X 88' R.C. PIPE CULVERT
UNDER LT. LANE
WITH TYPE N DROP INLET IN MED.
4'-0" X 4'-0" X 2'-0"
RETAIN



TEMPORARY EROSION CONTROL REVISIONS

DATE OF REVISION	REVISION

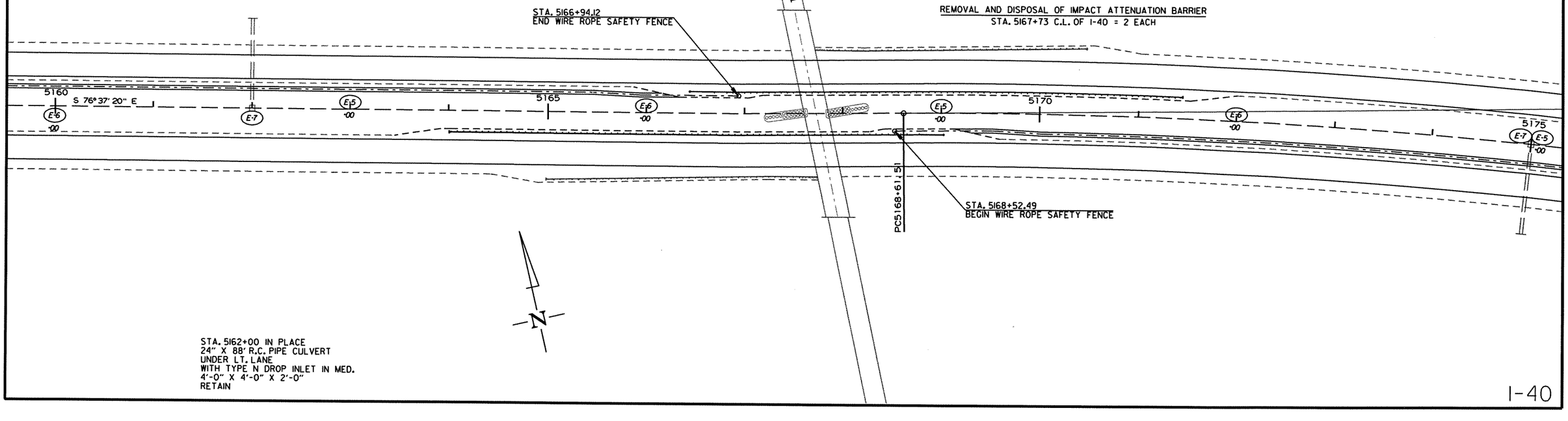
LEGEND

- E-5 SAND BAG DITCH CHECKS
- E-6 ROCK DITCH CHECKS
- E-7 DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 1)	GUARDRAIL TERMINAL (TYPE 2)
5164+02.49	5169+02.49	R.M.L. - LT.	450 LIN. FT.	1 EA.	1 EA.
5166+44.12	5171+44.12	L.M.L. - RT.	450 LIN. FT.	1 EA.	1 EA.

REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER
STA. 5167+73 C.L. OF I-40 = 2 EACH



STA. 5162+00 IN PLACE
24" X 88' R.C. PIPE CULVERT
UNDER LT. LANE
WITH TYPE N DROP INLET IN MED.
4'-0" X 4'-0" X 2'-0"
RETAIN

1/9/2013

RBB0806.DGN

I-40

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0806	27	82

(2) PLAN SHEETS

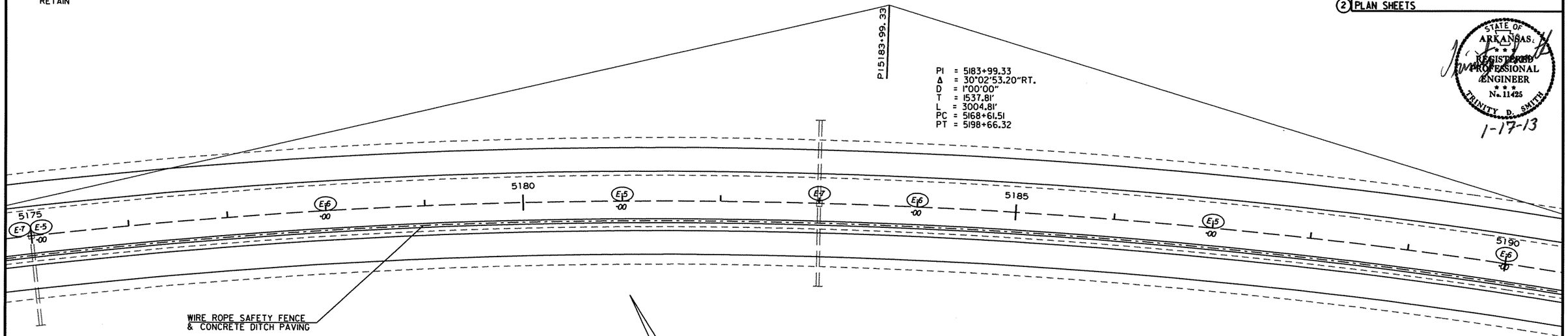
STA. 5175+00 IN PLACE
24" X 88' R.C. PIPE CULVERT
UNDER RT. LANE
WITH TYPE N DROP INLET IN MED.
4'-0" X 4'-0" X 2'-0"
RETAIN

STA. 5183+00 IN PLACE
30" X 168' R.C. PIPE CULVERT
WITH TYPE N DROP INLET IN MED.
4'-0" X 4'-0" X 3'-4"
RETAIN

PI 5183+99.33

PI = 5183+99.33
Δ = 30°02'53.20"RT.
D = 1°00'00"
T = 1537.81'
L = 3004.81'
PC = 5168+61.51
PT = 5198+66.32

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13



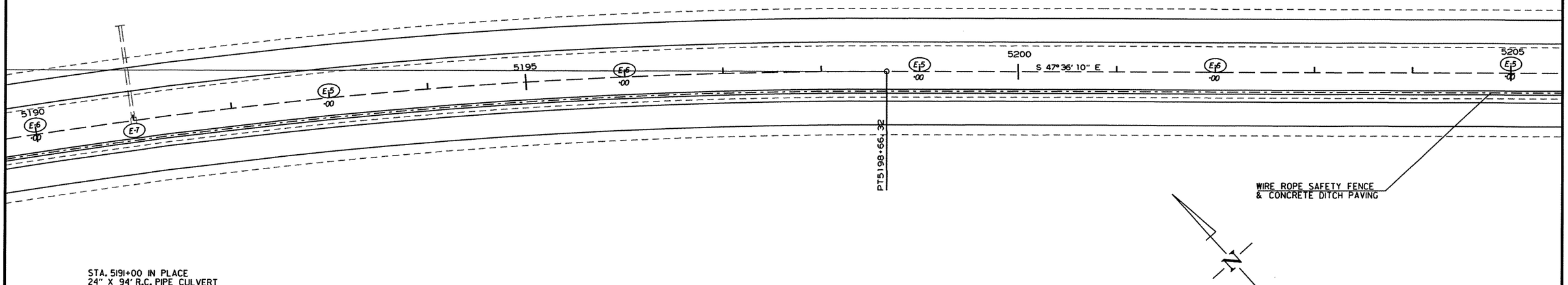
TEMPORARY EROSION CONTROL REVISIONS

DATE OF REVISION	REVISION

LEGEND

- (E-5) SAND BAG DITCH CHECKS
- (E-6) ROCK DITCH CHECKS
- (E-7) DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.



STA. 5191+00 IN PLACE
24" X 94' R.C. PIPE CULVERT
UNDER LT. LANE
WITH TYPE N DROP INLET IN MED.
4'-0" X 4'-0" X 2'-0"
RETAIN

1/9/2013

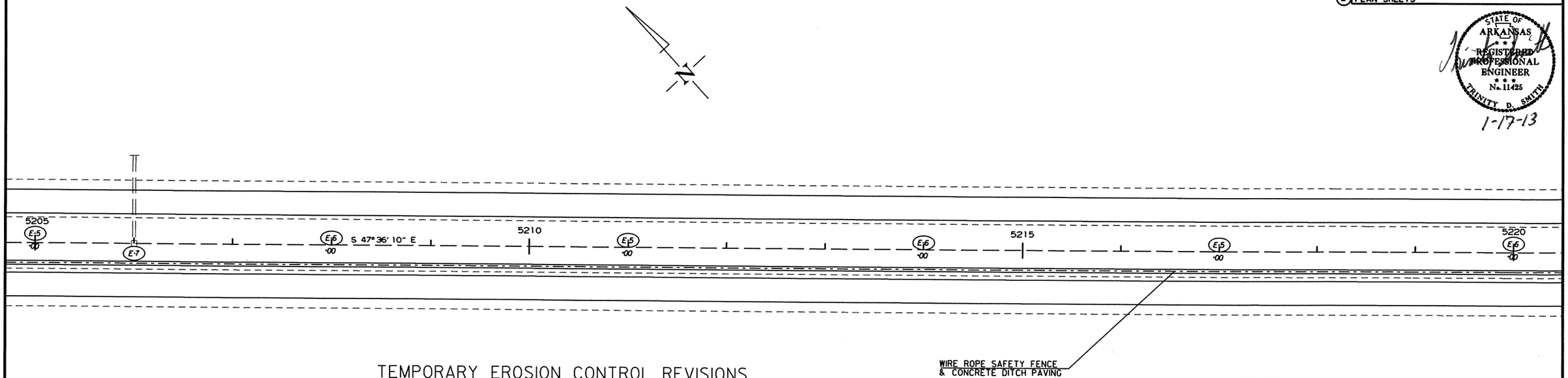
RBB0806.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		880806	28	82

(2) PLAN SHEETS

STA. 5206+00 IN PLACE
24" X 86' R.C. PIPE CULVERT
UNDER LT. LANE
WITH TYPE N DROP INLET IN MED.
4'-0" X 4'-0" X 2'-0"
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13



WIRE ROPE SAFETY FENCE
& CONCRETE DITCH PAVING

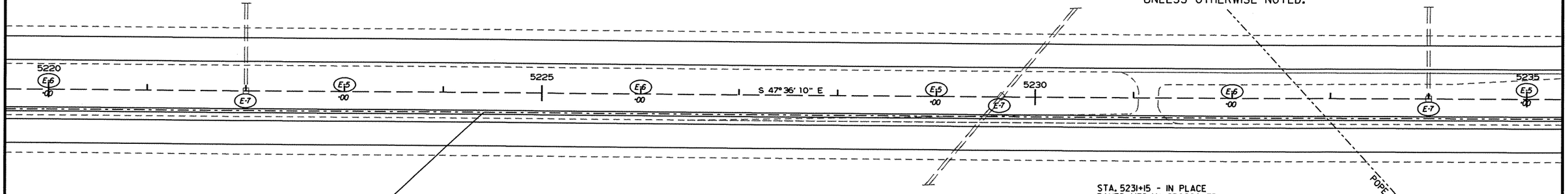
TEMPORARY EROSION CONTROL REVISIONS

DATE OF REVISION	REVISION

LEGEND

- E-5 SAND BAG DITCH CHECKS
- E-6 ROCK DITCH CHECKS
- E-7 DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.



WIRE ROPE SAFETY FENCE
& CONCRETE DITCH PAVING

STA. 5231+15 - IN PLACE
PAVED MEDIAN CROSSOVER
REMOVE

POPE CO. CONWAY CO.

STA. 5234+00 IN PLACE
24" X 90' R.C. PIPE CULVERT
UNDER LT. LANE
WITH TYPE R DROP INLET IN MED.
4'-0" X 4'-0" X 3'-6"
RETAIN

STA. 5222+00 IN PLACE
24" X 88' R.C. PIPE CULVERT
UNDER LT. LANE
WITH TYPE N DROP INLET IN MED.
4'-0" X 4'-0" X 2'-0"
RETAIN

STA. 5229+65 IN PLACE
48" X 254' R.C. PIPE CULVERT
(45° LT. FWD. SKEW)
WITH TYPE N DROP INLET IN MED.
4'-0" X 8'-3" X 4'-6"
D.A. = 70 AC., C = 0.5
RETAIN

1/9/2013

RBB0806.DGN

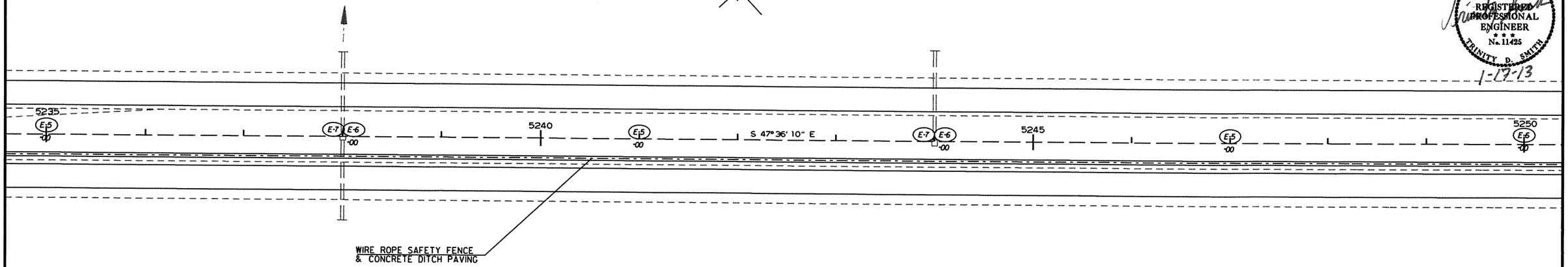
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080806	29	82

(2) PLAN SHEETS

STA. 5238+00 IN PLACE
24" X 84' R.C. PIPE INLET &
24" X 86 R.C. PIPE OUTLET
WITH TYPE R DROP INLET IN MED.
3'-0" X 4'-0" X 5'-6"
D.A.= 55 AC., C = 0.5
RETAIN

STA. 5244+00 IN PLACE
24" X 90' R.C. PIPE CULVERT
UNDER LT. LANE
WITH TYPE R DROP INLET IN MED.
3'-0" X 4'-0" X 3'-0"
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13



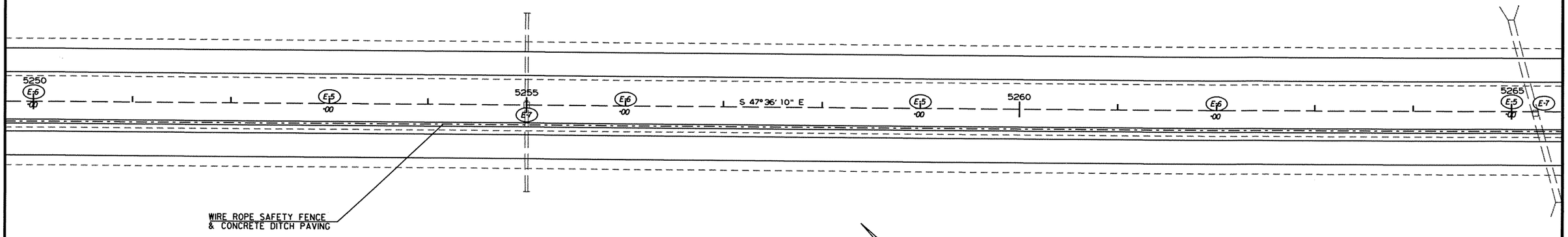
TEMPORARY EROSION CONTROL REVISIONS

DATE OF REVISION	REVISION

LEGEND

- E-5 SAND BAG DITCH CHECKS
- E-6 ROCK DITCH CHECKS
- E-7 DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.



STA. 5255+00 IN PLACE
24" X 100' R.C. PIPE INLET
30° LT. FWD. SKEW &
24" X 90' R.C. PIPE OUTLET
WITH TYPE R DROP INLET IN MED.
3'-0" X 4'-0" X 4'-0"
RETAIN

1/9/2013

RBB0806.DGN

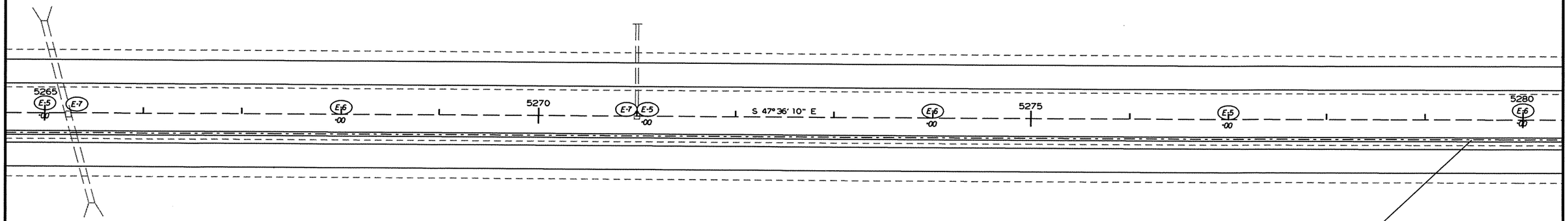
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0806	30	82

(2) PLAN SHEETS

STA. 5265+25 IN PLACE
4' X 4' X 184' R.C. BOX CULVERT
15° RT. FWD. SKEW
WITH TYPE T DROP INLET IN MED.
3'-0" X 2'-6" X H=1'-3"
D.A. 33 AC., C = 0.5
RETAIN

STA. 5271+00 IN PLACE
24" X 90' R.C. PIPE CULVERT
UNDER LT. LANE
WITH TYPE R DROP INLET IN MED.
3'-0" X 4'-0" X 3'-0"
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13



WIRE ROPE SAFETY FENCE
& CONCRETE DITCH PAVING

TEMPORARY EROSION CONTROL REVISIONS

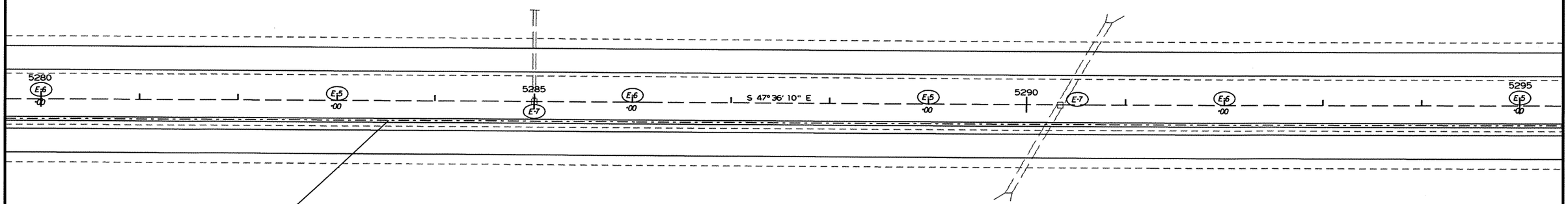
DATE OF REVISION	REVISION

LEGEND

- (E-5) SAND BAG DITCH CHECKS
- (E-6) ROCK DITCH CHECKS
- (E-7) DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

FRONTAGE RD.



WIRE ROPE SAFETY FENCE
& CONCRETE DITCH PAVING

STA. 5285+00 IN PLACE
24" X 90' R.C. PIPE CULVERT
UNDER LT. LANE
WITH TYPE R DROP INLET IN MED.
3'-0" X 4'-0" X 3'-0"
RETAIN

STA. 5290+35 IN PLACE
7' X 4' X 200' R.C. BOX CULVERT
30° LT. FWD. SKEW
WITH TYPE T DROP INLET IN MED.
3'-0" X 2'-6" X H = 1'-3"
D.A. 220 AC., C = 0.5
RETAIN

1/9/2013
RBB0806.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0806	31	82
				(2) PLAN SHEETS				

STA. 5300+00 IN PLACE
24" X 90' R.C. PIPE CULVERT
UNDER LT. LANE
WITH TYPE R DROP INLET IN MED.
3'-0" X 4'-0" X 3'-0"
RETAIN

STA. 5308+30 IN PLACE
5' X 4' X 199' R.C. BOX CULVERT
15° RT. FWD. SKEW
WITH TYPE T DROP INLET IN MED.
3'-0" X 2'-6" X H=1'-6"
D.A. 120 AC., C = 0.5
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13

FRONTAGE RD.

5295 E-5 -00 | E-6 -00 | 5300 E-7 | E-5 -00 | S 47°36' 10" E | E-6 -00 | 5305 | E-5 -00 | E-17 | 5310 E-6 -00

WIRE ROPE SAFETY FENCE
& CONCRETE DITCH PAVING

TEMPORARY EROSION CONTROL REVISIONS

DATE OF REVISION	REVISION

LEGEND

- E-5 SAND BAG DITCH CHECKS
- E-6 ROCK DITCH CHECKS
- E-7 DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

FRONTAGE RD.

300' TAPER | 700' ACCELERATION LANE | +59.36

STA. 5319+69 TO STA. 5325+19 RAMP 4
550' MILL & INLAY

5310 E-6 -00 | S 47°36' 10" E | E-5 -00 | 5315 | E-6 -00 | E-7 | E-5 -00 | 5320 | E-6 -00 | 5325 E-5 -00

WIRE ROPE SAFETY FENCE
& CONCRETE DITCH PAVING

+40.36

STA. 5319+40 TO STA. 5324+90 RAMP 1
550' MILL & INLAY

STA. 5317+00 IN PLACE
24" X 98' R.C. PIPE OUTLET
UNDER LT. LANE
WITH TYPE R DROP INLET IN MED
4'-0" X 4'-0" X 3'-0"
RETAIN

I-40

1/9/2013

RBB0806.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		B80806	32	82

(2) PLAN SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13

LEGEND

- E-5 SAND BAG DITCH CHECKS
- E-6 ROCK DITCH CHECKS
- E-7 DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

STA. 5325+70 IN PLACE
4' X 4' X 201' R.C. BOX CULVERT
30° RT. FWD. SKEW
WITH TYPE T DROP INLET IN MED.
3'-0" X 2'-6" X H=1'-0"
D.A. 83 AC., C = 0.5
RETAIN

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 1)	GUARDRAIL TERMINAL (TYPE 2)
5327+71.08	5332+71.08	R.M.L. - LT.	450 LIN. FT.	1EA.	1EA.
5330+21.04	5335+21.04	L.M.L. - RT.	450 LIN. FT.	1EA.	1EA.

FISHLAKE RD.

STA. 5334+71.03
BEGIN WIRE ROPE SAFETY FENCE

STA. 5328+21.08
END WIRE ROPE SAFETY FENCE

5325 E-5 E-7 +00 5330 E-5 +00 E-6 +00 5335 E-5 +00 S 47° 36' 10" E 5340 E-6 +00

+19.35

90.00°

15'

51°06'

+56.94

N

TEMPORARY EROSION CONTROL REVISIONS

DATE OF REVISION	REVISION

1/9/2013

RBB0806.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		880806	33	82

(2) PLAN SHEETS

STA. 5341+00 IN PLACE
24" X 90' R.C. PIPE OUTLET
UNDER LT. LANE
WITH TYPE R DROP INLET IN MED
3'-0" X 4'-0" X 3'-0"
RETAIN

STA. 5347+30 IN PLACE
48" X 94' R.C. PIPE INLET
48" X 92' R.C. PIPE OUTLET
WITH TYPE R DROP INLET IN MED
3'-0" X 4'-0" X 6'-6"
RETAIN

STA. 5354+00 IN PLACE
24" X 88' R.C. PIPE OUTLET
UNDER RT. LANE
WITH TYPE R DROP INLET IN MED
3'-0" X 4'-0" X 3'-0"
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13

STA. 5338+00 STA. 5343+50 RAMP 3
550' MILL & INLAY

+50.06

WIRE ROPE SAFETY FENCE
& CONCRETE DITCH PAVING

5340 E-6 -00 E-7 E-5 -00 S 47° 36' 10" E 5345 E-6 -00 E-7 E-5 -00 5350 E-6 -00 E-7 5355 E-5 -00

STA. 5338+57 TO STA. 5344+07 RAMP 2
550' MILL & INLAY

15'

+86.98

700' ACCELERATION LANE

300' TAPER

LEGEND

- E-5 SAND BAG DITCH CHECKS
- E-6 ROCK DITCH CHECKS
- E-7 DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

TEMPORARY EROSION CONTROL REVISIONS

DATE OF REVISION	REVISION

WIRE ROPE SAFETY FENCE
& CONCRETE DITCH PAVING

5355 E-5 -00 E-6 -00 5360 E-7 E-5 -00 S 47° 36' 10" E E-6 -00 5365 E-5 -00 E-7 5370 E-6 -00

PC5368+74.04

STA. 5360+00 IN PLACE
24" X 84' R.C. PIPE INLET
24" X 90' R.C. PIPE OUTLET
WITH TYPE R DROP INLET IN MED
3'-0" X 4'-0" X 3'-0"
RETAIN

STA. 5368+00 IN PLACE
24" X 90' R.C. PIPE OUTLET
UNDER LT. LANE
WITH TYPE R DROP INLET IN MED
3'-0" X 4'-0" X 3'-0"
RETAIN

1/9/2013

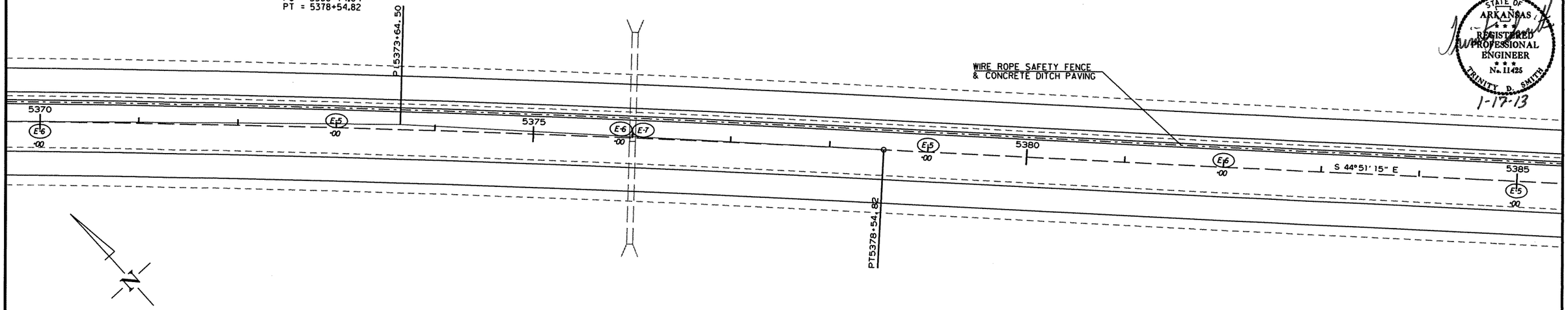
RBB0806.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		B80806	34	82

(2) PLAN SHEETS

PI = 5373+64.50
Δ = 2°27'07.00"RT.
D = 00°15'00"
T = 490.47'
L = 980.78'
PC = 5368+74.04
PT = 5378+54.82

STA. 5376+00 IN PLACE
6' X 5' X 214' R.C. BOX CULVERT
WITH TYPE T DROP INLET IN MED.
3'-0" X 2'-6" X H = 6'-0"
D.A. 200 AC., C = 0.5
RETAIN



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13

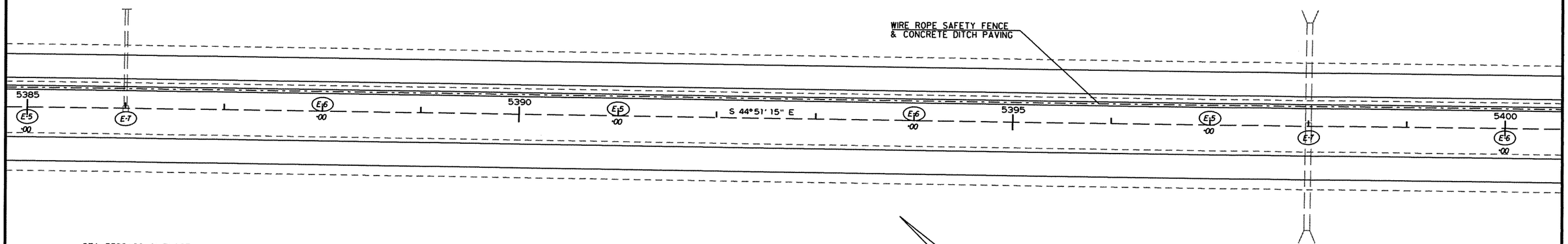
TEMPORARY EROSION CONTROL REVISIONS

DATE OF REVISION	REVISION

LEGEND

- E-5 SAND BAG DITCH CHECKS
- E-6 ROCK DITCH CHECKS
- E-7 DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.



STA. 5386+00 IN PLACE
24" X 98' R.C. PIPE OUTLET
UNDER LT. LANE
WITH TYPE R DROP INLET IN MED
3'-0" X 4'-0" X 4'-9"
RETAIN

STA. 5398+00 IN PLACE
5' X 4' X 210' R.C. BOX CULVERT
WITH TYPE T DROP INLET IN MED.
3'-0" X 2'-6" X H = 5'-8"
D.A. 110 AC., C = 0.5
RETAIN

1/9/2013

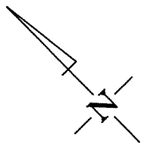
RBB0806.DGN

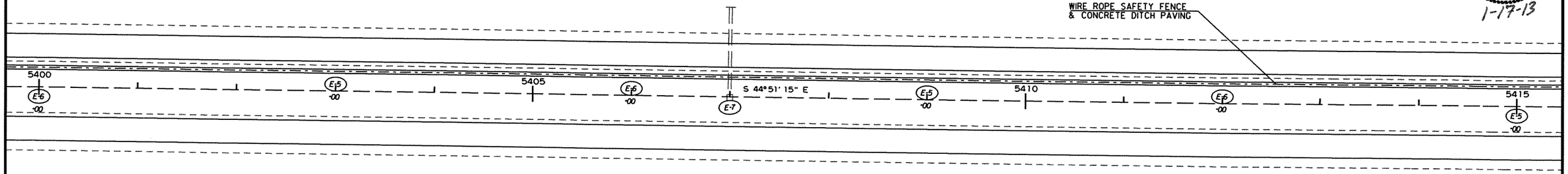
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		B80806	35	82

(2) PLAN SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13

STA. 5407+00 IN PLACE
24" X 88' R.C. PIPE OUTLET
UNDER LT. LANE
WITH TYPE R DROP INLET IN MED
3'-0" X 4'-0" X 3'-0"
RETAIN





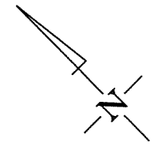
TEMPORARY EROSION CONTROL REVISIONS

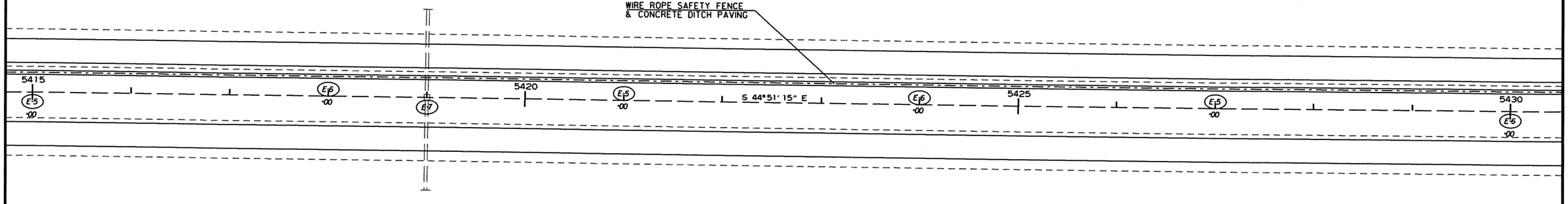
DATE OF REVISION	REVISION

LEGEND

- E-5 SAND BAG DITCH CHECKS
- E-6 ROCK DITCH CHECKS
- E-7 DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.





STA. 5419+00 IN PLACE
48" X 86' R.C. PIPE INLET
48" X 90' R.C. PIPE OUTLET
UNDER LT. LANE
WITH TYPE R DROP INLET IN MED
3'-0" X 4'-10" X 6'-0"
RETAIN

1/9/2013

RBB0806.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0806	36	82

(2) PLAN SHEETS

STA. 5433+00 IN PLACE
24" X 88' R.C. PIPE OUTLET
UNDER LT. LANE
WITH TYPE R DROP INLET IN MED
3'-0" X 4'-0" X 2'-10"
RETAIN

STA. 5437+00 IN PLACE
48" X 176' R.C. PIPE CULVERT
D.A. 55 AC., C = 0.6
RETAIN

STA. 5441+47 IN PLACE
24" X 92' R.C. PIPE OUTLET
UNDER LT. LANE
WITH TYPE R DROP INLET IN MED
3'-0" X 4'-0" X 3'-0"
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13

WIRE ROPE SAFETY FENCE
& CONCRETE DITCH PAVING

5430 E-6 ·00 | E-5 E-7 ·00 | S 44°51' 15" E | 5435 E-6 ·00 | E-5 ·00 | 5440 E-7 | E-6 ·00 | 5445 E-5 ·00

TEMPORARY EROSION CONTROL REVISIONS

DATE OF REVISION	REVISION

LEGEND

- E-5 SAND BAG DITCH CHECKS
- E-6 ROCK DITCH CHECKS
- E-7 DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

PI = 5456+02.83
Δ = 20°17'27.60"LT.
D = 1°15'00"
T = 820.23'
L = 1623.28'
PC = 5447+82.60
PT = 5464+05.88

PC 5447+82.60

5445 E-5 ·00 | S 44°51' 15" E | E-6 ·00 | 5450 E-17 | E-5 ·00 | E-6 ·00 | 5455 | E-5 ·00 | 5460 E-7 E-6 ·00

WIRE ROPE SAFETY FENCE
& CONCRETE DITCH PAVING

PI 5456+02.83

STA. 5450+66 IN PLACE
48" X 88' R.C. PIPE INLET &
48" X 88' R.C. PIPE OUTLET
UNDER LT. LANE
WITH TYPE R DROP INLET IN MED
3'-0" X 4'-10" X 4'-2"
RETAIN

1/9/2013

RBB0806.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		880806	37	82

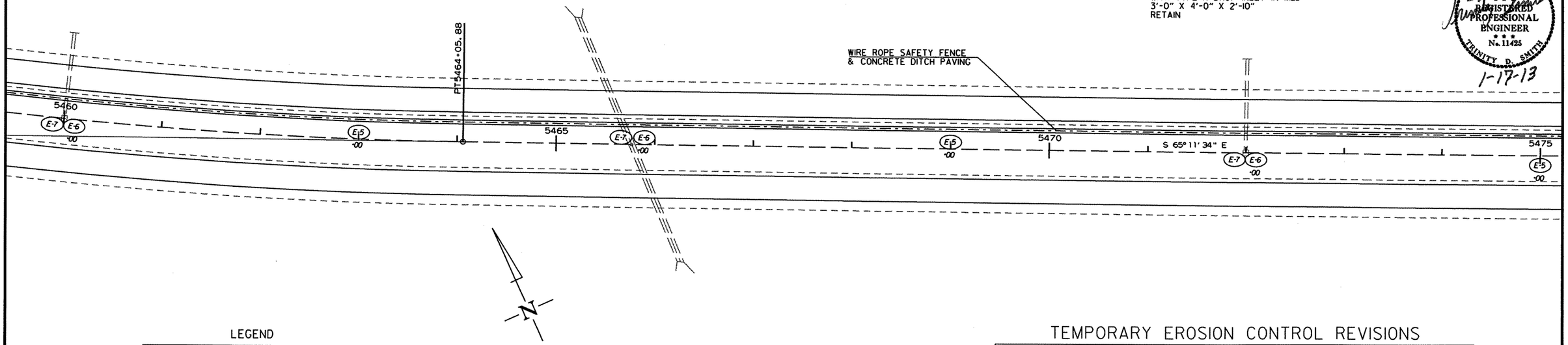
(2) PLAN SHEETS

STA. 5460+00 IN PLACE
24" X 92' R.C. PIPE OUTLET
UNDER LT. LANE
WITH TYPE R DROP INLET IN MED
3'-0" X 4'-0" X 2'-10"
RETAIN

STA. 5465+77 IN PLACE
TRIPLE 8' X 10' X 268' R.C. BOX CULVERT
(30° RT. FWD. SKEW)
WITH TYPE T DROP INLET IN MED.
3'-0" X 2'-6" X H = 9'-2"
1200 C.F.S. MAX FLOOD FLOW
SPAN = 31.94
RETAIN

STA. 5472+00 IN PLACE
24" X 92' R.C. PIPE OUTLET
UNDER LT. LANE
WITH TYPE R DROP INLET IN MED
3'-0" X 4'-0" X 2'-10"
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13



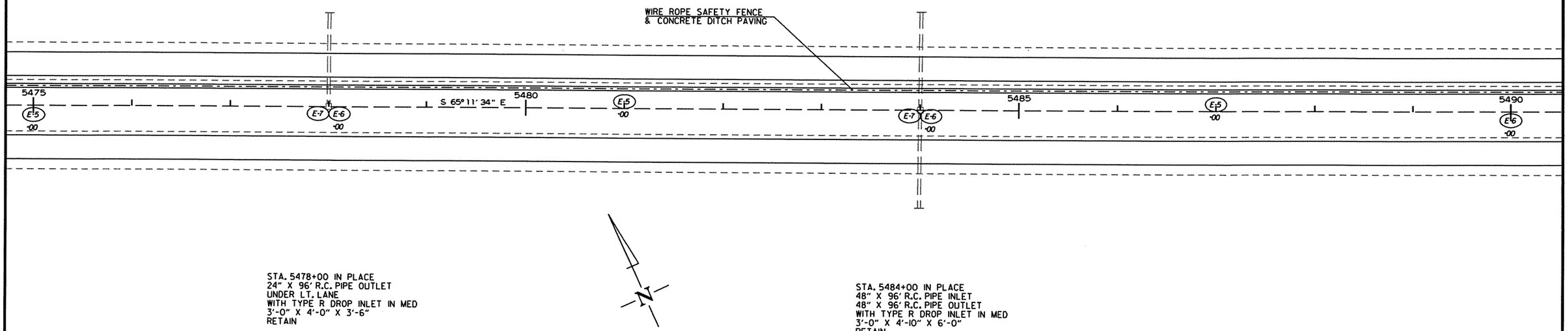
LEGEND

- E-5 SAND BAG DITCH CHECKS
- E-6 ROCK DITCH CHECKS
- E-7 DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

TEMPORARY EROSION CONTROL REVISIONS

DATE OF REVISION	REVISION



STA. 5478+00 IN PLACE
24" X 96' R.C. PIPE OUTLET
UNDER LT. LANE
WITH TYPE R DROP INLET IN MED
3'-0" X 4'-0" X 3'-6"
RETAIN

STA. 5484+00 IN PLACE
48" X 96' R.C. PIPE INLET
48" X 96' R.C. PIPE OUTLET
WITH TYPE R DROP INLET IN MED
3'-0" X 4'-10" X 6'-0"
RETAIN

1/9/2013

RBB0806.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		880806	38	82

(2) PLAN SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13

STA. 5492+00 IN PLACE
24" X 92' R.C. PIPE OUTLET
UNDER LT. LANE
WITH TYPE R DROP INLET IN MED
3'-0" X 4'-0" X 2'-10"
RETAIN

STA. 5500+00 IN PLACE
24" X 92' R.C. PIPE OUTLET
UNDER LT. LANE
WITH TYPE R DROP INLET IN MED
3'-0" X 4'-0" X 2'-10"
RETAIN

CO. RD. 536

FRONTAGE RD.

STA. 5494+07.99
END WIRE ROPE SAFETY FENCE

REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER
STA. 5494+83 C.L. OF I-40 = 2 EACH

5490 E-6 ·00 | E-7 | E-5 ·00 | 5495 | E-6 ·00 | E-5 ·00 | 5500 E-7 | S 65°11'34" E | E-6 ·00 | 5505 E-5 ·00

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE I)	GUARDRAIL TERMINAL (TYPE 2)
5491+08.05	5496+08.05	R.M.L. - LT.	450 LIN. FT.	1 EA.	1 EA.
5493+57.99	5498+57.99	L.M.L. - RT.	450 LIN. FT.	1 EA.	1 EA.

STA. 5495+58.05
BEGIN WIRE ROPE SAFETY FENCE

TEMPORARY EROSION CONTROL REVISIONS

DATE OF REVISION	REVISION

LEGEND

- E-5 SAND BAG DITCH CHECKS
- E-6 ROCK DITCH CHECKS
- E-7 DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

FRONTAGE RD.

5505 E-5 ·00 | E-7 E-6 ·00 | STA. 5509+95.20 BEGIN WIRE ROPE SAFETY FENCE | 5510 | E-5 ·00 | S 65°11'34" E | E-6 ·00 | 5515 | E-7 | E-5 ·00 | 5520 E-6 ·00

STA. 5510+04.57
END WIRE ROPE SAFETY FENCE

STA. 5510+00 - CONSTRUCT
PAVED MEDIAN CROSSOVER

STA. 5508+00 IN PLACE
24" X 92' R.C. PIPE OUTLET
UNDER LT. LANE
WITH TYPE R DROP INLET IN MED
3'-0" X 4'-0" X 2'-10"
RETAIN

STA. 5510+00 CONSTRUCT
24" x 84' REINFORCED CONCRETE PIPE CULVERT
(CLASS III) (TYPE III BEDDING)
SAFETY END SECTIONS LT. & RT.

STA. 5516+00 IN PLACE
24" X 92' R.C. PIPE OUTLET
UNDER LT. LANE
WITH TYPE R DROP INLET IN MED
3'-0" X 4'-0" X 2'-10"
RETAIN

I-40

1/9/2013

RBB0806.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		880806	39	82

(2) PLAN SHEETS

STA. 5523+16 IN PLACE
TYPE R DROP INLET IN MED.
3'-0" X 4'-0" X 7'-0" WITH
48" X 100' R.C. PIPE INLET &
48" X 100' R.C. PIPE OUTLET
RETAIN

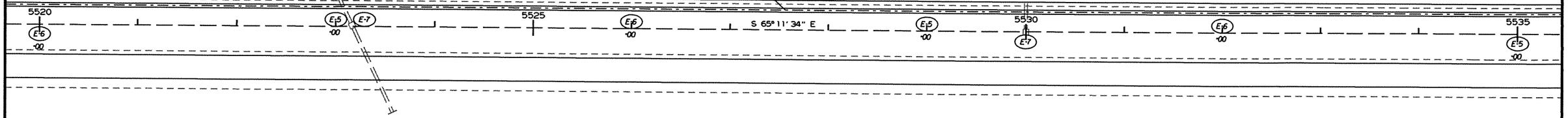
STA. 5530+00 IN PLACE
24" X 96' R.C. PIPE OUTLET
UNDER LT. LANE
WITH TYPE R DROP INLET IN MED
3'-0" X 4'-0" X 3'-2"
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13

FRONTAGE RD.

FRONTAGE RD.

WIRE ROPE SAFETY FENCE
& CONCRETE DITCH PAVING



TEMPORARY EROSION CONTROL REVISIONS

DATE OF REVISION	REVISION

LEGEND

- (E-5) SAND BAG DITCH CHECKS
- (E-6) ROCK DITCH CHECKS
- (E-7) DROP INLET SILT FENCE

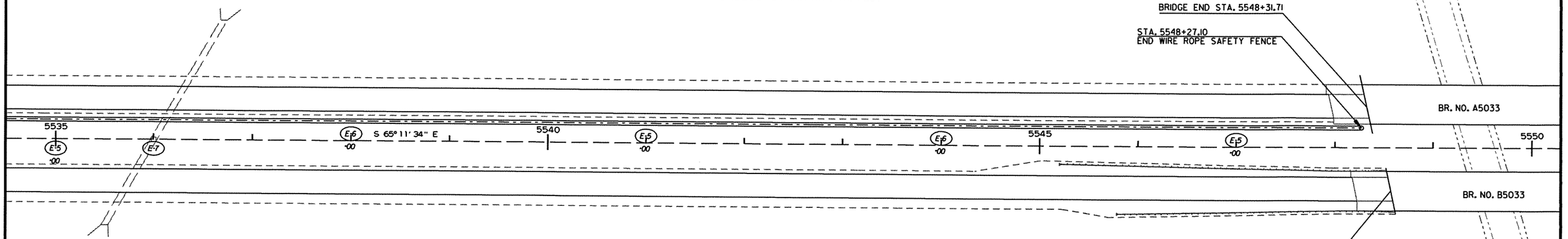
NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

STA. 5548+31.71 BR. END
EXISTING 208' BRIDGE NO. A5033
40'-0" CLEAR ROADWAY
STA. 5550+39.71 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

BRIDGE END STA. 5548+31.71

STA. 5548+27.10
END WIRE ROPE SAFETY FENCE

BR. NO. A5033



BR. NO. B5033

BRIDGE END STA. 5548+57.07

STA. 5548+57.07 BR. END
EXISTING 208' BRIDGE NO. B5033
40'-0" CLEAR ROADWAY
STA. 5550+65.07 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

STA. 5536+00 IN PLACE
6' X 4' X 239' R.C. BOX CULVERT
(30° LT. FWD. SKEW)
WITH TYPE T DROP INLET IN MED.
3'-0" X 2'-6" X H = 3'-45"8"
D.A. 180 AC., C=0.4
RETAIN

1/9/2013

RBB0806.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		880806	40	82

(2) PLAN SHEETS

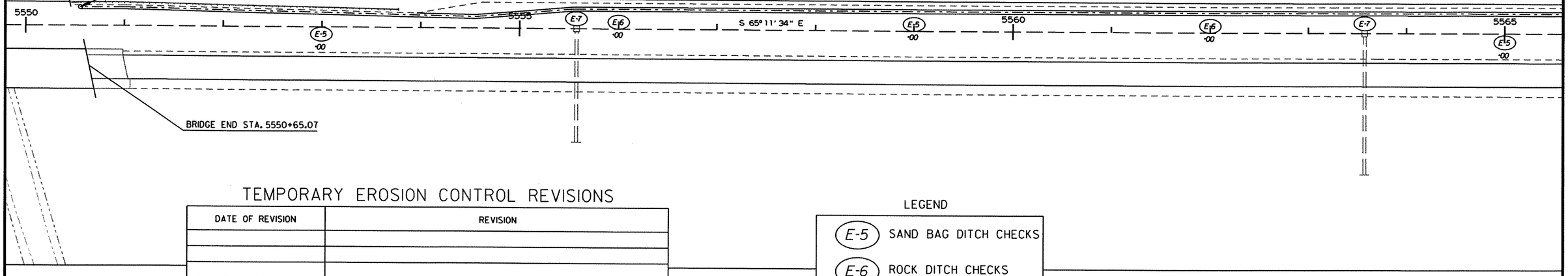
STA. 5555+57 IN PLACE
24" X 112' R.C. PIPE OUTLET
UNDER RT. LANE
WITH TYPE S DROP INLET IN MED
48" X H = 7'-6"
RETAIN

STA. 5563+57 IN PLACE
24" X 112' R.C. PIPE OUTLET
UNDER RT. LANE
WITH TYPE S DROP INLET IN MED
48" X H = 16'-6"
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13

BRIDGE END STA. 5550+39.71

STA. 5550+55.10
BEGIN WIRE ROPE SAFETY FENCE



BRIDGE END STA. 5550+65.07

TEMPORARY EROSION CONTROL REVISIONS

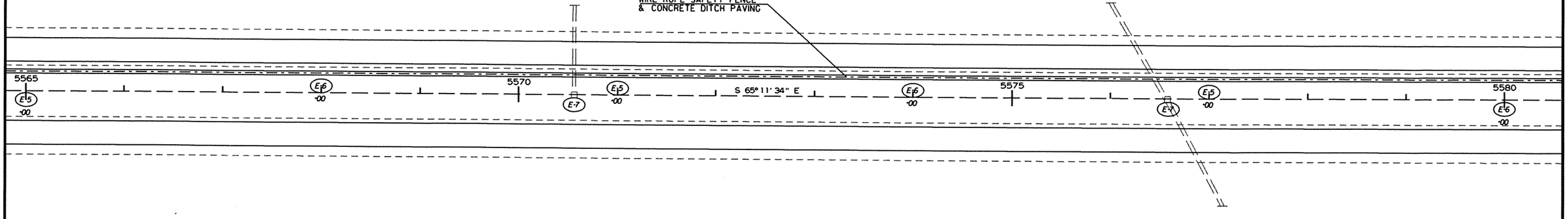
DATE OF REVISION	REVISION

LEGEND

- (E-5) SAND BAG DITCH CHECKS
- (E-6) ROCK DITCH CHECKS
- (E-7) DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

WIRE ROPE SAFETY FENCE & CONCRETE DITCH PAVING



STA. 5570+56 IN PLACE
24" X 88' R.C. PIPE OUTLET
UNDER LT. LANE
WITH TYPE R DROP INLET IN MED
3'-0" X 4'-0" X 2'-10"
RETAIN

STA. 5576+57 IN PLACE
TYPE R DROP INLET 6.25' LT. OF MED.
3'-0" X 4'-11" X 7'-1" WITH
42" X 112' R.C. PIPE INLET &
42" X 116' R.C. PIPE OUTLET
(30° RT. FWD SKEW)
RETAIN

1/9/2013

RBB0806.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		880806	41	82

(2) PLAN SHEETS

STA. 5581+00 IN PLACE
24" X 76' R.C. PIPE OUTLET
UNDER LT. LANE
WITH TYPE R DROP INLET 6.25' LT.OF MED
3'-0" X 4'-0" X 2'-10"
RETAIN

STA. 5588+05 IN PLACE
5' X 5' X 178' R.C. BOX CULVERT
WITH TYPE T DROP INLET 6.25' LT OF MED.
3'-0" X 2'-6" X H = 0'-6 "
D.A. 17 AC., C=0.8
RETAIN

STA. 5592+94 IN PLACE
24" X 76' R.C. PIPE OUTLET
UNDER LT. LANE
WITH TYPE R DROP INLET 6.25' LT.OF MED
3'-0" X 4'-0" X 2'-10"
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13

WIRE ROPE SAFETY FENCE
& CONCRETE DITCH PAVING

5580 E-6 ·00 | E-7 | E-5 ·00 | 5585 | E-6 ·00 | E-7 | E-5 ·00 | 5590 S 65°11'34" E | E-6 ·00 | E-7 | 5595 E-5 ·00

TEMPORARY EROSION CONTROL REVISIONS

DATE OF REVISION	REVISION

LEGEND

- E-5 SAND BAG DITCH CHECKS
- E-6 ROCK DITCH CHECKS
- E-7 DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

MONASTERY RIDGE RD.

REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER
STA. 5601+50 C.L. OF I-40 = 2 EACH

STA. 5600+80.89
END WIRE ROPE SAFETY FENCE

STA. 5604+80.89
BEGIN WIRE ROPE SAFETY FENCE

5595 E-5 ·00 | E-6 ·00 | 5600 | E-6 ·00 | 5605 S 65°11'34" E | E-5 ·00 | E-7 | 5610 E-6 ·00

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 1)	GUARDRAIL TERMINAL (TYPE 2)
5597+68.91	5602+68.91	R.M.L. - LT.	450 LIN. FT.	1 EA.	1 EA.
5600+30.89	5605+30.89	L.M.L. - RT.	450 LIN. FT.	1 EA.	1 EA.

STA. 5608+54 IN PLACE
24" X 104' R.C. PIPE OUTLET
UNDER RT. LANE
WITH TYPE S DROP INLET 6.25' RT.OF MED
48" X 7'-6"
RETAIN

1/9/2013

RBB0806.DGN

I-40

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		B80806	42	82

(2) PLAN SHEETS

STA. 5615+54 IN PLACE
24" X 80' R.C. PIPE OUTLET
UNDER RT. LANE
WITH TYPE S DROP INLET 3.68' RT.OF MED
3'-0" X 4'-0" X H = 7'-6"
RETAIN

STA. 5622+52 IN PLACE
24" X 88' R.C. PIPE OUTLET
UNDER RT. LANE
WITH TYPE R DROP INLET IN MED
3'-0" X 4'-0" X H = 2'-10"
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13

300' TAPER

700' ACCELERATION LANE

WIRE ROPE SAFETY FENCE & CONCRETE DITCH PAVING

+85.53

5610 E-6 .00 | E-5 .00 | 5615 | E-7 | E-6 .00 | S 65° 11' 34" E | E-5 .00 | 5620 | E-6 .00 | E-7 | 5625 E-5 .00

+35.53

15'

STA. 5623+86 TO STA. 5629.36 RAMP 4
550' MILL & INLAY

PC 5629+56.52

5625 E-5 .00 | S 65° 11' 34" E | E-6 .00 | E-7 | 5630 | E-5 .00 | E-7 | E-6 .00 | 5635 | E-5 .00 | 5640 E-6 .00 | E-7

+37.59

51'

STA. 5628+32 TO STA. 5633+82 RAMP 1
550' MILL & INLAY

+55.18

TEMPORARY EROSION CONTROL REVISIONS

DATE OF REVISION	REVISION

LEGEND

- E-5 SAND BAG DITCH CHECKS
- E-6 ROCK DITCH CHECKS
- E-7 DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER
STA. 5638+00 C.L. OF I-40 = 2 EACH

STA. 5637+17.69
END WIRE ROPE SAFETY FENCE

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE I)	GUARDRAIL TERMINAL (TYPE 2)
5634+30.96	5639+30.96	R.M.L. - LT.	450 LIN. FT.	1 EA.	1 EA.
5636+67.69	5641+67.69	L.M.L. - RT.	450 LIN. FT.	1 EA.	1 EA.

STA. 5628+52 IN PLACE
24" X 128' R.C. PIPE OUTLET
UNDER RT. LANE
WITH TYPE R DROP INLET IN MED
3'-0" X 4'-0" X H = 2'-10"
RETAIN

STA. 5634+00 IN PLACE
8' X 6' X 278' R.C. BOX CULVERT
(45° LT. FWD. SKEW)
WITH TYPE T DROP INLET IN MED.
3'-0" X 2'-6" X H = 2'-0 "
D.A. 220 AC., C=0.8
RETAIN

HWY. 95

I-40

1/17/2013

RBB0806.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0806	43	82

(2) PLAN SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13

STA. 5640+59 IN PLACE
8' X 4' X 225' R.C. BOX CULVERT
(30° RT. FWD. SKEW)
WITH TYPE T DROP INLET IN MED.
3'-0" X 2'-6" X H = 2'-0 "
D.A. 138 AC., C=0.8
RETAIN

STA. 5641+17.69
BEGIN WIRE ROPE SAFETY FENCE

STA. 5647+55 IN PLACE
TYPE R DROP INLET IN MED
3'-0" X 4'-0" X H = 2'-10" WITH
24" X 84' R.C. PIPE OUTLET TO D.I.
TYPE R DROP INLET 86' LT. OF MED
3'-0" X 4'-0" X H = 3'-3" &
24" X 64' R.C. PIPE OUTLET
RETAIN

STA. 5644+25 TO STA. 5649+75 RAMP 3
550' MILL & INLAY

STA. 5644+80 TO STA. 5650+30 RAMP 2
550' MILL & INLAY

PI = 5642+05.77
Δ = 24°36'00.00"LT.
D = 1°00'00"
T = 1249.25'
L = 2460.00'
PC = 5629+56.52
PT = 5654+16.52

PT 5654+16.52

S 89° 18' 24" E

700' ACCELERATION LANE

LEGEND

- E-5 SAND BAG DITCH CHECKS
- E-6 ROCK DITCH CHECKS
- E-7 DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

TEMPORARY EROSION CONTROL REVISIONS

DATE OF REVISION	REVISION

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE I)	GUARDRAIL TERMINAL (TYPE 2)
5660+91.60	5665+91.60	R.M.L. - LT.	450 LIN. FT.	1 EA.	1 EA.
5663+42.09	5668+42.09	L.M.L. - RT.	450 LIN. FT.	1 EA.	1 EA.

STA. 5663+92.09
END WIRE ROPE SAFETY FENCE

HWY. 247

REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER
STA. 5664+67 C.L. OF I-40 = 2 EACH

STA. 5665+41.60
BEGIN WIRE ROPE SAFETY FENCE

300' TAPER

STA. 5655+23 IN PLACE
DBL. 12' X 8' X 234' R.C. BOX CULVERT
(30° LT. FWD. SKEW)
WITH TYPE T DROP INLET IN MED.
3'-0" X 2'-6" X H = 2'-3 1/2"
D.A. 1350 AC., C=0.8
RETAIN

STA. 5662+35 IN PLACE
TYPE R DROP INLET IN MED.
3'-0" X 4'-0" X 2'-10" WITH
24" X 84' R.C. PIPE INLET &
24" X 88' R.C. PIPE OUTLET
D.A. 6 AC., C = 0.8
RETAIN

I-40

1/9/2013

RBB0806.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		B80806	44	82

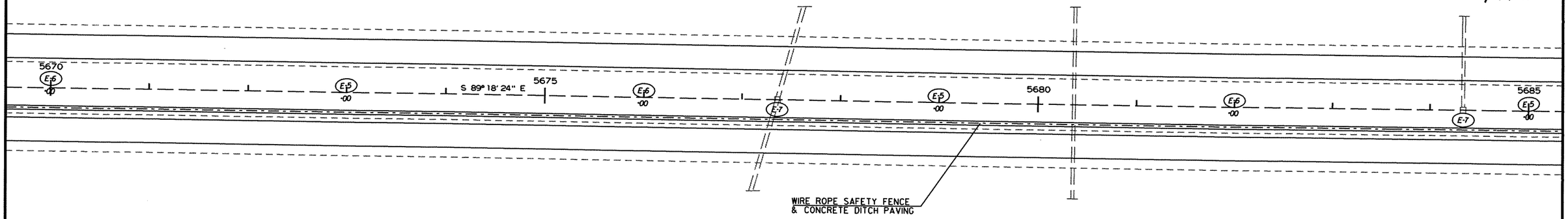
(2) PLAN SHEETS

STA. 5677+35 IN PLACE
TYPE R DROP INLET IN MED.
3'-0" X 4'-11" X 5'-7" WITH
42" X 100' R.C. PIPE INLET (30° LT. FWD. SKEW)
42" X 114' R.C. PIPE OUTLET (30° LT. FWD. SKEW)
D.A. 25 AC., C = 0.8
RETAIN

STA. 5680+36 IN PLACE
36" X 188' R.C. PIPE CUIVERT
D.A. 14 AC., C = 0.8
RETAIN

STA. 5684+34 IN PLACE
TYPE S DROP INLET IN MED
3'-0" X 4'-0" X H = 2'-10"
24" X 92' R.C. OUTLET
UNDER LT. LANE
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13



WIRE ROPE SAFETY FENCE
& CONCRETE DITCH PAVING

TEMPORARY EROSION CONTROL REVISIONS

DATE OF REVISION	REVISION

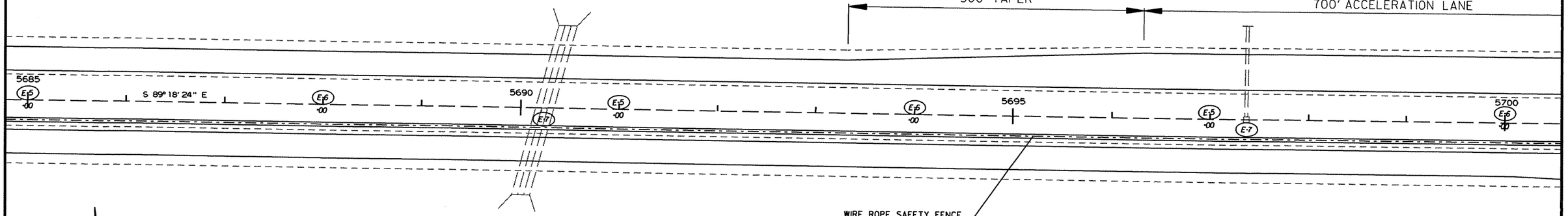
LEGEND

- E-5 SAND BAG DITCH CHECKS
- E-6 ROCK DITCH CHECKS
- E-7 DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

300' TAPER

700' ACCELERATION LANE



WIRE ROPE SAFETY FENCE
& CONCRETE DITCH PAVING

STA. 5690+24 IN PLACE
TRIPLE 5' X 4' X 195' R.C. BOX CULVERT
(15° LT. FWD. SKEW)
WITH TYPE T DROP INLET IN MED.
3'-0" X 2'-6" X H = 1'-83=4"
D.A. 290 AC., C = 0.8
RETAIN

STA. 5697+37 IN PLACE
TYPE S DROP INLET IN MED
3'-0" X 4'-0" X H = 2'-10"
24" X 92' R.C. OUTLET
UNDER LT. LANE
RETAIN

1/9/2013

RBB0806.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		880806	45	82

(2) PLAN SHEETS

STA. 5706+20 IN PLACE
TYPE R DROP INLET 86' RT. OF MED
3'-0" X 4'-0" X H = 2'-10" &
24" X 84' R.C. PIPE OUTLET TO
TYPE R DROP INLET IN MED.
3'-0" X 4'-0" X H = 2'-10" &
24" X 80' R.C. PIPE OUTLET TO
TYPE R DROP INLET 81' LT. OF MED.
3'-0" X 4'-0" X H = 4'-4"
24" X 76' R.C. PIPE OUTLET
RETAIN

STA. 5703+31 TO STA. 5708+81 RAMP 4
550' MILL & INLAY

STA. 5711+08 IN PLACE
8' X 7' X 200' R.C. BOX CULVERT
(15° RT. FWD. SKEW)
WITH TYPE T DROP INLET IN MED.
3'-0" X 2'-6" X H = 2'-3 1/2"
D.A. 260 AC., C = 0.8
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13

5700 E-6 -00 — S 89° 18' 24" E — E-5 -00 — 5705 — E-6 -00 — E-7 — E-5 -00 — 5710 — E-7 — E-6 -00 — 5715 E-5 -00

STA. 5704+14 TO STA. 5709+64 RAMP 1
550' MILL & INLAY

STA. 5714+27.56
END WIRE ROPE SAFETY FENCE

TEMPORARY EROSION CONTROL REVISIONS

DATE OF REVISION	REVISION

LEGEND

- E-5 SAND BAG DITCH CHECKS
- E-6 ROCK DITCH CHECKS
- E-7 DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE I)	GUARDRAIL TERMINAL (TYPE 2)
5713+77.56	5718+77.56	R.M.L. - LT.	450 LIN. FT.	1 EA.	1 EA.
5716+27.95	5721+27.92	L.M.L. - RT.	450 LIN. FT.	1 EA.	1 EA.

REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER
STA. 5717+53 C.L. OF I-40 = 2 EACH

STA. 5724+77 TO STA. 5730+27 RAMP 3
550' MILL & INLAY

HWY. 9

5715 E-5 -00 — E-7 — 5720 — E-5 -00 — S 89° 18' 24" E — E-6 -00 — 5725 — E-7 — E-5 -00 — 5730 E-6 -00

STA. 5718+27.56
BEGIN WIRE ROPE SAFETY FENCE

STA. 5725+79 TO STA. 5731+29 RAMP 2
550' MILL & INLAY

STA. 5726+35 IN PLACE
TYPE R DROP INLET IN MED
3'-0" X 4'-0" X H = 2'-10"
24" X 88' R.C. OUTLET
UNDER LT. LANE
RETAIN

STA. 5719+36 IN PLACE
TYPE R DROP INLET IN MED
3'-0" X 4'-0" X H = 2'-10"
24" X 88' R.C. OUTLET
UNDER RT. LANE
RETAIN

1/9/2013

RBB0806.DGN

I-40

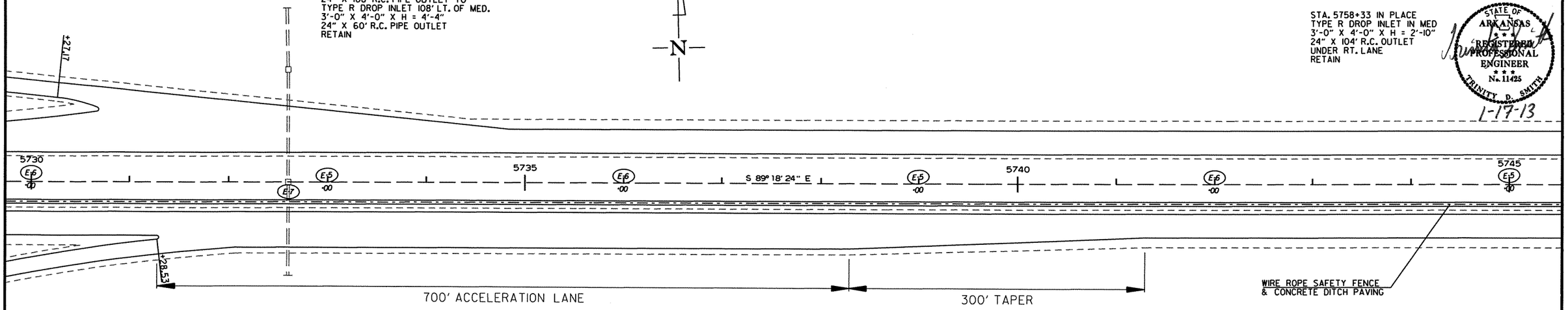
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		880806	46	82

(2) PLAN SHEETS

STA. 5732+60 IN PLACE
TYPE R DROP INLET 86' RT. OF MED
3'-0" X 4'-0" X H = 2'-10" &
24" X 92' R.C. PIPE OUTLET TO
TYPE R DROP INLET IN MED.
3'-0" X 4'-0" X H = 2'-10" &
24" X 108' R.C. PIPE OUTLET TO
TYPE R DROP INLET 108' LT. OF MED.
3'-0" X 4'-0" X H = 4'-4"
24" X 60' R.C. PIPE OUTLET
RETAIN

STA. 5758+33 IN PLACE
TYPE R DROP INLET IN MED
3'-0" X 4'-0" X H = 2'-10"
24" X 104' R.C. OUTLET
UNDER RT. LANE
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13



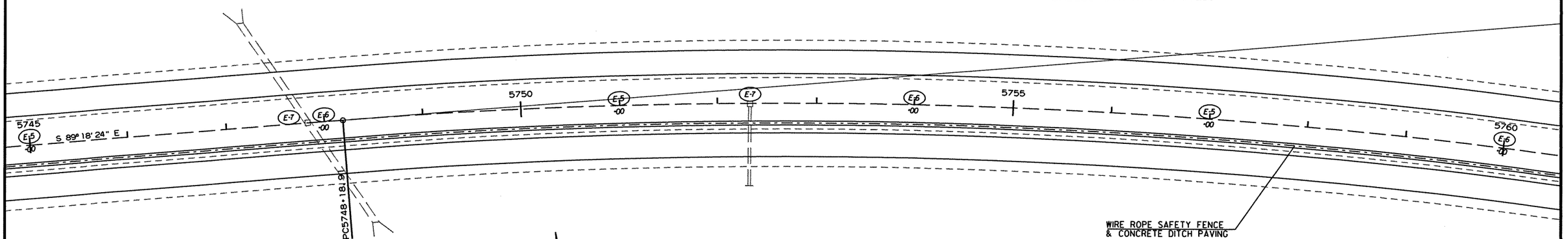
TEMPORARY EROSION CONTROL REVISIONS

DATE OF REVISION	REVISION

LEGEND

- E-5 SAND BAG DITCH CHECKS
- E-6 ROCK DITCH CHECKS
- E-7 DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.



STA. 5747+83 IN PLACE
6' X 6' X 244' R.C. BOX CULVERT
(30° RT. FWD. SKEW)
WITH TYPE T DROP INLET IN MED.
3'-0" X 2'-6" X H = 5'-57*8"
D.A. 150 AC., C = 0.8
RETAIN

STA. 5752+33 IN PLACE
TYPE R DROP INLET IN MED
3'-0" X 4'-0" X H = 2'-10"
24" X 80' R.C. OUTLET
UNDER RT. LANE
RETAIN

1/9/2013

RBB0806.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		880806	47	82
				(2) PLAN SHEETS				

PI = 5762+14.85
Δ = 27°23'07.40"RT.
D = 1°00'00"
T = 1395.95'
L = 2738.54'
PC = 5748+18.91
PT = 5775+57.45

STA. 5765+30 IN PLACE
TYPE S DROP INLET 3.75' LT OF MED
48" X H = 18'-2"
24" X 74' R.C. PIPE OUTLET TO
TYPE R DROP INLET 74' RT. OF MED.
3'-0" X 4'-0" X H = 20'-11"4"
24' X 96' R.C. PIPE OUTLET
RETAIN

STA. 5770+30 IN PLACE
TYPE R DROP INLET 3.75' LT OF MED
3'-0" X 4'-0" X H = 8'-6"
24" X 80' R.C. PIPE OUTLET TO
TYPE S DROP INLET 80' RT. OF MED.
48" X H = 7'-6 "
24' X 120' R.C. PIPE OUTLET
RETAIN

STA. 5774+34 IN PLACE
TYPE R DROP INLET 4' LT OF MED
3'-0" X 4'-0" X H = 8'-6"
24" X 72' R.C. PIPE OUTLET TO
TYPE S DROP INLET 77' RT. OF MED.
48" X H = 7'-6 "
24' X 104' R.C. PIPE OUTLET
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13

CLOSED REST AREA

WIRE ROPE SAFETY FENCE & CONCRETE DITCH PAVING

5760 E-6 .00 | 5765 E-7 | E-6 .00 | E-5 .00 | 5770 E-7 | E-6 .00 | E-7 | 5775 E-5 .00

PT 5775+57.45

TEMPORARY EROSION CONTROL REVISIONS

DATE OF REVISION	REVISION

LEGEND

- E-5 SAND BAG DITCH CHECKS
- E-6 ROCK DITCH CHECKS
- E-7 DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

5775 E-5 .00 | E-6 .00 | 5780 | E-5 .00 | S 61°39'37" E | E-6 .00 | 5785 | E-5 .00 | 5790 E-6 .00

PT 5775+57.45

WIRE ROPE SAFETY FENCE & CONCRETE DITCH PAVING

1/9/2013

RBB0806.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		B80806	48	82

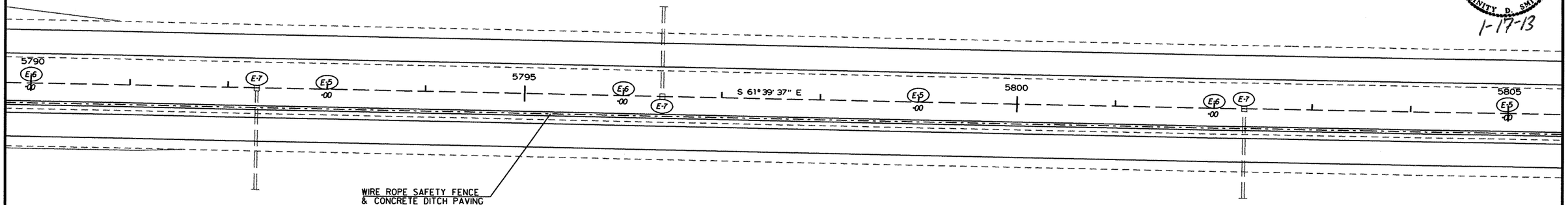
(2) PLAN SHEETS

STA. 5792+29 IN PLACE
TYPE R DROP INLET 3.75' LT OF MED
3'-0" X 4'-0" X H = 2'-10"
24" X 100' R.C. OUTLET
UNDER RT. LANE
RETAIN

STA. 5796+39 IN PLACE
TYPE S DROP INLET 3.75' LT OF MED
48" X H = 7'-6"
24" X 88' R.C. OUTLET
UNDER LT. LANE
RETAIN

STA. 5802+31 IN PLACE
TYPE S DROP INLET 3.75' LT OF MED
48" X H = 10'-2"
24" X 112' R.C. OUTLET
UNDER RT. LANE
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13



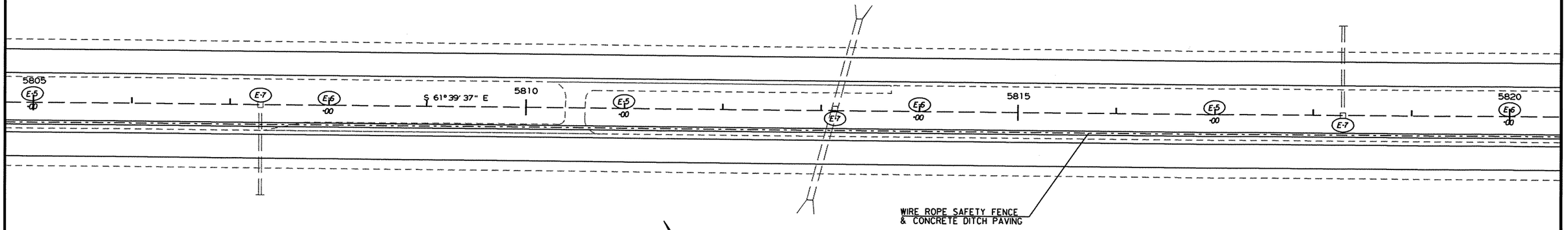
TEMPORARY EROSION CONTROL REVISIONS

DATE OF REVISION	REVISION

LEGEND

- E-5 SAND BAG DITCH CHECKS
- E-6 ROCK DITCH CHECKS
- E-7 DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.



STA. 5807+31 IN PLACE
TYPE R DROP INLET 3.75' LT OF MED
3'-0" X 4'-0" X H = 3'-8"
24" X 96' R.C. OUTLET
UNDER RT. LANE
RETAIN

STA. 5810+30 - IN PLACE
PAVED MEDIAN CROSSOVER
REMOVE

STA. 5813+13 IN PLACE
6' X 5' X 190' R.C. BOX CULVERT
(15° LT. FWD. SKEW)
WITH TYPE T DROP INLET IN MED.
3'-0" X 2'-6" X H = 1'-11"8"
D.A. 100 AC., C = 0.8
RETAIN

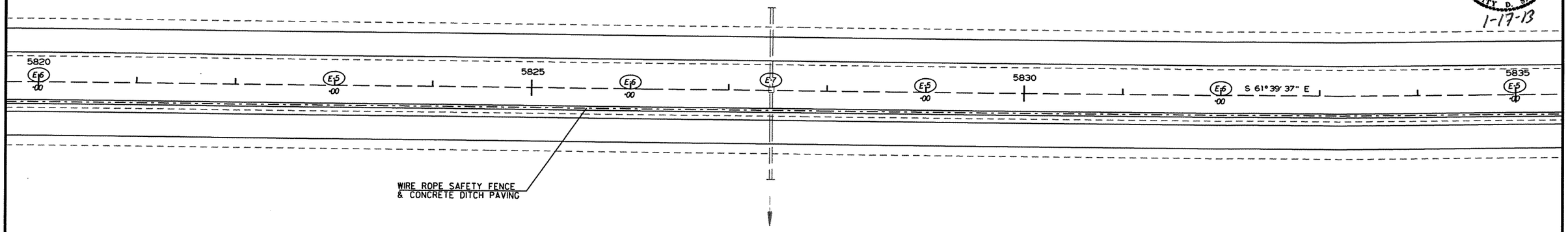
STA. 5818+30 IN PLACE
TYPE R DROP INLET 3.75' LT OF MED
3'-0" X 4'-0" X H = 2'-10"
24" X 80' R.C. OUTLET
UNDER LT. LANE
RETAIN

1/9/2013
RBB0806.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		880806	49	82
				(2) PLAN SHEETS				

STA. 5827+43 IN PLACE
TYPE R DROP INLET IN MED
3'-0" X 4'-0" X H = 2'-10"
30" X 76' R.C.INLET &
30" X 88' R.C. PIPE OUTLET
D.A. = 11.0 AC., C = 0.8
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13



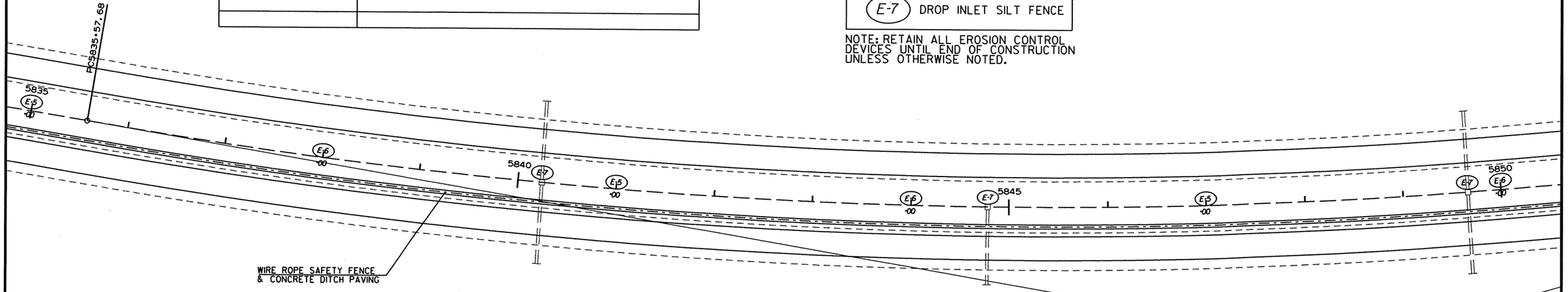
TEMPORARY EROSION CONTROL REVISIONS

DATE OF REVISION	REVISION

LEGEND

- E-5 SAND BAG DITCH CHECKS
- E-6 ROCK DITCH CHECKS
- E-7 DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.



STA. 5840+24 IN PLACE
TYPE R DROP INLET 7.0' RT. OF MED
3'-0" X 4'-0" X H = 2'-10"
24" X 80' R.C.INLET &
24" X 80' R.C. PIPE OUTLET
D.A. = 3.0 AC., C = 0.8
RETAIN

STA. 5844+78 IN PLACE
TYPE R DROP INLET 7.0' RT. OF MED
3'-0" X 4'-0" X H = 2'-10"
24" X 76' R.C. PIPE OUTLET
RETAIN

PI = 5848+66.96
Δ = 25°44'37.30"LT.
D = 1°00'00"
T = 1309.29'
L = 2574.37'
PC = 5835+57.68
PT = 5861+32.05

STA. 5849+66 IN PLACE
TYPE R DROP INLET 8.4' RT. OF MED
3'-0" X 4'-10" X H = 4'-2"
42" X 84' R.C.INLET &
42" X 80' R.C. PIPE OUTLET
D.A. = 27 AC., C = 0.8
RETAIN

RBB0806.DGN 1/9/2013

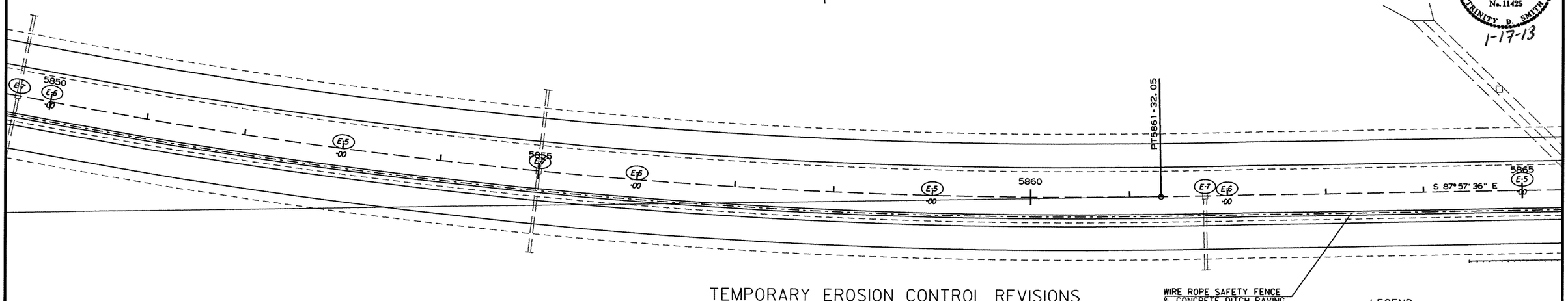
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0806	50	82

(2) PLAN SHEETS

STA. 5855+00 IN PLACE
TYPE R DROP INLET 8.7' RT. OF MED
3'-0" X 4'-0" X H = 3'-8"
36" X 80' R.C.INLET &
36" X 80' R.C. PIPE OUTLET
D.A. = 12 AC., C = 0.8
RETAIN

STA. 5861+77 IN PLACE
TYPE R DROP INLET 8.4' RT. OF MED
3'-0" X 4'-0" X H = 2'-10"
24" X 72' R.C. PIPE OUTLET
UNDER RT. LANE
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13



WIRE ROPE SAFETY FENCE
& CONCRETE DITCH PAVING

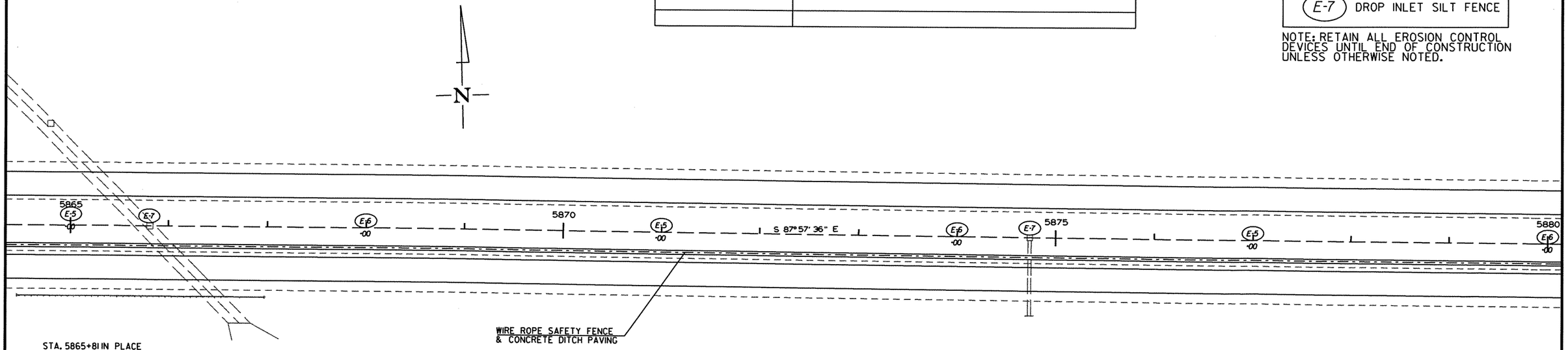
TEMPORARY EROSION CONTROL REVISIONS

DATE OF REVISION	REVISION

LEGEND

- E-5 SAND BAG DITCH CHECKS
- E-6 ROCK DITCH CHECKS
- E-7 DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.



WIRE ROPE SAFETY FENCE
& CONCRETE DITCH PAVING

STA. 5865+81 IN PLACE
DBL. 9' X 8' X 387' R.C. BOX CULVERT
(45° RT. FWD. SKEW)
WITH TYPE T DROP INLET IN MED.
3'-0" X 2'-6" X H = 6'-07"8" &
TYPE T DROP INLET 141.8' LT. OF MED.
3'-0" X 2'-6" X H = 1'-10"
D.A. 988 AC., C = 0.8
RETAIN

STA. 5874+74 IN PLACE
TYPE R DROP INLET 3.0' RT. OF MED
3'-0" X 4'-0" X H = 2'-10"
24" X 76' R.C. PIPE OUTLET
UNDER RT. LANE
RETAIN

1/9/2013

RBB0806.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080806	51	82

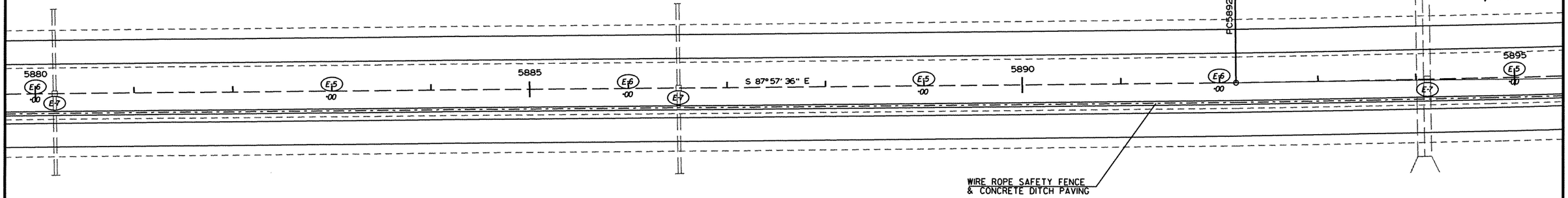
(2) PLAN SHEETS

STA. 5880+20 IN PLACE
TYPE R DROP INLET 2.1' RT. OF MED
3'-0" X 4'-10" X H = 4'-2"
48" X 80' R.C.INLET &
48" X 80' R.C. PIPE OUTLET
D.A. = 36 AC., C = 0.8
RETAIN

STA. 5886+51 IN PLACE
TYPE R DROP INLET 1.0' RT. OF MED
3'-0" X 4'-0" X H = 4'-6"
36" X 76' R.C.INLET &
36" X 84' R.C. PIPE OUTLET
D.A. = 18 AC., C = 0.8
RETAIN

STA. 5894+12 IN PLACE
DBL. 6' X 4' X 250' R.C. BOX CULVERT
WITH TYPE T DROP INLET IN MED.
3'-0" X 2'-6" X H = 1'-0" &
TYPE T DROP INLET 86' LT. OF MED.
3'-0" X 2'-6" X H = 1'-0"
D.A. 18.7 AC., C = 0.8
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13



TEMPORARY EROSION CONTROL REVISIONS

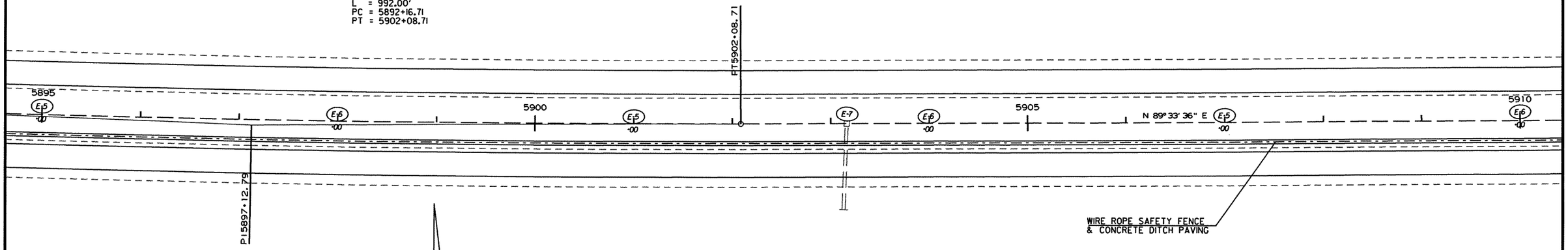
DATE OF REVISION	REVISION

LEGEND

- (E-5) SAND BAG DITCH CHECKS
- (E-6) ROCK DITCH CHECKS
- (E-7) DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

PI = 5897+12.79
Δ = 2°28'48.00"LT.
D = 0°15'00"
T = 496.08
L = 992.00'
PC = 5892+16.71
PT = 5902+08.71



STA. 5903+16 IN PLACE
TYPE R DROP INLET IN MED
3'-0" X 4'-0" X H = 2'-10"
24" X 84' R.C. PIPE OUTLET
UNDER RT. LANE
RETAIN

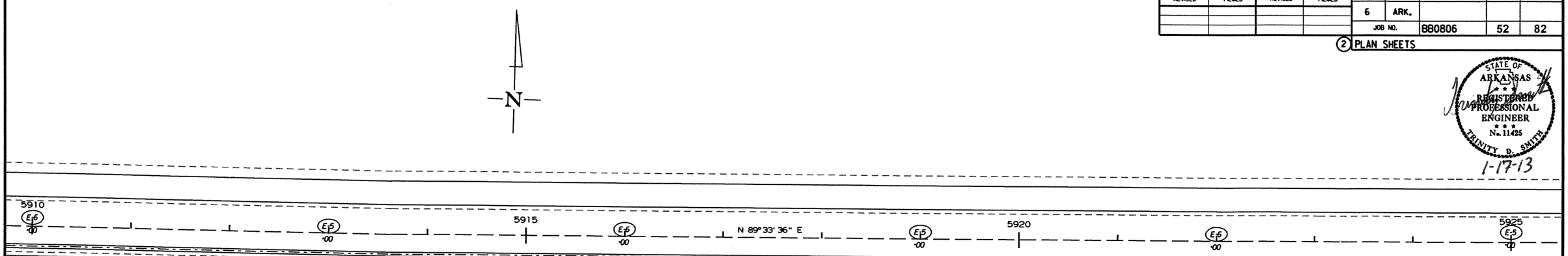
1/9/2013

RBB0806.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		880806	52	82

(2) PLAN SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13



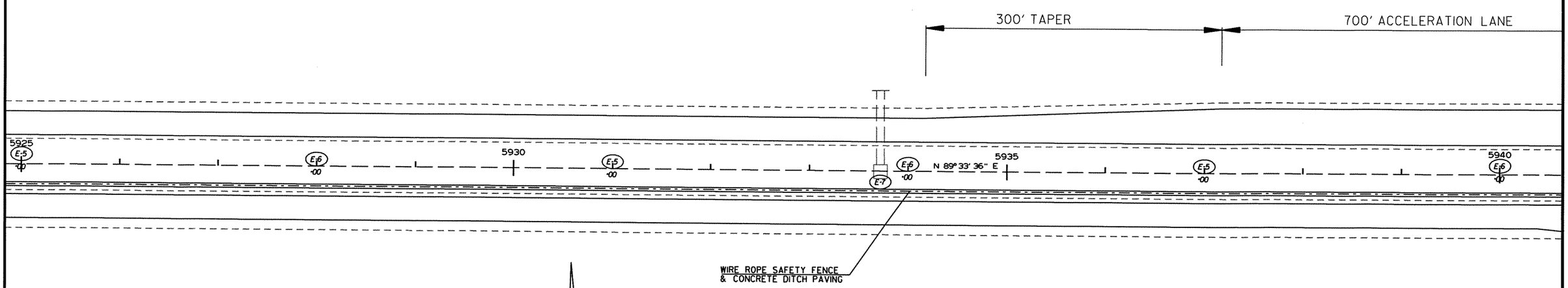
TEMPORARY EROSION CONTROL REVISIONS

DATE OF REVISION	REVISION

LEGEND

- (E-5) SAND BAG DITCH CHECKS
- (E-6) ROCK DITCH CHECKS
- (E-7) DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.



STA. 5933+72 IN PLACE
TYPE "R" DROP INLET 2.5' LT. MEDIAN
3' X 4' X H = 2'-10" WITH
24" X 80' R.C. PIPE OUTLET
UNDER LT. LANE
RETAIN

1/9/2013

RBB0806.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		B80806	53	82

(2) PLAN SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13

STA. 5949+41 IN PLACE
TYPE "R" DROP INLET 2' RT. MEDIAN
3' X 4' X H = 2'-10" WITH
24" X 96' R.C. PIPE OUTLET
RETAIN

STA. 5944+16 TO STA. 5949+66 RAMP 4
550' MILL & INLAY

BRIDGE END STA. 5954+57.62

STA. 5954+31.99
END WIRE ROPE SAFETY FENCE

BR. NO. A5032

BR. NO. B5032

STA. 5943+93 TO STA. 5949+43 RAMP 1
550' MILL & INLAY

BRIDGE END STA. 5954+37.69

TEMPORARY EROSION CONTROL REVISIONS

DATE OF REVISION	REVISION

LEGEND

- E-5 SAND BAG DITCH CHECKS
- E-6 ROCK DITCH CHECKS
- E-7 DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

STA. 5954+57.62 BR. END
EXISTING 184' BRIDGE NO. A5032
40'-0" CLEAR ROADWAY
STA. 5956+41.62 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

BRIDGE END STA. 5956+41.62

HWY. 92

STA. 5961+01 TO STA. 5967+41 RAMP 3
550' MILL & INLAY

BR. NO. A5032

BR. NO. B5032

BRIDGE END STA. 5956+21.69

STA. 5954+37.69 BR. END
EXISTING 184' BRIDGE NO. B5032
40'-0" CLEAR ROADWAY
STA. 5956+21.69 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

STA. 5957+74 IN PLACE
TYPE "S" DROP INLET IN MEDIAN
48" X H = 8'-10" WITH
24" X 112' R.C. PIPE OUTLET
UNDER LT. LANE
RETAIN

STA. 5962+01 TO STA. 5967+51 RAMP 2
550' MILL & INLAY

STA. 5963+73 IN PLACE
TYPE "R" DROP INLET IN MEDIAN
3' X 4' X H = 2'-10" WITH
24" X 80' R.C. PIPE OUTLET
UNDER LT. LANE
RETAIN

1-40

1/9/2013

RBB0806.DGN

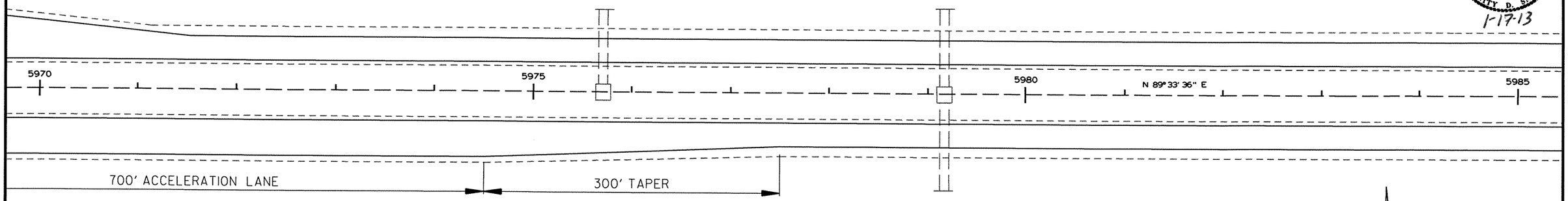
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0806	54	82

(2) PLAN SHEETS

STA. 5975+70 IN PLACE
TYPE "R" DROP INLET IN MEDIAN
3' X 4' X H = 2'-10" WITH
24" X 84' R.C. PIPE OUTLET
UNDER LT. LANE
RETAIN

STA. 5979+17 IN PLACE
TYPE "N" DROP INLET IN MEDIAN
5' X 4' X H = 7'-6" WITH
48" X 90' INLET & 48" X 98' OUTLET
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-17-13



TEMPORARY EROSION CONTROL REVISIONS

DATE OF REVISION	REVISION

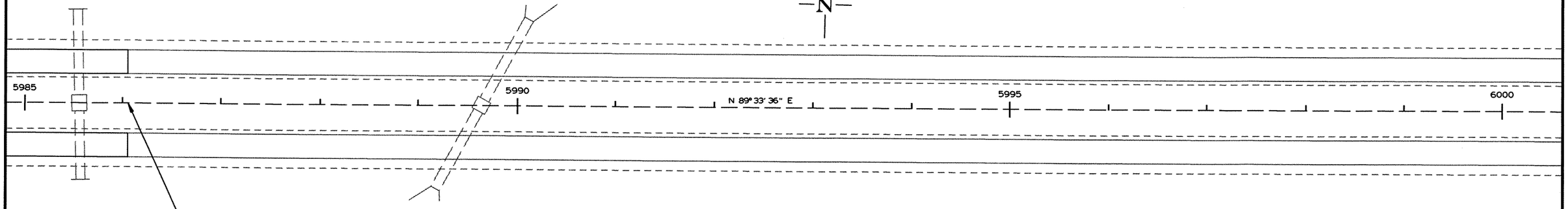
LEGEND

- (E-5) SAND BAG DITCH CHECKS
- (E-6) ROCK DITCH CHECKS
- (E-7) DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

STA. 5985+55 IN PLACE
TYPE "N" DROP INLET IN MEDIAN
4' X 4' X H = 3'-6" WITH
24" X 78' INLET & 24" X 84' OUTLET
RETAIN

STA. 5989+63 IN PLACE
TYPE "K" DROP INLET IN MEDIAN
4' X 4' X H = 1'-6" WITH
6' X 4' X 193' R.C. BOX CULVERT
30° LT. FWD. SKEW
RETAIN

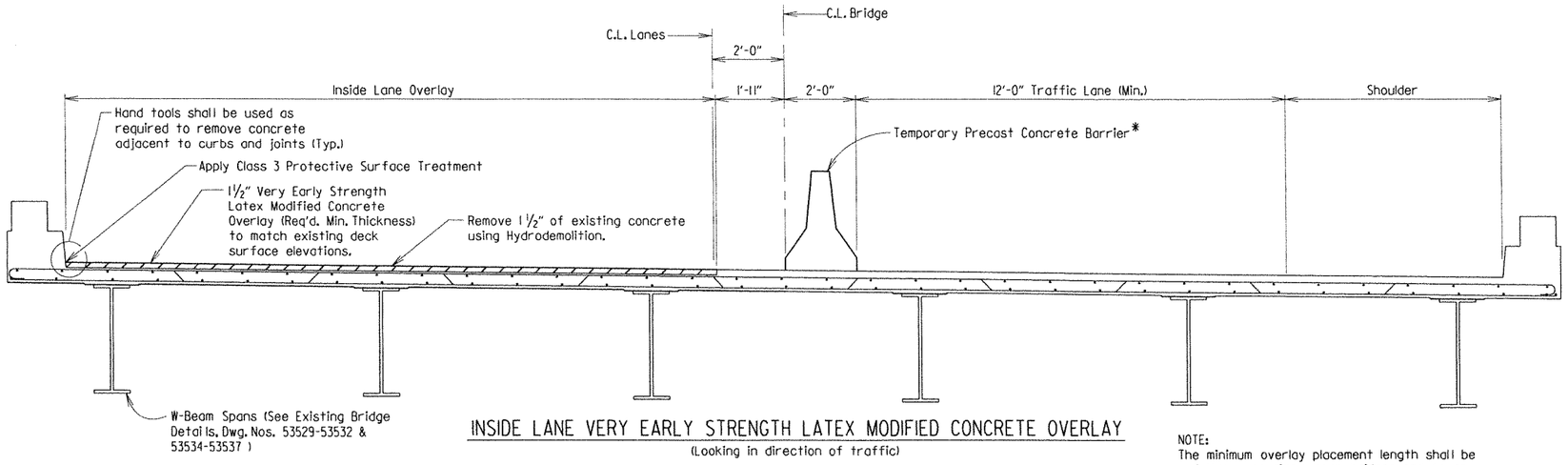


1/9/2013

RBB0806.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0806	55	82

① A&B5032 - VESLMC OVERLAY - 53526
A&B5033

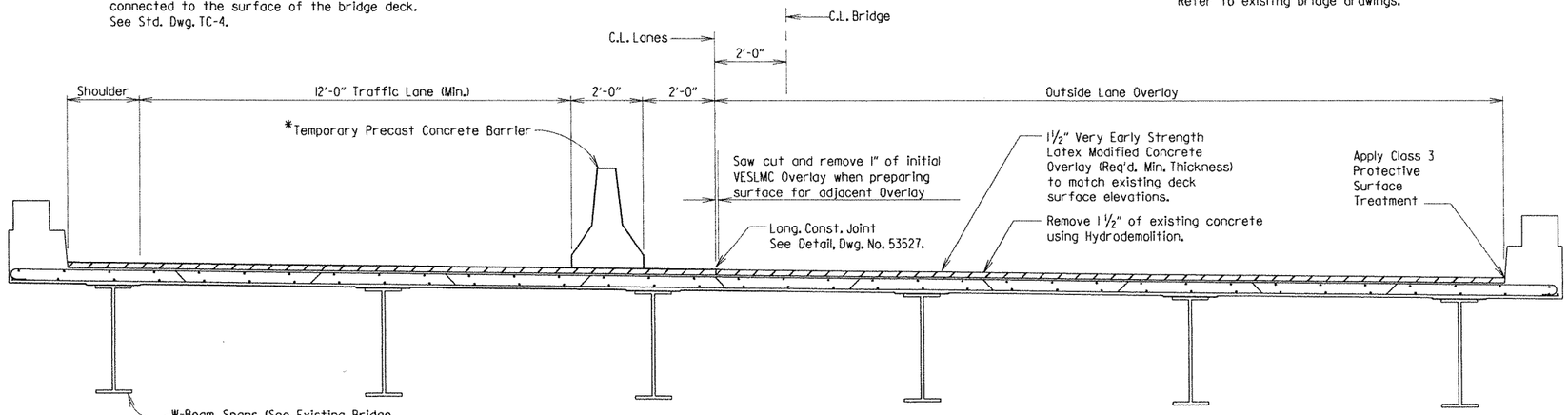


INSIDE LANE VERY EARLY STRENGTH LATEX MODIFIED CONCRETE OVERLAY

(Looking in direction of traffic)

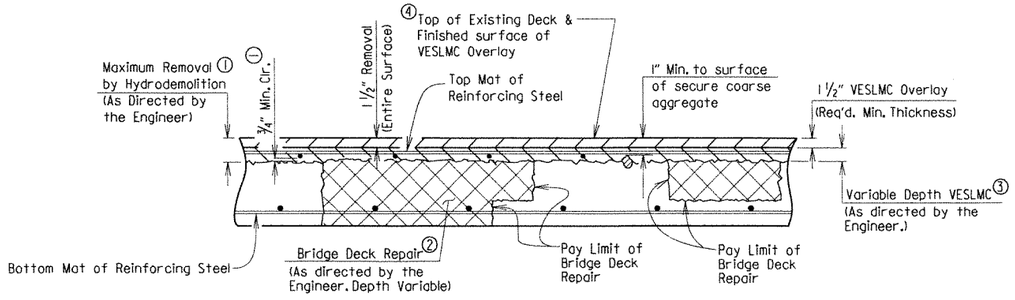
NOTE:
The minimum overlay placement length shall be a full span on simple span bridges and to an existing slab joint on continuous unit bridges. Refer to exisitng bridge drawings.

*Temporary Precast Concrete Barrier shall not be connected to the surface of the bridge deck. See Std. Dwg. TC-4.



OUTSIDE LANE VERY EARLY STRENGTH LATEX MODIFIED CONCRETE OVERLAY

(Looking in direction of traffic)



DETAILS OF HYDRODEMOLITION AND LATEX MODIFIED CONCRETE OVERLAY

① Removal of unsound concrete beyond 1½" below the original surface shall be at the direction of the Engineer. If the bond between existing concrete and the top mat of reinforcing steel is destroyed, then the concrete shall be removed to a minimum of ¾" clearance below the bar.

② Areas requiring additional repair, as determined by the Engineer, shall be repaired in accordance with the Job Special Provision "Bridge Deck Repair".

③ Depth Varies to achieve minimum clearance below top mat of reinforcing steel

④ Finished Surface of VESLMC Overlay shall match existing concrete deck surfaces unless increase is required to maintain minimum required VESLMC Overlay thickness and a minimum of 1½" cover to reinforcing steel.

GENERAL NOTES:
CONSTRUCTION SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 2003, with applicable special provisions and Supplemental Specifications. Unless otherwise noted in the plans Section and Subsection refer to the Standard Specifications.

Drawing shows details and dimensions of existing structures based on the original bridge plans. The Contractor shall make check measurements in the field and make any adjustments necessary to meet the required clearances and fit the new work to the existing structure.

The operation or placement of vehicles, equipment and, or materials on the subject bridges shall be subject to the provisions of SS-105-2 "Equipment and Material Storage on Bridge Structures". Certifications of the adequacy of all components for the anticipated loads shall address the capacity of the existing structure at all phases of this work.

HYDRODEMOLITION: The designated area of the existing bridge deck shall receive hydrodemolition in accordance with the Job Special Provision "Hydrodemolition" to a planned depth of 1½" below the existing bridge deck surface. Deteriorated concrete below this depth shall be removed up to the limits detailed and at the direction of the Engineer. These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item SP Job BB0806 "Hydrodemolition."

Prior to hydrodemolition, cold milling of any existing asphalt for its full depth and the concrete deck to a maximum depth of 1" will be allowed unless there will be a conflict with existing reinforcing steel.

BRIDGE DECK REPAIR: After hydrodemolition, the deck surface shall be sounded and any areas of unsound, delaminated or otherwise deteriorated concrete shall be removed at the direction of the Engineer and in accordance with SP Job BB0806 "Bridge Deck Repair".

VERY EARLY STRENGTH LATEX MODIFIED CONCRETE OVERLAY: The designated area of the existing bridge deck shall receive a Very Early Strength Latex Modified Concrete (VESLMC) Overlay to a planned depth of 1½" below the existing bridge deck surface, in accordance with the Job Special Provision "Very Early Strength Latex Modified Concrete Overlay". These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item SP Job BB0806 "Very Early Strength Latex Modified Concrete Overlay (1½" Thick)". Areas of the existing bridge deck removed at the direction of the Engineer to a depth greater than 1½" below the existing bridge deck surface shall be filled with VESLMC concurrent to the placement of the 1½" VESLMC Overlay. This area shall be measured and paid for as SP Job BB0806 "Very Early Strength Latex Modified Concrete (Variable Depth)" at the unit price bid for the item.

BRIDGE DECK: The VESLMC Overlay surface shall be given a grooved finish as specified for final finishing in Subsection 802.19 for Class 7 Grooved Bridge Roadway Surface Finish and in accordance with Job Special Provision "Very Early Strength Latex Modified Concrete Overlay".

PROTECTIVE SURFACE TREATMENT : The longitudinal joint between the VESLMC overlay and the adjacent existing concrete curb or rail shall be given a Class 3 Protective Surface Treatment as specified in Section 803 and in accordance with Job Special Provision "Very Early Strength Latex Modified Concrete Overlay".

STATE OF ARKANSAS
Carl J. Fuselier
REGISTERED PROFESSIONAL ENGINEER
No. 7510
1/7/13
CARL J. FUSELIER

BRIDGE ENGINEER

SHEET 1 OF 2
DETAILS OF
VERY EARLY STRENGTH
LATEX MODIFIED CONCRETE OVERLAY

ROUTE SEC.

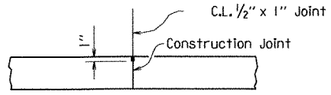
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: SWP DATE: 12/21/12
CHECKED BY: JGT DATE: 12/21/12
DESIGNED BY: JGT DATE: 12/12
FILENAME: bb0806_concoverlay.dgn
SCALE: NO SCALE

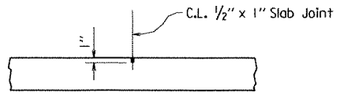
BRIDGE NO. A&B5032 A&B5033
DRAWING NO. 53526

PRINT DATE: 07-JAN-2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0806	56	82
				①	A&B5032 - VESLMC OVERLAY - 53527			
				A&B5033				



Use ½" X 1" Type 3, 4 or 6 Joint Sealer. See subsections 501.02 (h) and 501.05 (j). Backer Rod shall not be installed. Joint Sealer shall be measured and paid for as VESLMC Overlay. Sealant must be gray or other color similar to concrete.

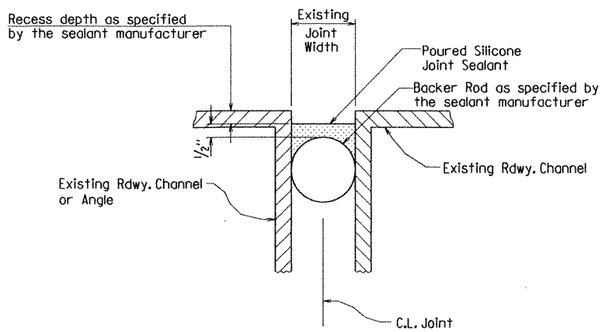


Use ½" X 1" Type 3, 4 or 6 Joint Sealer. See subsections 501.02 (h) and 501.05 (j). Backer rod shall not be installed. Joint Sealer shall be measured and paid for as VESLMC Overlay. Slab joints shall extend to the outside edge of the deck slab. Slab joints shall be placed at all pouring sequence construction joints and are required at existing slab joint locations.

Slab joints and longitudinal construction joints shall be sawed as soon as the concrete has sufficiently set to allow sawing of the joint without damage to the Overlay.

LONGITUDINAL OVERLAY CONSTRUCTION JOINT DETAIL
No Scale

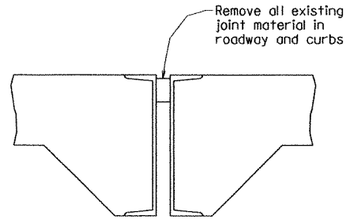
OVERLAY JOINT DETAIL
No Scale



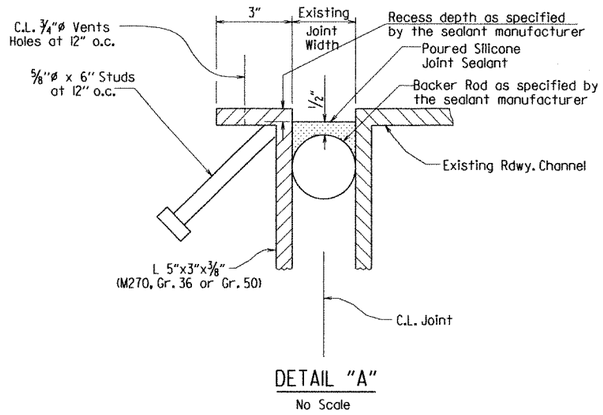
Notes: Backer rods shall be extended beyond the length of the poured joint in the initial joint rehabilitation area so that the two pieces can be properly spliced together prior to installing sealant for the adjacent joint rehabilitaton. Manufacturer's recommendations shall be followed to prevent sealant leakage during rehabilitation work.

Existing Joint Seal shall be completely removed, backer rods placed, and Silicone Joint Sealant installed across the entire width of the bridge deck in accordance with these details and Manufacturer's instructions. Removal of existing Joint Seal will not be paid for directly, but shall be considered incidental to the item "Silicone Joint Sealant".

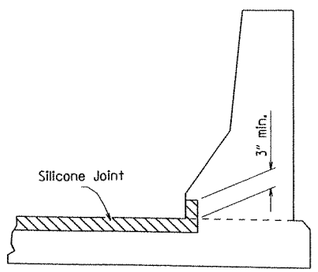
POURED SILICONE JOINT SEAL DETAILS
TYPE B JOINT REHABILITATION
No Scale



REMOVAL DETAILS AT INT. BENTS
TYPE B JOINT REHABILITATION
Scale: 1½" = 1'-0"

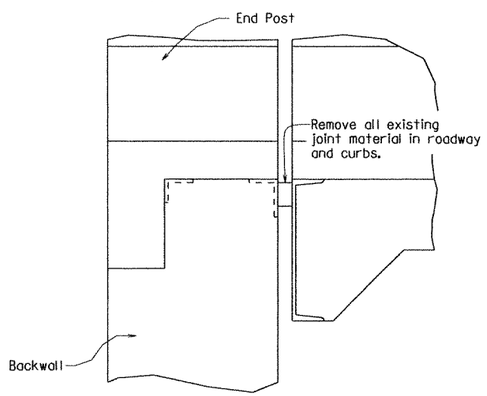


DETAIL "A"
No Scale



Note: Vertical joints may require forming. The clearance from deck surface to joint material shall be maintained.

JOINT SEAL PLACEMENT AT CURB
No Scale



REMOVAL DETAILS AT END BENTS
TYPE B JOINT REHABILITATION
No Scale

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7510
CARL J. FUSELIER
1/7/13

BRIDGE ENGINEER

SHEET 2 OF 2
DETAILS OF
VERY EARLY STRENGTH
LATEX MODIFIED CONCRETE OVERLAY

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: SWP DATE: 12/21/12
CHECKED BY: JGT DATE: 12/21/12
DESIGNED BY: JGT DATE: 12/12

FILENAME: bb0806_concoverlay.dgn
SCALE: NO SCALE

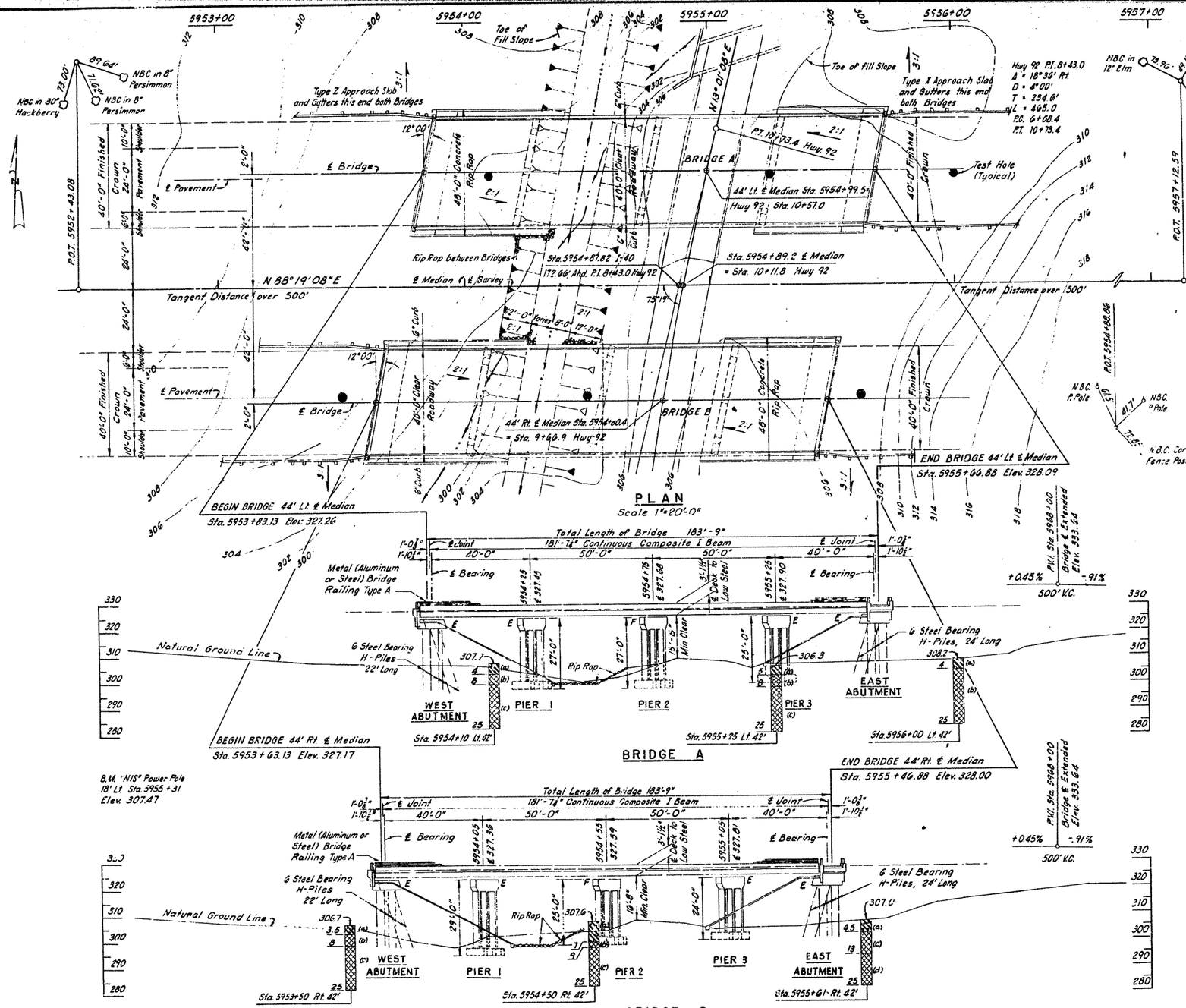
BRIDGE NO. A&B5032 A&B5033

DRAWING NO. 53527

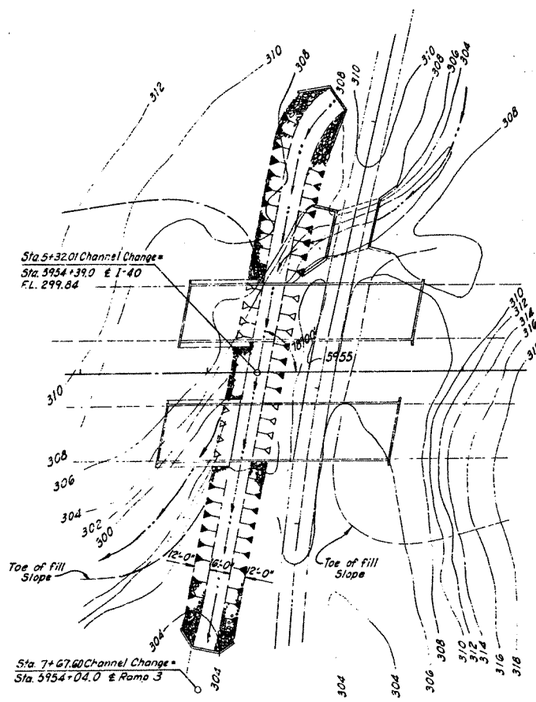
PRINT DATE: 07-JAN-2013

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK				
JOB NO.		BB0806		57	82
①	A&B5032 - LAYOUT - 53528				

FOR INFORMATION ONLY



BORING LEGEND
(a) Brown Clay, Gravel and Boulders
(b) Brown Shale
(c) Very Hard Blue Shale and Layers of Rock
(d) Hard Blue Shale



PLAN CHANNEL CHANGE
Scale: 1"= 50'-0"

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959, the 1966 Supplemental Specifications thereto, and Designated Special Provisions.

DESIGN SPECIFICATIONS: AASHO 1961
Live Loading: HS20-44 and Special Interstate Loading of 2-24,000# axles spaced 4' on centers

UNIT STRESSES:

Class A Concrete (n=15)	840 psi
Class S Concrete (n=10)	1200 psi
Reinforcing Steel	20,000 psi
Structural Steel A-36	20,000 psi

BRIDGE NO. A&B5302 DRAWING NO. 53528

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

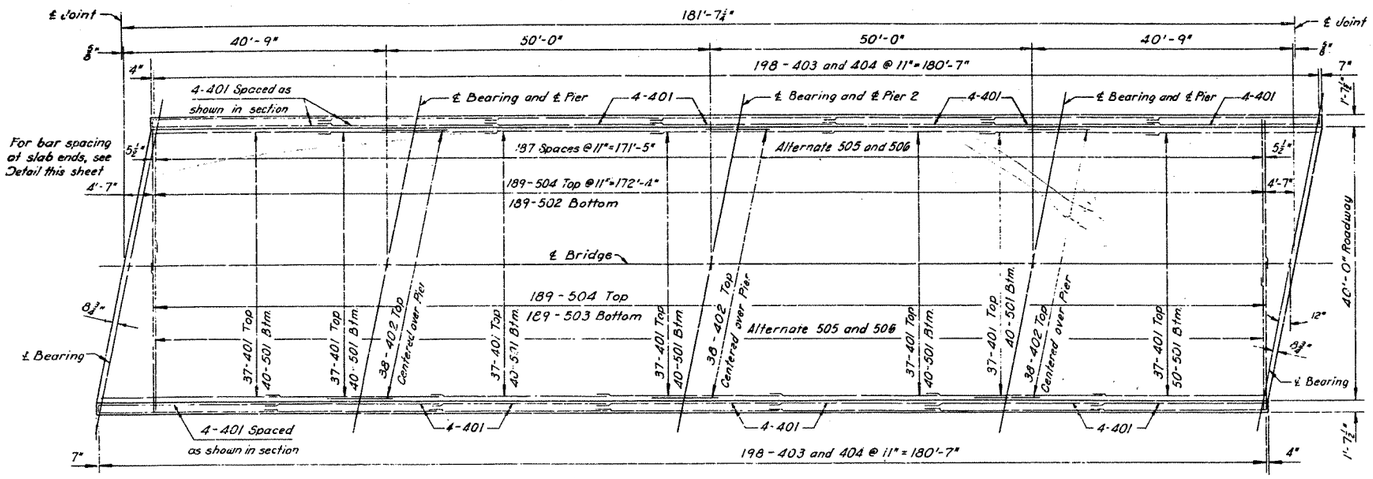
INTERSTATE ROUTE 40
MORRILTON – PLUMERVILLE

HIGHWAY 92 OVERPASS

PLAN AND ELEVATION

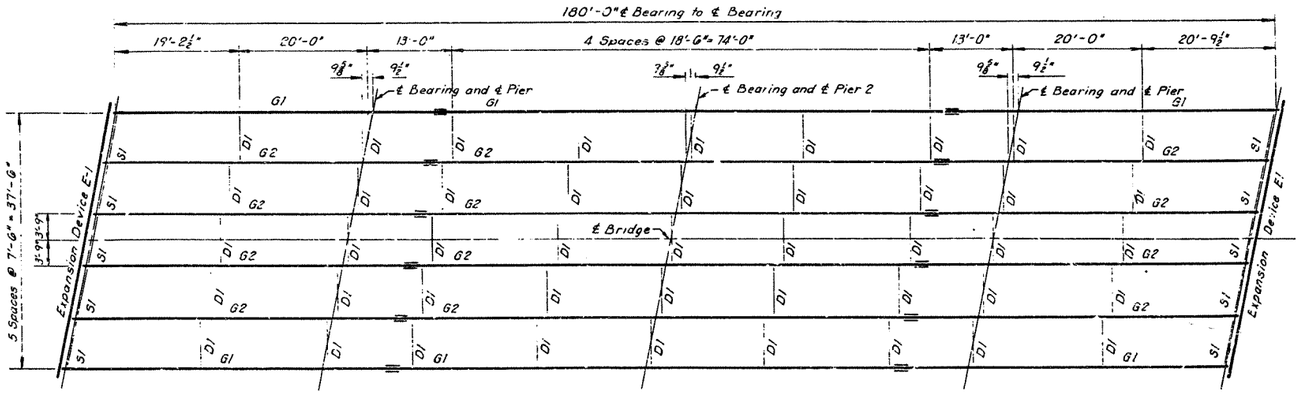
DRAWN BY GEL	GARVER & GARVER, Inc.	SCALE: AS SHOWN
CHECKED BY TBH	ENGINEERS	SHEET No
DATE	LITTLE ROCK, ARKANSAS	

FARRELL & SCHAER



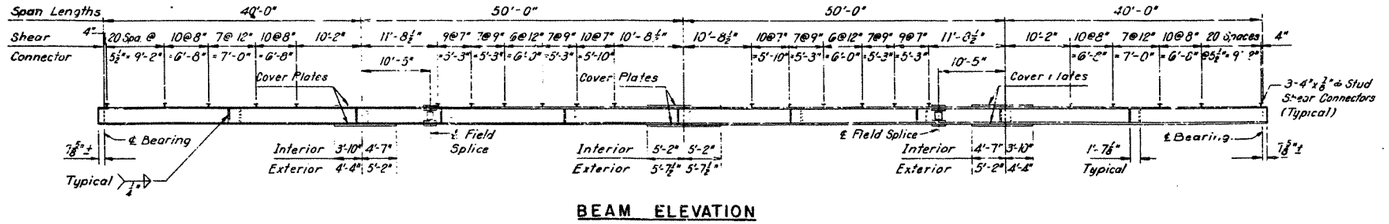
SLAB PLAN

Scale: 1" = 10'-0"



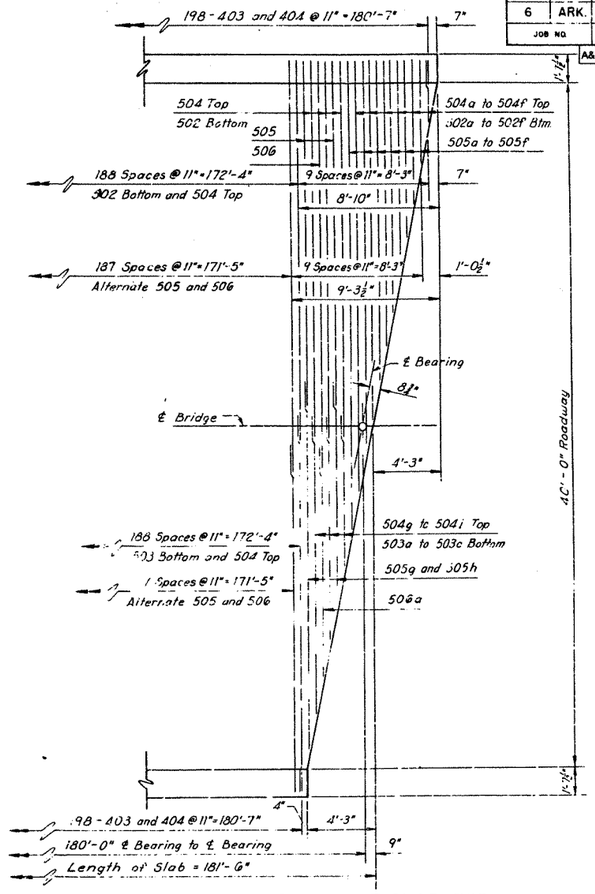
FRAMING PLAN

Scale: 1" = 10'-0"



BEAM ELEVATION

Scale: 1" = 10'-0"



DETAIL - BAR SPACING AT SLAB END

Scale: ½" = 1'-0"

NOTES:

1. For Deck Cross Sections, Diaphragm D1, Strut S1, Expansion Device E-1 and Field Splice, see Drawing No. 14188.
2. For Shoe and Roadway Drain Details, see Drawing No. 14189.
3. For Slab Reinforcement Schedule, Parapet Joint Spacing, Post Spacing, Slab Pouring Sequence, and Dead Load Deflection Diagram, see Drawing No. 14190.

BEAM SCHEDULE		
MARK	G1	G2
BEAM	27 WF 84	27 WF 84
COVERS - PIERS 1 & 3	8½ x 1 1/16	8½ x ⅞
COVERS - PIER 2	8½ x ½	8½ x 1 1/16

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.				
JOB NO.		BB0806		58	82

A&B5032-SUPERSTRUCTURE-53529

FOR INFORMATION ONLY

BRIDGE NO. A&B5032 DRAWING NO. 53529

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

INTERSTATE ROUTE 40
MORRILTON - PLUMERVILLE

HIGHWAY 92 OVERPASS
SLAB AND FRAMING PLANS

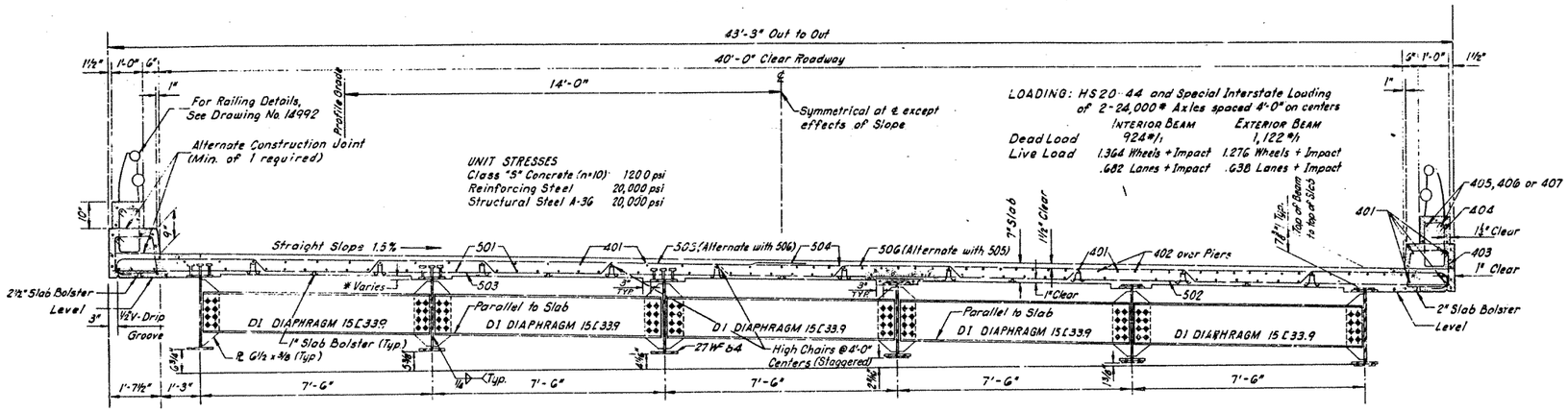
DRAWN BY	CHECKED BY	DATE	SCALE	SHEET No.
GEL	TBH		AS NOTED	

GARVER & GARVER, Inc.
ENGINEERS
LITTLE ROCK, ARKANSAS

FORMELL & SCHILLER

FED ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.				
JOB NO.		BB0806		59	82

(1) A&B5032 - SUPERSTRUCTURE - 53530

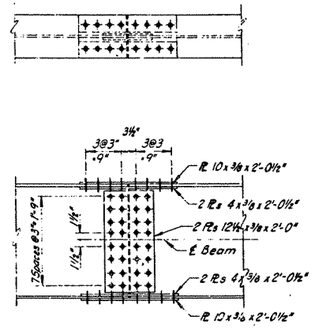


HALF SECTION AT INTERMEDIATE DIAPHRAGM

* Varies from the final position of the beam in order to maintain the planned grade and the constant slab thickness.

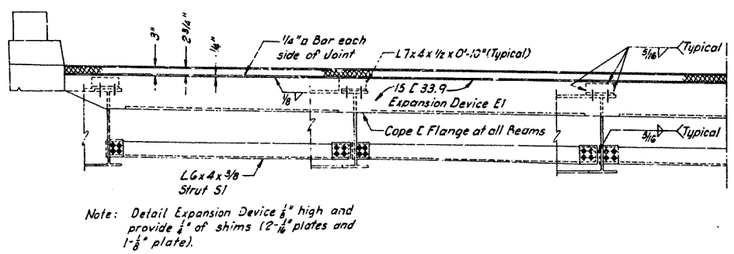
HALF SECTION AT PIER

Scale: ¼" = 1'-0"



FIELD SPLICE

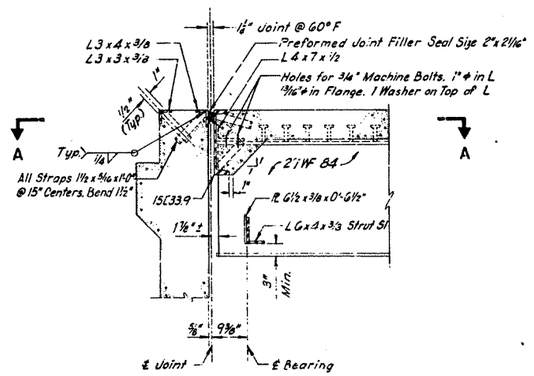
Scale: ¾" = 1'-0"



Note: Detail Expansion Device ⅝" high and provide ¼" of shims (2-1/16" plates and 1-⅛" plate).

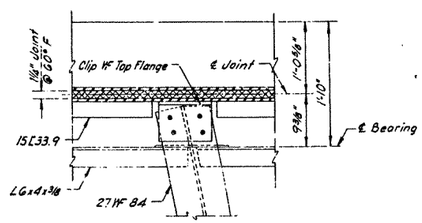
HALF SECTION AT EXPANSION DEVICE

Scale: ½" = 1'-0"



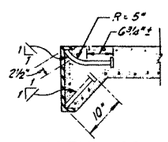
SECTION NORMAL TO ABUTMENT

Scale: ⅜" = 1'-0"



SECTION A-A

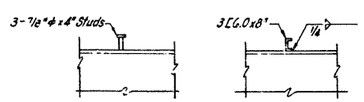
Scale: 1" = 1'-0"



DETAIL OF ALTERNATE ANCHOR

No Scale

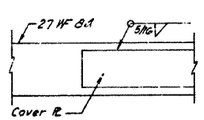
As an alternate for Straps, ¾" ø x 10" automatically welded stud Anchors, granular flux filled, solid fluxed or equal, may be used. Straps shall be used as basis of measurement and payment.



ALTERNATE SHEAR CONNECTORS

No Scale

Channel Shear Connectors shall have the same spacing as shown for the Studs. Studs shall be used as basis for measurement and payment. Channels are to be toed toward nearest girder splice or end.



COVER PLATE DETAIL

No Scale

FOR INFORMATION ONLY

BRIDGE NO. A&B5032 DRAWING NO. 53530

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

INTERSTATE ROUTE 40
MORRILTON - PLUMERVILLE

HIGHWAY 92 OVERPASS

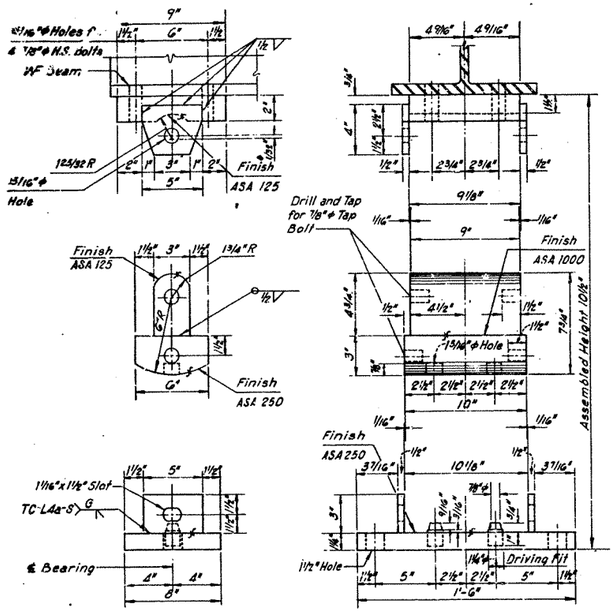
CROSS SECTION AND EXPANSION DEVICE

DRAWN BY	GEL	GARVER & GARVER, Inc. ENGINEERS LITTLE ROCK, ARKANSAS	SCALE: AS NOTED
CHECKED BY	TBH		SHEET NO
DATE			

FARRELL & SCHAER

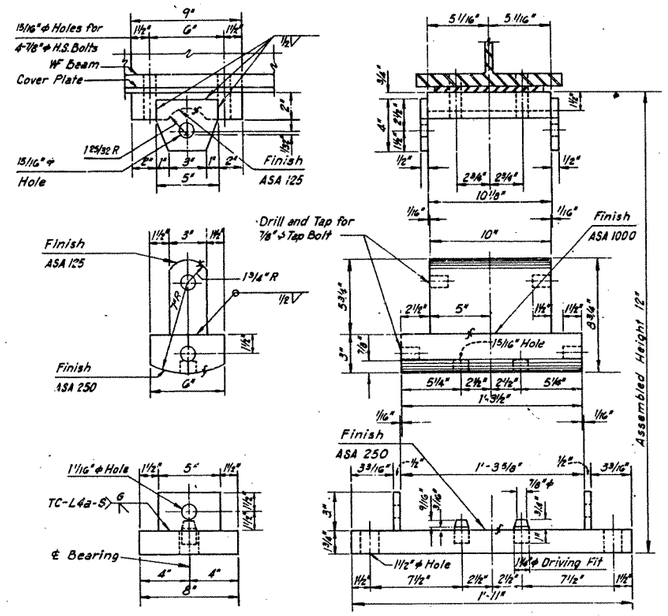
FED.ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.				
JOB NO.	BB0806			60	92

(1) A&B5032 - SUPERSTRUCTURE - 53531



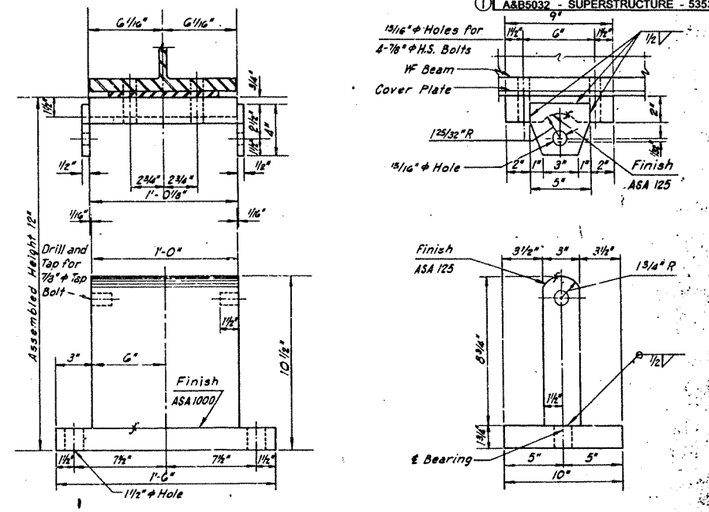
EXPANSION SHOE AT ABUTMENTS

Scale: 1/2" = 1'-0"



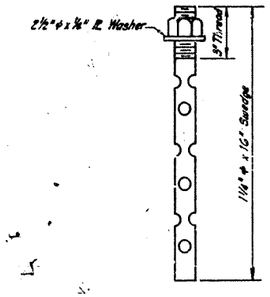
EXPANSION SHOE AT PIER 1 AND 3

Scale: 1/2" = 1'-0"



FIXED SHOE AT PIER 2

Scale: 1/2" = 1'-0"



ANCHOR BOLT DETAIL

Scale: 3" = 1'-0"

NOTES:

1. Place three layers of red lead and canvas, or an approved preformed bearing pad, under each shoe
2. Shoes are to be measured and paid for as "Structural Steel in Beam Spans, A36" Red lead and canvas or preformed bearing pads, as used, are considered subsidiary to the item of "Structural Steel in Beam Span, A36".
3. Rockers shall be vertical at 60° F.
4. Anchor Bolts shall be galvanized to conform to ASTM Specification A153.

FOR INFORMATION ONLY

BRIDGE NO. A&B5032 DRAWING NO. 53531

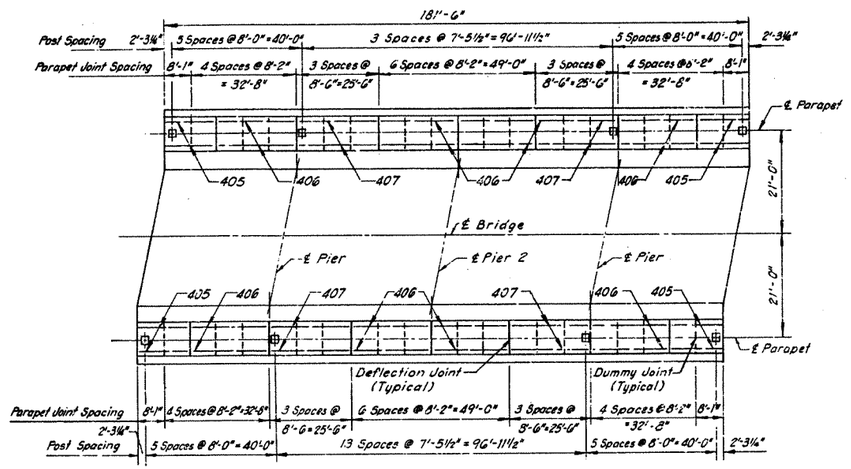
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

INTERSTATE ROUTE 40
MORRILTON – PLUMERVILLE

HIGHWAY 92 OVERPASS
SHOES

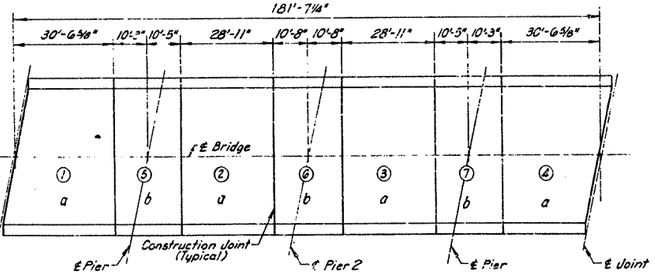
DRAWN BY: GEL	GARVER & GARVER, INC. ENGINEERS LITTLE ROCK, ARKANSAS
CHECKED BY: TBH	
DATE:	

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.				
JOB NO.		BB0806		61	92



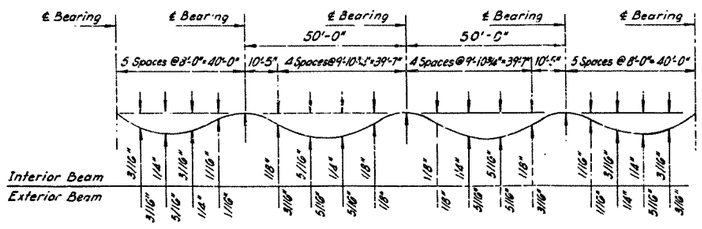
Note: Splice Railing in same panel as Deflection Joint

PLAN SHOWING POST AND PARAPET JOINT SPACING



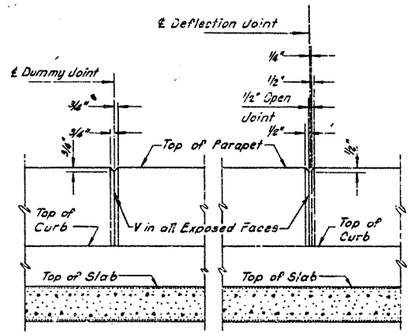
NOTES:
1. Joints shown are required. Location of other Construction Joints are optional.
2. A minimum of 72 hours to elapse before making adjacent pours.
3. Permissible simultaneous pours are noted by same letters.
4. For continuous pour option, see Job Special Provisions.

SLAB POURING SEQUENCE



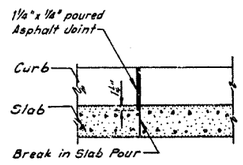
DEAD LOAD DEFLECTION DIAGRAM

Note: Fabricate bow side of beam up. Maximum allowable natural bow is ¼" more than D.L. Deflection. Vary slab haunch to allow for difference between bow and D.L. Deflection. Deflection is computed with Alternate Construction Joint at base of parapet and no joint at gutter.



DUMMY JOINT THRU PARAPET

DEFLECTION JOINT THRU PARAPET



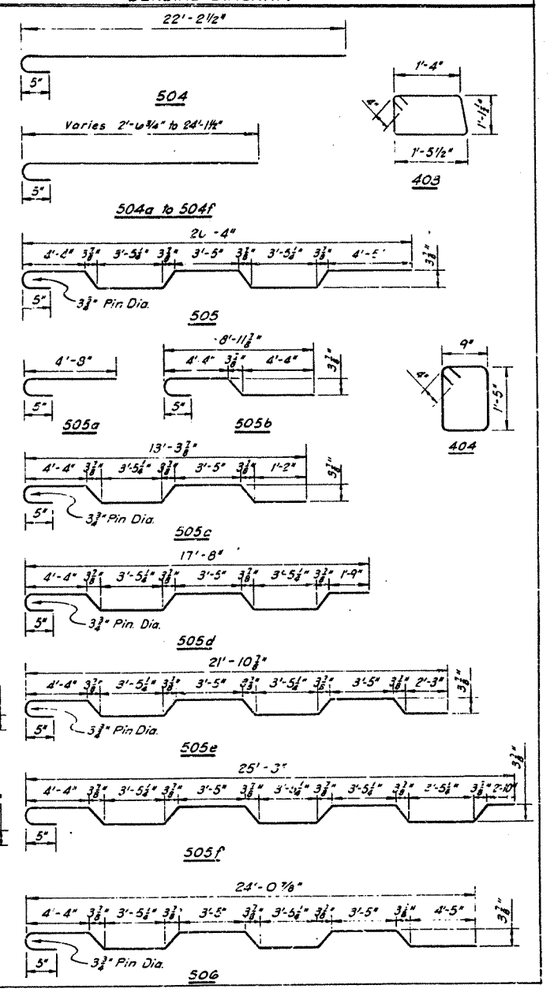
SLAB CONSTRUCTION JOINT

Note: Poured Asphalt Joint will not be paid for directly, but will be considered subsidiary to the item Class S Concrete.

SLAB REINFORCEMENT SCHEDULE - ONE BRIDGE

MARK	NO.	LENGTH	PIN DIA.
401	315	21'-0"	Str.
402	114	10'-6"	Str.
403	396	5'-7½"	1½"
404	396	4'-11"	1½"
405	8	15'-11"	Str.
406	16	24'-2"	Str.
407	8	25'-2"	Str.
501	280	27'-8"	Str.
502	195	18'-6"	Str.
502a to 502f	2 ea.	Varies 2'-7" to 24'-2"	Str.
503	189	26'-0"	Str.
503a to 503c	2 ea.	Varies 11'-7" to 20'-2¾"	Str.
504	384	22'-10"	3⅜"
504a to 504f	2 ea.	Varies 3'-2¼" to 24'-9"	3⅜"
504g to 504j	2 ea.	Varies 7'-10¾" to 16'-6¼"	Str.
505	192	21'-8½"	3¾"/1¾"
505a	2	5'-3½"	3¾"
505b	2	9'-8"	3¾"/1¾"
505c	2	14'-5"	3¾"/1¾"
505d	2	19'-0½"	3¾"/1¾"
505e	2	23'-4½"	3¾"/1¾"
505f	2	27'-0"	3¾"/1¾"
505g	2	12'-1"	1¾"
505h	2	20'-9¼"	1¾"
506	190	25'-6½"	3¾"/1¾"
506a	2	14'-4¾"	1¾"

BENDING DIAGRAM



Note: All dimensions are center to center of bars.

FOR INFORMATION ONLY

BRIDGE NO. A&B5032 DRAWING NO. 53532

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

INTERSTATE ROUTE 40
MORRILTON - PLUMERVILLE

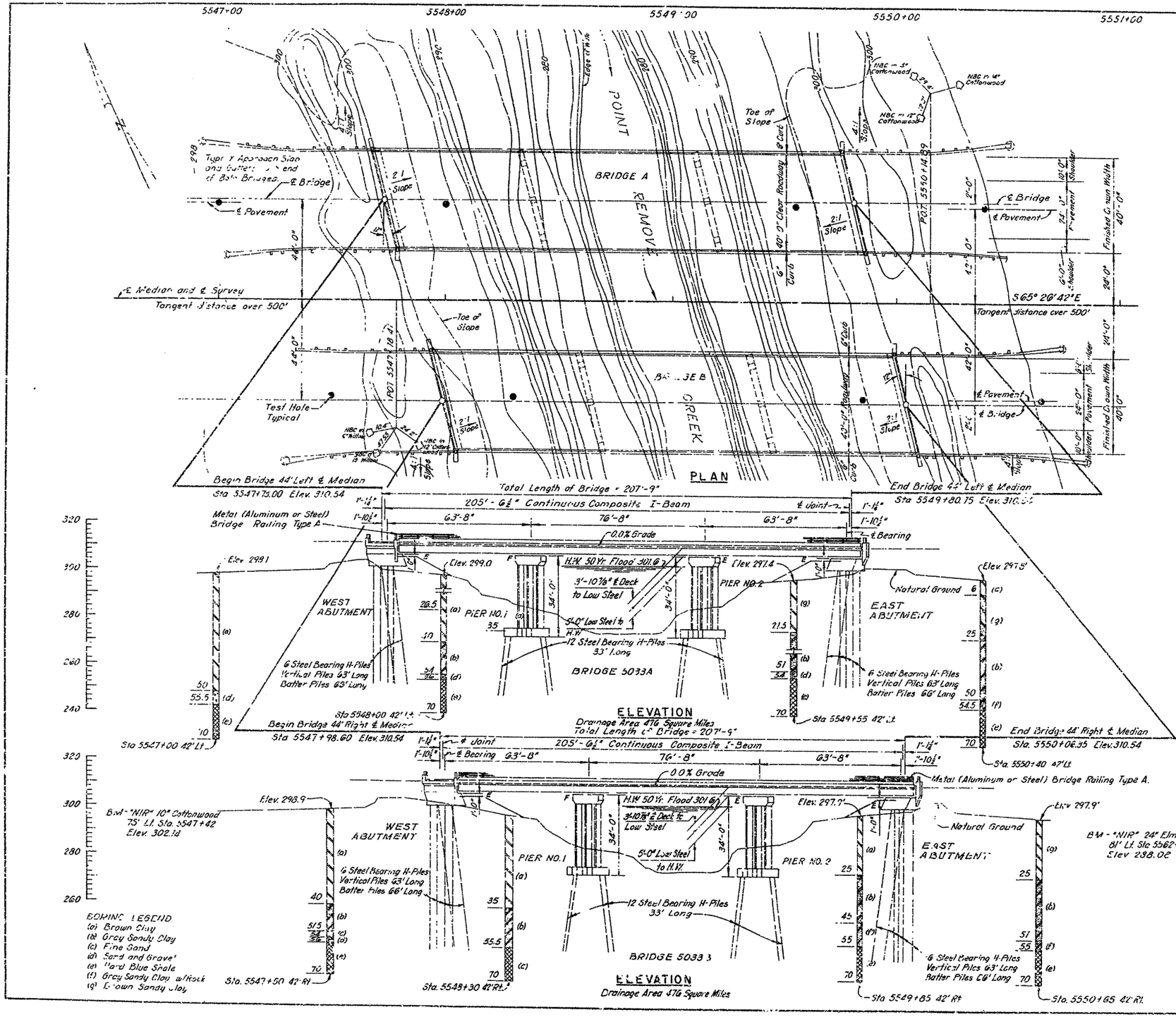
HIGHWAY 92 OVERPASS

SLAB REINFORCEMENT SCHEDULE AND MISCELLANEOUS DETAILS

DRAWN BY	CHECKED BY	DATE	SCALE	SHEET NO
GEL	TBH		None	

GARVER & GARVER, Inc.
ENGINEERS
LITTLE ROCK, ARKANSAS

FED ROAD DIST	STATE	FED AID PROJ. NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
6	ARK				
JOB NO.		BB0806		62	82
(1) A&B5033 - LAYOUT - 53533					



GENERAL NOTES:

1. All elevations on drawings refer to mean sea level elevation. For elevations of tops of caps and bottoms of footings see Pier and Abutment Details
2. Roadways, Curbs, Parapets and Abutments shall be constructed of Class S concrete. Piers shall be constructed of Class A and Class S Concrete as shown on drawings. All concrete to be poured in the dry. All corners to be chamfered ¾" unless otherwise noted Chamfer on Parapet to be ½".
3. Reinforcing Steel shall be deformed bars of intermediate or hard grade. On the drawings, bar sizes are designated by number. The first digit or the first two, as the case may be, indicating the size of bar. Bars shall be accurately located and firmly held in place during construction by steel wire supports. The wire supports will not be paid for directly but will be considered subsidiary to the Item "Reinforcing Steel".
4. All Structural Steel shall be A.S.T.M. Designation A-36.
5. All Field Connections shall be made with ⅞" diameter high strength bolt unless otherwise shown on drawings. Open holes to be 15/16" diameter unless otherwise noted. The minimum distance between centers of ⅞" ℄ bolts shall be not less than three times the diameter of the bolt, and preferably, shall be not less than 3". The minimum distance from the center of a ⅞" ℄ bolt to a sheared edge shall be 1⅛" and to a rolled or planed edge shall be 1¼".
6. All welding shall conform to the American Welding Society standard specifications for Welded Highway and Railway Bridges, current edition.
7. Drawings show general features of design only. Shop drawings showing structural steel details, reinforcing steel shop list and bending diagrams, railing details, shall be prepared in accordance with specifications, submitted and approval secured before fabrication is begun.
8. Shop Paint: All structural steel, except surfaces in contact with concrete and within limits of friction splices, shall be given one coat of red lead and raw linseed oil before shipment.
9. Field Paint: First Coat - red lead tinted with lamp black.
   Second Coat - aluminum paint.
10. Lengths of piles shown shall be ordered and driven into the material designated as shale on the borings, and to a minimum bearing capacity of 55 tons per 10BP42 Pile and 70 tons per 12BP53 Pile. Cutoff and/or buildup shall be measured and paid for as provided in the specifications. Pilings in the Abutment shall be driven after the embankment is in place.

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction Edition of 1959, the 1966 Supplemental Specifications thereto, and designated Special Provisions.

DESIGN SPECIFICATIONS: AASHO 1961 Live Loading HS20-44 and Special Interstate Loading of 2-24000# axels spaced 4' on centers

UNIT STRESSES:

Class A Concrete (n=15)	840 psi
Class S Concrete (n=10)	1,200 psi
Reinforcing Steel	20,000 psi
Structural Steel A-36	20,000 psi

FOR INFORMATION ONLY

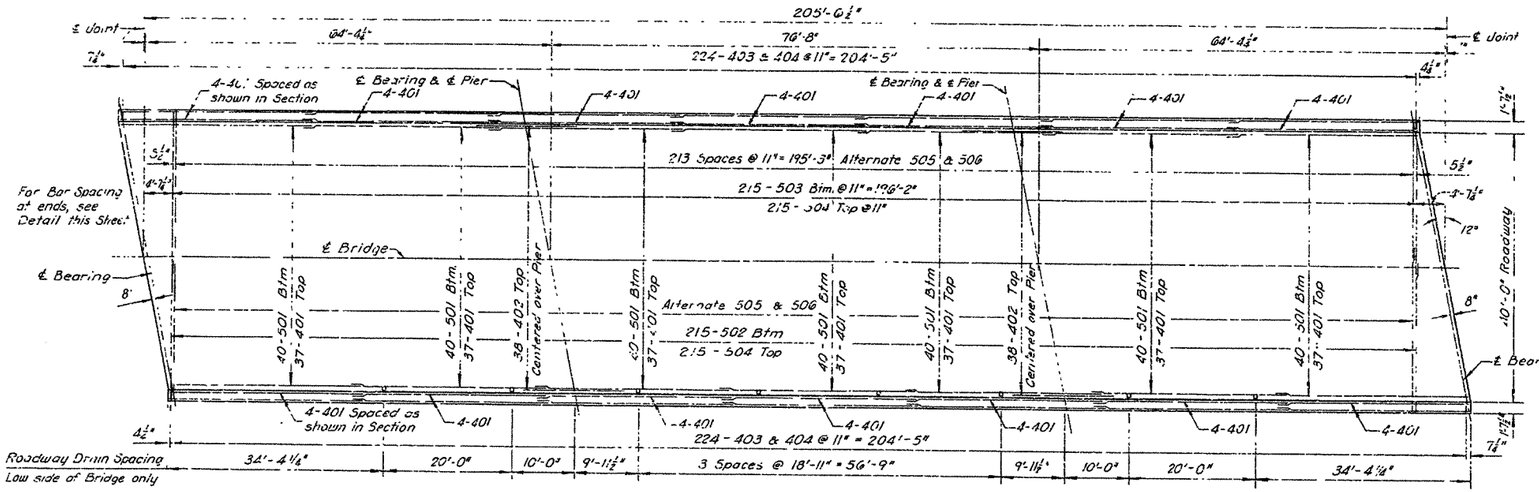
BRIDGE NO. A&B5033 DRAWING NO. 53533

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

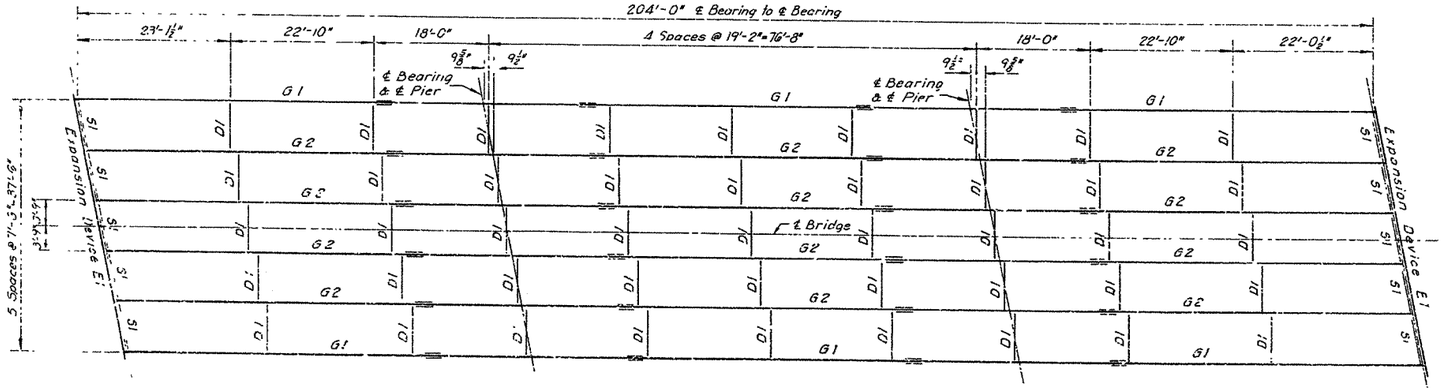
INTERSTATE ROUTE 40
KENWOOD MORRILTON

BRIDGE OVER POINT REMOVE CREEK
PLAN AND ELEVATION

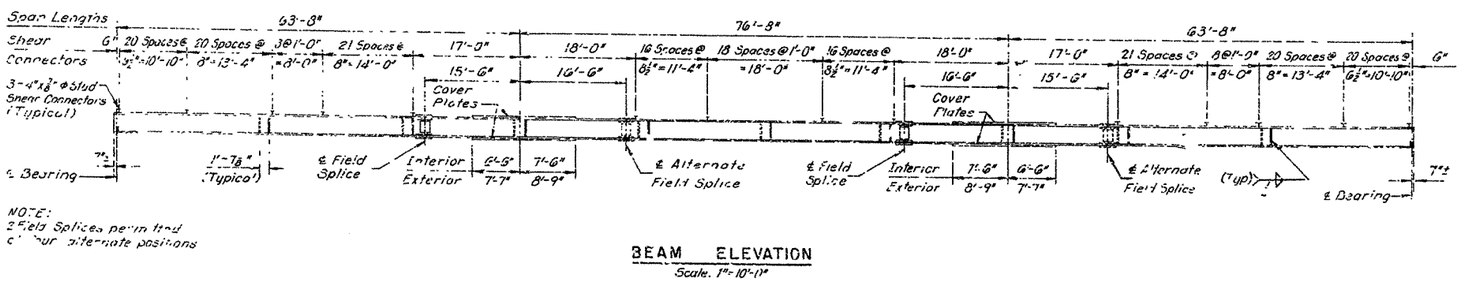
DRAWN BY GEL	SURVEY & GARVER, Inc. ENGINEERS LITTLE ROCK, ARKANSAS	SCALE 1"=20'
CHECKED BY TBH		SHEET NO
DATE		



SLAB PLAN
Scale 1"=10'

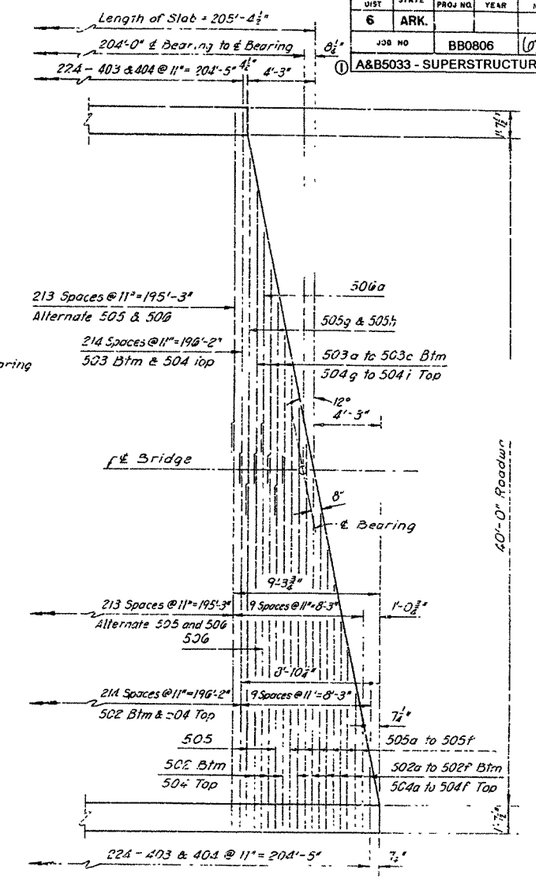


FRAMING PLAN
Scale: 1"=10'-0"



NOTE:
2 Field Splices permitted at four alternate positions

BEAM ELEVATION
Scale. 1"=10'-0"



DETAILS-BAR SPACING AT SLAB END
Scale. 1"=1'-0"

NOTES:

1. For Deck Sections, Diaphragm D1, Strut S1, Expansion Device E1 and Field Splice, see Drawing No. 14198.
2. For Shoe and Roadway Drain Details, see Drawing No. 14199.
3. For Slab Reinforcement Schedule, Parapet Joint Spacing, Post Spacing, Slab Sequence and Dead Load Deflection Diagram, see Drawing No. 14200.

FOR INFORMATION ONLY

BEAM SCHEDULE		
MARK	G1	G2
BEAM	36 WF 135	36 WF 135
COVERS	10½ x ⅞	10 x 13/16

FED ROAD DIST	STATE	FED AID PROJ NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.				
JOB NO	BB0806			03	92

① A&B5033 - SUPERSTRUCTURE - 53534

BRIDGE NO. A&B5033 DRAWING NO. 53534

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

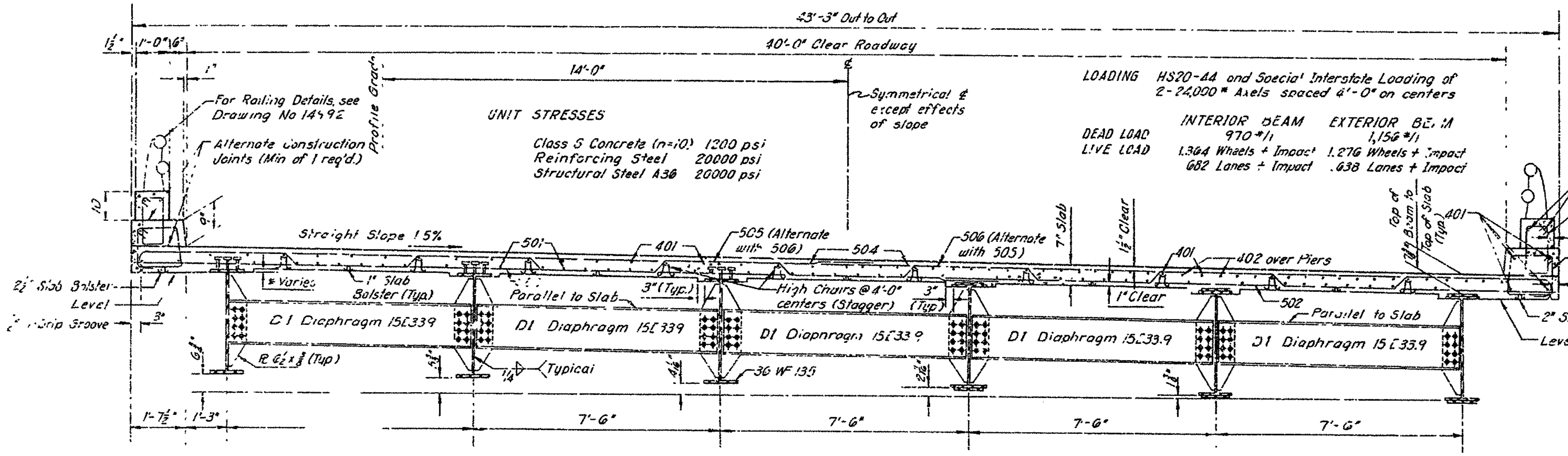
INTERSTATE ROUTE 40
KENWOOD - MORRILTON

BRIDGE OVER POINT REMOVE CREEK
SLAB AND FRAMING PLANS

DRAWN BY	GEL	GARVER & GARVER, Inc. ENGINEERS LITTLE ROCK ARKANSAS	SCALE	AS SHOWN
CHECKED BY	TBH		SHEET NO.	
DATE				

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.				
JOB NO.		BB0806		64	82

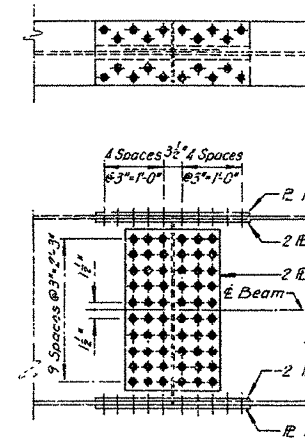
(1) A&B5033 - SUPERSTRUCTURE - 53535



* Varies from the final position of the beam in order to maintain the planned grade and the constant slab thickness

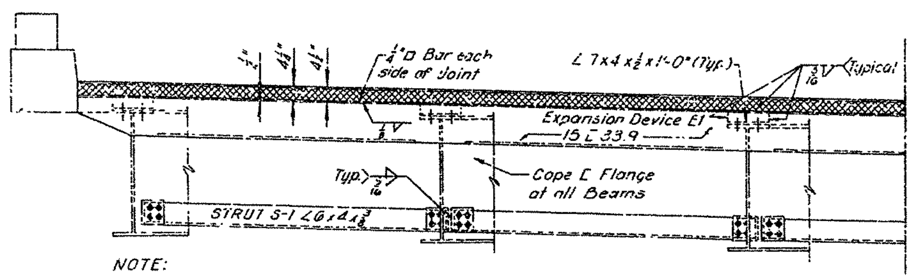
HALF SECTION AT INTERMEDIATE DIAPHRAGM

Scale: 1/4" = 1'-0"



FIELD SPLICE

Scale: 3/4" = 1'-0"



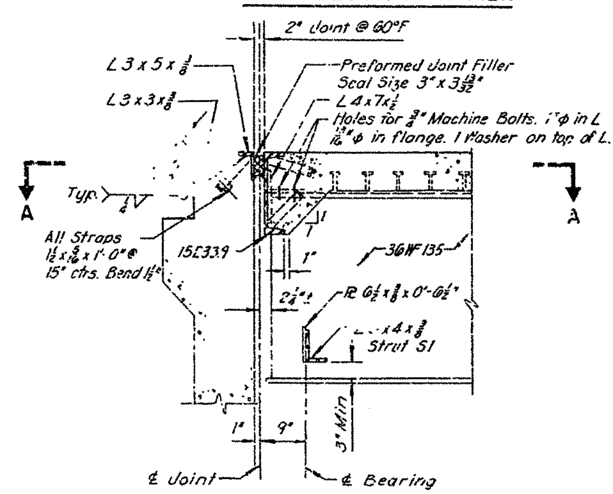
NOTE:

Detail Expansion Device 3/4" High and provide 1/4" of Shims (2-1/16" plates and 1-1/8" plate).

HALF SECTION AT EXPANSION DEVICE

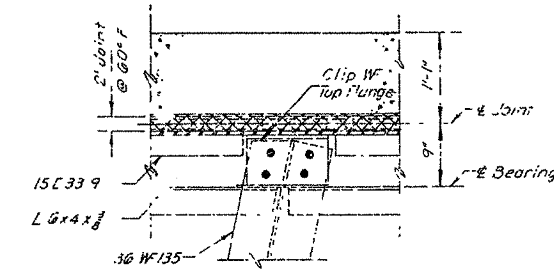
Scale: 1/4" = 1'-0"

HALF SECTION AT PIER



SECTION NORMAL TO ABUTMENT

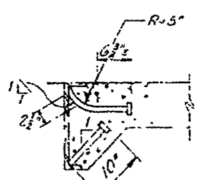
Scale: 3/8" = 1'-0"



SECTION A-A

Scale: 1" = 1'-0"

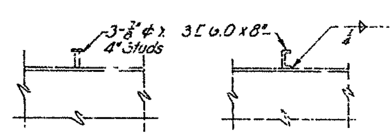
FOR INFORMATION ONLY



DETAIL OF ALTERNATE ANCHOR

No Scale

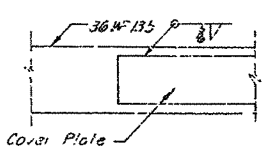
As an alternate for straps 3/4" x 10" automatically welded st... granular flux filled, or equal may be used. Straps shall be used as basis of measurement and payment.



ALTERNATE SHEAR CONNECTORS

No Scale

NOTE:
Channel shear connectors shall have the same spacing as shown for the studs. Studs shall be used as basis for measurement and payment. Channels are to be toed toward nearest girder splice or end.



COVER PLATE DETAIL

No Scale

BRIDGE NO. A&B5033 DRAWING NO. 53535

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

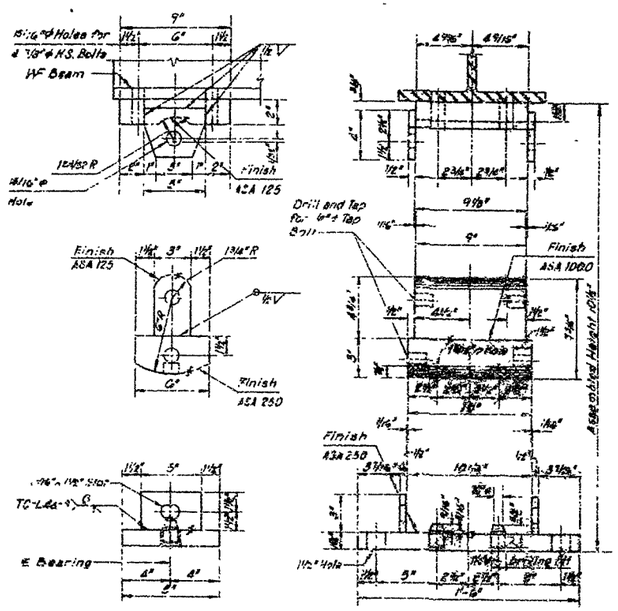
INTERSTATE ROUTE 40
KENWOOD – MORRILTON

BRIDGE OVER POINT REMOVE CREEK
CROSS SECTIONS AND EXPANSION DEVICE

DRAWN BY GEL	GARVER & GARVER, Inc. ENGINEERS LITTLE ROCK, ARKANSAS	SCALE AS SHOWN
CHECKED BY BH		
DATE		

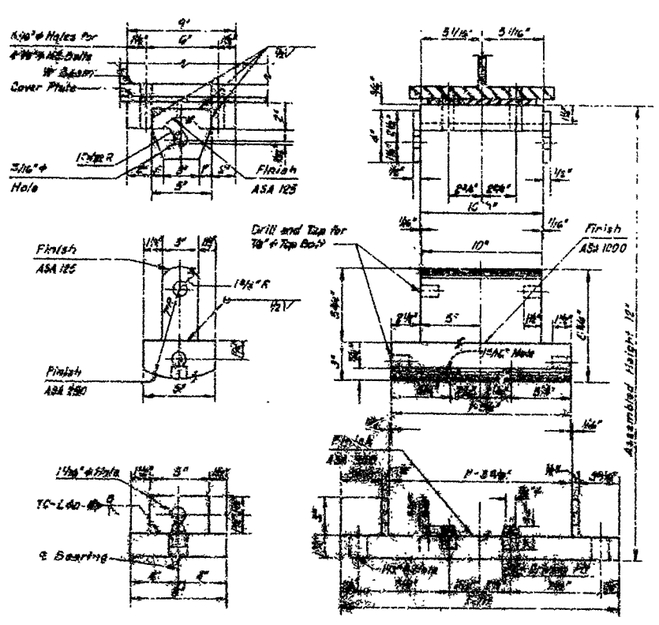
FED. ROAD DIST.	STATE	FED. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.				
		BB0806		105	182

(I) A&B5033 - SUPERSTRUCTURE - 53536



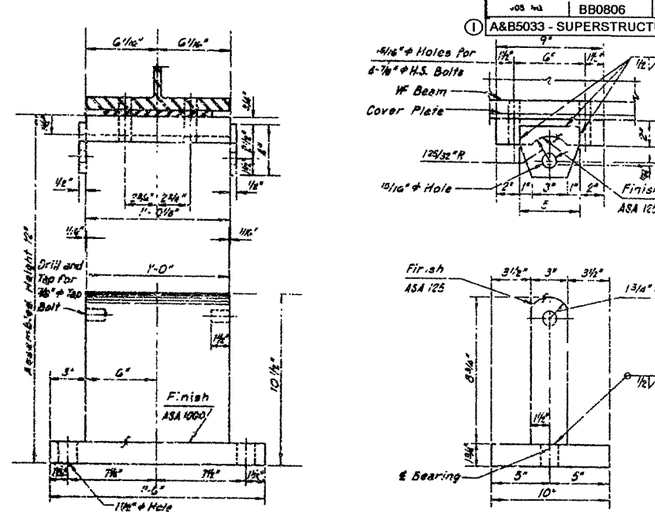
EXPANSION SHOE AT ABUTMENTS

Scale: 3/4"=1'-0"



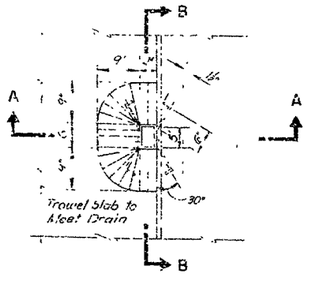
EXPANSION SHOE AT PIER 2

Scale: 3/4"=1'-0"

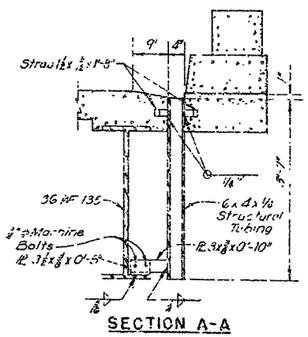


FIXED SHOE AT PIER 1

Scale: 3/4"=1'-0"



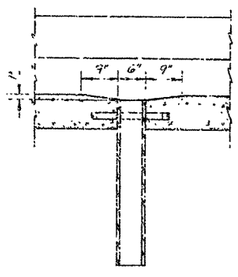
PLAN



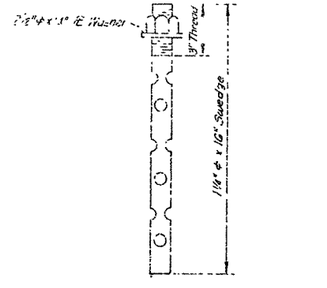
SECTION A-A

DETAILS OF ROADWAY DRAINS

Scale: 3/4"=1'-0"



SECTION B-B



ANCHOR BOLT DETAIL

Scale: 3"=1'-0"

Notes:

1. Place three layers of red lead and canvas, or an approved preformed bearing pad, under each shoe.
2. Shoes are to be measured and paid for as "Structural Steel in Beam Spans, A36" and lead and canvas or preformed bearing pads, as used, are considered subsidiary to the item of "Structural Steel in Beam Spans A36".
3. Rockers shall be vertical at 60°F.
4. Anchor bolts shall be galvanized to conform to ASTM Specification A153.

FOR INFORMATION ONLY

BRIDGE NO. A&B5033 DRAWING NO. 53536

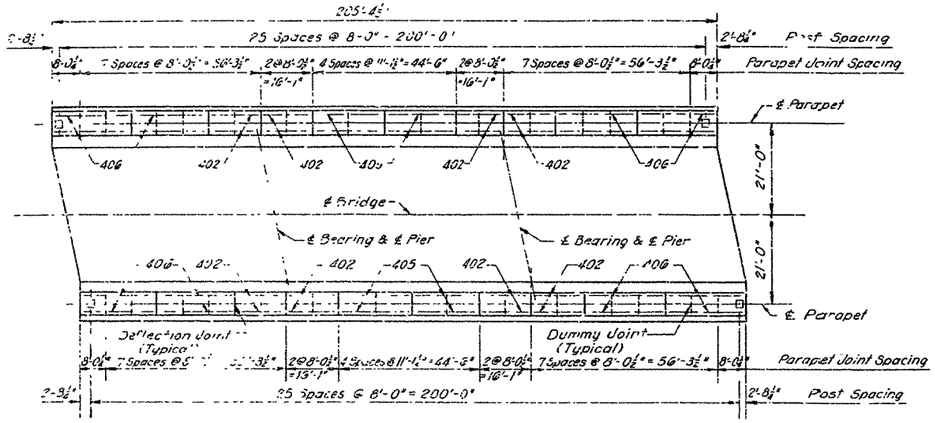
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

INTERSTATE ROUTE 40
KENWOOD – MORRILTON

BRIDGE OVER POINT REMOVE CREEK
SHOES AND ROADWAY DRAINS

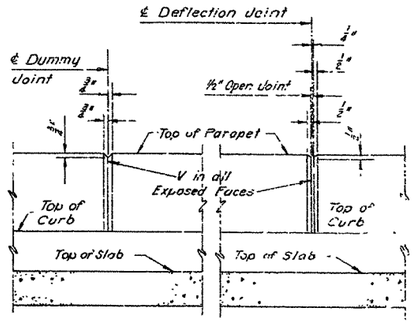
DRAWN BY	GEL	GARVER & GARVER, Inc. ENGINEERS LITTLE ROCK, ARKANSAS	SCALE AS SHOWN
CHECKED BY	TBH		SHEET No.

FED ROAD DIST	STATE	FED AID PROJ NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
6	ARK.				
JOB NO.		BB0806		66	92



NOTE
Splice Railing in same panel as Deflection Joint

PLAN SHOWING POST AND PARAPET JOINT SPACING



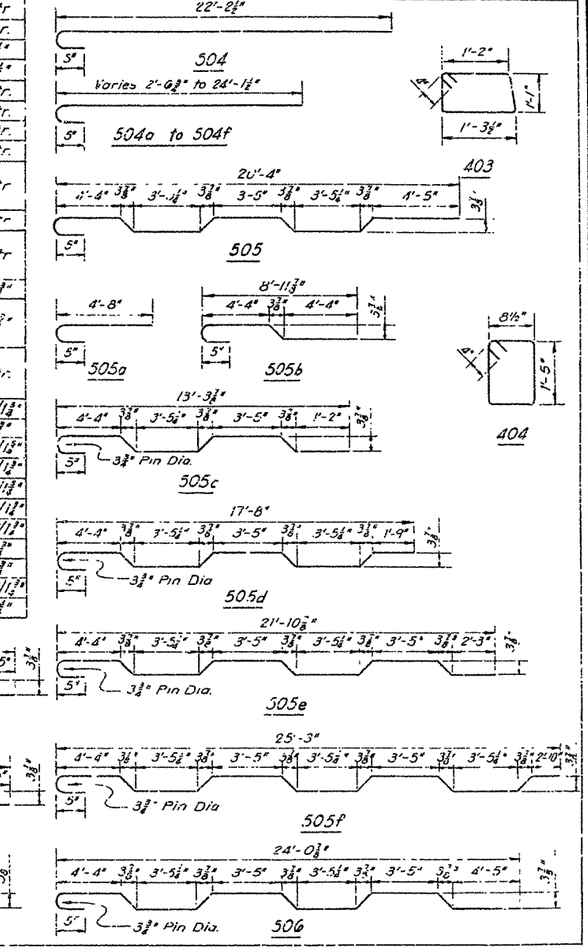
DUMMY JOINT THRU PARAPET

DEFLECTION JOINT THRU PARAPET

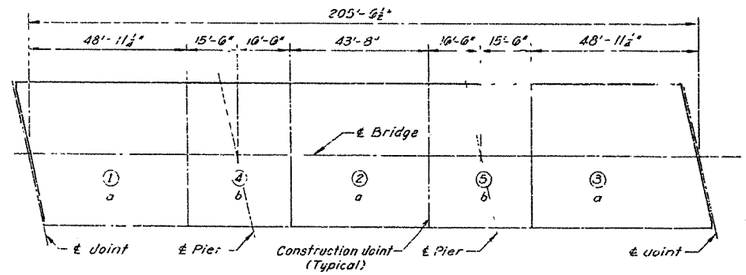
SLAB REINFORCEMENT SCHEDULE - ONE BRIDGE

MARK	NO.	LENGTH	BAR SIZE
401	315	30'-5"	Str.
402	92	15'-10"	Str.
403	446	5'-2½"	1½"
404	446	4'-10"	1½"
405	8	22'-0"	Str.
406	16	23'-10"	Str.
501	220	30'-9"	Str.
502	221	18'-6"	Str.
502a to 502f	2 ea	Varies 2'-7" to 24'-2"	Str.
503	215	26'-0"	Str.
503a to 503c	2 ea.	Varies 11'-7" to 20'-2½"	Str.
504	436	22'-10"	3¾"
504a to 504f	2 ea	Varies 3'-2½" to 24'-9"	3¾"
504g to 504i	2 ea.	Varies 7'-10¾" to 16'-6¼"	Str.
505	216	21'-5½"	3⅜"/1⅛"
505a	2	5'-3½"	3⅜"
505b	2	9'-6"	3⅜"/1⅛"
505c	2	14'-5"	3⅜"/1⅛"
505d	2	19'-0½"	3⅜"/1⅛"
505e	2	23'-4½"	3⅜"/1⅛"
505f	2	27'-0"	3⅜"/1⅛"
505g	2	12'-1"	1"
505h	2	20'-9¼"	1⅜"
506	216	25'-6½"	3⅜"/1⅜"
506a	2	14'-4⅜"	1⅜"

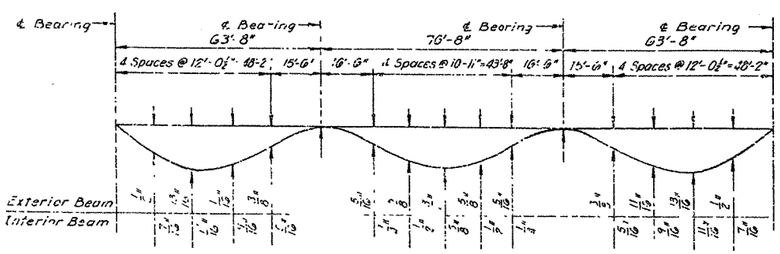
BENDING DIAGRAM



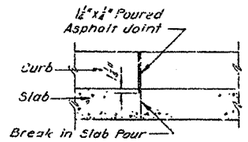
NOTE All dimensions are center to center of bars.



SLAB POURING SEQUENCE



DEAD LOAD DEFLECTION DIAGRAM



SLAB CONSTRUCTION JOINT

NOTES:
1. Joints shown are required. Locations of other construction joints are optional.
2. A minimum of 72 hours to elapse before mating adjacent pours.
3. Permissible simultaneous pours are noted by same letters.
4. For continuous pour option, see Job Special Provision.
5. Poured Asphalt Joint will not be paid for directly, but will be considered subsidiary to the item "Class S Concrete".

NOTE:
Fabricate bow side of beam up. Maximum allowable natural bow is ¾" more than D.L. Deflection. Vary slab haunch to allow for difference between bow and D.L. Deflection. Deflection is computed with Alternate Construction Joint at face of parapet and no joint at Gutter.

FOR INFORMATION ONLY

BRIDGE NO. A&B5033 DRAWING NO. 53537

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

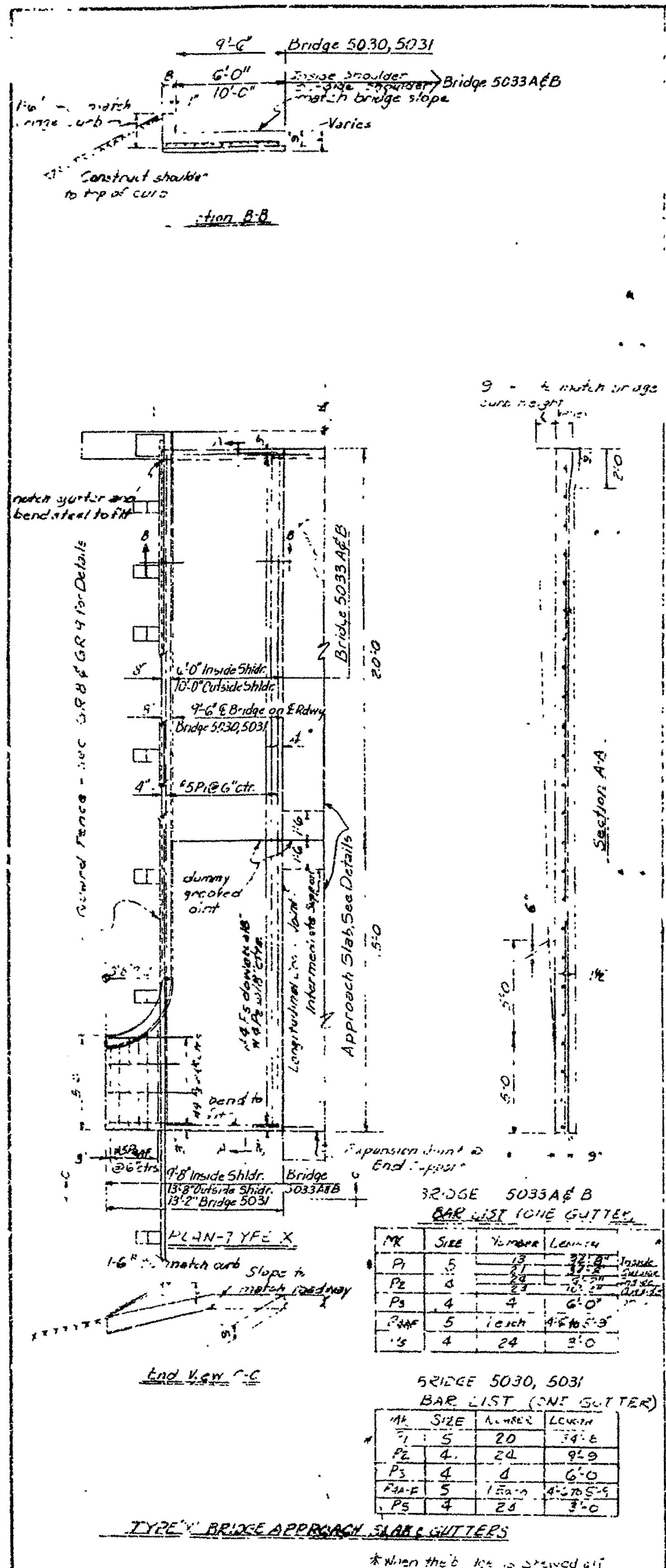
INTERSTATE ROUTE 40
KENWOOD - MORRILTON

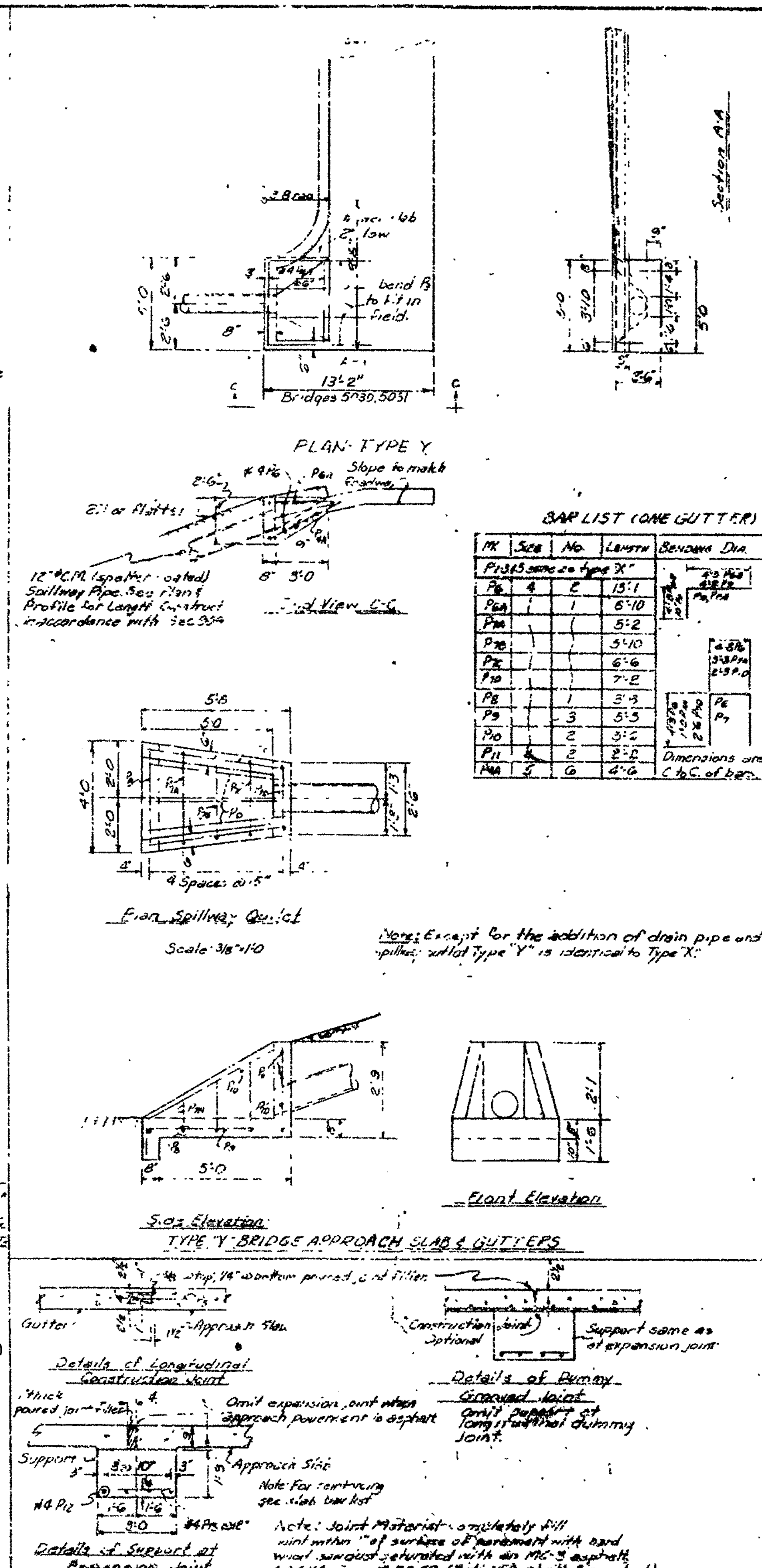
BRIDGE OVER POINT REMOVE CREEK
SLAB REINFORCEMENT SCHEDULE
AND MISCELLANEOUS DETAILS

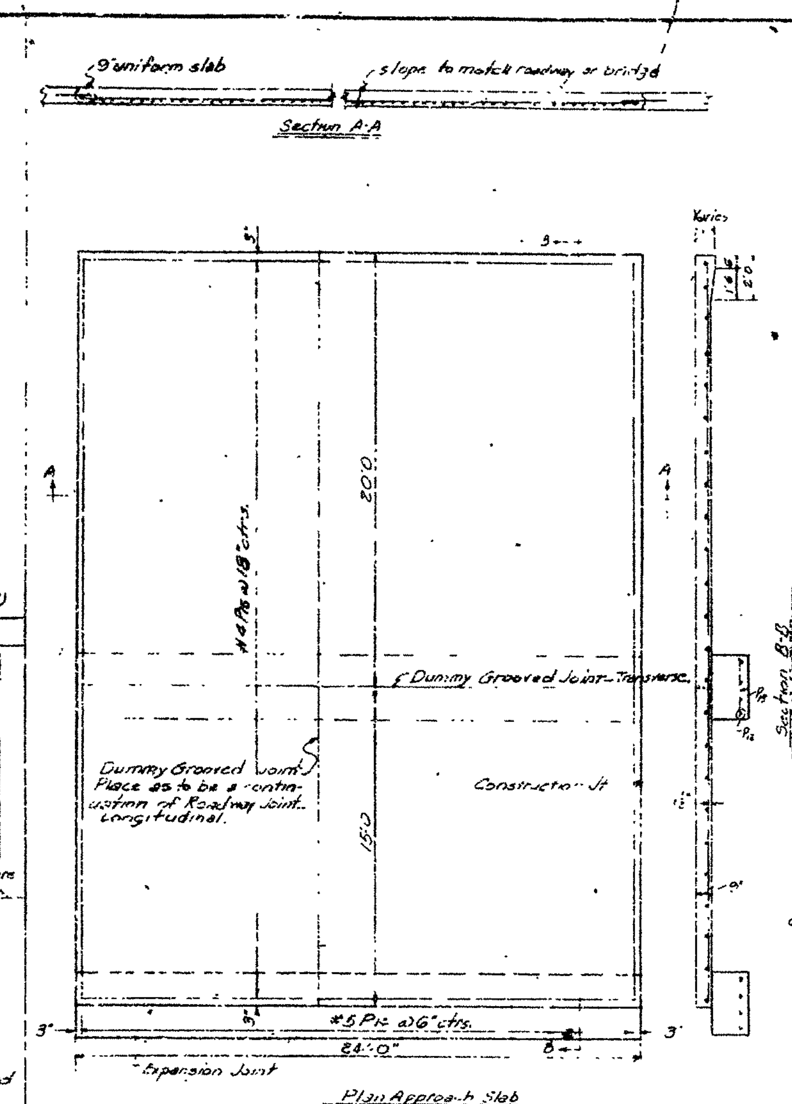
DRAWN BY	CHECKED BY	PASS.	ENGINEERS	SCALE	SHEET NO.
GEL	FBH		GARVER & GARVER, Inc. LITTLE ROCK, ARKANSAS	NONE	

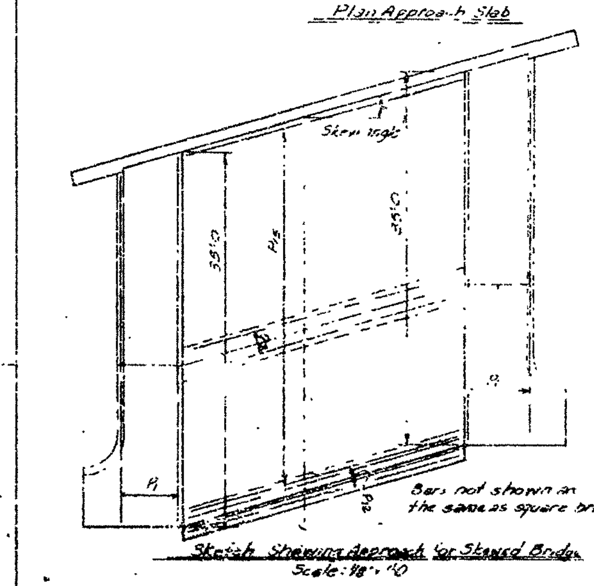
FED ROAD DIST	STATE	FED AID PROJ NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.				
JOB NO		BB0806		67	82

① A&B5033 - APPR. STRUCTURES. - 53538









GENERAL NOTES

All concrete to be Class A or S, or pavement mixture. Exposed corners to be chamfered 3/4" unless otherwise shown.

Reinforcing steel to be deformed bars of intermediate or hard grade.

Approach slabs and gutters for structures shall be paid for at the contract unit price each bid for Approach Gutters" or "Approach Slabs and Gutters", of the type designated which price shall be full compensation for furnishing all materials, including reinforcing steel and joint material; for forms, mixing, placing and finishing, for excavation and backfill, and for all labor, tools equipment and incidentals necessary to complete the work.

Payment for furnishing and installing corrugated metal pipe shall be made under the item of "Pipe Culverts", Section 509.

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1958.

FOR INFORMATION ONLY

DETAILS OF STANDARD APPROACH SLABS & GUTTERS FOR 40'-0" & 43'-0" RDWY. STRUCTURES

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

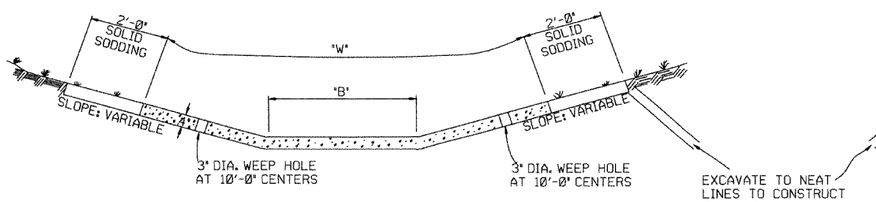
LITTLE ROCK, ARK.

Revised: For 28'-0" roadway structures 8-27-63 F.H.
Revised: Dummy joint notes 10-8-63 H.B.
Revised: Curb height 7-16-64 H.B.
Revised: For 39'-0" roadway structures 9-16-64 L.
Revised: Rdwy width and Guard Fence, Corner & Gav...

DRAWN BY A.T. DATE
TRACED BY DATE
CHECKED BY H.B. DATE

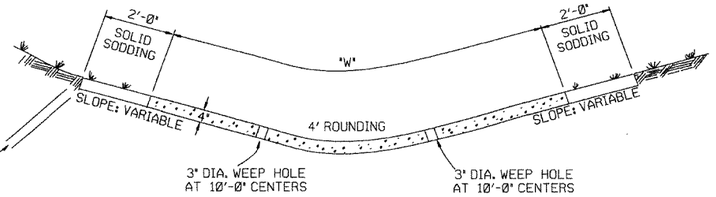
BRIDGE NO. A&B5033 DRAWING NO. 53538

REFER TO TABULATION OF QUANTITIES FOR "W" & "B" DIMENSIONS



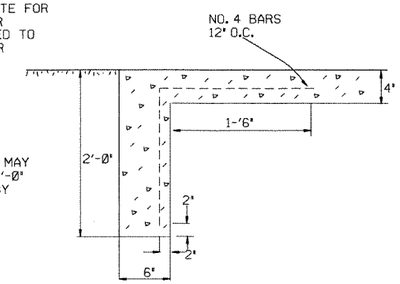
TYPE A

REFER TO TABULATION OF QUANTITIES FOR "W" DIMENSIONS

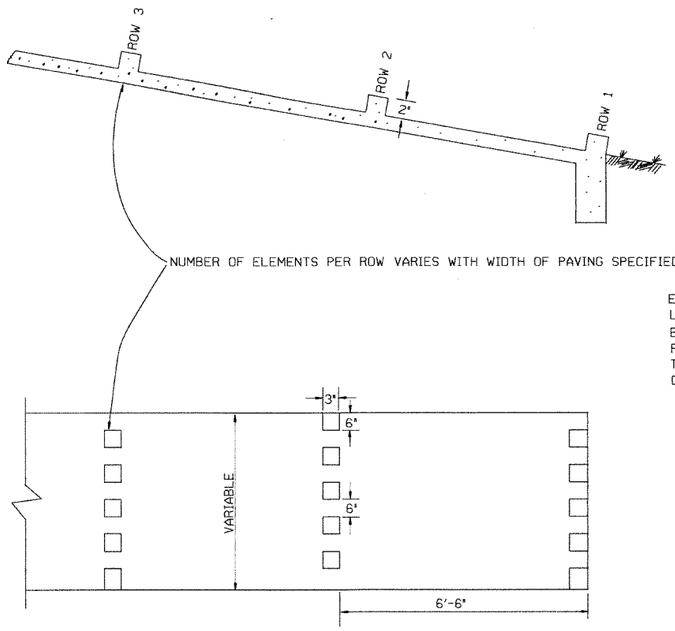


TYPE B

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 DETAIL FOR CONCRETE DITCH PAVING



ENERGY DISSIPATORS
(NO SCALE)

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 UNCLUDED IN THE PRICE BID FOR CONCRETE DITCH PAVING.

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.

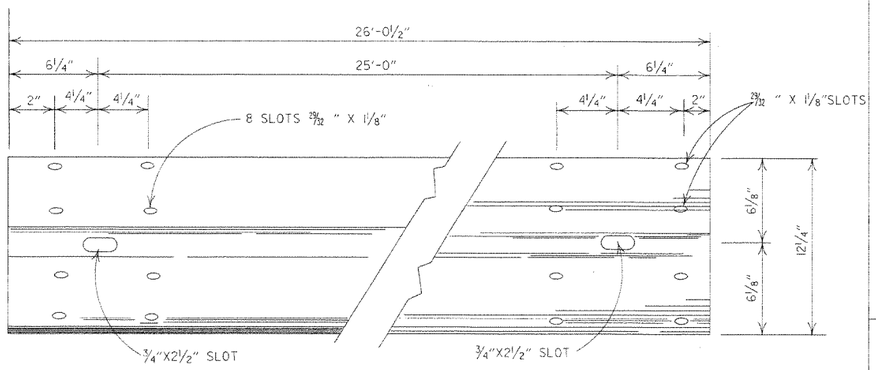
1" WIDE TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE DITCH PAVING AT 45' INTERVALS. THE SPACE SHALL BE FILLED WITH APPROVED JOINT FILLER COMPLYING WITH AASHTO M213.

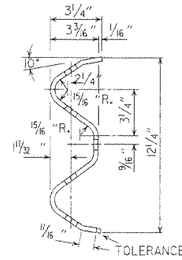
DATE	REVISION	DATE FILM'D
11-17-10	ADDED GENERAL NOTE	
6-2-94	ADDED GENERAL NOTE ABOUT SOLID SODDING	
11-30-8	ELIMINATED MIN. ROWS OF ELEMENTS	111-30-89
7-15-88	REVISED DISSIPATOR NOTE	653-7-15-88
4-5-87	REVISED ENERGY DISSIPATOR	671-4-3-87
1-9-87	MODIFIED NOTE ON ENERGY DISS.	532-1-9-87
11-3-86	ADDED 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

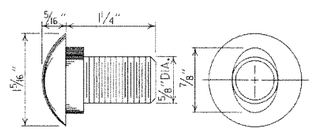
STANDARD DRAWING CDP-1



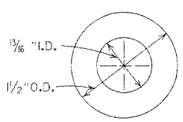


DETAILS OF W-BEAM GUARD RAIL

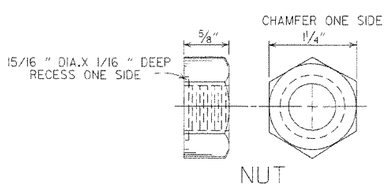
RAIL SECTION OF CLOSELY SIMILAR DIMENSIONS AND COMPARABLE STRENGTH MAY BE SUBSTITUTED IF APPROVED BY THE ENGINEER.



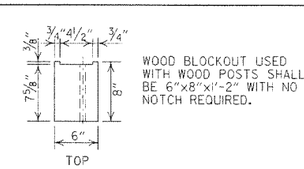
SPLICE BOLT
POST BOLT - SAME EXCEPT LENGTH



CUT STEEL WASHER

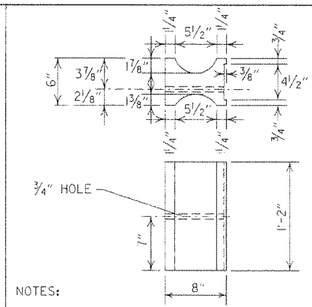


NUT



WOOD BLOCKOUT USED WITH WOOD POSTS SHALL BE 6"x8"x1'-2" WITH NO NOTCH REQUIRED.

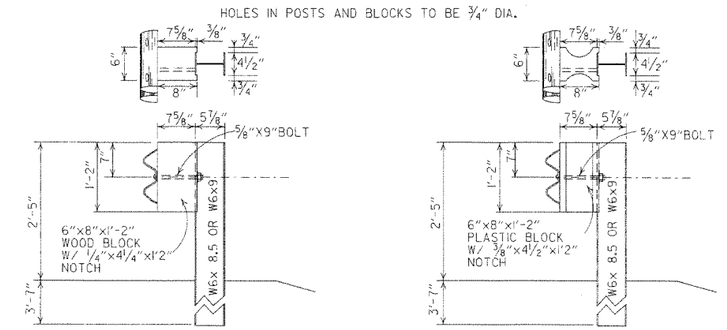
WOOD BLOCKOUT (W-BEAM)



NOTES:
1. SIMILAR SHAPED PLASTIC BLOCKOUTS MAY BE USED AS LONG AS THEY MEET NCHRP-350 TEST LEVEL 3 SPECIFICATIONS OR REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
2. DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCES.

PLASTIC BLOCKOUT (W-BEAM)

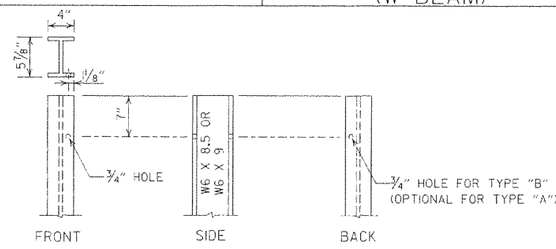
HOLES IN POSTS AND BLOCKS TO BE 3/4" DIA.



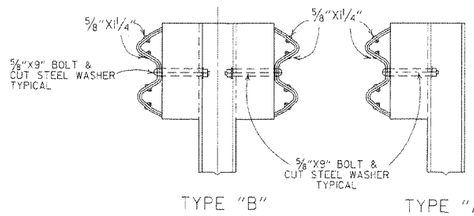
WOOD BLOCKOUT CONNECTIONS

PLASTIC BLOCKOUT CONNECTIONS

DETAILS OF STEEL LINE POST CONNECTIONS (W-BEAM)



STEEL POST



TYPE "B" TYPE "A"

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 3/4" BEYOND IT.

WHERE W-BEAM GUARD RAIL CONTINUES, THE INTERMEDIATE SECTIONS SHALL HAVE A POST SPACING OF 6'-3" UNLESS OTHERWISE NOTED.

W-BEAM GUARD RAIL REPRESENTING INTERMEDIATE SECTIONS WILL BE MEASURED ALONG THE ROADWAY FACE FROM CENTERLINE OF POST TO CENTERLINE OF POST.

USE W-BEAM GUARD RAIL COMPONENTS OF SAME MATERIAL FOR ENTIRE JOB. FOR EXTENSIONS OR MODIFICATION OF EXISTING GUARD RAIL, W-BEAM GUARD RAIL 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# (1400 f) OR NO. 1 1350 f SOUTHERN PINE.

CONTRACTOR SHALL HAVE THE OPTION OF USING WOOD BLOCKOUTS FOR W-BEAM GUARD RAIL OR PLASTIC BLOCKOUTS, AS LONG AS BLOCKOUT USED MEETS NCHRP-350 TEST LEVEL 3 SPECIFICATIONS OR REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) FOR W-BEAM GUARD RAIL.

HOLES IN POSTS AND BLOCKS TO BE 3/4" DIA.

POSTS AND BLOCKS TO BE ROUGH SAWN 6"X8" WITH A TOLERANCE OF + OR - 1/4".

WOOD BLOCKOUT CONNECTIONS

PLASTIC BLOCKOUT CONNECTIONS

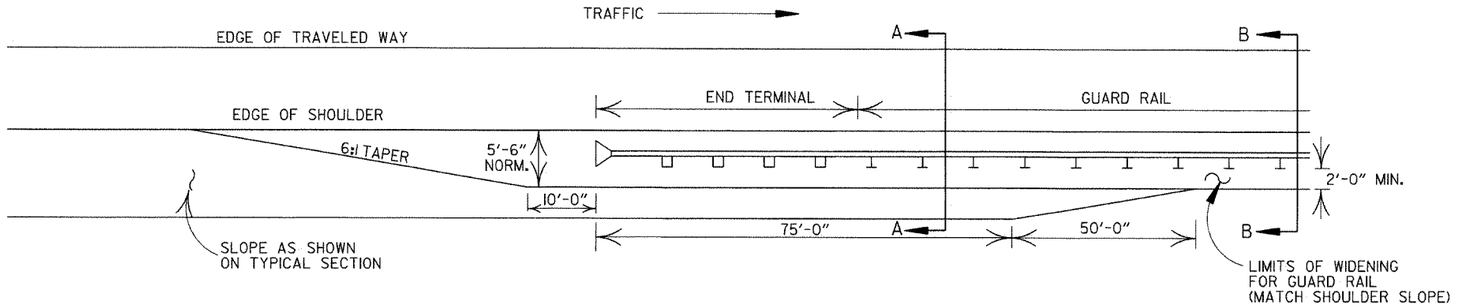
DETAILS OF WOOD LINE POST CONNECTIONS (W-BEAM)

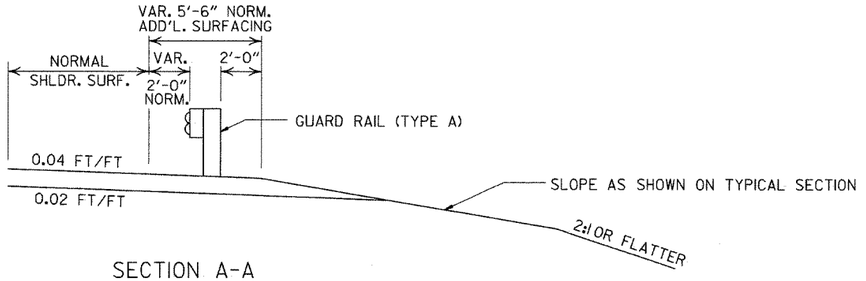
DATE	REVISION	DATE FILM
7-14-10	RAISED HEIGHT OF GUARD RAIL 1"	
10-15-09	ADDED REFERENCE TO MASH	
4-16-03	REVISED GENERAL NOTES	
8-22-02	REVISED DIMENSION ON WOOD & PLASTIC BLOCKOUT CONNECTIONS & ON STEEL POST	
11-16-01	REVISED WOOD BLOCKOUT & DETAILS OF WOOD LINE POST CONNECTIONS	
3-30-00	REMOVED GUARD RAIL AT BRIDGE ENDS	
1-12-00	ADDED PLASTIC BLOCKOUT	
8-12-98	REV. BLOCKOUTS TO WOOD, DELETED CONC. POST & REV. GENERAL NOTE, DELETED DET. OF GUARD RAIL 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	
4-3-97	REMOVED "LAP IN DIRECTION OF TRAFFIC" NOTE & PLACED ARROWS ON WASHERS	
10-18-96	REVISED WOOD POST NOTE	
6-2-94	ADDED ALT. STEEL POST SIZE	
8-5-93	REVISED STEEL POST SIZE	8-5-93
10-1-92	REDRAWN & REVISED	10-1-92
8-15-91	REVISED WASHER NOTE	8-15-91
8-2-90	REV. GEN. NOTE & DEPHT OF ANC. POST IN ROCK	8-2-90
7-15-88	REVISED SECTION 3 & GENERAL NOTES	
3-4-88	REV. ANCHOR POST, ELEV. NOTES & POST IN ROCK	780-3-4-88
10-30-87	REVISED WOOD LINE POST DETAIL	546-10-30-87
10-9-87	REDRAWN & REVISED	802-10-9-87

ARKANSAS STATE HIGHWAY COMMISSION

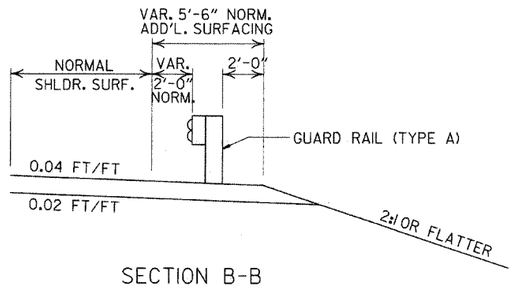
GUARD RAIL DETAILS

STANDARD DRAWING GR-8





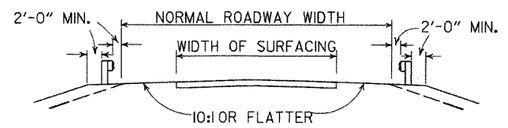
SECTION A-A



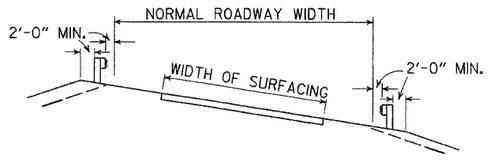
SECTION B-B

DETAILS OF WIDENING FOR GUARD RAIL

NOTE: NORMAL SECTION TO BE WIDENED APPROX. 5'-6" EACH SIDE TO SUPPORT GUARD RAIL.

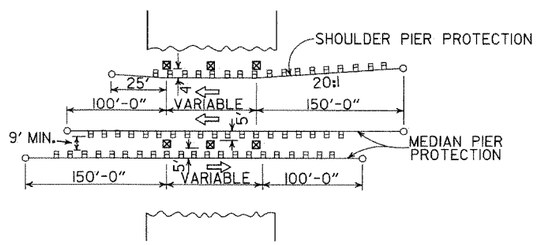


SECTION ON TANGENT



SECTION ON CURVE

DETAILS SHOWING POSITION OF GUARD RAIL ON HIGHWAY



METHOD OF INSTALLATION OF GUARD RAIL AT FIXED OBSTACLE

DATE	REVISION	DATE FILM
4-17-08	MINOR REVISION	
11-10-05	DRAWN	

ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

STANDARD DRAWING GR-9A

PLAN - GUARD RAIL TERMINAL (TYPE I)

ELEVATION - GUARD RAIL TERMINAL (TYPE I)

NOTE:
SECTIONS 1 AND 2 OF GUARD RAIL TERMINAL SHALL BE PAID FOR AT THE PRICE BID PER LINEAR FOOT OF THE TYPE OF GUARD RAIL SPECIFIED.

SECTION 1

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	DATE FILM
7-14-10	RAISED HEIGHT OF GUARD RAIL 1"	
6-26-97	REVISED LAP NOTE	
10-18-96	REVISED ASTM REF. TO AASHTO	
11-3-94	DIMENSION TERMINAL DETAIL	
11-11-92	ADDED NOTE FOR PAYMENT	11-11-92
10-1-92	DRAWN & ISSUED	10-1-92

ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

STANDARD DRAWING GRT-1

REINFORCED CONCRETE ARCH PIPE DIMENSIONS

EQUIV. DIA.	SPAN		RISE	
	AASHTO M 206	AHTD NOMINAL	AASHTO M 206	AHTD 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	31 5/16	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)(i).

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

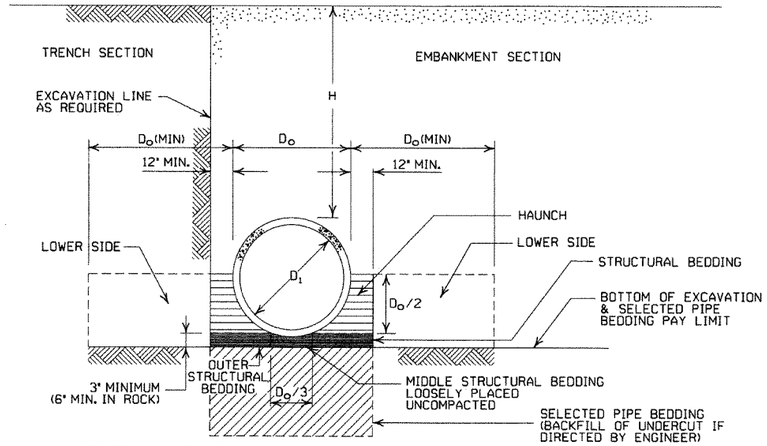
- LEGEND -

D_i = NORMAL INSIDE DIAMETER OF PIPE
D_o = OUTSIDE DIAMETER OF PIPE
H = FILL COVER HEIGHT OVER PIPE (FEET)
MIN. = MINIMUM
▨ = UNDISTURBED SOIL

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

* SM-3 WILL NOT BE ALLOWED.

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



EMBANKMENT AND TRENCH INSTALLATIONS

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

GENERAL NOTES

1. CONCRETE PIPE CULVERT CONSTRUCTION SHALL CONFORM TO ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (2003 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
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	

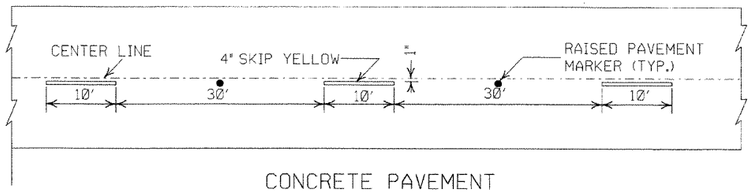
ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING

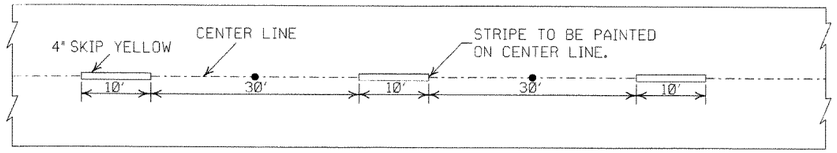
STANDARD DRAWING PCC-1

NOTES:

1. ALL LINES SHALL HAVE A WIDTH OF 4 INCHES.
2. THE THICKNESS AND RATE OF PAINT APPLICATION SHALL BE AS SPECIFIED IN SECTION 718 OF THE STANDARD SPECIFICATIONS.
3. THIS DRAWING SHALL BE USED IN CONJUNCTION WITH THE LATEST REVISED ADDITION OF THE 'MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.'
4. RAISED PAVEMENT MARKERS SHALL BE CENTERED BETWEEN SKIP LINES ON 40 FEET SPACING UNLESS OTHERWISE SHOWN ON THE PLANS.

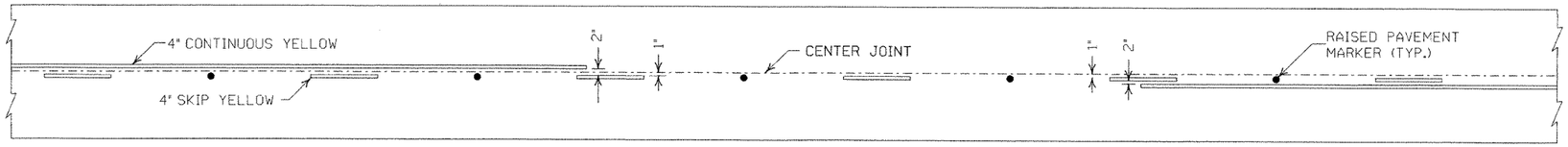


CONCRETE PAVEMENT

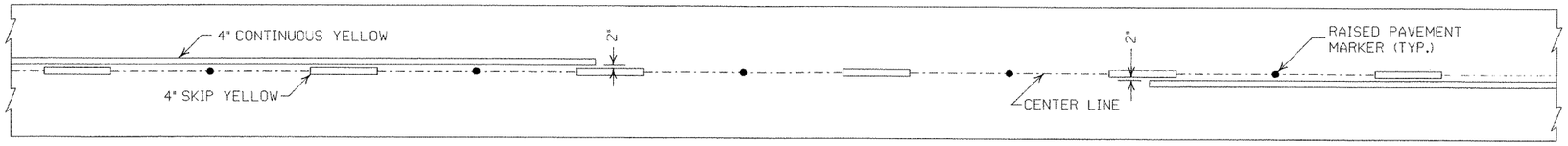


ASPHALT PAVEMENT

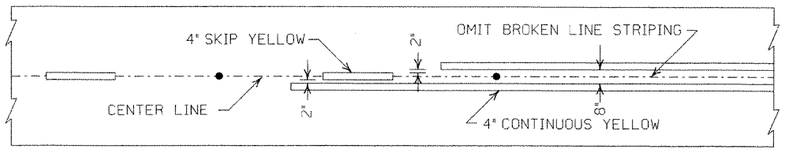
BROKEN LINE STRIPING



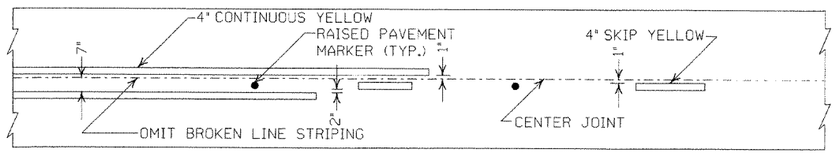
SOLID LINE STRIPING ON CONCRETE PAVEMENT



SOLID LINE STRIPING ON ASPHALT PAVEMENT

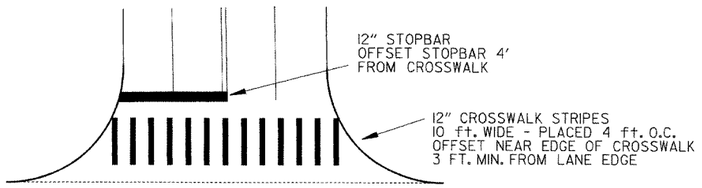


ASPHALT PAVEMENT

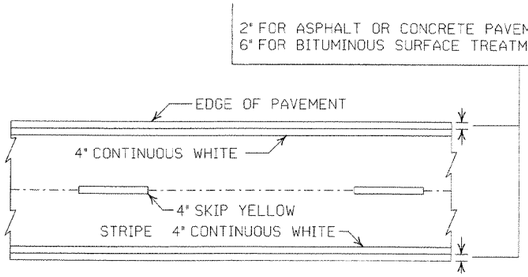


CONCRETE PAVEMENT

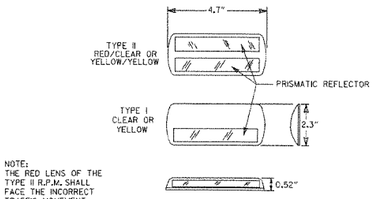
STRIPING AT ADJACENT NO PASSING LANES



CROSSWALK AND STOPBAR DETAILS



PAVEMENT EDGE LINE MARKING



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

DETAIL OF STANDARD RAISED PAVEMENT MARKERS

GENERAL NOTES:

THIS DRAWING SHOULD BE CONSIDERED AS TYPICAL ONLY AND THE FINAL LOCATION OF THE STRIPING AND RAISED PAVEMENT MARKERS SHALL BE DETERMINED BY THE ENGINEER.

THIS DRAWING SHOULD BE USED IN CONJUNCTION WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST REVISION.

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 AHTD QUALIFIED PRODUCTS LIST.

DATE	REVISION	FILMED
11-17-10	REVISED GENERAL NOTES & REMOVED PLOWABLE PVMT MRKRS	
11-18-04	REVISED NOTE 2 & GENERAL NOTES	
8-22-02	ADDED CROSSWALK & STOPBAR DTLS.	
7-02-98	ADDED DETAILS OF STD. RAISED PAV'T. MARKERS	
4-26-96	REV. NOTES 3&4; ADDED R.P.M.	
9-30-80	DRAWN	1-9-30-80

ARKANSAS STATE HIGHWAY COMMISSION

PAVEMENT MARKING DETAILS

STANDARD DRAWING PM-1

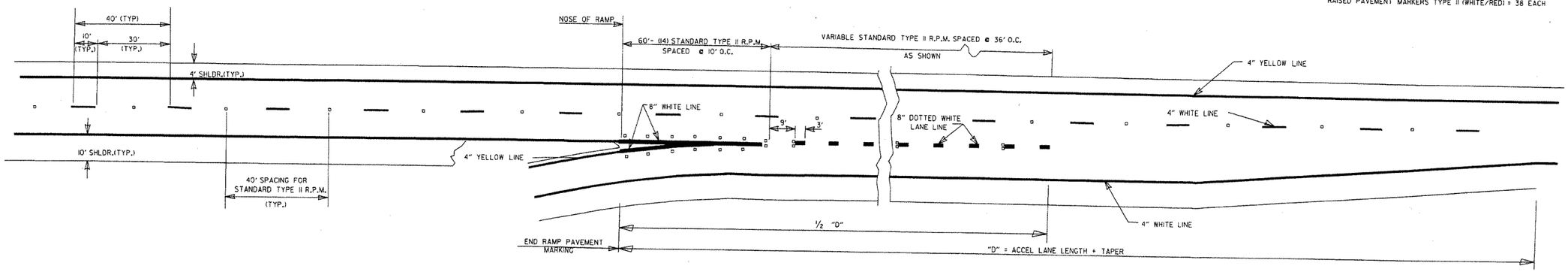
PAVEMENT MARKING QUANTITIES
(BASED ON 700' ACCEL. LANE + 300' TAPER)

ENTRANCE RAMP

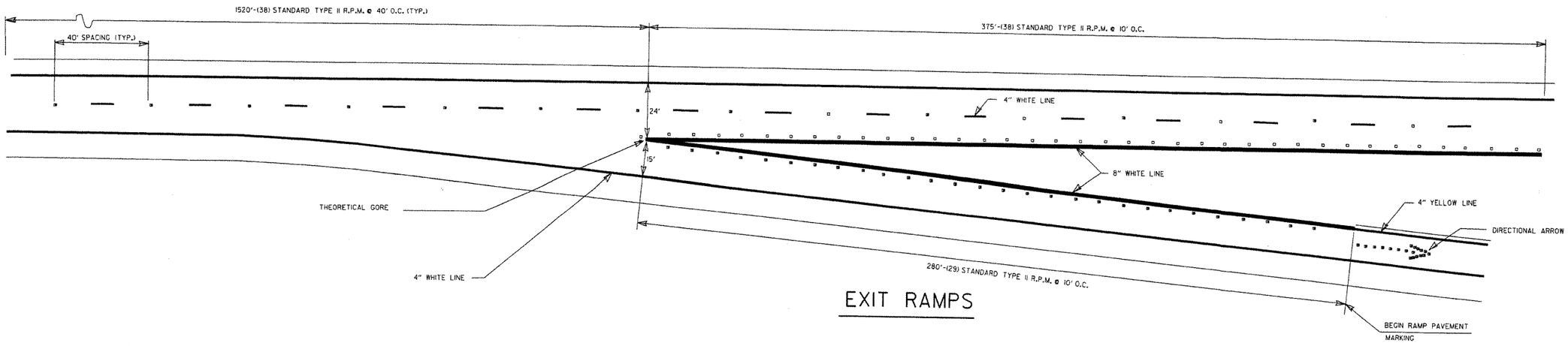
8" WHITE = 228 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH

EXIT RAMP

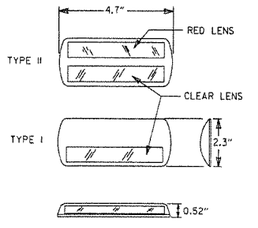
4" WHITE = 280 LIN. FT.
8" WHITE = 655 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 48 EACH
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH



ENTRANCE RAMPS

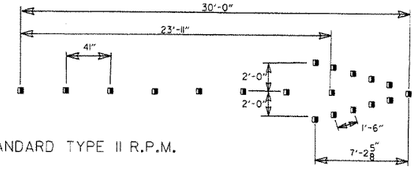


EXIT RAMPS



DETAIL OF
STANDARD
RAISED PAVEMENT MARKERS

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



(19) STANDARD TYPE II R.P.M.

DIRECTIONAL ARROWS

GENERAL NOTES:
THIS DRAWING SHOULD BE CONSIDERED AS TYPICAL ONLY AND THE FINAL LOCATION OF THE STRIPING AND PAVEMENT MARKERS SHALL BE DETERMINED BY THE ENGINEER.

THIS DRAWING SHOULD BE USED IN CONJUNCTION WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST REVISION.

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 AHTD QUALIFIED PRODUCTS LIST.

DATE	REVISION	FILMED
7/26/12	REVISED RPM NOTATION	
12-15-11	REVISED RPMs ACCORDING TO LATEST POLICY	
11-17-10	REMOVED PLOWABLE PAVEMENT MARKERS	
6-3-10	REVISED PER 2009 MUTCD	
11-18-04	REVISED NOTES	
8-22-02	ADDED & REVISED NOTES; REV. ENTRANCE & EXIT RAMPS	
5-18-00	REMOVED HASHMARKS	
7-02-98	CHANGED TYPES TO ROMAN NUMERALS	
4-26-96	ADDED DIMENSIONS & QUANTITIES; REVISED LANE WIDTH ON EXIT RAMP	
2-2-95	PLACED IN USE	2-2-95

ARKANSAS STATE HIGHWAY COMMISSION

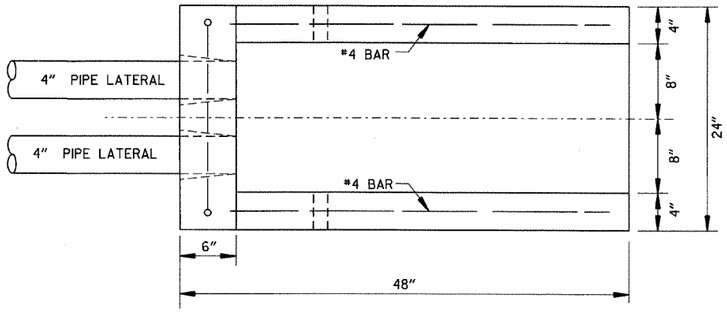
PERMANENT PAVEMENT MARKING ON ACCESS CONTROLLED ROADWAYS

STANDARD DRAWING PM-2

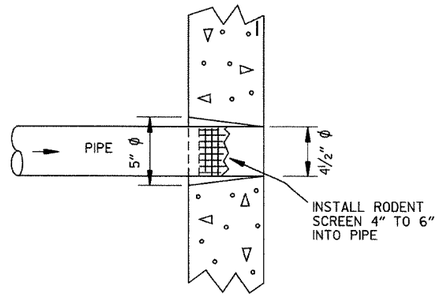
NOTE:
1. GRANULAR BACKFILL TO BE SUBSIDIARY TO PIPE UNDERDRAIN.

2. UNLESS OTHERWISE SPECIFIED ON THE PLANS, THE UNDERDRAIN COVER SHALL BE THOROUGHLY COMPACTED EARTH AND SHALL BE SUBSIDIARY TO PIPE UNDERDRAIN.

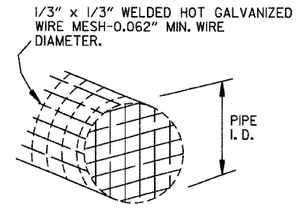
3. GRANULAR MATERIAL SHALL BE WRAPPED WITH GEOTEXTILE FABRIC. LAP FABRIC 12" OR THE WIDTH OF THE TRENCH AT THE TOP.



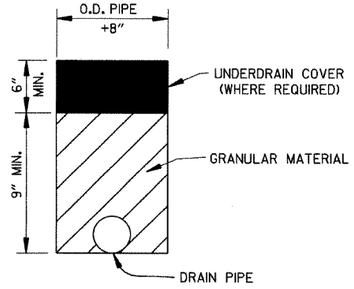
PLAN VIEW

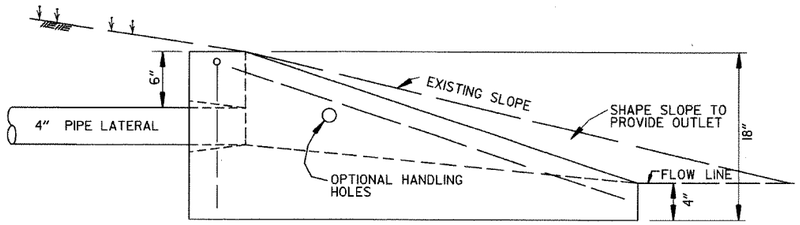


DETAIL OF HOLE FOR 4" PIPE

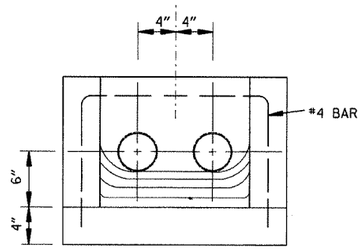


DETAIL OF RODENT SCREEN

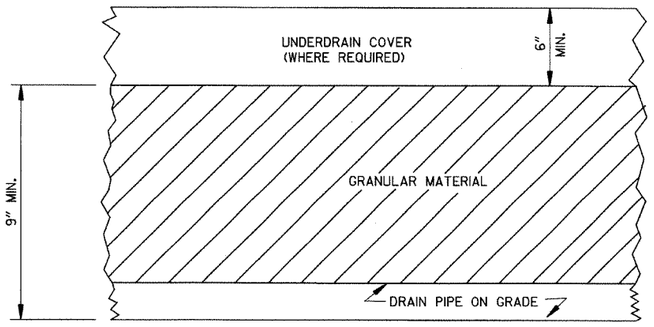




SIDE VIEW

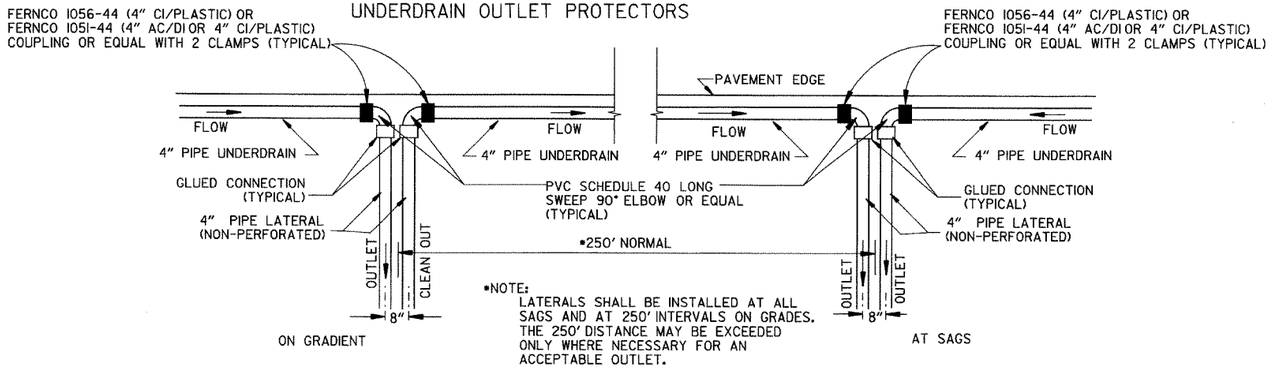


FRONT VIEW



DETAILS OF PIPE UNDERDRAIN

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.

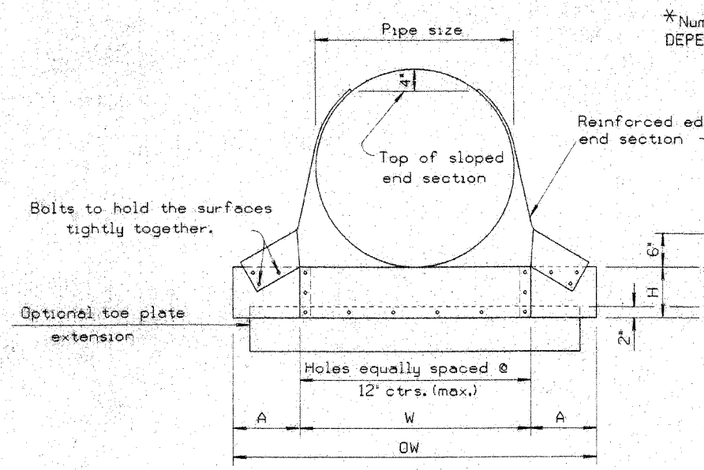
DATE	REVISION	DATE FILMED
4-10-03	REVISED NOTE 3	
1-12-00	REVISED DETAIL OF UNDERDRAIN LATERALS	
11-18-98	REVISED NOTE	
10-18-96	REVISED MIN. DEPTH & GEOTEXTILE FABRIC	
4-26-96	ADDED LATERAL NOTE; 5½" TO 5"	
11-22-95	REVISED LATERALS	
7-20-95	REVISED LATERALS & ADDED NOTE	
11- 3-94	REVISED FOR DUAL LATERALS	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

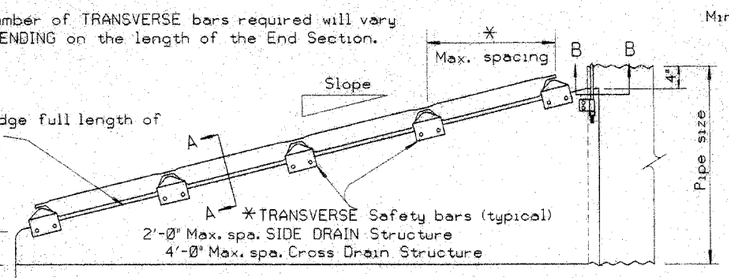
DETAILS OF PIPE UNDERDRAIN

STANDARD DRAWING PU-1

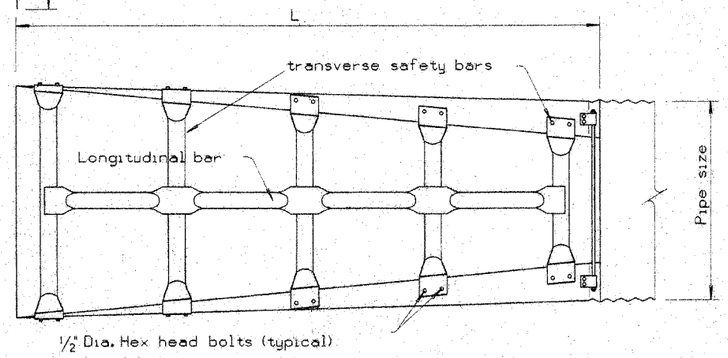
7-20-95 INSTD.PUI



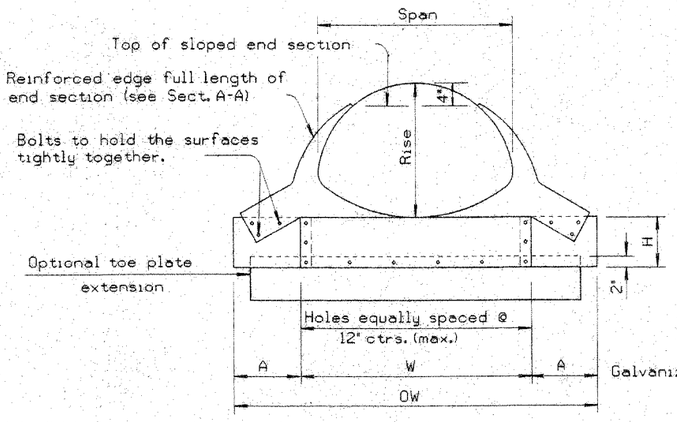
FRONT VIEW CIRCULAR PIPE



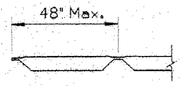
SIDE ELEVATION CIRCULAR OR ARCH SECTION



TOP VIEW CIRCULAR OR ARCH SECTION

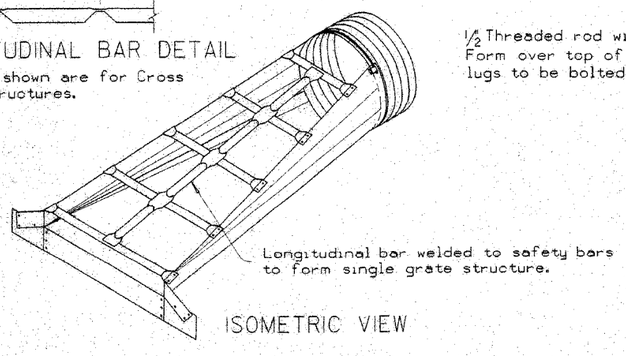


FRONT VIEW ARCH PIPE

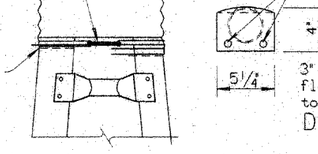


LONGITUDINAL BAR DETAIL

Note: Bars shown are for Cross Drain Structures.

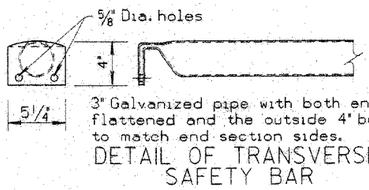


ISOMETRIC VIEW



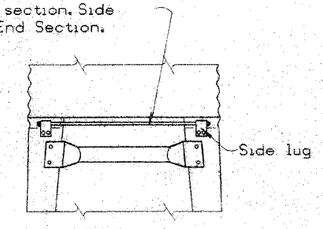
TYPE #1 CONNECTOR DETAIL

For 15" thru 24" pipe



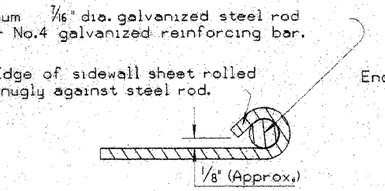
DETAIL OF TRANSVERSE SAFETY BAR

1/2" Threaded rod with flanged nuts. Form over top of end section. Side lugs to be bolted to End Section.

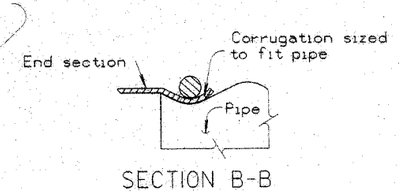


TYPE #2 CONNECTOR DETAIL

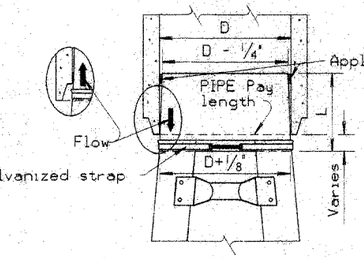
For 30" and larger round pipes & 21"x15" thru 64"x43" arch pipes



SECTION A-A



SECTION B-B



D - 12" to 24" L = 12"
D - 30" & Larger L = 16"

Note: Metal end section to be firmly wedged INTO PIPE END BEFORE BACKFILLING PIPE.

(Tapered sleeve to be 12 Ga. smooth galvanized steel in accordance with AASHTO M 218.)

STEEL END SECTION FOR CONCRETE PIPE
(Alternate for Concrete End Section)

GENERAL NOTES

End sections shall be fabricated from galvanzied steel meeting the requirements of SUBSECTION 606.02(c)(1) OF THE STANDARD SPECIFICATIONS.
When specified optional toe plate extension shall be punched and bolted to end section apron lip with 3/8" diameter galvanized bolts. Steel for toe plate extension shall be same gauge as end section.
Dimensions shall be overall width less 6" by 8" high.
Attachment to circular pipes 15" through 24" diameter shall be made with Type #1 straps. All other sizes shall be attached with Type #2 rods and lugs.
Safety bars shall be fabricated from steel pipe meeting the requirements of ASTM A-53 Schedule 40 Specifications. Safety bars shall be hot dipped galvanized after fabrication.

All work and materials required for construction and installation of safety end section shall be included in the PRICE BID EACH FOR SAFETY END SECTIONS FOR PIPE CULVERTS.
Longitudinal and transverse bars will be required for cross drain structures when span is greater than 30", no safety bars will be REQUIRED FOR 30" SPAN OR LESS WHEN USED ON CROSS DRAIN STRUCTURES.
Transverse bars will be required for all sizes of side drain structures.
Class I safety end sections shall be end sections with a 4:1 slope.
Class 2 safety end sections shall be end sections with a 6:1 slope.

SAFETY END SECTIONS FOR ARCH PIPES													
Equv. Dia.	Nom. W.W. Area Sq Ft	Pipe Arch Span (In.)	Pipe Arch Rise (In.)	Min. Gauge End Sect.	Dimensions in Inches A	H	W	OW	Slope	L (In)	Slope	L (In)
18"	1.6	21	15	16	8	6	27	43	4:1	20	6:1	30
21"	2.2	24	18	16	8	6	30	46	4:1	32	6:1	48
24"	2.9	28	20	16	8	6	34	50	4:1	40	6:1	60
30"	4.5	35	24	14	12	9	41	65	4:1	56	6:1	84
36"	6.5	42	29	12	12	9	48	72	4:1	76	6:1	114
42"	8.9	49	33	12	16	12	55	87	4:1	92	6:1	138
48"	11.6	57	38	12	16	12	63	95	4:1	112	6:1	168
54"	14.7	64	43	12	16	12	70	102	4:1	132	6:1	198
60"	18.1	71	47	12	16	12	77	109	4:1	148	6:1	222
72"	26.0	83	57	12	16	12	89	121	4:1	188	6:1	282

SAFETY END SECTIONS FOR CIRCULAR PIPES									
Pipe Dia.	Min. Gauge Ends	Dimensions in Inches A 1"Tol	H 1"Tol	W 2"Tol	OW	L Dimensions in Inches Slope	L	Slope	L
15"	16	8	6	21	37	4:1	20	6:1	30
18"	16	8	6	24	40	4:1	32	6:1	48
21"	16	8	6	27	43	4:1	44	6:1	66
24"	16	8	6	30	46	4:1	56	6:1	84
30"	12	12	9	36	60	4:1	80	6:1	120
36"	12	12	9	42	66	4:1	104	6:1	156
42"	12	16	12	48	80	4:1	128	6:1	192
48"	12	16	12	54	86	4:1	152	6:1	228
54"	12	16	12	60	92	4:1	176	6:1	264
60"	12	16	12	66	98	4:1	200	6:1	300

DATE	REVISION	DATE FILMED
10-18-96	REVISED ASTM REF. TO AASHTO	10-18-96
8-15-91	DRAWN & ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

SAFETY END SECTION FOR CIRCULAR AND ARCH PIPES

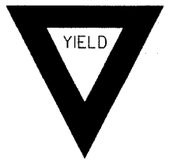
STANDARD DRAWING SES-1

FILE stdsesi.dgn

R1-1

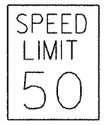
STANDARD 30"X30"
EXPRESSWAY 36"X36"
SPECIAL 48"X48"

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"

R2-5A

STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R2-5C

STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R4-1

STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R4-2

STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

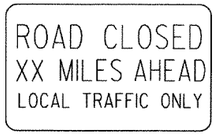
R5-1

STD. 30"X30"
EXPWY. 36"X36"
SPECIAL 48"X48"

RII-2

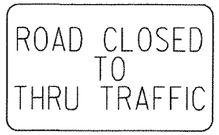
48"X30"

RII-3A



60"X30"

RII-4

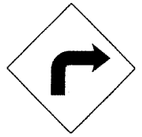


60"X30"

RSP-1

48"X30"

WI-1



STD. 36"X36"
FWY. 48"X48"

WI-2

STD. 36"X36"
FWY. 48"X48"

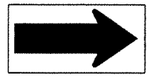
WI-3

STD. 48"X48"

WI-4

STD. 48"X48"

WI-6

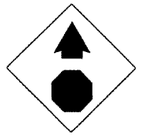


STD. 48"X24"
SPECIAL 60"X30"

WI-8

STD. 18"X24"
SPECIAL 24"X30"
EXPWY. 30"X36"
FWY. 36"X48"

W3-1

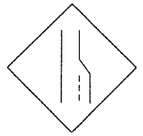


STD. 36"X36"
SPECIAL 48"X48"

W3-2

STD. 36"X36"
SPECIAL 48"X48"

W4-2



STD. 36"X36"
FWY. 48"X48"

W5-1

STD. 36"X36"
SPECIAL 48"X48"

W6-3

EXPWY. 36"X36"
SPECIAL 48"X48"

W8-7

EXPWY. 36"X36"
FWY. 48"X48"

W9-2

STD. 36"X36"
FWY. 48"X48"

WI3-1

STD. 24"X24"

W20-1

STD. 48"X48"

W20-2

STD. 48"X48"

W20-3

STD. 48"X48"

W20-4

STD. 48"X48"

W20-5

STD. 48"X48"

W20-7a

STD. 36"X36"
FWY. 48"X48"

W21-2

STD. 30"X30"
SPECIAL 36"X36"

W21-5

STD. 30"X30"
SPECIAL 36"X36"

W24-1

STD. 36"X36"

WI-4b

STD. 48"X48"

R56-1

STD. 18"X18"

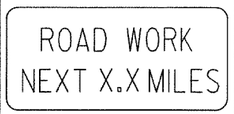
W8-11

STD. 36"X36"
FWY. 48"X48"

W8-9

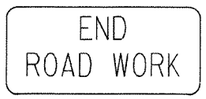
STD. 36"X36"
FWY. 48"X48"

G20-1



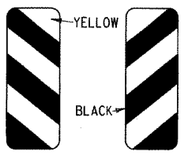
60"X24"

G20-2



48"X24"

OM-3L OM-3R



12"X36"

M4-9

STD. 30"X24"
SPECIAL 48"X36"
SPECIAL 60"X48"

M4-10

48"X18"

R55-1

FINES DOUBLE
IN WORK ZONES *

WHEN WORKERS
ARE PRESENT **

36"X60"

* USE 6" C LETTERS
** USE 4" D LETTERS

ADVANCE DISTANCES
(XXXX)

500 FT	½ MILE
1000 FT	¾ MILE
1500 FT	1 MILE
	AHEAD

GENERAL NOTES:

1. ALL TRAFFIC CONTROL DEVICES USED ON ROAD CONSTRUCTION SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND TO THE STANDARD HIGHWAY SIGNS, LATEST EDITION, OR AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION.

2. TRAFFIC CONTROL DEVICES SHALL BE SET UP JUST BEFORE THE START OF CONSTRUCTION OPERATIONS AND SHALL BE PROPERLY MAINTAINED DURING THE TIME SUCH CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS NEEDED AND REMOVED THEREAFTER.

3. EXISTING SIGNS AND CONSTRUCTION SIGNS SHALL BE KEPT IN PROPER POSITION, AND BE CLEAN AND LEGIBLE AT ALL TIMES. SIGNS THAT DO NOT APPLY TO EXISTING CONDITIONS SHALL BE REMOVED. SIGNS THAT ARE DAMAGED, DEFACED, OR THAT ACCUMULATE DIRT DURING CONSTRUCTION SHALL BE CLEANED, REPAIRED, OR REPLACED.

• 4. SIGNS ARE USUALLY MOUNTED ON A SINGLE POST, ALTHOUGH THOSE WIDER THAN 36" OR LARGER THAN 10 SQ. FT. SHALL BE MOUNTED ON TWO POSTS OR ABOVE A TYPE III BARRICADE.

• 5. SIGN POSTS DIRECT BURIED IN SOIL SHALL BE 2 LB. MINIMUM CHANNEL POST OR 4"x4" WOOD POSTS. CHANNEL POSTS SHALL BE PAINTED GREEN. WOOD POSTS SHALL BE PAINTED WHITE. ALL POSTS SHALL BE NEATLY CONSTRUCTED, AND SHALL BE REPLUMBED, CLEANED, OR REPAIRED AS NEEDED FOR THE DURATION OF THE JOB. THERE SHALL NOT BE MORE THAN 2 POSTS IN A 7' PATH FOR WOOD OR CHANNEL POSTS. ANY CHANNEL POST SPLICE SHALL BE IN ACCORDANCE WITH STANDARD DRAWING TC-3.

6. POST MOUNTED SIGNS IN RURAL AREAS SHALL BE CONSTRUCTED WITH THE NEAR EDGE OF THE SIGN FROM 6 TO 12 FEET FROM THE PAVEMENT EDGE. SIGNS IN URBAN AREAS AND BARRICADE MOUNTED SIGNS SHALL BE MOUNTED A MINIMUM OF 2 FEET FROM THE PAVEMENT EDGE.

7. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN URBAN AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN RURAL AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE, EXCEPT A MINIMUM OF 6' SHALL BE USED WHEN MOUNTING AN ADVISORY SIGN BELOW A WARNING SIGN. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR INTERMEDIATE TERM STATIONARY WORK CONDITIONS. THE SIGNS MINIMUM MOUNTING HEIGHT SHALL BE 5'. RETROREFLECTIVE DEVICES SHALL BE USED. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR SHORT-TERM, SHORT DURATION, AND MOBILE CONDITIONS. THEY SHALL BE NO LESS THAN ONE (1) FOOT ABOVE THE TRAVELED WAY. LONG-TERM STATIONARY SIGNS SHALL BE DIRECT BURIED IN SOIL, UNLESS CONDITIONS NECESSITATE THE USE OF PORTABLE SIGNS, OR AS APPROVED BY THE ENGINEER. CONCRETE PADS, CONCRETE OR ROCK BALLAST, OR OTHER SOLID MATERIALS SHALL NOT BE UTILIZED WITH PORTABLE SIGN SUPPORTS.

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

9. MOST OF THE SIGNS SHOWN ARE ORIENTED TO THE RIGHT. HOWEVER, THIS DOES NOT PRECLUDE THE USE OF MIRROR IMAGES OF THESE SIGNS WHERE THE REVERSE ORIENTATION MIGHT BETTER CONVEY TO MOTORISTS THE PROPER DIRECTION OF MOVEMENT.

10. R55-1 SIGNS SHALL BE PLACED AT LEAST 1500' BUT NOT MORE THAN 1 MILE IN ADVANCE OF THE WORK ZONE. IF A SPEED LIMIT REDUCTION IS IN EFFECT, THE SIGN SHALL BE PLACED A MINIMUM OF 500' IN ADVANCE OF THE "REDUCED SPEED AHEAD" SIGN.

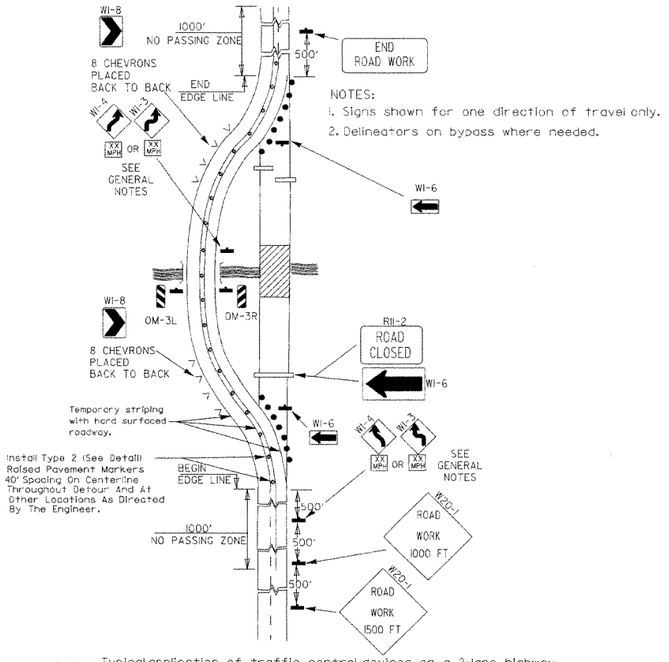
• NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) IS REQUIRED FOR ALL PROJECTS.

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

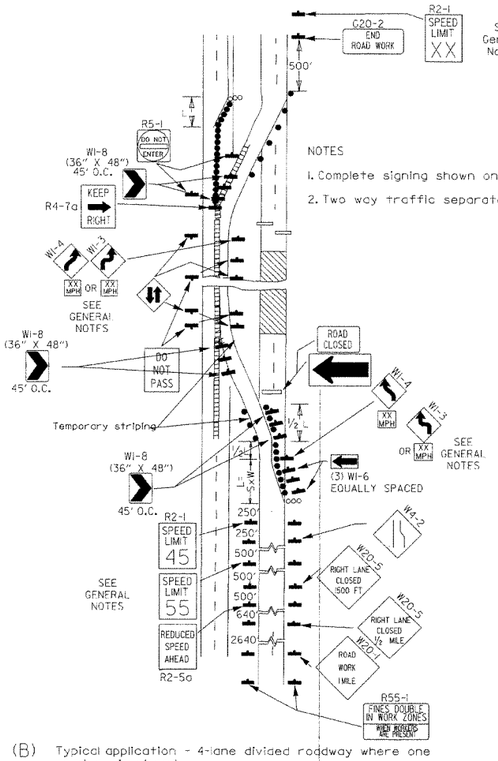
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

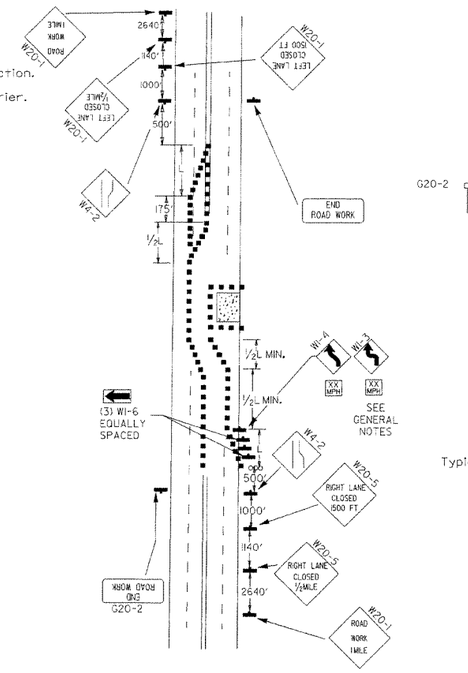
STANDARD DRAWING TC-1



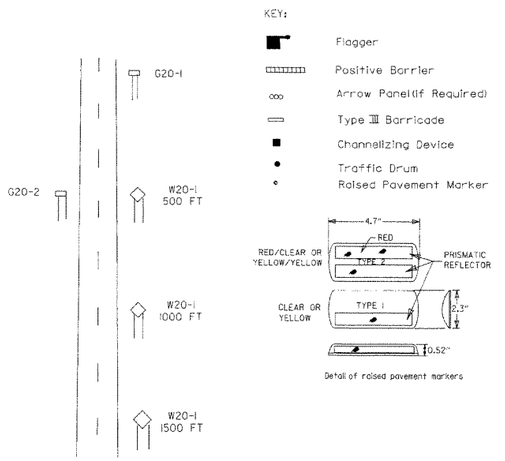
(A) Typical application of traffic control devices on a 2-lane highway where the entire roadway is closed and a bypass detour is provided.



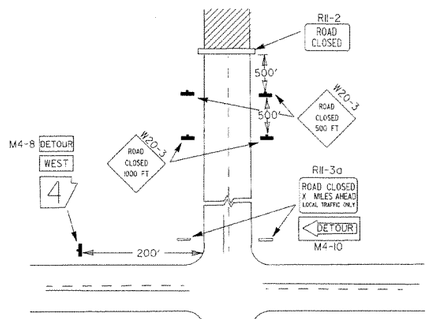
(B) Typical application - 4-lane divided roadway where one roadway is closed.



(C) Typical application - 4-lane undivided roadway where half of the roadway is closed.

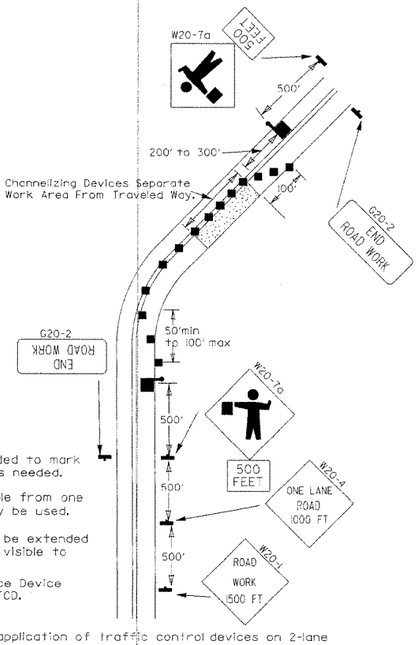


Typical advance warning sign placement



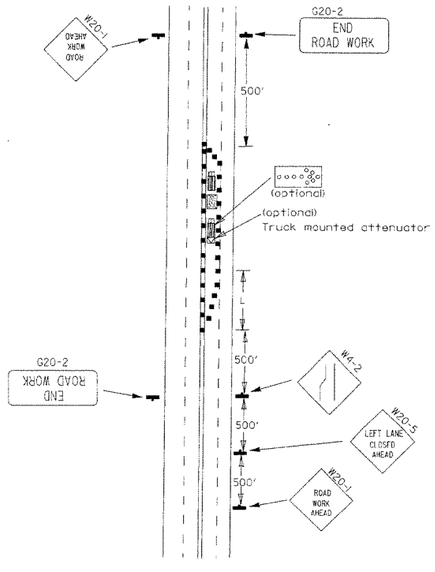
NOTES:
1. Regulatory traffic control devices to be modified as needed for the duration of the detour.
2. Street names may be used when desirable for directing detoured traffic.

(D) Typical application - roadway closed beyond detour point.



NOTES:
1. Flood lights should be provided to mark flagger stations at night as needed.
2. If entire work area is visible from one station, a single flagger may be used.
3. Channelizing devices are to be extended to a point where they are visible to approaching traffic.
4. Automated Flagger Assistance Device (AFAD) optional. Refer to MUTCD.

(E) Typical application of traffic control devices on 2-lane highway where one lane is closed and flagging is provided.



(F) Typical application - 4-lane undivided roadway with inside lane closed.

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:

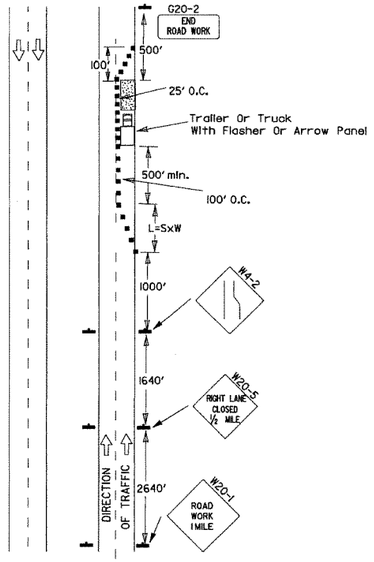
1. Advisory speed posted on WI-3 or WI-4 curve warning signs to be determined at site. Use WI-4 when speed is greater than 30mph and WI-3 when 30mph or less.
2. When the existing speed limit is 55mph and the plans require a speed limit of 45mph, the R2-1(55) shall be omitted and the R2-5A shall be installed 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.

DATE	REVISION	FILMED
3-11-10	ADDED (AFAD)	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED GENERAL NOTE	
10-18-96	ADDED R55-1	
4-26-96	CORRECTED (a) BEHIND G20-2	
6-8-95	CORRECTED SIGN IDENT. ON WI-4A	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

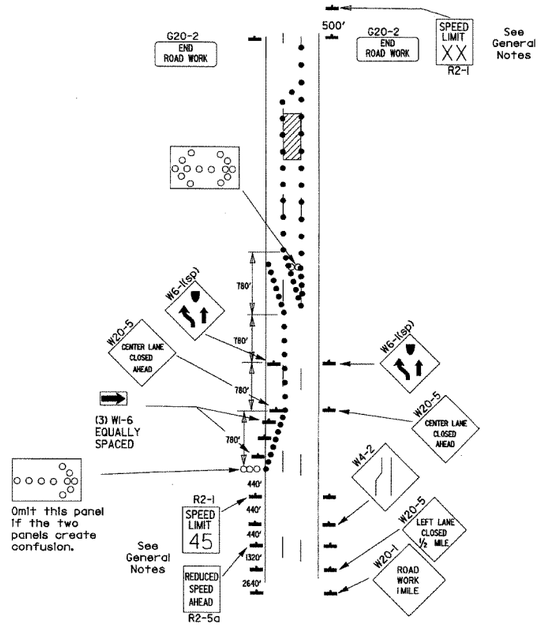
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

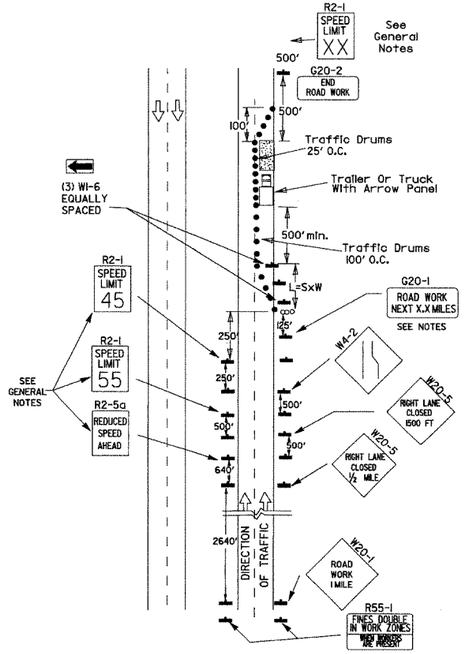
STANDARD DRAWING TC-2



(A) Typical application - daytime maintenance operations of short duration on a 4-lane divided roadway where half of the roadway is closed.



(B) Typical application - 3-lane oneway roadway where center lane is closed.



(C) Typical application - construction operations of intermediate to long term duration on a 4-lane divided roadway where half of the roadway is closed.

KEY:

○○○ Arrow Panel (If Required)

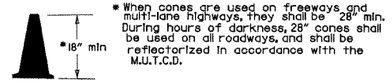
■ Channelizing Device

● Traffic drum

GENERAL NOTES:

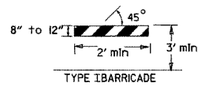
1. A speed limit reduction may be implemented ONLY when designated in the plan or when recommended by the Roadway Design Division.
2. When the existing speed limit is 55mph and the plans require a speed limit of 45mph, the R2-1(55) shall be omitted and the R2-5A shall be installed at that location. Additional R2-1 45mph speed limit signs shall be installed at a maximum of 1 mile 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 1 mile intervals. At the end of the work area a R2-1(XX) shall be installed to match original speed limit.
4. The maximum spacing between channelizing devices in a taper should be approximately equal in feet to the speed limit. Beyond the taper, maximum spacing shall be two times the speed limit or as directed by the Engineer.
5. Warning lights and/or flags may be mounted to signs or channelizing devices at night as needed.
6. Pavement markings no longer applicable which might create confusion in the minds of vehicle operators shall be removed or obliterated as soon as practicable.
7. The G20-1 sign will be required on jobs of over two miles in length. When the lane closure is not at the beginning of the project, the G20-1 sign shall be erected 125' in advance of the job limit. Additional W20-1 (1 MILE) signs are not required in advance of lane closures that begin inside the project limits.
8. Flaggers shall use STOP/SLOW paddles for controlling traffic through work zones. Flags may be used only for emergency situations.
9. All plastic drums and cones shall meet the requirements of NCHRP-350 or 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.

Channelizing devices



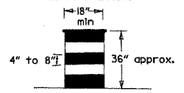
* When cones are used on freeways and multi-lane highways, they shall be 28" min. During hours of darkness, 28" cones shall be used on all roadways, and shall be reflectorized in accordance with the M.U.T.C.D.

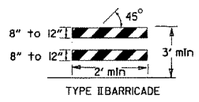
CONES



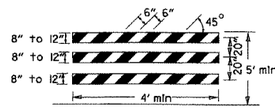
TYPE I BARRICADE

PLASTIC DRUM



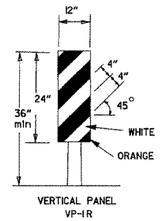


TYPE II BARRICADE



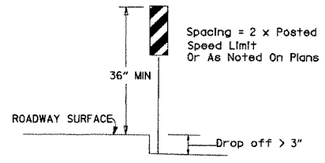
TYPE III BARRICADE

NOTE:
For all road closures, the Type III barricades shall be of sufficient length to extend across entire roadway.



VERTICAL PANEL
VP-1R

VERTICAL PANEL PLACEMENT

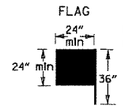


TRAFFIC CONTROL DEVICES
FOR
VERTICAL PAVEMENT DIFFERENTIALS

VERTICAL DIFFERENTIAL	LOCATIONS	TRAFFIC CONTROL
1" to 3"	Centerline, lane lines	W8-11
1" to 3"	Edge of shoulder	W8-9
Greater than 3"	Lane lines	Standard lane closure required
Greater than 3"	Edge of traveled lane	*RSP-1 and vertical panels, drums or concrete barrier
Greater than 3"	Edge of shoulder	*Vertical panels, drums or concrete barrier

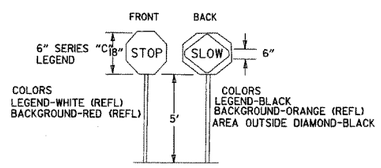
* When shown on the plans concrete barrier will be used.
When the shoulder area is used as part of the traveled lane and there is insufficient width to place drums on the remaining shoulder width, then vertical panels shall be used.

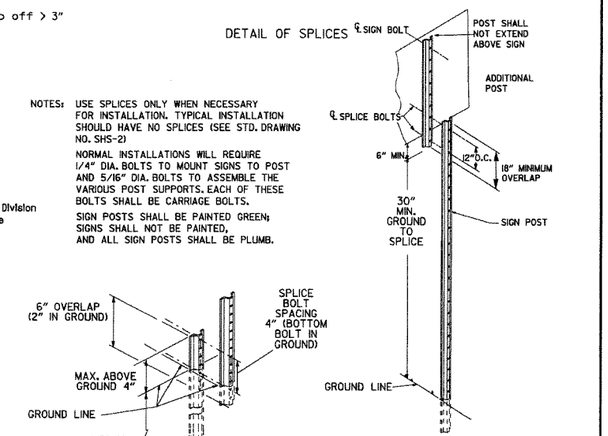
FLAG



Flag shall be of good grade red material

STOP SLOW PADDLE

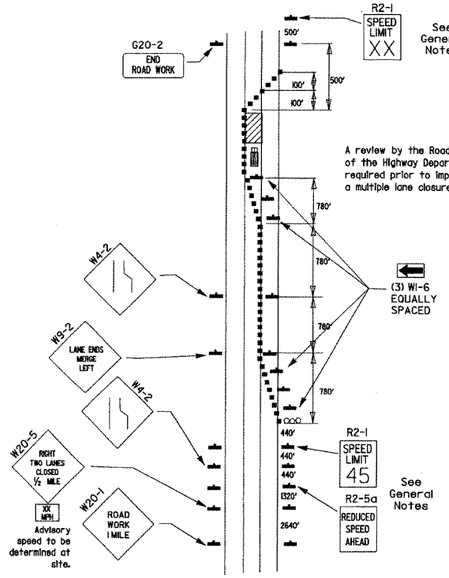




NOTES: USE SPLICES ONLY WHEN NECESSARY FOR INSTALLATION. TYPICAL INSTALLATION SHOULD HAVE NO SPLICES (SEE STD. DRAWING NO. SHS-2)

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.



(D) Typical application - closing multiple lanes of a multilane highway.

DATE	REVISION	FILMED
10-15-09	ADDED REFERENCE TO MASH	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED NOTE	
10-1-98	ADDED NOTE	
4-03-97	ADDED (SP) TO W6-1 & REVISED TRAFFIC CONTROL DEVICES NOTE	
10-18-96	ADDED R55-1	
10-12-95	MOVED UPPER SPLICE	
6-8-95	REVISED SPLICE DETAIL, TEXT	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

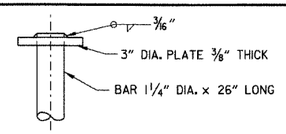
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

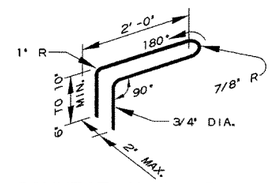
STANDARD DRAWING TC-3

REINFORCING BAR TABLE PER BARRIER UNIT

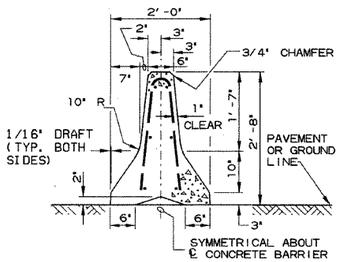
MARK	LOCATION	BAR SIZE	(NO. BARS)	SKETCH
H-1	HORIZONTAL IN BARRIER TIED INSIDE V-1 BARS	#5	(6)	19'-3"
H-2	CENTERED ABOVE DRAIN SLOTS LONG. & TRANSVERSELY	#5	(6)	6'-6"
H-3	TIED ABOVE H-1 BARS TO SUPPORT H-2, TIED TO V-1	#4	(2)	1'-6"
S-1	OVER LIFT HOLES	#4	(2)	2'-5", LIFTING HOLE, 90°, 3 3/8" R
S-2	HORIZ. AROUND SLOTS BETWEEN V-1's @ DRAIN SLOTS	#4	(2)	1 1/2" R, SLOTS, 7", 1" MIN. CLEAR TO BAR, 1'-6", 5'-1" BAR W/(4) 1 1/2" R BENDS & MIN. 1'-0" OVERLAP
V-1	VERTICAL IN BARRIER(3) EACH END & (2) AT EACH DRAIN SLOTS	#5	(16)	TOTAL LENGTH 4'-9", 2 3/16" R, 12°, 9 1/2", 2'-1 3/8", 4 3/8"



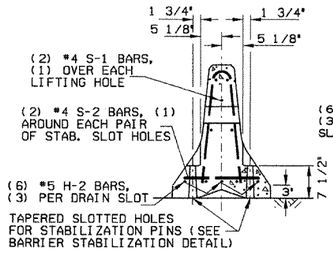
CONNECTION DETAILS



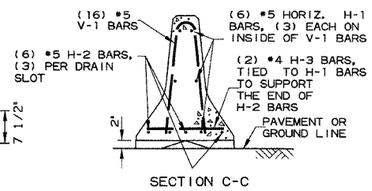
CONNECTION LOOP



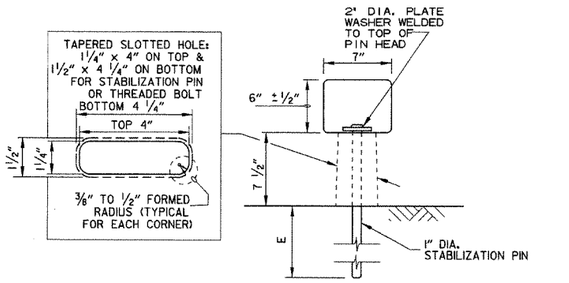
SECTION A-A



SECTION B-B



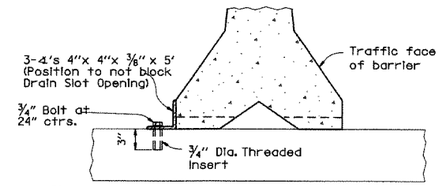
SECTION C-C



BARRIER STABILIZATION DETAIL

ROADWAY SECTION

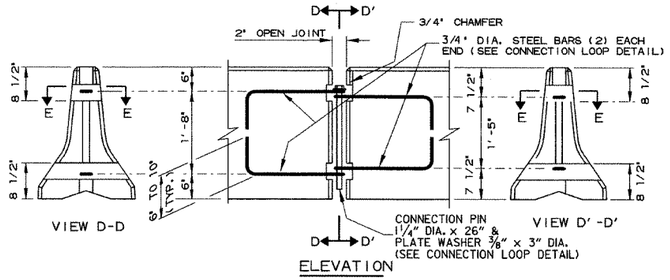
(E) 4" - Concrete Pavement
8" - Asphalt Pavement
12" - Shoulder Areas



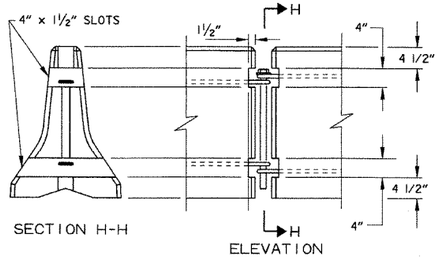
NOTE: 3/4" Threaded Inserts shall be cast in place for all new bridge decks and drilled and grouted for existing bridge decks to be retained. Inserts shall have a minimum ultimate load capacity of 8000 lbs. in tension. After removal of barrier, bolts, and angles, the inserts shall be filled with approved non-shrink epoxy.

BARRIER STABILIZATION DETAIL

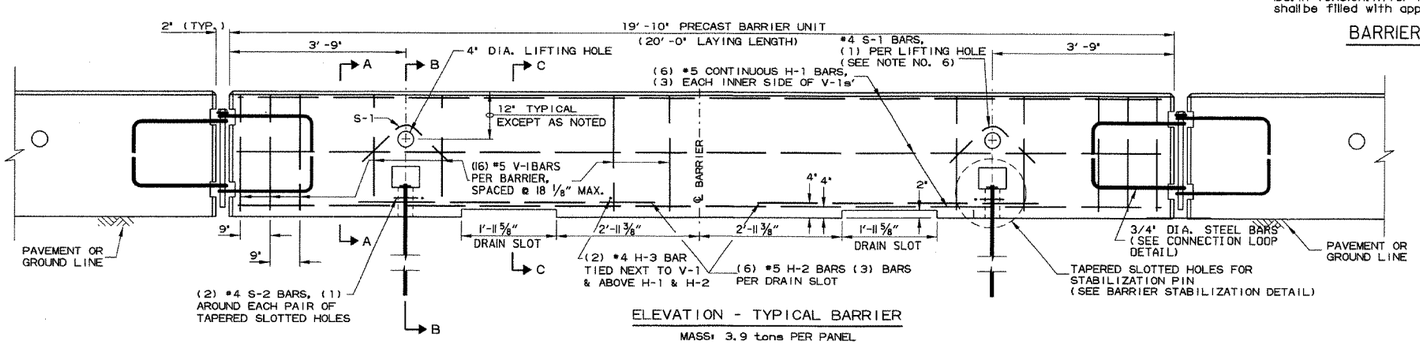
BRIDGE DECKS



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 walls 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 AHTD 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 NCHRP-350 test level 3 or 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 NCHRP Report 350 or 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 NCHRP Report 350 or Manual For Assessing Safety Hardware (MASH) and include a copy of the Federal Highway Administration's (FHWA) approval letter with all attachments. Precast concrete barrier units shall be fabricated and installed in accordance with crash testing and documentation provided in the FHWA approval letter. 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.

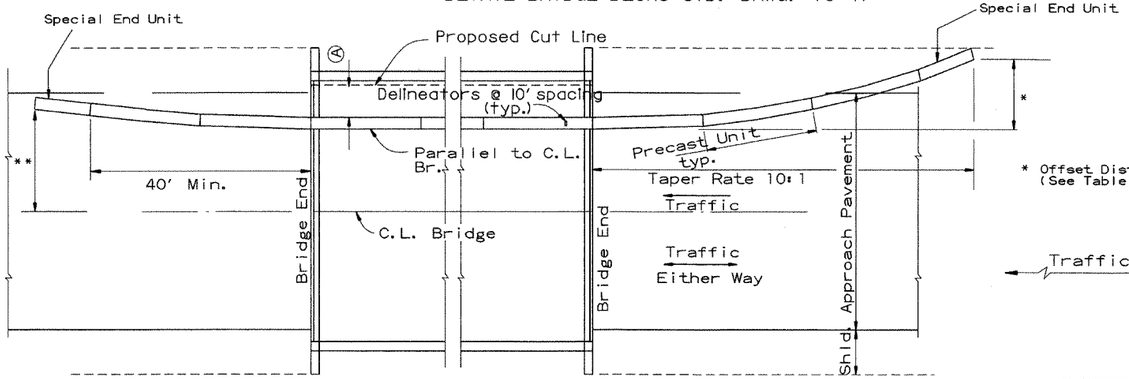
DATE	REVISION	FILMED
10-15-09	ADDED REFERENCE TO MASH	
8-5-09	REV. NOTE 3 CONCERNING DRAIN SLOTS	
11-29-07	REVISED NOTE 3	
5-25-06	DELETED GENERAL NOTE 7	
11-18-04	REVISED BARRIER STABILIZATION DETAIL BRIDGE DECKS	
4-10-03	REVISED GENERAL NOTE 2	
8-22-02	ISSUED NEW DRAWING	

ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

STANDARD DRAWING TC-4

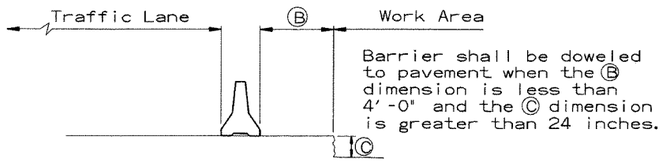
Ⓐ 4 feet or greater preferred. If less than 4 feet, Precast Units shall be connected to slab (SEE BARRIER STABILIZATION DETAIL-BRIDGE DECKS STD. DRWG. TC-4)



* Offset Distance (See Table)

BARRIER PLACEMENT ALONG BRIDGE WITH OFFSET

No Scale

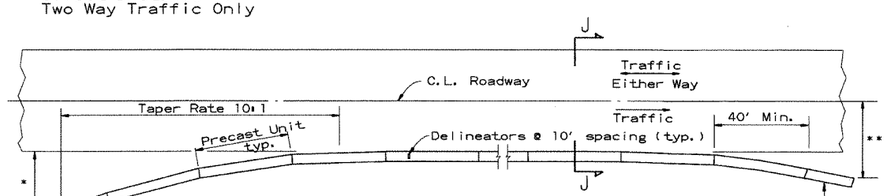


Barrier shall be doweled to pavement when the Ⓑ dimension is less than 4'-0" and the Ⓒ dimension is greater than 24 inches.

SECTION J-J

No Scale

** Offset Distance for Two Way Traffic Only



BARRIER PLACEMENT ALONG ROADWAY WITH OFFSET

No Scale

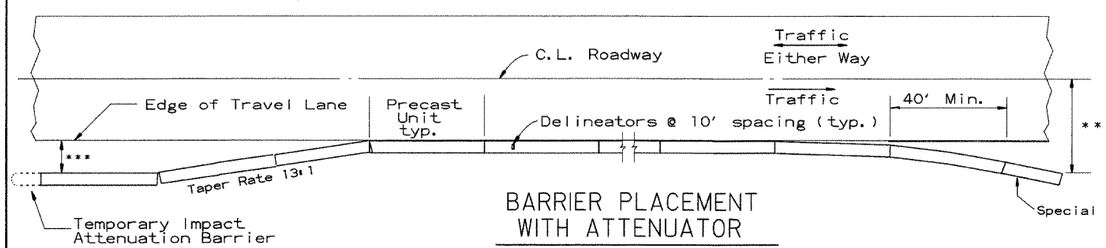
* Offset Distance (See Table)

** 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.

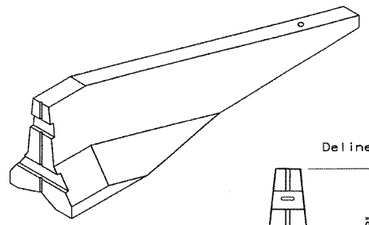


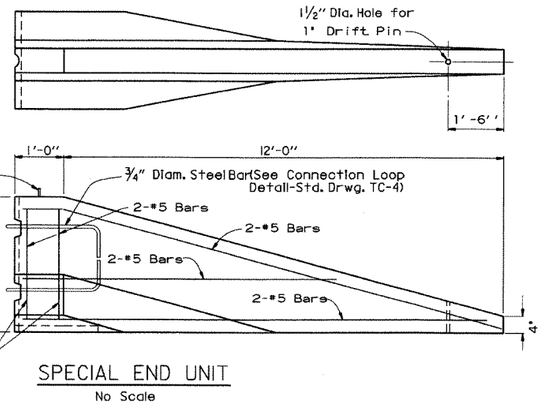
BARRIER PLACEMENT WITH ATTENUATOR

No Scale

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

** Offset Distance For Two Way Traffic Only





SPECIAL END UNIT

No Scale

General Notes

When shown on the Plans, the ends of the Temporary Precast Concrete Barrier shall be protected with an NCHRP-350 or 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
10-15-09	ADDED REFERENCE TO MASH	
5-25-06	REVISED BARRIER PLACEMENT	
8-22-02	ISSUED NEW DRAWING	

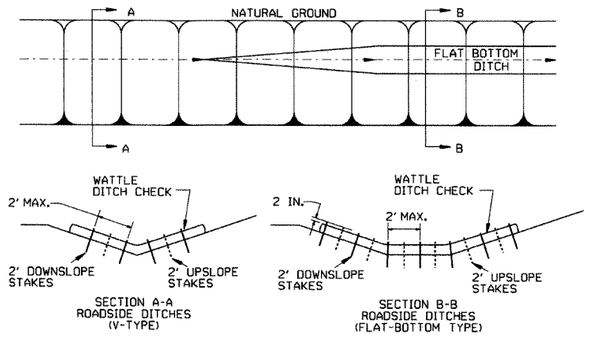
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

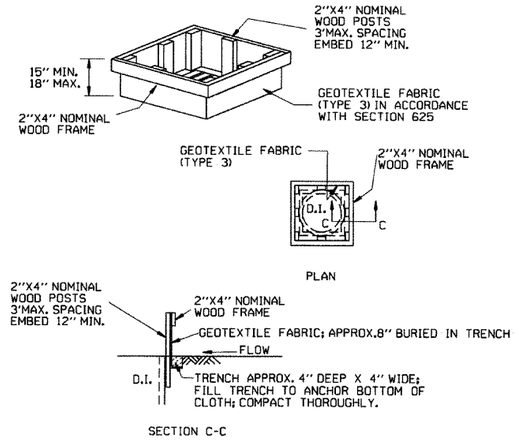
STANDARD DRAWING TC-5

GENERAL NOTES

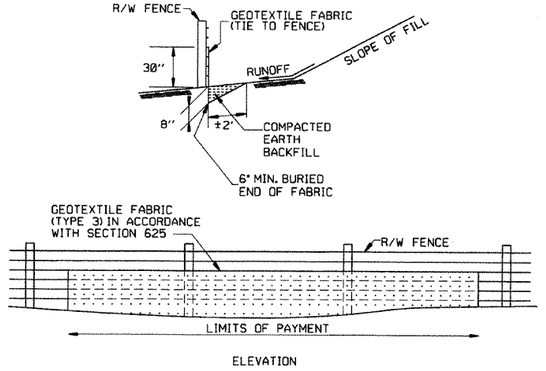
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.



WATTLE DITCH CHECK (E-1)



DROP INLET SILT FENCE (E-7)



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

GENERAL NOTES

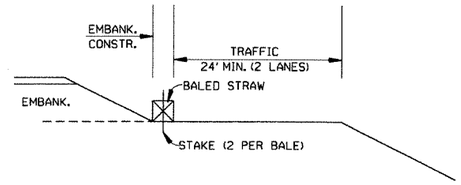
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST, OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.

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.

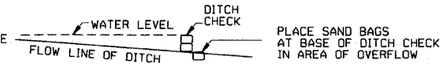
2. NO GAPS SHALL BE LEFT BETWEEN BALES.

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.

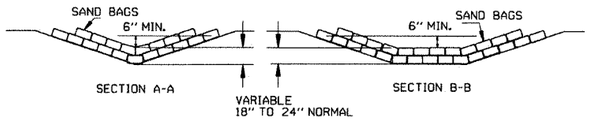


BALED STRAW FILTER BARRIER (E-2)

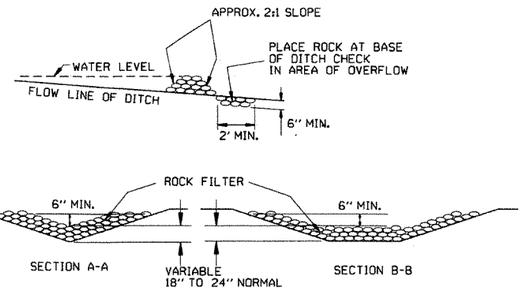
NUMBER OF SAND BAGS AND ARRANGEMENT VARIABLE WITH ON-SITE CONDITIONS.



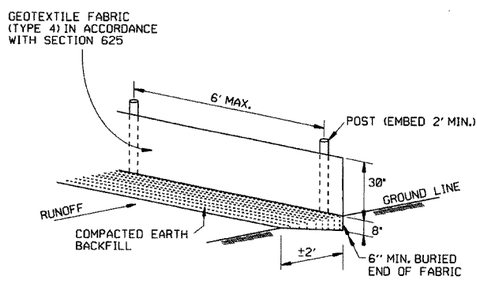
PLACE SAND BAGS AT BASE OF DITCH CHECK IN AREA OF OVERFLOW



SAND BAG DITCH CHECK (E-5)



ROCK DITCH CHECK (E-6)



SILT FENCE (E-11)

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.

DATE	REVISION	FILMED
12-15-11	DELETED BALED STRAW DITCH CHECK & ADDED WATTLE DITCH CHECK	
11-18-98	ADDED NOTES	
7-02-98	ADDED BALED STRAW FILTER BARRIER (E-2)	
7-20-95	REVISED SILT FENCE E-4 AND E-11	7-20-95
7-15-94	REV. E-4 & E-11 MIN. 13" BURIED END OF FABRIC	
6-2-94	REVISED E-1,4,7 & 11; DELETED E-2 & 3	6-2-94
4-1-93	REDRAWN	
10-1-92	REDRAWN	
8-2-76	ISSUED R.D.M.	298-7-28-76

ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

STANDARD DRAWING TEC-1