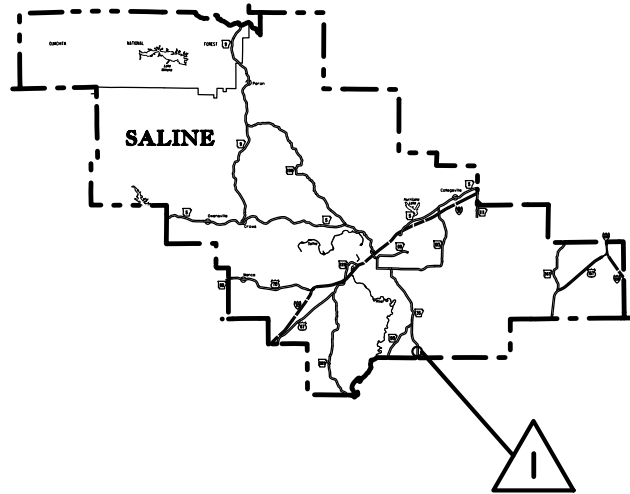
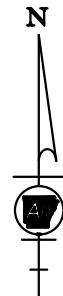


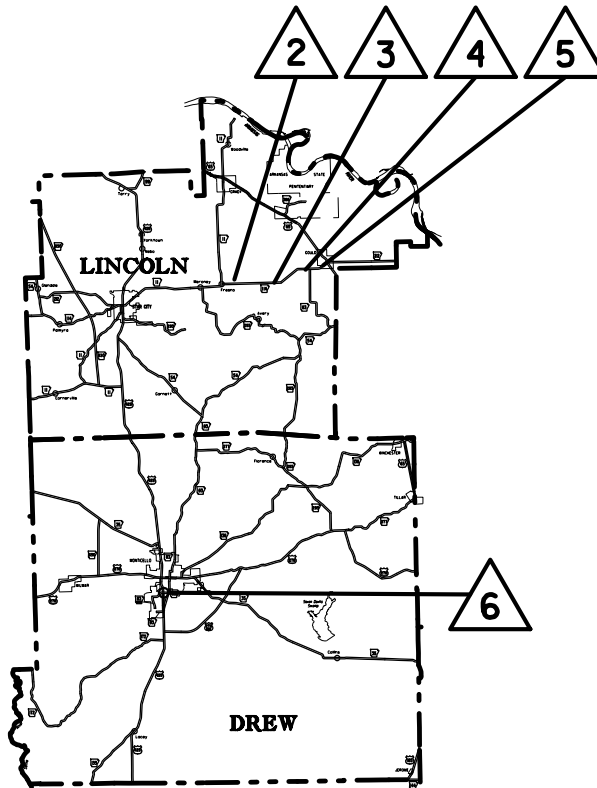
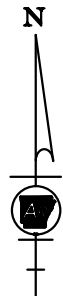
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DISTRICT 6
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NOTES:

1. BRIDGE DATA IS ON PLAN SHEET 2.
2. REFER TO SPECIAL DETAILS FOR INSET ENLARGEMENTS AT BRIDGE LOCATIONS.

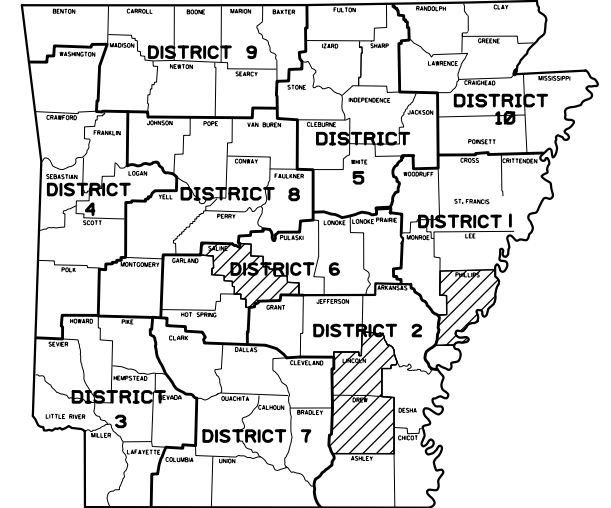


DISTRICT 2
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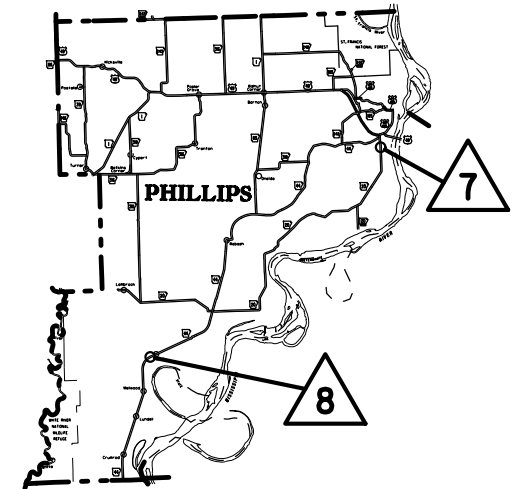
LENGTH CALCULATED ALONG C. L. BRIDGES			
NET LENGTH OF ROADWAY	0000.00 FEET	0.000	MILES
NET LENGTH OF BRIDGES	1037.32 FEET	0.196	MILES
NET LENGTH OF PROJECT	1037.32 FEET	0.196	MILES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
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						JOB NO.	012375	1
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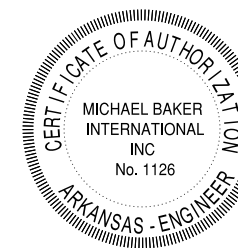
② DISTRICTS 1, 2 & 6 BRIDGE PRESERVATION (2021) (S)



ARKANSAS HIGHWAY DISTRICTS 1, 2 & 6



DISTRICT 1
NOT TO SCALE



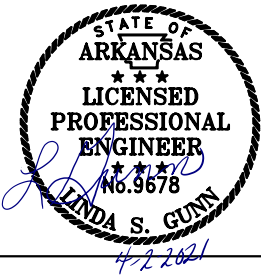
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				6	ARK.			
				JOB NO.		012375	2	30

LEGEND



HYDRODEMOLITION

BRIDGE DATA



HWY. 35, SEC. 1
LOG MILE 9.954 BR. END
OVER MUD CREEK
84' - 0" BRIDGE NO. 03022
24' - 0" CLEAR ROADWAY
(HYDRODEMOLITION)

4

HWY. 114, SEC. 2
LOG MILE 6.636 BR. END
OVER CHOCTAW BAYOU
56' - 0" BRIDGE NO. 02895
24' - 0" CLEAR ROADWAY
(HYDRODEMOLITION)

7

HWY. 20, SEC. 1
LOG MILE 22.436 BR. END
OVER LONG LAKE
217' - 2" BRIDGE NO. 05001
28' - 0" CLEAR ROADWAY
(HYDRODEMOLITION)

2

HWY. 114, SEC. 2
LOG MILE 0.831 BR. END
OVER DEEP BAYOU
168' - 0" BRIDGE NO. 02893
24' - 0" CLEAR ROADWAY
(HYDRODEMOLITION)



HWY. 114, SEC. 2
LOG MILE 8.454 BR. END
OVER GOULD DRAINAGE DITCH
84' - 0" BRIDGE NO. 02896
24' - 0" CLEAR ROADWAY
(HYDRODEMOLITION)

8

HWY. 44, SEC. 3
LOG MILE 10.212 BR. END
OVER YELLOW BANK BAYOU
103' - 0" BRIDGE NO. 03053
24' - 0" CLEAR ROADWAY
(HYDRODEMOLITION)

3

HWY. 114, SEC. 2
LOG MILE 4.149 BR. END
OVER KERSH LAKE CANAL
112' - 0" BRIDGE NO. 02894
24' - 0" CLEAR ROADWAY
(HYDRODEMOLITION)

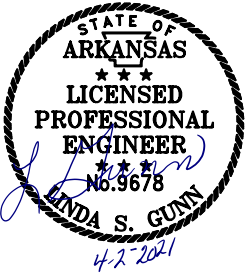


HWY. 83, SEC. 1S
LOG MILE 0.407 BR. END
OVER US 425
213' - 1 3/4" BRIDGE NO. M3479
32' - 0" CLEAR ROADWAY
(HYDRODEMOLITION)

BRIDGE DATA

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				6	ARK.			
				JOB NO.		012375	3	30
				② INDEX OF SHEETS AND STANDARD DRAWINGS				



INDEX OF SHEETS

SHEET NO.	TITLE	BRIDGE NO.	DRWG.NO.
1	TITLE SHEET		
2	BRIDGE DATA		
3	INDEX OF SHEETS AND STANDARD DRAWINGS		
4	GOVERNING SPECIFICATIONS AND GENERAL NOTES		
5 - 7	TYPICAL SECTIONS OF IMPROVEMENT		
8 - 12	SPECIAL DETAILS		
13	TEMPORARY EROSION CONTROL DETAILS		
14 - 15	MAINTENANCE OF TRAFFIC DETAILS		
16	PERMANENT PAVEMENT MARKING DETAILS		
17 - 26	QUANTITIES		
27	SCHEDULE OF BRIDGE QUANTITIES	ALL BRIDGES	63954
28	SUMMARY OF QUANTITIES AND REVISIONS		
29	BRIDGE PRESERVATION DATA TABLE - DISTRICTS 1, 2, & 6	ALL BRIDGES	63955
30	SPALL REPAIR DETAILS	03022, 02893, 02894, 02896, M3479, & 03053	63956

BRIDGE STANDARD DRAWINGS

DRWG.NO.	TITLE	DATE
55037	STANDARD DETAILS FOR TYPE 'PT2' APPROACH GUTTERS (BRIDGES WITH CONCRETE PARAPET RAILING)	11-07-19
55038	STANDARD DETAILS FOR TYPE 'AT2' APPROACH GUTTERS (BRIDGES WITH CURBS & TYPE A, B, C, D, OR E RAILING)	11-07-19
55039	STANDARD DETAILS FOR TYPE 'CT' APPROACH GUTTERS (BRIDGES WITH CURB)	11-07-19
55060	STANDARD DETAILS FOR HYDRODEMOLITION AND LMC OVERLAY SLAB ON BEAM/GIRDER BRIDGES	06-25-20
55061	STANDARD DETAILS FOR HYDRODEMOLITION AND LMC OVERLAY SLAB ON BEAM/GIRDER BRIDGES WITH GRADE RAISE	06-25-20
55062	STANDARD DETAILS FOR HYDRODEMOLITION AND LMC OVERLAY REINFORCED CONCRETE SLAB STRUCTURES	06-25-20
55064	STANDARD DETAILS FOR JOINT REPAIRS & MODIFICATION	11-07-19
55065	STANDARD DETAILS FOR BACKWALL REPAIRS	11-07-19

ROADWAY STANDARD DRAWINGS

DRWG.NO.	TITLE	DATE
GR-6	GUARDRAIL DETAILS	11-07-19
GR-7	GUARDRAIL DETAILS	11-07-19
GR-8	GUARDRAIL DETAILS	11-07-19
GR-9	GUARDRAIL DETAILS	11-07-19
GR-10	GUARDRAIL DETAILS	11-07-19
GR-11	GUARDRAIL DETAILS	11-07-19
GR-12	GUARDRAIL DETAILS	05-14-20
PM-1	PAVEMENT MARKING DETAILS	02-27-20
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
TEC-1	TEMPORARY EROSION CONTROL DEVICES	11-16-17
TEC-3	TEMPORARY EROSION CONTROL DEVICES	11-03-94

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5-6-2021								
						JOB NO.	012375	4
								30

2 GOVERNINGS SPECIFICATIONS & GENERAL NOTES

GENERAL NOTES

- BRIDGE ANALYSIS SHALL BE REQUIRED PER SECTION 105.14 OF THE STANDARD SPECIFICATIONS. A BRIDGE ANALYSIS SHALL BE REQUIRED PRIOR TO HYDRODEMOLITION AND ANOTHER ANALYSIS SHALL BE REQUIRED DURING THE HYDRODEMOLITION PROCESS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING U.S. MAILBOXES WITHIN THE PROJECT LIMITS IN SUCH A MANNER THAT THE PUBLIC MAY RECEIVE CONTINUED MAIL SERVICE. PAYMENT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.
- ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL BE RESPONSIBLE FOR PROVIDING A FENCE TO CONTROL AND CONTAIN LIVESTOCK IF FENCING OF PASTURES IS SEVERED.
- ALL TREES THAT DO NOT DIRECTLY INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE SPARED IF AND WHERE 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.
- PREPARATORY WORK, SUCH AS CLIPPING THE GRASS AND DEBRIS FROM THE EDGE OF THE EXISTING ROADWAY, WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED A PART OF THE OTHER ITEMS OF WORK. AFTER THE ROADWAY IS COMPLETED, THIS MATERIAL SHALL BE PULLED UP TO THE EDGE OF THE NEW PAVEMENT AT LOCATIONS WHERE THE DROP OFF IS GREATER THAN 4" RESULTING FROM THE TRANSITIONS OR GUARDRAIL ROADWAY IMPROVEMENTS. NO DIRECT PAYMENT WILL BE MADE FOR THIS WORK.
- ASPHALT DEBRIS RESULTING FROM THE PREPARAORY WORK SHALL BE REMOVED FROM THE PROJECT. THIS MATERIAL SHALL NOT BE BURIED OR STOCKPILED WITHIN THE RIGHT OF WAY.
- ALL FLEXIBLE BASE AND ASPHALTIC PAVEMENTS REMOVED SHALL BE PAID UNDER THE ITEM NO. 210 - UNCLASSIFIED EXCAVATION.
- THE ENGINEER MAY REQUIRE THE CONTRACTOR TO MODIFY THEIR SCHEDULE, DURING WORK, WHEN SPECIAL EVENTS OR OCCURRENCES MAY CAUSE TRAFFIC TO BECOME CONGESTED.
- 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.
- MATERIAL GENERATED FROM COLD MILLING OPERATIONS SHALL REMAIN THE PROPERTY OF THE CONTRACTOR FOR ALL DISTRICTS IN THIS PROJECT. THE CONTRACTOR SHALL HAUL THE MATERIAL OFFSITE. NO MATERIAL SHALL BE STOCKPILED OR BURIED ON SITE. REMOVAL OF COLD MILLING MATERIAL SHALL BE INCLUDED IN THE PRICE BID FOR THE ITEM "COLD MILLING ASPHALT PAVEMENT".
- THE ROADWAY COLD MILLED SURFACE SHALL BE OVERLAID WITHIN 7 CALENDAR DAYS. IF AN AREA OF THE PROJECT HAS BEEN COLD MILLED AND IS NOT OVERLAID ON OR BEFORE THE 7TH DAY, NO ADDITIONAL COLD MILLING SHALL TAKE PLACE UNTIL THE MILLED AREA IS OVERLAID.
- ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE PROVIDED.
- THE 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 IF AND WHERE DIRECTED BY THE ENGINEER.
- WHEN THE PLANS REQUIRE APPROACH GUTTER REPLACEMENT AND AN EXISTING END DRAIN IS ENCOUNTERED, THE CONTRACTOR SHALL MODIFY THE APPROACH GUTTER STANDARD DRAWING REQUIREMENTS IF AND WHERE DIRECTED BY THE ENGINEER TO RETAIN THE END DRAIN SECTION.

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
303-1	AGGREGATE BASE COURSE
306-1	QUALITY CONTROL AND ACCEPTANCE
400-1	TACK COATS
400-4	DESIGN AND QUALITY CONTROL OF ASPHALT MIXTURES
400-5	PERCENT AIR VOIDS FOR ACHM MIX DESIGNS
400-6	LIQUID ANTI-STRIP ADDITIVE
400-7	TRACKLESS TACK
404-3	DESIGN OF ASPHALT MIXTURES
410-1	CONSTRUCTION REQUIREMENTS AND ACCEPTANCE OF ASPHALT CONCRETE PLANT MIX COURSES
410-2	DEVICES FOR MEASURING DENSITY FOR ROLLING PATTERNS
600-2	INCIDENTAL CONSTRUCTION
603-1	LANE CLOSURE NOTIFICATION
604-1	RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
604-3	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES (MASH)
617-1	GUARDRAIL TERMINAL (TYPE 2)
620-1	MULCH COVER
621-1	FILTER SOCKS
734-1	BRIDGE END TERMINAL
800-1	STRUCTURES
804-2	REINFORCING STEEL FOR STRUCTURES
JOB 012375	BIDDING REQUIREMENTS AND CONDITIONS
JOB 012375	BRIDGE DECK REPAIR FOR LATEX MODIFIED CONCRETE OVERLAYS
JOB 012375	BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB 012375	CARGO PREFERENCE ACT REQUIREMENTS
JOB 012375	CONCRETE REPAIRS
JOB 012375	COORDINATION OF WORK
JOB 012375	DISADVANTAGED BUSINESS ENTERPRISE BIDDER'S RESPONSIBILITIES
JOB 012375	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB 012375	HYDRODEMOLITION - CLASS 2
JOB 012375	JOINT REHABILITATION FOR BRIDGE DECKS
JOB 012375	LATEX MODIFIED CONCRETE OVERLAY
JOB 012375	MANDATORY ELECTRONIC CONTRACT
JOB 012375	MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
JOB 012375	PARTNERING REQUIREMENTS
JOB 012375	PORTABLE TRAFFIC SIGNAL SYSTEM
JOB 012375	PRICE ADJUSTMENT FOR ASPHALT BINDER
JOB 012375	PROHIBITION OF CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICE OR EQUIPMENT
JOB 012375	SEQUENCE OF CONSTRUCTION
JOB 012375	SOIL STABILIZATION
JOB 012375	SPECIAL SAFETY REQUIREMENTS FOR BRIDGES
JOB 012375	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB 012375	TRENCHING AND SHOULDER PREPARATION FOR TEMPORARY WIDENING
JOB 012375	VALUE ENGINEERING
JOB 012375	WARM MIX ASPHALT
JOB 012375	WATER POLLUTION CONTROL
JOB 012375	WELLHEAD PROTECTION

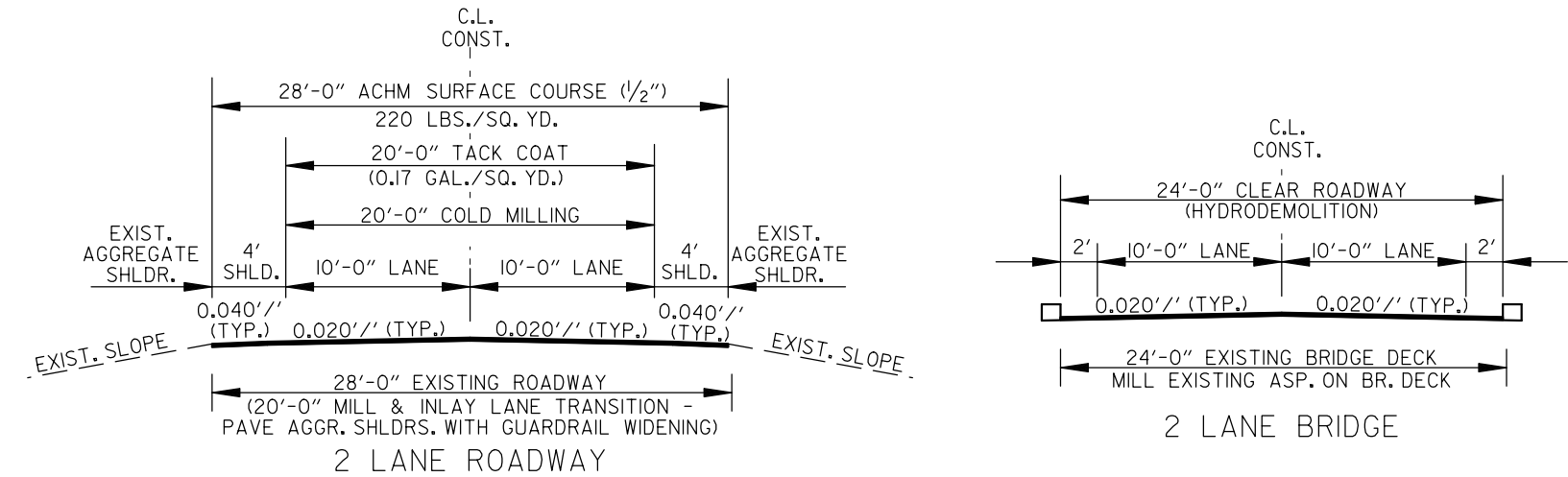


5/6/2021

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TYPICAL SECTIONS OF IMPROVEMENT								

2

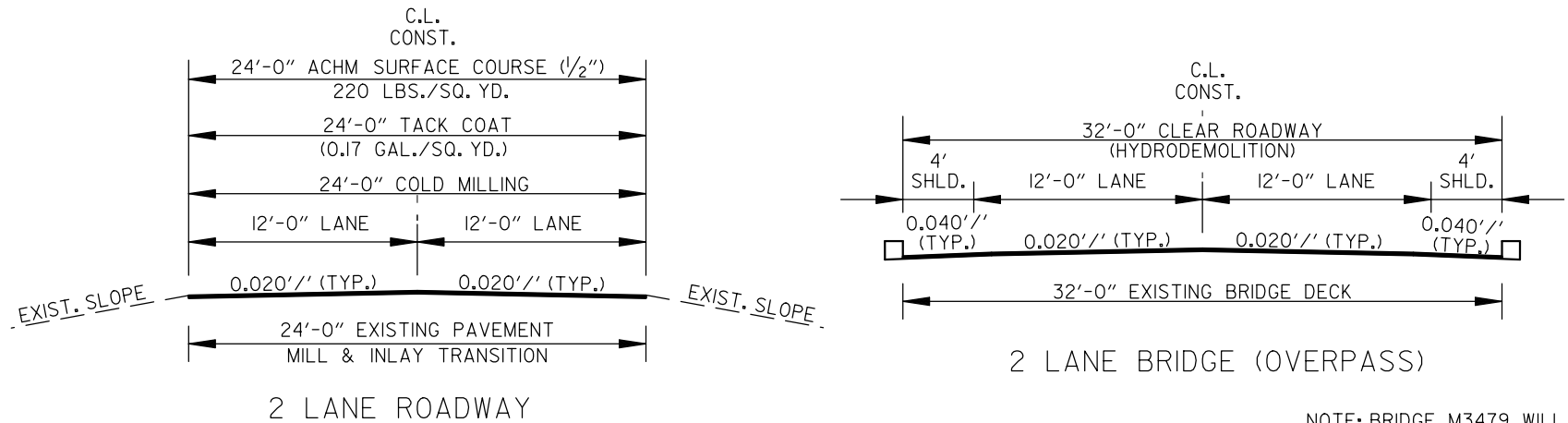


24 FT. CLEAR ROADWAY BRIDGES - HYDRODEMOLITION
(BRIDGES WITH MILLING ON BR. DECKS AND ROAD TRANSITIONS)

4	- BR. NO. 02895 - HWY. 114	2"
5	- BR. NO. 02896 - HWY. 114	2"

NOTES:

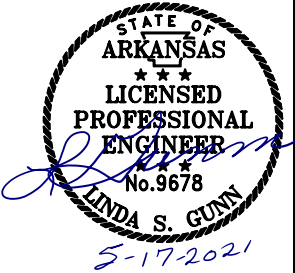
- STRINGLINE WILL BE USED TO MAINTAIN A UNIFORM HORIZONTAL ALIGNMENT.
- THE CONTRACTOR SHALL FURNISH & MAINTAIN STD. W8-II "UNEVEN LANES" SIGNS (48" X 48") WITH BLACK LEGEND ON ORANGE BACKGROUND AT ALL LONGITUDINAL JOINTS DURING MILLING AND PAVING OPERATIONS.
- COLD MILLED MATERIAL IS TO REMAIN THE PROPERTY OF THE CONTRACTOR IN ALL OF THE DISTRICTS INCLUDED IN THIS PROJECT. THE CONTRACTOR SHALL HAUL THE MATERIAL OFFSITE. NO MATERIAL SHALL BE STOCKPILED OR BURIED ON SITE. REMOVAL OF COLD MILLING MATERIAL SHALL BE INCLUDED IN THE PRICE BID FOR "COLD MILLING ASPHALT PAVEMENT."
- LONGITUDINAL JOINTS ARE TO BE PLACED PER TYPICAL SECTION IN ACCORDANCE WITH STANDARD SPECIFICATION FOR HIGHWAY CONSTRUCTION, 2014 EDITION, SECTION 410.07 UNLESS OTHERWISE APPROVED IF AND WHERE BY THE ENGINEER.
- ALL CROSS SLOPES ARE TO MATCH EXISTING CROSS SLOPES UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- REFER TO SPECIAL DETAILS AND QUANTITY SHEETS FOR ROADWAY TRANSITIONS, GUARDRAIL WIDENING AND GUARDRAIL INSTALLATION INFORMATION.
- FOR HORIZONTAL AND VERTICAL CONTROLS AT GUARDRAIL LOCATIONS, THE GUARDRAIL WIDENING SLOPES AND GRADES SHALL MATCH THE SLOPES AND GRADES OF THE MAIN LANE SHOULDERS. THE MAIN LANE TRANSITIONS AND ACHM EXTENSIONS SHALL BE PAVED PRIOR TO CONSTRUCTION OF THE GUARDRAIL WIDENING.
- THE EXISTING ASPHALT PAVEMENT TO BE REMOVED FROM THE REMAINING PAVEMENT SHALL BE SEPARATED BY SAWING ALONG A NEAT LINE. AFTER SAWING, THE PAVEMENT IS TO BE CAREFULLY REMOVED IN A MANNER THAT WILL NOT DAMAGE THE PAVEMENT THAT IS TO REMAIN. ANY DAMAGE TO THE ASPHALT PAVEMENT THAT IS TO REMAIN IN PLACE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.



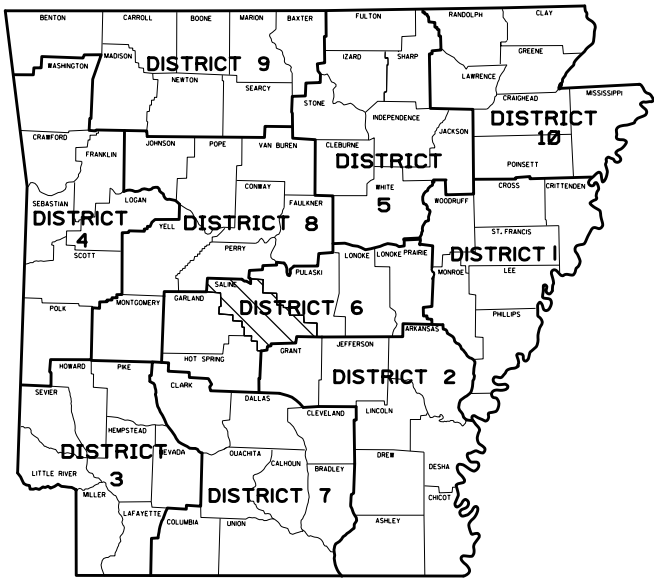
32 FT. CLEAR ROADWAY BRIDGE - HYDRODEMOLITION
(ROADWAY TRANSITIONS AND NEW GUARDRAIL)

6	- BR. NO. M3479 - HWY. 83
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NOTE: BRIDGE M3479 WILL HAVE A 1" GRADE RAISE
WITH FINISHED RESURFACING. REFER TO BRIDGE
PLAN SHEETS.



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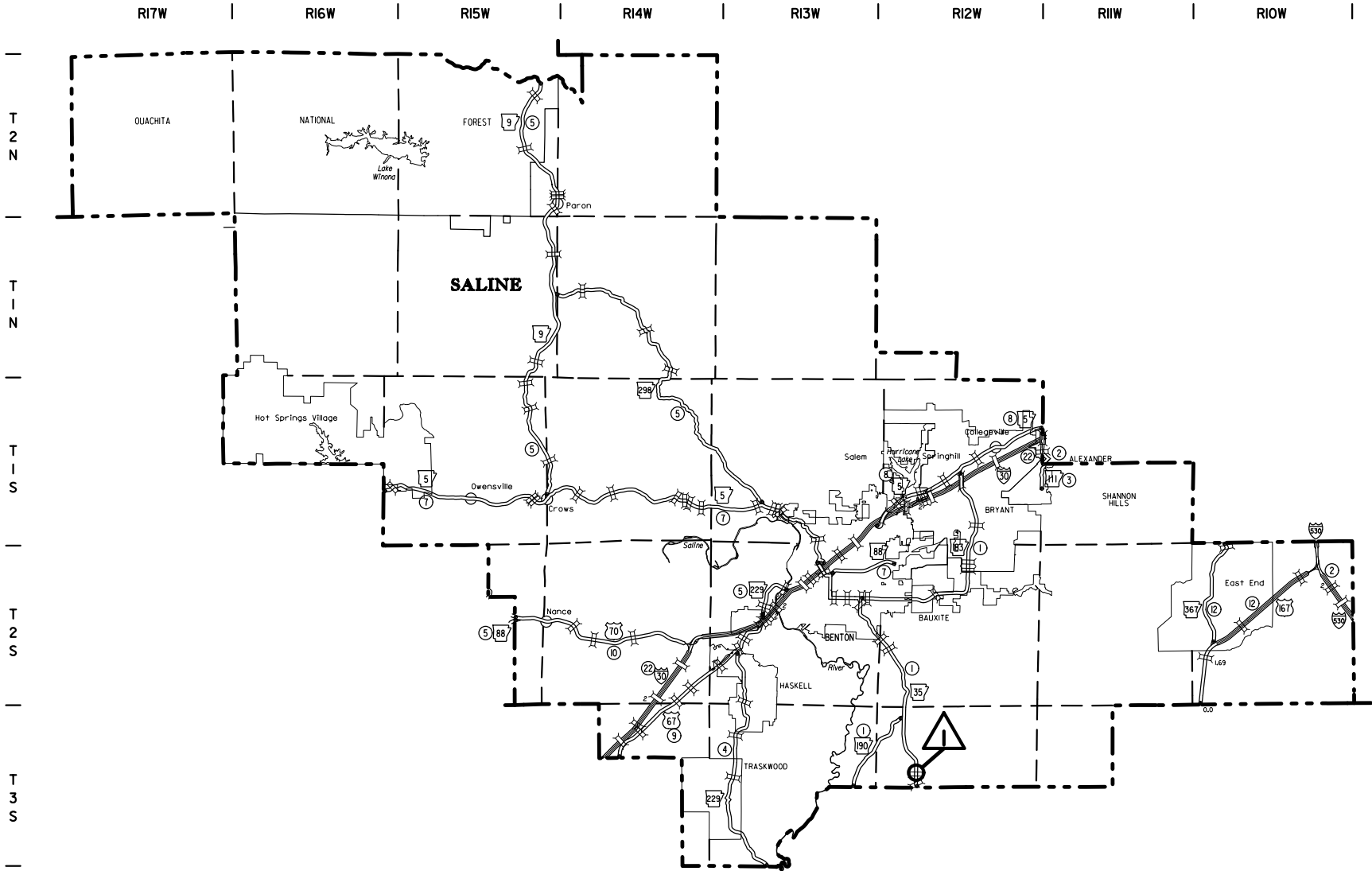


ARKANSAS HIGHWAY DISTRICT 6

LEGEND

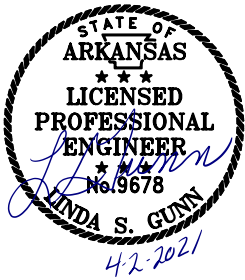
 - HYDRODEMOLITION

 HWY. 35, SEC. 1
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OVER MUD CREEK
84'-0" BRIDGE NO. 03022
24'-0" CLEAR ROADWAY
(HYDRODEMOLITION)



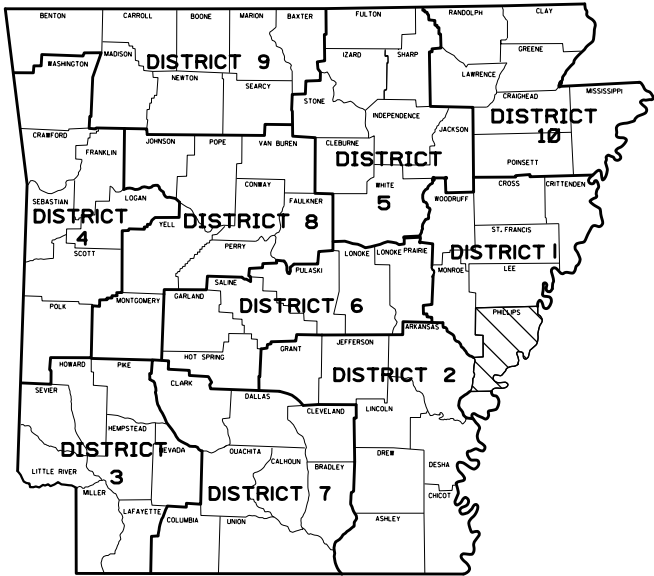
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SPECIAL DETAILS								



SPECIAL DETAILS

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ARKANSAS HIGHWAY DISTRICT 1

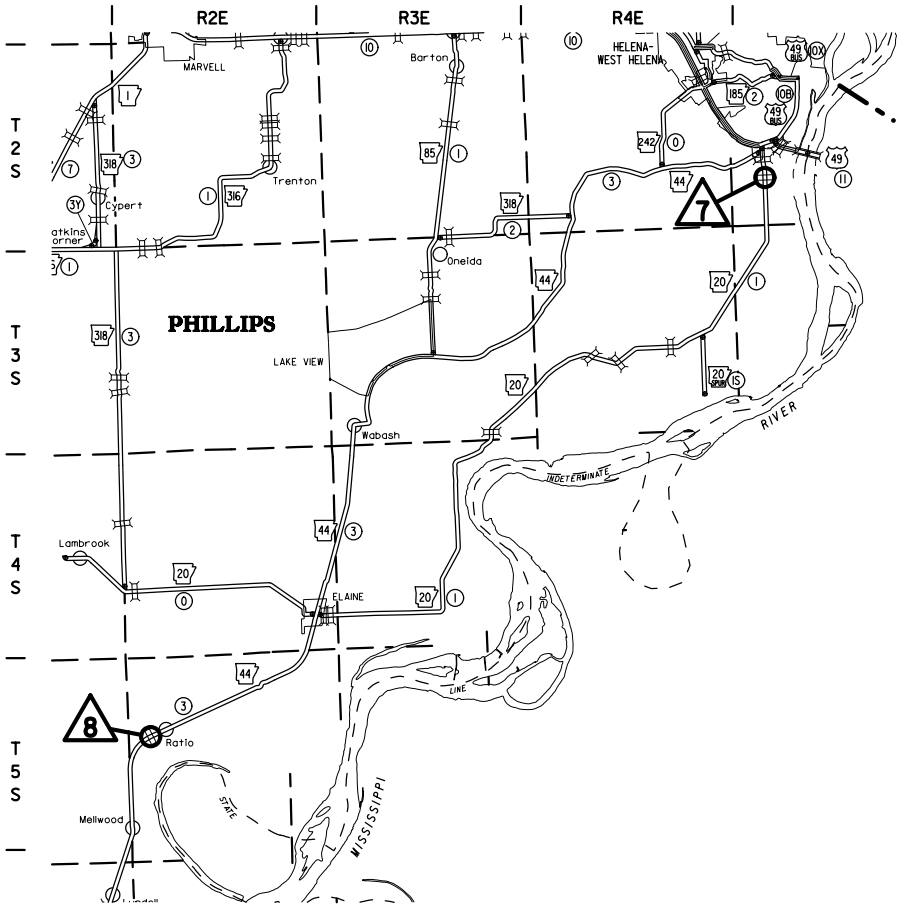
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 - HYDRODEMOLITION

- 

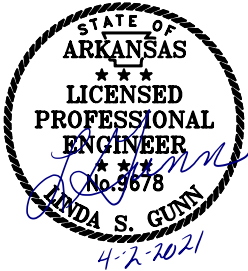
HWY. 20, SEC. 1
LOG MILE 22.436 BR. END
OVER LONG LAKE
217' - 2" BRIDGE NO. 05001
28' - 0" CLEAR ROADWAY
(HYDRODEMOLITION)
- 

HWY. 44, SEC. 3
LOG MILE 10.212 BR. END
OVER YELLOW BANK BAYOU
103' - 0" BRIDGE NO. 03053
24' - 0" CLEAR ROADWAY
(HYDRODEMOLITION)

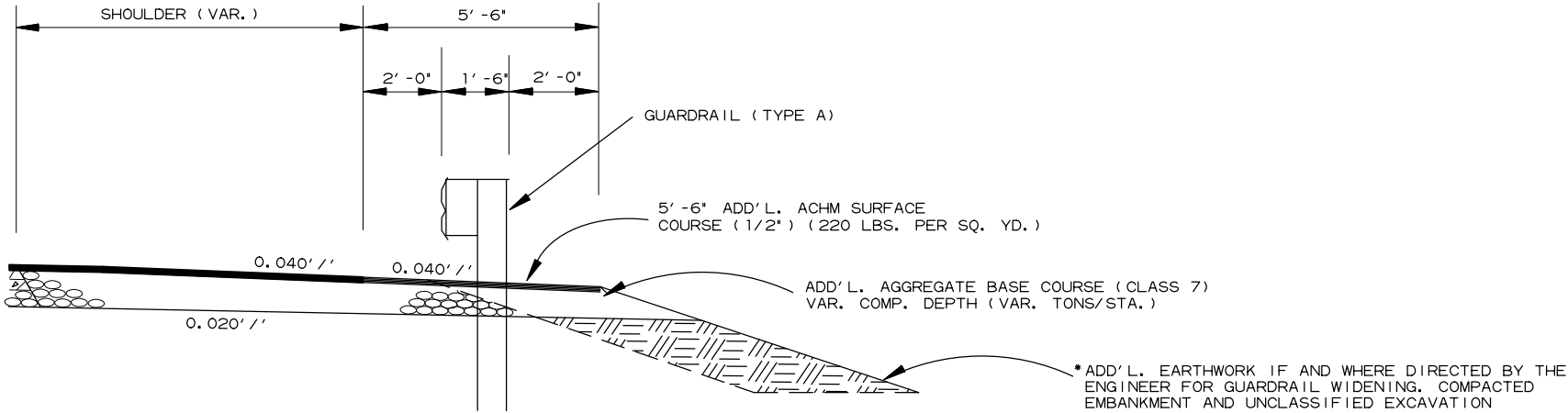
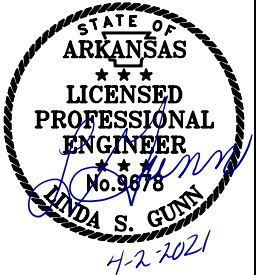


DISTRICT 1
INSET - 3
NOT TO SCALE

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2 SPECIAL DETAILS								

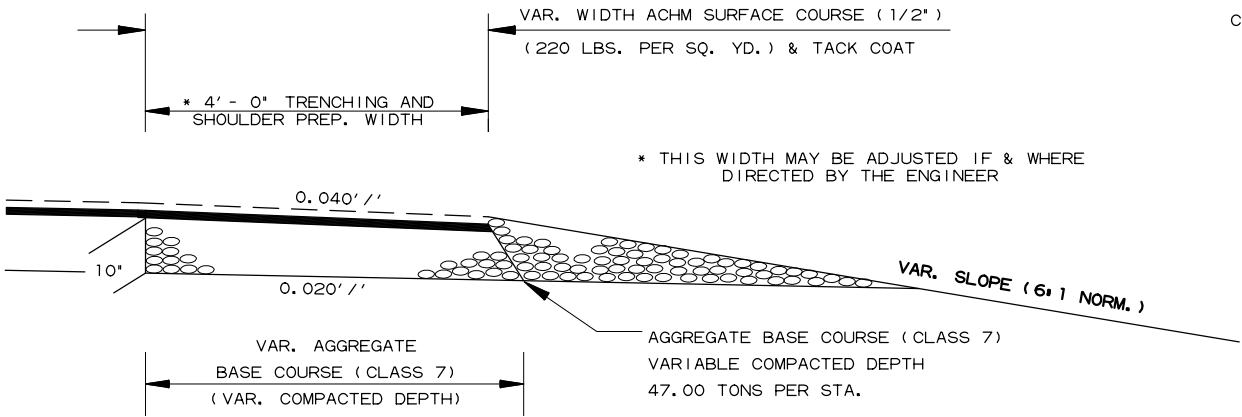


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				6	ARK.			
				JOB NO.		012375	II	30
2 SPECIAL DETAILS								



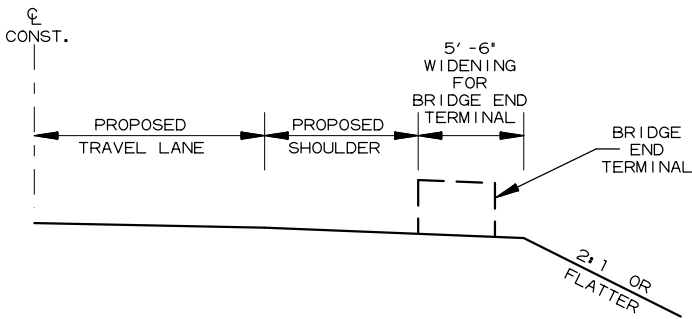
WIDENING FOR GUARDRAIL REQUIRING EARTHWORK

- * NOTES:
- REFER TO STD. DWG. GR-9 FOR SLOPE REQUIREMENTS BEHIND GUARDRAIL.
 - FOR HORIZONTAL AND VERTICAL CONTROL, THE GUARDRAIL WIDENING SHALL MATCH THE SLOPES AND GRADES OF THE MAIN LANE SHOULDERS. CONSTRUCT BRIDGE APPROACH AND MAIN LANE TRANSITIONS BEFORE PAVING GUARDRAIL WIDENING.



TRENCH & SHOULDER PREP. FOR MAINTENANCE OF TRAFFIC

NOTE: TRENCHING & SHOULDER PREP. FOR MOT IS TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER. THE QUANTITY WILL BE ESTIMATED.

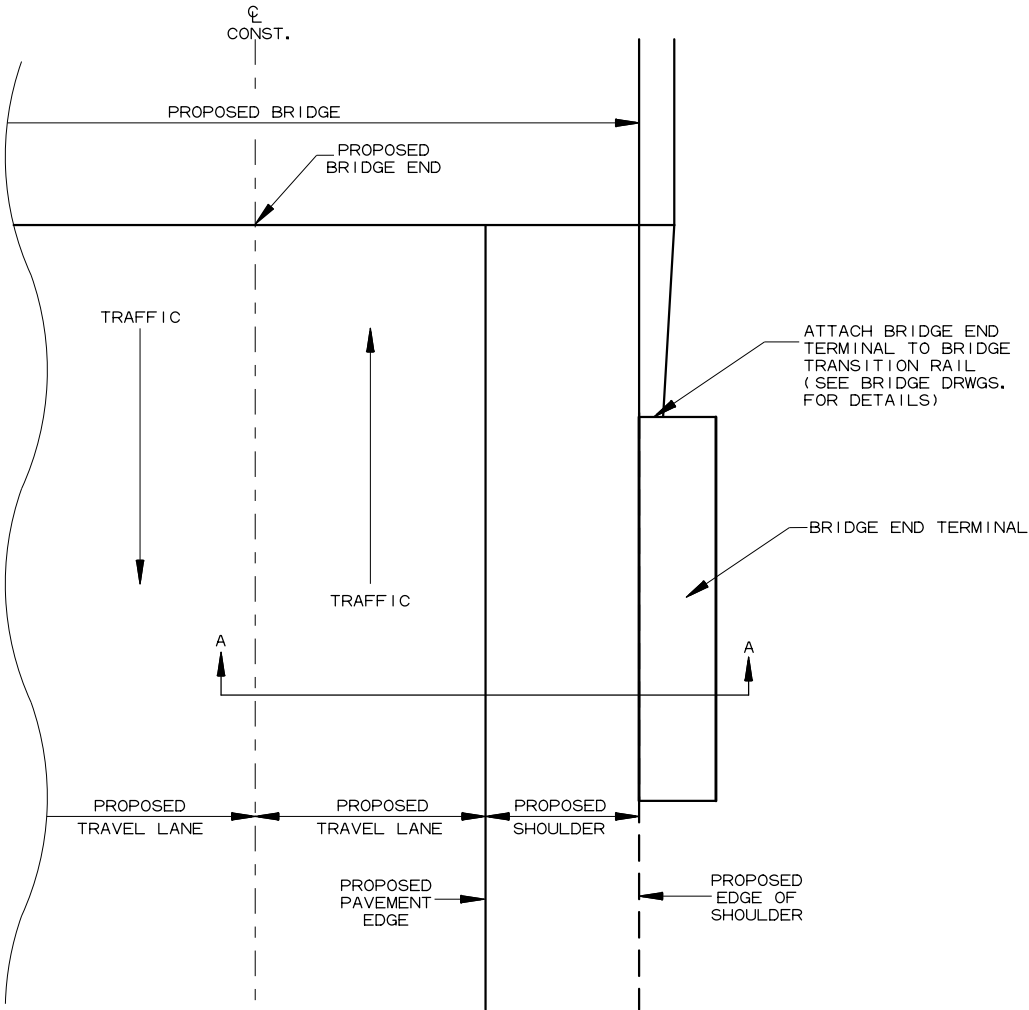


SECTION A-A

NOTE: ELIMINATE OR MODIFY APPROACH CURB SECTION TO FIT BRIDGE END TERMINAL. NO PAYMENT SHALL BE MADE FOR ELIMINATING OR MODIFYING THIS CURB, BUT SHALL BE CONSIDERED IN PAYMENT MADE FOR APPROACH GUTTERS OF THE TYPE SPECIFIED.

NOTE: BRIDGE END TERMINAL SHALL CONFORM TO THE FOLLOWING:

- MAXIMUM LENGTH: 20'
- MAXIMUM HEIGHT: 2.75'
- DESIGN SPEED: 60 MPH

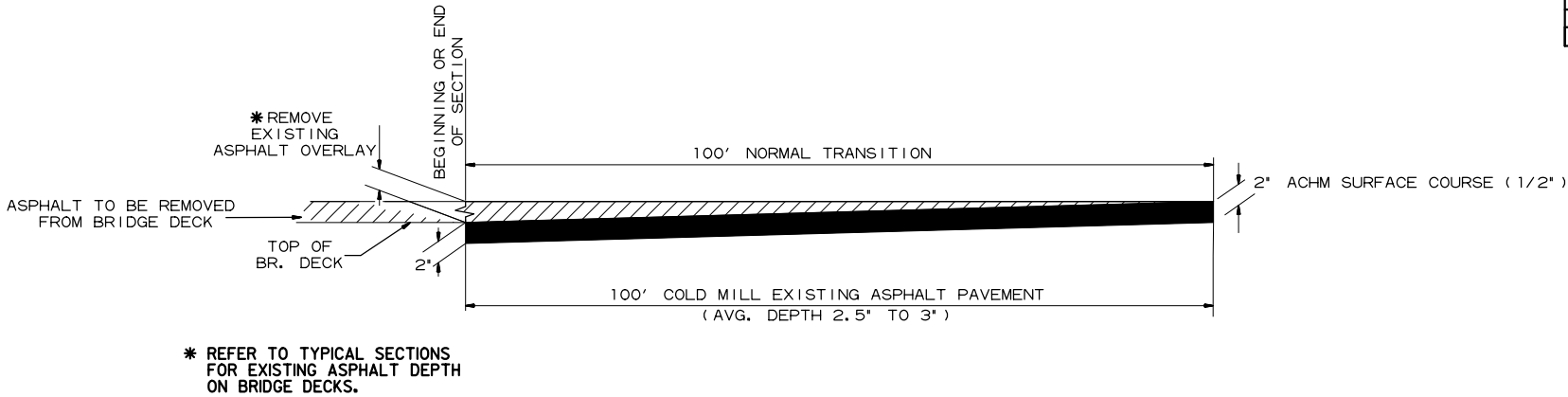
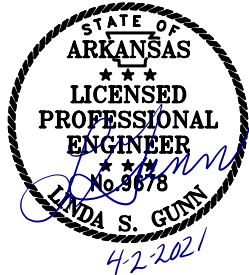


PLAN VIEW BRIDGE END TERMINAL DETAILS

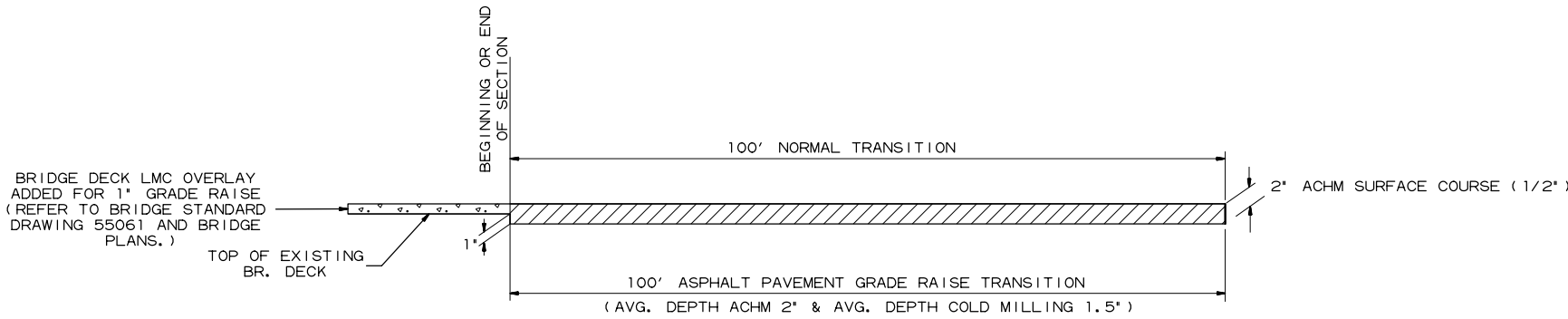
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				6	ARK.			
				JOB NO.		012375	12	30

2 SPECIAL DETAILS

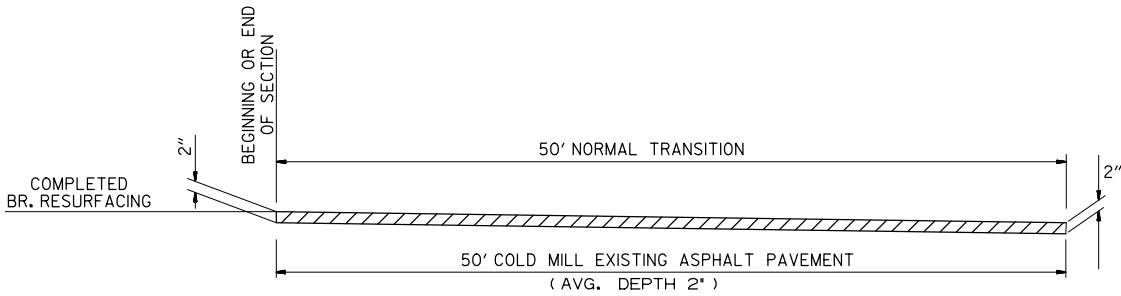


DETAIL FOR TRANSITIONS



DETAIL FOR GRADE RAISE TRANSITION

6 - BR. NO. M3479 - HWY. 83



*DETAIL FOR PAVEMENT MILL & INLAY AT BRIDGE ENDS TO REPAIR ASPHALT ROADWAY

* IF AND WHERE DIRECTED BY THE ENGINEER.

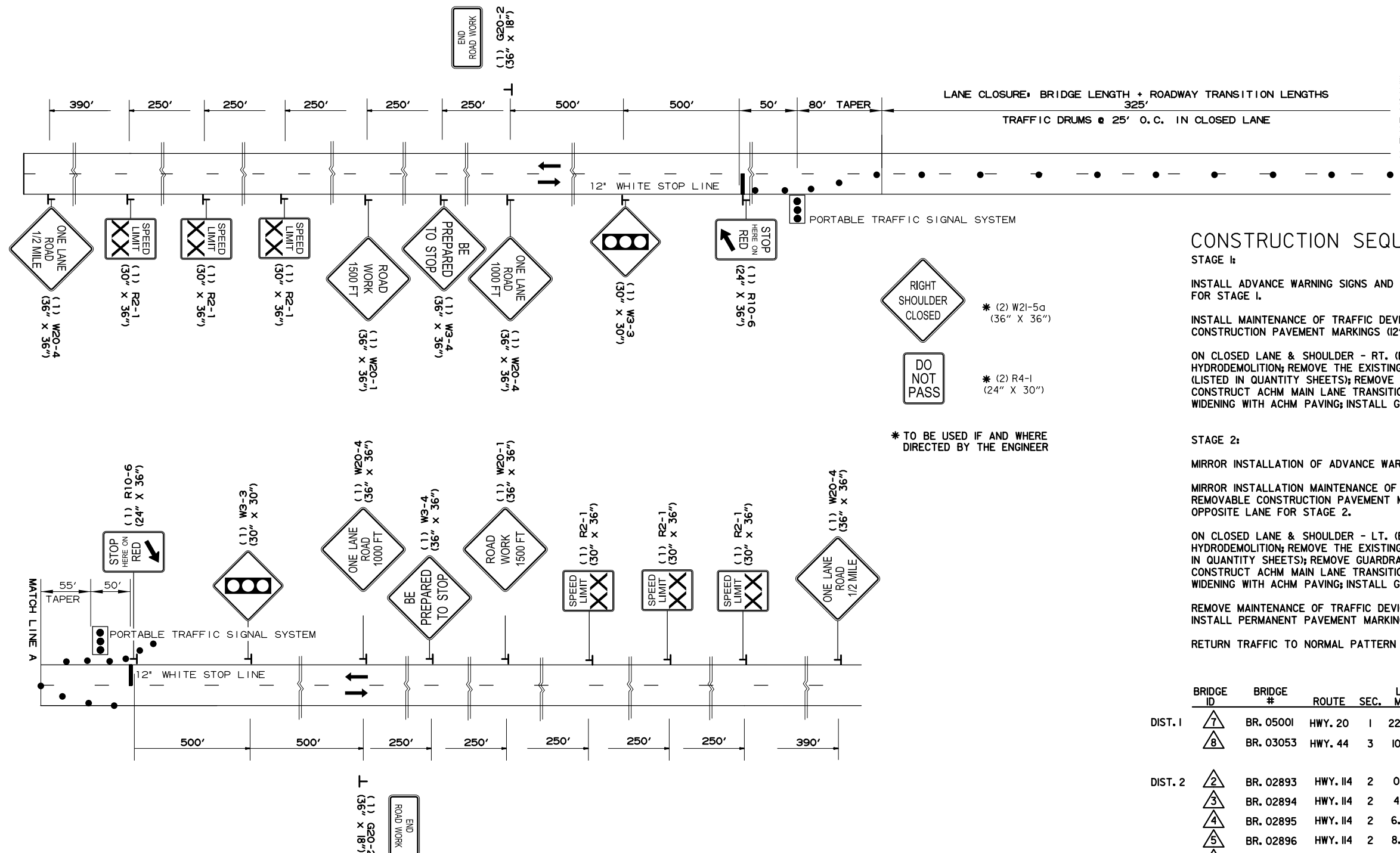
NOTES:

1. ACHM SHALL BE PLACED FOR ROADWAY TRANSITIONS/REPAIR AND GUARDRAIL WIDENING AFTER HYDRODEMOLITION HAS BEEN COMPLETED.
2. DIMENSIONS AND QUANTITIES WILL BE FIELD VERIFIED BY THE ENGINEER AND ARE SHOWN FOR ESTIMATING AND BIDDING PURPOSES ONLY. QUANTITIES WILL BE PAID BY ACTUAL MEASUREMENTS TAKEN IN THE FIELD.

1. THE CONTRACTOR SHALL PROVIDE 2-WAY RADIO COMMUNICATION FOR FLAG PERSON FOR CONSTRUCTION UNDER TRAFFIC.
2. THE CONTRACTOR SHALL FURNISH AND MAINTAIN STD. W8-I "BUMP" SIGNS (30" X 30") WITH BLACK LEGEND ON ORANGE BACKGROUND AT ALL TRANSVERSE JOINTS EXPOSED TO TRAFFIC.
3. THE CONTRACTOR SHALL FURNISH AND MAINTAIN STD. W8-II "UNEVEN LANES" SIGNS (48" X 48") WITH BLACK LEGEND ON ORANGE BACKGROUND AT ALL LONGITUDINAL JOINTS DURING MILLING AND PAVING OPERATIONS.
4. THE EDGE LINES SHALL NOT BE PLACED ON THE FINISHED ASPHALT SURFACE UNTIL AFTER ALL WORK ADJACENT TO THE PAVEMENT EDGE, INCLUDING SPREADING, COMPACTING AND ETC. IS COMPLETED IN ORDER TO AVOID DAMAGING THE EDGE LINES.

6. VERTICAL PANELS MAY BE SUBSTITUTED FOR TRAFFIC DRUMS ON THE BRIDGE DECK IF AND WHERE DIRECTED BY THE ENGINEER WHEN ACTIVE WORK IS ONGOING. VERTICAL PANEL QUANTITIES ARE PROVIDED FOR BRIDGES WITH CLEAR ROADWAY WIDTH OF 28'-0" OR LESS.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
5-17-2021				6	ARK.			
				JOB NO.		012375	14	30
				2 MAINTENANCE OF TRAFFIC DETAILS				



- TRAFFIC DRUM/VERTICAL PANEL PLACEMENT
- ⊥ TEMPORARY TRAFFIC SIGN
- ➡ TRAFFIC FLOW ARROWS

LANE CLOSURE WITH PORTABLE TRAFFIC SIGNAL
SYSTEM & TRAFFIC DRUMS FOR HYDRODEMOLITION
(VAR. CLEAR ROADWAY ON THE BRIDGE DECKS)

STAGE 1:

INSTALL ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS AT THE LOCATIONS SHOWN FOR STAGE I.

INSTALL MAINTENANCE OF TRAFFIC DEVICES AS SHOWN IN STAGE I AND REMOVABLE CONSTRUCTION PAVEMENT MARKINGS (12" WH. STOP LINES).

ON CLOSED LANE & SHOULDER - RT. (BRIDGE AND ROADWAY); CONSTRUCT BRIDGE
HYDRODEMOLITION; REMOVE THE EXISTING APPROACH GUTTERS
(LISTED IN QUANTITY SHEETS); REMOVE GUARDRAIL AT SITES FOR GUARDRAIL INSTALLATIONS;
CONSTRUCT ACHM MAIN LANE TRANSITIONS; CONSTRUCT APPROACH GUTTERS AND GUARDRAIL
WIDENING WITH ACHM PAVING; INSTALL GUARDRAIL.

STAGE 2:

MIRROR INSTALLATION OF ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS FOR STAGE 2.

MIRROR INSTALLATION MAINTENANCE OF TRAFFIC DEVICES FOR STAGE 2 AND INSTALL REMOVABLE CONSTRUCTION PAVEMENT MARKINGS (12" WH. STOP LINES). SHIFT TRAFFIC ONTO OPPOSITE LANE FOR STAGE 2.

ON CLOSED LANE & SHOULDER - LT. (BRIDGE AND ROADWAY); CONSTRUCT BRIDGE HYDRODEMOLITION; REMOVE THE EXISTING APPROACH GUTTERS (LISTED IN QUANTITY SHEETS); REMOVE GUARDRAIL AT SITES FOR GUARDRAIL INSTALLATIONS; CONSTRUCT ACHM MAIN LANE TRANSITIONS; CONSTRUCT APPROACH GUTTERS AND GUARDRAIL WIDENING WITH ACHM PAVING; INSTALL GUARDRAIL.

REMOVE MAINTENANCE OF TRAFFIC DEVICES & REMOVABLE CONSTRUCTION PAVEMENT MARKINGS.
INSTALL PERMANENT PAVEMENT MARKINGS.

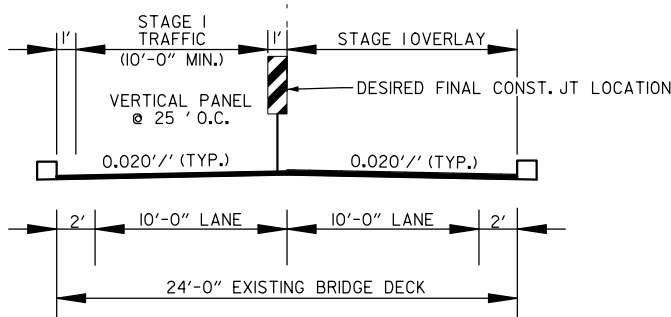
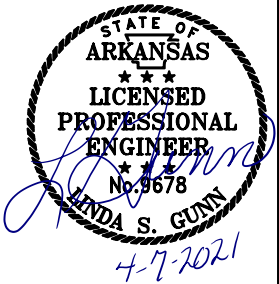
RETURN TRAFFIC TO NORMAL PATTERN ON ROADWAY.

	BRIDGE ID	BRIDGE #	ROUTE	SEC.	LOG MILE	TRAFFIC DRUMS	VERTICAL PANELS
DIST. 1		BR. 05001	HWY. 20	1	22.436	0	42
		BR. 03053	HWY. 44	3	10.212	0	34
DIST. 2		BR. 02893	HWY. 114	2	0.831	0	30
		BR. 02894	HWY. 114	2	4.149	0	27
		BR. 02895	HWY. 114	2	6.636	0	25
		BR. 02896	HWY. 114	2	8.454	0	26
		BR. M3479	HWY. 83	1S	0.407	44	0
DIST. 6		BR. 03022	HWY. 35	1	9.954	0	35

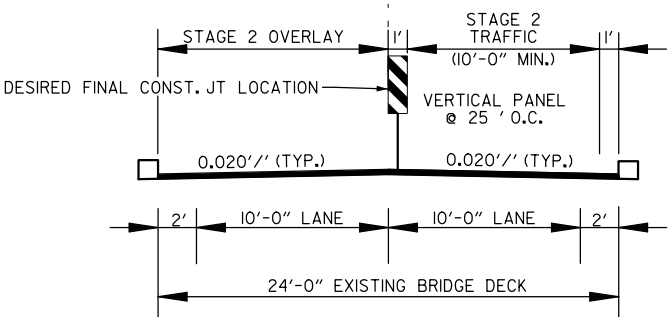
ADVANCE WARNING
(2 LANE ROADWAY)
MAINTENANCE OF
TRAFFIC DETAILS

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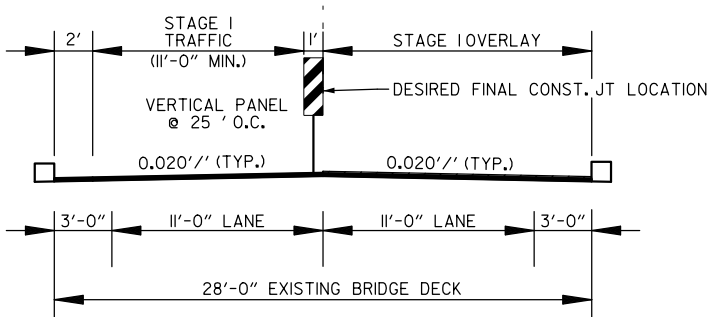
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				2 MAINTENANCE OF TRAFFIC DETAILS				



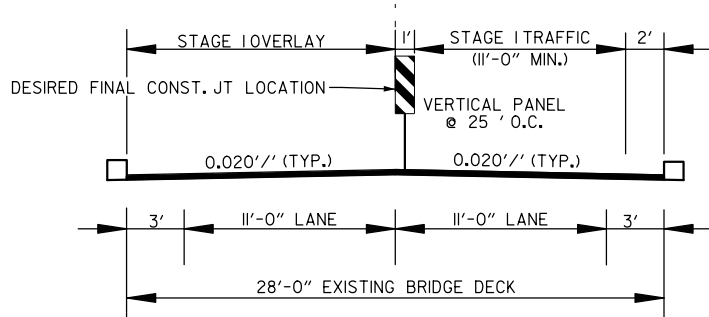
2 LANE BRIDGES



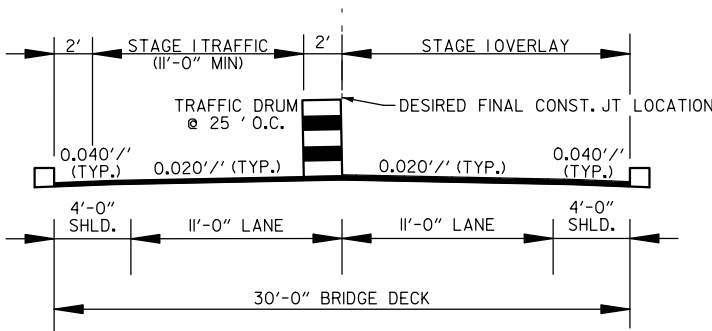
2 LANE BRIDGES



2 LANE BRIDGES

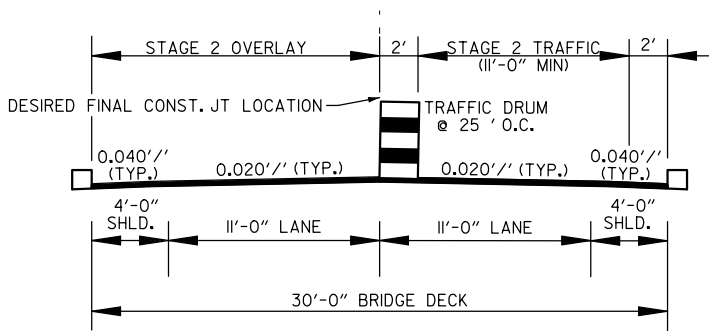


2 LANE BRIDGES



2 LANE BRIDGE

STAGE 1



2 LANE BRIDGE

STAGE 2

TYPICAL SECTIONS
(2 LANE ROADWAYS)
MAINTENANCE
OF TRAFFIC DETAILS

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ADVANCE WARNING SIGNS AND DEVICES (DISTRICT 6 - BOX 1 OF 3)										
LANE CLOSURE FOR BRIDGES										
SIGN NUMBER	DESCRIPTION	SIGN SIZE	STAGE 1	STAGE 2	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		*VERTICAL PANELS	*TRAFFIC DRUMS	**PORTABLE TRAFFIC SIGNAL SYSTEM-ACTUATED
			LIN. FT. - EACH			NO.	SQ. FT.	EACH	EACH	WEEK
ADVANCE WARNING SIGNS										
W20-1	ROAD WORK 1500 FT.	36"x36"	2	2	2	2	18.0			
W20-4	ONE LANE ROAD 1/2 MILE	36"x36"	2	2	2	2	18.0			
W20-4	ONE LANE ROAD 1000 FT.	36"x36"	2	2	2	2	18.0			
G20-2	END ROAD WORK	36"x18"	2	2	2	2	9.0			
W3-3	ADVANCED TRAFFIC CONTROL - TRAFFIC SIGNAL	30"x30"	2	2	2	2	12.5			
W3-4	BE PREPARED TO STOP	36"x36"	2	2	2	2	18.0			
R2-1	SPEED LIMIT	30"x36"	6	6	6	6	45.0			
R4-1	DO NOT PASS	24"x30"	2	2	2	2	10.0			
R10-6	STOP HERE ON RED	24"x36"	2	2	2	2	12.0			
W21-5a	RIGHT SHOULDER CLOSED	36"x36"	2	2	2	2	18.0			
W8-1	BUMP	30"x30"	2	2	2	2	12.5			
W8-11	UNEVEN LANES	48"x48"	2	2	2	2	32.0			
SUBTOTAL (DISTRICT 6 - ADVANCE WARNING SIGNS):							223.0			
ADVANCE DEVICES										
	VERTICAL PANELS		35	35	35			35		
	PORTABLE TRAFFIC SIGNAL SYSTEM-ACTUATED		2	2	4					4
SUBTOTALS (DISTRICT 6):							223.0	35		4

ADVANCE WARNING SIGNS AND DEVICES (DISTRICT 1 - BOX 2 OF 3)										
LANE CLOSURE FOR BRIDGES										
SIGN NUMBER	DESCRIPTION	SIGN SIZE	STAGE 1	STAGE 2	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		*VERTICAL PANELS	*TRAFFIC DRUMS	**PORTABLE TRAFFIC SIGNAL SYSTEM-ACTUATED
						NO.	SQ. FT.	EACH	EACH	WEEK
ADVANCE WARNING SIGNS										
W20-1	ROAD WORK 1500 FT.	36"x36"	4	4	4	4	36.0			
W20-4	ONE LANE ROAD 1/2 MILE	36"x36"	4	4	4	4	36.0			
W20-4	ONE LANE ROAD 1000 FT.	36"x36"	4	4	4	4	36.0			
G20-2	END ROAD WORK	36"x18"	4	4	4	4	18.0			
W3-3	ADVANCED TRAFFIC CONTROL - TRAFFIC SIGNAL	30"x30"	4	4	4	4	25.0			
W3-4	BE PREPARED TO STOP	36"x36"	4	4	4	4	36.0			
R2-1	SPEED LIMIT	30"x36"	12	12	12	12	90.0			
R4-1	DO NOT PASS	24"x30"	4	4	4	4	20.0			
R10-6	STOP HERE ON RED	24"x36"	4	4	4	4	24.0			
W21-5a	RIGHT SHOULDER CLOSED	36"x36"	4	4	4	4	36.0			
W8-1	BUMP	30"x30"	4	4	4	4	25.0			
W8-11	UNEVEN LANES	48"x48"	4	4	4	4	64.0			
SUBTOTAL (DISTRICT 6 - ADVANCE WARNING SIGNS):							446.0			
ADVANCE DEVICES										
	VERTICAL PANELS		42	42	42			42		
	PORTABLE TRAFFIC SIGNAL SYSTEM-ACTUATED		11	11	22					22
SUBTOTALS (DISTRICT 1):							446.0	42		22

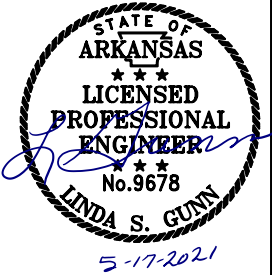
ADVANCE WARNING SIGNS AND DEVICES (DISTRICT 2 - BOX 3 OF 3)										
LANE CLOSURE FOR BRIDGES										
SIGN NUMBER	DESCRIPTION	SIGN SIZE	STAGE 1	STAGE 2	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		*VERTICAL PANELS	*TRAFFIC DRUMS	**PORTABLE TRAFFIC SIGNAL SYSTEM-ACTUATED
			LIN. FT. - EACH			NO.	SQ. FT.	EACH	EACH	WEEK
ADVANCE WARNING SIGNS										
W20-1	ROAD WORK 1500 FT.	36"x36"	4	4	4	4	36.0			
W20-4	ONE LANE ROAD 1/2 MILE	36"x36"	4	4	4	4	36.0			
W20-4	ONE LANE ROAD 1000 FT.	36"x36"	4	4	4	4	36.0			
G20-2	END ROAD WORK	36"x18"	4	4	4	4	18.0			
W3-3	ADVANCED TRAFFIC CONTROL - TRAFFIC SIGNAL	30"x30"	4	4	4	4	25.0			
W3-4	BE PREPARED TO STOP	36"x36"	4	4	4	4	36.0			
R2-1	SPEED LIMIT	30"x36"	12	12	12	12	90.0			
R4-1	DO NOT PASS	24"x30"	4	4	4	4	20.0			
R10-6	STOP HERE ON RED	24"x36"	4	4	4	4	24.0			
W21-5a	RIGHT SHOULDER CLOSED	36"x36"	4	4	4	4	36.0			
W8-1	BUMP	30"x30"	4	4	4	4	25.0			
W8-11	UNEVEN LANES	48"x48"	4	4	4	4	64.0			
SUBTOTAL (DISTRICT 2 - ADVANCE WARNING SIGNS):							446.0			
ADVANCE DEVICES										
	VERTICAL PANELS		56	56	56			56		
	TRAFFIC DRUMS		44	44	44				44	
	PORTABLE TRAFFIC SIGNAL SYSTEM-ACTUATED		4	4	4					4
SUBTOTALS (DISTRICT 2):							446.0	56	44	4
SUBTOTALS (DISTRICT 1 - BOX 2 OF 3):							446.0	42		22
SUBTOTALS (DISTRICT 2 - BOX 3 OF 3):							446.0	56	44	4
SUBTOTALS (DISTRICT 6 - BOX 1 OF 3):							223.0	35		4
PROJECT TOTALS:							1115.0	133	44	30

*THESE MAINTENANCE OF TRAFFIC ITEMS ARE TO BE RELOCATED BETWEEN BRIDGE SITES AND DISTRICTS IF AND WHERE DIRECTED BY THE ENGINEER.
**THESE ITEMS ARE ALSO TO BE RELOCATED BETWEEN BRIDGE SITES AND DISTRICTS IF AND WHERE DIRECTED BY THE ENGINEER. THE TOTAL REPRESENTS AN ESTIMATED TIME USAGE.

NOTES: 2 LANE ROADS HAVE BOTH HIGH AND LOW TRAFFIC VOLUME IN EACH DISTRICT AS DEFINED IN SECTION 604.03 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2014. REFER TO PERMANENT PAVEMENT MARKING DETAILS FOR LIST OF HIGH AND LOW ROADS IN EACH DISTRICT.

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

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
5-17-2021				6	ARK.			
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				QUANTITIES				



QUANTITIES

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5-17-2021				6	ARK.			
				JOB NO.		012375	18	30
				QUANTITIES				

2



REMOVAL AND DISPOSAL OF GUARDRAIL (DIST. 6 - BOX 1 OF 3)

BR. ID # (TITLE SHEET)	BRIDGE STRUCTURE NO.	ROUTE	LOG MILE	LOCATION	R & D GUARDRAIL
					LIN. FT.
1	03022	35	9.954	SOUTH RT.	29
				NORTH RT.	29
				SOUTH LT.	29
				NORTH LT.	29
SUBTOTAL:					116

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

REMOVAL AND DISPOSAL OF GUARDRAIL (DIST. 2 - BOX 2 OF 3)

BR. ID # (TITLE SHEET)	BRIDGE STRUCTURE NO.	ROUTE	LOG MILE	LOCATION	R & D GUARDRAIL
					LIN. FT.
6	M3479	83	0.407	WEST RT.	198
				EAST RT.	75
				WEST LT.	75
				EAST LT.	198
SUBTOTAL:					546

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

REMOVAL AND DISPOSAL OF GUARDRAIL (DIST. 1 - BOX 3 OF 3)

BR. ID # (TITLE SHEET)	BRIDGE STRUCTURE NO.	ROUTE	LOG MILE	LOCATION	R & D GUARDRAIL
					LIN. FT.
7	05001	20	22.436	SOUTH RT.	53
				NORTH RT.	41
				SOUTH LT.	41
				NORTH LT.	53
8	03053	44	10.212	SOUTH RT.	29
				NORTH RT.	
				SOUTH LT.	29
				NORTH LT.	
SUBTOTAL:					246

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

SUBTOTAL (DIST. 1 - BOX 3 OF 3):	246
SUBTOTAL (DIST. 2 - BOX 2 OF 3):	546
SUBTOTAL (DIST. 6 - BOX 1 OF 3):	116
PROJECT TOTAL:	908

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

GUARDRAIL (DIST. 6 - BOX 1 OF 3)

BR. ID # (TITLE SHEET)	BRIDGE STRUCTURE NO.	ROUTE	LOG MILE	LOCATION	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	BRIDGE END TERMINAL
					LIN. FT.		EACH	
1	03022	35	9.954	SOUTH RT.	150		1	
				NORTH RT.	75		1	
				SOUTH LT.	75		1	
				NORTH LT.				1
SUBTOTALS:					300		3	1

NOTES: 1. THE NOTCHING OF THE END CONCRETE POST REQUIRED TO INSTALL THE THRIE BEAM IS SUBSIDIARY TO THE BID PRICE FOR THE NEW THRIE BEAM GUARDRAIL.
2. BRIDGES WITH REPLACEMENT APPROACH GUTTERS (TYPE CT) HAVE W-BEAM BRIDGE RAILS AND DO NOT REQUIRE THRIE BEAMS.

GUARDRAIL (DIST. 2 - BOX 2 OF 3)

BR. ID # (TITLE SHEET)	BRIDGE STRUCTURE NO.	ROUTE	LOG MILE	LOCATION	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	BRIDGE END TERMINAL
					LIN. FT.	EACH		
6	M3479	83	0.407	WEST RT.	150	1	1	
				EAST RT.	75	1	1	
				WEST LT.	75	1	1	
				EAST LT.	150	1	1	
SUBTOTALS:					450	4	4	

NOTES: 1. THE NOTCHING OF THE END CONCRETE POST REQUIRED TO INSTALL THE THRIE BEAM IS SUBSIDIARY TO THE BID PRICE FOR THE NEW THRIE BEAM GUARDRAIL.
2. BRIDGES WITH REPLACEMENT APPROACH GUTTERS (TYPE CT) HAVE W-BEAM BRIDGE RAILS AND DO NOT REQUIRE THRIE BEAMS.

GUARDRAIL (DIST. 1 - BOX 3 OF 3)

BR. ID # (TITLE SHEET)	BRIDGE STRUCTURE NO.	ROUTE	LOG MILE	LOCATION	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	BRIDGE END TERMINAL
					LIN. FT.		EACH	
7	05001	20	22.436	SOUTH RT.	150	1	1	
				NORTH RT.	75	1	1	
				SOUTH LT.	75	1	1	
				NORTH LT.				1
8	03053	44	10.212	SOUTH RT.	25		1	
				NORTH RT.	75		1	
				SOUTH LT.				1
				NORTH LT.	150		1	
SUBTOTALS:					550	3	6	2

NOTES: 1. THE NOTCHING OF THE END CONCRETE POST REQUIRED TO INSTALL THE THRIE BEAM IS SUBSIDIARY TO THE BID PRICE FOR THE NEW THRIE BEAM GUARDRAIL.
2. BRIDGES WITH REPLACEMENT APPROACH GUTTERS (TYPE CT) HAVE W-BEAM BRIDGE RAILS AND DO NOT REQUIRE THRIE BEAMS.

SUBTOTALS (DIST. 1 - BOX 3 OF 3):	550	3	6	2
SUBTOTALS (DIST. 2 - BOX 2 OF 3):	450	4	4	
SUBTOTALS (DIST. 6 - BOX 1 OF 3):	300		3	1
PROJECT TOTALS:	1300	7	13	3

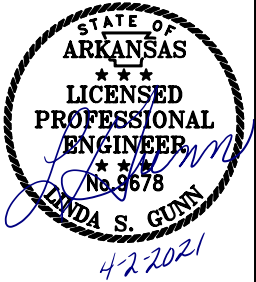
NOTES: 1. THE NOTCHING OF THE END CONCRETE POST REQUIRED TO INSTALL THE THRIE BEAM IS SUBSIDIARY TO THE BID PRICE FOR THE NEW THRIE BEAM GUARDRAIL.
2. BRIDGES WITH REPLACEMENT APPROACH GUTTERS (TYPE CT) HAVE W-BEAM BRIDGE RAILS AND DO NOT REQUIRE THRIE BEAMS.

QUANTITIES

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REVISED DATE: **REVIDATE**

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
					JOB NO.	012375	19	30
				QUANTITIES				

2



BASE AND SURFACING - MAIN LANE TRANSITIONS (DIST. 6 BOX 1 OF 3)

BR. ID # (TITLE SHEET)	BR. STRUCTURE NO.	ROUTE	LOG MILE	LOCATION	TRANSITION LENGTH	TACK COAT			ACHM SURFACE COURSE (1/2")				
						(0.17 GAL. PER SQ. YD.)			AVG. WID.	SQ.YD.	POUND / SQ.YD.	TOTAL PG 64-22	TOTAL PG 70-22
						TOTAL WID.	SQ.YD.	GALLON					
1	03022	35	9.954	MAIN LANE TRANSITION	100.00	20	222.22	37.78	20	222.22	220	24.44	
				M.L. TO GUARDRAIL END	311.00	22	760.22	129.24	22	760.22	220	83.62	
				SHLDR. AVG. TO GUARDRAIL END	299.50	12	399.33	67.89	12	399.33	220	43.93	
				SUBTOTALS:			1381.77	234.91		1381.77		151.99	

BASIS OF ESTIMATE (DIST. 6):
(PG 64-22) ACHM SURFACE COURSE (1/2").....94.8% MIN. AGGR.....5.2% ASPHALT BINDER

MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

BASE AND SURFACING - MAIN LANE TRANSITIONS (DIST. 2 BOX 2 OF 3)

BR. ID # (TITLE SHEET)	BR. STRUCTURE NO.	ROUTE	LOG MILE	LOCATION	TRANSITION LENGTH FEET	TACK COAT (0.17 GAL. PER SQ. YD.)			ACHM SURFACE COURSE (1/2")				
						TOTAL WID. FEET	SQ. YD.	GALLON	AVG. WID. FEET	SQ. YD.	POUND / SQ. YD.	TOTAL PG 64-22 TON	TOTAL PG 70-22 TON
2	02893	114	0.831	MAIN LANE TRANSITION	200.00	20	444.44	75.55	20	444.44	220	48.89	
3	02894	114	4.149	MAIN LANE TRANSITION	200.00	20	444.44	75.55	20	444.44	220	48.89	
4	02895	114	6.636	MAIN LANE TRANSITION	200.00	20	444.44	75.55	20	444.44	220	48.89	
5	02896	114	8.454	MAIN LANE TRANSITION	200.00	20	444.44	75.55	20	444.44	220	48.89	
6	M3479	83	0.407	MAIN LANE TRANSITION	200.00	24	533.33	90.67	24	533.33	220		58.67
SUBTOTALS:							2311.09	392.87		2311.09		195.56	58.67

BASIS OF ESTIMATE (DIST. 2):
(PG 64-22 & PG 70-22) ACHM SURFACE COURSE (1/2").....94.9% MIN. AGGR.....5.1% ASPHALT BINDER

MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22
MAXIMUM NUMBER OF GYRATIONS = 160 FOR PG 70-22
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

BASE AND SURFACING - MAIN LANE TRANSITIONS (DIST. 1 BOX 3 OF 3)

BR. ID # (TITLE SHEET)	BR. STRUCTURE NO.	ROUTE	LOG MILE	LOCATION	TRANSITION LENGTH	TACK COAT			ACHM SURFACE COURSE (1/2")				
						(0.17 GAL. PER SQ. YD.)			AVG. WID.	SQ.YD.	POUND / SQ.YD.	TOTAL PG 64-22	TOTAL PG 70-22
						TOTAL WID.	SQ.YD.	GALLON					
					FEET	FEET							
7	05001	20	22.436	MAIN LANE TRANSITION	100.00	22	244.44	41.55	22	244.44	220		26.89
				M.L. TO GUARDRAIL END	298.75	22	730.28	124.15	22	730.28	220		80.33
				SHLDR. AVG. TO GUARDRAIL END	327.75	14	509.83	86.67	14	509.83	220		56.08
8	03053	44	10.212	MAIN LANE TRANSITION	200.00	20	444.44	75.55	20	444.44	220	48.89	
				M.L. TO GUARDRAIL END	161.00	20	357.78	60.82	20	357.78	220	39.36	
				SHLDR. AVG. TO GUARDRAIL END	274.50	10	305.00	51.85	10	305.00	220	33.55	
SUBTOTALS:							2591.77	440.59		2591.77		121.80	163.30

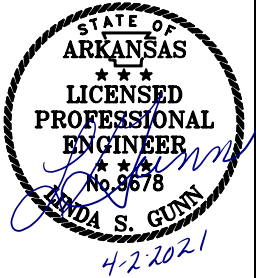
BASIS OF ESTIMATE (DIST. 1):
(PG 64-22) ACHM SURFACE COURSE (1/2").....94.8% MIN. AGGR.....5.2% ASPHALT BINDER
(PG 70-22) ACHM SURFACE COURSE (1/2").....95.1% MIN. AGGR.....4.9% ASPHALT BINDER

MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22
MAXIMUM NUMBER OF GYRATIONS = 160 FOR PG 70-22
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

SUBTOTALS (DIST. 1 - BOX 3 OF 3):		440.59				121.80	163.30
SUBTOTALS (DIST. 2 - BOX 2 OF 3):		392.87				195.56	58.67
SUBTOTALS (DIST. 6 - BOX 1 OF 3):		234.91				151.99	
PROJECT TOTALS:		1068.37				469.35	221.97

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REVISED DATE: **REVIDATE**

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012375	20	30
②QUANTITIES								



BASE AND SURFACING (ADD'L FOR GUARDRAIL) - (DIST. 6 - BOX 1 OF 3)

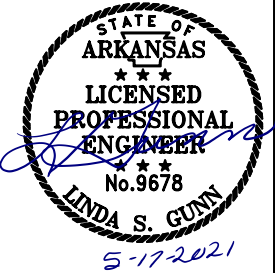
BR. ID # (TITLE SHEET)	BR. STRUCTURE NO.	ROUTE	LOG MILE	BR. DIRECTION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		ACHM SURFACE COURSE (1/2")				
						FEET	TON / STATION	TON	AVG. WID. FEET	SQ.YD.	POUND / SQ.YD.	TOTAL PG 64-22 TON	TOTAL PG 70-22 TON
1	03022	35	9.954	SOUTH RT.	GUARDRAIL WIDENING - RT.	33.00	19.50	6.44	2.75	10.08	220	1.11	
					GUARDRAIL WIDENING - RT.	10.00	39.25	3.93	5.50	6.11	220	0.67	
					GUARDRAIL WIDENING - RT.	160.00	32.00	51.20	4.50	80.00	220	8.80	
					GUARDRAIL WIDENING - RT.	40.00	25.00	10.00	3.50	15.56	220	1.71	
				NORTH RT.	GUARDRAIL WIDENING - RT.	40.00	25.00	10.00	3.50	15.56	220	1.71	
					GUARDRAIL WIDENING - RT.	85.00	32.00	27.20	4.50	42.50	220	4.68	
					GUARDRAIL WIDENING - RT.	10.00	39.25	3.93	5.50	6.11	220	0.67	
					GUARDRAIL WIDENING - RT.	33.00	19.50	6.44	2.75	10.08	220	1.11	
				SOUTH LT.	GUARDRAIL WIDENING - LT.	40.00	25.00	10.00	3.50	15.56	220	1.71	
					GUARDRAIL WIDENING - LT.	85.00	32.00	27.20	4.50	42.50	220	4.68	
					GUARDRAIL WIDENING - LT.	10.00	39.25	3.93	5.50	6.11	220	0.67	
					GUARDRAIL WIDENING - LT.	33.00	19.50	6.44	2.75	10.08	220	1.11	
				NORTH LT.	BRIDGE END TERMINAL - LT.	20.00	19.50	3.90	2.75	6.11	220	0.67	
					BRIDGE END TERMINAL - LT.	29.00	39.25	11.38	5.50	17.72	220	1.95	
					SUBTOTALS:				181.99		284.08		31.25

BASIS OF ESTIMATE (DIST. 6):
(PG 64-22) ACHM SURFACE COURSE (1/2").....94.8% MIN. AGGR.....5.2% ASPHALT BINDER

MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
5-17-2021				6	ARK.			
					JOB NO.	012375	21	30
②QUANTITIES								



BASE AND SURFACING (ADD'L FOR GUARDRAIL) - (DIST. 2 BOX 2 OF 3)														
BR. ID # (TITLE SHEET)	BR. STRUCTURE NO.	ROUTE	LOG MILE	BR. DIRECTION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		ACHM SURFACE COURSE (1/2")					
						FEET	TON / STATION	TON	AVG. WID.	SQ.YD.	POUND / SQ.YD.	TOTAL PG 64-22	TOTAL PG 70-22	
									FEET			TON		
6	M3479	83	0.407	WEST RT.	GUARDRAIL WIDENING - RT.	33.00	19.50	6.44	2.75	10.08	220		1.11	
					GUARDRAIL WIDENING - RT.	10.00	39.25	3.93	5.50	6.11	220		0.67	
					GUARDRAIL WIDENING - RT.	175.00	32.00	56.00	4.50	87.50	220		9.63	
					GUARDRAIL WIDENING - RT.	43.75	25.00	10.94	3.50	17.01	220		1.87	
				EAST RT.	GUARDRAIL WIDENING - RT.	43.75	25.00	10.94	3.50	17.01	220		1.87	
					GUARDRAIL WIDENING - RT.	100.00	32.00	32.00	4.50	50.00	220		5.50	
					GUARDRAIL WIDENING - RT.	10.00	39.25	3.93	5.50	6.11	220		0.67	
					GUARDRAIL WIDENING - RT.	33.00	19.50	6.44	2.75	10.08	220		1.11	
				WEST LT.	GUARDRAIL WIDENING - LT.	43.75	25.00	10.94	3.50	17.01	220		1.87	
					GUARDRAIL WIDENING - LT.	100.00	32.00	32.00	4.50	50.00	220		5.50	
					GUARDRAIL WIDENING - LT.	10.00	39.25	3.93	5.50	6.11	220		0.67	
					GUARDRAIL WIDENING - LT.	33.00	19.50	6.44	2.75	10.08	220		1.11	
				EAST LT.	GUARDRAIL WIDENING - LT.	33.00	19.50	6.44	2.75	10.08	220		1.11	
					GUARDRAIL WIDENING - LT.	10.00	39.25	3.93	5.50	6.11	220		0.67	
					GUARDRAIL WIDENING - LT.	175.00	32.00	56.00	4.50	87.50	220		9.63	
					GUARDRAIL WIDENING - LT.	43.75	25.00	10.94	3.50	17.01	220		1.87	
SUBTOTALS:								261.24		407.80			44.86	

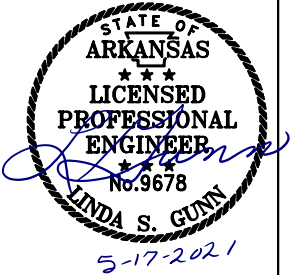
BASIS OF ESTIMATE (DIST. 2):
(PG 64-22 & PG 70-22) ACHM SURFACE COURSE (1/2").....94.9% MIN. AGGR.....5.1% ASPHALT BINDER

MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22
MAXIMUM NUMBER OF GYRATIONS = 160 FOR PG 70-22
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
5-17-2021				6	ARK.			
				JOB NO.		012375	22	30
				QUANTITIES				

2



BASE AND SURFACING (ADD'L FOR GUARDRAIL) - (DIST. 1 BOX 3 OF 3)

BR. ID # (TITLE SHEET)	BR. STRUCTURE NO.	ROUTE	LOG MILE	BR. DIRECTION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		ACHM SURFACE COURSE (1/2")								
						FEET	TON / STATION	TON	AVG. WID.	SQ.YD.	POUND / SQ.YD.	TOTAL PG 64-22 TON	TOTAL PG 70-22 TON				
									FEET								
7	05001	20	22.436	SOUTH RT.	GUARDRAIL WIDENING - RT.	33.00	19.50	6.44	2.75	10.08	220		1.11				
					GUARDRAIL WIDENING - RT.	10.00	39.25	3.93	5.50	6.11	220		0.67				
					GUARDRAIL WIDENING - RT.	175.00	32.00	56.00	4.50	87.50	220		9.63				
				NORTH RT.	GUARDRAIL WIDENING - RT.	43.75	25.00	10.94	3.50	17.01	220		1.87				
					GUARDRAIL WIDENING - RT.	43.75	25.00	10.94	3.50	17.01	220		1.87				
					GUARDRAIL WIDENING - RT.	100.00	32.00	32.00	4.50	50.00	220		5.50				
				SOUTH LT.	GUARDRAIL WIDENING - RT.	10.00	39.25	3.93	5.50	6.11	220		0.67				
					GUARDRAIL WIDENING - RT.	33.00	19.50	6.44	2.75	10.08	220		1.11				
					GUARDRAIL WIDENING - LT.	43.75	25.00	10.94	3.50	17.01	220		1.87				
				NORTH LT.	GUARDRAIL WIDENING - LT.	100.00	32.00	32.00	4.50	50.00	220		5.50				
					GUARDRAIL WIDENING - LT.	10.00	39.25	3.93	5.50	6.11	220		0.67				
					GUARDRAIL WIDENING - LT.	33.00	19.50	6.44	2.75	10.08	220		1.11				
				8	03053	44	10.212	SOUTH RT.	BRIDGE END TERMINAL - LT.	20.00	19.50	3.90	2.75	6.11	220		0.67
									BRIDGE END TERMINAL - LT.	10.00	39.25	3.93	5.50	6.11	220		0.67
									BRIDGE END TERMINAL - LT.	33.00	25.00	8.25	3.50	12.83	220		1.41
NORTH RT.	GUARDRAIL WIDENING - RT.	8.14	39.25					3.19	5.50	4.97	220	0.67					
	GUARDRAIL WIDENING - RT.	35.00	32.00					11.20	4.50	17.50	220	1.41					
	GUARDRAIL WIDENING - RT.	40.00	25.00					10.00	3.50	15.56	220	1.41					
8	03053	44	10.212	NORTH RT.	GUARDRAIL WIDENING - RT.	40.00	25.00	10.00	3.50	15.56	220	1.71					
					GUARDRAIL WIDENING - RT.	85.00	32.00	27.20	4.50	42.50	220	4.68					
					GUARDRAIL WIDENING - RT.	10.00	39.25	3.93	5.50	6.11	220	0.67					
				SOUTH LT.	GUARDRAIL WIDENING - RT.	33.00	19.50	6.44	2.75	10.08	220	1.11					
					BRIDGE END TERMINAL - LT.	20.00	19.50	3.90	2.75	6.11	220	0.67					
					BRIDGE END TERMINAL - LT.	25.00	39.25	9.81	5.50	15.28	220	1.68					
NORTH LT.	GUARDRAIL WIDENING - LT.	33.00	19.50	6.44	2.75	10.08	220	1.11									
	GUARDRAIL WIDENING - LT.	10.00	39.25	3.93	5.50	6.11	220	0.67									
	GUARDRAIL WIDENING - LT.	160.00	32.00	51.20	4.50	80.00	220	8.80									
SUBTOTALS:								357.25		557.57		26.30	34.33				

BASIS OF ESTIMATE (DIST. 1):
(PG 64-22) ACHM SURFACE COURSE (1/2").....94.8% MIN. AGGR.....5.2% ASPHALT BINDER
(PG 70-22) ACHM SURFACE COURSE (1/2").....95.1% MIN. AGGR.....4.9% ASPHALT BINDER

MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22
MAXIMUM NUMBER OF GYRATIONS = 160 FOR PG 70-22
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

SUBTOTALS (DIST. 1 BOX 3 OF 3):	357.25				26.30	34.33
SUBTOTALS (DIST. 2 BOX 2 OF 3):	261.24					44.86
SUBTOTALS (DIST. 6 BOX 1 OF 3):	181.99				31.25	
PROJECT TOTALS :	800.48				57.55	79.19

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REVISED DATE: **REVIDATE**

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012375	23	30
2QUANTITIES								



TRENCHING AND SHOULDER PREPARATION - MAINT. OF TRAFFIC (DIST. 6 - BOX 1 OF 3)

LOCATION	LENGTH	TRENCHING & SHOULDER PREPARATION	AGGREGATE BASE COURSE (CLASS 7)		ACHM SURFACE COURSE (1/2")			
			TON / STATION	TON	AVG. WID. FEET	SQ.YD.	POUND / SQ.YD.	TOTAL PG 64-22 TON
ENTIRE PROJECT - DIST. 6	400.00	4	47.00	188.00	3.00	133.33	220.00	14.67
SUBTOTALS:			4	188.00		133.33		14.67

BASIS OF ESTIMATE (DIST. 6):
(PG 64-22) ACHM SURFACE COURSE (1/2").....94.8% MIN. AGGR.....5.2% ASPHALT BINDER

MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22

TRENCHING AND SHOULDER PREPARATION - MAINT. OF TRAFFIC (DIST. 2 - BOX 2 OF 3)

LOCATION	LENGTH	TRENCHING & SHOULDER PREPARATION	AGGREGATE BASE COURSE (CLASS 7)		ACHM SURFACE COURSE (1/2")			
			TON / STATION	TON	AVG. WID. FEET	SQ.YD.	POUND / SQ.YD.	TOTAL PG 64-22 TON
ENTIRE PROJECT - DIST. 2	1500.00	15	36.00	540.00	3.00	500.00	220.00	55.00
SUBTOTALS:			15	540.00		500.00		55.00

BASIS OF ESTIMATE (DIST. 2):
(PG 64-22) ACHM SURFACE COURSE (1/2").....94.9% MIN. AGGR.....5.1% ASPHALT BINDER

MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22

TRENCHING AND SHOULDER PREPARATION - MAINT. OF TRAFFIC (DIST. 1 - BOX 3 OF 3)

LOCATION	LENGTH	TRENCHING & SHOULDER PREPARATION	AGGREGATE BASE COURSE (CLASS 7)		ACHM SURFACE COURSE (1/2")			
			TON / STATION	TON	AVG. WID. FEET	SQ.YD.	POUND / SQ.YD.	TOTAL PG 64-22 TON
ENTIRE PROJECT - DIST. 1	700.00	7	36.00	252.00	3.00	233.33	220.00	25.67
SUBTOTALS:			7	252.00		233.33		25.67

BASIS OF ESTIMATE (DIST. 1):
(PG 64-22) ACHM SURFACE COURSE (1/2").....94.8% MIN. AGGR.....5.2% ASPHALT BINDER

MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22

SUBTOTALS (DIST. 1 - BOX 3 OF 3):	7.00		252.00					25.67
SUBTOTALS (DIST. 2 - BOX 2 OF 3):	15.00		540.00					55.00
SUBTOTALS (DIST. 6 - BOX 1 OF 3):	4.00		188.00					14.67
PROJECT SUBTOTALS:	26.00		980.00					95.34

BASIS OF ESTIMATE (DIST. 6):
(PG 64-22) ACHM SURFACE COURSE (1/2").....94.8% MIN. AGGR.....5.2% ASPHALT BINDER

BASIS OF ESTIMATE (DIST. 2):
(PG 64-22) ACHM SURFACE COURSE (1/2").....94.9% MIN. AGGR.....5.1% ASPHALT BINDER

BASIS OF ESTIMATE (DIST. 1):
(PG 64-22) ACHM SURFACE COURSE (1/2").....94.8% MIN. AGGR.....5.2% ASPHALT BINDER

MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22

NOTES: 1. "TRENCHING & SHOULDER PREPARATION" QUANTITIES WILL BE USED IF AND WHERE DIRECTED BY THE ENGINEER FOR ENTIRE PROJECT.
2. ALL "TRENCHING AND SHOULDER PREPARATION" QUANTITIES ARE ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.

COLD MILLING ASPHALT PAVEMENT (DIST. 6 - BOX 1 OF 3)

BR. ID # (TITLE SHEET)	BRIDGE STRUCTURE NO.	ROUTE	LOG MILE	LOCATION	* AVG. DEPTH OF ASPHALT	LENGTH	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
					INCHES			FEET
1	03022	35	9.954	TRANSITION	2	100.00	20	222.22
				M.L. TO GUARDRAIL END	2	311.00	22	760.22
				SHLDR. AVG. TO GUARDRAIL END	2	299.50	12	399.33
SUBTOTAL :								1381.77

* AVERAGE DEPTH OF ASPHALT IS ESTIMATED AND SHOWN FOR INFORMATION ONLY.

COLD MILLING ASPHALT PAVEMENT (DIST. 2 - BOX 2 OF 3)

BR. ID # (TITLE SHEET)	BRIDGE STRUCTURE NO.	ROUTE	LOG MILE	LOCATION	* AVG. DEPTH OF ASPHALT	LENGTH	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
					INCHES			SQ. YD.
2	02893	114	0.831	BR. DECK	2	168.00	24	448.00
				TRANSITION	3	200.00	20	444.44
3	02894	114	4.149	BR. DECK	2	112.00	24	298.67
				TRANSITION	3	200.00	20	444.44
4	02895	114	6.636	BR. DECK	2	56.00	24	149.33
				TRANSITION	3	200.00	20	444.44
5	02896	114	8.454	BR. DECK	2	84.00	24	224.00
				TRANSITION	3	200.00	20	444.44
6	M3479	83	0.407	TRANSITION	2	200.00	24	533.33
SUBTOTAL :								3431.09

* AVERAGE DEPTH OF ASPHALT IS ESTIMATED AND SHOWN FOR INFORMATION ONLY.

COLD MILLING ASPHALT PAVEMENT (DIST. 1 - BOX 3 OF 3)

BR. ID # (TITLE SHEET)	BRIDGE STRUCTURE NO.	ROUTE	LOG MILE	LOCATION	* AVG. DEPTH OF ASPHALT	LENGTH	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
					INCHES			FEET
7	05001	20	22.436	TRANSITION	2	100.00	22	244.44
				M.L. TO GUARDRAIL END	2	298.75	22	730.28
				SHLDR. AVG. TO GUARDRAIL END	2	327.75	14	509.83
8	03053	44	10.212	BR. DECK	2	103.00	24	274.67
				TRANSITION	3	200.00	20	444.44
				M.L. TO GUARDRAIL END	2	161.00	20	357.78
				SHLDR. AVG. TO GUARDRAIL END	2	274.50	10	305.00
SUBTOTAL :								2866.44

* AVERAGE DEPTH OF ASPHALT IS ESTIMATED AND SHOWN FOR INFORMATION ONLY.

SUBTOTAL (DIST. 1 - BOX 3 OF 3) :	2866.44
SUBTOTAL (DIST. 2 - BOX 2 OF 3) :	3431.09
SUBTOTAL (DIST. 6 - BOX 1 OF 3) :	1381.77
PROJECT TOTAL :	7679.30

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
5-17-2021				6	ARK.			
				JOB NO.		012375	24	30
				QUANTITIES				

2

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS (DIST. 6 - BOX 1 OF 3)

BR.ID # (TITLE SHEET)	BR. STRUCTURE NO.	ROUTE	LOG MILE	DESCRIPTION	REMOVAL OF PERMANENT PAVEMENT MARKINGS	REMOVAL OF CONST. PAVEMENT MARKINGS	REMOVABLE CONST. PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS	THERMOPLASTIC PAVEMENT MARKING				REFLECTORIZED PAINT PAVEMENT MARKING	
								TYPE II (YELLOW/YELLOW)	6"		WORDS	ARROWS	6"	
									WHITE	YELLOW			WHITE	YELLOW
1	03022	35	9.954	WHITE	84	40	40		867					
				YELLOW		867	867			867				
				R.P.M.				6						
SUBTOTALS:					84	907	907	6	867	867				

NOTE: 2 LANE ROAD HAS HIGH TRAFFIC VOLUME IN DISTRICT 6 AS DEFINED IN SECTION 604.03 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2014. REFER TO PERMANENT PAVEMENT MARKING DETAILS FOR LIST OF HIGH AND LOW ROADS IN EACH DISTRICT.

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

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS (DIST. 2 - BOX 2 OF 3)

BR.ID # (TITLE SHEET)	BR. STRUCTURE NO.	ROUTE	LOG MILE	DESCRIPTION	REMOVAL OF PERMANENT PAVEMENT MARKINGS	REMOVAL OF CONST. PAVEMENT MARKINGS	REMOVABLE CONST. PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS	THERMOPLASTIC PAVEMENT MARKING				REFLECTORIZED PAINT PAVEMENT MARKING	
									TYPE II (YELLOW/YELLOW)	6"		WORDS	ARROWS	6"
								WHITE		YELLOW	WHITE			YELLOW
								LIN. FT.		LIN. FT.				EACH
2	02893	114	0.831	WHITE	368	40	40						736	
				YELLOW		736	736						736	
				R.P.M.				5						
3	02894	114	4.149	WHITE	312	40	40						624	
				YELLOW		624	624							624
				R.P.M.				4						
4	02895	114	6.636	WHITE	56	40	40						512	
				YELLOW		512	512							512
				R.P.M.				3						
5	02896	114	8.454	WHITE	284	40	40						568	
				YELLOW		568	568							568
				R.P.M.				4						
6	M3479	83	0.407	WHITE	413	48	48		1473		2	2		
				YELLOW		1473	1473			1473				
				R.P.M.				9						
SUBTOTALS:					1433	4121	4121	25	1473	1473	2	2	2440	2440

NOTE: 2 LANE ROADS HAVE BOTH HIGH AND LOW TRAFFIC VOLUMES IN DISTRICT 2 AS DEFINED IN SECTION 604.03 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2014. REFER TO PERMANENT PAVEMENT MARKING DETAILS FOR LIST OF HIGH AND LOW ROADS IN EACH DISTRICT.

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

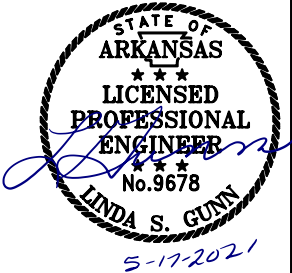
CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS (DIST. 1 - BOX 3 OF 3)

BR.ID # (TITLE SHEET)	BR. STRUCTURE NO.	ROUTE	LOG MILE	DESCRIPTION	REMOVAL OF PERMANENT PAVEMENT MARKINGS	REMOVAL OF CONST. PAVEMENT MARKINGS	REMOVABLE CONST. PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS	THERMOPLASTIC PAVEMENT MARKING				REFLECTORIZED PAINT PAVEMENT MARKING	
								TYPE II (YELLOW/YELLOW)	6"		WORDS	ARROWS	6"	
									WHITE	YELLOW			WHITE	YELLOW
7	05001	20	22.436	WHITE	217	40	40						1200	
				YELLOW		1200	1200							1200
				R.P.M.				8						
8	03053	44	10.212	WHITE	103	40	40						892	
				YELLOW		892	892							892
				R.P.M.				6						
SUBTOTALS:					320	2172	2172	14					2092	2092

SUBTOTALS (DIST. 1 - BOX 3 OF 3):	320	2172	2172	14					2092	2092
SUBTOTALS (DIST. 2 - BOX 2 OF 3):	1433	4121	4121	25	1473	1473	2	2	2440	2440
SUBTOTALS (DIST. 6 - BOX 1 OF 3):	84	907	907	6	867	867				
PROJECT TOTALS:	1837	7200	7200	45	2340	2340	2	2	4532	4532

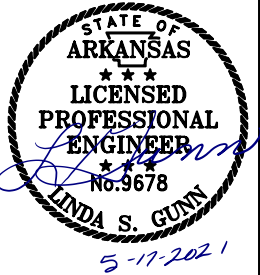
NOTE: 2 LANE ROADS HAVE LOW TRAFFIC VOLUME IN DISTRICT 1 AS DEFINED IN SECTION 604.03 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2014. REFER TO PERMANENT PAVEMENT MARKING DETAILS FOR LIST OF HIGH AND LOW ROADS IN EACH DISTRICT.

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



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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
5-17-2021				6	ARK.			
				JOB NO.		012375	25	30
				QUANTITIES				



APPROACH GUTTERS (DIST. 6 - BOX 1 OF 3)										
BR. ID # (TITLE SHEET)	BRIDGE STRUCTURE NO.	ROUTE	LOG MILE	LOCATION	APPROACH GUTTER (TYPE _)	GUTTER WIDTH "W" FT.	APPROACH GUTTER	REINFORCING STEEL-RDWY. (GR. 60)	AGGREGATE BASE CRS. (CLASS 7)	BR. STANDARD DRAWING
							CU.YD.	POUND	TON	
1	03022	35	9.954	SOUTH RT.	CT	4	2.65	198	2.72	55039
				NORTH RT.		4	2.65	198	2.72	
				SOUTH LT.		4	2.65	198	2.72	
				NORTH LT.		4	2.65	198	2.72	
SUBTOTALS:							10.60	792	10.88	
NOTE: WHEN THE PLANS REQUIRE APPROACH GUTTER REPLACEMENT AND AN EXISTING END DRAIN IS ENCOUNTERED, THE CONTRACTOR SHALL MODIFY THE APPROACH GUTTER STANDARD DRAWING REQUIREMENTS IF AND WHERE DIRECTED BY THE ENGINEER TO RETAIN THE END DRAIN SECTION.										

APPROACH GUTTERS (DIST. 2 - BOX 2 OF 3)										
BR. ID # (TITLE SHEET)	BRIDGE STRUCTURE NO.	ROUTE	LOG MILE	LOCATION	APPROACH GUTTER (TYPE_)	GUTTER WIDTH "W" FT.	APPROACH GUTTER	REINFORCING STEEL-RDWY. (GR. 60)	AGGREGATE BASE CRS. (CLASS 7)	BR. STANDARD DRAWING
6	M3479	83	0.407	WEST RT.	PT2	3	CU.YD.	POUND	TON	55037
						7.56	819	3.62		
				EAST RT.		3	7.56	819	3.62	
				WEST LT.		3	7.56	819	3.62	
				EAST LT.		3	7.56	819	3.62	
SUBTOTALS:							30.24	3276	14.48	
NOTE: WHEN THE PLANS REQUIRE APPROACH GUTTER REPLACEMENT AND AN EXISTING END DRAIN IS ENCOUNTERED, THE CONTRACTOR SHALL MODIFY THE APPROACH GUTTER STANDARD DRAWING REQUIREMENTS IF AND WHERE DIRECTED BY THE ENGINEER TO RETAIN THE END DRAIN SECTION.										

APPROACH GUTTERS (DIST. 1 - BOX 3 OF 3)										
BR. ID # (TITLE SHEET)	BRIDGE STRUCTURE NO.	ROUTE	LOG MILE	LOCATION	APPROACH GUTTER (TYPE_)	GUTTER WIDTH "W" FT.	APPROACH GUTTER	REINFORCING STEEL-RDWY. (GR. 60)	AGGREGATE BASE CRS. (CLASS 7)	BR. STANDARD DRAWING
							CU.YD.	POUND	TON	
7	05001	20	22.436	SOUTH RT.	AT2	7	19.58	2231	8.92	55038
				NORTH RT.		7	19.58	2231	8.92	
				SOUTH LT.		7	19.58	2231	8.92	
				NORTH LT.		7	19.58	2231	8.92	
8	03053	44	10.212	SOUTH RT.	CT	4	2.65	198	2.72	55039
				NORTH RT.		4	2.65	198	2.72	
				SOUTH LT.		4	2.65	198	2.72	
				NORTH LT.		4	2.65	198	2.72	
SUBTOTALS:							88.92	9716	46.56	

SUBTOTALS (DIST. 1 - BOX 3 OF 3):							88.92	9716	46.56	
SUBTOTALS (DIST. 2 - BOX 2 OF 3):							30.24	3276	14.48	
SUBTOTALS (DIST. 6 - BOX 1 OF 3):							10.60	792	10.88	
PROJECT TOTALS:							129.76	13784	71.92	
NOTE: WHEN THE PLANS REQUIRE APPROACH GUTTER REPLACEMENT AND AN EXISTING END DRAIN IS ENCOUNTERED, THE CONTRACTOR SHALL MODIFY THE APPROACH GUTTER STANDARD DRAWING REQUIREMENTS IF AND WHERE DIRECTED BY THE ENGINEER TO RETAIN THE END DRAIN SECTION.										

REMOVAL AND DISPOSAL OF APPROACH GUTTERS - (DIST. 6 - BOX 1 OF 3)

BR.ID # (TITLE SHEET)	BRIDGE STRUCTURE NO.	ROUTE	LOG MILE	LOCATION	R&D OF APPROACH GUTTERS
					EACH
1	03022	35	9.954	SOUTH RT.	1
				NORTH RT.	1
				SOUTH LT.	1
				NORTH LT.	1
SUBTOTAL:					4
NOTE: EXISTING APPROACH GUTTERS ARE THE WRONG TYPE FOR GUARDRAIL TRANSITION ATTACHMENT.					

REMOVAL AND DISPOSAL OF APPROACH GUTTERS - (DIST. 2 - BOX 2 OF 3)

BR.ID # (TITLE SHEET)	BRIDGE STRUCTURE NO.	ROUTE	LOG MILE	LOCATION	R&D OF APPROACH GUTTERS
					EACH
6	M3479	83	0.407	WEST RT.	1
				EAST RT.	1
				WEST LT.	1
				EAST LT.	1
SUBTOTAL:					4
NOTE: EXISTING APPROACH GUTTERS ARE THE WRONG TYPE FOR GUARDRAIL TRANSITION ATTACHMENT.					

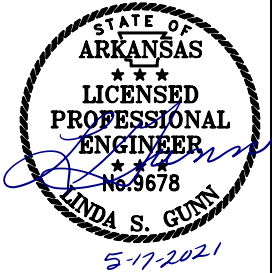
REMOVAL AND DISPOSAL OF APPROACH GUTTERS - (DIST. 1 - BOX 3 OF 3)

BR. ID # (TITLE SHEET)	BRIDGE STRUCTURE NO.	ROUTE	LOG MILE	LOCATION	R&D OF APPROACH GUTTERS
					EACH
7	05001	20	22.436	SOUTH RT.	1
				NORTH RT.	1
				SOUTH LT.	1
				NORTH LT.	1
8	03053	44	10.212	SOUTH RT.	1
				NORTH RT.	1
				SOUTH LT.	1
				NORTH LT.	1
SUBTOTAL:					8

SUBTOTAL (DIST. 1 - BOX 3 OF 3):				8
SUBTOTAL (DIST. 2 - BOX 2 OF 3):				4
SUBTOTAL (DIST. 6 - BOX 1 OF 3):				4
PROJECT TOTAL:				16
NOTE: EXISTING APPROACH GUTTERS ARE THE WRONG TYPE FOR GUARDRAIL TRANSITION ATTACHMENT.				

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REVISOR: LINDA S. GUNN
REVISED DATE: 5/17/2021

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
5-17-2021				6	ARK.			
				JOB NO.		012375	26	30
QUANTITIES								



EROSION CONTROL - (DIST. 6 - BOX 1 OF 3)

LOCATION	PERMANENT EROSION CONTROL					TEMPORARY EROSION CONTROL				
	SEEDING	LIME	MULCH COVER	WATER	SECOND SEEDING APPLICATION	WATTLE (20") DITCH CHECKS (E-1)	*ROCK DITCH CHECKS (E-6)	FILTER SOCK (18") (E-7)	SILT FENCE (E-11)	*SEDIMENT REMOVAL & DISPOSAL
	ACRE	TON	ACRE	M.GAL.	ACRE	LIN. FT.	CU.YD.	LIN. FT.	LIN. FT.	CU. YD.
ENTIRE PROJECT DIST. 6 - STAGE 1	0.07	0.14	0.07	7.1	0.07	36		206	103	1.91
ENTIRE PROJECT DIST. 6 - STAGE 2	0.07	0.14	0.07	7.1	0.07	36		206	103	1.91
*ENTIRE PROJECT DIST. 6 TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.	0.15	0.30	0.15	15.3	0.15	18	12	103	52	0.96
SUBTOTALS (DIST. 6 - BOX 1 OF 3):	0.29	0.58	0.29	29.5	0.29	90	12	515	258	4.78

BASIS OF ESTIMATE:
LIME 2 TONS / ACRE OF SEEDING
WATER.....102.0 M.G. / ACRE OF SEEDING
WATTLE DITCH CHECKS.....9 LIN. FT. / LOCATION
ROCK DITCH CHECKS.....3 CU.YD./LOCATION

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

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

EROSION CONTROL - (DIST. 2 - BOX 2 OF 3)

LOCATION	PERMANENT EROSION CONTROL					TEMPORARY EROSION CONTROL				
	SEEDING	LIME	MULCH COVER	WATER	SECOND SEEDING APPLICATION	WATTLE (20") DITCH CHECKS (E-1)	*ROCK DITCH CHECKS (E-6)	FILTER SOCK (18") (E-7)	SILT FENCE (E-11)	*SEDIMENT REMOVAL & DISPOSAL
	ACRE	TON	ACRE	M.GAL.	ACRE	LIN. FT.	CU.YD.	LIN. FT.	LIN. FT.	CU. YD.
ENTIRE PROJECT DIST. 2 - STAGE 1	0.09	0.18	0.09	9.2	0.09	90		262	131	2.43
ENTIRE PROJECT DIST. 2 - STAGE 2	0.09	0.18	0.09	9.2	0.09	90		262	131	2.43
*ENTIRE PROJECT DIST. 2 TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.	1.00	2.00	1.00	102.0	1.00	45	20	131	66	1.22
SUBTOTALS (DIST. 2 - BOX 2 OF 3):	1.18	2.36	1.18	120.4	1.18	225	20	655	328	6.08

BASIS OF ESTIMATE:
LIME 2 TONS / ACRE OF SEEDING
WATER.....102.0 M.G. / ACRE OF SEEDING
WATTLE DITCH CHECKS.....9 LIN. FT. / LOCATION
ROCK DITCH CHECKS.....3 CU.YD./LOCATION

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

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

EROSION CONTROL - (DIST. 1 - BOX 3 OF 3)

LOCATION	PERMANENT EROSION CONTROL					TEMPORARY EROSION CONTROL				
	SEEDING	LIME	MULCH COVER	WATER	SECOND SEEDING APPLICATION	WATTLE (20") DITCH CHECKS (E-1)	*ROCK DITCH CHECKS (E-6)	FILTER SOCK (18") (E-7)	SILT FENCE (E-11)	*SEDIMENT REMOVAL & DISPOSAL
	ACRE	TON	ACRE	M.GAL.	ACRE	LIN. FT.	CU.YD.	LIN. FT.	LIN. FT.	CU. YD.
ENTIRE PROJECT DIST. 1 - STAGE 1	0.14	0.28	0.14	14.3	0.14	72		405	202	3.75
ENTIRE PROJECT DIST. 1 - STAGE 2	0.14	0.28	0.14	14.3	0.14	72		405	202	3.75
*ENTIRE PROJECT DIST. 1 TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.	0.11	0.22	0.11	11.2	0.11	36	24	203	101	1.88
SUBTOTALS (DIST. 1 - BOX 3 OF 3):	0.39	0.78	0.39	39.8	0.39	180	24	1013	505	9.38

SUBTOTALS (DIST. 1 - BOX 3 OF 3):	0.39	0.78	0.39	39.8	0.39	180	24	1013	505	9.38
SUBTOTALS (DIST. 2 - BOX 2 OF 3):	1.18	2.36	1.18	120.4	1.18	225	20	655	328	6.08
SUBTOTALS (DIST. 6 - BOX 1 OF 3):	0.29	0.58	0.29	29.5	0.29	90	12	515	258	4.78
PROJECT TOTALS:	1.86	3.72	1.86	189.7	1.86	495	56	2183	1091	20.24

BASIS OF ESTIMATE:
LIME 2 TONS / ACRE OF SEEDING
WATER.....102.0 M.G. / ACRE OF SEEDING
WATTLE DITCH CHECKS.....9 LIN. FT. / LOCATION
ROCK DITCH CHECKS.....3 CU.YD./LOCATION

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

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

EARTHWORK (DIST. 6 - BOX 1 OF 3)

LOCATION / DESCRIPTION	* UNCLASSIFIED EXCAVATION	* COMPACTED EMBANKMENT	* SOIL STABILIZATION
	CU. YD.		TON
ENTIRE DISTRICT 6 - WIDENING FOR GUARDRAIL - BR. NO. 1	214	3047	
TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER	64	914	15
SUBTOTALS:	278	3961	15

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

EARTHWORK (DIST. 2 - BOX 2 OF 3)

LOCATION / DESCRIPTION	* UNCLASSIFIED EXCAVATION	* COMPACTED EMBANKMENT	* SOIL STABILIZATION
	CU. YD.		TON
ENTIRE DISTRICT 2- WIDENING FOR GUARDRAIL - BR. NO. 6	130	1780	
TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER	32.5	445	15
SUBTOTALS:	162.5	2225	15

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

EARTHWORK (DIST. 1 - BOX 3 OF 3)

LOCATION / DESCRIPTION	* UNCLASSIFIED EXCAVATION	* COMPACTED EMBANKMENT	* SOIL STABILIZATION
	CU. YD.		TON
ENTIRE DISTRICT 1- WIDENING FOR GUARDRAIL - BR. NO. 7 & 8	190	2310	
TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER	57	693	25
SUBTOTALS:	247	3003	25

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

SUBTOTALS (DIST. 1 - BOX 3 OF 3):	247	3003	25
SUBTOTALS (DIST. 2 - BOX 2 OF 3):	162.5	2225	15
SUBTOTALS (DIST. 6 - BOX 1 OF 3):	278	3961	15
PROJECT TOTALS:	687.5	9189	55

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

BENCH MARKS

LOCATION	BENCH MARKS
	EACH
* ENTIRE PROJECT	9

NOTES: 1. SHOWN FOR INFORMATION ONLY. BENCH MARKS SHALL BE FURNISHED AND PLACED BY STATE FORCES.
2. NEW BENCH MARKS PROVIDED FOR BRIDGES WITH NEW LOG MILES.
3. THIS BENCH MARK QUANTITY WAS INCLUDED BECAUSE THERE IS ANTICIPATION OF EXISTING TRAFFIC ACCIDENT DAMAGE TO BRIDGES.

* BENCH MARKS ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.

CLEARING AND GRUBBING

BR. ID # (TITLE SHEET)	BRIDGE STRUCTURE NO.	LOCATION	CLEARING	GRUBBING
			STATION	
1	03022	SOUTH LT. TO INSTALL GUARDRAIL	2	2
TOTALS:			2	2

QUANTITIES

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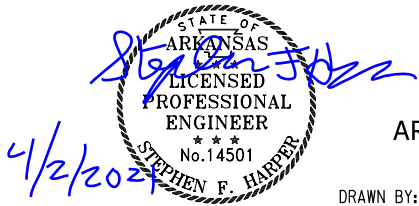
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				6	ARK.			
				JOB NO.		012375	27	30
				1 ALL BRIDGES - QUANTITIES - 63954				

SCHEDULE OF BRIDGE QUANTITIES - JOB NO. 012375

DISTRICT	SITE NO.	COUNTY	ROUTE	SECTION	LOG MILE	BRIDGE NO.	SP & 509	SS & 802	803	803	SS & 804	SS & 809	821	SP JOB 012375	SP JOB 012375	SP JOB 012375	SP JOB 012375	SP JOB 012375
							JOINT REHABILITATION (TYPE A)	GROOVING	CLASS 1 PROTECTIVE SURFACE TREATMENT	CLASS 3 PROTECTIVE SURFACE TREATMENT	REINFORCING STEEL-BRIDGE (GRADE 60)	SILICONE JOINT SEALANT	MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. ____)	BRIDGE DECK REPAIR FOR LATEX MODIFIED CONCRETE OVERLAYS	HYDRODEMOLITION - CLASS 2	LATEX MODIFIED CONCRETE OVERLAY (1 1/2" THICK)	SPALL REPAIR	SURFACE PATCHING
							LIN. FT.	SQ. YD.	GAL.	LIN. FT.	POUND	LIN. FT.	LUMP SUM	SQ. FT.	SQ. YD.	SQ. YD.	SQ. FT.	SQ. FT.
6	1	SALINE	HWY. 35	1	9.954	03022 ③④⑨	48	196.0	4.5	168	180			202	224	225	20	20
	TOTALS FOR DISTRICT 6						48	196.0	4.5	168	180			202	224	225	20	20
2	2	LINCOLN	HWY. 114	2	0.831	02893 ①⑨	120	392.1	9.0	336	345			403	448	450	20	20
	3	LINCOLN	HWY. 114	2	4.149	02894 ①⑨	72	261.4	6.0	224	228			269	299	300	40	40
	4	LINCOLN	HWY. 114	2	6.636	02895 ①⑨	24	130.8	3.0	112	115			134	149	150		
	5	LINCOLN	HWY. 114	2	8.454	02896 ①⑨	48	196.0	4.5	168	172			202	224	225	20	20
	6	DREW	HWY. 83	1S	0.407	M3479 ②⑧		686.7	15.1	426	580	163 ⑦	1	682	758	760	20	20
	TOTALS FOR DISTRICT 2						264	1,667.0	37.6	1,266	1,440	163		1,690	1,878	1,885	100	100
1	7	PHILLIPS	HWY. 20	1	22.436	05001 ③④⑧		597.0	13.4	430	510	86 ⑥		602	669	671		
	8	PHILLIPS	HWY. 44	3	10.212	03053 ①⑨	72	240.0	5.5	206	210			247	275	276	20	20
	TOTALS FOR DISTRICT 1						72	837.0	18.9	636	720	86		849	944	947	20	20
TOTALS FOR JOB 012375							384	2,700.0	61.0	2,070	2,340 ⑤	249		2,741 ⑤	3,046	3,057	140 ⑤	140 ⑤

REFERENCE TABLE	
(Hydrodemolition & LMC Overlay)	
Bridge No.	Existing Dwg. Nos.
03022	8885, 5492
02893	8355, 5492
02894	8356, 5492
02895	8357, 5492
02896	8358, 5492
M3479	45, 46, 47, 49
05001	13312, 13313
03053	9133, 9135

- ① EXISTING BRIDGE DECK HAS AN ASPHALT OVERLAY. SEE ROADWAY PLANS FOR AVERAGE DEPTH AT EACH BRIDGE SITE.
- ② EXISTING BRIDGE DECK HAS NO ASPHALT OVERLAY.
- ③ EXISTING BRIDGE DECK HAS REMNANTS OF AN ASPHALT OVERLAY NEAR THE BRIDGE ENDS.
- ④ EXISTING BRIDGE DECK HAS SPALLS FILLED WITH ASPHALT.
- ⑤ QUANTITY SHOWN IS FOR ESTIMATING AND BIDDING PURPOSES ONLY. ACTUAL QUANTITY, IF ANY, WILL BE DETERMINED IN THE FIELD.
- ⑥ EXISTING BRIDGE HAS SLIDER PLATE JOINTS TO BE PARTIALLY REMOVED AND REPLACED WITH POURED SILICONE JOINTS.
- ⑦ EXISTING BRIDGE HAS FILLED JOINTS TO BE REMOVED AND REPLACED WITH POURED SILICONE JOINTS.
- ⑧ REMOVE AND DISPOSE OF EXISTING APPROACH GUTTERS AT DESIGNATED LOCATIONS. SEE ROADWAY PLANS FOR ADDITIONAL INFORMATION.
- ⑨ MODIFY CONCRETE BRIDGE END POST AT ALL FOUR BRIDGE CORNERS AND ATTACH NEW APPROACH GUARDRAIL TO BRIDGE RAIL. ANY EXPOSED REINFORCING STEEL SHALL BE DRILLED DOWN 2" AND COVERED WITH A QPL APPROVED NON-SHRINK GROUT.



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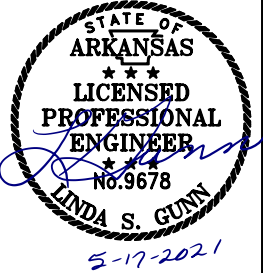
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CHECKED BY: SFH
DESIGNED BY: -
BRIDGE NO. ALL BRIDGES
DATE: 1/2021
DATE: 03/2021
DATE: -
DRAWING NO. SCALE: NONE
63954

SCHEDULE OF BRIDGE QUANTITIES
DISTRICTS 1, 2 & 6 BRIDGE
PRESERVATION (2021) (S)
VARIOUS COUNTIES
ROUTE VARIES SECTION VARIES
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

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5-4-2021				6	ARK.			
5-6-2021								
5-17-2021								
				JOB NO.		012375	28	30
				2 SUMMARY OF QUANTITIES AND REVISIONS				



SUMMARY OF QUANTITIES						
ITEM NUMBER	ITEM	DIST. 1 QUANTITIES	DIST. 2 QUANTITIES	DIST. 6 QUANTITIES	PROJECT TOTAL QUANTITIES	UNIT
201	CLEARING			2	2	STATION
201	GRUBBING			2	2	STATION
202	REMOVAL AND DISPOSAL OF APPROACH GUTTERS	8	4	4	16	EACH
202	REMOVAL AND DISPOSAL OF GUARDRAIL	246	546	116	908	LIN. FT.
SS & 210	UNCLASSIFIED EXCAVATION	247	163	278	688	CU. YD.
210	COMPACTED EMBANKMENT	3003	2225	3961	9189	CU. YD.
SP & 210	SOIL STABILIZATION	25	15	15	55	TON
SP & 215	TRENCHING AND SHOULDER PREPARATION	7	15	4	26	STATION
SS & 303	AGGREGATE BASE COURSE (CLASS 7)	656	816	381	1853	TON
SS & 401	TACK COAT	441	393	235	1069	GAL.
SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")	353	337	188	878	TON
SP, SS, & 407	ASPHALT BINDER (PG 64-22) IN ACHM SURFACE COURSE (1/2")	9	13	10	32	TON
SP, SS, & 407	ASPHALT BINDER (PG 70-22) IN ACHM SURFACE COURSE (1/2")	10	5		15	TON
412	COLD MILLING ASPHALT PAVEMENT	2866	3431	1382	7679	SQ. YD.
504	APPROACH GUTTERS	88.92	30.24	10.60	129.76	CU. YD.
601	MOBILIZATION	0.31	0.61	0.08	1.00	LUMP SUM
SP, SS, & 603	MAINTENANCE OF TRAFFIC	0.31	0.61	0.08	1.00	LUMP SUM
SS & 604	SIGNS	446	446	223	1115	SQ. FT.
SS & 604	TRAFFIC DRUMS		44		44	EACH
604	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	2172	4121	907	7200	LIN. FT.
604	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	2172	4121	907	7200	LIN. FT.
604	REMOVAL OF PERMANENT PAVEMENT MARKINGS	320	1433	84	1837	LIN. FT.
SS & 604	VERTICAL PANELS	42	56	35	133	EACH
SS & 617	GUARDRAIL (TYPE A)	550	450	300	1300	LIN. FT.
SS & 617	GUARDRAIL TERMINAL (TYPE 2)	6	4	3	13	EACH
SS & 617	THRIE BEAM GUARDRAIL TERMINAL	3	4		7	EACH
620	LIME	1	2	1	4	TON
620	SEEDING	0.39	1.18	0.29	1.86	ACRE
SS & 620	MULCH COVER	0.39	1.18	0.29	1.86	ACRE
620	WATER	39.8	120.4	29.5	189.7	M. GAL.
621	SILT FENCE	505	328	258	1091	LIN. FT.
621	SEDIMENT REMOVAL AND DISPOSAL	9	6	5	20	CU. YD.
621	ROCK DITCH CHECKS	24	20	12	56	CU. YD.
SS & 621	FILTER SOCK (18")	1013	655	515	2183	LIN. FT.
621	WATTLE (20")	180	225	90	495	LIN. FT.
623	SECOND SEEDING APPLICATION	0.39	1.18	0.29	1.86	ACRE
635	ROADWAY CONSTRUCTION CONTROL	0.31	0.61	0.08	1.00	LUMP SUM
SP	PORTABLE TRAFFIC SIGNAL SYSTEM - ACTUATED	22	4	4	30	WEEK
718	REFLECTORIZED PAINT PAVEMENT MARKING WHITE (6")	2092	2440		4532	LIN. FT.
718	REFLECTORIZED PAINT PAVEMENT MARKING YELLOW (6")	2092	2440		4532	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING WHITE (6")		1473	867	2340	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING YELLOW (6")		1473	867	2340	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING (WORDS)		2		2	EACH
719	THERMOPLASTIC PAVEMENT MARKING (ARROWS)		2		2	EACH
721	RAISED PAVEMENT MARKERS (TYPE II)	14	25	6	45	EACH
SS & 734	BRIDGE END TERMINAL	2		1	3	EACH
SS & 804	REINFORCING STEEL-ROADWAY (GRADE 60)	9716	3276	792	13784	POUND
STRUCTURES OVER 20' SPAN						
SP & 509	JOINT REHABILITATION (TYPE A)	72	264	48	384	LIN. FT.
636	BRIDGE CONSTRUCTION CONTROL	0.31	0.61	0.08	1.00	LUMP SUM
SS & 802	GROOVING	837.0	1667.0	196.0	2700.0	SQ. YD.
SP	SURFACE PATCHING	20	100	20	140	SQ. FT.
SP	SPALL REPAIR	20	100	20	140	SQ. FT.
803	CLASS 1 PROTECTIVE SURFACE TREATMENT	18.9	37.6	4.5	61.0	GAL.
803	CLASS 3 PROTECTIVE SURFACE TREATMENT	636	1266	168	2070	LIN. FT.
SS & 804	REINFORCING STEEL-BRIDGE (GRADE 60)	720	1440	180	2340	POUND
SS & 809	SILICONE JOINT SEALANT	86	163		249	LIN. FT.
SP	HYDRODEMOLITION - CLASS 2	944	1878	224	3046	SQ. YD.
821	MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. M3479)		1.00		1.00	LUMP SUM
SP	BRIDGE DECK REPAIR FOR LATEX MODIFIED CONCRETE OVERLAYS	849	1690	202	2741	SQ. FT.
SP	LATEX MODIFIED CONCRETE OVERLAY (1 1/2" THICK)	947	1885	225	3057	SQ. YD.

DATE	REVISION	SHEET NUMBER
5/4/2021	REMOVED "ESTABLISHING CONTRACT TIME - WORKING DAY CONTRACT" FROM SPECIAL PROVISION LIST. ADDED NOTE TO REVISION BOX.	4 & 28
5/6/2021	ADDED "COORDINATION OF WORK" SPECIAL PROVISION AND NOTE IN REVISION BOX	4 & 28
5/17/2021	REMOVED "NEW GUARDRAIL" FROM TYPICAL SECTION TITLES FOR BRIDGES #2 - #5	5 & 6
	BRIDGE #6 LABEL IN INSET-3 MOVED TO REFLECT CORRECT BRIDGE LOCATION	9
	VERTICAL PANEL QUANTITIES CHANGED FOR BRIDGES #2 - #5	14
	THE FOLLOWING QUANTITY TABELS WERE REVISED FOR DISTRICT 2: ADVANCED WARNING SIGNS AND DEVICES, REMOVAL AND DISPOSAL OF GUARDRAIL, GUARDRAIL, BASE AND SURFACING (ADDITIONAL FOR GUARDRAIL), TRENCHING AND SHOULDER PRERATION - MAINT. OF TRAFFIC, CONSTRUCTION PAVEMENT MARKINGS, APPROACH GUTTERS, REMOVAL AND DISPOSAL OF APPROACH GUTTERS, EROSION CONTROL, AND EARTHWORK	17, 18, 21, 22, 23, 24, 25, 26
	THE SUMMARY OF QUANTITIES WAS REVISED. REVISIONS WERE ADDED TO REVISION BOX. THE FOLLOWING ITEMS WERE REVISED: REMOVAL AND DISPOSAL OF APPROACH GUTTERS, REMOVAL AND DISPOSAL OF GUARDRAIL, UNCLASSIFIED EXCAVATION, COMPACTED EMBANKMENT, SOIL STABILIZATION, AGGREGATE BASE COURSE (CLASS 7), MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2"), ASPHALT BINDER (PG 64-22) IN ACHM SURFACE COURSE (1/2"), APPROACH GUTTERS, REMOVABLE CONSTRUCTION PAVEMENT MARKINGS, REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS, VERTICAL PANELS, GUARDRAIL (TYPE A), GUARDRAIL TERMINAL (TYPE 2), LIME, SEEDING, MULCH COVER, WATER, SILT FENCE, SEDIMENT REMOVAL AND DISPOSAL, ROCK DITCH CHECKS, FILTER SOCK (18"), SECOND SEEDING APPLICATION, REFLECTORIZED PAINT PAVEMENT MARKING WHITE (6"), REFLECTORIZED PAINT PAVEMENT MARKING YELLOW (6"), RAISED PAVEMENT MARKINGS, BRIDGE END TERMINAL, REINFORCING STEEL-ROADWAY (GRADE 60)	28

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BRIDGE PRESERVATION DATA TABLE
(DISTRICT 6)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012375	29	30
① DISTRICTS 1, 2, & 6 BRIDGES - BRIDGE DATA - 63955								

CURRENT CONST. CONTRACT SITE NO.	BRIDGE NO.	ORIGINAL CONTRACT NO.	COUNTY	ROUTE	SECTION	SUPERSTRUCTURE TYPE	DECK TREATMENT TYPE	DECK TREATMENT STD. DRAWINGS	THRIE-BEAM GUARDRAIL CONNECTION PRESENT?	GRADE RAISE NEEDED?	APP. GUTTER TYPE/ STD. DRAWING	BRIDGE JOINT TREATMENT STD. DRAWING	BRIDGE JOINT TREATMENT LOCATION
1	03022	6496	SALINE	HWY. 35	1	R/C SLAB	HYDRODEMOLITION	55062	NO	NO	CT/55039 AND REMOVE BLUNT ENDS	NO STD. DWG. - USE TYPE A JOINT REHAB AND SP	BENTS 2 AND 3

BRIDGE PRESERVATION DATA TABLE
(DISTRICT 2)

CURRENT CONST. CONTRACT SITE NO.	BRIDGE NO.	ORIGINAL CONTRACT NO.	COUNTY	ROUTE	SECTION	SUPERSTRUCTURE TYPE	DECK TREATMENT TYPE	DECK TREATMENT STD. DRAWINGS	THRIE-BEAM GUARDRAIL CONNECTION PRESENT?	GRADE RAISE NEEDED?	APP. GUTTER TYPE/ STD. DRAWING	BRIDGE JOINT TREATMENT STD. DRAWING	BRIDGE JOINT TREATMENT LOCATION
2	02893	2450	LINCOLN	HWY. 114	2	R/C SLAB	HYDRODEMOLITION	55062	NO	NO	CT/55039 AND REMOVE BLUNT ENDS	NO STD. DWG. - USE TYPE A JOINT REHAB AND SP	BENTS 2-6
3	02894	2450	LINCOLN	HWY. 114	2	R/C SLAB	HYDRODEMOLITION	55062	NO	NO	CT/55039 AND REMOVE BLUNT ENDS; AND BRIDGE END TERMINALS AT SELECT LOCATIONS	NO STD. DWG. - USE TYPE A JOINT REHAB AND SP	BENTS 2-4
4	02895	2450	LINCOLN	HWY. 114	2	R/C SLAB	HYDRODEMOLITION	55062	NO	NO	CT/55039 AND REMOVE BLUNT ENDS; AND BRIDGE END TERMINALS AT SELECT LOCATIONS	NO STD. DWG. - USE TYPE A JOINT REHAB AND SP	BENT 2
5	02896	2450	LINCOLN	HWY. 114	2	R/C SLAB	HYDRODEMOLITION	55062	NO	NO	CT/55039 AND REMOVE BLUNT ENDS; AND BRIDGE END TERMINALS AT SELECT LOCATIONS	NO STD. DWG. - USE TYPE A JOINT REHAB AND SP	BENT 2 AND 3
6	M3479	Unknown	DREW	HWY. 83	1S	STEEL I-BEAM	HYDRODEMOLITION	55061 & 55065	NO	YES	PT2/55037	55064	BENTS 1-5

BRIDGE PRESERVATION DATA TABLE
(DISTRICT 1)

CURRENT CONST. CONTRACT SITE NO.	BRIDGE NO.	ORIGINAL CONTRACT NO.	COUNTY	ROUTE	SECTION	SUPERSTRUCTURE TYPE	DECK TREATMENT TYPE	DECK TREATMENT STD. DRAWINGS	THRIE-BEAM GUARDRAIL CONNECTION PRESENT?	GRADE RAISE NEEDED?	APP. GUTTER TYPE/ STD. DRAWING	BRIDGE JOINT TREATMENT STD. DRAWING	BRIDGE JOINT TREATMENT LOCATION
7	05001	11734	PHILLIPS	HWY. 20	1	STEEL I-BEAM	HYDRODEMOLITION	55060	NO	NO	AT2/55038	55064	BENT 1,5 AND 6
8	03053	11515	PHILLIPS	HWY. 44	3	R/C SLAB	HYDRODEMOLITION	55062	NO	NO	CT/55039 AND REMOVE BLUNT ENDS; AND BRIDGE END TERMINALS AT SELECT LOCATIONS	NO STD. DWG. - USE TYPE A JOINT REHAB AND SP	BENTS 2-4



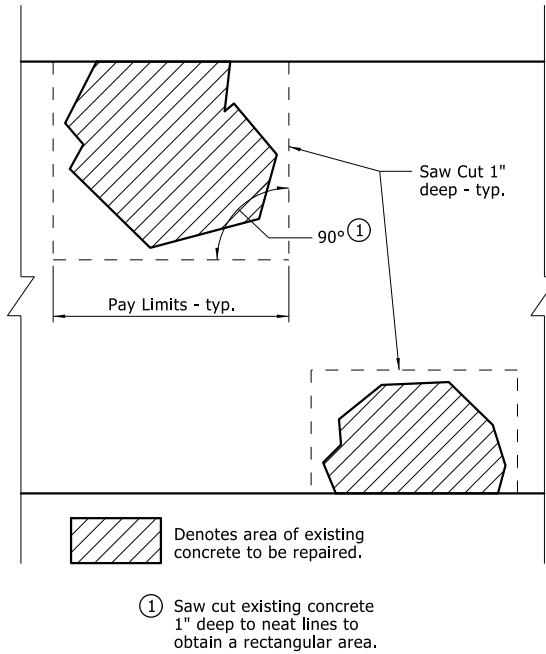
BRIDGE PRESERVATION DATA TABLE
DISTRICTS 1, 2, & 6
ROUTE VARIES SECTION VARIES
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

BRIDGE ENGINEER
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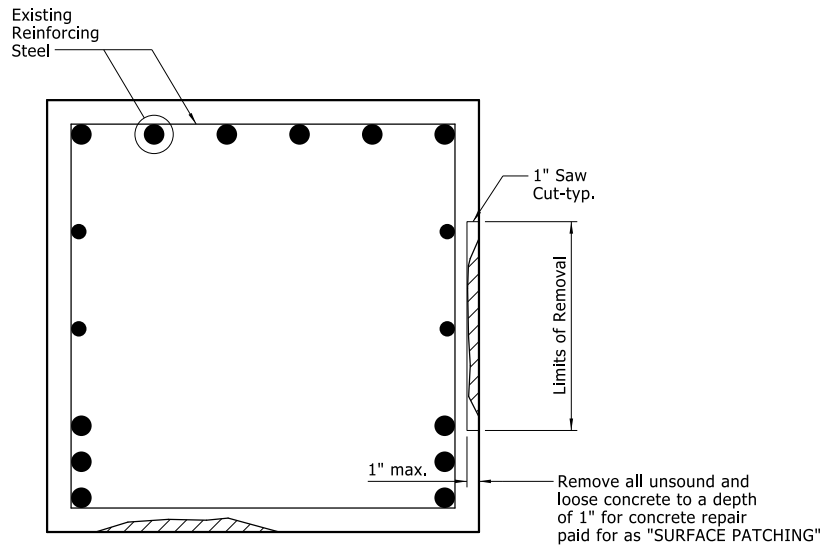
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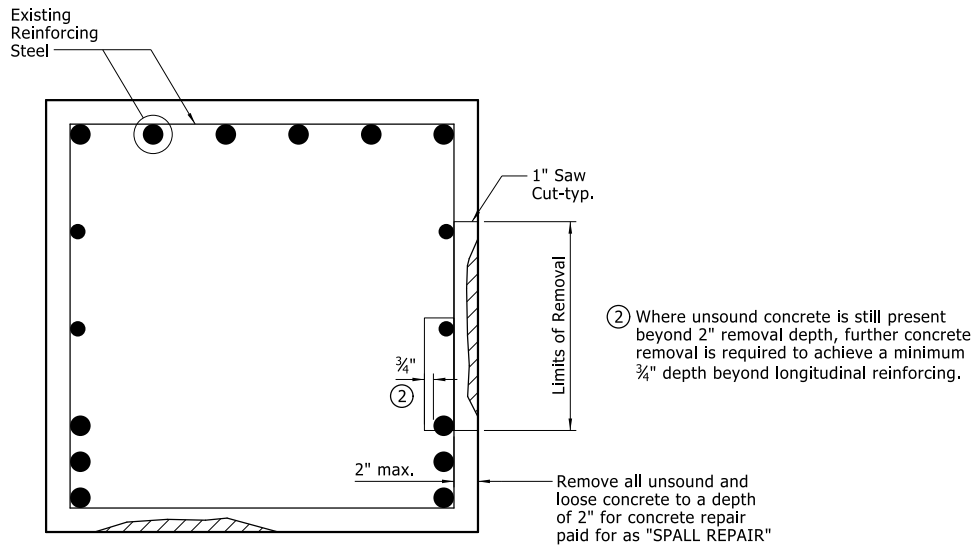
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				6	ARK.			
				JOB NO.		012375	30	30
				① 03022,02893,02894,02896,M3479,03053-SPALL REPAIR-63956				



SAW CUT DETAIL



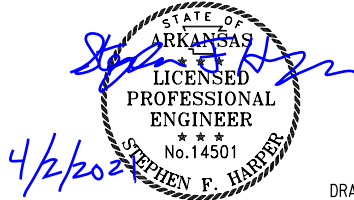
SURFACE PATCH DETAIL



SPALL REPAIR DETAIL

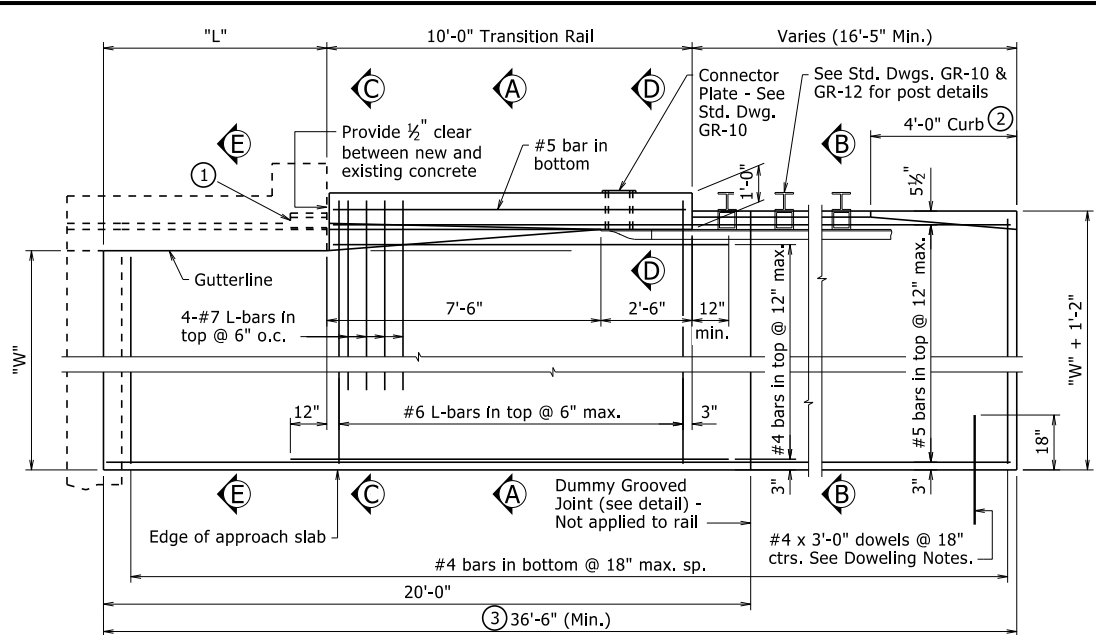
CONCRETE REPAIR NOTES

- Concrete repairs shall be performed in accordance with Special Provision Job. No. 012375 "CONCRETE REPAIRS".
- Limits shown are not exact areas and locations but are representative of potential spall repair areas to be encountered. The final limits and locations shall be determined by the Engineer.
- Concrete repairs shall consist of removing all unsatisfactory concrete described as follows: any loose, delaminated, unsound, severely spalled or deteriorated concrete and replacing with an approved material listed in Special Provision Job. No. 012375 "CONCRETE REPAIRS".
- Saw cut around all damaged areas as shown on the "SAW CUT DETAIL". Exercise caution during the saw cutting operation. Any reinforcement damaged during the saw cutting will be replaced at the contractors expense.
- Concrete repairs shall be paid for under the item "SURFACE PATCHING" when the depth of repair is 1" or less.
- Concrete repairs shall be paid for under the item "SPALL REPAIR" when the depth of the repair exceeds 1". The minimum depth of spall repair shall extend to the face of transverse reinforcing steel in the cap or to sound concrete. The exposed reinforcing steel shall be blast cleaned prior to applying the concrete mortar.
- The surface of the concrete for Surface Patching and Spall Repair be prepared in accordance with the repair mortar manufacturer's recommendations.
- Areas to be repaired under the item "SURFACE PATCHING" shall utilize "Rapid Set Mortar Mix" manufactured by CTS Cement. The contractor may submit an alternate product for review and approval.
- Areas to be repaired under the item "SPALL REPAIR" shall utilize either "Rapid Set Mortar Mix" or "Rapid Set Concrete Mix" manufactured by CTS Cement. The appropriate product shall be determined by the actual depth of repair encountered. The contractor may submit an alternate product for approval.
- After all concrete repairs are completed, the repaired concrete surfaces shall receive a Class 2 Protective Surface Treatment. The cost of the Class 2 Treatment shall be included in the item "SURFACE PATCHING" or "SPALL REPAIR".



BRIDGE ENGINEER
PRINT DATE: 4/2/2021

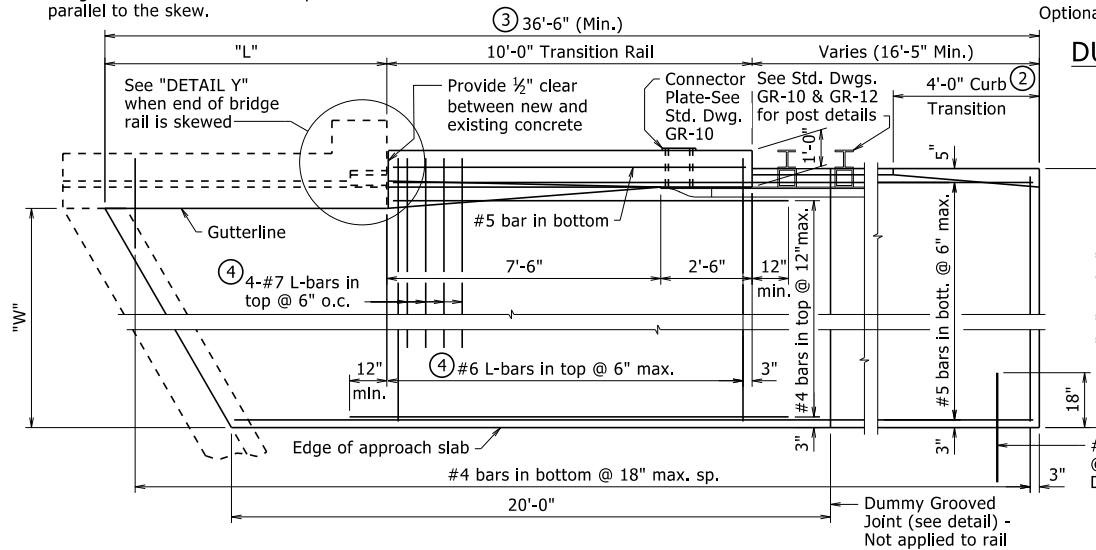
SPALL REPAIR DETAILS
ROUTE VARIES SECTION VARIES
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS
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CHECKED BY: SFH DATE: 03/2021
DESIGNED BY: KDH DATE: 12/2020 SCALE: NONE
BRIDGE NO. 03022,02893,02894,02896,M3479,03053 DRAWING NO. 63956



PLAN - SQUARE BRIDGES

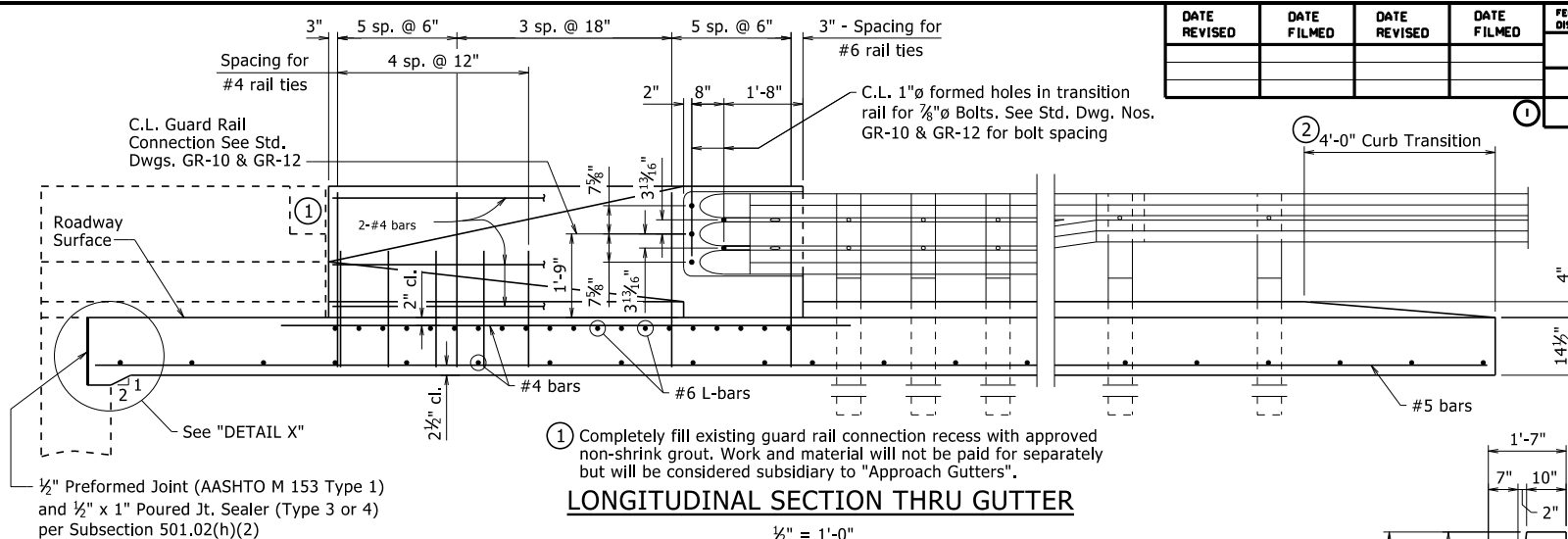
3 Unless otherwise directed by the Engineer

4 When "L" is short and the bridge is skewed, some of these bars may interfere with the bridge end. These bars shall be placed parallel to the skew.



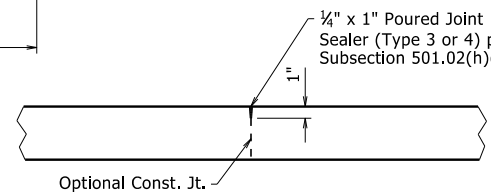
PLAN - SKEWED BRIDGES

3/8" = 1'-0"



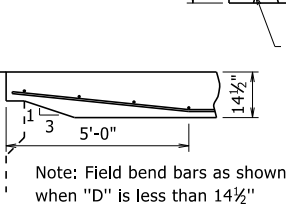
LONGITUDINAL SECTION THRU GUTTER

1/2" = 1'-0"



DUMMY GROOVED JOINT

No Scale



DETAIL X

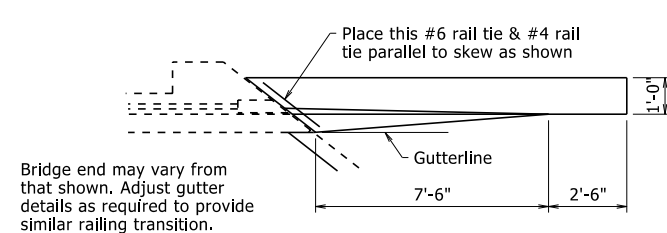
3/8" = 1'-0"

DOWELING NOTES

If new approach slab is used: Place dowels into approach slab using 18" embedment.

If existing approach slab is retained: Dowels shall be drilled and grouted 18" into existing slab. At the Contractor's option, existing dowels may be retained, cleaned and incorporated into new gutters. Work for drilling and grouting, or retaining and cleaning will not be paid for separately but will be considered subsidiary to "Approach Gutters".

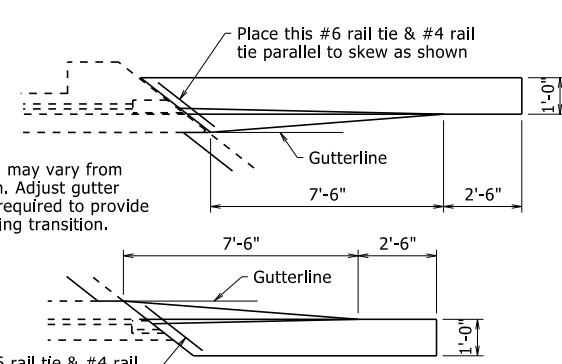
Dowel bars, if required, will not be paid for separately, but will be considered subsidiary to other pay items.



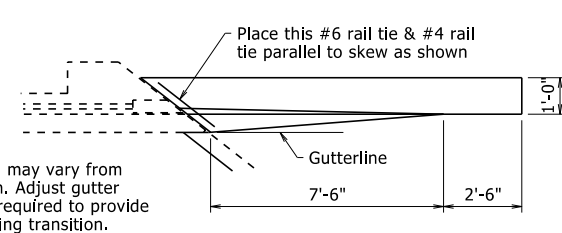
DETAIL Y

No Scale

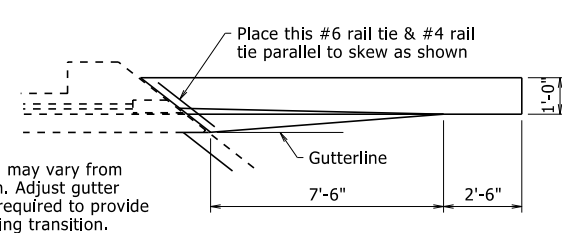
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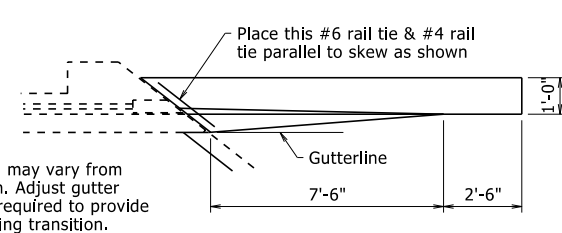
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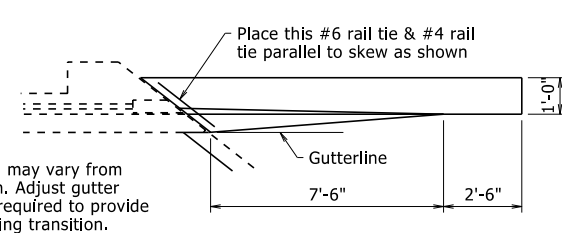
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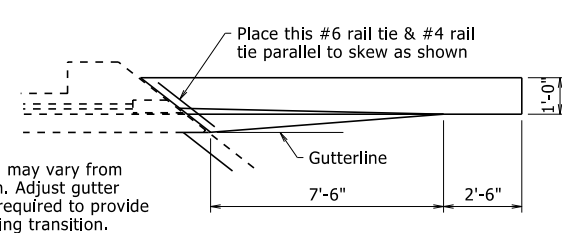
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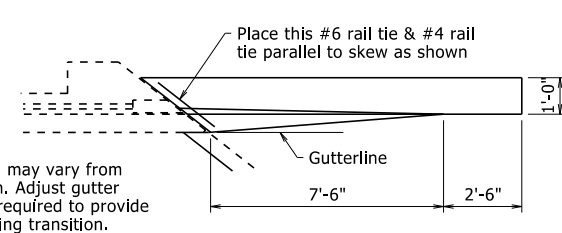
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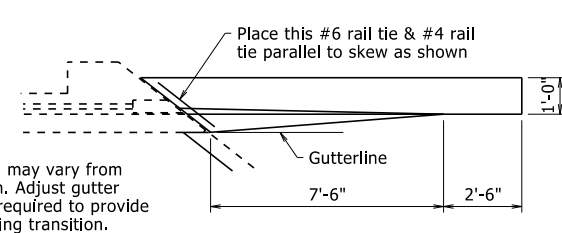
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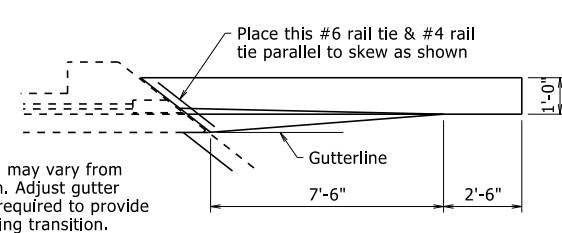
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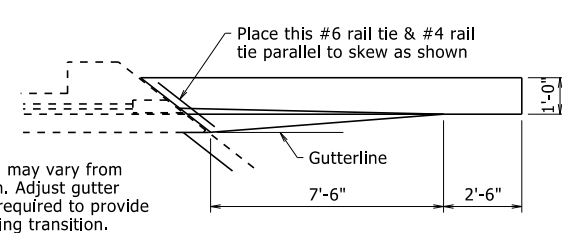
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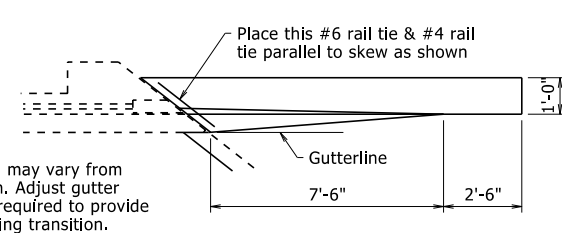
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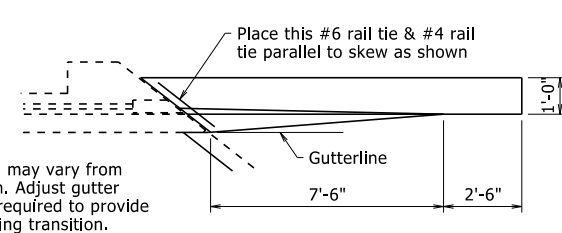
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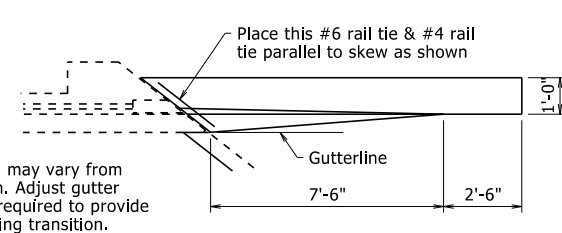
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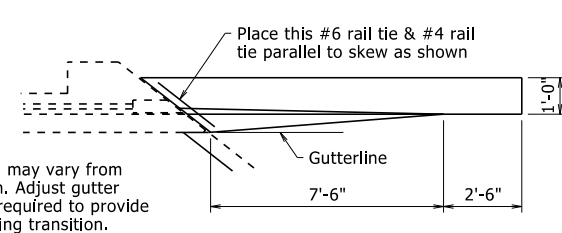
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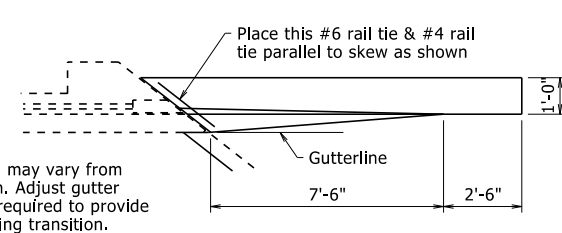
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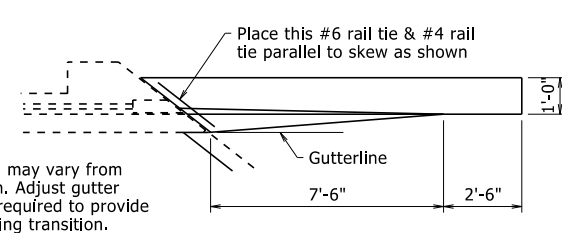
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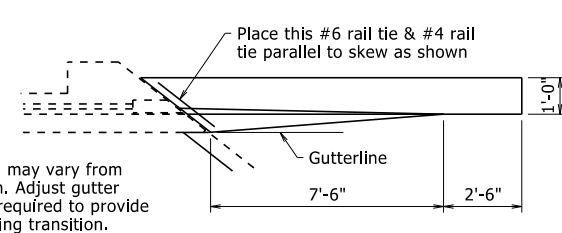
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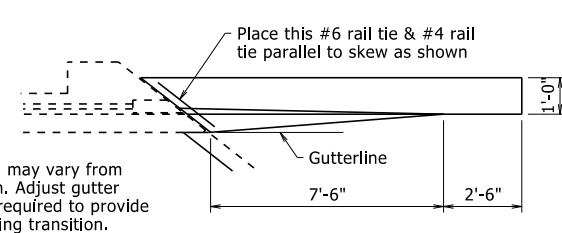
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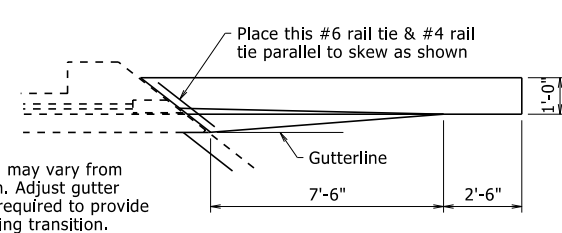
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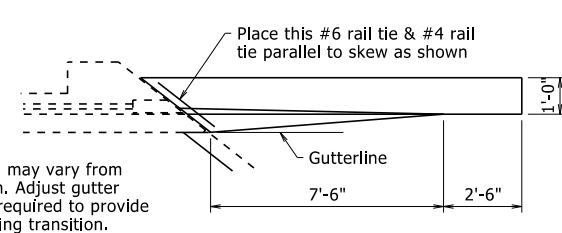
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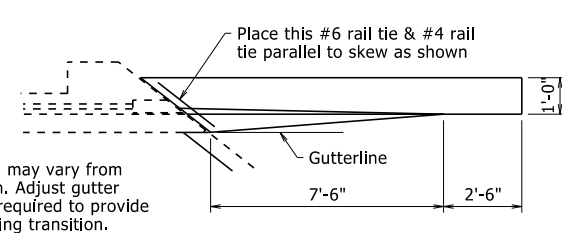
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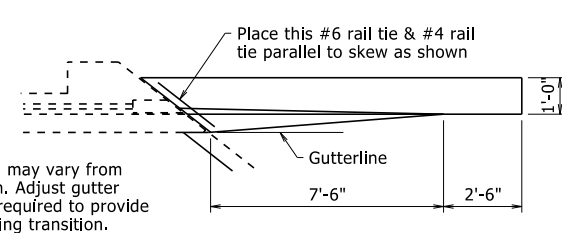
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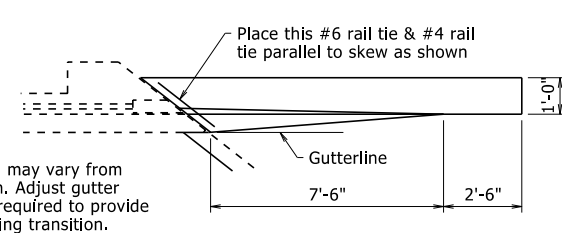
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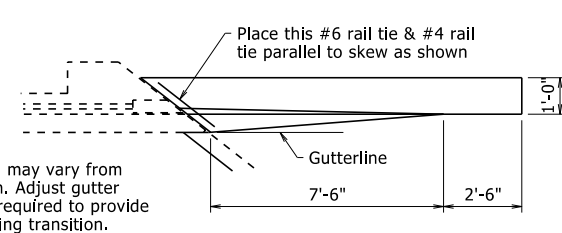
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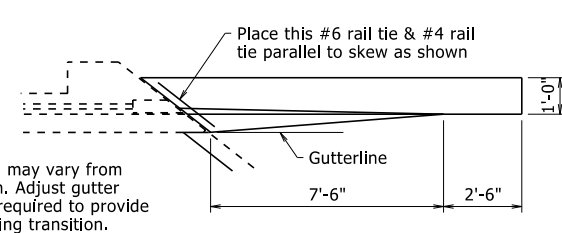
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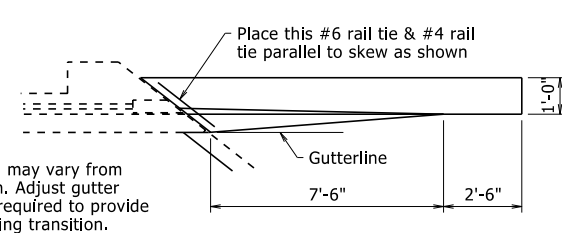
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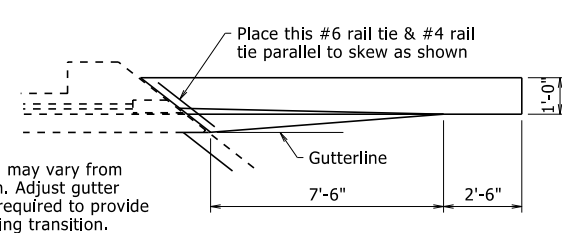
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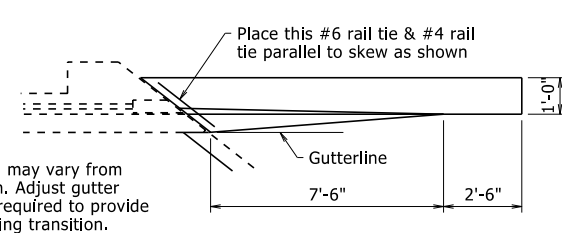
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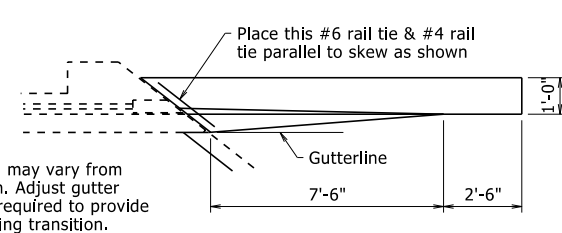
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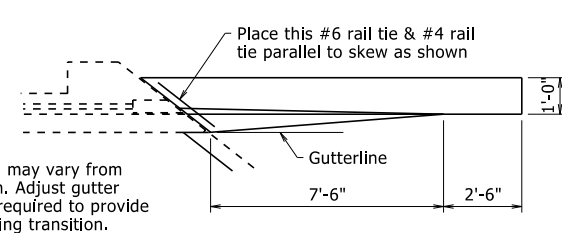
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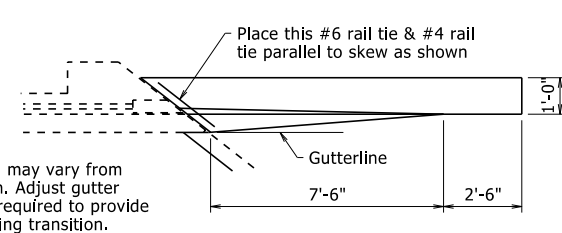
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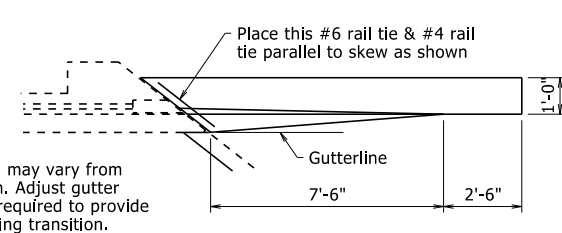
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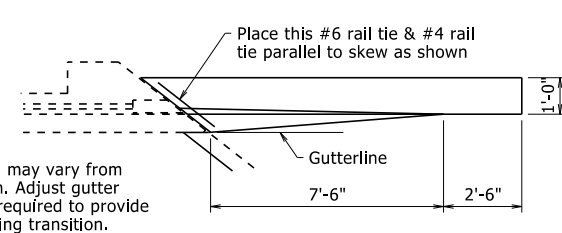
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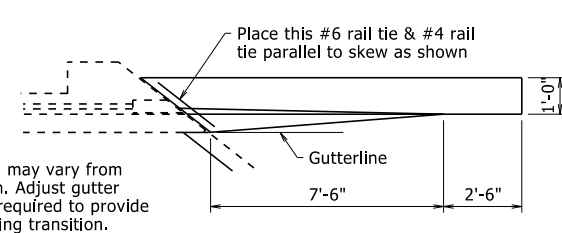
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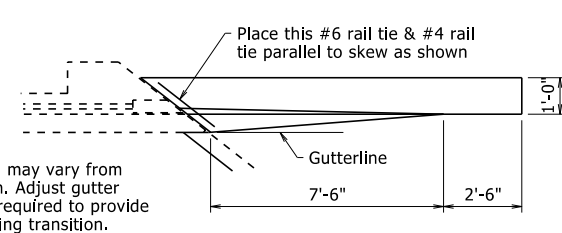
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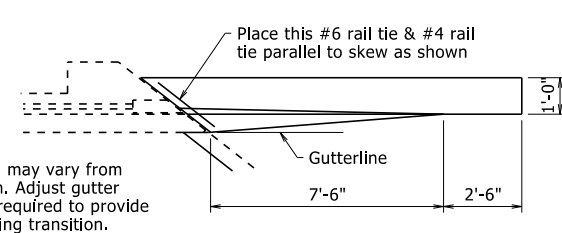
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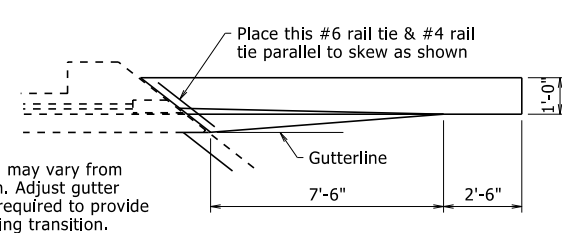
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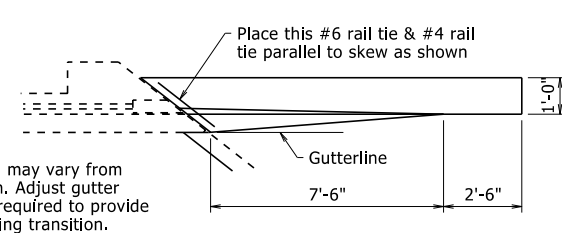
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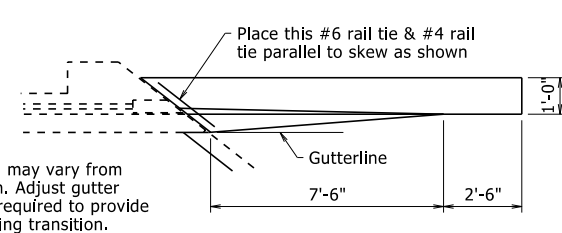
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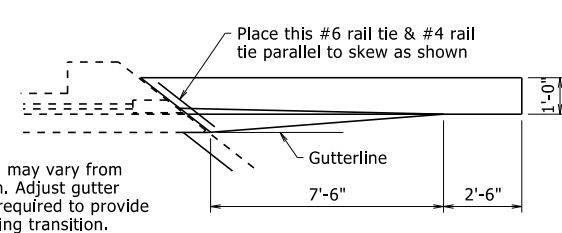
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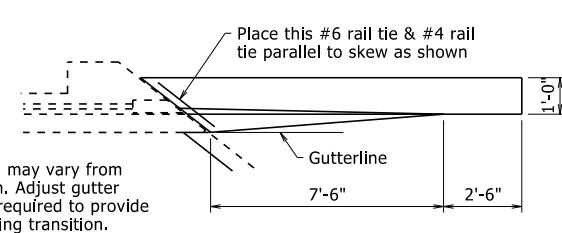
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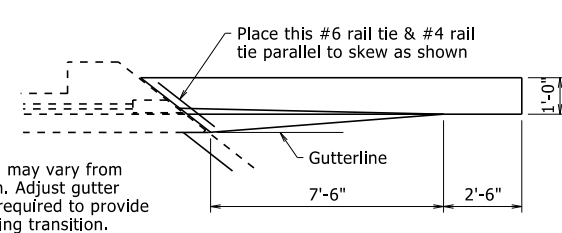
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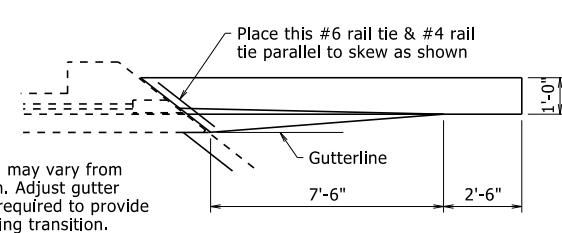
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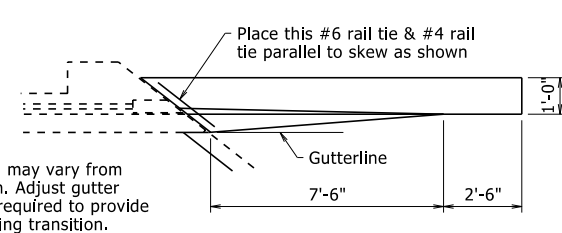
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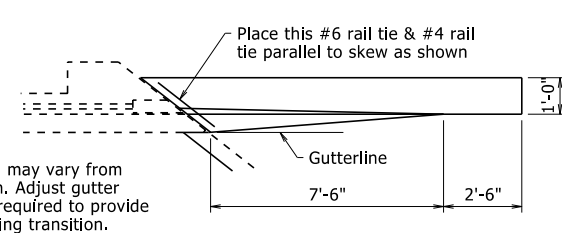
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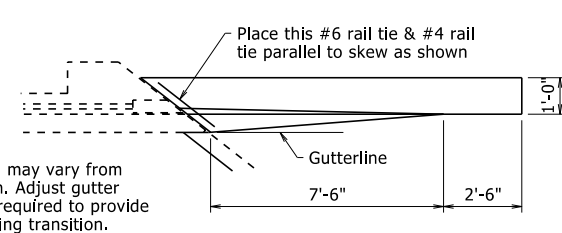
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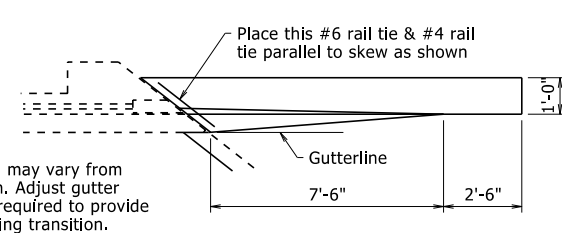
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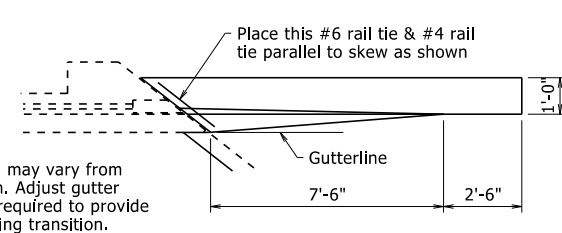
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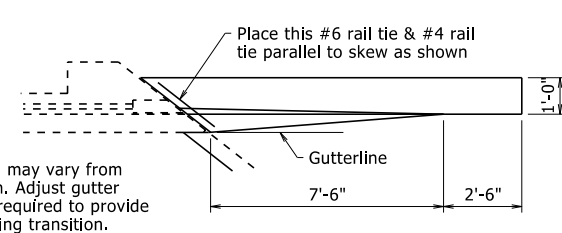
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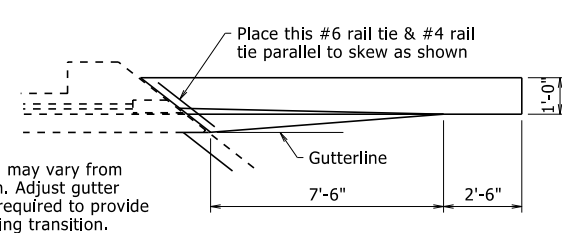
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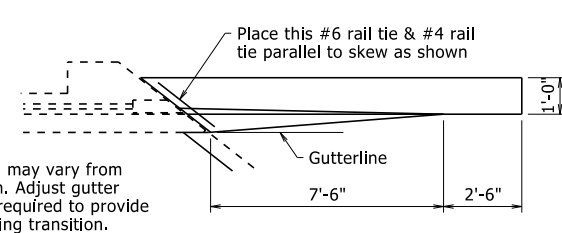
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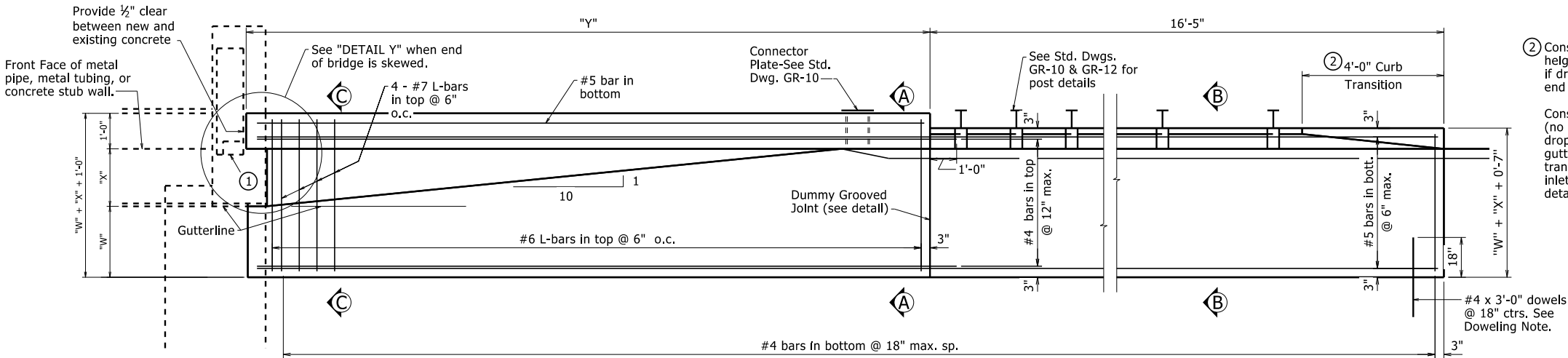


Place this #6 rail tie & #4 rail tie parallel to skew as shown



Place this #6 rail tie & #4 rail tie

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.				



PLAN - SQUARE BRIDGES

1/2" = 1'-0"

DOWELING NOTES

If new approach slab is used: Place dowels into approach slab using 18" embedment.

If existing approach slab is retained: Dowels shall be drilled and grouted 18" into existing slab. At the Contractor's option, existing dowels may be retained, cleaned and incorporated into new gutters. Work for drilling and grouting, or retaining and cleaning will not be paid for separately but will be considered subsidiary to "Approach Gutters".

Dowel bars, if required, will not be paid for separately, but will be considered subsidiary to other pay items.

APPROX. QUANTITIES FOR ONE SQUARE APPROACH GUTTER

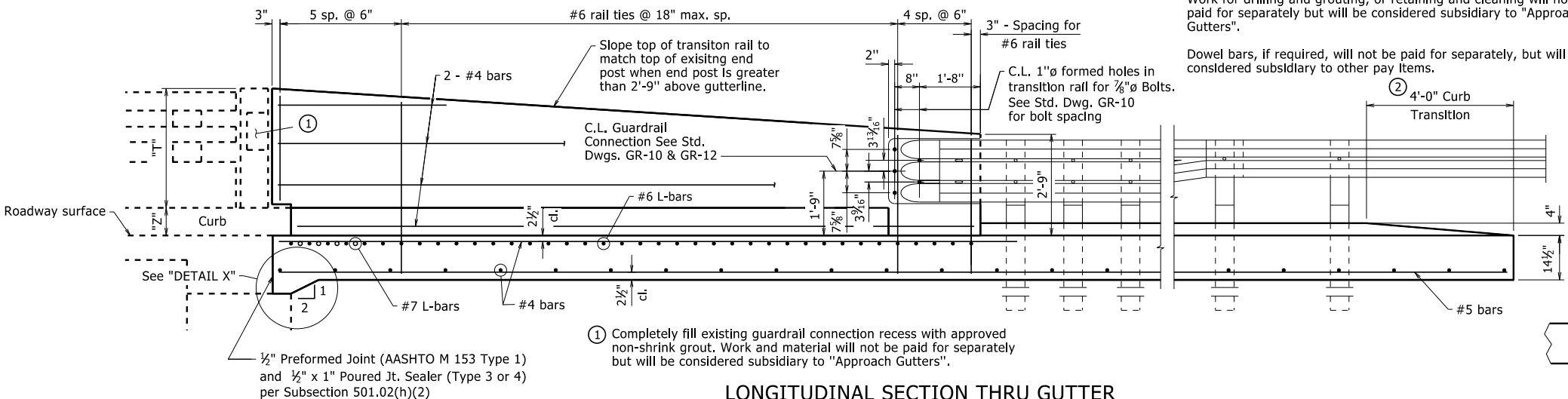
(For Information Only)

Concrete (cu. yd.)	$(W \times 0.87) + (X \times 1.83) + (W \times X \times 0.45) + (Z \times X \times 0.185) + (T \times X \times 0.185) + (X^2 \times 0.45) + (Z \times X^2 \times 0.185) + (T \times 0.06) + (Z \times 0.06) + 0.79$
Reinforcing Steel (lb.)	$(W \times 68.63) + (X \times 254.82) + (T \times 14.54) + (Z \times 14.54) + (W \times X \times 62) + (T \times X \times 10.06) + (Z \times X \times 10.06) + (X^2 \times 62) + 135.72$

VARIABLES: "T" = Height of the end post above the top of curb.
"W" = Distance from gutterline to edge of shoulder or edge of approach slab, if present.
"X" = Distance from gutterline to face of existing end post.
"Y" = "X" x 10 + 3.0
"Z" = Height of bridge curb.

Units for variables are in feet.

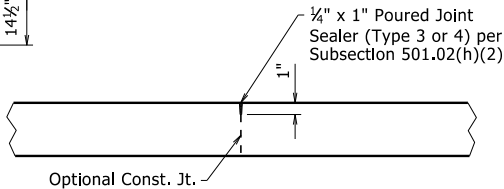
"W" + "X" shall not be less than 3'-0" unless approach gutter is doweled into an approach slab or concrete pavement.



LONGITUDINAL SECTION THRU GUTTER

3/8" = 1'-0"

NOTE: Bridge end may vary from that shown. Adjust gutter details as required to provide similar rail transition.



DUMMY GROOVED JOINT

No Scale

GENERAL NOTES

This drawing shall only be used for thrie-beam retrofit of existing bridge rails.

Concrete shall be Class S or S(AE) or mixture used for Portland Cement Concrete Pavement.

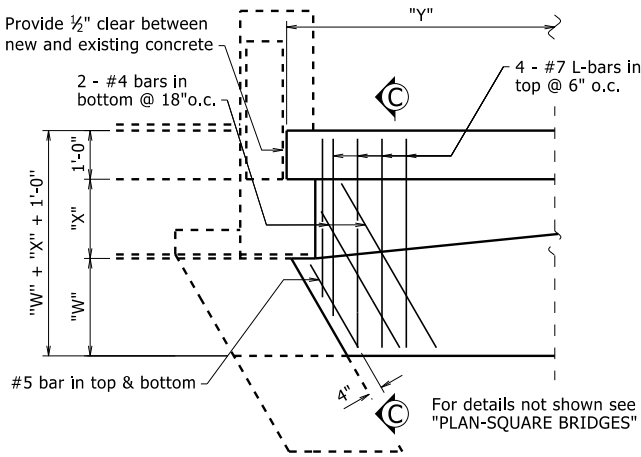
Reinforcing steel shall be Grade 60 (fy = 60,000 psi.) conforming to AASHTO M 31 or M 322, Type A, with mill test reports. Fabricate bar lengths to provide 2" minimum cover at each end.

Approach gutters will be measured and paid for in accordance with Section 504.

Preformed Joint and Poured Joint Sealer included in the item "Approach Gutters."

All longitudinal lines within the limits of horizontal curves shall be on curves concentric to C.L. Bridge. Adjustment to longitudinal bar lengths may be required. Transverse reinforcing shall be placed on radial lines to C.L. Bridge.

If an existing drop inlet is located within the Plan of the approach gutter, adjust the reinforcing as needed to facilitate construction of the approach gutter, unless otherwise noted.

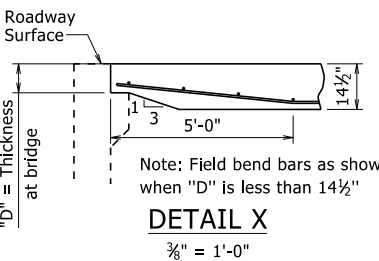


DETAIL Y

1/2" = 1'-0"

NOTE: Reinforcing Steel is similar as shown for opposite side.

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DETAIL X

3/8" = 1'-0"

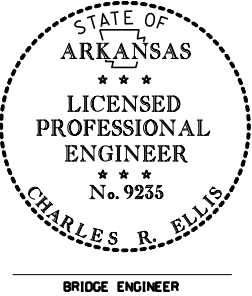
STANDARD DETAILS FOR TYPE 'AT2' APPROACH GUTTERS (BRIDGES WITH CURBS & TYPE A, B, C, D, OR E RAILING)

ROUTE SEC. ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

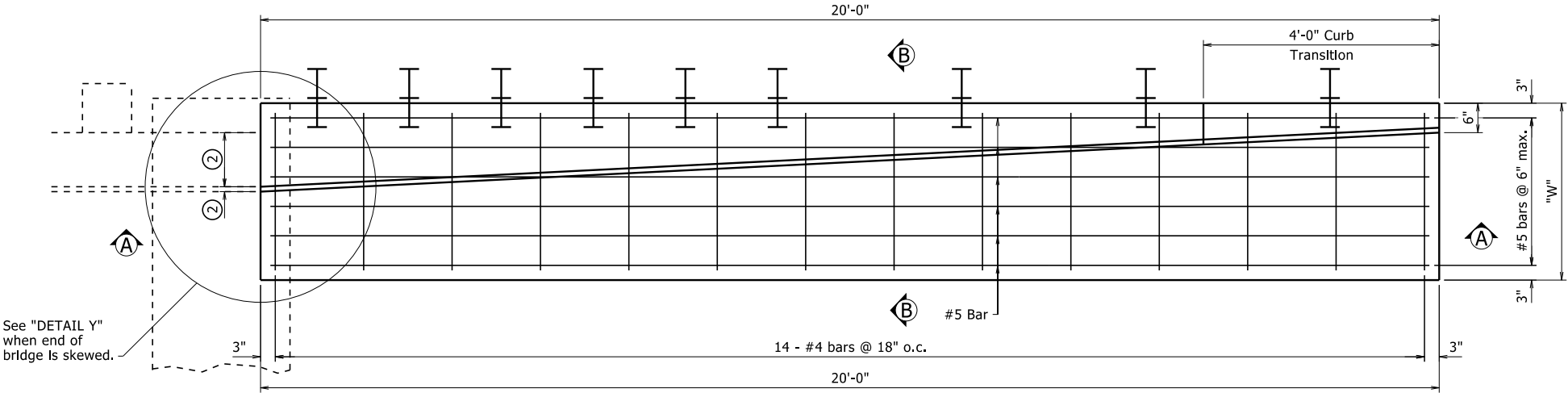
DRAWN BY: TMG DATE: 11/7/2019 FILENAME: b55038.dgn
CHECKED BY: CRE DATE: 11/7/2019 SCALE: AS NOTED
DESIGNED BY: STD. DATE: -

DRAWING NO. 55038



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.				
① - TYPE CT GUTTERS - 55039								



PLAN OF APPROACH GUTTER ①

¾" = 1'-0"

Remove the existing terminal section as needed and attach a new guard rail to the existing guard rail on the bridge.

- ① Square approach gutter is shown. Modify approach gutter as necessary to accommodate a bridge on a skew. See "DETAIL Y."
- ② Match existing conditions at bridge end.
- ③ Vary post height, as necessary, to match height of existing w-beam bridge rail.

GENERAL NOTES

This drawing shall only be used as a retrofit of an existing bridge end where an existing curb creates a snag point.

Concrete shall be Class S or S(AE) or mixture used for Portland Cement Concrete Pavement.

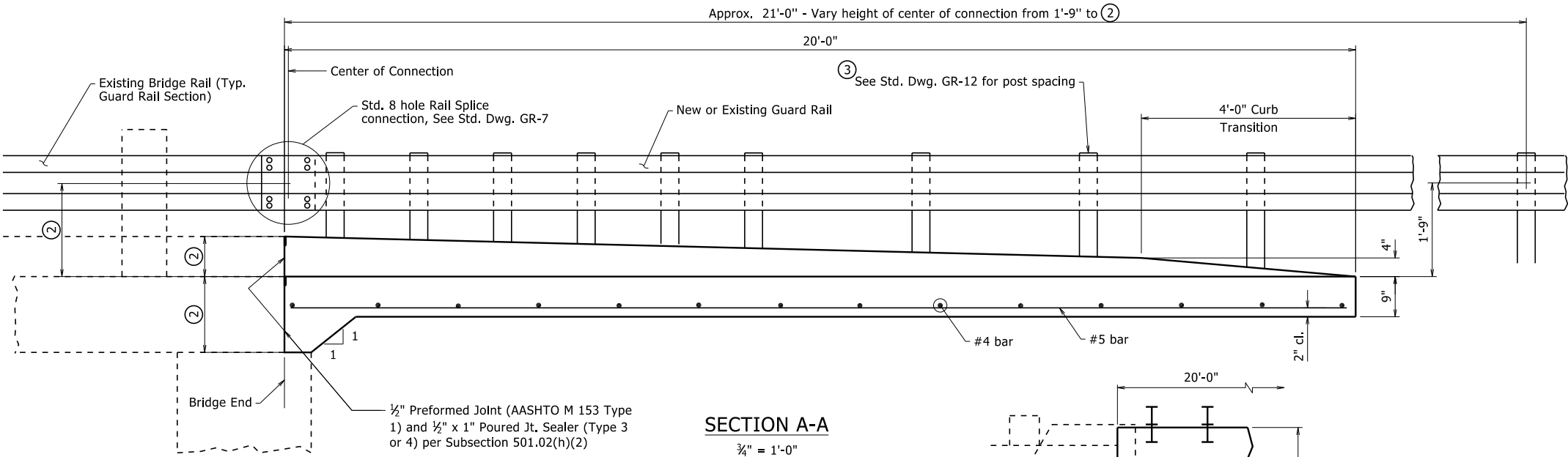
Reinforcing steel shall be Grade 60 (fy = 60,000 psi.) conforming to AASHTO M 31 or M 322, Type A, with mill test reports. Fabricate bar lengths to provide 2" minimum cover at each end.

Approach gutters will be measured and paid for in accordance with Section 504.

Preformed Joint and Poured Joint Sealer included in the item "Approach Gutters".

All longitudinal lines within the limits of horizontal curves shall be on curves concentric to C.L. Bridge. Adjustment to longitudinal bar lengths may be required. Transverse reinforcing shall be placed on radial lines to C.L. Bridge.

If an existing drop inlet is located within the Plan of the approach gutter, adjust the reinforcing as needed to facilitate construction of the approach gutter, unless otherwise noted.



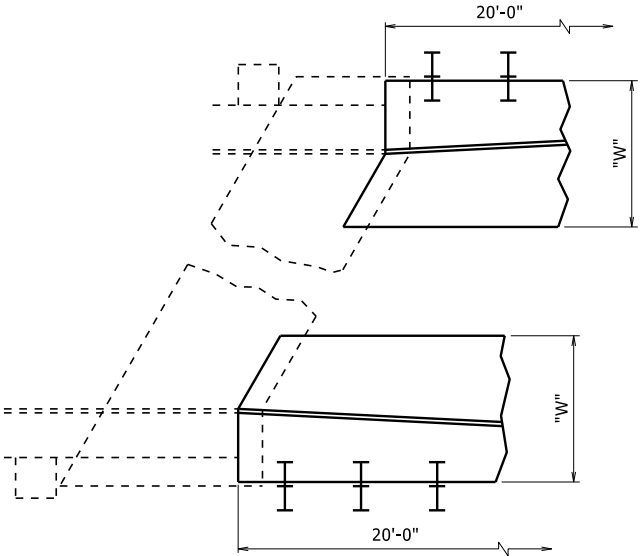
SECTION A-A

¾" = 1'-0"

APPROXIMATE QUANTITIES FOR ONE SQUARE 20'-0" APPROACH GUTTER

Concrete (Cu. Yd.)	("W" x 0.56) + 0.41
Reinforcing Steel (lb.)	("W" x 50.38) - 3.11

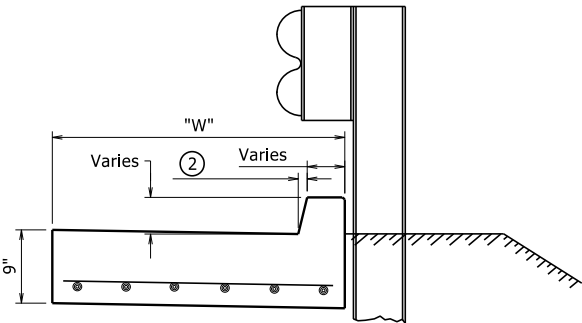
Variables: Units of "W" are in feet.



DETAIL Y

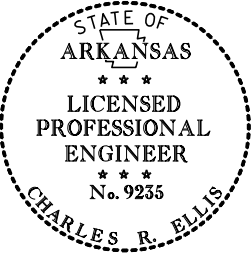
No Scale

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SECTION B-B

1" = 1'-0"



BRIDGE ENGINEER

STANDARD DETAILS FOR TYPE 'CT' APPROACH GUTTERS (BRIDGES WITH CURB)

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

DRAWN BY: TMG DATE: 11/7/2019 FILENAME: b55039.dgn
CHECKED BY: CRE DATE: 11/7/2019 SCALE: AS NOTED
DESIGNED BY: STD. DATE: -

DRAWING NO. 55039

Stages of construction and traffic refer to Bridge Rehabilitation Work Zones as shown in Maintenance of Traffic Details. Numbering is shown for general purposes. See Roadway Plans for specific sequencing.

The minimum overlay placement length shall be a span length on simple span bridges and to an existing slab joint on continuous span bridges, unless otherwise approved by the Engineer. Refer to existing bridge drawings.

NOTE: Details shown are typical for staged construction. When full width rehabilitation of a bridge deck is possible, adjust hydrodemolition and latex modified concrete overlay operations and details accordingly.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1/9/2020				6	ARK.			
6/25/2020								
				JOB NO.				
				HYDRO/LMC OVERLAY - 55060				

GENERAL NOTES:

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

Details shown are schematic. The Contractor shall make check measurements in the field and make any adjustments necessary to meet the required clearances and fit the new work to the existing structure(s).

The operation or placement of vehicles, equipment, and/or materials on the subject bridge(s) necessary for the completion of this work shall be evaluated in accordance with Subsection 105.14. Certifications of the adequacy of all components for the anticipated loads shall address the capacity of the existing structure at all phases of this work.

Where applicable, construction activities for the existing bridge(s) over roadways and railroads shall be in accordance with the Job SP "Special Safety Requirements for Bridges" and as shown in "Minimum Construction Clearance Envelope".

HYDRODEMOLITION: The entire roadway surface of the existing bridge deck and approach slabs and gutters, as applicable, shall receive hydrodemolition in accordance with the Job SP "Hydrodemolition - Class ____" to a planned depth of 1½" below the existing bridge deck surface. Deteriorated concrete in the bridge deck below this depth shall be removed at the direction of the Engineer and up to the limits detailed. These areas shall be measured by the square yard and shall be paid for at the unit price bld for the Item Job SP "Hydrodemolition - Class ____". Prior to hydrodemolition, cold milling of the concrete deck to a maximum depth of 1" will be allowed unless there will be a conflict with the existing reinforcing steel.

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

LATEX MODIFIED CONCRETE OVERLAY: The entire area of the hydrodemolition shall receive a Latex Modified Concrete (LMC) Overlay to a planned depth of 1½" below the existing bridge deck surface in accordance with Job SP "Latex Modified Concrete Overlay". These areas shall be measured by the square yard and shall be paid for at the unit price bld for the Item Job SP "Latex Modified Concrete Overlay (1½" Thick)". Areas of the existing bridge deck removed at the direction of the Engineer to a depth greater than 1½" below the existing bridge deck surface shall be filled with LMC concurrent to the placement of the 1½" LMC Overlay. This area shall be measured and paid for in accordance with Job SP "Latex Modified Concrete Overlay".

GROOVED FINISH: The LMC Overlay surface of the bridge deck and approach slabs and gutters, as applicable, shall be given a grooved finish as specified for final finishing in Subsection 802.19 for Class 7 Grooved Bridge Roadway Surface Finish and in accordance with Job SP "Latex Modified Concrete Overlay".

PROTECTIVE SURFACE TREATMENT: The longitudinal joint between the LMC Overlay and the adjacent existing concrete curb or rail shall be given a Class 3 Protective Surface Treatment as specified in Section 803 and in accordance with Job SP "Latex Modified Concrete Overlay". The roadway surface of the completed LMC Overlay shall be given a Class 1 Protective Surface Treatment as specified in Section 803.

JOINT REHABILITATION: After the placement of the LMC Overlay and if shown in the plans, the existing armored joints shall be given a poured silicone joint sealant as specified in Section 809 and as shown in "Poured Silicone Joint Seal Details" on Standard Drawing No. 55064, and the existing unarmored joints shall be given a Type A Joint Rehabilitation as specified in Section 509 and Job SP "Joint Rehabilitation for Bridge Decks". Backwall repair, if shown in the plans or as directed by the Engineer, shall be completed prior to installation of the joint sealant.

If shown in the plans, the existing neoprene strip seal shall be removed and replaced. See "Strip Seal Joint Details" on Standard Drawing No. 55064.

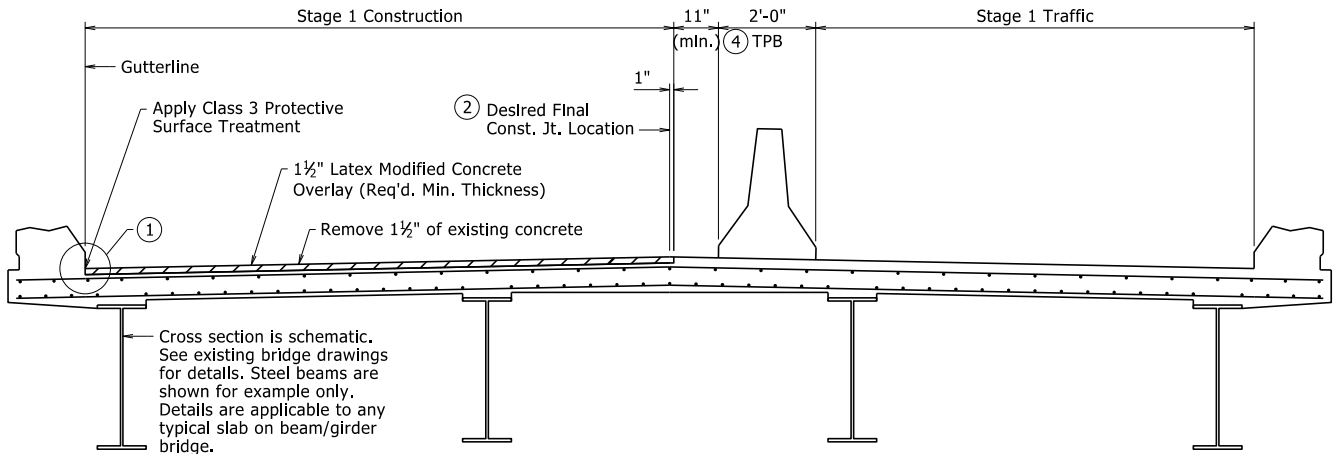
NOTE: When "Very Early Strength Latex Modified Concrete Overlay (1½" Thick)" is shown in the plans for a particular bridge, all reference to "Latex Modified Concrete Overlay" and "LMC" on this sheet shall be considered synonymous with "Very Early Strength Latex Modified Concrete Overlay" and "VESLMC" for that bridge. See Job SP "Very Early Strength Latex Modified Concrete Overlay" for additional information.

STANDARD DETAILS FOR
HYDRODEMOLITION AND LMC OVERLAY
SLAB ON BEAM/GIRDER BRIDGES
ARKANSAS STATE HIGHWAY COMMISSION

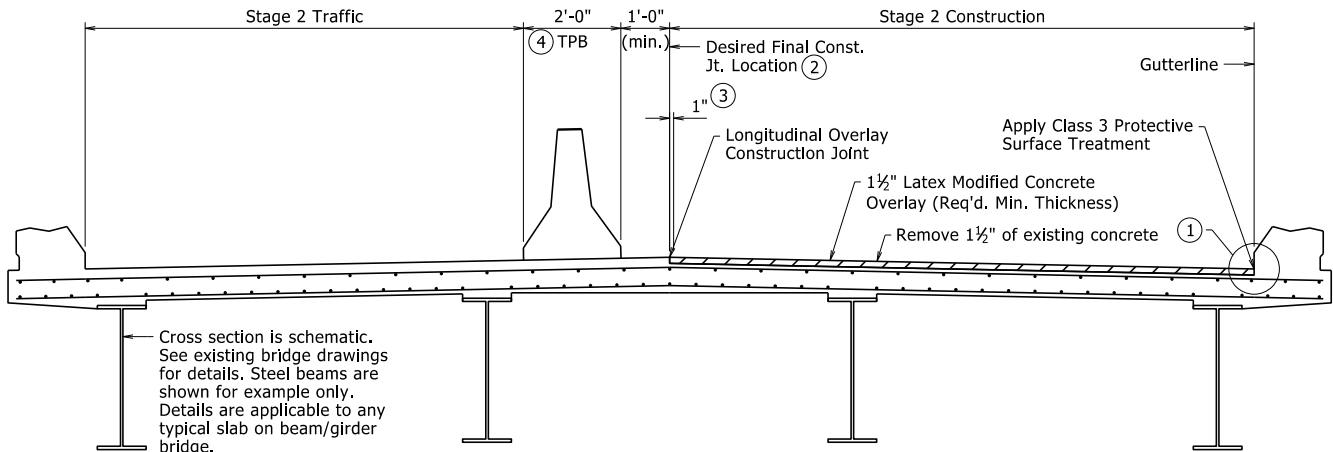
LITTLE ROCK, ARK.

DRAWN BY: KWY DATE: 11/7/2019 FILENAME: b55060.dgn
CHECKED BY: SWP DATE: 11/7/2019 SCALE: None
DESIGNED BY: STD. DATE: -----

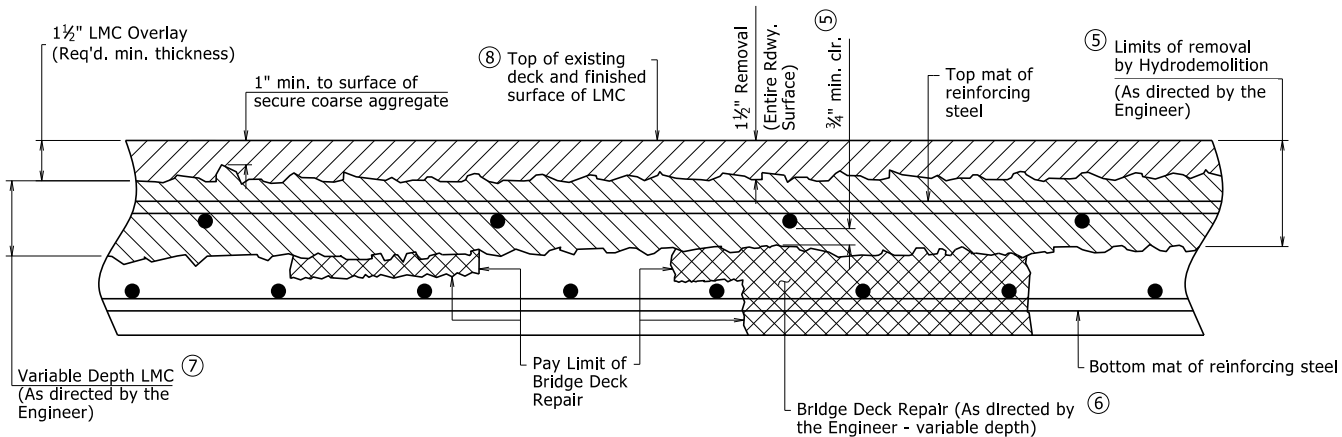
DRAWING NO. 55060



STAGE 1 LATEX MODIFIED CONCRETE OVERLAY



STAGE 2 LATEX MODIFIED CONCRETE OVERLAY

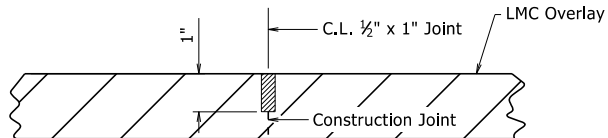


DETAILS OF HYDRODEMOLITION AND LATEX MODIFIED CONCRETE OVERLAY

- ⑤ Removal of unsound concrete beyond 1½" below the original surface shall be at the direction of the Engineer. If the bond between existing concrete and the top mat of reinforcing steel is destroyed, then the concrete shall be removed to a minimum of ¾" clearance below the bar. This removal shall be subsidiary to the Item Job SP "Hydrodemolition - Class ____".
- ⑥ Areas requiring additional repair, as determined by the Engineer, shall be repaired in accordance with the Job SP "Bridge Deck Repair for Latex Modified Concrete Overlays".

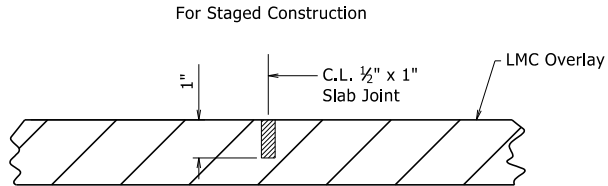
- ⑦ Depth varies to achieve minimum clearance below top mat of reinforcing steel, where required.
- ⑧ Finished surface of LMC Overlay shall match existing concrete deck surfaces unless Increase Is required to maintain minimum required LMC Overlay thickness and a minimum of 1½" cover to reinforcing steel and shear connectors.

- ① Hand tools shall be used as required to remove concrete adjacent to curbs, rails, and armored expansion joints.
- ② For staged construction, the final construction joint location shall be established by the Engineer to satisfy MOT and construction requirements. The desired location is at the C.L. Bridge, C.L. Lane, or Edge of Lane, but in no case shall be positioned in the line of a wheel path.
- ③ For staged construction, saw cut and remove 1" of initial Latex Modified Concrete Overlay when preparing surface for adjacent overlay.
- ④ For staged construction, Temporary Precast Barrier (TPB) shall not be connected to the surface of the bridge deck. See Std. Dwg. TC-4 for additional details. Plastic drums shall be used in lieu of concrete barriers where shown in the Roadway Plans, see Std. Dwg. TC-3 for additional details.



Use ½" x 1" Type 3 or 4 Joint Sealer. See Subsections 501.02(h) and 501.05(j). Backer Rod will not be required. Joint Sealer shall be measured and paid for as LMC Overlay. Longitudinal construction joints shall be sawed as soon as the concrete has sufficiently set to allow sawing of the joint without damage to the overlay. Seal color shall be gray or other color similar to concrete.

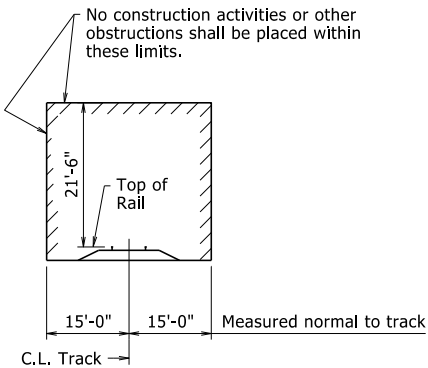
LONGITUDINAL OVERLAY CONSTRUCTION JOINT DETAIL



Use ½" x 1" Type 3 or 4 Joint Sealer. See Subsections 501.02(h) and 501.05(j). Backer Rod will not be required. Joint Sealer shall be measured and paid for as LMC Overlay. Slab joints shall extend from gutterline to gutterline. Slab joints shall be sawed as soon as the concrete has sufficiently set to allow sawing of the joint without damage to the overlay. Slab joints shall be placed at all pouring sequence construction joints and are required at existing slab joint locations. Pouring sequence construction joints shall align between stages of construction. The joint sealer shall extend across the deck from gutterline to gutterline. Seal color shall be gray or other color similar to concrete.

TRANSVERSE OVERLAY JOINT DETAIL

For Continuous Span Bridges

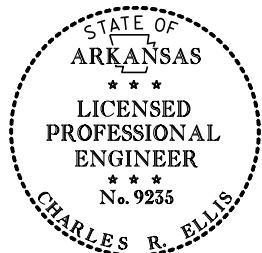


MINIMUM CONSTRUCTION CLEARANCE ENVELOPE

See Job SP "Insurance, Construction, and Flagging Requirements on Railroad Property" for additional railroad construction requirements.

- ① Modified Hydrodemolition SP reference to include "Class ____". By: KWY, Checked by: SWP; 1/9/2020.
- ② Modified Joint Rehabilitation to include unarmored joints. By: KWY, Checked by: SWP; 6/25/2020.

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.



BRIDGE ENGINEER

Stages of construction and traffic refer to Bridge Rehabilitation Work Zones as shown in Maintenance of Traffic Details. Numbering is shown for general purposes. See Roadway Plans for specific sequencing.

The minimum overlay placement length shall be a span length on simple span bridges and to an existing slab joint on continuous span bridges, unless otherwise approved by the Engineer. Refer to existing bridge drawings.

NOTE: Details shown are typical for staged construction. When full width rehabilitation of a bridge deck is possible, adjust hydrodemolition and latex modified concrete overlay operations and details accordingly.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1/9/2020				6	ARK.			
6/25/2020								
				JOB NO.				
				1	HYDRO/LMC OVERLAY - 55061			

GENERAL NOTES:

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

Details shown are schematic. The Contractor shall make check measurements in the field and make any adjustments necessary to meet the required clearances and fit the new work to the existing structure(s).

The operation or placement of vehicles, equipment, and/or materials on the subject bridge(s) necessary for the completion of this work shall be evaluated in accordance with Subsection 105.14. Certifications of the adequacy of all components for the anticipated loads shall address the capacity of the existing structure at all phases of this work.

Where applicable, construction activities for the existing bridge(s) over roadways and railroads shall be in accordance with the Job SP "Special Safety Requirements for Bridges" and as shown in "Minimum Construction Clearance Envelope".

HYDRODEMOLITION: The entire roadway surface of the existing bridge deck and approach slabs and gutters, as applicable, shall receive hydrodemolition in accordance with the Job SP "Hydrodemolition - Class _" to a planned depth of ½" below the existing bridge deck surface. Deteriorated concrete in the bridge deck below this depth shall be removed at the direction of the Engineer and up to the limits detailed. These areas shall be measured by the square yard and shall be paid for at the unit price bid for the Item Job SP "Hydrodemolition - Class _".

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

LATEX MODIFIED CONCRETE OVERLAY: The entire area of the hydrodemolition shall receive a Latex Modified Concrete (LMC) Overlay with a minimum thickness of 1½" in accordance with Job SP "Latex Modified Concrete Overlay". These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item Job SP "Latex Modified Concrete Overlay (1½" Thick)". Areas of the existing bridge deck removed at the direction of the Engineer to a depth greater than ½" below the existing bridge deck surface shall be filled with LMC concurrent to the placement of the 1½" LMC Overlay. This area shall be measured and paid for in accordance with Job SP "Latex Modified Concrete Overlay".

GROOVED FINISH: The LMC Overlay surface of the bridge deck and approach slabs and gutters, as applicable, shall be given a grooved finish as specified for final finishing in Subsection 802.19 for Class 7 Grooved Bridge Roadway Surface Finish and in accordance with Job SP "Latex Modified Concrete Overlay".

PROTECTIVE SURFACE TREATMENT: The longitudinal joint between the LMC Overlay and the adjacent existing concrete curb or rail shall be given a Class 3 Protective Surface Treatment as specified in Section 803 and in accordance with Job SP "Latex Modified Concrete Overlay". The roadway surface of the completed LMC Overlay shall be given a Class 1 Protective Surface Treatment as specified in Section 803.

JOINT REHABILITATION: After the placement of the LMC Overlay and if shown in the plans, the existing armored joints shall be given a poured silicone joint sealant as specified in Section 809 and as shown in "Poured Silicone Joint Seal Details" on Standard Drawing No. 55064, and the existing unarmored joints shall be given a Type A Joint Rehabilitation as specified in Section 509 and Job SP "Joint Rehabilitation for Bridge Decks". Backwall repair, if shown in the plans or as directed by the Engineer, shall be completed prior to installation of the joint sealant.

If shown in the plans, the existing neoprene strip seal shall be removed and replaced. See "Strip Seal Joint Details" on Standard Drawing No. 55064.

NOTE: When "Very Early Strength Latex Modified Concrete Overlay (1½" Thick)" is shown in the plans for a particular bridge, all reference to "Latex Modified Concrete Overlay" and "LMC" on this sheet shall be considered synonymous with "Very Early Strength Latex Modified Concrete Overlay" and "VESLMC" for that bridge. See Job SP "Very Early Strength Latex Modified Concrete Overlay" for additional information.

STANDARD DETAILS FOR HYDRODEMOLITION AND LMC OVERLAY SLAB ON BEAM/GIRDER BRIDGES WITH GRADE RAISE

ARKANSAS STATE HIGHWAY COMMISSION

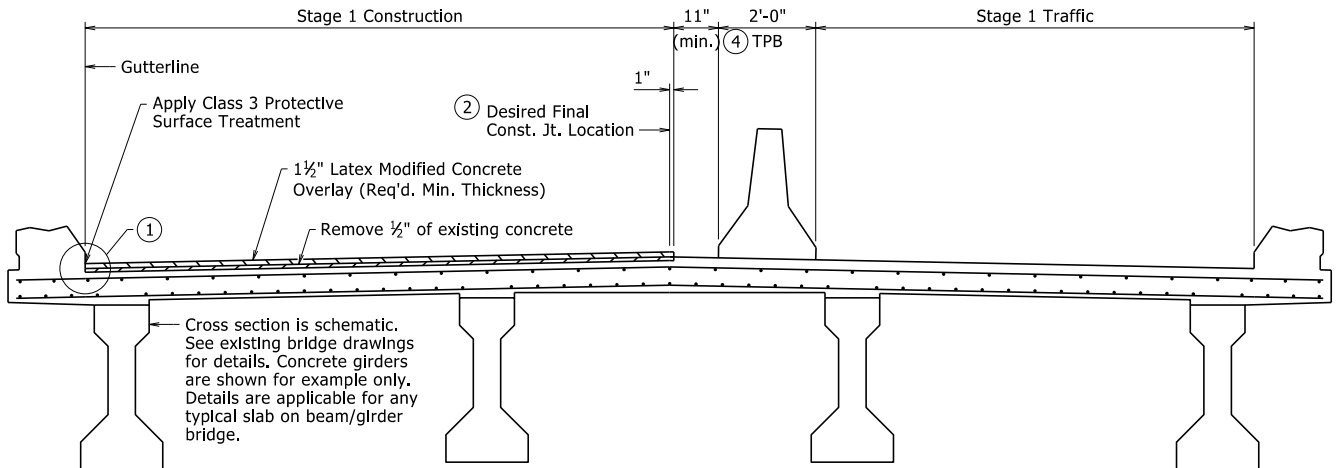
LITTLE ROCK, ARK.

DRAWN BY: KWY DATE: 11/7/2019 FILENAME: b55061.dgn

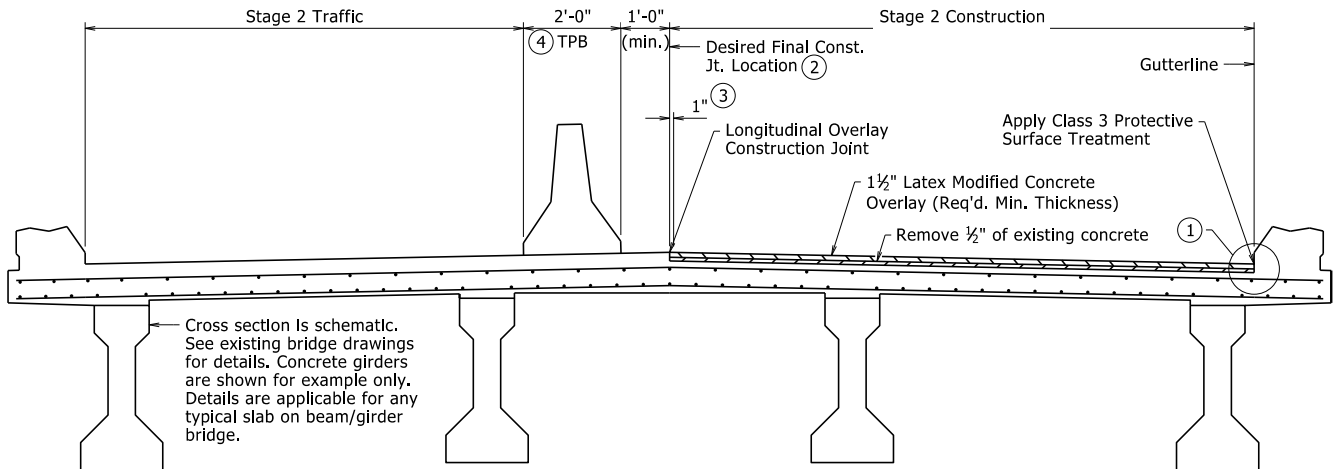
CHECKED BY: SWP DATE: 11/7/2019 SCALE: None

DESIGNED BY: STD. DATE: -----

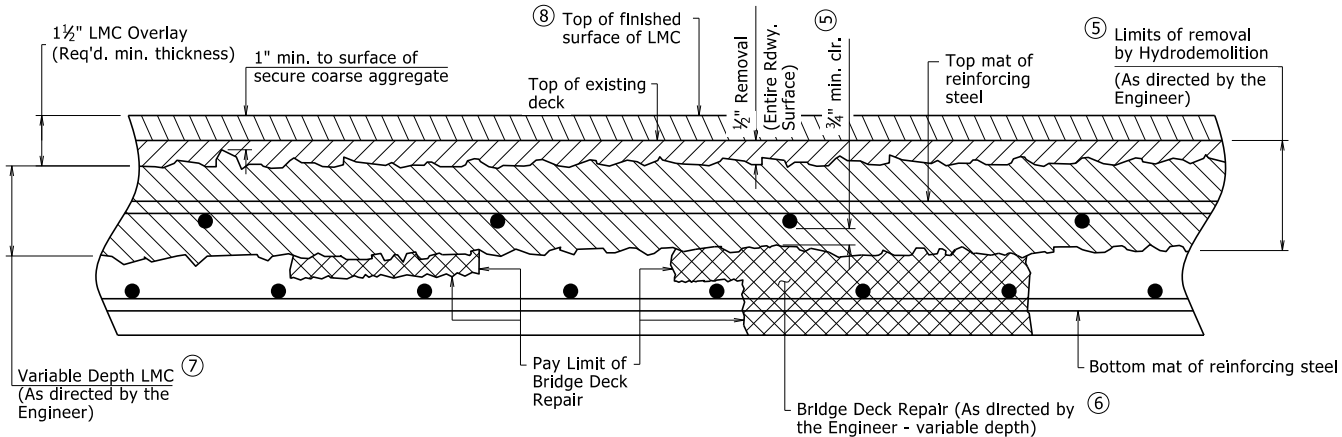
DRAWING NO. 55061



STAGE 1 LATEX MODIFIED CONCRETE OVERLAY



STAGE 2 LATEX MODIFIED CONCRETE OVERLAY



DETAILS OF HYDRODEMOLITION AND LATEX MODIFIED CONCRETE OVERLAY

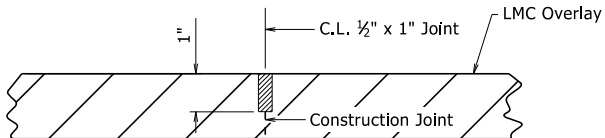
⑤ Removal of unsound concrete beyond ½" below the original surface shall be at the direction of the Engineer. If the bond between existing concrete and the top mat of reinforcing steel is destroyed, then the concrete shall be removed to a minimum of ¾" clearance below the bar. This removal shall be subsidiary to the item Job SP "Hydrodemolition - Class _".

⑥ Areas requiring additional repair, as determined by the Engineer, shall be repaired in accordance with the Job SP "Bridge Deck Repair for Latex Modified Concrete Overlays".

⑦ Depth varies to achieve minimum clearance below top mat of reinforcing steel, where required.

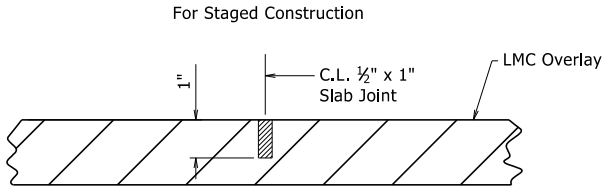
⑧ Finished surface of LMC Overlay shall be increased as required to maintain minimum required LMC Overlay thickness and a minimum of 1½" cover to reinforcing steel and shear connectors.

- ① Hand tools shall be used as required to remove concrete adjacent to curbs, rails, and armored expansion joints.
- ② For staged construction, the final construction joint location shall be established by the Engineer to satisfy MOT and construction requirements. The desired location is at the C.L. Bridge, C.L. Lane, or Edge of Lane, but in no case shall be positioned in the line of a wheel path.
- ③ For staged construction, saw cut and remove 1" of Initial Latex Modified Concrete Overlay when preparing surface for adjacent overlay.
- ④ For staged construction, Temporary Precast Barrier (TPB) shall not be connected to the surface of the bridge deck. See Std. Dwg. TC-4 for additional details. Plastic drums shall be used in lieu of concrete barriers where shown in the Roadway Plans, see Std. Dwg. TC-3 for additional details.



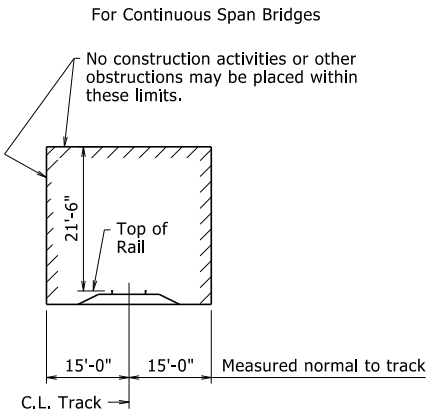
Use ½" x 1" Type 3 or 4 Joint Sealer. See Subsections 501.02(h) and 501.05(j). Backer Rod will not be required. Joint Sealer shall be measured and paid for as LMC Overlay. Longitudinal construction joints shall be sawed as soon as the concrete has sufficiently set to allow sawing of the joint without damage to the overlay. Seal color shall be gray or other color similar to concrete.

LONGITUDINAL OVERLAY CONSTRUCTION JOINT DETAIL



Use ½" x 1" Type 3 or 4 Joint Sealer. See Subsections 501.02(h) and 501.05(j). Backer Rod will not be required. Joint Sealer shall be measured and paid for as LMC Overlay. Slab joints shall be placed at all pouring sequence construction joints and are required at existing slab joint locations. Pouring sequence construction joints shall align between stages of construction. The joint sealer shall extend across the deck from gutterline to gutterline. Seal color shall be gray or other color similar to concrete.

TRANSVERSE OVERLAY JOINT DETAIL

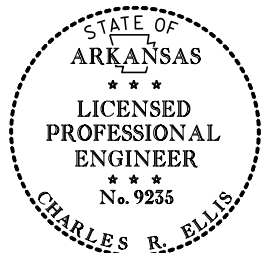


MINIMUM CONSTRUCTION CLEARANCE ENVELOPE

See Job SP "Insurance, Construction, and Flagging Requirements on Railroad Property" for additional railroad construction requirements.

- ⚠ Modified Hydrodemolition SP reference to include "- Class _". By: KWY, Checked by: SWP; 1/9/2020.
- ⚠ Modified Joint Rehabilitation to include unarmored joints. By: KWY, Checked by: SWP; 6/25/2020.

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.

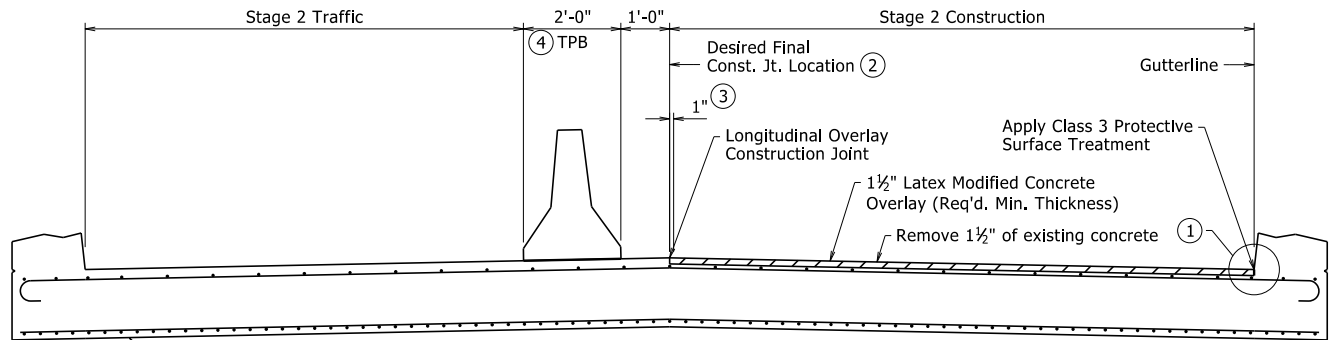


BRIDGE ENGINEER

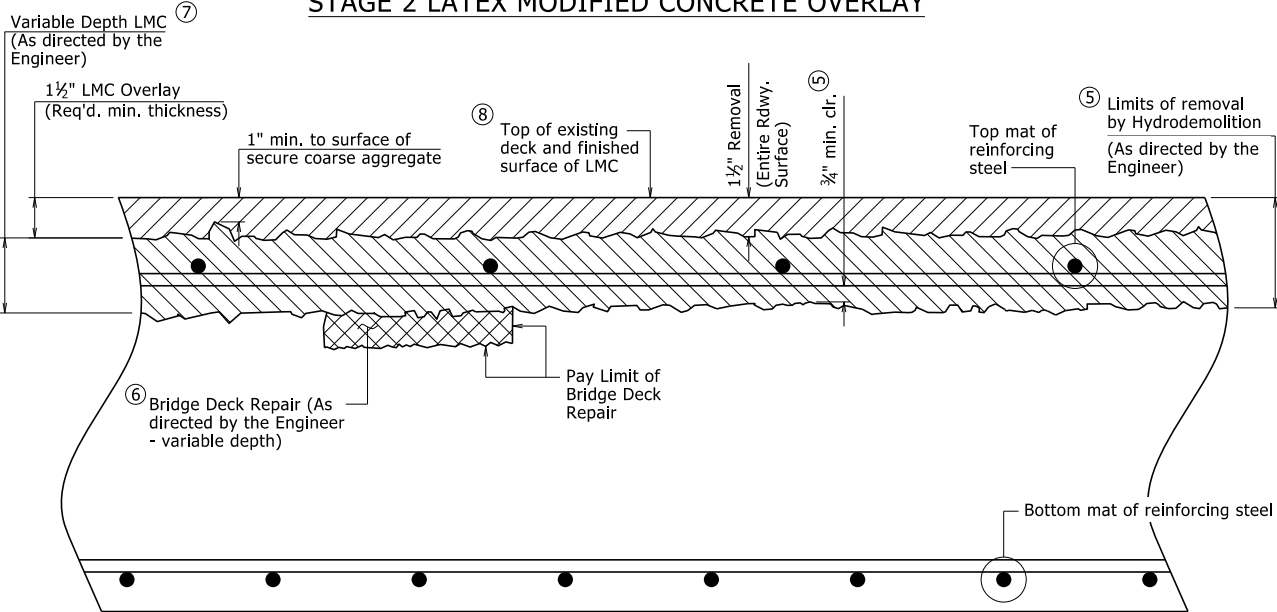
NOTE: Details shown are typical for staged construction. When full width rehabilitation of a bridge deck is possible, adjust hydrodemolition and latex modified concrete overlay operations and details accordingly.

The diagram illustrates the layout for Stage 1 Construction and Traffic. It shows a cross-section of a concrete surface with a gutterline on the left. A circular area labeled (1) indicates the location for applying Class 3 Protective Surface Treatment. A hatched area labeled (2) indicates the location for the Desired Final Const. Jt. Location. A trapezoidal area labeled (4) indicates the location for the 1 1/2" Latex Modified Concrete Overlay (Req'd. Min. Thickness). A dimension of 11" is shown for the width of the overlay area, and a dimension of 2'-0" is shown for the width of the traffic area. A dimension of 1" is shown for the thickness of the overlay. A note indicates to Remove 1 1/2" of existing concrete.

STAGE 1 LATEX MODIFIED CONCRETE OVERLAY



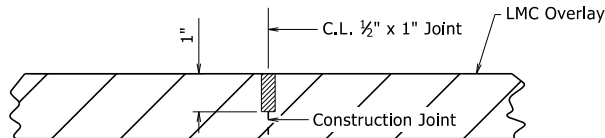
STAGE 2 LATEX MODIFIED CONCRETE OVERLAY



DETAILS OF HYDRODEMOLITION AND LATEX MODIFIED CONCRETE OVERLAY

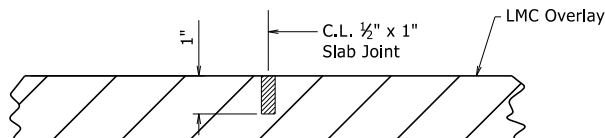
- | | |
|---|--|
| <p>⑤ Removal of unsound concrete beyond 1½" below the original surface shall be at the direction of the Engineer. If the bond between existing concrete and the top mat of reinforcing steel is destroyed, then the concrete shall be removed to a minimum of ¾" clearance below the bar. This removal shall be subsidiary to the Item Job SP "Hydrodemolition - Class ____".</p> | <p>⑦ Depth varies to achieve minimum clearance below top mat of reinforcing steel, where required.</p> |
| <p>⑥ Areas requiring additional repair, as determined by the Engineer, shall be repaired in accordance with the Job SP "Bridge Deck Repair for Latex Modified Concrete Overlays".</p> | <p>⑧ Finished surface of LMC Overlay shall match existing concrete deck surfaces unless increase is required to maintain minimum required LMC Overlay thickness and a minimum of 1½" cover to reinforcing steel.</p> |

- ① Hand tools shall be used as required to remove concrete adjacent to curbs, rails, and armored expansion joints.
- ② For staged construction, the final construction joint location shall be established by the Engineer to satisfy MOT and construction requirements. The desired location is at the C.L. Bridge, C.L. Lane, or Edge of Lane, but in no case shall be positioned in the line of a wheel path.
- ③ For staged construction, saw cut and remove 1" of initial Latex Modified Concrete Overlay when preparing surface for adjacent overlay.
- ④ For staged construction, Temporary Precast Barrier (TPB) shall not be connected to the surface of the bridge deck. See Std. Dwg. TC-4 for additional details. Plastic drums shall be used in lieu of concrete barriers where shown in the Roadway Plans, see Std. Dwg. TC-3 for additional details.



LONGITUDINAL OVERLAY CONSTRUCTION JOINT DETAIL

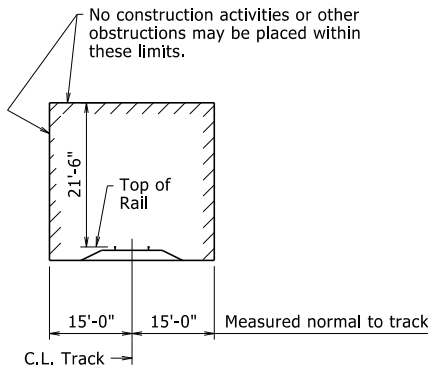
For Staged Construction



Use ½" x 1" Type 3 or Joint Sealer. See Subsections 501.02(h) and 501.05(j). Backer Rod will not be required. Joint Sealer shall be measured and paid for as LMC Overlay. Slab joints shall extend from gutterline to gutterline. Slab joints shall be sawed as soon as the concrete has sufficiently set to allow sawing of the joint without damage to the overlay. Slab joints shall be placed at all pouring sequence construction joints and are required at existing slab joint locations. Pouring sequence construction joints shall align between stages of construction. The joint sealer shall extend across the deck from gutterline to gutterline. Seal color shall be gray or other color similar to concrete.

TRANSVERSE OVERLAY JOINT DETAIL

For Continuous Span Bridges



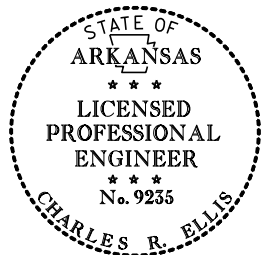
MINIMUM CONSTRUCTION CLEARANCE ENVELOPE

See Job SP "Insurance, Construction, and Flagging Requirements on Railroad Property" for additional railroad construction requirements.

① Modified Hydrodemolition SP reference to include "- Class _".
By: KKY, Checked by: SWP; 1/9/2020.

② Modified Joint Rehabilitation for additional clarification of unarmored joint work.
By: KKY, Checked by: SWP; 6/25/2020.

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.



BRIDGE ENGINEER

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1/9/2020				6	ARK.			
6/25/2020				JOB NO.				
GENERAL NOTES:				HYDRO/LMC OVERLAY - 55062				

GENERAL NOTES:

Details shown are schematic. The Contractor shall make check measurements in the field and make any adjustments necessary to meet the required clearances and fit the new work to the existing structure(s).

The operation or placement of vehicles, equipment, and/or materials on the subject bridge(s) necessary for the completion of this work shall be evaluated in accordance with Subsection 105.14. Certifications of the adequacy of all components for the anticipated loads shall address the capacity of the existing structure at all phases of this work.

Where applicable, construction activities for the existing bridge(s) over roadways and railroads shall be in accordance with the Job SP "Special Safety Requirements for Bridges" and as shown in "Minimum Construction Clearance Envelope".

▲ HYDRODEMOLITION: The entire roadway surface of the existing bridge deck and approach slabs and gutters, as applicable, shall receive hydrodemolition in accordance with the Job SP "Hydrodemolition - Class __" to a planned depth of 1½" below the existing bridge deck surface. Deteriorated concrete in the bridge deck below this depth shall be removed at the direction of the Engineer and up to the limits detailed. These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item Job SP "Hydrodemolition - Class __". Prior to hydrodemolition, cold milling of the concrete deck to a maximum depth of 1" will be allowed unless there will be a conflict with the existing reinforcing steel.

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

LATEX MODIFIED CONCRETE OVERLAY: The entire area of the hydrodemolition shall receive a Latex Modified Concrete (LMC) Overlay to a planned depth of 1½" below the existing bridge deck surface in accordance with Job SP "Latex Modified Concrete Overlay". These areas shall be measured by the square yard and shall be paid for at the unit price bid for the Item Job SP "Latex Modified Concrete Overlay (1½" Thick)". Areas of the existing bridge deck removed at the direction of the Engineer to a depth greater than 1½" below the existing bridge deck surface shall be filled with LMC concurrent to the placement of the 1½" LMC Overlay. This area shall be measured and paid for in accordance with Job SP "Latex Modified Concrete Overlay".

GROOVED FINISH: The LMC Overlay surface of the bridge deck and approach slabs and gutters, as applicable, shall be given a grooved finish as specified for final finishing in Subsection 802.19 for Class 7 Grooved Bridge Roadway Surface Finish and in accordance with Job SP "Latex Modified Concrete Overlay".

PROTECTIVE SURFACE TREATMENT: The longitudinal joint between the LMC Overlay and the adjacent existing concrete curb or rail shall be given a Class 3 Protective Surface Treatment as specified in Section 803 and in accordance with Job SP "Latex Modified Concrete Overlay". The roadway surface of the completed LMC Overlay shall be given a Class 1 Protective Surface Treatment as specified in Section 803.

△ JOINT REHABILITATION: After the placement of the LMC Overlay and if shown in the plans, the existing armored joints shall be given a poured silicone joint sealant as specified in Section 809 and as shown in "Poured Silicone Joint Seal Details" on Standard Drawing No. 55064, and the existing unarmored joints shall be given a Type A Joint Rehabilitation as specified in Section 509 and Job SP "Joint Rehabilitation for Bridge Decks". Backwall repair, if shown in the plans or as directed by the Engineer, shall be completed prior to installation of the joint sealant.

NOTE: When "Very Early Strength Latex Modified Concrete Overlay (1½" Thick)" is shown in the plans for a particular bridge, all reference to "Latex Modified Concrete Overlay" and "LMC" on this sheet shall be considered synonymous with "Very Early Strength Latex Modified Concrete Overlay" and "VESLMC" for that bridge. See Job SP "Very Early Strength Latex Modified Concrete Overlay" for additional information.

STANDARD DETAILS FOR
HYDRODEMOLITION AND LMC OVERLAY
REINFORCED CONCRETE SLAB STRUCTURES
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

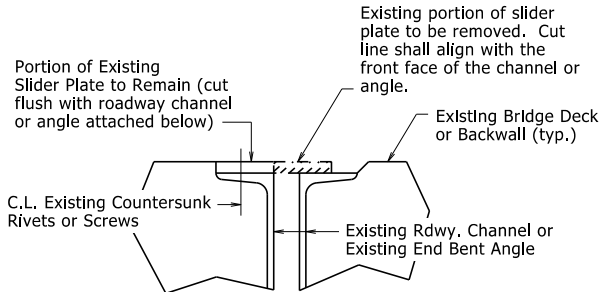
DRAWN BY: KWY **DATE:** 11/7/2019 **FILENAME:** b55062.dgn

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

DESIGNED BY: STD. DATE: -----

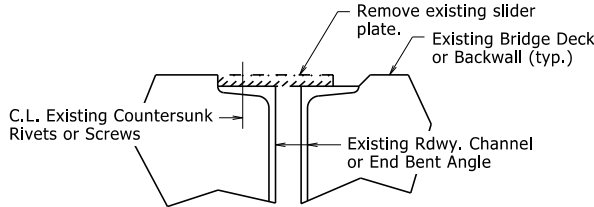
DRAWING NO. 55062

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.				
1JOINT REPAIR - 55064								



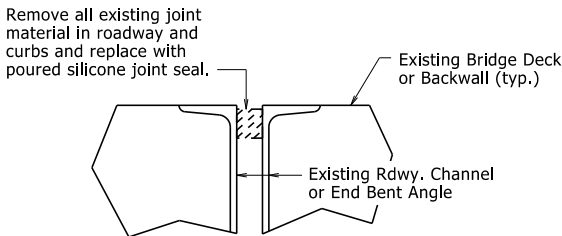
REMOVAL DETAILS AT EXISTING SLIDER PLATE JOINTS

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.



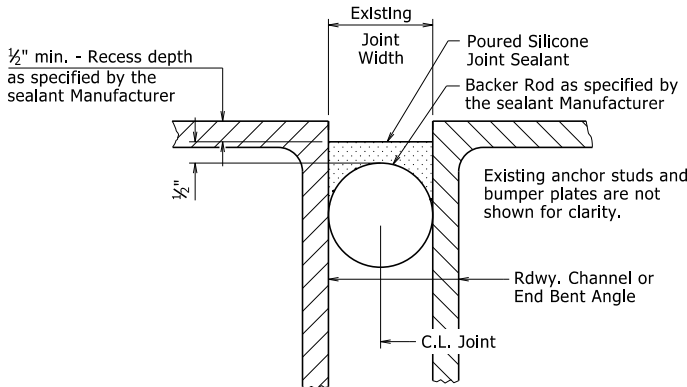
REMOVAL DETAILS AT EXISTING SLIDER PLATE JOINTS WITH GRADE RAISE

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".



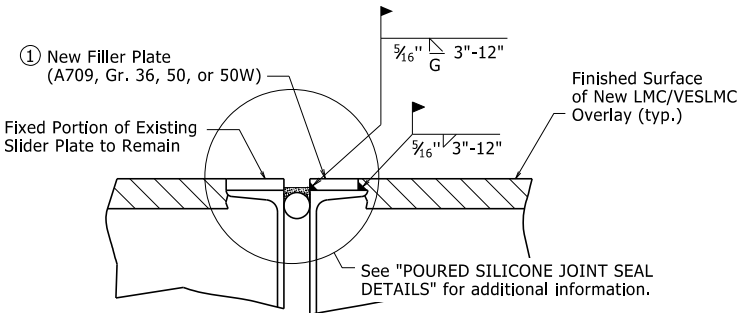
POURED SILICONE JOINT SEAL DETAILS

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".

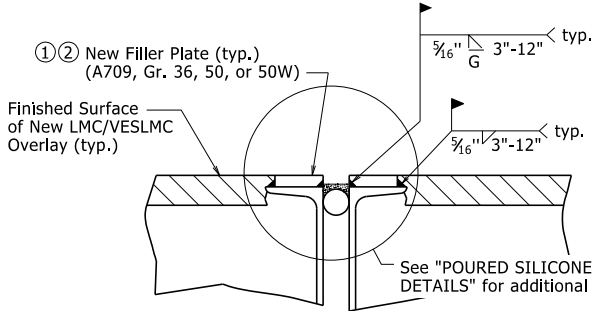
Backer rods shall be extended beyond the length of the poured joint in the initial joint repair area so that the two pieces can be properly spliced together prior to installing sealant for the adjacent joint repair. Manufacturer's recommendations shall be followed to prevent sealant leakage during repair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

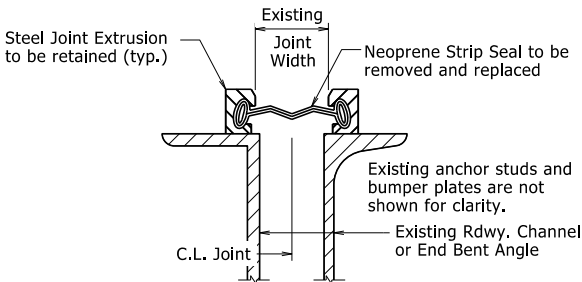


JOINT MODIFICATION WITH GRADE RAISE

- 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 $\frac{3}{8}$ " 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.



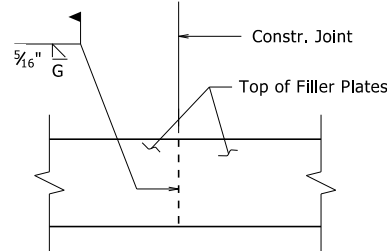
STRIP SEAL JOINT DETAILS

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.

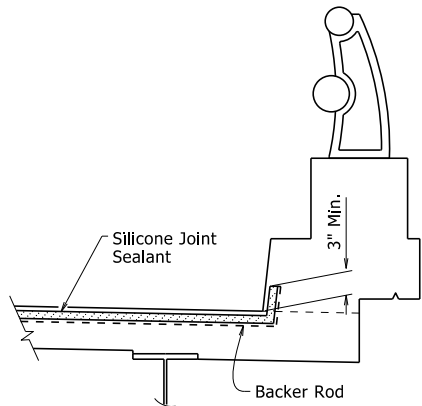
Removal and replacement of the existing neoprene strip seal joint material will require the removal of the parapet slider plates, where present. Parapet slider plates removed for this work shall be reinstalled after installation of the new neoprene strip seal joint material.

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. _)".

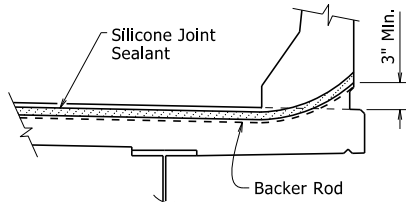


PLAN VIEW OF FILLER PLATE

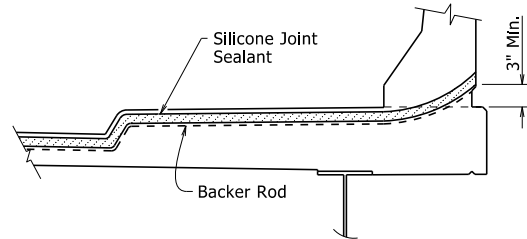


SILICONE JOINT SEAL PLACEMENT AT CURB

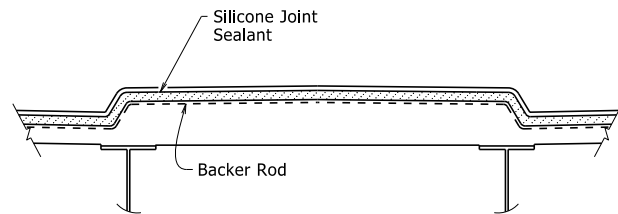
Vertical joints may require forming. The clearance from deck surface to joint material shall be maintained.



SILICONE JOINT SEAL PLACEMENT AT RAIL



SILICONE JOINT SEAL PLACEMENT AT SIDEWALK



SILICONE JOINT SEAL PLACEMENT AT MEDIAN

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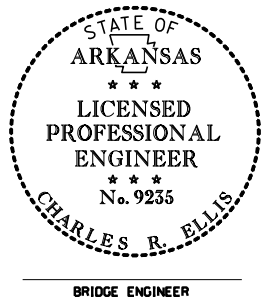
STANDARD DETAILS FOR JOINT REPAIRS & MODIFICATIONS

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

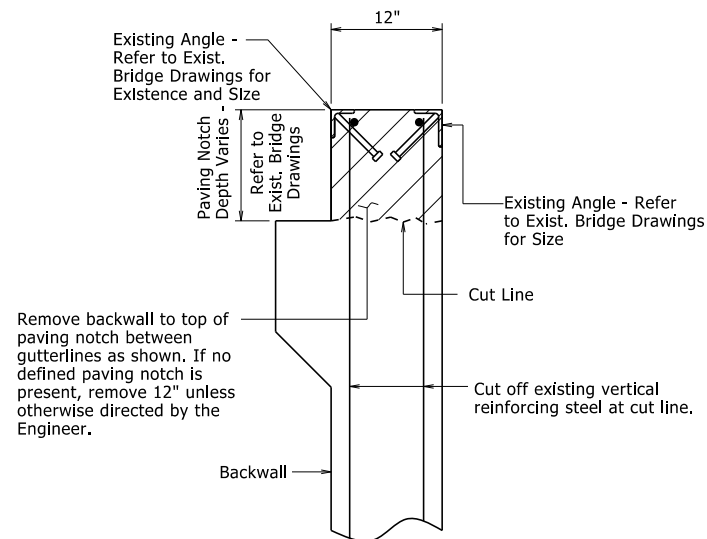
DRAWN BY: KWY DATE: 11/7/2019 FILENAME: b55064.dgn
CHECKED BY: SWP DATE: 11/7/2019 SCALE: None
DESIGNED BY: STD. DATE: -----

DRAWING NO. 55064



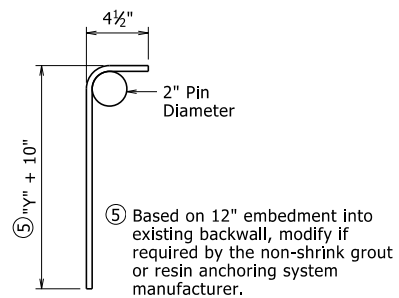
BRIDGE ENGINEER

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.				
				BACKWALL REPAIR - 55065				

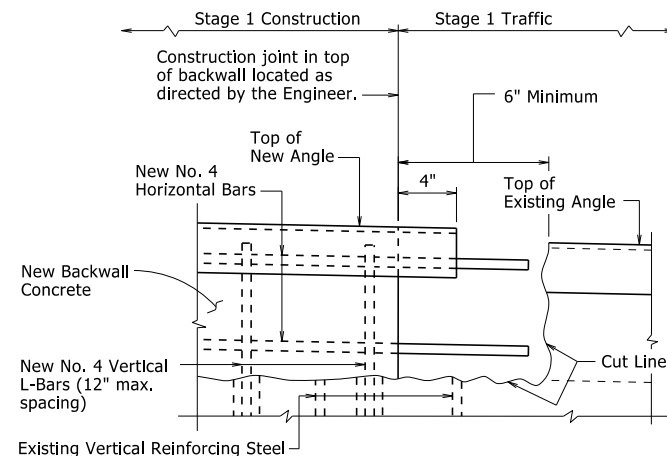


BACKWALL REPAIR REMOVAL DETAIL

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.)".

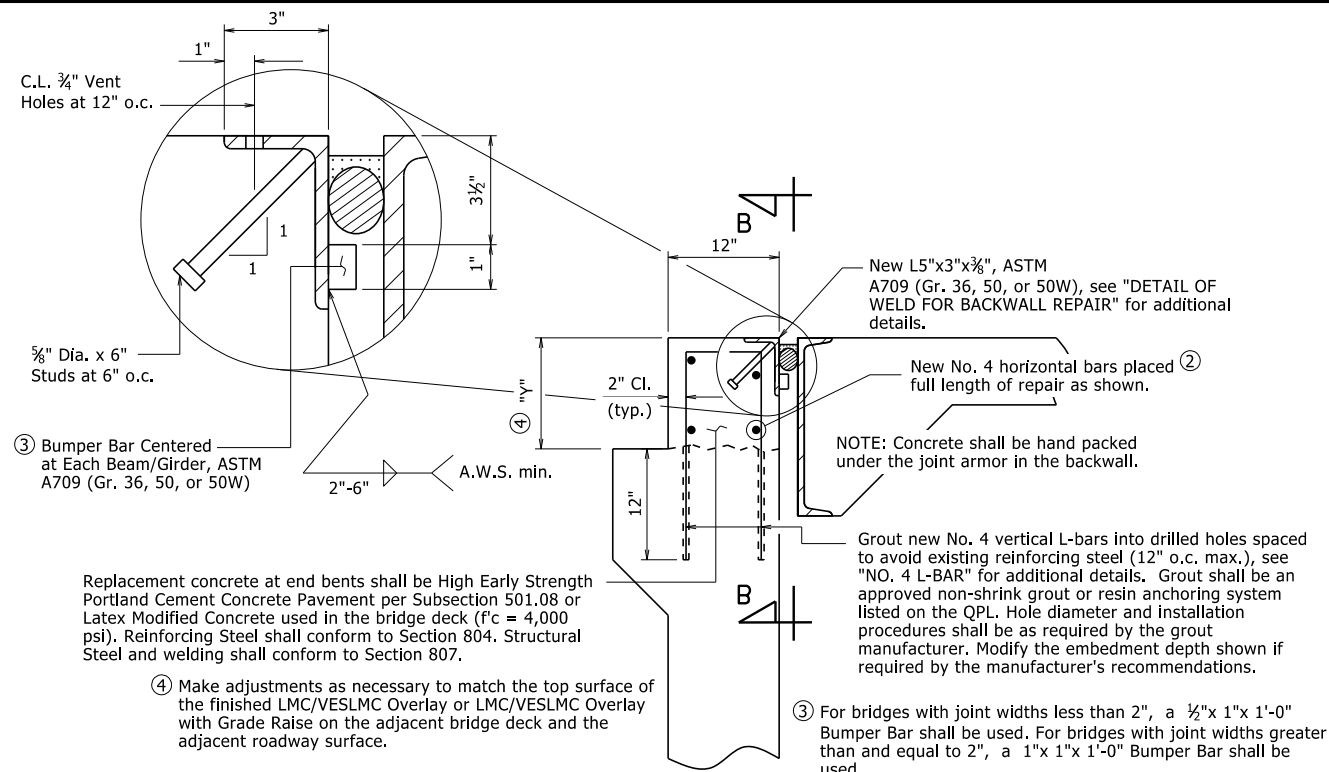


NO. 4 L-BAR



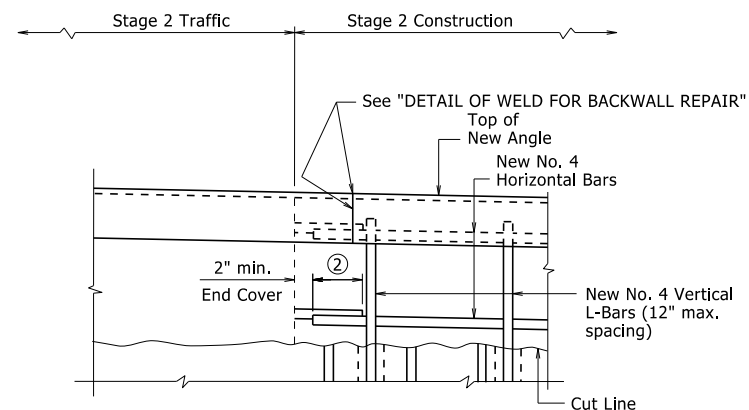
① VIEW B-B, STAGE 1

Details shown for LMC/VESLMC Overlay with grade raise; details similar for LMC /VESLMC Overlay without grade raise.



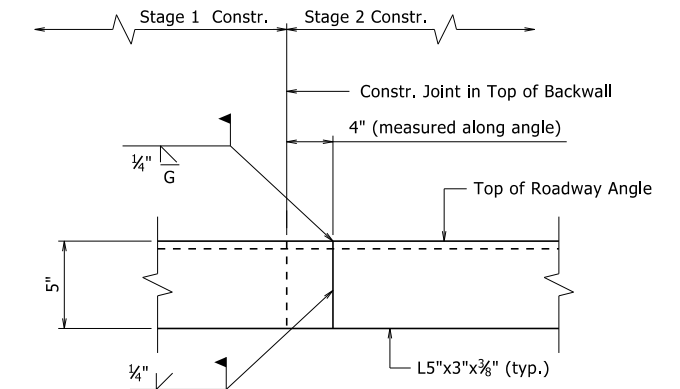
BACKWALL REPAIR INSTALLATION DETAIL

The portion of the backwall above the paving bracket shall be reconstructed as shown. 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. 1)". Details shown for LMC/VESLMC Overlay without grade raise; details similar for LMC/VESLMC Overlay with grade raise.



① VIEW B-B, STAGE 2

- ① Details shown are typical for staged construction. When full width rehabilitation of a bridge deck is possible, eliminate construction joint shown and perform the backwall repair in one operation for full repair width.
- 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.



NOTE: All welding shall be done after the Stage 1 concrete pour and prior to the Stage 2 concrete pour.

① DETAIL OF WELD FOR BACKWALL REPAIR

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

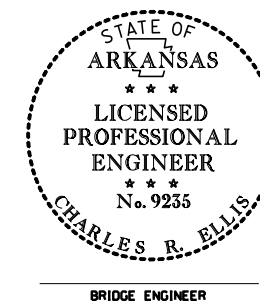
STANDARD DETAILS FOR
BACKWALL REPAIRS

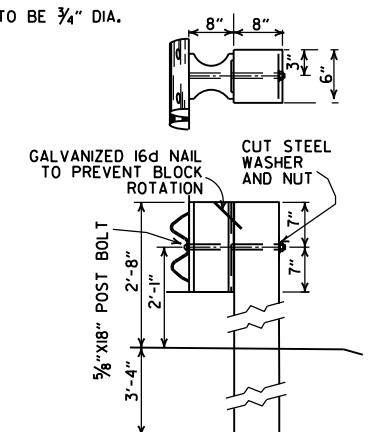
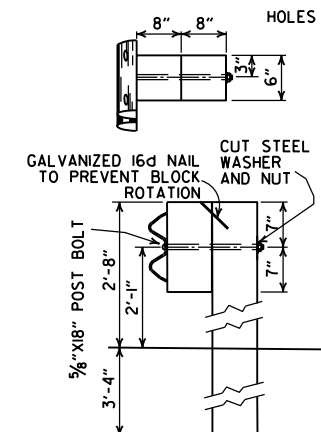
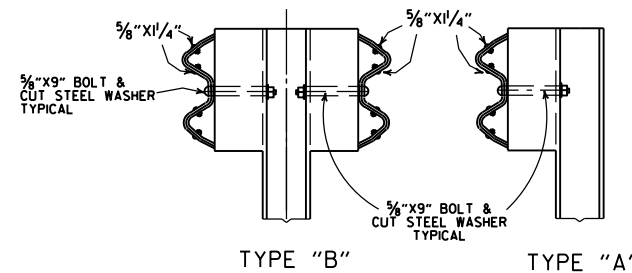
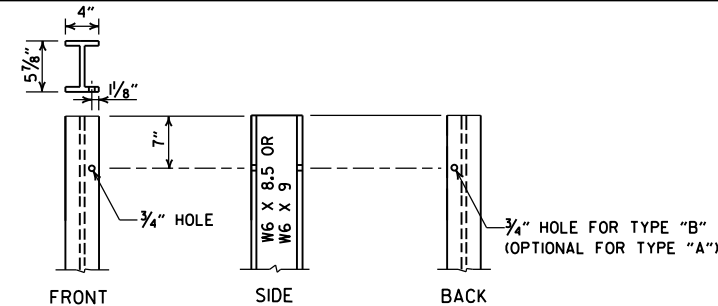
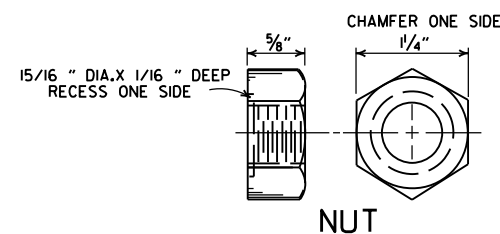
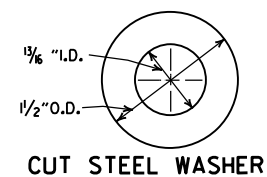
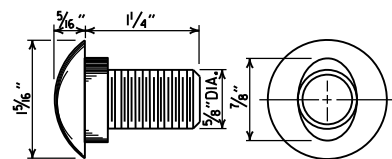
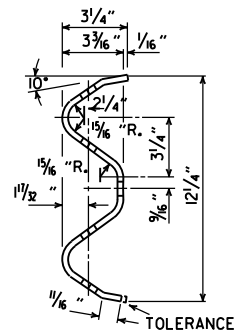
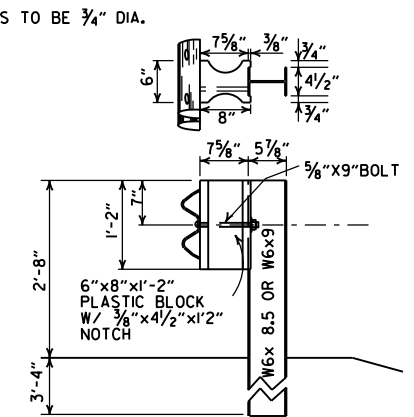
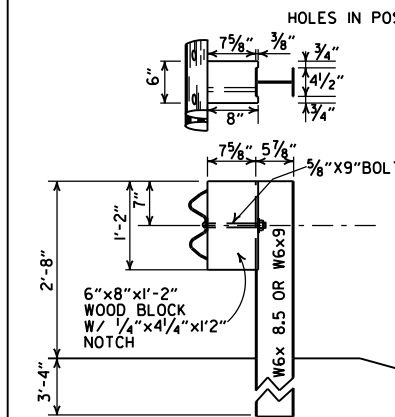
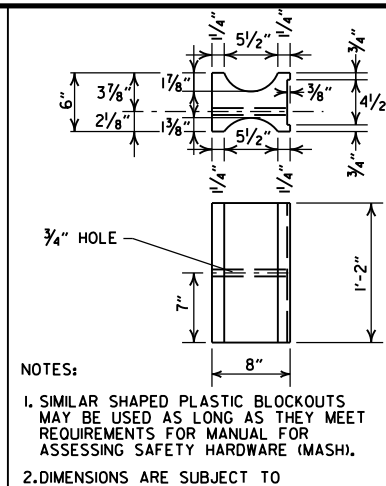
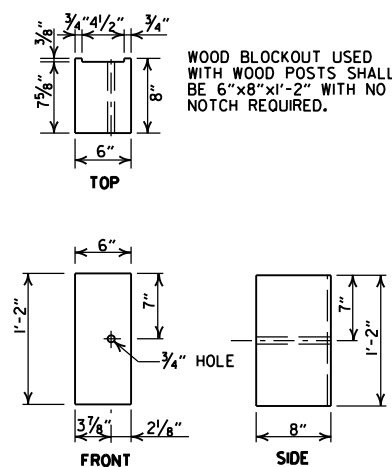
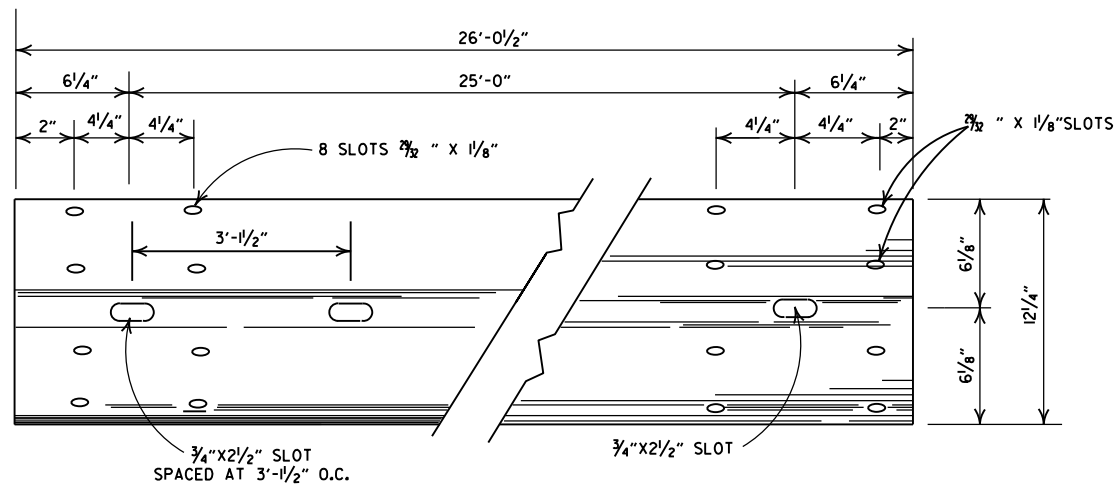
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

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CHECKED BY: SWP DATE: 11/7/2019 SCALE: None
DESIGNED BY: STD. DATE: -----

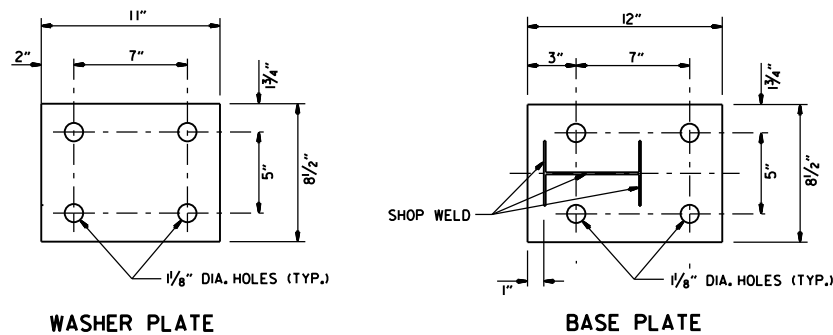
DRAWING NO. 55065



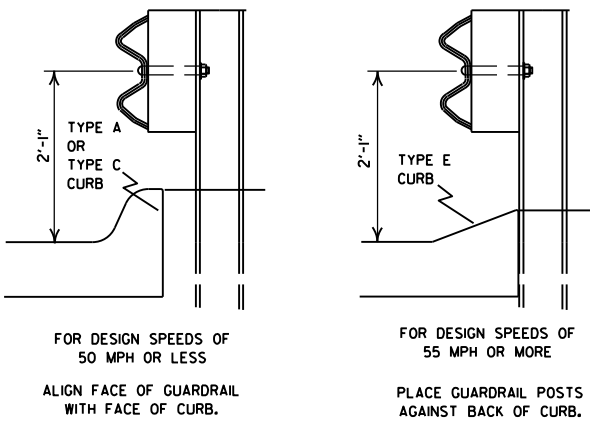


11-07-19	RENUMBERED AND RENAMED	
11-16-17	REVISED GENERAL NOTES AND RAISED GUARDRAIL HEIGHT 3"	
07-14-10	RAISED HEIGHT OF GUARDRAIL 1"	
10-15-09	ADDED REFERENCE TO MASH	
04-10-03	REVISED GENERAL NOTES	
08-22-02	REVISED DIMENSION ON WOOD & PLASTIC BLOCKOUT CONNECTIONS & STEEL POST	
11-16-01	REVISED WOOD BLOCKOUT & DETAILS OF WOOD LINE POST CONNECTIONS	
03-30-00	REMOVED GUARDRAIL AT BRIDGE ENDS	
01-12-00	ADDED PLASTIC BLOCKOUT	
08-12-98	REV. BLOCKOUTS TO WOOD, DELETED CONC. POST & REV. GENERAL NOTE, DELETED DET. OF GUARDRAIL REPLACE. BEHIND CURB & DET. OF POST PLACE. IN SOLID ROCK, & ADDED DETAILS OF STEEL LINE POST CONC. REMOVED BACK-UP PLATE, REVISED HOLES IN STEEL POLES	
04-03-97	REMOVED "LAP IN DIRECTION OF TRAFFIC" NOTE & PLACED ARROWS ON WASHERS	
10-18-96	REVISED WOOD POST NOTE	
06-02-94	ADDED ALT. STEEL POST SIZE	
08-05-93	REVISED STEEL POST SIZE	8-5-93
10-01-92	REDRAWN & REVISED	10-1-92
08-15-91	REVISED WASHER NOTE	8-15-91
08-02-90	REV. GEN. NOTE & DEPTH OF ANC. POST IN ROCK	8-2-90
07-15-88	REVISED SECTION 3 & GENERAL NOTES	
03-04-88	REV. ANCHOR POST ,ELEV. NOTES & POST IN ROCK	780-3-4-88
10-30-87	REVISED WOOD LINE POST DETAIL	546-10-30-87
10-09-87	REDRAWN & REVISED	802-10-9-87
DATE	REVISION	FILMED

ARKANSAS STATE HIGHWAY COMMISSION	
GUARDRAIL DETAILS	
STANDARD DRAWING GR-6	

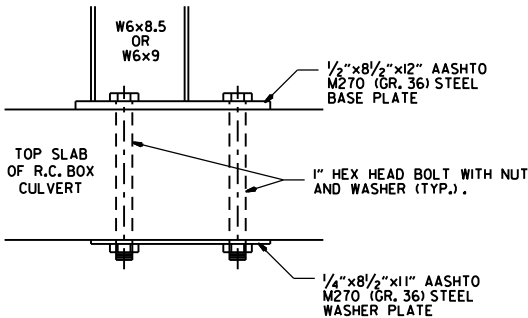
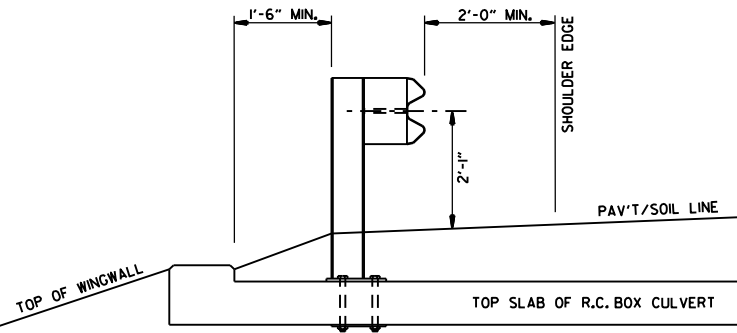


Note: Bolts, nuts, washers and plates shall be galvanized in accordance with Section 807 of the Standard Specifications.



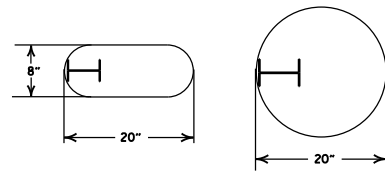
DETAIL OF GUARDRAIL PLACEMENT BEHIND CURB (W-BEAM)

FOR DESIGN SPEEDS OF 50 MPH OR LESS ALL CURB FACES, AS SHOWN ON STD. DRWG. CG-1, MAY BE USED. FOR DESIGN SPEEDS OF 55 MPH OR MORE TYPE "E" CURB FACE SHALL BE USED.



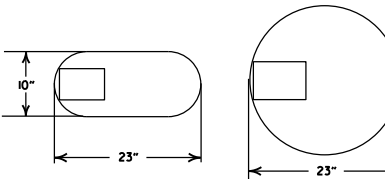
Plan View Steel Posts

Either hole configuration acceptable



Plan View Wood Posts

Either hole configuration acceptable

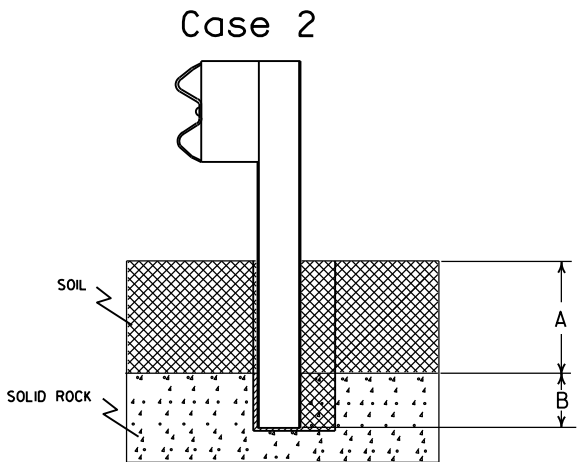


Notes: For overlying soil depths (A) ranging from 0 to 18", the depth of required drilling (B) is equal to 24".

Zone A:
Backfill according to Section 617.03(a).

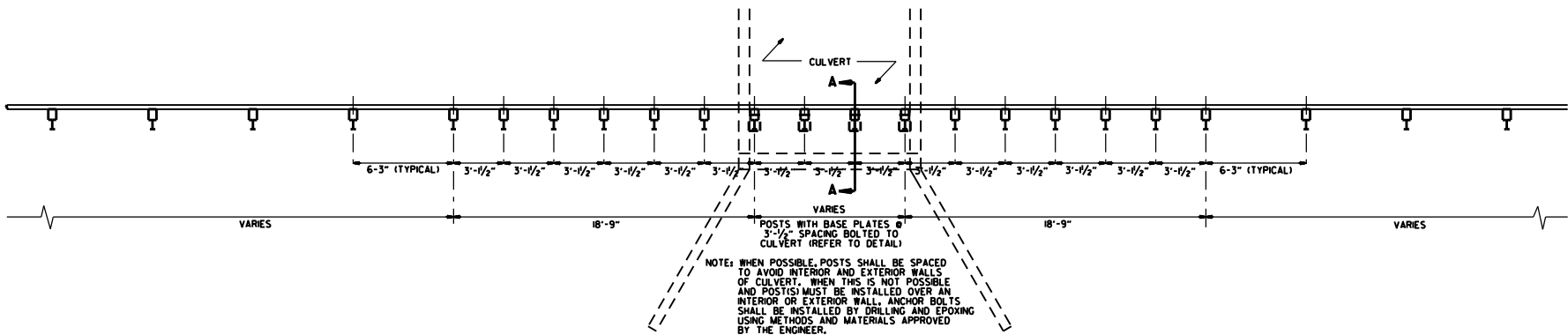
Zone B:
Backfill hole in 6" lifts with material meeting the requirements of Section 802.02(c) - Alternate gradation. Compact to 95% maximum dry density per ASTM D-698.

DETAIL OF POST PLACEMENT IN SOLID ROCK (W-BEAM)



Notes: For overlying soil depths (A) ranging from 18" to 44", the depth of required drilling (B) is equal to either 12" or 44" minus the depth of soil whichever is less.

Zone A & B:
Backfill according to Section 617.03(a).



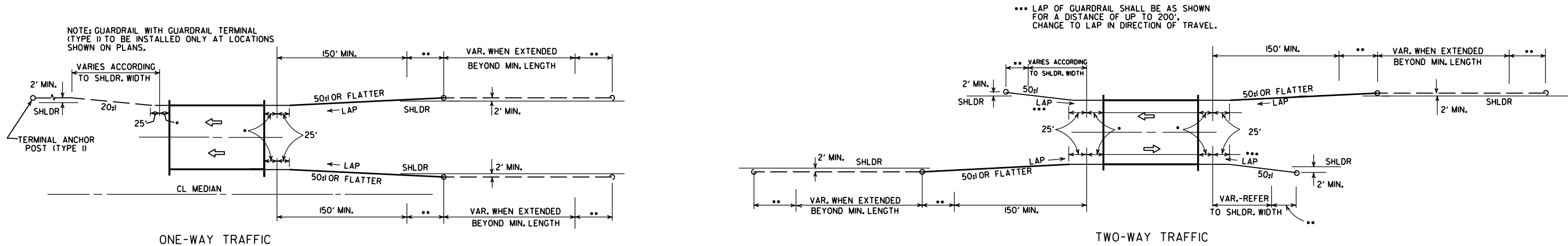
NOTE: THIS DETAIL IS TO BE USED ONLY WHEN THE COVER OVER THE CULVERT DOES NOT PERMIT FULL EMBEDMENT OF GUARDRAIL POSTS AS SHOWN ON STD. DRWG. GR-6.

DATE	REVISION	FILED
11-07-19	RENUMBERED, RENAMED, REVISED REFERENCE	
11-16-17	REVISED GUARDRAIL HEIGHT	
07-14-10	RAISED HEIGHT OF GUARDRAIL 1"	
04-12-07	REVISED DETAIL OF GUARDRAIL PLACEMENT BEHIND CURB	
11-10-05	ADDED GUARDRAIL PLACEMENT BEHIND CURB; REVISED DETAIL OF CONNECTION	
11-18-04	REVISED POST PLACEMENT IN ROCK & CULVERT CONNECTION DETAILS. ADDED DETAIL FOR GUARDRAIL PLACEMENT AT LOW-FILL CULVERTS	
03-30-00	REMOVED CONCRETE INSERT ANCHOR	
08-12-98	CHANGED STEEL SPACER BLOCK TO WOOD BLOCKOUT, ADDED DET. OF GUARDRAIL CONNECTION TO R.C. BOX CULVT., DELETED DET. OF STEEL LINE POST CONN. & ADDED DET. OF GUARDRAIL PLACE. BEHIND CURB & DET. OF POSTPLACE. IN SOLID ROCK	
04-03-96	PLACED ARROWS AT CUT STEEL WASHERS	4-3-96
10-18-96	REV. ASTM REF. TO AASHTO	
11-22-95	ADDED OPTIONAL HOLES	
06-02-94	REVISED ALTERNATE POST SIZE	
08-05-93	REVISED STEEL POST SIZE	
10-01-92	REDRAWN & REVISED	10-1-92
08-02-90	DEL. WASHER ON ANCHOR ASSEMBLY	8-2-90
07-15-88	CONFORMED TO 1988 SPECS	
03-04-88	REVISED ANCHOR NOTE	
10-30-87	REVISED ANCHOR ASSEMBLY	712-10-30-87
10-30-87	REVISED PLACEMENT BEHIND CURB	547-10-30-87
10-09-87	REDRAWN & REVISED	803-10-9-87

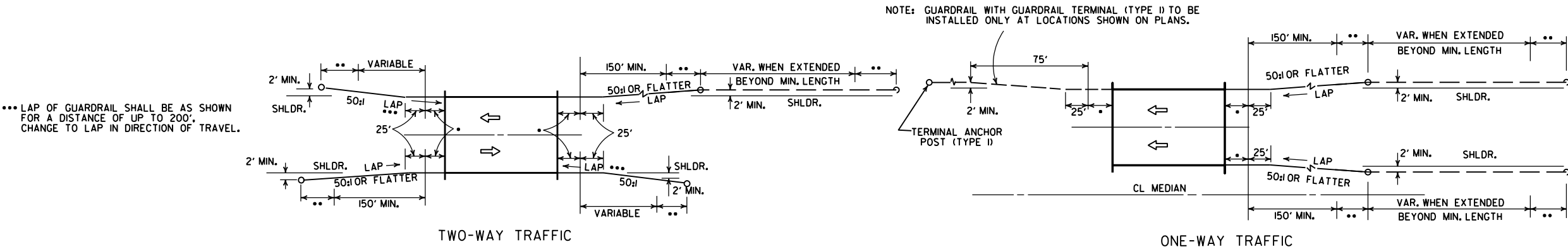
ARKANSAS STATE HIGHWAY COMMISSION

GUARDRAIL DETAILS

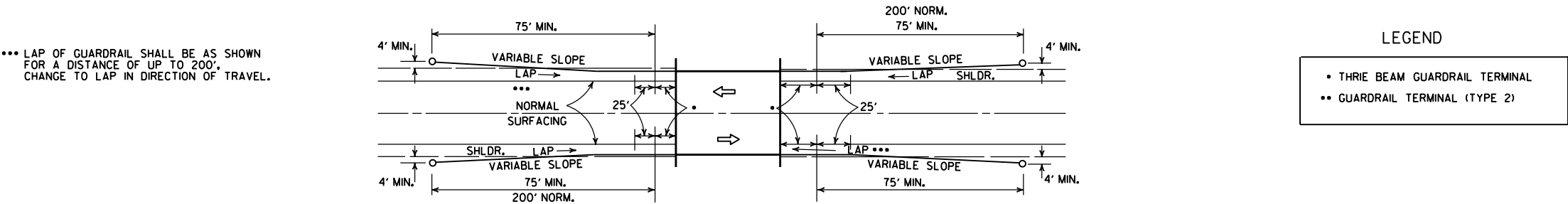
STANDARD DRAWING GR-7



METHODS OF INSTALLATION OF GUARDRAIL AT LESS THAN FULL SHOULDER WIDTH BRIDGES USING GUARDRAIL TERMINAL (TYPE 2)

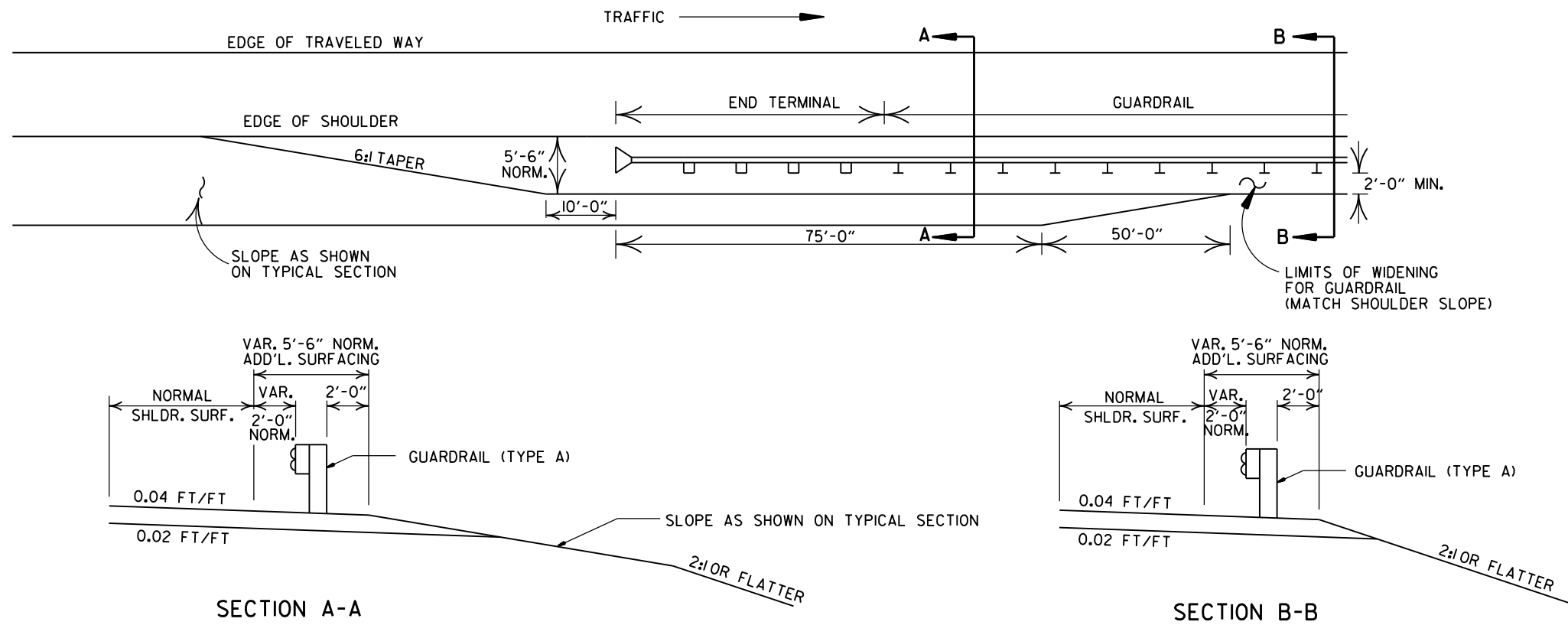


METHOD OF INSTALLATION OF GUARDRAIL AT FULL SHOULDER WIDTH BRIDGES USING GUARDRAIL TERMINAL (TYPE 2)

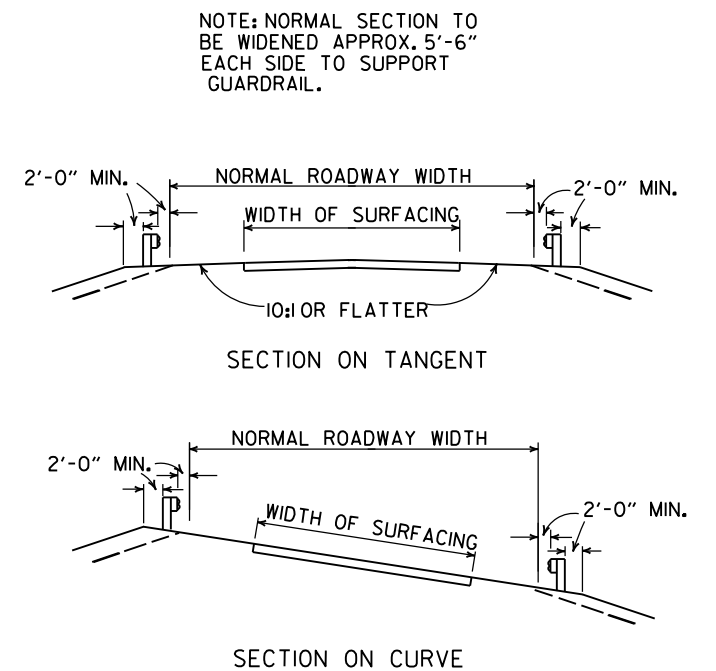


METHOD OF INSTALLATION OF GUARDRAIL USING GUARDRAIL TERMINAL (TYPE 1) (FULL SHOULDER WIDTH OR LESS BRIDGES)

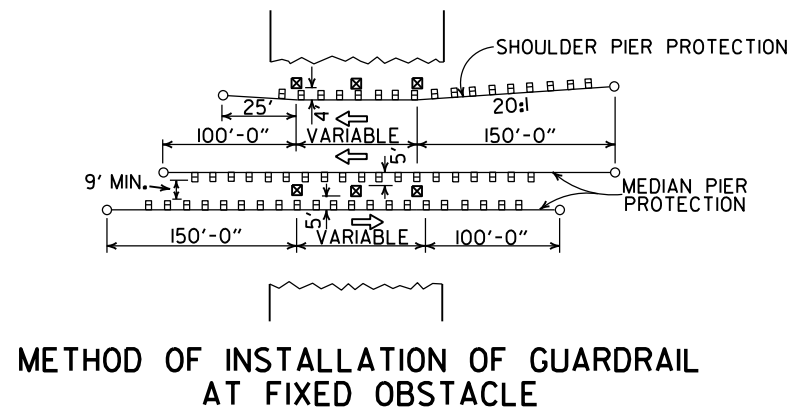
			ARKANSAS STATE HIGHWAY COMMISSION
11-07-19	RENUMBERED AND RENAMED		GUARDRAIL DETAILS
4-17-08	REVISED LAYOUTS		
11-10-05	REMOVED GUARDRAIL NOTES AND DETAILS		
11-16-01	DELETED NOTE-METHOD OF INSTALLATION OF GUARDRAIL USING GUARDRAIL TERM. (TY. 1)		
1-12-00	ADDED CONSTRUCTION NOTE	1-12-00	STANDARD DRAWING GR-8
6-26-97	REVISED LAYOUT		
10-1-92	REDRAWN & REVISED	10-1-92	
10-9-87	ADDED NOTE		
DATE	REVISION	DATE	FILM



DETAILS OF WIDENING FOR GUARDRAIL



DETAILS SHOWING POSITION OF GUARDRAIL ON HIGHWAY

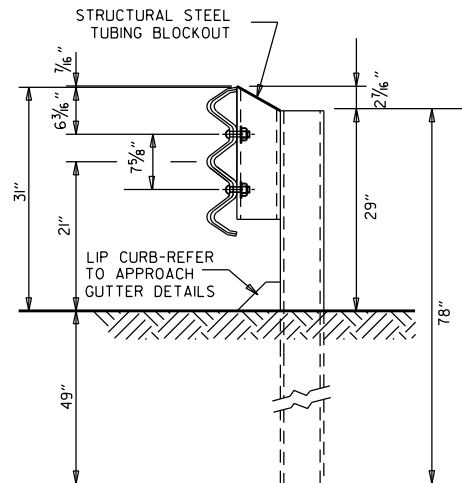


			ARKANSAS STATE HIGHWAY COMMISSION
			GUARDRAIL DETAILS
			STANDARD DRAWING GR-9
11-07-19	RENUMBERED AND RENAMED		
4-17-08	MINOR REVISION		
11-10-05	DRAWN		
DATE	REVISION	DATE FILED	

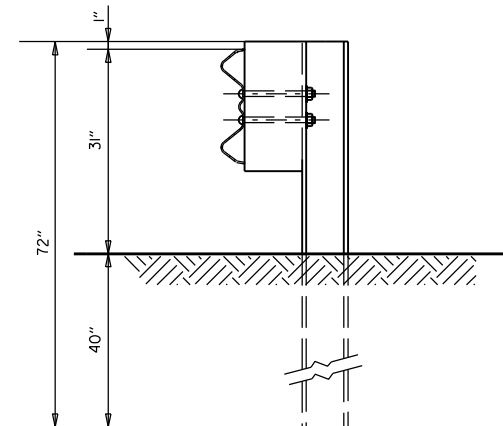


THRIE BEAM RAIL
SPLICE AT POST

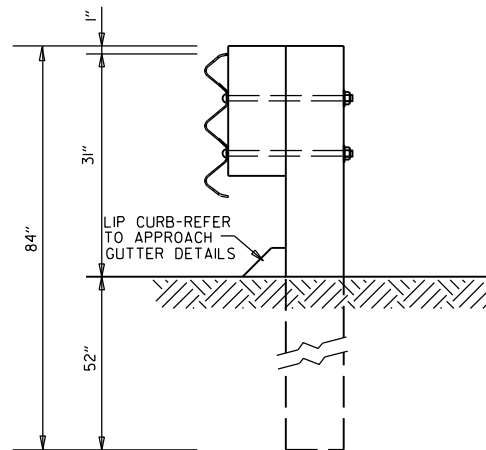
II-07-19	RENAMED AND REVISED REFERENCES		
II-16-17	REVISED TRANSITION SECTION, GUARD RAIL HEIGHT, AND GENERAL NOTES; MOVED THREE BEAM GUARD RAIL CONNECTIONS AT BRIDGES ENDS TO STD. DRWG. GR-12		
07-14-10	RAISED HEIGHT OF W-BEAM 1"		
II-29-07	ADDED PLASTIC BLOCKOUTS		
II-10-05	ADDED NOTE FOR ATTACHING STEEL BLOCKOUT		ARKANSAS STATE HIGHWAY COMMISSION
II-18-04	REVISED GENERAL NOTES		
10-9-03	REVISED GENERAL NOTES		
04-10-03	REVISED GENERAL NOTES		
08-22-02	REVISED NOTE (2)		GUARDRAIL DETAILS
06-29-00	MOVED DIMENSION LINES		
05-18-00	ADDED NOTE		
03-30-00	DRAWN & ISSUED		
DATE	REVISION	FILMED	STANDARD DRAWING GR-10



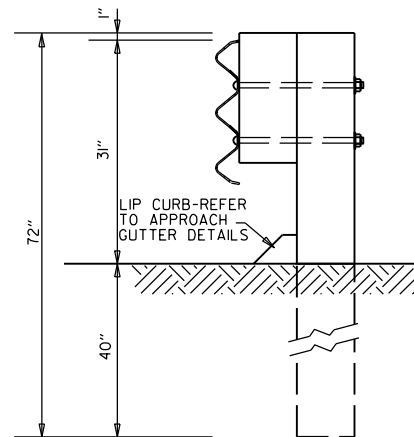
THRIE BEAM RAIL WITH STEEL TUBING BLOCKOUT
AND STEEL POST
POSTS 1-7



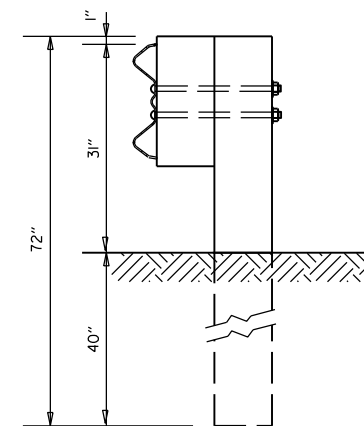
W-BEAM TO THRIE BEAM TRANSITION RAIL
WITH WOOD OR PLASTIC BLOCKOUT AND STEEL POST
POST 8



THRIE BEAM RAIL
WITH WOOD OR PLASTIC
BLOCKOUTS & WOOD POSTS
POSTS 1-6



THRIE BEAM RAIL
WITH WOOD OR PLASTIC
BLOCKOUT & WOOD POST
POST 7



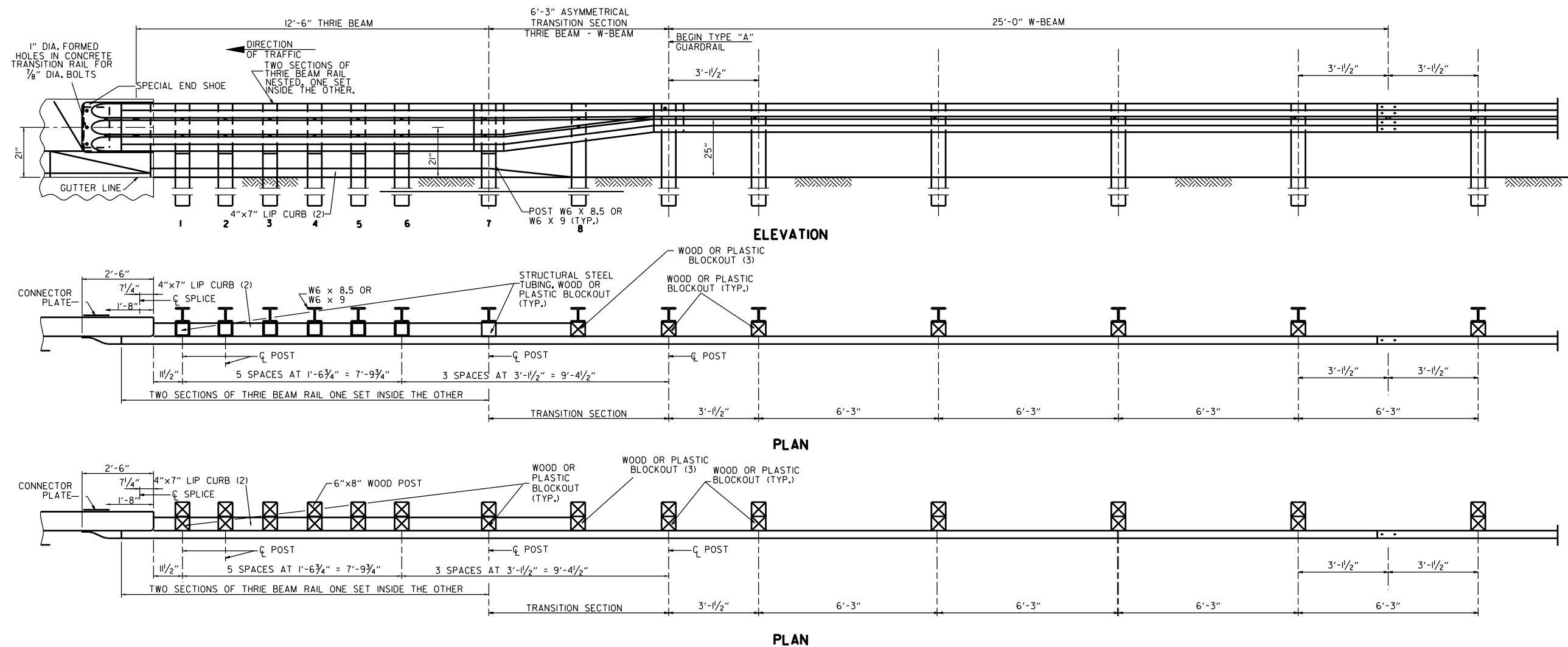
W-BEAM TO THRIE BEAM
TRANSITION RAIL WITH WOOD OR
PLASTIC BLOCKOUT & WOOD POST
POST 8

GENERAL NOTES:

RAIL POSTS SHALL BE SET PERPENDICULAR TO THE ROADWAY PROFILE GRADE AND VERTICALLY IN CROSS SECTION.

WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7f (1400 f) OR NO. 1 350 f SOUTHERN PINE.

			ARKANSAS STATE HIGHWAY COMMISSION
			GUARDRAIL DETAILS
11-07-19	RENAMED		
11-16-17	REVISED GUARDRAIL HEIGHT, CHANGED STD. DWG. NUMBER FROM GR-10A TO GR-II		
07-14-10	REVISED POST 8 DIMENSIONS		
11-29-07	ADDED PLASTIC BLOCKOUTS		
08-22-02	REVISED LIP CURB NOTE		STANDARD DRAWING GR-II
03-30-00	DRAWN & ISSUED		
DATE	REVISION	FILMED	



- (1) VERIFY BOLT SPACING FROM RAIL TRANSITION PRODUCER.
 (2) REFER TO APPROACH GUTTER DETAILS.
 (3) LENGTH OF BLOCKOUT ON POST 8 TO BE MODIFIED TO FIT RAIL WIDTH.

THRIE BEAM GUARDRAIL CONNECTION AT BRIDGE ENDS

GENERAL NOTES:

THE THRIE BEAM RAIL, SPECIAL END SHOE, AND THE TRANSITION SECTION SHALL BE MADE OF STEEL AND SHALL BE 12 GAGE. ZINC COATING SHALL BE TYPE I.

RAIL POSTS SHALL BE SET PERPENDICULAR TO THE ROADWAY PROFILE GRADE AND VERTICALLY IN CROSS SECTION.

ALL BOLTS SHALL BE SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT AND NO MORE THAN 3/4" BEYOND IT.

ALL LAP SPLICES, INCLUDING SPECIAL END SHOES, SHALL BE MADE IN THE DIRECTION SHOWN ON STANDARD DRAWINGS GR-8 & GR-13.

REFER TO STD. DRWG. GR-II FOR POST DETAILS.

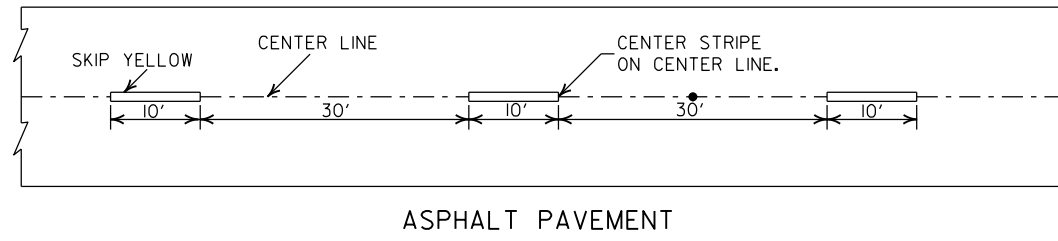
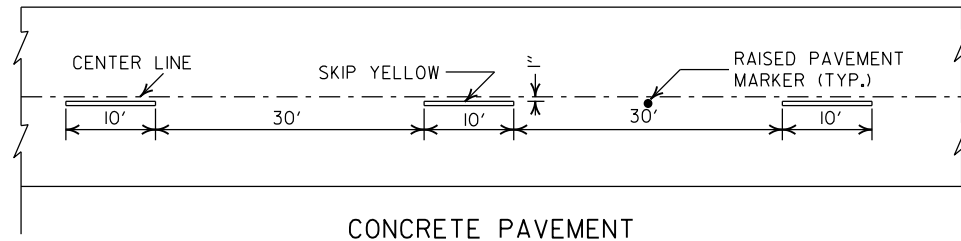
USE THRIE BEAM GUARDRAIL COMPONENTS OF SAME MATERIAL FOR ENTIRE JOB.

THRIE BEAM POSTS SHALL BE SAME MATERIAL AS W-BEAM POSTS FOR ENTIRE JOB.

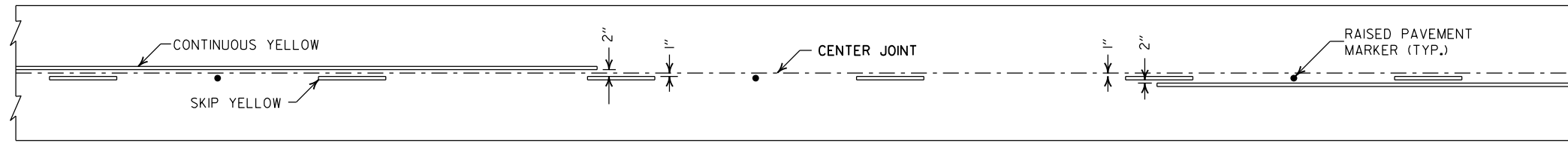
POSTS SHALL NOT BE PLACED AT SPLICE LOCATIONS ALONG W-BEAM RAILS.

WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7f (1400 f) OR NO. 1 1350 f SOUTHERN PINE.

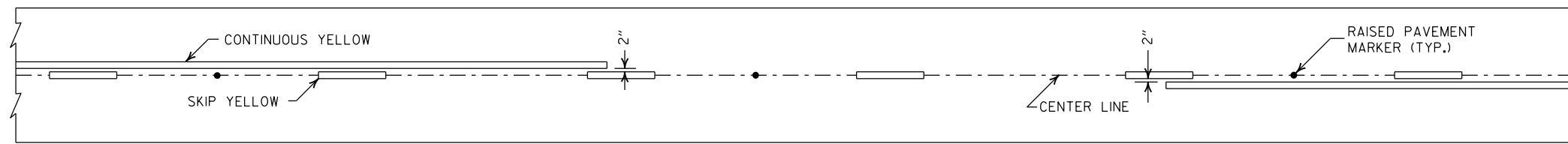
ARKANSAS STATE HIGHWAY COMMISSION		
GUARDRAIL DETAILS		
STANDARD DRAWING GR-12		
05-14-20	REVISED NOTES	
11-07-19	RENAMED & REVISED REFERENCES	
11-16-17	RE-DRAWN FROM STD. DWG. GR-10 & ISSUED	
DATE	REVISION	FILMED



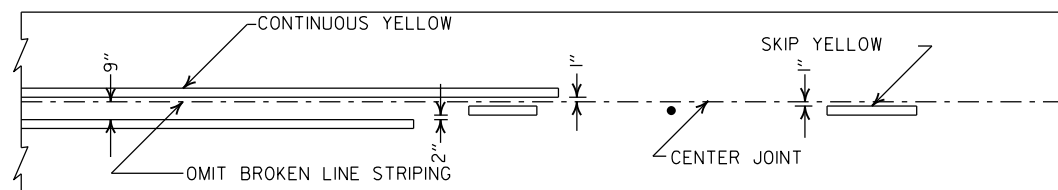
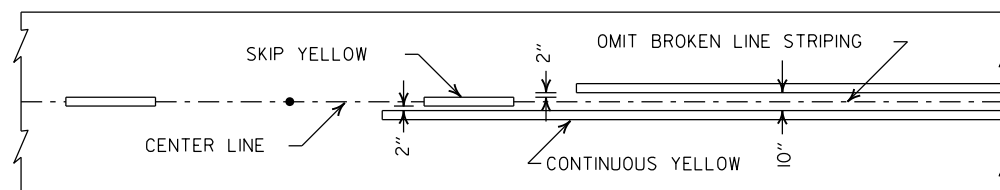
BROKEN LINE STRIPING



SOLID LINE STRIPING ON CONCRETE PAVEMENT



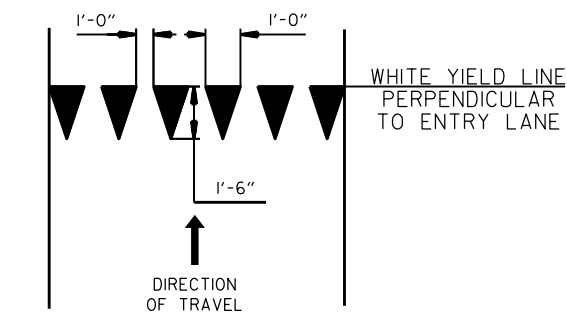
SOLID LINE STRIPING ON ASPHALT PAVEMENT



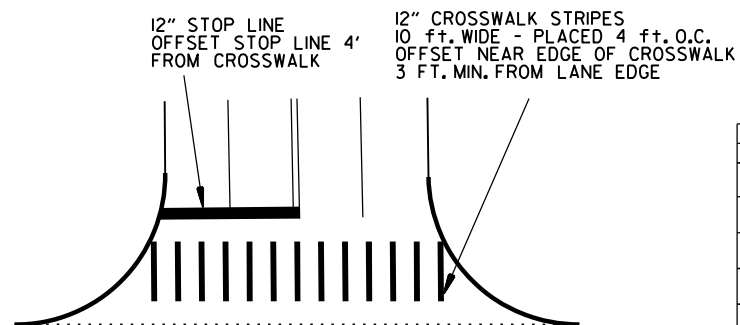
ASPHALT PAVEMENT

CONCRETE PAVEMENT

STRIPING AT ADJACENT NO PASSING LANES



YIELD LINE DETAIL

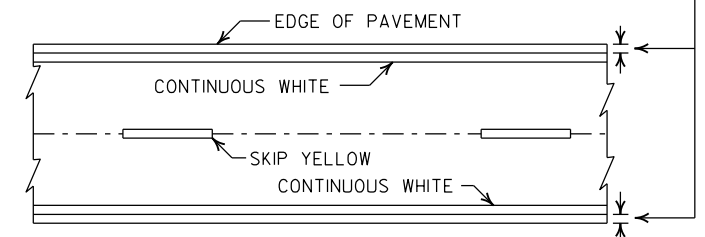


CROSSWALK AND STOP LINE DETAILS

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.

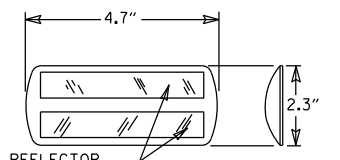
2" FOR ASPHALT OR CONCRETE PAVEMENT
6" FOR BITUMINOUS SURFACE TREATMENT



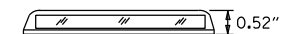
PAVEMENT EDGE LINE MARKING

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

TYPE II
RED/CLEAR OR
YELLOW/YELLOW



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



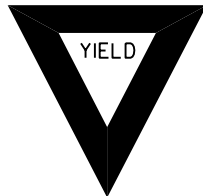
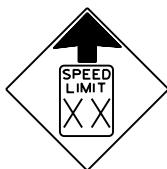
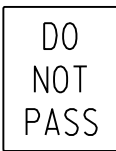
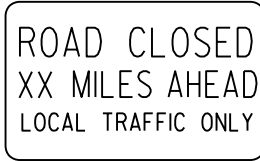
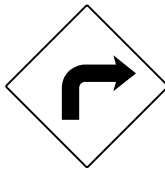
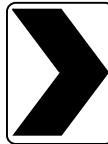
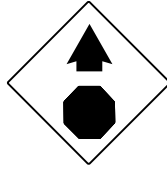
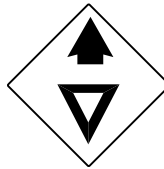
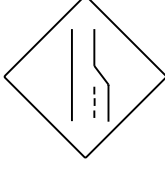
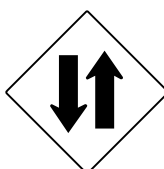
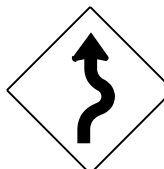
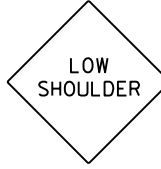
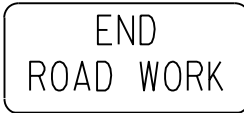
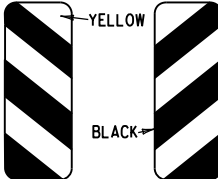
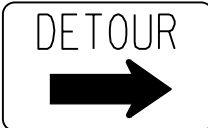
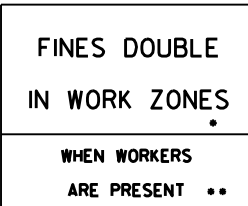
DETAIL OF STANDARD RAISED PAVEMENT MARKERS

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

ARKANSAS STATE HIGHWAY COMMISSION

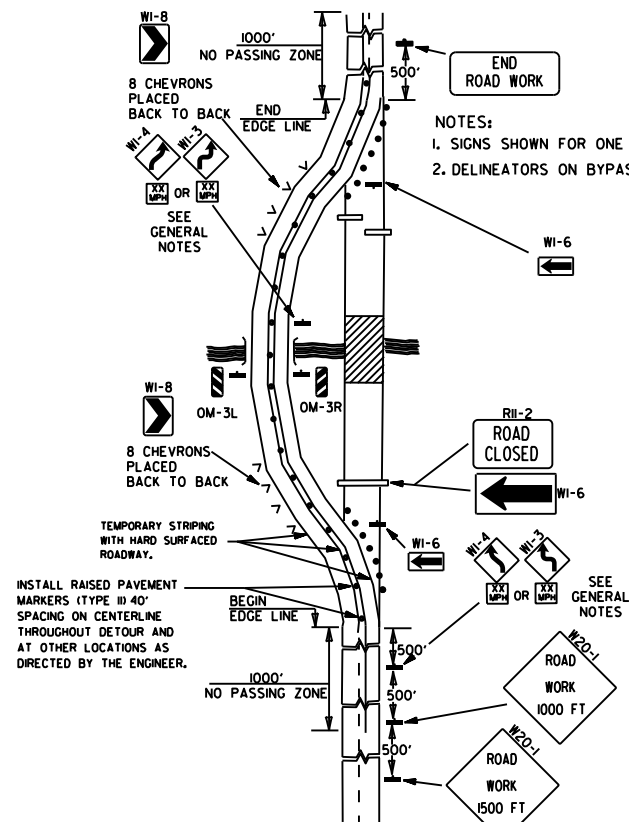
PAVEMENT MARKING DETAILS

STANDARD DRAWING PM-1

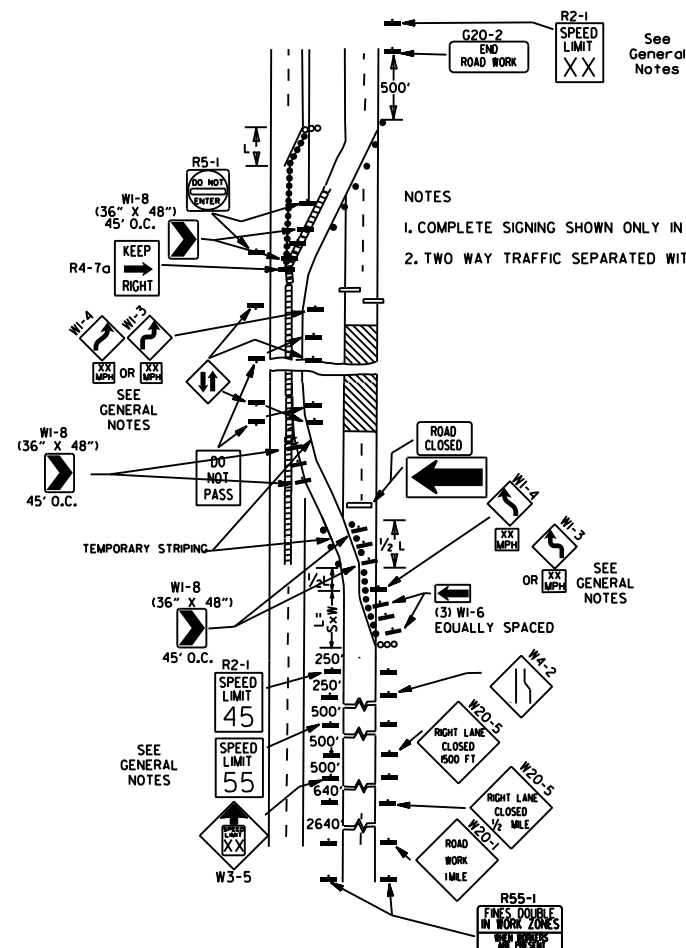
RI-I  STANDARD 30"x30" EXPRESSWAY 36"x36" SPECIAL 48"x48"	RI-2  STD. 36"x36"x36" EXPWY. 48"x48"x48" FWY. 60"x60"x60"	R2-I  STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"	W3-5  STD. 36"x36" EXPWY. 48"x48" FWY. 48"x48"	W3-5a  STD. 36"x36" EXPWY. 48"x48" FWY. 48"x48"	R4-I  STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"	R4-2  STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"	ADVANCE DISTANCES (XXXX) 500 FT 1/2 MILE 1000 FT 3/4 MILE 1500 FT 1 MILE AHEAD GENERAL NOTES: 1. ALL TRAFFIC CONTROL DEVICES USED ON ROAD CONSTRUCTION SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND TO THE STANDARD HIGHWAY SIGNS, LATEST EDITION, OR AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION. 2. TRAFFIC CONTROL DEVICES SHALL BE SET UP JUST BEFORE THE START OF CONSTRUCTION OPERATIONS AND SHALL BE PROPERLY MAINTAINED DURING THE TIME SUCH CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS NEEDED AND REMOVED THEREAFTER. 3. EXISTING SIGNS AND CONSTRUCTION SIGNS SHALL BE KEPT IN PROPER POSITION, AND BE CLEAN AND LEGIBLE AT ALL TIMES. SIGNS THAT DO NOT APPLY TO EXISTING CONDITIONS SHALL BE REMOVED. SIGNS THAT ARE DAMAGED, DEFACED, OR THAT ACCUMULATE DIRT DURING CONSTRUCTION SHALL BE CLEANED, REPAIRED, OR REPLACED. 4. SIGNS ARE USUALLY MOUNTED ON A SINGLE POST, ALTHOUGH THOSE WIDER THAN 36" OR LARGER THAN 10 SQ. FT. SHALL BE MOUNTED ON TWO POSTS OR ABOVE A TYPE III BARRICADE. 5. SIGN POSTS DIRECT BURIED IN SOIL SHALL BE 2 LB. MINIMUM CHANNEL POST OR 4"x4" WOOD POSTS. CHANNEL POSTS SHALL BE PAINTED GREEN. WOOD POSTS SHALL BE PAINTED WHITE. ALL POSTS SHALL BE NEATLY CONSTRUCTED, AND SHALL BE REPLUMBED, CLEANED, OR REPAIRED AS NEEDED FOR THE DURATION OF THE JOB. THERE SHALL NOT BE MORE THAN 2 POSTS IN A 7' PATH FOR WOOD OR CHANNEL POSTS. ANY CHANNEL POST SPLICE SHALL BE IN ACCORDANCE WITH STANDARD DRAWING TC-3. 6. POST MOUNTED SIGNS IN RURAL AREAS SHALL BE CONSTRUCTED WITH THE NEAR EDGE OF THE SIGN FROM 6 TO 12 FEET FROM THE PAVEMENT EDGE. SIGNS IN URBAN AREAS AND BARRICADE MOUNTED SIGNS SHALL BE MOUNTED A MINIMUM OF 2 FEET FROM THE PAVEMENT EDGE. 7. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN URBAN AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN RURAL AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE, EXCEPT A MINIMUM OF 6' SHALL BE USED WHEN MOUNTING AN ADVISORY SIGN BELOW A WARNING SIGN. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR INTERMEDIATE TERM STATIONARY WORK CONDITIONS. THE SIGNS MINIMUM MOUNTING HEIGHT SHALL BE 5'. RETROREFLECTIVE DEVICES SHALL BE USED. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR SHORT-TERM, SHORT DURATION, AND MOBILE CONDITIONS. THEY SHALL BE NO LESS THAN ONE (1) FOOT ABOVE THE TRAVELED WAY. LONG-TERM STATIONARY SIGNS SHALL BE DIRECT BURIED IN SOIL, UNLESS CONDITIONS NECESSITATE THE USE OF PORTABLE SIGNS, OR AS APPROVED BY THE ENGINEER. CONCRETE PADS, CONCRETE OR ROCK BALLAST, OR OTHER SOLID MATERIALS SHALL NOT BE UTILIZED WITH PORTABLE SIGN SUPPORTS. 8. FLAGGERS SHALL USE REFLECTORIZED STOP-SLOW PADDLES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS. 9. MOST OF THE SIGNS SHOWN ARE ORIENTED TO THE RIGHT. HOWEVER, THIS DOES NOT PRECLUDE THE USE OF MIRROR IMAGES OF THESE SIGNS WHERE THE REVERSE ORIENTATION MIGHT BETTER CONVEY TO MOTORISTS THE PROPER DIRECTION OF MOVEMENT. 10. R55-1 SIGNS SHALL BE PLACED AT LEAST 1500' BUT NOT MORE THAN 1 MILE IN ADVANCE OF THE WORK ZONE. IF A SPEED LIMIT REDUCTION IS IN EFFECT, THE SIGN SHALL BE PLACED A MINIMUM OF 500' IN ADVANCE OF THE "REDUCED SPEED AHEAD" SIGN. • NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) IS REQUIRED FOR ALL PROJECTS.
R5-I  STD. 30"x30" EXPWY. 36"x36" SPECIAL 48"x48"	R1I-2  48"x30"	R1I-3A  60"x30"	R1I-4  60"x30"	W2I-5a  STD. 36"x36" FWY. 48"x48"	WI-I  STD. 36"x36" FWY. 48"x48"	WI-2  STD. 36"x36" FWY. 48"x48"	
WI-3  STD. 48"x48"	WI-4  STD. 48"x48"	WI-6  STD. 48"x24" SPECIAL 60"x30"	WI-8  STD. 18"x24" SPECIAL 24"x30" EXPWY. 30"x36" FWY. 36"x48"	W3-I  STD. 36"x36" SPECIAL 48"x48"	W3-2  STD. 36"x36" SPECIAL 48"x48"	W4-2  STD. 36"x36" FWY. 48"x48"	
W5-I  STD. 36"x36" SPECIAL 48"x48"	W6-3  EXPWY. 36"x36" SPECIAL 48"x48"	W8-7  EXPWY. 36"x36" FWY. 48"x48"	W9-2  STD. 36"x36" FWY. 48"x48"	W13-I  STD. 24"x24"	W20-I  STD. 48"x48"	W20-2  STD. 48"x48"	W20-3  STD. 48"x48"
W20-4  STD. 48"x48"	W20-5  STD. 48"x48"	W20-7a  18" 500 FEET 24" W16-2 STD. 36"x36" FWY. 48"x48"	W2I-2  STD. 30"x30" SPECIAL 36"x36"	W2I-5  STD. 30"x30" SPECIAL 36"x36"	W24-I  STD. 36"x36"	WI-4b  STD. 48"x48"	R56-I  STD. 18"x18"
W8-II  STD. 36"x36" FWY. 48"x48"	W8-9  STD. 36"x36" FWY. 48"x48"	G20-I  60"x24"	G20-2  48"x24"	OM-3L OM-3R  12"x36"	M4-9  STD. 30"x24" SPECIAL 48"x36" SPECIAL 60"x48"	M4-10  48"x18"	R55-I  36"x60" • USE 6" C LETTERS •• USE 4" D LETTERS

II-07-19	REVISED FOR MASH	
4-13-17	DELETED RSP-1 & ADDED W2I-5a	
9-2-15	REVISED REDUCED SPEED LIMIT AHEAD SIGNS REVISED ROAD WORK NEXT XX MILES	
12-15-11	REVISED W24-1	
11-17-10	DELETED W8-9a & ADDED W8-9	
10-15-09	ADDED REFERENCE TO MASH & ADDED SIGN W24-1	
4-17-08	REVISED SIGN DESIGNATIONS	
11-18-04	REVISED NOTES	
10-9-03	REVISED NOTE 1	
11-16-01	REVISED NOTE 7	
9-28-00	REVISED NOTE	
11-18-98	ADDED NOTE	
6-26-97	REVISED NOTE 5	
4-03-97	REVISED NOTE 5	
10-18-96	ADDED CONTROLLED ACCESS HWY. SIGN & TO NOTE 7	
10-12-95	ADDED R55-1	
6-8-95	REVISED TO CORRECT SIGN ILLUSTRATIONS	6-8-95
2-2-95	REVISED PER PART VI, MUTCD SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	
DATE	REVISION	FILMED

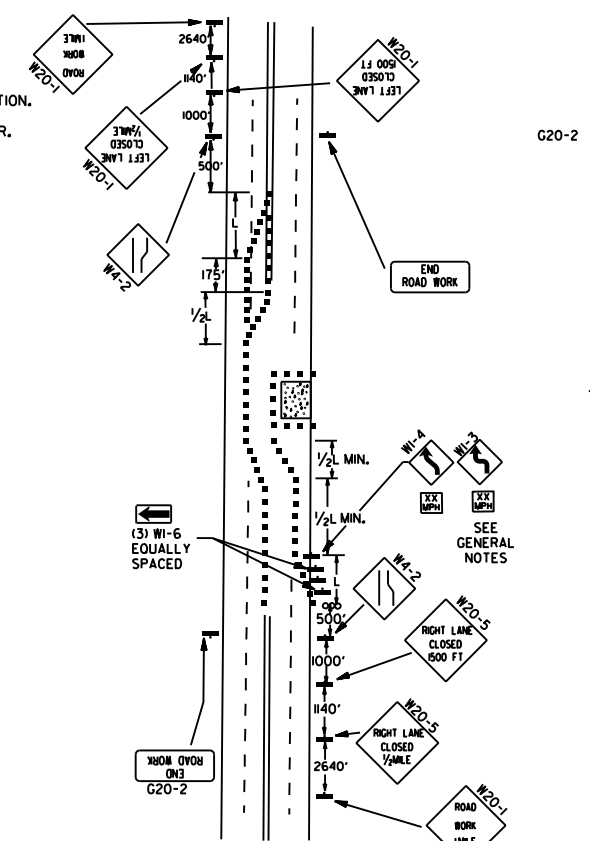
ARKANSAS STATE HIGHWAY COMMISSION
STANDARD TRAFFIC CONTROLS
FOR HIGHWAY CONSTRUCTION
STANDARD DRAWING TC-1



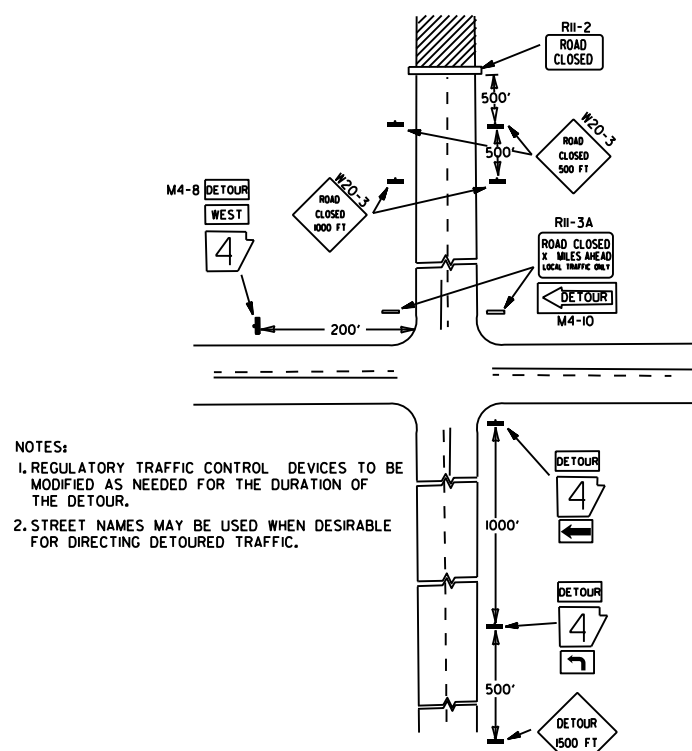
(A) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON A 2-LANE HIGHWAY WHERE THE ENTIRE ROADWAY IS CLOSED AND A BYPASS DETOUR IS PROVIDED.



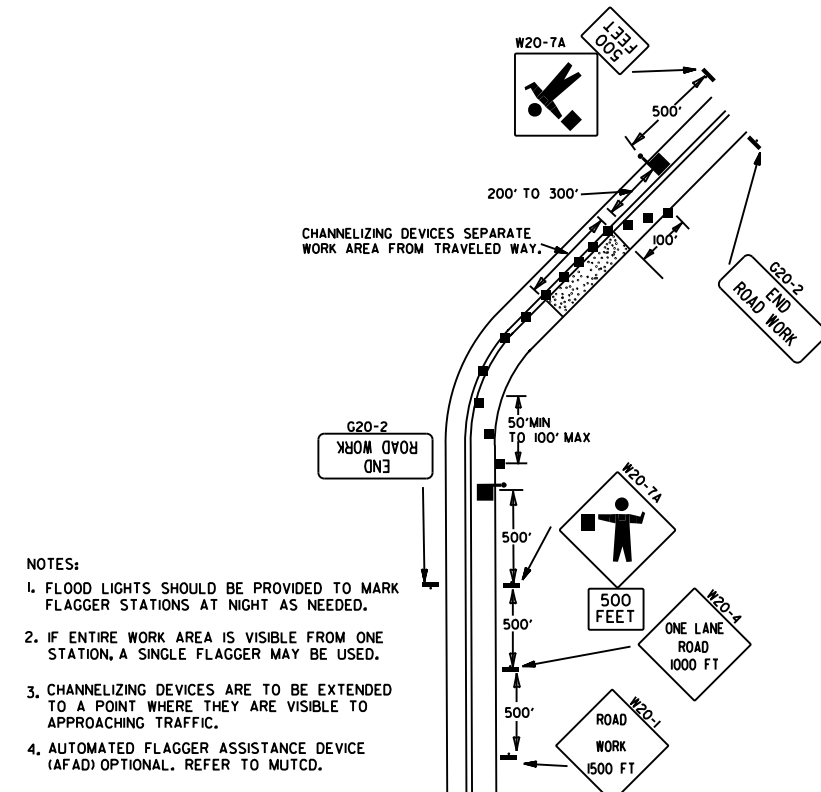
(B) TYPICAL APPLICATION - 4-LANE DIVIDED ROADWAY WHERE ONE ROADWAY IS CLOSED.



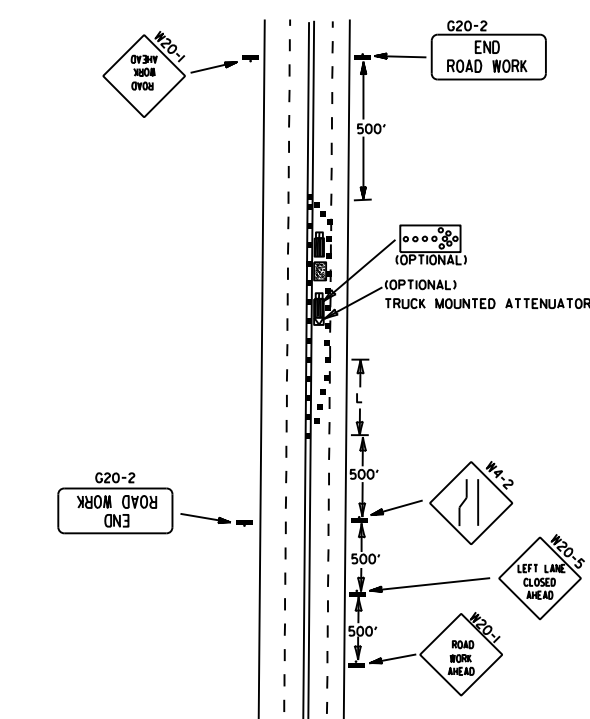
(C) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



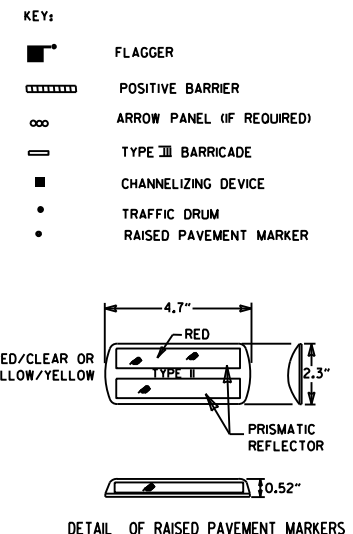
(D) TYPICAL APPLICATION - ROADWAY CLOSED BEYOND DETOUR POINT.



(E) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON 2-LANE HIGHWAY WHERE ONE LANE IS CLOSED AND FLAGGING IS PROVIDED.



(F) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WITH INSIDE LANE CLOSED.

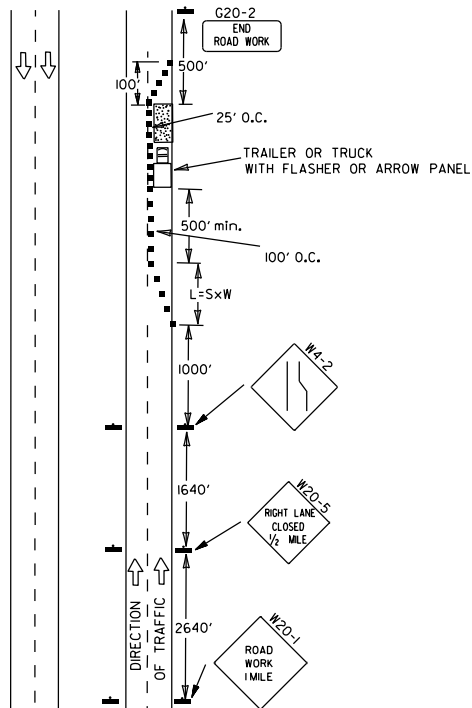


TYPICAL ADVANCE WARNING SIGN PLACEMENT

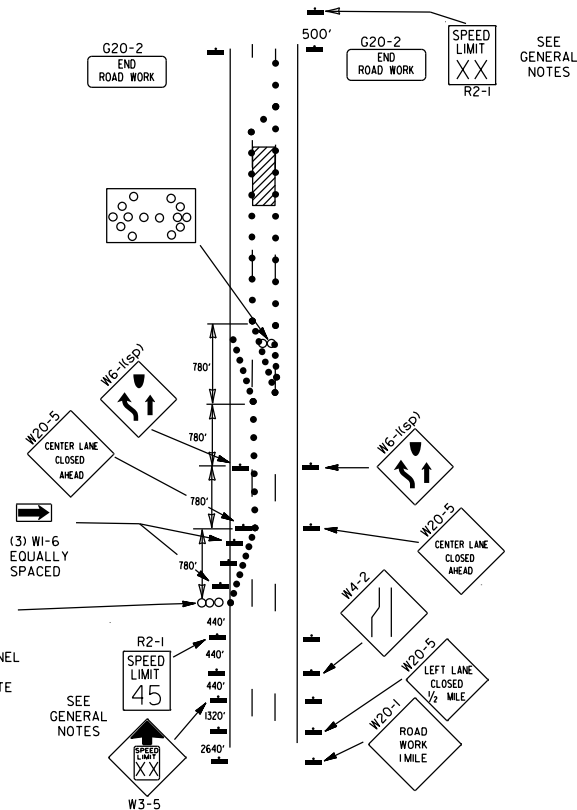
TAPER FORMULAE:
L=SxW FOR SPEEDS OF 45MPH OR MORE.
L= $\frac{WS^2}{60}$ FOR SPEEDS OF 40MPH OR LESS.
WHERE:
L= MINIMUM LENGTH OF TAPER.
S= NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK OR 85TH PERCENTILE SPEED.
W= WIDTH OF OFFSET.

- GENERAL NOTES:
- THE MAINTENANCE DIVISION SHALL CONDUCT A BALL BANK STUDY TO DETERMINE THE ADVISORY SPEED LIMIT PRIOR TO OPENING TO TRAFFIC. THE ADVISORY SPEED WILL BE POSTED ON W1-3 OR W1-4 CURVE WARNING SIGNS. USE W1-4 WHEN SPEED IS GREATER THAN 30MPH AND W1-3 WHEN 30MPH OR LESS.
 - WHEN THE EXISTING SPEED LIMIT IS 55MPH, THE R2-1(55) SHALL BE OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-1(45MPH) SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS.
 - WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-1(45) SHALL BE OMITTED. ADDITIONAL R2-1(55MPH) SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
 - WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-1(45) SHALL BE OMITTED. ADDITIONAL R2-1(55MPH) SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
 - THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT. BEYOND THE TAPER, MAXIMUM SPACING SHALL BE TWO TIMES THE SPEED LIMIT, OR AS DIRECTED BY THE ENGINEER.
 - WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
 - PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
 - TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE DELINEATED BY AFFIXING CONSPICUITY MATERIAL IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER. WHEN PLACED ON OR ADJACENT TO THE SHOULDER AND NOT BEHIND A POSITIVE BARRIER, THESE DEVICES SHALL BE DELINEATED BY PLACING FIVE (5) TRAFFIC DRUMS, EQUALLY SPACED ALONG THE TRAFFIC SIDE OF THE DEVICE.
 - DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE ARDOT QUALIFIED PRODUCTS LIST.
 - ALL TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL MEET THE REQUIREMENTS OF THE MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).

DATE	REVISION	FILMED
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.

KEY:

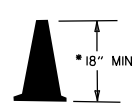
- ○ ○ ○ ARROW PANEL (IF REQUIRED)
- CHANNELIZING DEVICE
- TRAFFIC DRUM

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).

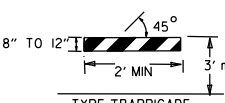
(C) TYPICAL APPLICATION - CONSTRUCTION OPERATIONS OF INTERMEDIATE TO LONG TERM DURATION ON A 4-LANE DIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.

CHANNELIZING DEVICES

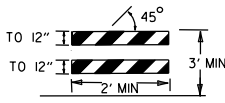


• WHEN CONES ARE USED ON FREEWAYS AND MULTI-LANE HIGHWAYS, THEY SHALL BE 28" MIN. DURING HOURS OF DARKNESS, 28" CONES SHALL BE USED ON ALL ROADWAYS, AND SHALL BE REFLECTORIZED IN ACCORDANCE WITH THE M.U.T.C.D.

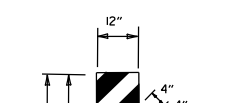
CONES



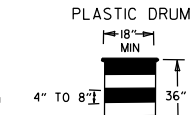
TYPE I BARRICADE



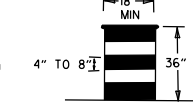
TYPE II BARRICADE



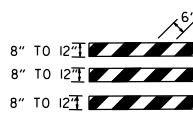
TYPE III BARRICADE



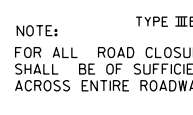
PLASTIC DRUM



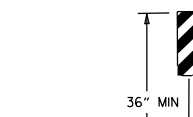
TYPE III BARRICADE



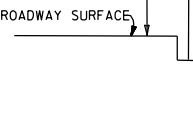
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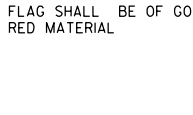
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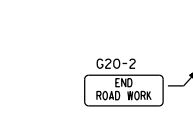
TYPE III BARRICADE



TYPE III BARRICADE



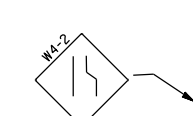
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TYPE III BARRICADE



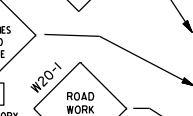
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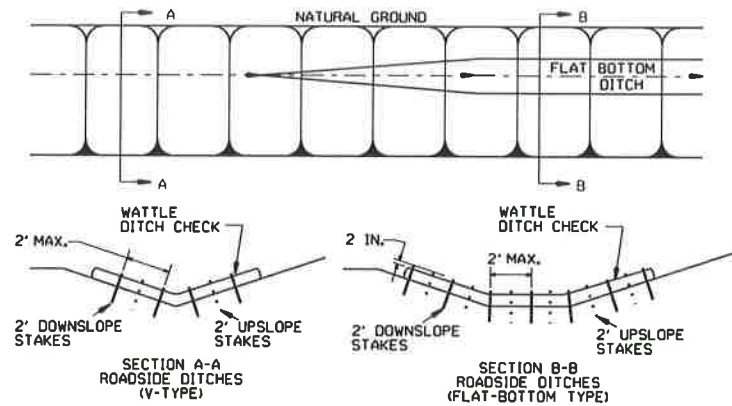
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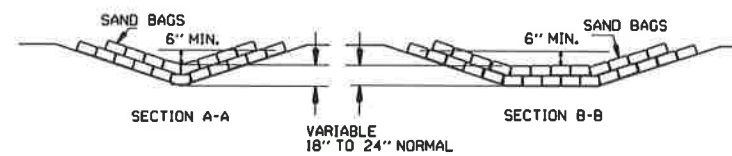
GENERAL NOTES

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

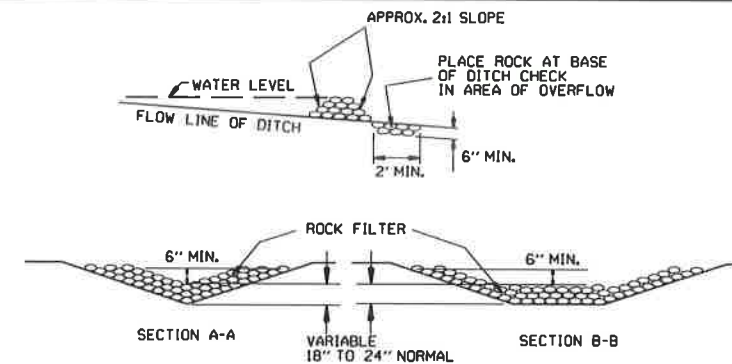


WATTLE DITCH CHECK (E-1)

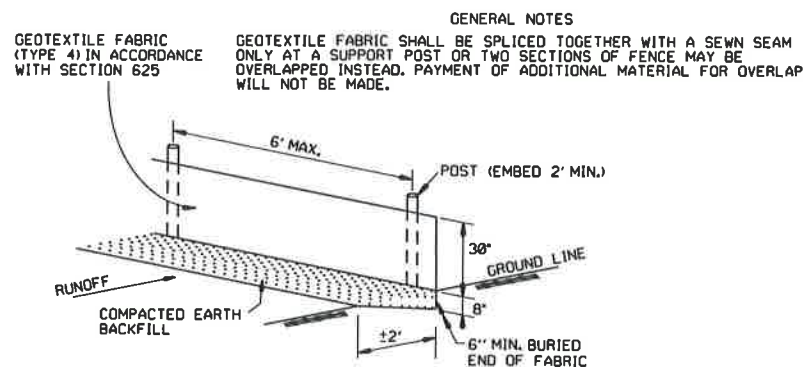
NUMBER OF SAND BAGS AND ARRANGEMENT VARIABLE WITH ON-SITE CONDITIONS. PLACE SAND BAGS AT BASE OF DITCH CHECK IN AREA OF OVERFLOW.



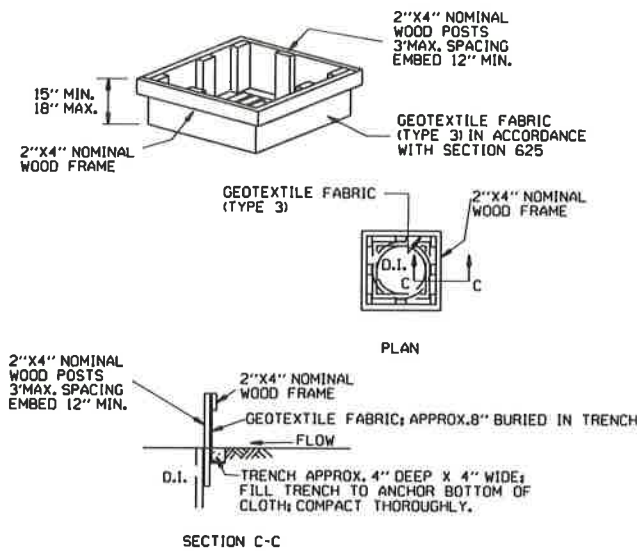
SAND BAG DITCH CHECK (E-5)



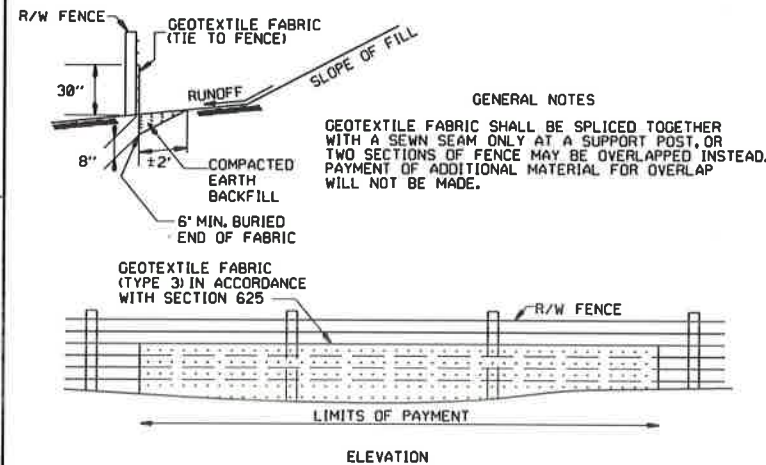
ROCK DITCH CHECK (E-6)



SILT FENCE (E-11)

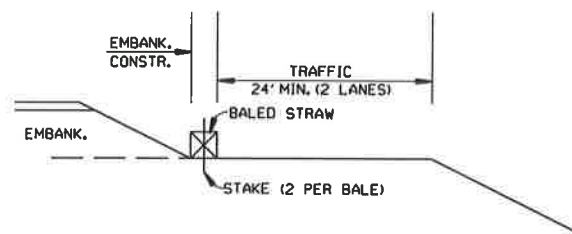


DROP INLET SILT FENCE (E-7)

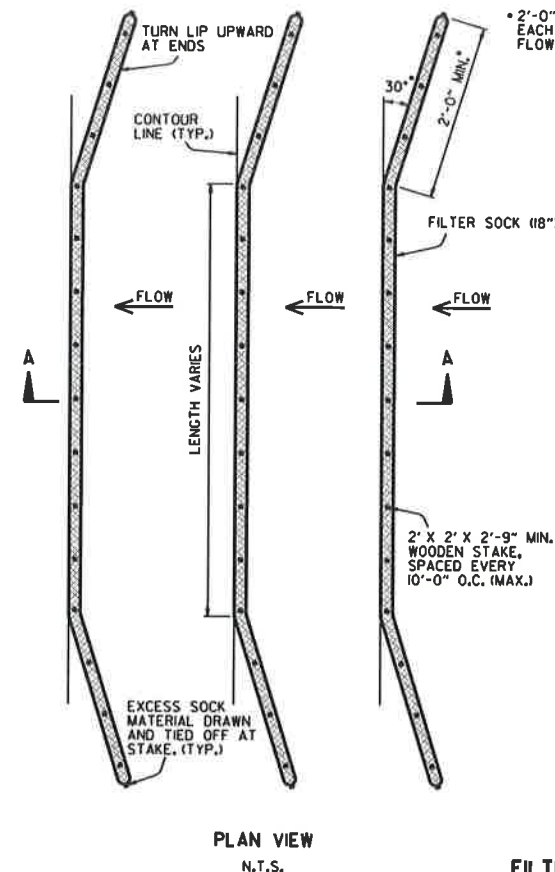


SILT FENCE ON R/W FENCE (E-4)

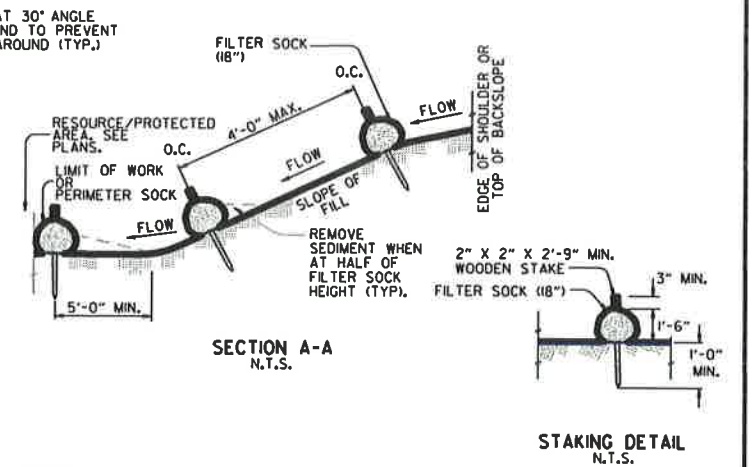
GENERAL NOTES
1. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES. THE BALES SHALL BE A MINIMUM OF 30 INCHES IN LENGTH.
2. NO GAPS SHALL BE LEFT BETWEEN BALES.
3. BALED STRAW FILTER BARRIERS COMPLETED AND ACCEPTED WILL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



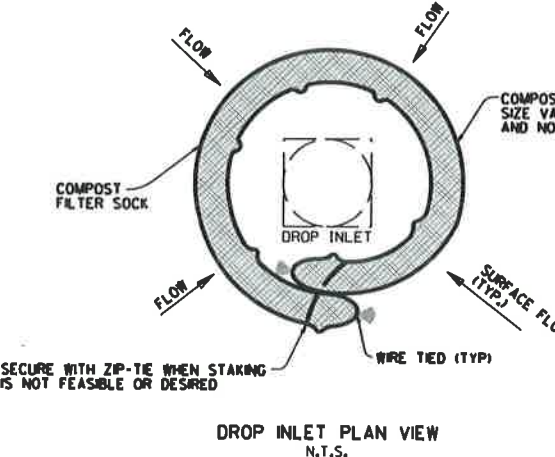
BALED STRAW FILTER BARRIER (E-2)



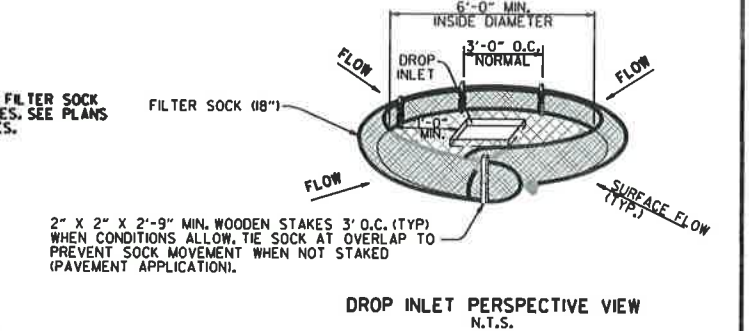
FILTER SOCK ALONG SLOPE (E-3)



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)



NOTES:
1. OVERLAP ENDS OF SOCK (1' MIN. 3' MAX.).
2. USE 18" DIA. SOCK IN NON-TRAFFIC AREAS OR AREAS WHERE SAFETY IS NOT A CONCERN.

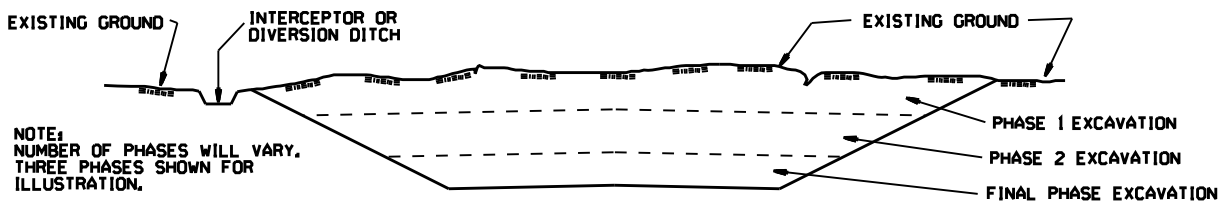
11-16-17	ADDED FILTER SOCK E-3 AND E-13	
12-15-11	DELETED BALED STRAW DITCH CHECK & ADDED WATTLE DITCH CHECK	
4-18-98	ADDED NOTES	
07-02-98	ADDED BALED STRAW FILTER BARRIER (E-2)	
07-20-95	REVISED SILT FENCE E-4 AND E-11	7-20-95
07-15-94	REV. E-4 & E-11 MIN. 13" BURIED END OF FABRIC	
06-02-94	REVISED E-1, 4, 7 & 11; DELETED E-2 & 3	6-2-94
04-01-93	REDRAWN	
10-01-92	REDRAWN	
08-02-76	ISSUED R.O.M.	298-7-28-76
DATE	REVISION	FILMED

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

CLEARING AND GRUBBING

- CONSTRUCTION SEQUENCE
- 1. PLACE PERIMETER CONTROLS (I.E. SILT FENCES ,DIVERSION DITCHES, SEDIMENT BASINS, ETC.)
 - 2. PERFORM CLEARING AND GRUBBING OPERATION.

EXCAVATION

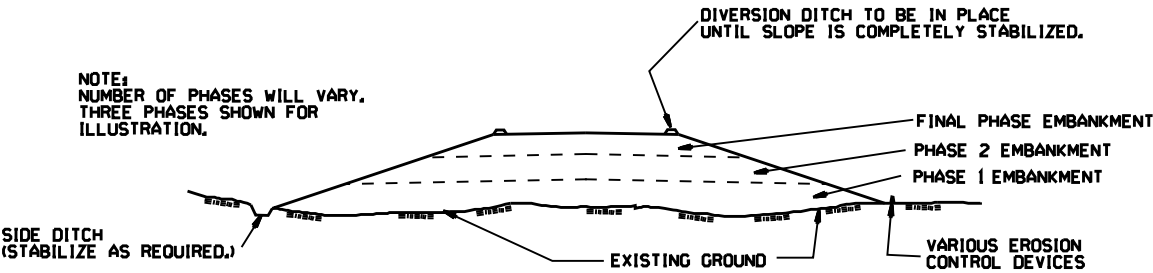


GENERAL NOTE

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

- CONSTRUCTION SEQUENCE
- 1. EXCAVATE AND STABILIZE INTERCEPTOR AND/OR DIVERSION DITCHES.
 - 2. PERFORM PHASE 1 EXCAVATION, PLACE PERMANENT OR TEMPORARY SEEDING.
 - 3. PERFORM PHASE 2 EXCAVATION, PLACE PERMANENT OR TEMPORARY SEEDING.
 - 4. PERFORM FINAL PHASE OF EXCAVATION, PLACE PERMANENT OR TEMPORARY SEEDING, STABILIZE DITCHES, CONSTRUCT DITCH CHECKS, DIVERSION DITCHES, SEDIMENT BASINS, OR OTHER EROSION CONTROL DEVICES AS REQUIRED.

EMBANKMENT



GENERAL NOTE

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

- CONSTRUCTION SEQUENCE
- 1. CONSTRUCT DIVERSION DITCHES, DITCH CHECKS, SEDIMENT BASINS, SILT FENCES, OR OTHER EROSION CONTROL DEVICES AS SPECIFIED.
 - 2. PLACE PHASE 1 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING, PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 21 DAYS.
 - 3. PLACE PHASE 2 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING, PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 21 DAYS.
 - 4. PLACE FINAL PHASE OF EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING, PLACE DIVERSION DITCHES AND SLOPE DRAINS AND MAINTAIN UNTIL ENTIRE SLOPE IS STABILIZED.

			ARKANSAS STATE HIGHWAY COMMISSION
			TEMPORARY EROSION CONTROL DEVICES
			STANDARD DRAWING TEC-3
11-03-94	CORRECTED SPELLING		
6-2-94	Drawn & Issued	6-2-94	
DATE	REVISION	FILED	