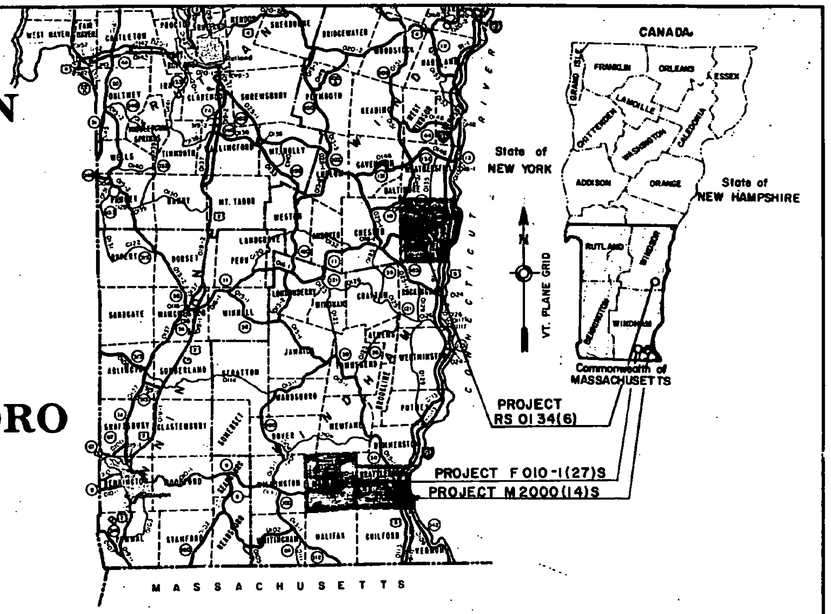
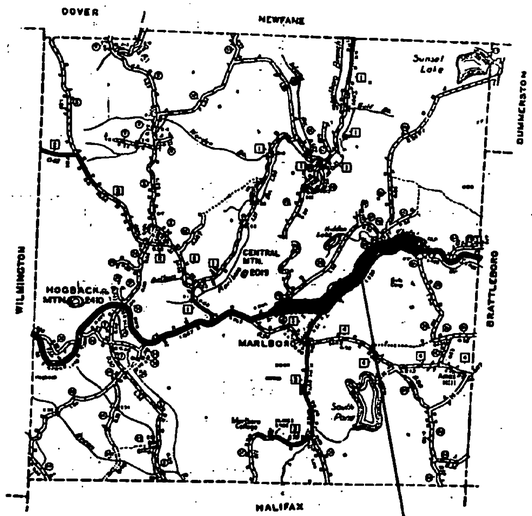
INDEX OF SHEETS

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

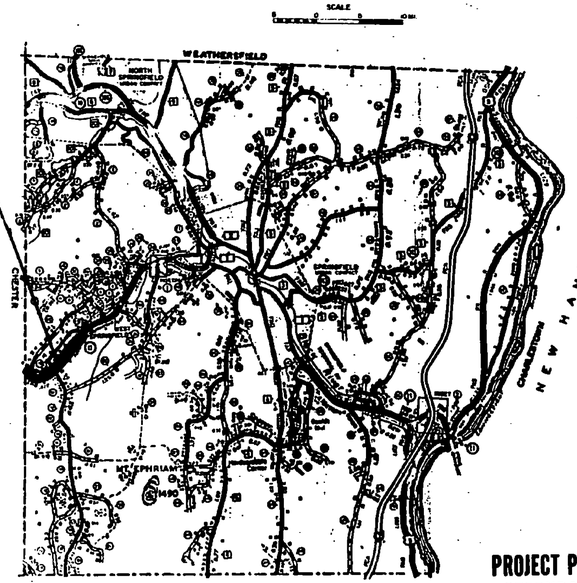
THESE PLANS DO NOT REFLECT CHANGES MADE ON THE PROJECT.

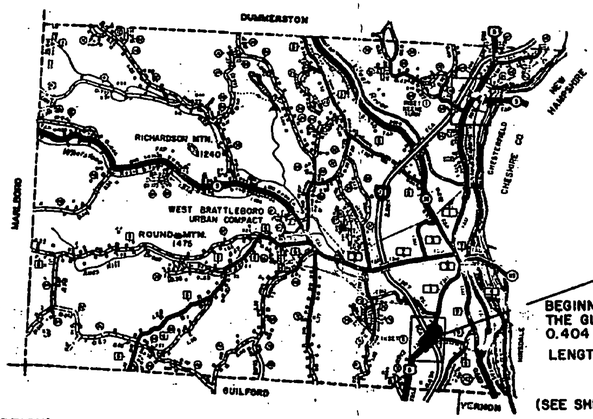
VT. PLANE GRID

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 = 6%
(SEE SHEET 5 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)

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)

1 .50 0 1 2 3 4 MILES
SCALE

THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE CHIEF ENGINEER.
CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 1956, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

PROJECT PROCESSED UNDER SECONDARY ROAD PLAN

SUBMITTED BY ORDER OF THE STATE TRANSPORTATION BOARD
APPROVED Frank E Abbott DATE 8-12-86
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

Date APR 3 1987
THE LANE CONSTRUCTION CORPORATION
Contractor
J.W. Llewellyn
Signature
PRESIDENT
Title
Jane C Crumpton
Transportation Secretary's Signature

BRUNING 44-131 40933-1

D-10

S.R.S. 12/17/70

TYPICAL SECTIONS MARLBORO

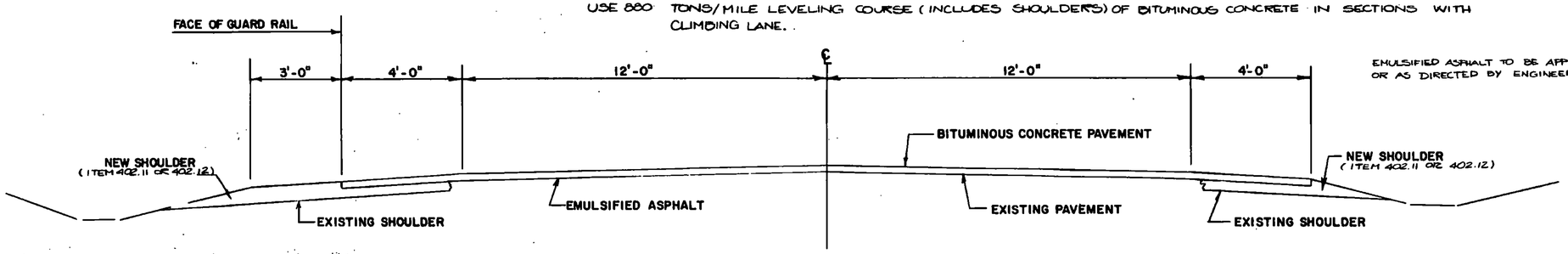
1¼" BITUMINOUS CONCRETE PAVEMENT (± ¼")

USE 655 TONS/MILE LEVELING COURSE (INCLUDES SHOULDERS) OF BITUMINOUS CONCRETE FROM MM 4.692-MM 5.54

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

USE 880 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.



EMULSIFIED ASPHALT TO BE APPLIED AT THE RATE OF 0.015 GAL/SY OR AS DIRECTED BY ENGINEER

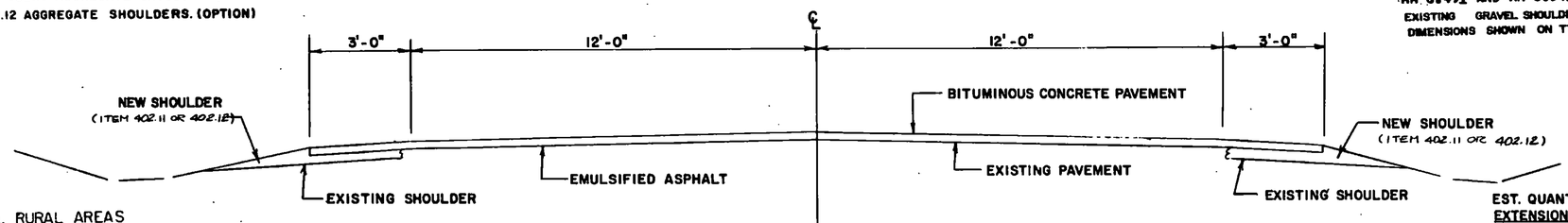
NOTE: IF THE SURFACE OF A DRIVE IS DISRUPTED DURING CONSTRUCTION IT SHALL BE REPAIRED. ESTIMATED AMOUNTS OF AGGREGATE AND BITUMINOUS CONCRETE PAVEMENT HAVE BEEN ADDED TO PROJECT QUANTITIES FOR THIS USE. TYPE OF AGGREGATE USED SHALL BE DETERMINED BY THE ENGINEER AND PAID AS ITEM 402.11 AGGREGATE SHOULDERS, 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 6.49± AND MM 6.54±) AND EXISTING SIGNING.

EXISTING GRAVEL SHOULDERS WILL BE WIDENED AND PAVED ACCORDING TO DIMENSIONS SHOWN ON TYPICAL.



USE FROM MM 6.25 TO MM 6.43 (950')

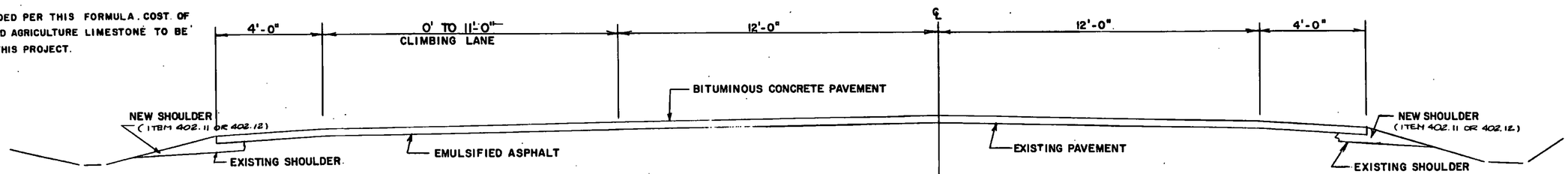
EST. QUANTITIES TO EXTEND SHOULDERS (ITEM 402.11 OR 402.12)

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.

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	BIRDSFOOT TREFOIL (VAR. EMPIRE)	98	85
5.00	3	HIGHLAND BENT GRASS	92	85
100.00	60			

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.



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.

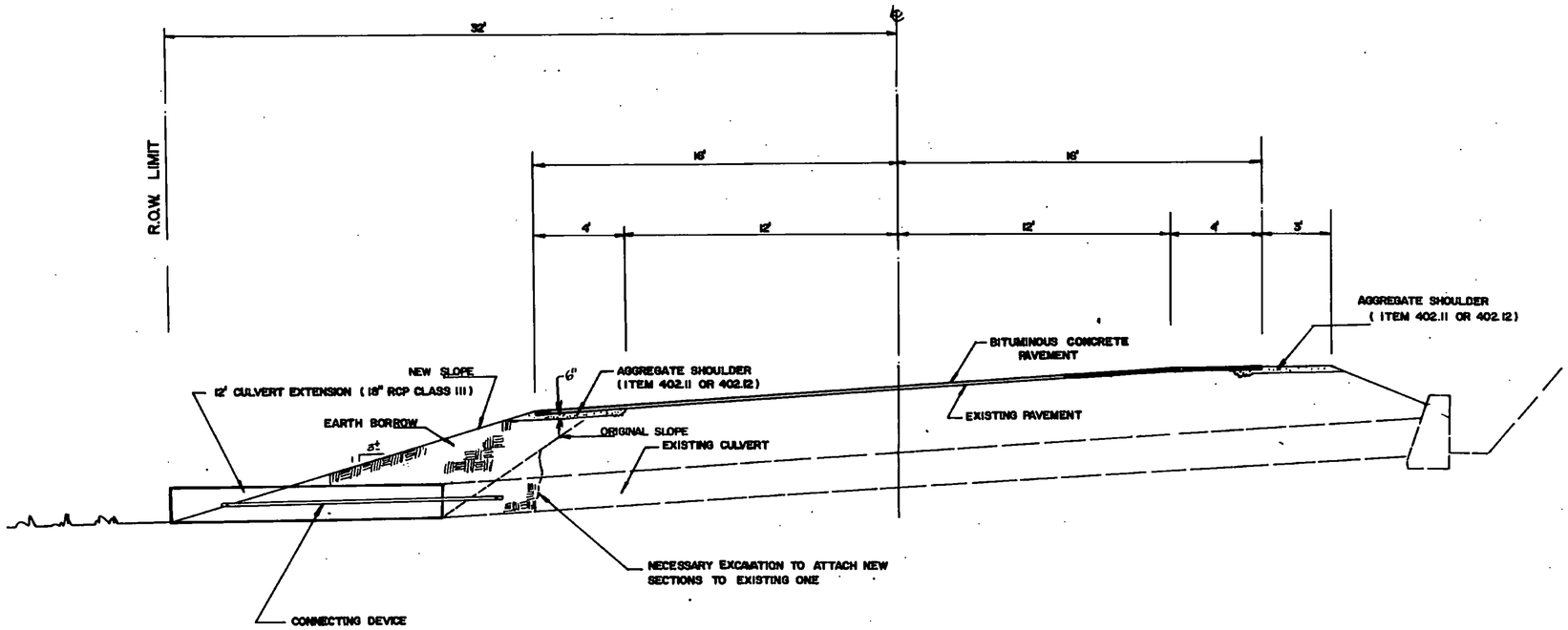
AGRICULTURAL LIMESTONE TO BE APPLIED TO ALL EARTH SLOPES AT THE RATE OF TWO TONS PER ACRE OR AS DIRECTED BY THE ENGINEER.

MARLBORO

SURVEYED BY _____ DATE _____
DRAWN BY SAENZ DATE 5-86
TRACED BY HARDIE DATE 5-86

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 (℄) ON THE LEFT SIDE OF ROADWAY. THEREFORE, NO EMBANKMENT WORK SHOULD BE PERFORMED OUT SIDE 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, 601.07(b), 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.

MARLBORO

DATUM
VERTICAL _____
HORIZONTAL _____

SURVEYED BY _____ DATE _____
DRAWN BY _____ DATE _____
TRACED BY _____ DATE _____

MARLBORO
VT RTE 9
PROJ. F NO. 010-1(27)S.
SHEET 3 OF 45

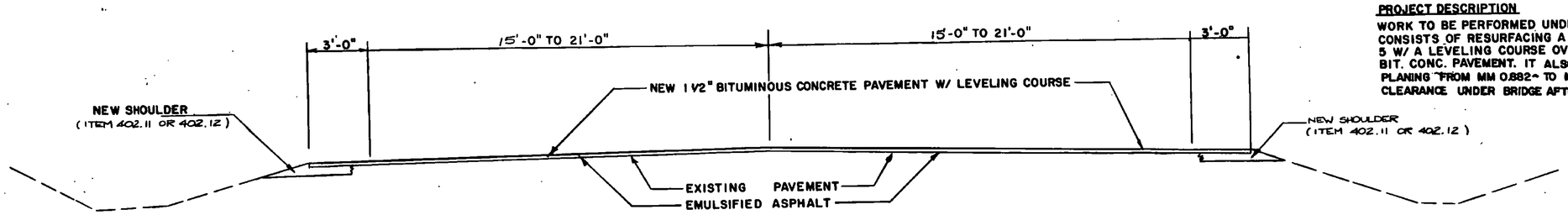
3

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)

1½" 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./S.Y.
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.



FROM MM 0.688 TO MM 0.750±

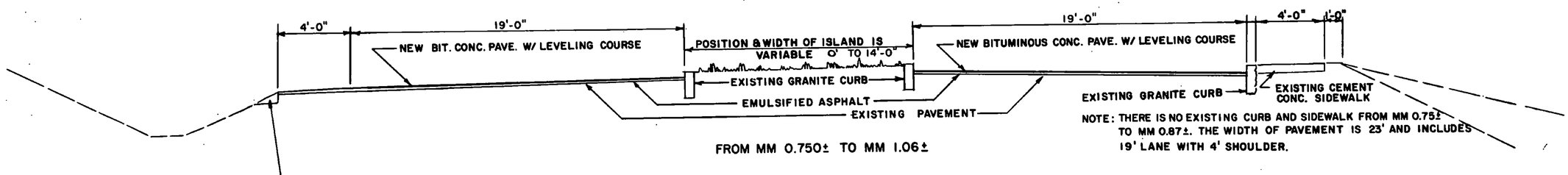
PROJECT DESCRIPTION

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)

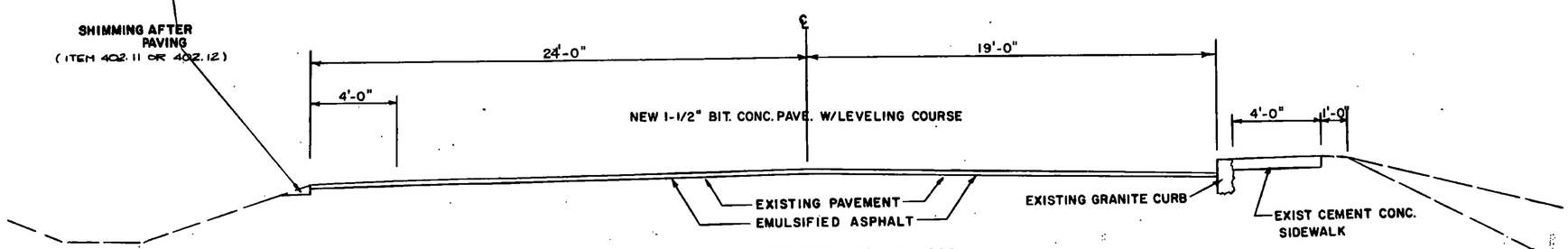
EXTENSION	LEFT SIDE	RIGHT SIDE
3'	0.81 SQ. FT.	1.00 SQ. FT.

EST. QUANTITY FOR SHIMMING 0.06 SQ. FT.



FROM MM 0.750± TO MM 1.06±

NOTE: THERE IS NO EXISTING CURB AND SIDEWALK FROM MM 0.75± TO MM 0.87±. THE WIDTH OF PAVEMENT IS 23' AND INCLUDES 19' LANE WITH 4' SHOULDER.



FROM MM 1.06± TO MM 1.092

DATUM
VERTICAL
HORIZONTAL

BRATTLEBORO

SURVEYED BY _____ DATE _____
DRAWN BY SAENZ DATE 5-96
TRACED BY HARDIE DATE 5-96

BRATTLEBORO US RTE. 5
PROJ. M NO. 2000 (14)S
SHEET 4 OF 45

TYPICAL SECTION

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

455 TONS, PER/MILE LEVELING COURSE (INCLUDES SHOULDERS) OF BITUMINOUS CONCRETE

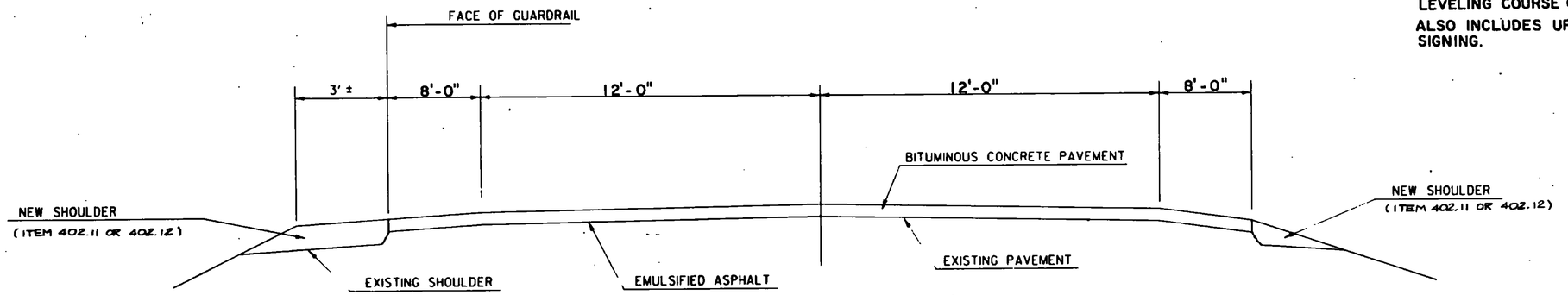
EMULSIFIED ASPHALT, TO BE APPLIED AT THE RATE OF .015 GAL./SQ. YD. OR AS DIRECTED BY THE ENGINEER.

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 VT. 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
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	BIRDSFOOT TREFOIL (VAR. EMPIRE)	98	85
5.00	3	HIGHLAND BENT GRASS	92	85
100.00	60			

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 5-
TRACED BY HARDIE DATE 5-

SPRINGFIELD VT RTE 11
PROJ. RS NO. 0134(6)
SHEET 5 OF 45

5

QUANTITY SHEET

STATE OF VERMONT
AGENCY OF TRANSPORTATION

APPROXIMATE SUMMARY OF QUANTITIES

MARLBORO	Rnd	BRATTLEBORO	Rnd	SPRINGFIELD	Rnd	QUANTITIES GRAND TOTAL	UNIT	ITEMS	ITEM NO.	ROUNDING
745				150		895	CY	Earth Borrow	203.30	
		250				250	SY.	Cold Planing	210.10	
								BEGIN OPTION ITEMS		
620	1	50	1	60	6	730	CY	Aggregate Shoulders, Truck Measurment	402.11	
1085	E	90	4	105	10	1280	Ton	Aggregate Shoulders	402.12	
								END OPTION ITEMS		
65		16		36		115	CWT	Emulsified Asphalt	404.65	
5730		1250		2080		9060	Ton	Bituminous Concrete Pavement	406.25	
12						12	LF	18" RCP CLASS III	601.0815	
		15				15	EA	Changing Elevations of Drop Inlets, Catch Basins, or Manholes	604.40	
80		10		10		40	HR	All Purpose Excavator Rental, Type I	608.25	Est.
40		6		17		63	HR	Power Broom Rental	608.30	Est.
15		10		10		35	HR	Truck Rental	608.37	Est.
3						3	EA	Removing and Replacing of Mailboxes	619.26	
325	.5			765	.5	1090	LF	Steel Beam Guard Rail	621.20	
3				3		6	EA	Breakaway Cable Terminal	621.50	
1				1		2	EA	Anchor for Steel Beam Rail	621.60	
224				704		928	LF	Removal and Disposal of Guard Rail	621.80	
295		100		105		500	HR	Uniformed Traffic Officers	630.10	
320		100		110		530	HR	Flaggers	630.15	
0.5				0.5		1	LS	Field Testing	631.15	
0.62		0.13		0.25		1	LS	Mobilization	635.10	

D-1 JAN 85

BRUNING 63083

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		BITUMINOUS CONCRETE PAVEMENT
		MARLBORO
3872	TON	MAIN LINE ~ SURFACE
1772	TON	MAIN LINE ~ LEVELING
80	TON	TOWN HIGHWAY APPROACHES
30	TON	"Y" INTERSECTION
86	TON	DRIVES
10	TON	ROUNDING
5730	TON	TOTAL
		BRATTLEBORO
944	Ton	Mainline ~ Surface
193	Ton	Mainline ~ Leveling
73	Ton	Street and Ramp Approaches ~ Surface
15	Ton	Street and Ramp Approaches ~ Leveling
16	Ton	Drives
9	Ton	Rounding
1250	Ton	Total
		SPRINGFIELD
1515	Ton	Mainline ~ Surface
528	Ton	Mainline ~ Leveling
22	Ton	Town Highway Approaches ~ Surface
8	Ton	Town Highway Approaches ~ Leveling
6	Ton	Drives
1	Ton	Rounding
2080	Ton	Total

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

STATIONS FROM	STATIONS TO	PAVEMENT WIDTHS			EQUATIONS +	EQUATIONS -	FEET	MILES	REMARKS
TOTALS									

PROJECT NAME 1986 PAVING PROGRAM
PROJECT NUMBER DISTRICT 2

SHEET 6 OF 45 SHEETS

QUANTITY SHEET

STATE OF VERMONT
AGENCY OF TRANSPORTATION

APPROXIMATE SUMMARY OF QUANTITIES

MARLBORO	RND.	BRATTLEBORO	RND.	SPRINGFIELD	RND.	QUANTITIES GRAND TOTAL	UNIT	ITEMS	ITEM NO.	ROUNDED
		1200	65			1,200	L.F.	PAINTED CURB	646.21	
		4,400	59			4,400	L.F.	DURABLE 4" WHITE LINE (MOD.) TAPE	646.30	
		4,400	58			4,400	L.F.	DURABLE 4" YELLOW LINE (MOD.) TAPE	646.31	
		1				1	L.F.	DURABLE 8" WHITE LINE (MOD.) TAPE	646.34	
		260	3			260	L.F.	DURABLE 8" YELLOW LINE (MOD.) TAPE	646.35	
20				40		60	L.F.	DURABLE 24" STOP BAR	646.40	
		2				2	EACH	DURABLE ARROW MARKING (MOD.) TAPE	646.42	
26				16		42	EACH	DURABLE LETTER IN WORD MARKING	646.44	
		8				8	EACH	DURABLE LETTER IN WORD MARKING (MOD) TAPE	646.44	
28,900	40			12,300	30	41,200	L.F.	TEMPORARY 4" WHITE LINE	646.50	
		75				75	L.F.	TEMPORARY 4" WHITE LINE (MOD.) TAPE	646.50	
53,100	74			21,000	98	74,100	L.F.	TEMPORARY 4" YELLOW LINE	646.51	
		1,500				1,500	L.F.	TEMPORARY 4" YELLOW LINE (MOD.) TAPE	646.51	
10		8		25		43	C.Y.	TOPSOIL	651.35	EST.
290	9.4					290	S.F.	TRAFFIC SIGNS, TYPE A	675.20	
1,420	11					1,420	L.B	FLANGED CHANNEL SIGN POSTS	675.30	
62						62	EACH	REMOVING SIGNS	675.50	
2						2	EACH	ERECTING SALVAGED SIGNS	675.60	
80						80	EACH	REMOVE AND REPLACE REFLECTOR UNITS	676.15	
25						25	S.F.	TRAVEL INFORMATION SIGNS (MOD.) (NON-GOVERMENT PARTICIPATION)	680.20	

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

STATIONS FROM	STATIONS TO	PAVEMENT WIDTHS			EQUATIONS +	EQUATIONS -	FEET	MILES	REMARKS
TOTALS									

PROJECT NAME 1986 PAVING PROGRAM
PROJECT NUMBER DISTRICT 2

SHEET 7 OF 45 SHEETS

D-1 JAN 85

BRUNING 65083

7

1986 PAVING PROGRAM ITEM DETAIL SHEET

MILE MARKER	POS	REM. TREES SMALL	REM. TREES LARGE	UNCL. EXC.	EARTH BORROW	TRENCH EARTH	TRENCH ROCK	CHG ELEV	METAL PIPE D	METAL PIPE L	METAL PIPE TH	RCP PIPE D	RCP PIPE L	RCP PIPE CL	MES	RCPES	CONC	STEEL	GRATE TYPE B	STONE FILL I	STONE FILL II	TIMBER CURB	ITEM 604.40	GUARDRAIL ITEMS 631.60	GR.	GUARDRAIL ITEMS 631.20	GUARDRAIL ITEMS 631.21	GUARDRAIL ITEMS 631.60	GUARDRAIL ITEMS 631.50	DEL	OPTION AGG SHOUL	OPTION AGG SHOUL	NEW MAILBOX	REMARKS
					CY			EA																LF		LF		EA	EA		CY	TON		
MARLBORO																																		
F 010-1(27)S																																		
4.692 - 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" RCP. (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 BCT. (TOTAL LENGTH WITHOUT BCT'S = 137.5').
																																		REPLACE EXISTING GUARD RAIL ON LEFT SIDE AND EXTEND EASTERLY END WITH 12.5' & BCT. EXTEND THE WESTERLY END WITH 50' AND A G1-d (R=16') TERMINAL AND WRAP AROUND DRIVE (TOTAL LENGTH WITHOUT BCT = 175'). POST SPACING IN FRONT OF UTILITY POLE SHOULD BE 3'-1½" (FOR A LENGTH OF 12.5' EITHER SIDE OF POLE. PAY LENGTH OF GUARD RAIL HAS BEEN INCREASED BY 0.4 × 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 8 OF 45 SHEETS

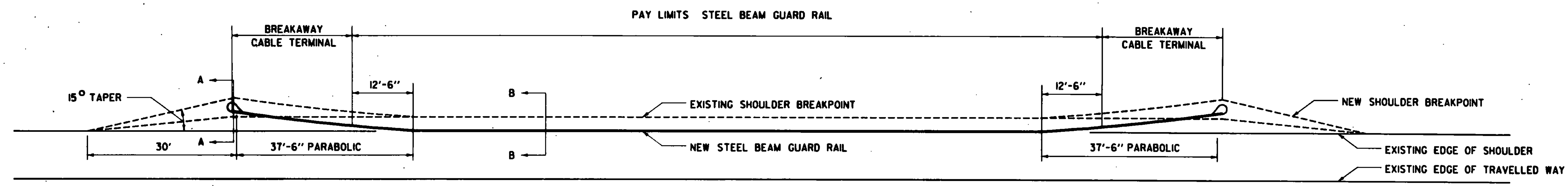
8

1986 PAVING PROGRAM ITEM DETAIL SHEET

MILE MARKER	POS	REM. TREES SMALL	REM. TREES LARGE	UNCL. EXC.	EARTH BORROW	TRENCH EARTH	TRENCH ROCK	CHG ELEV	METAL PIPE D	METAL PIPE L	METAL PIPE TH	RCP PIPE D	RCP PIPE L	RCP PIPE CL	MES	RCPES	CONC	STEEL		GRATE TYPE B	STONE FILL I	STONE FILL II	TIMBER CURB	ITEM 604.40	GUARDRAIL ITEMS 631.60			GR 631.30	GR 631.31	GR 631.50	GR 631.60	DEL		OPTION AGG SHOUL	OPTION AGG SHOUL	COLD PLANING	REMARKS
-					CY			EA																LF			LF		EA	EA			CY	TON	SY	
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 1½" 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	86	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± ft at Westerly End and Wrap Around Drive. Extend Guard Rail Length 12½± 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

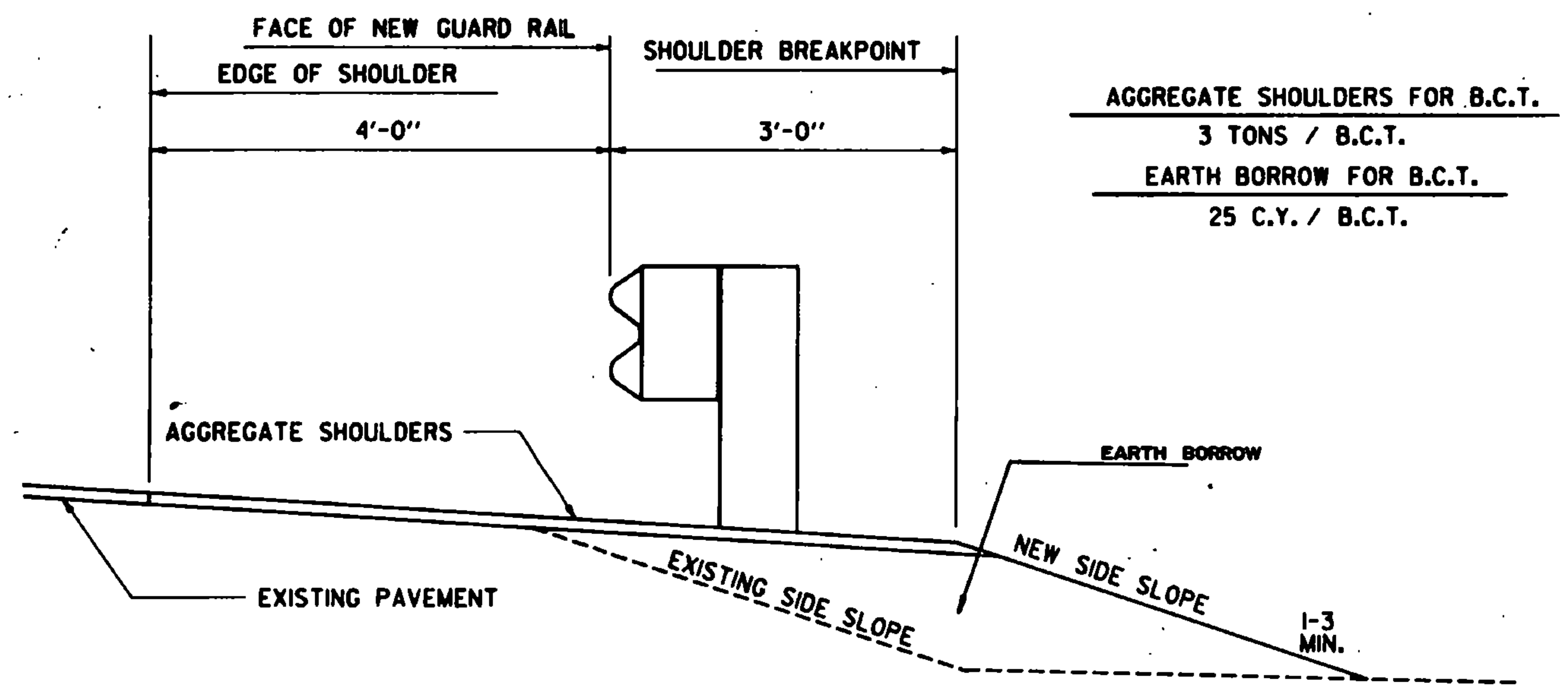
GUARD RAIL DETAILS



TYPICAL GUARD RAIL INSTALLATION

ESTIMATING CONSTANTS

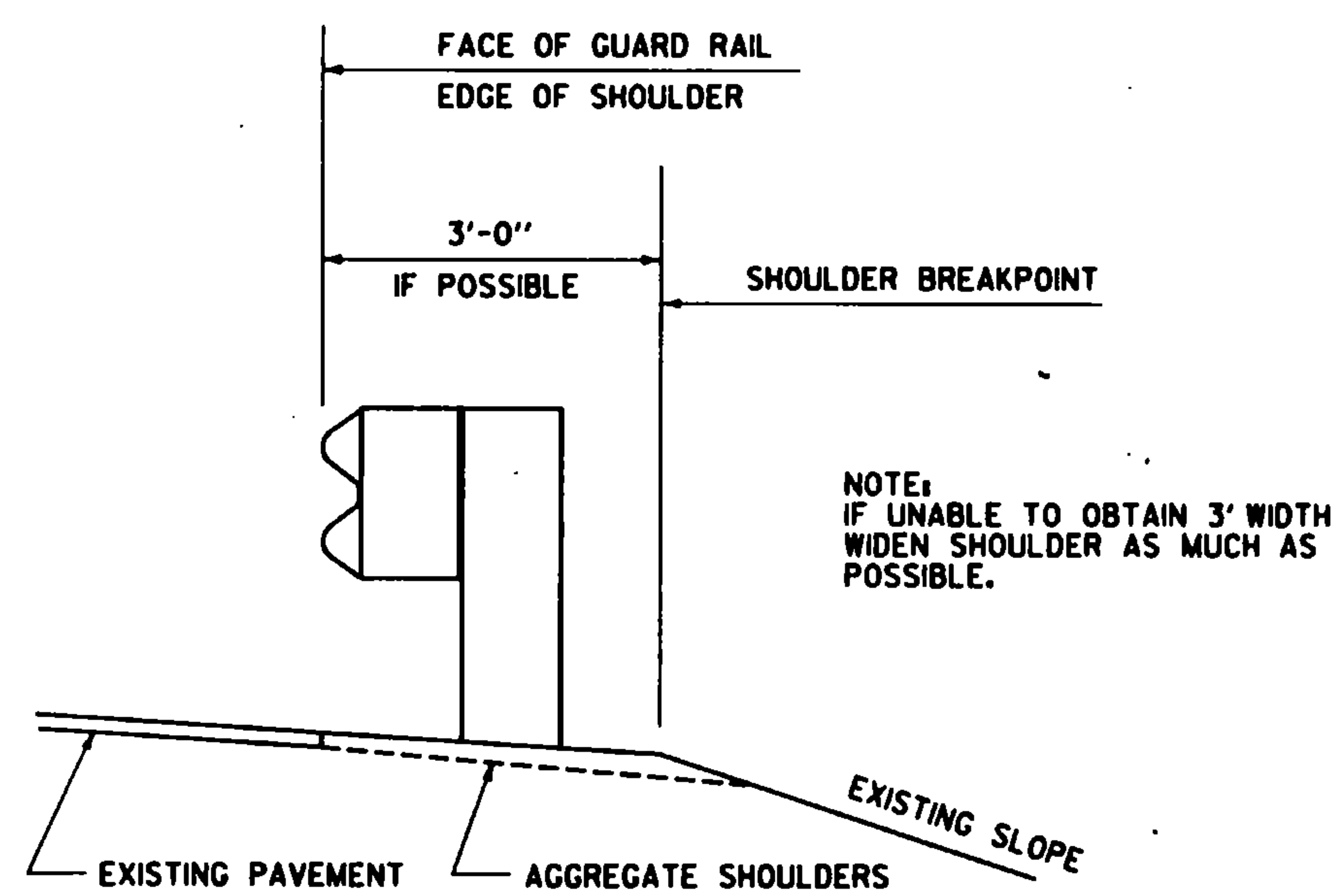
AGGREGATE SHOULDERS FOR B.C.T.
3 TONS / B.C.T.
EARTH BORROW FOR B.C.T.
25 C.Y. / B.C.T.



USE EARTH BORROW UP TO EXISTING GRADE WHEN CONSTRUCTION OF EMBANKMENT FOR FLARE IS NEEDED AND PLACE A LAYER OF AGGREGATE SHOULDERS UP TO FINISHED GRADE AS SHOWN.

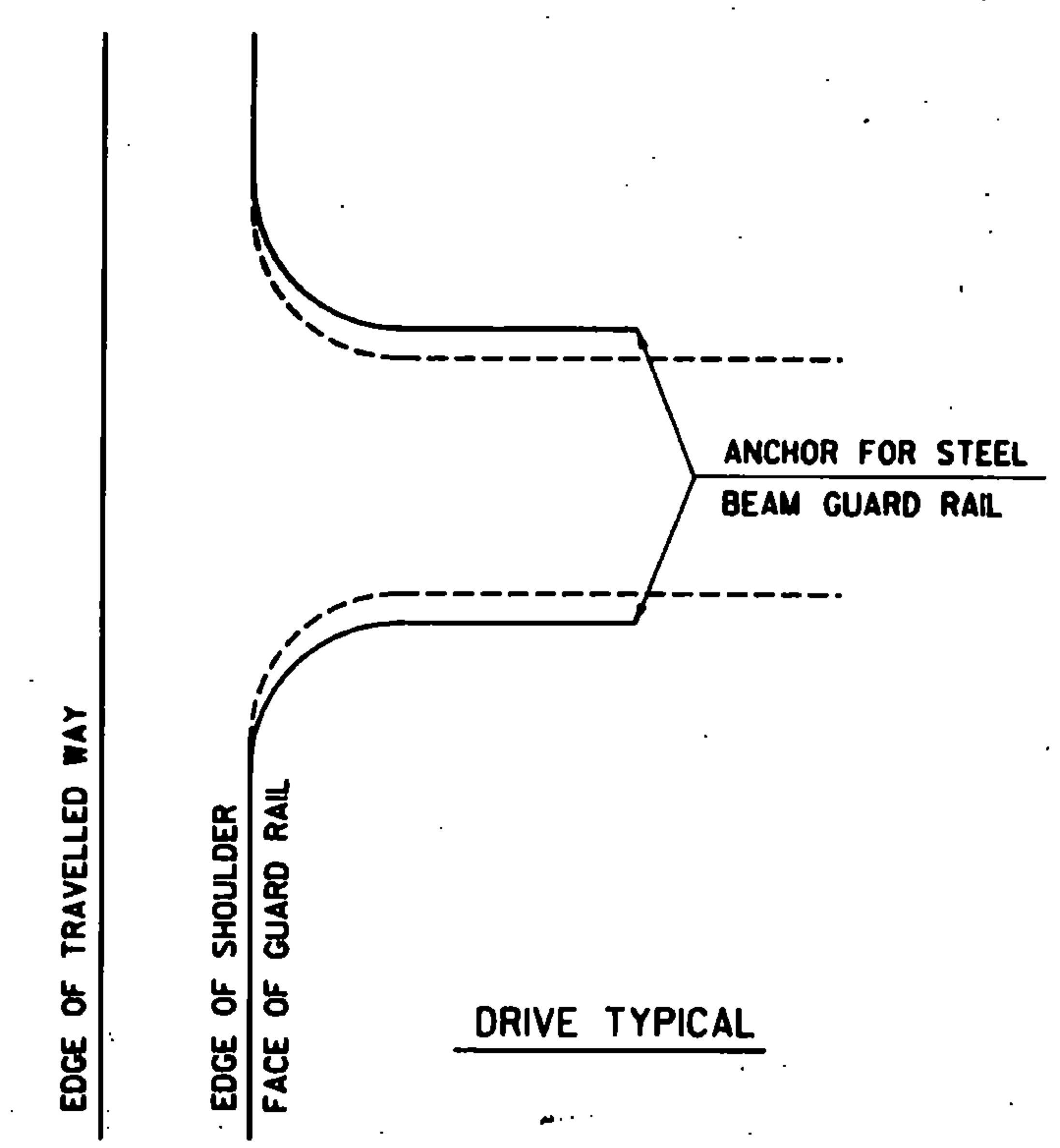
SECTION A-A

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



NOTE:
IF UNABLE TO OBTAIN 3' WIDTH WIDEN SHOULDER AS MUCH AS POSSIBLE.

SECTION B-B



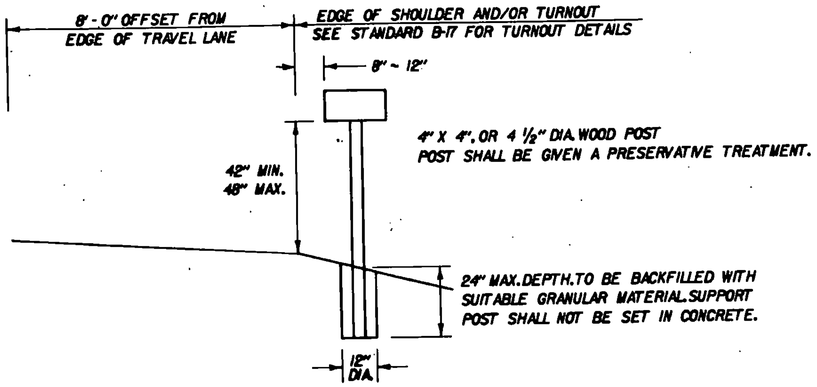
DRIVE TYPICAL

DATUM
VERTICAL ____
HORIZONTAL ____

SURVEYED BY ____ DATE ____
DRAWN BY ____ DATE ____
TRACED BY ____ DATE ____
DISTRICT
PAVING PROGRAM

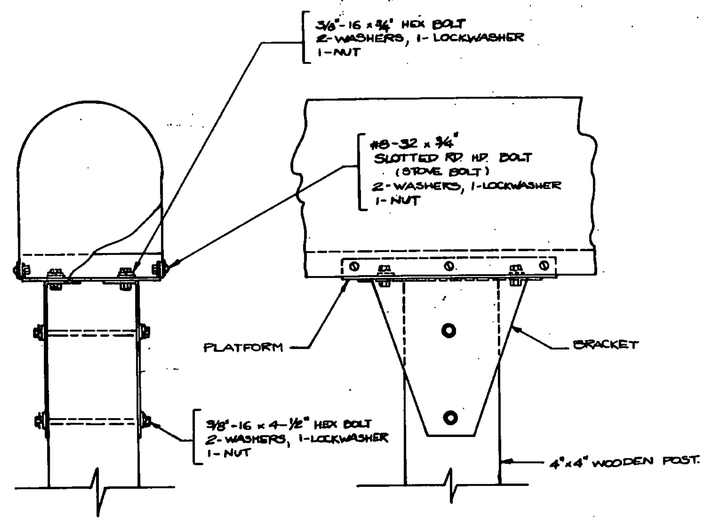
MAILBOX SUPPORT HARDWARE

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

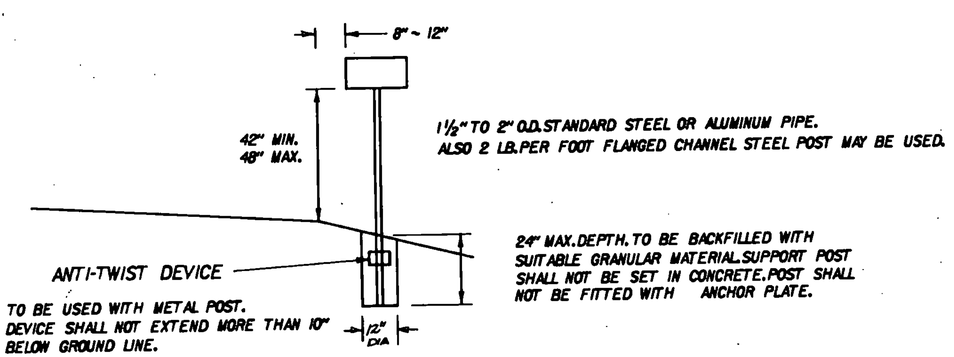


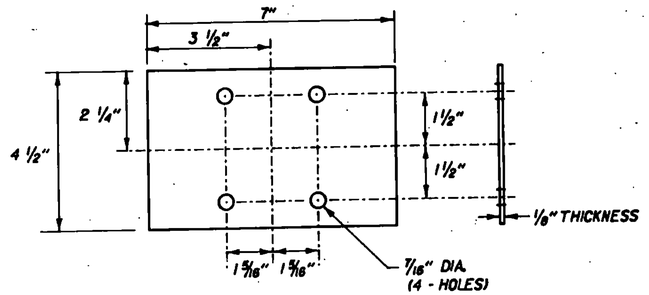
NOTES

1. ONLY LIGHTWEIGT 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.

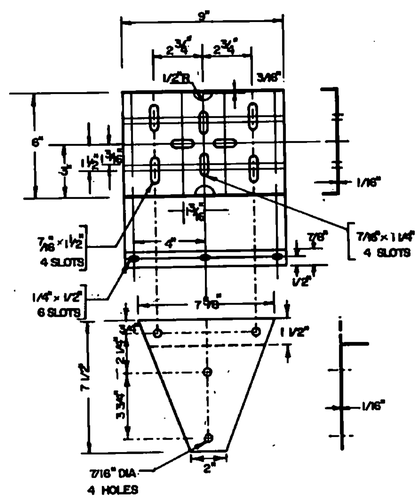


MAILBOX ASSEMBLY N.T.S.

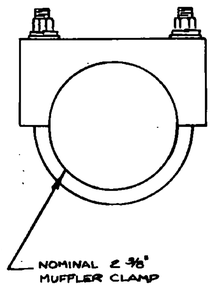


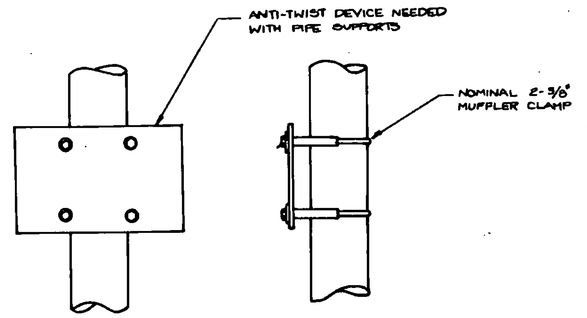


ANTI-TWIST DEVICE DETAIL



PLATFORM & BRACKET DETAIL





ANTI-TWIST DEVICE ASSEMBLY N.T.S.

DATUM
VERTICAL _____
HORIZONTAL _____

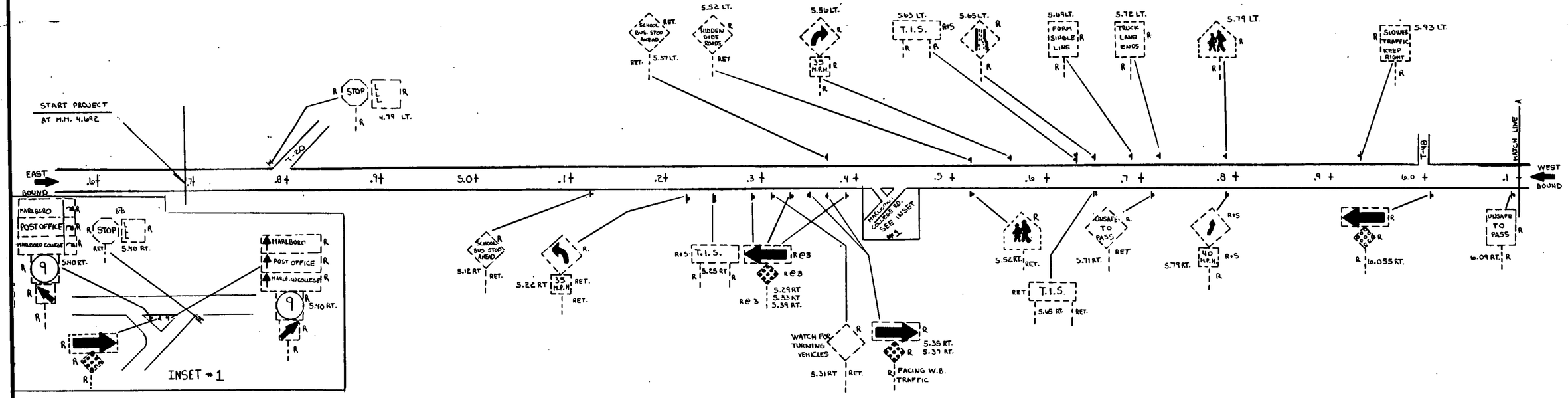
DRAWING S3429-3

MAILBOX DETAILS

SURVEYED BY _____ DATE _____
DRAWN BY JSENZ DATE JULY 86
TRACED BY SAENZ DATE JULY 86

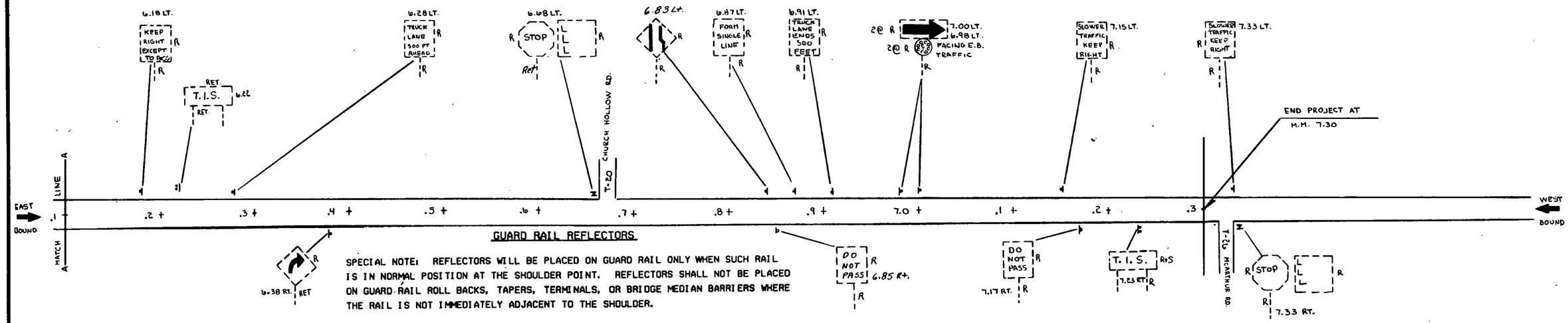
1986 PAVING PROGRAM
DISTRICT 2.

SHEET 11 OF 45



REMOVING SIGNS 44

REMOVING SIGNS 18



GUARD RAIL REFLECTORS

SPECIAL NOTE: REFLECTORS WILL BE PLACED ON GUARD RAIL ONLY WHEN SUCH RAIL IS IN NORMAL POSITION AT THE SHOULDER POINT. REFLECTORS SHALL NOT BE PLACED ON GUARD RAIL ROLL BACKS, TAPERS, TERMINALS, OR BRIDGE MEDIAN BARRIERS WHERE THE RAIL IS NOT IMMEDIATELY ADJACENT TO THE SHOULDER.

REFLECTORS OF THE WRONG COLOR MAY OCCUR ON EXISTING GUARD RAIL. SUCH NON-CONFORMING REFLECTORS SHALL BE REPLACED WITH APPROPRIATE COLORED DELINEATOR WITH WORK AND MATERIALS TO BE PAID UNDER THE ITEM 'REMOVE AND REPLACE REFLECTOR UNITS'.

LEGEND

- [ ] EXISTING
- R REMOVE
- RET RETAIN
- R+S REMOVE AND SALVAGE

SCALE 0 .05 MI. .1 MI.

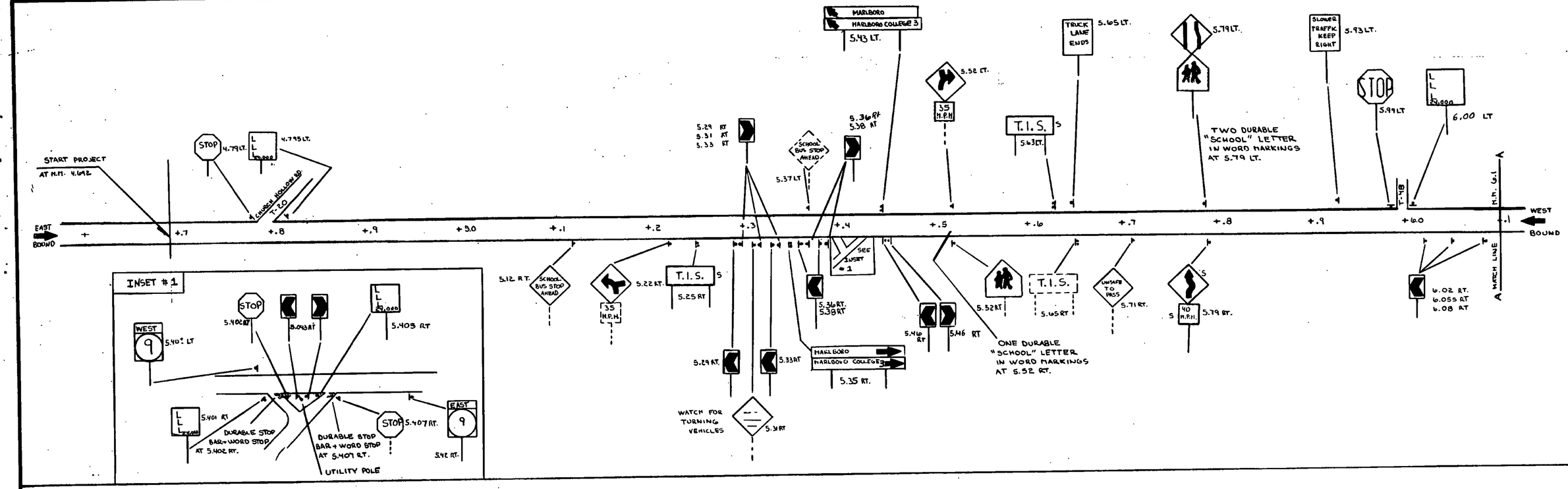
EXISTING SIGNS

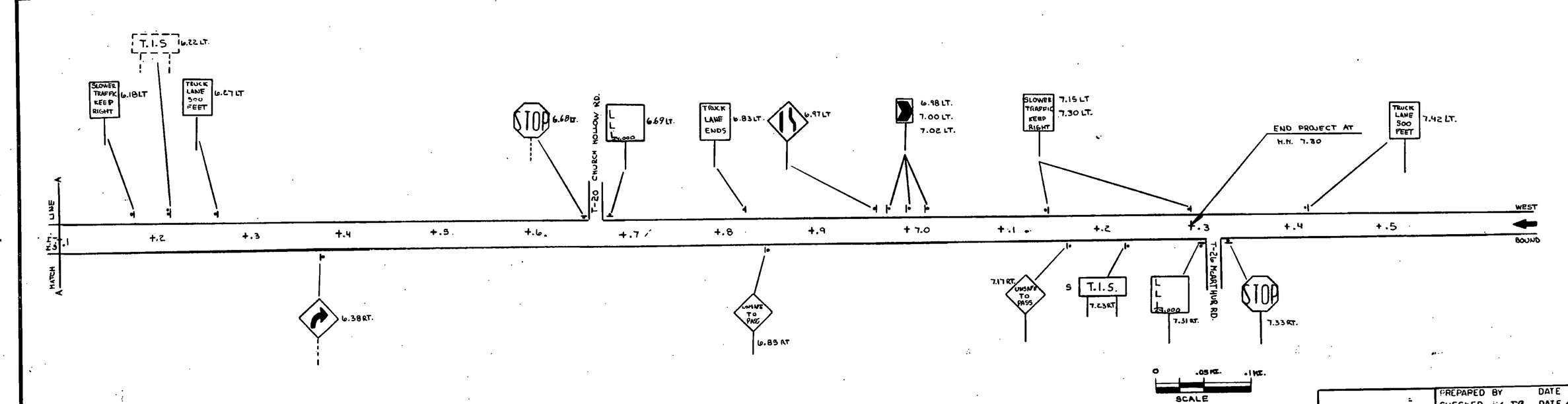
PREPARED BY DATE
CHECKED BY JB DATE 10-28-86
MARLBORO
PROJ. F NO 010-1(27)S
TRAFFIC SHEET NO. 501 SHEET 13 OF 95

1986

13

BRUNING 33435-3





NEW SIGNS

PREPARED BY DATE
CHECKED BY JTB DATE 10-29-86
MARLBORO
PROJ. F NO. 010-1(27)S
TRAFFIC SHEET NO. 502 SHEET 14 OF 45

1986

14

BRUNING SX428-3

TRAFFIC SIGN SUMMARY SHEET

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS	EXISTING SIGNS TO BE SALVAGED: REMOVE (EA.)		RETAIN (X)	NEW AND SALVAGED SIGNS: NEW "A" (S.F.)	NEW "B" (S.F.)	SALV. SIGN (EA.)	SALV. T.I.S.(S.F.)	EXISTING POSTS: RET.	DRILL	REM.	SALV.	NEW SIGN POSTS: NUMBER OF POSTS	FLANGED CHANNEL: 2.0 LB./FT.	2.5 LB./FT.	3.0 LB./FT.	TUBULAR ALUMINUM: 3.0" Ø	3.0" □	4.0" Ø	4.0" Ø MOD.	W SHAPED STEEL: POST SIZE	WEIGHT	FTG. SIZE 24"	FTG. SIZE 30"	REMARKS	FOR SIGN DETAIL SHEET: PLAN SHEET NUMBER	STD. SHEET NUMBER
4.79 LT.	STOP	30"X30"				6.25								1	X													E-15C
4.79 LT.	SPEED LIMIT 25,000	24"X24"				4								1	X													E-15A
5.18 RT.	SCHOOL BUS STOP AHEAD	36"X36"				9.0				X																SEE T.S. #507		
5.22 RT.		30"X30"				6.25				X																SEE T.S. #507		
5.25 RT.	T.I.S. *								*8.25					*2			*X										* Item 680.20 MOD. (NON-FED PARTICIPATING)		
5.29 RT.		18"X24"				3								1	X													E-19
5.29 RT.		18"X24"				3								1	X												FACING WEST BOUND TRAFFIC		E-19
5.31 RT.	WATCH FOR TURNING VEHICLES	36X36				9				X																SEE T.S. #507		
5.34 RT.		18"X24"				3								1	X												FACING WEST BOUND TRAFFIC		E-19
5.33 RT.		18"X24"				3								1	X														E-19
5.33 RT.		18"X24"				3								1	X												FACING WEST BOUND TRAFFIC		E-19
5.35 RT.	MARLBORO / MARLBORO COLLEGE 3	72"X10" / 72"X10"				5 / 5								2	X												6" Series 'C' / 6" Series 'B'-Reduce Spacing 25%		E-23 / E-23
5.36 RT.		18"X24"				3								1	X														E-19
5.37 RT.		18"X24"				3								1	X												FACING WEST BOUND TRAFFIC		E-19
5.38 RT.		18"X24"				3								1	X														E-19
5.38 RT.		18"X24"				3								1	X												FACING WEST BOUND TRAFFIC		E-19
SIGNS INSIDE OF INSET 1																												E-15
5.40 LT.	WEST / 9	24"X12" / 24"X24"				2 / 4								1	X														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 JB DATE 11-28-86

PROJ. MARLBORO NO. 010-1(27)S

TRAFFIC SHEET NO. 509 SHEET 15 OF 45

1986

TRAFFIC SIGN SUMMARY SHEET

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS	EXISTING SIGNS TO BE SALVAGED: REMOVE (EA.)	RETAIN (X)	NEW AND SALVAGED SIGNS: NEW "A" (S.F.)	NEW "B" (S.F.)	SALV. SIGN (EA.)	SALV. T.I.S.(S.F.)	EXISTING POSTS: RET.	DRILL	REM.	SALV.	NEW SIGN POSTS: NUMBER OF POSTS	FLANGED CHANNEL: 2.0 LB./FT.	2.5 LB./FT.	3.0 LB./FT.	TUBULAR ALUMINUM: 3.0" Ø	3.0" □	4.0" Ø	4.0" Ø MOD.	W SHAPED STEEL: POST SIZE	WEIGHT	FTG. SIZE 24"	FTG. SIZE 30"	REMARKS	FOR SIGN DETAIL SHEET: PLAN SHEET NUMBER	STD. SHEET NUMBER
5.401 RT.	LL 24,000	24"X24"			4								1	X													E-15A
5.402 RT.	STOP	30"X30"			6.25								1	X												1	E-15C
5.408 RT.		18"X24"			3								1	X											FACING WEST BOUND TRAFFIC		E-19
5.403 RT.		18"X24"			3								1	X													E-19
5.405 RT.	LL 24,000	24"X24"			4								1	X													E-15A
5.407 RT.	STOP	30"X30"			6.25				X																		E-15C
5.42 RT.	EAST 9	24"X12"			2																						E-13
		24"X24"			4								1	X													E-13
5.43 LT.	MARLBORO	72"X10"			5																						
	MARLBORO COLLEGE 3	72"X10"			5								2	X													
5.46 RT.		18"X24"			3								1	X													E-13
5.46 RT.		18"X24"			3								1	X											FACING WEST BOUND TRAFFIC		E-13
5.52 RT.	35 MPH	30"X30"			6.25																					SEE T.S. #507	
		18"X18"			2.3				X																		E-19B
5.52 RT.		36"X36"			9				X																	SEE T.S. #507	
5.63 LT.	T.I.S. *						*8.25						*2			*X									*Item 680.20 M.O.R. (NON-FED-PARTICIPATING)		
5.65 LT.	TRUCK LANE ENDS	24"X30"			5								1	X													E-15A
5.71 RT.	UNSAFE TO PASS	36"X36"			9				X																	SEE T.S. #507	
5.79 LT.		36"X36"			9																						E-19A
		36"X36"			9								1					X								SEE T.S. #507	
5.79 RT.	40 M.P.H.						X																				
							X						1			X											
5.93 LT.	SLOWER TRAFFIC KEEP RIGHT	24"X30"			5								1	X													E-15A
5.99 Lt.	STOP	30"X30"			6.25								1	X													E-15C
6.00 LT.	LL 24,000	24"X24"			4								1	X													E-15A
TOTALS				X	101.3#		2	8.25 Φ	X	X	X	X		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 JB DATE 10-21-86

PROJ. MARLBORO NO. 010-1(27)S

TRAFFIC SHEET NO. 504 SHEET 16 OF 45

1986

TRAFFIC SIGN SUMMARY SHEET

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS	EXISTING SIGNS TO BE SALVAGED: REMOVE (EA.)	RETAIN (X)	NEW AND SALVAGED SIGNS: NEW "A" (S.F.)	NEW "B" (S.F.)	SALV. SIGN (EA.)	SALV. T.I.S. (S.F.)	EXISTING POSTS: RET.	DRILL	REM.	SALV.	NEW SIGN POSTS: NUMBER OF POSTS	FLANGED CHANNEL: 2.0 LB./FT.	2.5 LB./FT.	3.0 LB./FT.	TUBULAR ALUMINUM: 3.0" Ø	3.0" □	4.0" Ø	4.0" Ø MOD.	W SHAPED STEEL: POST SIZE	WEIGHT	FTG. SIZE 24"	FTG. SIZE 30"	REMARKS	FOR SIGN DETAIL SHEET: PLAN SHEET NUMBER	STD. SHEET NUMBER
6.02 RT		18"X24"			3								1	X													E-19
6.055 RT		18"X24"			3								1	X													E-19
6.08 RT		18" X 24"			3								1	X													E-19
6.18 LT.	SLOWER TRAFFIC KEEP RIGHT	24"X30"			5								1	X													E-18A
6.27 LT	TRUCK LANE 500 FEET	24"X30"			5								1	X													E-19A
6.38 RT.		30"X30"			6.25				X																		E-19A
6.68 LT.	STOP	30"X30"			6.25				X																		
6.69 LT.	L L L 24,000	24"X24"			4								1	X													E-19A
6.83 LT.	TRUCK LANE ENDS	24"X30"			5								1	X													E-19A
6.85 RT.	UNSAFE TO PASS	36"X36"			9								1			X										SEE T.S. #507	E-19A
6.97 LT.		36"X36"			9								1			X											E-19A
6.98 LT.		18"X24"			3								1	X											FACING EAST BOUND TRAFFIC		E-19
7.00 LT.		18"X24"			3								1	X											" "		E-19
7.02 LT.		18" X 24"			3								1	X											" "		E-19
7.15 LT.	SLOWER TRAFFIC KEEP RIGHT	24" X 30"			5								1	X													E-18A
7.17 LT.	UNSAFE TO PASS	36"X36"			9.00								1			X										SEE T.S. #507	E-19A
7.23 RT.	T. I. S. *						*8.25						*2			*X									*Item 680.20 MOD. (NON-FED-PARTICIPATING)		E-19A
7.30 LT.	SLOWER TRAFFIC KEEP RIGHT	24"X30"			5								1	X													E-18A
TOTALS					86.5		*8.25							330	465#	135											

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 JB DATE 10-22-86

PROJ. MARLBORO NO. 010-1(27)S

TRAFFIC SHEET NO. 505 SHEET 17 OF 45

1986

TRAFFIC ITEM AND TRAFFIC SIGN SUMMARY SHEET, NOTES AND DETAILS

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS	EXISTING SIGNS TO BE SALVAGED: REMOVE (EA.)	RETAIN (X)	NEW AND SALVAGED SIGNS: NEW "A" (S.F.)	NEW "B" (S.F.)	SALV. SIGN (EA.)	SALV. T.I.S. (S.F.)	EXISTING POSTS: RET.	DRILL	REM.	SALV.	NEW SIGN POSTS: NUMBER OF POSTS	FLANGED CHANNEL: 2.0 LB./FT.	2.5 LB./FT.	3.0 LB./FT.	TUBULAR ALUMINUM: 3.0" ∅	3.0" □	4.0" ∅	4.0" ∅ MOD.	W SHAPED STEEL: POST SIZE	WEIGHT	FTG. SIZE 24"	FTG. SIZE 30"	REMARKS	FOR SIGN DETAIL SHEET: PLAN SHEET NUMBER	STD. SHEET NUMBER
7.14 RT.	L L L 24,000	24"x24"			4								1	X												E-15A
7.30 RT.	STOP	30"x30"			6.25								1	X												E-15C
7.42 LT.	TRUCK LANE 500 FEET	24"x30"			5								1	X												E-15A
TOTAL					15.25									84												

TRAFFIC ITEM SUMMARY

ITEM NO.	ITEM	UNIT	QUANTITY	RMDS.	TOTAL
646.40	DURABLE 24" STOP BAR	LF	20	-	20
646.44	DURABLE LETTER IN WORD MARKING	EA	26	-	26
646.50	TEMP. 4" WHITE LINE	LF	28,860	40	28,900
646.51	TEMP. 4" YELLOW LINE	LF	53,026	74	53,100
675.20	TRAFFIC SIGNS, TYPE A	SF	280.6	9.4	290
675.30	FLANGED CHANNEL SIGN POSTS	LB	1409	11	1420
675.50	REMOVING SIGNS	EA	62	-	62
675.60	ERECTING SALVAGED SIGNS	EA	2	-	2
676.15	REMOVE AND REPLACE REFLECTOR UNITS	EA	77	3	80
680.20 MOD.	TRAVEL INFO SIGNS (NON-PARTICIPATED FEDERAL FUNDS)	SF	25	-	25

NOTES AND DETAILS

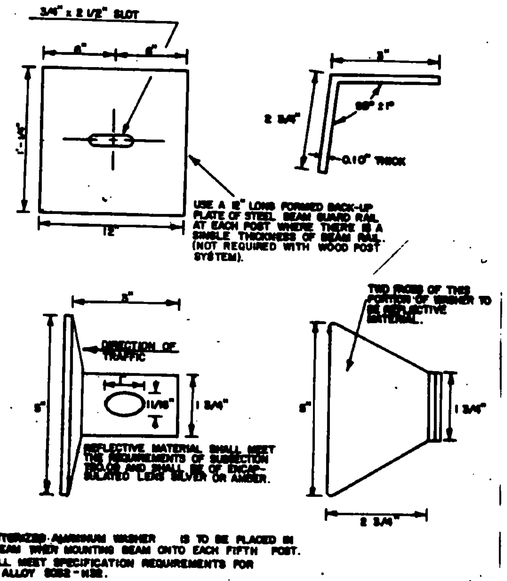
PROJECT MARLBORO ROUTE 9 PROJECT # F010-1(27)S

TEMPORARY 4" YELLOW LINE

MILE	MILE	LT.	RT.	QTY. LEFT	℄	QTY. RT.	TOTAL (LF)
4.692	4.71	SOLID	DASH	95		24	119
4.71	4.89	SOLID	SOLID	950		950	1900
4.89	5.01	DASH	SOLID	158		634	792
5.01	7.30	SOLID	SOLID	12,091		12,091	24,182
						TOTAL	26993
							480
				10TH @ 40' = 240 x 2			26513
				ASSUME 100% LOSS AT			
				LEVELING COURSE			26513
						TOTAL	53026

TEMPORARY 4" WHITE LINE

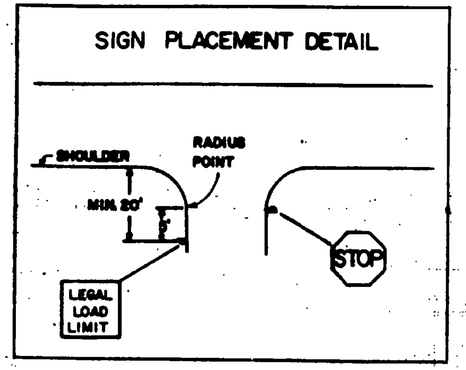
MILE	MILE	LT.	RT.	QTY. LEFT	℄ SINGLE DASH	QTY. RT.	(LF) TOTAL
4.692	7.30	SOLID	SOLID	13770		13770	27540
5.63	6.18	CLIMBING DASH	(LANE) DASH		700		700
6.83	7.3	CLIMBING DASH	(LANE) DASH		620		620
						TOTAL	28860

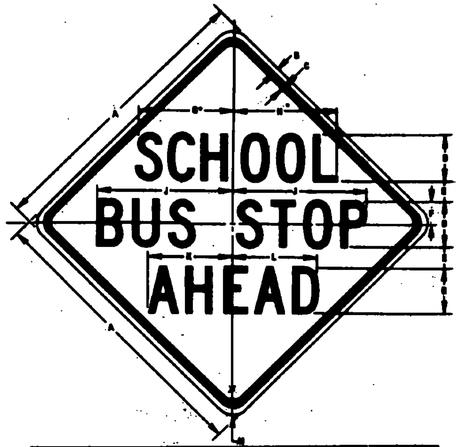


THIS REFLECTORIZED ALUMINUM WASHER IS TO BE PLACED IN VALLEY OF BEAM WHEN MOUNTING BEAM ONTO EACH FIFTH POST. WASHER SHALL MEET SPECIFICATION REQUIREMENTS FOR ASTM B209 ALLOY 5052-H38.

DRAWN BY _____ DATE _____
CHKED BY JB DATE 10-22-92
MARLBORO
PROJ. # NO. 010-1(27)S
TRAFFIC SHEET NO. 30a SHEET 18 OF 45

SIGN PLACEMENT DETAIL

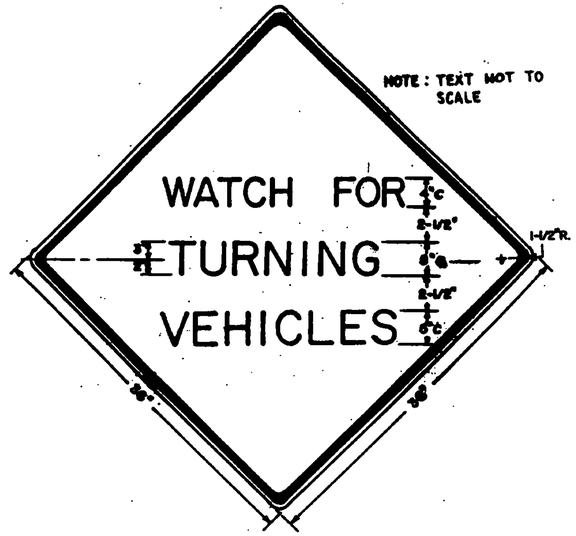




SIGN	DIMENSIONS (INCHES)											
	A	B	C	D	E	F	G	H	J	K	L	M
S3	30	6⅜	7/8	5/8	0	0	11-3/8	13-3/8	17	10	11	5-1/8

COLORS

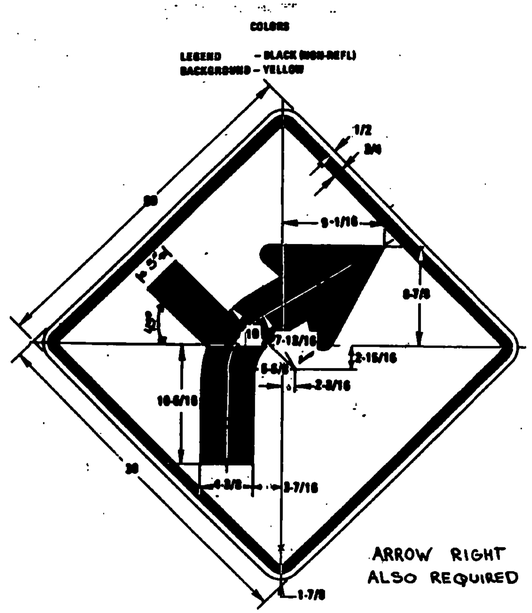
LEGEND – BLACK (NON-REFL)
BACKGROUND – YELLOW



NOTE : TEXT NOT TO SCALE

COLORS

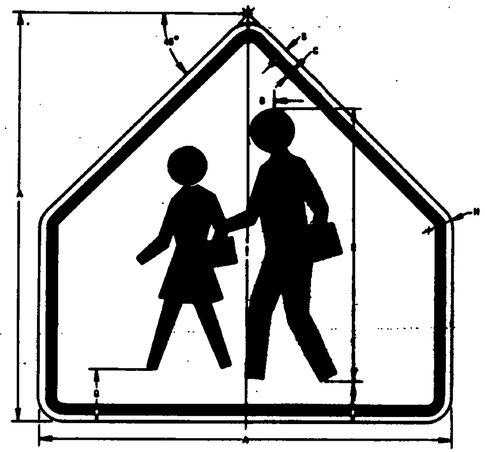
BACKGROUND – YELLOW (REFL.)
BORDER & TEXT – BLACK (NON REFL.)



COLORS

LEGEND – BLACK (NON-REFL)
BACKGROUND – YELLOW

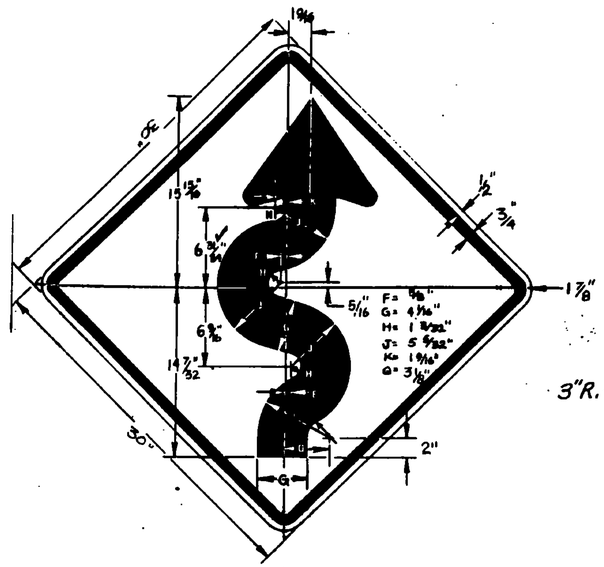
ARROW RIGHT ALSO REQUIRED



SIGN	DIMENSIONS (INCHES)							
	A	B	C	D	E	F	G	H
S3	30	6⅜	7/8	5-1/2	30	5-1/2	6-1/2	5-1/2

COLORS

LEGEND – BLACK (NON-REFL)
BACKGROUND – YELLOW



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 # RS 0134(4)

TEMPORARY 4" YELLOW LINE

MILE	MILE	LT.	RT.	QTY. LEFT	DOUBLE DASH	QTY. RT.	TOTAL (LF)
0.00	0.74	SOLID	SOLID	3907		3907	7814
0.74	0.92	SOLID	DASH	950		238	1188
0.92	0.97	DASH	DASH		66		66
0.97	1.09	DASH	SOLID	92		370	462
1.09	1.13	SOLID	SOLID	478		472	950
1.13	1.162	DASH	SOLID	42		169	211
						TOTAL	10691
				3 THRU @ 40 x 8		=	240
							10451
				1000 LINE 100% 1035 AT			10451
							10702

SUMMARY	24" STOP BAR	DOUBLE DASH MARKING	LETTER TO LINES
RT. 0.92 LT.	10'	4 EA.	
LT. 0.92 LT.	10'	4 EA.	
RT. 0.92 RT.	10'	4 EA.	
RT. 1.09 LT.	10'	4 EA.	
TOTAL	40'	16 EA.	

TEMPORARY 4' WHITE LINE

MILE	MILE	LT.	RT.	QTY. LEFT	DOUBLE DASH	QTY. RT.	TOTAL (LF)
0.00	1.162	6480	6480	-			12,960
						TOTAL	12,960

SIGN DETAIL SHEET AND SPRINGFIELD RTE. 11 PAVEMENT MARKINGS

PREPARED BY DATE
CHECKED BY JB DATE 10-28-86
DISTRICT # 2
PROJ. NO.

TRAFFIC SHEET NO. 307 SHEET 18 OF 45

1986

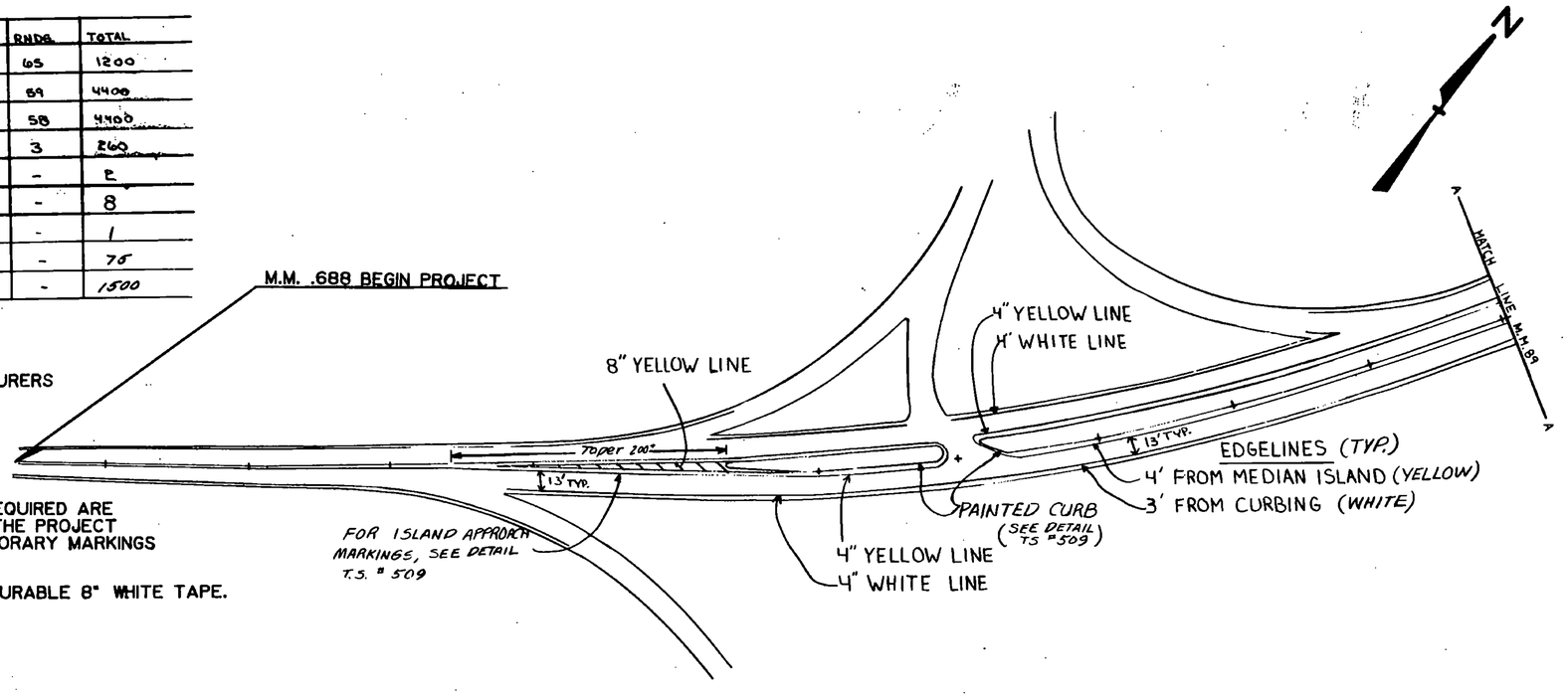
TRAFFIC ITEM SUMMARY

ITEM NO.	ITEM	UNIT		QUANTITY		RNDS.	TOTAL
646.21	PAINTED CURB	LF		1135		65	1200
MOD 646.30	DURABLE 4" WHITE LINE	LF		4341		59	4400
MOD 646.31	DURABLE 4" YELLOW LINE	LF		4342		58	4400
MOD 646.32	DURABLE 8" YELLOW LINE	LF		257		3	260
MOD 646.42	DURABLE ARROW MARKING	EA.		2		-	2
MOD 646.44	DURABLE LETTER IN WORD MARKING	EA.		8		-	8
MOD 646.34	DURABLE 8" WHITE LINE	LF		1		-	1
MOD 646.50	TEMP. 4" WHITE LINE	LF		75		-	75
MOD 646.51	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)

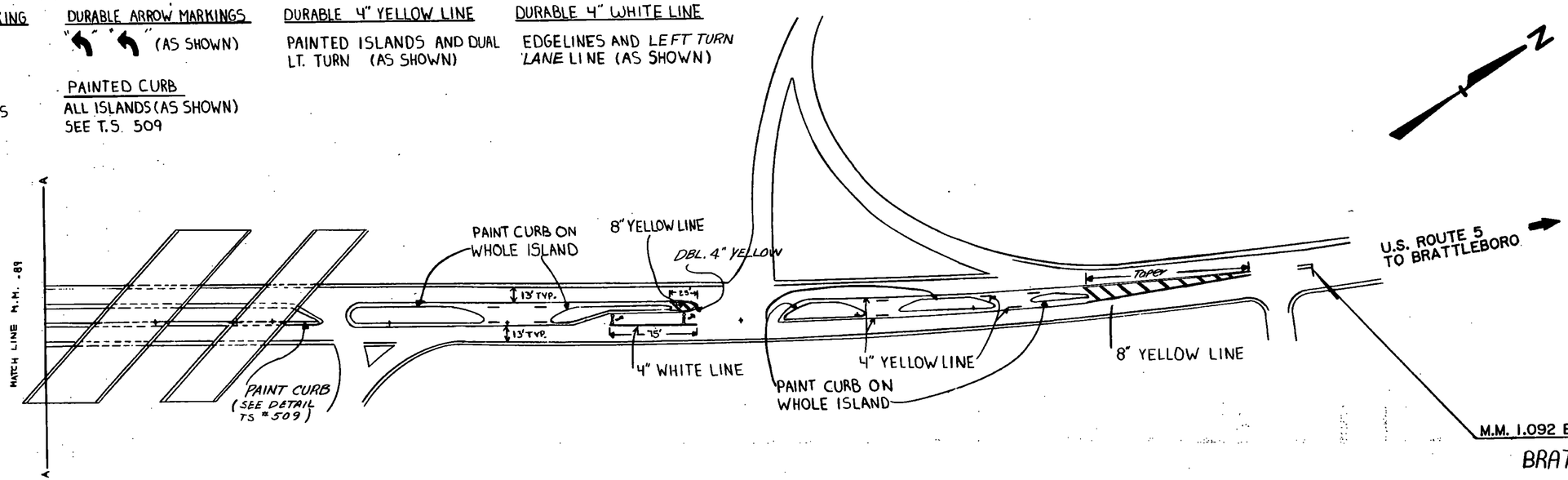
DURABLE 8" YELLOW LINE
PAINTED ISLAND-DIAGONAL LINES (AS SHOWN)
(SEE DETAIL TS "509)

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)

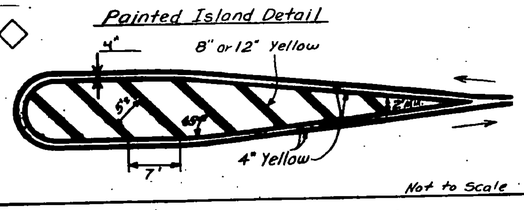
DURABLE 4" WHITE LINE
EDGELINES AND LEFT TURN LANE LINE (AS SHOWN)



SCALE IN FEET
0 25 50 100

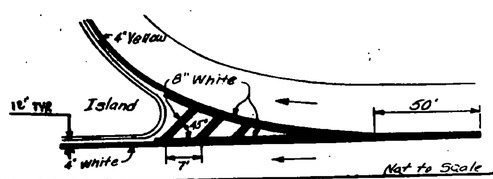
PREPARED BY _____ DATE _____
CHECKED BY TB DATE 10-21-8
BRATTLEBORO
PROJ. H NO. 2000(14)S
TRAFFIC SHEET NO. 1 OF SHEET 20 OF 25

Painted Island Detail



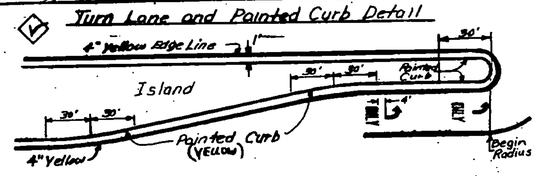
Not to Scale

Gore Marking Detail - Exit



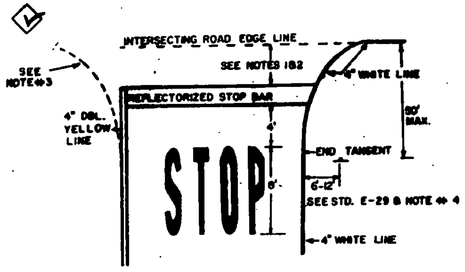
Not to Scale

Turn Lane and Painted Curb Detail



Not to Scale

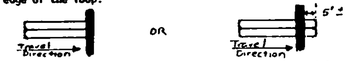
ISLAND APPROACH MARKINGS



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 "R" 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 solid white 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.

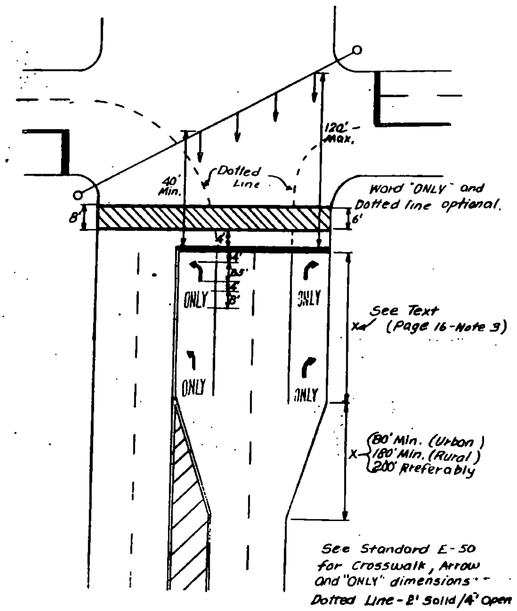


If loop locations are not known, contact either the Maintenance Division or Traffic Design for information.

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.

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

Typical Markings For Signalized Intersection



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 INTACT AND NOT SEPERATE 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 4 TO 5 FOOT CENTER.
DRIVERS RIGHT SIDE-RPM'S NOT ALLOWED.

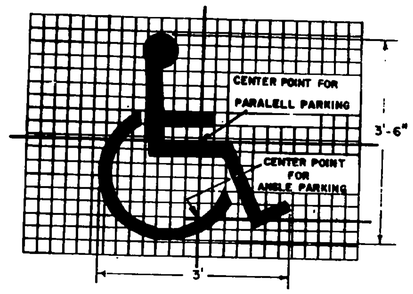
D. WHEN PAINT IS USED FOR TEMPORARY MARKING, AN ALTERNATE MATERIAL SUCH AS TAPE OR RPM'S SHALL BE ON HAND IN THE EVENT RAIN PREVENTS THE PAINT APPLICATION FROM BEING COMPLETED. ALL PAINT SHALL BE REFLECTORIZED.

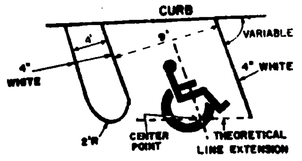
E. PAYMENT FOR PAINT AND TAPE SHALL BE COMPUTED ON A LINEAR FOOT BASIS AS IF PAINT WAS USED. PAYMENT FOR THE RPM'S SHALL BE COMPUTED AS IF AN EQUIVALENT PAINT LINE WAS USED. (FOR EXAMPLE, DASHED LINE PAID AS 10 FEET OF PAINT, SOLID LINE PAID AS THE TOTAL DISTANCE COVERED WITH THE MARKERS).

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.

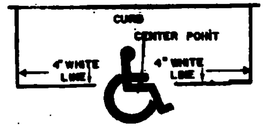
REVISED
02/11/85

HANDICAPPED PAVEMENT MARKING DETAILS





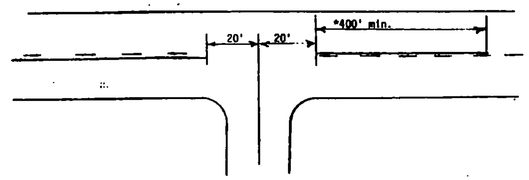
ANGLE PARKING



PARALELL PARKING

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.



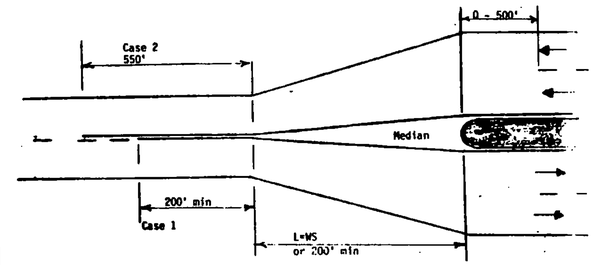
Paved or Graveled Road

* 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 opposing 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.



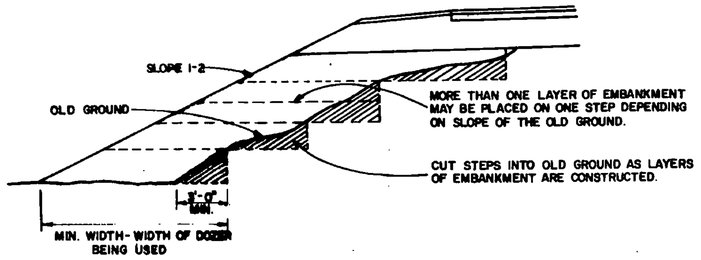
L = Taper Length (ft.)
W = Offset Distance (ft.)
S = Speed Limit (mph)

LEGEND

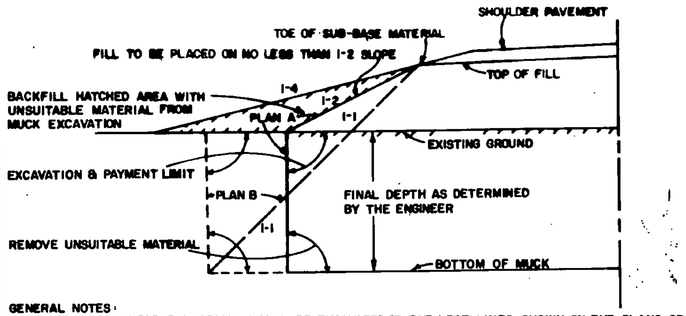
✓ = TO BE USED WITH THIS PROJECT

PAVEMENT MARKING DETAILS

SURVEYED BY _____ DATE _____
DRAWN BY _____ DATE _____
TRACED BY _____ DATE _____
DIST. 2 1986 PAVING
PROJ. NO.
TRAFFIC SHEET NO. 502 SHEET 21 OF 46



METHOD FOR CONSTRUCTING AN EMBANKMENT ON EARTH SLOPE

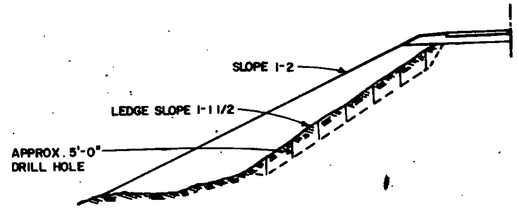


GENERAL NOTES:
THE MUCK OR UNSUITABLE MATERIAL SHALL BE EXCAVATED TO THE NEAT LINES SHOWN ON THE PLANS OR AS DETERMINED BY THE ENGINEER.

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

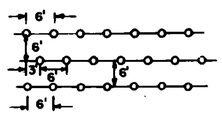


DRILLING AND BLASTING OF SOLID ROCK.

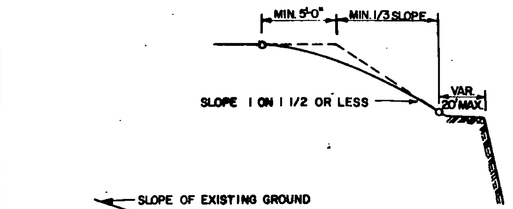
PROCEDURE TO BE FOLLOWED WHEN LEDGE SLOPE ON OLD GROUND IS BETWEEN A 1 ON 1 AND A 1 ON 5 SLOPE.

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.

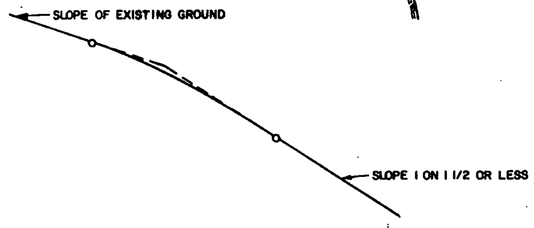
DRILL PATTERN

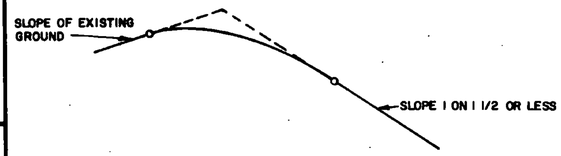


A METHOD FOR PREPARING LEDGE SLOPE BEFORE CONSTRUCTING AN EMBANKMENT



EARTH SECTIONS ABOVE STABLE ROCK OR EQUIVALENT OUTCROPS TO BE ROUNDED, AS FAR AS POSSIBLE AS THOUGH TOTAL HEIGHT OF SLOPE WAS IN EARTH CUT.

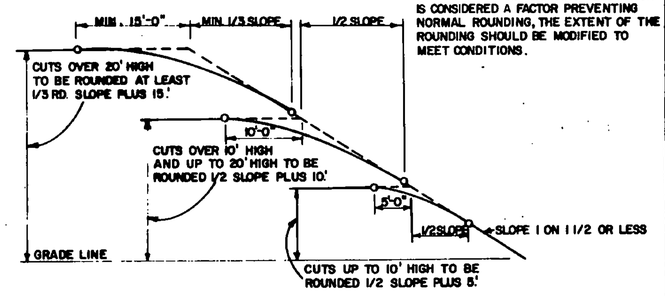




SLOPES TO BE ROUNDED AS SHOWN IN ORDER TO ALLOW FOR PERSPECTIVE FORESHORTENING AS SEEN FROM THE ROAD AND SO THAT FINISHED SLOPES WILL BETTER SUPPORT VEGETATIVE COVER.

ROUNDING 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 ROUNDING, THE EXTENT OF THE ROUNDING SHOULD BE MODIFIED TO MEET CONDITIONS.



TYPICAL SLOPE ROUNDING

REVISIONS AND CORRECTIONS

APPROVED:

DATE Dec. 6, 1971

R.N. Arnold
CHIEF ENGINEER

E.H. Stickney
ASST. CHIEF ENGINEER

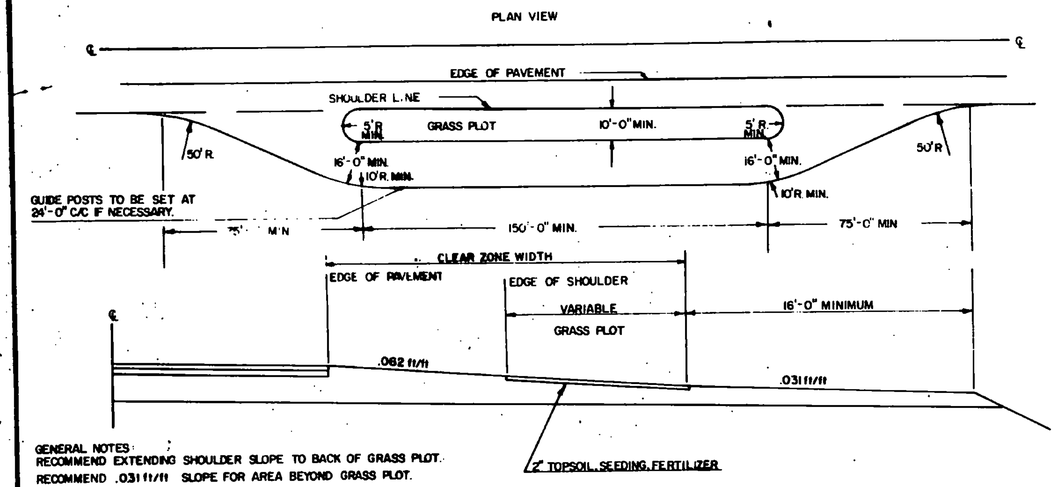
G.M. Lane
HIGHWAY ENGINEER

EMBANKMENT ON EARTH SLOPE
EMBANKMENT ON ROCK SLOPE
MUCK EXCAVATION
TYPICAL SLOPE ROUNDING

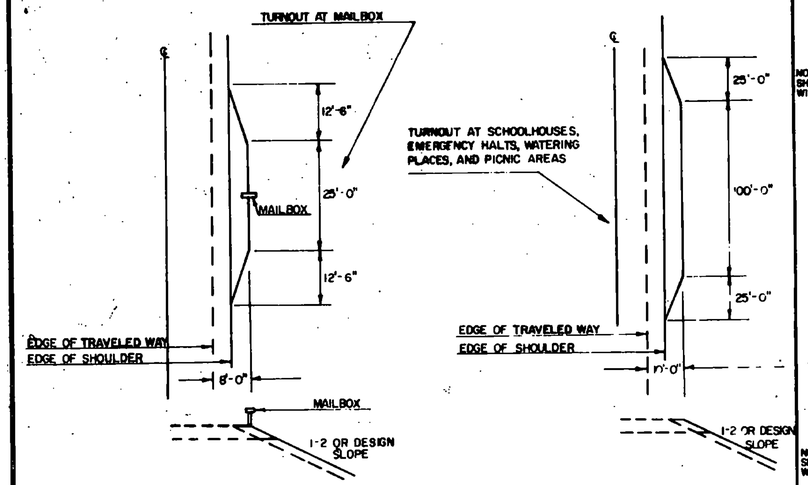
VERMONT AGENCY OF TRANSPORTATION

STANDARD

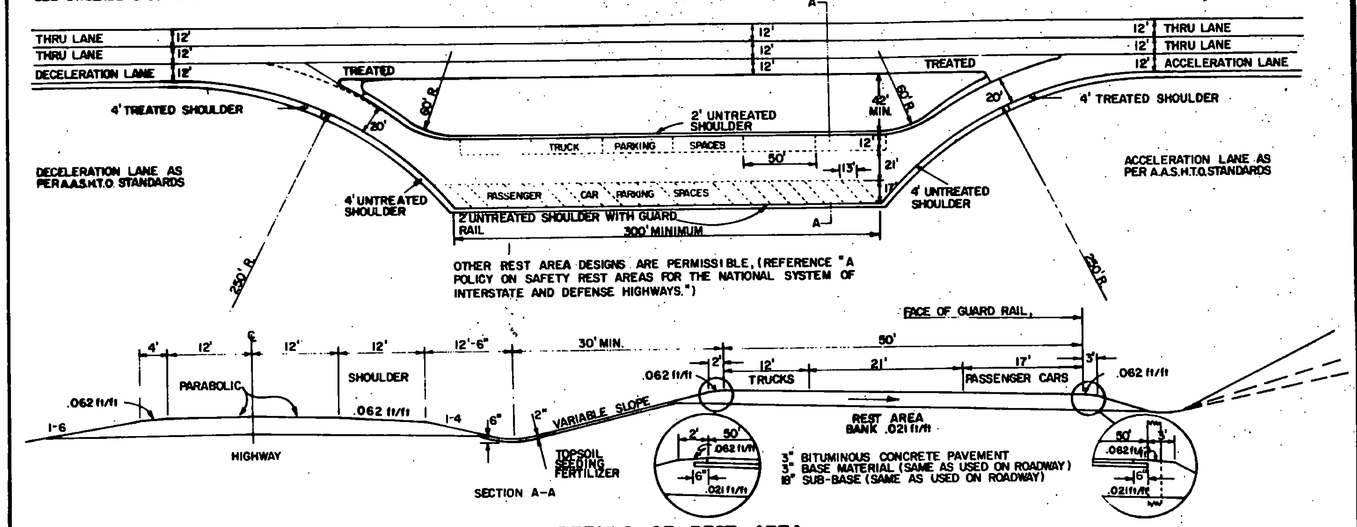
B-5



TURNOUT WITH GRASS PLOT

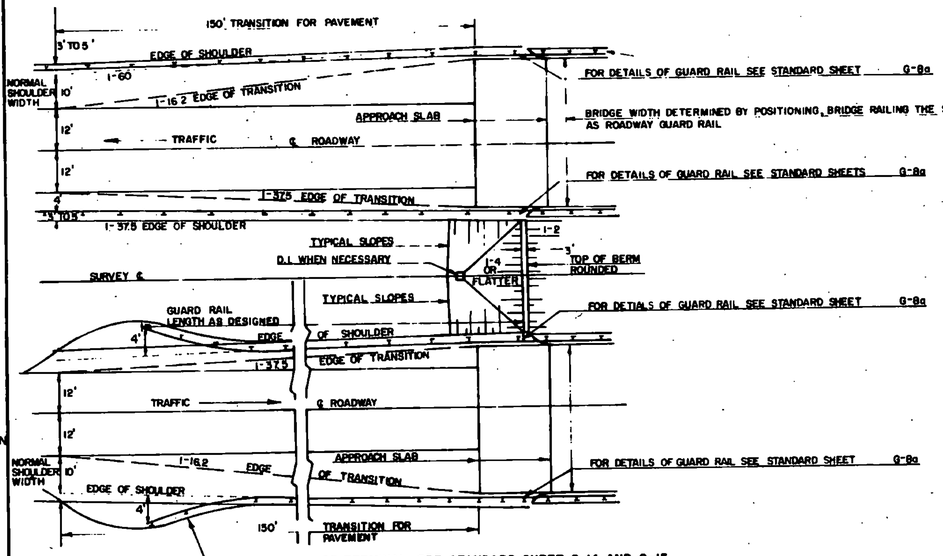


TURNOUTS

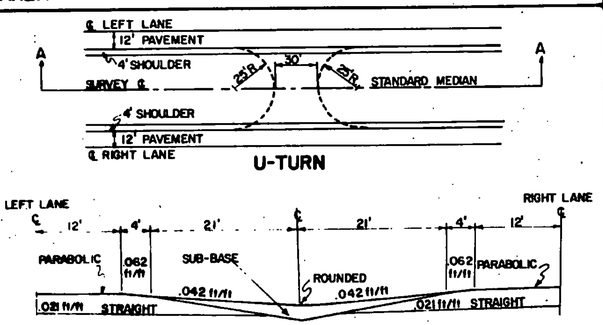


DETAILS OF REST AREA

TRANSITIONS AT BRIDGE APPROACH: PROJECTS DESIGNED WITH BITUMINOUS CONCRETE SHOULDERS, NO BOTTOM COURSE TRANSITION OF BITUMINOUS CONCRETE IS TO BE CONSTRUCTED. TRANSITION TO BE DELINEATED WITH USE OF BITUMINOUS SURFACE TREATMENT TYPE VI. PROJECTS DESIGNED WITH HIGHER TYPE SURFACE THAN CALLED FOR ON THE SHOULDER WILL REQUIRE TRANSITIONS TO BE CONSTRUCTED WITH THE SURFACE ITEM.



DETAIL OF GUARD RAIL AT BRIDGE APPROACH

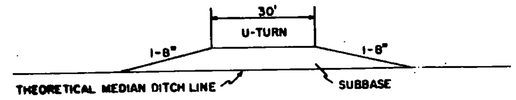


U-TURN

CROSS-SECTION OF U-TURN (STANDARD MEDIAN)

SURFACE TREATMENT OF U-TURN SAME AS USED ON SHOULDERS

U-TURNS ON VARIED MEDIAN:
U-TURNS IN VARIED OR WIDENED MEDIANS SHALL BE CONSTRUCTED WITH THE RADII AND WIDTH OF THROAT AS U-TURN ON A STANDARD MEDIAN, BUT SHOULD BE TAPERED TO A TWENTY FOOT ROADWAY IN THE MEDIAN WHENEVER POSSIBLE.



SECTION A-A

*SIDE SLOPE STEEPER THAN 1-8 PERMITTED WHEN NOT FACING APPROACHING TRAFFIC.

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. N. Arnold
CHIEF ENGINEER

E. H. Chickering
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

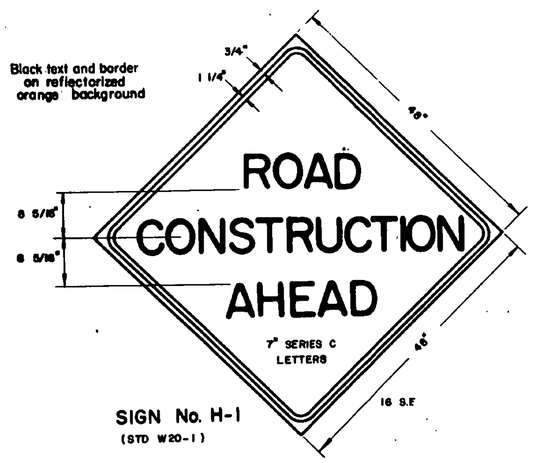
STANDARD

B-17

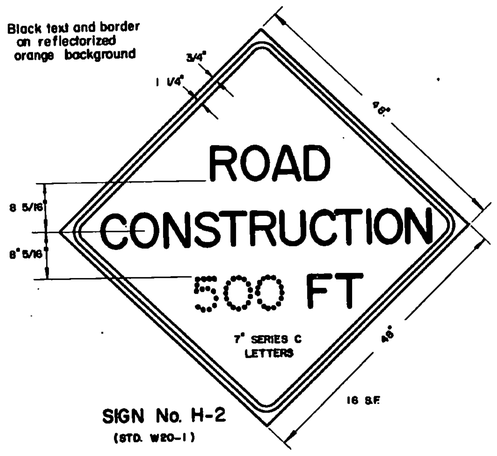
D-8

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"

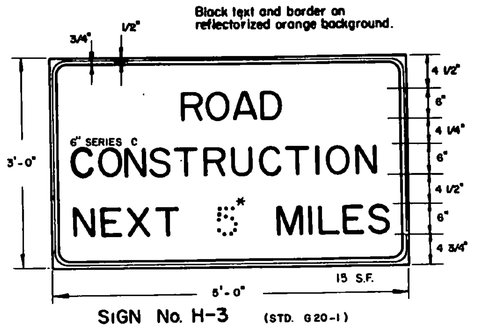
* Show mileage to nearest 1/4 mile



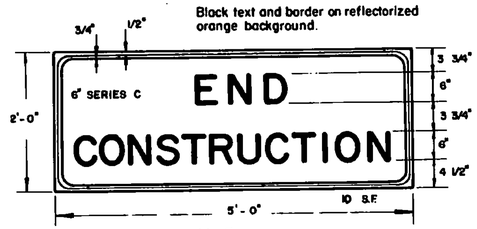
SIGN No. H-1
(STD W20-1)



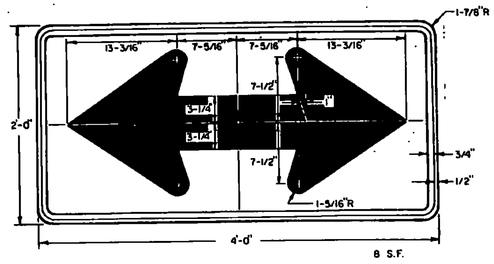
SIGN No. H-2
(STD. W20-1)



SIGN No. H-3 (STD. G20-1)

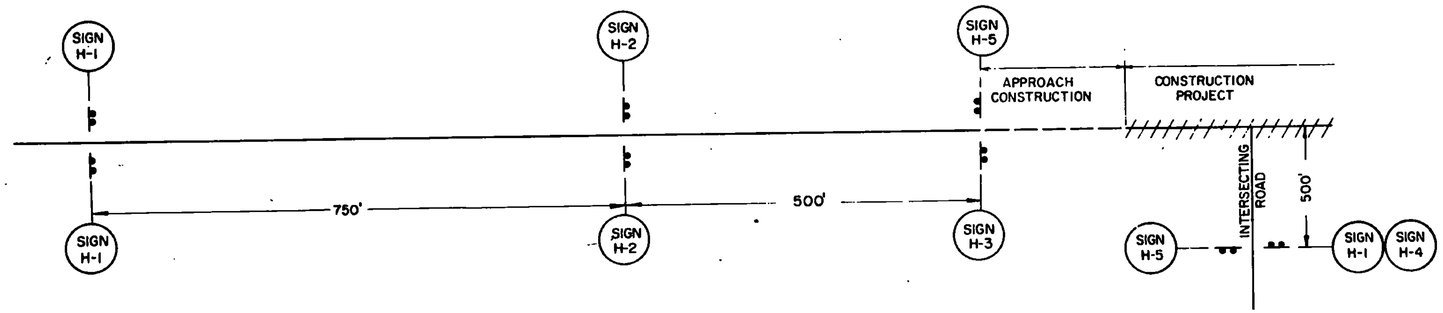


SIGN No. H-5 (STD. G20-2)



SIGN No. H-4 (STD. W1-7)

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. 15, 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
Dec. 14, 1971 DATE
R. H. Arnold CHIEF ENGINEER
E. W. Stickney ASST. CHIEF ENGINEER
G. M. Lane HIGHWAY ENGINEER

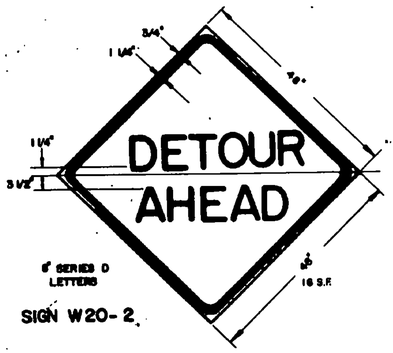
TRAFFIC SIGNS

ROAD CONSTRUCTION APPROACH SIGNS

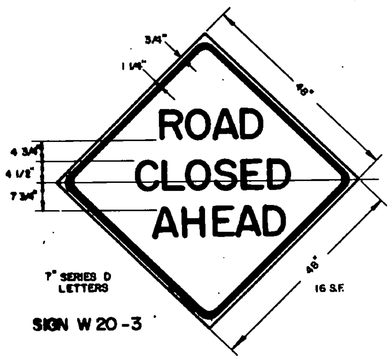
VERMONT AGENCY OF TRANSPORTATION

STANDARD

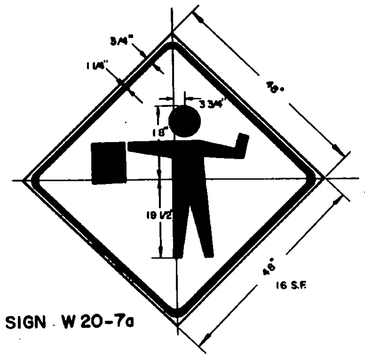
E-2



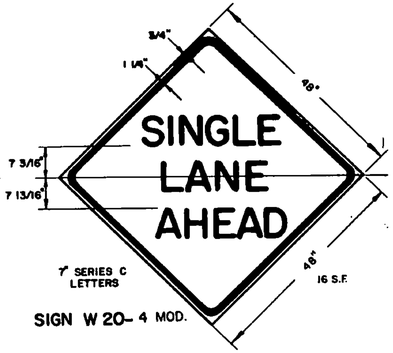
SIGN W20-2



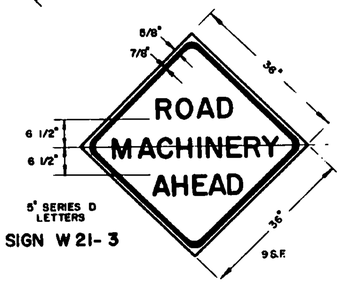
SIGN W20-3



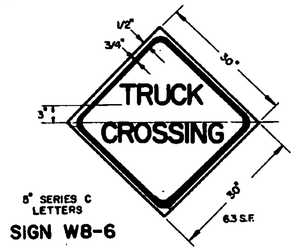
SIGN W20-7a



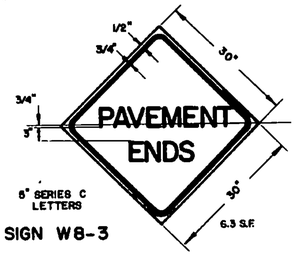
SIGN W20-4 MOD.



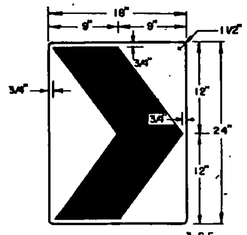
SIGN W21-3



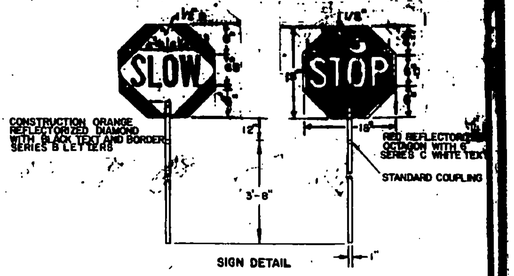
SIGN W8-6



SIGN W8-3



SIGN W1-8



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

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 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 RII-2 and the sign paddle shall have black texts and borders on an encapsolated lens reflective orange background. Sign RII-2 shall have black text and border on an encapsolated 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.

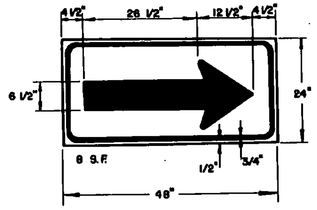
MAINTENANCE

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.

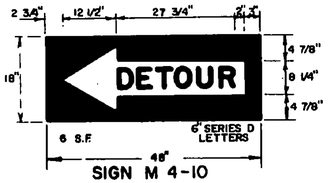
The maintenance of all traffic control devices shall be subject to the orders of the Engineer.

SIGN R II-2



SIGN W1-6

ARROW RIGHT OR LEFT AS REQUIRED



SIGN M 4-10

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.

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 W1-6 AND SIGN PADDLE ADDED. SIGN DETAILS REVISED.
APR. 1, 1980 - SIGN PADDLE SIGN REVISED.
[illegible] 1, 1986 - UPDATED TO 1986 SPECIFICATIONS

APPROVED
Dec. 14, 1971 — DATE
R. H. Conrad — CHIEF ENGINEER
E. J. Stickney — ASST. CHIEF ENGINEER
G. M. Lane — HIGHWAY ENGINEER

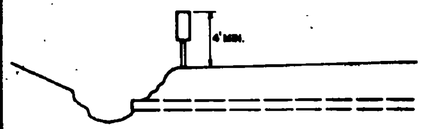
TRAFFIC SIGNS

ON-PROJECT CONSTRUCTION SIGNS

VERMONT AGENCY OF TRANSPORTATION

STANDARD E-6

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

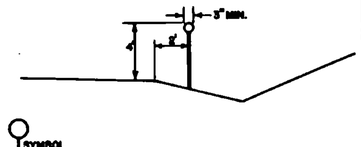


HAZARD MARKER TYPICAL

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, CURBS, 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 BARRICADING WHERE SPACE IS AT A MINIMUM.

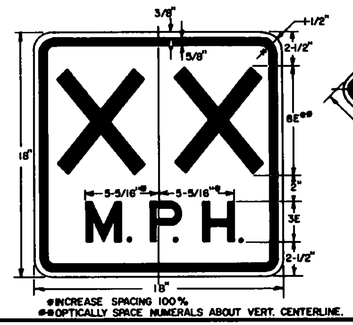


DELINEATOR TYPICAL

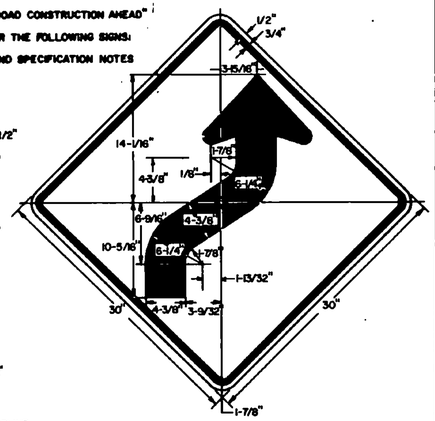
DELINEATORS SHALL BE OF A REFLECTORIZED WHITE COLOR. THEY SHALL HAVE A MINIMUM OF 7 SQUARE INCHES. THEY MAY BE ROUND, SQUARE, OR OBLONG. THEY SHALL BE OF THE FOLLOWING:

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-6 FOR SIGN MATERIAL AND SPECIFICATION NOTES FOR ALL SIGNS DETAILED ON THIS SHEET.

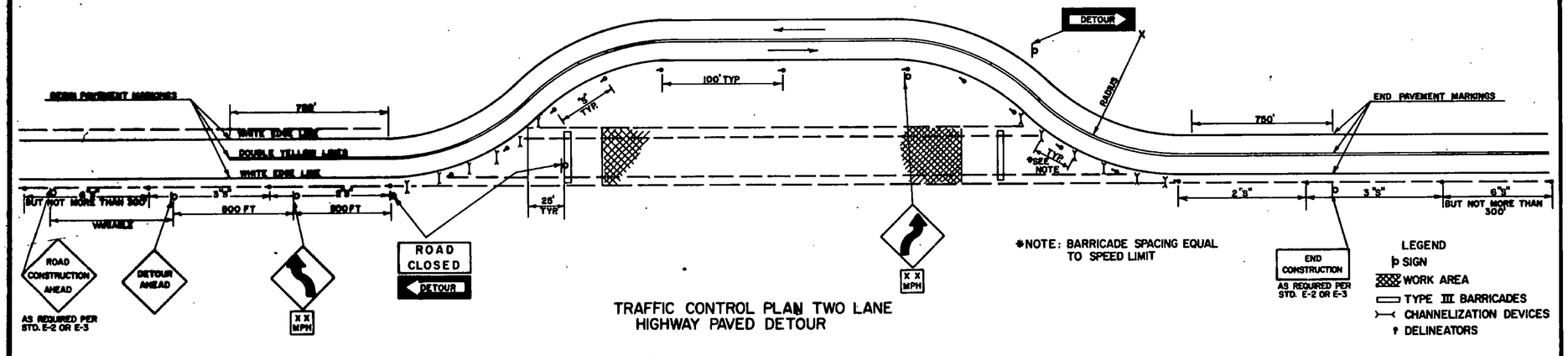


*INCREASE SPACING 100%
**OPTICALLY SPACE NUMERALS ABOUT VERT. CENTERLINE.



DELINEATOR SPACING

DESIGN SPEED MPH	REQUIRED RADIUS FT	SPACING - "S" FT
25	150	30
30	250	40
40	460	60
50	760	75



AS REQUIRED PER STD. E-2 OR E-3

AS REQUIRED PER STD. E-2 OR E-3

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

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.

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.

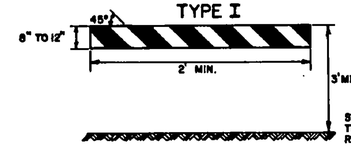
REFLECTORIZATION

THE BARRICADES SHALL BE REFLECTORIZED WITH REFLECTIVE SHEETING.

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.

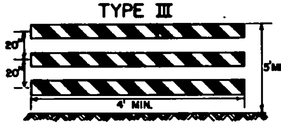
TYPE I



STRIPPING IS SHOWN WITH TRAFFIC PASSING TO THE RIGHT.

TYPE II

TYPE III



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 STAY 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 RE-PLACED AS ORDERED BY THE ENGINEER.

LIGHTING

FOR NIGHTTIME USE ADD FLASHING WARNING LIGHTS WHEN BARRICADES ARE USED SINGLY 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, 1986 UPGRADED TO 1986 SPECIFICATIONS

APPROVED:

SEPT. 22, 1981
DATE

DIRECTOR OF ENGINEERING AND CONSTRUCTION

CHIEF OF DESIGN

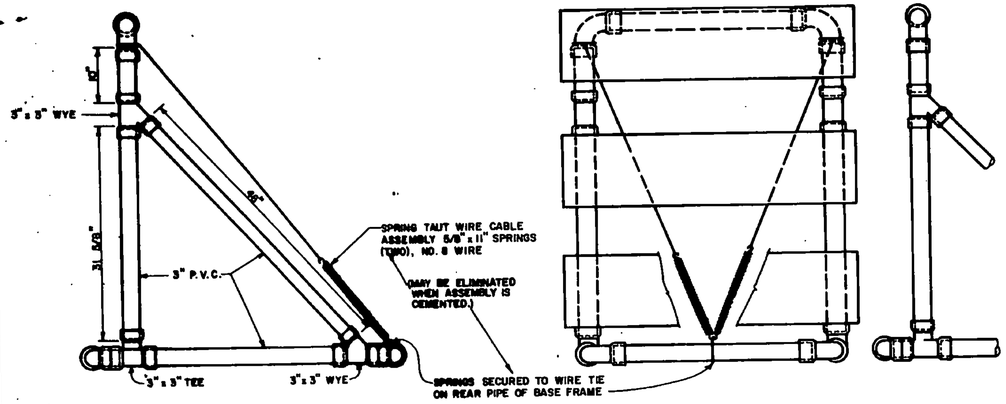
TRANSPORTATION DESIGN ENGINEER

DELINEATION, BARRICADES AND DETOURS FOR CONSTRUCTION AREAS

VERMONT AGENCY OF TRANSPORTATION

STANDARD

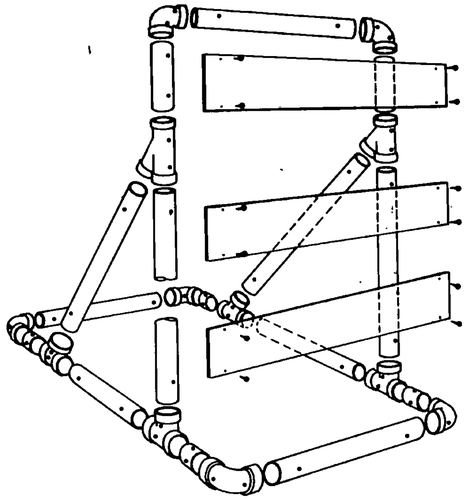
E-7



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.

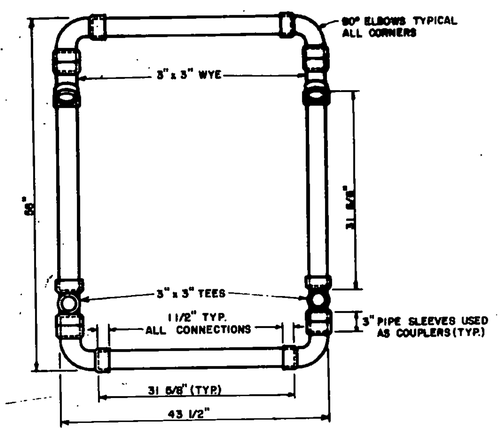
IF BARRICADE REPLACEMENT COSTS CAN BE CONSIDERED NEGLIGIBLE, GLUED JOINTS MAY PROVIDE ADDITIONAL STABILITY TO THE INSTALLATION.



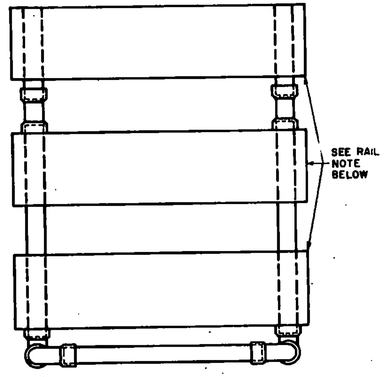
BARRICADE ASSEMBLY

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



TOP VIEW OF BASE

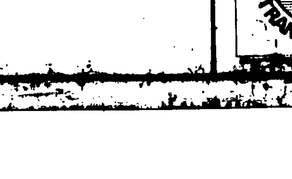


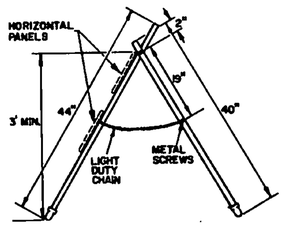
SEE STANDARD E-7 FOR RAIL DETAILS.
RAILS ATTACHED WITH 1" NO. 14 PAN HEAD METAL SCREW.

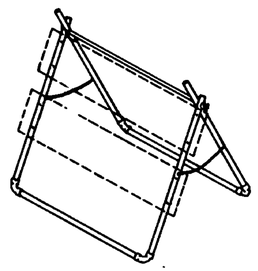
FRONT VIEW

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.

MATERIALS

The pipe, wyes, tees and elbows used to construct Barricades shall conform to the requirements of ASTM designation D 2241 for P.V.C. 1120 or 1220 SDR-21, pressure rating 200 p.s.i. The Wyes, tees and elbows shall conform to the requirements of ASTM Designation D 2466, Type II, Grade 1. All joints shall be slip-fit and may be lightly cemented.

The 8' x 48" barricade rails shall be fabricated from 0.025" anodized aluminum and shall have reflectorized alternating, orange and white stripes (sloping downward at an angle of 45 degrees in the direction traffic is to pass).

COLORS

The barricades shown on the sheet shall have reflectorized orange and white stripes.
The orange shall conform with the standard color adopted by by the American Association of State Highway And Transportation Officials and approved by the U.S. Department of Transportation, Federal Highway Administration.

LOCATION

The barricades shown on this sheet will be located by the Engineer in the field or as shown on the plans. The locations of the barricades shall follow the procedures set forth in the Manual on Uniform Traffic Control Devices.

MAINTENANCE

Barricades shall be maintained in clean and legible conditions satisfactory to the Engineer.
They shall be completely visible to approaching traffic at all times. Damages, defaced, or dirty barricades shall be repaired cleaned or replaced as ordered by the Engineer.
The P.V.C. Pipe and fittings shall be white in color If the fittings are not available, other colors may be substituded.
At least two (2) holes shall be drilled (3/16" to 1/4") in each section of pipe and fittings if the assembly is not cemented.

MATERIALS FOR TYPE I & II BARRICADES

20'-1" PVC
4-1" PVC 90° ELBOWS
30"-1/2" ID THINWALL CONDUIT
36"-1/4" STEEL ROD
4-1" WASHERS
24"- LIGHT DUTY CHAIN
4-METAL SCREWS
2-3/4" COTTER PINS

REVISIONS & CORRECTIONS

JAN. 11, 1977 - REVISED ACCORDING TO FHWA REQUIREMENTS.
JUNE 6, 1977 - MATERIALS LIST ADDED.
APRIL 8, 1982 - CEMENTING NOTE AND BARRICADES TYPE I & II ADDED.
JUNE 13, 1984 - RAILS CHANGED FROM 9" TO 8".
JUNE 3, 1985 - SAND AND WARNING LIGHT NOTE ADDED.
FEB. 3, 1986 - UPGRADED TO 1985 SPECIFICATIONS

APPROVED

Dec 30, 1976
DATE

E.H. Blakeney
CHIEF ENGINEER

R O Munn
ASST. CHIEF ENGINEER

Lorne C Jones
HIGHWAY ENGINEER

TRAFFIC SIGNS

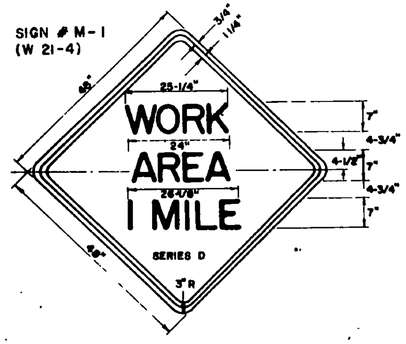
BREAKAWAY BARRICADE DETAILS

VERMONT AGENCY OF TRANSPORTATION

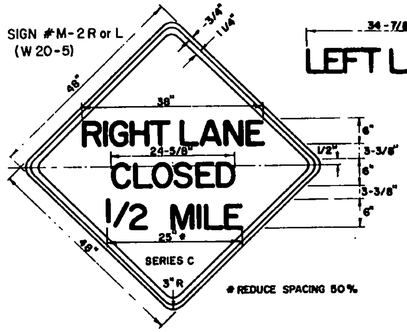
STANDARD

E-7a

SIGN # M-1
(W 21-4)



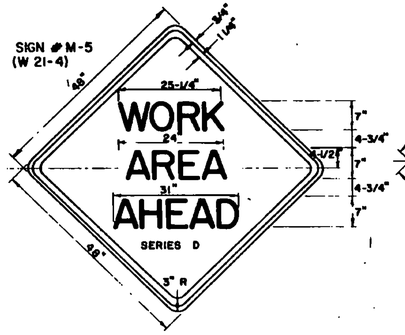
SIGN # M-2 R or L
(W 20-5)



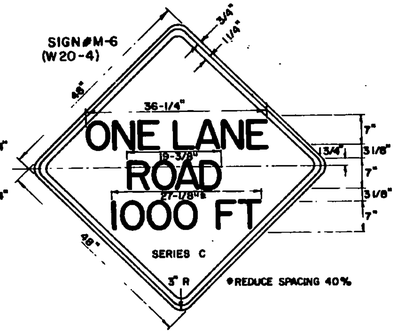
LEFT LANE

* REDUCE SPACING 50%

SIGN # M-5
(W 21-4)

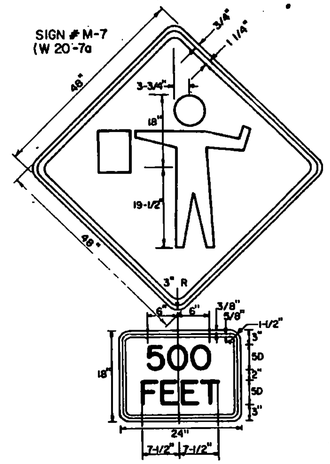


SIGN # M-6
(W20-4)

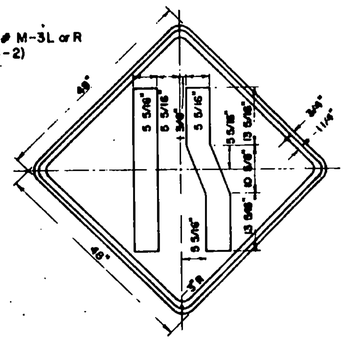


* REDUCE SPACING 40%

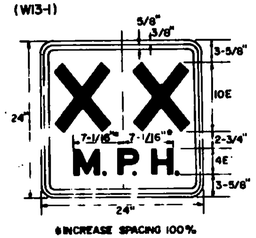
SIGN # M-7
(W 20-7a)



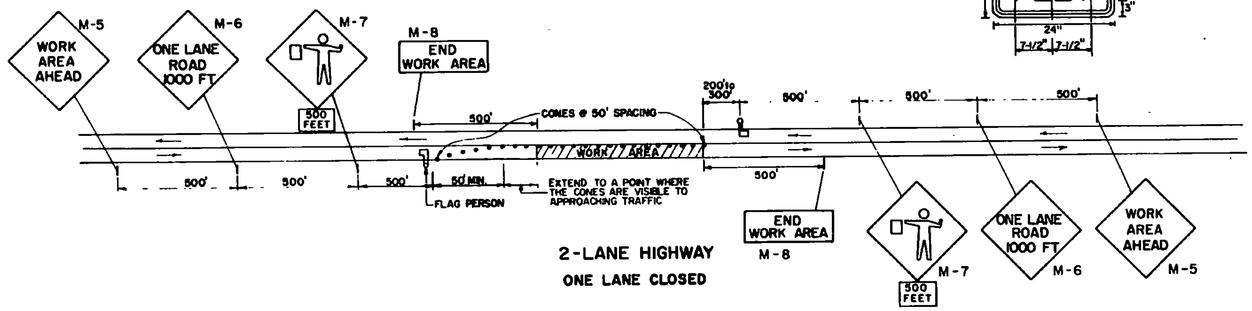
SIGN # M-3L or R
(W 4-2)



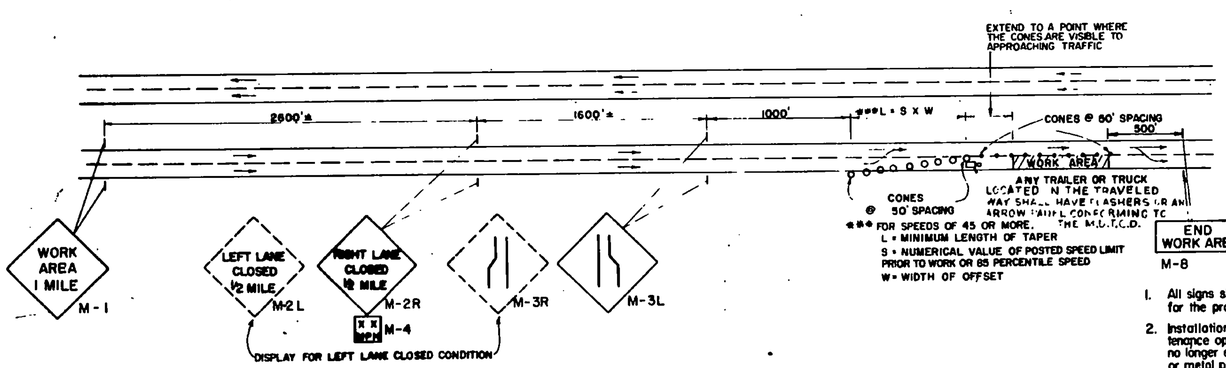
SIGN # M-4
(W13-1)



* INCREASE SPACING 100%

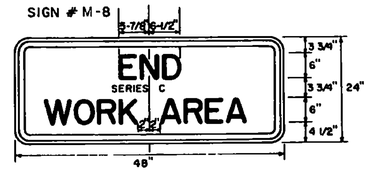


2-LANE HIGHWAY
ONE LANE CLOSED



4-LANE DIVIDED HIGHWAY
ONE LANE CLOSED

SIGN # M-8



NOTES

1. 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.
2. 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.
3. Numbers in parenthesis indicate M.U.T.C.D. sign designations.
4. "ROAD WORK" or "BRIDGE WORK" may be substituded as the appropiate legend for signs # M-1 or M-5.

Reflectorization
All reflectorized material shall consist of encapsolated 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 overlayed 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"x36".
THIS SIGN SIZE REDUCTION IS FOR DAYTIME MAINTENANCE OPERATIONS OF SHORT DURATION.

REVISIONS & CORRECTIONS
FEB. 29, 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, 1983 TRUCK/TRAILER W/ FLASHER NOTE CLARIFIED
FEB. 3, 1986 - UPDATED TO 1986 SPECIFICATIONS

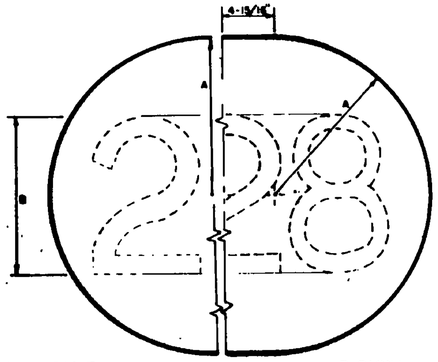
APPROVED: Jan. 26, 1972
DATE
R.A. Arnold
CHIEF ENGINEER
E.H. Chickering
ASST. CHIEF ENGINEER
G.M. Lane
HIGHWAY ENGINEER

TYPICAL MAJOR MAINTENANCE OPERATION
(BRIDGE AND ROADWAY) APPROACH SIGNS

VERMONT AGENCY OF TRANSPORTATION

STANDARD
E-8

STATE ROUTE MARKER FOR USE ON INTERSTATE GUIDE SIGNS

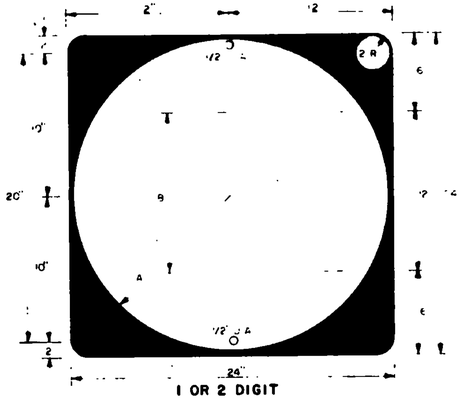


1 OR 2 DIGIT (HALF SIGN)

3 DIGIT (HALF SIGN)

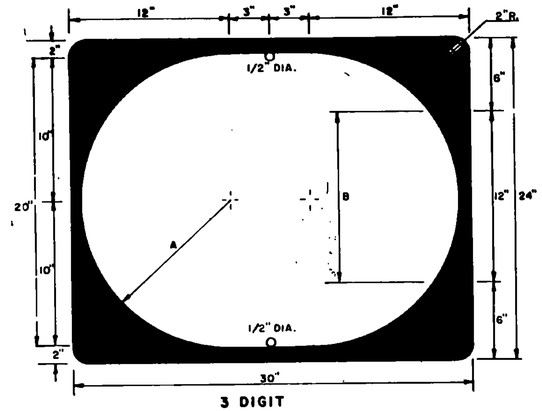
ROUTE NUMBER	A	B	SERIES
1 DIGIT	16"	16"	D
2 DIGITS	16"	16"	D
3 DIGITS	16"	16"	B

STATE ROUTE MARKER FOR INDEPENDANT USE WITH MARKER ASSEMBLIES



1 OR 2 DIGIT

ROUTE NUMBER	A	B	SERIES
1 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 painted.

COLORS

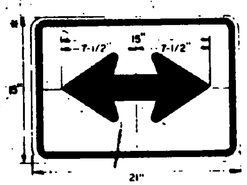
State route markers and auxiliary markers shall have black texts on reflectorized white or silver backgrounds.

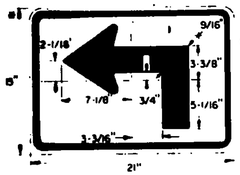
LETTERING

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

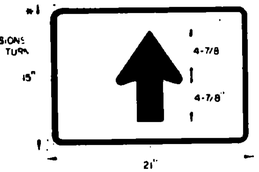
SPECIFICATIONS

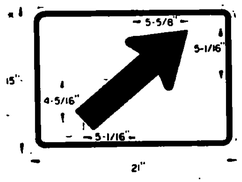
State route markers and auxiliary route markers shall meet the standard state specifications for "Traffic Signs".





* OTHER DIMENSIONS SEE ADVANCE TURN ARROW.

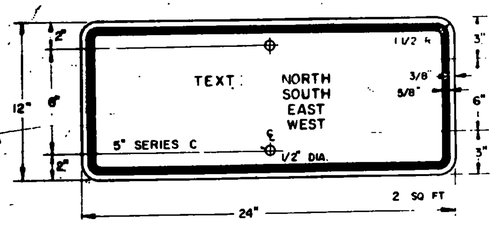




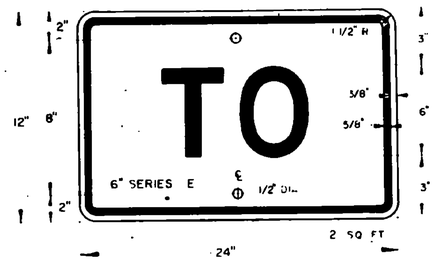
DESIGNS

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

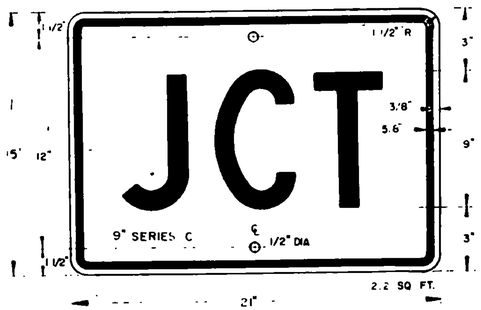
CARDINAL DIRECTION MARKER



TRAILBLAZER

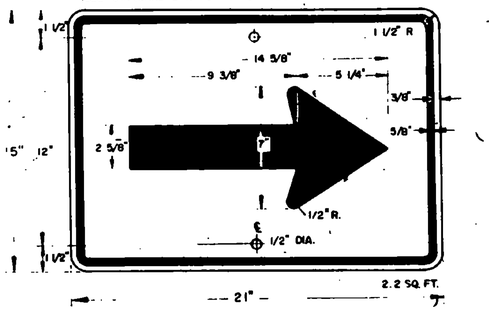


JUNCTION MARKER



DIRECTION ARROW OR ADVANCE TURN ARROW

(SEE STANDARD E-11 FOR ARROW DESIGN DETAIL)



REVISIONS AND CORRECTIONS

MAY 3, 1982 – ADDITIONAL ADVANCE TURN ARROWS ADDED, BORDER DIMENSION CHANGED ON GUIDE SIGNS.

12/2/82 – ADDED THREE DIGIT DETAILS

FEB. 5, 1986 – UPDATED TO 1986 SPECIFICATIONS

APPROVED. DATE Dec 29 1971

R. G. Cromwell
CHIEF ENGINEER

E. W. Stickney
ASST CHIEF ENGINEER

G. M. Lane
HIGHWAY ENGINEER

DRAWN AWC
TRACED A.L.A.

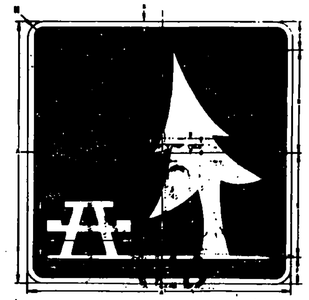
TRAFFIC SIGNS (GUIDE SIGNS)

STATE ROUTE MARKERS AND AUXILIARY MARKERS

VERMONT AGENCY OF TRANSPORTATION

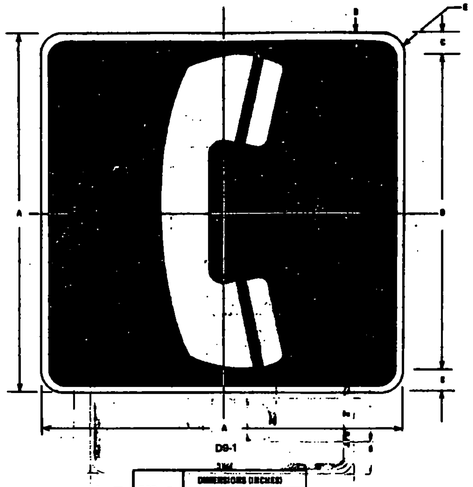
STANDARD

E-13



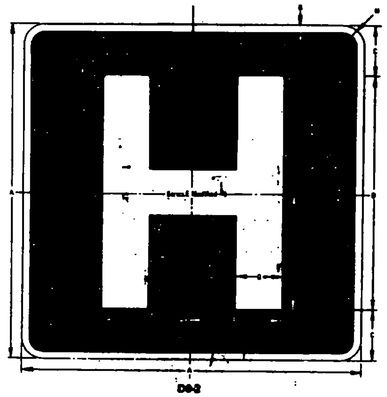
D9-5

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



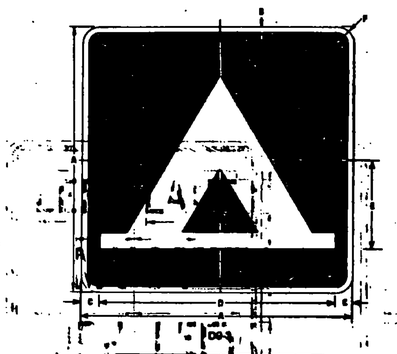
D9-1

SIGN	DIMENSIONS (INCHES)				
	A	B	C	D	E
STD.	36	1/2	1-1/2	21	1-1/2
SPECIAL	30	3/4	2	28	1-7/8



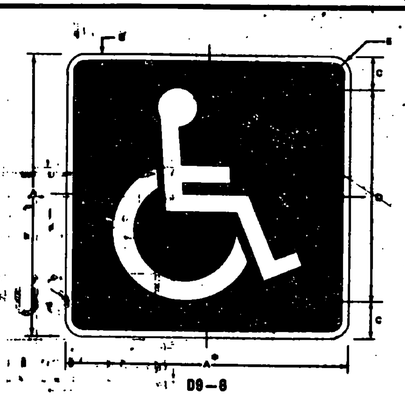
D9-2

SIGN	DIMENSIONS (INCHES)							
	A	B	C	D	E	F	G	H
STD. & MIN.	36	1/2	4	18	6-3/8	6-3/8	3-1/8	1-1/2
SPECIAL	30	3/4	5	25	8 -	10-3/8	4	1-7/8



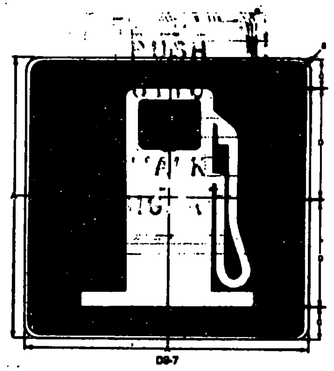
D9-3

SIGN	DIMENSIONS (INCHES)					
	A	B	C	D	E	F
STD. & MIN.	24	1/2	1-1/2	22	8	1-1/2
SPECIAL	30	3/4	2	28	10	1-7/8



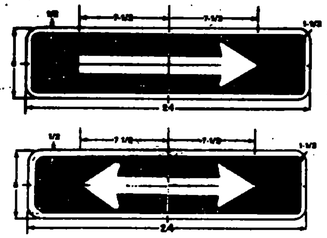
D9-6

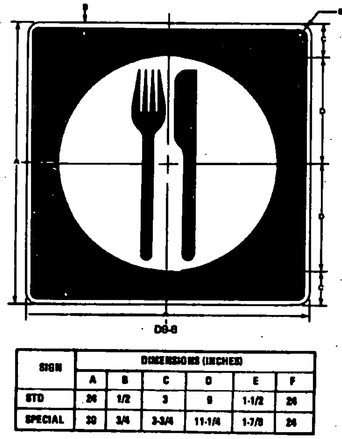
SIGN	DIMENSIONS (INCHES)				
	A	B	C	D	E
MIN & STD*	36	1/2	3	18	1 1/2
SPECIAL	30	3/4	3 3/4	22 1/2	1 7/8



D9-7

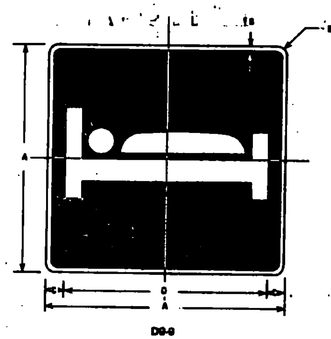
SIGN	DIMENSIONS (INCHES)					
	A	B	C	D	E	F
STD	24	1/2	3	9	1-1/2	36
SPECIAL	30	3/4	3-3/4	11-1/4	1-7/8	36





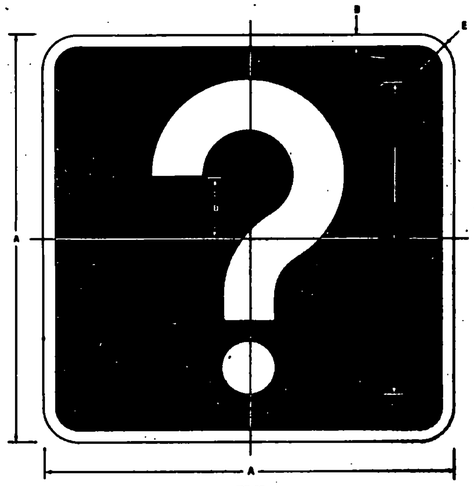
D9-8

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



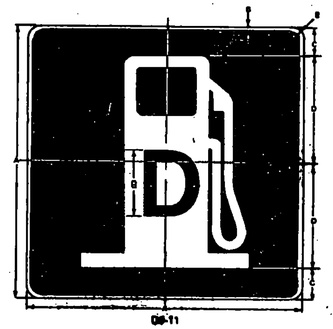
D9-9

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



D9-10

SIGN	DIMENSIONS (INCHES)				
	A	B	C	D	E
STD	24	1/2	19-1/2	3-3/8	1-1/2
SPECIAL	30	3/4	23-1/4	4-3/4	1-7/8



D9-11

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

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

[illegible] UPDATED TO 1986 SPECIFICATIONS

APPROVED:

9/3/93
DATE

DIRECTOR OF ENGINEERING AND CONSTRUCTION

CHIEF OF DESIGN

SURVEY AND PLANS ENGINEER

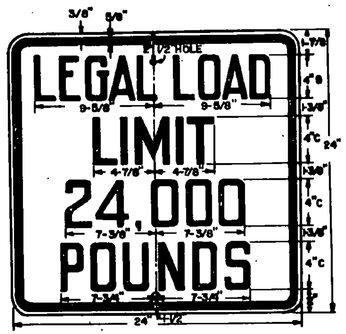
GENERAL SERVICES SIGNS

(GUIDE SIGNS)

VERMONT AGENCY OF TRANSPORTATION

STANDARD

E-14B



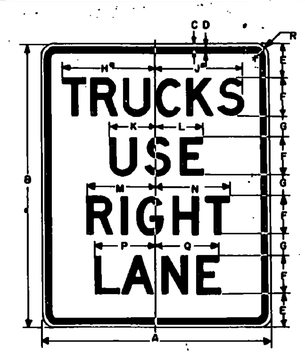
LINE 3 ALTERNATE - 16,000

SIGN	DIMENSIONS (INCHES)												
	A	B	C	D	E	F	G	H	J	K	L	M	N
STD.BASIC	24	30	3/8	5/8	3-5/8	4D	2-1/4	9-1/4	9-5/8	9-9/16	3-1/2	10	1-1/2
SPECIAL	36	48	5/8	7/8	6	6D	4	14	14-7/16	9-3/4	5-1/4	15	2-1/4
SPECIAL	48	60	3/4	1-1/4	7-1/4	8D	4-1/2	18-1/2	19-1/4	13-1/8	7	20	3

*REDUCE SPACING 25%

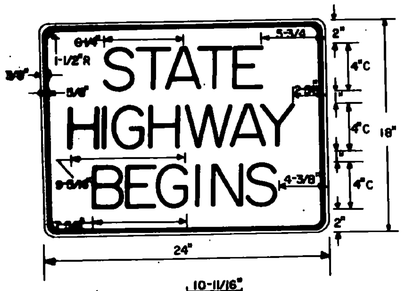
SIGN	DIMENSIONS (INCHES)														
	A	B	C	D	E	F	G	H	J	K	L	M	N	P
MIN. & STD.	24	30	3/8	5/8	3-5/8	4D	2-1/4	9-3/4	10	6	6-9/16	7-1/8	7-5/8	1-1/2
EXPWY.	36	48	5/8	7/8	6	6D	4	14-5/8	15	9	9-13/16	10-11/16	11-3/8	2-1/4
FWY.	48	60	3/4	1-1/4	7-1/4	8D	4-1/2	19-1/2	20	12	13-1/8	14-1/4	15-1/4	3

SIGN	DIMENSIONS (INCHES)															
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
MIN. & STD.	24	30	3/8	5/8	3-5/8	4E	2-1/4	9-13/16	9-11/16	7-9/16	7-11/16	5-11/16	5-13/16	6-7/8	7-1/16	1-1/2
EXPWY.	36	48	5/8	7/8	6	6E	4	14-3/4	14-1/2	11-5/16	11-1/2	8-1/2	8-3/4	10-5/16	10-5/8	2-1/4
FWY.	48	60	3/4	1-1/4	7-1/4	8E	4-1/2	19-5/8	19-3/8	15-1/8	15-3/8	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. & STD.	24	30	3/8	5/8	3-5/8	4D	2-1/4	9-9/16	9-3/16	4-3/4	5	7-1/8	7-5/8	9-1/4	6-5/8	1-1/2
EXPWY.	36	48	5/8	7/8	6	6D	4	14-5/16	13-5/16	7-1/8	7-1/2	10-11/16	11-3/8	9-3/8	9-15/16	2-1/4
FWY.	48	60	3/4	1-1/4	7-1/4	8D	4-1/2	19-1/8	18-3/8	9-1/2	10	14-1/4	15-1/4	12-1/2	13-1/4	3



OR ENDS

OR ENDS

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.

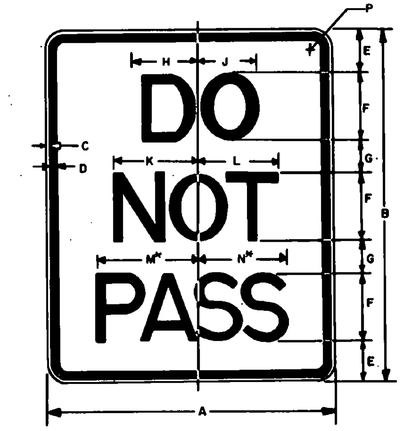
MATERIALS:
THE SIGN BASE MATERIALS USED FOR THE REGULATORY SIGNS SHOWN ON THIS SHEET MAY BE ANY OF THE FOLLOWING OF THE MINIMUM THICKNESS NOTED.

	18"X24"	24"X18" 24"X24" 24"X30"	36"X48" 48"X60"
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.

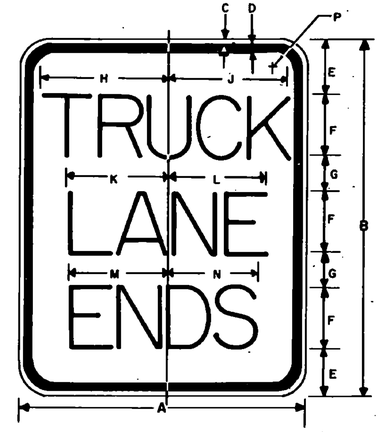
SPECIFICATIONS:
REGULATORY SIGNS SHALL MEET THE STANDARD STATE SPECIFICATIONS FOR TRAFFIC SIGNS.

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	4-11/16	5	7-1/8	7-3/8	9-3/8	9-3/4	1-1/2
EXPWY.	36	48	5/8	7/8	7	8D	5	6-1/4	6-5/16	9-1/2	9-3/4	12-1/2	13	2-1/4
FWY.	48	60	3/4	1-1/4	8	10D	7	7-3/4	8-5/16	11-7/8	12-1/4	15-3/8	16-1/4	3



SIGN	DIMENSIONS (INCHES)													
	A	B	C	D	E	F	G	H	J	K	L	M	N	P
MIN. & STD.	24	30	3/8	5/8	3-1/2	6C	2-1/2	10-1/4	10-3/16	7-3/4	7-3/4	7-15/16	8	1-1/2
EXPWY.	36	48	5/8	7/8	7	8C	5	13-11/16	13-5/8	10-5/8	10-5/8	10-11/16	10-11/16	2-1/4
FWY.	48	60	3/4	1-1/4	8	10D	7	20-5/8	20-5/8	15-7/8	15-15/16	16-1/16	16-1/16	3

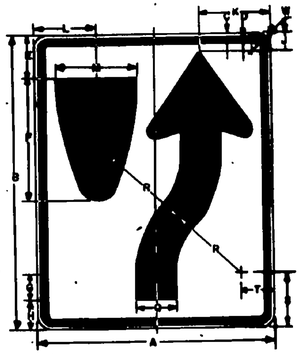
REVISIONS AND CORRECTIONS
FEB. 8, 1988 — CONFORMED TO 1988 SPECIFICATIONS

APPROVED
DATE JULY 18, 1984
DIRECTOR OF ENGINEERING AND CONSTRUCTION
CHIEF OF DESIGN
SURVEY AND PLANS ENGINEER

REGULATORY SIGNS

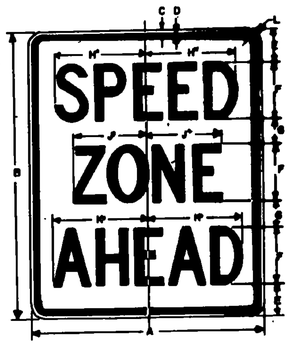
VERMONT AGENCY OF TRANSPORTATION

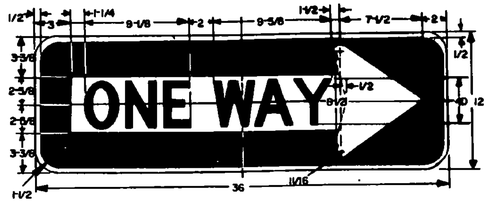
STANDARD
E-15A

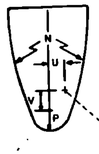


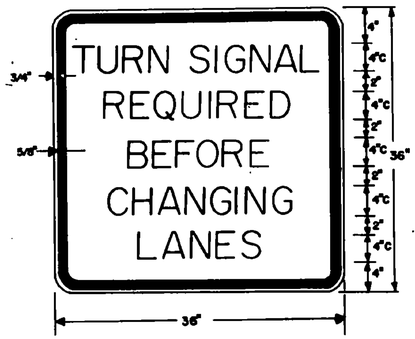
SIGN	DIMENSIONS (INCHES)										
	A	B	C	D	E	F	G	H	J	K	M
MIN.	18	24	3/8	5/8	3-3/8	9-3/8	1-7/8	2-1/4	1-3/8	8-1/2	
STD.	24	30	3/8	5/8	4-1/2	12-1/2	2-1/2	3	1-7/8	7-3/8	
EXPWY.	36	48	5/8	7/8	6-3/4	18-3/4	3-3/4	4-1/2	2-13/16	11-1/8	
FWY.	48	60	3/4	1-1/4	9	25	5	6	3-3/4	14-13/16	

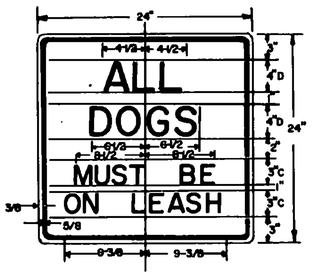
SIGN.	DIMENSIONS (INCHES)									
	L	M	N	P	Q	R	S	T	U	V	W
MIN.	4-11/16	6	22-1/2	1-1/2	3	6-3/4	4-1/8	2-1/4	1-1/16	7/16	1-1/8
STD.	6-1/4	8	30	2	4	9	5-1/2	3	1-3/8	2-13/16	1-1/2
EXPWY.	9-3/8	12	45	3	6	13-1/2	8-1/4	4-1/2	2	2-3/4	2-1/4
FWY.	12-1/2	16	60	4	8	18	11	6	2-11/16	3	3









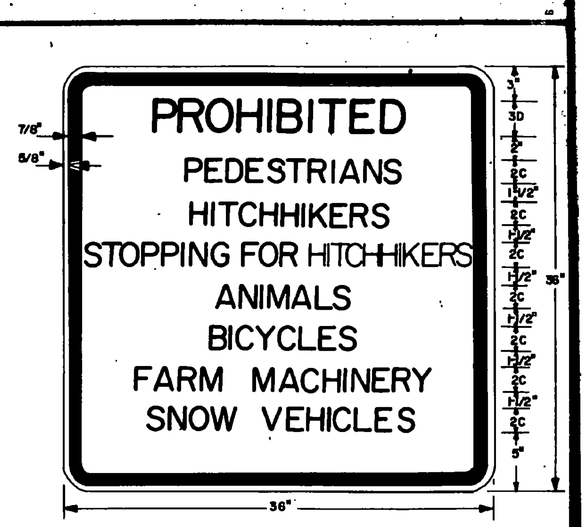


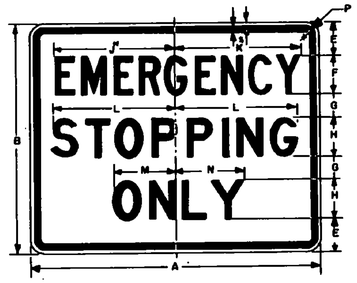
SIGN	DIMENSIONS (INCHES)										
	A	B	C	D	E	F	G	H	J	K	L
MIN	18	24	3/8	5/8	3	3E	2	8E	1-1/2	7-3/16	5-1/2
STD	24	30	3/8	5/8	4	4E	2	10E	1-1/2	9-9/16	7-5/16
EXPWY	36	48	5/8	7/8	6	6E	5	14E	2-1/4	14-3/8	11
FWY.	48	60	3/4	1-1/4	8	8E	4	20E	3	19-1/8	14-5/8

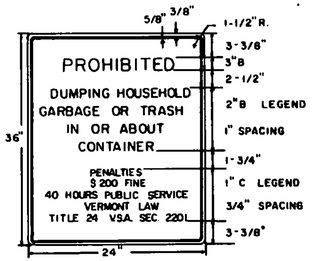
* OPTICALLY SPACE NUMERALS ABOUT VERTICAL CENTERLINE.

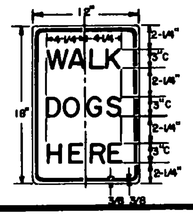
SIGN	DIMENSIONS (INCHES)										
	A	B	C	D	E	F	G	H	J	K	L
STD.& MIN.	24	30	3/8	5/8	4	4C	2	10D	1-1/2	9-3/16	6-13/16
EXPWY.	36	48	5/8	7/8	6	6C	5	14D	2-1/4	13-3/4	10-3/16
FWY.	48	60	3/4	1-1/4	8	8C	6	18D	3	18-3/8	13-5/8

* OPTICALLY SPACE NUMERALS ABOUT VERTICAL CENTERLINE.



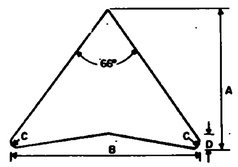






SIGN	DIMENSIONS (INCHES)										
	A	B	C	D	E	F	G	H	J	K	L
MIN.	18	24	3/8	5/8	3-1/2	4C	2-1/2	8-13/16	3-1/2	7	1-1/2
STD.	24	30	3/8	5/8	3-1/2	6C	2-1/2	9-3/16	7-11/16	9-3/4	1-1/2
EXPWY.	36	48	5/8	7/8	7	8C	5	13-5/8	11-1/16	14	2-1/4
FWY.	48	60	3/4	1-1/4	9	10C	6	17	13-13/16	17-1/2	3

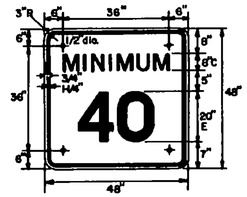
* FOR STD SIZE, REDUCE SPACING 40%.



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

SIGN	DIMENSIONS (INCHES)												
	A	B	C	D	E	F	G	H	J	K	L	M	N	P
EXPWY	30	24	3/8	5/8	3	1/2	4C	2-1/2	4D	12-1/2	13	2-3/4	6-7/16	7	1-1/2
FWY.	48	36	5/8	7/8	5	1	6D	4	6D	20-7/16	21-1/8	19-1/8	10-1/16	10-9/16	2-1/4

* FOR FWY SIZE, REDUCE SPACING 50 %



TO BE USED WITH "SPEED LIMIT 55" SIGN-FWY ONLY.

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.

	12"X18" 18"X24"	24"X24" 24"X30" 30"X24" 30"X30"	36"X12" 36"X36" 36"X48" 48"X36" 48"X60"
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.

REVISIONS AND CORRECTIONS

SEPT. 28, 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. 5, 1986 - UPDATED TO 1986 SPECIFICATIONS

APPROVED

DATE JULY 18, 1984

DIRECTOR OF ENGINEERING AND CONSTRUCTION

CHIEF OF DESIGN

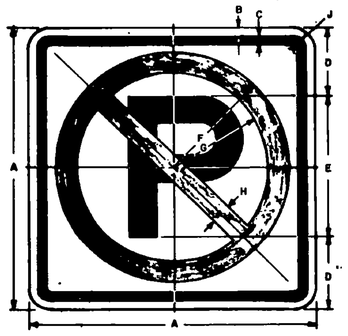
SURVEY AND PLANS ENGINEER

REGULATORY SIGNS

VERMONT AGENCY OF TRANSPORTATION

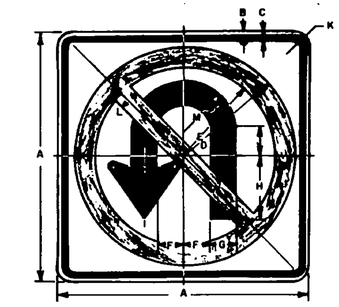
STANDARD

E-15B



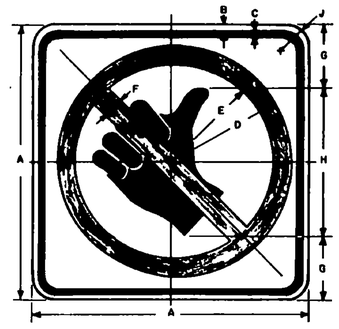
COLORS
CIRCLE AND DIAGONAL — RED (REFL-RURAL)
SYMBOL AND BORDER — BLACK (NON-REFL)
BACKGROUND — WHITE (REFL-RURAL)

SIGN	DIMENSIONS (INCHES)								
	A	B	C	D	E	F	G	H	J
URBAN MIN.& STD. RURAL MIN.& STD.	12	3/8	3/8	3	6E(M)	4-7/8	3-7/8	1	1-1/2
	24	3/8	5/8	6	12E(M)	10-1/2	8-1/2	2	1-1/2
EXPWY.	36	5/8	7/8	9	18E(M)	15-3/4	12-3/4	3	2-1/4
FWY.	48	3/4	1-1/4	12	24E(M)	21	17	4	3



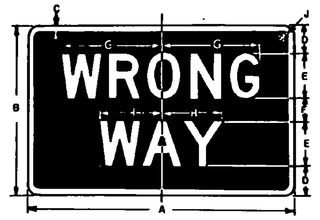
COLORS
CIRCLE AND DIAGONAL — RED (REFL)
ARROW AND BORDER — BLACK (NON-REFL)
BACKGROUND — WHITE (REFL)

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	3-3/8	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



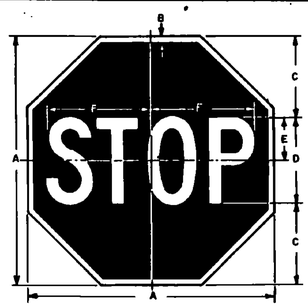
COLORS
CIRCLE AND DIAGONAL —. RED (REFL)
SYMBOL AND BORDER — BLACK (NON-REFL)
BACKGROUND — WHITE (REFL)

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



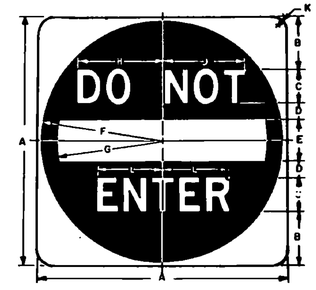
COLORS
LEGEND — WHITE (REFL)
BACKGROUND — RED (REFL)

SIGN	DIMENSIONS (INCHES)								
	A	B	C	D	E	F	G	H	J
MIN.	30	18	5/8	3	5D	2	11-1/16	6-11/16	1-1/2
STD.	36	24	3/4	4-1/2	6D	3	13-5/16	8-1/16	1-1/2
SPECIAL	42	30	7/8	5	8D	4	17-3/4	10-3/4	1-7/8



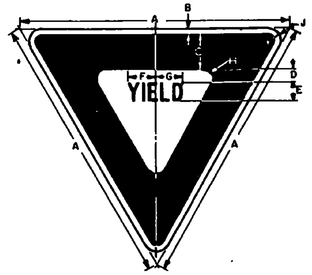
COLORS
LEGEND — WHITE (REFL)
BACKGROUND — RED (REFL)

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



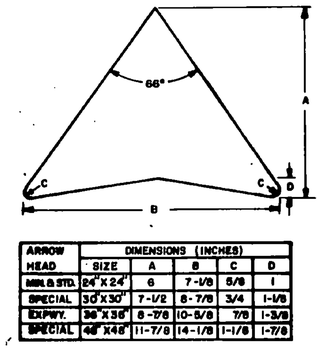
COLORS
SYMBOL — RED (REFL)
LEGEND & BACKGROUND — WHITE (REFL)

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

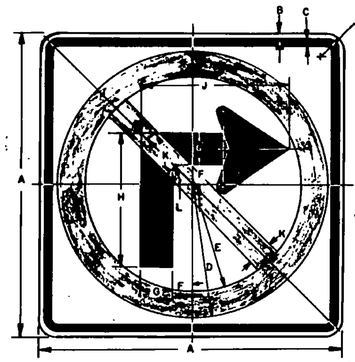


COLORS
LEGEND & BORDER — RED (REFL)
BACKGROUND — WHITE (REFL)

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

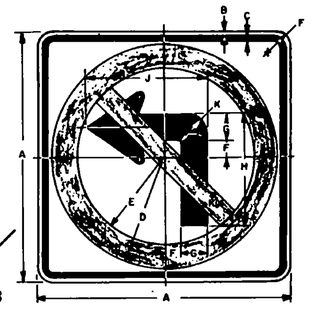


ARROW HEAD SIZE	DIMENSIONS (INCHES)			
	A	B	C	D
MIN.& STD. 24"X24"	6	7-1/8	5/8	1
SPECIAL 30"X30"	7-1/2	8-7/8	3/4	1-1/8
EXPWY. 36"X36"	8-7/8	10-5/8	7/8	1-3/8
SPECIAL 48"X48"	11-7/8	14-1/8	1-1/8	1-7/8



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	5/8
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

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" 18" X 18"	24" ▽ 24" X 24" 30" X 18" 30" X 30"	36" ▽ 36" X 24" 36" X 36"	48" ▽ 48" X 48" 60" ▽
FLAT SHEET ALUMINUM	0.060"	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

E. J. Fox
DIRECTOR OF ENGINEERING AND CONSTRUCTION

Arthur J. Goss
CHIEF OF DESIGN

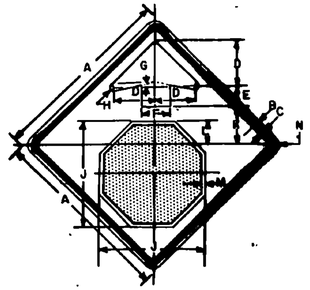
Jack Gunn
SURVEY AND PLANS ENGINEER

REGULATORY SIGNS

VERMONT AGENCY OF TRANSPORTATION

STANDARD

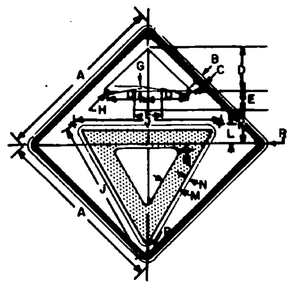
E-15C



COLORS

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

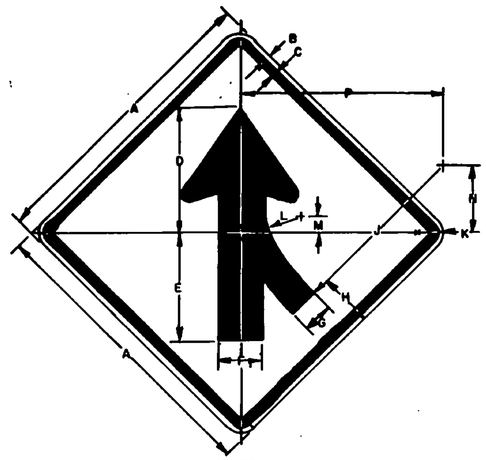
SIGN	DIMENSIONS (INCHES)												
	A	B	C	D	E	F	G	H	J	K	L	M	N
MIN.	30	1/2	3/4	7-1/2	3-3/4	5	5/8	5/16	19-3/4	8-1/4	2-7/8	1/2	1-7/8
STD.	36	5/8	7/8	9	4-1/2	6	3/4	3/8	19	7-1/2	3-1/8	5/8	2-1/4
SPECIAL	48	3/4	1-1/4	12	6	8	1	1/2	28-1/8	10	4-1/2	3/4	3



COLORS

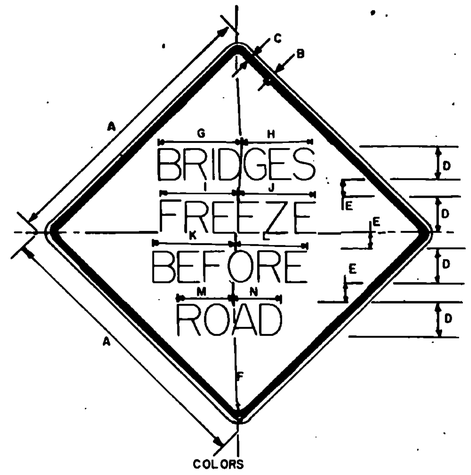
BORDER AND ARROW - BLACK (NON-REFL)
SYMBOL- RED BORDER ON WHITE BACKGROUND (REFL)
BACKGROUND - YELLOW (REFL)

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	5/16	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	38	10	4-1/2	5	3/4	1-7/8	1	3



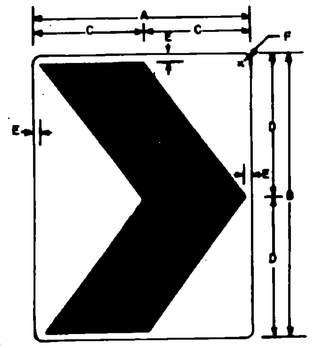
COLORS
LEGEND - BLACK (NON-REFL)
BACKGROUND - YELLOW (REFL)

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



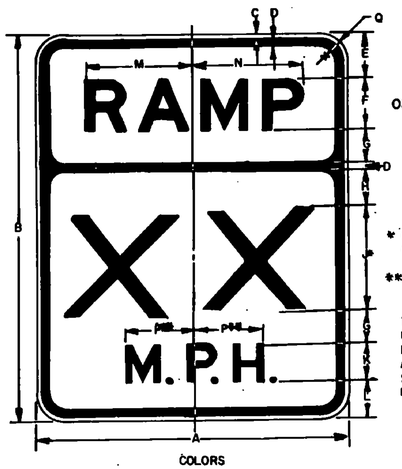
COLORS
LEGEND - BLACK (NON-REFL)
BACKGROUND - YELLOW (REFL)

SIGN	DIMENSIONS (INCHES)													
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
STD.	36	3/8	5/8	5C	2	2	11-1/2	11-1/2	9-13/16	9-7/8	10-1/4	10-1/4	6-7/8	6-7/8
FWY./EXP.	48	3/4	1-1/4	6C	3	3	13-1/2	13-1/2	11-13/16	11-13/16	2-1/4	2-5/16	8-5/16	8-5/16



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
FRWY.	36	48	18	24	1-1/8	2-1/4



OR "EXIT"

* OPTICALLY SPACE NUMBERS ABOUT VERTICAL CENTERLINE

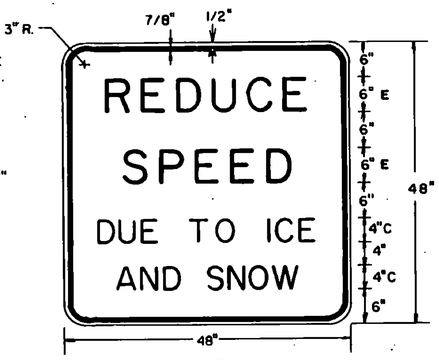
** INCREASE SPACING 100%

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)

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	12-3/8	12-3/4	7-1/16	2-1/4
FWY.	48	60	3/4	1-1/4	7	8E	5	6-3/4	16E	6E	6	16-1/2	17	10-6/8	3



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

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 TRANSPORTION 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"
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 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.

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

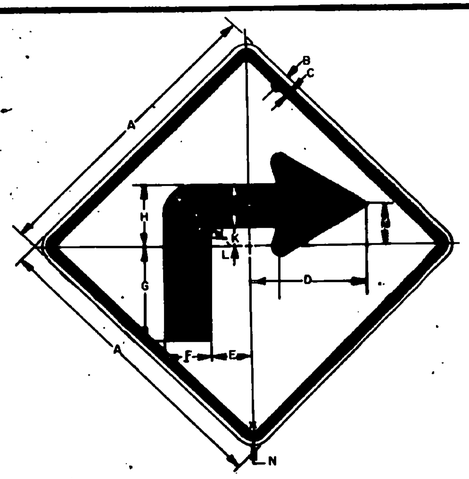
SURVEY AND PLANS ENGINEER

WARNING SIGNS

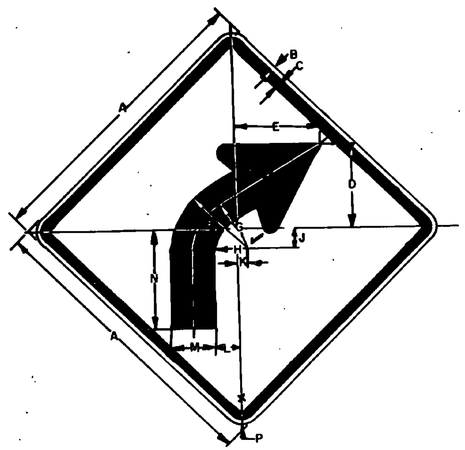
VERMONT AGENCY OF TRANSPORTATION

STANDARD

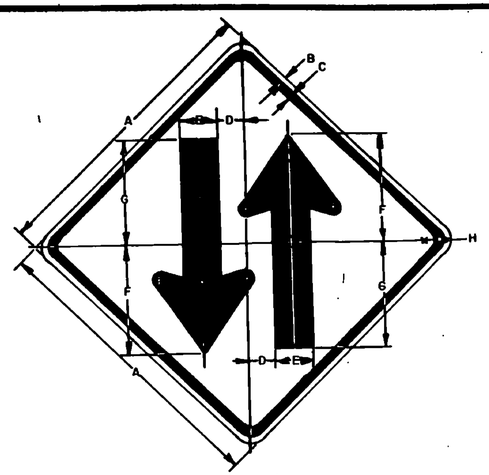
E-19



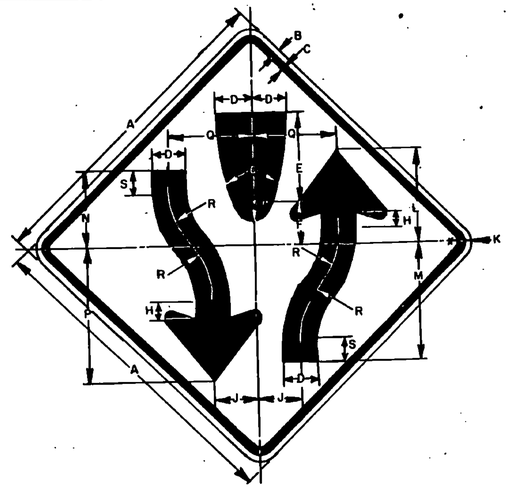
SIGN.	DIMENSIONS (INCHES)											
	A	B	C	D	E	F	G	H	J	K	L	M	N
BIKE	18	3/8	5/8	7-1/4	2-1/4	2-5/8	5-7/8	3-3/4	1-7/8	1	5/8	2-1/2	1-1/2
MIN.	24	3/8	5/8	9-5/8	3	3-1/2	7-3/4	5	2-1/2	1-1/2	13/16	3-1/4	1-1/2
STD.	30	1/2	3/4	12	3-3/4	4-3/8	9-11/16	6-1/4	3	1-7/8	1	4-1/16	1-7/8
EXPWY.	36	5/8	7/8	14-3/8	4-1/2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



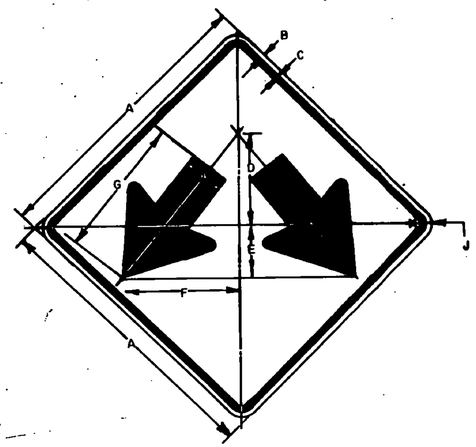
SIGN	DIMENSIONS (INCHES)														
	A	B	C	D	E	F	G	H	J	K	L	M	N	P
BIKE	18	3/8	5/8	5-3/8	5-1/2	6	4-3/4	3-3/8	1-3/4	1-1/4	2	2-5/8	6-1/4	1-1/2
MIN.	24	3/8	5/8	7-1/8	7-1/4	8	6-1/4	4-1/2	2-11/32	1-3/4	2-3/4	3-1/2	8-1/4	1-1/2
STD.	30	1/2	3/4	8-7/8	9-1/16	10	7-13/16	5-5/8	2-15/16	2-3/16	3-7/16	4-3/8	10-5/16	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



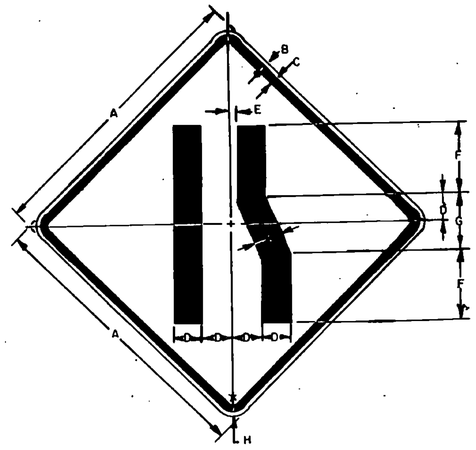
SIGN	DIMENSIONS (INCHES)							
	A	B	C	D	E	F	G	H
MIN.	24	3/8	5/8	2	3	9	8-1/2	1-1/2
STD.	30	1/2	3/4	2-7/16	3-3/4	11-1/4	10-5/8	1-7/8
EXPWY.	36	5/8	7/8	2-15/16	4-1/2	13-1/2	12-3/4	2-1/4
SPECIAL	48	3/4	1-1/4	3-7/8	6	18	17	3



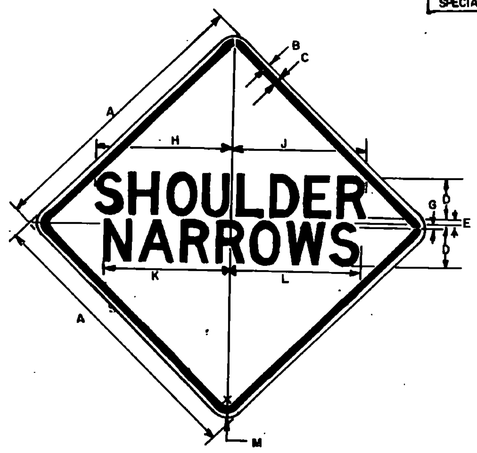
SIGN	DIMENSIONS (INCHES)														
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S
MIN.	30	1/2	3/4	3-5/16	8-5/16	4-1/8	25	1-11/16	4-1/8	1-7/8	10	11-5/8	7-15/16	13-11/16	7-7/8	9-5/16	2-1/16
STD. & EXPWY.	36	5/8	7/8	4	10	5	30	2	5	2-1/4	12	14	9-1/2	16-1/2	9-1/2	10	2-1/2
SPECIAL	48	3/4	1-1/4	5-1/4	13-1/8	6-9/16	39-5/16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



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



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

SYMBOLS

THE WARNING SIGNS SHOWN ON THIS SHEET SHALL HAVE BLACK TEXT AND 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.

	18"X18"	24"X24" 30"X30"	36"X36"	48"X48"
FLAT SHEET ALUMINUM	0.060"	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 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 COMMITTE ON UNIFORM TRAFFIC CONTROL DEVICES.

SPECIFICATIONS

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

REVISIONS AND CORRECTIONS

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

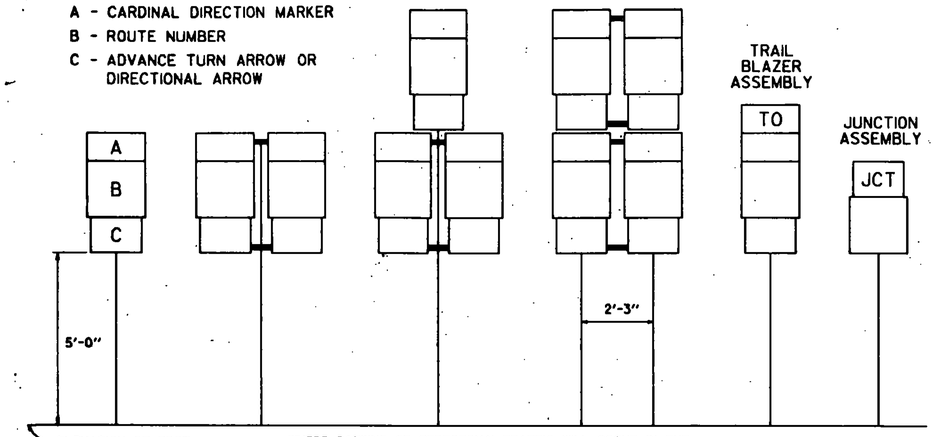
VERMONT AGENCY OF TRANSPORTATION

STANDARD

E-19A

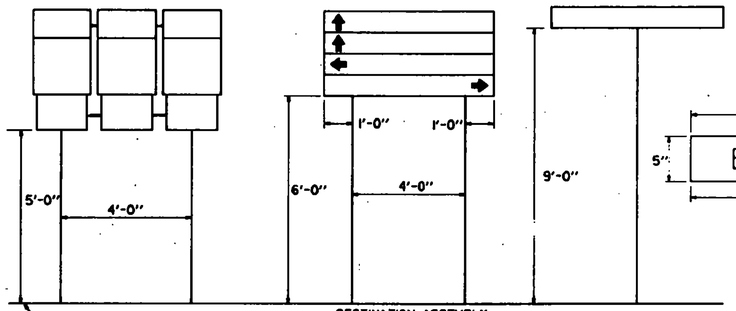
STANDARD MOUNTING OF ROUTE MARKER ASSEMBLIES, DESTINATION ASSEMBLIES AND TOWN LINE POSTS

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



ELEVATION OF EDGE OF PAVEMENT

WHERE PARKING OR PEDESTRIAN TRAFFIC WILL OCCUR IN THE IMMEDIATE VICINITY OF THESE SIGNS MINIMUM VERTICAL CLEARANCE SHALL BE INCREASED TO 7'-0"

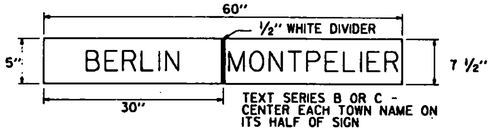


ELEVATION OF EDGE OF PAVEMENT

DESTINATION ASSEMBLY- NOTE SEQUENCE OF ARROWS-LIMIT TO TWO SIGNS IN EACH DIRECTION

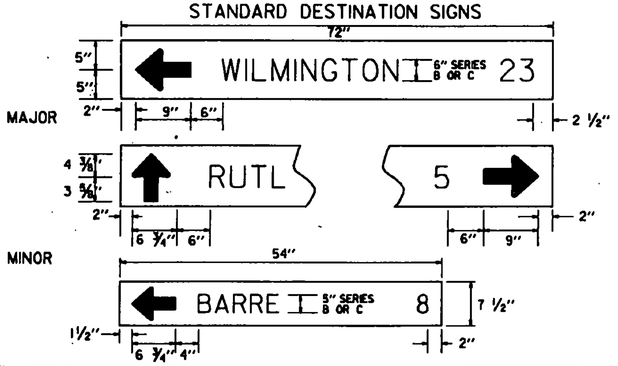
TOWN LINE POST

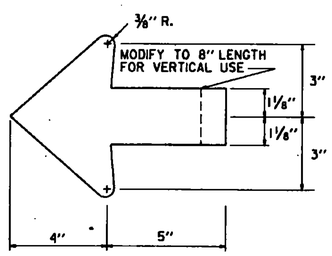
POSITION SIGN PARALLEL TO ROADWAY



TOWN LINE SIGN

STANDARD DESTINATION SIGNS





ARROW DETAIL
REDUCE PROPORTIONALLY TO 6 ¾" LENGTH FOR USE ON MINOR SIGN

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.

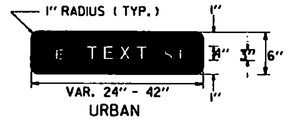
SPECIFICATIONS

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.

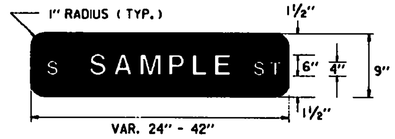
SIZES ARE AS FOLLOWS

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

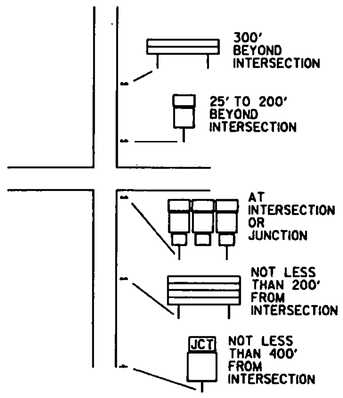


URBAN



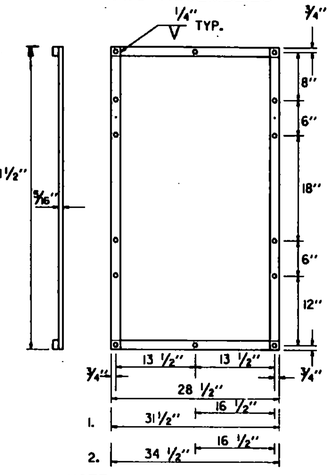
RURAL

TYPICAL LOCATION OF ASSEMBLIES



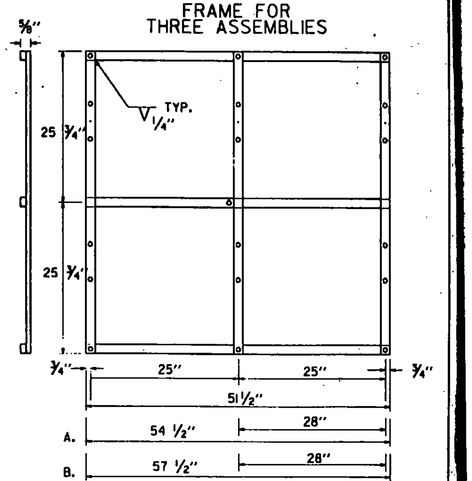
ROUTE MARKER ASSEMBLY FRAMES

FRAME FOR TWO ASSEMBLIES



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

FRAME FOR THREE ASSEMBLIES



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 5/16" x 1½" WROUGHT IRON WELDED. ALL HOLES SHALL BE 7/16" 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.

ROUTE AND DESTINATION SIGNS:

MATERIALS

THE SIGN BASE MATERIAL FOR STANDARD DESTINATION SIGNS SHALL BE HIGH DENSITY OVERLAID PLYWOOD ⅜ 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, 1986 MAJOR REVISIONS

APPROVED: Dec 29, 1971

R. J. Arnold
CHIEF ENGINEER

E. H. Stickney
ASST. CHIEF ENGINEER

G. M. Lane
HIGHWAY ENGINEER

GUIDE SIGNS

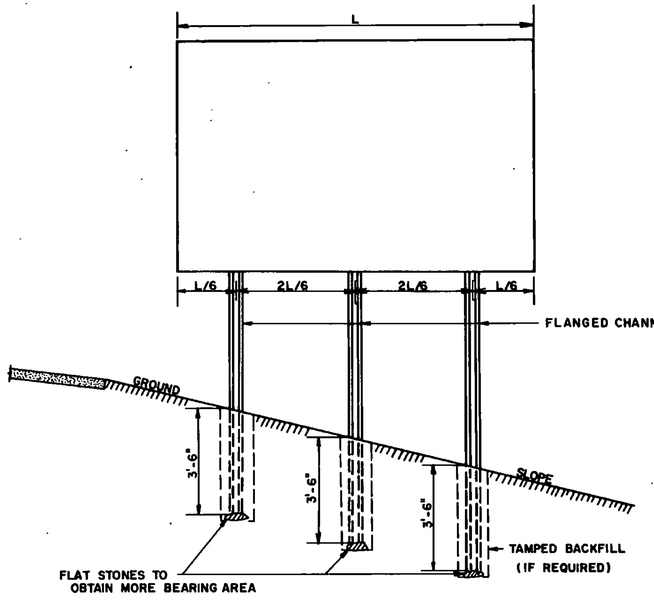
VERMONT AGENCY OF TRANSPORTATION

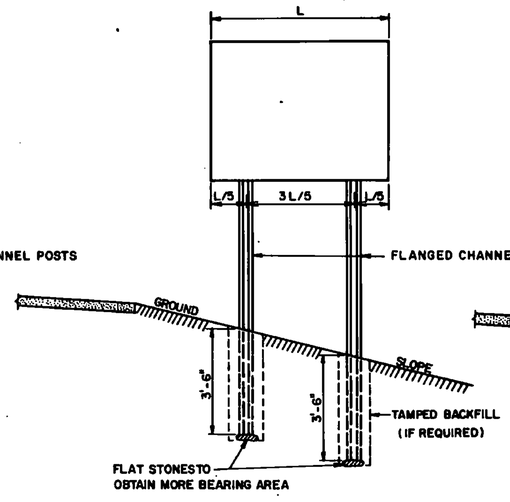
STANDARD
E- 23

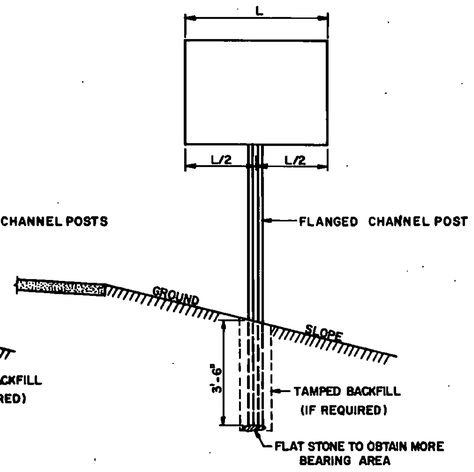
GENERAL NOTES

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

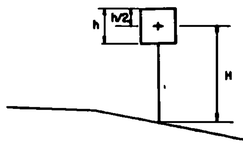
CONSTRUCTION METHODS - POSTS MAY BE DRIVEN OR SET IN A DUG HOLE AND BACKFILLED. IF DRIVEN, A DRIVING CAP SHALL BE USED. IF SET IN A DUG HOLE, THE EXCAVATION AND BACKFILL WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS BEING INCLUDED IN UNIT PRICES FOR OTHER ITEMS IN THE CONTRACT. THE DUG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







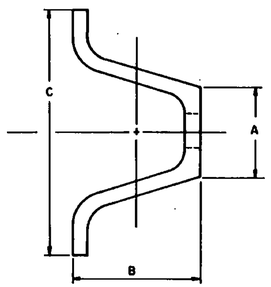
IN AREAS WHERE LEDGE ROCK IS ENCOUNTERED STEEL POSTS WILL BE SET AND GROUTED 12" DEEP IN THE LEDGE.

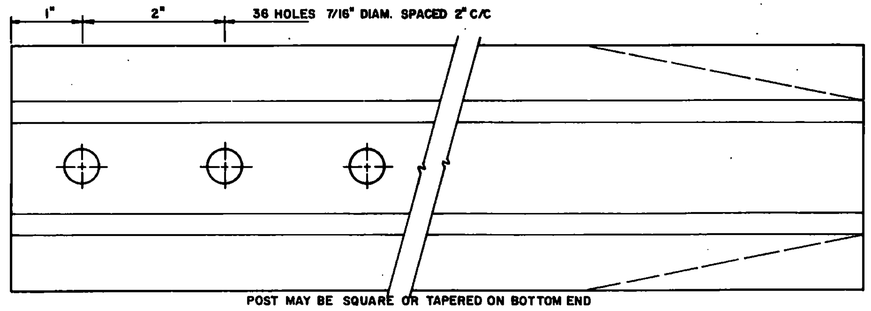


POST SELECTION CHART		
SIGN AREA (FT^2) x H(FT) ≤ Sv (SELECTION VALUE)		
POST SIZE	Sv	DESIGN CRITERIA
2 LB/FT. 2 1/2 LB/FT. 3 LB/FT.	62 77 107	WIND SPEED = 60 MPH (10-YEAR MEAN RECURRENCE INTERVAL) WIND PRESSURE = 12 PSF STEEL MIN YIELD Fy=50,000 PSI ALLOWABLE STRESS=(1.4)0.55Fy

POST SIZE POUNDS PER LINEAR FOOT	DIMENSIONS A	B	C	PLASTIC SECTION MODULUS, Z
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

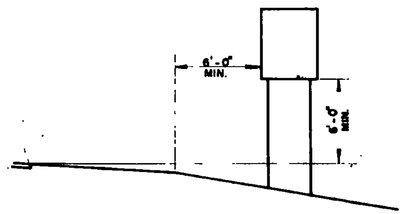
APPROVED
Nov 25, 1976
DATE
E. W. Stickney
CHIEF ENGINEER
R O Munn
ASST. CHIEF ENGINEER
Leon C Jones
HIGHWAY ENGINEER

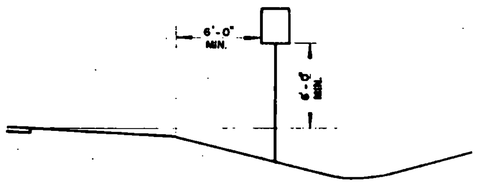
FLANGED CHANNEL STEEL SIGN SUPPORTS

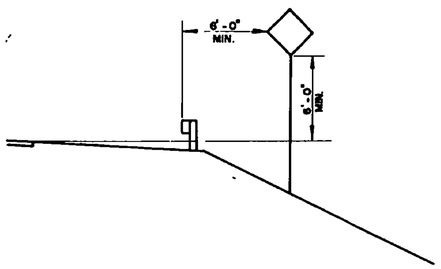
VERMONT AGENCY OF TRANSPORTATION

STANDARD
E-24-A

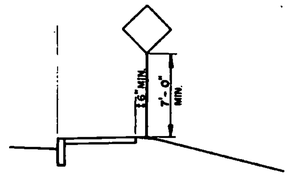
RURAL

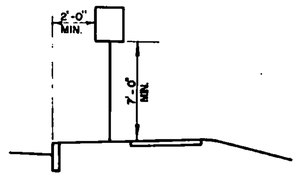


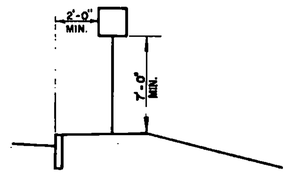




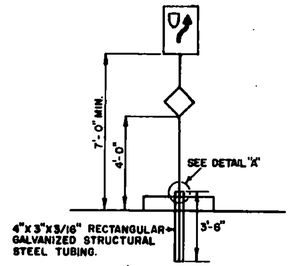
URBAN

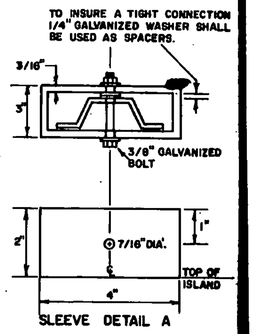






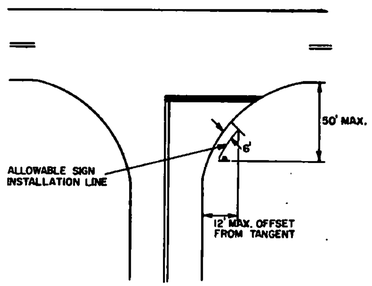
WARNING SIGNS
ON ISLAND IN THE LINE OF TRAFFIC





SLEEVE DETAIL A

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, 1986 - UPDATED TO 1986 SPECIFICATIONS

APPROVED
Dec. 29, 1971

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

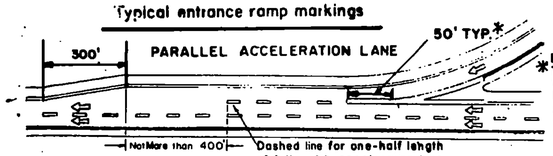
STANDARD SIGN PLACEMENT
CONVENTIONAL ROAD

VERMONT AGENCY OF TRANSPORTATION

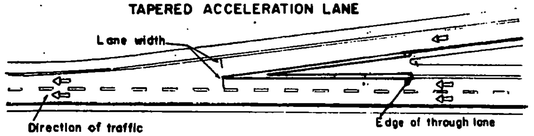
STANDARD

E-29

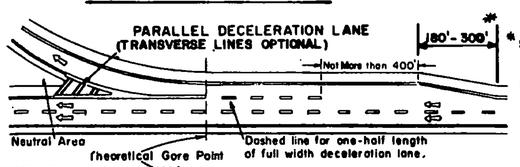
Typical entrance ramp markings



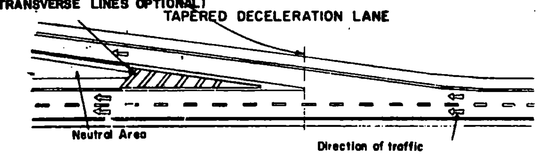
* MAY BE MADE LONGER TO EMPHASIZE SITUATIONS WHERE THE CROSSING REQUIRES UNUSAL CARE SUCH AS HIGH VOLUME MERGE AREAS.



Typical exit ramp markings

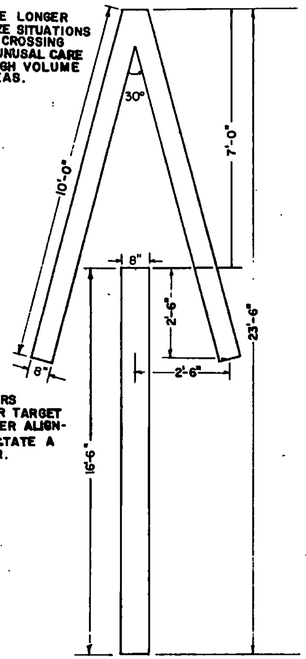


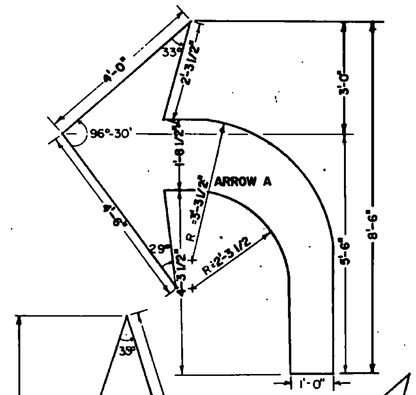
* SHORTER TAPERS GIVE A BETTER TARGET VALUE, HOWEVER ALIGNMENT MAY DICTATE A LONGER TAPER.

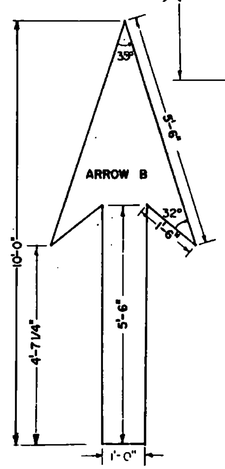


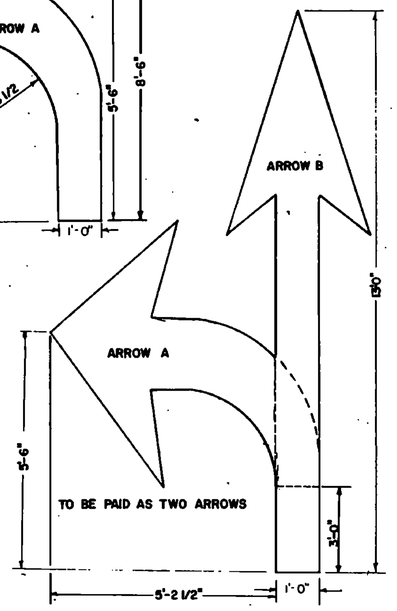
TRANSVERSE LINES SHALL CONSIST OF 8" WHITE LINES SPACED 5'-0" C-C AND SET AT 45° TO MAIN LINE EDGE LINES. THESE MARKINGS SHALL BE USED TO INCREASE VISIBILITY DUE TO DIFFICULT VERTICAL OR HORIZONTAL ALIGNMENT.

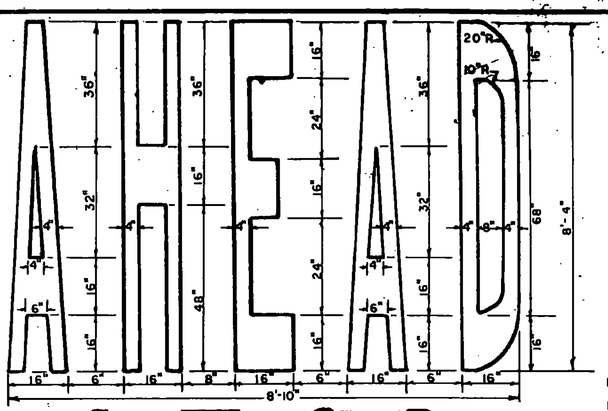
RAMP PAVEMENT ARROW DETAIL

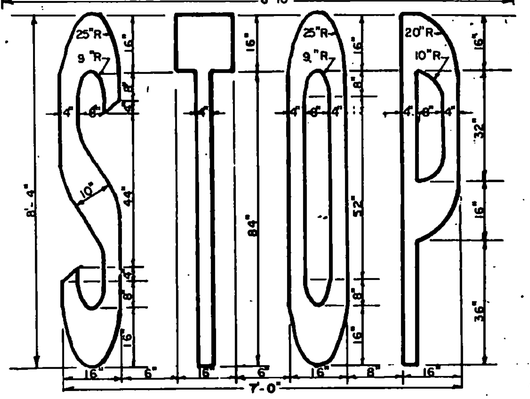






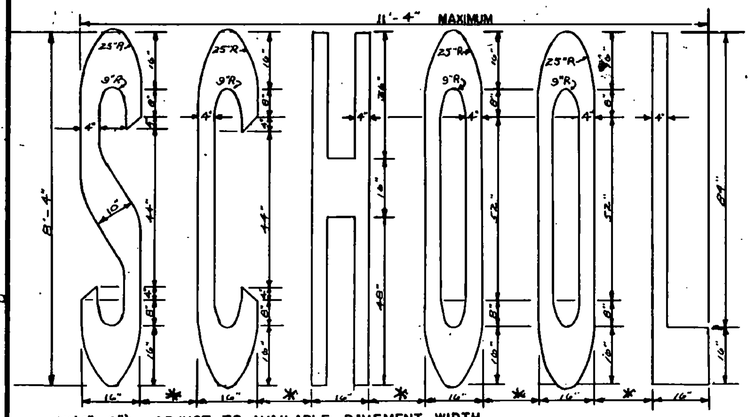


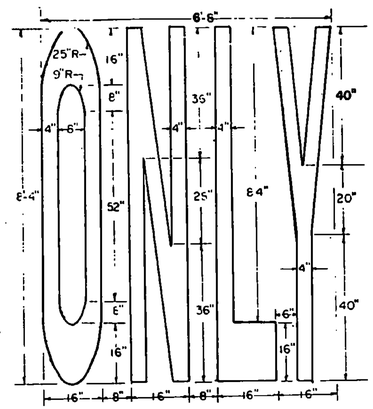




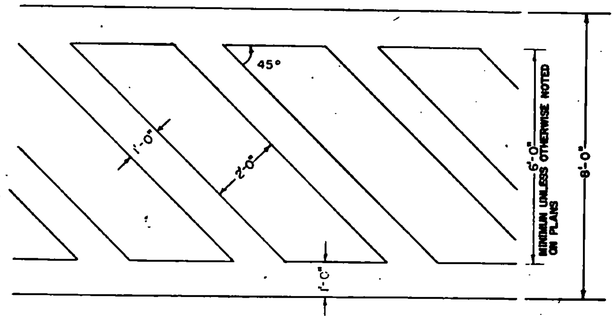
SIGN

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

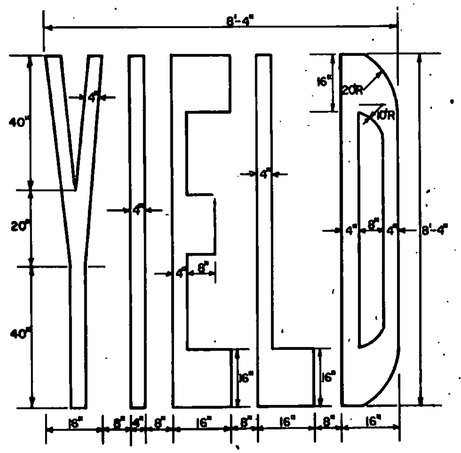




CROSSWALK DETAIL



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, 1985 REVISED GORE MARKINGS & "SCHOOL" SPACING
FEB. 3, 1986 — UPDATED TO 1986 SPECIFICATIONS

APPROVED: AUGUST 4, 1981 DATE

S. L. Page
DIRECTOR OF ENGINEERING AND CONSTRUCTION

CHIEF OF DESIGN

TRANSPORTATION DESIGN ENGINEER

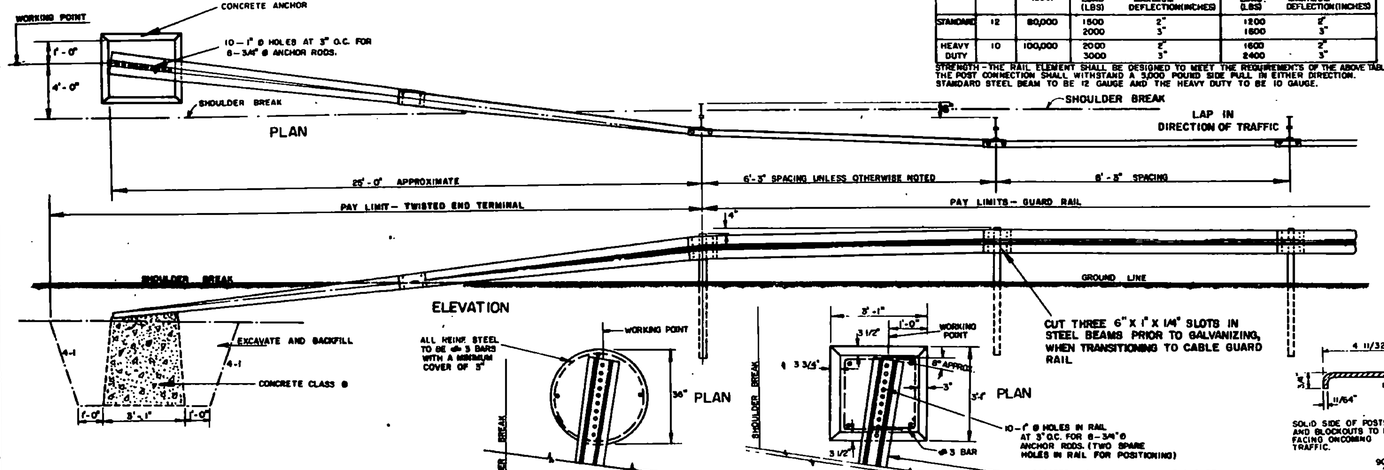
PAVEMENT MARKING DETAILS

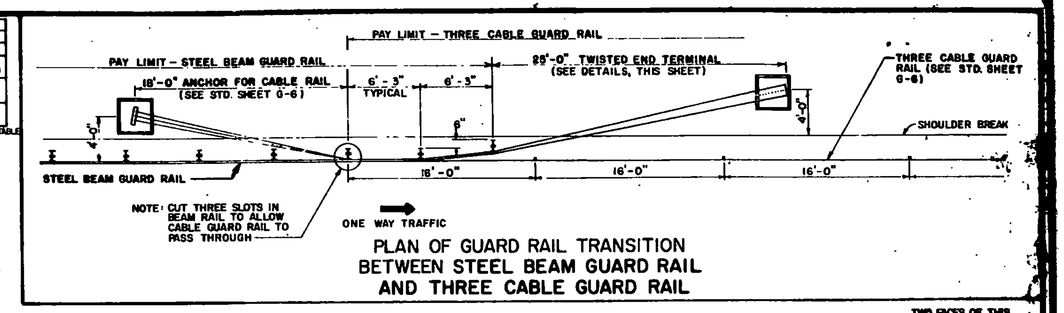
STANDARD

E-50

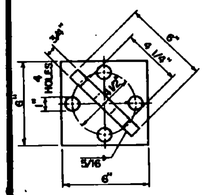
BEAM	MIN. GAGE	TENSILE STRENGTH (LBS)	RAIL OR JOINT STRENGTH			
			TRAFFIC FACE UP		TRAFFIC FACE DOWN	
			LOAD (LBS)	MAXIMUM DEFLECTION (INCHES)	LOAD (LBS)	MAXIMUM DEFLECTION (INCHES)
STANDARD	12	80,000	1800	2"	1200	8"
			2000	3"	1800	3"
HEAVY DUTY	10	100,000	2400	2"	1600	2"
			3000	3"	2400	3"

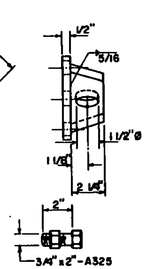
STRENGTH - THE RAIL ELEMENT SHALL BE DESIGNED TO MEET THE REQUIREMENTS OF THE ABOVE TABLE. THE POST CONNECTION SHALL WITHSTAND A 3,000 POUND SIDE PULL IN EITHER DIRECTION. STANDARD STEEL BEAM TO BE 12 GAUGE AND THE HEAVY DUTY TO BE 10 GAUGE.

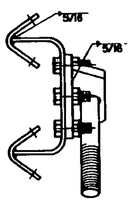




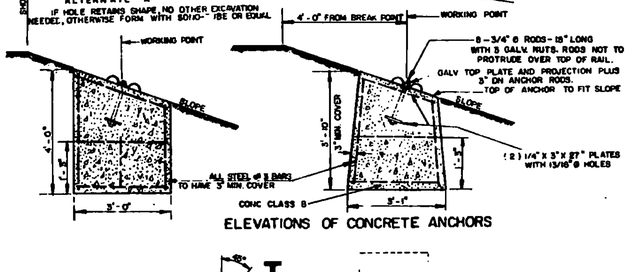
PLAN OF GUARD RAIL TRANSITION BETWEEN STEEL BEAM GUARD RAIL AND THREE CABLE GUARD RAIL



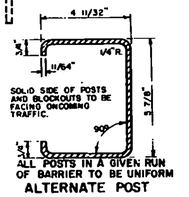




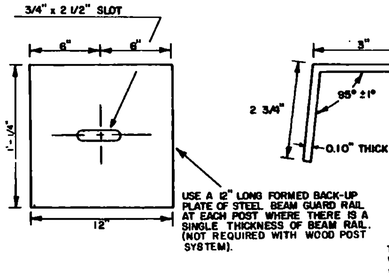
ALTERNATE ANCHOR ROD CONNECTOR

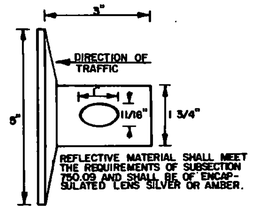


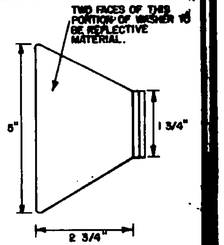
ELEVATIONS OF CONCRETE ANCHORS



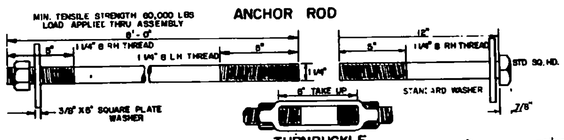
ALTERNATE POST

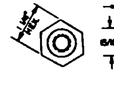


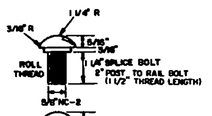


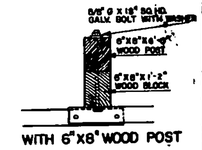


THIS REFLECTORIZED ALUMINUM WASHER IS TO BE PLACED IN VALLEY OF BEAM WHEN MOUNTING BEAM ONTO EACH FIFTH POST. WASHER SHALL MEET SPECIFICATION REQUIREMENTS FOR ASTM B209 ALLOY 6052 - H32.

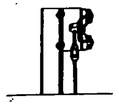




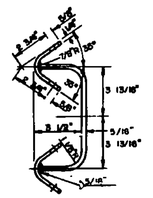




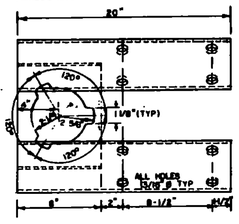
WITH 6"X8" WOOD POST

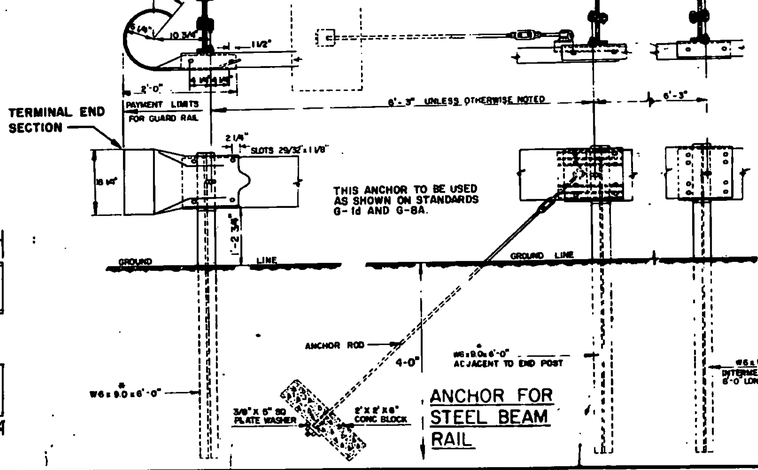


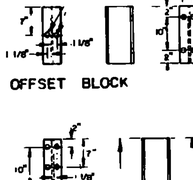
ANCHOR ROD CONNECTOR (MALLEABLE IRON CASTING OR EQUAL)



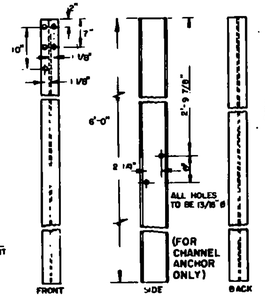
ANCHOR SPIDER (WELDMENT)



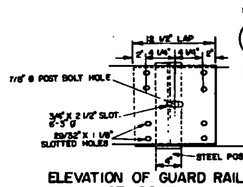




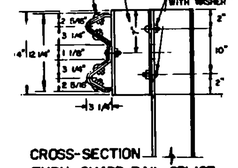
OFFSET BLOCK



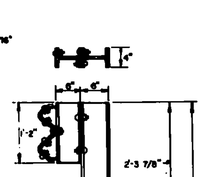
* W6x8.9 IS AN ACCEPTABLE ALTERNATE



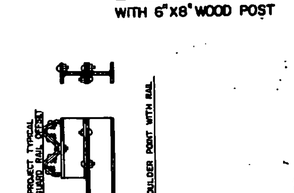
ELEVATION OF GUARD RAIL AT POST



CROSS-SECTION THRU GUARD RAIL SPLICE



CHANNEL ANCHOR (10" C x) - 3 MIN., 15.3 LBS PER FT.) TO BE INSTALLED ON END POST AND ON 3 ADJACENT TO END POSTS WHERE NO OTHER ANCHOR IS USED.



SIDE ELEVATIONS OF POSTS FOR SHOULDER INSTALLATION

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, 1971

R. H. Arnold
CHIEF ENGINEER

E. H. Stickney
ASST. CHIEF ENGINEER

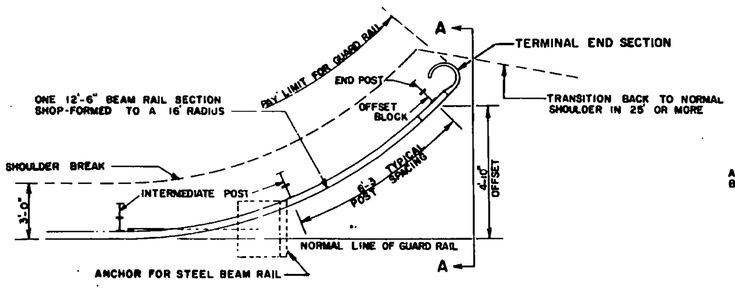
G. M. Lane
HIGHWAY ENGINEER

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

VERMONT AGENCY OF TRANSPORTATION

STANDARD

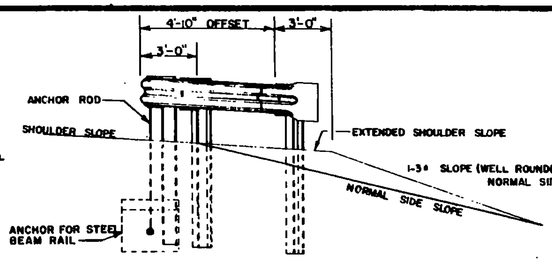
G-1



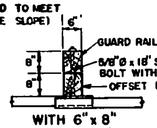
DIRECTION OF TRAFFIC

APPROACH END DETAIL

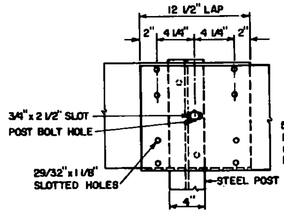
(NOT APPROVED FOR USE WHERE V > 40 MPH)



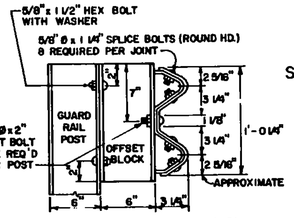
SECTION A-A



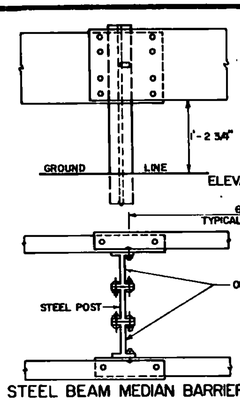
WITH 6" x 8" WOOD POST



ELEVATION OF GUARD RAIL SPLICE AT POST

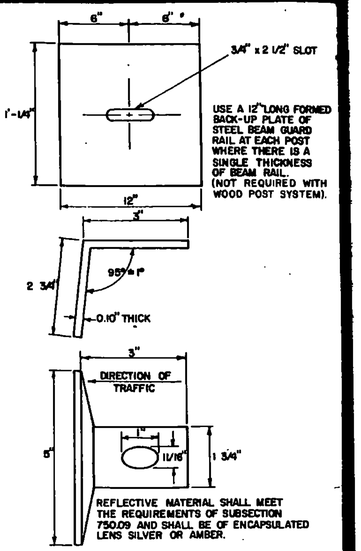


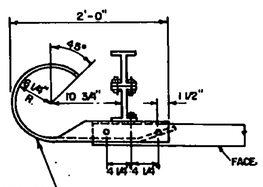
CROSS SECTION THROUGH GUARD RAIL SPLICE



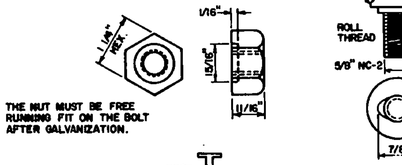
STEEL BEAM MEDIAN BARRIER

BARRIER END

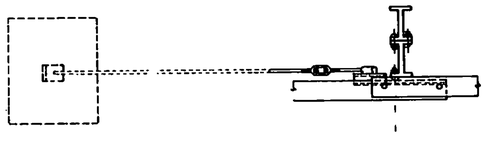


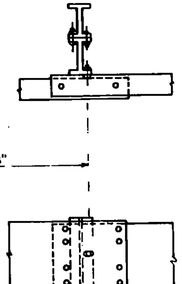


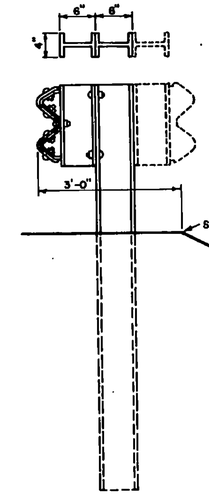
TERMINAL END SECTION



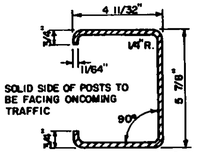
PLAN





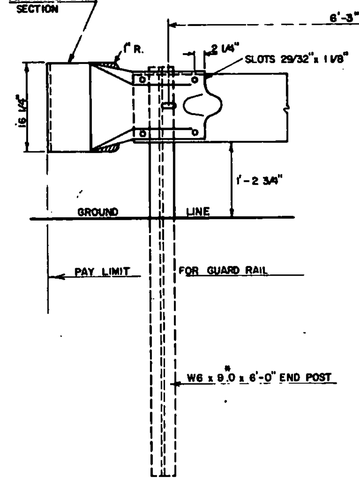


THE NUT MUST BE FREE RUNNING FIT ON THE BOLT AFTER GALVANIZATION.



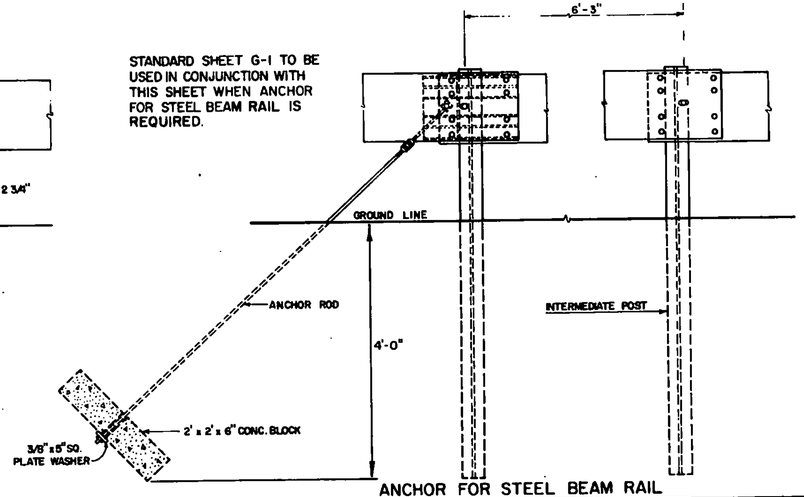
ALL POSTS IN A GIVEN RUN OF BARRIER TO BE UNIFORM

ALTERNATE POST



ASSEMBLY ELEVATION

STANDARD SHEET G-1 TO BE USED IN CONJUNCTION WITH THIS SHEET WHEN ANCHOR FOR STEEL BEAM RAIL IS REQUIRED.



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 UP		TRAFFIC FACE DOWN	
			LOAD (LBS)	MAXIMUM DEFLECTION (INCHES)	LOAD (LBS)	MAXIMUM DEFLECTION (INCHES)
STANDARD	12	60,000	1,600 2,000	2" 3"	1,200 1,600	2" 3"
HEAVY DUTY	10	100,000	2,000 3,000	2" 3"	1,600 2,400	2" 3"

STRENGTH - THE RAIL ELEMENT SHALL BE DESIGNED TO MEET THE REQUIREMENTS OF THE ABOVE TABLE.
THE POST CONNECTION SHALL WITHSTAND A 5,000 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.

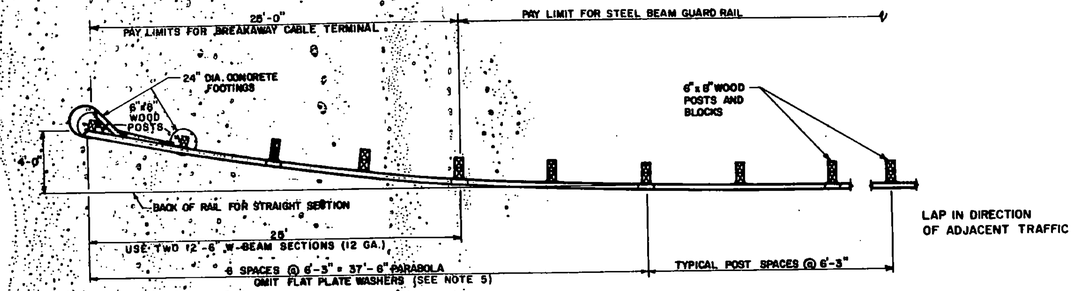
REVISIONS & CORRECTIONS
- SEPT. 10, 1976 - MINIMUM LENGTH & ADVANCE OF NEED NOTES REMOVED.
- MAR. 2, 1977 - ROUND WOOD POSTS REMOVED.
- SEPT. 12, 1977 - REFERENCE TO ROUND WOOD POSTS REMOVED.
- MAY 29, 1979 - NOTE ON REFLECTIVE MATERIAL CHANGED
- APRIL 28, 1980 - APPROACH END DETAILS REDRAWN
- DEC. 16, 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:
May 6, 1976
DATE
E H Stickney for
CHIEF ENGINEER
R O Munn
ASST. CHIEF ENGINEER
Loren C Jones
HIGHWAY ENGINEER

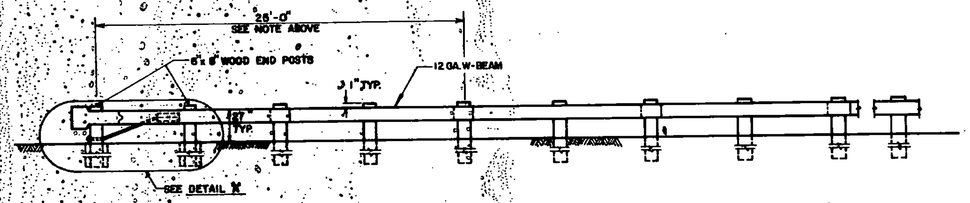
STEEL BEAM GUARD RAIL
HEAVY DUTY STEEL BEAM GUARD RAIL
STEEL BEAM MEDIAN BARRIER
ANCHOR FOR STEEL BEAM RAIL

VERMONT AGENCY OF TRANSPORTATION

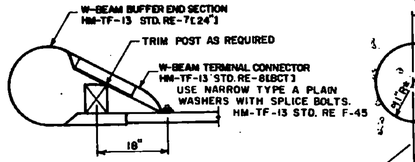
STANDARD
G-1d



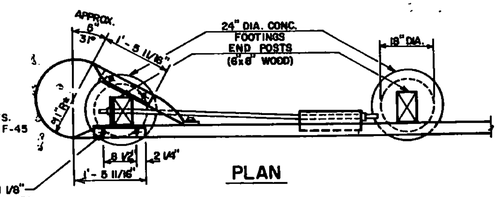
PLAN



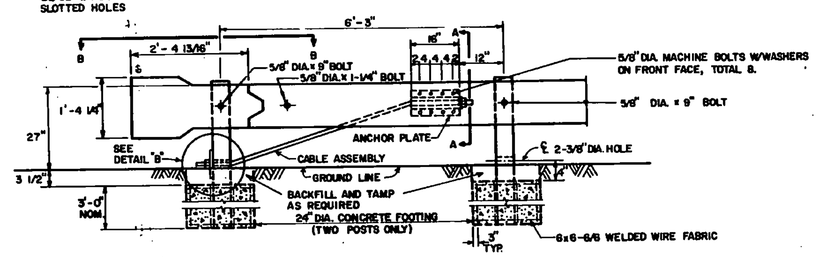
ELEVATION



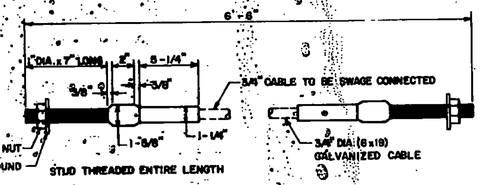
VIEW B-B



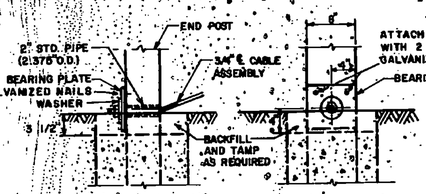
PLAN



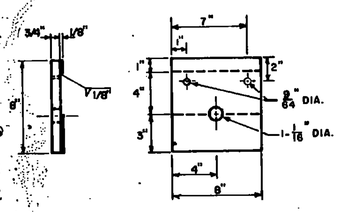
ELEVATION
DETAIL "A"



CABLE ASSEMBLY



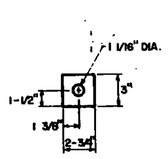
DETAIL "B"



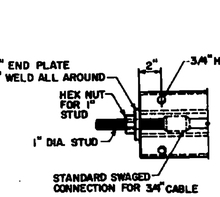
BEARING PLATE DETAILS

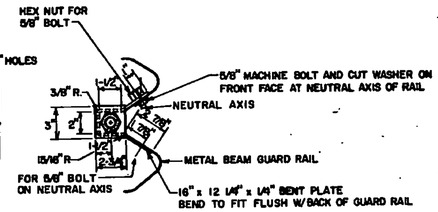
NOTES:

1. OTHER ANCHOR CABLE ASSEMBLIES MAY BE USED. MINIMUM BREAKING STRENGTH OF ASSEMBLY SHOULD BE 40,000 LBS.
2. CONCRETE FOOTINGS ARE CLASS B. IN SANDY FILL AREAS, CONSIDERATION TO INCREASING SIZE OF END FOOTING IS SUGGESTED.
3. A DOUBLE WRAP OF ASPHALT TREATED FELT AROUND END POSTS BEFORE CONCRETE PLACEMENT WILL FACILITATE REPLACEMENT OF DAMAGED POSTS.
4. STANDARD SHEET G-1 WILL BE USED IN CONJUNCTION WITH THIS STANDARD.
5. 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.
6. FOR ADDITIONAL DETAILS ON HARDWARE SEE THE LATEST EDITION OF AASHTO-AGC-ARTBA PUBLICATION "A GUIDE TO STANDARDIZED HIGHWAY BARRIER RAIL HARDWARE."

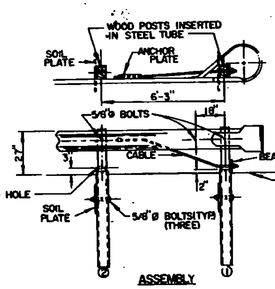


END PLATE



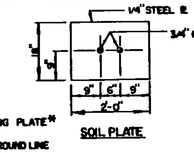


SECTION A-A



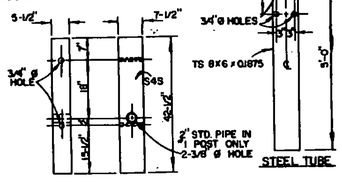
ASSEMBLY

ANCHOR PLATE DETAILS



SOIL PLATE

*REFER TO BEARING PLATE DETAILS AT LEFT.



WOOD BREAKAWAY POST

ALTERNATE FOUNDATION DETAILS

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 Stickney
CHIEF ENGINEER

R O Munns
ASST. CHIEF ENGINEER

Leon C Jones
HIGHWAY ENGINEER

BREAKAWAY CABLE TERMINAL WITH WOOD POSTS

STANDARD

G-14