

mjhartman 1/22/2020 R030455 11-19-2019 .DGN

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.			
		JOB NO.		090550		68
		CROOKE	D CREE	K STR.& APPR	S. (HARF	RISON) (S)



• DESIGN TRAFFIC DATA •

DESIGN YEAR	2043
2023 ADT	6100
2043 ADT	7100
2043 DHV	781
DIRECTIONAL DISTRIBUTION	0.60
TRUCKS	1%
DESIGN SPEED	25 MPH



N



INDEX OF SHEETS

SHEET NO.	TITLE	BRIDGE NO.	DRWG.NO.
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47	DETAILS OF END BENT 13 (SHEET 4 OF 4)	07638	66548
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52	DETAILS OF 179 - 13/4 CONTINUOUS R.C. SLAB UNIT 2 (SHEET 10F 4)	07638	66553
53	DETAILS OF 179 - 13/4" CONTINUOUS R.C. SLAB UNIT 2 (SHEET 2 OF 4)	07638	66554
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50	DETAILS OF DECORATIVE CONCRETE RAILING (SHEET 1 OF 4)	07638	66557
5/		07638	00550
58		U/b38	00009
59		U/030	000//
60		U/030	00000
01 <u> </u>		07620	000001
63 69		0/030	00002
03 - 00			

DRWG.NO.	TITLE	DATE
55000	STANDARD DETAILS FOR EMBANKMENT CONSTRUCTION AND BACKFILL AT BRIDGE ENDS	02-27-14
55006	STANDARD GENERAL NOTES FOR STEEL BRIDGE STRUCTURES	09-02-15
55008	STANDARD DETAILS FOR POURED SILICONE JOINTS	02-11-16
55010	STANDARD DETAILS FOR TYPE D BRIDGE NAME PLATE	04-14-23
55014	STANDARD DETAILS FOR TYPE H RAILING	02-11-16
55020	STANDARD DETAILS FOR STEEL H-PILES AND PILE ENCASEMENTS	03-24-16

DRWG.NC	D. TITLE	DATE
CG-1	CURBING DETAILS	11-29-07
DR-1	DETAILS OF DRIVEWAYS & ISLANDS	05-19-22
DR-2	DETAILS OF DRIVEWAYS & STREET TURNOUTS	05-19-22
FPC-9	DETAILS OF DROP INLETS & JUNCTION BOXES	11-16-01
FPC-9E	DETAILS OF DROP INLETS (TYPE C)	08-22-02
FPC-9M	DETAILS OF DROP INLET (TYPE MO)	08-22-02
PCC-1	CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING	02-27-14
PM-1	PAVEMENT MARKING DETAILS	02-27-20
PU-1	DETAILS OF PIPE UNDERDRAIN	12-08-16
SD-6	HEAVY DUTY PULL BOX	11-16-17
SD-8	SIGNAL HEAD PLACEMENT	12-08-16
SD-11	STEEL POLE WITH MAST ARM	11-16-17
SE-3	TABLES AND METHOD OF SUPERELEVATION FOR TWO-WAY TRAFFIC (4% MAXIMUM)	11-07-19
TC-1	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	11-07-19
TC-2	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	05-20-21
TC-3	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	08-12-21
TEC-1	TEMPORARY EROSION CONTROL DEVICES	11-16-17
TEC-3	TEMPORARY EROSION CONTROL DEVICES	11-03-94
WR-1	WHEELCHAIR RAMPS NEW CONSTRUCTION AND ALTERATIONS	11-10-05

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	FED.AID PRO	J.NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.				
		JOB NO.		090550		2	68
		INDEX (DE SHEF	TS AND	STAN	ARD D	RAWINGS



7/31/2023

BRIDGE STANDARD DRAWINGS

ROADWAY STANDARD DRAWINGS

INDEX OF SHEETS AND STANDARD DRAWINGS

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 FOR THE BOOK OF STANDARD SPECIFICATIONS ERRATA 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 - TRAINING PROGRAM - JOB NUMBER 090550 **GENERAL NOTES** FHWA-1273_SUPPLEMENT - WAGE RATE DETERMINATION 100-3 CONTRACTOR'S LICENSE DEPARTMENT NAME CHANGE 100-4 2. ISSUANCE OF PROPOSALS 102-2 105-4 MAINTENANCE DURING CONSTRUCTION AGREEMENT WITH SUCH OWNERS. 107-2 RESTRAINING CONDITIONS 108-1 LIQUIDATED DAMAGES 108-2 WORK ALLOWED PRIOR TO ISSUANCE OF WORK ORDER PROTECTION OF WATER QUALITY AND WETLANDS 110-1 210-1 303-1 UNCLASSIFIED EXCAVATION AGGREGATE BASE COURSE QUALITY CONTROL AND ACCEPTANCE 306-1 307-1 CEMENT 308-1 CEMENT 400-1 TACK COATS DESIGN AND QUALITY CONTROL OF ASPHALT MIXTURES 400-4 VARIOUS BID ITEMS 400-5 PERCENT AIR VOIDS FOR ACHM MIX DESIGNS LIQUID ANTI-STRIP ADDITIVE 400-6_ 5 400-7 TRACKLESS TACK 404-3 DESIGN OF ASPHALT MIXTURES OF THE STANDARD SPECIFICATIONS. CONSTRUCTION REQUIREMENTS AND ACCEPTANCE OF ASPHALT CONCRETE PLANT MIX COURSES 410-1 410-2 DEVICES FOR MEASURING DENSITY FOR ROLLING PATTERNS EVALUATION OF ACHM SUBLOT REPLACEMENT MATERIAL 410-4 501-2 CEMENT INCIDENTAL CONSTRUCTION 600-2 LANE CLOSURE NOTIFICATION 603-1 RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES 604-1 604-3_ TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES (MASH) 7. 620-1 MULCH COVER 621-1_ FILTER SOCKS CONCRETE WALKS, CONCRETE STEPS, AND HAND RAILING 633-1 634-1 CURBING TRAFFIC CONTROL FACILITIES 700-2 LIVESTOCK. 800-1 STRUCTURES _CONCRETE FOR STRUCTURES 802-3 802-4 CEMENT _REINFORCING STEEL FOR STRUCTURES 804-2 STEEL STRUCTURES 807-2 JOB 090550_ACCESSIBLE PEDESTRIAN SIGNAL (APS) JOB 090550_ACTUATED CONTROLLER THE RESIDENT ENGINEER. JOB 090550_ARCHITECTURAL FINISH JOB 090550_BIDDING REQUIREMENTS AND CONDITIONS JOB 090550_BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT JOB 090550_BROADBAND INTERNET SERVICE FOR FIELD OFFICE JOB 090550_BUY AMERICA - CONSTRUCTION MATERIALS 10. JOB 090550_CARGO PREFERENCE ACT REQUIREMENTS JOB 090550_CAVE DISCOVERY JOB 090550_CLASS C FLY ASH IN PORTLAND CEMENT CONCRETE PAVEMENT AND CLASS S(AE) CONCRETE JOB 090550_COLD MILLING – COUNTY PROPERTY JOB 090550_CONCRETE BRIDGE DECK CURING AND SURFACE TREATMENT RESTRICTIONS JOB 090550_CONSTRUCTION IN SPECIAL FLOOD HAZARD AREAS THE CONTRACTOR'S EXPENSE. JOB 090550_CONSTRUCTION PROJECT INFORMATION SIGN JOB 090550__DECORATIVE TRAFFIC SIGNALS JOB 090550_DESIGN AND QUALITY CONTROL OF ASPHALT MIXTURES JOB 090550__DESIGN OF ASPHALT MIXTURES - AGGREGATES JOB 090550_DISADVANTAGED BUSINESS ENTERPRISE BIDDER'S RESPONSIBILITIES JOB 090550_DRILLED SHAFT FOUNDATIONS JOB 090550_ELECTRICAL CONDUCTORS-IN-CONDUIT JOB 090550_ELECTRICAL CONDUCTORS-IN-CONDUIT (TRAFFIC SIGNAL) JOB 090550_ELECTRICAL CONDUCTORS FOR LUMINAIRES (BRIDGE LIGHTING) JOB 090550_ELECTRICAL CONDUCTORS FOR LUMINAIRES (TRAFFIC SIGNAL) JOB 090550_FLEXIBLE BEGINNING OF WORK - CALENDAR DAY CONTRACT JOB 090550_GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION JOB 090550_HYBRID VIDEO/RADAR DETECTION SYSTEM JOB 090550_LED COUNTDOWN PEDESTRIAN SIGNAL HEAD JOB 090550_LED LUMINAIRE ASSEMBLY (BUG U0 TYPE) JOB 090550_LED ROADWAY ILLUMINATION POLE JOB 090550_LED TRAFFIC SIGNAL HEAD JOB 090550_LIQUIDATED DAMAGES PROCEDURE FOR BID LETTINGS JOB 090550_LONGITUDINAL JOINT DENSITIES FOR ACHM SURFACE COURSES JOB 090550_MANDATORY ELECTRONIC CONTRACT \bigcirc JOB 090550_MANDATORY ELECTRONIC DOCUMENT SUBMITTAL

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





DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.			
		JOB NO.		090550	4	68
		TYPICA	L SECT	IONS OF IMPRO	/EMENT	

ARKANSAS * * * PROFESSIONAL ENGINEER N. 19345 EKLEY

7/31/2023

-EXISTING GROUND

NOTES:

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

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

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

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.

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

*CENTER TURN LANE TAPERS FROM 0'-0" TO 12'-0" FROM STA. 52+91.94 TO STA. 55+36.94

TYPICAL SECTIONS OF IMPROVEMENT



CONSTRUCTION PROJECT INFORMATION SIGN



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DATE REVISED	DATE REVISED	FED.RD. DIST.NO. STATE		FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS		
		6	ARK.					
		JOB NO.		090550	5	68		
		SPECIAL DETAILS						

ARKANSAS ARKANSAS PROPESSIONAL ENGINEER N. 19345 E. KLE

7/31/2023

SPECIAL DETAILS



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	DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
[6	ARK.	000550		
[NU. VENT P	IU9U550 Avement mark	L IU ING DET	68 AILS
THERMØPL PAVEMENT (WORDS) THERMOPL MARKING (ASTIC PAV MARKING ASTIC PAV ARROWS	EMENT	<u> </u>			ICENSE ICENSE ICENSE No. 19345 E. KL E	AS BAL 3 1/31/2023
STOP LINE 61+15.18 61+41.00 CALLER 61+41.00 CALLER CALLE	ITE SOLID MOPLASTIC MOPLASTIC MOPLASTIC MARKING		IT				

PERMANENT PAVEMENT MARKING DETAILS

SIGN NUMBER	DESCRIPTION	SIGN SIZE	MAX NUMBER	TOTAL SIGNS REQUIRED		TRAFFIC DRUMS	BARRICADE	
							RIGHT	
				NO.	SQ. FT.	EACH	LIN	. FT
W20-1	ROAD WORK AHEAD	36"x36"	2	2	18.0			
W20-5	RIGHT LANE CLOSED AHEAD	36"x36"	2	2	18.0			
W20-5	LEFT LANE CLOSED AHEAD	36"x36"	2	2	18.0			
W4-2	LANE ENDS, RT	36"x36"	1	1	9.0			
W4-2	LANE ENDS, LT	36"x36"	1	1	9.0			
G20-2	END ROAD WORK	36"x18"	2	2	9.0			
R9-9	SIDEWALK CLOSED	24"x12"	3	3	6.0			
R11-2	ROAD CLOSED	48"x30"	4	4	40.0			
R11-3a	ROAD CLOSED XX MILES AHEAD, LOCAL TRAFFIC ONLY	60"x30"	1	1	12.5			
W1-6	LARGE ARROW	48"x24"	9	9	72.0			
M6-3	DIRECTIONAL ARROW	21"x15"	4	4	8.8			
D3-1	"HWY. 65B" PLAQUE	36"x12"	11	11	33.0			
M4-8	DETOUR	24"x12"	11	11	22.0			
M4-8A	END DETOUR	24"x18"	2	2	6.0			
	TRAFFIC DRUMS		59			59		
	TYPE III BARRICADE-RT. (16')		8				128	
	TYPE III BARRICADE-LT. (16')		8					
								1
TOTALS:	-	· ·		•	281.3	59	128	1
NOTE THIS	S IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604	03 STANDARD		IONS FOR H		NSTRUCTIO	N	-

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

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

DESCRIPTION	REMOVAL OF PERMANENT PAVEMENT	REMOVAL OF PERMANENT PAVEMENT MARKINGS	REMOVAL OF PERMANENT PAVEMENT MARKINGS MARKINGS	RAISED PAV	THERMOPLASTIC PAVEMENT MARKIN				IG	
	MARKINGS	(WORDS)	(ARROWS)	TYPE II	TYPE II		6" 24"		WODDO	
				(WHITE/RED)	(YELLOW/YELLOW)	WHITE	YELLOW	WHITE	WORDS	ARROWS
	LIN. FT.	EACH		EACH		LIN. FT.			EACH	
REMOVAL OF PERMANENT PAVEMENT MARKINGS	660									
REMOVAL OF PERMANENT PAVEMENT MARKINGS (WORDS)		2								
REMOVAL OF PERMANENT PAVEMENT MARKINGS (ARROWS)			2							
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)				27						
RAISED PAVEMENT MARKERS TYPE II (YELLOW/YELLOW)					13					
THERMOPLASTIC PAVEMENT MARKING WHITE (6")						1563				
THERMOPLASTIC PAVEMENT MARKING YELLOW (6")							2370			1
THERMOPLASTIC PAVEMENT MARKING WHITE (24")								43		
THERMOPLASTIC PAVEMENT MARKING (WORDS)									6	1
THERMOPLASTIC PAVEMENT MARKING (ARROWS)										9
TOTALS:	660	2	2	27	13	1563	2370	43	6	9
NOTE: THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SEC	CTION 604.03, STA	NDARD SPECIFIC	CATIONS FOR HIG	HWAY CONSTRUCT	ION.		•	•		

NOTE: 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.

6 ARK. JOB NO. 090550 II 68	DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
JOB NO. 090550 II 68			6	ARK.			
QUANTITIES			JOB NO.		090550	=	68
QUANTITIES			QUANTI	TIES			



7/31/2023



		REINFORCED CONCRETE PIPE	DROP	INLETS	
STATION	DESCRIPTION	(CLASS III)	TYPE		STD. DWG. NOS.
		12"	E	MO	
		LIN. FT.			
55+74	HWY. 65B - DI ON RT.			1	FPC-9E, FPC-9M
55+78	HWY. 65B - DI ON RT. W/ PIPE OUTLET	36	1		FPC-9
TOTALS:		36	1	1	

STATION

TOTAL:

61+41 HWY.65B-RT.

NOTE: FOR R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED.

SELECTED PIPE BEDDING

LOCATION	SELECTED PIPE BEDDING
	CU. FD.
ENTIRE PROJECT TO BE USED IF	
AND WHERE DIRECTED BY THE	10
ENGINEER	
TOTAL	10

TOTAL: NOTE: QUANTITY ESTIMATED.

SEE SECTION 104.03 OF THE STD. SPECS.

ACHM PATCHING OF EXISTING ROADWAY

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

TOTAL:

NOTE: QUANTITY ESTIMATED.

SEE SECTION 104.03 OF THE STD. SPECS.

COLD MILLING ASPHALT PAVEMENT

STATION	STATION	LOCATION	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT	
			FEET	SQ. YD.	
52+91.94	55+36.94	HWY. 65B - MAIN LANES	VAR.	1296.42	
55+36.94	56+65.85	HWY. 65B - MAIN LANES AND LAKESHORE DR.	VAR.	1474.53	
TOTAL:				2770.95	

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

CC	JUTTER		
ΓΙΟΝ	STATION	LOCATION	TYPE A (1'

STATION STATION			LOCATION	TYPE A (1' 6
				LIN. FT.
	54+59	55+27	HWY. 65B - RT.	61
	54+61	54+72	HWY. 65B - LT.	11
	55+09	55+48	HWY. 65B - LT.	45
	55+51	55+78	HWY. 65B - RT.	67
	55+57	57+39	HWY. 65B - RT.	182
	57+88	57+33	HWY. 65B/LAKESHORE DR LT.	123
	61+33	61+43	HWY. 65B - RT.	33
	61+33	61+49	HWY. 65B - LT.	39
	TOTAL:			561

CONCRETE WALKS

STATION	STATION	LOCATION	LENGTH	CONCRETE WALKS
			LIN. FT.	SQ.YD.
55+72	57+34	HWY. 65B - RT.	129	86
56+88	57+34	HWY. 65B/LAKESHORE DR LT.	109	73
57+61	58+51	TRAIL UNDER BRIDGE NO. A1412	243	323
61+34	61+50	HWY.65B - LT	VAR.	33
61+34	61+44	HWY. 65B - RT	VAR.	21
TOTAL:				536

BENCH MARKS

TYPE 3

SQ.YD.

9.7

9.7

STATION	LOCATION	BENCH MARKS					
		EACH					
57+67	BRIDGE END	1					
OTAL:		1					

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

WHEELCHAIR RAMPS

LOCATION

REMOVAL AND DISPOSAL OF DROP INLETS

STATION	DESCRIPTION	INLETS
		EACH
55+67	HWY. 65B - RT.	1
TOTAL:		1

STATION	STATION LOCATION		CLEARING	GRUBBING		
			STATION			
52+92	61+70	HWY.65B	9	9		
TOTALS:			9	9		

EROSION CONTROL

				PERMAN	ENT EROSIO	N CONTROL		TEM	PORARY ER	OSION CONT	ROL				
STATION	STATION	LOCATION	SEEDING	LIME	MULCH COVER	WATER	SECOND SEEDING	TEMPORARY SEEDING	MULCH COVER	WATER	FILTER SOCKS (18")	SILT FENCE	DROP INLET FILTER SOCK (12")	*SEDIMENT REMOVAL & DISPOSAL	
							ATTEIOATION				(E-3)	(E-11)	(E-13)	DIG: OUAL	
			ACRE	TON	ACRE	M.GAL.	ACRE	ACRE	ACRE	M.GAL.	LIN. FT.	LIN. FT.	LIN. FT.	CU.YD.	
52+92	61+70	HWY. 65B	1.90	3.80	1.90	193.8	1.90	2.97	2.97	60.6	309	165	46	6	
*ENTIRE PR	OJECT TO B	E USED IF AND WHERE DIRECTED BY THE ENGINEER.	0.48	0.96	0.48	49.0	0.48	0.74	0.74	15.1	77	19	12	1	
TOTALS:			2.38	4.76	2.38	242.8	2.38	3.71	3.71	75.7	386	184	58	7	
					•	•		•			•		•	•	

١G

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.

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.			
		JOB	NO.	090550	12	68
		QUANTI	TIES			



7/31/2023



CLEARING AND GRUBBING

REMOVAL AND DISPOSAL OF ITEMS

STATION	STATION	LOCATION	CURB	CURB AND GUTTER	RETAINING WALLS	WALKS	PIPE	GUARDRAIL
			LIN. FT.	LIN. FT.	LIN. FT.	SQ.YD.	LIN. FT.	LIN. FT.
54+61	54+72	HWY.65B-LT.	13					
54+62	55+27	HWY. 65B - RT.	62					
55+07	55+47	HWY. 65B - LT.	50					
55+51	56+14	HWY. 65B - RT.	18	135				
55+68	55+75	HWY. 65B - RT.					7	
56+14	57+74	HWY. 65B - RT.	121			3		
56+22	57+76	HWY. 65B - RT.						136
56+86	57+44	HWY. 65B/LAKESHORE DR LT.		140				
56+88	57+76	HWY. 65B/LAKESHORE DR LT.				77		
57+44	57+76	HWY. 65B - LT.	32					
57+61	58+51	HWY. 65B - LT.				71		
57+72	57+73	HWY. 65B - RT.			16			
61+31	61+39	HWY. 65B - RT.	6			17		
61+42	61+48	HWY. 65B - LT.				3		
TOTALS:			302	275	16	171	7	136

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.

DRIVEWAYS & TURNOUTS								
LOCATION	WIDTH	ТАСК СОАТ	ACHM BASE COURSE (11/2") 550 LBS. PER SQ. YD.	ACHM BINDER COURSE (1") 330 LBS. PER SQ.				

STATION	SIDE	LOCATION	WIDTH	TACK COAT 0.17 GAL. PER SQ. YD.		COURSE (11/2") 550 LBS. PER SQ. YD. (PG 64-22)		(1") 330 LB YD. (PC	S. PER SQ. 64-22)	COURSE (1/2") 220 LBS. PER SQ. YD. (PG 64-22)		
			FEET	SQ.YD.	GAL.	SQ. YD.	TON	SQ.YD.	TON	SQ.YD.	TON	
55+42	RT.	HWY.65B	19	463.07	78.72	115.77	31.84	115.77	19.10	231.53	25.47	
TOTALS:				463.07	78.72	115.77	31.84	115.77	19.10	231.53	25.47	

TOTALS: BASIS OF ESTIMATE:

MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22

EARTHWORK

STATION	STATION	LOCATION / DESCRIPTION	UNCLASSIFIED EXCAVATION	COMPACTED EMBANKMENT						
			CU. YD.							
52+91.94	61+70.20	HWY.65B	556	133						
ENTIRE	PROJECT	APPROACHES	46							
TOTALS:			602	133						

NOTE: EARTHWORK QUANTITIES SHALL BE PAID AS PLAN QUANTI

4" PIPE UNDERDRAIN

STATION	STATION	LOCATIONS
ENTIRE PR	OJECT TO	BE USED IF AND
WHERE DI	RECTED B	THE ENGINEER
TOTALS:		

* NOTE: QUANTITY ESTIMATED.

SEE SECTION 104.03 OF THE STD. SPECS.

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

APPROACH GUTTERS AND SLABS

STATION	STATION	LOCATION	REINFORCING STEEL-RDWY. (GR. 60)	AGGREGATE BASE CRS. (CLASS 7)	
			CU.YD.	POUND	TON
57+32.62	57+67.41	BRIDGE END	113.94	14043	75.43
61+33.08	61+66.83	BRIDGE END	117.41	21790	121.41
TOTALS:			231.35	35833	196.84

SOIL STABILIZATION

STATION	STATION	LOCATION / DESCRIPTION	SOIL STABILIZATION TON
ENTIRE	PROJECT	TO BE USED IF AND WHERE	50
		DIRECTED BY THE ENGINEER	
TOTAL:			50

QUANTITY ESTIMATED.

SEE SECTION 104.03 OF THE STD. SPECS.

								BASE A	AND SURF														
				ТАСК	COAT		A	ACHM BASE COURSE (11/2")				CHM BINDE	R COURSE (1	")			ACHM SURFACE COURSE (1/2")						
STATION STATION	LOCATION	LENGIH	(0.17 TOTAL WID	GAL.PER S	Q. YD.)	TOTAL	AVG. WID.	SO VD	POUND /	PG 64-22	AVG. WID.	SO VD	POUND /	PG 64-22	AVG. WID.	SO VD	POUND /	PG 64-22	AVG. WID.	SO VD	POUND /	PG 64-22	TOTAL
		FEET	FEET	SQ.YD.	GALLON	GALLONS	FEET	00.10.	SQ.YD.	TON	FEET	000.10.	SQ.YD.	TON	FEET	00.10.	SQ.YD.	TON	FEET	00.10.	SQ.YD.	TON	TON
MAIN LANES	·					•			•														
52+91.94 55+36.94	MAIN LANES - HWY 65B MILL & OVERLAY	245.00	VAR.	1357.06	230.70	230.70									VAR.	1357.06	220.00	149.28	1		· · · · ·		149.28
52+91.94 55+36.94	MAIN LANES - HWY 65B WIDENING	245.00	VAR.	157.88	26.84	26.84	VAR.	93.47	550.00	25.70	VAR.	64.41	330.00	10.63	VAR.	64.41	220.00	7.09			· · · · · ·		7.09
55+36.94 56+65.85	MAIN LANES - HWY 65B & LAKESHORE DR. MILL & OVERLAY	128.91	VAR.	1530.69	260.22	260.22									VAR.	1530.69	220.00	168.38			· · · · ·		168.38
55+36.94 56+65.85	MAIN LANES - HWY 65B WIDENING	128.91	VAR.	114.39	19.45	19.45	VAR.	62.70	550.00	17.24	VAR.	51.69	330.00	8.53	VAR.	51.69	220.00	5.69			· · · · · ·		5.69
56+65.85 57+32.62	MAIN LANES - HWY 65B	66.77	173.00	1283.47	218.19	218.19	61.00	452.55	550.00	124.45	56.00	415.46	330.00	68.55	56.00	415.46	220.00	45.70	56.00	415.46	220.00	45.70	91.40
61+33.08 61+70.20	MAIN LANES - HWY 65B	37.12	VAR.	780.64	132.71	132.71	VAR.	260.21	550.00	71.56	VAR.	260.21	330.00	42.93	VAR.	260.21	220.00	28.62	VAR.	260.21	220.00	28.62	57.24
																							1
TOTALS:	·			5224.13	888.11	888.11		868.93		238.95		791.77		130.64		3679.52		404.76		675.67	'	74.32	479.08
BASIS OF ESTIMATE:	ASIS OF ESTIMATE:																						
ACHM SURFACE COURSE (1/2")																							
ACHM BINDER COURSI	HM BINDER COURSE (1")																						

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.

1/22/2020 -2019 .DGN 11-19mjhartman R030455 1

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.			
		JOB	N0.	090550	13	68
		QUANTI	TIES			

4" PIPE UNDERDRAINS	UNDERDRAIN OUTLET PROTECTORS
LIN. FT.	EACH
500	2
500	2



7/31/2023

QUANTITIES

SCHEDULE OF BRIDGE QUANTITES - JOB NO. 090550

ITEM NO. 205 801 SP, SS, & 802 SP, SS, & 802 SP & 801	SS & 804 SS & 804	SS & 805 SP JOB 090550	SP JOB 090550 SP JOB 090550 SP JOB 090550	SP JOB 090550 SP JOB 090550	SP JOB 090550 SS & 80	5 SS & 807
UNIT OF STRUCTURE ITEM REMOVAL OF EXISTING POR CLASS S CLASS S (AE) PROTECTI BRIDGE STRUCTURE S - BRIDGE BRIDGE BRIDGE BRIDGE CONCRETE - BRIDGE BRIDGE BRIDG	E REINFORCING STEEL - BRIDGE (GRADE 60) EPOXY COATED REINFORCING REINFORCING STEEL (GRADE 60)	①STEEL PILING (HP 14x73) DRILLED SHAFT (42" DIAMETER)	DRILLED SHAFT (48" DIAMETER) CROSS HOLE SONIC LOGGING (42" DIAMETER) CROSS HOLE SONIC LOGGING (48" DIAMETER)	PERMANENT STEEL CASING (48" DIAMETER)	CORING TRANSITIO DRILLED APPROAC SHAFT RAILING	NAL H STEEL IN BEAM SPANS (M207, GRADE 36)
UNIT LUMP SUM CUBIC YARD CUBIC YARD CUBIC YARD SQUARE Y	D POUND POUND	LINEAR FOOT LINEAR FOOT	LINEAR FOOT EACH EACH	LINEAR FOOT LINEAR FOOT	LINEAR FOOT EACH	POUND
END BENT NO. 1 301 167.48	3,380 14,694	172	8	88	22 2	2,610
INTERMEDIATE BENT NO. 2 63.13	10,324		72 4	32	18	
INTERMEDIATE BENT NO. 3 67.30	10,985		107 4	67	27	
x INTERMEDIATE BENT NO. 4 70.41	11,563		70 4	30	18	
⇒☆ INTERMEDIATE BENT NO. 5 68.16	11,269		80 4	40	20	
B R R R R R R R R R R R R R R R R R R R	11,253		84 4	44	21	
7 6 O INTERMEDIATE BENT NO. 7 70.20	11,624		84 4	44	21	2,600
INTERMEDIATE BENT NO. 8 67.17	11,144		82 4	42	21	,
₹S INTERMEDIATE BENT NO. 9 69.09	11,420		106 4	66	27	
9 ⁵ INTERMEDIATE BENT NO. 10 65.19	10,860		130 4	90	33	
INTERMEDIATE BENT NO. 11 63.75	10,640		150 4	110	38	
INTERMEDIATE BENT NO. 12 64.96	10,791		128 4	88	32	
END BENT NO. 13 136 87.65	7,897	231			2	4,910
184'-4¼" CONTINUOUS COMPOSITE C.I.P. (2) 978.27 1698.9 UNIT (2) 978.27 1698.9	207,652					
179'-1¾" CONTINUOUS COMPOSITE C.I.P. (2) 981.97 1706.2 UNIT (2) 981.97 1706.2	212,684					
SITE NO. 1 (BRIDGE NO. A1421) 1 188						
TOTALS FOR JOB NO. 090550 1 625 992.3 1960.2 3405.1	133,150 435,030	231 172	1093 8 44	88 653	298 4	10.120

	щ		ITEM NO.	SS & 809	812	SS & 816	SS & 816	SP JOB 090550	SP JOB 090550	SS & 806
	ME PLATE TITI	UNIT OF STRUCTURE	ITEM	SILICONE JOINT SEALANT	BRIDGE NAME PLATE (TYPE D)	FILTER BLANKET	DUMPED RIPRAP	ARCHITECTURAL FINISH	STAINING CONCRETE SURFACES	METAL BRIDGE RAILING (TYPE H3)
	NAI		UNIT	LINEAR FOOT	EACH	SQUARE YARD	CUBIC YARD	SQUARE FOOT	SQUARE FOOT	LINEAR FOOT
		END BENT NO. 1				575	288			
		INTERMEDIATE BENT NO. 2								
		INTERMEDIATE BENT NO. 3								
	2	INTERMEDIATE BENT NO. 4								
	医氏	INTERMEDIATE BENT NO. 5								
	188	INTERMEDIATE BENT NO. 6								
5	190 190	INTERMEDIATE BENT NO. 7								
-	K Å	INTERMEDIATE BENT NO. 8								
	Ηğ	INTERMEDIATE BENT NO. 9								
	ΗÖ	INTERMEDIATE BENT NO. 10								
		INTERMEDIATE BENT NO. 11								
		INTERMEDIATE BENT NO. 12								
		END BENT NO. 13								
		184'-4¼" CONTINUOUS COMPOSIT UNIT	E C.I.P.	150	1			3082	3082	369
		179'-1¾" CONTINUOUS COMPOSIT UNIT	E C.I.P.	115				3110	3110	372
	SITE N	O. 1 (BRIDGE NO. A1421)								
	TOTAL	S FOR JOB NO. 090550		265	1	575	288	6,192	6,192	741

- (1) All steel piling shall be Grade 50 and are required to have approved driving points which will not be paid for directly, but will be considered subsidiary to the item "Steel Piling (HP 14x73)."
- (2) Based upon neat lines of Decorative Concrete Railing (excluding ¾" of aesthetic formliner on the backside of each railing), and the dimension of deck edge being 20". Payment will be based upon plan quantities shown.

All remaining material from the existing bridge shall become property of the Contractor.



DATE	DATE	FEO. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
11211320		6	ARK,			
		J08 N	0.	090550	14	68
		0763	8 - B	RIDGE QUANTITIE	S - 6	6533



UNIT	STATION STATION		LIN FT. SQ YD.	EACH	LIN FT	CU YD	TON	GAL.	TON	TON	TON	SQ. YD.	TON	LUMP SUM	EACH LUMP SUM	SQ. FT. LIN. FT	EACH	EACH	EACH LIN FT	CU. YD. EACH	EACH LIN. FT.	TON	ACRE ACRE	M. GAL ACRE	LIN FT CU YD	LIN. FT. LIN. FT.	ACRE SQ. YD.	LIN FT	SQ. YD.	EACH	EACH	EACH	EACH LIN. FT.	LIN FT		LIN FT LIN FT	LIN FT	LIN FT LIN FT	LIN FT LIN FT	LIN FT. LIN FT.	EACH	EACH	EACH	EACH EACH	LIN FT.		EACH	EACH	EACH	EACH	POUND		LUMP SUM LUMP SUM	CU YD	CU YD SQ FT	SQ. YD. POUND	POUND LIN. FT.	LIN FT LIN FT	LIN FT FACH	EACH LIN. FT.	LIN FT LIN FT			SQ. YD.
QUANTITY	တ တ င္ပိ	302 275	16 171	1	136 602	133	197	967	259 12	143 7	477	28 2771	10	1 00	100	281 256	59 660	2	36 36	1 10	500	2 2	2.38 6.09	318.5 3.71	184 7	58 386	2.38 536	561 1 00	10	∞ →	1 2	9 +	2 1110	170	30	30 605	2/0 105	575 170	630 30	200 20	3	4	. 2 .	7 ⁷ 00	1.00	43 2370 6	0 0 C	0 40	2 1000	8	35833		1.00	625 992.3	1960.2 6192	3405.1 133150	435030 231	172 1093	298 8	88 88	653 741	4 4 4 10120	265	575
ES																																																																
EM																			S)																																	OVER 20' SPAN												
		Ľ,	~						(1 1/2") JRSE (1 1/2")	SE (1") OLIRSE (1")	RSE (1/2")	COURSE (1/2")					00	KINGS (WORDS	KINGS (ARROW CLASS III)									(TYPE A) (1' 6")								12) 12)	<u>AWG, EGC)</u> AWG, EGC)	3#12)		IT (3/4")	UNDATION (46'	DUNDATION (62"	ATION	ALION	6")	24") V (6")	s) VS)					STRUCTURES	ITE NO. 1)	3-BRIDGE			50)					36)	20)	
S		RB AND GUTTE	TAINING WALLS LKS	OP INLETS E CULVERTS	ARDRAIL		ISS 7)		SASE COURSE CHM BASE COI	SINDER COURS	UNIT BINDER U	CHM SURFACE	OADWAY					AVEMENT MARI	AVEMENT MARI E CULVERTS ((ORS			SAL			AND GUTTER (CTION, 1 WAY	ECTION, 1 WAY	Щ	AL HEAD, LED W.G.)	WG)	NDUIT (3#3)	DNDUIT (4#10,# DNDUIT (2#10,#	0NDUIT (1C/8 /	LUMINAIRES LUMINAIRES (3		TALLIC CONDU	D) POLE WITH FC	POLE WITH FC	E WITH FOUND	E WITH FOUND RCUITS)	RKING WHITE (RKING WHI IE (RKING YELLOW	RKING (WURU) RKING (ARROV	YPE II)	8	NNEL)	(GRADE 60)		STRUCTURE (S OL	R STRUCTURES		TREATMENT RADE 60)	TEEL (GRADE (2" DIAMETER)	8" DIAMETER) DIAMETER)	DIAMETER) 3)	NG NG M770 CD	ANS (MZ/U-GK	
		SPOSAL OF CUI	SPOSAL OF RE	SPOSAL OF DR	SPOSAL OF GU	ANKMENT	SN E COURSE (CL/		<u>(PG 64-22) IN A</u>	PICE IN ACHM F	ATE IN ACHM	(PG 64-22) IN A PHALT PAVEME	DF EXISTING R		D OFFICE TRAFFIC		MANENT DAVE	ISTRUCTION P	STRUCTION P/	EDDING	PE MO) AINS	LET PROTECT		DING	AL AND DISPO		APPLICATION	INATION CURB	IPS (TYPE 3)	:ONTROLLER (I HEAD, LED, (3 S	iead, led, (4 S DL UNIT	SSEMBLY AMMING DEVIC	ESTRIAN SIGN ABLE (5C/14 A.	CABLE (7C/14 A)	DUCTORS IN CO	DUCTORS IN CO	DUCTORS-IN-C	DUCTORS FOR	NDUIT (0.75") NDUIT (1")	NDUIT (3") XIBLE NON-ME	30X (TYPE 2 HI AST ARM AND	AST ARM AND SSEMBLY	UMINATION PC	SEMBLY (2 CIF SEMBLY (2 CIF	PAVEMENT MA	PAVEMENT MA	PAVEMENT MA PAVEMENT MA	I MARKERS (I SIGN (IP)	DAR DETECTO	CLR) CLR) DL UNIT (8 CHA	EEL-ROADWAY		TING BRIDGE	TE-BRIDGE	CRETE-BRIDGE	IVE SURFACE EEL-BRIDGE (G	EINFORCING S 14X73)	2" DIAMETER) 8" DIAMETER)	SHAFT	IC LOGGING (4 EL CASING (48"	EL CASING (54"	PROACH RAILI	EL IN BEAM SP EALANT	
	EARING	MOVAL AND DIS	MOVAL AND DIS MOVAL AND DIS	MOVAL AND DIS	MOVAL AND DIS	MPACTED EMB,	IL STABILIZATIC GREGATE BASE	CK COAT	PHALT BINDER	PHAL AGGREG	VERAL AGGREG	PHALT BINDER	HM PATCHING (INCAUN SLADS	INTENANCE OF	SNS RRICADES	AFFIC DRUMS	MOVAL OF CON	MOVAL OF CON REINFORCED (LECTED PIPE B. OP INLETS (TYF	OP INLETS (TYF	DERDRAIN OUT 1E	EDING ILCH COVER	NTER MPORARY SEEL	<u>.T FENCE</u> <u>DIMENT REMOV</u>	TER SOCK (12") TER SOCK (18")	COND SEEDING	NCRETE COMB	IEELCHAIR RAN	AFFIC SIGNAL C AFFIC SIGNAL F	AFFIC SIGNAL F NTRAL CONTRC	LE MOUNTED A	UNTDOWN PED AFFIC SIGNAL C	AFFIC SIGNAL C	ECTRICAL CON	ECTRICAL CON	ECTRICAL CON	ECTRICAL CON	N-METALLIC CC	N-METALLIC CC	AFFIC SIGNAL N	AFFIC SIGNAL N	D ROADWAY ILL	RVICE POINT AS	ERMOPLASTIC	ERMOPLASTIC	ERMOPLASTIC ERMOPLASTIC	STREET NAME	BRID VIDEO/RA	DEO MONITOR ((INFORCING STE		MOVAL OF EXIS	ASS S CONCRE	ASS S(AE) CON	ASS 2 PROTECT	OXY COATED R EEL PILING (HP	ILLED SHAFT (4	RING DRILLED	OSS HOLE SON RMANENT STEE	RMANENT STEE TAL BRIDGE RA		ICONE JOINT SI	IUGE NAME PLA
UMBER	01 01 GR		22 RE	02 RE	02 RE	(210 CO	k 210 SO & 303 AG	\$ 401 TA	, <u>& 405 MI</u> , <u>& 405 ASI</u>	8, 8, 406 MIN 8, 406 ASH	8 407 MIV	, & 407 ASI 412 CO	8 415 AC	01 MO	4 602 FU	k 604 SIG 604 BAI	x 604 TR.	24 RE	04 RE 606 12"	k 606 SE 609 DR	<u>x 609 DR</u> <u>x 611 4" F</u>	<u>8 611 UN</u> 20 LIM	20 SEI 620 MU	20 WA 21 TEI	21 SIL 21 SEI	<u>x 621 FIL</u> x 621 FIL	23 SEI 8 633 CO	4 634 CO	3, & 641 WH	P TR.	2 706 TR.	x 707 PO	4 707 CO 38 TR/	08 TR					10 NO	10 NO 10 LIQ	<u>8</u> 711 CO 8 714 TR/	<u>8 714 TR</u>	P LEI & 715 TR/			19 119 1111111111111111111111111111111	19 19 7HI 7HI	21 KA P 18" 733 VID	2 733 HY	k 733 VIC	\$ 804 RE		05 RE 36 BRI	01 UN 8802 CL/	r, & 802 CL/ P AR	803 CL/ 804 REI	k 804 EP	P DR			PE 06 ME	2006 TR		
ITEM N			N N	N N	ср 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	SPS	SP SP	SS	SP, SS	SP SP	SP, SC	SP, SS SP 8	SP, SC	90, <u>10</u>	SS &	SS SS	SS S	Ō	SS 6	SS SS	SS {	SS e	8 SS 5	9 9	99	SS (SP. SS	SS S	SP, SS	SPS	SP S	SP &	SP S						7	7	SS SS SS	SP, SG							S dS S dS	SP S	SS {		<u>ن</u> ای	SP, SG	SP, SS	SS 5	SS 8	0100		0100	0,00	SS	S SS SS SS	×

SUMMARY	OF	QUANTITIES	AND	REVISIONS
JUNNAN	UT.	QUANTIL	AND	

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					•••••	9,	6/20	23
SHEET NUMBER	15							
DATE REVISION	9-06-23 REVISED SUMMARY OF QUANTITIES.							

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
09-06-23		6	ARK.			
		JOB	N0.	090550	15	68
		SUMMA	RY OF I	QUANTITIES AND) REVISI	ONS

SURVEY CONTROL COORDINATES

Project Name: s090550 Date: 7/6/2020 Coordinate System: ARKANSAS STATE PLANE - NORTH ZONE BASED ON GPS CONTROL, PROJECTED TO GROUND. Units: U.S. SURVEY FOOT

Point. Name	Northing	Easting	Elev 6	eature	Description
1 2 3 4 8 9 10 11 100 101 900 901 902 903	691717, 3167 691943, 2604 692219, 7968 692746, 1652 691144, 7779 691309, 3124 691306, 0553 691521, 7025 691822, 5831 691024, 2616 691090, 1010 691341, 8021 691747, 9583 692014, 2341	985210, 7879 986677, 3452 985720, 0054 985826, 6839 985363, 3328 985890, 2702 986442, 1229 986762, 8926 985900, 3777 984971, 3094 985232, 0500 986523, 3772 985370, 8812 986713, 2670	1047. 699 1049. 889 1044. 480 1056. 940 1055. 037 1055. 075 1064. 024 1079. 306 1052. 241 1054. 997 1055. 786 1064. 238 1046. 719 1050. 733	CTL CTL CTL CTL CTL CTL CTL CTL GPS GPS TBM TBM TBM TBM	STD ARDOT MON. STAMPED PN: 1,65B STD ARDOT MON. STAMPED PN: 2,65B STD ARDOT MON. STAMPED PN: 3,65B STD ARDOT MON. STAMPED PN: 4,65B STD ARDOT MON. STAMPED PN: 4,65B STD ARDOT MON. STAMPED PN: 9,65B STD ARDOT MON. STAMPED PN: 10,65B STD ARDOT MON. STAMPED PN: 11,65B ARDOT GPS MON. 050408 ARDOT GPS MON. 050408A SQUARE CUT NE CRNR BR,65B,HARRISON SQUARE CUT IN CONC,65B,HARRISON SQUARE CUT ON NW CRNR BR,65B,HARRISON
*Note - R *(standar (other ma USE CAF = A PROJECT THIS CAF GRID DIST GRID COOR HORIZONTA VERTICAL AT A SPEC	ebar and Cap - St d markings commor rkings indicated 1.0 FOR STAKEOUT CAF OF 0.9999479 IS INTENDED FOR L ANCE = GROUND DIS DINATES ARE STORE L DATUM: NAD 83 (C DATUM: NAVD 88 PC IFIC POINT.	andard - 5/8" in to all caps) FOR THIS PRO 9879 HAS BEEN I USE WITHIN THE STANCE X CAF. D UNDER FILE I 1997) OSITIONAL ACCU	Rebar wi or as in JECT JSED TO CO PROJECT I NAME SO90! RACY THIRI	th 2" All ndicated on of the OMPUTE TH _IMITS. 550gi.ct. D ORDER,	uminum Cap stamped e individual point). HE ABOVE GROUND COORDINATES. I UNLESS SPECIFIED OTHERWISE
REFERENCE IF THE PR REFERENCE	POINTS (1500 SEF IMARY CONTROL POI POINTS ARE NOT 1	RIES) ARE TO BI NTS LISTED AB O BE USED FOR	E USED TO OVE HAVE B VERTICAL	ESTABLIS BEEN DES CONTROL	SH CONTROL TROYED,

BASIS OF BEARING: ARKANSAS STATE PLANE GRID BEARINGS - 0301-NORTH ZONE DETERMINED FROM GPS CONTROL POINTS: 050408 - 050408A CONVERGENCE ANGLE: 00 38 38.8 LEFT AT LAT 36-13-43.83N LON 93-06-24.91W GRID AZIMUTH = ASTRONOMICAL AZIMUTH - CONVERGENCE ANGLE.

HWY.65B

POINT NUMBER	TYPE	STATION	NORTHING	EASTING
8000 8001 8002 8003 8004 8005 8005 8006 8007	РОВ РС РОТ РТ РТ РОТ РОЕ	49+15.33 50+21.14 52+91.94 54+20.27 54+84.12 57+32.44 61+70.20 62+87.21	691427.4202 691372.5303 691280.1490 691272.0695 691273.9400 691420.7778 691848.9946 691962.2136	986589,1836 986498,7251 986245,9916 986118,1007 986054,2730 985876,4317 985780,8089 985755,5266

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.			
		JOB	N0.	090550	16	68
		SURVEY	(CONTE	ROL DETAILS		

TATE O ARKANSAS ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 19345 E. KLEV

7/31/2023

SURVEY CONTROL DETAILS



TOTAL SHEETS DATE REVISED DATE REVISED FED.RD. STATE FED.AID PROJ.NO. SHEET NO. 6 ARK. JOB NO. 090550 17 68 SURVEY CONTROL DETAILS ARKANSAS LICENSED PROPESSIONAL ENGINEER No. 19345 EKLE 7/31/2023 PN:11 PD:STD ARDOT MON. STAMPED PN:11,658 ৻৾৽ PD:SQUARE CUT CNTR S HW.658,HARRISON SURVEY CONTROL DETAILS



mjhartman 1/22/2020 R030455 11-19-2019 .DGN

	DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
4			6	ARK.			
2				NO.	090550 Deile sheet	18	68
R					A A	ICENSE RKANSA ICENSE FESSION NGINEE	AS BAL DI
LING ROW		-				No. 19345 E. KLE	IT
XISTING ROW			МА	IN STRF	ET C	×	//31/2023
4							
090550	tele i				CANODY		
		/		~	P HI	WY. (65B
							1090
							1080
20 90550							1070
							1060
							1050
CREEK AT STA. 57+	-70 TO STA	Е лм					1040
OF THE CHANNEL EI MSL. REFER TO SEC RY FILL OF THE 201- ATIONS.	LEVATION IS LEVATION IS TION 110.05(1 4 STANDARE	C)					1030
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SUMMARY OF TRAFFIC SIGNAL QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP	TRAFFIC SIGNAL CONTROLLER (MODIFICATION)	1	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	8	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY)	2	EACH
SP & 707	CENTRAL CONTROL UNIT	1	EACH
SP & 707	POLE MOUNTED ASSEMBLY	6	EACH
SP & 707	INFRARED PROGRAMMING DEVICE	1	EACH
SP & 707	COUNTDOWN PEDESTRIAN SIGNAL HEAD, LED	2	EACH
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	1110	LIN.FT.
708	TRAFFIC SIGNAL CABLE (7C/14 A.W.G.)	170	LIN. FT.
708	TRAFFIC SIGNAL CABLE (20C/14 A.W.G.)	470	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., E.G.C.)	270	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/12 A.W.G., E.G.C.)	105	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	575	LIN. FT.
710	NON-METALLIC CONDUIT (3")	200	LIN. FT.
SS & 711	CONCRETE PULL BOX (TYPE 2 HD)	3	EACH
SP, SS, & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (46')	1	EACH
SP, SS, & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (62')	1	EACH
SP	LED LUMINAIRE ASSEMBLY	4	EACH
SP, SS, & 715	TRAFFIC SIGNAL PEDESTAL POLE WITH FOUNDATION	2	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	1.00	LUMP SUM
SP	18" STREET NAME SIGN	2	EACH
SP & 733	VIDEO DETECTOR (IP)	2	EACH
SP & 733	HYBRID VIDEO/RADAR DETECTOR	2	EACH
SP & 733	VIDEO CABLE (EXTERIOR CAT 5E)	1000	LIN. FT.
SP & 733	VIDEO MONITOR (CLR)	1	EACH
SP & 733	CENTRAL CONTROL UNIT (8 CHANNEL)	1	EACH

PERMANENT TRAFFIC SIGNAL:

THE EXISTING TRAFFIC SIGNAL SHALL REMAIN IN OPERATION UNTIL THE NEW TRAFFIC SIGNAL EQUIPMENT IS INSTALLED AND OPERATIONAL. REMOVE ALL EXISTING VIDEO DETECTORS, VIDEO CABLE, AND ALL OTHER ASSOCIATED EQUIPMENT. REPLACE THE EXISTING LUMINAIRE HEADS ON POLES A AND H.

THE INSTALLATION OF TRAFFIC SIGNAL EQUIPMENT AND REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE IN CONJUNTION WITH THE BRIDGE CONSTRUCTION ACTIVITIES.

(REFER TO PERMANENT TRAFFIC SIGNAL PLANS.)

DATE REVISED	DATE REVISED	FED.RD. DIST.NO. STATE 6 ARK.		JOB NO.	SHEET NO.	TOTAL SHEETS
				090550	19	68
		SUMMA	RY OF	QUAN1	TITIES	

LOCATION: S. MAIN ST. / E. CENTRAL AVE. CITY: HARRI SON COUNTY: BOONE DISTRICT: 9 SCALE: N/A DRAWN BY: JEP

TRAFFIC SIGNAL NOTES:

- 1. THE TRAFFIC SIGNAL SHALL NOT BE PUT INTO OPERATION OR SWITCHED TO THE NEXT CONSTRUCTION STAGE PRIOR TO THE FOLLOWING:
- A. ALL TRAFFIC SIGNAL EQUIPMENT HAS BEEN INSTALLED ACCORDING TO THE PLANS, SPECIAL PROVISIONS, AND PROPERLY FUNCTIONAL. THIS INCLUDES BUT NOT LIMITED TO: CABINETS, PULL BOXES, JUNCTION BOXES, POLES, MAST ARMS, FOUNDATIONS, LUMINAIRES, SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS, PUSH BUTTONS, DETECTION SYSTEM, CONDUITS, CONDUCTORS, CABLES, TRAFFIC CONTROLLER, CONFLICT MONITOR, COMMUNICATION SYSTEM, SERVICE POINT, AND RAILROAD INTERCONNECT SYSTEM.
- B. THE DETECTION SYSTEM SHALL BE INSTALLED. SETUP, AND CONFIGURED BY THE CONTRACTOR OR THEIR SUPPLIER PER PLANS, A TRAFFIC OPERATIONS INSPECTOR SHALL INSPECT AND PROVIDE APPROVAL IN ORDER TO PUT THE TRAFFIC SIGNAL INTO OPERATION.
- C. THE TRAFFIC CONTROLLER AND CONFLICT MONITOR SHALL BE PROGRAMMED TO OPERATE AS REQUIRED PER THE PLANS (PHASING DIAGRAM, INTERVAL CHART, AND ANY ADDITIONAL NOTES), SPECIAL PROVISIONS AND ARDOT SPECIFICATIONS
- D. TIMING SETTINGS HAVE BEEN PROGRAMMED AND APPROVED AS REQUIRED BY ITS MANAGEMENT SECTION-MAINTENANCE DIVISION.
- E. THE TRAFFIC SIGNAL HAS BEEN INSPECTED AND APPROVED BY A TRAFFIC OPERATIONS INSPECTOR.
- F. ALL REQUIRED DOCUMENTS RELATED TO THE TRAFFIC SIGNAL EQUIPMENT, THIS INCLUDES BUT NOT LIMITED TO: TEST RESULTS, CONFIGURATION/DATA REPORTS, WARRANTIES, AND ANY OTHER DOCUMENTATION REQUIRED PER PLANS AND SPECIAL PROVISIONS.
- 2. CONTRACTOR SHALL NOTIFY ALL EXISTING UTILITY OWNERS BEFORE BEGINNING WORK ON THIS PROJECT
- 3. TRAFFIC SIGNAL CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER OR ASSIGNED DEPARTMENT PROJECT INSPECTOR EACH DAY PRIOR TO SIGNAL RELATED WORK. NO WORK ON TRAFFIC SIGNALS WILL BE ALLOWED OR APPROVED WITHOUT THIS PRIOR NOTIFICATION.
- 4. THE CONTRACTOR SHALL PERFORM ALL WORK POSSIBLE THAT WILL MINIMIZE THE TIME THAT THE TRAFFIC SIGNAL IS OUT OF OPERATION. IF, IN THE OPINION OF THE ENGINEER, TRAFFIC CONDITIONS WARRANT. THE CONTRACTOR SHALL PROVIDE FLAGMEN TO DIRECT TRAFFIC WHILE THE TRAFFIC SIGNAL IS OUT OF OPERATION.
- 5. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE NFPA 70 (CURRENT EDITION) NATIONAL ELECTRICAL CODE, NFPA 101 (CURRENT EDITION) LIFE SAFETY CODE, STATE ELECTRICAL CODE AND LOCAL ELECTRICAL CODE.
- 6. EXTEND GREEN EQUIPMENT GROUNDING CONDUCTOR (E.G.C.) FROM GROUND BAR AT MAIN BREAKER TO CONTROL PANEL AND TO FIRST POLE. SOLIDLY BOND E.G.C. TO GROUND LUG OF CONTROL CABINET AND TO POLE GROUND. ENSURE THAT ONLY ONE NEUTRAL-TO-GROUND BOND EXISTS IN THE SYSTEM AND THAT IT IS AT THE MAIN BRFAKER.
- 7. ELECTRICAL SERVICE SHALL BE PROVIDED BY THE CITY/COUNTY TO A SERVICE POLE WITH EXTERNAL RAINTIGHT BREAKER (MAIN BREAKER), GALVANIZED STEEL SERVICE RISER, METER LOOP (IF REQUIRED), AND WEATHERHEAD AT A MUTUALLY ACCEPTABLE POINT WITHIN THE RIGHT-OF-WAY. IF THE SERVICE POINT IS OVER 10 FEET FROM THE CONTROLLER. THE CONTRACTOR SHALL PROVIDE AND INSTALL A SEPARATE TWO CIRCUIT EXTERNAL BREAKER (SECONDARY BREAKER) ON OR NEAR THE TRAFFIC SIGNAL CONTROLLER CABINET AND SHALL INSTALL CONDUIT, ELECTRICAL SERVICE WIRE (2c/#6 A.W.G. USE RATED, WITH GROUND TYPICAL), AND PERFORM WIRING TO TAP INTO THE CITY'S/ COUNTY'S MAIN BREAKER AS PART OF THIS CONTRACT. CONDUIT IS PAID FOR AS A SEPARATE ITEM OF THIS CONTRACT. TWO CIRCUIT BREAKERS, CONSIDERED SUBSIDIARY TO THE CONTROL EQUIPMENT, ARE NEEDED WHERE STREET LIGHTING IS INCLUDED. AS PART OF THE SIGNAL INSTALLATION, STREET LIGHTING CIRCUIT (2c/#12 A.W.G. UF RATED, TYPICAL) SHALL BE KEPT FROM THE CIRCUIT SERVING THE TRAFFIC SIGNAL CONTROL EQUIPMENT FROM THE POINT OF TIE-IN AT THE SECONDARY BREAKER PROVIDED BY THE CONTRACTOR.
- 8. CONTRACTOR SHALL CONNECT A SEPARATE NEUTRAL FOR EACH LOAD SWITCH REPRESENTED ON EACH SIGNAL POLE.
- 9. TRAFFIC CONTROLLER CABINET AND LAYOUT SHALL BE SUCH THAT IT IS NOT NECESSARY TO SHUT DOWN POWER OR REMOVE LOAD SWITCHES IN ORDER TO EASILY TEST OR MODIFY DETECTOR INPUTS TO THE CONTROLLER.
- 10. CONTROLLER CABINET SHALL BE WIRED SUCH THAT DURING FLASH OPERATIONS POWER TO THE LOAD SWITCHES CANNOT BACKFEED TO LOAD SWITCH POWER BUSS.

- 11. ALL PARTS OF THIS INSTALLATION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, STANDARD DRAWINGS, AND WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION.
- 12. CONTROLLER CABINET LAYOUT AND ORIENTATION SHALL CONFORM TO IMSA STANDARDS
- 13, DOOR PANEL TEST PUSH BUTTONS SHALL ACTUATE INDICATED PHASES, DETECTOR ASSIGNMENTS AND/OR SIDE PANEL JUMPERS MAY REQUIRE MODIFICATION.
- 14. ALL SYSTEM DETECTOR RACKS AND ASSOCIATED EQUIPMENT SHALL BE PROTECTED BY THE MAIN CONTROLLER CABINET POWER SURGE PROTECTION.
- 15. ONE VIDEO PROGRAMMING MODULE SHALL BE PROVIDED FOR AIMING AND SETUP OF DETECTORS IF THE VIDEO SYSTEM CANNOT BE ADJUSTED THROUGH HARDWARE AND SOFTWARE PROVIDED BY ITEMS WITHIN THE JOB.
- 16. HARDWARE INPUTS MAY BE DETERMINED BY SUPPLIER. EACH DETECTOR OUTPUT SHALL INPUT THE CONTROLLER THROUGH A SEPARATE INPUT UNLESS OTHERWISE NOTED AND BE PROGRAMMED TO ACTUATE THE ASSOCIATED PHASE. COMBINATION (COMB.) DETECTORS SHALL ALSO BE PROGRAMMED TO PROVIDE VEHICLE COUNT/OCCUPANCY DATA.
- 17. THE LOCAL RADIO WITH ANTENNA AND TRAFFIC SIGNAL CONTROLLER SHALL BE COMPATIBLE WITH THE EXISTING COORDINATION SYSTEM IN THE CITY/COUNTY.
- 18. CONDUIT INSTALLED UNDER ROADWAY SURFACES SHALL BE INSTALLED BY PUSHING OR BORING METHOD OR AS DIRECTED BY THE ENGINEER. PVC OR HDPE CONDUIT SHALL BE USED AND SHALL BE UL LISTED. PVC CONDUIT SHALL BE MARKED "DIR. BORING" OR "DIRECTIONAL BORING" PER NEC. IF THE ENGINEER DETERMINES THIS IS NOT FEASIBLE, THEN A TRENCHING METHOD AS SHOWN IN THE STANDARD DRAWINGS MAY BE USED. THE ENGINEER SHALL GRANT A WRITTEN APPROVAL PRIOR TO USING THE TRENCHING METHOD.
- 19. ALL CONDUIT SHALL BE THREE (3") INCH DIAMETER UNLESS SPECIFIED ON PLANS, ALL CONDUIT UNDER THE ROADWAY, SIDEWALKS, AND DRIVEWAYS SHALL HAVE A MINIMUM DEPTH OF 24" FROM THE TOP OF THE CONDUIT TO THE FINISHED GRADE, CONDUIT DEPTH MAY NEED TO INCREASE NEAR DRAINAGE STRUCTURES.
- 20. CONDUIT BELL END FITTINGS SHALL BE INSTALLED ON ALL TERMINATING ENDS OF NON-METALLIC CONDUIT RUNS. THIS INCLUDES PULL BOXES, POLE BASES, AND TRAFFIC SIGNAL CABINETS. THE COST OF THE FITTINGS SHALL BE CONSIDERED SUBSIDARY TO THE PAY ITEM. ALL NON-METALLIC CONDUIT SHALL USE LONG SWEEP 90 DEGREE ELBOWS ON ALL CONDUIT BENDS.
- 21. ALL CONCRETE PULL BOXES SHALL BE (TYPE 2 HD) UNLESS OTHERWISE INDICATED. PULL BOX LIDS SHALL CLOSE FLUSH WITHOUT PINCHING ANY CONDUCTORS, CONDUIT LENGTHS IN PULL BOXES SHALL BE SET ACCORDINGLY. ANY CONDUCTORS THAT HAVE BEEN DAMAGED BY PINCHING SHALL BE COMPLETELY REPLACED AT THE CONTRACTOR'S EXPENSE
- 22. ALL CONCRETE PULL BOXES SHALL BE SET ON A GRAVEL OR CRUSHED STONE BEDDING AS SPECIFIED IN SECTION 711, CONCRETE PULL BOX, OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2014.
- 23. CONTRACTOR SHALL ATTACH A PERMANENT TAG OF RIGID PLASTIC OR NON-FERROUS METAL TO EACH CONDUIT AT PULLBOXES, POLE BASES, JUNCTION BOXES AND CONTROLLER CABINETS. TAGS SHALL BE EMBOSSED, STAMPED OR ENGRAVED WITH LETTERS 1/4" OR GREATER IN HEIGHT AND SECURED TO THE CONDUIT WITH NYLON OR PLASTIC TIES, EACH TAG SHALL INDICATE THE END LOCATION OF CONDUIT RUN. THE COST OF THE TAGS SHALL BE SUBSIDIARY TO THE CONDUIT PAY ITEM.
 - EXAMPLES FOR CONDUIT IN SIDE CABINET: "TO POLE A AND B" OR "TO POLE C" EXAMPLES FOR CONDUIT IN PULL BOX: "TO POLE A" OR "TO TRAFFIC CABINET"
- 24. ALL STEEL POLES SHALL BE DESIGNED TO MEET THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 4th EDITION (2001) WITH 2003 AND 2006 INTERIMS

25. ALL TRAFFIC SIGNAL POLES SHALL BE GALVANIZED.

26. CONNECTION OF TRAFFIC SIGNAL DISPLAY TO FIELD WIRING SHALL UTILIZE AN APPROVED TERMINAL STRIP BEHIND HAND-HOLE COVER AT BASE OF POLE. TERMINAL STRIP SHALL PROVIDE PROTECTION TO PREVENT EXPOSURE TO THE PUBLIC IN THE EVENT THAT POLE COVER IS MISSING. PAYMENT FOR TERMINAL STRIPS SHALL BE INCLUDED IN ITEM 714 TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, CURRENT EDITION.

27. FOUNDATION FOR ALL POLES SHALL BE EXTENDED IF NECESSARY TO ACCOMMODATE THE REQUIREMENTS FOR SIGNAL HEAD CLEARANCE ABOVE ROADWAY ONLY AT LOCATIONS WHERE THE GROUND ELEVATION AT THE POLE IS BELOW THE ELEVATION OF THE ROADWAY (SEE NOTES ON STANDARD DRAWING). PAYMENT WILL BE INCLUDED IN SECTION 714 TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, CURRENT EDITION.

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	090550	20	68
		TRAFFI	C SIGNA	L NOTES		

28. TO DETERMINE UTILITY CLEARANCES ABOVE THE TRAFFIC SIGNAL POLE, REFER TO THE POLE SCHEDULE FOR VERTICAL SHAFT HEIGHT. WHERE THE POLE SCHEDULE INDICATES THAT A LUMINAIRE ARM WILL BE USED. THIRTY-EIGHT (38') FEET SHOULD BE USED TO DETERMINE UTILITY CLEARANCE ABOVE THE LUMINAIRE ARM. WHERE THE POLE SCHEDULE INDICATES A TRAFFIC SIGNAL POLE WITHOUT A LUMINAIRE ARM. A HEIGHT OF TWENTY-ONE (21') FEET SHOULD BE USED TO DETERMINE UTILITY CLEARANCE ABOVE THE TRAFFIC SIGNAL MAST ARM. AN ADDITIONAL SIX (6') FEET SHOULD BE USED DIRECTLY ABOVE "VIDEO DETECTOR" AT LOCATIONS SHOWN ON THE SIGNAL PLANS.

29. THE DESIRABLE MINIMUM DISTANCE FROM THE FACE OF ROADWAY CURB OR SHOULDER EDGE TO THE FACE OF NON-BREAKAWAY POLE OR OBSTRUCTION IS SIX (6') FEET. REFER TO TRAFFIC SIGNAL PLANS FOR SPECIFIC LOCATION OF POLES, CONTROLLER AND ANY OTHER NON-BREAKAWAY OBSTRUCTIONS. REFER TO "DESIGN PARAMETERS, MINIMUM CLEAR ZONE DISTANCE" FOR MINIMUM DISTANCE FROM THE EDGE OF TRAVELED WAY TO THE FACE OF A NON-BREAKAWAY POLE OR OBSTRUCTION. TRAFFIC SIGNAL POLES OR ANY OTHER NON-BREAKAWAY OBSTRUCTION SHALL NOT BE INSTALLED WITHIN THE CLEAR ZONE.

30. AS DETERMINED BY THE ENGINEER, FOUNDATION EMBEDMENT MAY BE DECREASED BY A MAXIMUM OF TWO FEET IF COMPETENT ROCK IS ENCOUNTERED PRIOR TO ACHIEVING PLAN EMBEDMENT AND AT LEAST HALF OF THE REMAINING PLAN EMBEDMENT LENGTH IS KEYED INTO COMPETENT ROCK.

31. LED LUMINAIRE ASSEMBLIES SHALL HAVE A BUG RATING OF U0.

32. BACKPLATES SHALL BE SUPPLIED FOR ALL TRAFFIC SIGNAL HEADS. REFER TO THE RETROREFLECTIVE BACKPLATES SPECIAL PROVISION FOR REQUIREMENTS.

33. PAVEMENT MARKINGS SHOWN FOR REFERENCE ONLY. SEE PERMANENT PAVEMENT MARKING DETAILS

34. BEFORE FINAL ACCEPTANCE OF THE TRAFFIC SIGNAL. THE CONTRACTOR SHALL PROVIDE TWO (2) SETS OF LEDGER SIZE (11" X 17") AS-BUILT TRAFFIC SIGNAL PLANS TO THE MAINTENANCE AUTHORITY AND ARDOT.

	LOCATION:	S. MA	AIN ST. /	′E. CENT	RAL AVE.		
	CITY:	HARRI	SON				
	COUNTY:	BOONE	-				
90555_02 .dgn	DI STRI CT:	9	SCALE:	N/A	DRAWN BY:	JEP	

OVERHEAD STREET NAME MARKER STANDARD MAST ARM MOUNTED







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

6 ARK, 090550 21 68 TRAFFIC SIGNAL STREET NAME SIGNS	DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS			
TRAFFIC SIGNAL STREET NAME SIGNS			6	ARK.	090550	21	68			
			TRAFFIC SIGNAL STREET NAME SIGNS							

LOCATION: S. MAIN ST. / E. CENTRAL AVE. HARRI SON CITY: COUNTY: BOONE DISTRICT: 9 SCALE: N/A DRAWN BY: JEP

GROUNDING ARRAY SINGLE-PORT FUSION WELDS



DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	SHEET NO.	TOTAL SHEETS					
		6	ARK.	22	68					
		GROUNDING ARRAY DETAIL								

S. MAIN ST. / E. CENTRAL AVE. DISTRICT: 9 SCALE: N/A DRAWN BY: JEP



PEDESTRIAN PUSH BUTTON PEDESTAL DETAIL

NOTES:

EACH PEDESTRIAN PUSH BUTTON SHALL HAVE ONE RIO-3E SIGN ATTACHED TO THE POLE ABOVE THE BUTTON. ALL SIGNS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 723 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

ALL SIGN BLANKS SHALL BE CONSTRUCTED OF ALUMINUM ALLOY (ASTM DESIGNATION B-209, ALLOY 5052-H38) WITH THICKNESS OF 0.100 INCH.

MINIMUM STRUCTURAL REQUIREMENTS: DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 4TH EDITION (2001) WITH 2003 AND 2006 INTERIMS.

CONSTRUCTION SPECIFICATIONS: STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION) WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.

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

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

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

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

POLE BASE/FOUNDATION - ANCHOR BOLTS SHALL INCLUDE AS A MINIMUM, ONE LEVELING NUT, TWO FLAT WASHERS. ONE LOCK WASHER, AND ONE HEX NUT. PERIMETER OF ANCHOR BASE SHALL BE GROUTED WITH A $\frac{1}{4}$ weep hole. All CONCRETE SHALL BE CLASS "S" OR GREATER.

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



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

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS		
		6	ARK.	090550	23	68		
		PEDESTRIAN PUSH BUTTON PEDESTAL DETAIL						





* MAST ARM	** HAND	VERT.		* LUM. ANGLE			
257°	180°	35'	10'	257°			
N/A	N/A	15'	N/A	N/A			
N/A	N/A	15'	N/A	N/A			
347°	180°	35'	10'	347°			
77°	90°	35'	15'	77°			
N/A	N/A	15'	N/A	N/A			
N/A	N/A	15'	N/A	N/A			
167°	180°	35'	10'	167°			
/INAIRE ARM ANGLE MEASURED FROM PLAN NORTH = 0°, ION.							

	LOCATION:	S. MA	IN ST. /	Έ.	CENTRAL	AVE.			
120	CITY:	HARRI	SON						
120	COUNTY:	BOONE							
90550_06 . dgn	DI STRI CT:	9	SCALE:	1 " =	60′	DRAWN	BY:	JEP	



	DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
			6	ARK.	090550	25	68
			SIGNAL	ZATION	PLAN SHEET		
						_	1 STA
554							
39M4		 				 - 	
	- (T			9		Vz6
			_		-		Vz
22A AB. 62B MB.			y.7	-(CE	NTRAL	AV	E.)-
OMB.		_ HW			S		
©							

HWY. 65/S. MAIN ST. & HWY. 7(CENTRAL AVE.) POLE LOCATIONS

& STATION	OFFSET	X, Y COORDINATES
STA. 62+32.68	40' RT.	985805.98, 691917.61
STA. 62+01.16	99' RT.	985871.35, 691899.91
STA. 61+33.16	95' RT.	985881.43, 691832.48
STA. 61+28.95	64' RT.	985852.61, 691821.74
STA. 61+33.65	62' LT.	985728.97, 691798.95
STA. 61+33.73	94' LT.	985697.44, 691791.99
STA. 62+8.98	101' LT.	985673.72, 691863.79
STA. 62+16.28	74' LT.	985698.87, 691876.89

TOP OF POLE FOUNDATION ELEVATION SHALL BE THREE (3) INCHES ABOVE THE FINISHED SURFACE ELEVATION AT THE LOCATIONS SHOWN ABOVE.

TOP OF POLE FOUNDATION ELEVATION MAY BE INCREASED IN ACCORDANCE

	LOCATION:	S. MA	IN ST.	/ E.	CENTRAL	AVE.			
80	CITY:	HARRI	SON						
00	COUNTY:	BOONE							
90550_07 . dgn	DI STRI CT:	9	SCALE:	1 " =	= 40′	DRAWN	BY:	JEP	

	DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
			6	ARK.	090550	26	68
			SIGNAL	IZATION	PLAN SHEET		
1	STAR						IT I
		7		_			
	SSAL						
	Y-						
	S MA						
		_					
			_	4	X		
				A			
				K	\frown		
	,)						
XXX					-	-	
C2A [-	-					
COMB.							
$\int O \sqrt{z62B}$							
Vz11	\square				NTRAL AV	E.)	
COMB.			HWY.	7 (00			
		-	-				
-							
	\bigcirc						

HWY. 65/S. MAIN ST. & HWY.7 (CENTRAL AVE.) PULL BOX LOCATIONS

N & STATION	* OFFSET	* X, Y COORDINATES								
EXISTING AND TO REMAIN										
EXISTING AND TO REMAIN										
STA. 61+29.57 99.67' RT. 691830.08, 985887.16										
STA. 61+26.81 70.04' RT. 691820.93, 985858.84										
STA.61+32.03	71.05' LT.	691795.28, 985720.00								
EXISTING	AND TO REM	AIN								
EXISTING	EXISTING AND TO REMAIN									
EXISTING	AND TO REM	AIN								

ALL PULL BOXES SHALL BE PLACED AT THE FINISHED SURFACE ELEVATION.

	LOCATION: CITY:	S. MA Harri	N ST. /	ν́Ε.	CENTRAL	AVE.			
60	COUNTY:	BOONE							
90550_08.dgn	DI STRI CT:	9	SCALE:	1 " =	= 30′	DRAWN B	Y:	JEP	

	DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	SHEETS
			6	ARK.	090550	27	68
			I SIGNAL	IZATION	plan sheet		
EA101.							
SERVICE POINT 1-1c/#8 E.G.C	EXIST.						
1-1c/#8 E.G.C	EXIST.						
5c,1-2c/#12,2-1c CAT 5E)- NEW	:∕#8 E.G.C	EXIST.					
	EVIOT						
1-10/"8 E.U.L	EVI21.						
20c, 2-5c, 2-VC (C	CAT 5E), 1-2c	:/#12, - NE	W				
20c, 3-5c, 1-2c/#1	.2,1-1c/#8 E	.G.C EXI	SI.				
5c,1-VC (CAT 5E c/#8 E.G.C EXI),1-2c/#12,- ST.	NEW					
5c,2-1c/#8 E.G.(C EXIST.						
-0 B							
15							
1							
ic,1-VC (CAT 5E),	,1-2c/#12,1-	1c/#8 E.G	.C NE	W			
1							
-6 (C)							
-5c,2-1c/#8 E.G.(C NEW						
c/#12,1-1c/#8 E.0	G.C NEW						
V							
							
	LOCATION:	S. MAI	N ST.	/ E. C	CENTRAL AVE.		
	COUNTY:	BOONE	UN				

DISTRICT: 9

SCALE: N/A

DRAWN BY: JEP

PHASING DIAGRAM

¢\$\$¢ RYG 2 & 3 4 & 5 7 & 8 9 & 10 1 & 6

12" LENSES

$\Delta T \Delta F$		
()	< U.HAI	K I –
		\

[
			DETE	CTOR S	STEM D	ESCRIP	TION: JC	B 090550			
(HWY.658	& MAIN ST.)/ HWY. 7 (CE	INTRAL	AVE.)	HARD	WARE IN	IPUTS	Pi	ROGRAM AS	<u>SIGNMENTS</u>		
[DETECTOR ASSIGNME	NTS		BY	SUPPLI	ER	L	DCAL	MASTER SYSTEM	COMMENTS	TUBE
DET. ID #	LOCATION DIRECTION	TYPE	DET.#	CAB. TRM.#	AMP CHN.#	CON. IMP.#	PHS	SYSTEM DET.#	DETECTOR NUMBERS	COMMENTS	LENGTHS
Vz11	WB LEFT TURN FAR	COMB.				V9	1	1		V1	23"
Vz12	WB LEFT TURN	LOCAL				V1	1			V1	23"
Vz21A&B	EB ADVANCE	LOCAL				V2	2			∨5	23"
Vz22 A&B	EB NEAR	COMB.				V10	2	2		V5	23"
Vz31	NB LEFT TURN FAR	COMB.				V11	8	8		V3	74"
Vz32	NB LEFT TURN	LOCAL				V3	8			V3	74"
Vz41	SB ADVANCE	LOCAL				V4	4	4		V7	74"
Vz42 A&B	SB NEAR	COMB.				V12	4	4		V7	74"
Vz51	EB LEFT TURN FAR	COMB.				V13	5	5		V5	23"
Vz52	EB LEFT TURN	LOCAL				V5	5	-		V5	23"
Vz61A&B	WB ADVANCE	LOCAL				V6	6			V1	23"
Vz62 A&B	WB NEAR	COMB.				V14	6	6		V1	23"
Vz71	SB LEFT TURN FAR	COMB.				V15	4	4		V7	74"
Vz72	SB LEFT TURN	LOCAL				V7	4			V7	74"
Vz81	NB ADVANCE	LOCAL				V8	8	8		V3	74"
Vz82	NB NEAR	COMB.				V16	8	8		V3	74"
PB4 A&B	HWY. 7 W. LEG	PED.				P4	4				
PB6 A&B	MAIN ST. N. LEG	PED.				P6	6				
PB8 A&B	HWY 7 E LEG	PED.				P8	8				
					SPARE:	-	-				

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

NOTE:

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

INTERVAL CHART

		HWY. 65/S. MAIN ST. & HWY. 7(CENTRAL AVE.)										FLASH
SIGNAL FACES	1+5	CLR.	1+6	CLR.	2+5	CLR.	2+6	CLR.	4+8	CLR.		SEQUENCE
1	÷G	*	←G	*	<fy< td=""><td>***</td><td><fy< td=""><td>***</td><td>←R</td><td>←R</td><td></td><td>←R</td></fy<></td></fy<>	***	<fy< td=""><td>***</td><td>←R</td><td>←R</td><td></td><td>←R</td></fy<>	***	← R	←R		← R
2&3	R	R	G	**	R	R	G	**	R	R		R
4&5	R	R	R	R	R	R	R	R	G	Y		R
6	æ	*	<fy< td=""><td>***</td><td>←G</td><td>*</td><td><fy< td=""><td>***</td><td>←R</td><td>←R</td><td></td><td>←R</td></fy<></td></fy<>	***	←G	*	<fy< td=""><td>***</td><td>←R</td><td>←R</td><td></td><td>←R</td></fy<>	***	← R	←R		← R
7&8	R	R	R	R	G	**	G	**	R	R		R
9&10	R	R	R	R	R	R	R	R	G	Y		R
11&12	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW		BLK
13&14	DW	DW	W	FDW	DW	DW	W	FDW	DW	DW		BLK
15&16	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW		BLK

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

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	090550	28	68
		SIGNAL	IZATION	PLAN SHEET		

SIGNAL FACES

11 (NEW) & 12 (EXIST.) 13 (EXIST.) & 14 (EXIST. 15 (EXIST.) & 16 (NEW)

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

3. REFER TO SPECIAL PROVISIONS FOR DETAILS ON REQUIREMENTS FOR PEDESTRIAN SIGNAL HEADS.

4. ALL PEDESTRIAN SIGNAL HEADS CAN BE PLACED INTO OPERATION IF THERE ARE BOTH WHEELCHAIR RAMPS AND A CROSSWALK THAT MEETS A.D.A.S. STANDARD.

	LOCATION:	S. MA	IN ST.	/ E. C	CENTRAL	AVE.		
	CITY:	HARRI	SON					
	COUNTY:	BOONE						
90550_10, dgn	DI STRI CT:	9	SCALE:	N/A	DR	RAWN BY	: JEP	

	BRIDGE LIGHTING										
ITEM #	DESCRIPTION	UNIT	QUANTITY								
SP	SERVICE POINT ASSEMBLY (2 CIRCUITS)	EACH	1								
710	NON-METALIC CONDUIT (3/4")	LIN. FT	630								
710	NON-METALIC CONDUIT (1")	LIN. FT	30								
SP	ELECTRICAL CONDUCTORS IN CONDUIT (3#3)	LIN. FT	30								
SP	ELECTRICAL CONDUCTORS IN CONDUIT (4#10, #12)	LIN. FT	30								
SP	ELECTRICAL CONDUCTORS IN CONDUIT (2#10, #12)	LIN. FT	605								
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRS (3#12)	LIN. FT	170								
710	LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT(3/4")	LIN. FT	20								
SP	LED ROADWAY ILLUMINATION POLE (TYPE SA)	EACH	5								

	LIGHT FIXTURE SCHEDULE										
MARK	MANUFACTURER	CATALOG	LAMPS	FINISH	MOUNTING	REMARKS					
SA	SIGNIFY	LUMINAIRE: DMS50-180W80LED4K-G3-LE2F-UN V-DMG-SMB-BO- BKTX BRACKET: AR4-1A-R4-BKTX POLE: R92D-30-BKTX AN CHOR BOLTS: 1X36-12 1/2DEC	LED	BLACK	Pole						

DATE	DATE	DATE	DATE	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO	SHEET NO.	TOTAL SHEETS
		NE VIGED		6	ARK.			
				JOB N	o.	090550	29	68
			1	В	ridge	LIGHTING LAYOUT		

KEYED NOTES:

PROVIDE METERED POWER SUPPLY WITH PHOTOCELL CONTROL. PROVIDE 3#3 IN 1" CONDUIT TO UTILITY POLE.

DATE	DATE	DATE	DATE FED. ROAD	STATE	FED. AID PROJ. NO	SHEET NO.	TOTAL Sheets	
NEWGED		NE VIGED	cmco	6	ARK.			
				JOB N	0.	090550	-30	68
0				В	ridge	LIGHTING DETAILS		

GENERAL NOTES

- 1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH NATIONAL ELECTRCIAL CODE (NFPA 70, CURRENT EDITION), LIFE SAFETY CODE (NFPA 101, CURRENT EDITION), UNDERGROUND FACILITIES DAMAGE PREVENTION ACT (§14-271-101 ET SEQ.), AND LOCAL ELECTRCIAL CODE.
- 2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE DOCUMENTATION TO PROJECT ENGINEER, TO ENSURE ARKANSAS STATE CODES (§17-28-101 ET SEQ. AND §20-31-101 ET SEQ.) ARE MET. THE DOCUMENTATION SHALL INCLUDE:
 - a. ELECTRICIANS' LICENSE INFORMATION AND EXPIRATION DATE.
 - b. THE RATIO OF LICENSED-ELECTRICIAN-TO-APPRENTICE-ELECTRICIANS
 - c. PRINTED SEARCH RESULT OF LICENSED ELECTRICIANS FROM ARKANSAS DEPARTMENT OF LABOR ELECTRICIAN LICENSEE DIRECTORY (HTTPS://WWW.ARK.ORG/LABOR/ELECTRICIAN/SEARCH.PHP) ALL LICENSES SHALL BE VALID AND CURRENT.
- 3. EXTEND GREEN EQUIPMENT GROUNDING CONDUCTOR (E.G.C.) FROM GROUND BAR AT MAIN BREAKER TO CONTROL PANEL AND TO FIRST POLE. SOLIDLY BOND E.G.C. TO GROUND LUG OF CONTROL CABINET AND TO POLE GROUND. ENSURE THAT ONLY ONE 16. ALL ELECTRICAL COMPONENTS SHALL BE UL LISTED. NEUTRAL-TO-GROUND BOND EXISTS IN THE SYSTEM AND THAT IT IS AT THE MAIN BREAKER.
- 4. ALL PARTS OF THIS INSTALLATION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION. STANDARD DRAWINGS AND WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION.
- 5. CONDUIT INSTALLED UNDER ROADWAY SURFACES SHALL BE INSTALLED BY PUSHING OR BORING METHODS. IF THE ENGINEER DETERMINES THIS IS NOT FEASIBLE, THEN A TRENCHING METHOD AS SHOWN IN THE STANDARD DRAWINGS MAY BE USED.
- 6. PAVEMENT MARKING SHOWN FOR REFERENCE ONLY. SEE PERMANENT PAVEMENT MARKING DETAILS.
- 7. FOUNDATION FOR ALL POLES SHALL BE EXTENDED IF NECESSARY TO ACCOMMODATE THE REQUIREMENTS FOR CLEARANCE ABOVE ROADWAY ONLY AT LOCATIONS WHERE THE GROUND ELEVATION AT THE POLE IS BELOW THE ELEVATION OF THE ROADWAY (SEE NOTES ON STANDARD DRAWING), PAYMENT WILL BE INCLUDED IN SECTION 714 TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, CURRENT EDITION.
- 8. CONDUIT INSTALLED UNDER ROADWAY SURFACES SHALL BE INSTALLED BY A PUSHING OR BORING METHOD OR AS DIRECTED BY ENGINEER. PVC OR HDPE CONDUIT SHALL BE USED. PVC CONDUIT SHALL BE MARKED "DIR. BORING" OR "DIRECTIONAL BORING" AS PER NEC
- 9. ITS EQUIPMENT ON THE SAME CIRCUIT SHALL BE CONNECTED ON ALTERNATING PHASES AND THE LOAD DISTRIBUTED AS EVENLY AS POSSIBLE ON EACH PHASE.
- 10. NON-DESTRUCTIVE MEG TEST AND CURRENT LEAKAGE TEST SHALL BE PERFORMED ON NEW CONDUCTORS, IN THE PRESENCE OF FIELD INSPECTOR, THE TEST VOLTAGE SHALL BE LIMITED TO 600 VOLTS, ANY CONDUCTOR NOT MEETING THE MIMINUM ACCEPTABLE VALUE SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE USING NEW CONDUCTOR. THE RESULTS SHALL BE DOCUMENTED AND PROVIDED TO THE JOB ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES CAUSED BY MEG TEST WHILE DEVICES OR ACCESSORIES ARE STILL CONNECTED AND SHALL BE REPLACED AT CONTRACTOR'S EXPENSE. SEE SPECIAL PROVISION ELECTRICAL CONDUCTORS-IN-CONDUIT.
- 11. THE CONTRACTOR SHALL NOT ENGAGE IN EXCAVATION OR DEMOLITION ACTIVITIES WITHOUT HAVING FIRST NOTIFIED THE ARKANSAS ONE CALL CENTER IN ACCORDANCE WITH A.C.A. § 14-271 UNDERGROUND FACILITIES DAMAGE PREVENTION ACT. NOT ALL UTILITY COMPANIES ARE MEMBERS OF THE ARKANSAS ONE CALL SYSTEM. THE CONTRACTOR IS ADVISED TO CONTACT ALL NON-MEMBER UTILITIES AS WELL AS THE ONE CALL CENTER.

- 12. UNDERGROUND UTILITIES EXIST WITHIN AND ADJACENT TO THE LIMITS OF CONSTRUCTION. SOME UTILITES MAY HAVE BEEN RELOCATED SINCE THE TIME OF DESIGN AND THE CONTRACTOR'S NOTICE TO PROCEED. THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANIES INVOLVED AND VERIFY THE LOCATIONS OF UNDERGROUND UTILITIES. THE CONTRACTOR SHALL MAINTAIN THE UTILITY LOCATION MARKINGS UNTIL IT IS NO LONGER NECESSARY.
- 13. CONTRACTOR SHALL NOTIFY ALL EXISTING UTILITY OWNERS BEFORE BEGINNING WORK ON THIS PROJECT.
- 14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS OF REPAIR OR REPLACEMENT OF EXISTING UTILITES DAMAGED DURING THE CONSTRUCTION.
- 15. EACH ROADWAY ILLUMINATION POLE SHALL BE BONDED TO EQUIPMENT GROUNDING CONDUCTOR PER NEC. SEE ARTICLES 250 AND 410.
- 17. ALL LUMINAIRE ASSEMBLIES SHALL HAVE BUG RATING OF U0.
- 18. BEFORE FINAL ACCEPTANCE, CONTRACTOR SHALL PROVIDE 2 SETS OF LEDGER SIZE (11" X 17") AS-BUILT PLANS TO THE MAINTENANCE AUTHORITY AND ARDOT.
- 19. PULL CABLE SHALL BE MINIMUM 1/4" PULL NYLON OR POLYESTER ROPE. OR 1200 LBS PULL TAPE WHEN PULLING CONDUCTORS. STEEL CABLE OR FISH TAPE SHALL NOT BE USED. CONNECT PULLING DEVICES TO COPPER WIRE AND NOT TO JACKET. USE PULLING COMPOUND PER MANUFACTURER'S REQUIREMENTS. ALL BENDS SHALL NOT BE LESS THAN RECOMMENDED BY NEC FOR CONDUCTORS USED.
- 20. SLACK CABLES IN PULL BOXES SHALL BE 2 FEET.
- 21. AS DETERMINED BY THE ENGINEER, FOUNDATION EMBEDMENT MAY BE DECREASED BY A MAXIMUM OF TWO (2) FEET IF COMPETENT ROCK IS ENCOUNTERED PRIOR TO ACHIEVING PLAN EMBEDMENT AND AT LEAST HALF OF THE REMAINING PLAN EMBEDMENT LENGTH IS KEYED INTO COMPETENT ROCK.
- 22. THE ELECTRICAL CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER OR ASSIGNED DEPARTMENT PROJECT INSPECTOR EACH DAY PRIOR TO ELECTRICAL RELATED WORK. NO ELECTRICAL WORK WILL BE ALLOWED OR APPROVED WITHOUT THIS PRIOR NOTIFICATION.
- 23. ALL STEEL POLES SHALL BE DESIGNED TO MEET THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 4TH EDITION (2001) WITH 2003 AND 2006 INTERIMS.
- 24. IN PULL BOXES, POLE BASES, JUNCTION BOXES AND CONTROLLER CABINETS, THE DIRECTION OF EACH CABLE RUN SHALL BE INDICATED BY ATTACHING A PERMANENT TAG OF RIGID PLASTIC OR NON-FERROUS METAL TO THE CONDUIT. TAGS SHALL BE EMBOSSED, STAMPED OR ENGRAVED WITH LETTERS 1/4" OR GREATER IN HEIGHT AND SECURED TO THE CONDUIT WITH NYLON OR PLASTIC TIES. IN INSTANCES WHERE THE CONDUIT OR CONDUIT ENTRANCES ARE NOT VISIBLE OR ACCESSIBLE, A DIRECTION TAG SHALL BE ATTACHED TO EACH CABLE.
- 25. ALL NON-METALLIC CONDUIT RUNS SHALL HAVE BELL RING FITTINGS INSTALLED ON THE TERMINATING ENDS OF THE CONDUIT. THIS INCLUDES PULL BOXES, POLE BASES, AND CABINETS.
- 26. GROUND, E.G.C., AND GROUND RODS SHALL BE EXOTHERMICALLY BONDED.

DATE	DATE	DATE	DATE	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO	SHEET NO.	TOTAL Sheets
REVIGED	FILMED	NEVIGED		6	ARK.			
				JOB N	0.	090550	31	68
				В	ridge	LIGHTING GENERAL	NOTES	

ROUTE 65B SEC. 1B ARKANSAS STATE HIGHWAY COMMISSION LITTLE ROCK, ARK. DATE: 07/28/2023 DATE: 07/28/2023 DATE: 07/28/2023 DATE: 07/28/2023 DRAWN BY: GBM CHECKED BY: JAB SCALE: NTS DESIGNED BY: KSS BRIDGE NO. DRAWING NO.

HORZ. 1" = 20' VERT. 1" = 5'

	,						
	DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	SHEETS
			6	ARK.	000550	70	<u> </u>
			STORM	NU.	PROFILE SHEE	<u> 32</u> T	68
					A	RKANSA RKANSA ICENSE FESSION NGINEE No. 19345	AS BAT BI
						E. KLE	1/31/2023
1080							
1070							
1060							
1050							
1040							
1030							

STORM SEWER PROFILE SHEET

	DATE	DATE	FEO. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
	NEVIJED		-				
			6	АНК,			
			JURN	0.	090550	55	68
own on the Survey Control D	ata Sheets			0763	8 - LAYOUT - (66534	

'	11'-0"	12'-0"	11'-0"	11'-0"	-	1'-6"
	Lane	Lane	Lane	Lane		Curb 8
		-	— C.L. Br C.L. Co	idge & onstructio	n	Gutter
_			Theo Elev	oretical		

DATE	DATE	FED. ROAD DIST. NO.	DATE FED. NOAD DIST. NO. STATE FED. AID PROJ. NO.		SIEET NG.	TOTAL SHEETS
NEVIDED	NEVISED	6	ARK,			
		JOB N	0.	090550	36	68
		C	7638	- END BENT I-	6653	7

Bar Size	Min.Bar Lap				
* 4	2'-11"				
# 5	3'-7"				
* 8	5'-9"				


io in this regi	SHEET 2 OF 4	
	DETAILS OF END BENT 1	
ka.	HIGHWAY 65B OVER CROOKED CREEK	
- -	CROOKED CREEK STR. AND APPRS. (HARRISON)(S)	
habu	BOONE COUNTY	
ED ONAL ER	ROUTE 65B SEC. 1B ARKANSAS STATE HIGHWAY COMMISSION	
26 .	LITTLE ROCK, ARK.	
ORY	DRAWN BY: CAB DATE: OCT 2022 FILENAME: b090550_bl2.dgn	
68 ⁰⁰	CHECKED BY: MAC DATE: JUN 2023 SCALE: AS SHOWN	
	DESIGNED BY: JJD DATE: OCT 2022	
INEER	BRIDGE NO. 07638 DRAWING NO. 66538	





BRIDGE ENGINEER





PRINT DATE: 8/1/2



RINT DATE: 8/1/2



RINT DATE: 8/1/2



								TABLE	E OF VAF	RIABLES									
Bent No.	Elev. "A"	Elev. "B"	Elev. "C"	Elev. "D"	Elev. "E"	Elev. "F"	Elev. "G"	"H"	"I"	"J"	"К"	"L"	"M"	"N"	"0"	"P"	"Q"	"R"	"S"
3	1054.35	1054.36	1053.61	1024.00	1015.00	1007.00	999.00	4'-0"	13'-0"	21'-0"	29'-0"	11'-7¾"	1/4"	3	14'-0"	23'-0"	31'-0"	39'-0"	4'-8%"
4	1054.85	1055.21	1054.46	1019.00	1020.00	1021.00	1022.00	9'-0"	8'-0"	7'-0"	6'-0"	12'-5½"	4¼"	4	19'-0"	18'-0"	17'-0"	16'-0"	4'-4¾"
5	1055.14	1055.79	1055.04	1015.00	1017.00	1019.00	1021.00	13'-0"	11'-0"	9'-0"	7'-0"	13'-4¾"	7¾"	5	23'-0"	21'-0"	19'-0"	17'-0"	4'-1¼"
6	1055.31	1056.07	1055.31	1017.00	1017.00	1017.00	1017.00	11'-0"	11'-0"	11'-0"	11'-0"	13'-3¾"	9"	5	21'-0"	21'-0"	21'-0"	21'-0"	4'-0"
7	1055.22	1056.03	1055.28	1017.00	1017.00	1017.00	1017.00	11'-0"	11'-0"	11'-0"	11'-0"	13'-3¾"	9¾"	4	21'-0"	21'-0"	21'-0"	21'-0"	3'-11¼"
8	1054.97	1055.73	1054.97	1017.00	1017.00	1018.00	1018.00	11'-0"	11'-0"	10'-0"	10'-0"	12'-10%"	9"	4	21'-0"	21'-0"	20'-0"	20'-0"	4'-0"
9	1054.35	1055.17	1054.41	1004.00	1009.00	1014.00	1019.00	24'-0"	19'-0"	14'-0"	9'-0"	12'-4%"	9¾"	4	34'-0"	29'-0"	24'-0"	19'-0"	3'-11¼"
10	1053.52	1054.27	1053.52	1005.00	1015.00	1015.00	987.00	23' - 0"	13'-0"	13'-0"	41'-0"	11'-6¼"	9"	3	33'-0"	23'-0"	23' - 0"	51'-0"	4'-0"
11	1052.51	1053.26	1052.51	1014.00	1005.00	996.00	987.00	14'-0"	23' - 0"	32'-0"	41'-0"	10'-6½"	9"	2	24'-0"	33'-0"	42'-0"	51'-0"	4'-0"
12	1051.52	1052.34	1051.58	998.00	1003.00	1010.00	1013.00	30'-0"	25'-0"	18'-0"	15'-0"	9'-7"	9¾"	1	40'-0"	35'-0"	28'-0"	25'-0"	3'-11¼"
Bent No.	"T"	"U"	"V"	"W"	"X"	"Y"	"Z"	"AA"	"BB"	"CC"	"DD"	"EE"	"FF"	"GG"	"НН"	"II"	יננ"	"KK"	"LL"
2	-	-	-	188	-	-	152	18'-1"	20'-1"	22'-1"	24'-1"	14'-5"	16'-5"	18'-5"	20'-5"	-	-	-	-
3	24	8	34'-3"	188	15'-1"	14'-2"	187	17'-1"	26'-1"	34'-1"	42'-1"	13'-5"	22'-5"	30'-5"	38'-5"	34	43	51	59
4	24	8	35'-9"	192	15'-11"	15'-0"	150	22'-1"	21'-1"	20'-1"	19'-1"	18'-5"	17'-5"	16'-5"	15'-5"	39	38	37	36
5	16	4	55'-8"	196	16'-10"	15'-11"	160	26'-1"	24'-1"	22'-1"	20'-1"	22'-5"	20'-5"	18'-5"	16'-5"	43	41	39	37
6	16	4	55'-8"	196	16'-9"	15'-10"	164	24' - 1"	24' - 1"	24' - 1"	24'-1"	20'-5"	20'-5"	20'-5"	20'-5"	41	41	41	41
7	16	4	55'-8"	196	16'-9"	15'-10"	164	24'-1"	24'-1"	24'-1"	24'-1"	20'-5"	20'-5"	20'-5"	20'-5"	41	41	41	41
8	16	4	55'-8"	192	16'-4"	15'-5"	162	24'-1"	24'-1"	23'-1"	23'-1"	20'-5"	20'-5"	19'-5"	19'-5"	41	41	40	40
9	16	4	55'-8"	192	15'-10"	14'-11"	186	37'-1"	32'-1"	27'-1"	22'-1"	33'-5"	28' - 5"	23'-5"	18'-5"	54	49	44	39
10	16	4	55'-8"	188	15'-0"	14'-1"	210	36'-1"	26'-1"	26'-1"	54'-1"	32'-5"	22'-5"	22'-5"	50'-5"	53	43	43	71
11	16	4	55'-8"	184	14'-0"	13'-1"	230	27'-1"	36'-1"	45'-1"	54'-1"	23'-5"	32'-5"	41'-5"	50'-5"	44	53	62	71
12	16	4	55'-8"	180	13'-0"	12'-1"	208	43'-1"	38'-1"	31'-1"	28'-1"	39'-5"	34'-5"	27'-5"	24'-5"	60	55	48	45

GLOSSARY

Elev. "A", "B" and "C" - Top of Cap Elevations

Elev. "D", "E", "F" and "G" - Bottom of Shaft Elevations

"H", "I", "J" and "K" - Length of Permanent Casing

"L" - Length of Column above Drilled Shaft

"M" - Difference between Top of Cap Elevations at Center of Bent and Left Side of Bent

3" CIr.

"N" - Number of spaaces of C401 Ties in Section A-A

"O", "P", "Q" and "R" - Length of Drilled Shaft

"S" - Depth of Cap on Left side

"T" - Number of B403 Bars Per Bent

"U" - Number of B603 Bars Per Bent

- "V" Length of B603 Bars
- "W" Number of C401Bars Per Bent

"X" - Length of C805 Bars

- "Y" Dimension on C805 Bar Diagram
- "Z" Number of D401Bars Per Bent
- "AA" Length of DIOOIBars
- "BB" Length of DI002 Bars
- "CC" Length of DI003 Bars
- "DD" Length of DI004 Bars
- "EE" Dimension on DIOOIBar Diagram
- "FF" Dimension on DIOO2 Bar Diagram
- "GG" Dimension on DI003 Bar Diagram
- "HH" Dimension on DIOO4 Bar Diagram

"II", "JJ", "KK" and "LL" - Number of D401 Ties per Drilled Shaft







B803

C40I

C805

DIOOI

DI002

DI003

DI004

(1)D40I

(1)

(1)

14

"W"

72

"Z"

16

16

16

16

41'-2"

10'-6"

"X"

12'-1"

"44"

"BB"

"CC"

"DD"

Str.

3"

6"

3"

10 3⁄4″

10 ¾"

10 ¾″

10 ¾"

090550 "Drilled Shaft Foundations Rock".

(1) Non-pay item, Subsidiary to Special Provision Job No.

10

DI003

Dimensions are out to out of bars.

0,

**/

D1004

DATE	DATE	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	
REVISED		6	ARK,				
		J08 N	D.	090550	43	68	
		07638 - INT. BENTS - 66544					



SECTION E-E

Scale: ½" = 1'-0"

4'-0"

4 - $1\frac{1}{2}$ "ø min. Schedule 40 steel pipes equally spaced. See Special Provision Job No. 090550 "Nondestructive Testing of Drilled Shafts"

090550 "Nondestructive Testing of Drilled Shafts"

	S	SHEET 4 OF 4
	DETAILS O	F INTERMEDIATE BENTS
11/11/0000	HIGHWAY 65	B OVER CROOKED CREEK
ADVANCAS	CROOKED CREEK S	TR. AND APPRS. (HARRISON)(S)
atin horken	B	DONE COUNTY
LICENSED		
ROFESSIONAL	F	ROUTE 65B SEC. 1B
8 - 1 - 23	ARKANSAS ST	ATE HIGHWAY COMMISSION
No.20726	L	ITTLE ROCK, ARK.
VA CHOR	DRAWN BY: CAB	DATE: OCT 2022 FILENAME: b090550_b24.dgn
	CHECKED BY: CMR	DATE: JUN 2023 SCALE: AS SHOWN
	DESIGNED BY: MAC	DATE: OCT 2022
BRIDGE ENGINEER	BRIDGE NO. 07638	DRAWING NO. 66544









NO. REQ'D.	LENGTH	"A"	P.D.
218	13'-0"	-	2"
22	9'-4"	-	2"
12	57'-5"	-	Str.
6	23'-0"	-	Str.
183	6' - 2"	-	2"
183	4'-2"	-	2"
46	8'-6"	-	2"
6	10'-0"	-	Str.
47	3'-6"	-	2"
6	49'-9"	-	2"
6	46'-9"	-	Str.
6	13'-0"	-	Str.
4	58'-4"	-	Str.
4	59'-2"	-	5¼"
8	10'-2"	-	Str.
44	6'-5½"	2'-10"	2½"
44	3'-7½"	1'-5"	2½"
7	10'-9"	-	Str.
8	11'-1"	-	Str.
7	12'-0"	-	Str.
44	6'-2½"	-	4½"
22	5'-3"	-	Str.
24	5' - 2"	-	Str.
8	13'-3"	-	5¼"
8	13'-9"	-	5¼"
8	14'-2"	-	5¼"
8	15' - 2"	-	Str.
1			
1			
	NO. REQ'D. 218 22 12 6 183 46 6 47 6 47 6 47 6 47 6 47 6 7 8 44 7 8 7 44 7 8 7 8 <tr< td=""><td>NO. REQ'D. LENGTH 218 13'-0" 22 9'-4" 12 57'-5" 6 23'-0" 183 6'-2" 183 4'-2" 46 8'-6" 6 10'-0" 47 3'-6" 6 49'-9" 6 46'-9" 6 43'-0" 4 58'-4" 4 58'-4" 4 59'-2" 8 10'-2" 44 6'-5½" 44 3'-7½" 7 10'-9" 8 11'-1" 7 12'-0" 22 5'-3" 24 5'-2" 8 13'-3" 8 13'-3" 8 13'-9" 8 13'-2" 8 13'-2" 8 13'-2" 8 13'-2" 8 13'-2" 8 15'-</td><td>NO. REQ'D. LENGTH "A" 218 $13'-0"$ - 22 $9'-4"$ - 12 $57'-5"$ - 6 $23'-0"$ - 183 $6'-2"$ - 183 $4'-2"$ - 46 $8'-6"$ - 6 $10'-0"$ - 46 $8'-6"$ - 6 $10'-0"$ - 46 $8'-6"$ - 6 $10'-0"$ - 47 $3'-6"$ - 6 $49'-9"$ - 6 $40'-9"$ - 6 $13'-0"$ - 4 $58'-4"$ - 4 $58'-4"$ - 4 $59'-2"$ - 8 $10'-2"$ - 7 $10'-9"$ - 8 $11'-1"$ - 7 $10'-2"$ - 44</td></tr<>	NO. REQ'D. LENGTH 218 13'-0" 22 9'-4" 12 57'-5" 6 23'-0" 183 6'-2" 183 4'-2" 46 8'-6" 6 10'-0" 47 3'-6" 6 49'-9" 6 46'-9" 6 43'-0" 4 58'-4" 4 58'-4" 4 59'-2" 8 10'-2" 44 6'-5½" 44 3'-7½" 7 10'-9" 8 11'-1" 7 12'-0" 22 5'-3" 24 5'-2" 8 13'-3" 8 13'-3" 8 13'-9" 8 13'-2" 8 13'-2" 8 13'-2" 8 13'-2" 8 13'-2" 8 15'-	NO. REQ'D. LENGTH "A" 218 $13'-0"$ - 22 $9'-4"$ - 12 $57'-5"$ - 6 $23'-0"$ - 183 $6'-2"$ - 183 $4'-2"$ - 46 $8'-6"$ - 6 $10'-0"$ - 46 $8'-6"$ - 6 $10'-0"$ - 46 $8'-6"$ - 6 $10'-0"$ - 47 $3'-6"$ - 6 $49'-9"$ - 6 $40'-9"$ - 6 $13'-0"$ - 4 $58'-4"$ - 4 $58'-4"$ - 4 $59'-2"$ - 8 $10'-2"$ - 7 $10'-9"$ - 8 $11'-1"$ - 7 $10'-2"$ - 44

The surfaces of the \mathbf{Z} 7"x4"x½" not in contact with concrete shall be painted in accordance with Section 638 or as approved by the Engineer. Only one coat is required and shall be applied in the Fabricator's shop. Painting will not be paid for directly, but shall be considered subsidiary to "Structural Steel in Beam Spans (M270, Gr. 36)". Pattern Plate, as shown in Section B-B on Dwg. No. 66549, shall be A36 or as approved by the Engineer and shall be paid for as "Structural Steel in Beam Spans (M270, Gr. 36)".



DATF

BRIDGE ENGINEER

NE	ER	

BRIDGE NO. 07638









REINFORCING & RAIL PLAN - TOP OF SLAB

Notes:

Spacing shown for transverse reinforcing bars is measured along centerline of bridge. For details of decorative concrete rails, see Dwg. No. 66557 - 66559.

For placement and details of deck drains, see Dwg. No. 66552.



BRIDGE ENGINEER

DATE	DATE	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SIEET NG.	TOTAL SHEETS
NE VISED	NEVIGED	6	ARK,			
		J08 NO.		090550	50	69
				090550	50	00
		07638 - RC SLAB UNIT I- 66551				

SHEET 3 OF 4 DETAILS OF 184'-4 1/4" CONTINUOUS R.C. SLAB UNIT 1 HIGHWAY 65B OVER CROOKED CREEK CROOKED CREEK STR. AND APPRS. (HARRISON)(S) BOONE COUNTY

		ROUTE	65B	SEC. 1B
ARKANS	AS	STATE	HIGHW	AY COMMISSION
		LITTLE	ROCK, AR	K.
DRAWN BY	SR	DATE:	MAY 2023	FILENAME: b090550_sl3.dgn
CHECKED BY:	MAB	DATE:	MAY 2023	SCALE: NTS
DESIGNED BY:	MAC	DATE:	OCT 2022	
BRIDGE NO.	07638	3	DRAI	NING NO. 66551



1 Drain spacing, see drain detail

REINFORCING PLAN - BOTTOM OF SLAB

GENERAL NOTES

CONCRETE: All concrete shall be Class S(AE) with a minimum 28-day compressive strength f^c = 4,000 psi. Concrete shall be poured in the dry and all exposed corners shall be chamfered 3/4" unless otherwise noted.

Concrete in bridge superstructure shall be placed, consolidated, and screeded off for the entire pour before any concrete has taken its initial set. This may require the use of a retarding agent.

The concrete deck (roadway surface) shall be given a tine finish in accordance with Subsection 802.19 for Class 5 Tined Bridge Roadway Surface Finish. Movement of the finishing machine across new concrete shall be on planks placed on the surface and shall be prohibited for 72 hours after finishing the pour. The use of a longitudinal screed is not permitted.

BEARING PAD: The 1/8" bearing pad shall be an unreinforced pad meeting the requirements of Section 808, or shall be nylon reinforced neoprene meeting the requirements of Subsection 807.20. The pad shall be furnished in one piece for the required width and full length of the bearing and glued to the bent cap with an adhesive approved by the Engineer. Pads and adhesive will not be paid for directly but will be considered subsidiary to the item "Class S(AE) Concrete-Bridge".

REINFORCING STEEL: All reinforcing steel shall be Grade 60 conforming to AASHTO M 31 or M 322, Type A, with mill test reports and shall be epoxy coated. The reinforcing steel is to be accurately located in the forms and held in place by steel wire supports, sufficient in number and size to prevent displacement during the course of construction. The wire supports will not be paid for directly, but will be considered subsidiary to the item "Epoxy Coated Reinforcing Steel (Grade 60)".

Drawings show general features of design only. Shop drawings shall be made in accordance with the specifications, submitted and approval secured before fabrication is begun.

Requests for substitution of structural steel shapes shown with shapes of greater size must be submitted by the Contractor to the Engineer for approval. Steels of equal or greater strengths will be accepted only when shown on the approved shop drawings.

All welding that is to be done during fabrication of structural steel, including temporary welds, shall be detailed on the shop drawings and submitted for approval. If additional welds are required, whether permanent or temporary, a formal request with detailed drawings shall be submitted to the Engineer for approval. All welding shall conform to Subsection 807.26.



DATE	DATE	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SIEET NG.	TOTAL SHEETS
10211320		6	ARK.			
		J08 NO.		090550	51	68
		076	538 -	RC SLAB UNIT	1- 66	552



DRAIN DETAIL

Notes: Bars shall be adjusted in field to achieve a minimum clearance of 3".





DATE	DATE DATE REVISED REVISED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SIEET NG.	TOTAL SHEETS
102 11320		<i>c</i>	ADV			
		6	0			
		J08 NO.		000550	6.7	60
				030220	22	68
		076	38 -	RC SLAB UNIT 2	2 - 66	5554

	SHEET 2 UF 4
	DETAILS OF 179'-1 3/4" CONTINUOUS R.C. SLAB UNIT 2
0.5	HIGHWAY 65B OVER CROOKED CREEK
	CROOKED CREEK STR. AND APPRS. (HARRISON)(S)
Chork	BOONE COUNTY
SED	7
IONAL	ROUTE 65B SEC. 1B
- ER • 23	ARKANSAS STATE HIGHWAY COMMISSION
26	LITTLE ROCK, ARK.
HOR	DRAWN BY: SR DATE: MAY 2023 FILENAME: b090550_s22.dgn
	CHECKED BY: MAB DATE: MAY 2023 SCALE: NTS
	DESIGNED BY: MAC DATE: OCT 2022
INEER	BRIDGE NO. 07638 DRAWING NO. 66554



REINFORCING & RAIL PLAN - TOP OF SLAB

Notes:

Spacing shown for transverse reinforcing bars is measured along centerline of bridge. For details of Decorative Concrete Railing, see Dwg. Nos. 66557 - 66559 & 66577. Bend longitudinal sidewalk bars in field.

For placement and details of deck drains, see Dwg. No. 66556.

① S807E thru S831E - 24 Sp. @ 6" 2 S832E thru S875E - 43 Sp. @ 6"



BRIDGE ENGINEER

DATE	DATE	FED. ROAD DIST. NO. STATE		D STATE FED. AID PROJ. NO. SHEET NO.		ROAD STATE FED. AID PROJ. NO. SHE	SHEET NO.	TOTAL SHEETS
IL VIJED								
		JOB NO.						
				090550	54	68		
		076	38 -	RC SLAB UNIT 2	2 - 66	555		

			SHEET 3 OF	4
DI	ETAILS OF 17	9'-1 3	/4" CONTINU	OUS R.C. SLAB UNIT 2
CTATE OF	HIGHV	VAY 6	5B OVER CRO	oked Creek
ARKANGAS	CROOKED CF	REEK S	STR. AND API	PRS. (HARRISON)(S)
Nartin Chorkey	/	E	BOONE COUN	TY
LICÉNSED 🕺 🏹	5			
PROFESSIONAL			ROUTE 65B	SEC. 1B
8 - + + - + 23	ARKANS	AS S	TATE HIGHW	AY COMMISSION
4 No.20726			LITTLE ROCK, AR	к.
WA, CHOK	DRAWN BY	SR	DATE: MAY 2023	FILENAME: b090550_s23.dgn
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	CHECKED BY:	MAB	DATE: MAY 2023	SCALE. NTS

DATE: OCT 2022

DRAWING NO. 66555

DESIGNED BY: MAC

BRIDGE NO. 07638





## ELEVATION OF DECORATIVE CONCRETE RAILING (FROM TRAFFIC SIDE)



## TABLE OF VARIABLES

	:	184'-4¼" Unit			179'-1¾" Unit				
Variable						Spa	n 12		
variable	Span 1	Spans Span 2 thru 5 6		Spans 7, 8 & 11	Spans 9 & 10	Left (East) Side	Right (West) Side		
"A"	29'-4¼"	31'-6"	29'-0"	29'-0"	31'-6"	33'-5"	38'-7"		
"B"	10'-0"	10'-9"	10'-0"	10'-0"	10'-9"	8'-0"	9' <b>-</b> 3½"		
"C"	9'-4¼"	10'-0"	9'-0"	9'-0"	10'-0"	8'-8½"④	10'-0" (4		
"D"	10'-0"	10'-9"	10'-0"	10'-0"	10'-9"	8'-0"	9' <del>-</del> 3½"		

(4) 2 railing panels at "C" length.

- (1) See Dwg. Nos. 66551 & 66555 for Railing Joint details.
- (2) Measured at gutterline and not including ¼" allowance for Roughsawn Wood Finish, see "View A-A" & "Section B-B", Dwg. No. 66559.

ELEVATION OF DECORATIVE CONCRETE RAILING (FROM BACK SIDE)

③ See Dwg. No. 66577 for Tubular Hand Railing details.



BRI

DATE	DATE	FEO. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SIEET NG.	TOTAL SHEETS
NE VISED	NETIBLU	c	ARK			
		0				
		J08 NO.		090550	56	69
				090550	20	00
	07638 - DECORATIVE RAILING - 66557					

SHEET 1 OF 4 DETAILS OF DECORATIVE CONCRETE RAILING HIGHWAY 65B OVER CROOKED CREEK CROOKED CREEK STR. AND APPRS. (HARRISON)(S) BOONE COUNTY

ROUTE 65B SEC. 1B ARKANSAS STATE HIGHWAY COMMISSION LITTLE ROCK, ARK.

DRAWN BY: SR	_ DATE: MAY 2023 FILENAME: b090550_pl.dgn
CHECKED BY: UVK	_ DATE: MAY 2023 SCALE: NTS
DESIGNED BY: MAC	DATE: OCT 2022
BRIDGE NO. 07638	DRAWING NO. 66557

BRIDGE ENGINEER



## TABLE OF VARIABLES

	184'-4¼" Unit			179'-1¾" Unit				
Variable	Casa	Creme	Casa	Creme	Creme	Span 12		
Valiable	1	2 thru 5	6 6	7, 8 & 11	9 & 10	Left (East) Side	Right (West) Side	
"A"	29'-4¼"	31'-6"	29'-0"	29'-0"	31'-6"	33'-5"	38'-7"	
"B"	10'-0"	10'-9"	10'-0"	10'-0"	10'-9"	8'-0"	9'-3½"	
"C"	9'-4¼"	10'-0"	9'-0"	9'-0"	10'-0"	8'-8½" (4)	10'-0" (4)	
"D"	10'-0"	10'-9"	10'-0"	10'-0"	10'-9"	8'-0"	9'-3½"	
"E"	23	26	23	23	26	17	21	
"F"	24	26	23	23	26	22	26	
"G"	23	26	23	23	26	17	21	
"H"	15	17	15	15	17	11	14	
"I"	16	17	15	15	17	14	17	
"נ"	15	17	15	15	17	11	14	

(4) 2 railing panels at "C" length.

LONGITUDINAL SECTION OF DECORATIVE CONCRETE RAILING 1½" = 1'-0"



0.03 DATE

	SHEET 2 OF 4
	DETAILS OF DECORATIVE CONCRETE RAILING
	HIGHWAY 65B OVER CROOKED CREEK
	CROOKED CREEK STR, AND APPRS, (HARRISON)(S)
hoke	BOONE COUNTY
SED 🚺	5
IUNAL Fr	ROUTE 65B SEC. 1B
23	ARKANSAS STATE HIGHWAY COMMISSION
26	LITTLE ROCK, ARK.
HOL	DRAWN BY: SR DATE: MAY 2023 FILENAME: b090550_p2.dgn
	CHECKED BY: UVK DATE: MAY 2023 SCALE: NTS
NEER	
	DRAWING NU. 07638 DRAWING NU. 66558

### (3) See Dwg. No. 66577 for Tubular Hand Railing details.



Note: All exposed corners for the railing shall be chamfered 1" unless otherwise noted.

VIEW A-A





SECTION B-B 1½" = 1'-0"

(2) In Span 12, half of the number of bars required are for the Left (East) railing and half are for the Right (West) railing.

		184' <b>-</b> 4¼" Un	it	179'-1¾" Unit			
Variable	Snan	Spape	Snan	Spans 7	Spape		
Variable	1	2 thru 5	6	8, & 11	9 & 10	Left (East) S	
"A"	174	190	172	172	190	99	
"B"	8	8	8	8	8	5	
"C"	8	8	8	8	8	5	
"D"	8	8	8	8	8	5	
"E"	8	8	8	8	8	5	
"F"	8	8	8	8	8	5	
"G"	8	8	8	8	8	5	
"H"	16	16	16	16	16	10	
"I"	118	128	118	116	128	66	
"ט"	28'-11"	31'-1"	28'-7"	28'-7"	31'-1"	33'-0"	
"K"	40	40	40	40	40	25	
"L"	28'-11"	31'-1"	28'-7"	28'-7"	31'-1"	33'-0"	
"M"	30'-6"	32'-8"	30'-2"	30'-2"	32'-8"	34'-7"	
"N"	28'-11"	31'-1"	28'-7"	28'-7"	31'-1"	33'-0"	
"Q"	40	40	40	40	40	25	

## TABLE OF VARIABLES

Span 12

Right

(West) Side 115

5

5

5

5

5

5

10

78

38'-2"

25

38'-2"

39'-9"

38'<del>-</del>2"

25

33'**-**0"

33'-0"

34'**-**7"

33'**-**0"

(East) Side

BRIDGE ENGINEER

R401E

R402E

R403E

R404E

R405E

R406E

R407E

R408F

R409E

R410E

2 R501E

2 R601E

R602E

R603E

R701E

R801E

R802F

2

2

 $\tilde{2}$ 



- J	ARKANSAS	ROUTE 65B SEC. 1B STATE HIGHWAY COMMISSION
) <b>v</b>	DRAWN RY. SR	DATE: MAY 2023 EN ENAME: 0090550 D3.don
	CHECKED BYS UVK	DATE: MAY 2023 SCALE: NTS
	DESIGNED BY: MAC	DATE: OCT 2022
	BRIDGE NO. 0763	B DRAWING NO. 66559









DATE	DATE	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
HE VISED		6	ARK,			
		J08 NO.		090550	62	68
07638- TRANS. APPROACH RAILING -66						-66562

CLASS "S" CONCRETE	REINFORCING STEEL (GRADE 60)	CLASS 2 PROTECTIVE SURFACE TREATMENT
4.71 Cu. Yds.	447 Lbs.	9.0 Sq. Yd.



1115



DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.			
		JOB NO.		090550	63	68
CROSS SECTIONS						



tsjaycox 7/31/2023 1925550_HMY65B_X5_BORDER.DGN







1040

1035

140

100

80

90

CUT VOLUME 0 CU. YD. FILL VOLUME 0 CU. YD.









1070

1065

1060



1052.88 1053.54





STA. 57+55.64 TO STA. 57+67.41





1070

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.			
		JOB	NO.	090550	68	68
		CROSS	SECTIO	DNS		

			 1070
			1065
			1060
			1055
			1000
			 1050
			1045
			1040
			1035
			1030

STA. 61+26.24 TO STA. 61+70.20





## GENERAL NOTES

These GENERAL NOTES are applicable unless otherwise shown in the Plan Details, Special Provisions, or Supplemental Specifications.

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.

DESIGN SPECIFICATIONS: See Bridge Layout(s).

### SUPERSTRUCTURE NOTES:

### MATERIALS AND STRENGTHS:

Class S(AE) Concrete	f'c =	4,000 psi
Reinforcing Steel (Gr. 60, AASHTO M 31 or M 322, Type A)	fy =	60,000 psi
Structural Steel (AASHTO M 270, Gr. 36)	Fy =	36,000 psi
Structural Steel (AASHTO M 270, Gr. 50)	Fy =	50,000 psi
Structural Steel (AASHTO M 270, Gr. 50W)	Fy =	50,000 psi
Structural Steel (AASHTO M 270, Gr. HPS70W)	Fy =	70 <b>,</b> 000 psi

See Plan Details for Grade(s) of Structural Steel required.

### CONCRETE:

All concrete shall be Class S(AE) with a minimum 28 day compressive strength f'c = 4,000 psi. Concrete shall be poured in the dry and all exposed corners shall be chamfered  $\frac{3}{4}$ " unless otherwise noted

The superstructure details shown are for use when removable deck forming is used and are the basis for measurement of Class S(AE) Concrete. See Standard Drawing No. 55005 for allowable modifications and for tolerances when Permanent Steel Bridge Deck Forms are used.

Use of a longitudinal screed is not permitted on any span of a bridge deck with horizontal curvature.

The concrete deck (roadway surface) shall be given a tine finish in accordance with Subsection 802.19 for Class 5 Tined Bridge Roadway Surface Finish. Sidewalks shall receive a broomed finish as specified for final finishing in Subsection 802,19 for Class 6 Broomed Finish. Movement of the finishing machine across new concrete shall be on planks placed on the surface and shall be prohibited for 72 hours after finishing the pour. Sufficient concrete must be placed ahead of the strike-off to fully load the beam or girder. When permitted, the use of a longitudinal strike-off will require that a vertical camber adjustment be made in the strike-off to account for the future dead load deflection due to any railings, median barrier, and sidewalks.

### **REINFORCING STEEL:**

All reinforcing steel shall be Grade 60 conforming to AASHTO M 31 or M 322, Type A, with mill test reports and shall be epoxy coated. The reinforcing steel is to be accurately located in the forms and firmly held in place by steel wire supports, sufficient in number and size to prevent displacement during the course of construction. The wire supports will not be paid for directly, but will be considered subsidiary to the item "Epoxy Coated Reinforcing Steel (Grade 60)".

#### STRUCTURAL STEEL (COMMON TO W-BEAMS AND PLATE GIRDERS):

Structural steel shall be AASHTO M 270 with grade and payment as specified in the plans. Grade 50W steel shall not be painted and all exposed surfaces shall be cleaned in accordance with Subsection 807.84(e). Grade 36 and Grade 50 steel shall be painted unless otherwise noted and all exposed surfaces shall be cleaned in accordance with Subsection 807.84. Structural steel completely embedded in concrete may be AASHTO M 270, Gr. 36, Gr. 50 or Gr. 50W unless otherwise noted.

Drawings show general features of design only. Shop drawings shall be made in accordance with the specifications, submitted and approval secured before fabrication is begun.

Requests for substitution of structural steel shapes shown with shapes of greater size must be submitted by the Contractor to the Engineer for approval. Steels of equal or greater strengths will be accepted only when shown on the approved shop drawings. Payment will be based on the basis of shapes and materials shown in the plans, and no additional compensation will be made for any adjustments due to substitutions.

All welding that is to be done during fabrication of structural steel, including temporary welds, shall be detailed on the shop drawings and submitted for approval. If additional welds are required, whether permanent or temporary, a formal request with detailed drawings shall be submitted to the Engineer for approval; however, additional welds used for attaching falsework support devices or screed rail supports to the structural steel that do not exceed the limitations of Subsection 802.13 will not require approval prior to construction. All welding shall conform to Subsection 807.26.

Unless otherwise noted, field connections shall be bolted with 3/4" & high-strength bolts using 13/6 " & open holes. Holes for  $\frac{3}{4}$  " # high-strength bolts may be  $\frac{1}{6}$ " # if a washer is supplied for use under both the nut and head of the bolt. The use of oversized holes will not be allowed on main members unless otherwise noted. Bolts shall be placed with heads on the outside face of the exterior beam or girder webs and on the bottom of the beam or girder flanges.

All stud shear connectors shall be granular flux filled, solid fluxed, or equal and shall be automatically end welded in accordance with recommendations of the Manufacturer.

When painting is required, all structural steel except galvanized steel and steel completely encased in concrete shall be painted in accordance with Subsection 807.75. The color of paint shall be as specified in the plans.

### STRUCTURAL STEEL (W-BEAMS):

All beams and field splice plates, and all diaphragms and connection plates attached to horizontally curved beams are considered main load carrying members and shall meet the Longitudinal Charpy V-Notch Test specified in Subsection 807.05. This work and material will not be paid for directly, but shall be considered subsidiary to the item "Structural Steel in Beam Spans (M 270, Gr. ___ )".

All beams in continuous units and simple spans with field splices shall be blocked in their true position in the shop in groups as specified in Subsection 807.54(b)(2) with the webs horizontal. The camber, length of sections, distance between bearings, and openings of joints shall be measured and this information shall become part of the permanent records. The component parts shall be match marked in this assembly and these marks shall be shown on the erection diagram.

All beams in simple spans without field splices shall be blocked in their true position with webs horizontal. The camber, distance between bearings, and openings of joints shall be measured and this information shall become part of the permanent records.

Flange field splice plates shall be cut and fabricated so that the primary direction of rolling is parallel to the direction of the main tensile and/or compressive stresses.

All beam dimensions are based on a temperature of 60 degrees F. A tolerance of  $\frac{1}{4}$ " +/- is allowed for comber.

Bent plate diaphragms for horizontally curved beams shall be cut and fabricated so that the primary direction of rolling is parallel to the direction of the main tensile and/or compressive stresses. Bent plate diaphragms for straight beams may be cut and fabricated in accordance with Subsection 807.35 or as required for horizontally curved beams.

Unless otherwise noted, diaphragms shall be installed as beams are erected. All bolts in diaphragms and field splices shall be installed and tightened in accordance with Subsection 807.71 prior to pouring the concrete deck.

### STRUCTURAL STEEL (PLATE GIRDERS):

All references to cross-frames shall include "X" or "K" types.

All girder web and flange plates, all field splice plates, and all diaphragms, cross-frames and connection plates attached to horizontally curved girders are considered main load carrying members and shall meet the Longitudinal Charpy V-Notch Test specified in Subsection 807.05. This work and material will not be paid for directly, but shall be considered subsidiary to the item "Structural Steel in Plate Girder Spans (M 270, Gr. ....)".

All girders in continuous units and simple spans with field splices shall be assembled in the shop as specified in Subsection 807.54(b)(2) and blocked in their true position with webs horizontal. The camber, length of sections, distance between bearings, and openings of joints shall be measured and this information shall become part of the permanent records. The component parts shall be match marked in this assembly and these marks shall be shown on the erection diagram.

All girders in simple spans without field splices shall be blocked in their true position with webs horizontal. The camber, distance between bearings, and openings of joints shall be measured and this information shall become part of the permanent records.

Web and flange plates for main members and flange splice plates for main members shall be cut and fabricated so that the primary direction of rolling is parallel to the direction of the main tensile and/or compressive stresses.

Girder webs may be made by shop splicing with minimum lengths of 25 feet for sections. Flange plates longer than 50 feet may be made by shop splicing with minimum lengths of 25 feet for sections. No additional payment will be made for shop welded splices.

All girder dimensions are based on a temperature of 60 degrees F. A tolerance of  $\frac{1}{4}$ " +/- is allowed for camber.

Groove welds in web and flange plates shall be Quality Control (Q.C.) tested by nondestructive testing, as required in Subsection 807.23(b). Fillet welds at flange to web plate connections shall be 0.C. tested by the magnetic particle method. All 0.C. testing shall be considered subsidiary to the item "Structural Steel in Plate Girder Spans (M 270, Gr. ___)".

Bent plate diaphragms for horizontally curved girders shall be cut and fabricated so that the primary direction of rolling is parallel to the direction of the main tensile and/or compressive stresses. Bent plate diaphragms for straight girders may be cut and fabricated in accordance with Subsection 807.35 or as required for horizontally curved girders.

Unless otherwise noted, cross-frames and diaphragms shall be installed as girders are erected. All bolts in cross-frames, diaphragms, and field splices shall be installed and tightened in accordance with Subsection 807.71 prior to pouring the concrete deck.

## SUBSTRUCTURE NOTES:

### CONCRETE:

## **REINFORCING STEEL:**

Top reinforcing bars in cap shall be properly placed to avoid interference with anchor bolts or sheet metal sleeves.

### STRUCTURAL STEEL:

plans.

DATE	DATE	DATE	DATE	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NG.	TOTAL SHEETS
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			(1)			GENERAL NOTES	55	006

Unless otherwise noted, concrete in caps, columns and footings (except seal footings) shall be Class "S" with a minimum 28 day compressive strength f'c = 3,500 psi and shall be poured in the dry. Seal Concrete for footings shall have a minimum 28 day compressive strength f'c = 2,100 psi.

Concrete in drilled shafts shall be Class "S" as modified by Job SP "Drilled Shaft Foundations".

All exposed corners shall be chamfered  $\frac{3}{4}$ " unless otherwise noted.

All reinforcing steel shall be Grade 60 (yield strength = 60,000 psi) conforming to AASHTO M 31 or M 322. Type A. with mill test reports.

Structural steel in end bents shall be AASHTO M 270 with grade and payment as specified in the

FOR ADDITIONAL INFORMATION AND NOTES, SEE LAYOUT(S) AND PLAN DETAILS.

## STANDARD GENERAL NOTES FOR STEEL BRIDGE STRUCTURES

## ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: A.M.S. DATE: 9-2-2015 FILENAME: 055006.dgn CHECKED BY: B.E.F. DATE: 9-2-2015 SCALE: NO SCALE DESIGNED BY: STD. DATE:





## DETAILS FOR BLOCKING EXPANSION JOINT DEVICE

#### EXPANSION DEVICE INSTALLATION AT END BENTS:

The Contractor may elect to install the expansion device using one of the following two alternatives:

1) The concrete span pour adjacent to joint shall be placed before the end bent backwall is placed. After the end bent backwall forms are in place and the beams or girders erected, the blocked expansion device shall be installed and adjusted for grade. All connection bolts shall be fully tightened prior to placing the deck concrete adjacent to the bent, Immediately prior to pouring the backwall concrete, the blocking shall be removed, and the opening adjusted for temperature and grade.

2) The backwall shall be poured to the optional construction joint after beams or girders are erected. The blocked expansion device shall be installed and adjusted for grade. All connection bolts shall be fully tightened prior to placing the deck concrete adjacent to the bent. Immediately prior to pouring the remainder of the backwall concrete, the blocking shall be removed and the opening adjusted for temperature and grade.

#### EXPANSION DEVICE INSTALLATION AT INTERMEDIATE BENTS:

After all beams or girders on each side of the joint are erected the blocked expansion device shall be installed and adjusted for grade. Deck concrete shall be placed for the entire unit or span on one side of the joint before deck concrete on the other side is placed. Connection bolts for the first side to have deck concrete placed shall be completely bolted. Bolts on the other side shall be loosely installed so that thermal and rotational movements will not be restricted during concrete placement on the first side.

Connection bolts on the second side shall remain loose until the concrete pour adjacent to the joint is to be placed. Immediately prior to pouring the span concrete on the second side, the blocking shall be removed, the joint adjusted for temperature and grade, and the connection bolts tightened.

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

THESE DETAILS ARE APPLICABLE UNLESS OTHERWISE SHOWN IN THE PLAN DETAILS, SPECIAL PROVISIONS, OR SUPPLEMENTAL SPECIFICATIONS. SEE "TABLE OF SILICONE JOINT DATA" IN PLAN DETAILS FOR VARIABLES "A" AND "B", AND BUMPER PLATE SIZE.

## STANDARD DETAILS FOR POURED SILICONE JOINTS

### ARKANSAS STATE HIGHWAY COMMISSION

### LITTLE ROCK, ARK.

 DRAWN BY:
 A.C.P.
 DATE:
 2/11/2016
 FILENAME:
 b55008.dgn

 CHECKED BY:
 A.M.S.
 DATE:
 2/11/2016
 SCALE:
 No Scale

 DESIGNED BY:
 STD.
 DATE:
 --- Contract of the second se



DATE	DATE	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS		
4-14-23		6	ARK.					
		TYPE D NAME PLATE - 55010						


DATE	DATE	DATE	DATE	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
NEVIGED	FILMED	REVISED	110000	e	APV			
				100 1				
				JUB N	υ.			
			0	TYPE H RAILING 550		5014		

#### MATERIALS:

Rail tubing, posts, end caps, and base plates shall conform to AASHTO M 270, Gr. 36 or ASTM A 500-Grade B, and shall be galvanized after fabrication in accordance with Subsection 806.02(c). When required elsewhere in the plans, steel rail members shall receive a powder coating process after galvanizing. Galvanized surfaces shall be prepared in accordance with Subsection 807.87 and the manufacturer's recommendations prior to application of the powder coating process.

The powder coating process shall be a two coat system applied using electrostatic spray. The base coat shall be a thermosetting epoxy powder with a minimum thickness of 2 to 4 mils. The top coat shall be tough polyester powder with a minimum thickness of 2 to 4 mils. The color shall be as shown in the plans. Coated galvanized framework shall have a salt spray resistance of 3000 hours using ASTM B II7 without loss of adhesion. The powder coating process shall be in accordance with manufacturer's recommendations. Any damage to the powder coated finish shall be repaired with a compatible touch-up system in accordance with manufacturer's recommendations and to the satisfaction of the Engineer at the Contractor's expense.

Cast-in-place anchor bolts, nuts, washers, and set screws shall be galvanized high-strength steel or stainless steel. Mixing of galvanized fasteners and stainless steel will not be permitted.

High-Strength Steel: Cast-in-place anchor bolts shall conform to ASTM A325, Type I. Nuts shall conform to ASTM A563, Grade DH or AASHTO M 292, Grade 2H. Washers shall conform to ASTM F436. Plate Washers shall conform to AASHTO M 270, Gr. 36. Splice Set Screws shall conform to AASHTO M 270, Grade 36. Anchor bolts, nuts, washers, plate washers, and set screws shall be galvanized in accordance with AASHTO M 232, Class C or ASTM B695, Class 50.

<u>Stainless Steel:</u> Cast-in-place anchor bolts shall conform to ASTM A193 or A320-Grade B8 with a minimum yield strength of 80,000 psi. Nuts shall conform to AASHTO M 292, Grade 8 or ASTM A563. Washers shall conform to ASTM A240, Type 302. Plate Washers shall conform to ASTM A240, Type 302. Splice Set Screws shall conform to ASTM A193 or A320-Grade B8.

Threads on bolts, screws, and nuts shall conform to American Standard Coarse Series, Class 2 FIT, ASA Specification BLL, Plate washers shall have dimensions meeting the requirements of ANSI/ASME B18,22L, Type A plain washer (Wide Series). Neoprene pads shall conform to the requirements of Subsection 807,15(b).

#### GENERAL NOTES FOR BRIDGE RAILING:

Rail layout shall conform to vertical and horizontal alignment of bridge. All posts shall be vertical.

Maximum post spacing = 10'-0". Minimum distance from centerline post to centerline open or contraction joints in parapet rail = 1'-0".

Splices in rail tubing shall be at 50' maximum spacing. The centerline of splices shall be located a maximum of 2 feet from centerline of post. Rail sections shall be fabricated to attach to at least three posts.

Base plates shall not be placed upon areas that are improperly finished, deformed or irregular.

Bridge railing, including posts, template and base plates, fasteners, and neoprene pads shall be paid for at the contract unit price bid per linear foot for "Metal Bridge Railing (Type H)". When required elsewhere in the plans, powdered coating finish and repair of powdered coating finish shall be considered subsidiary to the item "Metal Bridge Railing (Type H)".

Shop drawings showing details of railing shall be submitted and approval secured prior to fabrication.

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

THESE DETAILS ARE APPLICABLE UNLESS OTHERWISE SHOWN IN THE PLAN DETAILS, SPECIAL PROVISIONS OR SUPPLEMENTAL SPECIFICATIONS.

# STANDARD DETAILS FOR TYPE H RAILING

## ARKANSAS STATE HIGHWAY COMMISSION

#### LITTLE ROCK, ARK.

 DRAWN BY:
 A.C.P.
 DATE:
 2/11/2016
 FILENAME:
 b55014.dgn

 CHECKED BY:
 A.M.S.
 DATE:
 2/11/2016
 SCALE:
 No Scole

 DESIGNED BY:
 STD.
 DATE:
 —
 —
 —
 No Scole

 BRIDGE NO.
 DRAWING NO.
 55014
 —
 —
 —
 —

## GENERAL NOTES FOR STEEL H-PILES:

Steel H-Piles shall conform to AASHTO M 270, Grade 36 or greater.

See Bridge Layout and Bent Details for pile size, estimated length, spacing, pile anchorage (if required) and for driving information.

Steel H-Piles that extend above the ground and are not protected by pile encasement shall be painted in accordance with Subsection 805.02.

Brackets, lugs, cap plates, pile tips, driving points, pile painting, splicing and welding shall not be paid for directly, but shall be considered subsidiary to the item "Steel Piling".

AASHTO/AWS Joint Designation B-U4a or B-U4b. All welding shall conform

to Subsection 807.26 of the AHTD Standard Specifications for Highway

Construction (2014 Edition).







#### GENERAL NOTES FOR H-PILE ENCASEMENTS:

 $\bigtriangleup$  See Bridge Layout for additional notes, any pile encasement restrictions of location of nile encasements.

All concrete shall be Class S with a minimum 28-day compressive strength, If concrete cannot be placed in the dry, Seal Concrete may be used from of encosement.

Reinforcing steel shall be Grade 60 conforming to AASHTO M 31 or M 322, T

Welded Wire Fabric shall conform to AASHTO M 55 or M 221. Galvanized Corr shall conform to AASHTO M 36 and M 218.

Concrete, welded wire fabric or reinforcing steel and galvanized pipe shall for directly, but shall be considered subsidiary to the item "Pile Encaseme



### PILE ENCASEMENT DETAIL FOR STEEL H-PILES (4) (Shown with Encasement to Bottom of Cap)



Added alternate method of splicing H-piles and revised pile encasement note. 3/24/2016 AMS



This document was originally issued and sealed by Charles R. Ellis, PE No. 9235, on March 24, 2016. This copy is not a signed and sealed document.

BRIDGE ENGINEER

	DATE REVISED	DATE	DATE	DATE	FEO. ROAD DIST. NO.	STATE	FED. AID	PROJ. NO.	SHEET NO.	TOTAL SHEETS
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*Measured out-to-out of bar.

# TABLE OF VARIABLES FOR PILE ENCASEMENT

SECTION F-F

	"D"		
Pile Size	Square Encsmt.	Round Encsmt.	"L" [*]
HPIO×42	l'-7"	2'-0"	l'-4″
HPI2x53	l'-8″	2'-2"	l'-5″
HPI4x73	l'-l1″	2'-6"	l'-8"

0 Unless otherwise noted on Bridge Layout.

⁽²⁾ 3'-0" minimum or as shown on Bridge Layout.

- ³Encasement dimensions shall be sized to maintain a minimum concrete cover of 4" from the H-Pile. Reinforcement shall be sized to provide a minimum concrete cover of  $1^{\prime}/_2$ " and a minimum clearance of  $I_{4''}$  from the pile.
- (1) Alternate pile encasement, when not extended to bottom of cap, shall have 2" concrete taper for water runoff as shown in the Partial Height Encasement detail.

# STANDARD DETAILS FOR STEEL H-PILES AND PILE ENCASEMENTS

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: A.M.S. DATE: 2/27/2014 FILENAME: 055020.dgn SCALE: NO SCALE CHECKED BY: B.E.F. DATE: 2/27/2014 DESIGNED BY: STD. DATE: ___

DRAWING NO. 55020



II-29-07	REVISED GUTTER SLOPE & MODIFIED CURB DETAILS	
11-10-05	ADDED DETAILS OF TYPE E CURBS	
11-16-01	REVISED CONCRETE CURB TYPE B	
11-18-98	REVISED MODIFIED CURB	
6-2-94	ADDED NOTE TO SPECIAL MODIFIED CURB	
8-5-93	CORRECTED GUTTER SLOPE	8-5-93
10-1-92	ADDED DETAILS OF GUTTER SLOPE	10-1-92
5-24-90	ADDED DETAILS OF MODIFIED CURB	5-24-90
II-30-89	VARIBLE DEPTH TYPE A & B I	II-30-89
7-15-88	REVISED MODIFIED CURB	630-7-15-88
11-1-73	REVISED MODIFIED CURB	500-11-1-73
10-2-72	REVISED AND REDRAWN	512-10-2-72
DATE	REVISION	DATE FILMED





5-19-22 DATE REV DATE FILMED I SSUED

DESCRIPTION

NOTE: TURNOUTS AND PRIVATE DRIVES SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS AS DIRECTED BY THE ENGINEER.

ACHM SURFACE COURSE (1/2") (220 LBS. PER SQ. YD.) AND AGGREGATE BASE COURSE (CLASS 7) 7" COMP. DEPTH IF ASPHALT OR GRAVEL DRIVE EXISTING: OR 6" CONCRETE IF CONCRETE DRIVE EXISTING.

NOTE: TURNOUTS AND PRIVATE DRIVES SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS AS DIRECTED BY THE ENGINEER.

ARKANSAS STATE HIGHWAY COMMISSION DETAILS OF DRIVEWAYS & STREET TURNOUTS STANDARD DRAWING DR-2







### REINFORCED CONCRETE ARCH PIPE DIMENSIONS

FOLITY.	SPAN		RISE	
DIA.	AASHTO M 206	ARDOT NOMINAL	AASHTO M 206	ARDOT NOMINAL
INCHES		INC	HES	
15	18	18	11	11
18	22	22	131/2	14
21	26	26	151/2	16
24	28½	29	18	18
30	36¼	36	221/2	23
36	433%8	44	26%	27
42	511/8	51	315/16	31
48	58½	59	36	36
54	65	65	40	40
60	73	73	45	45
72	88	88	54	54
84	102	102	62	62
90	115	115	72	72
96	122	122	771/2	77
108	138	138	87½	87
120	154	154	96%	97
132	168 <b>¾</b>	169	1061/2	107

MORE THAN + 2 PERCENT FROM THE VALUES SPECIFIED BY AASHTO M206

## MINIMUM HEIGHT OF FILL "H" OVER CIRCULAR R.C. PIPE CULVERTS

		CLASS O	F PIPE			
	CLASS	III	CLASS IV	CLASS V		
INSTALLATION TYPE	TYPE 1 OR 2	TYPE 3	ALL	ALL		
PIPE ID (IN.)		FEET				
12-15	2	2.5	2	1		
18-24	2.5	3	2	1		
27-33	3	4	2	1		
36-42	3.5	5	2	1		
48	4.5	5.5	2	1		
54-60	5	7	2	1		
66-78	6	8	2	1		
84-108	7.5	8	2	1		

NOTE: FOR MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM OF 12" OF PAVEMENT AND/OR BASE.

### MINIMUM HEIGHT OF FILL "H" OVER R.C. ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS

	CLASS	OF PIPE	
INSTALLATION TYPE	CLASS III	CLASS IV	
	FEET		
TYPE 2 OR TYPE 3	2.5	1.5	

NOTE: TYPE 1 INSTALLATION WILL NOT BE ALLOWED FOR ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS.

NOTE: FOR MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM OF 12" OF PAVEMENT AND/OR BASE.

# REINFORCED CONCRETE HORIZONTAL ELLIPTICAL

1	THE	DIME	19210192	
EQUIV		AASHT	ОМ 207	
	DIA.	SPAN	RISE	
	INCHES	INC	HES	
	18	23	14	
	24	30	19	
	27	34	22	
	30	38	24	
	33	42	27	
	36	45	29	
	39	49	32	
	42	53	34	
	48	60	38	
	54	68	43	
	60	76	48	
	66	83	53	
	72	91	58	
	78	98	63	
	84	106	68	
	THE ME /	SUPER S	DAM AND DIS	c

SHALL NOT VARY MORE THAN 2 PERCENT FROM THE VALUES SPECIFIED BY AASHTO M207.

## CONSTRUCTION SEQUENCE

I. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT. 2. INSTALL PIPE TO GRADE. 3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE. 4. PLACE AND COMPACT THE HAUNCH AREA UP TO THE MIDDLE OF THE PIPE. 5. COMPLETE BACKFILL ACCORDING TO SUBSECTION 606.03.(f)(I).

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

## - LEGEND -

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

* SM-3 WILL NOT BE ALLOWED.

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

#### MAXIMUM HEIGHT OF FILL "H" OVER CIRCULAR R.C. PIPE CULVERTS

	CLASS OF PIPE			
INSTALLATION	CLASS III	CLASS IV	CLASS V	
TIFE	FEET			
TYPE 1	21	32	50	
TYPE 2	16	25	39	
TYPE 3	12	20	30	

NOTE: IF FILL HEIGHT EXCEEDS 50 FEET, A SPECIAL DESIGN CONCRETE PIPE WILL BE REQUIRED USING TYPE 1 INSTALLATION.

#### MAXIMUM HEIGHT OF FILL "H" OVER R.C. ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS

	CLASS	OF PIPE	
INSTALLATION	CLASS III	CLASS IV	
ITE	FEET		
TYPE 2	13	21	
TYPE 3	10	16	

NOTE: TYPE 1 INSTALLATION WILL NOT BE ALLOWED FOR ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS.

# TRENCH SECTION EXCAVATION LINE AS REQUIRED $D_{O}(MIN)$ 12" MIN. LOWER SIDE -3" MINIMUM (6" MIN. IN ROCK)

- (2010) WITH 2010 INTERIMS.

- WORKING CONDITIONS.
- END SECTIONS ARE USED.

2-27-14	REVISED GENERAL NOTE I.
12-15-11	REVISED FOR LRFD DESIGN SPECIFICATIONS
5-18-00	REVISED TYPE 3 BEDDING & ADDED NOTE
3-30-00	REVISED INSTALLATIONS
II-06-97	ISSUED
DATE	REVISION





FILMED



3. EXISTING 4" PIPE UNDERDRAINS MAY BE CONNECTED TO PROPOSED DROP INLETS OR EXTENDED WHERE DIRECTED BY THE ENGINEER. PAYMENT FOR CONNECTING TO DROP INLETS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR "4" PIPE UNDERDRAINS."

5. PAYMENT FOR THE RODENT SCREEN SHALL BE INCLUDED IN THE PRICE BID PER EACH FOR "UNDERDRAIN OUTLET PROTECTORS."



RY TO EXISTING ER CABINET						
EXIST. CONTROLLER CABINET						
NMC AS SHOWN ON PLANS						
EXIST. CONTROLLER CABINET						
TRY TO CABINET SHALL BE THROUGH THE BASE SUFFICIENT TO PROVIDE E CONDUIT RADIUS FOR ITEM.						
ARKANSAS STATE HIGHWAY COMMISSION						
HEAVY DUTY PULL BOX						
FILMED STANDARD DRAWING SD-6						

-GROUND ROD IO' MIN.

D NOTES

DATE

REVISION

5%" COPPERWELD GROUND ROD FUSION WELD E.G.C.

- TRAFFIC SIGNAL CONCRETE PULL BOX









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NOTE: WHERE LEFT TURN HEAD (HEAD 1 ON D1 AND D2) IS NOT CALLED FOR ON PLANS, MAST ARM LENGTH MAY STILL BE ALLOWED FOR FUTURE INSTALLATION, HEADS FOR THROUGH MOVEMENTS SHALL STILL BE ALIGNED WITH THROUGH LANES AS SHOWN ON DETAILS.





HEAD #2 - 2' MIN. TO RIGHT OF LANE LINE 9' TYPICAL EQUAL SPACING BOQ 00 C3) Į գ Æ - 8' TYPICAL EQUAL SPACING I CENTER ON LANE BUT ĵ  $\langle \neg \rangle$ 1. FOUR SECTION "PROTECTED/PERMISSIVE" LEFT TURN HEADS SHOULD BE PLACED A MINIMUM OF TWO (2') FEET TO THE RIGHT OF THE CENTERLINE OF THE APPROACHING LEFT TURN LANE. 2. THREE SECTION 'PROTECTED' LEFT TURN HEADS SHOULD BE PLACED ON THE CENTERLINE OF THE APPROACHING LEFT TURN LANE. 3. WHEN IT IS NECESSARY TO PLACE POLES OTHER THAN AS SHOWN ON PLAN SHEET(S) RESULTING IN MAST ARM EXTENDING MORE THAN TWO FEET PAST (TO THE LEFT OF) THE CENTERLINE OF THE APPROACHING LEFT TURN LANE, MAST ARM SHALL BE CUT TO APPROPRIATE LENGTH AS DETERMINED BY THE ENGINEER, AND A NEW END CAP PROVIDED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THIS PRIOR TO INSTALLING THE MAST ARM IF ADDITIONAL COMPENSATION IS REQUIRED. 4. SIGNAL HEAD SPACING SHALL, IN NO CASE, BE LESS THAN EIGHT (8') FEET BETWEEN HEADS ON CENTER, MEASURED HORIZONTALLY PERPENDICULAR TO THE APPROACH. 5. ALL SIGNAL HEADS SHOWN ON THIS DETAIL SHEET SHALL BE LOCATED ACCORDING TO THE DIMENSIONS SHOWN IN RELATION TO THE APPROACH SIDE OF THE INTERSECTION. 6. MAXIMUM MOUNTING HEIGHT OF SIGNAL FACES LOCATED BETWEEN 40 FEET AND 53 FEET FROM STOP BAR SHALL BE IN ACCORDANCE WITH FIGURE 4D-5 OF 2009 MUTCD. ARKANSAS STATE HIGHWAY COMMISSION D NOTE 6 AS STANDARD DRAWING SIGNAL HEAD PLACEMENT NUTCD STANDARD DRAWING SD-8 REVISION DATE FILM

GENERAL NOTES:

12-8-16	REVISE
9-12-13	ISSUED
3-11-10	2009 N
12-9-99	ISSUED
DATE	

PEDESTRIAN AND TRAFFIC SIGNAL HEAD SIGNS: EACH ITEM "TRAFFIC SIGNAL HEAD (4 SEC., I-WAY)" SHALL INCLUDE A SPECIAL SIGN AS SHOWN, ATTACHED TO THE MAST ARM OR SPAN ASSEMBLY 12" TO THE RIGHT OF THE J-HOOK WIRE SUPPORT-SIGNAL HEAD UNLESS REMOVED WITHIN THE SIGNAL PLAN NOTES.

EACH ITEM "TRAFFIC SIGNAL HEAD (3 SEC., I-WAY)" TO BE USED AS A LEFT TURN INDICATION ONLY SHALL INCLUDE A SIGN (RIO-IO) AS SHOWN, ATTACHED TO THE MAST ARM OR SPAN ASSEMBLY 12" TO THE RIGHT OF THE SIGNAL HEAD.

EACH PEDESTRIAN PUSHBUTTON SHALL HAVE ONE RIO-3E SIGN ATTACHED TO THE POLE ABOVE THE BUTTON. ALL SIGNS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 723 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

ALL SIGN BLANKS SHALL BE CONSTRUCTED OF ALUMINUM ALLOY (ASTM DESIGNATION B-209. ALLOY 5052-H38) WITH THICKNESS OF 0.100 INCH.

GENERAL NOTES: I. MAST ARM POLES SHALL BE MOUNTED A MINIMUM OF FOUR (4') FEET BEHIND CURB OR SHOULDER.

2. OCTAGONAL POLES AND ARMS MEETING THE REQUIREMENTS OF THE PLANS SPECIFICATIONS CAN BE INSTALLED IN LIEU OF ROUND. ALL POLES AND ARMS IN A JOB MUST BE THE SAME SHAPE.

3. MINIMUM STRUCTURAL REQUIREMENTS: DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 4TH EDITION (2001) WITH 2003 AND 2006 INTERIMS.

USE FATIGUE CATEGORY IFOR ALL STRUCTURES ON ROUTES WHERE THE SPEED LIMIT IS 65 MPH AND GREATER AT THE STRUCTURE LOCATION AND ON ROUTES WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH WITH AN MAST ARM OF 60'

USE FATIGUE CATEGORY IFOR ALL STRUCTURES ON ROUTES WHERE THE SPEED LIMIT IS LESS THAN 65 MPH AND GREATER THAN 45 MPH WITH MAST ARMS LESS THAN 60' AND ON ROUTES WHERE THE SPEED LIMITS OF 45 MPH AND LESS WITH AN MAST ARM OF 60' OR LONGER.

LISE EATIGUE CATEGORY WERE ALL STRUCTURES WHERE THE SPEED LIMIT IS 45 MPH AND LESS AND MAST ARMS LESS THAN 60'.

CONSTRUCTION SPECIFICATIONS: STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION) WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.

BASE WIND SPEED: 90 MPH.

STEEL MEMBERS CONSIDERED MAIN LOAD CARRYING MEMBERS WITH A THICKNESS GREATER THAN  $V_2^{\prime\prime\prime}$  SHALL MEET THE LONGITUDINAL CHARPY V-NOTCH TEST SPECIFICD IN SUBSECTION 807.05 OF THE STANDARD SPECIFICATIONS.

DEAD LOAD: AS A MINIMUM, DESIGN SHALL BE BASED ON THE FIXED ATTACHMENTS SHOWN BELOW OR AS MODIFIED IN THE PLANS.

ALL SIGNAL HEADS TO BE ONE WAY, TWELVE (12") INCH AND HAVE FIVE (5") INCH BACK PLATES:

SIGNAL HEADS AT THE END OF MAST ARM - ONE 4 SEC., 85 LB., 14.5 SO. FT., ONE SIGN MOUNTED 3 FEET FROM SIGNAL HEAD (2'-O" X 2'-G"; 20 LB.) REMAINING SIGNAL HEADS SPACED AT 8 FT. (3 SEC., 56 LB., 8.3 SO. FT.): DESIGN TO ACCOMMODATE: SIGNAL HEADS FOR MAST ARMS 10 FT.TO 16 FT. SIGNAL HEADS FOR MAST ARMS 18 FT.TO 24 FT. SIGNAL HEADS FOR MAST ARMS OVER 26 FT.

STREET NAME SIGN - 72" X 18", 36 LB., MOUNTED SUCH THAT OUTSIDE EDGE IS NOT GREATER THAT 12 FT. FROM POLE. DEPENDING UPON POSITION OF SIGNAL HEAD ADJACENT TO POLE, SIGN MAY OVERLAP POLE SHAFT. ROADWAY LUMINAIRES (WHERE REQUIRED ON PLAN SHEET) -VARIABLE ARM LENGTH (MAX. WT. 75 LB., 3.3 SO. FT.) PEDESTRIAN SIGNALS - TWO I SEC., 12 INCH MOUNTED 8 FT. FROM BASE OF POLE. POST MOUNTED 3 SEC. SIGNAL HEAD AT 10 FT. ON SIDE OF POLE.

4. POLE/MAST ARM CAP - POLE AND MAST ARM CAPS SHALL BE PROVIDED, FABRICATED OF EITHER STEEL OR CAST ALUMINUM.

5. HAND HOLE - HAND HOLES SHALL BE 4 IN. X 6 IN. FOR STANDARD, AND 3 IN. X 5 IN. FOR PED POLES. MINIUM PLACED APPROXIMATELY IZ INCHES FROM BASE, AND SHALL BE FIXED WITH A BOLT DOWN COVER. A VACCUM FORMED ABS COVER IS AN ACCEPTABLE ALTERNATE TO STEEL POLES GREATER THAN 21FT. IN HEIGHT (FOR ROADWAY LUMINAIRE ATTACHMENT) SHALL INCLUDED A HAND HOLE WITHIN 12 INCHES OF MAST ARM(S) ATTACHMENT(S).

6. POLE/MAST ARM TAPER SLOPE - AVERAGE TAPER OF SIGNAL MAST ARMS AND POLE SHAFT SHALL BE 0.125 TO 0.15 INCHES PER FOOT.

MAST ARM CENTERLINE ANGLE AT ATTACHMENT POINT WITH POLE SHALL MAINTAIN NOT LESS THAN 0.5 DECREES OR MORE THAN 4 DECREES POSITIVE SLOPE WITH A LINE PERPENDICULAR TO THE POLE CENTERLINE. THE MAST ARM SHALL MAINTAIN A POSITIVE SLOPE AFTER IT IS PLACED UNDER LOAD.

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



#### TYPICAL FOUNDATION DETAILS

POLE FOUNDATION MINIMUM DIMENSIONS AND STEEL REINFORCING. ALL REINFORCING STEEL SHALL BE GRADE 40 MIN.

ARM	FOUNDATION	DEPTH		STEEL	
LENGTH	DIAMETER	"L"*	VERTICAL	HORIZONTAL	0.C.
PED	30"	7'-0"	12-#7 (6'-6")	10-#4	8.44″
2' TO 12'	30"	10'-6"	12-#7 (10'-0")	15-#4	8.42″
OVER 12' TO 20'	30"	11'-6"	12-#7 (11'-0")	16-#4	8.66″
OVER 20' TO 35'	36″	12'-6"	13-#8 (12'-0")	17-#4	8.88″
OVER 35' TO 50'	36"	13'-6"	13-#8 (13'-0")	19-#4	8.56″
OVER 50' TO 72'	42″	14'-6"	18-#8 (14'-0")	20-#4	8.74″
TWINS TO 20'	30"	16'-0"	12-#6 (15'-6")	22-#4	8.76″
TWINS OVER 20' TO 44'	36″	16'-0"	13-#8 (15'-6")	22-#4	8.76″
TWINS OVER 44' TO 50'	42"	16'-0"	18-#8 (15'-6")	22-#4	8.76″
TWINS OVER 50' TO 72'	42″	16'-6"	18-#8 (16'-0")	23-#4	8.64″



ORIENTATION SHALL BE SUCH THAT THE BACK OF THE CABINET IS PARALLEL TO THE STREET AND POSITIONED TO ALLOW VISIBILITY OF THE SIGNAL DISPLAY WHILE OBSERVING THE CONTROLLER FRONT PANEL.

8. GROUND ROD - A IO'X  $5\!\!/\!\!/$  GROUND ROD SHALL BE INSTALLED IN THE CONCRETE PULL BOX FOR EACH POLE AND THE CONTROLLER. PAYMENT FOR THE GROUND ROD AND  $1\!\!/\!_2$ " NMC SHALL BE INCLUDED IN ITEM 714 FOR SIGNAL POLES AND AND CONDUCTOR BOX SHALL BE PAID SEPERATELY.

9. POLE BASE/FOUNDATION - ANCHOR BOLTS SHALL INCLUDE AS A MINIMUM, ONE LEVELING NUT, TWO FLAT WASHERS, ONE LOCK WASHER, AND ONE HEX NUT, PERIMETER OF ANCHOR BASE SHALL BE GROUTED WITH A 1/4" WEEP HOLE. ALL CONCRETE SHALL BE CLASS "S" OR GREATER.

IO. CONCRETE - ALL CONCRETE FOR CONTROLLER CABINET AND POLE FOUNDATIONS SHALL BE CLASS "S" OR GREATER.



MITIGATION DEVICE SHALL BE AN ANTI-GALLOPING PANEL CONSISTING OF A 60" X 16" X 0.125" SIGN BLANK MOUNTED NEAR THE END OF THE MAST ARM NOT TO EXCEED ONE PANEL SHOULD BE MOUNTED AT SUCH THE WAST ARM. THE PANEL SHOULD BE MOUNTED AT SUCH THE HEIGHT AS TO PROVIDE AT LEAST 6" CLEAR FROM THE TOP OF ANY SIGNAL ASSEMBLY OF SIGN PANEL LOCATED ON THE MAST ARM WITHIN

FATIGLE DESIGN FOR ALL STRUCTURES EXCEPT MAST ARMS MOUNTED OVER FACILITIES WITH POSTED SPEEDS OF 65 MPH OR GREATER AT THE LOCATION OF THE STRUCTURE.









II. PEDESTRIAN PHASES - PEDESTRIAN MOVEMENTS SHALL BE PUSH BUTTON ACTUATED AND CONCURRENTLY TIMED, UNLESS OTHERWISE INDICATED ON THE PLAN SHEET(S), FURNISHING AND INSTALLING PEDESTRIAN PUSH SWITCH SHALL BE CONSIDERED SUBSIDIARY TO THE ITEM 707 PEDESTRIAN SIGNAL HEAD.

SIGNAL OPERATION NOTES:

 $\sf FLASHING$  OPERATION - PRIOR TO NORMAL OPERATION, SIGNAL SHALL BE FLASHED FOR A PERIOD OF 3 TO 5 WORK DAYS OR AS DIRECTED BY THE ENGINEER. SIGNAL SHALL BE PLACED IN OPERATION ONLY ON A REGULAR WORK DAY, EXCEPT FRIDAY.

THE CONTRACTOR MAY BE REQUIRED TO ALTER THE FLASHING DISPLAY DURING THE TEMPORARY FLASH PERIOD. AT THE TIME THE INTERSECTION IS PLACED IN PERMANENT OPERATION. THE FLASH SEQUENCE SHALL THEN BE RETURNED TO THAT INDICATED ON THE PLAN SHEETS. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR THESE ALTERATION IN FLASH SEQUENCE SEQUENCE.

#### SPECIAL NOTE: 90 MPH WIND ZONE DESIGN, SEE NOTE 3. MINIMUM STRUCTURAL REQUIREMENTS.



								ADVANCE DISTANCES
RI-I	RI-2	R2-I	W3-5	W3-5a	R4-I	R4-2		500 FT 1/2 MILE
		SPEED		$\wedge$		PASS		1000 FT 94 MILE 1500 FT I MILE
CTAD	HELD	LIMIT	SPEED	XX MPH			GENERAL NOTES:	AHEAD
JUL				SPEED ZONE			I. ALL TRAFFIC CONTROL DEVICE	S USED ON ROAD CONSTRUCTION SHALL CONFORM TO AFFIC CONTROL DEVICES LATEST FDITION AND TO THE
				AHEAU	PASS		STANDARD HIGHWAY SIGNS, LAT HIGHWAY ADMINISTRATION.	TEST EDITION, OR AS APPROVED BY THE FEDERAL
				$\checkmark$			2. TRAFFIC CONTROL DEVICES SH	ALL BE SET UP JUST BEFORE THE START OF CONSTRUCTION
STANDARD 30"X30"	STD 36"X36"X36"	STD. 24"X30"	STD. 36"X36"	STD. 36"X36"	STD. 24"X30"	STD. 24"X30"	OPERATIONS AND SHALL BE PE EXIST. THEY SHALL REMAIN IN	ROPERLY MAINTAINED DURING THE TIME SUCH CONDITIONS PLACE ONLY AS LONG AS NEEDED AND REMOVED THEREAFTER.
EXPRESSWAY 36"X36" SPECIAL 48"X48"	EXPWY. 48"X48"X48" EWY 60"X60"X60"	FWY. 48"X60"	FWY. 48"X48"	FWY. 48"X48"	EXPWY. 36"X48" FWY. 48"X60"	EXPWY. 36"X48" FWY. 48"X60"	3. EXISTING SIGNS AND CONSTRUC	CTION SIGNS SHALL BE KEPT IN PROPER POSITION, AND BE
R5-1	RII-2	RII-3A	RII-4	W2I-5a	WI-I	WI-2	- SHALL BE REMOVED. SIGNS TH DURING CONSTRUCTION SHALL	AT ARE DAMAGED, DEFACED, OR THAT ACCUMULATE DIRT BE CLEANED, REPAIRED, OR REPLACED.
				$\wedge$			• 4. SIGNS ARE USUALLY MOUNTED	ON A SINGLE POST. ALTHOUGH THOSE WIDER THAN 36"
DO NOT		(ROAD CLOSED)	(ROAD CLOSED)	RIGHT			OR LARGER THAN IO SO.FT.S BARRICADE.	HALL BE MOUNTED ON TWO POSTS OR ABOVE A TYPE III
	I RUAD			SHOULDER			• 5. SIGN POSTS DIRECT BURIED IN WOOD POSTS, CHANNEL POSTS	SOIL SHALL BE 2 LB. MINIMUM CHANNEL POST OR 4"×4" S SHALL BE PAINTED GREEN. WOOD POSTS SHALL BE PAINTED
ENTER		LOCAL TRAFFIC ONLY	THRU TRAFFIC	CLOSED			WHITE. ALL POSTS SHALL BE N REPAIRED AS NEEDED FOR THE	EATLY CONSTRUCTED, AND SHALL BE REPLUMBED, CLEANED, OR DURATION OF THE JOB. THERE SHALL NOT BE MORE THAN
				$\sim$			2 POSTS IN A 7' PATH FOR WO SHALL BE IN ACCORDANCE WIT	00D OR CHANNEL POSTS. ANY CHANNEL POST SPLICE H STANDARD DRAWING TC-3.
STD. 30"X30" EXPWY. 36"X36"	48"X30"	60"X30"	60"X30"	STD. 36"X36" FWY. 48"X48"	STD. 36"X36"	STD. 36"X36" FWY. 49"X49"	6. POST MOUNTED SIGNS IN RURA	AL AREAS SHALL BE CONSTRUCTED WITH THE NEAR EDGE OF
SPECIAL 48"X48"						40 ×40	BARRICADE MOUNTED SIGNS SH	ALL BE MOUNTED A MINIMUM OF 2 FEET FROM THE PAVEMENT
WI-3	WI-4	WI-6	WI-8	W3-I	W3-2	W4-2	7. ALL POST AND BARRICADE MOL A MINIMUM DISTANCE OF 7' FRO	JNTED SIGNS MOUNTED IN URBAN AREAS SHALL BE MOUNTED OM THE ROTTOM OF THE SIGN TO THE ROADWAY SURFACE.
							ALL POST AND BARRICADE MOL A MINIMUM DISTANCE OF 7' FRO	INTED SIGNS MOUNTED IN RURAL AREAS SHALL BE MOUNTED OM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE,
							EXCEPT A MINIMUM OF 6' SHAL WARNING SIGN. TEMPORARY SIG	L BE USED WHEN MOUNTING AN ADVISORY SIGN BELOW A NS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR
					$ \setminus \nabla /$		INTERMEDIATE TERM STATIONAR SHALL BE 5'. RETROREFLECTIV	RY WORK CONDITIONS. THE SIGNS MINIMUM MOUNTING HEIGHT E DEVICES SHALL BE USED. TEMPORARY SIGNS MAY BE
			STD. 18"X24"	$\overline{}$			CONDITIONS. THEY SHALL BE N	RTS FOR SHORT-TERM, SHORT DURATION, AND MOBILE 10 LESS THAN ONE (1) FOOT ABOVE THE TRAVELED WAY.
		STD. 48"X24" SPECIAL 60"X30"	SPECIAL 24"X30" EXPWY. 30"X36"	STD. 36"X36"	STD. 36"X36"	STD. 36"X36"	NECESSITATE THE USE OF POR PADS CONCRETE OR ROCK BAL	TABLE DE DIRECT BURIED IN SUIL, UNLESS CONDITIONS TABLE SIGNS, OR AS APPROVED BY THE ENGINEER. CONCRETE
STD. 48"X48"	STD. 48"X48"		FWY. 36"X48"	SPECIAL 48"X48"	SPECIAL 48"X48"	FWT. 48"X48"	WITH PORTABLE SIGN SUPPORT	
W5-I	W6-3	W8-7	W9-2	WI3-I	W20-I	W20-2	W20-3	PADDLES, FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.
				$\langle \rangle / \rangle / \rangle$				9. MOST OF THE SIGNS SHOWN ARE ORIENTED TO THE
ROAD		LOOSE	LANE ENDS		ROAD	DETOUR	ROAD	USE OF MIRROR IMAGES OF THESE SIGNS WHERE THE REVERSE ORIENTATION MIGHT RETTER CONVEY TO
NARROWS		GRAVEL	MERGE			XXXXX /		MOTORISTS THE PROPER DIRECTION OF MOVEMENT.
				M.P.H.				IO. R55-ISIGNS SHALL BE PLACED AT LEAST ISOU BUT NOT MORE THAN IMILE IN ADVANCE OF THE WORK ZONE. IF A SPEED LIMIT REDUCTION IS IN FEFECT.
STD. 36"X36"			STD. 36"X36"				, v	THE SIGN SHALL BE PLACED A MINIMUM OF 500' IN ADVANCE OF THE "REDUCED SPEED AHEAD" SIGN.
SPECIAL 48"X48"	EXPWY. 36"X36" SPECIAL 48"X48"	EXPWY. 36"X36" FWY. 48"X48"	FWY. 48"X48"	STD. 24"X24"	STD. 48"X48"	STD. 48"X48"	STD.48"X48"	• NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND
W20-4	W20-5	W20-7a	W2I-2	W2I-5	W24-I	WI-4b	R56-I	VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF MANUAL FOR
W20-4				W21-5	$\wedge$			ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED, COMPLIANCE WITH THE
ONE LANE	RICHT I ANE		FRESH					REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) IS REQUIRED FOR
							NO	II-07-19 REVISED FOR MASH
	XXXX	₩F 500		Workk			EXIT	4-15-11 DELETED RSP-1 & ADDED W21-50 9-2-15 REVISED REDUCED SPEED LIMIT AHEAD SIGNS REVISED ROAD WORK NEXT XX MILES
		¹⁰ [FEET] ¹⁰ ² 24"	~					12-15-11 REVISED W24-1 11-17-10 DELETED W8-9g & ADDED W8-9
STD. 48"X48"	STD. 48"X48"	STD. 36"X36"	STD. 30"X30" SPECIAL 36"X36"	STD. 30"X30" SPECIAL 36"X36"	STD. 36"X36"	STD. 48"X48"	STD. 18"X18"	10-15-09 ADDED REFERENCE TO MASH & ADDED SIGN W24-1 4-17-08 REVISED SIGN DESIGNATIONS
		FWY. 48"X48"						II-18-04 REVISED NOTES 10-9-03 REVISED NOTE I
W8-II	W8-9		G20-2	OM-3L OM-3R	M4-9	M4-I0	R55-I	II-16-0I REVISED NOTE 7 9-28-00 REVISED NOTE
				YELLOW			FINES DOUBLE	#-18-98         ADDED NOTE           6-26-97         REVISED NOTE 5
	LOW		FND					4-03-97 REVISED NOTE 5 10-18-96 ADDED CONTROLLED ACCESS HWY.SIGN & TO NOTE 7
	SHOULDER					DETUUR		10-12-95 ADDED R55-1 6-8-95 REVISED TO CORRECT SIGN ILLUSTRATIONS 6-8-95
		[[NEXT XX MILES]		BLACK≁			WHEN WORKERS	2-2-95 REVISED PER PART VI, MUTCD SEPT. 3, 1993 8-15-91 DRAWN AND PLACED IN USE
	ř				STD. 30"X24"		ARE PRESENT	DATE   REVISION FILMED ARKANSAS STATE HIGHWAY COMMISSION
STD. 36"X36" FWY. 48"X48"	STD. 36"X36"	60″X24″	48"X24"	I2"X36"	SPECIAL 48"X36" SPECIAL 60"X48"	48″XI8″	36″X60″	STANDARD TRAFFIC CONTROLS
	40 .40						• USE 6" C LETTERS	
							** USE 4" D LETTERS	

MILI	1/2	FT	500
MILE	3/4	FT	1000
MILE	1	FT	1500 FT
HEAD	4		









CH TO BE IN PLACE S COMPLETELY STABILIZED	D.	
FINAL PHASE EMI PHASE 2 EMBANKI PHASE 1 EMBANKM	BANKMENT MENT IENT	
CONTROL DEVICE	ES	
D, AND MULCHED AS TABILIZED IN ALLY.		
INS, SILT FENCES,		
SEEDING. CONSTRUCTION THAN 21 DAYS. Y SEEDING. CONSTRUCTION THAN 21 DAYS. MPORARY SEEDING. TIL ENTIRE		
	ARKANSAS STAT	E HIGHWAY COMMISSION
	TEMPOR CONTR	ARY EROSION OL DEVICES
6-2-94 FILMED	STANDARD	DRAWING TEC-3

