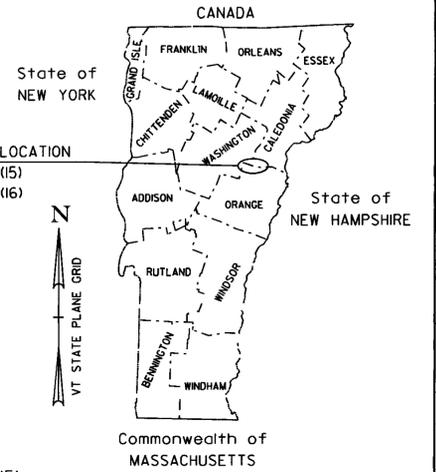


STATE OF VERMONT  
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT  
TOWNS OF BARRE TOWN, ORANGE, GROTON & RYEGATE  
COUNTIES OF WASHINGTON, ORANGE & CALEDONIA  
US ROUTE 302

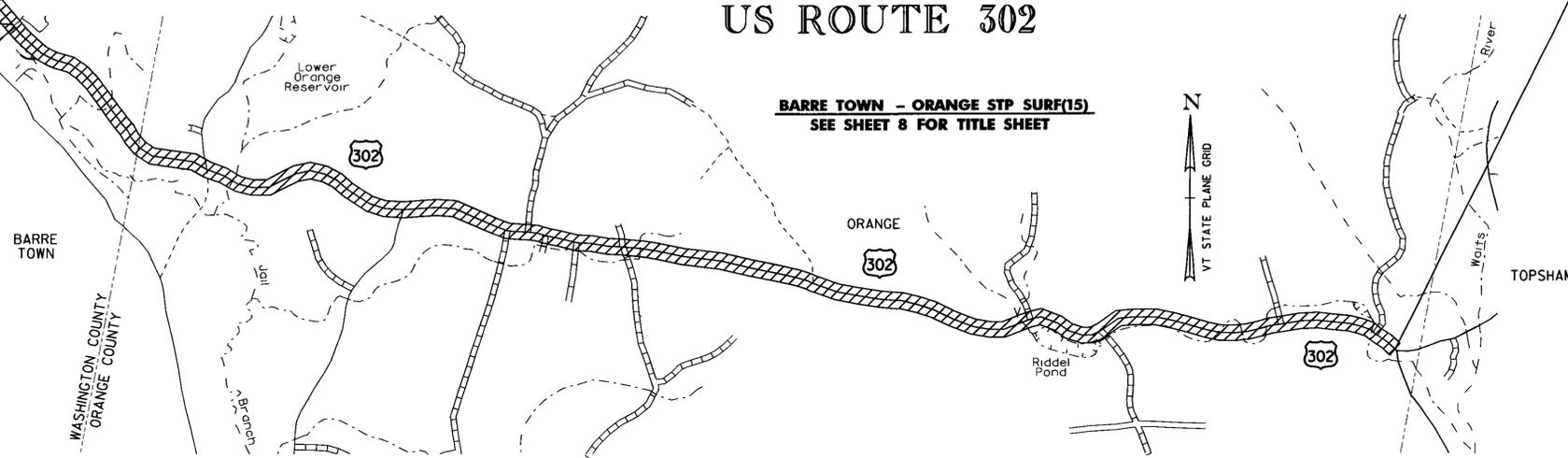


BEGIN STP SURF(15)  
MM 0.000 (BARRE TOWN)

STOP STP SURF(15)  
MM 2.494 (BARRE TOWN)

RESUME STP SURF(15)  
MM 2.608 (BARRE TOWN)

END STP SURF(15)  
MM 6.050 (ORANGE)



BARRE TOWN - ORANGE STP SURF(15)  
SEE SHEET 8 FOR TITLE SHEET

END STP SURF(16)  
MM 1.304 (RYEGATE)

BEGIN STP SURF(16)  
MM 6.987 (GROTON)

GROTON - RYEGATE STP SURF(16)  
SEE SHEET 18 FOR TITLE SHEET

CONVENTIONAL SYMBOLS

COUNTY LINE		COUNTY LINE
TOWN LINE		TOWN LINE
LIMITS OF ACCESS		
POINT OF ACCESS		
FENCE LINE		
STONE WALL		
TRAVELED WAY		
GUARD RAIL		
RAILROAD		
SURVEY LINE		
CULVERT		
POWER POLE		
TELEPHONE POLE		
TREES		
CONTROL OF ACCESS		
PROPERTY LINE		
R.O.W. TAKING LINE		
SLOPE RIGHTS		
TOP OF CUT		
TOE OF SLOPE		

**RECORD PLANS**

CONTRACTOR: ALL STATES ASPHALT, INC - SUNDERLAND, MA

RESIDENT ENGINEER: JOHN SLADYK

CONSTRUCTION BEGAN: JUNE 14, 2010

CONSTRUCTION COMPLETE: AUGUST 11, 2010

RECORD PLANS BY: JOHN SLADYK & CRAIG PIERCE

I HEREBY CERTIFY THAT ALL THE CONSTRUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN

BY: *John W. Sladyk* RESIDENT ENGINEER

DATE: 3-25-11

NOTE: Any further information concerning final quantities, amounts or other details relative to this project may be found at Central Files in the electronic archives

THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE DIRECTOR OF PROGRAM DEVELOPMENT.

CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2006, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JUNE 15, 2006 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

DIRECTOR OF PROGRAM DEVELOPMENT	
APPROVED: <i>Richard Johnson</i>	DATE: 12-7-09
PROJECT MANAGER: KEVIN MARSHIA	
PROJECT NAME: BARRE TOWN - ORANGE/GROTON - RYEGATE	
PROJECT NUMBER: STP SURF (15)/STP SURF (16)	
SHEET 1 OF 24 SHEETS	

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2. COMPOSITE INDEX OF SHEETS
3. COMPOSITE TYPICAL SECTION ALTERNATIVE A
4. COMPOSITE TYPICAL SECTION ALTERNATIVE B
5. COMPOSITE QUANTITY SHEET
6. COMPOSITE TRAFFIC CONTROL SHEET 1
7. COMPOSITE TRAFFIC CONTROL SHEET 2  
STP\_SURF(15)
8. TITLE SHEET
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- 20.-21. PAVEMENT MARKING LAYOUTS 1-2
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24. RUTTING DATA INFORMATION SHEET

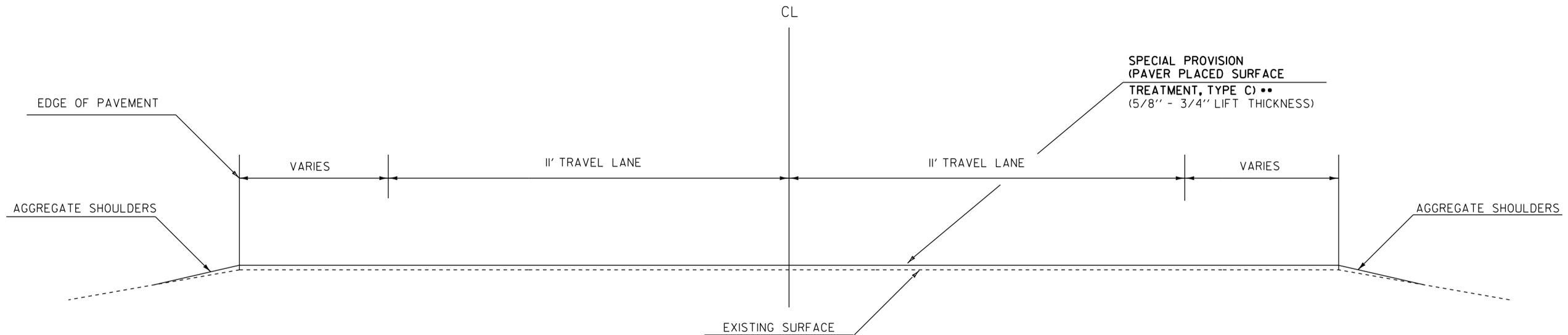
VAOT STANDARDS

E-100	CONSTRUCTION APPROACH SIGNS	01/02/04
E-101	CONSTRUCTION SIGN DETAILS	05/30/03
E-102	CONSTRUCTION SIGN DETAILS	06/30/03
E-102A	CONSTRUCTION SIGN DETAILS	05/01/04
E-106	TRAFFIC CONTROL - MISCELLANEOUS DETAILS	03/01/04
E-107A	BREAKAWAY BARRICADE DETAILS	06/08/09
E-110	MAJOR MAINTENANCE OPERATION LANE CLOSURE	08/08/95
E-191	PAVEMENT MARKING DETAILS	02/01/99

**COMPOSITE  
INDEX  
OF  
SHEETS**

PROJECT NAME: BARRE TOWN - ORANGE/GROTON - RYEGATE	
PROJECT NUMBER: STP_SURF(15)/STP_SURF(16)	
FILE NAME: p09b038.dgn	PLOT DATE: 10-NOV-2011
PROJECT LEADER: MARSHIA	DRAWN BY: PAVT MGMT
DESIGNED BY: PAVT MGMT	CHECKED BY: PAVT MGMT
IPARM FILE NAME: p09b038ind.i	SHEET 2 OF 24

# ALTERNATE A



## TYPICAL SECTION

### US 302 MM 0.000 (BARRE TOWN) - MM 6.050 (ORANGE)

STA. 0+00.000 - STA. 131+68.320 (BARRE TOWN)  
STA. 137+70.204 (BARRE TOWN) - STA. 319+44.000 (ORANGE)

### US 302 MM 6.987 (GROTON) - MM 1.304 (RYEGATE)

STA. 368+91.360 - STA. 68+85.120  
NOT TO SCALE

## NOTES:

1. IT IS EXPECTED THAT SOME SPOT LEVELING WILL BE NECESSARY AS DIRECTED BY THE RESIDENT ENGINEER PRIOR TO THE PLACEMENT OF THE WEARING COURSE. AN ESTIMATED QUANTITY OF ITEM 900.680 SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY) AND ITEM 404.65 EMULSIFIED ASPHALT HAS BEEN INCLUDED FOR THIS PURPOSE.

2. IF IT IS DETERMINED IN AREAS ALONG THE BASE OF GUARDRAIL WHERE WINTER SAND AND OTHER DEBRIS HAS ACCUMULATED SUFFICIENTLY TO AFFECT PROPER PLACEMENT OF LEVELING OR WEARING COURSES, THIS MATERIAL SHALL BE REMOVED PRIOR TO PAVING AS DIRECTED BY THE RESIDENT ENGINEER. AN ESTIMATED QUANTITY OF 203.40 SHOULDER BERM REMOVAL HAS BEEN INCLUDED TO COVER THE COSTS ASSOCIATED WITH THIS WORK.

3. A 50' COLD PLANED WEDGE SHALL BE CONSTRUCTED AT THE PROJECT BEGIN AND END. THE LONGITUDINAL EDGES OF THE SURFACE TREATMENT SHALL BE TAPERED AS DIRECTED BY THE RESIDENT ENGINEER. THE COLD PLANE LIMIT FOR TOWN HIGHWAYS WILL BE UP TO OR SLIGHTLY OFFSET FROM THE EXISTING STOP BARS OR AS DIRECTED BY THE ENGINEER. THE COLD PLANE LIMIT FOR DRIVES SHALL BE 2 FEET FROM THE EXISTING EDGE OF PAVEMENT OR AS DIRECTED BY THE ENGINEER.

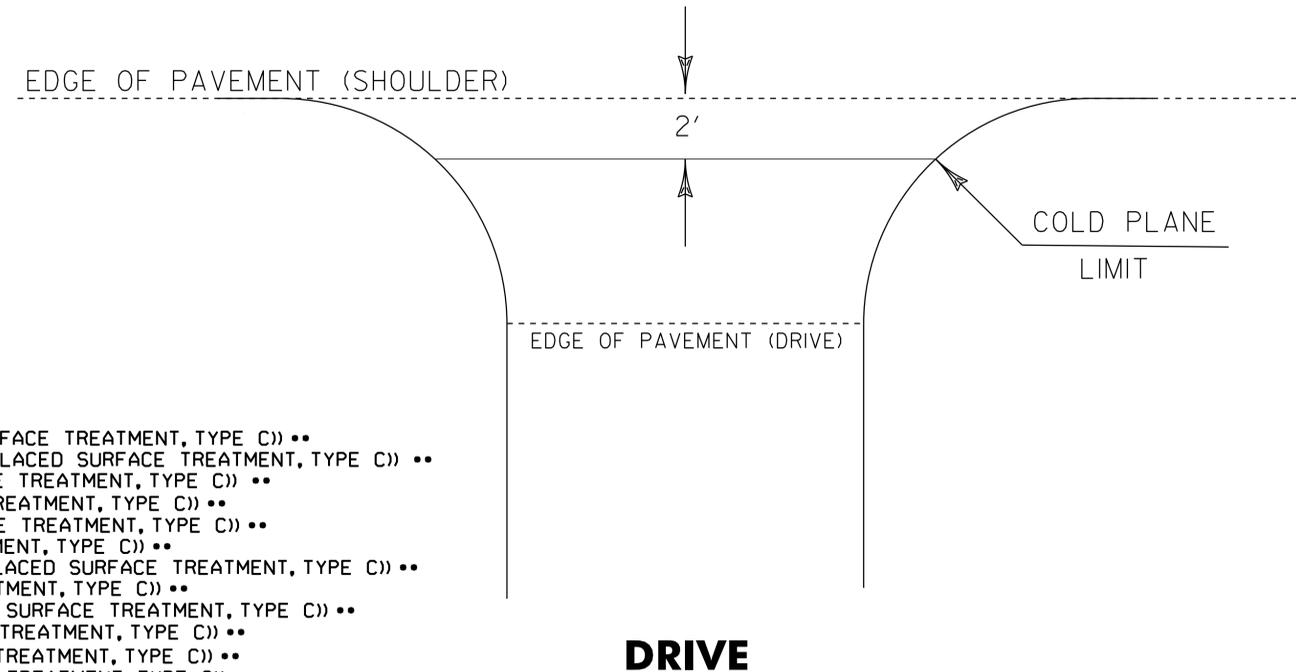
4. FOLLOWING COMPLETION OF COLD PLANING, THE MILLED SURFACE FOR ALL BRIDGES SHALL ALSO RECEIVE CRACK SEALING AND RELATED PATCHING AND POT HOLE REPAIR TREATMENTS AS DIRECTED BY THE RESIDENT ENGINEER.

5. ALL NECESSARY SURFACE PREPARATION INVOLVING PATCHING, POT HOLE REPAIR, AND CRACK SEALING SHALL BE PERFORMED PRIOR TO APPLICATION OF ANY SPOT LEVELING OR PLACEMENT OF THE WEARING COURSE. ALL CRACKS GREATER THAN 0.10 INCH AND UP TO 1.0 INCH IN WIDTH SHALL BE SEALED USING THE "BLOW AND GO" METHOD. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE PAID FOR UNDER ITEM 417.20 BITUMINOUS CRACK SEALING, "BLOW AND GO" METHOD. STRIKE OFF OF EXCESS MATERIAL MAY BE ACCOMPLISHED WITH A SQUEEGEE. ALL CRACKS GREATER THAN 1.0 INCH, POT HOLES, AND ALL OTHER AREAS REQUIRING PATCHING SHALL BE REPAIRED WITH BITUMINOUS CONCRETE PAVEMENT TYPE IV OR TYPE V, OR SUPERPAVE BITUMINOUS CONCRETE PAVEMENT TYPE IVS OR TYPE VS, AS DIRECTED BY THE ENGINEER. AN ESTIMATED QUANTITY OF ITEM 900.680 SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION, TYPE I) HAS BEEN INCLUDED TO COVER ALL COSTS ASSOCIATED WITH THIS WORK.

6. BRIDGES WITHIN THE PROJECT ARE:
- BRIDGE NUMBER 8, MM 0.845 (BARRE TOWN) 13.5' X 6.8' CONCRETE BOX (OVERLAY WITH SPECIAL PROVISION (PAVER PLACED SURFACE TREATMENT, TYPE C)) \*\*
  - BRIDGE NUMBER 9, MM 1.020 (BARRE TOWN) COMP. WF BEAM (COLD PLANE 3/4" THEN PAVE WITH SPECIAL PROVISION (PAVER PLACED SURFACE TREATMENT, TYPE C)) \*\*
  - BRIDGE NUMBER 10, MM 1.315 (BARRE TOWN) 4' X 2' CONCRETE BOX (OVERLAY WITH SPECIAL PROVISION (PAVER PLACED SURFACE TREATMENT, TYPE C)) \*\*
  - BRIDGE NUMBER 11, MM 1.389 (BARRE TOWN) 4' X 3' STONE BOX (OVERLAY WITH SPECIAL PROVISION (PAVER PLACED SURFACE TREATMENT, TYPE C)) \*\*
  - BRIDGE NUMBER 12, MM 1.652 (BARRE TOWN) 4' X 4' CONCRETE BOX (OVERLAY WITH SPECIAL PROVISION (PAVER PLACED SURFACE TREATMENT, TYPE C)) \*\*
  - BRIDGE NUMBER 13, MM 1.867 (BARRE TOWN) 54" A.C.G.M.P. (OVERLAY WITH SPECIAL PROVISION (PAVER PLACED SURFACE TREATMENT, TYPE C)) \*\*
  - BRIDGE NUMBER 14, MM 2.126 (BARRE TOWN) WF BEAM CONC. (COLD PLANE 3/4" THEN PAVE WITH SPECIAL PROVISION (PAVER PLACED SURFACE TREATMENT, TYPE C)) \*\*
  - BRIDGE NUMBER 14A, MM 3.325 (BARRE TOWN) 60" A.C.G.M.P. (OVERLAY WITH SPECIAL PROVISION (PAVER PLACED SURFACE TREATMENT, TYPE C)) \*\*
  - BRIDGE NUMBER 15, MM 0.446 (ORANGE) CONC. T BEAM (COLD PLANE 3/4" THEN PAVE WITH SPECIAL PROVISION (PAVER PLACED SURFACE TREATMENT, TYPE C)) \*\*
  - BRIDGE NUMBER 16, MM 2.438 (ORANGE) 12' X 6.5' CONCRETE BOX (OVERLAY WITH SPECIAL PROVISION (PAVER PLACED SURFACE TREATMENT, TYPE C)) \*\*
  - BRIDGE NUMBER 17, MM 4.235 (ORANGE) 9'-6" X 6'-5" C.G.M.P.P.A. (OVERLAY WITH SPECIAL PROVISION (PAVER PLACED SURFACE TREATMENT, TYPE C)) \*\*
  - BRIDGE NUMBER 18, MM 5.222 (ORANGE) 10'-8" X 6'-11" C.G.M.P.P.A. (OVERLAY WITH SPECIAL PROVISION (PAVER PLACED SURFACE TREATMENT, TYPE C)) \*\*
  - BRIDGE NUMBER 19, MM 5.315 (ORANGE) 10'-8" X 6'-11" C.G.M.P.P.A. (OVERLAY WITH SPECIAL PROVISION (PAVER PLACED SURFACE TREATMENT, TYPE C)) \*\*
  - BRIDGE NUMBER 20, MM 5.447 (ORANGE) CONCRETE SLAB (OVERLAY WITH SPECIAL PROVISION (PAVER PLACED SURFACE TREATMENT, TYPE C)) \*\*
  - BRIDGE NUMBER 21, MM 5.981 (ORANGE) C.G. MULTIPLE ARCH (OVERLAY WITH SPECIAL PROVISION (PAVER PLACED SURFACE TREATMENT, TYPE C)) \*\*
  - BRIDGE NUMBER 38, MM 7.356 (GROTON) 4.5' X 6' CONCRETE BOX (OVERLAY WITH SPECIAL PROVISION (PAVER PLACED SURFACE TREATMENT, TYPE C)) \*\*
  - BRIDGE NUMBER 39, MM 0.027 (RYEGATE) 12'-10" X 8'-4" C.G.M.P.P. ARCH (OVERLAY WITH SPECIAL PROVISION (PAVER PLACED SURFACE TREATMENT, TYPE C)) \*\*

7. ALL EXISTING PAVEMENT MARKINGS SHALL BE REMOVED PRIOR TO APPLYING THE PAVER PLACED SURFACE TREATMENT. PAVEMENT MARKINGS SHALL BE REMOVED PRIOR TO ANY CRACK SEALING BEING PERFORMED. ALL LANE DELINEATION IS TO BE MAINTAINED DURING CONSTRUCTION BY THE USE OF LINE STRIPING TARGETS OR TEMPORARY PAINT.

8. FOR ESTIMATING PURPOSES, A TARGET APPLICATION RATE OF 0.25 GAL/SY WAS USED FOR THE POLYMER MODIFIED ASPHALT EMULSION PRIMER (TACK) COAT. ACTUAL YIELD SHALL BE CHECKED FOR EACH DAY'S PRODUCTION OF PAVER PLACED SURFACE TREATMENT PLACEMENT. ACTUAL YIELD SHALL VARY BY NO MORE THAN +/- 0.05 GAL/SY ON A DAILY BASIS. IF THE APPLICATION RATE IS LESS THAN 0.25 GAL/SY FOR TWO CONSECUTIVE DAYS THE CONTRACTOR SHALL TAKE CORRECTIVE ACTION AS DIRECTED BY THE RESIDENT ENGINEER.



\*\* REVISED 01-29-10 BY KML  
CHANGED (PAVER PLACED SURFACE TREATMENT, TYPE B) TO (PAVER PLACED SURFACE TREATMENT, TYPE C)

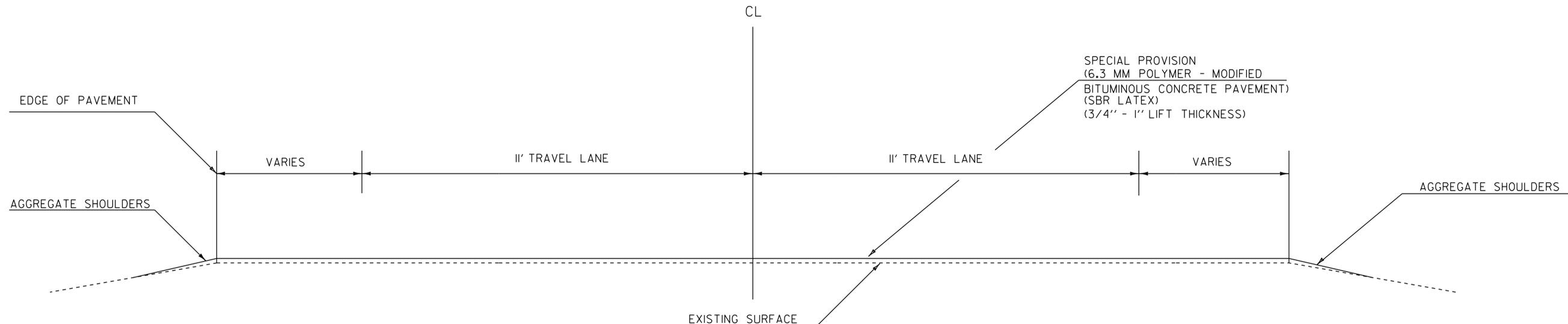
## COMPOSITE TYPICAL SECTION ALTERNATE A

PROJECT NAME: BARRE TOWN - ORANGE/GROTON - RYEGATE  
PROJECT NUMBER: STP SURF(15)/STP SURF(16)

FILE NAME: p09b038.dgn  
PROJECT LEADER: MARSHIA  
DESIGNED BY: LOCKE  
p09b038+yp1.i

PLOT DATE: 10-NOV-2011  
DRAWN BY: LOCKE  
CHECKED BY: PAVT MGMT  
SHEET 3 OF 24

# ALTERNATE B



## TYPICAL SECTION

**US 302 MM 0.000 (BARRE TOWN) – MM 6.050 (ORANGE)**

STA. 0+00.000 - STA. 131+68.320 (BARRE TOWN)  
STA. 137+70.204 (BARRE TOWN) - STA. 319+44.000 (ORANGE)

**US 302 MM 6.987 (GROTON) – MM 1.304 (RYEGATE)**

STA. 368+91.360 - STA. 68+85.120

NOT TO SCALE

### NOTES:

1. IT IS EXPECTED THAT SOME SPOT LEVELING WILL BE NECESSARY AS DIRECTED BY THE RESIDENT ENGINEER PRIOR TO THE PLACEMENT OF THE WEARING COURSE. AN ESTIMATED QUANTITY OF ITEM 900.680 SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY) AND ITEM 404.65 EMULSIFIED ASPHALT HAS BEEN INCLUDED FOR THIS PURPOSE.

2. IF IT IS DETERMINED IN AREAS ALONG THE BASE OF GUARDRAIL WHERE WINTER SAND AND OTHER DEBRIS HAS ACCUMULATED SUFFICIENTLY TO AFFECT PROPER PLACEMENT OF LEVELING OR WEARING COURSES, THIS MATERIAL SHALL BE REMOVED PRIOR TO PAVING AS DIRECTED BY THE RESIDENT ENGINEER. AN ESTIMATED QUANTITY OF 203.40 SHOULDER BERM REMOVAL HAS BEEN INCLUDED TO COVER THE COSTS ASSOCIATED WITH THIS WORK.

3. A 50' COLD PLANED WEDGE SHALL BE CONSTRUCTED AT THE PROJECT BEGIN AND END. THE LONGITUDINAL EDGES OF THE SURFACE TREATMENT SHALL BE TAPERED AS DIRECTED BY THE RESIDENT ENGINEER. THE COLD PLANE LIMIT FOR TOWN HIGHWAYS WILL BE UP TO OR SLIGHTLY OFFSET FROM THE EXISTING STOP BARS OR AS DIRECTED BY THE ENGINEER. THE COLD PLANE LIMIT FOR DRIVES SHALL BE 2 FEET FROM THE EXISTING EDGE OF PAVEMENT OR AS DIRECTED BY THE ENGINEER.

4. FOLLOWING COMPLETION OF COLD PLANING, THE MILLED SURFACE FOR ALL BRIDGES SHALL ALSO RECEIVE CRACK SEALING AND RELATED PATCHING AND POT HOLE REPAIR TREATMENTS AS DIRECTED BY THE RESIDENT ENGINEER.

5. ALL NECESSARY SURFACE PREPARATION INVOLVING PATCHING, POT HOLE REPAIR, AND CRACK SEALING SHALL BE PERFORMED PRIOR TO APPLICATION OF ANY SPOT LEVELING OR PLACEMENT OF THE WEARING COURSE. ALL CRACKS GREATER THAN 0.10 INCH AND UP TO 1.0 INCH IN WIDTH SHALL BE SEALED USING THE "BLOW AND GO" METHOD. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE PAID FOR UNDER ITEM 417.20 BITUMINOUS CRACK SEALING, "BLOW AND GO" METHOD. STRIKE OFF OF EXCESS MATERIAL MAY BE ACCOMPLISHED WITH A SQUEEGEE.

ALL CRACKS GREATER THAN 1.0 INCH, POT HOLES, AND ALL OTHER AREAS REQUIRING PATCHING SHALL BE REPAIRED WITH BITUMINOUS CONCRETE PAVEMENT TYPE IV OR TYPE V, OR SUPERPAVE BITUMINOUS CONCRETE PAVEMENT TYPE IVS OR TYPE VS, AS DIRECTED BY THE ENGINEER. AN ESTIMATED QUANTITY OF ITEM 900.680 SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION, TYPE I) HAS BEEN INCLUDED TO COVER ALL COSTS ASSOCIATED WITH THIS WORK.

6. PRIOR TO THE PLACEMENT OF THE WEARING COURSE, EMULSIFIED ASPHALT SHALL BE APPLIED TO ALL EXISTING PAVEMENT SURFACES AND ON ALL COLD PLANED SURFACES AT A RATE OF 0.080 GAL/SY (+/- 0.01 GAL/SY) OR AS DIRECTED BY THE RESIDENT ENGINEER. EMULSIFIED ASPHALT SHALL BE RS-1H OR CRS-1H PER THE MANUFACTURER'S RECOMMENDATION. THIS SHALL BE PAID

7. THE GYRATION SPECIFICATION FOR THE SPECIAL PROVISION (6.3 MM POLYMER - MODIFIED BITUMINOUS CONCRETE PAVEMENT) SHALL BE 75.

8. BRIDGES WITHIN THE PROJECT ARE:

- BRIDGE NUMBER 8, MM 0.845 (BARRE TOWN) 13.5' X 6.8' CONCRETE BOX (OVERLAY WITH SPECIAL PROVISION (6.3 MM POLYMER - MODIFIED BITUMINOUS CONCRETE PAVEMENT))
- BRIDGE NUMBER 9, MM 1.020 (BARRE TOWN) COMP. WF BEAM (COLD PLANE 3/4" THEN PAVE WITH SPECIAL PROVISION (6.3 MM POLYMER - MODIFIED BITUMINOUS CONCRETE PAVEMENT))
- BRIDGE NUMBER 10, MM 1.315 (BARRE TOWN) 4' X 2' CONCRETE BOX (OVERLAY WITH SPECIAL PROVISION (6.3 MM POLYMER - MODIFIED BITUMINOUS CONCRETE PAVEMENT))
- BRIDGE NUMBER 11, MM 1.389 (BARRE TOWN) 4' X 3' STONE BOX (OVERLAY WITH SPECIAL PROVISION (6.3 MM POLYMER - MODIFIED BITUMINOUS CONCRETE PAVEMENT))
- BRIDGE NUMBER 12, MM 1.652 (BARRE TOWN) 4' X 4' CONCRETE BOX (OVERLAY WITH SPECIAL PROVISION (6.3 MM POLYMER - MODIFIED BITUMINOUS CONCRETE PAVEMENT))
- BRIDGE NUMBER 13, MM 1.867 (BARRE TOWN) 54" A.C.G.M.P. (OVERLAY WITH SPECIAL PROVISION (6.3 MM POLYMER - MODIFIED BITUMINOUS CONCRETE PAVEMENT))
- BRIDGE NUMBER 14, MM 2.126 (BARRE TOWN) WF BEAM CONC. (COLD PLANE 3/4" THEN PAVE WITH SPECIAL PROVISION (6.3 MM POLYMER - MODIFIED BITUMINOUS CONCRETE PAVEMENT))
- BRIDGE NUMBER 14A, MM 3.325 (BARRE TOWN) 60" A.C.G.M.P. (OVERLAY WITH SPECIAL PROVISION (6.3 MM POLYMER - MODIFIED BITUMINOUS CONCRETE PAVEMENT))
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- BRIDGE NUMBER 16, MM 2.438 (ORANGE) 12' X 6.5' CONCRETE BOX (OVERLAY WITH SPECIAL PROVISION (6.3 MM POLYMER - MODIFIED BITUMINOUS CONCRETE PAVEMENT))
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- BRIDGE NUMBER 21, MM 5.981 (ORANGE) C.G. MULTIPLE ARCH (OVERLAY WITH SPECIAL PROVISION (6.3 MM POLYMER - MODIFIED BITUMINOUS CONCRETE PAVEMENT))
- BRIDGE NUMBER 38, MM 7.356 (GROTON) 4.5' X 6' CONCRETE BOX (OVERLAY WITH SPECIAL PROVISION (6.3 MM POLYMER - MODIFIED BITUMINOUS CONCRETE PAVEMENT))
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9. ALL EXISTING PAVEMENT MARKINGS SHALL BE REMOVED PRIOR TO APPLYING THE SPECIAL PROVISION (6.3 MM POLYMER - MODIFIED BITUMINOUS CONCRETE PAVEMENT). PAVEMENT MARKINGS SHALL BE REMOVED PRIOR TO ANY CRACK SEALING BEING PERFORMED. ALL LANE DELINEATION IS TO BE MAINTAINED DURING CONSTRUCTION BY THE USE OF LINE STRIPING TARGETS OR TEMPORARY PAINT.

EDGE OF PAVEMENT (SHOULDER)

2'

COLD PLANE  
LIMIT

EDGE OF PAVEMENT (DRIVE)

**DRIVE**

**COMPOSITE  
TYPICAL SECTION  
ALTERNATE B**

PROJECT NAME: BARRE TOWN - ORANGE/GROTON - RYEGATE  
PROJECT NUMBER: STP SURF(15)/STP SURF(16)

FILE NAME: p09b038.dgn  
PROJECT LEADER: MARSHIA  
DESIGNED BY: LOCKE  
p09b038typ2.i

PLOT DATE: 10-NOV-2011  
DRAWN BY: LOCKE  
CHECKED BY: PAVT MGMT  
SHEET 4 OF 24

# COMPOSITE QUANTITY SHEET

					GROTON - RYEGATE STP SURF (16)				BARRE TOWN - ORANGE STP SURF (15)					QUANTITIES		DESCRIPTIONS			
					ALT A	ALT B	ROADWAY	FULL C.E.	ALT A	ALT B	BRIDGE	ROADWAY	FULL C.E.	GRAND TOTAL	UNIT	ITEMS	ITEM NO.	ROUND	
BEGIN ITEMS COMMON TO ALL ALTERNATES																			
							5,680					19,000		24,680	LF	SHOULDER BERM REMOVAL	203.40	EST.	
							1					1		2	CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22	EST.	
							600					2,600		3,200	SY	COLD PLANING, BITUMINOUS PAVEMENT	210.10	35	
							250					1,750		2,000	TON	AGGREGATE SHOULDERS	402.12	22	
							20					75		95	CWT	EMULSIFIED ASPHALT	404.65	-	
							1					1		2	LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	406.50	-	
							2,500					25,000		27,500	LB	BITUMINOUS CRACK SEALING, "BLOW AND GO" METHOD	417.20	EST.	
											240			240	LF	BRIDGE EXPANSION JOINT, ASPHALTIC PLUG	516.10	6	
											100			100	CF	RAPID SETTING CONCRETE REPAIR MATERIAL W/COARSE AGGREGATE	580.20	EST.	
							85					500		585	HR	UNIFORMED TRAFFIC OFFICERS	630.10	EST.	
							500					1,500		2,000	HR	FLAGGERS	630.15	EST.	
								0.5					0.5	1	LS	TESTING EQUIPMENT, BITUMINOUS	631.17	-	
							0.5					0.5		1	LS	MOBILIZATION/DEMOBILIZATION	635.11	-	
												1		1	LS	TRAFFIC CONTROL (STP SURF (15))	641.10	-	
												1		1	LS	TRAFFIC CONTROL (STP SURF (16))	641.10	-	
							46,900					198,000		244,900	LF	4 INCH WHITE LINE	646.20	-	
							46,900					198,000		244,900	LF	4 INCH YELLOW LINE	646.21	-	
											24			24	EA	LETTER OR SYMBOL	646.30	-	
							600					2,500		3,100	EA	LINE STRIPING TARGETS	646.76	EST.	
							8,000					32,000		40,000	SF	REMOVAL OF EXISTING PAVEMENT MARKINGS	646.85	EST.	
							1					1		2	LU	PRICE ADJUSTMENT, FUEL (N.A.B.I.)	690.50	-	
							1					1		2	LU	SPECIAL PROVISION (MIXTURE PAY ADJUSTMENT) (N.A.B.I.)	900.650	-	
							150					650		800	TON	SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY)	900.680		
							5					20		25	TON	SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION, TYPE I)	900.680	EST.	
END ITEMS COMMON TO ALL ALTERNATES																			
BEGIN ALTERNATE A																			
					52,150				170,500					222,650	SY	** SPECIAL PROVISION (PAVER PLACED SURFACE TREATMENT, TYPE C)	900.675	105	
END ALTERNATE A																			
BEGIN ALTERNATE B																			
							1					1		2	LU	AIR VOIDS PAY ADJUSTMENT (N.A.B.I.)	490.31	-	
							3,100					10,000		13,100	TON	SPECIAL PROVISION (6.3 MM POLYMER-MODIFIED BITUMINOUS CONCRETE PAVEMENT) (SBR LATEX)	900.680	117	
							350					1,200		1,550	CWT	SPECIAL PROVISION (EMULSIFIED ASPHALT) (RS-1H OR CRS-1H)	900.683	16.4	
END ALTERNATE B																			
															PROJECT NAME: BARRE TOWN - ORANGE/GROTON - RYEGATE				
															PROJECT NUMBER: STP SURF(15)/STP SURF(16)				
															FILE NAME: p09b038.dgn		PLOT DATE: 10-NOV-2011		
															PROJECT LEADER: MARSHIA		DRAWN BY: LOCKE		
															DESIGNED BY: LOCKE		CHECKED BY: PAVT MGMT		
															IPARM FILE: p09b038cqs01.i		SHEET 5 OF 24		
															** REVISED 01-29-10 BY KML CHANGED (PAVER PLACED SURFACE TREATMENT, TYPE B) TO (PAVER PLACED SURFACE TREATMENT, TYPE C)				

Table 6H-2. Meaning of Symbols on Typical Application Diagrams

	Arrow panel
	Arrow panel support or trailer (shown facing down)
	Changeable message sign or support trailer
	Channelizing device
	Crash Cushion
	Direction of temporary traffic detour
	Direction of traffic
	Flagger
	High level warning device (Flag tree)
	Luminaire
	Pavement markings that should be removed for a long term project
	Sign (shown facing left)
	Surveyor
	Temporary barrier
	Temporary barrier with warning lights
	Traffic or Pedestrian signal
	Truck mounted attenuator
	Type III Barricade
	Warning lights
	Work space
	Work vehicle

Figure 6E-1. Use of Hand-Signaling Devices by Flaggers

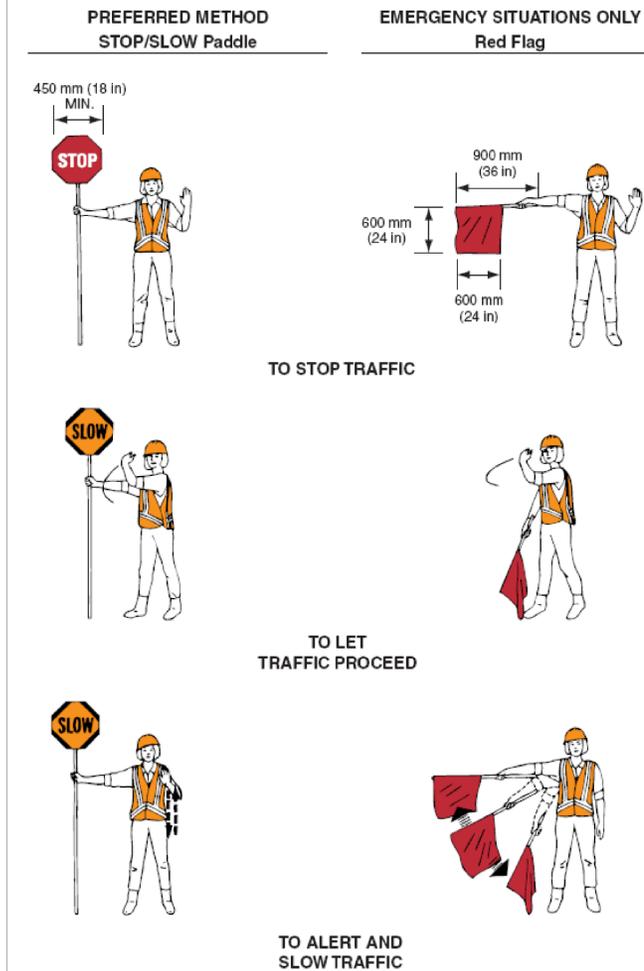


Figure 6C-2. Types of Tapers and Buffer Spaces

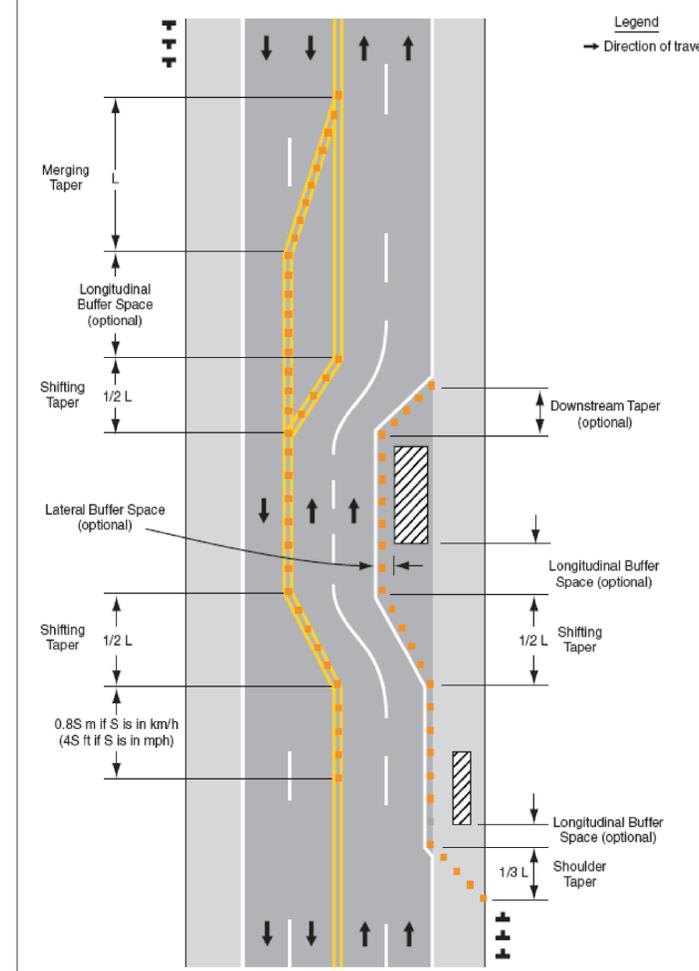


Figure 6H-1. Work Beyond the Shoulder (TA-1)

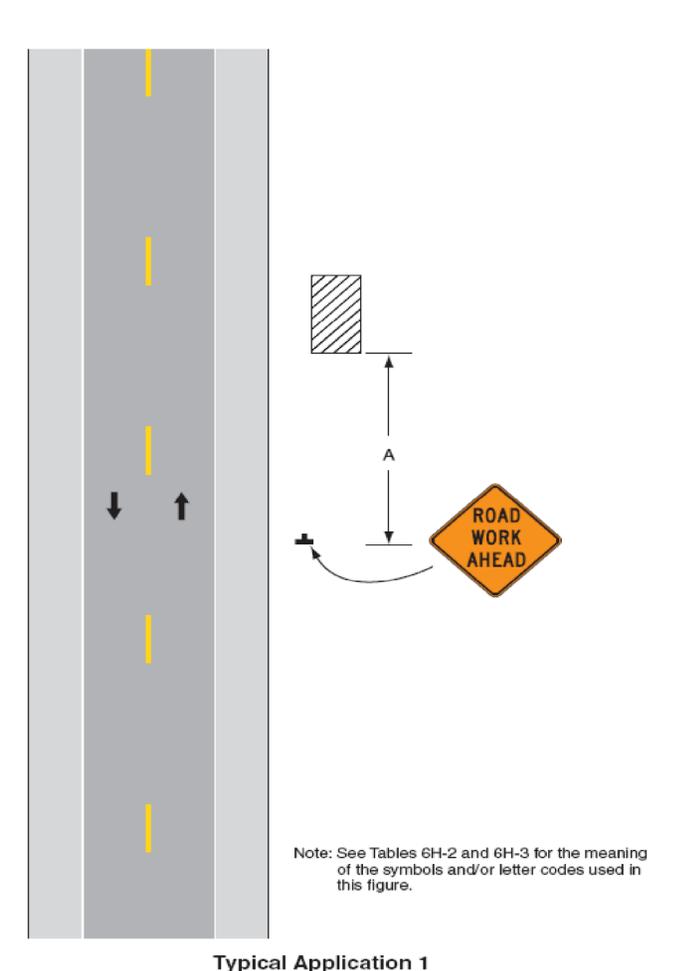


Table 6C-3. Taper Length Criteria for Temporary Traffic Control Zones

Type of Taper	Taper Length (L)*
Merging Taper	at least L
Shifting Taper	at least 0.5L
Shoulder Taper	at least 0.33L
One-Lane, Two-Way Traffic Taper	30 m (100 ft) maximum
Downstream Taper	30 m (100 ft) per lane

Table 6C-4. Formulas for Determining Taper Lengths

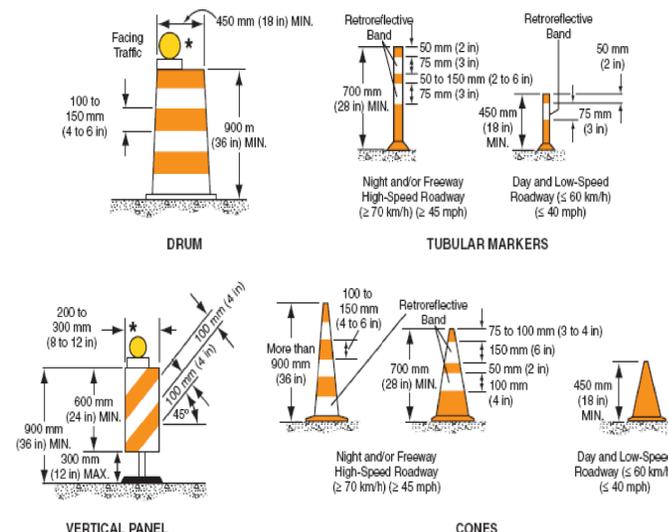
Speed Limit (S)	Taper Length (L) Meters	Speed Limit (S)	Taper Length (L) Feet
60 km/h or less	$L = \frac{WS^2}{155}$	40 mph or less	$L = \frac{WS^2}{60}$
70 km/h or more	$L = \frac{WS}{1.6}$	45 mph or more	$L = WS$

Where: L = taper length in meters (feet)

W = width of offset in meters (feet)

S = posted speed limit, or off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in km/h (mph)

Figure 6F-7. Channelizing Devices (Sheet 1 of 2)



\* Warning lights (optional)

Note: If drums, cones, or tubular markers are used to channelize pedestrians, they shall be located such that there are no gaps between the bases of the devices, in order to create a continuous bottom, and the height of each individual drum, cone, or tubular marker shall be no less than 900 mm (36 in) to be detectable to users of long canes.

TEMPORARY TRAFFIC CONTROL NOTES

- ALL TEMPORARY TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THESE PROJECT PLANS, APPLICABLE VTRANS E-SERIES STANDARD DRAWINGS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), DATED 2003, AND ITS LATEST REVISIONS, OR AS DIRECTED BY THE RESIDENT ENGINEER. IF THE CONTRACTOR DOES NOT WISH TO FOLLOW THE TEMPORARY TRAFFIC CONTROL PROVIDED, HE/SHE MAY SUBMIT AN ALTERNATE PROPOSAL AT THE PRE-CONSTRUCTION MEETING INCLUDING ANY PROPOSED CHANGES FOR REVIEW AND APPROVAL BY THE RESIDENT ENGINEER.
- THE CONTRACTOR MUST PROVIDE ACCESS THROUGH THE WORK ZONE FOR EMERGENCY VEHICLES AT ALL TIMES.
- THE CONTRACTOR SHALL CONDUCT THE WORK AT ALL TIMES IN SUCH A MANNER AND IN SUCH SEQUENCE SO AS TO ENSURE THE LEAST INTERFERENCE WITH TRAFFIC OCCURS.
- SIGNS SHALL ONLY BE VISIBLE TO MOTORIST AT THE TIMES WHEN THE MESSAGE IS PERTINENT, I.E. A "FLAGGER AHEAD" SIGN SHALL ONLY BE VISIBLE TO MOTORIST WHEN THE FLAGGER IS ACTUALLY PRESENT PERFORMING THEIR DUTIES.
- PAYMENT FOR CONSTRUCTION SIGNING WILL BE MADE UNDER CONTRACT ITEM 641.0.

PROJECT NAME: BARRE TOWN - ORANGE/GROTON - RYEGATE  
PROJECT NUMBER: STP SURF(15)/STP SURF(16)

FILE NAME: p09b038.dgn  
PROJECT LEADER: MARSHA  
DESIGNED BY: KML  
COMPOSITE TRAFFIC CONTROL SHEET 1

PLOT DATE: 10-NOV-2011  
DRAWN BY: KML  
CHECKED BY: PAVT MGMT  
SHEET 6 OF 24

Figure 6H-3. Work on Shoulders (TA-3)

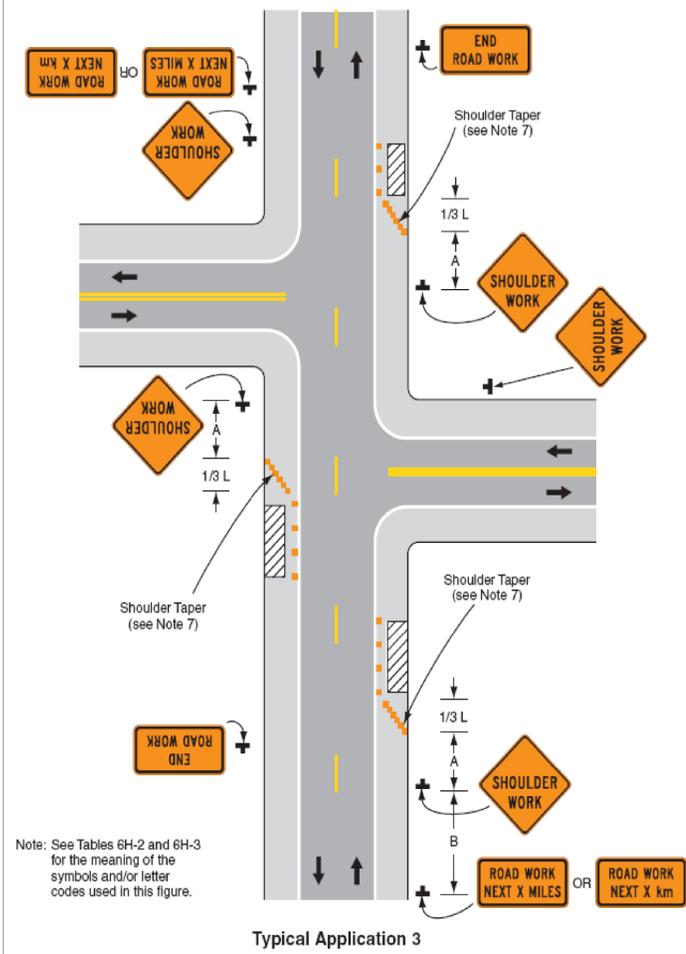


Figure 6H-4. Short-Duration or Mobile Operation on Shoulder (TA-4)

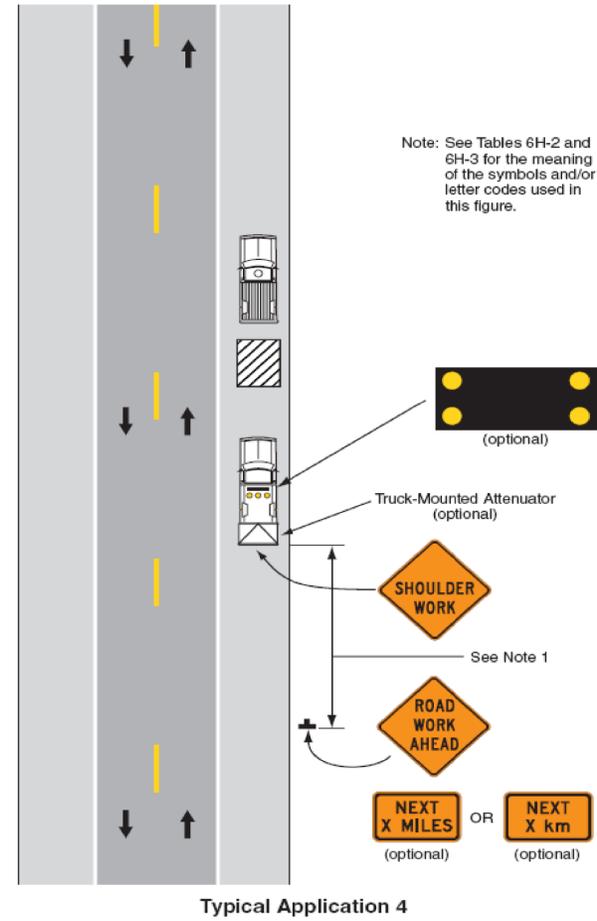


Figure 6H-6. Shoulder Work with Minor Encroachment (TA-6)

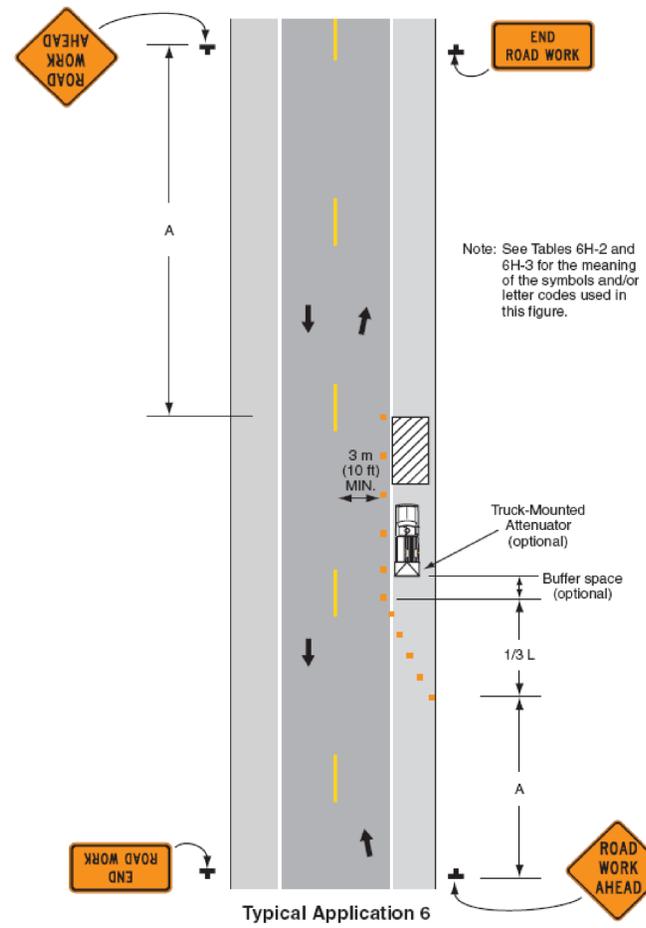
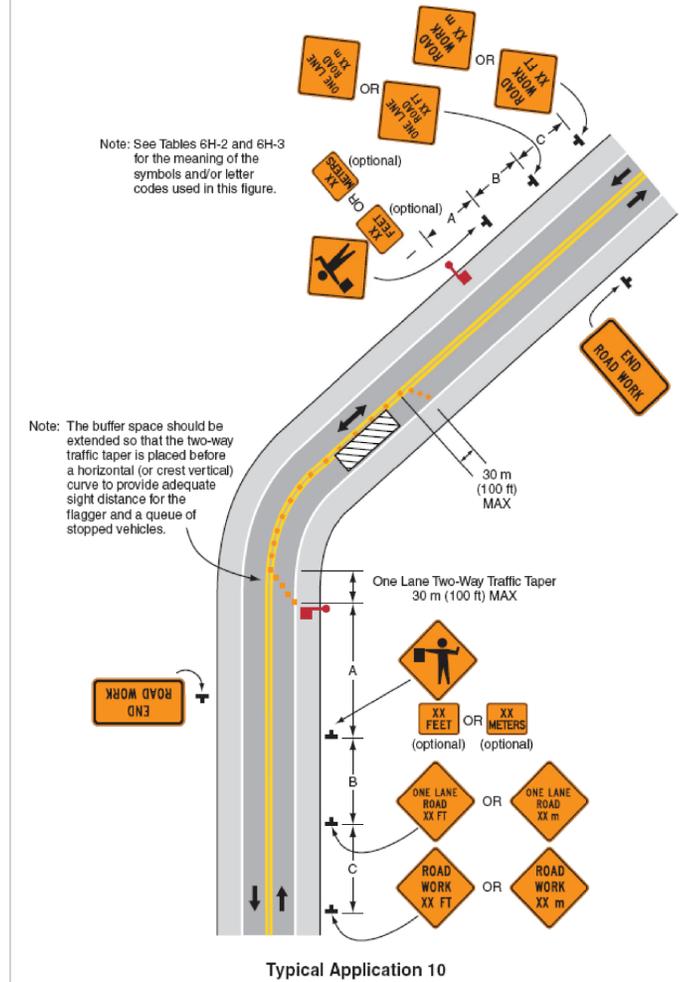


Figure 6H-10. Lane Closure on Two-Lane Road Using Flaggers (TA-10)



TEMPORARY TRAFFIC CONTROL NOTES

1. ALL TEMPORARY TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THESE PROJECT PLANS, APPLICABLE VTRANS E-SERIES STANDARD DRAWINGS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), DATED 2003, AND ITS LATEST REVISIONS, OR AS DIRECTED BY THE RESIDENT ENGINEER. IF THE CONTRACTOR DOES NOT WISH TO FOLLOW THE TEMPORARY TRAFFIC CONTROL PROVIDED, HE/SHE MAY SUBMIT AN ALTERNATE PROPOSAL AT THE PRE-CONSTRUCTION MEETING INCLUDING ANY PROPOSED CHANGES FOR REVIEW AND APPROVAL BY THE RESIDENT ENGINEER.
2. THE CONTRACTOR MUST PROVIDE ACCESS THROUGH THE WORK ZONE FOR EMERGENCY VEHICLES AT ALL TIMES.
3. THE CONTRACTOR SHALL CONDUCT THE WORK AT ALL TIMES IN SUCH A MANNER AND IN SUCH SEQUENCE SO AS TO ENSURE THE LEAST INTERFERENCE WITH TRAFFIC OCCURS.
4. SIGNS SHALL ONLY BE VISIBLE TO MOTORIST AT THE TIMES WHEN THE MESSAGE IS PERTINENT, I.E. A "FLAGGER AHEAD" SIGN SHALL ONLY BE VISIBLE TO MOTORIST WHEN THE FLAGGER IS ACTUALLY PRESENT PERFORMING THEIR DUTIES.
5. PAYMENT FOR CONSTRUCTION SIGNING WILL BE MADE UNDER CONTRACT ITEM 641J0.

PROJECT NAME: BARRE TOWN - ORANGE/GROTON - RYEGATE  
 PROJECT NUMBER: STP SURF(15)/STP SURF(16)

FILE NAME: p09b038.dgn  
 PROJECT LEADER: MARSHA  
 DESIGNED BY: KML  
 COMPOSITE TRAFFIC CONTROL SHEET 2

PLOT DATE: 10-NOV-2011  
 DRAWN BY: KML  
 CHECKED BY: PAVT MGMT  
 SHEET 7 OF 24

# STATE OF VERMONT AGENCY OF TRANSPORTATION



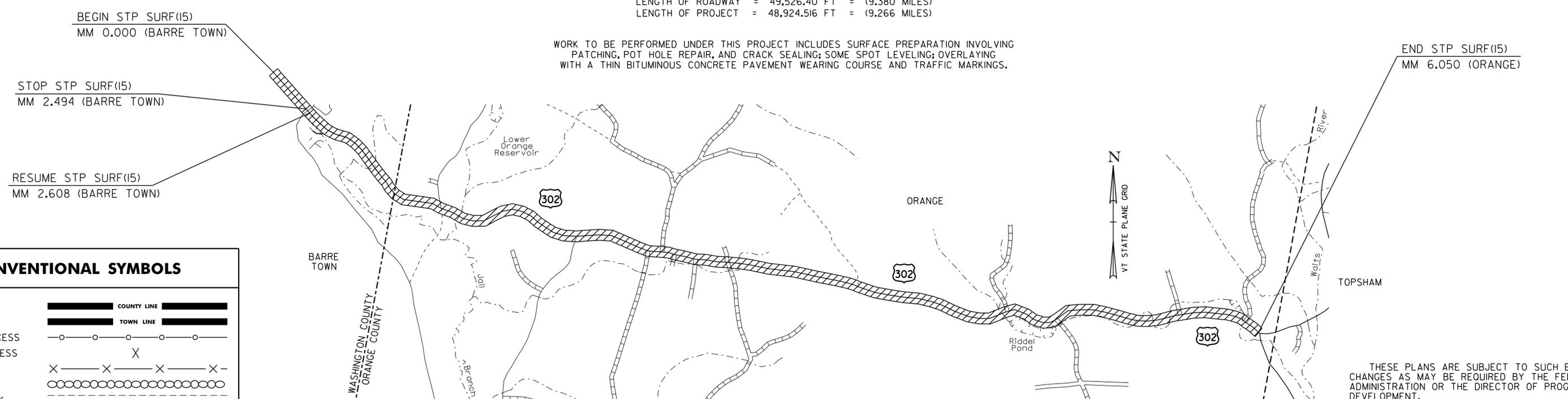
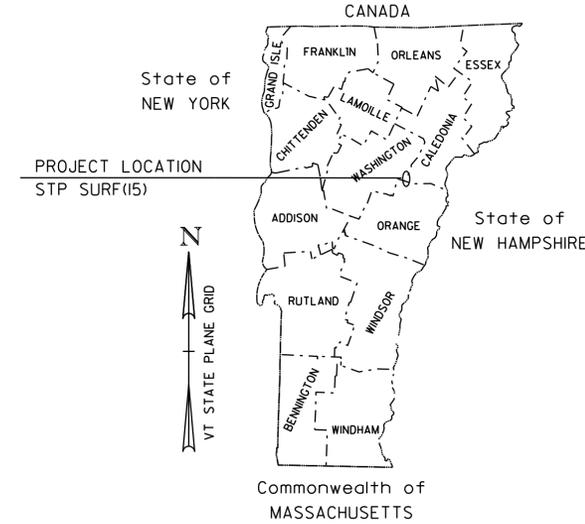
## PROPOSED IMPROVEMENT TOWNS OF BARRE TOWN & ORANGE COUNTIES OF WASHINGTON & ORANGE US ROUTE 302

BEGINNING IN BARRE TOWN ON US ROUTE 302 AT MM 0.000 AND EXTENDING EASTERLY  
A DISTANCE OF 49,526.40 FEET (9.380 MILES) TO MM 6.050 IN THE TOWN OF ORANGE

STATION TO STATION DATA	(FEET)	LENGTH	(MILES)
STA. 0+00.000 TO STA. 131+68.320 (BARRE TOWN) (MM 0.000 TO MM 2.494)	13,168.320		2.494
STA. 137+70.204 (BARRE TOWN) TO STA. 319+44.000 (ORANGE) (MM 2.608 TO MM 6.050)	35,756.196		6.772

LENGTH OF ROADWAY = 49,526.40 FT = (9.380 MILES)  
LENGTH OF PROJECT = 48,924.516 FT = (9.266 MILES)

WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES SURFACE PREPARATION INVOLVING  
PATCHING, POT HOLE REPAIR, AND CRACK SEALING; SOME SPOT LEVELING; OVERLAYING  
WITH A THIN BITUMINOUS CONCRETE PAVEMENT WEARING COURSE AND TRAFFIC MARKINGS.



### CONVENTIONAL SYMBOLS

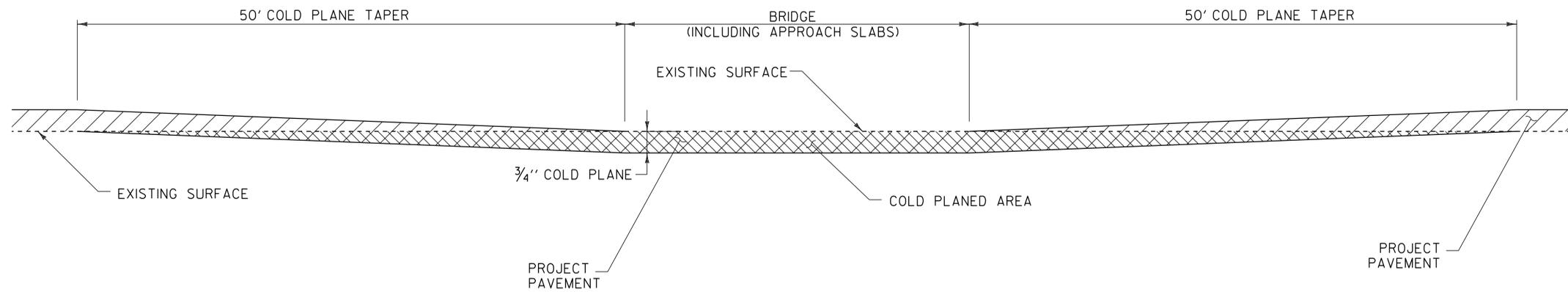
COUNTY LINE	
TOWN LINE	
LIMITS OF ACCESS	
POINT OF ACCESS	
FENCE LINE	
STONE WALL	
TRAVELED WAY	
GUARD RAIL	
RAILROAD	
SURVEY LINE	
CULVERT	
POWER POLE	
TELEPHONE POLE	
TREES	
CONTROL OF ACCESS	
PROPERTY LINE	
R.O.W. TAKING LINE	
SLOPE RIGHTS	
TOP OF CUT	
TOE OF SLOPE	

### TRAFFIC DATA

HIGHWAY SECTION	AADT		DHV		ESALS	
	2010	2020	2010	2020	2010~2020	2010~2030
BEGIN PROJECT AT BARRE CITY T/L TO VT 110	6,000	6,400	680	720	1,410,000	3,269,000
VT 110 TO RESERVOIR ROAD IN ORANGE	3,700	4,000	420	450	725,000	1,843,000
RESERVOIR ROAD TO GEORGE ROAD (MM 1.900)	3,500	3,800	390	430	825,000	1,989,000
GEORGE ROAD TO END OF PROJECT	3,000	3,200	340	360	791,000	1,834,000

THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE DIRECTOR OF PROGRAM DEVELOPMENT.  
CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2006, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JUNE 15, 2006 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.  
UNLESS OTHERWISE NOTED, ALL DRAWINGS AND DETAILS ON THESE PLANS ARE DRAWN "NOT TO SCALE".

PROJECT MANAGER :	KEVIN MARSHIA
PROJECT NAME :	BARRE TOWN - ORANGE
PROJECT NUMBER :	STP SURF (15)
SHEET	8 OF 24 SHEETS



**BRIDGE COLD PLANE TYPICAL SECTION**

BR #9 = MM 1.020 BARRE TOWN  
 BR #14 = MM 2.126 BARRE TOWN  
 BR #15 = MM 0.446 ORANGE

<b>BRIDGE DETAIL SHEET</b>	PROJECT NAME: BARRE TOWN - ORANGE	
	PROJECT NUMBER: STP SURF(15)	
	FILE NAME: p09b038.dgn	PLOT DATE: 10-NOV-2011
PROJECT LEADER: DOMEY	DRAWN BY: PAVT MGMT	
DESIGNED BY: PAVT MGMT	CHECKED BY: PAVT MGMT	
p09b038bds.i	SHEET 9 OF 24	

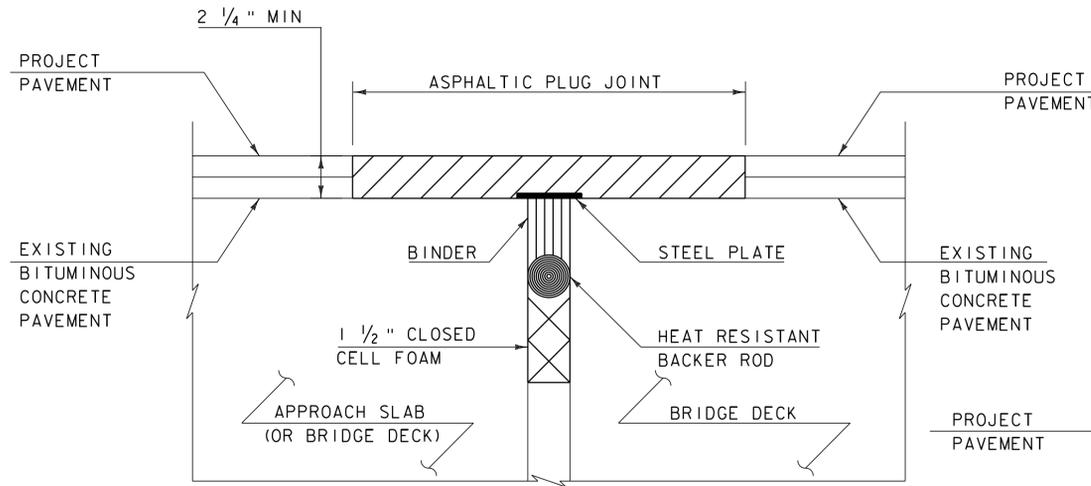
**ASPHALTIC PLUG JOINT NOTES**

**I. INSTALLATION**

- A. LOCATE THE JOINT CENTRALLY OVER THE DECK OVERLAY EXPANSION GAP OR FIXED JOINT MARKED OUT TO THE MANUFACTURER'S RECOMMENDED WIDTH.
- B. REMOVE THE BITUMINOUS CONCRETE PAVEMENT FULL DEPTH AS SHOWN ON THE PLANS. THE PAVEMENT SHALL BE DRY AND SAW CUT TO THE LIMITS REQUIRED TO PLACE THE JOINT. A PNEUMATIC HAMMER AND CHISEL MAY BE USED ADJACENT TO THE CURB ONLY WHEN SAW CUTTING IS NOT POSSIBLE.
- C. BLAST CLEAN THE JOINT AREA OF DEBRIS, ASPHALT AND SHEET MEMBRANE. THOROUGHLY DRY THE JOINT AREA WITH COMPRESSED AIR PRIOR TO APPLYING BINDER MATERIAL.
- D. REPAIR SPALLED AND DEFECTIVE CONCRETE WITH AN APPROVED MATERIAL AS AGREED UPON BY THE ENGINEER.
- E. PLACE PROPERLY SIZED HEAT RESISTANT BACKER ROD IN THE MOVEMENT GAP ALLOWING FOR 1" +/- OF BINDER ABOVE THE ROD.
- F. HEAT AND PLACE THE BINDER MATERIAL AS RECOMMENDED BY THE MANUFACTURER.
- G. PLACE 1/4" THICK BY 8" WIDE SECTIONS OF STEEL PLATE OVER THE CENTER OF THE MOVEMENT GAP. SECURE THE PLATES FROM MOVING BY INSERTING LOCATING PINS THROUGH THE PRESTAMPED HOLES INTO BACKER ROD AND COVER WITH HOT BINDER. THE STEEL PLATES MAY BE OMITTED WHERE THE ENGINEER DETERMINES THAT THE APPROACH SLAB OR BRIDGE DECK WILL PROVIDE INADEQUATE SUPPORT AND WHERE VERTICAL MOVEMENT OF THE PLATES MIGHT OCCUR.
- H. HEAT AND MIX THE BINDER MATERIAL AND AGGREGATE AS RECOMMENDED BY THE MANUFACTURER.
- I. INSTALLATION OF MATERIAL, COMPACTION, AND TOP COATING SHALL BE AS RECOMMENDED BY THE MANUFACTURER.
- J. IMMEDIATELY AFTER TOP COATING, CAST AN ANTI-SKID MATERIAL OVER THE JOINT TO REDUCE THE RISK OF TRACKING.
- K. ONCE THE JOINT REACHES 82 DEG C (180 DEG F) +/-, WATER MAY BE USED TO EXPEDITE THE COOLING PROCESS.
- L. PROTECT JOINT FROM TRAFFIC UNTIL THE MATERIAL HAS COOLED TO 51 DEG C (125 DEG F) +/-.

**2. WEATHER LIMITATIONS.** (APPLY BINDER MATERIAL ONLY WHEN THE FOLLOWING CONDITIONS PREVAIL OR AS RECOMMENDED BY THE MANUFACTURER):

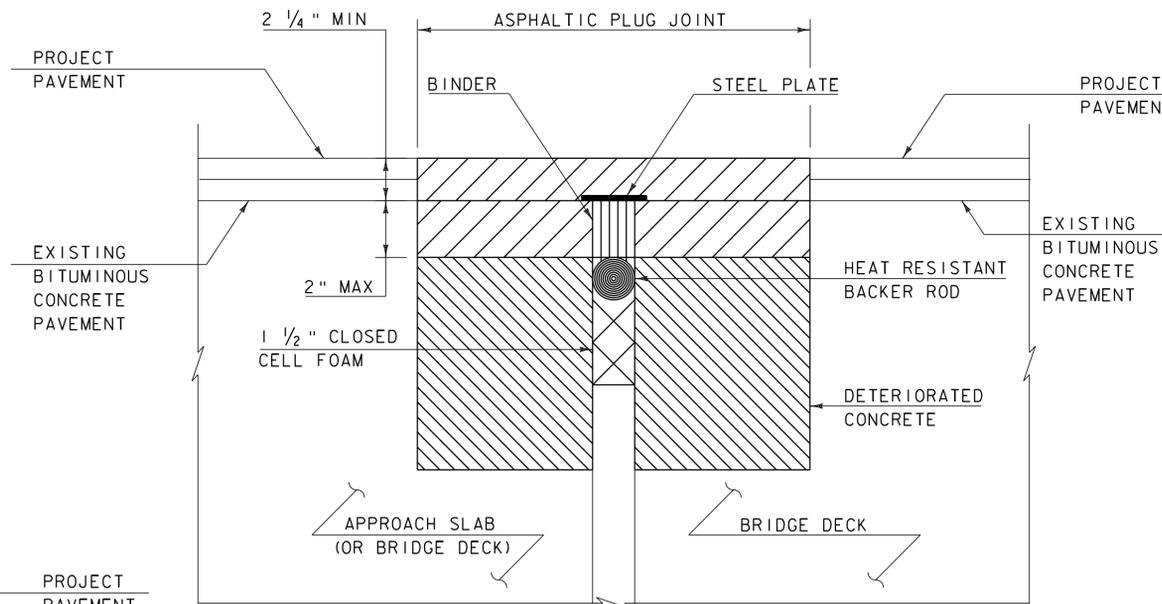
- A. THE AMBIENT AIR TEMPERATURE IS AT LEAST 10 DEG C (50 DEG F) AND RISING.
- B. THE ROAD SURFACE IS DRY.
- C. WEATHER CONDITIONS OR OTHER CONDITIONS ARE FAVORABLE AND ARE EXPECTED TO REMAIN SO FOR THE PERFORMANCE OF SATISFACTORY WORK.



**ASPHALTIC PLUG-TYPE JOINT DETAIL**  
(NOT TO SCALE)

**LOCATIONS**

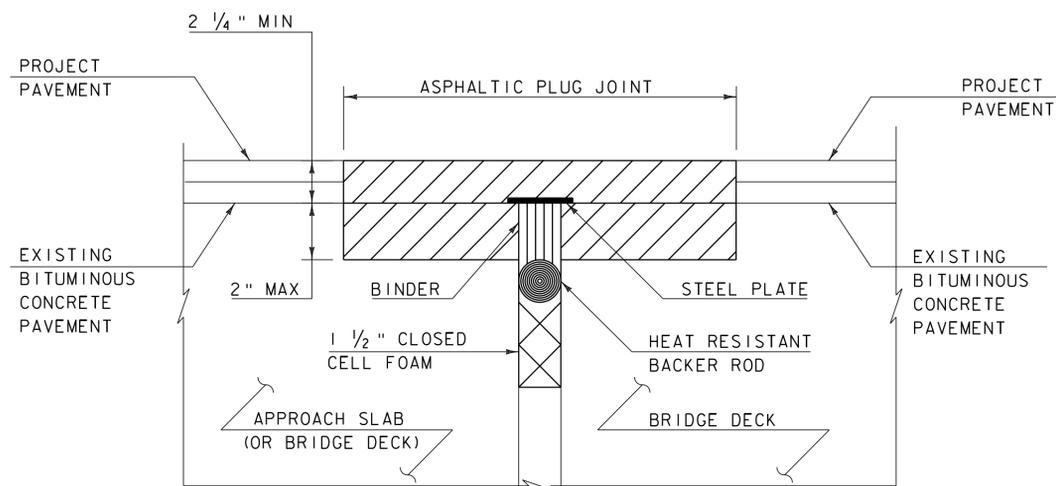
BR 9 MM 1.020 (BARRE TOWN) 2 PLUG JOINTS, 1 AT EACH ABUTMENT 35 FT EACH  
 BR 14 MM 2.126 (BARRE TOWN) 2 PLUG JOINTS, 1 AT EACH ABUTMENT 47 FT EACH  
 BR 15 MM 0.446 (ORANGE) 2 PLUG JOINTS, 1 AT EACH ABUTMENT 35 FT EACH



**ASPHALTIC PLUG-TYPE JOINT DETAIL**  
**REMOVAL OF > 2" DETERIORATED CONCRETE**  
(NOT TO SCALE)

**NOTES:**

- 1. UPON ENCOUNTERING GREATER THAN 2" AVERAGE OF DETERIORATED CONCRETE, THE CONTRACTOR SHALL REMOVE THE DETERIORATED MATERIAL AND REPLACE IT WITH RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE FORMED TO EXISTING ELEVATION.
- 2. REMOVAL OF THE DETERIORATED CONCRETE WILL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 580.20 "RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE".
- 3. REINFORCING STEEL NOT SHOWN FOR CLARITY.



**ASPHALTIC PLUG-TYPE JOINT DETAIL**  
**REMOVAL OF < 2" DETERIORATED CONCRETE**  
(NOT TO SCALE)

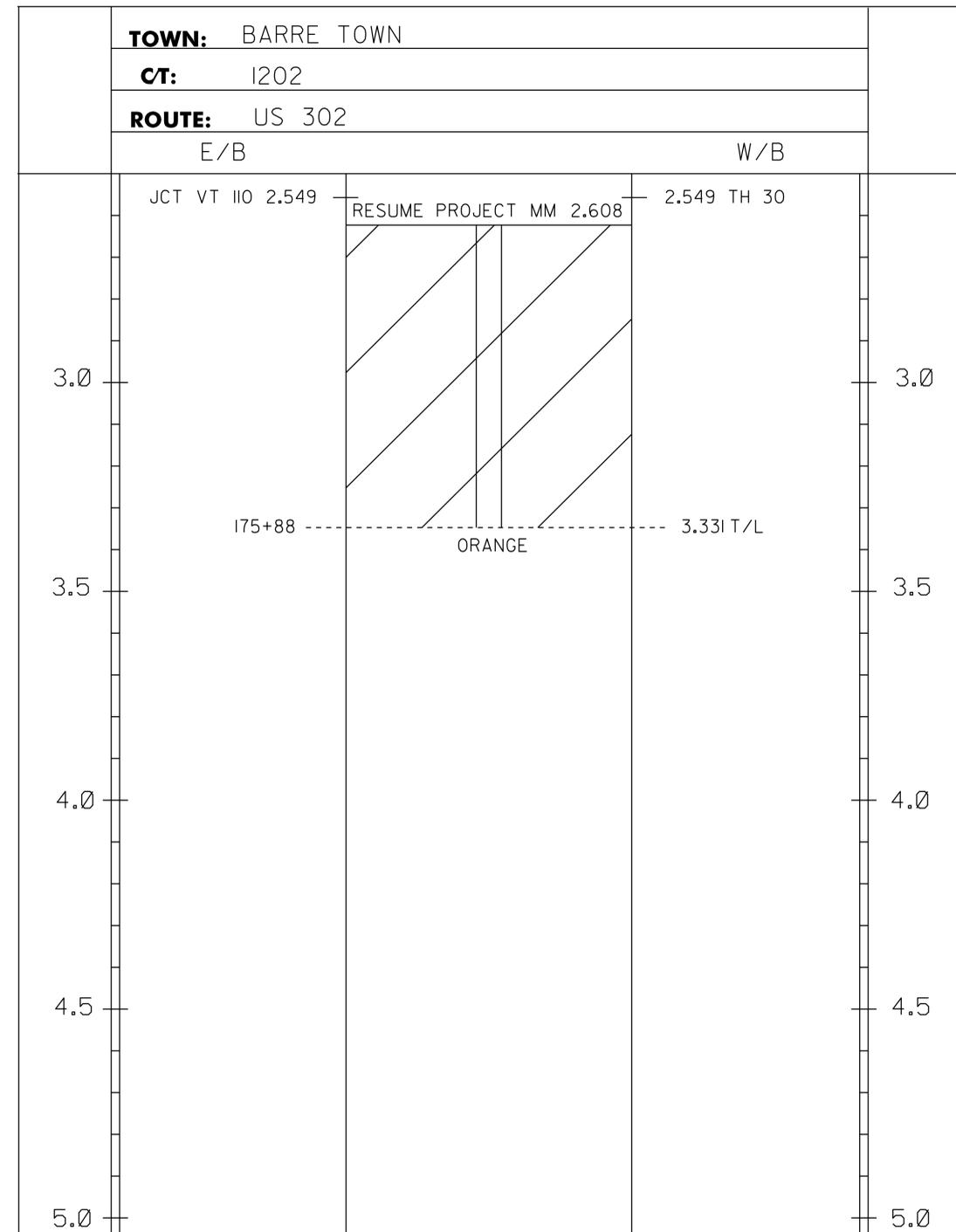
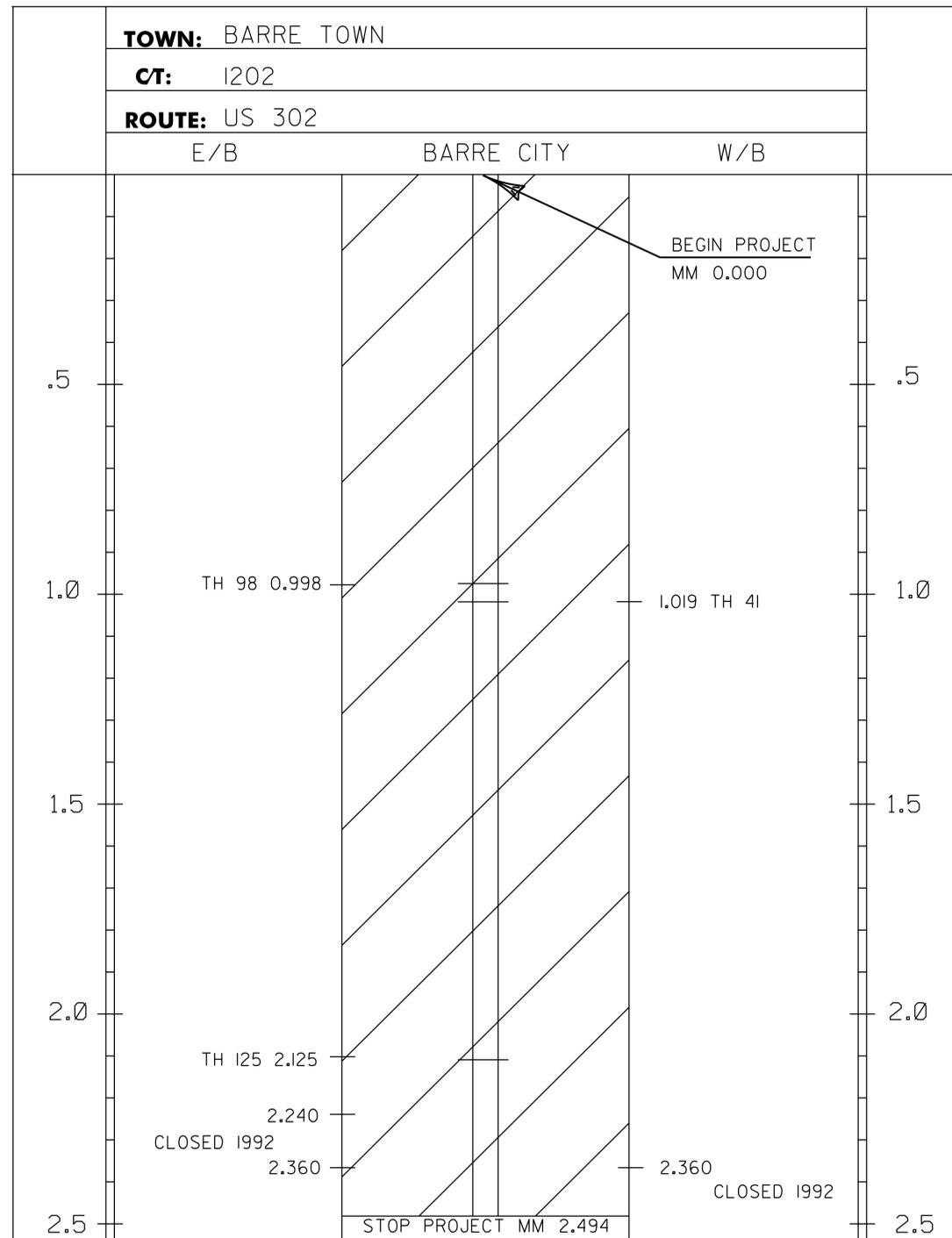
**NOTES:**

- 1. UPON ENCOUNTERING UP TO 2" AVERAGE OF DETERIORATED CONCRETE, THE CONTRACTOR SHALL REMOVE THE DETERIORATED MATERIAL AND REPLACE IT WITH THE ASPHALTIC PLUG JOINT MATERIAL AS DIRECTED BY THE RESIDENT ENGINEER.
- 2. REMOVAL OF THE DETERIORATED CONCRETE WILL NOT BE PAID SEPARATELY BUT WILL BE CONSIDERED INCIDENTAL TO THE UNIT BID PRICE FOR THE ITEM 516.10. THE ADDITIONAL PLUG JOINT MATERIAL BELOW THE DESIGN DEPTH TO REPLACE THE DETERIORATED CONCRETE WILL BE CONSIDERED INCIDENTAL TO THE UNIT BID PRICE FOR THE ITEM 516.10.

**DETAILS ARE NOT TO SCALE**

<b>ASPHALTIC PLUG JOINT DETAIL SHEET</b>	PROJECT NAME: BARRE TOWN - ORANGE	
	PROJECT NUMBER: STP SURF(15)	
	FILE NAME: p09b038.dgn	PLOT DATE: 10-NOV-2011
	PROJECT LEADER: MARSHIA	DRAWN BY: PAVT MGMT
DESIGNED BY: PAVT MGMT	CHECKED BY: PAVT MGMT	
PLOT FILE: p09b038apjds.i	SHEET 10 OF 24	



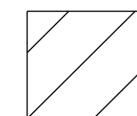


**NOTE:**

THIS SHEET TO BE USED FOR THE LAYOUT OF ALL CENTERLINE PAVEMENT MARKINGS. THE RESIDENT ENGINEER MAY CONTACT KEITH SWEET, PAVEMENT MARKING SUPERVISOR AT (802) 828-5573 FOR ASSISTANCE LAYING OUT THE CENTERLINE DURING CONSTRUCTION.

ALL PAINT PAVEMENT MARKINGS SHALL BE WATERBORNE PAINT AND WILL BE APPLIED TWICE. THE PROJECT QUANTITIES HAVE BEEN ESTIMATED AND MULTIPLIED BY A FACTOR OF TWO TO ALLOW FOR THE DOUBLE APPLICATION.

N.T.S.



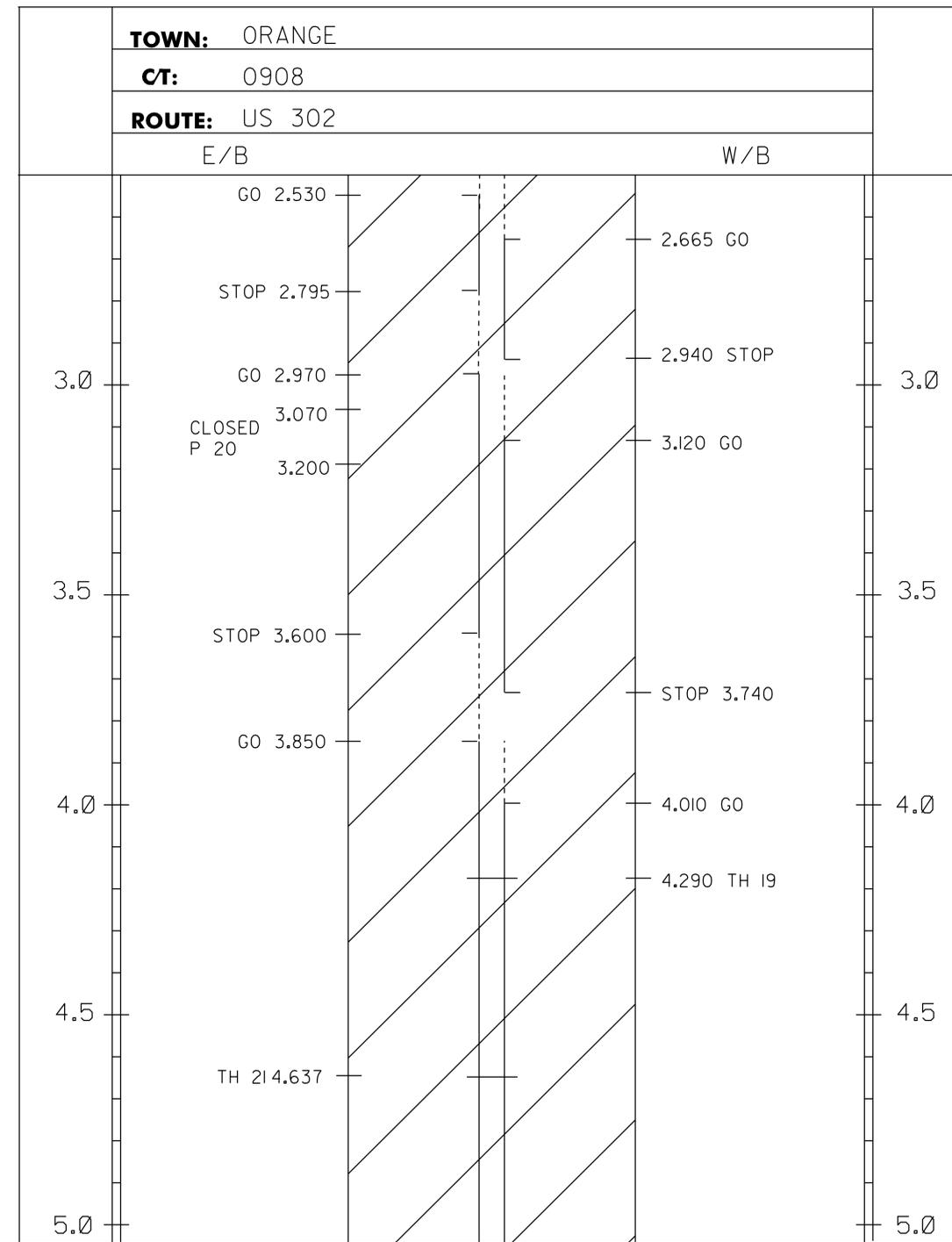
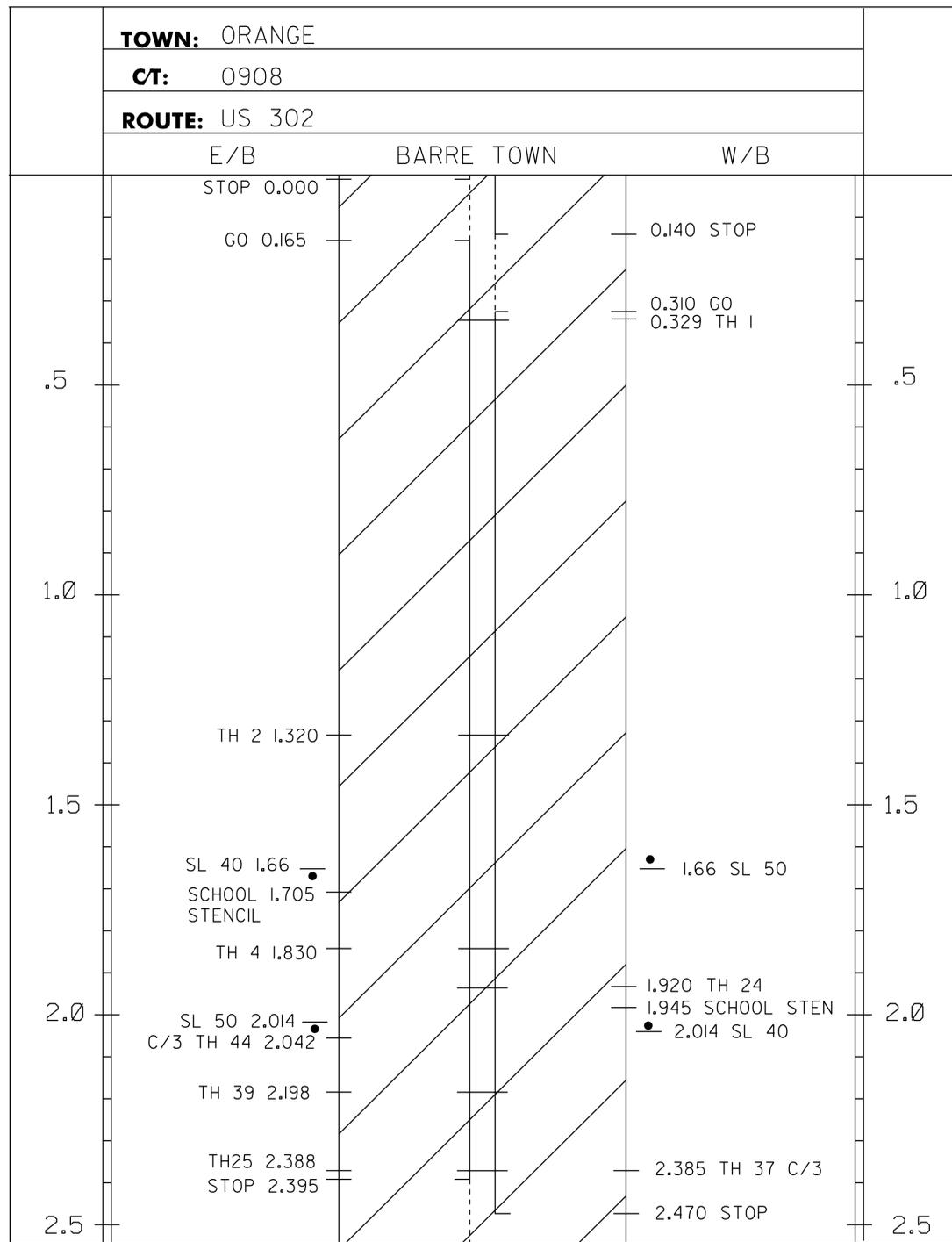
PROJECT AREA

**PAVEMENT MARKING LAYOUT #1**

PROJECT NAME: BARRE TOWN - ORANGE  
PROJECT NUMBER: STP SURF(15)

FILE NAME: p09b038.dgn  
PROJECT LEADER: MARSHIA  
DESIGNED BY: LOCKE  
p09b038pml.i

PLOT DATE: 10-NOV-2011  
DRAWN BY: LOCKE  
CHECKED BY: PAVT MGMT  
SHEET 12 OF 24



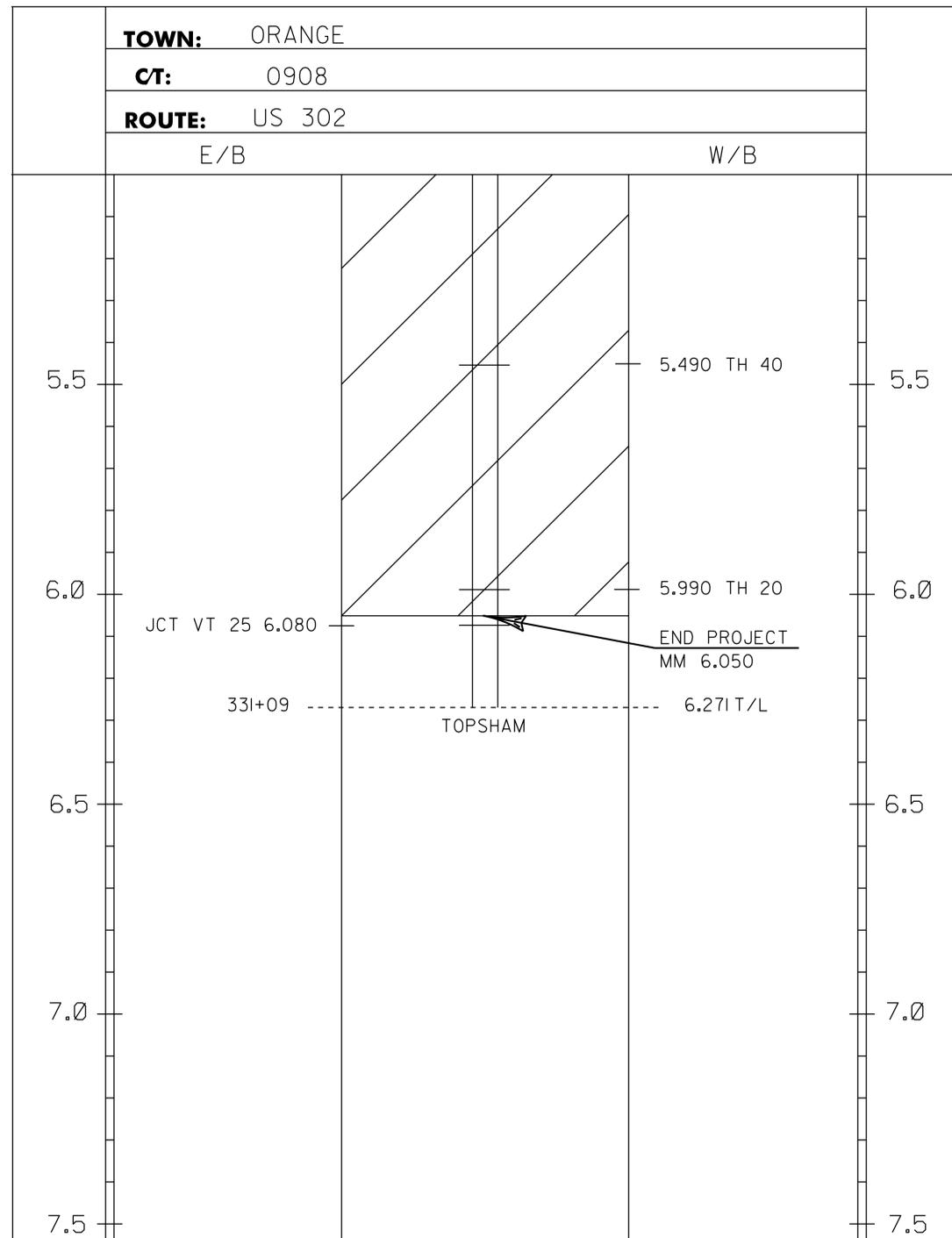
NOTE:  
 THIS SHEET TO BE USED FOR THE LAYOUT OF ALL CENTERLINE PAVEMENT MARKINGS.  
 THE RESIDENT ENGINEER MAY CONTACT KEITH SWEET, PAVEMENT MARKING SUPERVISOR AT (802) 828-5573  
 FOR ASSISTANCE LAYING OUT THE CENTERLINE DURING CONSTRUCTION.



ALL PAINT PAVEMENT MARKINGS SHALL BE WATERBORNE PAINT AND WILL BE APPLIED TWICE.  
 THE PROJECT QUANTITIES HAVE BEEN ESTIMATED AND MULTIPLIED BY A FACTOR OF TWO TO ALLOW  
 FOR THE DOUBLE APPLICATION.

N.T.S.

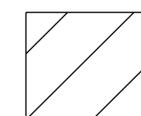
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	PROJECT NUMBER: STP SURF(I5)	DRAWN BY: LOCKE
	FILE NAME: p09b038.dgn	CHECKED BY: PAVT MGMT
	PROJECT LEADER: MARSHIA	SHEET 13 OF 24
	DESIGNED BY: LOCKE	
	p09b038pm2.i	



NOTE:  
 THIS SHEET TO BE USED FOR THE LAYOUT OF ALL CENTERLINE PAVEMENT MARKINGS.  
 THE RESIDENT ENGINEER MAY CONTACT KEITH SWEET, PAVEMENT MARKING SUPERVISOR AT (802) 828-5573  
 FOR ASSISTANCE LAYING OUT THE CENTERLINE DURING CONSTRUCTION.

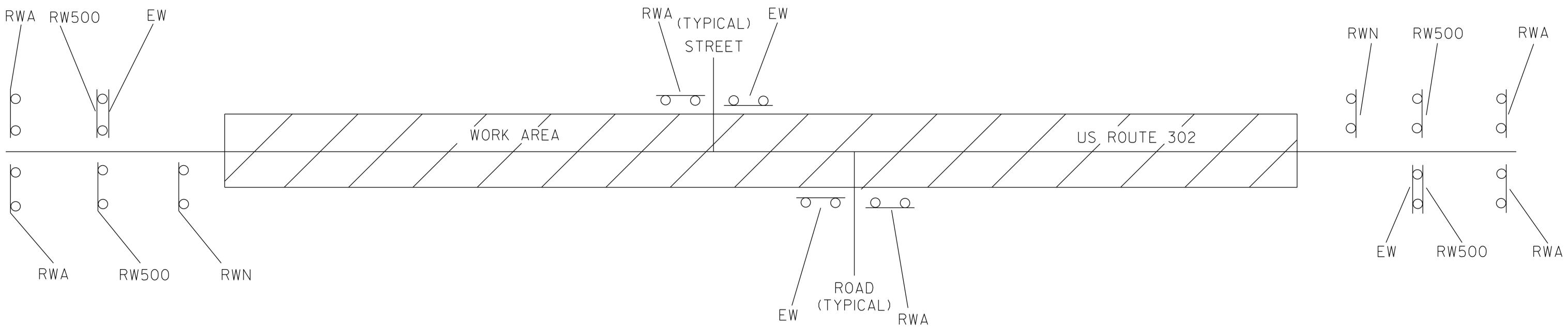
ALL PAINT PAVEMENT MARKINGS SHALL BE WATERBORNE PAINT AND WILL BE APPLIED TWICE.  
 THE PROJECT QUANTITIES HAVE BEEN ESTIMATED AND MULTIPLIED BY A FACTOR OF TWO TO ALLOW  
 FOR THE DOUBLE APPLICATION.

N.T.S.



PROJECT AREA

<b>PAVEMENT MARKING LAYOUT #3</b>	PROJECT NAME: BARRE TOWN - ORANGE	
	PROJECT NUMBER: STP SURF(15)	
	FILE NAME: p09b038.dgn	PLOT DATE: 10-NOV-2011
PROJECT LEADER: MARSHIA	DRAWN BY: LOCKE	
DESIGNED BY: LOCKE	CHECKED BY: PAVT MGMT	
p09b038pm3.i	SHEET 14 OF 24	



# CONSTRUCTION APPROACH SIGNING

SEE STD. E-100 FOR SIGN PLACEMENT

- LEGEND
- RWA = ROAD WORK AHEAD
  - RW500 = ROAD WORK 500 FEET
  - EW = END WORK
  - RWN = ROAD WORK NEXT 10 MILES

THE RESIDENT ENGINEER, AT HIS OR HER DISCRETION,  
MAY ELIMINATE CONSTRUCTION APPROACH SIGNING AT  
DEAD END LOCATIONS

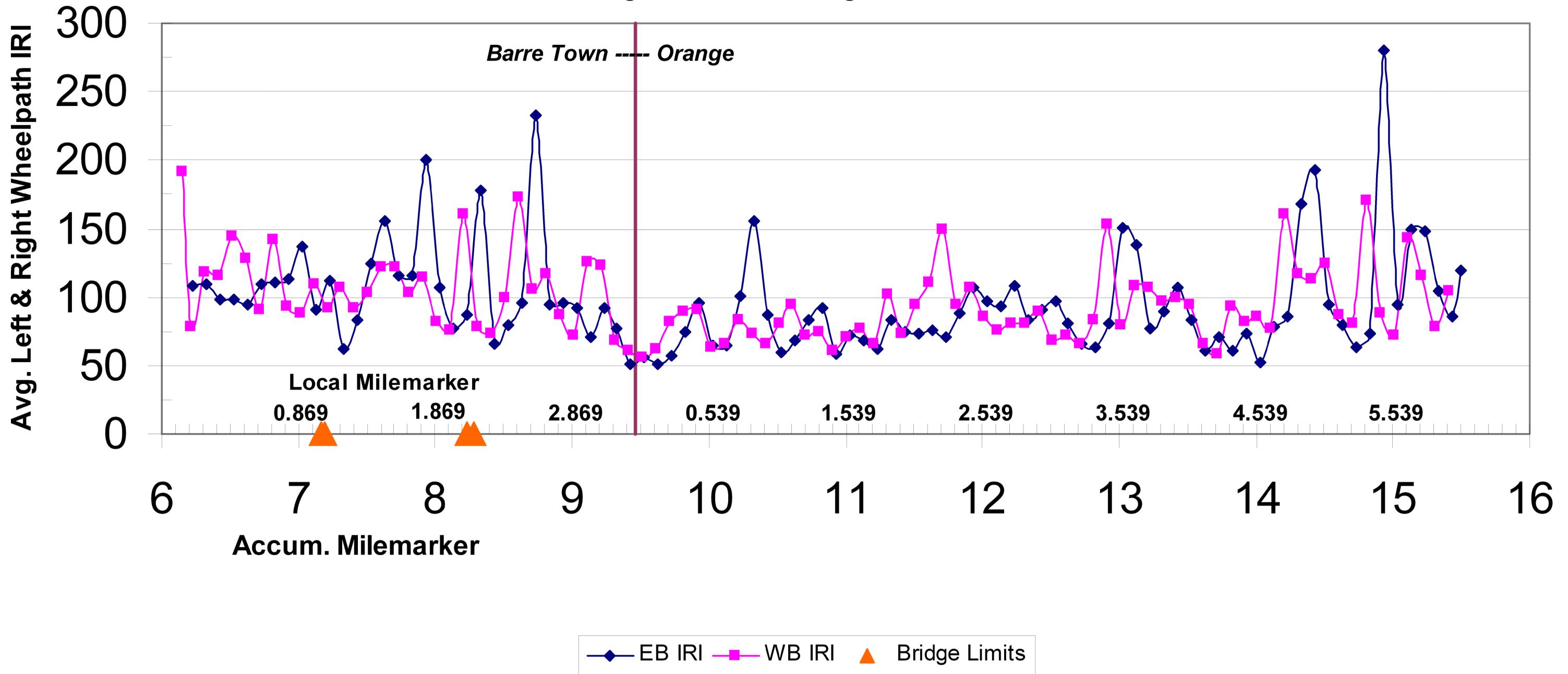
NOTE:  
1. PAYMENT FOR CONSTRUCTION SIGNING WILL BE MADE  
UNDER CONTRACT ITEM 64I.I0.

<b>TEMPORARY CONSTRUCTION SIGNING</b>	PROJECT NAME: BARRE TOWN - ORANGE	PLOT DATE: 10-NOV-2011
	PROJECT NUMBER: STP SURF (15)	DRAWN BY: LOCKE
	FILE NAME: p09b038.dgn	CHECKED BY: PAVT MGMT
	PROJECT LEADER: MARSHIA	SHEET 15 OF 24
	DESIGNED BY: LOCKE	
	p09b038+tcp.i	

# US302 Barre Town-Orange STP SURF (15) Preconstruction IRI

Profiled 10/6/09

EB Avg. IRI = 97.2 WB Avg. IRI = 96.6

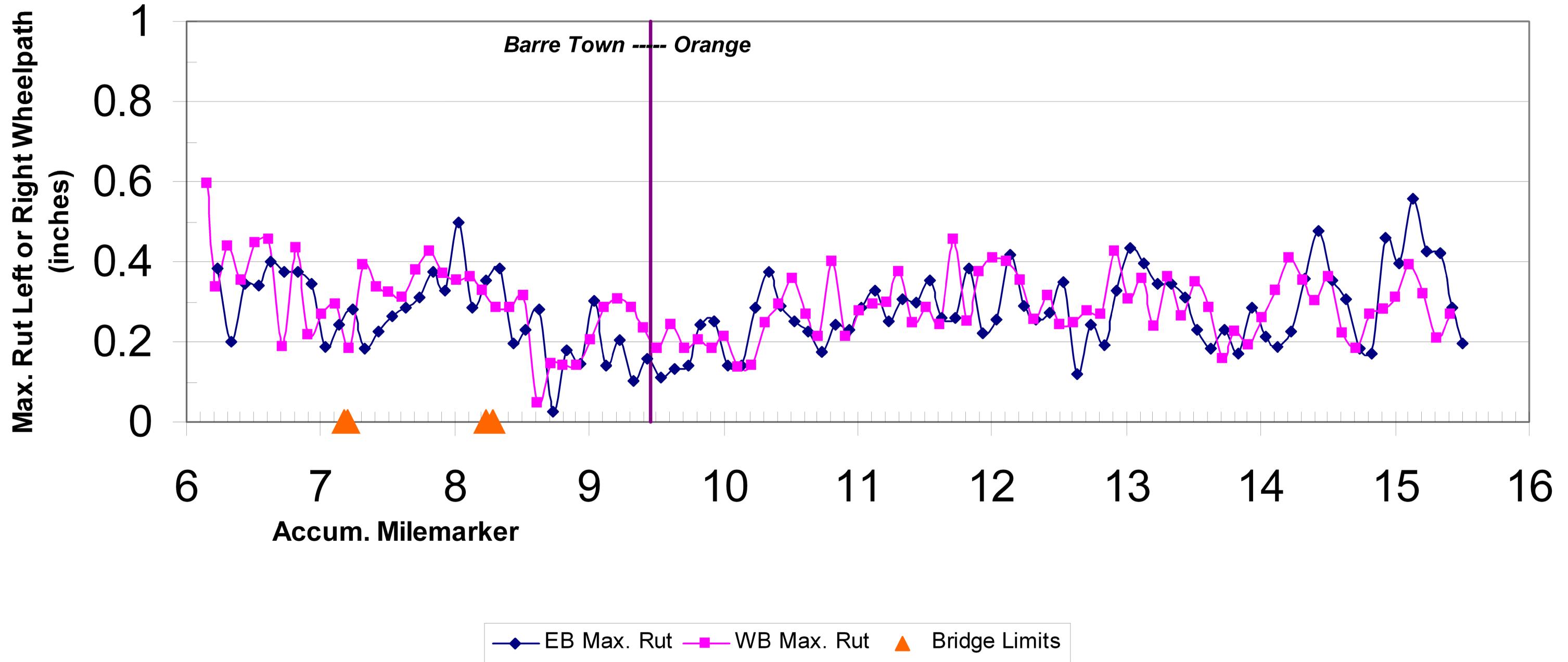


**FOR INFORMATIONAL PURPOSES ONLY**

<b>ROUGHNESS DATA INFORMATION SHEET</b>	PROJECT NAME: BARRE TOWN - ORANGE	
	PROJECT NUMBER: STP SURF(15)	
	FILE NAME: p09b038.dgn	PLOT DATE: 10-NOV-2011
DESIGNED BY: MARSHIA	DRAWN BY: LOCKE	
DESIGNED BY: LOCKE	CHECKED BY: PAVT MGMT	
p09b038ir.i	SHEET 16 OF 24	

# US302 Barre Town-Orange STP SURF (15) Preconstruction Ruts

Profiled 10/6/09



LWP = LEFT WHEEL PATH  
 RWP = RIGHT WHEEL PATH

**FOR INFORMATIONAL PURPOSES ONLY**

<b>RUTTING DATA INFORMATION SHEET</b>	PROJECT NAME: BARRE TOWN - ORANGE	
	PROJECT NUMBER: STP SURF(15)	
	FILE NAME: p09b038.dgn	PLOT DATE: 10-NOV-2011
	PROJECT LEADER: MARSHIA	DRAWN BY: LOCKE
DESIGNED BY: LOCKE	CHECKED BY: PAVT MGMT	
p09b038rut.i	SHEET 17	OF 24

# STATE OF VERMONT AGENCY OF TRANSPORTATION

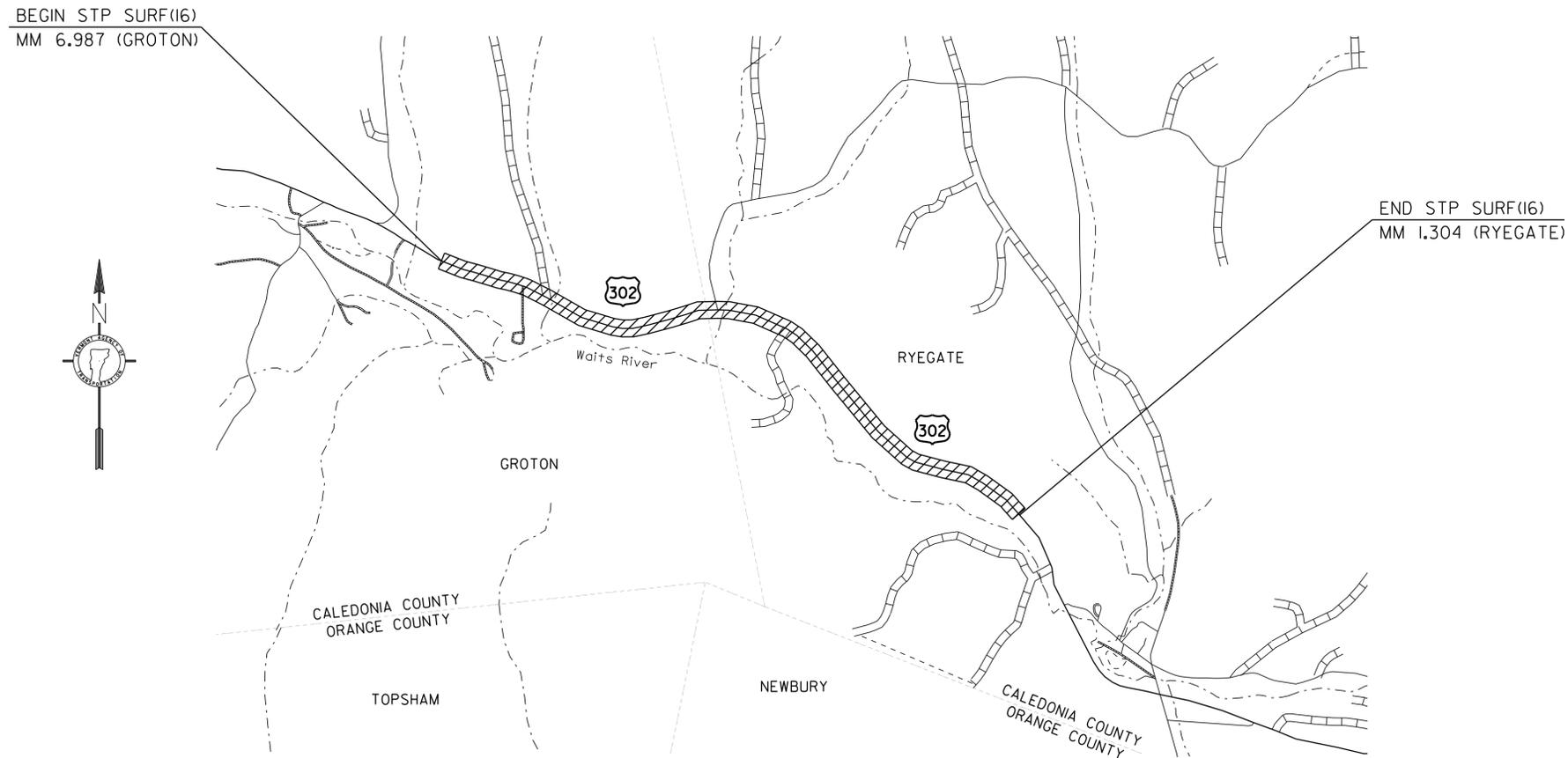
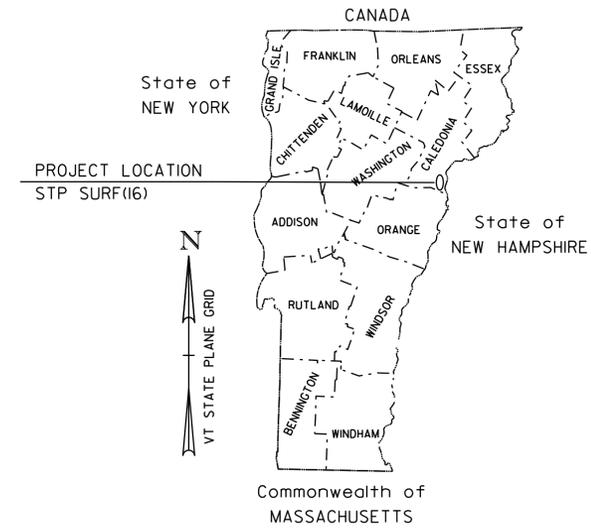


## PROPOSED IMPROVEMENT TOWNS OF GROTON & RYEGATE COUNTY OF CALEDONIA US ROUTE 302

BEGINNING IN GROTON ON US ROUTE 302 AT MM 6.987 AND EXTENDING EASTERLY  
A DISTANCE OF 11,727 FEET (2.221 MILES) TO MM 1.304 IN THE TOWN OF RYEGATE

LENGTH OF ROADWAY = 11,727 FT = (2.221 MILES)  
LENGTH OF PROJECT = 11,727 FT = (2.221 MILES)

WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES SURFACE PREPARATION INVOLVING  
PATCHING, POT HOLE REPAIR, AND CRACK SEALING; SOME SPOT LEVELING; OVERLAYING  
WITH A THIN BITUMINOUS CONCRETE PAVEMENT WEARING COURSE AND TRAFFIC MARKINGS.



HIGHWAY SECTION	AADT		DHV		ESALS	
	2010	2020	2010	2020	2010~2020	2010~2030
BEGIN PROJECT TO END PROJECT	2,600	2,800	290	320	663,000	1,574,000

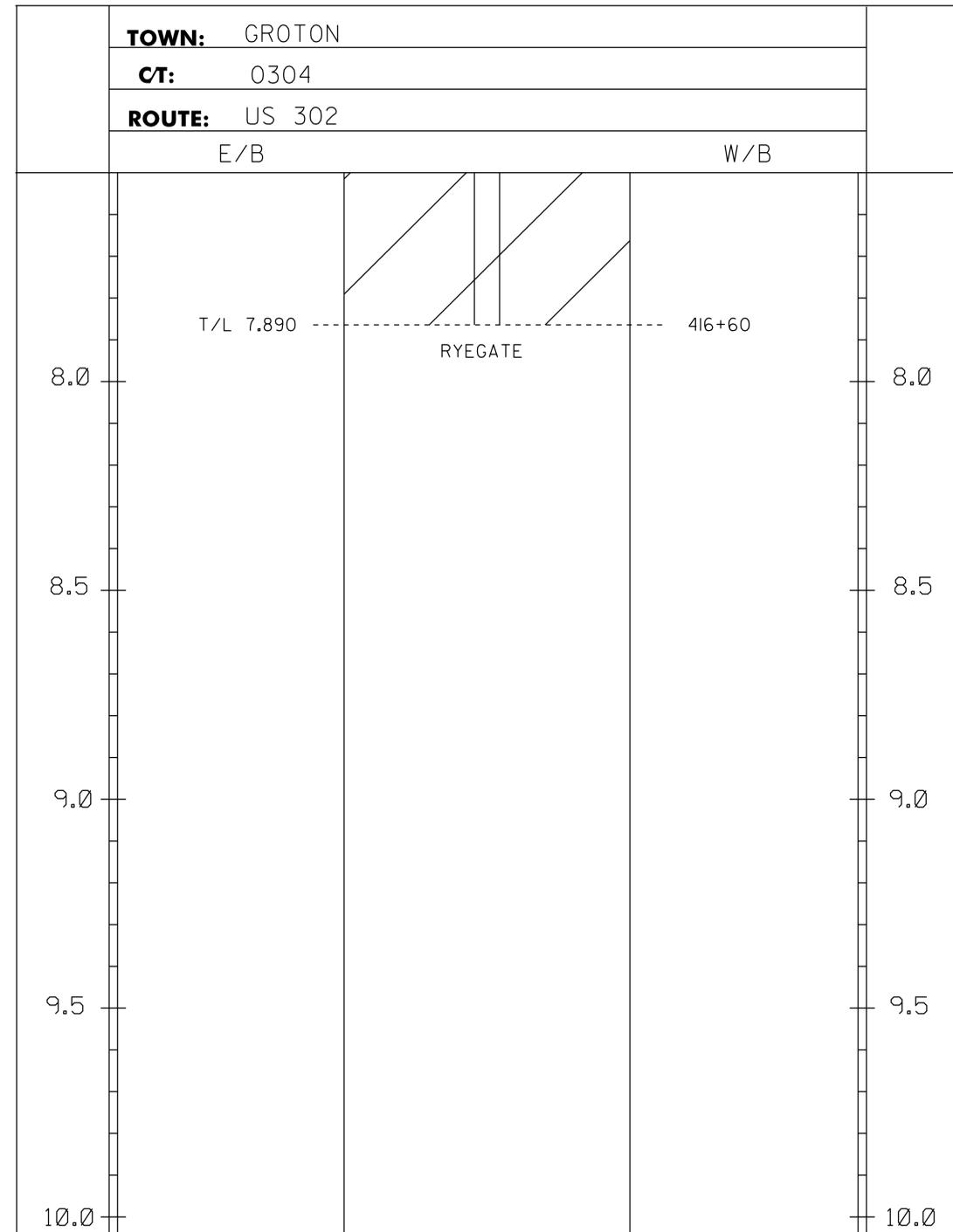
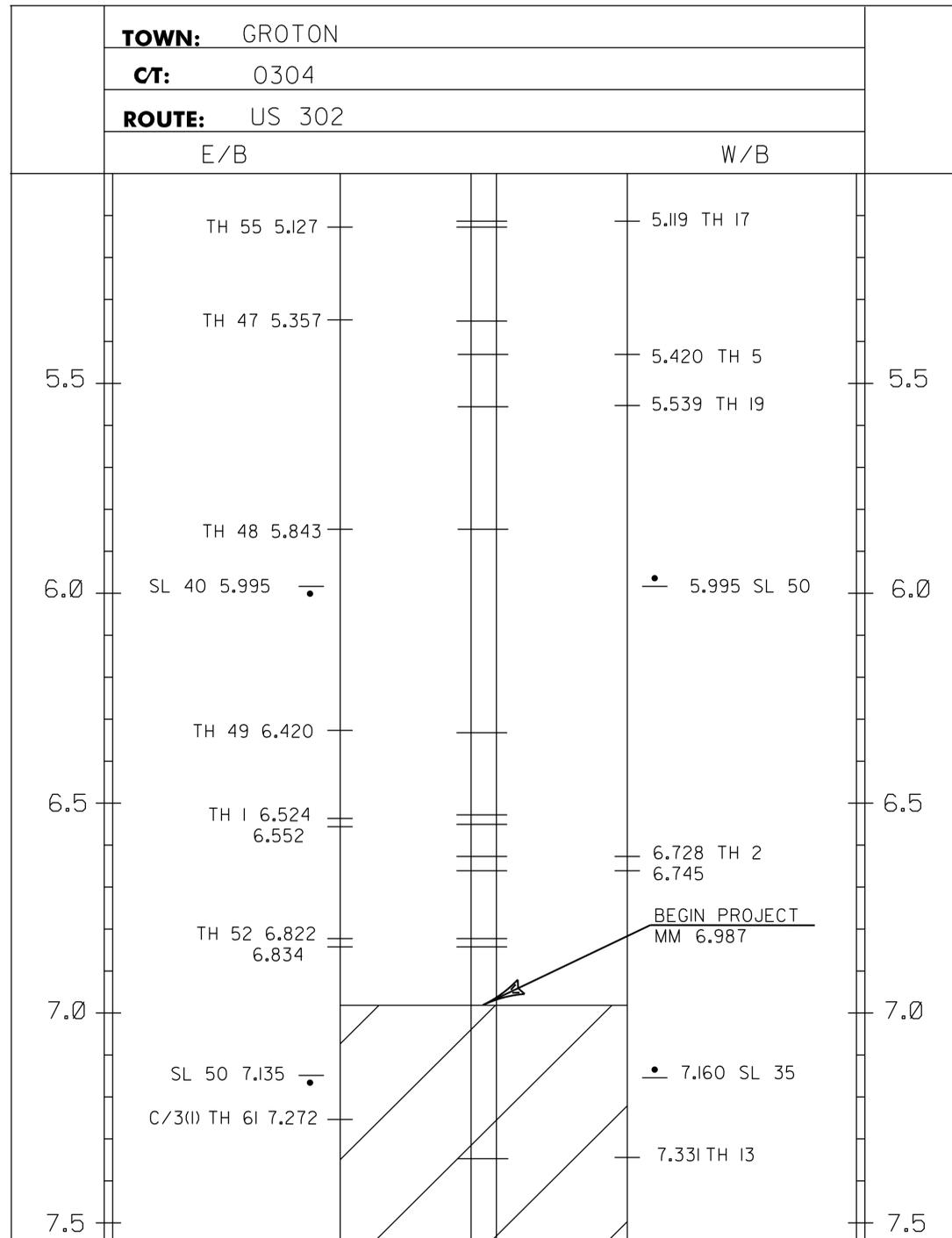
THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE DIRECTOR OF PROGRAM DEVELOPMENT.  
CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2006, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JUNE 15, 2006 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.  
UNLESS OTHERWISE NOTED, ALL DRAWINGS AND DETAILS ON THESE PLANS ARE DRAWN "NOT TO SCALE".

PROJECT MANAGER :	KEVIN MARSHIA
PROJECT NAME :	GROTON - RYEGATE
PROJECT NUMBER :	STP SURF (16)
SHEET	18 OF 24 SHEETS

### CONVENTIONAL SYMBOLS

COUNTY LINE		COUNTY LINE
TOWN LINE		TOWN LINE
LIMITS OF ACCESS		
POINT OF ACCESS		
FENCE LINE		
STONE WALL		
TRAVELED WAY		
GUARD RAIL		
RAILROAD		
SURVEY LINE		
CULVERT		
POWER POLE		
TELEPHONE POLE		
TREES		
CONTROL OF ACCESS		
PROPERTY LINE		
R.O.W. TAKING LINE		
SLOPE RIGHTS		
TOP OF CUT		
TOE OF SLOPE		





**NOTE:**

THIS SHEET TO BE USED FOR THE LAYOUT OF ALL CENTERLINE PAVEMENT MARKINGS. THE RESIDENT ENGINEER MAY CONTACT KEITH SWEET, PAVEMENT MARKING SUPERVISOR AT (802) 828-5573 FOR ASSISTANCE LAYING OUT THE CENTERLINE DURING CONSTRUCTION.

ALL PAINT PAVEMENT MARKINGS SHALL BE WATERBORNE PAINT AND WILL BE APPLIED TWICE. THE PROJECT QUANTITIES HAVE BEEN ESTIMATED AND MULTIPLIED BY A FACTOR OF TWO TO ALLOW FOR THE DOUBLE APPLICATION.

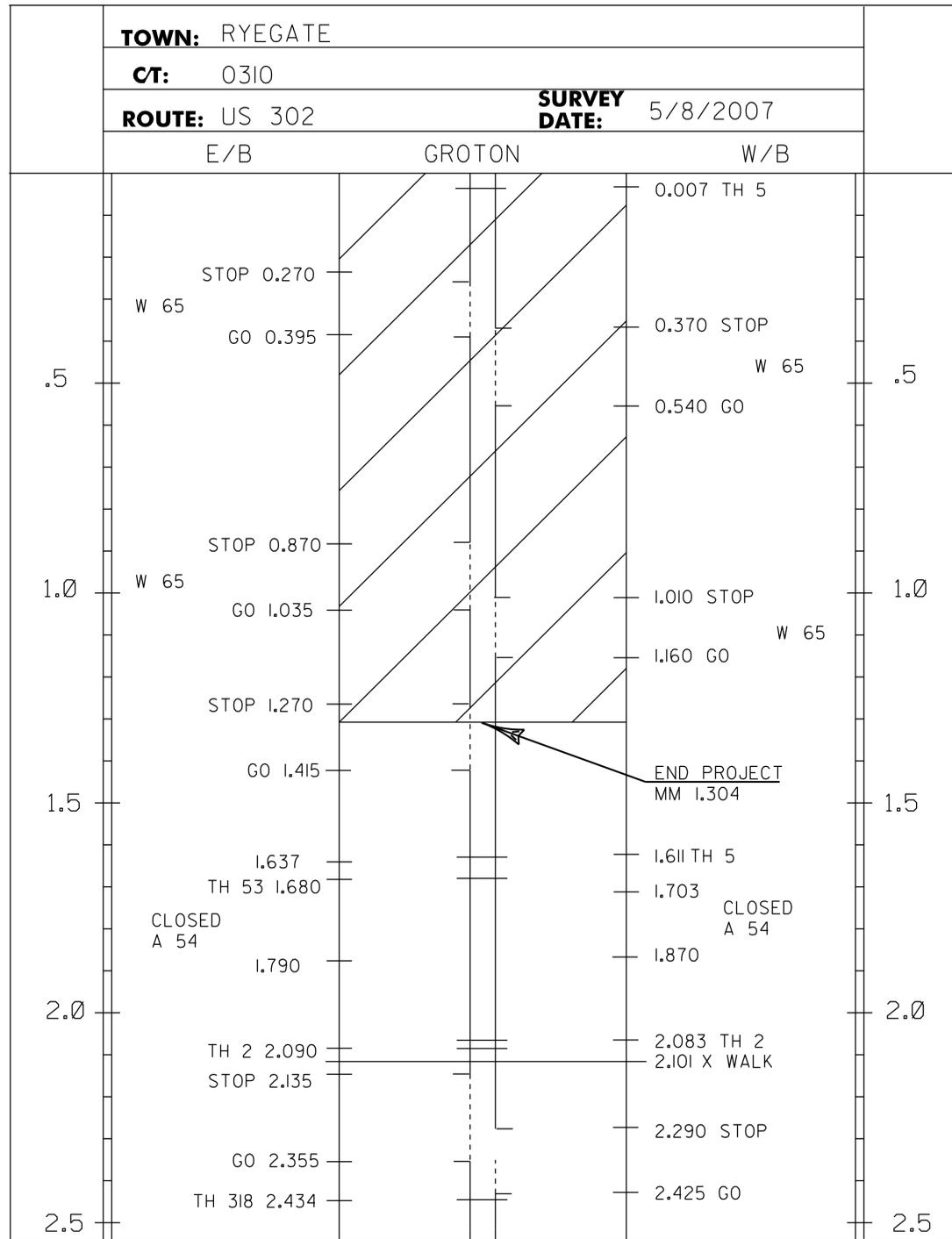
N.T.S.

**PAVEMENT MARKING LAYOUT #1**

PROJECT NAME: GROTON - RYEGATE  
PROJECT NUMBER: STP SURF(16)

FILE NAME: p09b038.dgn  
PROJECT LEADER: MARSHIA  
DESIGNED BY: LOCKE  
p09b040pml.i

PLOT DATE: 10-NOV-2011  
DRAWN BY: LOCKE  
CHECKED BY: PAVT MGMT  
SHEET 20 OF 24

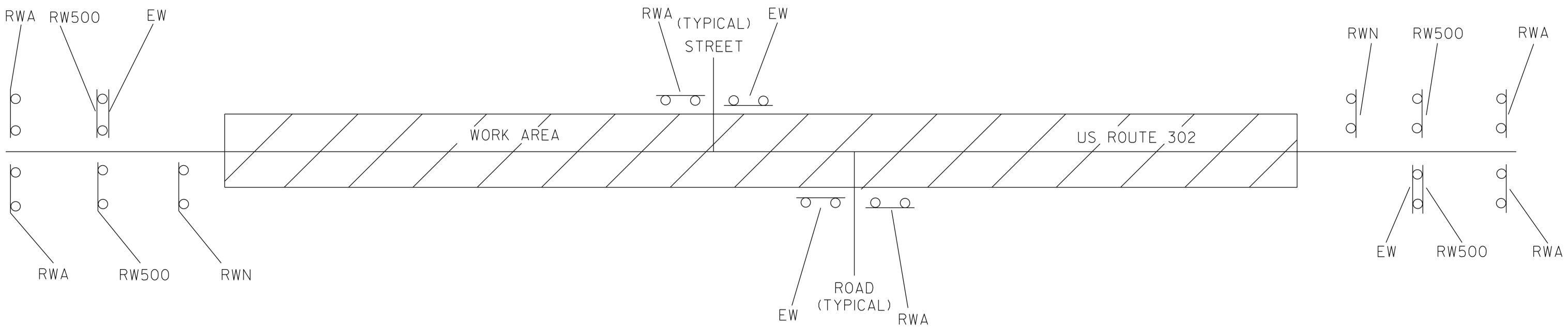


NOTE:  
 THIS SHEET TO BE USED FOR THE LAYOUT OF ALL CENTERLINE PAVEMENT MARKINGS.  
 THE RESIDENT ENGINEER MAY CONTACT KEITH SWEET, PAVEMENT MARKING SUPERVISOR AT (802) 828-5573  
 FOR ASSISTANCE LAYING OUT THE CENTERLINE DURING CONSTRUCTION.

ALL PAINT PAVEMENT MARKINGS SHALL BE WATERBORNE PAINT AND WILL BE APPLIED TWICE.  
 THE PROJECT QUANTITIES HAVE BEEN ESTIMATED AND MULTIPLIED BY A FACTOR OF TWO TO ALLOW  
 FOR THE DOUBLE APPLICATION.

N.T.S.

<b>PAVEMENT MARKING LAYOUT #2</b>	PROJECT NAME: GROTON - RYEGATE	
	PROJECT NUMBER: STP SURF(16)	
	FILE NAME: p09b038.dgn	PLOT DATE: 10-NOV-2011
	PROJECT LEADER: MARSHIA	DRAWN BY: LOCKE
DESIGNED BY: LOCKE	CHECKED BY: PAVT MGMT	
p09b040pm2.i	SHEET 21	OF 24



# CONSTRUCTION APPROACH SIGNING

SEE STD. E-100 FOR SIGN PLACEMENT

- LEGEND
- RWA = ROAD WORK AHEAD
  - RW500 = ROAD WORK 500 FEET
  - EW = END WORK
  - RWN = ROAD WORK NEXT 3 MILES

THE RESIDENT ENGINEER, AT HIS OR HER DISCRETION,  
MAY ELIMINATE CONSTRUCTION APPROACH SIGNING AT  
DEAD END LOCATIONS

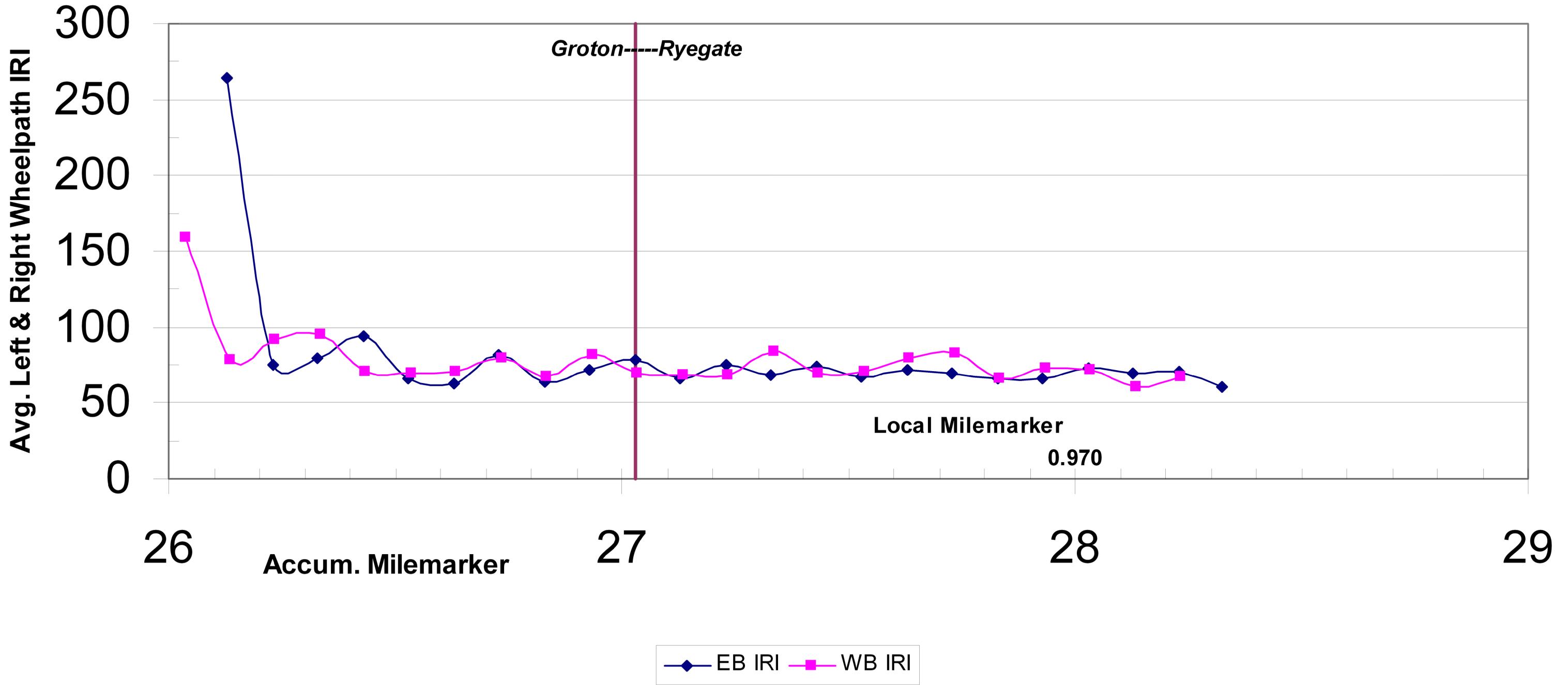
NOTE:  
1. PAYMENT FOR CONSTRUCTION SIGNING WILL BE MADE  
UNDER CONTRACT ITEM 64I.I0.

<b>TEMPORARY CONSTRUCTION SIGNING</b>	PROJECT NAME: GROTON - RYEGATE	PLOT DATE: 10-NOV-2011
	PROJECT NUMBER: STP SURF (16)	DRAWN BY: LOCKE
	FILE NAME: p09b038.dgn	CHECKED BY: PAVT MGMT
	PROJECT LEADER: MARSHIA	SHEET 22 OF 24
	DESIGNED BY: LOCKE	
	p09b040+tcp.i	

# US302 Groton-Ryegate STP SURF (16) Preconstruction IRI

Profiled 10/6/09

EB Avg. IRI = 79.7    WB Avg. IRI = 78.0

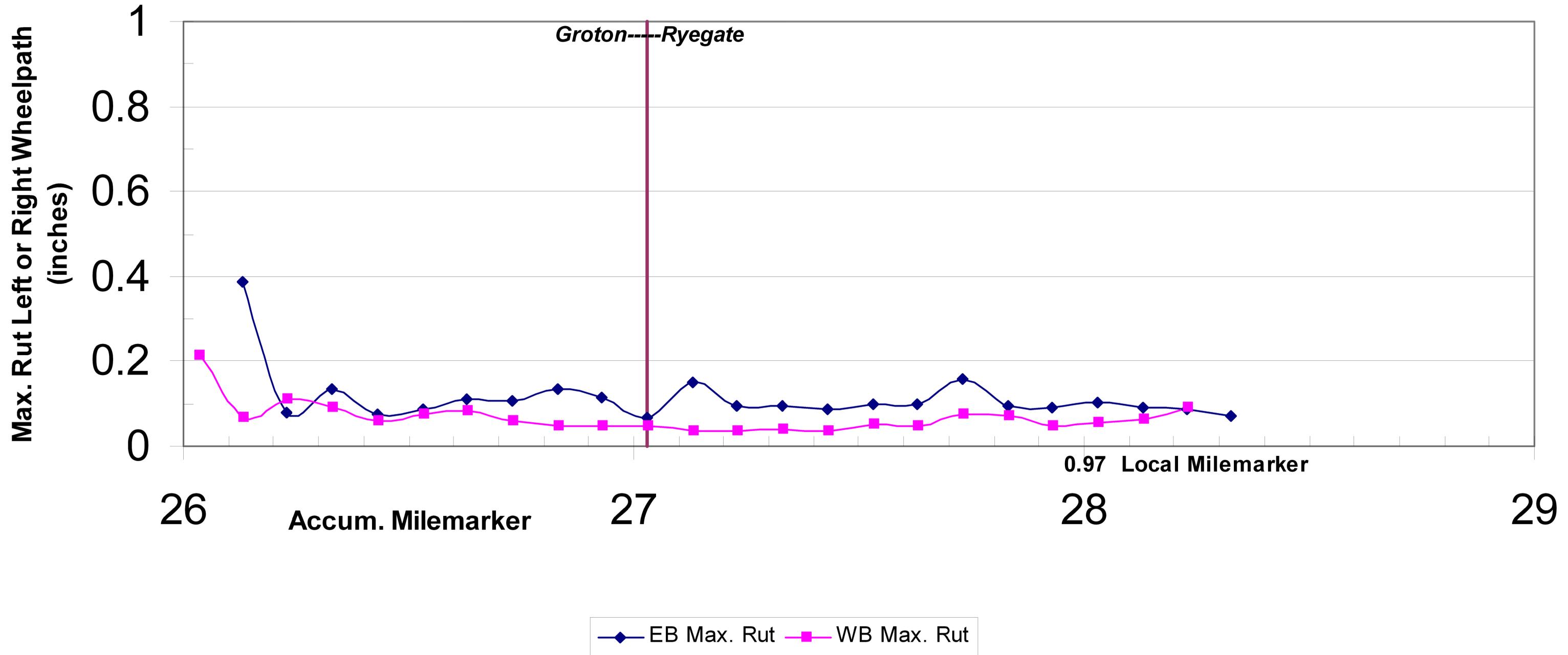


**FOR INFORMATIONAL PURPOSES ONLY**

<b>ROUGHNESS DATA INFORMATION SHEET</b>	PROJECT NAME: GROTON - RYEGATE	PLOT DATE: 10-NOV-2011
	PROJECT NUMBER: STP SURF(16)	DRAWN BY: LOCKE
	FILE NAME: p09b038.dgn	CHECKED BY: PAVT MGMT
	DESIGNED BY: LOCKE	SHEET 23 OF 24
	p09b040iri.i	

# US302 Groton-Ryegate STP SURF (16) Preconstruction Ruts

Profiled 10/6/09



LWP = LEFT WHEEL PATH  
RWP = RIGHT WHEEL PATH

**FOR INFORMATIONAL PURPOSES ONLY**

<b>RUTTING DATA INFORMATION SHEET</b>	PROJECT NAME: GROTON - RYEGATE	PLOT DATE: 10-NOV-2011
	PROJECT NUMBER: STP SURF(16)	DRAWN BY: LOCKE
	FILE NAME: p09b038.dgn	CHECKED BY: PAVT MGMT
	DESIGNED BY: LOCKE	SHEET 24 OF 24