

INDEX OF SHEETS
SEE SHEET 2

STATE OF VERMONT AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT

TOWNS OF HARTLAND, HARTFORD & NORWICH COUNTY OF WINDSOR INTERSTATE ROUTE 91

SUPERPAVE BITUMINOUS CONCRETE PAVEMENT MIXTURE DESIGN CRITERIA		
	I-91 NB	I-91 SB
DESIGN LANE/DESIGN LIFE ESAL	10,899,000	12,973,000
DESIGN NUMBER OF GYRATIONS	80	80
PERFORMANCE GRADED ASPHALT BINDER	SEE SECTION 490 GENERAL SPECIAL PROVISIONS	

TRAFFIC DATA

LOCATION	AADT		DHV		ESALS	
	2010	2020	2010	2020	2010-2020	2010-2030
I-91						
NORTHBOUND						
BEGIN PROJECT TO EXIT 10	9400	10,600	1500	1700	4,021,000	10,899,000
EXIT 10 TO EXIT 11	14,200	16,100	2300	2600	3,528,000	9,219,000
EXIT 11 TO EXIT 12	9300	10,400	1500	1700	3,476,000	8,937,000
EXIT 12 TO END PROJECT	8900	9900	1400	1600	2,513,000	6,591,000
SOUTHBOUND						
BEGIN PROJECT TO EXIT 10	9400	10,600	1400	1600	4,841,000	12,973,000
EXIT 10 TO EXIT 11	13,900	15,700	2100	2400	3,793,000	9,944,000
EXIT 11 TO EXIT 12	9300	10,400	1400	1600	4,316,000	11,322,000
EXIT 12 TO EXIT 13	8900	9900	1300	1500	3,551,000	9,447,000
EXIT 13 TO END PROJECT	6000	7000	900	1100	4,021,000	10,899,000

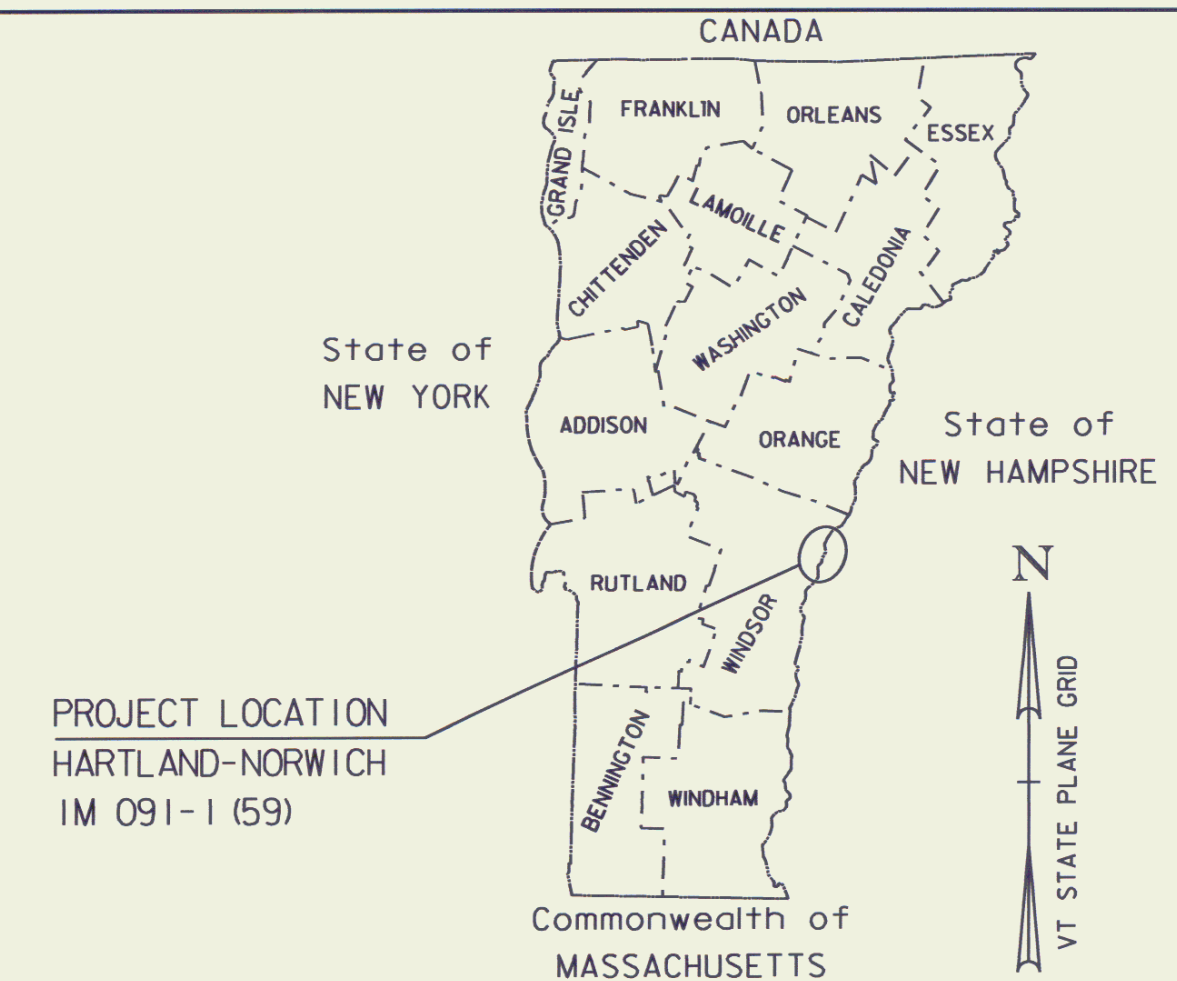
HARTLAND - NORWICH IM 091-1(59) NORTHBOUND:
BEGINNING IN HARTLAND ON I-91 AT MM 66.195 AND EXTENDING NORTHERLY
A DISTANCE OF 45,233.76 FEET (8.567 MILES) TO MM 74.762

LENGTH OF ROADWAY = 45,112.32 FT = (8.544 MILES)
LENGTH OF PROJECT = 45,233.76 FT = (8.567 MILES)

HARTLAND - NORWICH IM 091-1(59) SOUTHBOUND:
BEGINNING IN HARTLAND ON I-91 AT MM 66.453 AND EXTENDING NORTHERLY
A DISTANCE OF 52,784.16 FEET (9.997 MILES) TO MM 76.450

LENGTH OF ROADWAY = 52,784.16 FT = (9.997 MILES)
LENGTH OF PROJECT = 52,784.16 FT = (9.997 MILES)

WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES COLD PLANING, RESURFACING WITH A LEVELING COURSE AND WEARING COURSE, EXTENDING ACCELERATION / DECELERATION LANES, NEW PAVEMENT MARKINGS, GUARDRAIL IMPROVEMENTS, DRAINAGE IMPROVEMENTS AND INCIDENTAL ITEMS.



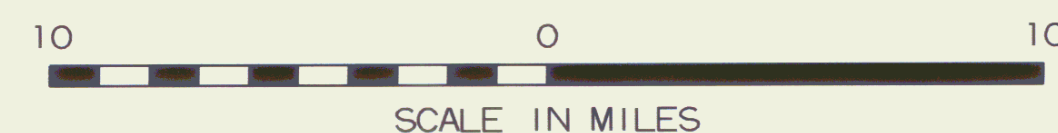
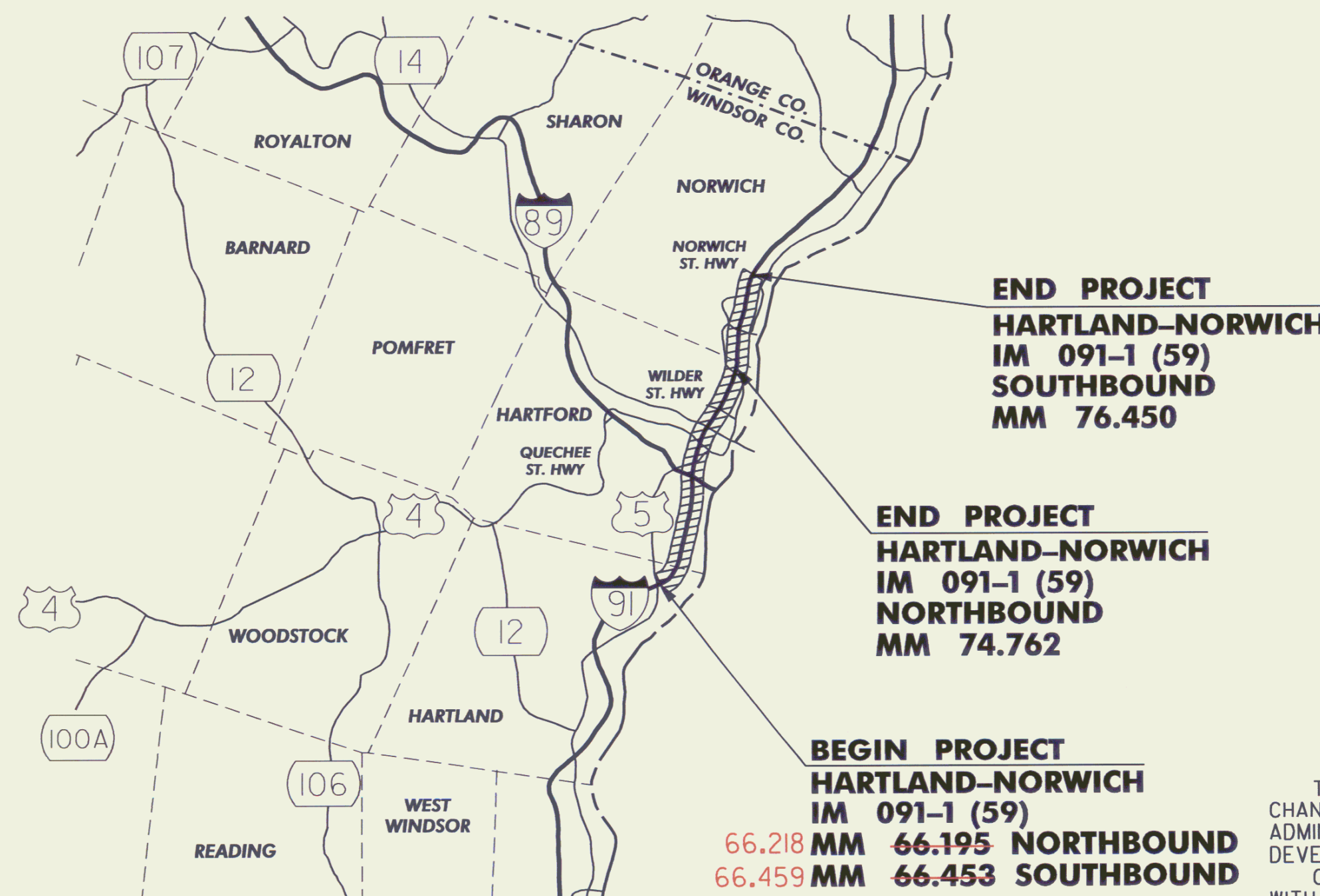
RECORD PLANS	
CONTRACTOR:	PIKE INDUSTRIES, INC. - BERLIN, VT
RESIDENT ENGINEER:	GERALD (BUTCH) COLBY
CONSTRUCTION BEGAN:	JULY 18, 2011
CONSTRUCTION COMPLETE:	NOVEMBER 17, 2011
RECORD PLANS BY:	GERALD (BUTCH) COLBY & JENNA HYDE
I HEREBY CERTIFY THAT ALL THE CONSTRUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.	
BY	<i>[Signature]</i> RESIDENT ENGINEER
DATE	11/19/12
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.	

QUALITY ASSURANCE PROGRAM: LEVEL 1



CONVENTIONAL SYMBOLS

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



UNLESS OTHERWISE NOTED, ALL DRAWING AND DETAILS ON THE PLANS ARE DRAWN "NOT TO SCALE".

RIGHT-OF-WAY LIMITS, IF APPLICABLE, ARE PROVIDED SOLELY FOR THE CONVENIENCE OF THE STATE AND ITS CONTRACTOR DURING THE COURSE OF THIS PAVING PROJECT. ANY REFERENCES TO OFFSETS ON THESE PLANS ARE APPROXIMATE AND SHOULD NOT BE RELIED UPON FOR ANY OTHER PURPOSES.

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.

DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATOR	APPROVED _____ DATE _____
DIRECTOR OF PROGRAM DEVELOPMENT	APPROVED _____ DATE _____
PROJECT MANAGER : MICHAEL FOWLER	
PROJECT NAME : HARTLAND-NORWICH	
PROJECT NUMBER: IM 091-1(59)	
SHEET 1 OF 60 SHEETS	

INDEX OF SHEETS

INDEX OF STANDARD PLANS

STD	DATE
C-10	2/11/2008
D-3	6/1/1994
D-9	6/1/1994
D-15	6/1/1994
E-100	1/2/2004
E-100A	1/2/2004
E-101	5/30/2003
E-102	6/30/2003
E-102A	5/1/2004
E-103	3/1/2004
E-105	5/1/2004
E-106	3/1/2004
E-107	6/30/2003
E-107A	6/8/2009
E-108A	6/8/2009
E-III	3/11/1997
E-120	8/8/1995
E-162	5/20/1999
E-164	6/8/2009
E-191	2/1/1999
E-192	10/12/2000
E-193	8/18/1995
G-1	1/3/2000
G-1d	1/3/2000
G-19	11/15/2002
ESFM	7/10/1997
PSF-3M	7/10/1997

INDEX OF SHEETS

SHT	TITLE
1	TITLE SHEET
2	INDEX OF SHEETS
3-4	I-9I TIE SHEETS I-2
5	EXIT 10 TIE SHEET
6	EXIT 11 & 12 TIE SHEET
7	EXIT 13 TIE SHEET
8	GENERAL NOTES SHEET
9-13	PROJECT TYPICAL SHEETS I-5
14	ASPHALTIC PLUG-TYPE JOINT DETAIL SHEET
15	PAVEMENT MARKING DETAIL SHEET
16	CULVERT LOCATIONS SHEET
17-19	QUANTITY SHEETS I-3
20-24	ITEM DETAIL SUMMARY SHEETS I-5
25	DITCH CLEANING SHEET
26	NB MAINLINE LAYOUT
27	SB MAINLINE LAYOUT
28-29	EXIT 10 NB OFF RAMP D DETAIL SHEETS I-2
30	EXIT 10 SB ON RAMP E DETAIL SHEET
31	EXIT 10 I-9INB ON RAMP C, I-9ISB ON RAMP E I-9ISB OFF RAMP F DETAIL SHEET
32	EXIT 10 I-89 NB OFF RAMP A, I-9INB ON RAMP C DETAIL SHEET
33	EXIT 10 NB ON RAMP C, NB OFF RAMP B DETAIL SHEET
34	EXIT 10 & EXIT 11 WEAVE LANE DETAIL SHEET
35	EXIT 11 NB OFF RAMP C DETAIL SHEET
36	EXIT 11 NB ON RAMP D DETAIL SHEET
37	EXIT 11 SB OFF RAMP B, SB ON RAMPS A & F DETAIL SHEET
38	EXIT 12 NB OFF RAMP A DETAIL SHEET
39	EXIT 12 NB ON RAMP C DETAIL SHEET
40	EXIT 12 SB ON RAMP B DETAIL SHEET
41	EXIT 12 SB OFF RAMP D DETAIL SHEET
42	EXIT 13 NB OFF RAMP A DETAIL SHEET
43	EXIT 13 SB ON RAMP B AND SB OFF RAMP D DETAIL SHEET
44	TRAFFIC SIGN SUMMARY SHEET
45	ALIGNMENT LAYOUT SHEET
46	BANKING DIAGRAMS
47-51	BRIDGE / GUARDRAIL TREATMENT DETAIL SHEETS I-5
52-53	GUARDRAIL APPROACH SECTION DETAIL SHEETS I-2
54-56	ALUMINUM APPROACH RAILING DETAIL SHEETS I-3
57-58	MILLED RUMBLE STRIP DETAIL SHEETS I-2
59	TEMPORARY TRAFFIC CONTROL PLAN
60	EXIT 10 & 11 TEMPORARY TRAFFIC CONTROL PLAN

INDEX OF SHEETS

PROJECT NAME:	HARTLAND-NORWICH
PROJECT NUMBER:	IM 091-1(59)
FILE NAME:	/pave/06a202/p06a202.dgn
PROJECT LEADER:	PTS
DESIGNED BY:	NULL
IPARM FILE NAME:	06A202_02
PLOT DATE:	19-JUN-2013 09:24
DRAWN BY:	WWG
CHECKED BY:	PTS
SHEET	2 OF 60

GPS CONTROL POINTS

HVCTRL #1

G 58
 NORTH = 441229.15
 EAST = 1691279.71
 ELEV. = 512.82

DESCRIBED BY NATIONAL GEODETIC SURVEY 1978 IN NORWICH. 0.2 MILE SOUTH ALONG STATE HIGHWAY 5 FROM THE POST OFFICE IN NORWICH TO THE MARK ON THE LEFT, 28 FEET EAST OF THE CENTER LINE OF THE HIGHWAY, 9 FEET NORTH OF A STREET LIGHT, 4.5 FEET WEST OF AN UNNUMBERED POWER POLE, AND 1 FOOT EAST OF THE NORTH END OF A CABLE GUARD RAIL. ADDITIONAL: TO REACH FROM THE INTERSECTION OF THE I-91 BRIDGES OVER VT ROUTE 10A IN NORWICH GO NORTH ALONG VT ROUTE 10A, WHICH BECOMES US ROUTE 5, FOR 0.3 MI (0.5 KM) TO THE SITE OF THE MARK ON THE RIGHT. THE MARK IS 8.5 M (27.9 FT) EAST OF THE CENTERLINE OF U S ROUTE 5, AND 1.4 M WEST OF POLE NO 8/50/5/2. THE CABLE GUARD RAIL IS NO LONGER THERE.

HVCTRL #2

PION
 NORTH = 439839.11
 EAST = 1691507.81
 ELEV. = 481.72

GENERAL LOCATION, NORWICH, VT. TO REACH FROM THE INTERSECTION OF THE I-91 BRIDGES OVER VT ROUTE 10A IN NORWICH GO NORTH ALONG VT ROUTE 10A FOR 0.1 MI (0.2 KM) TO THE SITE OF THE MARK ON THE LEFT SET IN THE MEDIAN SEPARATING THE VT ROUTE 10A SOUTH AND NORTH BOUND LANES. THE MARK IS SET IN THE TOP OF THE NORTHEAST CORNER OF A 1.4 M (4.6 FT) X 1.4 M (4.6 FT) CONCRETE DROP INLET. IT IS 45 CM EAST OF THE CENTER OF THE 60 CM SQUARE METAL GRATE, 1.9 M (6.2 FT) WEST OF THE EAST EDGE OF PAVEMENT OF THE VT ROUTE 10A NORTHBOUND LANE, 2.7 M (8.9 FT) EAST OF THE WEST EDGE OF PAVEMENT OF VT ROUTE 10A SOUTHBOUND LANE, 9.5 M (31.2 FT) WEST OF THE CENTER OF ANOTHER 60 CM DROP INLET, AND 7.7 M (25.3 FT) NORTH OF A TRAFFIC SIGN FOR US ROUTE 5 SOUTH. NOTE, THE MARK IS INTERVISIBLE WITH MARK G 58.

GPS CONTROL POINTS

HVCTRL #10

I 91 EXIT 12
 NORTH = 424609.55
 EAST = 1688199.98
 ELEV. = 555.80

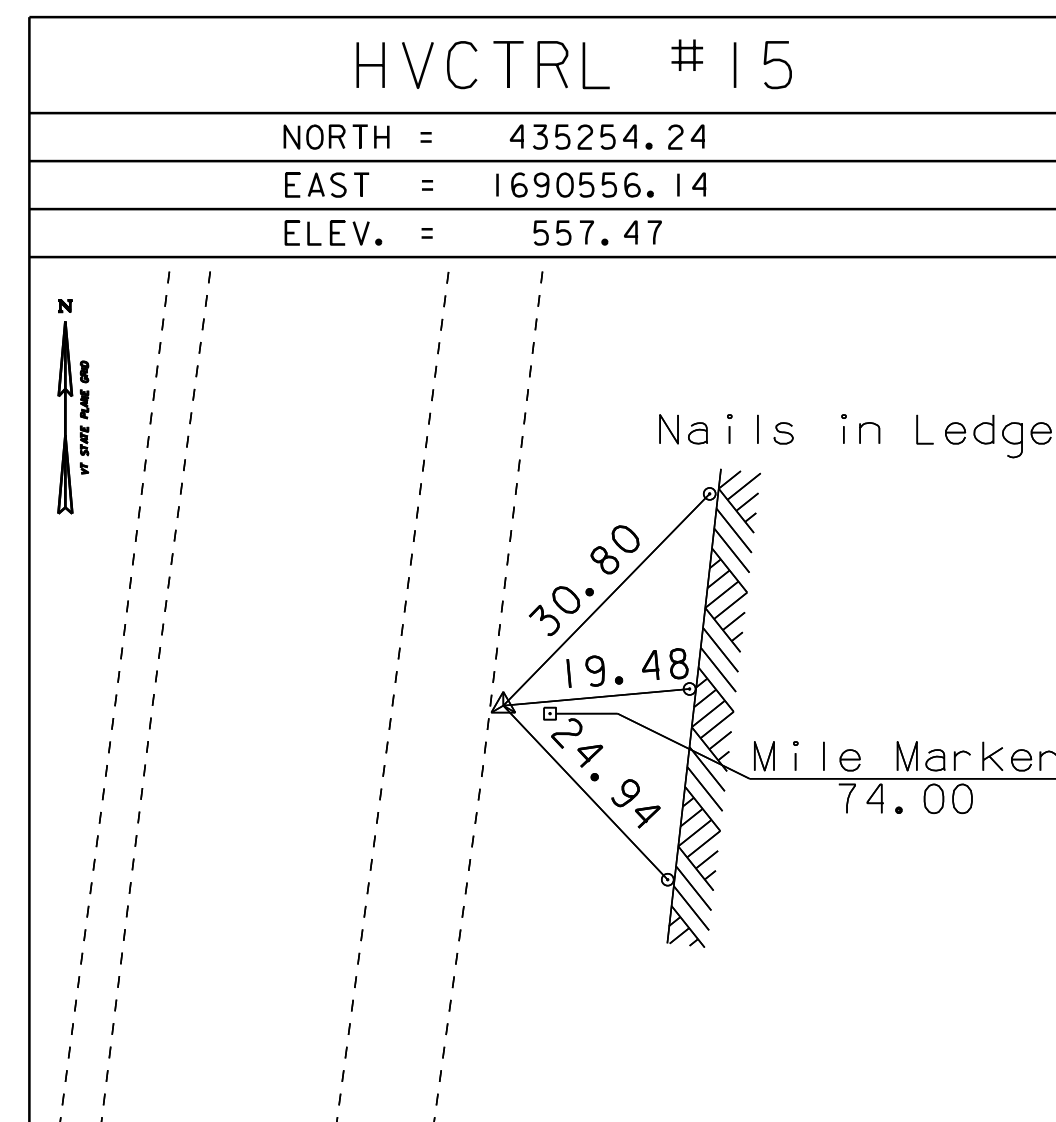
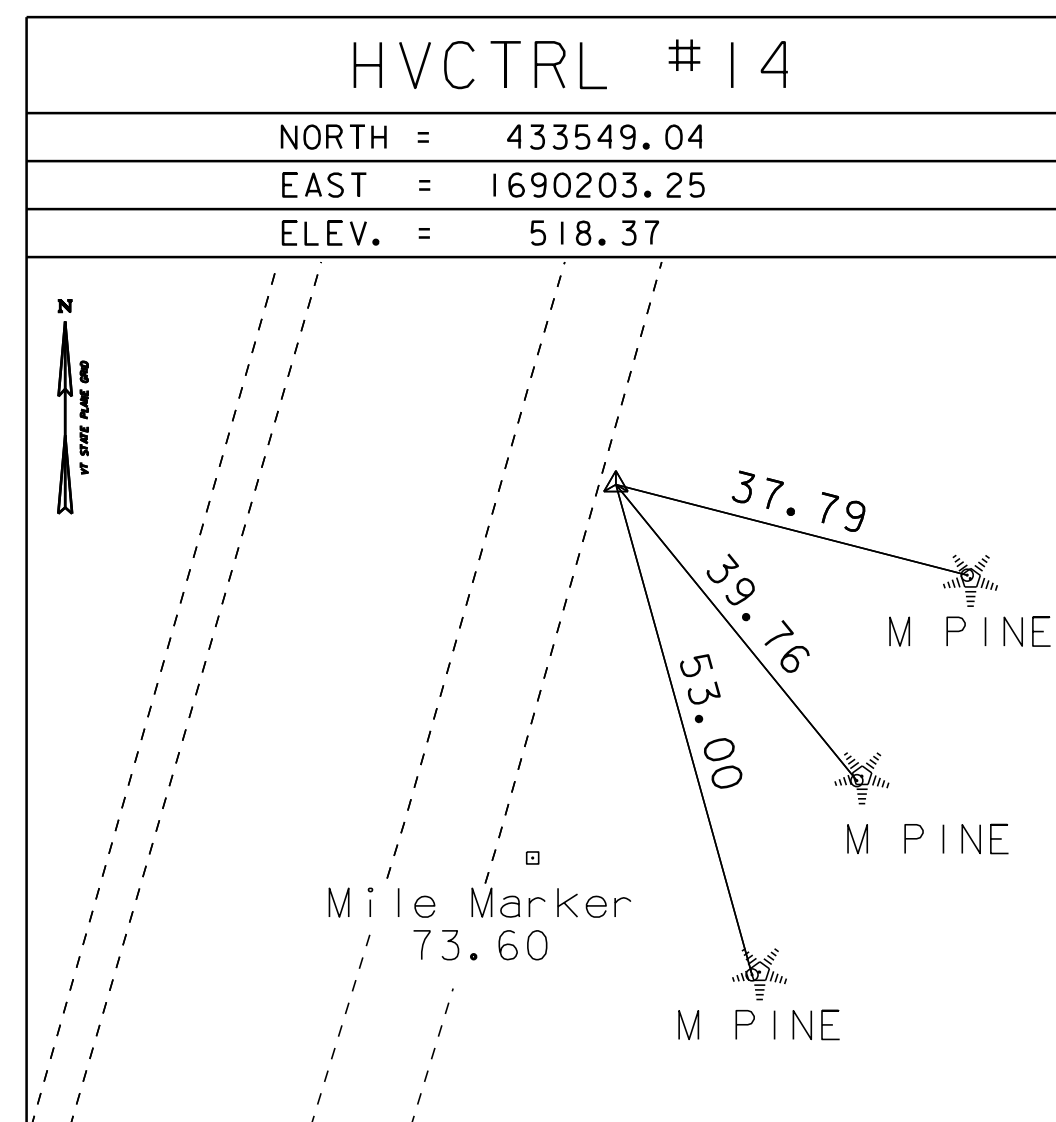
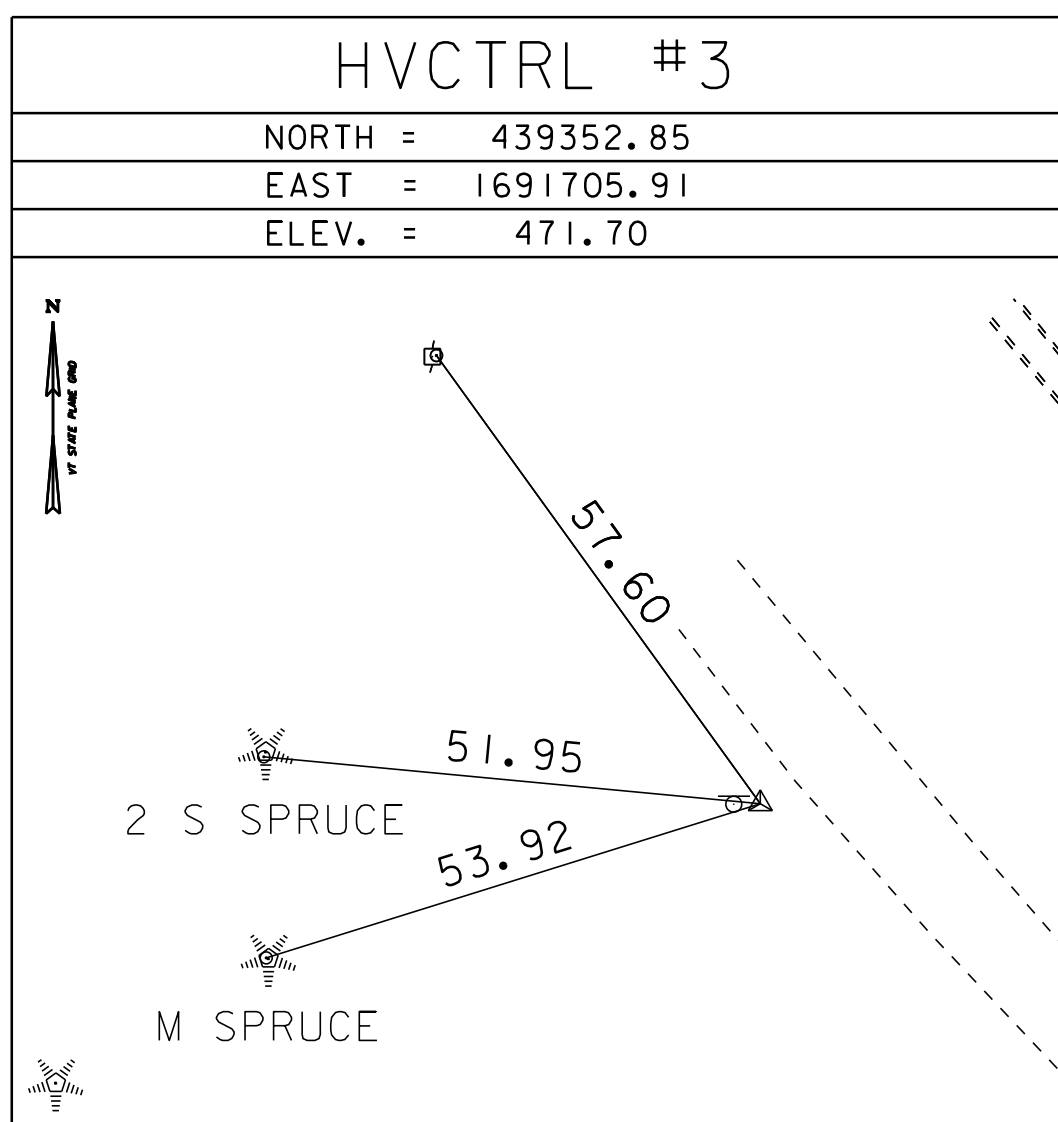
TO REACH FROM THE I-91 BRIDGES OVER BUGBEE STREET AT EXIT 12 GO SOUTH ALONG I-91 FOR 0.1 MI (0.2 KM) TO THE SITE OF THE MARK ON THE LEFT, EAST OF THE I-91 NORTHBOUND LANE, IN A GRASS TRIANGLE FORMED BY I-91 NORTHBOUND, THE I-91 EXIT 12 NORTHBOUND OFF-RAMP, AND BUGBEE STREET. IT IS BETWEEN NORTHBOUND MILE MARKERS 71.75 AND 71.80. THE MARK IS SET IN THE TOP OF THE EAST SIDE OF A 70 CM (28 INCHES) DIAMETER CONCRETE ANCHOR BASE FOR THE SECOND METAL GUARD RAIL POST NORTH OF THE SOUTH END OF A GUARD RAIL. IT IS 1.0 M (3.3 FT) SOUTHWEST OF AND ABOUT 0.1 M (0.3 FT) LOWER THAN THE SOUTHEAST EDGE OF PAVEMENT OF THE NORTHBOUND LANE, 27.4 M (89.9 FT) WEST NORTHWEST OF THE CENTERLINE OF THE NORTHBOUND OFF-RAMP, 2.0 M (6.6 FT) NORTH NORTHEAST OF THE MOST SOUTHERLY METAL GUARD RAIL POST, 0.1 M (0.3 FT) WEST OF THE EAST EDGE OF THE CONCRETE BASE, AND 1.8 M (5.9 FT) SOUTH SOUTHWEST OF THE THIRD METAL GUARD RAIL POST AND A FIBERGLASS WITNESS POST.

HVCTRL #11

I 91 EXIT 12 AZ MK
 NORTH = 426797.45
 EAST = 1688530.98
 ELEV. = 503.89

JUST NORTH OF U-TURN AT NB MILE MARKER 72.20, 3.8 M (12.5 FT) EAST OF AND ABOUT 0.4 M (1.3 FT) LOWER THAN THE EDGE OF PAVEMENT OF THE SOUTHBOUND LANE, 8.4 M (27.6 FT) WEST OF AND ABOUT 0.3 M (1.0 FT) LOWER THAN THE EDGE OF PAVEMENT OF THE NORTHBOUND LANE, 3.1 M (10.2 FT) NORTH OF THE EDGE OF PAVEMENT OF THE U-TURN, 3.4 M (11.2 FT) SOUTHWEST OF THE CENTER OF A 45 CM (18 INCHES) SQUARE DRAIN, AND 2.9 M (9.5 FT) SOUTH SOUTHWEST OF A POST FOR A NO U-TURN SIGN AND A FIBERGLASS WITNESS POST.

TRAVERSE TIES

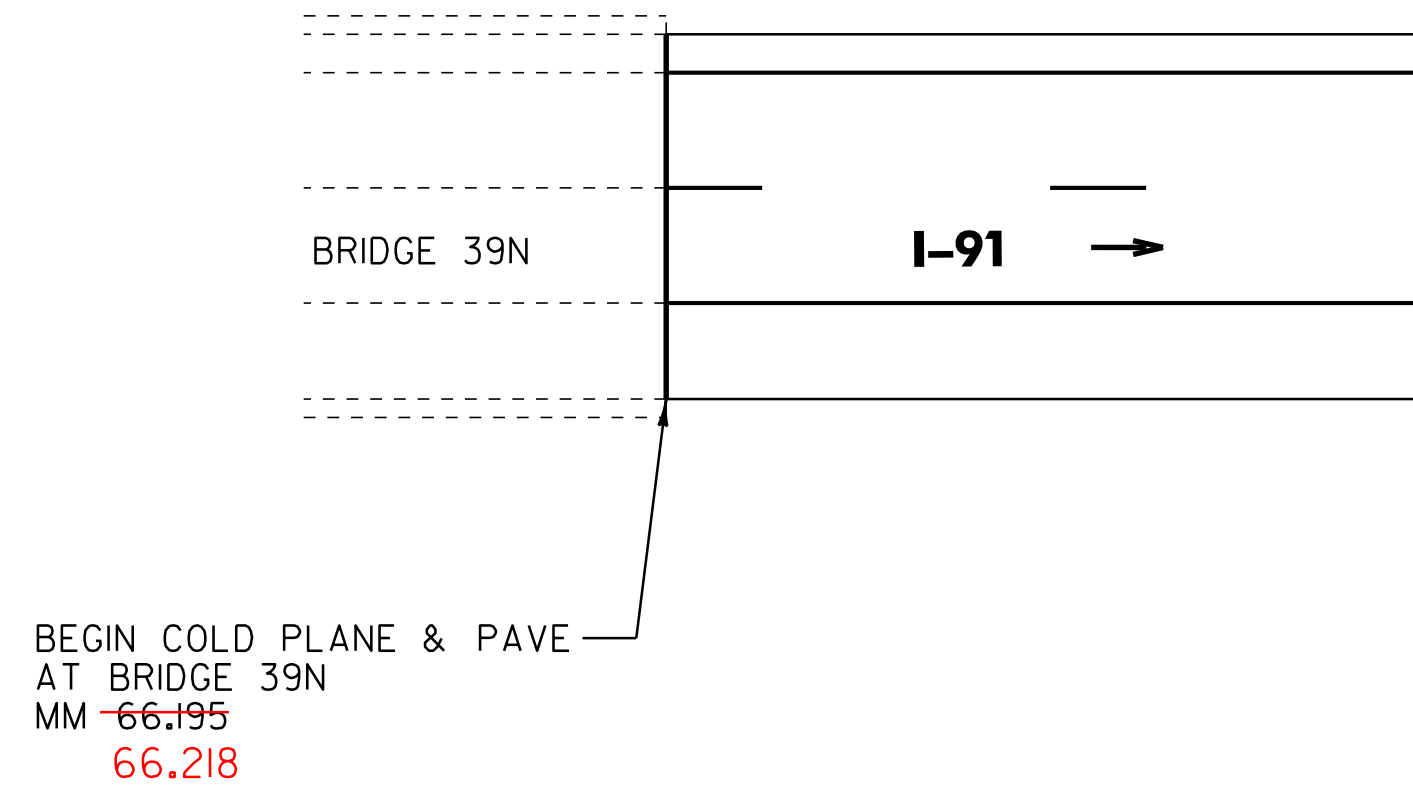


* Main Traverse Completed 6/12/08 by R.Gilman P.C. & P.Winters & T.Parker
 * Secondary Traverse Completed 12/08/09 by R.Gilman P.C. & P.Winters

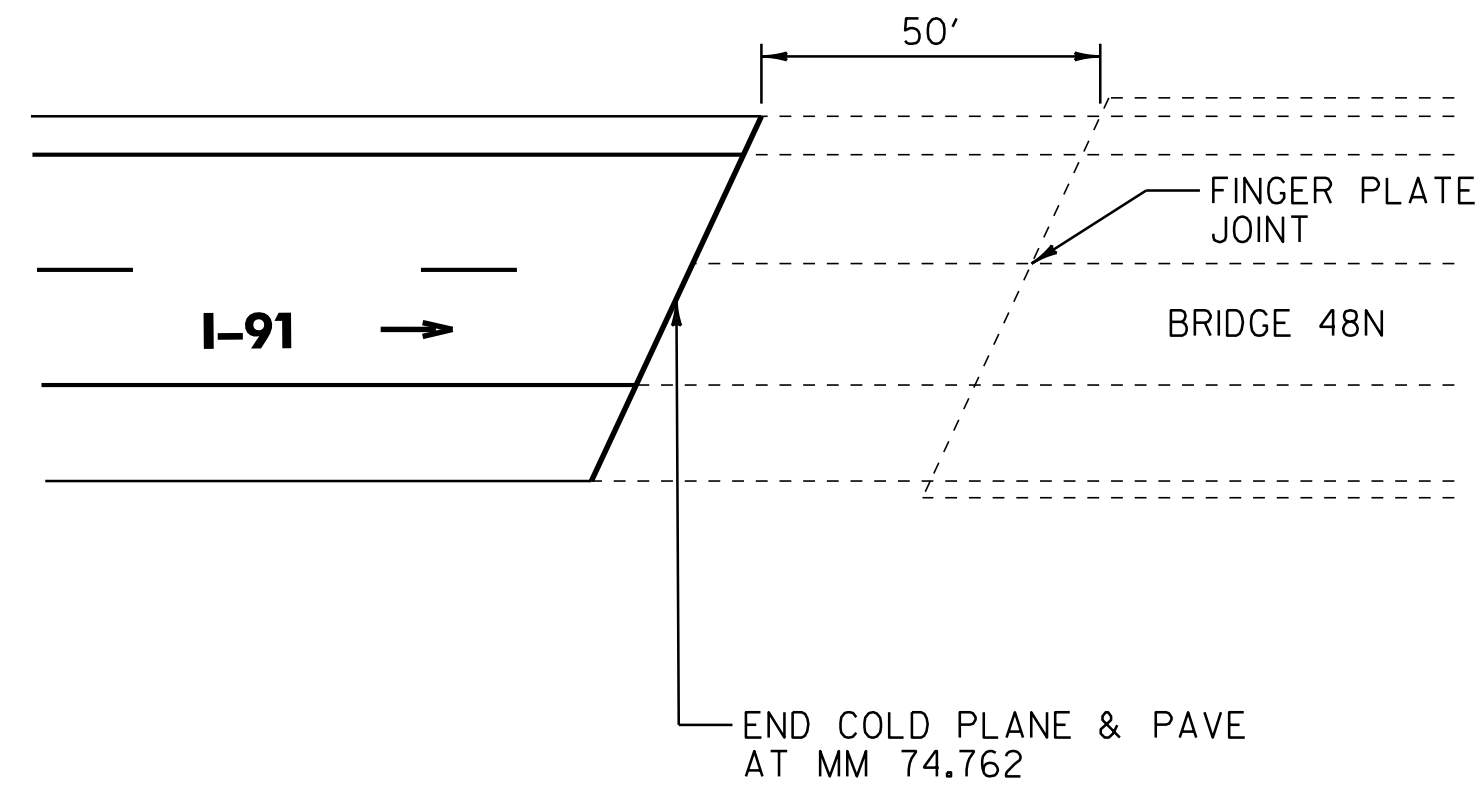
I-91 TIE SHEET 1

PROJECT NAME:	HARTLAND-NORWICH	FILE NAME:	/pave/06a202/p06a202.dgn	PLOT DATE:	19-JUN-2013 09:24
PROJECT NUMBER:	IM 091-I(59)	PROJECT LEADER:	PTS	DRAWN BY:	R. Bullock
		DESIGNED BY:	VTRANS	CHECKED BY:	VTRANS
		IPARM FILE NAME:	06A202_03	SHEET	3 OF 60

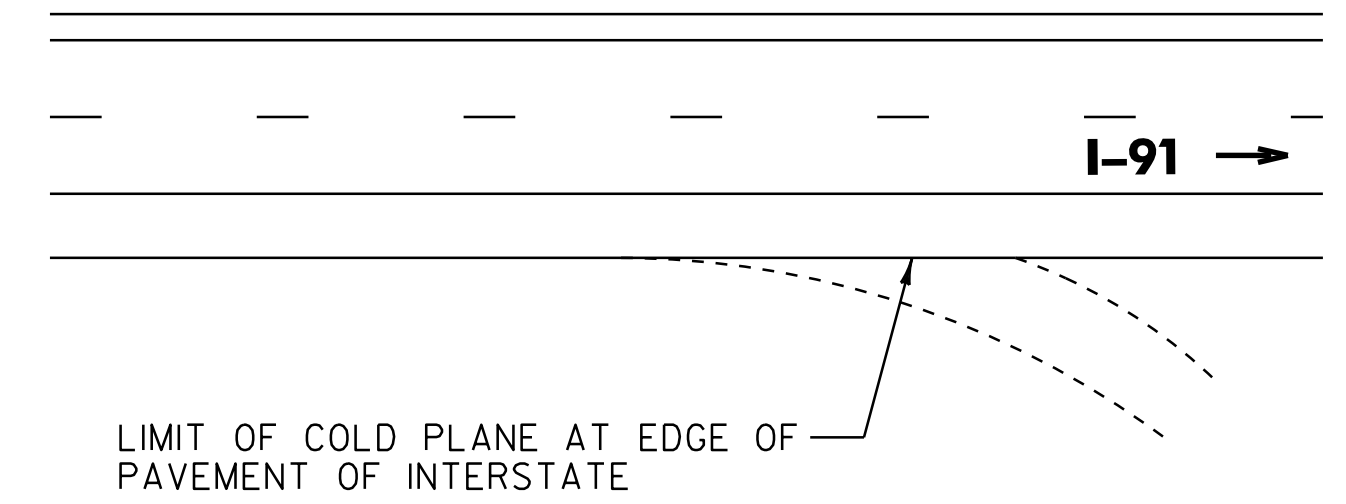
NOT TO SCALE



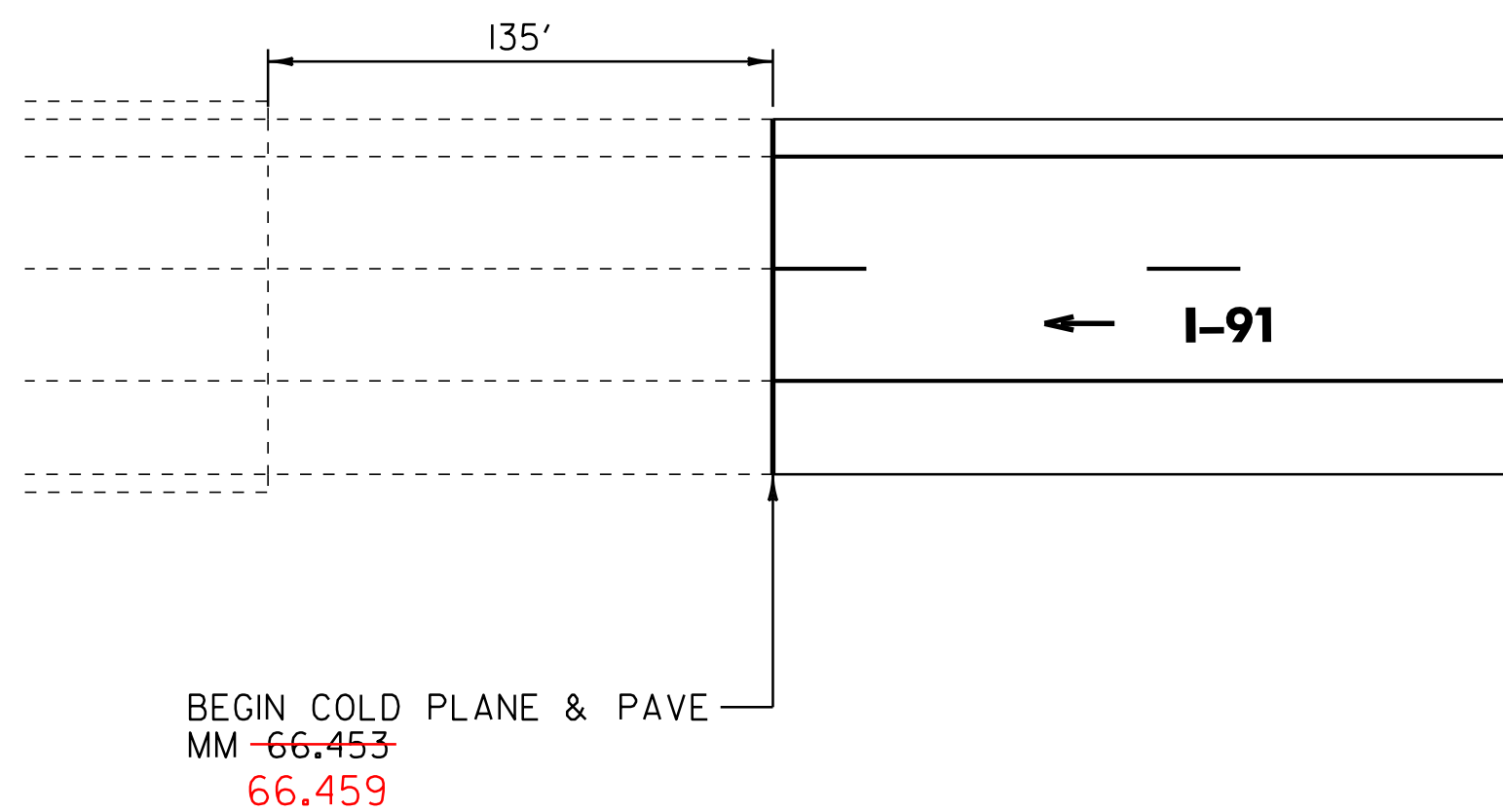
**INTERSTATE I-91 NB
BEGIN IM 091-1(59)**



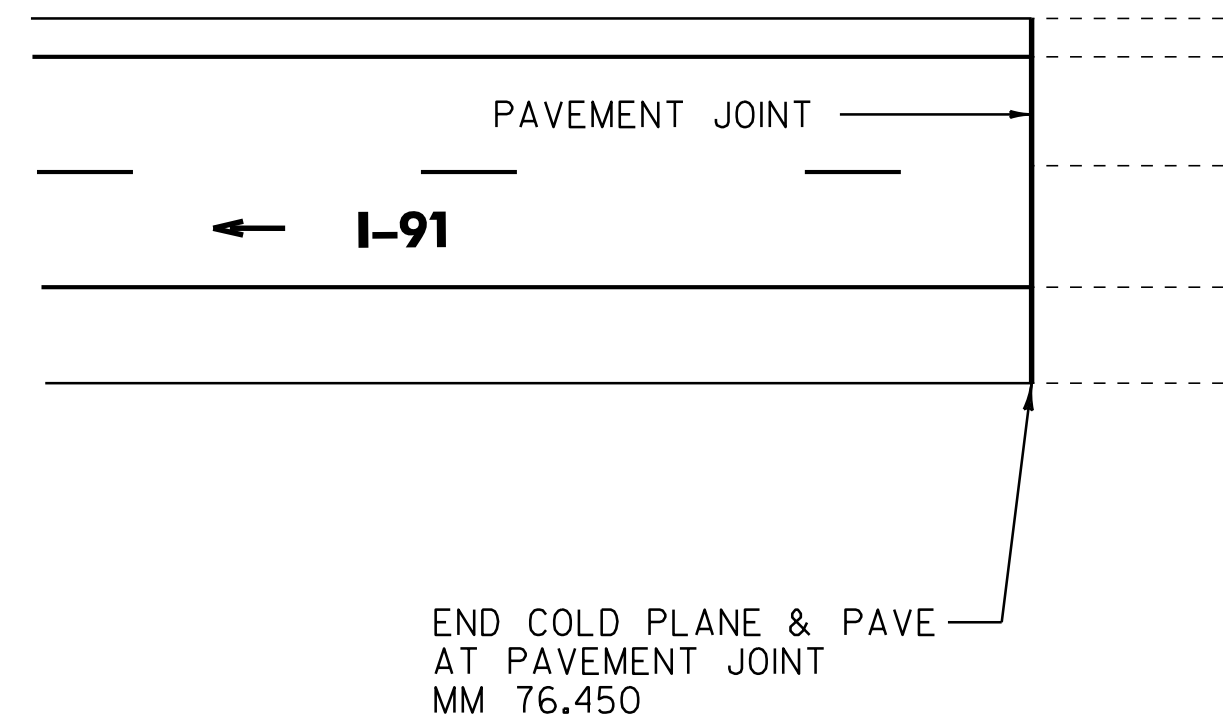
**INTERSTATE I-91 NB
END IM 091-1(59)**



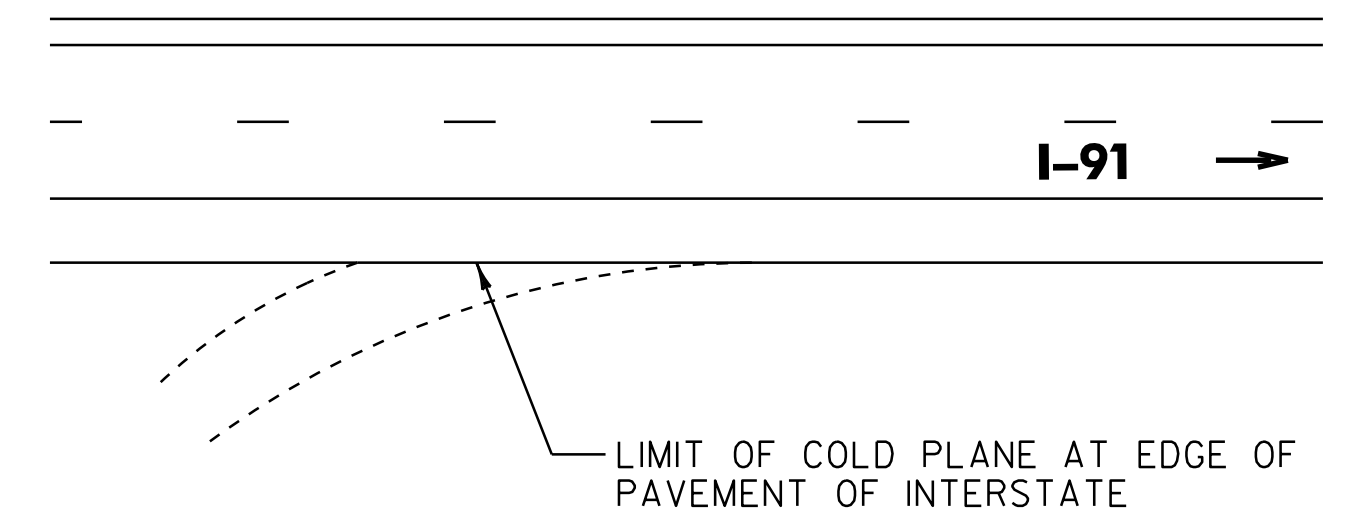
**HARTFORD REST AREA
NORTHBOUND OFF**



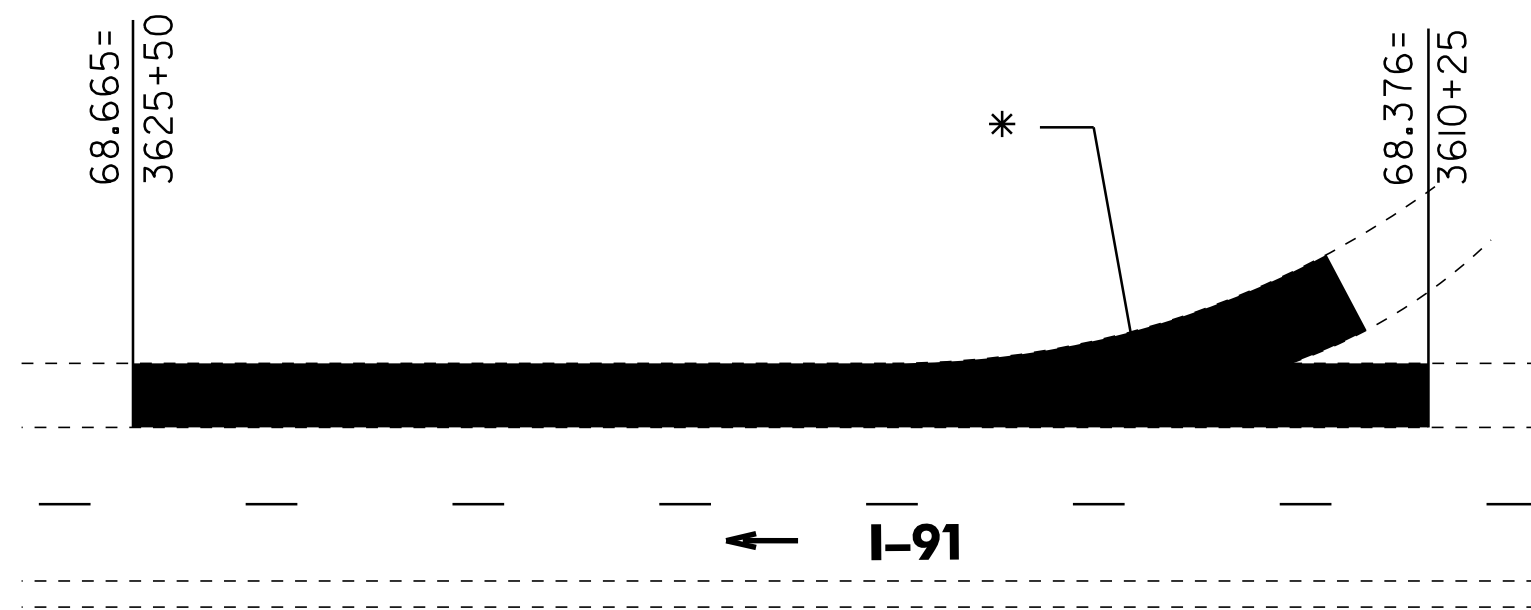
**INTERSTATE I-91 SB
BEGIN IM 091-1(59)**



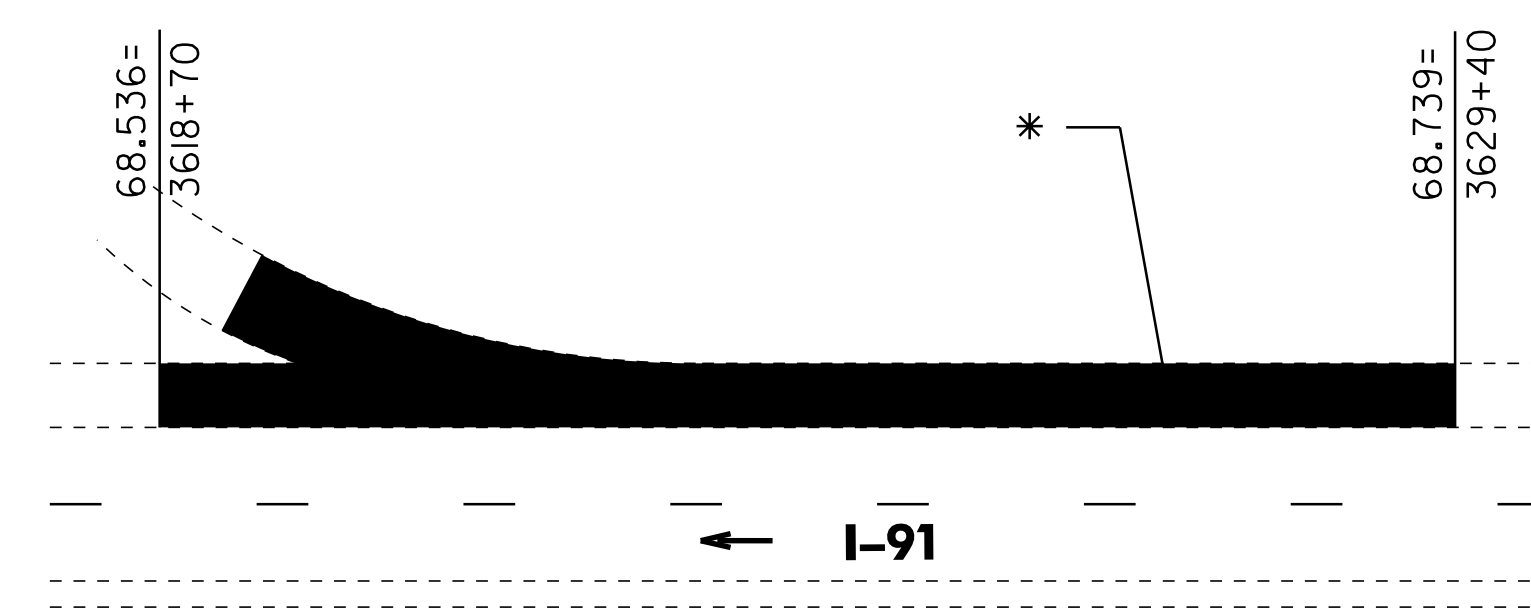
**INTERSTATE I-91 SB
END IM 091-1(59)**



**HARTFORD REST AREA
NORTHBOUND ON**



**HARTFORD REST AREA
SOUTHBOUND ON**



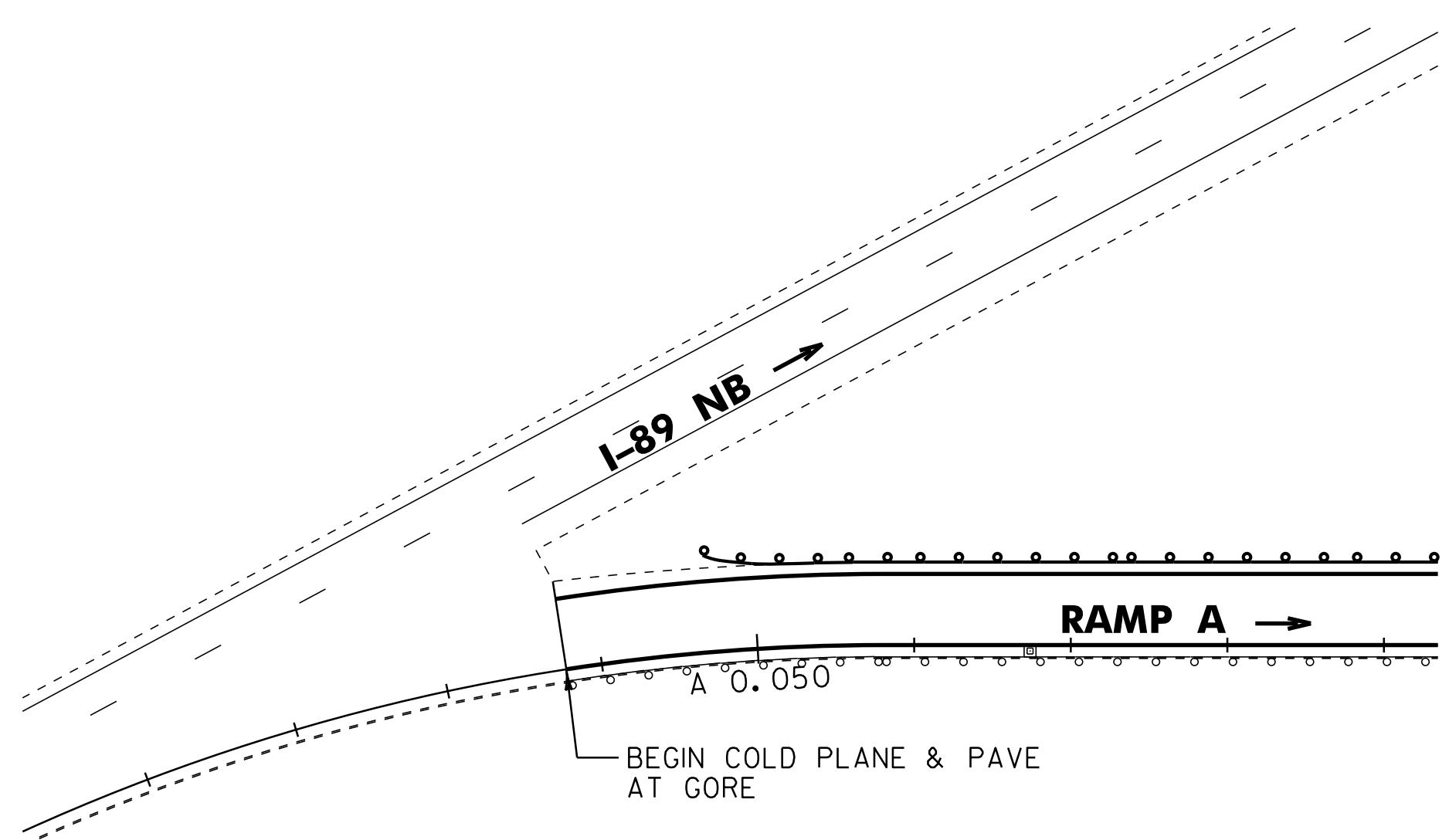
**HARTFORD REST AREA
SOUTHBOUND OFF**

* SHADED AREA INDICATES SHOULDER RECONSTRUCTION UNDER PREVIOUS PROJECT. LIMIT OF WORK AND MM'S SHOWN HERE FOR MATCH PURPOSES ARE APPROXIMATE AND SHALL BE FIELD VERIFIED.

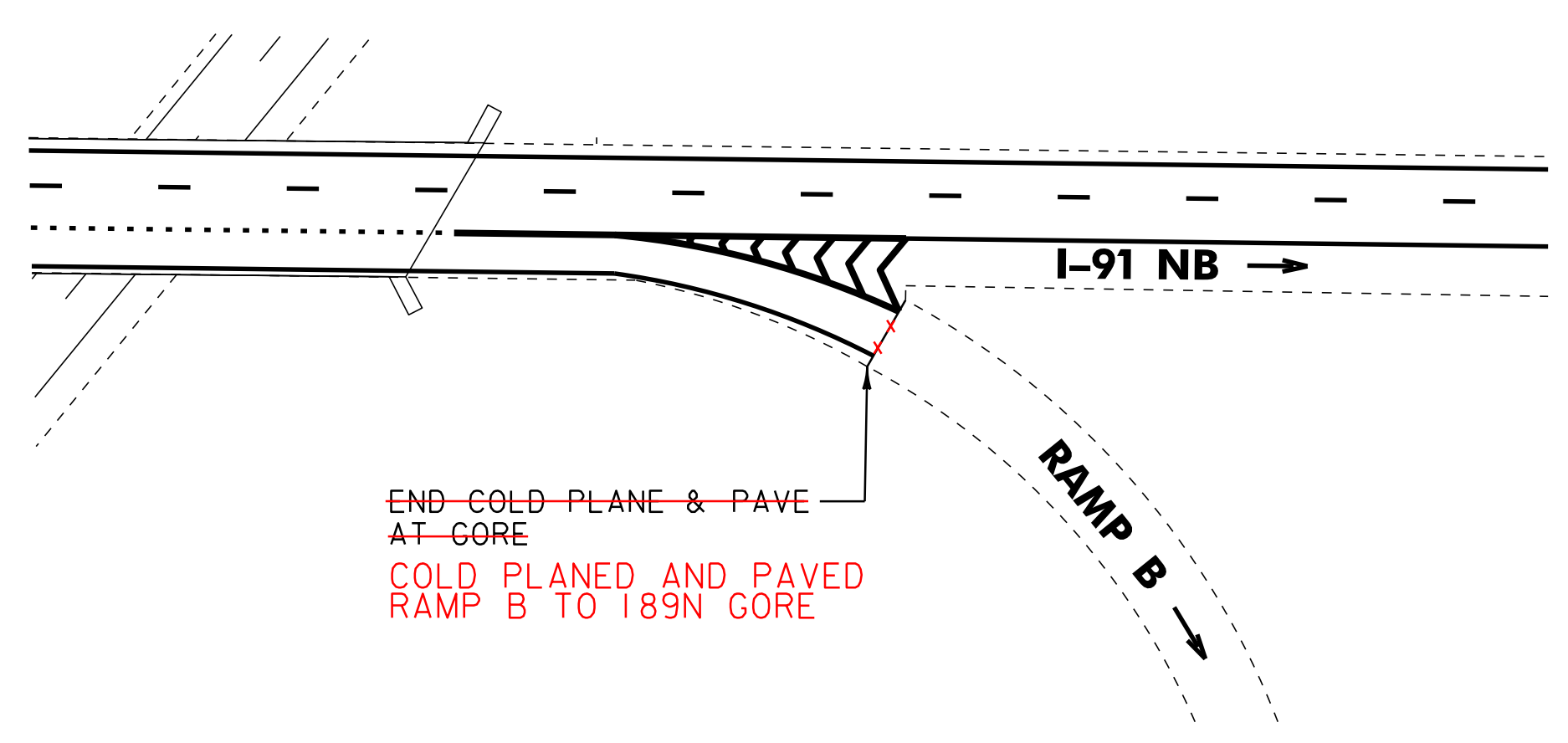
NOT TO SCALE

I-91 TIE SHEET 2

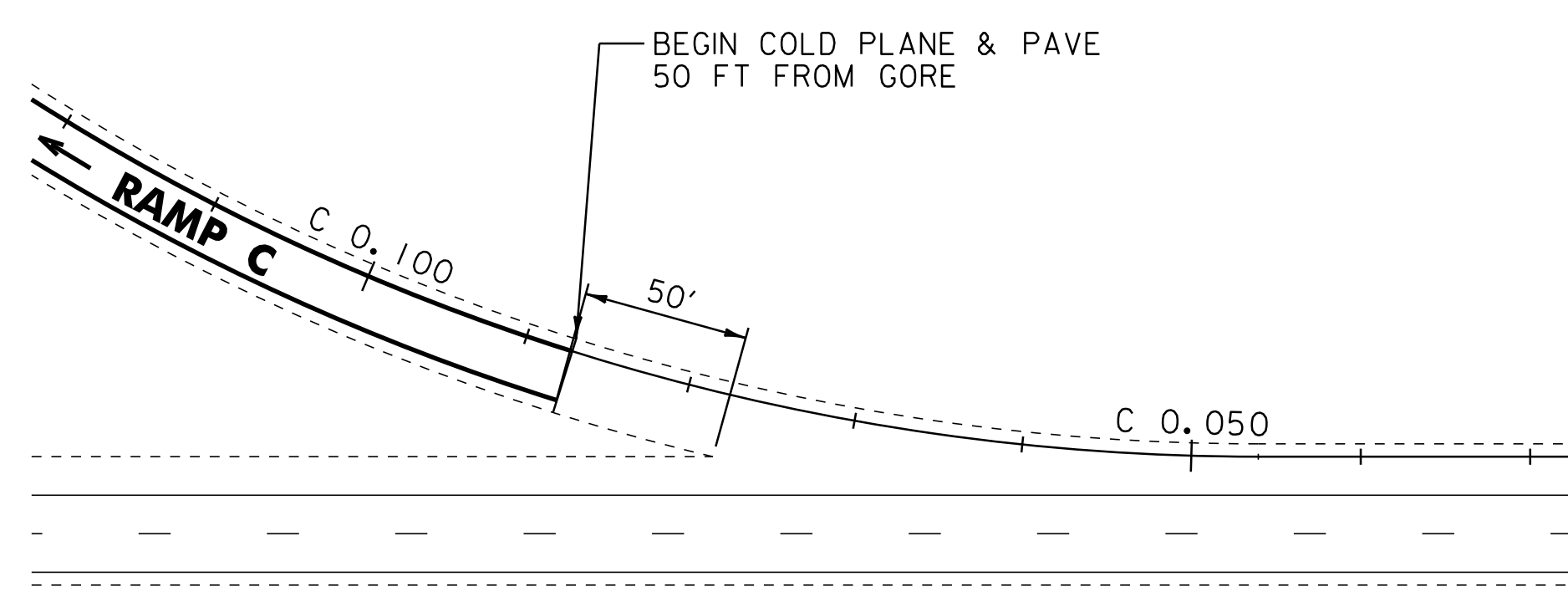
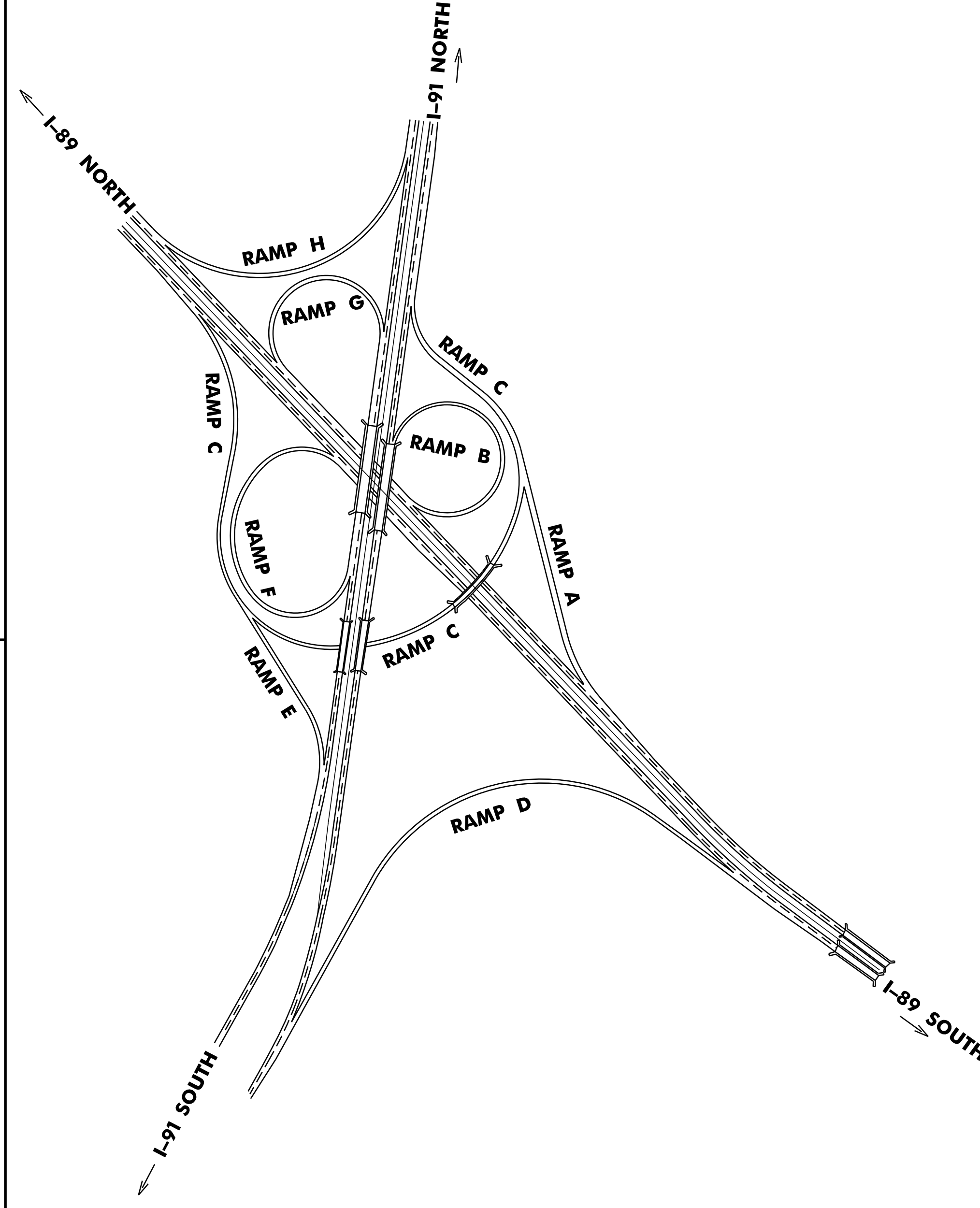
PROJECT NAME:	HARTLAND-NORWICH	FILE NAME:	/pave/06a202/p06a202.dgn	PLOT DATE:	19-JUN-2013 09:29
PROJECT NUMBER:	IM 091-1(59)	PROJECT LEADER:	PTS	DRAWN BY:	MWS
		DESIGNED BY:	NLL	CHECKED BY:	PTS
		IPARM FILE NAME:	06A202_04	SHEET	4 OF 60



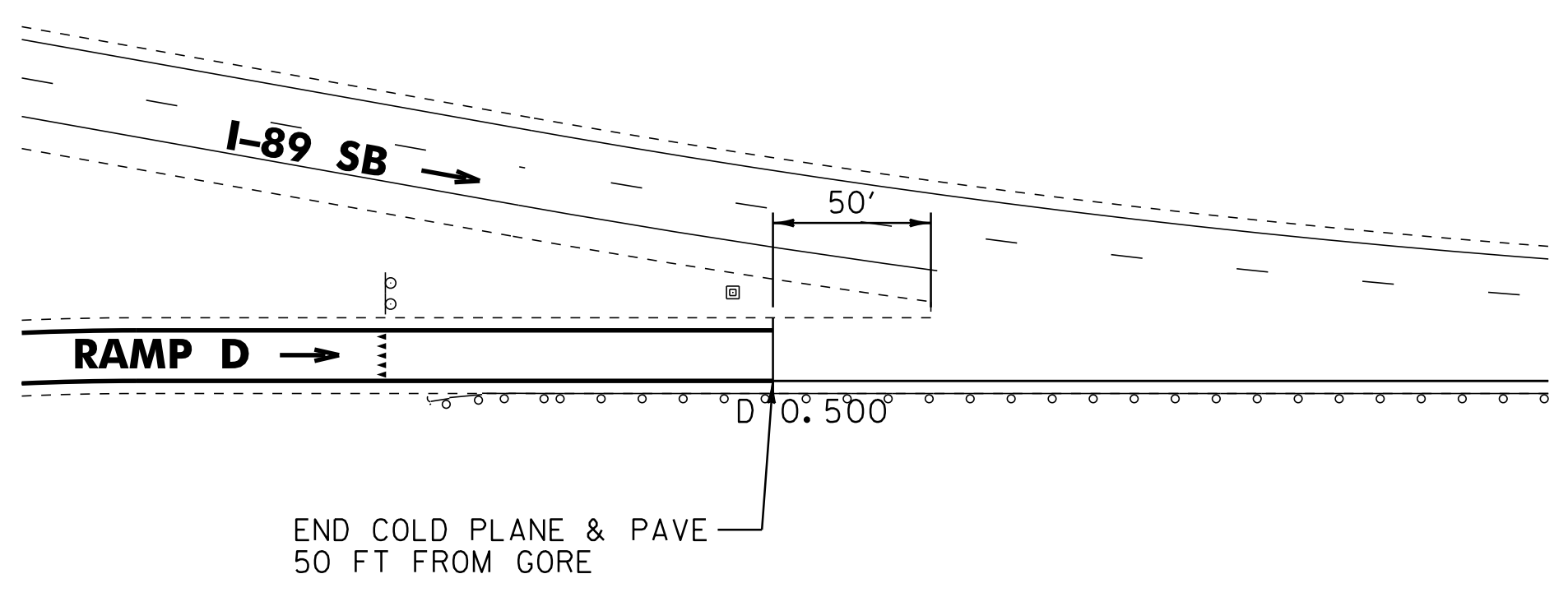
**EXIT 10 - RAMP A
I-89 NORTHBOUND OFF RAMP**



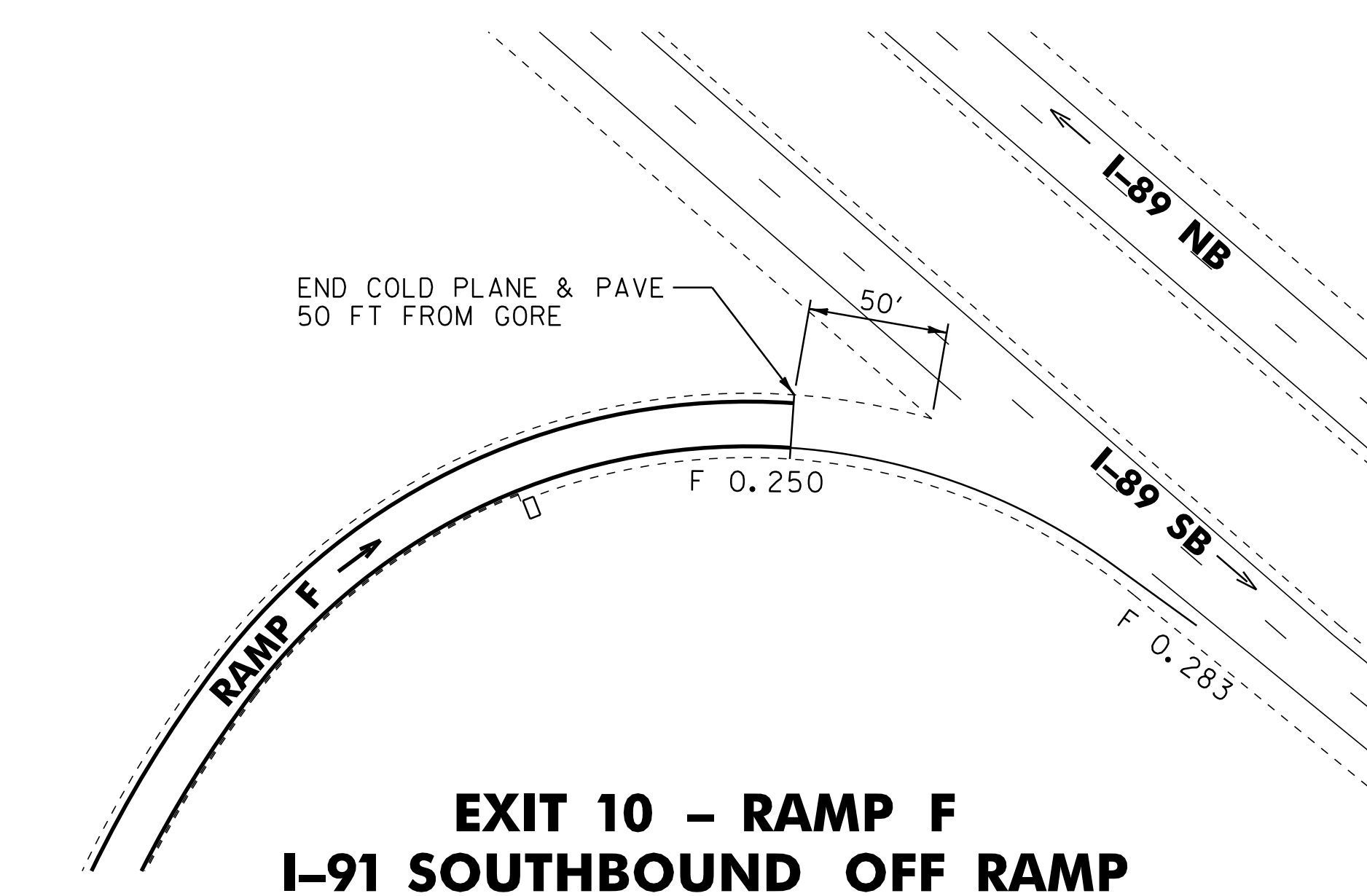
**EXIT 10 - RAMP B
I-91 NORTHBOUND OFF RAMP**



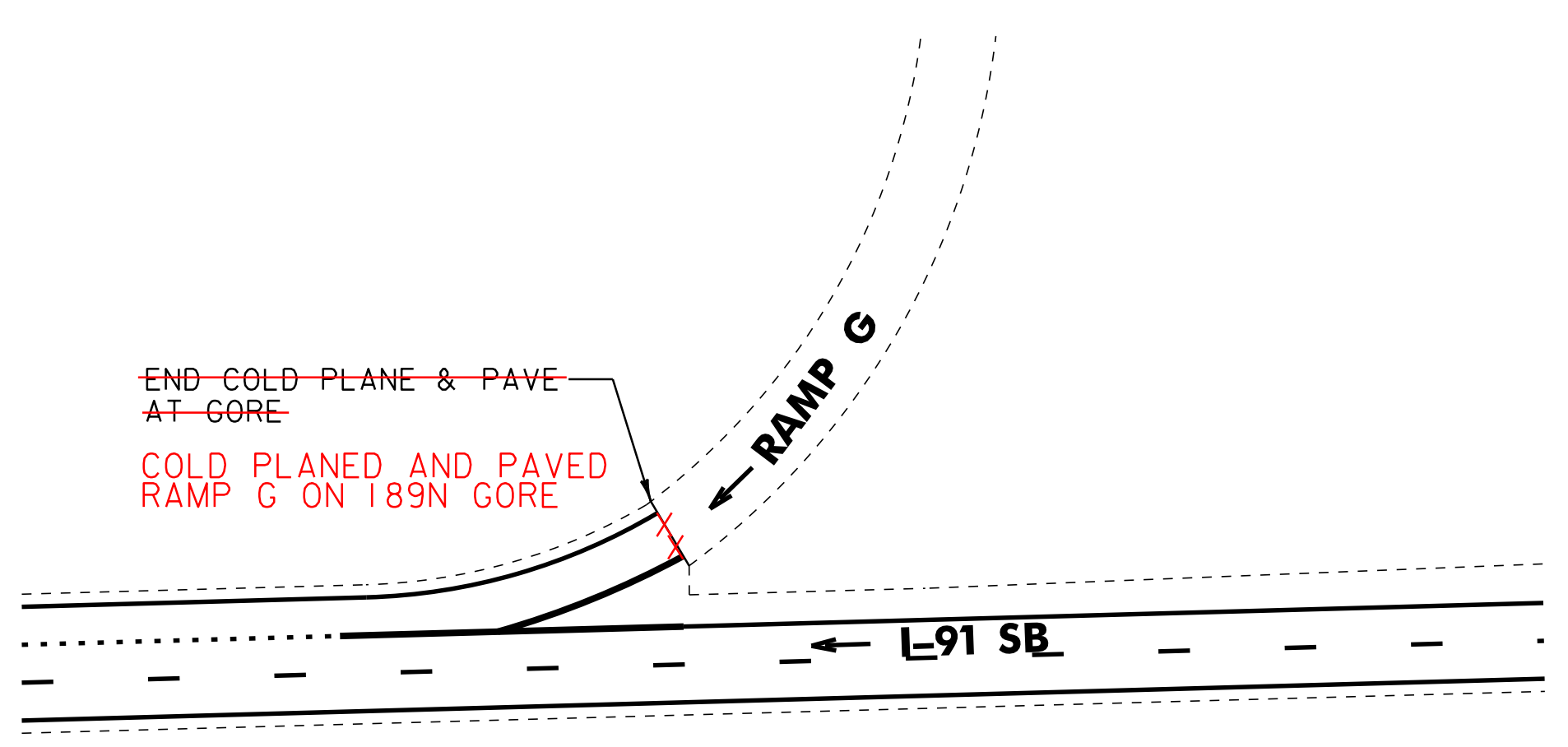
**EXIT 10 - RAMP C
I-89 SOUTHBOUND OFF RAMP**



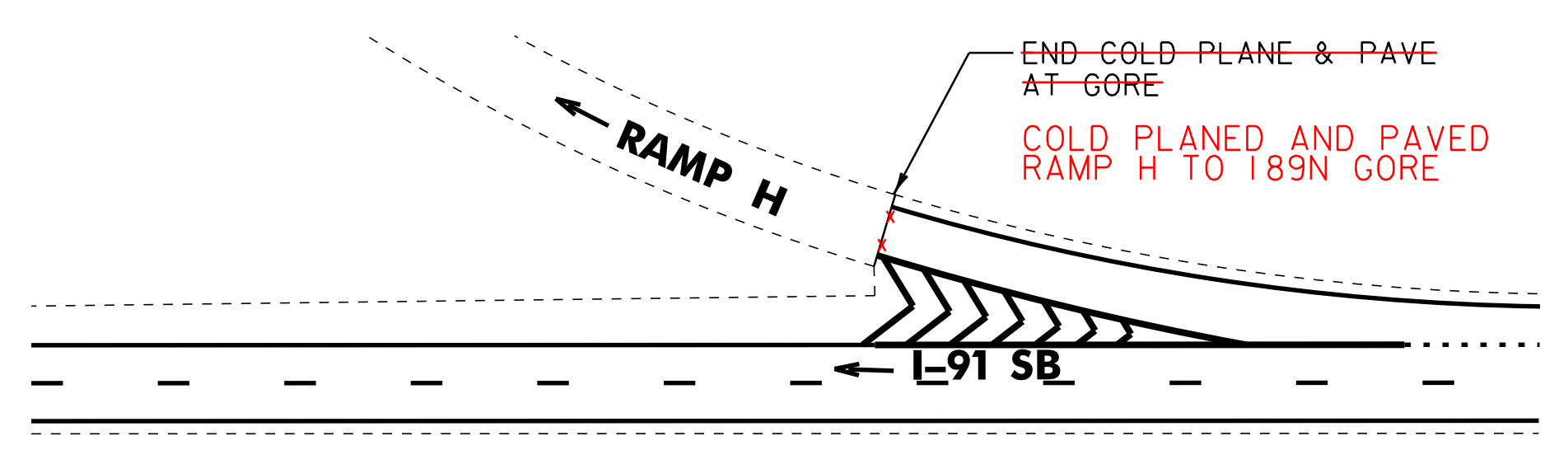
**EXIT 10 - RAMP D
I-89 SOUTHBOUND ON RAMP**



**EXIT 10 - RAMP F
I-91 SOUTHBOUND OFF RAMP**



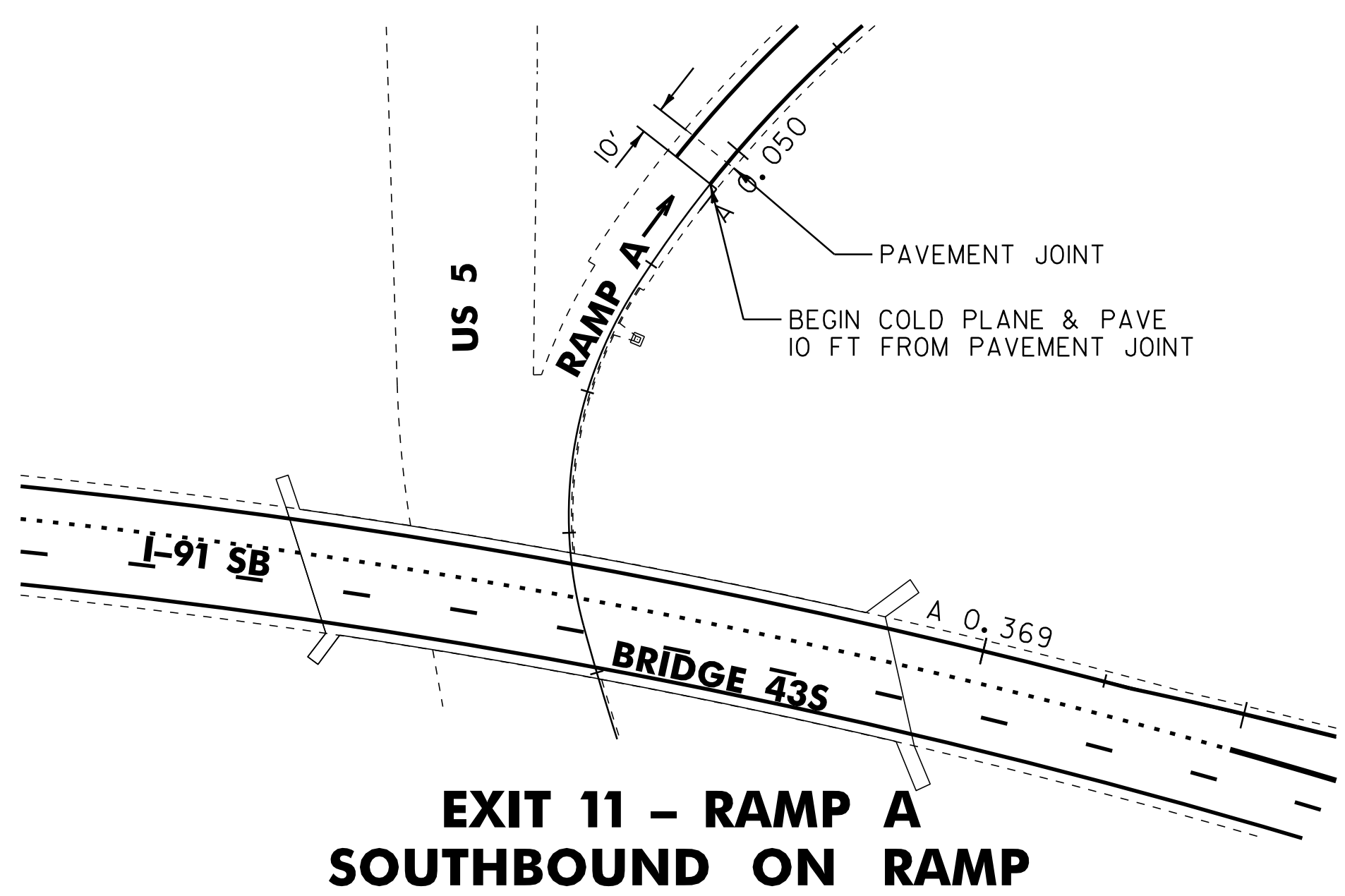
**EXIT 10 - RAMP G
I-91 SOUTHBOUND ON RAMP**



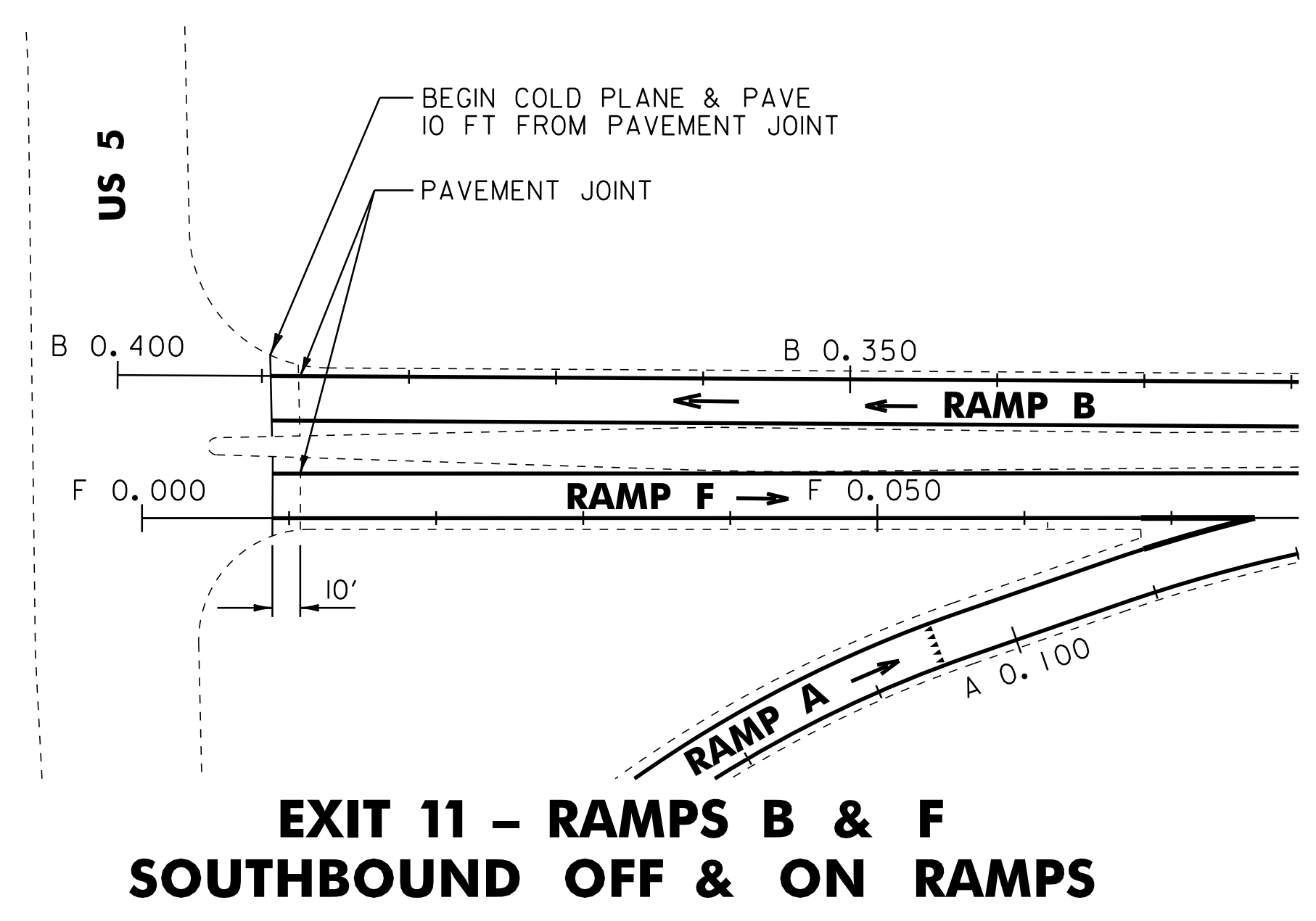
**EXIT 10 - RAMP H
I-91 SOUTHBOUND OFF RAMP
EXIT 10 TIE SHEET**

PROJECT NAME:	HARTLAND-NORWICH	
PROJECT NUMBER:	IM 091-I(59)	
FILE NAME:	/pave/06a202/p06a202.dgn	PLOT DATE: 19-JUN-2013 09:29
PROJECT LEADER:	PTS	DRAWN BY: MWS
DESIGNED BY:	NULL	CHECKED BY: PTS
IPARM FILE NAME:	06A202_05	SHEET 5 OF 60

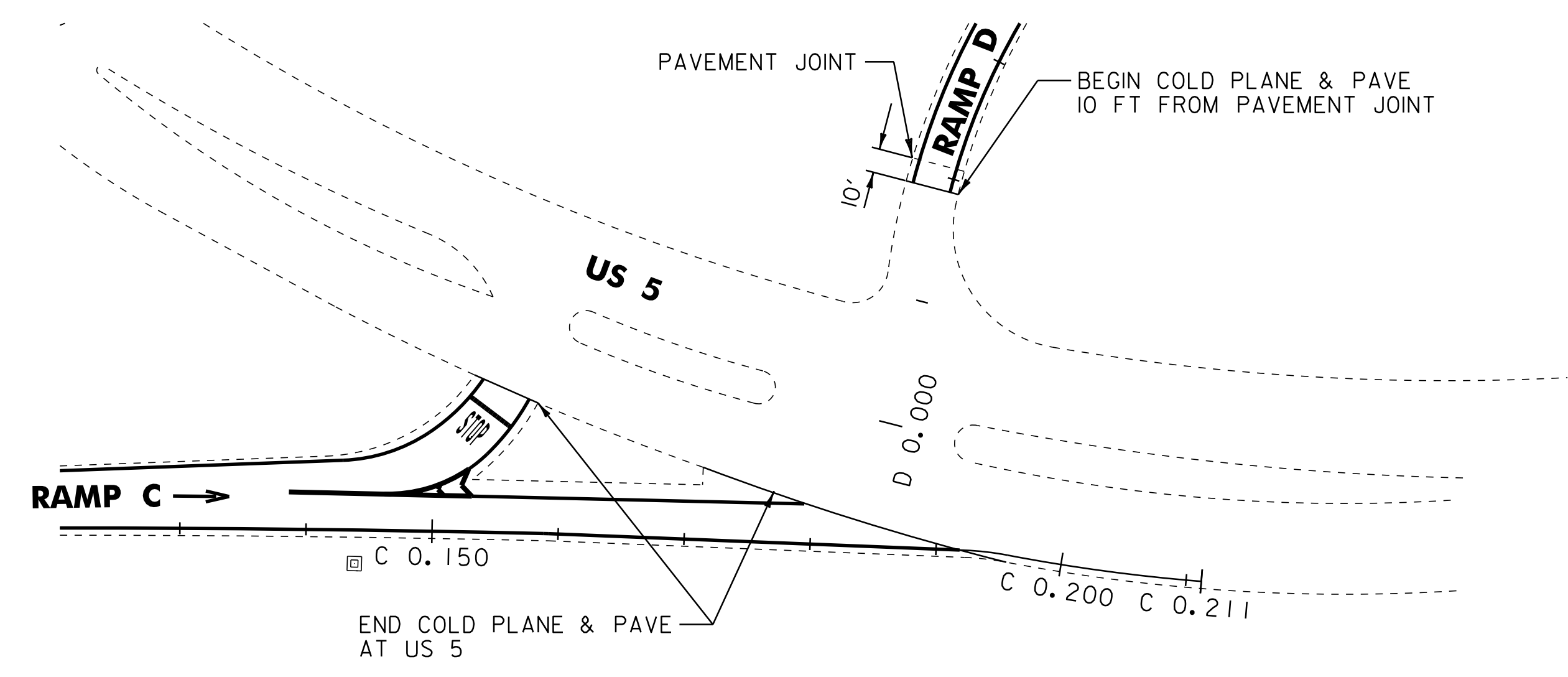
NOT TO SCALE



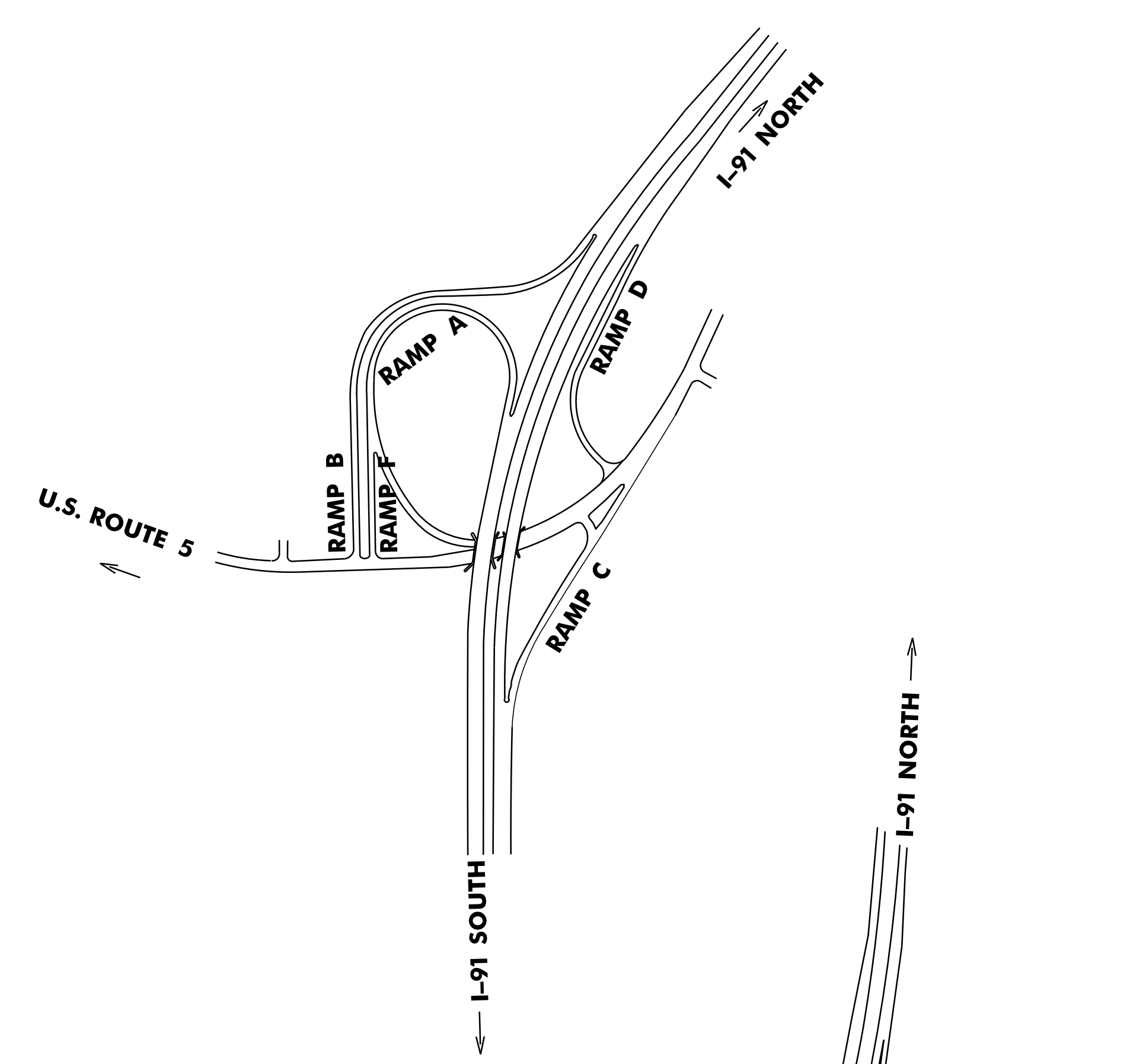
**EXIT 11 - RAMP A
SOUTHBOUND ON RAMP**



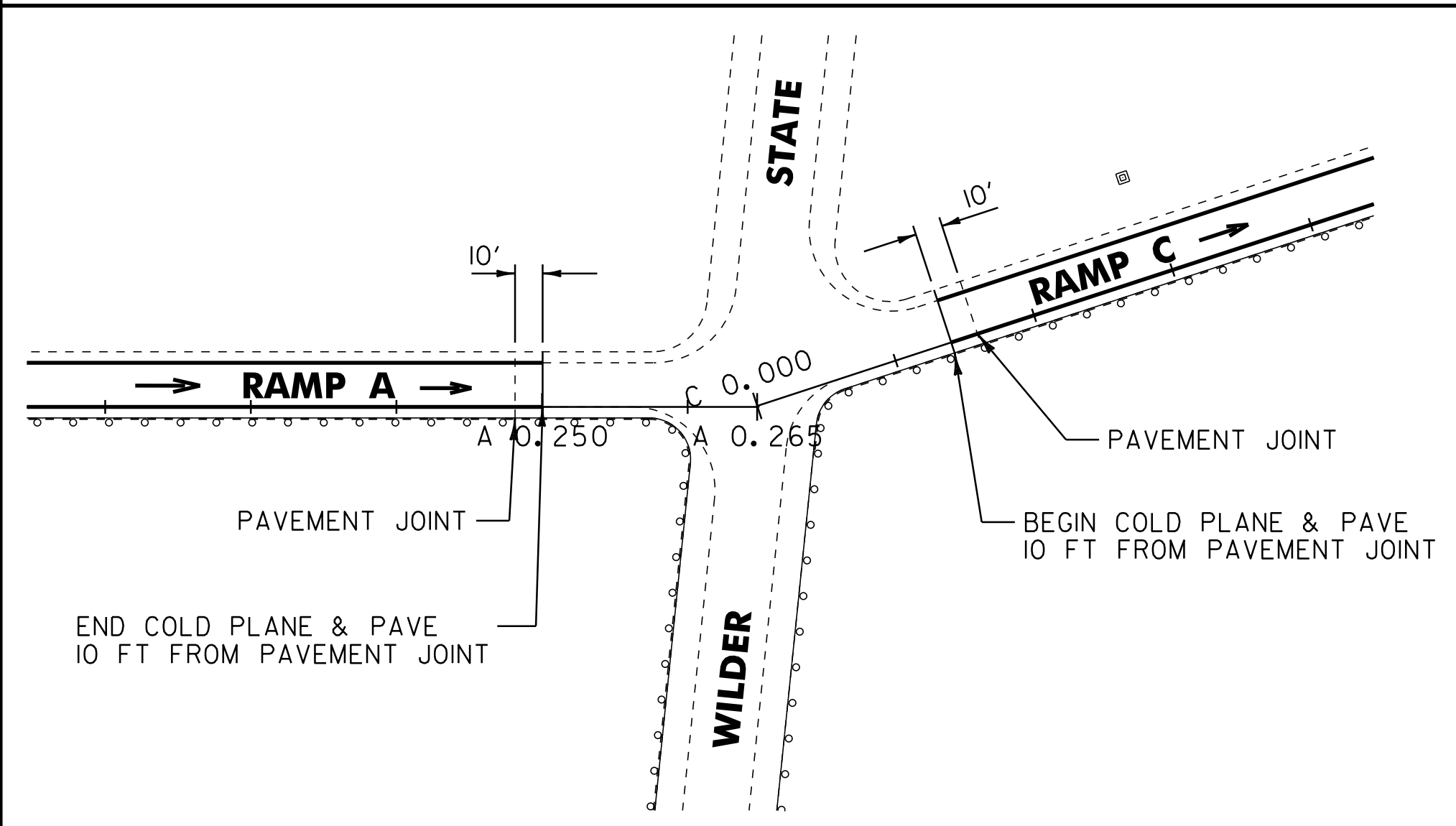
**EXIT 11 - RAMPS B & F
SOUTHBOUND OFF & ON RAMPS**



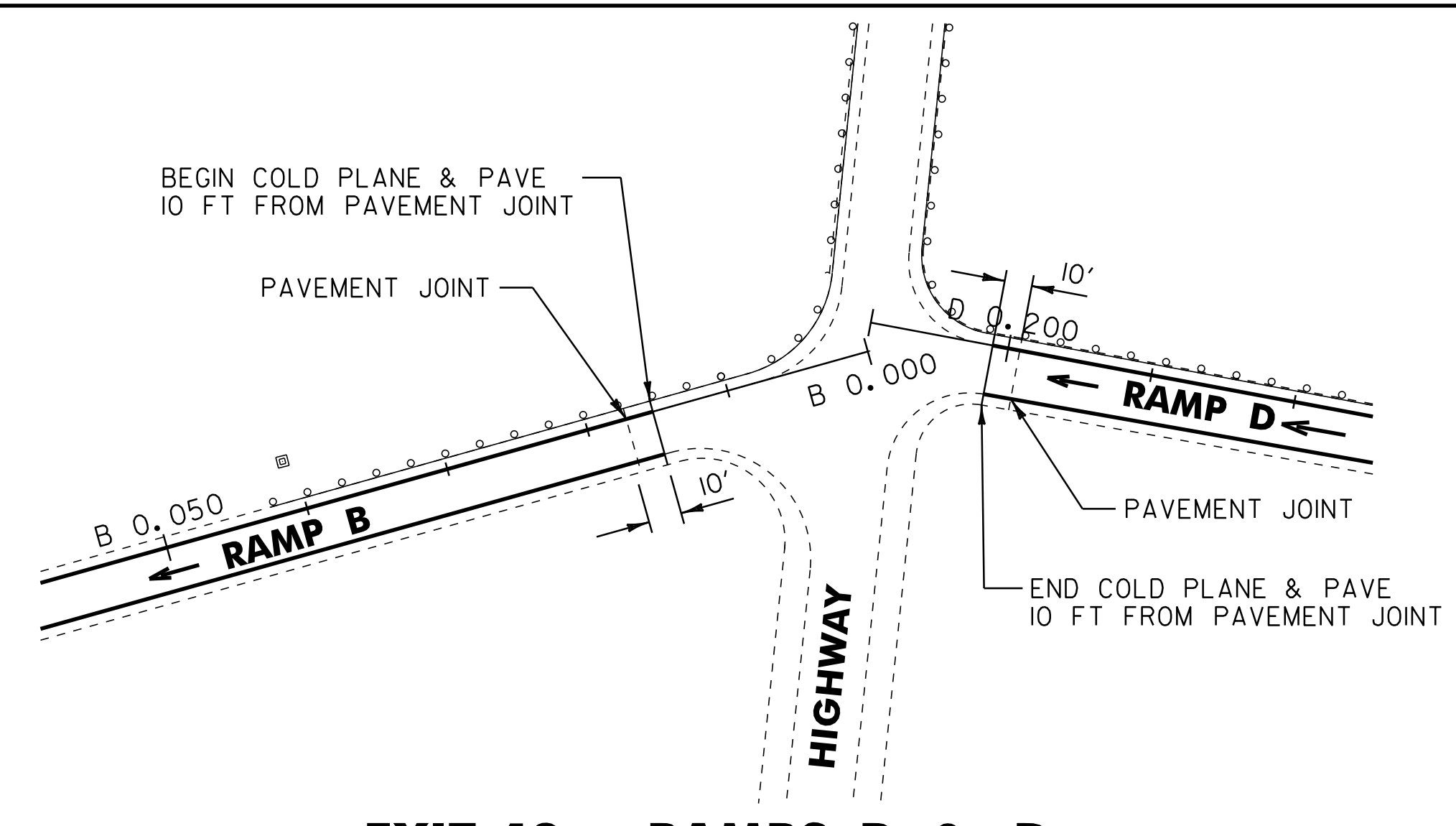
**EXIT 11 - RAMPS C & D
NORTHBOUND OFF & ON RAMPS**



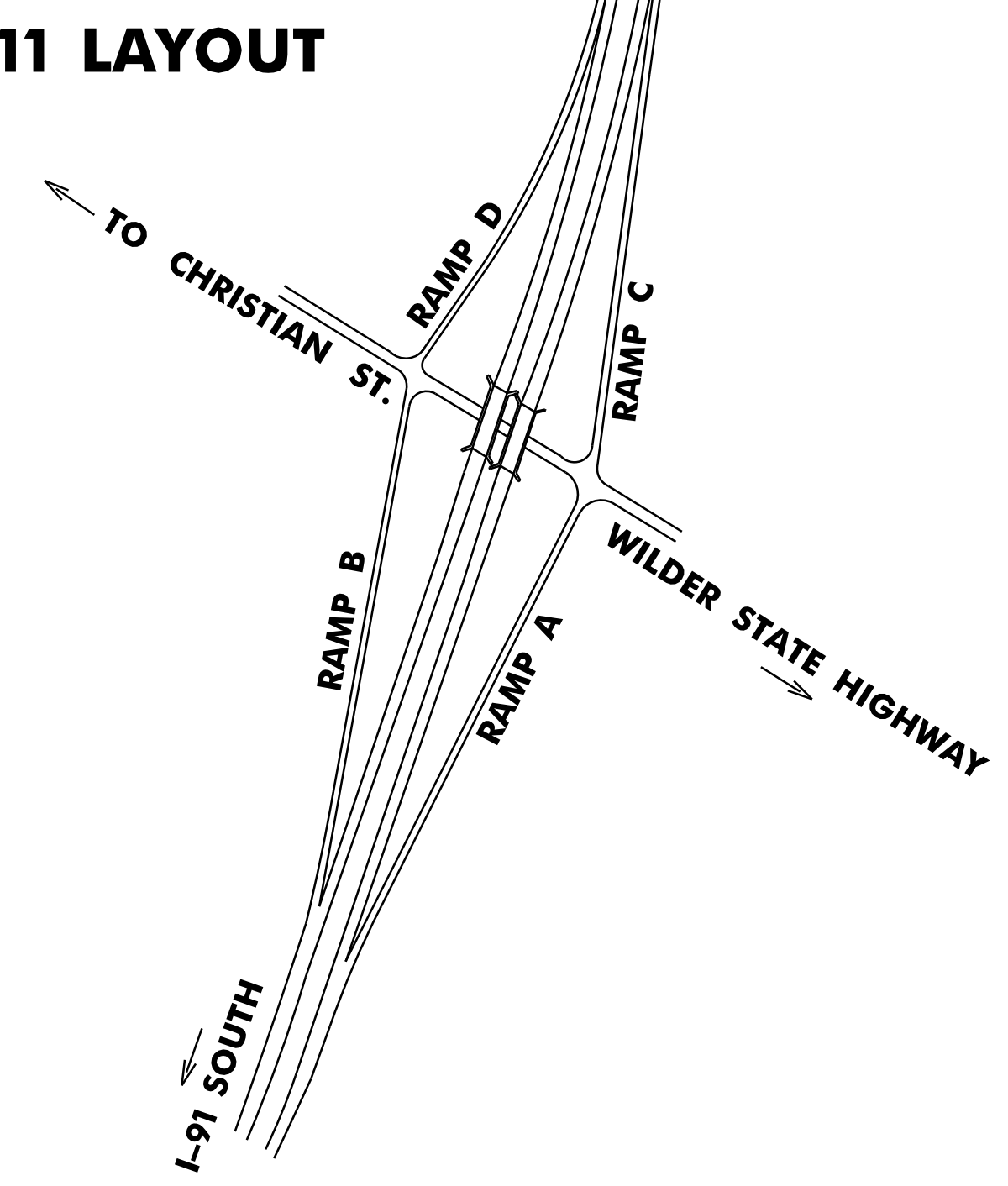
EXIT 11 LAYOUT



**EXIT 12 - RAMPS A & C
NORTHBOUND OFF & ON RAMPS**



**EXIT 12 - RAMPS B & D
SOUTHBOUND ON & OFF RAMPS**

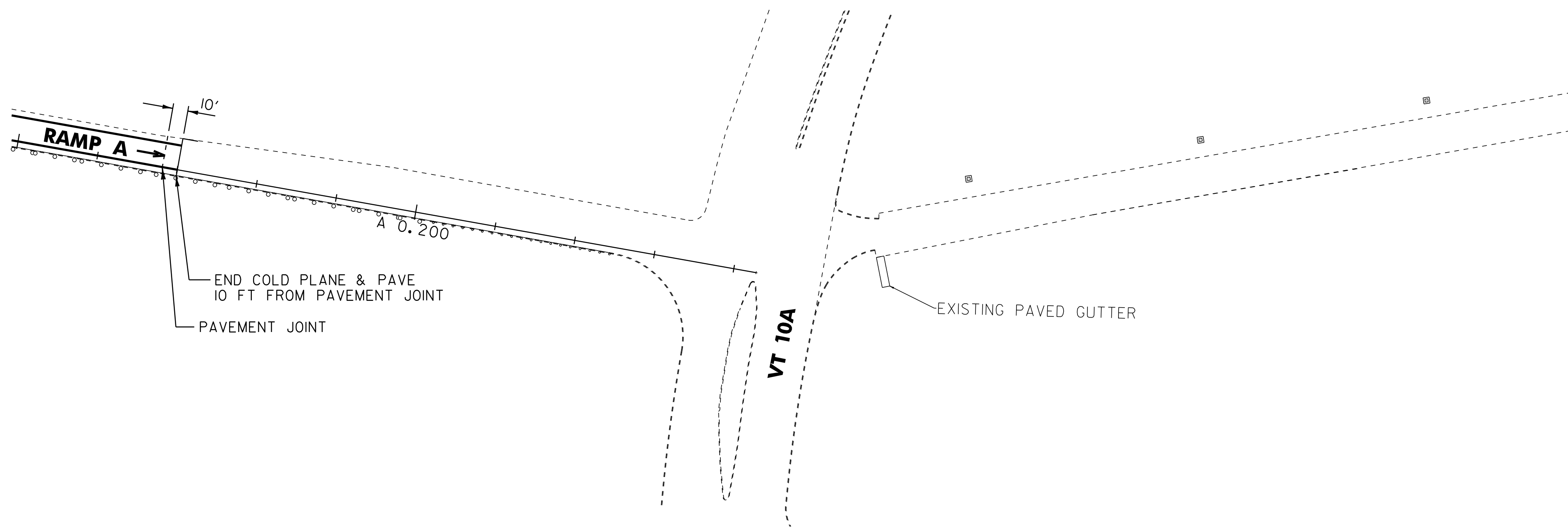


EXIT 12 LAYOUT

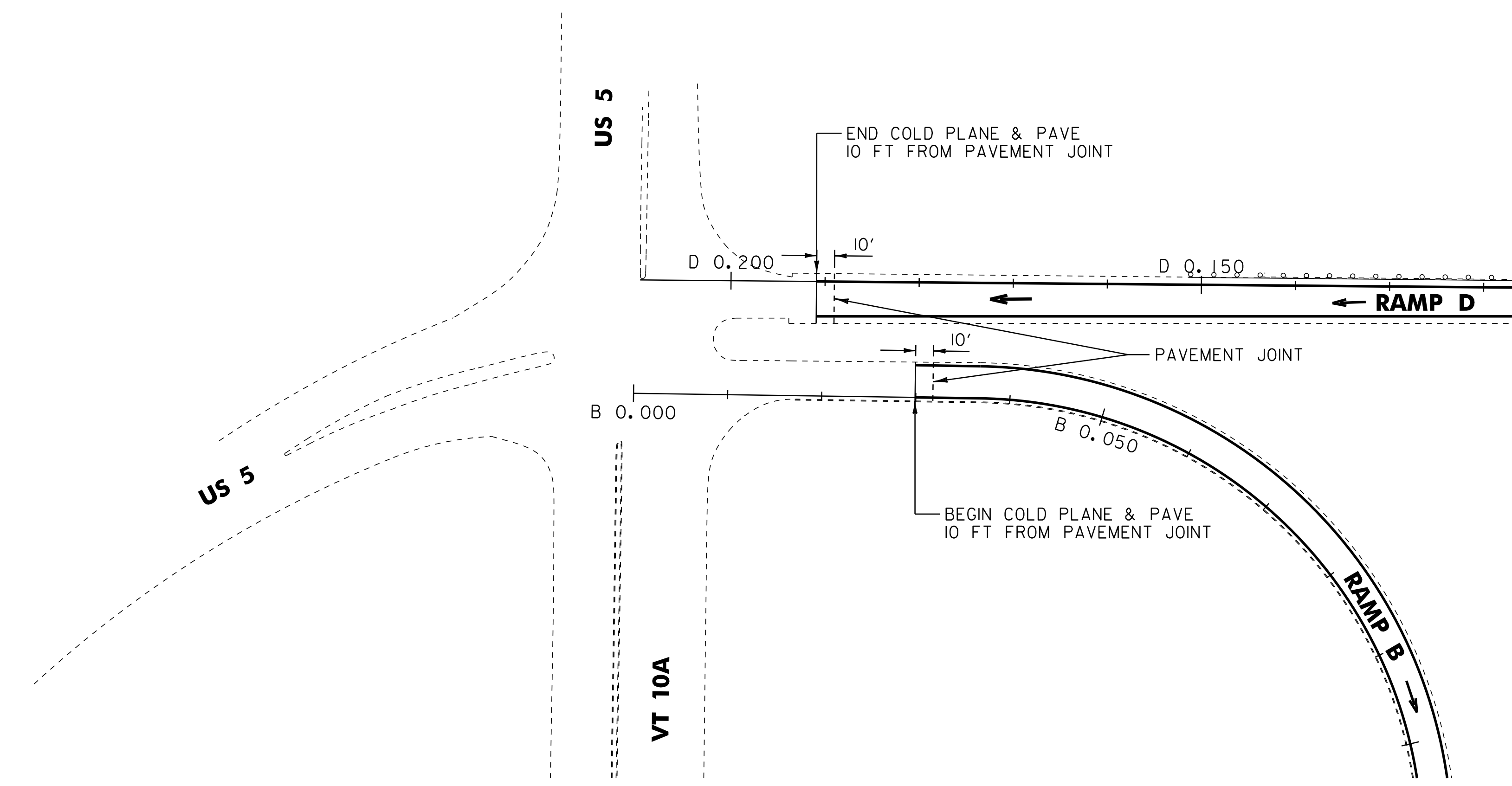
EXIT 11 & 12 TIE SHEET

PROJECT NAME:	HARTLAND-NORWICH		
PROJECT NUMBER:	IM 091-I(59)		
FILE NAME:	/pave/06a202/p06a202.dgn	PLOT DATE:	19-JUN-2013 09:29
PROJECT LEADER:	PTS	DRAWN BY:	MWS
DESIGNED BY:	NLL	CHECKED BY:	PTS
IPARM FILE NAME:	06A202_06	SHEET	6 OF 60

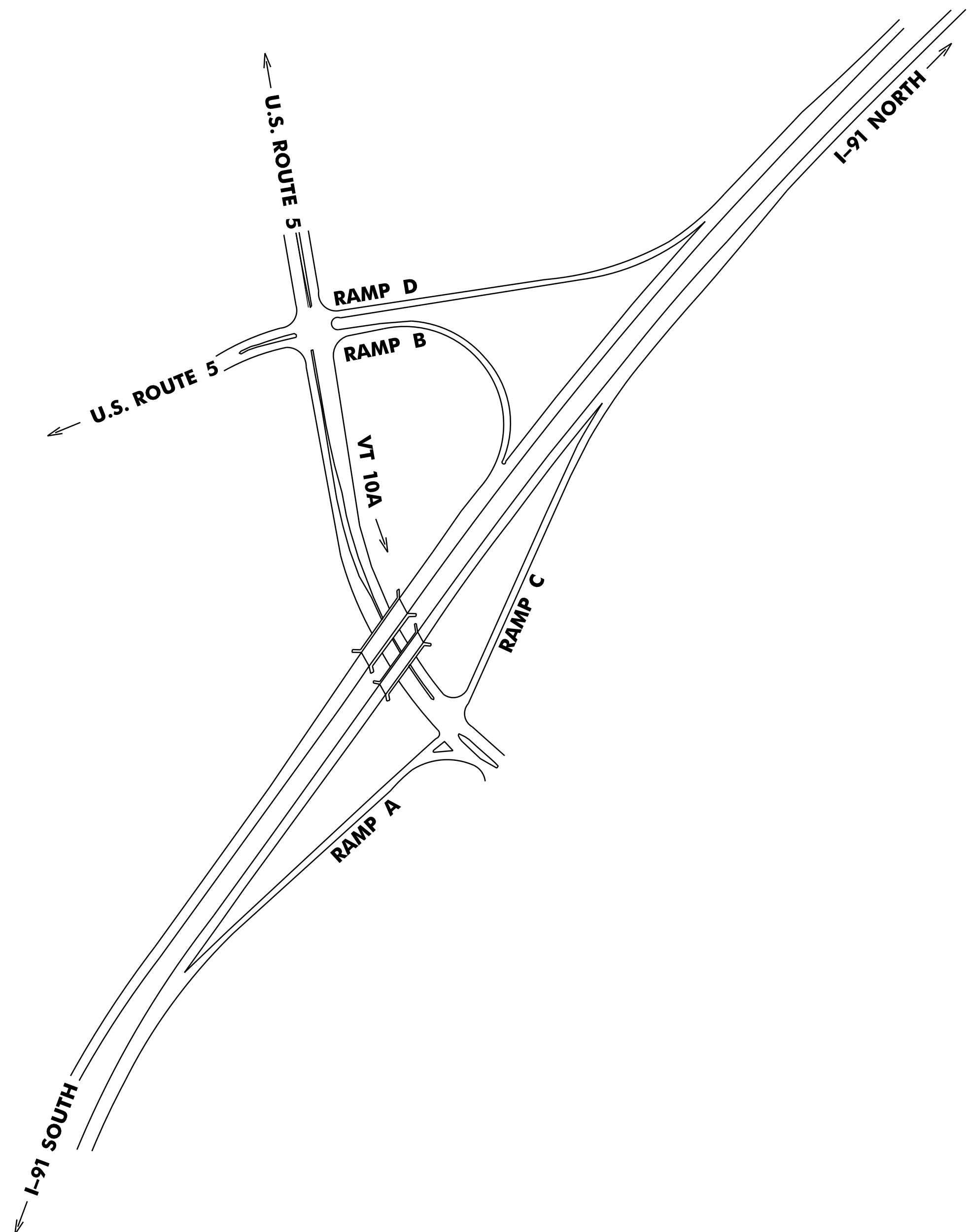
NOT TO SCALE



**EXIT 13 - RAMP A
NORTHBOUND OFF**



**EXIT 13 - RAMPS B & D
SOUTHBOUND ON & OFF RAMPS**



EXIT 13 TIE SHEET

PROJECT NAME:	HARTLAND-NORWICH	
PROJECT NUMBER:	IM 091-I(59)	
FILE NAME:	/pave/06a202/p06a202.dgn	PLOT DATE: 19-JUN-2013 09:24
PROJECT LEADER:	PTS	DRAWN BY: MWS
DESIGNED BY:	NLL	CHECKED BY: PTS
IPARM FILE NAME:	06A202_07	SHEET 7 OF 60

NOT TO SCALE

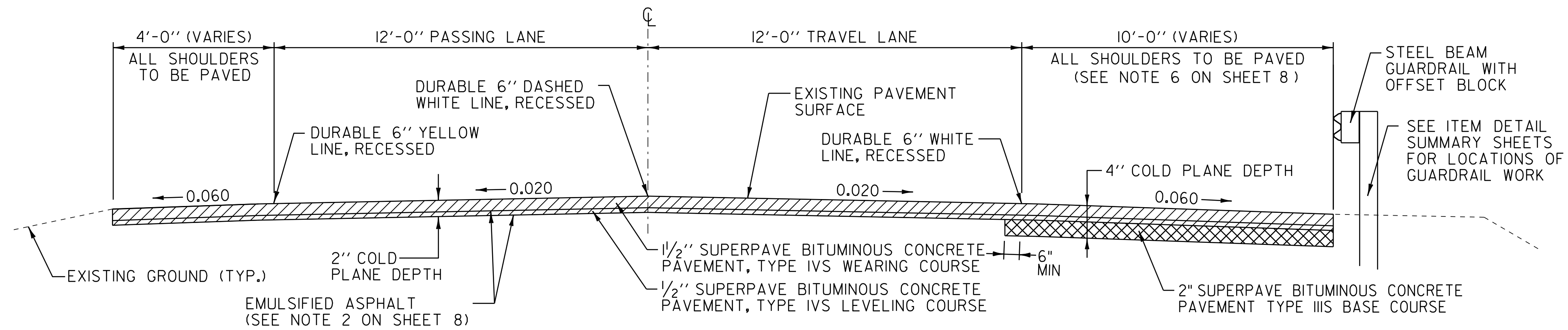
GENERAL NOTES

1. THE WEARING COURSE SHALL BE TYPE IVS SUPERPAVE BITUMINOUS CONCRETE PAVEMENT. THE LEVELING COURSE SHALL BE TYPE IVS SUPERPAVE BITUMINOUS CONCRETE PAVEMENT. THE BASE COURSE FOR SHOULDER REPAIRS SHALL BE TYPE IIIS SUPERPAVE BITUMINOUS CONCRETE PAVEMENT. THE BASE COURSE FOR ACCELERATION / DECELERATION LANE EXTENSIONS SHALL BE TYPE IS SUPERPAVE BITUMINOUS CONCRETE PAVEMENT. ALL LIQUID ASPHALT USED IN BITUMINOUS CONCRETE PAVEMENT SHALL BE IN ACCORDANCE WITH SECTION 490 OF THE GENERAL SPECIAL PROVISIONS.
2. ITEM 900.683 SPECIAL PROVISION (EMULSIFIED ASPHALT) (RS-IH OR CRS-IH) SHALL BE APPLIED ON ALL COLD PLANED SURFACES AT A RATE OF 0.080 GAL/SY OR AS DIRECTED BY THE RESIDENT ENGINEER. SPECIAL PROVISION (EMULSIFIED ASPHALT) (RS-IH OR CRS-IH) SHALL BE APPLIED BETWEEN PAVED SURFACES AT A RATE OF 0.025 TO 0.040 GAL/SY.
3. SUPERPAVE BITUMINOUS CONCRETE PAVEMENT TOLERANCE = +/- 1/4 INCH (TOTAL PAVEMENT THICKNESS EXCLUDING LEVELING).
4. COLD PLANING TO BE COMPLETED ACCORDING TO THE TYPICAL OR AS NOTED OTHERWISE ON THE PLANS. A FULL-DEPTH BUTT JOINT SHALL BE CONSTRUCTED AT ALL APPROACHES AS DIRECTED BY THE RESIDENT ENGINEER. ALL BUTT JOINTS SHALL BE SAW CUT, INCIDENTAL TO ITEM 210.10, COLD PLANING, BITUMINOUS PAVEMENT. IN AREAS OF RUTTING, THE COLD PLANE DEPTH SHOULD BE MEASURED FROM THE HIGH POINTS OF THE ROADWAY SECTION.
5. ALL NECESSARY SURFACE PREPARATION INVOLVING PATCHING, POT HOLE REPAIR, AND CRACK SEALING SHALL BE PERFORMED FOLLOWING COLD PLANING AND PRIOR TO PAVING. CRACK SEALING SHALL BE PERFORMED IN THE SOUTHBOUND BARREL BETWEEN ~~MM 73.00 - 74.00~~ AND ~~MM 75.00 - 76.00~~. ALL CRACKS GREATER THAN 0.10" AND UP TO 1.0" IN WIDTH SHALL BE SEALED USING THE "BLOW AND GO" METHOD. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE PAID UNDER ITEM 417.20 BITUMINOUS CRACK SEALING, "BLOW AND GO" METHOD (AASHTO M 324 (ASTM D 6690) TYPE II). 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). ALL BRIDGE DECKS WITHIN THE PROJECT LIMITS SHALL ALSO RECEIVE CRACK SEALING AND RELATED SURFACE PREPARATION PRIOR TO PAVING. AN ESTIMATED QUANTITY FOR THIS ITEM HAS BEEN INCLUDED TO COVER ALL COSTS ASSOCIATED WITH THIS WORK. MM 66.00 TP MM 67.00 AND MM 68.00 TO MM 69.00
6. THE CONTRACTOR SHALL REBUILD THE EXISTING SHOULDERS AS SHOWN ON THE TYPICAL SECTIONS AND WIDENING FOR THE ACCELERATION/DECELERATION LANE AS SHOWN IN THE PAVEMENT WIDENING DETAILS. IF THE CONTRACTOR ELECTS TO COLD PLANE THE 10' SHOULDER PRIOR TO COLD PLANING THE ADJACENT TRAVEL LANE, THE BASE COURSE SHALL BE PAVED THE SAME WORKDAY. IF THE CONTRACTOR CHOOSES TO COLD PLANE 4' ON THE 10' SHOULDER IN TWO PASSES, PAYMENT FOR COLD PLANING WILL ONLY BE MADE FOR THE FIRST PASS. FINAL GRADING OF THE EXPOSED SHOULDER SUBBASE MATERIAL SHALL BE COMPLETED AS DIRECTED BY THE RESIDENT ENGINEER. AN ESTIMATED QUANTITY OF ITEM 608.15, POWER GRADER RENTAL HAS BEEN INCLUDED TO COMPLETE THIS WORK.
7. ALL D'S AND CB'S TO BE REHABILITATED AS SHOWN ON THE PLANS AND PAID FOR UNDER 604.412 OR 604.415 REHAB. DI, CB OR MH CLASS I OR II SHALL BE RAISED OR REHABILITATED SUCH THAT THE NEW GRATE ELEVATION IS LEVEL WITH THE SURROUNDING TERRAIN. TYPE B GRATES SHALL BE USED FOR ALL REHABILITATED D'S AND CB'S IN PAVEMENT ADJACENT TO BITUMINOUS CURBING. DRAINAGE STRUCTURES CALLING FOR REHAB HAVE BEEN DISTRIBUTED BETWEEN ITEMS 604.412 AND 604.415. FOR ESTIMATING PURPOSES THE DISTRIBUTION IS AS FOLLOWS: ITEM 604.412, 80%, ITEM 604.415, 20%.
8. THE CONTRACTOR SHALL PAVE ALL U-TURNS LOCATED WITHIN THE PROJECT AREA AS DETAILED ON SHEET 11 OR AS DIRECTED BY THE RESIDENT ENGINEER.
9. ALL EDGES OF PAVEMENT SHALL CONFORM TO THE SAFETY EDGE DETAIL. ALL EDGES OF PAVEMENT AND ALL CURB AT GUARDRAIL LOCATIONS SHALL BE BACKED UP FULL HEIGHT WITH COLD PLANE GRINDINGS AS DIRECTED BY THE RESIDENT ENGINEER AND WILL BE PAID FOR UNDER ITEM 402.13, AGGREGATE SHOULDERS, RAP.
10. ALL BITUMINOUS CONCRETE PAVEMENT WORK WHICH COULD INVOLVE SOME HAND-WORK (SUCH AS AROUND DROP INLETS) SHALL BE PAID FOR AT THE CONTRACT PRICE FOR ITEM 490.30, SUPERPAVE BITUMINOUS CONCRETE PAVEMENT.
11. AREAS ADJACENT TO THE SHOULDER WHERE EXISTING GUARDRAIL IS BEING RETAINED THAT HAVE BUILT-UP EXCESS MATERIAL ARE TO BE GRADED IN ORDER TO ALLOW THE SHOULDER TO DRAIN AS DIRECTED BY THE RESIDENT ENGINEER. PAYMENT WILL BE MADE UNDER ITEM 203.40 SHOULDER BERM REMOVAL.
12. AREAS ADJACENT TO THE SHOULDER WHERE NO GUARDRAIL EXISTS THAT HAVE BUILT UP EXCESS MATERIAL ARE TO BE GRADED IN ORDER TO ALLOW THE SHOULDER TO DRAIN AS DIRECTED BY THE RESIDENT ENGINEER AND SHALL BE PAID FOR UNDER ITEM 608.15 POWER GRADER RENTAL.
13. ESTIMATED QUANTITIES OF ITEMS 608.25, ALL PURPOSE EXCAVATOR RENTAL, TYPE I, 608.37, TRUCK RENTAL AND 608.40, LOADER RENTAL, TYPE I HAVE BEEN INCLUDED FOR THE PROVISION OF CONSTRUCTING GUARDRAIL FLARES. 25 CUBIC YARDS OF EARTH BORROW HAS BEEN INCLUDED AT EACH LOCATION TO PROVIDE FOR FLARES. THE GUARDRAIL FLARES SHALL BE CAPPED WITH AN ESTIMATED 3 INCH DEPTH OF DITCHING MATERIAL OR ITEM 651.35, TOPSOIL UNLESS OTHERWISE DIRECTED BY THE RESIDENT ENGINEER. ITEM 653.20, TEMPORARY EROSION MATTING, SHALL BE PLACED ON SLOPES GREATER THAN 1:6 CREATED BY THE GUARDRAIL FLARE. THE QUANTITIES INCLUDED REFLECT 25 SY OF ITEM 653.20, TEMPORARY EROSION MATTING FOR EACH NEW GUARDRAIL FLARE.
14. AN ESTIMATED QUANTITY OF ITEM 619.17 YIELDING MARKER POSTS HAS BEEN INCLUDED TO DELINEATE PIPE INLETS, PIPE OUTLETS AND DROP INLETS LOCATED OUTSIDE OF THE PAVEMENT SURFACE OR AS DIRECTED BY THE RESIDENT ENGINEER.
15. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID THE ACCUMULATION OF DEBRIS IN THE DRAINAGE STRUCTURES AND EXPANSION JOINTS. THE CONTRACTOR SHALL EXAMINE THESE FEATURES ON A REGULAR BASIS TO ENSURE THAT DEBRIS HAS NOT ACCUMULATED. ANY DEBRIS WHICH IS PRESENT SHALL BE REMOVED PRIOR TO THE COMPLETION OF THE PROJECT BY THE CONTRACTOR AT NO COST TO THE STATE.
16. STEEL BEAM GUARDRAIL WITH STEEL POSTS SHALL BE USED ON THIS PROJECT. 3' OF BACKING IS REQUIRED BEHIND THE FACE OF GUARDRAIL WITH 6' POSTS. IF THIS CANNOT BE OBTAINED, THEN 8' POSTS SHALL BE USED.
17. ESTIMATED QUANTITIES OF ITEM 613.10 STONE FILL, TYPE I; ITEM 649.31 GEOTEXTILE UNDER STONE FILL; AND ITEM 608.25 ALL PURPOSE EXCAVATOR RENTAL, TYPE I HAVE BEEN INCLUDED TO PROVIDE FOR THE REMOVAL OF PAVED GUTTERS AND REPAIR OF WASHOUTS LOCATED ALONG THE ROADWAY SIDE SLOPES AS DIRECTED BY THE RESIDENT ENGINEER.
18. THE CONTRACTOR SHALL MAINTAIN COLD PLANE AND PAVING DEPTHS THAT DO NOT REDUCE THE CLEARANCE HEIGHTS OF THE ROADWAY AND SHOULDERS UNDER ALL OVERPASS BRIDGES. THESE HEIGHTS SHALL BE RECORDED BY THE RESIDENT ENGINEER PRIOR TO THE START OF CONSTRUCTION AND SHALL BE RE-MEASURED AFTER PAVING OPERATIONS ARE COMPLETE. IF IT IS DETERMINED THAT A REDUCTION IN CLEAR HEIGHT HAS OCCURRED THE CONTRACTOR SHALL REESTABLISH THE ORIGINAL CLEAR HEIGHT AT NO ADDITIONAL EXPENSE TO THE STATE.
19. THERE ARE R.W.I.S. SENSORS IN THE PAVEMENT AT MM 68.400 NORTHBOUND AND SOUTHBOUND THAT MAY BE IMPACTED BY CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL CONTACT MARK GERRISH, FIBER OPTIC PROJECT MANAGER, VTRANS OPERATIONS DIVISION AT 802-828-2834 48 HOURS PRIOR TO ANY WORK IN THIS AREA SO THAT MARK, OR HIS REPRESENTATIVE, CAN REMOVE THESE SENSORS. INSTALLATION OF NEW SENSORS WILL BE PERFORMED BY OTHERS FOLLOWING COMPLETION OF THE PROJECT.
20. AN ESTIMATED QUANTITY OF 10 CY OF ITEM 900.608, SPECIAL PROVISION (CONTROLLED DENSITY (FLOWABLE) FILL) HAS BEEN INCLUDED IN THE CONTRACT TO BE USED AT THE DISCRETION OF THE RESIDENT ENGINEER BETWEEN MM 72.680 TO 72.720 TO FILL VISIBLE SURFACE VOIDS WITHIN THE MEDIAN EMBANKMENT.
21. EXISTING MILE MARKER PLAQUES WERE FOUND TO BE INACCURATE. A FUTURE SIGNING PROJECT WILL CORRECT THE MILE MARKER PLAQUES. THE NORTHBOUND ALIGNMENT STATIONING SHALL BE ESTABLISHED BY BEGINNING AT THE NORTHERLY EXPANSION JOINT OF BRIDGE 39N (MM ~~66.495~~) AND MEASURING 66.218 NORTHERLY TO 50' SOUTH OF THE SOUTHERN FINGER PLATE JOINT ON BRIDGE 48N (MM 74.762). THE SOUTHBOUND ALIGNMENT STATIONING SHALL BE ESTABLISHED BY BEGINNING AT THE PAVEMENT JOINT AT MM 76.450 AND MEASURING SOUTHERLY TO A POINT 135' NORTH OF THE BRIDGE 40S NORTHERN EXPANSION JOINT (MM ~~66.453~~). 66.459
22. ITEM 900.675 SPECIAL PROVISION (COLD PLANING, BITUMINOUS PAVEMENT FOR SUPERELEVATION CORRECTION) HAS BEEN INCLUDED TO COVER ALL COSTS ASSOCIATED WITH ESTABLISHING THE CORRECT SUPERELEVATION RATES AT THE SPECIFIED DEPTHS BETWEEN MILE MARKERS 73.542 AND 74.593 NORTHBOUND AS REQUIRED ON SHEET 45 OF 60.

GENERAL NOTES SHEET

PROJECT NAME: HARTLAND-NORWICH	
PROJECT NUMBER: IM 091-1(59)	
FILE NAME: /pave/06a202/p06a202.dgn	PLOT DATE: 19-JUN-2013 09:24
PROJECT LEADER: PTS	DRAWN BY: WWG
DESIGNED BY: NULL	CHECKED BY: PTS
IPARM FILE NAME: 06A202_08	SHEET 8 OF 60

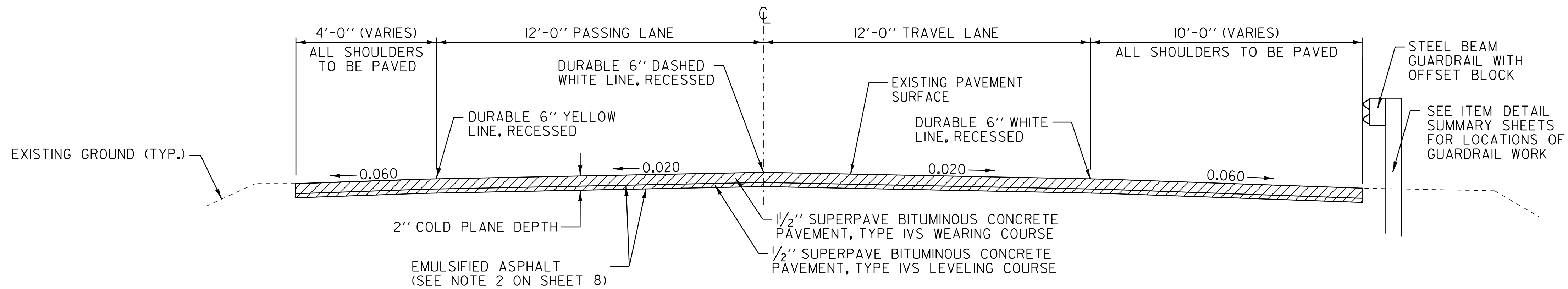
NOT TO SCALE



NORTHBOUND MAINLINE TYPICAL SECTION

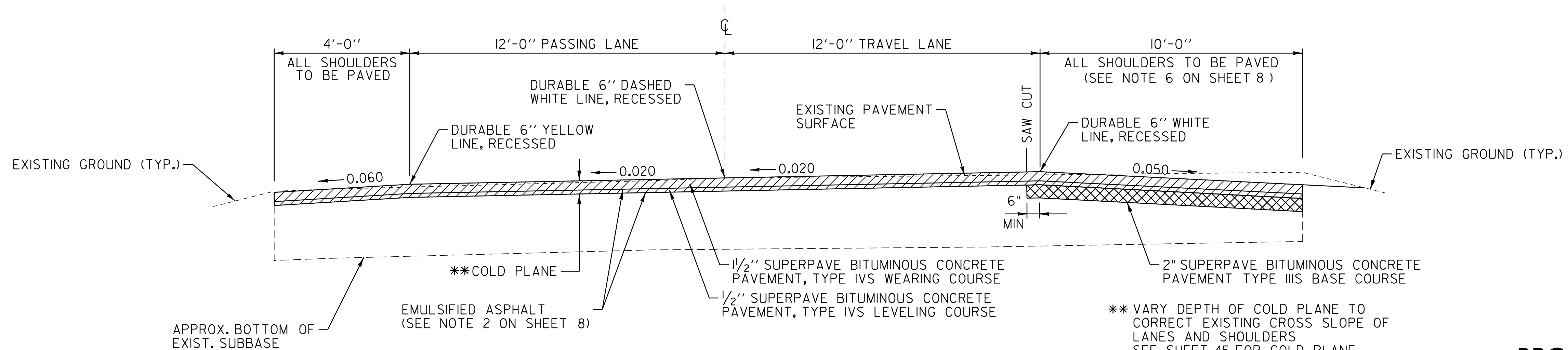
MM 66.195 - MM 70.600
 *MM 73.110 - MM 73.487
 *MM 74.100 - MM 74.305
 *MM 74.653 - MM 74.762

*VARY DEPTH OF COLD PLANE TO CORRECT EXISTING CROSS SLOPE OF LANES AND SHOULDERS
 SEE SHEET 45 FOR COLD PLANE DEPTH



NORTHBOUND MAINLINE TYPICAL SECTION

MM 70.600 - MM 73.110



NORTHBOUND MAINLINE TYPICAL SECTION

MM 73.487 - MM 74.100
 (SEE BANKING DIAGRAM ON SHEET 46 FOR SUPERELEVATION TRANSITIONS
 MM 73.487 - MM 73.525 AND MM 74.063 - MM 74.100)

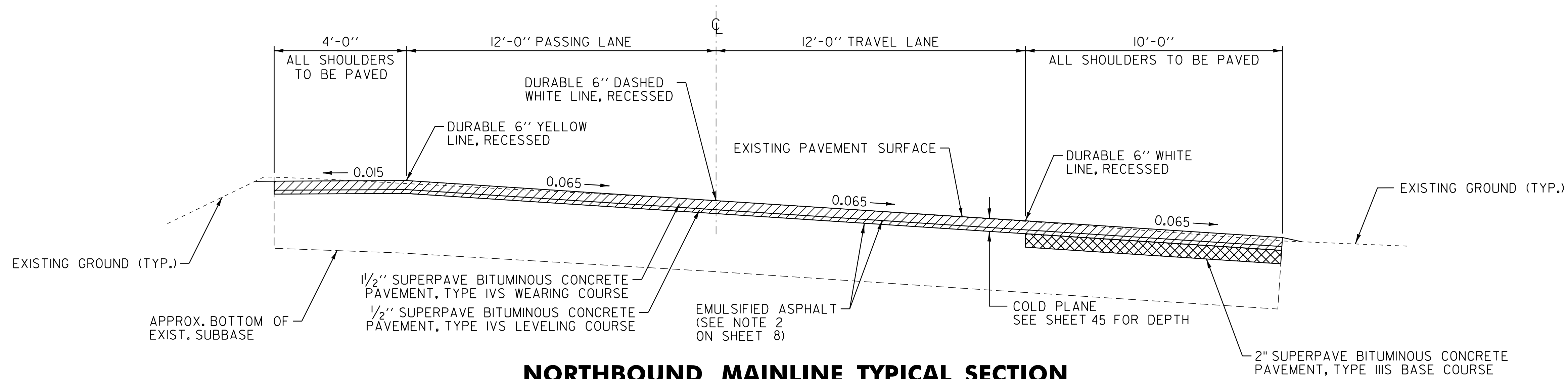
**VARY DEPTH OF COLD PLANE TO CORRECT EXISTING CROSS SLOPE OF LANES AND SHOULDERS
 SEE SHEET 45 FOR COLD PLANE DEPTH

PROJECT TYPICAL SHEET 1

PROJECT NAME: HARTLAND-NORWICH
 PROJECT NUMBER: IM 091-1(59)

FILE NAME: /pave/06a202/p06a202.dgn PLOT DATE: 19-JUN-2013 09:24
 PROJECT LEADER: PTS DRAWN BY: WWG
 DESIGNED BY: NLL CHECKED BY: PTS
 IPARM FILE NAME: 06A202_09 SHEET 9 OF 60

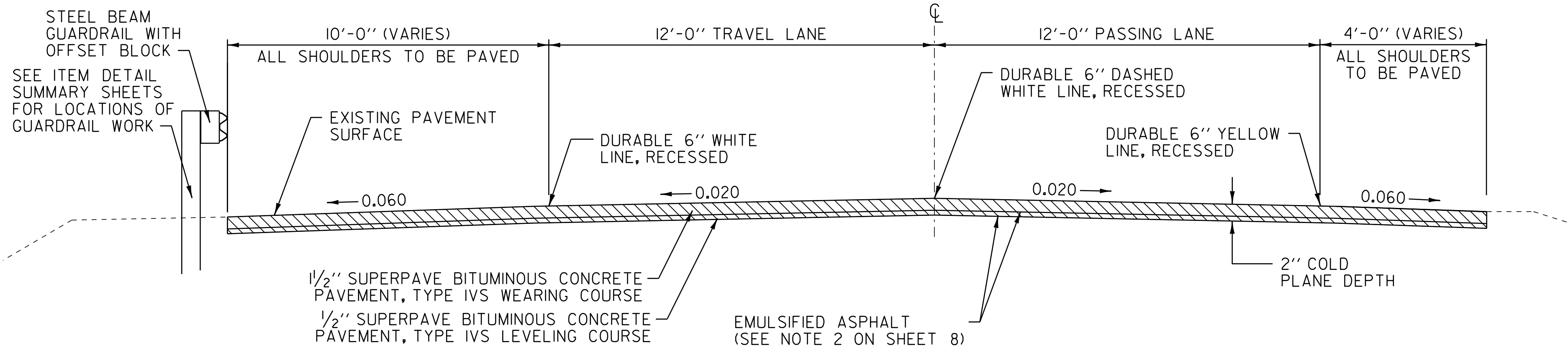
NOT TO SCALE



NORTHBOUND MAINLINE TYPICAL SECTION

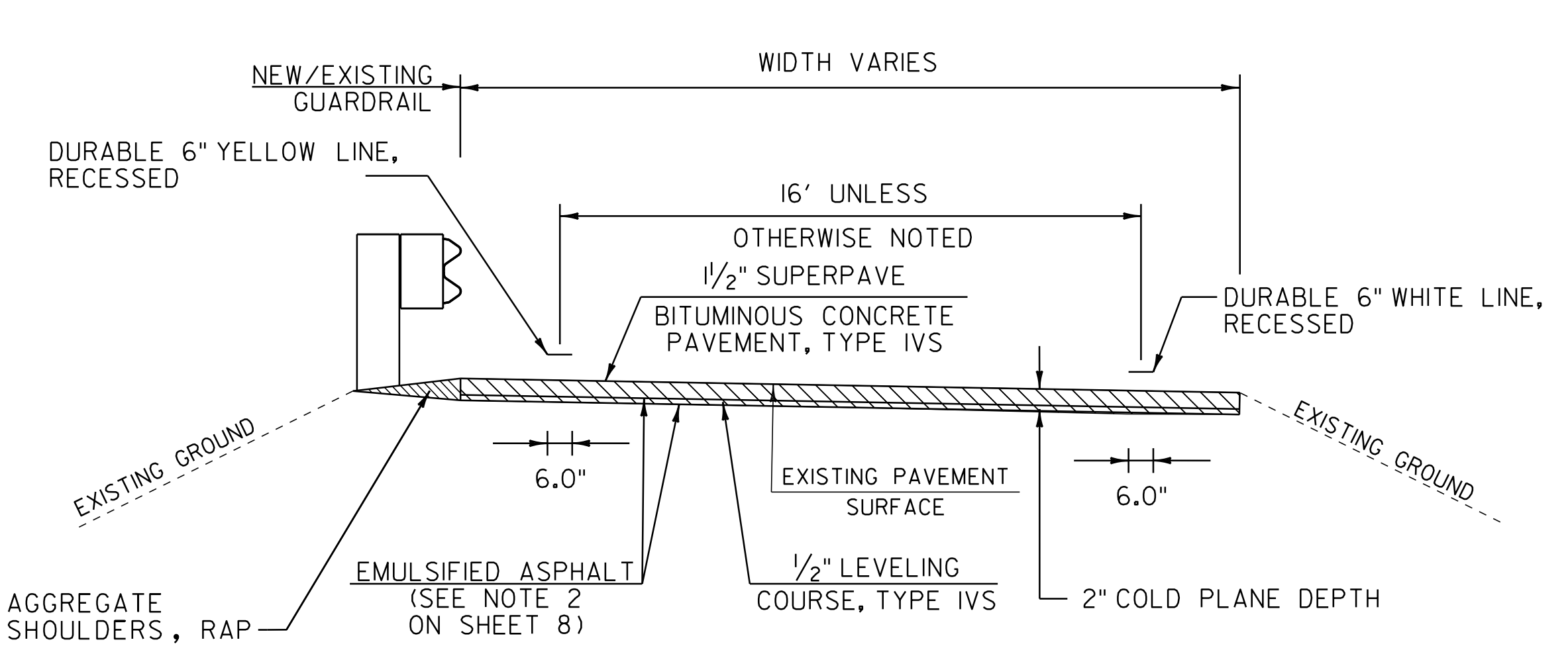
MM 74.305 - MM 74.653

(SEE BANKING DIAGRAM ON SHEET 46 FOR SUPERELEVATION TRANSITIONS MM 74.305 - MM 74.356 AND MM 74.602 - MM 74.653)

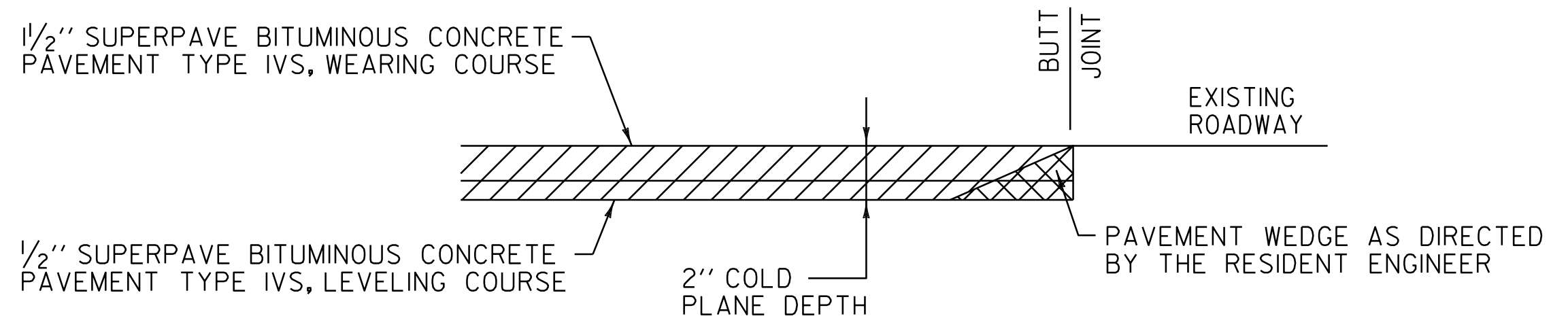


SOUTHBOUND MAINLINE TYPICAL SECTION

MM 66.453 - MM 76.450



RAMP PAVEMENT TYPICAL



TYPICAL APPROACH AREA DETAIL

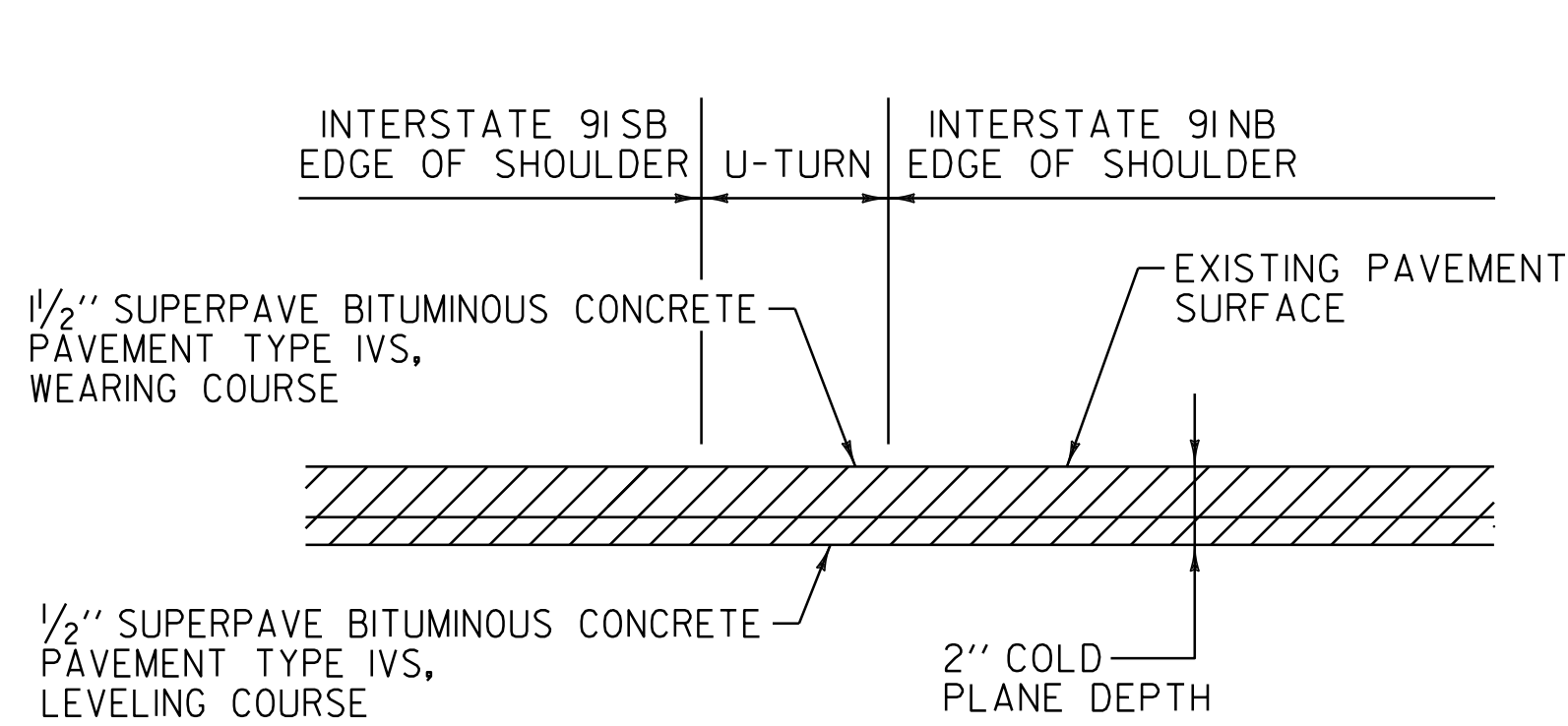
HARTLAND:	N. B. MM 66.195 ^{66.218} - BEGIN IM 091-1(59)	NORWICH:	N. B. MM 74.762 - END IM 091-1(59)
	S. B. MM 66.453 ^{66.459} - BEGIN IM 091-1(59)		S. B. MM 76.450 - END IM 091-1(59)
	EXIT 10	EXIT 11	EXIT 12
	RAMP A MM 0.038	RAMP A MM 0.047	RAMP A MM 0.250
	* RAMP B MM 69.828 (-91)	RAMP B MM 0.389	RAMP B MM 0.015
	RAMP C MM 0.087	RAMP C MM 0.156	RAMP C MM 0.014
	RAMP D MM 0.498	RAMP C MM 0.171	RAMP D MM 0.201
	RAMP E MM 0.252	RAMP D MM 0.019	
	* RAMP G MM 69.921 (-91)	RAMP F MM 0.009	
	* RAMP H MM 70.042 (-91)		

* PAVEMENT WEDGE AT GORE OF I89N AND RAMP

NOT TO SCALE

PROJECT TYPICAL SHEET 2

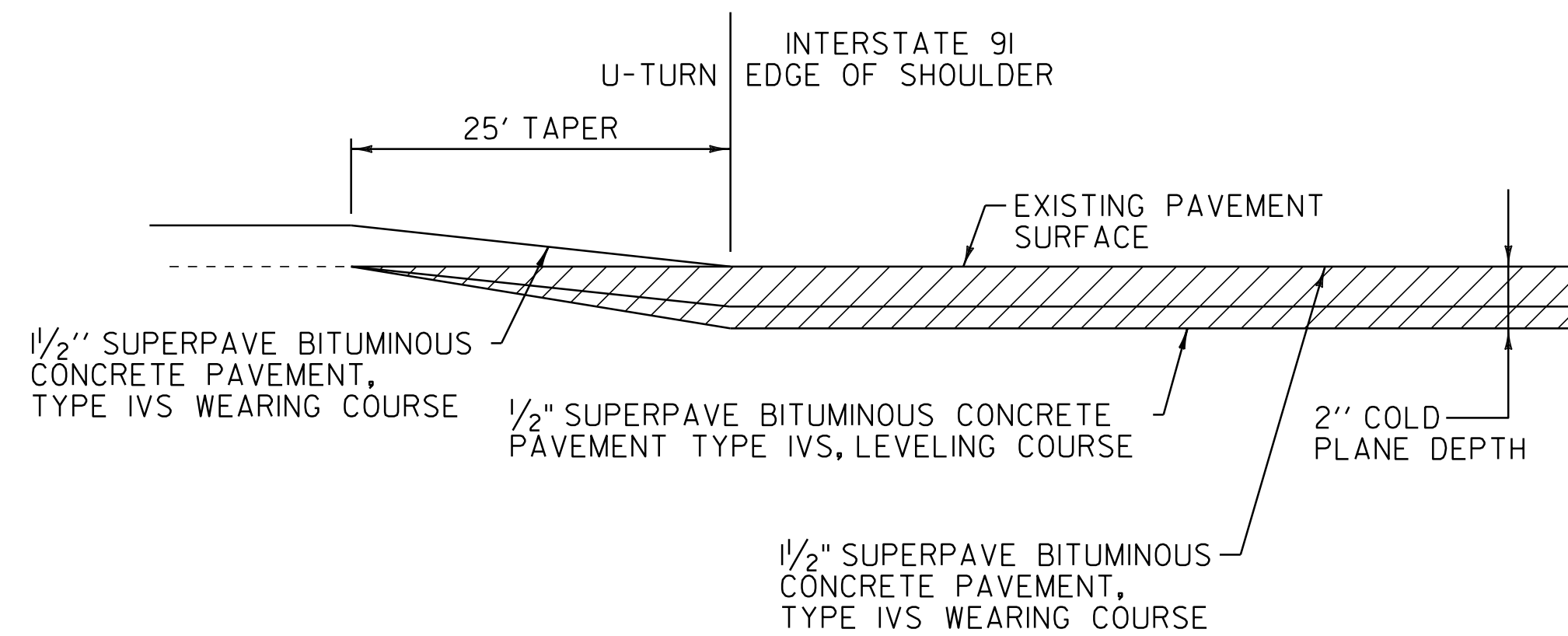
PROJECT NAME:	HARTLAND-NORWICH
PROJECT NUMBER:	IM 091-1(59)
FILE NAME:	/pave/06a202/p06a202.dgn
PROJECT LEADER:	PTS
DESIGNED BY:	NLL
IPARM FILE NAME:	06A202_I0
PLOT DATE:	19-JUN-2013 09:24
DRAWN BY:	WWG
CHECKED BY:	PTS
SHEET	10 OF 60



U-TURN PAVING DETAIL

U-TURN LENGTHS LESS THAN 50 FT

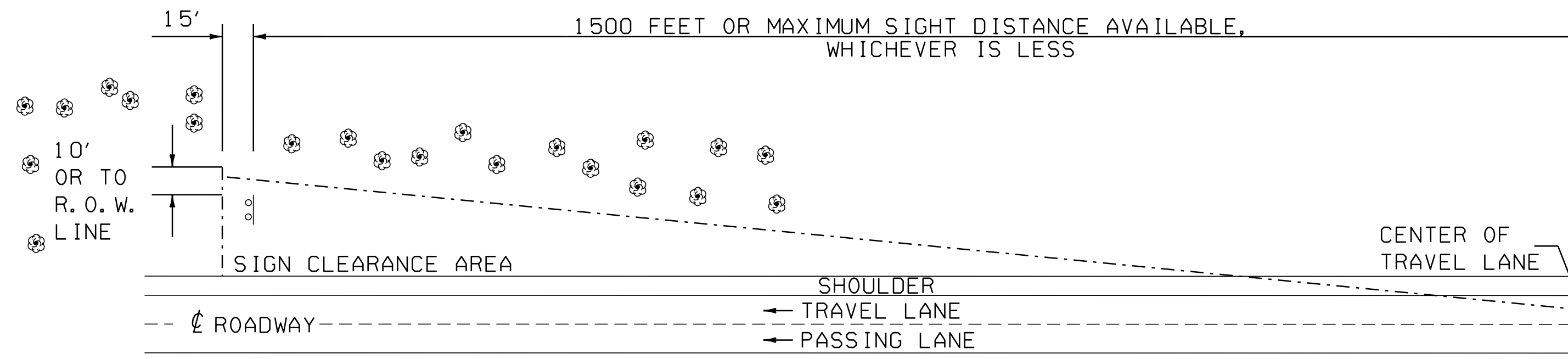
MM 66.802	(42' X 27')
MM 70.072	(43' X 37')
MM 70.500	(43' X 31')
MM 71.230	(37' X 31')
MM 72.281	(41' X 82')
MM 74.497	(31' X 86')
MM 75.243	(48' X 83')
MM 76.129	(42' X 81')



U-TURN PAVING TRANSITION DETAIL

U-TURN LENGTHS GREATER THAN 50 FT

MM 69.085	(200' X 28')
MM 69.500	(68' X 27') ONLY COLD PLANING SB SIDE (7' WIDE)



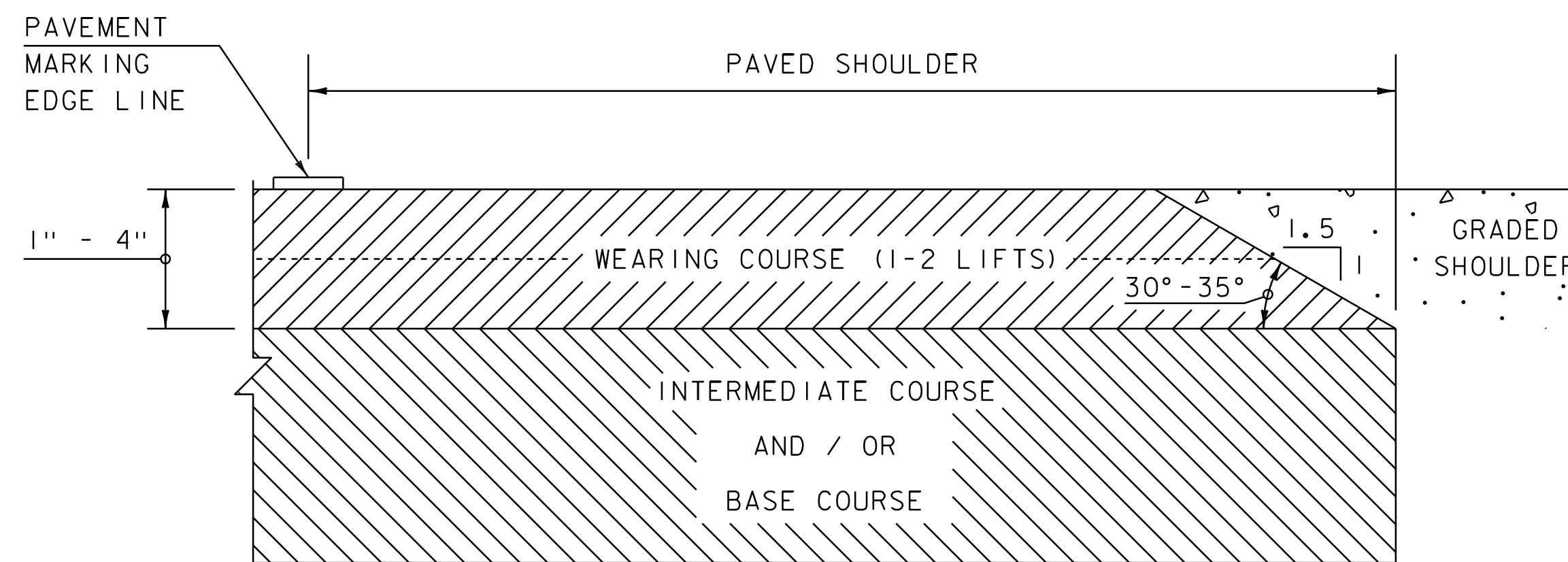
NOTE

THE CONTRACTOR SHALL REMOVE ALL WOODY STEMMED GROWTH INCLUDING BRUSH, SAPLINGS AND TREE LIMBS GROWING WITHIN OR PROJECTING INTO THE CLEARANCE AREA AND DOWN TO GROUND LEVEL OR AT LEAST 10'-0" BELOW THE BOTTOM OF THE SIGN, WHICHEVER IS LESS. PAYMENT WILL BE ITEM 201.31. THINNING AND TRIMMING FOR SIGNS AND PAID PER EACH SIGN ASSEMBLY LOCATION.

THINNING AND TRIMMING FOR SIGNS DETAIL

LOCATION

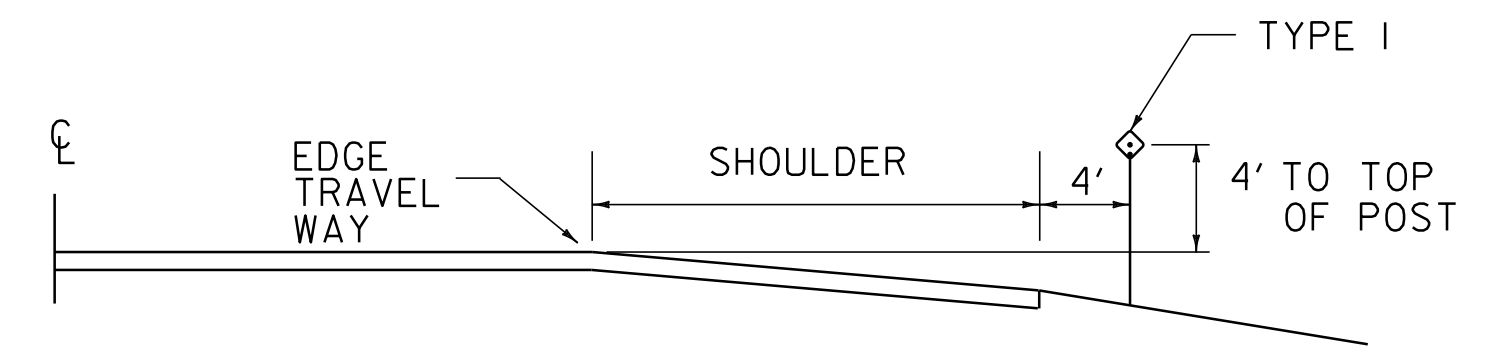
NORTHBOUND	SOUTHBOUND
MM 69.080 RT	MM 72.399 LT
MM 72.715 RT	MM 72.874 LT
MM 68.720 RT	MM 73.395 LT
	MM 75.703 LT



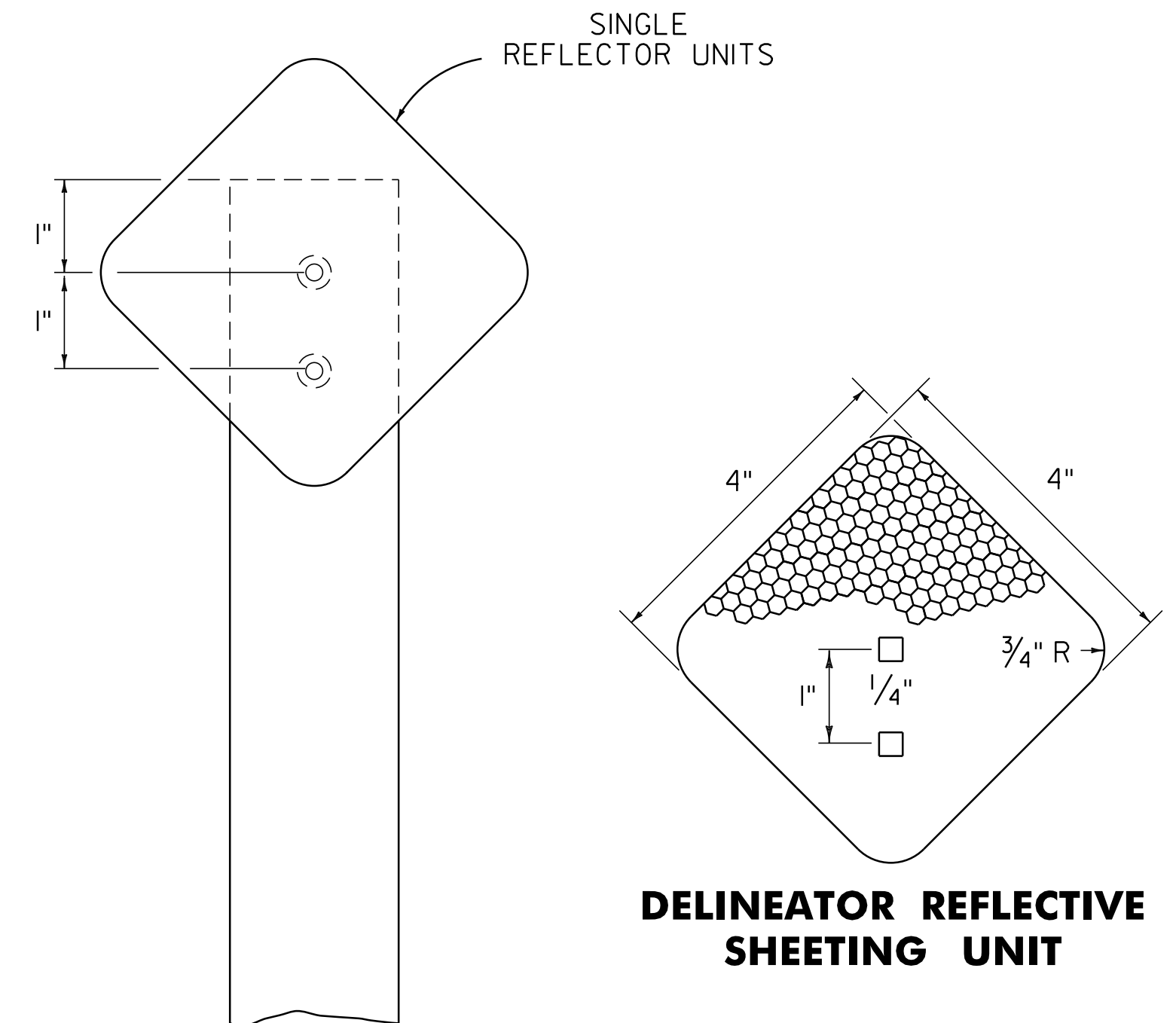
SAFETY EDGE DETAIL

NOTE: LEVELING COURSE MAY INCLUDE THE "SAFETY EDGE" AT THE CONTRACTOR'S CHOICE.

NOT TO SCALE



TYPICAL PLACEMENT OF DELINEATORS ON HIGHWAY



DELINEATOR REFLECTIVE SHEETING UNIT

TYPE I

MATERIAL FOR DELINEATORS:
 * 1/16" ALUMINUM BACKING.
 * WHITE/BLUE/GREEN: ASTM TYPE III RETROREFLECTIVE SHEETING.

DELINEATOR DETAIL

NOTES

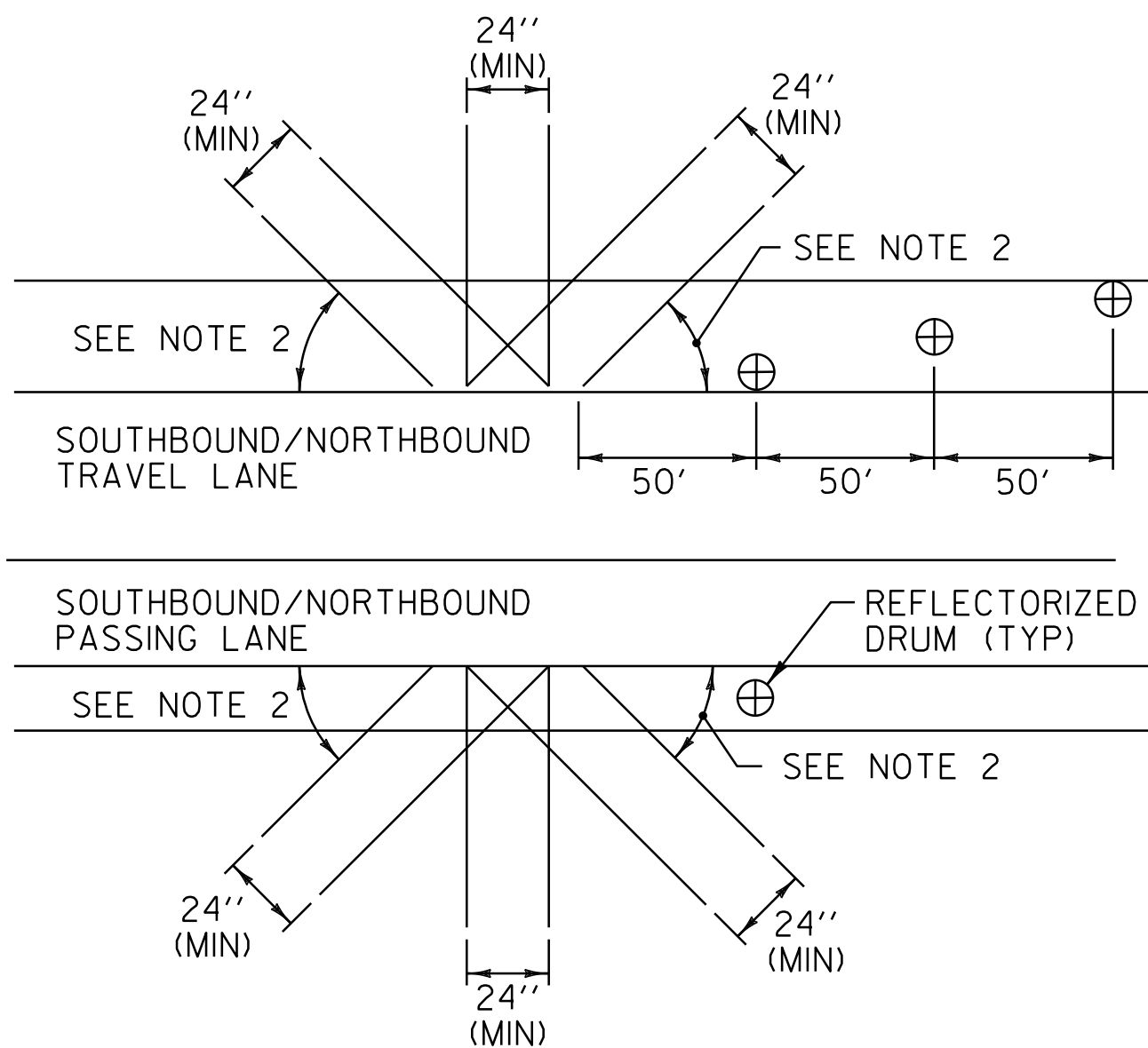
1. TYPE I DELINEATOR (WHITE) SHALL BE ERECTED AT LOCATIONS AS SHOWN ON THE ROADWAY LAYOUTS. TYPE I DELINEATORS WITHOUT PLAQUE SHALL BE ERECTED AT THE BEGINNING (BLUE) AND AT THE END (GREEN) OF EACH GUARDRAIL RUN.
2. DELINEATOR POSTS SHALL BE 1.75" x 1.88 LB/FT SQUARE STEEL, AND A MINIMUM OF 8 FEET LONG.
3. DELINEATOR POSTS SHALL HAVE A MINIMUM EMBEDMENT OF 2'-6" IN THE GROUND.
4. PAYMENT WILL BE MADE UNDER CONTRACT ITEM 900.620 SPECIAL PROVISION (DELINATOR WITH STEEL POST)

PROJECT TYPICAL SHEET 3

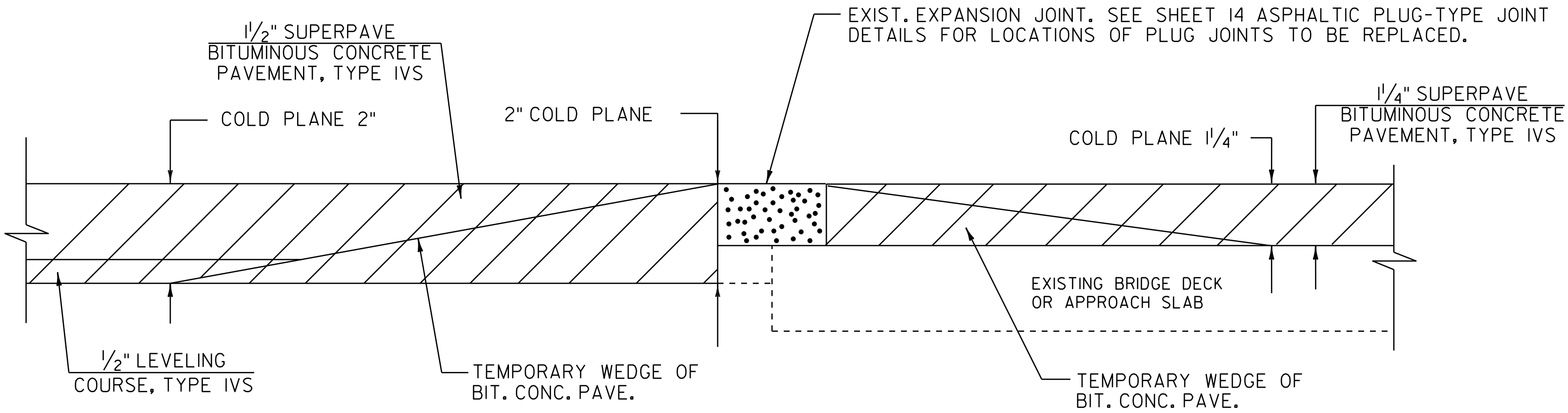
PROJECT NAME: HARTLAND-NORWICH	FILE NAME: /pave/06a202/p06a202.dgn	PLOT DATE: 19-JUN-2013 09:24
PROJECT NUMBER: IM 091-I(59)	PROJECT LEADER: PTS	DRAWN BY: WWG
	DESIGNED BY: NLL	CHECKED BY: PTS
	IPARM FILE NAME: 06A202.II	SHEET II OF 60

NOTES

1. BLEEDERS ARE TO BE CUT WHILE COLD PLANING AT LOCATIONS SPECIFIED BY THE RESIDENT ENGINEER.
2. ANGLE BLEEDERS TO BEST ACCEPT WATER FLOW.
3. CUT ALL BLEEDERS TO THE DEPTH OF COLD PLANING AND GRADE TO DRAIN. PAYMENT INCIDENTAL TO ITEM 210.10.
4. BLEEDERS ARE TO BE FILLED DURING PAVING WITH ITEM 490.30 OR AS DIRECTED BY THE RESIDENT ENGINEER.
5. REFLECTORIZED DRUMS MUST BE PLACED AS SHOWN TO WARN MOTORISTS OF THE GAP IN THE SHOULDER. PAYMENT SHALL BE INCIDENTAL TO ITEM 641.10 TRAFFIC CONTROL AS DIRECTED BY THE RESIDENT ENGINEER.
6. BLEEDERS SHALL NOT BE REQUIRED IF THE COLD PLANED AREAS ARE PAVED BACK THE SAME DAY AS DIRECTED BY THE RESIDENT ENGINEER.



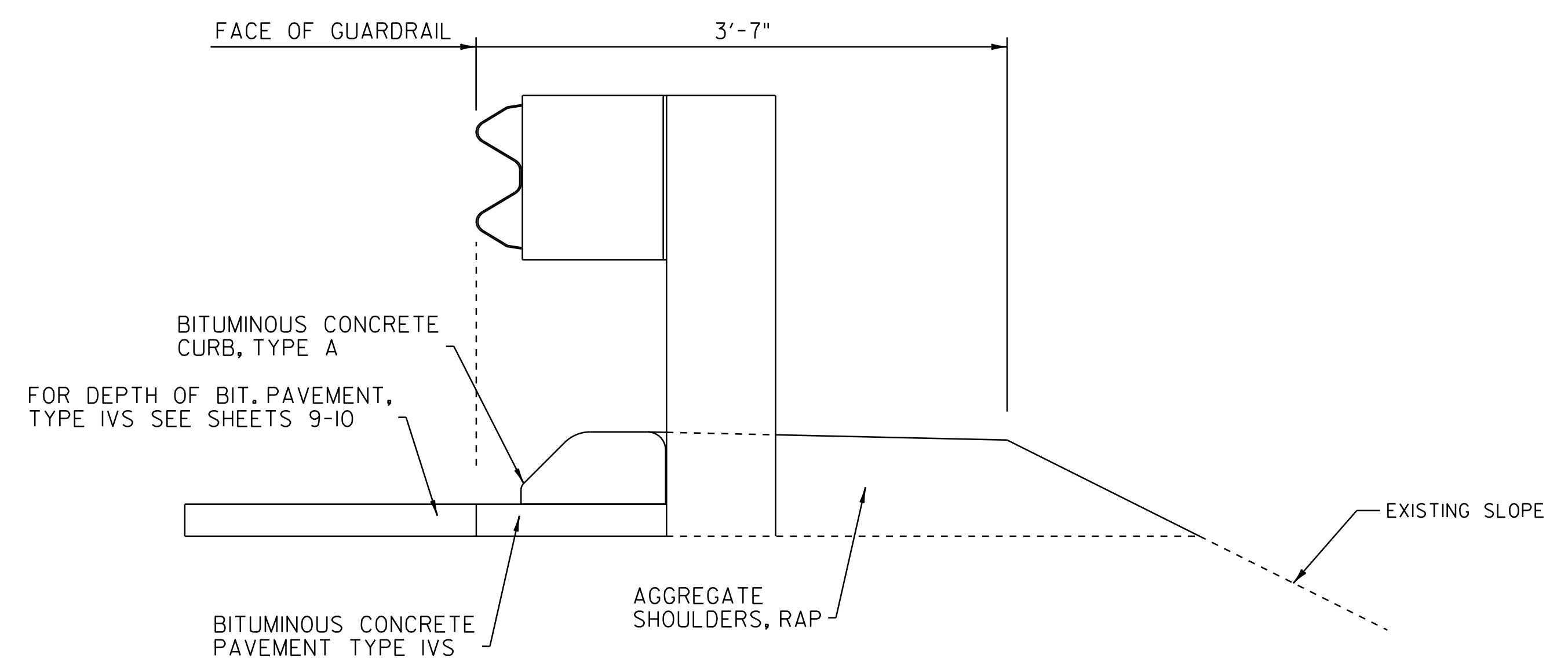
BLEEDER DETAIL



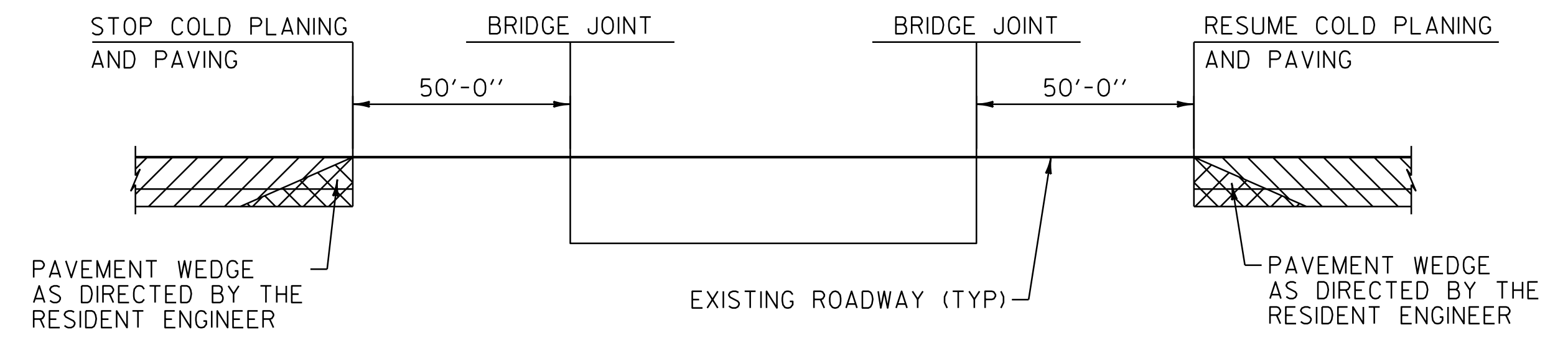
BRIDGE APPROACH & COLD PLANE DETAIL

LOCATION

HARTFORD:	BRIDGE 40N	MM 66.298
	BRIDGE 40N	MM 66.365
	BRIDGE 43N	MM 70.174
	BRIDGE 43N	MM 70.218
	BRIDGE 45N	MM 71.965
	BRIDGE 45N	MM 71.998
	BRIDGE 45S	MM 72.031
	BRIDGE 45S	MM 72.064
	BRIDGE 47N	MM 73.065
	BRIDGE 47N	MM 73.106
	BRIDGE 47S	MM 73.142
	BRIDGE 47S	MM 73.182
NORWICH:	BRIDGE 49S	MM 75.836
	BRIDGE 49S	MM 75.861
	BRIDGE 48S	MM 74.836
	BRIDGE 48S	MM 74.884

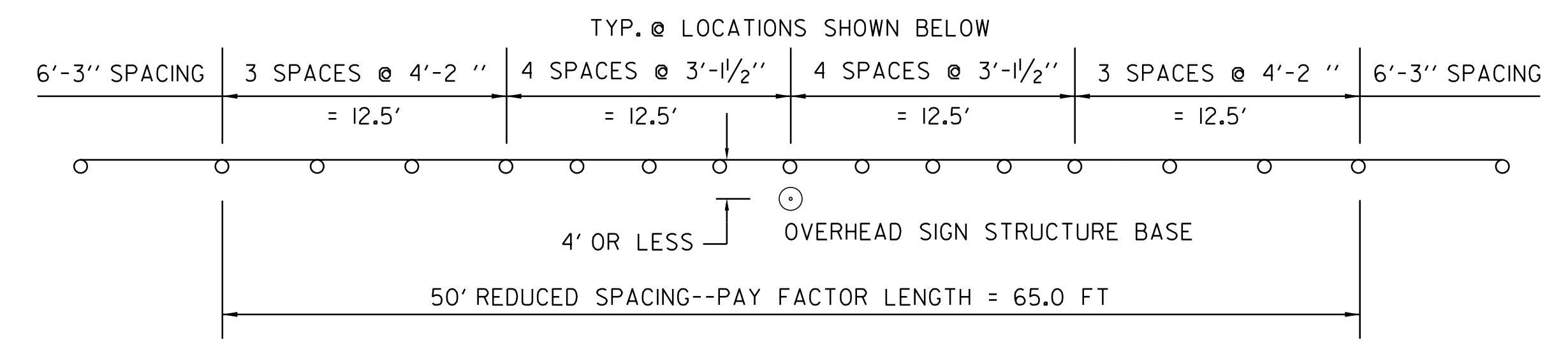


BITUMINOUS CONCRETE CURB, TYPE A DETAIL



BRIDGE NO.	STOP COLD PLANING AND PAVING	BRIDGE JOINT	BRIDGE JOINT	RESUME COLD PLANING AND PAVING
BR 41 NB	MM 69.628	MM 69.637	MM 69.670	MM 69.679
BR 41 SB	MM 69.679	MM 69.688	MM 69.723	MM 69.732
BR 41 C (EXIT 10 RAMP C)	MM C 0.480	MM C 0.490	MM C 0.539	MM C 0.548
BR 42 NB	MM 69.727	MM 69.736	MM 69.804	MM 69.813
BR 42 SB	MM 69.810	MM 69.819	MM 69.886	MM 69.895
BR 43 SB	MM 70.197	MM 70.206	MM 70.249	MM 70.258
BR 45 SB	MM 72.064			MM 72.031
BR 44 NB	MM 70.816	MM 70.825	MM 71.045	MM 71.054
BR 44 SB	MM 70.864	MM 70.873	MM 71.102	MM 71.111
BR 45 NB	MM 71.981			MM 72.012
BR 48 SB	MM 74.831	MM 74.840	MM 74.887	MM 74.896

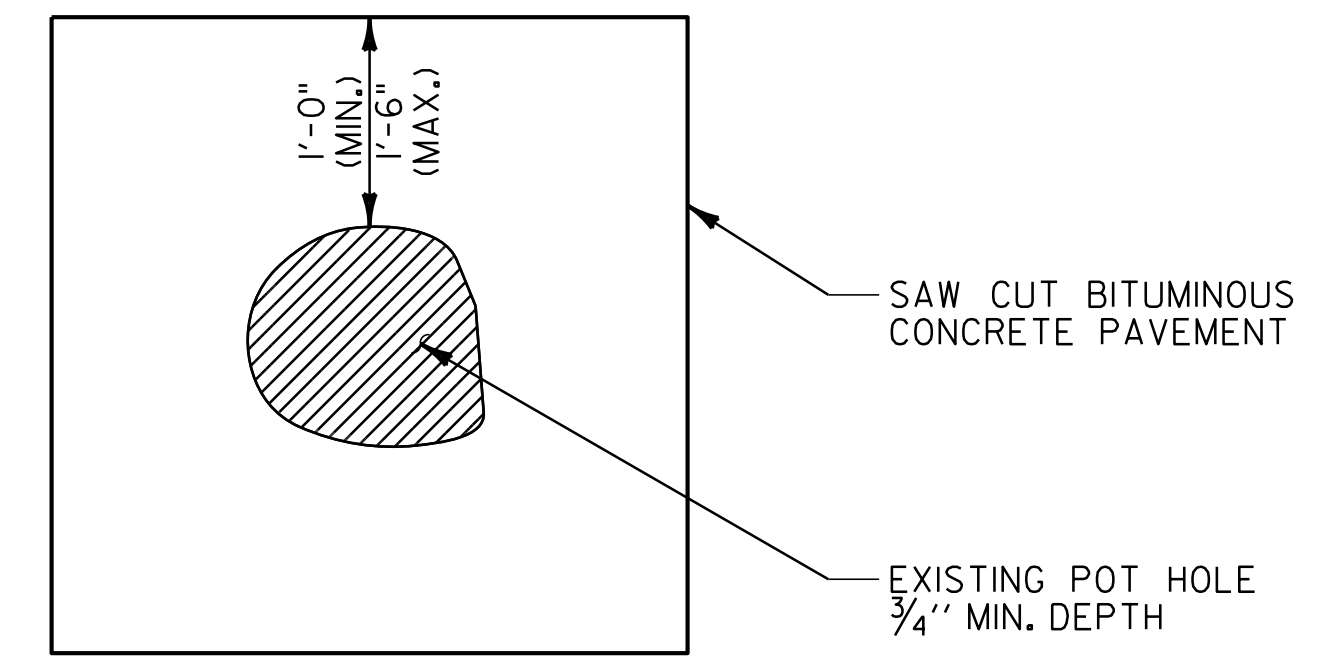
BRIDGE APPROACH STOP /RESUME WORK DETAIL



GUARDRAIL DETAIL

OBJECTS WITHIN 4.0 FT OF GUARDRAIL LOCATION

HARTFORD
NB 69.721 LT (OVERHEAD SIGN STRUCTURE)



TYPICAL POT HOLE REPAIR

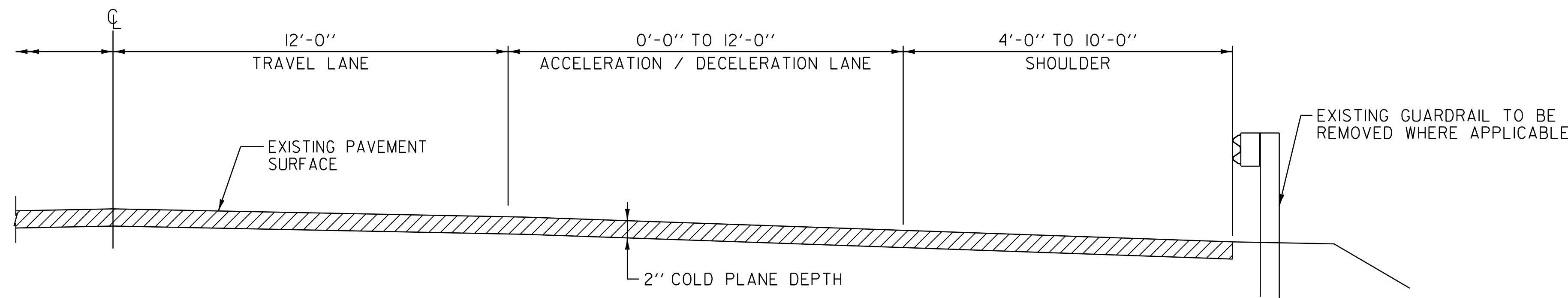
NOT TO SCALE

PROJECT TYPICAL SHEET 4

PROJECT NAME:	HARTLAND-NORWICH	FILE NAME:	/pave/06a202/p06a202.dgn	PLOT DATE:	19-JUN-2013 09:29
PROJECT NUMBER:	IM 091-1(59)	PROJECT LEADER:	PTS	DRAWN BY:	WWG
		DESIGNED BY:	NLL	CHECKED BY:	PTS
		IPARM FILE NAME:	06A202_I2	SHEET	12 OF 60

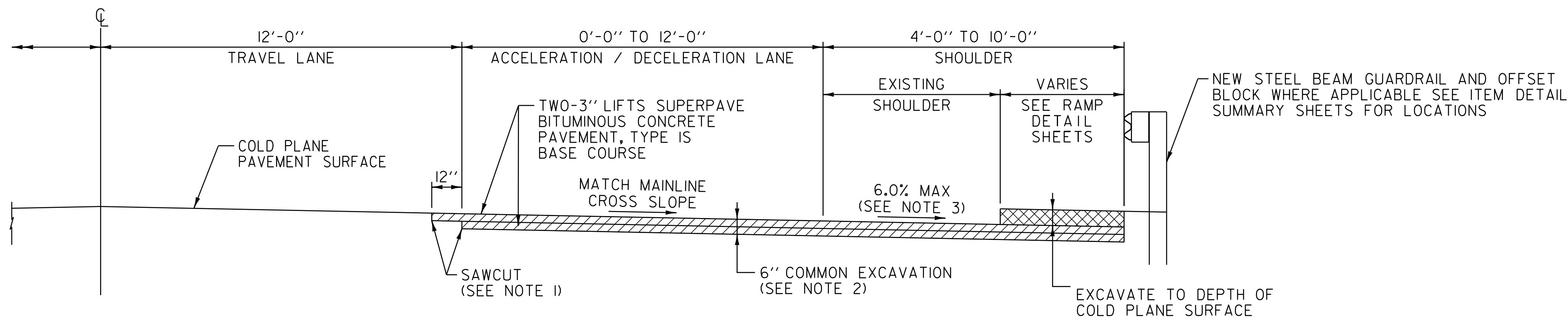
NOTES

1. THE CONTRACTOR SHALL SAWCUT THE EXISTING PAVEMENT ALONG THE PAVEMENT WIDENING AREA TO THE DEPTHS SHOWN OR AS DIRECTED BY THE RESIDENT ENGINEER. THE COST OF SAWCUTTING SHALL BE INCIDENTAL TO ITEM 203.15 COMMON EXCAVATION.
2. THE CONTRACTOR SHALL NOT LEAVE THE UNPROTECTED 6" DROP OFF EXPOSED TO VEHICULAR TRAFFIC. THE CONTRACTOR SHALL ONLY EXCAVATE WHAT CAN BE PAVED WITH THE TWO 3" LIFTS OF TYPE IS BASE OR AS DIRECTED BY THE RESIDENT ENGINEER.
3. THE CONTRACTOR SHALL RECONSTRUCT THE SHOULDER ADJACENT TO THE ACCELERATION / DECELERATION LANES IN SUCH A MANNER THAT THE CROSS SLOPE DOES NOT EXCEED 6.0%. IN AREAS WHERE THE SHOULDER IS LOCATED ON THE INSIDE OF A CURVE AND THE MAINLINE IS SUPERELEVATED GREATER THAN 6.0% THE SHOULDER SHALL MATCH THE SLOPE OF THE MAINLINE AS DIRECTED BY THE RESIDENT ENGINEER.



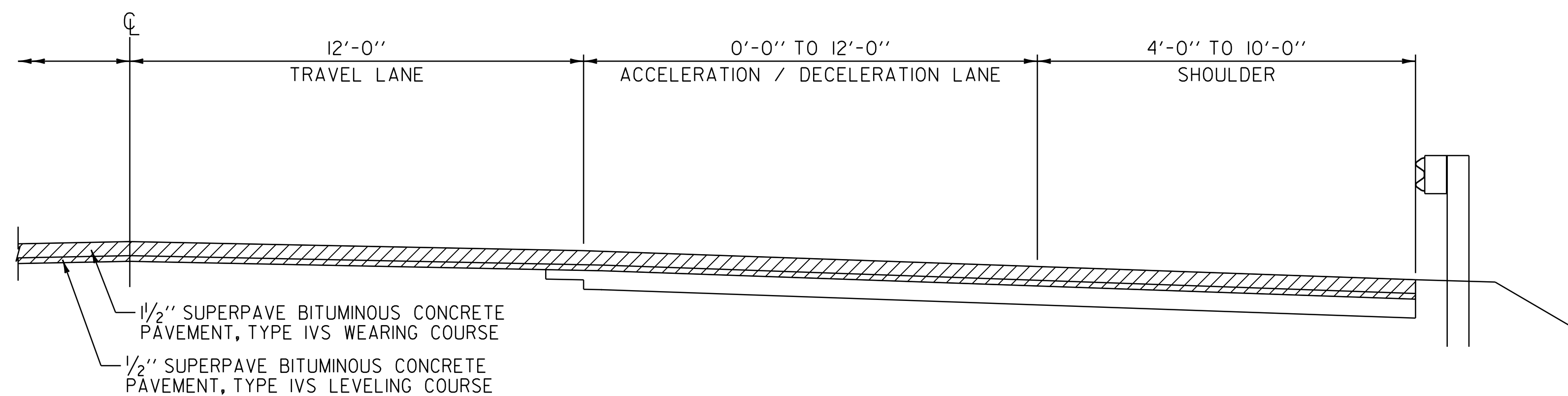
PAVEMENT WIDENING FOR ACCEL /DECEL LANE - PHASE I

COLD PLANE EXISTING PAVEMENT SURFACE AS SHOWN ON THE PLANS AND REMOVE EXISTING GUARDRAIL. SEE SHEETS 9-10 FOR COLD PLANING TYPICAL SECTION



PAVEMENT WIDENING FOR ACCEL /DECEL LANE - PHASE II

EXCAVATE EXISTING PAVED SHOULDER, ACCELERATION / DECELERATION LANE AND AREA BEHIND GUARDRAIL AS SHOWN ON THE PLANS, PAVE BASE COURSE AND INSTALL NEW GUARDRAIL



PAVEMENT WIDENING FOR ACCEL /DECEL LANE - PHASE III

PAVE LEVELING & WEARING COURSE AS SHOWN ON THE PLANS

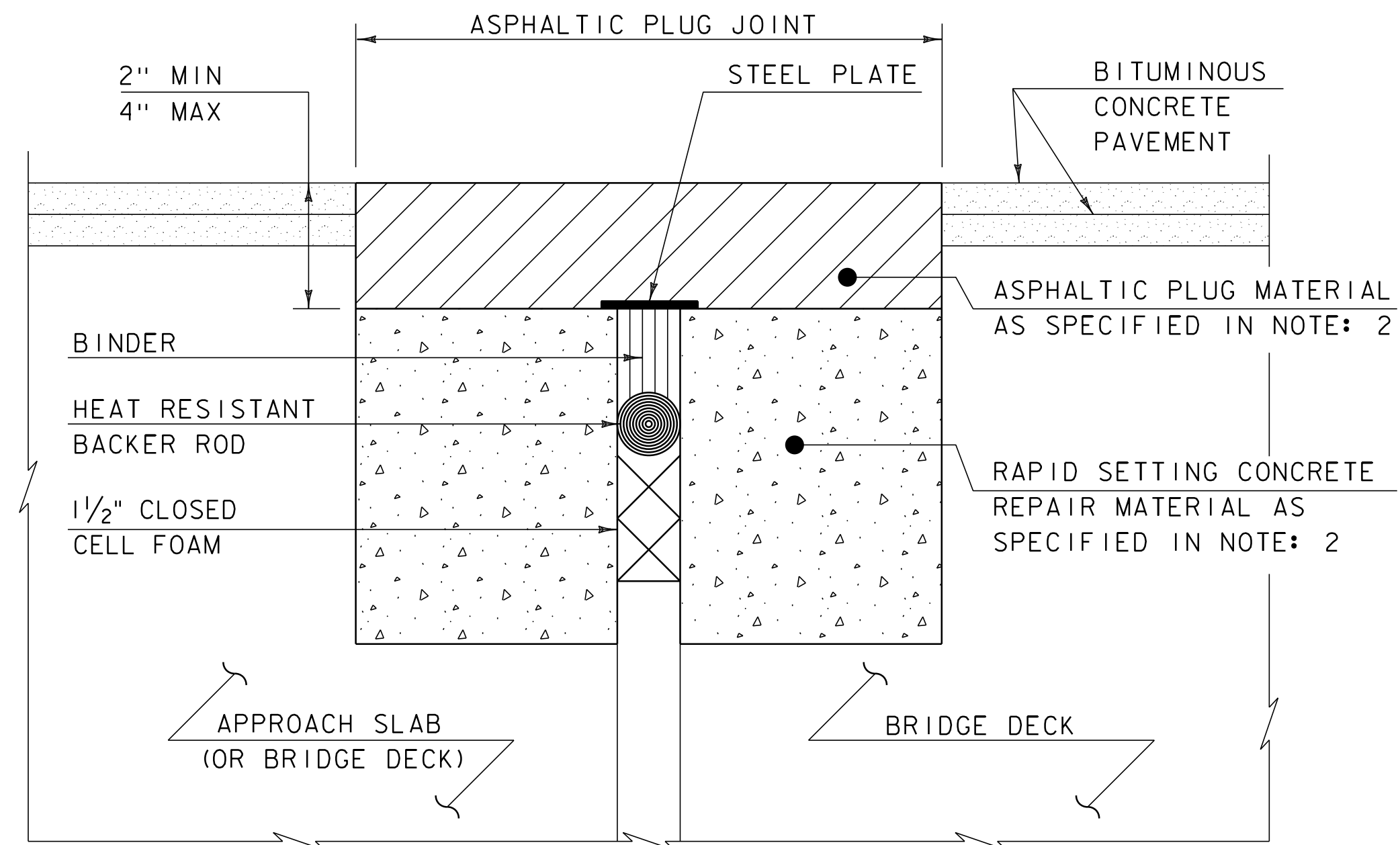
PAVEMENT WIDENING FOR ACCEL /DECEL LANES

INTERCHANGE 12 RAMP C 72.254 - 72.335 RT
 INTERCHANGE 13 RAMP D 75.151 - 75.250 LT

NOT TO SCALE

PROJECT TYPICAL SHEET 5

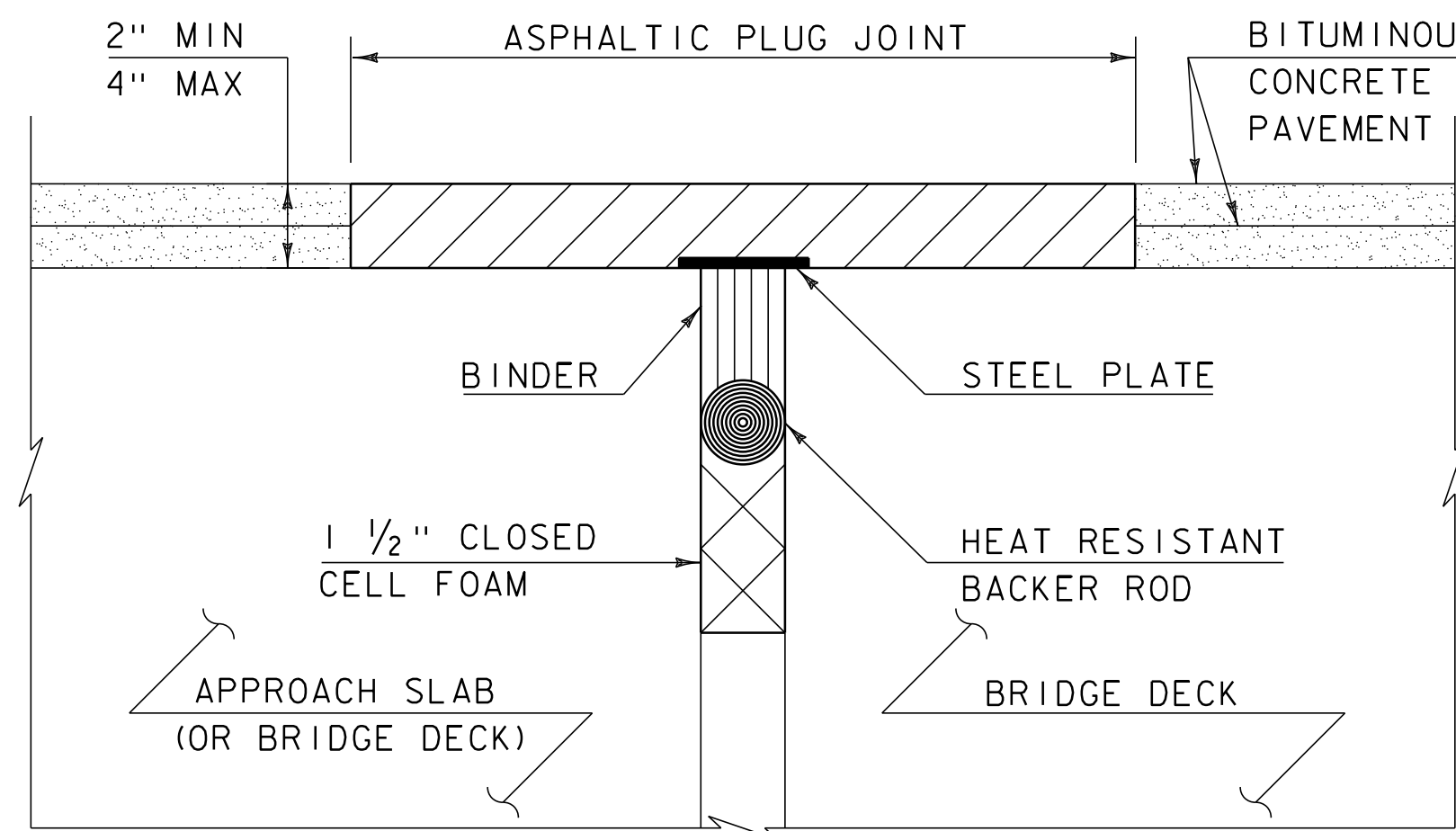
PROJECT NAME: HARTLAND-NORWICH	FILE NAME: /pave/06a202/p06a202.dgn	PLOT DATE: 19-JUN-2013 09:24
PROJECT NUMBER: IM 091-1(59)	PROJECT LEADER: PTS	DRAWN BY: WWG
	DESIGNED BY: NULL	CHECKED BY: PTS
	IPARM FILE NAME: 06A202_I3	SHEET 13 OF 60



ASPHALTIC PLUG-TYPE JOINT DETAIL - REHAB

NOTES: (NOT TO SCALE)

1. THE CONTRACTOR SHALL REMOVE ALL ASPHALTIC PLUG JOINT MATERIAL AND DETERIORATED CONCRETE AS DIRECTED BY THE ENGINEER. REMOVAL OF THE FIRST 4 INCHES OF MATERIAL SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 516.10 BRIDGE EXPANSION JOINT, ASPHALTIC PLUG. ANY REMOVAL OF MATERIAL GREATER THAN 4 INCHES SHALL BE INCLUDED IN THE BID PRICE OF ITEM 580.20 RAPID SETTING CONCRETE REPAIR MATERIAL WITH COURSE AGGREGATE.
2. THE CONTRACTOR SHALL REPLACE REMOVED MATERIAL THAT IS LESS THAN 4" FROM FINISHED GRADE WITH ASPHALTIC PLUG JOINT MATERIAL MEETING THE REQUIREMENTS OF SUBSECTION 707.15. ALL REMOVED MATERIAL THAT IS GREATER THAN 4 INCHES FROM FINISHED GRADE SHALL BE REPLACED WITH RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE MEETING THE REQUIREMENTS OF SUBSECTION 780.04.
3. REINFORCING STEEL NOT SHOWN FOR CLARITY.



ASPHALTIC PLUG-TYPE JOINT DETAIL - NEW

(NOT TO SCALE)

HARTFORD:	BRIDGE 43N MM	70.174 (42'	ABUTMENT #1)
	BRIDGE 43N MM	70.218 (42'	ABUTMENT #2)
	BRIDGE 45N MM	71.965 (38'	ABUTMENT #2)
	BRIDGE 45S MM	72.064 (38'	ABUTMENT #2)
	BRIDGE 47N MM	73.106 (39'	ABUTMENT #2)
	BRIDGE 47S MM	73.182 (39'	ABUTMENT #2)
NORWICH:	BRIDGE 49S MM	75.836 (38'	ABUTMENT #1)
	BRIDGE 40N MM	66.365 (30.17')	
	BRIDGE 43N MM	XX.XXX (44')	
	BRIDGE 45S MM	72.031 (38.5')	
	BRIDGE 45N MM	71.998 (38')	
	BRIDGE 48S MM	74.880 (48')	

ASPHALTIC PLUG JOINT NOTES

INSTALLATION:

1. LOCATE THE JOINT CENTRALLY OVER THE DECK OVERLAY EXPANSION GAP OR FIXED JOINT, MARKED OUT TO THE MANUFACTURER'S RECOMMENDED WIDTH.
2. 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.
3. BLAST CLEAN THE JOINT AREA OF DEBRIS, ASPHALT AND SHEET MEMBRANE. THOROUGHLY DRY THE JOINT AREA WITH COMPRESSED AIR PRIOR TO APPLYING BINDER MATERIAL.
4. PLACE PROPERLY SIZED HEAT RESISTANT BACKER ROD IN THE MOVEMENT GAP ALLOWING FOR 1" +/- OF BINDER ABOVE THE ROD.
5. HEAT AND PLACE THE BINDER MATERIAL AS RECOMMENDED BY THE MANUFACTURER.
6. 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 PRE-STAMPED 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.
7. HEAT AND MIX THE BINDER MATERIAL AND AGGREGATE AS RECOMMENDED BY THE MANUFACTURER.
8. INSTALLATION OF MATERIAL, COMPACTION, AND TOP COATING SHALL BE AS RECOMMENDED BY THE MANUFACTURER.
9. IMMEDIATELY AFTER TOP COATING, CAST AN ANTI-SKID MATERIAL OVER THE JOINT TO REDUCE THE RISK OF TRACKING.
10. ONCE THE JOINT REACHES 82 DEG C (180 DEG F) +/-, WATER MAY BE USED TO EXPEDITE THE COOLING PROCESS.
11. PROTECT JOINT FROM TRAFFIC UNTIL THE MATERIAL HAS COOLED TO 51 DEG C (125 DEG F) +/-.

WEATHER LIMITATIONS

APPLY BINDER MATERIAL ONLY WHEN THE FOLLOWING CONDITIONS PREVAIL OR AS RECOMMENDED BY THE MANUFACTURER:

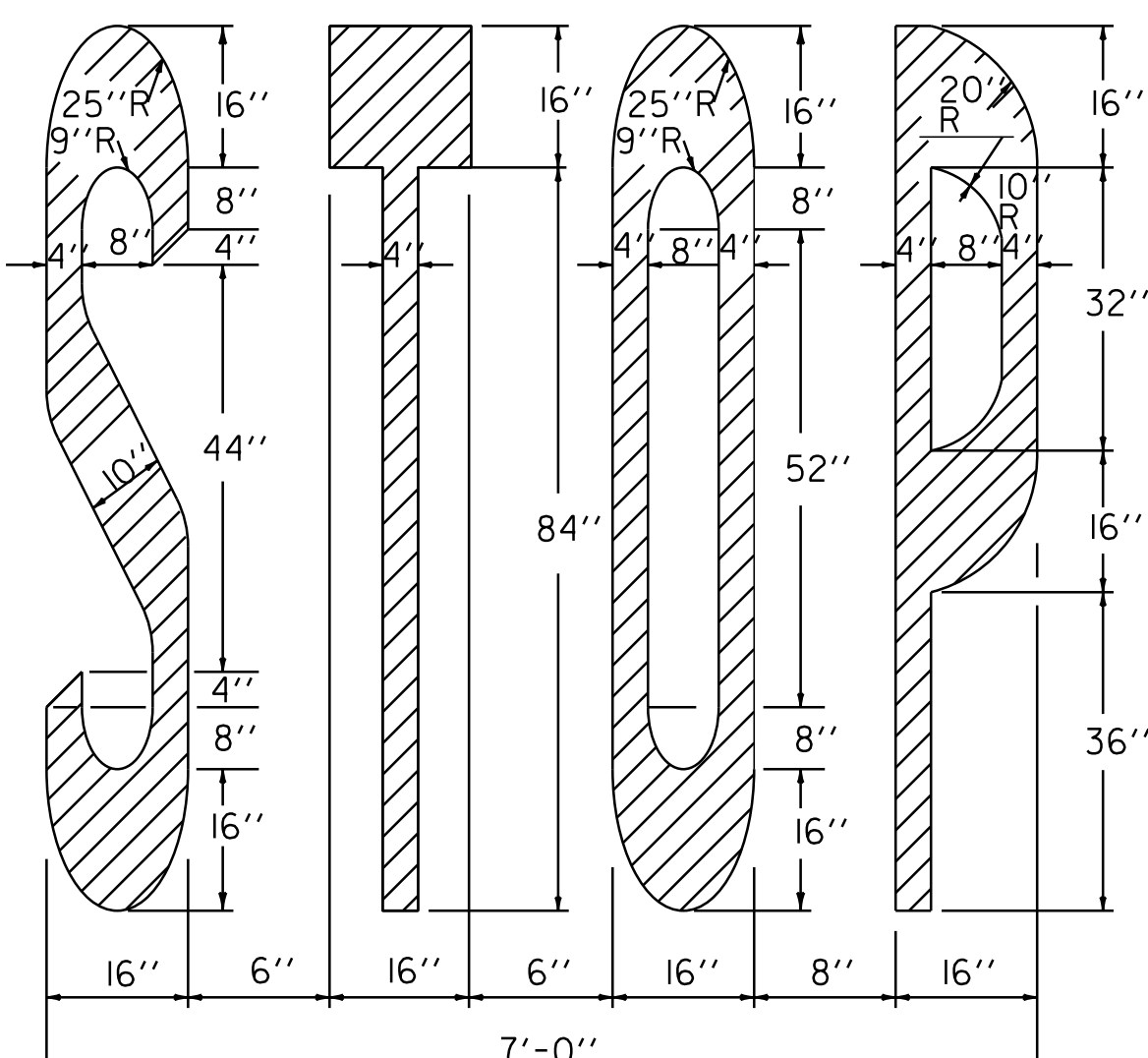
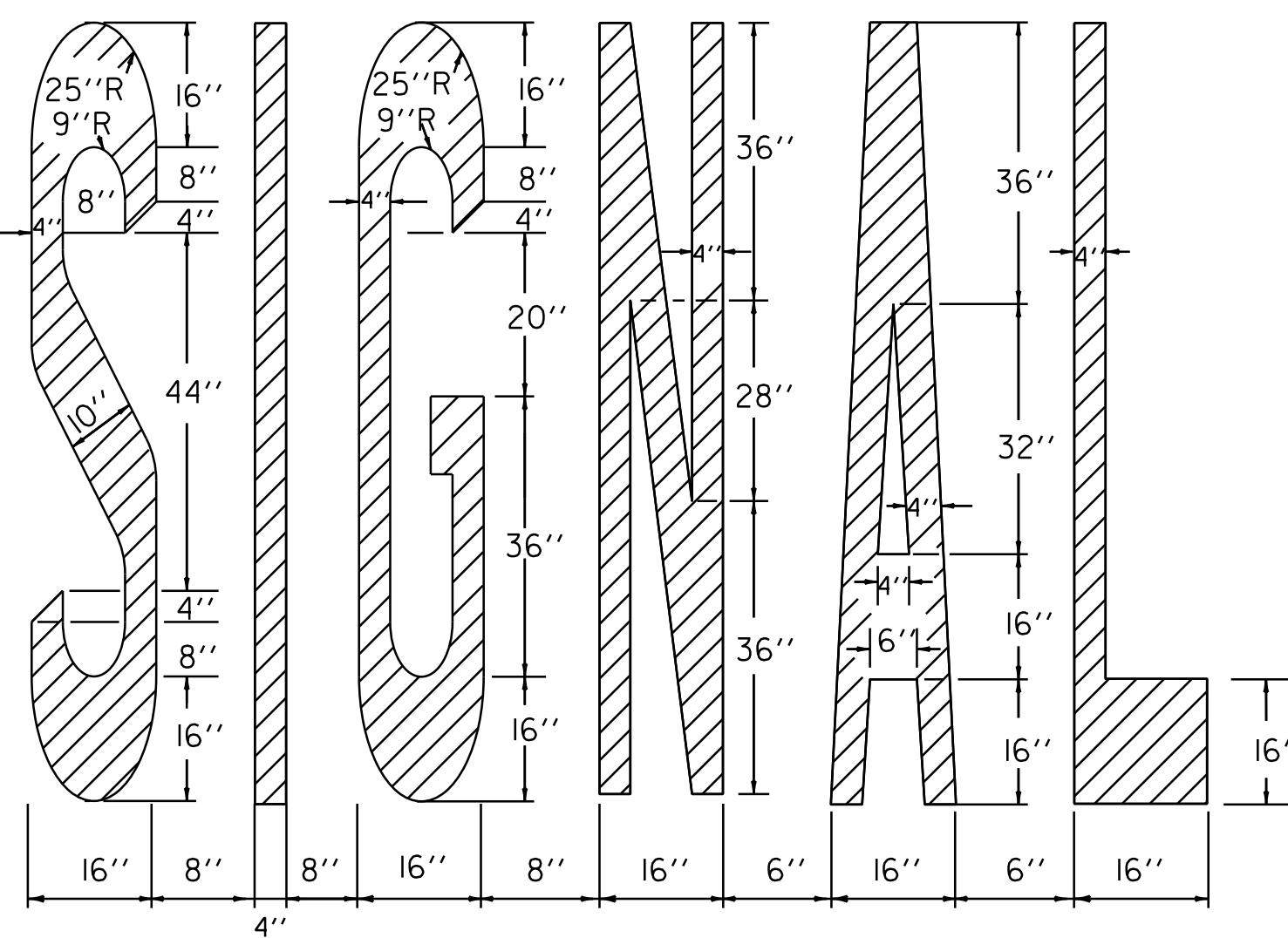
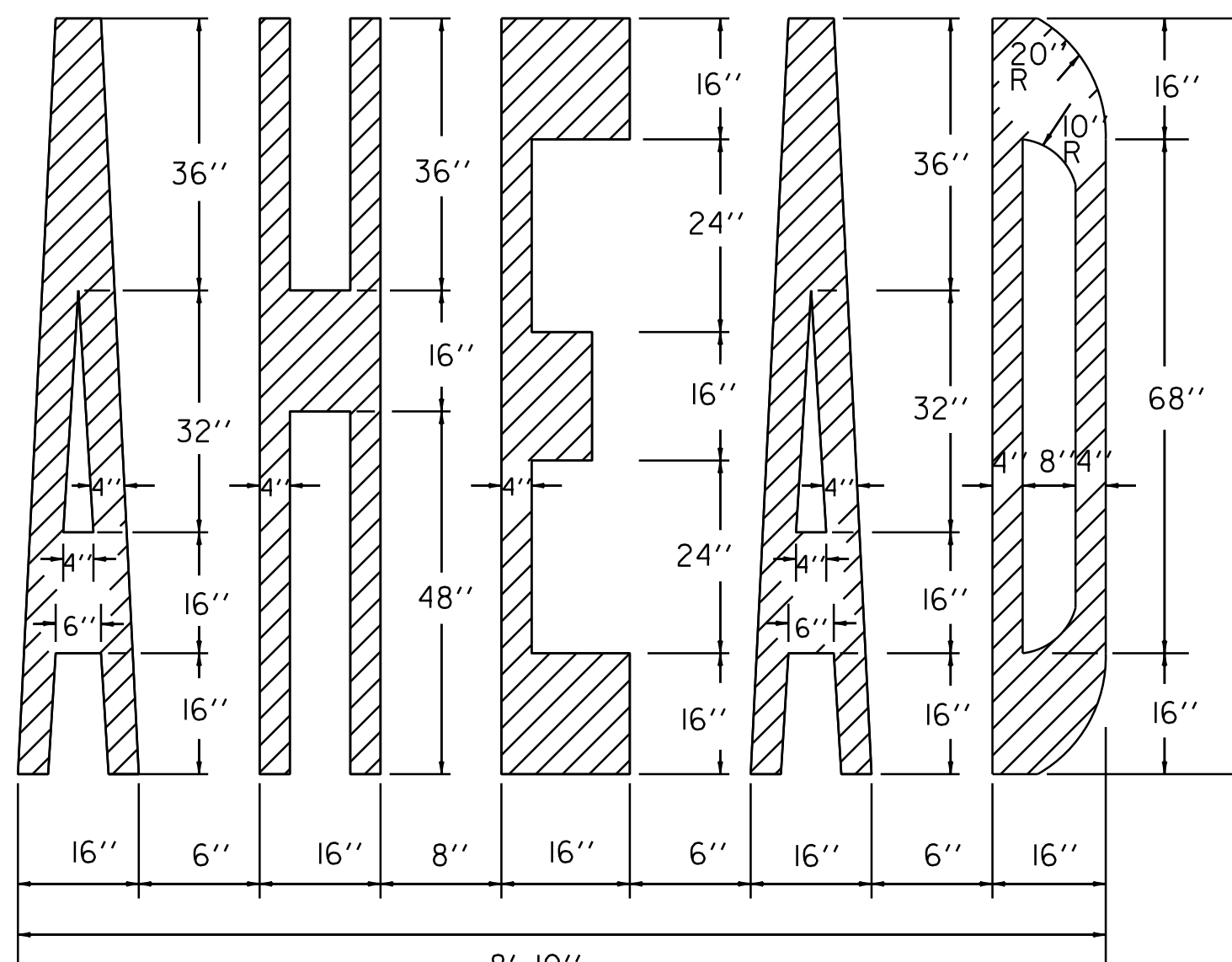
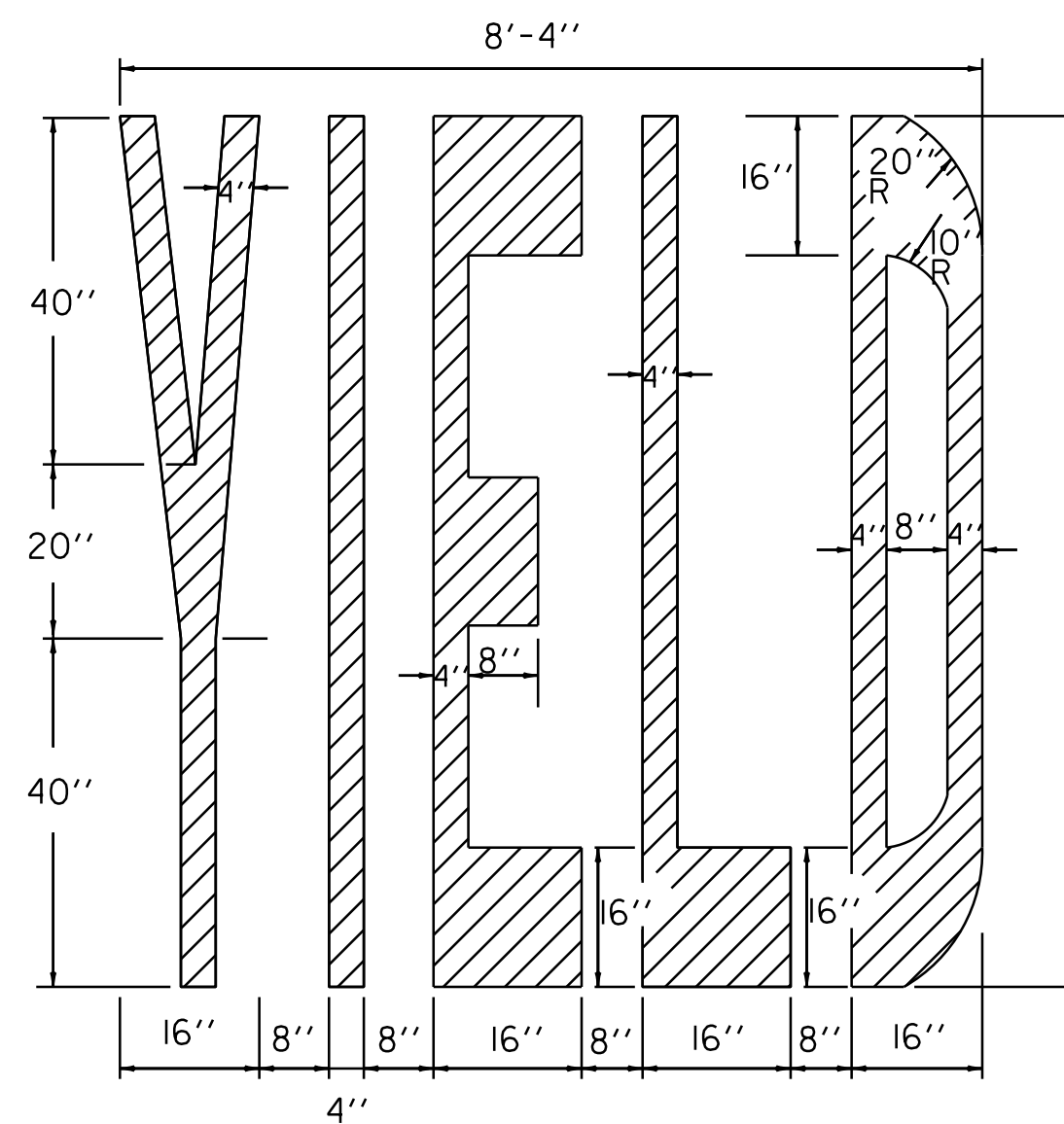
1. THE AMBIENT AIR TEMPERATURE IS AT LEAST 10 DEG C (50 DEG F) AND RISING.
2. THE ROAD SURFACE IS DRY.
3. WEATHER CONDITIONS OR OTHER CONDITIONS ARE FAVORABLE AND ARE EXPECTED TO REMAIN SO FOR THE PERFORMANCE OF SATISFACTORY WORK.

ASPHALTIC PLUG-TYPE JOINT DETAIL SHEET

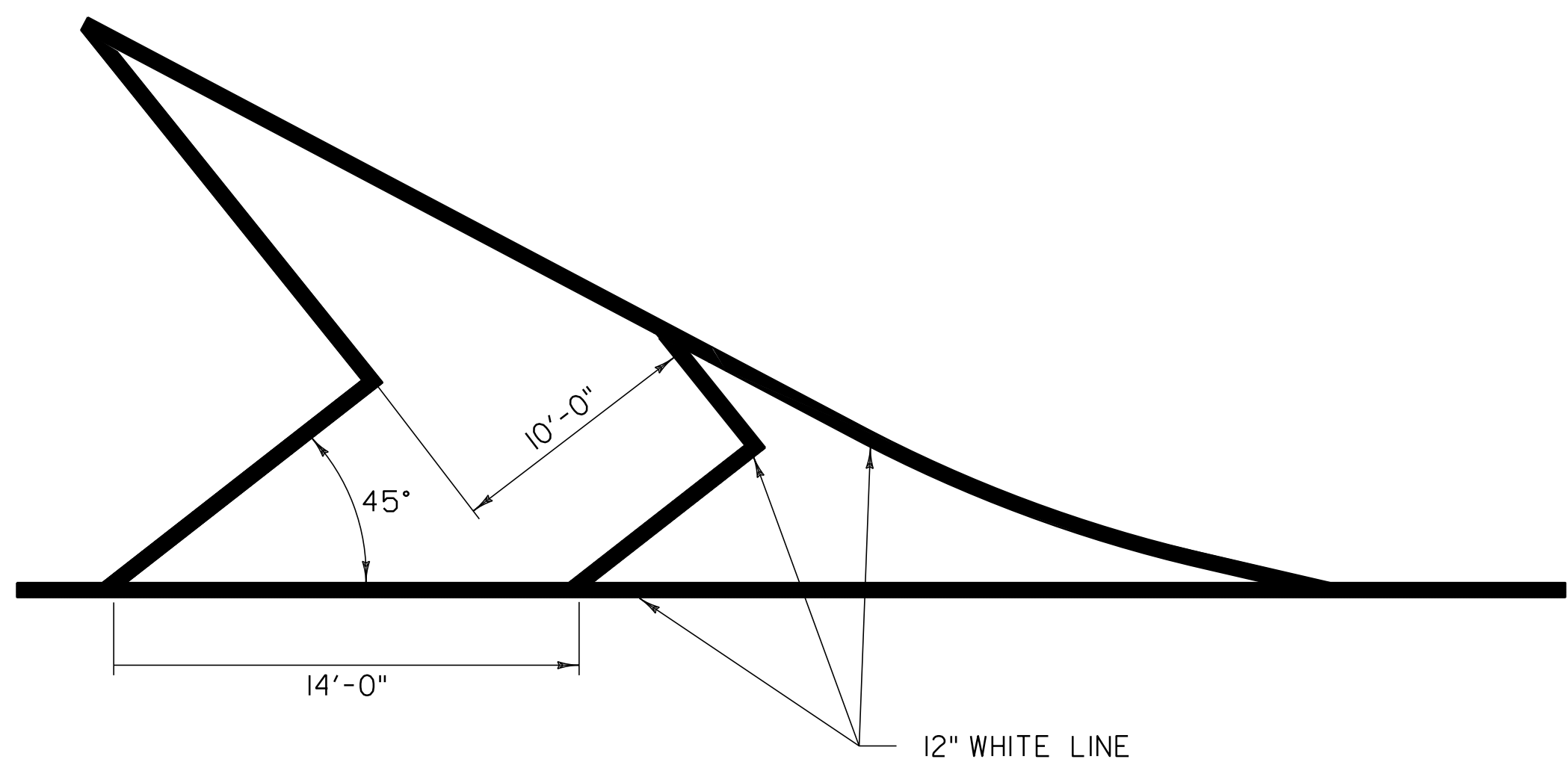
PROJECT NAME: HARTLAND-NORWICH
PROJECT NUMBER: IM 091-I(59)

FILE NAME: /pave/06a202/p06a202.dgn PLOT DATE: 19-JUN-2013 09:24
PROJECT LEADER: PTS DRAWN BY: WWG
DESIGNED BY: NULL CHECKED BY: PTS
IPARM FILE NAME: 06A202_I4 SHEET 14 OF 60

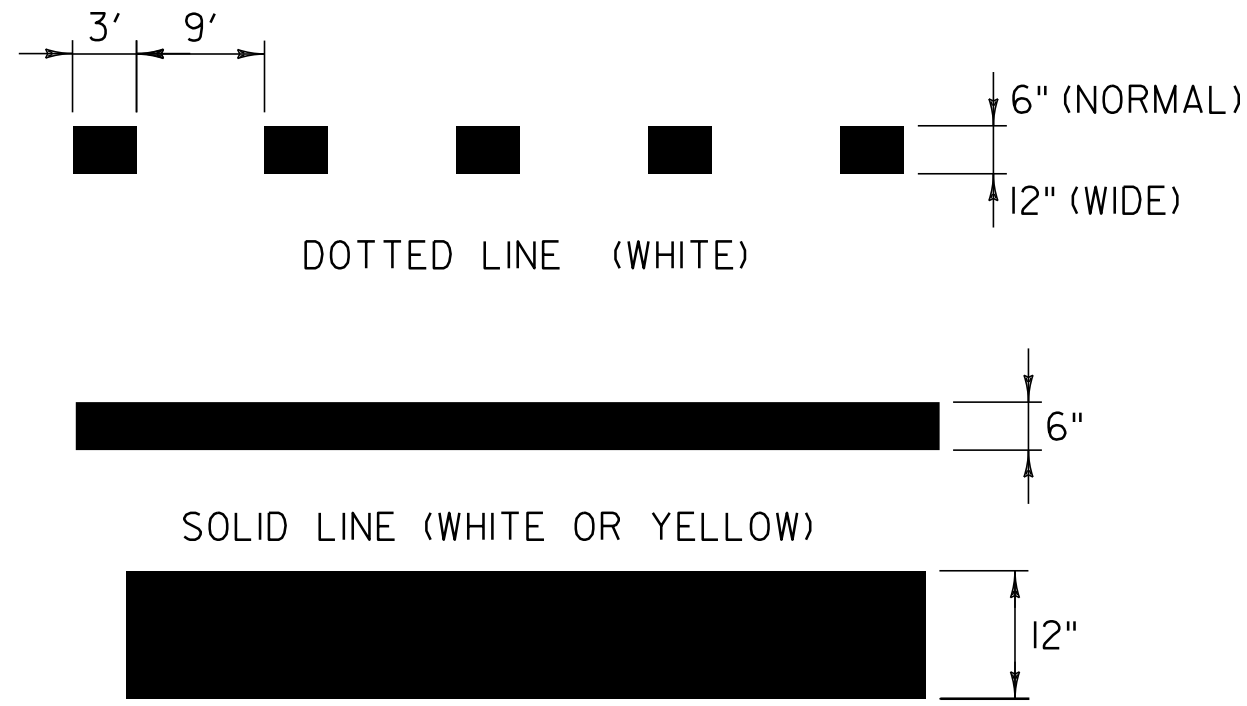
NOT TO SCALE



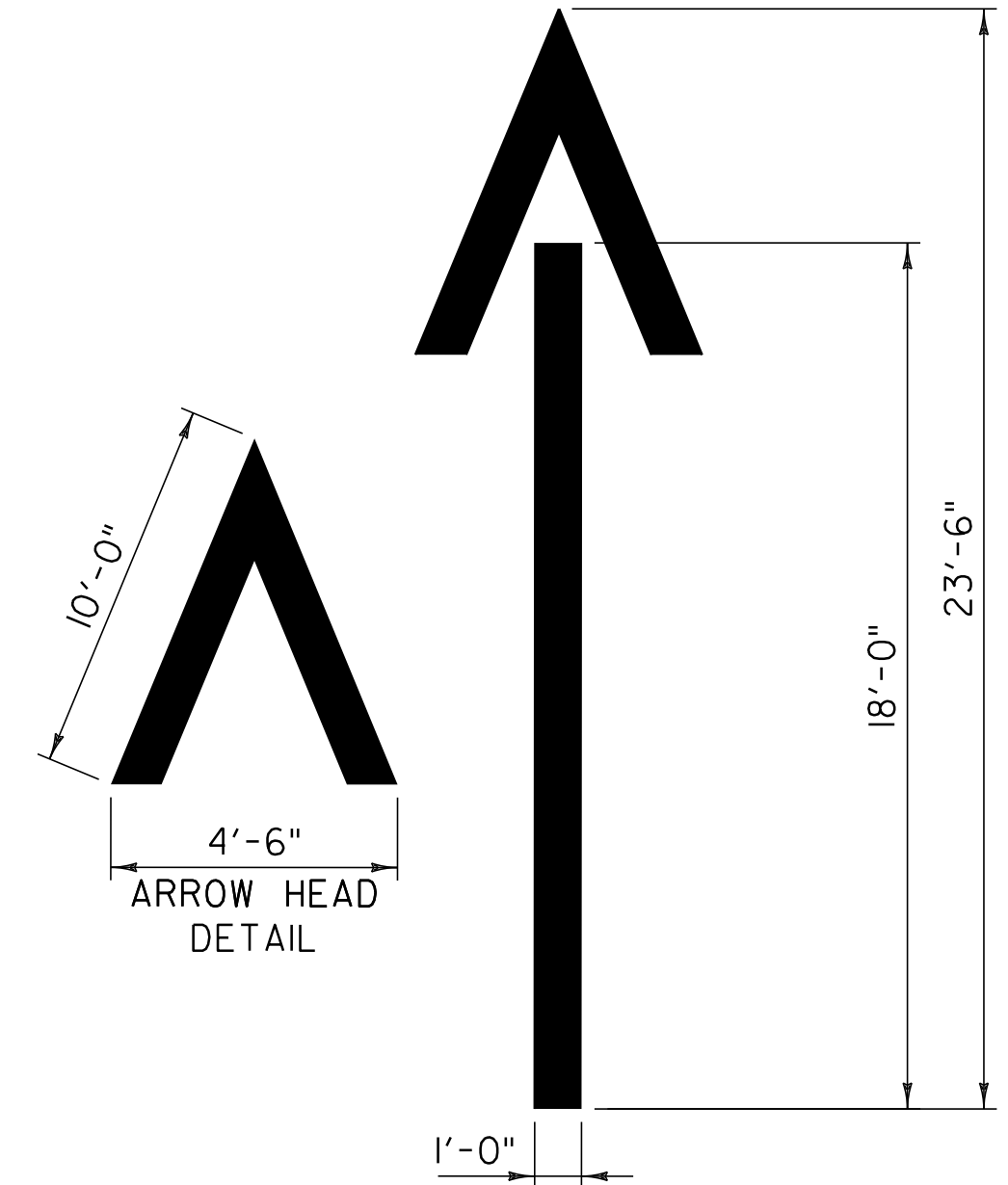
PAVEMENT MARKING DETAILS



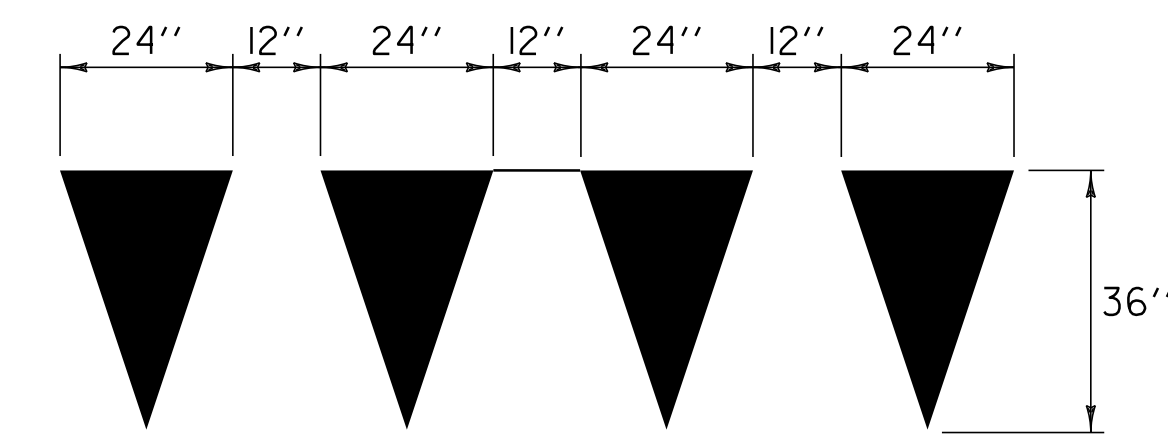
GORE MARKING DETAIL



PAVEMENT MARKING LINE DETAILS

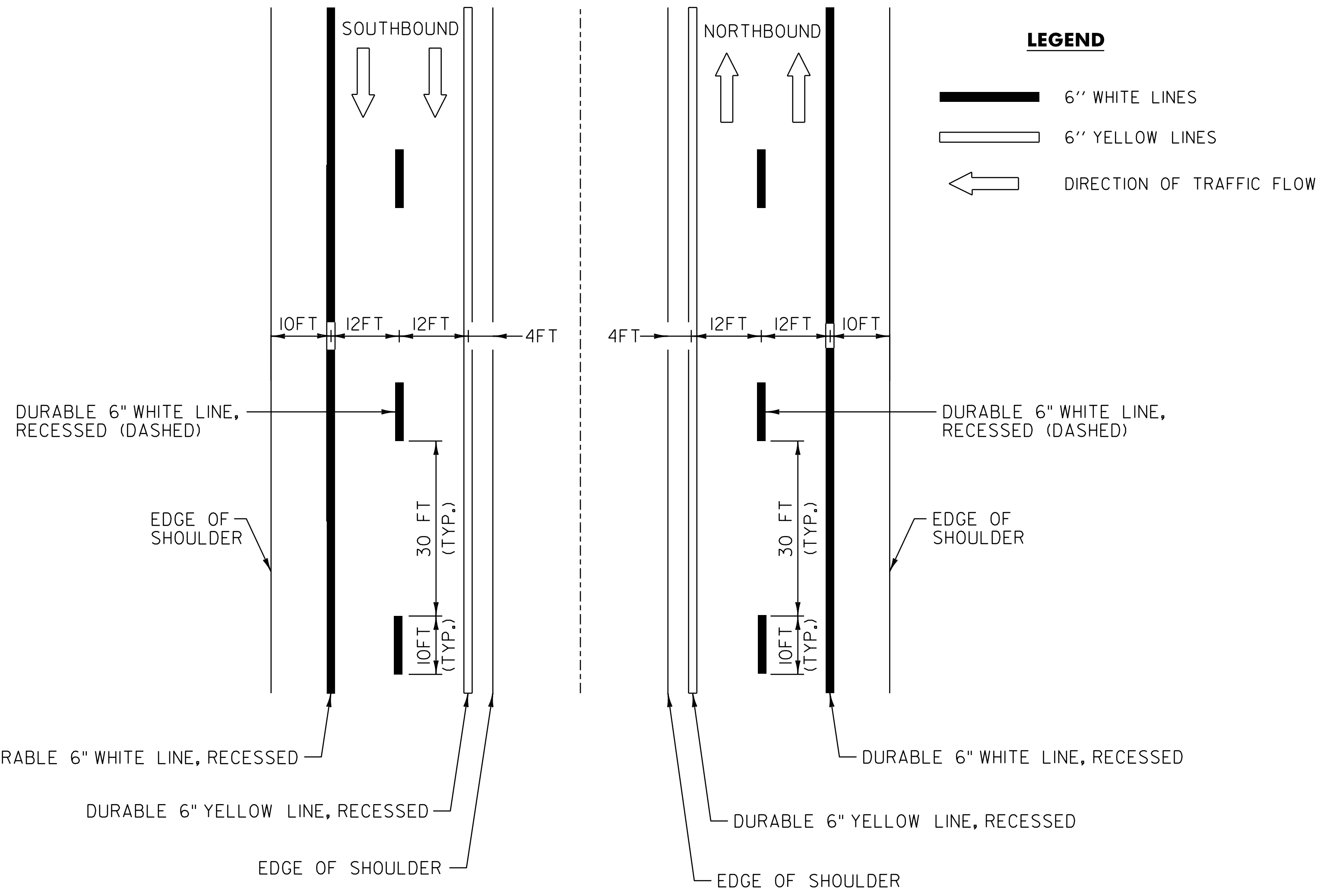


WRONG WAY ARROW



YIELD LINE DETAILS

NOTE:
 1. EACH TRIANGLE SHALL BE PAID AS ONE EACH
 ITEM 646.692 TEMPORARY LETTER OR SYMBOL, PAINT
 ITEM 646.492 DURABLE LETTER OR SYMBOL, THERMOPLASTIC OR
 ITEM 646.493 DURABLE LETTER OR SYMBOL, EPOXY PAINT.



TYPICAL MAINLINE MARKING PLAN

NOT TO SCALE

PAVEMENT MARKING DETAIL SHEET

PROJECT NAME:	HARTLAND-NORWICH	FILE NAME:	/pave/06a202/p06a202.dgn	PLOT DATE:	19-JUN-2013 09:29
PROJECT NUMBER:	IM 091-1(59)	PROJECT LEADER:	PTS	DRAWN BY:	WWG
		DESIGNED BY:	NLL	CHECKED BY:	PTS
		IPARM FILE NAME:	06A202.I5	SHEET	15 OF 60

CULVERT LOCATIONS		
MM	SIZE (INCHES)	TYPE
NORTHBOUND:		
66.180	UNKNOWN	UNKNOWN
66.300	18	CGMP
66.640	18	CGMP
66.830	18	CGMP
66.860	24	CGMP
66.890	18	CGMP
66.990	18	RCP
67.030	18	RCP
67.100	18	CGMP
67.160	24	CGMP
67.290	18	CGMP
67.380	18	CGMP
67.440	18	CGMP
67.590	18	RCP
67.680	24	RCP
67.690	36	CGMP
67.780	48	CGMP
67.820	18	CGMP
67.930	60	CGMP
68.220	18	CGMP
68.260	18	CGMP
68.320	18	RCP
68.410	18	CGMP
68.510	18	CGMP
68.580	18	CGMP
68.640	18	RCP
68.820	18	CGMP
68.990	18	RCP
69.120	18	RCP
69.340	18	RCP
69.390	24	RCP
69.430	18	CGMP
69.510	48	CGMP
69.530	18	CGMP
69.730	36	CGMP
70.020	18	CGMP
70.370	18	RCP
70.510	36	RCP
70.540	24	RCP
70.590	24	RCP
70.680	18	RCP
71.070	18	CGMP
71.120	18	RCP
71.170	18	RCP
71.210	18	RCP
71.270	24	CGMP
71.330	30	CGMP
71.440	36	CGMP
71.520	30	RCP
71.610	18	RCP
71.690	18	RCP
72.000	18	CGMP
72.050	18	RCP
72.110	18	CGMP
72.230	42	CGMP
72.330	18	RCP
72.380	36	CGMP
72.480	18	RCP
72.550	24	RCP
72.590	18	CGMP
72.680	24	CGMP
72.750	18	CGMP
72.810	30	CGMP
72.830	18	CGMP
72.920	18	RCP
73.000	18	CGMP
73.070	18	CGMP
73.160	18	RCP
73.210	24	CGMP
73.270	18	CGMP
73.360	24	RCP
73.360	18	CGMP
73.480	18	CGMP
73.570	18	CGMP

CULVERT LOCATIONS		
MM	SIZE (INCHES)	TYPE
NORTHBOUND:		
73.650	18	RCP
73.760	30	CGMP
73.840	18	CGMP
73.930	18	CGMP
74.000	18	CGMP
74.200	24	CGMP
74.280	18	CGMP
74.380	18	RCP
74.470	18	RCP
74.570	24	RCP
74.650	UNKNOWN	UNKNOWN

CULVERT LOCATIONS		
MM	SIZE (INCHES)	TYPE
SOUTHBOUND:		
66.200	UNKNOWN	UNKNOWN
66.430	18	CGMP
66.520	18	CGMP
66.580	18	CGMP
66.700	18	CGMP
66.760	18	CGMP
66.860	24	CGMP
66.890	18	CGMP
66.980	18	RCP
67.030	18	RCP
67.100	18	CGMP
67.160	18	CGMP
67.260	18	CGMP
67.290	18	CGMP
67.370	18	CGMP
67.440	18	CGMP
67.580	18	RCP
67.660	18	RCP
67.690	36	CGMP
67.700	12	CGMP
67.750	18	CGMP
67.780	48	CGMP
67.930	60	CGMP
67.960	18	CGMP
68.060	18	RCP
68.100	18	CGMP
68.230	18	RCP
68.340	36	CGMP
68.470	18	CGMP
68.570	18	CGMP
68.640	18	RCP
68.980	18	RCP
69.030	18	RCP
69.080	18	RCP
69.330	18	RCP
69.390	24	RCP
69.430	18	CGMP
69.510	48	CGMP
69.520	18	CGMP
69.660	18	CGMP
69.730	36	CGMP
69.940	18	CGMP
70.020	18	CGMP
70.070	18	CGMP
70.180	18	CGMP
70.340	18	RCP
70.400	18	RCP
70.460	18	RCP
70.540	24	RCP
70.550	36	RCP
70.630	24	RCP
70.710	24	CGMP
70.810	18	RCP
70.840	18	CGMP
71.090	18	CGMP
71.140	18	RCP
71.190	18	RCP
71.230	18	RCP
71.300	24	CGMP
71.360	30	CGMP
71.460	36	CGMP
71.530	18	CGMP
71.610	18	RCP
71.690	18	RCP
71.840	18	RCP
71.910	18	CGMP
72.030	18	RCP
72.230	42	CGMP
72.330	18	RCP
72.380	36	CGMP
72.400	18	CGMP
72.480	18	RCP
72.550	24	RCP

CULVERT LOCATIONS		
MM	SIZE (INCHES)	TYPE
SOUTHBOUND:		
72.550	24	RCP
72.680	24	CGMP
72.810	30	CGMP
72.920	18	RCP
73.160	15	RCP
73.210	24	CGMP
73.280	18	RCP
73.360	24	RCP
73.360	18	CGMP
73.500	18	CGMP
73.650	18	CGMP
73.770	30	CGMP
73.840	18	RCP
73.930	24	RCP
74.000	18	CGMP
74.160	24	RCP
74.280	18	CGMP
74.370	18	RCP
74.470	18	RCP
74.730	18	CGMP
74.810	18	CGMP
75.100	18	CGMP
75.210	24	CGMP
75.280	18	RCP
75.390	36	CGMP
75.570	18	RCP
75.630	54	CGMP
75.700	48	RCP
75.790	18	RCP
75.870	48	CGMP
75.920	18	CGMP
75.980	24	CGMP
76.040	24	CGMP
76.120	24	RCP
76.180	24	RCP
76.250	24	RCP
76.310	24	RCP
76.370	36	RCP
76.440	18	RCP

CULVERT LOCATIONS		
MM	SIZE (INCHES)	TYPE
EXIT 10 RAMP C:		
0.110	36	CGMP
0.190	18	RCP
0.300	18	RCP
0.360	18	RCP
0.450	48	CGMP
0.460	12	CGMP
0.520	12	CGMP
0.560	12	CGMP
0.710	12	CGMP
0.720	18	CGMP
EXIT 10 RAMP D:		
0.080	18	RCP
0.140	18	RCP
0.480	18	CGMP
0.530	24	CGMP
EXIT 10 RAMP E:		
0.020	18	RCP
EXIT 10 RAMP F:		
0.090	18	RCP
0.170	18	RCP
0.200	24	RCP
0.240	42	RCP
EXIT 11 RAMP A:		
0.020	18	CGMP
0.020	24	CGMP
0.050	30	RCP
0.070	24	RCP
0.250	18	CGMP
EXIT 11 RAMP B:		
0.030	18	CGMP
0.100	18	CGMP
0.110	18	CGMP
0.120	18	CGMP
0.140	18	CGMP
0.300	12	CGMP
0.300	18	RCP
0.390	18	CGMP
EXIT 11 RAMP C:		
0.160	18	RCP
EXIT 11 RAMP D:		
0.010	18	RCP
0.010	18	RCP
0.150	18	RCP
0.180	18	RCP
0.210	24	RCP
EXIT 11 RAMP F:		
0.010	18	CGMP
EXIT 12 RAMP A:		
0.130	18	RCP
0.150	18	RCP
0.150	18	RCP
0.190	18	RCP
0.250	18	CGMP
0.250	18	CGMP
EXIT 12 RAMP B:		
0.020	18	CGMP
0.040	18	RCP
0.040	24	RCP
0.070	24	RCP
0.110	18	RCP
0.150	18	RCP

CULVERT LOCATIONS		
MM	SIZE (INCHES)	TYPE
EXIT 12 RAMP C:		
0.020	18	CGMP
0.060	12	CGMP
0.100	12	CGMP
0.180	12	CGMP
0.190	18	CGMP
0.220	12	CGMP
0.260	12	CGMP
EXIT 12 RAMP D:		
0.120	12	CGMP
0.150	12	CGMP
EXIT 13 RAMP A:		
0.040	12	CPEPSL
0.140	12	CGMP
0.140	UNKNOWN	UNKNOWN
0.200	UNKNOWN	UNKNOWN
EXIT 13 RAMP B:		
0.080	18	CGMP
EXIT 13 RAMP C:		
0.020	UNKNOWN	UNKNOWN
0.040	UNKNOWN	UNKNOWN
0.060	UNKNOWN	UNKNOWN
0.070	18	CGMP
0.070	UNKNOWN	UNKNOWN
0.090	18	CGMP
0.120	12	CPEPSL

*REFERENCE COMP. BINDER SECTION 619.17 FOR YIELDING MARKER POST LOCATIONS

FOR INFORMATIONAL PURPOSES ONLY

CULVERT LOCATIONS SHEET

PROJECT NAME:	HARTLAND-NORWICH	
PROJECT NUMBER:	IM 091-1(59)	
FILE NAME:	/pave/06a202/p06a202.dgn	PLOT DATE: 19-JUN-2013 09:24
PROJECT LEADER:	PTS	DRAWN BY: WWG
DESIGNED BY:	NLL	CHECKED BY: PTS
IPARM FILE NAME:	06A202_16	SHEET 16 OF 60

QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS				
							ROADWAY	TRAINING	BRIDGE	FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND
							6				6		EACH	THINNING AND TRIMMING FOR SIGNS	201.31	-
							100				100		CY	COMMON EXCAVATION	203.15	17.2
							1550				1550		CY	EARTH BORROW	203.30	0
							35300				35300		LF	SHOULDER BERM REMOVAL	203.40	119
							1				1		CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22	-
							367500				367500		SY	COLD PLANING, BITUMINOUS PAVEMENT	210.10	179
							148000				148000		LF	MILLED RUMBLE STRIPS	213.10	846
							1200				1200		TON	AGGREGATE SHOULDERS, RAP	402.13	78
							1				1		LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	406.50	-
							2000				2000		LB	BITUMINOUS CRACK SEALING, BLOW AND GO METHOD (AASHTO M 324 (ASTM D 6690) TYPE II)	417.20	EST.
							57150				57150		TON	SUPERPAVE BITUMINOUS CONCRETE PAVEMENT	490.30	7
							1				1		LU	AIR VOIDS PAY ADJUSTMENT (N.A.B.I.)	490.31	-
							1				1		LU	MAT DENSITY PAY ADJUSTMENT (N.A.B.I.)	490.32	-
							1				1		LU	SURFACE TOLERANCE PAY ADJUSTMENT (N.A.B.I.)	490.33	-
							1				1		LU	LONGITUDINAL JOINT COMPACTION PAY ADJUSTMENT (N.A.B.I.)	490.34	-
									280		280		LF	BRIDGE EXPANSION JOINT, ASPHALTIC PLUG	516.10	4
									100		100		CF	RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE	580.20	EST.
							53				53		EACH	REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I	604.412	-
							12				12		EACH	REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS II	604.415	-
							100				100		HR	POWER GRADER RENTAL	608.15	EST.
							200				200		HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25	EST.
							100				100		HR	POWER BROOM RENTAL, TYPE I	608.30	EST.
							75				75		HR	POWER BROOM RENTAL, TYPE II	608.31	EST.
							200				200		HR	TRUCK RENTAL	608.37	EST.
							75				75		HR	LOADER RENTAL, TYPE I	608.40	EST.
							145				145		CY	STONE FILL, TYPE I	613.10	4.2
							1250				1250		LF	BITUMINOUS CONCRETE CURB, TYPE A	616.305	EST.
							1000				1000		LF	REMOVAL OF EXISTING CURB	616.41	EST.
							550				550		EACH	YIELDING MARKER POSTS	619.17	EST.
							750				750		LF	SNOW BARRIER	620.75	26
							12400				12400		LF	STEEL BEAM GUARDRAIL, GALVANIZED	621.20	36
							100				100		LF	STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS	621.205	-
							34				34		EACH	MANUFACTURED TERMINAL SECTION, FLARED	621.50	-
							2				2		EACH	MANUFACTURED TERMINAL SECTION, TANGENT	621.51	-
							28				28		EACH	ANCHOR FOR STEEL BEAM RAIL	621.60	-
							1				1		EACH	GUARDRAIL APPROACH SECTION, GALVANIZED TYPE I	621.70	-
							2				2		EACH	GUARDRAIL APPROACH SECTION, GALVANIZED TYPE II	621.71	-
							110				110		LF	ALUMINUM APPROACH RAILING	621.74	0.8
							150				150		LF	REMOVE AND RESET GUARDRAIL	621.75	12.5
							250				250		EACH	REPLACE GUARDRAIL POST ASSEMBLY	621.76	EST.

DETAILED SUMMARY OF QUANTITIES		
QUANTITY	UNIT	ITEMS
		COLD PLANING, BITUMINOUS PAVEMENT
156889	SY	I-91NB 165.074 SY
143889	SY	I-91SB 220.209 SY
66543	SY	RAMPS 57.4555 SY
2693	SY	U TURNS (SB REST AREA DEDUCT) 2115 SY
367321	SY	SUBTOTAL 444.116 SY
179	SY	ROUNDING 0 SY
367500	SY	TOTAL 444.116 SY
*REFERENCE COMP. BINDER SECTION 210.XX FOR CALCULATIONS AND LOCATIONS		
		SUPERPAVE BITUMINOUS CONCRETE PAVEMENT
15898	TON	I-91NB, TYPE IV S, WEARING COURSE
5204	TON	I-91NB, TYPE IV S, LEVELING COURSE
18411	TON	I-91SB, TYPE IV S, WEARING COURSE
6085	TON	I-91SB, TYPE IV S, LEVELING COURSE
2309	TON	INTERCHANGE 10, TYPE IV S, WEARING COURSE
770	TON	INTERCHANGE 10, TYPE IV S, LEVELING COURSE
1268	TON	INTERCHANGE 11, TYPE IV S, WEARING COURSE
423	TON	INTERCHANGE 11, TYPE IV S, LEVELING COURSE
1087	TON	INTERCHANGE 12, TYPE IV S, WEARING COURSE
362	TON	INTERCHANGE 12, TYPE IV S, LEVELING COURSE
616	TON	INTERCHANGE 13, TYPE IV S, WEARING COURSE
205	TON	INTERCHANGE 13, TYPE IV S, LEVELING COURSE
3976	TON	10 FT SHOULDER RECONSTRUCTION, TYPE III S, BASE COURSE
16	TON	I-91NB & SB, TYPE IVS BENEATH BITUMINOUS CURB
20	TON	EXIT 12 NB ON RAMP WIDENING, TYPE IVS, WEARING COURSE
7	TON	EXIT 12 NB ON RAMP WIDENING, TYPE IVS, LEVELING COURSE
79	TON	EXIT 12 NB ON RAMP WIDENING, TYPE IS, BASE COURSE
24	TON	EXIT 13 SB OFF RAMP WIDENING, TYPE IVS, WEARING COURSE
8	TON	EXIT 13 SB OFF RAMP WIDENING, TYPE IVS, LEVELING COURSE
95	TON	EXIT 13 SB OFF RAMP WIDENING, TYPE IS, BASE COURSE
256	TON	U-TURNS, TYPE IV S, WEARING COURSE
24	TON	U-TURNS, TYPE IV S, LEVELING COURSE
57143	TON	SUBTOTAL
7	TON	ROUNDING
57150	TON	TOTAL
*REFERENCE COMP. BINDER SECTION 490.X FOR SUPERPAVE BITUMINOUS CONCRETE PAVEMENT SUMMARY		
PROJECT NAME: HARTLAND-NORWICH		
PROJECT NUMBER: IM 091-1(59)		
FILE NAME: /pave/06a202/p06a202.dgn	PLOT DATE: 19-JUN-2013 09:24	
PROJECT LEADER: PTS	DRAWN BY: WWG	
DESIGNED BY: NULL	CHECKED BY: PTS	
IPARM FILE NAME: 06A202_17	SHEET 17 OF 60	

QUANTITY SHEET 3

SUMMARY OF ESTIMATED QUANTITIES							TOTALS		DESCRIPTIONS						
						ROADWAY	TRAINING	BRIDGE	FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND
						575				575		SY	GEOTEXTILE UNDER STONE FILL	649.31	2
						60				60		SY	GEOTEXTILE FOR SILT FENCE	649.51	8
						150				150		LB	SEED	651.15	EST.
						925				925		LB	FERTILIZER	651.18	EST.
						5				5		TON	AGRICULTURAL LIMESTONE	651.20	EST.
						5				5		TON	HAY MULCH	651.25	EST.
						375				375		CY	TOPSOIL	651.35	EST.
						2450				2450		SY	TEMPORARY EROSION MATTING	653.20	12
						60				60		LB	TUBULAR ALUMINUM SIGN POST	675.32	4
						1				1		EACH	REMOVING SIGNS	675.50	-
						1				1		EACH	ERECTING SALVAGED SIGNS	675.60	-
						61				61		EACH	REMOVAL OF EXISTING DELINEATOR	676.12	-
						1				1		LU	PRICE ADJUSTMENT, FUEL (N.A.B.I.)	690.50	-
						10				10		CY	SPECIAL PROVISION (CONTROLLED DENSITY (FLOWABLE) FILL)	900.608	EST.
						61				61		EACH	SPECIAL PROVISION (DELINEATOR WITH STEEL POST)	900.620	-
						600				600		EACH	SPECIAL PROVISION (STEEL BEAM GUARDRAIL DELINEATOR)	900.620	EST.
						250				250		EACH	SPECIAL PROVISION (STEEL BEAM GUARDRAIL OFFSET BLOCK)	900.620	EST.
						25500				25500		SY	SPECIAL PROVISION (COLD PLANING BITUMINOUS PAVEMENT FOR SUPERELEVATION CORRECTION)	900.675	130
						100				100		TON	SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION, TYPE I)	900.680	EST.
						3000				3000		CWT	SPECIAL PROVISION (EMULSIFIED ASPHALT) (RS-IH OR CRS-IH)	900.683	9
										1		LS	SUPPLEMENTAL AGREEMENT (641.10 TRAFFIC CONTROL - RAMPS)	900.545	

DETAILED SUMMARY OF QUANTITIES		
QUANTITY	UNIT	ITEMS
		SPECIAL PROVISION (COLD PLANING BITUMINOUS PAVEMENT FOR SUPERELEVATION CORRECTION)
20480	SY	MM 73.542 - MM 74.451
4890	SY	MM 74.451 - MM 74.593
130	SY	ROUNDING
25500	SY	TOTAL
24,747		

LOCATION			DROP INLETS			GUARDRAIL																REMARKS								
M M	M M	POS.	604.412	604.415	616.305	616.41	621.20	621.205	621.50	621.51	621.60	621.70	621.71	621.74	621.75	621.76	621.77	621.79	621.80	676.12	900.620		900.620	900.620						
			REHAB. DI, CB, OR MH, CLASS I	REHAB. DI, CB, OR MH, CLASS II	BIT CONCRETE CURB, TYPE A	REMOVAL OF EXISTING CURB	STEEL BEAM GUARDRAIL GALV.	STEEL BEAM GUARDRAIL GALV. W/8' POSTS	M. T. S. FLARED	M. T. S. TANGENT	ANCHOR FOR STEEL BEAM RAIL	GUARDRAIL APPROACH SECTION, GALV. TYPE I	GUARDRAIL APPROACH SECTION, GALV. TYPE II	ALUMINUM APPROACH RAILING	REMOVE AND RESET GUARDRAIL	REPLACE GUARDRAIL POST ASSEMBLY	REPLACE GUARDRAIL BEAM UNIT	ADJUST HEIGHT OF GUARDRAIL	REMOVAL & DISPOSAL OF GUARDRAIL	REMOVAL OF EXISTING DEL IN.	SPECIAL PROV. (DEL IN. W/ STEEL POST)		SPECIAL PROV. (S.B.G.R. DEL IN.)	SPECIAL PROV. (DEL IN. OFFSET BLOCK)						
(EA)	(EA)	(LF)	(LF)	(LF)	(LF)	(EA)	(EA)	(EA)	(EA)	(EA)	(EA)	(LF)	(LF)	(EA)	(EA)	(LF)	(LF)	(EA)	(EA)	(EA)	(EA)									
NORTHBOUND																														
66.195	74.762	LT&RT	17	4	575	500																	125	875	825			300	125	FOR LOCATIONS SEE LAYOUT SHEETS, ESTIMATED QUANTITY TO BE USED AS DIRECTED BY THE RESIDENT ENGINEER
66.155	66.199	RT																												RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 39N)
66.199	66.293	RT				500																								CONNECT TO APPROACH RAIL AT BRIDGES 39N & 40N, SEE DETAIL ON SHEET 47
66.293	66.421	RT																												RETAIN GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 40N)
66.421	66.426	RT				27																								REMOVE TWIST DOWN, ANCHOR @ 66.426
66.155	66.197	LT																												RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 39N)
66.197	66.214	LT																												REMOVE 1/2 BULLNOSE AND APPROACH RAIL
66.197	66.202	LT																												SEE BRIDGE DETAIL ON SHEET 47
66.202	66.293	LT				475																								CONNECT TO APPROACH RAIL AT BRIDGES 39N & 40N, SEE BRIDGE DETAIL ON SHEET 47
66.283	66.293	LT																												REMOVE 1/2 BULL NOSE
66.293	66.365	LT																												RETAIN APPROACH RAIL AND BRIDGE RAIL (BRIDGE 40N)
66.365	66.380	LT																												REMOVE 1/2 BULLNOSE AND APPROACH RAIL
66.365	66.370	LT																												SEE BRIDGE DETAIL ON SHEET 47
66.366		LT				38																								MEDIAN "DROP DEAD" GUARDRAIL
66.370	66.375	LT				27																								ANCHOR @ 66.375, SEE BRIDGE DETAIL ON SHEET 47
66.478	66.485	RT																												MTS @ 66.478
66.485	66.940	RT																												RETAIN EXISTING GUARDRAIL
66.940	66.947	RT				39.5																								REMOVE TWIST DOWN, ANCHOR @ 66.947
67.102	67.109	RT																												MTS @ 67.102
67.109	67.327	RT																												RETAIN EXISTING GUARDRAIL
67.327	67.334	RT				39.5																								REMOVE TWIST DOWN, ANCHOR @ 67.334
67.836	68.166	RT																												RETAIN EXISTING GUARDRAIL
66.166	68.173	RT				39.5																								REMOVE TWIST DOWN, ANCHOR @ 68.173
68.771	68.778	LT																												MTS @ 68.771
68.778	68.876	LT																												RETAIN EXISTING GUARDRAIL
68.876	68.883	LT				39.5																								REMOVE TWIST DOWN, ANCHOR @ 68.883
69.071	69.078	RT																												MTS @ 69.071
69.078	69.333	RT																												RETAIN EXISTING GUARDRAIL
69.333	69.340	RT				39.5																								REMOVE TWIST DOWN, ANCHOR @ 69.340
69.094	69.101	LT																												MTS @ 69.094
69.101	69.333	LT																												RETAIN EXISTING GUARDRAIL
69.333	69.340	LT				39.5																								REMOVE TWIST DOWN, ANCHOR @ 69.340
69.589	69.613	RT																												REMOVE GUARDRAIL
69.566	69.613	RT				250																								MTS @ 69.559, SEE BRIDGE DETAIL ON SHEET 48
69.613	69.727	RT																												RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 4IN)
69.727	69.736	RT																												SEE BRIDGE DETAIL ON SHEET 48
69.736	69.804	RT																												RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 4IN)
69.804	69.811	RT																												
69.804	69.806	RT																												
69.806	69.811	RT				25																								ATTACH TO EXISTING GUARDRAIL @ 69.811
69.604	69.628	LT																												REMOVE GUARDRAIL
69.512	69.628	LT				612.5																								MTS @ 69.504, SEE BRIDGE DETAIL ON SHEET 48
69.628	69.666	LT																												RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 4IN)
69.666	69.676	LT																												
69.666	69.733	LT				350																								SEE BRIDGE DETAIL ON SHEET 48, FOR POST SPACING SEE GUARDRAIL
69.733	69.810	LT																												DETAIL ON SHEET 12
69.810	69.822	LT																												RETAIN BRIDGE RAIL (BRIDGE 42N)
69.810	69.812	LT																												REMOVE GUARDRAIL
69.812	69.817	LT				27																								ANCHOR @ 69.817, SEE BRIDGE DETAIL ON SHEET 48
																														NOTE: *REFERENCE COMP. BINDER SECTION 621.XXX FOR GUARDRAIL INSTALLED QUANTITIES AND LOCATIONS *REFERENCE COMP. BINDER SECTION 604.XXX FOR REHAB DI QUANTITIES AND LOCATIONS *REFERENCE COMP. BINDER SECTION 616.XXX FOR BIT CURB NEW AND REMOVED QUANTITIES AND LOCATIONS
SUBTOTAL SHEET 20			17	4	575	500	2568.5		7		9	1	2	54.6		125	875	825	1605.5	16	16	300	125							
ITEM DETAIL SUMMARY SHEET 1																														
PROJECT NAME: HARTLAND-NORWICH																														
PROJECT NUMBER: IM 091-1(59)																														
FILE NAME: /pave/06a202/p06a202.dgn													PLOT DATE: 19-JUN-2013 09:24																	
PROJECT LEADER: PTS													DRAWN BY: WWG																	
DESIGNED BY: NULL													CHECKED BY: PTS																	
IPARM FILE NAME: 06A202_20													SHEET 20 OF 60																	

LOCATION			DROP INLETS *				GUARDRAIL* (SEE NOTE ON PAGE 20)																	REMARKS		
M M	M M	POS.	604.412	604.415	616.305	616.41	621.20	621.205	621.50	621.51	621.60	621.70	621.71	621.74	621.75	621.76	621.77	621.79	621.80	676.12	900.620	900.620	900.620			
			REHAB. DI, CB, OR MH, CLASS I	REHAB. DI, CB, OR MH, CLASS II	BIT CONCRETE CURB, TYPE A	REMOVAL OF EXISTING CURB	STEEL BEAM GUARDRAIL GALV.	STEEL BEAM GUARDRAIL GALV. W/8' POSTS	M. T. S. FLARED	M. T. S. TANGENT	ANCHOR FOR STEEL BEAM RAIL	GUARDRAIL APPROACH SECTION, GALV. TYPE I	GUARDRAIL APPROACH SECTION, GALV. TYPE II	ALUMINUM APPROACH RAILING	REMOVE AND RESET GUARDRAIL	REPLACE GUARDRAIL POST ASSEMBLY	REPLACE GUARDRAIL BEAM UNIT	ADJUST HEIGHT OF GUARDRAIL	REMOVAL & DISPOSAL OF GUARDRAIL	REMOVAL OF EXISTING DEL IN.	SPECIAL PROV. (DEL IN. W/ STEEL POST)	SPECIAL PROV. (S.B.G.R. DEL IN.)	SPECIAL PROV. (DEL IN. OFFSET BLOCK)			
			(EA)	(EA)	(LF)	(LF)	(LF)	(LF)	(EA)	(EA)	(EA)	(EA)	(EA)	(LF)	(LF)	(EA)	(EA)	(LF)	(LF)	(EA)	(EA)	(EA)	(EA)			
NORTHBOUND																								RETAIN EXISTING GUARDRAIL		
69.950	69.999	LT																						RETAIN EXISTING GUARDRAIL		
69.983	70.070	RT																						RETAIN EXISTING GUARDRAIL		
70.129	70.343	RT																						RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 43N)		
70.129	70.136	LT																		37.5				REMOVE GUARDRAIL		
70.091	70.136	LT					237.5		I											I	I			MTS @ 70.084, SEE BRIDGE DETAIL ON SHEET 49		
70.136	70.234	LT																						RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 43N)		
70.550	70.689	RT																						RETAIN EXISTING GUARDRAIL		
70.744	70.786	LT					220			I											I	I		MTS @ 70.735, SEE BRIDGE DETAIL ON SHEET 49		
70.774	70.786	LT																		62.5				RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 44N)		
70.786	71.116	LT																						RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 44N)		
70.745	70.766	RT					112.5		I												I	I		MTS @ 70.737, SEE BRIDGE DETAIL ON SHEET 49		
70.759	70.766	RT																		37.5				RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 44N)		
70.766	71.506	RT																						RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 44N)		
71.871	72.020	RT																						RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 45N)		
71.885	71.932	LT					250		I												I	I		MTS @ 71.878, SEE BRIDGE DETAIL ON SHEET 50		
71.925	71.932	LT																		37.5				RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 45N)		
71.932	72.020	LT																						RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 45N)		
72.342	72.432	LT																						RETAIN EXISTING GUARDRAIL		
72.690	72.804	RT																						RETAIN EXISTING GUARDRAIL		
72.804	72.813	RT					52				I									50	I	I		REMOVE TWIST DOWN, ANCHOR @ 72.813		
72.883	73.152	RT																						RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 47N)		
73.026	73.046	LT																						RETAIN EXISTING GUARDRAIL		
72.990	73.046	LT					300		I															MTS @ 72.982, SEE BRIDGE DETAIL ON SHEET 50		
73.046	73.129	LT																						RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 47N)		
73.323	73.522	RT																						RETAIN EXISTING GUARDRAIL		
73.343	73.493	LT																						RETAIN EXISTING GUARDRAIL		
74.625	74.769	RT																						RETAIN EXISTING GUARDRAIL, SEE BRIDGE DETAIL ON SHEET 51		
74.691	74.736	LT					237.5		I															MTS @ 74.684, SEE BRIDGE DETAIL ON SHEET 51		
74.729	74.736	LT																		37.5		I	I	RETAIN EXISTING GUARDRAIL (CONTINUES ON BRIDGE 49N)		
74.736	74.772	LT																						RETAIN EXISTING GUARDRAIL (CONTINUES ON BRIDGE 49N)		
EXIT 10 RAMP A																										
A 0.037	A 0.219	LT&RT	2	I																				FOR LOCATIONS SEE LAYOUT SHEETS, ESTIMATED QUANTITY TO BE USED AS DIRECTED BY THE RESIDENT ENGINEER		
A 0.038	C 0.796	RT																						RETAIN EXISTING GUARDRAIL (ENDS ON I-91)		
A 0.047	A 0.073	LT																		137.5				RETAIN EXISTING GUARDRAIL		
A 0.054	A 0.073	LT																			I	I		MTS @ A 0.047		
A 0.073	A 0.147	LT																						RETAIN EXISTING GUARDRAIL		
A 0.147	A 0.154	LT					39.5				I									37.5	I	I		ANCHOR @ A 0.154		
EXIT 10 RAMP C																										
C 0.087	C 0.796	LT&RT	I																					FOR LOCATIONS SEE LAYOUT SHEETS, ESTIMATED QUANTITY TO BE USED AS DIRECTED BY THE RESIDENT ENGINEER		
C 0.418	C 0.435	LT					50		I											87.5	I	I		MTS @ C 0.418		
SUBTOTAL SHEET 21			3	I		1499	100	6	2	2									637.5	10	10					
ITEM DETAIL SUMMARY SHEET 2																										
PROJECT NAME: HARTLAND-NORWICH																										
PROJECT NUMBER: IM 091-1(59)																										
FILE NAME: /pave/06a202/p06a202.dgn													PLOT DATE: 19-JUN-2013 09:24													
PROJECT LEADER: PTS													DRAWN BY: WWG													
DESIGNED BY: NULL													CHECKED BY: PTS													
IPARM FILE NAME: 06A202_21													SHEET 21 OF 60													

LOCATION			DROP INLETS *				GUARDRAIL * (SEE NOTE ON PAGE 20)																REMARKS			
MM	MM	POS.	604.412	604.415	616.305	616.41	621.20	621.205	621.50	621.51	621.60	621.70	621.71	621.74	621.75	621.76	621.77	621.79	621.80	676.12	900.620	900.620		900.620		
			REHAB. DI, CB, OR MH, CLASS I	REHAB. DI, CB, OR MH, CLASS II	BIT CONCRETE CURB, TYPE A	REMOVAL OF EXISTING CURB	STEEL BEAM GUARDRAIL GALV.	STEEL BEAM GUARDRAIL GALV. W/8' POSTS	M. T. S. FLARED	M. T. S. TANGENT	ANCHOR FOR STEEL BEAM RAIL	GUARDRAIL APPROACH SECTION, GALV. TYPE I	GUARDRAIL APPROACH SECTION, GALV. TYPE II	ALUMINUM APPROACH RAILING	REMOVE AND RESET GUARDRAIL	REPLACE GUARDRAIL POST ASSEMBLY	REPLACE GUARDRAIL BEAM UNIT	ADJUST HEIGHT OF GUARDRAIL	REMOVAL & DISPOSAL OF GUARDRAIL	REMOVAL OF EXISTING DELIN.	SPECIAL PROV. (DELIN. W/ STEEL POST)	SPECIAL PROV. (S.B.G.R. DELIN.)	SPECIAL PROV. (DELIN. OFFSET BLOCK)			
			(EA)	(EA)	(LF)	(LF)	(LF)	(LF)	(EA)	(EA)	(EA)	(EA)	(EA)	(LF)	(LF)	(EA)	(EA)	(LF)	(LF)	(EA)	(EA)	(EA)	(EA)			
EXIT 10 RAMP C																										
C 0.420	C 0.427	RT							I															MTS @ C 0.420		
C 0.539	C 0.591	RT					39.5				I													ANCHOR @ C 0.591		
C 0.585	C 0.592	LT					39.5				I													ANCHOR @ C 0.592		
EXIT 11 RAMP C																										
C 0.000	C 0.171	LT&RT	I																					FOR LOCATIONS SEE LAYOUT SHEETS, ESTIMATED QUANTITY TO BE USED AS DIRECTED BY THE RESIDENT ENGINEER		
EXIT 12 RAMP A																										
RAMP A		RT																						RETAIN EXISTING GUARDRAIL		
EXIT 12 RAMP C																										
C 0.014	C 0.275	LT&RT	2																					FOR LOCATIONS SEE LAYOUT SHEETS, ESTIMATED QUANTITY TO BE USED AS DIRECTED BY THE RESIDENT ENGINEER		
RAMP C		RT																						RETAIN EXISTING GUARDRAIL		
EXIT 13 RAMP A																										
A 0.000	A 0.170	LT&RT	I																					FOR LOCATIONS SEE LAYOUT SHEETS, ESTIMATED QUANTITY TO BE USED AS DIRECTED BY THE RESIDENT ENGINEER		
A 0.140	A 0.266	RT																						RETAIN EXISTING GUARDRAIL		
SOUTHBOUND																										
66.453	76.450	LT&RT	24	7	575	500											125	875	825				300	125	FOR LOCATIONS SEE LAYOUT SHEETS, ESTIMATED QUANTITY TO BE USED AS DIRECTED BY THE RESIDENT ENGINEER	
66.262	66.267	RT																							RETAIN EXISTING APPROACH RAIL (BRIDGE 39S)	
66.267	66.355	RT					475																		CONNECT TO APPROACH RAIL AT BRIDGES 39S & 40S, SEE BRIDGE DETAIL SHEET 47	
66.267	66.276	RT																							REMOVE 1/2 BULLNOSE AT BRIDGE 39S	
66.345	66.360	RT																							REMOVE 1/2 BULLNOSE & APPROACH RAIL AT BRIDGE 40S	
66.355	66.360	RT											27.3												SEE BRIDGE DETAIL ON SHEET 47	
66.360	66.427	RT																							RETAIN BRIDGE RAIL (BRIDGE 40S)	
66.427	66.441	RT																							REMOVE 1/2 BULLNOSE AND APPROACH RAIL AT BRIDGE 40S	
66.427	66.431	RT											27.3												SEE BRIDGE DETAIL ON SHEET 47	
66.431	66.507	RT					400		I											I	I				MTS @ 66.514	
66.265	66.270	LT																							RETAIN EXISTING APPROACH RAIL (BRIDGE 39S)	
66.270	66.355	LT					450																		SEE BRIDGE DETAIL ON SHEET 47	
66.355	66.871	LT																							RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 40S)	
66.871	66.878	LT							I																MTS @ 66.878	
66.976	66.983	LT					39.5				I														REMOVE TWIST DOWN, ANCHOR @ 66.976	
66.983	67.064	LT																							RETAIN EXISTING GUARDRAIL	
67.437	67.444	LT					39.5				I														REMOVE TWIST DOWN, ANCHOR @ 67.437	
67.444	67.597	LT																							RETAIN EXISTING GUARDRAIL	
67.597	67.604	LT							I																REMOVE BCT. MTS @ 67.604	
67.901	67.908	LT					39.5				I														REMOVE TWIST DOWN, ANCHOR @ 67.901	
67.908	68.125	LT																							RETAIN EXISTING GUARDRAIL	
68.196	68.203	LT					39.5				I														REMOVE TWIST DOWN, ANCHOR @ 68.196	
68.203	68.289	LT																							RETAIN EXISTING GUARDRAIL	
68.289	68.296	LT							I																REMOVE BCT. MTS @ 68.296	
68.753	68.760	RT					39.5				I														REMOVE TWIST DOWN, ANCHOR @ 68.753	
68.760	68.988	RT																							RETAIN EXISTING GUARDRAIL	
68.988	68.995	RT							I																REMOVE BCT. MTS @ 68.995	
SUBTOTAL SHEET 22			28	7	575	500	1601.5		6		7			54.6		125	875	825	1106	11	11		300	125		
ITEM DETAIL SUMMARY SHEET 3																										
PROJECT NAME: HARTLAND-NORWICH																										
PROJECT NUMBER: IM 091-1(59)																										
FILE NAME: /pave/06a202/p06a202.dgn													PLOT DATE: 19-JUN-2013 09:24													
PROJECT LEADER: PTS													DRAWN BY: WWG													
DESIGNED BY: NULL													CHECKED BY: PTS													
IPARM FILE NAME: 06A202_22													SHEET 22 OF 60													

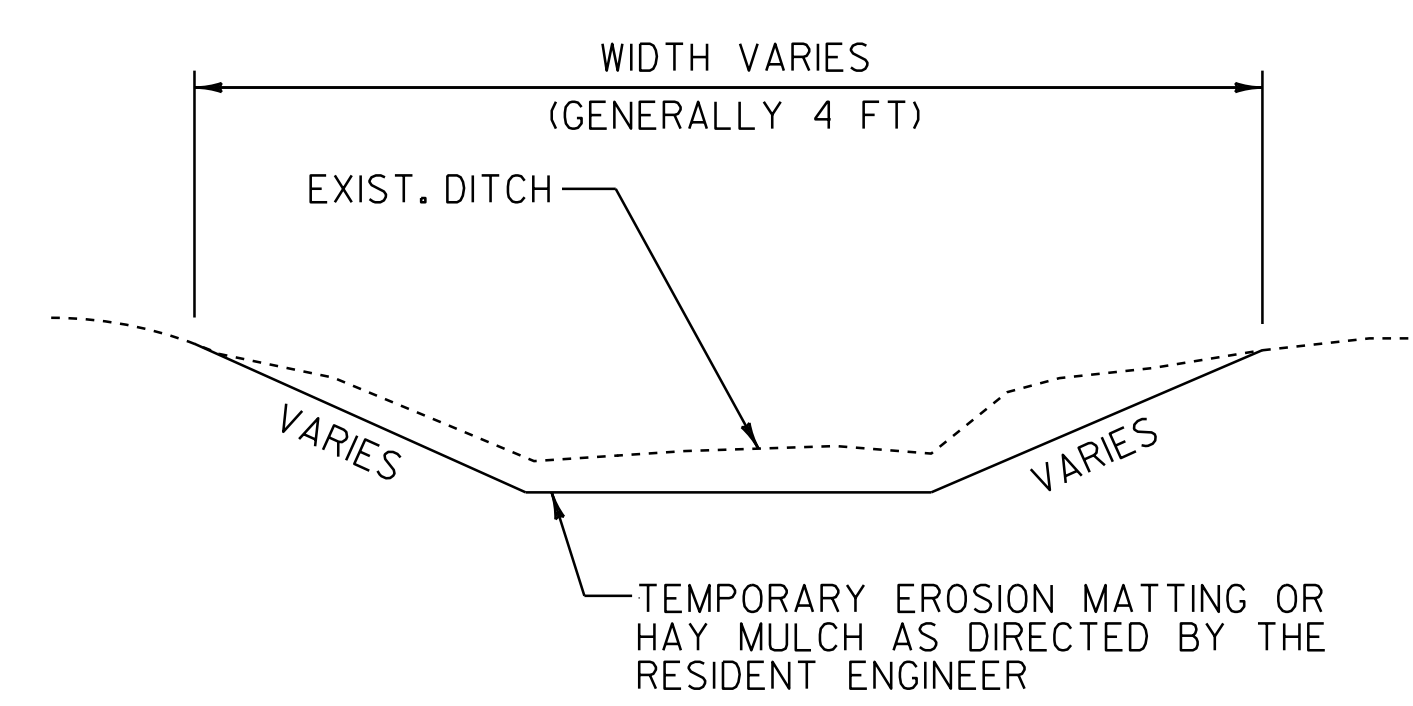
LOCATION			DROP INLETS *				GUARDRAIL * (SEE NOTE ON PAGE 20)																	REMARKS
MM	MM	POS.	604.412	604.415	616.305	616.41	621.20	621.205	621.50	621.51	621.60	621.70	621.71	621.74	621.75	621.76	621.77	621.79	621.80	676.12	900.620	900.620	900.620	
			REHAB. DI, CB, OR MH, CLASS I	REHAB. DI, CB, OR MH, CLASS II	BIT CONCRETE CURB, TYPE A	REMOVAL OF EXISTING CURB	STEEL BEAM GUARDRAIL GALV.	STEEL BEAM GUARDRAIL GALV. W/8' POSTS	M. T. S. FLARED	M. T. S. TANGENT	ANCHOR FOR STEEL BEAM RAIL	GUARDRAIL APPROACH SECTION, GALV. TYPE I	GUARDRAIL APPROACH SECTION, GALV. TYPE II	ALUMINUM APPROACH RAILING	REMOVE AND RESET GUARDRAIL	REPLACE GUARDRAIL POST ASSEMBLY	REPLACE GUARDRAIL BEAM UNIT	ADJUST HEIGHT OF GUARDRAIL	REMOVAL & DISPOSAL OF GUARDRAIL	REMOVAL OF EXISTING DEL.IN.	SPECIAL PROV. (DEL.IN. W/ STEEL POST)	SPECIAL PROV. (S.B.G.R. DEL.IN.)	SPECIAL PROV. (DEL.IN. OFFSET BLOCK)	
			(EA)	(EA)	(LF)	(LF)	(LF)	(LF)	(EA)	(EA)	(EA)	(EA)	(EA)	(LF)	(LF)	(EA)	(EA)	(LF)	(LF)	(EA)	(EA)	(EA)	(EA)	
SOUTHBOUND																								
68.753	68.760	LT					39.5				I									37.5	I	I		
68.760	69.045	LT																						REMOVE TWIST DOWN, ANCHOR @ 68.753
69.045	69.052	LT								I										37.5	I	I		RETAIN EXISTING GUARDRAIL REMOVE BCT.MTS @ 69.052
69.173	69.375	LT																		1066				
69.173	69.367	LT					1027			I		I									2	2		ANCHOR @ 69.173, MTS @ 69.374
69.239	69.258	LT			100																			
69.181	69.369	RT																		993				
69.180	69.360	RT					952			I		I								2	2			ANCHOR @ 69.180, MTS @ 69.367
69.680	69.685	LT					27					I								37.5				REMOVE TWIST DOWN, ANCHOR @ 69.680. SEE BRIDGE DETAIL ON SHEET 48
69.685	69.750	LT																						RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 41S)
69.681	69.688	RT					39.5					I								37.5	I	I		REMOVE TWIST DOWN, ANCHOR @ 69.681. SEE BRIDGE DETAIL ON SHEET 48
69.688	69.735	RT																						RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 41S)
69.735	69.760	RT																		125				
69.735	69.809	RT					387.5																	SEE BRIDGE DETAIL ON SHEET 48
69.799	69.809	RT																		50				
69.809	69.888	RT																		125				RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 42S)
69.888	69.913	RT																						
69.888	69.960	RT					375			I											I	I		MTS @ 69.967
69.778	69.783	LT					27					I								37.5	I	I		REMOVE TWIST DOWN, ANCHOR @ 69.778. SEE BRIDGE DETAIL ON SHEET 48
69.783	69.895	LT																						RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 42S)
69.895	69.954	LT																		712				GUARDRAIL ENDS ON RAMP C
69.895	69.954	LT					675			I											I	I		MTS @ ON RAMP C. SEE BRIDGE DETAIL ON SHEET 48
69.586	69.993	LT					39.5					I								37.5	I	I		REMOVE TWIST DOWN, ANCHOR @ 69.986
69.993	70.077	LT																						RETAIN EXISTING GUARDRAIL
70.083	70.104	RT																						RETAIN EXISTING GUARDRAIL
70.083	70.304	LT																						RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 43S)
70.190	70.289	RT																						RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 43S)
70.289	70.295	RT																		37.5				
70.289	70.334	RT					237.5			I											I	I		MTS @ 70.341. SEE BRIDGE DETAIL SHEET 49
70.402	70.490	RT																						RETAIN EXISTING GUARDRAIL
70.425	70.485	LT																						RETAIN EXISTING GUARDRAIL
70.599	70.805	RT																						RETAIN EXISTING GUARDRAIL
70.837	71.178	LT																						RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 44S)
70.855	71.142	RT																						SEE BRIDGE DETAIL SHEET 49
71.142	71.185	RT					225			I										37.5	I	I		RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 44S) SEE BRIDGE DETAIL SHEET 49
71.341	71.673	RT																						MTS @ 71.185
72.009	72.098	RT																						RETAIN EXISTING GUARDRAIL
72.098	72.104	RT																		37.5				RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 45S)
72.098	72.142	RT					237.5			I											I	I		MTS @ 72.150. SEE BRIDGE DETAIL SHEET 50
72.009	72.069	LT																						RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 45S)
72.069	72.132	LT																		340				
72.069	72.144	LT					400			I											I	I		MTS @ 72.152, SEE BRIDGE DETAIL SHEET 50
SUBTOTAL SHEET 23					100		4689			9										3748.5	15	15		
ITEM DETAIL SUMMARY SHEET 4																								
PROJECT NAME: HARTLAND-NORWICH																								
PROJECT NUMBER: IM 091-1(59)																								
FILE NAME: /pave/06a202/p06a202.dgn												PLOT DATE: 19-JUN-2013 09:24												
PROJECT LEADER: PTS												DRAWN BY: WWG												
DESIGNED BY: NULL												CHECKED BY: PTS												
IPARM FILE NAME: 06A202_23												SHEET 23 OF 60												

LOCATION			DROP INLETS *				GUARDRAIL * (SEE NOTE ON PAGE 20)																REMARKS			
MM	MM	POS.	604.412	604.415	616.305	616.41	621.20	621.205	621.50	621.51	621.60	621.70	621.71	621.74	621.75	621.76	621.77	621.79	621.80	676.12	900.620	900.620		900.620		
			REHAB. DI, CB, OR MH, CLASS I	REHAB. DI, CB, OR MH, CLASS II	BIT CONCRETE CURB, TYPE A	REMOVAL OF EXISTING CURB	STEEL BEAM GUARDRAIL GALV.	STEEL BEAM GUARDRAIL GALV. W/8' POSTS	M. T. S. FLARED	M. T. S. TANGENT	ANCHOR FOR STEEL BEAM RAIL	GUARDRAIL APPROACH SECTION, GALV. TYPE I	GUARDRAIL APPROACH SECTION, GALV. TYPE II	ALUMINUM APPROACH RAILING	REMOVE AND RESET GUARDRAIL	REPLACE GUARDRAIL POST ASSEMBLY	REPLACE GUARDRAIL BEAM UNIT	ADJUST HEIGHT OF GUARDRAIL	REMOVAL & DISPOSAL OF GUARDRAIL	REMOVAL OF EXISTING DEL. IN.	SPECIAL PROV. (DEL. IN. W/ STEEL POST)	SPECIAL PROV. (S.B.G.R. DEL. IN.)	SPECIAL PROV. (DEL. IN. OFFSET BLOCK)			
			(EA)	(EA)	(LF)	(LF)	(LF)	(LF)	(EA)	(EA)	(EA)	(EA)	(EA)	(LF)	(LF)	(EA)	(EA)	(LF)	(LF)	(EA)	(EA)	(EA)	(EA)			
SOUTHBOUND																								RETAIN EXISTING GUARDRAIL		
72.481	72.573	RT																							RETAIN EXISTING GUARDRAIL	
72.757	72.764	LT					39.5													37.5	I	I				REMOVE TWIST DOWN, ANCHOR @ 72.757
72.764	72.886	LT																							RETAIN EXISTING GUARDRAIL	
73.002	73.007	LT					27														37.5	I	I			REMOVE TWIST DOWN, ANCHOR @ 73.002
73.007	73.258	LT																							RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 47S)	
73.121	73.216	RT																							RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 47S)	
73.216	73.223	RT																			37.5					
73.216	73.260	RT					237.5		I												I	I				MTS @ 73.268, SEE BRIDGE DETAIL SHEET 50
73.438	73.956	LT																							RETAIN EXISTING GUARDRAIL	
73.482	73.666	RT																							RETAIN EXISTING GUARDRAIL	
73.764	73.906	RT																							RETAIN EXISTING GUARDRAIL	
74.659	74.923	LT																							RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 48S)	
74.923	74.929	LT																			37.5					
74.923	74.958	LT					187.5		I													I	I			MTS @ 74.965, SEE BRIDGE DETAIL ON SHEET 51
74.813	74.918	RT																							RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 48S)	
74.918	74.925	RT																			37.5					
74.918	74.962	RT					237.5		I												I	I				MTS @ 74.970, SEE BRIDGE DETAIL ON SHEET 51
75.382	75.896	LT																							RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 49S)	
75.896	75.922	LT													137.5											
75.922	75.929	LT																								
75.922	75.932	LT					50		I												37.5	I	I			MTS @ 75.939, SEE BRIDGE DETAIL ON SHEET 51
75.820	75.901	RT																							RETAIN EXISTING GUARDRAIL, APPROACH RAIL AND BRIDGE RAIL (BRIDGE 49S)	
75.901	75.908	RT																			37.5					
75.901	75.944	RT					225		I												I	I				MTS @ 75.951, SEE BRIDGE DETAIL ON SHEET 51
EXIT II RAMP A																										
A 0.047	A 0.369	LT&RT	I																						FOR LOCATIONS SEE LAYOUT SHEETS, ESTIMATED QUANTITY TO BE USED AS DIRECTED BY THE RESIDENT ENGINEER	
EXIT II RAMP B																										
B 0.000	B 0.389	LT&RT	I																						FOR LOCATIONS SEE LAYOUT SHEETS, ESTIMATED QUANTITY TO BE USED AS DIRECTED BY THE RESIDENT ENGINEER	
EXIT I2 RAMP D																										
D 0.000	D 0.279	LT&RT	2																						FOR LOCATIONS SEE LAYOUT SHEETS, ESTIMATED QUANTITY TO BE USED AS DIRECTED BY THE RESIDENT ENGINEER	
D 0.279	D 0.145	RT																							RETAIN EXISTING GUARDRAIL, ENDS ON WILDER STATE HIGHWAY	
EXIT I3 RAMP D																										
D 0.000	D 0.191	LT&RT	I																						FOR LOCATIONS SEE LAYOUT SHEETS, ESTIMATED QUANTITY TO BE USED AS DIRECTED BY THE RESIDENT ENGINEER	
D 0.060	75.264	RT					1002		I		I										2	2			MTS @ 75.264, ANCHOR @ D 0.060	
D 0.085	D 0.147	RT																							RETAIN EXISTING GUARDRAIL	
SUBTOTAL SHEET 20			17	4	575	500	2568.5		7		9	I	2	54.6		125	875	825	1605.5	16	16	300	125			
SUBTOTAL SHEET 21			3	1			1499	100	6	2	2								637.5	10	10					
SUBTOTAL SHEET 22			28	7	575	500	1601.5		6		7			54.6		125	875	825	1106	11	11	300	125			
SUBTOTAL SHEET 23					100		4689		9		7								3748.5	15	15					
SUBTOTAL SHEET 24			5				2006		6		3				137.5				262.5	9	9					
PROJECT SUBTOTAL			53	12	1250	1000	12364	100	34	2	28	I	2	109.2	137.5	250	1750	1650	7360	61	61	600	250			
TOTAL ROUNDING							36							0.8	12.5				40							
PROJECT TOTAL			53	12	1250	1000	12400	100	34	2	28	I	2	110	150	250	1750	1650	7400	61	61	600	250			

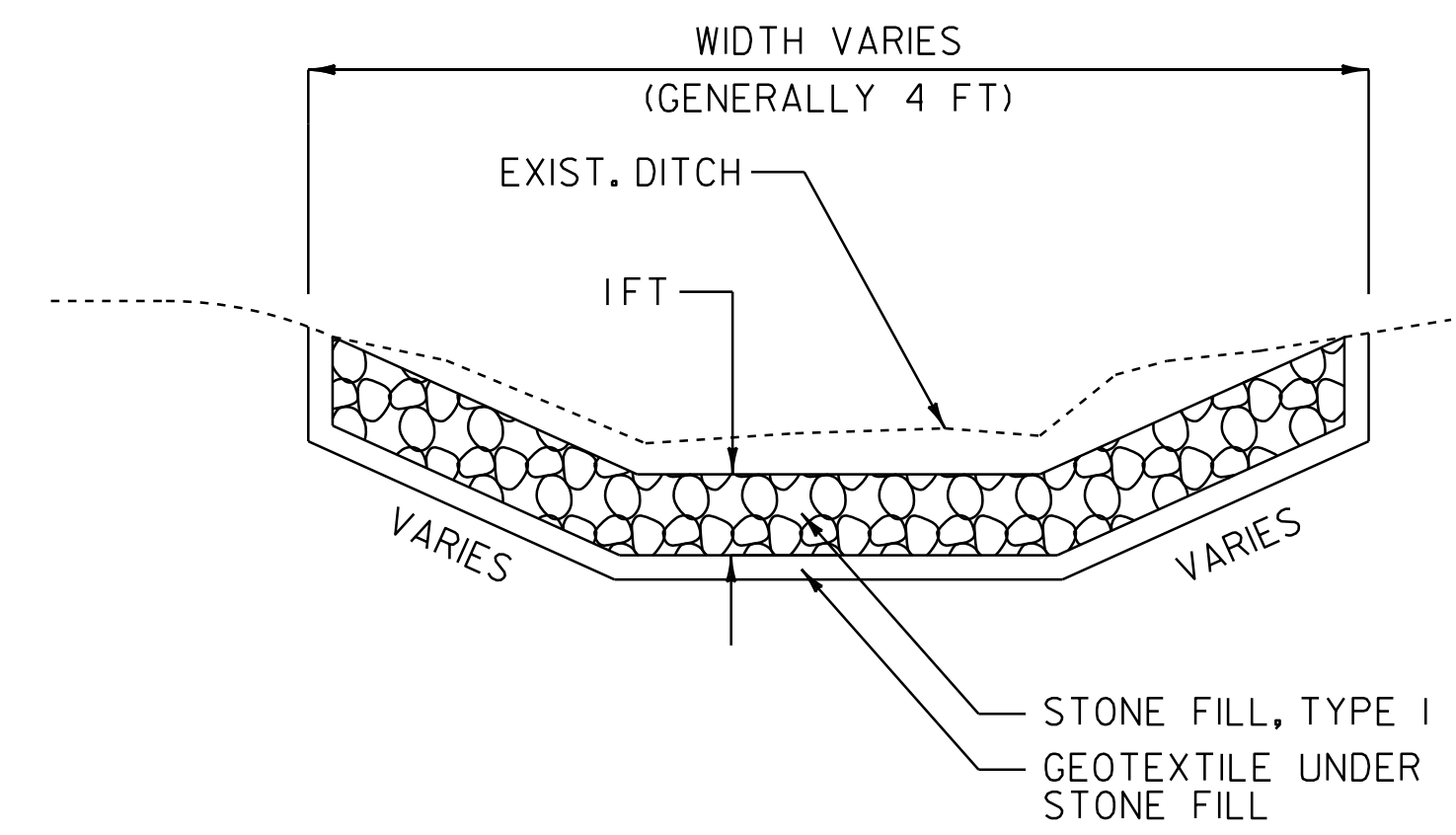
ITEM DETAIL SUMMARY SHEET 5

PROJECT NAME: HARTLAND-NORWICH
PROJECT NUMBER: IM 091-1(59)
FILE NAME: /pave/06a202/p06a202.dgn PLOT DATE: 19-JUN-2013 09:24
PROJECT LEADER: PTS DRAWN BY: WWG
DESIGNED BY: NULL CHECKED BY: PTS
IPARM FILE NAME: 06A202_24 SHEET 24 OF 60

LOCATION				FEET OF DITCHING				MISC. ITEMS				REMARKS
SITE	MM	MM	POS.	PERCENT GRADE				STONE FILL, TYP. I	GEO. UNDER STONE FILL	SEED	TEMP. EROS. MATT.	
				0-1	1-2.5	2.5-10	>10					
HARTLAND-NORWICH				LF	LF	LF		CY	SY	LB	SY	
NORTHBOUND:												
	66.195	74.762	LT/RT		1000	200		30	140	60	444	AS DIRECTED BY RESIDENT ENGINEER
SOUTHBOUND:												
	66.453	76.450	LT/RT		1000	200		30	140	60	444	AS DIRECTED BY RESIDENT ENGINEER
GUTTERS												
I-91 NORTHBOUND:												
	66.796	66.120	RT		10.6	14.8		48.9	31.8		11X26	20' X 20' SLOPE EROSION
	67.936	66.370	RT		8.76	1.5		6.7	26.9		11X22	4' X 10' REMOVE EXIST. GUTTER
	68.116	68.120	RT		10.0	1.5		6.7	30.0		9X30	4' X 10' REMOVE EXIST. GUTTER
	69.637	69.635	RT		8.0	1.9		7.8	24.0		9X24	5' X 10' REMOVE EXIST. GUTTER
	69.750		LT			5.2		21.8				5' X 28' REMOVE EXIST. GUTTER
	72.711		RT		6.67	3.7		15.6	20	9		5' X 20' REMOVE EXIST. GUTTER
	73.152		RT		4.41	3.7		15.6	13.2		7X17	5' X 20' REMOVE EXIST. GUTTER
	73.425					8.3		24.9				9.75X23 REMOVE EXIST GUTTER
I-91 SOUTHBOUND:												
	66.488	410	LT		8.96	2.2		10	26.9		11X22	4' X 15' REMOVE EXIST. GUTTER
	67.588		LT		8.3	3.9		15	22.2		8X25	7' X 15' REMOVE EXIST. GUTTER
	69.880		RT			5.2		21.8				5' X 28' REMOVE EXIST. GUTTER
	69.881		LT			2.6		10				7' X 10' SLOPE EROSION
	70.044		LT			1.3		5.3				6' X 6' SLOPE EROSION
	75.443		LT		7.5	1.5		6.7	22.6		7X29	4' X 10' REMOVE EXIST. GUTTER
	67.444		LT			8.6		22.2				8' X 25' REMOVE EXIST GUTTER
	66.552		LT			2.0		0.0				SLOPE EROSION
EXIT 10												
RAMP F	0.037		RT		10.18	2.5		8.4	30.55		11X25	4' X 17' REMOVE EXIST. GUTTER
	0.071		RT		9.26	3.3		10.7	27.78		10X25	4' X 22' REMOVE EXIST. GUTTER
	0.152		RT		10.11	0.7		3.3	30.33		10.5X26	4' X 5' REMOVE EXIST. GUTTER
	0.234		RT		8.0	1		4	24.0		9X24	4' X 7' REMOVE EXIST. GUTTER
EXIT 11												
RAMP A	0.302		RT		8.36	1.9		6.3	20.06		9.5X19	3' X 17' REMOVE EXIST. GUTTER
EXIT 12												
RAMP C	0.106		RT		8.0	18.5		55.6	24.0			20' X 25' SLOPE EROSION
RAMP D	0.083		RT									12' X 18' STONE SWALE
EXIT 13												
RAMP B	0.109		RT		8.5	3.9		12.8	24.0		8X27	5' X 21' REMOVE EXIST. GUTTER
ITEM 621.50 MTS, FLARED												
									14	850		
ITEM 621.51 MTS, TANGENT												
									0.8	50		
ITEM 621.60 ANCHOR FOR STEEL BEAM RAIL												
									10.7	650		
EXIT 10												
RAMP G	XX.XX		LT		9.0			27.0				9X27 REMOVE EXIST GUTTER
	XX.XX		LT		10.5			31.5				10.5X27 REMOVE EXIST GUTTER
EXIT 11												
RAMP B	XX.XX		RT		5.0			20.0				9X20 REMOVE EXIST GUTTER
	XX.XX		RT		5.55			22.22				8X25 REMOVE EXIST GUTTER
PROJECT SUBTOTALS					2000	400		140.8	573	142.1	2438	
ROUNDINGS								4.2	2	7.9	12	
PROJECT TOTALS					2000	400		145	575	150	2450	
					184.8	546		97	2,973			



DITCH DETAIL < 2.5 PERCENT



DITCH DETAIL > 2.5 PERCENT

NOTES

- GRADES LESS THAN 1 PERCENT SHALL USE ITEM 651.15, SEED AND ITEM 651.25, HAY MULCH. GRADES BETWEEN 1 AND 2.5 PERCENT SHALL USE ITEM 651.25, HAY MULCH OR ITEM 653.20, TEMPORARY EROSION MATTING AS DIRECTED BY THE RESIDENT ENGINEER. GRADES OVER 2.5 PERCENT SHALL USE ITEM 649.31, GEOTEXTILE UNDER STONE FILL AND ITEM 613.10, STONE FILL TYPE I AS DIRECTED BY THE RESIDENT ENGINEER.
- PIPE INLET AND OUTLET AREAS AND DITCH CLEANING THROUGHOUT THE PROJECT SHALL BE PERFORMED AT LOCATIONS INDICATED ON THIS SHEET AND AS DIRECTED BY THE RESIDENT ENGINEER. PAYMENT WILL BE UNDER THE APPLICABLE EQUIPMENT RENTAL ITEM(S).

SEEDING FORMULA

RATE: DOUBLE IF HYDROSEEDING

% WT.	LBS./A.	NAME	PUR %	GERM %
37.5	22.5	CREEPING RED FESCUE	98	85
37.5	22.5	TALL FESCUE	95	90
5.0	3.0	RED TOP	95	90
15.0	9.0	BIRDSFOOT TREFOIL	98	85
5.0	3.0	ANNUAL RYEGRASS	95	85
100.0	60.0			

SEEDING NOTES

- SEED MIXTURE: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.
- SEED: TO BE APPLIED PER SEEDING FORMULAS OR AS DIRECTED BY THE RESIDENT ENGINEER.
- FERTILIZER: FORMULA 10-20-10, TO BE USED WITH SEED, APPLIED AT THE RATE OF 500 LBS./ACRE. (HYDRO SEEDERS MAY USE 19-19-19 FORMULA).
- AGRICULTURAL LIMESTONE: TO BE APPLIED AT THE RATE OF 2 TONS/ACRE, OR AS DIRECTED BY THE RESIDENT ENGINEER.
- HAY MULCH: TO BE PLACED ON THE EARTH SLOPES AT THE RATE OF 2 TONS/ACRE, OR AS DIRECTED BY THE RESIDENT ENGINEER.
- TOPSOIL: TO BE USED WITH SEED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE RESIDENT ENGINEER.

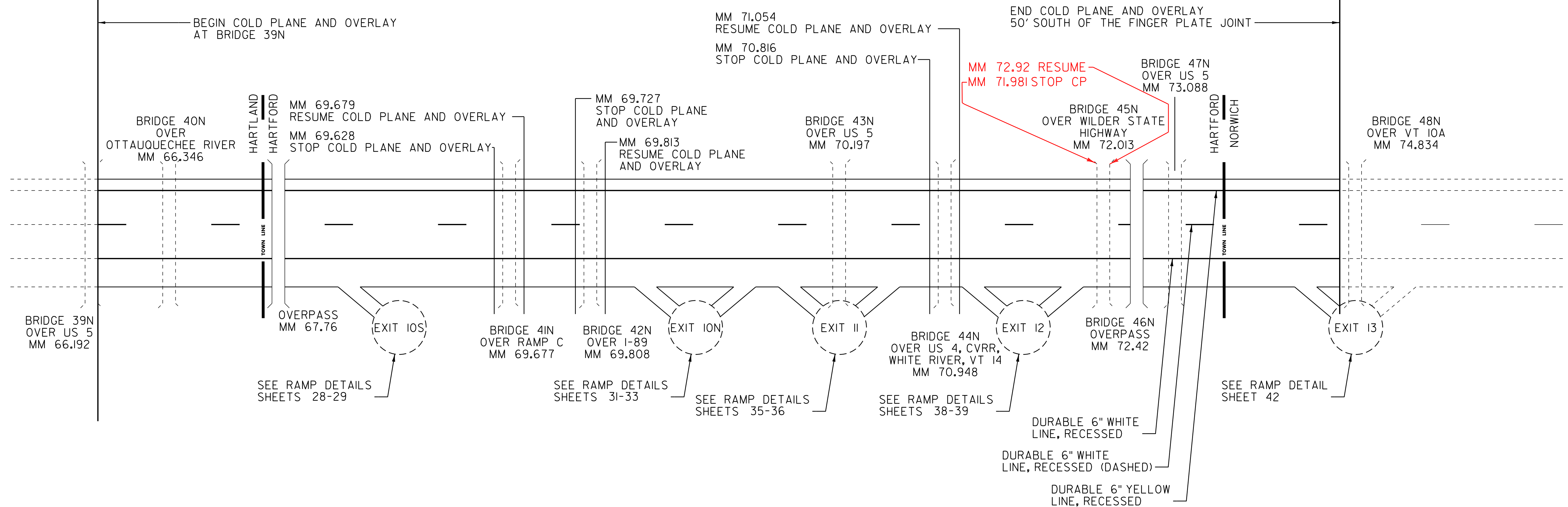
DITCH CLEANING SHEET

PROJECT NAME:	HARTLAND-NORWICH	FILE NAME:	/pave/06a202/p06a202.dgn	PLOT DATE:	19-JUN-2013 09:24
PROJECT NUMBER:	IM 091-1(59)	PROJECT LEADER:	PTS	DRAWN BY:	WWG
		DESIGNED BY:	NLL	CHECKED BY:	PTS
		IPARM FILE NAME:	06A202_25	SHEET	25 OF 60

NOT TO SCALE

INTERSTATE ROUTE 91 NB
MM ~~66.195~~ 66.218
BEGIN PROJECT
HARTLAND-NORWICH
IM 091-1(59)

INTERSTATE ROUTE 91 NB
MM 74.762
END PROJECT
HARTLAND-NORWICH
IM 091-1(59)



PAVEMENT CORES IN 10 FT SHOULDER

#	MM	DEPTH	PCC
1	66.45	1.75"	NO
2	68.45	2"	NO
3	70.75	4.75"	NO
4	71.45	6"	NO
5	72.30	5"	NO
6	73.05	5.0"	NO
7	73.15	4.0"	NO
8	73.25	5.0"	NO
9	73.35	5.25"	NO
10	73.45	5.75"	NO
11	73.55	4.875"	NO
12	73.65	3.25"	NO
13	73.75	3.375"	NO
14	73.85	3.375"	NO
15	73.95	3.25"	NO
16	74.05	3.375"	NO
17	74.15	3.75"	NO
18	74.25	3.5"	NO
19	74.35	3.625"	NO
20	74.45	3.375"	NO
21	74.525	3.5"	NO
22	74.70	3.0"	NO
23	74.80	8.5"	NO

201.31 THINNING AND TRIMMING FOR SIGNS

- 69.080 RT
- 72.715 RT
- 68.720 RT

604.412, 604.415 REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I OR CLASS II

- 66.203 RT (DI)
- 66.851 RT (DI)
- 67.941 RT (DI)
- 67.993 RT (DI)
- 69.186 RT (DI)
- 69.683 RT (DI)
- 69.750 RT (DI)
- 69.804 RT (DI)
- 70.219 RT (DI)
- 71.228 RT (DI)
- 72.003 RT (DI)
- 72.743 RT (DI)
- 72.977 RT (DI)
- 73.034 RT (DI)
- 73.065 RT (DI)
- 73.112 LT & RT (DI)
- 73.145 RT (DI)
- 73.352 RT (DI)
- 73.428 RT (DI)
- 73.448 RT (DI)

*REFERENCE COMP. BINDER SECTION 604.XX FOR REHAB DI QUANTITY AND LOCATIONS

- 621.20 STEEL BEAM GUARDRAIL, GALVANIZED
- 621.205 STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS
- 621.50 MANUFACTURED TERMINAL SECTION, FLARED
- 621.51 MANUFACTURED TERMINAL SECTION, TANGENT
- 621.60 ANCHOR FOR STEEL BEAM RAIL
- 621.70 GUARDRAIL APPROACH SECTION, GALVANIZED TYPE I
- 621.71 GUARDRAIL APPROACH SECTION, GALVANIZED TYPE II
- 621.74 ALUMINUM APPROACH RAILING
- 621.75 REMOVE AND RESET GUARDRAIL
- 621.76 REPLACE GUARDRAIL POST ASSEMBLY
- 621.77 REPLACE GUARDRAIL BEAM UNIT
- 621.79 ADJUST HEIGHT OF GUARDRAIL
- 621.80 REMOVAL AND DISPOSAL OF GUARDRAIL
- 676.12 REMOVAL OF EXISTING DELINEATOR
- 900.620 SPECIAL PROVISION (STEEL BEAM GUARDRAIL DELINEATOR)
- 900.620 SPECIAL PROVISION (STEEL BEAM GUARDRAIL OFFSET BLOCK)
- 900.620 SPECIAL PROVISION (DELINEATOR WITH STEEL POST)
- SEE ITEM DETAIL SUMMARY SHEETS

*REFERENCE COMP. BINDER SECTION 621.XX FOR GUARDRAIL SUMMARY

- 646.622 TEMPORARY 6" WHITE LINE, PAINT
- 646.426 DURABLE 6" WHITE LINE, RECESSED POLYUREA
- 646.428 DURABLE 6" WHITE LINE, RECESSED THERMOPLASTIC
- 646.429 DURABLE 6" WHITE LINE, RECESSED EPOXY PAINT

- 66.195 TO 74.769 SOLID RT
- 66.195 TO 74.762 DASHED CL

- 646.632 TEMPORARY 6" YELLOW LINE, PAINT
- 646.436 DURABLE 6" YELLOW LINE, RECESSED POLYUREA
- 646.438 DURABLE 6" YELLOW LINE, RECESSED THERMOPLASTIC
- 646.439 DURABLE 6" YELLOW LINE, RECESSED EPOXY PAINT

- 66.195 TO 74.762 SOLID LT

*REFERENCE COMP. BINDER SECTION 646.XX FOR PAINT SUMMARY

- 613.10 STONE FILL, TYPE I
- SEE DITCH CLEANING SHEET

- 620.75 SNOW BARRIER, GALVANIZED

- 70.197 LT & RT (140') BRIDGE 43 N 160'
- 70.948 LT & RT (222') BRIDGE 44 N 472'

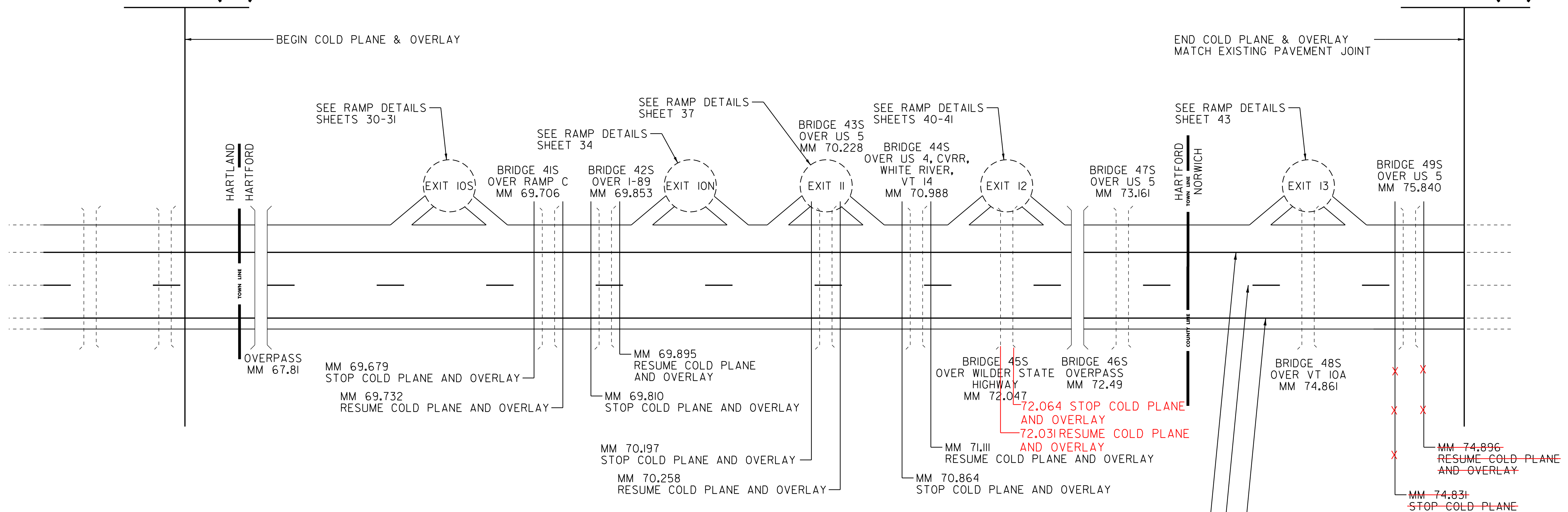
NOT TO SCALE

NB MAINLINE LAYOUT

PROJECT NAME: HARTLAND-NORWICH	
PROJECT NUMBER: IM 091-1(59)	
FILE NAME: /pave/06a202/p06a202.dgn	PLOT DATE: 19-JUN-2013 09:24
PROJECT LEADER: PTS	DRAWN BY: WWG
DESIGNED BY: NLL	CHECKED BY: PTS
IPARM FILE NAME: 06A202_26	SHEET 26 OF 60

INTERSTATE ROUTE 91 SB
MM 66.453 66.459
BEGIN PROJECT
HARTLAND-NORWICH
IM 091-1(59)

INTERSTATE ROUTE 91 SB
MM 76.450
END PROJECT
HARTLAND-NORWICH
IM 091-1(59)



- 646.622 TEMPORARY 6" WHITE LINE, PAINT
- 646.426 DURABLE 6" WHITE LINE, RECESSED POLYUREA
- 646.428 DURABLE 6" WHITE LINE, RECESSED THERMOPLASTIC
- 646.429 DURABLE 6" WHITE LINE, RECESSED EPOXY PAINT
- 66.453 TO 76.450 SOLID LT
- 66.453 TO 76.450 DASHED CL

- 646.632 TEMPORARY 6" YELLOW LINE, PAINT
- 646.436 DURABLE 6" YELLOW LINE, RECESSED POLYUREA
- 646.438 DURABLE 6" YELLOW LINE, RECESSED THERMOPLASTIC
- 646.439 DURABLE 6" YELLOW LINE, RECESSED EPOXY PAINT
- 66.453 TO 76.450 SOLID RT

*REFERENCE COMP. BINDER SECTION 646.XXX FOR PAINT SUMMARY

201.3 THINNING AND TRIMMING FOR SIGNS

- 72.399 LT
- 72.874 LT
- 73.395 LT
- 75.703 LT

604.412, 604.415 REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I OR CLASS II

- 66.497 LT (DI)
- 66.510 LT (DI)
- 66.552 LT (DI)
- 66.717 LT (DI)
- 66.754 LT (DI)
- 66.800 LT (DI)
- 67.520 LT (DI)
- 69.239 LT (DI)
- 69.881 LT (DI)
- 70.203 RT (DI)
- 70.255 RT (DI)
- 71.105 RT (DI)
- 72.045 LT (DI)
- 72.066 LT & RT (DI)
- 72.102 LT (DI)
- 73.137 LT (DI)
- 73.185 LT & RT (DI)
- 73.203 LT (DI)
- 73.447 LT (DI)
- 73.513 LT (DI)
- 73.674 LT (DI)
- 73.729 LT (DI)
- 73.777 LT (DI)
- 74.754 LT (DI)
- 74.802 LT (DI)
- 74.832 LT & RT (DI)
- 74.889 LT (DI)
- 75.870 LT (DI)

*REFERENCE COMP. BINDER SECTION 604.XXX FOR REHAB DIQUANTITIES AND LOCATION

- 621.20 STEEL BEAM GUARDRAIL, GALVANIZED
- 621.50 MANUFACTURED TERMINAL SECTION, FLARED
- 621.51 MANUFACTURED TERMINAL SECTION, TANGENT
- 621.60 ANCHOR FOR STEEL BEAM RAIL
- 621.74 ALUMINUM APPROACH RAILING
- 621.75 REMOVE AND RESET GUARDRAIL
- 621.76 REPLACE GUARDRAIL POST ASSEMBLY
- 621.77 REPLACE GUARDRAIL BEAM UNIT
- 621.79 ADJUST HEIGHT OF GUARDRAIL
- 621.80 REMOVAL AND DISPOSAL OF GUARDRAIL
- 676.J2 REMOVAL OF EXISTING DELINEATOR
- 900.620 SPECIAL PROVISION (STEEL BEAM GUARDRAIL DELINEATOR)
- 900.620 SPECIAL PROVISION (STEEL BEAM GUARDRAIL OFFSET BLOCK)
- 900.620 SPECIAL PROVISION (DELINEATOR WITH STEEL POST)
- SEE ITEM DETAIL SUMMARY SHEETS
- *REFERENCE COMP. BINDER SECTION 621.XXX FOR GUARDRAIL SUMMARY
- 613.I0 STONE FILL, TYPE I
- SEE DITCH CLEANING SHEET

- 620.75 SNOW BARRIER, GALVANIZED
- 70.228 LT & RT (140') BRIDGE 43 S 156'
- 70.948 LT & RT (222') BRIDGE 44 S 472'

- DURABLE 6" WHITE LINE, RECESSED
- DURABLE 6" WHITE LINE, RECESSED (DASHED)
- DURABLE 6" YELLOW LINE, RECESSED

PAVEMENT CORES IN 10 FT SHOULDER

#	MM	DEPTH	PCC
24	76.35	6"	NO
25	74.15	6"	NO
26	72.75	5.5"	NO
27	70.30	3.75"	NO
28	69.10	3.5"	NO
29	68.05	7"	NO
30	66.85	4"	NO

NOT TO SCALE

SB MAINLINE LAYOUT

PROJECT NAME: HARTLAND-NORWICH	FILE NAME: /pave/06a202/p06a202.dgn	PLOT DATE: 19-JUN-2013 09:24
PROJECT NUMBER: IM 091-1(59)	PROJECT LEADER: PTS	DRAWN BY: WWG
	DESIGNED BY: NULL	CHECKED BY: PTS
	IPARM FILE NAME: 06A202_27	SHEET 27 OF 60

646.622 TEMPORARY 6" WHITE LINE, PAINT
 646.426 DURABLE 6" WHITE LINE, RECESSED POLYUREA
 646.428 DURABLE 6" WHITE LINE, RECESSED THERMOPLASTIC
 646.429 DURABLE 6" WHITE LINE, RECESSED EPOXY PAINT

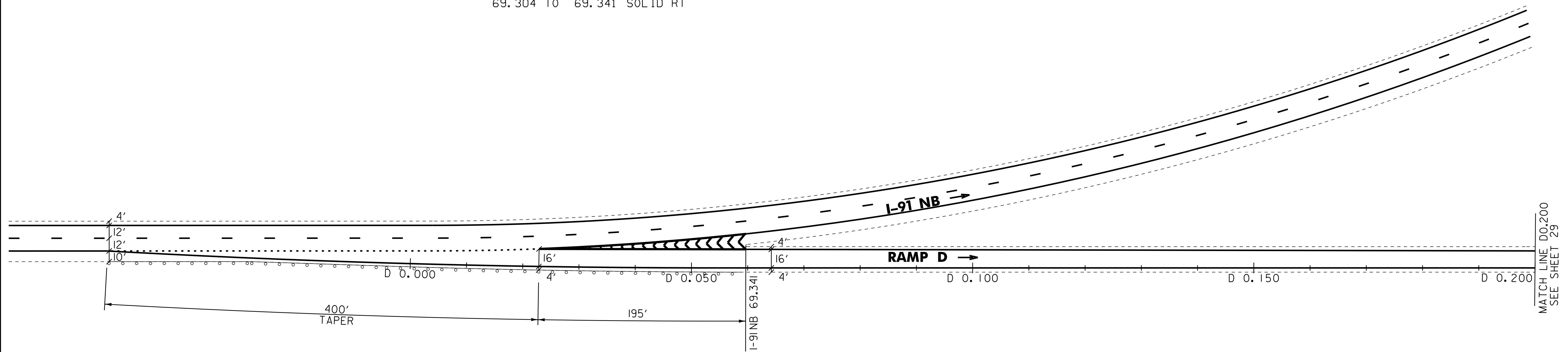
D 0.060 TO D 0.200 SOLID RT
 69.228 TO 69.304 DOTTED RT

646.632 TEMPORARY 6" YELLOW LINE, PAINT
 646.436 DURABLE 6" YELLOW LINE, RECESSED POLYUREA
 646.438 DURABLE 6" YELLOW LINE, RECESSED THERMOPLASTIC
 646.439 DURABLE 6" YELLOW LINE, RECESSED EPOXY PAINT

D 0.060 TO D 0.200 SOLID LT

646.662 TEMPORARY 12" WHITE LINE, PAINT
 646.466 DURABLE 12" WHITE LINE, RECESSED POLYUREA
 646.469 DURABLE 12" WHITE LINE, RECESSED EPOXY PAINT

D 0.023 TO D 0.060 SOLID LT
 D 0.023 TO D 0.060 SOLID LT (GORE STRIPES)
 69.304 TO 69.341 SOLID RT

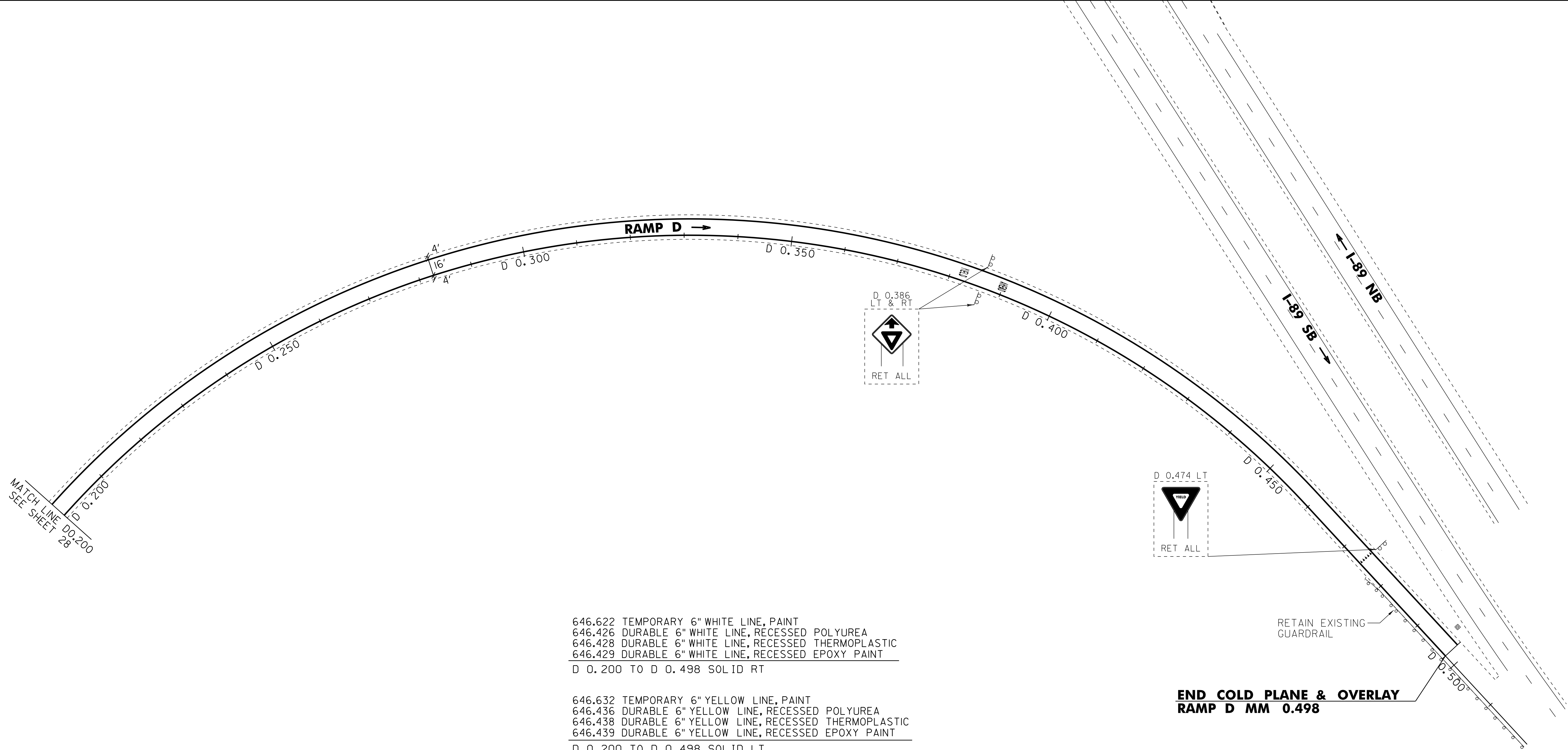


NOT TO SCALE

- LEGEND**
- R = REMOVE EXISTING
 - S = SALVAGE
 - R&S = REMOVE AND SALVAGE
 - N = NEW
 - RET = RETAIN
 - B-B = BACK TO BACK
 - = EXISTING GUARDRAIL
 - = PROPOSED GUARDRAIL
 - YL = YELLOW LINE
 - WL = WHITE LINE

**EXIT 10
 NB OFF RAMP D DETAIL SHEET 1**

PROJECT NAME: HARTLAND-NORWICH	FILE NAME: /pave/06a202/p06a202.dgn	PLOT DATE: 19-JUN-2013 09:24
PROJECT NUMBER: IM 091-I(59)	PROJECT LEADER: PTS	DRAWN BY: WWG
	DESIGNED BY: NULL	CHECKED BY: PTS
	IPARM FILE NAME: 06A202_28	SHEET 28 OF 60

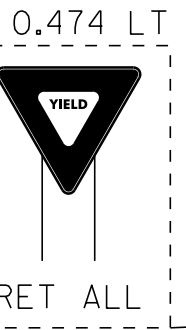


MATCH LINE DD 0.200
SEE SHEET 28

646.622 TEMPORARY 6" WHITE LINE, PAINT
 646.426 DURABLE 6" WHITE LINE, RECESSED POLYUREA
 646.428 DURABLE 6" WHITE LINE, RECESSED THERMOPLASTIC
 646.429 DURABLE 6" WHITE LINE, RECESSED EPOXY PAINT
 D 0.200 TO D 0.498 SOLID RT

646.632 TEMPORARY 6" YELLOW LINE, PAINT
 646.436 DURABLE 6" YELLOW LINE, RECESSED POLYUREA
 646.438 DURABLE 6" YELLOW LINE, RECESSED THERMOPLASTIC
 646.439 DURABLE 6" YELLOW LINE, RECESSED EPOXY PAINT
 D 0.200 TO D 0.498 SOLID LT

~~646.692 TEMPORARY LETTER OR SYMBOL, PAINT~~
 646.492 DURABLE LETTER OR SYMBOL, THERMOPLASTIC
 646.493 DURABLE LETTER OR SYMBOL, EPOXY PAINT
 D 0.382 LT "YIELD"
 D 0.390 LT "AHEAD"
 D 0.474 LT YIELD MARKINGS (5 EA.)



D 0.474 LT

RET ALL

RETAIN EXISTING GUARDRAIL

**END COLD PLANE & OVERLAY
 RAMP D MM 0.498**

NOT TO SCALE

LEGEND

R	=	REMOVE EXISTING
S	=	SALVAGE
R&S	=	REMOVE AND SALVAGE
N	=	NEW
RET	=	RETAIN
B-B	=	BACK TO BACK
	=	EXISTING GUARDRAIL
	=	PROPOSED GUARDRAIL
YL	=	YELLOW LINE
WL	=	WHITE LINE

**EXIT 10
 NB OFF RAMP D DETAIL SHEET 2**

PROJECT NAME: HARTLAND-NORWICH	FILE NAME: /pave/06a202/p06a202.dgn	PLOT DATE: 19-JUN-2013 09:24
PROJECT NUMBER: IM 091-I(59)	PROJECT LEADER: PTS	DRAWN BY: WWG
	DESIGNED BY: NULL	CHECKED BY: PTS
	IPARM FILE NAME: 06A202_29	SHEET 29 OF 60

646.622 TEMPORARY 6" WHITE LINE, PAINT
 646.426 DURABLE 6" WHITE LINE, RECESSED POLYUREA
 646.428 DURABLE 6" WHITE LINE, RECESSED THERMOPLASTIC
 646.429 DURABLE 6" WHITE LINE, RECESSED EPOXY PAINT

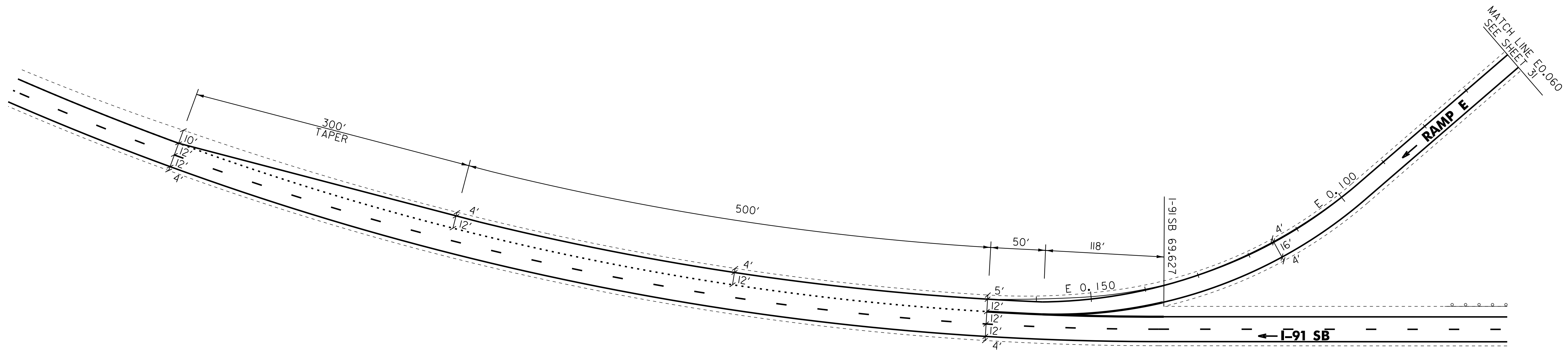
E 0.060 TO E 0.138 SOLID RT
 69.444 TO 69.595 DOTTED LT

646.632 TEMPORARY 6" YELLOW LINE, PAINT
 646.436 DURABLE 6" YELLOW LINE, RECESSED POLYUREA
 646.438 DURABLE 6" YELLOW LINE, RECESSED THERMOPLASTIC
 646.439 DURABLE 6" YELLOW LINE, RECESSED EPOXY PAINT

E 0.060 TO E 0.138 SOLID LT

646.662 TEMPORARY 12" WHITE LINE, PAINT
 646.466 DURABLE 12" WHITE LINE, RECESSED POLYUREA
 646.469 DURABLE 12" WHITE LINE, RECESSED EPOXY PAINT

E 0.138 TO E 0.159 SOLID LT
 69.595 TO 69.627



NOT TO SCALE

LEGEND

R	=	REMOVE EXISTING
S	=	SALVAGE
R&S	=	REMOVE AND SALVAGE
N	=	NEW
RET	=	RETAIN
B-B	=	BACK TO BACK
	=	EXISTING GUARDRAIL
	=	PROPOSED GUARDRAIL
YL	=	YELLOW LINE
WL	=	WHITE LINE

**EXIT 10
 SB ON RAMP E DETAIL SHEET**

PROJECT NAME: HARTLAND-NORWICH	FILE NAME: /pave/06a202/p06a202.dgn	PLOT DATE: 19-JUN-2013 09:24
PROJECT NUMBER: IM 091-1(59)	PROJECT LEADER: PTS	DRAWN BY: WWG
	DESIGNED BY: NULL	CHECKED BY: PTS
	IPARM FILE NAME: 06A202_30	SHEET 30 OF 60

646.622 TEMPORARY 6" WHITE LINE, PAINT
 646.426 DURABLE 6" WHITE LINE, RECESSED POLYUREA
 646.428 DURABLE 6" WHITE LINE, RECESSED THERMOPLASTIC
 646.429 DURABLE 6" WHITE LINE, RECESSED EPOXY PAINT

C 0.087 TO C 0.295 SOLID RT
 C 0.324 TO C 0.480 SOLID RT
 E 0.000 TO E 0.060 SOLID RT
 F 0.018 TO F 0.252 SOLID RT

646.632 TEMPORARY 6" YELLOW LINE, PAINT
 646.436 DURABLE 6" YELLOW LINE, RECESSED POLYUREA
 646.438 DURABLE 6" YELLOW LINE, RECESSED THERMOPLASTIC
 646.439 DURABLE 6" YELLOW LINE, RECESSED EPOXY PAINT

C 0.087 TO C 0.480 SOLID LT
 E 0.028 TO E 0.060 SOLID LT
 F 0.018 TO F 0.252 SOLID LT

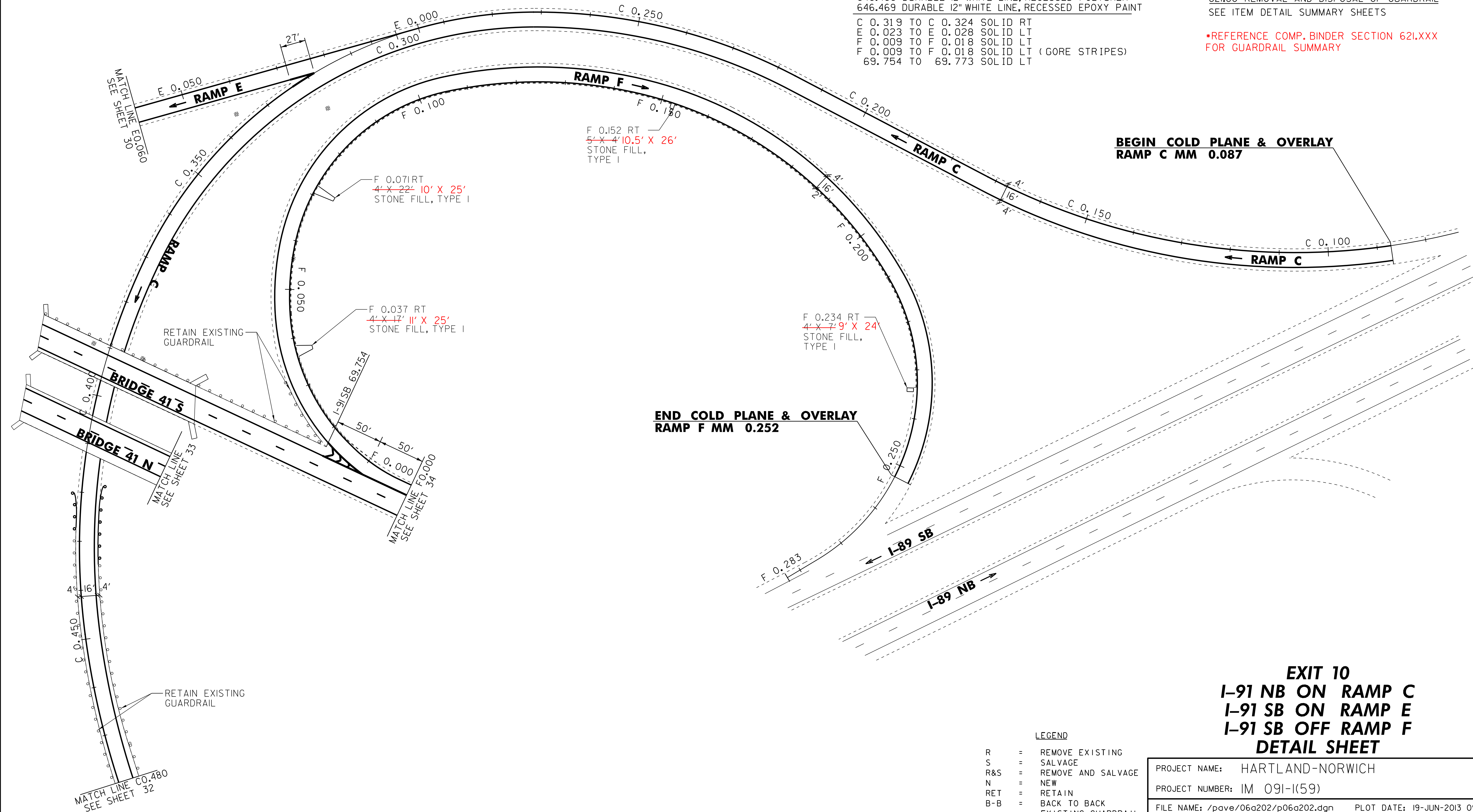
613.10 STONE FILL, TYPE I
 F 0.037 RT
 F 0.071 RT
 F 0.152 RT
 F 0.234 RT

646.662 TEMPORARY 12" WHITE LINE, PAINT
 646.466 DURABLE 12" WHITE LINE, RECESSED POLYUREA
 646.469 DURABLE 12" WHITE LINE, RECESSED EPOXY PAINT

C 0.319 TO C 0.324 SOLID RT
 E 0.023 TO E 0.028 SOLID LT
 F 0.009 TO F 0.018 SOLID LT
 F 0.009 TO F 0.018 SOLID LT (GORE STRIPES)
 69.754 TO 69.773 SOLID LT

621.20 STEEL BEAM GUARDRAIL, GALVANIZED
 621.50 MANUFACTURED TERMINAL SECTION, FLARED
 621.80 REMOVAL AND DISPOSAL OF GUARDRAIL
 SEE ITEM DETAIL SUMMARY SHEETS

•REFERENCE COMP. BINDER SECTION 621.XXX FOR GUARDRAIL SUMMARY



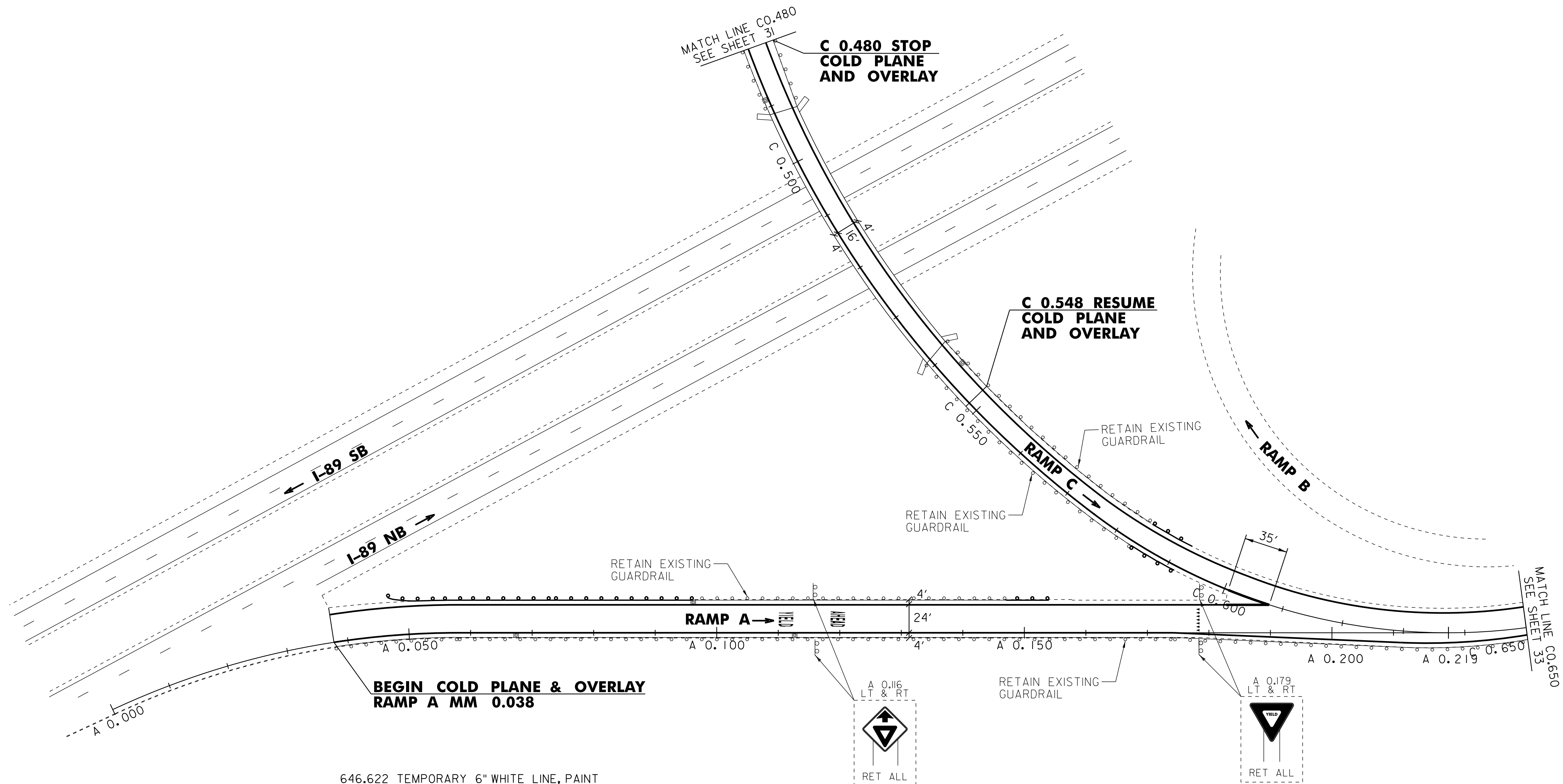
NOT TO SCALE

LEGEND

- R = REMOVE EXISTING
- S = SALVAGE
- R&S = REMOVE AND SALVAGE
- N = NEW
- RET = RETAIN
- B-B = BACK TO BACK
- = EXISTING GUARDRAIL
- = PROPOSED GUARDRAIL
- YL = YELLOW LINE
- WL = WHITE LINE

EXIT 10
I-91 NB ON RAMP C
I-91 SB ON RAMP E
I-91 SB OFF RAMP F
DETAIL SHEET

PROJECT NAME: HARTLAND-NORWICH	FILE NAME: /pave/06a202/p06a202.dgn	PLOT DATE: 19-JUN-2013 09:24
PROJECT NUMBER: IM 091-I(59)	PROJECT LEADER: PTS	DRAWN BY: WWG
	DESIGNED BY: NLL	CHECKED BY: PTS
	IPARM FILE NAME: 06A202_31	SHEET 31 OF 60



646.622 TEMPORARY 6" WHITE LINE, PAINT
 646.426 DURABLE 6" WHITE LINE, RECESSED POLYUREA
 646.428 DURABLE 6" WHITE LINE, RECESSED THERMOPLASTIC
 646.429 DURABLE 6" WHITE LINE, RECESSED EPOXY PAINT

A 0.038 TO A 0.219 SOLID RT
 C 0.480 TO C 0.601 SOLID RT
 C 0.637 TO C 0.650 SOLID RT

646.632 TEMPORARY 6" YELLOW LINE, PAINT
 646.436 DURABLE 6" YELLOW LINE, RECESSED POLYUREA
 646.438 DURABLE 6" YELLOW LINE, RECESSED THERMOPLASTIC
 646.439 DURABLE 6" YELLOW LINE, RECESSED EPOXY PAINT

A 0.038 TO A 0.183 SOLID LT
 C 0.480 TO C 0.650 SOLID LT

646.662 TEMPORARY 12" WHITE LINE, PAINT
 646.466 DURABLE 12" WHITE LINE, RECESSED POLYUREA
 646.469 DURABLE 12" WHITE LINE, RECESSED EPOXY PAINT

A 0.183 TO A 0.190 SOLID LT
 C 0.601 TO C 0.608 SOLID RT

646.692 TEMPORARY LETTER OR SYMBOL, PAINT
 646.492 DURABLE LETTER OR SYMBOL, THERMOPLASTIC
 646.493 DURABLE LETTER OR SYMBOL, EPOXY PAINT

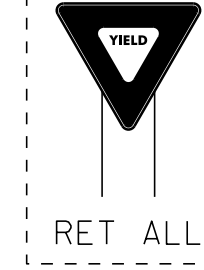
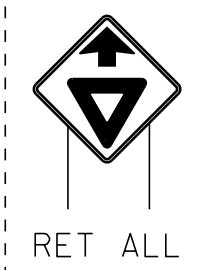
A 0.112 LT "YIELD"
 A 0.120 LT "AHEAD"
 A 0.179 LT YIELD MARKER (7 EA)

604.412, 604.415 REHAB. DROP
 INLETS, CATCH BASINS, OR MANHOLES,
 CLASS I OR CLASS II

A 0.067 RT
 A 0.096 LT *REFERENCE COMP. BINDER SECTION 604.XXX
 A 0.113 RT FOR REHAB DILLOCATIONS

621.20 STEEL BEAM GUARDRAIL, GALVANIZED
 621.51 MANUFACTURED TERMINAL SECTION, TANGENT
 621.60 ANCHOR FOR STEEL BEAM RAIL
 621.80 REMOVAL AND DISPOSAL OF GUARDRAIL
 SEE ITEM DETAIL SUMMARY SHEETS

*REFERENCE COMP. BINDER SECTION 621.XXX
 FOR GUARDRAIL SUMMARY



LEGEND

- R = REMOVE EXISTING
- S = SALVAGE
- R&S = REMOVE AND SALVAGE
- N = NEW
- RET = RETAIN
- B-B = BACK TO BACK
- = EXISTING GUARDRAIL
- = PROPOSED GUARDRAIL
- YL = YELLOW LINE
- WL = WHITE LINE

NOT TO SCALE

**EXIT 10
 I-89 NB OFF RAMP A
 I-91 NB ON RAMP C
 DETAIL SHEET**

PROJECT NAME: HARTLAND-NORWICH

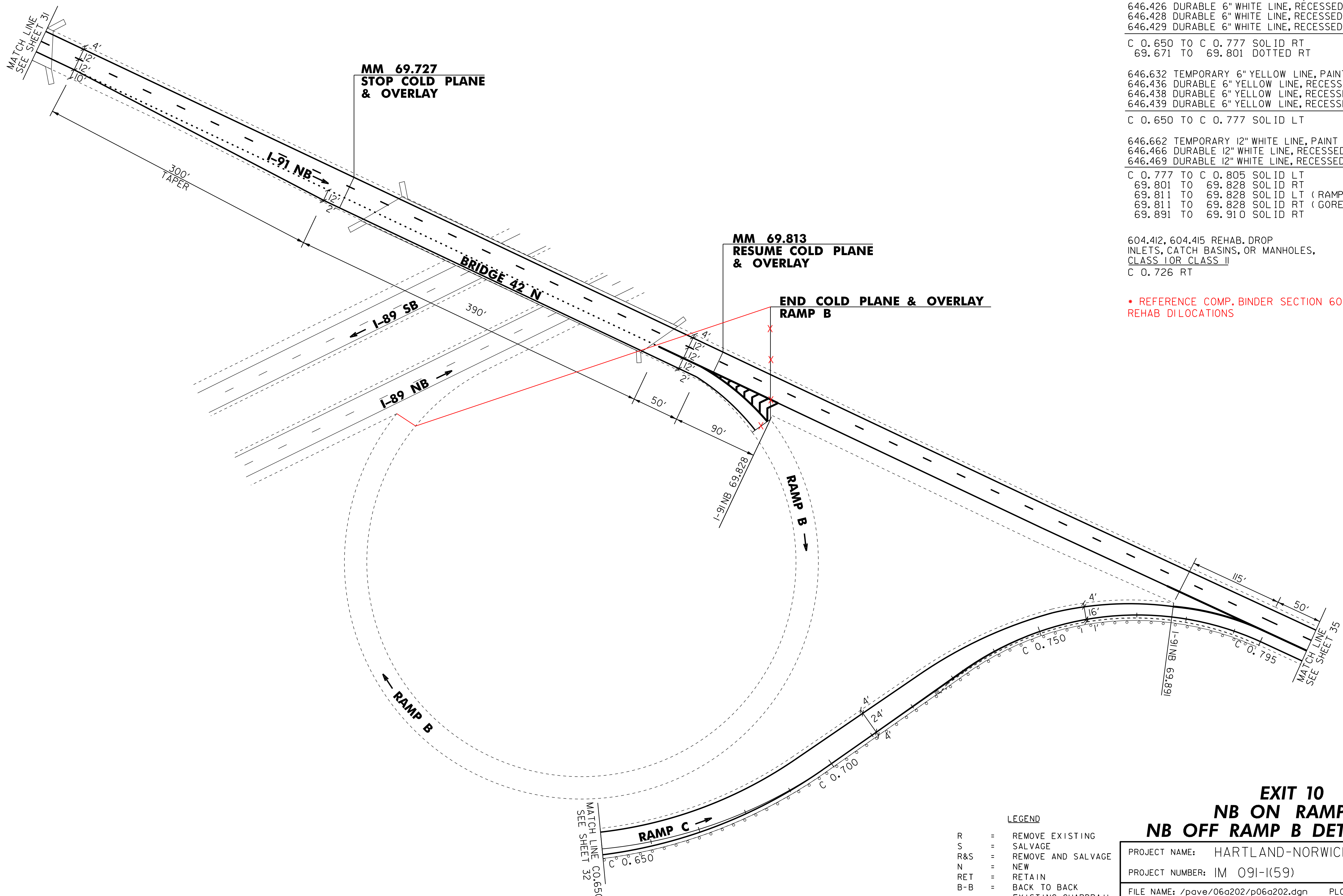
PROJECT NUMBER: IM 091-I(59)

FILE NAME: /pave/06a202/p06a202.dgn PLOT DATE: 19-JUN-2013 09:24

PROJECT LEADER: PTS DRAWN BY: WWG

DESIGNED BY: NULL CHECKED BY: PTS

IPARM FILE NAME: 06A202_32 SHEET 32 OF 60



- 646.622 TEMPORARY 6" WHITE LINE, PAINT
- 646.426 DURABLE 6" WHITE LINE, RECESSED POLYUREA
- 646.428 DURABLE 6" WHITE LINE, RECESSED THERMOPLASTIC
- 646.429 DURABLE 6" WHITE LINE, RECESSED EPOXY PAINT

- C 0.650 TO C 0.777 SOLID RT
- 69.671 TO 69.801 DOTTED RT

- 646.632 TEMPORARY 6" YELLOW LINE, PAINT
- 646.436 DURABLE 6" YELLOW LINE, RECESSED POLYUREA
- 646.438 DURABLE 6" YELLOW LINE, RECESSED THERMOPLASTIC
- 646.439 DURABLE 6" YELLOW LINE, RECESSED EPOXY PAINT

- C 0.650 TO C 0.777 SOLID LT

- 646.662 TEMPORARY 12" WHITE LINE, PAINT
- 646.466 DURABLE 12" WHITE LINE, RECESSED POLYUREA
- 646.469 DURABLE 12" WHITE LINE, RECESSED EPOXY PAINT

- C 0.777 TO C 0.805 SOLID LT
- 69.801 TO 69.828 SOLID RT
- 69.811 TO 69.828 SOLID LT (RAMP B)
- 69.811 TO 69.828 SOLID RT (GORE STRIPES)
- 69.891 TO 69.910 SOLID RT

- 604.412, 604.415 REHAB. DROP
INLETS, CATCH BASINS, OR MANHOLES,
CLASS I OR CLASS II
- C 0.726 RT

* REFERENCE COMP. BINDER SECTION 604.XXX FOR REHAB DILOCATIONS

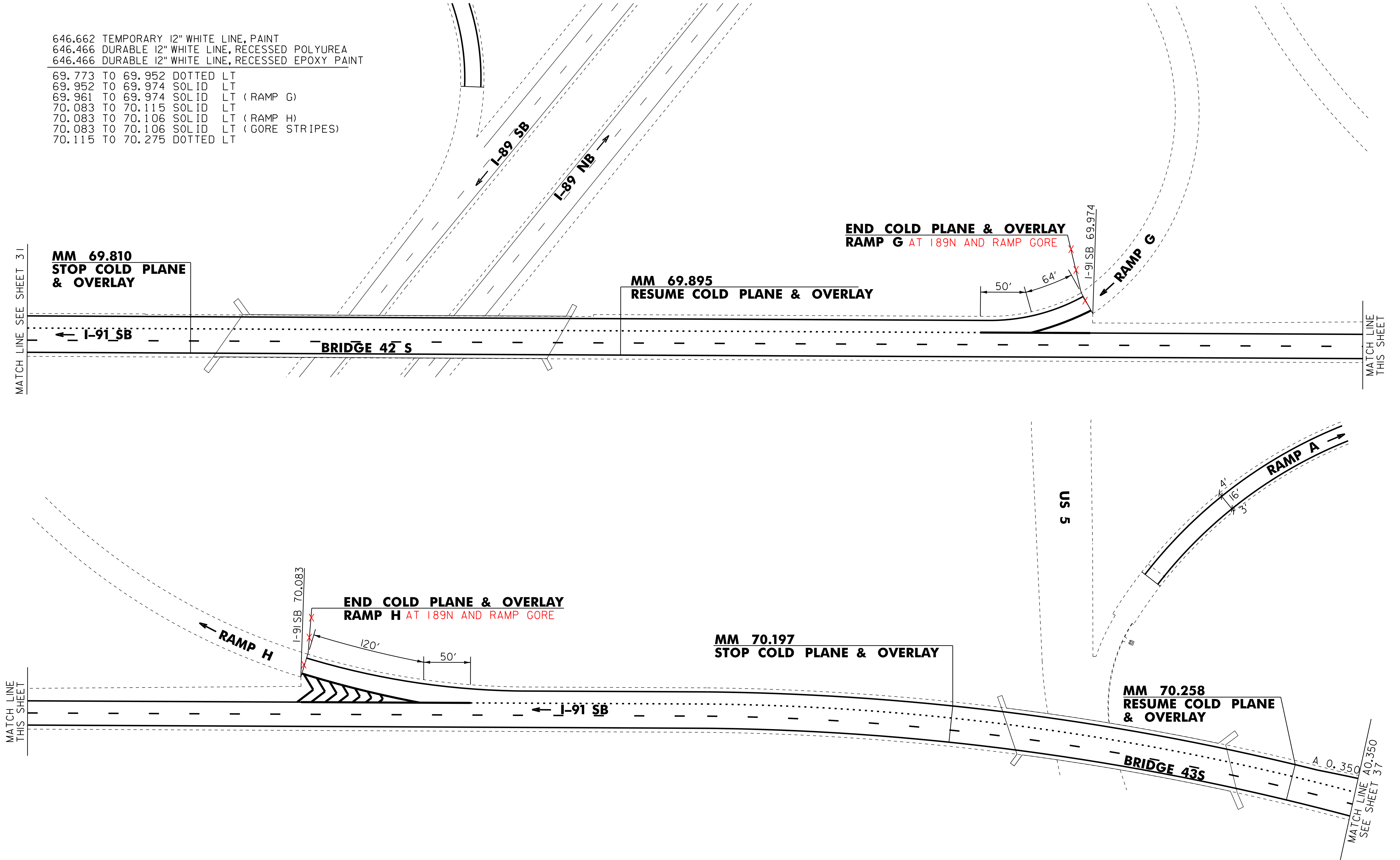
EXIT 10 NB ON RAMP C NB OFF RAMP B DETAIL SHEET

- LEGEND**
- R = REMOVE EXISTING
 - S = SALVAGE
 - R&S = REMOVE AND SALVAGE
 - N = NEW
 - RET = RETAIN
 - B-B = BACK TO BACK
 - = EXISTING GUARDRAIL
 - = PROPOSED GUARDRAIL
 - YL = YELLOW LINE
 - WL = WHITE LINE

PROJECT NAME: HARTLAND-NORWICH	
PROJECT NUMBER: IM 091-I(59)	
FILE NAME: /pave/06a202/p06a202.dgn	PLOT DATE: 19-JUN-2013 09:24
PROJECT LEADER: PTS	DRAWN BY: WWG
DESIGNED BY: NLL	CHECKED BY: PTS
IPARM FILE NAME: 06A202.33	SHEET 33 OF 60

NOT TO SCALE

646.662 TEMPORARY 12" WHITE LINE, PAINT
 646.466 DURABLE 12" WHITE LINE, RECESSED POLYUREA
 646.466 DURABLE 12" WHITE LINE, RECESSED EPOXY PAINT
 69.773 TO 69.952 DOTTED LT
 69.952 TO 69.974 SOLID LT
 69.961 TO 69.974 SOLID LT (RAMP G)
 70.083 TO 70.115 SOLID LT
 70.083 TO 70.106 SOLID LT (RAMP H)
 70.083 TO 70.106 SOLID LT (GORE STRIPES)
 70.115 TO 70.275 DOTTED LT



MM 69.810
 STOP COLD PLANE
 & OVERLAY

MM 69.895
 RESUME COLD PLANE & OVERLAY

END COLD PLANE & OVERLAY
 RAMP G AT I89N AND RAMP GORE

END COLD PLANE & OVERLAY
 RAMP H AT I89N AND RAMP GORE

MM 70.197
 STOP COLD PLANE & OVERLAY

MM 70.258
 RESUME COLD PLANE
 & OVERLAY

LEGEND

- R = REMOVE EXISTING
- S = SALVAGE
- R&S = REMOVE AND SALVAGE
- N = NEW
- RET = RETAIN
- B-B = BACK TO BACK
- = EXISTING GUARDRAIL
- = PROPOSED GUARDRAIL
- YL = YELLOW LINE
- WL = WHITE LINE

**EXIT 10 & 11
 WEAVE LANE DETAIL SHEET**

PROJECT NAME: HARTLAND-NORWICH
 PROJECT NUMBER: IM 091-I(59)

FILE NAME: /pave/06a202/p06a202.dgn PLOT DATE: 19-JUN-2013 09:24
 PROJECT LEADER: PTS DRAWN BY: WWG
 DESIGNED BY: NULL CHECKED BY: PTS
 IPARM FILE NAME: 06A202_34 SHEET 34 OF 60

NOT TO SCALE

646.622 TEMPORARY 6" WHITE LINE, PAINT
 646.426 DURABLE 6" WHITE LINE, RECESSED POLYUREA
 646.428 DURABLE 6" WHITE LINE, RECESSED THERMOPLASTIC
 646.429 DURABLE 6" WHITE LINE, RECESSED EPOXY PAINT

C 0.041 TO C 0.192 SOLID RT
 C 0.153 TO C 0.157 SOLID LT

646.632 TEMPORARY 6" YELLOW LINE, PAINT
 646.436 DURABLE 6" YELLOW LINE, RECESSED POLYUREA
 646.438 DURABLE 6" YELLOW LINE, RECESSED THERMOPLASTIC
 646.439 DURABLE 6" YELLOW LINE, RECESSED EPOXY PAINT

C 0.041 TO C 0.154 SOLID LT
 C 0.153 TO C 0.179 SOLID LT

646.662 TEMPORARY 12" WHITE LINE, PAINT
 646.466 DURABLE 12" WHITE LINE, RECESSED POLYUREA
 646.469 DURABLE 12" WHITE LINE, RECESSED EPOXY PAINT

C 0.023 TO C 0.041 SOLID LT
 C 0.139 TO C 0.153 SOLID LT
 C 0.146 TO C 0.153 SOLID LT
 C 0.146 TO C 0.153 SOLID LT (GORE STRIPES)
 69.910 TO 70.080 DOTTED RT
 70.080 TO 70.109 SOLID RT
 70.090 TO 70.109 SOLID RT (GORE STRIPES)

646.692 ~~TEMPORARY LETTER OR SYMBOL, PAINT~~
 646.492 DURABLE LETTER OR SYMBOL, THERMOPLASTIC
 646.493 DURABLE LETTER OR SYMBOL, EPOXY PAINT

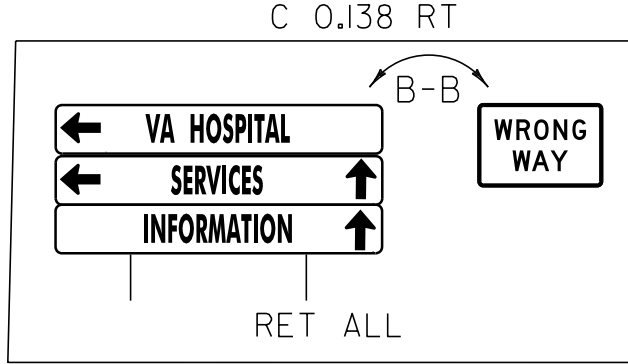
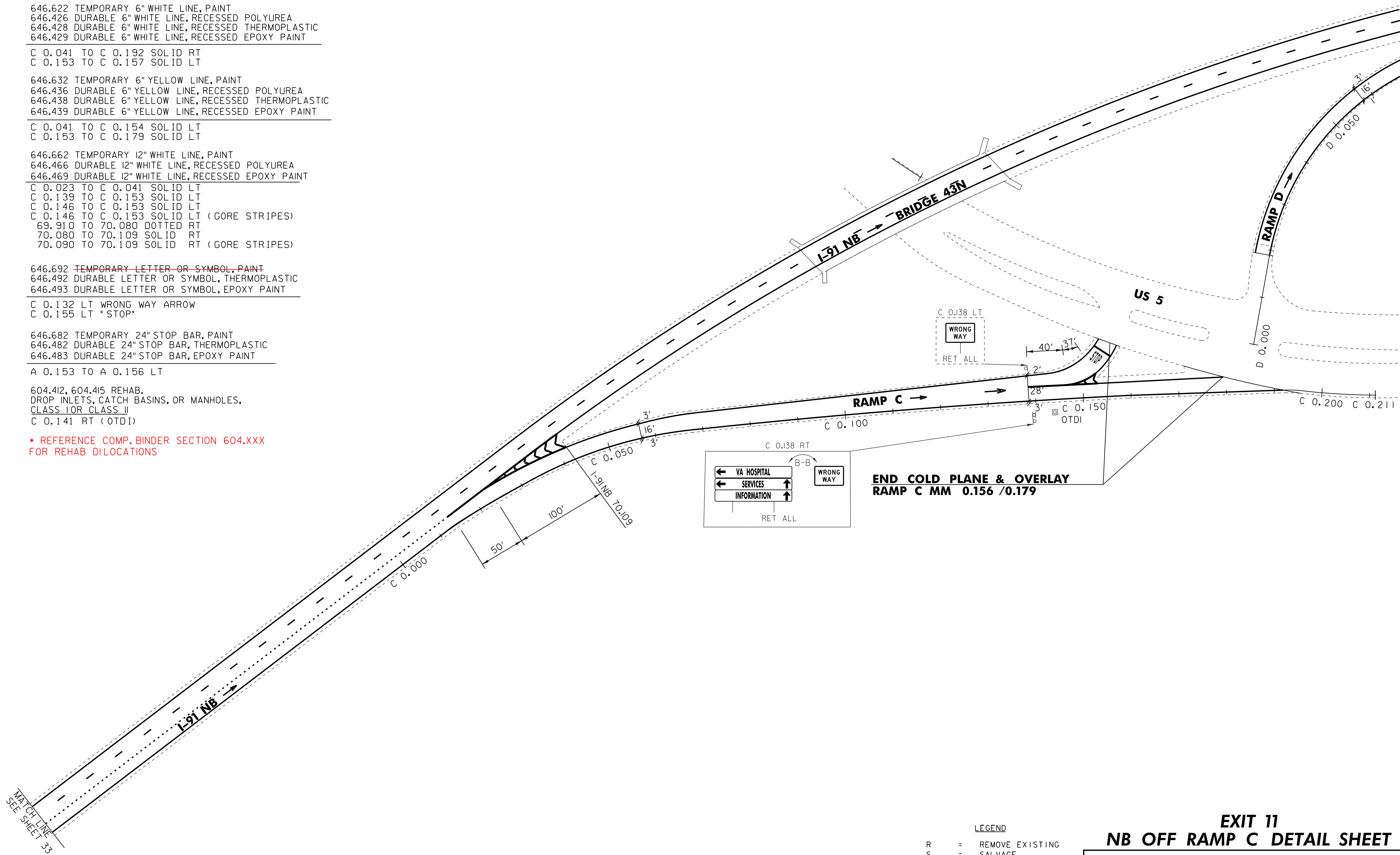
C 0.132 LT WRONG WAY ARROW
 C 0.155 LT "STOP"

646.682 TEMPORARY 24" STOP BAR, PAINT
 646.482 DURABLE 24" STOP BAR, THERMOPLASTIC
 646.483 DURABLE 24" STOP BAR, EPOXY PAINT

A 0.153 TO A 0.156 LT

604.412, 604.415 REHAB.
 DROP INLETS, CATCH BASINS, OR MANHOLES,
 CLASS I OR CLASS II
 C 0.141 RT (OTDI)

* REFERENCE COMP. BINDER SECTION 604.XXX
 FOR REHAB DILOCATIONS



**END COLD PLANE & OVERLAY
 RAMP C MM 0.156 /0.179**

LEGEND

- R = REMOVE EXISTING
- S = SALVAGE
- R&S = REMOVE AND SALVAGE
- N = NEW
- RET = RETAIN
- B-B = BACK TO BACK
- = EXISTING GUARDRAIL
- = PROPOSED GUARDRAIL
- YL = YELLOW LINE
- WL = WHITE LINE

**EXIT 11
 NB OFF RAMP C DETAIL SHEET**

PROJECT NAME: HARTLAND-NORWICH	FILE NAME: /pave/06a202/p06a202.dgn	PLOT DATE: 19-JUN-2013 09:24
PROJECT NUMBER: IM 091-I(59)	PROJECT LEADER: PTS	DRAWN BY: WWG
	DESIGNED BY: NLL	CHECKED BY: PTS
	IPARM FILE NAME: 06A202_35	SHEET 35 OF 60

NOT TO SCALE

646.622 TEMPORARY 6" WHITE LINE, PAINT
 646.426 DURABLE 6" WHITE LINE, RECESSED POLYUREA
 646.428 DURABLE 6" WHITE LINE, RECESSED THERMOPLASTIC
 646.429 DURABLE 6" WHITE LINE, RECESSED EPOXY PAINT

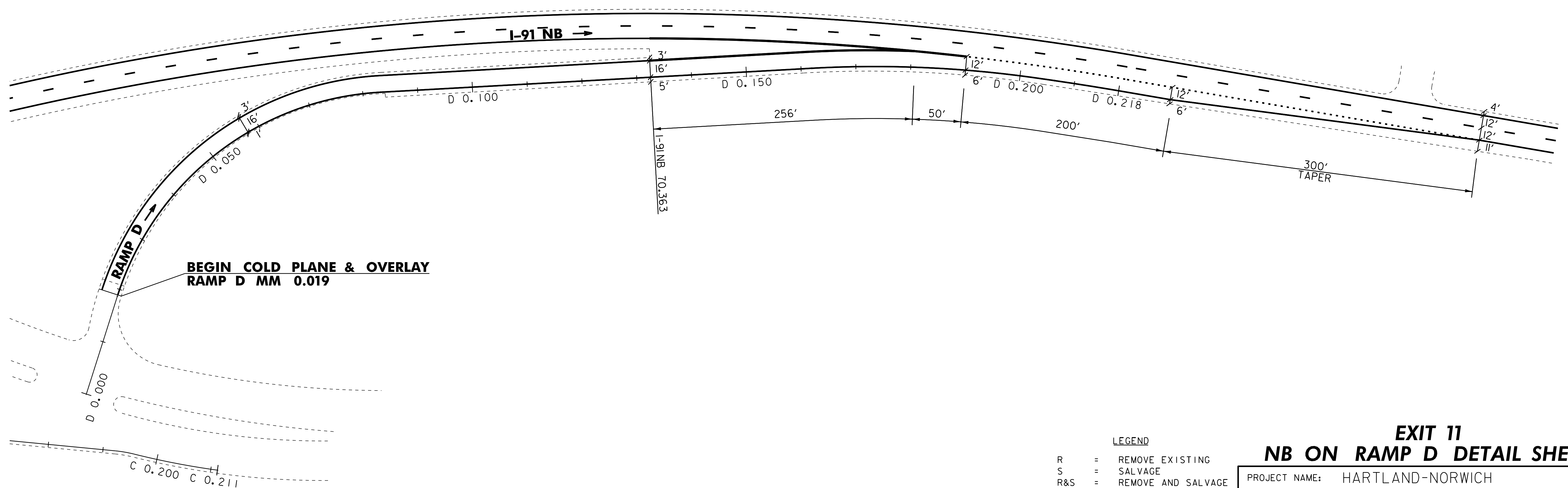
D 0.019 TO D 0.132 SOLID RT
 70.421 TO 70.516 DOTTED RT

646.632 TEMPORARY 6" YELLOW LINE, PAINT
 646.436 DURABLE 6" YELLOW LINE, RECESSED POLYUREA
 646.438 DURABLE 6" YELLOW LINE, RECESSED THERMOPLASTIC
 646.439 DURABLE 6" YELLOW LINE, RECESSED EPOXY PAINT

D 0.019 TO D 0.132 SOLID LT

646.662 TEMPORARY 12" WHITE LINE, PAINT
 646.466 DURABLE 12" WHITE LINE, RECESSED POLYUREA
 646.469 DURABLE 12" WHITE LINE, RECESSED EPOXY PAINT

D 0.132 TO D 0.181 SOLID LT
 70.363 TO 70.421 SOLID RT



NOT TO SCALE

- LEGEND**
- R = REMOVE EXISTING
 - S = SALVAGE
 - R&S = REMOVE AND SALVAGE
 - N = NEW
 - RET = RETAIN
 - B-B = BACK TO BACK
 - = EXISTING GUARDRAIL
 - = PROPOSED GUARDRAIL
 - YL = YELLOW LINE
 - WL = WHITE LINE

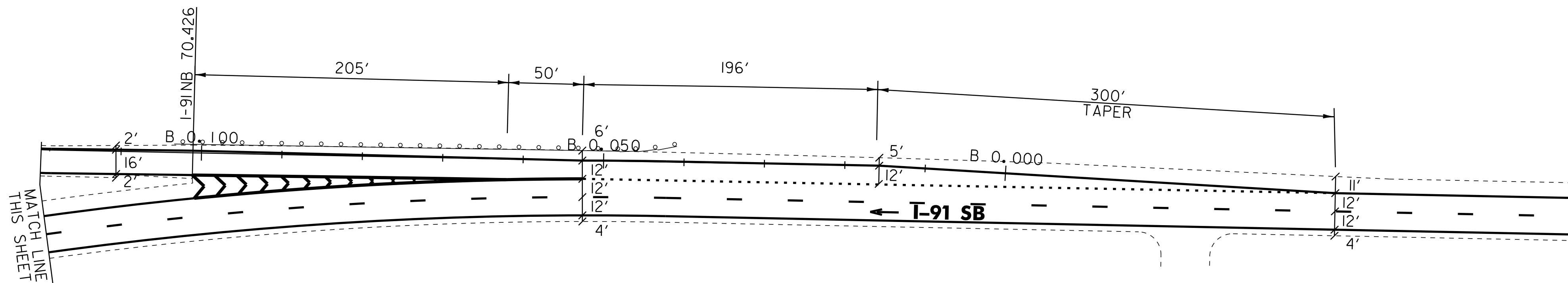
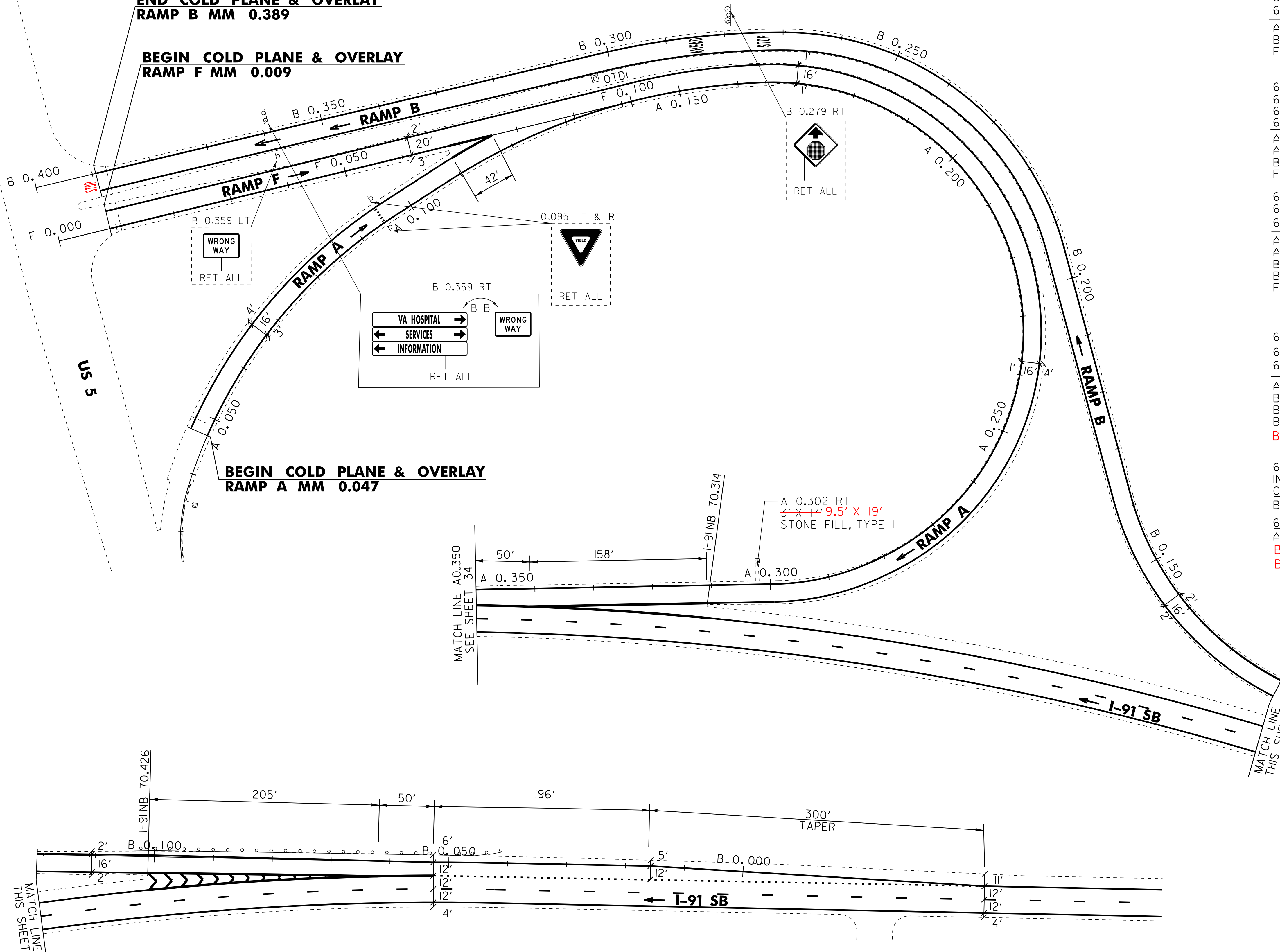
**EXIT 11
 NB ON RAMP D DETAIL SHEET**

PROJECT NAME: HARTLAND-NORWICH	PROJECT NUMBER: IM 091-1(59)
FILE NAME: /pave/06a202/p06a202.dgn	PLOT DATE: 19-JUN-2013 09:24
PROJECT LEADER: PTS	DRAWN BY: WWG
DESIGNED BY: NULL	CHECKED BY: PTS
IPARM FILE NAME: 06A202_36	SHEET 36 OF 60

END COLD PLANE & OVERLAY
RAMP B MM 0.389

BEGIN COLD PLANE & OVERLAY
RAMP F MM 0.009

BEGIN COLD PLANE & OVERLAY
RAMP A MM 0.047



- 646.622 TEMPORARY 6" WHITE LINE, PAINT
- 646.426 DURABLE 6" WHITE LINE, RECESSED POLYUREA
- 646.428 DURABLE 6" WHITE LINE, RECESSED THERMOPLASTIC
- 646.429 DURABLE 6" WHITE LINE, RECESSED EPOXY PAINT
- A 0.047 TO A 0.311 SOLID RT
- B 0.101 TO B 0.389 SOLID RT
- F 0.009 TO F 0.068 SOLID RT
- 70.474 TO 70.568 DOTTED LT
- 646.632 TEMPORARY 6" YELLOW LINE, PAINT
- 646.436 DURABLE 6" YELLOW LINE, RECESSED POLYUREA
- 646.438 DURABLE 6" YELLOW LINE, RECESSED THERMOPLASTIC
- 646.439 DURABLE 6" YELLOW LINE, RECESSED EPOXY PAINT
- A 0.047 TO A 0.110 SOLID LT
- A 0.142 TO A 0.311 SOLID LT
- B 0.101 TO B 0.389 SOLID LT
- F 0.009 TO F 0.100 SOLID LT
- 646.662 TEMPORARY 12" WHITE LINE, PAINT
- 646.466 DURABLE 12" WHITE LINE, RECESSED POLYUREA
- 646.469 DURABLE 12" WHITE LINE, RECESSED EPOXY PAINT
- A 0.110 TO A 0.118 SOLID LT
- A 0.311 TO A 0.341 SOLID LT
- B 0.062 TO B 0.101 SOLID LT
- B 0.062 TO B 0.101 SOLID LT (GORE STRIPES)
- F 0.068 TO F 0.076 SOLID RT
- 70.275 TO 70.314 SOLID LT
- 70.426 TO 70.474 SOLID LT
- 646.692 ~~TEMPORARY LETTER OR SYMBOL, PAINT~~
- 646.492 DURABLE LETTER OR SYMBOL, THERMOPLASTIC
- 646.493 DURABLE LETTER OR SYMBOL, EPOXY PAINT
- A 0.095 LT YIELD MARKINGS (5 EA)
- B 0.274 LT "STOP"
- B 0.282 LT "AHEAD"
- B 0.359 LT WRONG WAY ARROW
- B X.XXX LT "STOP"
- 604.412, 604.415 REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I OR CLASS II
- CLASS I OR CLASS II * REFERENCE COMP. BINDER SECTION
- B 0.308 LT (OTDI) 604.XXX FOR REHAB DILOCATIONS
- 613.10 STONE FILL, TYPE I
- A 0.302 RT (RAMP A)
- B X.XXX RT RAMP B
- B X.XXX RT RAMP B

LEGEND

- R = REMOVE EXISTING
- S = SALVAGE
- R&S = REMOVE AND SALVAGE
- N = NEW
- RET = RETAIN
- B-B = BACK TO BACK
- = EXISTING GUARDRAIL
- = PROPOSED GUARDRAIL
- YL = YELLOW LINE
- WL = WHITE LINE

EXIT 11
SB OFF RAMP B
SB ON RAMPS A&F DETAIL SHEET

PROJECT NAME: HARTLAND-NORWICH
 PROJECT NUMBER: IM 091-1(59)

FILE NAME: /pave/06a202/p06a202.dgn PLOT DATE: 19-JUN-2013 09:24
 PROJECT LEADER: PTS DRAWN BY: WWG
 DESIGNED BY: NLL CHECKED BY: PTS
 IPARM FILE NAME: 06A202_37 SHEET 37 OF 60

NOT TO SCALE

646.622 TEMPORARY 6" WHITE LINE, PAINT
 646.426 DURABLE 6" WHITE LINE, RECESSED POLYUREA
 646.428 DURABLE 6" WHITE LINE, RECESSED THERMOPLASTIC
 646.429 DURABLE 6" WHITE LINE, RECESSED EPOXY PAINT

A 0.058 TO A 0.250 SOLID RT
 71.638 TO 71.712 DOTTED RT

646.632 TEMPORARY 6" YELLOW LINE, PAINT
 646.436 DURABLE 6" YELLOW LINE, RECESSED POLYUREA
 646.438 DURABLE 6" YELLOW LINE, RECESSED THERMOPLASTIC
 646.439 DURABLE 6" YELLOW LINE, RECESSED EPOXY PAINT

A 0.058 TO A 0.250 SOLID LT

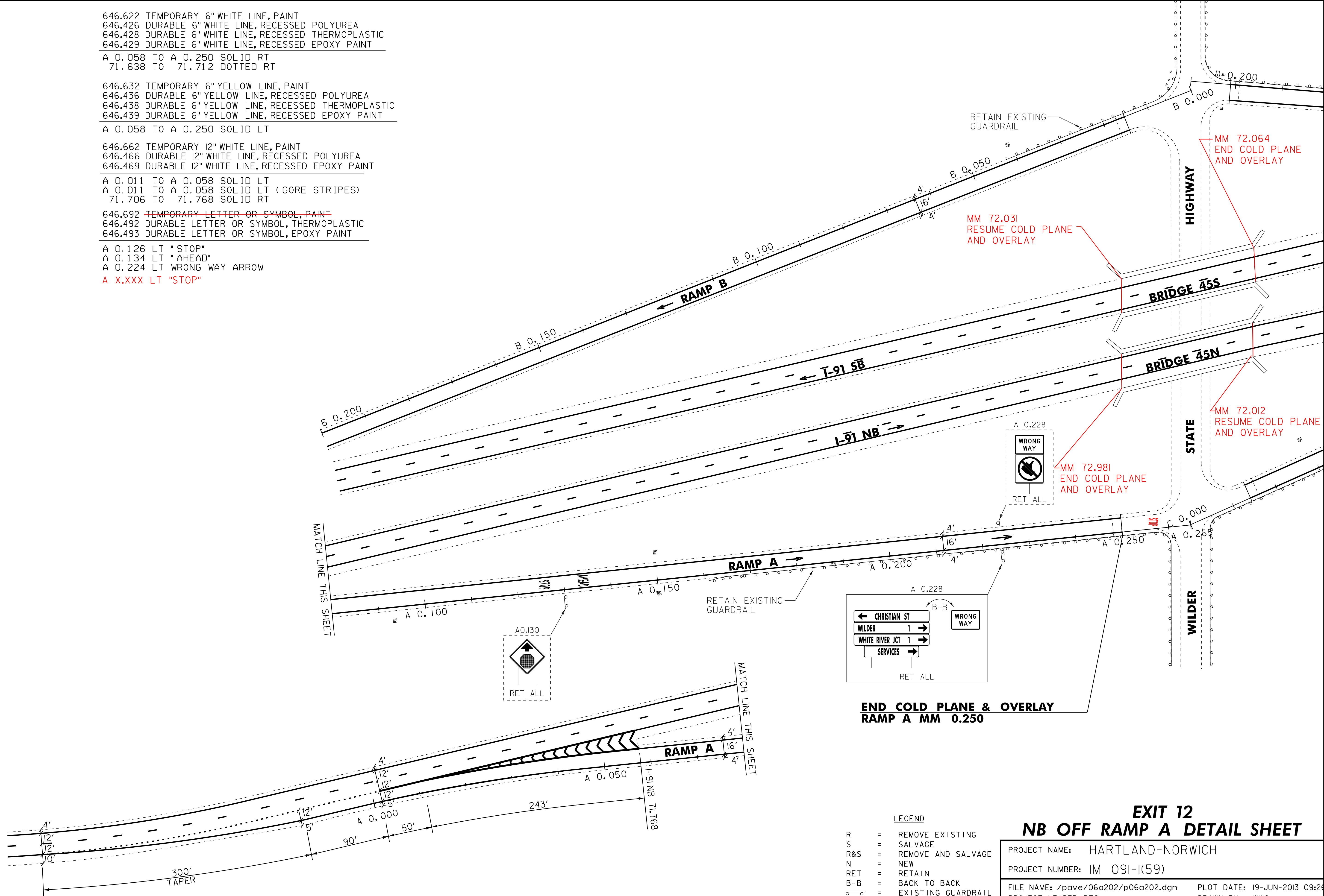
646.662 TEMPORARY 12" WHITE LINE, PAINT
 646.466 DURABLE 12" WHITE LINE, RECESSED POLYUREA
 646.469 DURABLE 12" WHITE LINE, RECESSED EPOXY PAINT

A 0.011 TO A 0.058 SOLID LT
 A 0.011 TO A 0.058 SOLID LT (GORE STRIPES)
 71.706 TO 71.768 SOLID RT

646.692 TEMPORARY LETTER OR SYMBOL, PAINT
 646.492 DURABLE LETTER OR SYMBOL, THERMOPLASTIC
 646.493 DURABLE LETTER OR SYMBOL, EPOXY PAINT

A 0.126 LT "STOP"
 A 0.134 LT "AHEAD"
 A 0.224 LT WRONG WAY ARROW

A X.XXX LT "STOP"



NOT TO SCALE

**END COLD PLANE & OVERLAY
 RAMP A MM 0.250**

LEGEND

R	=	REMOVE EXISTING
S	=	SALVAGE
R&S	=	REMOVE AND SALVAGE
N	=	NEW
RET	=	RETAIN
B-B	=	BACK TO BACK
	=	EXISTING GUARDRAIL
	=	PROPOSED GUARDRAIL
YL	=	YELLOW LINE
WL	=	WHITE LINE

**EXIT 12
 NB OFF RAMP A DETAIL SHEET**

PROJECT NAME: HARTLAND-NORWICH	FILE NAME: /pave/06a202/p06a202.dgn	PLOT DATE: 19-JUN-2013 09:24
PROJECT NUMBER: IM 091-I(59)	PROJECT LEADER: PTS	DRAWN BY: WWG
	DESIGNED BY: NLL	CHECKED BY: PTS
	IPARM FILE NAME: 06A202_38	SHEET 38 OF 60

646.622 TEMPORARY 6" WHITE LINE, PAINT
 646.426 DURABLE 6" WHITE LINE, RECESSED POLYUREA
 646.428 DURABLE 6" WHITE LINE, RECESSED THERMOPLASTIC
 646.429 DURABLE 6" WHITE LINE, RECESSED EPOXY PAINT

C 0.014 TO C 0.179 SOLID RT
 72.203 TO 72.360 DOTTED RT

646.632 TEMPORARY 6" YELLOW LINE, PAINT
 646.436 DURABLE 6" YELLOW LINE, RECESSED POLYUREA
 646.438 DURABLE 6" YELLOW LINE, RECESSED THERMOPLASTIC
 646.439 DURABLE 6" YELLOW LINE, RECESSED EPOXY PAINT

C 0.014 TO C 0.179 SOLID LT

646.662 TEMPORARY 12" WHITE LINE, PAINT
 646.466 DURABLE 12" WHITE LINE, RECESSED POLYUREA
 646.469 DURABLE 12" WHITE LINE, RECESSED EPOXY PAINT

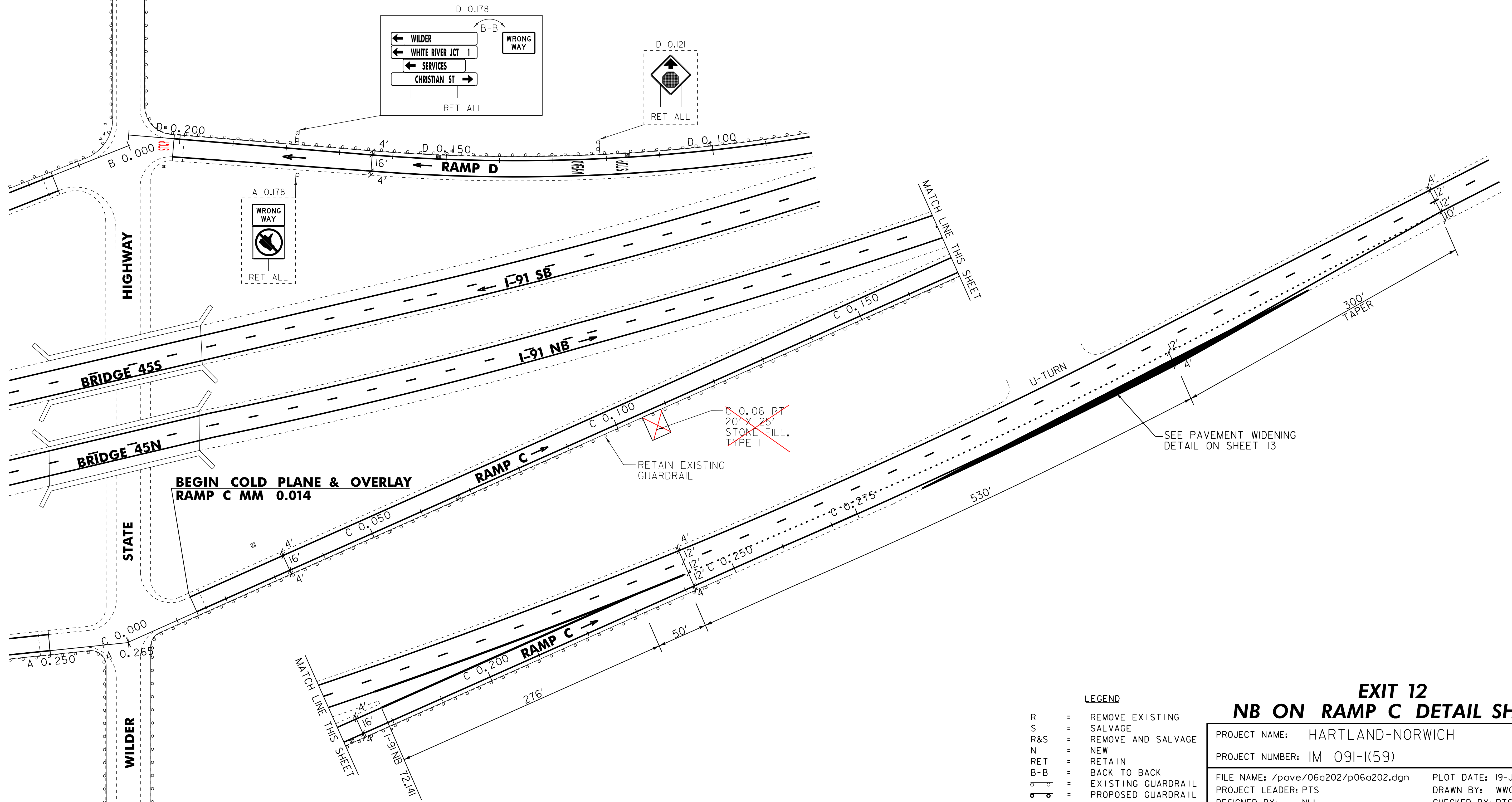
C 0.179 TO C 0.231 SOLID LT
 72.141 TO 72.203 SOLID RT

604.412, 604.415 REHAB. DROP
 INLETS, CATCH BASINS, OR MANHOLES,
 CLASS I OR CLASS II

C 0.067 RT
 C 0.171 RT

613.10 STONE FILL, TYPE I
~~C 0.016 RT (RAMP C)~~

* REFERENCE COMP. BINDER SECTION 604.XXX
 FOR REHAB DILOCATIONS



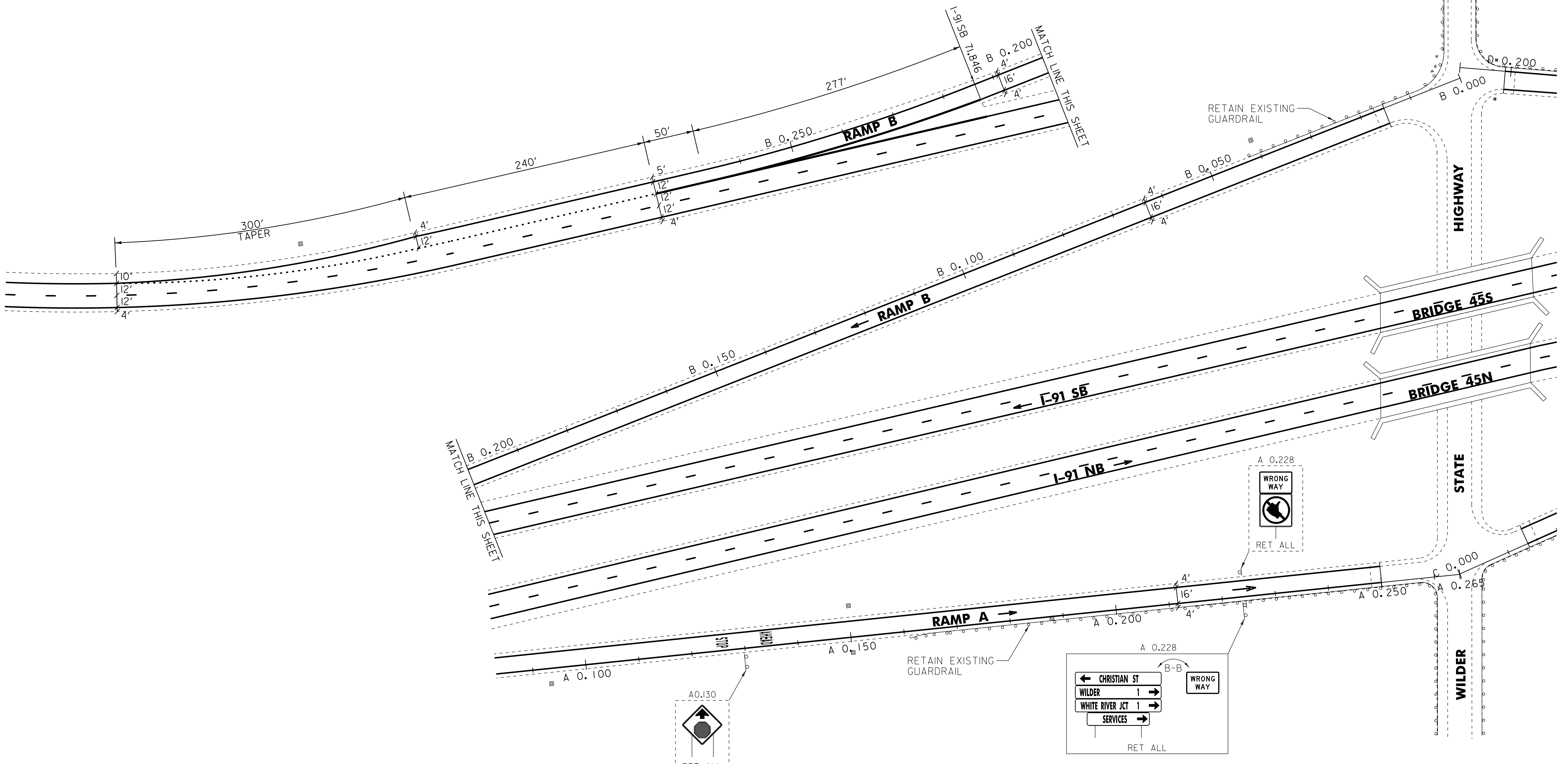
NOT TO SCALE

LEGEND

R	=	REMOVE EXISTING
S	=	SALVAGE
R&S	=	REMOVE AND SALVAGE
N	=	NEW
RET	=	RETAIN
B-B	=	BACK TO BACK
	=	EXISTING GUARDRAIL
	=	PROPOSED GUARDRAIL
YL	=	YELLOW LINE
WL	=	WHITE LINE

**EXIT 12
 NB ON RAMP C DETAIL SHEET**

PROJECT NAME: HARTLAND-NORWICH	FILE NAME: /pave/06a202/p06a202.dgn	PLOT DATE: 19-JUN-2013 09:24
PROJECT NUMBER: IM 091-I(59)	PROJECT LEADER: PTS	DRAWN BY: WWG
	DESIGNED BY: NLL	CHECKED BY: PTS
	IPARM FILE NAME: 06A202_39	SHEET 39 OF 60



646.622 TEMPORARY 6" WHITE LINE, PAINT
 646.426 DURABLE 6" WHITE LINE, RECESSED POLYUREA
 646.428 DURABLE 6" WHITE LINE, RECESSED THERMOPLASTIC
 646.429 DURABLE 6" WHITE LINE, RECESSED EPOXY PAINT

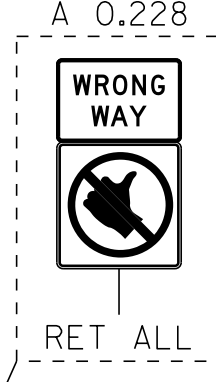
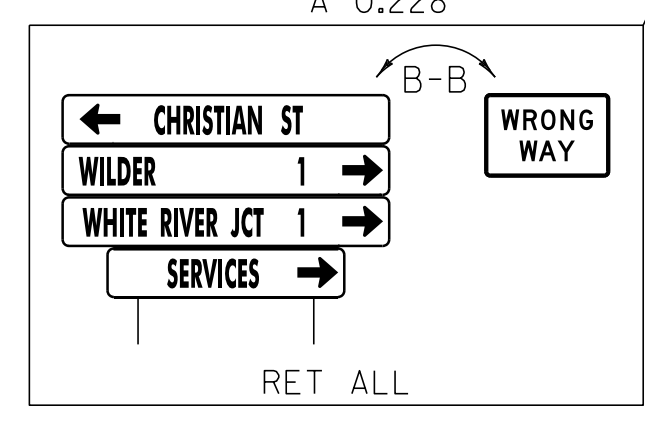
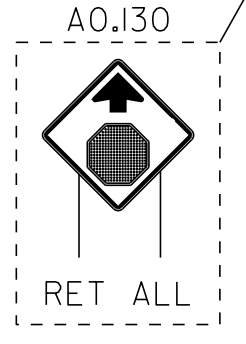
B 0.015 TO B 0.215 SOLID RT
 71.680 TO 71.782 DOTTED LT

646.632 TEMPORARY 6" YELLOW LINE, PAINT
 646.436 DURABLE 6" YELLOW LINE, RECESSED POLYUREA
 646.438 DURABLE 6" YELLOW LINE, RECESSED THERMOPLASTIC
 646.439 DURABLE 6" YELLOW LINE, RECESSED EPOXY PAINT

B 0.015 TO B 0.215 SOLID LT

646.662 TEMPORARY 12" WHITE LINE, PAINT
 646.466 DURABLE 12" WHITE LINE, RECESSED POLYUREA
 646.469 DURABLE 12" WHITE LINE, RECESSED EPOXY PAINT

B 0.215 TO B 0.268 SOLID LT
 71.782 TO 71.846 SOLID LT



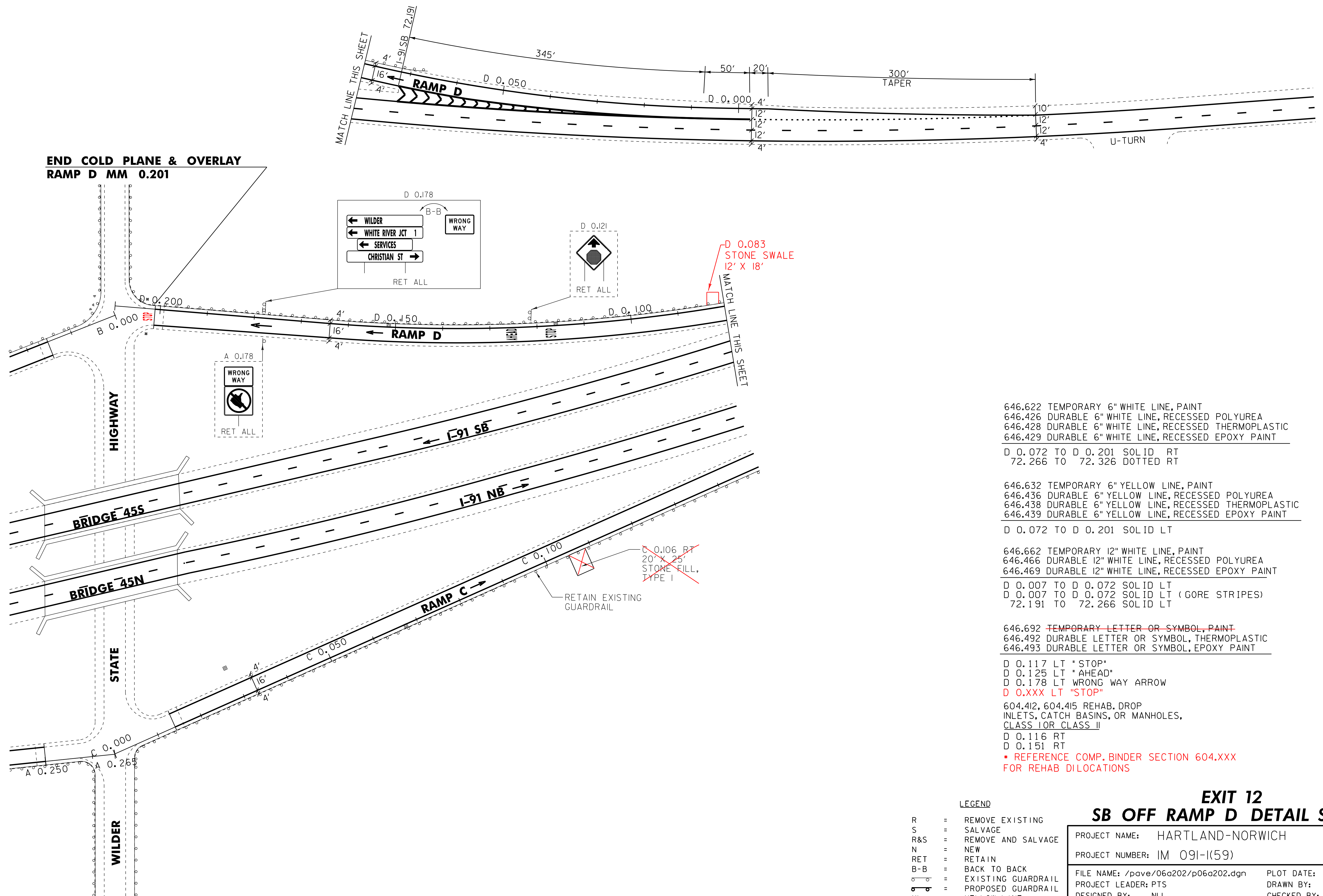
LEGEND

- R = REMOVE EXISTING
- S = SALVAGE
- R&S = REMOVE AND SALVAGE
- N = NEW
- RET = RETAIN
- B-B = BACK TO BACK
- = EXISTING GUARDRAIL
- - - = PROPOSED GUARDRAIL
- YL = YELLOW LINE
- WL = WHITE LINE

**EXIT 12
 SB ON RAMP B DETAIL SHEET**

PROJECT NAME: HARTLAND-NORWICH	FILE NAME: /pave/06a202/p06a202.dgn	PLOT DATE: 19-JUN-2013 09:24
PROJECT NUMBER: IM 091-I(59)	PROJECT LEADER: PTS	DRAWN BY: WWG
	DESIGNED BY: NLL	CHECKED BY: PTS
	IPARM FILE NAME: 06A202_40	SHEET 40 OF 60

NOT TO SCALE



**END COLD PLANE & OVERLAY
RAMP D MM 0.201**

646.622 TEMPORARY 6" WHITE LINE, PAINT
 646.426 DURABLE 6" WHITE LINE, RECESSED POLYUREA
 646.428 DURABLE 6" WHITE LINE, RECESSED THERMOPLASTIC
 646.429 DURABLE 6" WHITE LINE, RECESSED EPOXY PAINT
 D 0.072 TO D 0.201 SOLID RT
 72.266 TO 72.326 DOTTED RT

646.632 TEMPORARY 6" YELLOW LINE, PAINT
 646.436 DURABLE 6" YELLOW LINE, RECESSED POLYUREA
 646.438 DURABLE 6" YELLOW LINE, RECESSED THERMOPLASTIC
 646.439 DURABLE 6" YELLOW LINE, RECESSED EPOXY PAINT
 D 0.072 TO D 0.201 SOLID LT

646.662 TEMPORARY 12" WHITE LINE, PAINT
 646.466 DURABLE 12" WHITE LINE, RECESSED POLYUREA
 646.469 DURABLE 12" WHITE LINE, RECESSED EPOXY PAINT
 D 0.007 TO D 0.072 SOLID LT
 D 0.007 TO D 0.072 SOLID LT (GORE STRIPES)
 72.191 TO 72.266 SOLID LT

~~646.692 TEMPORARY LETTER OR SYMBOL, PAINT~~
 646.492 DURABLE LETTER OR SYMBOL, THERMOPLASTIC
 646.493 DURABLE LETTER OR SYMBOL, EPOXY PAINT

D 0.117 LT "STOP"
 D 0.125 LT "AHEAD"
 D 0.178 LT WRONG WAY ARROW
 D 0.XXX LT "STOP"
 604.412, 604.415 REHAB. DROP
 INLETS, CATCH BASINS, OR MANHOLES,
 CLASS I OR CLASS II
 D 0.116 RT
 D 0.151 RT
 * REFERENCE COMP. BINDER SECTION 604.XXX
 FOR REHAB DILOCATIONS

LEGEND

- R = REMOVE EXISTING
- S = SALVAGE
- R&S = REMOVE AND SALVAGE
- N = NEW
- RET = RETAIN
- B-B = BACK TO BACK
- = EXISTING GUARDRAIL
- = PROPOSED GUARDRAIL
- YL = YELLOW LINE
- WL = WHITE LINE

**EXIT 12
SB OFF RAMP D DETAIL SHEET**

PROJECT NAME: HARTLAND-NORWICH	FILE NAME: /pave/06a202/p06a202.dgn	PLOT DATE: 19-JUN-2013 09:24
PROJECT NUMBER: IM 091-1(59)	PROJECT LEADER: PTS	DRAWN BY: WWG
	DESIGNED BY: NLL	CHECKED BY: PTS
	IPARM FILE NAME: 06A202_41	SHEET 41 OF 60

NOT TO SCALE

646.622 TEMPORARY 6" WHITE LINE, PAINT
 646.426 DURABLE 6" WHITE LINE, RECESSED POLYUREA
 646.428 DURABLE 6" WHITE LINE, RECESSED THERMOPLASTIC
 646.429 DURABLE 6" WHITE LINE, RECESSED EPOXY PAINT
 A 0.069 TO A 0.170 SOLID RT
 74.448 TO 74.543 DOTTED RT

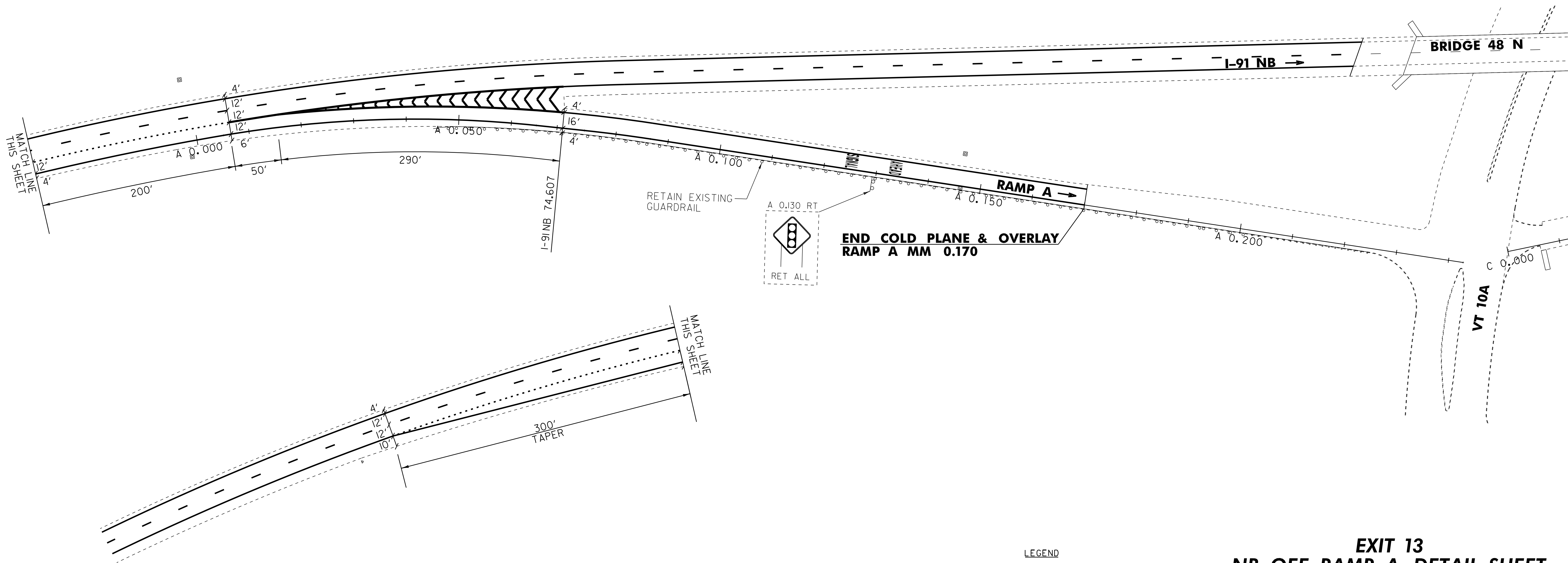
604.412, 604.415 REHAB. DROP
 INLETS, CATCH BASINS, OR MANHOLES,
 CLASS 10R CLASS II
 A 0.146 RT

* REFERENCE COMP. BINDER SECTION 604.XXX
 FOR REHAB DILOCATIONS

646.632 TEMPORARY 6" YELLOW LINE, PAINT
 646.436 DURABLE 6" YELLOW LINE, RECESSED POLYUREA
 646.438 DURABLE 6" YELLOW LINE, RECESSED THERMOPLASTIC
 646.439 DURABLE 6" YELLOW LINE, RECESSED EPOXY PAINT
 A 0.069 TO A 0.170 SOLID LT

646.662 TEMPORARY 12" WHITE LINE, PAINT
 646.466 DURABLE 12" WHITE LINE, RECESSED POLYUREA
 646.469 DURABLE 12" WHITE LINE, RECESSED EPOXY PAINT
 A 0.016 TO A 0.069 SOLID LT
 A 0.016 TO A 0.069 SOLID LT (GORE STRIPES)
 74.543 TO 74.607 SOLID RT

646.692 TEMPORARY LETTER OR SYMBOL, PAINT
 646.492 DURABLE LETTER OR SYMBOL, THERMOPLASTIC
 646.493 DURABLE LETTER OR SYMBOL, EPOXY PAINT
 A 0.126 LT " SIGNAL"
 A 0.133 LT " AHEAD"



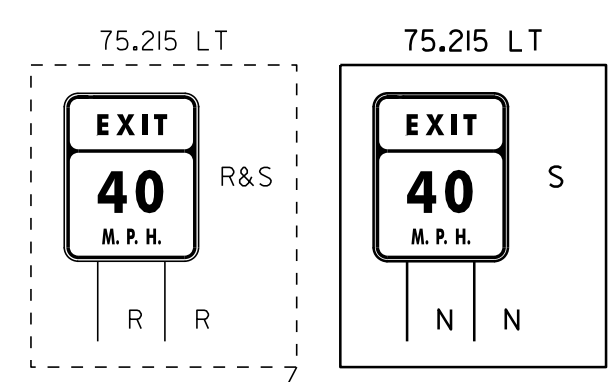
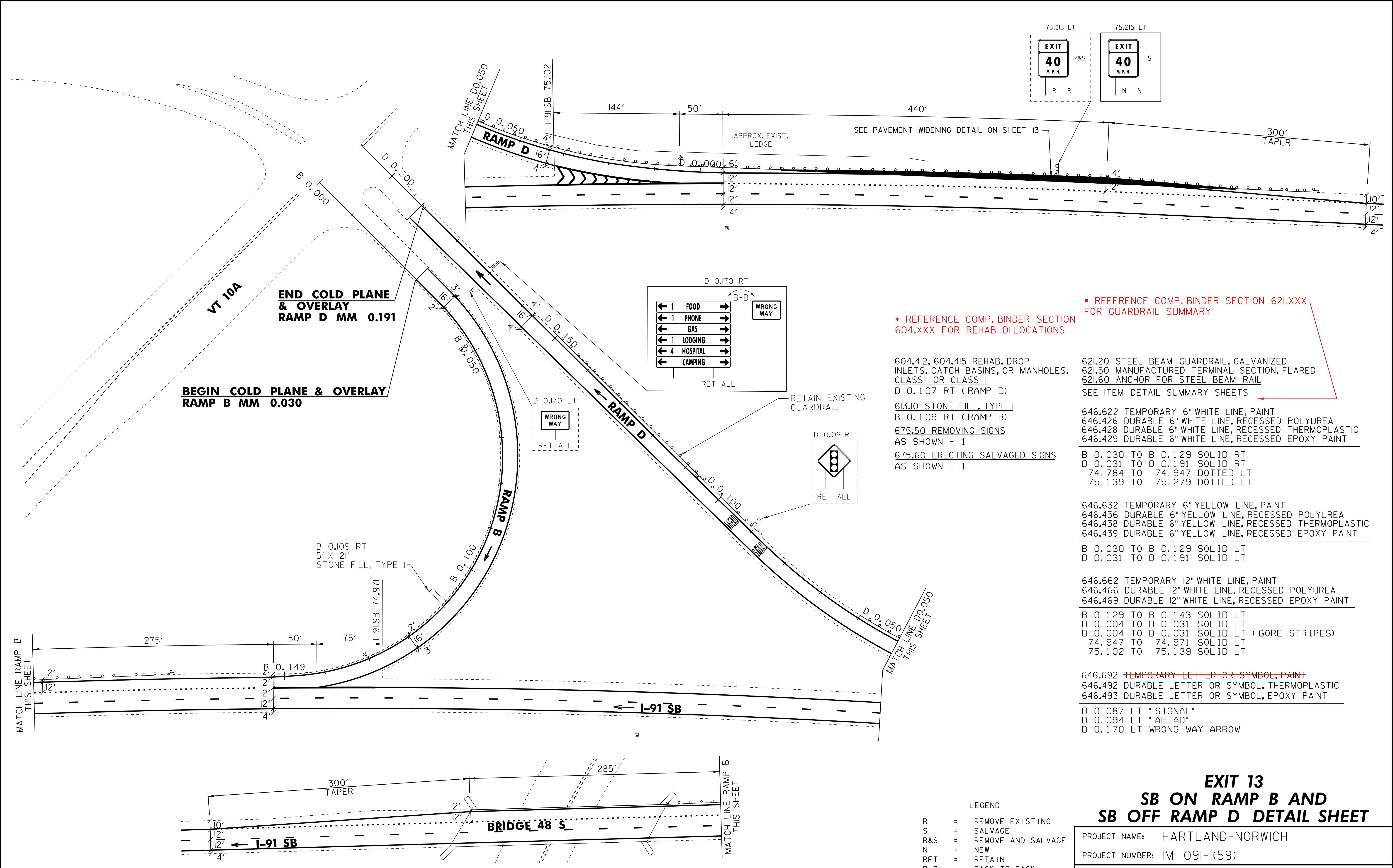
NOT TO SCALE

LEGEND

- R = REMOVE EXISTING
- S = SALVAGE
- R&S = REMOVE AND SALVAGE
- N = NEW
- RET = RETAIN
- B-B = BACK TO BACK
- = EXISTING GUARDRAIL
- = PROPOSED GUARDRAIL
- YL = YELLOW LINE
- WL = WHITE LINE

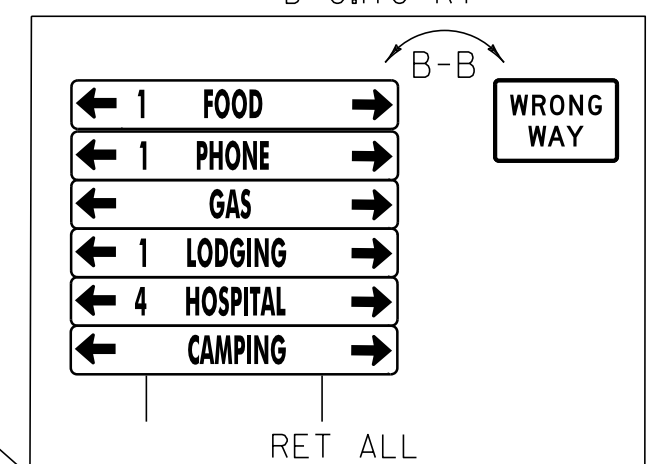
**EXIT 13
 NB OFF RAMP A DETAIL SHEET**

PROJECT NAME: HARTLAND-NORWICH	FILE NAME: /pave/06a202/p06a202.dgn	PLOT DATE: 19-JUN-2013 09:24
PROJECT NUMBER: IM 091-1(59)	PROJECT LEADER: PTS	DRAWN BY: WWG
	DESIGNED BY: NULL	CHECKED BY: PTS
	IPARM FILE NAME: 06A202_42	SHEET 42 OF 60



**END COLD PLANE & OVERLAY
RAMP D MM 0.191**

**BEGIN COLD PLANE & OVERLAY
RAMP B MM 0.030**



* REFERENCE COMP. BINDER SECTION 604.XXX FOR REHAB DILOCATIONS

* REFERENCE COMP. BINDER SECTION 621.XXX FOR GUARDRAIL SUMMARY

- 604.412, 604.415 REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I OR CLASS II
- D 0.107 RT (RAMP D)
- 613.10 STONE FILL, TYPE I
- B 0.109 RT (RAMP B)
- 675.50 REMOVING SIGNS AS SHOWN - 1
- 675.60 ERECTING SALVAGED SIGNS AS SHOWN - 1

- 621.20 STEEL BEAM GUARDRAIL, GALVANIZED
- 621.50 MANUFACTURED TERMINAL SECTION, FLARED
- 621.60 ANCHOR FOR STEEL BEAM RAIL
- SEE ITEM DETAIL SUMMARY SHEETS

- 646.622 TEMPORARY 6" WHITE LINE, PAINT
- 646.426 DURABLE 6" WHITE LINE, RECESSED POLYUREA
- 646.428 DURABLE 6" WHITE LINE, RECESSED THERMOPLASTIC
- 646.429 DURABLE 6" WHITE LINE, RECESSED EPOXY PAINT

- B 0.030 TO B 0.129 SOLID RT
- D 0.031 TO D 0.191 SOLID RT
- 74.784 TO 74.947 DOTTED LT
- 75.139 TO 75.279 DOTTED LT

- 646.632 TEMPORARY 6" YELLOW LINE, PAINT
- 646.436 DURABLE 6" YELLOW LINE, RECESSED POLYUREA
- 646.438 DURABLE 6" YELLOW LINE, RECESSED THERMOPLASTIC
- 646.439 DURABLE 6" YELLOW LINE, RECESSED EPOXY PAINT

- B 0.030 TO B 0.129 SOLID LT
- D 0.031 TO D 0.191 SOLID LT

- 646.662 TEMPORARY 12" WHITE LINE, PAINT
- 646.466 DURABLE 12" WHITE LINE, RECESSED POLYUREA
- 646.469 DURABLE 12" WHITE LINE, RECESSED EPOXY PAINT

- B 0.129 TO B 0.143 SOLID LT
- D 0.004 TO D 0.031 SOLID LT
- D 0.004 TO D 0.031 SOLID LT (GORE STRIPES)
- 74.947 TO 74.971 SOLID LT
- 75.102 TO 75.139 SOLID LT

- 646.692 TEMPORARY LETTER OR SYMBOL, PAINT
- 646.492 DURABLE LETTER OR SYMBOL, THERMOPLASTIC
- 646.493 DURABLE LETTER OR SYMBOL, EPOXY PAINT

- D 0.087 LT " SIGNAL"
- D 0.094 LT " AHEAD"
- D 0.170 LT WRONG WAY ARROW

LEGEND

- R = REMOVE EXISTING
- S = SALVAGE
- R&S = REMOVE AND SALVAGE
- N = NEW
- RET = RETAIN
- B-B = BACK TO BACK
- g b = EXISTING GUARDRAIL
- g b = PROPOSED GUARDRAIL
- YL = YELLOW LINE
- WL = WHITE LINE

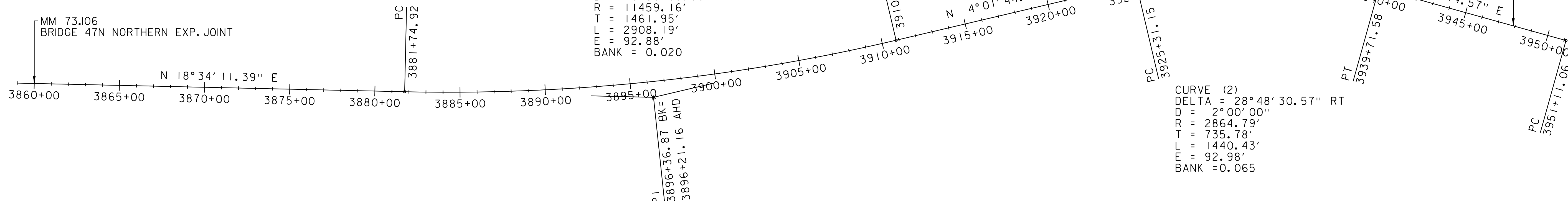
**EXIT 13
SB ON RAMP B AND
SB OFF RAMP D DETAIL SHEET**

PROJECT NAME:	HARTLAND-NORWICH	FILE NAME:	/pave/06a202/p06a202.dgn	PLOT DATE:	19-JUN-2013 09:24
PROJECT NUMBER:	IM 091-I(59)	PROJECT LEADER:	PTS	DRAWN BY:	WGW
		DESIGNED BY:	NLL	CHECKED BY:	PTS
		IPARM FILE NAME:	06A202_43	SHEET	43 OF 60

NOT TO SCALE

NOTES

- EXISTING MILE MARKER PLAQUES IN THE VICINITY OF CURVES 1 AND 2 WERE FOUND TO BE INACCURATE. A FUTURE SIGNING PROJECT WILL CORRECT THE MILE MARKER PLAQUES. SEE THE GENERAL NOTES ON SHEET 8 FOR INFORMATION ON ESTABLISHING THE STATIONING FOR THIS PROJECT.
- HORIZONTAL CONTROL IS VT STATE PLANE COORDINATES. REFER TO THE TIE SHEET FOR ADDITIONAL HORIZONTAL CONTROL INFORMATION.
- CURVE PC AND PT COORDINATES HAVE BEEN PROVIDED ON THE BANKING DIAGRAMS.
- ESTIMATED COLD PLANE DEPTHS SHOWN FOR LIMITS OF 3D GROUND SURVEY BY VTRANS.



ESTIMATED COLD PLANE DEPTHS (INCHES)											
MM	STA	SHLDR	SHLDR	LANE	LANE	CL	LANE	LANE	SHLDR	SHLDR	
73		-16' LT	SLOPE	-12' LT	SLOPE		SLOPE	12' RT	SLOPE	22' RT	
.542	3883+00	3 5/8	-0.060	2 3/4	-0.020	2	0.020	2	-0.050	10 1/2	
.551	3883+50	4 3/8		2 3/8		2		2 5/8		11 7/8	
.561	3884+00	3 5/8		2 1/8		2		3		12	
.570	3884+50	2		1 1/8		2		3		12 1/4	
.580	3885+00	3 3/8		1 3/4		2		3 1/2		13 5/8	
.589	3885+50	2 1/4		1 1/4		2		2 3/4		12 3/4	
.598	3886+00	1 5/8		7/8		2		3 1/8		11 5/8	
.608	3886+50	1 3/4		3/4		2		2 1/4		10 7/8	
.617	3887+00	3 1/2		2 1/8		2		2 5/8		12 7/8	
.627	3887+50	2 7/8		1 5/8		2		1 5/8		12 5/8	
.636	3888+00	2 3/8		1 1/8		2		1 1/8		11 5/8	
.646	3888+50	2		1		2		1		11 1/4	
.655	3889+00	2		1		2		5/8		10 5/8	
.665	3889+50	2 1/8		1		2		1 1/8		9 7/8	
.674	3890+00	1 3/8		1/2		2		0		9 7/8	
.684	3890+50	1 3/8		1/2		2		0		9 3/4	
.693	3891+00	1 3/4		5/8		2		0		10 3/8	
.703	3891+50	2		7/8		2		1/8		10 1/2	
.712	3892+00	2 7/8		1 5/8		2		1/8		10 3/8	
.722	3892+50	2 1/2		1 1/4		2		0		10 1/4	
.731	3893+00	1 3/4		7/8		2		5/8		11	
.741	3893+50	2 1/8		1 3/8		2		1 3/4		12 3/8	
.750	3894+00	2 5/8		1 3/8		2		1 7/8		12 7/8	
.759	3894+50	2 5/8		1 1/2		2		1 1/4		11 5/8	
.769	3895+00	2 3/8		1 1/2		2		3/8		9 7/8	
.778	3895+50	2 3/4		2		2		1/8		10	
.788	3896+00	2 1/4		1 3/8		2		5/8		10 3/8	
.797	3896+50	2 1/8		1 1/4		2		7/8		10 3/4	
.807	3897+00	2 5/8		1 5/8		2		1 1/8		10 7/8	
.816	3897+50	2 3/4		1 3/4		2		1 1/8		11	
.826	3898+00	3		1 3/4		2		3/8		11 1/4	
.835	3898+50	2 3/4		1 3/4		2		3/4		11 1/4	
.845	3899+00	2 1/8		1 1/2		2		7/8		11	
.854	3899+50	1 1/4		7/8		2		1 5/8		10 7/8	
.864	3900+00	2		1 1/8		2		1 1/4		11	
.873	3900+50	3 1/4		1 7/8		2		1 3/8		11	
.883	3901+00	3 5/8		2 1/8		2		1 1/8		10 7/8	
.892	3901+50	2 1/2		1 3/8		2		1 3/8		11	
.902	3902+00	2		1		2		1 1/4		11	
.911	3902+50	2 7/8		1 5/8		2		1 1/8		10 1/2	
.920	3903+00	3 1/8		2		2		1 1/4		11	
.930	3903+50	2 1/8		1 1/2		2		1 1/2		11 3/4	
.939	3904+00	2 1/8		1 5/8		2		1 1/4		11 3/8	
.949	3904+50	2 7/8		2		2		3/4		10 3/4	
.958	3905+00	3 3/8		2 3/8		2		1/2		10 3/4	
.968	3905+50	3 1/2		2 3/8		2		1/4		10 3/8	
.977	3906+00	1		2		2		3/8		10 1/2	
.987	3906+50	2 1/4		1 5/8		2		1/2		10 1/8	
.996	3907+00	2 5/8	-0.060	1 5/8	-0.020	2	0.020	7/8	-0.050	10 7/8	

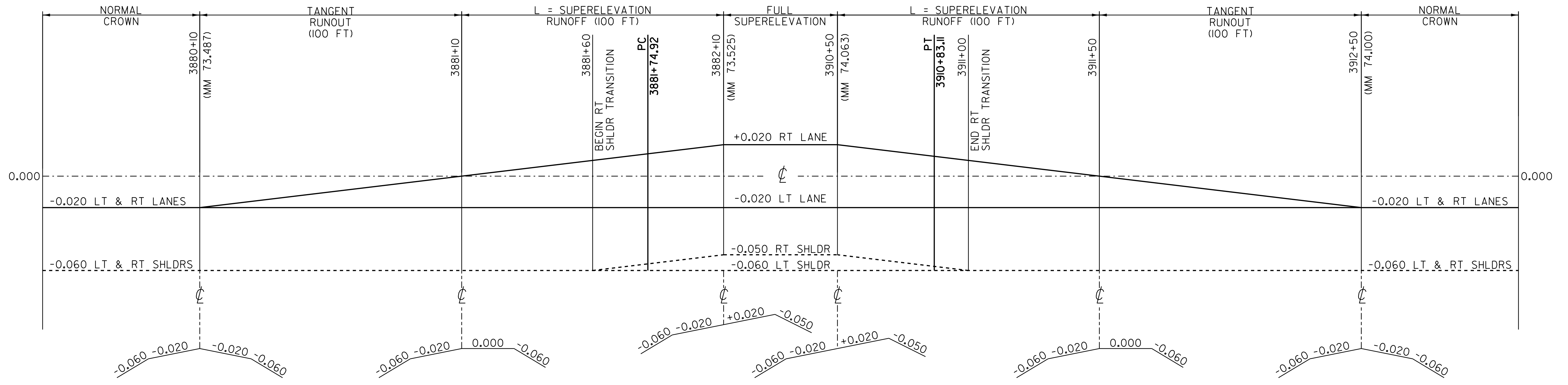
ESTIMATED COLD PLANE DEPTHS (INCHES)											
MM	STA	SHLDR	SHLDR	LANE	LANE	CL	LANE	LANE	SHLDR	SHLDR	
74		-16' LT	SLOPE	-12' LT	SLOPE		SLOPE	12' RT	SLOPE	22' RT	
.006	3907+50	2 5/8	-0.060	1 3/4	-0.020	2	0.020	3/4	-0.050	11	
.015	3908+00	2 7/8		2		2	0.020	1		10 3/4	
.025	3908+50	2 3/8		1 7/8		2	0.020	1 5/8		11 1/4	
.034	3909+00	2 3/8		1 7/8		2	0.020	1 3/8		11 3/8	
.044	3909+50	2 1/2		1 7/8		2	0.020	7/8		11	
.053	3910+00	2 1/8		1 1/4		2	0.020	1/2		10 5/8	
.063	3910+50	3 1/4		2 1/4		2	0.020	3/4	-0.050	10 5/8	
.072	3911+00	3 7/8		3		2	0.010	1 7/8	-0.060	11 3/8	
.081	3911+50	4 1/8		3 3/8		2	0.000	2 1/4		9 1/8	
.091	3912+00	4 1/4		3 3/8		2	-0.010	2 1/4		7	
.100	3912+50	3 7/8		3 1/4		2	-0.020	2 7/8		6 3/8	
.110	3913+00	3 3/8		2 7/8		2		2 1/8		4 1/8	
.119	3913+50	3 7/8		3 3/8		2		1 1/2		3 1/4	
.129	3914+00	3 3/4		3 1/2		2		1 1/2		3 1/4	
.138	3914+50	3 1/8		3 1/8		2		1 3/4		3 5/8	
.148	3915+00	3		3		2		1 5/8		3 1/4	
.157	3915+50	2 5/8		2 5/8		2		2		3 3/4	
.167	3916+00	2 3/8		2 1/2		2		2 1/4		4 1/8	
.176	3916+50	2 5/8		3		2		1 1/2		3 3/8	
.186	3917+00	3 5/8		3 5/8		2		1 1/8		3 1/8	
.195	3917+50	3 3/4		3 1/2		2		1 1/8		2 3/4	
.205	3918+00	3 3/4		3 1/2		2		1 1/8		2 3/8	
.214	3918+50	4 3/8		3 3/4		2		3/4		2 1/8	
.223	3919+00	4 3/8		3 1/2		2		3/8		1 3/4	
.233	3919+50	4 3/8		3 5/8		2		1/2		2	
.242	3920+00	4 3/8		3 5/8		2		3/4		2 1/4	
.252	3920+50	4 1/8		3 3/8		2		5/8		3/4	
.261	3921+00	3 3/4		3 1/8		2		1/2		1 1/2	
.271	3921+50	4		3 1/4		2		5/8		1 3/4	
.280	3922+00	4 1/2		3 3/4		2		1/8		1 1/8	
.290	3922+50	5		3 7/8		2		0		7/8	
.299	3923+00	5 1/8		4 1/4	-0.020	2		1/2		7/8	
.309	3923+50	5 3/8		3 5/8	-0.014	2		0		5/8	
.318	3924+00	6 3/8		4 1/8	0.000	2		0		7/8	
.328	3924+50	6 3/4	-0.060	4 3/8	0.016	2	-0.020	0		1 3/4	
.337	3925+00	6	-0.047	3 3/4	0.033	2	-0.033	0		2 7/8	
.347	3925+50	2 3/4	-0.031	1	0.049	2	-0.049	0	-0.060	1 3/4	
.356	3926+00	2 1/4	-0.015	3/8	0.065	2	-0.065	1 1/2	-0.065	2 3/4	
.366	3926+50	3 1/4		1		2		3/4		1 5/8	
.375	3927+00	3 5/8		1 3/8		2		7/8		2	
.384	3927+50	3 5/8		1 3/8		2		1 1/8		2 1/4	
.394	3928+00	3 5/8		1 1/2		2		1 1/8		1 7/8	
.403	3928+50	3 5/8		1 3/8		2		1		1 1/2	
.413	3929+00	3 7/8		1 1/8		2		1		1 7/8	
.422	3929+50	4 1/4		1 3/8		2		5/8		1 3/4	
.432	3930+00	3 1/2		7/8		2		1/2		2 3/8	
.441	3930+50	2 3/4		1/4		2		1 1/2		3 1/8	
.451	3931+00	3 3/8	-0.015	5/8	0.065	2	-0.065	7/8	-0.065	2 3/8	

ESTIMATED COLD PLANE DEPTHS (INCHES)												
MM	STA	SHLDR	SHLDR	LANE	LANE	CL	LANE	LANE	SHLDR	SHLDR	DECEL	
74		-16' LT	SLOPE	-12' LT	SLOPE		SLOPE	12' RT	SLOPE	22' RT	LANE	
.460	3931+50	3 1/4	-0.015	1/2	0.065	2	-0.065	3/4	-0.065	2 3/8	1/4	
.470	3932+00	2 7/8		1/2		2		1		2 3/4	5/8	
.479	3932+50	1 7/8		0		2		1 3/8		3 1/8	7/8	
.489	3933+00	1 7/8		0		2		1 7/8		4	2	
.498	3933+50	3 1/4		3/4		2		1 3/4		3 3/8	7/8	
.508	3934+00	3 7/8		1 3/8		2		1 7/8		3 5/8	1 1/4	
.517	3934+50	2 7/8		1/2		2		1 3/8		4	2	
.527	3935+00	2 7/8		5/8		2		2 3/8		4 7/8	2 3/4	
.536	3935+50	3		5/8		2		2 5/8		5 1/2	3 5/8	
.545	3936+00	3 3/4		1 3/4		2		2 7/8		6 1/8	4 3/4	
.555	3936+50	3		5/8		2		3/8		3 1/2	4 1/2	
.564	3937+00	3		1/2		2		3 1/8		5 3/8	2 5/8	
.574	3937+50	2 3/8	-0.015	0	0.065	2	-0.065	2 5/8	-0.065	4 5/8	1	
.583	3938+00	2 1/8	-0.015	0	0.065	2	-0.065	2 1/4	-0.065	5 5/8	2 1/4	SHIM
.593	3938+50	2 1/4	-0.015	0	0.065	2	-0.065	2	-0.065	4 3/4	2 1/4	SHIM

ALIGNMENT LAYOUT SHEET

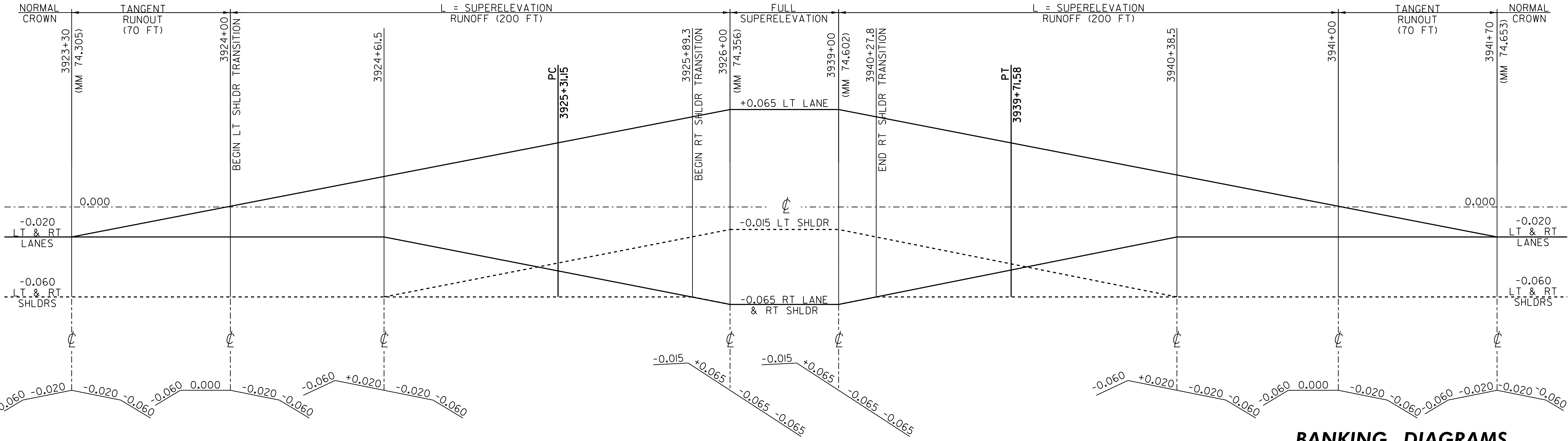
PROJECT NAME:	HARTLAND-NORWICH	PLOT DATE:	19-JUN-2013 09:24
PROJECT NUMBER:	IM 091-I(59)	DRAWN BY:	SNG
FILE NAME:	/pave/06a202/p06a202.dgn	CHECKED BY:	PTS
DESIGNED BY:	DAM	IPARM FILE NAME:	06A202_45
		SHEET	45 OF 60

NOT TO SCALE



CURVE 1

STATION	NORTHING	EASTING	APPROX. MILE POINT	REMARKS
PC 3881+74.92	433078.0382	1690031.1559	73.518	DESIGN SPEED
PT 3910+83.11	435922.2107	1690599.4446	74.069	70



CURVE 2

STATION	NORTHING	EASTING	APPROX. MILE POINT	REMARKS
PC 3925+31.15	437366.6792	1690701.1836	74.343	DESIGN SPEED
PT 3939+71.58	438718.8517	1691151.8602	74.616	70

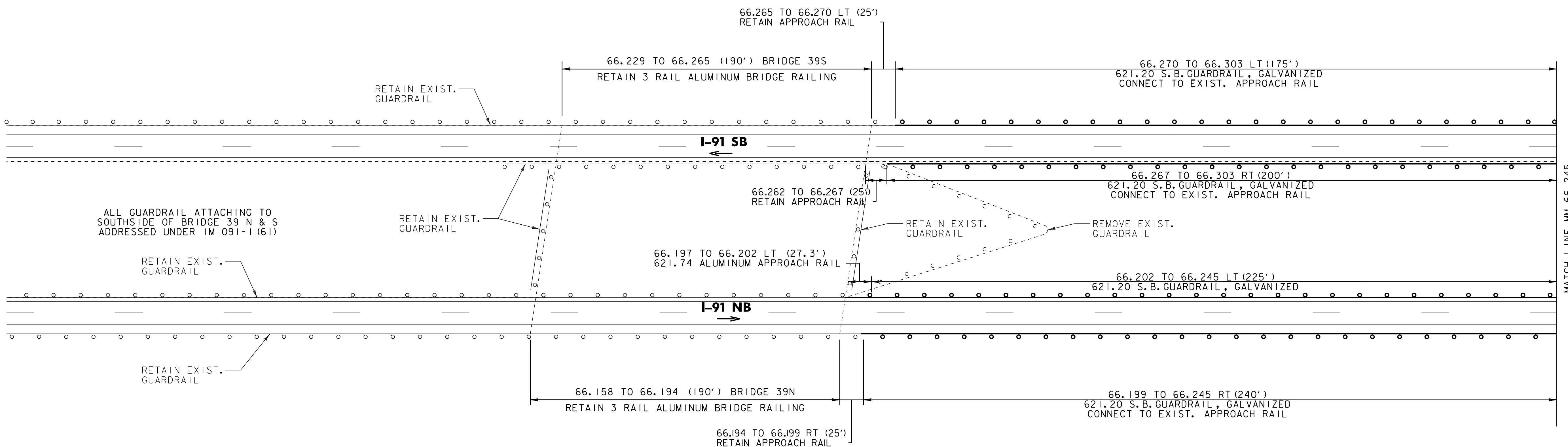
BANKING DIAGRAMS

PROJECT NAME: HARTLAND-NORWICH	FILE NAME: /pave/06a202/p06a202.dgn	PLOT DATE: 19-JUN-2013 09:24
PROJECT NUMBER: IM 091-I(59)	PROJECT LEADER: PTS	DRAWN BY: WWG
	DESIGNED BY: DAM	CHECKED BY: PTS
	IPARM FILE NAME: 06A202_46	SHEET 46 OF 60

GUARDRAIL TREATMENT AT BULLNOSE LOCATION - BRIDGE 39 N&S

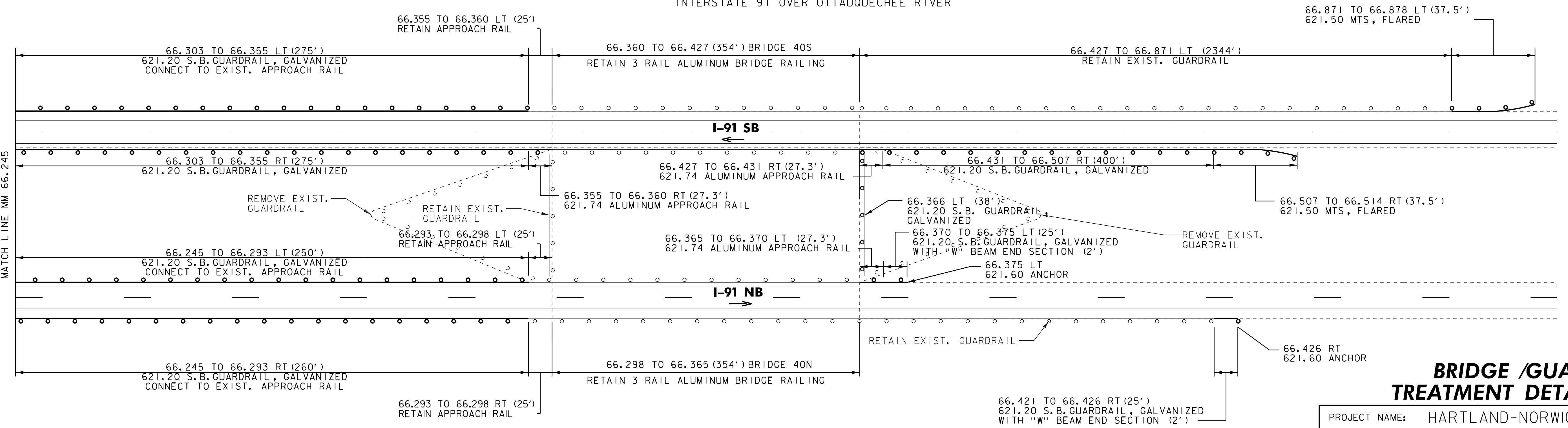
INTERSTATE 91 OVER US ROUTE 5

NOTE
I. SEE NOTE 16 ON SHEET 8.



GUARDRAIL TREATMENT AT BULLNOSE LOCATION - BRIDGE 40 N&S

INTERSTATE 91 OVER OTTAUQUECHEE RIVER



BRIDGE / GUARDRAIL TREATMENT DETAIL SHEET 1

PROJECT NAME: HARTLAND-NORWICH	FILE NAME: /pave/06a202/p06a202.dgn	PLOT DATE: 19-JUN-2013 09:21
PROJECT NUMBER: IM 091-1(59)	PROJECT LEADER: PTS	DRAWN BY: WWG
	DESIGNED BY: NLL	CHECKED BY: PTS
	IPARM FILE NAME: 06A202-47	SHEET 47 OF 60

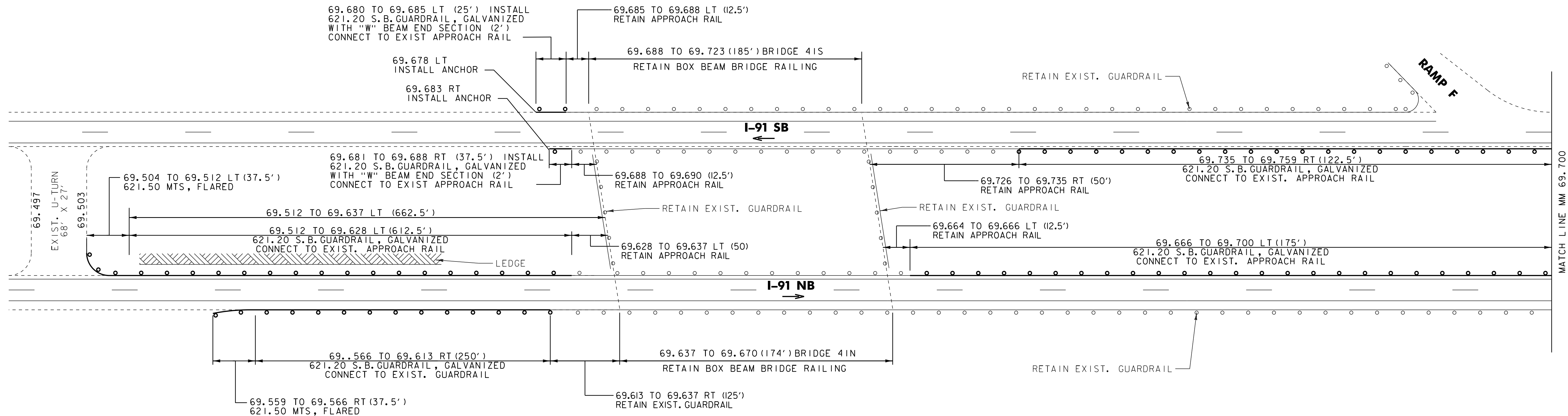
* REFERENCE COMP. BINDER SECTION 621.XXX
FOR GUARDRAIL SUMMARY SHEET

NOT TO SCALE

GUARDRAIL TREATMENT - BRIDGE 41 N&S

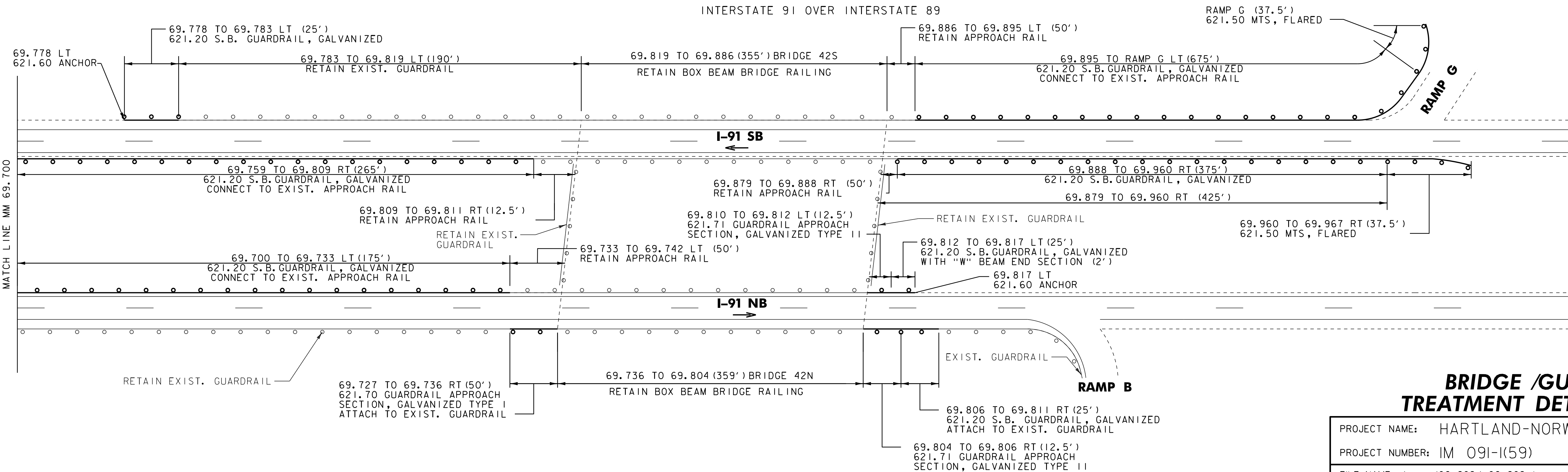
INTERSTATE 91 OVER INTERCHANGE 10 RAMP C

NOTE
I. SEE NOTE 16 ON SHEET 8.



GUARDRAIL TREATMENT - BRIDGE 42 N&S

INTERSTATE 91 OVER INTERSTATE 89



BRIDGE / GUARDRAIL TREATMENT DETAIL SHEET 2

PROJECT NAME:	HARTLAND-NORWICH		
PROJECT NUMBER:	IM 091-I(59)		
FILE NAME:	/pave/06a202/p06a202.dgn	PLOT DATE:	19-JUN-2013 09:2
PROJECT LEADER:	PTS	DRAWN BY:	WWG
DESIGNED BY:	NLL	CHECKED BY:	PTS
IPARM FILE NAME:	06A202_48	SHEET	48 OF 60

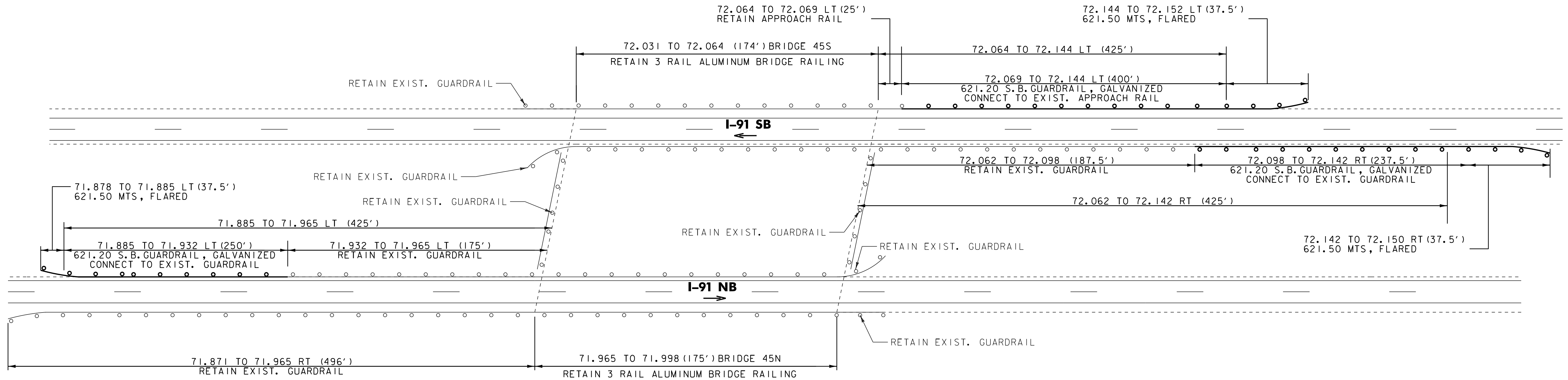
• REFERENCE COMP. BINDER SECTION 621.XXX FOR GUARDRAIL SUMMARY SHEET

NOT TO SCALE

GUARDRAIL TREATMENT - BRIDGE 45 N&S

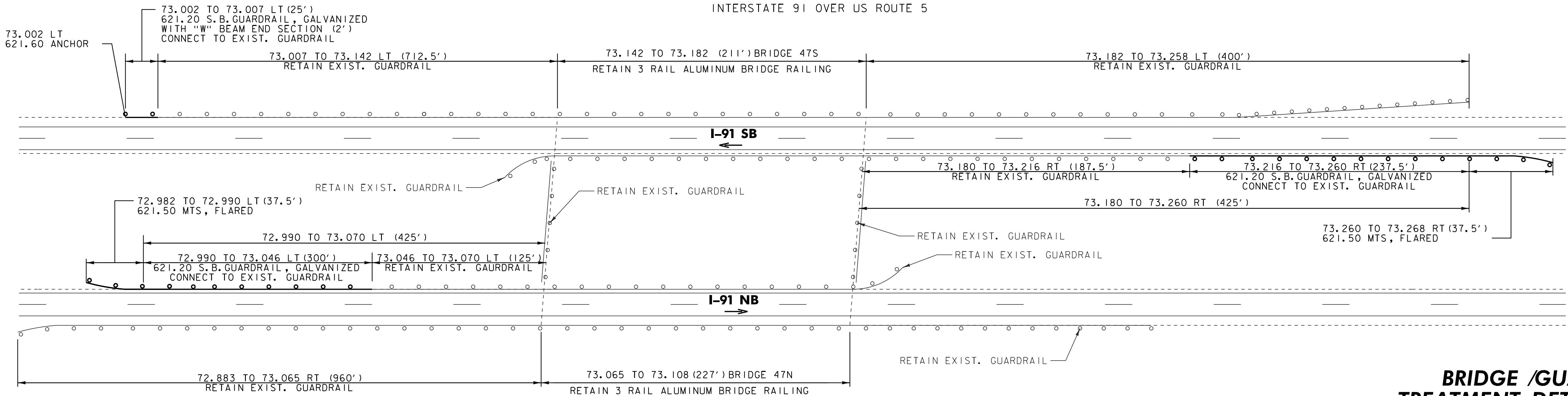
INTERSTATE 91 OVER WILDER STATE HIGHWAY

NOTE
I. SEE NOTE 16 ON SHEET 8.



GUARDRAIL TREATMENT - BRIDGE 47 N&S

INTERSTATE 91 OVER US ROUTE 5



BRIDGE / GUARDRAIL TREATMENT DETAIL SHEET 4

PROJECT NAME: HARTLAND-NORWICH	FILE NAME: /pave/06a202/p06a202.dgn	PLOT DATE: 19-JUN-2013 09:21
PROJECT NUMBER: IM 091-I(59)	PROJECT LEADER: PTS	DRAWN BY: WWG
	DESIGNED BY: NULL	CHECKED BY: PTS
	IPARM FILE NAME: 06A202_50	SHEET 50 OF 60

• REFERENCE COMP. BINDER SECTION 621.XXX FOR GUARDRAIL SUMMARY SHEET

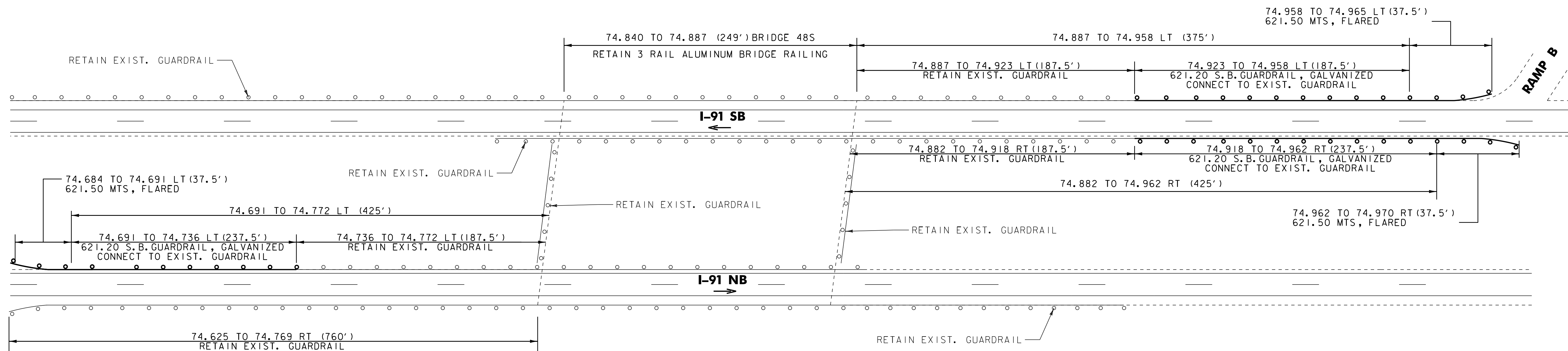
NOT TO SCALE

GUARDRAIL TREATMENT - BRIDGE 485

INTERSTATE 91 OVER VT ROUTE 10A

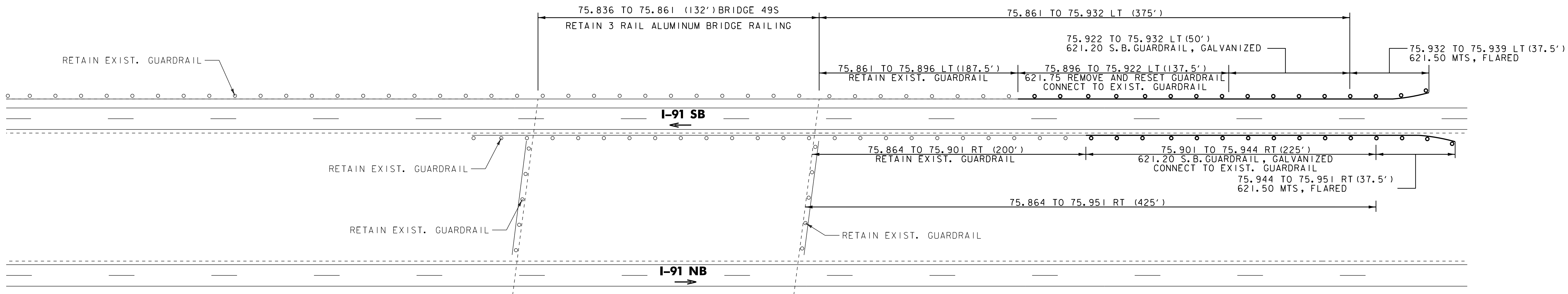
NOTE

I. SEE NOTE 16 ON SHEET 8.



GUARDRAIL TREATMENT - BRIDGE 495

INTERSTATE 91 OVER US ROUTE 5

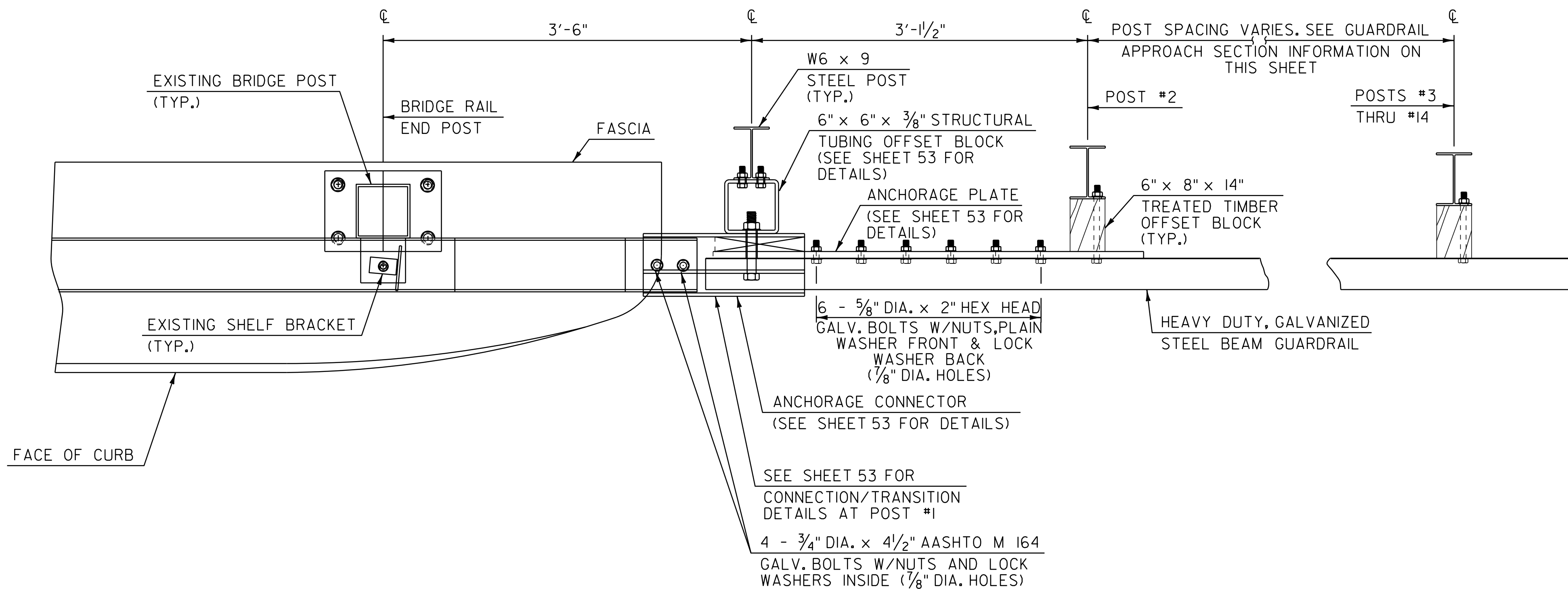


BRIDGE / GUARDRAIL TREATMENT DETAIL SHEET 5

PROJECT NAME:	HARTLAND-NORWICH	
PROJECT NUMBER:	IM 091-I(59)	
FILE NAME:	/pave/06a202/p06a202.dgn	PLOT DATE: 19-JUN-2013 09:21
PROJECT LEADER:	PTS	DRAWN BY: WWG
DESIGNED BY:	NLL	CHECKED BY: PTS
IPARM FILE NAME:	06A202_51	SHEET 51 OF 60

* REFERENCE COMP. BINDER SECTION 621.XXX
FOR GUARDRAIL SUMMARY SHEET

NOT TO SCALE

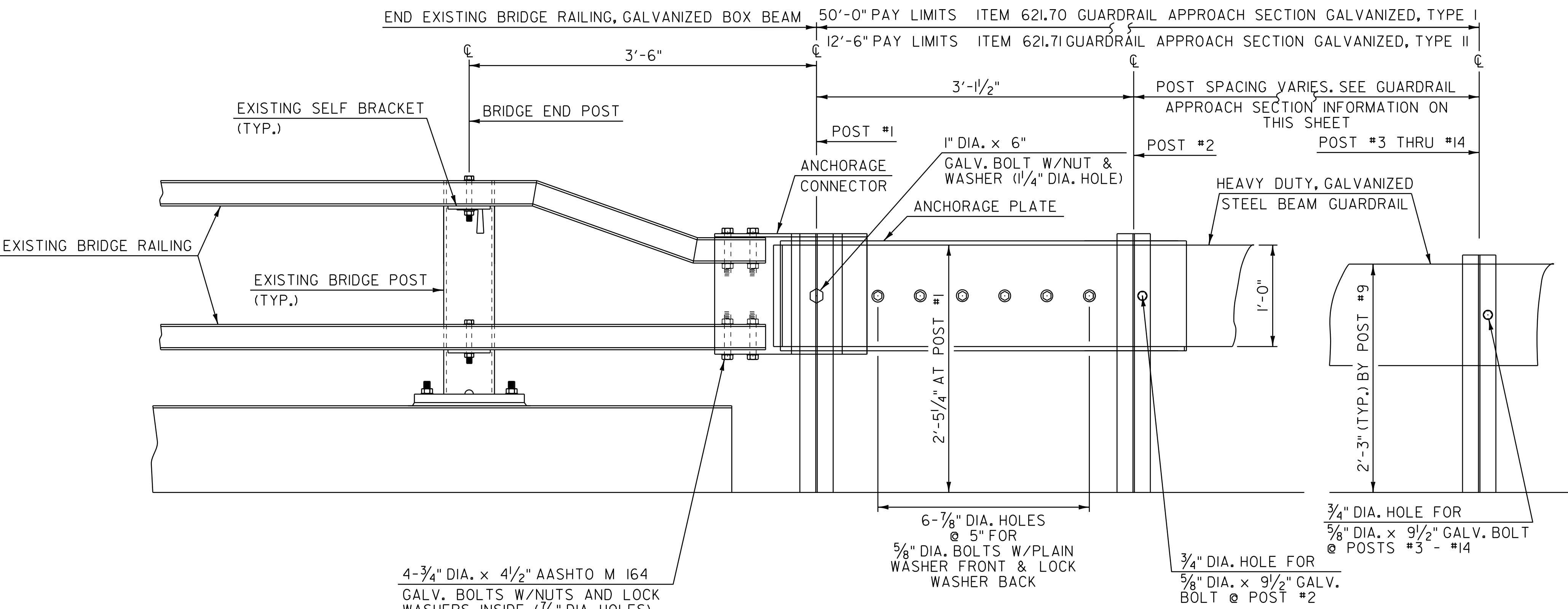


PLAN

**ITEM 621.70
GUARDRAIL APPROACH
SECTION GALVANIZED,
TYPE I**

POST NO.	SPACING
1	3'-1 1/2"
2	3'-1 1/2"
3	3'-1 1/2"
4	3'-1 1/2"
5	3'-1 1/2"
6	3'-1 1/2"
7	3'-1 1/2"
8	3'-1 1/2"
9	3'-1 1/2"
10	4'-2"
11	4'-2"
12	4'-2"
13	6'-3"
14	6'-3"

50'-0" PAY LENGTH GUARDRAIL APPROACH SECTION, TYPE I



ELEVATION

**ITEM 621.71
GUARDRAIL APPROACH
SECTION GALVANIZED,
TYPE II**

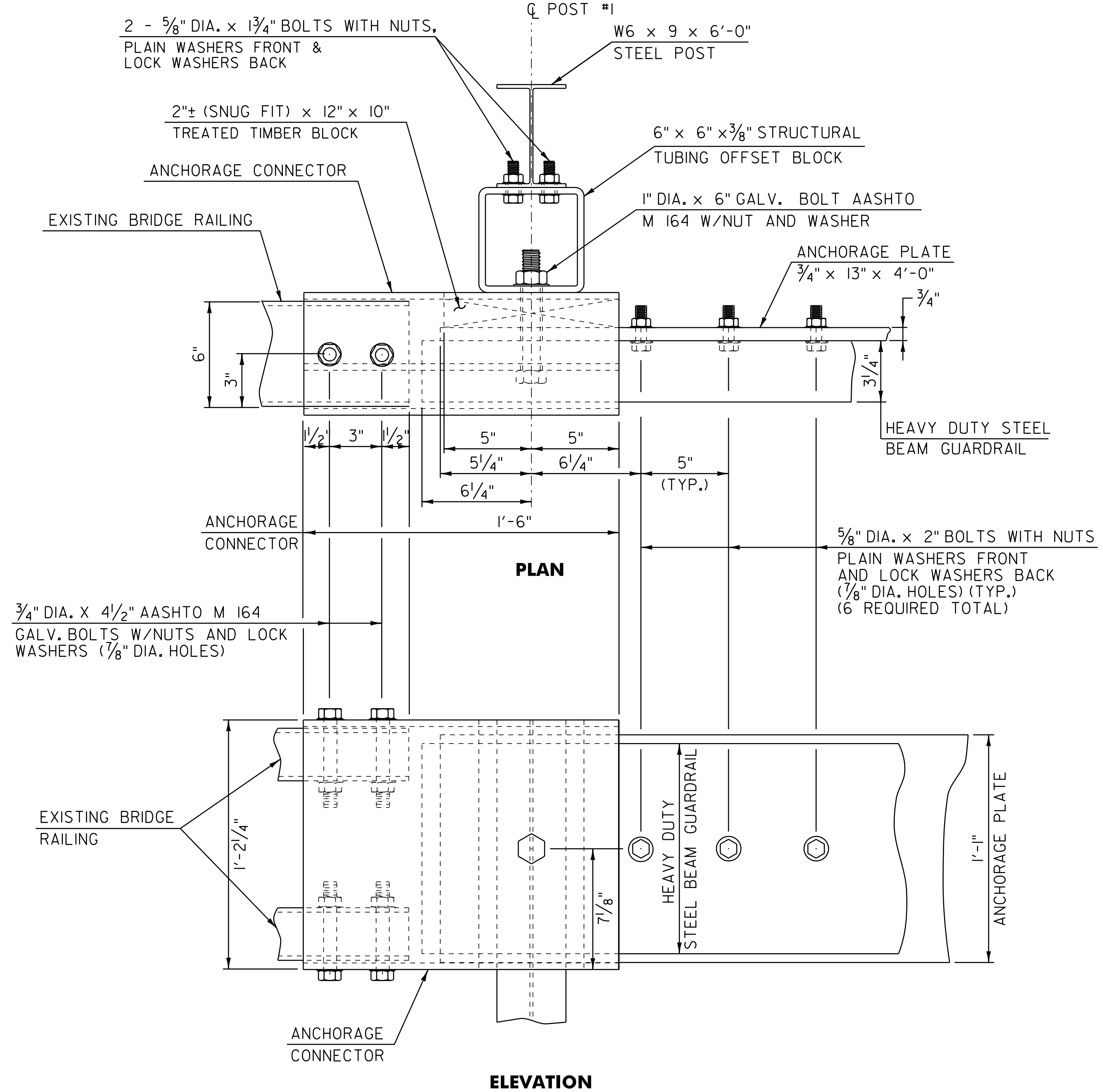
POST NO.	SPACING
1	3'-1 1/2"
2	4'-8 1/4"
3	4'-8 1/4"
4	4'-8 1/4"

12'-6" PAY LENGTH GUARDRAIL APPROACH SECTION, TYPE II

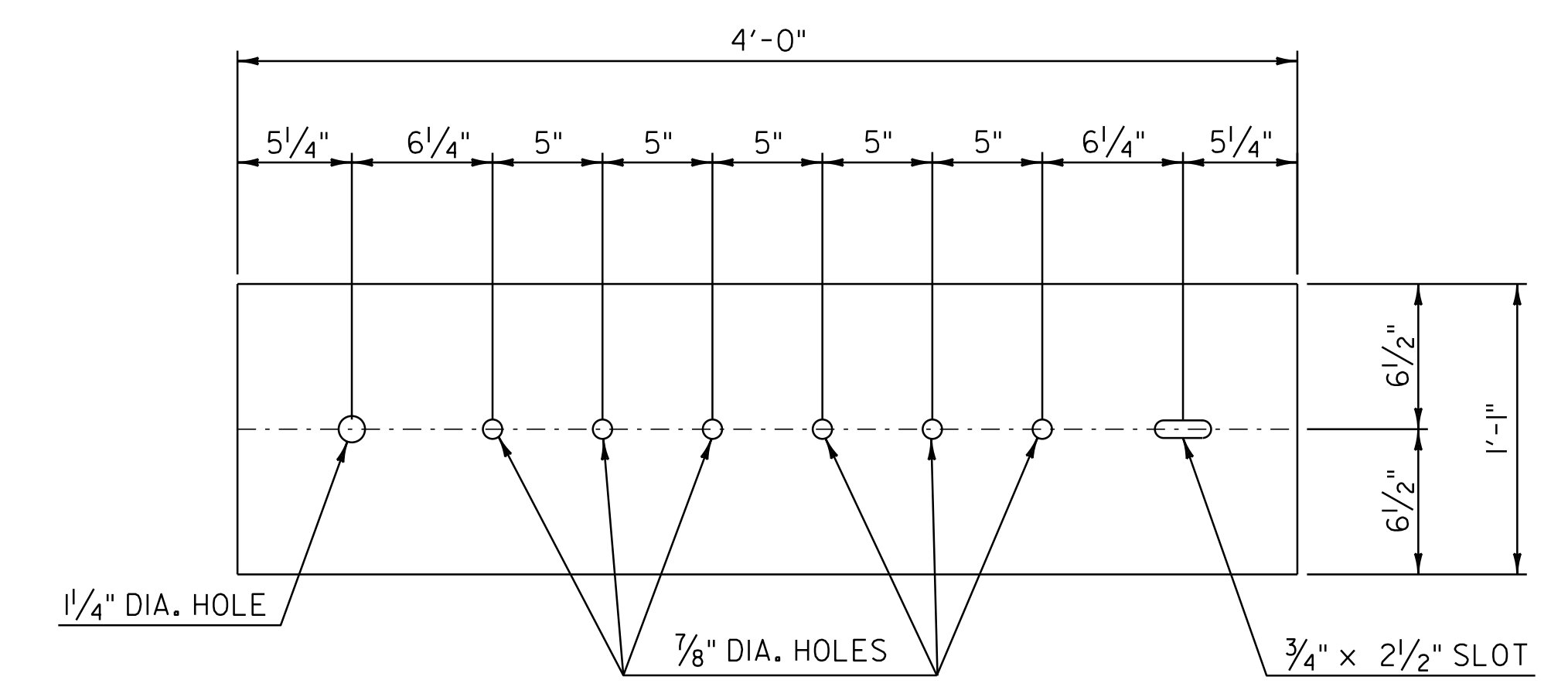
GUARDRAIL APPROACH SECTION DETAIL

**GUARDRAIL APPROACH SECTION
DETAIL SHEET 1**

PROJECT NAME: HARTLAND-NORWICH	FILE NAME: /pave/06a202/p06a202.dgn	PLOT DATE: 19-JUN-2013 09:2
PROJECT NUMBER: IM 091-I(59)	PROJECT LEADER: PTS	DRAWN BY: SNG
	DESIGNED BY: NULL	CHECKED BY: PTS
	IPARM FILE NAME: 06A202_52	SHEET 52 OF 60

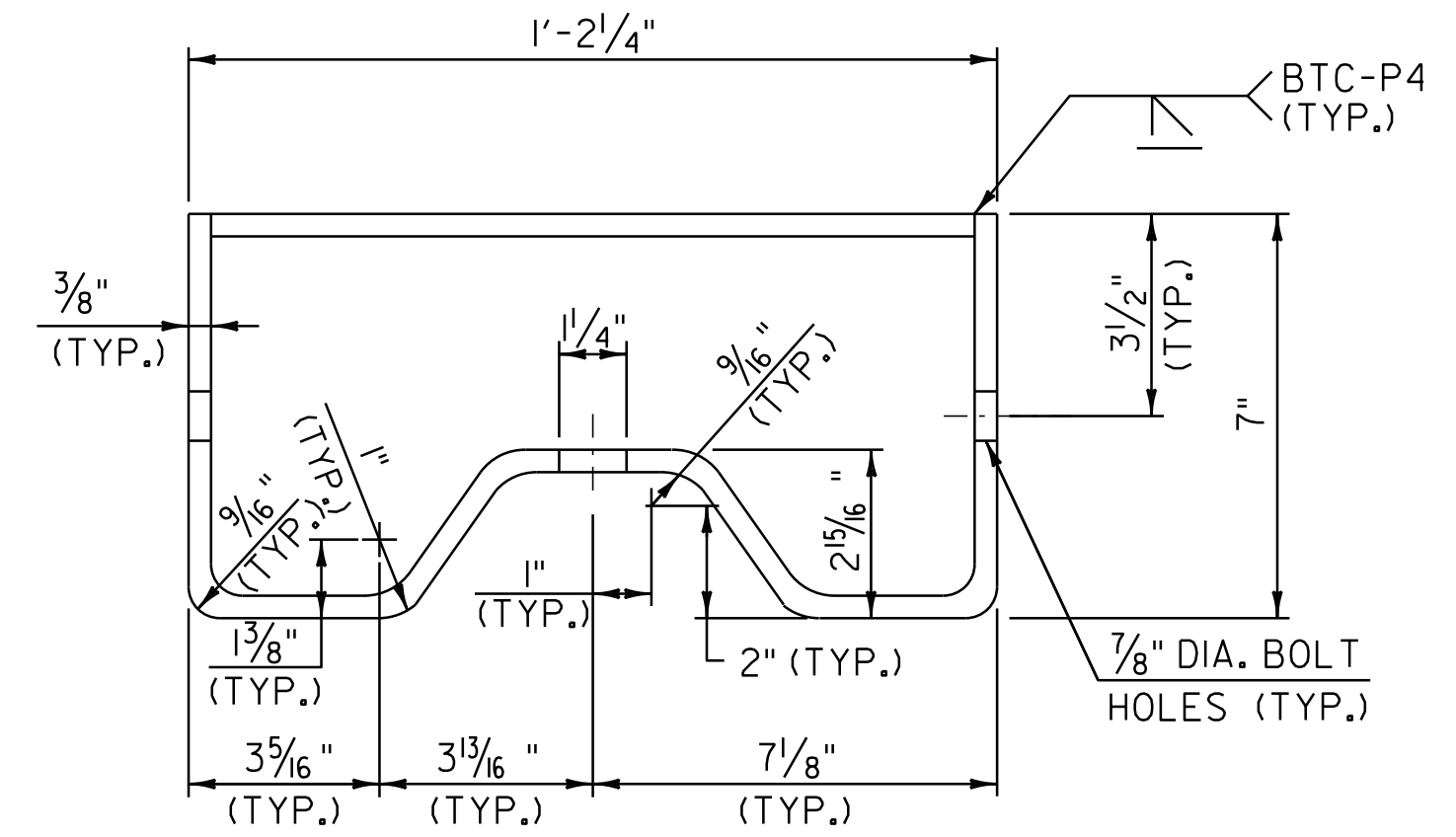


CONNECTION DETAILS AT POST #1

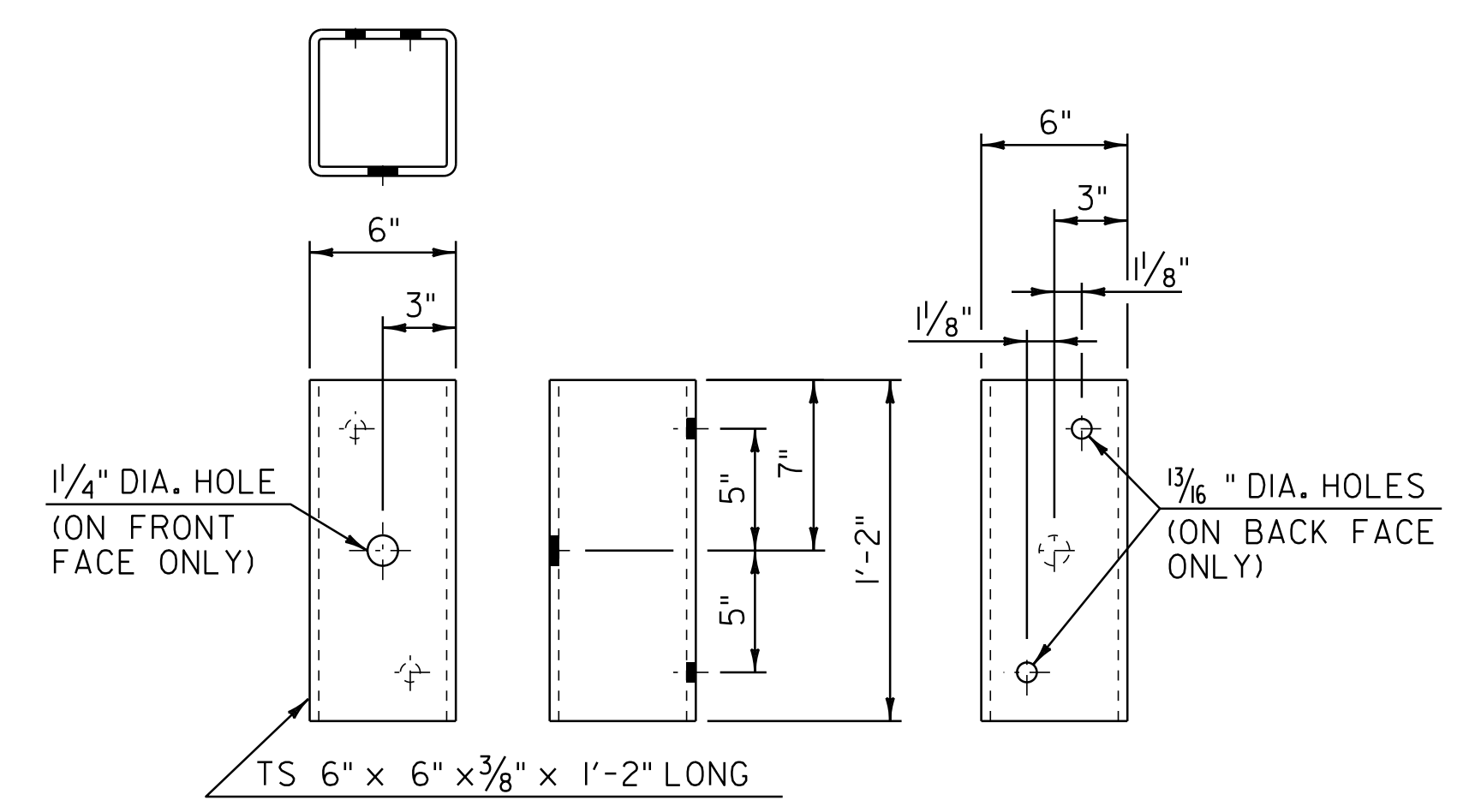


ANCHORAGE PLATE DETAIL

- NOTES:
1. REFER TO STANDARD G-1 FOR ADDITIONAL RAIL DETAILS.
 2. ALL POSTS FOR HEAVY DUTY STEEL BEAM GUARDRAIL SHALL BE STEEL IN ACCORDANCE WITH SECTION 728 "GUARDRAIL, GUIDE POSTS AND BARRIERS" UNLESS OTHERWISE SPECIFIED IN THE CONTRACT.
 3. APPROACH RAIL SPLICES SHALL LAP IN DIRECTION OF TRAFFIC FLOW.
 4. ANCHORAGE CONNECTOR AND ANCHORAGE PLATE SHALL BE AASHTO M 270M/M 270, GRADE 250 GALVANIZED TO AASHTO M III AFTER FABRICATION.
 5. ALL BOLTS, NUTS AND WASHERS SHALL BE AASHTO M 164 GALVANIZED TO AASHTO M 232 AFTER FABRICATION.
 6. STRUCTURAL TUBING OFFSET BLOCK SHALL BE AASHTO M 183 GALVANIZED TO AASHTO M III AFTER FABRICATION.
 7. APPROACH RAILING SHALL BE HEAVY DUTY STEEL BEAM FOR 50'-0" FROM THE Q OF POST #1 FOR TYPE I AND 12'-6" FROM THE Q OF POST #1 FOR TYPE II.
 8. ALLOWABLE DIMENSIONAL TOLERANCE FOR BENT SECTIONS IS $\pm 1/16$ ".
 9. THE UNIT PRICES BID FOR EITHER TYPE OF GUARDRAIL APPROACH SECTION SHALL INCLUDE ANCHORAGE CONNECTOR, ANCHORAGE PLATE, HEAVY DUTY STEEL BEAM GUARDRAIL, POSTS, OFFSET BLOCKS, BLOCKING, BOLTS, AND ALL NECESSARY HARDWARE.



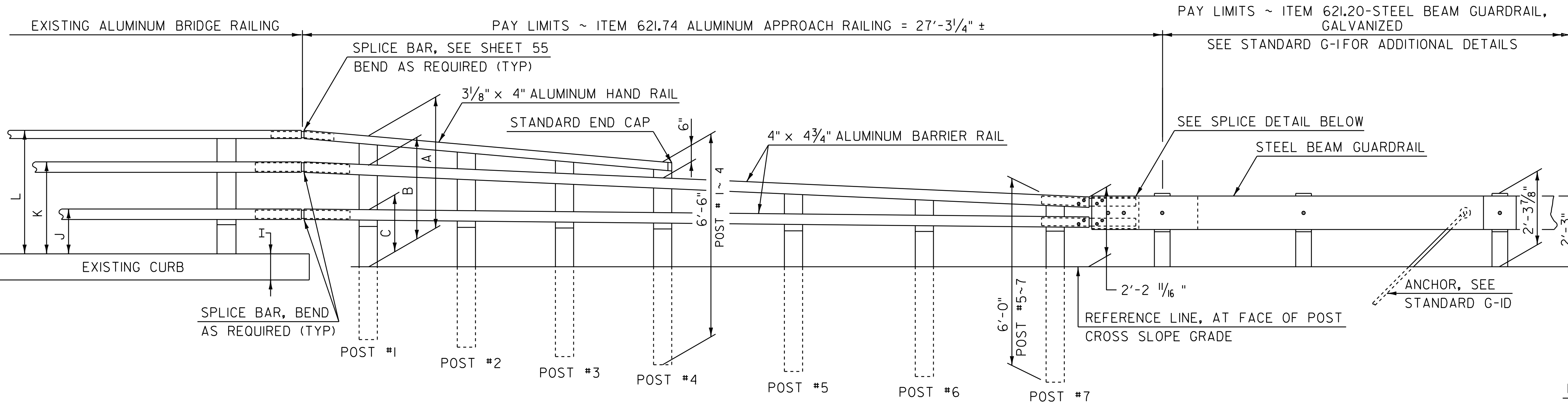
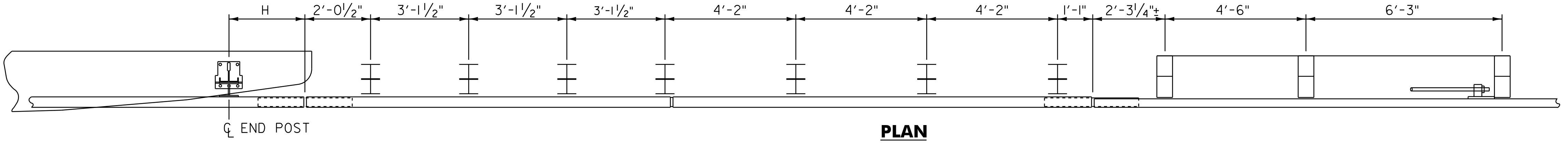
ANCHORAGE CONNECTOR DETAIL
(SEE NOTE 8)



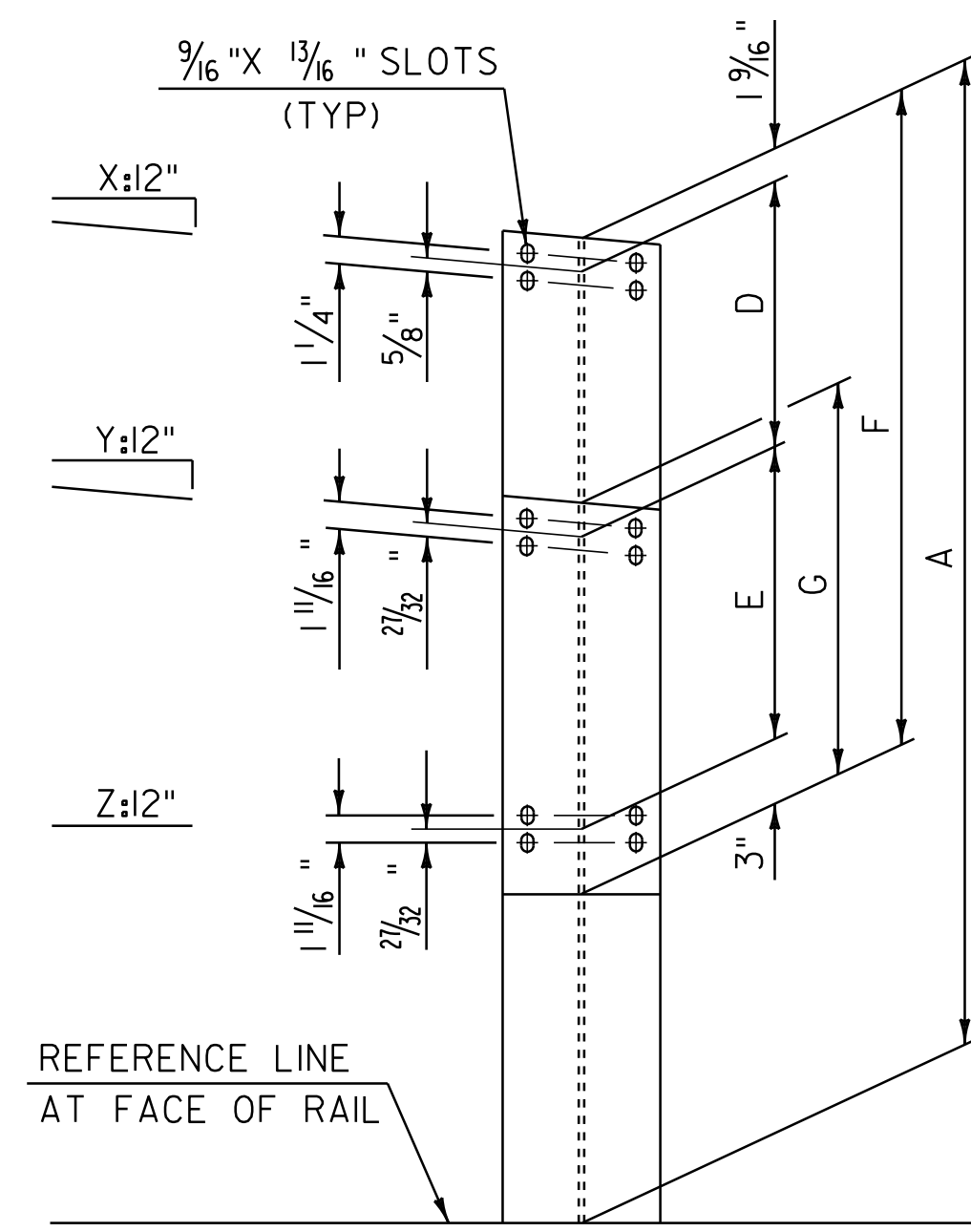
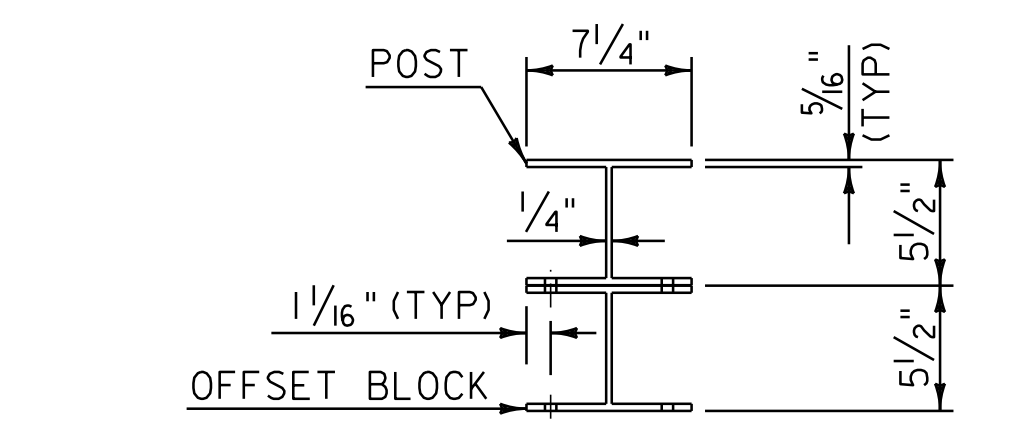
STRUCTURAL TUBING OFFSET BLOCK DETAILS
(OCCURS AT POST #1 WHEN USING APPROACH RAIL UTILIZING STEEL POSTS)

**GUARDRAIL APPROACH SECTION
DETAIL SHEET 2**

PROJECT NAME:	HARTLAND-NORWICH	FILE NAME:	/pave/06a202/p06a202.dgn	PLOT DATE:	19-JUN-2013 09:21
PROJECT NUMBER:	IM 091-1(59)	PROJECT LEADER:	PTS	DRAWN BY:	SNG
		DESIGNED BY:	NLL	CHECKED BY:	PTS
		IPARM FILE NAME:	06A202_53	SHEET	53 OF 60

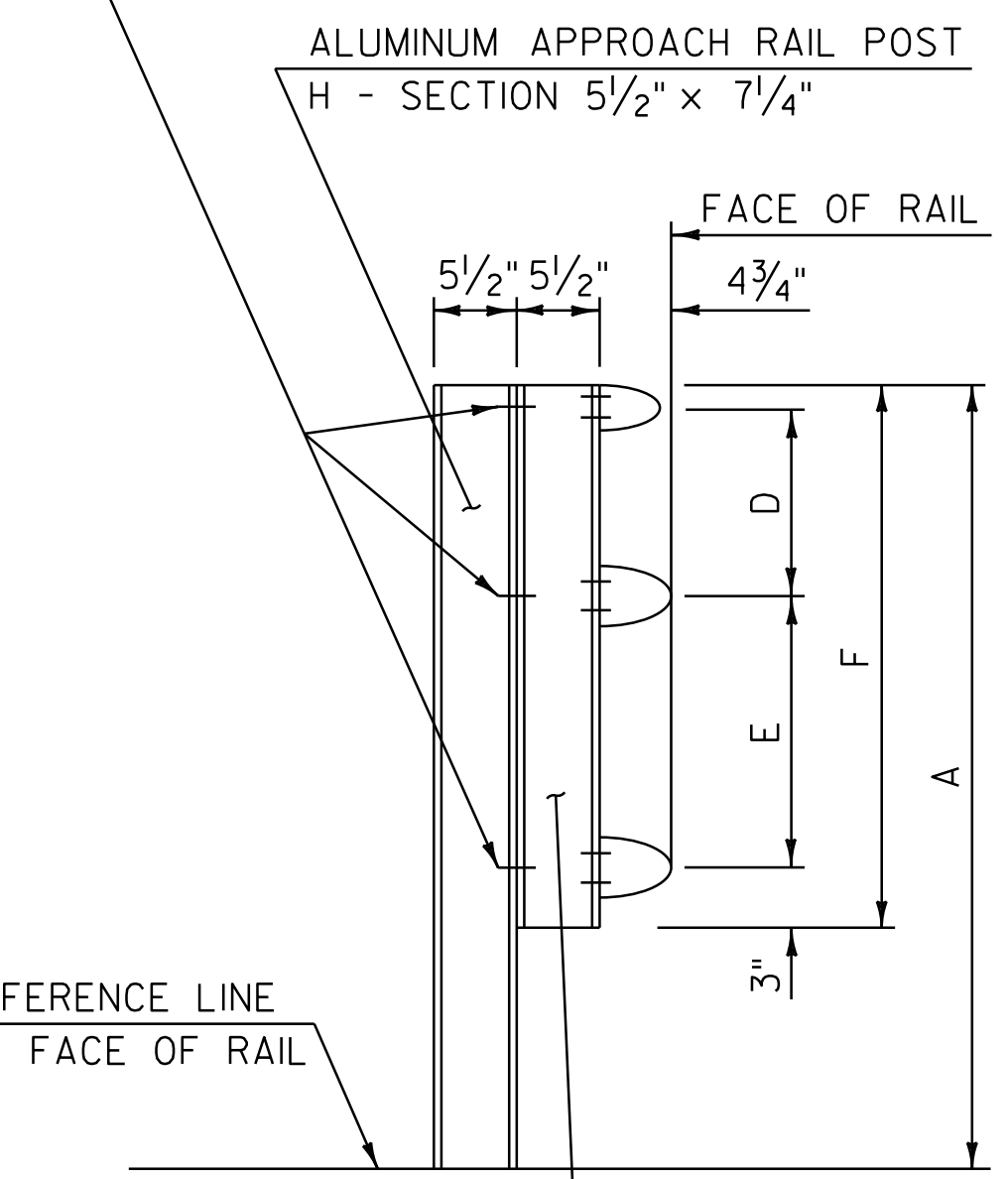


ELEVATION

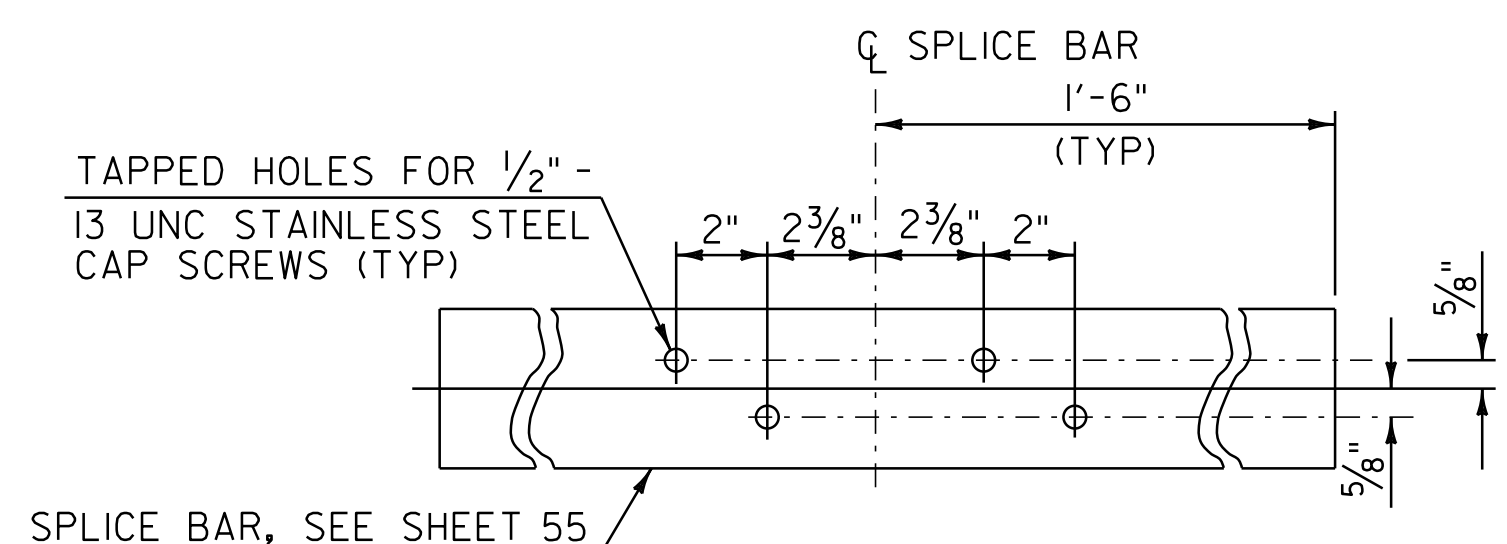


POST ELEVATION & SECTION
(SEE NOTE 7)

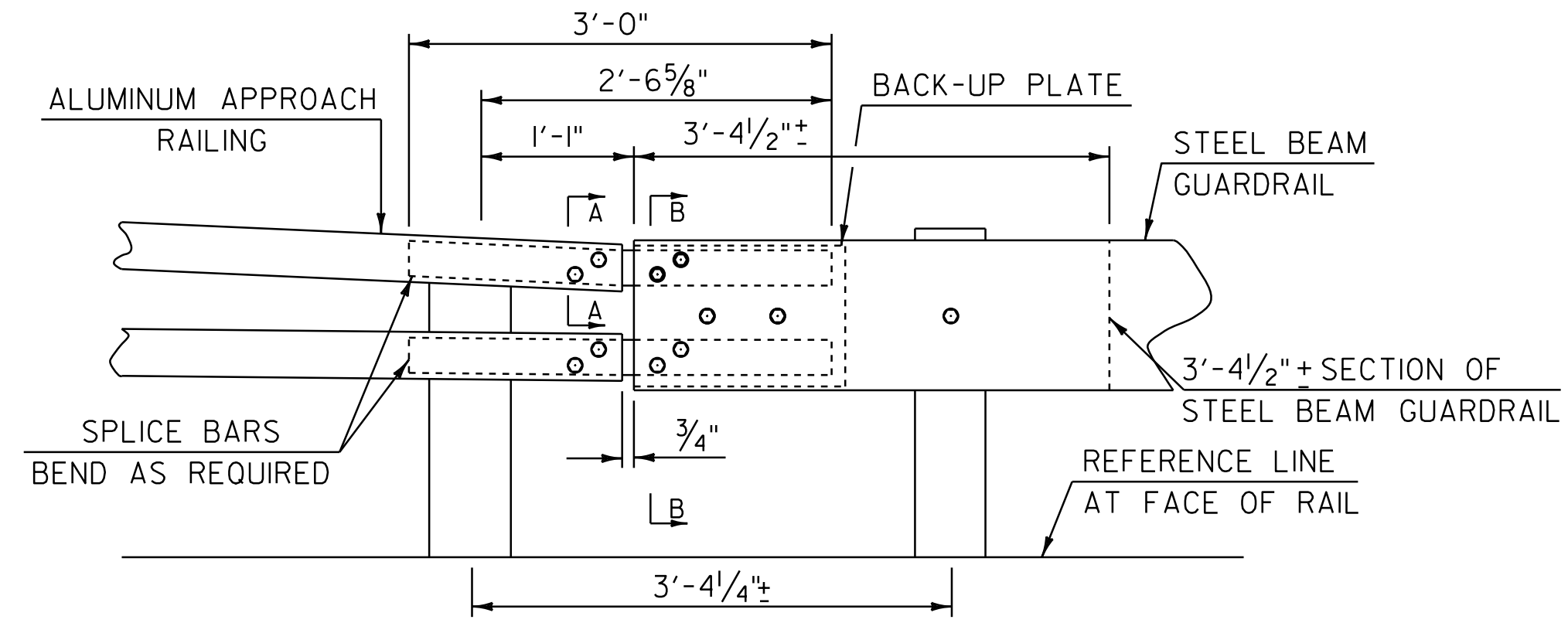
ATTACH OFFSET BLOCK TO POST WITH 1/2"-13 UNC x 1 1/4" LONG STAINLESS STEEL HEX HEAD BOLTS, NUTS AND WASHERS. 6 BOLTS PER POST, POST 1 THRU 4; 4 BOLTS PER POST, POST 5 THRU 7.



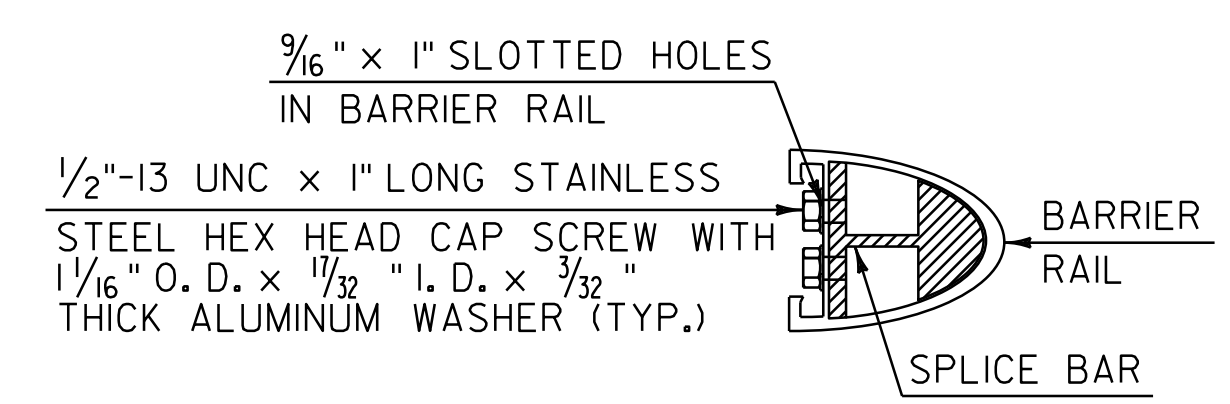
RAIL DETAIL
(SEE NOTE 7)



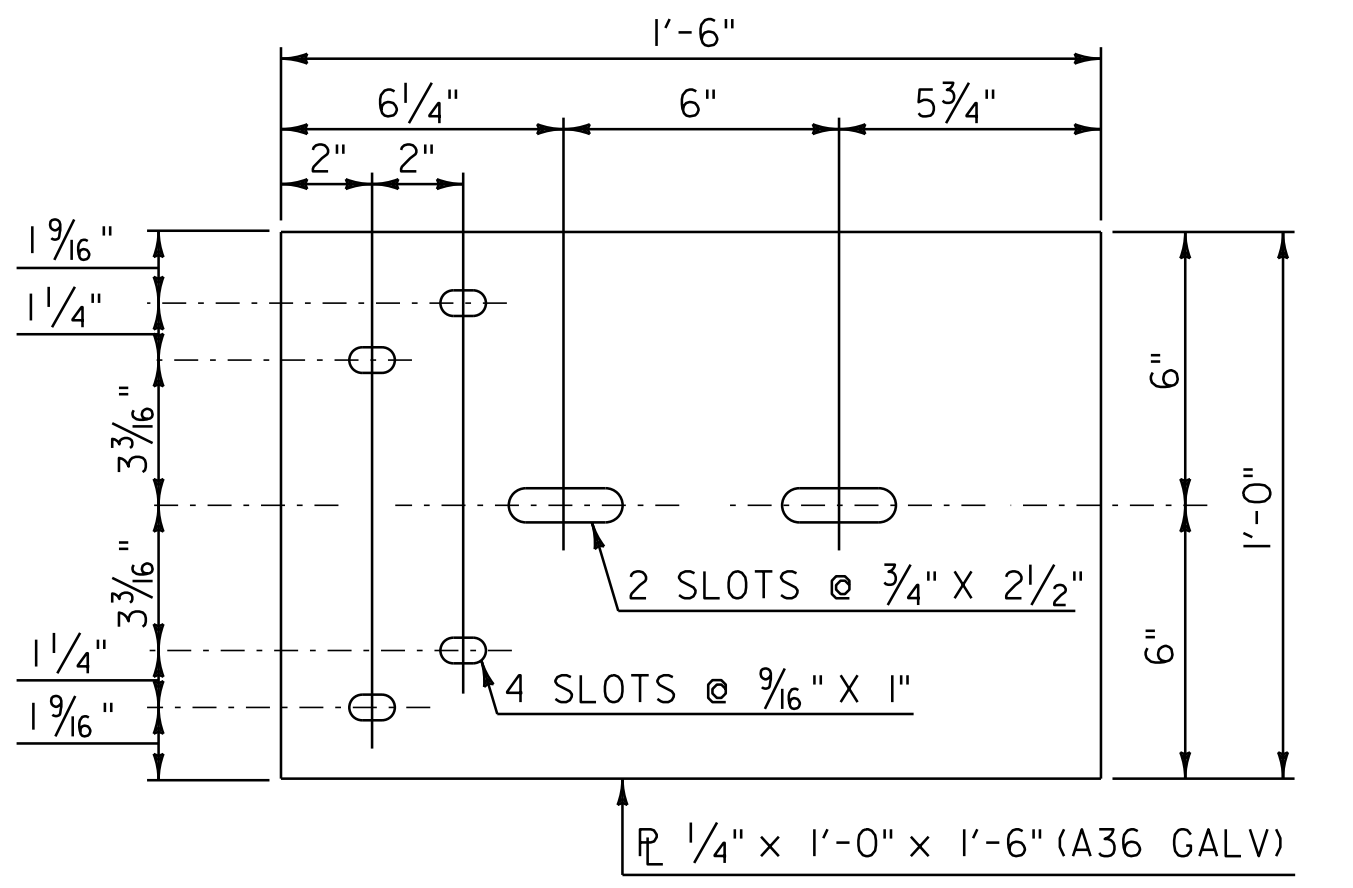
SPLICE BAR DETAIL (BACK SIDE VIEW)



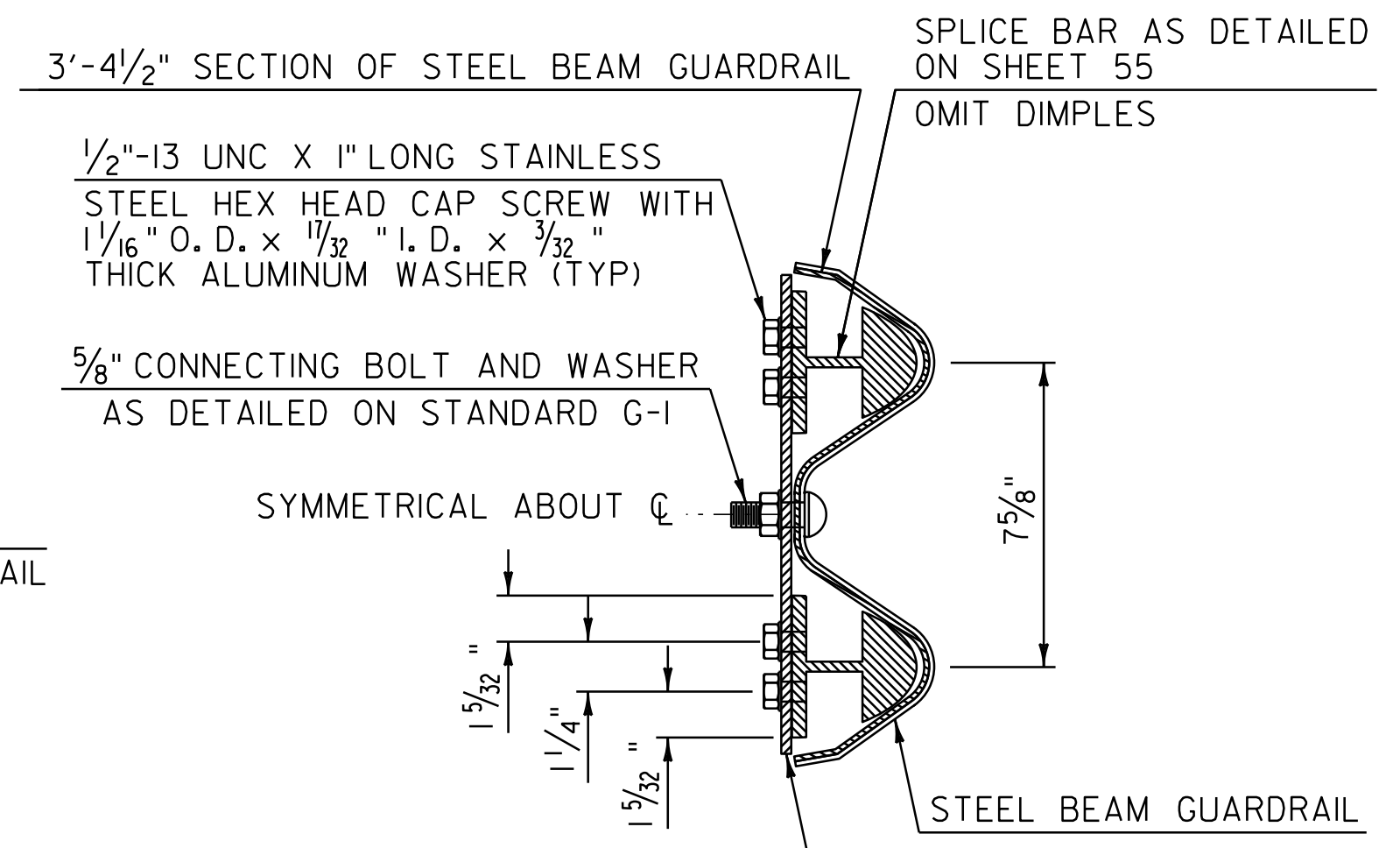
SPLICE DETAIL



SECTION A - A



BACK-UP PLATE DETAIL



SECTION B - B

ALUMINUM APPROACH RAILING DETAIL SHEET 1

PROJECT NAME:	HARTLAND-NORWICH	FILE NAME:	/pave/06a202/p06a202.dgn	PLOT DATE:	19-JUN-2013 09:21
PROJECT NUMBER:	IM 091-1(59)	PROJECT LEADER:	PTS	DRAWN BY:	WWG
		DESIGNED BY:	VTRANS	CHECKED BY:	PTS
		IPARM FILE NAME:	06A202-54		SHEET 54 OF 60

NOT TO SCALE

NOTES:

- POST 1 THROUGH 7 SHALL BE EXTRUDED ALUMINUM.
- ALL STRUCTURAL STEEL SHALL BE ASTM A36 AND GALVANIZED AFTER FABRICATION.
- ALL ITEMS NOT OTHERWISE INDICATED SHALL MEET THE SPECIFICATION REQUIREMENTS OF THE STANDARD SHEETS ON WHICH THEY ARE DETAILED.
- SEE STANDARD G-1 FOR STEEL BEAM GUARDRAIL DETAILS.
- THE COST OF ALL MATERIALS AND LABOR FOR THE SPLICE BETWEEN THE ALUMINUM APPROACH RAILING AND THE STEEL BEAM GUARDRAIL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 621.74 ALUMINUM APPROACH RAILING.
- DIMENSIONS SHOWN ARE FROM A REFERENCE LINE AT THE FACE OF POST FOR A NORMAL CROWNED SECTION. APPROPRIATE CORRECTIONS SHALL BE MADE FOR CROSS SLOPES OTHER THAN A NORMAL SECTION.
- SEE SHEET 56 FOR ALUMINUM APPROACH RAILING DIMENSIONS TABLE.

ALUMINUM APPROACH RAILING
RAIL DIMENSIONS FOR A CURB CONDITION

POST No.	RAIL HEIGHT DIMENSIONS			OFFSET BLOCK DIMENSIONS			
	A	B	C	D	E	F	G
1	46 1/2	36 5/8	24 1/16	9 7/8	12 9/16	27	17 1/4
2	43 7/16	35 5/16	23 3/8	8 1/8	11 15/16	24 5/8	16 5/8
3	40 3/8	34	22 11/16	6 3/8	11 5/16	22 5/16	16 1/16
4	37 3/8	32 11/16	22	4 5/8	10 11/16	19 15/16	15 7/16
5	-	30 15/16	21 1/16	-	9 7/8	-	14 7/16
6	-	29 3/16	20 1/8	-	9 1/16	-	13 13/16
7	-	27 7/16	19 1/4	-	8 3/16	-	12 3/4

ALL REMAINING POSTS ARE TO HAVE THE SAME DIMENSIONS AS POST NO. 7

CURB SIDE	
"X"	15/16
"Y"	7/16
"Z"	3/16

BRIDGE 39N EXIT END LT
MM 66.161 - MM 66.197 LT

H	20 1/2
I	11
J	13 1/2
K	26 1/2
L	37 1/2

SEE SHEETS 54 & 55 FOR ALUMINUM APPROACH RAILING DETAILS

ALUMINUM APPROACH RAILING
RAIL DIMENSIONS FOR A CURB CONDITION

POST No.	RAIL HEIGHT DIMENSIONS			OFFSET BLOCK DIMENSIONS			
	A	B	C	D	E	F	G
1	46 1/2	36 5/8	24 1/16	9 7/8	12 9/16	27	17 1/4
2	43 7/16	35 5/16	23 3/8	8 1/8	11 15/16	24 5/8	16 5/8
3	40 3/8	34	22 11/16	6 3/8	11 5/16	22 5/16	16 1/16
4	37 3/8	32 11/16	22	4 5/8	10 11/16	19 15/16	15 7/16
5	-	30 15/16	21 1/16	-	9 7/8	-	14 7/16
6	-	29 3/16	20 1/8	-	9 1/16	-	13 5/8
7	-	27 7/16	19 1/4	-	8 3/16	-	12 3/4

ALL REMAINING POSTS ARE TO HAVE THE SAME DIMENSIONS AS POST NO. 7

CURB SIDE	
"X"	15/16
"Y"	7/16
"Z"	3/16

BRIDGE 40N EXIT END LT
MM 66.298 - MM 66.365 LT

H	16
I	11
J	13 1/2
K	26 1/2
L	37 1/2

SEE SHEETS 54 & 55 FOR ALUMINUM APPROACH RAILING DETAILS

ALUMINUM APPROACH RAILING
RAIL DIMENSIONS FOR A CURB CONDITION

POST No.	RAIL HEIGHT DIMENSIONS			OFFSET BLOCK DIMENSIONS			
	A	B	C	D	E	F	G
1	46 1/2	36 5/8	24 1/16	9 7/8	12 9/16	27	17 1/4
2	43 7/16	35 5/16	23 3/8	8 1/8	11 15/16	24 5/8	16 5/8
3	40 3/8	34	22 11/16	6 3/8	11 5/16	22 5/16	16 1/16
4	37 3/8	32 11/16	22	4 5/8	10 11/16	19 15/16	15 7/16
5	-	30 15/16	21 1/16	-	9 7/8	-	14 7/16
6	-	29 3/16	20 1/8	-	9 1/16	-	13 13/16
7	-	27 7/16	19 1/4	-	8 3/16	-	12 3/4

ALL REMAINING POSTS ARE TO HAVE THE SAME DIMENSIONS AS POST NO. 7

CURB SIDE	
"X"	15/16
"Y"	7/16
"Z"	3/16

BRIDGE 40S ENTRANCE END RIGHT
MM 66.360 - MM 66.427 RT

H	10 1/2
I	11
J	13 1/2
K	26 1/2
L	37 1/2

SEE SHEETS 54 & 55 FOR ALUMINUM APPROACH RAILING DETAILS

ALUMINUM APPROACH RAILING
RAIL DIMENSIONS FOR A CURB CONDITION

POST No.	RAIL HEIGHT DIMENSIONS			OFFSET BLOCK DIMENSIONS			
	A	B	C	D	E	F	G
1	46 1/2	36 5/8	24 1/16	9 7/8	12 9/16	27	17 1/4
2	43 7/16	35 5/16	23 3/8	8 1/8	11 15/16	24 5/8	16 5/8
3	40 3/8	34	22 11/16	6 3/8	11 5/16	22 5/16	16 1/16
4	37 3/8	32 11/16	22	4 5/8	10 11/16	19 15/16	15 7/16
5	-	30 15/16	21 1/16	-	9 7/8	-	14 7/16
6	-	29 3/16	20 1/8	-	9 1/16	-	13 13/16
7	-	27 7/16	19 1/4	-	8 3/16	-	12 3/4

ALL REMAINING POSTS ARE TO HAVE THE SAME DIMENSIONS AS POST NO. 7

CURB SIDE	
"X"	15/16
"Y"	7/16
"Z"	3/16

BRIDGE 40S EXIT END LT
MM 66.360 - MM 66.427 LT

H	11
I	11
J	13 1/2
K	26 1/2
L	37 1/2

SEE SHEETS 54 & 55 FOR ALUMINUM APPROACH RAILING DETAILS

ALUMINUM APPROACH RAILING
RAIL DIMENSIONS FOR A CURB CONDITION

POST No.	RAIL HEIGHT DIMENSIONS			OFFSET BLOCK DIMENSIONS			
	A	B	C	D	E	F	G
1	46 1/2	36 5/8	24 1/16	9 7/8	12 9/16	27	17 1/4
2	43 7/16	35 5/16	23 3/8	8 1/8	11 15/16	24 5/8	16 5/8
3	40 3/8	34	22 11/16	6 3/8	11 5/16	22 5/16	16 1/16
4	37 3/8	32 11/16	22	4 5/8	10 11/16	19 15/16	15 7/16
5	-	30 15/16	21 1/16	-	9 7/8	-	14 7/16
6	-	29 3/16	20 1/8	-	9 1/16	-	13 13/16
7	-	27 7/16	19 1/4	-	8 3/16	-	12 3/4

ALL REMAINING POSTS ARE TO HAVE THE SAME DIMENSIONS AS POST NO. 7

CURB SIDE	
"X"	15/16
"Y"	7/16
"Z"	3/16

BRIDGE 40S EXIT END RT
MM 66.360 - MM 66.427 RT

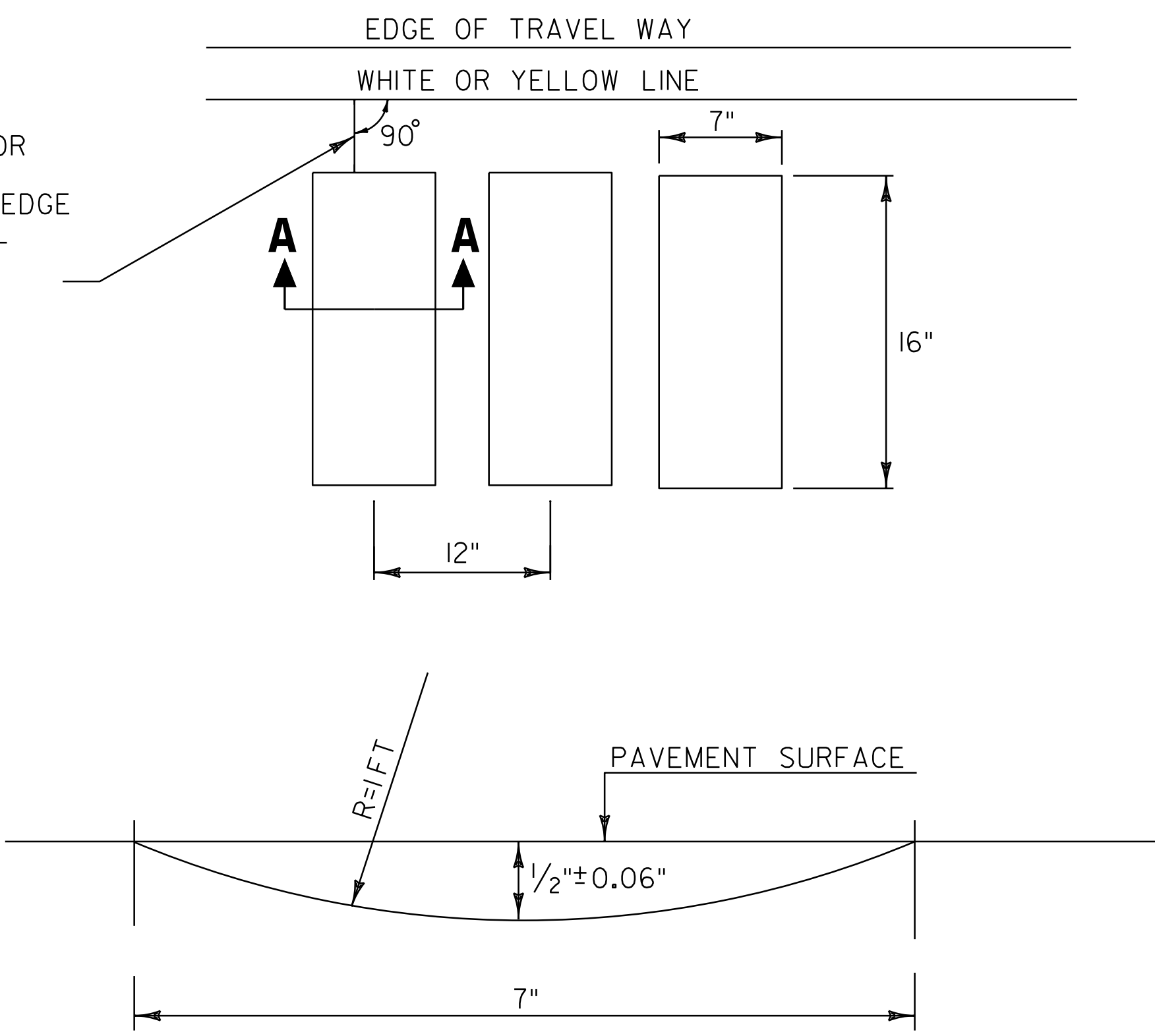
H	9 1/2
I	11
J	13 1/2
K	26 1/2
L	37 1/2

SEE SHEETS 54 & 55 FOR ALUMINUM APPROACH RAILING DETAILS

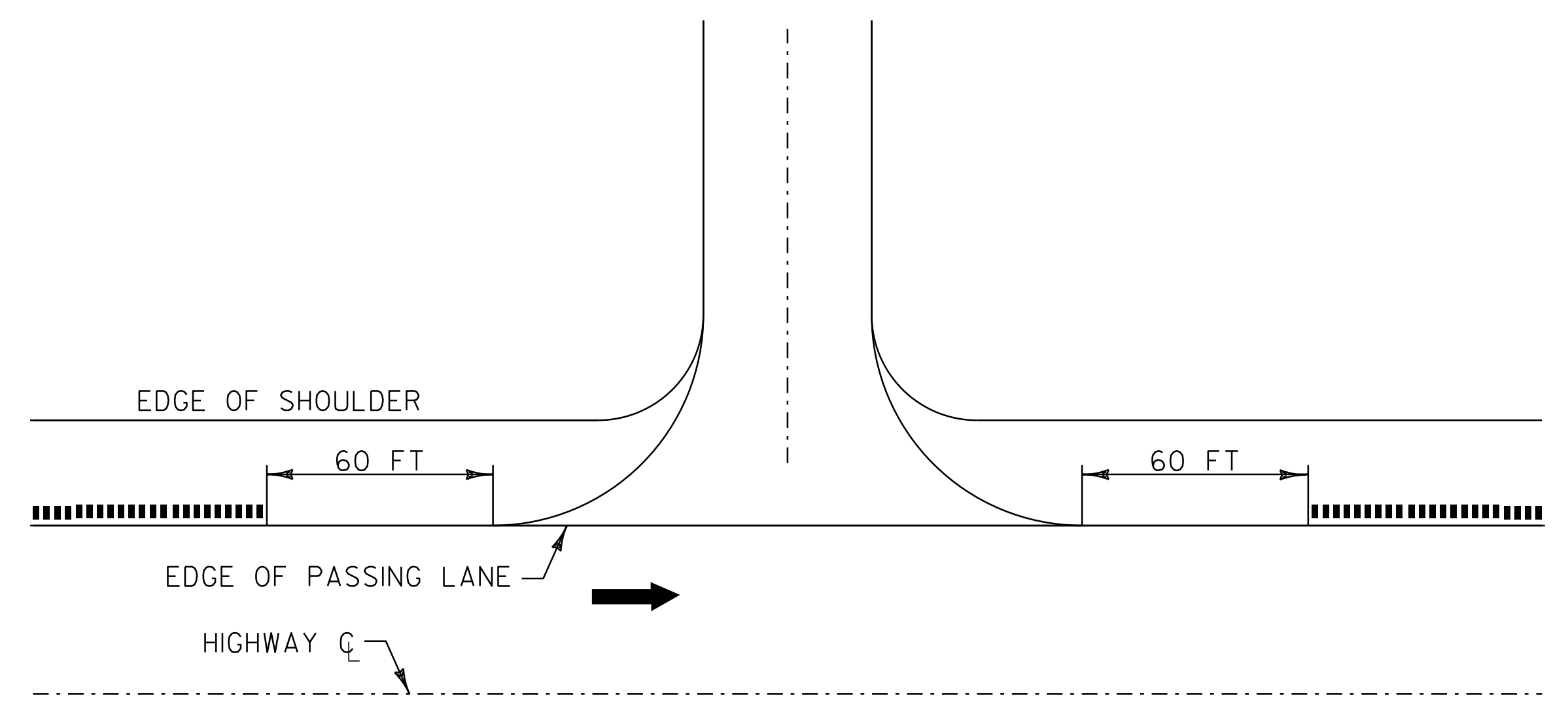
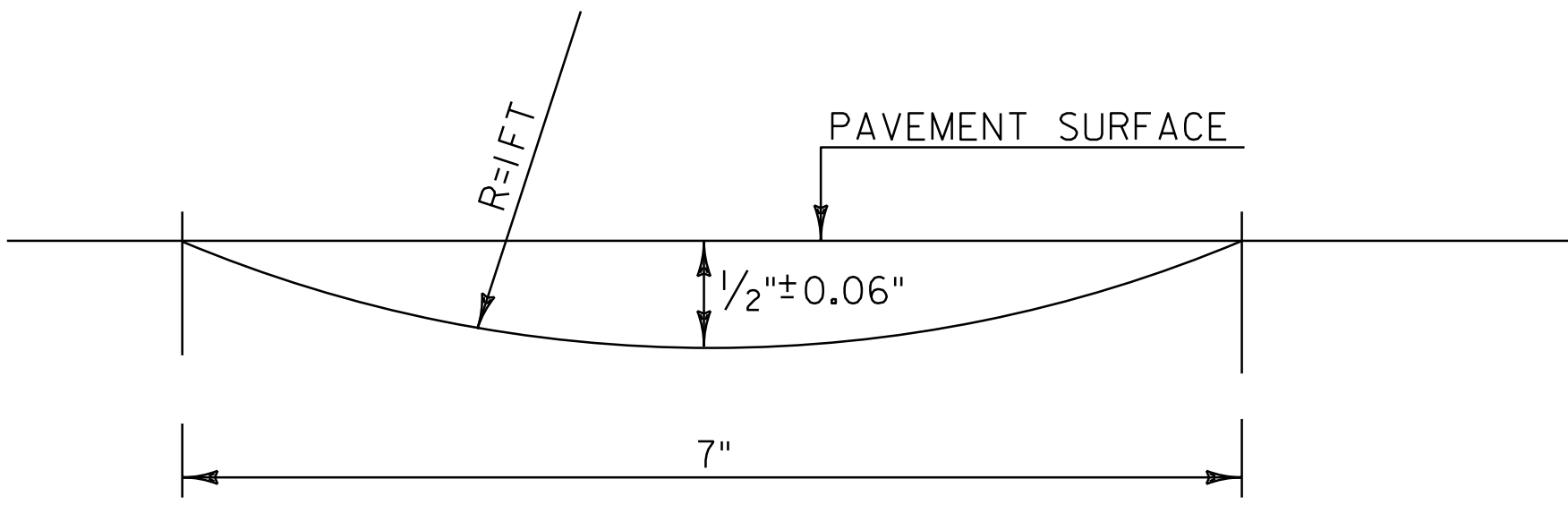
ALUMINUM APPROACH RAILING DETAIL SHEET 3

PROJECT NAME:	HARTLAND-NORWICH		
PROJECT NUMBER:	IM 091-I(59)		
FILE NAME:	/pave/06a202/p06a202.dgn	PLOT DATE:	19-JUN-2013 09:21
PROJECT LEADER:	PTS	DRAWN BY:	WWG
DESIGNED BY:	NLL	CHECKED BY:	PTS
IPARM FILE NAME:	06A202_56	SHEET	56 OF 60

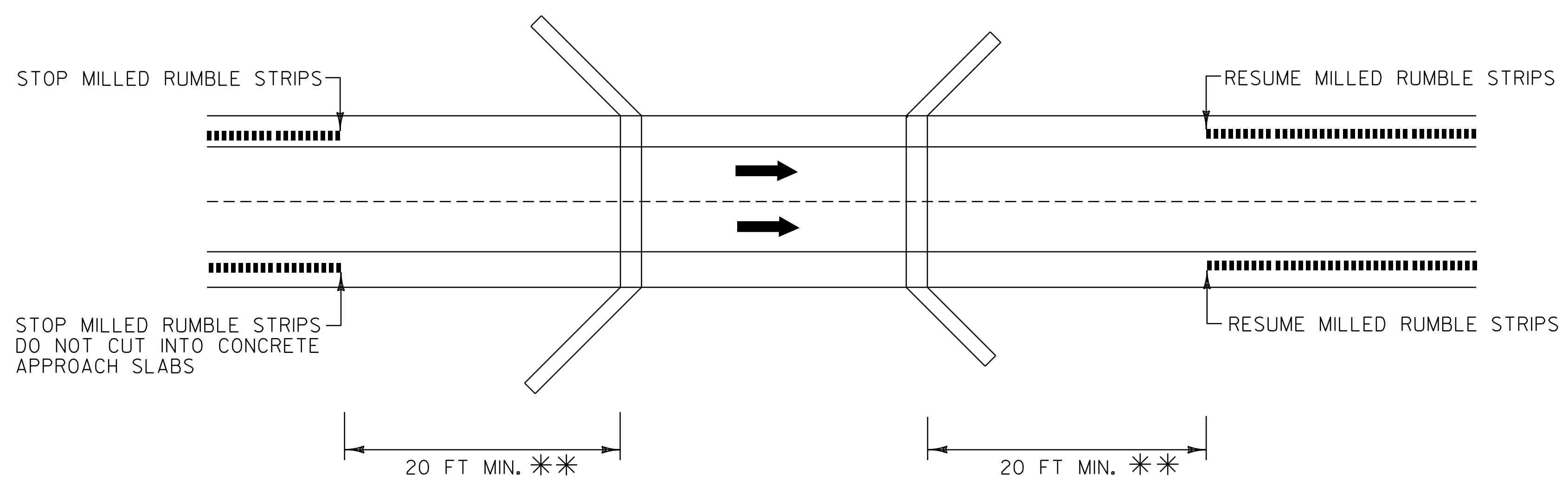
PLACE RUMBLE STRIPS 30" FROM EDGE LINE (WHITE OR YELLOW) FOR ALL SHOULDERS 6' OR WIDER.
 PLACE RUMBLE STRIPS 6" FROM EDGE LINE (WHITE OR YELLOW) FOR ALL SHOULDERS LESS THAN 6' WIDE WITH NO GUARDRAIL



SECTION A-A
TYPICAL MILLING DETAIL



U-TURN DETAIL



** BRIDGE RAIL WILL DETERMINE MINIMUM DISTANCE IN SOME CASES.

BRIDGE DETAIL

* REFERENCE COMP. BINDER SECTION 213.10 FOR RUMBLE STRIP LOCATIONS AND QUANTITIES

MILLED RUMBLE STRIP DETAIL SHEET 1

NOT TO SCALE

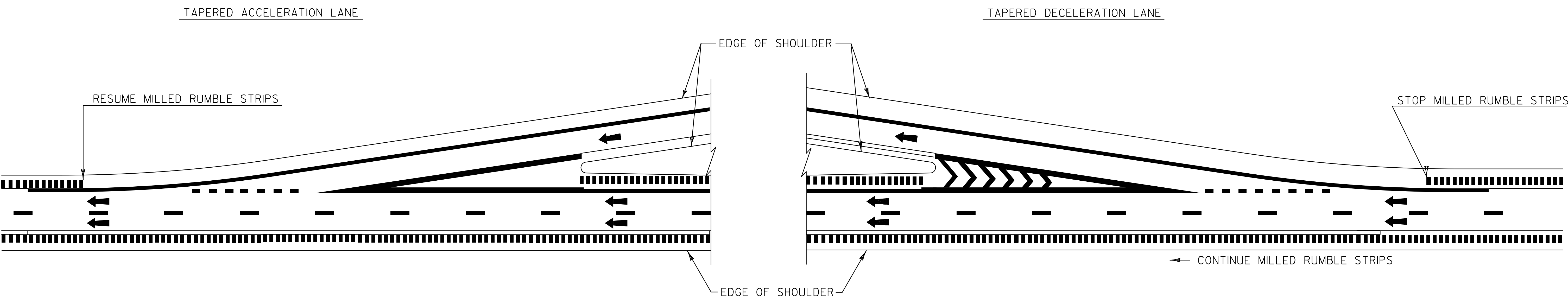
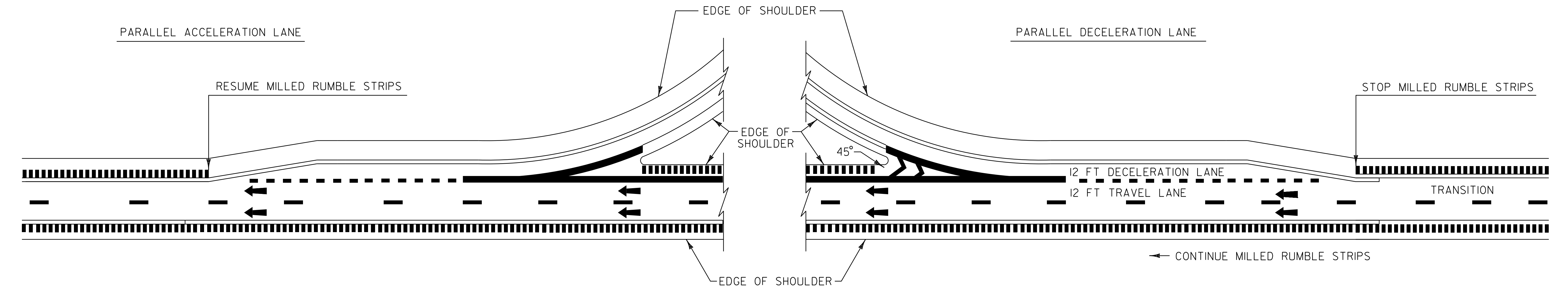
LEGEND

- DIRECTION OF TRAFFIC FLOW
- MILLED RUMBLE STRIPS

PROJECT NAME: HARTLAND-NORWICH	
PROJECT NUMBER: IM 091-I(59)	
FILE NAME: /pave/06a202/p06a202.dgn	PLOT DATE: 19-JUN-2013 09:21
PROJECT LEADER: PTS	DRAWN BY: WWG
DESIGNED BY: NULL	CHECKED BY: PTS
IPARM FILE NAME: 06A202_57	SHEET 57 OF 60

TYPICAL MILLED RUMBLE STRIP DETAIL AT INTERCHANGES

NOTE:
 1. THIS TYPICAL MAY BE MODIFIED AT THE DISCRETION OF THE RESIDENT ENGINEER IF ACTUAL FIELD CONDITIONS NECESSITATE SUCH ACTIONS.

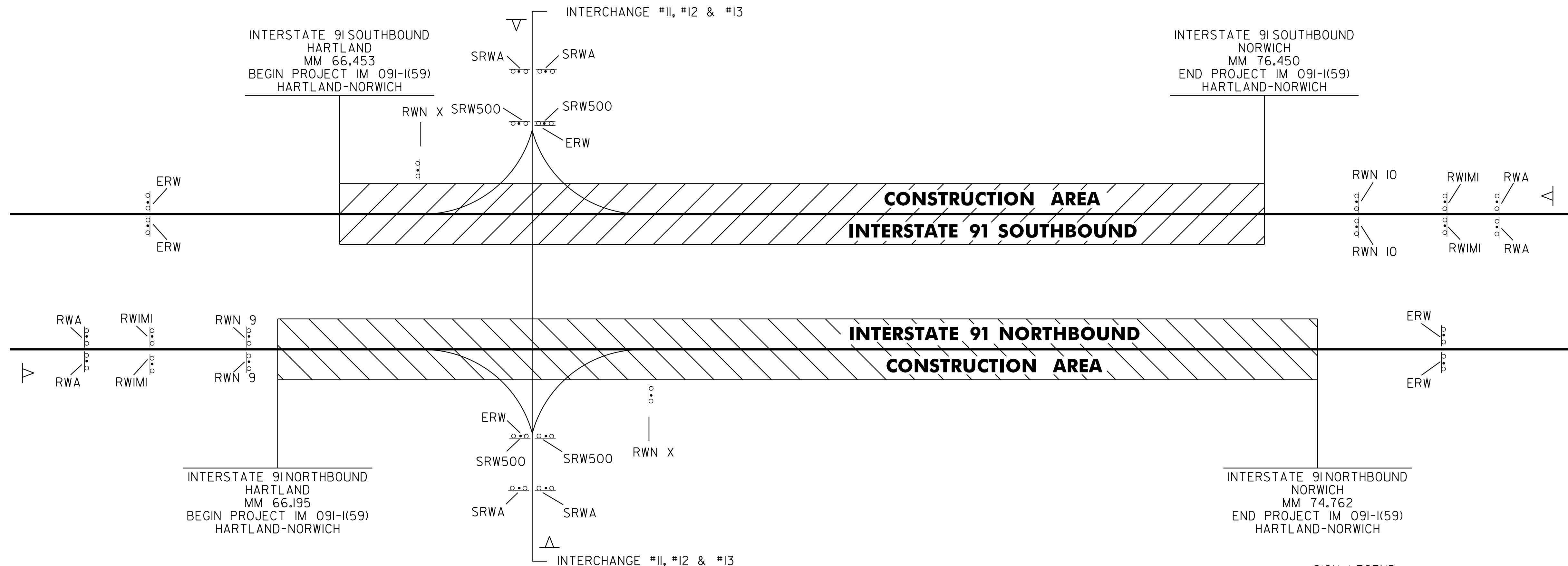


NOT TO SCALE

- LEGEND
- DIRECTION OF TRAFFIC FLOW
 - MILLED RUMBLE STRIPS

MILLED RUMBLE STRIP DETAIL SHEET 2

PROJECT NAME: HARTLAND-NORWICH	FILE NAME: /pave/06a202/p06a202.dgn	PLOT DATE: 19-JUN-2013 09:2
PROJECT NUMBER: IM 091-I(59)	PROJECT LEADER: PTS	DRAWN BY: WWG
	DESIGNED BY: NLL	CHECKED BY: PTS
	IPARM FILE NAME: 06A202_58	SHEET 58 OF 60



HIGHWAY NAME	RWA	SRWA	SRW500	ERW	RWIMI	RWN 10	RWN 9	RWN 6	RWN 5	RWN 4	RWN 3	OTHER
INTERSTATE 91 NORTHBOUND - BEGIN PROJECT	2				2		2					I-PORT. CHANGEABLE MESSAGE SIGN
INTERSTATE 91 NORTHBOUND - END PROJECT				2								
INTERSTATE 91 SOUTHBOUND - BEGIN PROJECT				2								
INTERSTATE 91 SOUTHBOUND - END PROJECT	2				2	2						I-PORT. CHANGEABLE MESSAGE SIGN
INTERCHANGE #10	4			4					1		2	3-PORT. CHANGEABLE MESSAGE SIGNS
INTERCHANGE #11	3		4	2					1	1		2-PORT. CHANGEABLE MESSAGE SIGNS
INTERCHANGE #12		4	4	2				1			1	2-PORT. CHANGEABLE MESSAGE SIGNS
INTERCHANGE #13		6	6	2			1					3-PORT. CHANGEABLE MESSAGE SIGNS
TOTALS	11	10	14	14	4	2	3	1	2	1	3	12-PORT. CHANGEABLE MESSAGE SIGNS

SIGN LEGEND

RWA	=	ROAD WORK AHEAD
RWIMI	=	ROAD WORK 1 MILE
SRWA	=	SIDEROAD WORK AHEAD
SRW500	=	SIDEROAD WORK 500 FT
ERW	=	END ROAD WORK
RWN 3	=	ROAD WORK NEXT 3 MILES
RWN 4	=	ROAD WORK NEXT 4 MILES
RWN 5	=	ROAD WORK NEXT 5 MILES
RWN 6	=	ROAD WORK NEXT 6 MILES
RWN 9	=	ROAD WORK NEXT 9 MILES
RWN 10	=	ROAD WORK NEXT 10 MILES
	=	PORTABLE CHANGEABLE MESSAGE SIGN

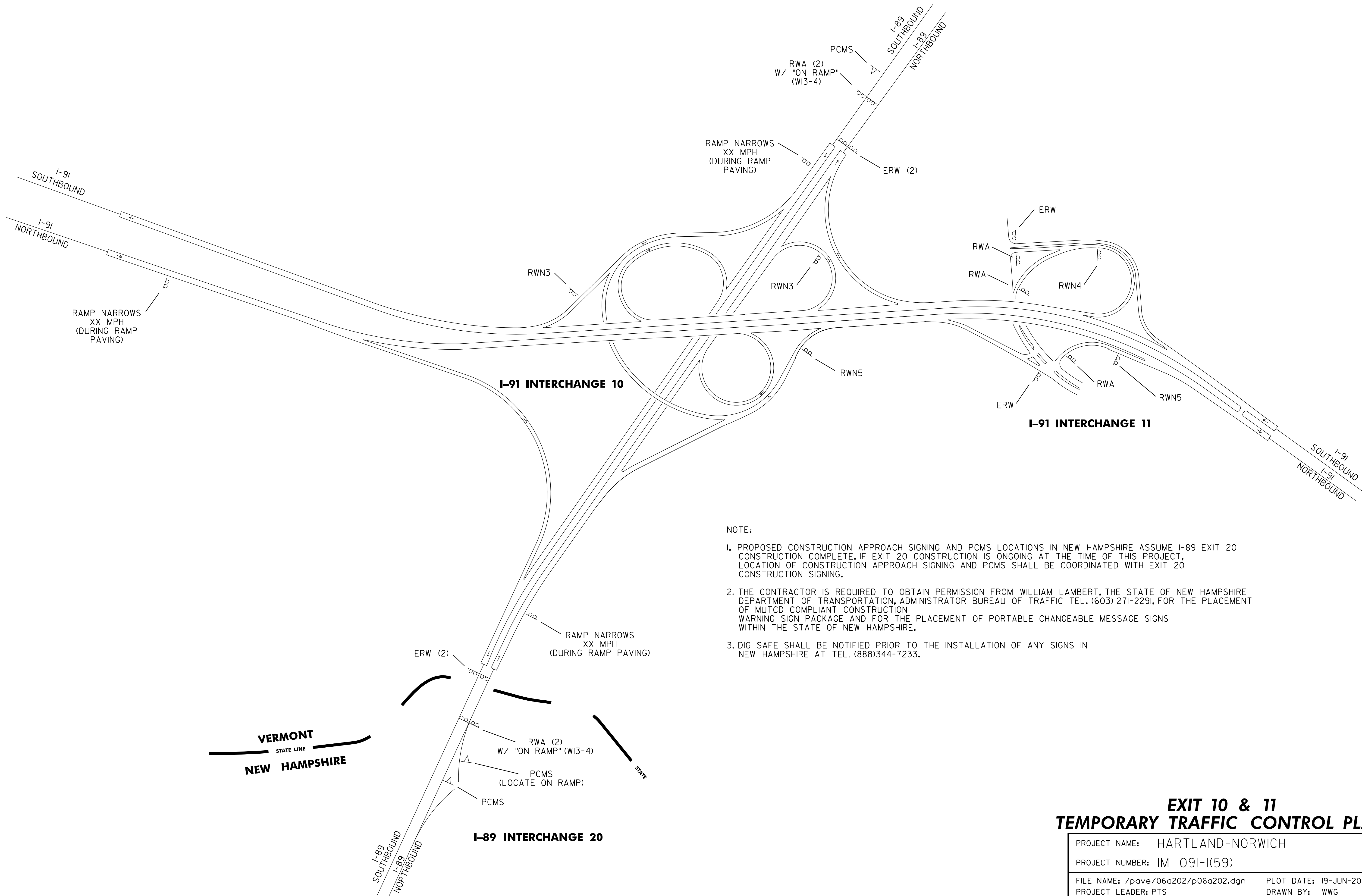
CONSTRUCTION APPROACH SIGNING

NOTES:

1. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO THE RESIDENT ENGINEER FOR APPROVAL PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL INCLUDE A CONSTRUCTION SIGN PACKAGE FOR EXPECTED LANE CLOSURES AND WORK ZONE SPEED REDUCTIONS IN COMPLIANCE WITH STANDARD E-103. THE COST OF PREPARING THIS PLAN (AND MAKING CHANGES IF NECESSARY) SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 641.10, TRAFFIC CONTROL.
2. THE CONTRACTOR SHALL POSITION PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) WARNING MOTORISTS OF THE EXPECTED ROADWAY CONDITIONS AHEAD. THE MESSAGE TO BE DISPLAYED, AND THEIR PROPOSED LOCATIONS SHALL BE SUBMITTED TO THE RESIDENT ENGINEER IN ADVANCE FOR APPROVAL. THE COST OF PROVIDING THESE MESSAGE SIGNS SHALL BE PAID UNDER ITEM 641.15, PORTABLE CHANGEABLE MESSAGE SIGN.
3. THE BID PRICE FOR ITEM 641.10, TRAFFIC CONTROL, SHALL INCLUDE ALL OF THE FOLLOWING, AS NEEDED: APPROACH AND ON-PROJECT CONSTRUCTION SIGNING, PORTABLE FLASHING 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.
4. THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SHALL BE THE STANDARD FOR ALL TRAFFIC CONTROL DEVICES. EXISTING SIGNS AND MARKINGS SHALL BE VALID UNTIL SUCH TIME AS THEY ARE REPLACED OR RECONSTRUCTED. WHEN NEW TRAFFIC DEVICES ARE ERECTED OR PLACED, OR EXISTING TRAFFIC CONTROL DEVICES ARE REPLACED OR REPAIRED, THE EQUIPMENT, DESIGN, METHOD OF INSTALLATION, PLACEMENT, OR REPAIR SHALL CONFORM WITH SUCH STANDARDS.
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. ON VTRANS STANDARD E-103, SIGN W4-2 MAY BE REPLACED WITH W9-2.
7. ALL TEMPORARY SPEED LIMIT SIGNS (R2-1) SHALL INCLUDE "WORK ZONE" SIGN (G20-5aP).
8. SEE VTRANS STANDARD E-100 FOR ADDITIONAL SIGN PLACEMENT DETAILS.
9. CONSTRUCTION ZONE SIGN LAYOUT SHALL BE IN ACCORDANCE WITH SECTION 6 OF THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
10. CONSTRUCTION SIGNS SHALL BE IN NEW OR LIKE NEW CONDITION PER VTRANS STANDARDS AND SPECIAL PROVISIONS.
11. DIAMOND SHAPED SIGNS SHALL BE 4' X 4' WITH BLACK TEXT AND BORDER ON A RETROREFLECTIVE FLUORESCENT ORANGE BACKGROUND.
12. RETROREFLECTIVE SHEETING SHALL BE TYPE III OR VIII MINIMUM AS NOTED ON VTRANS STANDARD E-100 AND IN THE SPECIAL PROVISIONS.
13. CONSTRUCTION ZONE SIGNS SHALL BE INSTALLED AS OUTLINED IN THE SPECIAL PROVISIONS.
14. WHERE TEMPORARY SIGNS ARE PLACED BEHIND GUARDRAIL, THEY SHALL BE ADJUSTED SUCH THAT THE BOTTOM OF THE SIGN IS ABOVE THE TOP OF GUARDRAIL.
15. AS THE PAVING OPERATION MOVES, FLAGGER SIGNS SHALL BE MOVED ACCORDINGLY. AT NO TIME SHOULD THE FLAGGER SYMBOL SIGN BE MORE THEN 1000 FEET FROM THE FLAGGER STATION. FLAGGER SIGNS SHALL BE COVERED OR TURNED AWAY FROM TRAFFIC WHEN FLAGGING OPERATIONS CEASE FOR LONGER THAN 15 MINUTES.
16. BARRELS AND CONES SHALL BE USED TO CLEARLY DEFINE THE TRAVEL SPACE AND PROVIDE SEPARATION FROM THE WORK SPACE ALONG ITS ENTIRE LENGTH.
17. FOR LANE CLOSURES GREATER THAN 1/2 MILE LONG, PLACE ONE TYPE III BARRICADE ACROSS THE CLOSED LANE AT 1500 FOOT INTERVALS.

TEMPORARY TRAFFIC CONTROL PLAN

PROJECT NAME: HARTLAND-NORWICH	
PROJECT NUMBER: IM 091-I(59)	
FILE NAME: /pave/06a202/p06a202.dgn	PLOT DATE: 19-JUN-2013 09:2
PROJECT LEADER: PTS	DRAWN BY: WWG
DESIGNED BY: NULL	CHECKED BY: PTS
IPARM FILE NAME: 06A202_59	SHEET 59 OF 60



NOTE:

1. PROPOSED CONSTRUCTION APPROACH SIGNING AND PCMS LOCATIONS IN NEW HAMPSHIRE ASSUME I-89 EXIT 20 CONSTRUCTION COMPLETE. IF EXIT 20 CONSTRUCTION IS ONGOING AT THE TIME OF THIS PROJECT, LOCATION OF CONSTRUCTION APPROACH SIGNING AND PCMS SHALL BE COORDINATED WITH EXIT 20 CONSTRUCTION SIGNING.
2. THE CONTRACTOR IS REQUIRED TO OBTAIN PERMISSION FROM WILLIAM LAMBERT, THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION, ADMINISTRATOR BUREAU OF TRAFFIC TEL. (603) 271-2291, FOR THE PLACEMENT OF MUTCD COMPLIANT CONSTRUCTION WARNING SIGN PACKAGE AND FOR THE PLACEMENT OF PORTABLE CHANGEABLE MESSAGE SIGNS WITHIN THE STATE OF NEW HAMPSHIRE.
3. DIG SAFE SHALL BE NOTIFIED PRIOR TO THE INSTALLATION OF ANY SIGNS IN NEW HAMPSHIRE AT TEL. (888)344-7233.

**EXIT 10 & 11
TEMPORARY TRAFFIC CONTROL PLAN**

PROJECT NAME: HARTLAND-NORWICH	FILE NAME: /pave/06a202/p06a202.dgn	PLOT DATE: 19-JUN-2013 09:2
PROJECT NUMBER: IM 091-I(59)	PROJECT LEADER: PTS	DRAWN BY: WWG
	DESIGNED BY: NULL	CHECKED BY: PTS
	IPARM FILE NAME: 06A202_60	SHEET 60 OF 60