LAKE CATHERINE 36 STATE PARK 171 .<sup>39(END)</sup> ROCKPO<u>RT</u> **PROJECT**  $(6)_{82}$ LOCATION -0akMALVERN <sup>)</sup>67<sup>(</sup> VICINITY 'MAP

"A FULLY CONTROLLED ACCESS FACILITY"

ARKANSAS DEPARTMENT OF TRANSPORTATION CONSTRUCTION PLANS FOR STATE HIGHWAY

# SOCIAL HILL REST AREA -OUACHITA RIVER (S)

HOT SPRING COUNTY **ROUTE I-30 SECTION 21** JOB 061760 FED. AID PROJ. NHPP-30-2(274) DATE REVISED STATE 13 6 ARK. 061760 1 SOCIAL HILL REST AREA - OUACHITA RIVER (S)



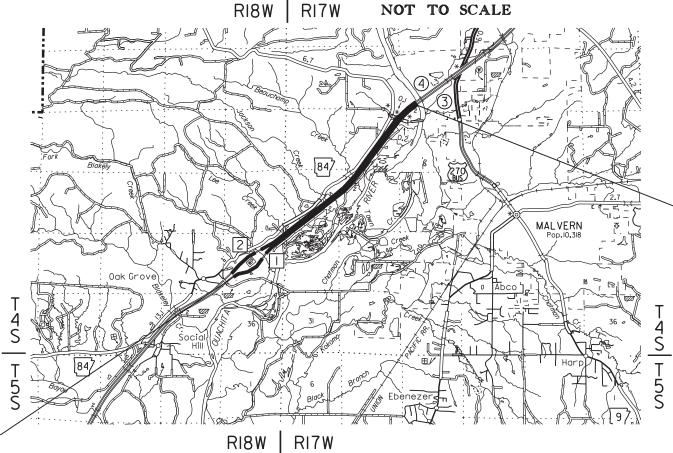
ARK. HWY. DIST. NO. 6

# EXCEPTIONS TO JOB NO. 061760

- LOG MILE 93.455 APPROACH SLAB END 280' EXCEPTION LENGTH 207' BRIDGE NO. B5027 40' CLEAR ROADWAY LOG MILE 93.508 APPROACH SLAB END
- LOG MILE 93.461 APPROACH SLAB END 270' EXCEPTION LENGTH 197' BRIDGE NO. A5027 40' CLEAR ROADWAY LOG MILE 93.512 APPROACH SLAB END

# BRIDGE DATA (FOR ANALYSIS ONLY)

- LOG MILE 97.037 BR. END 712' BRIDGE NO. B3424 40' CLEAR ROADWAY LOG MILE 97.172 BR. END
- LOG MILE 97.037 BR. END 712' BRIDGE NO. A3424 40' CLEAR ROADWAY LOG MILE 97,172 BR. END



LOG MILE 92.872 BEGIN JOB 061760

#### PROJECT COORDINATES

	11105201 0	OOND HANTED	
	BEGIN	MID-POINT	END
LATITUDE	N 34°20′57"	N 34°22′01"	N 34°23′21"
LONGITUDE	W 92°53′38"	W 92°51′54"	W 92°50′27"
LOG MILE	92.872	94.952	97.031

PROJECT LENGTH CALCULATED ALONG C.L. CONSTRUCTION GROSS LENGTH OF PROJECT

21959.52 FEET OR 21684.52 0.00 21684.52 ROADWAY BRIDGES PROJECT 0.000



LOG MILE 97.031 END JOB 061760



Digitally signed by Michael L. Foster Date: 2023.03.31 08:29:04 -05'00'

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	J0B N0.	SHEET NO.	TOTAL SHEETS
05/12/2023		6	ARK.	061760	2	13
05/19/2023		INDI	EX OF S	HEETS & STAND	ARD DRA	WINGS

ARKANSAS

REGISTERED

PROFESSIONAL

ENGINEER

No. 19605

No. 19605

Digitally signed by Thomas N.
Taegtmeyer
Date: 2023.05.19

# INDEX OF SHEETS

SHEET NO. TITLE

1 TITLE SHEET
2 INDEX OF SHEETS AND STANDARD DRAWINGS
3 GOVERNING SPECIFICATIONS AND GENERAL NOTES
4 TYPICAL SECTIONS OF IMPROVEMENT
5 SPECIAL DETAILS
6 9 MAINTENANCE OF TRAFFIC DETAILS
10 PERMANENT PAVEMENT MARKING DETAILS
11 · 12 QUANTITIES
13 SUMMARY OF QUANTITIES AND REVISIONS

# ROADWAY STANDARD DRAWINGS

DRWG.NO.	TITLE	DATE
PM-1 PA'	VEMENT MARKING DETAILS	02-27-20
PM-2 PEI	RMANENT PAVEMENT MARKING ON ACCESS CONTROLLED ROADWAYS	05-14-20
PU-1 DE	TAILS OF PIPE UNDERDRAIN	12-08-16
TC-1STA	ANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	11-07-19
TC-2 STA	ANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	05-20-21
TC-3STA	ANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	08-12-21

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	FED.RD. DIST.NO. STATE JOB NO.		SHEET NO.	TOTAL SHEETS	
05/19/2023		6	ARK.	061760	3	13	
		GOVER	NING SPE	CIFICATIONS AND	GENERA	AL NOTES	

# ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 19605 🥳

Digitally signed by Thomas N Taegtmeyer Date: 2023.05.19

#### **GOVERNING SPECIFICATIONS**

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

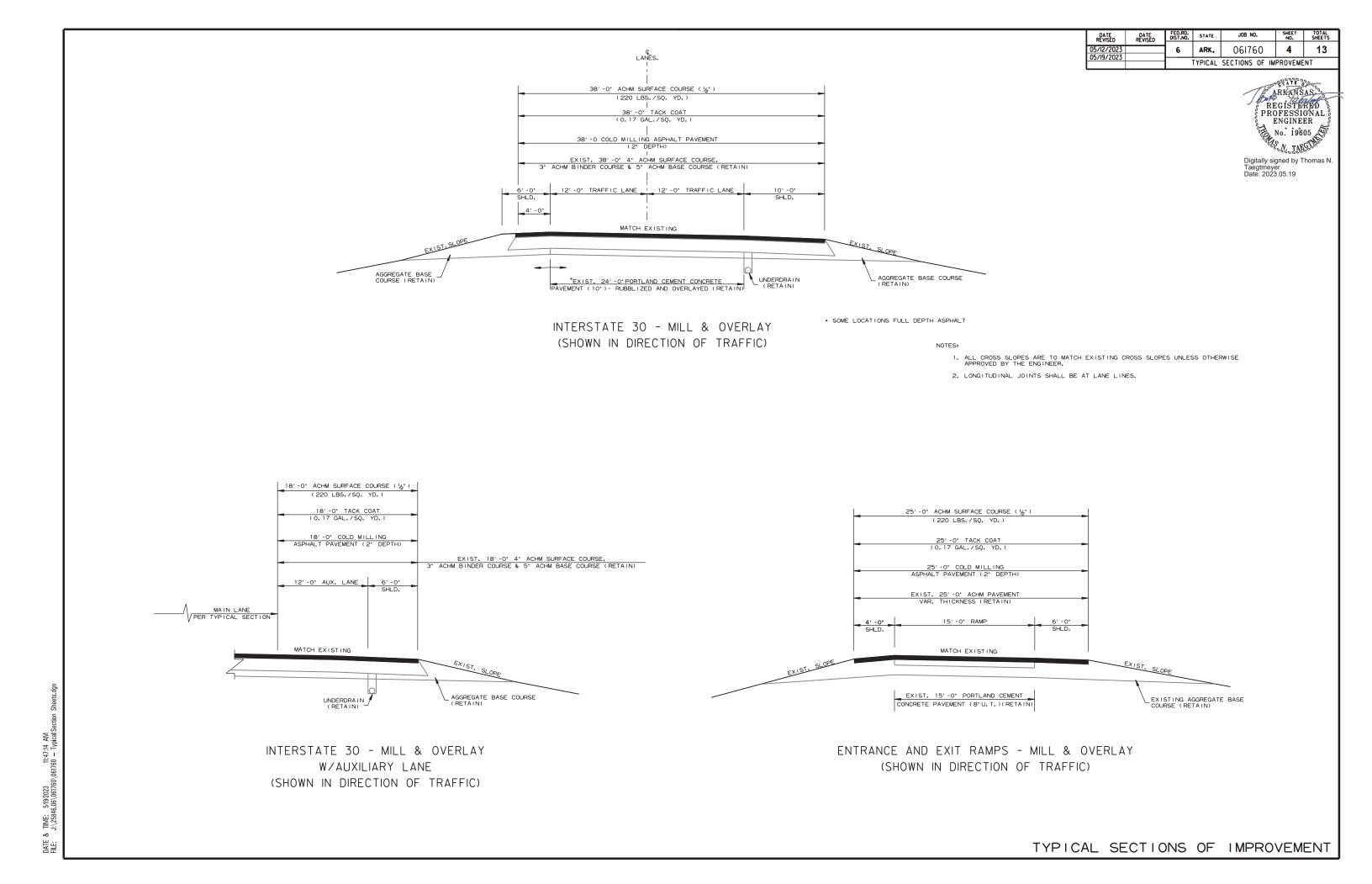
NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPFORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1273	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273	SUPPLEMENT - WAGE RATE DETERMINATION
100-3	CONTRACTOR'S LICENSE
100-4	DEPARTMENT NAME CHANGE
102-2	ISSUANCE OF PROPCSALS
105-4	MAINTENANCE DURING CONSTRUCTION
107-2	RESTRAINING CONDITIONS
108-1	LIQUIDATED DAMAGES
108-2	WORK ALLOWED PRIOR TO ISSUANCE OF WORK ORDER
306-1	QUALITY CONTROL AND ACCEPTANCE
400-1	TACK COATS
400-4	DESIGN AND QUALITY CONTROL OF ASPHALT MIXTURES
400-5	PERCENT AIR VOIDS FOR ACHM MIX DESIGNS
400-6	LIQUID ANTI-STRIP ADDITIVE
	TRACKLESS TACK
404-3	DESIGN OF ASPHALTMIXTURES
410.1	CONSTRUCTION DECILIDEMENTS AND ACCEPTANCE OF ASSULA FOONODETE DI ANTIMIY COLIDSES.

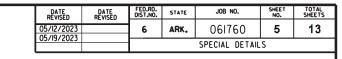
# CONSTRUCTION REQUIREMENTS AND ACCEPTANCE OF ASPHALT CONCRETE PLANT MIX COURSES DEVICES FOR MEASURING DENSITY FOR ROLLING PATTERNS 410-4 EVALUATION OF ACHII SUBLOT REPLACEMENT MATERIAL 600-2 \_ INCIDENTAL CONSTRUCTION LANE CLOSURE NOTIFICATION RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES \_ TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES (MASH) JOB 061760\_\_ ASSESSMENT OF WORKING DAYS - MAINTENANCE OF TRAFFIC JOB 061760 BIDDING REQUIREMENTS AND CONDITIONS JOB 061760\_\_ BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT JOB 061760 BUY AMERICA - CONSTRUCTION MATERIALS JOB 061760 CARGO PREFERENCE ACT REQUIREMENTS JOB 061760\_\_ COLD MILLING - MILL & INLAY JOB 061760 DESIGN AND QUALITY CONTROL OF ASPHALT MIXTURES JOB 061760 DISADVANTAGED BUSINESS ENTERPRISE BIDDER'S RESPONSIBILITIES JOB 061760\_\_ ENHANCED THERMOPLASTIC PAVEMENT MARKING JOB 061760 FLEXIBLE BEGINNING OF WORK - CALENDAR DAY CONTRACT JOB 061760 GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION JOB 061760 LIQUIDATED DAMAGES PROCEDURE FOR BID LETTINGS JOB 061760 LONGITUDINAL JOINT DENSITIES FOR ACHM SURFACE COURSES JOB 061760 MAINTENANCE OF TRAFFIC JOB 061760 MANDATORY ELECTRONIC CONTRACT JOB 061760 MANDATORY ELECTRONIC DOCUMENT SUBMITTAL JOB 061760 PARTNERING REQUIREMENTS JOB 061760 PERCENT WITHIN LIMITS JOB 061760 PRICE ADJUSTMENT FOR ASPHALT BINDER JOB 061760\_\_ PRICE ADJUSTMENT FOR FUEL JOB 061760 PROHIBITION OF CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT JOB 061760 RESTRICTIONS ON THE USE OF RECYCLED ASPHALT PAVEMENT MATERIAL JOB 061760\_\_ SEQUENCE OF CONSTRUCTION JOB 061760 SITE USE (A+C METHOD) - CALENDAR DAY CONTRACT JOB 061760\_ SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS JOB 061760\_\_ TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES JOB 061760 UNDERDRAIN FLUSHING AND INSPECTION

#### **GENERAL NOTES**

- 1. ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE PROVIDED
- 2. ALL LAND MONUMENTS LCCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
- 3. 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 INSURE THAT ALL TREES NOT TO BE REMOVED SHALL BE HARMED AS LITTLE AS POSSIBLE DURING THE CONSTRUCTION OPERATIONS.
- 4. THE SEQUENCE AS SHOWN ON THE MAINTENANCE OF TRAFFIC PLANS IS A GENERAL OUTLINE FOR THE CONSTRUCTION OF THIS PROJECT, AND IN NO WAY IS IT INTENDED TO COVER EVERY ITEM IN THE PROJECT. ITEMS NOT CRITICAL TO THE CONSTRUCTION SEQUENCE MAY BE CONSTRUCTED IN ANY STAGE AS APPROVED BY THE RESIDENT ENGINEER.
- 5. BRIDGE ANALYSIS SHALL BE REQUIRED PER SECTION 105.14 OF THE STANDARD SPECIFICATIONS.

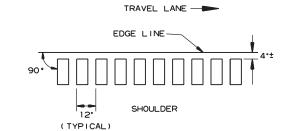
JOB 061760\_\_ UTILITY ADJUSTMENTS JOB 061760\_\_ VALUE ENGINEERING JOB 061760 WARM MIX ASPHALT JOB 061760 WATER POLLUTION CONTROL





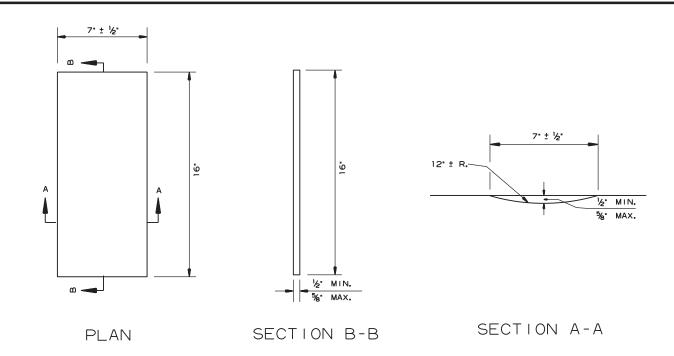
REGISTERED
PROFESSIONAL
ENGINEER
No. 19605
Digitally signed by Thomas N.

Digitally signed by Thomas N. Taegtmeyer Date: 2023.05.19

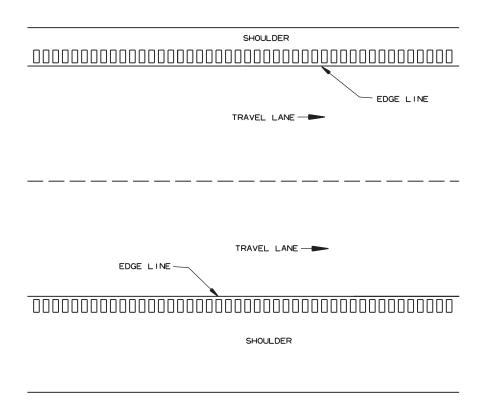


LOCATION PLAN OF RUMBLE STRIPS

LEFT OR RIGHT SHOULDER

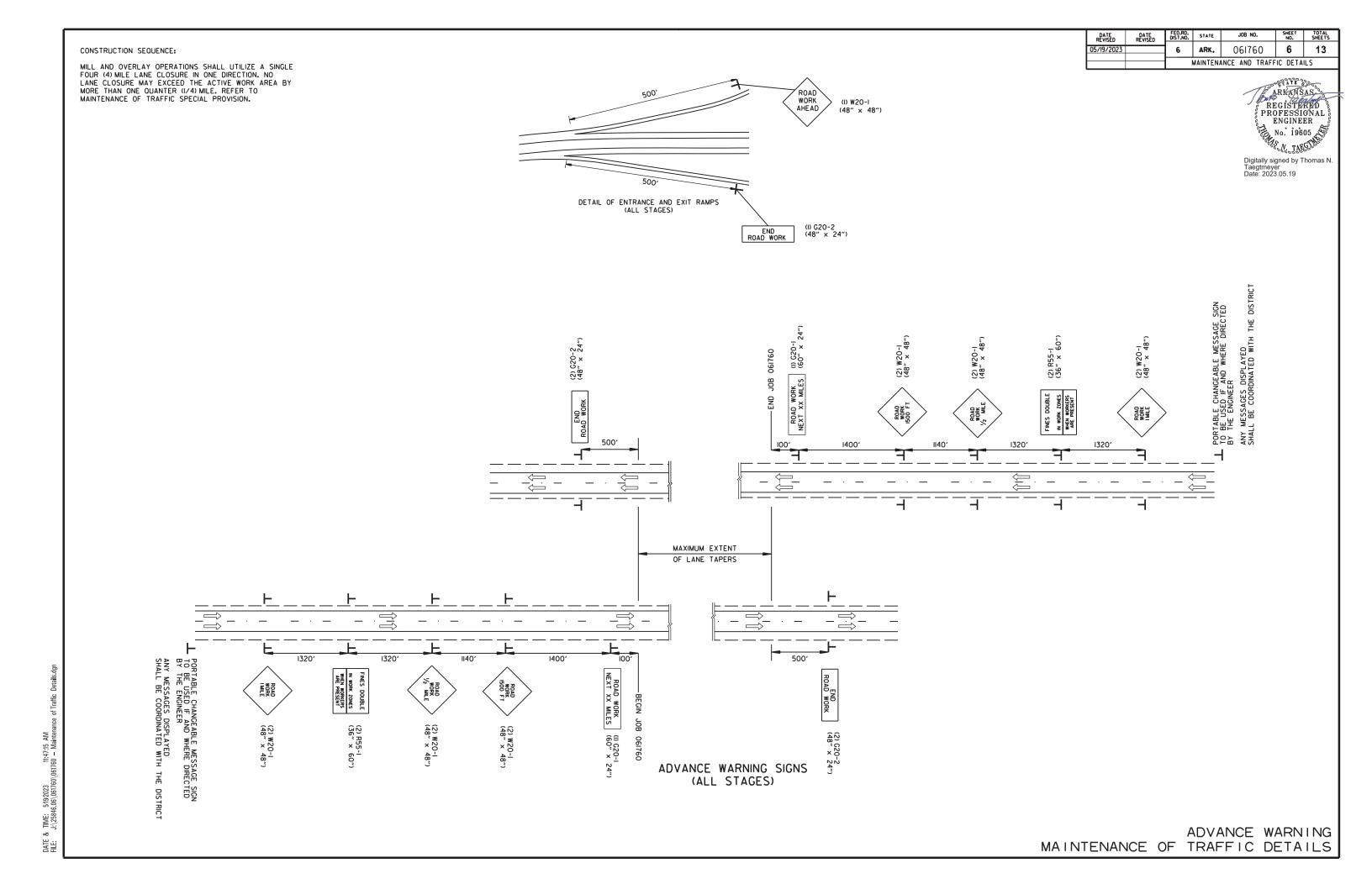


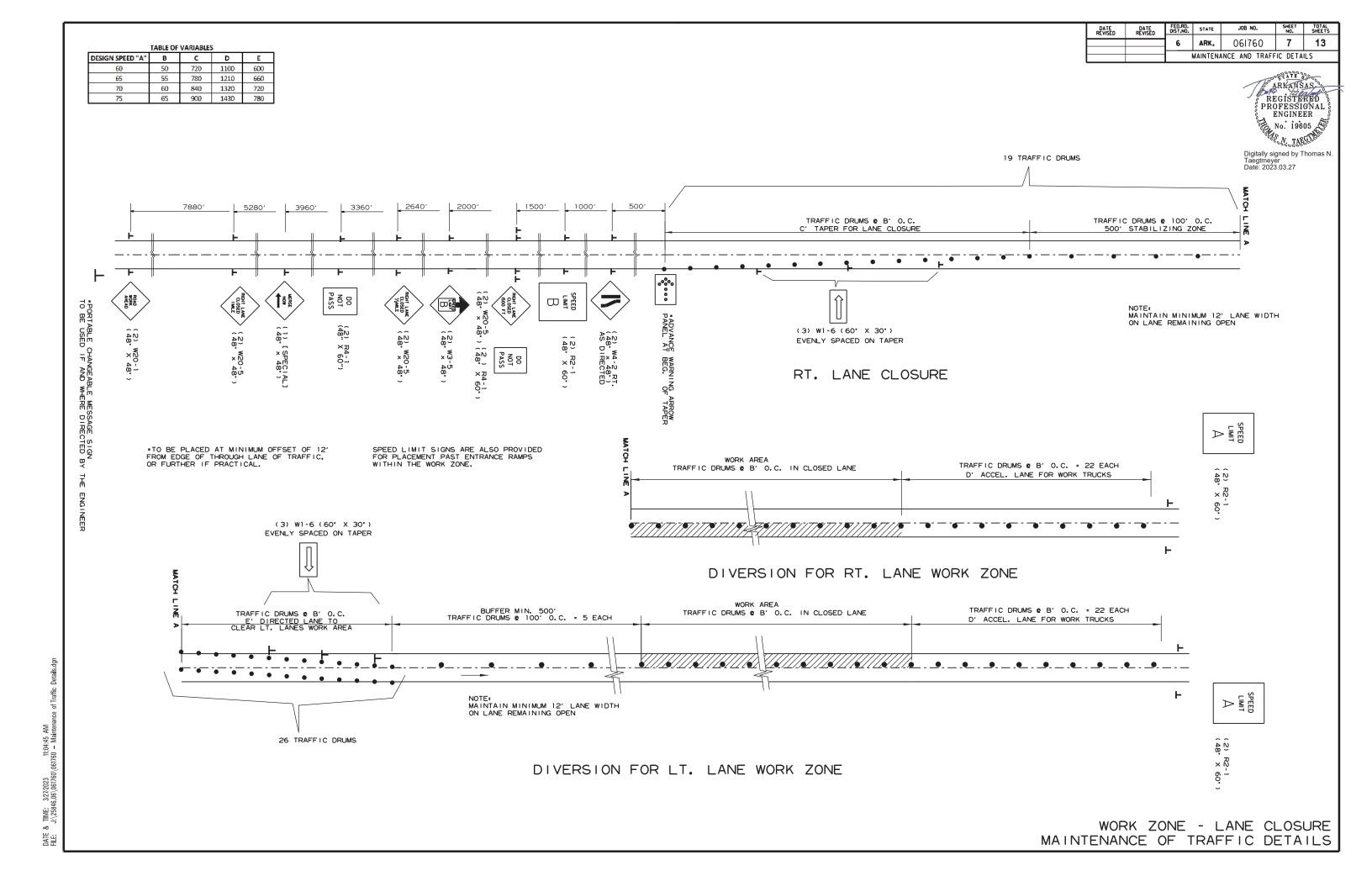
DETAILS OF RUMBLE STRIPS



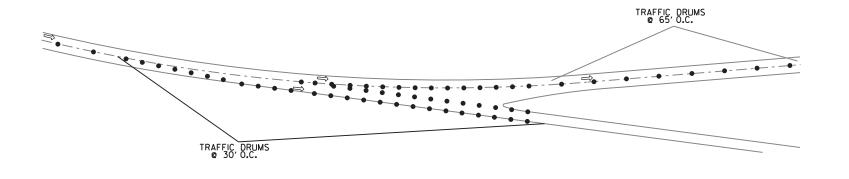
### NOTES:

- ALIGNMENT OF RUMBLE STRIPS SHALL GENERALLY BE STRAIGHT AND OFFSET APPROXIMATELY 4' FROM THE OUTER EDGE OF THE EDGE LINE. THIS OFFSET MAY BE ADJUSTED TO ACCOMMODATE VARIATIONS IN THE EDGE LINE.
- 2. THE ½ DEPTH SHALL GENERALLY APPLY FOR THE ENTIRE 16 LENGTH, SOME VARIATION TO SUIT SHOULDER SLOPE BREAKS MAY BE NECESSARY.
- 3. RUMBLE STRIPS SHALL NOT BE INSTALLED ON BRIDGE DECKS, APPROACH SLABS, OR ACROSS TRANSVERSE JOINTS OF CONCRETE SHOULDERS.



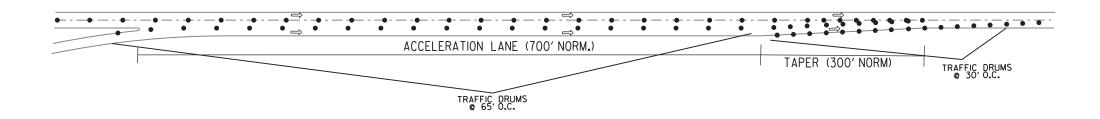


DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO₊	JOB NO. SHEET NO.	
		6	ARK.	061760	8	13
			MAINTENA	NCE AND TRAFF	IC DETA	ILS

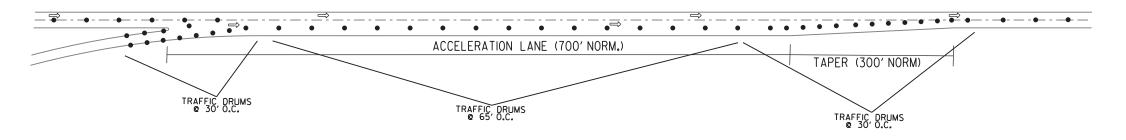




EXIT RAMP - TYPICAL TRAFFIC DRUM LAYOUT OUTSIDE LANE CLOSURE



ENTRANCE RAMP - TYPICAL TRAFFIC DRUM LAYOUT OUTSIDE LANE CLOSURE

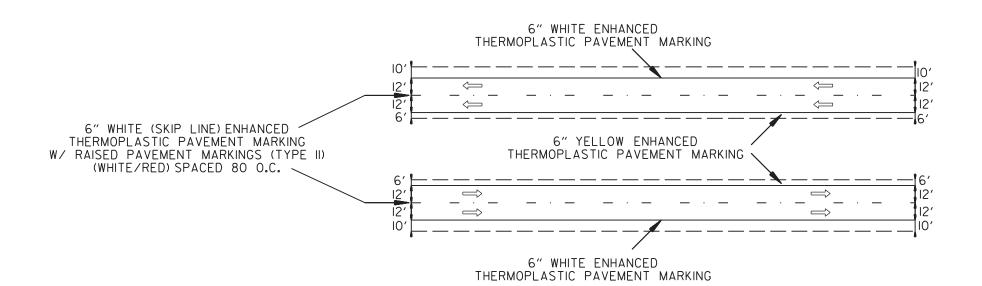


ENTRANCE RAMP - TYPICAL TRAFFIC DRUM LAYOUT ACCELERATION LANE CLOSURE

		DATE REVISED	DATE REVISED	FED.RD. DIST.NO. STATE			TOTAL SHEETS
				6 ARK	061760 NANCE AND TR		<b>13</b>
	E LANES				on F The state of	ARKANSAI REGISTER PROFESSION ENGINEER No. 19605 W. TAKE y signed by Thomeyer 2023.03.27	NAL SERVICE
	EXIST. 6'-0" SHOULDER EXISTING 12'-0" LANE EXISTING 12'-0" LANE EXISTING 10'-0" SHOULDER						
	TRAFFIC DRUM 65° O.CTYPICAL						
	LOCATION OF TRAFFIC DRUMS FOR MAINTENANCE OF TRAFFIC OUTSIDE LANE CLOSED (SHOWN IN DIRECTION OF TRAFFIC)		-				
	E LANES						
	EXIST. 6'-0" SHOULDER EXISTING 12'-0" LANE EXISTING 12'-0" LANE EXISTING 10'-0" SHOULDER						
	TRAFFIC DRUM 65' O.CTYPICAL						
and the control of th	LOCATION OF TRAFFIC DRUMS FOR MAINTENANCE OF TRAFFIC INSIDE LANE CLOSED (SHOWN IN DIRECTION OF TRAFFIC)		_				
- Mallieri							
100							

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	J0B N0.	SHEET NO.	TOTAL SHEETS
		6	ARK.	061760	10	13
		PEI	RMANENT	PAVEMENT MAR	KING DE	TAILS

REGISTIAND
PROFESSIONAL
ENGINEER
No. 19605
Digitally signed by Thomas N.
Taegtmeyer
Date: 2023.03.27



NOTE: SEE PM-IAND PM-2 FOR ADDITIONAL STRIPING DETAILS.

FINAL STRIPING DETAIL

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO₊	SHEET NO.	TOTAL SHEETS
05/19/2023		6	ARK.	061760	11	13

REGISTERED
PROFESSIONAL
ENGINEER
No. 19605

Digitally signed by Thomas N. Taegtmeyer Date: 2023.05.19

# ADVANCE WARNING SIGNS AND DEVICES

SIGN NUMBER	DESCRIPTION	SIGN SIZE	TOTAL SIGN	IS REQUIRED	TRAFFIC DRUMS	ADVANCED WARNING ARROW PANEL	PORTABLE CHANGEABLE MESSAGE SIGN
			NO.	SQ.FT.	EACH	DAY	WEEK
W20-1	ROAD WORK 1500 FT.	48"x48"	4	64.00			
W20-1	ROAD WORK 1/2 MILE	48"x48"	4	64.00			
W20-1	ROAD WORK 1 MILE	48"x48"	4	64.00			
W20-1	ROAD WORK AHEAD	48"x48"	6	96.00			
W20-5	RIGHT LANE CLOSED 1500'	48"x48"	2	32.00			
W20-5	RIGHT LANE CLOSED 1/2 MILE	48"x48"	2	32.00			
W20-5	RIGHT LANE CLOSED 1 MILE	48"x48"	2	32.00			
G20-2	END ROAD WORK	48"x24"	8	64.00			
G20-1	ROAD WORK NEXT xx MILES	60"x24"	2	20.00			
W1-6	LARGE ARROW	60"x30"	6	75.00			
W3-5	REDUCED SPEED LIMIT AHEAD	48"x48"	2	32.00			
R2-1	SPEED LIMIT	48"x60"	8	160.00			
R4-1	DO NOT PASS	48"x60"	4	80.00			
W4-2	RIGHT LAND ENDS	48"x48"	2	32.00			
R55-1	FINES DOUBLE IN WORK ZONES WHEN WORKERS ARE PRESENT	36"x60"	4	60.00			
SPECIAL	MERGE NOW ARROW	48"x48"	1	16.00			
	TRAFFIC DRUMS		474		474		
	ADVANCE WARNING ARROW PANEL		1			30	
	PORTABLE CHANGEABLE MESSAGE SIGN		1				7
TOTALS:			<u> </u>	923.00	474	30	7

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

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

## CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

DESCRIPTION	ENTIRE JOB	CONSTRUCTION PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS	ENHANCED THERMOPLASTIC PAVEMENT MARKING			
	MARKINGS		TYPE II		5"	12"	
			(WHITE/RED)	WHITE	YELLOW	WHITE	
	LIN. FT EACH	LIN. FT.	EACH		LIN. FT.		
CONSTRUCTION PAVEMENT MARKINGS	112248	112248					
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)	1055		1055				
ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (6")	60100			60100			
ENHANCED THERMOPLASTIC PAVEMENT MARKING YELLOW (6")	47971				47971		
ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (12")	4177					4177	
TOTALS:		112248	1055	60100	47971	4177	

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

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO₊	SHEET NO.	TOTAL SHEETS
05/12/2023		6	ARK.	061760	12	13
05/19/2023						

## FLUSHING UNDERDRAIN

LOG MILE         LOG MILE         LOCATIONS         FLUSHING UNDERDRAINS         VIDEO INSPECTION           92.872         93.455         R.M.L.         3663         3663           93.508         97.031         R.M.L.         21976         21976           92.872         93.461         L.M.L.         3695         3695           93.512         97.031         L.M.L.         21955         21955           ENTIRE         PROJECT         TO BE USED IF AND WHERE DIRECTED         2600           BY THE ENGINEER         BY THE ENGINEER         2600			I EGGIIII G GIADEIGDIGA		
92.872     93.455     R.M.L.     3663     3663       93.508     97.031     R.M.L.     21976     21976       92.872     93.461     L.M.L.     3695     3695       93.512     97.031     L.M.L.     21955     21955       ENTIRE     PROJECT     TO BE USED IF AND WHERE DIRECTED     2600       BY THE ENGINEER     2600	LOG MILE	LOG MILE	LOCATIONS		
93.508 97.031 R.M.L. 21976 21976  92.872 93.461 L.M.L. 3695 3695  93.512 97.031 L.M.L. 21955 21955  ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED 2600  BY THE ENGINEER				LIN.	FT.
92.872 93.461 L.M.L. 3695 3695 93.512 97.031 L.M.L. 21955 21955 ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED 2600 BY THE ENGINEER	92.872	93.455	R.M.L.	3663	3663
93.512 97.031 L.M.L. 21955 21955  ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED 2600  BY THE ENGINEER	93.508	97.031	R.M.L.	21976	21976
93.512 97.031 L.M.L. 21955 21955  ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED 2600  BY THE ENGINEER					
ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED 2600 BY THE ENGINEER	92.872	93.461	L.M.L.	3695	3695
BY THE ENGINEER	93.512	97.031	L.M.L.	21955	21955
BY THE ENGINEER					
BY THE ENGINEER					
	ENTIRE	PROJECT	TO BE USED IF AND WHERE DIRECTED		2600
TOTAL 0			BY THE ENGINEER		
TOTALS: 51289 53889	TOTALS:			51289	53889

\* NOTE: QUANTITY ESTIMATED.

SEE SECTION 104.03 OF THE STD. SPECS.

# **RUMBLE STRIPS**

LOG MILE	LOG MILE	LOCATION	*RUMBLE STRIPS IN ASPHALT SHOULDERS LIN.FT.
92.853	93.455	R.M.L	6358
93.508	97.031	R.M.L	37202
92.853	93.461	L.M.L.	6420
93.512	97.031	L.M.L.	37160
TOTAL:			87140

\* QUANTITY ESTIMATED.

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

## ACHM PATCHING OF EXISTING ROADWAY

MOTHER TREE TREE TO THE TREE TREE TREE TREE TREE TREE TREE	,,,,,,
DESCRIPTION	TON
ENTIRE PROJECT - TO BE USED IF AND WHERE	250
DIRECTED BY THE ENGINEER	
TOTAL:	250

REGISTORED
PROFESSIONAL
ENGINEER
No. 19605
Digitally signed by Thomas N.
Taegtmeyer
Date: 2023.05.19

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

#### COLD MILLING ASPHALT PAVEMENT

LOG MILE	LOG MILE	LOCATION	AVG. WIDTH	TOTAL LENGTH	COLD MILLING ASPHALT PAVEMENT
			FEET	FEET	SQ. YD.
I-30 MAIN	N LANES				
92.853	93.455	R.M.L.	38.00	3178.56	13420.59
93.508	97.031	R.M.L.	38.00	18601.44	78539.41
92.853	93.461	L.M.L.	38.00	3210.24	13554.35
93.512	97.031	L.M.L.	38.00	18580.32	78450.24
	<u> </u>				
	LIARY LANES				
92.872	92.908	R.M.L. AUXILIARY LANE	VAR.	190.08	517.99
93.312	93.455	R.M.L. AUXILIARY LANE	VAR.	755.04	1242.28
96.354	96.442	R.M.L. AUXILIARY LANE	VAR.	464.64	764.15
96.861	97.031	R.M.L. AUXILIARY LANE	VAR.	897.60	799.53
92.872	92.914	L.M.L. AUXILIARY LANE	VAR.	221.76	822.65
93.210	93.300	L.M.L. AUXILIARY LANE	VAR.	475.20	1156.73
96.245	96.456	L.M.L. AUXILIARY LANE	VAR.	1114.08	914.08
96.905	96.991	L.M.L. AUXILIARY LANE	VAR.	454.08	521.56
I-30 RAME		1			
92.908	92.953	R.M.L. EXIT RAMP	25.00	231.12	642.00
93.193	93.312	R.M.L. ENTRANCE RAMP	25.00	483.40	1342.78
96.442	96.550	R.M.L. EXIT RAMP	25.00	624.41	1734.47
96.736	96.861	R.M.L. ENTRANCE RAMP	25.00	510.09	1416.92
92.914	92.934	L.M.L. ENTRANCE RAMP	25.00	204.00	566.67
93.191	93.210	L.M.L. EXIT RAMP	25.00	322.27	895.19
96.456	96.537	L.M.L. ENTRANCE RAMP	25.00	312.80	868.89
96.812	96.905	L.M.L. EXIT RAMP	25.00	502.49	1395.81
TOTAL:	<u> </u>				199566.29
		D MILLING STOCKELE LOC		INTERIOR ELIGINEEE	

NOTE: COORDINATE COLD MILLING STOCKPLE LOCATIONS WITH DISTRICT ENGINEER.
STOCKPILE LOCATIONS SHALL BE NO FURTHER THAN FIVE MILES FROM EACH SITE.
\*LOG MILE BASED ON MAIN LANES

#### BASE AND SURFACING

				DAGE	AND SUK	ACING					
		E LOCATION	LENGTH	TACK COAT			ACHM SURFACE COURSE (1/2")				
LOG MILE	LOG MILE		LENGTH	TOTAL WID.	SQ.YD.	GAL. / SQ. YD.	GALLONS	AVG. WID.	SQ.YD.	POUND /	PG 76-22
			FEET	FEET				FEET	1	SQ.YD.	TON
I-30 MAIN	LANES										•
92.853	93.455	R.M.L.	3178.56	38.00	13420.59	0.17	2281.50	38.00	13420.59	220.00	1476.26
93.508	97.031	R.M.L.	18601.44	38.00	78539.41	0.17	13351.70	38.00	78539.41	220.00	8639.34
92.853	93.461	L.M.L.	3210.24	38.00	13554.35	0.17	2304.24	38.00	13554.35	220.00	1490.98
93.512	97.031	L.M.L.	18580.32	38.00	78450.24	0.17	13336.54	38.00	78450.24	220.00	8629.53
	IARY LANES										
92.872	92.908	R.M.L. AUXILIARY LANE	190.08	VAR.	517.99	0.17	88.06	VAR.	517.99	220.00	56.98
93.312	93.455	R.M.L. AUXILIARY LANE	755.04	VAR.	1242.28	0.17	211.19	VAR.	1242.28	220.00	136.65
96.354	96.442	R.M.L. AUXILIARY LANE	464.64	VAR.	764.15	0.17	129.91	VAR.	764.15	220.00	84.06
90.801	97.031	R.M.L. AUXILIARY LANE	897.60	VAR.	799.53	0.17	135.92	VAR.	799.53	220.00	87.95
92.872	92.914	L.M.L. AUXILIARY LANE	221.76	VAR.	822.65	0.17	139.85	VAR.	822.65	220.00	90.49
93.210	93.300	L.M.L. AJXILIARY LANE	475.20	VAR.	1156.73	0.17	196.64	VAR.	1156.73	220.00	127.24
96.245	96.456	L.M.L. AJXILIARY LANE	1114.08	VAR.	914.08	0.17	155.39	VAR.	914.08	220.00	100.55
96.905	96.991	L.M.L. AUXILIARY LANE	454.08	VAR.	521.56	0.17	88.67	VAR.	521.56	220.00	57.37
I-30 RAME	00*										<u>i</u>
92.908	92.953	R.M.L. EXIT RAMP	231.12	25.00	642.00	0.17	109.14	25.00	642.00	220.00	70.62
93.193	93.312	R.M.L. ENTRANCE RAMP	483.40	25.00	1342.78	0.17	228.27	25.00	1342.78	220.00	147.71
96.442	96.550	R.M.L. EXIT RAMP	624.41	25.00	1734.47	0.17	294.86	25.00	1734.47	220.00	190.79
96.736	96.861	R.M.L. ENTRANCE RAMP	510.09	25.00	1416.92	0.17	240.88	25.00	1416.92	220.00	155.86
	50.507		010.00	20.00	1110.02	7.11	210.00	20.00	1110.02	220.00	100.00
92.914	92.934	L.M.L. ENTRANCE RAMP	204.00	25.00	566.67	0.17	96.33	25.00	566.67	220.00	62.33
93.191	93.210	L.M.L. EXIT RAMP	322.27	25.00	895.19	0.17	152.18	25.00	895.19	220.00	98.47
96.456	96.537	L.M.L. ENTRANCE RAMP	312.80	25.00	868.89	0.17	147.71	25.00	868.89	220.00	95.58
96.812	96.905	L.M.L. EXIT RAMP	502.49	25.00	1395.81	0.17	237.29	25.00	1395.81	220.00	153.54
TOTALS:					199566.29		33926.27		199566.29		21952.30

BASIS OF ESTIMATE:

ACHM SURFACE COURSE (1/2")......95.0% MIN. AGGR......5.0% ASPHALT BINDER

MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22

TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO \$\$-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES. \*LOG MILE BASED ON MAIN LANES

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
05/12/2023		6	ARK.	061760	13	13
05/19/2023		SU	MMARY (	OF QUANTITIES	AND REVI	SIONS

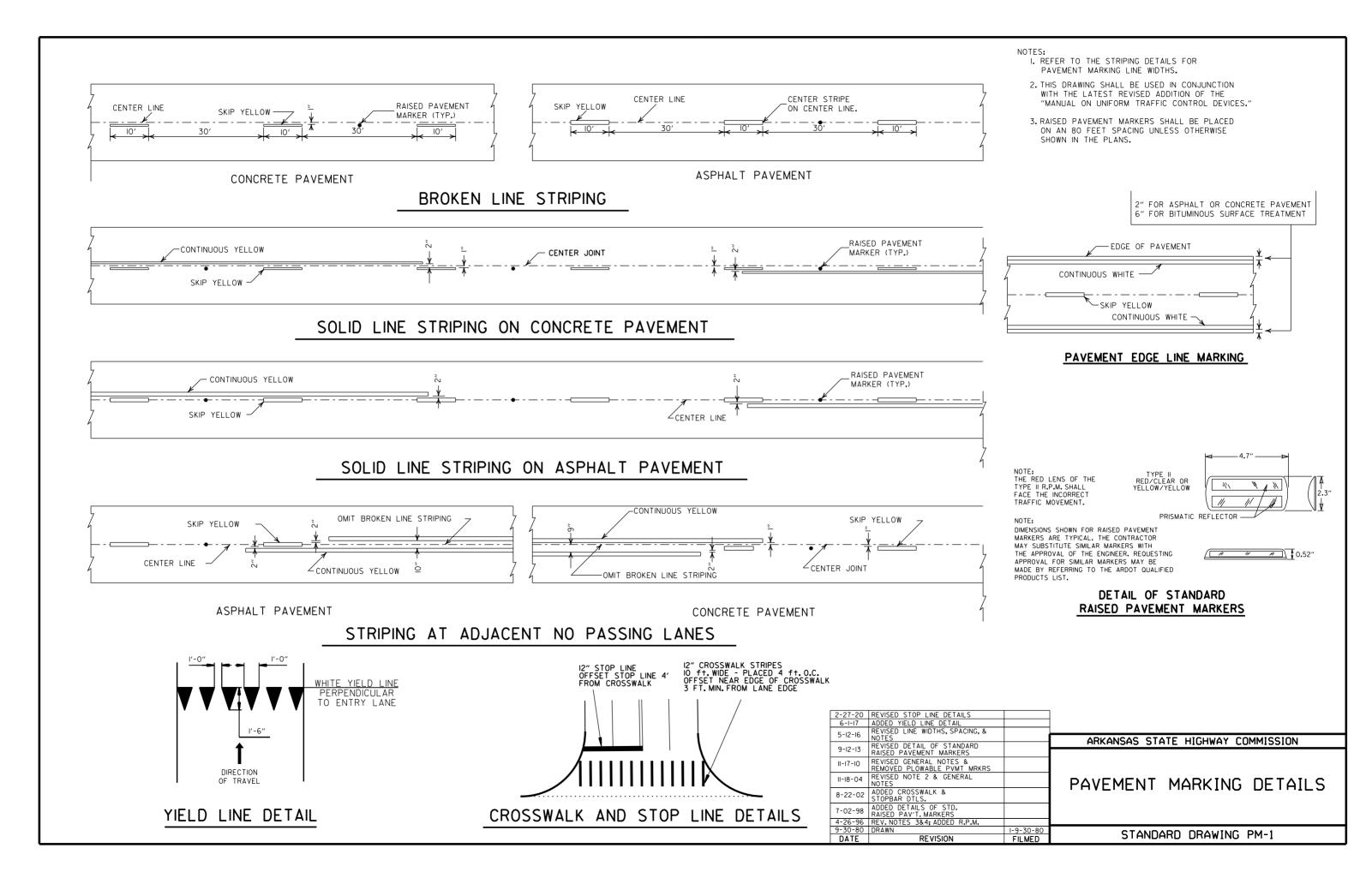
REGISTERED PROFESSIGNAL ENGINEER
No. 19605
Digitally signed by Thomas N. Taegtmeyer Date: 2023.05.31

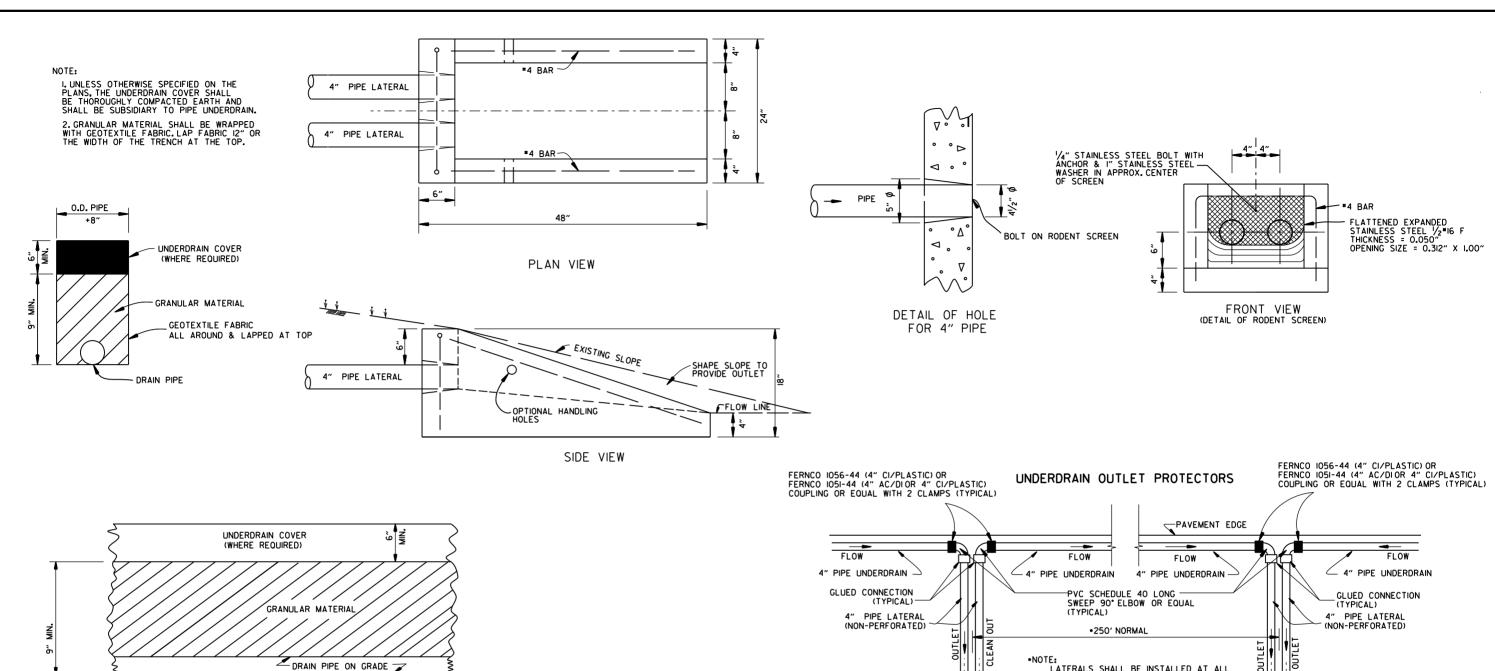
# SUMMARY OF QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
SS & 401	TACK COAT	33926	GAL.
SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")	20854	TON
SP, SS, & 407	ASPHALT BINDER (PG 76-22) IN ACHM SURFACE COURSE (1/2")	1098	TON
SP & 412	COLD MILLING ASPHALT PAVEMENT	199566	SQ. YD.
SP, SS, & 415	ACHM PATCHING OF EXISTING ROADWAY	250	TÓN
601	MOBILIZATION	1.00	LUMP SUM
SP, SS, & 603	MAINTENANCE OF TRAFFIC	1.00	LUMP SUM
SS & 604	SIGNS	923	SQ. FT.
SS & 604	TRAFFIC DRUMS	474	EACH
604	CONSTRUCTION PAVEMENT MARKINGS	112248	LIN. FT.
SS & 604	ADVANCE WARNING ARROW PANEL	30	DAY
SP, SS, & 604	PORTABLE CHANGEABLE MESSAGE SIGN	7	WEEK
SP, SS, & 611	UNDERDRAIN VIDEO INSPECTION	53889	LIN. FT.
SP	FLUSHING UNDERDRAIN	51289	LIN. FT.
642	RUMBLE STRIPS IN ASPHALT SHOULDERS	87140	LIN. FT.
SP	ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (6")	60100	LIN. FT.
SP	ENHANCED THERMOPLASTIC PAVEMENT MARKING YELLOW (6")	47971	LIN. FT.
SP	ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (12")	4177	LIN. FT.
721	RAISED PAVEMENT MARKERS (TYPE II)	1055	EACH

# REVISIONS

	<u>,                                      </u>	
DATE	REVISION	SHEET NUMBER
5/12/2023	TYPICAL SECTIONS WERE REVISED TO SHOW THE U.T.B.W.C. TO INCLUDE LANES AND SHOULDERS; A SPECIAL DETAIL SHEET FOR RUMBLE STRIPS WAS ADDED AND INDEX OF SHEETS REVISED; QUANTITIES WERE ADDED FOR "RUMBLE STRIPS IN ASPHALT SHOULDERS"; QUANTITIES WERE REVISED FOR "COLDMILLING ASPHALT PAVEMENT" AND "ULTRATHIN BONDED WEARING COURSE".	2, 4, 5A, 12, 13
5/19/2023	GOVERNING SPECIFICATIONS WERE REVISED TO ADD "CCLD MILLING - MILL & INLAY", "LONGITUDINAL JOINT DENSITIES FOR ACHM SURFACE COURSES", AND "PERCENT WITHIN LIMITS" SPECIAL PROVISIONS, REMOVED "COLD MILLING - COUNTY PROPERTY" AND "ULTRATHIN BONDED WEARING COURSE" SPECIAL PROVISION, REVISED "MAINTENANCE OF TRAFFIC" SPECIAL PROVISION; TYPICAL SECTIONS WERE REVISED TO REMOVE ULTRATHIN BONDED WEARING COURSE AND ADD COLD MILLING WITH ACHM SURFACE COURSE FOR MILL AND OVERLAY; SPCEIAL DETAIL SHEET FOR DEPTH TRANSITIONS WAS REMOVED AND INDEX OF SHEETS WAS REVISED; SEQUENCE OF CONSTRUCTION WAS REVISED ON MAINTENANCE OF TRAFFIC DETAILS; QUANTITIES WERE REVISED FOR "ADVANCED WARNING ARROW PANEL", "PORTABLE CHANGEABLE MESSAGE SIGN", "COLD MILLING ASPHALT PAVEMENT", "TACK COAT" AND "ACHM SURFACE COURSE"; QUANTITIES REMOVED FOR "ULTRATHIN BONDED WEARING COURSE".	2-6, 11-13





DETAILS OF PIPE UNDERDRAIN

#### NOTES FOR PIPE UNDERDRAINS

I. GEOTEXTILE FABRIC SHALL MEET THE REQUIREMENTS OF SECTION 625 FOR TYPE I. PAYMENT FOR GEOTEXTILE FABRIC AND GRANULAR FILTER MATERIAL SHALL BE INCLUDED IN THE PRICE BID PER LIN. FT. FOR "4" PIPE UNDERDRAINS" IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.

2.4" NON-PERFORATED SCHEDULE 40 PVC PIPE LATERALS WITH OUTLET PROTECTORS SHALL BE INSTALLED AS SHOWN HEREON, LATERALS WILL BE MEASURED AND PAID FOR AS "4" PIPE UNDERDRAINS." UNDERDRAIN OUTLET PROTECTORS WILL BE MEASURED AND PAID FOR BY THE UNIT IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.

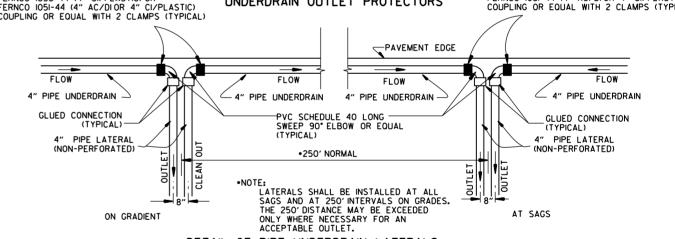
3. EXISTING 4" PIPE UNDERDRAINS MAY BE CONNECTED TO PROPOSED DROP INLETS OR EXTENDED WHERE DIRECTED BY THE ENGINEER. PAYMENT FOR CONNECTING TO DROP INLETS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR "4" PIPE UNDERDRAINS."

4. THE LOCATION OF ALL LATERALS SHALL BE MARKED WITH 4" X 12" PERMANENT PAVEMENT MARKING TAPE (TYPE III WHITE) AT THE OUTSIDE EDGE OF THE SHOULDER, PLACED TRANSVERSE TO TRAFFIC. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

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

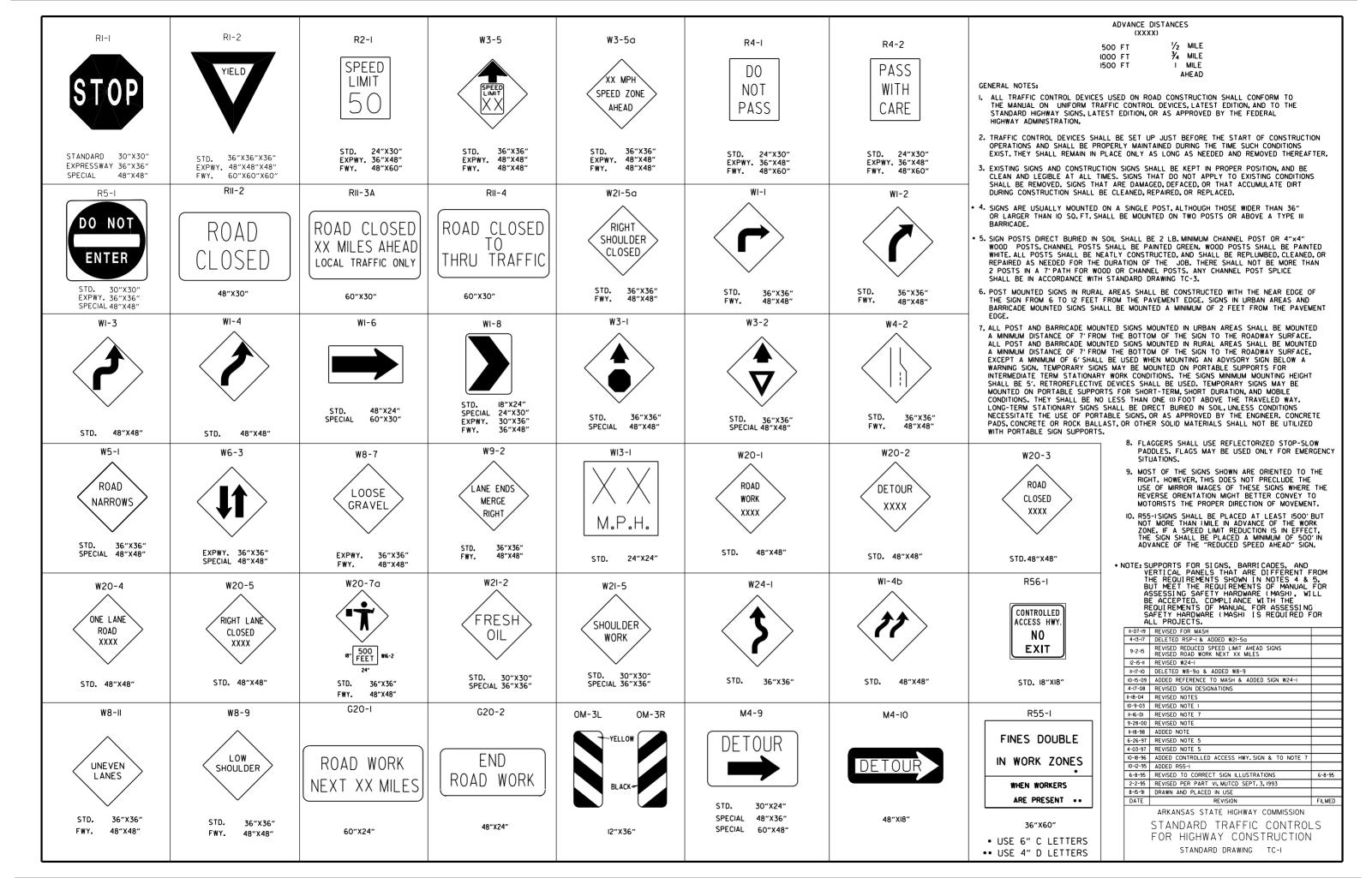
6. ANY EXISTING UNDERDRAINS THAT INTERFERE WITH INSTALLATION OF THE NEW UNDERDRAIN SYSTEM SHALL BE REMOVED AND DISPOSED OF AS DIRECTED BY THE ENGINEER, PAYMENT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS. EXISTING UNDERDRAIN OUTLET PROTECTORS SHALL BE REMOVED UNDER THE ITEM "REMOVAL AND DISPOSAL OF UNDERDRAIN OUTLET PROTECTORS."

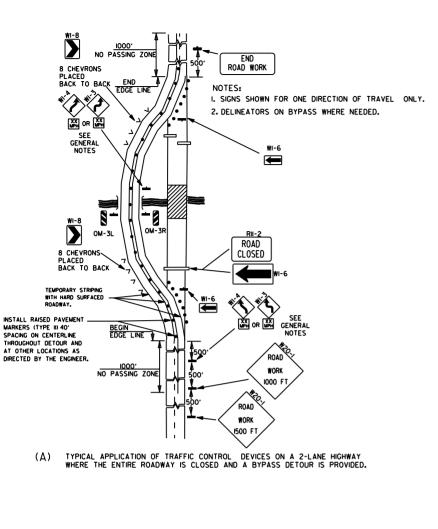
7. AT LOCATIONS WHERE A SINGLE LATERAL IS USED THE CONTRACTOR SHALL HAVE THE FOLLOWING OPTIONS: I, INSTALL OUTLET PROTECTOR AS SHOWN ON STANDARD DRAWING PU-I AND GROUT THE UNUSED HOLE OR 2. INSTALL AN OUTLET PROTECTOR WITH A SINGLE HOLE.

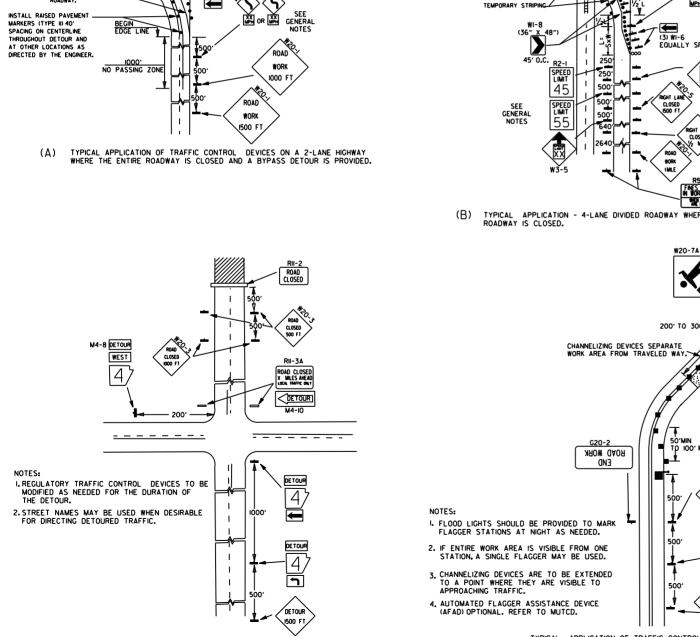


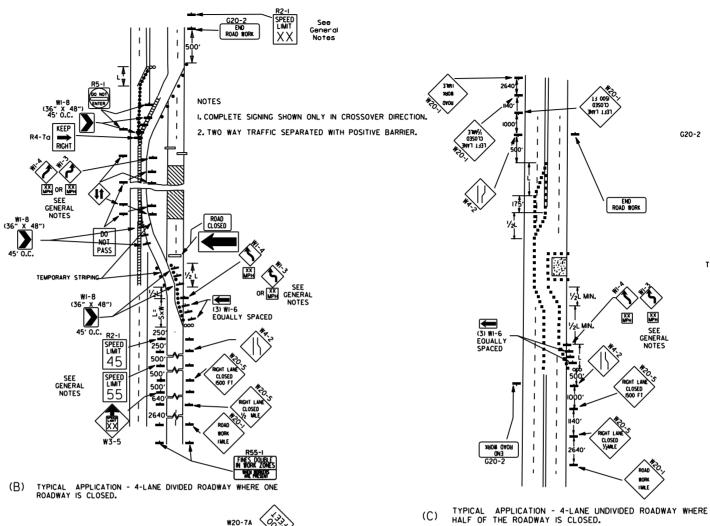
DETAIL OF PIPE UNDERDRAIN LATERALS WHEN PLACED ALONG PAVEMENT EDGE NOTE: PVC PIPE FOR LATERALS SHALL MEET THE REQUIREMENTS OF ASTM D 1785 (LATEST REVISION) FOR SCHEDULE 40 PIPE.

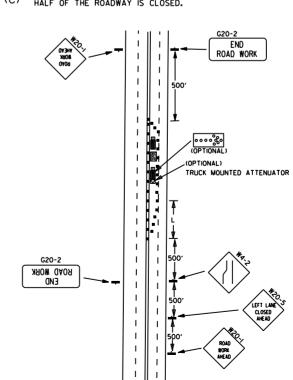
12-8-16	ADDED NOTES FOR PIPE UNDERDRAINS, REVISED RODENT SCREEN DETAIL AND NOTES, REMOVED NOTE IFOR GRANULAR MATERIAL, ADDED NOTE FOR GEOTEXTILE FABRIC		
4-10-03	REVISED NOTE 3		
1-12-00	REVISED DETAIL OF UNDERDRAIN LATERALS		
11-18-98	REVISED NOTE		
10-18-96	REVISED MIN. DEPTH & GEOTEXTILE FABRIC		
4-26-96	ADDED LATERAL NOTE; 51/2" TO 5"		
II-22-95	REVISED LATERALS		
7-20-95	REVISED LATERALS & ADDED NOTE		ADVANCAC CTATE HIGHWAY COMMICCION
II- 3-94	REVISED FOR DUAL LATERALS	II- 3-94	ARKANSAS STATE HIGHWAY COMMISSION
10- 1-92	SUBSTITUTED GEOTEXTILE	10- 1-92	
8-15-91	ADDED POLYEDTHYLENE PIPE	8-15-91	DETAIL C OF DIDE !!!!DEDDDA!!!
II- 8-90	DELETED ALTERNATE NOTE	II- 8-90	DETAILS OF PIPE UNDERDRAIN
1-25-90	ADDED 4" SNAP ADAPTER	1-25-90	
11-30-89	DEL. (SUBGRADE); ADDED (WHERE REQUIRED)	II-30-89	
7-15-88	ISSUED P.L.M.	647-7-15-88	STANDARD DRAWING PU-I
DATE	REVISION	DATE FILMED	5111151115 5111711110











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

POSITIVE BARRIER G20-I ARROW PANEL (IF REQUIRED) TYPE I BARRICADE CHANNELIZING DEVICE TRAFFIC DRUM RAISED PAVEMENT MARKER TYPE II A YELLOW/YELLOW PRISMATIC 0.52" DETAIL OF RAISED PAVEMENT MARKERS

KEY:

FLAGGER

TYPICAL ADVANCE WARNING SIGN PLACEMENT

TAPER FORMULAE:

L=SXW FOR SPEEDS OF 45MPH OR MORE.

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

WHERE:

L= MINIMUM LENGTH OF TAPER.

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

W= WIDTH OF OFFSET.

GENERAL NOTES:

I. THE MAINTENANCE DIVISION SHALL CONDUCT A BALL BANK STUDY TO DETERMINE THE ADVISORY SPEED LIMIT PRIOR TO OPENING TO TRAFFIC. THE ADVISORY SPEED WILL BE POSTED ON WI-3 OR WI-4 CURVE WARNING SIGNS. USE WI-4 WHEN SPEED IS GREATER THAN 30MPH AND WI-3 WHEN 30MPH OR LESS

30MPH OR LESS
2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS
REQUIRE A SPEED LIMIT OF 45MPH, THE R2-K55) SHALL BE
OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT
LOCATION, ADDITIONAL R2-145MPH SPEED LIMIT SIGNS SHALL BE
INSTALLED AT A MAXIMUM OF IMILE INTERVALS. AT THE END OF THE WORK AREA A R2-KXX)
SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.

3. WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS
REQUIRE A SPEED LIMIT OF 55MPH, THE R2-145) SHALL BE OMITTED.
ADDITIONAL R2-155MPH SPEED LIMIT SIGNS SHALL BE INSTALLED
AT A MAXIMUM OF IMILE INTERVALS. AT THE END OF THE WORK

AT A MAXIMUM OF IMILE INTERVALS. AT THE END OF THE WORK
AREA A R2-(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.

4. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER
SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT.
BEYOND THE TAPER, MAXIMUM SPACING SHALL BE TWO TIMES
THE SPEED LIMIT, OR AS DIRECTED BY THE ENGINEER.

5. WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED
TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.

6. PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.

REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.

7. TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE DELINEATED BY AFFIXING CONSPICUITY MATERIAL IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER, WHEN PLACED ON ON A DAJACENT TO THE SHOULDER AND NOT BEHIND A POSITIVE BARRIER, THESE DEVICES SHALL BE DELINEATED BY PLACING FIVE (5) TRAFFIC DRUMS, EQUALLY SPACED ALONG THE TRAFFIC SIDE OF THE DEVICE, PAYMENT FOR TRAFFIC DRUMS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR VARIOUS TRAILER MOUNTED DEVICES.

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

ALL TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL MEET THE REQUIREMENTS OF THE MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).

05-20-21	REVISED NOTE 7	
II-07-I9	REVISED NOTE I, ADDED NOTE 9	
9-2-15	REVISED NOTE 2, ADDED NOTE 8, REVISED DRAWING (A) & REPLACED R2-5A WITH W3-5	
9-12-13	REVISED DETAIL OF RAISED PAVEMENT MARKERS	
3-11-10	ADDED (AFAD)	
II-20-08	REVISED SIGN DESIGNATIONS	
II-I8-04	ADDED GENERAL NOTE	
10-18-96	ADDED R55-I	
4-26-96	CORRECTED (a) BEHIND G20-2	
6-8-95	CORRECTED SIGN IDENT. ON WI-4A	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	
DATE	REVISION	FILMED

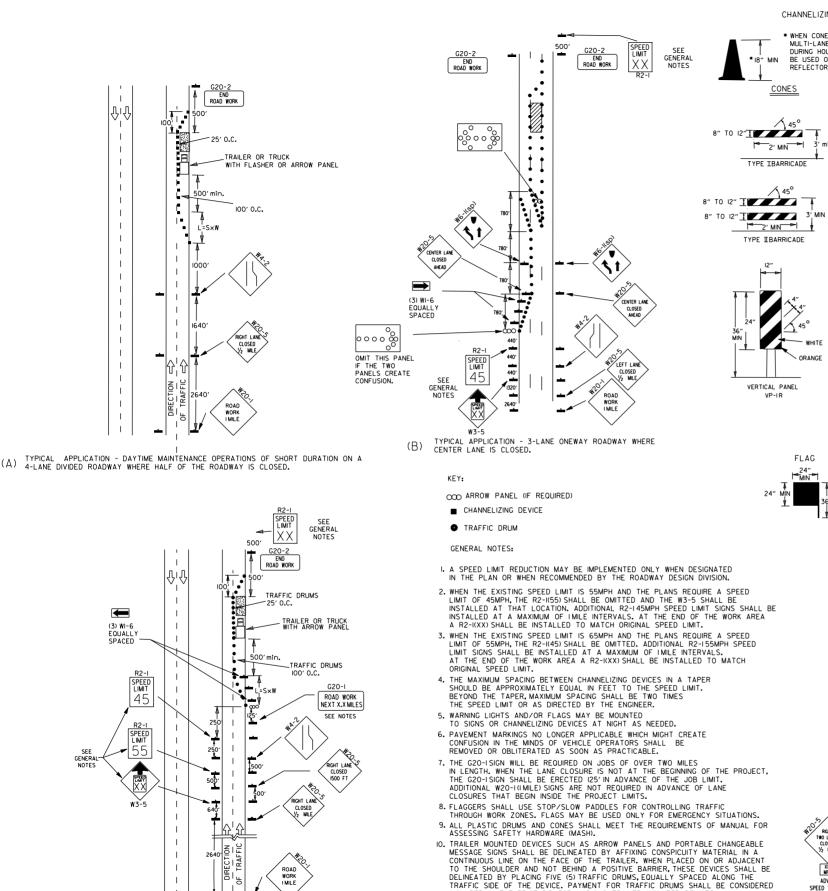
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-2

TYPICAL APPLICATION - ROADWAY CLOSED BEYOND DETOUR POINT.

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



FINES DOUBLE

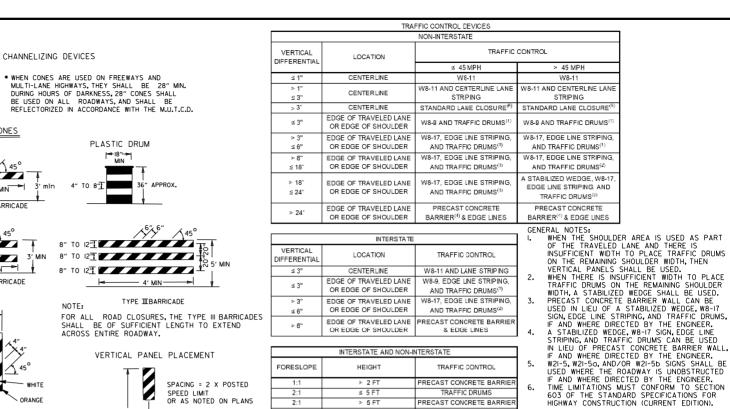
TYPICAL APPLICATION - CONSTRUCTION OPERATIONS OF INTERMEDIATE TO LONG TERM

DURATION ON A 4-LANE DIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.

INCLUDED IN THE PRICE BID FOR VARIOUS TRAILER MOUNTED DEVICES.

MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).

II. ALL TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL MEET THE REQUIREMENTS OF THE

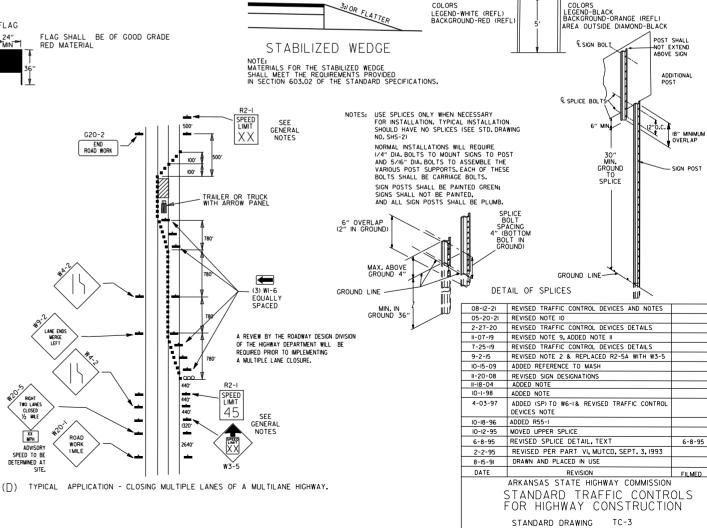


Flatter than 2:1

DROP OFF > 3"

ROADWAY SURFACE

TRAVELED WAY \_ \_ STABILIZED WEDGE



TRAFFIC DRUMS

TOP SLOW PADDLE

BACK

(SLOW)

FRONT

6" SERIES "C" IB" STOP