

STATE OF VERMONT
AGENCY OF TRANSPORTATION

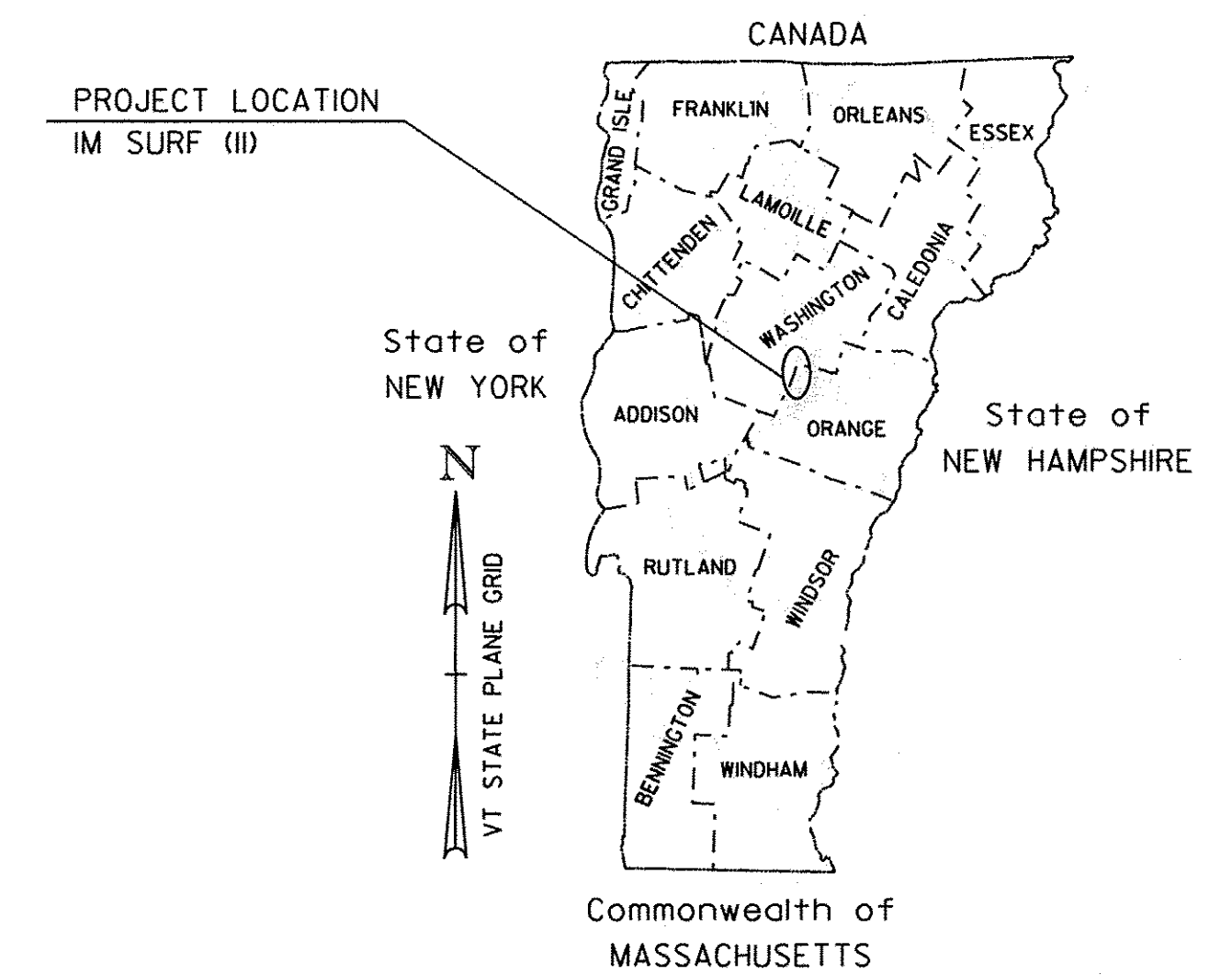


PROPOSED IMPROVEMENT
TOWNS OF BROOKFIELD, WILLIAMSTOWN AND BERLIN
COUNTIES OF ORANGE & WASHINGTON
INTERSTATE ROUTE 89 (NB)

BEGINNING IN THE TOWN OF BROOKFIELD AT MILE MARKER 37.729 AND EXTENDING NORTHERLY ALONG INTERSTATE ROUTE 89 (NORTHBOUND) FOR A DISTANCE OF 50,904.48 FT (9.641 MILES) TO MILE MARKER 47.370 IN THE TOWN OF BERLIN.

LENGTH OF ROADWAY = 50,904.48 FT = (9.641 MILES)
LENGTH OF PROJECT = 50,904.48 FT = (9.641 MILES)

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

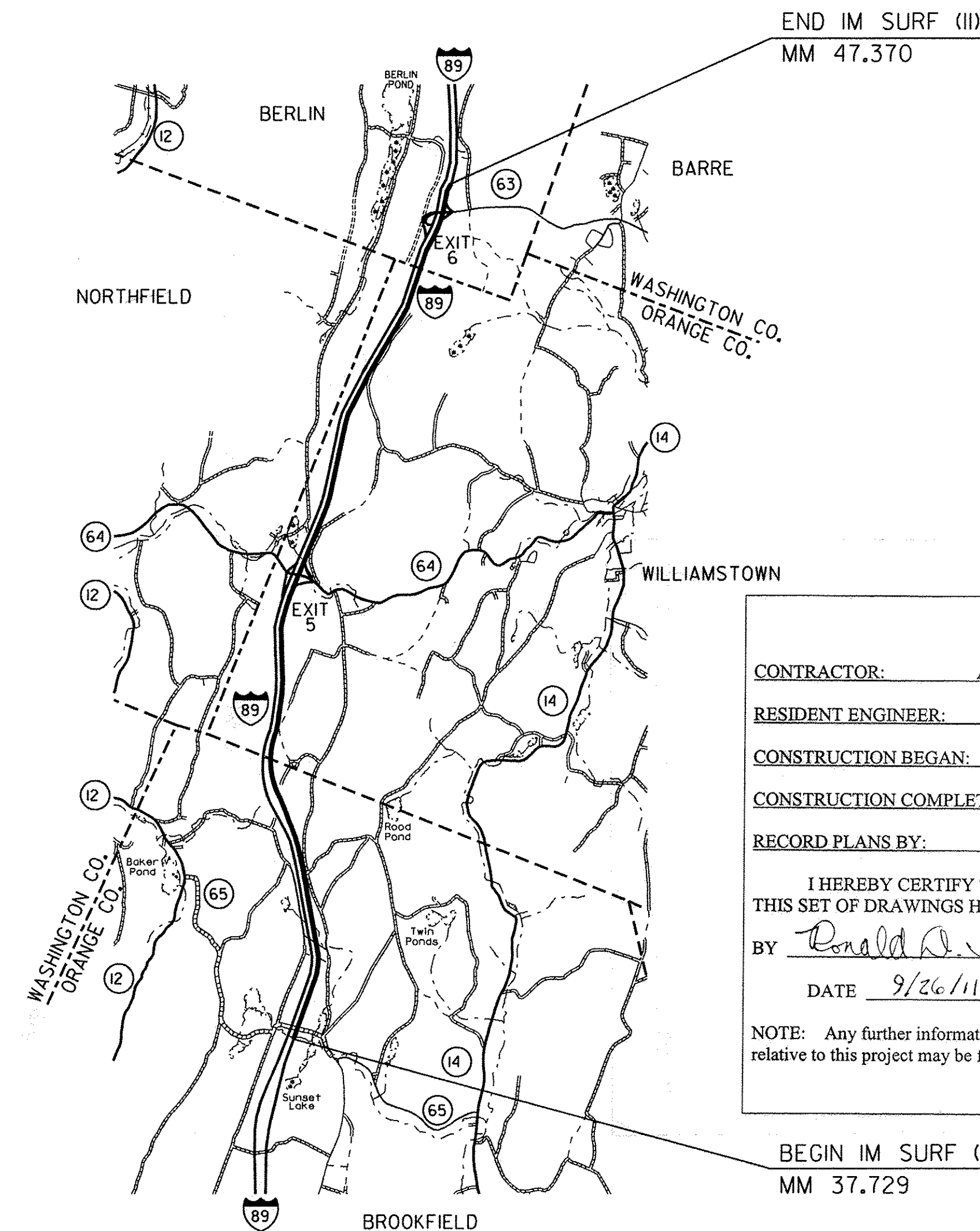
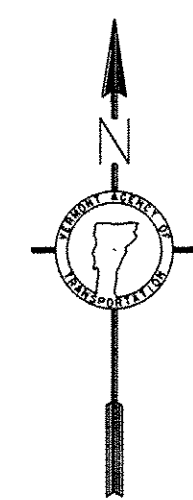


INDEX OF SHEETS

1. TITLE SHEET
2. ALTERNATE A TYPICAL SECTION
3. ALTERNATE B TYPICAL SECTION
4. BRIDGE DETAIL SHEET
5. ASPHALTIC PLUG JOINT DETAIL SHEET
- 6.-8. QUANTITY SHEETS
9. TYPICAL INTERCHANGE #5 CONSTRUCTION DETAILS
10. TYPICAL INTERCHANGE #6 CONSTRUCTION DETAILS
11. CONSTRUCTION APPROACH SIGNING SHEET
12. INTERCHANGE TRAFFIC CONTROL SHEET
13. PAVEMENT MARKING DETAIL SHEET
14. ROUGHNESS DATA INFORMATION SHEET
15. 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



END IM SURF (II)
MM 47.370

BEGIN IM SURF (II)
MM 37.729

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	

SURVEYED BY :
SURVEYED DATE :

DATUM
VERTICAL
HORIZONTAL

RECORD PLANS

CONTRACTOR: ALL STATES ASPHALT, INC. - SUNDERLAND MA
RESIDENT ENGINEER: CARL FIELDER
CONSTRUCTION BEGAN: SEPTEMBER 9, 2009
CONSTRUCTION COMPLETE: OCTOBER 28, 2009
RECORD PLANS BY: CARL FIELDER & AMOS KEMPTON
I HEREBY CERTIFY THAT ALL THE CONSTRUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.
BY *Ronald D. Shay* FOR RESIDENT ENGINEER CARL FIELDER
DATE 9/26/11

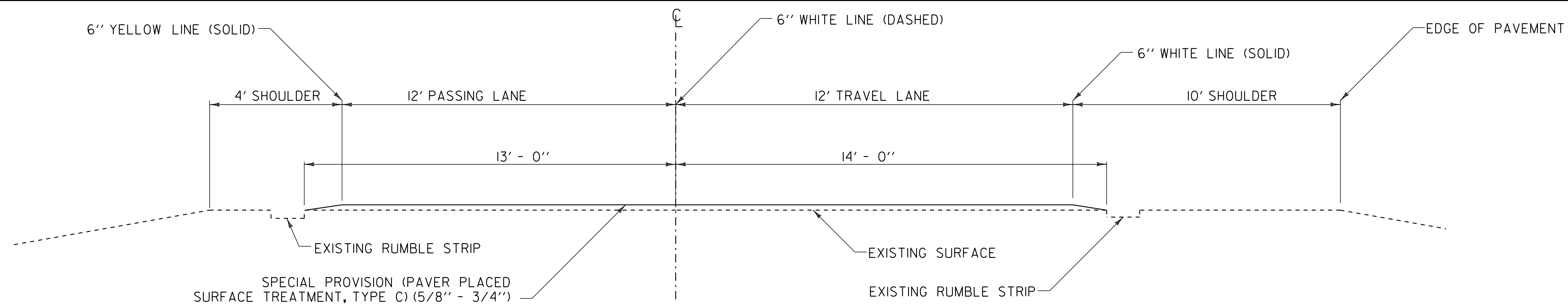
NOTE: Any further information concerning final quantities, amounts or other details relative to this project may be found at Central Files in the electronic archives.

TRAFFIC DATA

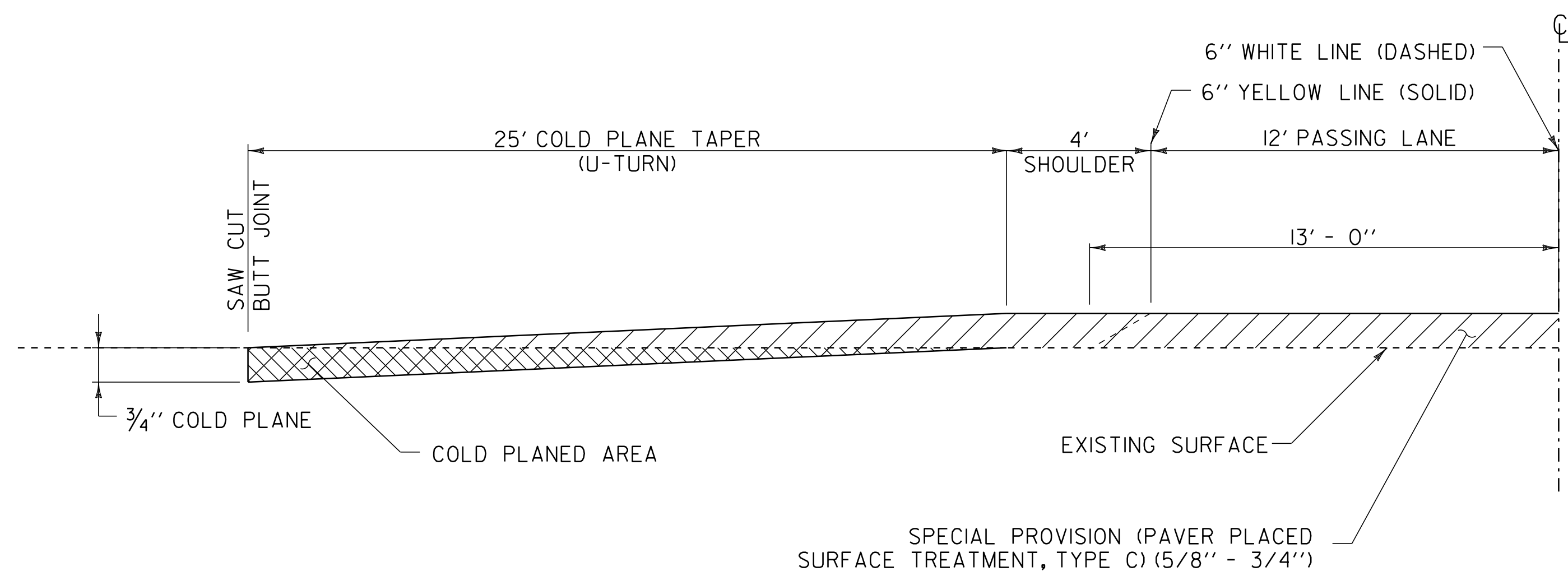
SECTION	AADT	
	2009	2019
BEGIN PROJECT TO EXIT 5	6900	8100
EXIT 5 TO EXIT 6	8300	9700
EXIT 6 TO END PROJECT	8600	10,000

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.

DIRECTOR OF PROGRAM DEVELOPMENT
APPROVED *Ronald D. Shay* DATE 6-9-09
PROJECT MANAGER / TED DOMEY
PROJECT NAME : BROOKFIELD-BERLIN
PROJECT NUMBER : IM SURF (II)
SHEET 1 OF 15 SHEETS

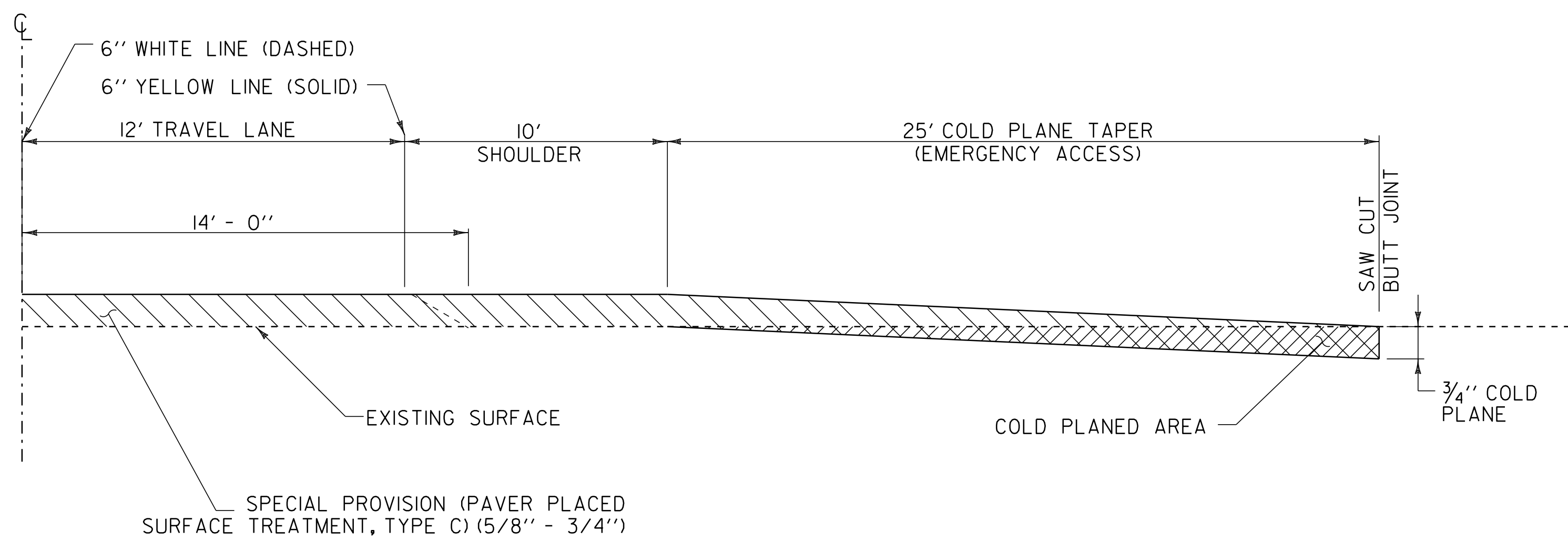


TYPICAL SECTION - ALTERNATE A
I 89 NORTHBOUND MM 37.729 TO MM 47.370



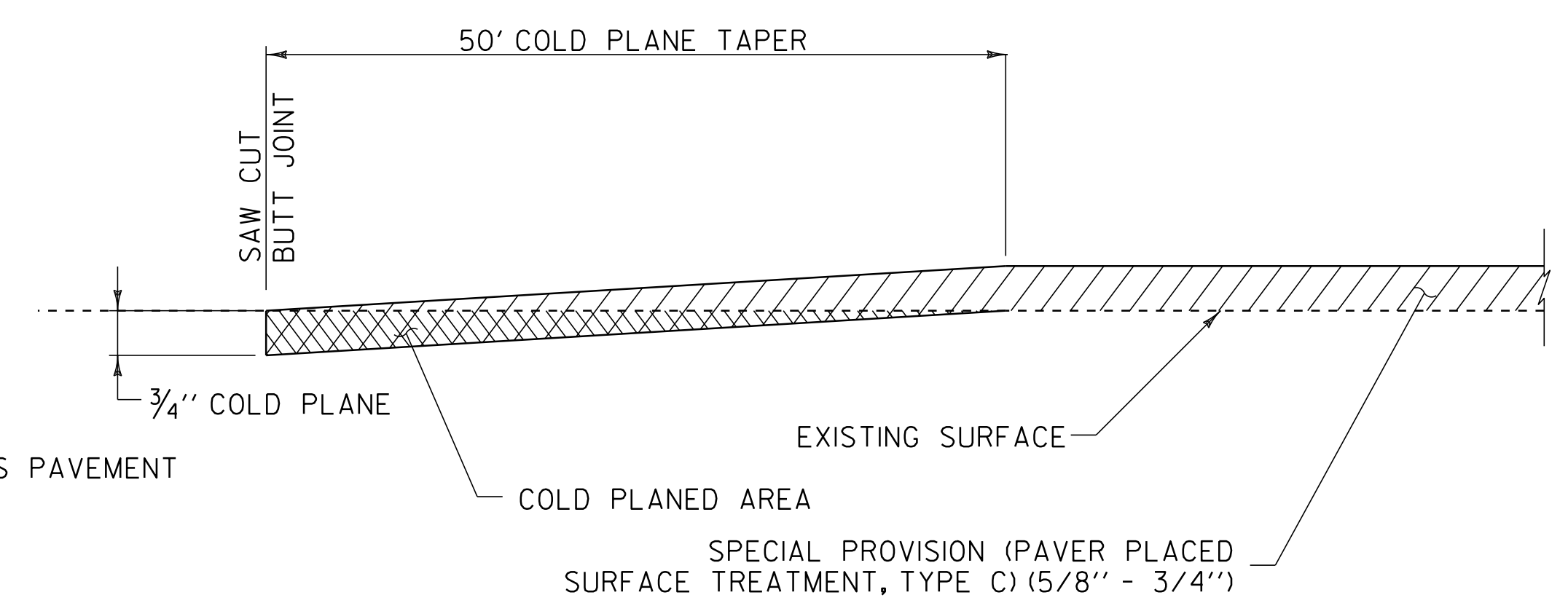
COLD PLANE DETAIL AT U-TURNS

MM 39.460 LT
MM 41.935 LT
MM 46.385 LT



COLD PLANE DETAIL AT EMERGENCY ACCESS

MM 39.460 RT



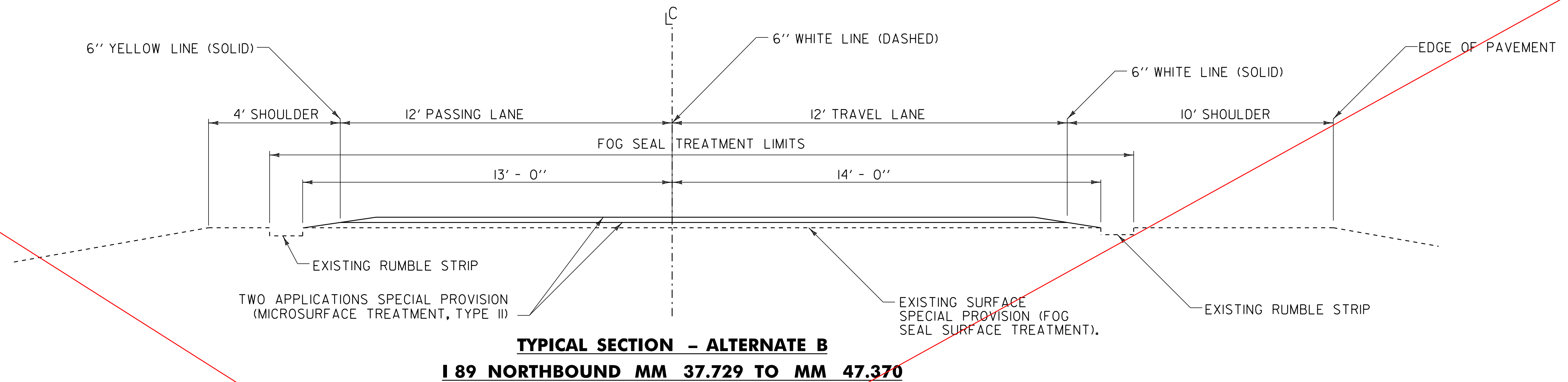
COLD PLANE DETAIL AT BEGIN/END PROJECT

- NOTES:
- 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 SEALED USING THE "BLOW AND GO" 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.
 - 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.
 - 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.
 - SOME SEGMENTS OF THE TRAVEL LANE WITHIN THE PROJECT LIMITS HAVE RUT/WEAR DEPTHS GREATER THAN 1/2". ESTIMATED QUANTITIES FOR ITEMS, 210.10 COLD PLANING, BITUMINOUS PAVEMENT 900.680 SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY) AND 404.65 EMULSIFIED ASPHALT, HAVE BEEN INCLUDED FOR REPAIRING AREAS IDENTIFIED BY THE RESIDENT ENGINEER. THESE AREAS SHALL BE COLD PLANED TO A DEPTH OF 1" AND REPAVED WITH A LEVELING COURSE OF BITUMINOUS CONCRETE PAVEMENT TYPE IVS. FOR MIX DESIGN PURPOSES AND DETERMINING ALLOWABLE MIX TYPE SUBSTITUTIONS, DESIGN ESALS OF 9,000,000 SHALL BE USED. EMULSIFIED ASPHALT FOR TACK COAT SHALL BE APPLIED TO THE COLD PLANED SURFACE AT A MINIMUM RATE OF 0.080 GAL/SY PRIOR TO PLACEMENT OF THE LEVELING COURSE.
 - 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.
 - 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.
 - 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 **NOT NECESSARY** 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.
 - 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.

NOT TO SCALE

**ALTERNATE A
TYPICAL
SECTION**

PROJECT NAME: BROOKFIELD-BERLIN	PLOT DATE: 31-OCT-2011 5:26
PROJECT NUMBER: IM SURF (II)	DRAWN BY: HUNT
FILE NAME: ...08A152\...08A152.dgn	CHECKED BY: PAVT MGMT
PROJECT LEADER: DOMEY	SHEET 2 OF 15
DESIGNED BY: HUNT	
IPARM FILE NAME: 08A152_02.i	



NOTES:

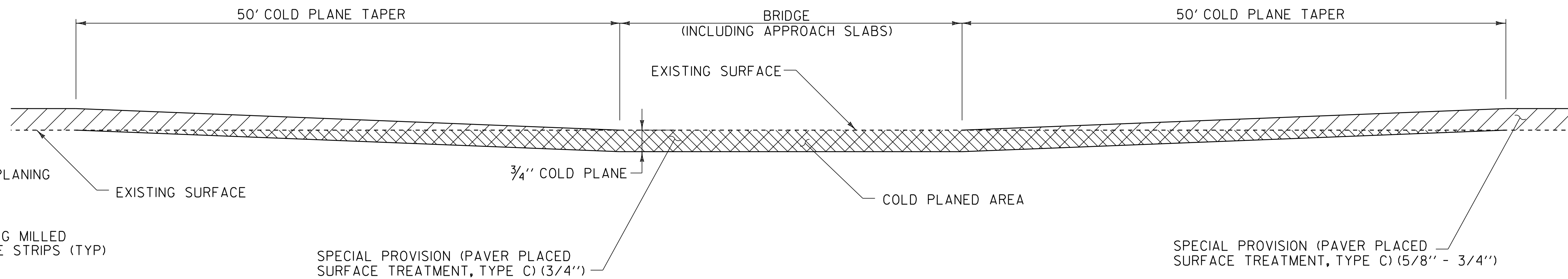
1. ALL NECESSARY SURFACE PREPARATION INVOLVING PATCHING, POT-HOLE REPAIR, AND CRACK-SEALING SHALL BE PERFORMED PRIOR TO APPLICATION OF THE FOG SEAL TREATMENT. ALL CRACKS GREATER THAN 0.10" AND UP TO 1.0" IN WIDTH SHALL BE FILLED USING THE "BLOW AND GO" FILL METHOD. ALL COSTS ASSOCIATED WITH THIS WORK 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. ALL BRIDGE DECKS WITHIN THE PROJECT LIMITS SHALL ALSO RECEIVE CRACK-SEALING AND RELATED SURFACE PREPARATION PRIOR TO APPLYING THE FOG SEAL TREATMENT.
2. EXISTING SHOULDER PAVEMENT SURFACES BEYOND THE LIMITS OF THE MICROSURFACE TREATMENT SHALL ALSO RECEIVE CRACK-SEALING AND RELATED PATCHING AND POT-HOLE REPAIR TREATMENTS.
3. SOME SEGMENTS OF THE TRAVEL LANE WITHIN THE PROJECT LIMITS HAVE RUT/WEAR DEPTHS GREATER THAN 1/2". AN ESTIMATED QUANTITY FOR PAY ITEM 900.680 SPECIAL PROVISION (MICROSURFACE TREATMENT, TYPE III) HAS BEEN INCLUDED TO TREAT THESE AREAS PRIOR TO APPLICATION OF THE FOG SEAL TREATMENT. ALL AREAS TREATED AS RUT-FILL SHALL BE ALLOWED TO CURE UNDER TRAFFIC FOR A MINIMUM OF 24 HOURS BEFORE ADDITIONAL MATERIAL IS PLACED OR THE FIRST COURSE OF MICROSURFACING, TYPE IIIS PLACED.
4. ALL EXISTING PAVEMENT MARKINGS SHALL BE REMOVED PRIOR TO APPLYING THE FOG SEAL 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. FOG SEAL SHALL BE APPLIED AT THE RATE OF 0.15 GAL./S.Y. (+/- 0.05 GAL./S.Y.).
6. FOG SEAL SHALL BE APPLIED PRIOR TO MICROSURFACING APPLICATION WITH THE EXPECTATION THAT THE FIRST MICROSURFACE COURSE WILL BE APPLIED WITHIN 24 TO 48 HOURS OF FOG SEAL APPLICATION OR AS DIRECTED BY THE ENGINEER.
7. FOG SEAL MUST BE ALLOWED TO CURE COMPLETELY BEFORE APPLICATION OF MICROSURFACING TREATMENT, OR AS DIRECTED BY THE ENGINEER.
8. MAINLINE MICROSURFACING TREATMENT SHALL BE APPLIED IN TWO APPLICATIONS FROM RUMBLE STRIP TO RUMBLE STRIP AS SHOWN ON THE PROJECT TYPICAL SECTION. AN OVERALL APPLICATION RATE OF 36 LB/SY FOR THIS AREA HAS BEEN USED FOR THE PURPOSES OF QUANTITY CALCULATION.
9. PRIOR TO THE APPLICATION OF FOG SEAL AND MICROSURFACE TREATMENT, THE RESIDENT ENGINEER AND THE CONTRACTOR ARE TO INSPECT THE ROADWAY SURFACE FOR THE PRESENCE OF ROAD KILLED ANIMAL CARCASSES, AND OTHER DELETERIOUS MATERIALS. ANY IDENTIFIED AREAS ARE TO BE REMOVED AND CLEANED WITH A MIXTURE OF WATER AND BLEACH IN A 10% SOLUTION ALONG WITH LIQUID DETERGENT. PAYMENT IS INCIDENTAL TO ITEMS 900.680 SPECIAL PROVISION (MICROSURFACE TREATMENT, TYPE II) AND 900.683 SPECIAL PROVISION (FOG SEAL SURFACE TREATMENT).
10. 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.
11. ALL MICROSURFACING SHALL BE FEATHERED AS DIRECTED BY THE RESIDENT ENGINEER AT THE BEGINNING/END PROJECT LIMITS, THE END OF INTERCHANGE RAMP AND AT ALL U-TURNS.

NOT TO SCALE

**ALTERNATE B
TYPICAL
SECTION**

PROJECT NAME: BROOKFIELD-BERLIN
PROJECT NUMBER: IM SURF (II)

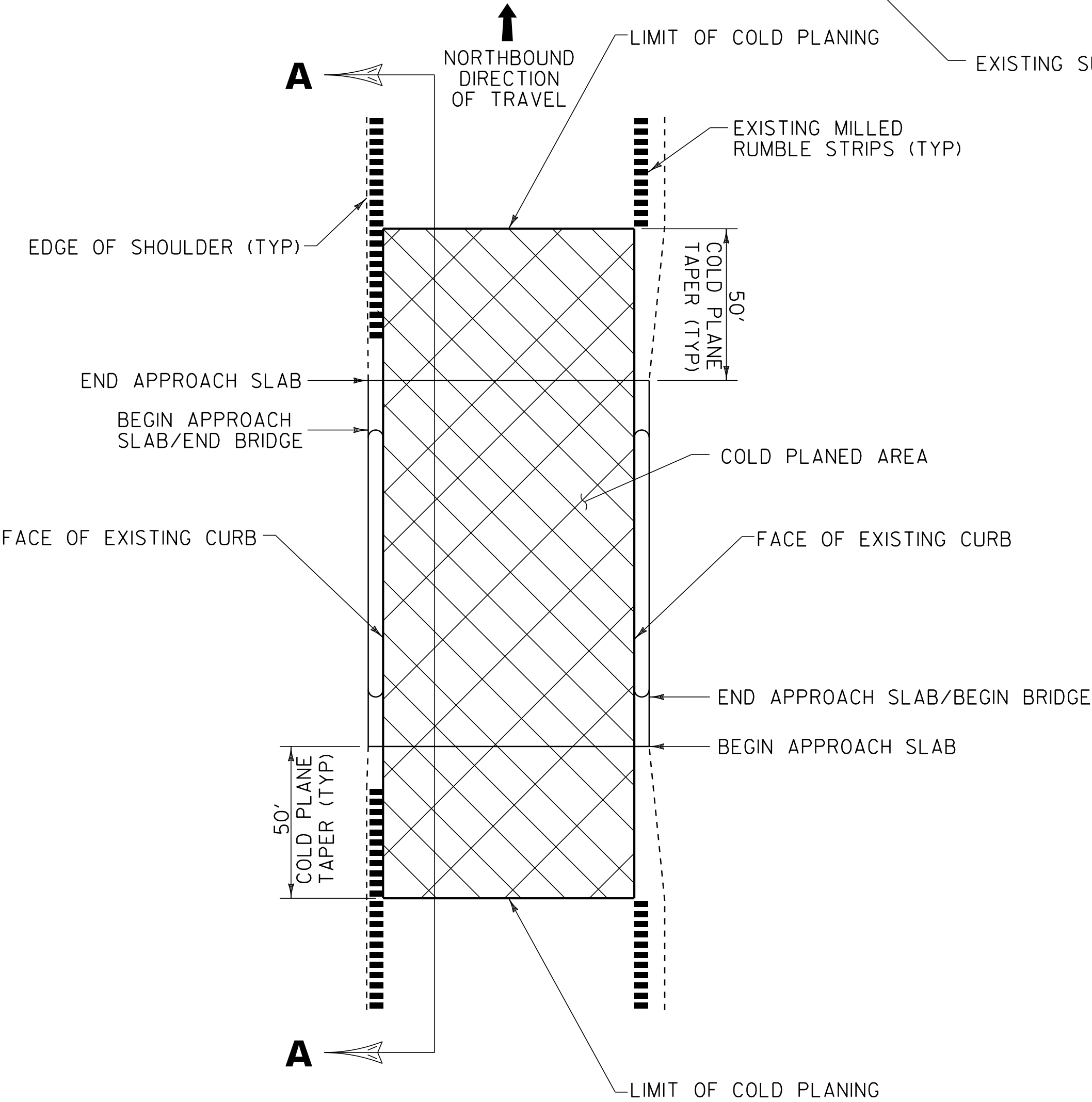
FILE NAME: ...08A152\...08A152.dgn	PLOT DATE: 31-OCT-2011 15:26
PROJECT LEADER: DOMEY	DRAWN BY: HUNT
DESIGNED BY: HUNT	CHECKED BY: PAVT MGMT
IPARM FILE NAME: 08A152_03.1	SHEET 3 OF 16



BRIDGE COLD PLANE TYPICAL SECTION A-A

ALTERNATE A

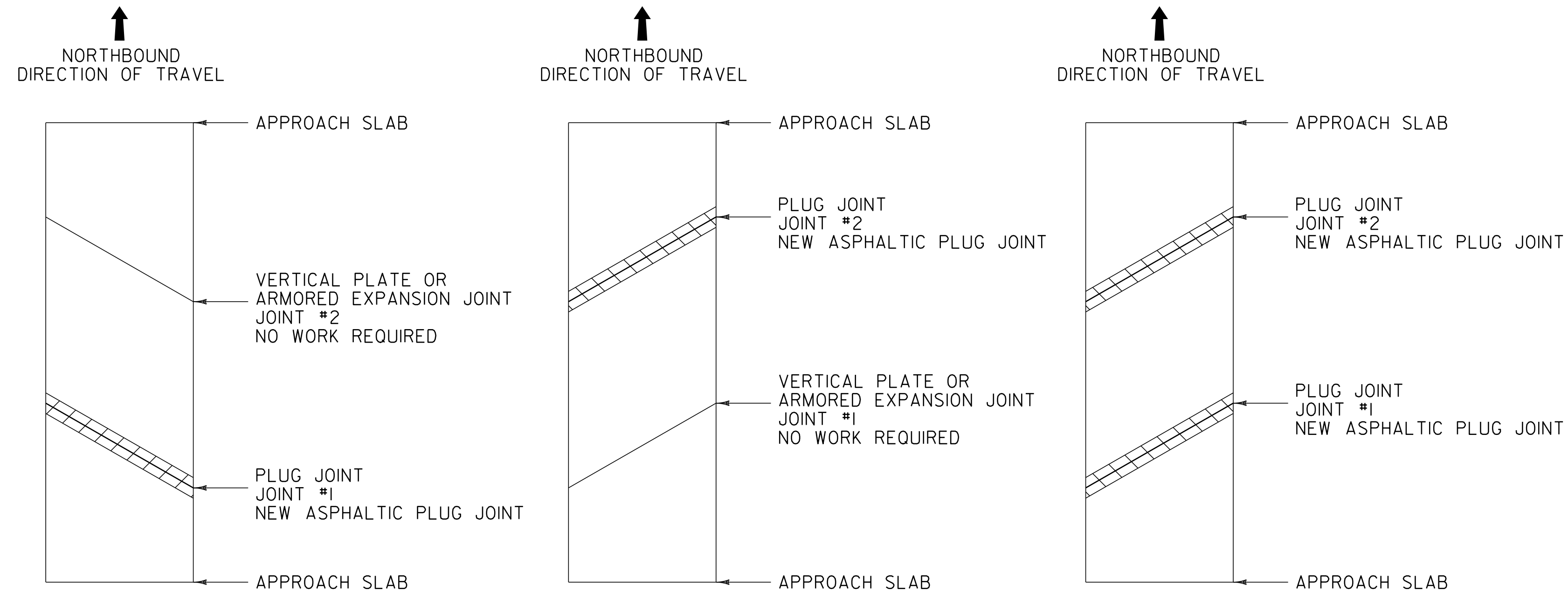
BR #34N = MM 38.844
 BR #35N = MM 42.952
 BR #36N = MM 46.920



**BRIDGE COLD PLANE TYPICAL PLAN
 ALTERNATE A & B**

NOTES:

- REFER TO ASPHALTIC PLUG JOINT AND DETAILS. ALL NEW JOINTS TO BE PAID FOR UNDER ITEM 516.10, "BRIDGE EXPANSION JOINT, ASPHALTIC PLUG".
- 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.
- 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 DAILY 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 #34N

MM 38.844

LENGTH OF ASPHALTIC PLUG JOINTS:
 JOINT #1 = 45'
 JOINT #2 = 0'
 TOTAL = 45'

BRIDGE #35N

MM 42.952

LENGTH OF ASPHALTIC PLUG JOINTS:
 JOINT #1 = 0'
 JOINT #2 = 43'
 TOTAL = 43'

BRIDGE #36N

MM 46.920

LENGTH OF ASPHALTIC PLUG JOINTS:
 JOINT #1 = 45'
 JOINT #2 = 45'
 TOTAL = 90'

LEGEND

EXISTING BRIDGE JOINTS TO BE REPAIRED WITH ASPHALT PLUG JOINT

NOT TO SCALE

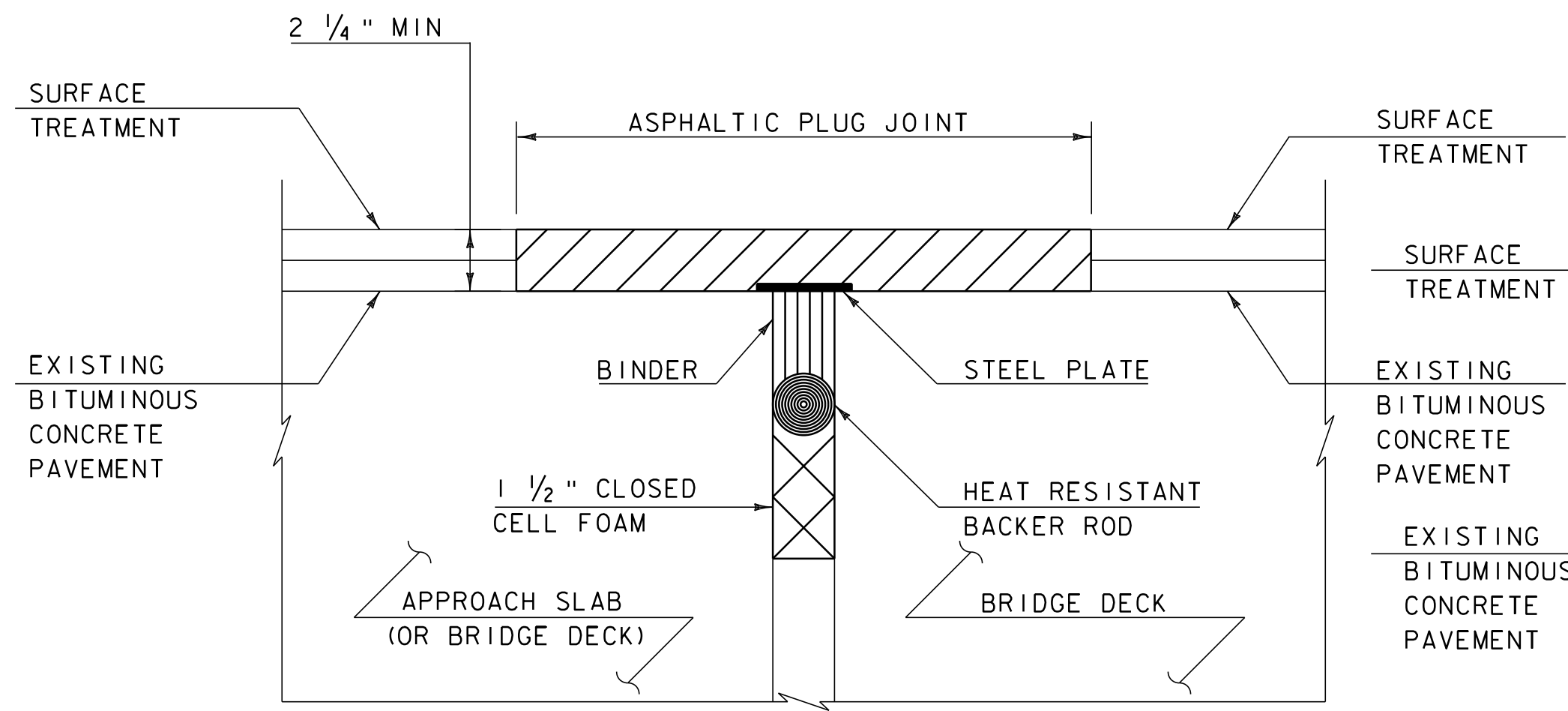
**BRIDGE
 DETAIL
 SHEET**

PROJECT NAME: BROOKFIELD-BERLIN	
PROJECT NUMBER: IM SURF (II)	
FILE NAME: ...08A152\...08A152.dgn	PLOT DATE: 31-OCT-2011
PROJECT LEADER: DOMEY	DRAWN BY: HUNT
DESIGNED BY: HUNT	CHECKED BY: PAVT MGMT
IPARM FILE NAME: 08A152_04.i	SHEET 4 OF 15

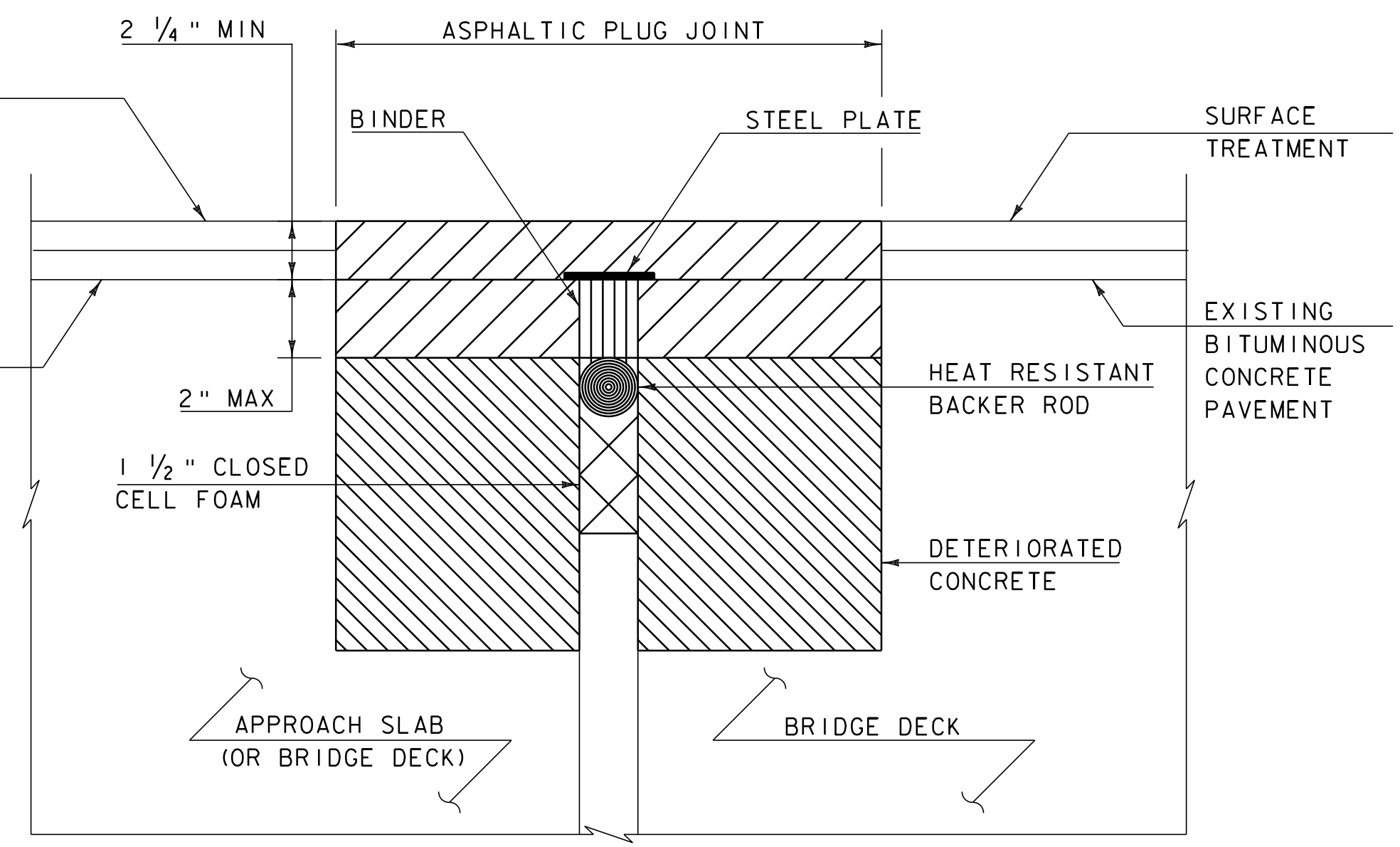
ASPHALTIC PLUG JOINT NOTES

I. INSTALLATION

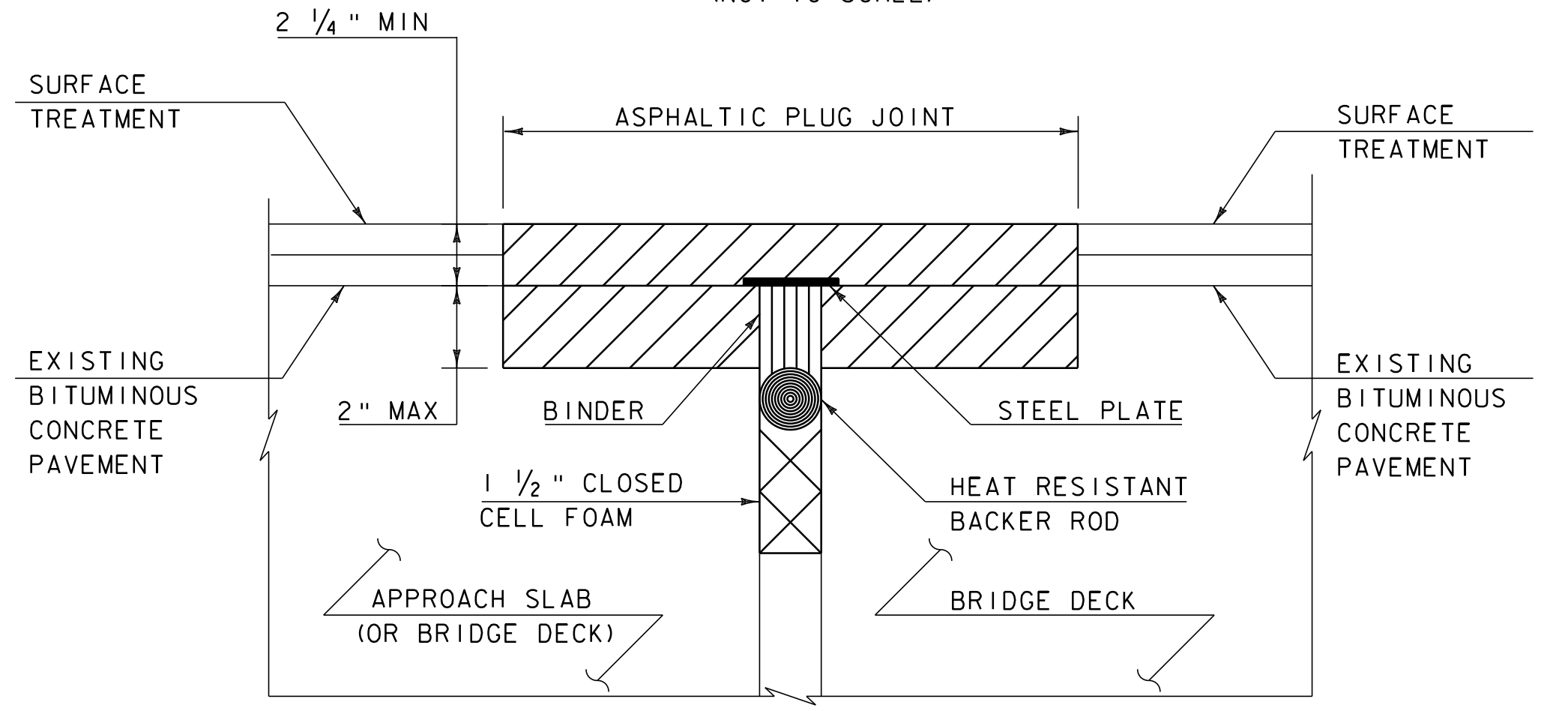
- A. LOCATE THE JOINT CENTRALLY OVER THE DECK OVERLAY EXPANSION GAP OR FIXED JOINT MARKED OUT TO THE MANUFACTURER'S RECOMMENDED WIDTH.
 - B. REMOVE THE BITUMINOUS CONCRETE PAVEMENT FULL DEPTH AS SHOWN ON THE PLANS. THE PAVEMENT SHALL BE DRY AND SAW CUT TO THE LIMITS REQUIRED TO PLACE THE JOINT. A PNEUMATIC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



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



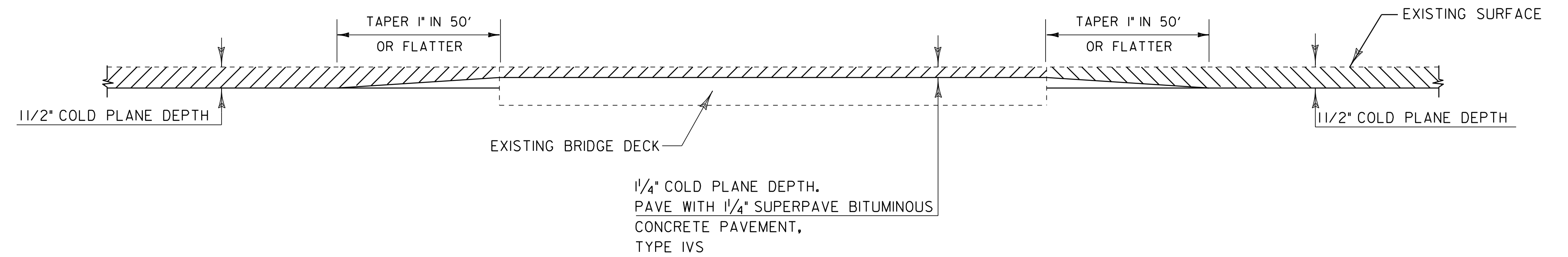
ASPHALTIC PLUG-TYPE JOINT DETAIL
REMOVAL OF < 2" DETERIORATED CONCRETE
(NOT TO SCALE)

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.

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.

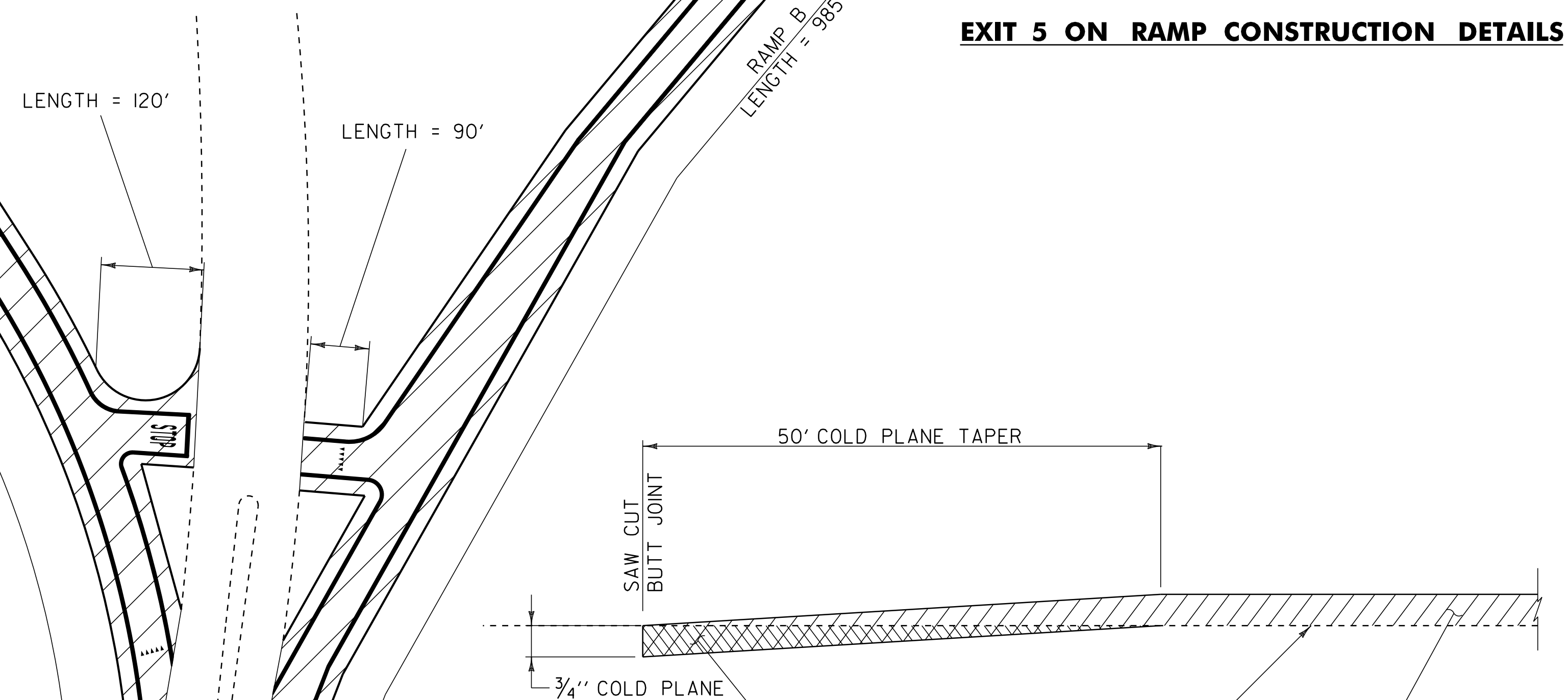
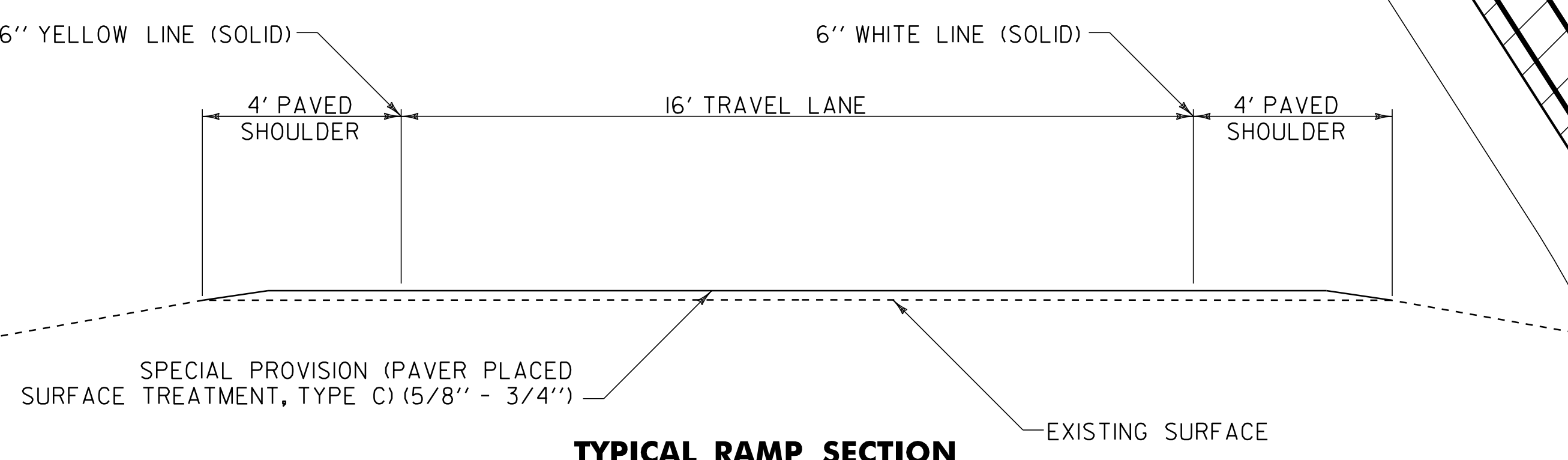
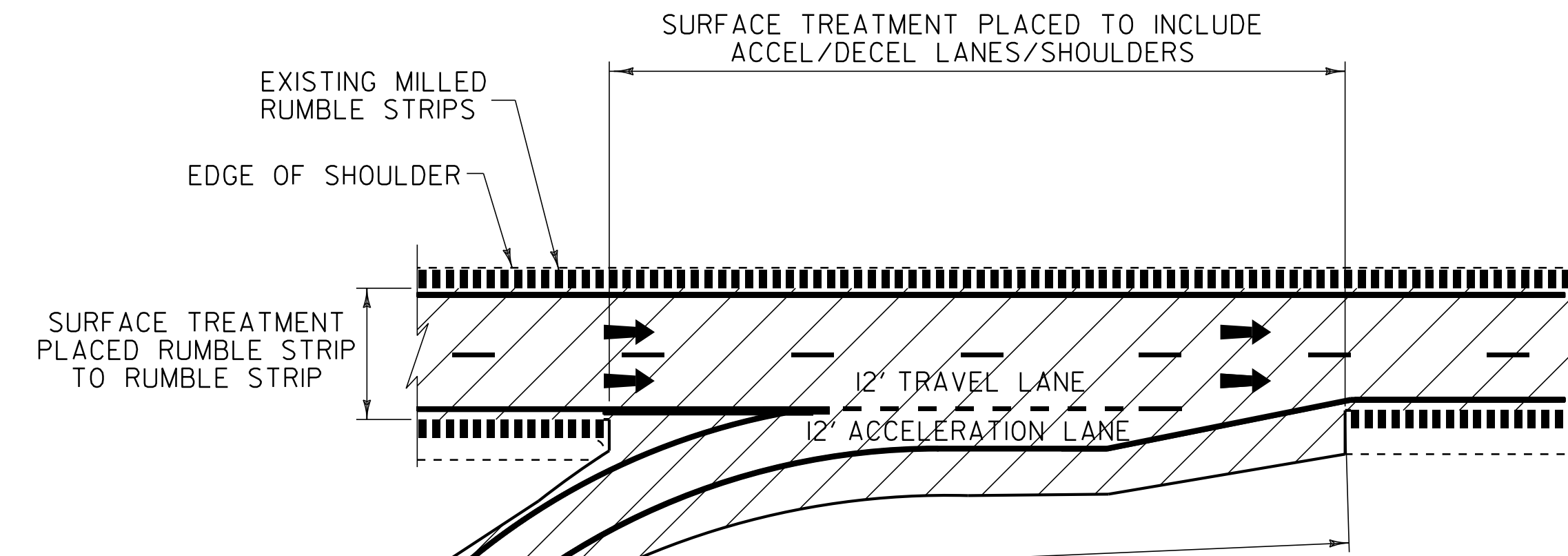
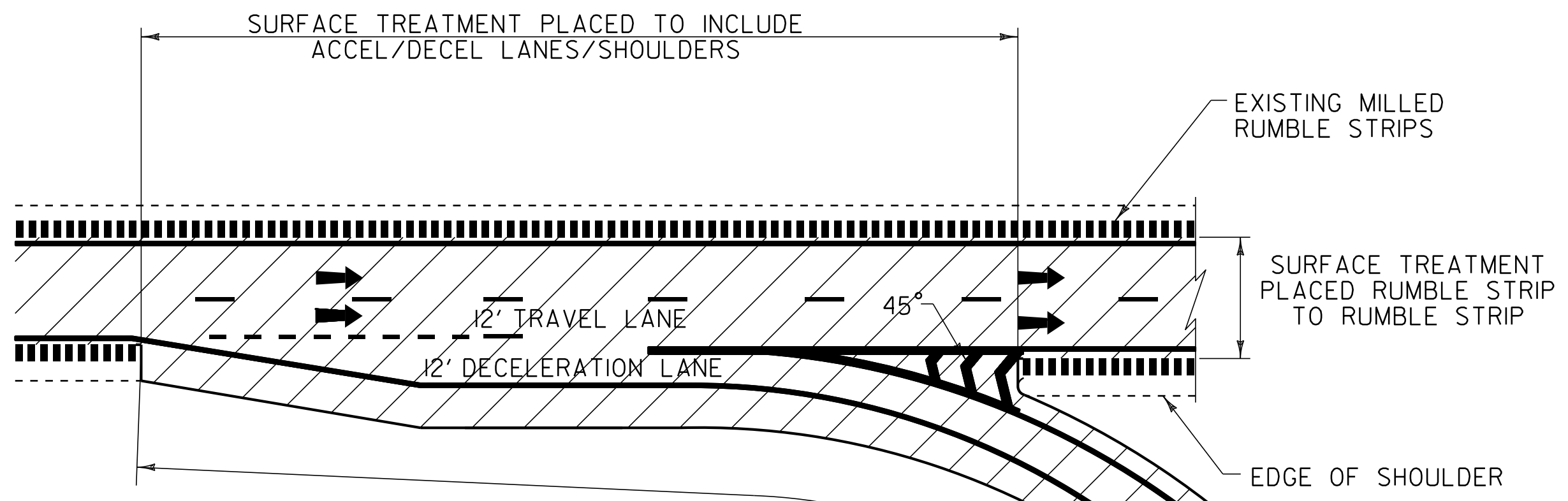


BRIDGE COLD PLANE DETAIL - ALTERNATE B
SEE SHEET 4 FOR LOCATIONS

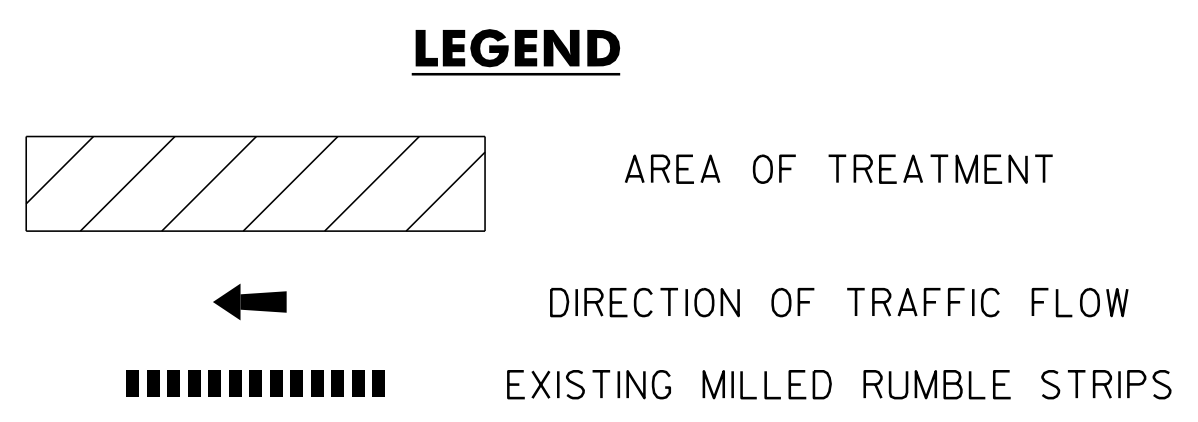
NOT TO SCALE

ASPHALTIC PLUG JOINT DETAIL SHEET	PROJECT NAME: BROOKFIELD-BERLIN	PLOT DATE: 31-OCT-2011
	PROJECT NUMBER: IM SURF (II)	DRAWN BY: HUNT
	FILE NAME: ...08A152\...08A152.dgn	CHECKED BY: PAVT MGMT
	DESIGNED BY: HUNT	SHEET 5 OF 15
	IPARM FILE NAME: 08A152_05.i	

TYPICAL INTERCHANGE #5 CONSTRUCTION DETAILS



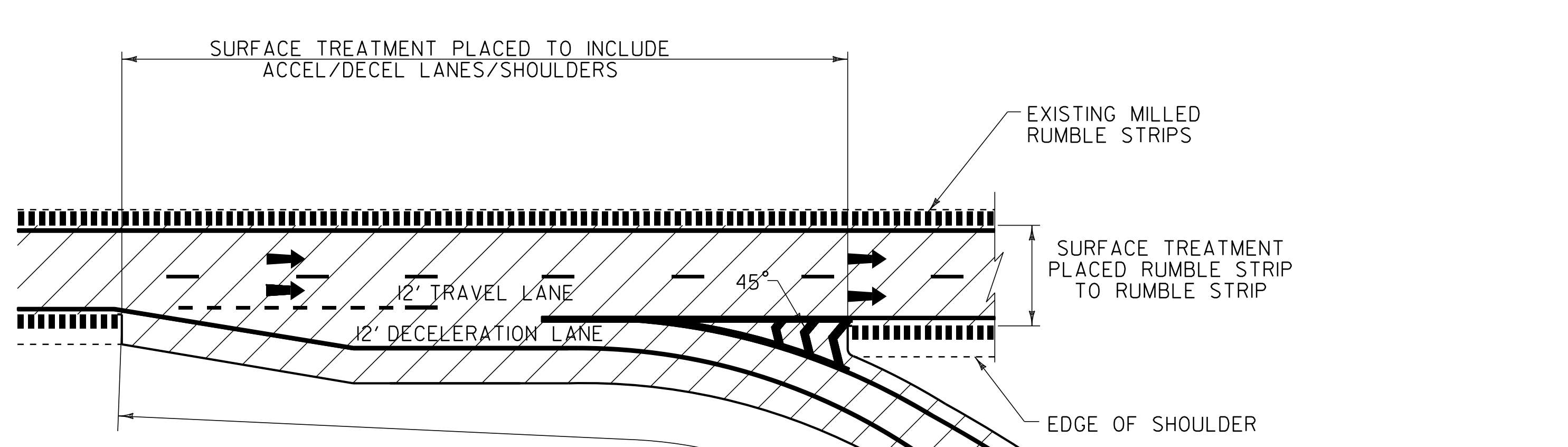
NOTES:
1. SURFACE PREPARATION IS REQUIRED ON ALL RAMPS.



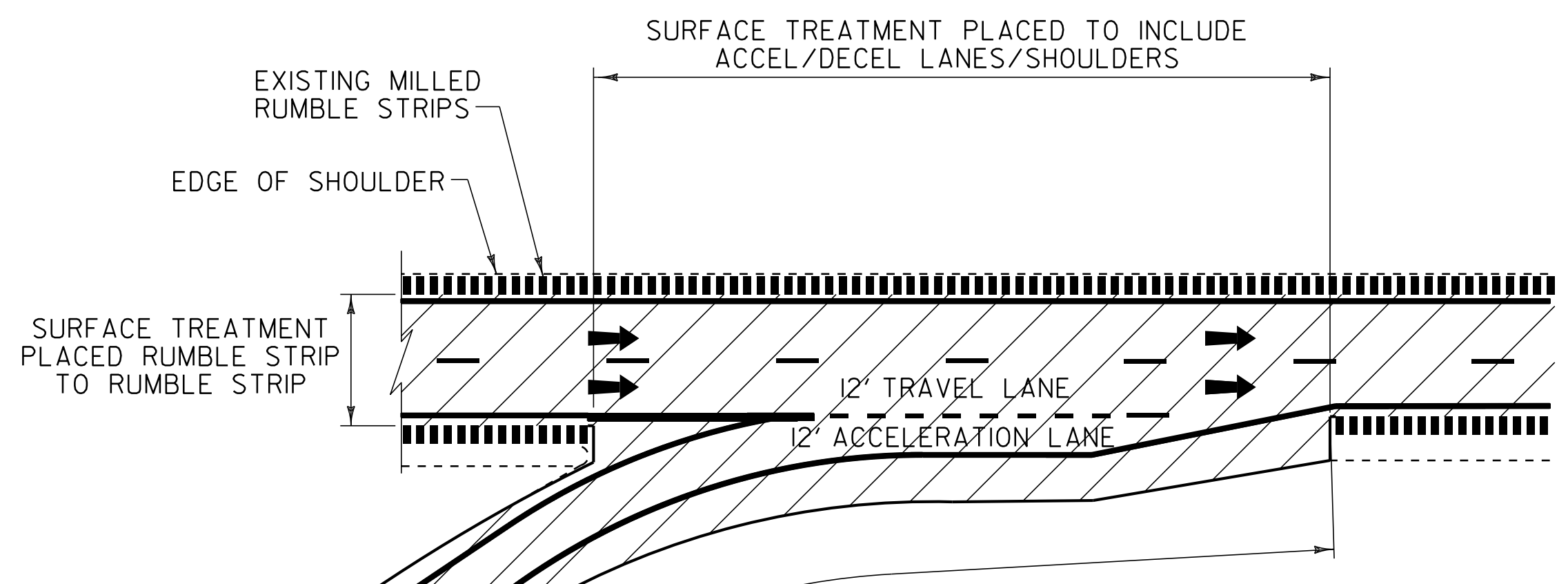
NOT TO SCALE

TYPICAL INTERCHANGE #5 CONSTRUCTION DETAILS	PROJECT NAME: BROOKFIELD-BERLIN	PLOT DATE: 31-OCT-2011
	PROJECT NUMBER: IM SURF (II)	DRAWN BY: HUNT
	FILE NAME: ...08A152\...08A152.dgn	CHECKED BY: PAVT MGMT
	PROJECT LEADER: DOMEY	SHEET 9 OF 15
DESIGNED BY: HUNT		
IPARM FILE NAME: 08A152_08.i		

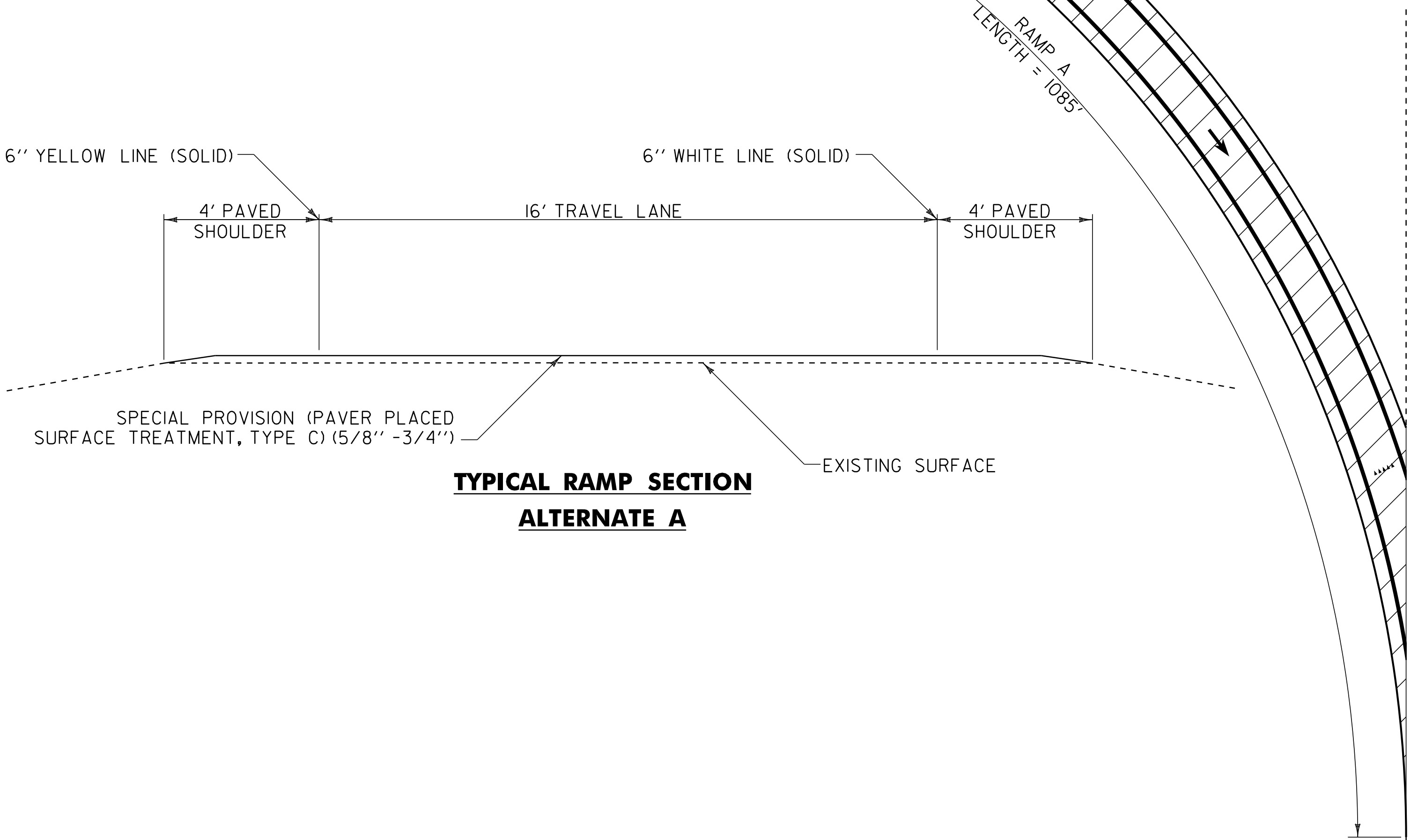
TYPICAL INTERCHANGE #6 CONSTRUCTION DETAILS



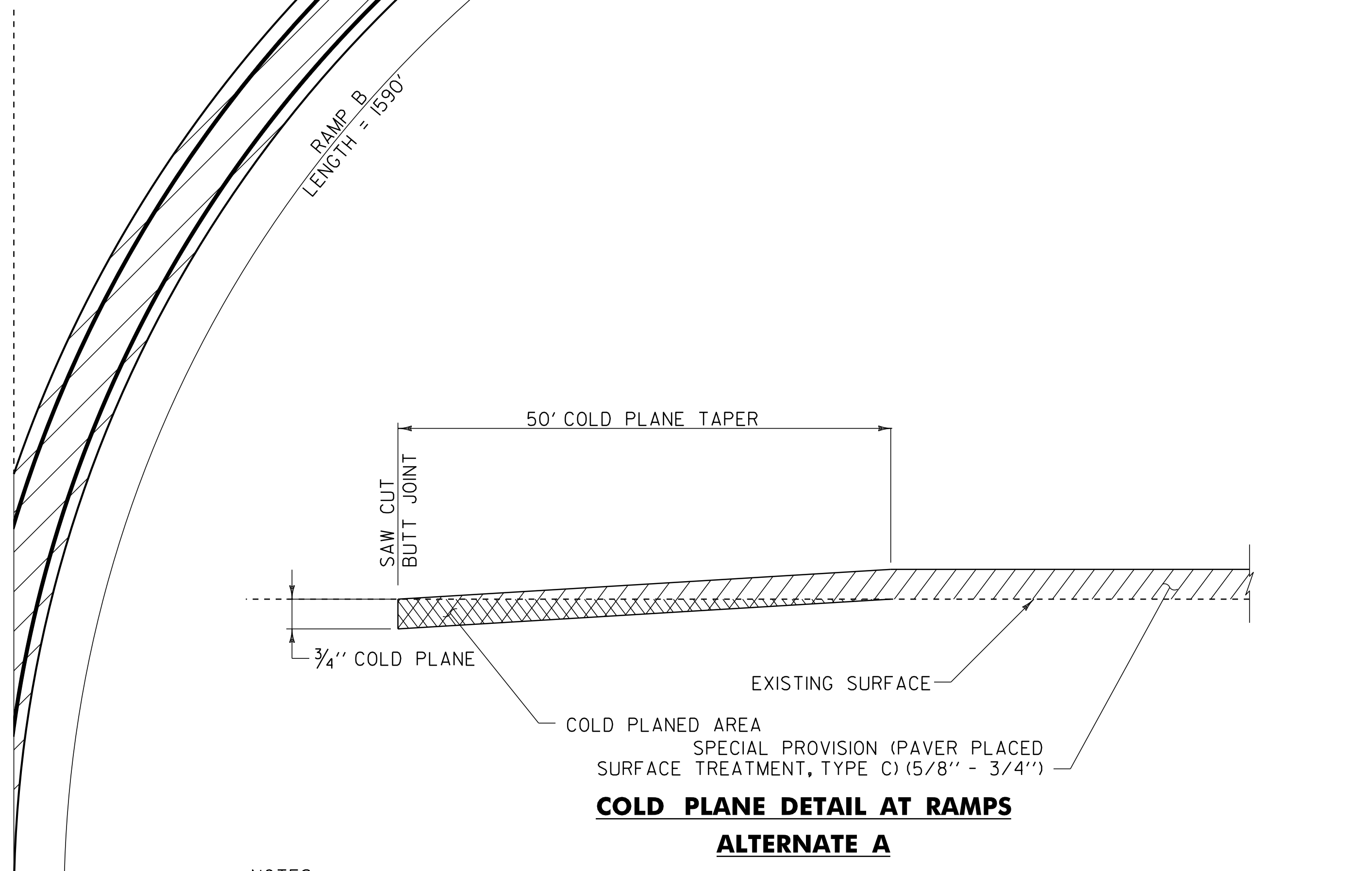
EXIT 6 OFF RAMP CONSTRUCTION DETAILS



EXIT 6 ON RAMP CONSTRUCTION DETAILS



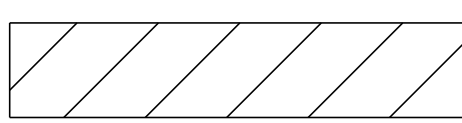
TYPICAL RAMP SECTION ALTERNATE A



COLD PLANE DETAIL AT RAMPS ALTERNATE A

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

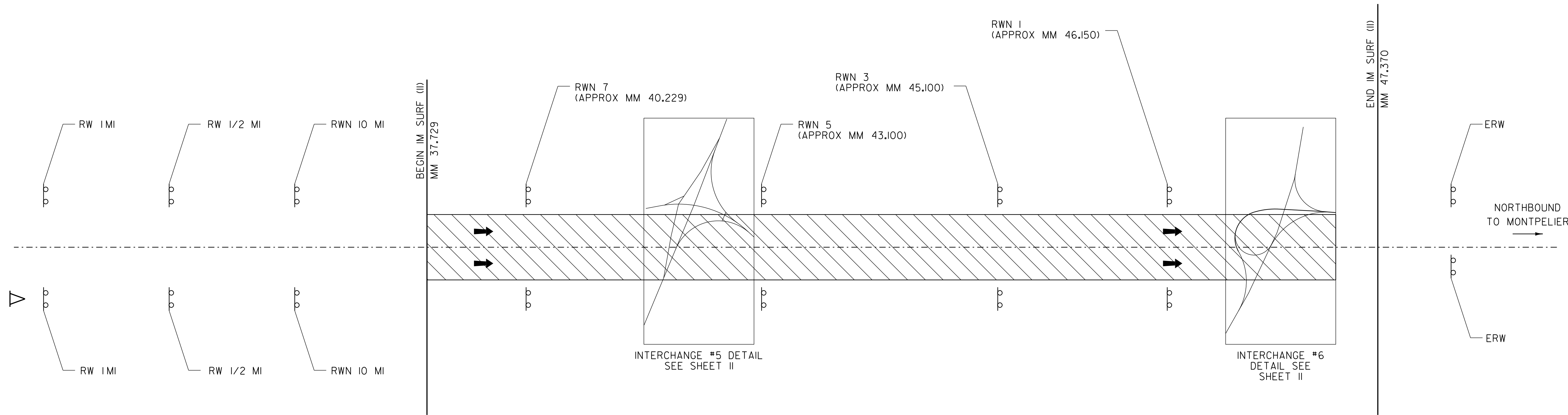
LEGEND

-  AREA OF TREATMENT
-  DIRECTION OF TRAFFIC FLOW
-  EXISTING MILLED RUMBLE STRIPS

NOT TO SCALE

TYPICAL INTERCHANGE #6 CONSTRUCTION DETAILS	PROJECT NAME: BROOKFIELD-BERLIN	PLOT DATE: 31-OCT-2011
	PROJECT NUMBER: IM SURF (II)	DRAWN BY: HUNT
	FILE NAME: ...08A152\...08A152.dgn	CHECKED BY: PAVT MGMT
	PROJECT LEADER: DOMEY	SHEET 10 OF 15
DESIGNED BY: HUNT		
IPARM FILE NAME: 08A152_09.i		

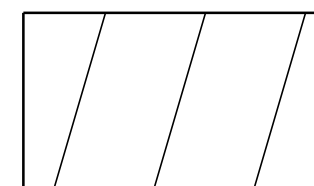
**BEGIN /END PROJECT
CONSTRUCTION APPROACH SIGNING**



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: BROOKFIELD-BERLIN
 PROJECT NUMBER: IM SURF (II)

FILE NAME: ...08A152\...08A152.dgn
 PROJECT LEADER: DOMEY
 DESIGNED BY: HUNT
 IPARM FILE NAME: 08A152_10.i

PLOT DATE: 31-OCT-2011
 DRAWN BY: HUNT
 CHECKED BY: PAVT MGMT
 SHEET II OF 15

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 STANDARDS 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-89 INTERCHANGE #5 AND #6 WARNING NORTHBOUND 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.

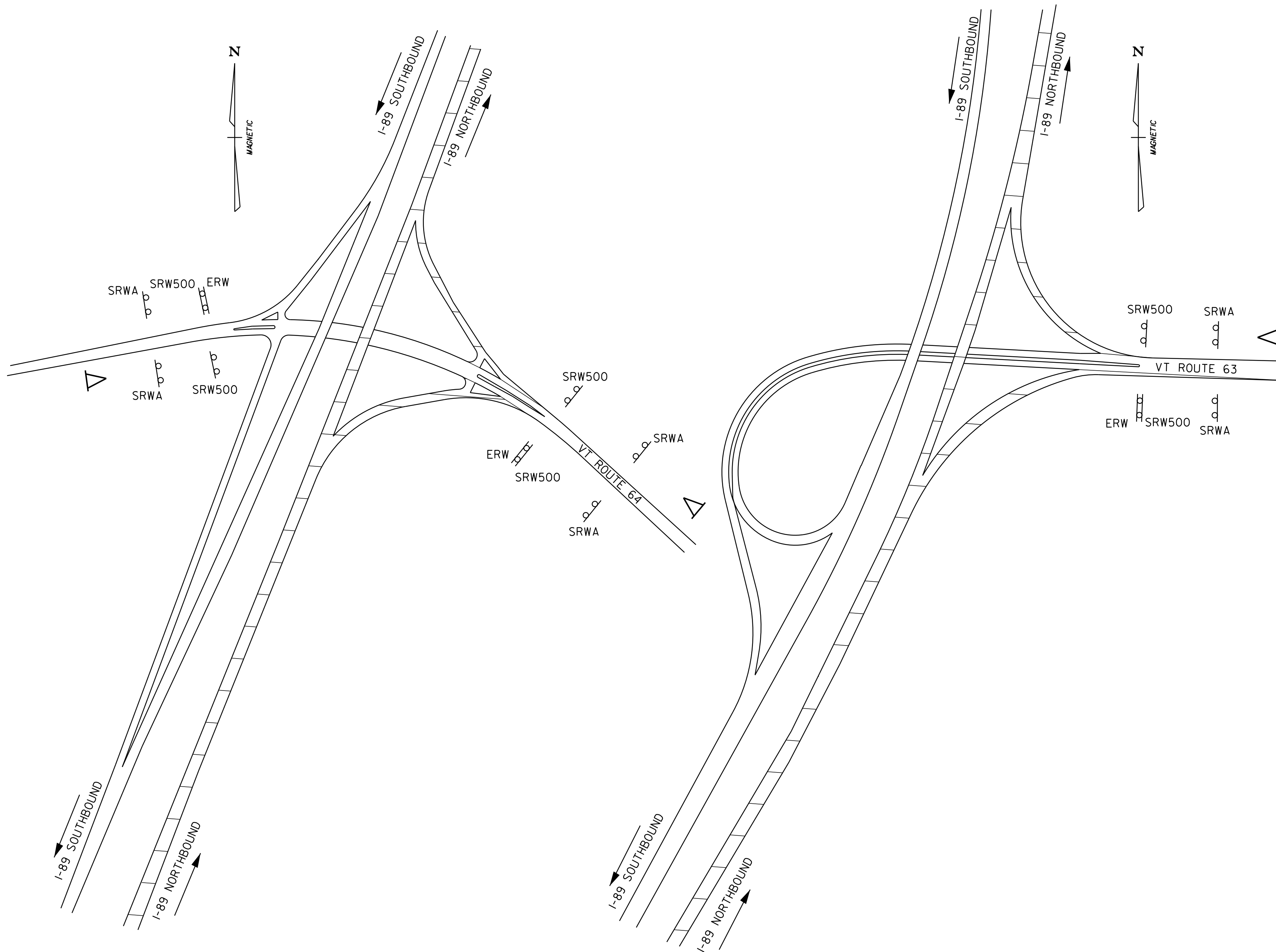
8. ADDITIONAL RAMP SIGNING MAY BE REQUIRED, AS DIRECTED BY THE RESIDENT ENGINEER.

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.

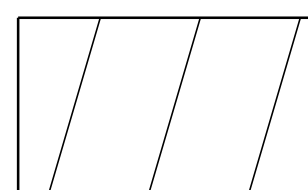
12. WHEN REDUCED REGULATORY SPEED LIMIT SIGNS ARE USED, THE RESUMPTION OF THE USUAL SPEED LIMIT SHALL BE INDICATED BY AN APPROPRIATE SPEED LIMIT SIGN AT THE END OF THE WORK ZONE.



LEGEND

- ERW = END ROAD WORK
- SRWA = SIDE ROAD WORK AHEAD
- SRW 500 = SIDE ROAD WORK 500 FT

 = PORTABLE CHANGEABLE MESSAGE SIGN

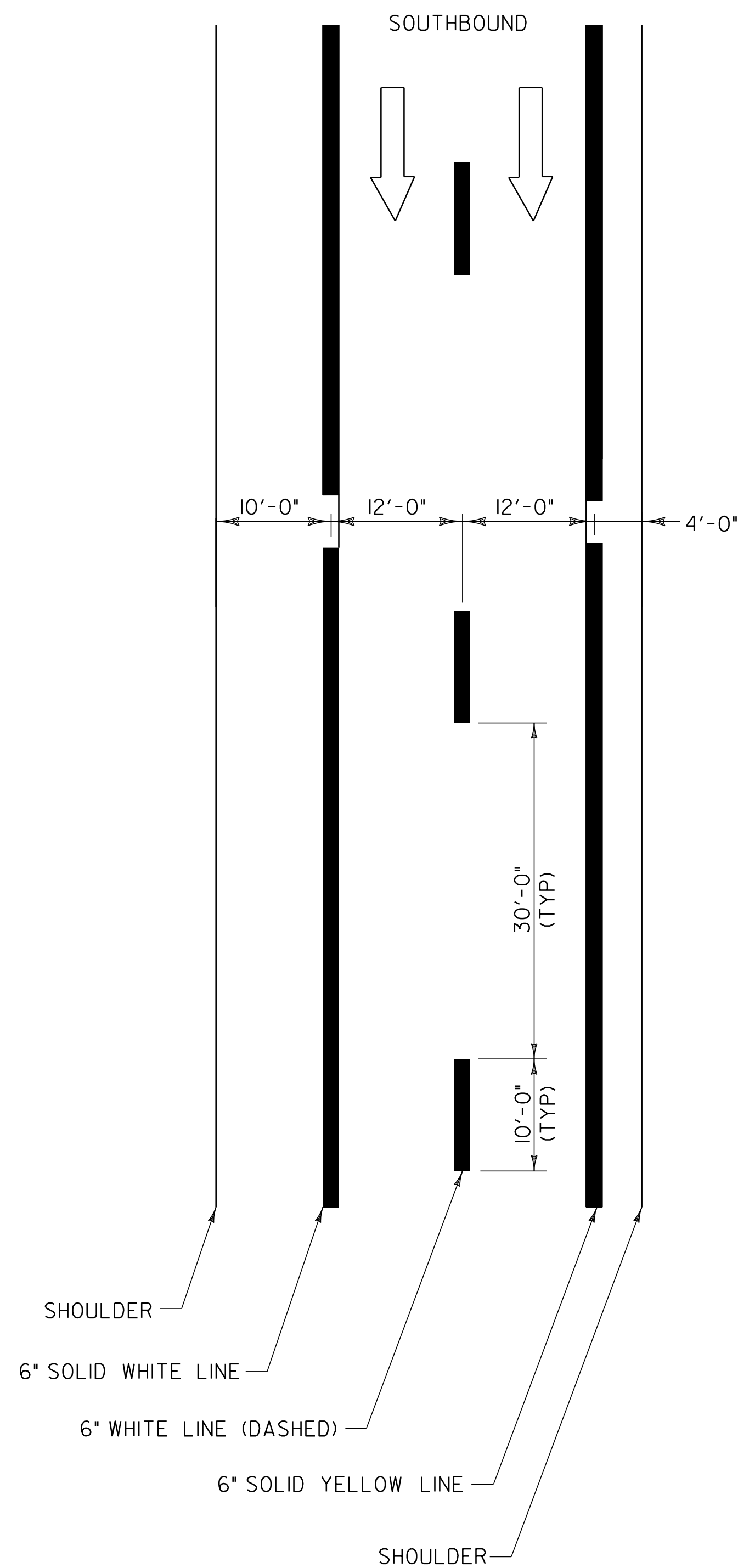
 = WORK AREA

NOT TO SCALE

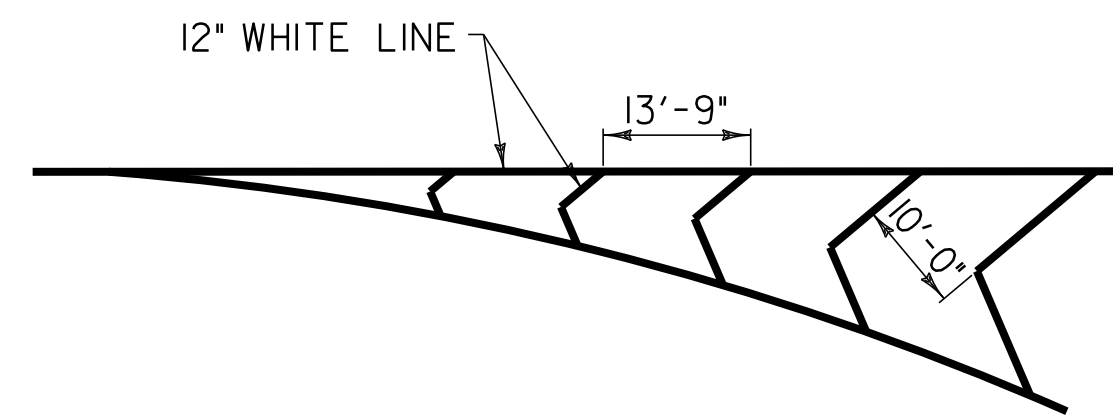
INTERCHANGE TRAFFIC CONTROL SHEET

PROJECT NAME: BROOKFIELD-BERLIN
 PROJECT NUMBER: IM SURF (II)

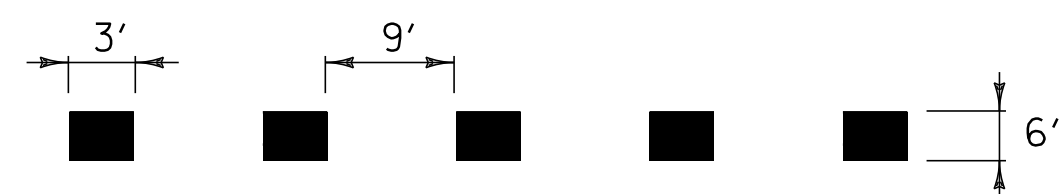
FILE NAME: ...08A152\...08A152.dgn	PLOT DATE: 31-OCT-2011
PROJECT LEADER: DOMEY	DRAWN BY: HUNT
DESIGNED BY: HUNT	CHECKED BY: PAVT MGMT
IPARM FILE NAME: 08A152_II.I	SHEET 12 OF 15



TYPICAL MAINLINE MARKING PLAN



GORE MARKING DETAIL



DOTTED LINE (WHITE) *



SOLID LINE (WHITE OR YELLOW)



CHANNELIZING LINE (WHITE)

PAVEMENT MARKING LINE DETAILS

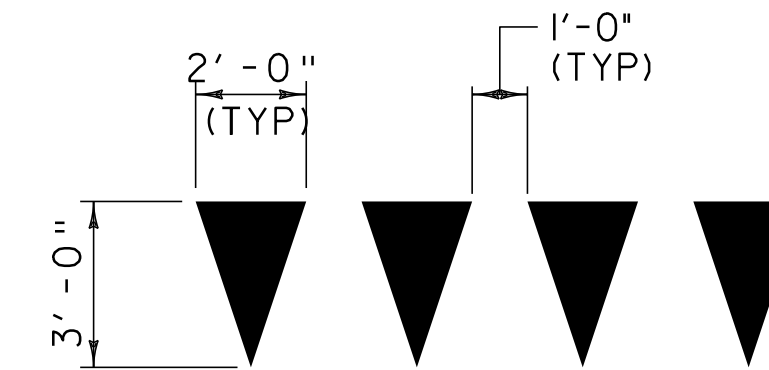
* TO BE INSTALLED ONLY AT THE DIRECTION OF THE RESIDENT ENGINEER

LEGEND



NOTES:

1. TWO (2) APPLICATIONS OF FINAL PAVEMENT MARKINGS WILL BE REQUIRED ON ALL ALTERNATIVE TREATMENTS. THE FIRST APPLICATION WILL BE IMMEDIATELY FOLLOWING PLACEMENT OF THE WEARING COURSE. 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.

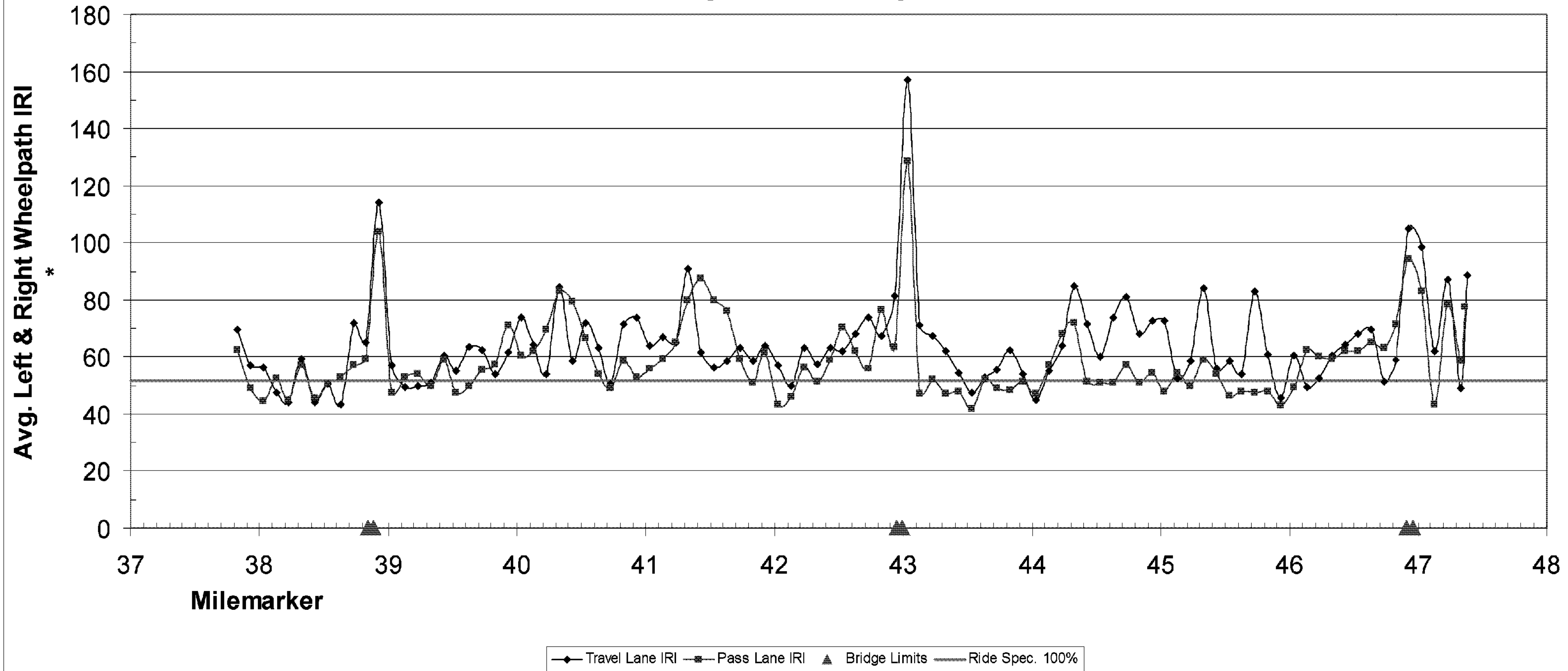
NOT TO SCALE

PAVEMENT MARKING DETAIL SHEET	PROJECT NAME: BROOKFIELD-WILLIAMSTOWN-BERLIN	
	PROJECT NUMBER: IM SURF (II)	
	FILE NAME: ...08A152\...08A152.dgn	PLOT DATE: 31-OCT-2011
	PROJECT LEADER: DOMEY	DRAWN BY: HUNT
DESIGNED BY: HUNT	CHECKED BY: PAVT MGMT	
IPARM FILE NAME: 08A152_I2.i	SHEET 13 OF 15	

I89 NB Brookfield-Williamstown-Berlin IM SURF(11) (2009)

Profiled 11/3/08

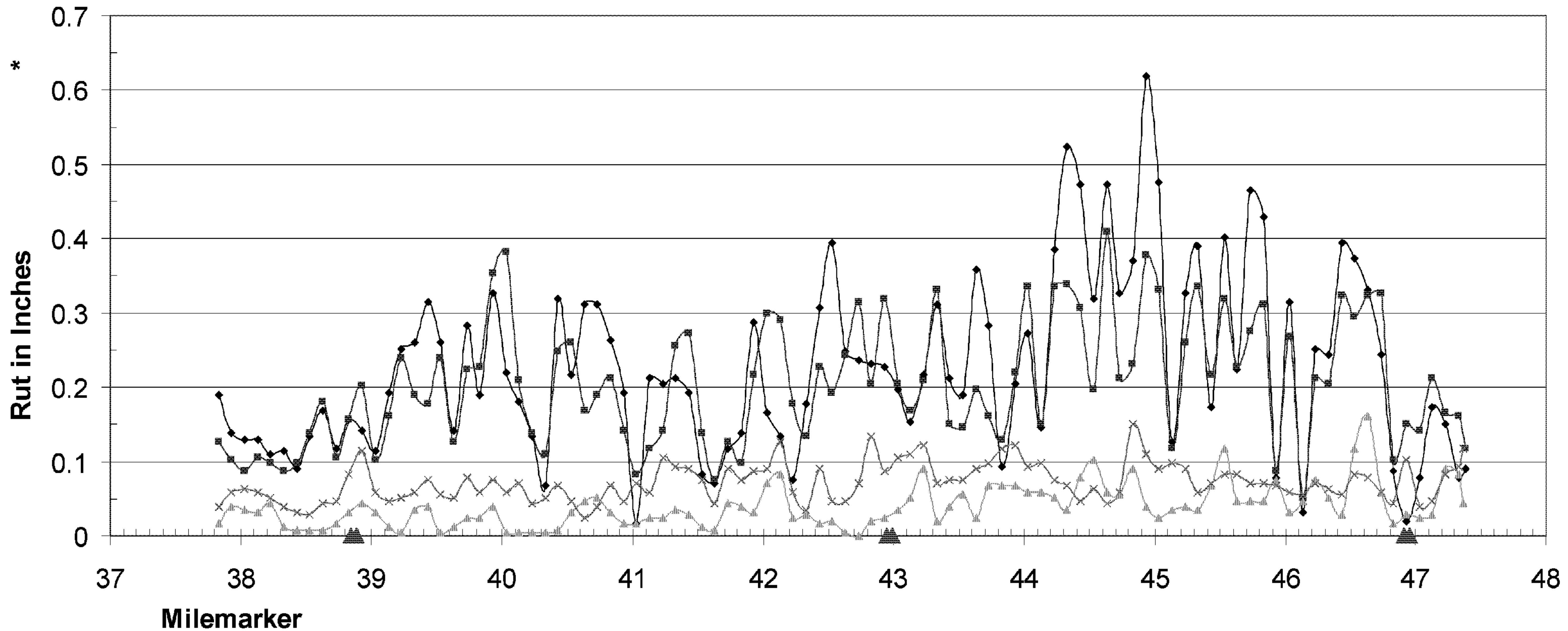
Travel Lane Avg. IRI = 64.5 Pass Lane Avg. IRI = 59.1



FOR INFORMATIONAL PURPOSES ONLY

ROUGHNESS DATA INFORMATION SHEET	PROJECT NAME: BROOKFIELD-BERLIN
	PROJECT NUMBER: IM SURF (II)
	FILE NAME: ...08A152\...08A152.dgn
	PLOT DATE: 09-JUN-2009
PROJECT LEADER: DOMEY	DRAWN BY: HUNT
DESIGNED BY: HUNT	CHECKED BY: PAVT MGMT
IPARM FILE NAME: 08A152_13.1	SHEET 14 OF 15

I89 NB Brookfield-Williamstown-Berlin IM SURF(11) (2009)
 Profiled 11/3/08



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

FOR INFORMATIONAL PURPOSES ONLY

RUTTING DATA INFORMATION SHEET	PROJECT NAME: BROOKFIELD-BERLIN	PLOT DATE: 09-JUN-2009
	PROJECT NUMBER: IM SURF (II)	DRAWN BY: HUNT
	FILE NAME: ...08A152\...08A152.dgn	CHECKED BY: PAVT MGMT
	DESIGNED BY: HUNT	SHEET 15 OF 15
	IPARM FILE NAME: 08A152_14_1	