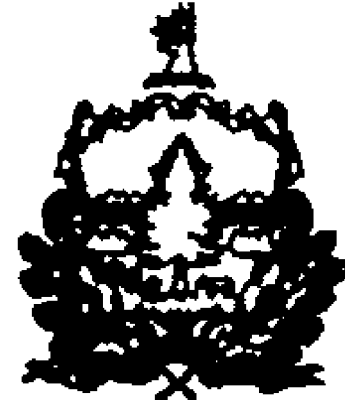


STATE OF VERMONT
AGENCY OF TRANSPORTATION

Date DEC 15 1987

PIKE INDUSTRIES, INC.
 Contractor



CONTRACT PLANS

THESE PLANS DO NOT REFLECT
 CHANGES MADE ON THE PROJECT.

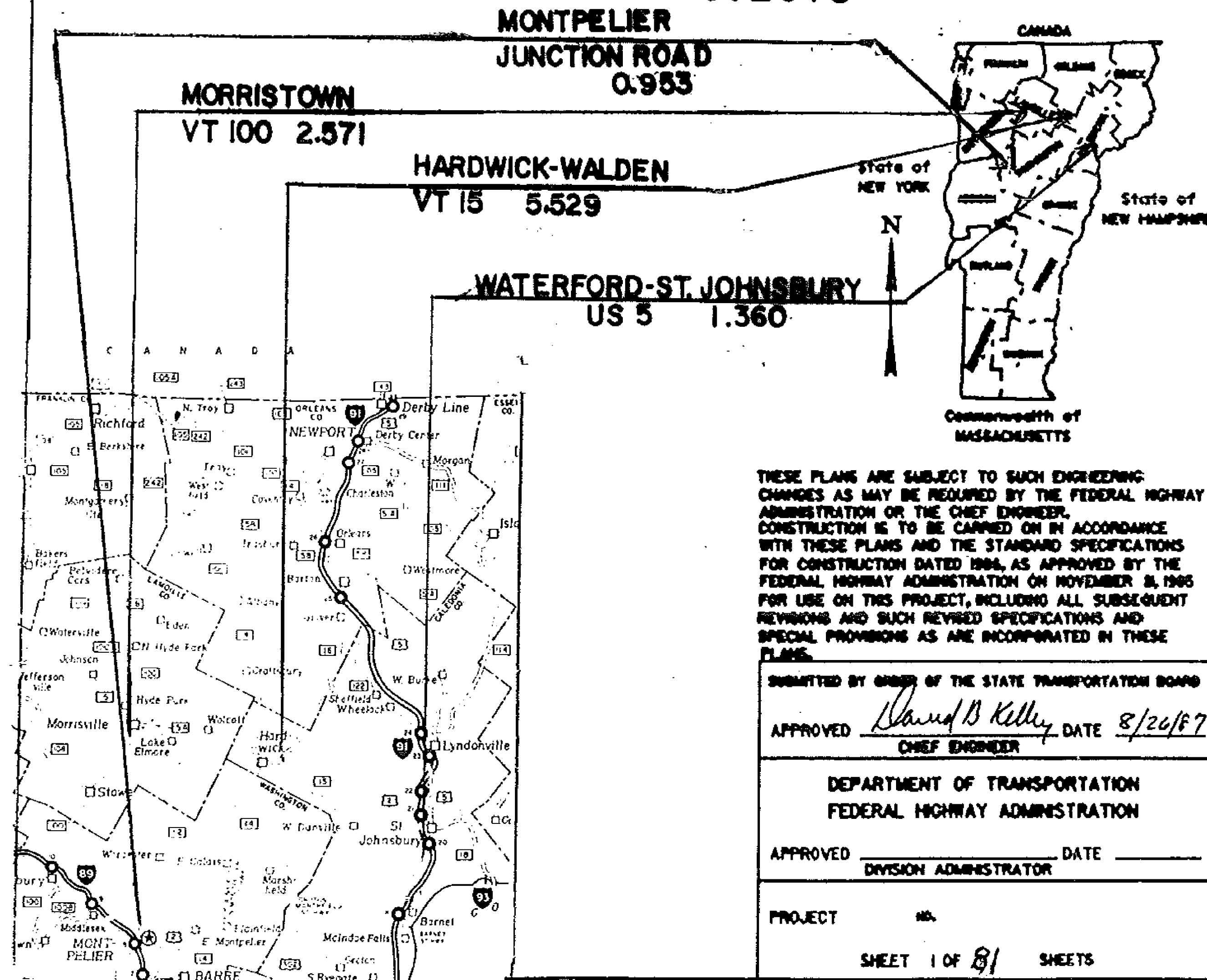
Roger D. Martin
 Signature
 Roger D. Martin
 Vice President
 Title

PROPOSED IMPROVEMENT

TOWN of WATERFORD, COUNTY of CALEDONIA, ROUTE U.S. 5, ROUTE CLASS FAS
 TOWN of HARDWICK-WALDEN, COUNTY of CALEDONIA, ROUTE V.T. 15, ROUTE CLASS FAP
 TOWN of MORRISTOWN, COUNTY of LAMOILLE, ROUTE VT 100, ROUTE CLASS FAP
 TOWN of MONTPELIER, COUNTY of WASHINGTON, JUNCTION ROAD, ROUTE CLASS NFA

Joe Clement
 Transportation Secretary's Signature

LOCATIONS OF PROJECTS



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 1984, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON NOVEMBER 8, 1985 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

SUBMITTED BY ORDER OF THE STATE TRANSPORTATION BOARD
 APPROVED David B. Kelly DATE 8/26/87
 CHIEF ENGINEER

DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
 APPROVED _____ DATE _____
 DIVISION ADMINISTRATOR

PROJECT NO. _____
 SHEET 1 OF 81 SHEETS

INDEX OF SHEETS

- 1 TITLE
- 2 TYPICALS - WATERFORD - ST. JOHNSBURY HMA 2842
HARDWICK - WALDEN HMA 2820
MORRISTOWN HMA 2817
MONTPELIER HMA 2821
- 3 BLANK
- 4-5 PROJECT LENGTHS AND ITEM QUANTITIES
- 6 BLANK
- 7-15 DETAILS FOR WATERFORD - ST. JOHNSBURY
- 16 BLANK
- 17-25 DETAILS FOR HARDWICK - WALDEN
- 26 BLANK
- 27-35 DETAILS FOR MORRISTOWN
- 36 BLANK
- 37-48 DETAILS FOR MONTPELIER
- 49-50 BLANK
- 51 STANDARD SHEET E-2 (2-3-86R)
- 52 STANDARD SHEET E-6 (2-3-86R)
- 53 STANDARD SHEET E-7 (2-3-86R)
- 54 STANDARD SHEET E-7A (2-3-86R)
- 55 STANDARD SHEET E-8 (2-3-86R)
- 56 STANDARD SHEET E-50 (2-3-86R)
- 57-58 BLANK
- 59-81 RIGHT-OF-WAY PLANS

WATERFORD - ST. JOHNSBURY HMA 2842
HARDWICK - WALDEN HMA 2820

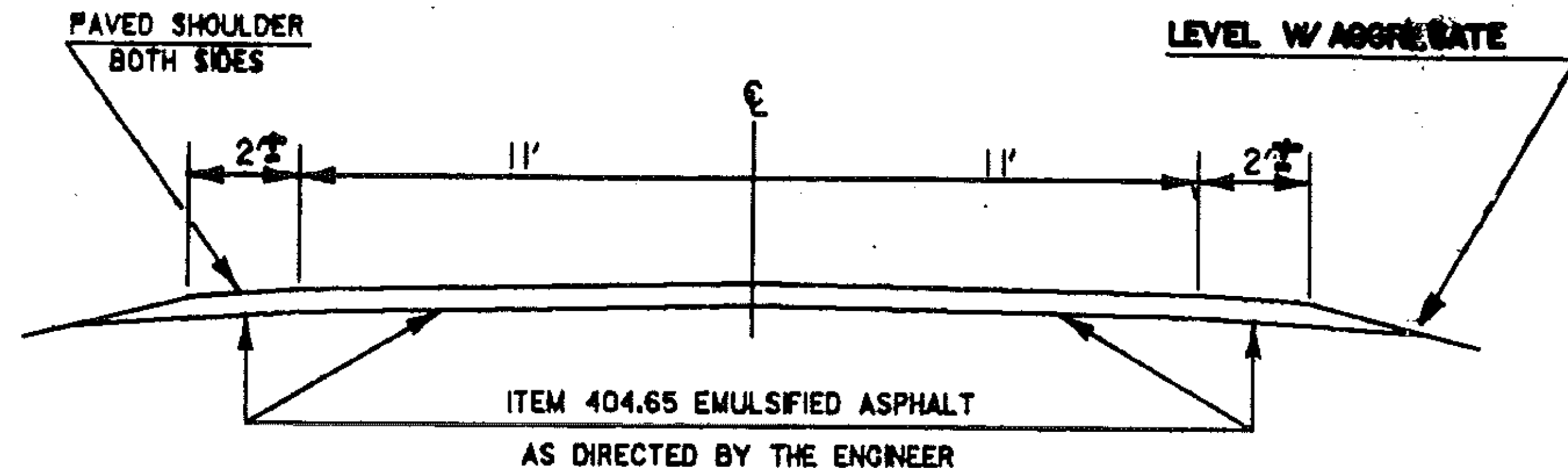
PROJECTS MORRISTOWN HMA 2817
MONTPELIER HMA 2821

NO. _____
SHEET 2 OF 81 SHEETS

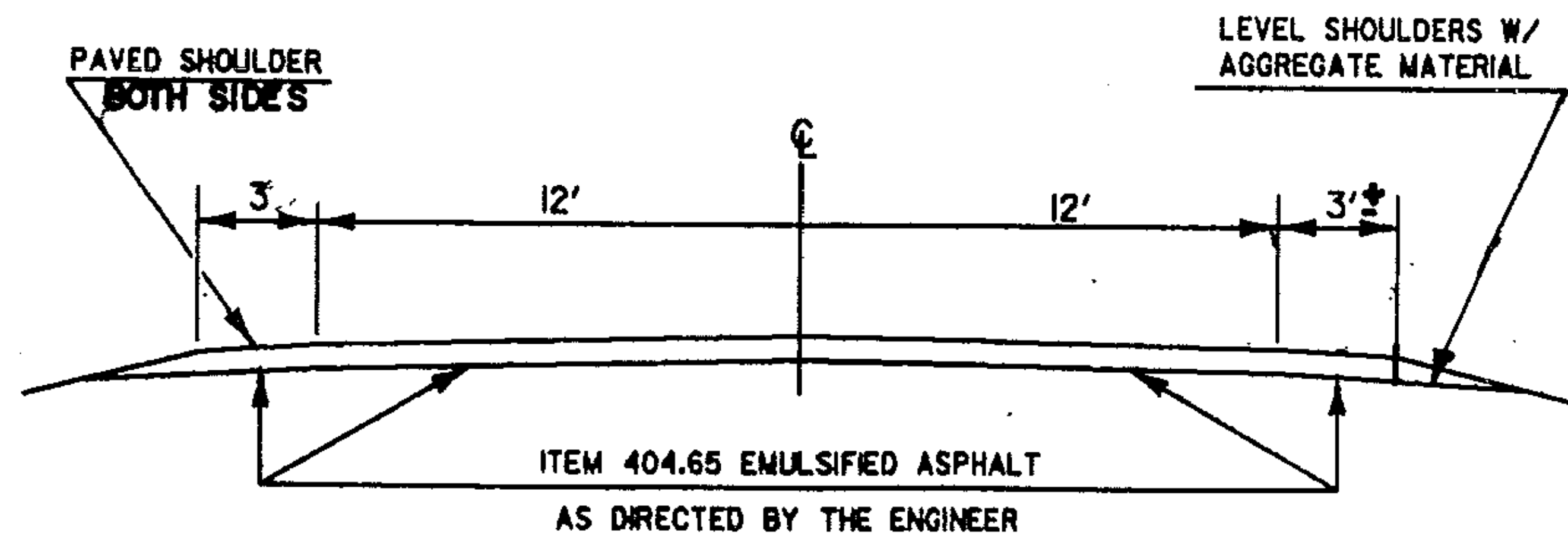
TYPICAL SECTIONS & DESIGN DATA

WATERFORD-ST. JOHNSBURY
 HARDWICK-WALDEN
 MORRISTOWN

HMA 2842
 HMA 2820
 HMA 2817



MONTPELIER HMA 2821



WATERFORD-STJOHNSBURY HMA 2842
 HARDWICK-WALDEN HMA 2820
 MORRISTOWN HMA 2817
 MONTPELIER HMA 2821

PROJECT

SHEET 2A OF 81 SHEETS

PROJECT LENGTHS AND ITEM QUANTITIES

ITEM DESCRIPTION	OPTION														
	LENGTH	WIDTH	OVERLAY DEPTH	GRAVEL SHOULDERS	GRAVEL SHOULDERS	EMULSIFIED ASPHALT	BITUMINOUS ASPHALT	POWER CONCRETE PAVEMENT	UNIFORMED BROOM RENTAL	FLAGGERS	MOBILIZATION	TEMP 4" WHITE LINE	TEMP 4" YELLOW LINE	TOPSOIL	
ITEM NO.	FT.	FT.	IN.	402.10	402.12	404.65	406.25	608.30	630.10	630.15	635.10	646.50	646.51	651.35	
UNIT	FT.	FT.	IN.	CY	TON	CWT	TON	HR	HR	HR	LS	LF	LF	CY	
Waterford - St. Johnsbury	7180	26	1 1/4	10	20	30	2000	12	90	90	0.136	14,350	27,400	30	
Hardwick - Walden	29193	26	1 1/4	120	210	105	8500	45	340	340	0.459	58,386	101,000	110	
Morrisstown	13078	26	1 1/2	170	300	50	3800	20	200	200	0.352	26,156	47,000	50	
Montpelier	5032	30	1 1/4	44	77	7	1265	8	60	60	0.053	8,300	15,900	20	
				344	607	192	15,565	85	690	690	1.000	107,192	191,300	210	

PROJECT LENGTHS AND ITEM QUANTITIES

ITEM DESCRIPTION	<div style="display: flex; justify-content: space-between; font-size: small;"> Power Grader Rental All Purpose Excavator Rental Truck Rental Bit. Conc. Gutters Traffic Isl. Cold Planing Bit. Pavement Painted Curb DRBL 4" Yellow Line DRBL 8" White Line DRBL 8" Yellow Line DRBL 24" Stop Bar Temp. 8" Word Marking Temp. 8" White Line RELAYING PIPE CULVERTS </div>														
ITEM NO.	608.15	608.25	608.37	616.47	210.10	646.21	646.31	646.34	646.35	646.40	646.44	646.54	646.60	601.99	
UNIT	Hr	Hr	Hr	Ton	SqYd	LF	LF	LF	LF	LF	EA	LF	LF	LF	
Waterford-St. J.	16	16	32	20						24					
Hardwick-Walden	83	83	83	20	780					132	12			50	
Morristown		38	38	8						36					
Montpelier						1160	560	55	25	48	30	55	24		
	99	137	153	48	780	1160	560	55	25	240	42	55	24	50	

Note: Item 646.40 DRBL Stop Bar is included in order to put Stop Bar at intersecting Town Highways. This item is included in this Grand Composite only. Stop Bars are to be painted as directed by the engineer.

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**



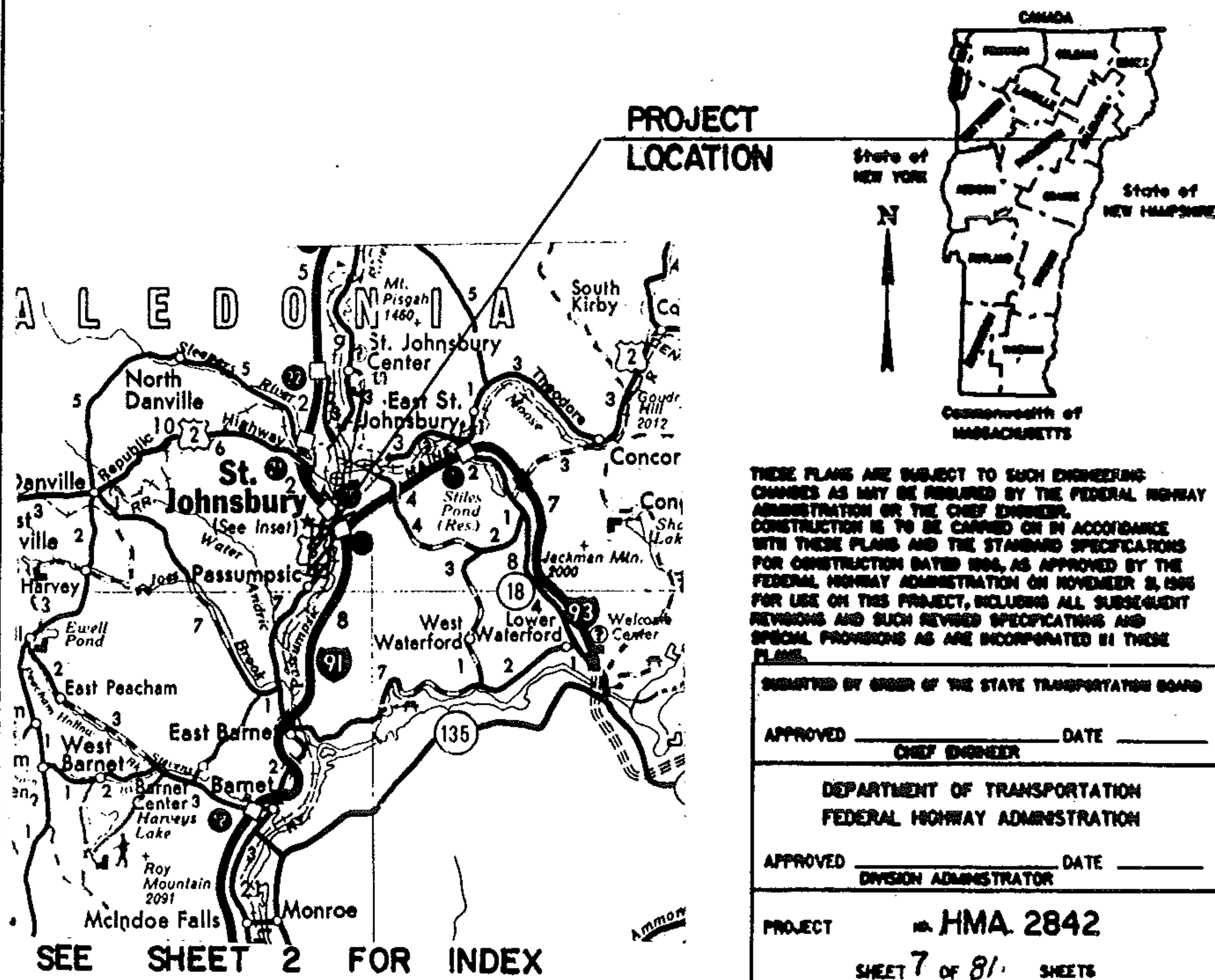
PROPOSED IMPROVEMENT

TOWN OF WATERFORD-ST. JOHNSBURY

COUNTY OF CALEDONIA

ROUTE NO. U.S. 5

ROUTE CLASS F.A.S.



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 1966, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON NOVEMBER 21, 1966 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

SUBMITTED BY ORDER OF THE STATE TRANSPORTATION BOARD

APPROVED _____ DATE _____
CHIEF ENGINEER

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED _____ DATE _____
DIVISION ADMINISTRATOR

PROJECT **HMA 2842**

SHEET **7** OF **81** SHEETS

SEE SHEET 2 FOR INDEX

INDEX OF SHEETS

FOR HMA 2842 ONLY

- 1 TITLE PAGE
- 2 INDEX OF SHEETS
- 3 DESCRIPTION AND LOCATION
- 4 TYPICAL SECTION & DESIGN DATA
- 5 PAVING LIMITS FOR DRIVES AND
TOWN ROADS
- 6 PAVEMENT MARKING QUANTITIES
- 7 PROJECT LENGTHS AND ITEM
QUANTITIES
- 8 GUIDELINES FOR MINIMUM INTERIM PAVEMENT
MARKINGS IN CONSTRUCTION ZONES
- 9 MAINLINE PAVEMENT MARKING AT
INTERSECTING SIDE ROAD

PROJECT WATERFORD-ST. JOHNS BURY

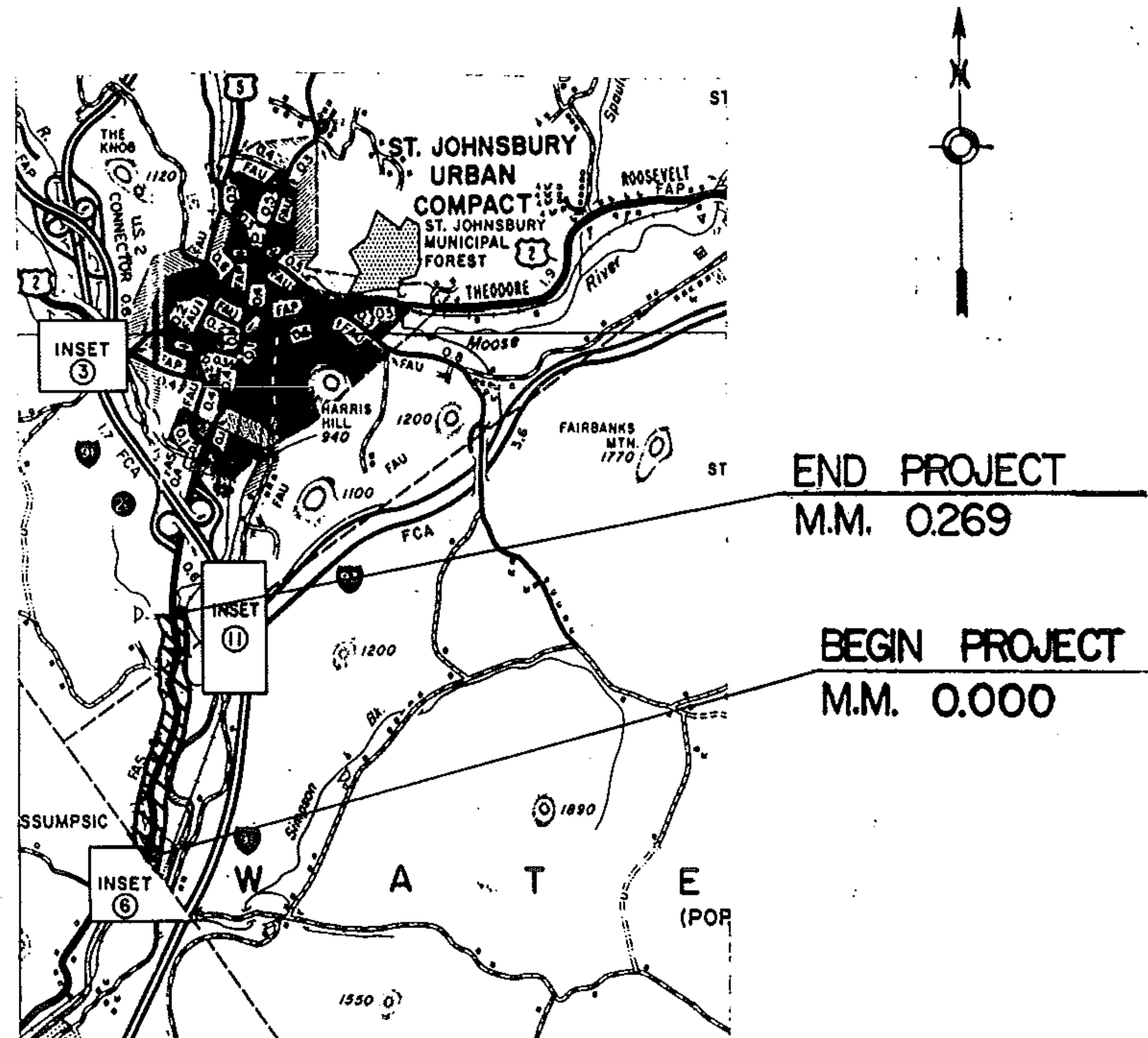
NO. HMA 2842
SHEET 8 OF 8 SHEETS

DESCRIPTION AND LOCATION

PROJECT LENGTH: 1.36 MILES; 7180 FEET

1986 ADT 2480

BEGINNING IN THE TOWN OF WATERFORD ON U.S. 5 AT M.M. 0.00 AND EXTENDING NORTHERLY THROUGH THE TOWN TO M.M. 0.269 IN THE TOWN OF ST. JOHNSBURY. RESURFACING THE EXISTING HIGHWAY AND SHOULDERS, NEW PAVEMENT MARKINGS, RESURFACE EXISTING GUTTERS, AND RESHAPE AND RESURFACE EXISTING TIMBER CURB.



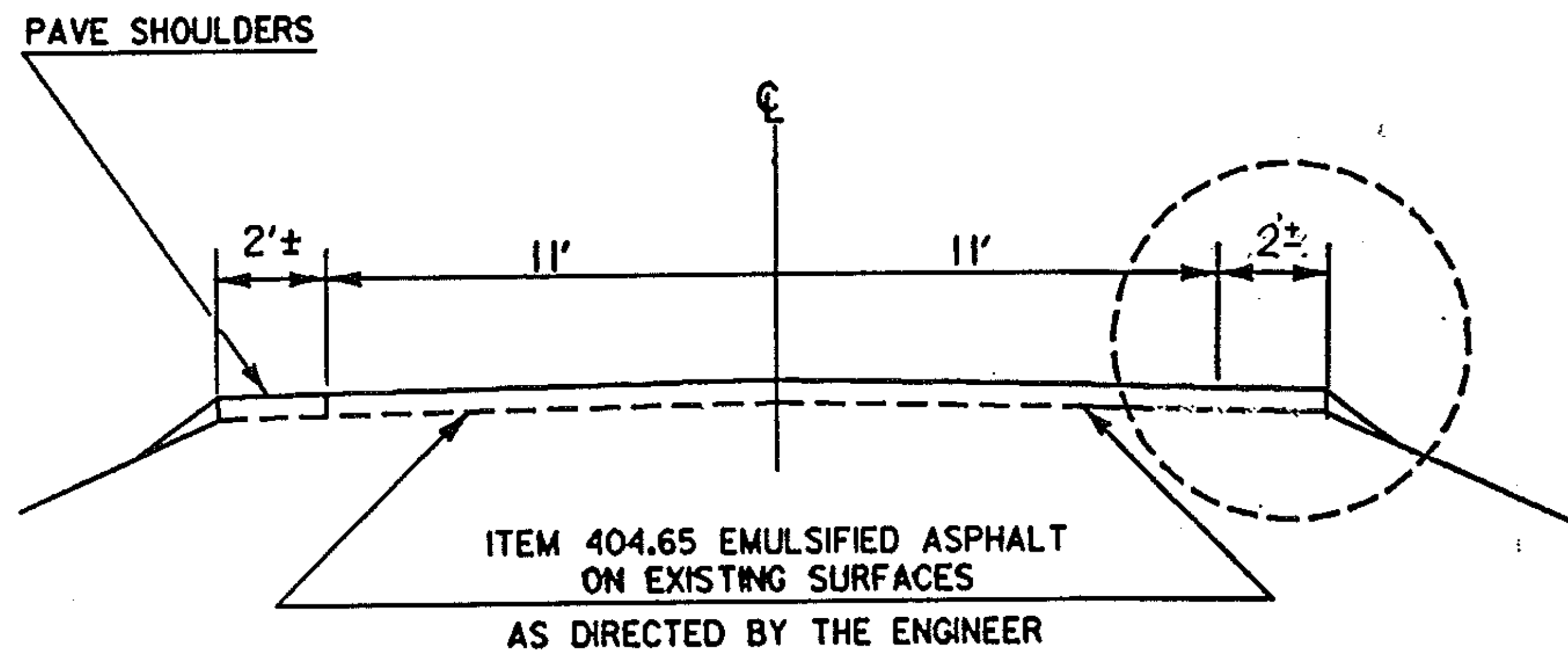
PROJECT WATERFORD-ST. JOHNSBURY

NO. HMA 2842

SHEET 9 OF 8 / SHEETS

TYPICAL SECTIONS & DESIGN DATA

ITEM 406.25 BITUMINOUS CONCRETE PAVEMENT
 LEVELING COURSE TYPE IV (300 TONS/MILE)
 1/4" WEARING COURSE TYPE III (± 1/4")
 AS DIRECTED BY THE ENGINEER



WATERFORD - ST JOHNSBURY
 US 5
 MM 0.000 ~ MM 0.269

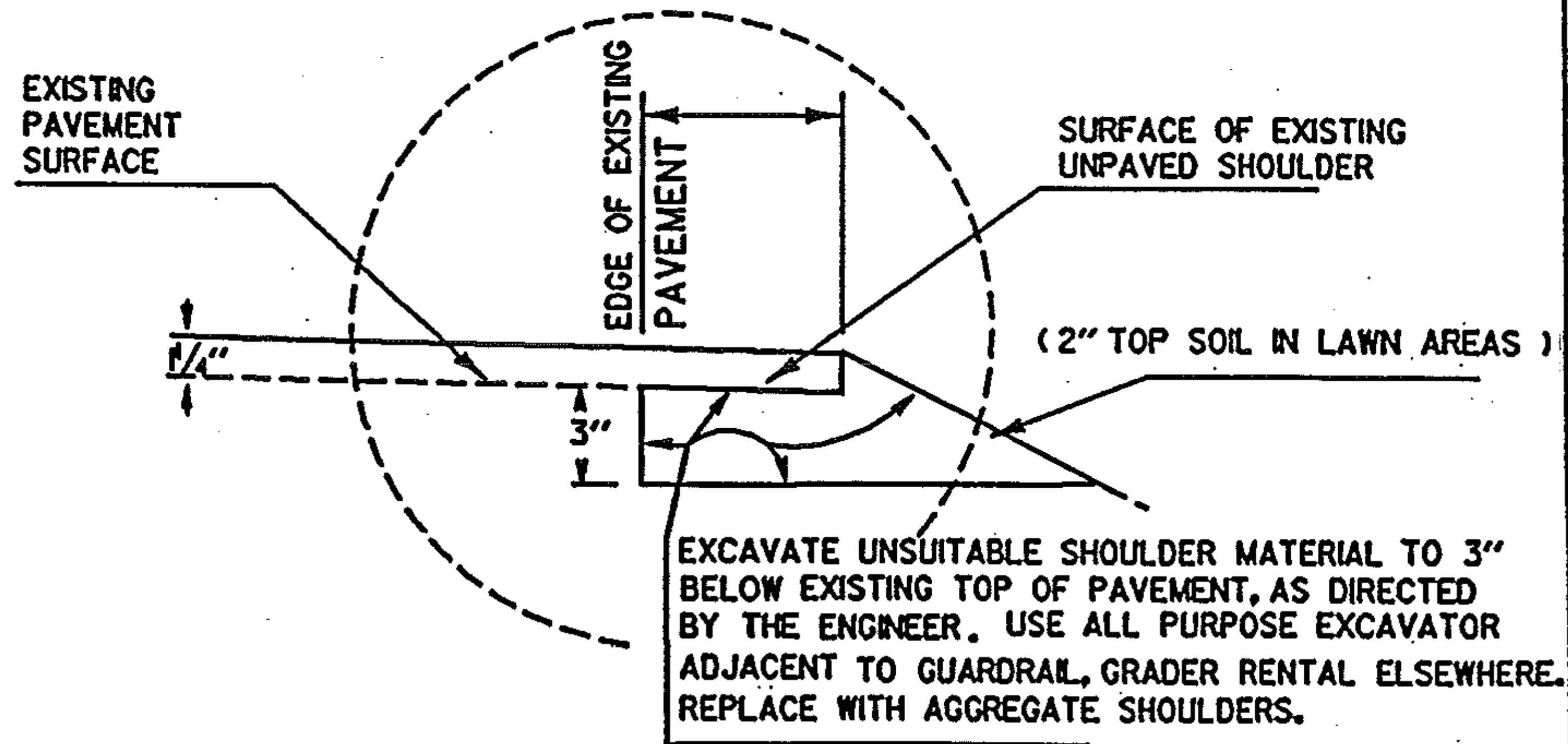
GENERAL NOTES:

MM 0.11± LT. ERODED SHOULDER LEFT SIDE TO BE REPAIRED
 AND PAID FOR BY ITEM 402.10 , OR 402.12 GRAVEL SHOULDERS
 WATERFORD MM 0.25~0.30± RT. CLEAN, RESHAPE, AND RESURFACE TREATED
 TIMBER CURB AS DIRECTED BY THE ENGINEER.
 ST. JOHNSBURY MM 0.00~0.269± LT. RESURFACE EXISTING GUTTER WITH 1"
 OF ITEM 616.47 BITUMINOUS CONCRETE GUTTERS & TRAFFIC ISLANDS

PROJECT WATERFORD - ST JOHNSBURY

NO. HMA 2842
 SHEET 10 OF 81 SHEETS

TYPICAL SECTIONS & DESIGN DATA



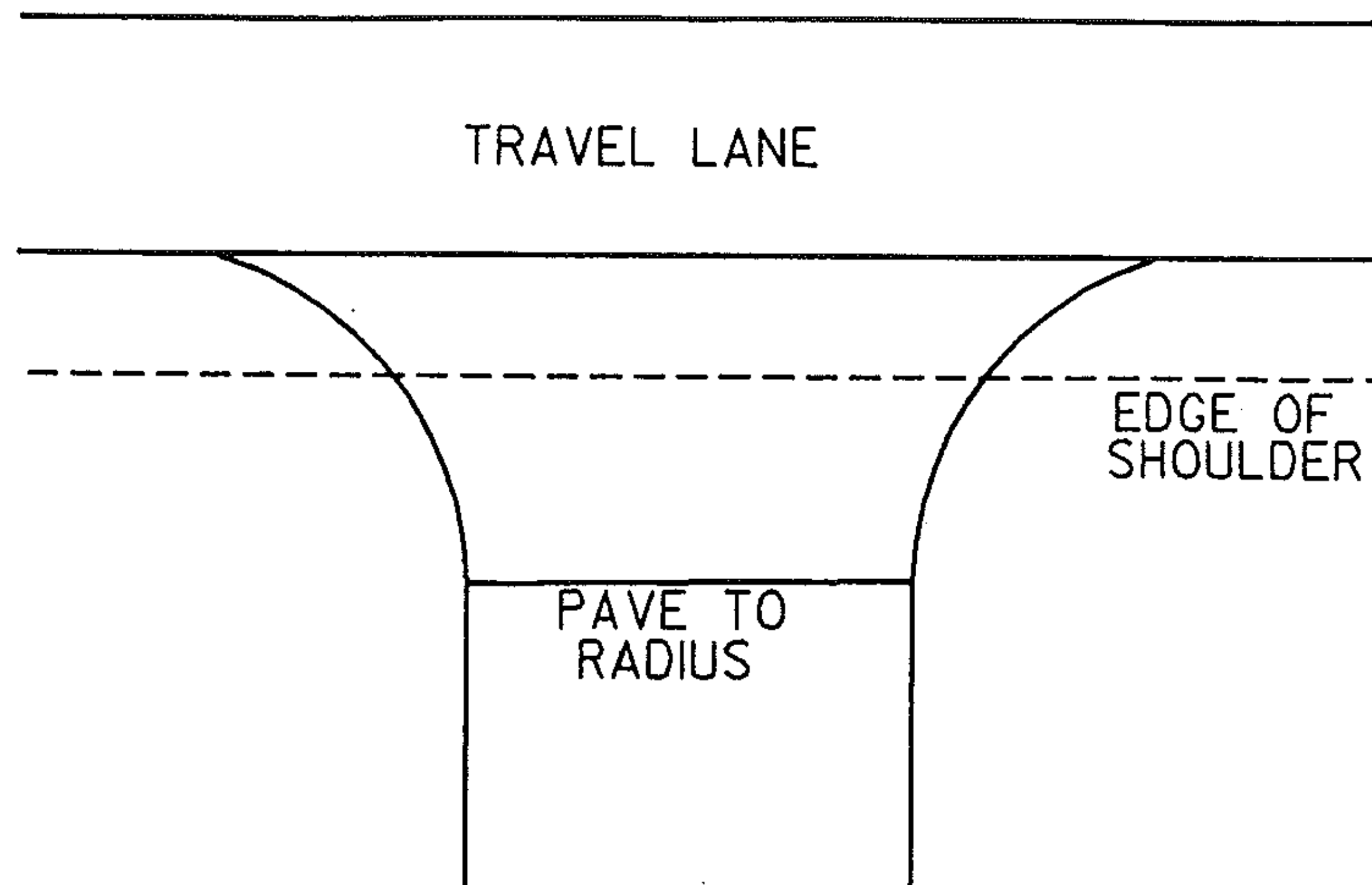
PROJECT Waterford - St. Johnsbury

NO. HMA 2842

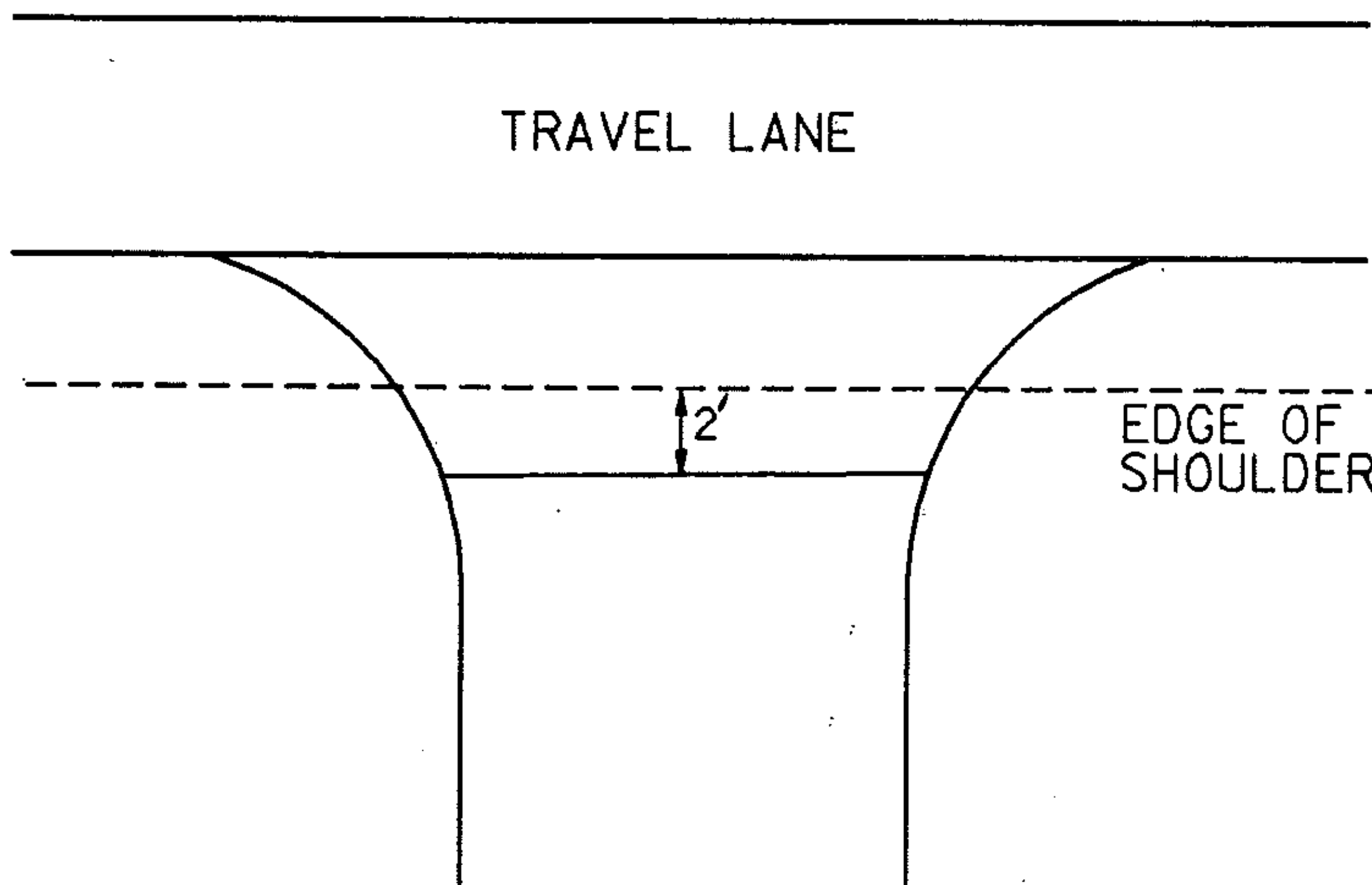
SHEET 10A OF 81 SHEETS

PAVING LIMITS FOR DRIVES & TOWN ROADS

PAVING LIMITS FOR TOWN ROADS



PAVING LIMITS FOR DRIVES



PROJECT Waterford - St. Johnsbury

NO. HMA 2842

SHEET 110F81 SHEETS

TEMPORARY 4" YELLOW LINE

	MILE	MILE	LT	RT	QUANTITY LT	QUANTITY C	QUANTITY RT	TOTALS
	0.00	0.45	S	S	2376		2376	4752
	0.45	0.58	S	D	686		172	858
	0.58	1.09	S	S	2693		2693	5386
T/L	0.00	0.269	S	S	1420		1420	2840
							Sub-Total	13836
							TH2 - 2x80 =	-160
							Sub-Total	13676
							Assume 100% Loss Due To Leveling Course	13676 x 2
								27352
							Rounding	48
							Grand Total	<u>27400</u>

TEMPORARY 4" WHITE LINE

	0.00	1.09			5755		5755	11510
T/L	0.00	0.269			1420		1420	2840
							Total	14350

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

WATERFORD-ST JOHNSBURY
HMA 2842

SHEET 14 OF 81

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**



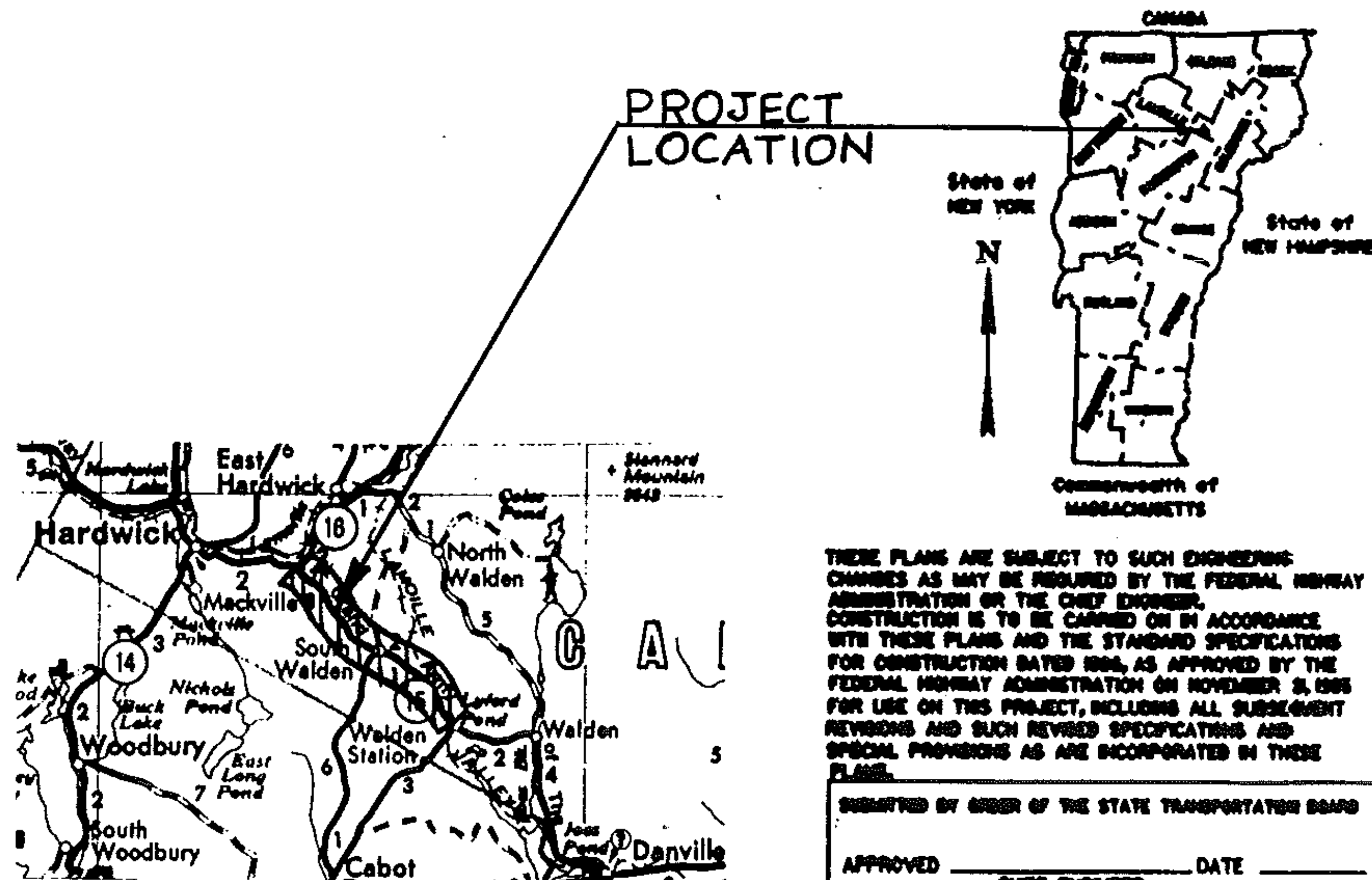
PROPOSED IMPROVEMENT

TOWN OF HARDWICK-WALDEN

COUNTY OF CALEDONIA

ROUTE NO. VT. 15

ROUTE CLASS F.A.P.



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 1966, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON NOVEMBER 2, 1966 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

SUBMITTED BY ORDER OF THE STATE TRANSPORTATION BOARD

APPROVED _____ DATE _____
CHIEF ENGINEER

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED _____ DATE _____
DIVISION ADMINISTRATOR

SEE SHEET 2 FOR INDEX

PROJECT HMA no. 2820
SHEET 7 OF 81 SHEETS

INDEX OF SHEETS
FOR HMA 2820 ONLY

- 1 TITLE PAGE
- 2 INDEX OF SHEETS
- 3 DESCRIPTION AND LOCATION
- 4 TYPICAL SECTION & DESIGN DATA
- 5 PAVING LIMITS FOR DRIVES AND
TOWN ROADS
- 6 PAVEMENT MARKING QUANTITIES
- 7 PROJECT LENGTHS AND ITEM
QUANTITIES
- 8 GUIDELINES FOR MINIMUM INTERIM PAVEMENT
MARKINGS IN CONSTRUCTION ZONES
- 9 MAINLINE PAVEMENT MARKING AT
INTERSECTING SIDE ROAD

PROJECT HARDWICK-WALDEN

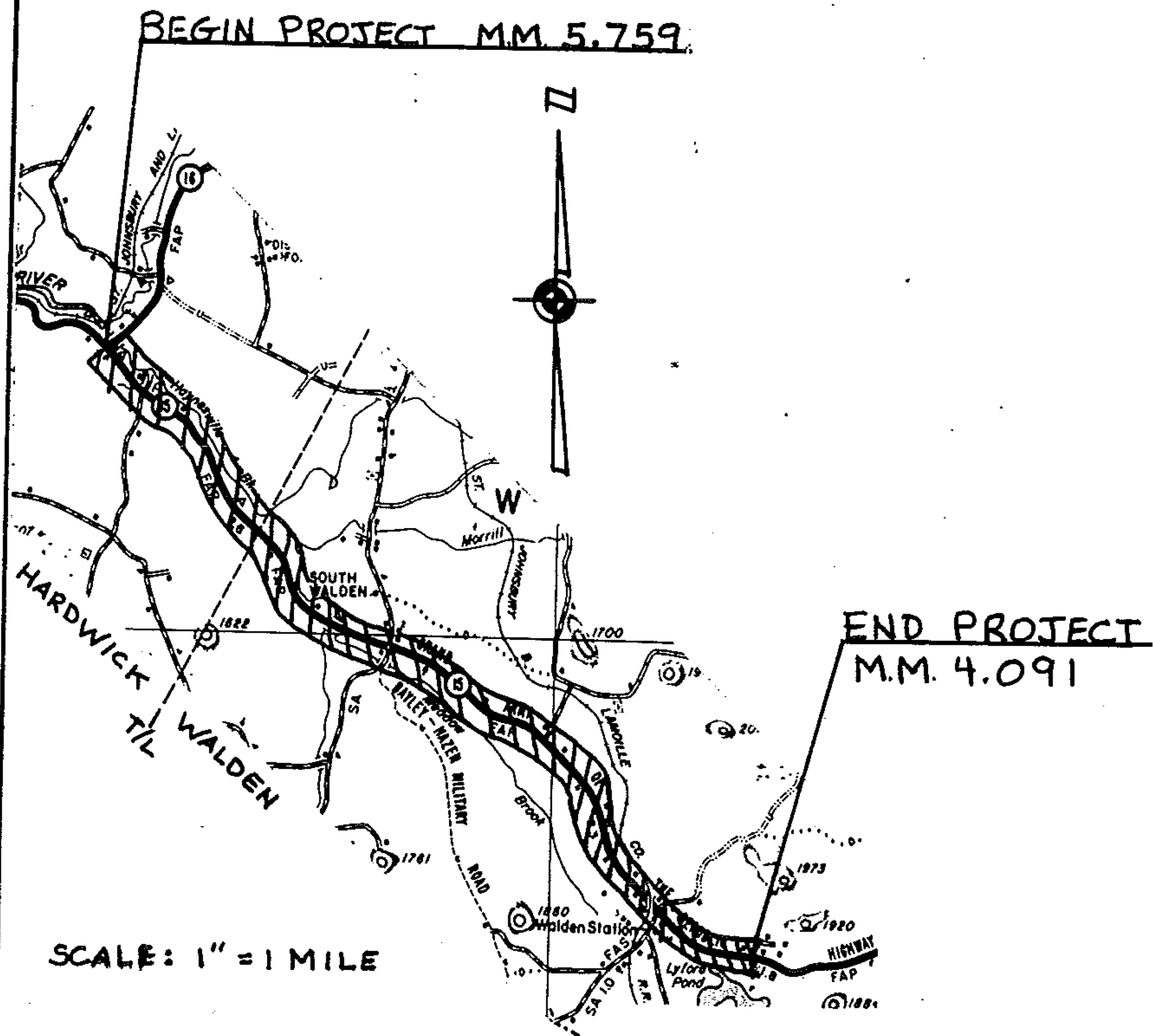
NO. HMA 2820
SHEET 18 OF 24 SHEETS

DESCRIPTION AND LOCATION

PROJECT LENGTH: 5.529 MILES; 29,193 FEET

1986 ADT: 1720

BEGINNING IN THE TOWN OF HARDWICK ON VT. ROUTE 15
M.M. 5.759 AND EXTENDING EASTERLY 5.529 MILES TO
M.M. 4.091 IN THE TOWN OF WALDEN. RESURFACING THE
EXISTING HIGHWAY AND SHOULDERS, NEW PAVEMENT MARKINGS,
AND RESURFACE EXISTING GUTTERS.



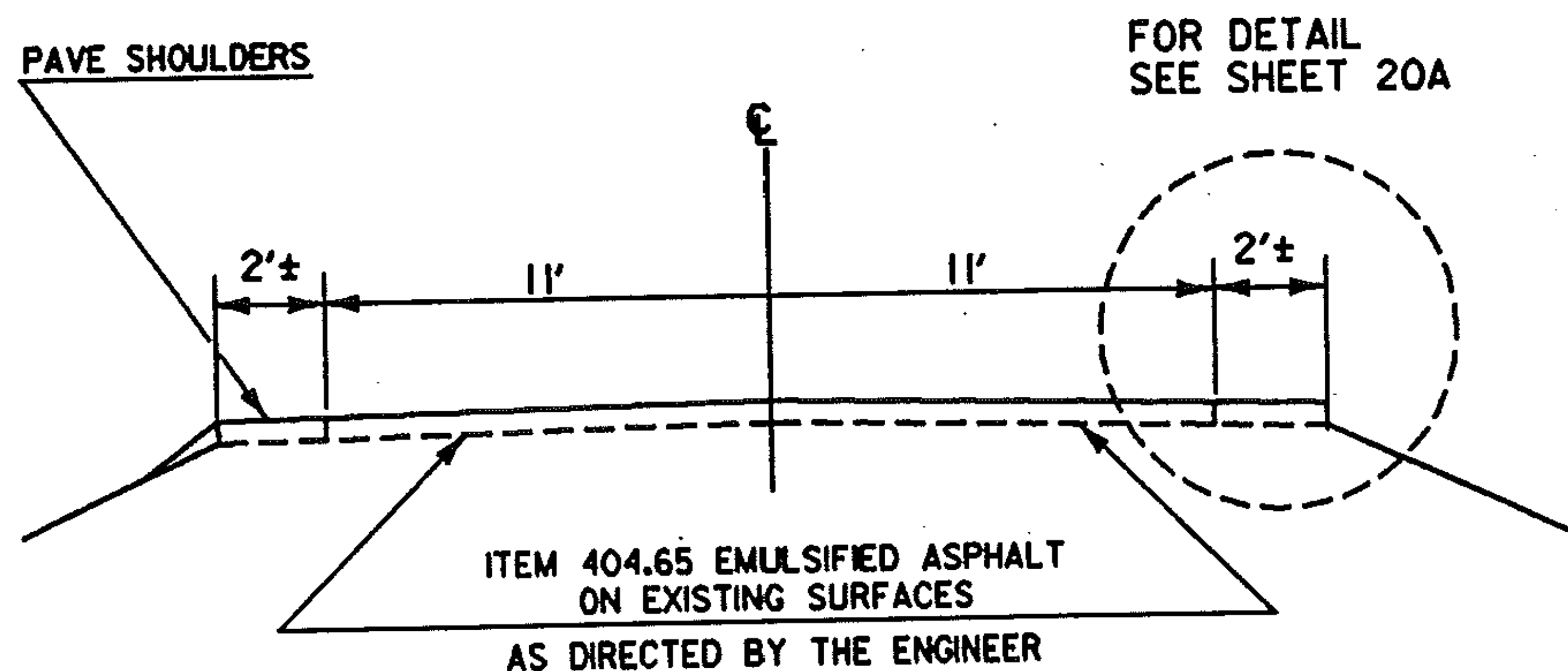
PROJECT HARDWICK - WALDEN

NO. HMA 2820

SHEET 19 OF 81 SHEETS

TYPICAL SECTIONS & DESIGN DATA

ITEM 406.25 BITUMINOUS CONCRETE PAVEMENT
 LEVELING COURSE TYPE IV (350 TONS/MILE)
 1/4" WEARING COURSE TYPE III ($\pm 1/4"$)
 AS DIRECTED BY THE ENGINEER



HARDWICK - WALDEN
 VT 15
 MM 5.759 ~ MM 4.091

AT MM 3.45 ~ 3.55 EXISTING PAVED SHOULDER (VARIES FROM 2'- 8' WIDE)
 ON LEFT SIDE OF THE ROADWAY IS TO BE REPAVED. THIS REPLACEMENT
 IS INCLUDED IN PAY ITEM 406.25

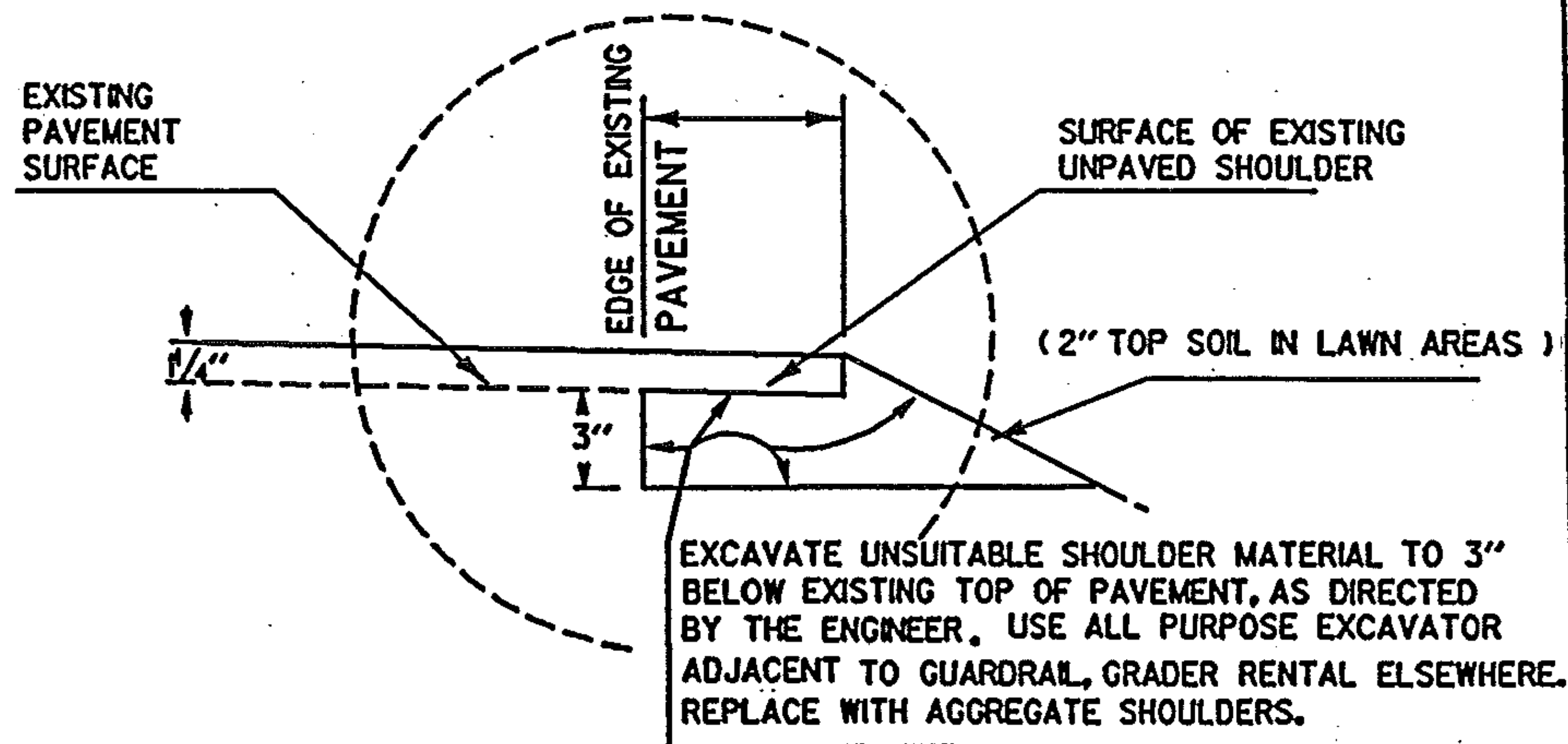
AT MM 3.45 ~ 3.55 EXISTING PAVED GUTTERS ON BOTH SIDES OF THE
 ROADWAY ARE TO BE REPAVED AT 1" DEPTH. THESE GUTTER REPAVEMENTS
 ARE TO BE PAID FOR AS ITEM 616.47 BIT. CONC. GUTTERS & TRAFFIC ISLANDS

PROJECT HARDWICK-WALDEN

NO. HMA 2820

SHEET 20 OF 21 SHEETS

TYPICAL SECTIONS & DESIGN DATA



PROJECT Hardwick-Walden

NO. HMA 2820

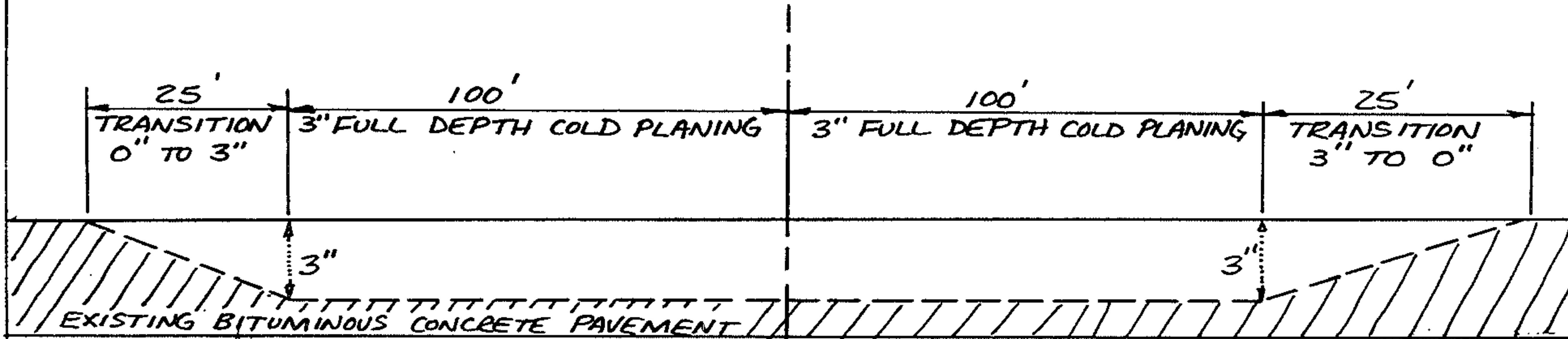
SHEET 21 OF 61 SHEETS

DESCRIPTION AND LOCATION

COLD PLANING DETAIL

NOT TO SCALE

⊕
RAILROAD
OVERPASS @ MM 3.35



⊕
RAILROAD
OVERPASS

PAVING IN THIS AREA TO
BE 2" BITUMINOUS CONCRETE
PAVEMENT,
3/4" LEVELING COURSE (TYPE IV)
1 1/4" WEARING COURSE (TYPE III)

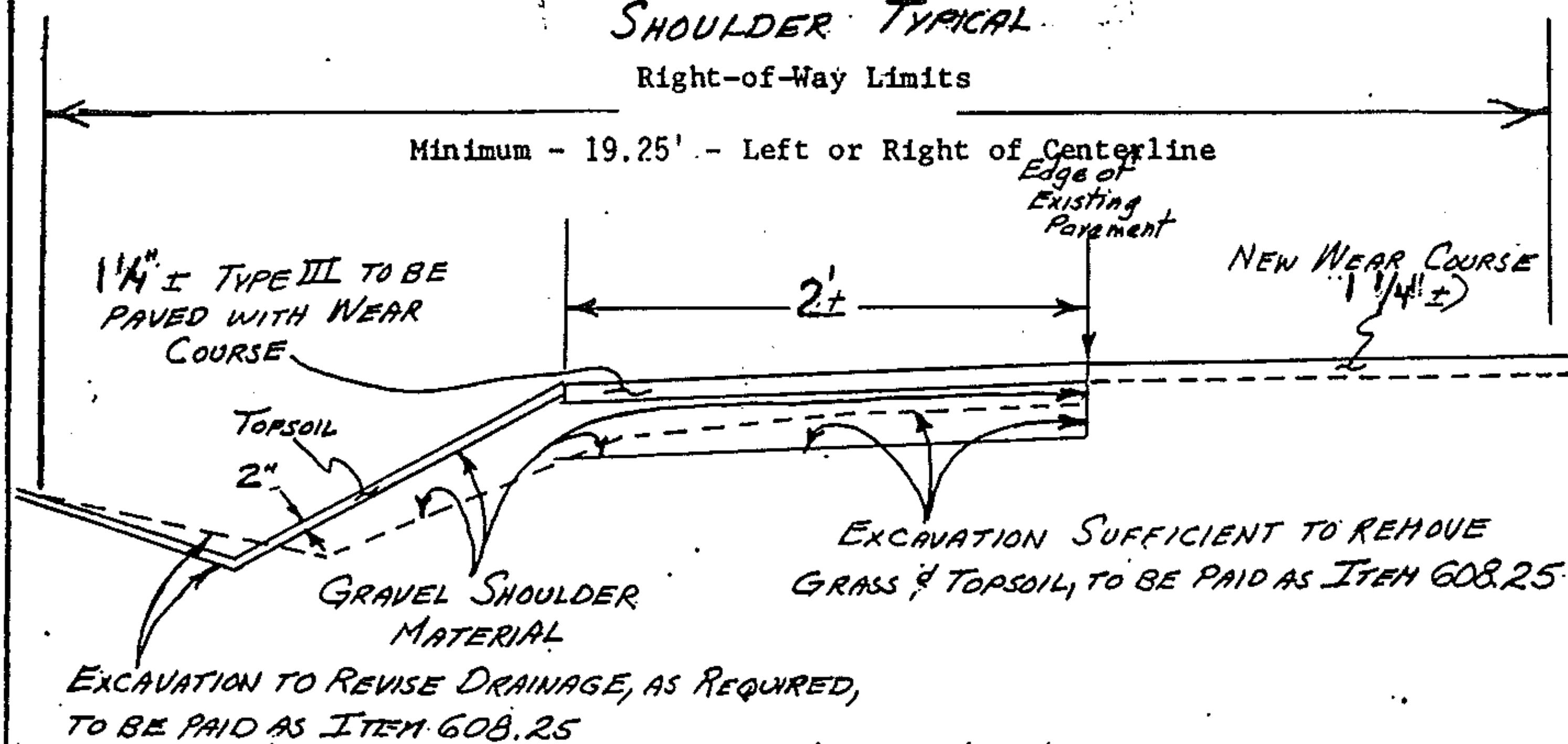
PROJECT HARDWICK-WALDEN

NO. HMA 2820
SHEET 2⁰ OF 8¹ SHEETS

TYPICAL SECTIONS & DESIGN DATA

SHOULDER TYPICAL

Right-of-Way Limits



HARDWICK-WALDEN

HMA 2820

M.M. 5,759-4.091

NOTES:

1) Where shoulders are less than 4' wide, they may be widened to 4' as long as the existing drainage and a reasonable slope - not greater than 1-1/2 - can be maintained. Where a shoulder cannot be reasonably widened to 4', a shoulder as wide as possible will be constructed and paved. Where existing shoulders are wider than 4', the shoulder will be paved as directed by the Engineer and any remainder matched with the item of Shoulder Gravel.

2) Where gravel is exposed on the shoulder surface, excavation shall be only to the depth necessary to lay the shoulder pavement.

3) If culverts in drives or intersecting roadways are the only reason for not widening the shoulder, there is included a nominal quantity of 50 lf of Item 601.99 - Relaying Pipe Culvert - which will be full compensation for all necessary equipment, materials, and labor to remove the culvert and relay it in the location designated by the Engineer.

However, if the excavated material is unsuitable for use as backfill, suitable backfill will be obtained and it will be paid for at the Contract Price for Gravel Shoulders under whichever option is bid. A nominal quantity of 50 cy has been included in the gravel quantity for this purpose.

4) It is expected that the Contractor and/or his employees will use care in excavating any culverts to be relayed or extended. Existing culverts damaged by the Contractor's operations will be replaced at the Contractor's expense.

Shoulder Sheet 1 of 1

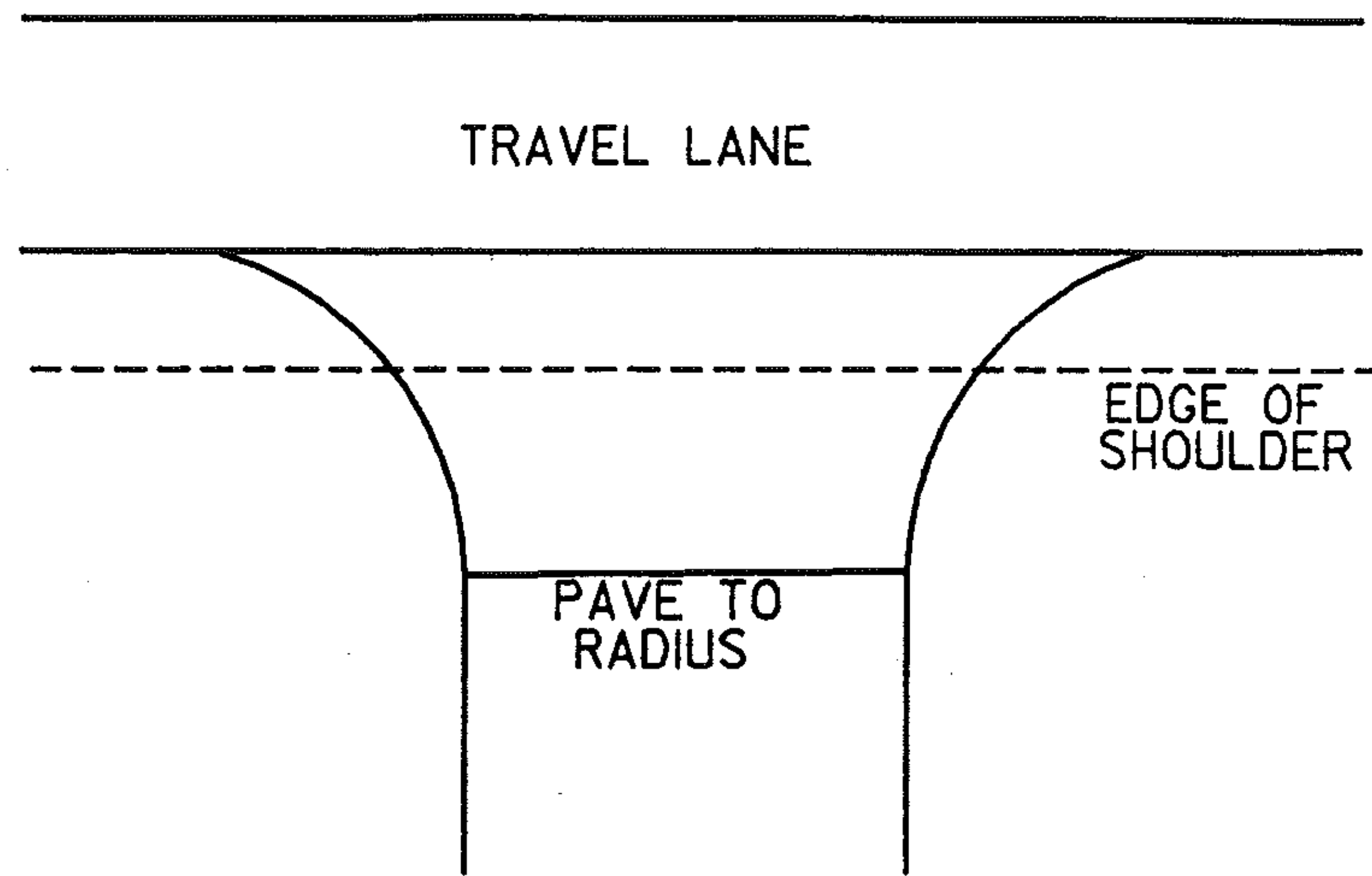
NO. HMA 2820

PROJECT Hardwick - Walden

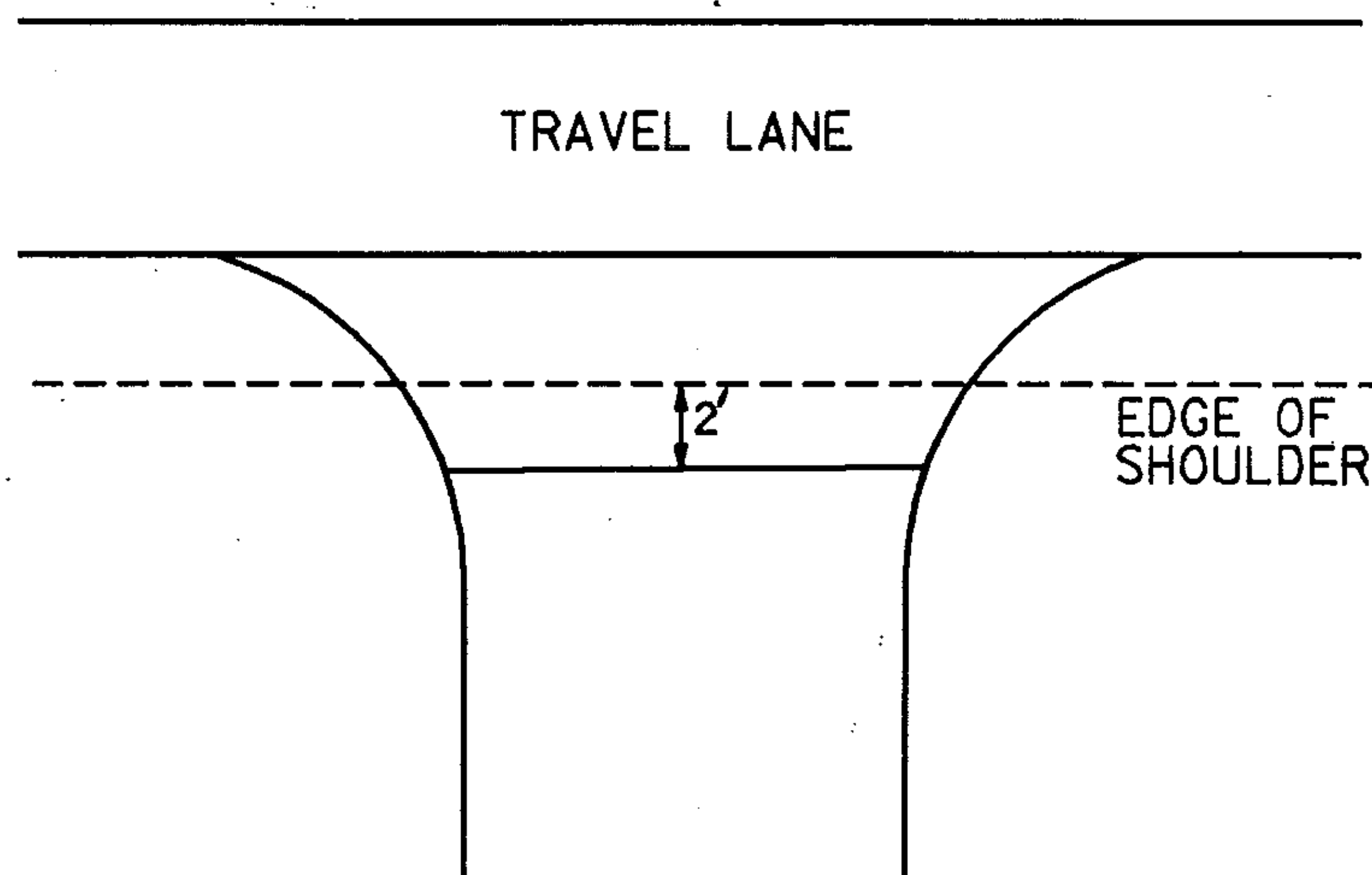
SHEET 20 OF 21 SHEETS

PAVING LIMITS FOR DRIVES & TOWN ROADS

PAVING LIMITS FOR TOWN ROADS



PAVING LIMITS FOR DRIVES



PROJECT HARDWICK-WALDEN

NO. HMA 2820

SHEET 21 OF 81 SHEETS

S = SOLID LINE

D = DASHED LINE

TEMPORARY 4" YELLOW LINE

	MILE	MILE	LT	RT	☒	QUANTITY LT	QUANTITY ☒	QUANTITY RT	TOTALS
HARDWICK	5.76	5.77	S	S		53		53	106
	5.77	5.88	S	S		581		581	1162
	5.88	6.00	D	S		159		634	793
	6.00	6.93	S	S		4910		4910	9821
	6.93	7.06	S	D		686		172	858
	7.06	7.15			D		119		119
	7.15	7.20	D	S		66		264	330
	0.00	0.12	D	S		158		634	792
	0.12	0.61	S	S		2587		2587	5174
	0.61	0.76	S	D		792		198	990
0.76	0.85			D		119		119	
0.92	0.99	D	S		92		370	462	
0.99	1.43	S	S		2323		2323	4646	
1.43	1.56	S	S		686		686	1373	
1.56	1.58	D	S		26		106	132	
1.58	1.72	D	S		185		739	924	
1.72	1.80	S	S		422		422	844	
1.80	1.92	S	D		422		106	528	
1.92	1.96	S	S		211		211	422	
1.96	2.09	D	S		172		686	858	
2.09	2.43	S	S		1795		1795	3590	
2.43	2.57	S	S		739		739	1478	
2.57	2.59	S	S		106		106	212	
2.59	2.69	S	S		528		528	1056	
2.69	4.091	S	S		7397		7397	14795	
ROADWAY OPENINGS (11)									-1120

TEMPORARY 4" WHITE LINE

OVERLAY x 2
GRAND TOTAL 101000 LF

5.759	7.197	S	S		7593		7593	15186	
0.000	4.091	S	S		21600		21600	43200	
								Total	58386

PROJECT HARDWICK - WALDEN

NO. HMA 2820
SHEET 22 OF 81 SHEETS

PROJECT LENGTHS AND ITEM QUANTITIES

ITEM DESCRIPTION

ITEM NO.	LENGTH	WIDTH	OVERLAY DEPTH	DURABLE LETTER IN WORD		GRAVEL SHOULDERS		EMULSIFIED ASPHALT		BITUMINOUS ASPHALT		POWER BROOM RENTAL		UNIFORMED CONCRETE PAVEMENT		FLAGGERS		MOBILIZATION		TEMP 4" WHITE LINE		TEMP 4" YELLOW LINE		TOPSOIL		
				MARKING	OPTION	GRAVEL SHOULDERS	EMULSIFIED ASPHALT	BITUMINOUS ASPHALT	POWER BROOM RENTAL	UNIFORMED CONCRETE PAVEMENT	FLAGGERS	MOBILIZATION	TEMP 4" WHITE LINE	TEMP 4" YELLOW LINE	TOPSOIL											
				646.44	402.10	402.12	404.65	406.25	608.30	630.10	630.15	635.10	646.50	646.51	651.35											
UNIT	FT.	FT.	IN.	EA.	CY	TON	CWT	TON	HR	HR	HR	LS	LF	LF	CY											
M.M. 5.759 HARDWICK																										
M.M. 4.091 WALDEN	29,193	26	1 1/4	12	120	210	105	8500	45	340	340	0.459	58,386	101,000	110											
<p>Note: Item 646.44, the durable letters spell SCHOOL, and are located at MM.2 in Walden, and MM.1.5 in Walden</p>																										

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.

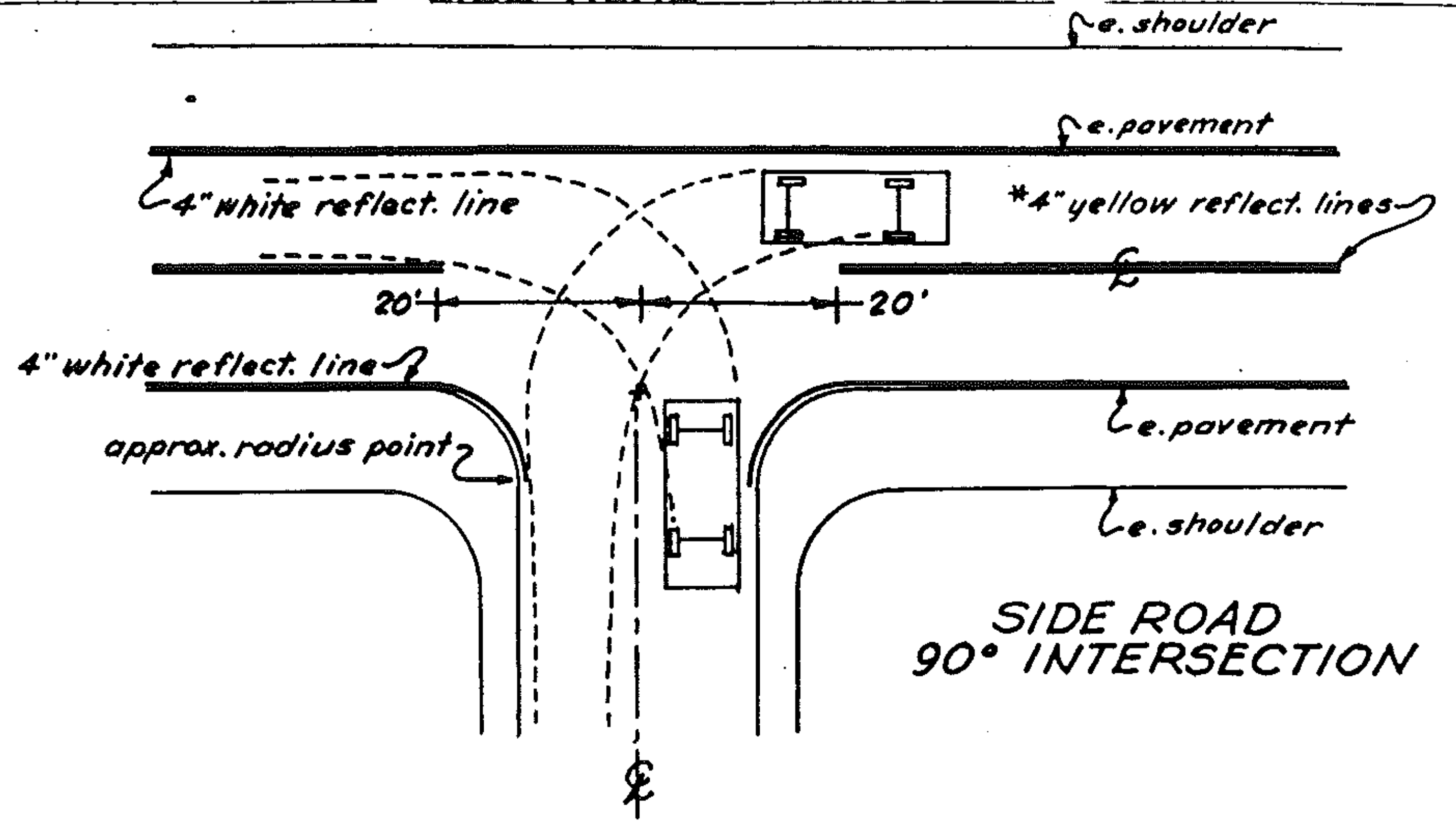
- E. PAYMENT FOR PAINT AND TAPE SHALL BE COMPUTED ON A LINEAR FOOT BASIS AS IF PAINT WAS USED. PAYMENT FOR THE RPM'S SHALL BE COMPUTED AS IF AN EQUIVALENT PAINT LINE WAS USED. (FOR EXAMPLE, DASHED LINE PAID AS 10 FEET OF PAINT, SOLID LINE PAID AS THE TOTAL DISTANCE COVERED WITH THE MARKERS).

- 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.

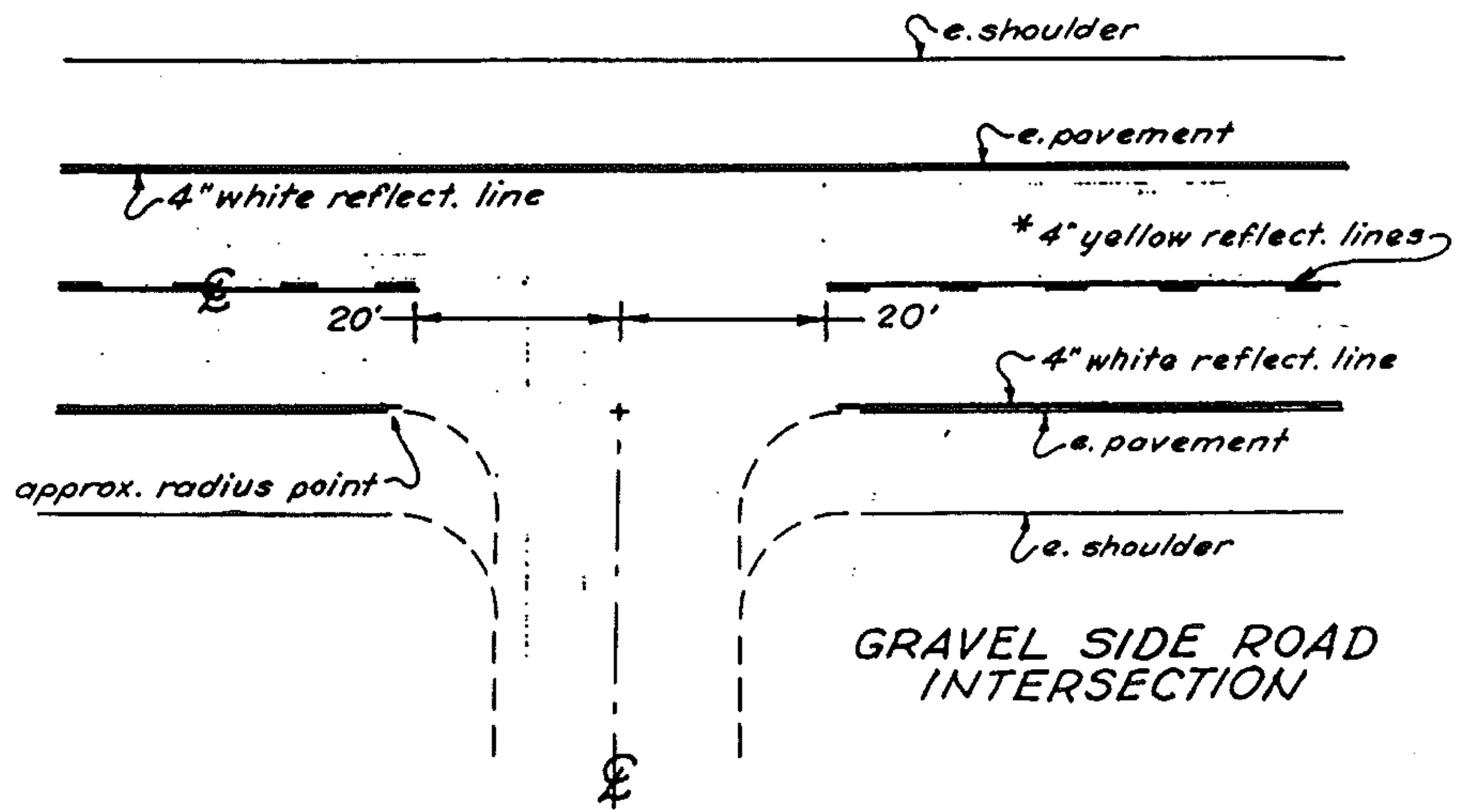
REVISED
02/11/85

HARDWICK-WALDEN
HMA 2820

SHEET 24 OF 81



* 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.



**STATE OF VERMONT
AGENCY OF TRANSPORTATION**



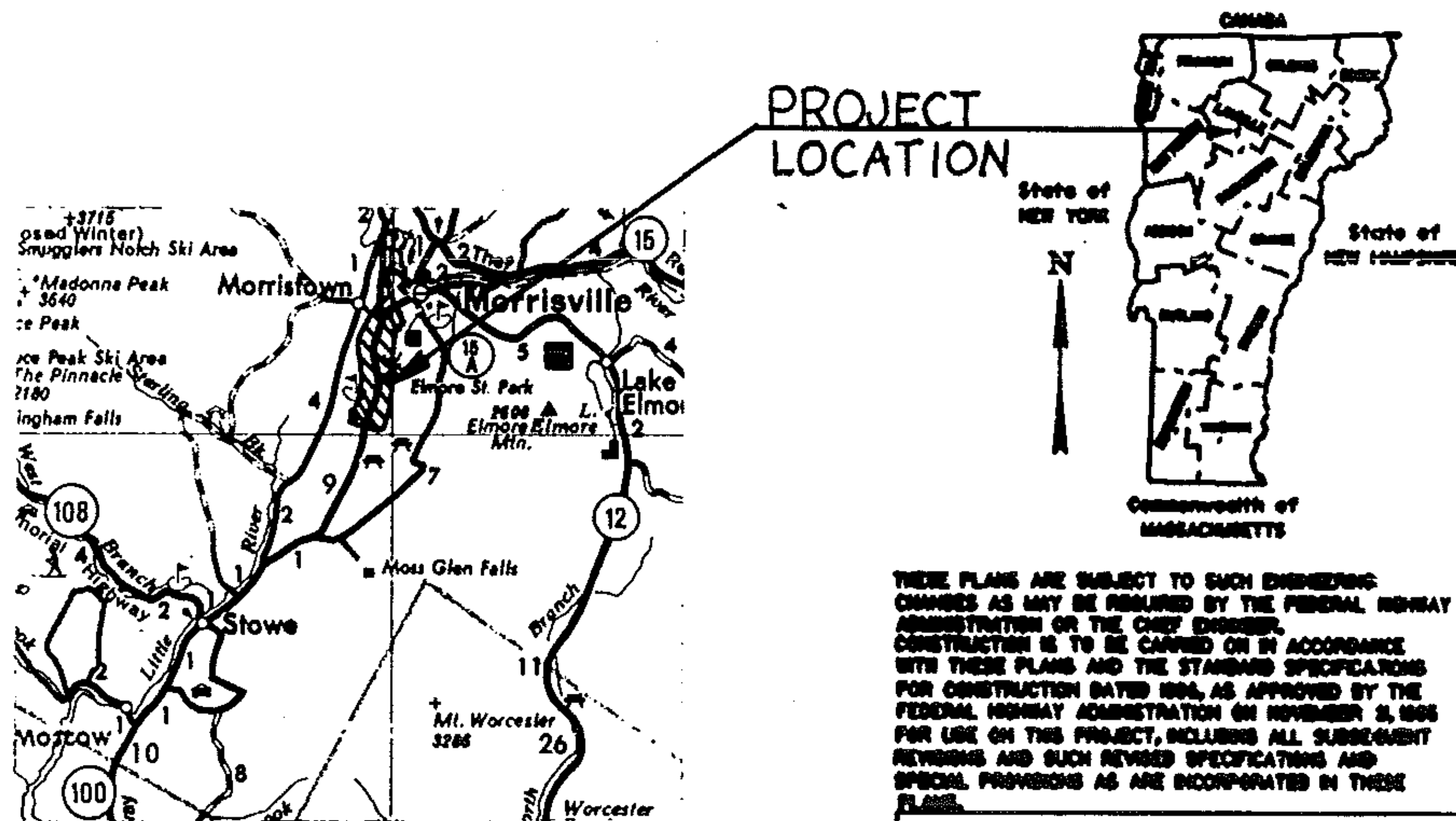
PROPOSED IMPROVEMENT

TOWN OF MORRISTOWN

COUNTY OF LAMOILLE

ROUTE NO. VT 100

ROUTE CLASS FAP



PROJECT
LOCATION

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 1964, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON NOVEMBER 2, 1966 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

SUBMITTED BY ORDER OF THE STATE TRANSPORTATION BOARD

APPROVED _____ DATE _____
CHIEF ENGINEER

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED _____ DATE _____
DIVISION ADMINISTRATOR

PROJECT HMA no. 2817

SHEET 7 of 81 SHEETS

SEE SHEET 2 FOR INDEX

INDEX OF SHEETS
FOR HMA 2817 ONLY

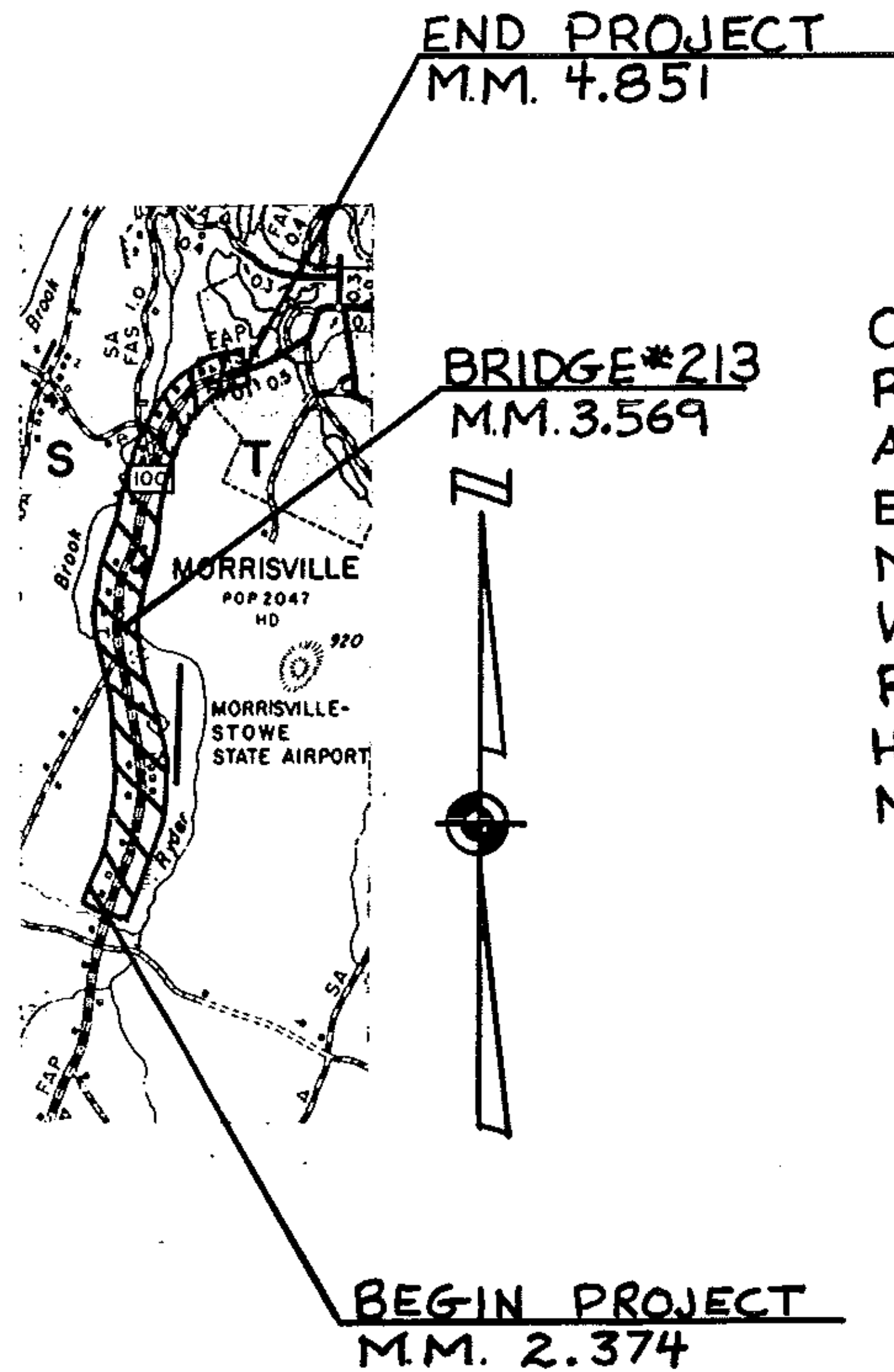
- 1 TITLE PAGE
- 2 INDEX OF SHEETS
- 3 DESCRIPTION AND LOCATION
- 4 TYPICAL SECTION & DESIGN DATA
- 5 PAVING LIMITS FOR DRIVES AND
TOWN ROADS
- 6 PAVEMENT MARKING QUANTITIES
- 7 PROJECT LENGTHS AND ITEM
QUANTITIES
- 8 GUIDELINES FOR MINIMUM INTERIM PAVEMENT
MARKINGS IN CONSTRUCTION ZONES
- 9 MAINLINE PAVEMENT MARKING AT
INTERSECTING SIDE ROAD

PROJECT MORRISTOWN

NO. HMA 2817
SHEET 28 OF 81 SHEETS

DESCRIPTION AND LOCATION

PROJECT LENGTH: 2.477 MILES ; 13,078 FEET
1985 ADT: 4790



BEGINNING IN THE TOWN OF MORRISTOWN ON ROUTE 100 M.M. 2.374 AND EXTENDING NORTHERLY 2.477 MILES TO M.M. 4.851 IN THE VILLAGE OF MORRISVILLE. RESURFACING OF THE HIGHWAY, NEW PAVEMENT MARKINGS.

SCALE: 1" = 1 MILE

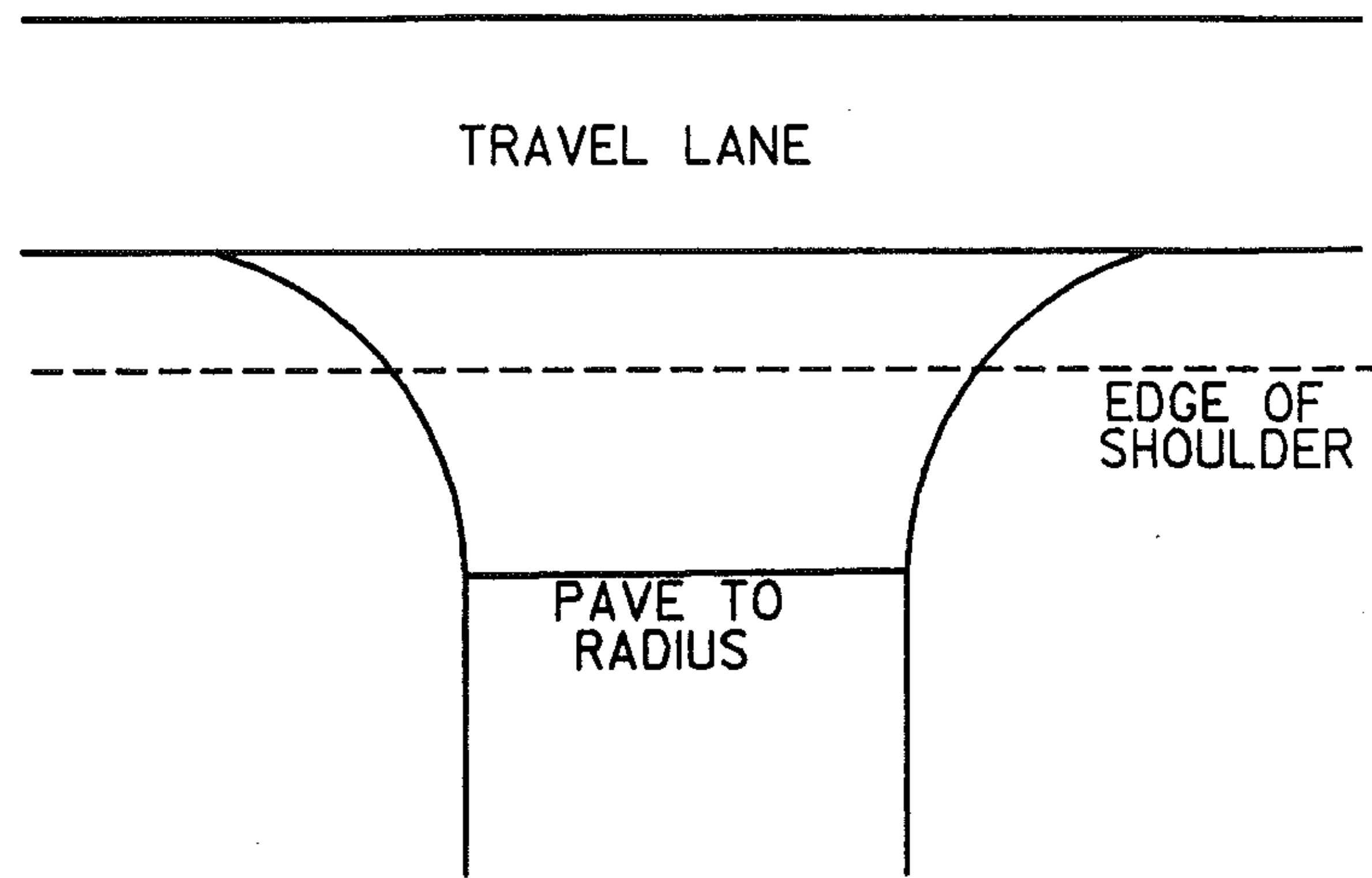
PROJECT MORRISTOWN

NO. HMA 2817

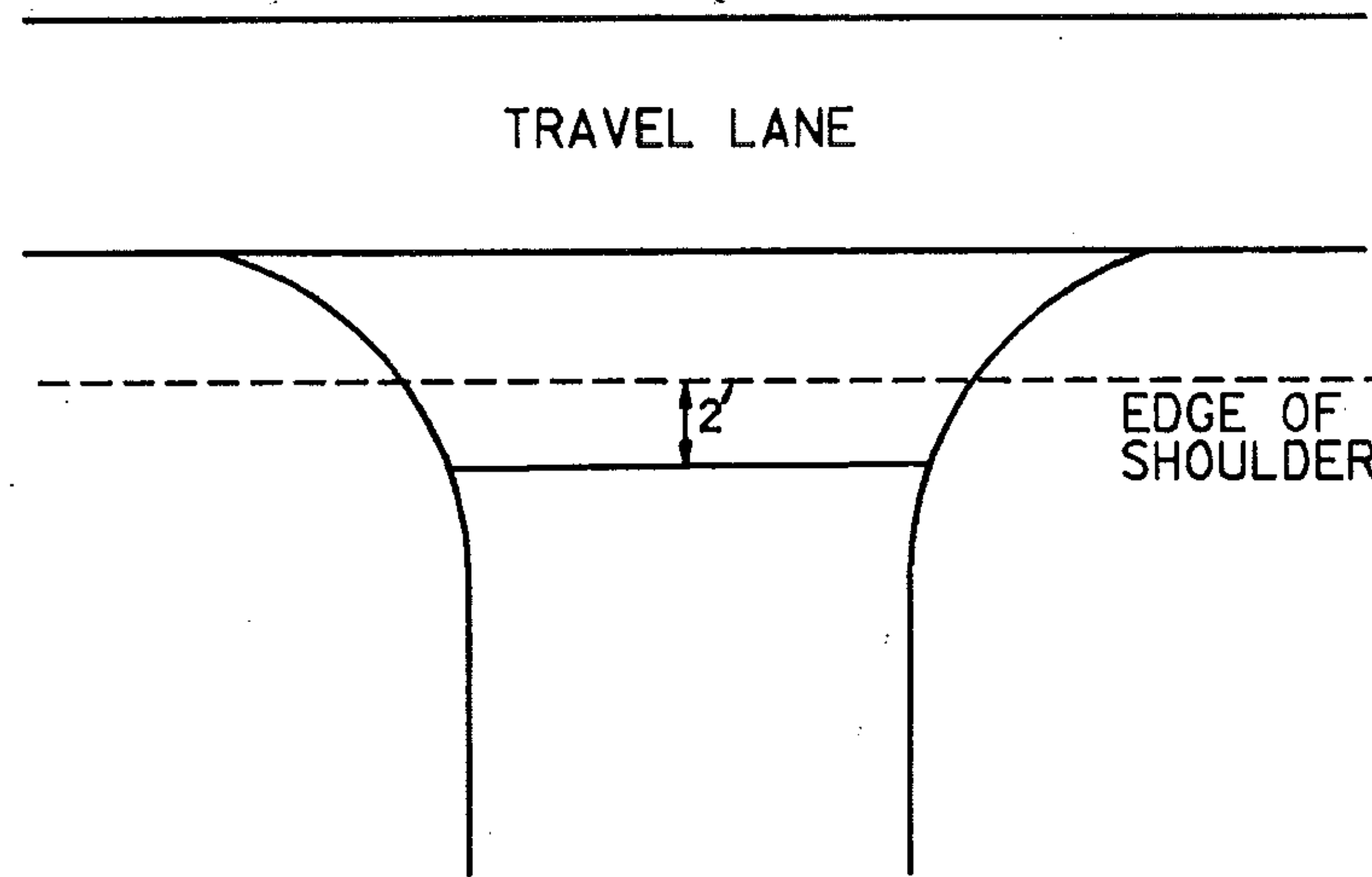
SHEET 29 OF 31 SHEETS

PAVING LIMITS FOR DRIVES & TOWN ROADS

PAVING LIMITS FOR TOWN ROADS



PAVING LIMITS FOR DRIVES



PROJECT MORRISTOWN

NO. HMA 2817

SHEET 31 OF 81 SHEETS

TEMPORARY 4" REFLECTORIZED YELLOW LINE D = DASHED LINE
S = SOLID LINE

	MILE	MILE	LT	RT	℄	QUANTITY LT	QUANTITY ℄	QUANTITY RT	TOTALS
MORRISTOWN	2.37	2.45	D	S		106		422	528
	2.45	3.04	S	S		3115		3115	6230
	3.04	3.18	S	D		739		185	924
	3.18	3.25			D		92		92
	3.25	3.34	D	S		119		475	594
	3.34	4.11	S	S		4066		4066	8132
	4.11	4.26	S	D		792		198	990
	4.26	4.85	S	S		3115		3115	6230
							SUBTOTAL	=	23,720
					ASSUME 100% LOSS DUE TO LEVELING			= +	23,720
	MINUS	3 ROADWAY OPENINGS AT 80' EACH			X 2 COURSES OF PAVE:				- 480
							SUB-TOTAL	=	46,960 LF
							ROUND	=	40
							TOTAL		47,000

TEMPORARY 4" REFLECTORIZED WHITE LINE

	2.374	4.851	SOLID	SOLID		13,078		13,078	26,156

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.

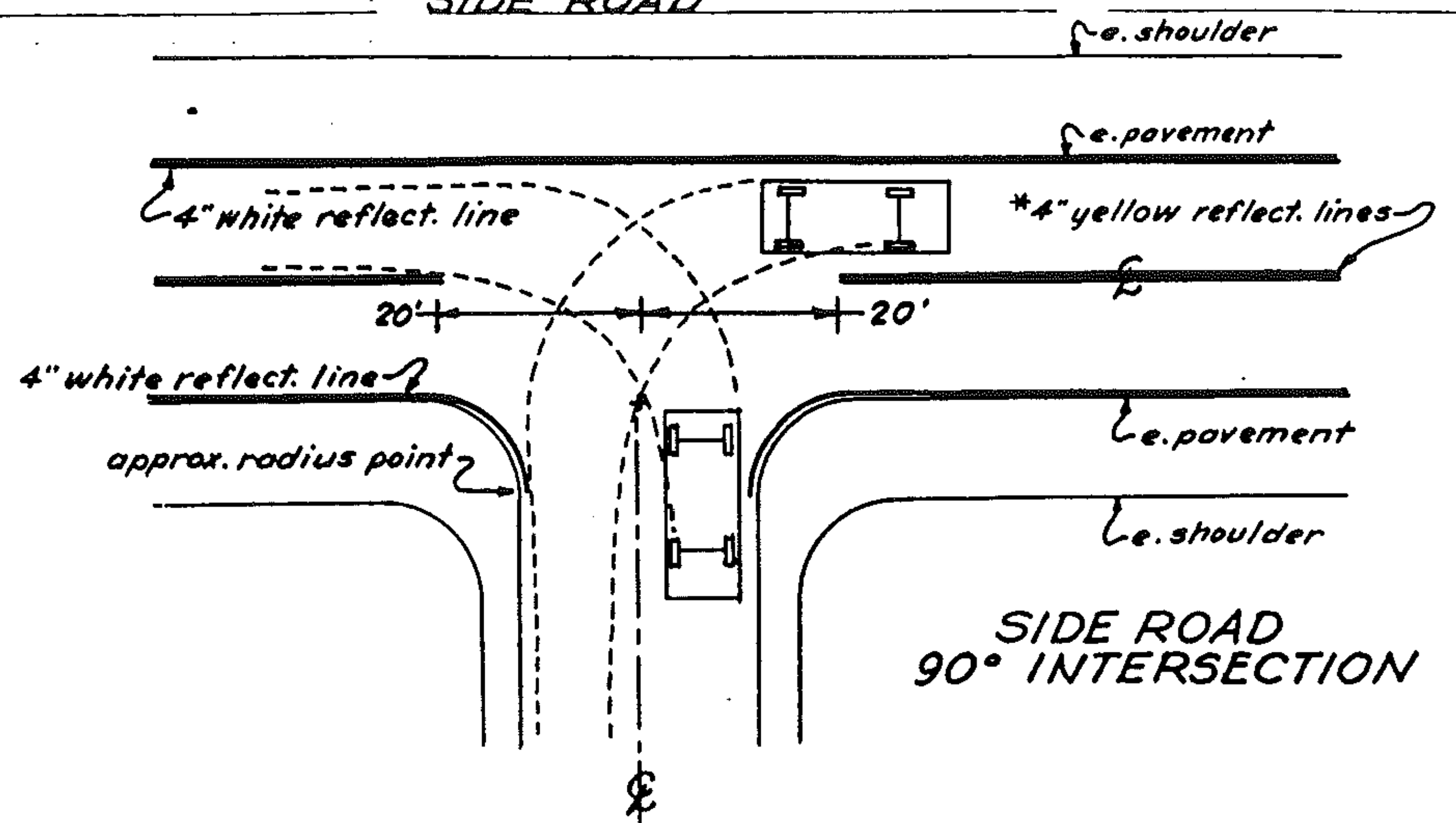
SOLID LINE - EDGE LINES
INTERSTATE MEDIAN SIDE-RETRO-REFLECTIVE RPM'S ON 4 TO 5 FOOT CENTER.
DRIVERS RIGHT SIDE-RPM'S NOT ALLOWED.

- 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.

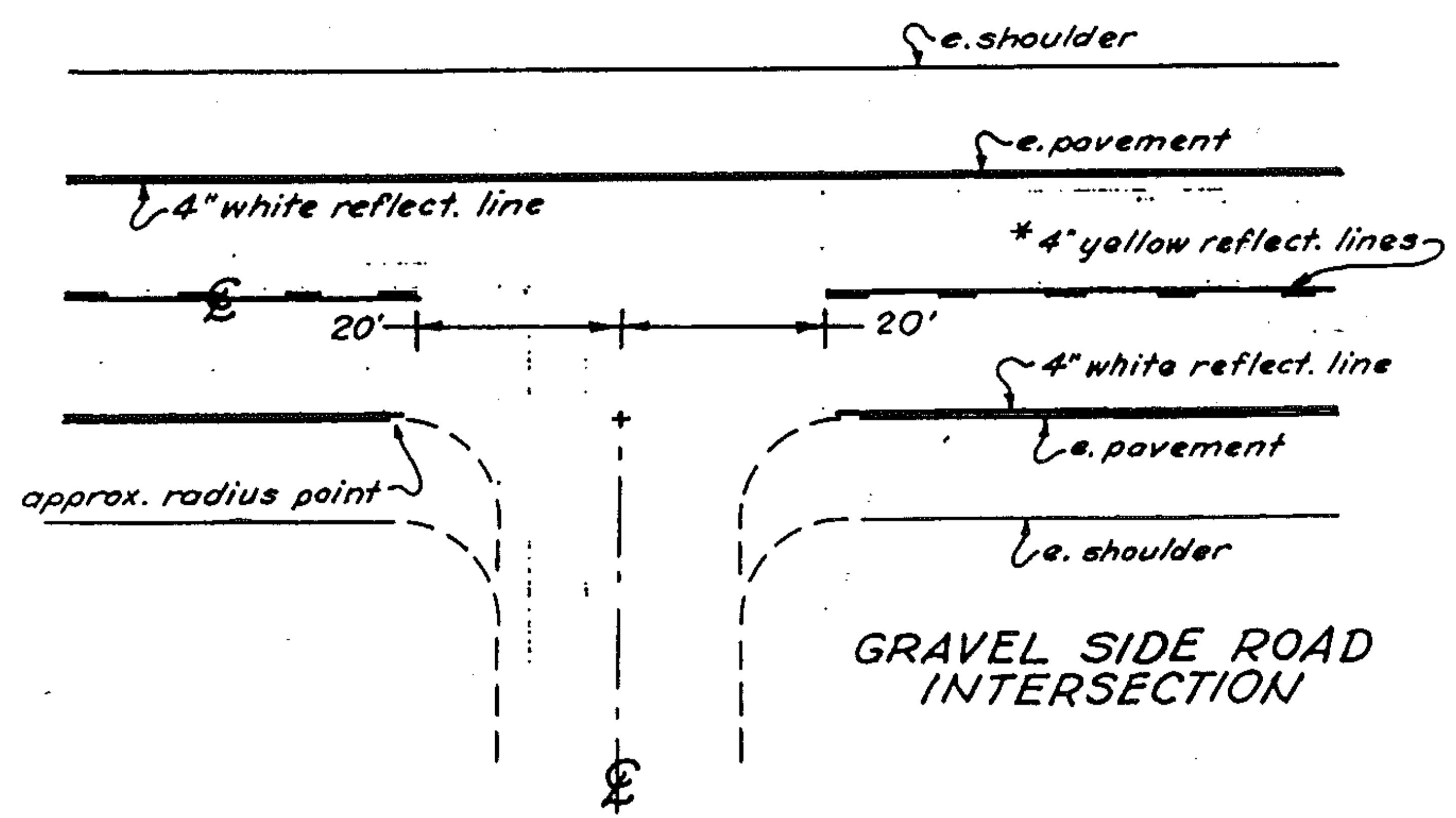
REVISED
02/11/85

MORRISTOWN
HMA 2817

SHEET 34 OF 81



* 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.



STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT

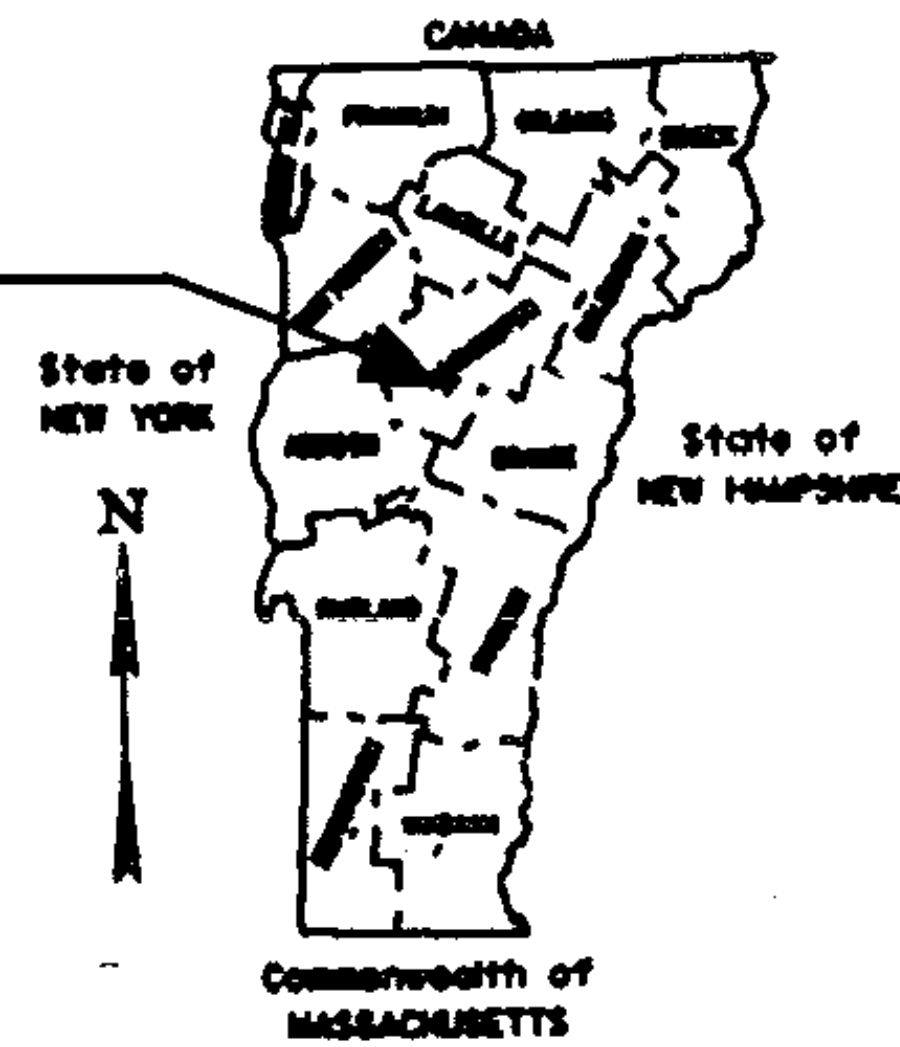
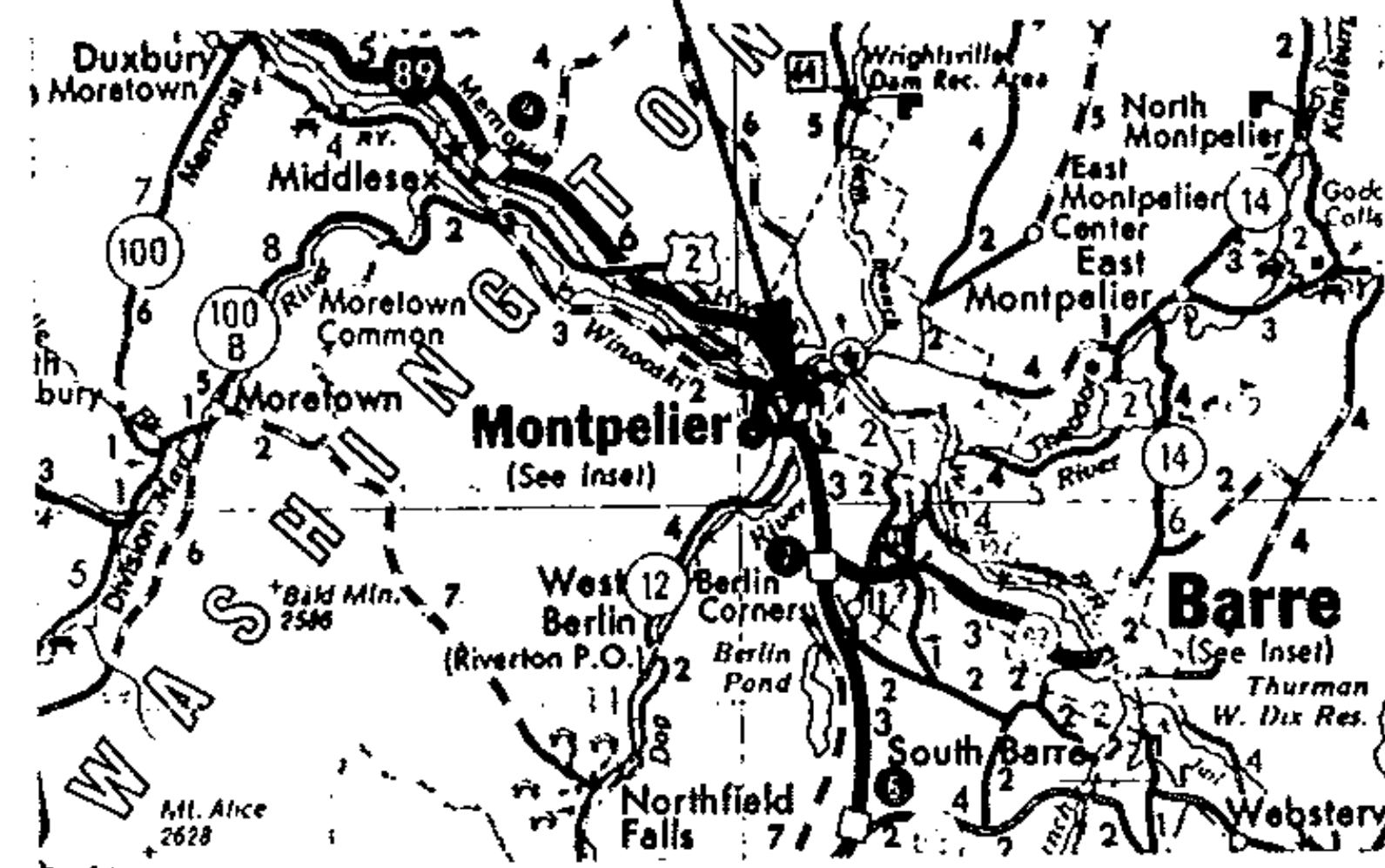
TOWN OF MONTPELIER

COUNTY OF WASHINGTON

ROUTE NO. MONTPELIER JUNCTION STATE HWY.

ROUTE CLASS LOCAL

PROJECT LOCATION



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 1964, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON NOVEMBER 2, 1965 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

SUBMITTED BY ORDER OF THE STATE TRANSPORTATION BOARD

APPROVED _____ DATE _____
CHIEF ENGINEER

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED _____ DATE _____
DIVISION ADMINISTRATOR

PROJECT HMA NO. 2821

SHEET 37 OF 81 SHEETS

SEE SHEET 2 FOR INDEX.

INDEX OF SHEETS

FOR HMA 2821 ONLY

- 1 TITLE PAGE
- 2 INDEX OF SHEETS
- 3 DESCRIPTION
- 4 TYPICAL SECTION & DESIGN DATA
- 5 PAVING LIMITS FOR DRIVES AND TOWN ROADS
- 6 PAVEMENT MARKINGS
- 7 BLANK
- 8 PROJECT LENGTH & ITEM QUANTITIES
- 9 GUIDELINES FOR INTERIM PAVEMENT MARKINGS
IN CONSTRUCTION ZONES
- 10 MAINLINE PAVEMENT MARKINGS AT INTERSECTING
SIDE ROADS
- 11 SPECIAL MARKING DETAILS
- 12 STOP BAR DETAILS

PROJECT Montpelier

NO. HMA 2821

SHEET 38 OF 81 SHEETS

DESCRIPTION AND LOCATION

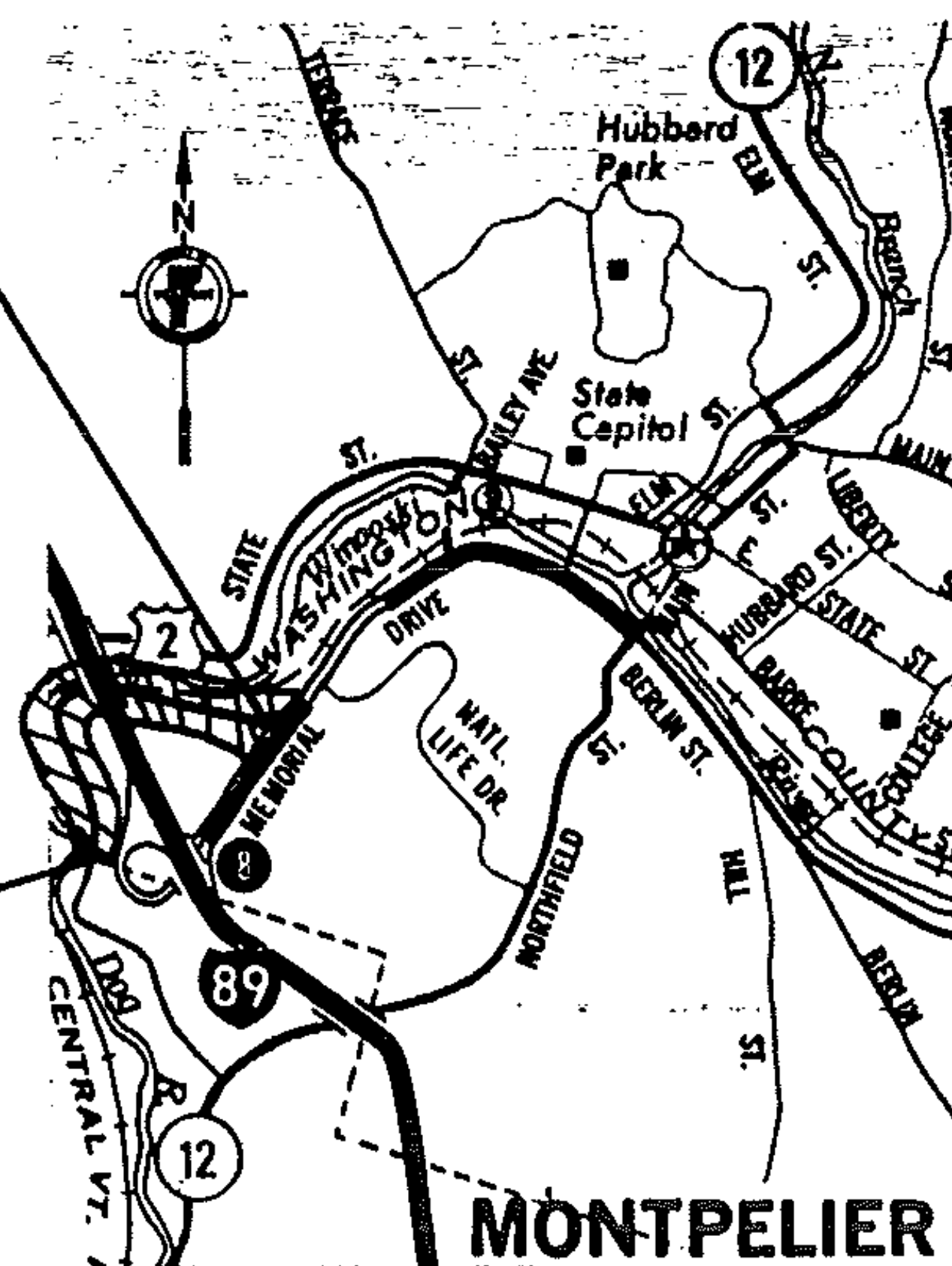
PROJECT LENGTH: 0.953 MILES , 5031.84 FEET

1986 A.D.T.: 870

BEGINNING IN THE CITY OF MONTPELIER ON MONTPELIER JUNCTION STATE HIGHWAY AT MEMORIAL DRIVE AND M.M. 0.000 AND EXTENDING WESTERLY AND SOUTHERLY TO M.M. 0.757 AT THE BERLIN TOWN LINE RESURFACING OF THE HIGHWAY AND ITS APPROACHES, NEW PAVEMENT MARKINGS AND SIGN REHABILITATION.

BEGIN PROJECT
M.M. 0.000

END PROJECT M.M. 0.757



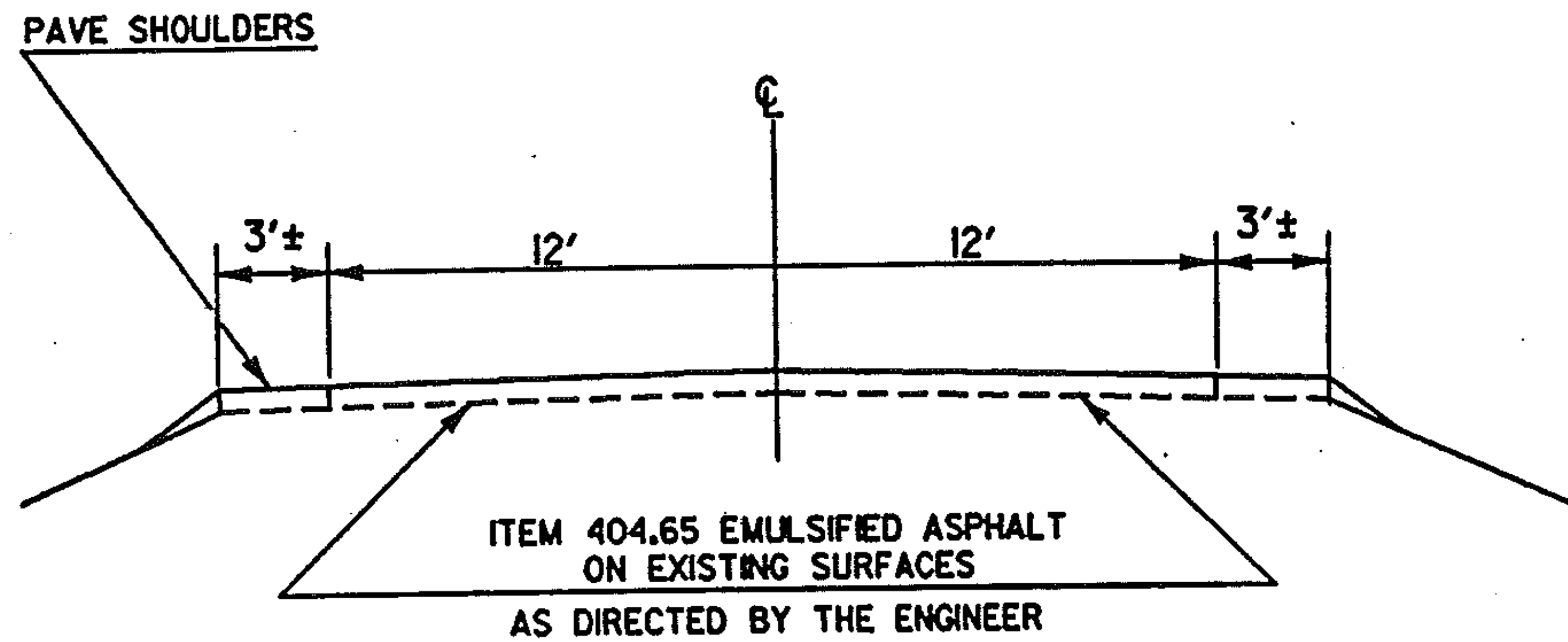
PROJECT MONTPELIER

NO. HMA 282.1

SHEET 39 OF 81 SHEETS

TYPICAL SECTIONS & DESIGN DATA

ITEM 406.25 BITUMINOUS CONCRETE PAVEMENT
LEVELING COURSE TYPE IV (250 TONS/MILE)
1/4" WEARING COURSE TYPE III (±1/4")
AS DIRECTED BY THE ENGINEER



MONTPELIER JCT.
STATE HIGHWAY

MM 0.000 ~ MM 0.760

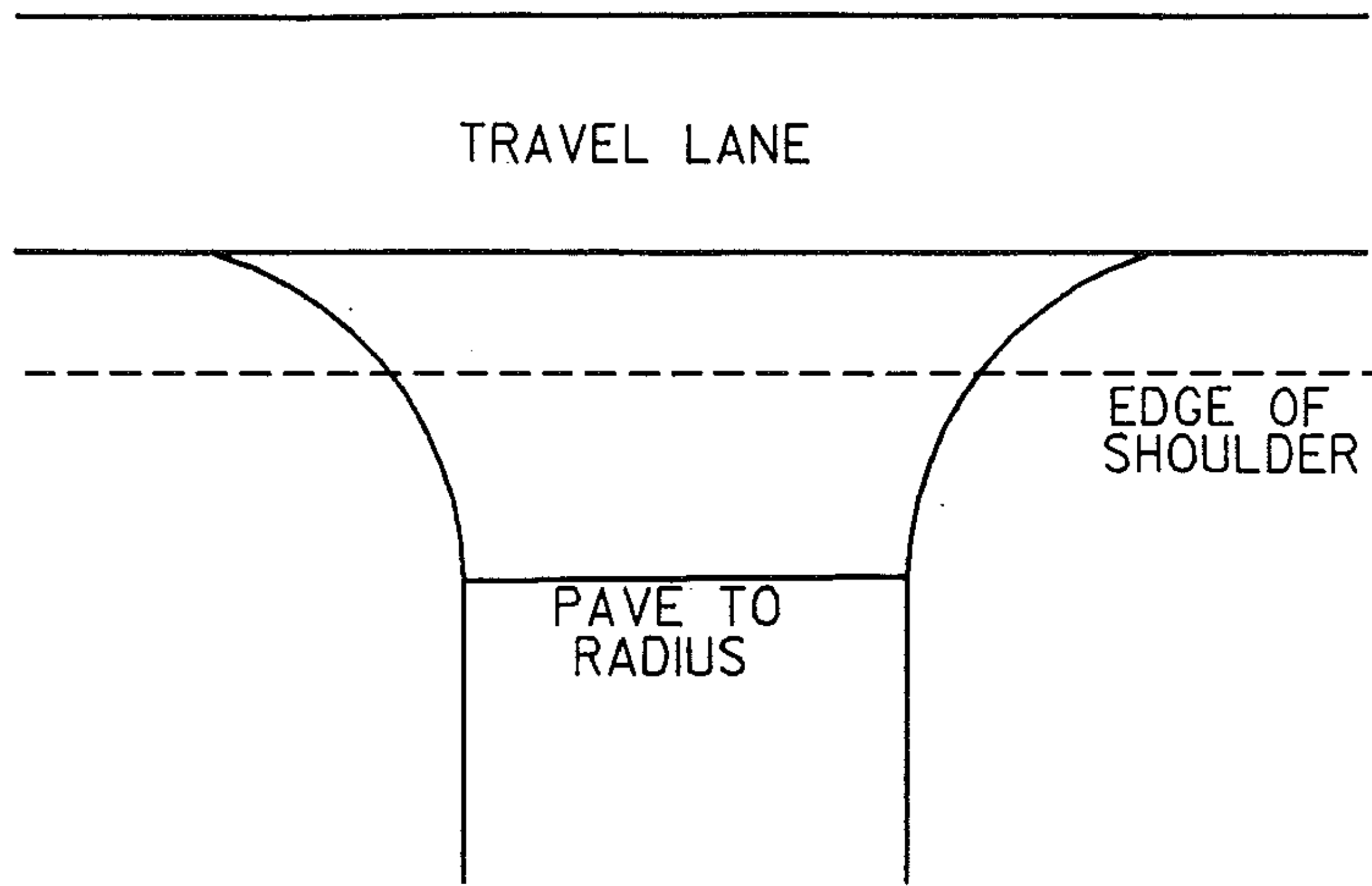
PROJECT MONTPELIER

NO. HMA 2821

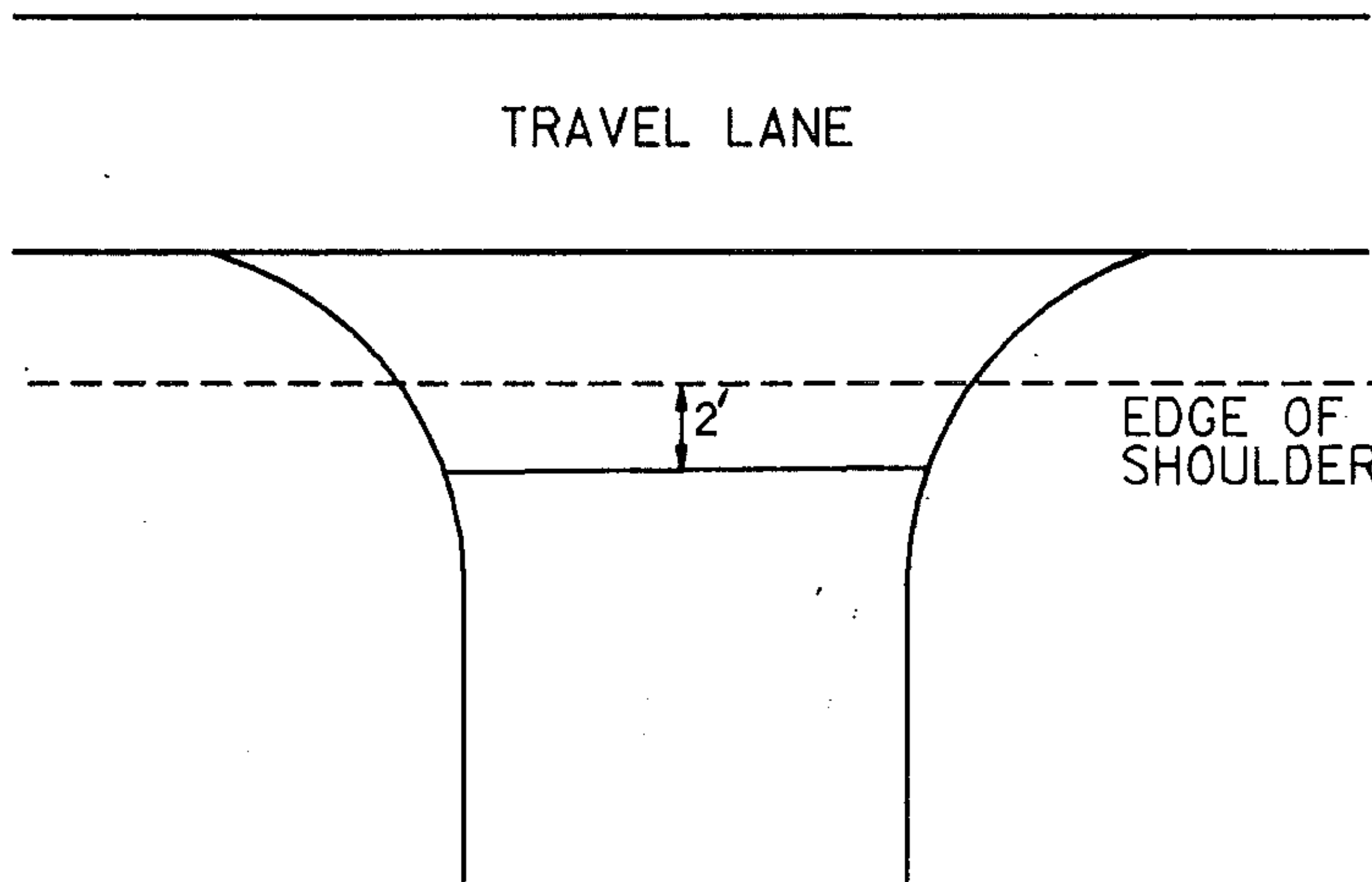
SHEET 40 OF 81 SHEETS

PAVING LIMITS FOR DRIVES & TOWN ROADS

PAVING LIMITS FOR TOWN ROADS



PAVING LIMITS FOR DRIVES



PROJECT MONTPELIER

NO. HMA 2821

SHEET 41 OF 81 SHEETS

BY GLP DATE 2/11/87
CHKD. BY _____ DATE _____

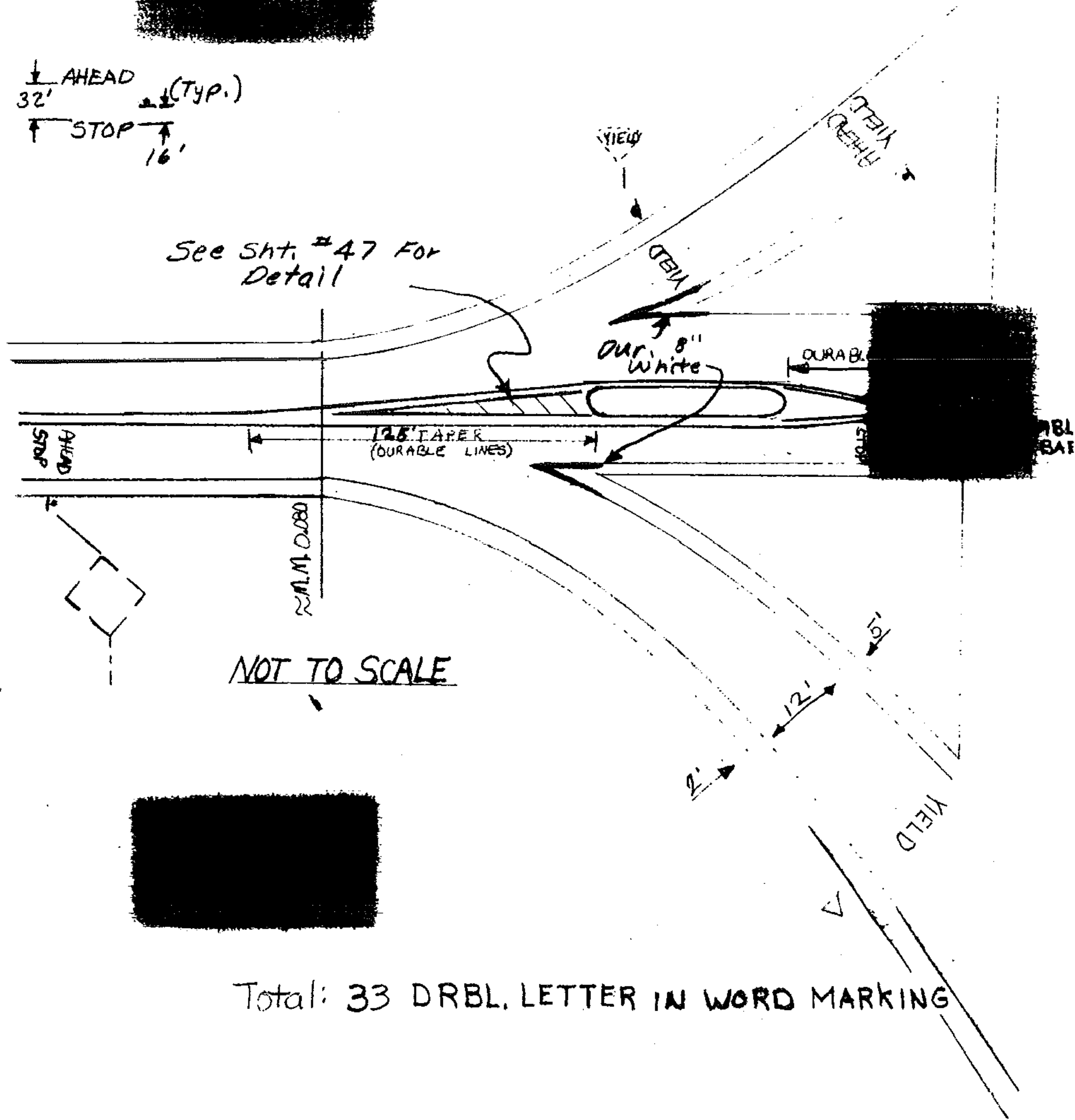
SUBJECT Pavement Marking

SHEET NO. 42 OF 81
JOB NO. HMA 2-21
Mottel, Inc.

Edge [REDACTED] in. 2' From Curb.

↓ AHEAD
32' (TYP.)
↑ STOP
16'

See Sht. #47 For Detail



Total: 33 DRBL. LETTER IN WORD MARKING

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:

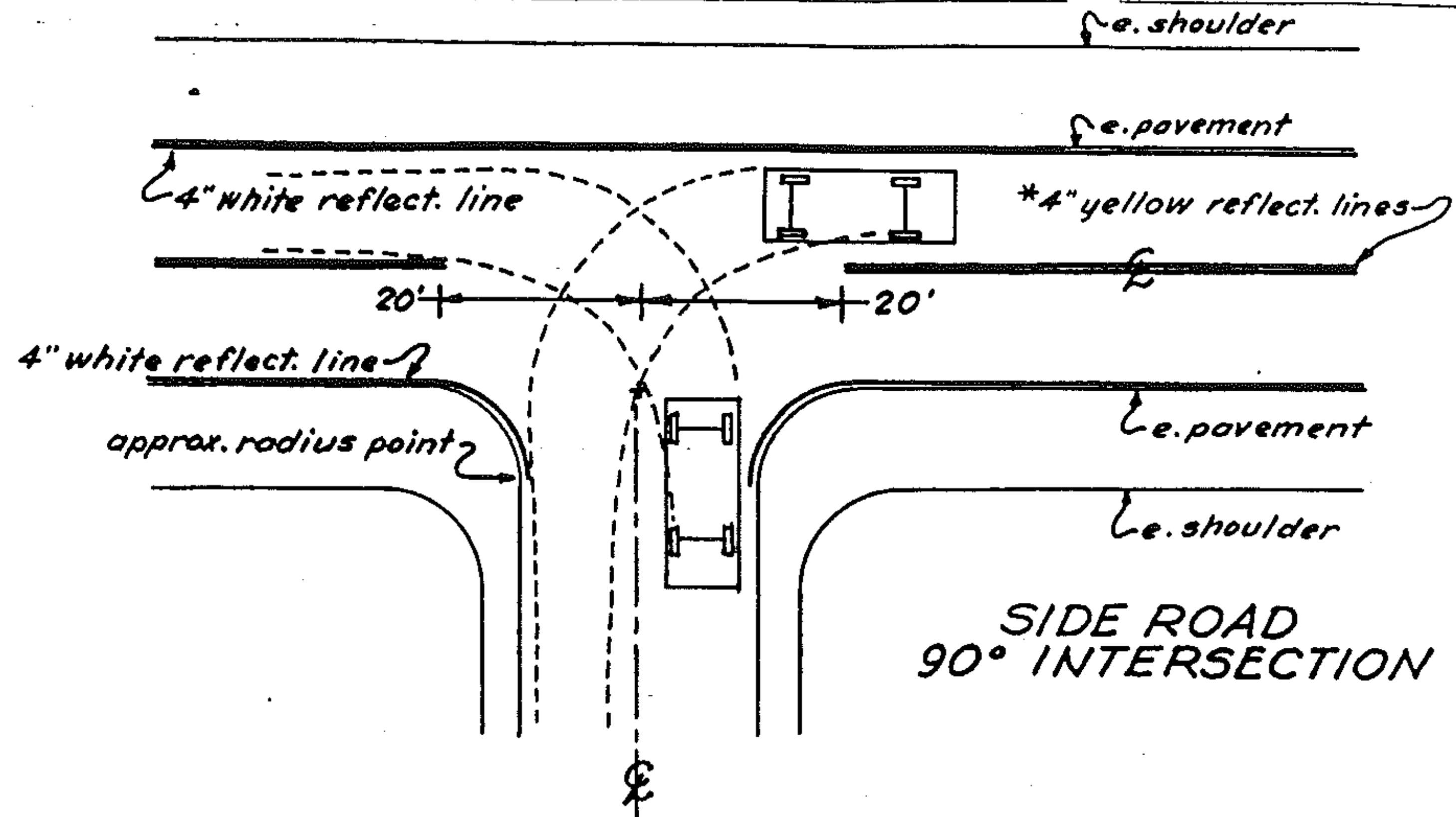
NO PASSING BARRIER
NO RPM'S ALLOWED.

DASHED LINE
FOUR RETRO-REFLECTIVE RPM'S ON 3 1/2 FOOT CENTERS WITH A 30' GAP.

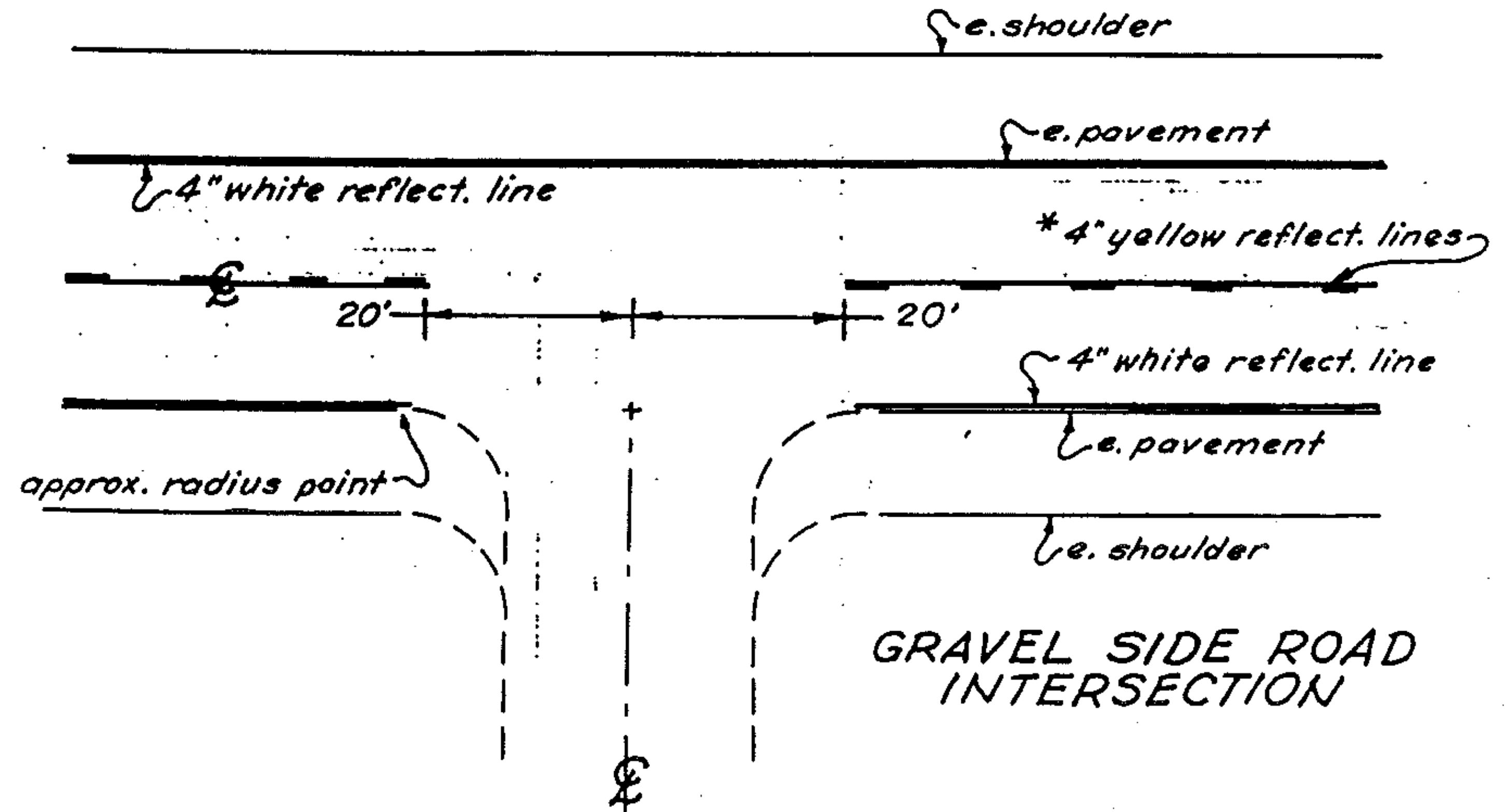
SOLID LINE - EDGE LINES
INTERSTATE MEDIAN SIDE-RETRO-REFLECTIVE RPM'S ON 4 TO 5 FOOT CENTER.
DRIVERS RIGHT SIDE-RPM'S NOT ALLOWED.

- 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

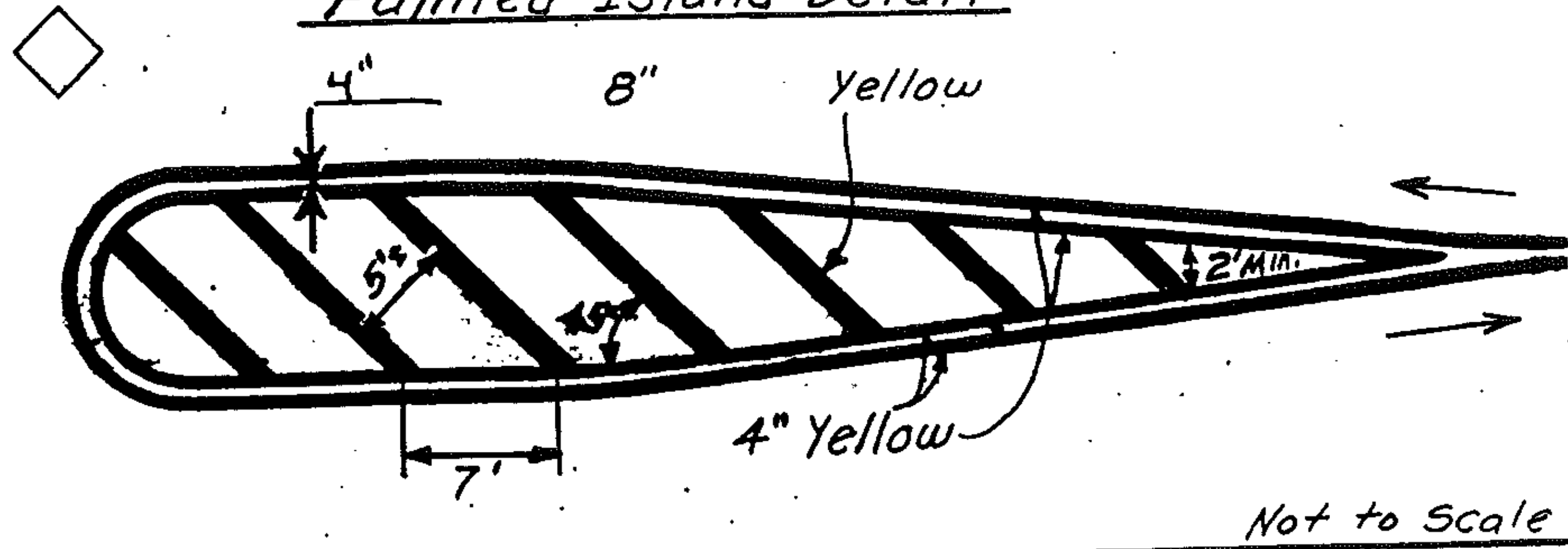


* Centerline treatment shall consist of a minimum of 400 feet of solid line in advance of the intersection and shall be paired with either a solid or dashed line depending on sight distance availability in the opposing lane.

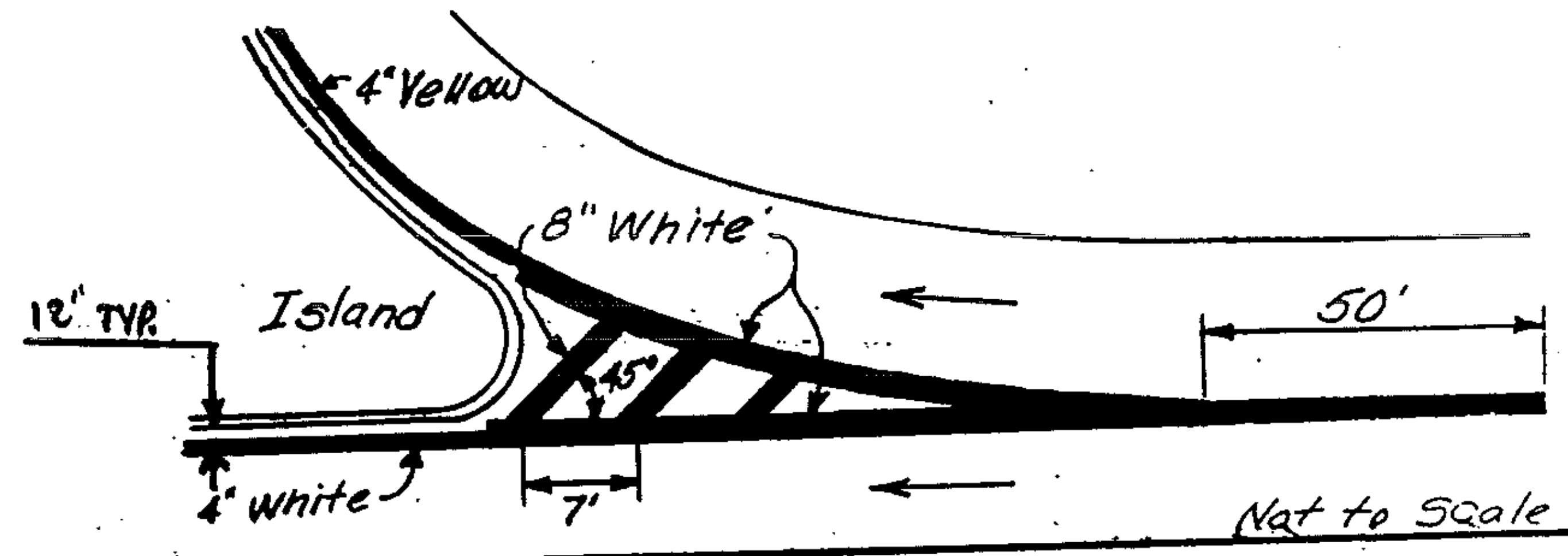


SPECIAL MARKING DETAILS

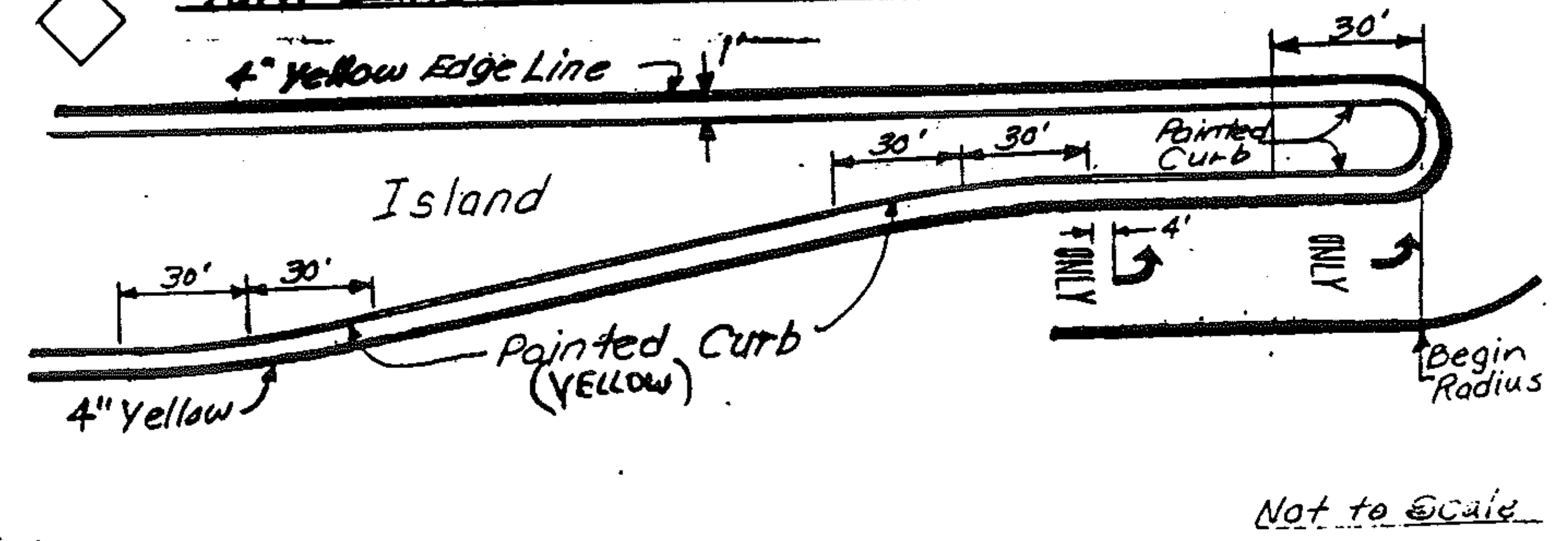
Painted Island Detail



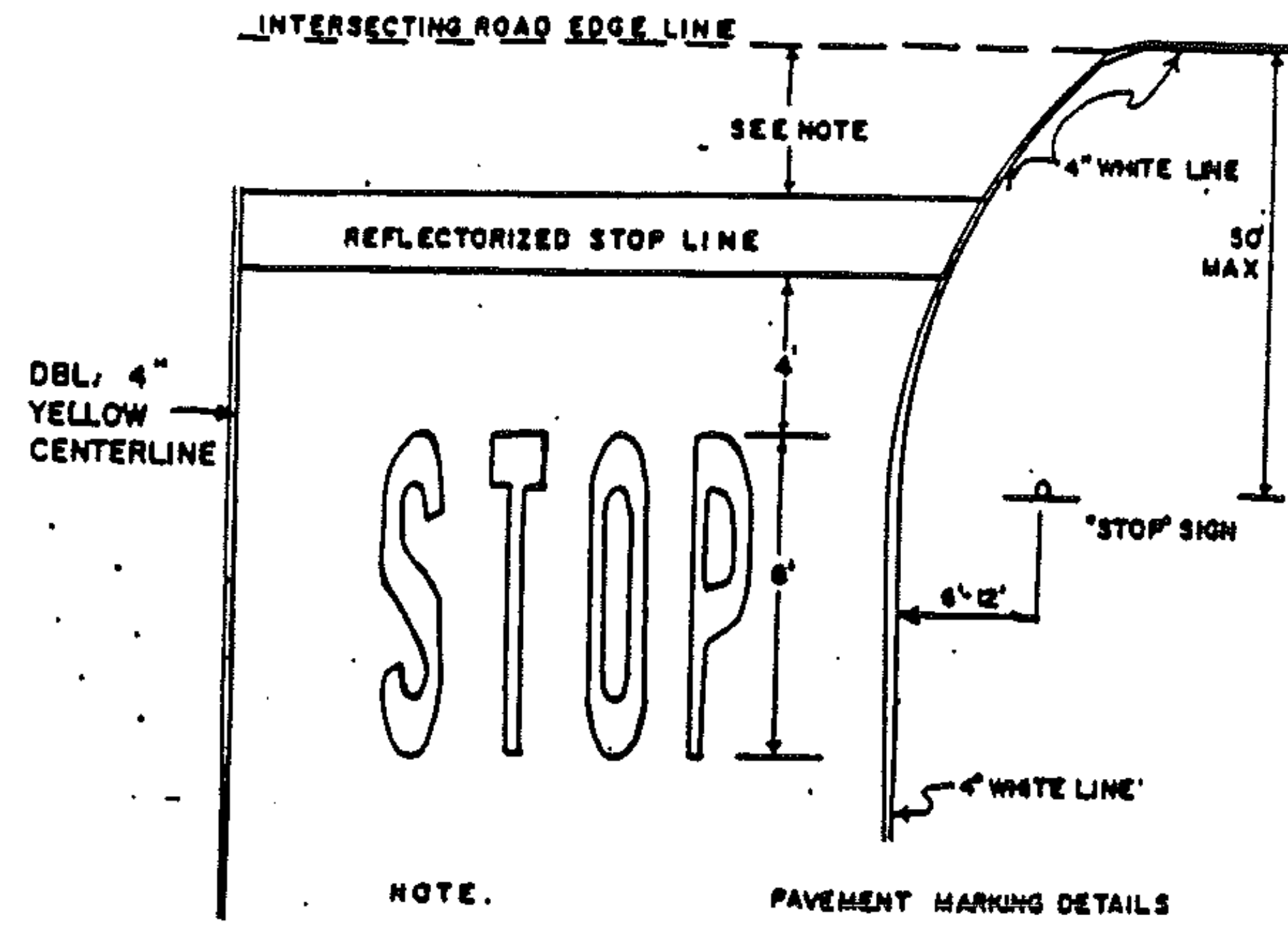
Gore Marking Detail - EXIT



Turn Lane and Painted Curb Detail



STOP BAR DETAILS



NOTE. PAVEMENT MARKING DETAILS

1. THE STOP LINE SHOULD BE PLACED AT THE DESIRED STOPPING POINT; IN NO CASE MORE THAN 30 FEET OR LESS THAN 4' FROM THE NEAREST EDGE OF THE INTERSECTING ROADWAY, OR EDGE OF CROSSWALK.