

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		020572	1	29
				2 HWY. 65-EAST (S)				

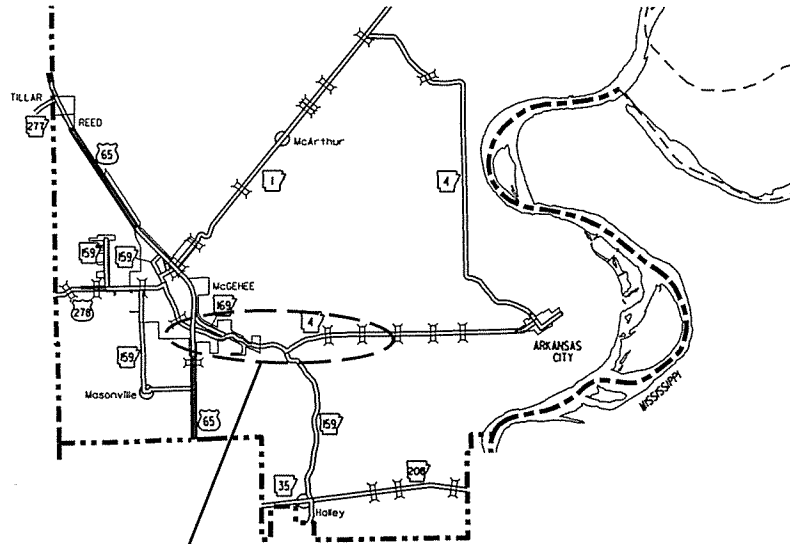
ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
CONSTRUCTION PLANS FOR STATE HIGHWAY

HWY. 65-EAST (S)

DESHA COUNTY
ROUTE 4 SECTION 17
ROUTE 169 SECTION 1

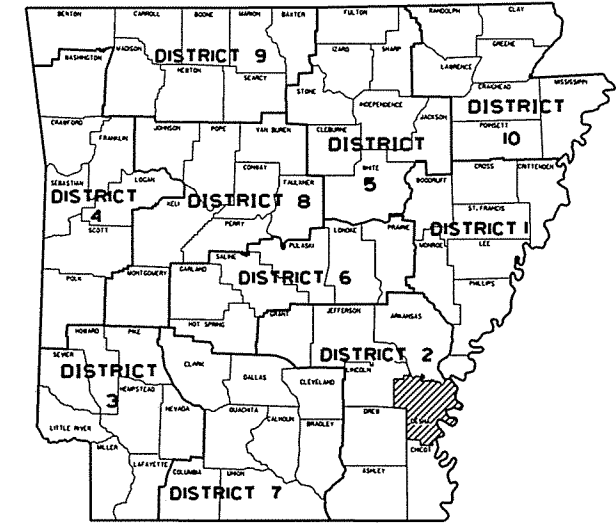
JOB NO. 020572

FED. AID PROJ. STPR-0021(33)

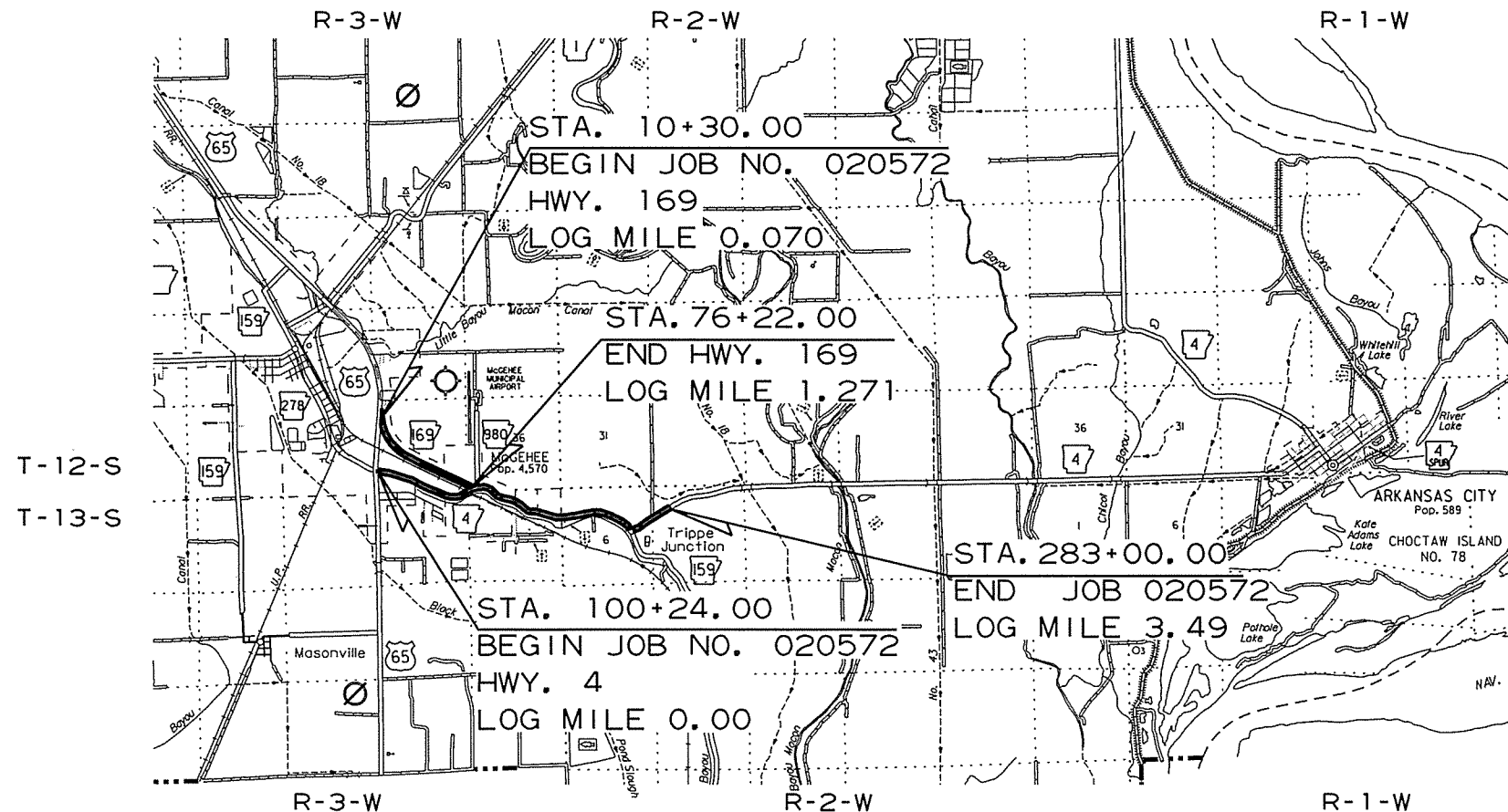


PROJECT LOCATION

VICINITY MAP



ARK. HWY. DIST. NO. 2



DESIGN TRAFFIC DATA

	HWY. 4	HWY. 169
DESIGN YEAR	2035	2035
2015 ADT	1400	600
2035 ADT	1700	720
2035 DHV	187	79
DIRECTIONAL DISTRIBUTION	0.60	0.60
TRUCKS	5%	4%
DESIGN SPEED	POSTED 45 MPH	45 MPH

T-12-S
T-13-S



APPROVED



3-10-15

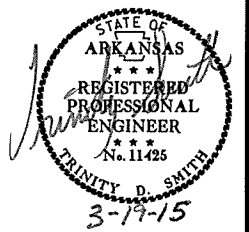
DEPUTY DIRECTOR
AND CHIEF ENGINEER

BEGINNING OF PROJECT	MID POINT OF PROJECT	END OF PROJECT
LATITUDE = N 33°36'37"	LATITUDE = N 33°36'16"	LATITUDE = N 33°36'12"
LONGITUDE = W 91°23'00"	LONGITUDE = W 91°21'21"	LONGITUDE = W 91°19'43"

	GROSS LENGTH OF PROJECT	24868.00	FEET	OR	4.710	MILES
NET	ROADWAY	24868.00	"	"	4.710	"
NET	BRIDGES	0.00	"	"	0.000	"
NET	PROJECT	24868.00	"	"	4.710	"

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								29

② INDEX, GOV. SPECS, AND GENERAL NOTES



INDEX OF SHEETS

SHEET NO.	TITLE	DRWG. NO.	DATE
1	TITLE SHEET		
2	INDEX OF SHEETS, GOVERNING SPECIFICATIONS, AND GENERAL NOTES		
3 - 5	TYPICAL SECTIONS OF IMPROVEMENT		
6 - 7	MAINTENANCE OF TRAFFIC		
8	PERMANENT PAVEMENT MARKINGS		
9 - 10	QUANTITIES		
11	SUMMARY OF QUANTITIES AND REVISIONS		
12 - 18	PLAN SHEETS - HWY. 4		
19 - 21	PLAN SHEETS - HWY. 169		
22	MAILBOX DETAILS	MB-1	11-18-04
23	PAVEMENT MARKING DETAILS	PM-1	9-12-13
24	PAVEMENT MARKING FOR RAILROAD CROSSING	RRS-1	11-20-08
25	LOOP DETECTOR INSTALLATION	SD-4	9-12-13
26	TABLES AND METHOD OF SUPERELEVATION FOR TWO-WAY TRAFFIC	SE-2	10-18-96
27	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	TC-1	12-15-11
28	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	TC-2	9-12-13
29	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	TC-3	10-15-09

GOVERNING SPECIFICATIONS

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

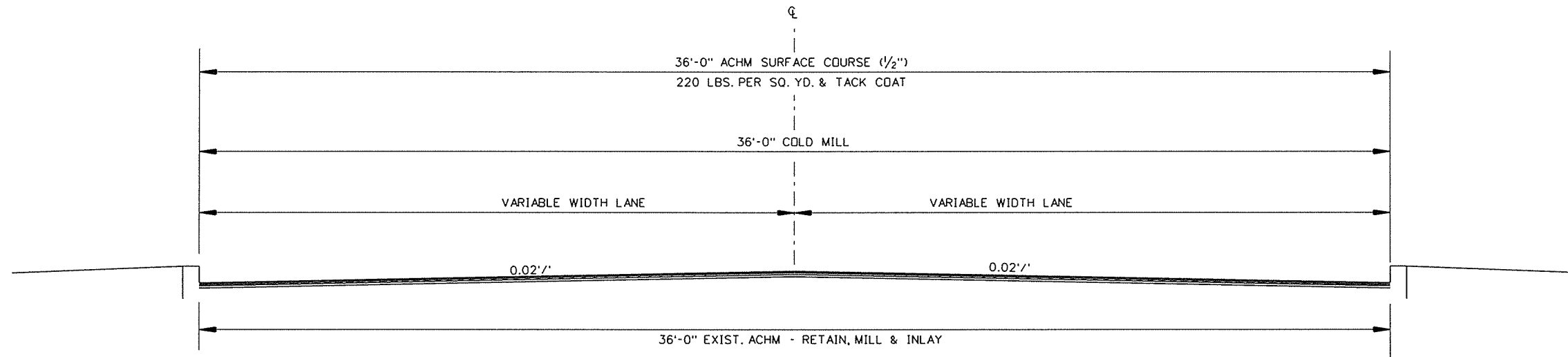
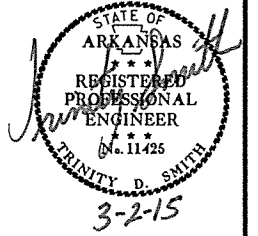
NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1273	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273	SUPPLEMENT - WAGE RATE DETERMINATION
108-1	LIQUIDATED DAMAGES
410-1	CONSTRUCTION REQUIREMENTS AND ACCEPTANCE OF ASPHALT CONCRETE PLANT MIX COURSES
604-1	RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL
JOB 020572	BIDDING REQUIREMENTS AND CONDITIONS
JOB 020572	BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB 020572	CONSTRUCTION ON RAILROAD RIGHT-OF-WAY
JOB 020572	DOCUMENTATION OF PAYMENTS MADE TO DISADVANTAGED BUSINESS ENTERPRISES
JOB 020572	LOOP WIRING REVISION 1.4
JOB 020572	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB 020572	UTILITY ADJUSTMENTS
JOB 020572	WARM MIX ASPHALT

GENERAL NOTES

- ALL PIPE LINES, POWER, TELEPHONE, AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.
- ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE PROVIDED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING U. S. MAILBOXES WITHIN THE PROJECT LIMITS IN SUCH A MANNER THAT THE PUBLIC MAY RECEIVE CONTINUED MAIL SERVICE. PAYMENT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS BID ITEMS.
- ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
- ALL TREES THAT DO NOT DIRECTLY INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE SPARED AS DIRECTED BY THE ENGINEER. CARE AND DISCRETION SHALL BE USED TO INSURE THAT ALL TREES NOT TO BE REMOVED SHALL BE HARMED AS LITTLE AS POSSIBLE DURING THE CONSTRUCTION OPERATIONS.
- PREPARATORY WORK, SUCH AS CLIPPING THE GRASS AND DEBRIS FROM THE EDGE OF THE EXISTING ROADWAY, WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED A PART OF THE OTHER ITEMS OF WORK. AFTER THE ROADWAY IS COMPLETED, THESE "CLIPPINGS" SHALL BE PULLED UP TO THE EDGE OF THE NEW PAVEMENT BY THE CONTRACTOR. NO DIRECT PAYMENT WILL BE MADE FOR THIS WORK.

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				JOB NO.	020572		3	29

② TYPICAL SECTIONS OF IMPROVEMENT



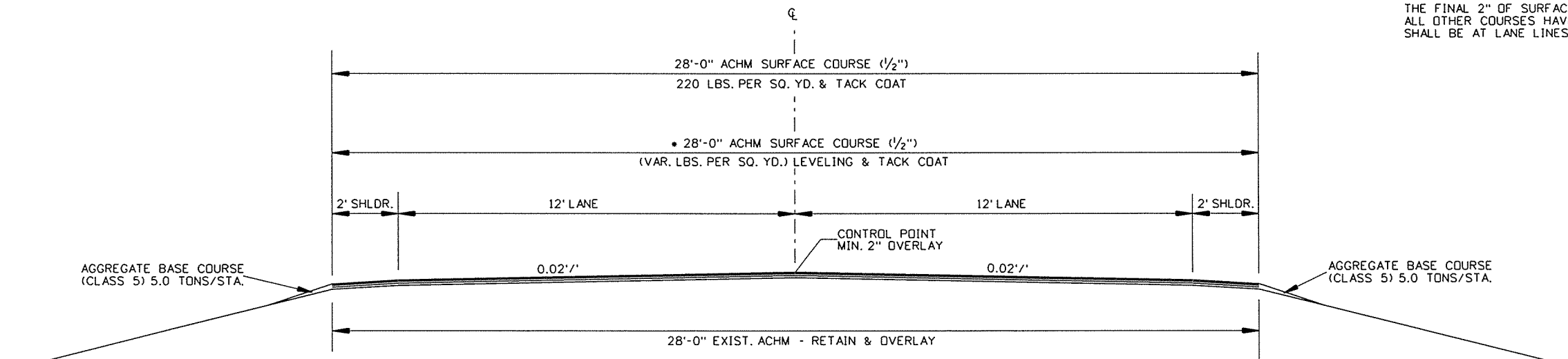
MILL & OVERLAY
 HWY. 4
 STA. 100+24.00 TO STA. 102+90
 HWY. 169
 STA. 10+30.00 TO STA. 12+00.00**
 STA. 75+10.00 TO STA. 76+22.00**

** VARIABLE WIDTH

NOTES:

ASPHALT FOR LEVELING EXISTING PAVEMENT SHALL BE PLACED ONLY IF AND WHERE DIRECTED BY THE ENGINEER. CALCULATIONS FOR THE AMOUNT OF LEVELING AND/OR LEVELING OPERATIONS SHALL BE PERFORMED BEFORE OVERLAY OPERATIONS. CALCULATIONS WILL NOT BE PAID FOR DIRECTLY BUT PAYMENT WILL BE CONSIDERED IN THE VARIOUS 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.



OVERLAY
 HWY. 4
 STA. 102+90 TO STA. 158+00

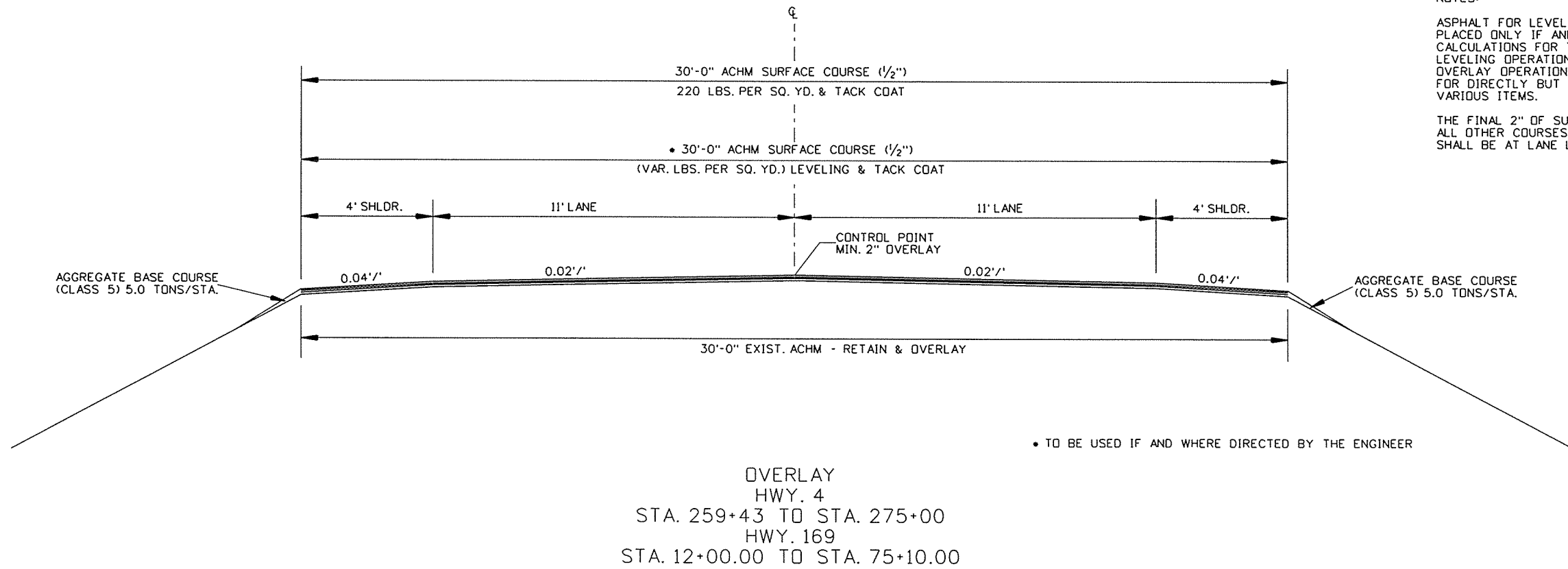
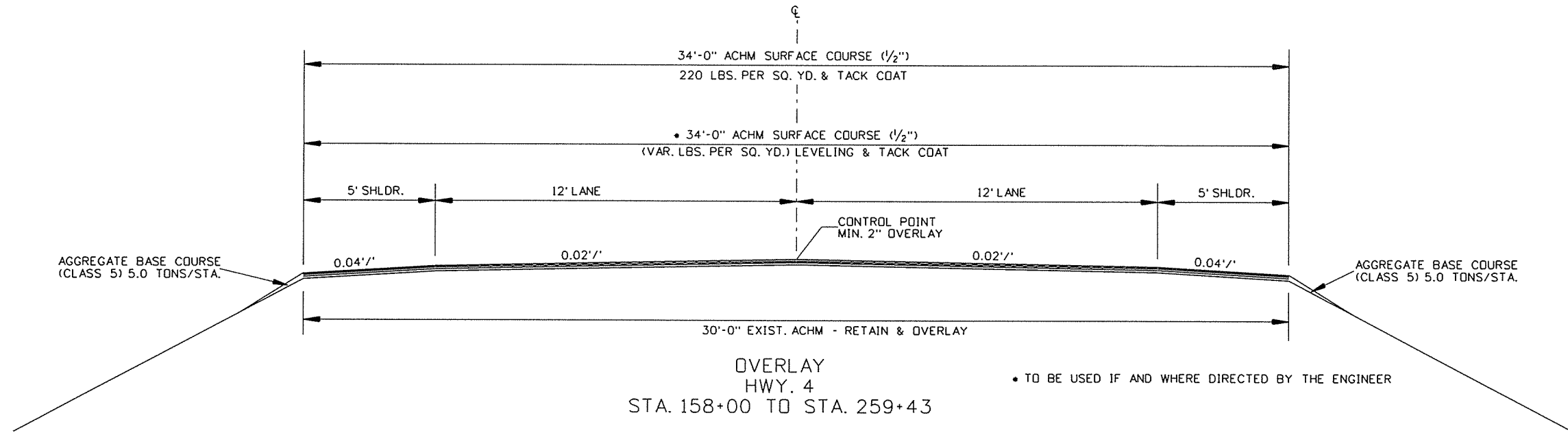
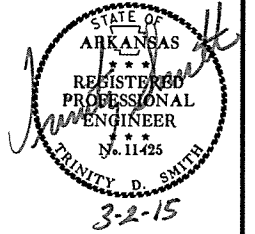
* TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

2/20/15

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2 TYPICAL SECTIONS OF IMPROVEMENT



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

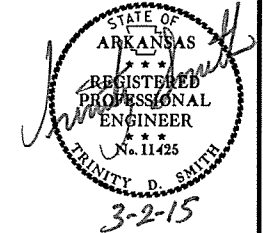
TYPICAL SECTIONS OF IMPROVEMENT

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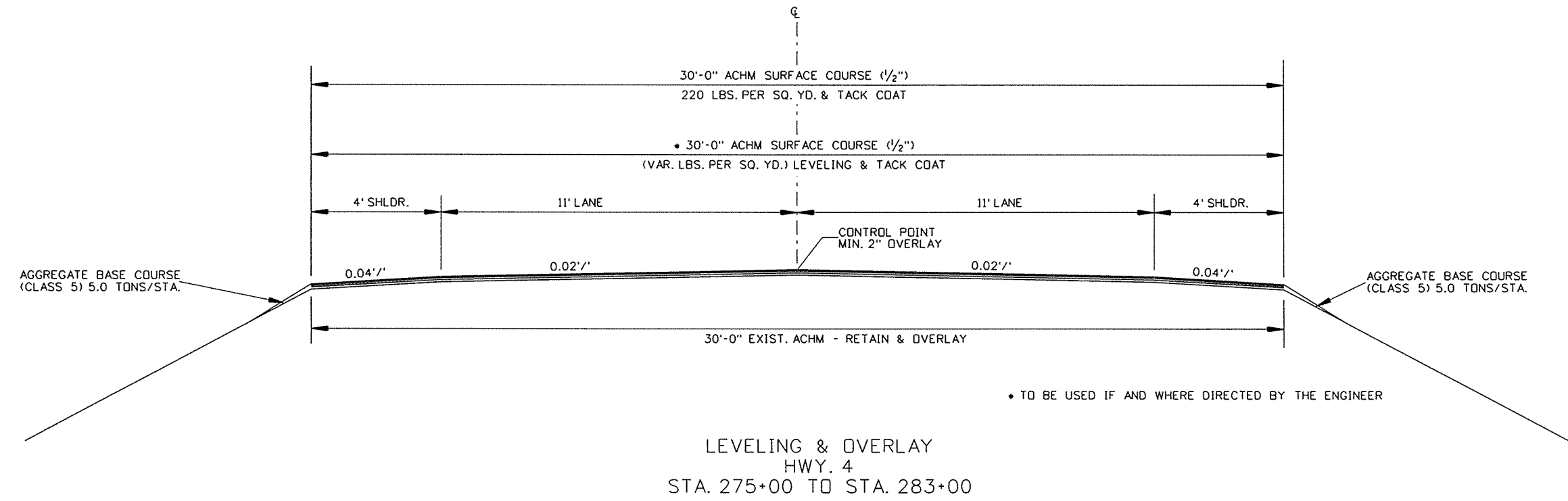
2 TYPICAL SECTIONS OF IMPROVEMENT



NOTES:

ASPHALT FOR LEVELING EXISTING PAVEMENT SHALL BE PLACED ONLY IF AND WHERE DIRECTED BY THE ENGINEER. CALCULATIONS FOR THE AMOUNT OF LEVELING AND/OR LEVELING OPERATIONS SHALL BE PERFORMED BEFORE OVERLAY OPERATIONS. CALCULATIONS WILL NOT BE PAID FOR DIRECTLY BUT PAYMENT WILL BE CONSIDERED IN THE VARIOUS 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.

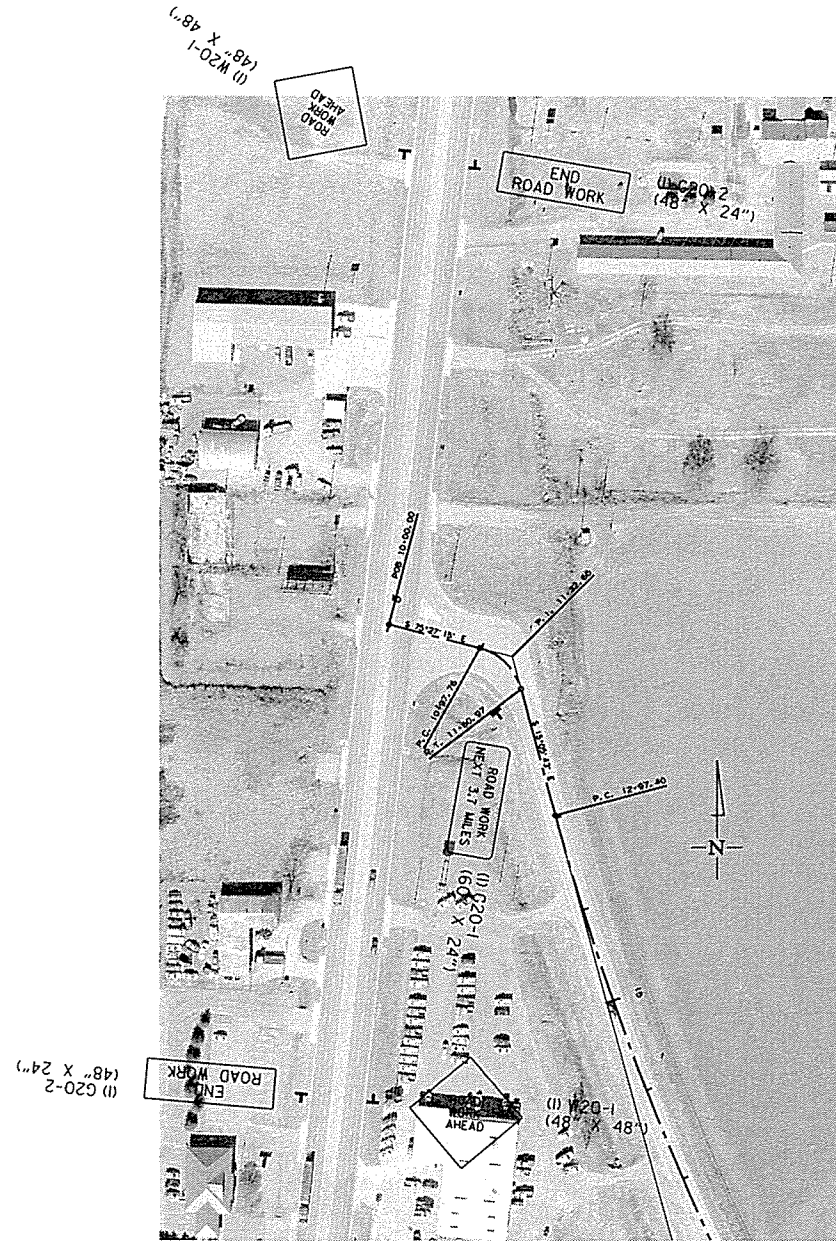
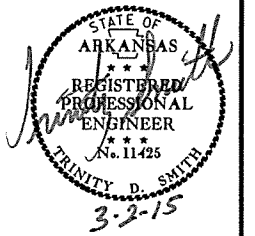


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② MAINTENANCE OF TRAFFIC



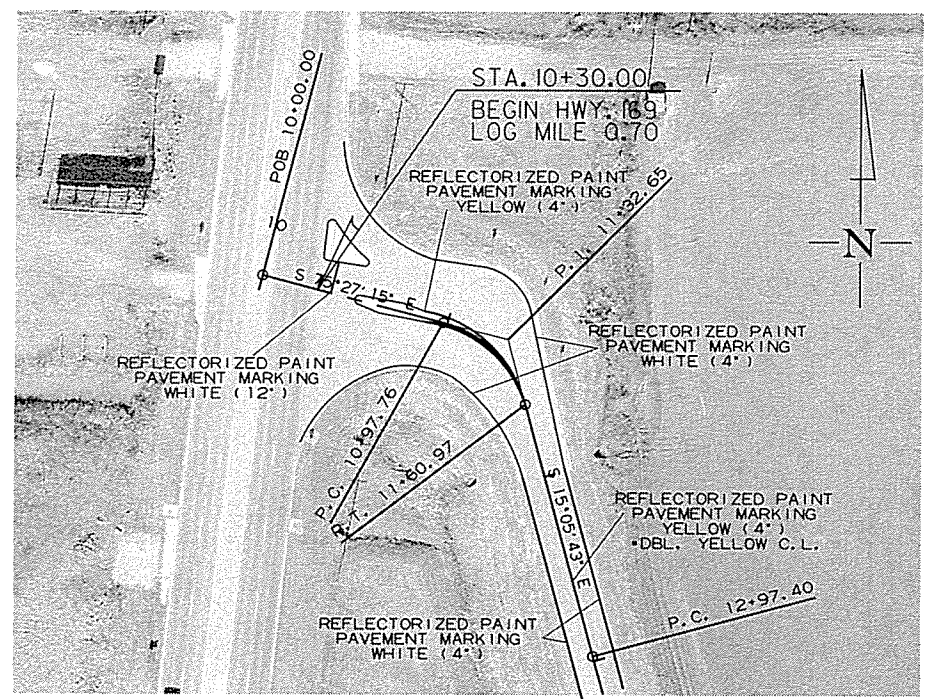
- DO NOT PASS (6) R4-1 (24" X 30")
- PASS WITH CARE (6) R4-2 (24" X 30")

R4-1 & R4-2 SIGNS SHALL BE USED IF AND WHERE DIRECTED BY THE ENGINEER.

QUANTITIES:
 SIGNS = 230.0 SQ. FT.
 CONSTRUCTION PAVEMENT MARKINGS = 49936 LIN. FT.

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2 PERMANENT PAVEMENT MARKINGS

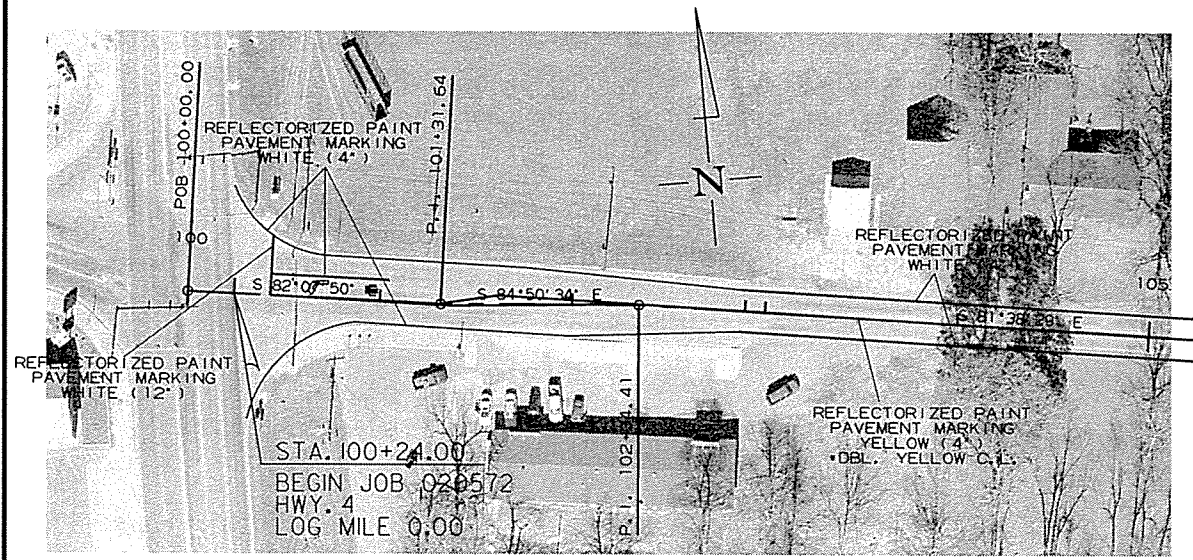
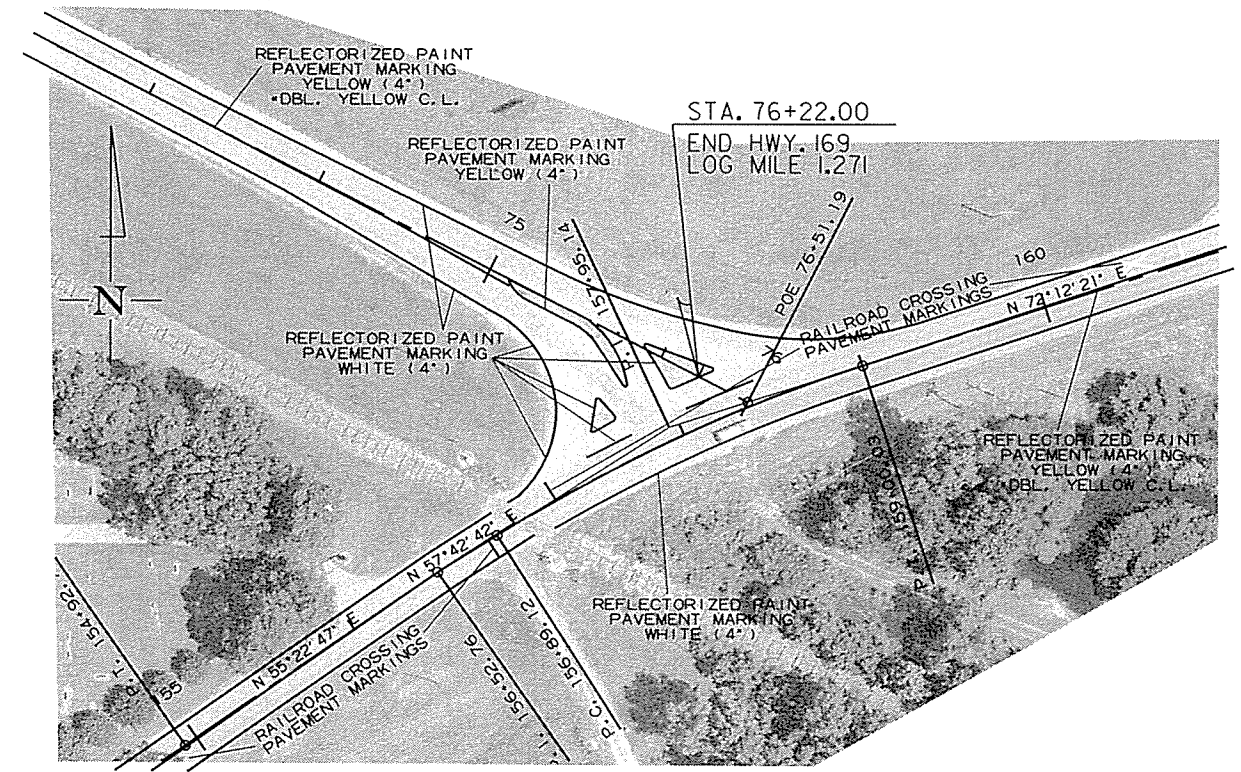


PERMANENT PAVEMENT MARKING QUANTITIES

HWY. 4
REFLECTORIZED PAINT PAVEMENT MARKING
4" WHITE = 36285 LIN. FT.
4" YELLOW = 36752 LIN. FT.
12" WHITE = 32 LIN. FT.
ARROW = 1 EACH
WORD = 1 EACH

HWY. 169
REFLECTORIZED PAVEMENT MARKING
4" WHITE = 12844 LIN. FT.
4" YELLOW = 13184 LIN. FT.
12" WHITE = 17 LIN. FT.

*THE 4" YELLOW STRIPING QUANTITY HAS BEEN ESTIMATED BASED ON A DOUBLE YELLOW CENTERLINE FOR THE ENTIRE PROJECT. THE PROJECT MUST BE MARKED FOR PASSING/NO PASSING ZONES PRIOR TO THE PLACEMENT OF ANY FINAL STRIPING. CONTACT THE MAINTENANCE DIVISION TO SCHEDULE THE ZONING OF THE PROJECT.



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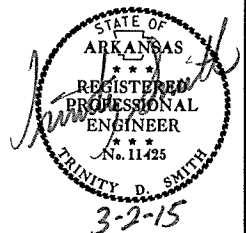
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SOIL LOG

STATION	LATITUDE			LONGITUDE			LOCATION	DEPTH FEET	LIQUID LIMIT	PLASTICITY INDEX	AASHTO CLASSIFICATION	COLOR
	DEG	MIN	SEC	DEG	MIN	SEC						
16+00	33	36	59.20	91	22	53.50	6' RT.	0-5	59	32	A-4(0)	GRAY
16+00	33	36	59.10	91	22	53.70	22' RT.	0-5	73	47	A-7-6(52)	GRAY
24+00	33	36	52.20	91	22	48.90	5' LT.	0-5	66	45	A-7-6(51)	GRAY
24+00	33	36	52.30	91	22	48.80	21' LT.	0-5	71	46	A-A-6(52)	GRAY
32+00	33	36	46.50	91	22	42.40	4' RT.	0-5	54	35	A-7-6(36)	GRAY
32+00	33	36	46.30	91	22	42.50	23' RT.	0-5	49	26	A-7-6(26)	GRAY
40+00	33	36	42.60	91	22	34.30	6' LT.	0-5	39	19	A-6(18)	BROWN
40+00	33	36	42.80	91	22	34.20	25' LT.	0-5	42	21	A-7-6(22)	BROWN
48+00	33	36	38.90	91	22	26.00	5' RT.	0-5	31	15	A-6(14)	BROWN
48+00	33	36	38.70	91	22	26.10	22' RT.	0-5	42	26	A-7-6(25)	BROWN
54+00	33	36	36.10	91	22	19.30	5' LT.	0-5	29	11	A-6(9)	BR/GR
54+00	33	36	36.20	91	22	19.10	21' LT.	0-5	42	23	A-7-6(23)	BROWN
62+00	33	36	32.40	91	22	11.20	5' RT.	0-5	32	14	A-6(13)	BROWN
62+00	33	36	32.30	91	22	11.30	23' RT.	0-5	38	19	A-6(19)	BROWN
70+00	33	36	28.90	91	22	2.90	5' LT.	0-5	26	6	A-4(5)	BROWN
70+00	33	36	29.10	91	22	2.80	25' LT.	0-5	28	8	A-4(7)	BROWN
110+00	33	36	37.00	91	22	48.40	5' LT.	0-5	ND	NP	A-4(0)	BROWN
110+00	33	36	37.10	91	22	48.30	16' LT.	0-5	ND	NP	A-4(0)	BROWN
118+00	33	36	34.30	91	22	39.20	5' RT.	0-5	ND	NP	A-4(0)	BROWN
118+00	33	36	34.10	91	22	39.30	18' RT.	0-5	ND	NP	A-4(0)	BROWN
126+00	33	36	30.90	91	22	30.40	6' LT.	0-5	ND	NP	A-4(0)	BROWN
126+00	33	36	31.00	91	22	30.40	18' LT.	0-5	ND	NP	A-4(0)	BROWN
134+00	33	36	27.10	91	22	22.50	5' RT.	0-5	ND	NP	A-4(0)	BROWN
134+00	33	36	27.00	91	22	22.50	19' RT.	0-5	ND	NP	A-4(0)	BROWN
142+00	33	36	24.10	91	22	13.80	5' LT.	0-5	ND	NP	A-4(0)	BROWN
142+00	33	36	24.20	91	22	13.70	18' LT.	0-5	ND	NP	A-4(0)	BROWN
150+00	33	36	22.30	91	22	4.90	5' RT.	0-5	ND	NP	A-4(0)	BROWN
150+00	33	36	22.10	91	22	4.90	22' RT.	0-5	ND	NP	A-4(0)	BROWN
158+00	33	36	25.70	91	21	56.20	5' LT.	0-5	ND	NP	A-4(0)	BROWN
166+00	33	36	27.00	91	21	46.60	6' RT.	0-5	ND	NP	A-4(0)	BROWN
166+00	33	36	27.00	91	21	46.60	15' RT.	0-5	23	4	A-4(1)	BROWN
166+00	33	36	26.90	91	21	46.60	25' RT.	0-5	28	10	A-4(6)	BROWN
174+00	33	36	23.90	91	21	39.50	6' LT.	0-5	ND	NP	A-4(0)	BROWN
174+00	33	36	23.90	91	21	39.40	14' LT.	0-5	ND	NP	A-4(0)	BROWN
174+00	33	36	24.00	91	21	39.30	25' RT.	0-5	22	5	A-4(3)	BROWN
181+00	33	36	20.40	91	21	32.10	5' RT.	0-5	ND	NP	A-4(0)	BROWN
181+00	33	36	20.30	91	21	32.20	14' RT.	0-5	23	4	A-4(1)	BROWN
181+00	33	36	20.20	91	21	32.10	27' RT.	0-5	25	5	A-4(3)	BROWN
190+00	33	36	18.20	91	21	24.60	6' LT.	0-5	ND	NP	A-4(0)	BROWN
190+00	33	36	18.30	91	21	24.60	14' LT.	0-5	25	6	A-4(3)	BROWN
190+00	33	36	18.40	91	21	24.50	25' LT.	0-5	23	3	A-4(1)	BROWN
198+00	33	36	12.50	91	21	14.10	6' RT.	0-5	ND	NP	A-4(0)	BROWN
198+00	33	36	12.40	91	21	14.10	14' RT.	0-5	ND	NP	A-4(0)	BROWN
198+00	33	36	12.30	91	21	14.10	25' RT.	0-5	ND	NP	A-4(0)	BROWN
206+00	33	36	10.70	91	21	5.20	6' LT.	0-5	ND	NP	A-4(0)	BROWN
206+00	33	36	10.80	91	21	5.10	14' LT.	0-5	ND	NP	A-4(0)	BROWN
206+00	33	36	10.90	91	21	5.10	25' LT.	0-5	ND	NP	A-4(0)	BROWN
214+00	33	36	8.70	91	20	56.20	6' RT.	0-5	ND	NP	A-4(0)	BROWN
214+00	33	36	8.60	91	20	56.20	14' RT.	0-5	22	3	A-4(1)	BROWN
214+00	33	36	8.50	91	20	56.20	25' RT.	0-5	22	3	A-4(1)	BROWN
222+00	33	36	9.40	91	20	46.80	6' LT.	0-5	ND	NP	A-4(0)	BROWN
222+00	33	36	9.50	91	20	46.80	15' LT.	0-5	22	3	A-4(1)	BROWN
222+00	33	36	9.60	91	20	46.80	27' LT.	0-5	ND	NP	A-4(0)	BROWN
230+00	33	36	10.40	91	20	37.60	6' RT.	0-5	ND	NP	A-4(0)	BROWN
230+00	33	36	10.30	91	20	37.60	14' RT.	0-5	25	10	A-4(6)	BROWN
230+00	33	36	10.10	91	20	37.60	27' RT.	0-5	31	16	A-6(11)	BROWN
238+00	33	36	10.50	91	20	28.10	6' LT.	0-5	ND	NP	A-4(0)	BROWN
238+00	33	36	10.50	91	20	28.10	14' LT.	0-5	27	9	A-4(6)	BROWN
238+00	33	36	10.70	91	20	28.00	34' LT.	0-5	23	5	A-4(3)	BROWN
246+00	33	36	7.10	91	20	19.50	6' RT.	0-5	22	4	A-4(2)	BROWN
246+00	33	36	7.00	91	20	19.50	14' RT.	0-5	26	9	A-4(7)	BROWN
246+00	33	36	7.00	91	20	19.60	24' RT.	0-5	26	9	A-4(5)	BROWN
254+00	33	36	2.80	91	20	11.80	6' LT.	0-5	ND	NP	A-4(0)	BROWN
254+00	33	36	2.90	91	20	11.70	14' LT.	0-5	ND	NP	A-4(0)	BROWN
254+00	33	36	2.90	91	20	11.60	23' LT.	0-5	ND	NP	A-4(0)	BROWN
262+00	33	36	1.40	91	20	3.70	6' RT.	0-5	28	11	A-6(9)	BROWN
262+00	33	36	1.40	91	20	3.60	14' RT.	0-5	39	25	A-6(21)	BROWN
262+00	33	36	1.30	91	20	3.50	29' RT.	0-5	40	24	A-6(23)	BROWN
270+00	33	36	5.80	91	19	56.20	5' LT.	0-5	58	38	A-7-6(36)	BROWN
270+00	33	36	5.90	91	19	56.20	13' LT.	0-5	52	35	A-7-6(51)	BROWN
270+00	33	36	6.00	91	19	56.30	28' LT.	0-5	80	51	A-7-6(51)	BROWN
278+00	33	36	9.60	91	19	47.50	5' RT.	0-5	61	36	A-7-6(35)	GRAY
278+00	33	36	9.50	91	19	47.50	14' RT.	0-5	65	36	A-7-6(39)	GRAY
278+00	33	36	9.40	91	19	47.40	27' RT.	0-5	69	35	A-7-6(39)	GRAY
286+00	33	36	13.30	91	19	39.60	5' LT.	0-5	73	51	A-7-6(52)	GRAY
286+00	33	36	13.40	91	19	39.70	14' LT.	0-5	71	48	A-7-6(41)	BROWN
286+00	33	36	13.50	91	19	39.80	26' LT.	0-5	85	57	A-7-6(62)	BROWN

SOIL CHARACTERISTICS TABULATED ABOVE ARE REPRESENTATIVE AT THE LOCATION OF THE SAMPLE, AND FROM SURFACE INDICATIONS ARE TYPICAL FOR THE LIMITS SHOWN. THESE DATA ARE SHOWN FOR INFORMATION ONLY. THE STATE WILL NOT BE RESPONSIBLE FOR VARIATIONS IN THE SOIL CHARACTERISTICS AND/OR EXTENT OF SAME DIFFERING FROM THE ABOVE TABULATIONS.
 NP - NON-PLASTIC
 ND - NOT DETERMINABLE

QUANTITIES



ADVANCE WARNING SIGNS

SIGN NUMBER	DESCRIPTION	SIGN SIZE	STAGE 1	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED	
					NO.	SQ. FT.
W20-1	ROAD WORK 1500 FT.	48"x48"	1	1	1	16.0
W20-1	ROAD WORK 1000 FT.	48"x48"	1	1	1	16.0
W20-1	ROAD WORK 500 FT.	48"x48"	1	1	1	16.0
W20-1	ROAD WORK AHEAD	48"x48"	6	6	6	96.0
G20-2	END ROAD WORK	48"x24"	7	7	7	56.0
G20-1	ROAD WORK NEXT xx MILES	60"x24"	3	3	3	30.0
R4-1	DO NOT PASS	24"x30"	6	6	6	30.0
R4-2	PASS WITH CARE	24"x30"	6	6	6	30.0
TOTAL:					290.0	

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

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

DESCRIPTION	END OF JOB	CONSTRUCTION PAVEMENT MARKINGS	CONSTRUCTION PAVEMENT MARKINGS			REFLECTORIZED PAINT PAVEMENT MARKINGS					
			WORDS	ARROWS	RAILROAD EMBLEMS	4"		12"	WORDS	ARROWS	RAILROAD EMBLEMS
						WHITE	YELLOW				
	LIN. FT. - EACH	LIN. FT.	EACH			EACH					
CONSTRUCTION PAVEMENT MARKINGS	49936	49936									
CONSTRUCTION PAVEMENT MARKINGS (WORDS)	1		1								
CONSTRUCTION PAVEMENT MARKINGS (ARROWS)	1			1							
CONSTRUCTION PAVEMENT MARKINGS (RAILROAD EMBLEMS)	2				2						
REFLECTORIZED PAINT PAVEMENT MARKING WHITE (4")	49129					49129					
REFLECTORIZED PAINT PAVEMENT MARKING YELLOW (4")	49936						49936				
REFLECTORIZED PAINT PAVEMENT MARKING WHITE (12")	49							49			
REFLECTORIZED PAINT PAVEMENT MARKING (WORDS)	1								1		
REFLECTORIZED PAINT PAVEMENT MARKING (ARROWS)	1									1	
REFLECTORIZED PAINT PAVEMENT MARKING (RAILROAD EMBLEMS)	2										2
TOTALS:		49936	1	1	2	49129	49936	49	1	1	2

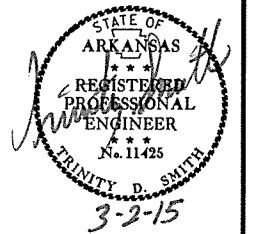
NOTE: THIS IS A LOW TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

NOTE: THE 4" YELLOW STRIPING QUANTITY HAS BEEN ESTIMATED BASED ON A DOUBLE YELLOW CENTERLINE STRIPE FOR THE ENTIRE PROJECT. THE PROJECT MUST BE MARKED FOR PASSING/NO PASSING ZONES PRIOR TO THE PLACEMENT OF ANY FINAL STRIPING. CONTACT THE MAINTENANCE DIVISION AFTER THE FINAL LIFT OF SURFACE COURSE HAS BEEN PLACED TO SCHEDULE THE ZONING OF THE PROJECT.

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		020572	10	29

② QUANTITIES



LOCATION	MAILBOXES	MAILBOX SUPPORTS	
		(SINGLE)	(DOUBLE)
ENTIRE PROJECT	6	2	2
TOTALS:	6	2	2

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

ACHM PATCHING OF EXISTING ROADWAY

DESCRIPTION	TON
ENTIRE PROJECT - TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER	200
TOTAL:	200

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

LOOP WIRING

STATION	LOCATION	LOOP WIRING CLASS III (1C/16 A.W.G.) LIN. FT.
100+24	HWY. 4 AT HWY. 65	1050
TOTAL:		1050

NOTE: LOOP WIRING IS TO REPLACE 2 - 6'x50' LOOPS ON WESTBOUND APPROACH AT HWY. 65 & HWY. 4. REFER TO STD. DRWG. SD-4.

BASE AND SURFACING

STATION	STATION	LOCATION	LENGTH FEET	AGGREGATE BASE COURSE (CLASS 5)		TACK COAT				ACHM SURFACE COURSE (1/2")				
				TON / STATION	TON	AVG. WID. FEET	SQ.YD.	GALLONS / SQ.YD.	GALLON	AVG. WID. FEET	SQ.YD.	POUND / SQ.YD.	PG 64-22 TON	PG 70-22 TON
HWY. 4														
100+24.00	102+90.00	HWY. 4	266.00			36.00	1064.00	0.10	106.40	36.00	1064.00	220.00		117.04
102+90.00	105+90.00	HWY. 4	300.00	10.00	30.00	28.00	933.33	0.03	28.00	28.00	933.33	220.00		102.67
102+90.00	105+90.00	HWY. 4 - LEVELING	300.00			28.00	933.33	0.10	93.33	28.00	933.33	VAR.		51.33
105+90.00	158+00.00	HWY. 4	5210.00	10.00	521.00	28.00	16208.89	0.03	486.27	28.00	16208.89	220.00	1782.98	
105+90.00	158+00.00	HWY. 4 - LEVELING	5210.00			28.00	16208.89	0.10	1620.89	28.00	16208.89	VAR.	891.49	
158+00.00	256+00.00	HWY. 4	9800.00	10.00	980.00	34.00	37022.22	0.03	1110.67	34.00	37022.22	220.00	4072.44	
158+00.00	256+00.00	HWY. 4 - LEVELING	9800.00			34.00	37022.22	0.10	3702.22	34.00	37022.22	VAR.	2036.22	
256+00.00	259+43.00	HWY. 4	343.00	10.00	34.30	34.00	1295.78	0.03	38.87	34.00	1295.78	220.00	142.54	
256+00.00	259+43.00	HWY. 4 - LEVELING	343.00			34.00	1295.78	0.10	129.58	34.00	1295.78	VAR.	71.27	
259+43.00	275+00.00	HWY. 4	1557.00	10.00	155.70	30.00	5190.00	0.03	155.70	30.00	5190.00	220.00	570.90	
259+43.00	275+00.00	HWY. 4 - LEVELING	1557.00			30.00	5190.00	0.10	519.00	30.00	5190.00	VAR.	285.45	
275+00.00	283+00.00	HWY. 4	800.00	10.00	80.00	30.00	2666.67	0.03	80.00	30.00	2666.67	220.00	293.33	
275+00.00	283+00.00	HWY. 4 - LEVELING	800.00			30.00	2666.67	0.10	266.67	30.00	2666.67	VAR.	293.33	
HWY. 169														
10+30.00	12+00.00	HWY. 169	170.00			VAR.	1217.14	0.10	121.71	VAR.	1217.14	220.00		133.89
12+00.00	15+00.00	HWY. 169	300.00	10.00	30.00	30.00	1000.00	0.03	30.00	30.00	1000.00	220.00		110.00
12+00.00	15+00.00	HWY. 169 - LEVELING	300.00			30.00	1000.00	0.10	100.00	30.00	1000.00	VAR.	55.00	
15+00.00	69+25.00	HWY. 169	5425.00	10.00	542.50	30.00	18083.33	0.03	542.50	30.00	18083.33	220.00	1989.17	
15+00.00	69+25.00	HWY. 169 - LEVELING	5425.00			30.00	18083.33	0.10	1808.33	30.00	18083.33	VAR.	994.58	
69+25.00	72+25.00	HWY. 169	300.00	10.00	30.00	30.00	1000.00	0.03	30.00	30.00	1000.00	220.00		110.00
69+25.00	72+25.00	HWY. 169 - LEVELING	300.00			30.00	1000.00	0.10	100.00	30.00	1000.00	VAR.	55.00	
72+25.00	75+10.00	HWY. 169	285.00	10.00	28.50	VAR.	1161.85	0.03	34.86	VAR.	1161.85	220.00		127.80
72+25.00	75+10.00	HWY. 169 - LEVELING	285.00			VAR.	1161.85	0.10	116.19	VAR.	1161.85	VAR.	63.90	
75+10.00	76+22.00	HWY. 169	112.00			VAR.	918.59	0.10	91.86	VAR.	918.59	220.00		101.04
TOTALS:					2432.00		172323.87		11313.05		172323.87		13423.70	1027.67

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.8% MIN AGGR.....5.2% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22
MAXIMUM NUMBER OF GYRATIONS = 160 FOR PG 70-22

NOTE: OVERLAY SHALL BE PLACED WITHIN 10 CALENDAR DAYS AFTER THE EXISTING PAVEMENT HAS BEEN COLD MILLED.

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

COLD MILLING ASPHALT PAVEMENT

STATION	STATION	LOCATION	COLD MILLING ASPHALT PAVEMENT	
			AVG. WIDTH FEET	SQ. YD.
100+24	102+90	HWY. 4	36	1064.00
102+90	103+90	HWY. 4	28	311.11
156+00	157+00	HWY. 4	28	311.11
157+10	159+10	HWY. 4	28	622.22
10+30	12+00	HWY. 169	VAR.	1217.14
12+00	13+00	HWY. 169	30	333.33
74+10	75+10	HWY. 169	30	333.33
75+10	76+22	HWY. 169	VAR.	918.59
TOTAL:				5110.83

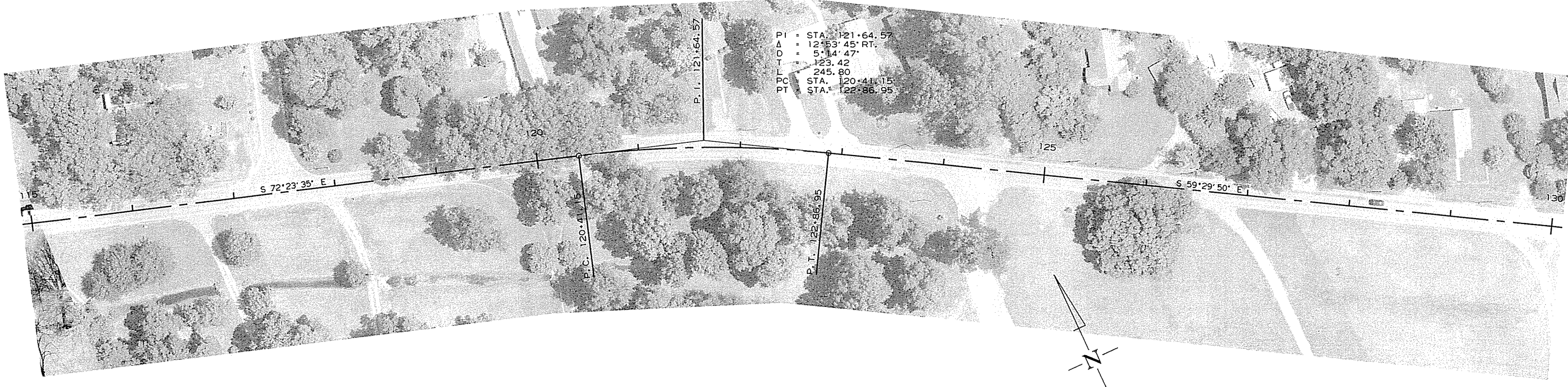
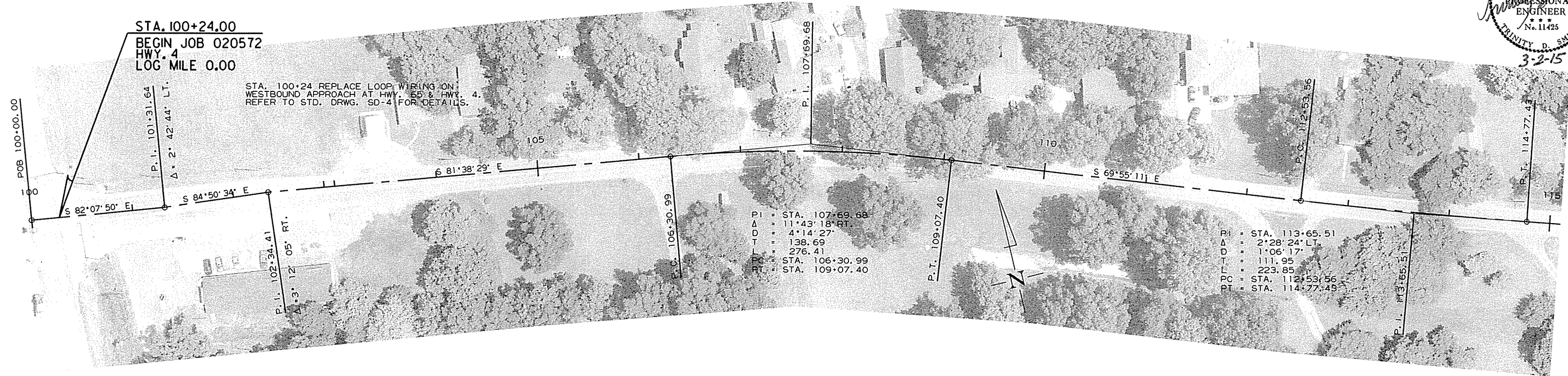
* NOTE: 2" MILLING DEPTH.

**NOTE: VARIABLE MILLING DEPTH. THE DEPTH OF MILLING SHALL BE AS DIRECTED BY THE ENGINEER.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 020572	12	29

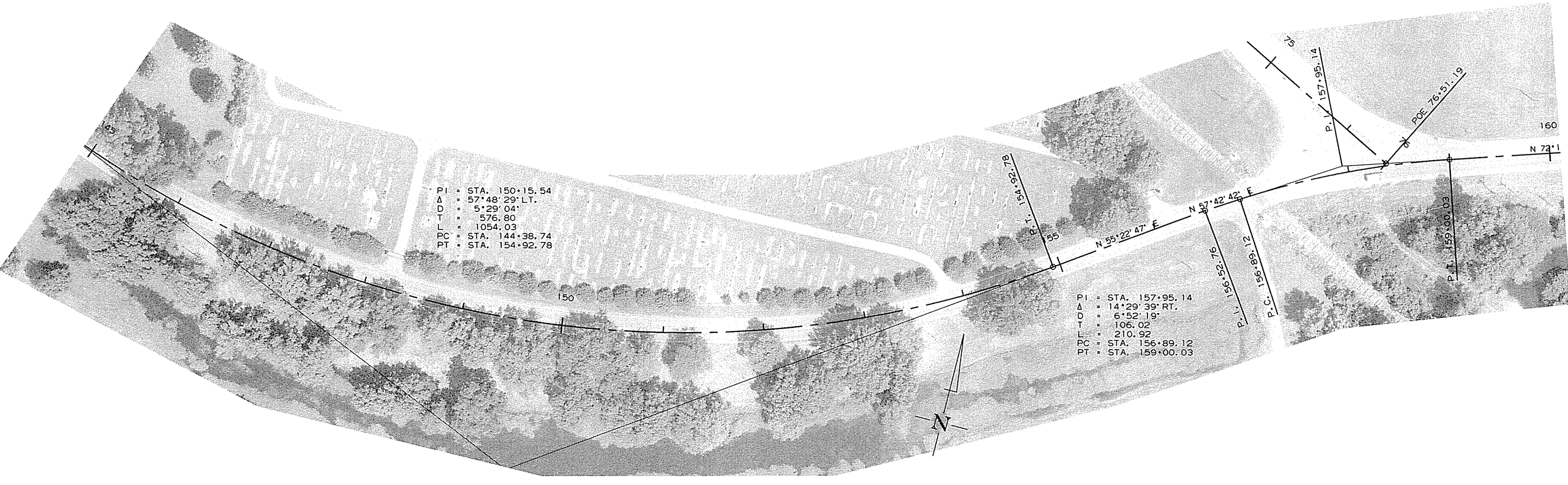
2 PLAN SHEETS HWY. 4

STATE OF ARKANSAS
 REGISTERED PROFESSIONAL ENGINEER
 No. 11425
 TRINITY D. SMITH
 3-2-15



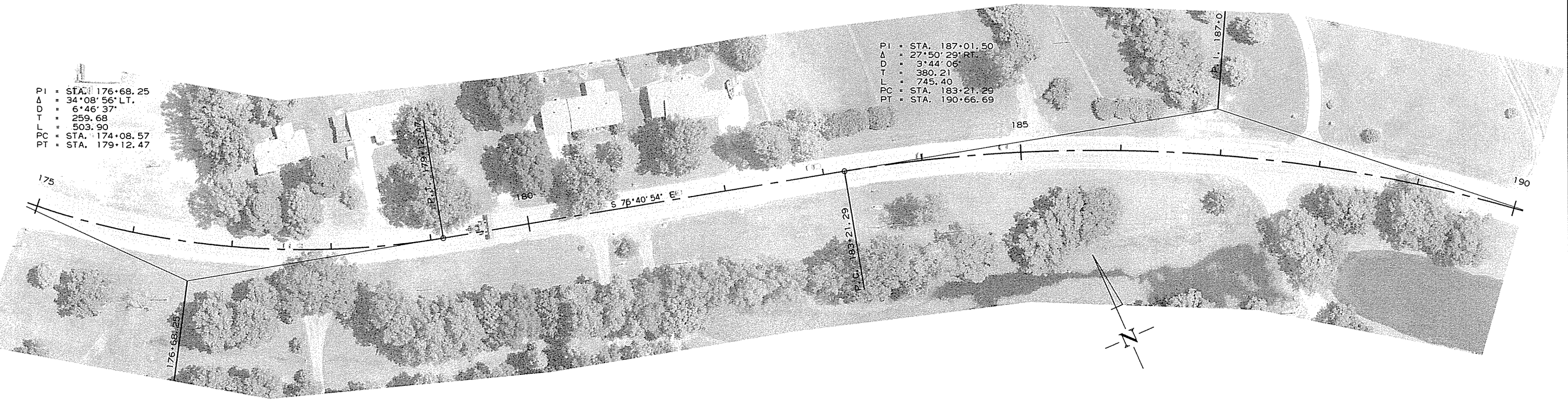
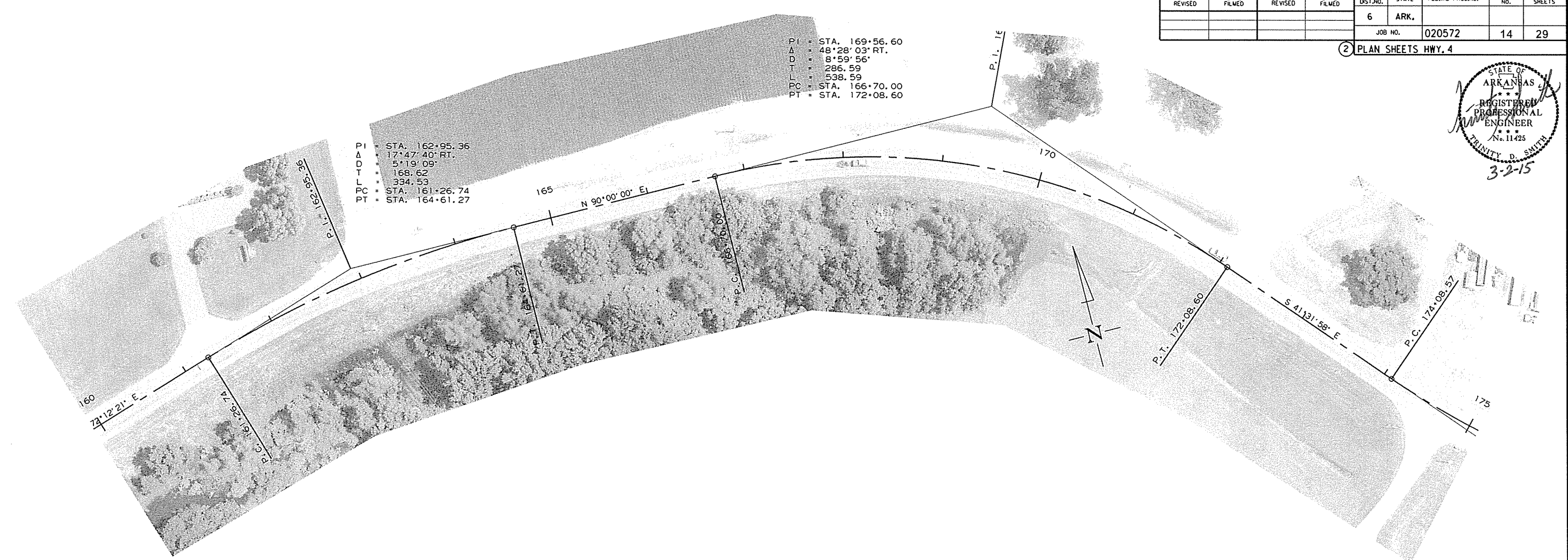
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				6	ARK.			
						JOB NO. 020572	13	29

② PLAN SHEETS HWY. 4



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO.						020572	14	29

2 PLAN SHEETS HWY. 4



r020572.dgn HWY 4 PLAN AND PROFILE SHEETS

2/20/15

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	020572		15	29

2 PLAN SHEETS HWY. 4

STATE OF ARKANSAS
 REGISTERED PROFESSIONAL ENGINEER
 No. 11425
 TRINITY D. SMITH
 3-2-15

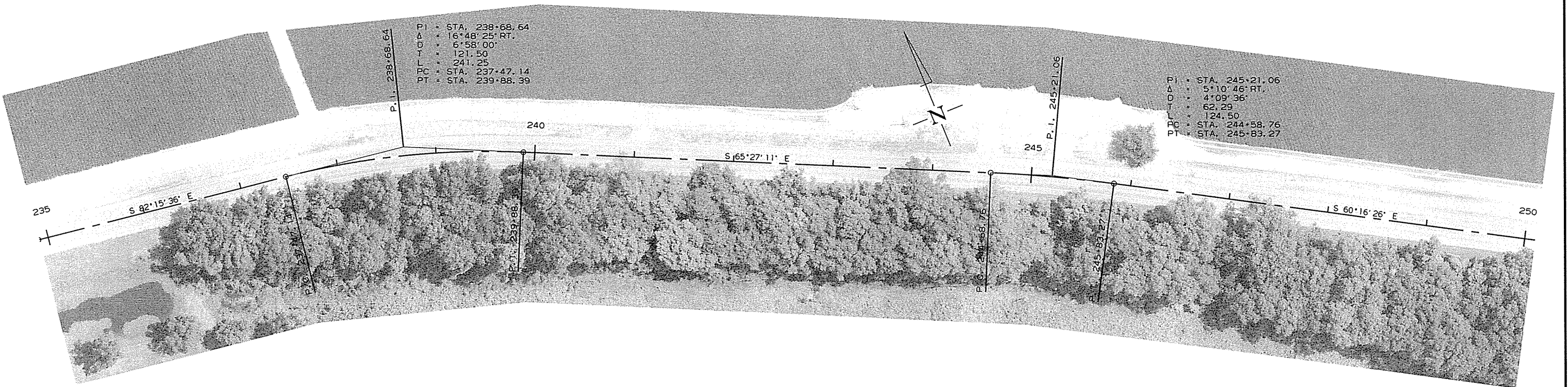
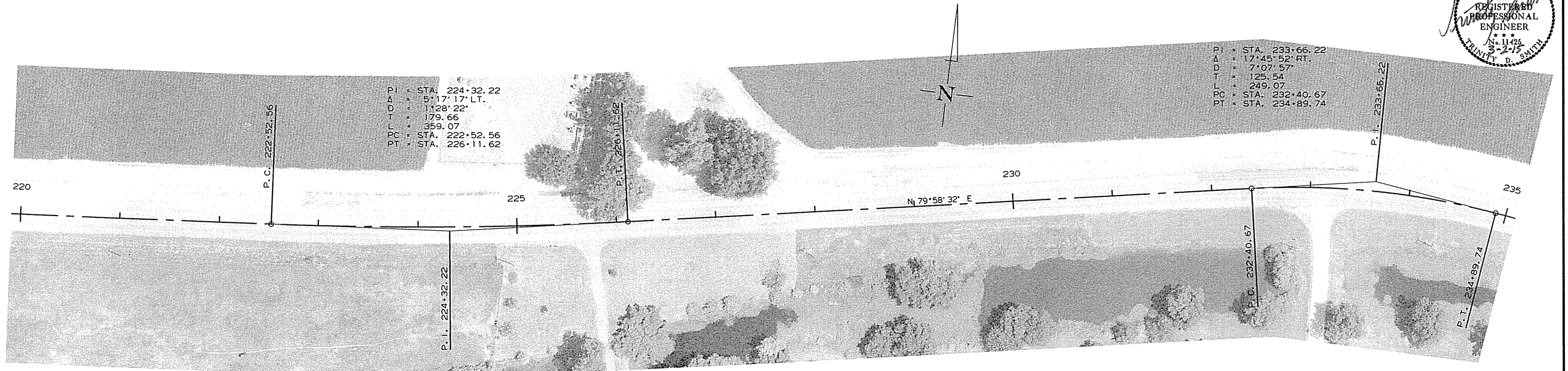
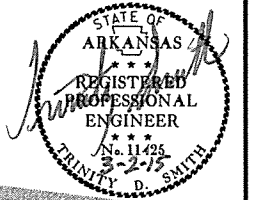


r020572.dgn HWY 4 PLAN AND PROFILE SHEETS

2/20/15

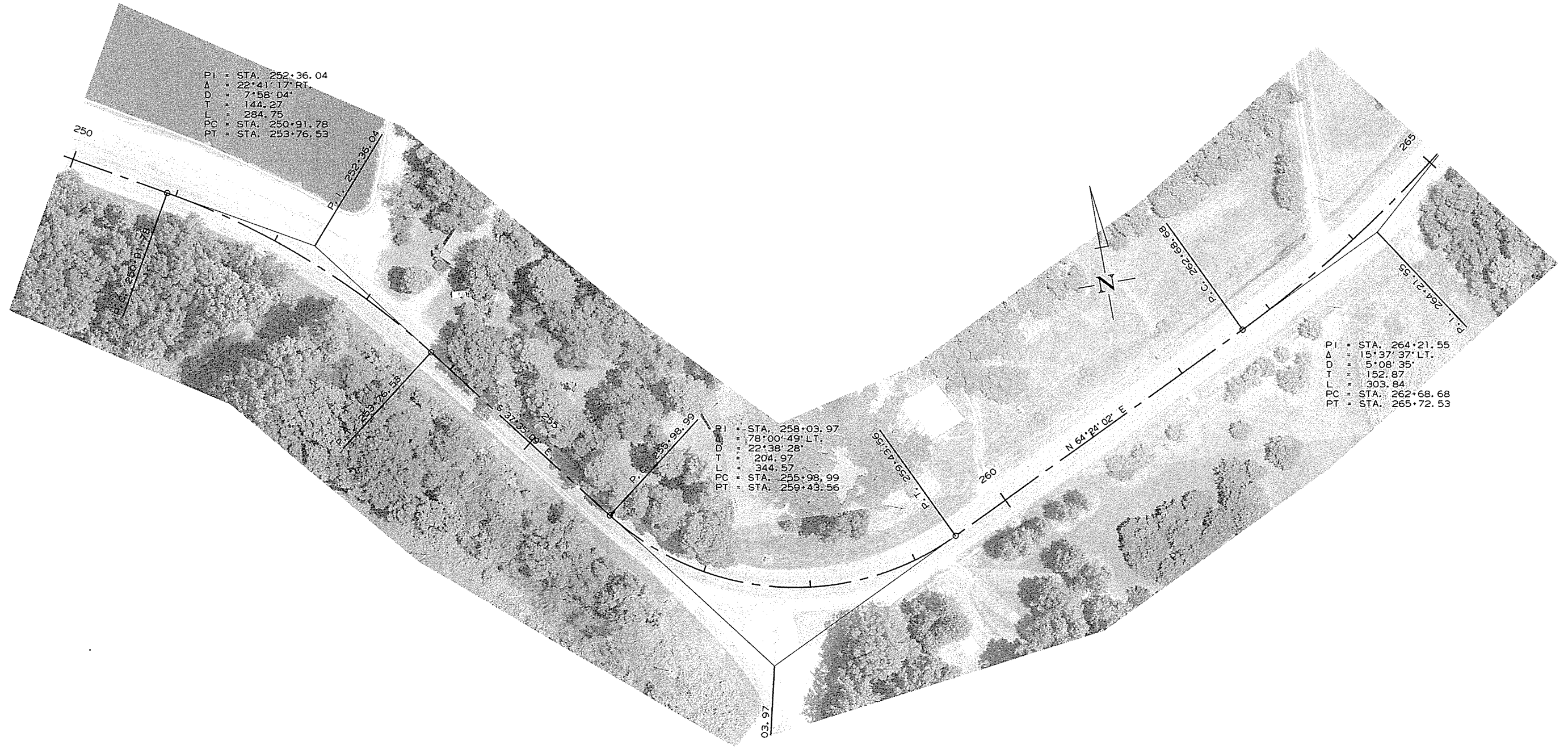
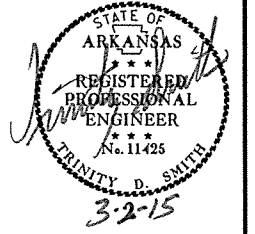
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				6	ARK.			
				JOB NO.	020572		16	29

2 PLAN SHEETS HWY. 4



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	020572		17	29

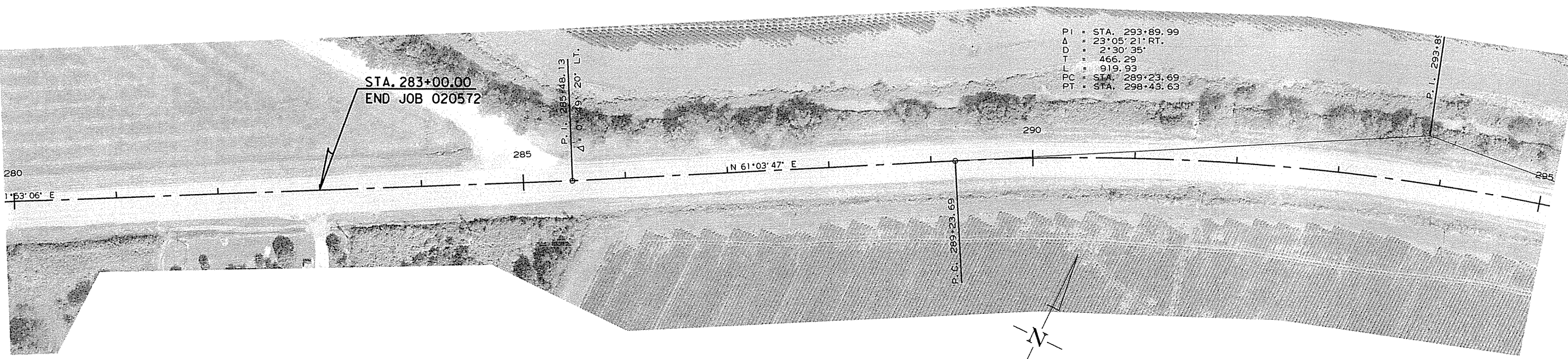
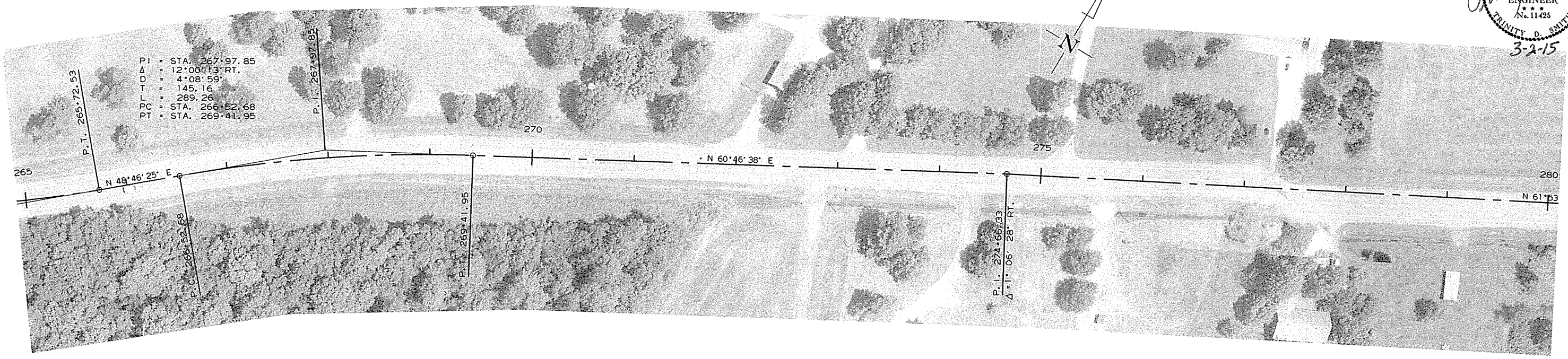
② PLAN SHEETS HWY. 4



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 020572							18	29

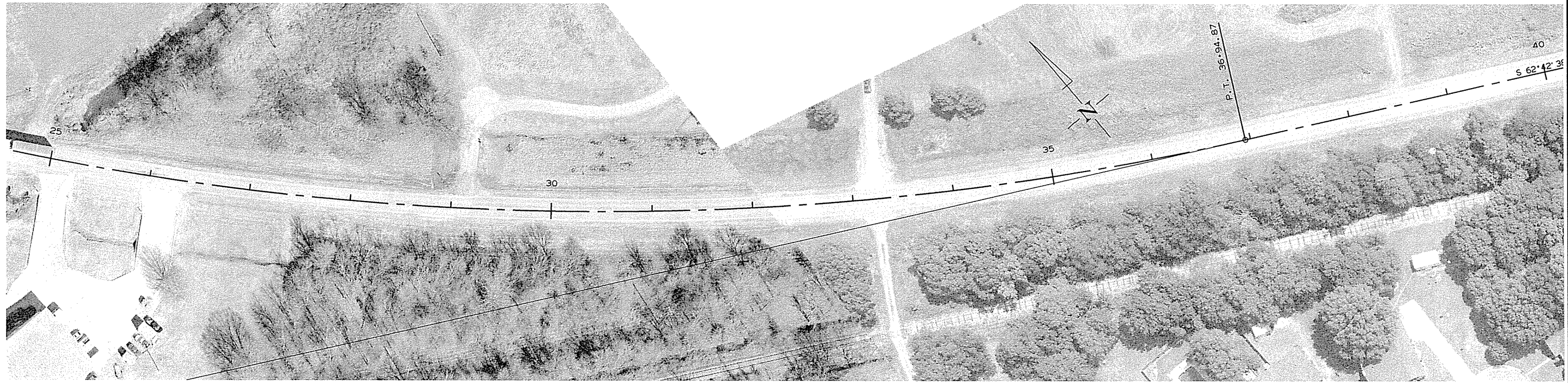
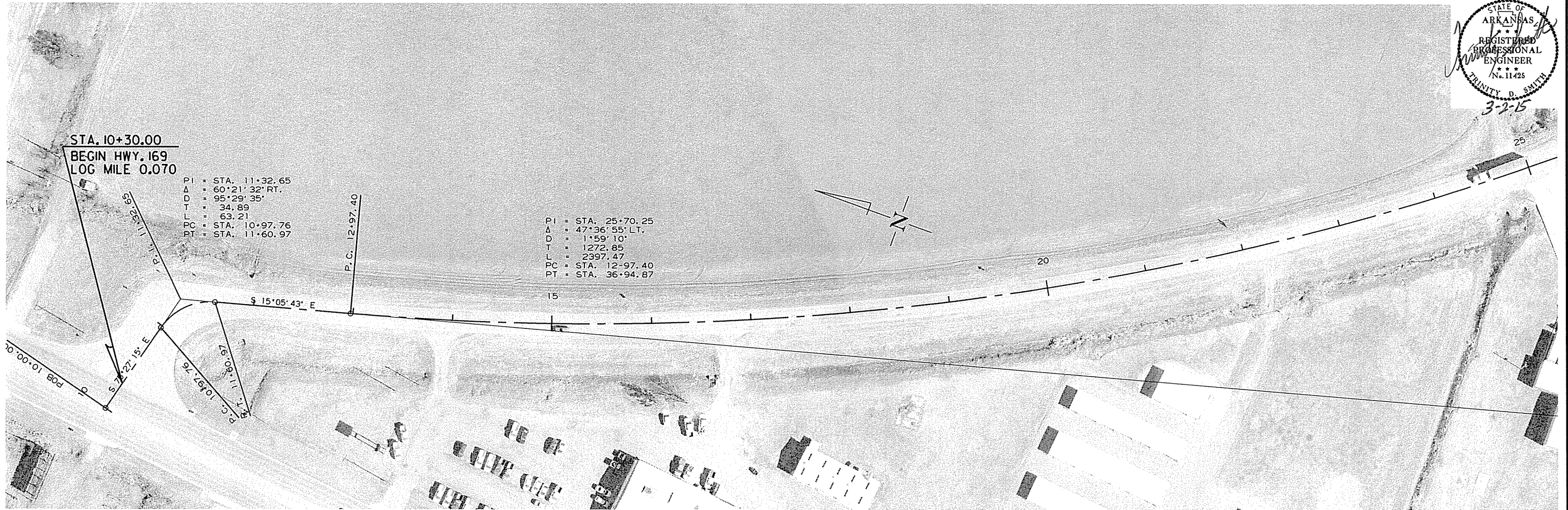
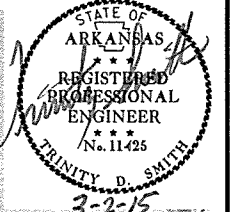
2 PLAN SHEETS HWY. 4

STATE OF ARKANSAS
 REGISTERED PROFESSIONAL ENGINEER
 No. 11425
 TRINITY D. SMITH
 3-2-15



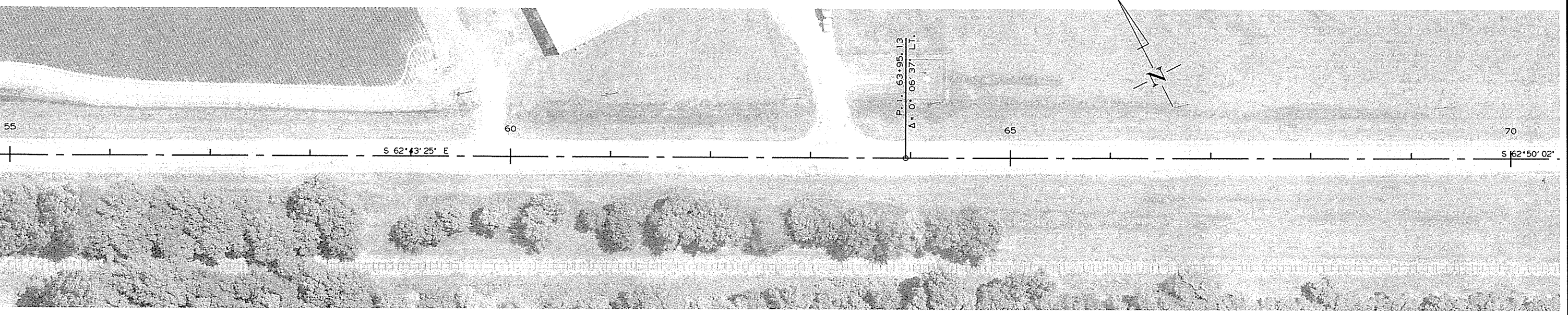
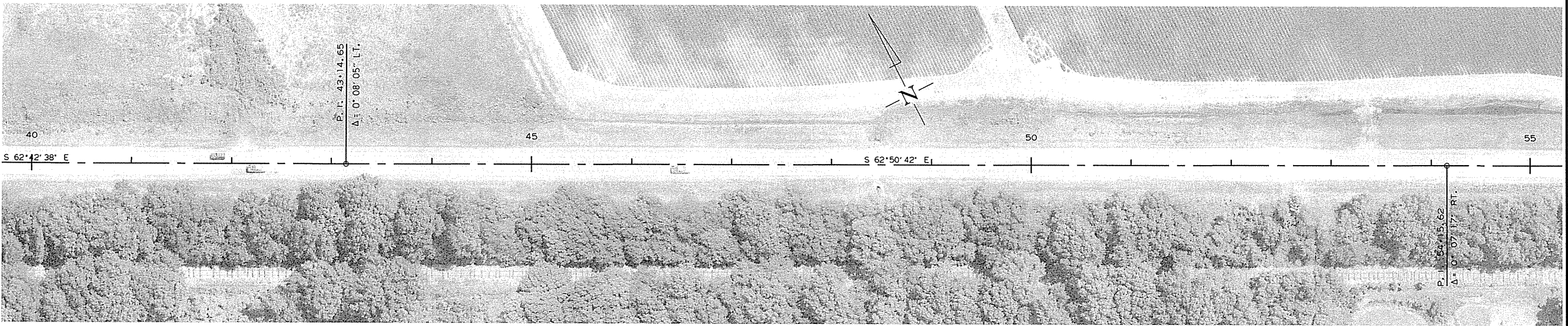
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				6	ARK.			
						JOB NO. 020572	19	29

2 PLAN SHEET HWY. 169



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	020572		20	29

② PLAN SHEET HWY. 169



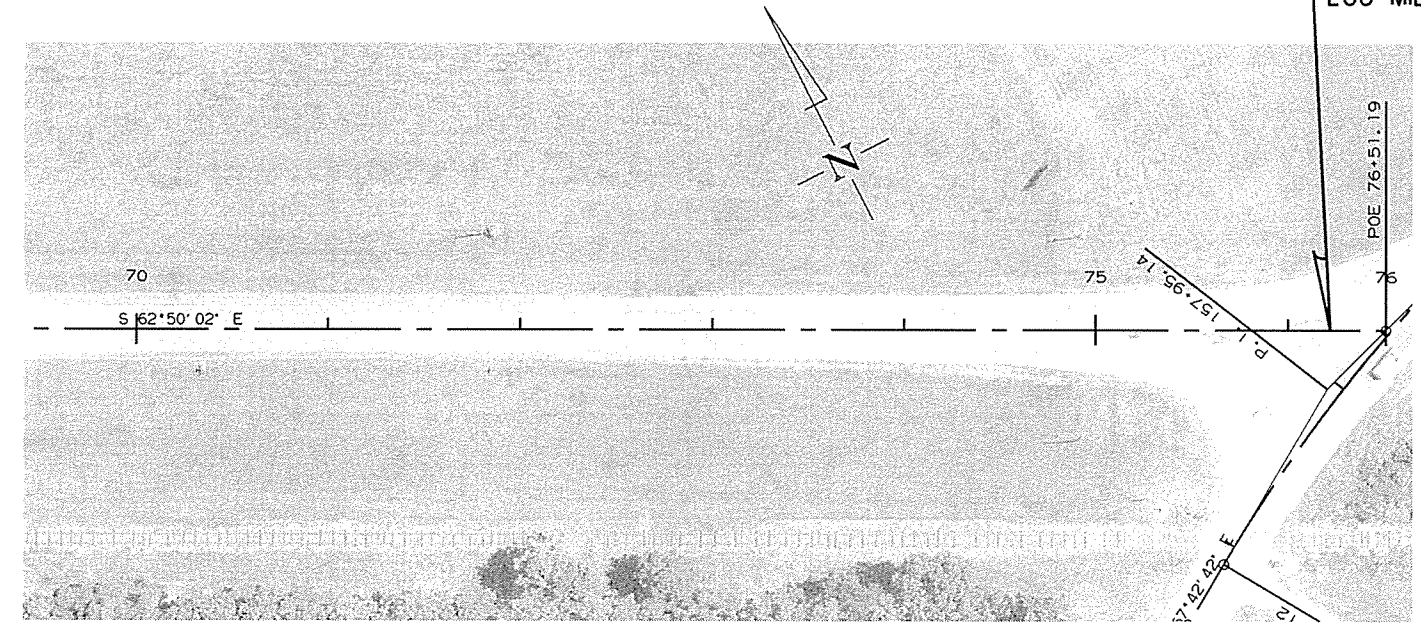
r020572.dgn HWY 169 PLAN AND PROFILE SHEETS

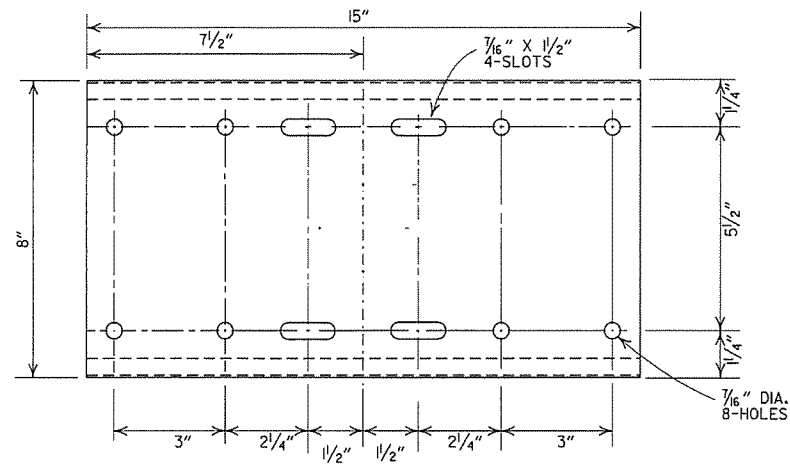
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		21	29
				JOB NO. 020572				

② PLAN SHEET HWY. 169

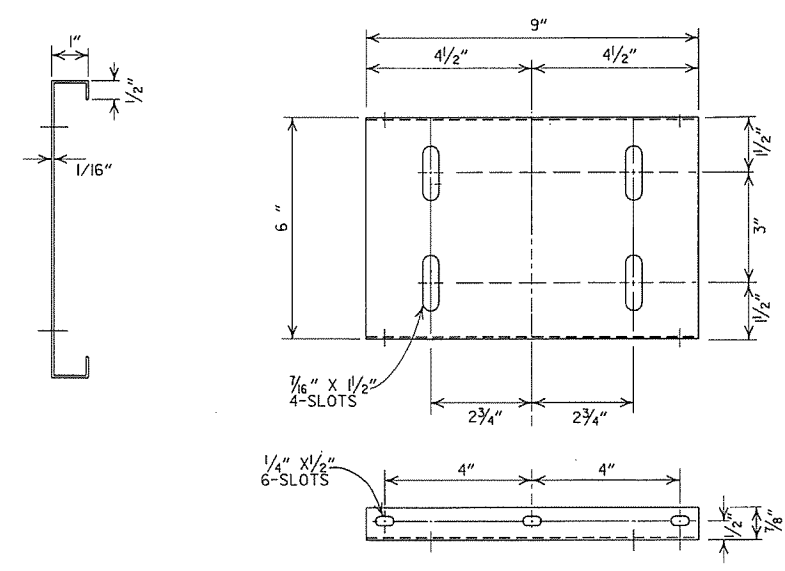


STA. 76+22.00
 END HWY. 169
 LOG MILE 1.271

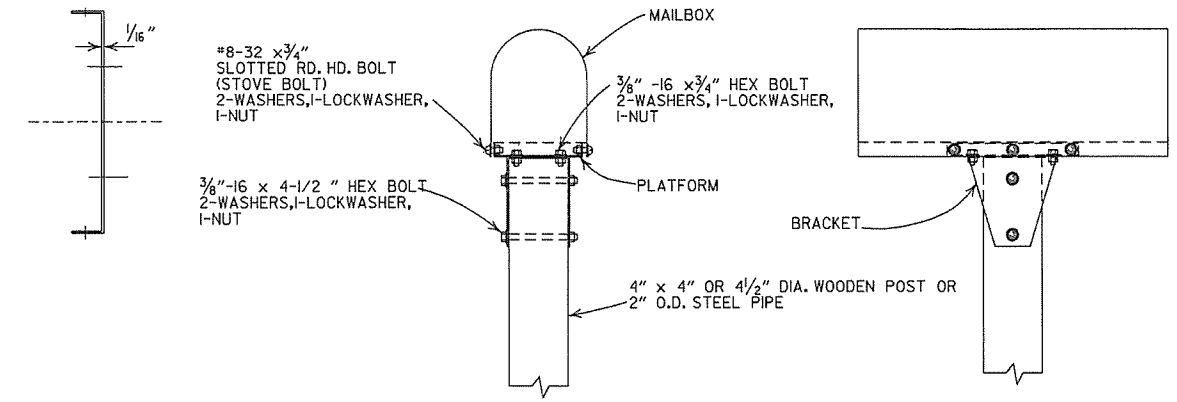




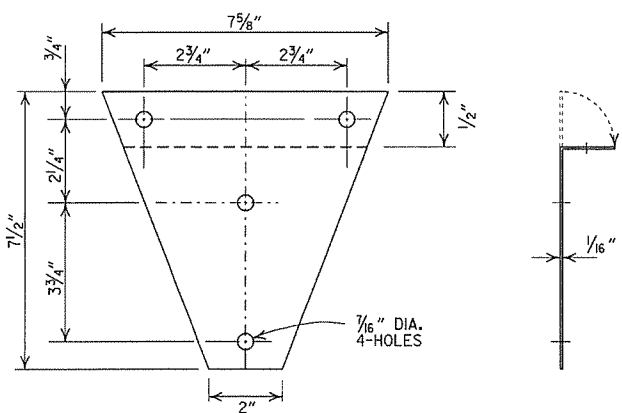
SHELF



PLATFORM

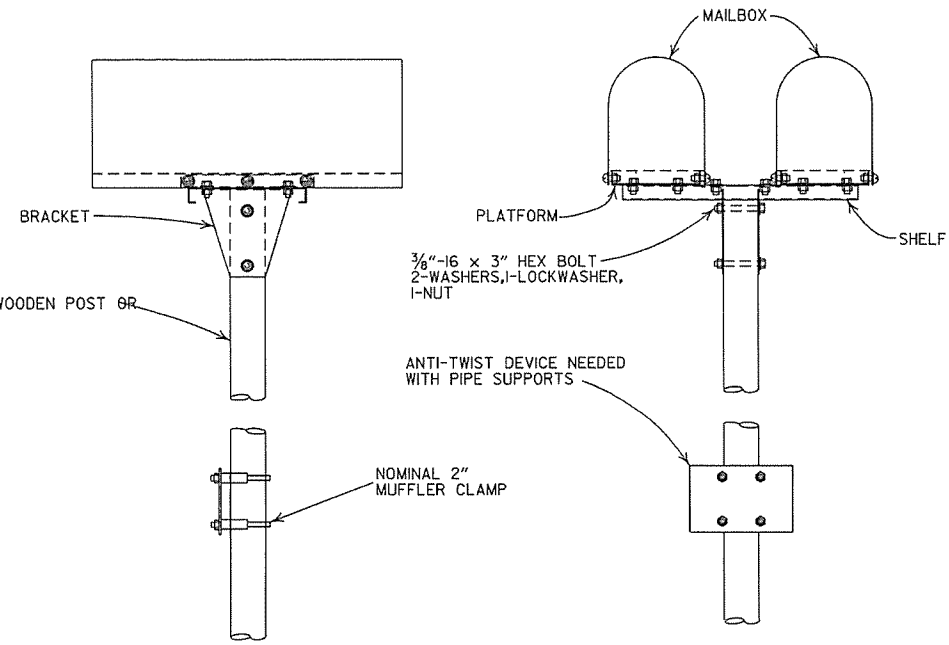


SINGLE INSTALLATION

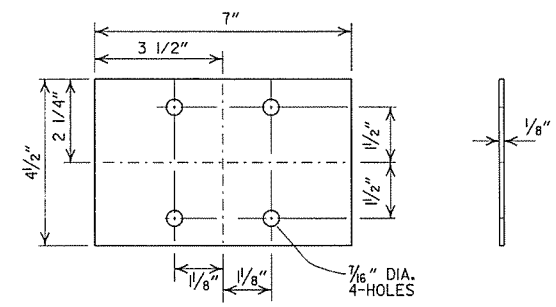


BRACKET

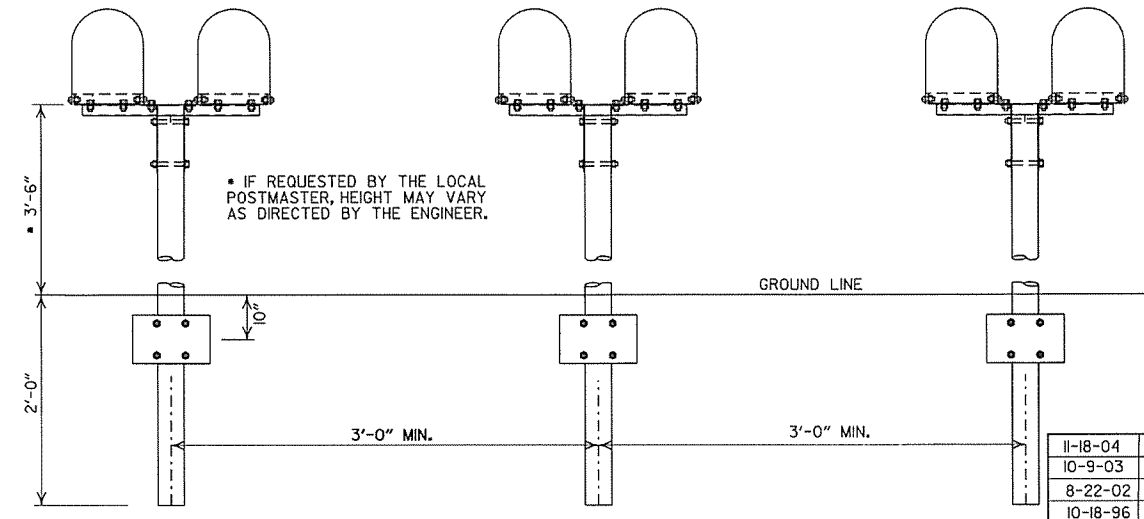
- GENERAL NOTES
1. MAILBOX POSTS MAY BE WOOD OR METAL. WOOD POSTS SHALL BE PRESSURE TREATED FOR GROUND CONTACT IN ACCORDANCE WITH SECTION 637.02 OF THE STANDARD SPECIFICATIONS.
 2. ANTI-TWIST PLATES SHALL BE USED ONLY ON METAL POSTS.
 3. MAILBOX SHELF, BRACKET & PLATFORM SHALL BE GALVANIZED OR PAINTED STEEL, HOWEVER TREATED WOOD MAY BE USED WITH WOODEN POSTS. THE WOODEN SHELF, BRACKET & PLATFORM SHALL BE A MINIMUM OF 3/4" THICK AND SHALL BE ASSEMBLED WITH BOLTS OF THE APPROPRIATE LENGTH WITH SIX 8 x 3/4" FLATHEAD WOOD SCREWS USED TO ATTACH THE MAILBOX TO THE PLATFORM.
 4. THE MAILBOX SHELF AND PLATFORM THAT IS SHOWN IS FOR STANDARD SIZE MAILBOXES. THE SHELF AND PLATFORM SIZE SHALL BE MODIFIED TO FIT MAILBOXES OF A DIFFERENT SIZE.
 5. METAL PIPE FOR MAILBOX SUPPORT SHALL BE 2" OUTSIDE DIAMETER STEEL WITH A WALL THICKNESS OF 0.145" AND A WEIGHT OF 2.72 LBS PER FT. OUTSIDE DIAMETER AND WEIGHT SHALL HAVE A TOLERANCE OF +/- 5% ACCORDING TO AASHTO M 181.
 6. MAILBOX SUPPORT SYSTEM DIFFERING FROM THOSE SHOWN MAY BE USED, PROVIDED THEY ARE ON THE AHTD QUALIFIED PRODUCTS LIST FOR MAILBOX SUPPORTS.



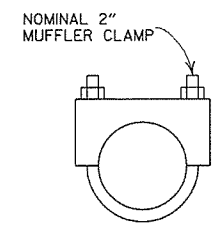
DOUBLE INSTALLATION



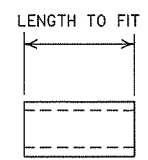
ANTI-TWIST PLATE



SPACING FOR MULTIPLE POST INSTALLATION



CLAMP



SPACER

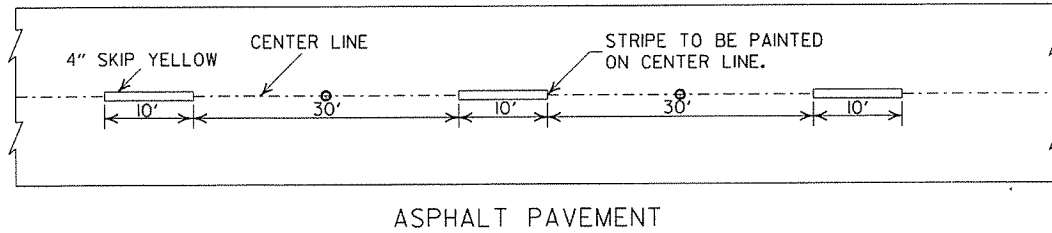
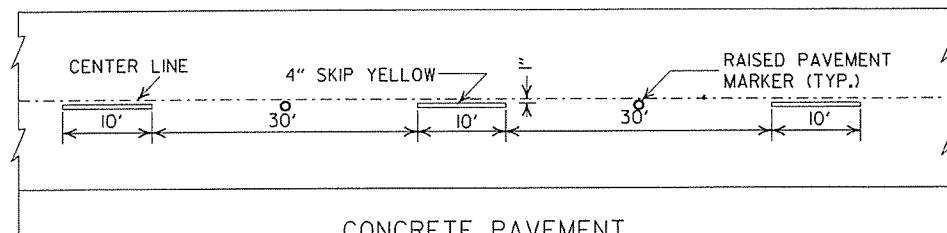
DATE	FILMED	REVISION
11-18-04		REVISED NOTES
10-9-03		REVISED NOTE 6
8-22-02		REVISED NOTE 6
10-18-96		CORRECTED AASHTO
10-1-92		CORRECTED SPELLING
9-26-91		NEW PHONE NUMBER
8-15-91		ADDED NOTE
11-30-89		ADJUSTED HEIGHT & ADDED NOTE
2-16-89		DELETED SLOTS FROM SHELF & PLTF
11-17-88	10-1-92	ADJUSTED DIMENSIONS OF STEEL POSTS
7-15-88	120-7-15-88	ISSUED

ARKANSAS STATE HIGHWAY COMMISSION

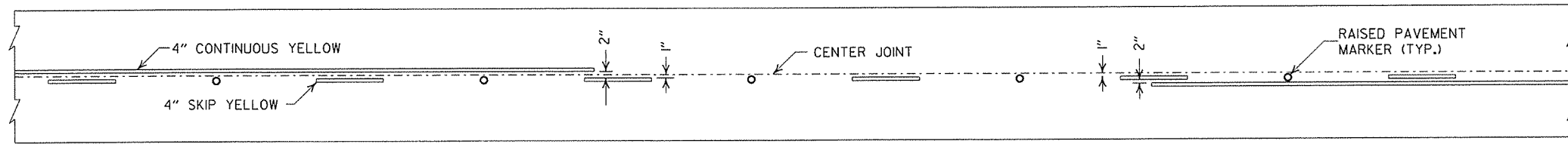
MAILBOX DETAILS
STANDARD DRAWING MB-1

NOTES:

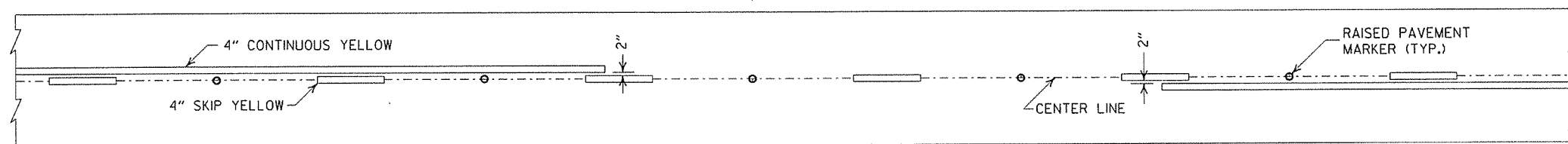
1. ALL LINES SHALL HAVE A WIDTH OF 4 INCHES.
2. THE THICKNESS AND RATE OF PAINT APPLICATION SHALL BE AS SPECIFIED IN SECTION 718 OF THE STANDARD SPECIFICATIONS.
3. THIS DRAWING SHALL BE USED IN CONJUNCTION WITH THE LATEST REVISED ADDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
4. RAISED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



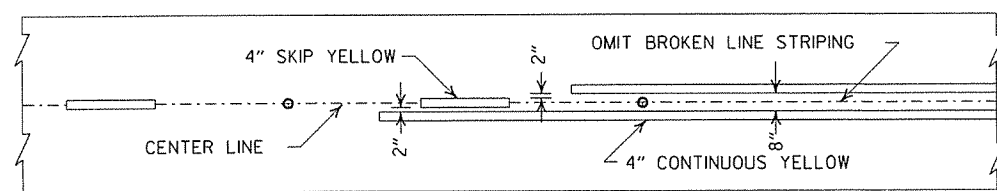
BROKEN LINE STRIPING



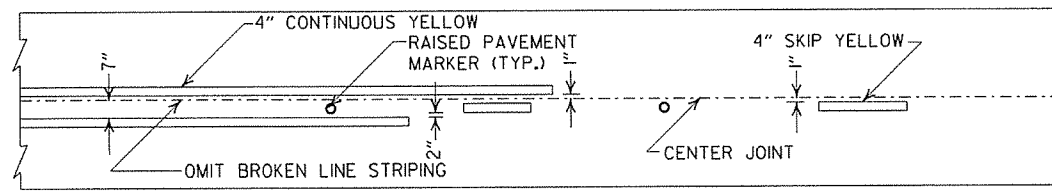
SOLID LINE STRIPING ON CONCRETE PAVEMENT



SOLID LINE STRIPING ON ASPHALT PAVEMENT

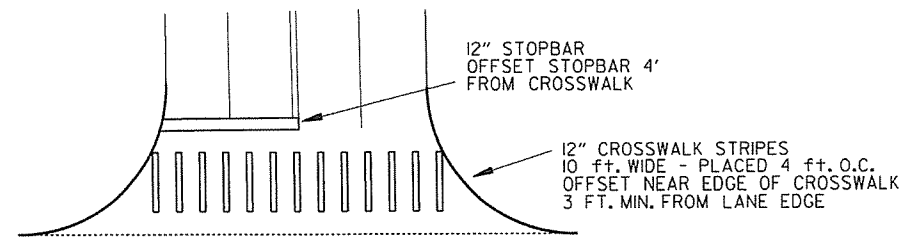


ASPHALT PAVEMENT



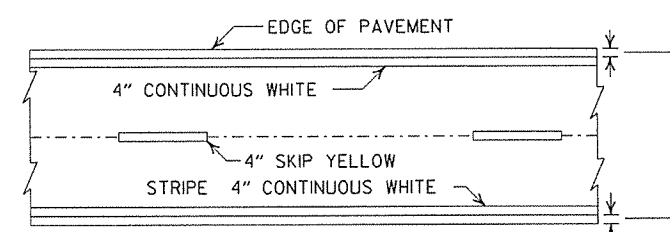
CONCRETE PAVEMENT

STRIPING AT ADJACENT NO PASSING LANES

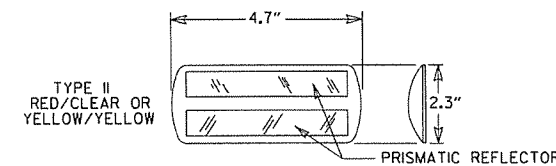


CROSSWALK AND STOPBAR DETAILS

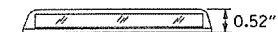
2" FOR ASPHALT OR CONCRETE PAVEMENT
6" FOR BITUMINOUS SURFACE TREATMENT



PAVEMENT EDGE LINE MARKING



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



DETAIL OF STANDARD RAISED PAVEMENT MARKERS

GENERAL NOTES:

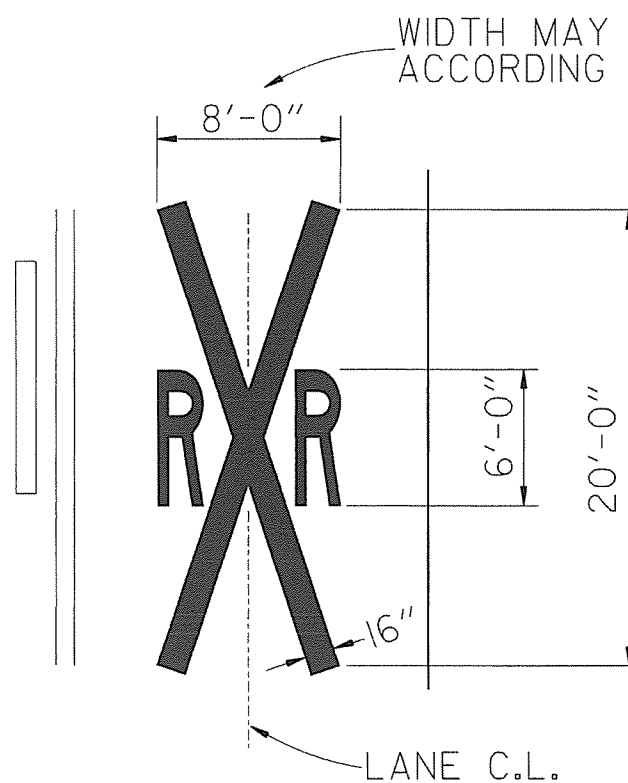
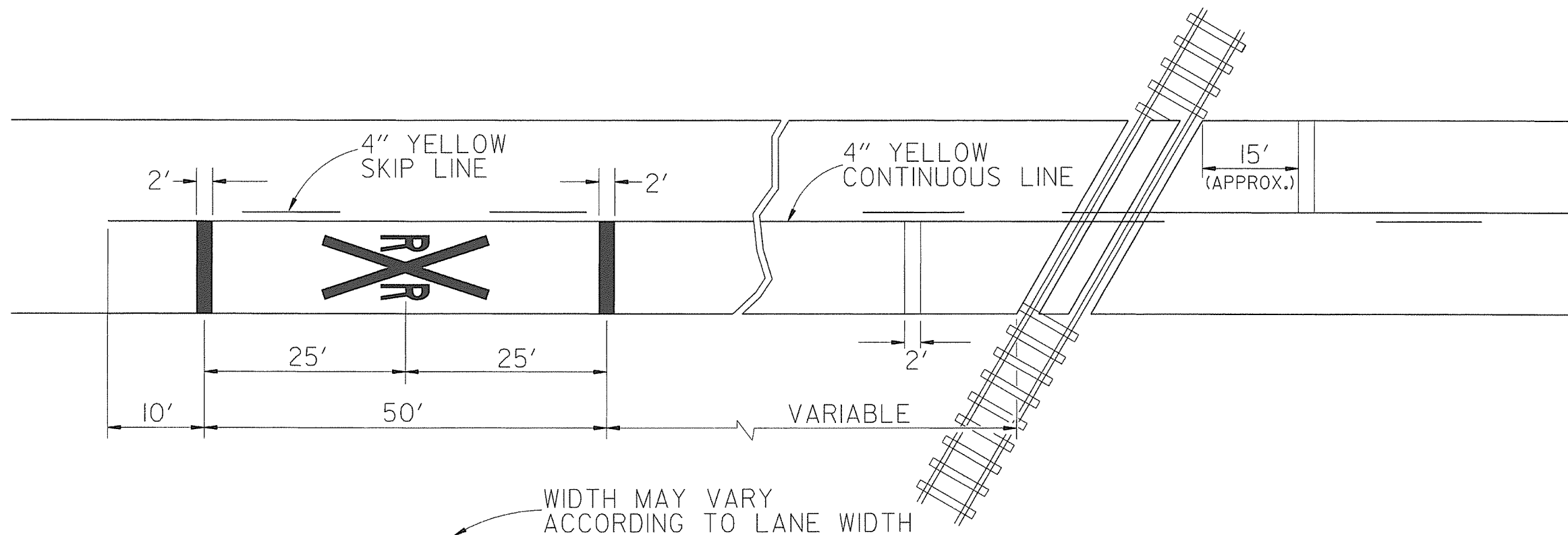
THIS DRAWING SHOULD BE CONSIDERED AS TYPICAL ONLY AND THE FINAL LOCATION OF THE STRIPING AND RAISED PAVEMENT MARKERS SHALL BE DETERMINED BY THE ENGINEER.

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

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

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

ARKANSAS STATE HIGHWAY COMMISSION	
PAVEMENT MARKING DETAILS	
STANDARD DRAWING PM-1	



DETAIL OF PAVEMENT MARKINGS FOR RAILROAD CROSSING

PAVEMENT MARKING TO BE SYMMETRICAL ABOUT RAILROAD

NOTES:
 THE DISTANCE FROM THE RAILROAD CROSSING MARKING TO THE NEAREST TRACK WILL VARY ACCORDING TO THE APPROACH SPEED AND THE SIGHT DISTANCE OF THE VEHICULAR TRAFFIC APPROACHING, BUT PROBABLY SHOULD BE NOT LESS THAN 50 FEET.

A THREE LANE ROADWAY SHOULD BE MARKED WITH A CENTERLANE FOR TWO-LANE APPROACH OPERATION ON THE APPROACH TO A CROSSING.

ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL RXR SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.

REFER TO STANDARD ALPHABET FOR HIGHWAY SIGNS AND MARKINGS FOR RXR SYMBOLS DETAILS.

DATE	REVISION	DATE FILMED
11-20-08	CORRECTED SPELLING	
4-10-03	REVISED NOTES	
3-2-81	DELETED LETTER & ADDED NOTE	684-3-2-81
7-20-79	STOP LINE CHGD. TO PERP.	636-8-30-79
4-23-75	SHEET RENUMBER	697-4-20-79
4-23-75	REDRAWN	860-4-23-75

ARKANSAS STATE HIGHWAY COMMISSION
PAVEMENT MARKING FOR RAILROAD CROSSING
STANDARD DRAWING RRS-1

LOOP DETECTOR INSTALLATION AND TESTING

NOTES:

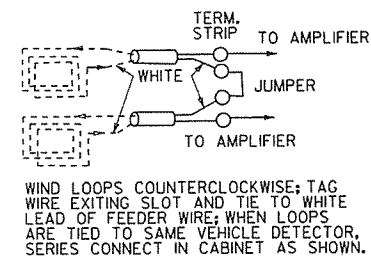
1. LOOPS WITH A PERIMETER GREATER THAN 40' SHALL HAVE TWO TURNS. LOOPS WITH A PERIMETER LESS THAN OR EQUAL TO 40' SHALL HAVE THREE TURNS, UNLESS OTHERWISE NOTED ON THE PLANS. QUADRUPOLE LOOPS SHALL BE TWO TURNS (2-4-2 CONFIGURATION) UNLESS OTHERWISE NOTED.
2. LOOP AND FEEDER WIRE SHALL BE CONTINUOUS WITHOUT SPLICES EXCEPT AT THE LOOP/FEEDER WIRE SPLICE AS SHOWN. SPLICE SHALL BE ROSIN SOLDERED AND WATERPROOFED WITH AN ACCEPTED SPLICE KIT. DRAIN WIRE SHALL BE GROUNDED IN CABINET AND INSULATED AT LOOP TO FEEDER SPLICE.
3. THE LOOP TO FEEDER SPLICE, FEEDER JACKET AND JACKET OF LOOP WIRE IN DUCT SHALL BE COMPLETELY SEALED AND WATERPROOFED.
4. CONTRACTOR MAY MAKE CONNECTIONS TO SIGNAL CABLE AND LOOP TO FEEDER CONNECTION AT TERMINAL STRIPS MOUNTED TO POLE INSIDE HAND HOLD COVER AS SHOWN IN DETAIL. TERMINALS MUST BE EASILY ACCESSIBLE, BUT PROTECTED AGAINST ACCIDENTAL CONTACT. CONNECTION OF POWER CARRYING CIRCUITS MUST BE SEPARATED FROM LOOP OR LOGIC CIRCUITS. ALL CONNECTIONS TO TERMINAL STRIPS SHALL UTILIZE SPADE LUGS OR AS APPROVED BY THE ENGINEER.
5. EACH LOOP SHALL HAVE A SEPARATE "FEEDER WIRE" UNLESS OTHERWISE NOTED. ALL FEEDER WIRES SHALL BE LABELED AS TO LOOP NUMBER AS DESIGNATED ON THE PLANS.
6. ALL LOOP WIRE ENTERING PULL BOXES SHALL BE ENCLOSED IN CONDUIT. EACH LOOP WIRE SHALL ENTER PULL BOX OR POLE BASE THROUGH A SEPARATE PIECE OF ONE INCH (1"Ø) CONDUIT.
7. LOOP WIRE FROM LOOP TO CONDUIT IS NOT TWISTED. LOOP WIRE IN THE CONDUIT MUST BE TWISTED TWO TO FIVE TURNS PER FOOT.
8. WARRANTY PERIOD FOR LOOPS SHALL NOT COMMENCE UNTIL TESTED BY THE CONTRACTOR AND ACCEPTED BY THE ENGINEER. CONTRACTOR SHALL PERFORM TEST AND PROVIDE A RECORD TO THE ENGINEER AS LISTED IN THE DETECTOR LOOP TESTING PROCEDURE.
9. UNLESS OTHERWISE APPROVED BY THE ENGINEER, BACKER ROD SHALL BE INSTALLED IN SHORT SECTIONS SPACED NOT MORE THAN 18" APART AND WEDGED INTO SLOT TO HOLD CABLE IN PLACE. CABLE SHALL BE TOTALLY ENCAPSULATED IN SEALER.
10. "HOT POUR" SEALER SHALL NOT BE ALLOWED WITH 705-LOOP WIRING IN DUCT.
11. WHERE UNDERGROUND SPLICES OF SIGNAL CABLE ARE REQUIRED, CONNECTIONS SHALL BE SOLDERED AND COMPLETELY WATERPROOFED TO THE SATISFACTION OF THE ENGINEER. WATERPROOFING SHALL EXTEND A MINIMUM OF TWO INCHES PAST THE SIGNAL CABLE JACKET AND SHALL COMPLETELY COVER ALL INDIVIDUAL CONDUCTORS OF THE SIGNAL CABLE. WATERPROOFING DOES NOT APPLY TO CONNECTIONS MADE IN POLE BASES.
12. CONTRACTOR SHALL CONNECT A SEPARATE NEUTRAL FOR EACH LOAD SWITCH REPRESENTED ON EACH SIGNAL POLE. ONLY ONE NEUTRAL IS REQUIRED FOR PEDESTRIAN SIGNALS. A SEPARATE 5C (TYPICAL) IS PROVIDED FOR PEDESTRIAN PUSH BUTTONS.
13. 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 CONTROLLER. CONTROLLER CABINET SHALL BE WIRED SUCH POWER TO LOAD SWITCHES CANNOT BACKFEED TO LOAD SWITCH POWER BUSS DURING FLASH OPERATION.

TYPICAL PROCEDURE FOR DETECTOR LOOP TESTING

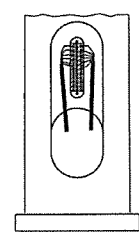
- 1 DISCONNECT AND TEST CONTINUITY (< 10 OHMS) IF CONTINUITY IS BAD, GO TO TEST 3
- 2 TEST INSULATION (@ 500 VOLT TEST > 10 MEG-OHM) IF TESTS 1 & 2 ARE GOOD, NO FURTHER TESTING IS NECESSARY. RECORDED RESULTS CONSIST OF TESTS 1 & 2 FROM CONTROL CABINET WITH FEEDER WIRE CONNECTED TO LOOP.
- 3 OPEN SPLICE (DO NOT BREAK CONNECTION) REPEAT TEST 1 & 2 IF TEST 3 IS BAD, GO TO TEST 4
- 4 BREAK SPLICE, INSTALL JUMPER IN CABINET, REPEAT TESTS 1 & 2 SEPARATELY FOR FEEDER AND FOR LOOP

FAILURES TYPICALLY RESULT FROM BROKEN WIRE IN PAVEMENT, FAULTY INSULATION OF LOOP OR FEEDER WIRE, OR POORLY INSULATED SPLICE CONNECTION.

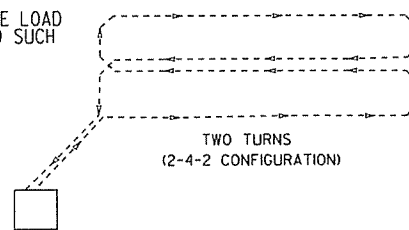
SERIES CONNECTED LOOPS



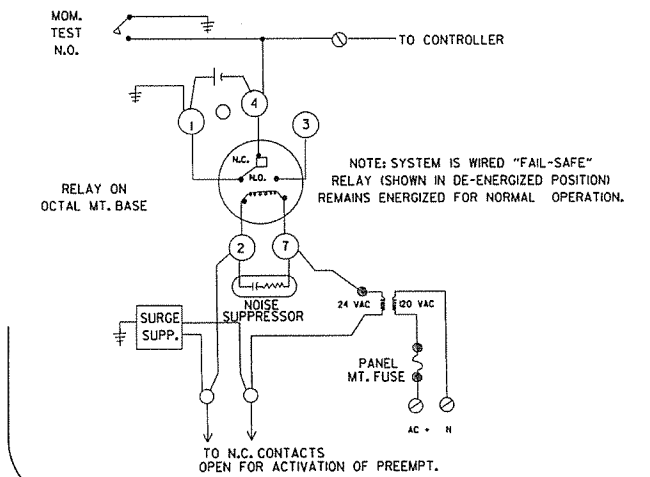
HANDHOLE TERMINAL



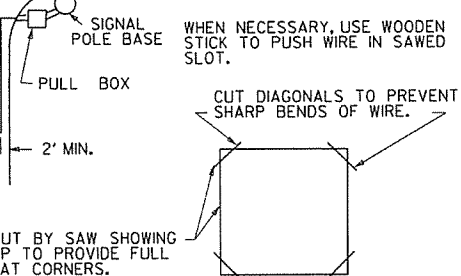
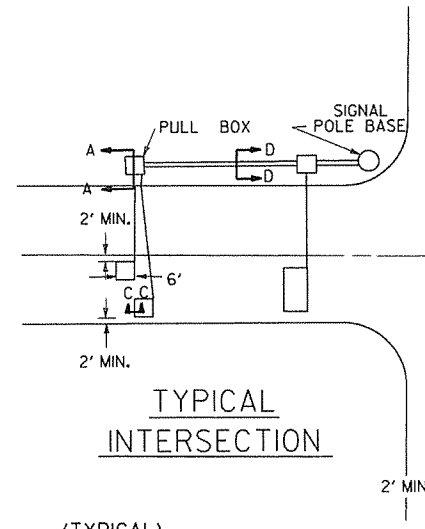
QUADRUPOLE LOOP



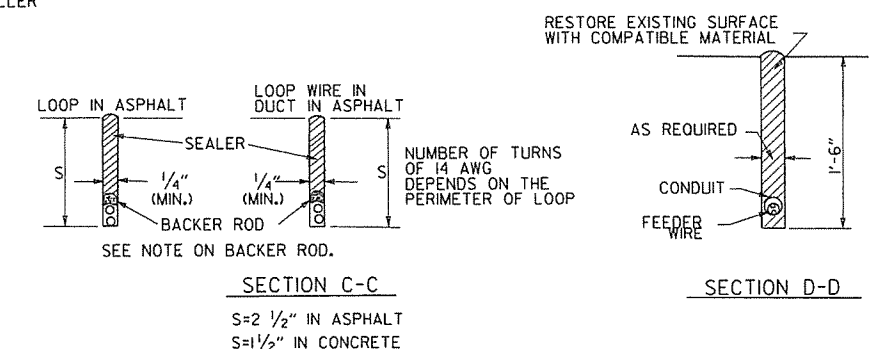
TRAFFIC SIGNAL PRE-EMPTION INTERFACE WIRING DIAGRAM



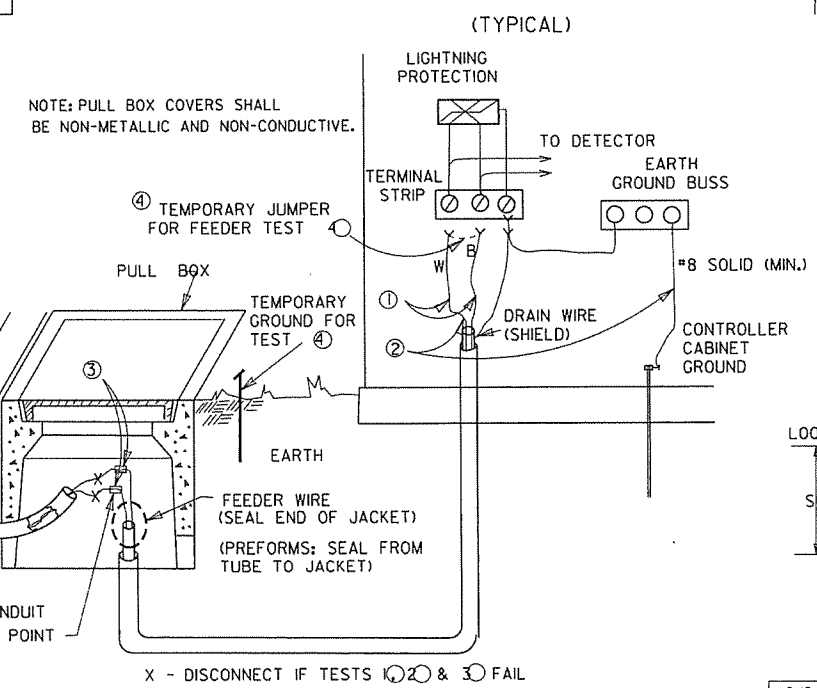
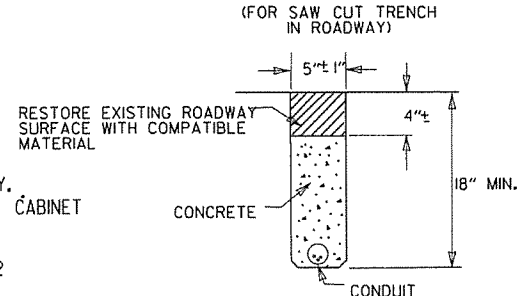
TYPICAL INTERSECTION



TYPICAL SECTIONS FOR PULSE AND PRESENCE LOOP DETECTORS



TRENCHING DETAIL



SPECIAL NOTE
IF FEEDER WIRE JACKET IS LEFT UNSEALED AND WATER IS ALLOWED TO ENTER JACKET, CONTRACTOR WILL BE REQUIRED TO REPLACE FEEDER AT NO COST TO THE DEPARTMENT.

DATE	REVISION	DATE FILM
9-12-13	ISSUED AS STANDARD DRAWING	
5-17-01	REVISED	
4-11-01	REVISED	
2-4-00	REVISED PRE-EMPTION TEST SWITCH	
11-18-98	REVISED NOTES	
11-21-95	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION
LOOP DETECTOR INSTALLATION
STANDARD DRAWING SD-4

SUPERELEVATION TABLE FOR TWO - WAY TRAFFIC

DEGREE OF CURVE	30 MPH		40 MPH		50 MPH		55 MPH		60 MPH		70 MPH	
	Ls (FT)		Ls (FT)		Ls (FT)		Ls (FT)		Ls (FT)		Ls (FT)	
e	MINIMUM	DESIRABLE	MINIMUM	DESIRABLE	MINIMUM	DESIRABLE	MINIMUM	DESIRABLE	MINIMUM	DESIRABLE	MINIMUM	DESIRABLE
0° 15'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
0° 30'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
0° 45'	N.C.		N.C.		N.C.		0.022		0.023		0.028	
1° 00'	N.C.		N.C.		0.021		0.026		0.030		0.037	
1° 15'	N.C.		N.C.		0.021		0.026		0.030		0.037	
1° 30'	N.C.		0.021		0.031	200	0.037		0.043	250	0.054	300
1° 45'	N.C.		0.025		0.040		0.048	225	0.049	300	0.062	
2° 00'	R.C.		0.028	175	0.045		0.056		0.061		0.070	
2° 15'	R.C.		0.031		0.049	250	0.053		0.067		0.078	300
2° 30'	R.C.		0.034		0.053		0.063		0.072		0.085	350
2° 45'	R.C.		0.037		0.057		0.067	230	0.077	260	0.091	335
3° 00'	R.C.		0.040	200	0.061		0.072	245	0.082	275	0.098	350
3° 15'	R.C.		0.043		0.065	205	0.076	255	0.086	285	0.098	360
3° 30'	R.C.		0.046		0.069	215	0.080	265	0.090	295	0.100	360
3° 45'	R.C.	200	0.049		0.072	225	0.083	270	0.093	305		
4° 00'	R.C.		0.051		0.078	240	0.087	280	0.096	315		
4° 30'	R.C.		0.056		0.083	250	0.091	295				
5° 00'	R.C.		0.061		0.088	260	0.094	300				
5° 30'	R.C.		0.066	185	0.092	270	0.096	305				
6° 00'	R.C.		0.070	190	0.095	280	0.100	315				
6° 30'	R.C.		0.074	200								
7° 00'	R.C.		0.078	210								
7° 30'	R.C.		0.081	215								
8° 00'	R.C.		0.084	220								
8° 30'	R.C.		0.087	225								
9° 00'	R.C.		0.089	230								
10° 00'	R.C.	160	0.094	235								
11° 00'	R.C.	170	0.097	250								
12° 00'	R.C.	175	0.099	250								
13° 00'	R.C.	180	0.100	250								
14° 00'	R.C.	190										
15° 00'	R.C.	195										
16° 00'	R.C.	200										
17° 00'	R.C.	200										
18° 00'	R.C.	205										
19° 00'	R.C.	210										
20° 00'	R.C.	215										
21° 00'	R.C.	215										
22° 00'	R.C.	215										
23° 00'	R.C.	215										
24° 00'	R.C.	220										

D MAX = 24' 45'

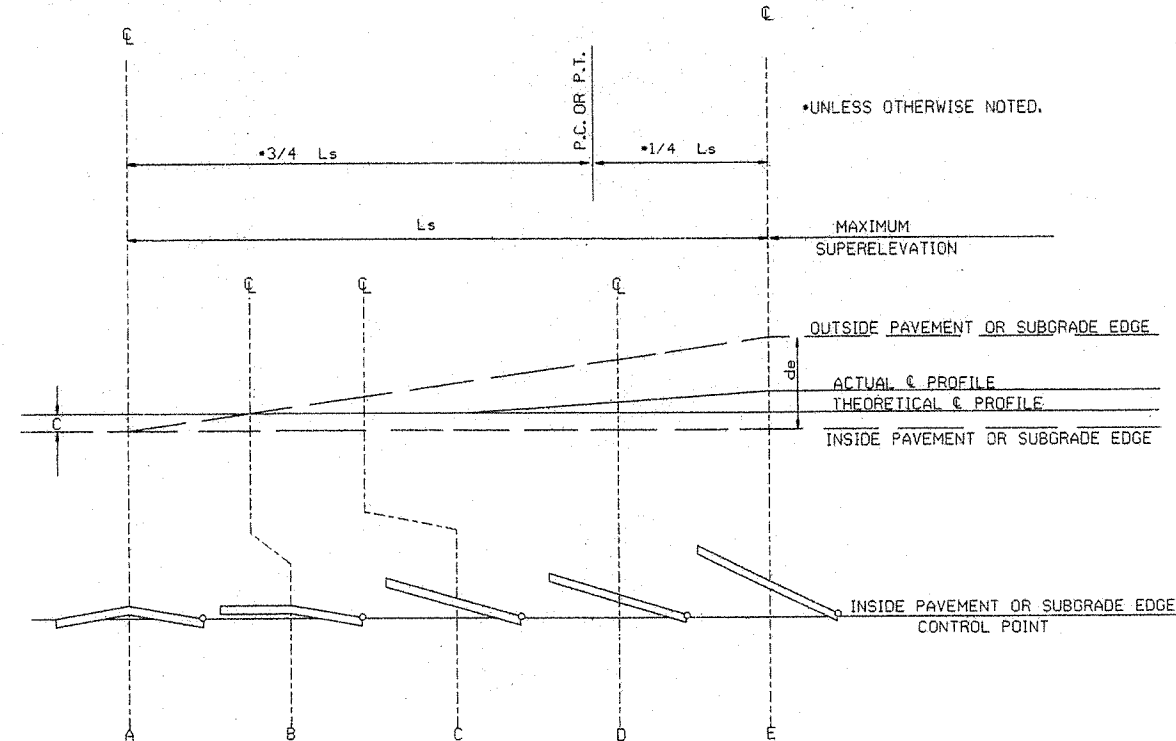
ABBREVIATIONS

- NC - NORMAL CROWN
- RC - REVERSE CROWN, SUPERELEVATION AT NORMAL CROWN SLOPE
- e - RATE OF SUPERELEVATION (FT. PER FT.)
- Ls - LENGTH OF SUPERELEVATION TRANSITION (FT.)
- L - DISTANCE FROM BEGINNING OF SUPERELEVATION TRANSITION TO ANY POINT (FT.)
- d - WIDTH OF PAVEMENT (FT.) OR WIDTH OF SUBGRADE (FT.)
- C - NORMAL CROWN (FT.)

GENERAL NOTES

- ON PAVEMENT WITH TWO-WAY TRAFFIC, THE SUPERELEVATION SHALL BE REVOLVED ON THE INSIDE PAVEMENT EDGE UNLESS OTHERWISE NOTED ON THE PLANS
- SUPERELEVATION VALUES SHOWN ON THE CROSS SECTIONS ARE VALUES (+) OR (-) TO BE ADDED TO OR SUBTRACTED FROM THE POINT OF CONTROL.
- LENGTHS FOR L MAY BE ROUNDED IN MULTIPLES OF 25 FT. OR 50 FT. TO PERMIT SIMPLER CALCULATIONS.
- PAVEMENTS WIDER THAN 2 LANES SHALL HAVE ADDITIONAL TRANSITION LENGTHS AS FOLLOWS:
 3 LANE UNDIVIDED - - - - - +20%
 4 LANE UNDIVIDED - - - - - +50%
 5 LANE UNDIVIDED - - - - - +80%
 6 LANE UNDIVIDED - - - - - +100%

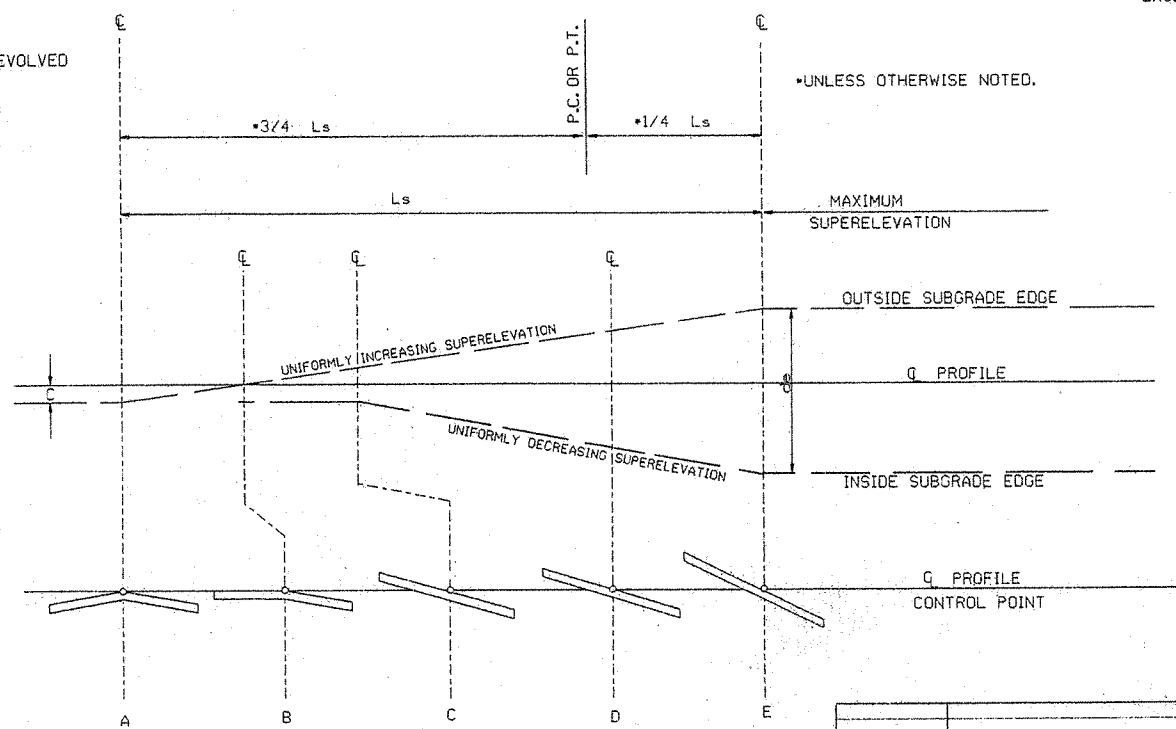
NOTE: MAINTAIN NORMAL CROWN ON INSIDE UNTIL SUPERELEVATION EXCEEDS 2C.
 RATE OF SUPERELEVATION SHALL BE COMPUTED ON STRAIGHT LINE METHOD USING APPLICABLE Ls.



STANDARD METHOD WHEN SUPERELEVATION REVOLVES AROUND INNER SUBGRADE POINT OR INNER PAVEMENT EDGE

NOTE: MAINTAIN NORMAL CROWN ON INSIDE UNTIL SUPERELEVATION EXCEEDS 2C.

SUPERELEVATION FORMULA = $\frac{Lde}{Ls}$



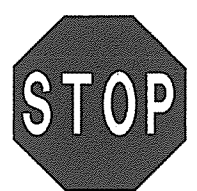
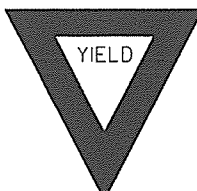
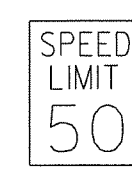




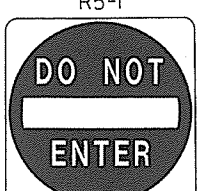

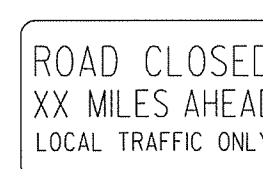
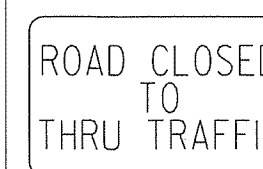
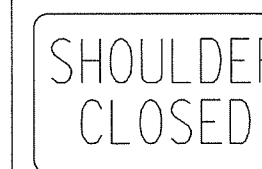
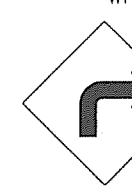
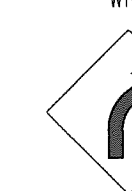
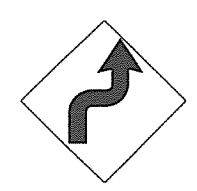
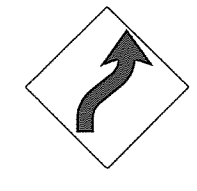
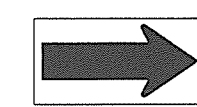
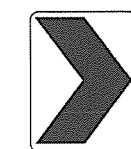
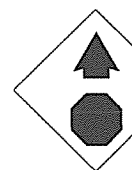

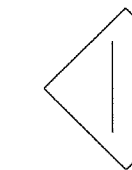

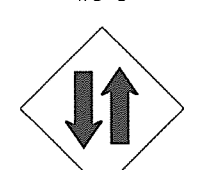
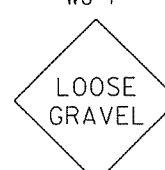
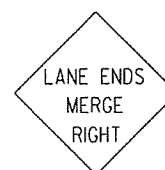
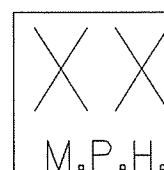

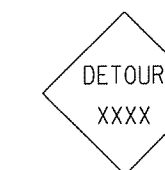

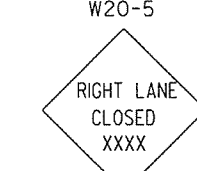
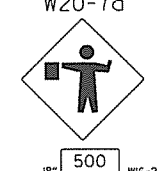

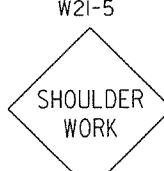
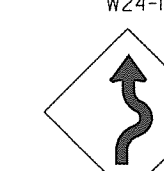

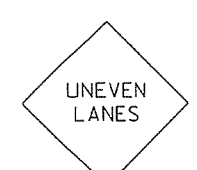
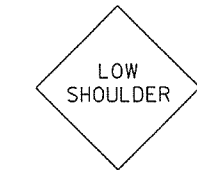
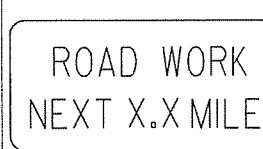
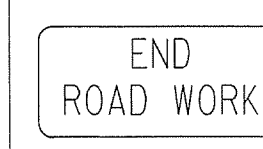
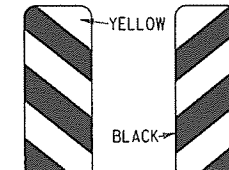
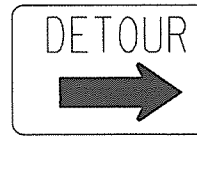
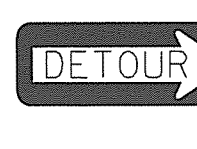

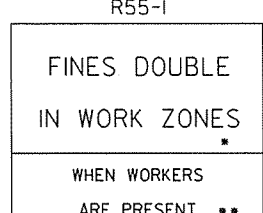
STANDARD METHOD WHEN SUPERELEVATION REVOLVES AROUND CENTER LINE

10-18-96	ADDED FORMULA	10-18-96
01-09-87	ISSUED	534-1-9-87
DATE	REVISION	DATE FILMED

ARKANSAS STATE HIGHWAY COMMISSION

TABLES AND METHOD OF SUPERELEVATION FOR TWO-WAY TRAFFIC

STANDARD DRAWING SE-2

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

ADVANCE DISTANCES (XXXX)

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

AHEAD

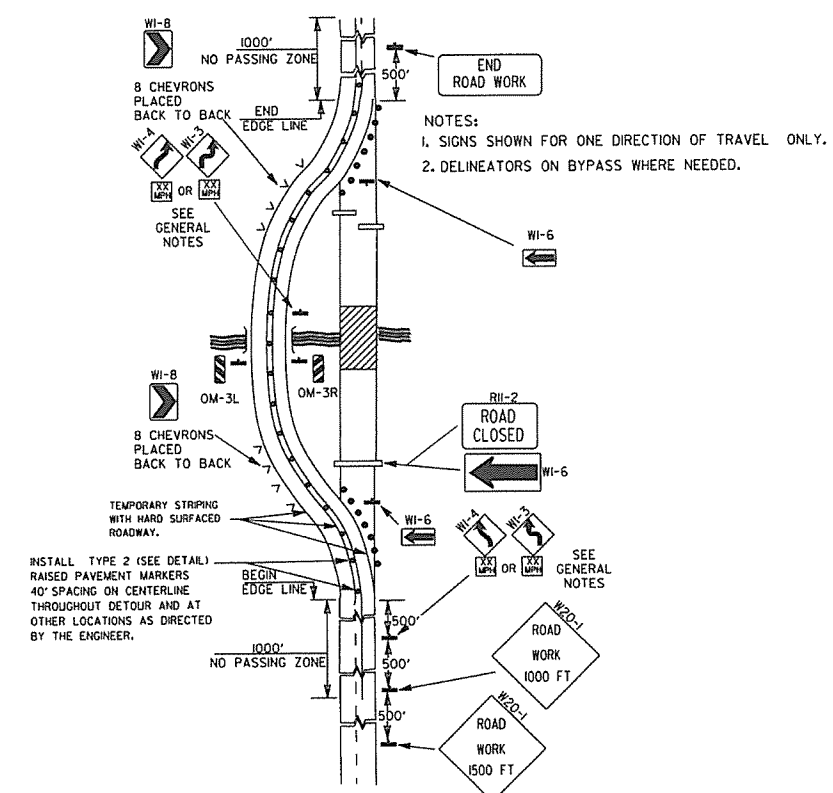
GENERAL NOTES:

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

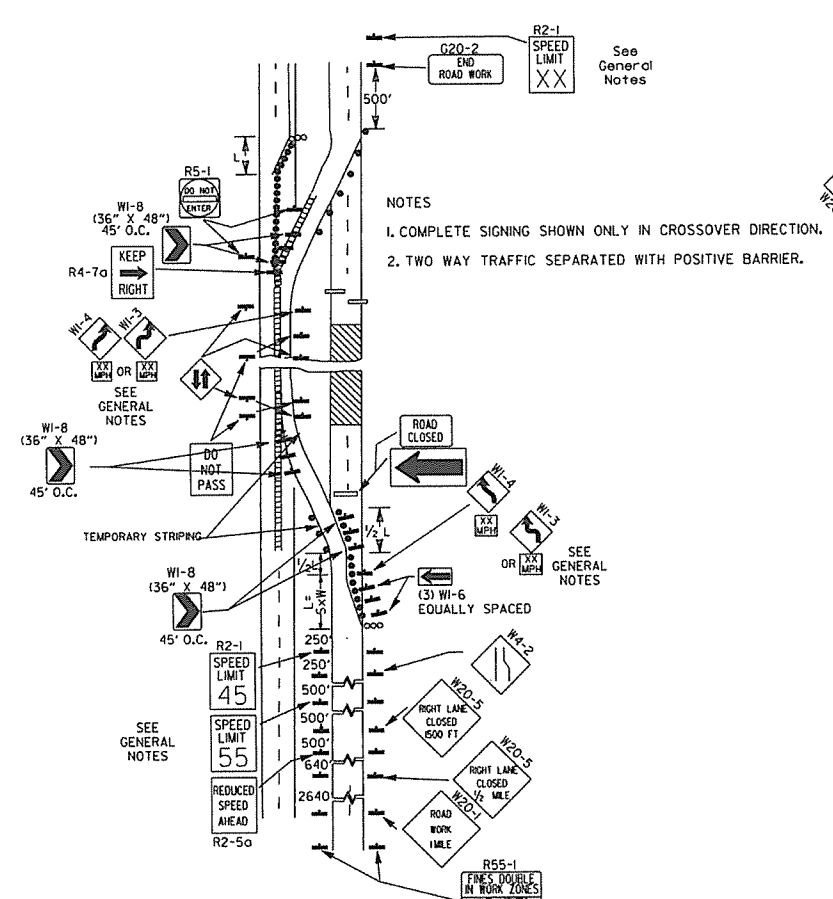
- FLAGGERS SHALL USE REFLECTORIZED STOP-SLOW PADDLES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.
- MOST OF THE SIGNS SHOWN ARE ORIENTED TO THE RIGHT. HOWEVER, THIS DOES NOT PRECLUDE THE USE OF MIRROR IMAGES OF THESE SIGNS WHERE THE REVERSE ORIENTATION MIGHT BETTER CONVEY TO MOTORISTS THE PROPER DIRECTION OF MOVEMENT.
- R55-1 SIGNS SHALL BE PLACED AT LEAST 1500' BUT NOT MORE THAN 1 MILE IN ADVANCE OF THE WORK ZONE. IF A SPEED LIMIT REDUCTION IS IN EFFECT, THE SIGN SHALL BE PLACED A MINIMUM OF 500' IN ADVANCE OF THE "REDUCED SPEED AHEAD" SIGN.

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

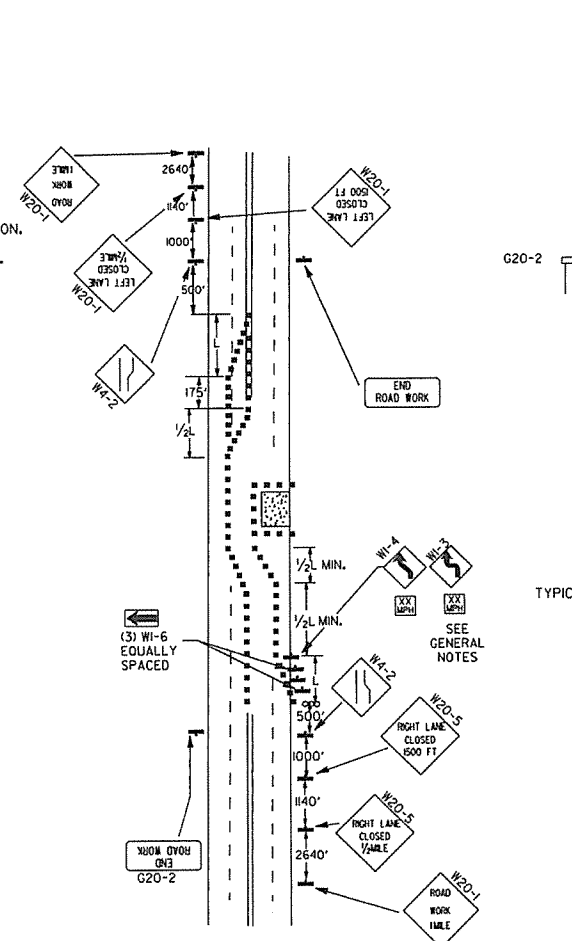
12-15-11	REVISED W24-1	
11-17-10	DELETED W8-9a & ADDED W8-9	
10-15-09	ADDED REFERENCE TO MASH & ADDED SIGN W24-1	
4-17-08	REVISED SIGN DESIGNATIONS	
11-18-04	REVISED NOTES	
10-9-03	REVISED NOTE 1	
11-16-01	REVISED NOTE 7	
9-28-00	REVISED NOTE	
11-18-98	ADDED NOTE	
6-26-97	REVISED NOTE 5	
4-03-97	REVISED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



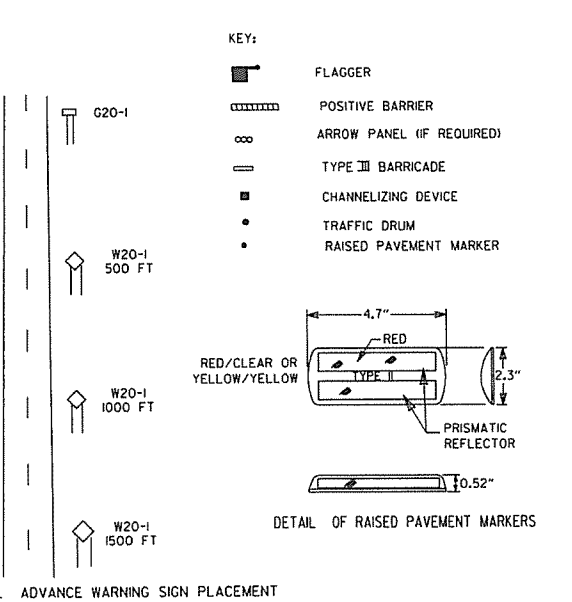
(A) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON A 2-LANE HIGHWAY WHERE THE ENTIRE ROADWAY IS CLOSED AND A BYPASS DETOUR IS PROVIDED.



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



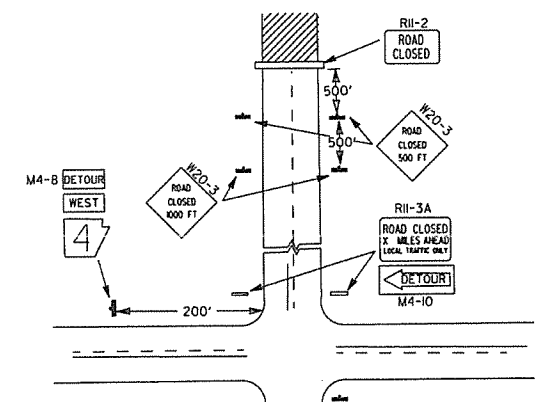
(C) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



TYPICAL ADVANCE WARNING SIGN PLACEMENT

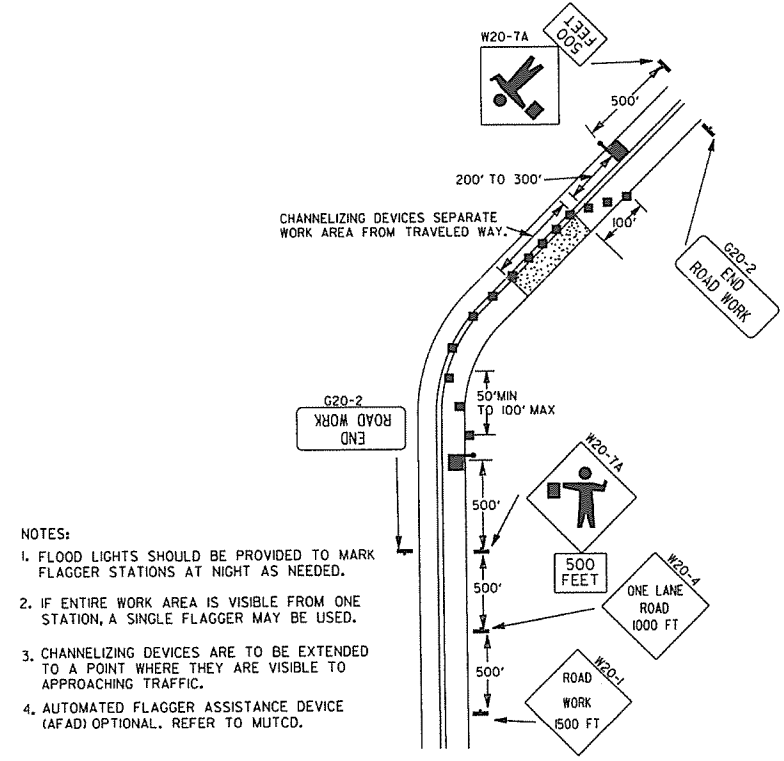
TAPER FORMULAE:
L=SW FOR SPEEDS OF 45MPH OR MORE.
L= $\frac{WS^2}{60}$ FOR SPEEDS OF 40MPH OR LESS.
WHERE:
L= MINIMUM LENGTH OF TAPER.
S= NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK OR 85TH PERCENTILE SPEED.
W= WIDTH OF OFFSET.

GENERAL NOTES:
1. ADVISORY SPEED POSTED ON W1-3 OR W1-4 CURVE WARNING SIGNS TO BE DETERMINED AT SITE. USE W1-4 WHEN SPEED IS GREATER THAN 30MPH AND W1-3 WHEN 30MPH OR LESS.
2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-(155) SHALL BE OMITTED AND THE R2-5A SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-145MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-(1XX) 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 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-(1XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
4. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT. BEYOND THE TAPER, MAXIMUM SPACING SHALL BE TWO TIMES THE SPEED LIMIT, OR AS DIRECTED BY THE ENGINEER.
5. WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
6. PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
7. TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE DELINEATED BY AFFIXING CONSPICUOUS MATERIAL IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER. WHEN PLACED ON OR ADJACENT TO THE SHOULDER AND NOT BEHIND A POSITIVE BARRIER, THESE DEVICES SHALL BE DELINEATED BY PLACING FIVE (5) TRAFFIC DRUMS, EQUALLY SPACED ALONG THE TRAFFIC SIDE OF THE DEVICE.

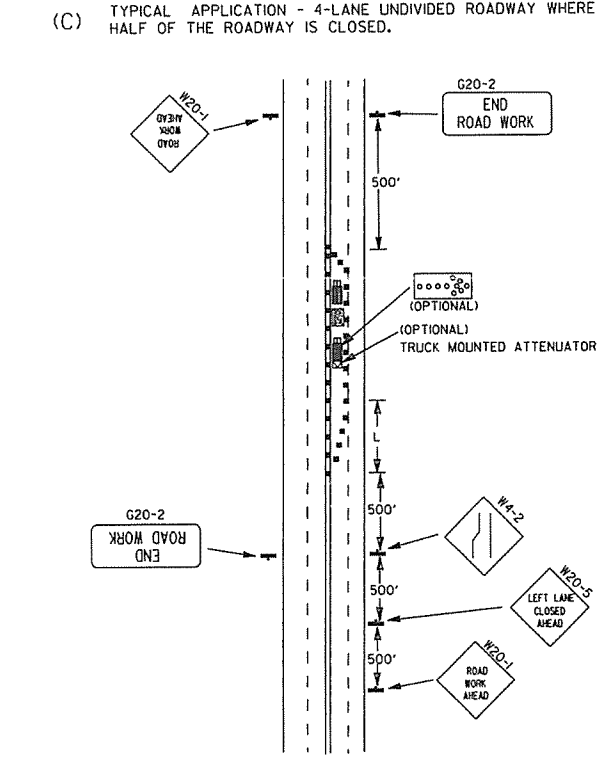


NOTES:
1. REGULATORY TRAFFIC CONTROL DEVICES TO BE MODIFIED AS NEEDED FOR THE DURATION OF THE DETOUR.
2. STREET NAMES MAY BE USED WHEN DESIRABLE FOR DIRECTING DETOURED TRAFFIC.

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



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

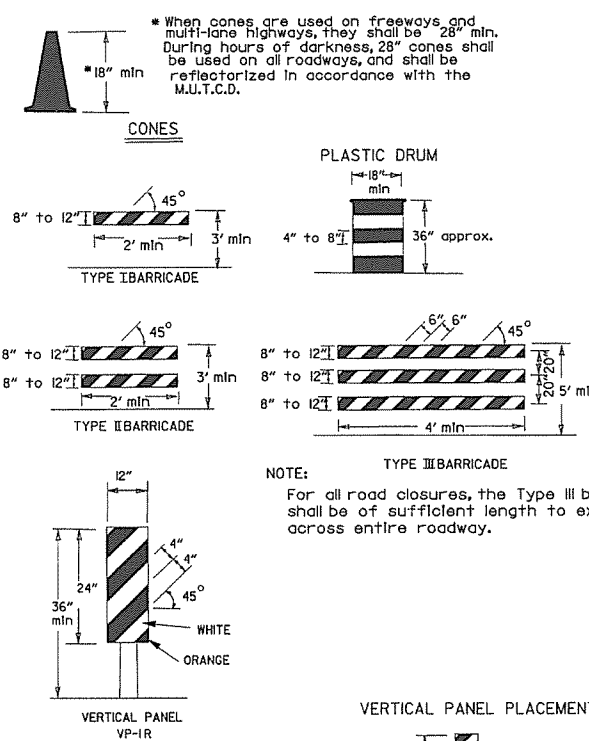


(F) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WITH INSIDE LANE CLOSED.

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

ARKANSAS STATE HIGHWAY COMMISSION
STANDARD TRAFFIC CONTROLS
FOR HIGHWAY CONSTRUCTION
STANDARD DRAWING TC-2

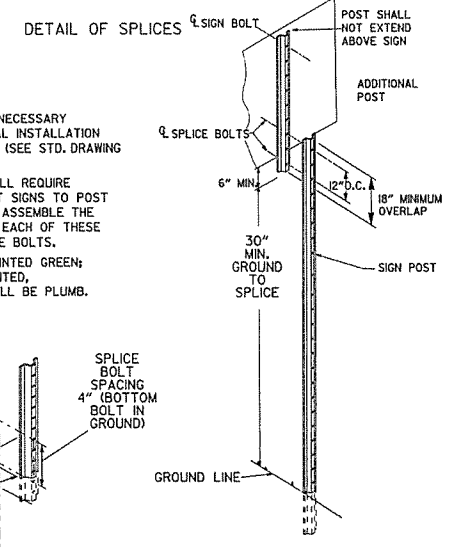
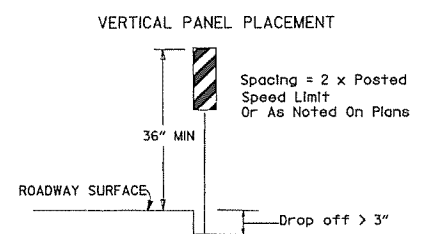
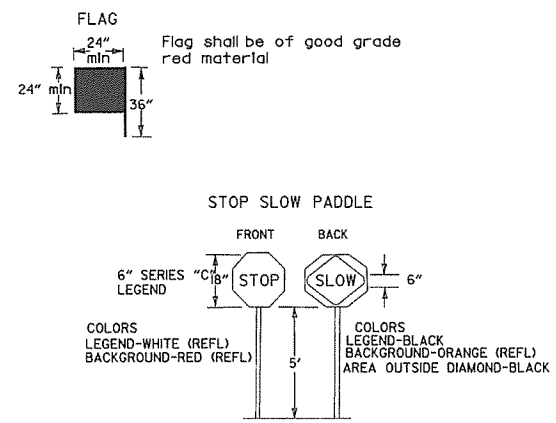
Channelizing devices



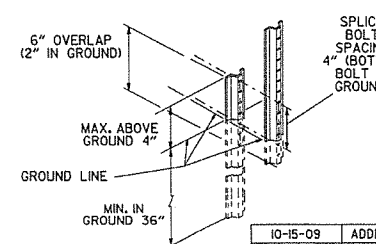
TRAFFIC CONTROL DEVICES FOR VERTICAL PAVEMENT DIFFERENTIALS

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

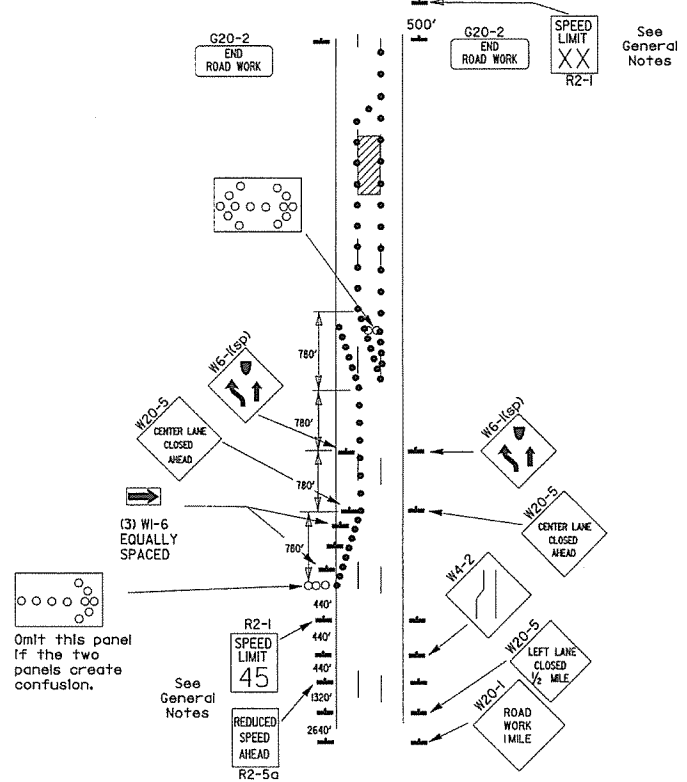
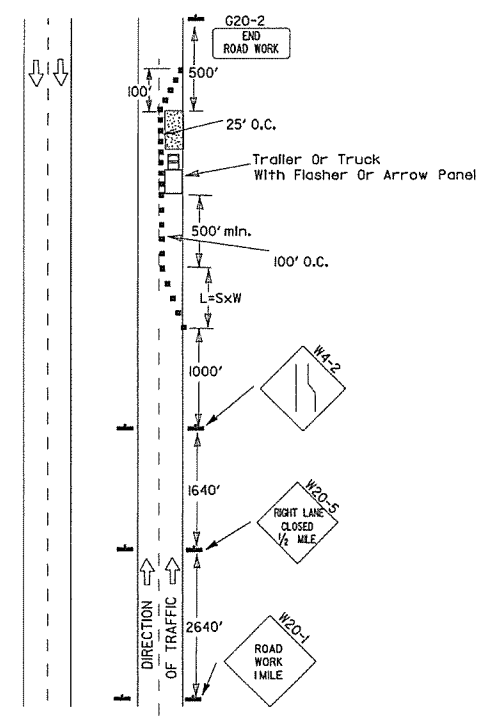
• When shown on the plans concrete barrier will be used.
 When the shoulder area is used as part of the traveled lane and there is insufficient width to place drums on the remaining shoulder width, then vertical panels shall be used.



NOTES:
 USE SPLICES ONLY WHEN NECESSARY FOR INSTALLATION. TYPICAL INSTALLATION SHOULD HAVE NO SPLICES (SEE STD. DRAWING NO. SHS-21)
 NORMAL INSTALLATIONS WILL REQUIRE 1/4" DIA. BOLTS TO MOUNT SIGNS TO POST AND 5/16" DIA. BOLTS TO ASSEMBLE THE VARIOUS POST SUPPORTS. EACH OF THESE BOLTS SHALL BE CARRIAGE BOLTS.
 SIGN POSTS SHALL BE PAINTED GREEN; SIGNS SHALL NOT BE PAINTED, AND ALL SIGN POSTS SHALL BE PLUMB.



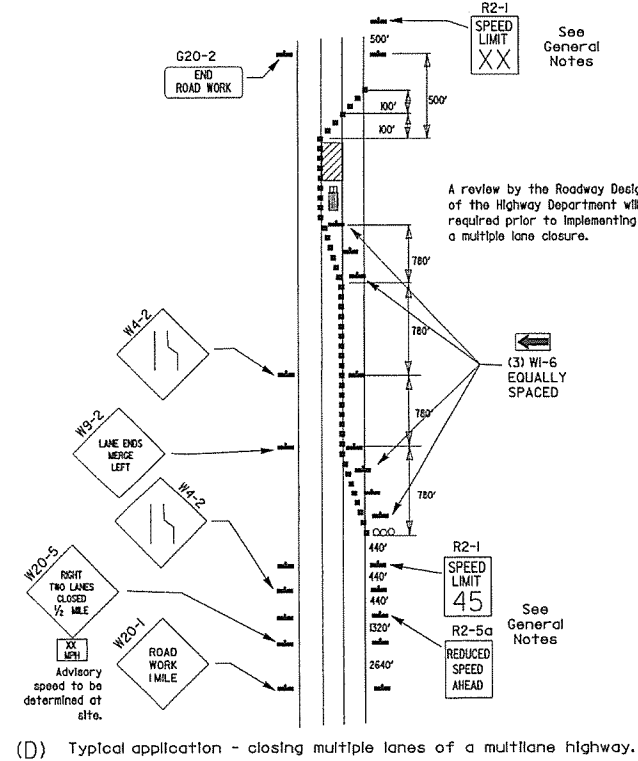
DATE	REVISION	FILMED
10-15-09	ADDED REFERENCE TO MASH	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED NOTE	
10-1-98	ADDED NOTE	
4-03-97	ADDED (SP) TO W6-1 & REVISED TRAFFIC CONTROL DEVICES NOTE	
10-18-96	ADDED R55-1	
10-12-95	MOVED UPPER SPLICE	
6-8-95	REVISED SPLICE DETAIL, TEXT	6-8-95
2-2-95	REVISED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



- KEY:**
- Arrow Panel (if Required)
 - Channelizing Device
 - Traffic drum

GENERAL NOTES:

- A speed limit reduction may be implemented ONLY when designated in the plan or when recommended by the Roadway Design Division.
- When the existing speed limit is 55mph and the plans require a speed limit of 45mph, the R2-1(55) shall be omitted and the R2-5A shall be installed at that location. Additional R2-145mph speed limit signs shall be installed at a maximum of 1 mile intervals. At the end of the work area a R2-1(XX) shall be installed to match original speed limit.
- When the existing speed limit is 65mph and the plans require a speed limit of 55mph, the R2-1(65) shall be omitted. Additional R2-155mph speed limit signs shall be installed at a maximum of 1 mile intervals. At the end of the work area a R2-1(XX) shall be installed to match original speed limit.
- The maximum spacing between channelizing devices in a taper should be approximately equal in feet to the speed limit. Beyond the taper, maximum spacing shall be two times the speed limit or as directed by the Engineer.
- Warning lights and/or flags may be mounted to signs or channelizing devices at night as needed.
- Pavement markings no longer applicable which might create confusion in the minds of vehicle operators shall be removed or obliterated as soon as practicable.
- The G20-1 sign will be required on jobs of over two miles in length. When the lane closure is not at the beginning of the project, the G20-1 sign shall be erected 125' in advance of the job limit. Additional W20-1(1 MILE) signs are not required in advance of lane closures that begin inside the project limits.
- Flaggers shall use STOP/SLOW paddles for controlling traffic through work zones. Flags may be used only for emergency situations.
- All plastic drums and cones shall meet the requirements of NCHRP-350 or Manual for Assessing Safety Hardware (MASH).
- Trailer mounted devices such as arrow panels and portable changeable message signs shall be delineated by affixing conspicuity material in a continuous line on the face of the trailer. When placed on or adjacent to the shoulder and not behind a positive barrier, these devices shall be delineated by placing five (5) traffic drums, equally spaced along the traffic side of the device.



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

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

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

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