

# STATE OF VERMONT AGENCY OF TRANSPORTATION



## PROPOSED IMPROVEMENT TOWNS OF ROCKINGHAM & SPRINGFIELD COUNTIES OF WINDHAM & WINDSOR INTERSTATE ROUTE 91 (SB)

BEGINNING IN THE TOWN OF ROCKINGHAM AT MILE MARKER 35.570 AND EXTENDING NORTHERLY ALONG INTERSTATE ROUTE 91 (SOUTHBOUND) FOR A DISTANCE OF 58,238.40 FT (11.030 MILES) TO MILE MARKER 46.600 IN THE TOWN OF SPRINGFIELD.

LENGTH OF ROADWAY = 58,238.40 FT = (11.030 MILES)  
LENGTH OF PROJECT = 58,238.40 FT = (11.030 MILES)

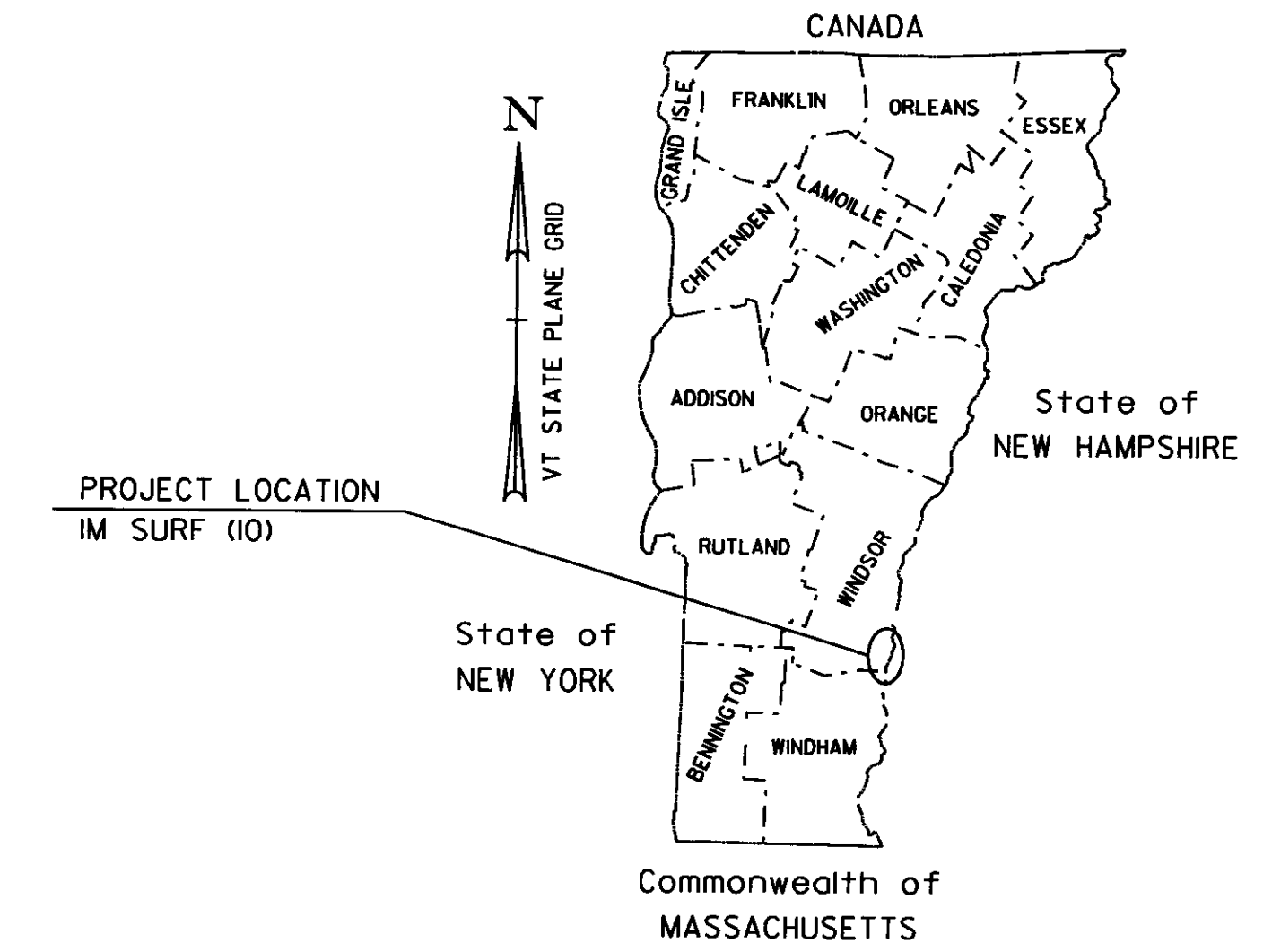
WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES SURFACE PREPARATION INVOLVING PATCHING, POT HOLE REPAIR, AND CRACK-SEALING; THE CONSTRUCTION OF A MODIFIED BITUMINOUS CONCRETE PAVEMENT ON THE EXISTING INTERSTATE TYPICAL, AND APPLICABLE PAVEMENT MARKINGS.

### INDEX OF SHEETS

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- 11 ROUGHNESS DATA INFORMATION SHEET
- 12 RUTTING DATA INFORMATION SHEET

### STANDARDS

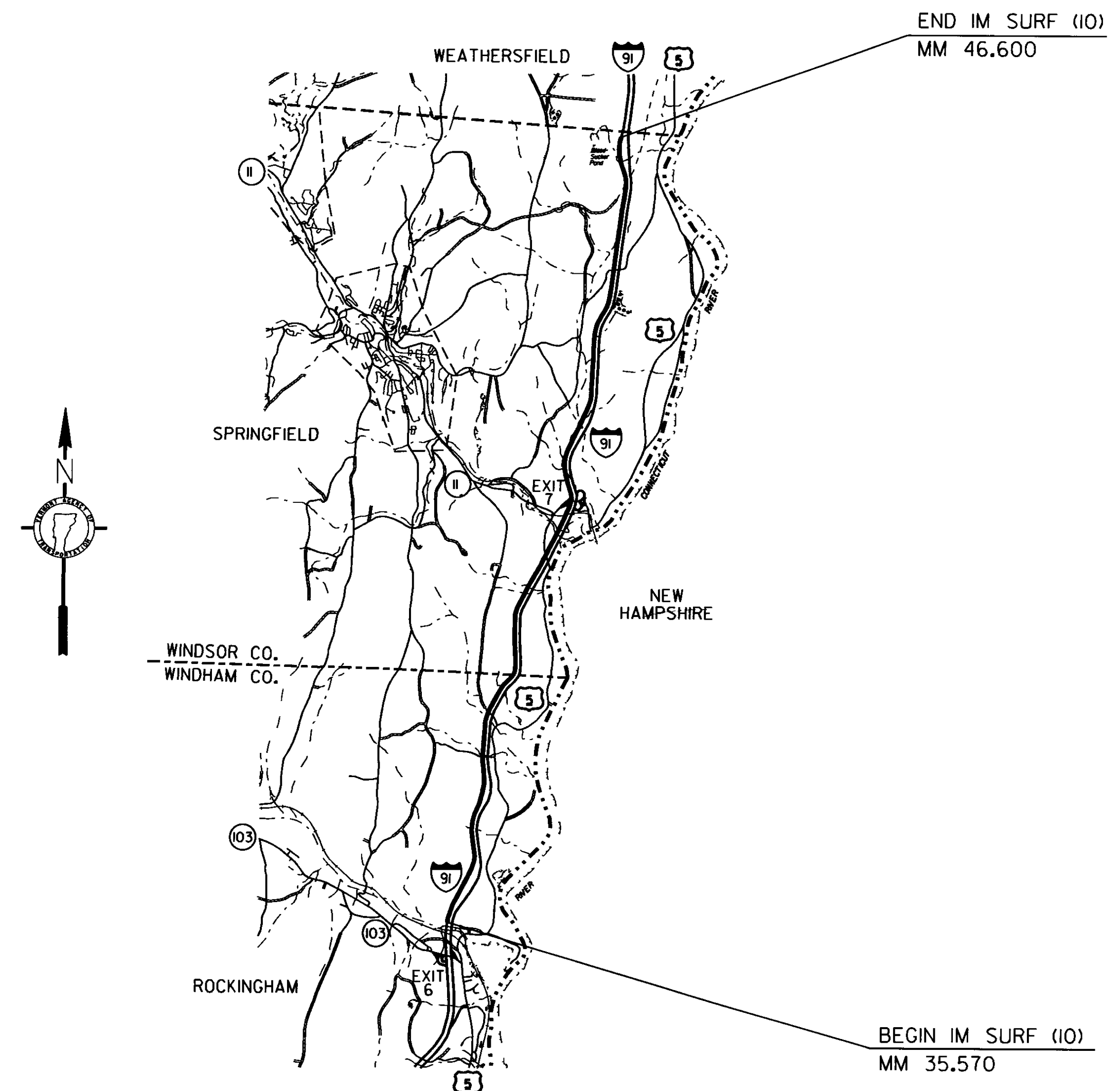
E-100	CONSTRUCTION APPROACH SIGNS	01/02/04
E-101	CONSTRUCTION SIGN DETAILS	05/30/03
E-102	CONSTRUCTION SIGN DETAILS	06/30/03
E-102A	CONSTRUCTION SIGN DETAILS	05/01/04
E-103	MAINLINE TRAFFIC CONTROL DIVIDED HIGHWAY ONE LANE CLOSED	03/01/04
E-105	TRAFFIC CONTROL FOR CONSTRUCTION VEHICLE U-TURNS ON DIVIDED HIGHWAY	05/01/04
E-106	TRAFFIC CONTROL - MISCELLANEOUS DETAILS	03/01/04
E-107A	BREAKAWAY BARRICADE DETAILS	08/08/95
E-191	PAVEMENT MARKING DETAILS	02/01/99
E-193	PAVEMENT MARKING DETAILS	08/18/95



RECORD PLANS	
CONTRACTOR	ALL STATES ASPHALT, INC - SUNDERLAND, MA
RESIDENT ENGINEER	MARK HAUGHWOUT
CONSTRUCTION BEGAN	AUGUST 4, 2009
CONSTRUCTION COMPLETE	OCTOBER 27, 2009
RECORD PLANS BY	MARK HAUGHWOUT & CHIP PIERCE
I HEREBY CERTIFY THAT ALL THE CONSTRUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN	
BY	<i>Mark Haughwout</i> RESIDENT ENGINEER
DATE	June 19, 2010
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	

### 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			



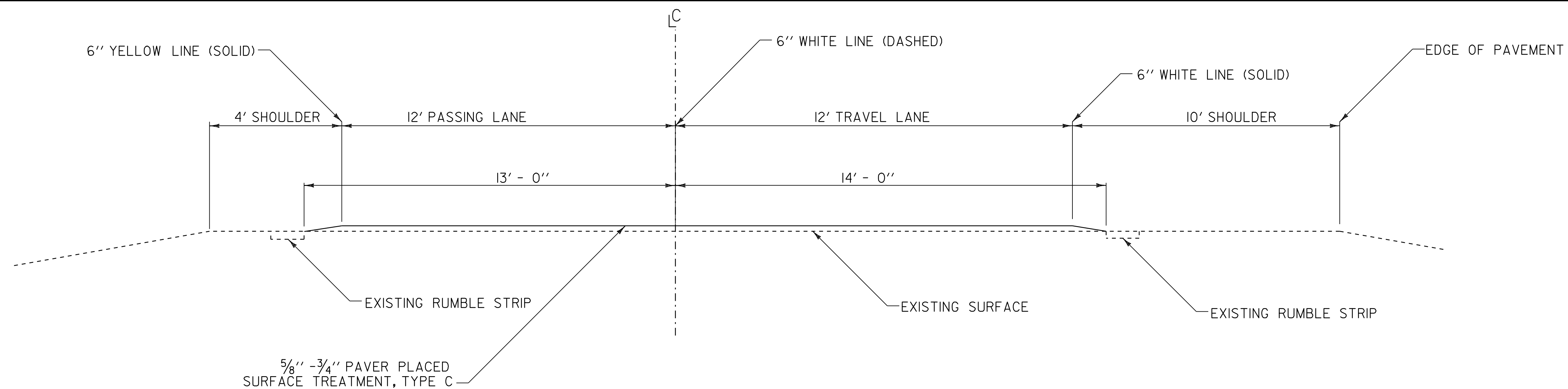
### TRAFFIC DATA

SECTION	AADT	
	2009	2019
BEGIN PROJECT TO EXIT 7	6600	7800
EXIT 7 TO END PROJECT	6100	7200

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

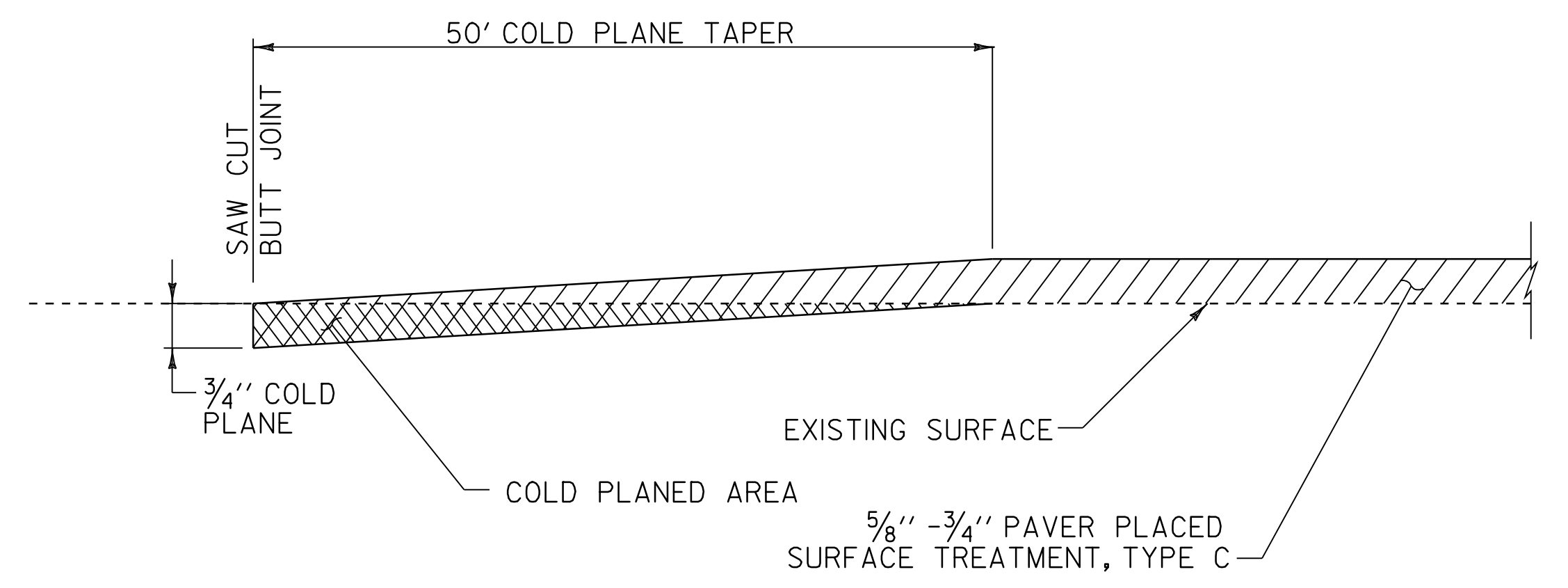
CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2006, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JUNE 15, 2006 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS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

DIRECTOR OF PROGRAM DEVELOPMENT	
APPROVED <i>Jan V. Bl...</i>	DATE 4-22-2009
PROJECT MANAGER : TED DOMEY	
PROJECT NAME : ROCKINGHAM - SPRINGFIELD	
PROJECT NUMBER : IM SURF (10)	
SHEET 1 OF 12 SHEETS	



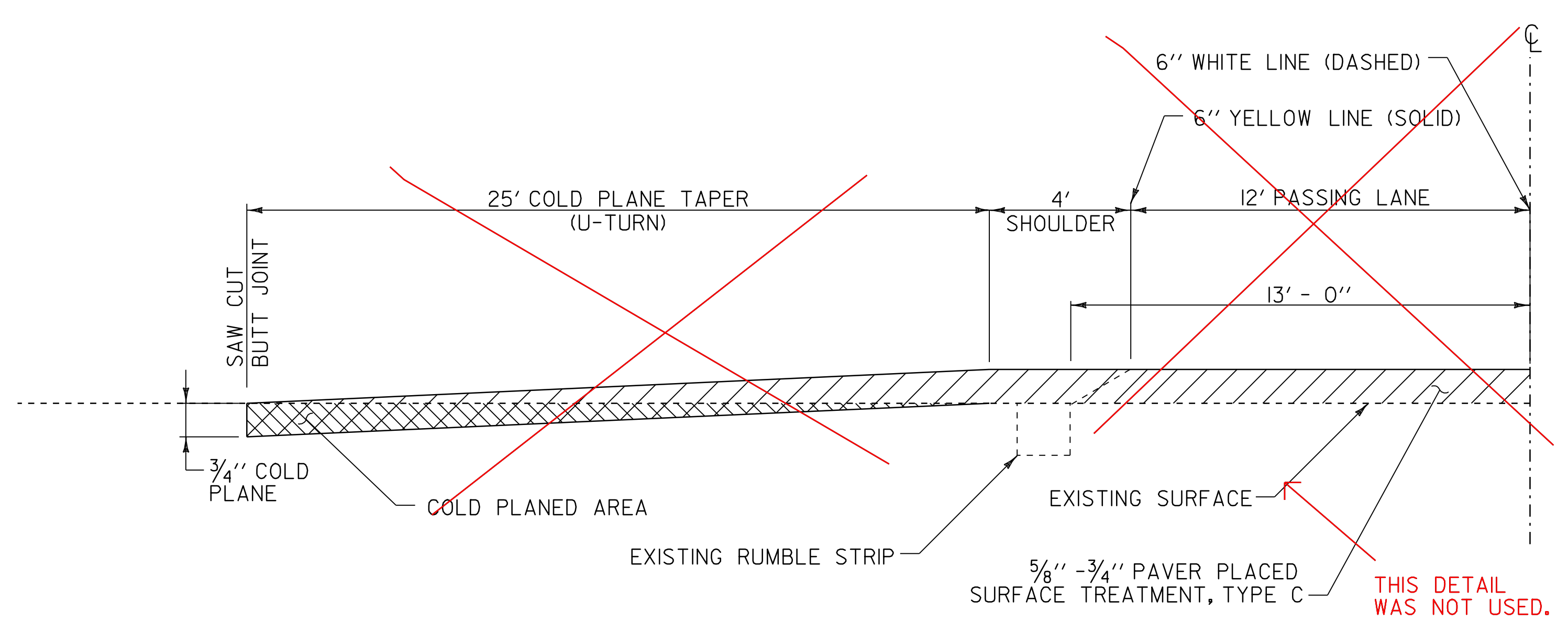
**TYPICAL SECTION**  
**I 91 SOUTHBOUND MM 35.570 TO MM 46.600**

AVERAGE PROJECT WIDTH = 27.55' (USED FOR S.Y. QUANTITIES FOR ITEM 900.675, SPECIAL PROVISIONS PAVER PLACED SURFACE, TYPE C)



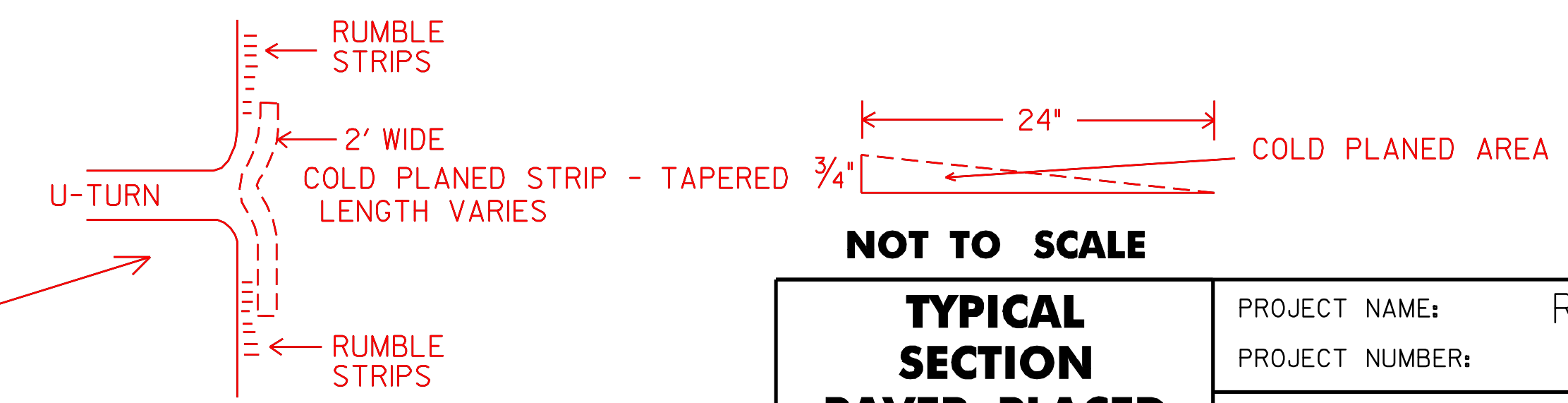
**COLD PLANE DETAIL AT BEGIN/END PROJECT**

- NOTES:
1. ALL NECESSARY SURFACE PREPARATION INVOLVING PATCHING, POT HOLE REPAIR, AND CRACK-SEALING SHALL BE PERFORMED PRIOR TO APPLICATION OF THE PAVER PLACED SURFACE TREATMENT. ALL CRACKS GREATER THAN 0.10" AND UP TO 1.0" IN WIDTH SHALL BE FILLED USING THE "BLOW AND GO" FLUSH FILL METHOD. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE PAID FOR UNDER ITEM 417.20, BITUMINOUS CRACK SEALING, "BLOW AND GO" METHOD. THE PATCHING OF ALL CRACKS GREATER THAN 1.0" AND ALL OTHER PATCHING AND POT-HOLE REPAIR SHALL BE COMPLETED USING BITUMINOUS CONCRETE PAVEMENT IN ACCORDANCE WITH ITEM 900.680 SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION, TYPE I). AN ESTIMATED QUANTITY FOR THIS ITEM HAS BEEN INCLUDED TO COVER ALL COSTS ASSOCIATED WITH THIS WORK.
  2. EXISTING SHOULDER PAVEMENT SURFACES BEYOND THE LIMITS OF THE PAVER PLACED SURFACE TREATMENT SHALL ALSO RECEIVE CRACK-SEALING AND RELATED PATCHING AND POT HOLE REPAIR TREATMENTS.
  3. 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.
  4. 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.
  5. A 50' COLD PLANED WEDGE SHALL BE CONSTRUCTED AT THE PROJECT BEGIN, PROJECT END, AND AT ALL BRIDGE APPROACHES; 25' COLD PLANED WEDGE AT U-TURNS, OR AS DIRECTED BY THE RESIDENT ENGINEER. THE LONGITUDINAL EDGES OF THE SURFACE TREATMENT SHALL BE FEATHERED AS SHOWN ON THE TYPICAL SECTION, OR AS DIRECTED BY THE RESIDENT ENGINEER. ANY SAWCUTTING AT BUTT JOINTS SHALL BE PAID INCIDENTAL TO ITEM 210.10, COLD PLANING, BITUMINOUS PAVEMENT.
  6. IF IT IS DETERMINED IN AREAS ALONG THE BASE OF THE GUARDRAIL WHERE WINTER SAND AND OTHER DEBRIS HAS ACCUMULATED SUFFICIENTLY TO AFFECT PROPER CRACK-SEALING AND RELATED PATCHING AND POT HOLE REPAIR TREATMENTS, THIS MATERIAL SHALL BE REMOVED PRIOR TO CRACK-SEALING, PATCHING, AND POT HOLE REPAIR AS DIRECTED BY THE RESIDENT ENGINEER. AN ESTIMATED QUANTITY FOR ITEM 203.40 SHOULDER BERM REMOVAL HAS BEEN INCLUDED TO COVER THE COSTS ASSOCIATED WITH THIS WORK.
  7. 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 ENGINEER.



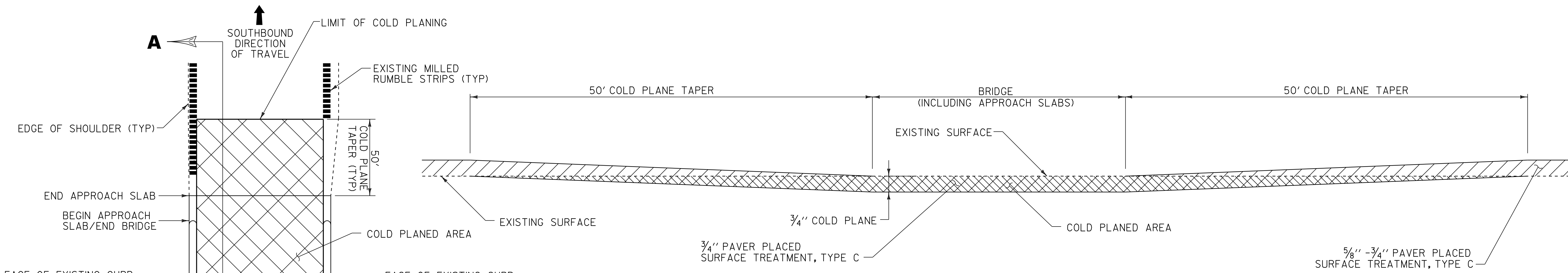
**COLD PLANE DETAIL AT U-TURNS**

MM	35.675	.61
MM	37.875	.955
MM	39.420	.51
MM	41.325	.375
MM	43.185	.25
MM	45.170	.23



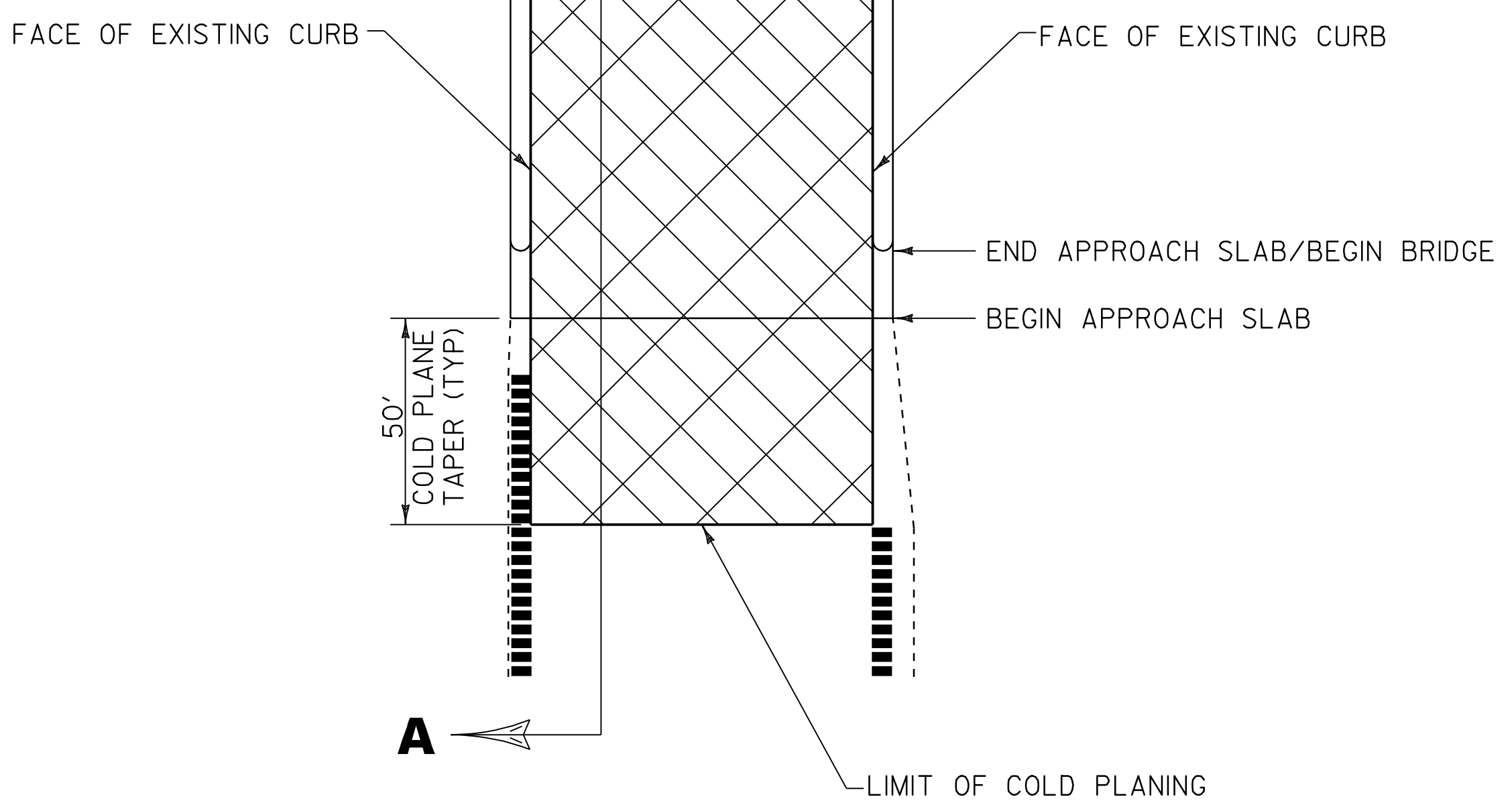
NOT TO SCALE

<b>TYPICAL SECTION PAVER PLACED SURFACE TREATMENT</b>	PROJECT NAME:	ROCKINGHAM - SPRINGFIELD
	PROJECT NUMBER:	IM SURF (10)
	FILE NAME:	...08A150\...08A150.dgn
	PLOT DATE:	02-AUG-2010 14:4
	PROJECT LEADER:	DOMNEY
	DESIGNED BY:	HUNT
	IPARM FILE NAME:	08A150_02.1
	CHECKED BY:	PAVT MGMT
		SHEET 2 OF 12

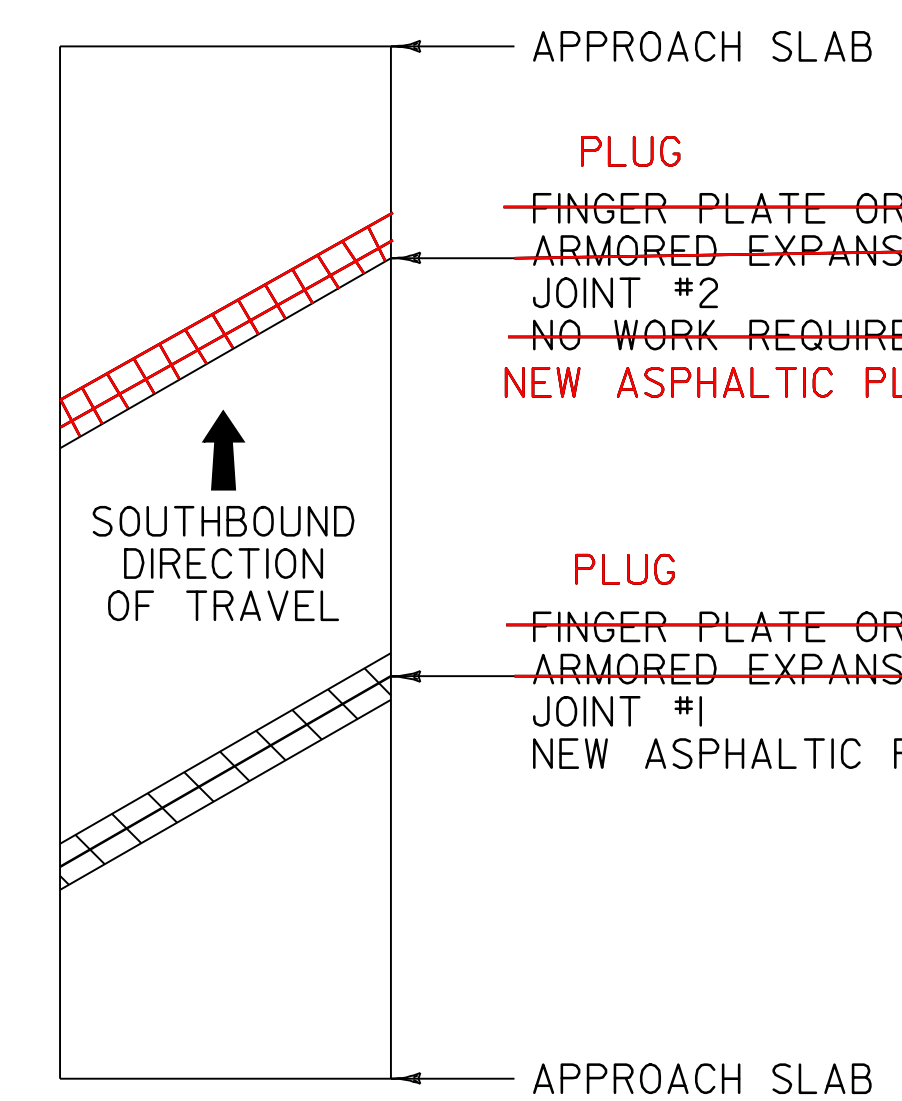


**BRIDGE COLD PLANE TYPICAL SECTION A-A**

- BR #25S = MM 40.922
- BR #26S = MM 41.265
- BR #27S = MM 41.546
- BR #28S = MM 41.693
- BR #29S = MM 44.989

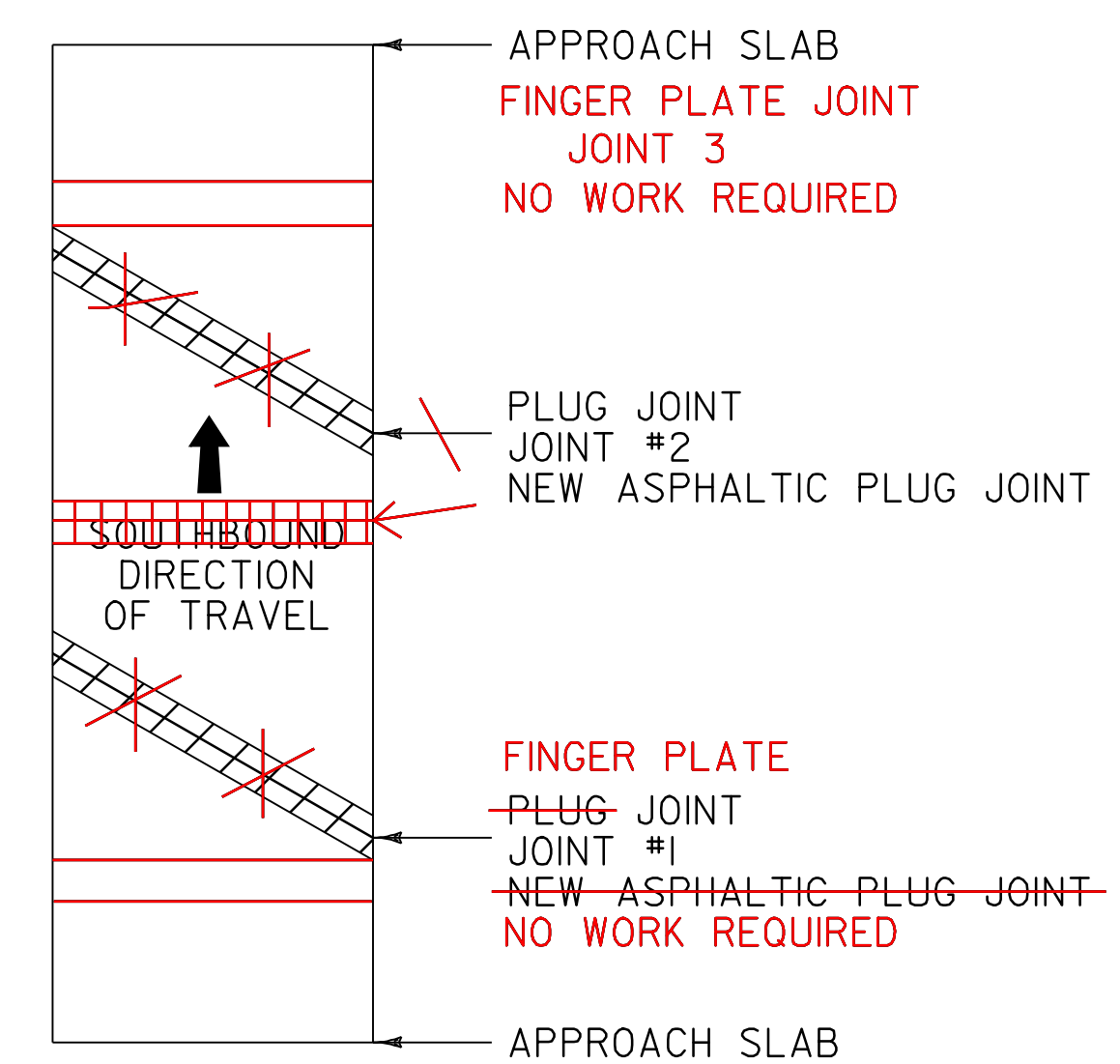


**BRIDGE COLD PLANE TYPICAL PLAN**



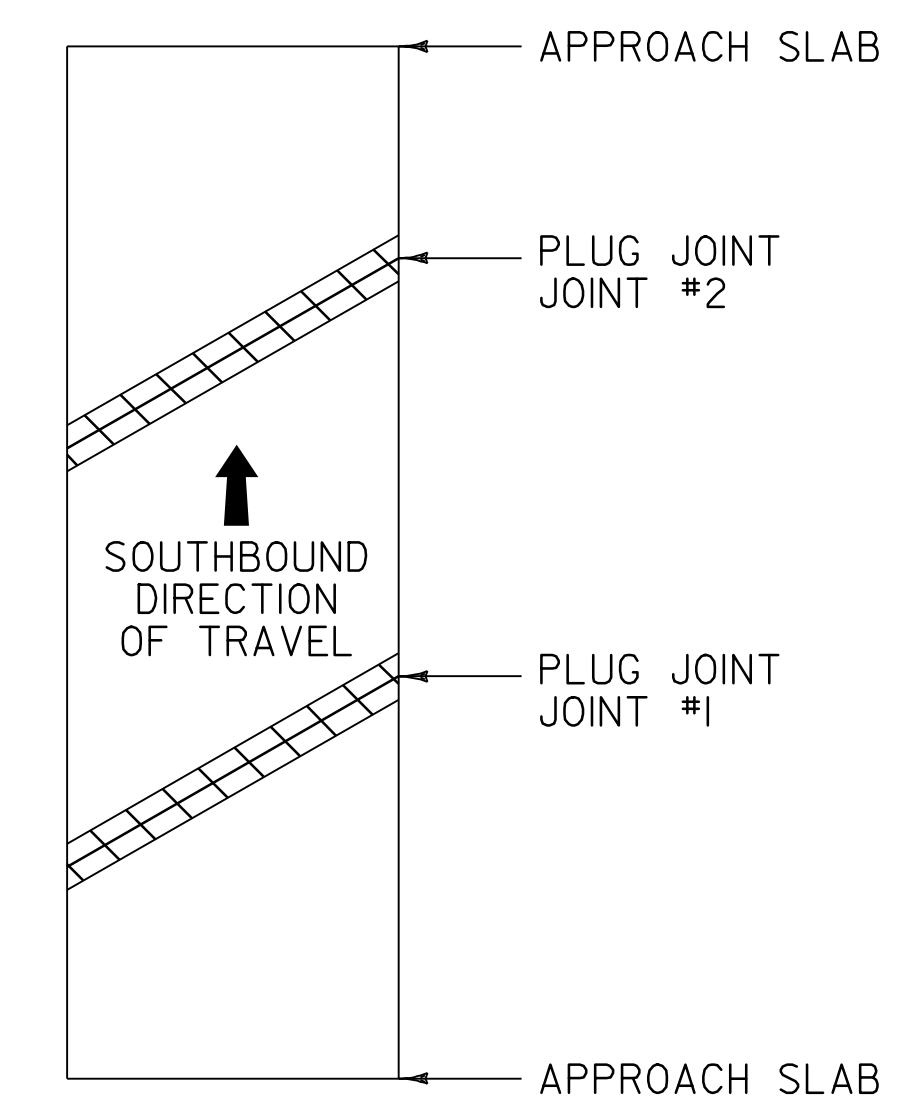
**BRIDGE #27S**  
MM 41.546

LENGTH OF ASPHALTIC PLUG JOINTS:  
 JOINT #1 = ~~4'~~ 44.4'  
 JOINT #2 = ~~0'~~ 45.3'  
 TOTAL = ~~4'~~ 89.7'



**BRIDGE #28S**  
MM 41.693

LENGTH OF ASPHALTIC PLUG JOINTS:  
~~JOINT #1 = 4'~~  
 JOINT #2 = ~~4'~~ 30.5'  
 TOTAL = ~~82'~~ 30.5'



**BRIDGE #29S**  
MM 44.989

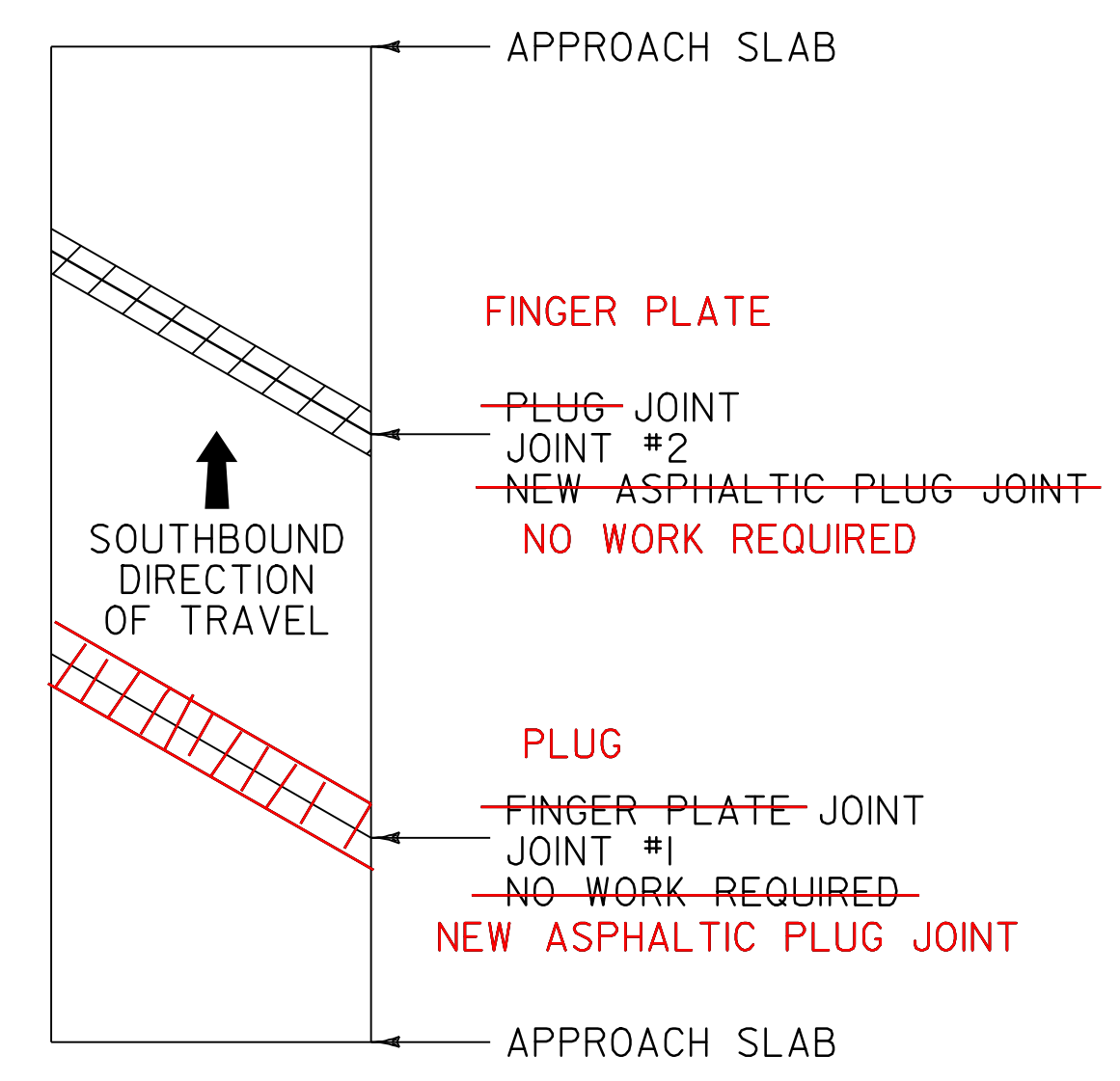
LENGTH OF ASPHALTIC PLUG JOINTS:  
 JOINT #1 = ~~50'~~ 53.5'  
 JOINT #2 = ~~50'~~ 54.0'  
 TOTAL = ~~100'~~ 107.5'

**LEGEND**



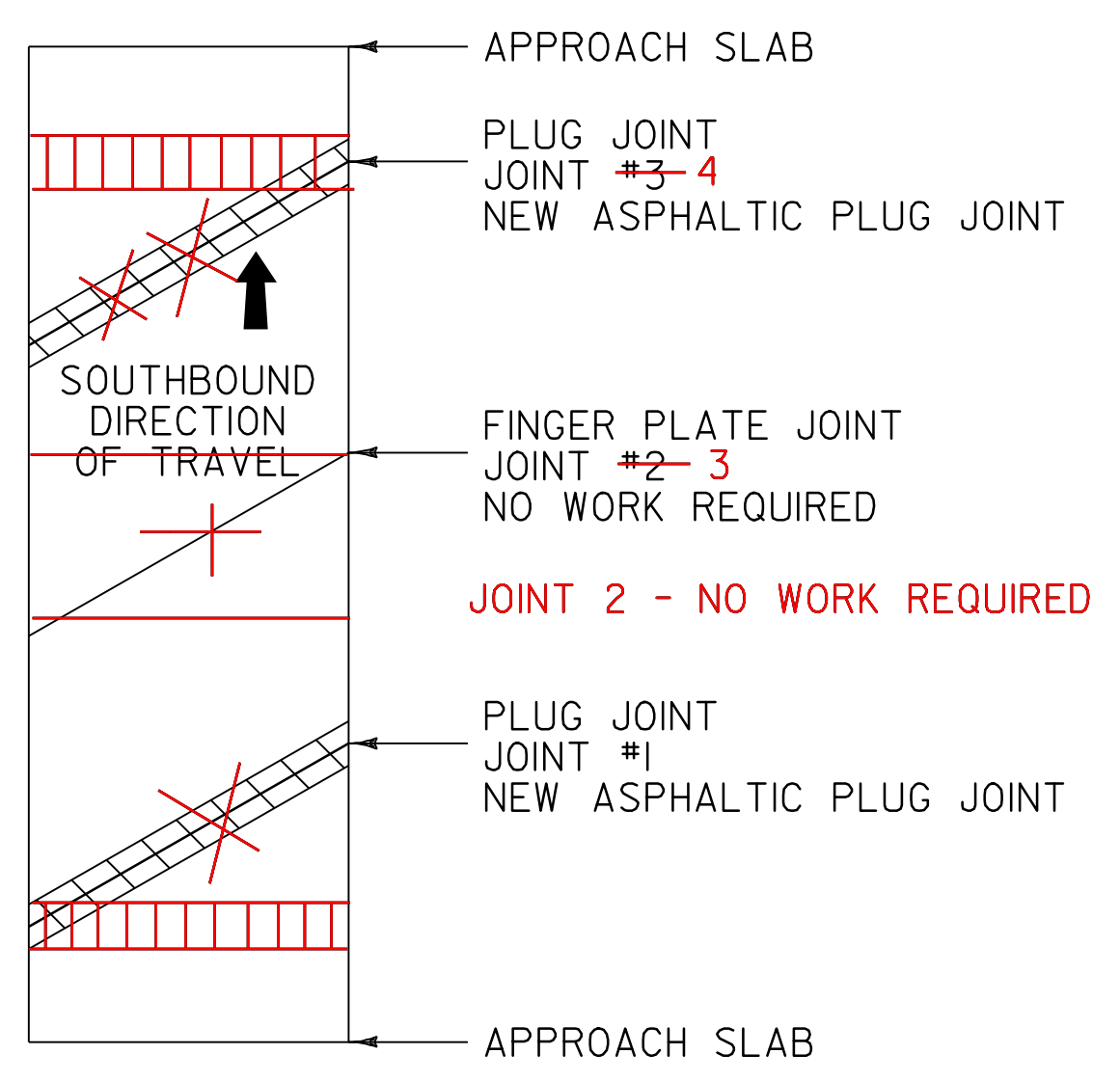
**NOTES:**

1. REFER TO ASPHALTIC PLUG JOINT AND DETAILS. ALL NEW JOINTS TO BE PAID FOR UNDER ITEM 516.10, "BRIDGE EXPANSION JOINT, ASPHALTIC PLUG".
2. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID DAMAGING DRAINAGE STRUCTURES AND EXPANSION JOINTS. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT THE EXPENSE OF THE CONTRACTOR.
3. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID THE ACCUMULATION OF DEBRIS IN THE DRAINAGE STRUCTURES LOCATED AT CURB LINE AND IN THE EXPANSION JOINTS. THE CONTRACTOR SHALL EXAMINE THESE BRIDGE FEATURES ON A REGULAR BASIS TO ENSURE THAT DEBRIS HAS NOT ACCUMULATED. ANY DEBRIS WHICH IS PRESENT SHALL BE REMOVED BY THE CONTRACTOR AT NO COST TO THE STATE.



**BRIDGE #25S**  
MM 40.922

LENGTH OF ASPHALTIC PLUG JOINTS:  
 JOINT #1 = ~~0'~~ 42.5'  
 JOINT #2 = ~~46'~~ 0'  
 TOTAL = ~~46'~~ 42.5'



**BRIDGE #26S**  
MM 41.265

LENGTH OF ASPHALTIC PLUG JOINTS:  
 JOINT #1 = ~~40'~~ 30' JOINT 3-0'  
 JOINT #2 = 0'  
 JOINT #3 = ~~40'~~ 30'  
 TOTAL = ~~80'~~ 60'

**NOT TO SCALE**

<b>BRIDGE DETAIL SHEET</b>	PROJECT NAME:	ROCKINGHAM - SPRINGFIELD
	PROJECT NUMBER:	IM SURF (10)
	FILE NAME: ...08A150\...08A150.dgn	PLOT DATE: 02-AUG-2010 14:44
	PROJECT LEADER: DOMEY	DRAWN BY: HUNT
	DESIGNED BY: HUNT	CHECKED BY: PAVT MGMT
	IPARM FILE NAME: 08A150_03.1	SHEET 3 OF 12

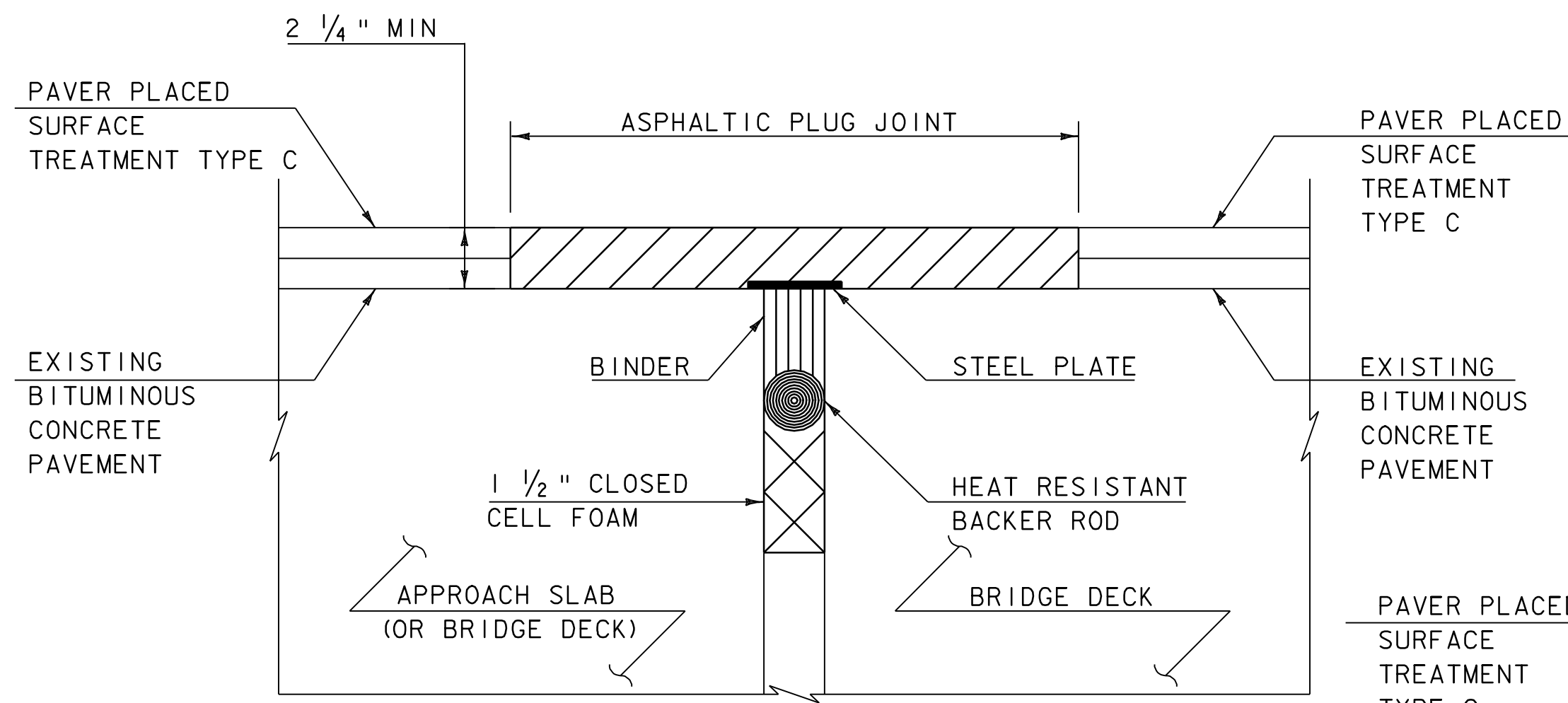
**ASPHALTIC PLUG JOINT NOTES**

**I. INSTALLATION**

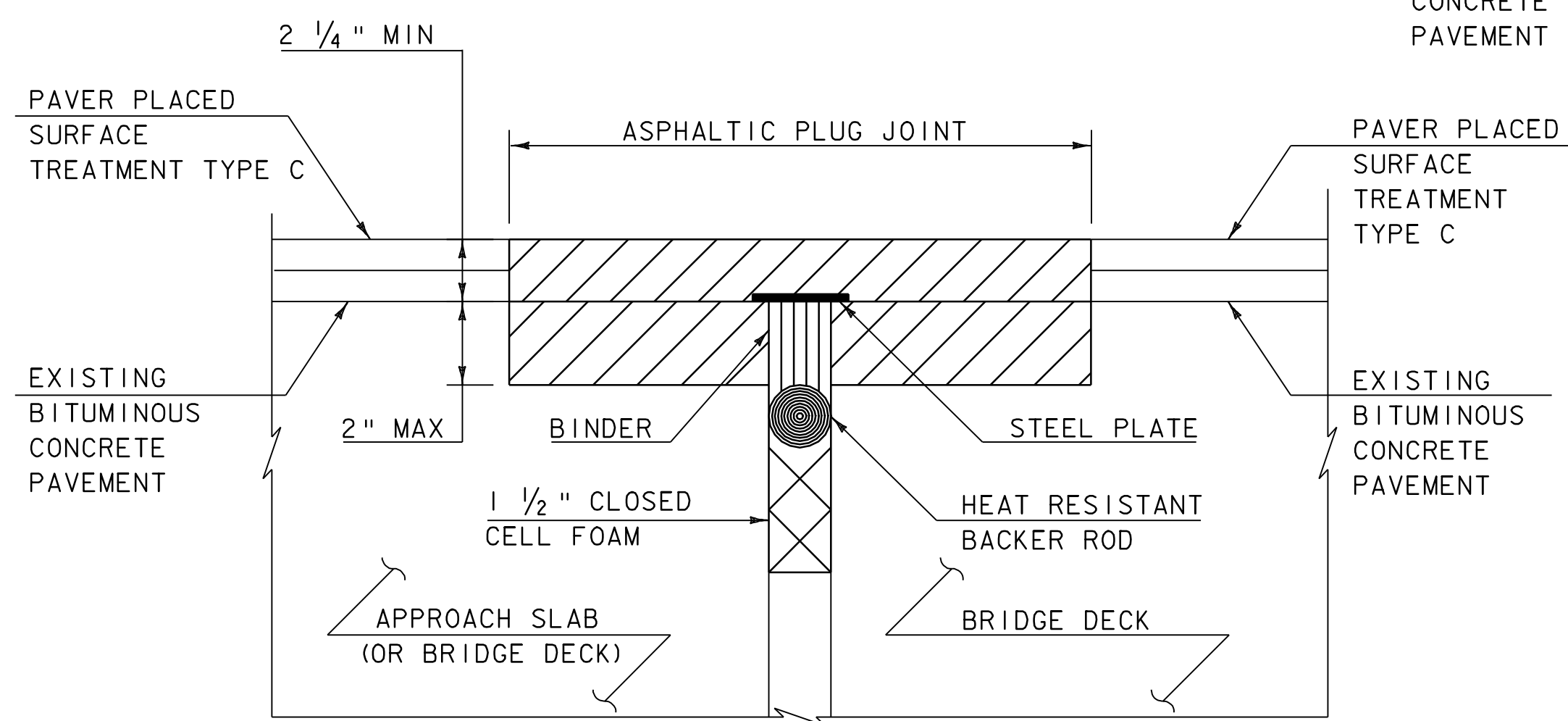
- A. LOCATE THE JOINT CENTRALLY OVER THE DECK OVERLAY EXPANSION GAP OR FIXED JOINT MARKED OUT TO THE MANUFACTURER'S RECOMMENDED WIDTH.
- B. REMOVE THE BITUMINOUS CONCRETE PAVEMENT FULL DEPTH AS SHOWN ON THE PLANS. THE PAVEMENT SHALL BE DRY AND SAW CUT TO THE LIMITS REQUIRED TO PLACE THE JOINT. A PNUMATIC 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.



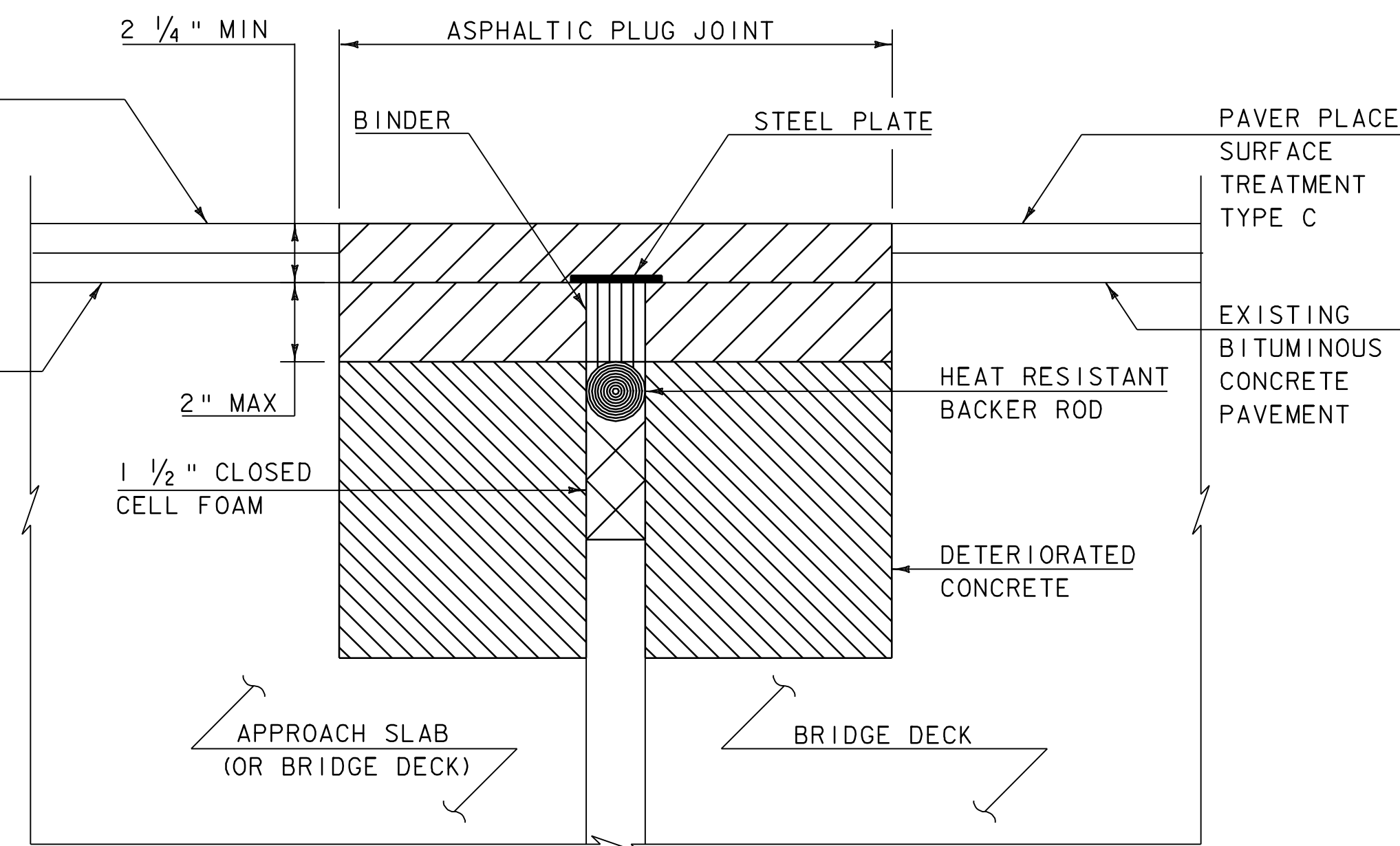
**ASPHALTIC PLUG-TYPE JOINT DETAIL**  
(NOT TO SCALE)



**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.



**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.

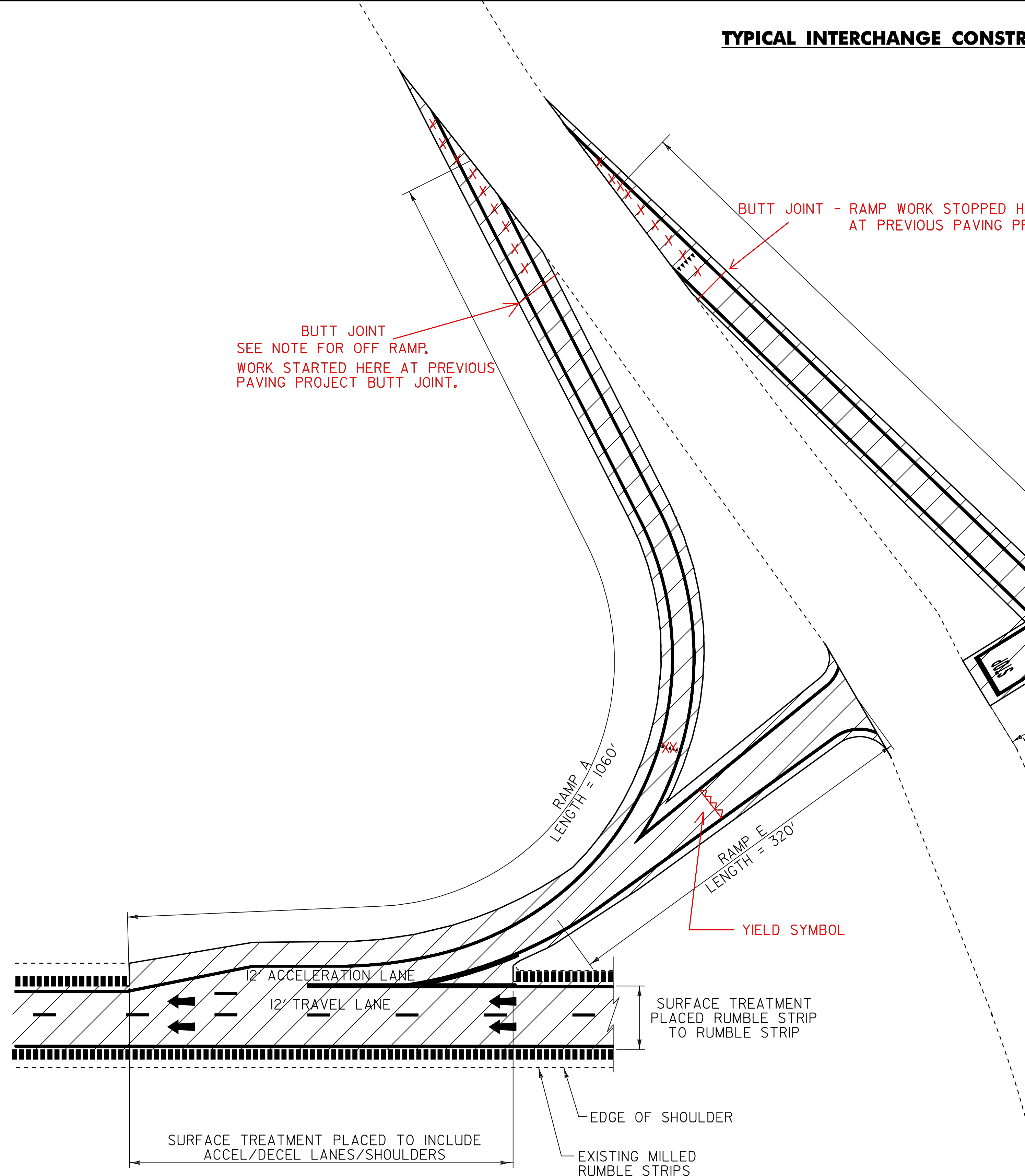
**NOT TO SCALE**

**ASPHALTIC PLUG JOINT DETAIL SHEET**

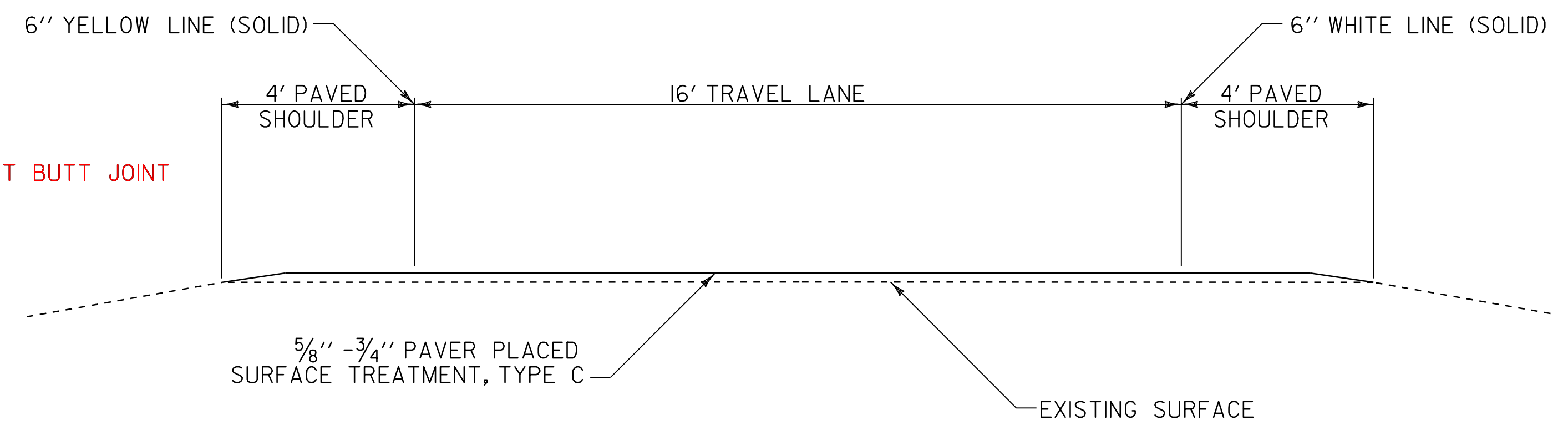
PROJECT NAME:	ROCKINGHAM - SPRINGFIELD
PROJECT NUMBER:	IM SURF (10)
FILE NAME: ...08A150\...08A150.dgn	PLOT DATE: 02-AUG-2010 14:44
PROJECT LEADER: DOMEY	DRAWN BY: HUNT
DESIGNED BY: HUNT	CHECKED BY: PAVT MGMT
IPARM FILE NAME: 08A150_04.I	SHEET 4 OF 12



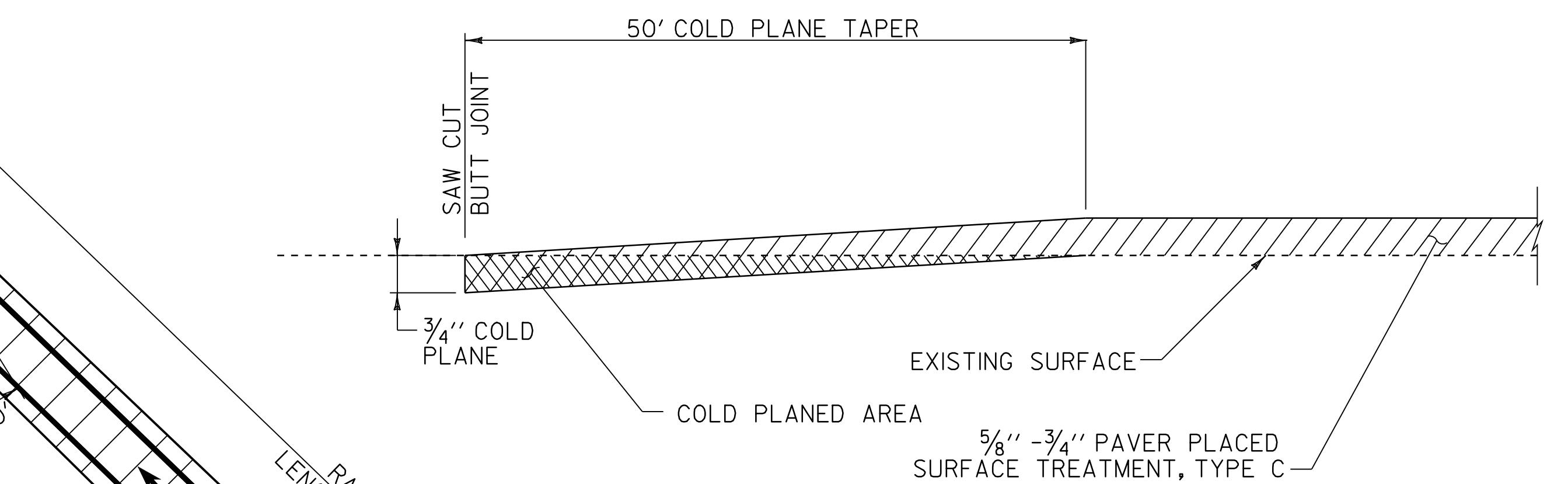
**TYPICAL INTERCHANGE CONSTRUCTION DETAILS**



**EXIT 7 ON RAMP CONSTRUCTION DETAILS**

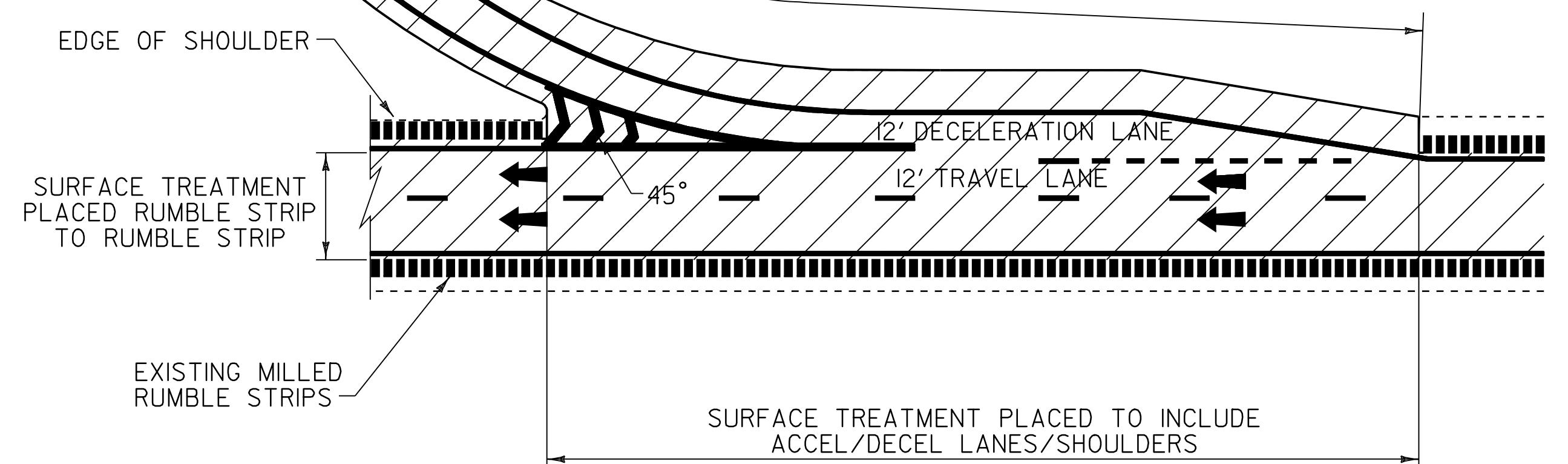


**TYPICAL RAMP SECTION**



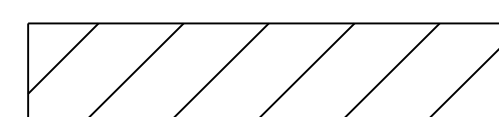
**COLD PLANE DETAIL AT RAMPS**

NOTES:  
1. SURFACE PREPARATION IS REQUIRED ON ALL RAMPS.



**EXIT 7 OFF RAMP CONSTRUCTION DETAILS**

**LEGEND**



AREA OF PAVER PLACED SURFACE TREATMENT TYPE C



DIRECTION OF TRAFFIC FLOW



EXISTING MILLED RUMBLE STRIPS

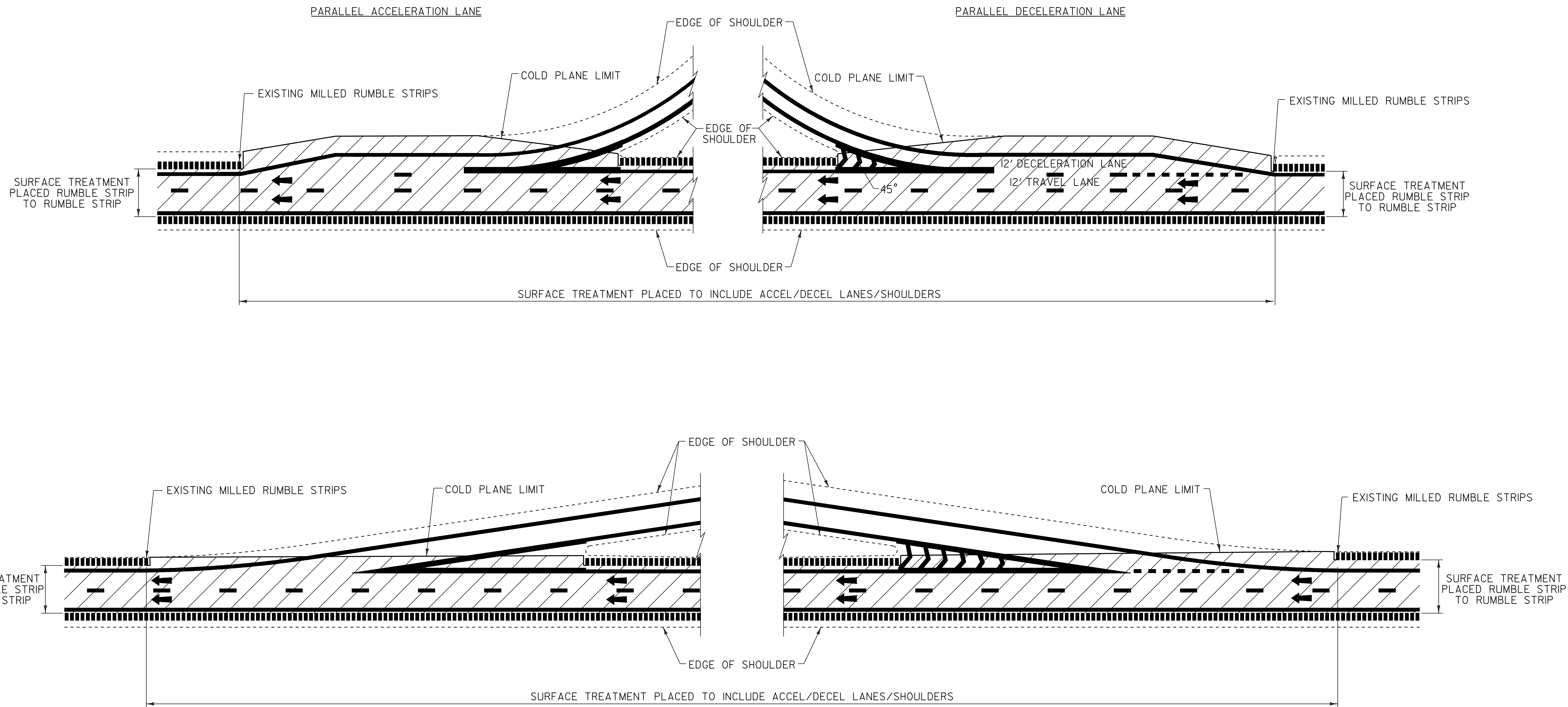
**NOT TO SCALE**

**TYPICAL CONSTRUCTION DETAIL SHEET 1**

PROJECT NAME:	ROCKINGHAM - SPRINGFIELD
PROJECT NUMBER:	IM SURF (10)
FILE NAME: ...08A150\...08A150.dgn	PLOT DATE: 02-AUG-2010 14:4
PROJECT LEADER: DOMEY	DRAWN BY: HUNT
DESIGNED BY: HUNT	CHECKED BY: PAVT MGMT
IPARM FILE NAME: 08A150_06.1	SHEET 6 OF 12

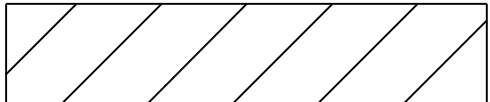


**TYPICAL PARKING AREA CONSTRUCTION DETAILS**

MM 39.020 AND MM 39.425



NOTES:  
1. LINE STRIPING SHOWN FOR REFERENCE ONLY.

**LEGEND**

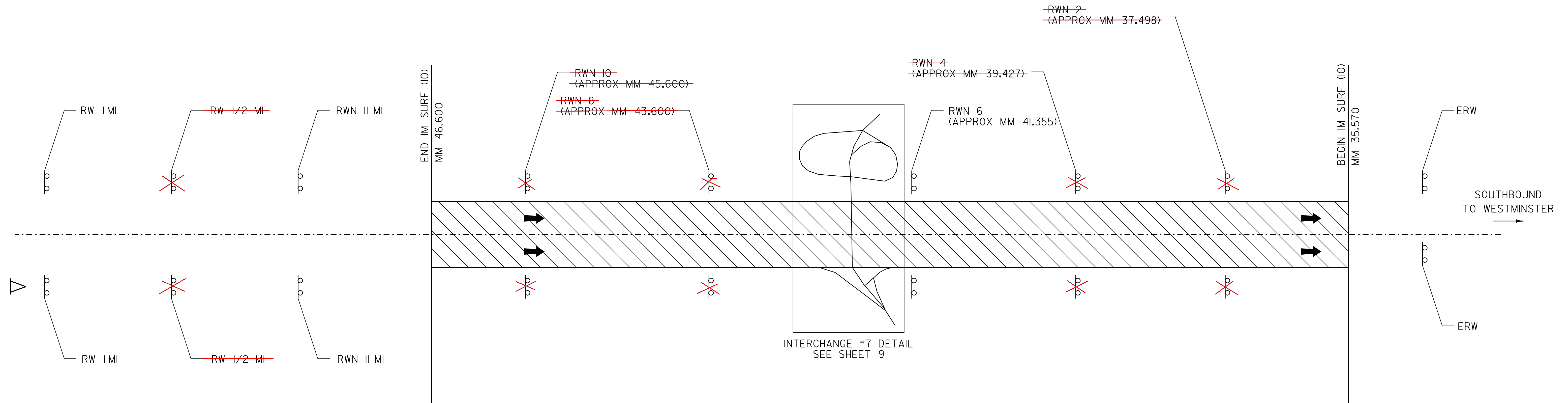
-  AREA OF PAVER PLACED SURFACE TREATMENT TYPE C
-  DIRECTION OF TRAFFIC FLOW
-  EXISTING MILLED RUMBLE STRIPS

**NOT TO SCALE**

**TYPICAL CONSTRUCTION DETAIL SHEET 2**

PROJECT NAME:	ROCKINGHAM - SPRINGFIELD
PROJECT NUMBER:	IM SURF (10)
FILE NAME: ...08A150\...08A150.dgn	PLOT DATE: 02-AUG-2010 14:44
PROJECT LEADER: DOMEY	DRAWN BY: HUNT
DESIGNED BY: HUNT	CHECKED BY: PAVT MGMT
IPARM FILE NAME: 08A150_07.1	SHEET 7 OF 12

**BEGIN /END PROJECT  
CONSTRUCTION APPROACH SIGNING**

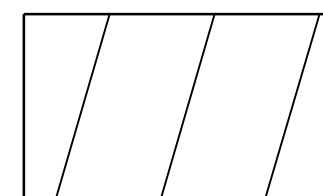


**LEGEND**

- RWN = ROAD WORK NEXT (X MILES)
- ERW = END ROAD WORK
- RW 1 MI = ROAD WORK IN 1 MILE
- ~~RW 1/2 MI~~ = ROAD WORK IN 1/2 MILE



= PORTABLE CHANGEABLE MESSAGE SIGN



= WORK AREA



= DIRECTION OF TRAFFIC FLOW

**NOT TO SCALE**

**CONSTRUCTION  
APPROACH  
SIGNING  
SHEET**

PROJECT NAME: ROCKINGHAM - SPRINGFIELD  
PROJECT NUMBER: IM SURF (10)

FILE NAME: ...08A150\...08A150.dgn  
PROJECT LEADER: DOMEY  
DESIGNED BY: HUNT  
IPARM FILE NAME: 08A150\_08.1

PLOT DATE: 02-AUG-2010 14:15  
DRAWN BY: HUNT  
CHECKED BY: PAVT MGMT  
SHEET 8 OF 12

**NOTES:**

1. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO THE RESIDENT ENGINEER FOR APPROVAL PRIOR TO THE START OF CONSTRUCTION. THE COST OF PREPARING THIS PLAN (AND MAKING CHANGES IF NECESSARY) SHALL NOT BE PAID SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 641.10, TRAFFIC CONTROL.

2. THE CONTRACTOR SHALL INCLUDE A CONSTRUCTION SIGN APPROACH PACKAGE FOR EXPECTED LANE CLOSURES AND WORK ZONE SPEED REDUCTIONS IN COMPLIANCE WITH VTRANS STANDARD E-103, E-106 AND THE LATEST REVISION OF THE 2003 MUTCD. PAYMENT FOR PROVIDING THIS PACKAGE SHALL BE INCIDENTAL TO ITEM 641.10, TRAFFIC CONTROL.

3. THE BID PRICE FOR TRAFFIC CONTROL, ITEM 641.10, SHALL INCLUDE ALL APPROACH AND ON-PROJECT CONSTRUCTION SIGNING, PORTABLE ARROW BOARDS, BARRIERS, BARRELS, CONES, BARRICADES, TEMPORARY REGULATORY AND WARNING SIGNS, AND POSTS AS DETAILED IN VTRANS STANDARDS. ALL ADJUSTING, RELOCATING, AND REMOVING OF THESE DEVICES AS DIRECTED BY THE RESIDENT ENGINEER SHALL ALSO BE INCLUDED. THE FOLLOWING ITEMS WILL BE PAID FOR SEPARATELY:  
 630.10 - UNIFORMED TRAFFIC OFFICERS  
 630.15 - FLAGGERS

4. PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE PROVIDED FOR USE ALONG THIS PROJECT. THE PLACEMENT OF THESE UNITS AS WELL AS THE MESSAGE WILL BE APPROVED BY THE RESIDENT ENGINEER. THESE SIGNS WILL BE PAID FOR UNDER ITEM 641.15, PORTABLE CHANGEABLE MESSAGE SIGN.

FOR THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL POSITION A PCMS PRIOR TO I-91 INTERCHANGE #7 WARNING SOUTHBOUND MOTORISTS OF EXPECTED ROADWAY CONDITIONS AND REDUCED ROADWAY WIDTHS.

PCMS SHOULD NOT REPLACE ANY OF THE SIGNING DETAILED IN THE MUTCD AND SHOULD NOT BE USED IF STANDARD TRAFFIC CONTROL DEVICES ADEQUATELY PROVIDE THE INFORMATION THE MOTORISTS NEED TO TRAVEL SAFELY.

THE PCMS SHALL CONSIST OF EITHER ONE OR TWO PHASES. TYPICALLY, A PHASE SHALL CONSIST OF UP TO THREE LINES OF EIGHT CHARACTERS PER LINE. THE PCMS SHOULD BE USED AS A SUPPLEMENT AND NOT AS A SUBSTITUTE FOR CONVENTIONAL SIGNS AND PAVEMENT MARKINGS.

THE PCMS SHOULD COMMUNICATE WHAT INFORMATION MOTORISTS NEED TO KNOW. UNNECESSARY INFORMATION SHOULD BE AVOIDED. MESSAGES SHOULD BE UPDATED PERIODICALLY TO DESCRIBE THE WORK ACTIVITY OCCURRING SO THAT THE PCMS CONTINUES TO COMMAND THE ATTENTION OF MOTORISTS.

5. NO CONSTRUCTION SIGNS SHALL BE INSTALLED AS TO INTERFERE OR OBSTRUCT THE VIEW OF EXISTING TRAFFIC CONTROL DEVICES, STOPPING SIGHT DISTANCE, AND CORNER SIGHT DISTANCE FROM DRIVES AND TOWN HIGHWAYS.

6. REFER TO VT. STATE STANDARDS AND THE LATEST REVISION OF THE 2003 MUTCD FOR TEMPORARY TRAFFIC CONTROL SIGN COLORS.

7. DURING CONSTRUCTION IT WILL BE NECESSARY FOR THE CONTRACTOR TO MAINTAIN ONE-LANE TRAFFIC FOR EXTENDED PERIODS OF TIME. IN NO CASE SHALL THE PAVED WIDTH FOR ONE-LANE TRAFFIC, INCLUDING SHOULDERS, BE REDUCED TO LESS THEN 15 FEET IN WIDTH. THIS PAVED WIDTH SHALL REMAIN FREE OF OBSTRUCTIONS AND OBSTACLES AT ALL TIMES.

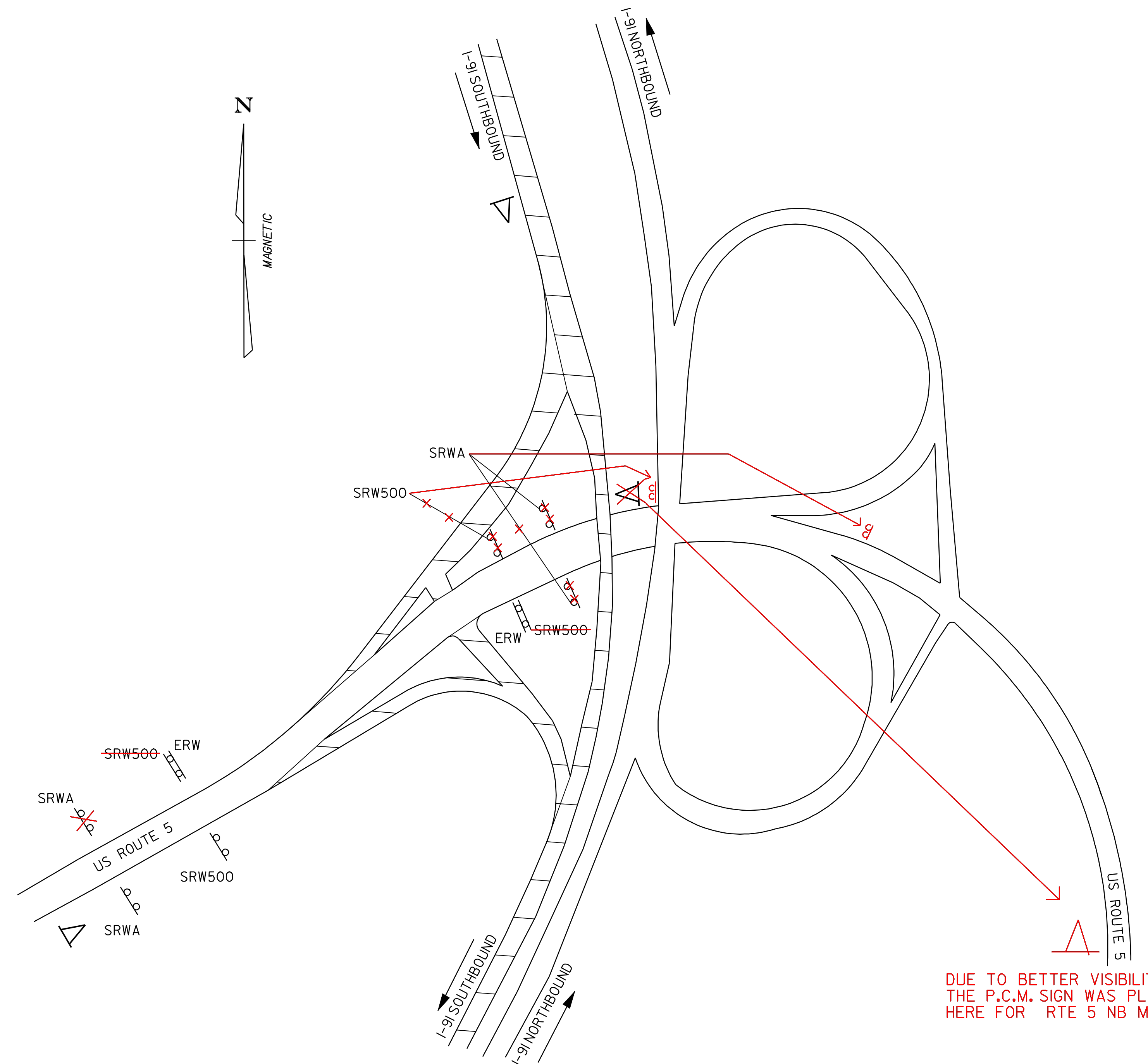
8. ADDITIONAL RAMP SIGNING MAY BE REQUIRED, AS DIRECTED BY THE RESIDENT ENGINEER.

9. THE DISTANCE SHOWN ON THE "ROAD WORK NEXT XX MILES" (G20-1) SIGN SHALL BE STATED TO THE NEAREST WHOLE MILE. PLEASE REFER TO PART 6 OF THE 2003 MUTCD SECTION 6F.51. THESE SIGNS SHOULD BE SPACED APPROXIMATELY EVERY 2-3 MILES ALONG THE PROJECT AS A REMINDER TO THE TRAVELLING MOTORIST.

10. EXISTING SPEED LIMIT SIGNS SHALL BE COVERED WHEN REDUCED SPEED SIGNS ARE POSTED. KEEP RECORDS WHEN POSTING THE WORK ZONE SPEED LIMIT FOR LEGAL PURPOSES; DOCUMENTING DATES, TIMES, AND LOCATIONS OF SIGNS. WHEN WORK ZONE SPEED LIMIT IS NOT IN USE ALL ASSOCIATED SIGNS SHALL BE COVERED, TURNED AND OR LAID FLAT SO AS THE MOTORING PUBLIC CANNOT READ THESE SIGNS.


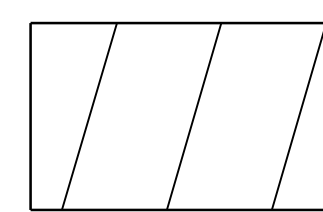
11. PORTABLE OR STATIONARY WORK ZONE SPEED LIMIT SIGNS SHOULD BE SPACED EVERY 1.5 TO 2 MILES WHERE APPLICABLE AS A REMINDER TO THE MOTORIST TRAVELING THROUGH THE WORK ZONE WHAT SPEED THEY SHOULD BE TRAVELLING.

12. WHEN REDUCED REGULATORY SPEED LIMIT SIGNS ARE USED, THE RESUMPTION OF THE USUAL SPEED LIMIT SHALL BE INDICATED BY AN APPROPRIATE SPEED LIMIT SIGN AT THE END OF THE WORK ZONE.



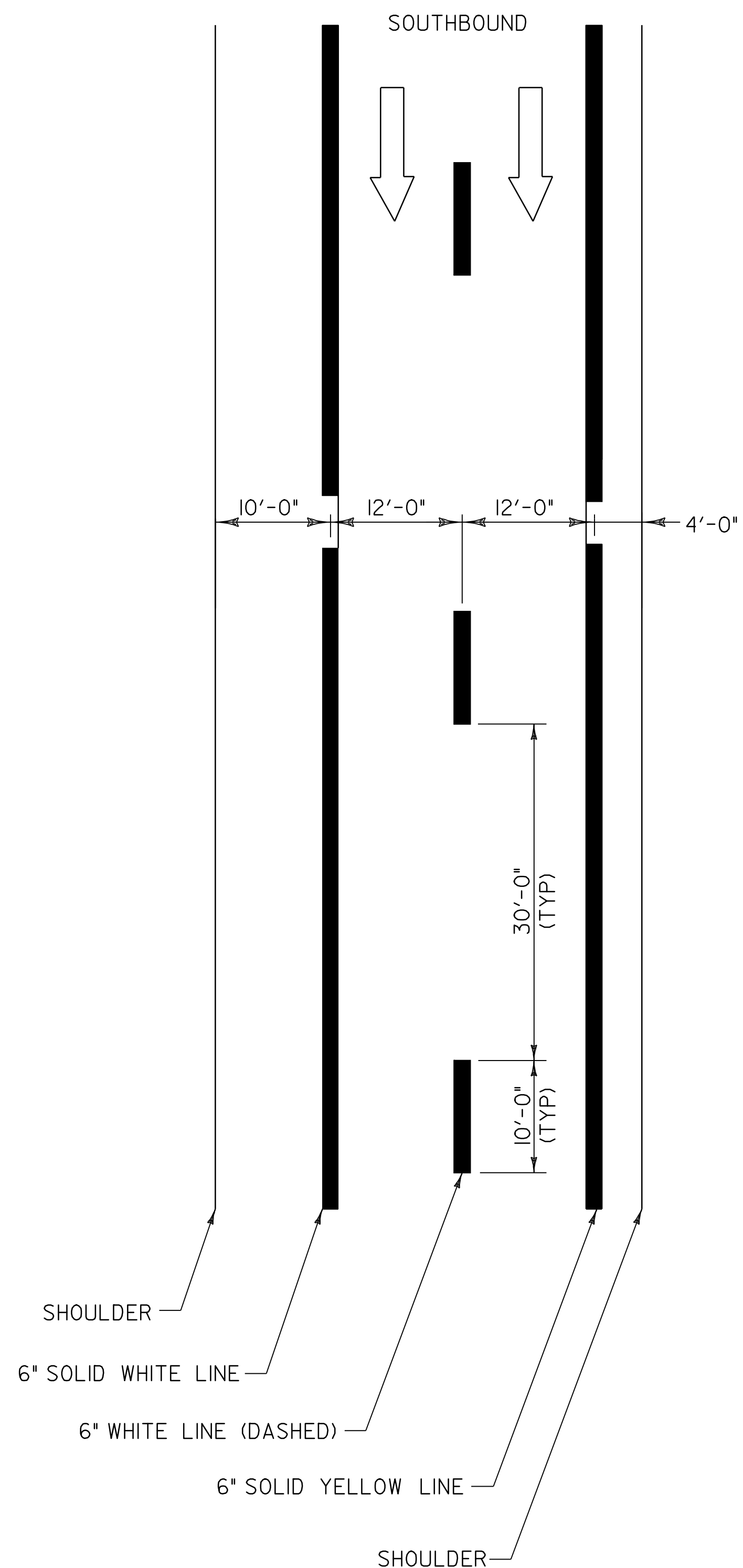
**INTERCHANGE 7**

**LEGEND**

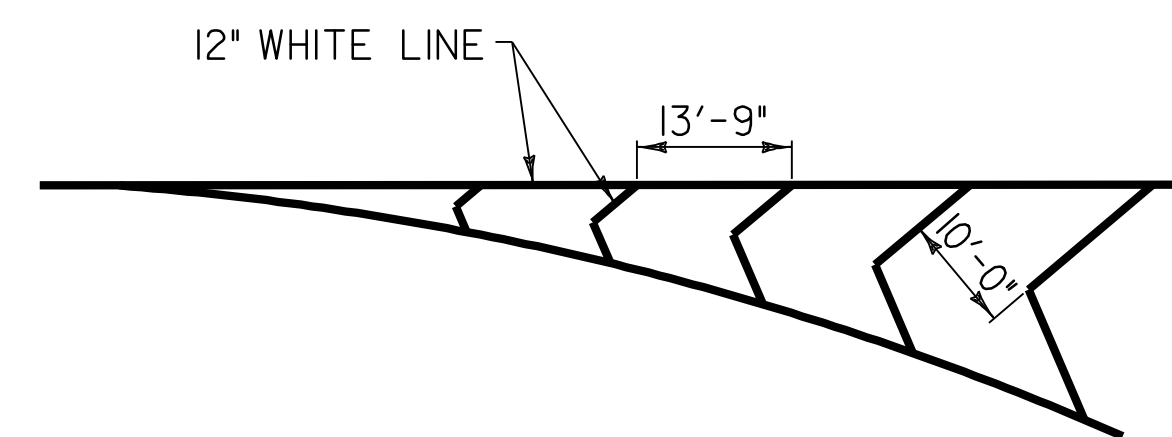
- ERW = END ROAD WORK
- SRWA = SIDE ROAD WORK AHEAD
- SRW 500 = SIDE ROAD WORK 500 FT
-  = PORTABLE CHANGEABLE MESSAGE SIGN
-  = WORK AREA

**NOT TO SCALE**

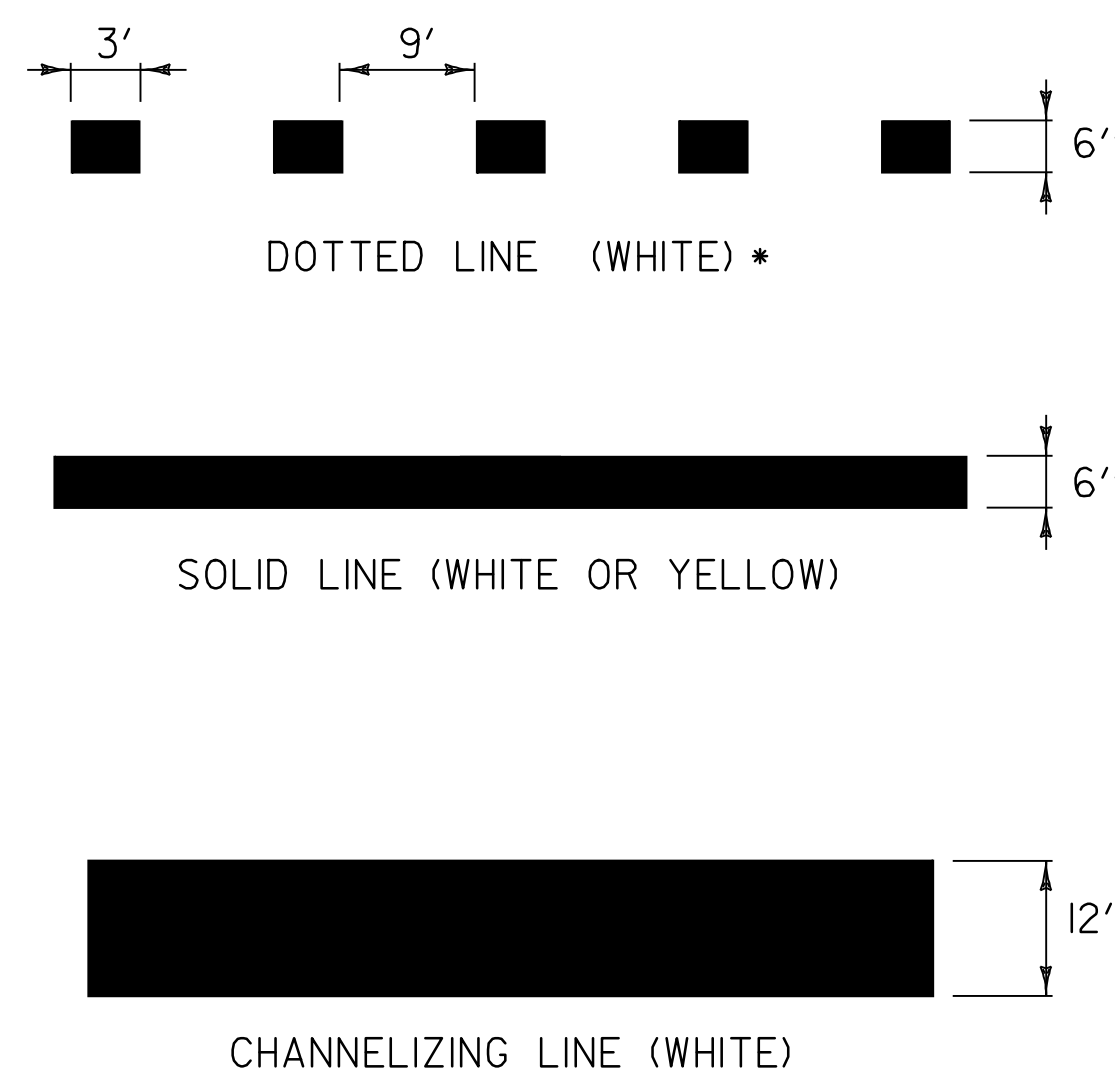
<b>INTERCHANGE TRAFFIC CONTROL SHEET</b>	PROJECT NAME: ROCKINGHAM - SPRINGFIELD
	PROJECT NUMBER: IM SURF (10)
	FILE NAME: ...08A150\...08A150.dgn
PROJECT LEADER: DOMEY	PLOT DATE: 02-AUG-2010 14:19
DESIGNED BY: HUNT	DRAWN BY: HUNT
IPARM FILE NAME: 08A150_09.1	CHECKED BY: PAVT MGMT
	SHEET 9 OF 12



**TYPICAL MAINLINE MARKING PLAN**



**GORE MARKING DETAIL**



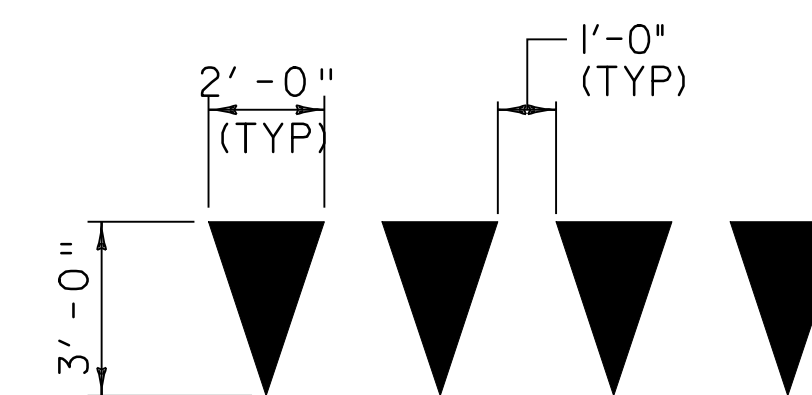
**PAVEMENT MARKING LINE DETAILS**

\* TO BE INSTALLED ONLY AT THE DIRECTION OF THE RESIDENT ENGINEER



**NOTES:**

1. TWO (2) APPLICATIONS OF FINAL PAVEMENT MARKINGS WILL BE REQUIRED ON THE PAVER PLACED SURFACE TREATMENT. THE FIRST APPLICATION WILL BE IMMEDIATELY FOLLOWING PLACEMENT OF THE SURFACE TREATMENT. THE SECOND AND FINAL APPLICATION WILL BE APPLIED NO SOONER THAN 14 CALENDER DAYS AFTER THE FIRST APPLICATION, AND NO LATER THAN OCTOBER 30, 2009.



**YIELD LINE DETAILS**

**NOTE:**

1. EACH TRIANGLE SHALL BE PAID AS ONE EACH ITEM 646.30 LETTER OR SYMBOL.

**NOT TO SCALE**

**PAVEMENT MARKING DETAIL SHEET**

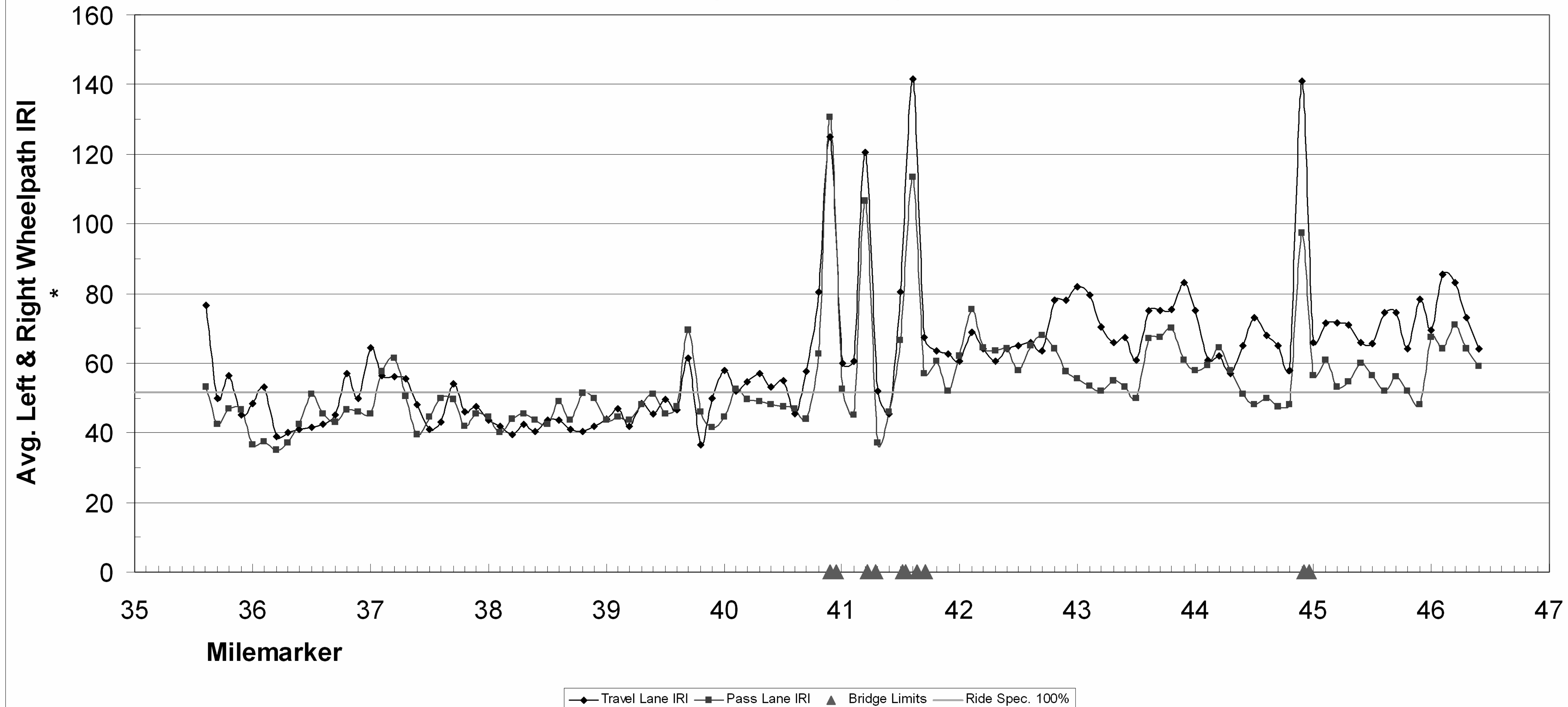
PROJECT NAME: ROCKINGHAM - SPRINGFIELD  
PROJECT NUMBER: IM SURF (10)

FILE NAME: ...08A150\...08A150.dgn PLOT DATE: 02-AUG-2010 14:19  
PROJECT LEADER: DOMEY DRAWN BY: HUNT  
DESIGNED BY: HUNT CHECKED BY: PAVT MGMT  
IPARM FILE NAME: 08A150\_10.1 SHEET 10 OF 12

# I91 SB Rockingham-Springfield IM SURF(10) (2009)

Profiled 11/7/08

Travel Lane Avg. IRI = 61.3 Pass Lane Avg. IRI = 54.4

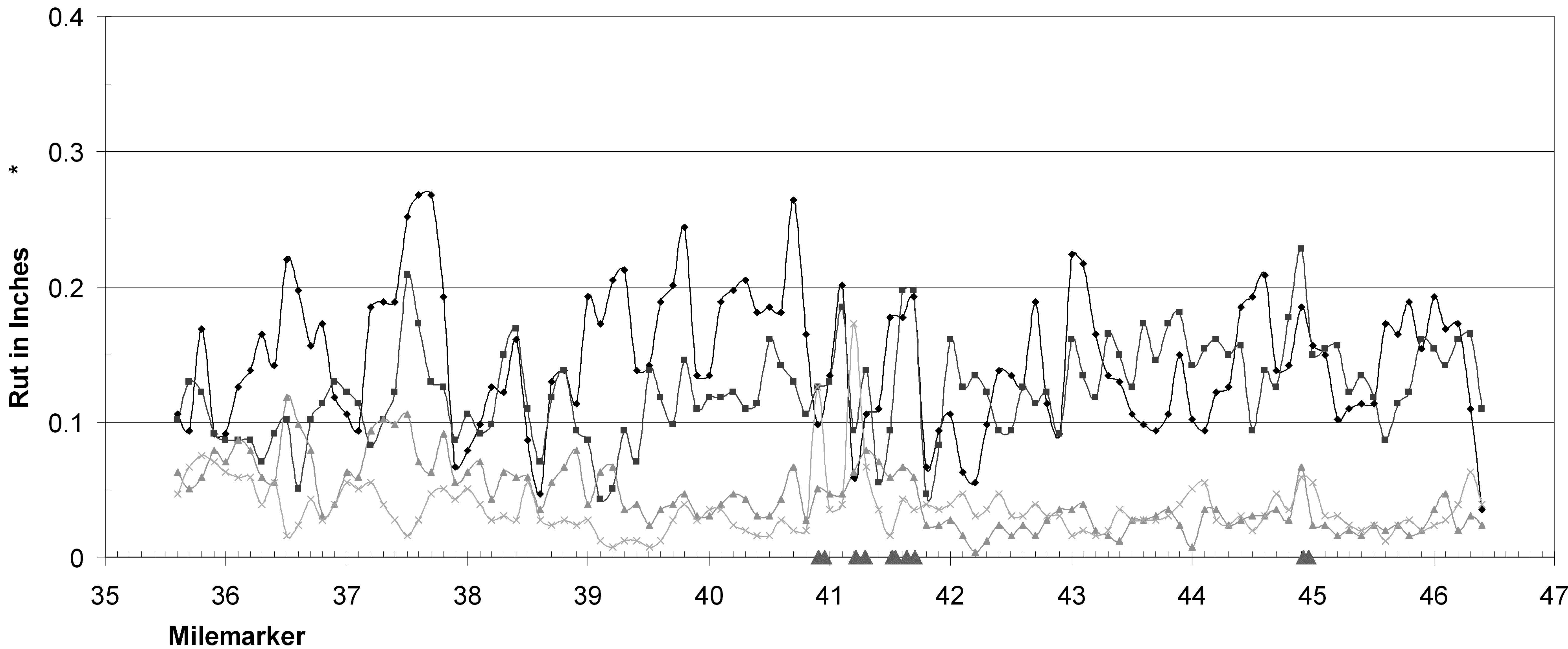


FOR INFORMATIONAL PURPOSES ONLY

## ROUGHNESS DATA INFORMATION SHEET

PROJECT NAME:	ROCKINGHAM - SPRINGFIELD
PROJECT NUMBER:	IM SURF (10)
FILE NAME: ...08A150\...08A150.dgn	PLOT DATE: 02-AUG-2010 14:15
PROJECT LEADER: DOMEY	DRAWN BY: HUNT
DESIGNED BY: HUNT	CHECKED BY: PAVT MGMT
IPARM FILE NAME: 08A150_II.I	SHEET II OF 12

**I91 SB Rockingham-Springfield IM SURF(10) (2009)**  
 Profiled 11/7/08



◆ Travel Lane LWP Rut    ■ Travel Lane RWP Rut    ▲ Pass Lane LWP Rut    × Pass Lane RWP Rut    ▲ Bridge Limits

**FOR INFORMATIONAL PURPOSES ONLY**

<b>RUTTING DATA INFORMATION SHEET</b>	PROJECT NAME:	ROCKINGHAM - SPRINGFIELD
	PROJECT NUMBER:	IM SURF (10)
	FILE NAME: ...08A150\...08A150.dgn	PLOT DATE: 02-AUG-2010 14:15
	PROJECT LEADER: DOMEY	DRAWN BY: HUNT
DESIGNED BY: HUNT	CHECKED BY: PAVT MGMT	
IPARM FILE NAME: 08A150_I2.1	SHEET 12 OF 12	