

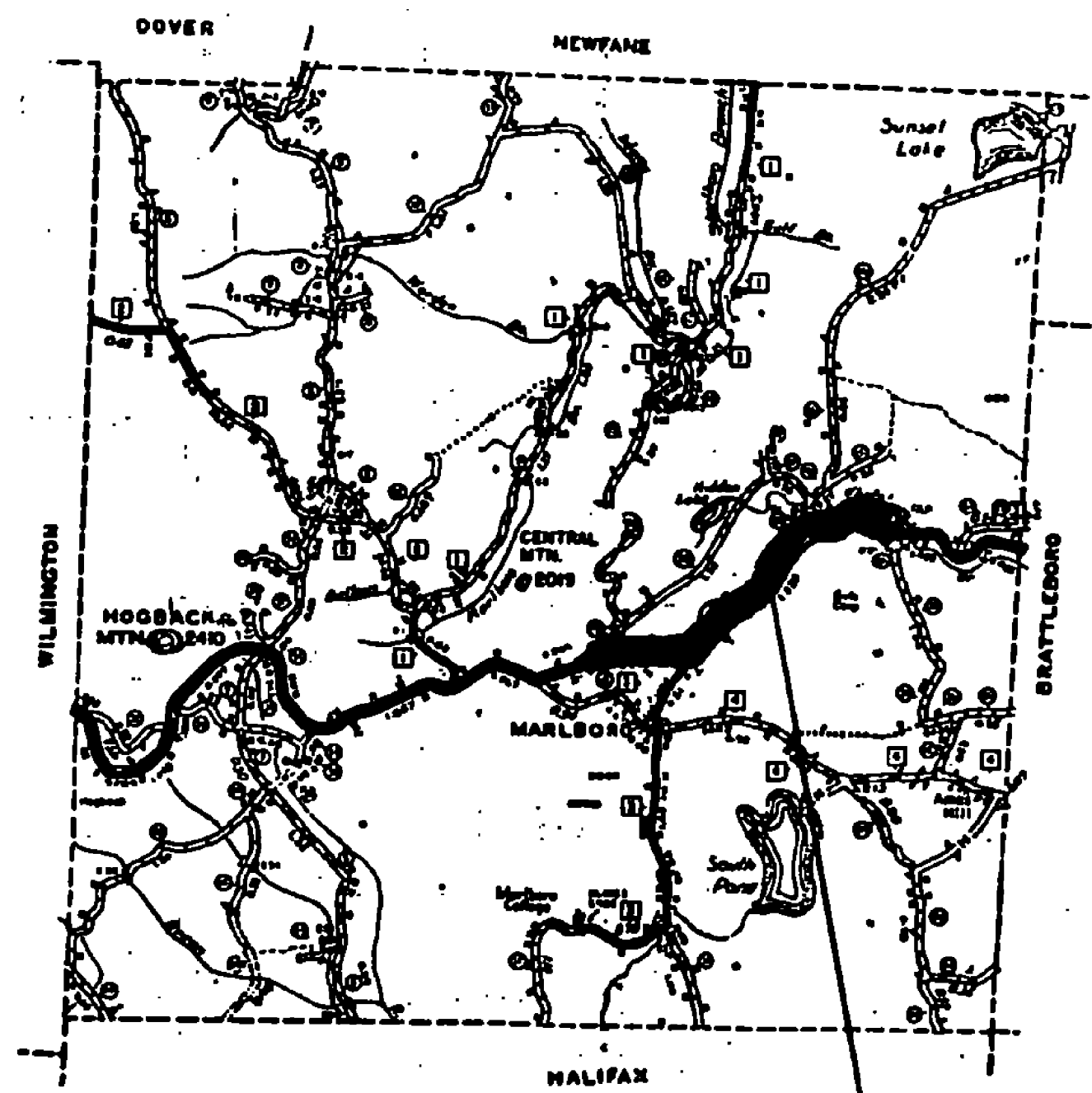
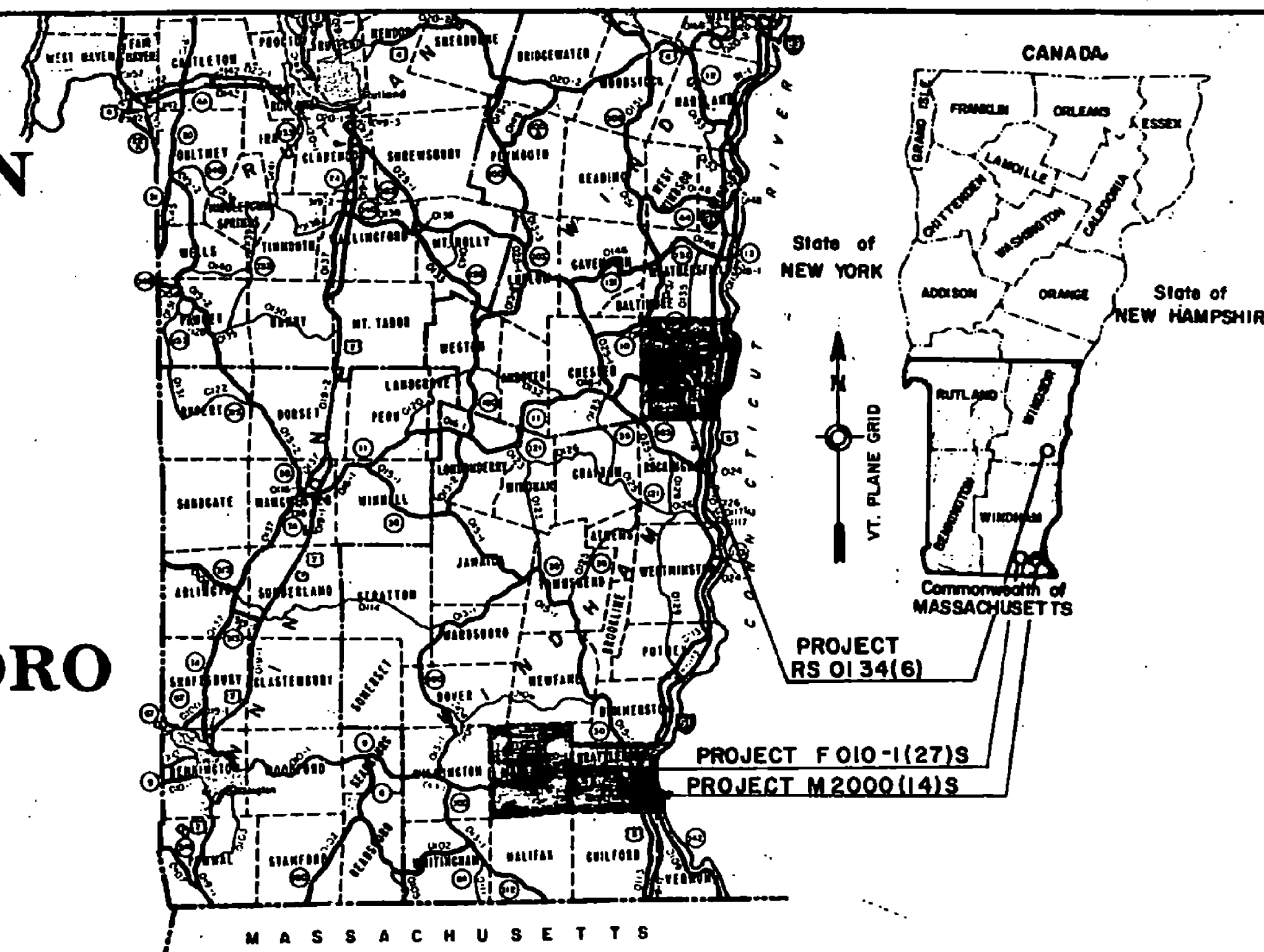
INDEX OF SHEETS

1.	TITLE SHEET	
2-3.	TYPICAL SHEETS AND SPECIAL DETAILS MARLBORO	
4.	TYPICAL SHEET BRATTLEBORO	
5.	TYPICAL SHEET SPRINGFIELD	
6-7.	SUMMARY OF QUANTITIES SHEETS	
8.	ITEM DETAIL SHEET MARLBORO	
9.	ITEM DETAIL SHEET BRATTLEBORO AND SPRINGFIELD	
10.	GUARD RAIL DETAILS	
11.	RAILBOY DETAILS	
12.	BLANK	
13-17.	TRAFFIC SIGN SHEETS MARLBORO	
18.	TRAFFIC ITEM AND SIGN SHEET MARLBORO	
19.	STOP DETAIL AND PAVEMENT MARKING SHEET	
20.	PAVEMENT MARKING SHEET BRATTLEBORO	
21.	PAVEMENT MARKING SHEET	
22.	BLANK	
23.	B-5 TYPICAL SLOPE ROUNDING	12/8/71
24.	B-17 TURNOUTS	10/25/85 R
25.	BLANK	
26.	R-2 ROAD CONSTRUCTION APPROACH SIGNS	02/03/86 R
27.	R-6 ON-PROJECT CONSTRUCTION SIGNS	02/03/86 R
28.	R-7 DELINEATION AND BARRICADES FOR CONSTRUCTION	02/03/86 R
29.	R-7A BARRICADE DETAILS - BREAKAWAY	02/03/86 R
30.	R-8 TYPICAL MAJOR MAINTENANCE OPERATION	02/03/86 R
31.	R-15 STATE ROUTE MARKERS	02/03/86 R
32.	R-15B GENERAL SERVICE SIGNS	02/03/86 R
33.	R-15A REGULATORY SIGN	02/03/86 R
34.	R-15B REGULATORY SIGN	02/03/86 R
35.	R-15C REGULATORY SIGNS - RED INDICATIONS	02/03/86 R
36.	R-19 WARNING SIGNS	02/03/86 R
37.	R-19A WARNING SIGNS	02/03/86 R
38.	R-25 GUIDE SIGNS	12/03/86 R
39.	R-25A LEANED CHANNEL STEEL SIGN SUPPORTS	02/03/86 R
40.	R-29 STANDARD SIGN PLACEMENT-NON-EXPRESSWAY TYPE	02/03/86 R
41.	R-50 PAVEMENT MARKING DETAILS	02/03/86 R
42.	BLANK	
43.	O-1 STEEL BEAM GUARD RAIL	10/31/85 R
44.	O-1D STEEL BEAM GUARD RAIL	10/31/85 R
45.	O-1A BREAKAWAY CABLE TERMINAL	10/31/85 R

STATE OF VERMONT AGENCY OF TRANSPORTATION

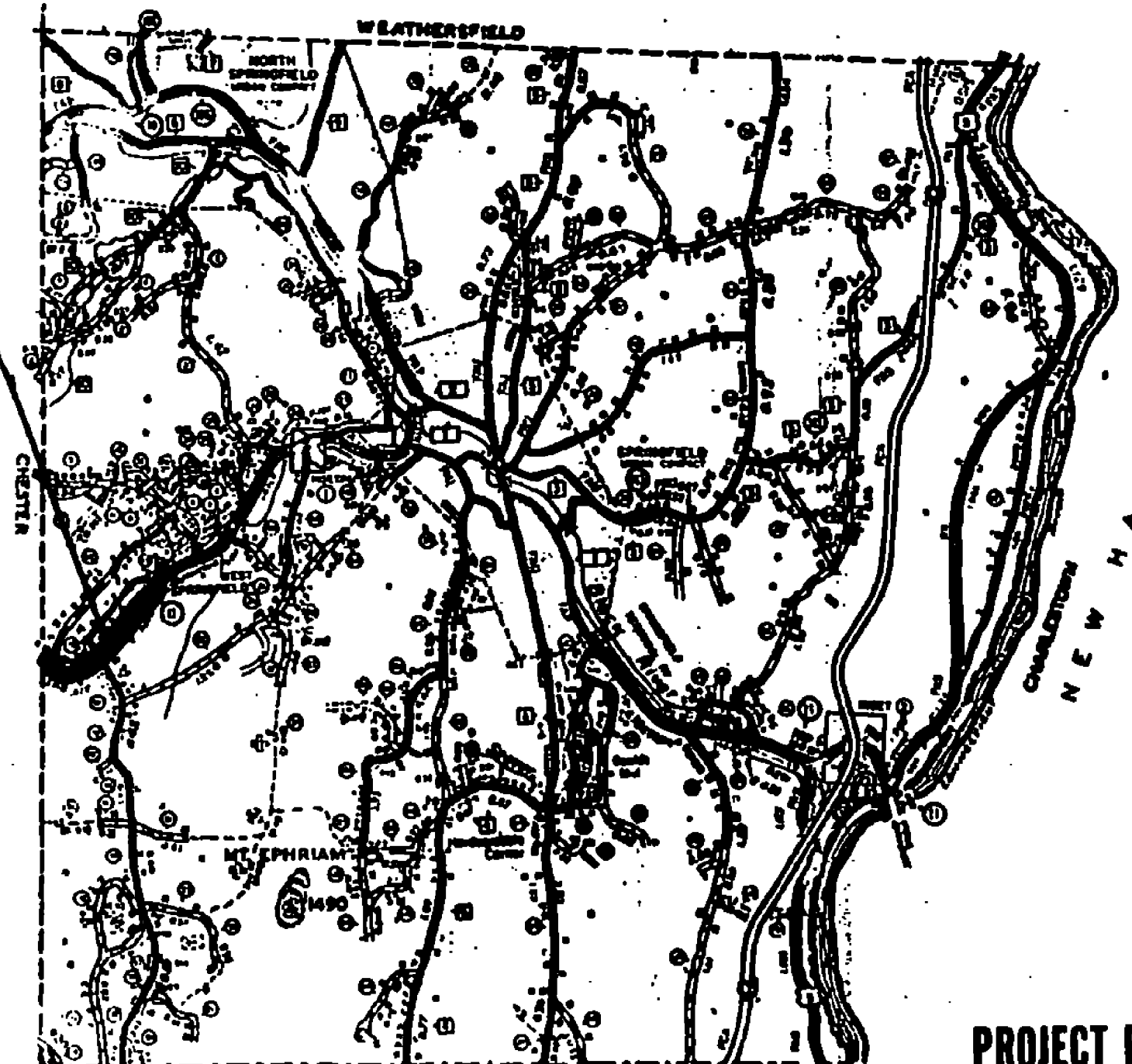


PROPOSED IMPROVEMENT IN THE TOWNS OF: SPRINGFIELD, MARLBORO, & BRATTLEBORO IN THE COUNTIES OF: WINDSOR & WINDHAM VT. RTE. 11, RTE. 9, & U.S. RTE. 5 1986 PAVING PROGRAM DISTRICT 2

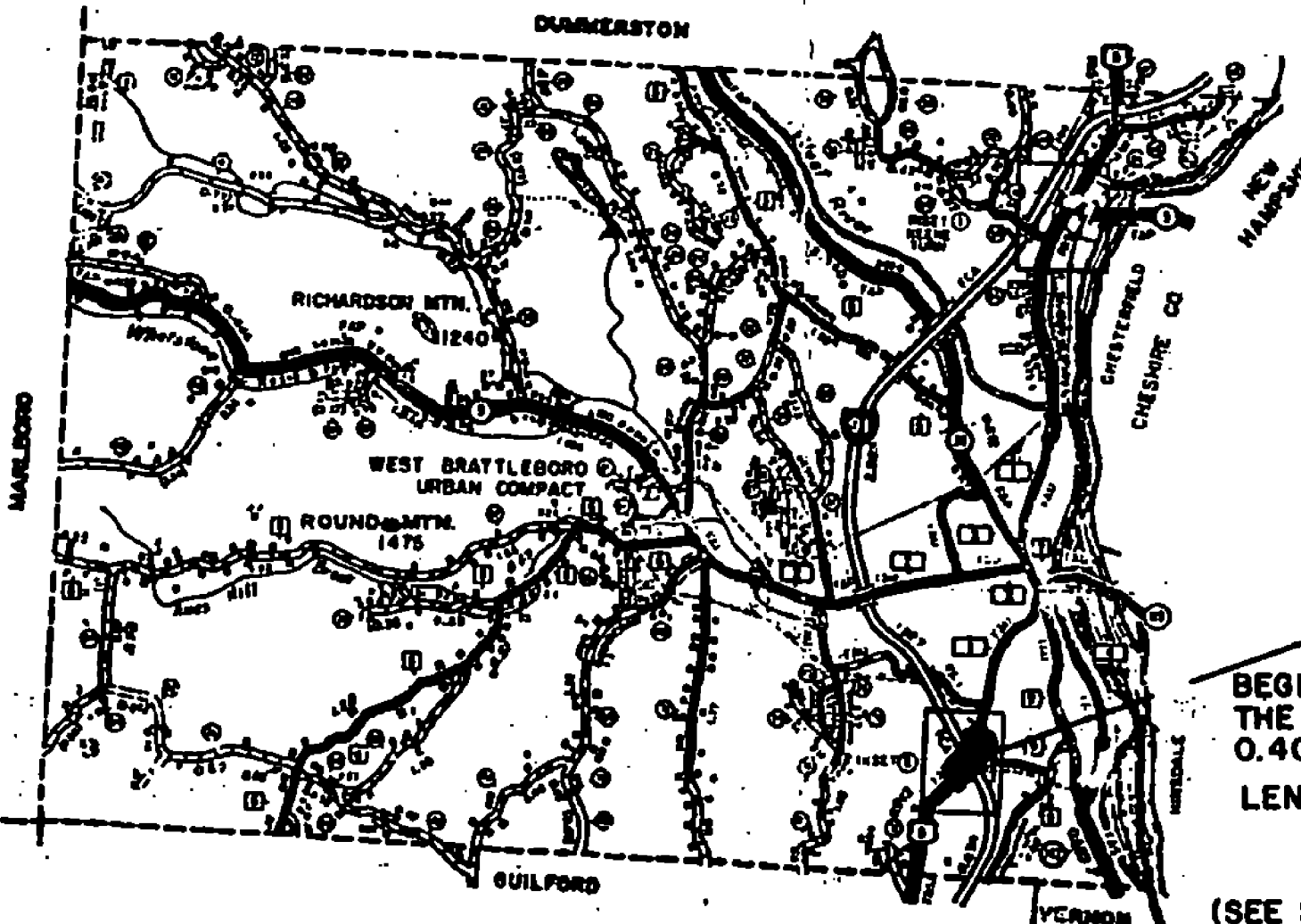


CONTRACT PLANS
THESE PLANS DO NOT REFLECT
CHANGES MADE ON THE PROJECT.

SPRINGFIELD RS 0134(6)
VT. RTE. 11
BEGINNING AT THE CHESTER-SPRINGFIELD TOWN
LINE (MM 0.00) ON VT. RTE. 11 AND EXTENDING
EASTERLY 1.162 MILES TO MM 1.162.
LENGTH OF PROJECT = 6137 FT. = 1.162 MI.
1984 ADT = 2800
T = 8%
(SEE SHEET 5 OF 45 FOR PROJECT DESCRIPTION)



BRATTLEBORO M 2000(14)S
U.S. RTE. 5
BEGINNING AT A POINT ON U.S. RTE. 5, 0.688 MILES NORTH OF
THE GUILFORD-BRATTLEBORO TOWN LINE AND EXTENDING NORTHERLY
0.404 MILES TO THE BRATTLEBORO URBAN COMPACT LIMITS AT MM 1.092.
LENGTH OF PROJECT = 2135 FT. = 0.404 MI.
1984 ADT = 4500
T = 7%
(SEE SHEET 4 OF 45 FOR PROJECT DESCRIPTION)



MARLBORO F 010-1(27)S
VT. RTE. 9
BEGINNING AT A POINT ON VT. RTE. 9,
4.692 MILES EASTERLY OF THE
WILMINGTON-MARLBORO TOWN LINE
AND EXTENDING EASTERLY 2.608
MILES TO M.M. 7.300.
LENGTH OF PROJECT = 13770 FT. = 2.608 MI.
1984 ADT = 3880
T = 8%
(SEE SHEET 2 OF 45 FOR PROJECT DESCRIPTION)

Date APR 3 1987
Contractor
The Lane Construction Corporation
A.W. Jewell
Signature
PRESIDENT
Jose C. Cravotto
Title
Transportation Secretary's Signature

**PROJECT PROCESSED UNDER
SECONDARY ROAD PLAN**

SUBMITTED BY ORDER OF THE STATE TRANSPORTATION BOARD

APPROVED *Frank E. Abbott* DATE *3/12/86*
DIRECTOR OF ENGINEERING AND CONSTRUCTION

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED _____ DATE _____
DIVISION ADMINISTRATOR

1986 PAVING PROGRAM - DISTRICT 2
PROJECT F NR 010-1(27)S
M 2000(14)S
RS 0134(6)
SHEET 1 OF 45 SHEETS



RECORDING 44-131-02003-1

TYPICAL SECTIONS MARLBORO

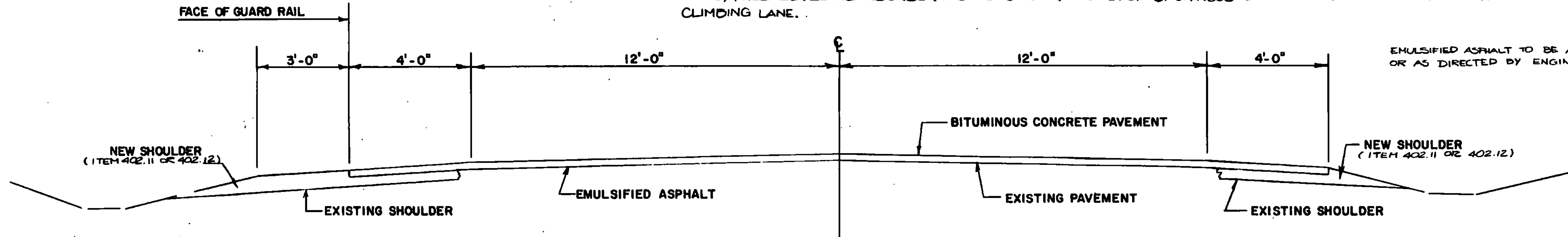
1 1/4" BITUMINOUS CONCRETE PAVEMENT (± 1/4")

USE 655 TONS/MILE LEVELING COURSE (INCLUDES SHOULDERS) OF BITUMINOUS CONCRETE FROM MM 4692-MM 554

USE 350 TONS/MILE LEVELING COURSE (INCLUDES SHOULDERS) OF BITUMINOUS CONCRETE FOR THE REST OF THE PROJECT EXCEPT IN SECTIONS WITH CLIMBING LANE.

USE 800 TONS/MILE LEVELING COURSE (INCLUDES SHOULDERS) OF BITUMINOUS CONCRETE IN SECTIONS WITH CLIMBING LANE.

NOTE: UNLESS OTHERWISE DETERMINED BY THE RESIDENT ENGINEER TYPE IV MIX WILL BE USED FOR LEVELING AND TYPE III MIX WILL BE USED FOR THE WEARING COURSE.

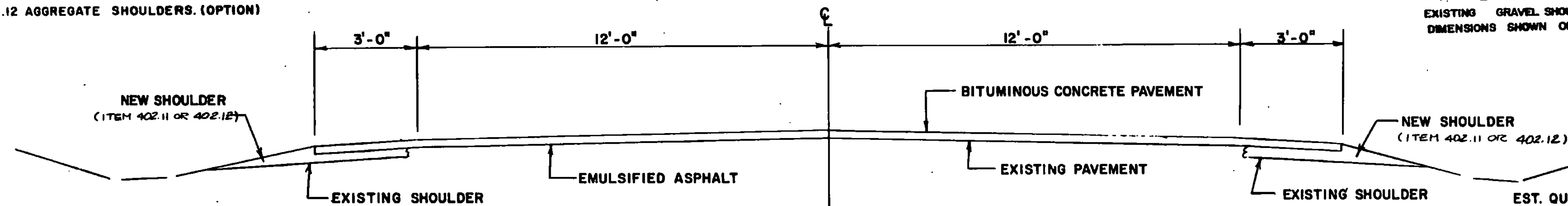


NOTE: IF THE SURFACE OF A DRIVE IS DISRUPTED DURING CONSTRUCTION IT SHALL BE REPAIRED. ESTIMATED AMOUNTS OF AGGREGATE AND BITUMINOUS CONCRETE PAVEMENT HAVE BEEN ADDED TO PROJECT QUANTITIES FOR THIS USE. TYPE OF AGGREGATE USED SHALL BE DETERMINED BY THE ENGINEER AND PAID AS ITEM 402.11 AGGREGATE SHOULDERS, TRUCK MEASUREMENT OR ITEM 402.12 AGGREGATE SHOULDERS. (OPTION)

USE FROM MM 4.692 TO MM 5.54 &
FROM MM 6.22 TO MM 6.25 &
FROM MM 6.43 TO MM 6.81

PROJECT DESCRIPTION

WORK TO BE PERFORMED UNDER THIS PROJECT CONSISTS OF RESURFACING A PORTION OF VT. RTE. 9 WITH A LEVELING COURSE OVERLAID WITH 1 1/4 INCHES OF BITUMINOUS CONCRETE PAVEMENT. IT ALSO INCLUDES UPGRADING OF GUARD RAIL (BETWEEN MM 6.492 AND MM 6.542) AND EXISTING SIGNING. EXISTING GRAVEL SHOULDERS WILL BE WIDENED AND PAVED ACCORDING TO DIMENSIONS SHOWN ON TYPICAL.



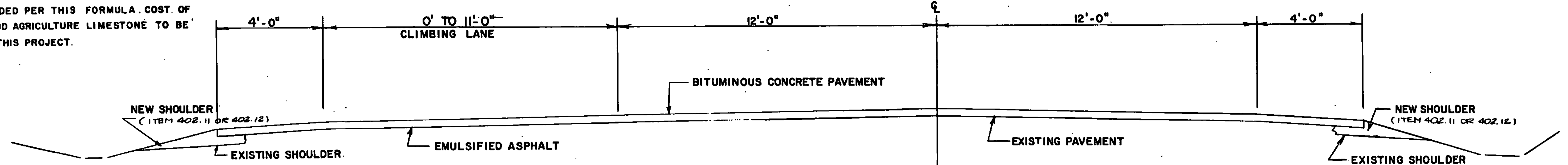
SEEDING FORMULA, RURAL AREAS

% WT.	LBS./A.	NAME	% PUR.	GERM. %
3.33	2	CROWN VETCH	97	75
50.00	30	CREeping RED FESCUE	98	85
8.33	5	TIMOTHY	99	88
16.67	10	PERENNIAL RYE GRASS (VAR. PENNFINE)	95	85
8.34	5	ALFALFA (VAR. SARANAC)	99	85
8.33	5	BIRDFOOT TREFOL (VAR. EMPRE)	98	85
5.00	3	HIGHLAND BENT GRASS	92	85
100.00	60			

USE FROM MM 6.25 TO MM 6.43 (950')

EST. QUANTITIES TO EXTEND SHOULDERS (ITEM 402.11 OR 402.12)	EXTENSION	
	WITH GUARD RAIL	WITHOUT GUARD RAIL
2'		0.46 SQ. FT.
3'	1.00 SQ. FT.	0.63 SQ. FT.
4'	1.46 SQ. FT.	0.80 SQ. FT.

NOTE: ALL DISTURBED AREAS TO BE SEED PER THIS FORMULA. COST OF SEED, HAY MULCH, FERTILIZER, AND AGRICULTURE LIMESTONE TO BE SUBSIDIARY TO OTHER ITEMS ON THIS PROJECT.



USE FOR CLIMBING LANE
FROM MM 5.54 TO MM 6.22 &
FROM MM 6.81 TO MM 7.30

THE SEED MIXTURE SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE FROM ALL NOXIOUS WEED SEED.

HAY MULCH TO BE PLACED ON ALL EARTH SLOPES AT THE RATE OF TWO TONS PER ACRE.

FERTILIZER SHALL BE MIXED AS FOLLOWS:

NITROGEN	10 %
PHOSPHORUS	20 %
POTASH	10 %

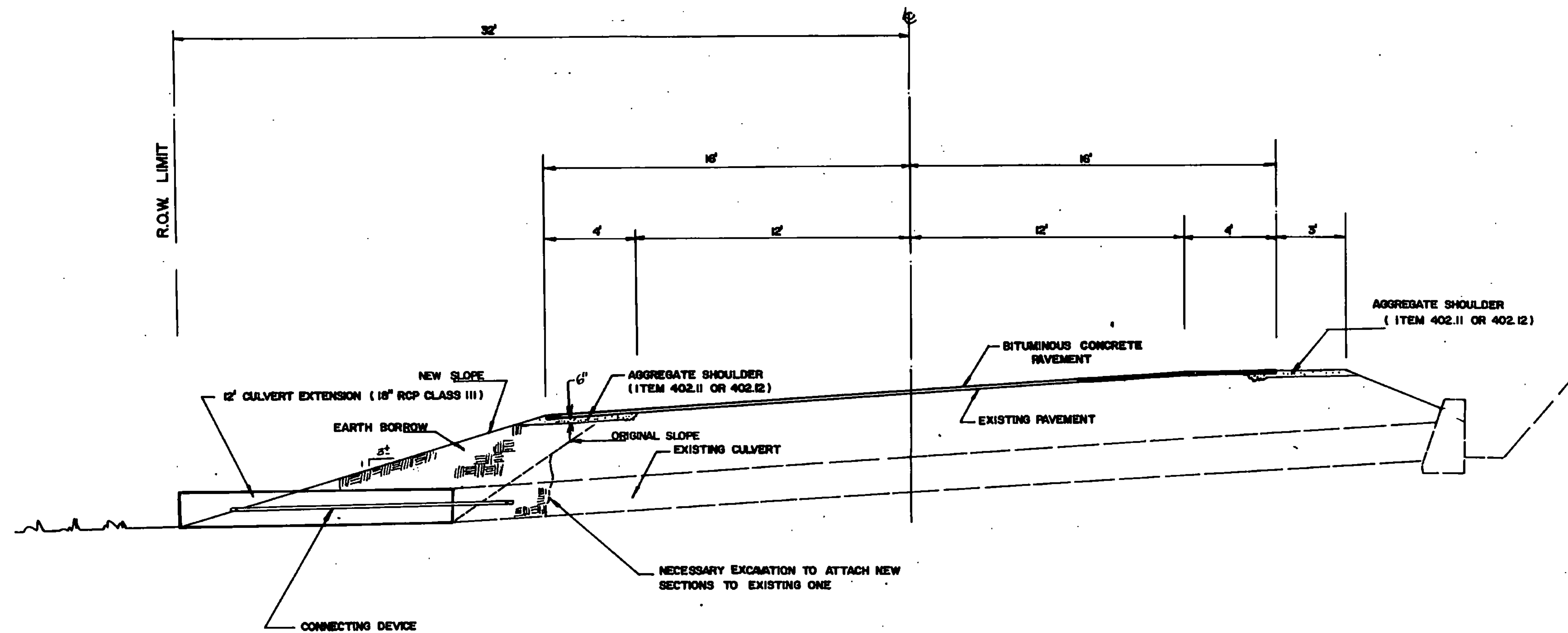
FERTILIZER SHALL BE DELIVERED IN BAGS OF NOT TO EXCEED 100 LBS. EACH AND IS TO BE APPLIED AT THE RATE OF 500 LBS. PER ACRE.

AGRICULTURAL LIMESTONE TO BE APPLIED TO ALL EARTH SLOPES AT THE RATE OF TWO TONS PER ACRE OR AS DIRECTED BY THE ENGINEER.

MARLBORO

SURVEYED BY: SAENZ DATE: 5-88
DRAWN BY: HARDIE DATE: 5-88
TRACED BY: HARDIE DATE: 5-88

MARLBORO
VT. RTE 9
PROJ. F NO. 010-1(27)S
SHEET 2 OF 45



CULVERT EXTENSION AT MM 5.30

NOTES:

1. THIS CROSS SECTION IS APPROXIMATED TO THE ACTUAL SITUATION AND ONLY CAN BE USED AS AN ILLUSTRATION OF THE WORK SCOPE IN THIS AREA.
2. THE INTENT OF EXTENDING THE EXISTING CULVERT ON THE LEFT SIDE OF ROADWAY AT MM 5.30 IS TO INCREASE THE SHOULDER WIDTH IN THIS AREA FROM 1 TO 4 FT.
3. ACCORDING TO RECORD PLANS, THE R.O.W. EXTENDS 32 FT FROM CENTER LINE (CL) ON THE LEFT SIDE OF ROADWAY. THEREFORE, NO EMBANKMENT WORK SHOULD BE PERFORMED OUTSIDE THIS LIMIT.
4. THE NECESSARY EXCAVATION TO ATTACH NEW SECTIONS TO EXISTING ONE IS SUBSIDIARY TO PIPE ITEM.
5. THE CONNECTING DEVICE TO ANCHOR NEW CULVERT SECTIONS TO EXISTING ONE SHALL BE INSTALLED AS DESCRIBED IN STANDARD SPECIFICATIONS FOR CONSTRUCTION, 1988, 60407(M), PAGE 6-3. THIS CONNECTING DEVICE IS SUBSIDIARY TO PIPE ITEM.
6. USE EARTH BORROW UP TO 6" BELOW EXISTING GRADE IN EMBANKMENT AREA AND PLACE A LAYER OF AGGREGATE SHOULDER UP TO EXISTING GRADE (ITEM 402.11 OR 402.12) AS SHOWN.

DATUM	
VERTICAL	_____
HORIZONTAL	_____

MARLBORO

SURVEYED BY _____	DATE _____
DRAWN BY _____	DATE _____
TRACED BY _____	DATE _____
MARLBORO	
VT RTE 9	
PROJ. F NO. 010-1(27)5.	
SHEET 3 OF 45	

TYPICAL SECTIONS

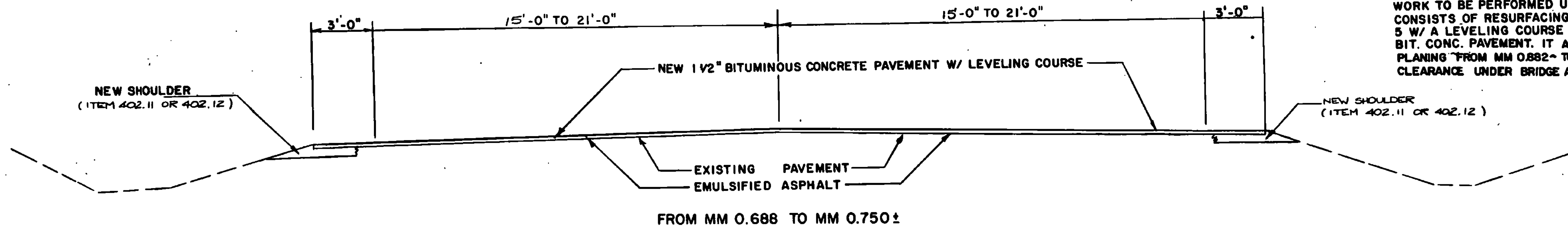
NOTE: IF THE SURFACE OF A DRIVE IS DISRUPTED DURING CONSTRUCTION IT SHALL BE REPAIRED. ESTIMATED AMOUNTS OF AGGREGATE AND BITUMINOUS CONCRETE PAVEMENT HAVE BEEN ADDED TO PROJECT QUANTITIES FOR THIS USE. TYPE OF AGGREGATE USED SHALL BE DETERMINED BY THE ENGINEER AND PAID AS ITEM 402.11 AGGREGATE SHOULDERS, TRUCK MEASUREMENT OR ITEM 402.12 AGGREGATE SHOULDERS. (OPTION)

1 1/2" BITUMINOUS CONCRETE PAVEMENT (1/4")
 430 TONS, PER/MILE LEVELING COURSE (INCLUDES SHOULDERS) OF BITUMINOUS CONCRETE EMULSIFIED ASPHALT, TO BE APPLIED AT THE RATE OF .015 GAL/SY. OR AS DIRECTED BY THE ENGINEER.

NOTE: UNLESS OTHERWISE DETERMINED BY THE RESIDENT ENGINEER, TYPE IV MIX WILL BE USED FOR LEVELING AND TYPE III MIX WILL BE USED FOR THE WEARING COURSE.

PROJECT DESCRIPTION

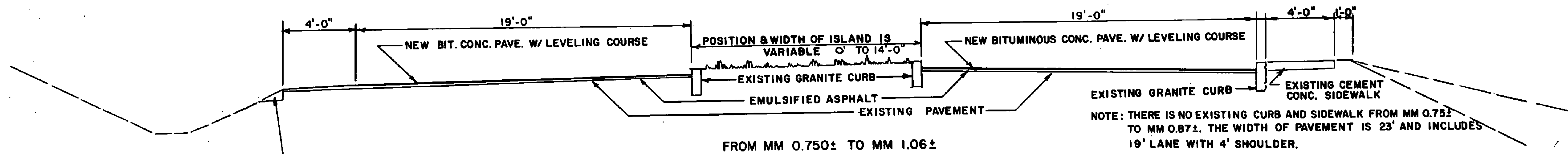
WORK TO BE PERFORMED UNDER THIS PROJECT CONSISTS OF RESURFACING A PORTION OF US RTE. 5 W/ A LEVELING COURSE OVERLAID W/ 1 1/2" OF BIT. CONC. PAVEMENT. IT ALSO INCLUDES COLD PLANING FROM MM 0.882 TO MM 0.902 (MINIMUM CLEARANCE UNDER BRIDGE AFTER PAVING IS 14'0").



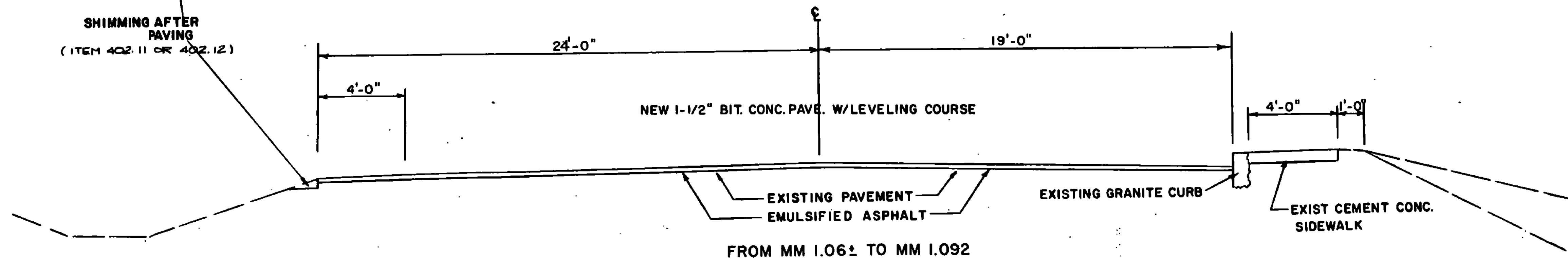
EST. QUANTITIES TO EXTEND SHOULDERS BETWEEN MM 0.688 AND MM 0.750 (ITEM 402.11 OR 402.12)

EXTENSION	LEFT SIDE	RIGHT SIDE
3'	0.81 SQ. FT.	1.00 SQ. FT.

EST. QUANTITY FOR SHIMMING 0.06 SQ. FT.



NOTE: THERE IS NO EXISTING CURB AND SIDEWALK FROM MM 0.750± TO MM 0.87±. THE WIDTH OF PAVEMENT IS 23' AND INCLUDES 19' LANE WITH 4' SHOULDER.



DATUM
 VERTICAL _____
 HORIZONTAL _____

BRATTLEBORO

SURVEYED BY _____ DATE _____
 DRAWN BY DAENZ DATE 5-06
 TRACED BY HARDIE DATE 5-06
 BRATTLEBORO US RTE. 5
 PROJ. M No. 2000 (14)S
 SHEET 4 OF 15

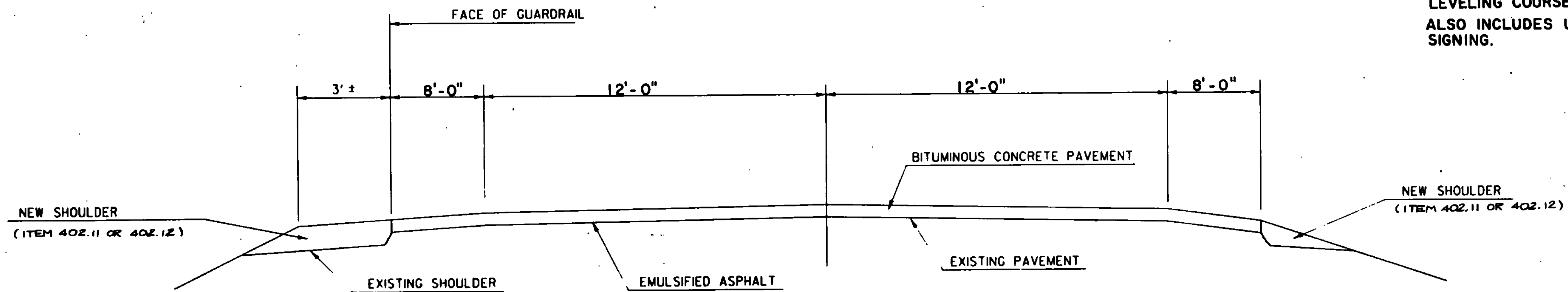
TYPICAL SECTION

1" BITUMINOUS CONCRETE PAVEMENT (1/4")
 455 TONS, PER/MILE LEVELING COURSE (INCLUDES SHOULDERS) OF BITUMINOUS CONCRETE
 EMULSIFIED ASPHALT, TO BE APPLIED AT THE RATE OF .015 GAL./SQ. YD.
 OR AS DIRECTED BY THE ENGINEER.

NOTE: UNLESS OTHERWISE DETERMINED BY THE RESIDENT ENGINEER,
 TYPE IV MIX WILL BE USED FOR LEVELING AND WEARING
 COURSES.

PROJECT DESCRIPTION

WORK TO BE PERFORMED UNDER THIS PROJECT CONSISTS
 OF RESURFACING A PORTION OF V.T. RTE 11 WITH A
 LEVELING COURSE OVERLAID WITH 1" OF BIT. CONC. PAVE.
 ALSO INCLUDES UPGRADING EXISTING GUARD RAIL AND
 SIGNING.



ROUTE VT. 11 MILE 0.000 TO 1.162 MILE

NEW PAVED SHOULDERS OVER EXISTING PAVED SHOULDERS

NOTE: IF THE SURFACE OF A DRIVE IS DISRUPTED DURING CONSTRUCTION IT
 SHALL BE REPAIRED. ESTIMATED AMOUNTS OF AGGREGATE AND BITUMINOUS
 CONCRETE PAVEMENT HAVE BEEN ADDED TO PROJECT QUANTITIES FOR
 THIS USE. TYPE OF AGGREGATE USED SHALL BE DETERMINED BY THE
 ENGINEER AND PAID AS ITEM 402.11 AGGREGATE SHOULDERS, TRUCK
 MEASUREMENT OR ITEM 402.12 AGGREGATE SHOULDERS. (OPTION)

NOTE: ALL DISTURBED AREAS TO BE SEEDED PER THIS FORMULA. COST OF
 SEED, HAY MULCH, FERTILIZER, AND AGRICULTURE LIMESTONE TO BE
 SUBSIDIARY TO OTHER ITEMS ON THIS PROJECT.

SEEDING FORMULA, RURAL AREAS

% WT.	LBS./A.	NAME	% PUR.	GERM. %
3.33	2	CROWN VETCH	97	75
90.00	30	CREeping RED FESCUE	98	85
8.33	5	TIMOTHY	99	88
16.67	10	PERENNIAL RYE GRASS (VAR. PENNFINE)	95	85
8.34	5	ALFALFA (VAR. SARANAC)	99	85
8.33	5	BRODSFOOT TRIFOL (VAR. EMPIRE)	98	85
5.00	3	HIGHLAND BENT GRASS	92	85
100.00	50			

THE SEED MIXTURE SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY
 WEIGHT AND SHALL BE FREE FROM ALL NOXIOUS WEED SEED.

HAY MULCH TO BE PLACED ON ALL EARTH SLOPES AT THE
 RATE OF TWO TONS PER ACRE.

FERTILIZER SHALL BE MIXED AS FOLLOWS:

NITROGEN 10 %
 PHOSPHORUS 20 %
 POTASH 10 %

FERTILIZER SHALL BE DELIVERED IN BAGS OF NOT TO EXCEED 100 LBS. EACH
 AND IS TO BE APPLIED AT THE RATE OF 500 LBS. PER ACRE.

AGRICULTURAL LIMESTONE TO BE APPLIED TO ALL EARTH SLOPES AT THE
 RATE OF TWO TONS PER ACRE OR AS DIRECTED BY THE ENGINEER.

EST. QUANTITIES OF AGGREGATE SHOULDERS (ITEM 402.11 / 402.12)

WITH GUARDRAIL	WITHOUT GUARDRAIL
0.81 SQ. FT.	0.06 SQ. FT.

DATUM
 VERTICAL _____
 HORIZONTAL _____

SPRINGFIELD

SURVEYED BY _____ DATE _____
 DRAWN BY HARDIE DATE 8-8
 TRACED BY HARDIE DATE 8-8
 SPRINGFIELD VT RTE 11
 PROJ. RS NO 0134(6)
 SHEET 5 OF 15

1986 PAVING PROGRAM

ITEM DETAIL SHEET

MILE MARKER	POS	REM. TREES		UNCL. EXC.	EARTH BORROW	TRENCH EARTH	TRENCH ROCK	CHG ELEV	METAL PIPE			RCP PIPE			MES	RCPE	CONC	STEEL	GRATE TYPE	STONE FILL		TIMBER CLASS	ITEM 004.40	GUARDRAIL ITEMS				DEL	OPTION		REMARKS	
		D	L						TH	D	L	CL	I	II						63L20	63L25			63L50	63L50	AGG SHOUL	AGG SHOUL		NEW MAILBOX			
					CY			EA															LF			EA	EA					
MARLBORO F 010-1(27)S																																
4.62-7.30																												463	810		BRING UNPAVED PORTION OF SHOULDER UP TO EXISTING GRADE (BEFORE LEVELING) AND SHIMMING OF SHOULDER EDGE AFTER PAVING. CONSTRUCT TOWN HIGHWAY APPROACHES & DRIVES.	
5.30	LT				75							18	12	III																	EXTEND 12' EXISTING 18' ROP. (SEE SHEET 3 OF 45)	
5.31-5.39	LT				670																										CONSTRUCT LEFT SHOULDER	
6.49-6.53																							224		325	1	3		36	63		CONSTRUCT SHOULDER IN AREA WITH GUARD RAIL AS SHOWN ON GUARD RAIL DETAIL SHEET. REPLACE EXISTING GUARD RAIL ON RIGHT SIDE AND EXTEND BOTH ENDS WITH 12.5' PLUS ECT. (TOTAL LENGTH WITHOUT ECT'S = 137.5'). REPLACE EXISTING GUARD RAIL ON LEFT SIDE AND EXTEND EASTERLY END WITH 12.5' + ECT. EXTEND THE WESTERLY END WITH 50' AND A G1-d (R=16) TERMINAL AND WRAP AROUND DRIVE (TOTAL LENGTH WITHOUT ECT = 175'). POST SPACING IN FRONT OF UTILITY POLE SHOULD BE 3'-12" (FOR A LENGTH OF 12.5' EITHER SIDE OF POLE. PAY LENGTH OF GUARD RAIL HAS BEEN INCREASED BY 04.25 = 10 FT. FOR SHORTER POST SPACING (SEE PAGE G-39 STAND SPEC. FOR CONSTRUCTION)
6.30	LT																											40	70	1	REMOVE EXISTING MAILBOX AND REPLACE IT WITH NEW ONE ACCORDING TO CRITERIA SHOWN ON SHEET 11 OF 45.	
6.33	LT																											40	70	1	REMOVE EXISTING MAILBOX AND REPLACE IT WITH NEW ONE ACCORDING TO CRITERIA SHOWN ON SHEET 11 OF 45.	
6.35	LT																											40	70	1	REMOVE EXISTING MAILBOX AND REPLACE IT WITH NEW ONE ACCORDING TO CRITERIA SHOWN ON SHEET 11 OF 45.	
TOTALS					745							12											224		325	1	3		619	1083	3	

DISTRICT 2
1986 PAVING PROGRAM
MARLBORO F 010-1(27)S
SHEET 2 OF 45 SHEET

1986 PAVING PROGRAM

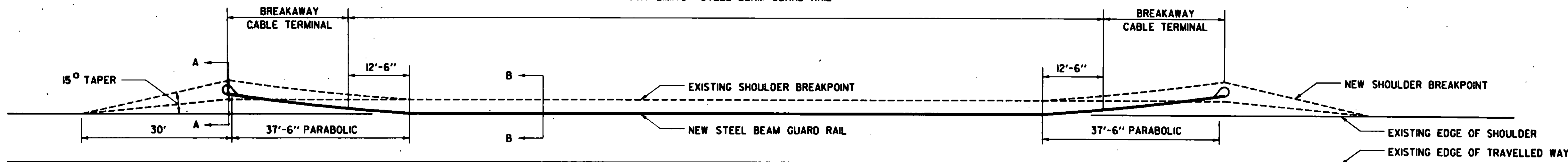
ITEM DETAIL SHEET

MILE MARKER	POS	REM. TREES		UNCL. EXC.	EARTH BORROW	TRENCH EARTH	TRENCH ROCK	CHG ELEV	METAL PIPE			RCP PIPE			MES	RCPES	CONC	STEEL	GRATE TYPE	STONE FILL	TRENCH CURB	ITEM 004.40	GUARDRAIL ITEMS				DEL	OPTION			REMARKS									
		D	L						TH	D	L	CL	02.00	02.50									03.00	03.50	AGG SHOUL	AGG SHOUL		COLD PLANING												
		SMALL	LARGE					EA															LF	LF	EA	EA		CY	TON	GY										
BRATTLEBORO M 2000(14)S																																								
0.688-0.75	Lt.																											20	35			For Shimming Shoulder Before Paving & Surface Course for Turnout								
0.70-0.74	Rt.																											8	14			Surface Course for Unpaved Portion of Shoulder								
0.81	Lt.							1																			19	33			Surface Course for Unpaved Portion of Shoulder in Guard Rail Areas									
0.81-1.00	Lt.																																							
0.86	Lt.							1																				2	4			For Shimming at Edge of Shoulder After Paving								
0.86	Rt.							2																																
0.882-0.902																														250			Cold Planing on Northeast Bound Lane From MM 0.882 to MM 0.902 Consists of 50 LF of 1 1/2" Depth Planing with 25 LF Transition on Either End. The Minimum Acceptable Bridge Clearance in this Cold Planing Length is 14'-0" (This point is located Right Below Bottom Flange of First Bridge Steel Beam on Northeast Bound Lane).							
0.92	Rt.							1																																
0.94	Rt.							1																																
0.95	Rt.							1																																
0.99	Rt.							1																																
1.00	Rt.							1																																
1.02	Rt.							1																																
1.05	Lt.							1																																
1.06	Rt.							1																																
1.09	Rt.							1																																
1.10	Rt.							2																																
TOTALS								15																				49	06	250										
SPRINGFIELD RS 0134(6)																																								
0.00-1.162																																		26	46	For Shimming at Edge of Shoulders After Paving (Excluding Guard Rail Areas)				
0.32-0.34	Rt.				100																		112	177	1	1						7	12	Replace Existing Guard Rail. Extend Guard Rail Length 50 1/2 ft at Westerly End and Wrap Around Drive. Extend Guard Rail Length 12 1/2 ft at Easterly End plus BCT						
0.80-0.91	Lt.				50																		592	5875		2						21	37	Replace Existing Guard Rail with Steel Beam Guard Rail plus BCT's at both Ends.						
TOTALS								150																											704	7645	1	3	54	95

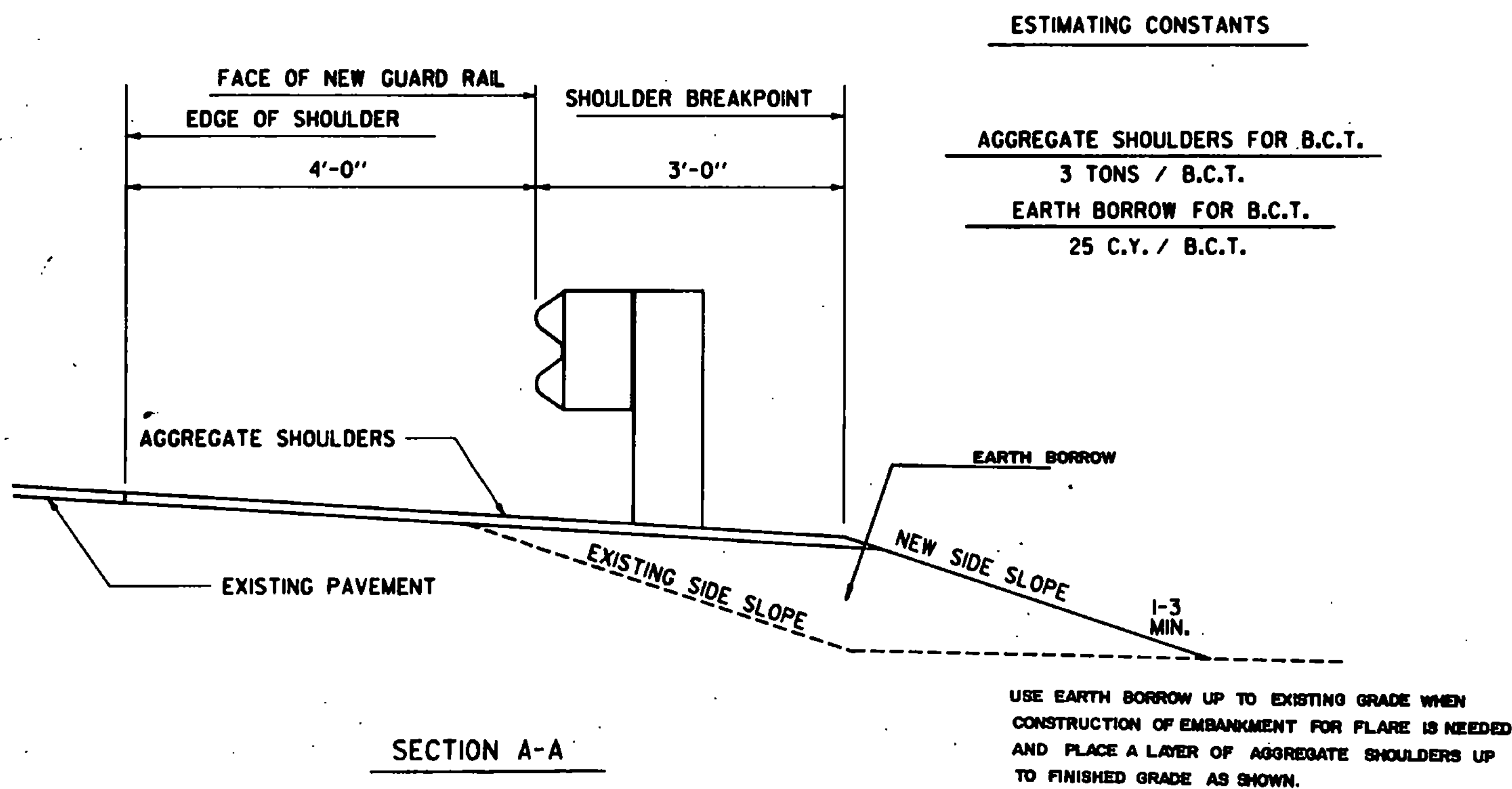
DISTRICT 2
1986 PAVING PROGRAM
BRATTLEBORO M 2000(14)S
SPRINGFIELD RS 0134(6)
SHEET 9 OF 45 SHEETS

GUARD RAIL DETAILS

PAY LIMITS STEEL BEAM GUARD RAIL

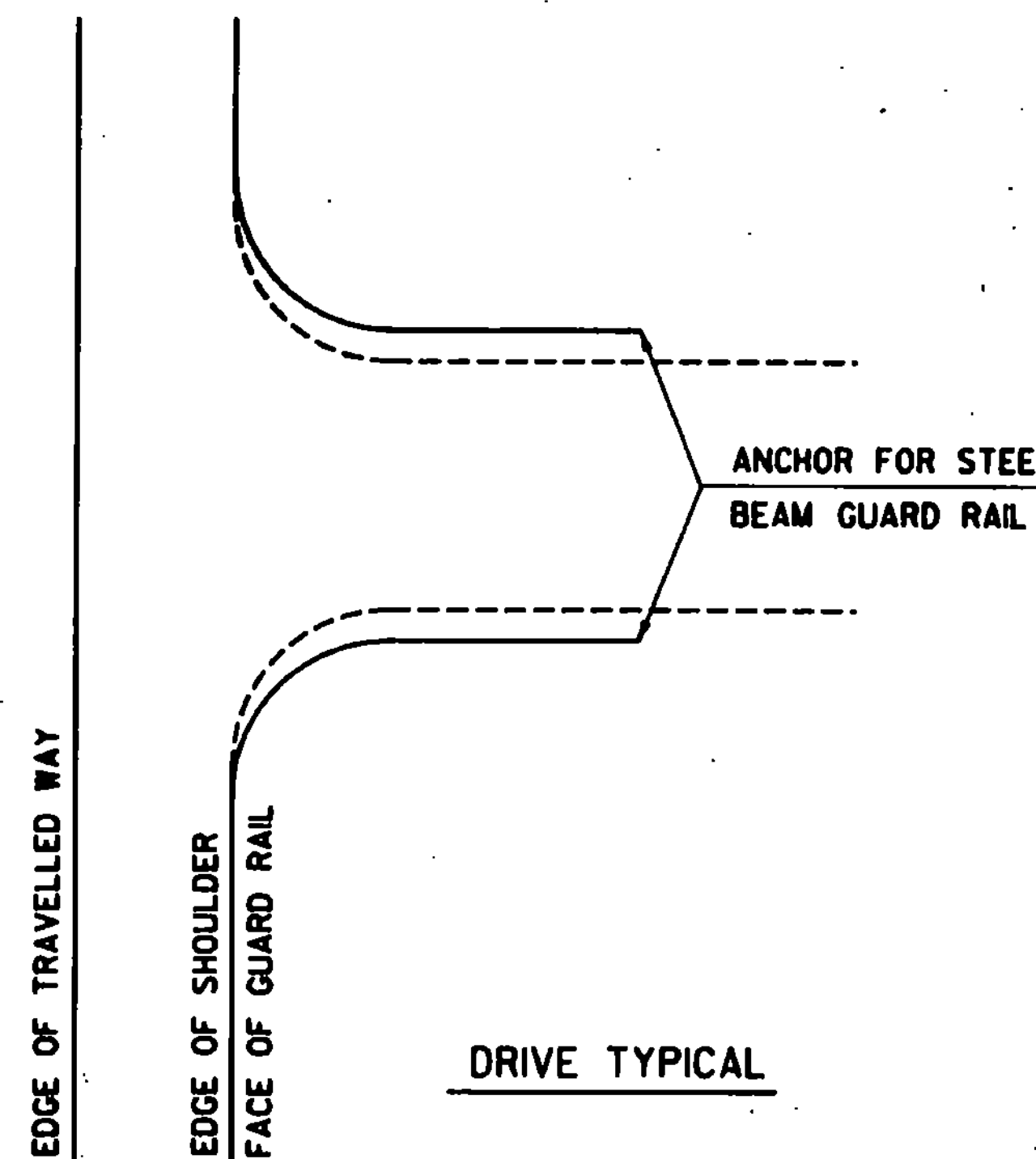
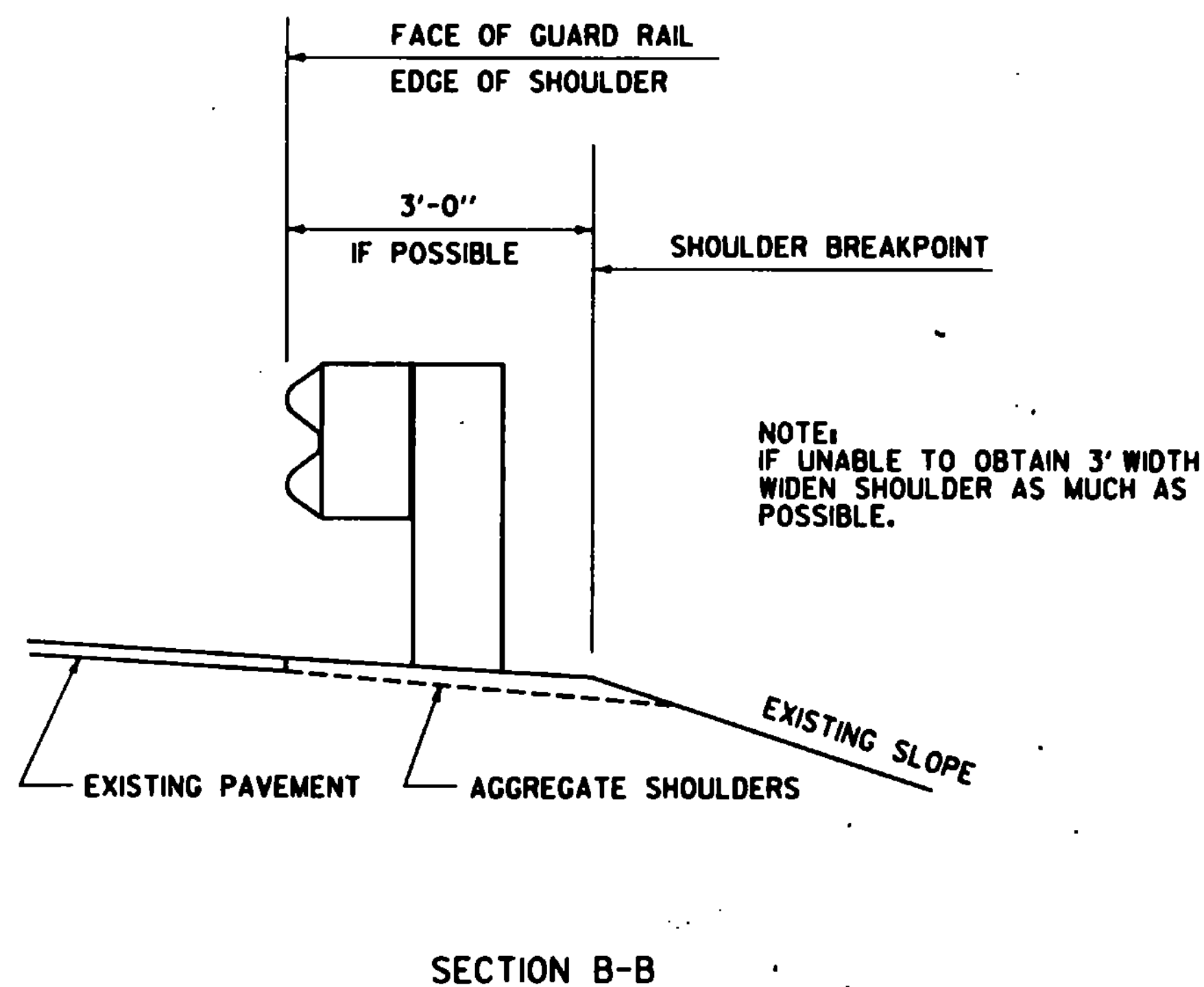


TYPICAL GUARD RAIL INSTALLATION



ESTIMATING CONSTANTS

AGGREGATE SHOULDERS FOR B.C.T.
 3 TONS / B.C.T.
EARTH BORROW FOR B.C.T.
 25 C.Y. / B.C.T.



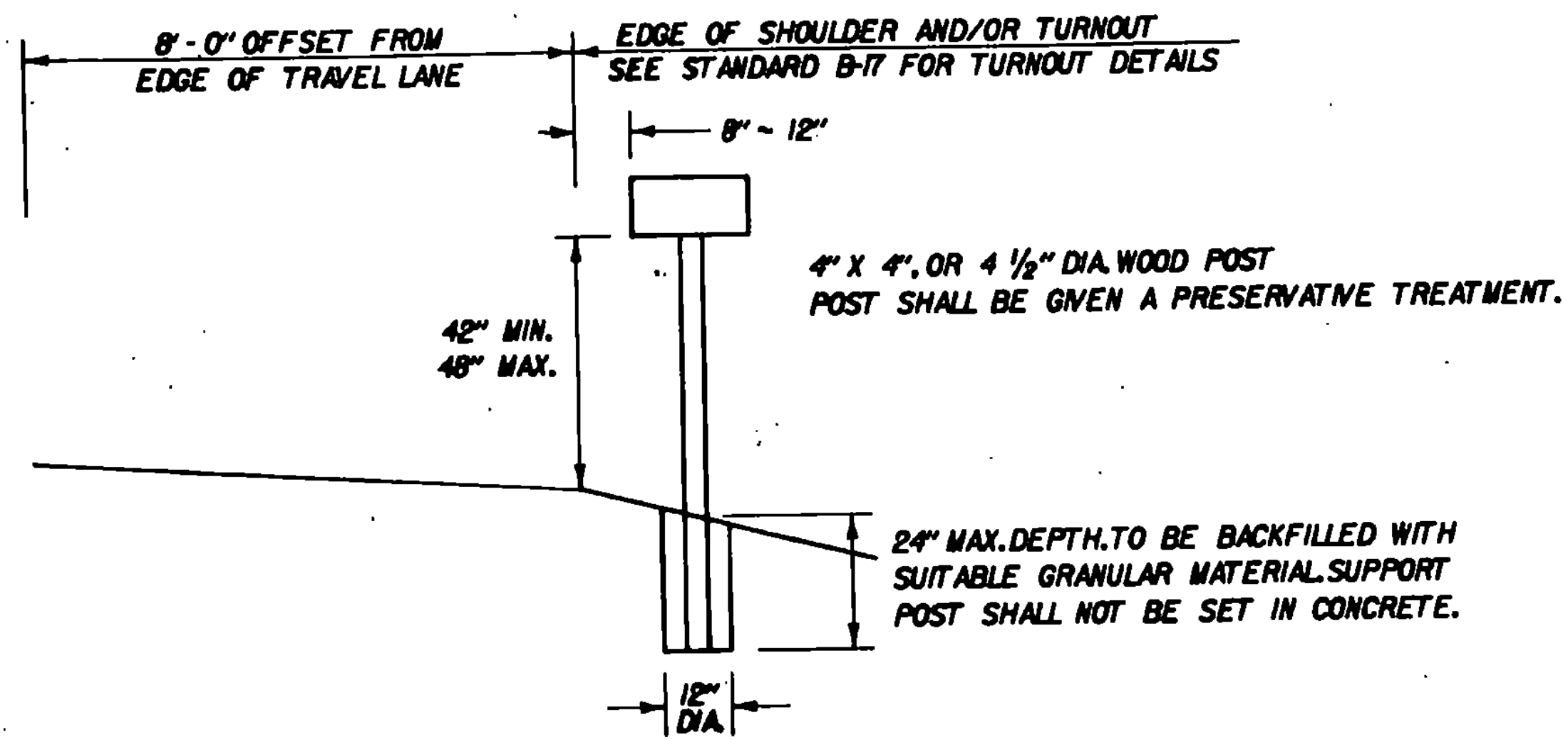
NOTE:
CONTRACTOR WILL GRADE AS NECESSARY
TO ENSURE PROPER DRAINAGE IN AREAS
WIDENED FOR GUARD RAIL INSTALLATION.

DATUM
VERTICAL _____
HORIZONTAL _____

SURVEYED BY _____ DATE _____
 DRAWN BY _____ DATE _____
 TRACED BY _____ DATE _____
 DISTRICT
 1988 PAVING PROGRAM
 10

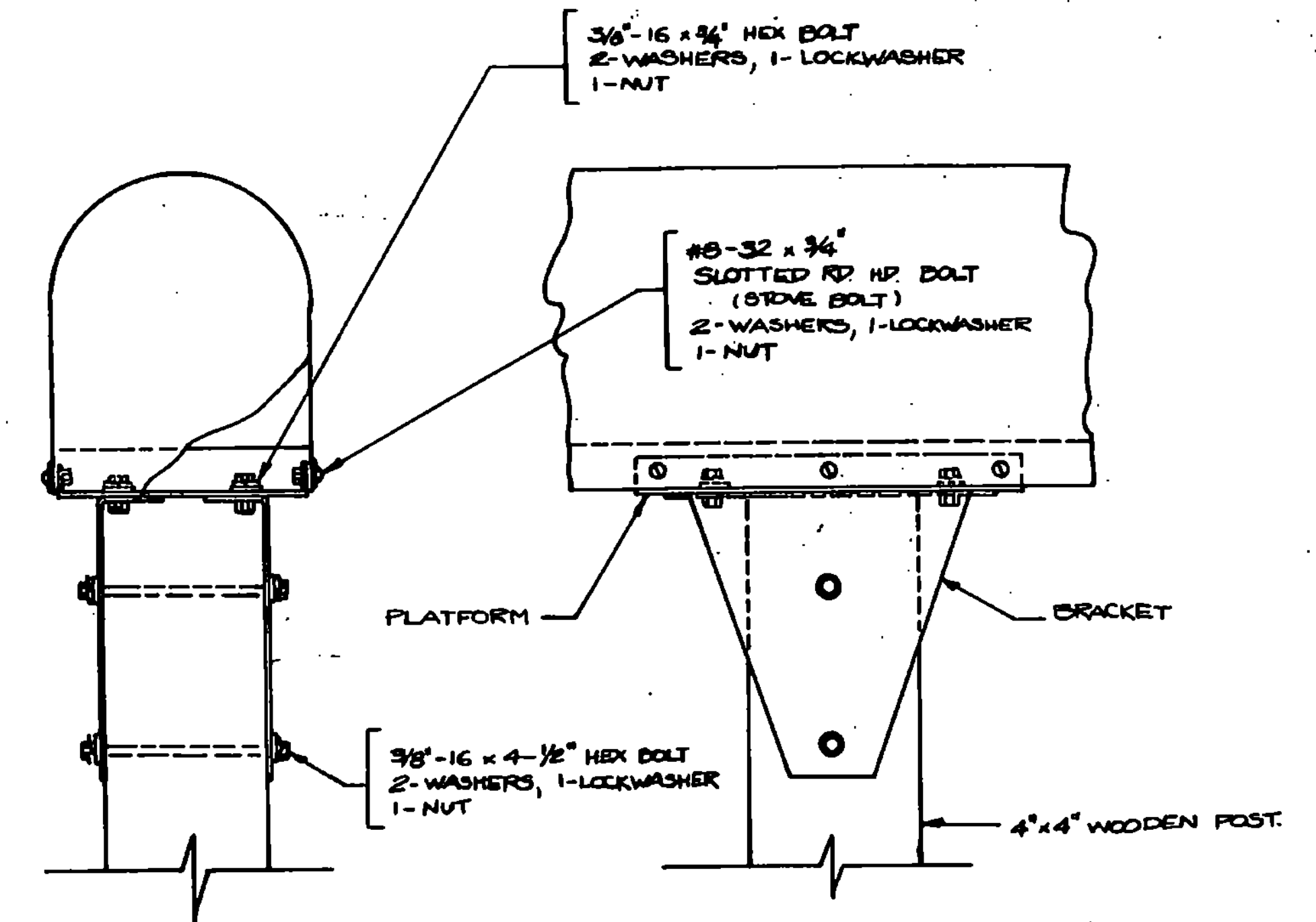
MAILBOX SUPPORT HARDWARE

(COMPILED FROM "A GUIDE FOR ERECTING MAILBOXES ON HIGHWAYS", AASHTO, 1985)

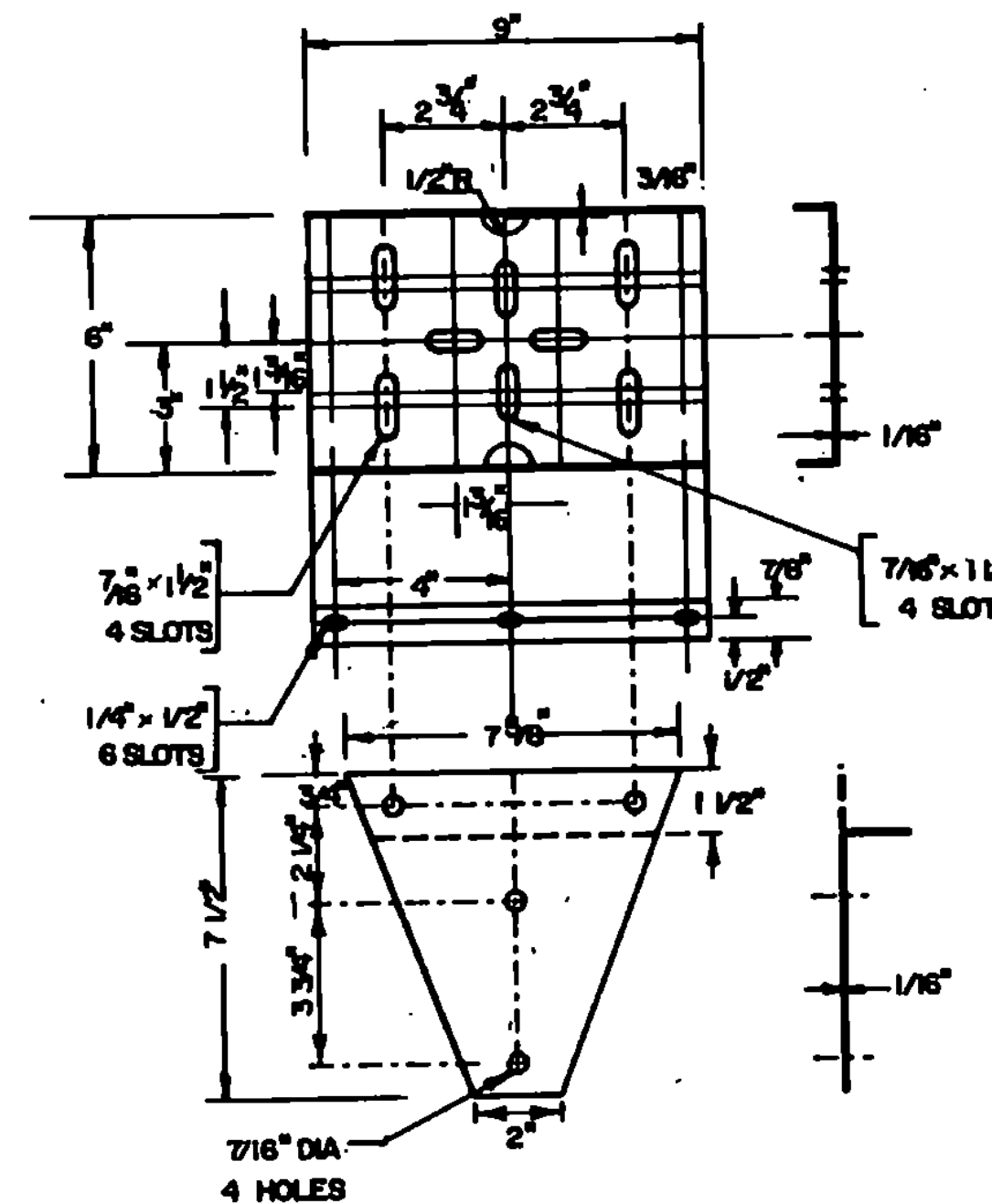
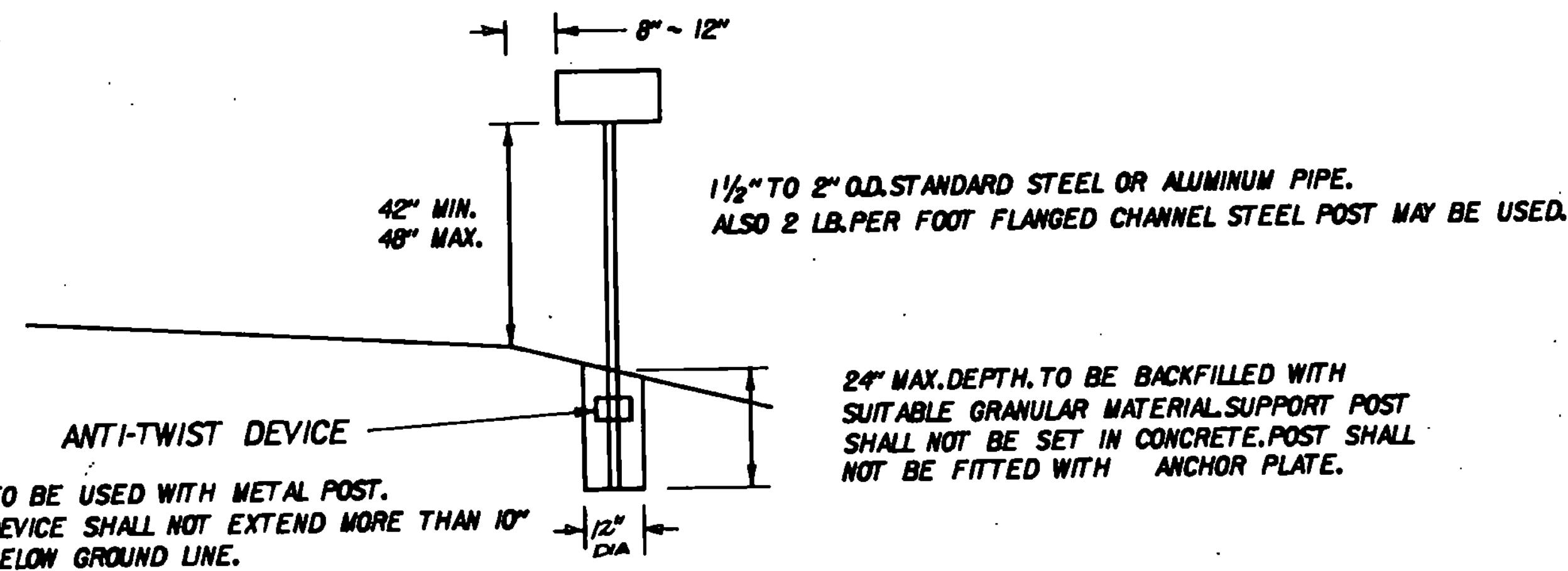


NOTES

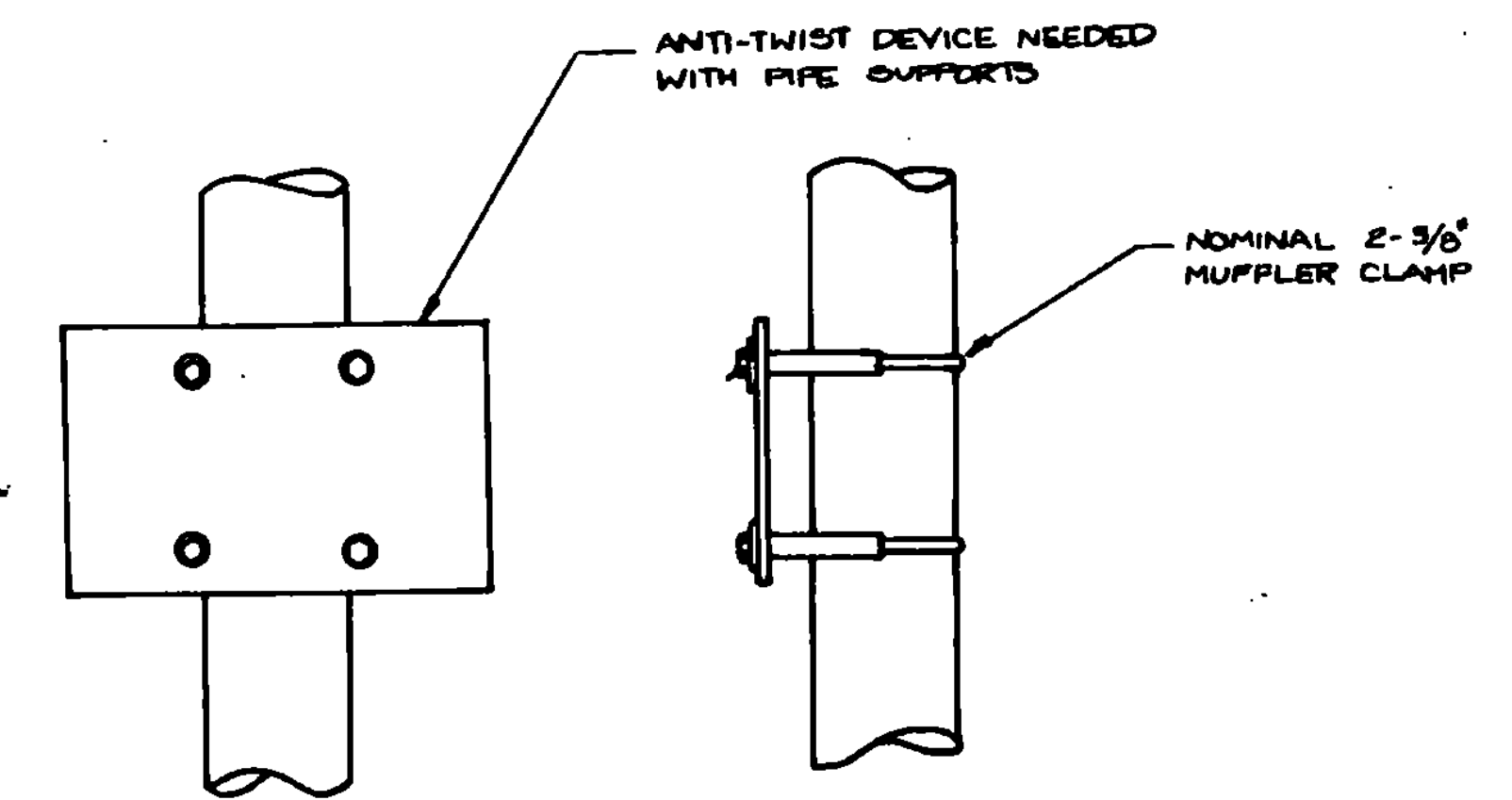
1. ONLY LIGHTWEIGHT MAILBOXES MADE OF LIGHT SHEET METAL OR PLASTIC SHALL BE USED. MAILBOXES SHALL MEET REQUIREMENTS AND APPROVAL OF THE U.S. POSTAL SERVICE.
2. AN ALTERNATE MAILBOX SUPPORT STRUCTURE DESIGN AND CONSTRUCTION MAY BE USED AS LONG AS PROVEN CRASHWORTHY AND MEETS GUIDELINES AS SET OUT IN AASHTO'S GUIDE FOR ERECTING MAILBOXES ON HIGHWAYS. SUPPORT STRUCTURE SHALL ALSO MEET REQUIREMENTS OF THE U.S. POSTAL SERVICE.
3. MAILBOX TURNOUT SHALL MEET B-17 STANDARD AS SET OUT IN STATE OF VERMONT DEPT. OF HIGHWAYS. DESIGN STANDARDS FOR ROAD AND BRIDGE CONSTRUCTION.
4. IF THE STANDARD TURNOUT OFFSET CANNOT BE ATTAINED DUE TO RIGHT-OF-WAY CONSTRAINTS OR OTHER REASONS THE TURNOUT SHALL BE MODIFIED AS DIRECTED BY THE ENGINEER.



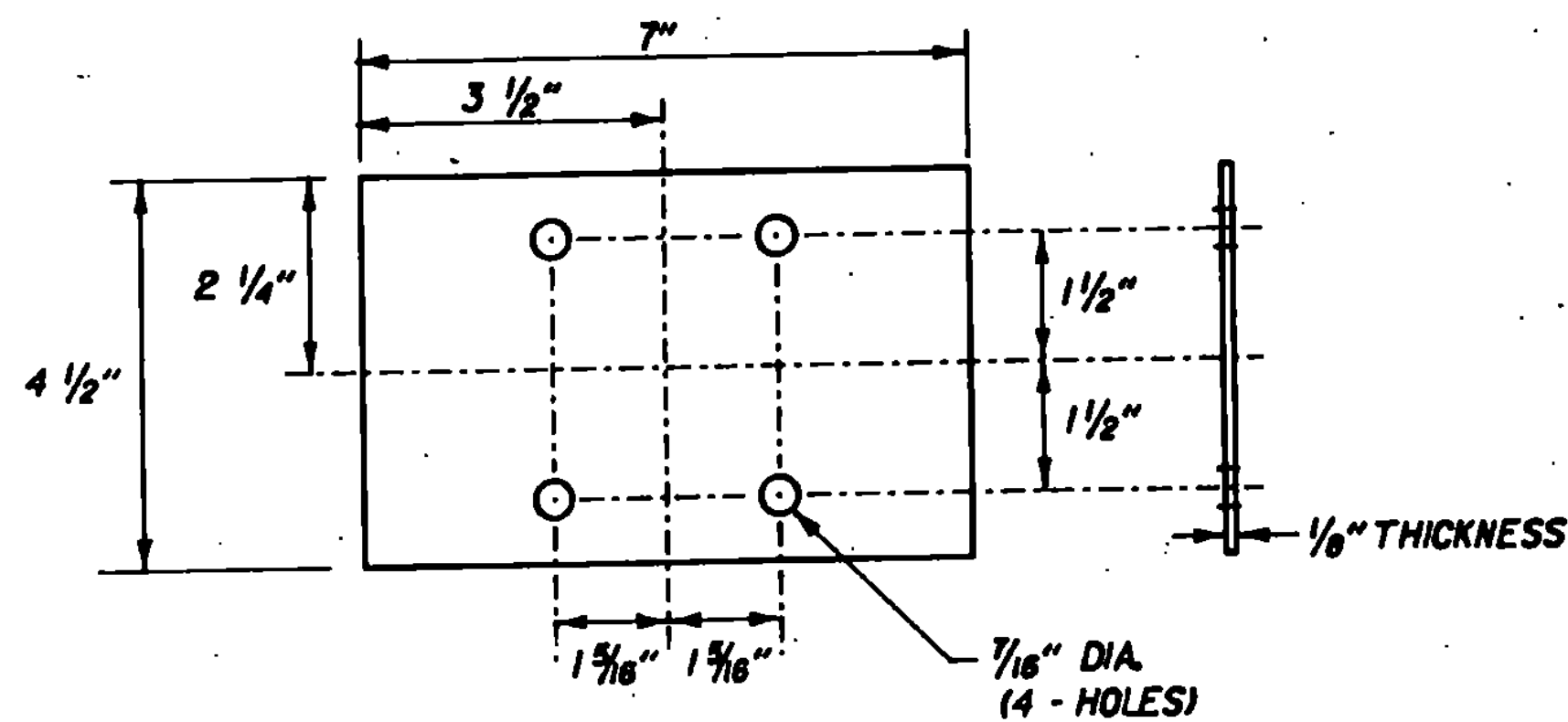
MAILBOX ASSEMBLY N.T.S.



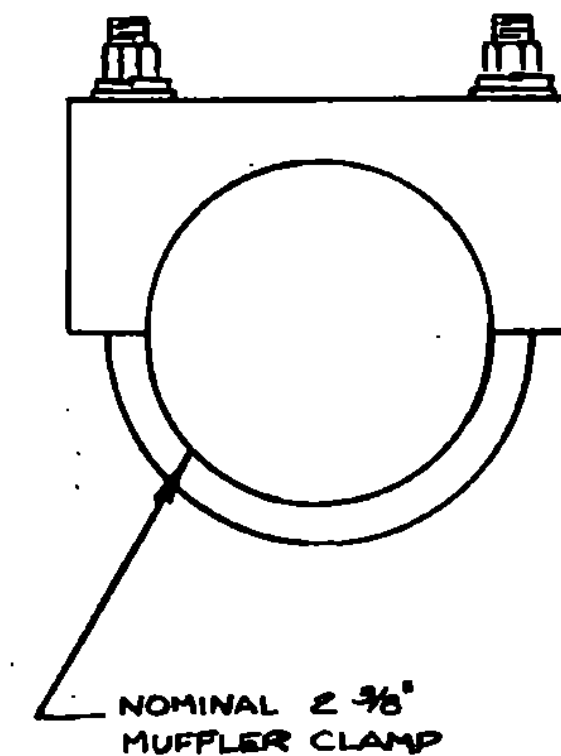
PLATFORM & BRACKET DETAIL



ANTI-TWIST DEVICE ASSEMBLY N.T.S.



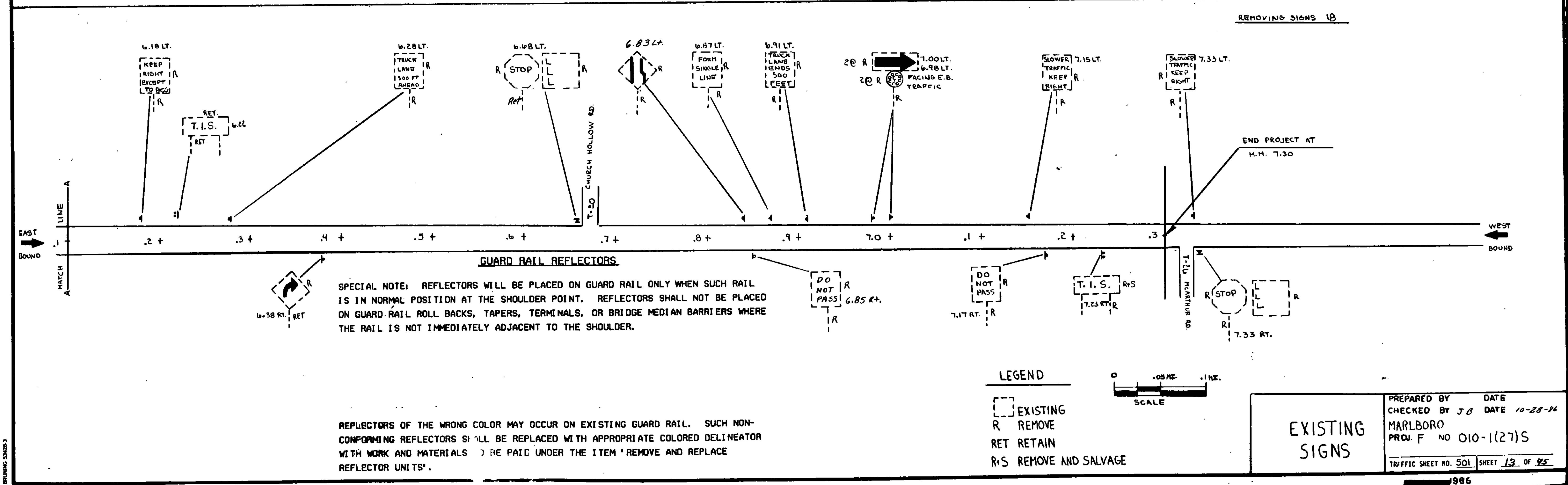
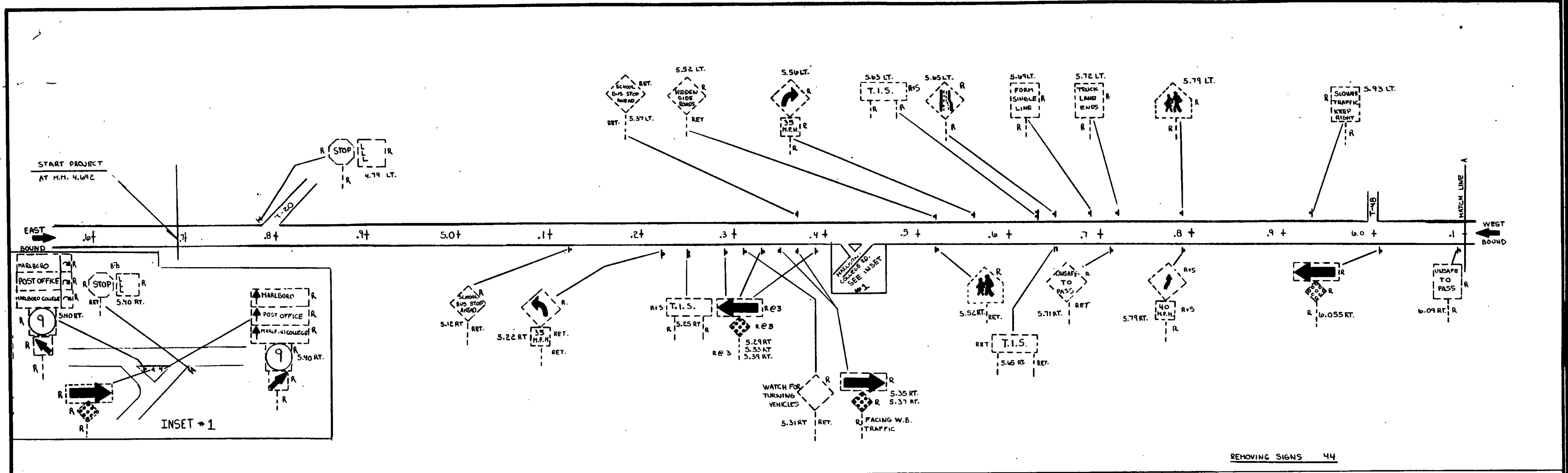
ANTI-TWIST DEVICE DETAIL

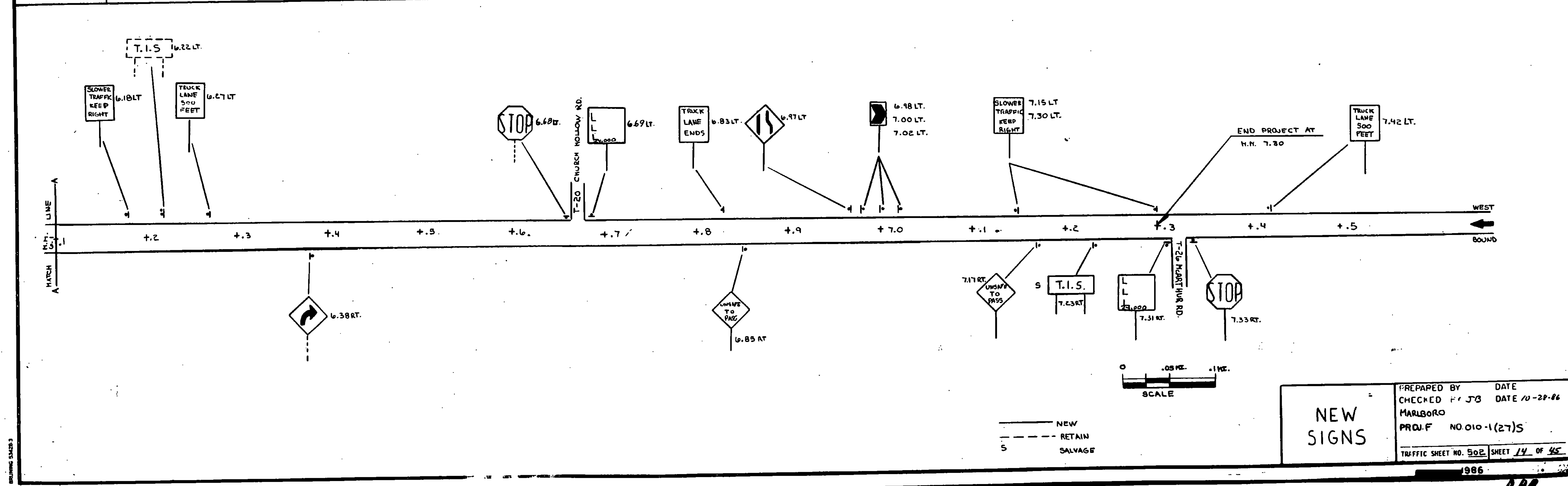
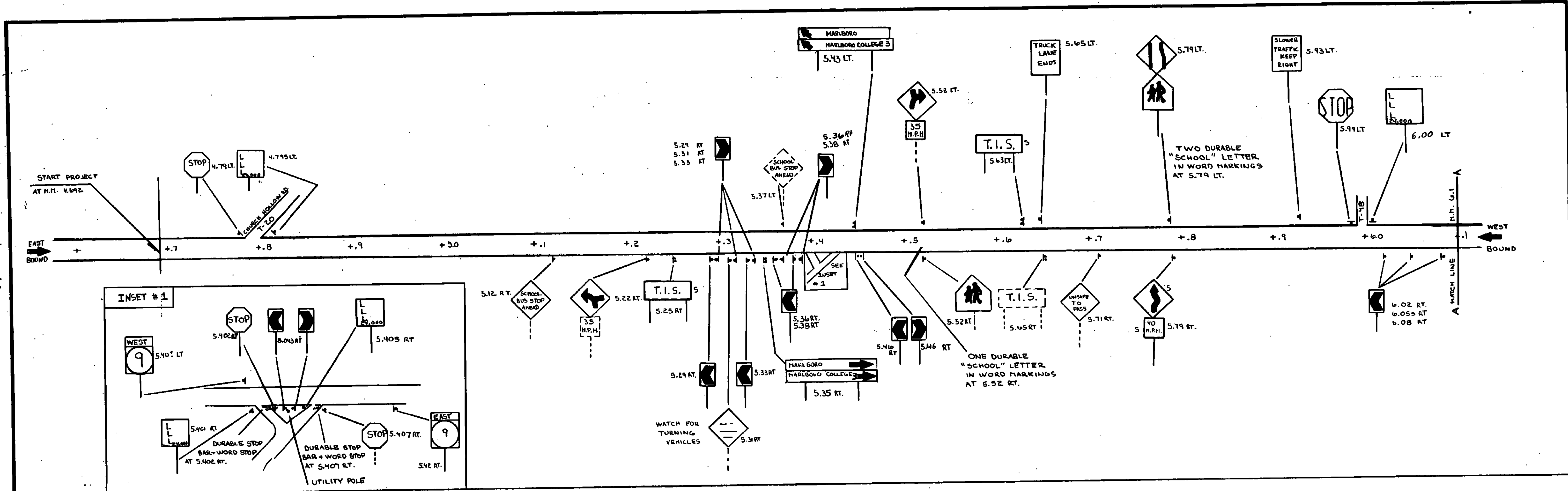


DATUM	
VERTICAL	_____
HORIZONTAL	_____

MAILBOX DETAILS

SURVEYED BY _____ DATE _____
 DRAWN BY SAENZ DATE JULY 85
 TRACED BY SAENZ DATE JULY 85
 1986 PAYING PROGRAM DISTRICT 2.
 SHEET 11 OF 45





NEW SIGNS
 PREPARED BY DATE
 CHECKED BY J3 DATE 10-28-86
 MARLBORO
 PROJ.F NO.010-1(27)S
 TRAFFIC SHEET NO. 502 SHEET 14 OF 45

TRAFFIC SIGN SUMMARY SHEET

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS	EXISTING SIGNS				NEW AND SALVAGED SIGNS				EXISTING POSTS				NEW SIGN POSTS										REMARKS	FOR SIGN DETAIL SHEET					
			TO BE SALVAGED		NEW 'A' (S.F.)	NEW 'B' (S.F.)	SALV. SIGN (E.A.)	SALV. T.I.S. (S.F.)	RET.	DRILL	REM.	SALV.	NUMBER OF POSTS	FLANGED CHANNEL			TUBULAR ALUMINUM				W SHAPED STEEL			PLAN SHEET NUMBER		STD. SHEET NUMBER					
			REMOVE (E.A.)	RETAIN (X)										2.0 LB./FT.	2.5 LB./FT.	3.0 LB./FT.	3.0" Ø	3.0" □	4.0" Ø	4.0" Ø MOD.	POST SIZE	WEIGHT	FTG. SIZE								
4.79 LT.		30" X 30"			6.25						1	X																	E-15C		
4.79 LT.		24" X 24"			4						1	X																	E-15A		
5.18 RT.		36" X 36"			9.0				X																				SEE T.S. # 507		
5.22 RT.		30" X 30"			6.25				X																				SEE T.S. # 507		
5.25 RT.	T. I. S. *																												* Item 680.20 MOD. (NON-FED-PARTICIPATING)		
5.29 RT.		18" X 24"			3						1	X																	E-19		
5.29 RT.		18" X 24"			3						1	X																	FACING WEST BOUND TRAFFIC		
5.31 RT.		36" X 36"			9				X																				SEE T.S. # 507		
5.31 RT.		18" X 24"			3						1	X																		FACING WEST BOUND TRAFFIC	
5.33 RT.		18" X 24"			3						1	X																		E-19	
5.33 RT.		18" X 24"			3						1	X																		FACING WEST BOUND TRAFFIC	
5.35 RT.		72" X 10" 72" X 10"			5 5						2	X																	6" Series 'C' 6" Series 'B' - Reduce Spacing 25%		
5.38 RT.		18" X 24"			3						1	X																		E-19	
5.40 RT.		18" X 24"			3						1	X																		FACING WEST BOUND TRAFFIC	
5.38 RT.		18" X 24"			3						1	X																		FACING WEST BOUND TRAFFIC	
5.40 LT.	WEST	24" X 12" 24" X 24"			2 4						1	X																		E-15 E-15	
TOTALS					77.5																									* 8.25	450"

FINAL LENGTHS ARE TO BE DETERMINED IN THE FIELD, POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE DESIGN DIVISION'S "SIGN POST DESIGN MANUAL".

PREPARED BY _____ DATE _____
 CHECKED BY J.B. DATE 10-22-86
 PROJ. HARBORO NO. 010-1(27)5
 TRAFFIC SHEET NO. 503 SHEET 15 OF 45

TRAFFIC SIGN SUMMARY SHEET

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS	EXISTING SIGNS		NEW AND SALVAGED SIGNS				EXISTING POSTS				NEW SIGN POSTS							REMARKS	FOR SIGN DETAIL SHEET								
			TO BE SALVAGED REMOVE (EA.)	RETAIN (X)	NEW "A" (S.F.)	NEW "B" (S.F.)	SALV. SIGN (EA.)	SALV. T.I.S. (S.F.)	RET.	DRILL	REM.	SALV.	NUMBER OF POSTS	FLANGED CHANNEL			TUBULAR ALUMINUM				W SHAPED STEEL			PLAN SHEET NUMBER	STD. SHEET NUMBER				
														2.0 LB./FT.	2.5 LB./FT.	3.0 LB./FT.	3.0" Ø	3.0" □	4.0" Ø		4.0" Ø MOD.	POST SIZE	WEIGHT			FTG. SIZE			
5.401 RT.		24" x 24"			4							1	X															E-15A	
5.402 RT.		30" x 30"			6.25							1	X															E-15C	
5.408 RT.		18" x 24"			3							1	X															E-19	
5.403 RT.		18" x 24"			3							1	X															E-19	
5.405 RT.		24" x 24"			4							1	X															E-15A	
5.407 RT.		30" x 30"			6.25				X																			E-15C	
5.42 RT.		24" x 12" 24" x 24"			2 4							1	X															E-13	
5.45 LT.		72" x 10" 72" x 10"			5 5							2	X															E-13	
5.46 RT.		18" x 24"			3							1	X															E-13	
5.46 RT.		18" x 24"			3							1	X															E-13	
5.52 RT.		30" x 30" 18" x 18"			6.25 2.3				X																			E-19B	
5.52 RT.		36" x 36"			9				X																			E-19B	
5.61 LT.																												E-19B	
5.65 RT.		24" x 30"			5							1	X															E-15A	
5.71 RT.		36" x 36"			9				X																			E-19A	
5.79 LT.		36" x 36"			9							1																E-19A	
5.79 RT.									X			1																E-19A	
5.93 LT.		24" x 30"			5							1	X															E-15A	
5.99 LT.		30" x 30"			6.25							1	X															E-15C	
6.00 LT.		24" x 24"			4							1	X															E-15A	
TOTALS					101.3			2	8.25			362		48	38														

FINAL LENGTHS ARE TO BE DETERMINED IN THE FIELD, POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE DESIGN DIVISION'S 'SIGN POST DESIGN MANUAL'.

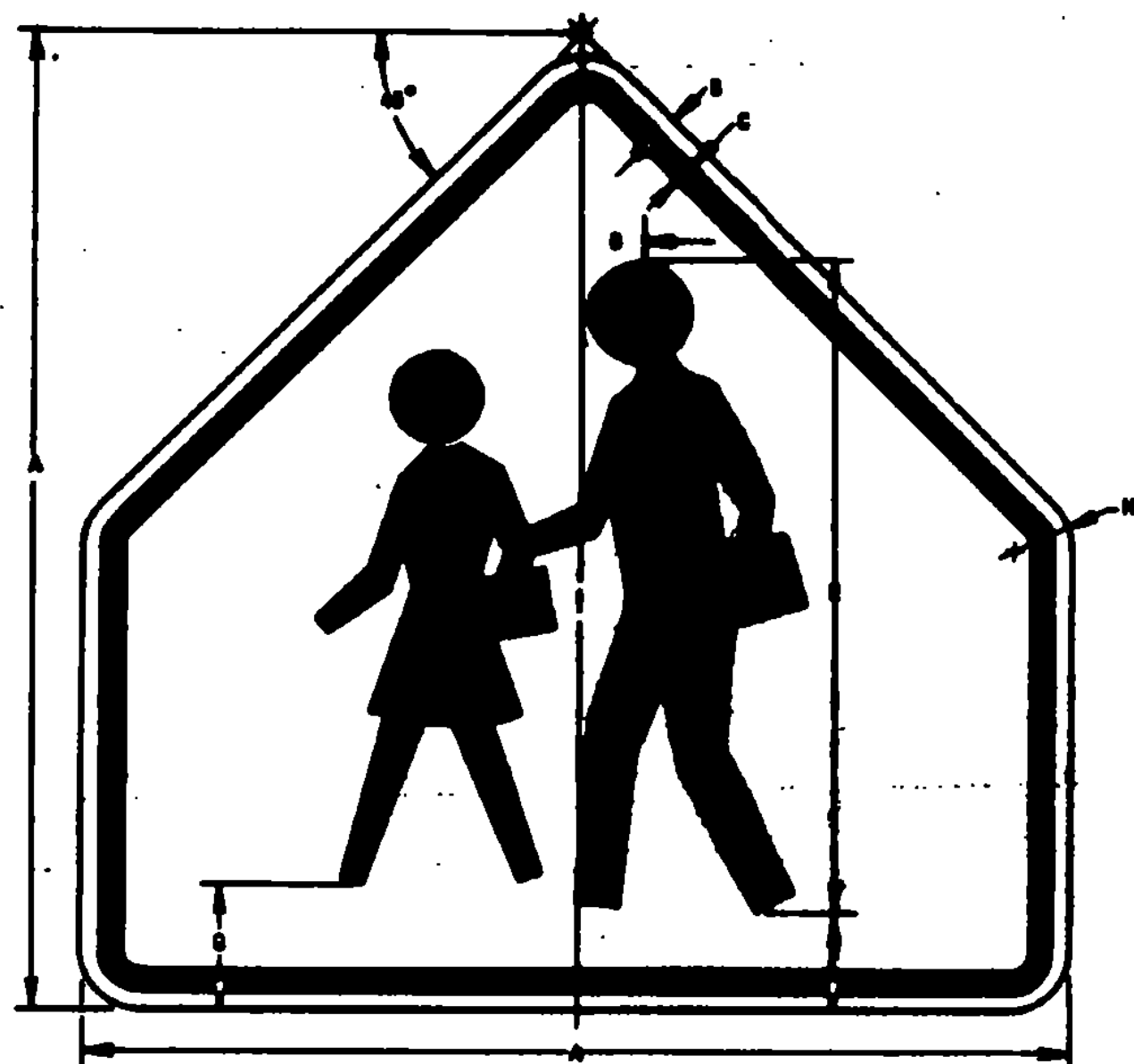
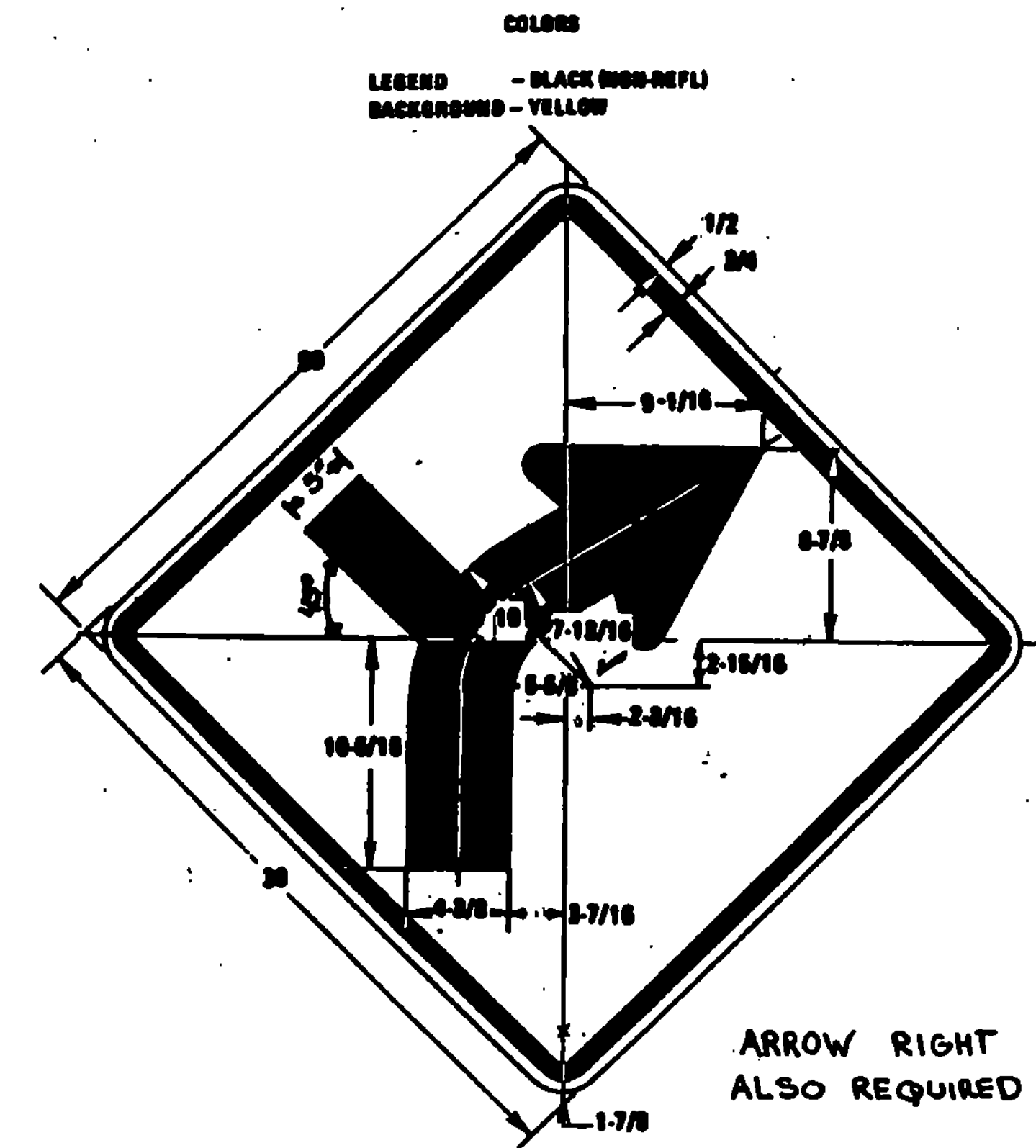
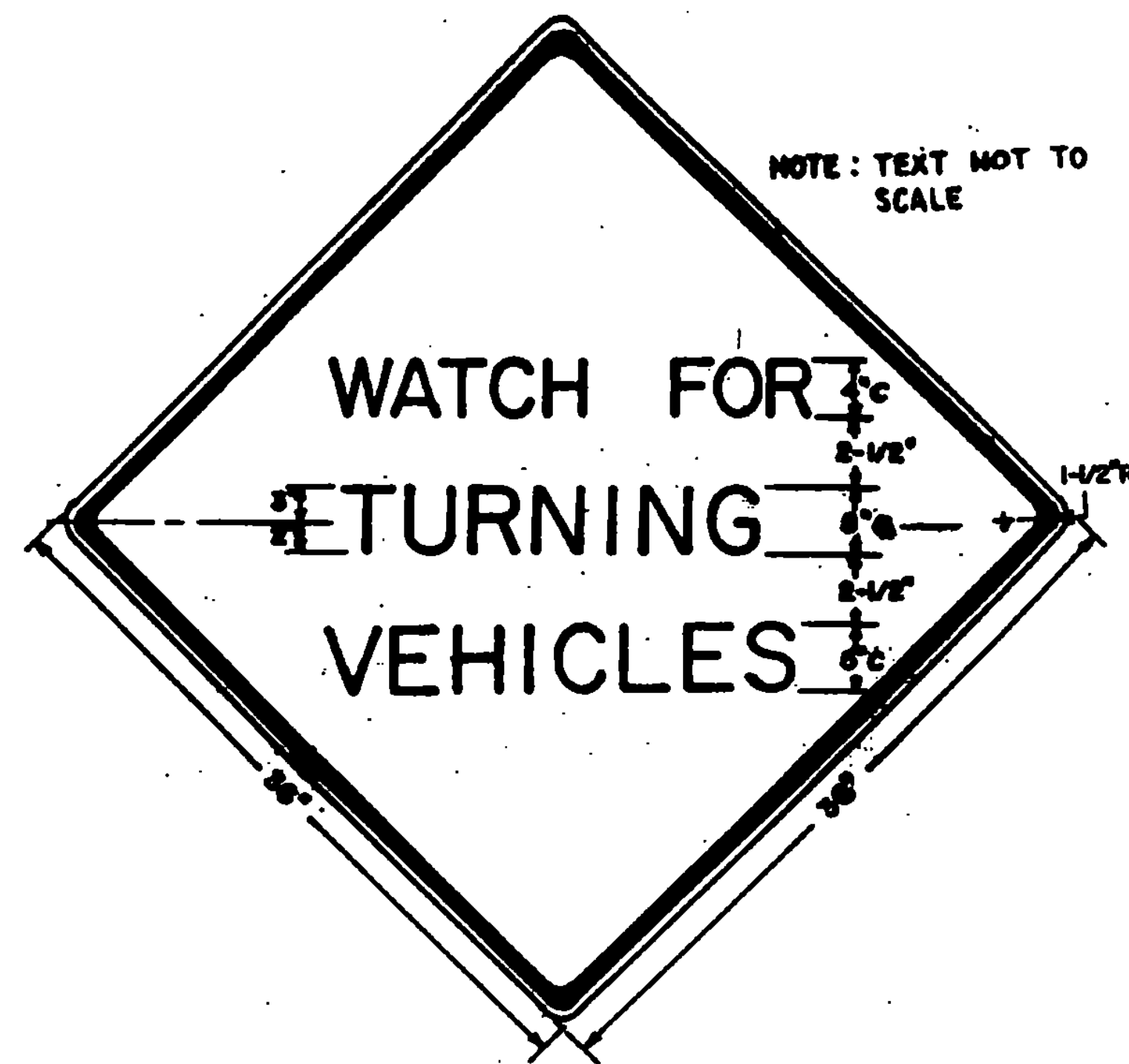
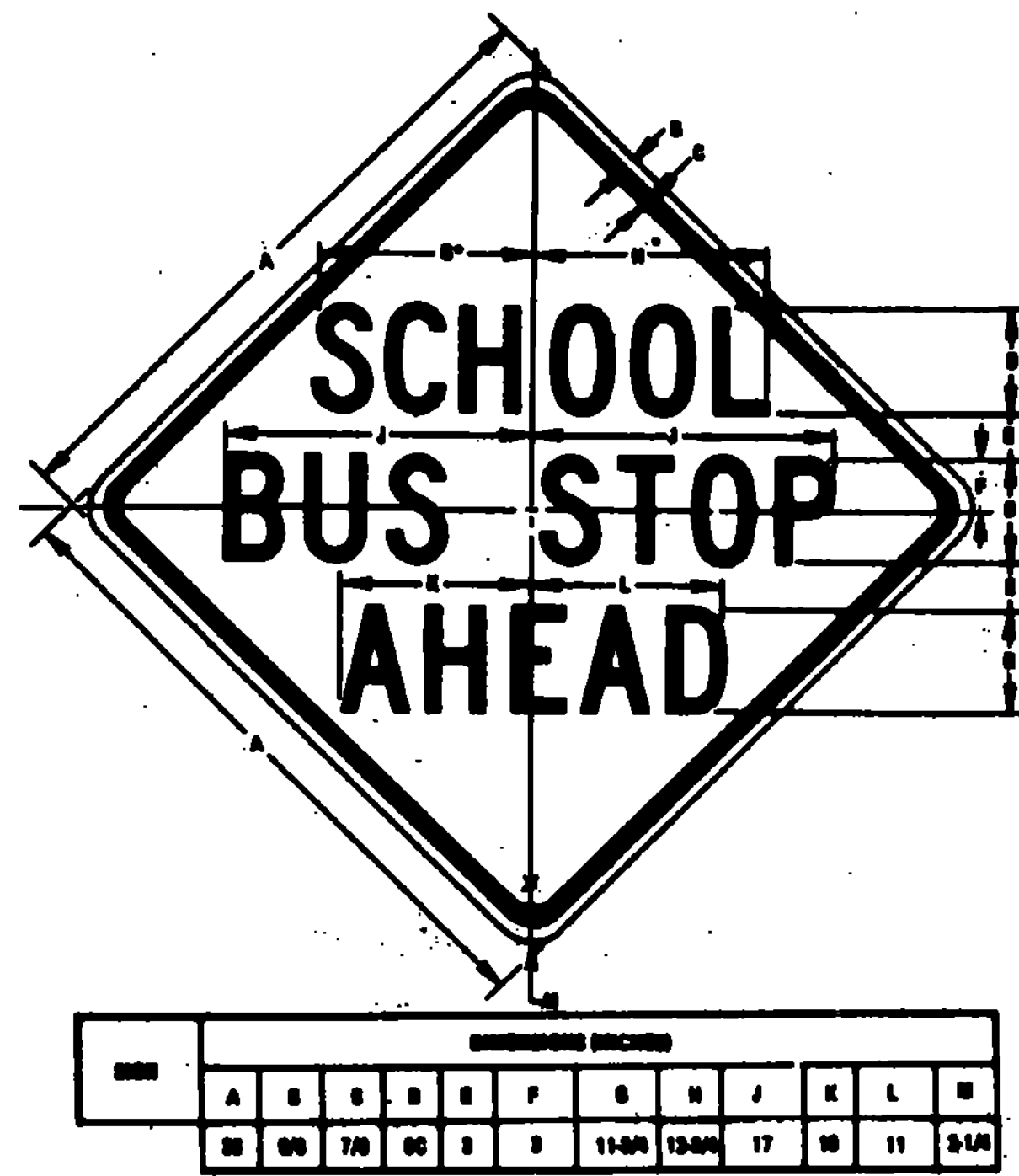
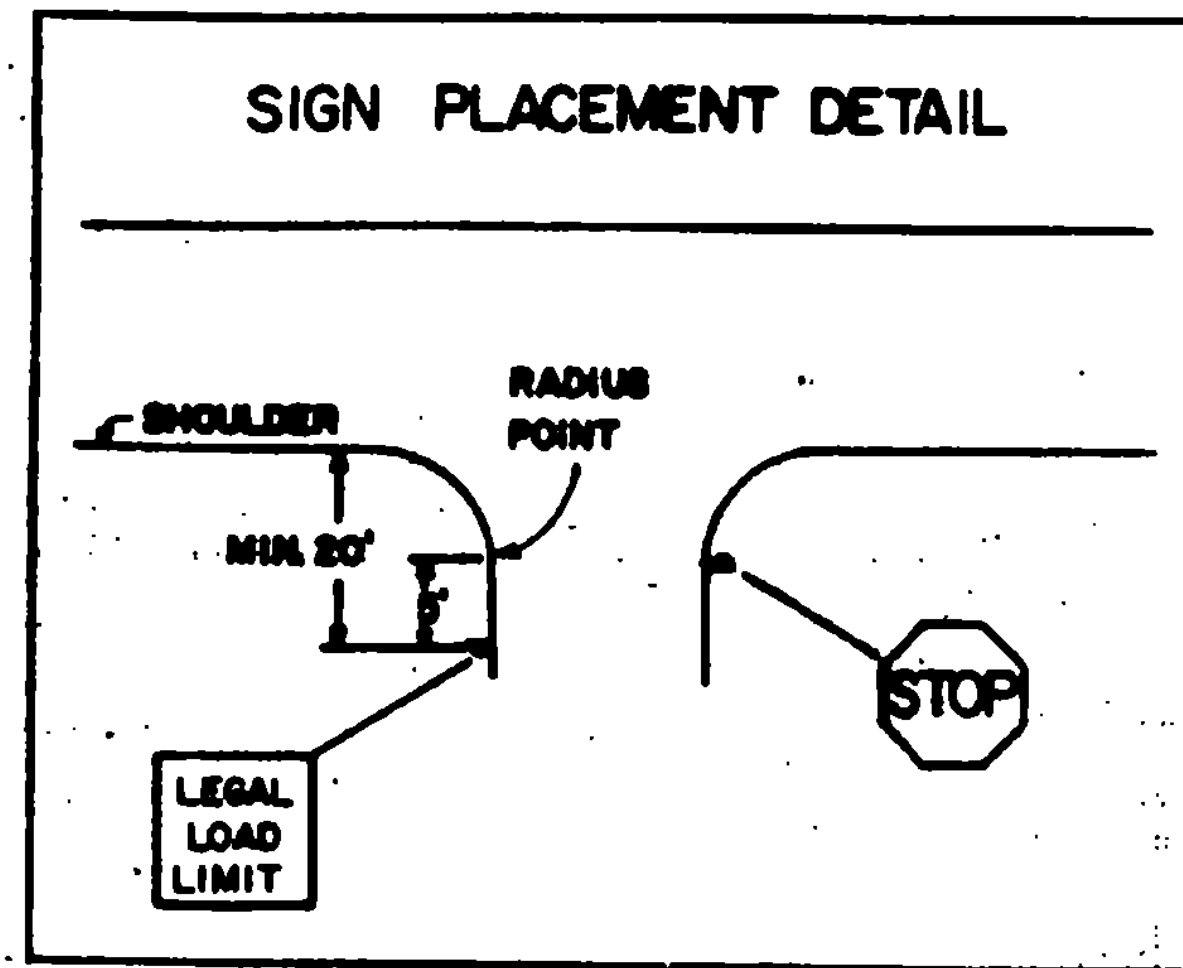
PREPARED BY _____ DATE _____
 CHECKED BY J.P. DATE 10-21-88
 PROJ. MARLBORO NO. 010-(127)S
 TRAFFIC SHEET NO. 504 SHEET 16 OF 45

TRAFFIC SIGN SUMMARY SHEET

MILEMARKER, STATION OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS	EXISTING SIGNS		NEW AND SALVAGED SIGNS				EXISTING POSTS				NEW SIGN POSTS								REMARKS	FOR SIGN DETAIL SHEET									
			TO BE SALVAGED REMOVE (EA.)	RETAIN (X)	NEW 'A' (S.F.)	NEW 'B' (S.F.)	SALV. SIGN (EA.)	SALV. T.I.S. (S.F.)	RET.	DRILL	REM.	SALV.	NUMBER OF POSTS	FLANGED CHANNEL			TUBULAR ALUMINUM					W SHAPED STEEL			PLAN SHEET NUMBER	STD. SHEET NUMBER					
														2.0 LB./FT.	2.5 LB./FT.	3.0 LB./FT.	3.0" Ø	3.0" □	4.0" Ø	4.0" Ø MOD.		POST SIZE	WEIGHT	FTG. SIZE							
6.02 RT		18"x24"			3							1	X																E-19		
6.05 RT		18"x24"			3							1	X																E-19		
6.08 RT		18"x24"			3							1	X																E-19		
6.18 LT		24"x30"			5							1	X																E-18A		
6.27 LT		24"x30"			5							1	X																E-18A		
6.38 RT		30"x30"			6.25					X																			E-19A		
6.68 LT		30"x30"			6.25					X																					
6.69 LT		24"x24"			4							1	X																	E-18A	
6.85 LT		24"x30"			5							1	X																E-18A		
6.89 RT		36"x36"			9							1				X													SEE T.S. # 507		
6.97 LT		36"x36"			9							1				X														E-19A	
6.98 LT		18"x24"			3							1	X																	FACING EAST BOUND TRAFFIC	
7.00 LT		18"x24"			3							1	X																	E-19	
7.02 LT		18"x24"			3							1	X																	E-19	
7.15 LT		24"x30"			5							1	X																	E-18A	
7.17 RT		36"x36"			9.00							1				X														SEE T.S. # 507	
7.23 RT	T.I.S. *																													* Item 680.20 MOD. (NON-FED-PARTICIPATING)	
7.30 LT		24"x30"			5							1	X																	E-18A	
TOTALS					86.5																										

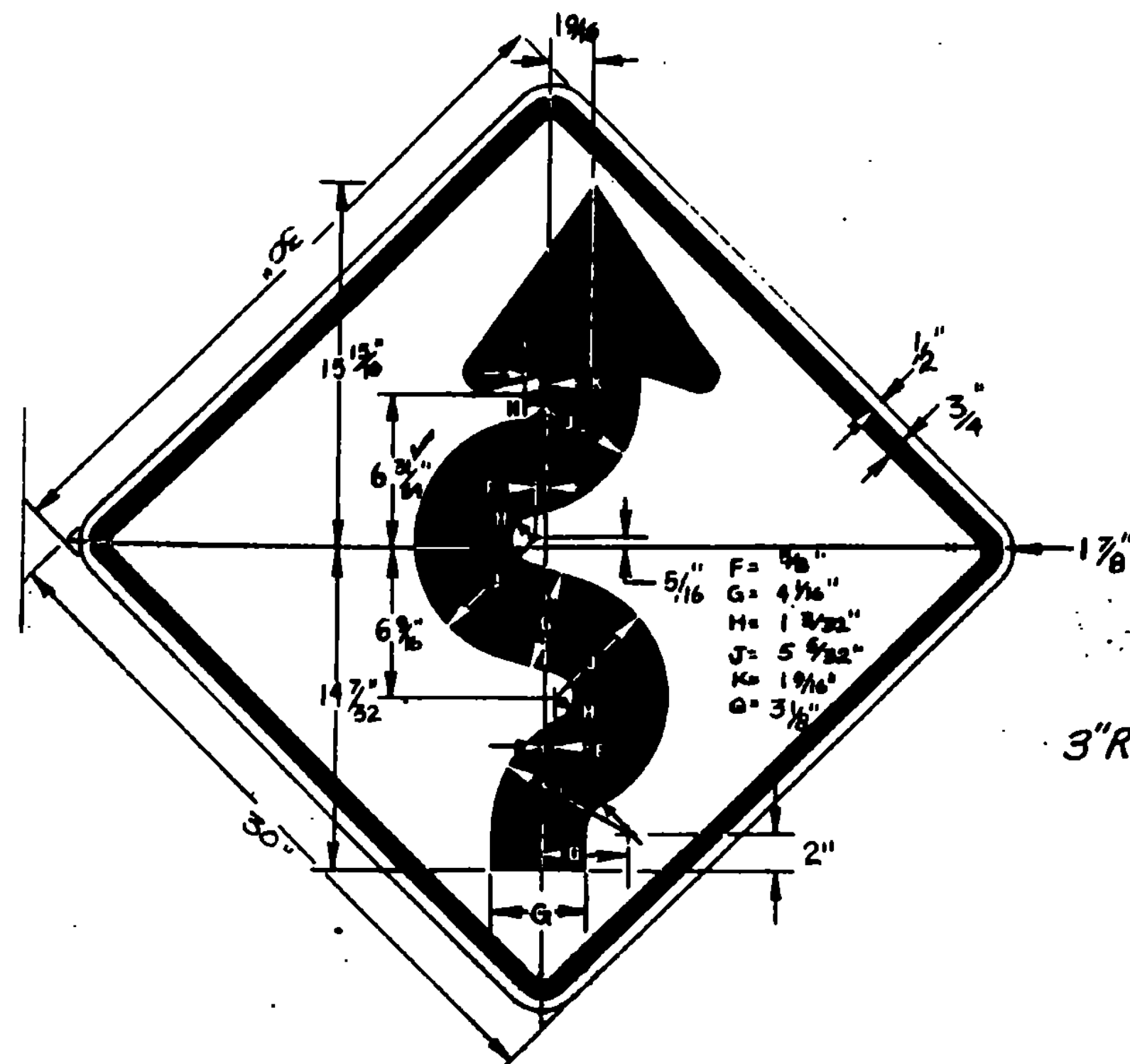
FINAL LENGTHS ARE TO BE DETERMINED IN THE FIELD, POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE DESIGN DIVISION'S 'SIGN POST DESIGN MANUAL'.

PREPARED BY _____ DATE _____
 CHECKED BY J.B. DATE 10-22-88
 PROJ. MARLBORO NO. 010-1(27)S
 TRAFFIC SHEET NO. 509 SHEET 17 OF 45

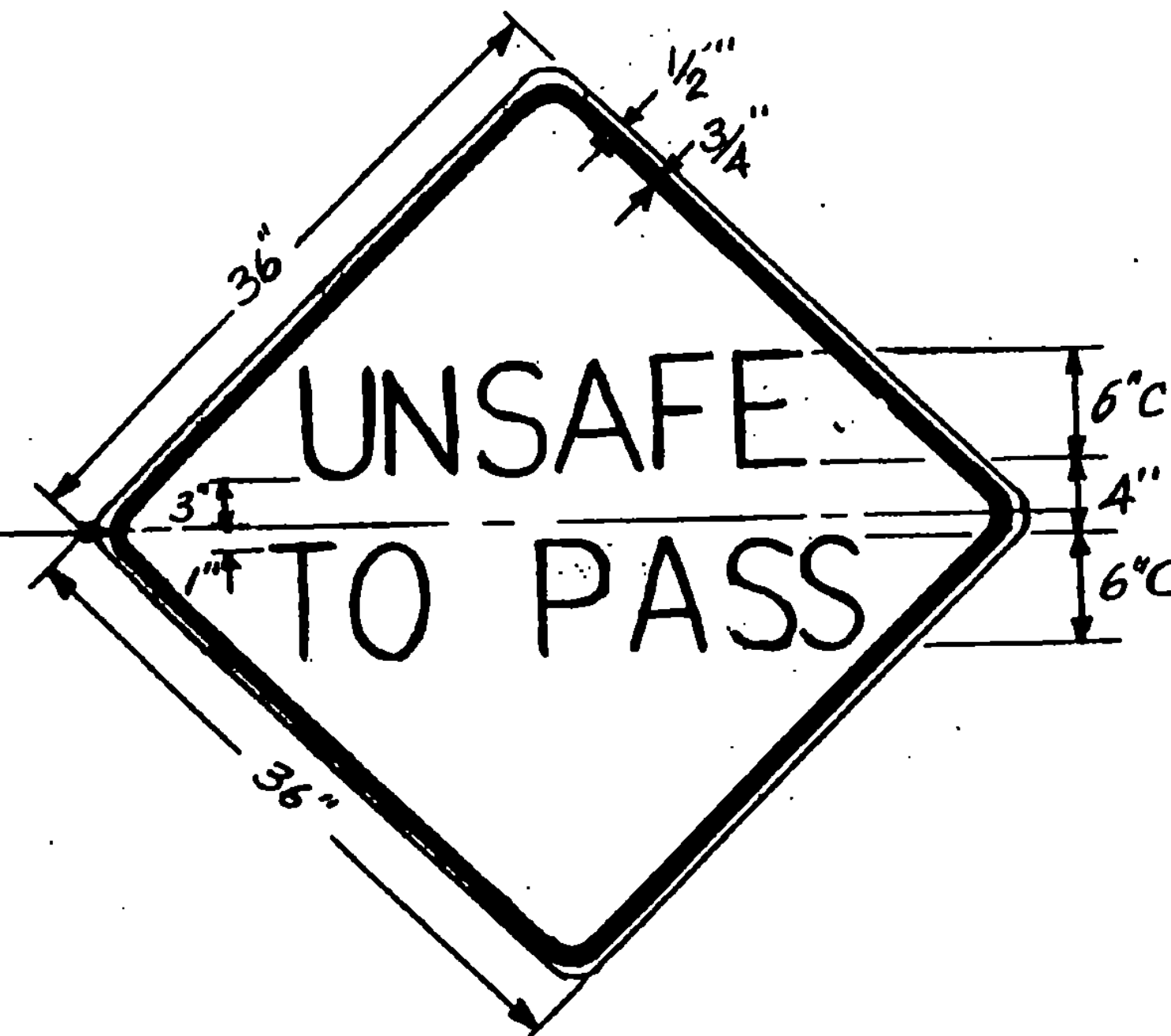


DIMENSIONS INCHES											
A	B	C	D	E	F	G	H	J	K	L	M
20	20	7/8	24 1/2	20	3/4	2 1/2	2 1/2	10 1/2	17	18	11

COLORS
LEGEND - BLACK (NON-REFL)
BACKGROUND - YELLOW



ALL SIGNS ON DETAIL SHEET
MATERIALS- SEE STD. SHEET E-19



COLORS
LEGEND - BLACK (NON-REFL.)
BACKGROUND - YELLOW (REFL.)

SPRINGFIELD PAVEMENT MARKINGS

PROJECT SPRINGFIELD ROUTE 11 PROJECT # 85 0134 (6)

TEMPORARY 4' YELLOW LINE

MPLE	MPLE	LT.	RT.	QTY. LEFT	EMBLE DASH	QTY. RT.	TOTAL (LF)
0.00	0.74	SOLID	SOLID	3507		3507	7014
0.74	0.92	SOLID	DASH	750		238	1108
1.92	0.97	DASH	DASH		126		66
0.97	1.04	DASH	SOLID	92		370	462
1.04	1.13	SOLID	SOLID	478		478	956
1.13	1.12	DASH	SOLID	42		169	211
TOTAL							10691
3 THICK 40 X 2							240
APPROX 100% LOSS AT							10451
INSTALLATION							10451
TOTAL							10691

TEMPORARY 4' WHITE LINE

MPLE	MPLE	LT.	RT.	QTY. LEFT	EMBLE DASH	QTY. RT.	TOTAL (LF)
0.00	1.12	WBS	WBS				12,270
TOTAL							12,270

SIGN DETAIL SHEET
NO SPRINGFIELD ROUTE 11
PAVEMENT MARKINGS

PREPARED BY DATE
CHECKED BY J.B. DATE 10-28-76
DISTRICT #2
PROJ. NO.
TRAFFIC SHEET NO. 307 SHEET 12 OF 45

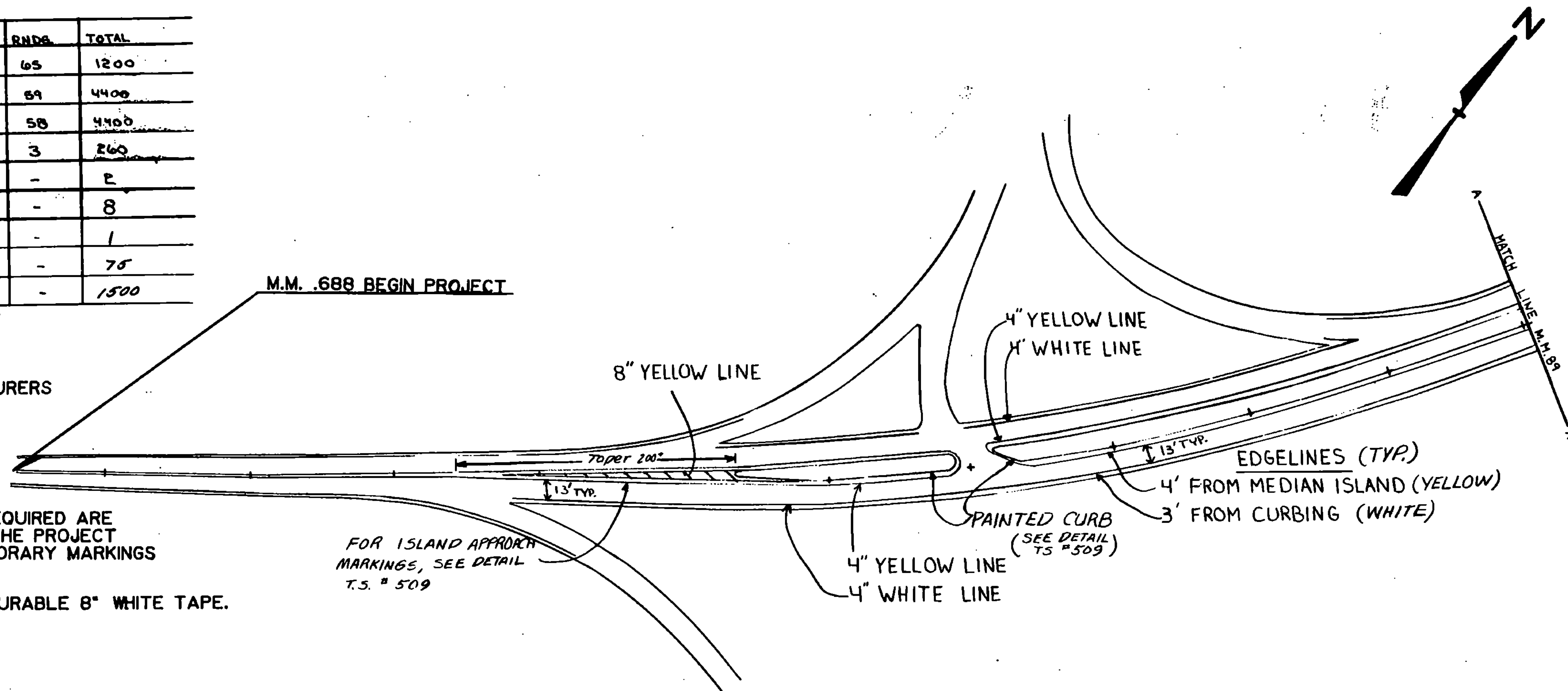
TRAFFIC ITEM SUMMARY

ITEM NO.	ITEM	UNIT	QUANTITY	RNDS	TOTAL
Wb.21	PAINTED CURB	LF	1135	65	1200
MOD. Wb.30	DURABLE 4" WHITE LINE	LF	4341	59	4400
MOD. Wb.31	DURABLE 4" YELLOW LINE	LF	4342	58	4400
MOD. Wb.32	DURABLE 8" YELLOW LINE	LF	257	3	260
MOD. Wb.42	DURABLE ARROW MARKING	EA.	2	-	2
MOD. Wb.44	DURABLE LETTER IN WORD MARKING	EA.	8	-	8
MOD. Wb.46	DURABLE 8" WHITE LINE	LF	1	-	1
MOD. Wb.48	TEMP. 4" WHITE LINE	LF	75	-	75
MOD. Wb.51	TEMP. 4" YELLOW LINE	LF	1500	-	1500

NOTE:
 ALL DURABLE MARKINGS ON THE FINAL COURSE SHALL BE INLAID DURABLE TAPE AND APPLIED AS PER MANUFACTURERS SPECIFICATIONS. SPECIFICATIONS SHALL BE SUBMITTED TO TRAFFIC DESIGN FOR APPROVAL PRIOR TO APPLICATION. FAILURE TO COMPLY SHALL RESULT IN NONPAYMENT FOR MARKINGS.

TEMPORARY MARKINGS SHALL BE APPLIED AT THE END OF EACH WORK DAY. TEMPORARY 4" YELLOW MARKINGS REQUIRED ARE APPROACHES TO ISLANDS AT THE BEGINNING AND END OF THE PROJECT AND 4" WHITE FOR THE LEFT TURN LANE LINE. ALL TEMPORARY MARKINGS SHALL BE TEMPORARY TAPE.

RAMP GORE MARKINGS, IF REQUIRED, ARE TO BE INLAID DURABLE 8" WHITE TAPE.



DURABLE LETTER IN WORD MARKING

"ONLY"
 "ONLY" (AS SHOWN)

DURABLE 8" YELLOW LINE

PAINTED ISLAND-DIAGONAL LINES
 (AS SHOWN)
 (SEE DETAIL TS # 509)

DURABLE ARROW MARKINGS

(AS SHOWN)

PAINTED CURB

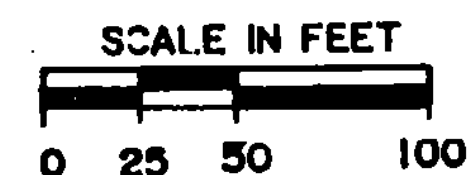
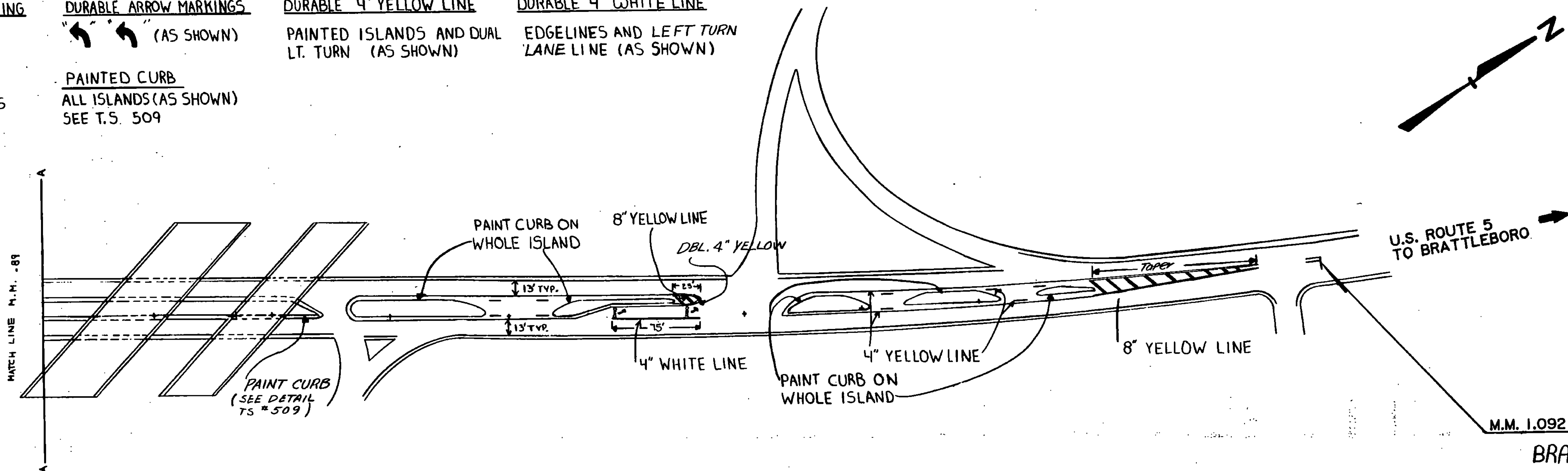
ALL ISLANDS (AS SHOWN)
 SEE T.S. 509

DURABLE 4" YELLOW LINE

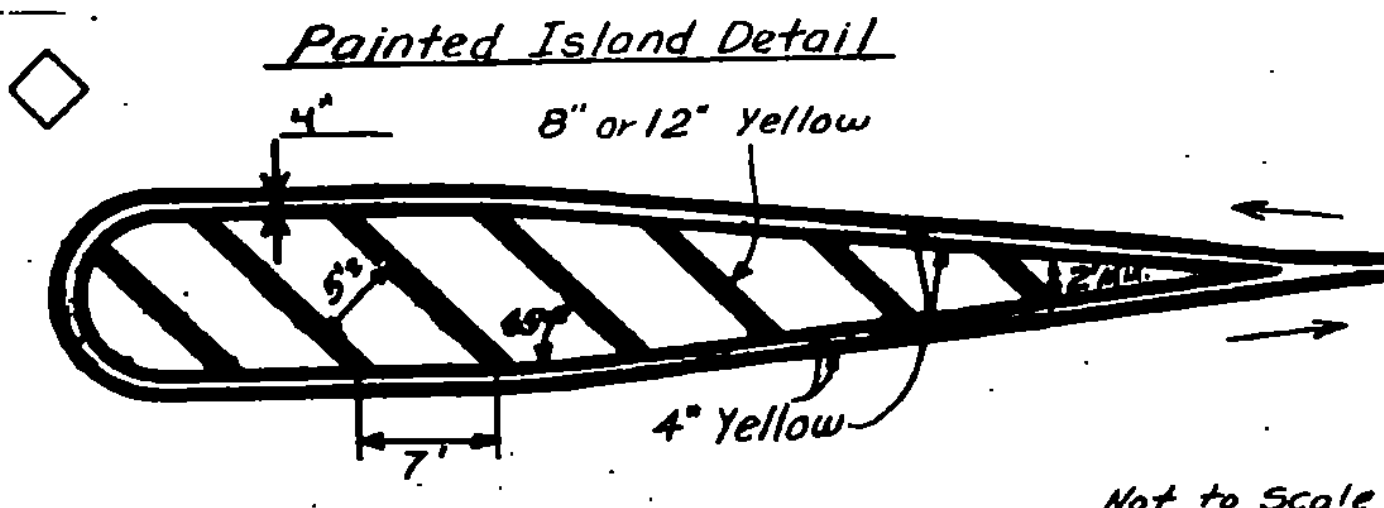
PAINTED ISLANDS AND DUAL
 LT. TURN (AS SHOWN)

DURABLE 4" WHITE LINE

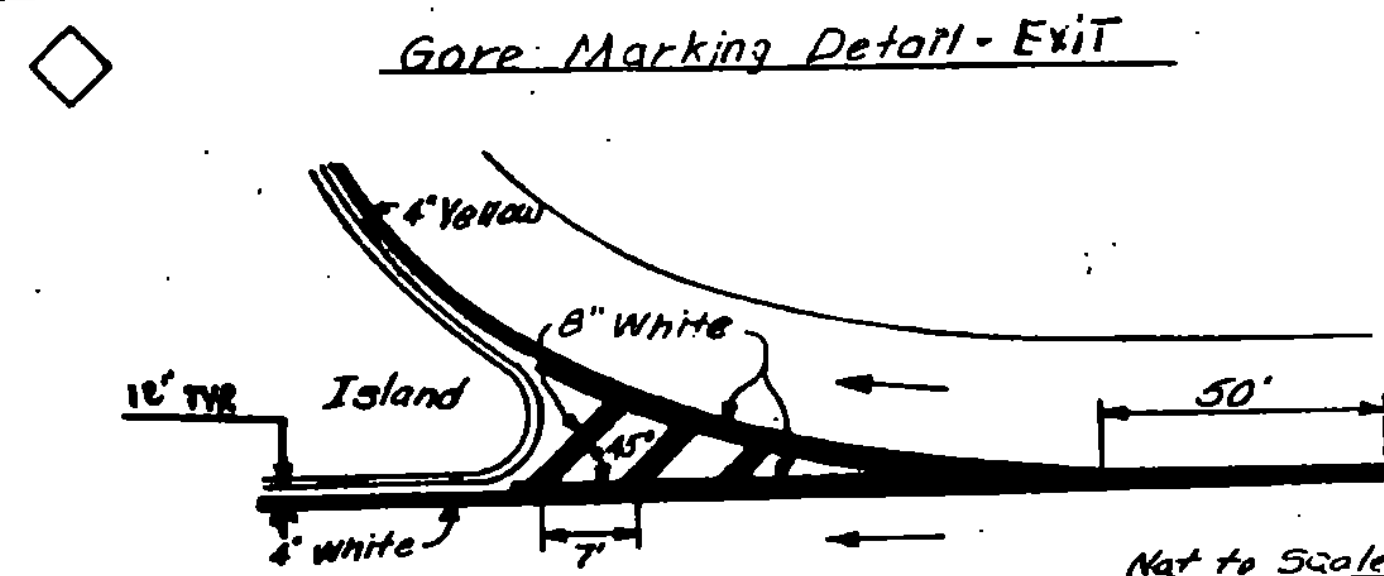
EDGE LINES AND LEFT TURN
 LANE LINE (AS SHOWN)



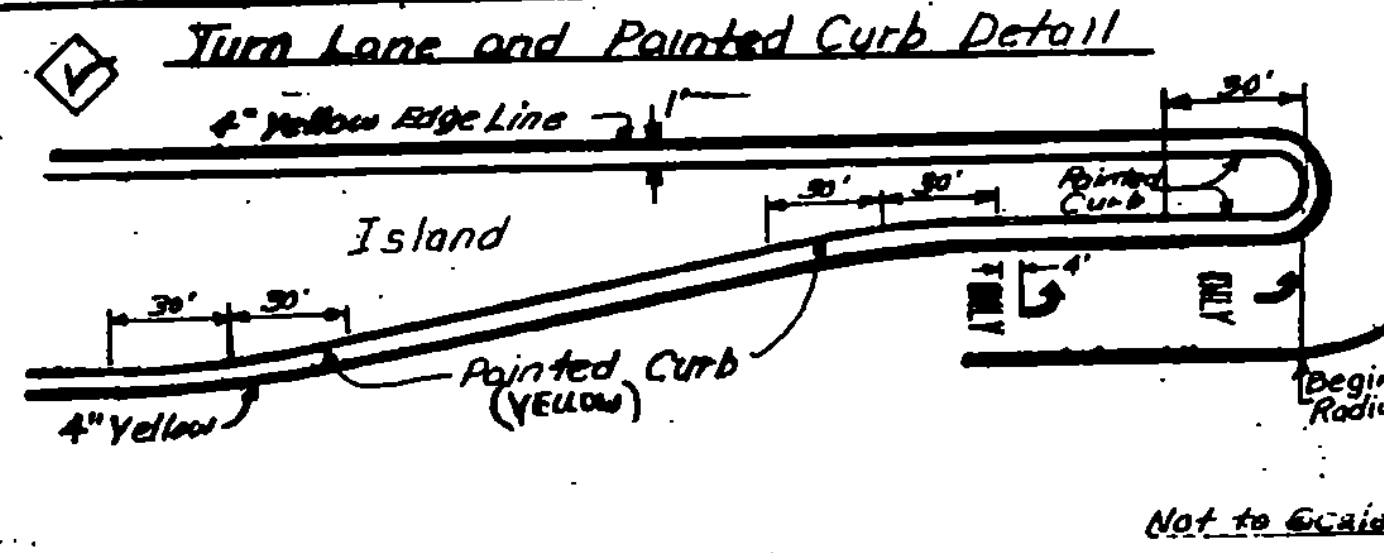
PREPARED BY _____ DATE _____
 CHECKED BY J.B. DATE 10-31-8
 BRATTLEBORO
 PROJ. H. NO. 2000(14)5
 THESE SHEET NO. 20 OF 45



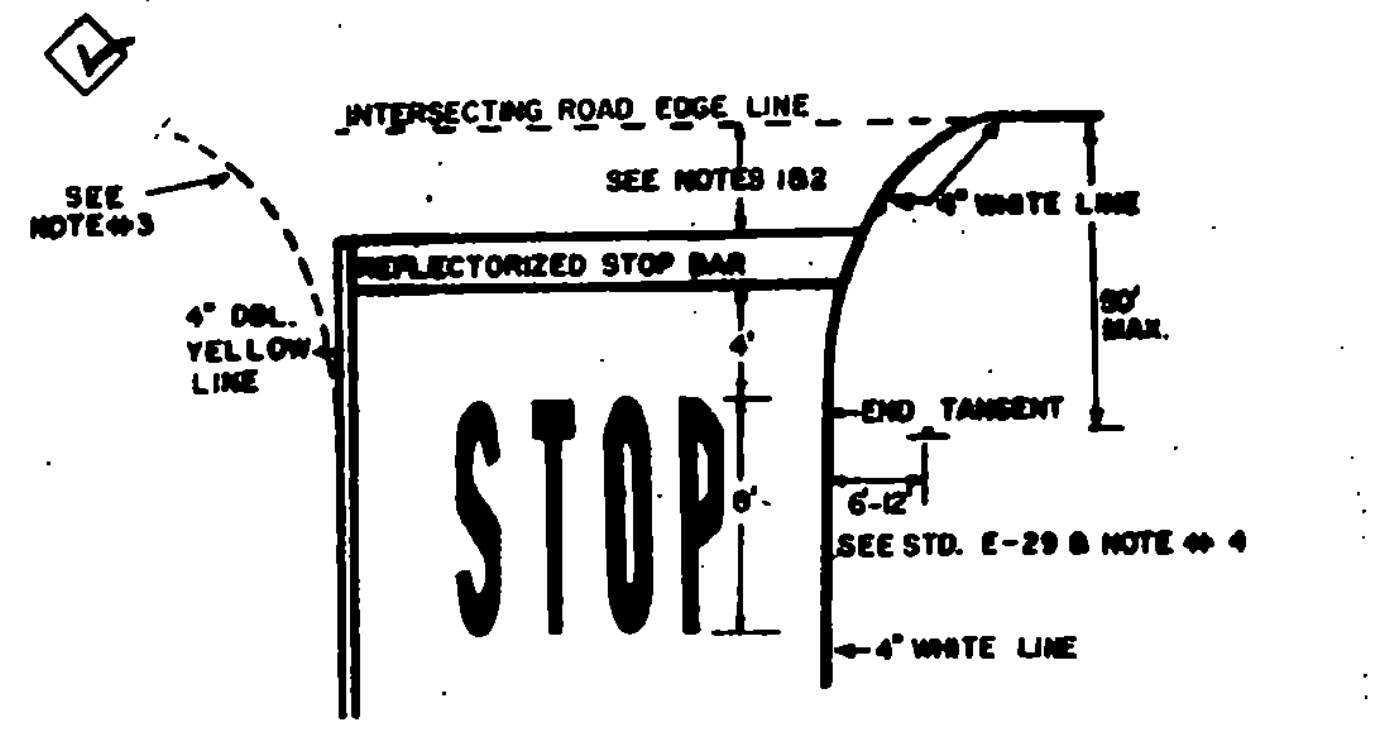
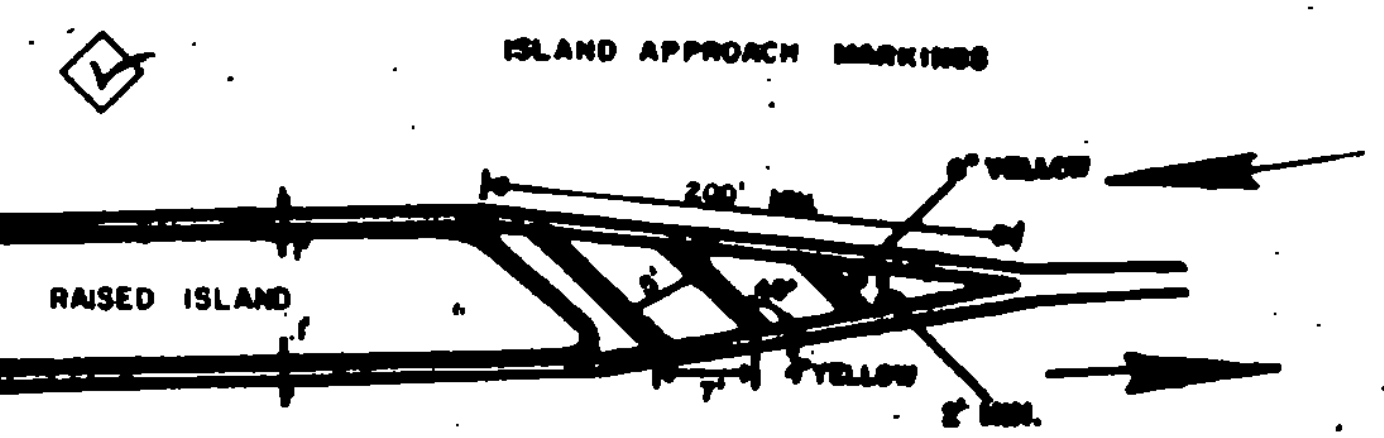
Not to Scale



Not to Scale



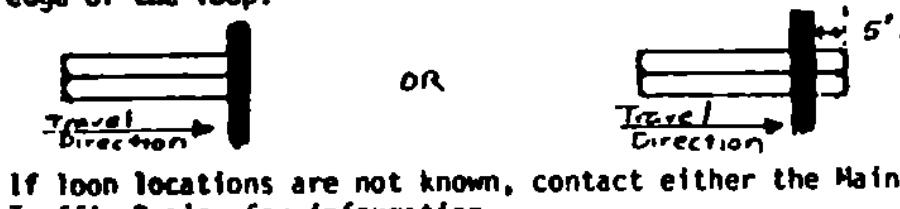
Not to Scale



1. THE STOP LINE SHOULD BE PLACED AT THE DESIRED STOPPING POINT. IN NO CASE MORE THAN 30' OR LESS THAN 4' FROM THE NEAREST EDGE OF THE INTERSECTING ROADWAY.
2. WHEN A TRAFFIC SIGNAL IS PRESENT, DELETE WORDING "STOP" AND PLACE STOP BAR A MINIMUM OF 40' FROM THE NEAREST SIGNAL HEAD.
3. ON ONE-WAY RAMPS THE 4" DOUBLE YELLOW CENTERLINE SHALL BE REPLACED WITH A 4" SINGLE YELLOW EDGE LINE.
4. ON ONE-WAY RAMPS THE STOP SIGN SHALL BE REPLACED WITH A TYPE "A" ASSEMBLY ON EACH SIDE OF THE RAMP. A TYPE "A" ASSEMBLY CONSIST OF A STOP SIGN, A "DO NOT ENTER" SIGN AND TWO "ONE WAY" SIGNS.

APPLICATION NOTES

1. Edge lines shall be placed 1'-0" from curb, minimum.
2. Lane widths based on available roadway width. Preference shall be given to thru lanes with a preferred width of 12'. Left and right turn lanes may be between 10'-12" in width.
3. Exclusive turn lanes (left or right) - Turn lane lanes shall be solid and extend back from the stopbar an adequate distance to store turning vehicles. Generally, the lane line will extend back to the point of full lane width. The edge line taper rate should be 15:1 (minimum). In urban areas an 80' minimum is required. In both rural and urban areas a 200' taper is desirable. An estimate of length required can be determined by dividing the average hourly turning volume by the number of cycles per hour. Multiply the result by 25' per vehicle and then multiply by 1.5 to 2.0. Existing geometry may restrict turn lane length.
4. Turn arrows shall be placed at the begin and end of the left or right turn lane and in the middle if the lane length exceeds 200'.
5. Turn arrows placed at the end of the lane with the stop bar shall be placed with a 4' gap between the stop bar and arrow.
6. There shall be a 4' gap between turn arrows and word markings.
7. When word markings are used at the beginning of a turn lane the markings shall begin at the start of the turn lane line.
8. The word marking STOP shall be placed with a 4' gap between the marking and the stop bar.
9. Gore markings shown are only approximate. Marking shall be as detailed on Standard Sheet E-50.
10. Stopbars shall be located no closer than 40' from the nearest signal face and no further than 120' from the furthest face. At intersections where there are existing vehicle detector loops, care should be taken in locating the stop bar. In most cases the stopbar should be at or just behind the front edge of the loop.
11. Dotted line extensions (lane lines and/or centerline) may be used at some intersections to emphasize turning paths.
12. When two line text is used for pavement markings (Signal Ahead, etc.) the two words shall read up and have a space of 32' between them. The corresponding sign shall be half way between the words.



If loop locations are not known, contact either the Maintenance Division or Traffic Design for information.

Revision - 11/84
Note 3 revised
Notes 10 all added
Note 12 added 8/85

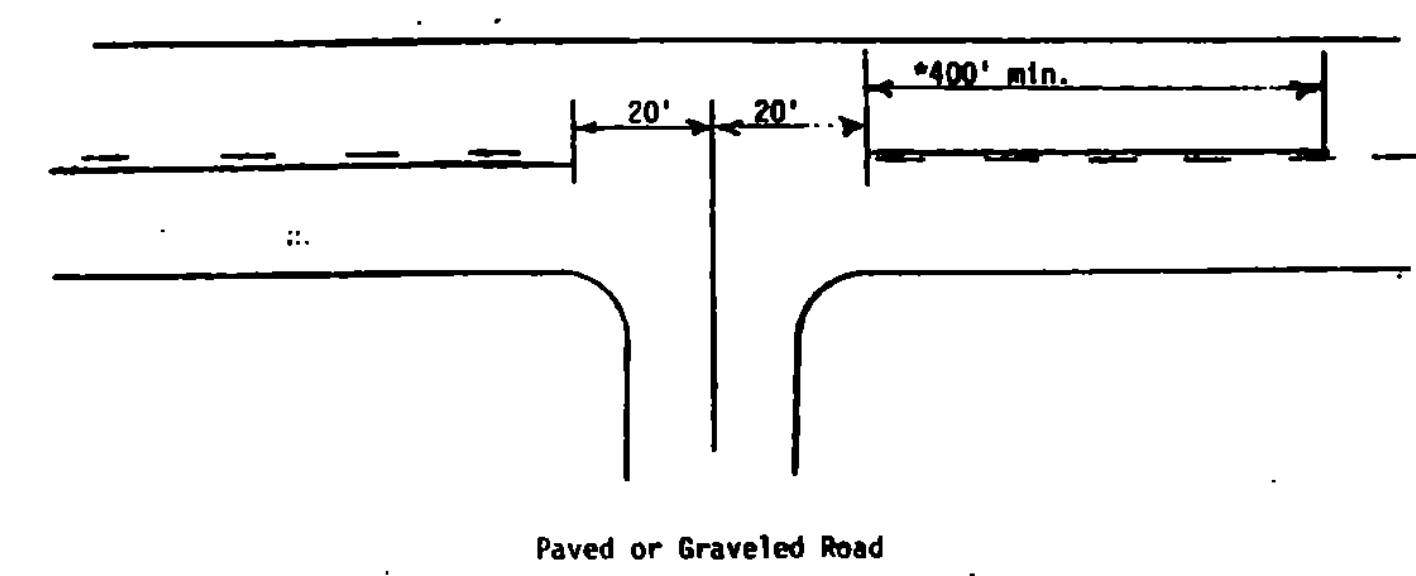
GUIDELINES FOR MINIMUM INTERIM PAVEMENT MARKINGS IN CONSTRUCTION ZONES

- A. CENTERLINE AND GORE AREA MARKINGS SHALL BE APPLIED AT THE END OF EACH WORKING DAY. THE FOLLOWING LAYOUT REQUIREMENTS SHALL BE MET:
 - NO PASSING BARRIER
SOLID STRIPES.
 - DASHED LINE
10-FOOT SOLID LINE WITH 30-FOOT GAP.
 - GORE AREA
(GORE AREAS TO INCLUDE 8' CHANNELIZING LINE AND DASHED LINE) PER STANDARD SHEET E-50
- B. EDGE LINES
WHEN SPECIFIED, EDGE LINES ARE NOT REQUIRED UNTIL COMPLETION OF THE PROJECT. ON INTERSTATE PROJECTS, TEMPORARY EDGE LINES SHOULD BE APPLIED WHERE TRAFFIC VOLUMES AND SPEEDS ARE HIGH AND DELAY OF SEVERAL DAYS IS ANTICIPATED.
- C. TEMPORARY MARKINGS MAY CONSIST OF PAINT, TAPE OR RAISED PAVEMENT MARKERS (RPM'S). THE TAPE SHALL BE A RETRO-REFLECTIVE FILM ON A CONFORMABLE METALLIC BACKING THAT CAN BE PAVED OVER. TAPE MAY BE USED ON THE FINAL SURFACE COURSE IF IT WILL NOT INTERFERE WITH THE FINAL MARKING APPLICATION. TEMPORARY TAPE MARKINGS WILL BE OFFSET AND REMOVED WHEN PROJECT IS FINISHED AND FINAL CENTERLINE PAINTED. THE TAPE SHALL BE THE TYPE THAT IS REMOVABLE AND NOT SEPARATE AT ANY TIME. THE RPM'S SHALL HAVE A SELF-ADHESIVE BACKING EASILY REMOVED BEFORE PAVING AND SHALL CONFORM TO THE FOLLOWING LAYOUT PATTERN:
 - NO PASSING BARRIER
NO RPM'S ALLOWED.
 - DASHED LINE
FOUR RETRO-REFLECTIVE RPM'S ON 3 1/2 FOOT CENTERS WITH A 30' GAP.
 - SOLID LINE - EDGE LINES
INTERSTATE MEDIAN SIDE-RETRO-REFLECTIVE RPM'S ON A 4 TO 5 FOOT CENTER. DRIVERS PIGHT SIDE-RPM'S NOT ALLOWED.
- D. WHEN PAINT IS USED FOR TEMPORARY MARKING, AN ALTERNATE MATERIAL SUCH AS TAPE OR RPM'S SHALL BE ON HAND IN THE EVENT RAIN PREVENTS THE PAINT APPLICATION FROM BEING COMPLETED. ALL PAINT SHALL BE REFLECTORIZED.
- E. PAYMENT FOR PAINT AND TAPE SHALL BE COMPUTED ON A LINEAR FOOT BASIS AS IF PAINT WAS USED. PAYMENT FOR THE RPM'S SHALL BE COMPUTED AS IF AN EQUIVALENT PAINT LINE WAS USED. (FOR EXAMPLE, DASH'D LINE PAID AS 10 FEET OF PAINT, SOLID LINE PAID AS THE TOTAL DISTANCE COVERED WITH THE MARKERS).
- F. PRIOR TO ACCEPTANCE, THE PAVEMENT MARKINGS SHALL BE COMPLETED FOR THE ENTIRE PROJECT BY THE CONTRACTOR AS DETAILED ON THE PLANS OR DIRECTED BY THE RESIDENT ENGINEER.

REVISED 02/11/85

APPROACH TO A SIDE ROAD INTERSECTION

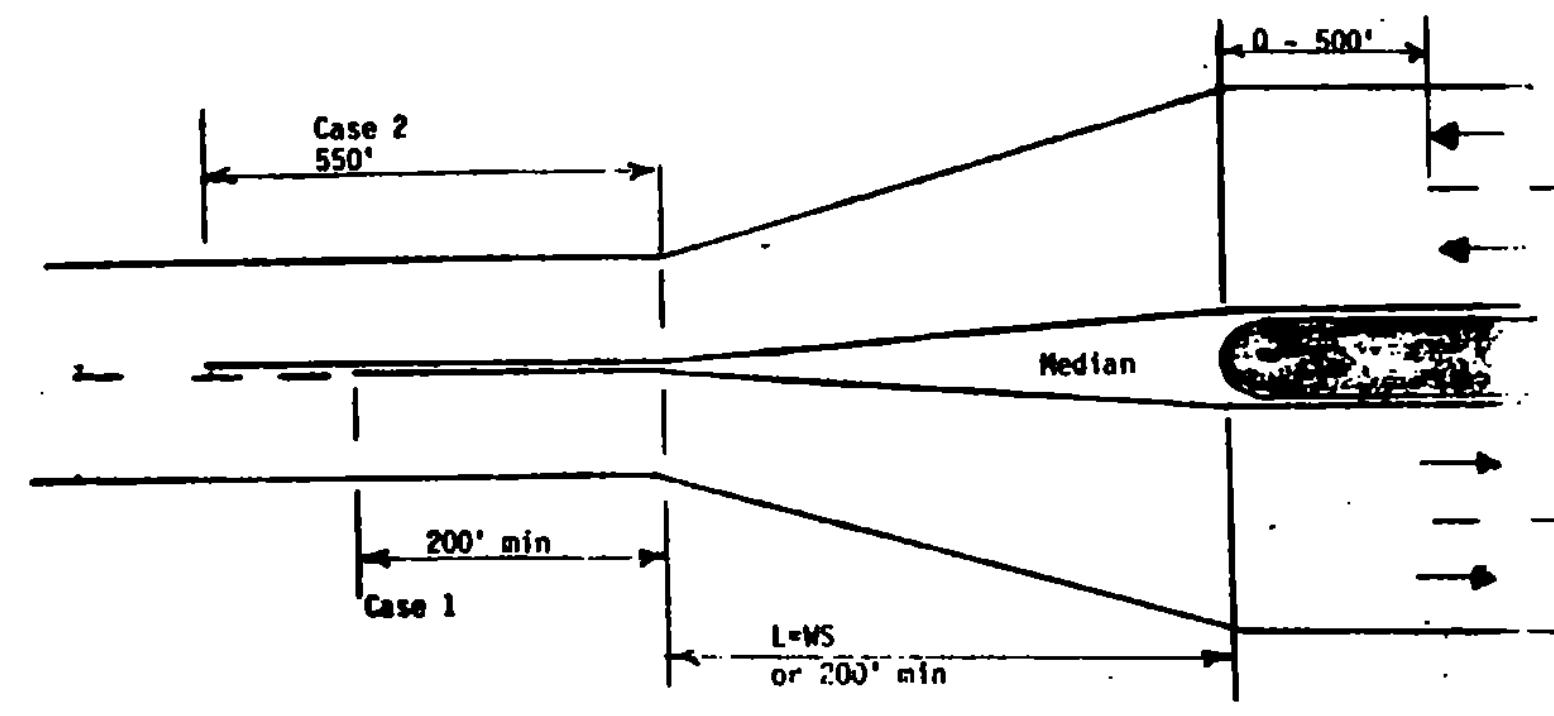
A solid line in the direction of travel is begun at a location 400 feet in advance of the intersection. This distance is measured from a point 20 feet in advance of the centerline of the intersecting roadway.



* Centerline treatment shall consist of a minimum of 400 feet of solid line in advance of the intersection and shall be paired with either a solid or dashed line depending on sight distance availability in the opposite lane.

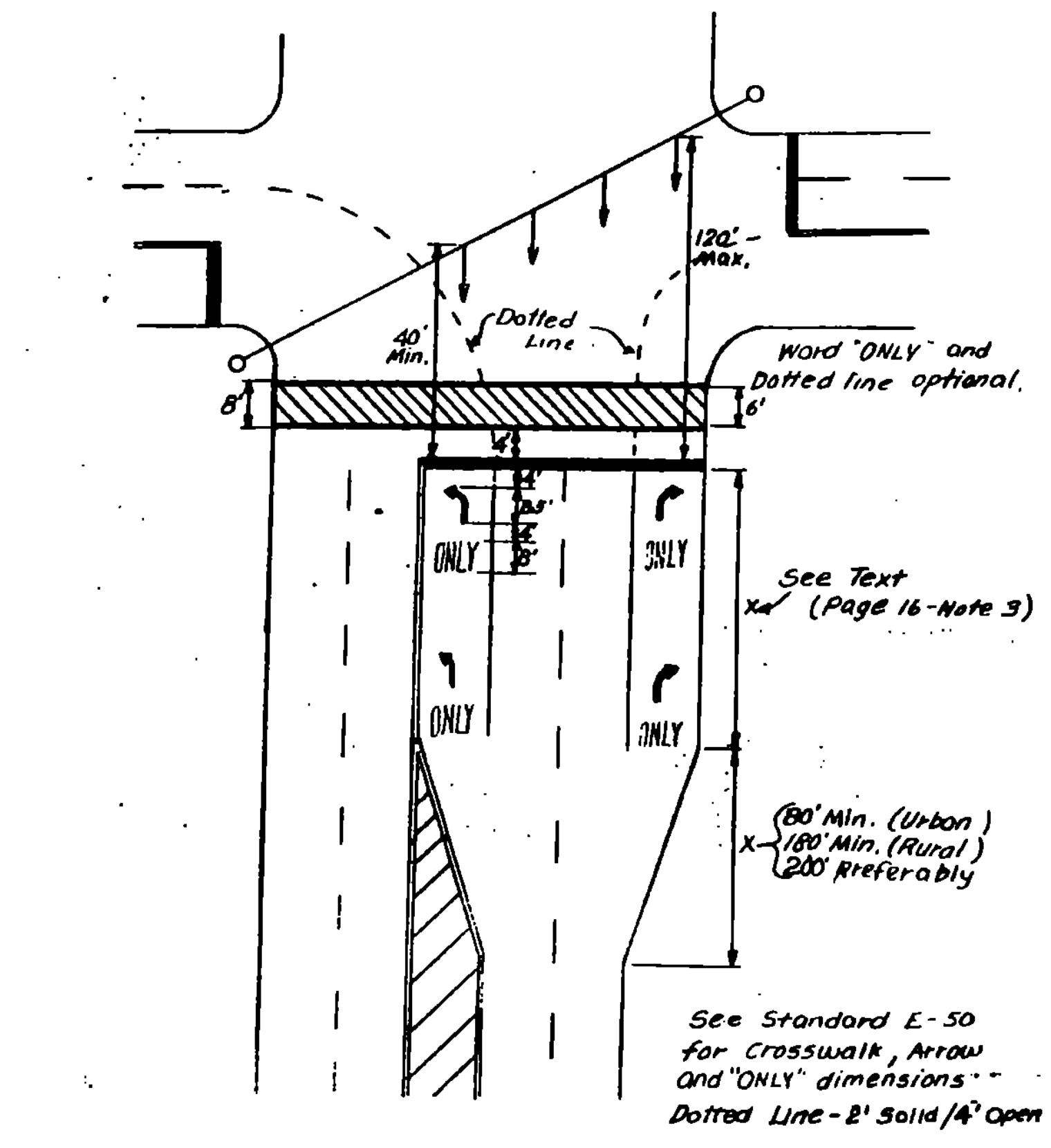
PAVEMENT WIDTH TRANSITIONS - CLIMBING LANE

- Case 1 Two lane highway to divided highway
A solid line in the direction of travel is begun at a location 200 feet in advance of the begin taper for the pavement width transition.
- Case 2 Divided highway to two lane highway
A solid line in the direction of travel is begun at the end of taper and continues in the direction of travel for a distance of 550 feet.



L = Taper Length (ft.)
W = Offset Distance (ft.)
S = Speed Limit (mph)

Typical Markings For Signalized Intersection

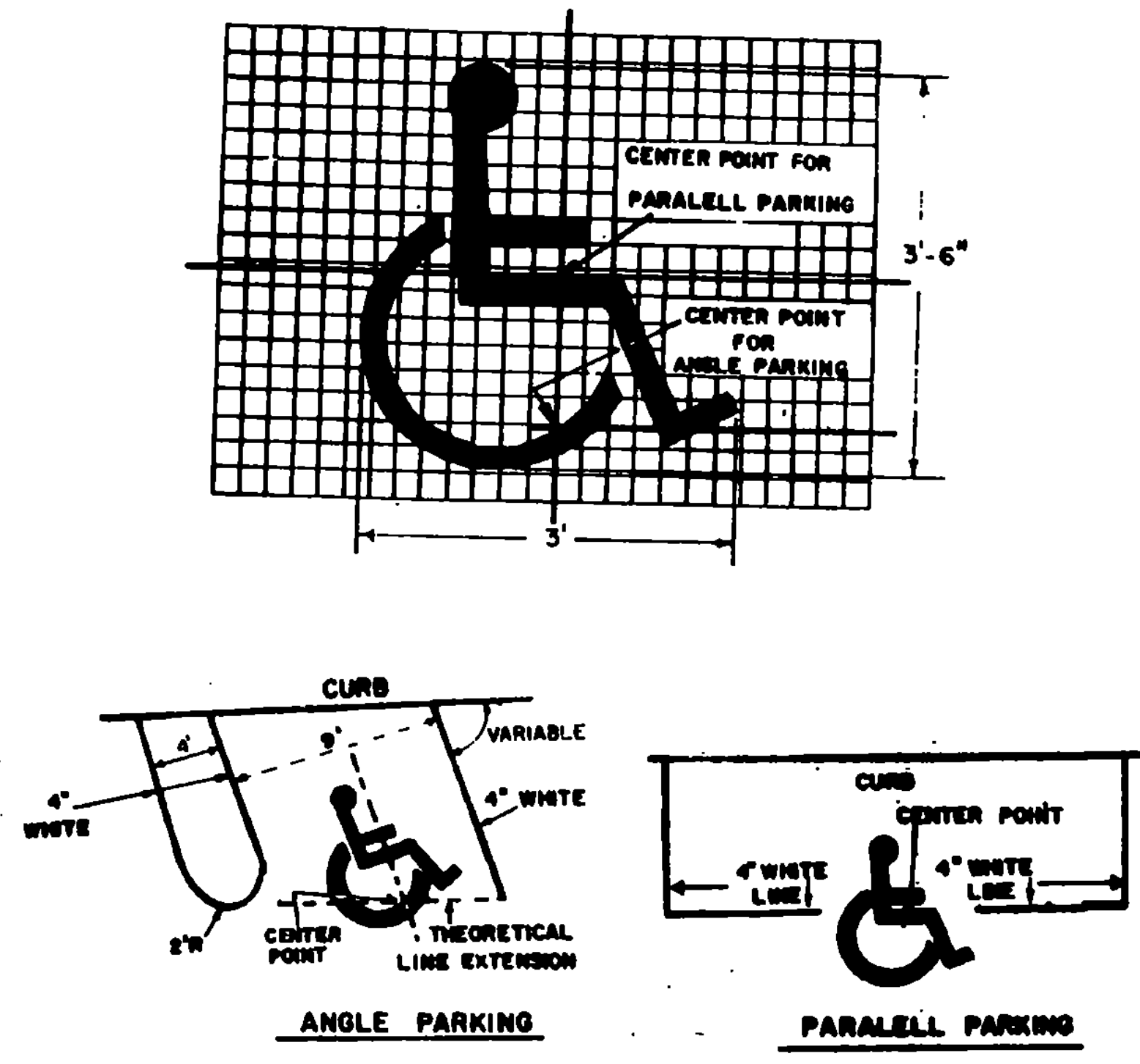


See Text Xd (Page 16-Note 3)

(80' Min. (Urban) x 180' Min. (Rural) 200' Preferably)

See Standard E-50 for Crosswalk, Arrow and "ONLY" dimensions. Dotted Line - 2' Solid 1/4" Open

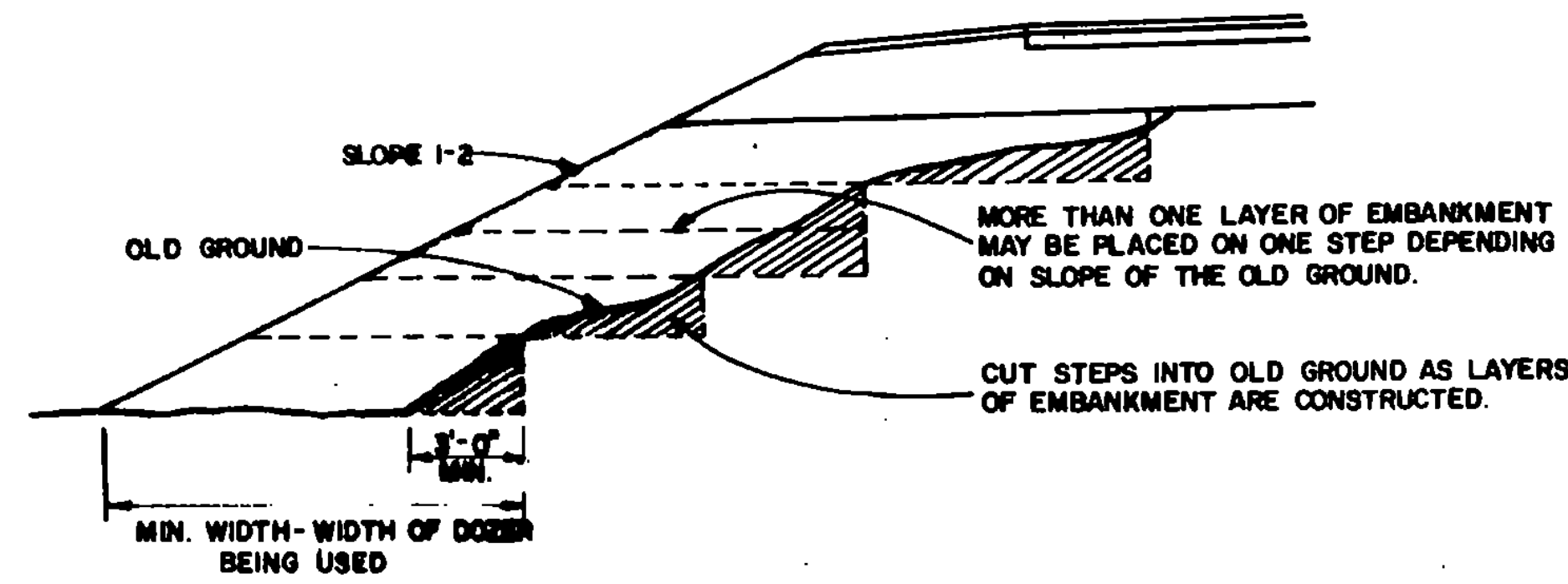
HANDICAPPED PAVEMENT MARKING DETAILS



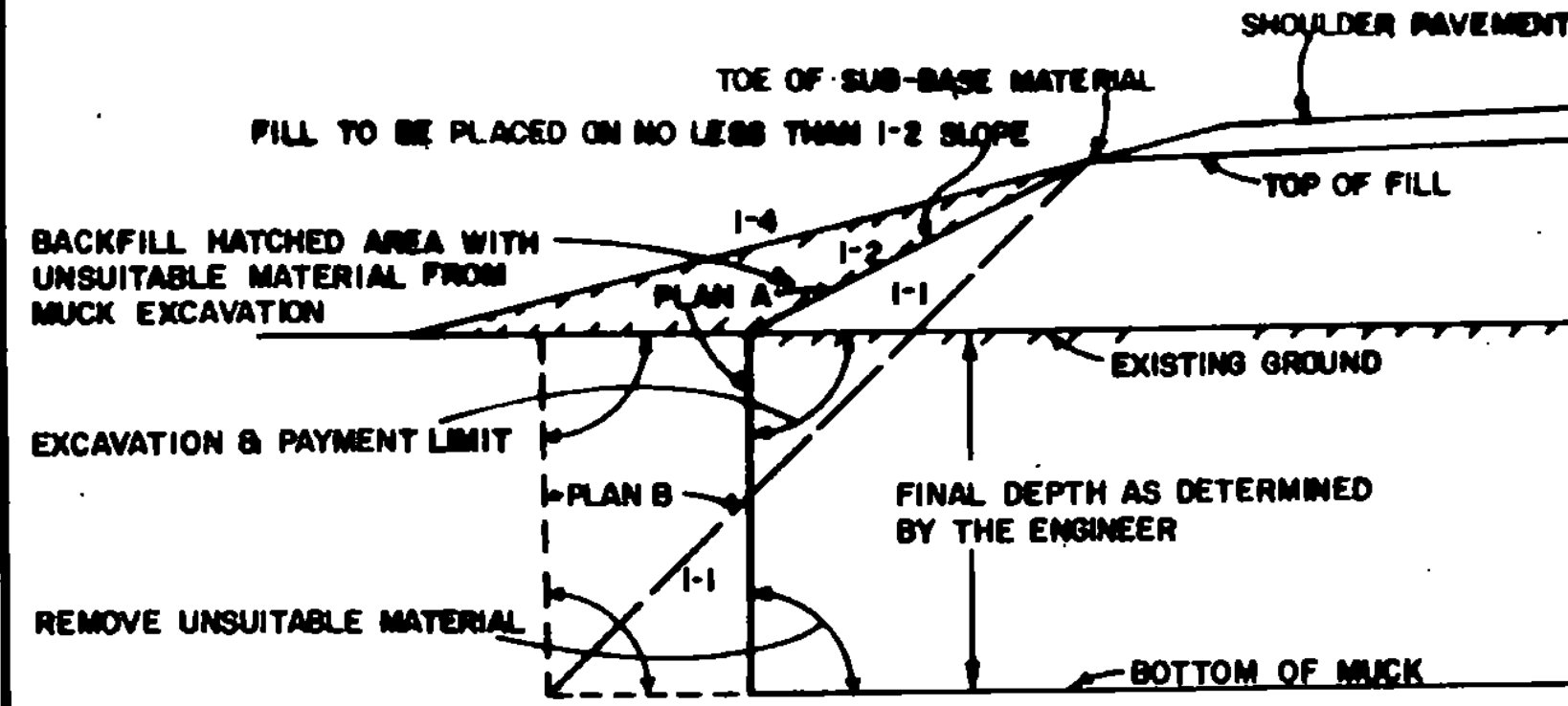
LEGEND
= TO BE USED WITH THIS PROJECT

PAVEMENT MARKING DETAILS

SURVEYED BY _____ DATE _____
DRAWN BY _____ DATE _____
TRACED BY _____ DATE _____
DIST. 2 1986 PAVING
PROJ. NO. _____
TRAFFIC SHEET NO. 522 SHEET 21 OF 26

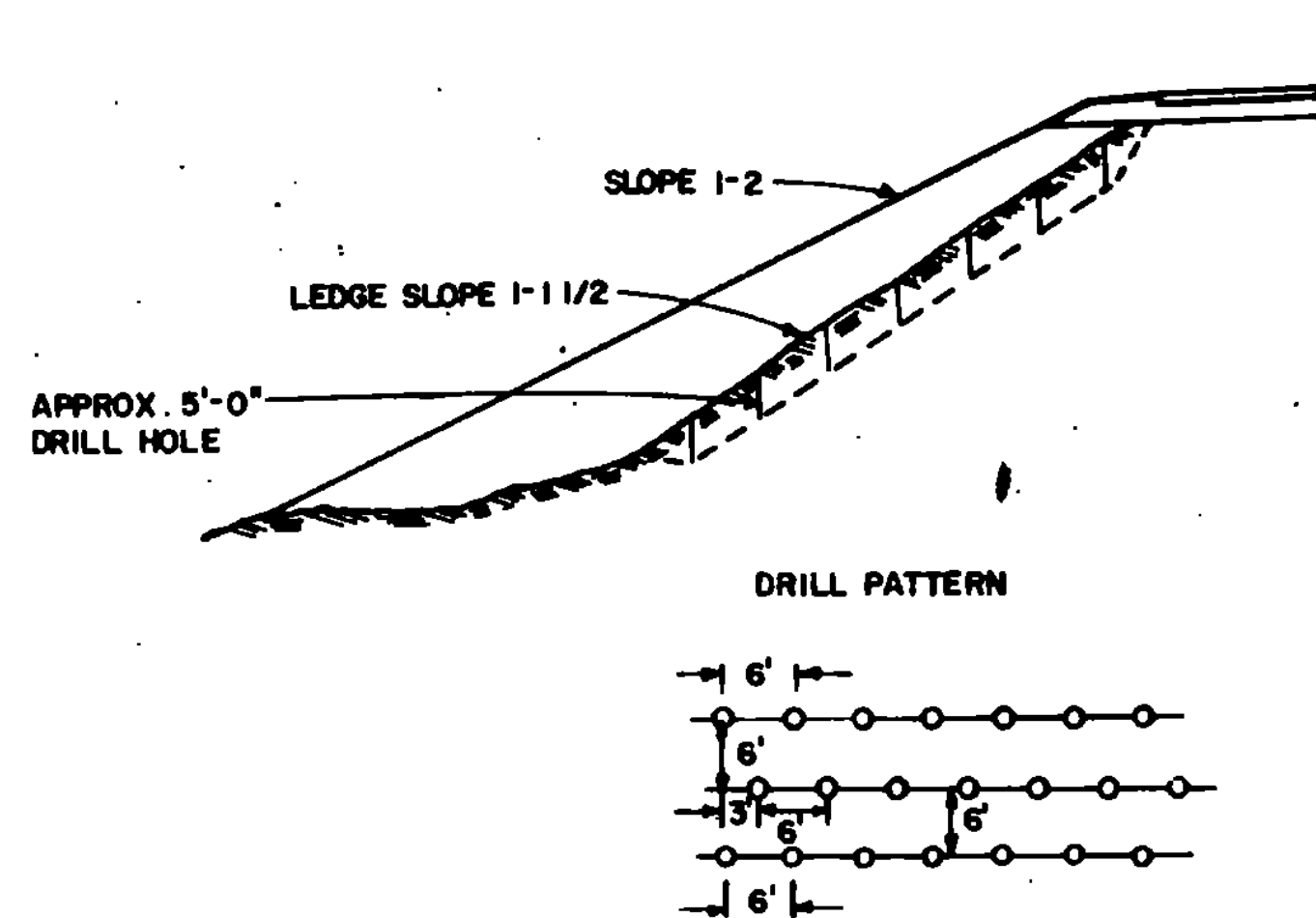


METHOD FOR CONSTRUCTING AN EMBANKMENT ON EARTH SLOPE



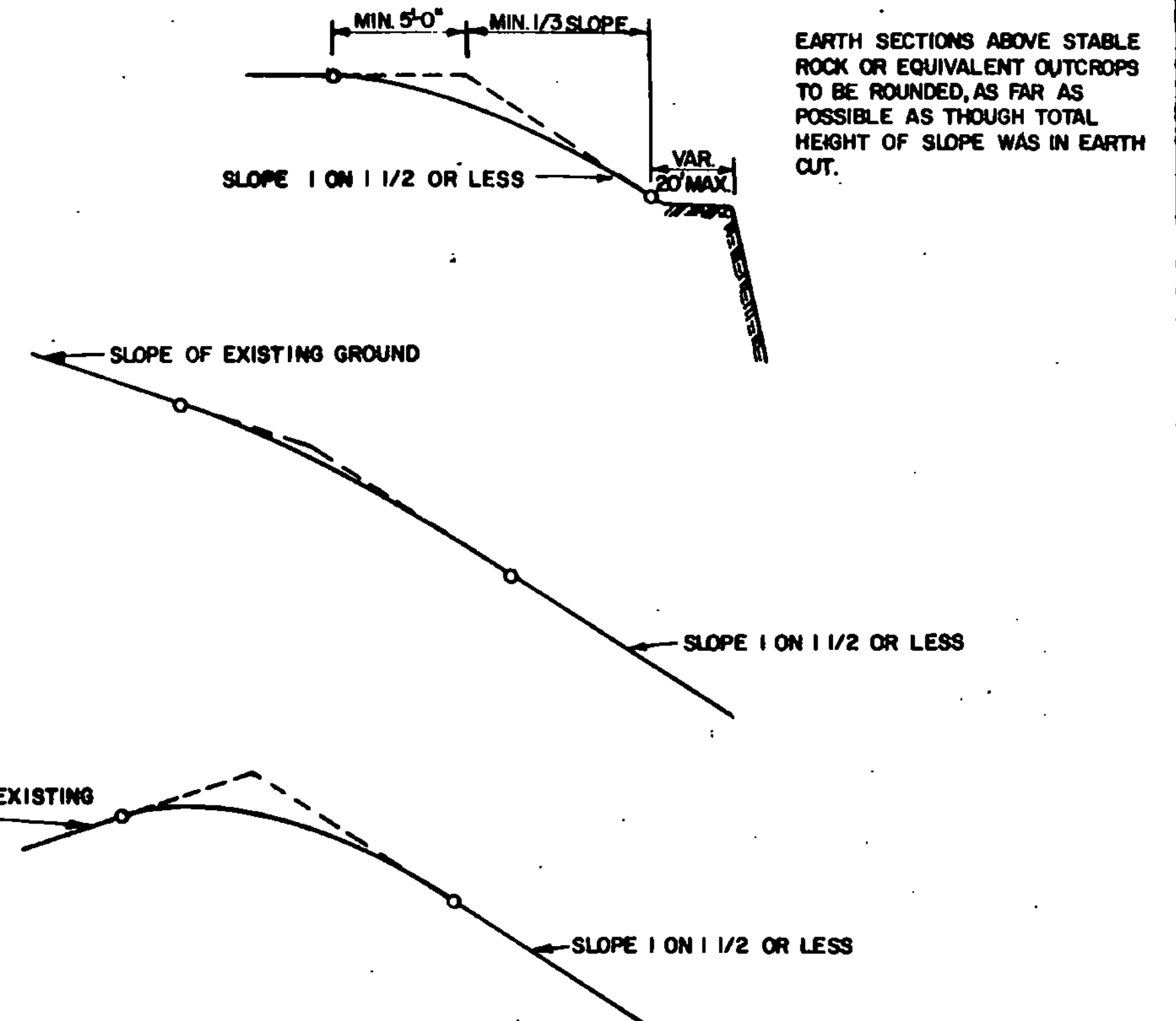
GENERAL NOTES:
 THE MUCK OR UNSUITABLE MATERIAL SHALL BE EXCAVATED TO THE NEAT LINES SHOWN ON THE PLANS OR AS DETERMINED BY THE ENGINEER.
 EXCAVATION AND PAYMENT LIMIT WILL BE DETERMINED FROM EITHER PLAN "A" OR PLAN "B", WHICHEVER PRODUCES THE GREATER WIDTH IN A GIVEN MUCK AREA.
 BACKFILL MATERIAL MUST MEET THE REQUIREMENTS SET FORTH UNDER MUCK EXCAVATION, SECTION 203.

TYPICAL NEAT PAY LINES FOR MUCK EXCAVATION

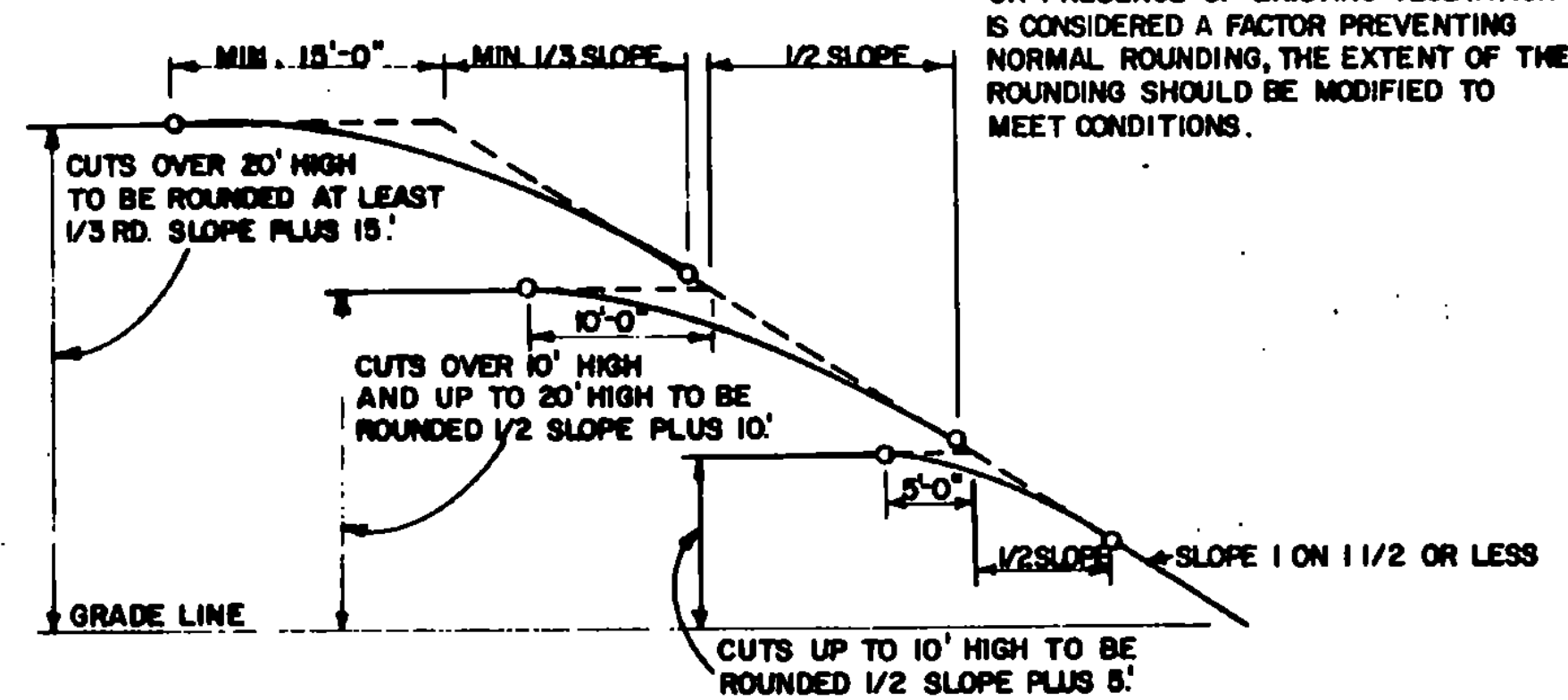


DRILLING AND BLASTING OF SOLID ROCK.
 PROCEDURE TO BE FOLLOWED WHEN LEDGE SLOPE ON OLD GROUND IS BETWEEN A 1 ON 1 AND A 1 ON 5 SLOPE.
 ALL HOLES TO BE APPROXIMATELY 5'-0" DEEP. HOLES TO BE IN ROWS, SPACED AND STAGGERED AS SHOWN IN DRILL PATTERN, OR AS DIRECTED BY THE ENGINEER, SEE SECTION 205.

A METHOD FOR PREPARING LEDGE SLOPE BEFORE CONSTRUCTING AN EMBANKMENT



SLOPES TO BE ROUNDED AS SHOWN IN ORDER TO ALLOW FOR PERSPECTIVE FORESHORTENING AS SEEN FROM THE ROAD AND SO THAT FINISHED SLOPES WILL BETTER SUPPORT VEGETATIVE COVER.
 ROUNDED TO MERGE WITH EXISTING GROUND SURFACE SO THAT NO HARD GRADE LINE WILL REMAIN WITHIN THE LINE OF SIGHT.
 WHEN STEEPNESS OF EXISTING GROUND OR PRESENCE OF EXISTING VEGETATION IS CONSIDERED A FACTOR PREVENTING NORMAL ROUNDED, THE EXTENT OF THE ROUNDED SHOULD BE MODIFIED TO MEET CONDITIONS.



TYPICAL SLOPE ROUNDED

REVISIONS AND CORRECTIONS

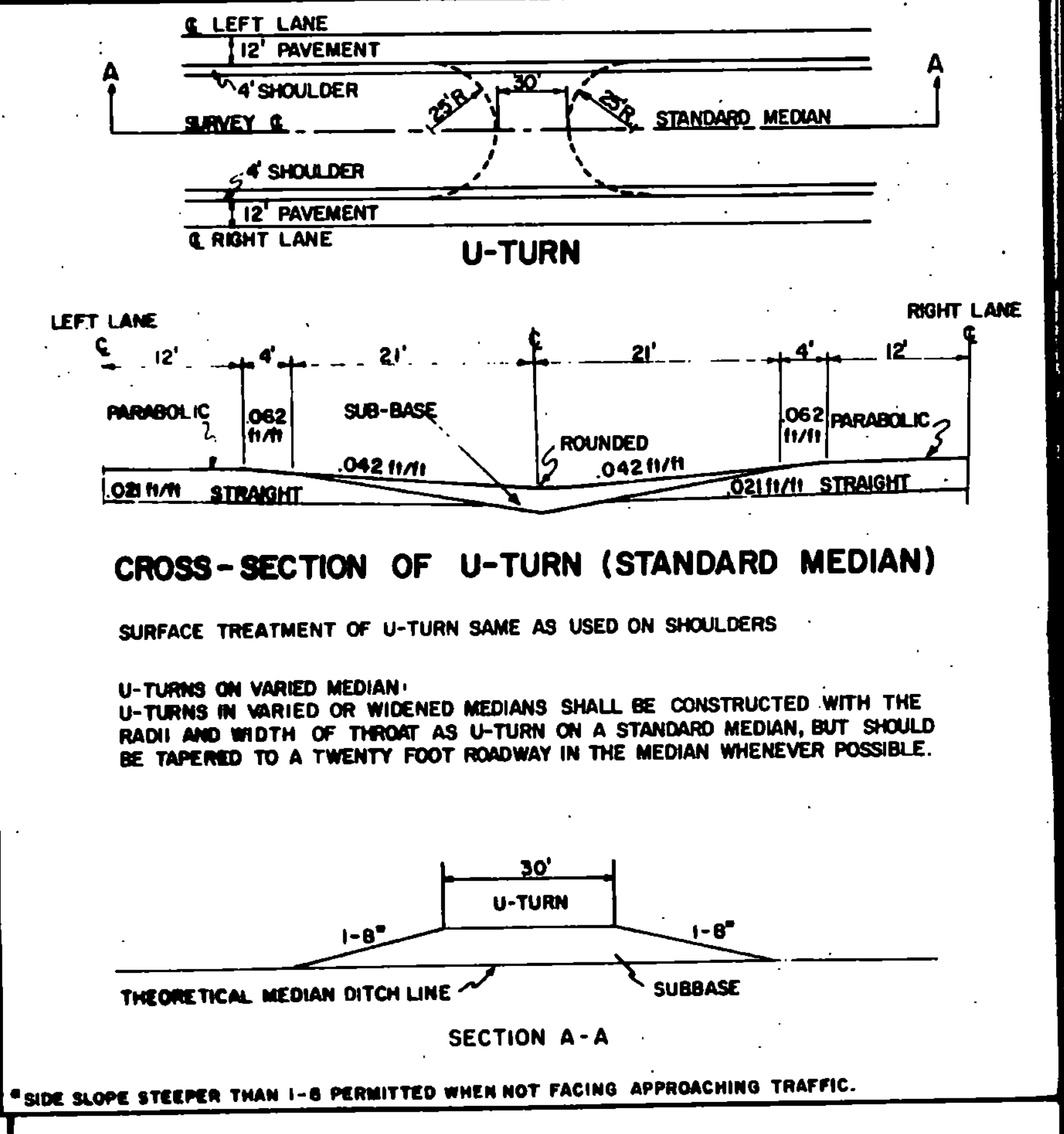
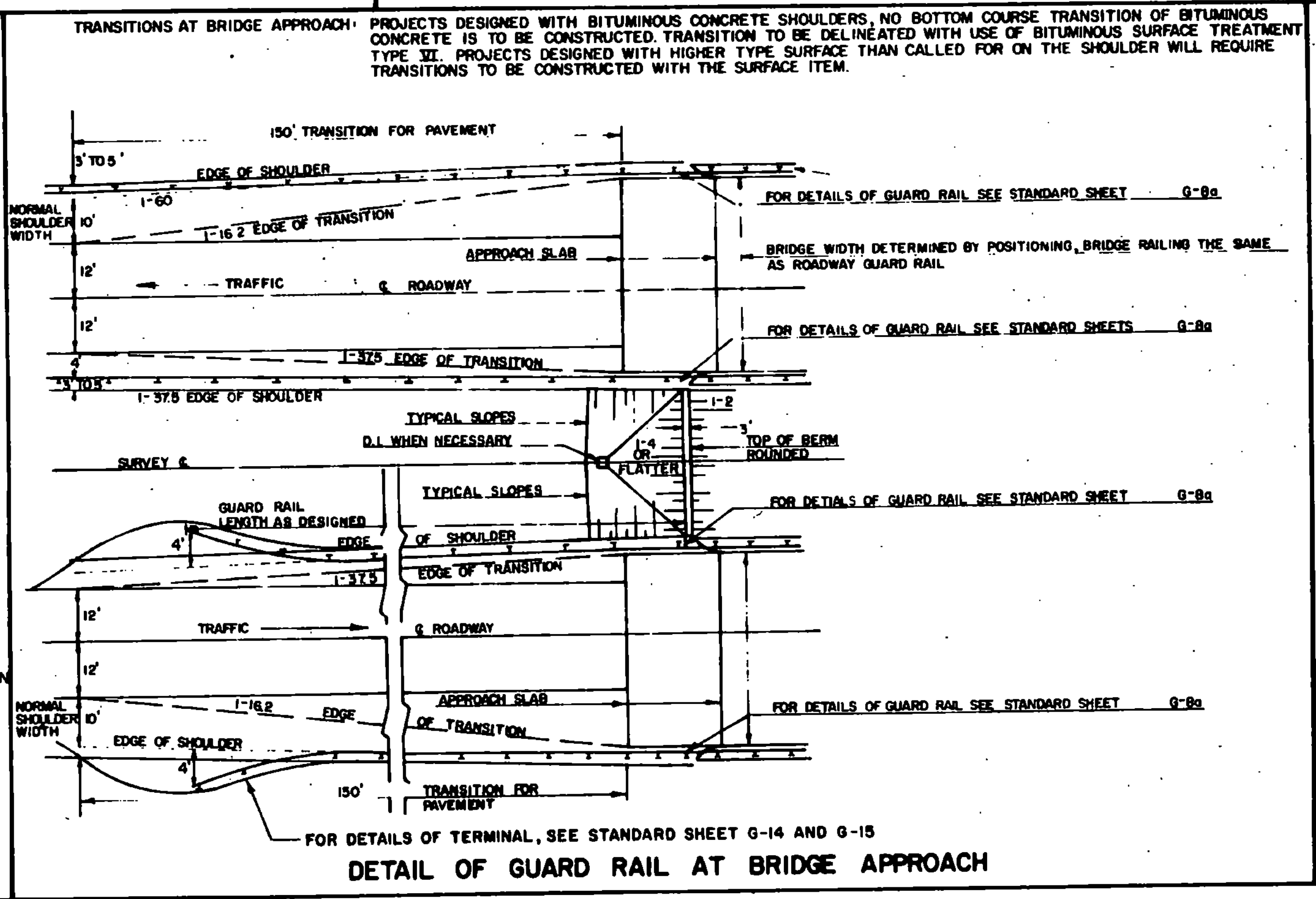
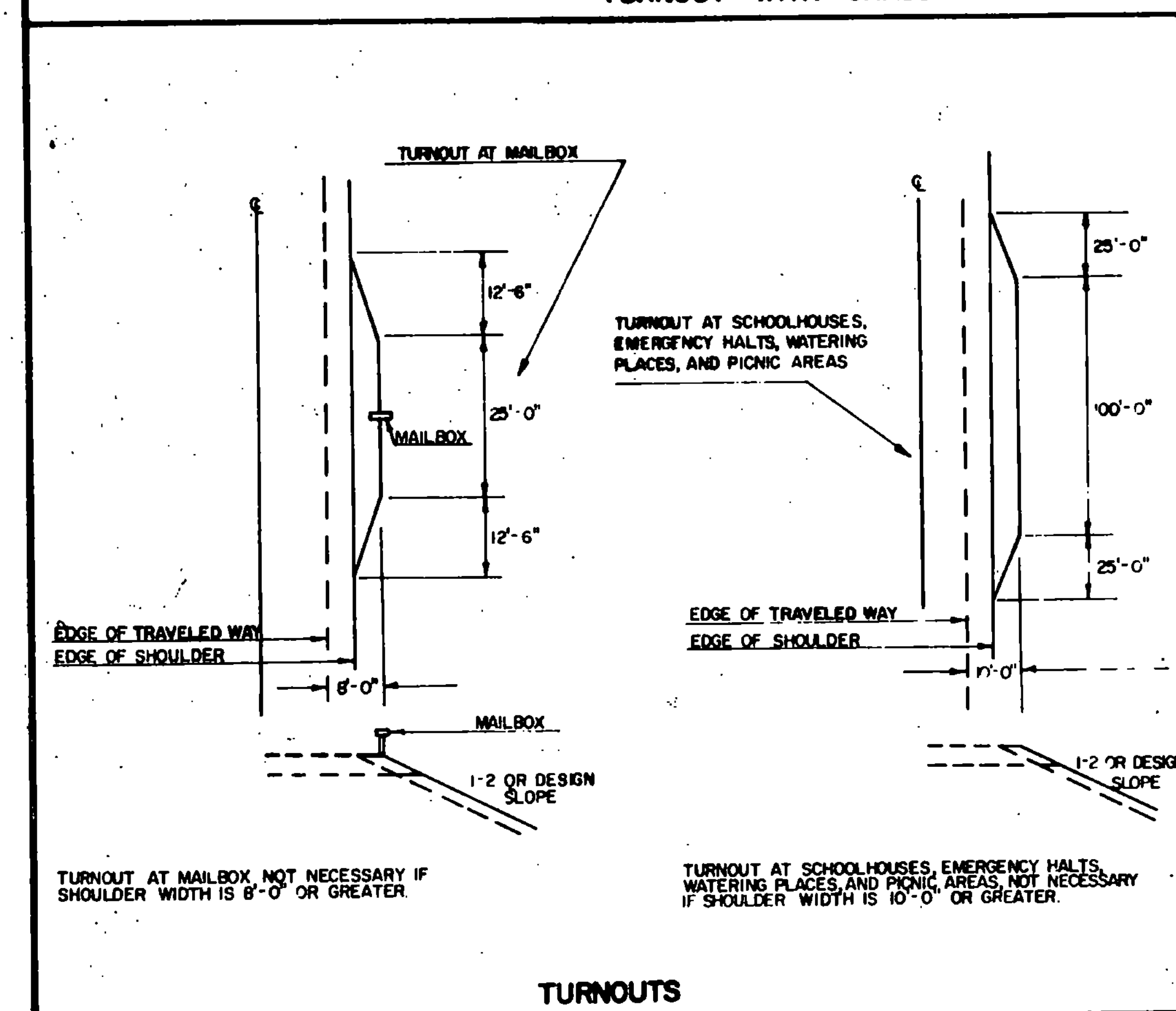
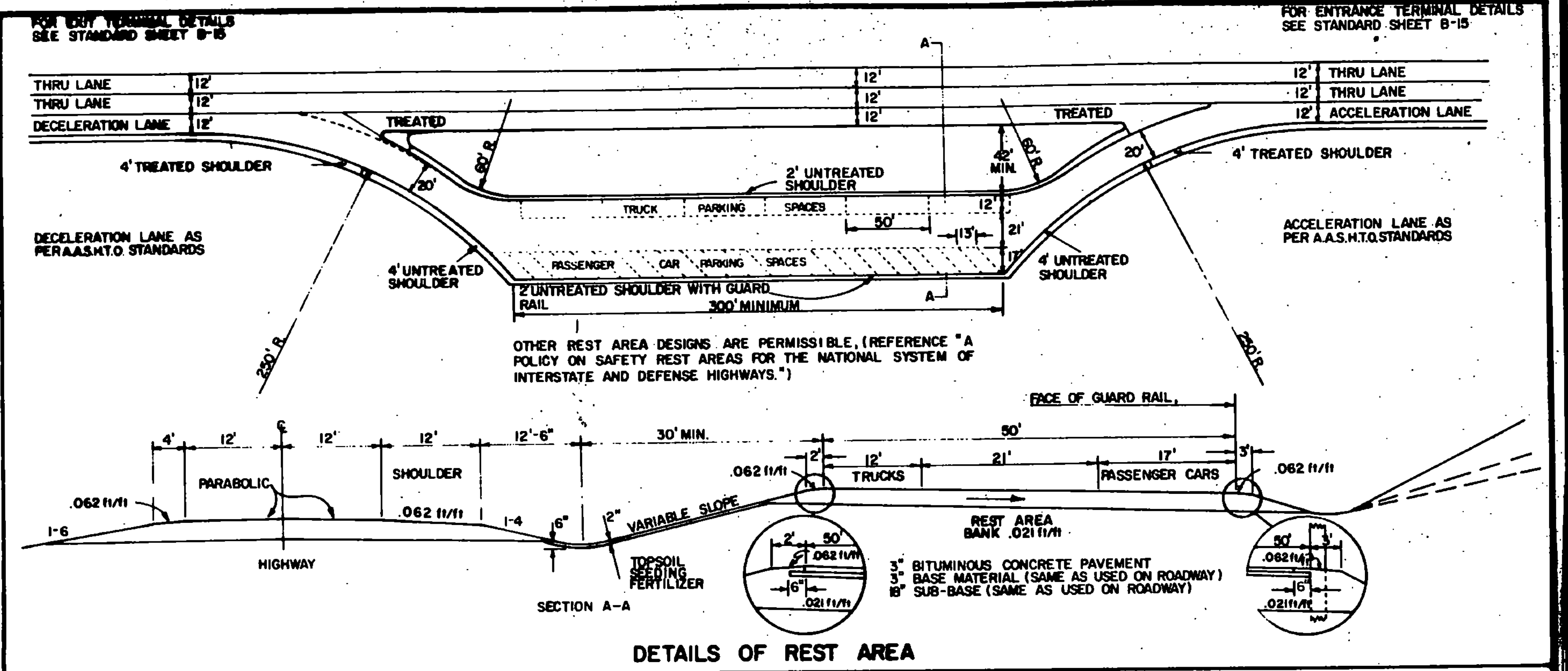
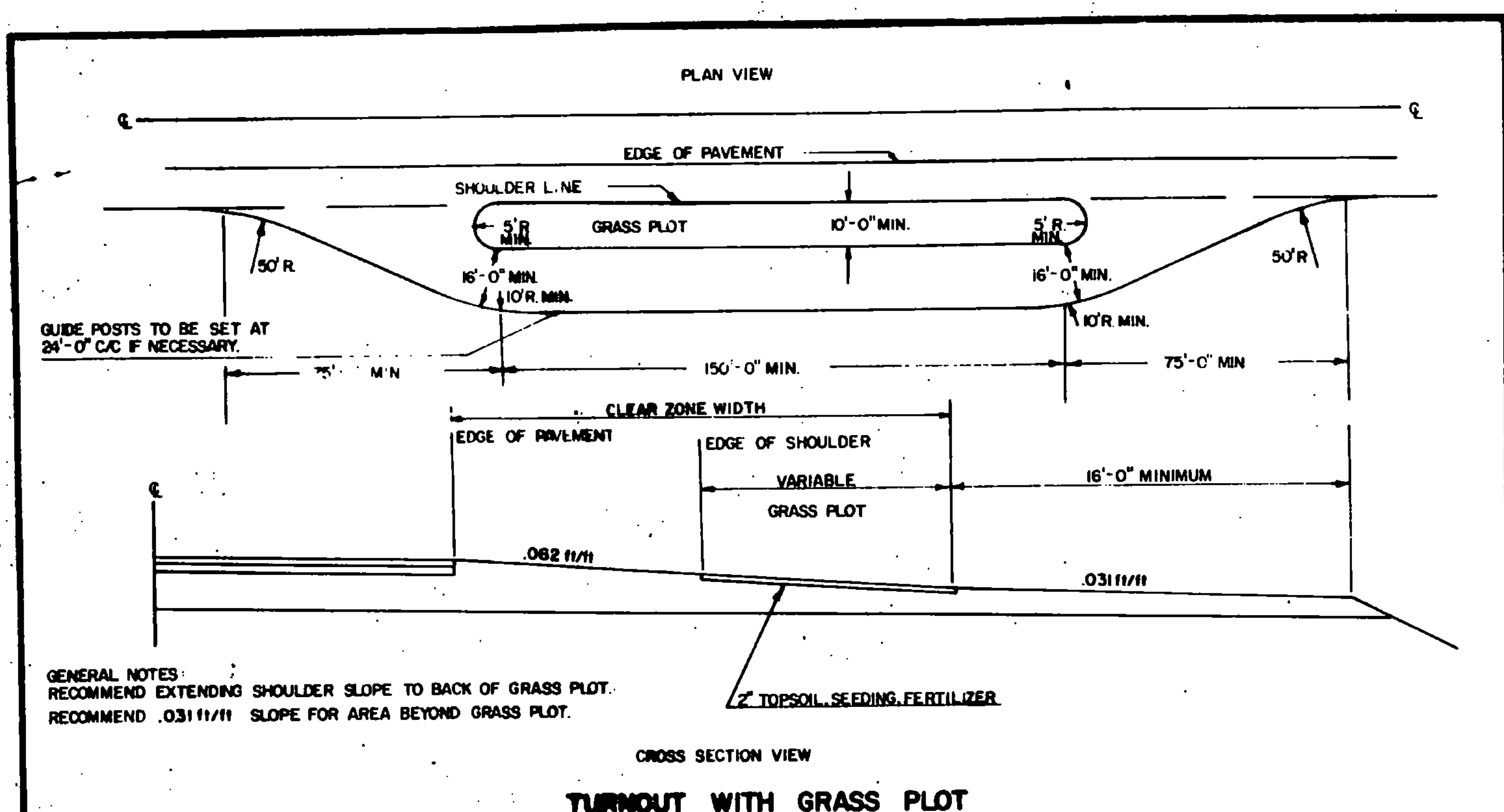
APPROVED: DATE Dec. 6, 1971

R. W. Arnold
 CHIEF ENGINEER
E. H. Stinchney
 ASST. CHIEF ENGINEER
G. M. Lane
 HIGHWAY ENGINEER

**EMBANKMENT ON EARTH SLOPE
 EMBANKMENT ON ROCK SLOPE
 MUCK EXCAVATION
 TYPICAL SLOPE ROUNDED**



**STANDARD
 B-5**



REVISIONS AND CORRECTIONS

DEC. 19, 1972 REFERENCE TO G-8 REMOVED. CEDAR LOG GUARD RAIL REMOVED FROM REST AREA.

JUNE 11, 1973 G-8 ADDED TO EXIT SIDE OF STRUCTURES.

DEC. 16, 1980 INCREASED SHOULDER WIDENING FOR GUARDRAIL; ADDED CLEAR ZONE WIDTH TO DETAIL OF TURNOUT W/GRASS PLOT; ADDED SECTION A-A FOR U-TURN.

OCT. 25, 1985 REVISED TO CONFORM TO 1986 SPECIFICATIONS. GUARD RAIL AT BRIDGE APPROACHES

APPROVED

DATE: Dec. 8, 1971

R. H. Arnold
CHIEF ENGINEER

E. H. Stebbins
ASST. CHIEF ENGINEER

G. M. Lane
HIGHWAY ENGINEER

DETAIL OF GUARD RAIL AT BRIDGE APPROACH

DETAIL OF REST AREA

DETAIL OF U-TURN

TURNOUTS

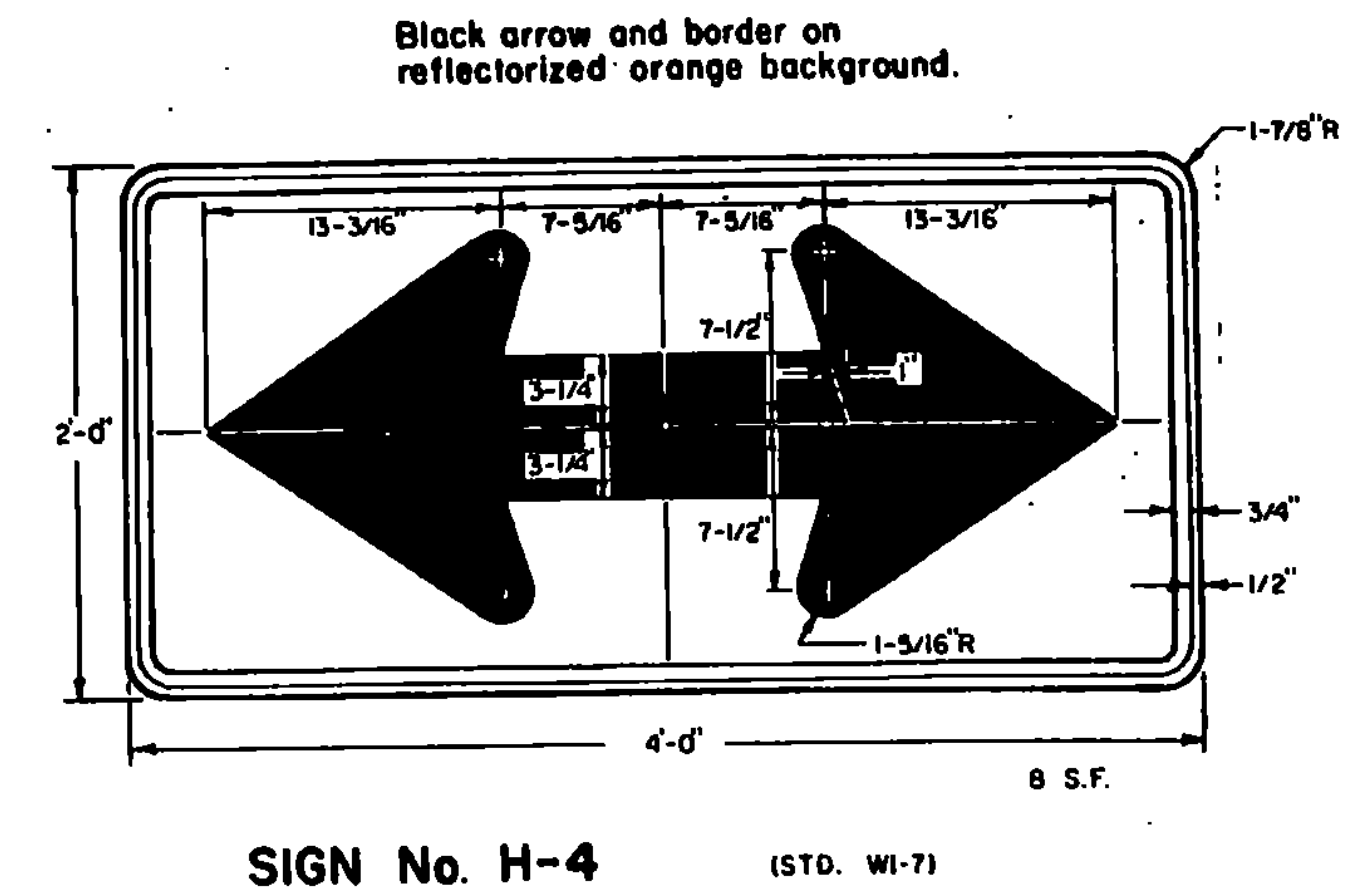
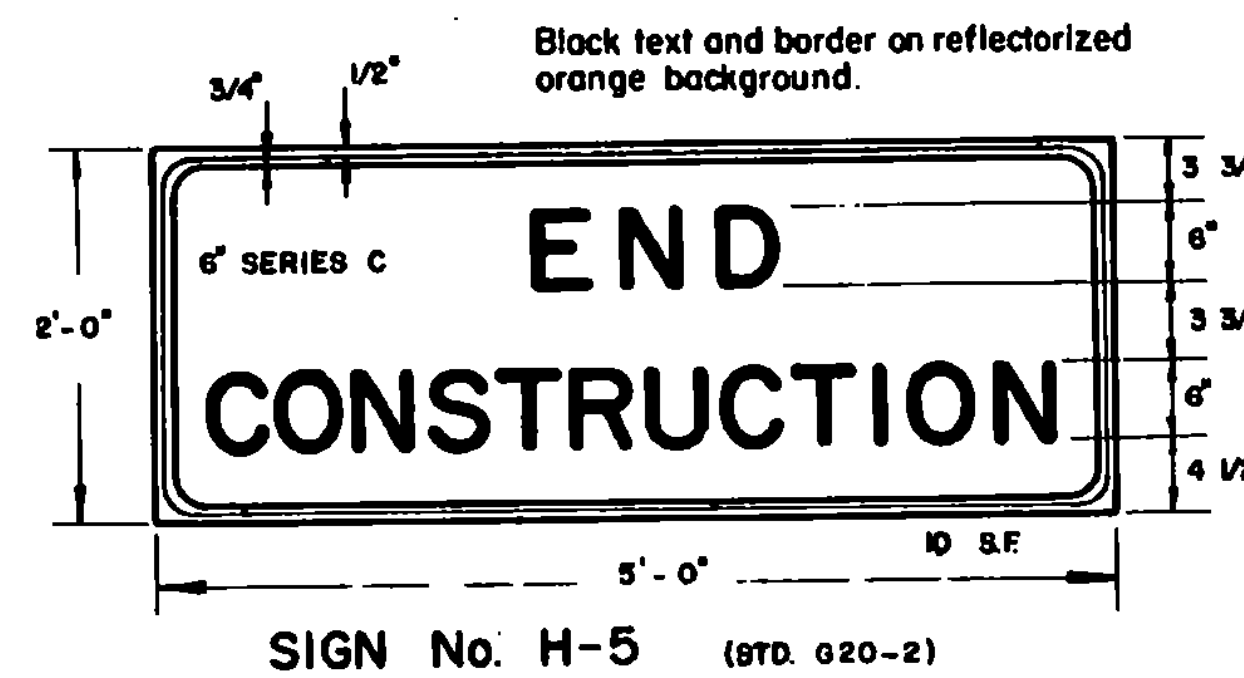
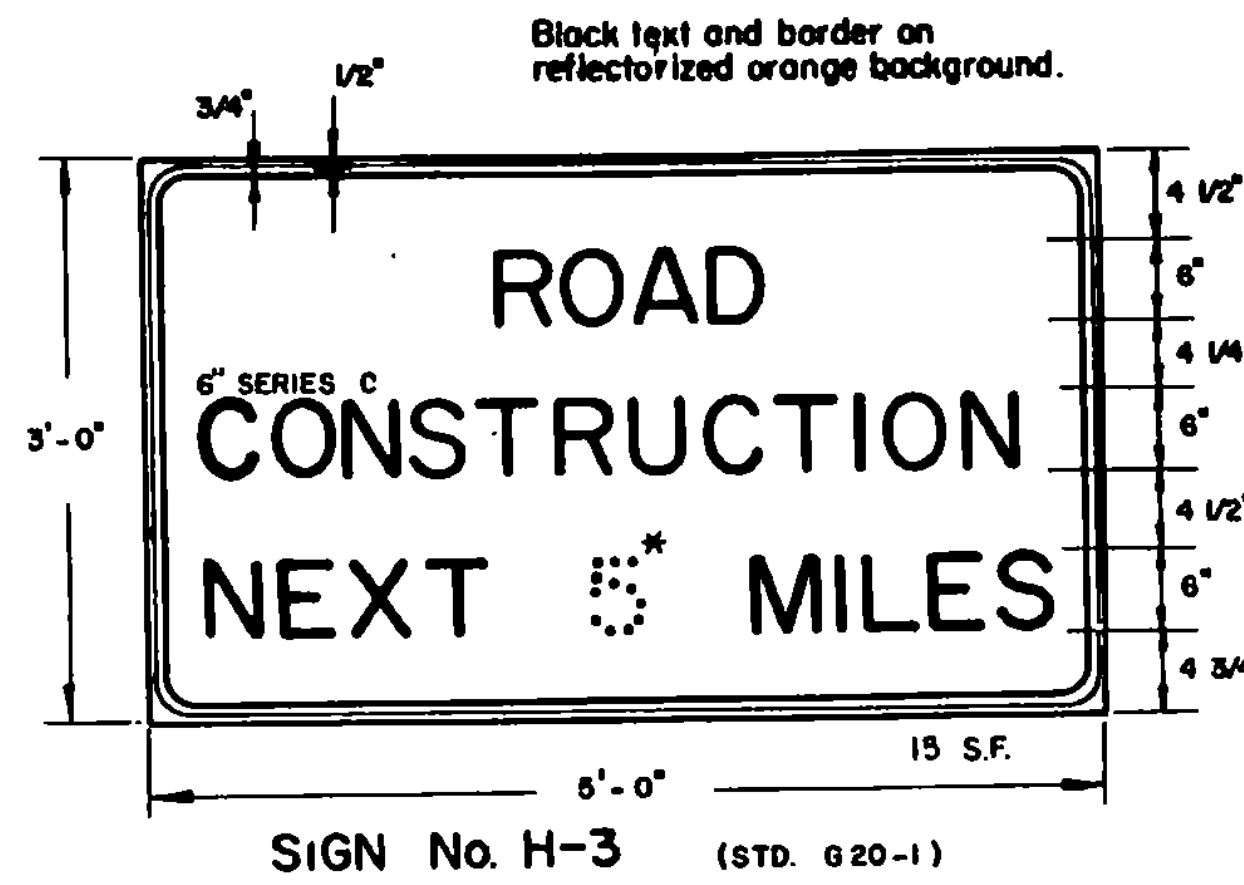
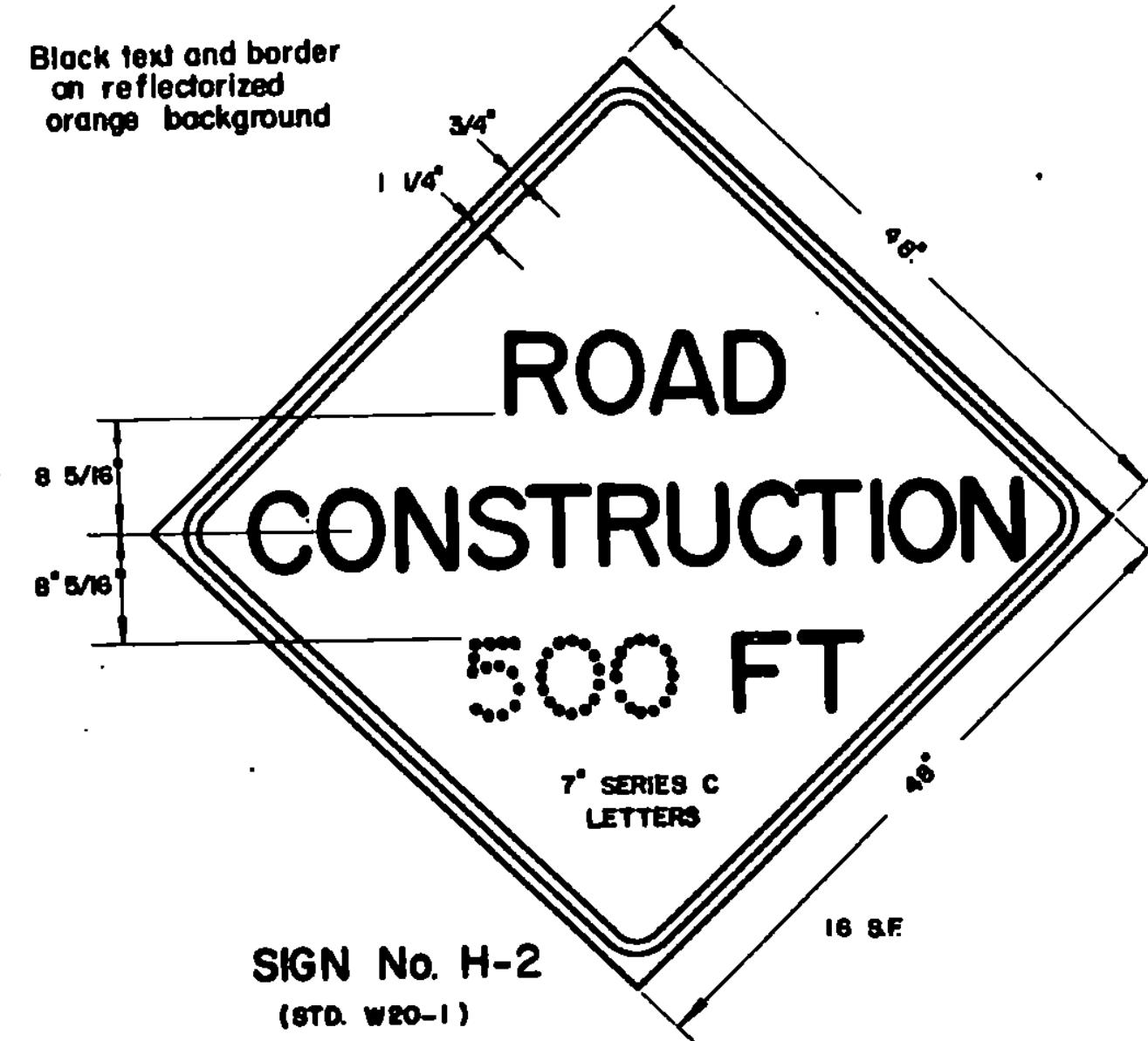
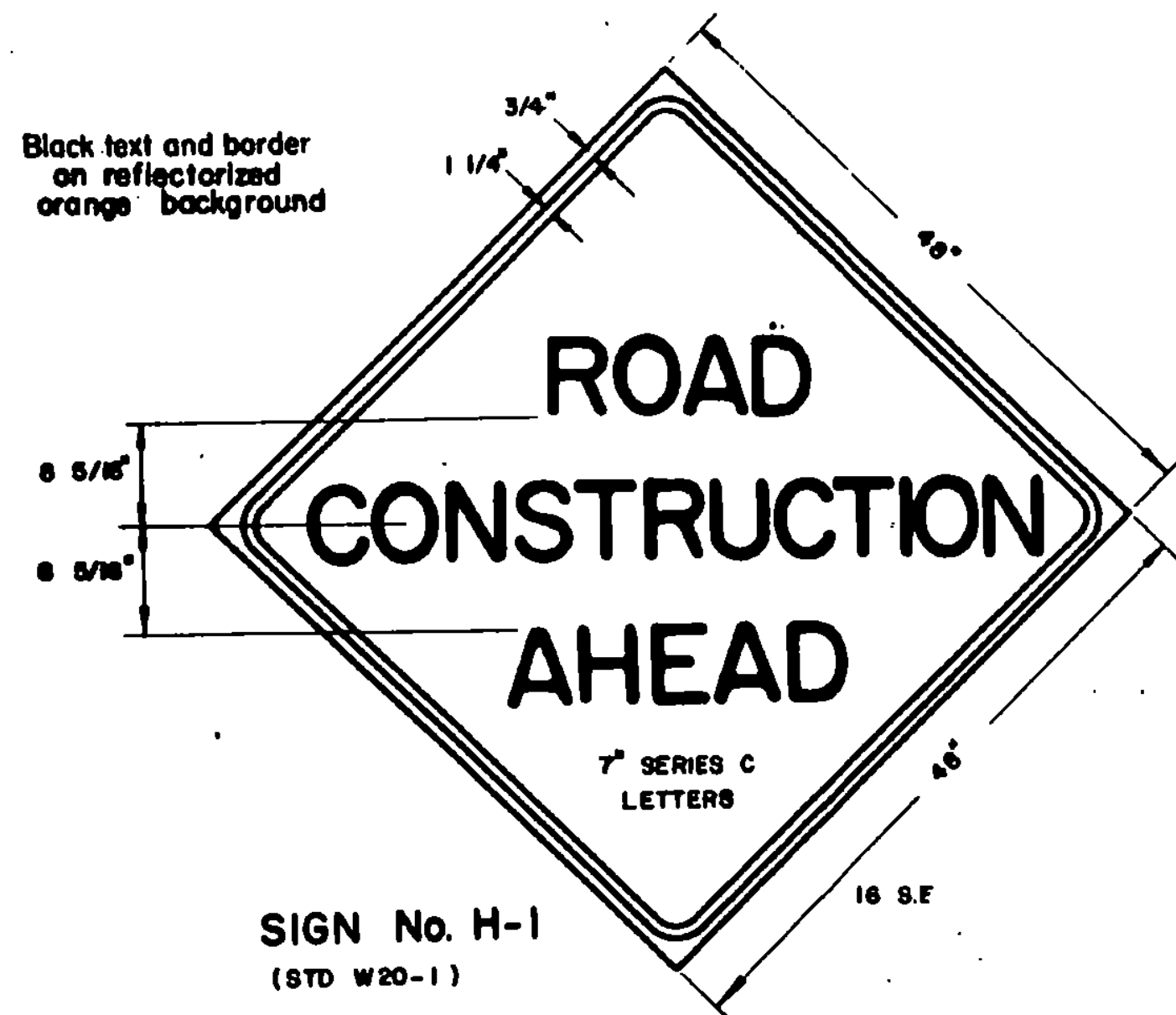
VERMONT AGENCY OF TRANSPORTATION

STANDARD

B-17

SIGN H-3 IS TO BE USED WHEN PROJECT LENGTH EXCEEDS 2 MILES, OR AS REQUESTED BY THE RESIDENT ENGINEER. THE TEXT MAY BE AS SHOWN OR MAY READ AS FOLLOWS "CONSTRUCTION AREA NEXT — MILES"

* Show mileage to nearest 1/4 mile



The road construction approach signs shown on this sheet are intended for use in providing advance warning and information on construction projects over which traffic will be maintained. When additional approach signs or other types of advance signing or control are necessary, the Plans and/or the Specifications for that project will give the details of the signs and devices required.

NOTES

LOCATION
Construction approach signs shall be located as detailed on this sheet or otherwise shown on the Plans. They shall appear at each end of the highway under construction, and on all intersecting public highways. The exact placement of any sign will depend upon the alignment of the highway and the character of the roadsides. The location measurements on this sheet are intended to indicate the sequence to be followed, and the minimum spacing to be observed by the Engineer in determining exact locations.

DESIGN
The designs of the signs shall conform with the details shown on this sheet and with the standards prescribed in the Manual on Uniform Traffic Control Devices prepared by National Joint Committee on Uniform Traffic Control Devices.

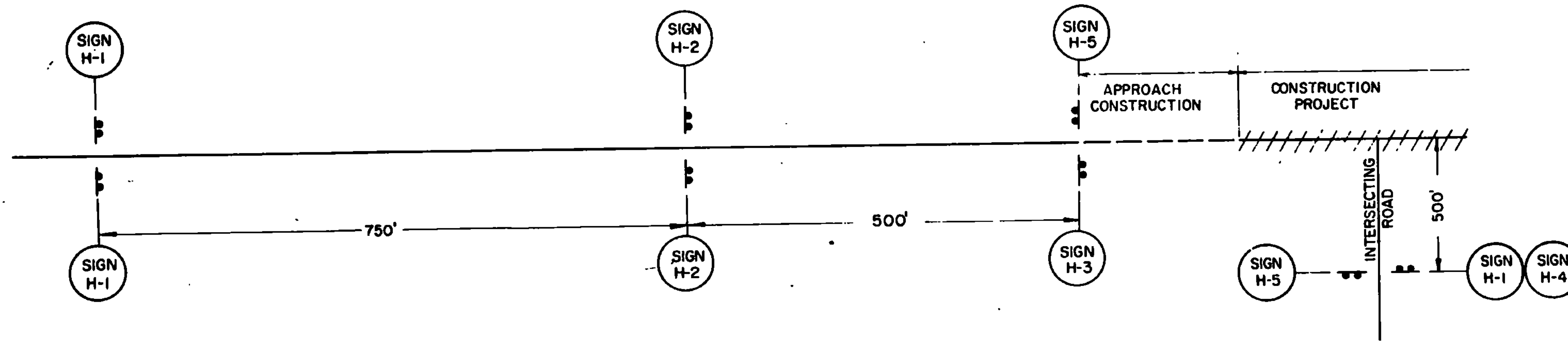
MATERIALS
The signs shall be of metal, wood, plywood, hardboard or any other material satisfactory to the Engineer. No material will be approved that will deteriorate by exposure to the weather during the required life of the sign.

REFLECTORIZATION
All reflectorized material shall consist of encapsulated lens reflective sheeting.

INSTALLATION
The signs shall be in place at the time the project officially commences. Each sign shall be erected in a neat and workmanlike manner on wood or metal posts set securely in the ground. The bottom of a sign shall be at least 5 feet above road level, and the nearest edge of a sign shall be at least 6 feet outside the shoulder point or 2 feet outside guard rail, curbing or sidewalk. Posts and signs shall be braced or reinforced in back as necessary. The installation of signs shall be subject to approval of the Engineer. In urban areas, the bottom of the sign shall be at least 7' above the sidewalk.

MAINTENANCE
Signs shall be maintained in a clean and legible condition satisfactory to the Engineer. They shall be completely visible to approaching traffic at all times. They shall be kept plumb and level, and always present a neat appearance. Damaged, defaced or dirty signs shall be repaired, cleaned or replaced as ordered by the Engineer.

GENERAL
The cost of furnishing, erecting, maintaining and removing all construction approach signs will be considered subsidiary work pertaining to the project as a whole and shall be included in the contract unit price bid for various items involved in the contract. In all phases of construction of approach signing, the requirements set forth in the Manual on Uniform Traffic Control Devices shall be met (See Standard Specifications, Section 107, Article 107.08 Traffic Control Devices).
When project is closed down for temporary periods the signs shall be covered in a workmanlike manner.



REVISIONS AND CORRECTIONS

SEPT. 11, 1973 - REVISED PER ORDER OF FHWA, SEPT. 11, 1973
 OCT. 19, 1973 - SIGN H-4 REMOVED.
 MAY 14, 1974 - REFLECTIVE MATERIAL CHANGE
 JUNE 7, 1977 - REFLECTIVE MATERIAL NOTE CHANGED.
 DEC. 19, 1978 - ILLUMINATION DELETED.
 DEC. 17, 1979 - SIGN H-3 REVISED, SIGN H-4 ADDED.
 MAR. 4, 1981 - SIGN H-3 TEXT CHANGED, NOTE ADDED.

FEB. 8, 1988 - UPDATED TO 1986 SPECIFICATIONS

APPROVED
 DATE Dec. 14, 1971

R. H. Arnold
 CHIEF ENGINEER

E. H. McKinney
 ASST. CHIEF ENGINEER

G. M. Lane
 HIGHWAY ENGINEER

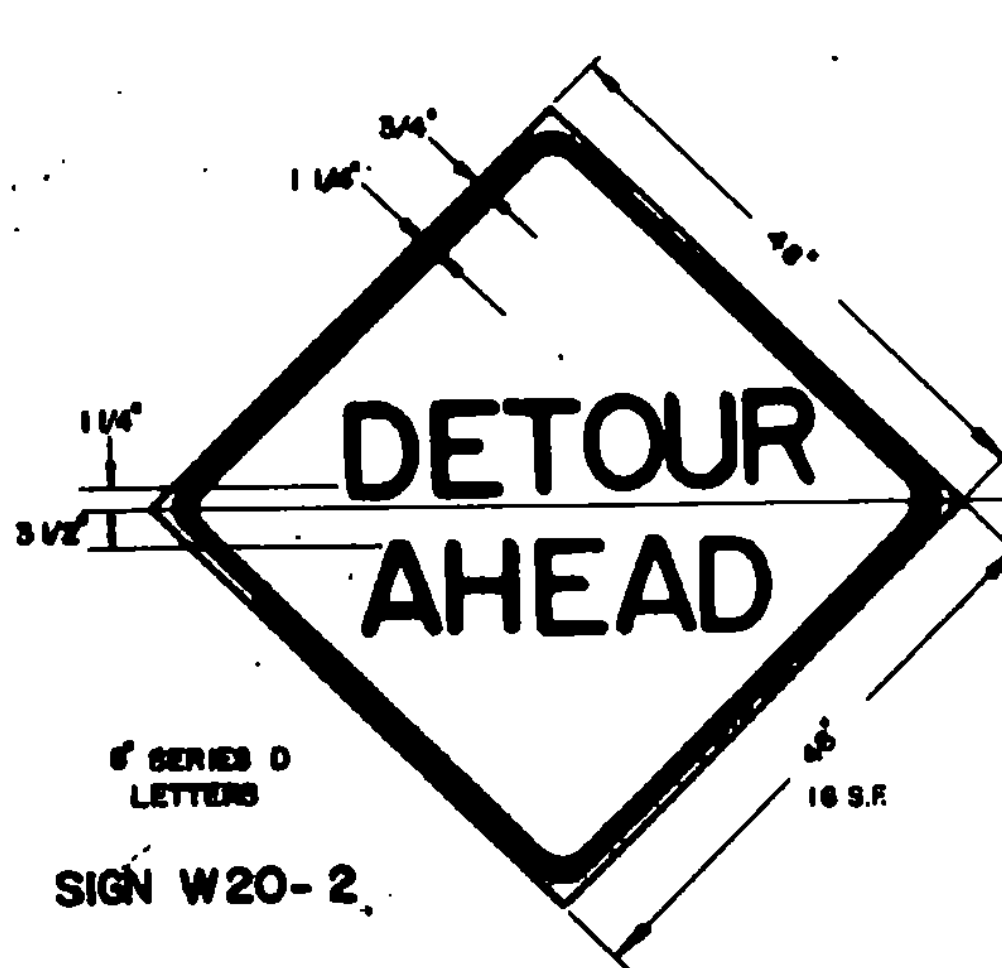
TRAFFIC SIGNS

ROAD CONSTRUCTION
 APPROACH SIGNS

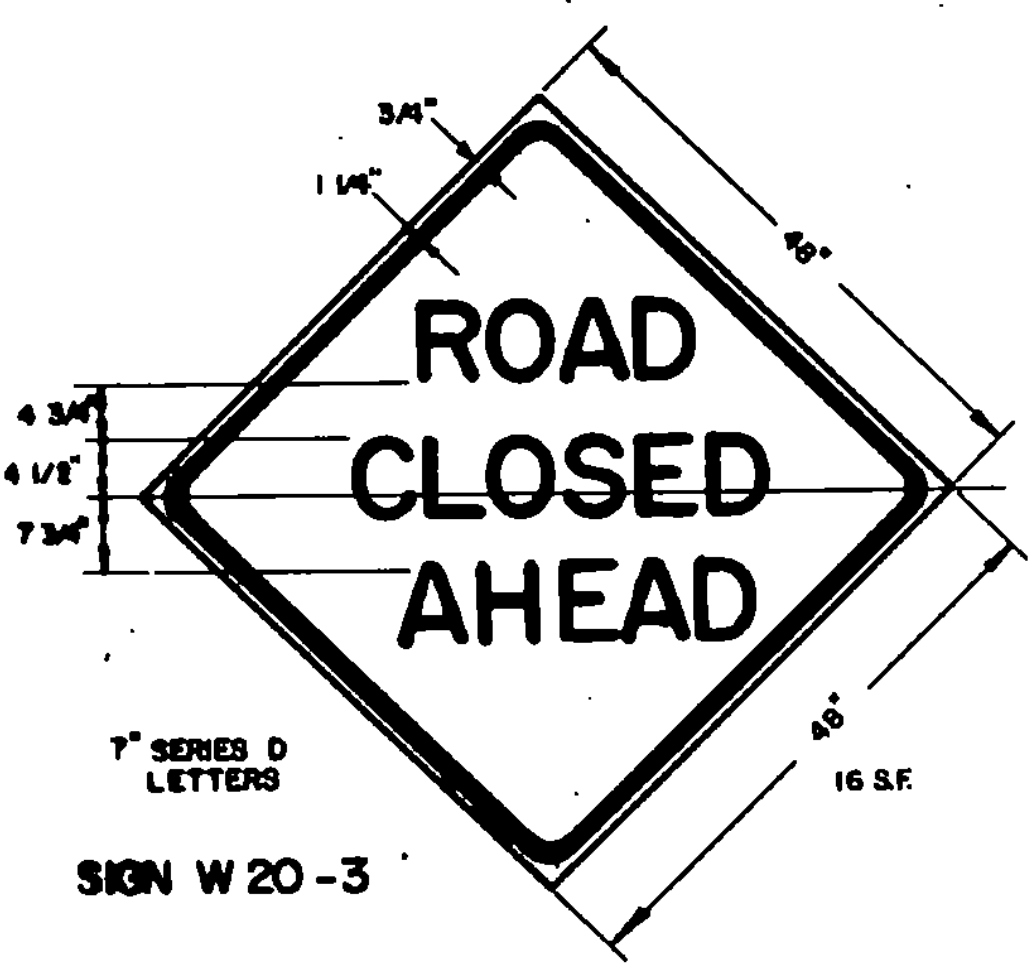


STANDARD

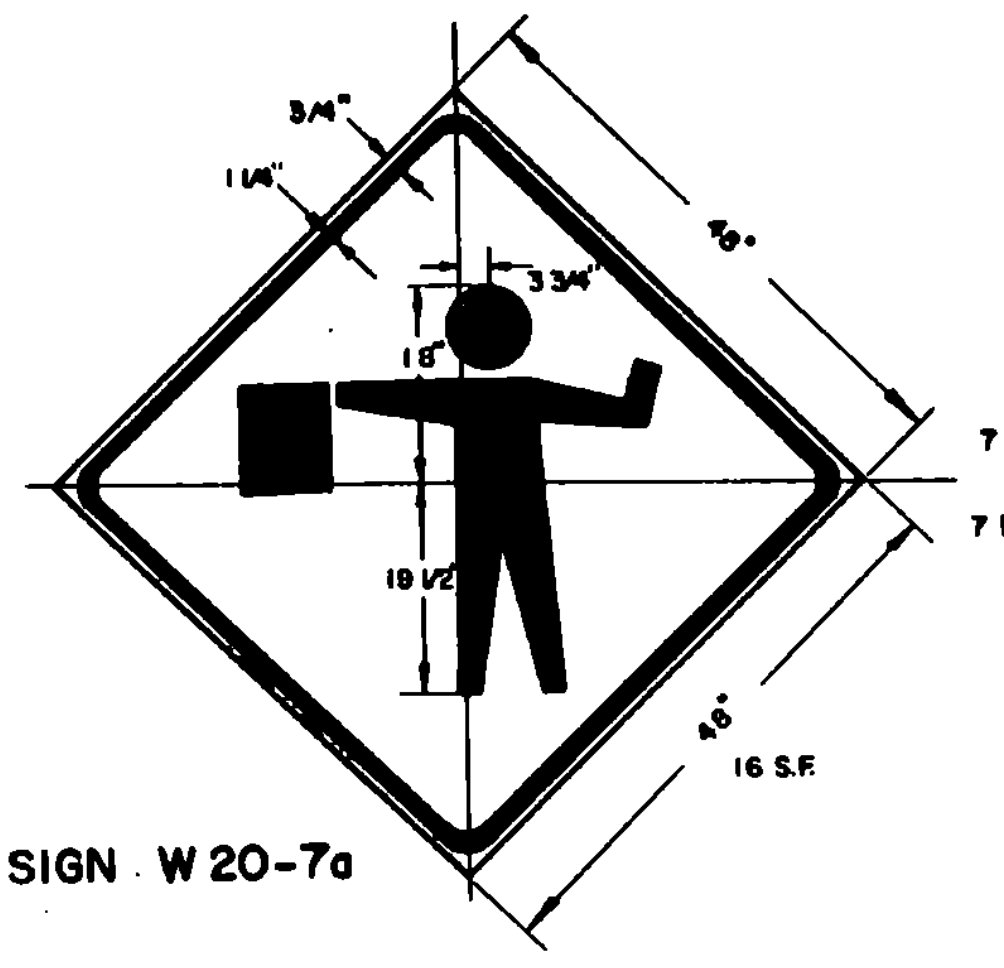
E-2



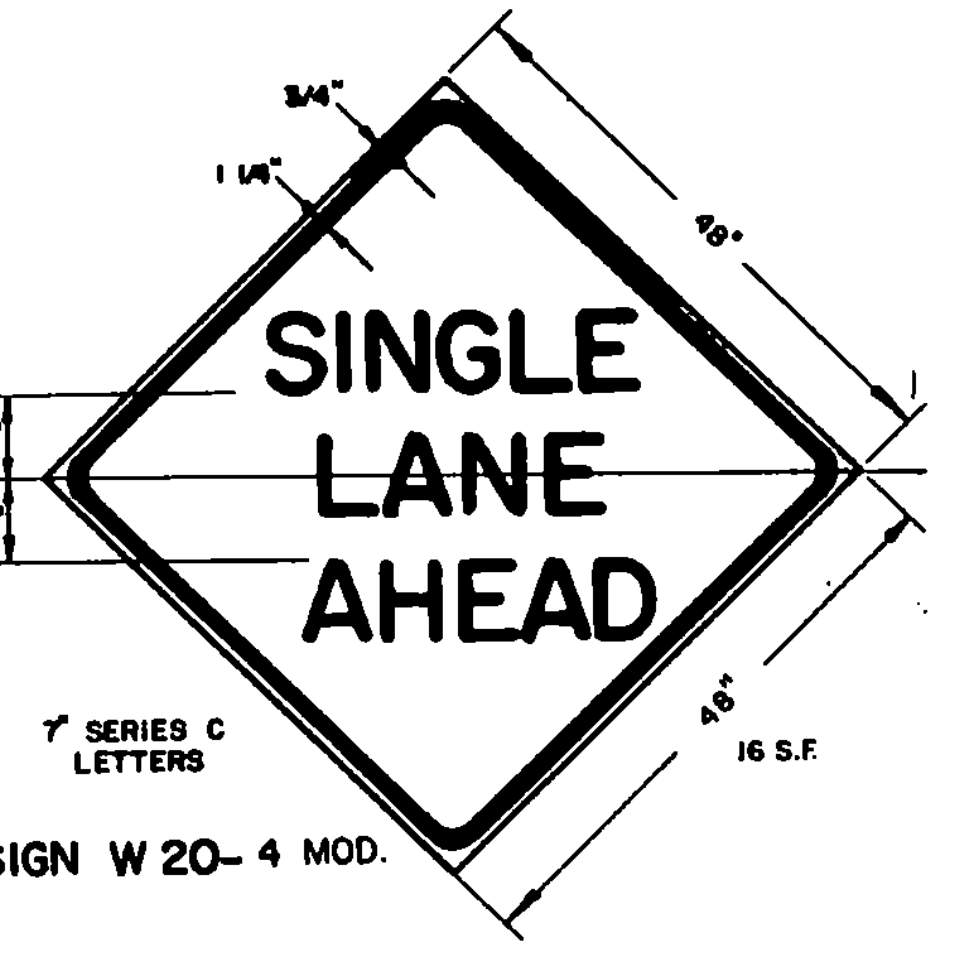
6" SERIES D LETTERS
SIGN W20-2



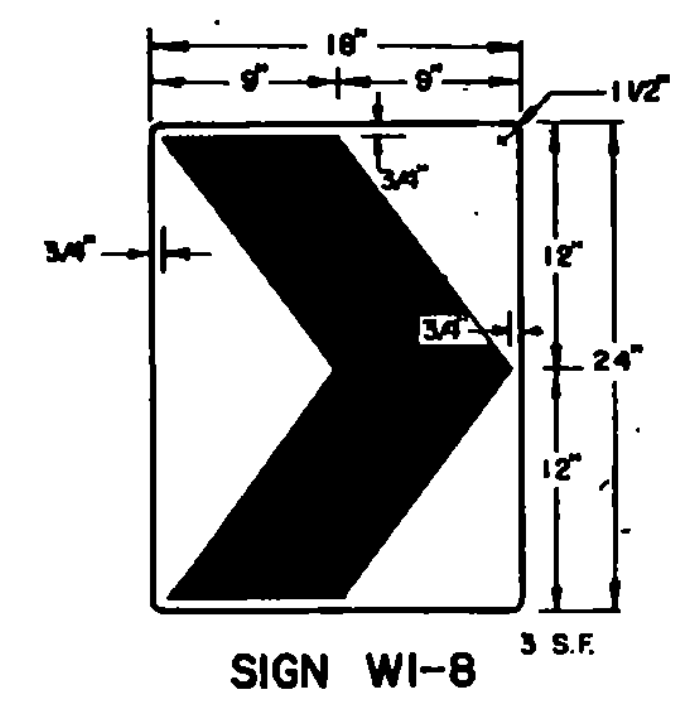
7" SERIES D LETTERS
SIGN W20-3



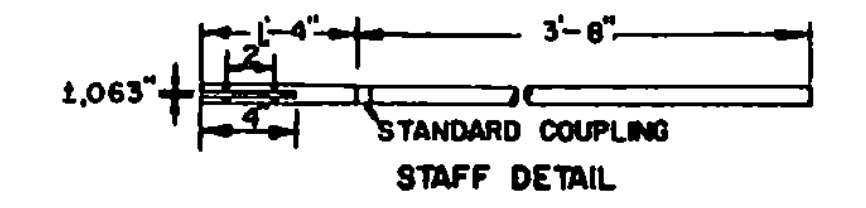
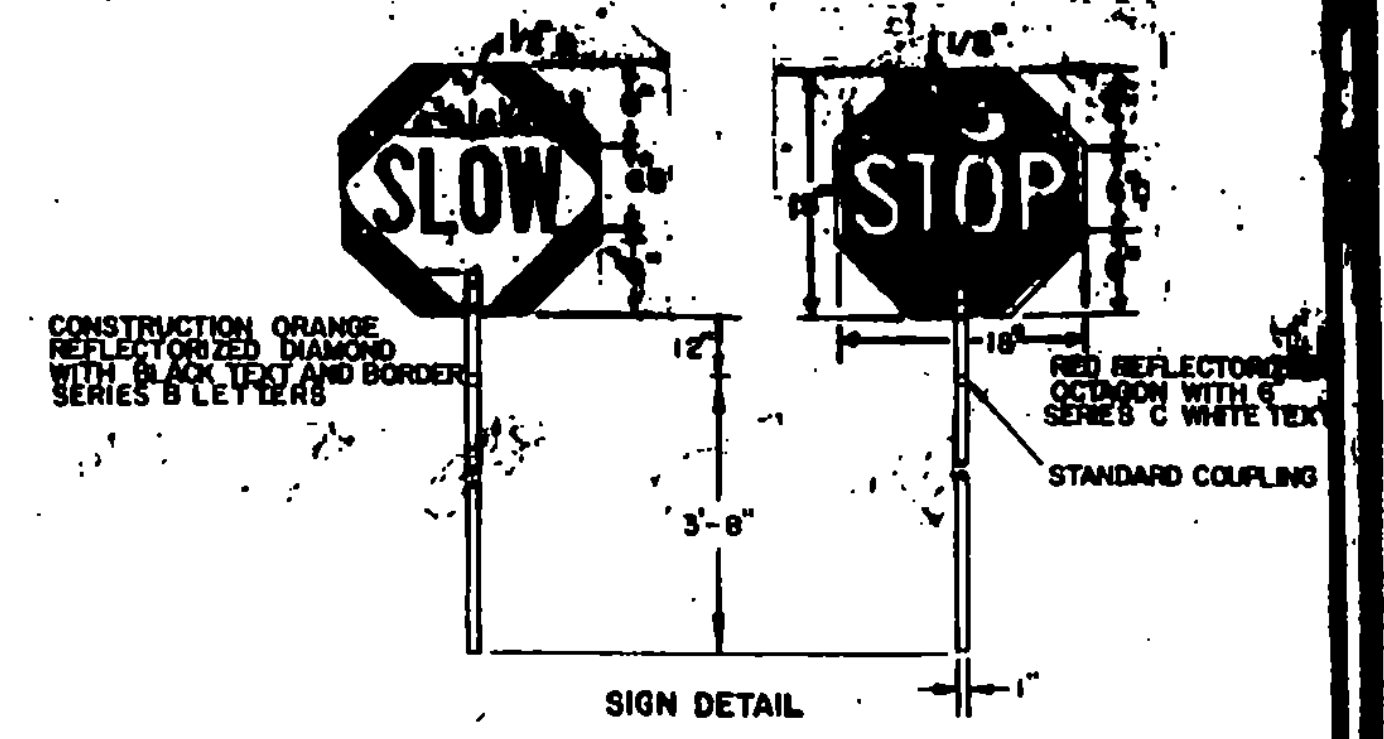
SIGN W20-7a



7" SERIES C LETTERS
SIGN W20-4 MOD.



SIGN W1-8
3 S.F.

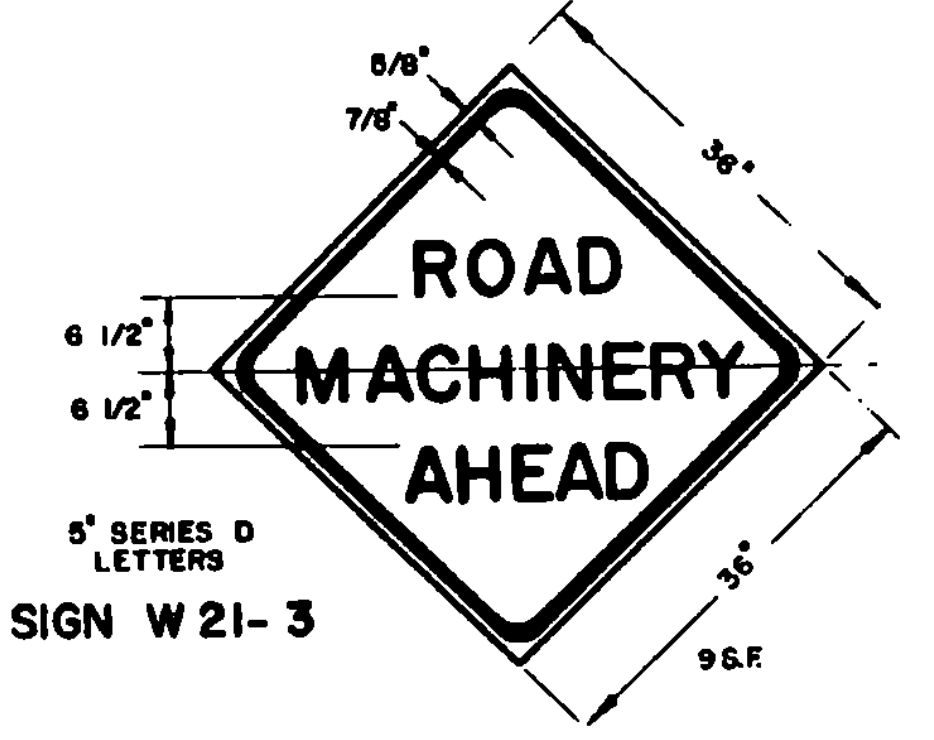


MATERIALS
The sign materials shall be 0.063 aluminum with colors as indicated on details.
The staff shall be 1" ridged aluminum conduit or tubing with a wall thickness of 1/8 inch.

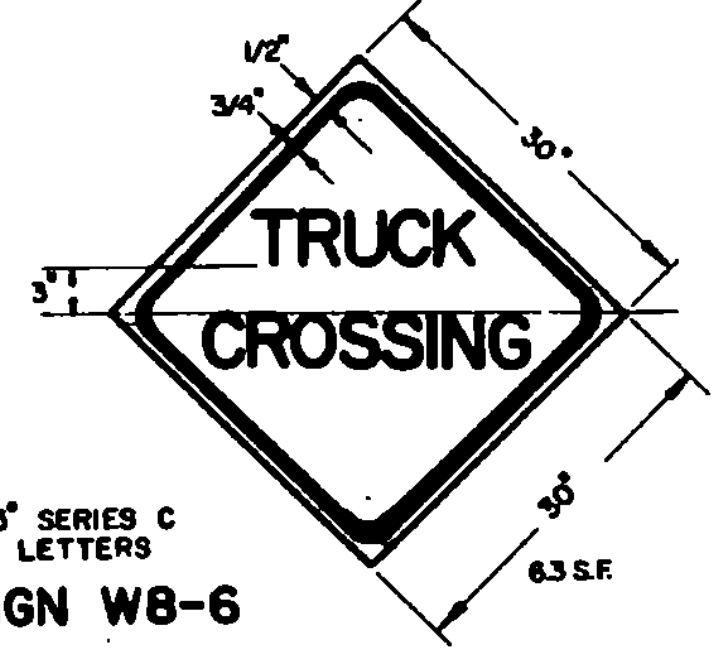
COLORS
The colors shall conform with the standard colors adopted by the American Association Of State Highway and Transportation Officials and approved by the U.S. Department Of Transportation, Federal Highway Administration.

MOUNTING
The staff shall be mounted with either 2-1/4" aluminum bolts or 2-1/4" aluminum rivets.

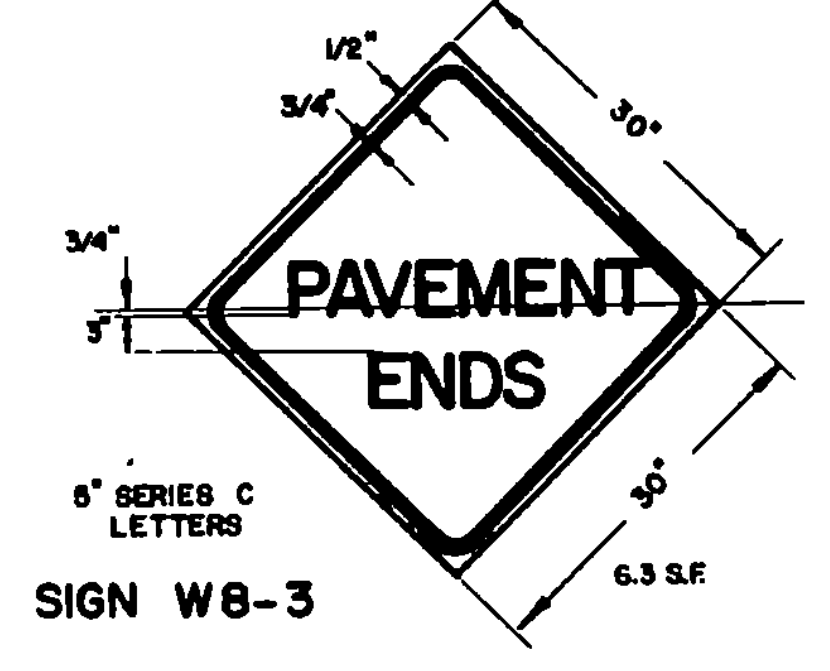
SIGN PADDLE FOR FLAGPERSON



6" SERIES D LETTERS
SIGN W21-3



6" SERIES C LETTERS
SIGN W8-6



6" SERIES C LETTERS
SIGN W8-3

NOTES

APPLICATION OF STANDARDS
Since it is not possible to prescribe detailed standards of application for all of the situations that may conceivably arise on a construction project, reference must be made to the Manual on Uniform Traffic Control Devices for the principles, procedures and standards that will be required in connection with on-project construction signs and barricades. The signs here shown represent a sample of those that probably will be most used.

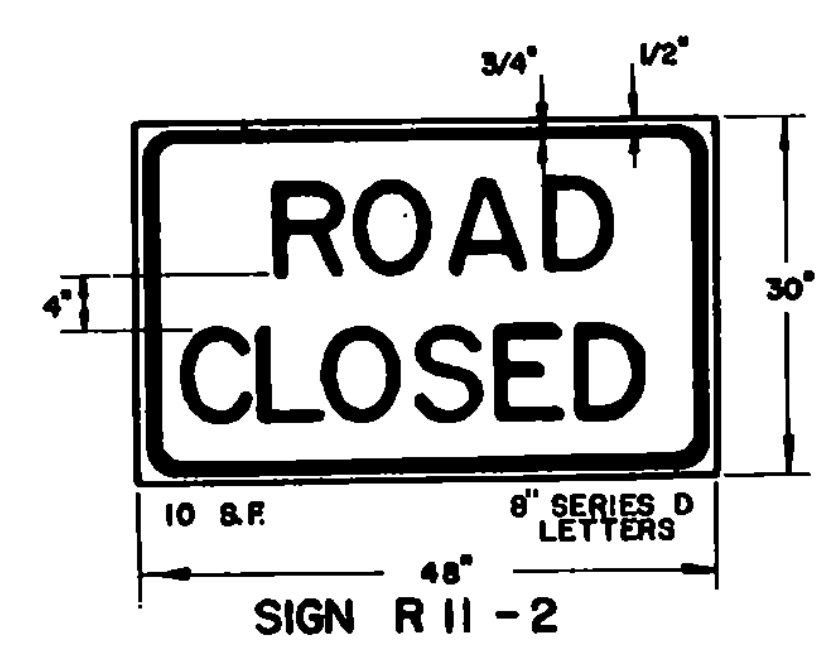
DESIGN
The designs of the signs and barricades shall conform with the details shown on this sheet and with the standards prescribed in the Manual. Deviations will not be permitted.

MATERIALS
The signs shall be of metal, wood, plywood, hardwood or any other material satisfactory to the Engineer. No material will be approved that will deteriorate by exposure to the weather during the required life of the sign.

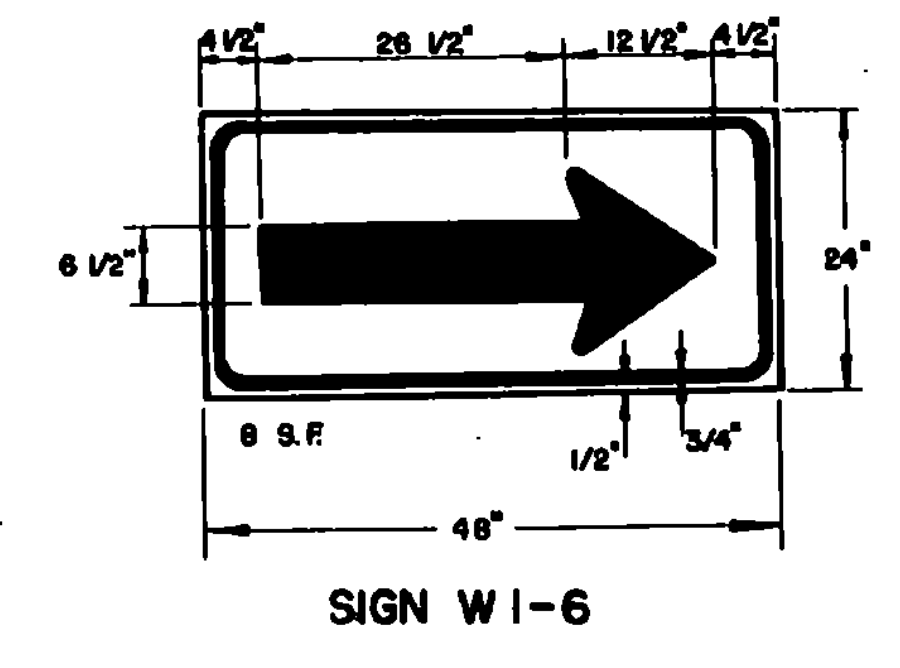
REFLECTORIZATION AND COLORS
All signs except sign R11-2 and the sign paddle shall have black texts and borders on an encapsulated lens reflective orange background. Sign R11-2 shall have black text and border on an encapsulated lens reflective white background.

INSTALLATION
Signs and barricades shall be in place prior to the start of the construction operation to which they apply, and shall be removed promptly when the need no longer exists. Each sign shall be erected in a neat and workmanlike manner on wood or metal posts set securely in the ground, or on portable supports for temporary use, or on barricades when appropriate. As a general rule, roadside signs shall be 5 feet above road level with the nearest edge at least 6 feet outside the shoulder point. The installation of all signs and barricades shall be subject to the approval of the Engineer.

MAINTENANCE
Signs shall be kept in a clean and legible condition at all times with the reflective quality completely unimpaired. Signs, sign supports, and barricades shall be repaired, cleaned, repainted or replaced whenever necessary. Weeds, shrubbery, construction materials, equipment, and snow shall not be allowed to obscure any sign or barricade. The maintenance of all traffic control devices shall be subject to the orders of the Engineer.

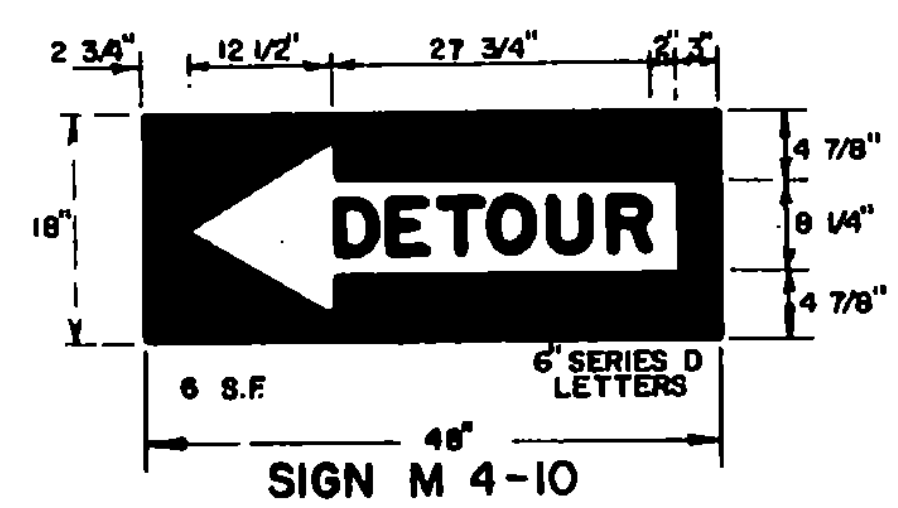


SIGN R11-2



SIGN W1-6

ARROW RIGHT OR LEFT AS REQUIRED



SIGN M4-10

ARROW LEFT OR RIGHT AS REQUIRED.

The on-project construction signs covered by this sheet are intended to be used as the situations apply within normal two-lane highway construction areas, for the protection of the public and workmen and for the guidance of traffic through or around construction operations. When messages other than those shown here are needed, the signs and their applications shall conform with the standards set forth in the Manual on Uniform Traffic Control Devices.

The cost of furnishing, erecting, maintaining and removing all construction approach signs shall be considered as subsidiary work pertaining to the project as a whole and shall be included in the contract unit price bid for various items involved in the contract.

TRAFFIC SIGNS
ON-PROJECT CONSTRUCTION SIGNS

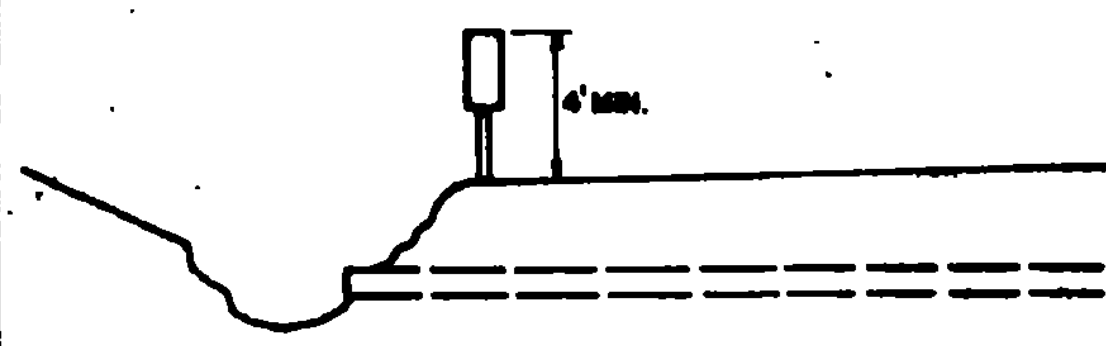
REVISIONS AND CORRECTIONS
DEC. 14, 1973 - BEADS ON PAINT FOR BACKGROUND MATERIAL REMOVED.
MAY 14, 1974 - REFLECTIVE MATERIAL CHANGE.
JUNE 7, 1977 - REFLECTIVE MATERIAL NOTE CHANGED.
JUNE 7, 1977 - SIGNS REFERENCED TO NUMBERS IN M.U.T.C.D.
APR. 20, 1978 - FLAGPERSON SIGN CHANGED TO SYMBOL.
DEC. 15, 1978 - ILLUMINATION DELETED.
FEB. 27, 1980 - SIGN W1-8 AND SIGN PADDLE ADDED. SIGN DETAILS REVISED.
APR. 1, 1980 - SIGN PADDLE SIGN REVISED.
FEB. 7, 1986 - UPDATED TO 1986 SPECIFICATIONS

APPROVED
Dec 14, 1971
DATE
R. H. Connel
CHIEF ENGINEER
E. V. Stickey
ASST. CHIEF ENGINEER
G. M. Law
HIGHWAY ENGINEER



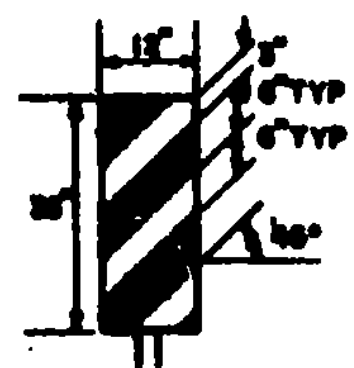
STANDARD
E-6

DELINEATOR AND HAZARD MARKER DETAILS FOR CONSTRUCTION AREAS WHERE TRAFFIC IS MAINTAINED



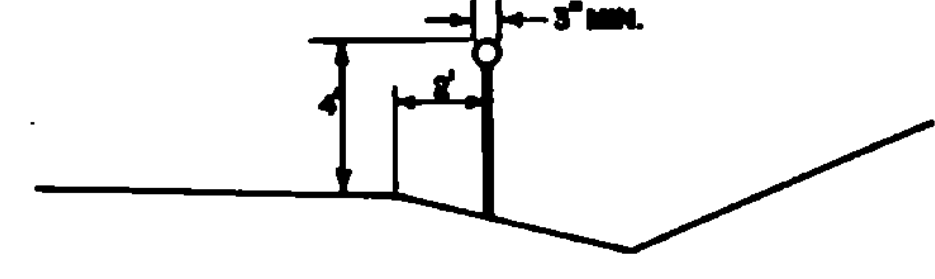
HAZARD MARKER TYPICAL

OBJECTS ADJACENT TO THE ROADWAY SHALL REQUIRE A HAZARD MARKER TO MARK THE OBSTRUCTION. IN SOME CASES THERE MAY NOT BE A PHYSICAL OBJECT INVOLVED BUT OTHER ROADSIDE CONDITIONS SUCH AS NARROW SHOULDER DROP-OFFS, GORDES, D.I. EXCAVATIONS OR ABRUPT CHANGE IN THE ROADWAY ALIGNMENT MAY MAKE IT UNDESIRABLE FOR A DRIVER TO LEAVE THE ROADWAY. THE INSIDE EDGE OF THE HAZARD MARKER SHALL BE IN LINE WITH THE INNER EDGE OF THE OBSTRUCTION, WHENEVER POSSIBLE.



VERTICAL PANEL

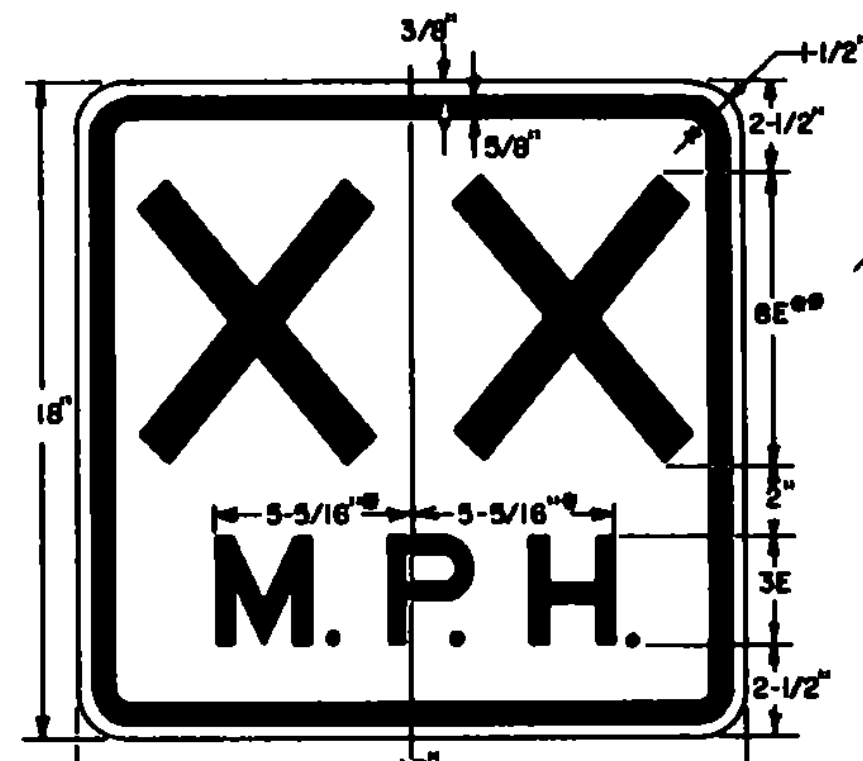
VERTICAL PANELS SHALL HAVE ALTERNATING ORANGE AND WHITE REFLECTORIZED STRIPS (SLOPING DOWNWARD IN THE DIRECTION TRAFFIC IS TO PASS). THESE DEVICES MAY BE USED FOR TRAFFIC SEPARATION OR SHOULDER BARRICADES WHERE SPACE IS AT A PREMIUM.



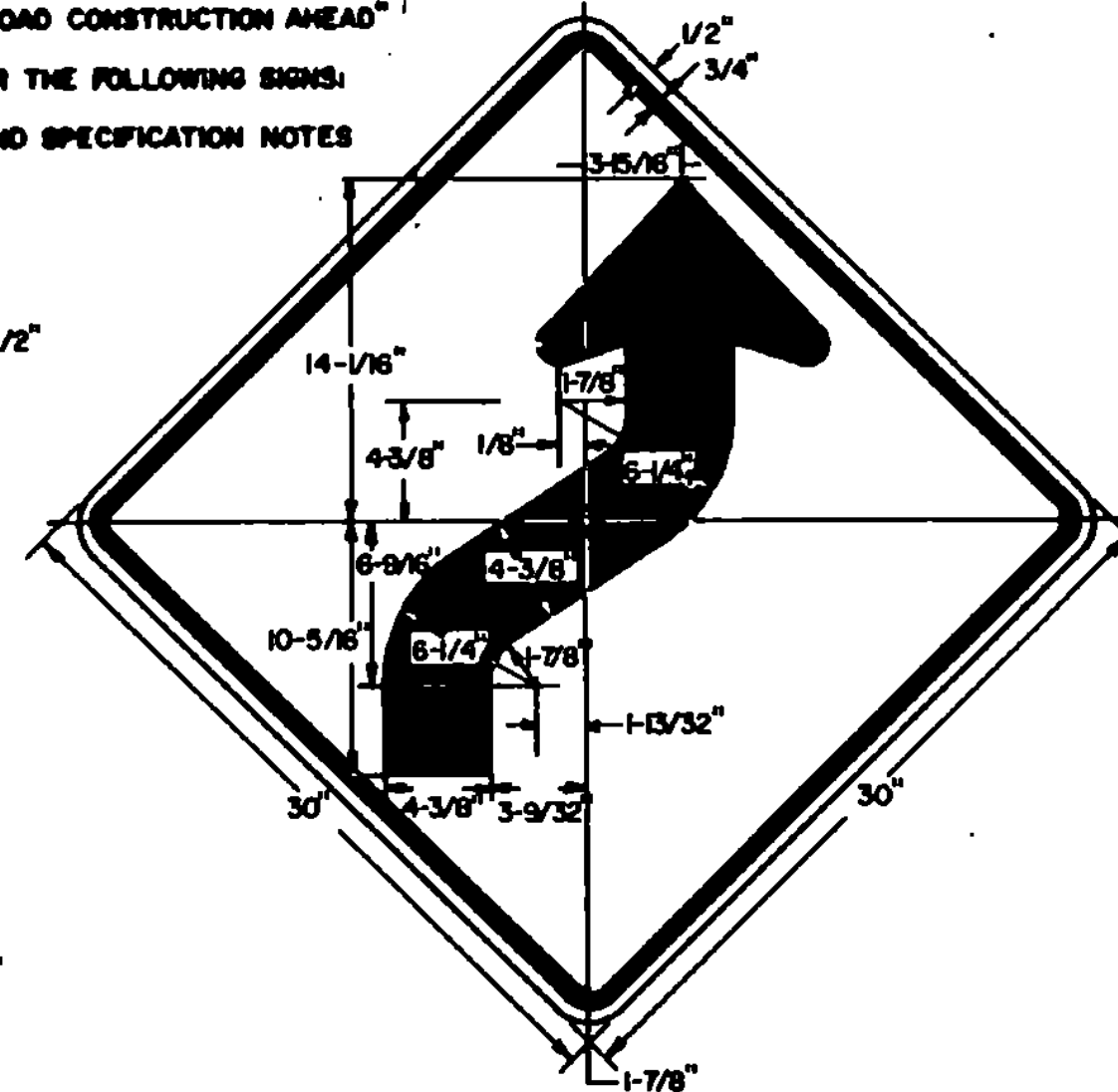
DELINEATOR TYPICAL

DELINEATORS SHALL BE OF A REFLECTORIZED WHITE COLOR. THEY SHALL HAVE A MINIMUM OF 7 SQUARE INCHES. THEY MAY BE ROUND, SQUARE, OR OBLONG. THEY SHALL BE OF THE FOLLOWING:
 1- REFLECTORIZED TAPE WITH METAL BACKING.
 2- REFLECTORIZED TAPE APPLIED DIRECTLY TO POSTS.
 3- REFLECTORIZED PAINT APPLIED DIRECTLY TO POSTS WHEN PAINT OR TAPE IS APPLIED DIRECTLY TO POST, A SURFACE OF 3' MINIMUM WIDTH FACING TRAFFIC IS REQUIRED.

SEE STANDARD SHEET E-2 FOR SIGN DETAILS FOR "ROAD CONSTRUCTION AHEAD" AND "END CONSTRUCTION" SIGNS.
 SEE STANDARD SHEET E-6 FOR SIGN DETAILS FOR THE FOLLOWING SIGNS: "DETOUR AHEAD", "ROAD CLOSED", "DETOUR" ARROW.
 SEE STANDARD SHEET E-8 FOR SIGN MATERIAL AND SPECIFICATION NOTES FOR ALL SIGNS DETAILED ON THIS SHEET.



* INCREASE SPACING 100%
 ** OPTICALLY SPACE NUMERALS ABOUT VERT. CENTERLINE.

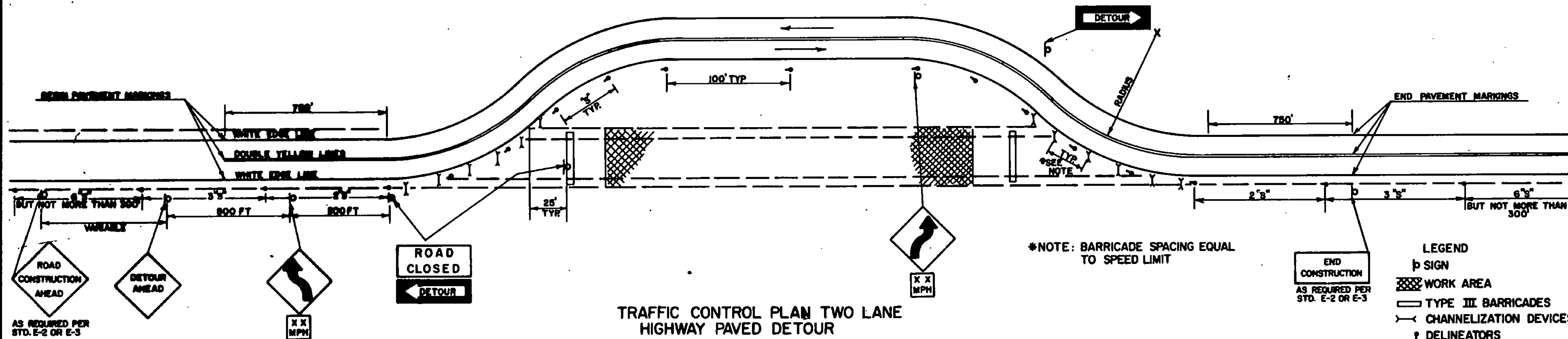


NOTES

1. SIGNS & DELINEATION SHOWN FOR ONE DIRECTION OF TRAVEL ONLY.
2. CHANNELIZING DEVICES SHALL CONSIST OF TYPE II BARRICADES WITH STEADY BURN LIGHTS EXCEPT ON THE FIRST AND LAST BARRICADES WHICH SHALL HAVE A FLASHING LIGHT.
3. FLASHING WARNING LIGHTS MAY BE USED TO CALL ATTENTION TO THE EARLY WARNING SIGNS.
4. CONTRACTOR IS RESPONSIBLE FOR PAVEMENT MARKING AND SHALL REMOVE ANY CONFLICTING OR CONFUSING EXISTING MARKINGS.
5. ADDITIONAL SIGNING MAY BE REQUIRED AT THE DISCRETION OF THE ENGINEER.
6. UNPAVED DETOURS REQUIRE PAVEMENT MARKINGS FOR TRANSITIONS ON EXISTING PAVEMENT.

DELINEATOR SPACING

DESIGN SPEED	REQUIRED RADIUS	SPACING - "S"
MPH	FT	FT
55	150	30
30	250	40
40	450	50
50	750	75



TRAFFIC CONTROL PLAN TWO LANE HIGHWAY PAVED DETOUR

* NOTE: BARRICADE SPACING EQUAL TO SPEED LIMIT

- LEGEND**
- SIGN
 - ▨ WORK AREA
 - ▭ TYPE III BARRICADES
 - CHANNELIZATION DEVICES
 - ↑ DELINEATORS

BARRICADES

APPLICATION NOTES

TYPE I BARRICADES ARE TO BE USED ON CONVENTIONAL ROADS OR URBAN STREET AND ARTERIALS TO MARK A SPECIFIC HAZARD TO CHANNELIZE TRAFFIC.

TYPE II BARRICADES ARE TO BE USED ON EXPRESSWAYS AND FREEWAYS, SERVING THE SAME FUNCTIONS AS THE TYPE I BARRICADES.

TYPE III (SEE STANDARD E-7A) SHALL ONLY BE USED WHEN A ROAD SECTION IS CLOSED TO TRAFFIC TO BE ERECTED AT THE POINT OF CLOSURE.

MATERIALS

THE BARRICADES SHOWN ON THIS SHEET NORMALLY WILL BE OF LIGHTWEIGHT MATERIAL. IF WOOD IS USED THE FOLLOWING CONDITIONS SHALL APPLY.

1. WOODEN BARRICADES (TYPES I AND II)

A. SHALL NOT BE USED TO CHANNELIZE OR DELINEATE WORK AREAS WITHIN THE CLEAR ZONE OF ANY HIGHWAY WHERE OPERATING SPEEDS IN EXCESS OF 20 MILES PER HOUR ARE EXPECTED UNLESS INSTALLED FOR PEDESTRIAN CONTROL BEHIND APPROVED POSITIVE BARRIERS.

B. MAY BE USED IF OPERATING SPEEDS OF 20 M.P.H. OR LESS ARE EXPECTED.

2. TYPE III WOODEN BARRICADES SHALL NOT BE USED WITHIN THE CLEAR ZONE OF ANY HIGHWAY REGARDLESS OF THE TRAFFIC OPERATING SPEED.

DESIGN

THE DESIGN OF THE BARRICADES SHALL CONFORM WITH THE DETAILS SHOWN ON THIS SHEET AND THE MARKINGS ON THE BARRICADES SHALL BE ALTERNATE ORANGE AND WHITE STRIPES (SLOPING DOWNWARD AT AN ANGLE OF 45° IN THE DIRECTION TRAFFIC IS TO PASS).

COLORS

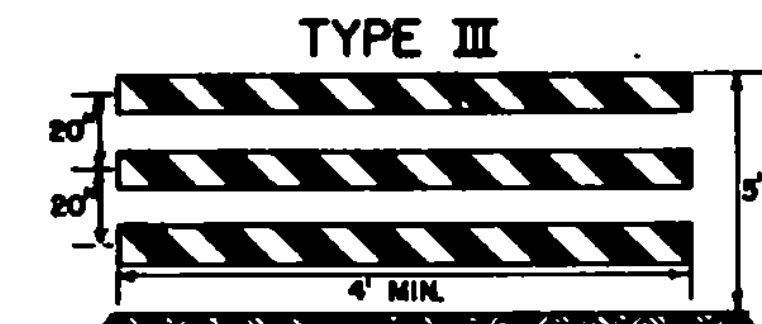
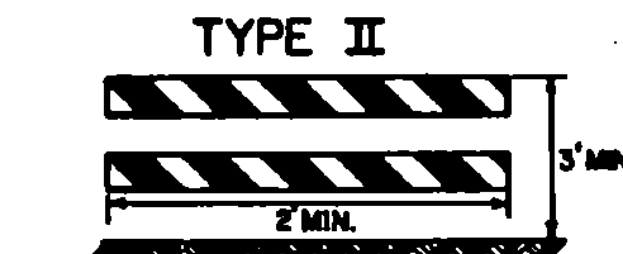
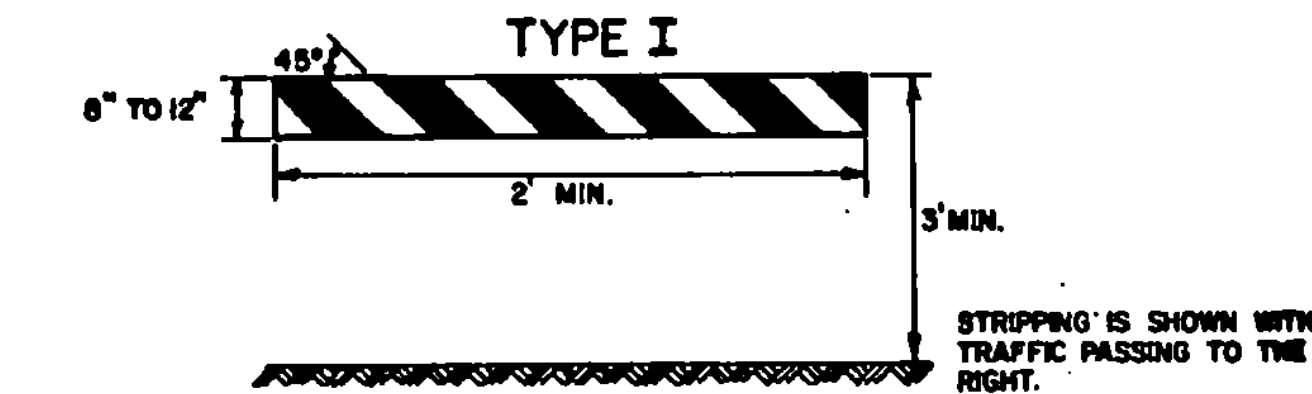
THE BARRICADES PANELS SHOWN ON THIS SHEET SHALL HAVE ALTERNATING REFLECTORIZED WHITE AND ORANGE STRIPES. THE ORANGE SHALL CONFORM WITH THE STANDARD COLORS ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY & TRANSPORTATION OFFICIALS AND APPROVED BY THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION. THE BARRICADE COMPONENTS SHALL BE WHITE EXCEPT THAT UNPAINTED METAL OR ALUMINUM MAY BE USED.

REFLECTORIZATION

THE BARRICADES SHALL BE REFLECTORIZED WITH REFLECTIVE SHEETINGS.

LOCATION

THE BARRICADES SHOWN ON THIS SHEET WILL BE LOCATED BY THE ENGINEER IN THE FIELD OR AS SHOWN ON THE PLANS. THE LOCATION OF THE BARRICADES SHALL FOLLOW THE PROCEDURES SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, OR AS OTHERWISE NOTED.



BARRICADE CHARACTERISTICS		
	I	II
WIDTH OF RAIL	6" MIN. 12" MAX.	6" MIN. 12" MAX.
LENGTH OF RAIL	2' MIN.	2' MIN.
WIDTH OF STRIPS*	6"	6"
HEIGHT	3' MIN.	3' MIN.
TYPE OF FRAME	DEMOUNTABLE OR A FRAME	LIGHT A FRAME NO STRY BRACE
FLEXIBILITY	ESSENTIALLY MOVEABLE	PORTABLE
ANGLE OF STRIPE	45°	45°
COLOR OF STRIPS	ORANGE AND WHITE	ORANGE AND WHITE

* FOR RAILS LESS THAN 3 FEET LONG, 4" WIDE STRIPS SHALL BE USED.

MAINTENANCE

BARRICADES SHALL BE MAINTAINED IN A CLEAN AND LEGIBLE CONDITION SATISFACTORY TO THE ENGINEER. THEY SHALL BE COMPLETELY VISIBLE TO APPROACHING TRAFFIC AT ALL TIMES. DAMAGED, DEFACED, OR DIRTY BARRICADES SHALL BE REPAIRED, CLEANED, OR REPLACED AS ORDERED BY THE ENGINEER.

LIGHTING

FOR NIGHTTIME USE ADD FLASHING WARNING LIGHTS WHEN BARRICADES ARE USED SLOWLY AND STEADY BURN LIGHTS WHEN BARRICADES ARE USED IN A SERIES FOR CHANNELIZATION. THE LIGHTING DEVICES SHALL CONFORM TO THOSE SPECIFIED IN THE MUTCD.

REVISIONS AND CORRECTIONS

FEB. 12, 1982 MATERIALS NOTE CLARIFIED, SIGN ADDITIONS.
 FEB. 2, 1983 NOTE # 6 RE: UNPAVED DETOURS ADDED.

FEB. 3, 1984 - UPDATED TO 1986 SPECIFICATIONS

APPROVED: _____
 DATE: SEPT. 22, 1981

 DIRECTOR OF ENGINEERING AND CONSTRUCTION

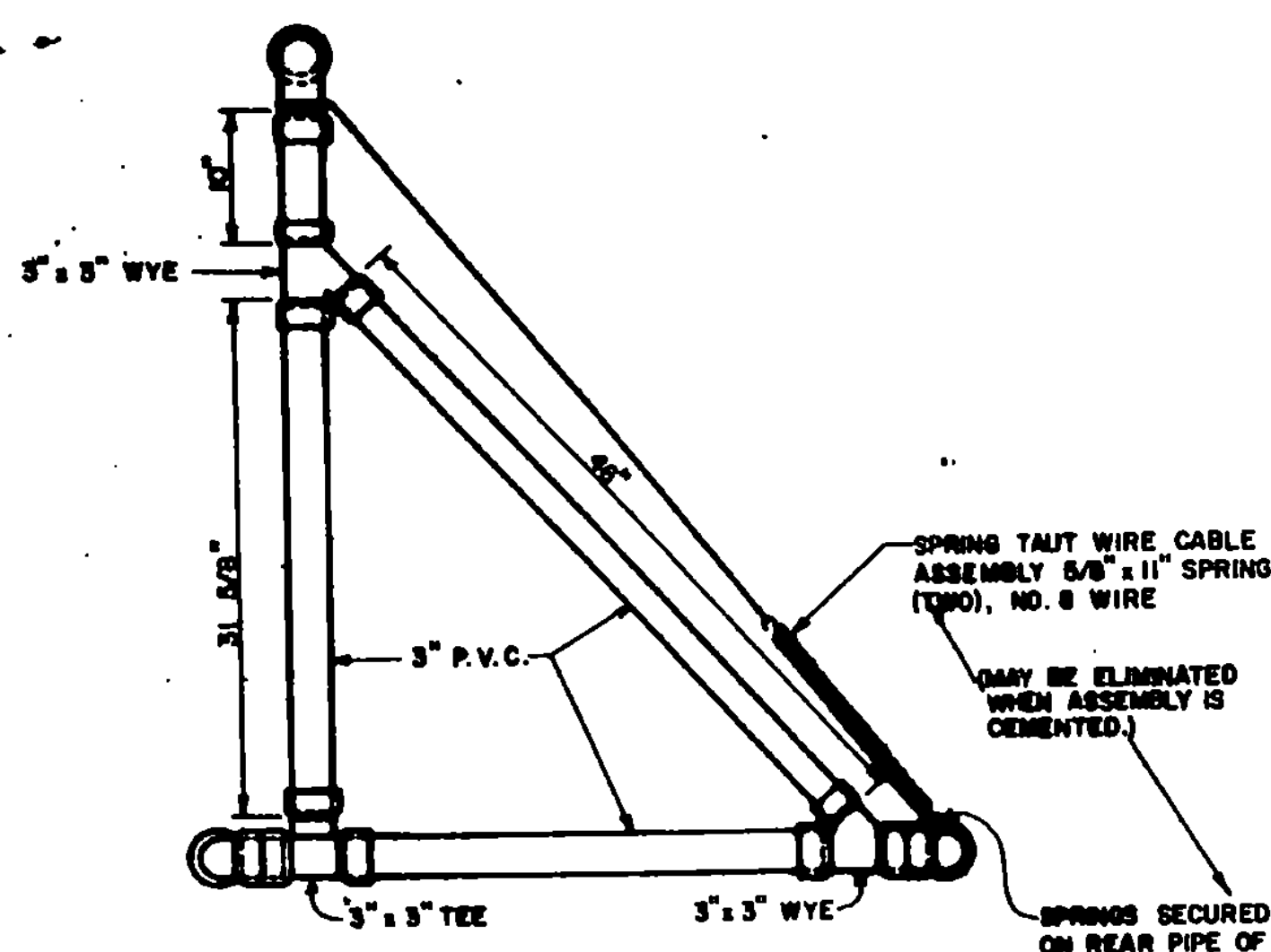
 CHIEF OF DESIGN

 TRANSPORTATION DESIGN ENGINEER

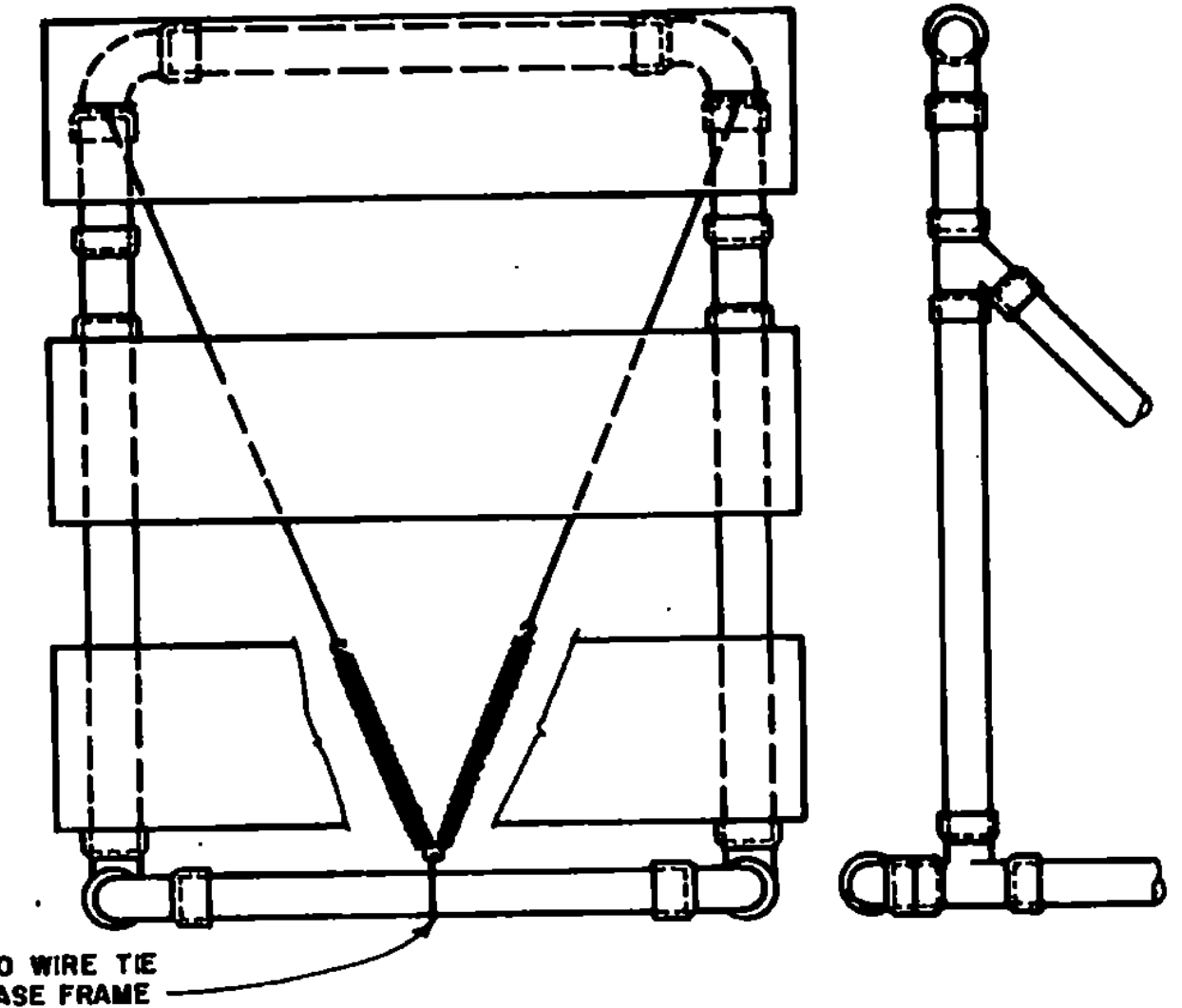
DELINEATION, BARRICADES AND DETOURS FOR CONSTRUCTION AREAS

VERMONT AGENCY OF TRANSPORTATION

STANDARD E-7

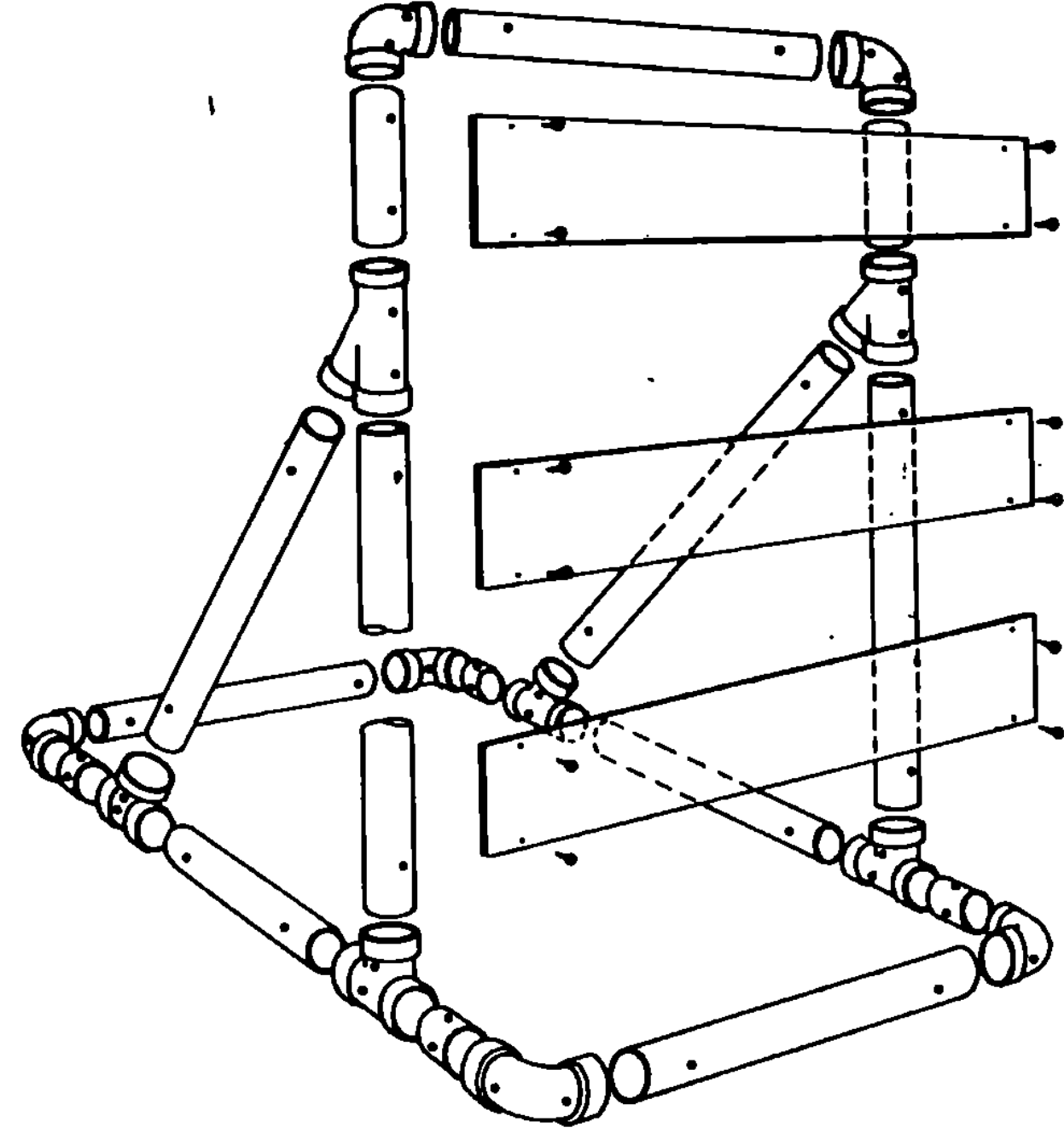


SIDE VIEW



BARRICADES SHALL BE STABILIZED WITH SAND BAGS OF MINIMUM WEIGHT WHICH WILL NOT CONSTITUTE A HAZARD WHEN BARRICADE IS HIT. THEY SHALL BE PLACED ONLY ON THE BASE FRAME OF THE BARRICADE. STABILIZERS SHALL BE SO PLACED AS NOT TO BE A HAZARD TO VEHICLES PASSING ON EITHER SIDE.

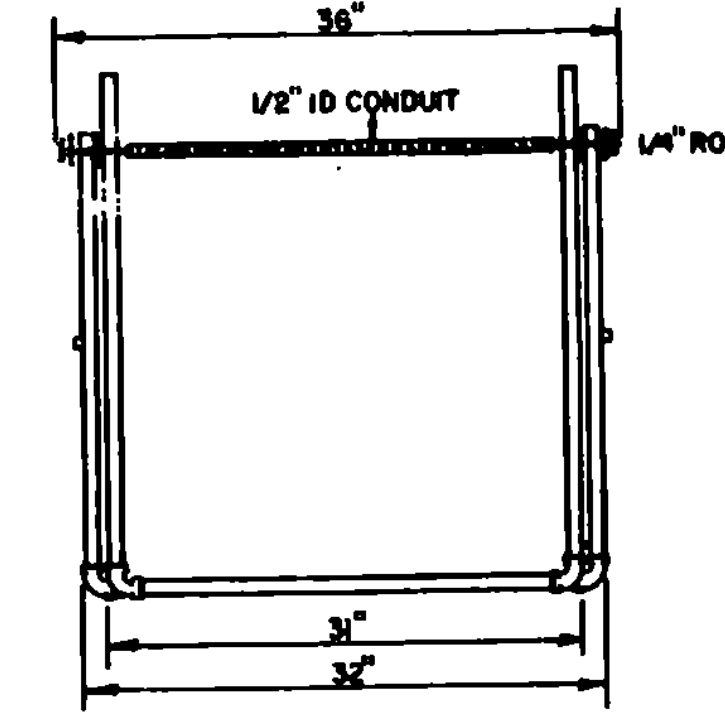
IF BARRICADE REPLACEMENT COSTS CAN BE CONSIDERED NEGLIGIBLE, GLUED JOINTS MAY PROVIDE ADDITIONAL STABILITY TO THE INSTALLATION.



BARRICADE ASSEMBLY

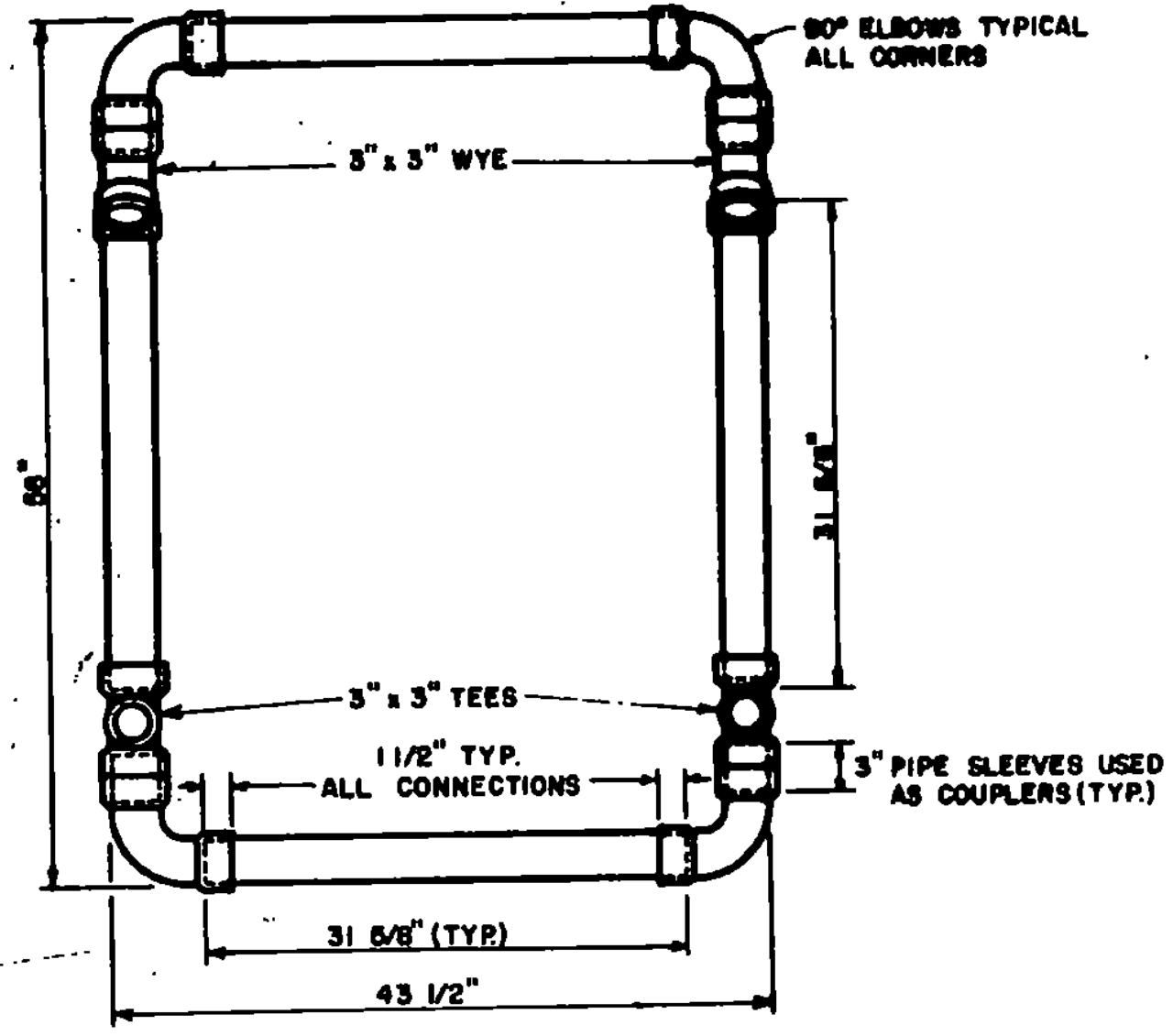
MATERIALS LIST FOR ONE BARRICADE

3" Diameter Pipe	30 LF
3" 1/4 Bend Elbow	6 EA
3" Tees	2 EA
3" Wyes	4 EA
8" x 48" x 0.25 Barricade Panels	3 EA
5/8" x 11" No. 8 Spring	2 EA
1" No. 14 Pan Head Metal Screws	12 EA
No. 14 Black Annealed Tie Wire	15 LF

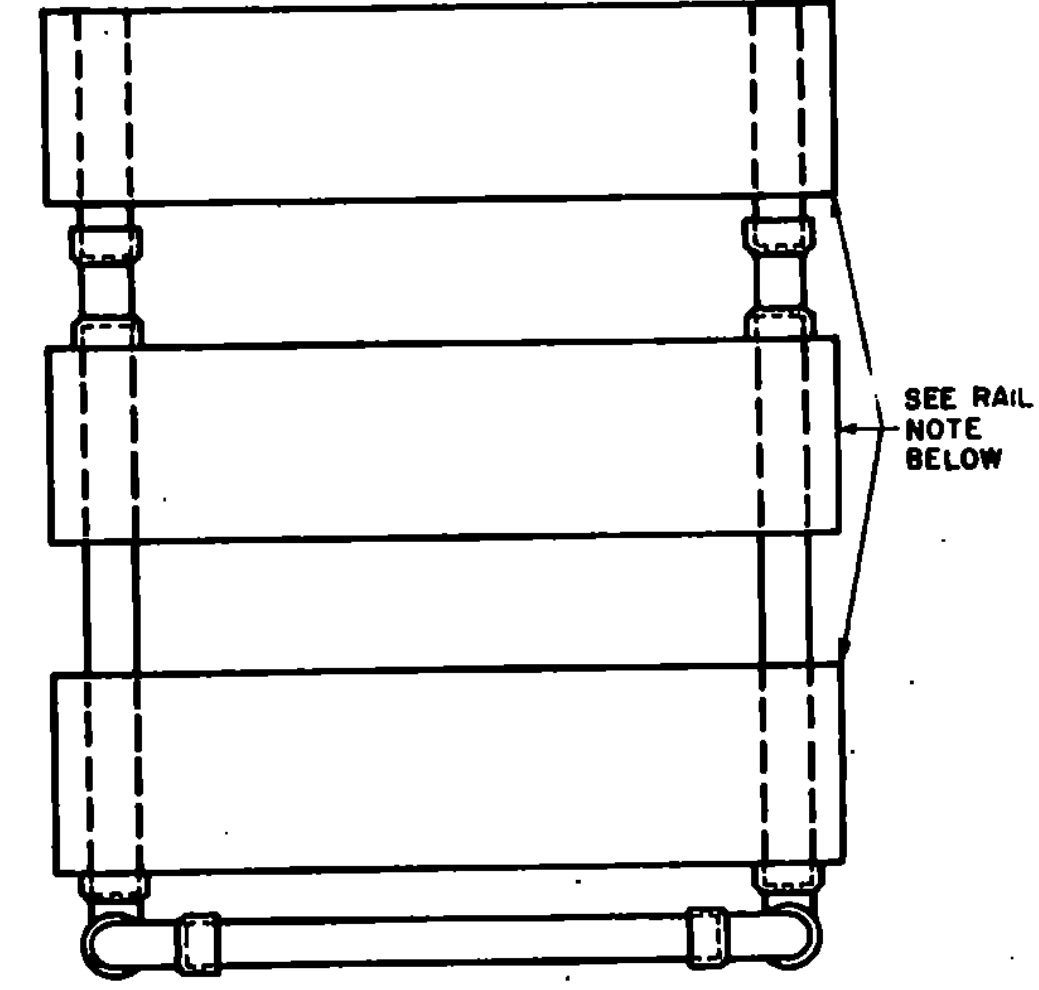


MATERIALS FOR TYPE I & II BARRICADES

- 20'-1" PVC
- 4'-1" PVC 90° ELBOWS
- 30'-1/2" ID THINWALL CONDUIT
- 3/8"-1/4" STEEL ROD
- 4'-1" WASHERS
- 24'- LIGHT DUTY CHAIN
- 4'- METAL SCREWS
- 2'- 3/4" COTTER PINS



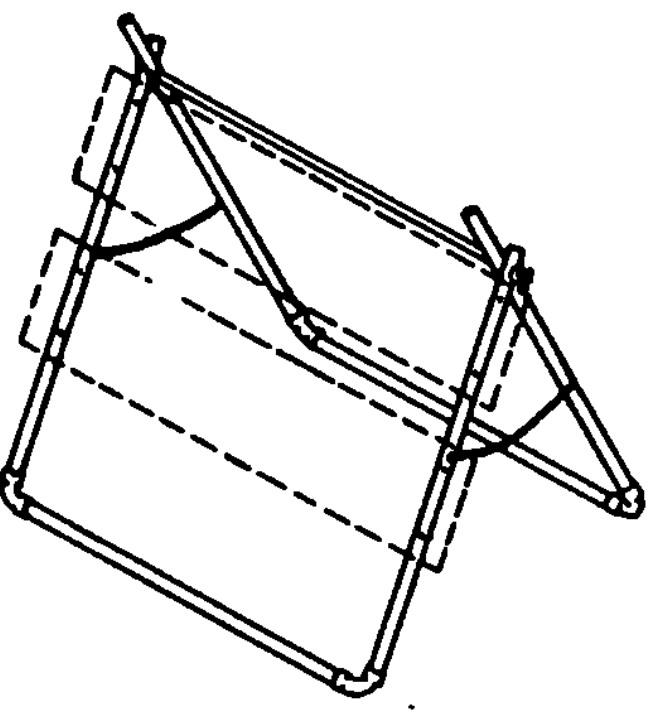
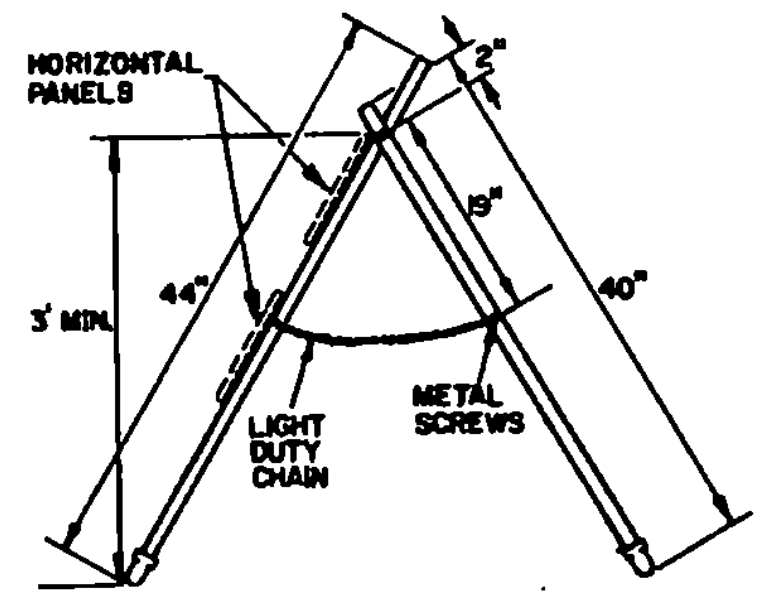
TOP VIEW OF BASE



FRONT VIEW

WARNING LIGHTS

WARNING LIGHTS, IF REQUIRED BY THE PLANS OR RESIDENT ENGINEER, SHALL BE AFFIXED TO THE TOP OF THESE BREAKAWAY BARRICADES WITH A MINIMUM MOUNTING HEIGHT OF 36 INCHES TO THE BOTTOM OF THE LENS. A FLASHING WARNING LIGHT SHOULD BE PLACED ON BARRICADES USED SINGLY AND STEADY BURN WARNING LIGHTS SHOULD BE PLACED ON BARRICADES USED IN A SERIES FOR TRAFFIC CHANNELIZATION. THE WARNING LIGHTS SHALL CONFORM TO THE REQUIREMENTS FOUND IN THE M.U.T.C.D. WHEN THE INTEGRAL WARNING LIGHT UNIT IS USED, THE BATTERY PACK SHALL CONTAIN A LIGHT WEIGHT DRY CELL BATTERY AND THE UNIT SHALL BE RESTRAINED WITH A TETHER CABLE OR WIRE (12' LENGTH) SECURELY FASTENED TO THE BARRICADES SO AS TO AVOID HAVING THE UNIT BECOME A DANGEROUS FLYING OBJECT IF THE BARRICADE IS HIT.



TYPE I & II BARRICADE DETAILS

TYPE I BARRICADES SHALL CONSIST OF ONE HORIZONTAL PANEL.

TYPE II BARRICADES SHALL CONSIST OF AN ADDITIONAL HORIZONTAL PANEL MOUNTED BELOW THE OTHER.

SEE STD E-7 FOR USE REQUIREMENTS.

REVISIONS & CORRECTIONS

JAN. 11, 1977 - REVISED ACCORDING TO FHWA REQUIREMENTS.

JUNE 8, 1977 - MATERIALS LIST ADDED.

APR. 8, 1982 - CEMENTING NOTE AND BARRICADES TYPE I & II ADDED.

JUNE 13, 1984 - RAILS CHANGED FROM 9" TO 8" SAND AND WARNING LIGHT NOTE ADDED.

JUNE 3, 1985 - SAND AND WARNING LIGHT NOTE ADDED.

FEB. 3, 1988 - UPDATED TO 1986 SPECIFICATIONS

APPROVED

Dec 30, 1976

E. W. Stickey
CHIEF ENGINEER

RO Munn
ASST. CHIEF ENGINEER

Lois C. Jones
HIGHWAY ENGINEER

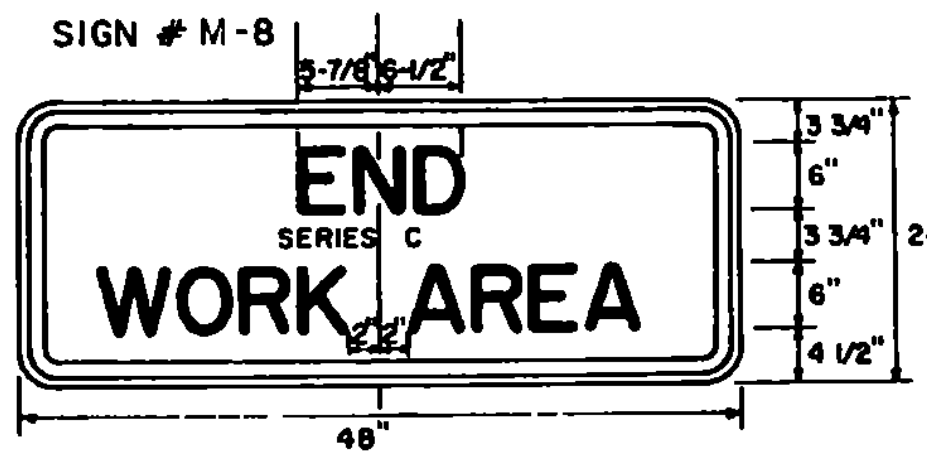
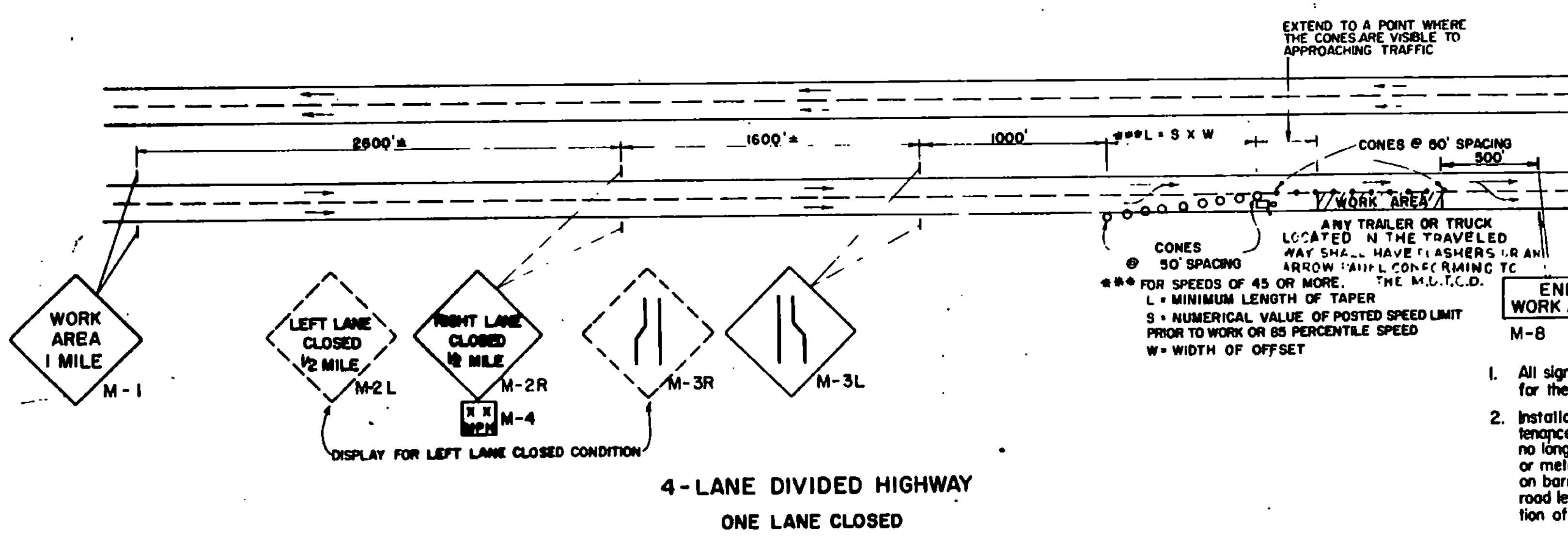
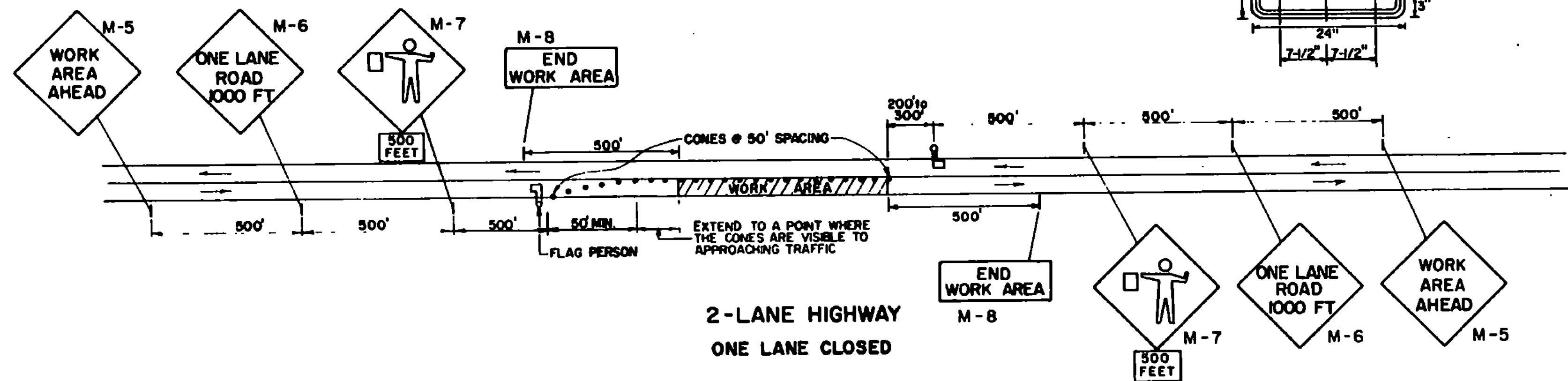
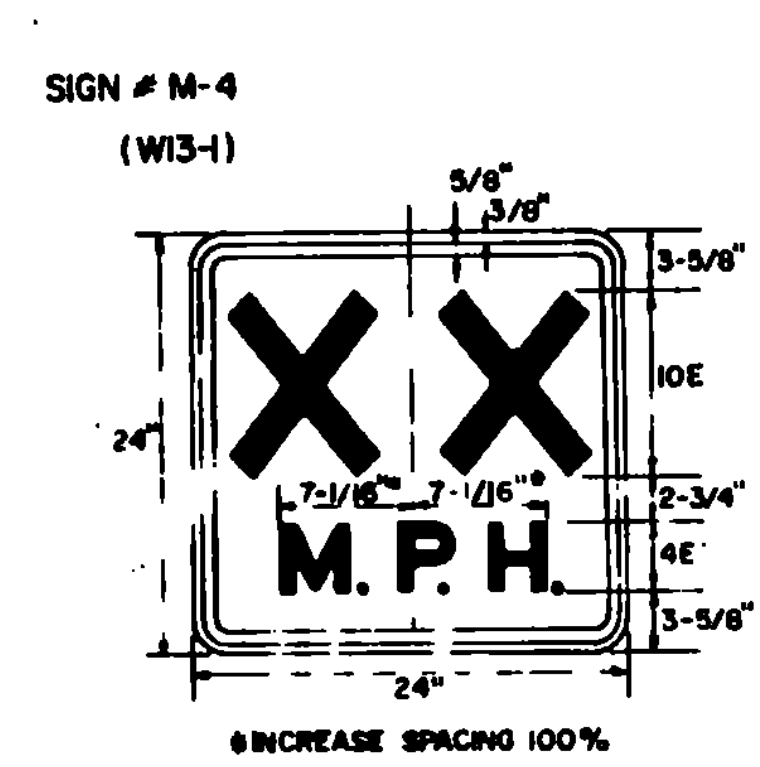
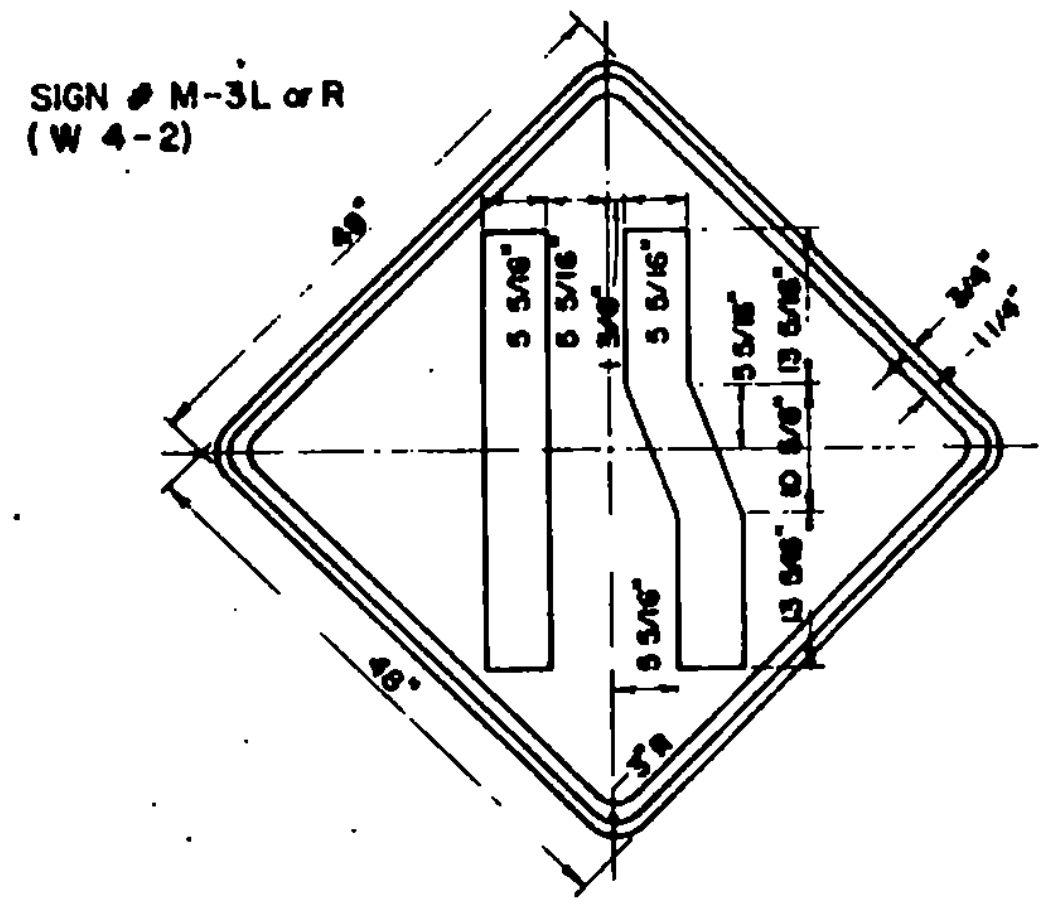
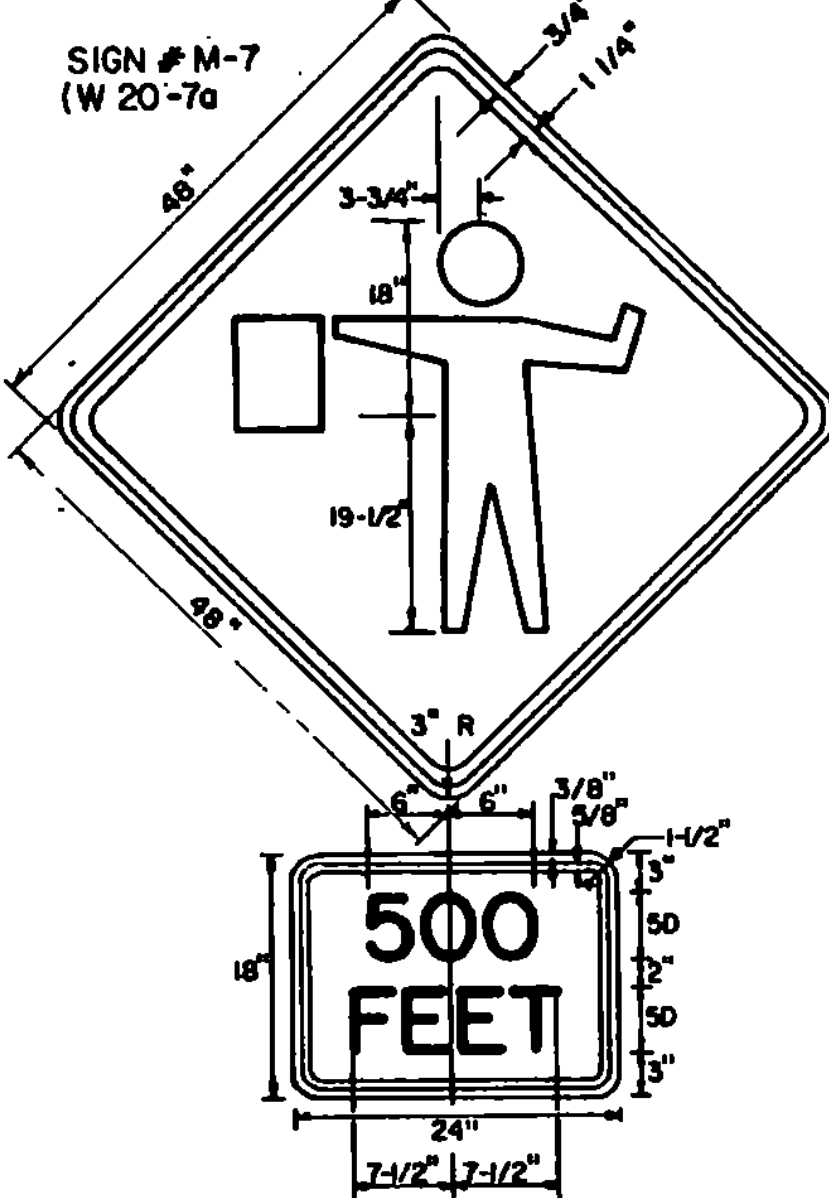
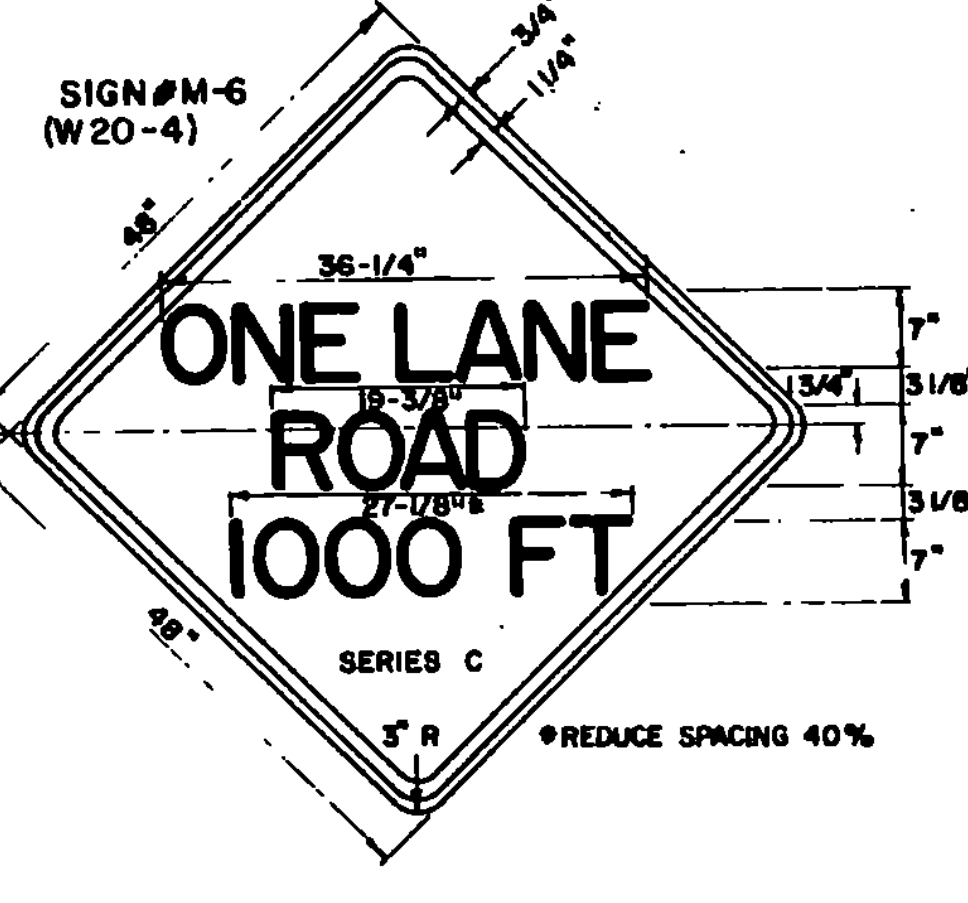
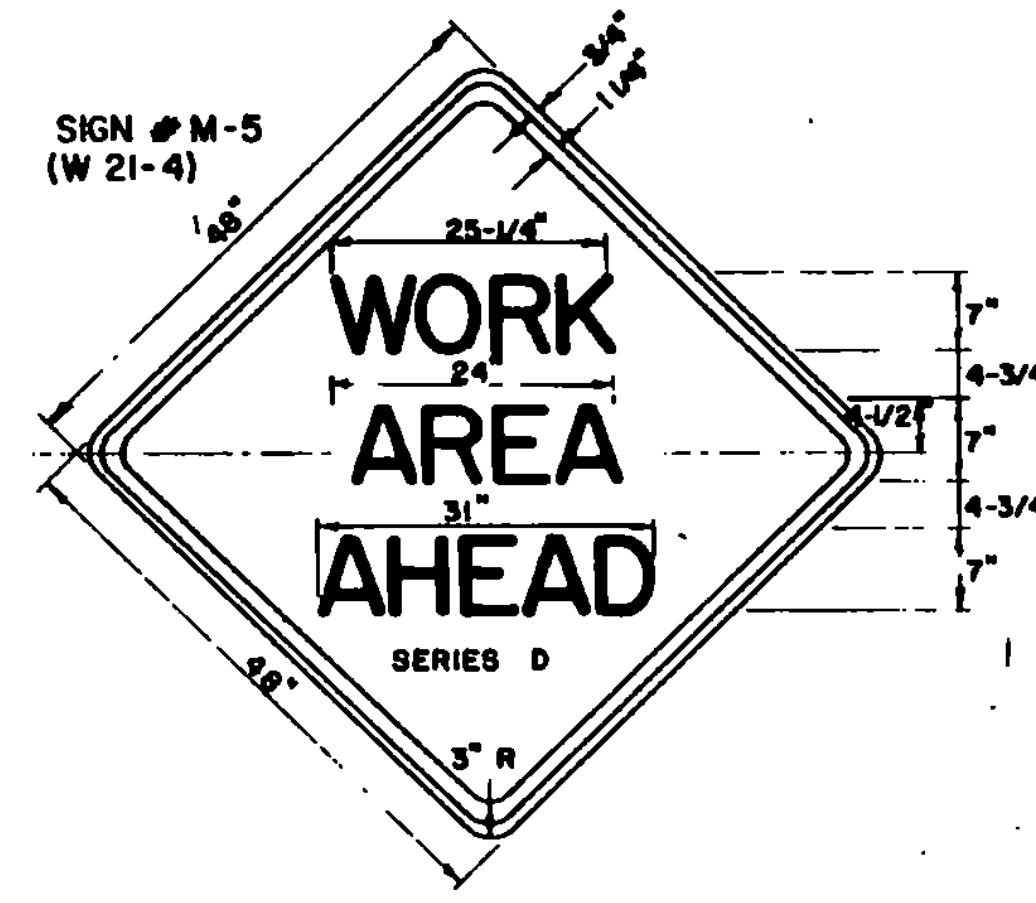
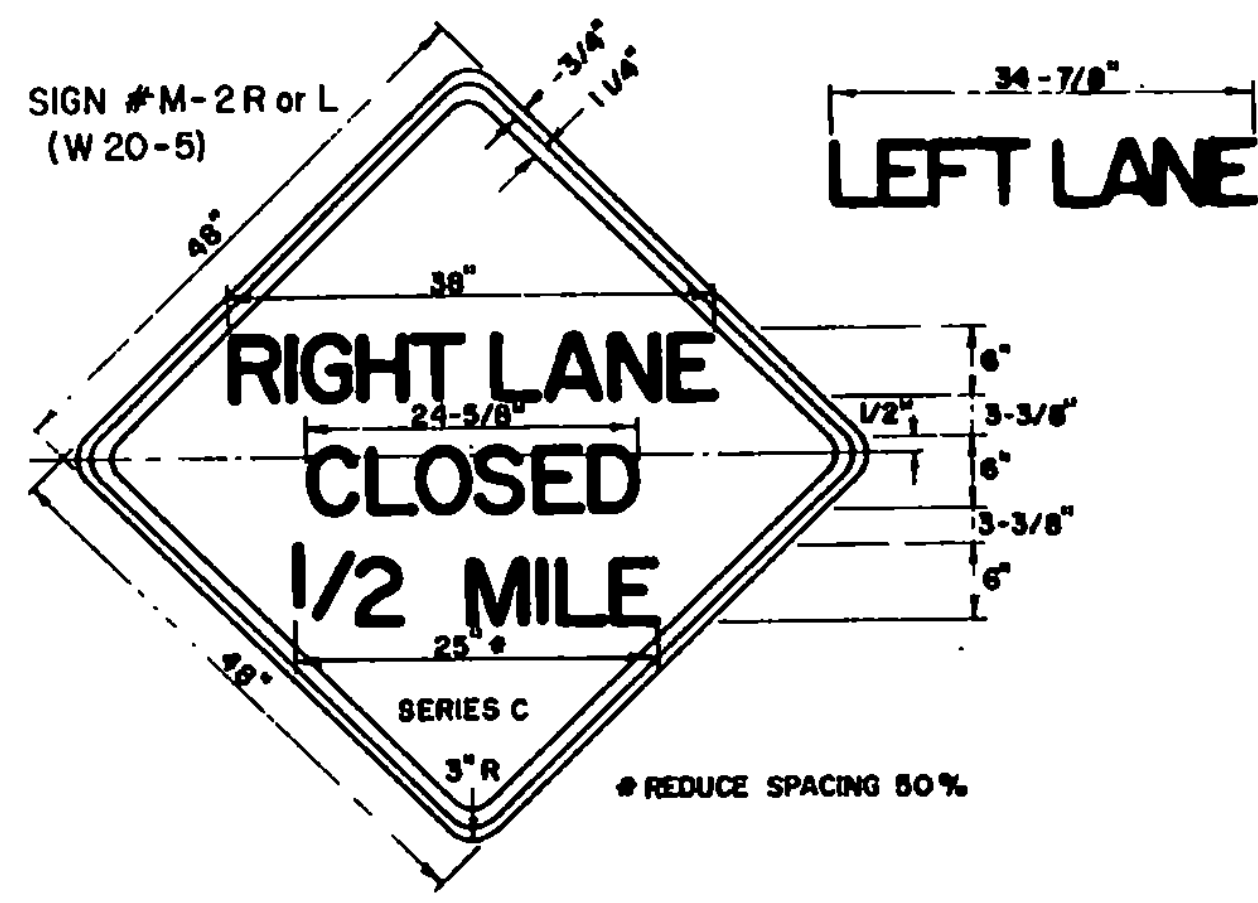
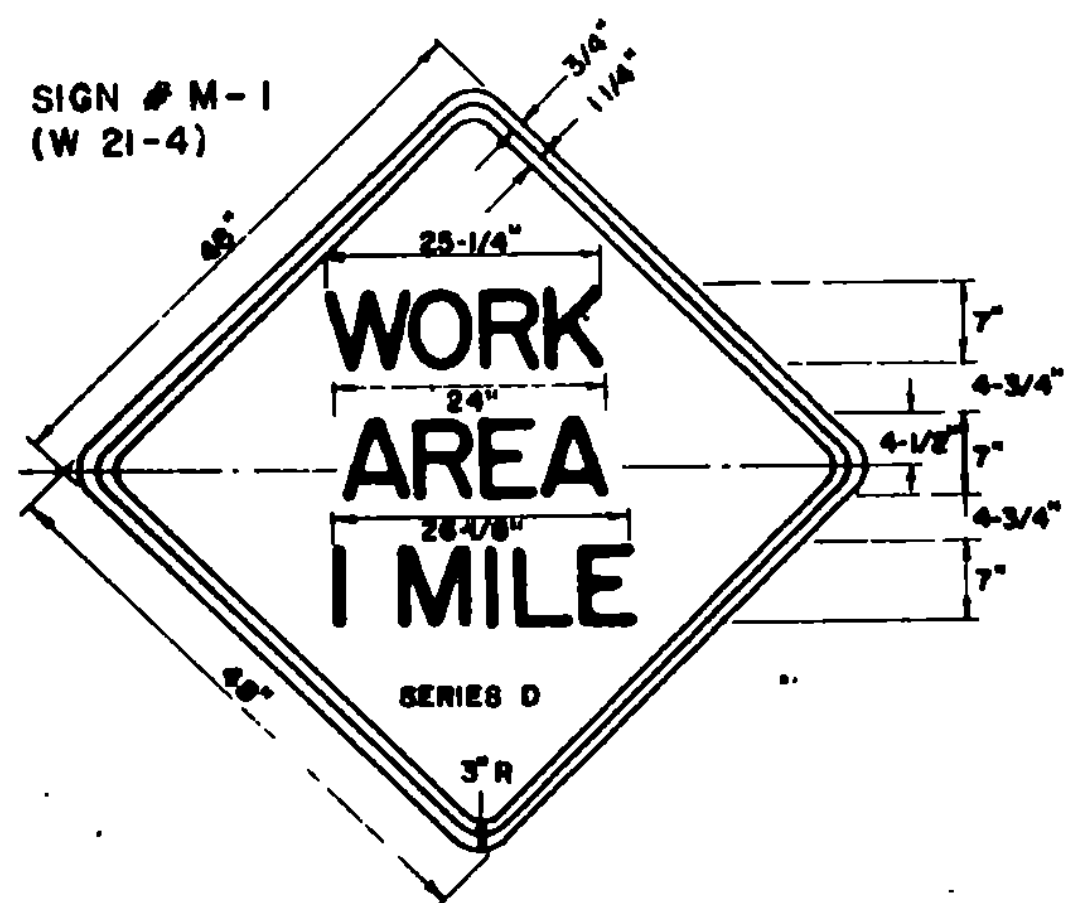
TRAFFIC SIGNS

BREAKAWAY BARRICADE DETAILS



STANDARD

E-7a



- NOTES**
- All signs shall be covered or removed at the end of the working day unless required for the protection and safety of the traveling public.
 - Installation: Signs and barricades shall be in place prior to the start of the maintenance operation to which they apply and shall be removed promptly when the need no longer exists. Each sign shall be erected in a neat and workmanlike manner on wood or metal posts set securely in the ground, or on portable supports for temporary use, or on barricades when appropriate. As a general rule, roadside signs shall be 5 feet above road level with the nearest edge at least 6 feet outside the shoulder point. The installation of all signs and barricades shall be subject to the approval of the Engineer.
 - Numbers in parenthesis indicate M.U.T.C.D. sign designations.
 - "ROAD WORK" or "BRIDGE WORK" may be substituted as the appropriate legend for signs # M-1 or M-5.

Reflectorization
All reflectorized material shall consist of encapsulated lens reflective sheeting. The text and borders may be screened, lettering film, or hand painted. Cones used for traffic control at night shall have a minimum 6" wide reflectorized material.

Colors
The warning signs shown on this sheet shall have black text, border, and symbols on a reflectorized orange background. The orange shall conform with the standard colors adopted by the American Association of State Highway and Transportation Officials and approved by the U.S. Department of Transportation, Federal Highway Administration.

Text Design
Letters, digits, spacing, and text dimensions shall conform with the standard alphabets and design prescribed in the manual on Uniform Traffic Control Devices.

Specifications
Warning signs shall meet the standard state specifications for traffic signs.

Sign Base Material
The sign base material used for the warning signs on this sheet may be of any of the following, with minimum thickness as noted:

Flat sheet aluminum	0.125 Inches
High density overlaid plywood	3/4 Inches
Galvanized sheet steel	12 Gage

5. ON TOWN, CITY AND INCORPORATED VILLAGE HIGHWAY SYSTEMS THE MINIMUM NUMBER OF SIGNS IS AS FOLLOWS:
MINIMUM NUMBER OF SIGNS REQUIRED ARE M-6 AND M-7.
MINIMUM SIZE OF THE SIGNS SHALL BE 36" x 36".
THIS SIGN SIZE REDUCTION IS FOR DAYTIME MAINTENANCE OPERATIONS OF SHORT DURATION.

REVISIONS & CORRECTIONS

FEB. 20, 1972: SIGN ADDED UNDER DIRECTION OF FEDERAL HIGHWAY ADMINISTRATION

MAY 14, 1974: REFLECTIVE MATERIAL CHANGE.

JUNE 8, 1977: REFLECTIVE MATERIAL NOTE CHANGED. SIGNS REFERENCED TO NUMBERS IN M.U.T.C.D. SIGNS NUMBERED.

AUG. 4, 1977: FLAGPERSON SIGN CHANGED TO SYMBOL.

SEPT. 12, 1977: NOTE ADDED FOR REDUCED NUMBER AND SIZE OF SIGNS.

JUNE 8, 1978: REVISED REDUCED SPEED SIGN PER FHWA.

NOV. 23, 1981: "WORK AREA" LEGEND AND NOTES ADDED, GENERAL SIGN REVISIONS.

JUNE 15, 1988: TRUCK/TRAILER W/ FLASHER NOTE CLARIFIED

FEB. 3, 1988 - UPDATED TO 1985

APPROVED: _____

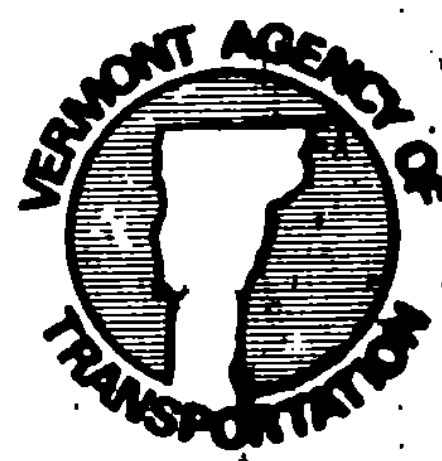
DATE: Jan. 26, 1972

R. W. Arnold
CHIEF ENGINEER

C. H. O'Rourke
ASST. CHIEF ENGINEER

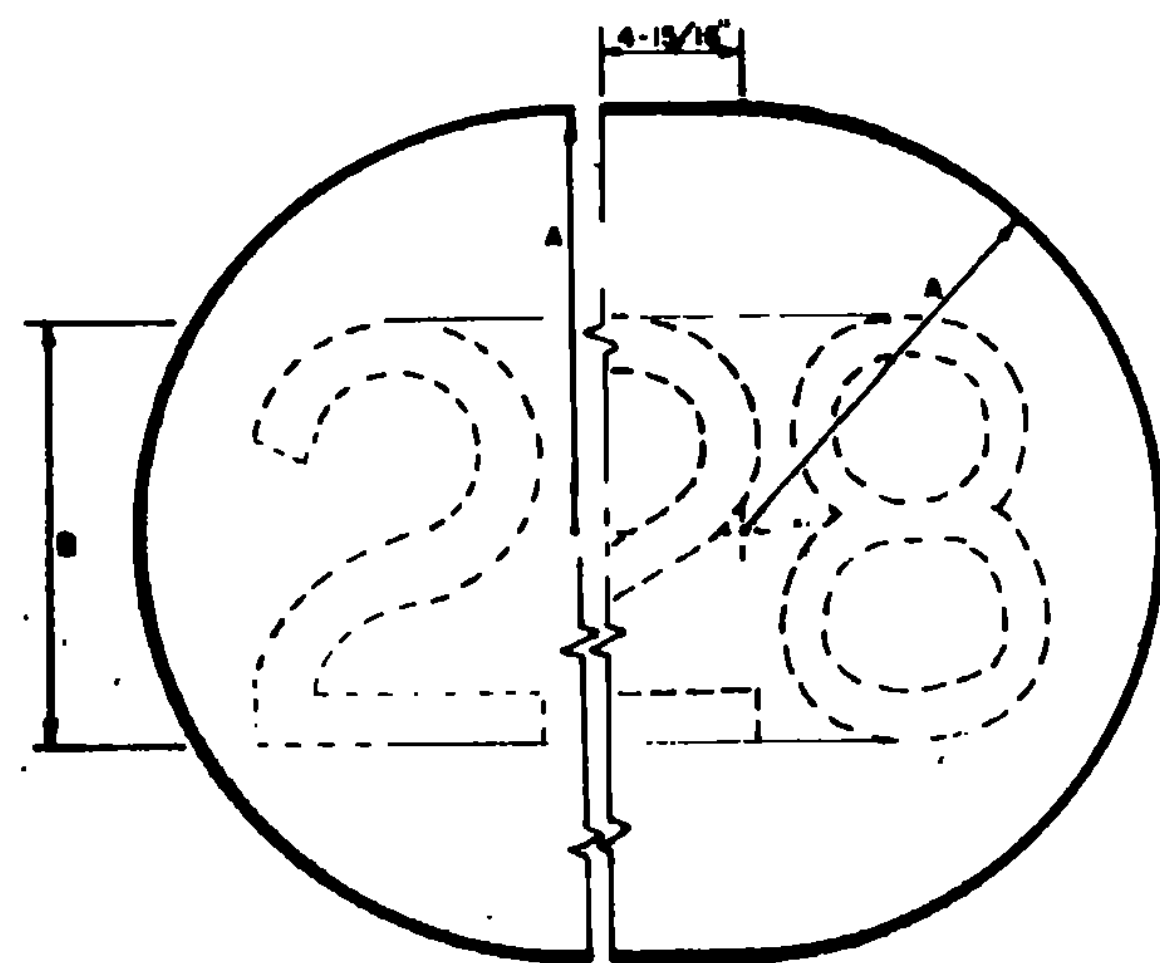
G. M. Lane
HIGHWAY ENGINEER

**TYPICAL MAJOR MAINTENANCE OPERATION
(BRIDGE AND ROADWAY) APPROACH SIGNS**



**STANDARD
E-8**

STATE ROUTE MARKER
FOR USE ON INTERSTATE GUIDE SIGNS

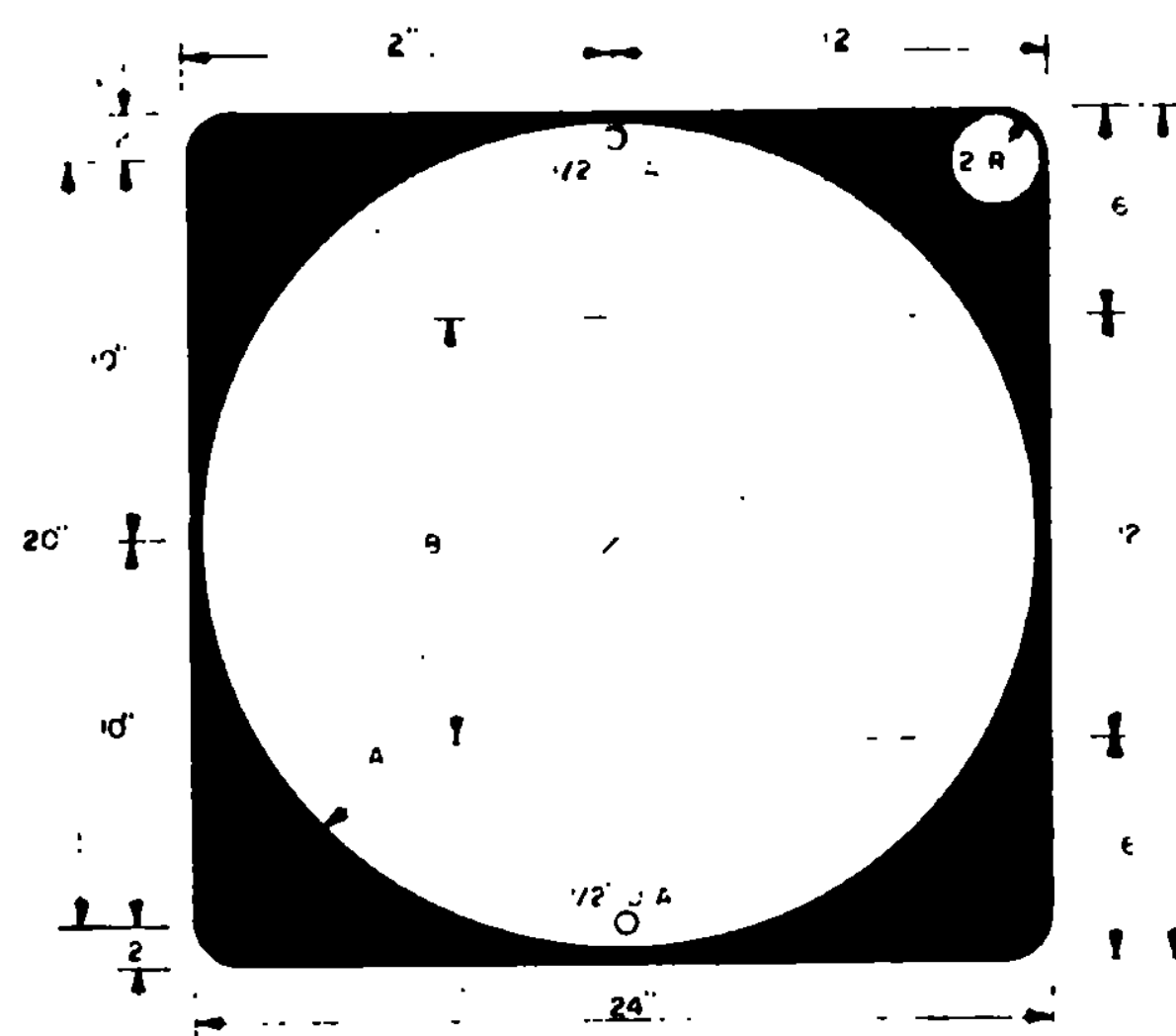


1 OR 2 DIGIT
(HALF SIGN)

3 DIGIT
(HALF SIGN)

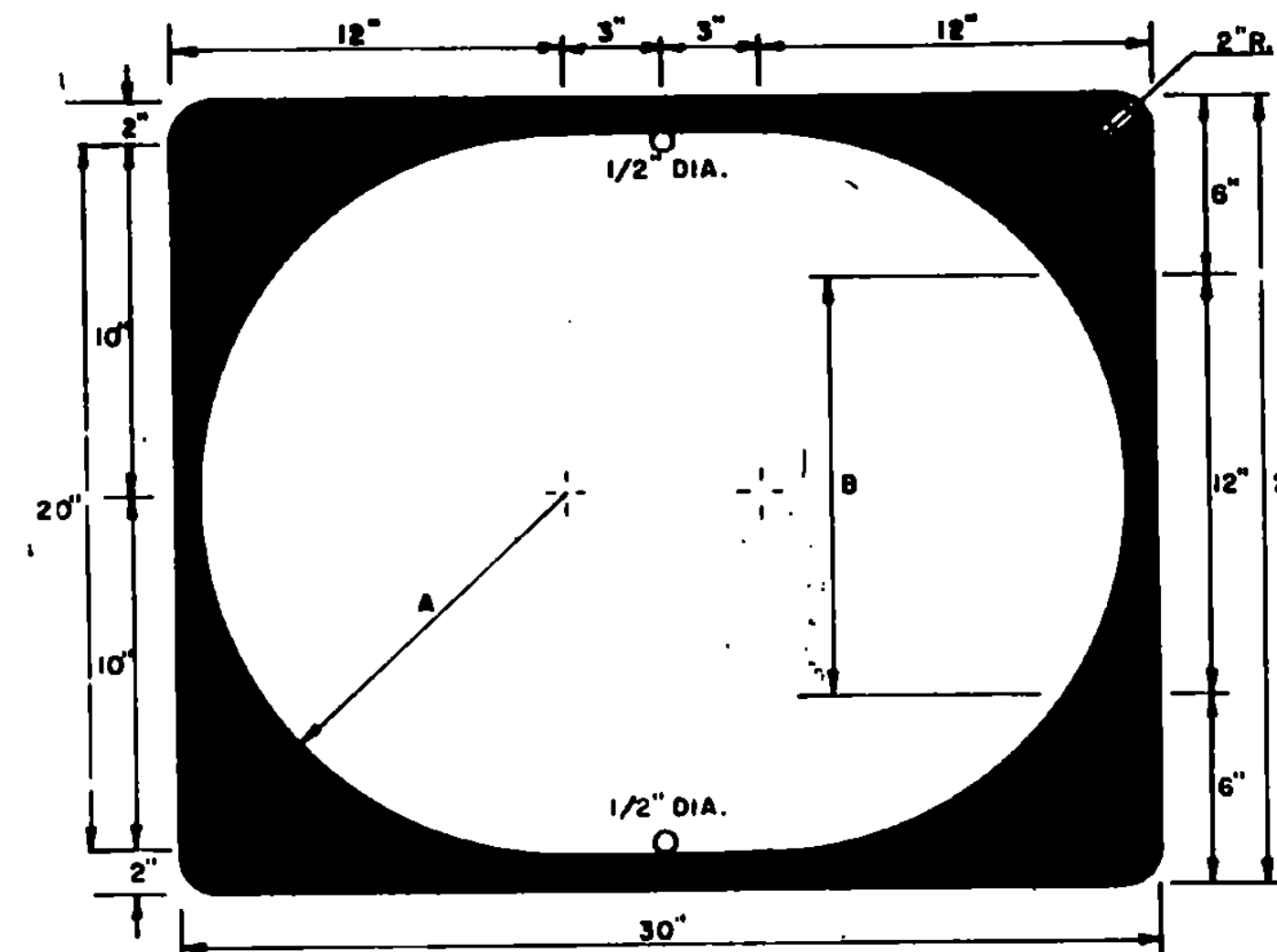
ROUTE NUMBER	A	B	SERIES
1 DIGIT	18"	18"	D
2 DIGITS	18"	18"	D
3 DIGITS	18"	18"	B

STATE ROUTE MARKER
FOR INDEPENDANT USE WITH MARKER ASSEMBLIES



1 OR 2 DIGIT

ROUTE NUMBER	A	B	SERIES
DIGIT	11"	12"	D
2 DIGITS	11"	12"	D
3 DIGITS	11"	12"	D



3 DIGIT
SEE CHART AT LEFT

MATERIALS

The sign base material may be any of the following, of the minimum thickness noted:

FLAT SHEET ALUMINUM
Less than 24" x 24" - 0.060"
24" x 24", 24" x 30" - 0.080"

HIGH DENSITY OVERLAID PLYWOOD
Less than 24" x 24" - 3/8"
24" x 24", 24" x 30" - 1/2"

GALVANIZED FLAT SHEET STEEL
Less than 24" x 24" - 18 gage
24" x 24", 24" x 30" - 16 gage

Route markers to be mounted on interstate guide signs, shall be of a thickness as for signs less than 24" x 24"

The reflective material shall be white or silver reflective sheeting, applied to the entire background. The texts may be lettering film, silk screened, or hand pointed.

COLORS

State route markers and auxiliary markers shall have black texts on reflectorized white or silver backgrounds.

LETTERING

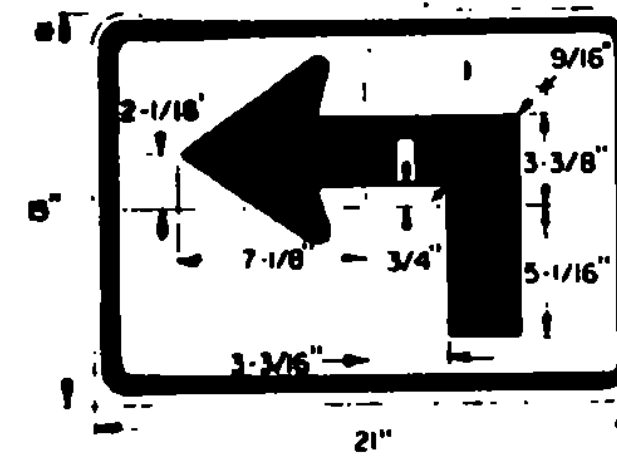
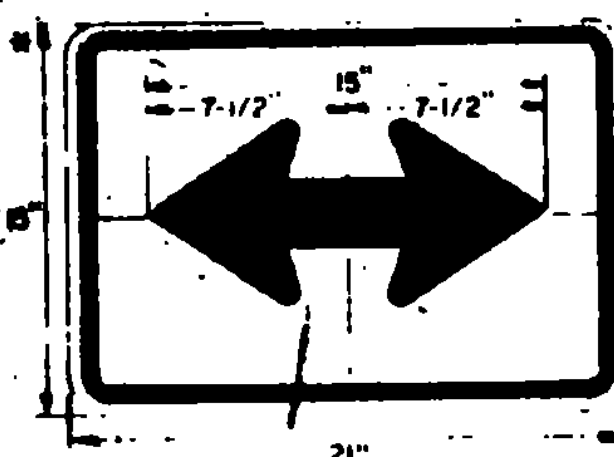
Letters and digits shall conform with the standard alphabets for highway signs approved by the National Joint Committee on Uniform Traffic Control Devices.

SPECIFICATIONS

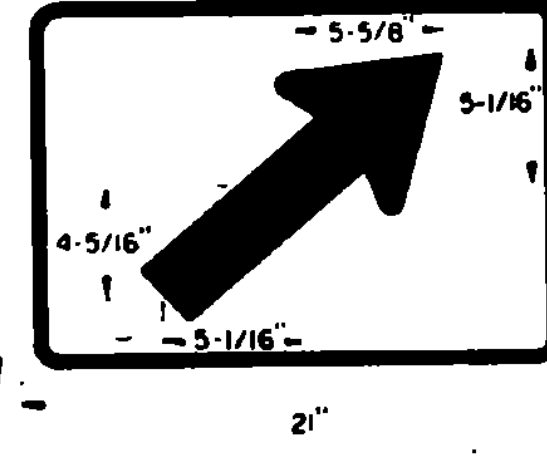
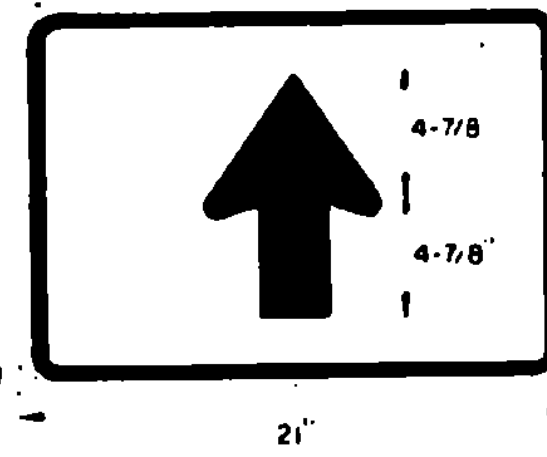
State route markers and auxiliary route markers shall meet the standard state specifications for "Traffic Signs,"

DESIGNS

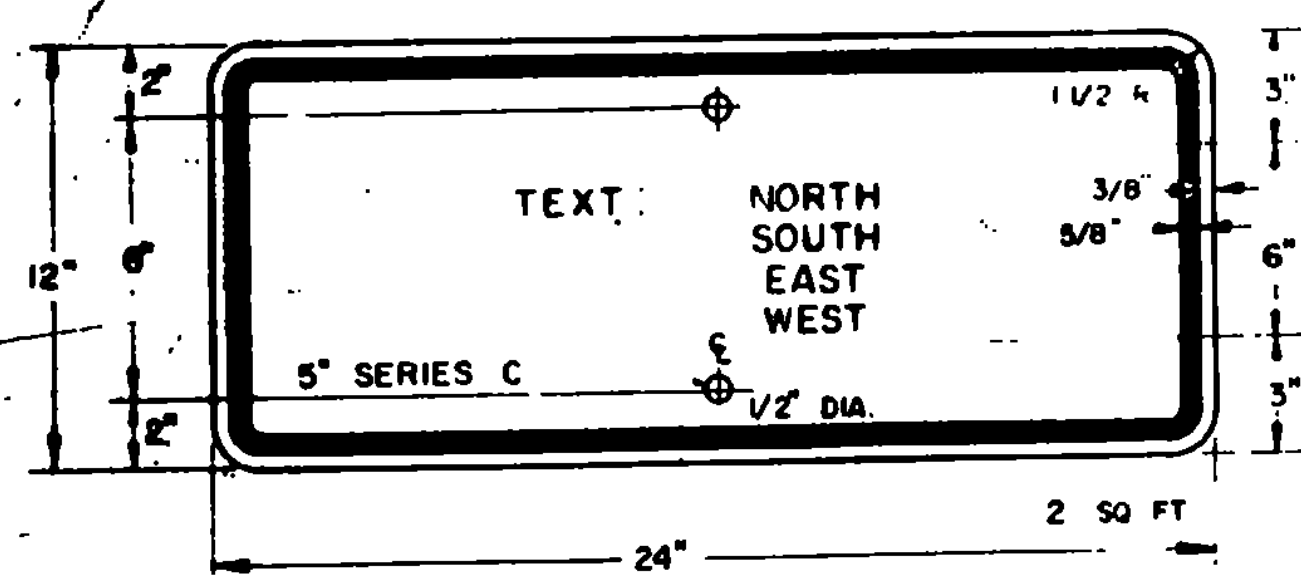
The designs of state route markers and auxiliary markers shall conform with the requirements set forth in the Manual on Uniform Traffic Control Devices prepared by the National Joint Committee on Traffic Control Devices



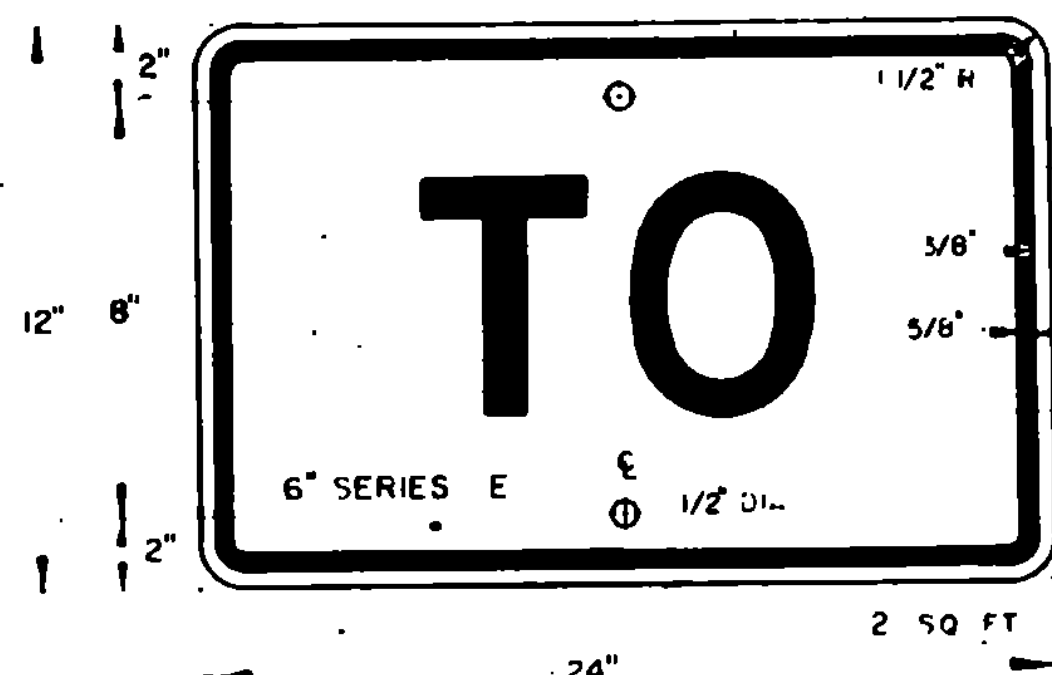
* OTHER DIMENSIONS SEE ADVANCE TURN ARROW.



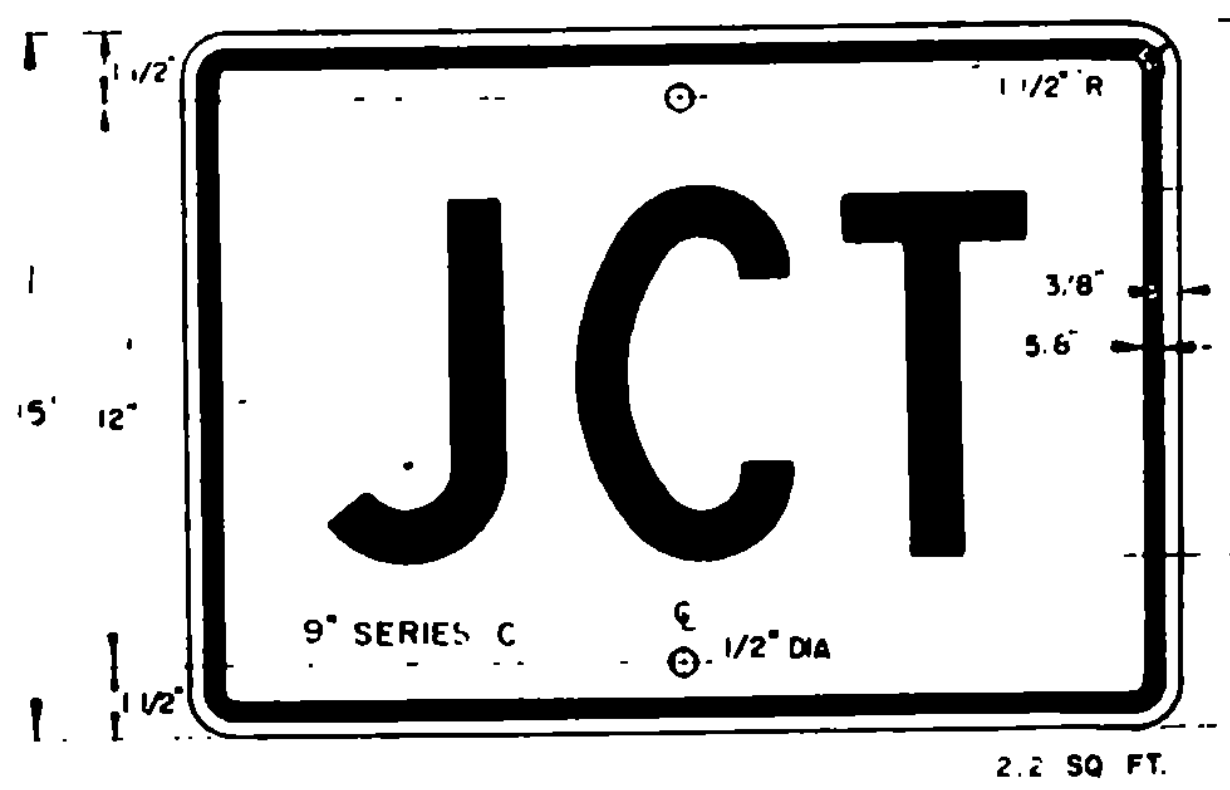
CARDINAL DIRECTION MARKER



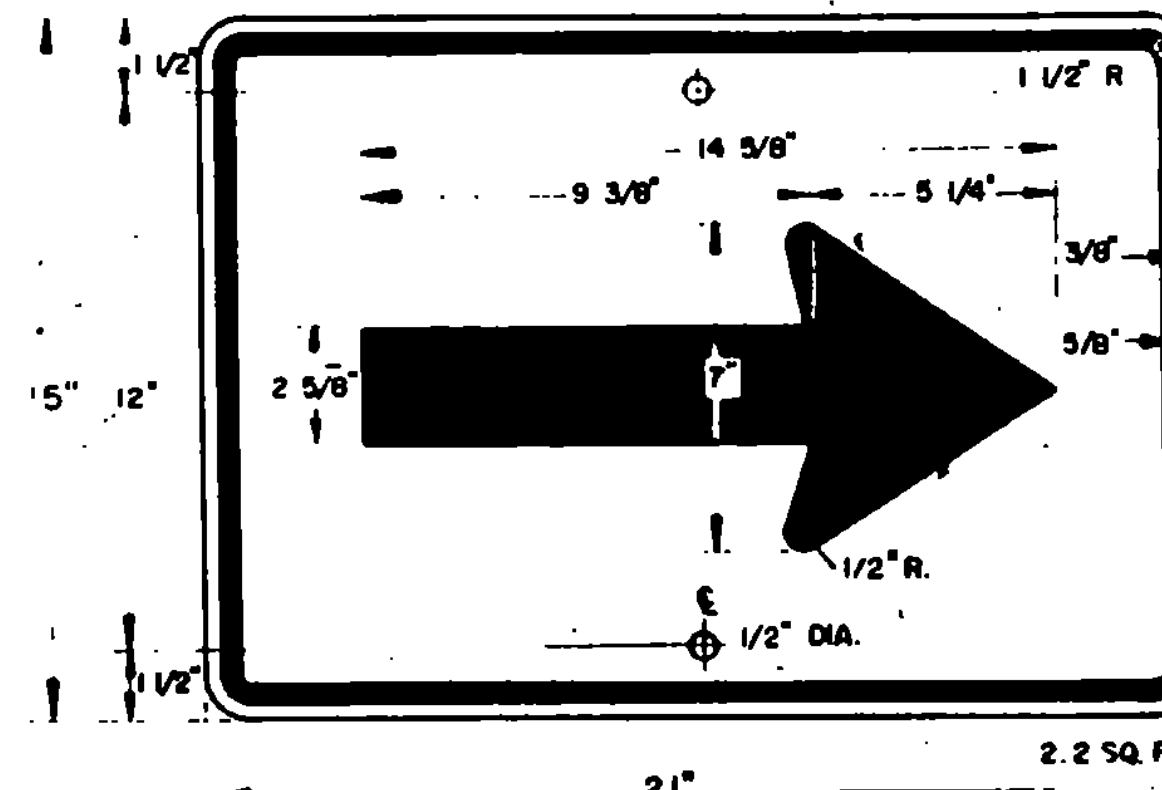
TRAILBLAZER



JUNCTION MARKER



DIRECTION ARROW OR
ADVANCE TURN ARROW
(SEE STANDARD E-11 FOR ARROW DESIGN DETAIL)



REVISIONS AND CORRECTIONS

MAY 3, 1962 - ADDITIONAL ADVANCE TURN ARROWS ADDED, BORDER DIMENSION CHANGED ON GUIDE SIGNS.

12/2/62 - ADDED THREE DIGIT DETAILS

FEB 5, 1966 - UPDATED TO 1965 SPECIFICATIONS

APPROVED.

DATE Dec 29, 1971

R. H. Connell
CHIEF ENGINEER

E. W. Stehney
ASST CHIEF ENGINEER

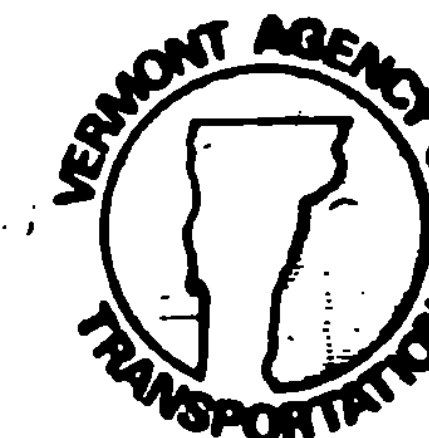
G. M. Lane
HIGHWAY ENGINEER

DRAWN AWC
TRACED A.J.A.

TRAFFIC SIGNS (GUIDE SIGNS)

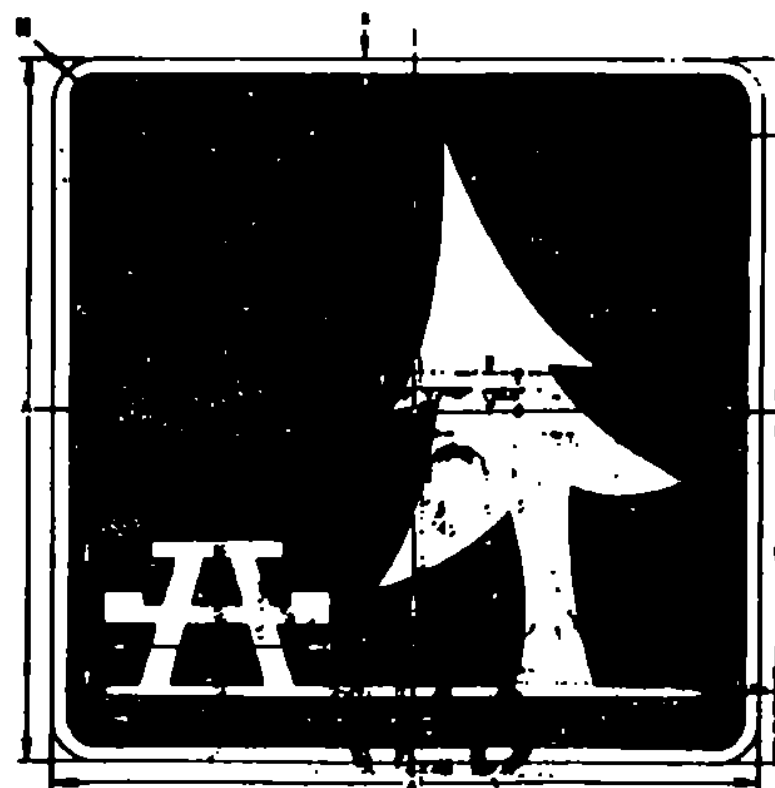
STATE ROUTE MARKERS

AND AUXILIARY MARKERS

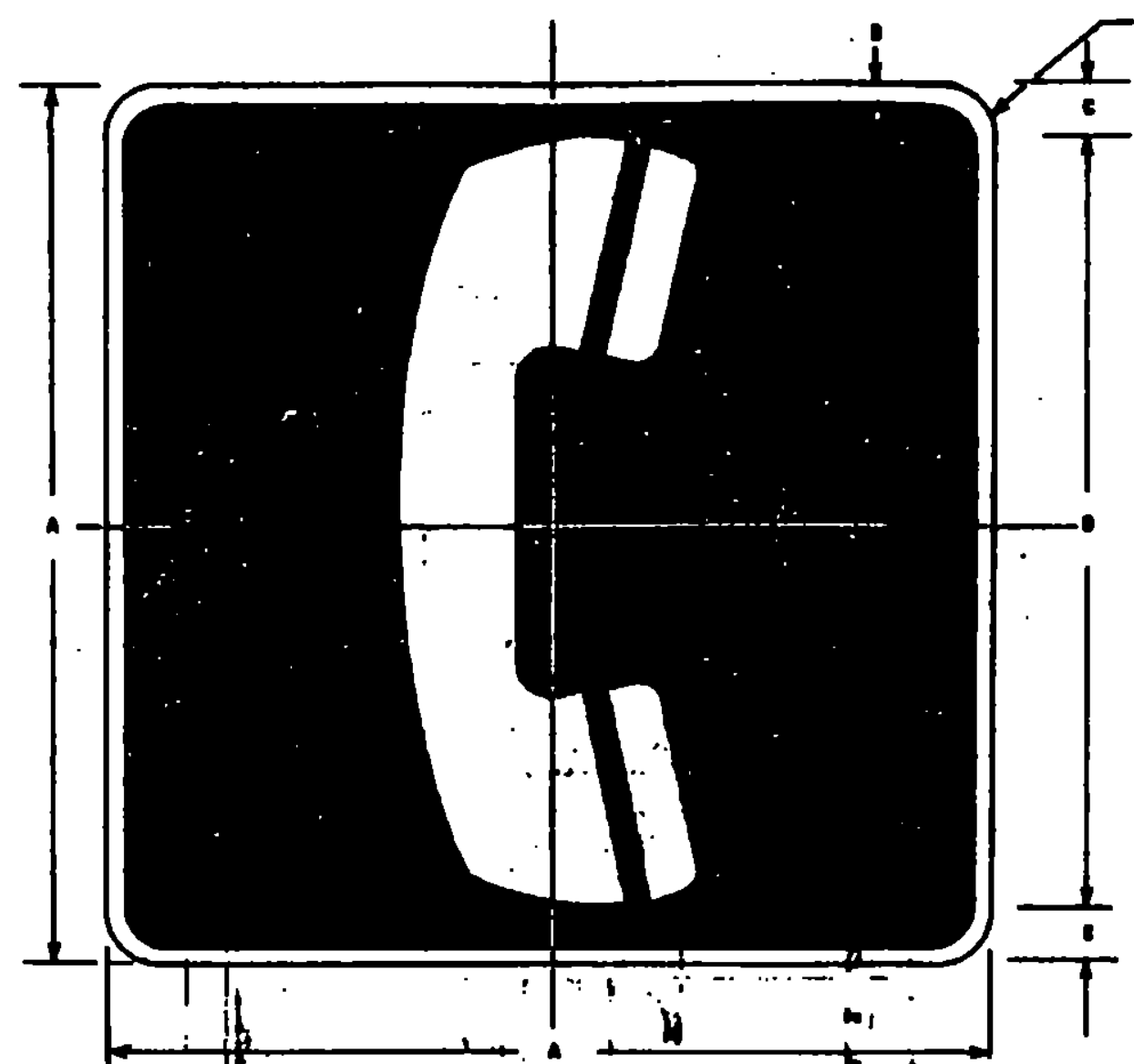


STANDARD

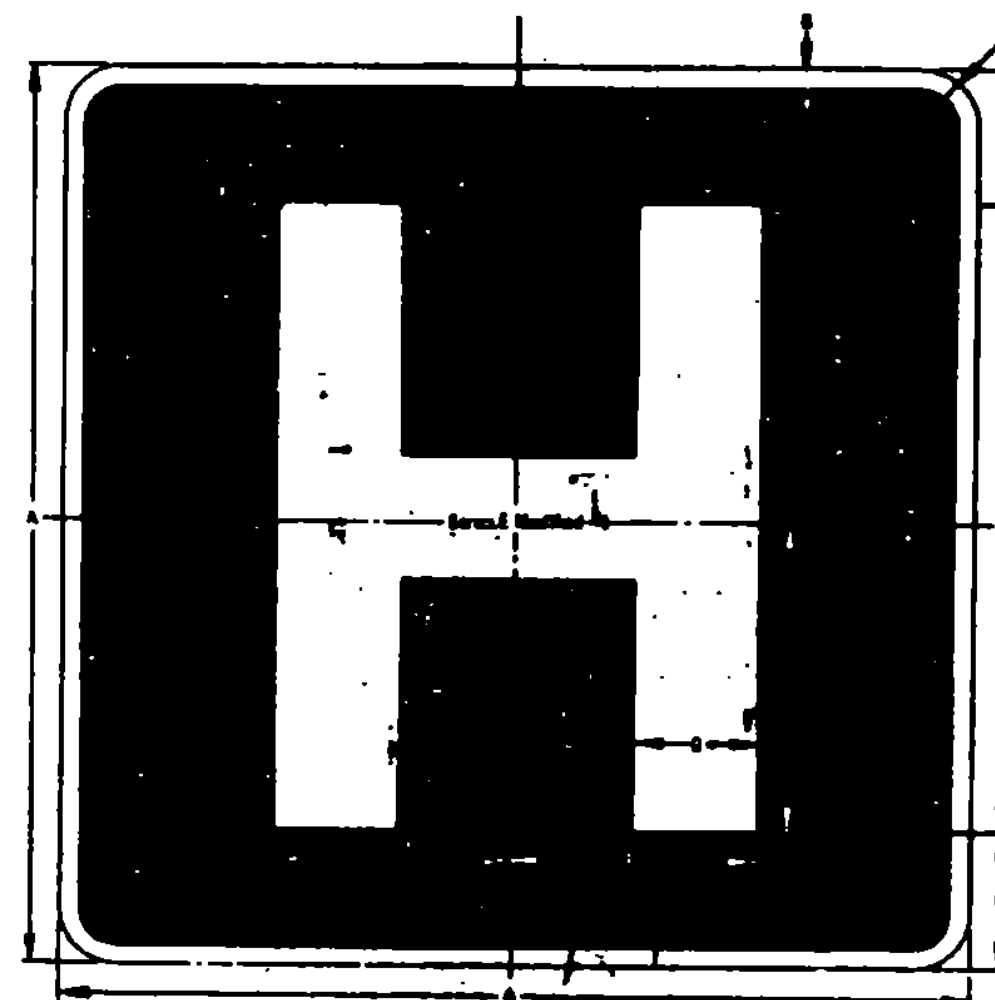
E-13



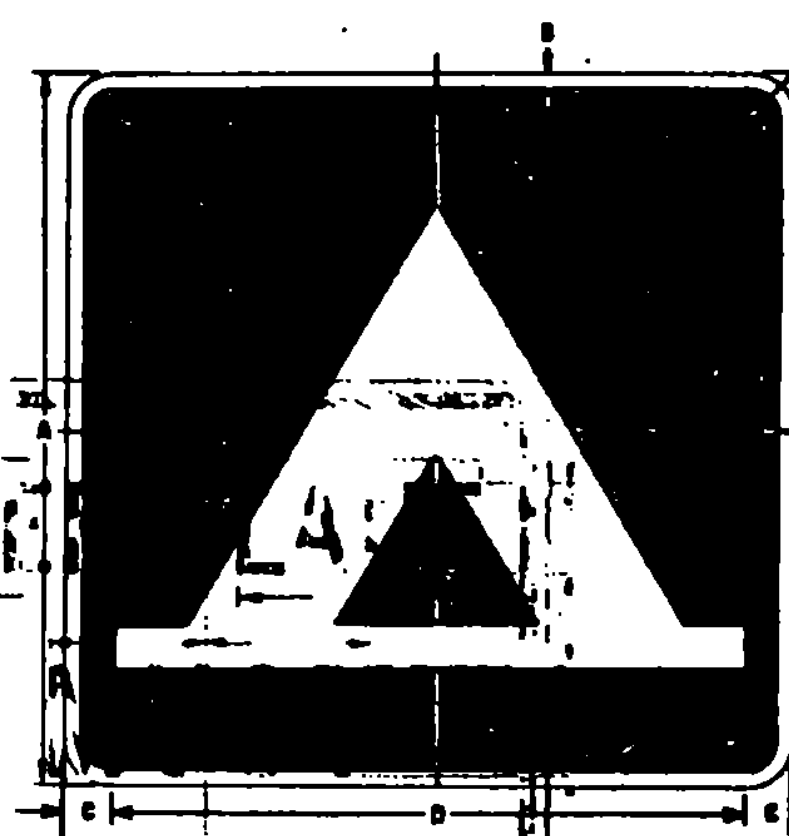
SIGN	DIMENSIONS (INCHES)									
	A	B	C	D	E	F	G	H	I	J
STD. & MIN.	24	1/2	1-1/2	10-1/2	3-1/2	2-1/2	6-1/4	8	10	1-1/2
SPECIAL	30	3/4	1-7/8	13-1/8	11-7/8	3-1/8	8-1/8	10	12-1/2	1-7/8



SIGN	DIMENSIONS (INCHES)				
	A	B	C	D	E
STD.	24	1/2	1-1/2	21	1-1/2
SPECIAL	30	3/4	2	28	1-7/8



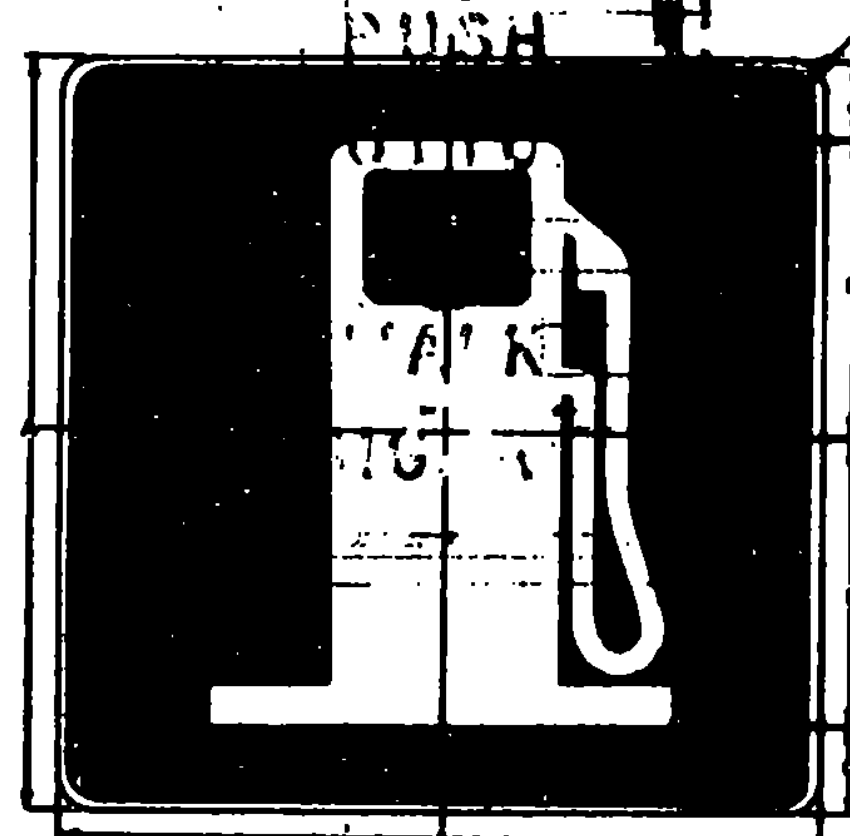
SIGN	DIMENSIONS (INCHES)							
	A	B	C	D	E	F	G	H
STD. & MIN.	30	1/2	4	16	6-3/8	6-3/8	2-1/4	1-1/2
SPECIAL	36	3/4	5	20	8	10-3/8	4	1-7/8



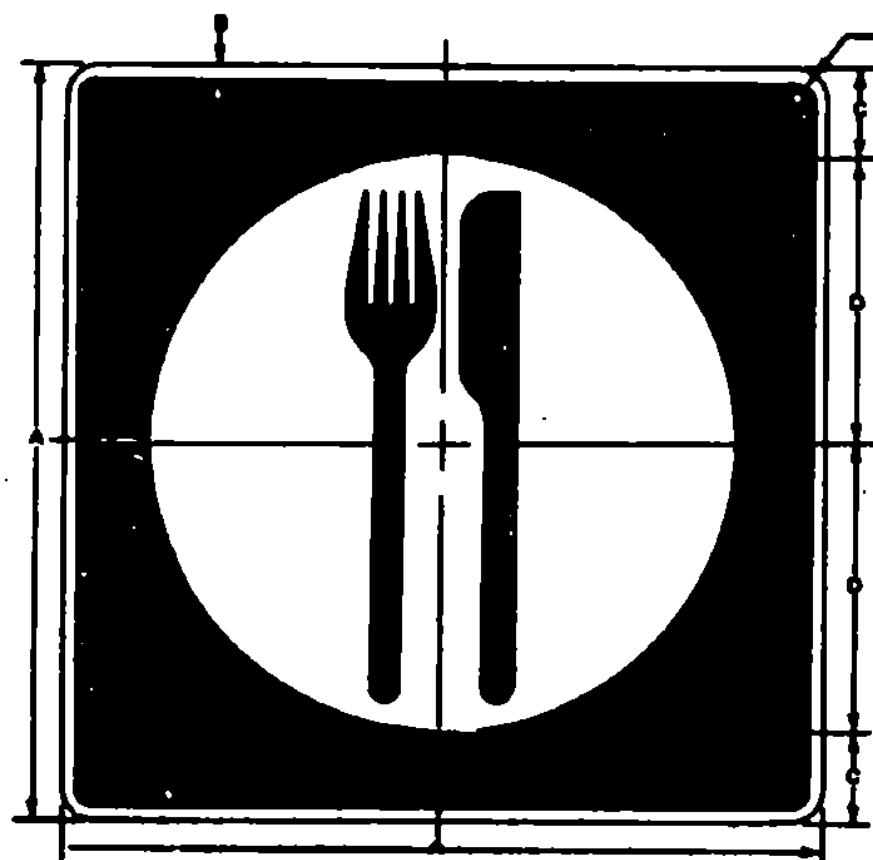
SIGN	DIMENSIONS (INCHES)					
	A	B	C	D	E	F
STD. & MIN.	24	1/2	1-1/2	25	8	1-1/2
SPECIAL	30	3/4	2	32	10	1-7/8



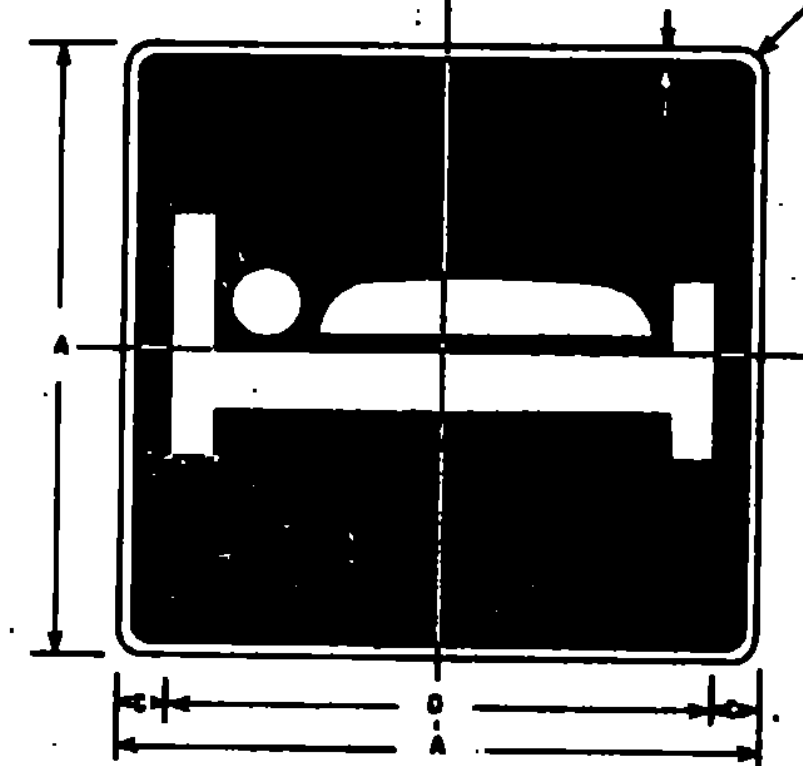
SIGN	DIMENSIONS (INCHES)				
	A	B	C	D	E
MIN & STD.	24	1/2	3	18	1 1/2
SPECIAL	30	3/4	3 3/4	22 1/2	1 7/8



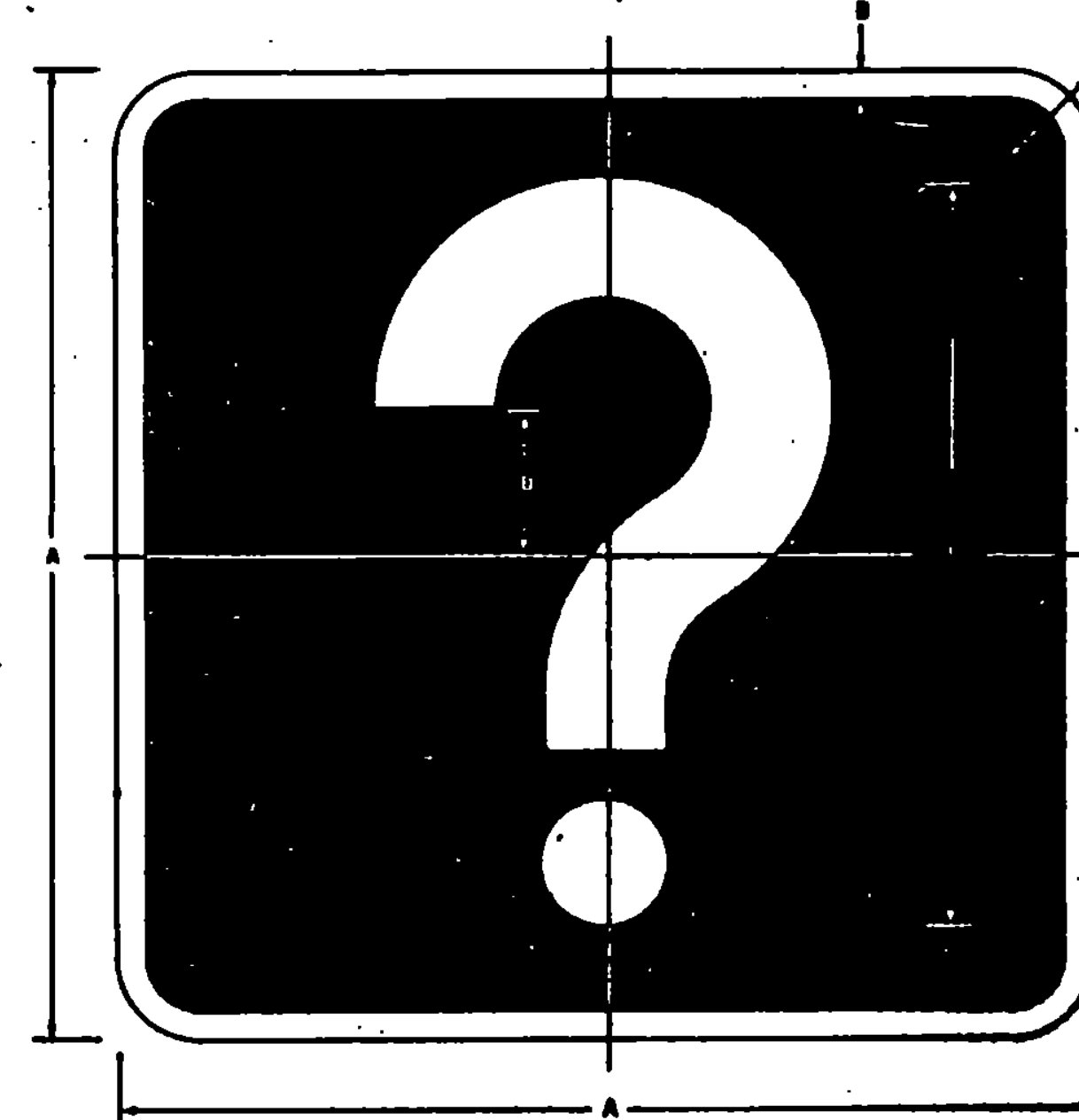
SIGN	DIMENSIONS (INCHES)					
	A	B	C	D	E	F
STD.	24	1/2	3	9	1-1/2	24
SPECIAL	30	3/4	3-3/4	11-1/4	1-7/8	24



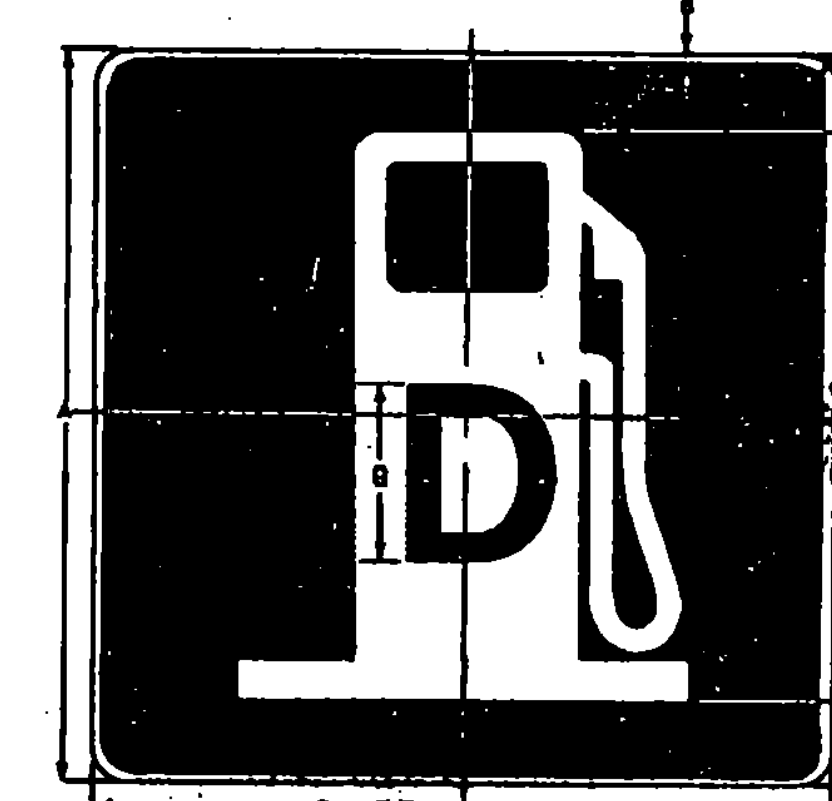
SIGN	DIMENSIONS (INCHES)					
	A	B	C	D	E	F
STD.	24	1/2	3	9	1-1/2	24
SPECIAL	30	3/4	3-3/4	11-1/4	1-7/8	24



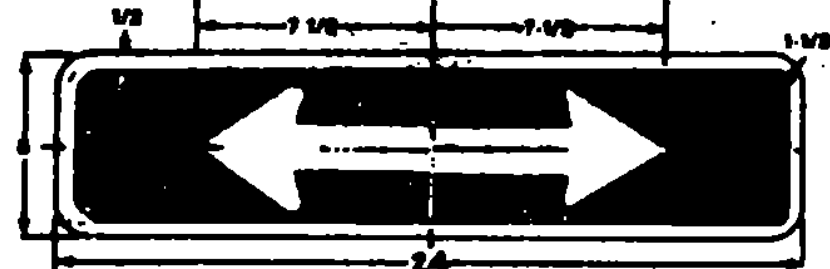
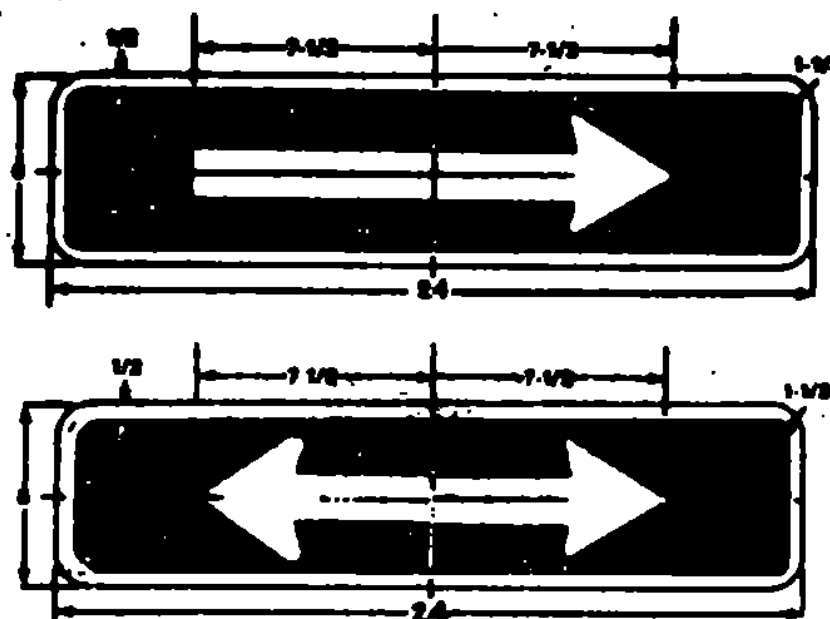
SIGN	DIMENSIONS (INCHES)					
	A	B	C	D	E	F
STD.	24	1/2	1-1/2	21	1-1/2	24
SPECIAL	30	3/4	2	28	1-7/8	24



SIGN	DIMENSIONS (INCHES)				
	A	B	C	D	E
STD.	24	1/2	18-1/2	3-3/4	1-1/2
SPECIAL	30	3/4	23-1/4	4-3/4	1-7/8



SIGN	DIMENSIONS (INCHES)							
	A	B	C	D	E	F	G	H
STD.	24	1/2	3	9	1-1/2	24	24	24
SPECIAL	30	3/4	3-3/4	11-1/4	1-7/8	24	24	24



MATERIALS

The sign base material used for the guide signs shown on this sheet may be any of the following minimum thicknesses noted.

- A-FLAT SHEET ALUMINUM - 0.060
- B-HIGH DENSITY OVERLAID PLYWOOD - 1/2"
- C-GALVANIZED FLAT SHEET STEEL - 16 GA.

COLORS

The signs shall be white or silver reflectorized sheeting with a reverse screened blue background. The blue shall conform with the standard colors adopted by the American Association of State

Highway Officials and approved by the U.S. Dept. of Transportation, Federal Highway Administration.

LETTERING
Letters shall conform with the requirements found in the publication Standard Alphabets for Highway Signs and Pavement Markings printed by the Federal Highway Administration.

DESIGN

The design of these signs shall conform with the details set

forth in the manual "Standard Highway Signs" as specified in "The Manual on Uniform Traffic Control Devices." Letter-numeral designation under each symbol is identification in manual.

SPECIFICATIONS
These signs shall meet the standard state specifications for "Traffic Signs."

REVISIONS AND CORRECTIONS
SEE 2. 022-UPDATED TO 1966 SPECIFICATIONS

APPROVED:

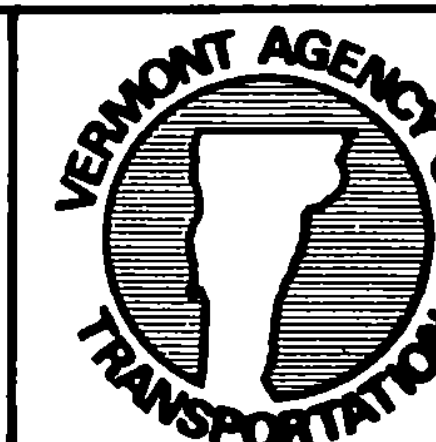
DATE 3/9/68

DIRECTOR OF ENGINEERING AND CONSTRUCTION

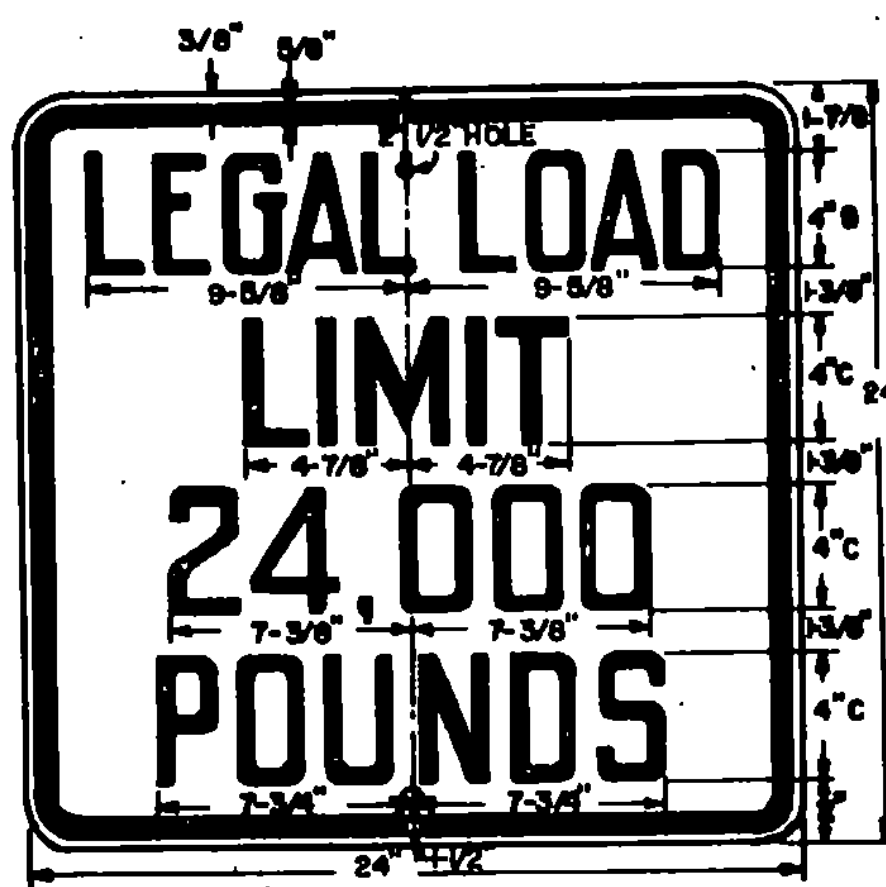
CHIEF OF DESIGN

SURVEY AND PLANS ENGINEER

GENERAL SERVICES SIGNS
(GUIDE SIGNS)



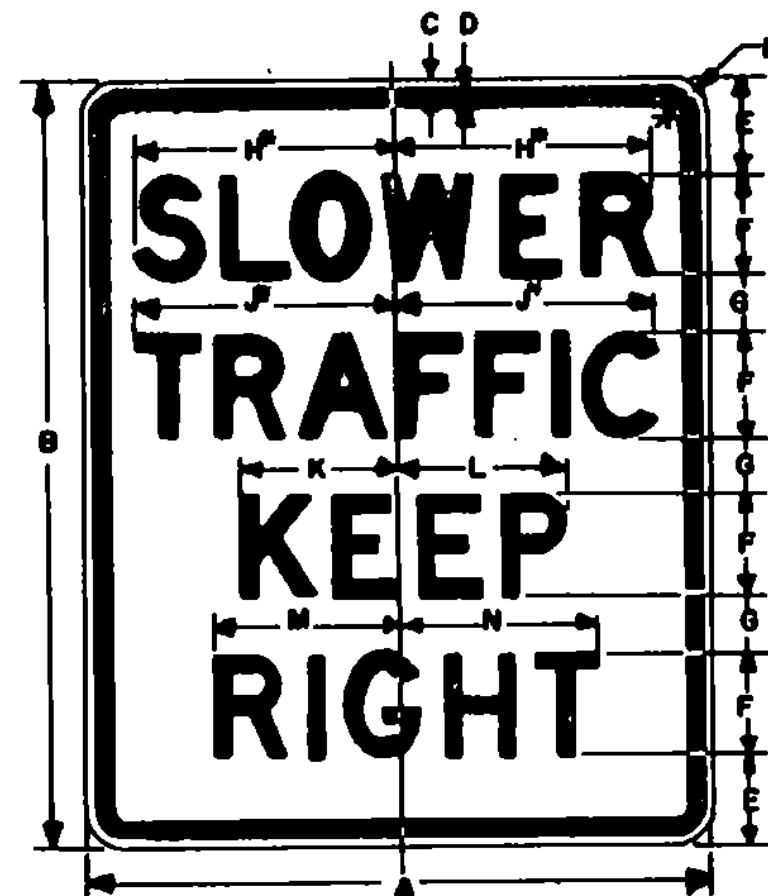
STANDARD
E-14B



LINE 3 ALTERNATE - 16,000

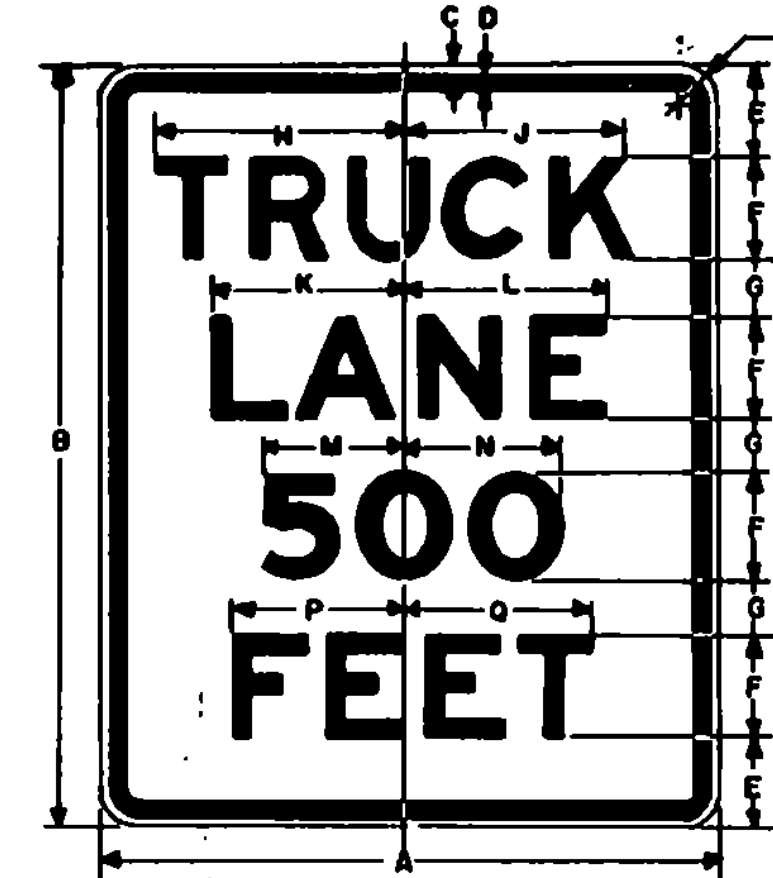


SIGN	DIMENSIONS (INCHES)												
	A	B	C	D	E	F	G	H	J	K	L	M	N
STD. MIN.	24	30	3/8	5/8	3-5/8	4D	2-1/4	9-1/4	9-5/8	9-5/8	3-1/2	10	1-1/2
SPECIAL	36	48	5/8	7/8	6	6D	4	14	14-7/8	9-3/4	9-1/4	15	2-1/4
SPECIAL	48	60	3/4	1-1/4	7-1/4	6D	4-1/2	18-1/2	18-1/4	9-1/8	7	20	3



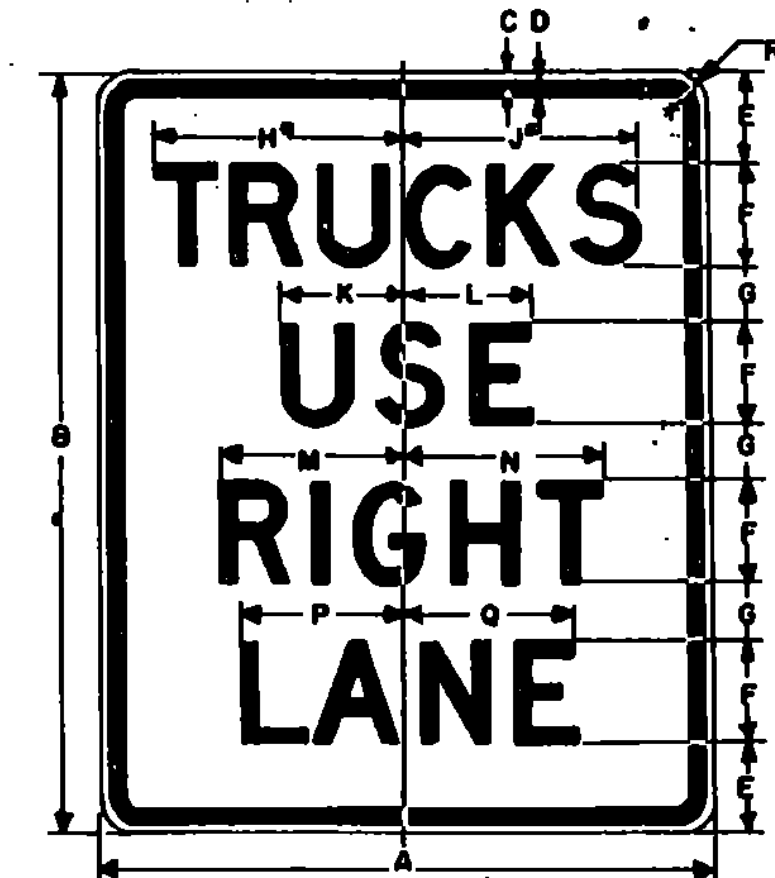
*REDUCE SPACING 25%

SIGN	DIMENSIONS (INCHES)													
	A	B	C	D	E	F	G	H	J	K	L	M	N	P
MIN. B. STD.	24	30	3/8	5/8	3-5/8	4D	2-1/4	9-3/4	10	6	6-9/16	7-1/8	7-5/8	1-1/2
EXPWY.	36	48	5/8	7/8	6	6D	4	14-5/8	15	9-13/16	10-1/16	13-3/8	2-1/4	
FWY.	48	60	3/4	1-1/4	7-1/4	6D	4-1/2	18-1/2	20	12	13-1/8	14-1/4	15-1/4	3



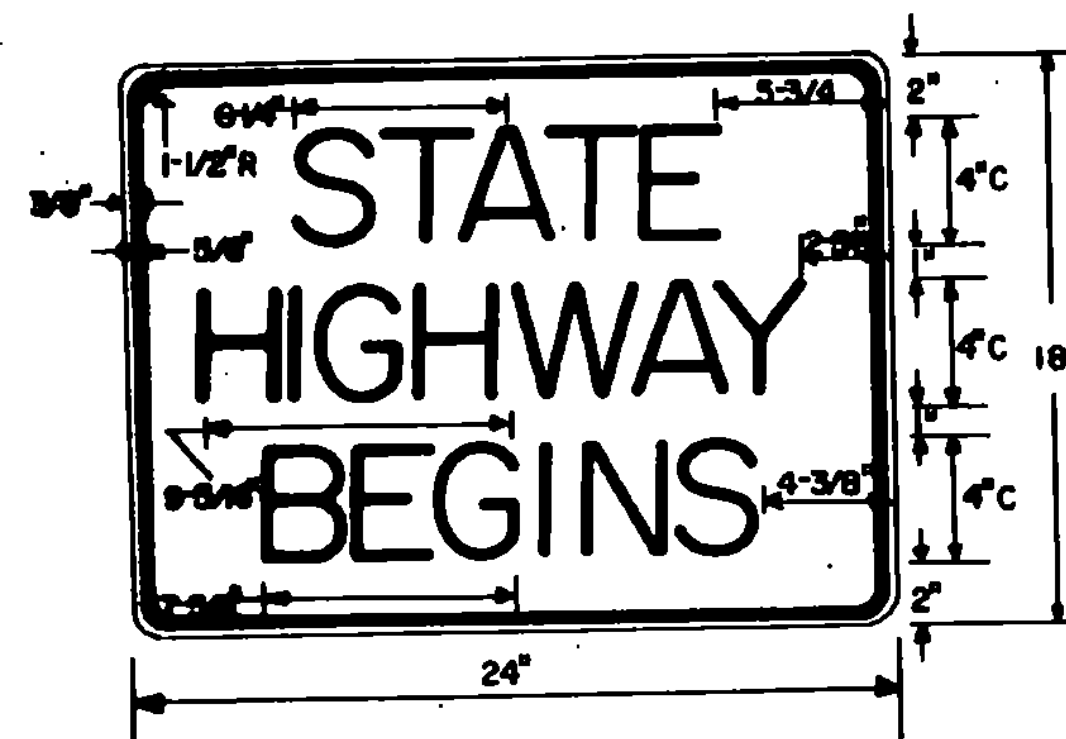
*REDUCE SPACING 32%

SIGN	DIMENSIONS (INCHES)															
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
MIN. B. STD.	24	30	3/8	5/8	3-5/8	4D	2-1/4	9-13/16	9-1/8	7-9/16	7-1/8	5-1/16	9-13/16	6-7/8	7-1/4	1-1/2
EXPWY.	36	48	5/8	7/8	6	6D	4	14-5/8	14-1/2	11-5/8	11-1/2	9-1/2	8-3/4	10-5/8	10-5/8	2-1/4
FWY.	48	60	3/4	1-1/4	7-1/4	6D	4-1/2	18-1/2	19-3/8	13-1/8	13-3/8	11-3/8	11-5/8	13-3/4	14-1/8	3



*REDUCE SPACING 32%

SIGN	DIMENSIONS (INCHES)															
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
MIN. B. STD.	24	30	3/8	5/8	3-5/8	4D	2-1/4	9-13/16	9-1/8	7-9/16	7-1/8	5-1/16	9-13/16	6-7/8	7-1/4	1-1/2
EXPWY.	36	48	5/8	7/8	6	6D	4	14-5/8	14-1/2	11-5/8	11-1/2	9-1/2	8-3/4	10-5/8	10-5/8	2-1/4
FWY.	48	60	3/4	1-1/4	7-1/4	6D	4-1/2	18-1/2	19-3/8	13-1/8	13-3/8	11-3/8	11-5/8	13-3/4	14-1/8	3



COLORS:

THE REGULATORY SIGNS SHOWN ON THIS SHEET SHALL HAVE BLACK TEXT ON REFLECTORIZED WHITE BACKGROUND. THE COLORS SHALL CONFORM WITH THE COLORS ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS AND APPROVED BY THE DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.

MATERIALS:

THE SIGN BASE MATERIALS USED FOR THE REGULATORY SIGNS SHOWN ON THIS SHEET MAY BE ANY OF THE FOLLOWING OF THE MINIMUM THICKNESS NOTED.

	18" X 24"	24" X 18"	36" X 48"
FLAT SHEET ALUMINUM	0.060"	0.080"	0.100"
HIGH DENSITY OVERLAID PLYWOOD	1/2"	1/2"	5/8"
GALVANIZED FLAT SHEET STEEL	18 GAGE	16 GAGE	14 GAGE

THE REFLECTIVE MATERIAL FOR GROUND MOUNTED SIGNS SHALL BE FLAT TOP WHITE REFLECTIVE SHEETING APPLIED TO THE ENTIRE BACKGROUND OF THE SIGN.

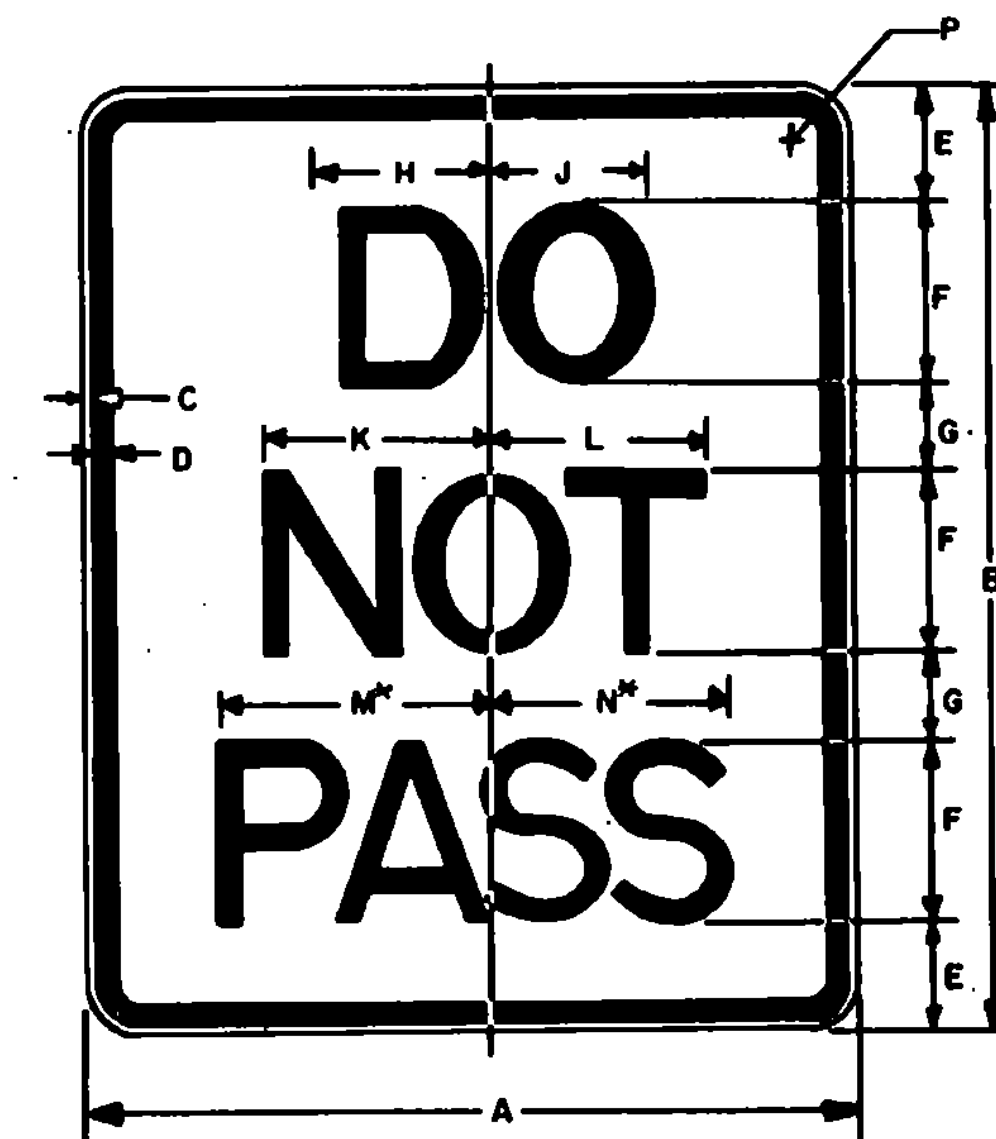
THE TEXT OF THE SIGNS MAY BE LETTERING FILM, SILK SCREENED OR HAND PAINTED. WHEN HAND PAINTED, POOR WORKMANSHIP SHALL BE CAUSE FOR REJECTION.

SPECIFICATIONS:

REGULATORY SIGNS SHALL MEET THE STANDARD STATE SPECIFICATIONS FOR TRAFFIC SIGNS.

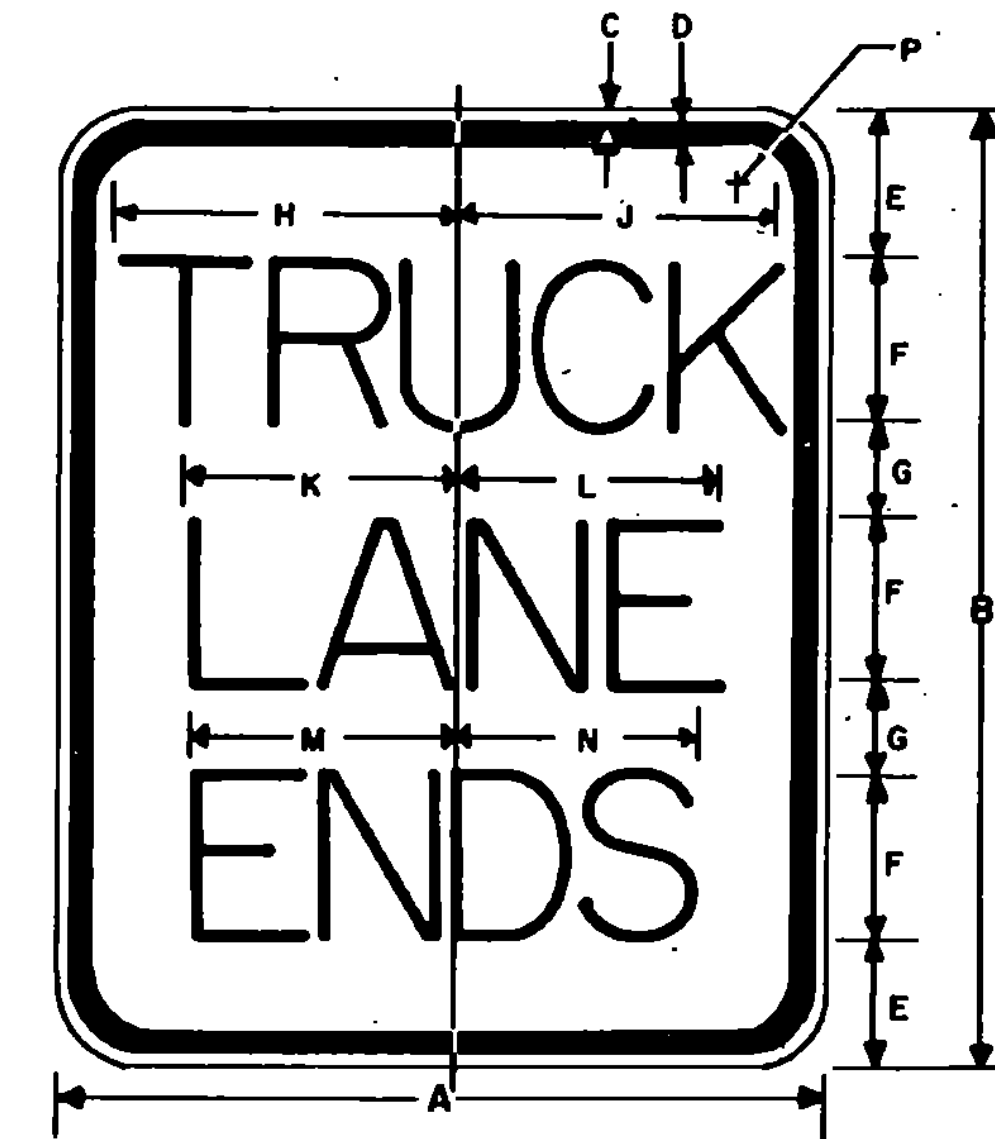
TEXT DESIGN:

LETTERS, DIGITS, ARROWS, SPACINGS, AND TEXT DIMENSIONS SHALL CONFORM WITH THE STANDARD ALPHABETS AND DESIGNS PRESCRIBED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PREPARED BY THE NATIONAL JOINT COMMITTEE ON UNIFORM TRAFFIC CONTROL DEVICES.



*REDUCE SPACING 40%

SIGN	DIMENSIONS (INCHES)													
	A	B	C	D	E	F	G	H	J	K	L	M	N	P
MIN.	18	24	3/8	5/8	3-1/2	4D	2-1/2	3-1/8	3-5/16	4-3/4	4-7/8	6-1/4	6-1/2	1-1/2
STD.	24	30	3/8	5/8	3-1/2	6D	2-1/2	4-1/8	5	7-1/8	7-3/8	9-3/8	9-3/4	1-1/2
EXPWY.	36	48	5/8	7/8	7	6D	5	6-1/4	6-5/8	9-1/2	9-3/4	12-1/2	12-1/2	2-1/4
FWY.	48	60	3/4	1-1/4	8	10D	7	7-3/4	8-3/8	11-7/8	12-1/4	15-5/8	16-1/4	3



*REDUCE SPACING 40%

SIGN	DIMENSIONS (INCHES)													
	A	B	C	D	E	F	G	H	J	K	L	M	N	P
MIN. B. STD.	24	30	3/8	5/8	3-1/2	6C	2-1/2	10-1/4	10-3/8	7-3/4	7-3/4	7-13/16	8	1-1/2
EXPWY.	36	48	5/8	7/8	7	8C	5	13-1/16	13-5/8	10-5/8	10-5/8	10-1/16	10-1/16	2-1/4
FWY.	48	60	3/4	1-1/4	8	10D	7	20-5/8	20-5/8	15-7/8	15-7/8	18-1/16	16-1/16	3

REVISIONS AND CORRECTIONS

FEB. 8, 1988 - UPDATED TO 1985 SPECIFICATIONS

APPROVED

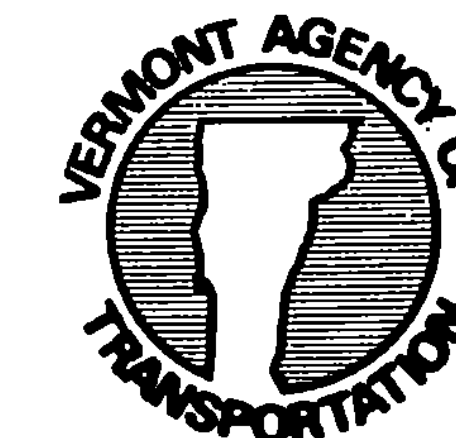
DATE JULY 18, 1984

DIRECTOR OF ENGINEERING AND CONSTRUCTION

Arthur J. Goss
CHIEF OF DESIGN

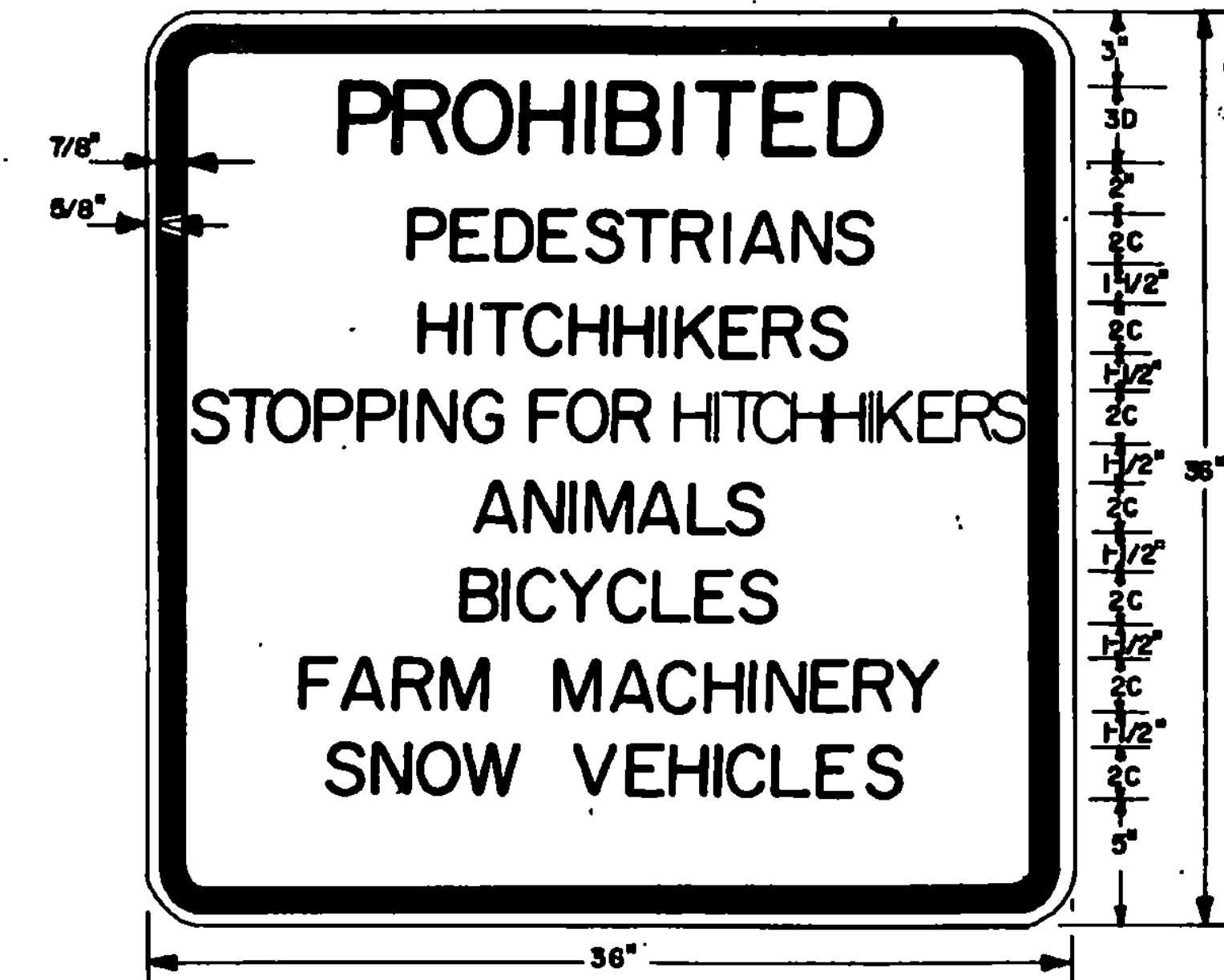
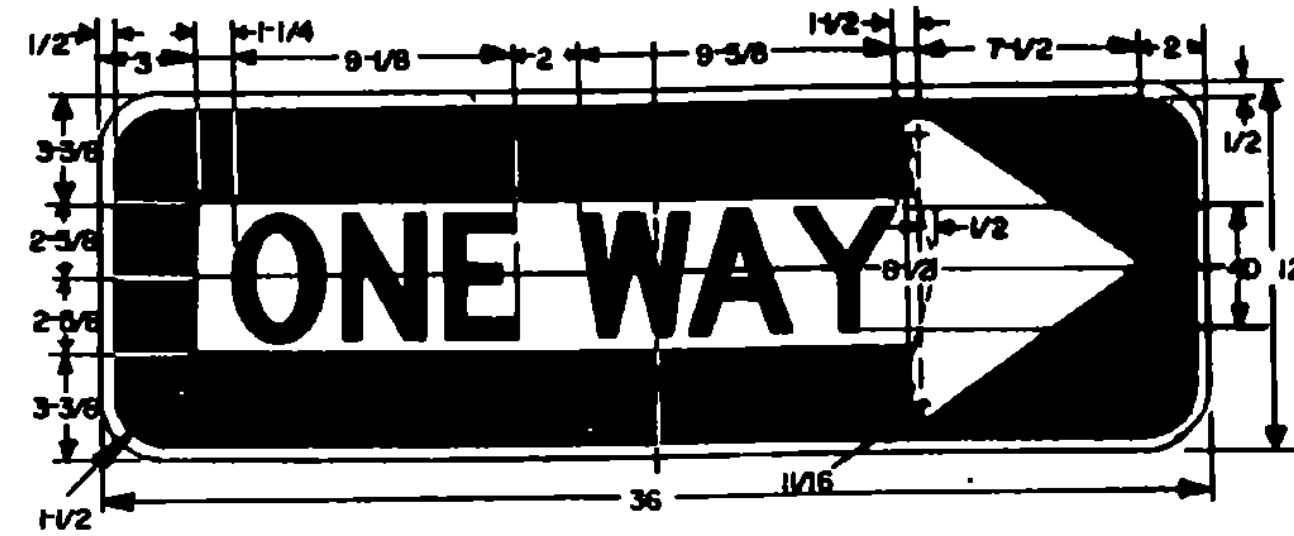
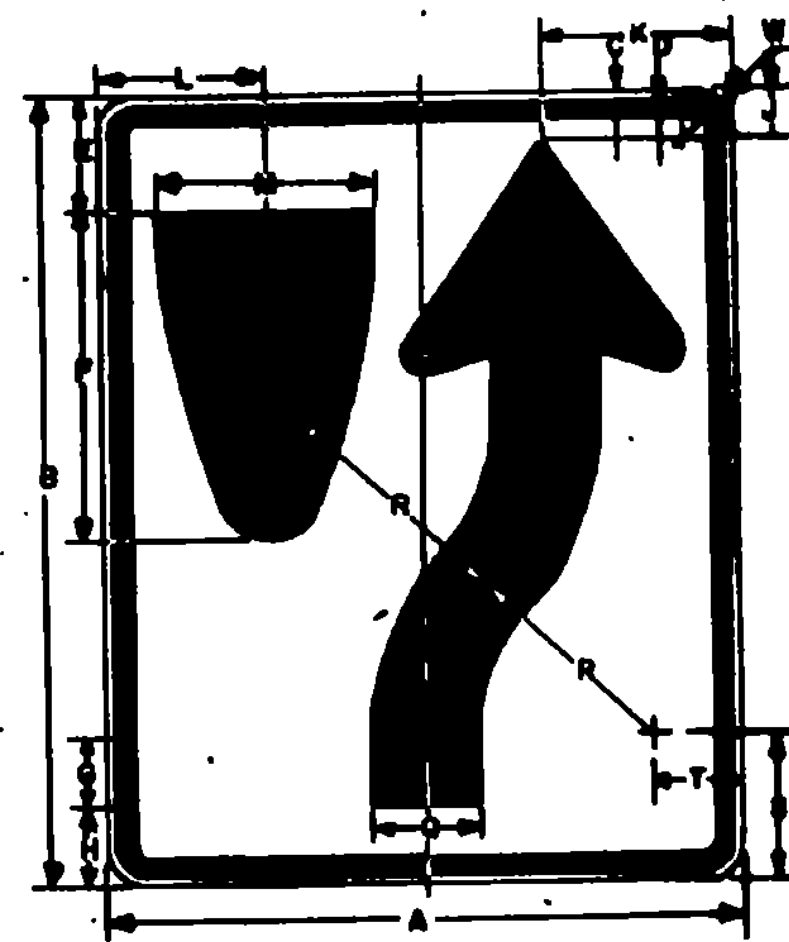
James C. Evans
SURVEY AND PLANS ENGINEER

REGULATORY SIGNS



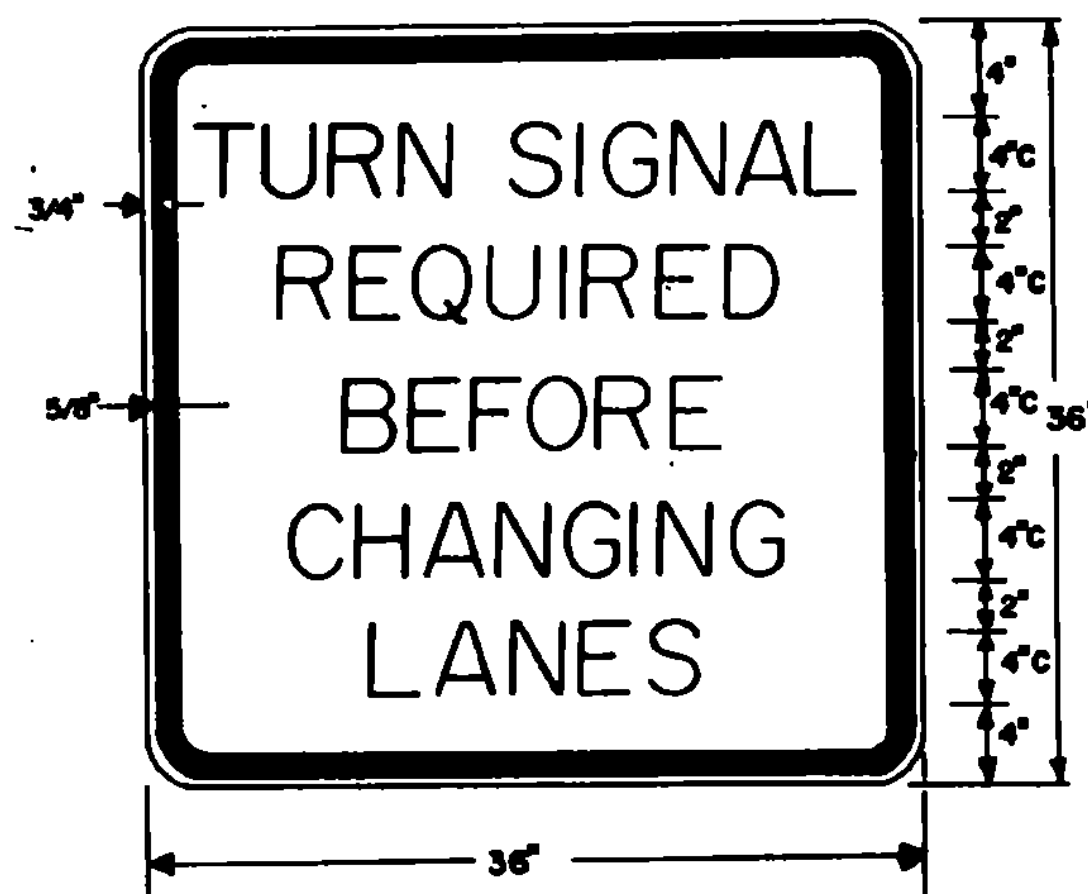
STANDARD

E-15 A



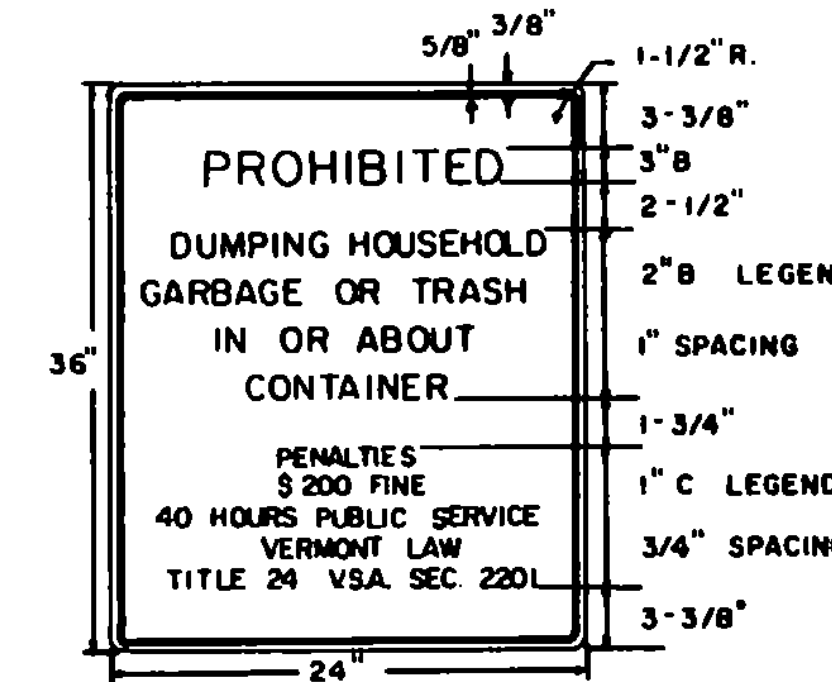
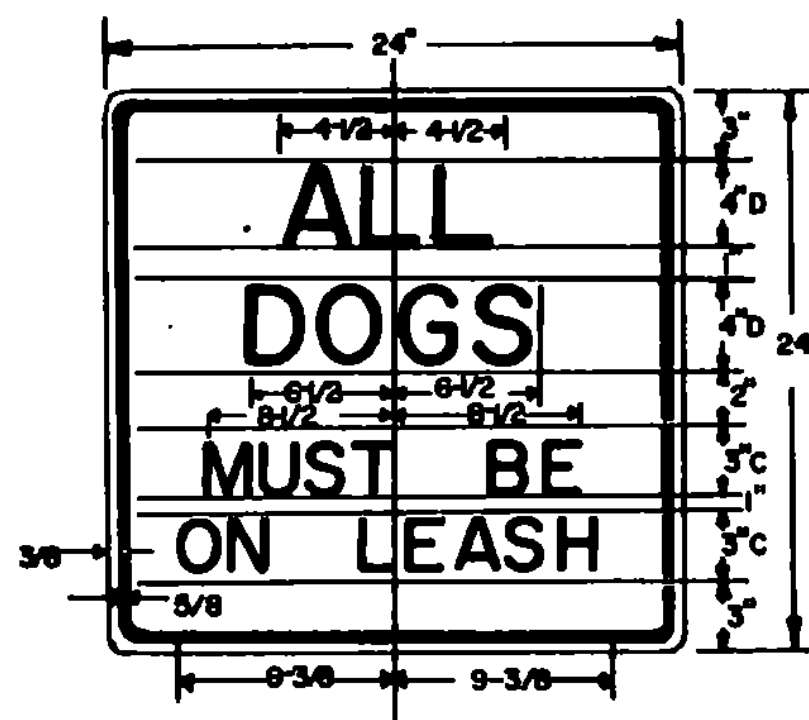
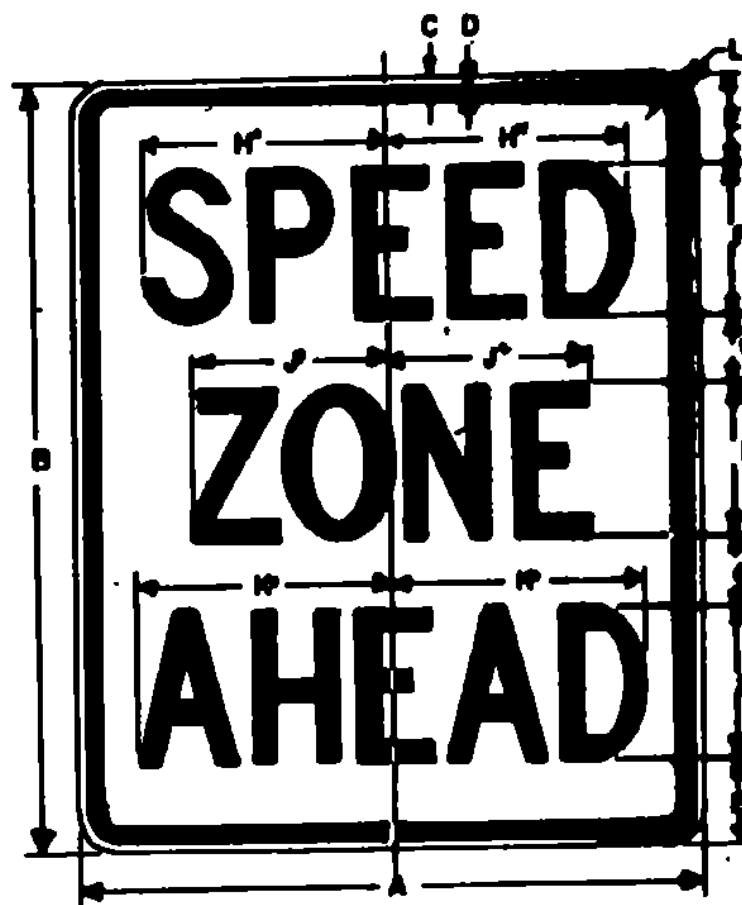
SIGN	DIMENSIONS (INCHES)										
	A	B	C	D	E	F	G	H	J	K	L
MIN.	18	24	3/8	5/8	3-3/8	9-3/8	1-7/8	2-1/4	1-3/8	8-1/2	5-1/2
STD.	24	30	3/8	5/8	4-1/2	12-1/2	2-1/2	3	1-7/8	7-3/8	3-3/8
EXPWY.	36	48	3/8	7/8	6-3/4	18-3/4	3-3/4	4-1/2	2-3/8	11-1/8	5-1/8
FWY.	48	60	3/4	1-1/4	9	26	6	6	3-3/4	14-3/16	7-1/16

SIGN	DIMENSIONS (INCHES)										
	L	M	N	P	Q	R	S	T	U	V	W
MIN.	4-11/16	6	22-1/2	1-1/2	3	6-3/4	4-1/8	2-1/4	1-1/16	7/8	1-1/2
STD.	6-1/4	8	30	2	4	9	5-1/2	3	1-3/8	2-1/8	1-1/2
EXPWY.	9-3/8	12	45	3	6	13-1/2	8-1/4	4-1/2	2	3-3/4	2-1/4
FWY.	12-1/2	16	60	4	8	18	11	6	2-11/16	4	3

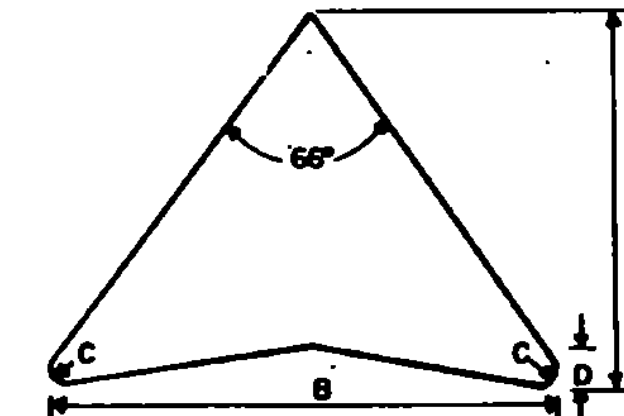
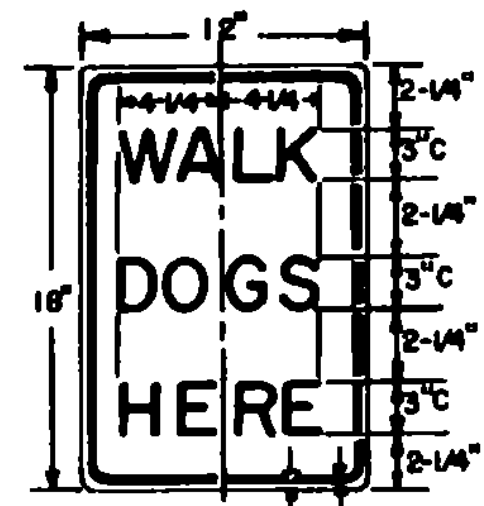


SIGN	DIMENSIONS (INCHES)										
	A	B	C	D	E	F	G	H	J	K	L
MIN.	18	24	3/8	5/8	3	3E	2	8E	1-1/2	7-3/16	5-1/2
STD.	24	30	3/8	5/8	4	4E	2	10E	1-1/2	9-9/16	7-5/16
EXPWY.	36	48	3/8	7/8	6	6E	5	14E	2-1/4	14-3/8	11
FWY.	48	60	3/4	1-1/4	8	8E	4	20E	3	19-1/8	14-5/8

SIGN	DIMENSIONS (INCHES)										
	A	B	C	D	E	F	G	H	J	K	L
STD. & MIN.	24	30	3/8	5/8	4	4C	2	10D	1-1/2	9-3/16	6-13/16
EXPWY.	36	48	3/8	7/8	6	6C	5	14D	2-1/4	13-3/4	10-9/16
FWY.	48	60	3/4	1-1/4	8	8C	6	16D	3	18-3/8	13-5/8

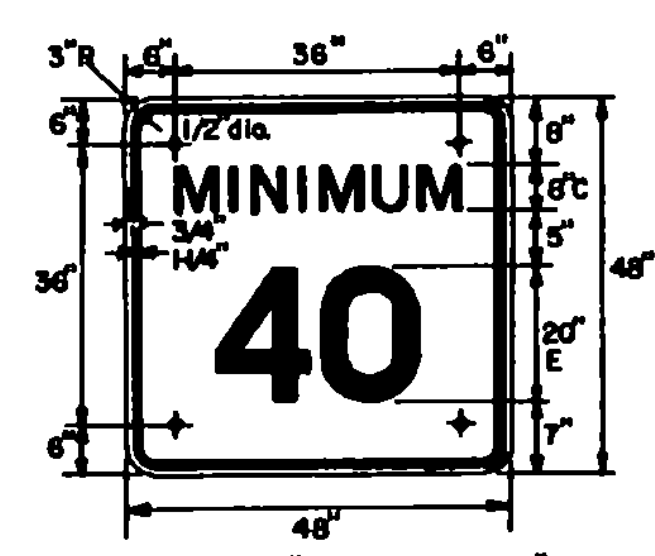


SIGN	DIMENSIONS (INCHES)										
	A	B	C	D	E	F	G	H	J	K	L
MIN.	18	24	3/8	5/8	3-1/2	4C	2-1/2	8-13/16	5-1/2	7	1-1/2
STD.	24	30	3/8	5/8	3-1/2	6C	2-1/2	9-3/16	7-8/16	9-3/4	1-1/2
EXPWY.	36	48	3/8	7/8	7	8C	5	13-5/8	11-1/16	14	2-1/4
FWY.	48	60	3/4	1-1/4	9	10C	6	17	13-5/16	17-1/2	3



SIGN	DIMENSIONS (INCHES)										
	A	B	C	D	E	F	G	H	J	K	L
EXPWY.	30	24	3/8	5/8	3-1/2	4C	2-1/2	4D	12-1/2	13	12-3/4
FWY.	48	36	3/8	7/8	5	6D	4	6D	20-7/16	21-1/8	19-1/8

ARROW HEAD	DIMENSIONS (INCHES)			
	SIZE	A	B	C
MINIMUM	18X24	7-1/8	8-1/2	3/8
STANDARD	24X30	9-1/2	11-3/8	1-1/2
EXPRESSWAY	36X48	14-1/4	17	1-3/8
FREEWAY	48X60	19	22-5/8	1-7/8



MATERIALS:
THE SIGN BASE MATERIALS USED FOR THE REGULATORY SIGNS SHOWN ON THIS SHEET MAY BE ANY OF THE FOLLOWING OF THE MINIMUM THICKNESS NOTED.

	12" X 18"	18" X 24"	24" X 30"	30" X 36"	36" X 48"	48" X 60"
FLAT SHEET ALUMINUM	0.050	0.050	0.080	0.100	0.100	0.100
HIGH DENSITY OVERLAP PLYWOOD	1/2	1/2	1/2	5/8	5/8	5/8
GALVANIZED FLAT SHEET STEEL	18 GAGE	16 GAGE	16 GAGE	14 GAGE	14 GAGE	14 GAGE

THE REFLECTIVE MATERIAL FOR GROUND MOUNTED SIGNS SHALL BE FLAT TOP WHITE REFLECTIVE SHEETING APPLIED TO THE ENTIRE BACKGROUND OF THE SIGN.

THE TEXT OF THE SIGNS MAY BE LETTERING FILM SILK SCREENED OR HAND PAINTED. WHEN HAND PAINTED, POOR WORKMANSHIP SHALL BE CAUSE FOR REJECTION.

SPECIFICATIONS:
REGULATORY SIGNS SHALL MEET THE STANDARD STATE SPECIFICATIONS FOR TRAFFIC SIGNS.

TEXT DESIGN:
LETTERS, DIGITS, ARROWS, SPACINGS, AND TEXT DIMENSIONS SHALL CONFORM WITH THE STANDARD ALPHABETS AND DESIGNS DESCRIBED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PREPARED BY THE NATIONAL JOINT COMMITTEE ON UNIFORM TRAFFIC CONTROL DEVICES.

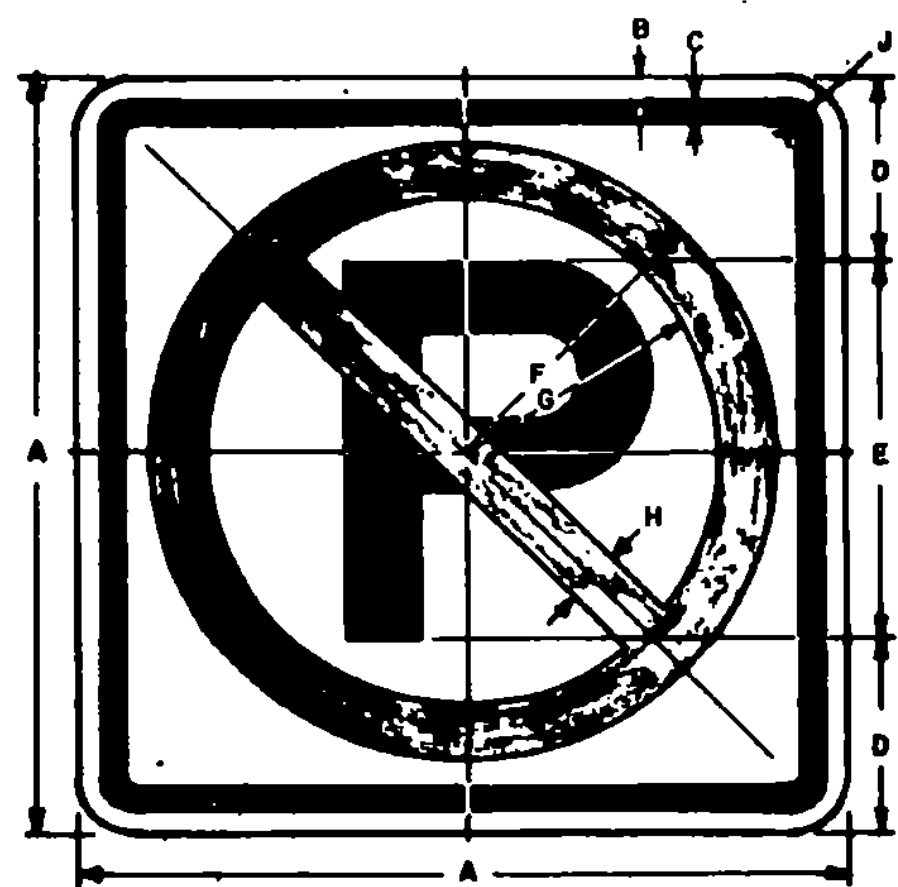
REVISIONS AND CORRECTIONS
SEPT. 20, 1984 - ADDED "MINIMUM 40" SIGN - CHANGED "SPEED LIMIT 50" (FWY. - G & H)
- CHANGED "PROHIBITED DUMPING HOUSEHOLD GARBAGE" SIGN
DEC. 27, 1984 - CLARIFIED KEEP RIGHT SYMBOL
FEB. 3, 1986 - UPDATED TO 1985 SPECIFICATIONS

APPROVED
DATE JULY 18, 1984
DIRECTOR OF ENGINEERING AND CONSTRUCTION
Arthur J. Goss
CHIEF OF DESIGN
Paul C. Evans
SURVEY AND PLANS ENGINEER

REGULATORY SIGNS

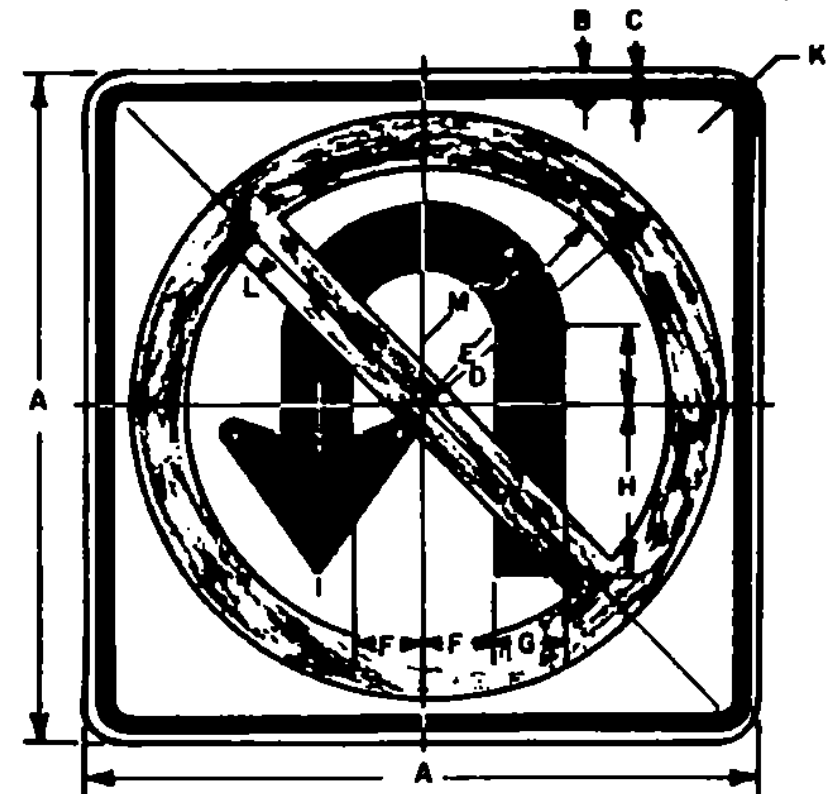


STANDARD
E-15B



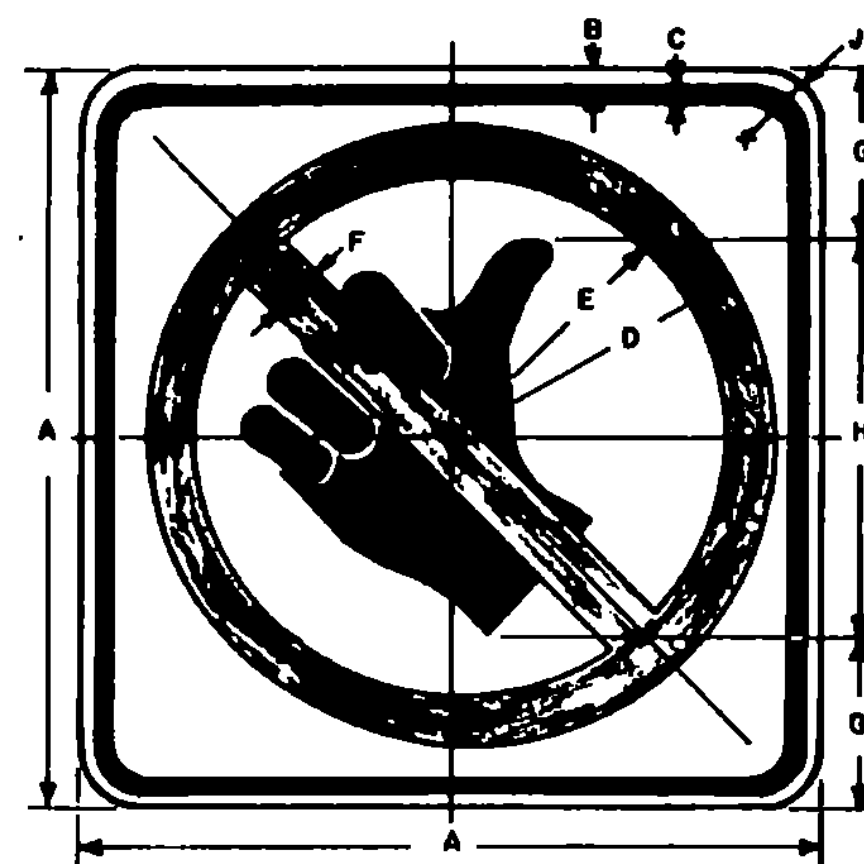
COLORS
CIRCLE AND DIAGONAL - RED (REFL-RURAL)
SYMBOL AND BORDER - BLACK (NON-REFL)
BACKGROUND - WHITE (REFL-RURAL)

SIGN	DIMENSIONS (INCHES)									
	A	B	C	D	E	F	G	H	J	K
URBAN MIN. & STD.	12	3/8	3/8	3	62(M)	4-7/8	3-7/8	1	1-1/2	
RURAL MIN. & STD.	24	3/8	6/8	6	122(M)	10-1/2	8-1/2	2	1-1/2	
EXPWY.	36	5/8	7/8	9	182(M)	15-3/4	12-3/4	3	2-1/4	
FWY.	48	3/4	1-1/4	12	242(M)	21	17	4	3	



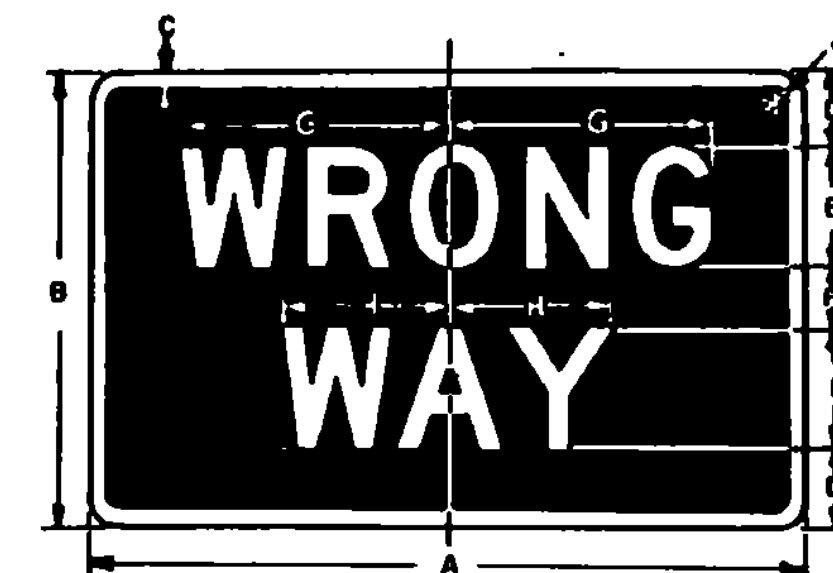
COLORS
CIRCLE AND DIAGONAL - RED (REFL)
ARROW AND BORDER - BLACK (NON-REFL)
BACKGROUND - WHITE (REFL)

SIGN	DIMENSIONS (INCHES)												
	A	B	C	D	E	F	G	H	J	K	L	M	
STD. & MIN.	24	3/8	5/8	10-1/2	8-1/2	2-1/2	2-1/2	6	2-1/4	1-1/2	2	5	
SPECIAL	30	1/2	3/4	13-1/8	10-5/8	3-1/8	3-1/8	7-1/2	2-13/16	1-7/8	2-1/2	6-1/4	
EXPWY.	36	5/8	7/8	15-3/4	12-3/4	3-3/4	3-3/4	9	3-3/8	2-1/4	3	7-1/2	
SPECIAL	48	3/4	1-1/4	21	17	5	5	12	4-1/2	3	4	10	



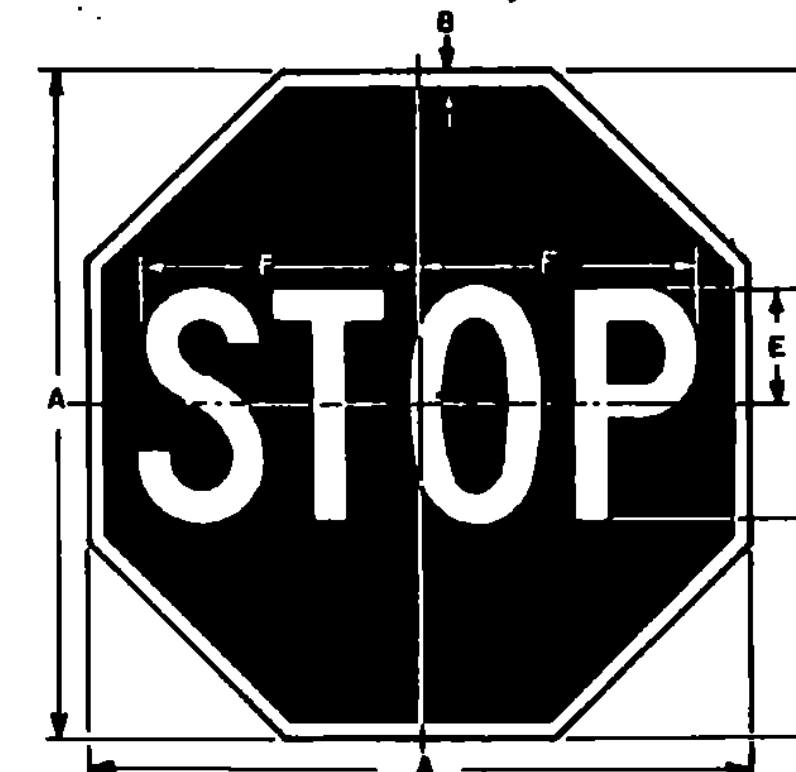
COLORS
CIRCLE AND DIAGONAL - RED (REFL)
SYMBOL AND BORDER - BLACK (NON-REFL)
BACKGROUND - WHITE (REFL)

SIGN	DIMENSIONS (INCHES)									
	A	B	C	D	E	F	G	H	J	
MIN.	18	3/8	5/8	7-7/8	6-3/8	1-1/2	3-3/4	10-1/2	1-1/2	
STD.	24	3/8	5/8	10-1/2	8-1/2	2	5	14	1-1/2	



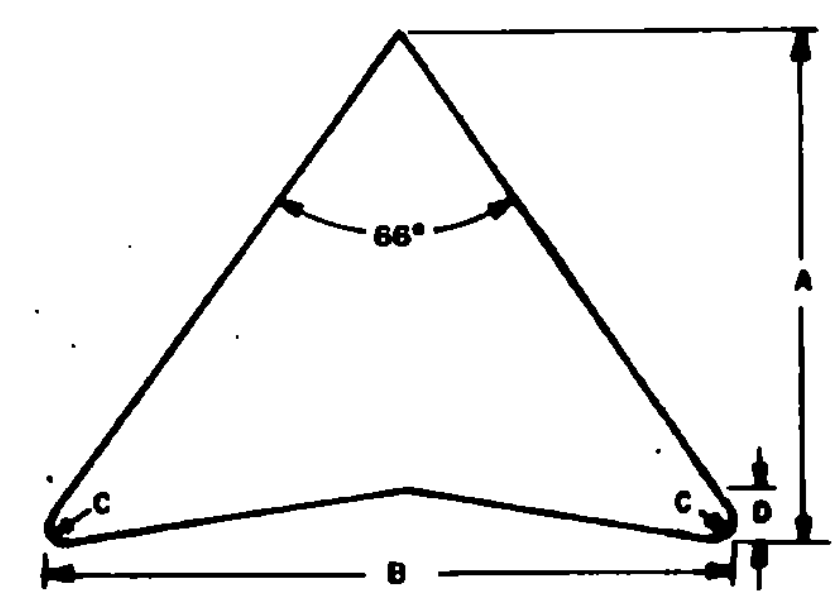
COLORS
LEGEND - WHITE (REFL)
BACKGROUND - RED (REFL)

SIGN	DIMENSIONS (INCHES)									
	A	B	C	D	E	F	G	H	J	
MIN.	30	18	5/8	3	5D	2	11-1/8	8-11/8	1-1/2	
STD.	36	24	3/4	4-1/2	6D	3	13-5/8	8-1/8	1-1/2	
SPECIAL	42	30	7/8	5	8D	4	17-3/4	10-3/4	1-7/8	

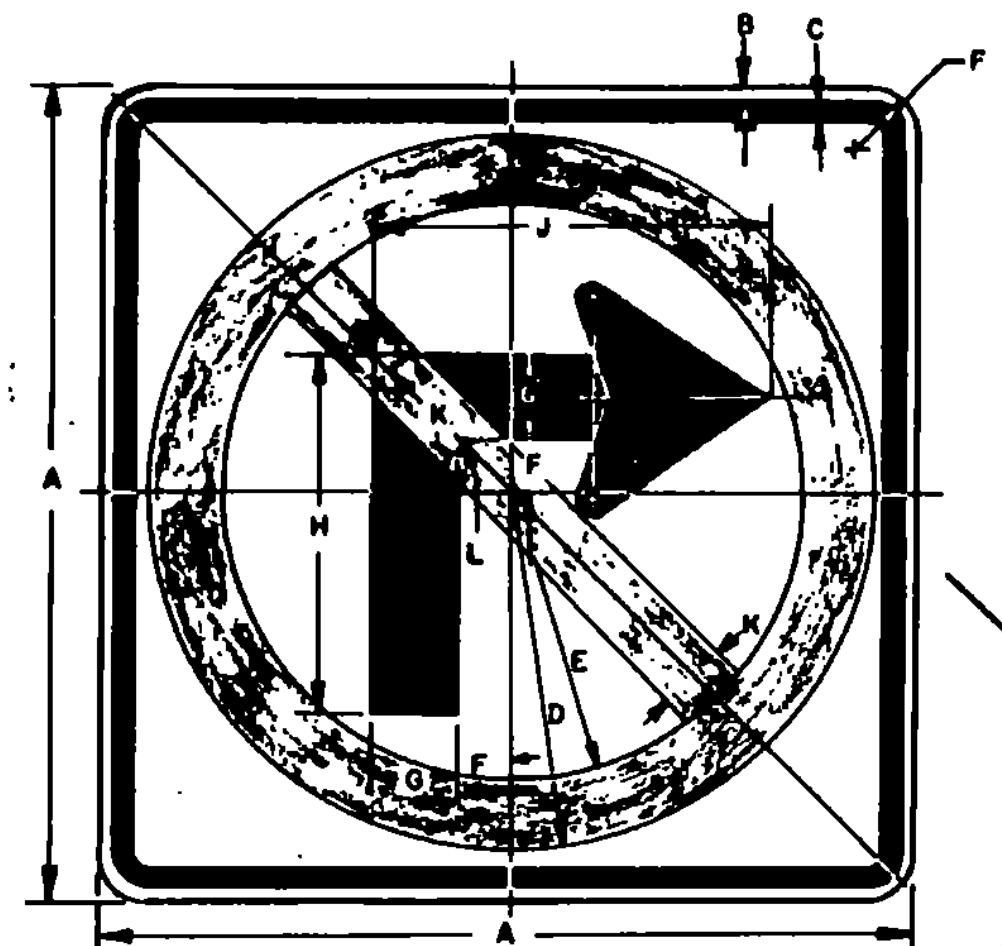


COLORS
LEGEND - WHITE (REFL)
BACKGROUND - RED (REFL)

SIGN	DIMENSIONS (INCHES)					
	A	B	C	D	E	F
BIKE	18	3/8	6	6C	3	7-3/4
MIN.	24	5/8	8	8C	4	10
STD.	30	3/4	10	10C	5	12-1/2
EXPWY.	36	7/8	12	12C	6	15
SPECIAL	48	1-1/4	16	16C	8	20

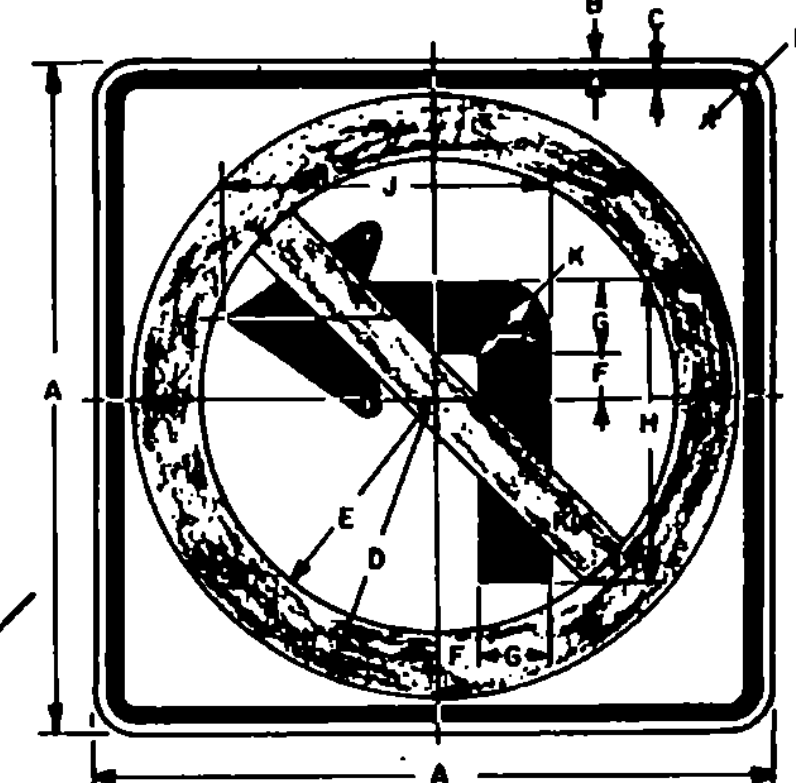


ARROW HEAD	DIMENSIONS (INCHES)			
	SIZE	A	B	C
MIN. & STD.	24" X 24"	6	7-1/8	5/8
SPECIAL	30" X 30"	7-1/2	8-7/8	3/4
EXPWY.	36" X 36"	8-7/8	10-5/8	7/8
SPECIAL	48" X 48"	11-7/8	14-1/8	1-1/8

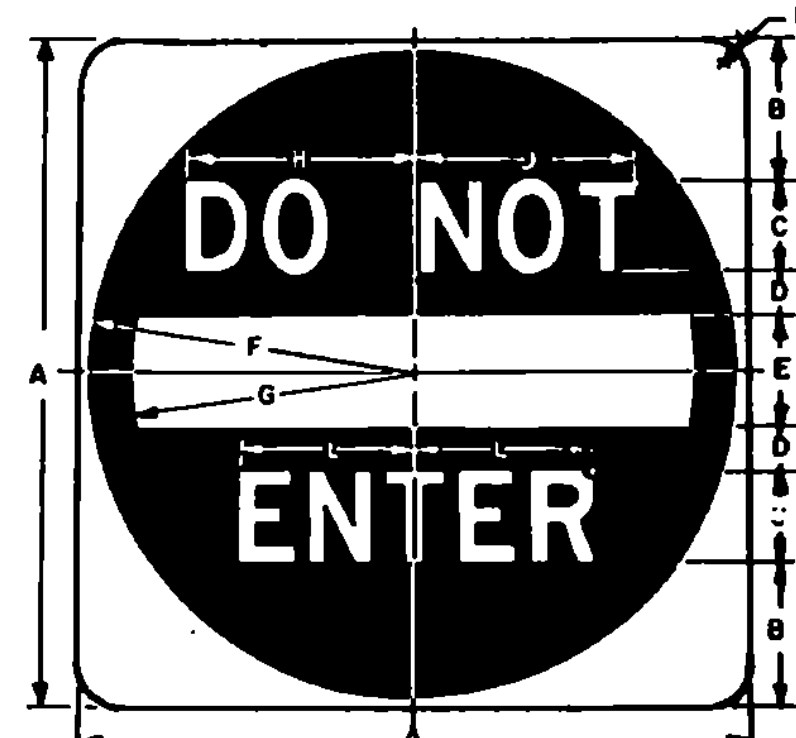


COLORS & DIMENSIONS APPLY TO BOTH SIGNS

COLORS
CIRCLE & DIAGONAL - RED (REFL)
ARROW & BORDER - BLACK (NON-REFL)
BACKGROUND - WHITE (REFL)

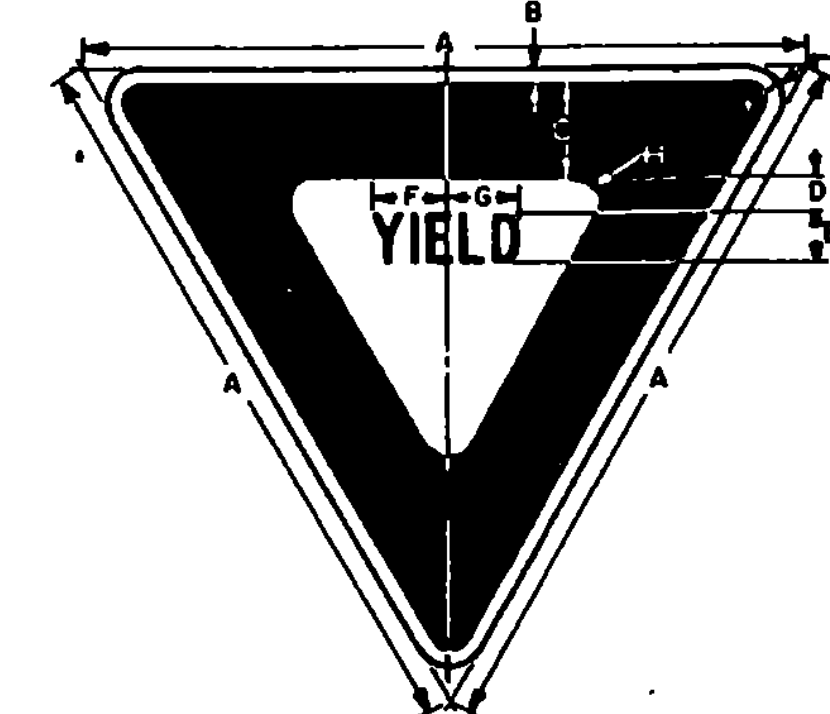


SIGN	DIMENSIONS (INCHES)											
	A	B	C	D	E	F	G	H	J	K	L	
STD. & MIN.	24	3/8	5/8	10-1/2	8-1/2	1-1/2	2-1/2	10-1/2	11-1/2	2	1/2	
SPECIAL	30	1/2	3/4	13-1/8	10-5/8	1-7/8	3-1/8	13-1/8	14-1/2	2-1/2	3/8	
EXPWY.	36	5/8	7/8	15-3/4	12-3/4	2-1/4	3-3/4	15-3/4	17-1/4	3	3/4	
SPECIAL	48	3/4	1-1/4	21	17	3	5	21	23	4	1	



COLORS
SYMBOL - RED (REFL)
LEGEND & BACKGROUND - WHITE (REFL)

SIGN	DIMENSIONS (INCHES)										
	A	B	C	D	E	F	G	H	J	K	L
STD. & MIN.	30	6-1/2	40	2	5	14-1/2	12-1/2	9-3/4	10	1-7/8	7-7/8
EXPWY.	36	7-1/2	50	2-1/2	6	17-1/2	15	12	12 3/8	2-1/4	9-13/16
SPECIAL	48	11	60	3	8	23-1/2	20	14-1/2	15	3	11-3/4



COLORS
LEGEND & BORDER - RED (REFL)
BACKGROUND - WHITE (REFL)

SIGN	DIMENSIONS (INCHES)									
	A	B	C	D	E	F	G	H	J	
BIKE	24	3/8	3	1-3/8	2C	3-1/4	3	7/8	1-1/2	
MIN.	30	5/8	4	1-3/4	2-1/2C	3-15/16	3-5/8	7/8	1-1/2	
STD.	36	3/4	5	2	3C	4-11/16	4-3/8	1-1/4	2	
EXPWY.	48	1	6	2-3/4	4C	6-1/4	5-7/8	2	3	
FWY.	60	1-1/2	8	3-1/2	5C	7-7/8	7-1/4	2-1/2	4	

MATERIALS:

THE SIGN BASE MATERIALS USED FOR THE REGULATORY SIGNS SHOWN ON THIS SHEET MAY BE ANY OF THE FOLLOWING OF THE MINIMUM THICKNESS NOTED.

	12" X 12"	24" X 24"	36" X 36"	48" X 48"
FLAT SHEET ALUMINUM	0.080"	0.080"	0.100"	0.125"
HIGH DENSITY OVERLAID PLYWOOD	1/2"	1/2"	5/8"	5/8"
GALVANIZED FLAT SHEET STEEL	18 GAGE	16 GAGE	14 GAGE	12 GAGE

THE REFLECTIVE MATERIAL SHALL BE ENCAPSULATED LENS WHITE OR SILVER REFLECTIVE SHEETING APPLIED TO THE ENTIRE BACKGROUND OF THE SIGN.

THE BLACK PORTIONS OF THE SIGNS MAY BE LETTERING FILM, SILK SCREENED OR HAND PAINTED. WHEN HAND PAINTED, POOR WORKMANSHIP SHALL BE CAUSE FOR REJECTION.

COLORS:

THE REGULATORY SIGNS SHOWN ON THIS SHEET SHALL BE AS DETAILED FOR EACH SIGN. THE COLORS SHALL CONFORM WITH THE COLORS ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS AND APPROVED BY THE DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.

SPECIFICATIONS:

REGULATORY SIGNS SHALL MEET THE STANDARD STATE SPECIFICATIONS FOR TRAFFIC SIGNS.

TEXT DESIGN:

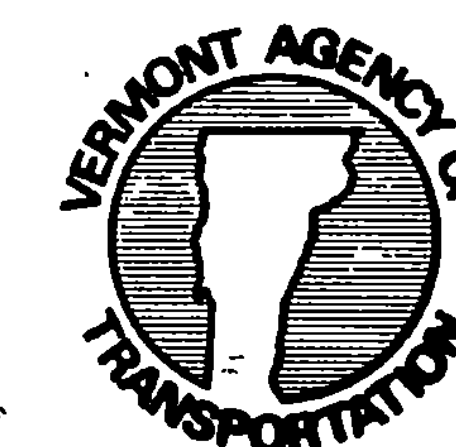
LETTERS, DIGITS, ARROW, SPACINGS AND TEXT DIMENSIONS SHALL CONFORM WITH THE STANDARD ALPHABETS AND DESIGNS PRESCRIBED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PREPARED BY THE NATIONAL JOINT COMMITTEE ON UNIFORM TRAFFIC CONTROL DEVICES.

REVISIONS AND CORRECTIONS
FEB. 3, 1986 - UPDATED TO 1986 SPECIFICATIONS

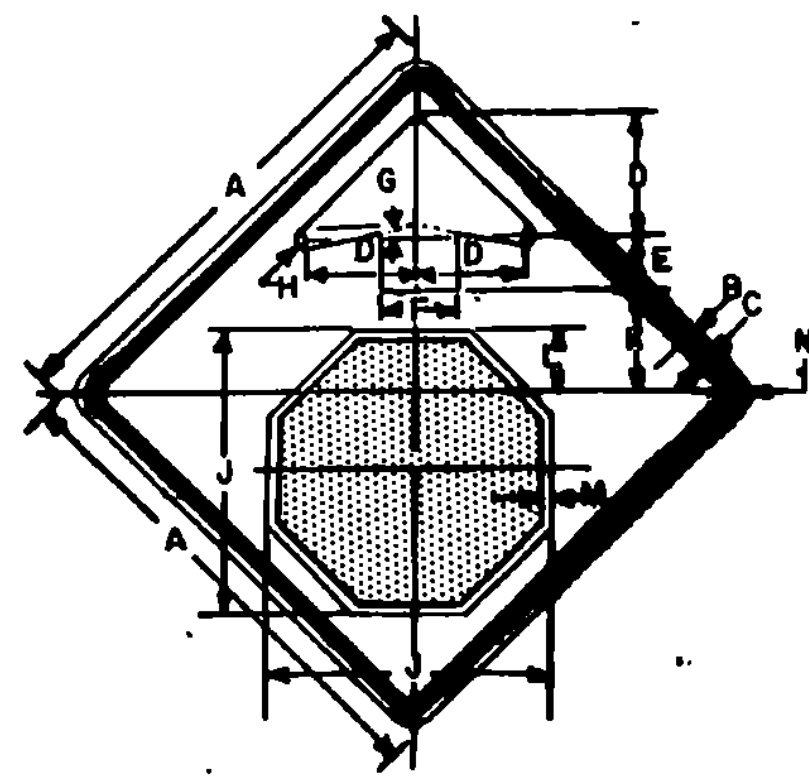
APPROVED

DATE JULY 18, 1984
S. J. G...
DIRECTOR OF ENGINEERING AND CONSTRUCTION
Arthur J. Goss
CHIEF OF DESIGN
Paul E. ...
SURVEY AND PLANS ENGINEER

REGULATORY SIGNS

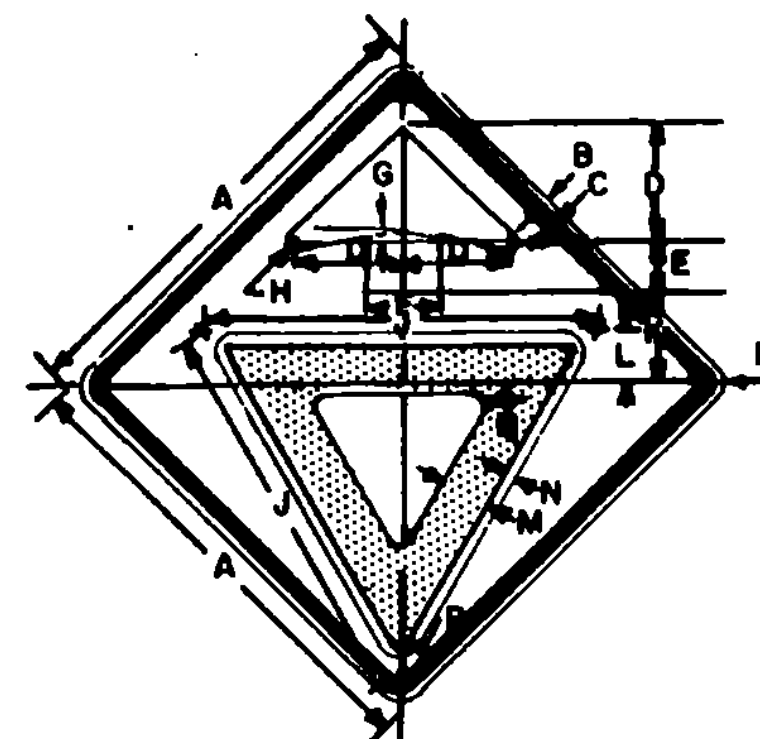


**STANDARD
E-15C**



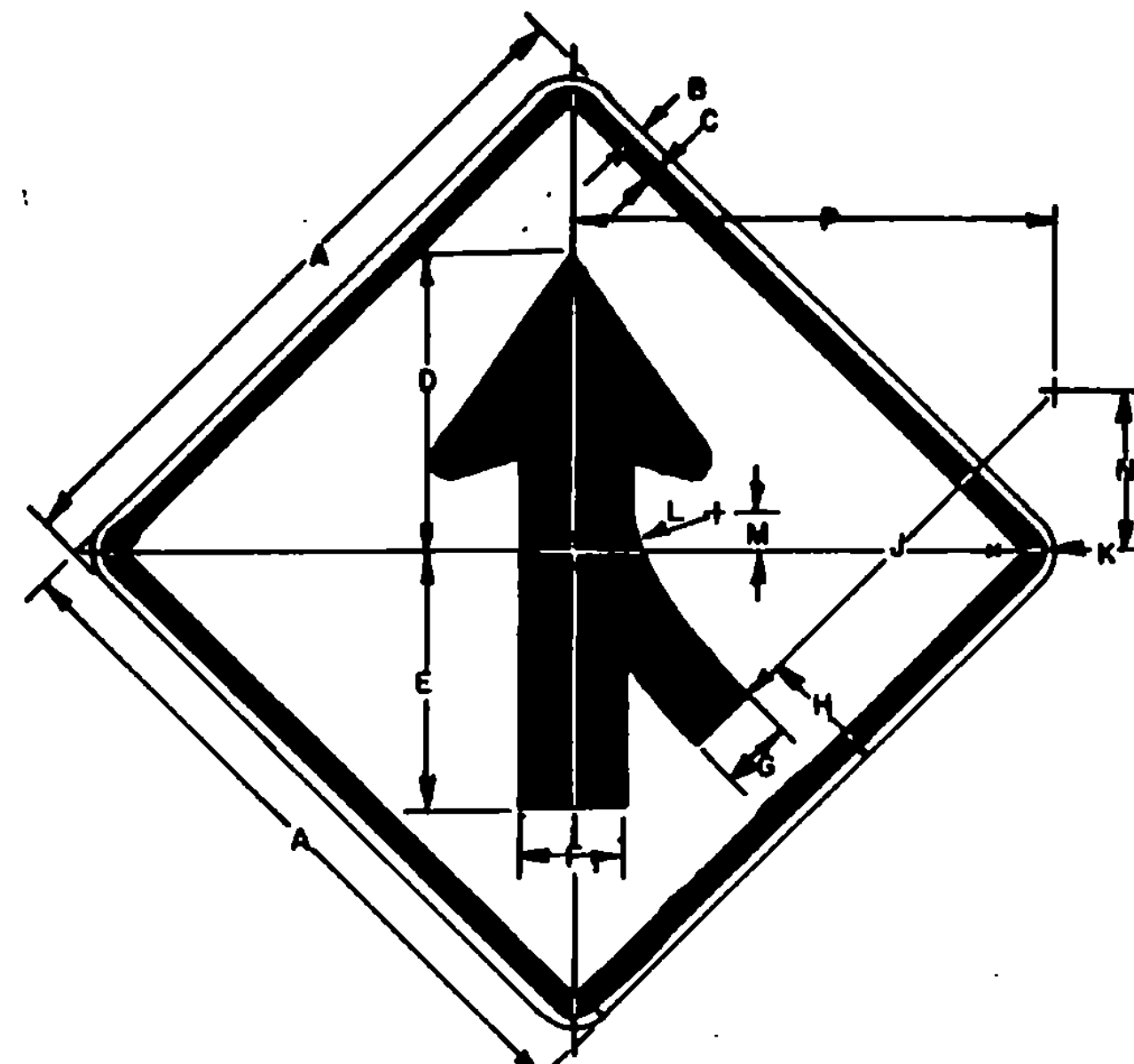
COLORS
 BORDER AND ARROW - BLACK (NON-REFL)
 SYMBOL - WHITE BORDER ON RED BACKGROUND (REFL)
 BACKGROUND - YELLOW (REFL)

SIGN	DIMENSIONS (INCHES)															
	A	B	C	D	E	F	G	H	J	K	L	M	N			
MIN.	30	1/2	3/4	7-1/2	3-3/4	5	5/8	5/8	9-3/4	8-1/4	2-7/8	1/2	1-7/8			
STD.	36	5/8	7/8	9	4-1/2	6	3/4	3/8	28	7-1/2	3-3/8	3-3/4	5/8	1-3/8	3/4	2-1/4
SPECIAL	48	3/4	1-1/4	12	6	8	1	1/2	36	10	4-1/2	5	3/4	17/8	1	3



COLORS
 BORDER AND ARROW - BLACK (NON-REFL)
 SYMBOL - RED BORDER ON WHITE BACKGROUND (REFL)
 BACKGROUND - YELLOW (REFL)

SIGN	DIMENSIONS (INCHES)															
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
MIN.	30	1/2	3/4	7-1/2	3-3/4	5	5/8	5/8	25	6-1/4	3	3-3/8	1/2	1-1/4	5/8	1-7/8
STD.	36	5/8	7/8	9	4-1/2	6	3/4	3/8	28	7-1/2	3-3/8	3-3/4	5/8	1-3/8	3/4	2-1/4
SPECIAL	48	3/4	1-1/4	12	6	8	1	1/2	36	10	4-1/2	5	3/4	17/8	1	3



COLORS
 LEGEND - BLACK (NON-REFL)
 BACKGROUND - YELLOW (REFL)

SIGN	DIMENSIONS (INCHES)													
	A	B	C	D	E	F	G	H	J	K	L	M	N	P
MIN.	24	3/8	5/8	10-1/4	8-3/4	3-1/2	23/8	4-3/16	22-1/4	1-1/2	6-3/8	2-5/8	10-3/8	23-3/16
STD.	30	1/2	3/4	13	11	4-3/8	3	5-1/4	28	1-7/8	8	3	13	27-3/4
EXPWY.	36	5/8	7/8	15-3/4	13-1/4	5-1/4	3-3/8	6-5/16	33-5/8	2-1/4	9-3/8	4	15-5/8	33-3/16
FWY.	48	3/4	1-1/4	20-1/2	17-1/2	7	4-3/4	8-3/8	45	3	12-3/16	5-1/4	20-3/4	44-3/8

COLORS

THE WARNING SIGNS SHOWN ON THIS SHEET SHALL BE AS DETAILED FOR EACH SIGN. THE COLORS SHALL CONFORM WITH THE COLORS ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS APPROVED BY THE DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.

MATERIALS

THE SIGN BASE MATERIALS USED FOR THE WARNING SIGNS SHOWN ON THIS SHEET MAY BE ANY OF THE FOLLOWING OF THE MINIMUM THICKNESS NOTED.

	12" x 18"	18" x 24"	24" x 24"	24" x 30"	30" x 30"	30" x 36"	36" x 36"	36" x 48"	48" x 48"	48" x 60"
FLAT SHEET ALUMINUM	0.060"	0.080"	0.100"	0.125"	0.150"	0.175"	0.200"	0.225"	0.250"	0.275"
HIGH DENSITY OVERLAID PLYWOOD	1/2"	1/2"	1/2"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"
GALVANIZED FLAT SHEET STEEL	18 GAGE	16 GAGE	14 GAGE	12 GAGE	10 GAGE	8 GAGE	6 GAGE	4 GAGE	3 GAGE	2 GAGE

THE REFLECTIVE MATERIAL SHALL BE REFLECTIVE SHEETING APPLIED TO THE ENTIRE BACKGROUND OF THE SIGN.

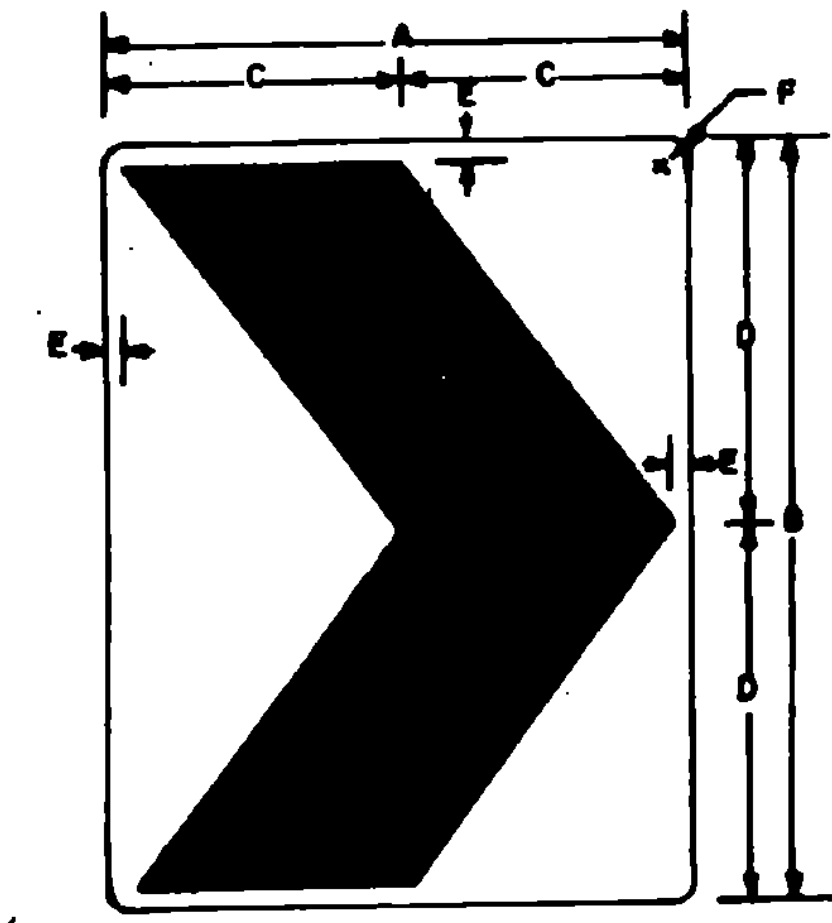
THE BLACK PORTIONS OF THE SIGNS MAY BE LETTERING FILM, SILK SCREENED OR HAND PAINTED. WHEN HAND PAINTED, POOR WORKMANSHIP SHALL BE CAUSE FOR REJECTION.

SPECIFICATIONS

WARNING SIGNS SHALL MEET THE STANDARD STATE SPECIFICATIONS FOR TRAFFIC SIGNS.

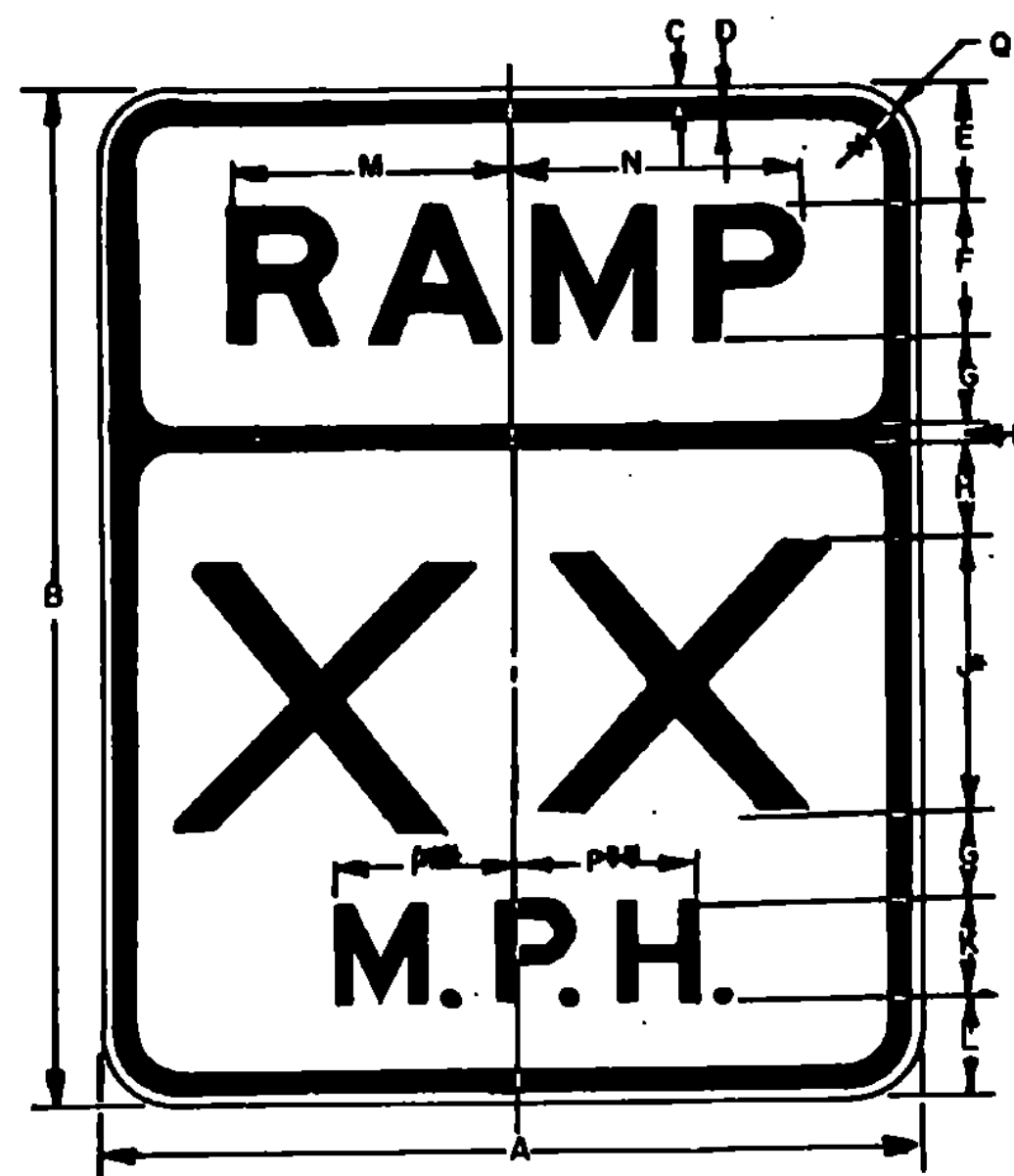
TEXT DESIGN

LETTERS, DIGITS, ARROW, SPACINGS AND TEXT DIMENSIONS SHALL CONFORM WITH THE STANDARD ALPHABETS AND DESIGNS PRESCRIBED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PREPARED BY THE NATIONAL JOINT COMMITTEE ON UNIFORM TRAFFIC CONTROL DEVICES.



COLORS
 CHEVRON - BLACK (NON-REFL)
 BACKGROUND - YELLOW (REFL)

SIGN	DIMENSIONS (INCHES)					
	A	B	C	D	E	F
MIN.	12	18	6	9	1/2	1-1/2
STD.	18	24	9	12	3/4	1-1/2
SPECIAL	24	30	12	15	7/8	1-1/2
EXPWY.	30	36	15	18	1	1-7/8
FWY.	36	48	18	24	1-1/8	2-1/4

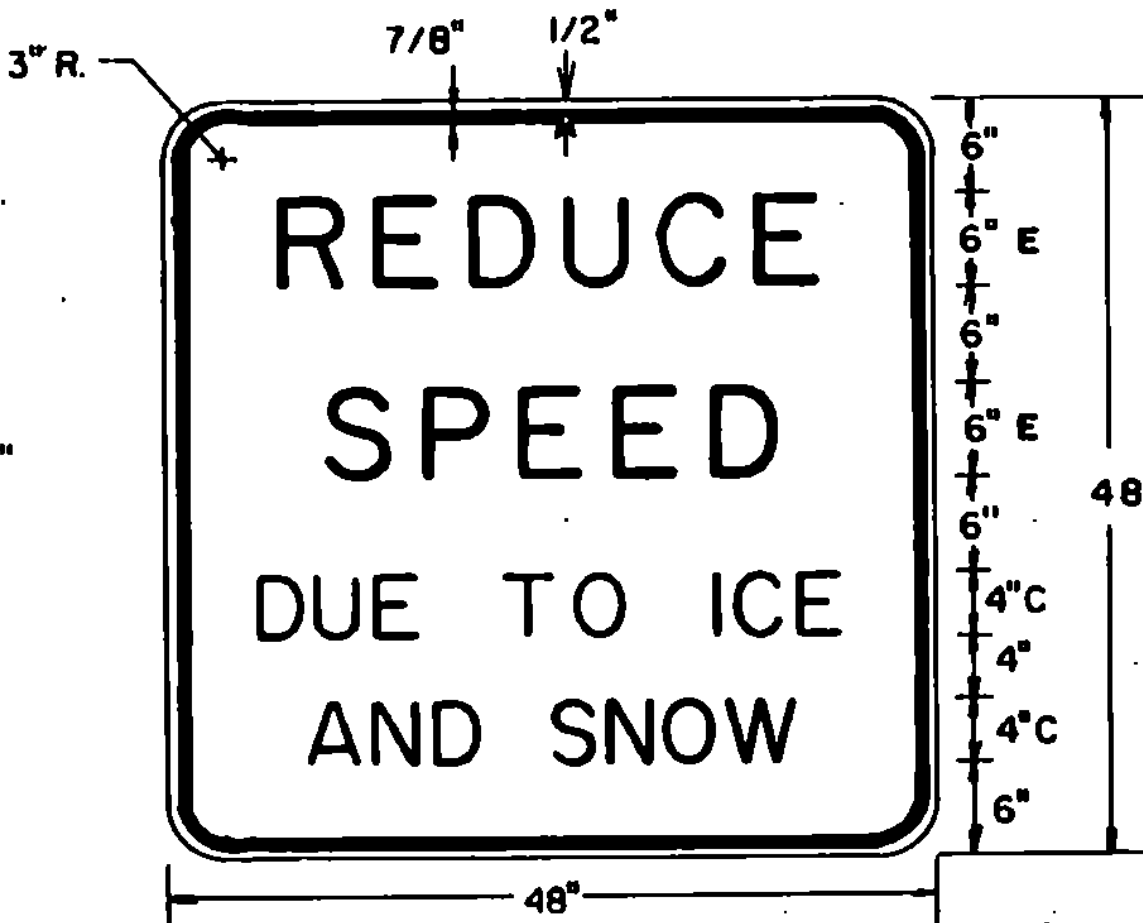


COLORS
 LEGEND - BLACK (NON-REFL)
 BACKGROUND - YELLOW (REFL)

SIGN	DIMENSIONS (INCHES)														
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q
MIN. & STD.	24	30	3/8	5/8	3-1/2	4E	2-1/2	2-7/8	8E	3E	3	8-1/4	8-1/2	5-5/16	1-1/2
EXPWY.	36	48	5/8	7/8	6	6E	4	5-1/8	12E	4E	6	13-3/8	13-3/4	7-1/8	3-1/4
FWY.	48	60	3/4	1-1/4	7	8E	5	5-3/4	16E	6E	6	16-1/2	17	10-5/8	3

* OPTICALLY SPACE NUMBERS ABOUT VERTICAL CENTERLINE
 ** INCREASE SPACING 100%

THE "RAMP" SPEED SIGN IS USED ON RAMPS LEADING FROM ONE FREEWAY TO ANOTHER AND THE "EXIT" SPEED SIGN IS USED ON NORMAL EXITS.

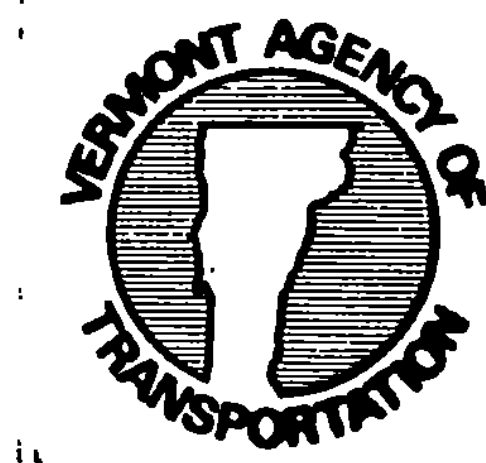


COLORS
 LEGEND - BLACK (NON-REFL.)
 BACKGROUND - YELLOW (REFL.)

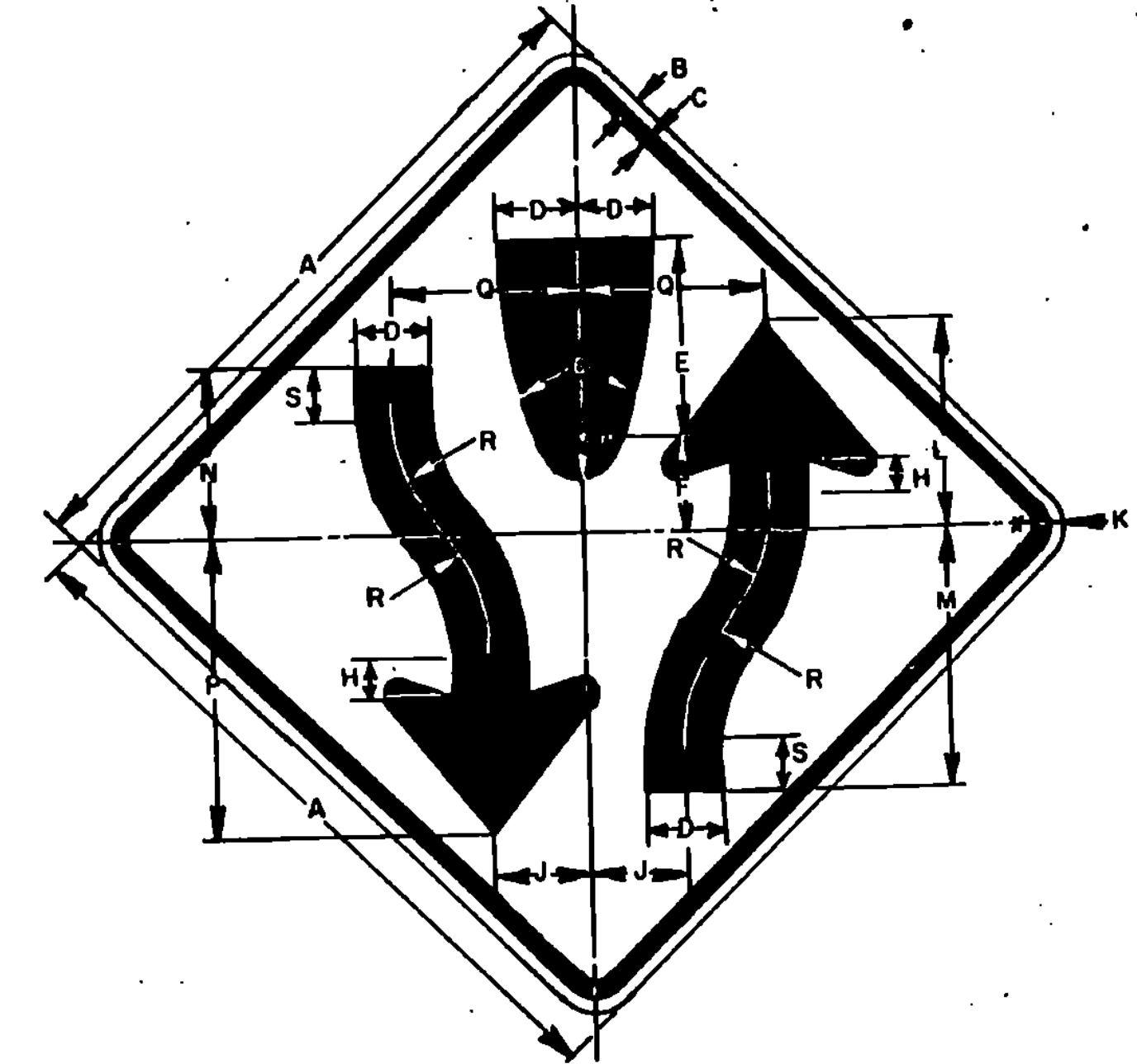
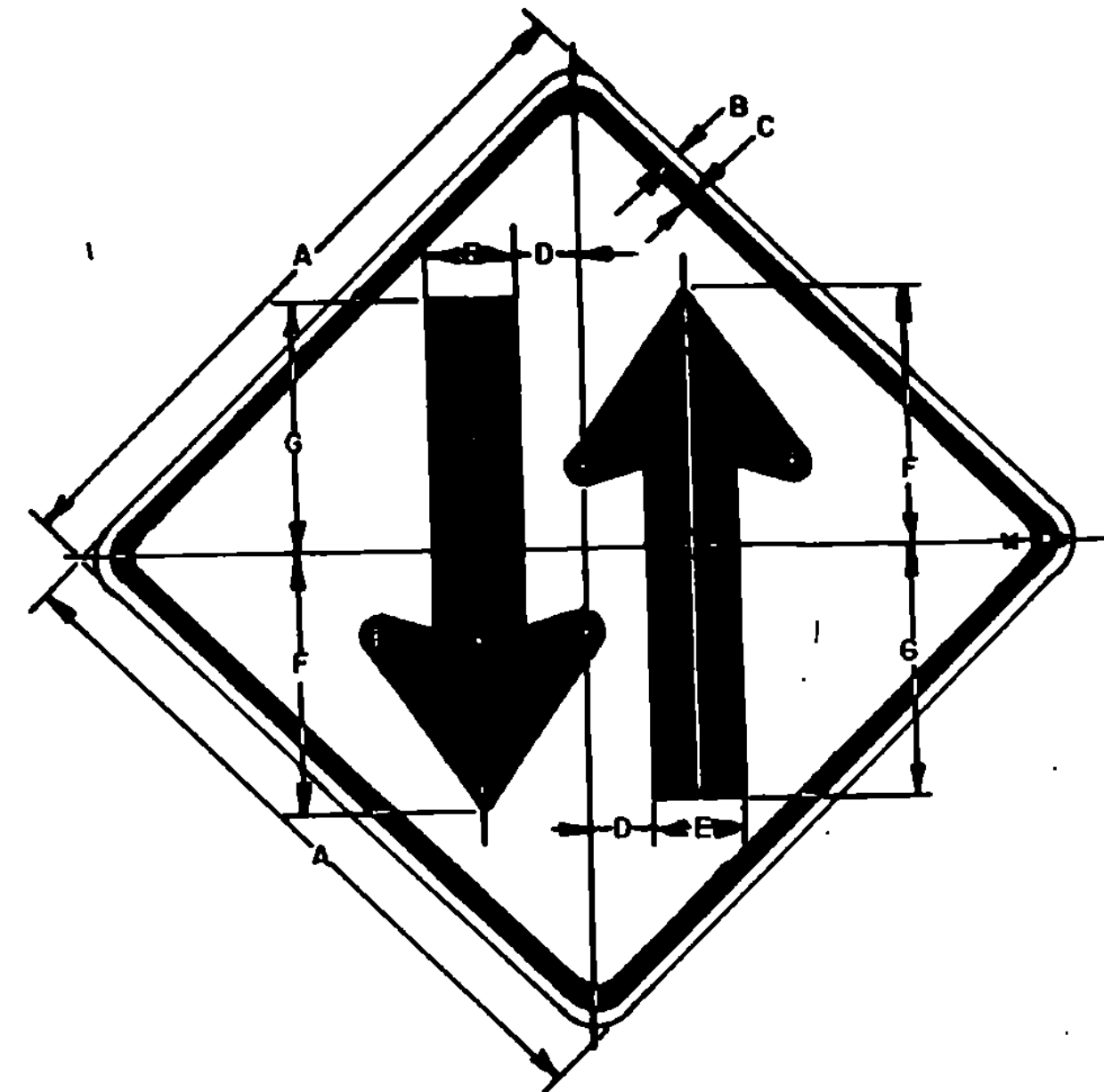
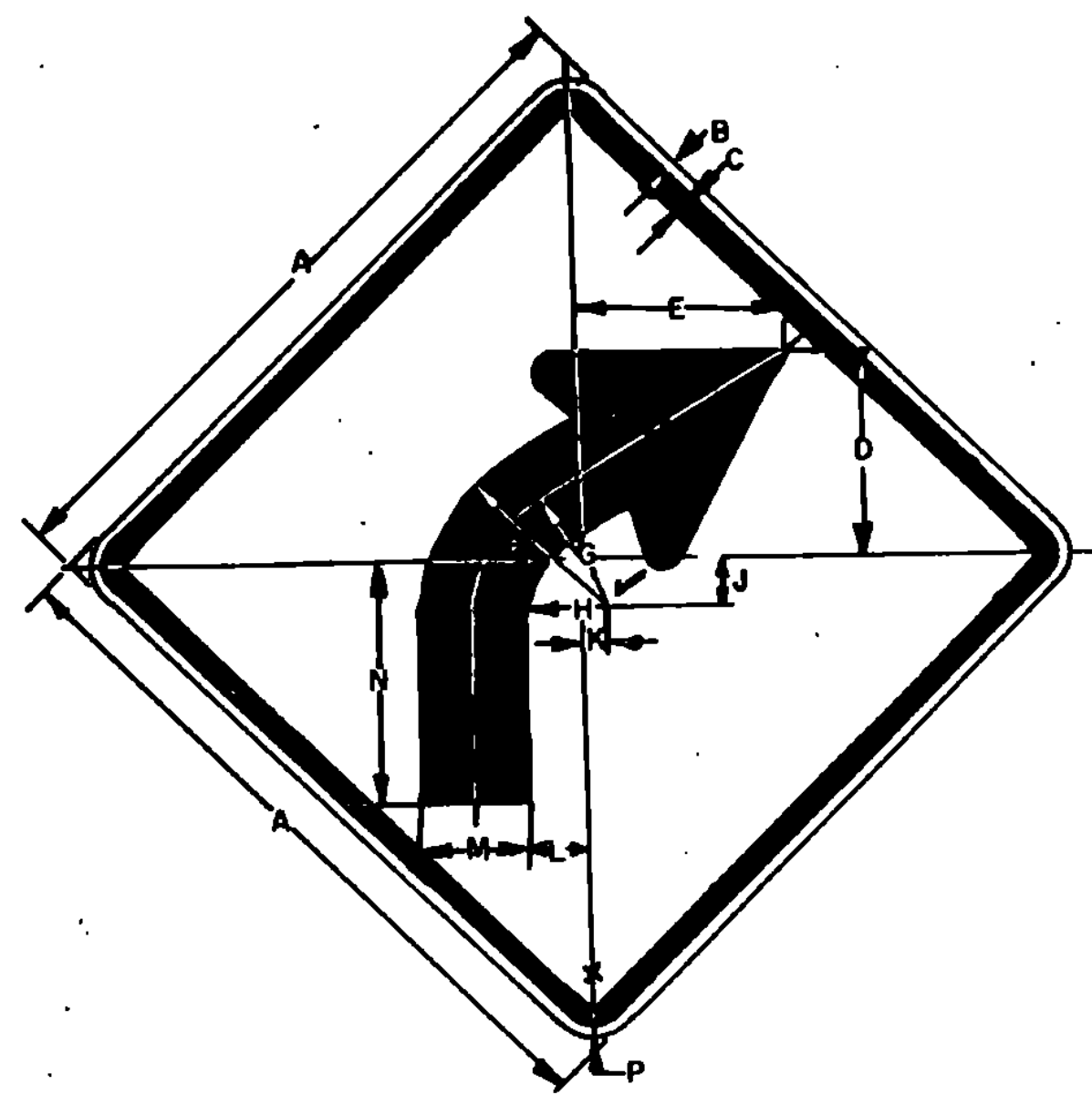
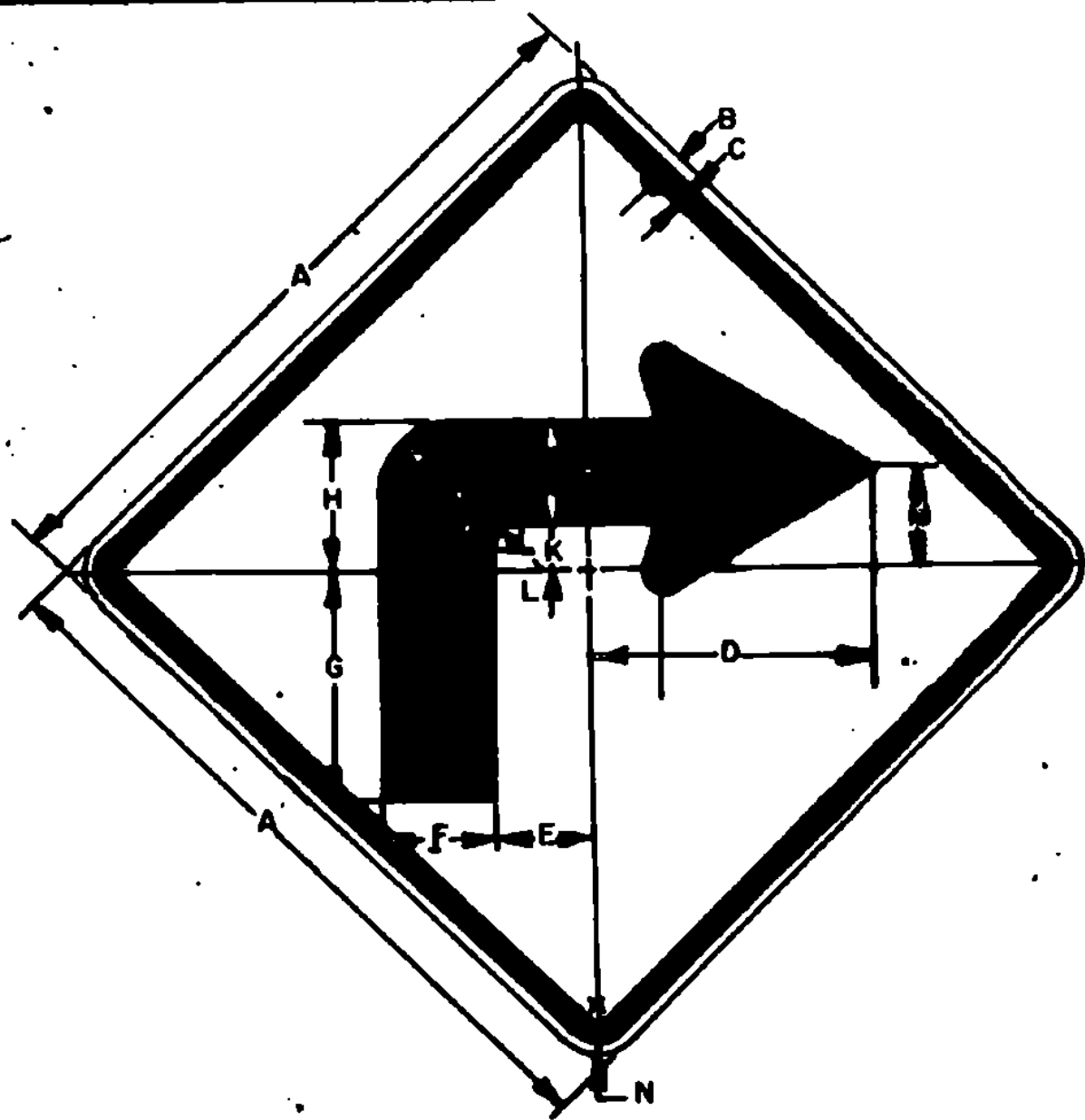
REVISIONS AND CORRECTIONS
 APRIL 18, 1985 - RAMP AND EXIT SIGN USE NOTE ADDED.
 "REDUCE SPEED DUE TO ICE AND SNOW" SIGN ADDED.
 FEB. 3, 1986 - UPDATED TO 1986 SPECIFICATIONS

APPROVED
 DATE OCT. 3, 1984
 DIRECTOR OF ENGINEERING AND CONSTRUCTION
 CHIEF OF DESIGN
 SURVEY AND PLANS ENGINEER

WARNING SIGNS



STANDARD
 E-19

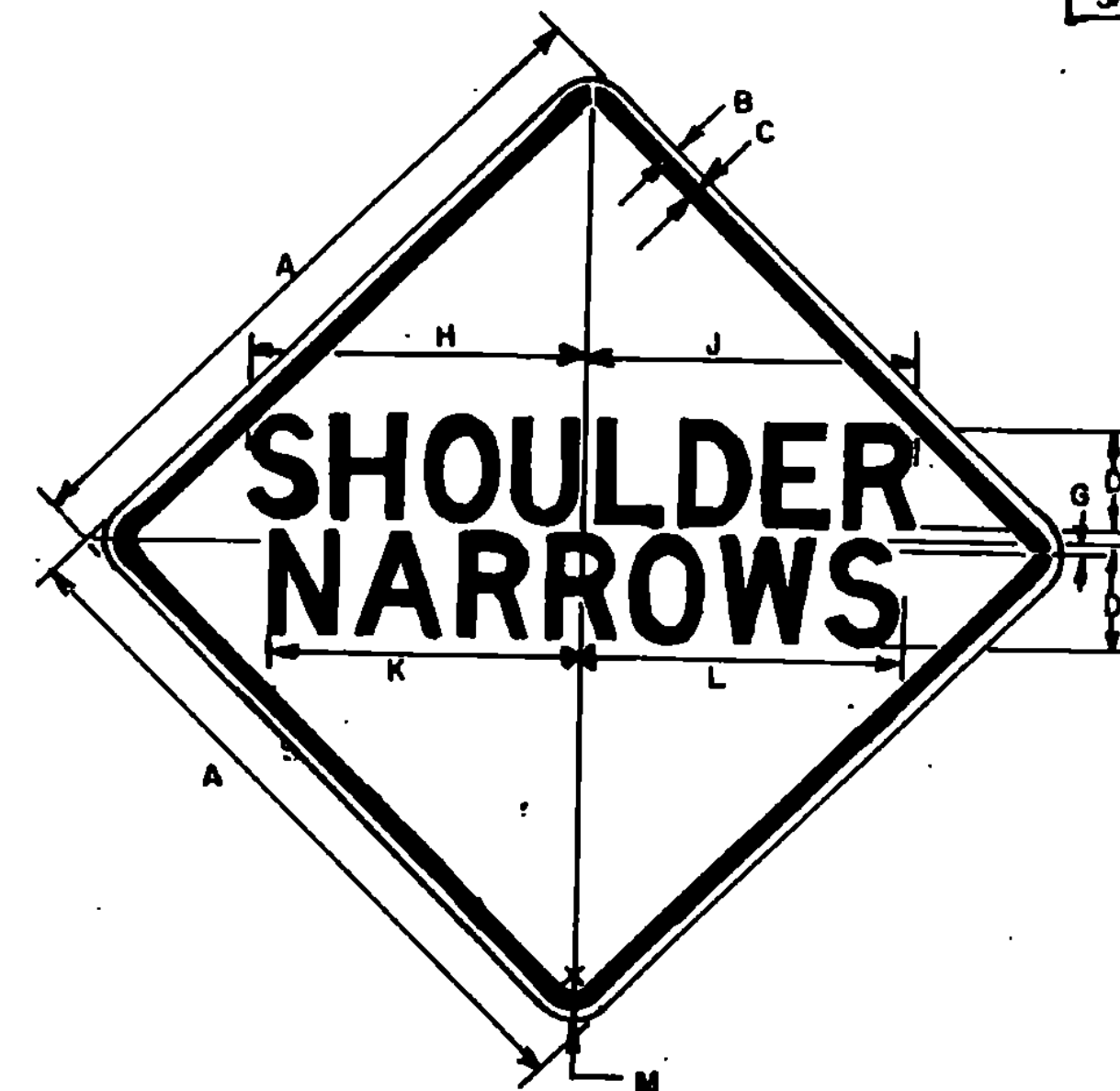
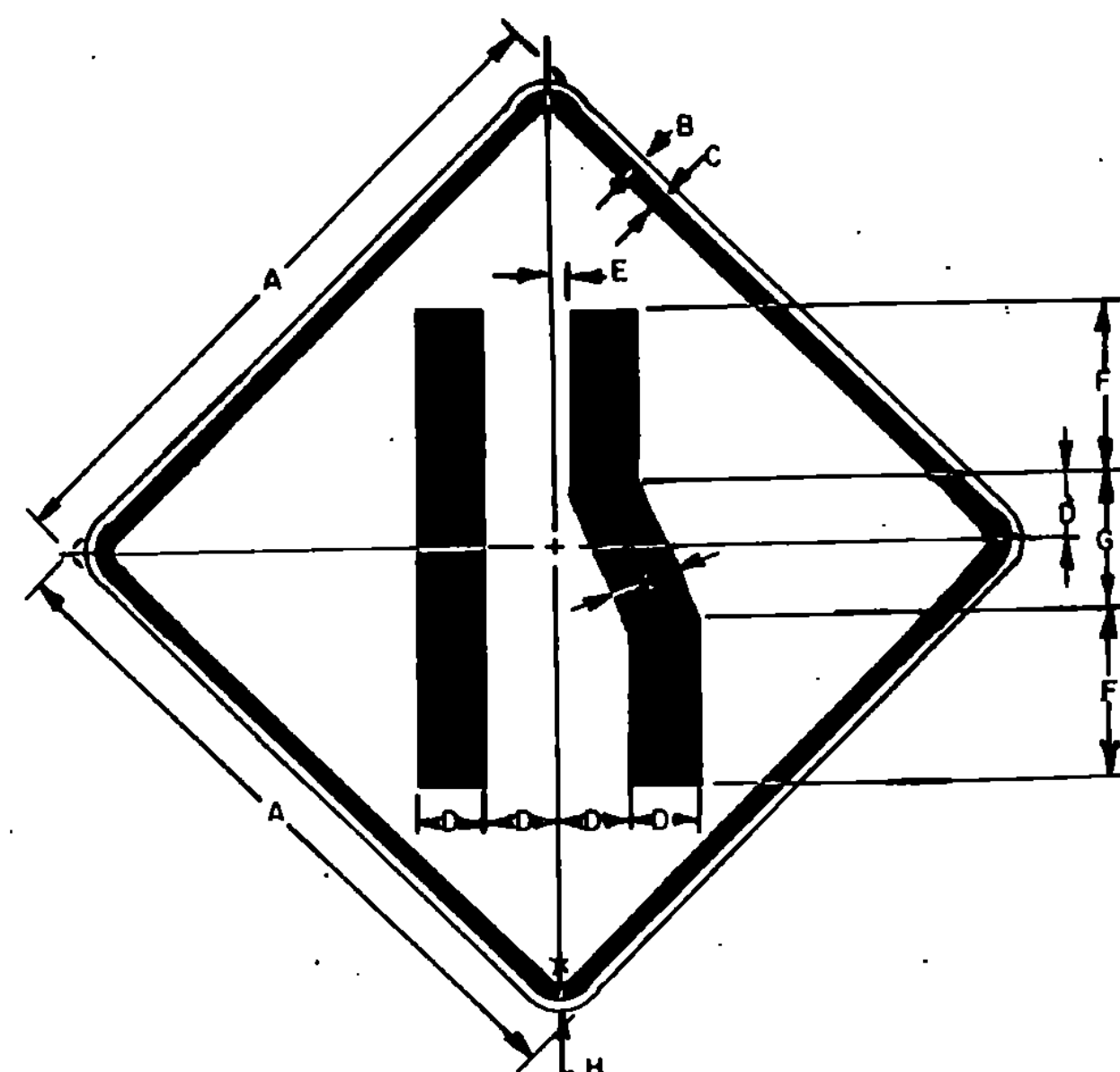
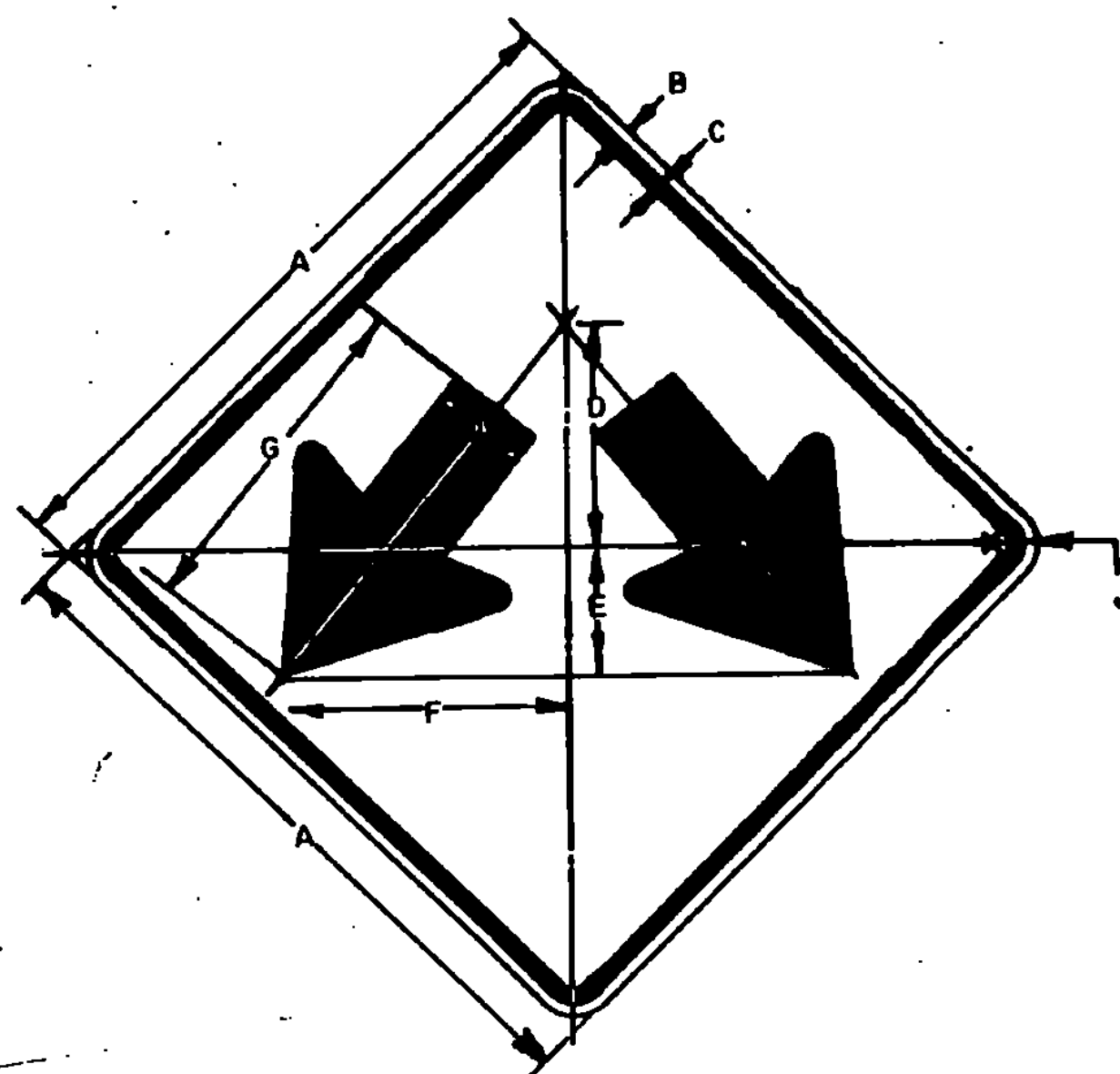


SIGN	DIMENSIONS (INCHES)												
	A	B	C	D	E	F	G	H	J	K	L	M	N
BIKE	18	3/8	5/8	7-1/4	2-1/4	2-3/8	5-7/8	3-3/4	1-7/8	I	5/8	2-1/2	1-1/2
MIN.	24	3/8	5/8	9-5/8	3	3-1/2	7-3/4	5	3-1/4	1-1/2	13/16	3-1/4	1-1/2
STD.	30	1/2	3/4	12	3-3/4	4-3/8	9-11/16	6-1/4	3	1-7/8	I	4-1/8	1-7/8
EXPWY.	36	5/8	7/8	14-3/8	4-1/2	5-1/4	11-5/8	7-1/2	3-5/8	2-1/4	1-1/4	4-7/8	2-1/4
SPECIAL	48	3/4	1-1/4	19-3/16	6	7	15-1/2	10	4-5/8	3	1-5/8	6-1/2	3

SIGN	DIMENSIONS (INCHES)													
	A	B	C	D	E	F	G	H	J	K	L	M	N	P
BIKE	18	3/8	5/8	5-3/8	5-1/2	6	4-3/4	3-3/8	1-3/4	1-1/4	2	2-5/8	6-1/4	1-1/2
MIN.	24	3/8	5/8	7-1/8	7-1/4	8	6-1/4	4-1/2	2-11/32	1-3/4	2-3/4	3-1/2	8-1/4	1-1/2
STD.	30	1/2	3/4	8-7/8	9-1/8	10	7-13/16	5-5/8	2-13/16	2-3/16	3-7/16	4-3/8	10-5/16	1-7/8
EXPWY.	36	5/8	7/8	10-5/8	10-7/8	12	9-3/8	6-3/4	3-1/2	2-5/8	4-1/8	5-1/4	12-3/8	2-1/4
FWY.	48	3/4	1-1/4	14-3/16	14-1/2	16	12-1/2	9	4-11/16	3-1/2	5-1/2	7	16-1/2	3

SIGN	DIMENSIONS (INCHES)							
	A	B	C	D	E	F	G	H
MIN.	24	3/8	5/8	2	3	9	8-1/2	1-1/2
STD.	30	1/2	3/4	2-7/16	3-3/4	11-1/4	10-5/8	1-7/8
EXPWY.	36	5/8	7/8	2-5/16	4-1/2	13-1/2	12-3/4	2-1/4
SPECIAL	48	3/4	1-1/4	3-7/8	6	16	17	3

SIGN	DIMENSIONS (INCHES)																
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S
MIN.	30	1/2	3/4	3-5/16	8-5/16	4-1/8	25	1-11/16	4-1/8	1-7/8	10	11-5/8	7-15/16	13-11/16	7-7/8	8-5/16	2-1/16
STD. & EXPWY.	36	5/8	7/8	4	10	5	30	2	5	2-1/4	12	14	9-1/2	16-1/2	9-1/2	10	2-1/2
SPECIAL	48	3/4	1-1/4	5-1/4	13-1/8	6-9/16	39-5/16	2-5/8	6-9/16	3	16	18-1/16	12-11/16	22	12-7/16	13-1/8	3-1/16



SIGN	DIMENSIONS (INCHES)									
	A	B	C	D	E	F	G	H	J	K
STD. & MIN.	24	3/8	5/8	8	4-1/8	9-3/4	11-5/8	3-1/8	1-1/2	1-1/2
SPECIAL	30	1/2	3/4	10	5-1/4	12-3/8	14-11/16	4	1-7/8	1-7/8
SPECIAL	36	5/8	7/8	12	6-1/8	14-5/8	17-1/2	4-3/4	2-1/4	2-1/4

SIGN	DIMENSIONS (INCHES)							
	A	B	C	D	E	F	G	H
MIN.	30	1/2	3/4	3-3/8	13/16	8-7/16	6-3/4	1-7/8
STD. & EXPWY.	36	5/8	7/8	4	1	10	8	2-1/4
FWY.	48	3/4	1-1/4	5-5/16	1-3/8	13-5/16	10-5/8	3

SIGN	DIMENSIONS (INCHES)											
	A	B	C	D	E	F	G	H	J	K	L	M
MIN. & STD.	36	5/8	7/8	5C	3	6D	1	13-11/16	13-1/16	17-3/8	18-1/4	2-1/4
EXPWY.	48	3/4	1-1/4	7D	3-1/2	7D	1	23-13/16	23-7/8	21-1/2	21-9/16	3

COLORS
 THE WARNING SIGNS SHOWN ON THIS SHEET SHALL HAVE BLACK TEXT AND SYMBOLS ON REFLECTORIZED YELLOW BACKGROUND. THE COLORS SHALL CONFORM WITH THE COLORS ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS AND APPROVED BY THE DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.

MATERIALS
 THE SIGN BASE MATERIALS USED FOR THE WARNING SIGNS SHOWN ON THIS SHEET MAY BE ANY OF THE FOLLOWING, OF THE MINIMUM THICKNESS NOTED.

	24"X24"	18"X18"	30"X30"	36"X36"	48"X48"
FLAT SHEET ALUMINUM	0.060"	0.080"	0.100"	0.125"	
HIGH DENSITY OVERLAID FLYWOOD	1/2"	1/2"	5/8"	5/8"	
GALVANIZED FLAT SHEET STEEL	18 GAGE	16 GAGE	14 GAGE	12 GAGE	

THE REFLECTIVE MATERIAL SHALL BE REFLECTIVE SHEETING APPLIED TO THE ENTIRE BACKGROUND OF THE SIGN.

THE TEXT OF THE SIGNS MAY BE LETTERING FILM, SILK SCREENED OR HAND PAINTED. WHEN HAND PAINTED, POOR WORKMANSHIP SHALL BE CAUSE FOR REJECTION.

TEXT DESIGN
 LETTERS, ARROWS, SPACINGS, AND TEXT DIMENSIONS SHALL CONFORM WITH THE STANDARD ALPHABETS AND DESIGNS PRESCRIBED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PREPARED BY THE NATIONAL JOINT COMMITTEE ON UNIFORM TRAFFIC CONTROL DEVICES.

SPECIFICATIONS
 WARNING SIGNS SHALL MEET THE STANDARD STATE SPECIFICATIONS FOR TRAFFIC SIGNS.

REVISIONS AND CORRECTIONS
 FEB. 3, 1985 - UPDATED TO 1985 SPECIFICATIONS

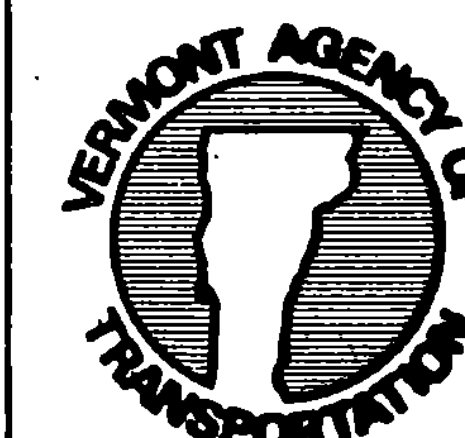
APPROVED
 DATE OCT. 3, 1984

 DIRECTOR OF ENGINEERING AND CONSTRUCTION

 CHIEF OF DESIGN

 SURVEY AND PLANS ENGINEER

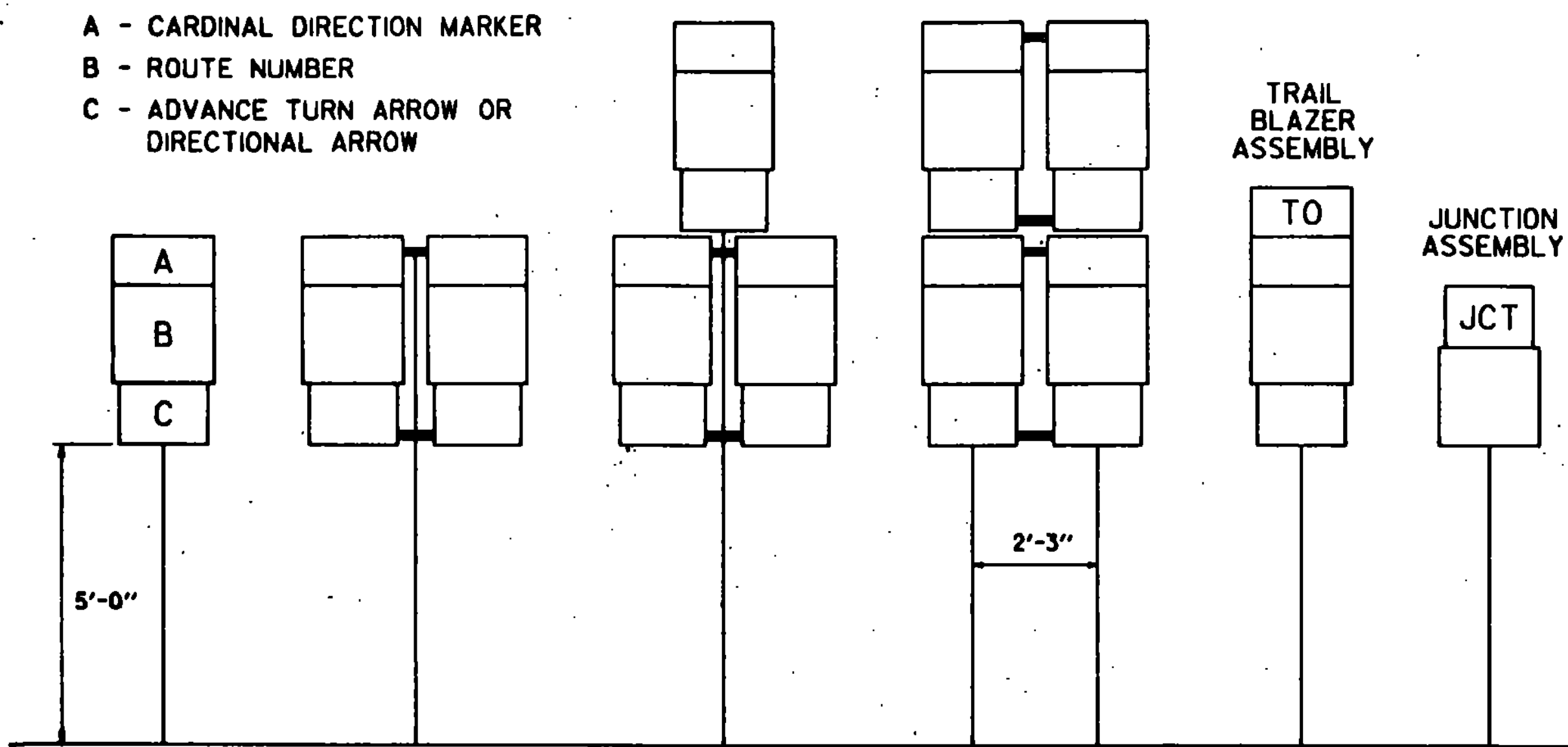
WARNING SIGNS



STANDARD
E-19A

STANDARD MOUNTING OF ROUTE MARKER ASSEMBLIES, DESTINATION ASSEMBLIES AND TOWN LINE POSTS

- A - CARDINAL DIRECTION MARKER
- B - ROUTE NUMBER
- C - ADVANCE TURN ARROW OR DIRECTIONAL ARROW



STREET SIGNS:

MATERIALS

THE SIGN BASE MATERIALS USED FOR THE STREET SIGNS MAY BE EITHER OF THE FOLLOWING:
 A - EXTRUDED ALUMINUM BLADES WITH REFLECTIVE SHEETING
 B - FLAT ALUMINUM BLADES WITH REFLECTIVE SHEETING

COLORS

THE SIGNS SHALL HAVE A REFLECTORIZED WHITE OR SILVER TEXT (STICK ON REFLECTIVE LETTERS) ON A REFLECTORIZED GREEN BACKGROUND. THE COLORS SHALL CONFORM WITH THOSE FOUND IN STANDARD COLOR TOLERANCE CHARTS AS APPROVED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.

LETTERING

LETTERS AND DIGITS SHALL CONFORM WITH THE STANDARD ALPHABETS FOR HIGHWAY SIGNS PRINTED BY THE FEDERAL HIGHWAY ADMINISTRATION.

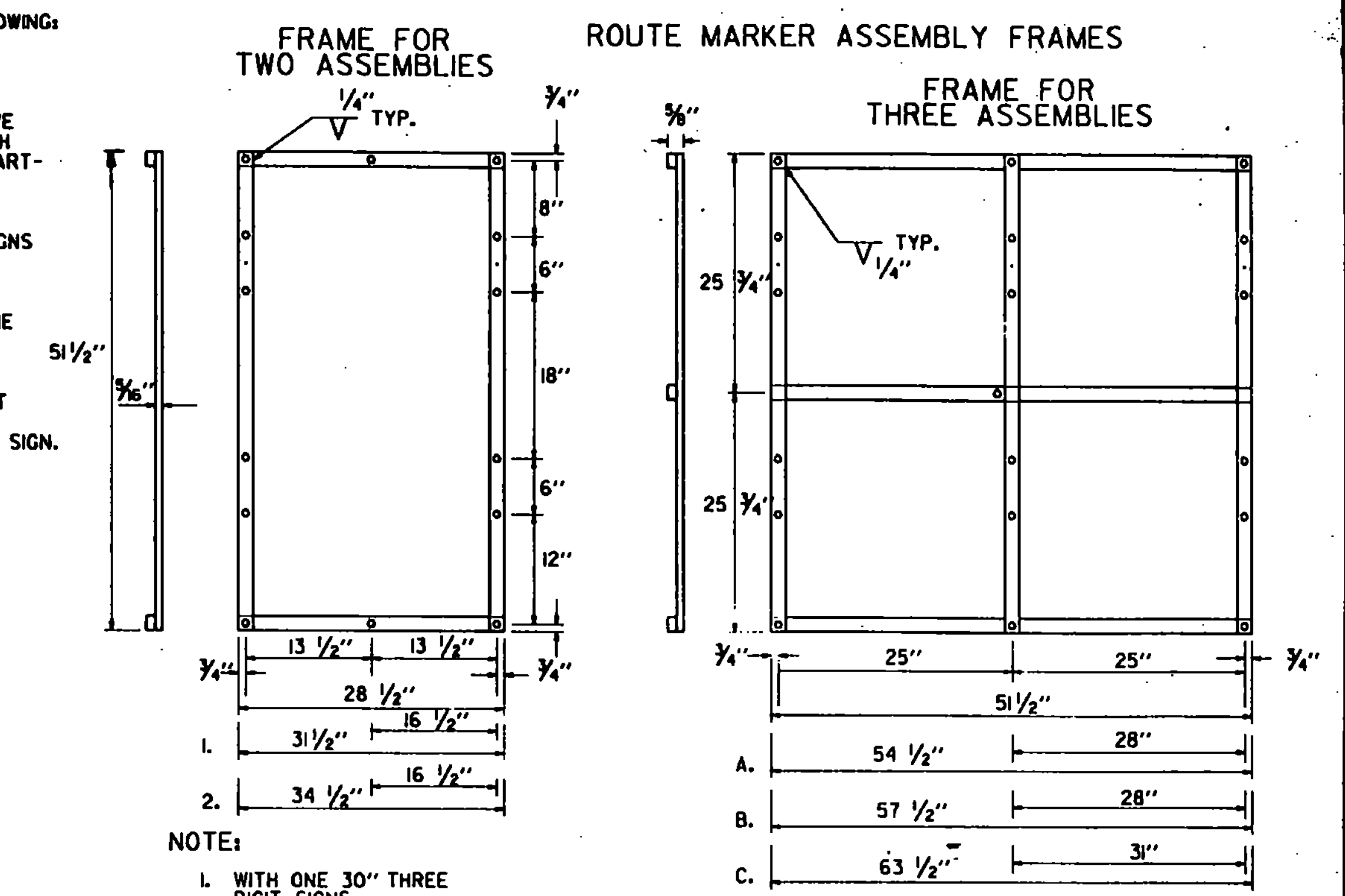
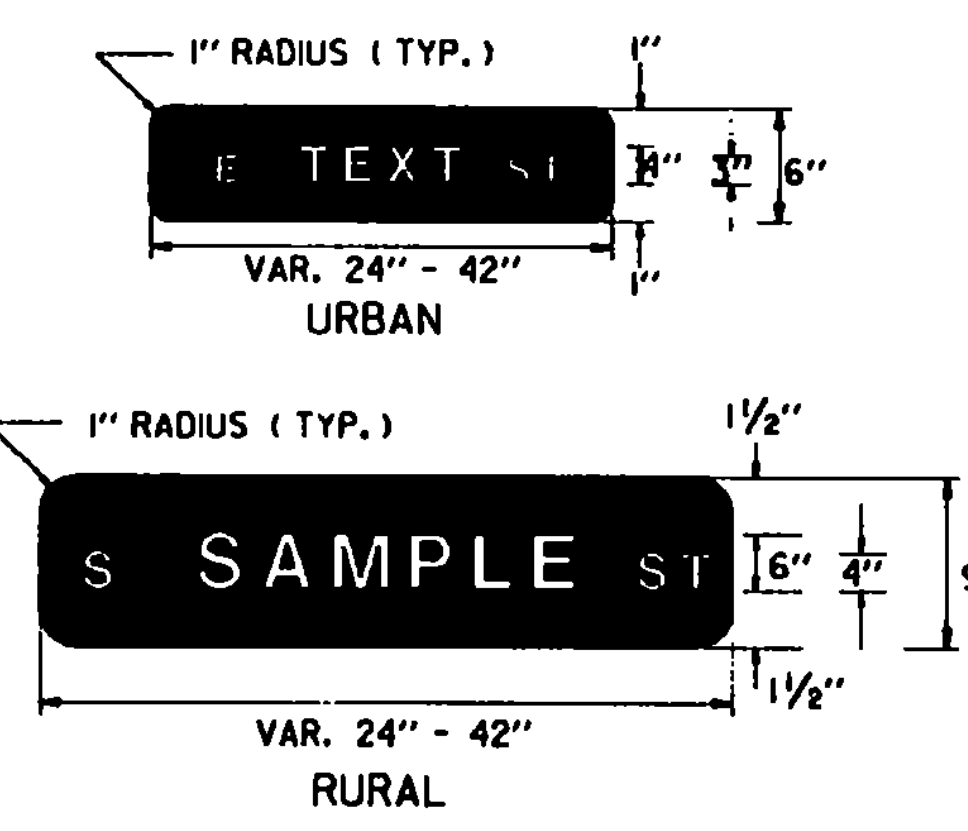
SPECIFICATIONS

THE SIGN SHALL MEET THE STANDARD STATE SPECIFICATIONS FOR "TRAFFIC SIGNS". THE MATERIAL FOR THE BLADES SHALL BE EITHER EXTRUDED ALUMINUM WITH A 0.25 INCH FLANGE THICKNESS AND A 0.090 INCH WEBB (MIN.) OR FLAT SHEET ALUMINUM WITH A MINIMUM THICKNESS OF 0.125 INCH. THE PREFERRED MOUNTING METHOD FOR STREET SIGNS IS THE POST TOP MOUNTING BRACKETS. HARDWARE FOR MOUNTING SIGNS TO POST SHALL BE SUBSIDIARY TO OTHER ITEMS. MOUNTING METHOD WILL BE AS SHOWN ON THE PLANS AND SHOULD HAVE A VERTICAL CLEARANCE OF 8 FEET TO THE BOTTOM OF THE SIGN. FOR POST TOP MOUNTINGS, SIGNS SHALL HAVE TEXT ON BOTH SIDES.

SIZES ARE AS FOLLOWS

RURAL AREAS - USE A 9 INCH HIGH BLADE IN LENGTHS OF 24", 30", 36" OR 42". USE SERIES "B" LETTERING (MINIMUM) WITH 6 INCH HIGH LETTERS FOR STREET NAME, 4 INCH OTHER.
 URBAN AREAS - USE A 6 INCH HIGH BLADE IN LENGTHS OF 24", 30", 36" OR 42". USE SERIES "B" LETTERING (MINIMUM) WITH 4 INCH HIGH LETTERS FOR STREET NAME, 3 INCH OTHER.

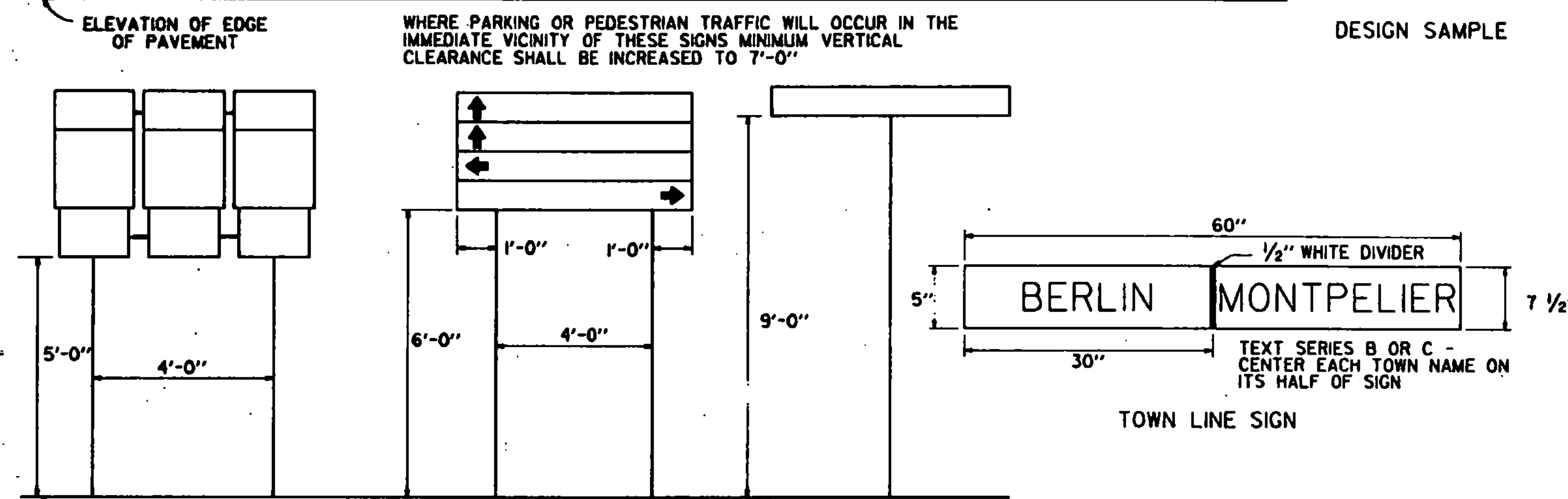
DESIGN SAMPLE



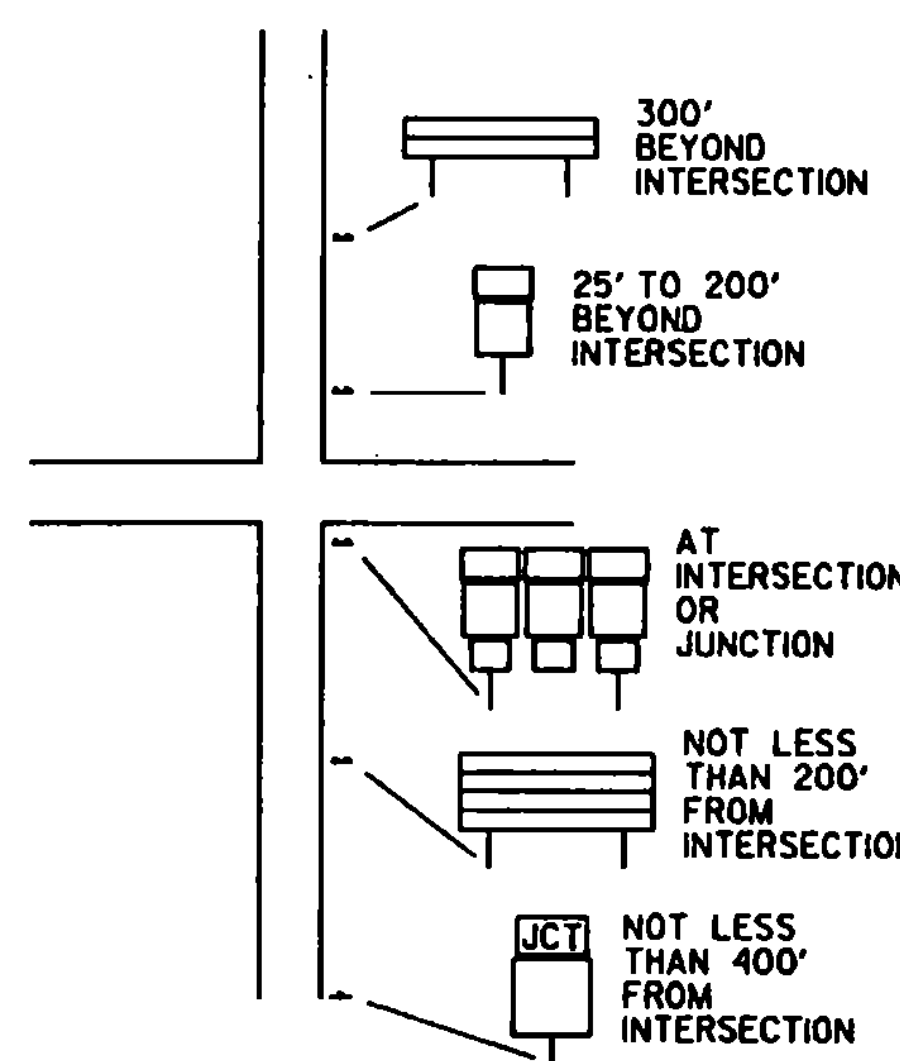
- NOTE:
1. WITH ONE 30" THREE DIGIT SIGNS
 2. WITH TWO 30" THREE DIGIT SIGNS

- NOTE:
- A. WITH ONE 30" THREE DIGIT SIGN IN AN OUTSIDE POSITION
 - B. WITH ONE 30" THREE DIGIT SIGN IN THE CENTER POSITION OR TWO SUCH SIGNS IN THE OUTSIDE POSITIONS
 - C. WITH THREE 30" THREE DIGIT SIGNS

STANDARD FRAMES SHALL BE 3/8" x 1/2" WROUGHT IRON WELDED. ALL HOLES SHALL BE 1/8" DIAMETER. FOR OTHER SIGN COMBINATIONS THAN ABOVE, THE FRAME DIMENSIONS AND HOLE SPACING SHALL BE MODIFIED AS NECESSARY. THE FRAME SHALL BE PAINTED WITH ONE COAT OF PRIMER AND A SECOND COAT OF GOOD GRADE BLACK PAINT.



TYPICAL LOCATION OF ASSEMBLIES



ROUTE AND DESTINATION SIGNS:

MATERIALS

THE SIGN BASE MATERIAL FOR STANDARD DESTINATION SIGNS SHALL BE HIGH DENSITY OVERLAIN PLYWOOD 3/8 INCH THICK OR FLAT SHEET ALUMINUM 0.125 INCH THICK. THE REFLECTIVE MATERIAL SHALL BE GREEN REFLECTIVE SHEETING APPLIED TO THE ENTIRE BACKGROUND OF THE SIGN. THE TEXT SHALL BE CUT-OUT REFLECTORIZED WHITE OR SILVER LETTERS.

COLORS

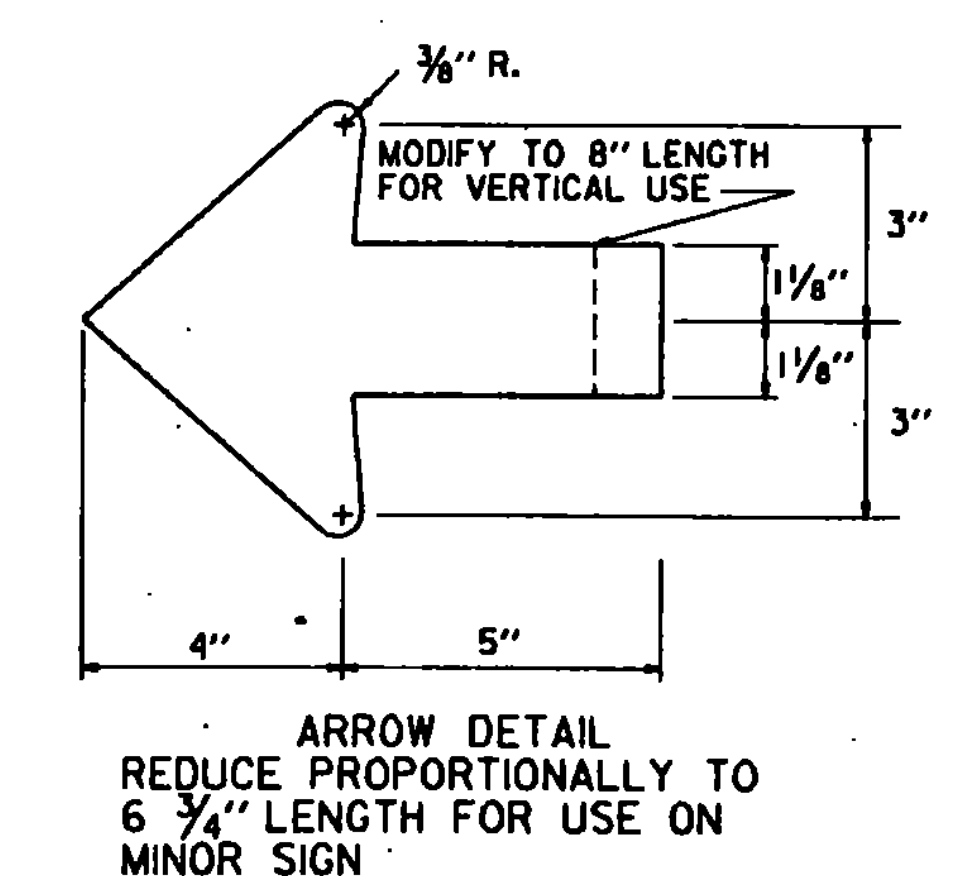
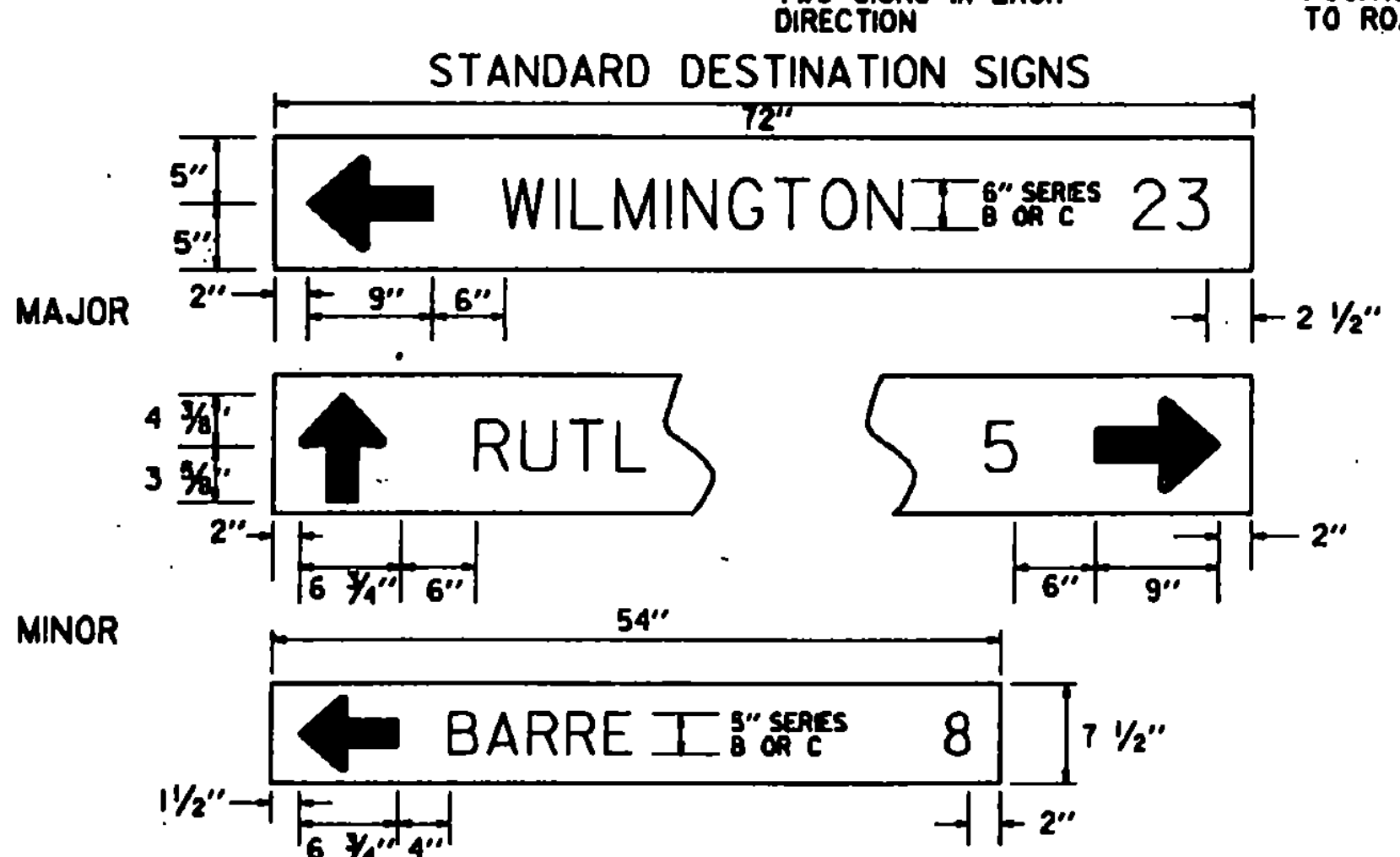
DESTINATION SIGNS SHALL HAVE A REFLECTORIZED WHITE OR SILVER TEXT ON A REFLECTORIZED GREEN BACKGROUND.

LETTERING

LETTERS AND DIGITS SHALL CONFORM WITH THE STANDARD ALPHABETS FOR HIGHWAY SIGNS APPROVED BY THE NATIONAL JOINT COMMITTEE ON UNIFORM TRAFFIC CONTROL DEVICES.

SPECIFICATIONS

DESTINATION SIGNS SHALL MEET THE STATE SPECIFICATIONS FOR "TRAFFIC SIGNS". FOR DESIGNS, COLORS OR MATERIALS OF ROUTE MARKERS AND AUXILIARY MARKERS, SEE STANDARD SHEETS E-11, E-12, AND E-13.



REVISIONS AND CORRECTIONS

REVISIONS AND CORRECTIONS

12/1/82
 ADDED 2 FRAME ASSEMBLY TO 2 POST ASSEMBLY
 ADDED MINOR DESTINATION SIGN, MOUNTING HEIGHT
 REVISED

2/10/83
 SIGN HEIGHT CHANGED TO 7 FT.

FEB. 3, 1986 - UPDATED TO 1986 SPECIFICATIONS
 DEC. 3, 1988 - MAJOR REVISIONS

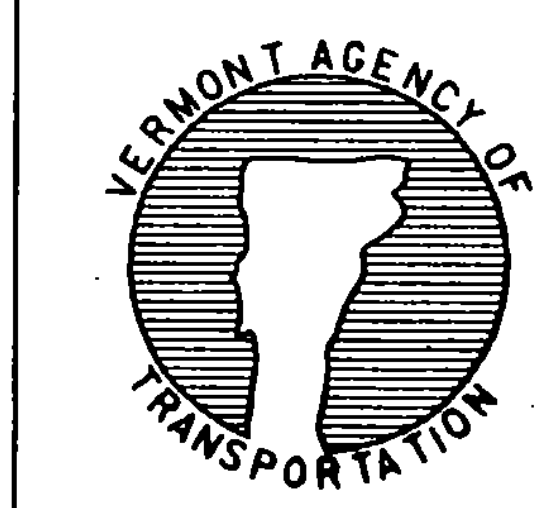
APPROVED: Dec 29, 1971

R.H. Crowl
 CHIEF ENGINEER

E.H. McKinney
 ASST. CHIEF ENGINEER

G.J. Mc Lane
 CHIEF ENGINEER

GUIDE SIGNS

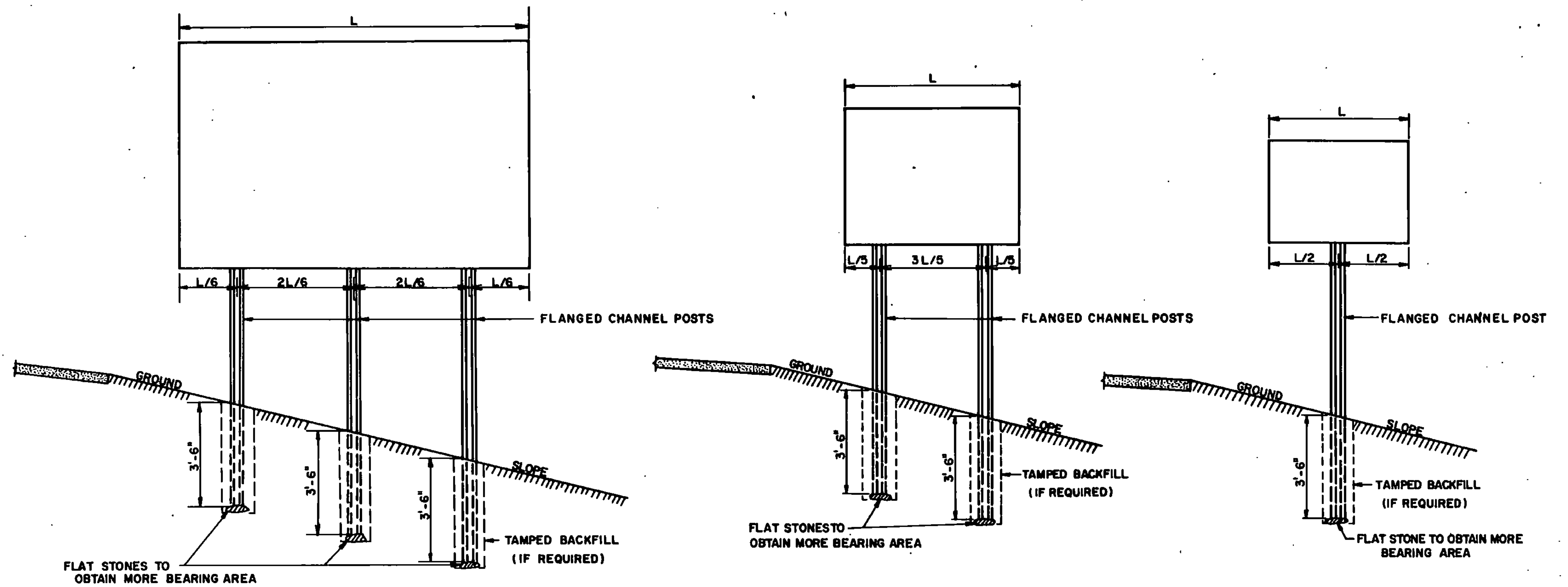


STANDARD E-23

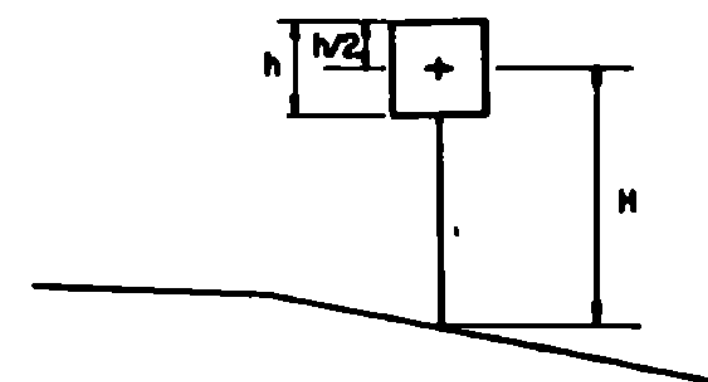
GENERAL NOTES

ALL MATERIAL SHALL BE AS SPECIFIED UNDER SECTION 675 - 675 - TRAFFIC SIGNS

CONSTRUCTION METHODS - POSTS MAY BE DRIVEN OR SET IN A DUG HOLE AND BACKFILLED. IF DRIVEN, A DRIVING CAP SHALL BE USED. IF SET IN A DUG HOLE, THE EXCAVATION AND BACKFILL WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS BEING INCLUDED IN UNIT PRICES FOR OTHER ITEMS IN THE CONTRACT. THE DUG HOLE INSTALLATION SHALL BE USED IN AREAS OF POOR SOIL CONDITIONS OR AS DIRECTED BY THE ENGINEER.



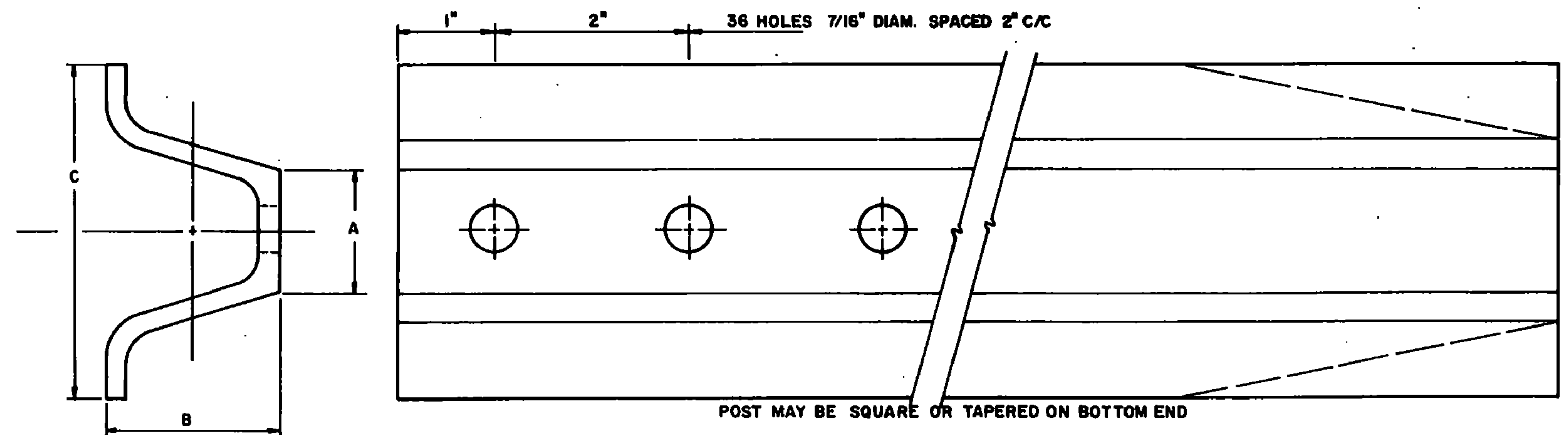
IN AREAS WHERE LEDGE ROCK IS ENCOUNTERED STEEL POSTS WILL BE SET AND GROUTED 12" DEEP IN THE LEDGE.



POST SELECTION CHART		
SIGN AREA (FT ²) x H (FT) ≤ Sv (SELECTION VALUE)		
POST SIZE	Sv	DESIGN CRITERIA
2 LB/FT.	62	WIND SPEED = 60 MPH (10-YEAR MEAN RECURRENCE INTERVAL) WIND PRESSURE = 12 PSF STEEL MIN YIELD Fy = 50,000 PSI ALLOWABLE STRESS = (1/4)0.55Fy
2 1/2 LB/FT.	77	
3 LB/FT.	107	

POST SIZE POUNDS PER LINEAR FOOT	DIMENSIONS			PLASTIC SECTION MODULUS, Z
	A	B	C	
2	1 9/32"	1 31/64"	3 1/16"	0.26 IN ³
2 1/2	1 9/32"	1 35/64"	3 1/16"	0.40 IN ³
3	1 5/16"	1 7/8"	3 1/2"	0.53 IN ³

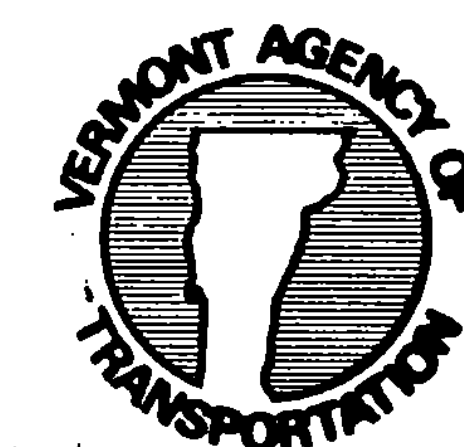
SIMILAR DIMENSIONS ARE ACCEPTABLE, HOWEVER PLASTIC SECTION MODULUS VALUES MUST NOT BE EXCEEDED.



REVISIONS AND CORRECTIONS
 FEB. 8, 1978 - HEIGHT OF SIGNS ADDED.
 DEC. 15, 1978 - RAIL STEEL DELETED
 JAN. 8, 1981 - ADDED POST SIZE & SELECTION CHARTS;
 REVISED NOTES & DIMENSIONS
 FEB. 3, 1986 - UPDATED TO 1986
 SPECIFICATIONS.

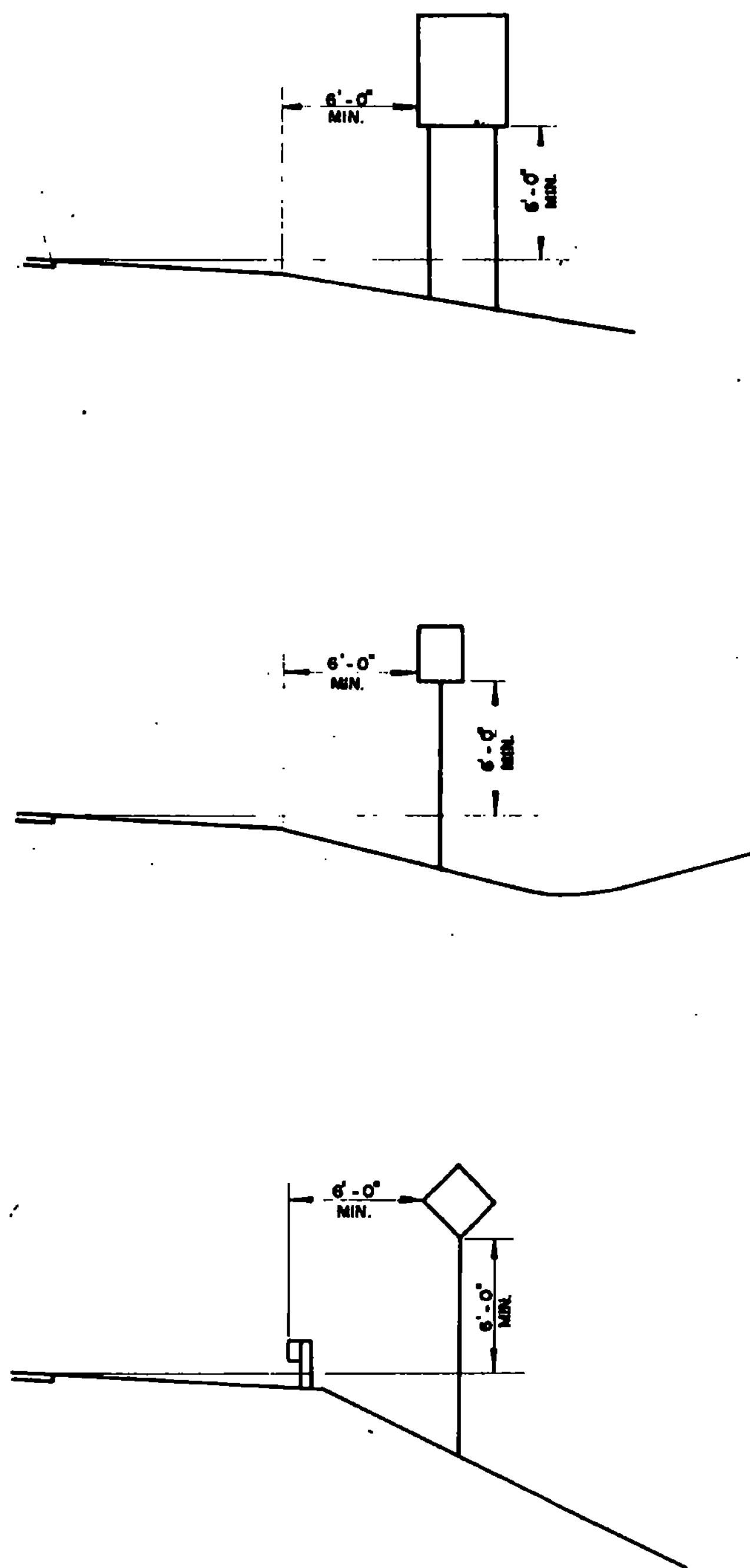
APPROVED: *Mod 24. 1976*
 DATE: *C. 11. 1976*
 CHIEF ENGINEER
R. O. Munn
 ASST. CHIEF ENGINEER
Laura C. Jones
 HIGHWAY ENGINEER

FLANGED CHANNEL STEEL SIGN SUPPORTS

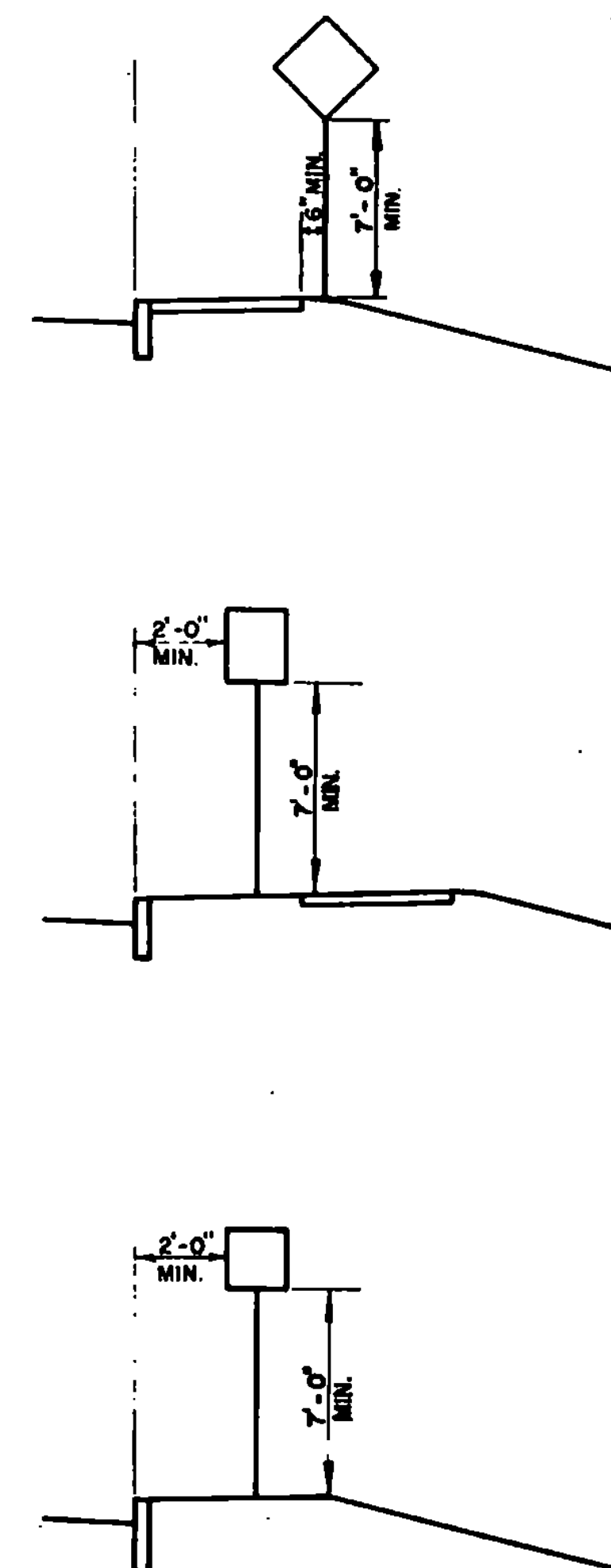


STANDARD
E-24-A

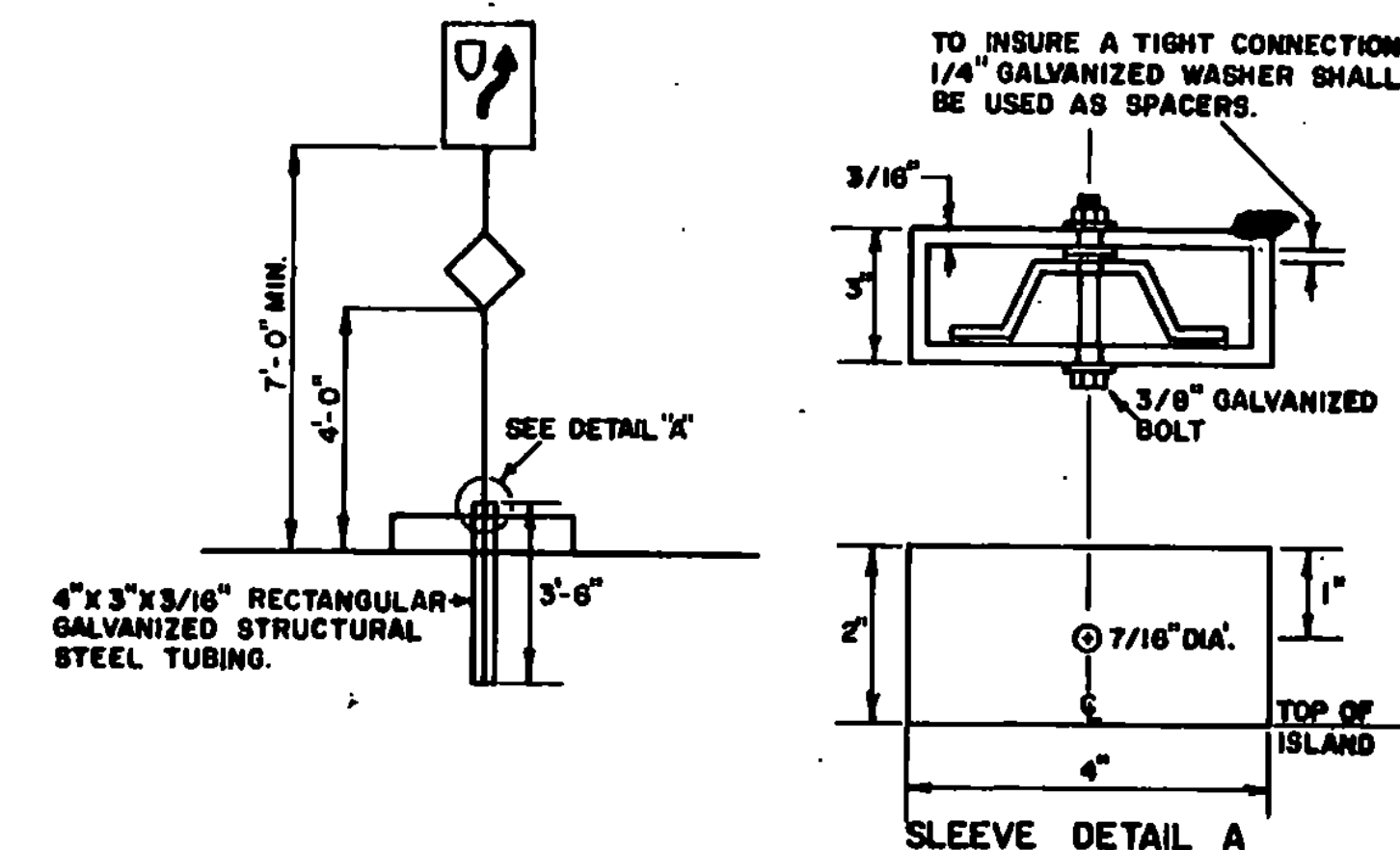
RURAL



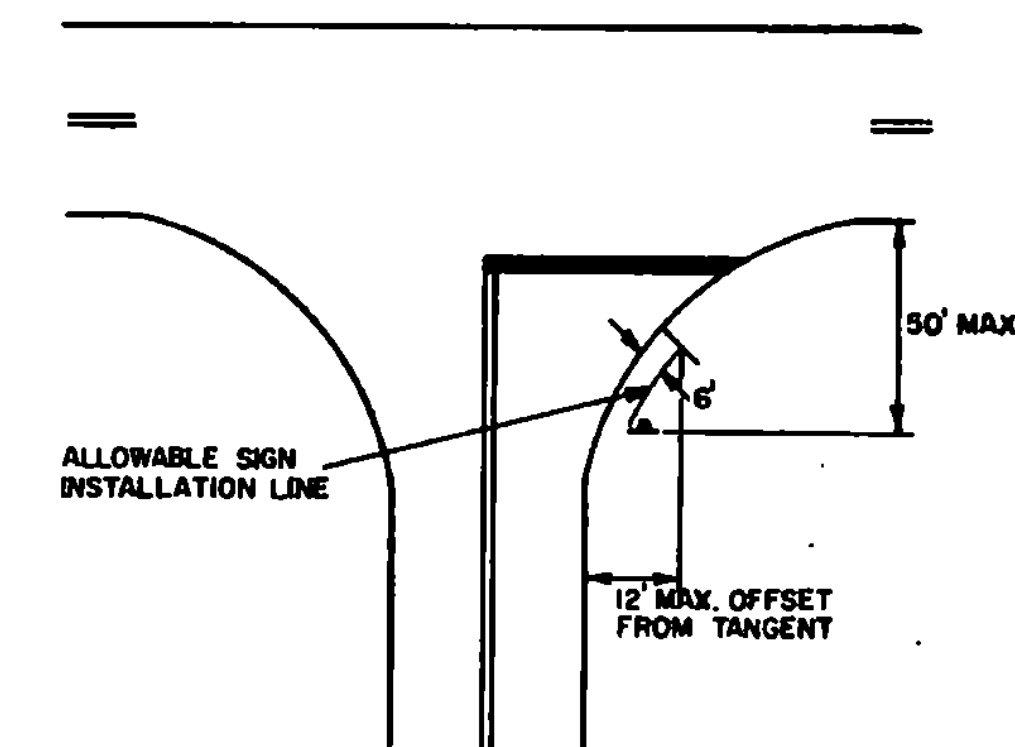
URBAN



WARNING SIGNS
ON ISLAND IN THE LINE OF TRAFFIC



STOP OR YIELD SIGNS
AT WIDE THROAT INTERSECTIONS



NOTES 1) IN BOTH RURAL AND URBAN LOCATIONS, IF A SECONDARY SIGN IS MOUNTED BELOW ANOTHER SIGN, THE MINIMUM CLEARANCE MAY BE REDUCED BY ONE FOOT.
2) IN RURAL AREAS WITH NO SHOULDER, THE MINIMUM LATERAL CLEARANCE SHOULD BE 12' FROM EDGE OF THE TRAVELED WAY.

REVISIONS AND CORRECTIONS
JAN. 23, 1978 - DIMENSION FROM SHOULDER TO SIGN CHANGED PER FHWA.
AUG. 25, 1981 - ADDED STOP AND ISLAND DETAILS, REVISED CURB OFFSET
FEB. 3, 1988 - UPDATED TO 1986 SPECIFICATIONS

APPROVED
Dec. 29, 1971

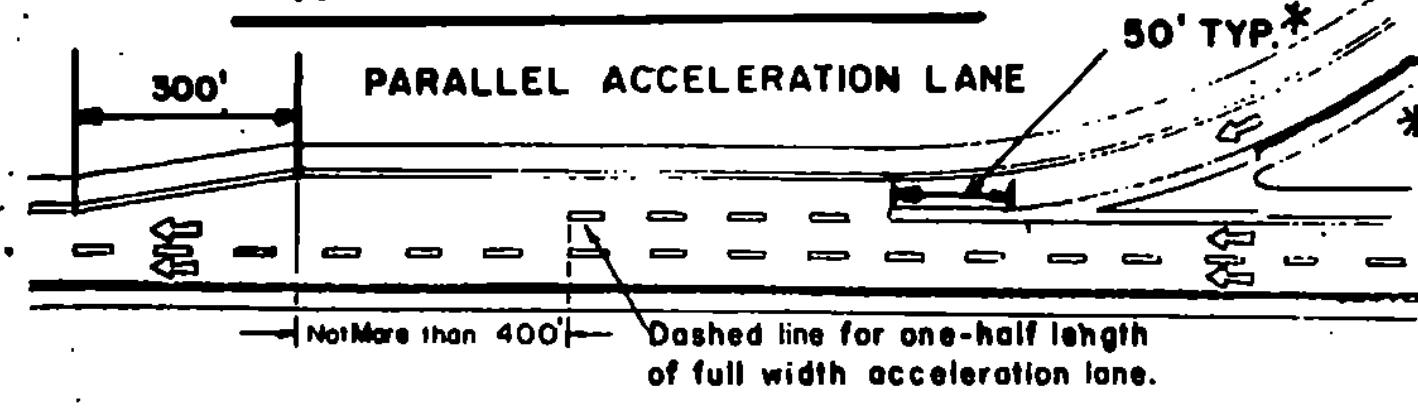
R. H. Arnold
CHIEF ENGINEER
E. H. Stickney
ASST. CHIEF ENGINEER
G. M. Lane
HIGHWAY ENGINEER

STANDARD SIGN PLACEMENT
CONVENTIONAL ROAD



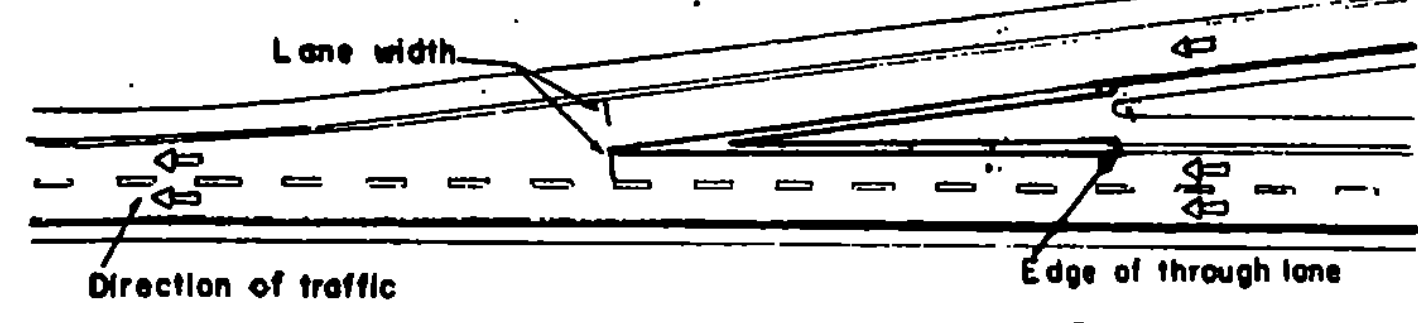
STANDARD
E-29

Typical entrance ramp markings



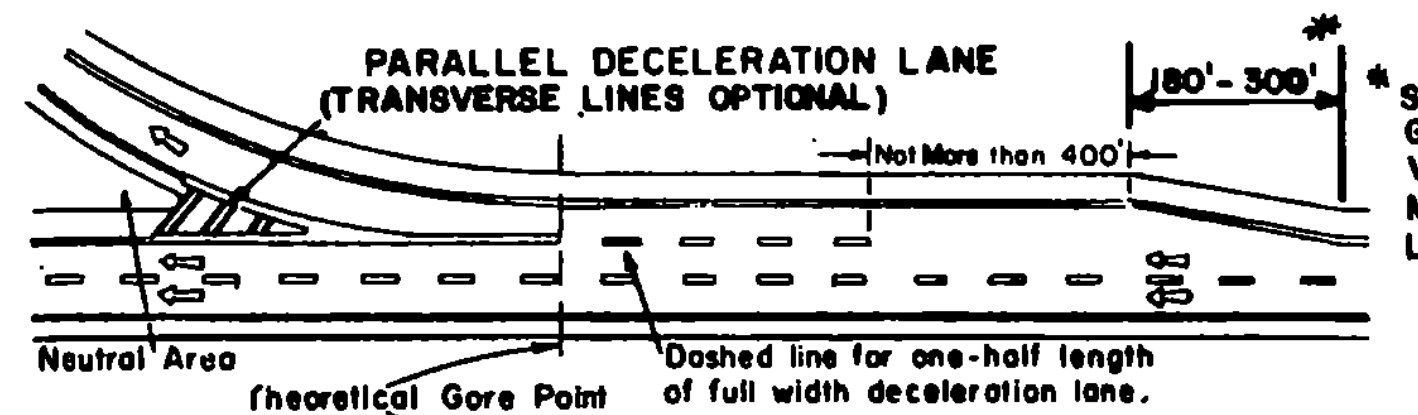
* MAY BE MADE LONGER TO EMPHASIZE SITUATIONS WHERE THE CROSSING REQUIRES UNUSUAL CARE SUCH AS HIGH VOLUME MERGE AREAS.

TAPERED ACCELERATION LANE

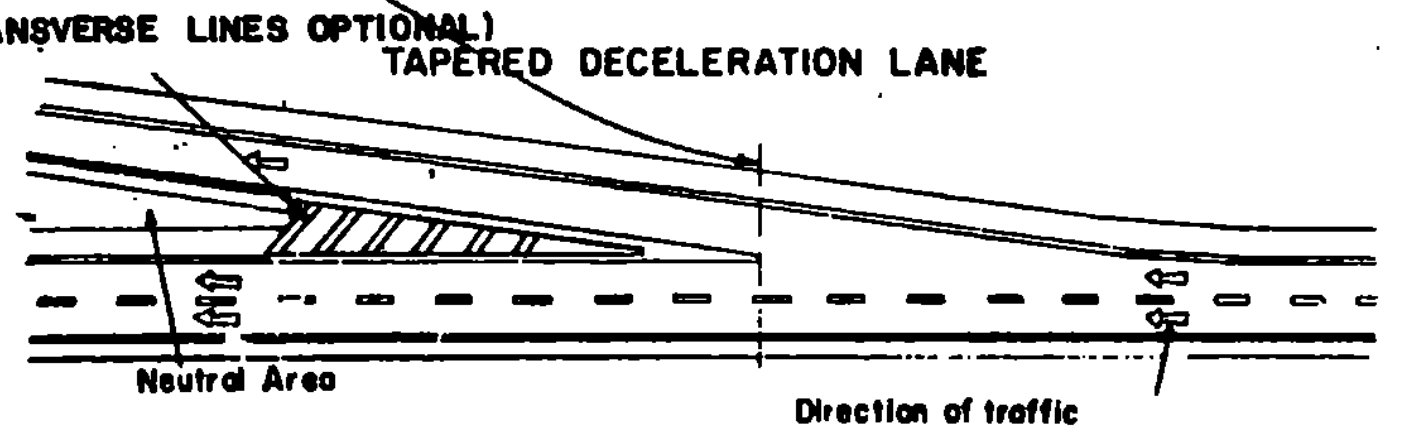


- 4" White Lines
- 4" Yellow Lines
- 8" Channelization White Lines

Typical exit ramp markings

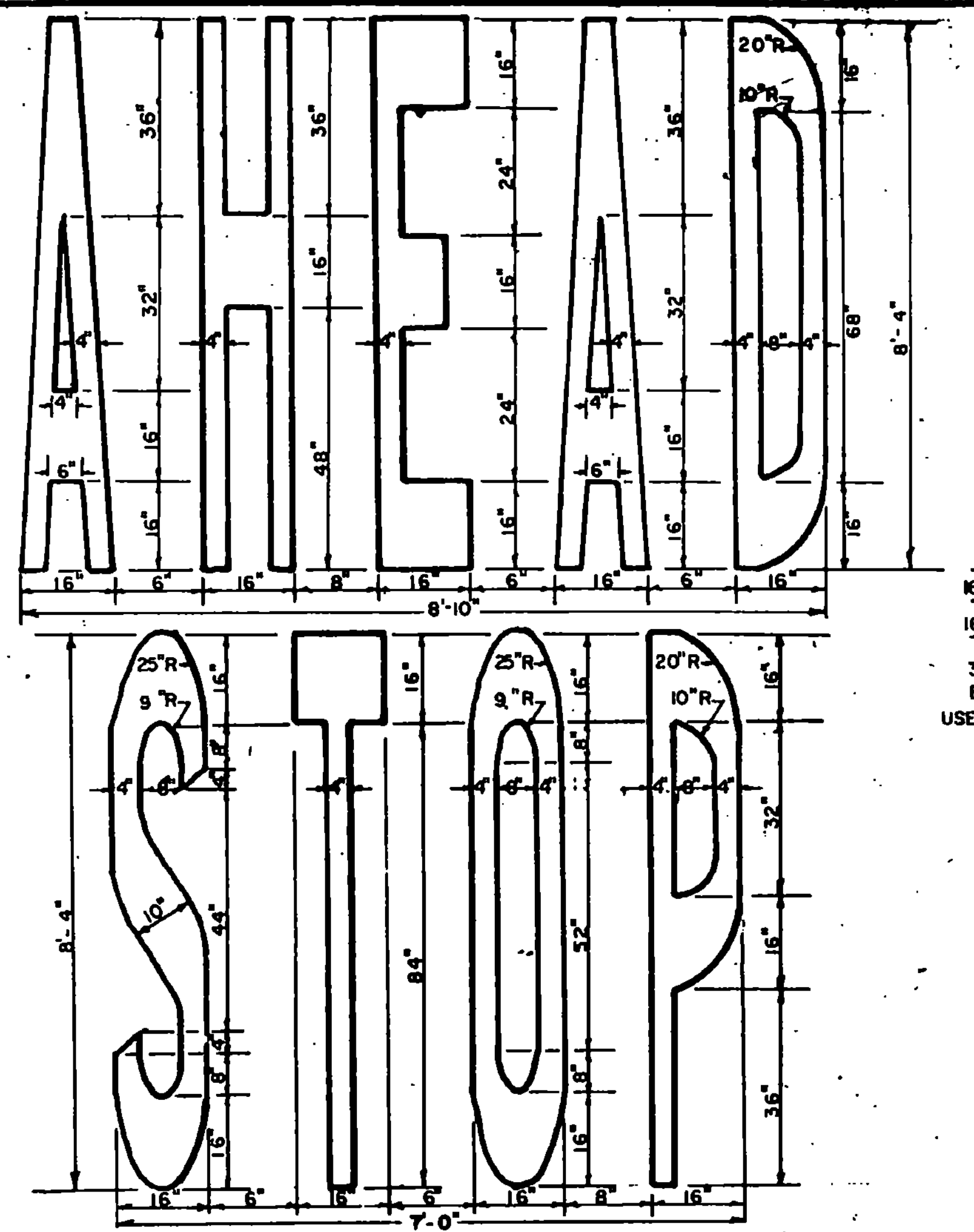
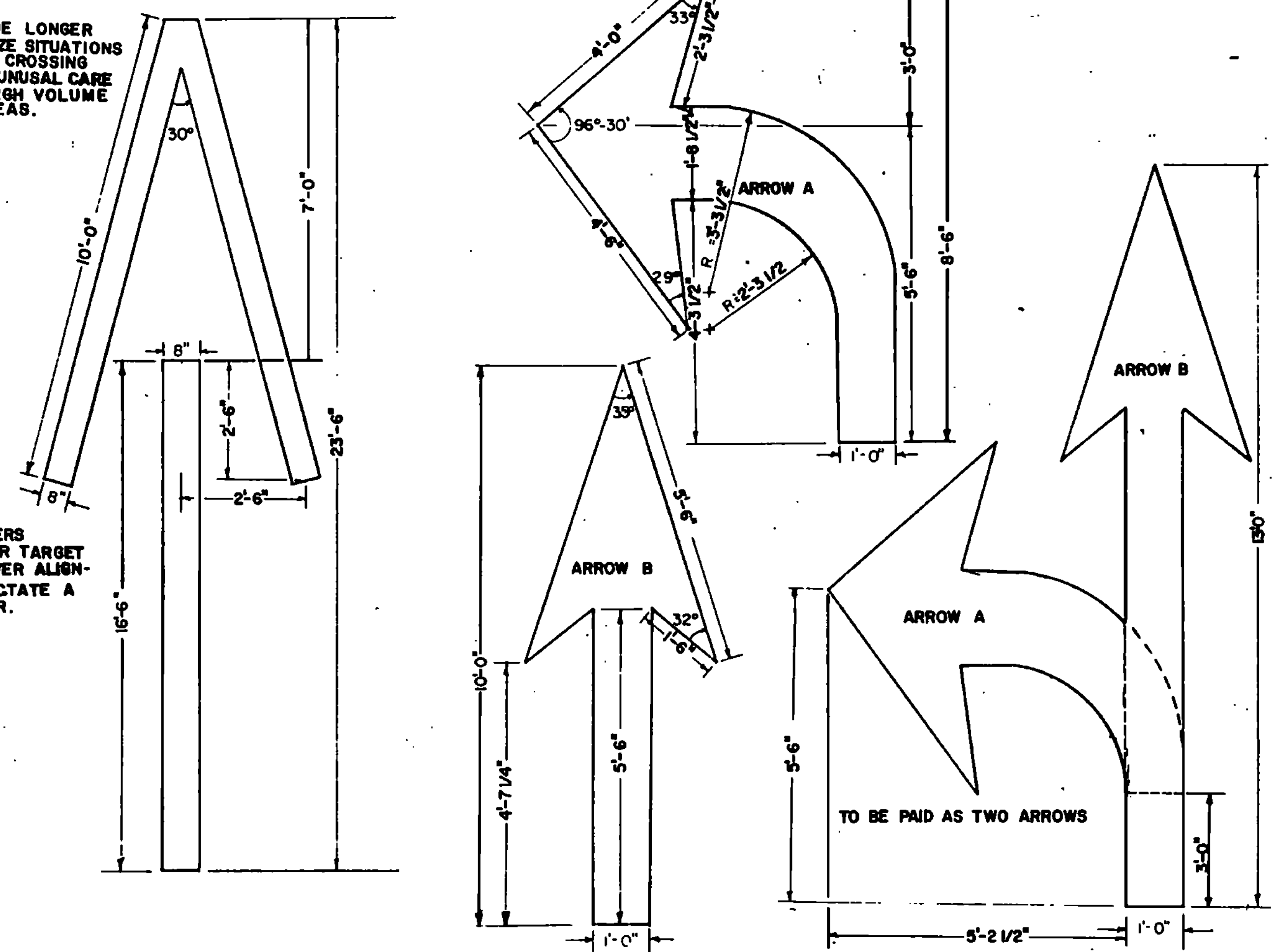


* SHORTER TAPERS GIVE A BETTER TARGET VALUE, HOWEVER ALIGNMENT MAY DICTATE A LONGER TAPER.



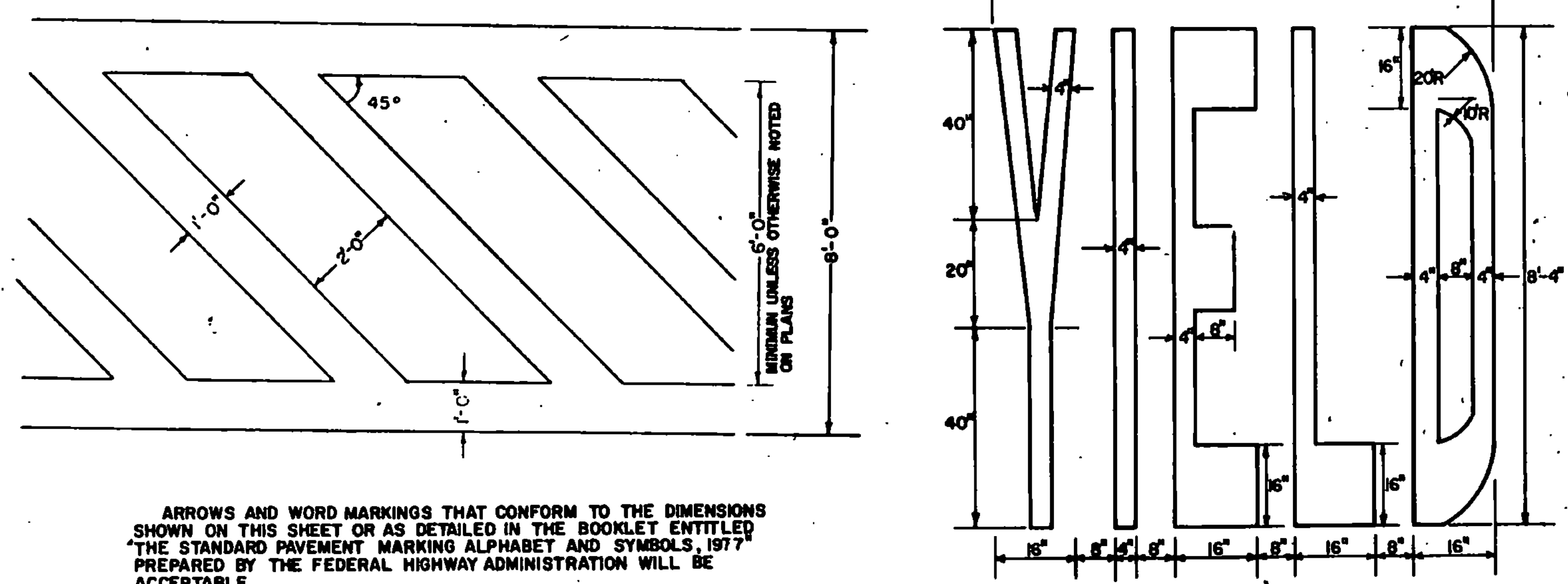
TRANSVERSE LINES SHALL CONSIST OF 8" WHITE LINES SPACED 5'-0" C-C AND SET AT 45° TO MAIN LINE EDGE LINES. THESE MARKINGS SHALL BE USED TO INCREASE VISIBILITY DUE TO DIFFICULT VERTICAL OR HORIZONTAL ALIGNMENT.

RAMP PAVEMENT ARROW DETAIL

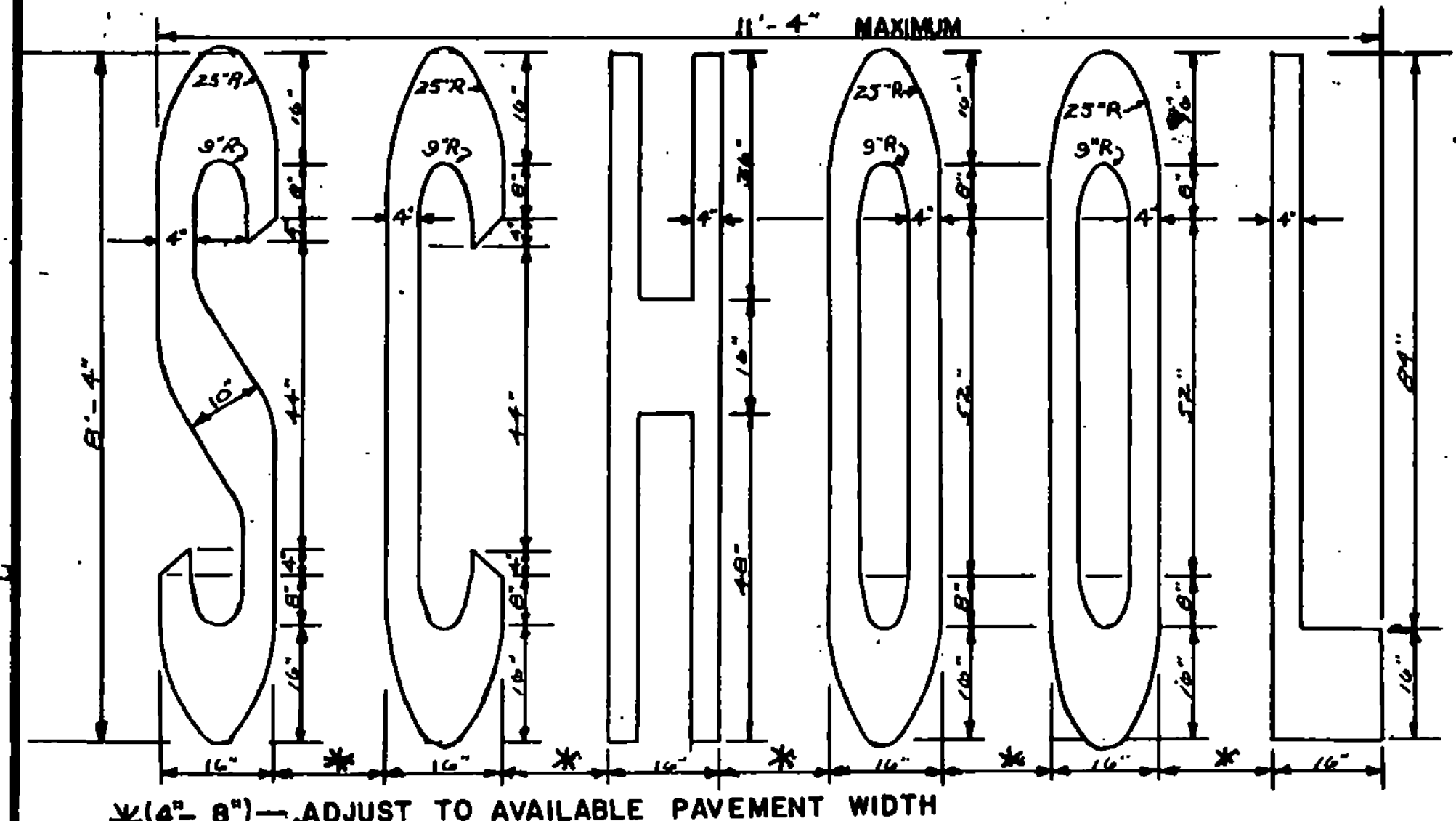


32' SPACING BETWEEN WORDS
USE FOR "STOP AREA"
"SIGNAL AREA"
"YIELD AREA"

CROSSWALK DETAIL



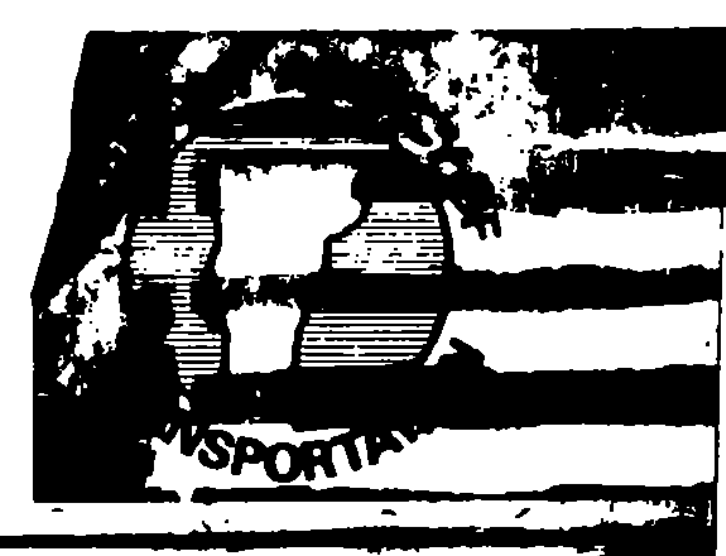
ARROWS AND WORD MARKINGS THAT CONFORM TO THE DIMENSIONS SHOWN ON THIS SHEET OR AS DETAILED IN THE BOOKLET ENTITLED "THE STANDARD PAVEMENT MARKING ALPHABET AND SYMBOLS, 1977" PREPARED BY THE FEDERAL HIGHWAY ADMINISTRATION WILL BE ACCEPTABLE.



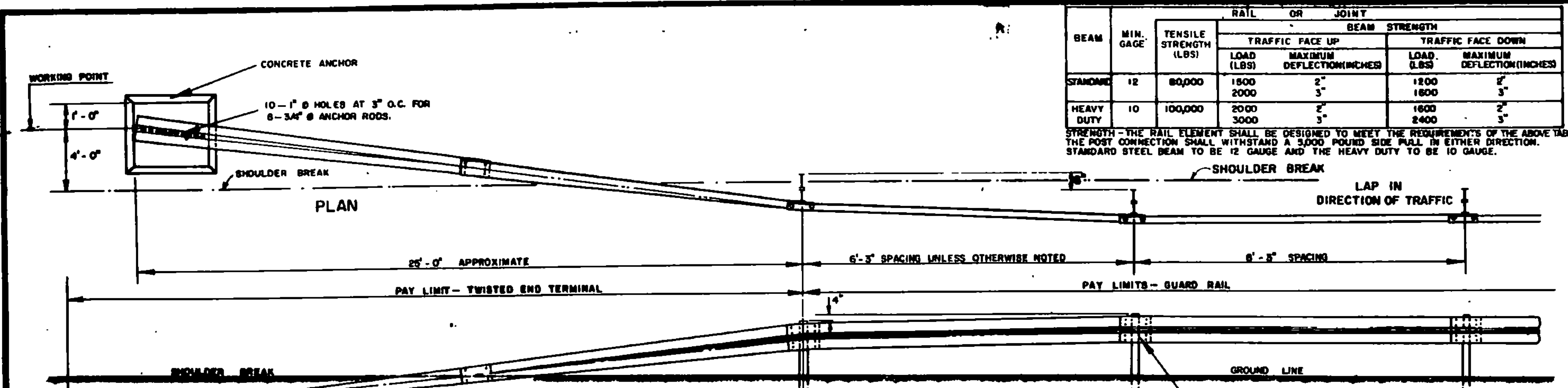
REVISIONS AND CORRECTIONS
 MAR. 16, 1982 YIELD ADDED.
 SEPT. 20, 1983 REVISED GORE MARKINGS & "SCHOOL" SPACING
 FEB. 3, 1986 - UPDATED TO 1986 SPECIFICATIONS

APPROVED: S. J. Page AUGUST 4, 1981
 DATE
 DIRECTOR OF ENGINEERING AND CONSTRUCTION
Chief of Design
 TRANSPORTATION DESIGN ENGINEER

PAVEMENT MARKING DETAILS

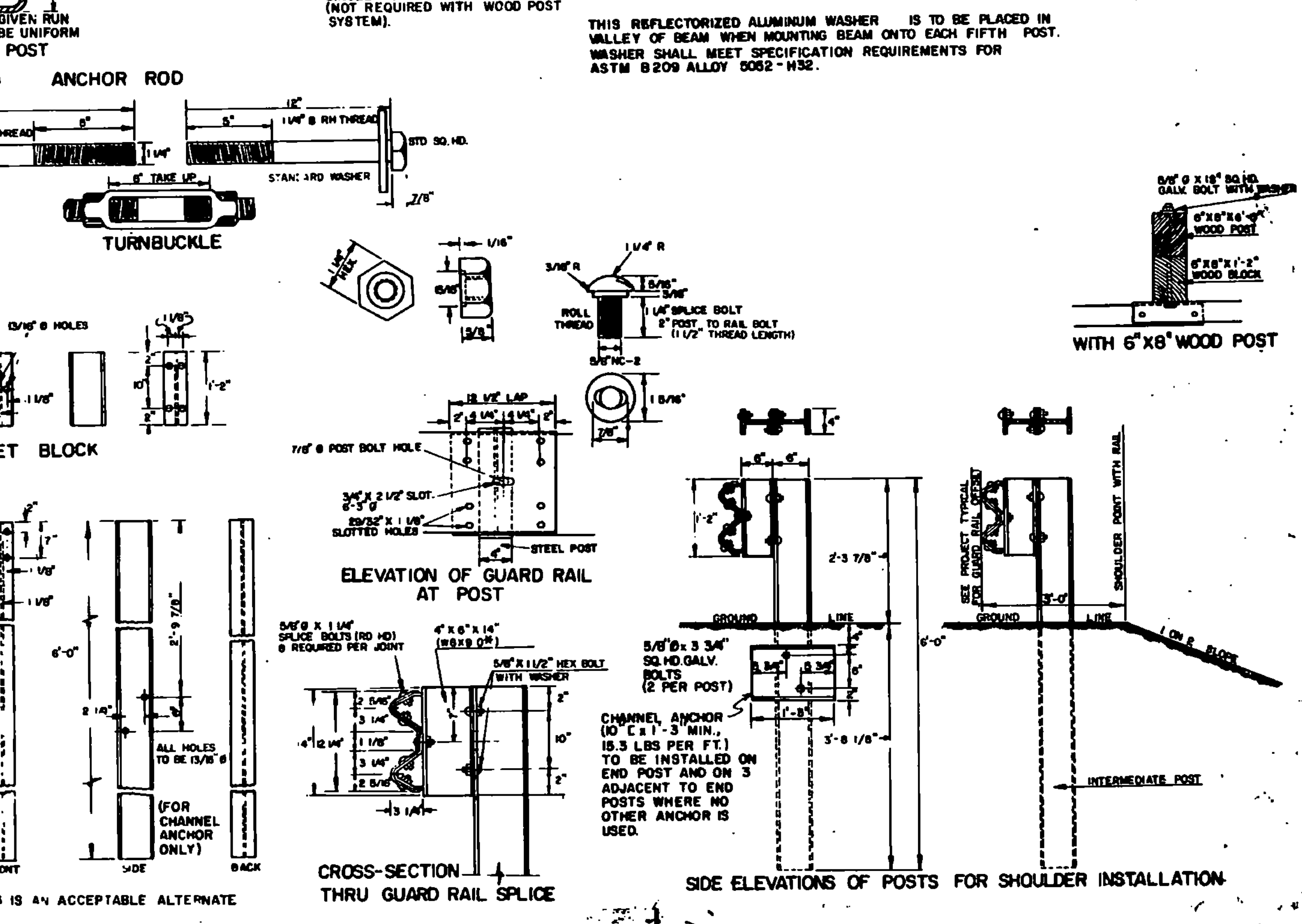
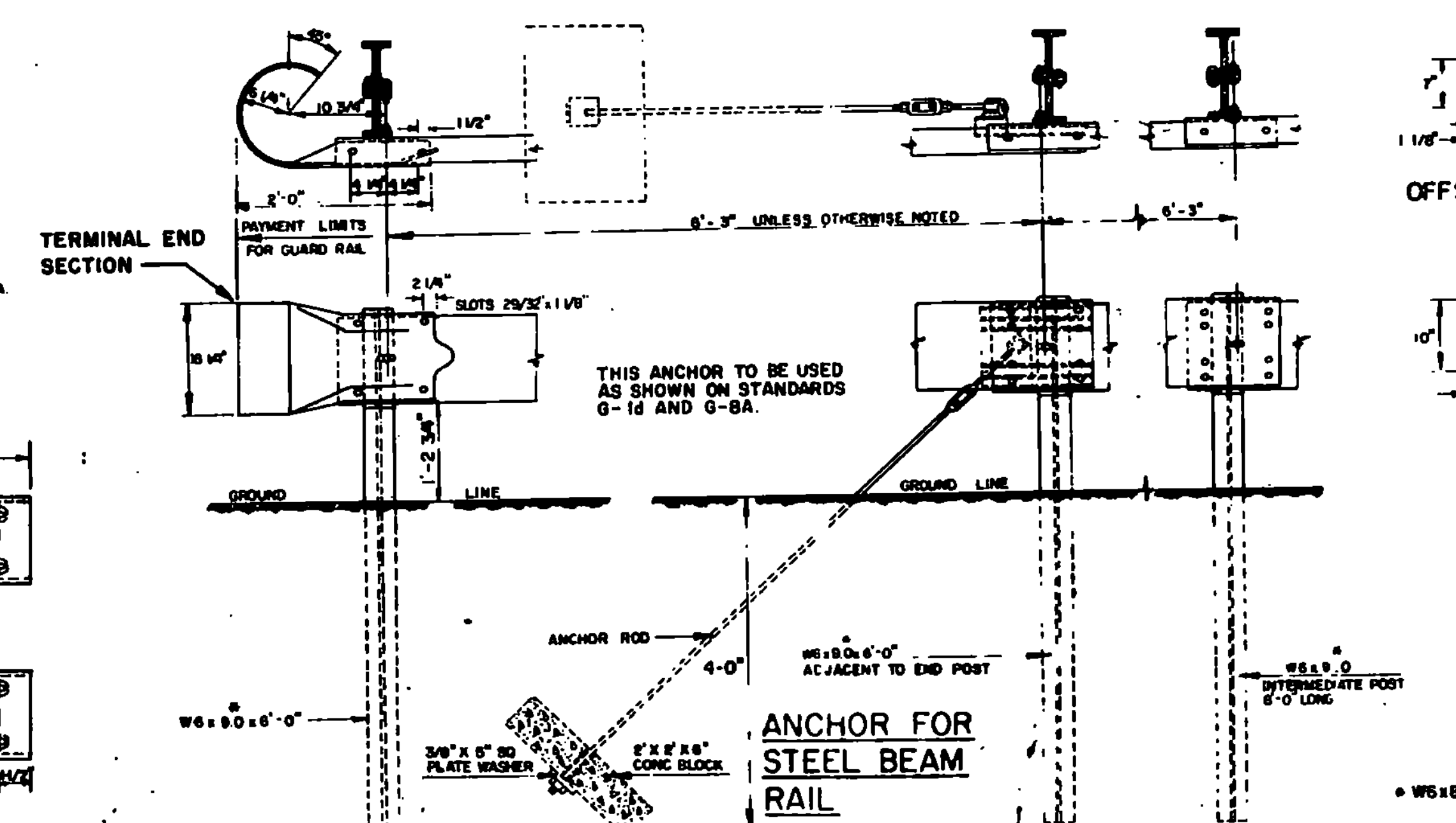
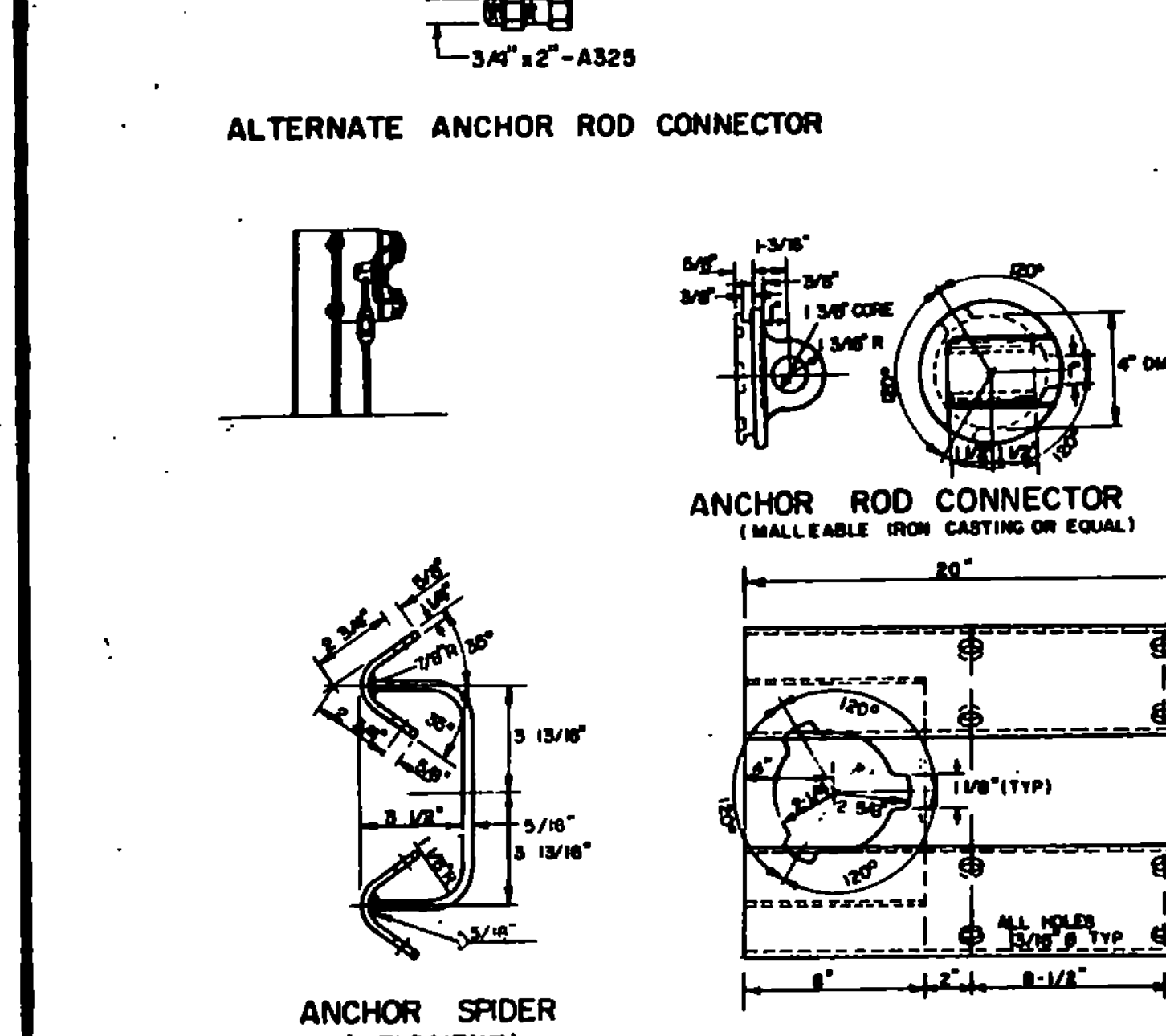
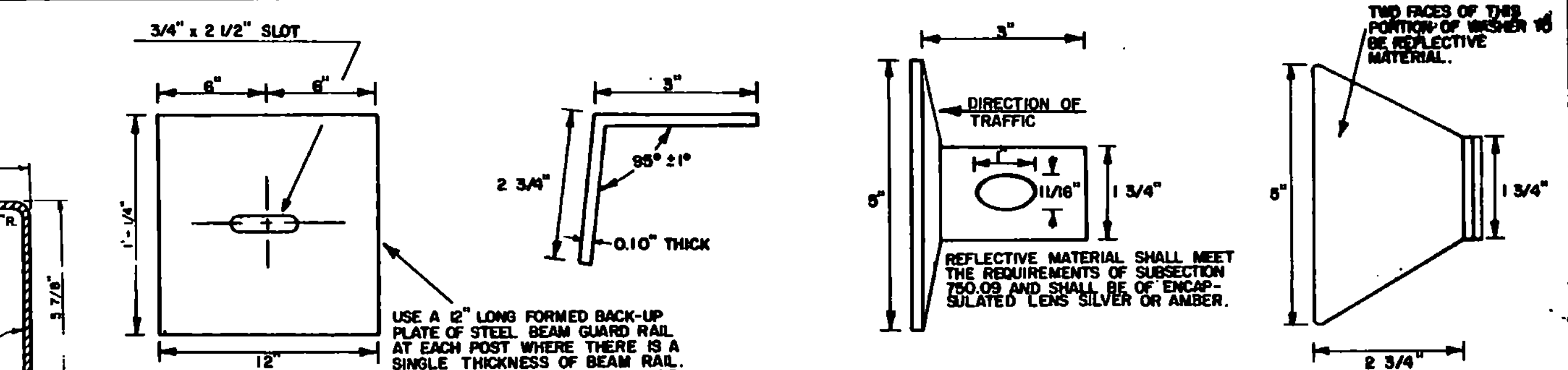
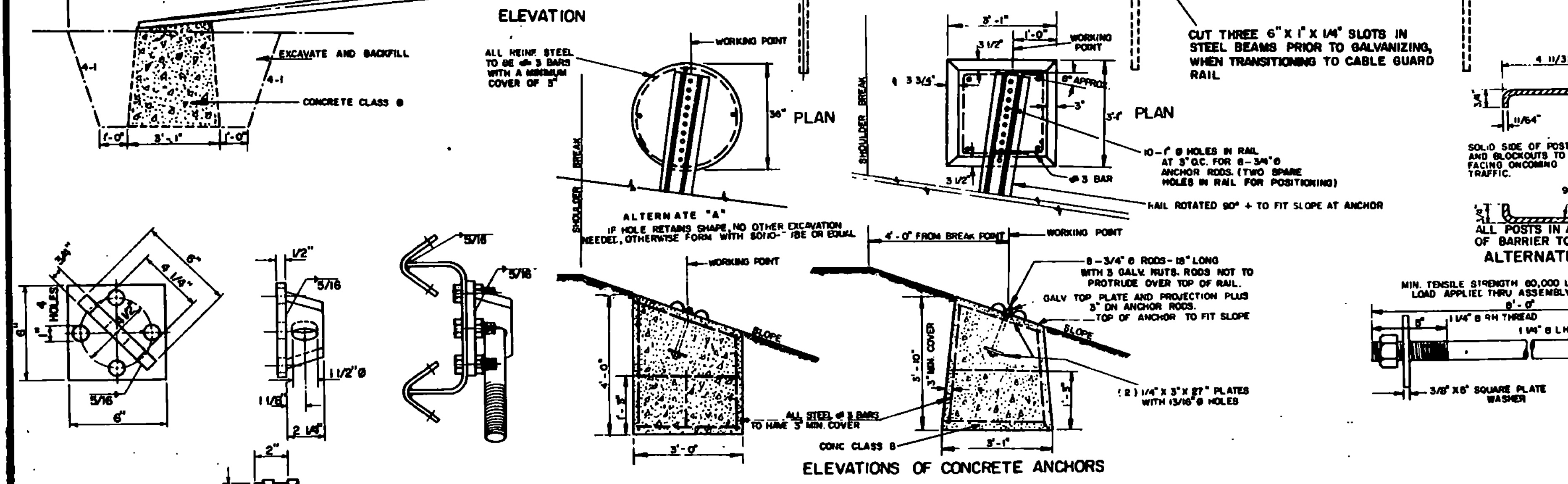
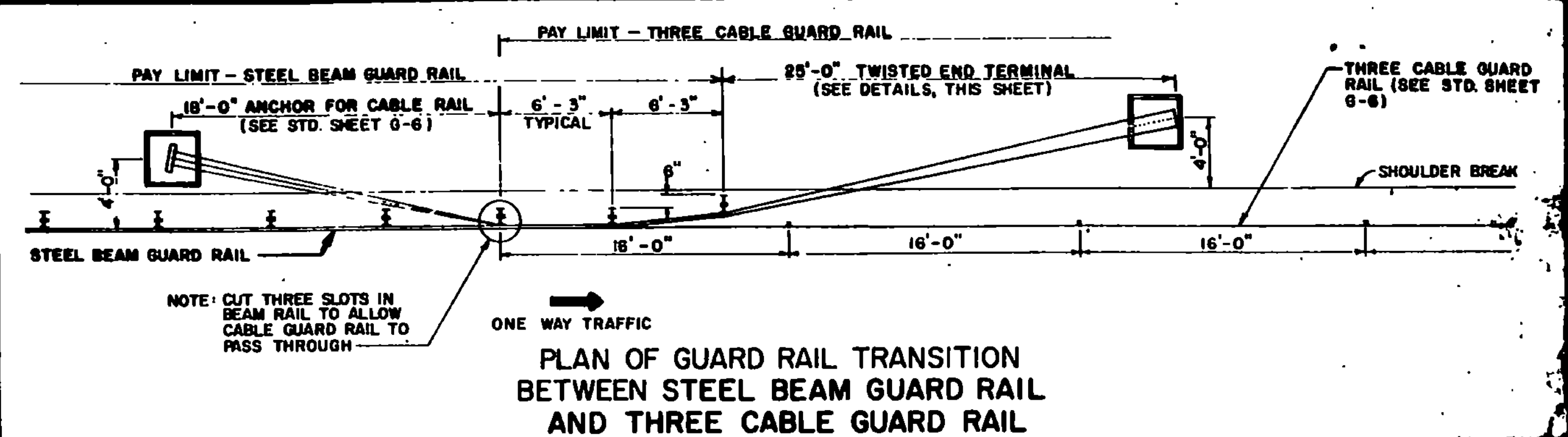


E-50



BEAM GAGE	MIN. TENSILE STRENGTH (LBS)	RAIL OR JOINT		BEAM STRENGTH	
		TRAFFIC FACE UP	TRAFFIC FACE DOWN	LOAD (LBS)	MAXIMUM DEFLECTION (INCHES)
STANDARD	12	80,000	1500	2"	1800
			2000	3"	1800
HEAVY DUTY	10	100,000	2000	3"	1600
			3000	3"	2400

STRENGTH - THE RAIL ELEMENT SHALL BE DESIGNED TO MEET THE REQUIREMENTS OF THE ABOVE TABLE. THE POST CONNECTION SHALL WITHSTAND A 3000 POUND SIDE PULL IN EITHER DIRECTION. STANDARD STEEL BEAM TO BE 12 GAUGE AND THE HEAVY DUTY TO BE 10 GAUGE.



REVISIONS AND CORRECTIONS

APR. 10, 1972	POST HEIGHT INCREASED
JULY 9, 1973	NEW TRANSITION DETAIL ADDED
JUNE 4, 1974	TRANSITION REVISED. ALTERNATE ANCHOR ROD CONNECTOR AND ALTERNATE POST ADDED.
NOV. 29, 1977	ANCHOR DETAIL FOR STEEL BEAM GUARD RAIL WITH STEEL OR WOOD POSTS REMOVED.
JAN. 17, 1978	REVISED ANCHOR DETAIL.
JUNE 1, 1978	CHANNEL ANCHOR DETAILS CHANGED.
MAY 28, 1979	NOTE ON REFLECTIVE MATERIAL CHANGED.
DEC. 16, 1980	INCREASED SHOULDER WIDENING FOR GUARD RAIL.
MAR 12, 1984	REVISED ANCHOR SPIDER DETAILS.
JUNE 5, 1984	POST SIZE AND BACK UP PLATE NOTE CHANGED.
DEC. 21, 1984	REMOVED POST WASHER.
OCT. 31, 1985	REVISED TO CONFORM WITH 1986 SPECIFICATIONS.

APPROVED: *Dec 8, 91*

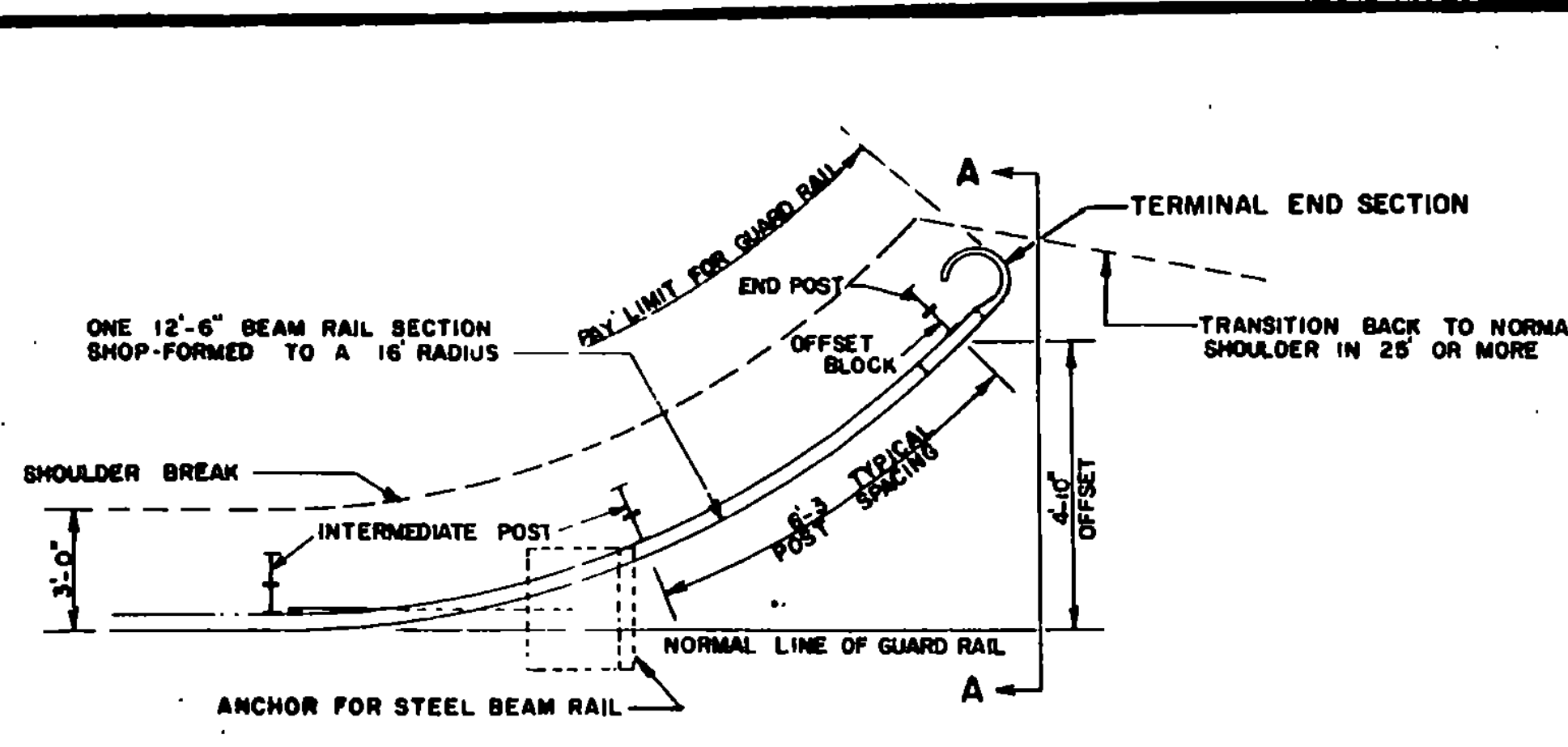
R. W. Arnold
CHIEF ENGINEER

E. H. Stehney
ASST. CHIEF ENGINEER

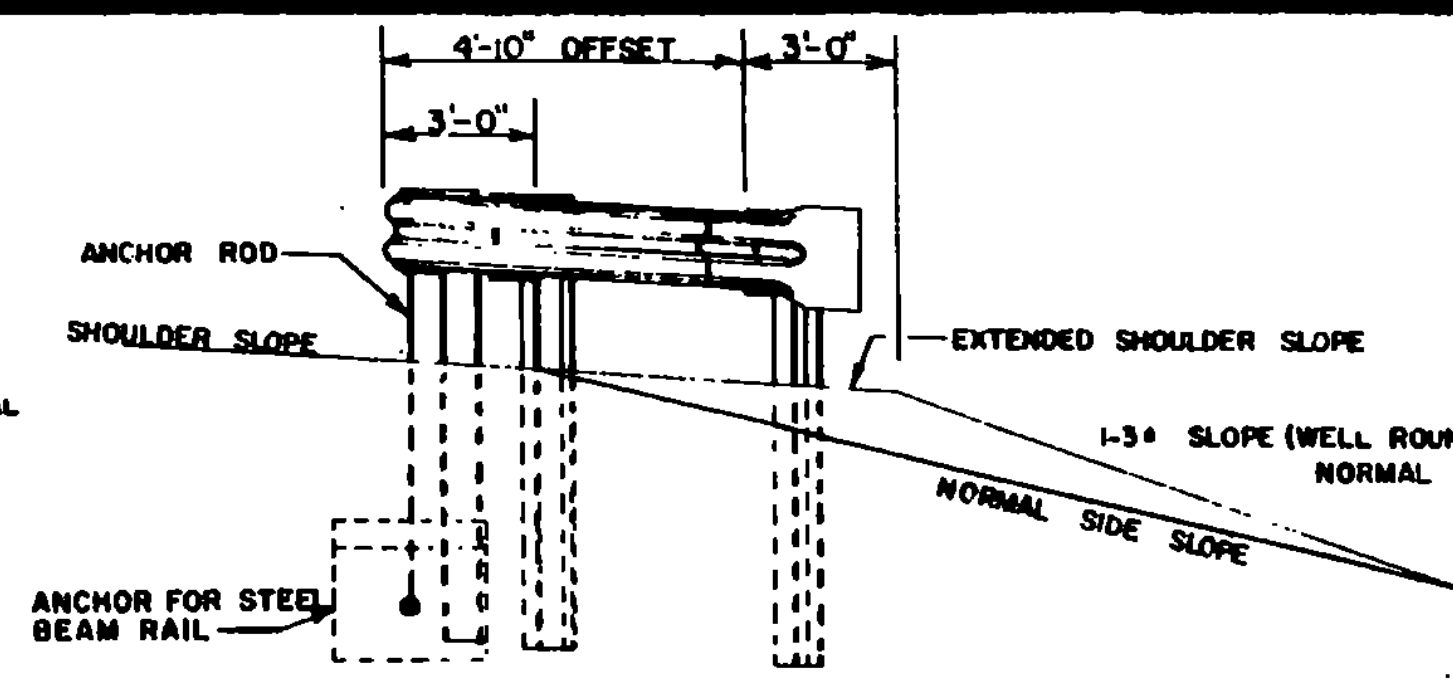
G. M. Lane
HIGHWAY ENGINEER

STEEL BEAM GUARD RAIL
HEAVY DUTY STEEL BEAM GUARD RAIL
TWISTED END TERMINAL
ANCHOR FOR STEEL BEAM RAIL

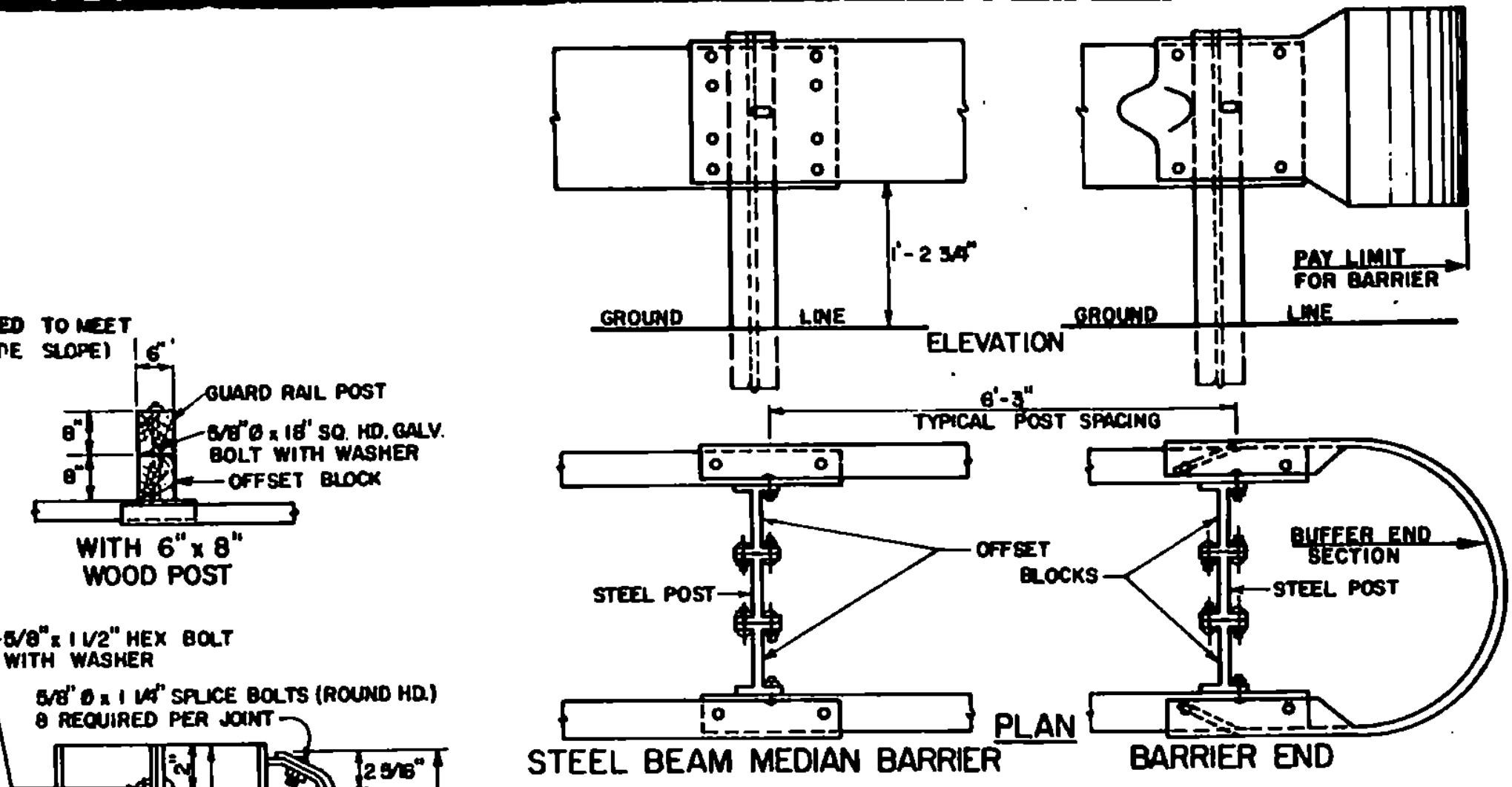




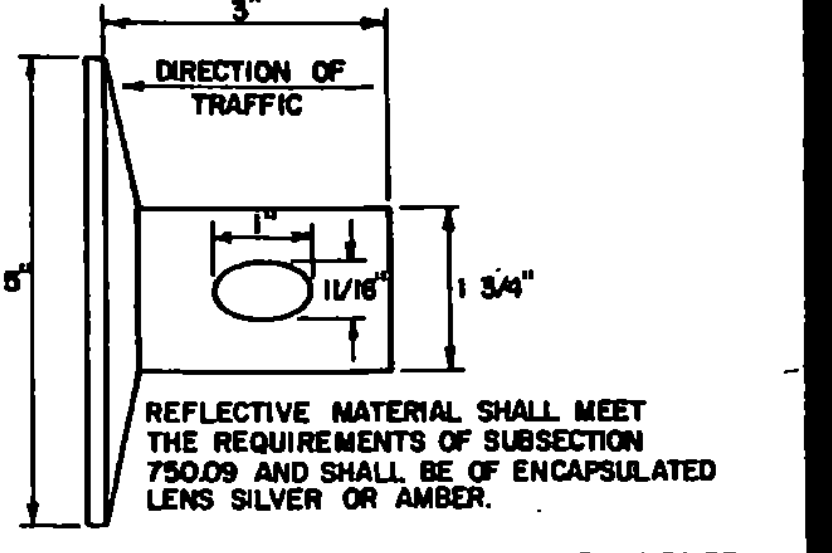
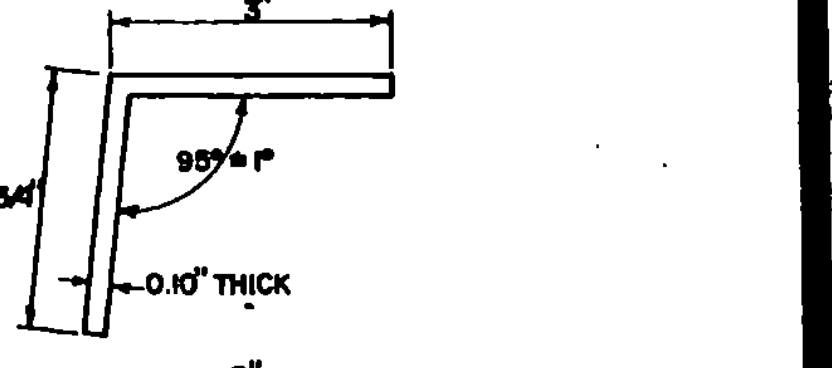
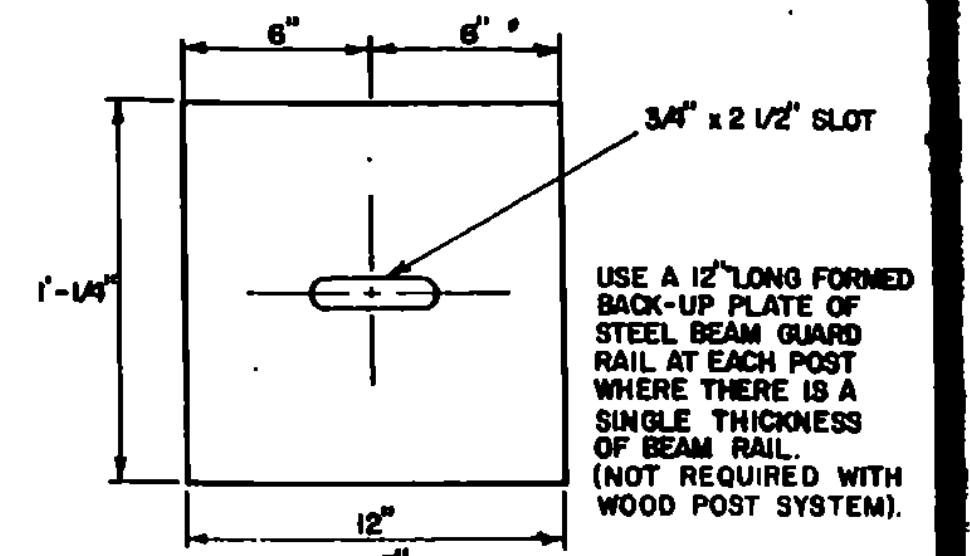
APPROACH END DETAIL
(NOT APPROVED FOR USE WHERE $V > 40$ MPH)



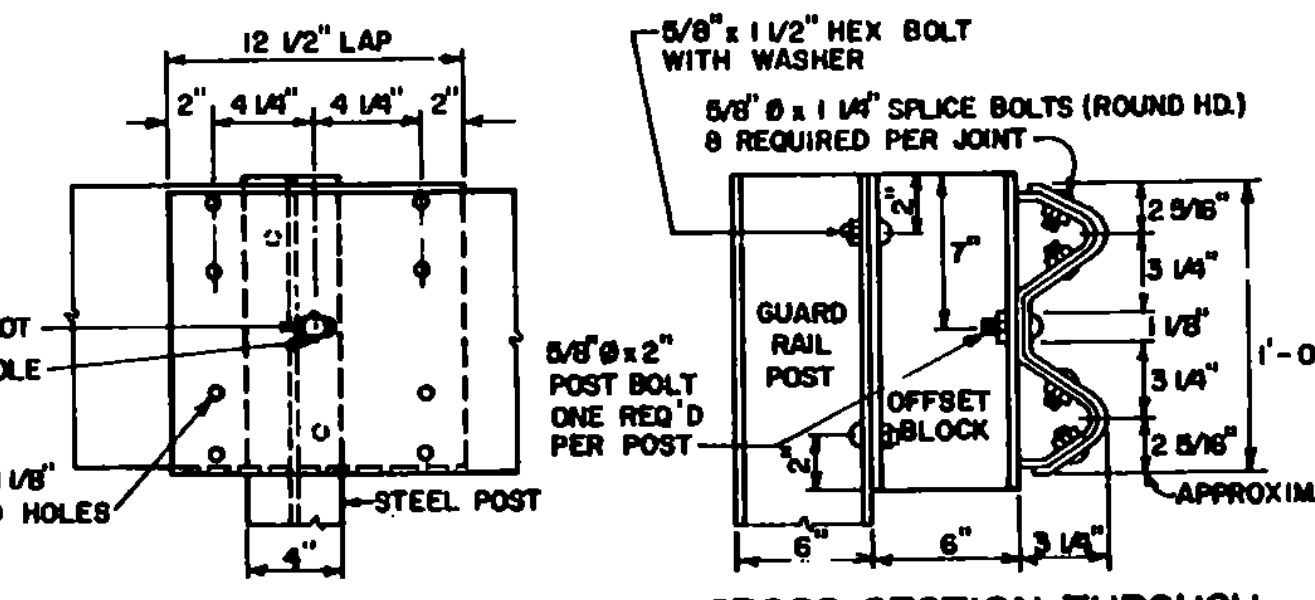
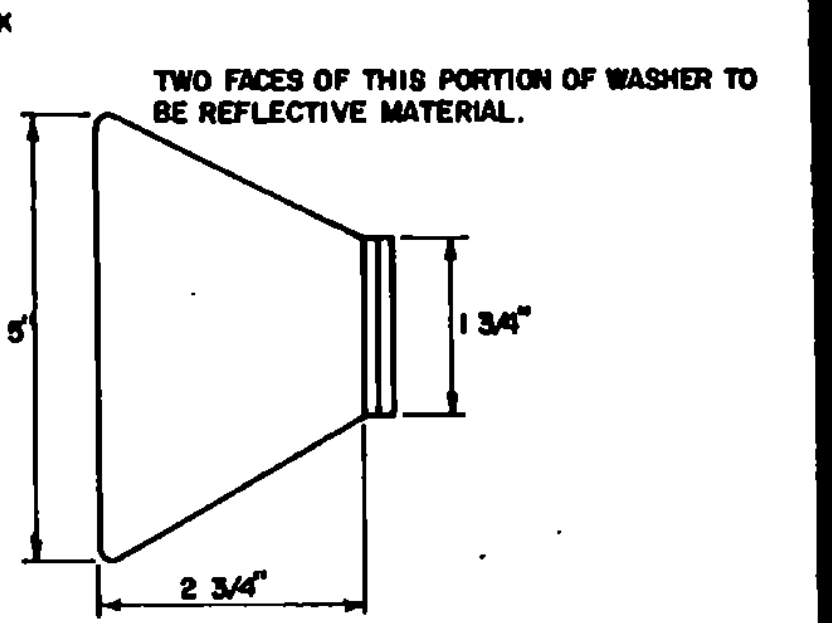
SECTION A-A



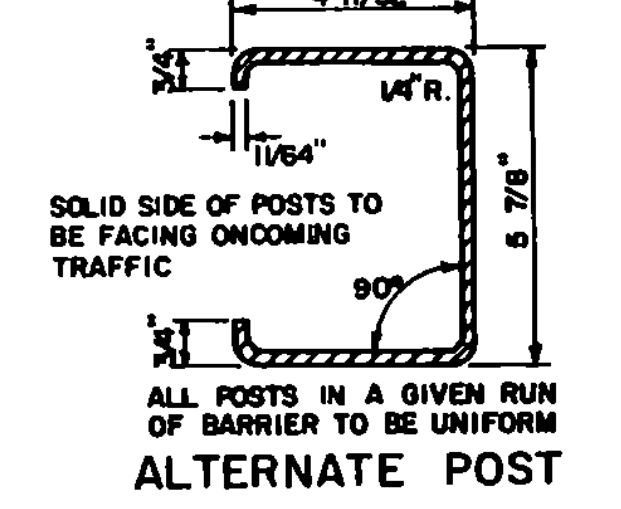
STEEL BEAM MEDIAN BARRIER



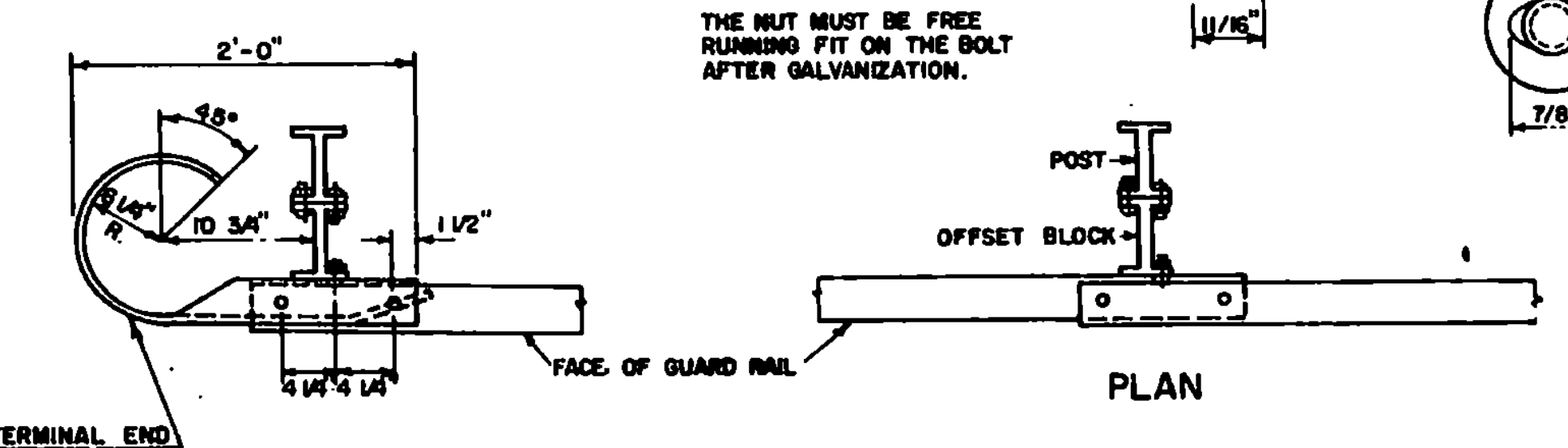
THIS REFLECTORIZED ALUMINUM WASHER IS TO BE PLACED IN VALLEY OF BEAM WHEN MOUNTING BEAM ONTO EACH FIFTH POST. WASHER SHALL MEET SPECIFICATION REQUIREMENTS FOR ASTM B-209 ALLOY 5082-H-32.



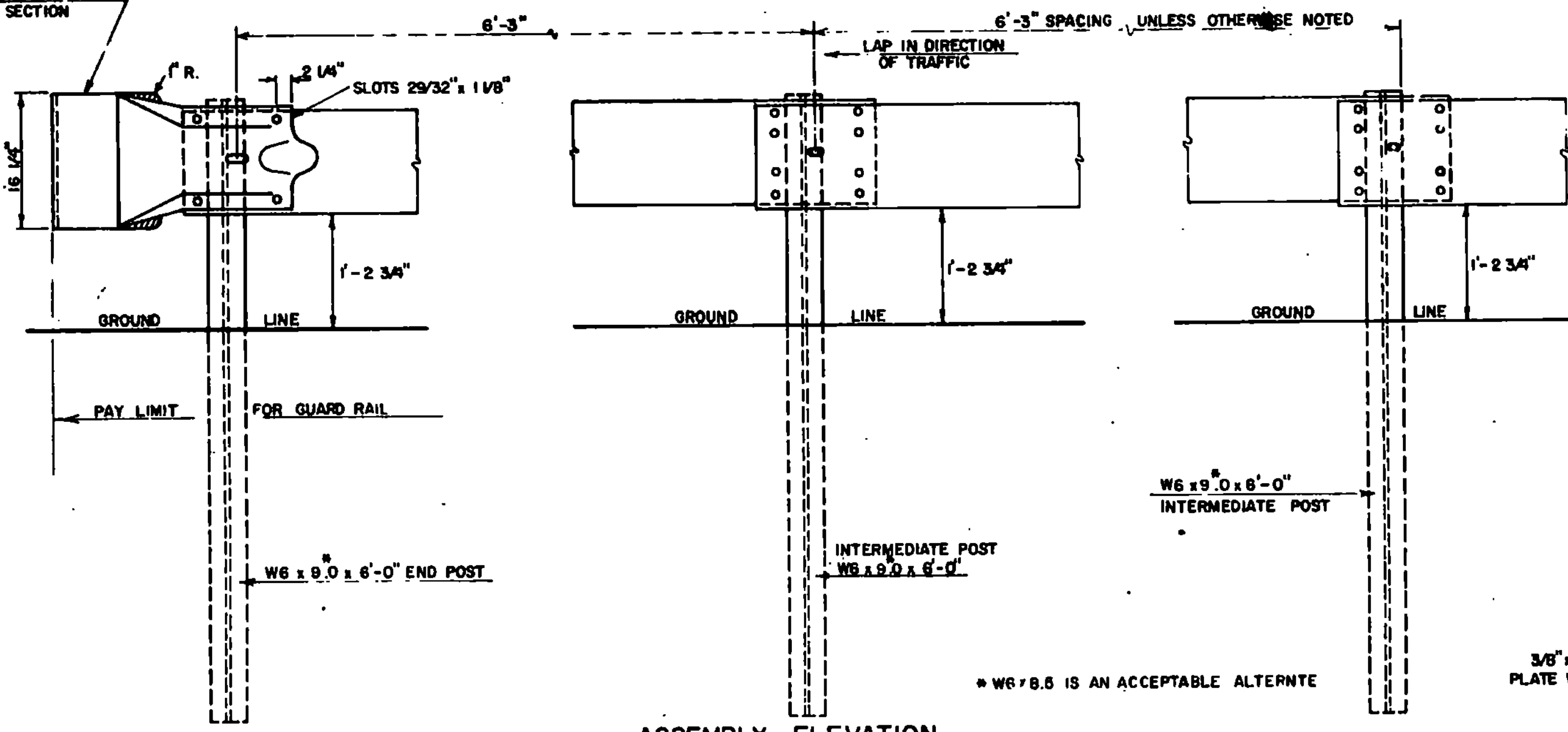
ELEVATION OF GUARD RAIL SPLICE AT POST and **CROSS SECTION THROUGH GUARD RAIL SPLICE**



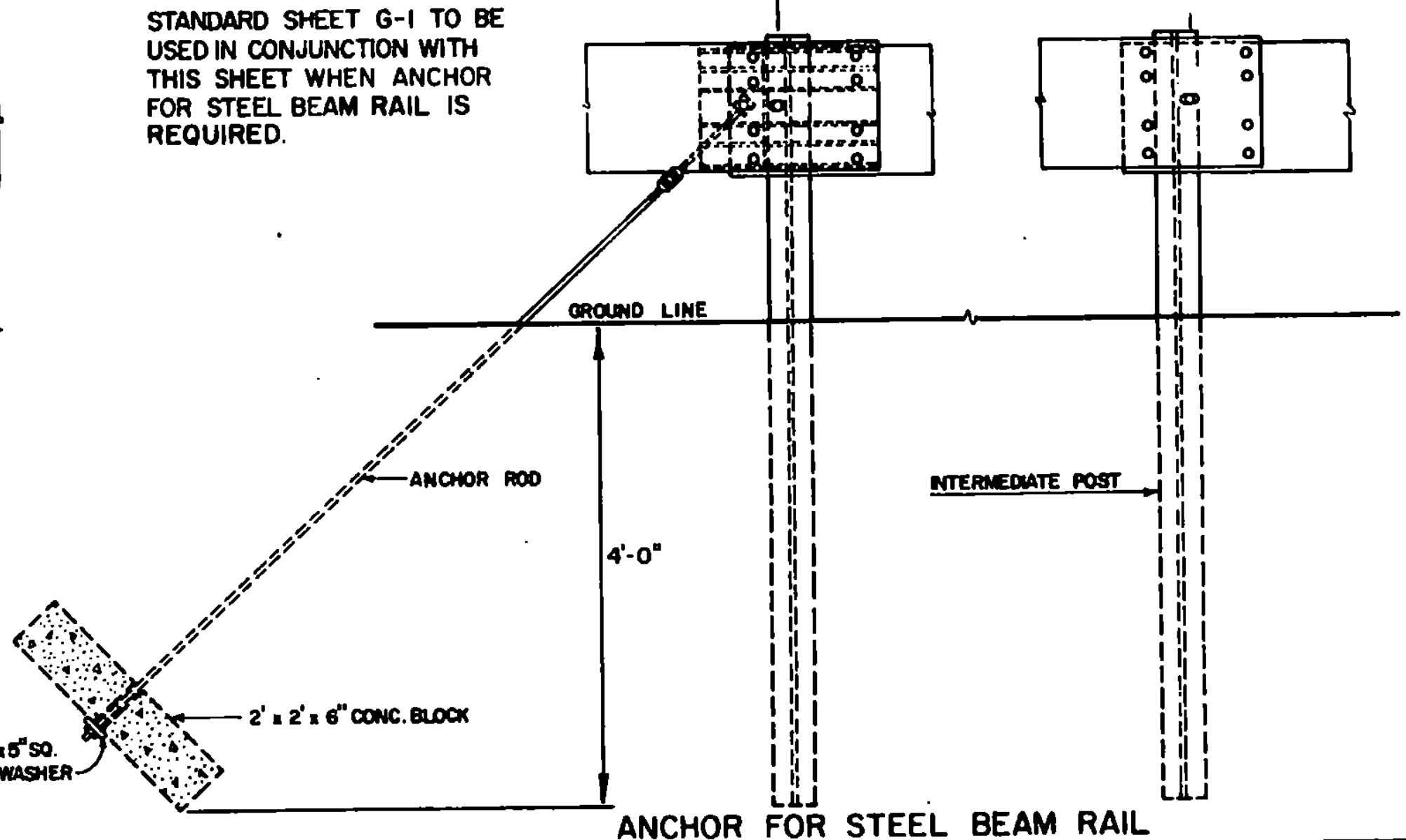
ALTERNATE POST



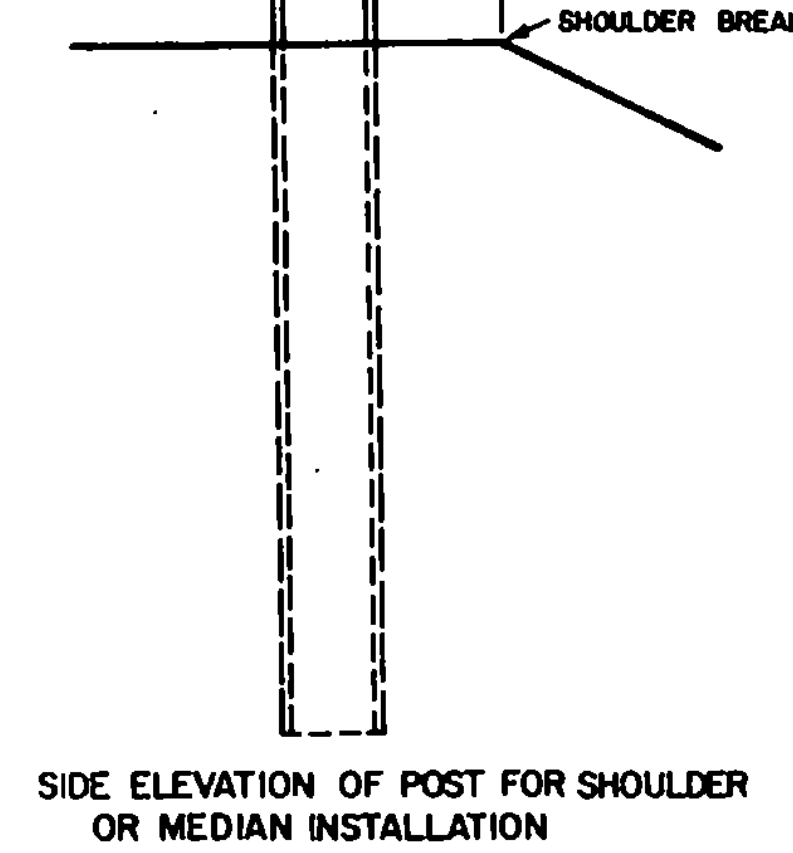
PLAN



ASSEMBLY ELEVATION



ANCHOR FOR STEEL BEAM RAIL



SIDE ELEVATION OF POST FOR SHOULDER OR MEDIAN INSTALLATION

BEAM	MIN. GAGE	TENSILE STRENGTH (LBS)	RAIL OR JOINT			
			BEAM STRENGTH		TRAFFIC FACE DOWN	
			LOAD (LBS)	MAXIMUM DEFLECTION (INCHES)	LOAD (LBS)	MAXIMUM DEFLECTION (INCHES)
STANDARD	12	80,000	1,500	2"	1,200	2"
			2,000	3"	1,600	3"
HEAVY DUTY	10	100,000	2,000	2"	1,600	2"
			3,000	3"	2,000	3"

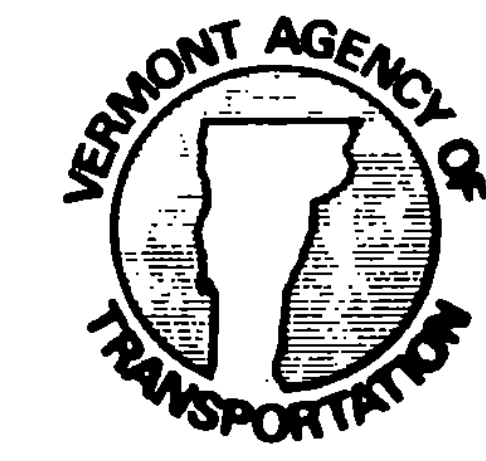
STRENGTH - THE RAIL ELEMENT SHALL BE DESIGNED TO MEET THE REQUIREMENTS OF THE ABOVE TABLE. THE POST CONNECTION SHALL WITHSTAND A 6,000 POUND SIDE PULL IN EITHER DIRECTION. ALL METAL PARTS SHALL BE GALVANIZED. ALL WOOD POSTS SHALL BE GIVEN A PRESERVATIVE TREATMENT.

STANDARD STEEL BEAM TO BE 12 GAGE AND THE HEAVY DUTY TO BE 10 GAGE.

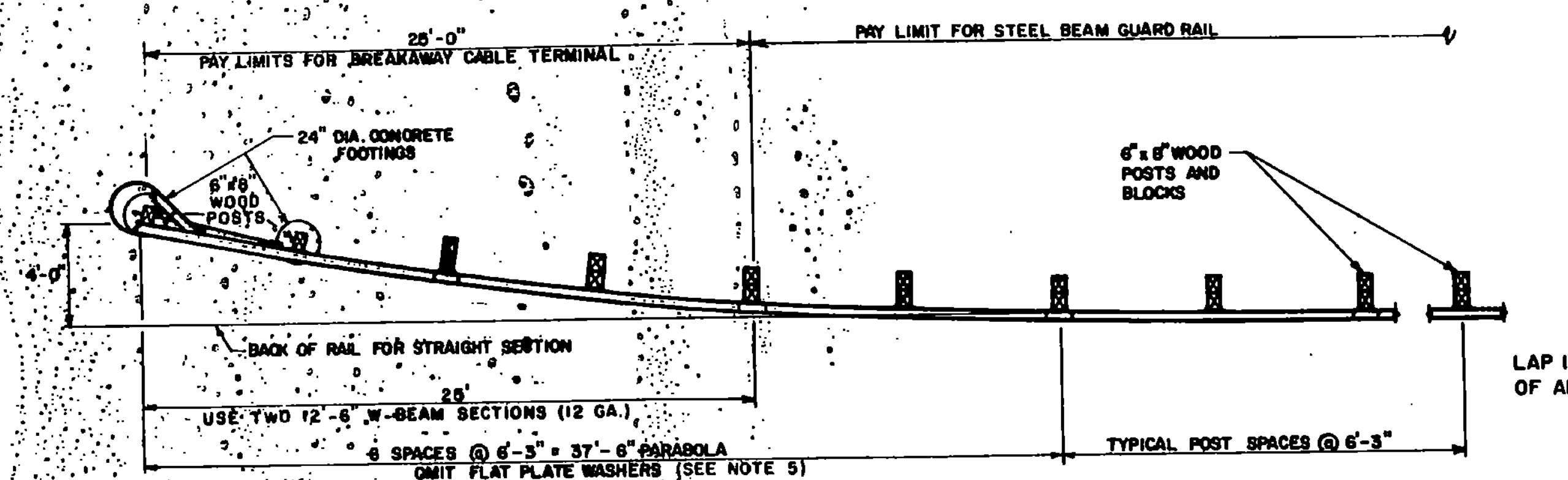
REVISIONS & CORRECTIONS
SEPT. 10, 1976 - MINIMUM LENGTH & ADVANCE OF NEED NOTES REMOVED.
MAR. 2, 1977 - ROUND WOOD POSTS REMOVED.
SEPT. 12, 1977 - REFERENCE TO ROUND WOOD POSTS REMOVED.
MAY 29, 1979 - NOTE ON REFLECTIVE MATERIAL CHANGED
APRIL 28, 1980 - APPROACH END DETAILS REDRAWN
DEC. 16, 1980 - INCREASED SHOULDER WIDENING FOR GUARD RAIL.
JUNE 5, 1984 - POST SIZE AND BACK UP PLATE NOTE CHANGED.
DEC. 21, 1984 - REMOVED POST WASHER
OCT. 31, 1985 - REVISED TO CONFORM WITH 1986 SPECIFICATIONS

APPROVED: *E. H. Stuckey*
DATE: May 6, 1976
CHIEF ENGINEER
RO Mann
ASST. CHIEF ENGINEER
Louise Jones
HIGHWAY ENGINEER

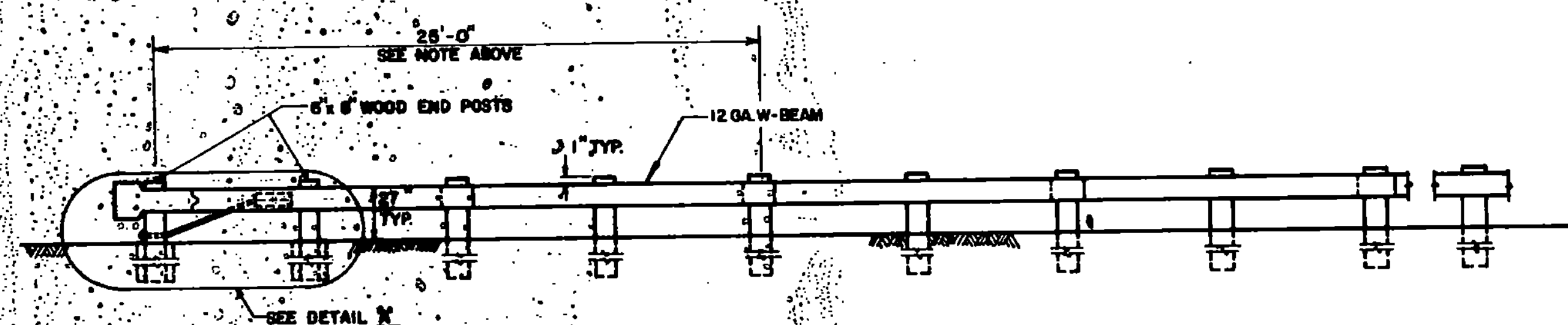
STEEL BEAM GUARD RAIL
HEAVY DUTY STEEL BEAM GUARD RAIL
STEEL BEAM MEDIAN BARRIER
ANCHOR FOR STEEL BEAM RAIL



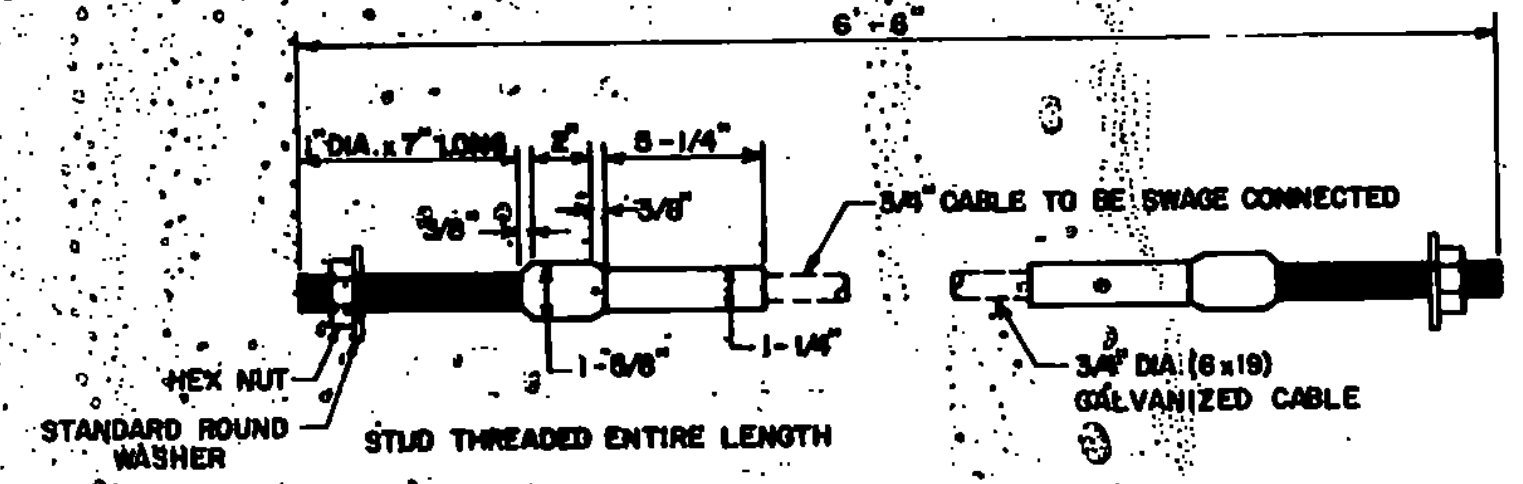
STANDARD G-1d



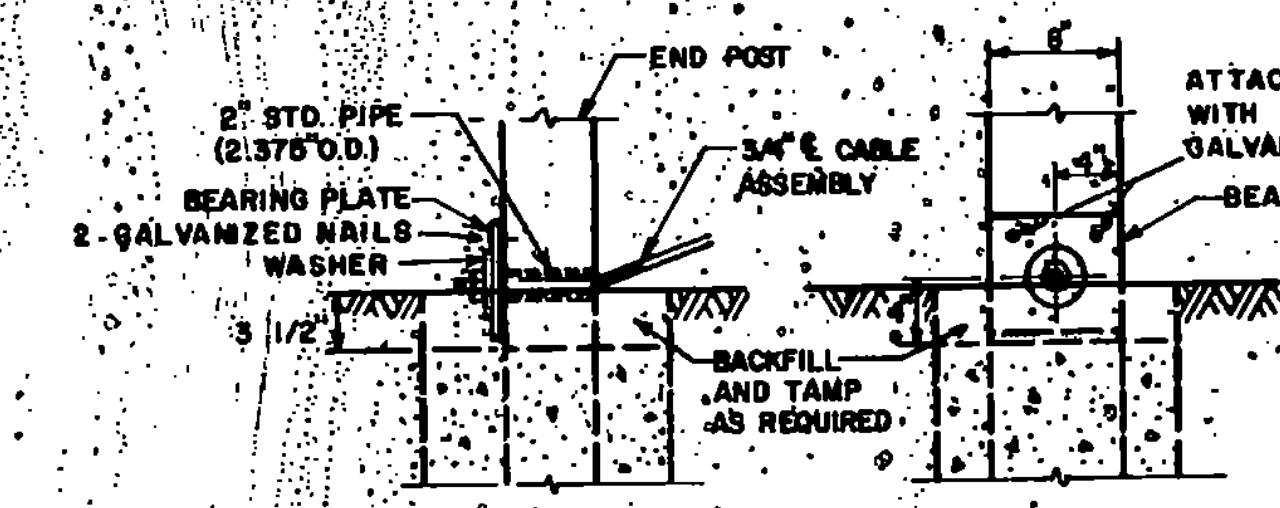
PLAN



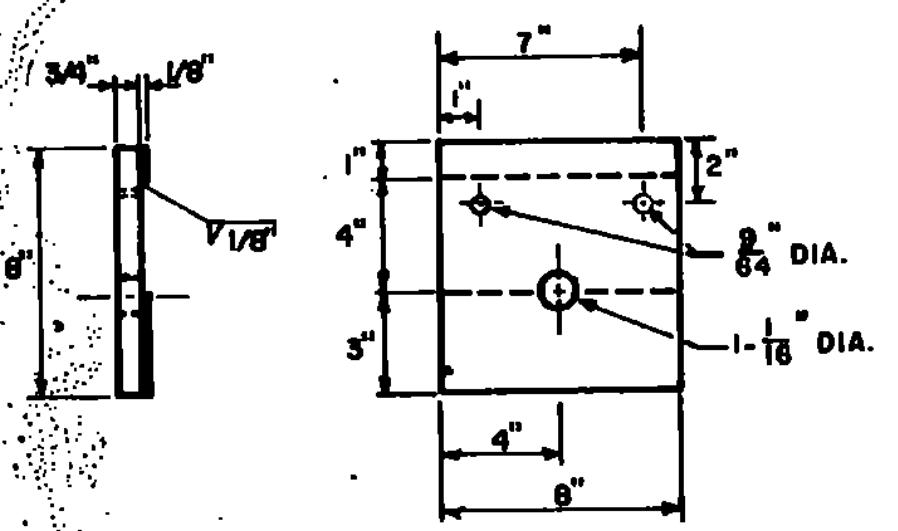
ELEVATION



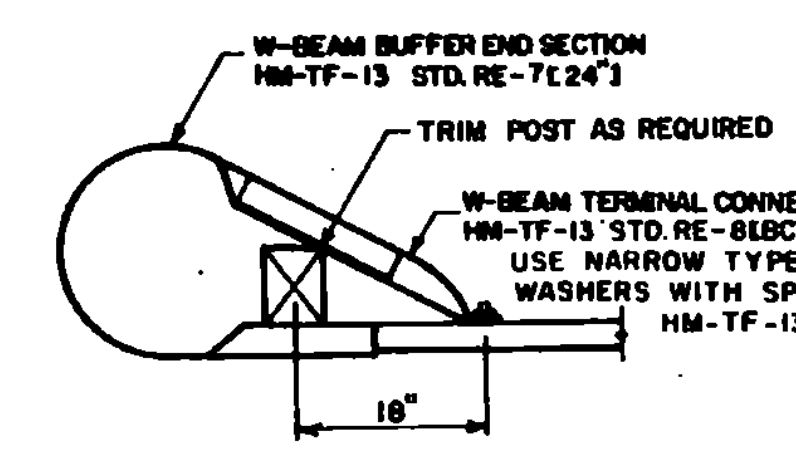
CABLE ASSEMBLY



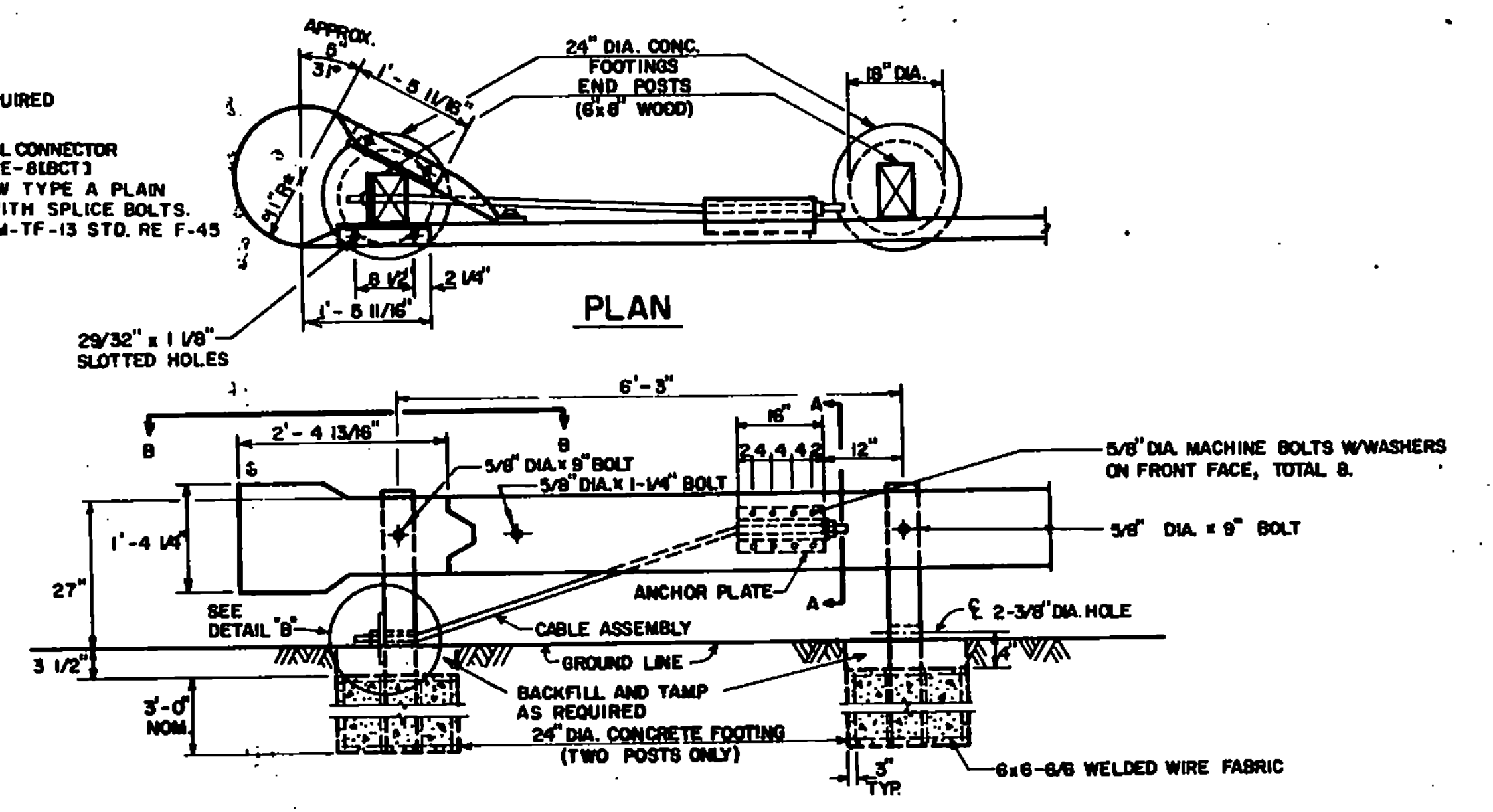
DETAIL "B"



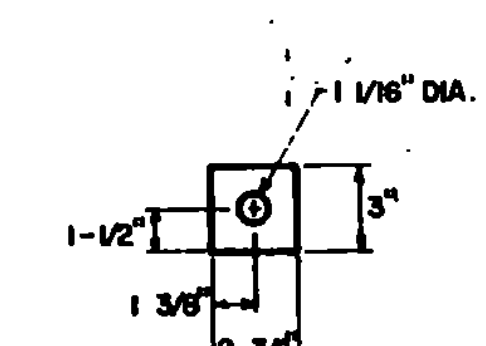
BEARING PLATE DETAILS



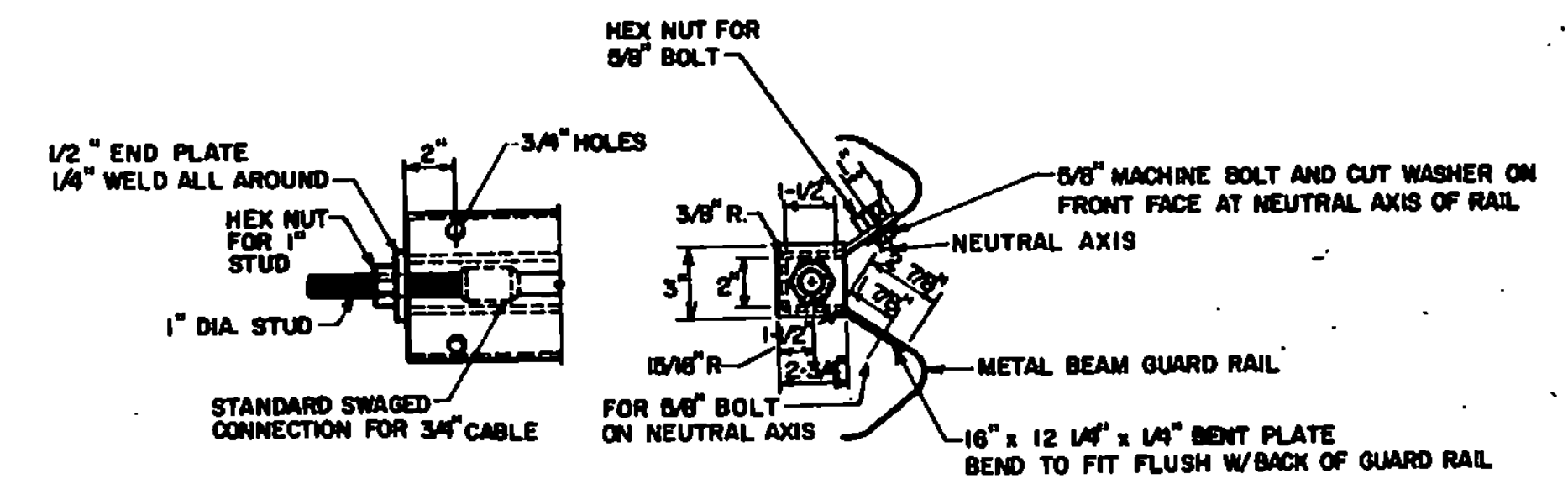
VIEW B-B



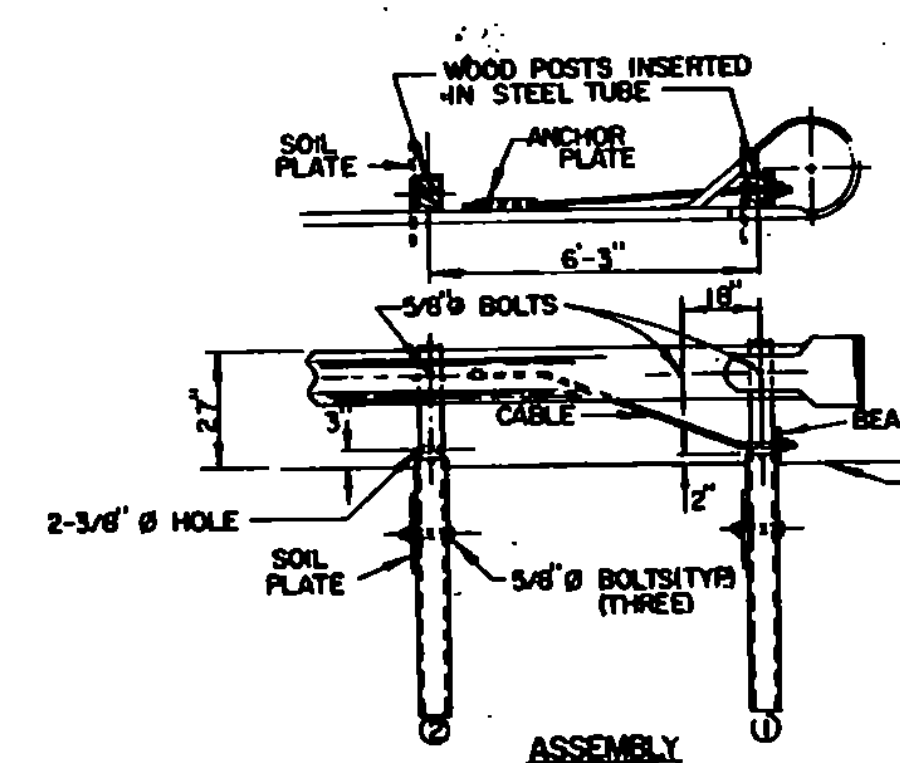
ELEVATION DETAIL "A"



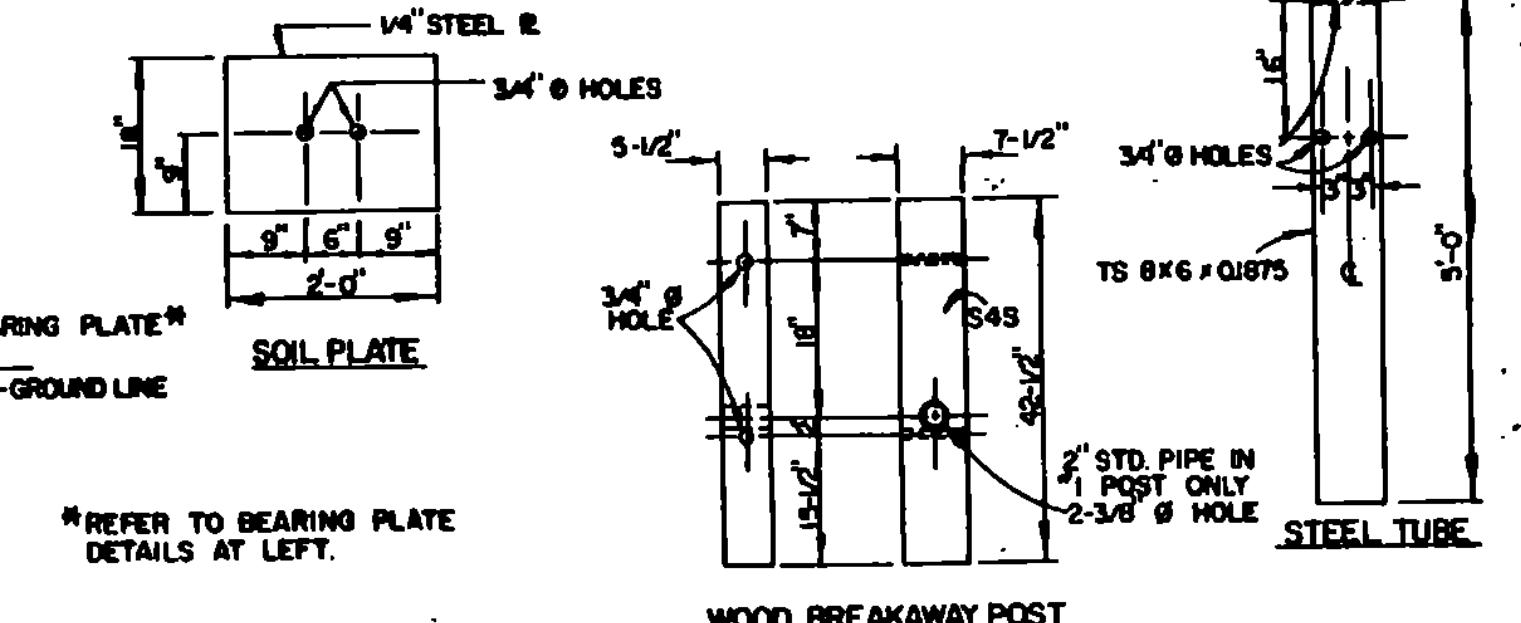
END PLATE



SECTION A-A



ANCHOR PLATE DETAILS



ALTERNATE FOUNDATION DETAILS

NOTES:

- OTHER ANCHOR CABLE ASSEMBLIES MAY BE USED. MINIMUM BREAKING STRENGTH OF ASSEMBLY SHOULD BE 40,000 LBS.
- CONCRETE FOOTINGS ARE CLASS B. IN SANDY FILL AREAS, CONSIDERATION TO INCREASING SIZE OF END FOOTING IS SUGGESTED.
- A DOUBLE WRAP OF ASPHALT TREATED FELT AROUND END POSTS BEFORE CONCRETE PLACEMENT WILL FACILITATE REPLACEMENT OF DAMAGED POSTS.
- STANDARD SHEET G-1 WILL BE USED IN CONJUNCTION WITH THIS STANDARD.
- FLAT PLATE WASHERS ARE NOT USED ON NEW INSTALLATIONS. ON RETROFIT INSTALLATIONS THE FLAT PLATE WASHERS MUST BE OMITTED WITHIN THE 37'-6" PARABOLIC SECTION TO ENSURE PROPER PERFORMANCE UNDER IMPACT.
- FOR ADDITIONAL DETAILS ON HARDWARE SEE THE LATEST EDITION OF AASHTO-AGC-ARTBA PUBLICATION "A GUIDE TO STANDARDIZED HIGHWAY BARRIER RAIL HARDWARE."

BREAKAWAY CABLE TERMINAL WITH WOOD POSTS

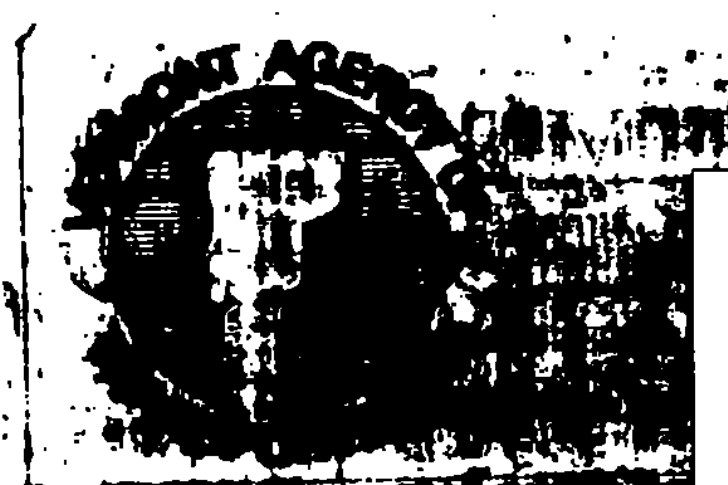
DATE	REVISIONS AND CORRECTIONS
APR 21, 1977	BREAKAWAY DETAIL LOWERED TO GROUND LINE
JAN 19, 1981	ALTERNATE FOUNDATION DETAILS ADDED. MISCELLANEOUS CLARIFICATION OF NOTES AND DETAILS.
AUG 12, 1981	REMOVED BEARING PLATE DETAIL FROM ALTERNATE FOUNDATION DETAILS.
AUG 27, 1984	BACK-UP PLATE REQUIREMENT DELETED. NEW NOTE 5 ADDED.
DEC 21, 1984	REVISED NOTE 6, NEW NOTE 6 ADDED. REMOVED 25' W-BEAM SECTION.
OCT 31, 1985	REVISED TO CONFORM W/86 SPECS

APPROVED: DATE July 21, 1976

E. H. Stebbins
CHIEF ENGINEER

R. O. Munn
ASST. CHIEF ENGINEER

Louie C. Jones
HIGHWAY ENGINEER



STANDARD

G-14