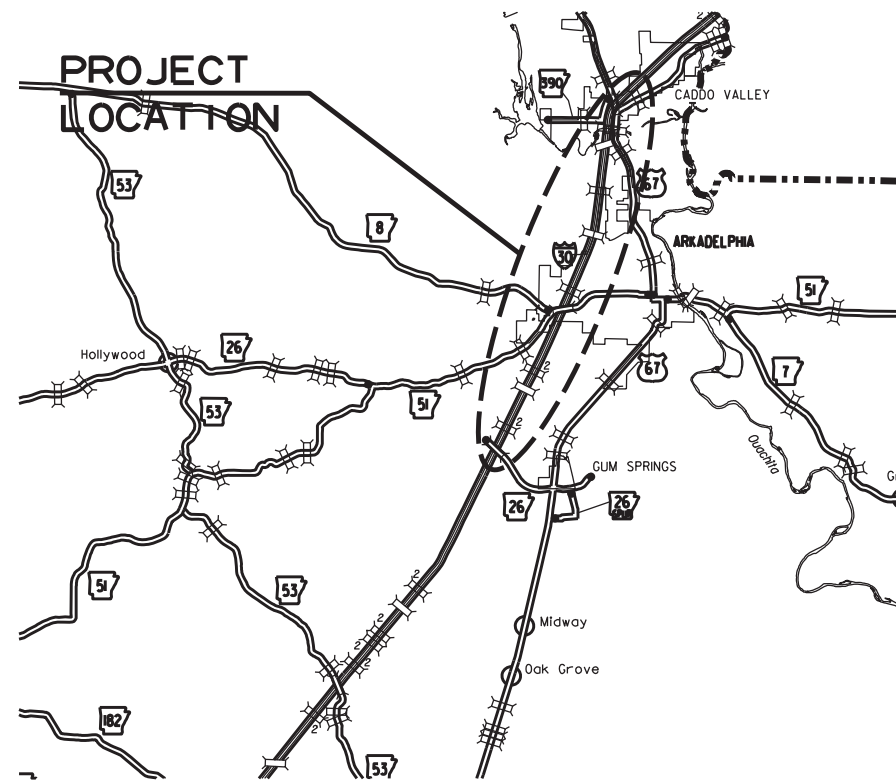


"A FULLY CONTROLLED ACCESS FACILITY"
 ARKANSAS DEPARTMENT OF TRANSPORTATION
 CONSTRUCTION PLANS FOR STATE HIGHWAY

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	070562	1	17
				JOB NO. 070562				
				② HWY. 26 - CADD VALLEY (S)				



VICINITY MAP

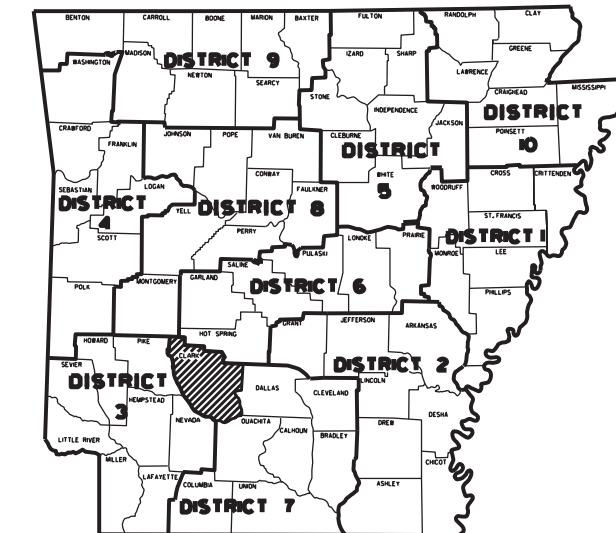
HWY. 26 - CADD VALLEY (S)

CLARK COUNTY

ROUTE 30 SECTION 14

JOB 070562

FED. AID PROJ. NHFP-30-K(159)



ARK. HWY. DIST. NO. 7

NOT TO SCALE

DESIGN TRAFFIC DATA

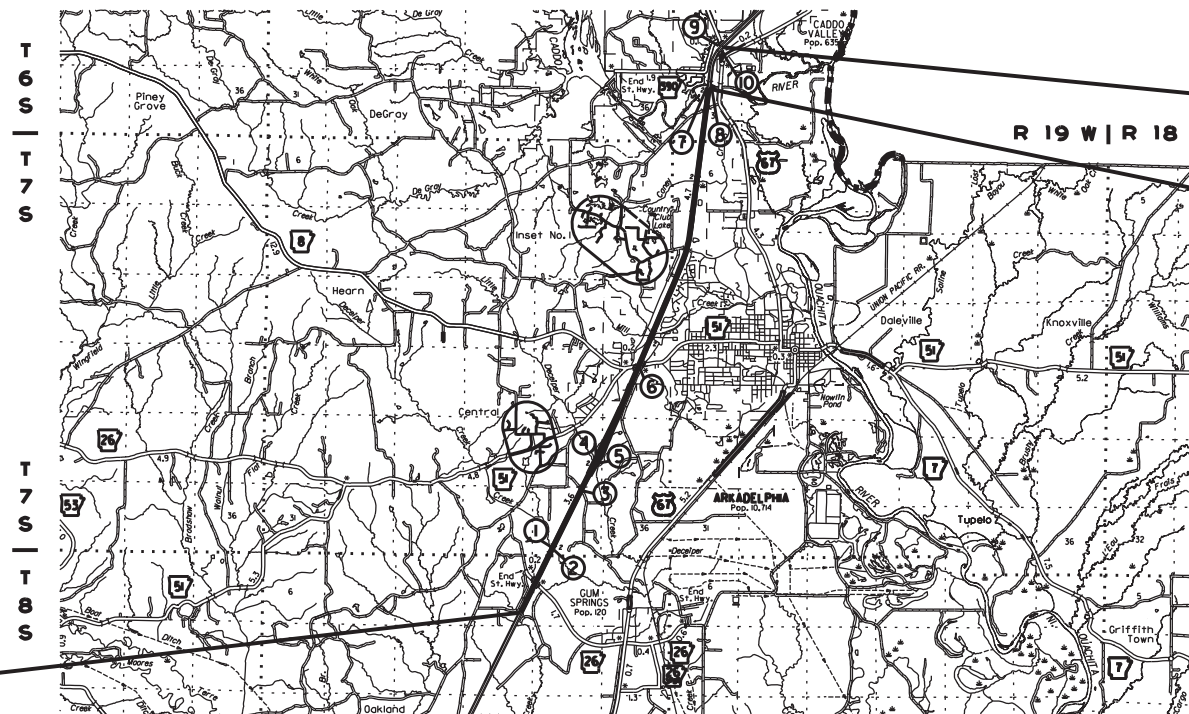
DESIGN YEAR.....	2040
2020 ADT.....	31,000
2040 ADT.....	38,000
2040 DHV.....	4,180
DIRECTIONAL DISTRIBUTION.....	0.60
TRUCKS.....	52%
DESIGN SPEED.....	70 MPH

BRIDGE DATA

- | | |
|--|--|
| ① LOG MILE 69.8
40'-0" CLEAR ROADWAY
100.00' TOTAL LENGTH
BR. NO. A3689
POLYMER OVERLAY | ② LOG MILE 69.8
40'-0" CLEAR ROADWAY
100.00' TOTAL LENGTH
BR. NO. B3689
POLYMER OVERLAY |
| ③ LOG MILE 70.8
24'-0" CLEAR ROADWAY
248.58' TOTAL LENGTH
BR. NO. 03690
POLYMER OVERLAY | ④ LOG MILE 71.2
40'-0" CLEAR ROADWAY
90.00' TOTAL LENGTH
BR. NO. A3691
POLYMER OVERLAY |
| ⑤ LOG MILE 71.2
40'-0" CLEAR ROADWAY
90.00' TOTAL LENGTH
BR. NO. B3691
POLYMER OVERLAY | ⑥ LOG MILE 72.9
58'-0" CLEAR ROADWAY
308.55' TOTAL LENGTH
BR. NO. 06962
POLYMER OVERLAY |
| ⑦ LOG MILE 76.8
40'-0" CLEAR ROADWAY
1142.13' TOTAL LENGTH
BR. NO. A3706
POLYMER OVERLAY | ⑧ LOG MILE 76.8
40'-0" CLEAR ROADWAY
1142.13' TOTAL LENGTH
BR. NO. B3706
POLYMER OVERLAY |
| ⑨ LOG MILE 77.6
40'-0" CLEAR ROADWAY
257.83' TOTAL LENGTH
BR. NO. A6515
POLYMER OVERLAY | ⑩ LOG MILE 77.6
40'-0" CLEAR ROADWAY
257.90' TOTAL LENGTH
BR. NO. B6515
POLYMER OVERLAY |

R 21 W | R 20 W

R 20 W | R 19 W



END JOB 070562
LOG MILE 77.55

END MILL AND INLAY
LOG MILE 76.77

BEGIN JOB 070562
LOG MILE 68.66

R 21 W | R 20 W

R 20 W | R 19 W

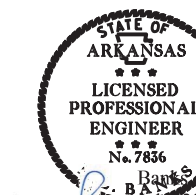
R 19 W | R 20 W

GROSS LENGTH OF PROJECT	46939.20 FEET	OR 8.890 MILES
NET " " ROADWAY	41230.84 " "	7.809 " "
NET " " BRIDGES	1589.96 " "	0.301 " "
NET " " PROJECT	42820.80 " "	8.110 " "

BEGINNING OF PROJECT	MID POINT OF PROJECT	END OF PROJECT
LATITUDE = N 34°03'55"	LATITUDE = N 34°07'29"	LATITUDE = N 34°10'24"
LONGITUDE = W 93°07'31"	LONGITUDE = W 93°05'22"	LONGITUDE = W 93°04'28"



APPROVED



Daniel B. Bannister
 DEPUTY DIRECTOR
 AND CHIEF ENGINEER

6/20/2020 7:19 AM

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
07-31-20				6	ARK.			
				JOB NO.		070562	2	17

② INDEX OF SHEETS AND STANDARD DRAWINGS



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INDEX OF SHEETS

SHEET NO.	TITLE	BRIDGE NO.	DRWG. NO.
1	TITLE SHEET		
2	INDEX OF SHEETS AND STANDARD DRAWINGS		
3	GOVERNING SPECIFICATIONS AND GENERAL NOTES		
4	TYPICAL SECTIONS OF IMPROVEMENT		
5 - 6	SPECIAL DETAILS		
7 - 10	MAINTENANCE OF TRAFFIC DETAILS		
11	PERMANENT PAVEMENT MARKING DETAILS		
12 - 14	QUANTITIES		
15	SCHEDULE OF BRIDGE QUANTITIES	A&B3689, 03690, A&B3691, 06962, A&B3706, A&B6515	61832
16	SUMMARY OF QUANTITIES AND REVISIONS		
17	DETAILS OF BACKWALL AND JOINT REHABILITATION	A&B6515	61855

BRIDGE STANDARD DRAWINGS

DRWG. NO.	TITLE	DATE
55064	STANDARD DETAILS FOR JOINT REPAIRS & MODIFICATION	11-07-19

ROADWAY STANDARD DRAWINGS

DRWG. NO.	TITLE	DATE
PM-1	PAVEMENT MARKING DETAILS	02-27-20
PM-2	PERMANENT PAVEMENT MARKING ON ACCESS CONTROLLED ROADWAYS	05-14-20
TC-1	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	11-07-19
TC-2	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	11-07-19
TC-3	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	02-27-20
TC-4	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION-TEMPORARY PRECAST BARRIER	11-07-19
TC-5	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION-TEMPORARY PRECAST BARRIER	11-07-19
TEC-1	TEMPORARY EROSION CONTROL DEVICES	11-16-17

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10-08-20				6	ARK.			
10-30-20								
				JOB NO.		070562	3	17

2 GOVERNING SPECIFICATIONS & GENERAL NOTES

GOVERNING SPECIFICATIONS

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

NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1273	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273	SUPPLEMENT - WAGE RATE DETERMINATION
100-3	CONTRACTOR'S LICENSE
100-4	DEPARTMENT NAME CHANGE
102-2	ISSUANCE OF PROPOSALS
108-1	LIQUIDATED DAMAGES
108-2	WORK ALLOWED PRIOR TO ISSUANCE OF WORK ORDER
210-1	UNCLASSIFIED EXCAVATION
306-1	QUALITY CONTROL AND ACCEPTANCE
400-1	TACK COATS
400-4	DESIGN AND QUALITY CONTROL OF ASPHALT MIXTURES
400-5	PERCENT AIR VOIDS FOR ACHM MIX DESIGNS
400-6	LIQUID ANTI-STRIP ADDITIVE
400-7	TRACKLESS TACK
404-3	DESIGN OF ASPHALT MIXTURES
410-1	CONSTRUCTION REQUIREMENTS AND ACCEPTANCE OF ASPHALT CONCRETE PLAN MIX COURSES
410-2	DEVICES FOR MEASURING DENSITY FOR ROLLING PATTERNS
603-1	LANE CLOSURE NOTIFICATION
604-1	RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
604-3	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES (MASH)
621-1	FILTER SOCKS
800-1	STRUCTURES
804-2	REINFORCING STEEL FOR STRUCTURES
JOB 070562	ASSESSMENT OF WORKING DAYS - MAINTENANCE OF TRAFFIC
JOB 070562	BIDDING REQUIREMENTS AND CONDITIONS
JOB 070562	BRIDGE DECK REPAIR FOR POLYMER OVERLAYS
JOB 070562	BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB 070562	CARGO PREFERENCE ACT REQUIREMENTS
JOB 070562	COLD MILLINGS IN RECYCLED ASPHALT PAVEMENT
JOB 070562	COORDINATION OF WORK
JOB 070562	DISADVANTAGED BUSINESS ENTERPRISE BIDDER'S RESPONSIBILITIES
JOB 070562	ENHANCED THERMOPLASTIC PAVEMENT MARKING
JOB 070562	FLEXIBLE BEGINNING OF WORK - CALENDAR DAY CONTRACT
JOB 070562	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB 070562	JOINT REHABILITATION FOR BRIDGE DECKS
JOB 070562	LONGITUDINAL JOINT DENSITIES FOR ACHM SURFACE COURSES
JOB 070562	MAINTENANCE OF TRAFFIC
JOB 070562	MANDATORY ELECTRONIC CONTRACT
JOB 070562	MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
JOB 070562	PARTNERING REQUIREMENTS
JOB 070562	PERCENT WITHIN LIMITS
JOB 070562	POLYMER OVERLAY
JOB 070562	PRICE ADJUSTMENT FOR ASPHALT BINDER
JOB 070562	RESTRICTIONS ON THE USE OF RECYCLED ASPHALT PAVEMENT MATERIAL
JOB 070562	SITE USE (A+C METHOD) - CALENDAR DAY CONTRACT
JOB 070562	SPECIAL CLEARING
JOB 070562	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB 070562	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
JOB 070562	UNDERDRAIN INSPECTION, FLUSHING, AND REHABILITATION
JOB 070562	UTILITY ADJUSTMENTS
JOB 070562	VALUE ENGINEERING
JOB 070562	WARM MIX ASPHALT
JOB 070562	WATER POLLUTION CONTROL



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GENERAL NOTES

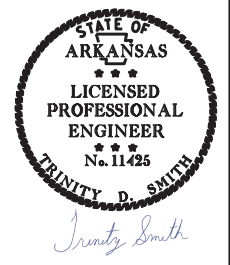
- ALL PIPE LINES, POWER, TELEPHONE, AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.
- ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE PROVIDED.
- ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
- ALL TREES THAT DO NOT DIRECTLY INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE SPARED AS DIRECTED BY THE ENGINEER. CARE AND DISCRETION SHALL BE USED TO ENSURE THAT ALL TREES NOT TO BE REMOVED SHALL BE HARMED AS LITTLE AS POSSIBLE DURING THE CONSTRUCTION OPERATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A FENCE TO CONTROL LIVESTOCK IN AREAS WHERE PASTURES ARE SEVERED. WIRE FENCE MAY BE CONSTRUCTED INITIALLY, OR IN LIEU THEREOF, THE CONTRACTOR AT HIS OWN EXPENSE, MAY ELECT TO PROVIDE TEMPORARY FENCING SUITABLE TO CONTAIN LIVESTOCK.
- THE SEQUENCE AS SHOWN ON THE MAINTENANCE OF TRAFFIC PLANS IS A GENERAL OUTLINE FOR THE CONSTRUCTION OF THIS PROJECT, AND IN NO WAY IS IT INTENDED TO COVER EVERY ITEM IN THE PROJECT. ITEMS NOT CRITICAL TO THE CONSTRUCTION SEQUENCE MAY BE CONSTRUCTED IN ANY STAGE AS APPROVED BY THE RESIDENT ENGINEER.
- ALL FLEXIBLE BASE AND ASPHALTIC PAVEMENTS REMOVED SHALL BE PAID FOR UNDER THE ITEM NO. 210 - UNCLASSIFIED EXCAVATION.
- THE EXISTING ASPHALT PAVEMENT TO BE REMOVED FROM THE REMAINING PAVEMENT SHALL BE SEPARATED BY SAWING ALONG A NEAT LINE. AFTER SAWING, THE PAVEMENT TO BE REMOVED SHALL BE CAREFULLY REMOVED IN A MANNER THAT WILL NOT DAMAGE THE PAVEMENT THAT IS TO REMAIN. ANY DAMAGE OF THE ASPHALT PAVEMENT THAT IS TO REMAIN IN PLACE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

6/11/2020

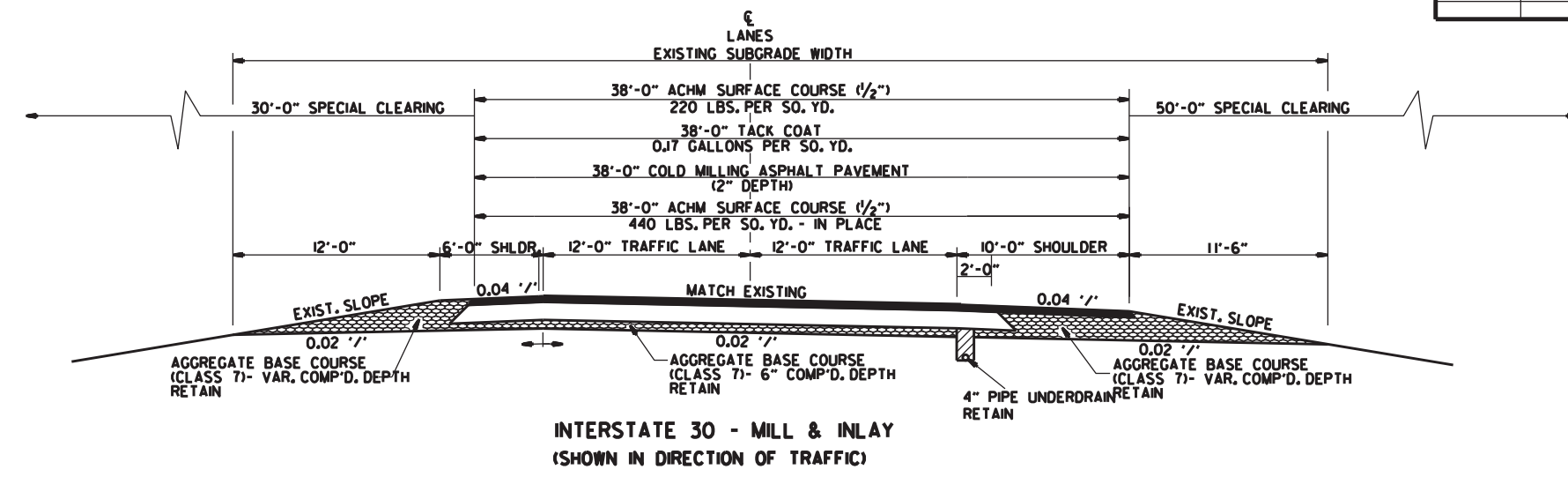
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DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		4	17
				JOB NO.		070562		

2 TYPICAL SECTIONS OF IMPROVEMENT

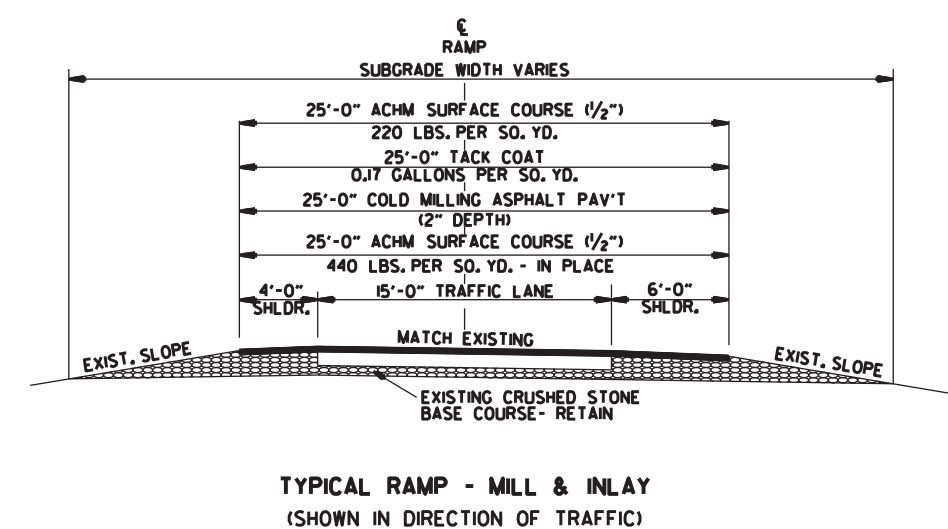
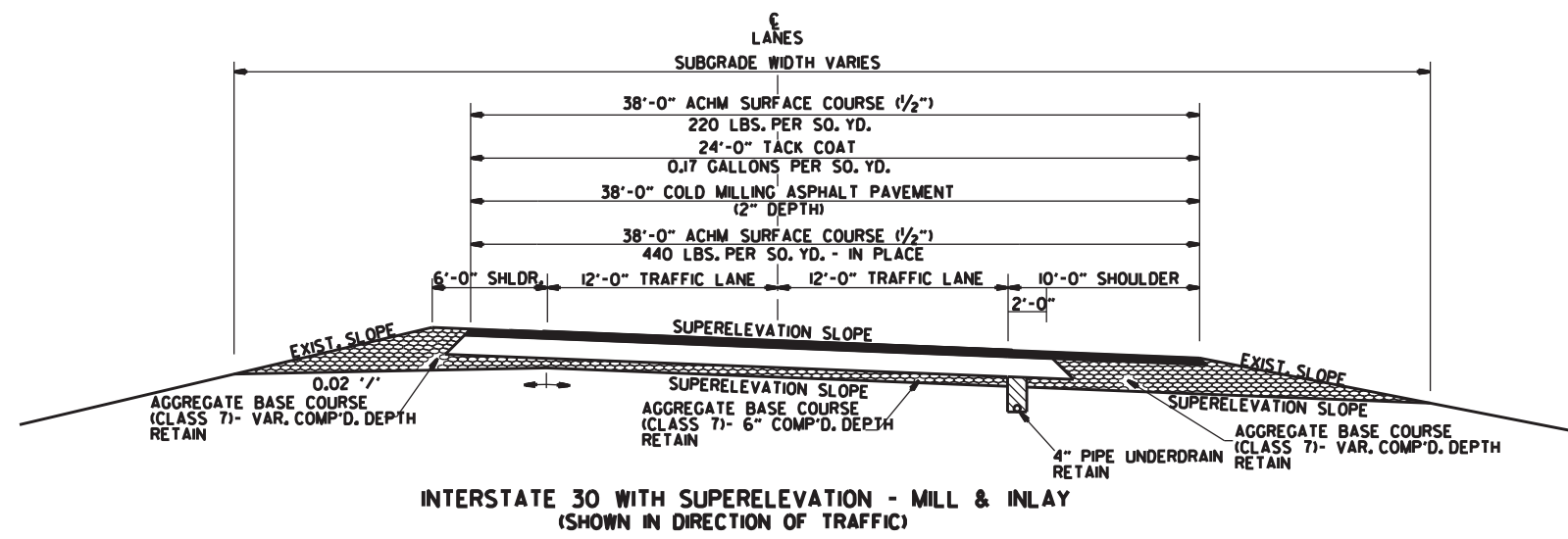


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LEFT MAIN LANES
LOG MILE 68.66 TO LOG MILE 69.81
LOG MILE 69.84 TO LOG MILE 71.27
LOG MILE 71.30 TO LOG MILE 76.77

RIGHT MAIN LANES
LOG MILE 68.66 TO LOG MILE 69.81
LOG MILE 69.84 TO LOG MILE 71.26
LOG MILE 71.30 TO LOG MILE 76.77

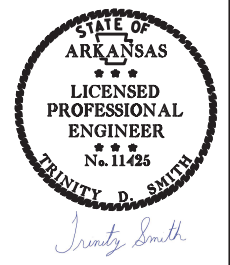


EXIT 78 RT. MAIN LANES - EXIT RAMP
LOG MILE 77.34 TO LOG MILE 77.46
EXIT 78 RT. MAIN LANES - ENTRANCE RAMP
LOG MILE 77.53 TO LOG MILE 77.76
EXIT 78 LT. MAIN LANES - ENTRANCE RAMP
LOG MILE 77.35 TO LOG MILE 77.58
EXIT 78 LT. MAIN LANES - EXIT RAMP
LOG MILE 77.61 TO LOG MILE 77.80

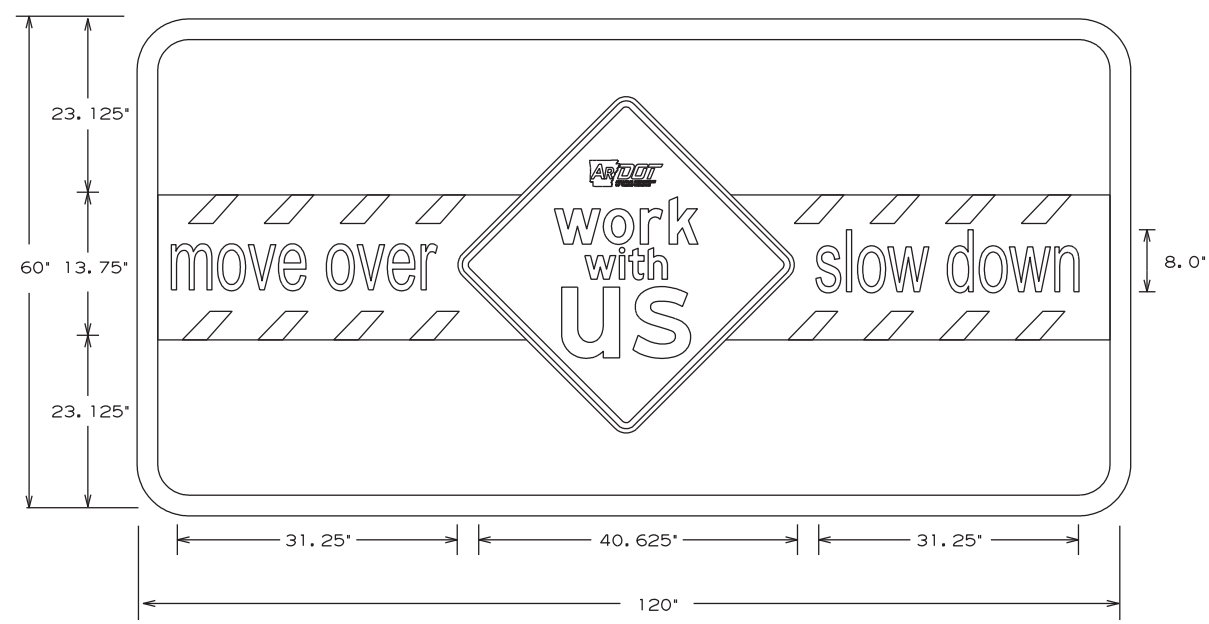
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DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		070562	5	17

2 SPECIAL DETAILS



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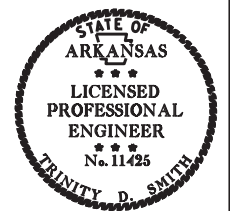
2" WHITE BORDER, 2" RADIUS, GREEN BACKGROUND
 move over/slow down 5.31" NIVEAU GROTESK, REGULAR FONT x 1.5Y
 work with us FRUTIGER LT 75 BLACK FONT
 NOTE: DIGITAL ART WORK FILE AVAILABLE FROM ARDOT MAINTENANCE DIVISION SIGN SHOP 501-569-2665.
 THIS SIGN SHALL BE PLACED 2640' PRECEDING THE FIRST ADVANCE WARNING SIGN, IN THE DIRECTION OF TRAFFIC.

WORK WITH US SIGN

6/11/2020
 R070562.DGN

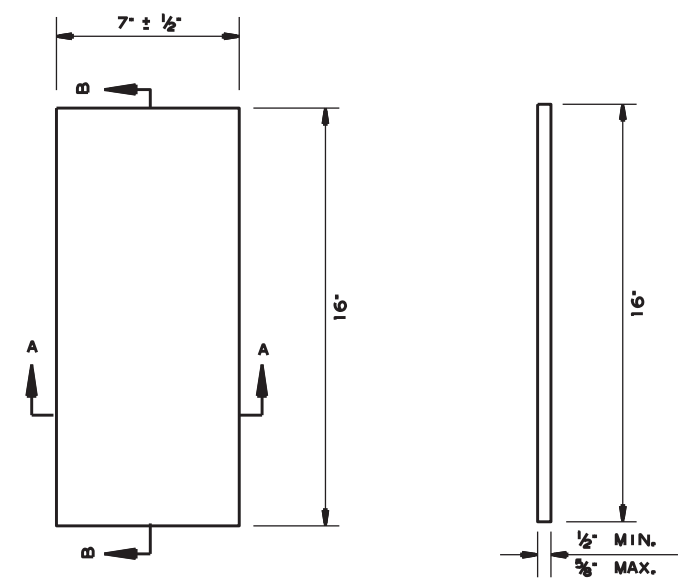
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				6	ARK.		6	17
				JOB NO.		070562	6	17

2 SPECIAL DETAILS



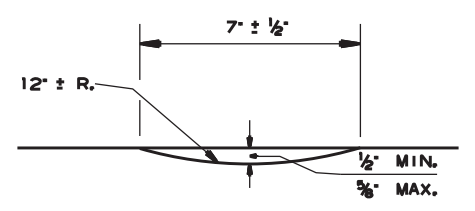
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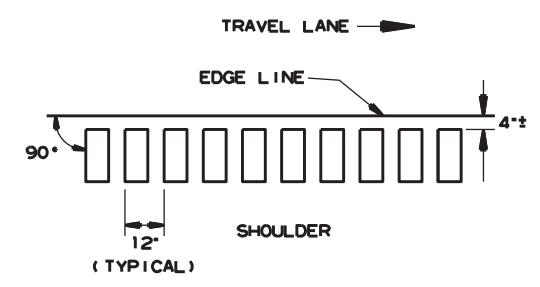


PLAN

SECTION B-B

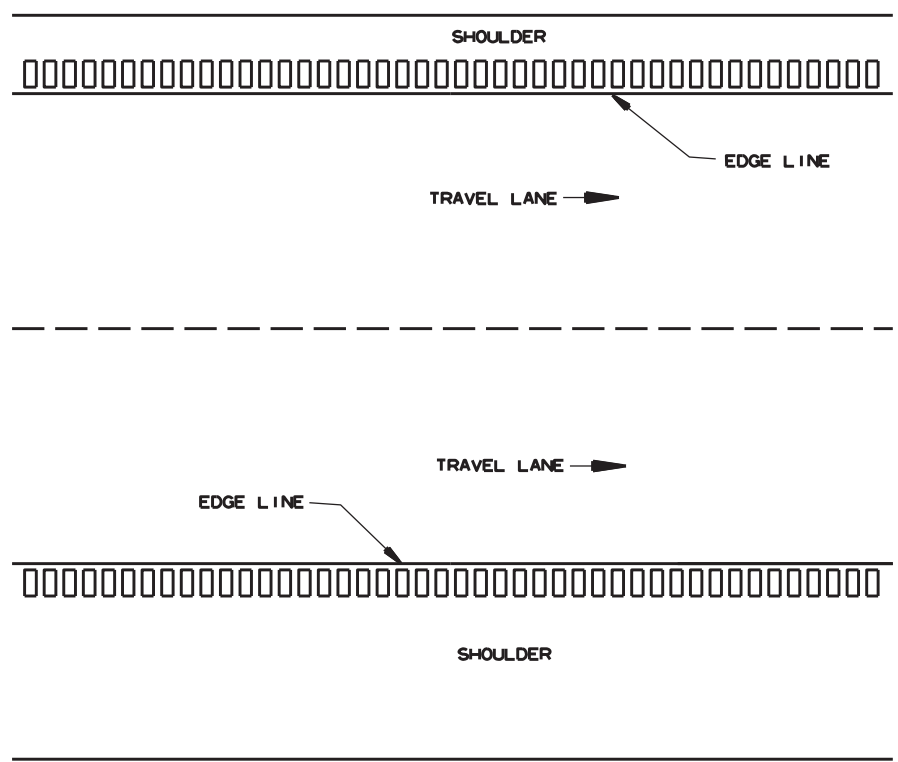


SECTION A-A



LOCATION PLAN OF RUMBLE STRIPS
LEFT OR RIGHT SHOULDER

DETAILS OF RUMBLE STRIPS



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.

6/11/2020

R070562.DGN

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		7	17
				JOB NO.		070562		

② MAINTENANCE OF TRAFFIC DETAILS

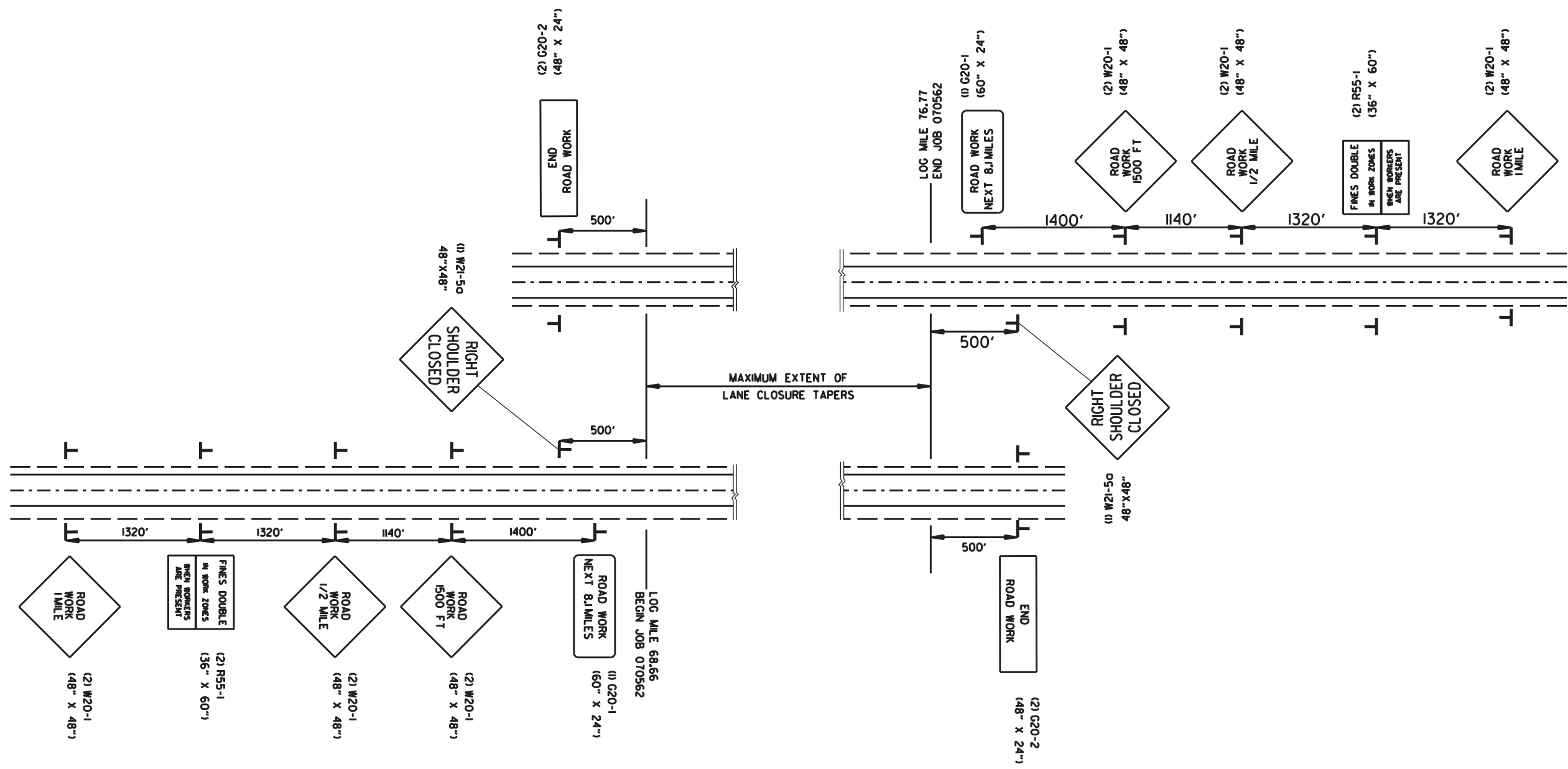


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PORTABLE CHANGEABLE MESSAGE SIGN
PLACED AS DIRECTED BY THE ENGINEER



ADVANCE SIGNS AT JOB ENDS
MAINTENANCE OF TRAFFIC DETAILS

ADVANCE WARNING SIGNS FOR ENTRANCE AND EXIT RAMP
 ROAD WORK AHEAD (4) = 64 SQ. FT.
 END ROAD WORK (4) = 32 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.		9	17
				JOB NO.		070562		

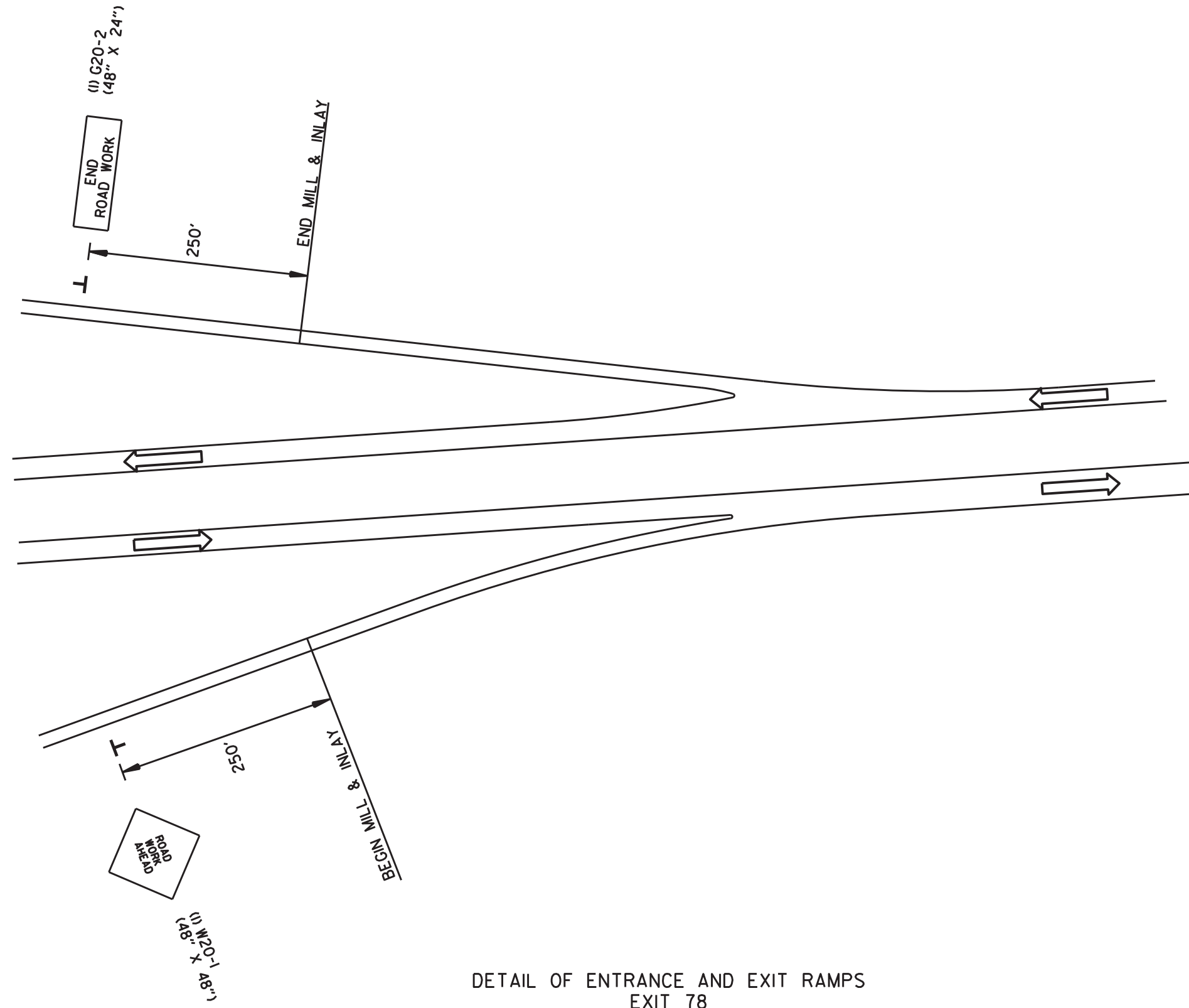
② MAINTENANCE OF TRAFFIC DETAILS



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DETAIL OF ENTRANCE AND EXIT RAMP
 EXIT 78

DETAIL OF RAMPS
 MAINTENANCE OF TRAFFIC DETAILS

FURNISH AND INSTALL PRECAST CONCRETE BARRIER = 520 LIN. FT.
 RELOCATING PRECAST CONCRETE BARRIER = 520 LIN. FT.

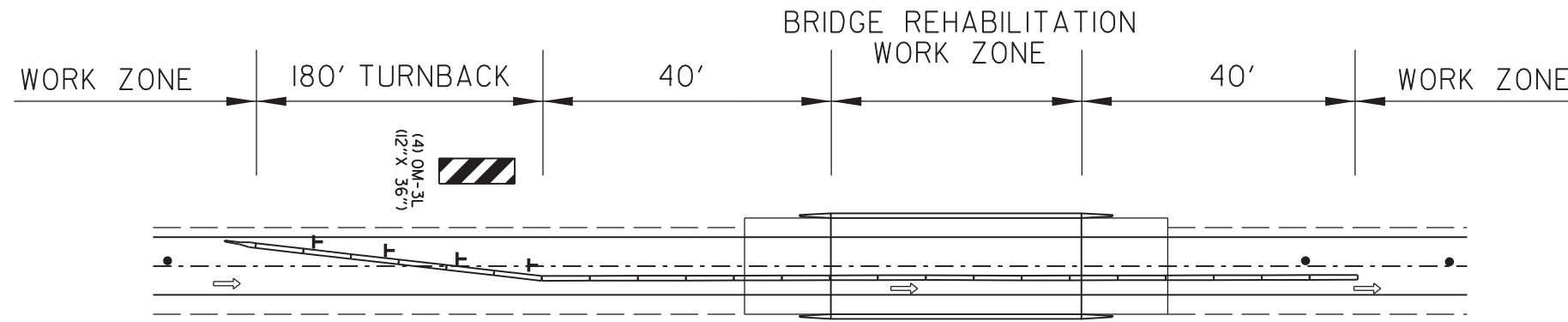
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07-31-20				6	ARK.			
				JOB NO.		070562	9A	17

② MAINTENANCE OF TRAFFIC DETAILS



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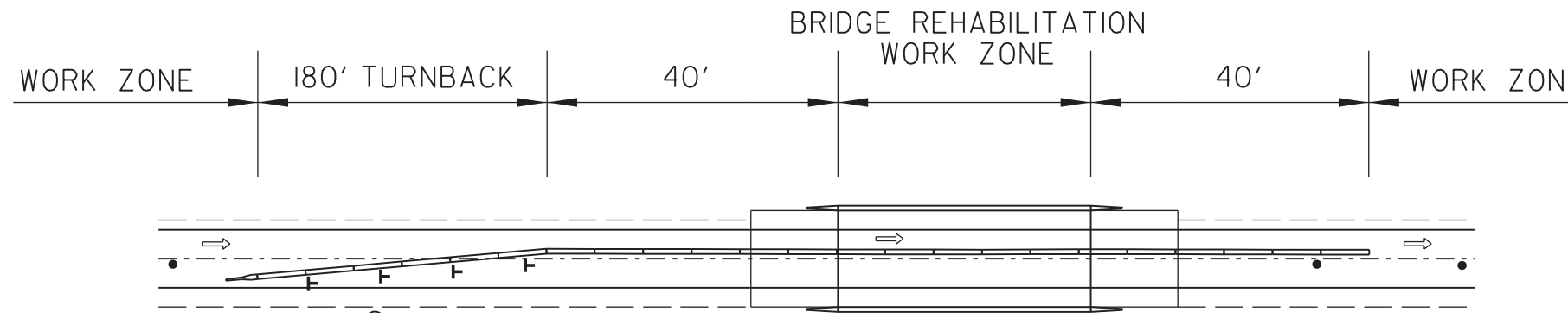


NOTE: OM-3L SIGNS SHALL BE EQUALLY SPACED ALONG P.C.C.B. TURNBACK.

REFER TO STANDARD DRAWING TC-5 FOR DETAILS OF PLACEMENT OF P.C.C.B. TURNBACKS.

SEE BRIDGE PLANS FOR DIMENSION DETAILS

DIVERSION FOR LT. LANE BACKWALL REPAIR AND SLIDER PLATE JOINT ASSEMBLY



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

REFER TO STANDARD DRAWING TC-5 FOR DETAILS OF PLACEMENT OF P.C.C.B. TURNBACKS.

SEE BRIDGE PLANS FOR DIMENSION DETAILS

DIVERSION FOR RT. LANE BACKWALL REPAIR AND SLIDER PLATE JOINT ASSEMBLY

MAINTENANCE OF TRAFFIC DETAILS
 WORK ZONE - BRIDGE DECK REHABILITATION

6/26/2020

R070562.DGN

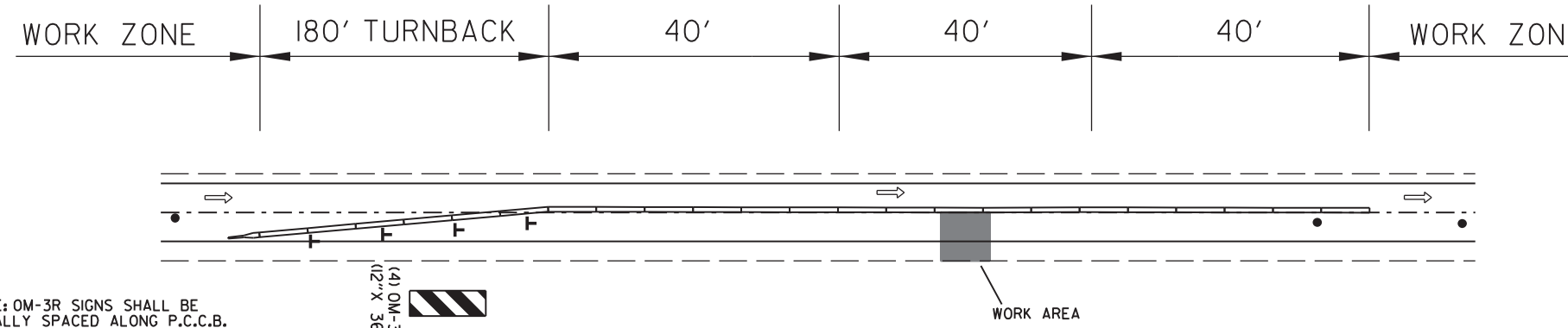
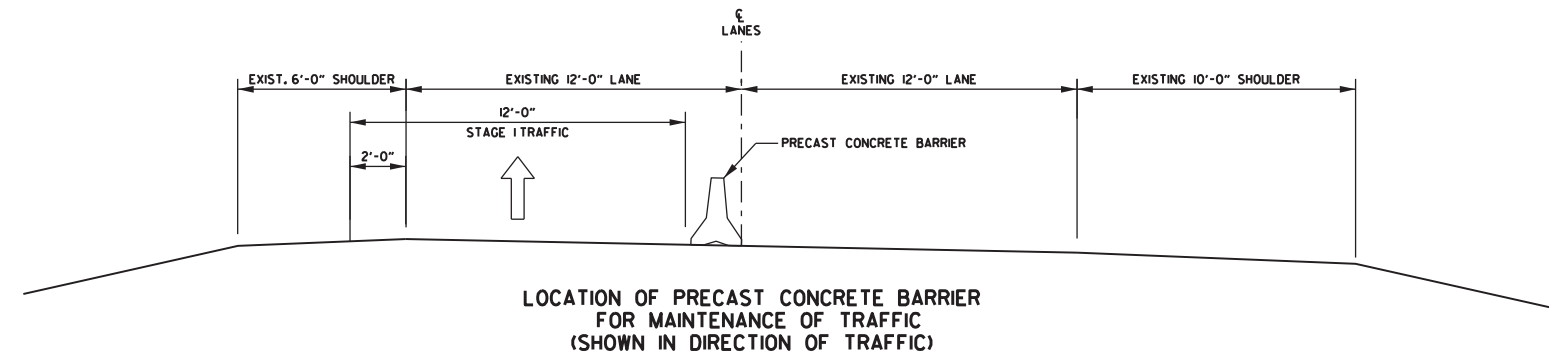
FURNISH AND INSTALL PRECAST CONCRETE BARRIER = 313 LIN. FT.
 RELOCATING PRECAST CONCRETE BARRIER = 626 LIN. FT.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10-22-20				6	ARK.			
						JOB NO. 070562	9B	17

② MAINTENANCE OF TRAFFIC DETAILS



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

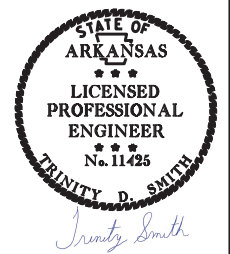
REFER TO STANDARD DRAWING TC-5 FOR DETAILS OF PLACEMENT OF P.C.C.B. TURNBACKS.

MAINTENANCE OF TRAFFIC AT ROADWAY REHABILITATION LOCATIONS
 (SHOWN IN THE DIRECTION OF TRAFFIC)

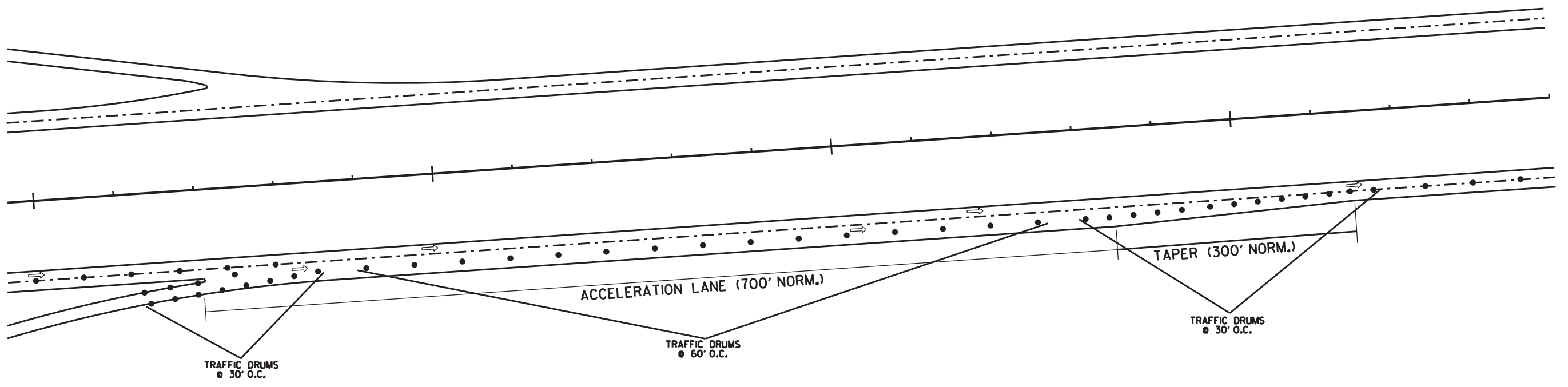
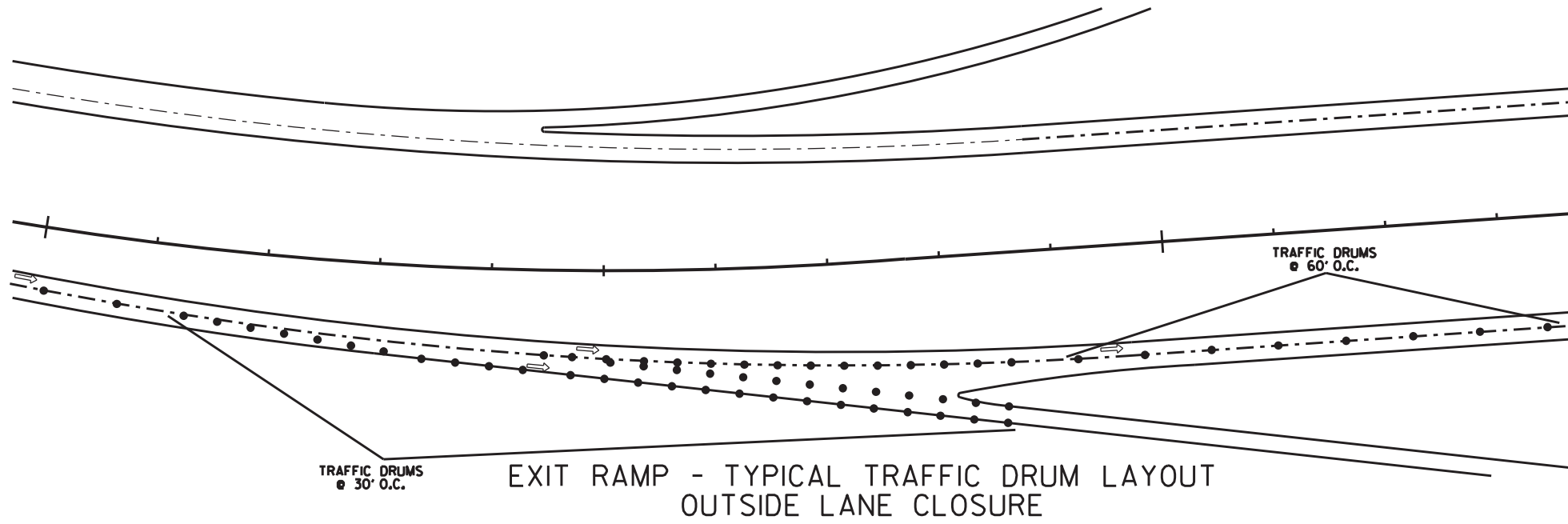
MAINTENANCE OF TRAFFIC DETAILS
 WORK ZONE - ROADWAY REHABILITATION

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		10	17
				JOB NO.		070562		

② MAINTENANCE OF TRAFFIC DETAILS



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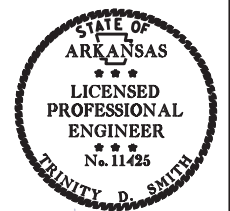
ENTRANCE RAMP - TYPICAL TRAFFIC DRUM LAYOUT
 ACCELERATION LANE CLOSURE

DETAIL OF RAMPS WITH LANE CLOSURE
 MAINTENANCE OF TRAFFIC DETAILS

6/26/2020
 R070562.DGN

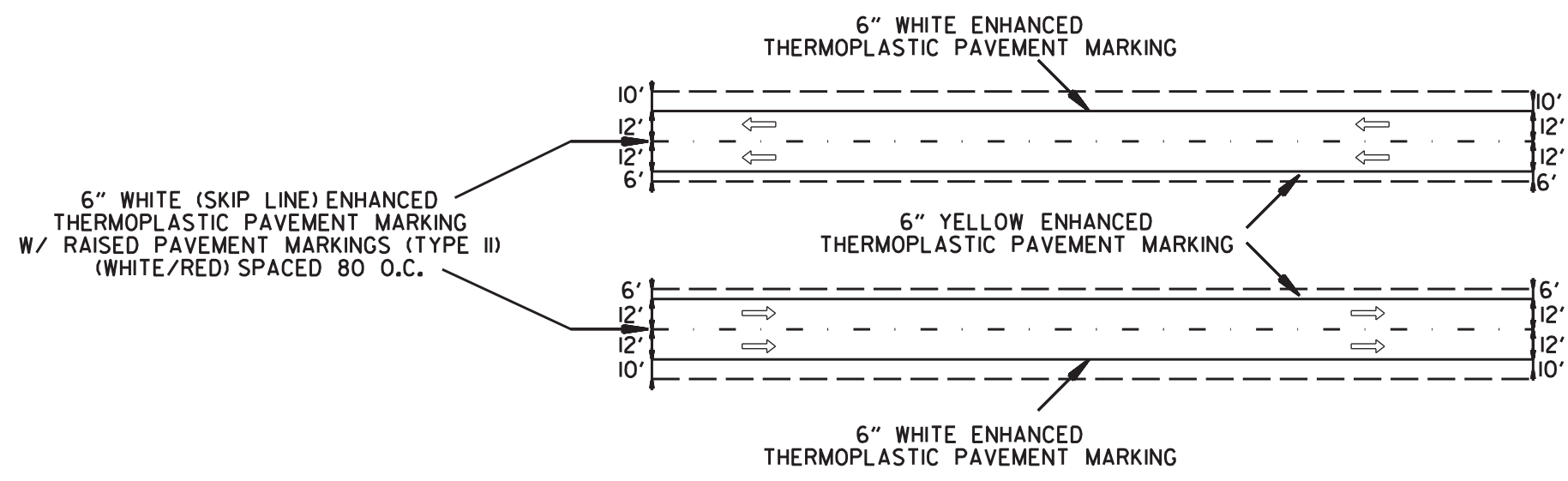
DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	
				6	ARK.				
JOB NO.							070562	11	17

② PERMANENT PAVEMENT MARKING DETAILS



Trinity D. Smith

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FINAL STRIPING DETAIL

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
07-31-20				6	ARK.			
10-22-20						JOB NO. 070562	12	17

2 QUANTITIES



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ADVANCE WARNING SIGNS AND DEVICES

SIGN NUMBER	DESCRIPTION	SIGN SIZE	ENTIRE PROJECT		TOTAL SIGNS REQUIRED		TRAFFIC DRUMS	FURNISHING & INSTALLING PRECAST CONC. BARRIER	RELOCATING PRECAST CONCRETE BARRIER	* ADVANCE WARNING ARROW PANEL	* PORTABLE CHANGEABLE MESSAGE SIGN
			LIN. FT. - EACH	MAXIMUM NUMBER REQUIRED	NO.	SQ. FT.					
W20-1	ROAD WORK 1500 FT.	48"x48"	4	4	4	64.0					
W20-1	ROAD WORK 1/2 MILE	48"x48"	4	4	4	64.0					
W20-1	ROAD WORK 1 MILE	48"x48"	4	4	4	64.0					
W20-1	ROAD WORK AHEAD	48"x48"	8	8	8	128.0					
G20-2	END ROAD WORK	48"x24"	8	8	8	64.0					
G20-1	ROAD WORK NEXT xx MILES	60"x24"	2	2	2	20.0					
W20-5	RIGHT LANE CLOSED 1 MILE	48"x48"	2	2	2	32.0					
W20-5	RIGHT LANE CLOSED 1/2 MILE	48"x48"	2	2	2	32.0					
W20-5	RIGHT LANE CLOSED 1500 FT.	48"x48"	2	2	2	32.0					
SPECIAL	MERGE NOW W/ ARROW	48"x48"	1	1	1	16.0					
R2-5A	REDUCED SPEED AHEAD	48"x60"	2	2	2	40.0					
R55-1	FINES DOUBLE IN WORK ZONES	36"x60"	4	4	4	60.0					
OM-3L	OBJECT MARKER	12"x36"	4	4	4	12.0					
OM-3R	OBJECT MARKER	12"x36"	8	8	8	24.0					
W1-6	LARGE ARROW	48"x24"	6	6	6	48.0					
R4-1	DO NOT PASS	48"x60"	4	4	4	80.0					
W21-5a	RIGHT SHOULDER CLOSED	48"x48"	2	2	2	32.0					
R2-1	SPEED LIMIT 60 MPH	48"x60"	2	2	2	40.0					
R2-1	SPEED LIMIT 70 MPH	48"x60"	2	2	2	40.0					
R2-2	TRUCKS 65	48"x48"	2	4	4	64.0					
W4-2 RT.	MERGE RIGHT	48"x48"	2	2	2	32.0					
SPECIAL	WORK WITH US SIGN (MOVE OVER, SLOW DOWN)	120"x60"	2	2	2	10.0					
	TRAFFIC DRUMS		584	584			584				
	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER		833	833				833			
	RELOCATING PRECAST CONCRETE BARRIER		1146	1146					1146		
	ADVANCE WARNING ARROW PANEL		1	1					40		
	PORTABLE CHANGEABLE MESSAGE SIGN		1	1						16	
TOTALS:						998.0	584	833	1146	40	16

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

NOTE: THE QUANTITY OF TRAFFIC DRUMS PROVIDED IS FOR ONE SIDE OF THE ROADWAY FOR THE 4 MILES OF THE JOB. HOWEVER, THE INSTALLATION OF TRAFFIC DRUMS SHALL NEVER EXCEED THE ACTUAL WORK AREA BY MORE THAN 1/4 MILE, UNLESS APPROVED BY THE ENGINEER.

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

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

DESCRIPTION	ENTIRE PROJECT LIN. FT. - EACH	CONSTRUCTION PAVEMENT MARKINGS LIN. FT.	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS LIN. FT.	RAISED PAVEMENT MARKERS		ENHANCED THERMOPLASTIC PAVEMENT MARKING			THERMOPLASTIC PAVEMENT MARKING		
				TYPE II (WHITE/RED) EACH	6"		12"		WORDS	ARROWS	
					WHITE	YELLOW	WHITE	YELLOW			WORDS
CONSTRUCTION PAVEMENT MARKINGS	268955	268955									
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	3183		3183								
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)	7496			7496							
ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (6")	173473				173473						
ENHANCED THERMOPLASTIC PAVEMENT MARKING YELLOW (6")	87737					87737					
ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (12")	7745						7745				
THERMOPLASTIC PAVEMENT MARKING WHITE (6")	1143							1143			
THERMOPLASTIC PAVEMENT MARKING YELLOW (6")	1470								1470		
THERMOPLASTIC PAVEMENT MARKING (WORDS)	1									1	
THERMOPLASTIC PAVEMENT MARKING (ARROWS)	1									1	
TOTALS:		268955	3183	7496	173473	87737	7745	1143	1470	1	1

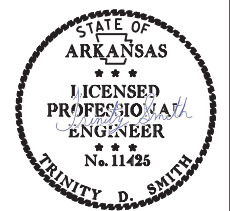
NOTE: THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

6/11/2020 R070562.DGN

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
08-03-20				6	ARK.			
10-22-20								
10-30-20								
				JOB NO.	070562		13	17

QUANTITIES



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COLD MILLING ASPHALT PAVEMENT

LOG MILES	LOG MILES	LOCATION	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
			FEET	SQ. YD.
MAIN LANES				
68.66	69.00	RT. MAIN LANES	50.00	9973.33
69.00	69.07	RT. MAIN LANES	60.00	2464.00
69.07	69.38	RT. MAIN LANES	60.00	10912.00
69.38	69.58	RT. MAIN LANES	48.00	5632.00
69.58	69.81	RT. MAIN LANES	38.00	5127.47
69.84	71.26	RT. MAIN LANES	28.00	23325.87
71.30	72.48	RT. MAIN LANES	38.00	26306.13
72.48	72.57	RT. MAIN LANES	28.00	1478.40
72.57	73.12	RT. MAIN LANES	38.00	12261.33
73.12	73.37	RT. MAIN LANES	28.00	4106.67
73.37	76.77	RT. MAIN LANES	38.00	75797.33
68.66	68.97	LT. MAIN LANES	50.00	9093.33
68.97	69.18	LT. MAIN LANES	60.00	7392.00
69.18	69.48	LT. MAIN LANES	60.00	10560.00
69.48	69.55	LT. MAIN LANES	38.00	1560.53
69.55	69.81	LT. MAIN LANES	38.00	5796.27
69.84	71.27	LT. MAIN LANES	28.00	23490.13
71.30	72.30	LT. MAIN LANES	38.00	22293.33
72.30	72.52	LT. MAIN LANES	28.00	3613.87
72.52	73.10	LT. MAIN LANES	38.00	12930.13
73.10	73.17	LT. MAIN LANES	28.00	1149.87
73.17	76.77	LT. MAIN LANES	38.00	80256.00
ADDITIONAL FOR ACCELERATION LANES, TAPERS, AND RAMPS				
69.00	69.07	EXIT 69 RT. MAIN LANES - TURNOUT	VAR.	1280.56
69.38	69.58	EXIT 69 RT. MAIN LANES - ACCELERATION LANE AND TAPER	VAR.	2184.88
68.97	69.18	EXIT 69 LT. MAIN LANES - ACCELERATION LANE AND TAPER	VAR.	2580.20
69.48	69.55	EXIT 69 LT. MAIN LANES - TURNOUT	VAR.	1231.46
72.48	72.57	EXIT 73 RT. MAIN LANES - TURNOUT	VAR.	1327.33
73.12	73.37	EXIT 73 RT. MAIN LANES - ACCELERATION LANE AND TAPER	VAR.	3286.78
72.30	72.52	EXIT 73 LT. MAIN LANES - ACCELERATION LANE AND TAPER	VAR.	2629.47
73.10	73.17	EXIT 73 LT. MAIN LANES - TURNOUT	VAR.	856.66
77.34	77.44	EXIT 78 RT. MAIN LANES - ENTRANCE RAMP	25.00	1466.67
77.67	77.76	EXIT 78 RT. MAIN LANES - EXIT RAMP	25.00	1320.00
77.35	77.44	EXIT 78 LT. MAIN LANES - EXIT RAMP	25.00	1320.00
77.70	77.80	EXIT 78 LT. MAIN LANES - ENTRANCE RAMP	25.00	1466.67
TOTAL:				376470.67

NOTE: THE AVERAGE MILLING DEPTH FOR THE PROJECT IS 2". THE CONTRACTOR SHALL HAUL THE MATERIAL GENERATED FROM COLD MILLING OPERATION 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 STOCKPILE 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: INTERCHANGE AT LOG MILE 69 AND AT THE EXISTING STOCKPILE ON HWY. 26 AT LOG MILE 1.39, APPROXIMATELY 1 MILE EAST OF THE AREA MAINTENANCE HEADQUARTERS IN CLARK COUNTY.

ACHM PATCHING OF EXISTING ROADWAY

LOG MILE	DESCRIPTION	TON
69.64	I-30 RT. MAIN LANES	50
72.73	I-30 RT. MAIN LANES	50
73.15	I-30 LT. MAIN LANES	50
TOTAL:		150

RUMBLE STRIPS IN ASPHALT SHOULDERS

LOG MILES	LOG MILES	LOCATION	RUMBLE STRIPS IN ASPHALT SHOULDERS
			LIN. FT.
68.66	69.07	RT. OF RT. MAIN LANES	2165
69.07	69.38	RT. OF RT. MAIN LANES	1637
69.38	69.81	RT. OF RT. MAIN LANES	2270
69.84	71.26	RT. OF RT. MAIN LANES	7498
71.30	72.57	RT. OF RT. MAIN LANES	6706
72.57	73.12	RT. OF RT. MAIN LANES	2904
73.12	76.77	RT. OF RT. MAIN LANES	19272
68.66	69.18	LT. OF LT. MAIN LANES	2746
69.18	69.48	LT. OF LT. MAIN LANES	1584
69.48	69.81	LT. OF LT. MAIN LANES	1742
69.84	71.27	LT. OF LT. MAIN LANES	7550
71.30	72.52	LT. OF LT. MAIN LANES	6442
72.52	73.10	LT. OF LT. MAIN LANES	3062
73.10	76.77	LT. OF LT. MAIN LANES	19378
68.66	69.81	RT. OF LT. MAIN LANES	6072
69.84	71.27	RT. OF LT. MAIN LANES	7550
71.30	76.77	RT. OF LT. MAIN LANES	28882
68.66	69.81	LT. OF RT. MAIN LANES	6072
69.84	71.26	LT. OF RT. MAIN LANES	7498
71.30	76.77	LT. OF RT. MAIN LANES	28882
TOTAL:			169912

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

EARTHWORK

LOG MILE	STATION	LOCATION / DESCRIPTION	UNCLASSIFIED EXCAVATION CU. YD.
69.64	PROJECT	I-30 RT. MAIN LANES	30
72.73	PROJECT	I-30 RT. MAIN LANES	30
73.15	PROJECT	I-30 LT. MAIN LANES	30
TOTALS:			90

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

EROSION CONTROL

STATION	STATION	LOCATION	TEMPORARY EROSION CONTROL
			18" FILTER SOCKS (E-6) LIN. FT.
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.			1000
TOTALS:			1000

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 ELIMINATING SYSTEM PERMIT.

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

FLUSHING UNDERDRAIN

LOG MILE	LOG MILE	LOCATION	FLUSHING UNDERDRAIN	UNDERDRAIN REHABILITATION - MAIN LINE	UNDERDRAIN REHABILITATION - LATERALS	UNDERDRAIN VIDEO INSPECTION
			LIN. FT.			
68.66	69.81	I-30 LT. MAIN LANES	6072			6072
69.84	71.27	I-30 LT. MAIN LANES	7550			7550
71.30	76.77	I-30 LT. MAIN LANES	28882			28882
68.66	69.81	I-30 RT. MAIN LANES	6072			6072
69.84	71.26	I-30 RT. MAIN LANES	7498			7498
71.30	76.77	I-30 RT. MAIN LANES	28882			28882
* ENTIRE PROJECT	PROJECT	TO BE USED AS DIRECTED BY THE ENGINEER		5000	1000	3000
TOTAL:			84956	5000	1000	87956

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

STONE BACKFILL

LOG MILE	LOCATIONS	STONE BACKFILL
		TON
69.64	I-30 RT. MAIN LANES	42
72.73	I-30 RT. MAIN LANES	42
73.15	I-30 LT. MAIN LANES	42
TOTALS:		126

SPECIAL CLEARING

LOG MILE	LOG MILE	LOCATION	LENGTH	SPECIAL CLEARING STATION
68.7	72.7	LT. MEDIAN & RT. OF MAIN LANES	21120	212
73.0	76.9	LT. MEDIAN & RT. OF MAIN LANES	20592	206
TOTAL:				418

4" PIPE UNDERDRAIN

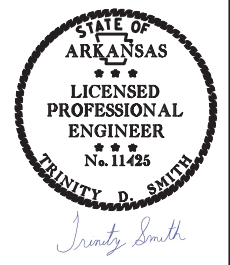
LOG MILE	LOCATIONS	4" PIPE UNDERDRAINS	UNDERDRAIN OUTLET PROTECTORS
		LIN. FT.	EACH
69.64	I-30 RT. MAIN LANES	67	1
72.73	I-30 RT. MAIN LANES	67	1
73.15	I-30 LT. MAIN LANES	66	2
TOTALS:		200	4

6/11/2020 R070562.DGN

QUANTITIES

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		070562	14	17

2 QUANTITIES



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BASE AND SURFACING

LOG MILES	LOG MILES	LOCATION	LENGTH FEET	TACK COAT (0.17 GAL. PER SQ. YD.)			ACHM SURFACE COURSE (1/2")			
				TOTAL WID.	SQ. YD.	GALLON	AVG. WID.	SQ. YD.	POUND / SQ. YD.	TOTAL PG 76-22 TON
				FEET			FEET			
MAIN LANES										
68.66	69.00	RT. MAIN LANES	1795.20	38.00	7579.73	1288.55	38.00	7579.73	220.00	833.77
69.00	69.07	RT. MAIN LANES	369.60	28.00	1149.87	195.48	28.00	1149.87	220.00	126.49
69.07	69.38	RT. MAIN LANES	1636.80	38.00	6910.93	1174.86	38.00	6910.93	220.00	760.20
69.38	69.58	RT. MAIN LANES	1056.00	28.00	3285.33	558.51	28.00	3285.33	220.00	361.39
69.58	69.81	RT. MAIN LANES	1214.40	38.00	5127.47	871.67	38.00	5127.47	220.00	564.02
69.84	71.26	RT. MAIN LANES	7497.60	38.00	31656.53	5381.81	38.00	31656.53	220.00	3482.22
71.30	72.48	RT. MAIN LANES	6230.40	38.00	26306.13	4472.04	38.00	26306.13	220.00	2893.67
72.48	72.57	RT. MAIN LANES	475.20	28.00	1478.40	251.33	28.00	1478.40	220.00	162.62
72.57	73.12	RT. MAIN LANES	2904.00	38.00	12261.33	2084.43	38.00	12261.33	220.00	1348.75
73.12	73.37	RT. MAIN LANES	1320.00	28.00	4106.67	698.13	28.00	4106.67	220.00	451.73
73.37	76.77	RT. MAIN LANES	17952.00	38.00	75797.33	12885.55	38.00	75797.33	220.00	8337.71
68.66	68.97	LT. MAIN LANES	1636.80	38.00	6910.93	1174.86	38.00	6910.93	220.00	760.20
68.97	69.18	LT. MAIN LANES	1108.80	28.00	3449.60	586.43	28.00	3449.60	220.00	379.46
69.18	69.48	LT. MAIN LANES	1584.00	38.00	6688.00	1135.96	38.00	6688.00	220.00	735.68
69.48	69.55	LT. MAIN LANES	369.60	28.00	1149.87	195.48	28.00	1149.87	220.00	126.49
69.55	69.81	LT. MAIN LANES	1372.80	38.00	5796.27	985.37	38.00	5796.27	220.00	637.59
69.84	71.27	LT. MAIN LANES	7550.40	38.00	31879.47	5419.51	38.00	31879.47	220.00	3506.74
71.30	72.30	LT. MAIN LANES	5280.00	38.00	22293.33	3789.87	38.00	22293.33	220.00	2452.27
72.30	72.52	LT. MAIN LANES	1161.60	28.00	3613.87	614.36	28.00	3613.87	220.00	397.53
72.52	73.10	LT. MAIN LANES	3062.40	38.00	12930.13	2198.12	38.00	12930.13	220.00	1422.31
73.10	73.17	LT. MAIN LANES	369.60	28.00	1149.87	195.48	28.00	1149.87	220.00	126.49
73.17	76.77	LT. MAIN LANES	19008.00	38.00	80256.00	13643.52	38.00	80256.00	220.00	8828.16
ADDITIONAL FOR ACCELERATION LANES, TAPERS, AND RAMPS										
69.00	69.07	EXIT 69 RT. MAIN LANES - TURNOUT	369.60	VAR.	1280.56	217.70	VAR.	1280.56	220.00	140.86
69.38	69.58	EXIT 69 RT. MAIN LANES - ACCELERATION LANE AND TAPER	1056.00	VAR.	2184.88	371.43	VAR.	2184.88	220.00	240.34
68.97	69.18	EXIT 69 LT. MAIN LANES - ACCELERATION LANE AND TAPER	1108.80	VAR.	2580.20	438.63	VAR.	2580.20	220.00	283.82
69.48	69.55	EXIT 69 LT. MAIN LANES - TURNOUT	369.60	VAR.	1231.46	209.35	VAR.	1231.46	220.00	135.46
72.48	72.57	EXIT 73 RT. MAIN LANES - TURNOUT	475.20	VAR.	1327.33	225.65	VAR.	1327.33	220.00	146.01
73.12	73.37	EXIT 73 RT. MAIN LANES - ACCELERATION LANE AND TAPER	1320.00	VAR.	3286.78	558.75	VAR.	3286.78	220.00	361.55
72.30	72.52	EXIT 73 LT. MAIN LANES - ACCELERATION LANE AND TAPER	1161.60	VAR.	2629.47	447.01	VAR.	2629.47	220.00	289.24
73.10	73.17	EXIT 73 LT. MAIN LANES - TURNOUT	369.60	VAR.	856.66	145.63	VAR.	856.66	220.00	94.23
77.34	77.46	EXIT 78 RT. MAIN LANES - EXIT RAMP	633.60	25.00	1760.00	299.20	25.00	1760.00	220.00	193.60
77.46	77.49	EXIT 78 RT. MAIN LANES - EXIT RAMP TURNOUT	158.40	VAR.	712.13	121.06	VAR.	712.13	220.00	78.33
77.52	77.53	EXIT 78 RT. MAIN LANES - ENTRANCE RAMP TURNOUT	52.80	VAR.	319.62	54.34	VAR.	319.62	220.00	35.16
77.53	77.76	EXIT 78 RT. MAIN LANES - ENTRANCE RAMP	1214.40	25.00	3373.33	573.47	25.00	3373.33	220.00	371.07
77.35	77.58	EXIT 78 LT. MAIN LANES - ENTRANCE RAMP	1214.40	25.00	3373.33	573.47	25.00	3373.33	220.00	371.07
77.58	77.59	EXIT 78 LT. MAIN LANES - ENTRANCE RAMP TURNOUT	52.80	VAR.	328.58	55.86	VAR.	328.58	220.00	36.14
77.59	77.61	EXIT 78 LT. MAIN LANES - EXIT RAMP TURNOUT	105.60	VAR.	648.08	110.17	VAR.	648.08	220.00	71.29
77.61	77.80	EXIT 78 LT. MAIN LANES - EXIT RAMP	1003.20	25.00	2786.67	473.73	25.00	2786.67	220.00	306.53
TOTALS:					380456.14	64677.57		380456.14		41850.19

BASIS OF ESTIMATE:
 ACHM SURFACE COURSE (1/2").....94.7% MIN. AGGR.....5.3% ASPHALT BINDER
 MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22
 TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

6/11/2020
R070562.DGN

QUANTITIES

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.		070562	15	17

① SEE REFERENCE TABLE - QUANTITIES - 61854

SCHEDULE OF BRIDGE QUANTITIES - JOB 070562

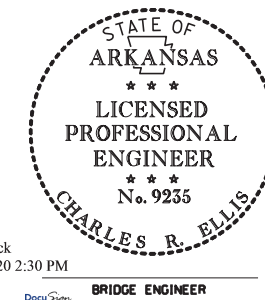
I-30 LOG MILE	UNIT OF STRUCTURE	ITEM NO.	SP & 509	SS & 804	SS & 804	SS & 809	821	SP JOB 070562	SP JOB 070562
		ITEM	JOINT REHABILITATION (TYPE A)	REINFORCING STEEL - BRIDGE (GRADE 60)	EPOXY COATED REINFORCING STEEL (GRADE 60)	SILICONE JOINT SEALANT	MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. ___)	BRIDGE DECK REPAIR FOR POLYMER OVERLAYS	POLYMER OVERLAY
		UNIT	LIN. FT.	LBS.	LBS.	LIN. FT.	LUMP SUM	SQ. FT.	SQ. YD.
69.8	EXISTING BRIDGE NO. A3689	①	120	170				200	445
69.8	EXISTING BRIDGE NO. B3689	①	120	170				200	445
70.77	EXISTING BRIDGE NO. 03690	①		251				296	656
71.22	EXISTING BRIDGE NO. A3691	①	120	191				224	498
71.22	EXISTING BRIDGE NO. B3691	①	80	153				180	400
72.86	EXISTING BRIDGE NO. 06962	①		755				888	1,972
76.81	EXISTING BRIDGE NO. A3706	①			1,939	900	1 ④	2,281	5,067
76.81	EXISTING BRIDGE NO. B3706	①			1,939	900	1 ④	2,281	5,067
77.55	EXISTING BRIDGE NO. A6515	① ③			434	112	1 ⑤	510	1,134
77.55	EXISTING BRIDGE NO. B6515	① ③			434	114	1 ⑤	510	1,134
TOTALS FOR JOB NO. 070562			440	② 1,690	② 4,746	2,026	4	② 7,570	16,818

- ① Bridge deck does not have an asphalt overlay.
- ② Quantity shown is for estimating and bidding purposes only. Actual quantity, if any, will be determined in the field.
- ③ Drill holes in transition rail at be approaching bridge corners to receive thrie beam attachment. See Roadway plans for additional information.
- ④ Modification of existing bridge structure includes removal and replacement of neoprene strip seal joint material. See Std. Dwg. No. 55064 for additional information.
- ⑤ Modification of existing bridge structure includes repair of backwalls and sliding plate joint assembly. See existing bridge plans and Dwg. No. 55065 for additional information.

THOMAS GERARD
DESIGN SECTION SUPERVISOR

REFERENCE TABLE

BRIDGE NO.	EXISTING DWG. NO(S).
03690	12153
06962	45761
A3689	12152
B3689	12152
A3691	12154
B3691	12154
A3706	33561A & 33562A
B3706	33561A & 33562A
A6515	33584, 33587, 33593, & 33603
B6515	33585, 33588, 33594, & 33603



Ellis, Rick
Jul 1 2020 2:30 PM
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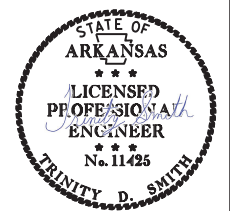
SCHEDULE OF BRIDGE QUANTITIES
HWY. 26 - CADD0 VALLEY (S)
CLARK COUNTY

ROUTE 30 SEC. 14
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: DPT DATE: 6/2/2020 FILENAME: b070562_q1.dgn
CHECKED BY: TMG DATE: 7/1/2020 SCALE: NO SCALE
DESIGNED BY: - DATE: -
BRIDGE NOS. SEE REFERENCE TABLE DRAWING NO. 61854

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
07-31-20		10-22-20		6	ARK.			
08-03-20		10-30-20						
10-08-20						JOB NO. 070562	16	17

2 SUMMARY OF QUANTITIES AND REVISIONS



Oct 30 2020 9:22 AM
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SUMMARY OF QUANTITIES

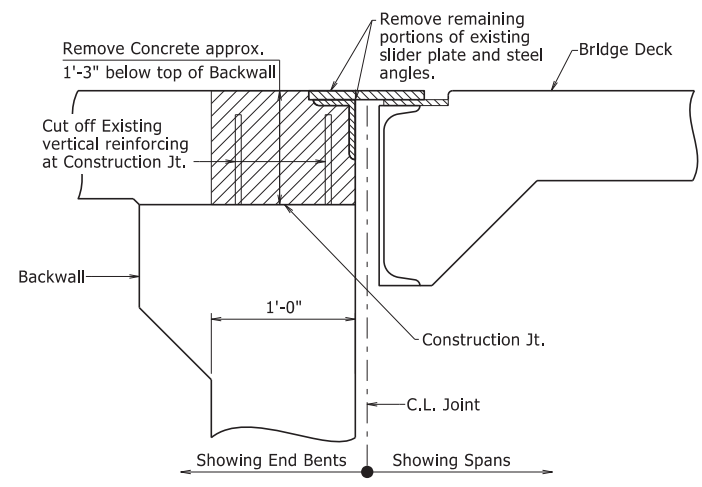
ITEM NUMBER	ITEM	QUANTITY	UNIT
SP	SPECIAL CLEARING	418	STATION
207	STONE BACKFILL	126	TON
SS & 210	UNCLASSIFIED EXCAVATION	90	CU. YD.
SS & 401	TACK COAT	64678	GAL.
SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")	39632	TON
SP, SS, & 407	ASPHALT BINDER (PG 76-22) IN ACHM SURFACE COURSE (1/2")	2218	TON
SP & 412	COLD MILLING ASPHALT PAVEMENT	376471	SQ. YD.
SP, SS, & 415	ACHM PATCHING OF EXISTING ROADWAY	150	TON
601	MOBILIZATION	1.00	LUMP SUM
SP, SS, & 603	MAINTENANCE OF TRAFFIC	1.00	LUMP SUM
SS & 604	SIGNS	998	SQ. FT.
SS & 604	TRAFFIC DRUMS	584	EACH
SS & 604	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER	833	LIN. FT.
SS & 604	RELOCATING PRECAST CONCRETE BARRIER	1146	LIN. FT.
604	CONSTRUCTION PAVEMENT MARKINGS	268955	LIN. FT.
604	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	3183	LIN. FT.
SS & 604	ADVANCE WARNING ARROW PANEL	40	DAY
SP, SS, & 604	PORTABLE CHANGEABLE MESSAGE SIGN	16	WEEK
SS & 611	4" PIPE UNDERDRAINS	200	LIN. FT.
SS & 611	UNDERDRAIN OUTLET PROTECTORS	4	EACH
SP, SS, & 611	UNDERDRAIN VIDEO INSPECTION	87956	LIN. FT.
SP	FLUSHING UNDERDRAIN	84956	LIN. FT.
SP	UNDERDRAIN REHABILITATION - MAIN LINE	5000	LIN. FT.
SP	UNDERDRAIN REHABILITATION - LATERALS	1000	LIN. FT.
SS & 621	FILTER SOCK (18")	1000	LIN. FT.
635	ROADWAY CONSTRUCTION CONTROL	1.00	LUMP SUM
642	RUMBLE STRIPS IN ASPHALT SHOULDERS	169912	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING WHITE (6")	1143	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING YELLOW (6")	1470	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING (WORDS)	1	EACH
719	THERMOPLASTIC PAVEMENT MARKING (ARROWS)	1	EACH
SP	ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (6")	173473	LIN. FT.
SP	ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (12")	7745	LIN. FT.
SP	ENHANCED THERMOPLASTIC PAVEMENT MARKING YELLOW (6")	87737	LIN. FT.
721	RAISED PAVEMENT MARKERS (TYPE II)	7496	EACH
STRUCTURES OVER 20' SPAN			
SP & 509	JOINT REHABILITATION (TYPE A)	440	LIN. FT.
636	BRIDGE CONSTRUCTION CONTROL	1.00	LUMP SUM
SS & 804	REINFORCING STEEL-BRIDGE (GRADE 60)	1690	POUND
SS & 804	EPOXY COATED REINFORCING STEEL (GRADE 60)	4746	POUND
SS & 809	SILICONE JOINT SEALANT	2026	LIN. FT.
821	MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. A3706)	1.00	LUMP SUM
821	MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. B3706)	1.00	LUMP SUM
821	MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. A6515)	1.00	LUMP SUM
821	MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. B6515)	1.00	LUMP SUM
SP	BRIDGE DECK REPAIR FOR POLYMER OVERLAYS	7570	SQ. FT.
SP	POLYMER OVERLAY	16818	SQ. YD.

REVISIONS

DATE	REVISION	SHEET NUMBER
7/31/2020	REVISED MAINTENANCE OF TRAFFIC DETAILS AND "MAINTENANCE OF TRAFFIC" SPECIAL PROVISION.	2, 9A, 12, 16
8/3/2020	REVISED NOTE DIRECTING THE LOCATIONS FOR STORAGE OF MATERIAL GENERATED FROM COLD MILLING OPERATIONS.	13, 16
10/8/2020	ADDED "TRACKLESS TACK" SUPPLEMENTAL SPECIFICATION. REVISED "CONTRACTOR'S LICENSE" SUPPLEMENTAL SPECIFICATION.	3, 16
10/22/2020	REVISED "MAINTENANCE OF TRAFFIC" SPECIAL PROVISION. ADDED MAINTENANCE OF TRAFFIC DETAILS FOR ROADWAY REHABILITATION. REVISED "ACHM PATCHING OF EXISTING ROADWAY" AND "4" PIPE UNDERDRAIN" QUANTITY BOXES. ADDED "STONE BACKFILL" QUANTITY. REVISED "SIGNS", "FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER", AND "RELOCATING PRECAST CONCRETE BARRIER" QUANTITIES.	9B, 12, 13, 16
10/30/2020	ADDED SS 210-1. REVISED GENERAL NOTES. ADDED "UNCLASSIFIED EXCAVATION" QUANTITY.	3, 13, 16

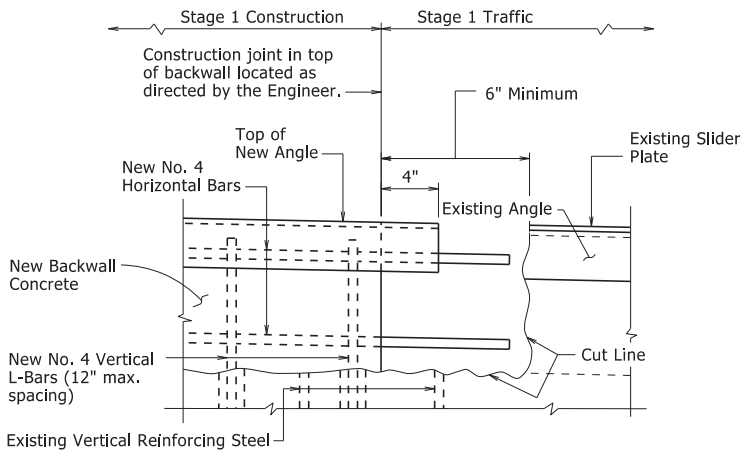
6/11/2020
R070562.DGN

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. 070562							17	17
A & B 6515 - JOINT REHAB - 61855								

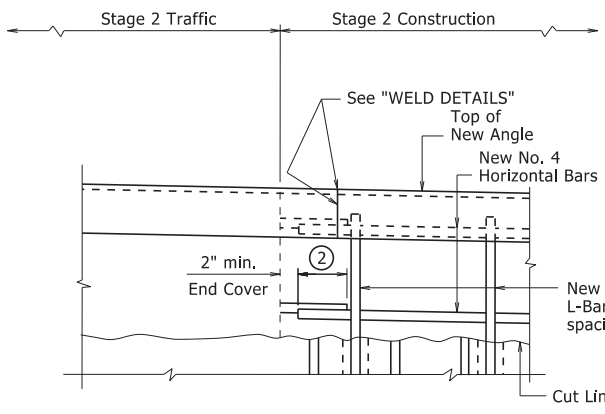


BACKWALL REPAIR REMOVAL DETAILS

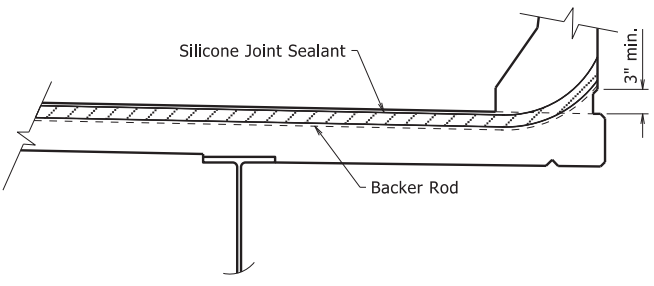
The portion of the backwall above the paving bracket as shown shall be removed and disposed of in accordance with Section 821. Payment for all materials, labor, tools, and equipment required for this work will be inclusive to the item "Modification of Existing Bridge Structure (Bridge No. _)".



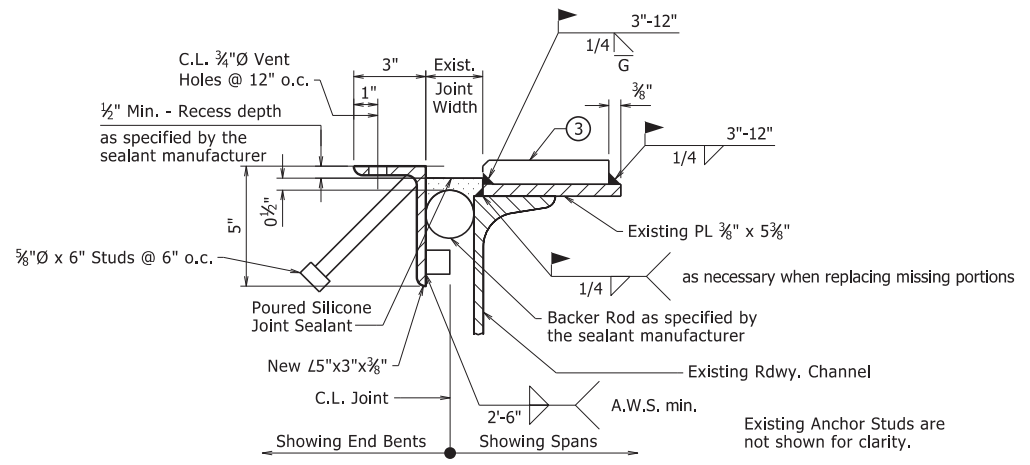
VIEW B-B, STAGE 1



VIEW B-B, STAGE 2



JOINT SEAL PLACEMENT AT RAIL



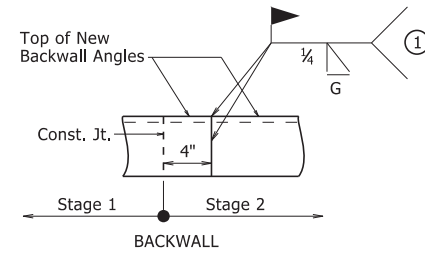
POURED SILICONE JOINT SEAL DETAILS

Existing Slider Plate 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, Section 809, and the Manufacturer's recommendations. Removal of existing Slider Plate will not be paid for directly, but shall be considered incidental to the item "Modification of Existing Bridge Structure (Bridge No. _)".

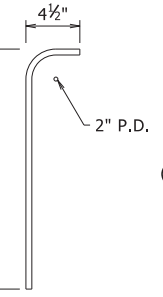
Backer rods shall be extended beyond the length of the poured joint in the initial joint repair area so that the two pieces can be properly spliced together prior to installing sealant for the adjacent joint repair. Manufacturer's recommendations shall be followed to prevent sealant leakage during repair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

Backer rods shall be appropriately sized and set to the depth shown in the Manufacturer's literature based on the joint width at the time of sealing. Except as noted, do not install more backer rod than can be sealed in the same day. The Contractor shall verify separation of the backer rod from the joint material after joint material has set.

Backer rod shall be notched or otherwise fit around any existing seal supports or bumper plates to maintain its proper depth as defined above.

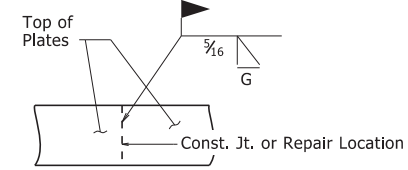


BACKWALL



#4 L-Bar

④ Based on 12" embedment into existing backwall, modify if required by the non-shrink grout or resin anchoring system manufacturer.



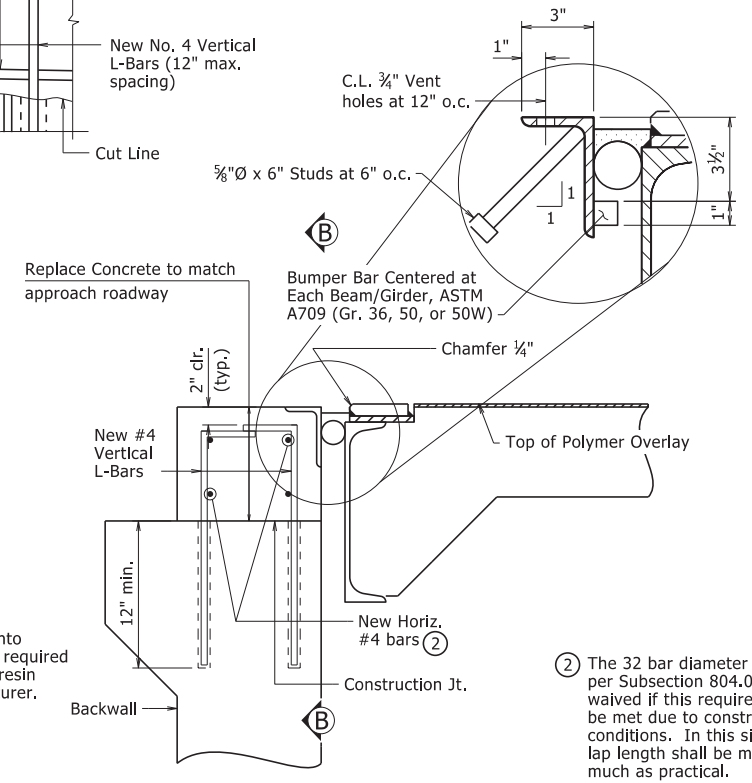
NEW FIELD ATTACHED PLATES

WELD DETAILS

① Weld after 1st stage pour and prior to 2nd stage pour

SECTION AND SUBSECTION REFER TO THE ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (2014 EDITION).

③ New field attached plates atop existing span's PL 3/8" x 5 3/8" are required. The Contractor shall size these based upon field measurements, such that the top surface matches the top of Polymer Overlay and the width is approximately 5". The Contractor shall replace any portions of the PL 3/8" x 5 3/8" plate missing with plate of the same width and thickness. Replacement plate shall be ASTM A709 (Gr. 36, 50, or 50W) and need not be painted. All work and material associated with the partial repair of the PL 3/8" x 5 3/8" plate shall be considered incidental to the item "Modification of Existing Bridge Structure (Bridge No. _)". See "Weld Details" for additional information.



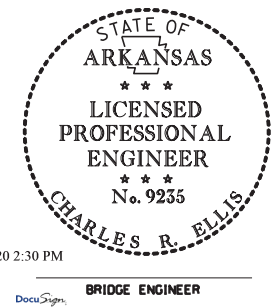
BACKWALL REPAIR INSTALLATION DETAILS

All new Structural Steel shall be ASTM A709 (Gr. 36, 50, or 50W). The surfaces not in contact with concrete shall be cleaned and painted in accordance with Section 638. Only one coat is required and shall not be paid for directly, but shall be subsidiary to other items. Grade 50W steel shall not be painted, but shall be cleaned in accordance with Subsection 807.84(e).

Grout new #4 L-bars into drilled holes spaced to avoid existing reinforcing steel (12" o.c. max.). Grout shall be an approved non-shrink or epoxy grout listed on the QPL. Hole diameter and installation procedure shall be as required by the grout manufacturer.

Replacement concrete at end bents shall be High Early Strength Portland Cement Concrete Pavement per Subsection 501.08 (F'c = 4,000 psi). Reinforcing Steel shall conform to Section 804. Structural Steel and welding shall conform to Section 807. All Materials, Labor, Tools and Equipment shall not be paid for directly, but shall be considered incidental to the item "Modification of Existing Bridge Structure (Bridge No. _)".

② The 32 bar diameter minimum lap per Subsection 804.07 may be waived if this requirement cannot be met due to construction conditions. In this situation, the lap length shall be maximized as much as practical.



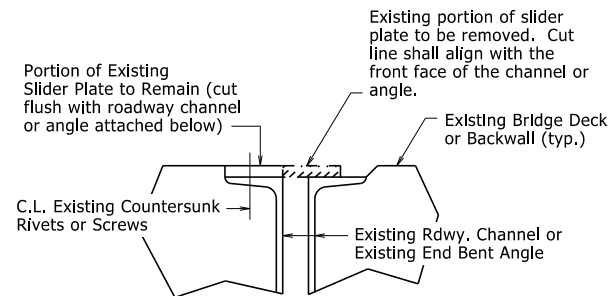
DETAILS OF BACKWALL AND JOINT REHABILITATION

ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: DPT DATE: 6-22-2020 FILENAME: b070562_j1.dgn
CHECKED BY: TMG DATE: 7/1/2020 SCALE: NO SCALE
DESIGNED BY: STD DATE: -
BRIDGE NO. A & B 6515 DRAWING NO. 61855

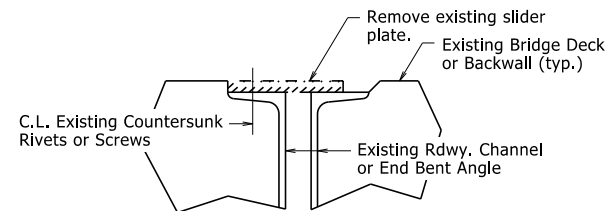
Jul 1 2020 2:30 PM
Charles R. Ellis
BRIDGE ENGINEER

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.		JOINT REPAIR - 55064		



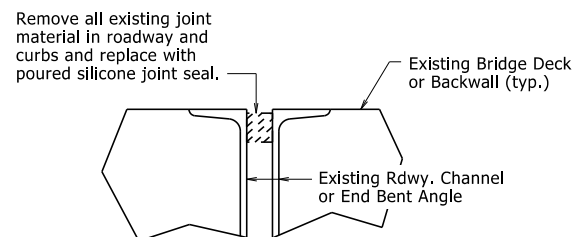
REMOVAL DETAILS AT EXISTING SLIDER PLATE JOINTS

At the direction of the Engineer, the portion of existing slider plate shown shall be removed and replaced with a new plate as shown in "SLIDER PLATE JOINT MODIFICATION". The portion of existing slider plate shall be removed and disposed of in accordance with Section 821. The cut face shall be ground square and flush with the face of the existing angle or channel. Removal and disposal of existing slider plate material will not be paid for directly, but shall be considered subsidiary to the item "Silicone Joint Sealant". Properly functioning slider plates need not be modified.



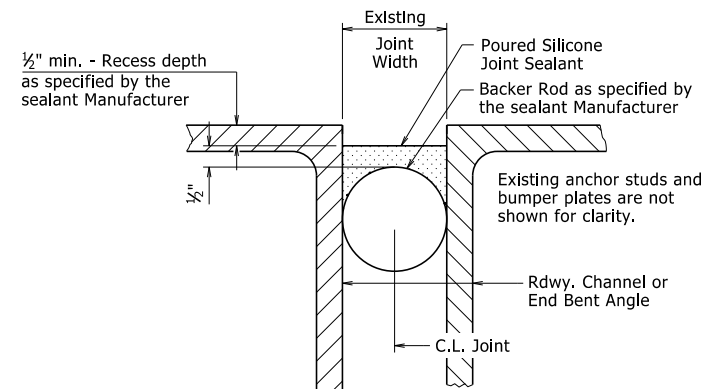
REMOVAL DETAILS AT EXISTING SLIDER PLATE JOINTS WITH GRADE RAISE

The existing slider plate shown shall be removed and replaced with new plates as shown in "JOINT MODIFICATION WITH GRADE RAISE". The existing slider plate shall be removed and disposed of in accordance with Section 821. Removal and disposal of existing slider plate material will not be paid for directly, but shall be considered subsidiary to the item "Silicone Joint Sealant".



REMOVAL DETAILS AT EXISTING FILLED JOINTS

The existing joint material shall be removed and disposed of in accordance with Section 821. Removal and disposal of existing joint material will not be paid for directly, but shall be considered subsidiary to the item "Silicone Joint Sealant".



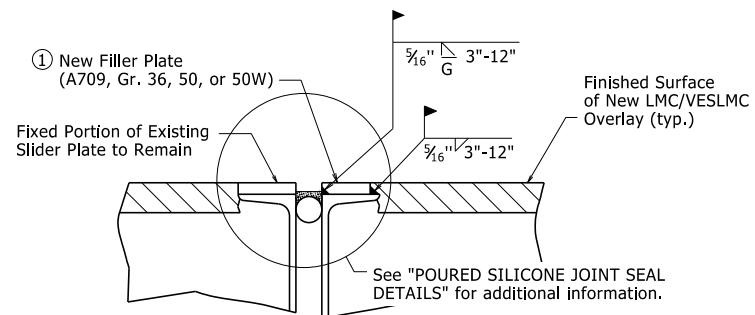
POURED SILICONE JOINT SEAL DETAILS

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, Section 809, and the Manufacturer's recommendations. Removal of existing Joint Seal will not be paid for directly, but shall be considered incidental to the item "Silicone Joint Sealant".

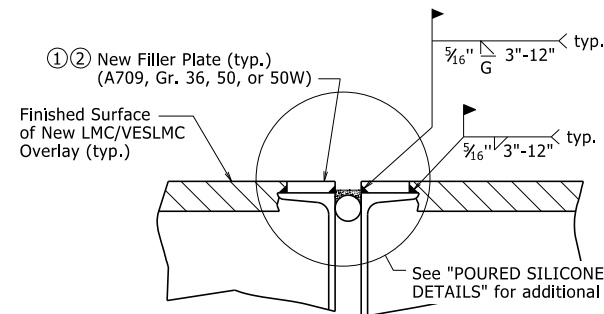
Backer rods shall be extended beyond the length of the poured joint in the initial joint repair area so that the two pieces can be properly spliced together prior to installing sealant for the adjacent joint repair. Manufacturer's recommendations shall be followed to prevent sealant leakage during repair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

Backer rods shall be appropriately sized and set to the depth shown in the Manufacturer's literature based on the joint width at the time of sealing. Except as noted, do not install more backer rod than can be sealed in the same day. The Contractor shall verify separation of the backer rod from the joint material after joint material has set.

Backer rod shall be notched or otherwise fit around any existing seal supports or bumper plates to maintain its proper depth as defined above.



SLIDER PLATE JOINT MODIFICATION

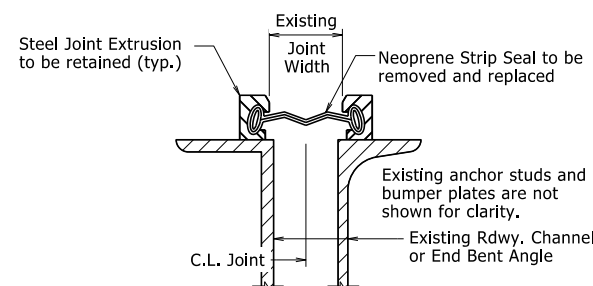


JOINT MODIFICATION WITH GRADE RAISE

1 New field attached plates atop existing roadway channels or angles are required. The plate thickness shall be adjusted as necessary to match surface of finished surface of LMC/VESLMC Overlay and the width shall be 3/8" less than the existing channel flange or angle width to allow for fillet weld as shown.

All new Structural Steel shall be ASTM A709 (Gr. 36, 50, or 50W). The surfaces not in contact with concrete shall be cleaned and painted in accordance with Section 638. Only one coat of paint is required and shall be applied in the fabricator's shop. Grade 50W steel shall not be painted, but shall be cleaned in accordance with Subsection 807.84(e). Structural Steel and Painting will not be paid for directly, but shall be subsidiary to the item "Silicone Joint Sealant".

2 Details shown are for an expansion joint where two bridge units meet. Eliminate filler plate on backwall and proceed with backwall repair in accordance with "BACKWALL REPAIR REMOVAL DETAIL" and "BACKWALL REPAIR INSTALLATION DETAIL" at end bents for bridge decks with grade raise, see Standard Drawing Number 55065.



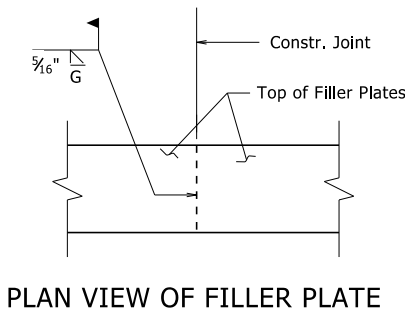
STRIP SEAL JOINT DETAILS

Existing neoprene strip seal joint material shall be completely removed and new neoprene strip seal joint material shall be installed across the entire width of the steel extrusions in accordance with these details, Section 809, and the Manufacturer's recommendations. Prior to installing the new joint material, the Contractor shall clean the steel extrusion at the Engineer's direction and in accordance with the new strip seal joint material Manufacturer's recommendations.

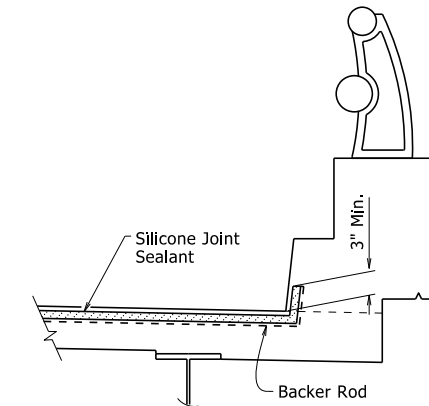
Removal and replacement of the existing neoprene strip seal joint material will require the removal of the parapet slider plates, where present. Parapet slider plates removed for this work shall be reinstalled after installation of the new neoprene strip seal joint material.

The new neoprene strip seal joint material shall provide a movement rating of four inches. The repaired expansion joint shall be capable of sealing the deck surface and parapet area to prevent moisture and other contaminants from descending through the joint.

All work and material associated with removing the existing joint material, cleaning the extrusions, removal and reinstallation of parapet slider plates, and installation of new joint material shall be paid for under the item "Modification of Existing Bridge Structure (Bridge No. _)".

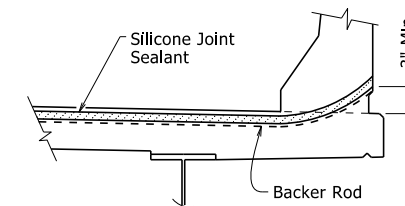


PLAN VIEW OF FILLER PLATE

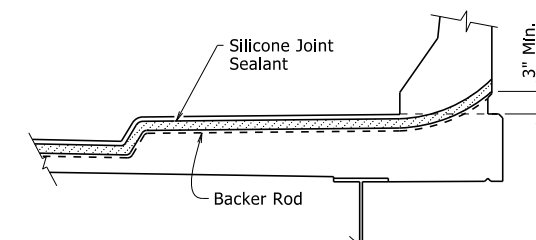


SILICONE JOINT SEAL PLACEMENT AT CURB

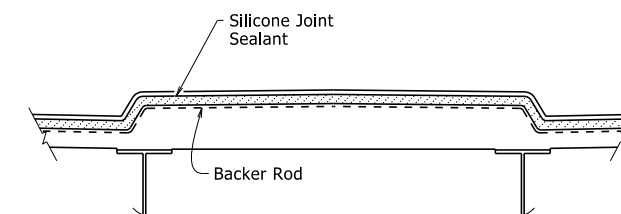
Vertical joints may require forming. The clearance from deck surface to joint material shall be maintained.



SILICONE JOINT SEAL PLACEMENT AT RAIL

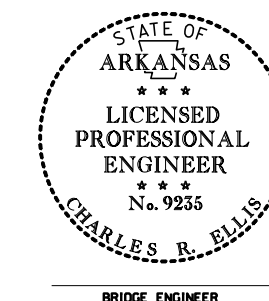


SILICONE JOINT SEAL PLACEMENT AT SIDEWALK



SILICONE JOINT SEAL PLACEMENT AT MEDIAN

This document was originally issued and sealed by Charles R. Ellis, PE No. 9235, on November 7, 2019. This copy is not a signed and sealed document.



STANDARD DETAILS FOR JOINT REPAIRS & MODIFICATIONS

ROUTE _____ SEC. _____

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

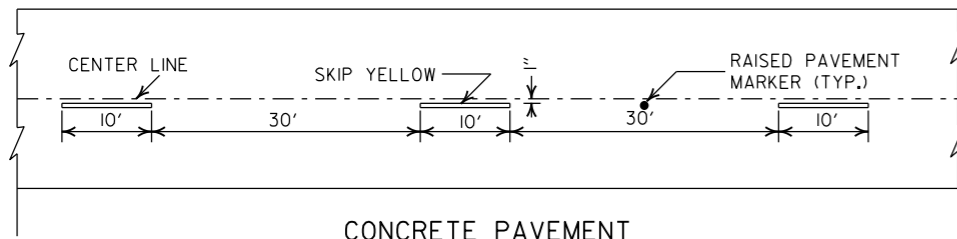
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CHECKED BY: SWP DATE: 11/7/2019 SCALE: None

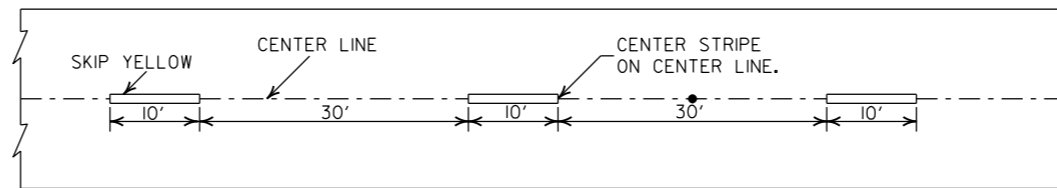
DESIGNED BY: STD. DATE: _____

BRIDGE ENGINEER

DRAWING NO. 55064

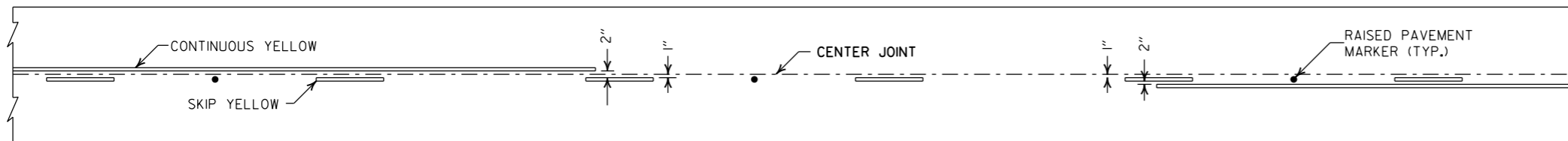


CONCRETE PAVEMENT

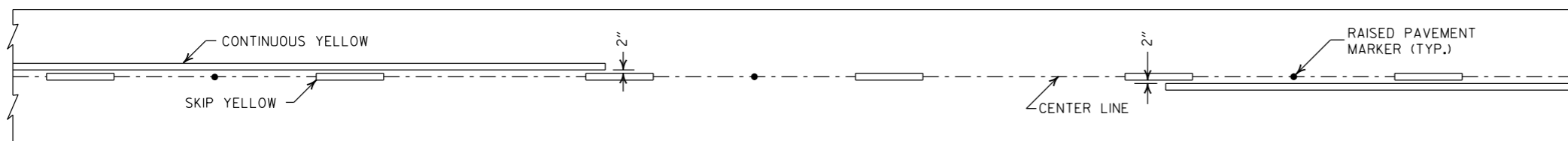


ASPHALT PAVEMENT

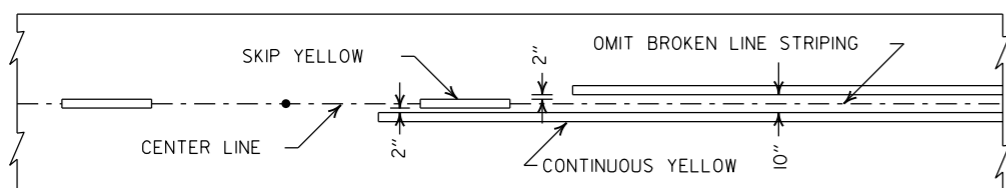
BROKEN LINE STRIPING



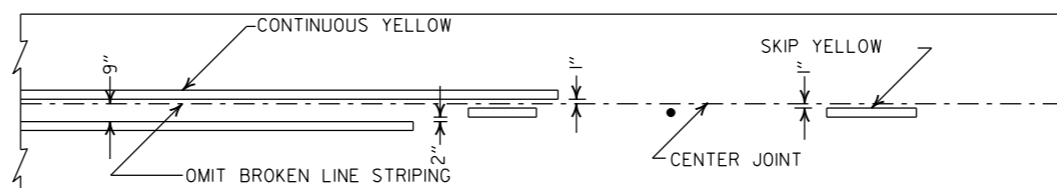
SOLID LINE STRIPING ON CONCRETE PAVEMENT



SOLID LINE STRIPING ON ASPHALT PAVEMENT

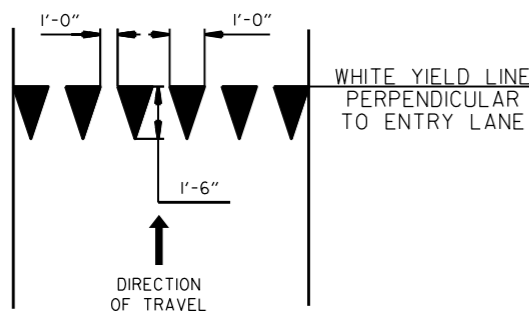


ASPHALT PAVEMENT

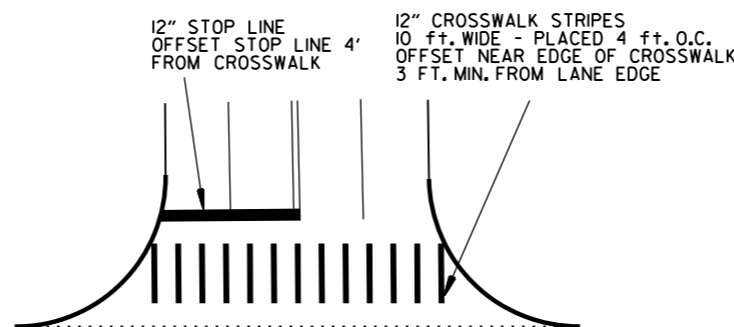


CONCRETE PAVEMENT

STRIPING AT ADJACENT NO PASSING LANES



YIELD LINE DETAIL

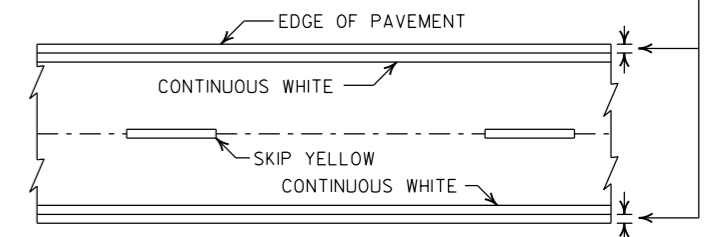


CROSSWALK AND STOP LINE DETAILS

NOTES:

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

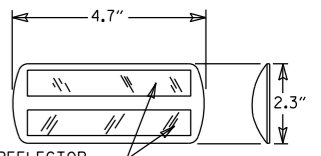
2" FOR ASPHALT OR CONCRETE PAVEMENT
6" FOR BITUMINOUS SURFACE TREATMENT



PAVEMENT EDGE LINE MARKING

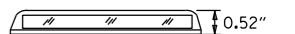
NOTE:
THE RED LENS OF THE TYPE II R.P.M. SHALL FACE THE INCORRECT TRAFFIC MOVEMENT.

TYPE II
RED/CLEAR OR
YELLOW/YELLOW



PRISMATIC REFLECTOR

NOTE:
DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE ARDOT QUALIFIED PRODUCTS LIST.



DETAIL OF STANDARD RAISED PAVEMENT MARKERS

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

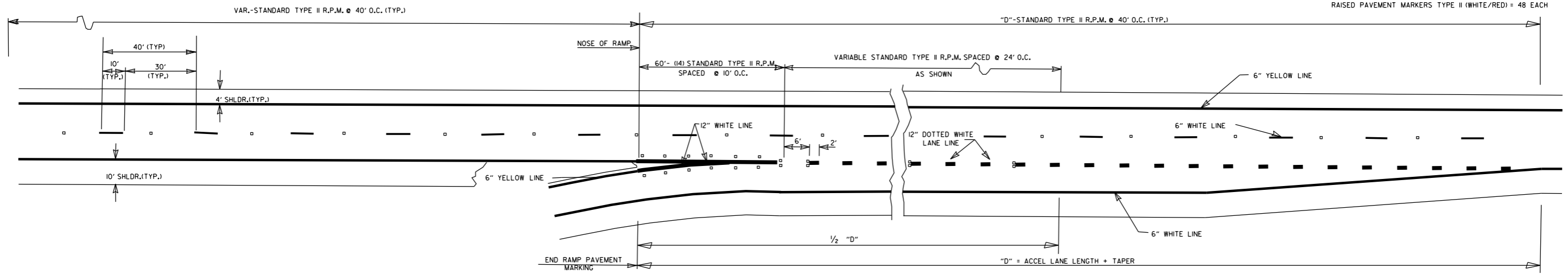
ARKANSAS STATE HIGHWAY COMMISSION

PAVEMENT MARKING DETAILS

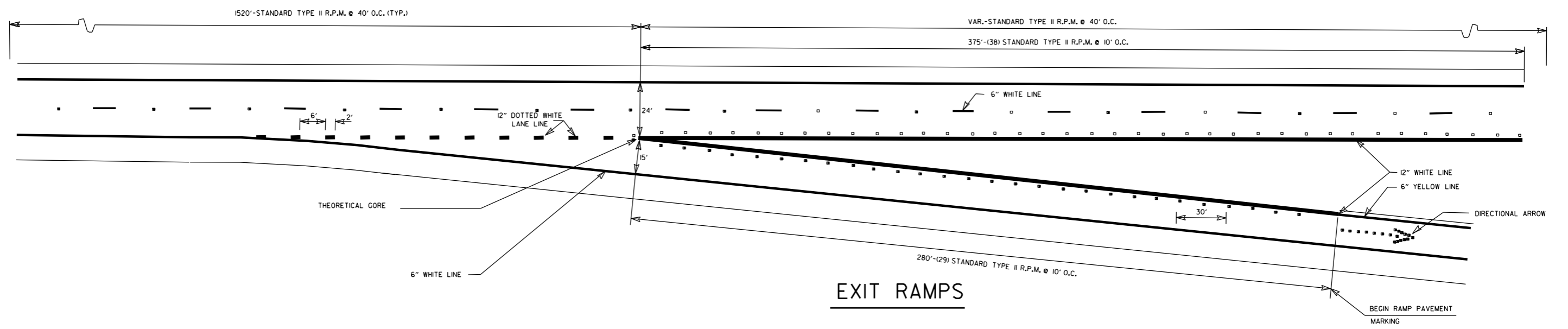
STANDARD DRAWING PM-1

ENTRANCE RAMP
12" WHITE = 370 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH

EXIT RAMP
6" WHITE = 280 LIN. FT.
12" WHITE = 815 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 48 EACH



ENTRANCE RAMPS

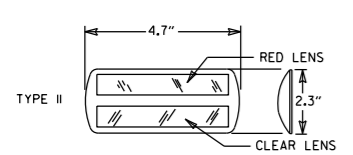


EXIT RAMPS

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.

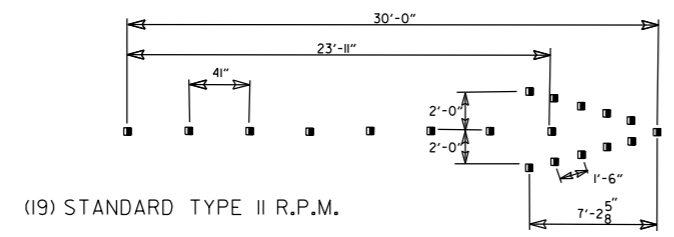
THIS DRAWING SHOULD BE USED IN CONJUNCTION WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST REVISION.

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 ARDOT QUALIFIED PRODUCTS LIST.



DETAIL OF STANDARD RAISED PAVEMENT MARKERS

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




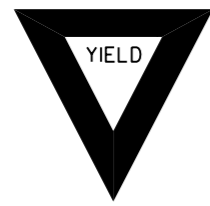







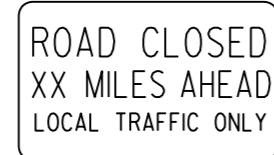
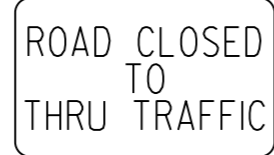

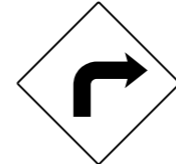



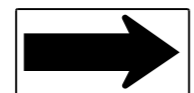

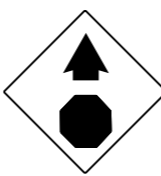
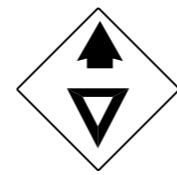
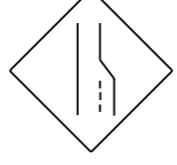

















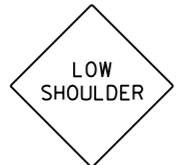
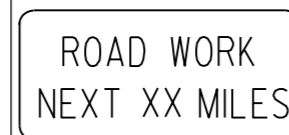
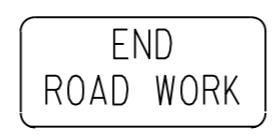
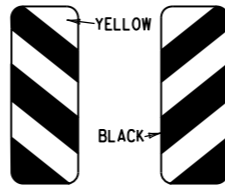


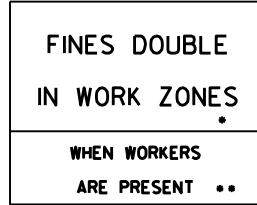
(19) STANDARD TYPE II R.P.M. DIRECTIONAL ARROWS

DATE	REVISION	FILMED
05-14-20	REMOVED CROSSHATCH MARKINGS ON EXIT RAMPS	
11-07-19	REVISED DOTTED PAV'T MARKINGS; ADDED CROSSHATCH MARKINGS ON EXIT RAMPS	
12-8-16	REVISED RAISED PAV'T MARKERS FOR 80' SPACING; REVISED WIDTH OF STRIPING	
9-12-13	REVISED DETAIL OF STANDARD RAISED PAVEMENT MARKERS	
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
		FILMED

ARKANSAS STATE HIGHWAY COMMISSION

PAVEMENT MARKING DETAILS ON ACCESS CONTROLLED ROADWAYS

STANDARD DRAWING PM-2

<p>RI-1</p>  <p>STANDARD 30"x30" EXPRESSWAY 36"x36" SPECIAL 48"x48"</p>	<p>RI-2</p>  <p>STD. 36"x36"x36" EXPWY. 48"x48"x48" FWY. 60"x60"x60"</p>	<p>R2-1</p>  <p>STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"</p>	<p>W3-5</p>  <p>STD. 36"x36" EXPWY. 48"x48" FWY. 48"x48"</p>	<p>W3-5a</p>  <p>STD. 36"x36" EXPWY. 48"x48" FWY. 48"x48"</p>	<p>R4-1</p>  <p>STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"</p>	<p>R4-2</p>  <p>STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"</p>	
<p>R5-1</p>  <p>STD. 30"x30" EXPWY. 36"x36" SPECIAL 48"x48"</p>	<p>R11-2</p>  <p>48"x30"</p>	<p>R11-3A</p>  <p>60"x30"</p>	<p>R11-4</p>  <p>60"x30"</p>	<p>W21-5a</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>WI-1</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>WI-2</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	
<p>WI-3</p>  <p>STD. 48"x48"</p>	<p>WI-4</p>  <p>STD. 48"x48"</p>	<p>WI-6</p>  <p>STD. 48"x24" SPECIAL 60"x30"</p>	<p>WI-8</p>  <p>STD. 18"x24" SPECIAL 24"x30" EXPWY. 30"x36" FWY. 36"x48"</p>	<p>W3-1</p>  <p>STD. 36"x36" SPECIAL 48"x48"</p>	<p>W3-2</p>  <p>STD. 36"x36" SPECIAL 48"x48"</p>	<p>W4-2</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	
<p>W5-1</p>  <p>STD. 36"x36" SPECIAL 48"x48"</p>	<p>W6-3</p>  <p>EXPWY. 36"x36" SPECIAL 48"x48"</p>	<p>W8-7</p>  <p>EXPWY. 36"x36" FWY. 48"x48"</p>	<p>W9-2</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W13-1</p>  <p>STD. 24"x24"</p>	<p>W20-1</p>  <p>STD. 48"x48"</p>	<p>W20-2</p>  <p>STD. 48"x48"</p>	<p>W20-3</p>  <p>STD. 48"x48"</p>
<p>W20-4</p>  <p>STD. 48"x48"</p>	<p>W20-5</p>  <p>STD. 48"x48"</p>	<p>W20-7a</p>  <p>18" 500 FEET 24" W16-2</p> <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W21-2</p>  <p>STD. 30"x30" SPECIAL 36"x36"</p>	<p>W21-5</p>  <p>STD. 30"x30" SPECIAL 36"x36"</p>	<p>W24-1</p>  <p>STD. 36"x36"</p>	<p>WI-4b</p>  <p>STD. 48"x48"</p>	<p>R56-1</p>  <p>STD. 18"x18"</p>
<p>W8-11</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W8-9</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>G20-1</p>  <p>60"x24"</p>	<p>G20-2</p>  <p>48"x24"</p>	<p>OM-3L OM-3R</p>  <p>12"x36"</p>	<p>M4-9</p>  <p>STD. 30"x24" SPECIAL 48"x36" SPECIAL 60"x48"</p>	<p>M4-10</p>  <p>48"x18"</p>	<p>R55-1</p>  <p>36"x60"</p> <p>• USE 6" C LETTERS •• USE 4" D LETTERS</p>

ADVANCE DISTANCES (XXXX)

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

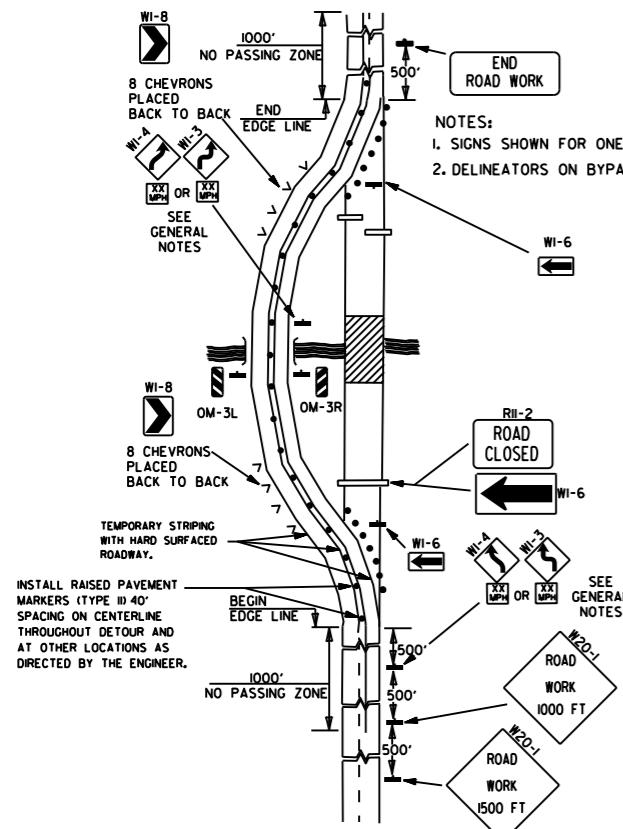
GENERAL NOTES:

- ALL TRAFFIC CONTROL DEVICES USED ON ROAD CONSTRUCTION SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND TO THE STANDARD HIGHWAY SIGNS, LATEST EDITION, OR AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION.
- TRAFFIC CONTROL DEVICES SHALL BE SET UP JUST BEFORE THE START OF CONSTRUCTION OPERATIONS AND SHALL BE PROPERLY MAINTAINED DURING THE TIME SUCH CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS NEEDED AND REMOVED THEREAFTER.
- EXISTING SIGNS AND CONSTRUCTION SIGNS SHALL BE KEPT IN PROPER POSITION, AND BE CLEAN AND LEGIBLE AT ALL TIMES. SIGNS THAT DO NOT APPLY TO EXISTING CONDITIONS SHALL BE REMOVED. SIGNS THAT ARE DAMAGED, DEFACED, OR THAT ACCUMULATE DIRT DURING CONSTRUCTION SHALL BE CLEANED, REPAIRED, OR REPLACED.
- SIGNS ARE USUALLY MOUNTED ON A SINGLE POST, ALTHOUGH THOSE WIDER THAN 36" OR LARGER THAN 10 SQ. FT. SHALL BE MOUNTED ON TWO POSTS OR ABOVE A TYPE III BARRICADE.
- SIGN POSTS DIRECT BURIED IN SOIL SHALL BE 2 LB. MINIMUM CHANNEL POST OR 4"x4" WOOD POSTS. CHANNEL POSTS SHALL BE PAINTED GREEN. WOOD POSTS SHALL BE PAINTED WHITE. ALL POSTS SHALL BE NEATLY CONSTRUCTED, AND SHALL BE REPLUMBED, CLEANED, OR REPAIRED AS NEEDED FOR THE DURATION OF THE JOB. THERE SHALL NOT BE MORE THAN 2 POSTS IN A 7' PATH FOR WOOD OR CHANNEL POSTS. ANY CHANNEL POST SPLICE SHALL BE IN ACCORDANCE WITH STANDARD DRAWING TC-3.
- POST MOUNTED SIGNS IN RURAL AREAS SHALL BE CONSTRUCTED WITH THE NEAR EDGE OF THE SIGN FROM 6 TO 12 FEET FROM THE PAVEMENT EDGE. SIGNS IN URBAN AREAS AND BARRICADE MOUNTED SIGNS SHALL BE MOUNTED A MINIMUM OF 2 FEET FROM THE PAVEMENT EDGE.
- ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN URBAN AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN RURAL AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE, EXCEPT A MINIMUM OF 6' SHALL BE USED WHEN MOUNTING AN ADVISORY SIGN BELOW A WARNING SIGN. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR INTERMEDIATE TERM STATIONARY WORK CONDITIONS. THE SIGNS MINIMUM MOUNTING HEIGHT SHALL BE 5'. RETROREFLECTIVE DEVICES SHALL BE USED. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR SHORT-TERM, SHORT DURATION, AND MOBILE CONDITIONS. THEY SHALL BE NO LESS THAN ONE (1) FOOT ABOVE THE TRAVELED WAY. LONG-TERM STATIONARY SIGNS SHALL BE DIRECT BURIED IN SOIL, UNLESS CONDITIONS NECESSITATE THE USE OF PORTABLE SIGNS, OR AS APPROVED BY THE ENGINEER. CONCRETE PADS, CONCRETE OR ROCK BALLAST, OR OTHER SOLID MATERIALS SHALL NOT BE UTILIZED WITH PORTABLE SIGN SUPPORTS.
- FLAGGERS SHALL USE REFLECTORIZED STOP-SLOW PADDLES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.
- MOST OF THE SIGNS SHOWN ARE ORIENTED TO THE RIGHT. HOWEVER, THIS DOES NOT PRECLUDE THE USE OF MIRROR IMAGES OF THESE SIGNS WHERE THE REVERSE ORIENTATION MIGHT BETTER CONVEY TO MOTORISTS THE PROPER DIRECTION OF MOVEMENT.
- R55-1 SIGNS SHALL BE PLACED AT LEAST 1500' BUT NOT MORE THAN 1 MILE IN ADVANCE OF THE WORK ZONE. IF A SPEED LIMIT REDUCTION IS IN EFFECT, THE SIGN SHALL BE PLACED A MINIMUM OF 500' IN ADVANCE OF THE "REDUCED SPEED AHEAD" SIGN.

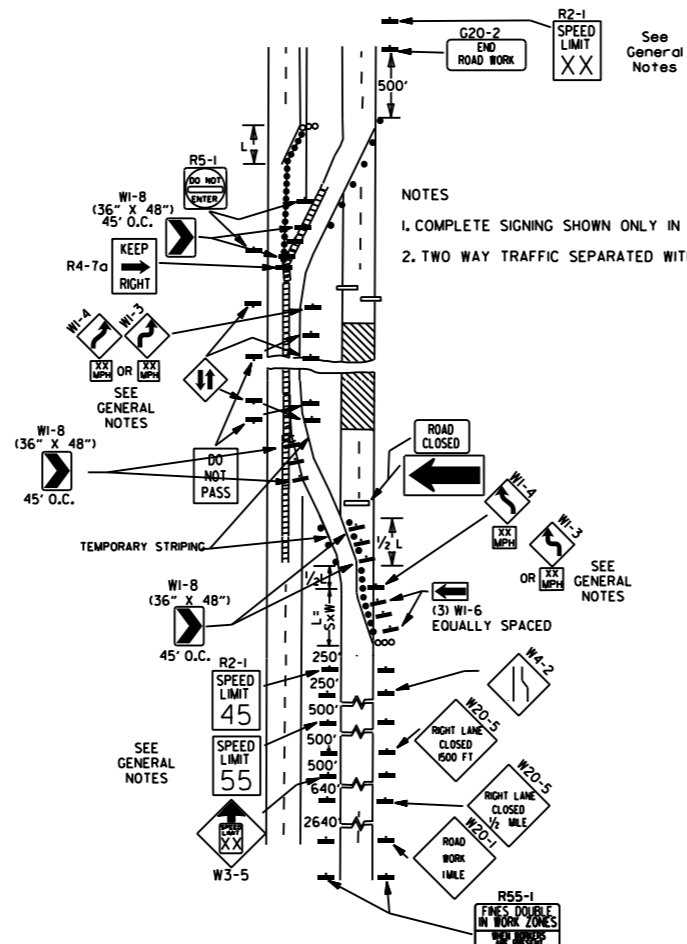
• NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) IS REQUIRED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

DATE	REVISION	FILMED
11-07-19	REVISED FOR MASH	
4-13-17	DELETED RSP-1 & ADDED W21-5a	
9-2-15	REVISED REDUCED SPEED LIMIT AHEAD SIGNS REVISED ROAD WORK NEXT XX MILES	
12-15-11	REVISED W24-1	
11-17-10	DELETED W8-9a & ADDED W8-9	
10-15-09	ADDED REFERENCE TO MASH & ADDED SIGN W24-1	
4-17-08	REVISED SIGN DESIGNATIONS	
11-18-04	REVISED NOTES	
10-9-03	REVISED NOTE 1	
11-16-01	REVISED NOTE 7	
9-28-00	REVISED NOTE	
11-18-98	ADDED NOTE	
6-26-97	REVISED NOTE 5	
4-03-97	REVISED NOTE 5	
10-18-96	ADDED CONTROLLED ACCESS HWY. SIGN & TO NOTE 7	
10-12-95	ADDED R55-1	
6-8-95	REVISED TO CORRECT SIGN ILLUSTRATIONS	6-8-95
2-2-95	REVISED PER PART VI, MUTCD SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

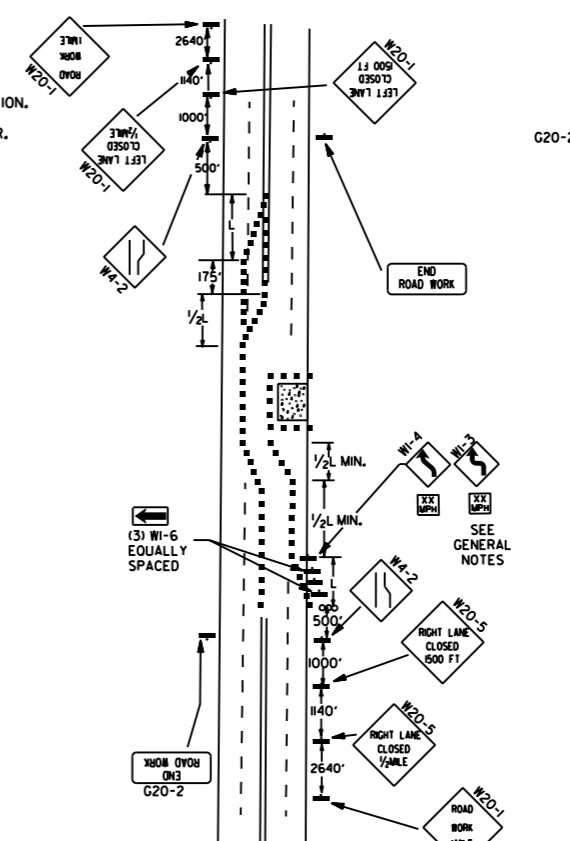
ARKANSAS STATE HIGHWAY COMMISSION
STANDARD TRAFFIC CONTROLS
FOR HIGHWAY CONSTRUCTION
STANDARD DRAWING TC-1



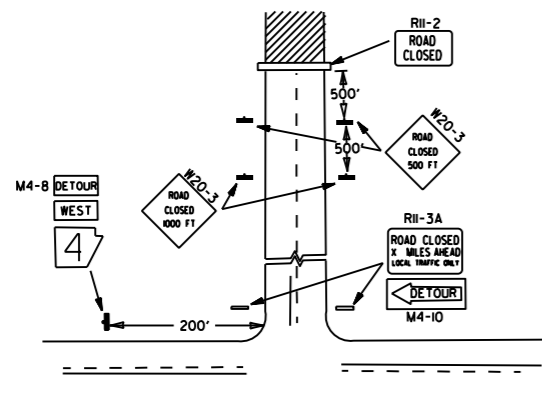
(A) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON A 2-LANE HIGHWAY WHERE THE ENTIRE ROADWAY IS CLOSED AND A BYPASS DETOUR IS PROVIDED.



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

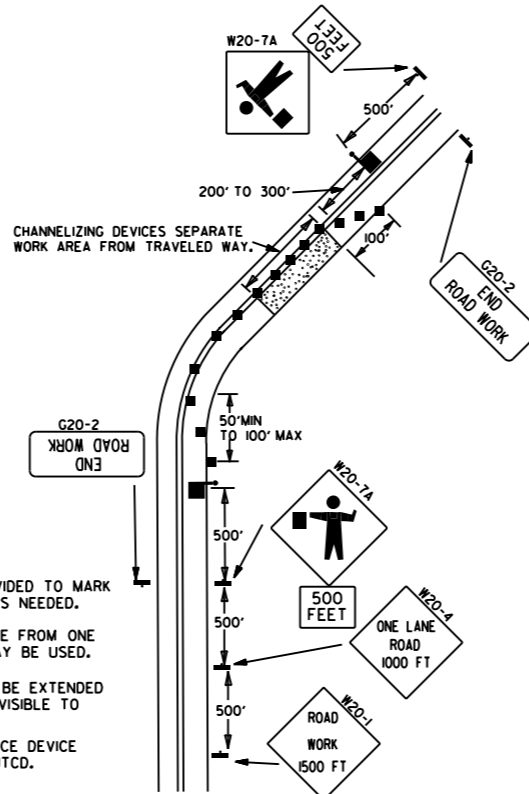


(C) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



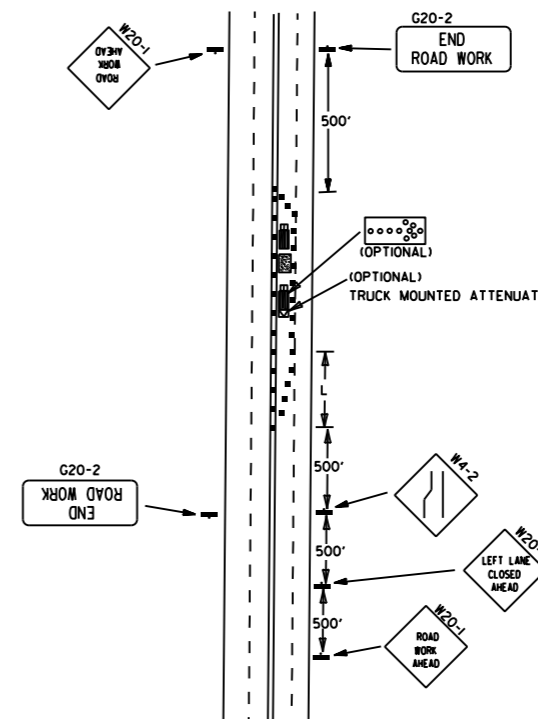
NOTES:
 1. REGULATORY TRAFFIC CONTROL DEVICES TO BE MODIFIED AS NEEDED FOR THE DURATION OF THE DETOUR.
 2. STREET NAMES MAY BE USED WHEN DESIRABLE FOR DIRECTING DETOURED TRAFFIC.

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



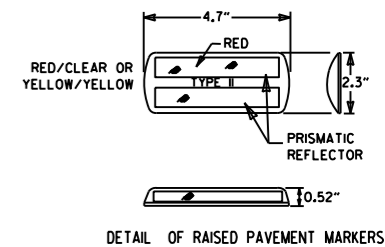
NOTES:
 1. FLOOD LIGHTS SHOULD BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT AS NEEDED.
 2. IF ENTIRE WORK AREA IS VISIBLE FROM ONE STATION, A SINGLE FLAGGER MAY BE USED.
 3. CHANNELIZING DEVICES ARE TO BE EXTENDED TO A POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC.
 4. AUTOMATED FLAGGER ASSISTANCE 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.

- KEY:
- FLAGGER
 - ▬ POSITIVE BARRIER
 - ∞ ARROW PANEL (IF REQUIRED)
 - ▬ TYPE III BARRICADE
 - CHANNELIZING DEVICE
 - TRAFFIC DRUM
 - RAISED PAVEMENT MARKER



TYPICAL ADVANCE WARNING SIGN PLACEMENT

TAPER FORMULAE:

$L = S \times W$ FOR SPEEDS OF 45MPH OR MORE.

$L = \frac{W \times S^2}{60}$ FOR SPEEDS OF 40MPH OR LESS.

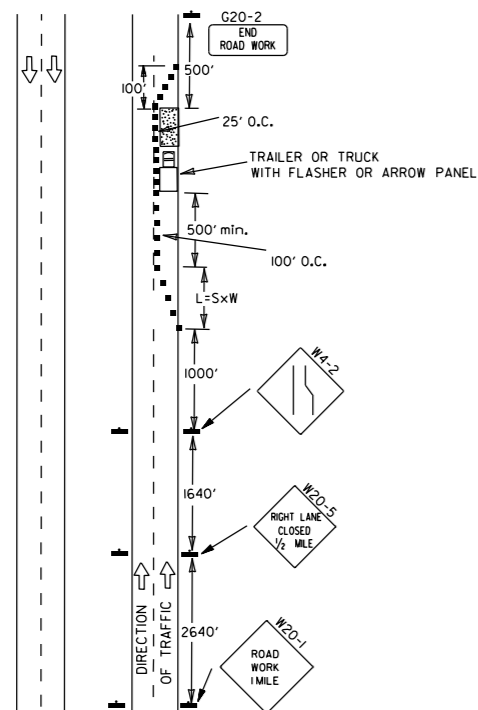
WHERE:
 L = MINIMUM LENGTH OF TAPER.

S = NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK OR 85TH PERCENTILE SPEED.

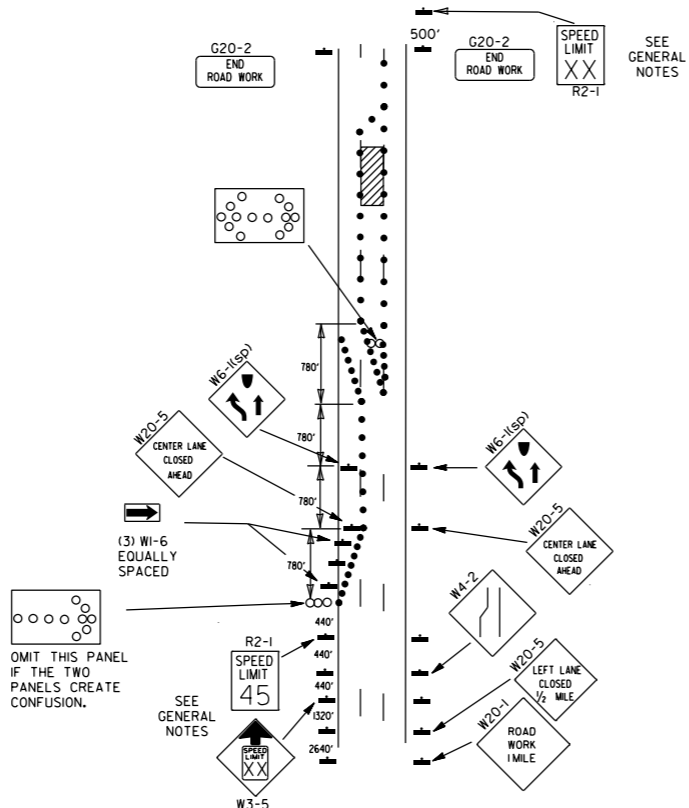
W = WIDTH OF OFFSET.

- GENERAL NOTES:
1. THE MAINTENANCE DIVISION SHALL CONDUCT A BALL BANK STUDY TO DETERMINE THE ADVISORY SPEED LIMIT PRIOR TO OPENING TO TRAFFIC. THE ADVISORY SPEED WILL BE POSTED ON W1-3 OR W1-4 CURVE WARNING SIGNS. USE W1-4 WHEN SPEED IS GREATER THAN 30MPH AND W1-3 WHEN 30MPH OR LESS.
 2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-1(55) SHALL BE OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-1(45) SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1/2 MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
 3. WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-1(65) SHALL BE OMITTED. ADDITIONAL R2-1(55) SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1/2 MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
 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.
 8. DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE ADOT QUALIFIED PRODUCTS LIST.
 9. ALL TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL MEET THE REQUIREMENTS OF THE MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).

DATE	REVISION	FILED
11-07-19	REVISED NOTE 1, ADDED NOTE 9	
9-2-15	REVISED NOTE 2, ADDED NOTE 8, REVISED DRAWING (A) & REPLACED R2-5A WITH W3-5	
9-12-13	REVISED DETAIL OF RAISED PAVEMENT MARKERS	
3-11-10	ADDED (AFAD)	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED GENERAL NOTE	
10-18-96	ADDED R55-1	
4-26-96	CORRECTED (a) BEHIND G20-2	
6-8-95	CORRECTED SIGN IDENT. ON W1-4A	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	



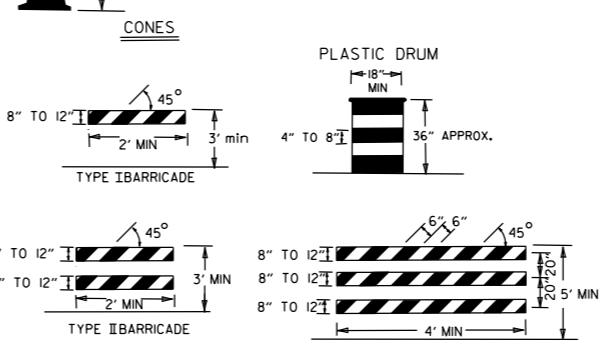
(A) TYPICAL APPLICATION - DAYTIME MAINTENANCE OPERATIONS OF SHORT DURATION ON A 4-LANE DIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



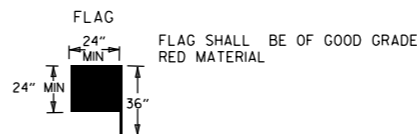
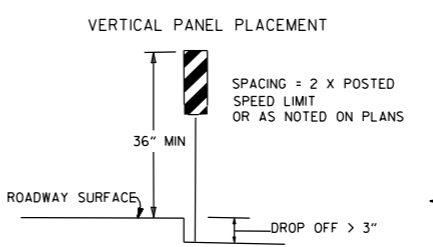
(B) TYPICAL APPLICATION - 3-LANE ONEWAY ROADWAY WHERE CENTER LANE IS CLOSED.

CHANNELIZING DEVICES

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



NOTE: FOR ALL ROAD CLOSURES, THE TYPE III BARRICADES SHALL BE OF SUFFICIENT LENGTH TO EXTEND ACROSS ENTIRE ROADWAY.



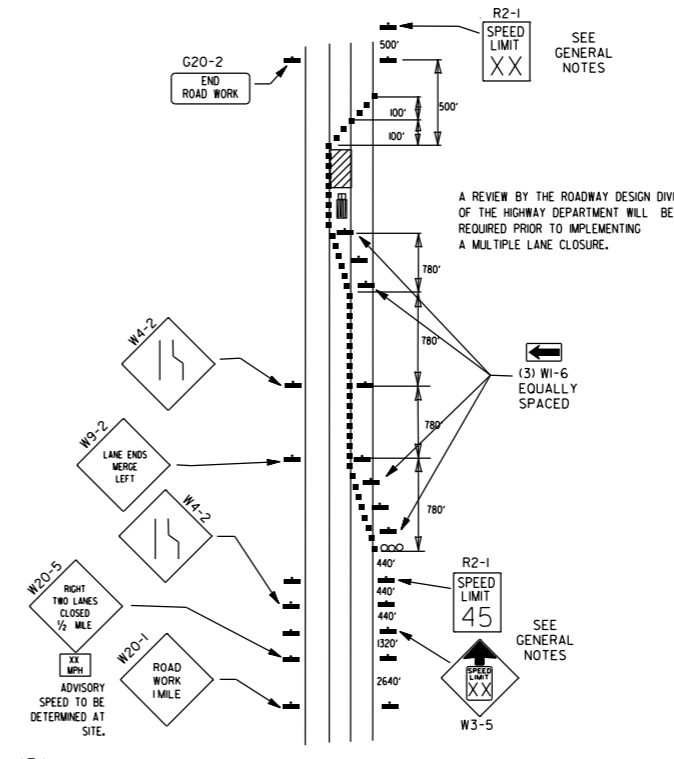
KEY:

- ○ ○ 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 W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-145MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1/2 MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
3. WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-1(65) SHALL BE OMITTED. ADDITIONAL R2-155MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1/2 MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
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(1/2 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 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.
11. ALL TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL MEET THE REQUIREMENTS OF THE MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).

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



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

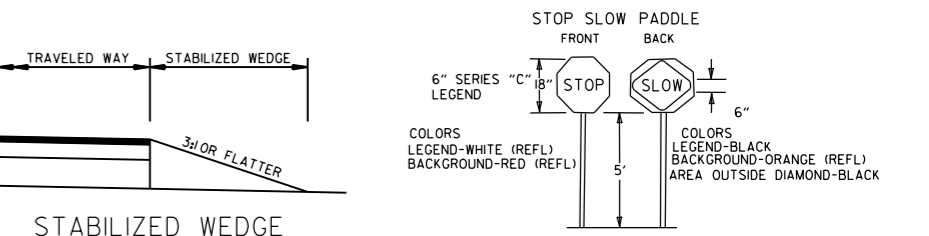
TRAFFIC CONTROL DEVICES

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

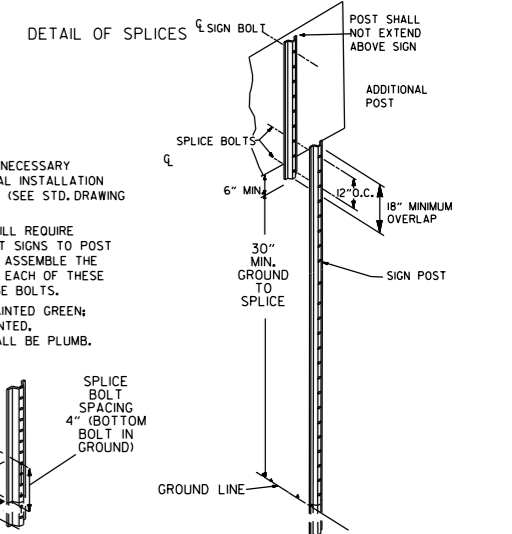
INTERSTATE		
VERTICAL DIFFERENTIAL	LOCATION	TRAFFIC CONTROL
≤ 2"	CENTERLINE	W8-11 AND LANE STRIPING
≤ 2"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-9, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽²⁾
> 2"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽²⁾
> 6"	EDGE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

INTERSTATE AND NON-INTERSTATE		
FORESLOPE	HEIGHT	TRAFFIC CONTROL
1:1	> 2 FT	PRECAST CONCRETE BARRIER
2:1	≤ 5 FT	TRAFFIC DRUMS
2:1	> 5 FT	PRECAST CONCRETE BARRIER
Flatter than 2:1	N/A	TRAFFIC DRUMS

- GENERAL NOTES:
1. WHEN THE SHOULDER AREA IS USED AS PART OF THE TRAVELED LANE AND THERE IS INSUFFICIENT WIDTH TO PLACE TRAFFIC DRUMS ON THE REMAINING SHOULDER WIDTH, THEN VERTICAL PANELS SHALL BE USED.
 2. WHEN THERE IS INSUFFICIENT WIDTH TO PLACE TRAFFIC DRUMS ON THE REMAINING SHOULDER WIDTH, A STABILIZED WEDGE SHALL BE USED. PRECAST CONCRETE BARRIER WALL CAN BE USED IN LIEU OF A STABILIZED WEDGE, W8-17 SIGN, EDGE LINE STRIPING, AND TRAFFIC DRUMS.
 3. IF AND WHERE DIRECTED BY THE ENGINEER, A STABILIZED WEDGE, W8-17 SIGN, EDGE LINE STRIPING, AND TRAFFIC DRUMS CAN BE USED IN LIEU OF PRECAST CONCRETE BARRIER WALL.
 4. IF AND WHERE DIRECTED BY THE ENGINEER, W21-5, W21-5a, AND/OR W21-5b SIGNS SHALL BE USED WHERE THE ROADWAY IS UNOBSTRUCTED IF AND WHERE DIRECTED BY THE ENGINEER.

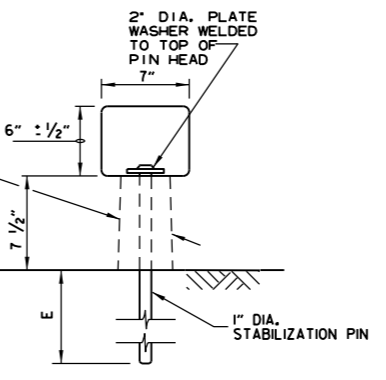
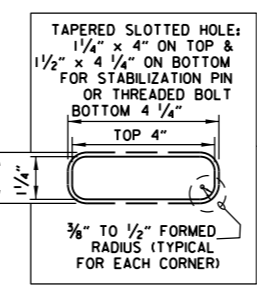
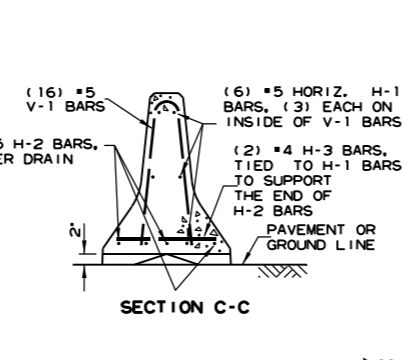
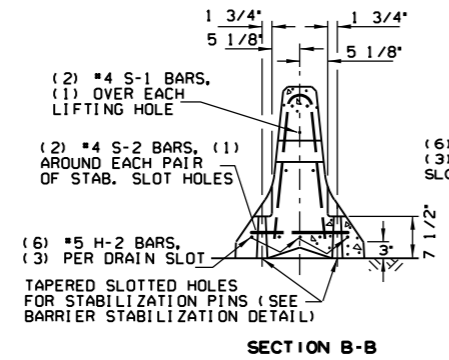
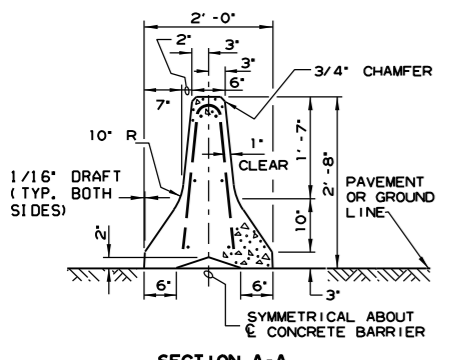
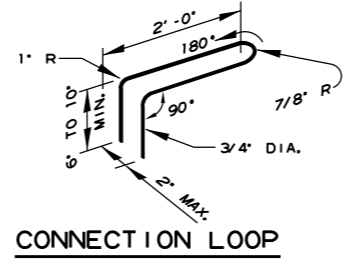
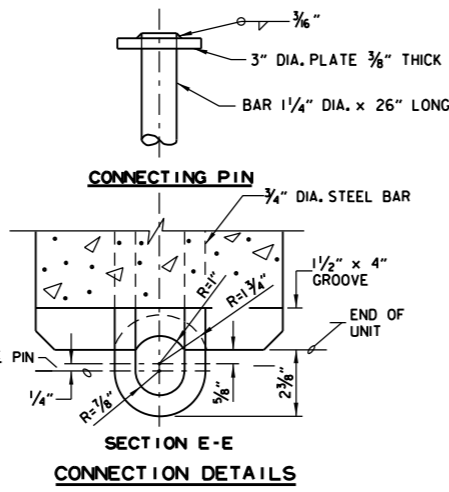


NOTE: MATERIALS FOR THE STABILIZED WEDGE SHALL MEET THE REQUIREMENTS PROVIDED IN SECTION 603.02 OF THE STANDARD SPECIFICATIONS.

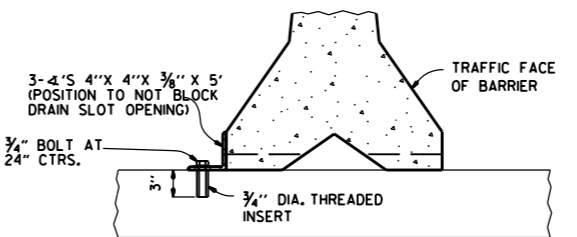
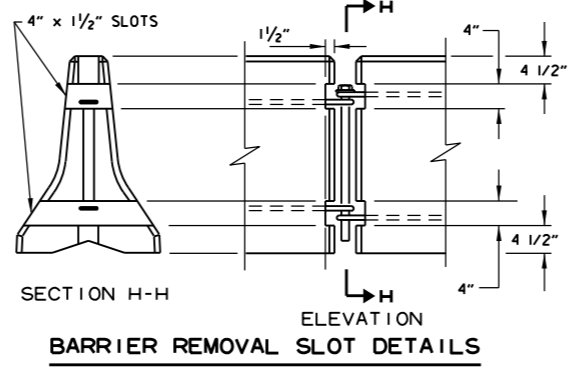


DATE	REVISION	FILMED
2-27-20	REVISED TRAFFIC CONTROL DEVICES DETAILS	
11-07-19	REVISED NOTE 9, ADDED NOTE II	
7-25-19	REVISED TRAFFIC CONTROL DEVICES DETAILS	
9-2-15	REVISED NOTE 2 & REPLACED R2-5A WITH W3-5	
10-15-09	ADDED REFERENCE TO MASH	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED NOTE	
10-1-98	ADDED NOTE	
4-03-97	ADDED (SP) TO W6-18 & REVISED TRAFFIC CONTROL DEVICES NOTE	
10-18-96	ADDED R55-1	
10-12-95	MOVED UPPER SPLICE	
6-8-95	REVISED SPLICE DETAIL, TEXT	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

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 3 3/8" R 90°
S-2	HORIZ. AROUND SLOTS BETWEEN V-1'S & DRAIN SLOTS	#4 (2)	1 1/2" R SLOTS 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° 4 3/8" 2'-1 3/8"

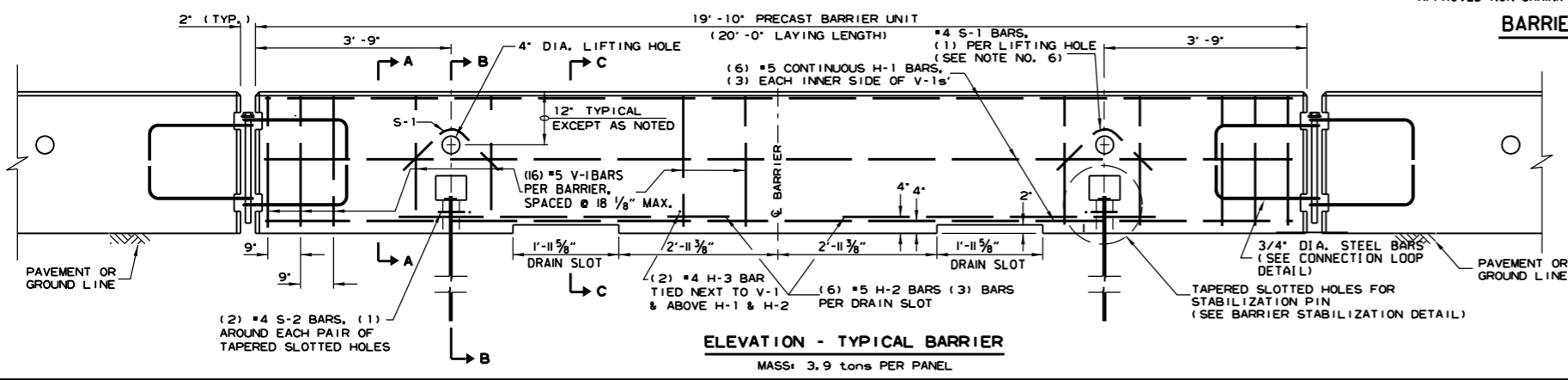


BARRIER STABILIZATION DETAIL ROADWAY SECTION
 (E) 4" - CONCRETE PAVEMENT
 8" - ASPHALT PAVEMENT
 12" - SHOULDER AREAS



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

BARRIER STABILIZATION DETAIL BRIDGE DECKS

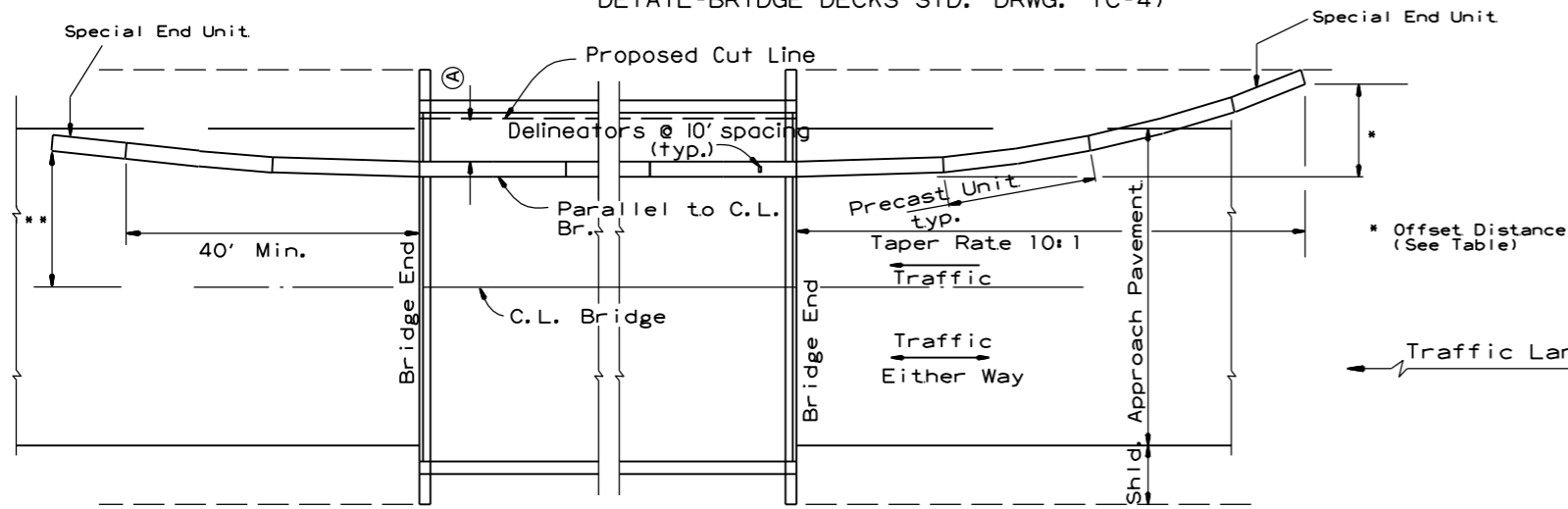


- GENERAL NOTES**
- THE CONTRACTOR SHALL FURNISH THE PRECAST CONCRETE BARRIER UNITS AND SHALL BE RESPONSIBLE FOR THE MANUFACTURE, SHIPMENT, STORAGE, PLACEMENT AND REMOVAL. AT THE COMPLETION OF THE PROJECT, THE PRECAST UNITS WILL REMAIN THE PROPERTY OF THE CONTRACTOR.
 - MATERIALS SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS:
 CONCRETE: 2500 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
 REINFORCING STEEL: AASHTO M 31 OR M 53, GRADE 60
 STRUCTURAL STEEL: AASHTO-M270 GRADE 36 SHALL BE USED FOR THE CONNECTION PIN, CONNECTION LOOPS, AND STABILIZATION PINS. A ONE PIECE PIN WITH A 3" ROUNDED TOP MAY BE USED IN PLACE OF THE DETAILED CONNECTION PIN.
 DELINEATORS: DELINEATORS SHALL BE MOUNTED AT 10' SPACING ON TOP OF PRECAST BARRIER.
 IN APPLICATIONS WHERE BARRIER WALL IS WITHIN 6 FEET OF A TRAFFIC LANE, ADDITIONAL DELINEATORS SHALL BE PLACED ON THE BARRIER AT 10' SPACING APPROXIMATELY ONE (1) FOOT FROM THE TOP OF THE BARRIER. DELINEATORS SHALL BE ON THE ARDOT QUALIFIED PRODUCTS LIST FOR CONSTRUCTION CONCRETE BARRIER MARKERS. DELINEATOR COLOR SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR DELINEATORS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID PER LIN. FT. FOR "FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER". THE CONTRACTOR SHALL CERTIFY TO THE ENGINEER THAT THE MATERIAL AND THE DESIGN USED IN THE PRECAST BARRIER UNITS MEETS THE REQUIREMENTS AS SHOWN ON THIS STANDARD DRAWING.
 - OTHER PRECAST CONCRETE BARRIERS THAT HAVE BEEN CRASH TESTED AND APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION TO MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) WILL BE ACCEPTED OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH A CERTIFICATION OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) COMPLIANCE FOR ANY OTHER TYPES OF PRECAST BARRIER TO BE USED. THE CERTIFICATION SHALL STATE THAT THE PRECAST CONCRETE BARRIER MEETS THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH). MIXING OF SHAPES WILL NOT BE ALLOWED IN A CONTINUOUS LINE OF UNITS.
 - 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.
 - ATTACH UNITS TO ROADWAY SURFACE WITH STABILIZATION PINS AND TO DECK SLABS USING BOLTS WHEN REQUIRED.
 - A 4" WHITE PVC SLEEVE MAY BE USED TO FORM THE LIFTING HOLE AND IF USED THE SLEEVE IS TO BE LEFT IN PLACE.

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

ARKANSAS STATE HIGHWAY COMMISSION
 STANDARD TRAFFIC CONTROLS
 FOR HIGHWAY CONSTRUCTION -
 TEMPORARY PRECAST BARRIER
 STANDARD DRAWING TC-4

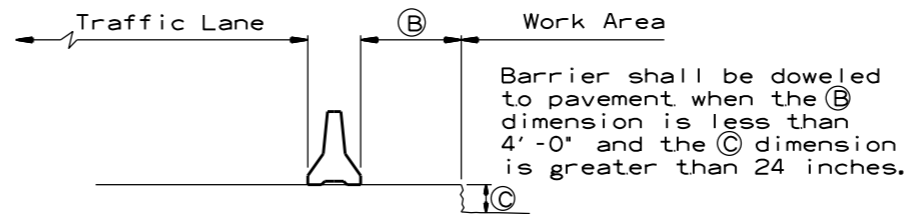
(A) 4 feet or greater preferred. If less than 4 feet, Precast Units shall be connected to slab (SEE BARRIER STABILIZATION DETAIL-BRIDGE DECKS STD. DRWG. TC-4)



BARRIER PLACEMENT ALONG BRIDGE WITH OFFSET

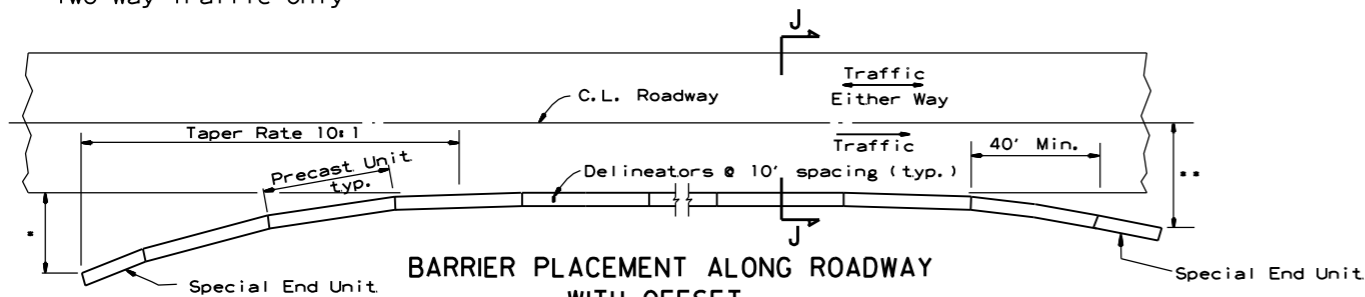
No Scale

** Offset Distance for Two Way Traffic Only



SECTION J-J

No Scale



BARRIER PLACEMENT ALONG ROADWAY WITH OFFSET

No Scale

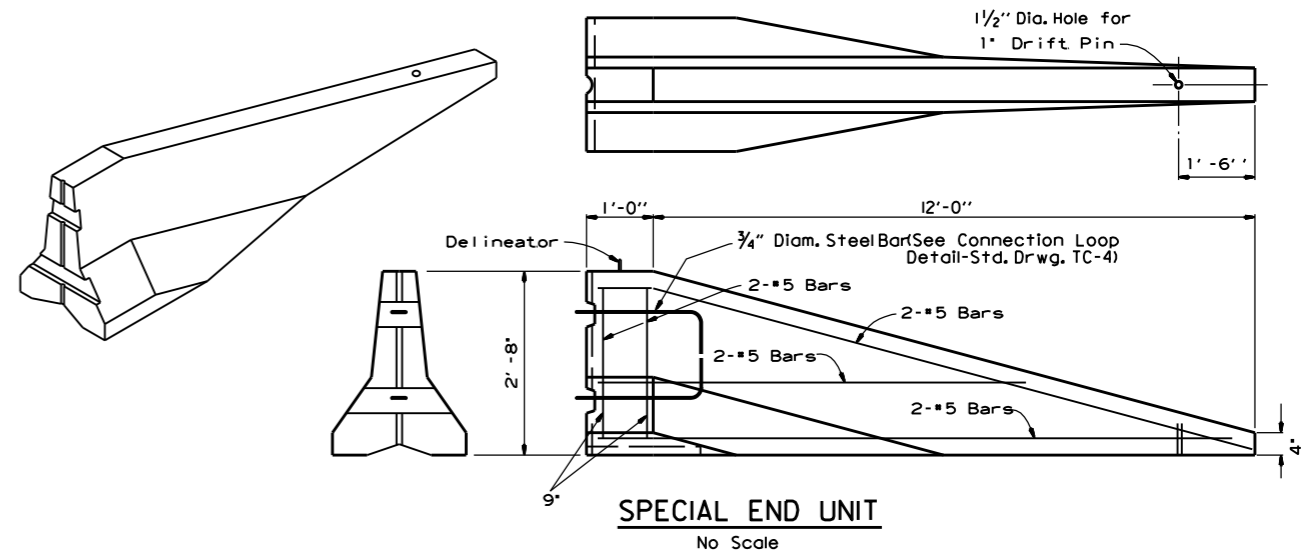
* Offset Distance (See Table)

** Offset Distance For Two Way Traffic Only

Offset Distance Table

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

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

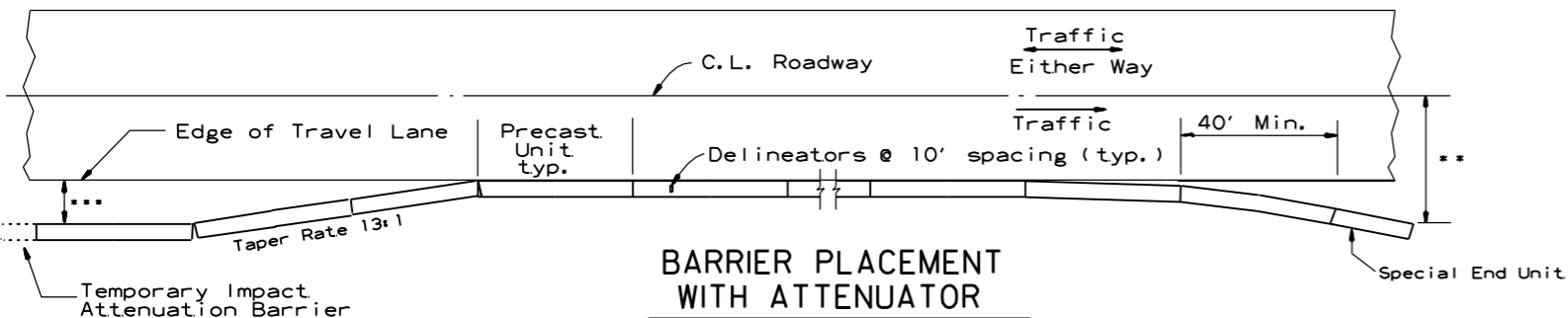


SPECIAL END UNIT

No Scale

General Notes

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



BARRIER PLACEMENT WITH ATTENUATOR

No Scale

** Offset Distance For Two Way Traffic Only

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

DATE	REVISION	FILMED
11-07-19	REVISED NOTE	
10-15-09	ADDED REFERENCE TO MASH	
5-25-06	REVISED BARRIER PLACEMENT	
8-22-02	ISSUED NEW DRAWING	

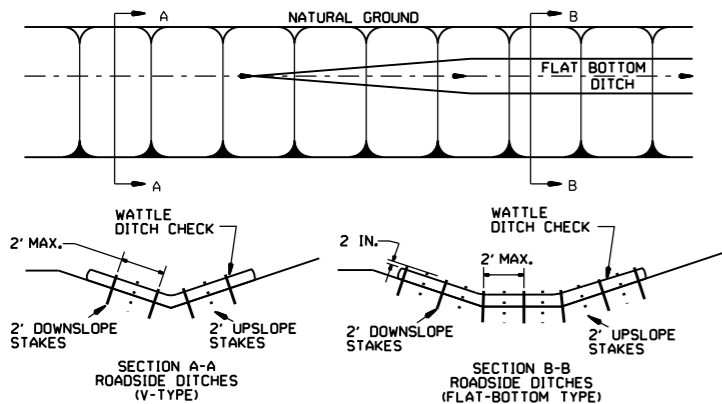
ARKANSAS STATE HIGHWAY COMMISSION

**STANDARD TRAFFIC CONTROLS
FOR HIGHWAY CONSTRUCTION -
TEMPORARY PRECAST BARRIER**

STANDARD DRAWING TC-5

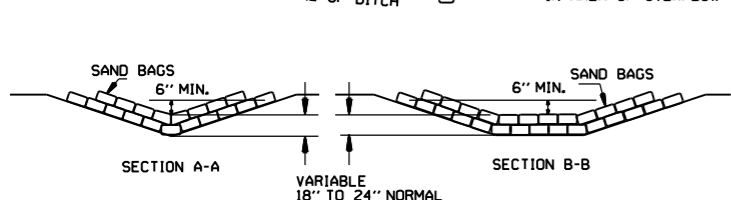
GENERAL NOTES

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

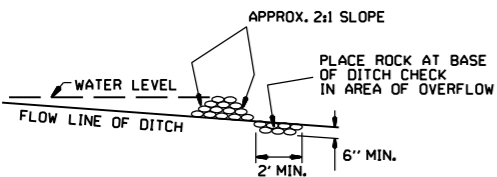


WATTLE DITCH CHECK (E-1)

NUMBER OF SAND BAGS AND ARRANGEMENT VARIABLE WITH ON-SITE CONDITIONS. PLACE SAND BAGS AT BASE OF DITCH CHECK IN AREA OF OVERFLOW.

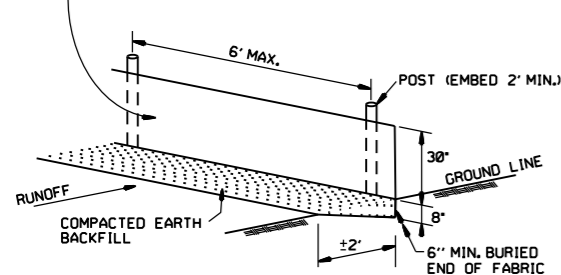


SAND BAG DITCH CHECK (E-5)

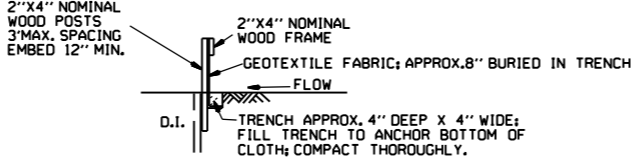
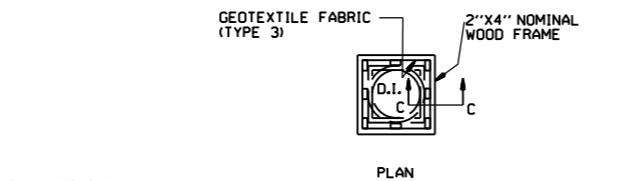
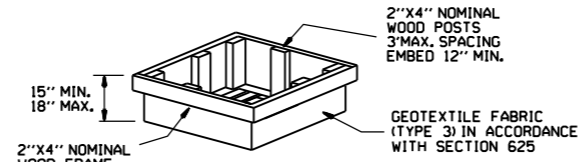


ROCK DITCH CHECK (E-6)

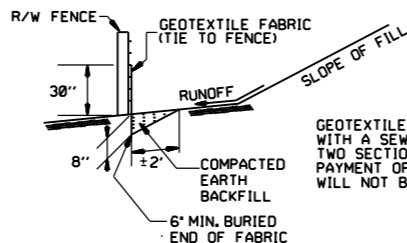
GENERAL NOTES
 GEOTEXTILE FABRIC (TYPE 4) IN ACCORDANCE WITH SECTION 625
 GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.



SILTS FENCE (E-11)

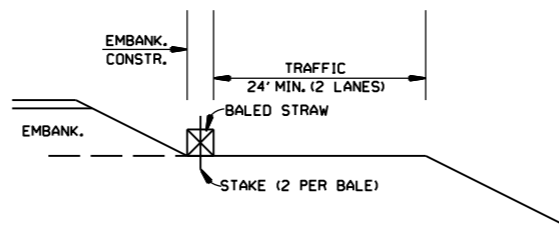


DROP INLET SILTS FENCE (E-7)

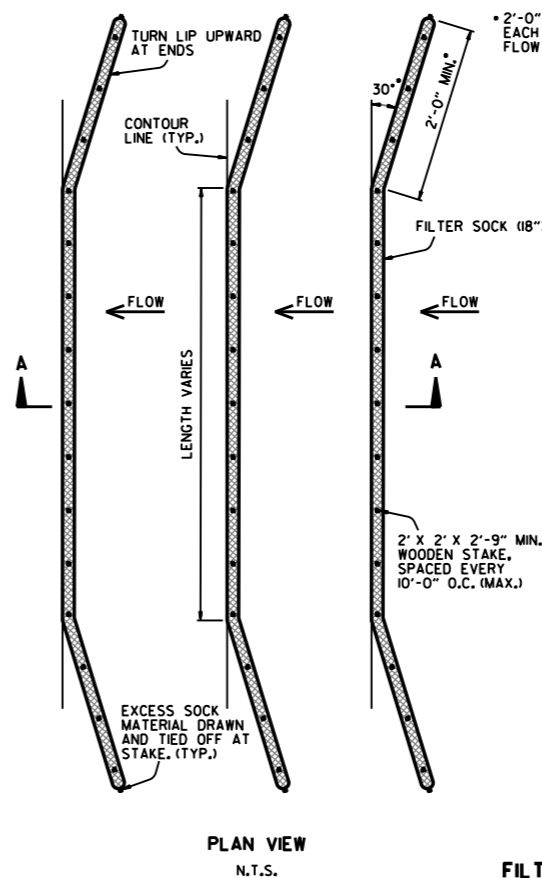


SILTS FENCE ON R/W FENCE (E-4)

GENERAL NOTES
 1. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES. THE BALES SHALL BE A MINIMUM OF 30 INCHES IN LENGTH.
 2. NO GAPS SHALL BE LEFT BETWEEN BALES.
 3. BALED STRAW FILTER BARRIERS COMPLETED AND ACCEPTED WILL BE MEASURED BY THE BALE IN PLACE AS AUTHORIZED BY THE ENGINEER AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER BALE FOR BALED STRAW DITCH CHECKS.

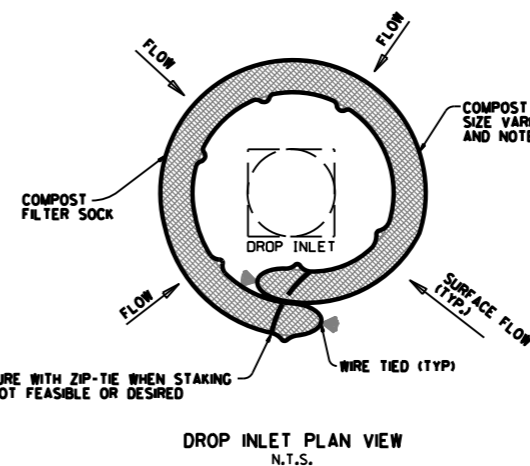


BALED STRAW FILTER BARRIER (E-2)



FILTER SOCK ALONG SLOPE (E-3)

NOTES:
 1. FILTER SOCKS CAN BE PLACED AT THE TOP, ON THE FACE, AND AT THE TOE OF SLOPES AS SEDIMENT-TRAPPING DEVICES FOR SHEET FLOW RUNOFF.
 2. FILTER SOCKS ARE TYPICALLY SUPPLIED AND INSTALLED WITH 18 INCH DIAMETERS. DIAMETER TOLERANCE IS 2 INCHES, AS FILTER SOCKS TEND TO FLATTEN OUT WHEN PLACED.
 3. STEEL POSTS MAY BE USED AND SHALL BE ROLLED FROM HIGH CARBON STEEL AND HAVE A MINIMUM OF 1.25 LB./FT. POSTS SHALL BE HOT-DIPPED GALVANIZED OR PAINTED WITH HIGH-GRADE WEATHER RESISTANT BROWN OR BLACK STEEL PAINT. STEEL POSTS SHALL BE EQUIPPED WITH ANCHOR PLATE HAVING A MINIMUM AREA OF 14 SQUARE INCHES. POSTS SHALL BE STUDDED, EMBOSSED, OR PUNCHED. POSTS AND ANCHOR PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A702. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR STEEL POSTS, BUT PRICE WILL BE CONSIDERED SUBSIDIARY TO "FILTER SOCK (18")."
 4. FILTER SOCKS MAY BE UP TO 250 FEET LONG. WHEN USED ON LONG SLOPES, FILTER SOCKS MAY BE JOINTED OR STAGGERED AS SHOWN IN DETAILS.
 5. INSPECT FILTER SOCKS AFTER EACH RUNOFF EVENT. REMOVE AND REPLACE IF SIGNS OF UNDERCUTTING OR DOWNSTREAM RILLS ARE OBSERVED.



COMPOST FILTER SOCK DROP INLET PROTECTION (E-13)

DATE	REVISION
11-16-17	ADDED FILTER SOCK E-3 AND E-13
12-15-11	DELETED BALED STRAW DITCH CHECK & ADDED WATTLE DITCH CHECK
11-18-98	ADDED NOTES
07-02-98	ADDED BALED STRAW FILTER BARRIER (E-2)
07-20-95	REVISED SILTS FENCE E-4 AND E-11
07-15-94	REV. E-4 & E-11 MIN. 13" BURIED END OF FABRIC
06-02-94	REVISED E-1, 4, 7 & 11; DELETED E-2 & 3
04-01-93	REDRAWN
10-01-92	REDRAWN
08-02-76	ISSUED R.D.M.

ARKANSAS STATE HIGHWAY COMMISSION
 TEMPORARY EROSION CONTROL DEVICES
 STANDARD DRAWING TEC-1