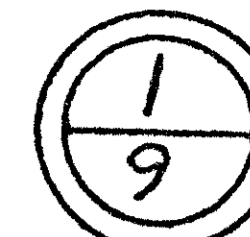


OHIO DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

FHWA REGION	STATE	FEDERAL PROJECT
5	OHIO	



PLAN NO. 244

D & P
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298-92

PART	COUNTY	ROUTE	SECTIONS	PROJECT TERMINI		NET LENGTH MILES	TOWNSHIP	CITY	VILLAGE
				BEGIN	END				
1	MAD	SR 29	(5.97 - 10.95)	5.97	12.46	6.49			
2	MAD	SR 29	(10.95)	12.46	12.98	.52			WEST JEFFERSON

802

The Standard 19 91 Specifications of the State of Ohio, Department of Transportation, including changes and Supplemental Specifications listed in the plans and proposal shall govern these improvements.

I hereby approve these plans and declare that the making of these improvements will require the closing of the highways to traffic on Parts No. NONE and that detours will be provided by State forces. The closing to traffic of the highways will not be required on Parts No. 1 - 2 and provisions for the maintenance and safety of traffic will be as indicated in the proposal.

Approved Date 1/13/92 District Deputy Director of Transportation

JEM Approved Date 1-17-92 Engineer of Bridges

Approved Date 2-11-92 Engineer of Maintenance

Approved Date 2-12-92 DEPUTY DIRECTOR, OPERATIONS

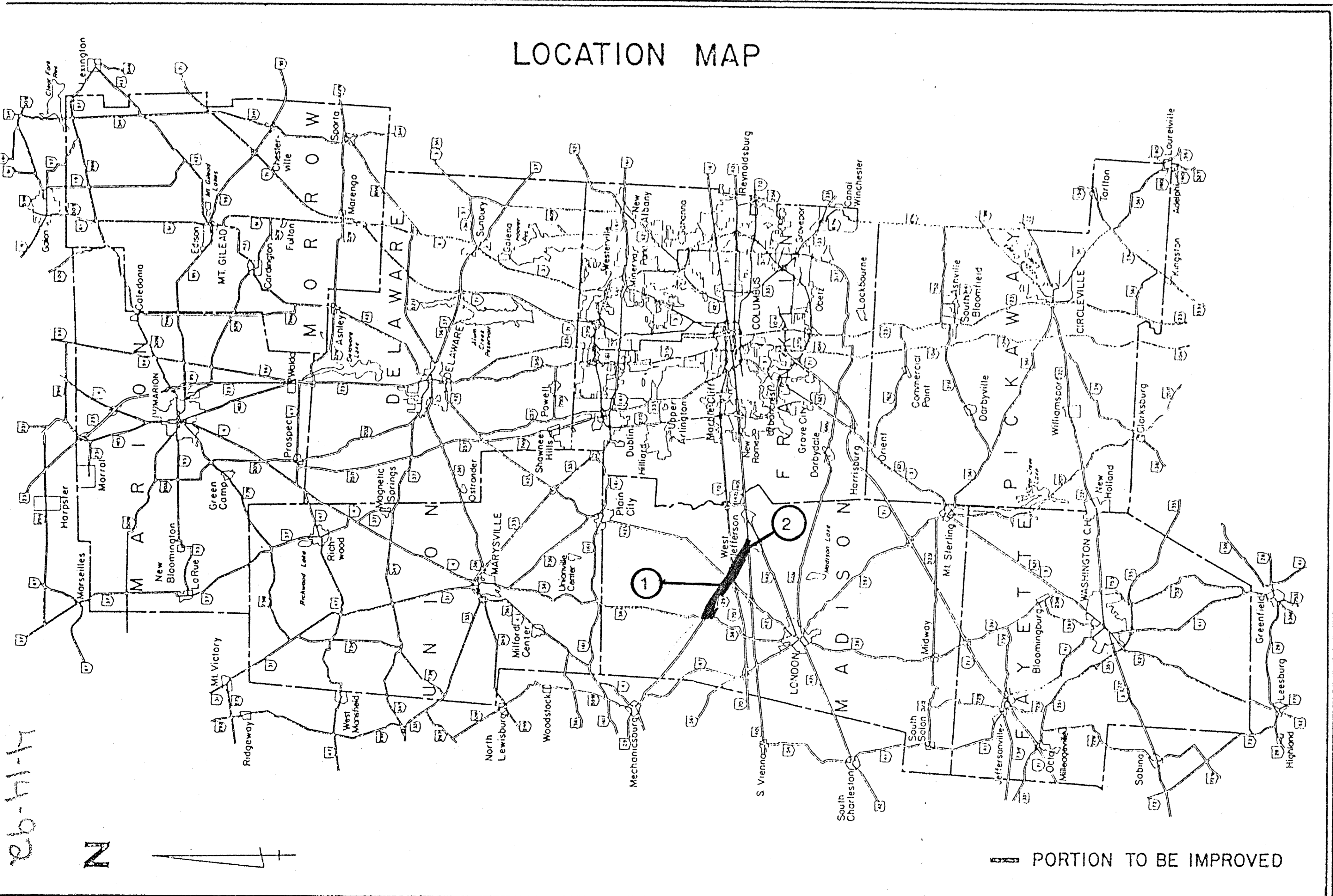
Approved Date _____ Assistant Deputy Director, Program Development

Approved Date _____ Chief Engineer, Construction

Approved Date _____ Chief Engineer, Design

Approved Date _____ Assistant Director, Department of Transportation

Approved Date 2-12-92 Director, Department of Transportation



4-14-92

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR DATE

STANDARD DRAWINGS		SUPPLEMENTAL SPECIFICATIONS	
BP-5	10-01-87		
MT-97.10	04-29-88		
MT-97.11	10-04-89		
MT-99.10	11-14-86		
MT-99.20	04-29-88		

ASPHALT CONCRETE

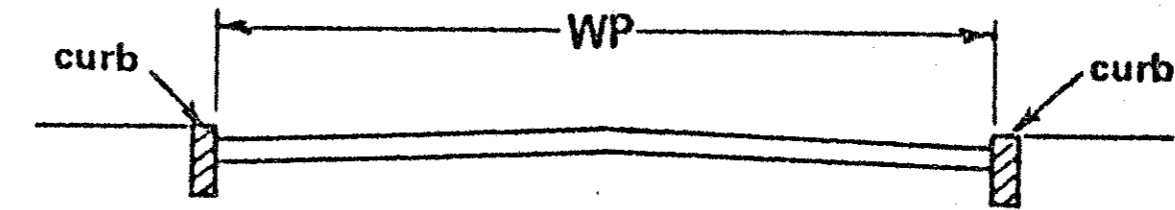
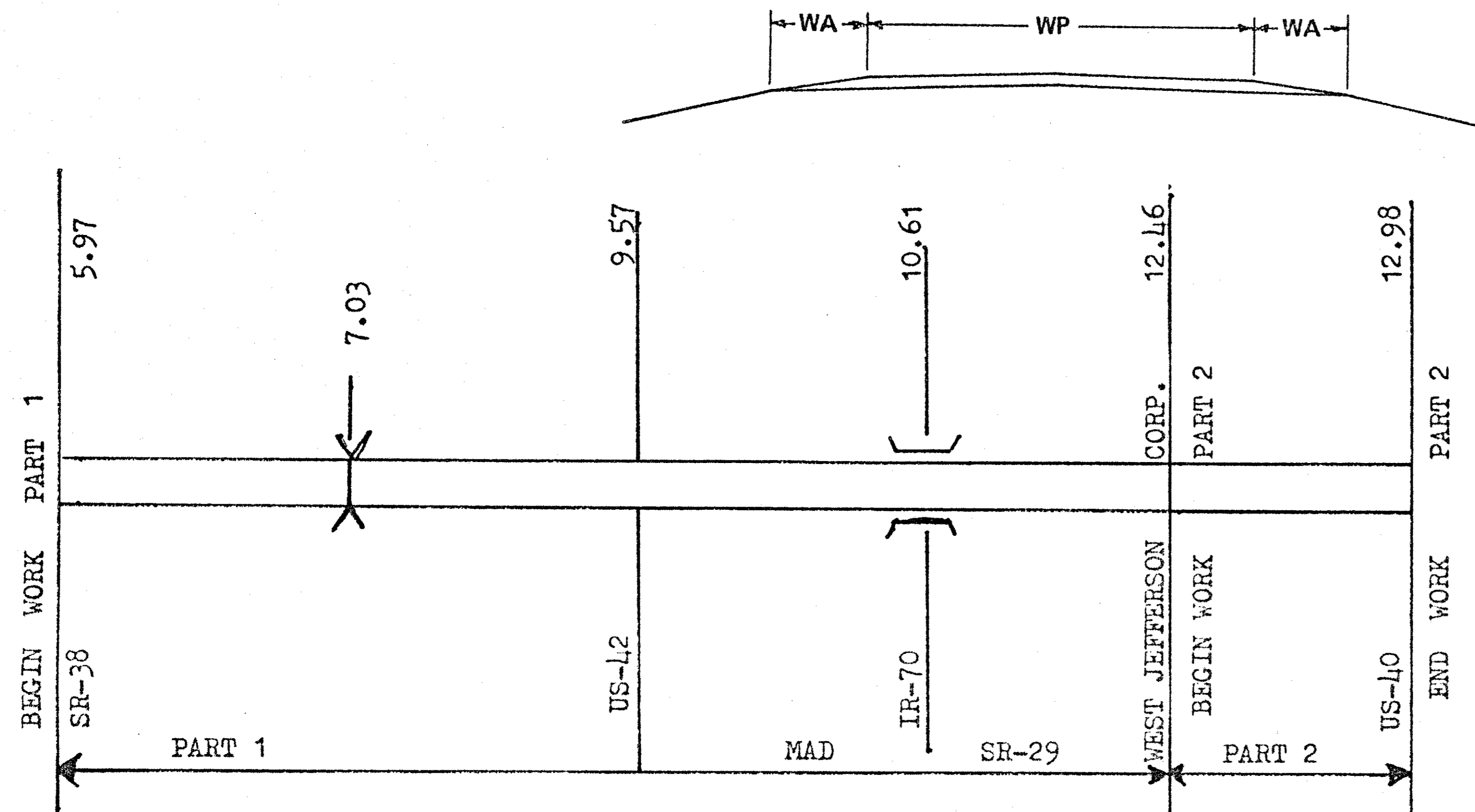
PLAN NO.
244

2
9

TYPICAL 1

TYPICAL 2

- ① SEE NOTE ON SHEET 5
- ② SEE NOTE ON SHEET 5



PAVEMENT DATA

PART	ROUTE	LOG POINT TO LOG POINT	LENGTH		WP FEET	TYPICAL	EXISTING TYPE PAVEMENT	PAVEMENT AREA SQ. YDS.	PROPOSED PAVEMENT						PAVEMENT PLANING BITUMIN. ②	WORK ZONE MARKING SIGN EACH	TEMP. CENTER LINE CLASS II MILE	
			MILES	LIN. FT.					407		ASPHALT CONCRETE							
									TACK COAT @ .10 gal./s.y. GALS.	COVER AGGR. @ lbs./s.y. TONS	ITEM 403 THICK INCHES	CU. YDS.	ITEM 404 THICK INCHES	CU. YDS.				
			CU. YDS.	CU. YDS.					①	①	②	②						
1	SR-29	5.97 - 6.91	.94	4963	20	1	404	11029	1103				153	1	306	140	2	1.88
		6.91 - 7.13	.22	1162	24	1	404	3099	310				43	1	86	698		.44
		7.13 - 9.57	2.44	12883	20	1	404	28629	2863				397	1	795		6	4.88
		9.57 - 10.39	.82	4330	22	1	404	10584	1058				147	1	294		2	1.64
		10.39 - 10.95	.56	2957	24	1	404	7885	789				110	1	219	356	4	1.12
1	SR-29	10.95 - 12.46	1.51	7973	22	1	404	19490	1949				271	1	541		2	3.02
		Extra Area From Sheet 3					1305	131				18	1	36				
		TOTAL PART 1	6.49	34268			82021	8203				1139		2277	1194	16	12.98	
2	SR-29	12.46 - 12.92	.46	2429	22	1	404	5938	594				82	1	165			.92
2	SR-29	12.92 - 12.98	.06	317	27	1	404	951	95				13	1	26	178	2	.12
		Extra Area From Sheet 3					2839	284				39	1	79				
		TOTAL PART 2	.52	2746			9728	973				134		270	178	2	1.04	

② ITEM 254 - PAVEMENT PLANING BITUMINOUS:

The existing wearing course shall be removed to a depth equal to the depth of the proposed new pavement (1½"). The widths shown include the shoulders.

Part 1:

- 5.97 - Begin Part 1 - Taper - 50' x 25' ÷ 9 = 140 Sq.Yd.
- 7.03 - Structure - Taper (2) - 50' x 29' ÷ 9 = 322 Sq.Yd.
- 7.03 - Structure - Plane Deck - 77' x 44' ÷ 9 = 376 Sq.Yd.
- 10.61 - Structure - Butt Joint (2) - 50' x 32' ÷ 9 = 356 Sq.Yd.

Part 2:

- 12.98 - End Part 2 - Taper - 50' x 32' ÷ 9 = 178 Sq.Yd.

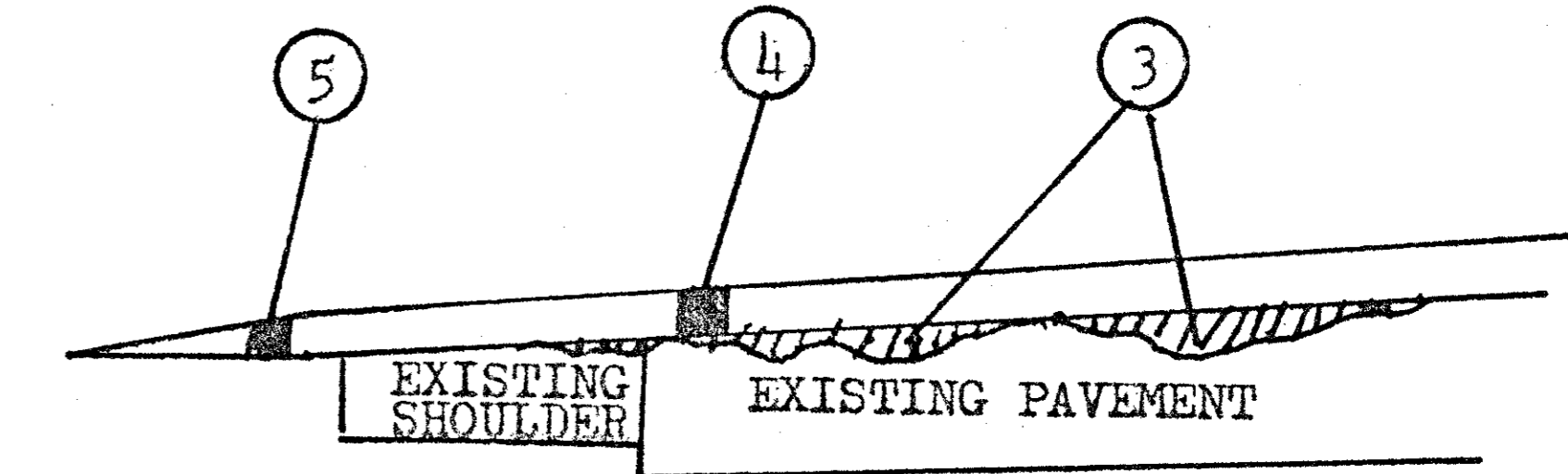
UNDERGROUND UTILITIES

The following is a list of utilities that may be affected by the pavement widening item in this project. The Contractor shall notify The Ohio Utilities Protection Service, 1-800-362-2764, and Company 12, prior to starting the widening part of this project.

- | | | |
|---|---|--|
| 1. Columbia Gas of Ohio
920 W. Goodale
Columbus, Ohio 43215
614-460-2050 | 2. Columbia Gas of Ohio
2101 W. Main St.
Springfield, Ohio 45504
513 - 323-57776 | 3. Columbia Gas Transmission
8484 Columbus Road
Mt. Vernon Ave.
614-397-8242 |
| 4. Columbus Southern Power
215 N. Front St.
Columbus, Ohio 43215
614-464-7678 | 5. GTE North Ohio
100 Executive Drive
Marion, Ohio 43302
614-383-0215 | 6. Litel Telecommunication Corp.
2666 Lexington Ave.
Mansfield, Ohio 44904
419-884-0400 |
| 7. Madison County Engineer
222 Garfield Ave.
London, Ohio 431409204
614-852-9530 | 8. Ohio Bell Telephone
100 Norton Road
Columbus, Ohio 43228
614-223-5642 | 9. Ohio River Pipeline
245 Mill St.
Lexington, Ohio 44904
419-884-0800 |
| 10. Shell Pipeline
1500 W. Buckeye Road
Lima, Ohio 45804
419-229-4916 | 11. US Sprint
3065 Hargrove Road
Atlanta, Georgia
800-521-0579 | 12. Ohio Edison Co.
67 W. High St.
London, Ohio 43104
614-852-1714 |

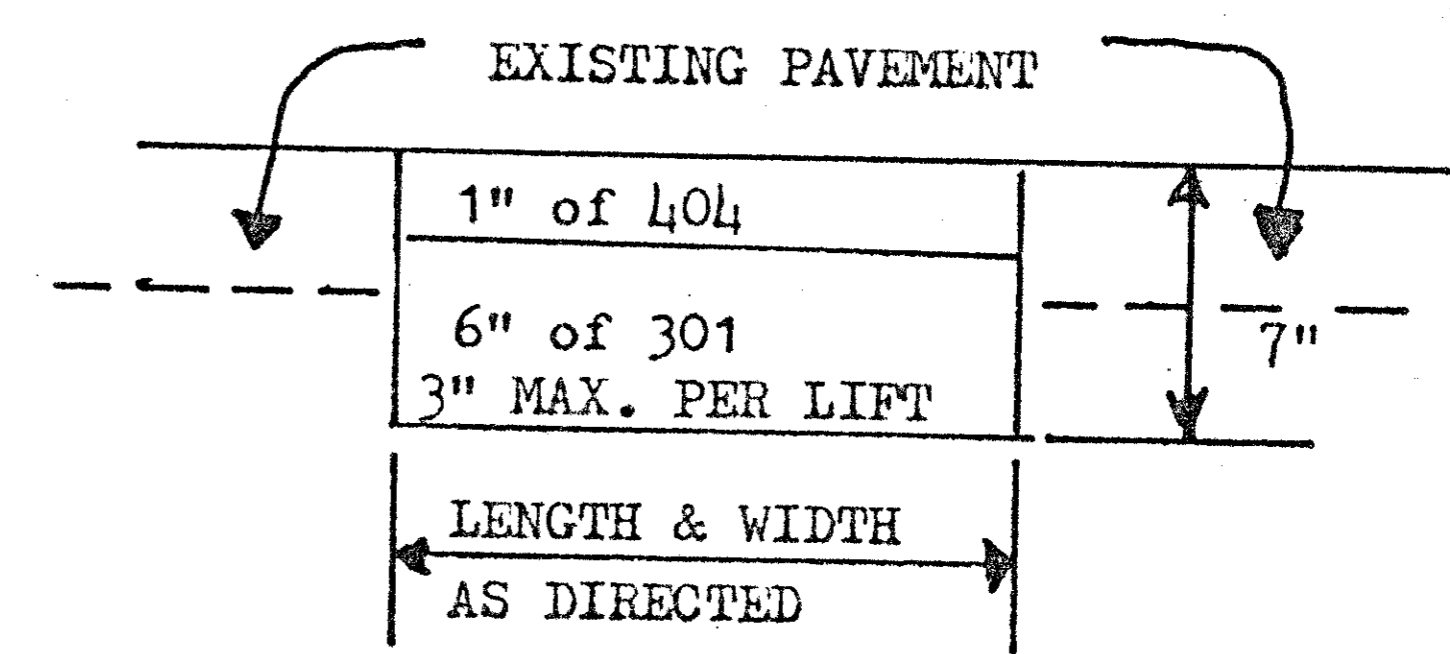
① ITEM 403 - ASPHALT CONCRETE AC-20, SPOT LEVELING:

One-half inch (½") has been used to compute the quantities for this item. This material is to be used, as directed by the engineer, to fill ruts and imperfections; and to level and reestablish the original alignment and profile of the pavement, prior to placement of the surface course. This may result is a portion of the original surface still being exposed before the overlay is placed.



- ③ [Hatched Box] - 403 Asphalt Concrete AC-20, Spot Leveling (0" MIN)
- ④ [Rectangular Box] - 404 Asphalt Concrete AC-20, Surface Course
- ⑤ [Circle] - 617 Aggregate Backup

ITEM 253 - PAVEMENT REPAIR:



A quantity of this item is provided for use where and as directed by the engineer. The following quantity is carried to the General Summary;

Item 253 - Pavement Repair - 20 Cu. Yd.

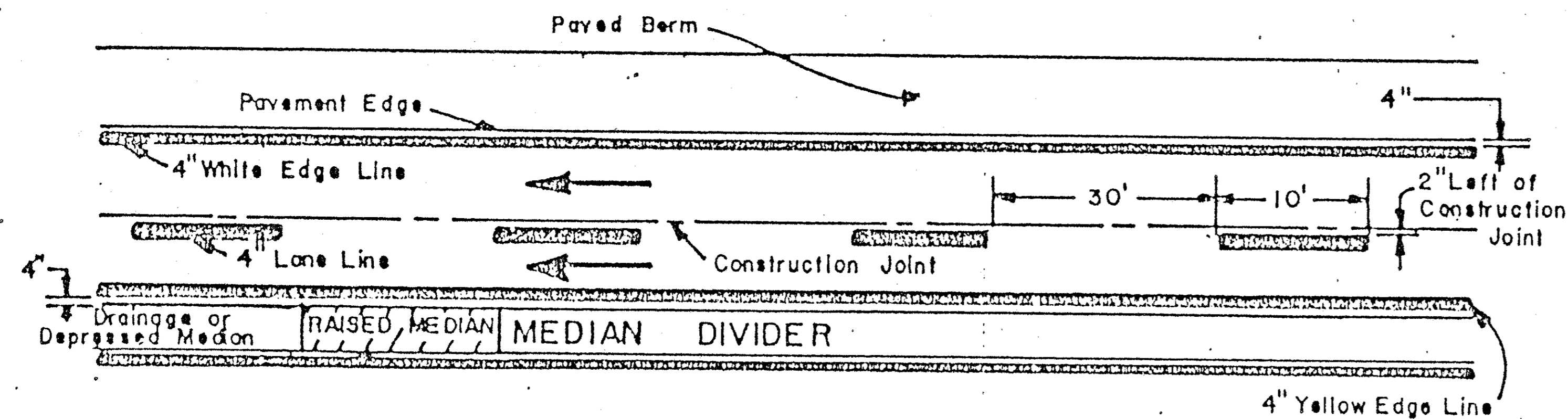
PAVEMENT MARKING TYPICAL DETAILS

FED. RD. DIV.	STATE	PROJECT	
5	OHIO		

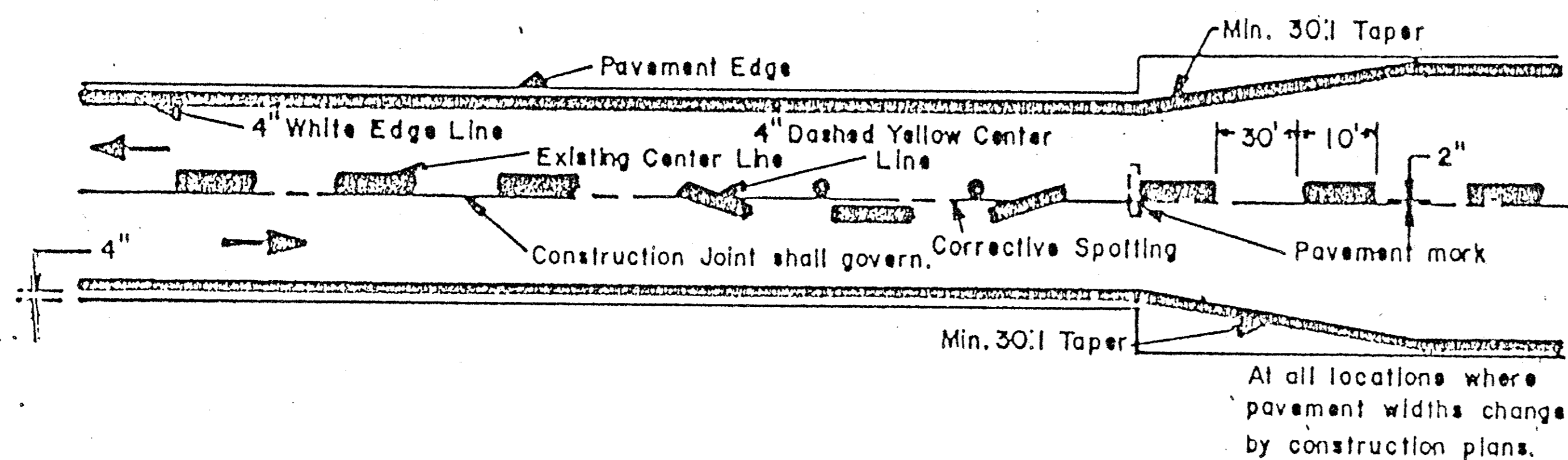
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PLAN NO. 244

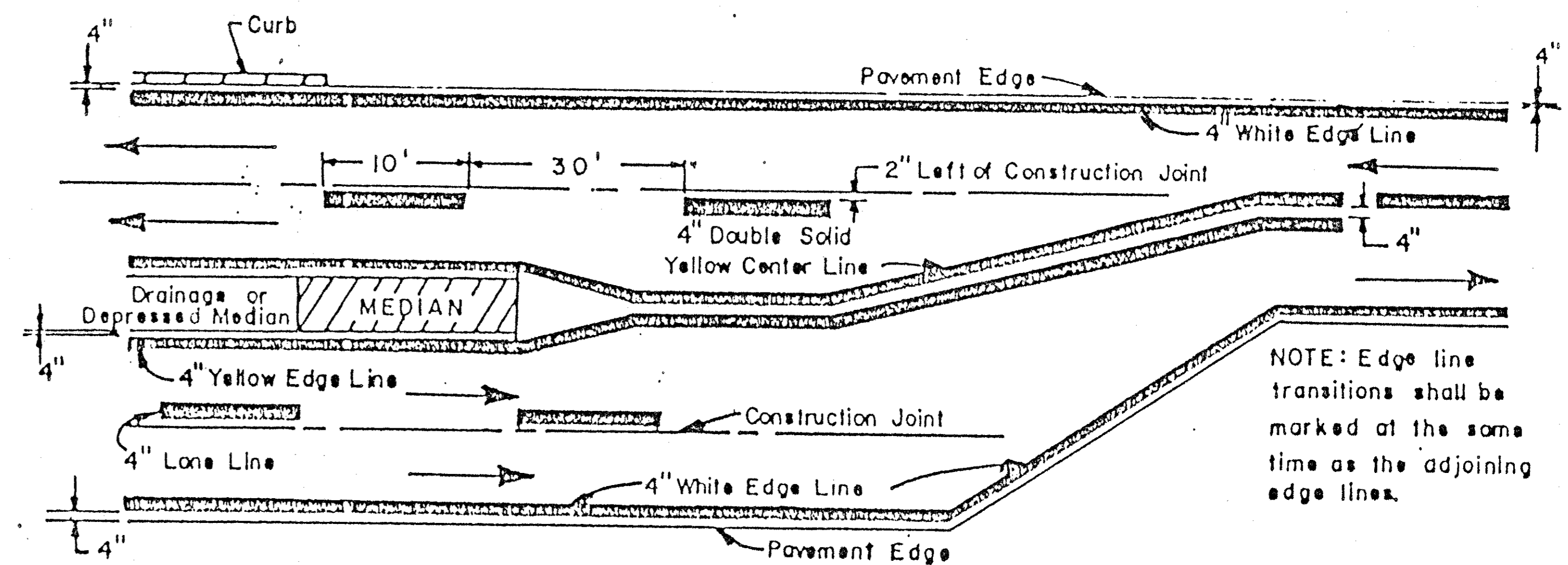
FREEWAY & EXPRESSWAY MAINLINE MARKINGS



TWO LANE MARKINGS



MULTILANE DIVIDED & UNDIVIDED HIGHWAY MARKINGS



NOTE: Edge line transitions shall be marked at the same time as the adjoining edge lines.

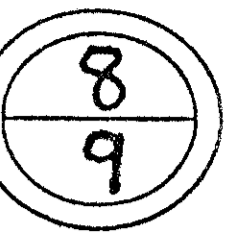
NOTES:

1. THE DISTANCE FROM THE PAVEMENT EDGE TO THE NEAR SIDE EDGE OF THE EDGELINE MAY BE INCREASED WITH THE APPROVAL OF THE ENGINEER IN ORDER TO MAINTAIN UNIFORM LANE WIDTH.
2. SEE TC 72.20 FOR ENTRANCE AND EXIT RAMP MARKINGS.
3. The cycle length for dashed lines shall be 40 feet plus or minus 6 inches. The minimum length of dash shall be sufficiently long to maintain a 3:1 ratio between length of gap and length of dash.

DEPARTMENT OF TRANSPORTATION	
PAVEMENT MARKING TYPICAL DETAILS	DATE 11/86
JDL: CDR	

WORD AND SYMBOL MARKING DETAILS

FED RD DIVISION	STATE	PROJECT	
5	OHIO		



PLAN NO. _____

NOTES:

1. ON MULTI-LANE APPROACHES, THE TRANSVERSE LINES USED WITH THE RAILROAD SYMBOLS SHALL EXTEND ACROSS ALL APPROACH LANES AND SYMBOLS SHALL BE PLACED IN EACH APPROACH LANE.

2. FOR PURPOSES OF THIS PLAN, THE RAILROAD SYMBOL MARKING SHALL CONSIST OF ONE WHITE 16 INCH CROSS-BUCK AND THE WHITE 6 FOOT LETTERS "RR". TWO 24 INCH SOLID WHITE TRANSVERSE LINES AND ONE 24 INCH STOP LINE PERPENDICULAR TO THE CENTER LINE OF THE ROADWAY.

THE RAILROAD SYMBOL SHALL BE LOCATED SO THAT THE W-94, "RAILROAD ADVANCE WARNING SIGN", IS WITHIN THE TWO TRANSVERSE LINES. THE STOP LINE SHALL BE LOCATED FOR BEST SIGHT DISTANCE WITHIN 15 FEET TO 50 FEET OF THE NEAR EDGE OF THE TRACKS. THE WIDTH OF THE "X" MAY VARY ACCORDING TO THE LANE WIDTH.

3. TRANSVERSE LINES USED WITH THE WORD "SCHOOL" SHALL EXTEND ACROSS ALL APPROACH LANES WITH THE WORD "SCHOOL" IN EACH APPROACH LANE. THIS REQUIREMENT IS WAIVED WHERE EXISTING MARKINGS ARE TO BE RETRACTED.

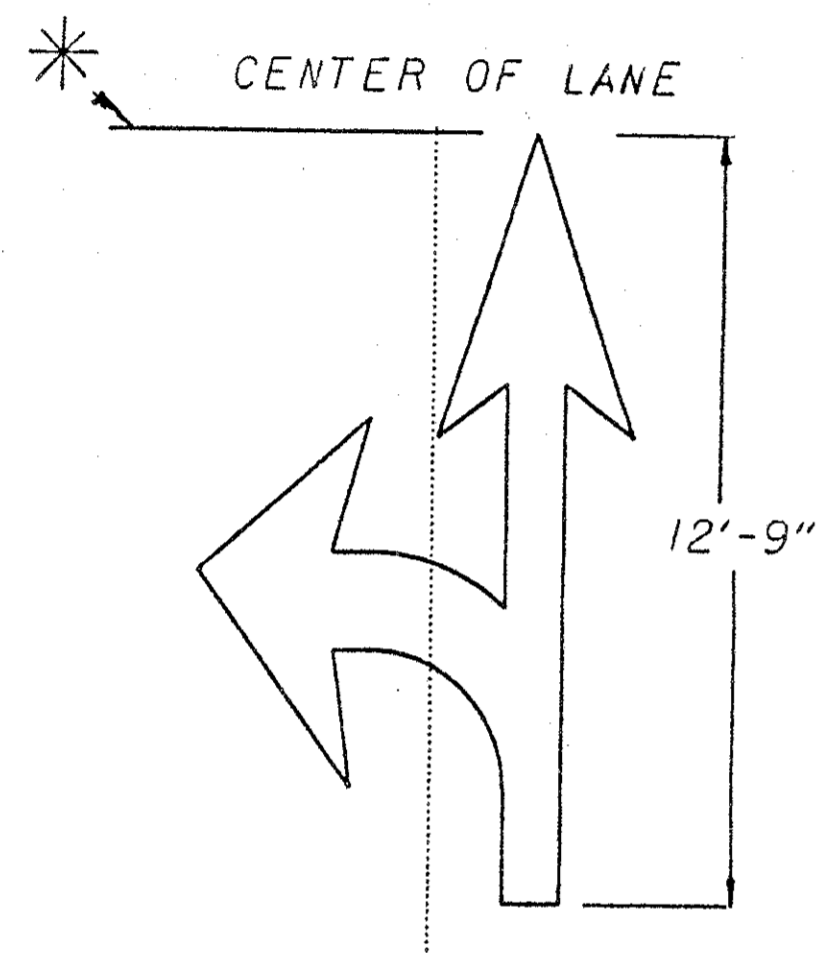
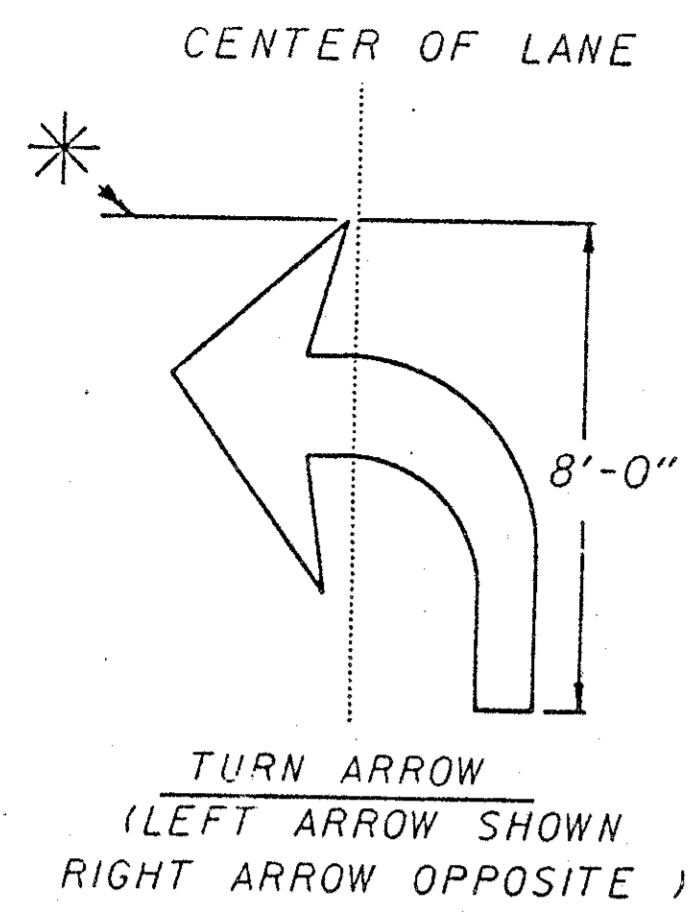
4. THE STOP LINE SHOULD BE PLACED WHERE CROSS-CORNER VISION IS MAXIMUM, IN NO CASE MORE THAN 30 FEET OR LESS THAN 4 FEET FROM THE NEAREST EDGE OF THE INTERSECTING ROADWAY. FOR NORMAL INTERSECTIONS A MAXIMUM DISTANCE OF 10 FEET IS RECOMMENDED.

IF A MARKED CROSSWALK IS PRESENT, THE STOP LINE SHOULD BE PLACED 4 FEET IN ADVANCE OF AND PARALLEL TO THE NEAREST CROSSWALK.

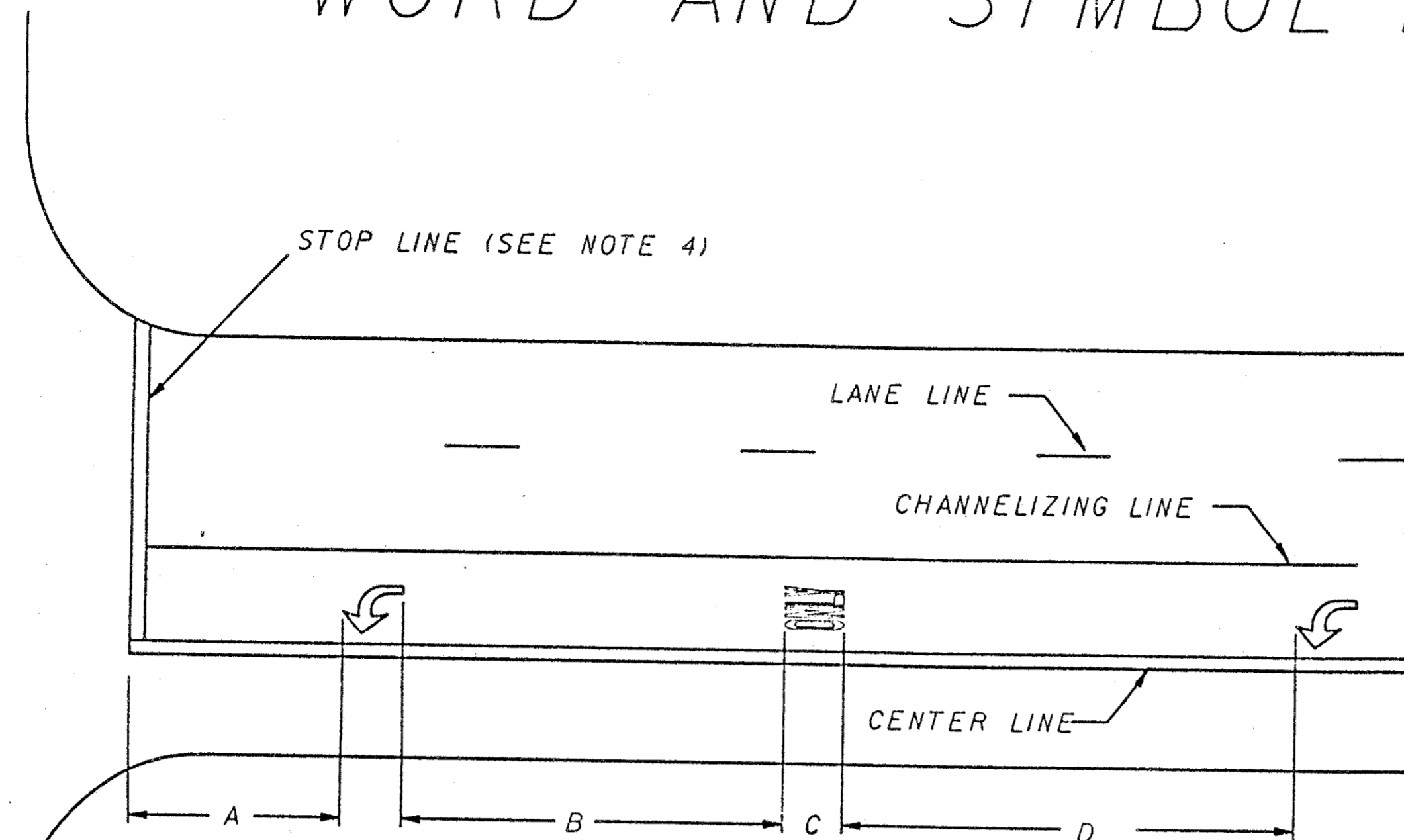
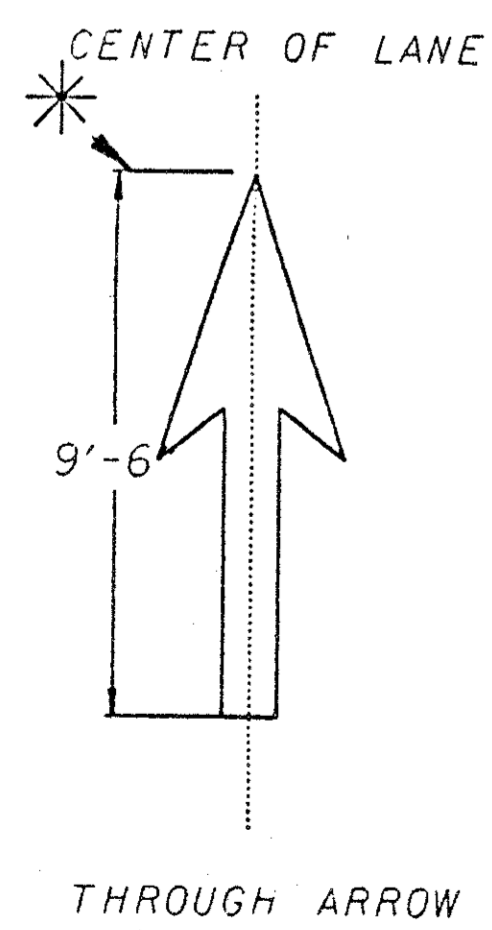
5. FOR TRAFFIC PAINT AND POLYESTER APPLICATION, TEMPLATE GAPS SHALL BE FILLED WITH MARKING MATERIAL IN ACCORDANCE WITH 641.03. FOR EXTRUDED THERMOPLASTIC MATERIALS THESE GAPS MAY REMAIN UNFILLED.

6. STANDARD DIMENSIONS CONFORMING TO REQUIREMENTS OF OMUTCD SECTION 3B-40 THROUGH 3B-43 INCLUSIVE. (THE 1977 METRIC EDITION STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING WITH ERRATA.)

* INDICATES STATION REFERENCE POINT

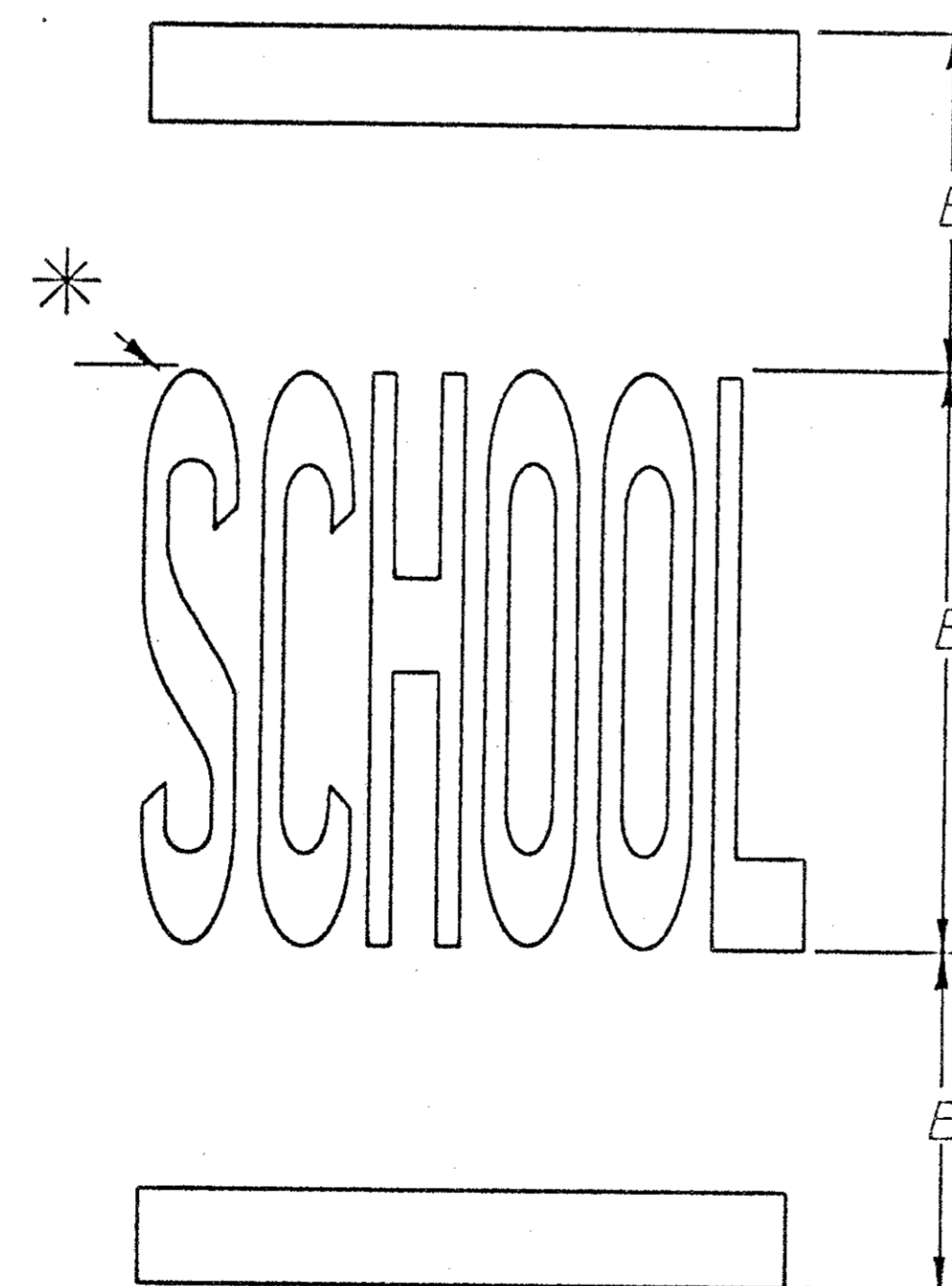
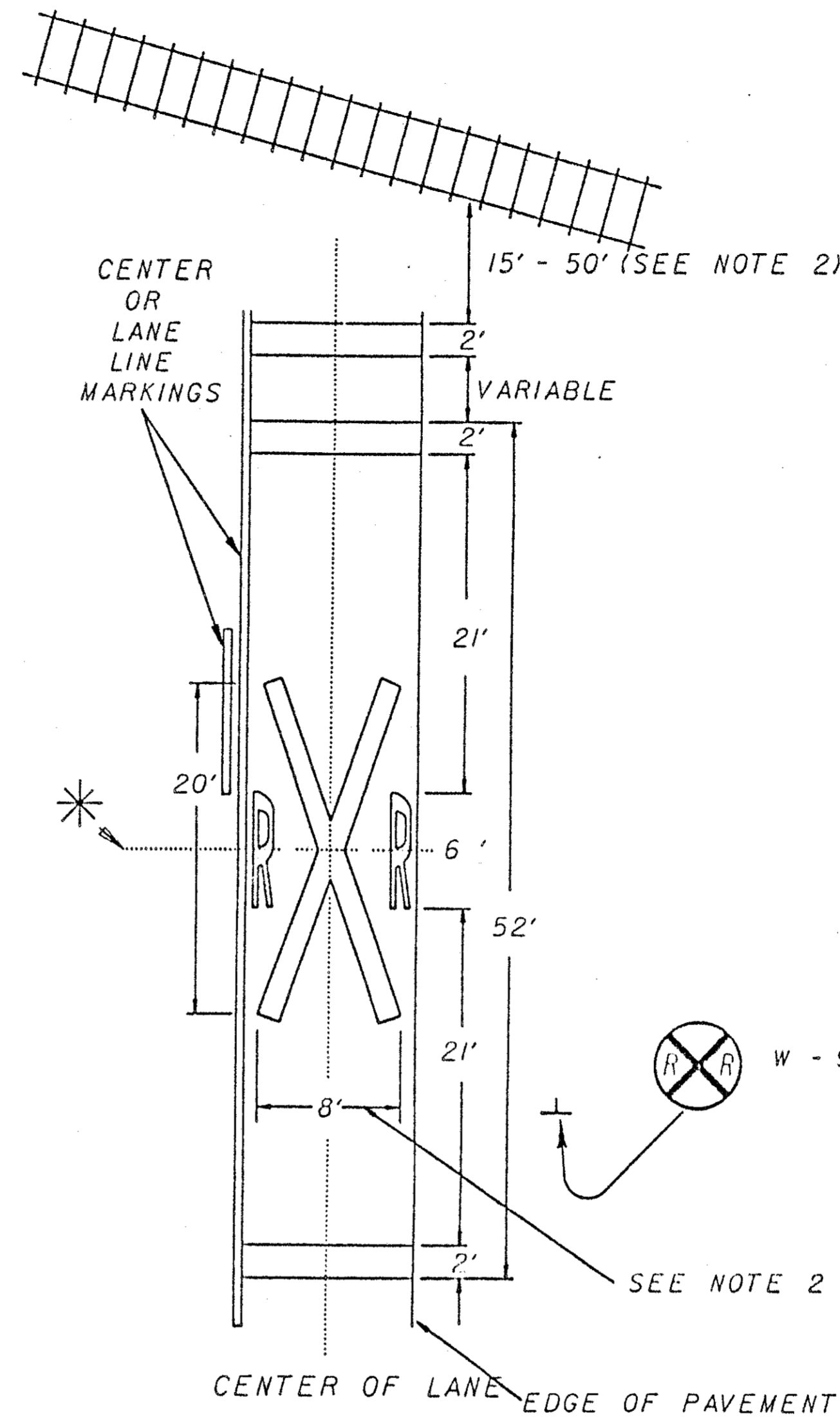


COMBINED ARROW
(THREE HEAD DIRECTIONAL ARROWS
CAN BE ACHIEVED BY THE COMBINATION
OF TURN ARROWS.)

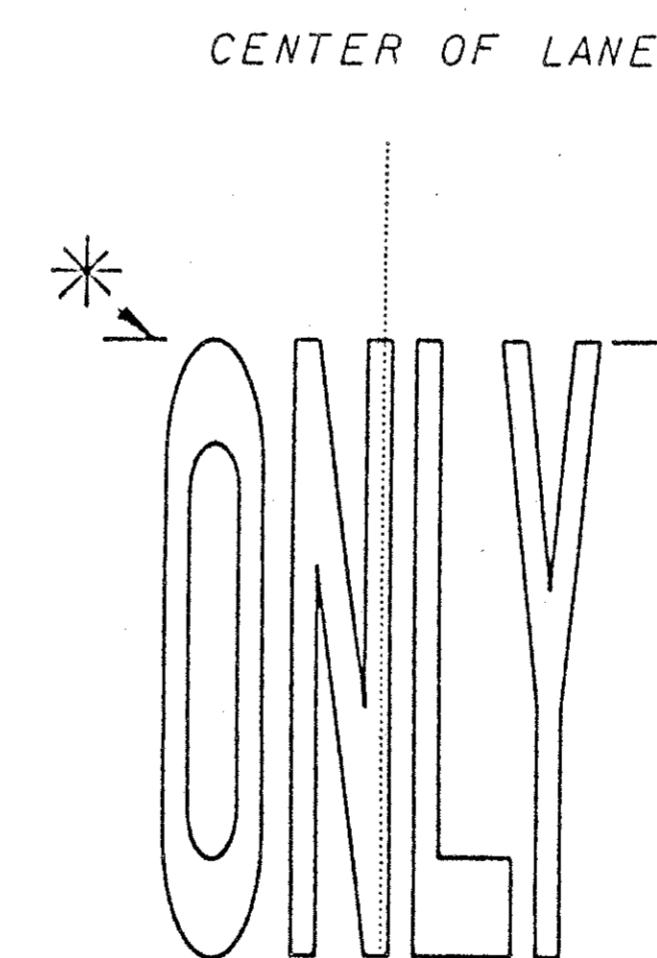


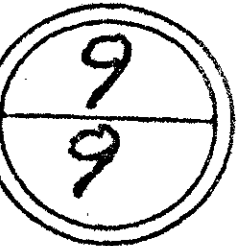
NOTE:
STOP LINE LOCATED MIN. 40' FROM
AT LEAST ONE SIGNAL HEAD WHICH APPLIES
TO THAT APPROACH

TYPE	DIMENSIONS (FEET)			
	A	B	C	D
RURAL	30 MIN.	32-80	8	32-80
URBAN	10 MIN.	32-80	6	24-60



TYPE	INCHES
	E
RURAL	96
URBAN	72





GENERAL SUMMARY

ITEM	PART 1	PART 2	TOTAL PARTS 1 & 2		ITEM NO.	EXTENSION	GRAND TOTAL	UNIT	DESCRIPTION
407	10188	1092	11280		407	10000	11280	Gallon	Tack Coat
402	990	166	1156		402	20000	1156	Cu. Yd.	Asphalt Concrete, AC-20
403	1415	151	1566		403	25000	1566	Cu. Yd.	Asphalt Concrete, AC-20, Spot Leveling
404	2828	303	3131		404	20000	3131	Cu. Yd.	Asphalt Concrete, AC-20
253					253	02000	20	Cu. Yd.	Pavement Repair
254	1194	178	1372		254	01000	1372	Sq. Yd.	Pavement Planing, Bituminous
203	256	42	298		203	60000	298	Station	Linear Grading
642		395	395		642	00702	395	Lin. Ft.	Transverse Line, Type 2
645	40	15	55		645	00490	55	Lin. Ft.	Stop Line, Type A, Inlaid
614	16	2	18		614	12460	18	Each	Work Zone Marking Sign
642		.03	.03		642	00202	.03	Mile	Lane Line, Type 2
642	12.98	1.04	14.02		642	00102	14.02	Mile	Edgeline, Type 2
642	6.49	.52	7.01		642	00302	7.01	Mile	Center Line, Type 2
614	12.98	1.04	14.02		614	21400	14.02	Mile	Temporary Center Line, Class II
624	Lump	Lump	Lump		624	10000	Lump	Lump	Mobilization
617	634	51	685		617	10100	685	Cu. Yd.	Compacted Aggregate, Type A
614	Lump	Lump	Lump		614	11000	Lump	Lump	Maintaining Traffic

GENERAL NOTES

TRAFFIC:

Traffic shall be maintained at all times. The length of restricted traffic zones shall be kept to a minimum consistent with the specification requirements for protection of completed courses.

RAILROAD CROSSINGS:

The new surface course shall be feathered or butt jointed to meet the rail grades as specified.

ALIGNMENT AND PROFILE:

The work proposed by this project is for the resurfacing of the existing pavement. The alignment of the existing pavement will not be changed, and the profile of the proposed surface will be similar to that of the existing pavement except that it will be raised an amount equal to the thickness of the resurfacing course or courses specified in these plans.

INTERMEDIATE COURSE, SPOT LEVELING AND PATCHING:

This material shall be placed in a separate operation where and as directed by the engineer.

TACK COAT:

The tack coat operation shall be as determined at a pre-construction conference as per 407.05, and application rates shall not exceed 0.10 gal. per sq. yd.

COVER AGGREGATE:

Cover aggregate shall conform to 703.06.

ITEM 642 EDGELINE - PLACEMENT:

See Sheet 6, Pavement Marking Sub-Summary for the width of each lane and the total width of pavement, edge line to edge line.