

STATE OF VERMONT AGENCY OF TRANSPORTATION



TRAFFIC DATA													
LOCATION VT ROUTE 12	MILE MARKS	AADT		DHV		%T		%D		ADTT		ESALs	
		2017	2027	2017	2027	2017	2027	2017	2027	2017	2027	2017-2027	2017-2037
BEGIN PROJECT TO BROWNSVILLE RD	0.068- 1.483	3200	3400	380	400	7.6	9.0	59	59	200	250	595,000	1,310,000
BROWNSVILLE RD TO END PROJECT	1.483- 7.705	1300	1400	170	180	7.9	10.0	56	56	85	110	182,000	420,000

POSTED SPEED : 30, 35, 40, 50 MPH
DESIGN SPEED : EQUAL TO POSTED SPEED

SUPERPAVE BITUMINOUS CONCRETE PAVEMENT MIXTURE DESIGN CRITERIA	
DESIGN LANE/DESIGN LIFE ESAL	235,200
DESIGN NUMBER OF GYRATIONS	50
PERFORMANCE GRADED ASPHALT BINDER	58-34

RECORD PLANS	
CONTRACTOR:	PIKE INDUSTRIES, INC. - BERLIN, VT
RESIDENT ENGINEER:	RYAN DARLING
CONSTRUCTION BEGAN:	AUGUST 14, 2017
CONSTRUCTION COMPLETE:	NOVEMBER 22, 2017
RECORD PLANS BY:	RYAN DARLING & AARON WEAVER
I HEREBY CERTIFY THAT ALL THE CONSTRUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.	
BY	RESIDENT ENGINEER
DATE	7/17/2018
NOTE: Any further information concerning final quantities, amounts or other details relative to this project may be found by contacting Vtrans Records Management.	

CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2011, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JULY 20, 2011 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

QUALITY ASSURANCE PROGRAM : LEVEL 3
SURVEYED BY : N/A
SURVEYED DATE : N/A
DATUM
VERTICAL N/A
HORIZONTAL N/A

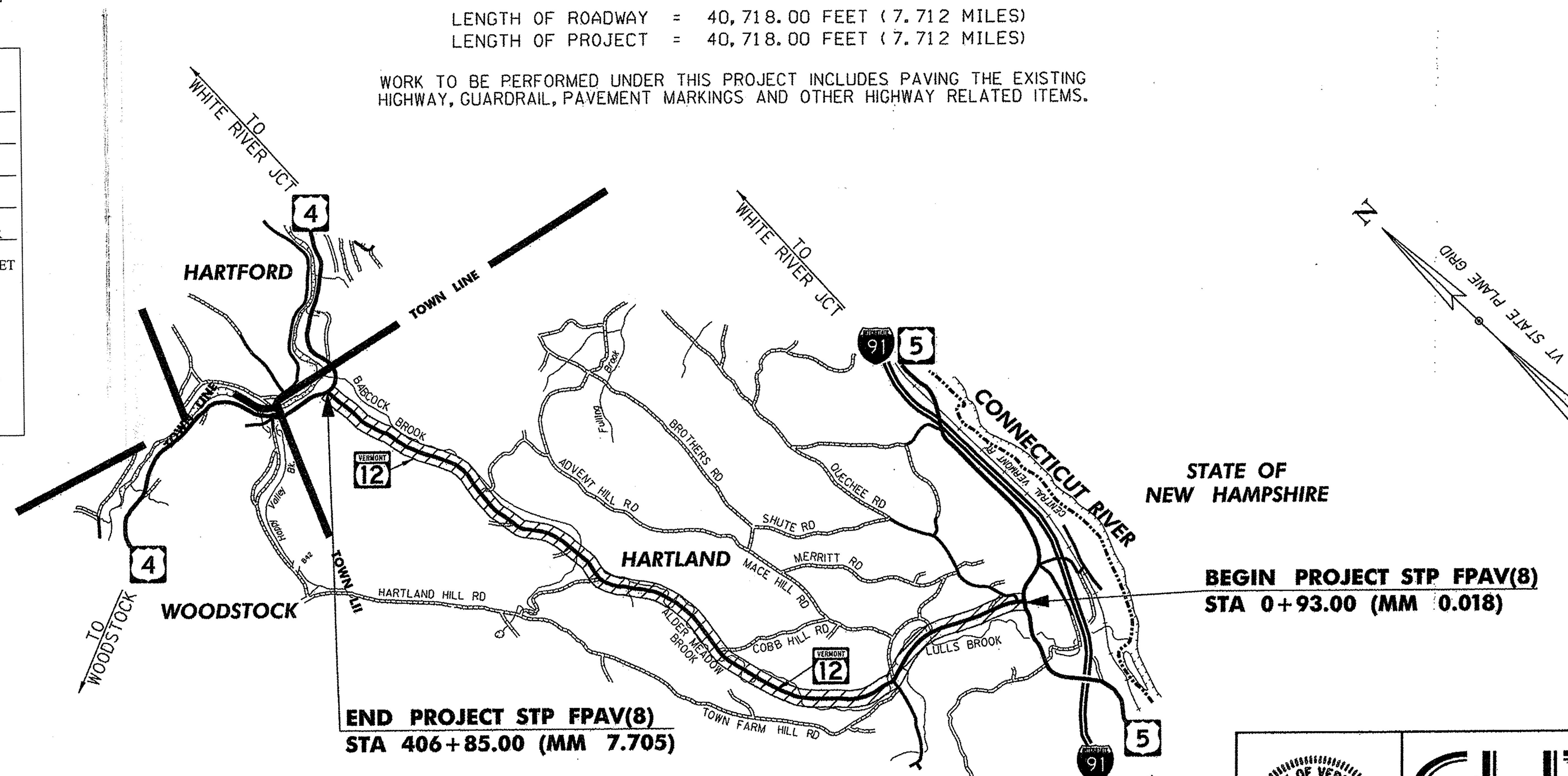
PROPOSED IMPROVEMENT TOWN OF HARTLAND COUNTY OF WINDSOR VT ROUTE 12 (MAJOR COLLECTOR)

BEGINNING ON VT ROUTE 12 AT THE INTERSECTION OF US ROUTE 5 IN HARTLAND AT STATION 0+93.00 (MM 0.018)
AND EXTENDING NORTHERLY ALONG VT ROUTE 12 A DISTANCE OF 40,592.00 FEET (7.688 MILES) TO STATION
406+85.00 (MM 7.705) AT THE INTERSECTION OF VT ROUTE 12 AND US ROUTE 4.

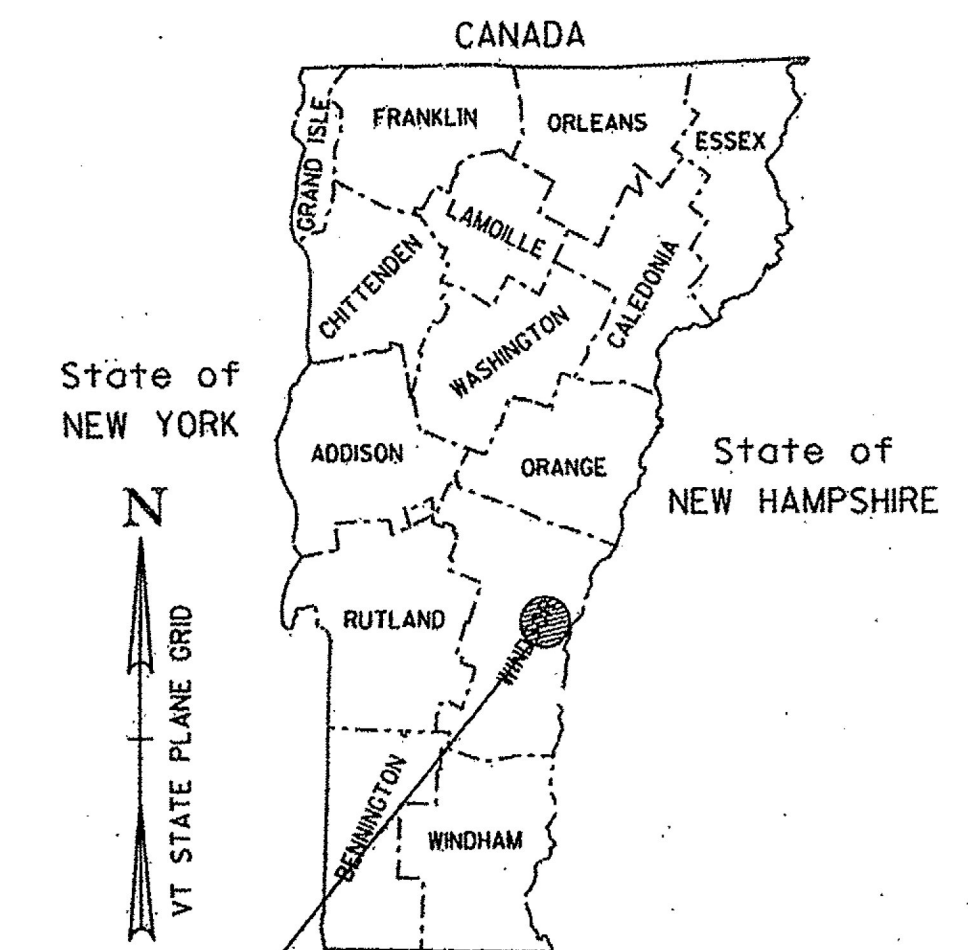
HARTLAND STA 0+93.00 (MM 0.018) ~ STA 406+85.00 (MM 7.705) = 40,592.00 FEET (7.688 MILES)
STA 500+26.00 (MM 0.005) ~ STA 501+52.00 (MM 0.029) = 126.00 FEET (0.024 MILES)

LENGTH OF ROADWAY = 40,718.00 FEET (7.712 MILES)
LENGTH OF PROJECT = 40,718.00 FEET (7.712 MILES)

WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES PAVING THE EXISTING HIGHWAY, GUARDRAIL, PAVEMENT MARKINGS AND OTHER HIGHWAY RELATED ITEMS.



1 0 1 2
SCALE IN MILES

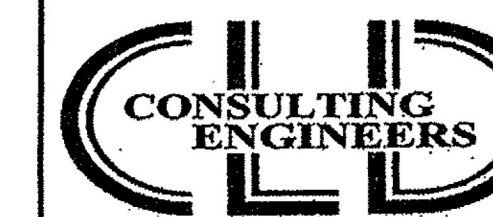
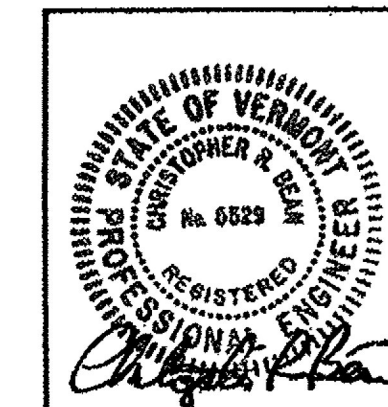


PROJECT LOCATION
HARTLAND
STP FPAV(8)

STATE OF
NEW HAMPSHIRE

BEGIN PROJECT STP FPAV(8)
STA 0+93.00 (MM 0.018)

END PROJECT STP FPAV(8)
STA 406+85.00 (MM 7.705)



540 Commercial Street
Manchester, NH 03101
(603) 668-8223
www.cldengineers.com

DIRECTOR OF PROJECT DELIVERY	
APPROVED	DATE 5/15/2017
PROJECT MANAGER : JONATHAN HARRINGTON, P.E.	
PROJECT NAME : HARTLAND	
PROJECT NUMBER : STP FPAV(8)	
SHEET 1 OF 33 SHEETS	

INDEX OF SHEETS

INDEX OF VAOT STANDARDS

STD	DATE	DESCRIPTION
B-71	7/8/2005	STANDARDS FOR RESIDENTIAL AND COMMERCIAL DRIVES
C-3A	3/10/2008	SIDEWALK RAMPS
C-3B	3/10/2008	SIDEWALK RAMPS AND MEDIAN ISLANDS
D-3	6/1/1994	TREATED GUTTERS
E-193	8/18/1995	PAVEMENT MARKING DETAILS
G-1	3/10/2017	STEEL BEAM GUARDRAIL WITH STEEL POSTS, STEEL BEAM GUARDRAIL WITH WOOD POSTS
G-1d	3/10/2017	STEEL BEAM GUARDRAIL END TERMINALS, ANCHOR FOR STEEL BEAM GUARDRAIL, STEEL BEAM MEDIAN BARRIER
T-1	4/25/2016	TRAFFIC CONTROL GENERAL NOTES
T-10	8/6/2012	CONVENTIONAL ROADS CONSTRUCTION APPROACH SIGNING
T-17	8/6/2012	TRAFFIC CONTROL MISCELLANEOUS DETAILS
T-24	8/6/2012	TRAFFIC CONTROL FOR MAINTENANCE PAVEMENT MARKING OPERATION
T-28	8/6/2012	CONSTRUCTION SIGN DETAILS
T-29	8/6/2012	CONSTRUCTION SIGN DETAILS
T-30	8/6/2012	CONSTRUCTION SIGN DETAILS
T-31	8/6/2012	CONSTRUCTION SIGN DETAILS
T-36	8/6/2012	CONSTRUCTION ZONE LONGITUDINAL DROP-OFFS FOR PAVING
T-40	1/2/2013	DELINEATORS AND MILEPOSTS

INDEX OF SHEETS

SHT	DESCRIPTION	DATE
1	TITLE SHEET	
2	INDEX OF SHEETS	
3	CONVENTIONAL SYMBOLOGY LEGEND SHEET	
4	PROJECT NOTES	
5-6	TYPICAL SECTION SHEETS	
7-8	QUANTITY SHEETS	
9-12	ITEM DETAIL SHEETS	
13-14	GUARDRAIL REPLACEMENT DETAIL SHEETS	
15	HANDWORK DETAIL SHEET	
16-31	PLAN SHEETS	
32	TRAFFIC CONTROL NOTES	
33	TRAFFIC CONTROL PLAN	
HIGHWAY SAFETY & DESIGN DETAIL		
HSD-400.01	SAFETY EDGE DETAILS	3/29/2016
HSD-621.06	MISCELLANEOUS GUARDRAIL DETAILS	2/27/2017
STRUCTURES DETAIL		
SD-516.10	BRIDGE JOINT ASPHALTIC PLUG	8/29/2011

PROJECT NAME:	HARTLAND
PROJECT NUMBER:	STP FPAV(8)
FILE NAME: z16vl47frm.dgn	PLOT DATE: 4/14/2017
PROJECT LEADER: P. SHEDD	DRAWN BY: S. GOODWIN
DESIGNED BY: N. LEMAY	CHECKED BY: P. SHEDD
INDEX OF SHEETS	SHEET 2 OF 33

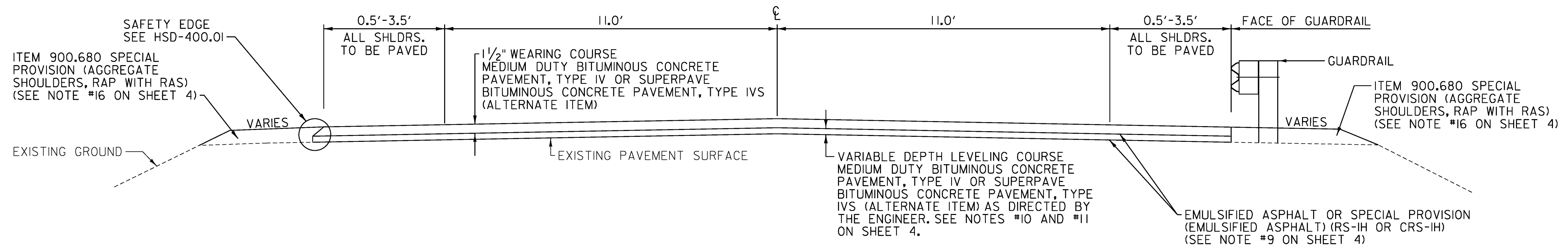
NOT TO SCALE

PROJECT NOTES

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS FOR CONSTRUCTION.
2. ALL PROPOSED WORK TO BE PERFORMED WITHIN THE EXISTING RIGHT-OF-WAY.
3. EXISTING SHOULDER MATERIAL DEEMED UNSUITABLE BY THE RESIDENT ENGINEER SHALL BE EXCAVATED TO A DEPTH OF THREE INCHES OR AS DIRECTED BY THE ENGINEER. EXCAVATION SHALL BE PAID UNDER ITEM 608.25 ALL PURPOSE EXCAVATOR RENTAL, TYPE I AND ITEM 608.37 TRUCK RENTAL. MATERIAL REMOVED SHALL BE REPLACED WITH ITEM 301.28 SUBBASE OF CRUSHED GRAVEL, FINE GRADED AS DIRECTED BY THE ENGINEER. EXCAVATED MATERIAL SHALL BE SPREAD ON THE ADJACENT SLOPES, OR REMOVED FROM THE PROJECT AS DIRECTED BY THE ENGINEER.
4. ALL NECESSARY SURFACE PREPARATION INVOLVING PATCHING, POT HOLE REPAIR AND RAVELING REPAIRS SHALL BE PERFORMED FOLLOWING COLD PLANING AND PRIOR TO PAVING. THE PATCHING OF ALL CRACKS GREATER THAN ONE INCH AND POT HOLE REPAIR SHALL BE COMPLETED WITH ITEM 900.680 SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION, TYPE I). AN ESTIMATED QUANTITY FOR THIS ITEM HAS BEEN INCLUDED.
5. THE CONTRACTOR SHALL USE CAUTION WHEN COLD PLANING AND PAVING OPERATIONS OCCUR ON BRIDGE DECKS. SHOULD ANY DAMAGE OCCUR TO THE DECK OR MEMBRANE AS A RESULT OF THE CONTRACTOR'S OPERATIONS THE ENGINEER SHALL CONTACT THE VAOT CONSTRUCTION STRUCTURES ENGINEER TO PROVIDE AN ASSESSMENT OF THE DAMAGE AND RECOMMEND ANY NECESSARY REPAIRS. THE CONSTRUCTION STRUCTURES ENGINEER WILL ALSO DETERMINE IF THE DAMAGE WAS AVOIDABLE. IF THE CONTRACTOR IS DETERMINED BY THE ENGINEER TO BE AT FAULT FOR THE DAMAGE, THE RECOMMENDED REPAIRS SHALL BE COMPLETED BY THE CONTRACTOR AT NO COST TO THE STATE.
6. GRASS GROWING ADJACENT TO THE PAVEMENT OR THROUGH CRACKS IN THE PAVEMENT, WHICH MAY HAMPER THE PLACEMENT OF NEW BITUMINOUS CONCRETE PAVEMENT, SHALL BE REMOVED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER. PAYMENT FOR THIS WORK WILL NOT BE MADE DIRECTLY, BUT WILL BE CONSIDERED INCIDENTAL TO ITEM 406.27 MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT OR ITEM 490.30 SUPERPAVE BITUMINOUS CONCRETE PAVEMENT.
7. PAVEMENT WILL BE AN ALTERNATE AND PAID UNDER ITEM 406.27 MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT OR ITEM 490.30 SUPERPAVE BITUMINOUS CONCRETE PAVEMENT.
8. ALL BITUMINOUS CONCRETE PAVEMENT TOLERANCE = 1/4" +/- (TOTAL THICKNESS EXCLUDING LEVELING COURSE).
9. EMULSIFIED ASPHALT SHALL BE APPLIED AS A TACK COAT ON ALL EXISTING OR COLD PLANED PAVEMENT SURFACES AT THE RATE OF 0.080 GAL/SY AND BETWEEN ALL COURSES OF BITUMINOUS CONCRETE PAVEMENT AT THE RATE OF 0.025 TO 0.040 GAL/SY. EMULSIFIED ASPHALT WILL PAID UNDER ITEM 404.65 EMULSIFIED ASPHALT OR ITEM 900.683 SPECIAL PROVISION (EMULSIFIED ASPHALT) (RS-1H OR CRS-1H).
10. IF ITEM 406.27 MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT ALTERNATE IS SELECTED, THE WEARING COURSE AND LEVELING COURSE SHALL BE TYPE IV MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT. ALL PG GRADED ASPHALT CEMENT USED IN THE MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT SHALL BE AS SPECIFIED IN SUBSECTION 406.03(b). IF ITEM 490.30 SUPERPAVE BITUMINOUS CONCRETE PAVEMENT ALTERNATE IS SELECTED, THE WEARING COURSE AND LEVELING COURSE SHALL BE TYPE IVS SUPERPAVE BITUMINOUS CONCRETE PAVEMENT. ALL PG GRADED ASPHALT CEMENT USED IN THE SUPERPAVE BITUMINOUS CONCRETE PAVEMENT SHALL BE AS SPECIFIED IN SUBSECTION 490.03(b).
11. FOR ESTIMATING PURPOSES 3/4" LEVELING COURSE HAS BEEN QUANTIFIED FOR THE PROJECT. THE LEVELING COURSE DEPTH IS MEANT TO CORRECT PROFILE DEFICIENCIES PRIOR TO THE WEARING COURSE BEING PLACED. THE ENGINEER WILL WORK WITH VTRANS PAVEMENT DESIGN STAFF TO DETERMINE THE ACTUAL LEVELING COURSE DEPTH.
12. RUBBER TIRE COMPACTION ROLLERS SHALL BE USED ON THE LEVELING COURSE TO MAXIMIZE COMPACTION ON THE UNEVEN SURFACES.
13. ITEM 406.28 AIR VOIDS PAY ADJUSTMENT (N.A.B.I.) PAY ITEM WILL BE REQUIRED FOR ITEM 406.27 MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT OR ITEM 490.31 AIR VOIDS PAY ADJUSTMENT (N.A.B.I.) PAY ITEM WILL BE REQUIRED FOR ITEM 490.30 SUPERPAVE BITUMINOUS CONCRETE PAVEMENT.
14. EDGES OF PAVEMENT SHALL INCLUDE A SAFETY EDGE. SEE SAFETY EDGE DETAILS (HIGHWAY SAFETY & DESIGN DETAIL HSD-400.01).
15. ALL SIDE ROADS ARE TO BE PAVED FOUR FEET FROM THE EDGE OF MAINLINE SHOULDER UNLESS OTHERWISE SPECIFIED IN THE PLANS OR AS DIRECTED BY THE ENGINEER.
16. ALL EDGES OF PAVEMENT SHALL BE BACKED UP TO FULL HEIGHT WITH AGGREGATE SHOULDER MATERIAL AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE PAID UNDER ITEM 900.680 SPECIAL PROVISION (AGGREGATE SHOULDERS, RAP WITH RAS).
17. ALL PAVED AND GRAVEL RESIDENTIAL, COMMERCIAL, FIELD AND WOOD DRIVES SHALL RECEIVE A TWO FEET PAVED APRON UNLESS OTHERWISE SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. ANY AND ALL REQUIRED EXCAVATION AND ASSOCIATED DRIVE GRADING IN DRIVE AREAS SHALL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE NEW BITUMINOUS SURFACE SHALL BE CONSTRUCTED AS DIRECTED BY THE ENGINEER AND WILL BE PAID FOR UNDER ITEM 900.675 SPECIAL PROVISION (HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES). BITUMINOUS CONCRETE MATERIAL PLACED BY MECHANICAL METHODS AT THESE LOCATIONS IS EXCLUDED. ALL OTHER BITUMINOUS MATERIALS PLACED WITHIN THE PROJECT LIMITS, WHETHER BY HAND OR MECHANICAL METHODS, WILL BE PAID UNDER ITEM 406.27 MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT OR ITEM 490.30 SUPERPAVE BITUMINOUS CONCRETE PAVEMENT AS APPLICABLE.
18. ASPHALTIC PLUG-TYPE JOINT SHALL BE INSTALLED AT THE FOLLOWING LOCATIONS. SEE BRIDGE JOINT ASPHALTIC PLUG (STRUCTURES DETAIL SD-516.10)
 - BRIDGE #2 - STATION 48+67 (MM 0.922) 28' ASPHALTIC JOINT
 - BRIDGE #2 - STATION 49+10 (MM 0.930) 28' ASPHALTIC JOINT
 - BRIDGE #3 - STATION 74+49 (MM 1.411) 21' ASPHALTIC JOINT
 - BRIDGE #3 - STATION 75+14 (MM 1.423) 21' ASPHALTIC JOINT
 - BRIDGE #4 - STATION 81+53 (MM 1.544) 28' ASPHALTIC JOINT
 - BRIDGE #4 - STATION 81+72 (MM 1.548) 28' ASPHALTIC JOINT
19. ESTIMATED QUANTITIES OF ITEM 608.15 POWER GRADER RENTAL, ITEM 608.25 ALL PURPOSE EXCAVATOR RENTAL, TYPE I AND ITEM 608.37 TRUCK RENTAL HAVE BEEN INCLUDED FOR REMOVING BUILT UP SAND, SOD ETC. ADJACENT TO THE SHOULDER, IN NON-GUARDRAIL AREAS, TO ALLOW FREE DRAINAGE OFF THE SHOULDER AS DIRECTED BY THE ENGINEER.
20. AN ESTIMATED QUANTITY OF ITEM 203.40 SHOULDER BERM REMOVAL HAS BEEN INCLUDED FOR THE REMOVAL OF BUILT UP SAND, SOD ETC. ADJACENT TO THE SHOULDER, IN RETAINED GUARDRAIL AREAS, TO ALLOW FREE DRAINAGE OFF THE SHOULDER.
21. A 3'-7" OF BACKING IS REQUIRED BEHIND THE FACE OF GUARDRAIL WITH SIX FOOT POSTS. PAYMENT WILL BE MADE UNDER ITEM 621.20 STEEL BEAM GUARDRAIL, GALVANIZED.
22. SIDEWALK RAMP DETECTABLE WARNING SURFACES SHALL BE TRUNCATED DOME DETECTABLE WARNING CAST IRON PLATES FROM THE VTRANS APPROVED PRODUCTS LIST.

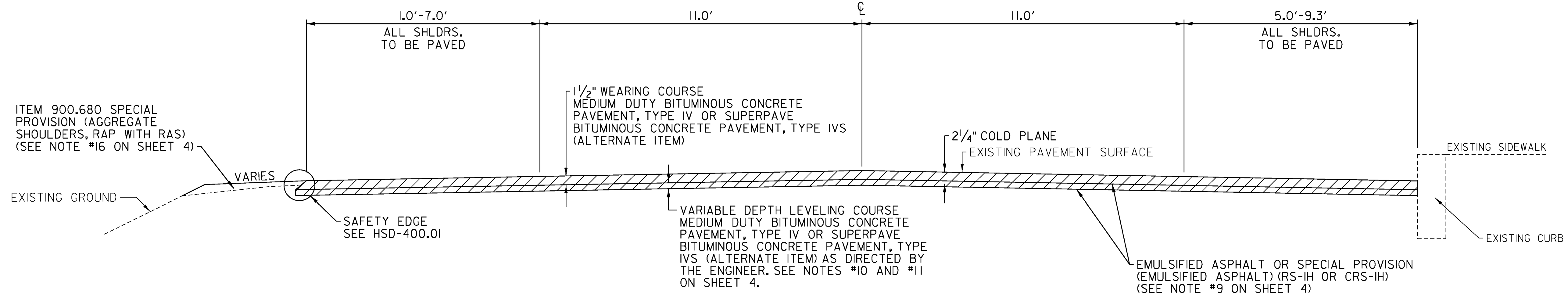
PROJECT NAME:	HARTLAND
PROJECT NUMBER:	STP FPAV(8)
FILE NAME: z16vl47frm.dgn	PLOT DATE: 5/12/2017
PROJECT LEADER: P. SHEDD	DRAWN BY: S. GOODWIN
DESIGNED BY: N. LEMAY	CHECKED BY: P. SHEDD
PROJECT NOTES	SHEET 4 OF 33

ALTERNATES ZA1 & ZA2



LEVEL AND OVERLAY TYPICAL SECTION

5+30 TO	5+39 RT	(9.3 FEET TO 9.5 FEET SHOULDER)
5+30 TO	7+31 LT	(3.5 FEET SHOULDER)
5+39 TO	7+31 RT	(3.5 FEET SHOULDER)
7+31 TO	16+75 LT/RT	(3 FEET SHOULDER)
16+75 TO	22+25 LT/RT	(2.5 FEET SHOULDER)
22+25 TO	27+95 LT/RT	(3 FEET SHOULDER)
27+95 TO	47+35 LT/RT	(2.5 FEET SHOULDER)
47+35 TO	50+35 LT/RT	(3 FEET SHOULDER)
50+35 TO	70+55 LT/RT	(2.5 FEET SHOULDER)
70+55 TO	71+29 LT/RT	(2 FEET SHOULDER)
71+29 TO	73+80 LT/RT	(1.5 FEET SHOULDER)
73+80 TO	74+46 LT/RT	(1 FEET SHOULDER)
74+46 TO	75+95 LT/RT	(0.5 FEET SHOULDER)
75+95 TO	77+76 LT/RT	(2.5 FEET SHOULDER)
77+76 TO	80+29 LT/RT	(3 FEET SHOULDER)
80+29 TO	81+41 LT/RT	(2.5 FEET SHOULDER)
81+41 TO	88+78 LT/RT	(3 FEET SHOULDER)
88+78 TO	98+09 LT/RT	(2 FEET SHOULDER)
98+09 TO	99+45 LT/RT	(1.5 FEET SHOULDER)
99+45 TO	174+10 LT/RT	(2.5 FEET SHOULDER)
174+10 TO	209+70 LT/RT	(3.5 FEET SHOULDER)
209+70 TO	214+15 LT/RT	(3 FEET SHOULDER)
214+15 TO	225+40 LT/RT	(2.5 FEET SHOULDER)
225+40 TO	406+85 LT/RT	(3 FEET SHOULDER)



COLD PLANE AND OVERLAY TYPICAL SECTION

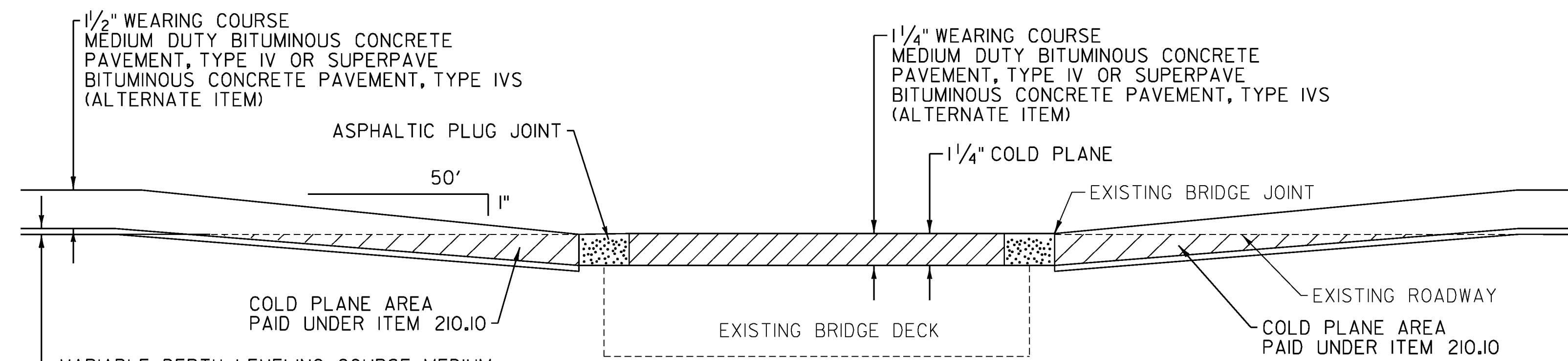
0+93 TO	5+30 RT	(5.0 FEET TO 9.3 FEET SHOULDER)
0+93 TO	5+30 LT	(1.0 FEET TO 7.0 FEET SHOULDER)
500+26 TO	501+52 RT	(3.0 FEET SHOULDER)
500+26 TO	501+52 LT	(10.0 FEET SHOULDER)

PROJECT NAME: HARTLAND
PROJECT NUMBER: STP FPAV(8)

FILE NAME: z16vl47frm.dgn
PROJECT LEADER: P. SHEDD
DESIGNED BY: N. LEMAY
TYPICAL SECTION SHEET 1

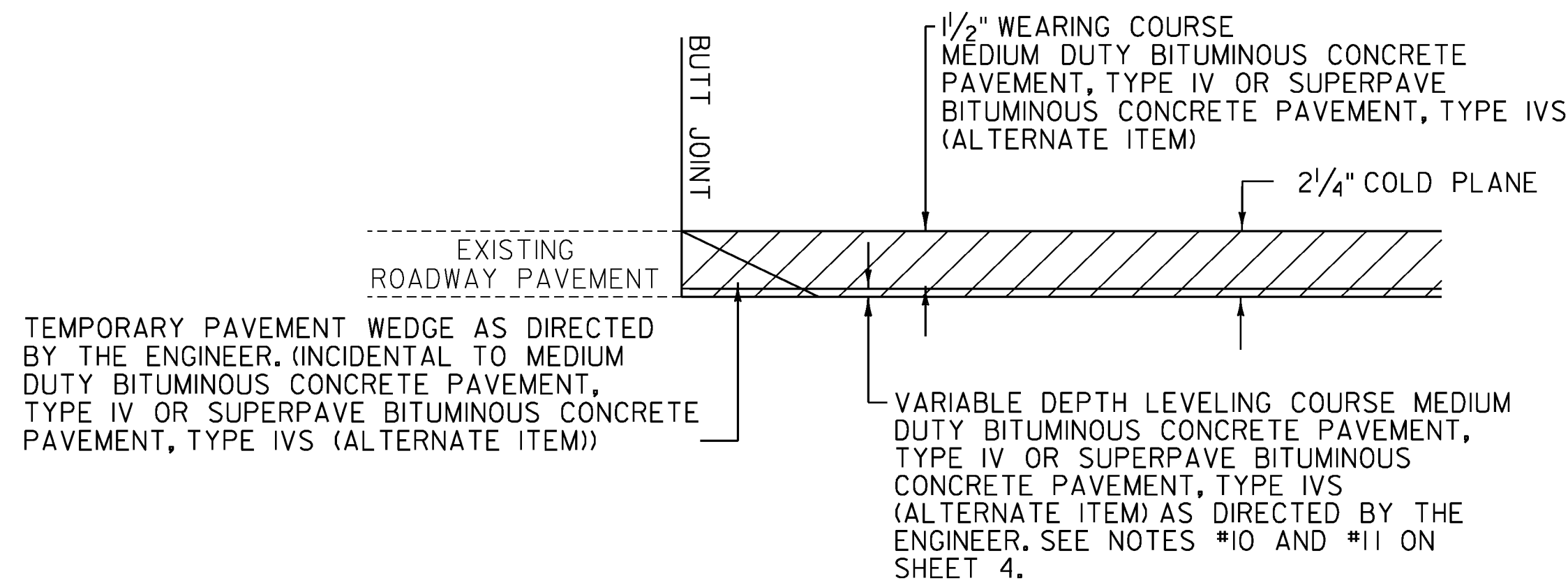
PLOT DATE: 4/14/2017
DRAWN BY: S. GOODWIN
CHECKED BY: P. SHEDD
SHEET 5 OF 33

NOT TO SCALE



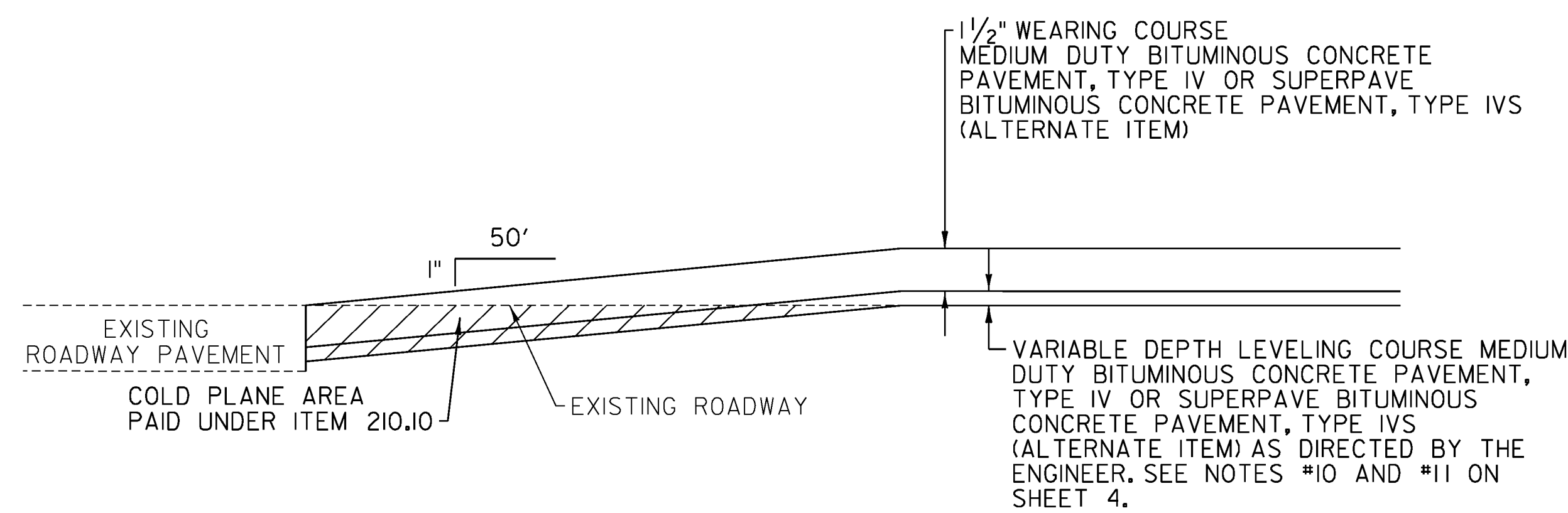
BRIDGE APPROACH DETAIL

47+42 TO 48+67	BRIDGE #2
49+10 TO 50+35	BRIDGE #2
73+21 TO 74+46	BRIDGE #3
75+16 TO 76+41	BRIDGE #3
80+16 TO 81+41	BRIDGE #4
81+83 TO 83+08	BRIDGE #4



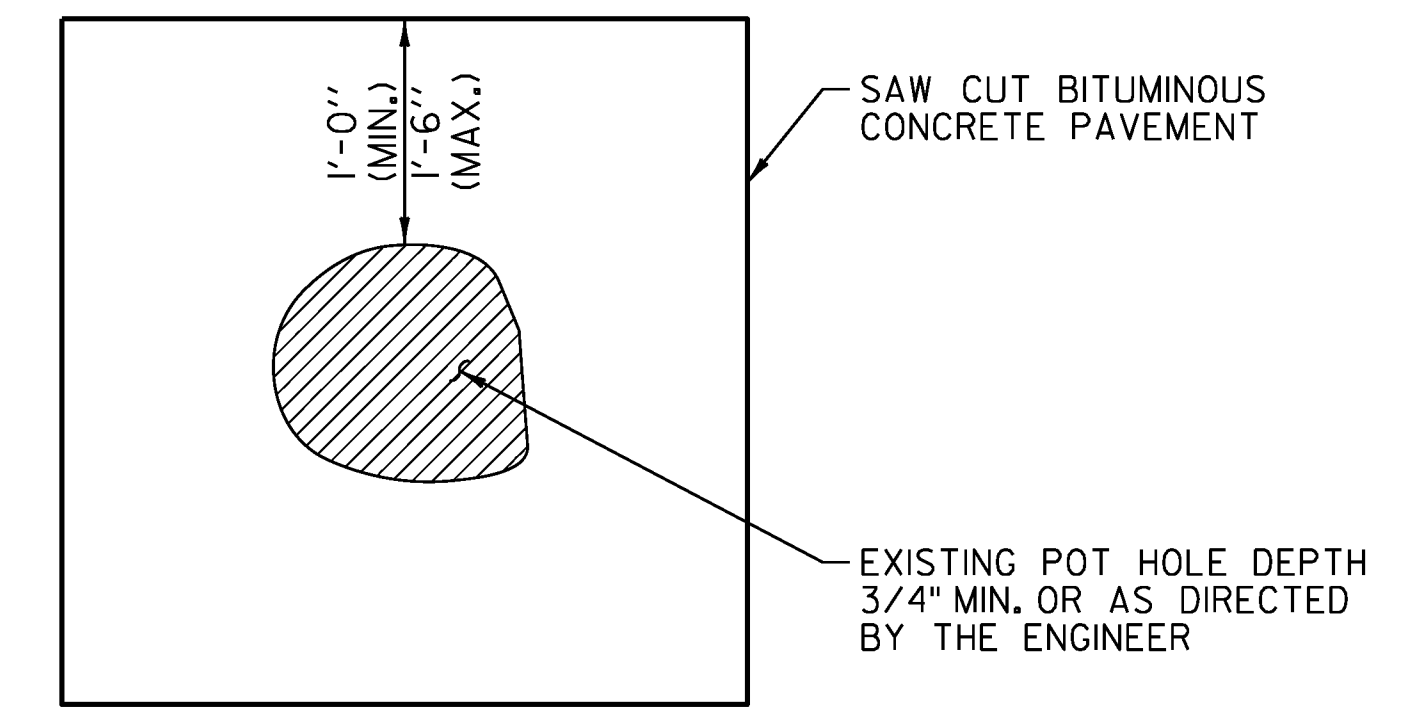
APPROACH AREA DETAIL - MAINLINE IN COLD PLANE AND OVERLAY AREAS

0+93 TO 5+30
500+26 TO 501+52



APPROACH DETAIL - MAINLINE

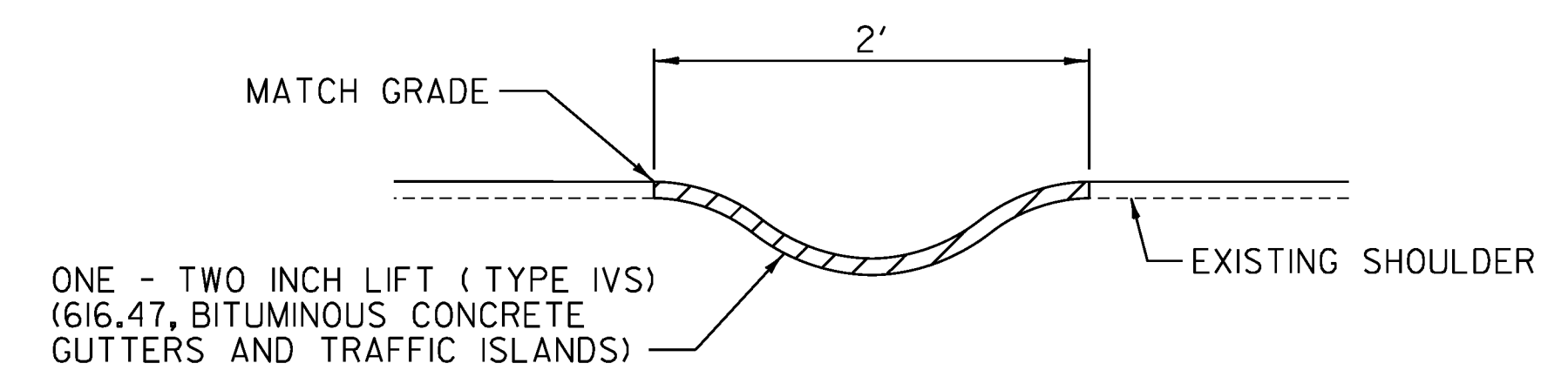
5+30 TO 6+55
405+60 TO 406+85



TYPICAL POT HOLE REPAIR

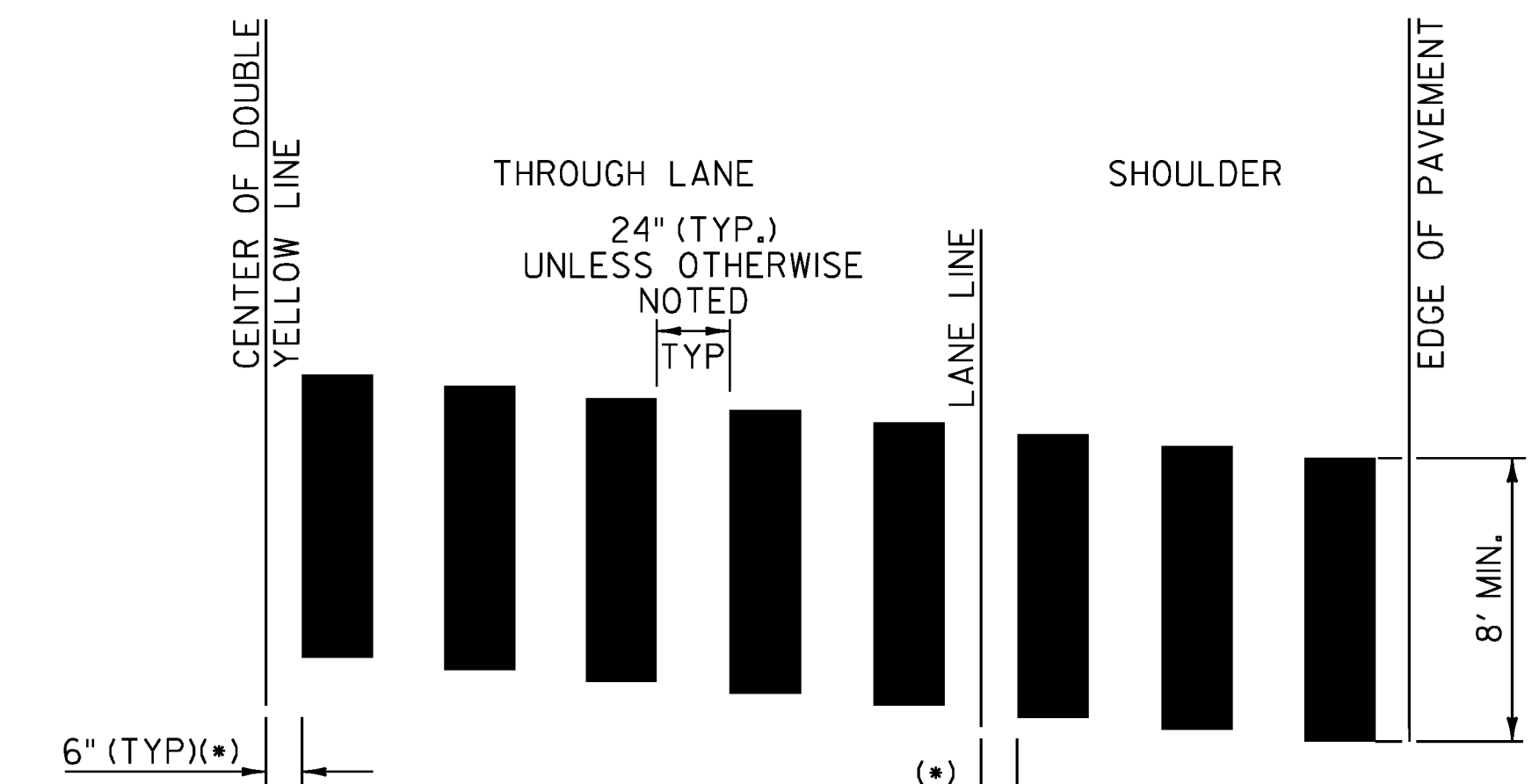
TYPICAL POT HOLE REPAIR NOTES

- ITEM 404.65 EMULSIFIED ASPHALT OR ITEM 900.683 SPECIAL PROVISION (EMULSIFIED ASPHALT) (RS-IH OR CRS-IH) OPTION ITEM SHALL BE APPLIED AT ALL PATCH INTERFACES AT A RATE OF 0.25 - 0.50 GAL/SY. EMULSIFIED ASPHALT SHALL MEET THE REQUIREMENTS OF SECTION 404 AND WILL BE CONSIDERED INCIDENTAL TO ITEM 900.680 SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION, TYPE I).
- ALL WORK ASSOCIATED WITH POT HOLE REPAIR WILL BE PAID UNDER ITEM 900.680 SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION, TYPE I).



BITUMINOUS CONCRETE GUTTERS AND TRAFFIC ISLANDS

50+60 TO 52+75 LT



- THIS DETAIL IS CONFIGURED FOR AN 11 FOOT LANE.
- MARK LIGHT STRING LINE ON PAVEMENT ACROSS ROADWAY (CURB TO CURB).
- ESTABLISH THE CENTER LINE OF THE ROADWAY (DOUBLE YELLOW LINE OR LANE LINE).
- BLOCKS ARE PARALLEL TO THE CENTERLINE (DOUBLE YELLOW LINE OR LANE LINE) (OFFSET BLOCKS VERTICALLY TO ACHIEVE REQUIRED SKEW).
- ALWAYS START MEASURING FROM THE CENTERLINE OR LANE LINE RIGHT, WITH THE FLOW OF TRAFFIC.
- PAINTED BLOCKS ARE 24 INCHES (TYPICAL).
- (*)7. ADJUST SPACING (12 INCHES-24 INCHES) TO AVOID WHEEL PATHS

BLOCK PATTERN CROSSWALK DETAIL

PROJECT NAME: HARTLAND	PLOT DATE: 4/14/2017
PROJECT NUMBER: STP FPAV(8)	DRAWN BY: S. GOODWIN
FILE NAME: z16vl47frm.dgn	DESIGNED BY: N. LEMAY
PROJECT LEADER: P. SHEDD	CHECKED BY: P. SHEDD
TYPICAL SECTION SHEET 2	SHEET 6 OF 33

NOT TO SCALE

QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES			
						ROADWAY	BRIDGE	FULL C.E.	ROADWAY (ALTERNATE ZA1)	ROADWAY (ALTERNATE ZA2)	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
						3					3		CY	COMMON EXCAVATION	203.15	0.4			COLD PLANING, BITUMINOUS PAVEMENT
						10220					10220		LF	SHOULDER BERM REMOVAL	203.40	EST.	2062 SY		BEGIN PROJECT
						1					1		CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22	-	389 SY		BRIDGE 2 APPROACH
						5620					5620		SY	COLD PLANING, BITUMINOUS PAVEMENT	210.10	44	134 SY		BRIDGE 2
						770					770		TON	SUBBASE OF CRUSHED GRAVEL, FINE GRADED	301.28	EST.	389 SY		BRIDGE 2 APPROACH
														BEGIN OPTION AA			333 SY		BRIDGE 3 APPROACH
						1260					1260		CWT	EMULSIFIED ASPHALT	404.65	10	163 SY		BRIDGE 3
						1260					1260		CWT	SPECIAL PROVISION (EMULSIFIED ASPHALT) (RS-1H OR CRS-1H)	900.683	10	319 SY		BRIDGE 3 APPROACH
														END OPTION AA			375 SY		BRIDGE 4 APPROACH
						1					1		LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	406.50	-	131 SY		BRIDGE 4
							155				155		LF	BRIDGE EXPANSION JOINT, ASPHALTIC PLUG	516.10	1	389 SY		BRIDGE 4 APPROACH
							75				75		CF	RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE	580.20	EST.	389 SY		END PROJECT
						5					5		EACH	REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I	604.412	EST.	503 SY		SLIP RAMP
						85					85		HR	POWER GRADER RENTAL	608.15	EST.			
						265					265		HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25	EST.			
						55					55		HR	POWER BROOM RENTAL, TYPE I	608.30	EST.			
						100					100		HR	POWER BROOM RENTAL, TYPE II	608.31	EST.			
						530					530		HR	TRUCK RENTAL	608.37	EST.			
						35					35		HR	LOADER RENTAL, TYPE I	608.40	EST.			
						255					255		LF	TREATED TIMBER CURB	616.35	5			
						6					6		TON	BITUMINOUS CONCRETE GUTTERS AND TRAFFIC ISLANDS	616.47	0.3			
						21					21		SY	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	618.10	0.1			
						35					35		SF	DETECTABLE WARNING SURFACE	618.30	3			
						1600					1600		LF	STEEL BEAM GUARDRAIL, GALVANIZED	621.20	20			
						330					330		EACH	STEEL BEAM GUARDRAIL DELINEATOR	621.218	EST.			
						40					40		EACH	ANCHOR FOR STEEL BEAM RAIL	621.60	-			
						20					20		EACH	REPLACE GUARDRAIL POST ASSEMBLY	621.76	1			
						12					12		EACH	REPLACE GUARDRAIL BEAM UNIT	621.77	-			
						3100					3100		LF	ADJUST HEIGHT OF GUARDRAIL	621.79	12.5			
						1510					1510		LF	REMOVAL AND DISPOSAL OF GUARDRAIL	621.80	10			
						770					770		HR	UNIFORMED TRAFFIC OFFICERS	630.10	EST.			
						3075					3075		HR	FLAGGERS	630.15	EST.			
								1			1		LS	TESTING EQUIPMENT, CONCRETE	631.16	-			
								1			1		LS	TESTING EQUIPMENT, BITUMINOUS	631.17	-			
						1					1		LS	MOBILIZATION/DEMOBILIZATION	635.11	-			
						1					1		LS	TRAFFIC CONTROL	641.10	-			
						4					4		EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.15	-			
						81000					81000		LF	4 INCH WHITE LINE, WATERBORNE PAINT	646.201	364			
						81000					81000		LF	4 INCH YELLOW LINE, WATERBORNE PAINT	646.2111	325			
						95					95		LF	24 INCH STOP BAR, WATERBORNE PAINT	646.261	1			

PROJECT NAME: HARTLAND
 PROJECT NUMBER: STP FPAV(8)
 FILE NAME: z16vl47frm.dgn PLOT DATE: 5/12/2017
 PROJECT LEADER: P. SHEDD DRAWN BY: S. GOODWIN
 DESIGNED BY: N. LEMAY CHECKED BY: P. SHEDD
 QUANTITY SHEET 1 SHEET 7 OF 33

QUANTITY SHEET 2

SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES			
						ROADWAY	BRIDGE	FULL C.E.	ROADWAY (ALTERNATE ZA1)	ROADWAY (ALTERNATE ZA2)	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
						46					46		EACH	LETTER OR SYMBOL, WATERBORNE PAINT	646.301	-			ALTERNATE ZA1
						60					60		LF	CROSSWALK MARKING, WATERBORNE PAINT	646.311	1	10943	TON	TYPE IV, WEARING COURSE
						81000					81000		LF	TEMPORARY 4 INCH WHITE LINE, PAINT	646.602	364	5473	TON	TYPE IV, LEVELING COURSE
						81000					81000		LF	TEMPORARY 4 INCH YELLOW LINE, PAINT	646.612	325	31	TON	TYPE IV, WEARING COURSE (BRIDGES)
						95					95		LF	TEMPORARY 24 INCH STOP BAR, PAINT	646.682	1	16447	TON	SUBTOTAL
						46					46		EACH	TEMPORARY LETTER OR SYMBOL, PAINT	646.692	-	103	TON	ROUNDING
						60					60		LF	TEMPORARY CROSSWALK MARKING, PAINT	646.702	1	16550	TON	TOTAL
						16400					16400		EACH	LINE STRIPING TARGETS	646.76	159			
						65					65		EACH	DELINEATOR WITH STEEL POST	676.10	EST.			
						65					65		EACH	REMOVAL OF EXISTING DELINEATOR	676.12	EST.			
						1					1		LU	PRICE ADJUSTMENT, FUEL (N.A.B.I.)	690.50	-			
						1					1		LU	SPECIAL PROVISION (RAS BLEND PAY ADJUSTMENT) (N.A.B.I.)	900.650	-			
						1260					1260		SY	SPECIAL PROVISION (HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES)	900.675	16			
						2870					2870		TON	SPECIAL PROVISION (AGGREGATE SHOULDERS, RAP WITH RAS)	900.680	28			
						50					50		TON	SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION, TYPE I)	900.680	EST.			
														BEGIN ALTERNATE ZA1					
									16550		16550		TON	MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT (PG 58-34)	406.27	-			
									1		1		LU	AIR VOIDS PAY ADJUSTMENT (N.A.B.I.)	406.28	-			
														END ALTERNATE ZA1					
														BEGIN ALTERNATE ZA2					
									16550		16550		TON	SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (PG 58-34)	490.30	-			
									1		1		LU	AIR VOIDS PAY ADJUSTMENT (N.A.B.I.)	490.31	-			
														END ALTERNATE ZA2					

PROJECT NAME:	HARTLAND
PROJECT NUMBER:	STP FPAV(8)
FILE NAME:	z16vl47frm.dgn
PROJECT LEADER:	P. SHEDD
DESIGNED BY:	N. LEMAY
QUANTITY SHEET 2	
PLOT DATE:	5/12/2017
DRAWN BY:	S. GOODWIN
CHECKED BY:	P. SHEDD
SHEET	8 OF 33

GUARDRAIL REPLACEMENT GUIDELINES

DAMAGE TYPE	REPAIR THRESHOLD	RELATIVE PRIORITY	MEASUREMENT
POST AND RAIL DEFLECTION	ONE OR MORE OF THE FOLLOWING THRESHOLDS: <ul style="list-style-type: none"> MORE THAN 9 IN. OF LATERAL DEFLECTION ANYWHERE OVER A 25 FT LENGTH OF RAIL TOP OF RAIL HEIGHT 2 OR MORE IN. LOWER THAN ORIGINAL TOP OF RAIL HEIGHT 	HIGH	
	6 - 9 IN. LATERAL DEFLECTION ANYWHERE OVER A 25-FT LENGTH OF RAIL	MEDIUM	
	LESS THAN 6 IN. OF LATERAL DEFLECTION OVER A 25-FT LENGTH OR RAIL	LOW	
(WEAK POST W-BEAM SHOWN ONLY FOR CLARITY. EACH MEASUREMENT TAKEN AT THE RAIL'S MIDDLE FOLD)			
RAIL DEFLECTION ONLY	6 - 9 IN. OF LATERAL DEFLECTION BETWEEN ANY TWO ADJACENT POSTS. NOTE: FOR DEFLECTION OVER 9 IN., USE POST/RAIL DEFLECTION GUIDELINES	MEDIUM	
	LESS THAN 6 IN. OF LATERAL DEFLECTION BETWEEN ANY TWO ADJACENT POSTS	LOW	
RAIL FLATTENING	ONE OR MORE OF THE FOLLOWING THRESHOLDS: <ul style="list-style-type: none"> RAIL CROSS SECTION HEIGHT MORE THAN 17 IN. (SUCH AS MAY OCCUR IF RAIL IS FLATTENED) RAIL CROSS SECTION HEIGHT LESS THAN 9 IN. (SUCH AS A DENT TO TOP EDGE) WHEN GUARDRAIL IS TO BE REMOVED AND RESET, PANELS WITH A RAIL CROSS SECTION HEIGHT OF 15 INCHES OR GREATER SHALL BE REPLACED 	MEDIUM	
	RAIL CROSS SECTION HEIGHT BETWEEN 9 AND 17 IN.	LOW	
POSTS SEPARATED FROM RAIL	<ul style="list-style-type: none"> 2 OR MORE POSTS WITH BLOCKOUT ATTACHED WITH POST/RAIL SEPARATION LESS THAN 3 IN. 1 OR MORE POSTS WITH POST/RAIL SEPARATION WHICH EXCEEDS 3 IN. 	MEDIUM	
	<ul style="list-style-type: none"> 1 POST, WITH BLOCKOUT ATTACHED, WITH POST/RAIL SEPARATION LESS THAN 3 IN. 	LOW	NOTE: 1. IF THE BLOCKOUT IS NOT FIRMLY ATTACHED TO THE POST, USE THE MISSING BLOCKOUT GUIDELINES. 2. DAMAGE SHOULD ALSO BE EVALUATED AGAINST POST/RAIL DEFLECTION GUIDELINES.

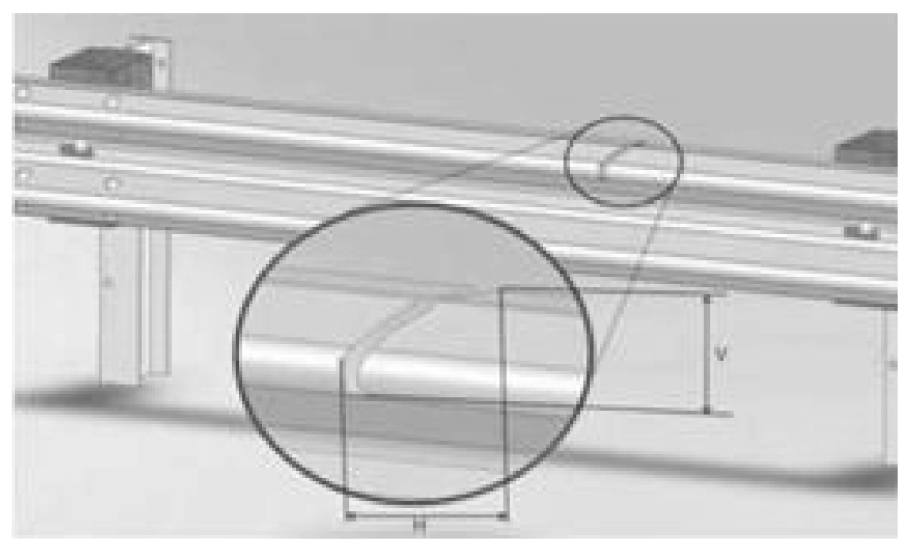
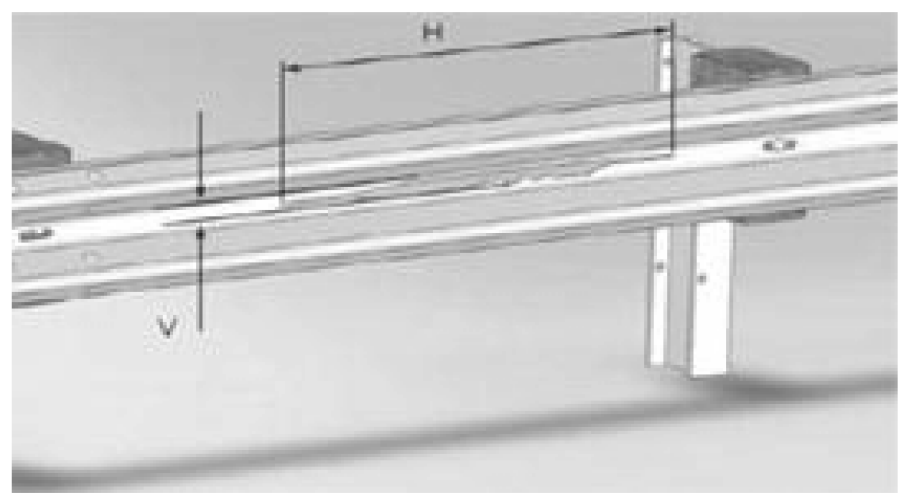
DAMAGE TYPE	REPAIR THRESHOLD	RELATIVE PRIORITY	MEASUREMENT
MISSING/BROKEN POSTS	1 OR MORE POSTS <ul style="list-style-type: none"> MISSING CRACKED ACROSS THE GRAIN BROKEN ROTTED WITH METAL TEARS 	HIGH	
MISSING BLOCKOUT	ANY BLOCKOUTS <ul style="list-style-type: none"> MISSING CRACKED ACROSS THE GRAIN CRACKED FROM TOP OR BOTTOM OF BLOCKOUT THROUGH POST BOLT HOLE ROTTED 	MEDIUM	
TWISTED BLOCKOUTS	ANY MISALIGNED BLOCKOUTS, TOP EDGE OF BLOCK 6 IN. OR MORE FROM BOTTOM EDGE NOTE: REPAIRS OF TWISTED BLOCKOUT ARE RELATIVELY QUICK AND INEXPENSIVE	LOW	
DAMAGE AT A RAIL SPLICE	MORE THAN 1 SPLICE BOLT: <ul style="list-style-type: none"> MISSING DAMAGED VISIBLY MISSING ANY UNDERLYING RAIL TORN THROUGH RAIL 	HIGH	
	1 SPLICE BOLT: <ul style="list-style-type: none"> MISSING DAMAGED VISIBLY MISSING ANY UNDERLYING RAIL TORN THROUGH RAIL 	MEDIUM	
NON-MANUFACTURED HOLE (SUCH AS CRASH-INDUCED HOLES, LUG-NUT DAMAGE, OR HOLES RUSTED-THROUGH THE RAIL)	<ul style="list-style-type: none"> MORE THAN 2 HOLES LESS THAN 1IN. HEIGHT IN A 12.5-FT LENGTH OF RAIL ANY HOLES GREATER THAN 1IN. IN HEIGHT ANY HOLE WHICH INTERSECTS EITHER THE TOP OR BOTTOM EDGE OF THE RAIL 	HIGH	
	1- 2 HOLES LESS THAN 1IN. IN HEIGHT IN A 12.5-FT LENGTH OF RAIL	MEDIUM	


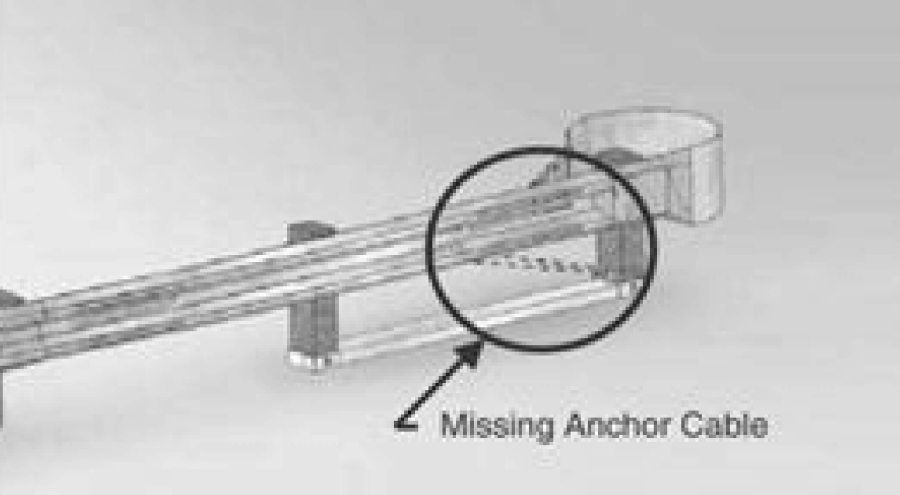
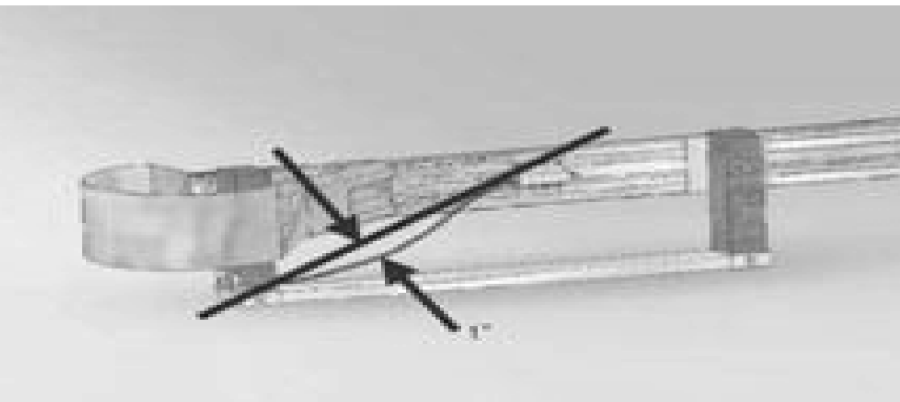
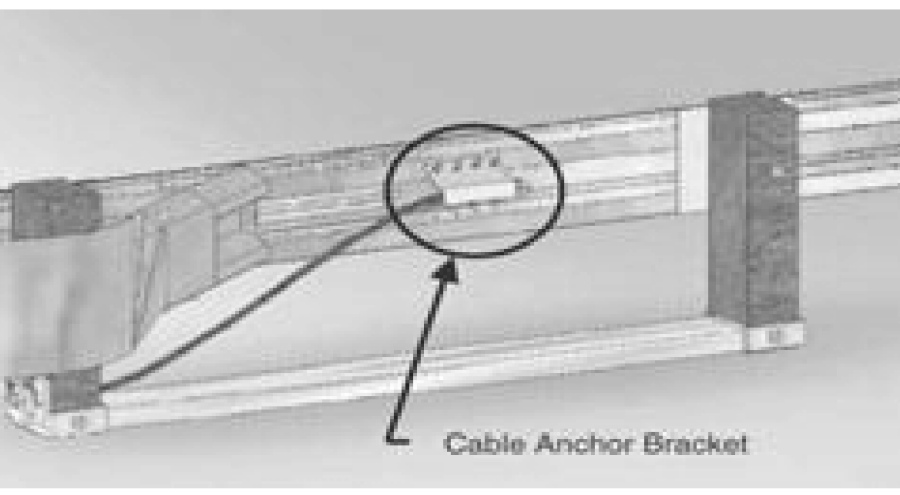
NOTES:

- THESE ARE GUIDELINES FOR THE EVALUATION OF EXISTING GUARDRAIL. THESE ARE GUIDELINES ONLY AND THE CONTRACTOR SHALL REPLACE GUARDRAIL AS DIRECTED BY THE ENGINEER.
- GUIDELINES ARE FROM THE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 656, "CRITERIA FOR RESTORATION OF LONGITUDINAL BARRIERS", COPYRIGHT 2010.

PROJECT NAME:	HARTLAND
PROJECT NUMBER:	STP FPAV(8)
FILE NAME:	z16vl47frm.dgn
PROJECT LEADER:	P. SHEDD
DESIGNED BY:	N. LEMAY
GUARDRAIL REPLACEMENT DETAIL SHEET 1	
PLOT DATE:	4/14/2017
DRAWN BY:	S. GOODWIN
CHECKED BY:	P. SHEDD
SHEET	13 OF 33


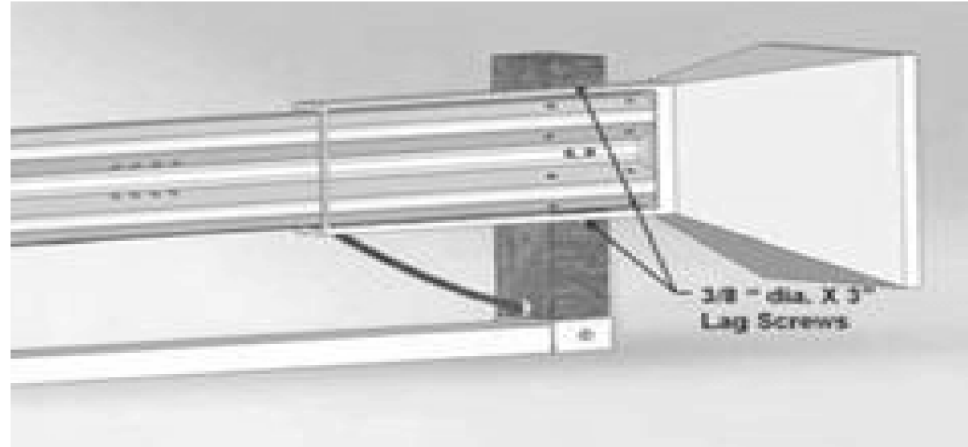
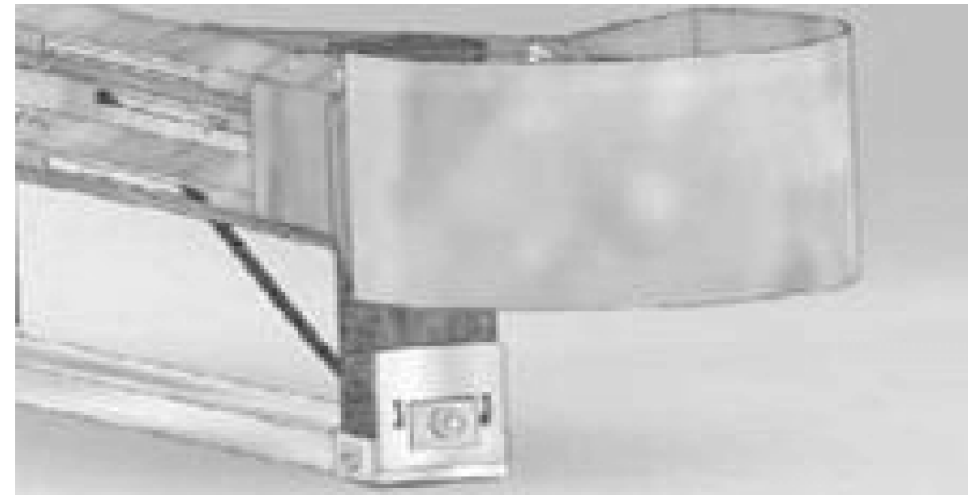
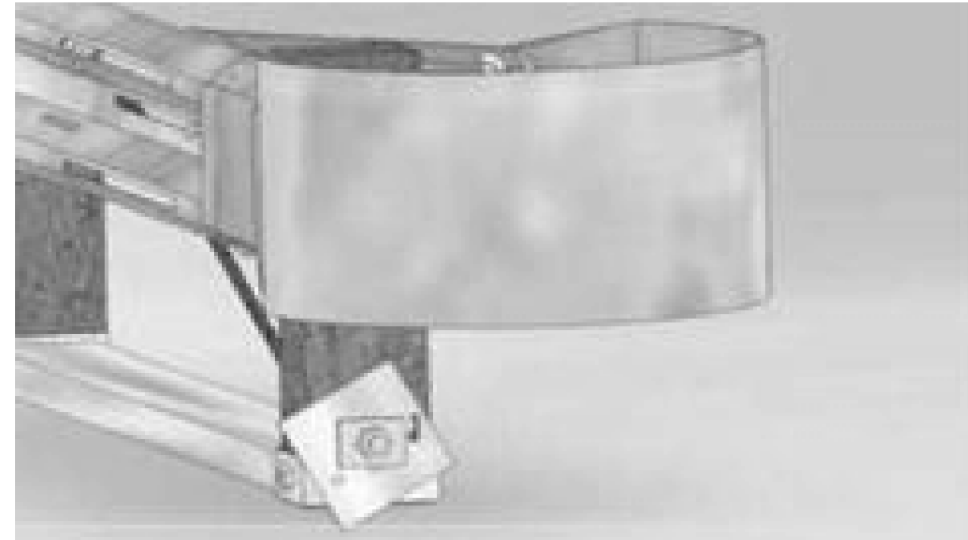
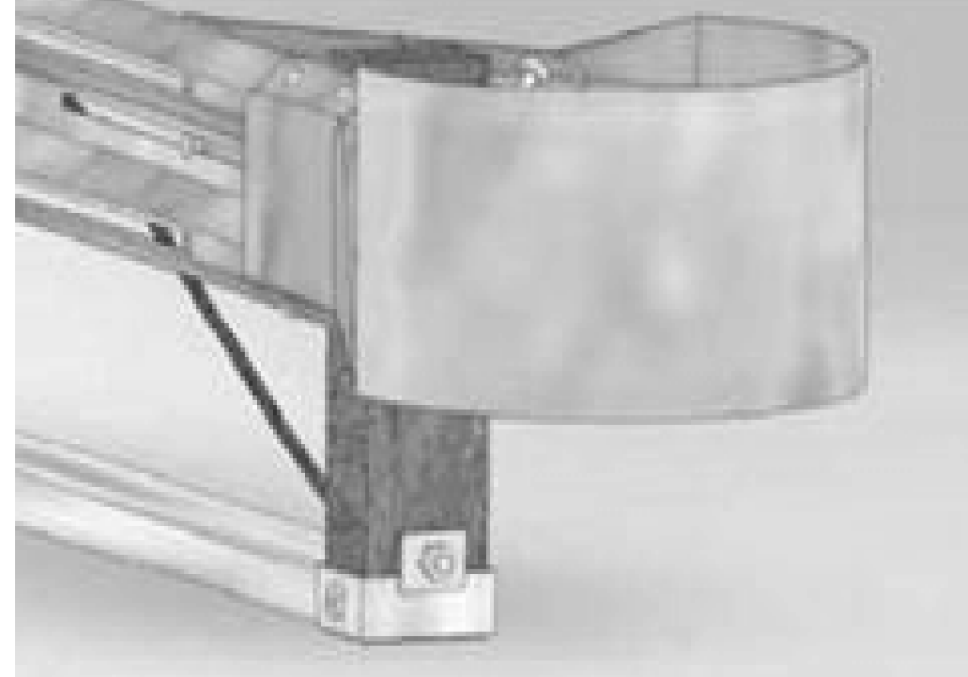
GUARDRAIL REPLACEMENT GUIDELINES

DAMAGE TYPE	REPAIR THRESHOLD	RELATIVE PRIORITY	MEASUREMENT
VERTICAL TEAR	ANY LENGTH VERTICAL (TRANSVERSE) TEAR	HIGH	
HORIZONTAL TEAR	HORIZONTAL (LONGITUDINAL) GREATER THAN 12 IN. LONG AND GREATER THAN 0.5 IN. WIDE NOTE: FOR HORIZONTAL TEARS LESS THAN 12 IN. IN LENGTH OR LESS THAN 0.5 IN. IN HEIGHT, USE THE NON-MANUFACTURED HOLES GUIDELINES	MEDIUM	

DAMAGE	REPAIR THRESHOLD	RELATIVE PRIORITY	MEASUREMENT
DAMAGED END POST	NOT FUNCTIONAL (SHEARED, ROTTED CRACKED ACROSS THE GRAIN)	HIGH	
ANCHOR CABLE	MISSING	HIGH	
ANCHOR CABLE	LOOSE - MORE THAN 1IN. OF MOVEMENT WHEN PUSHED DOWN BY HAND	MEDIUM	
CABLE ANCHOR BRACKET	LOOSE OR NOT FIRMLY SEATED IN RAIL	MEDIUM	

NOTES:

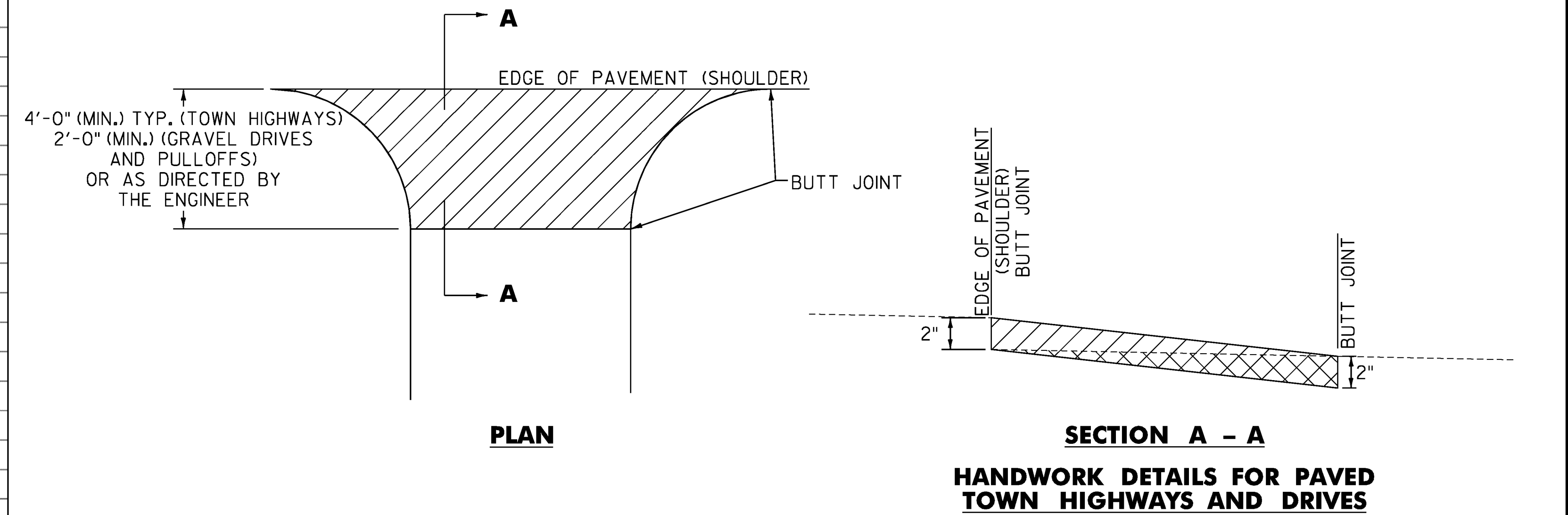
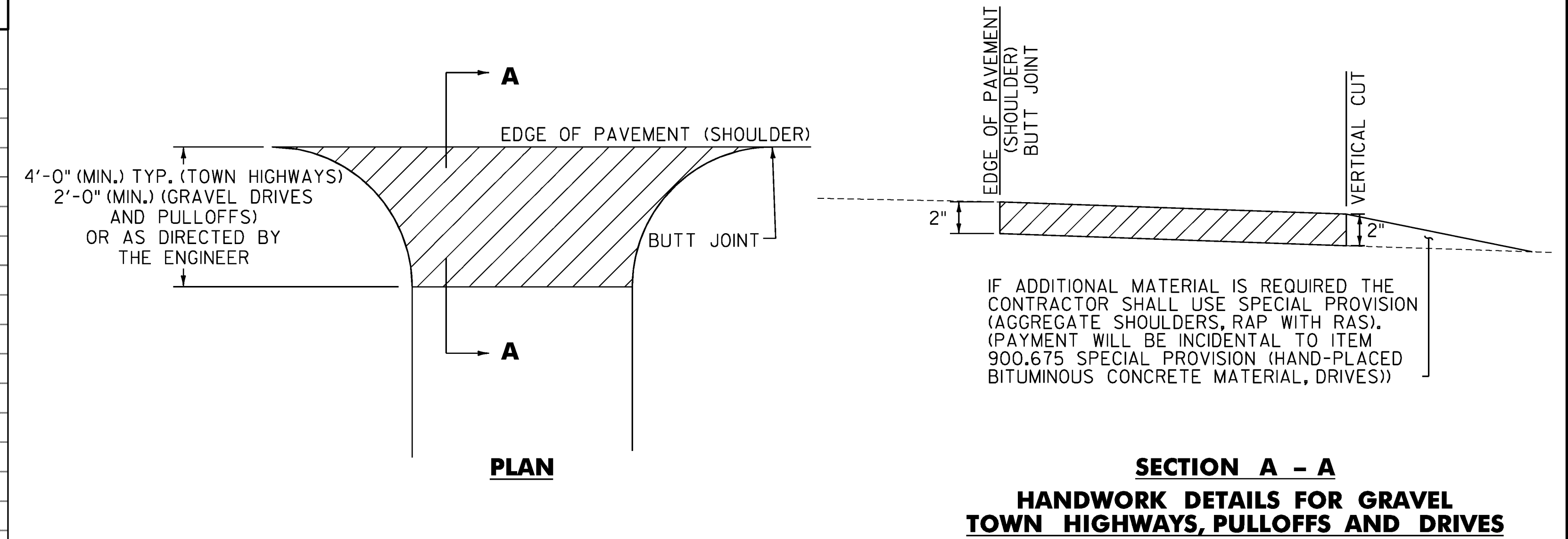
1. THESE ARE GUIDELINES FOR THE EVALUATION OF EXISTING GUARDRAIL. THESE ARE GUIDELINES ONLY AND THE CONTRACTOR SHALL REPLACE GUARDRAIL AS DIRECTED BY THE ENGINEER.
2. GUIDELINES ARE FROM THE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 656, "CRITERIA FOR RESTORATION OF LONGITUDINAL BARRIERS", COPYRIGHT 2010.

DAMAGE	REPAIR THRESHOLD	RELATIVE PRIORITY	MEASUREMENT
STUB HEIGHT	HEIGHT WHICH EXCEEDS 4 IN.	MEDIUM	
LAG SCREWS (ENERGY ABSORBING TERMINALS ONLY)	MISSING OR FAILED LAG SCREWS	HIGH	
BEARING PLATE	LOOSE OR MISALIGNED	MEDIUM	 (CORRECT BEARING PLATE)
			 (MISALIGNED BEARING PLATE)
			 (MISSING BEARING PLATE)

PROJECT NAME: HARTLAND	PLOT DATE: 4/14/2017
PROJECT NUMBER: STP FPAV(8)	DRAWN BY: S. GOODWIN
FILE NAME: z16vl47frm.dgn	DESIGNED BY: N. LEMAY
PROJECT LEADER: P. SHEDD	CHECKED BY: P. SHEDD
GUARDRAIL REPLACEMENT DETAIL SHEET 2	SHEET 14 OF 33

LOCATION OF DRIVES

STATION	POSTION	QUANTITY (SY)	STATION	POSTION	QUANTITY (SY)	STATION	POSTION	QUANTITY (SY)
DRIVES								
1+61	LT	8	89+06	LT	4	302+39	RT	3
3+81	LT	7	89+96	RT	3	310+02	RT	11
4+30	LT	4	96+45	LT	12	311+35	LT	5
5+37	LT	4	102+30	RT	3	312+05	RT	4
5+74	RT	7	103+42	LT	41	321+76	LT	3
6+50	LT	6	126+96	LT	4	322+98	LT	4
7+33	RT	18	131+86	LT	10	325+75	LT	7
8+26	LT	2	135+09	RT	4	328+81	RT	6
8+46	RT	9	135+57	LT	3	330+24	RT	6
9+20	LT	4	142+08	LT	10	332+89	LT	7
10+03	LT	2	147+48	RT	22	333+77	RT	4
10+03	RT	7	149+05	LT	3	338+30	RT	4
10+34	LT	2	149+52	LT	6	340+67	LT	4
11+04	RT	6	153+03	LT	8	341+86	LT	6
11+41	LT	3	155+55	RT	4	342+54	RT	3
12+33	RT	5	158+93	RT	3	342+73	LT	5
12+66	LT	2	160+11	LT	3	351+80	LT	3
12+66	RT	5	161+90	RT	5	355+58	RT	2
13+26	LT	3	163+89	LT	7	356+67	LT	4
13+99	RT	4	165+48	LT	3	360+20	LT	8
14+28	RT	4	166+88	LT	2	362+95	RT	65
14+68	RT	3	168+36	LT	3	366+06	RT	3
14+90	RT	4	189+95	LT	5	366+32	LT	4
17+66	LT	5	190+28	RT	28	366+50	RT	4
26+68	RT	8	196+04	LT	4	368+49	RT	5
26+94	LT	3	214+04	LT	6	369+67	LT	3
28+73	LT	34	222+50	RT	3	370+62	RT	4
33+62	RT	3	225+49	LT	4	371+75	RT	2
36+28	LT	2	227+47	LT	4	378+94	LT	4
38+67	LT	4	229+69	LT	4	380+37	RT	3
40+72	RT	3	233+84	RT	4	385+51	RT	3
41+35	LT	3	233+87	LT	36	DRIVES SUBTOTAL	991	
42+34	RT	4	234+60	RT	4	TOWN HIGHWAYS		
42+70	LT	5	237+76	LT	6	17+30	RT	29
42+70	RT	5	238+50	LT	5	47+61	RT	23
43+29	RT	3	240+48	RT	14	78+00	LT	45
45+30	LT	5	244+35	LT	4	78+00	RT	22
46+07	LT	3	244+88	LT	3	174+48	RT	34
47+92	LT	5	245+21	LT	5	240+15	LT	23
50+49	LT	5	247+08	RT	9	261+77	LT	23
52+41	RT	3	247+35	LT	4	296+64	LT	27
52+91	RT	3	255+84	RT	5	316+70	RT	27
58+77	LT	5	257+34	LT	4	TOWN HIGHWAYS SUBTOTAL	253	
59+86	RT	2	266+53	RT	3			
67+79	RT	34	269+11	LT	5			
70+92	RT	16	270+77	RT	2			
71+99	RT	3	274+44	LT	3			
72+77	RT	18	280+51	RT	9			
73+91	LT	5	281+05	LT	5			
74+09	RT	6	283+56	RT	4			
76+17	RT	6	284+65	RT	5			
76+44	LT	3	288+00	LT	35			
78+86	RT	3	289+26	LT	5			
80+07	LT	2	291+59	RT	5			
80+23	RT	3	292+20	LT	6			
81+32	LT	7	294+23	RT	6			
81+99	RT	2	295+69	LT	23			
88+88	RT	4	297+16	RT	5			
			300+75	RT	3			
			DRIVES SUBTOTAL		991	TOWN HIGHWAYS SUBTOTAL		253
			TOWN HIGHWAYS SUBTOTAL		253	PROJECT SUBTOTAL		1244
			ROUNDING		16			
			PROJECT TOTAL		1260			



NOTES

- PAVING LIFT NOT TO EXCEED TWO INCHES.
- THE COST OF PLACING SUBBASE MATERIAL, CLEANING EXISTING PAVED SURFACES, INCLUDING POWER EQUIPMENT, AND FOR FILLING JOINTS, CRACKS AND HOLES AT LEAST 24 HOURS BEFORE PAVING, WILL NOT BE PAID DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO ITEM 900.675, SPECIAL PROVISION (HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES).
- EXCAVATION NEEDED TO ACHIEVE PROPER DRIVE AND PULLOFF SLOPES WILL NOT BE PAID DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO ITEM 900.675, SPECIAL PROVISION (HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES).
- COLD PLANING FOR DRIVES WILL MEET THE REQUIREMENTS OF SECTION 210 AS APPLICABLE. PAYMENT FOR COLD PLANED AREAS REQUIRED FOR DRIVES WILL BE CONSIDERED INCIDENTAL TO ITEM 900.675 SPECIAL PROVISION (HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES).

LEGEND

- ITEM 900.675 - SPECIAL PROVISION (HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES)
- COLD PLANE AREA

PROJECT NAME:	HARTLAND
PROJECT NUMBER:	STP FPAV(8)
FILE NAME: z16vl47frm.dgn	PLOT DATE: 4/14/2017
PROJECT LEADER: P. SHEDD	DRAWN BY: S. GOODWIN
DESIGNED BY: N. LEMAY	CHECKED BY: P. SHEDD
HANDWORK DETAIL SHEET	SHEET 15 OF 33

NOT TO SCALE

TEMPORARY 4 INCH WHITE LINE, PAINT
 4 INCH WHITE LINE, WATERBORNE PAINT
 0+77 TO 2+04 RT (SOLID)
 0+93 TO 3+34 LT (SOLID)
 3+23 TO 3+34 RT (SOLID)
 3+42 TO 3+60 LT (SOLID)
 3+42 TO 3+60 RT (SOLID)
 499+92 TO 501+64 RT (SOLID)
 500+34 TO 501+51 LT (SOLID)

TEMPORARY 4 INCH YELLOW LINE, PAINT
 4 INCH YELLOW LINE, WATERBORNE PAINT
 0+93 TO 1+99 LT & RT (SOLID)
 3+03 TO 3+34 LT & RT (SOLID)
 3+42 TO 3+60 LT & RT (SOLID)
 500+70 TO 501+43 LT & RT (SOLID)

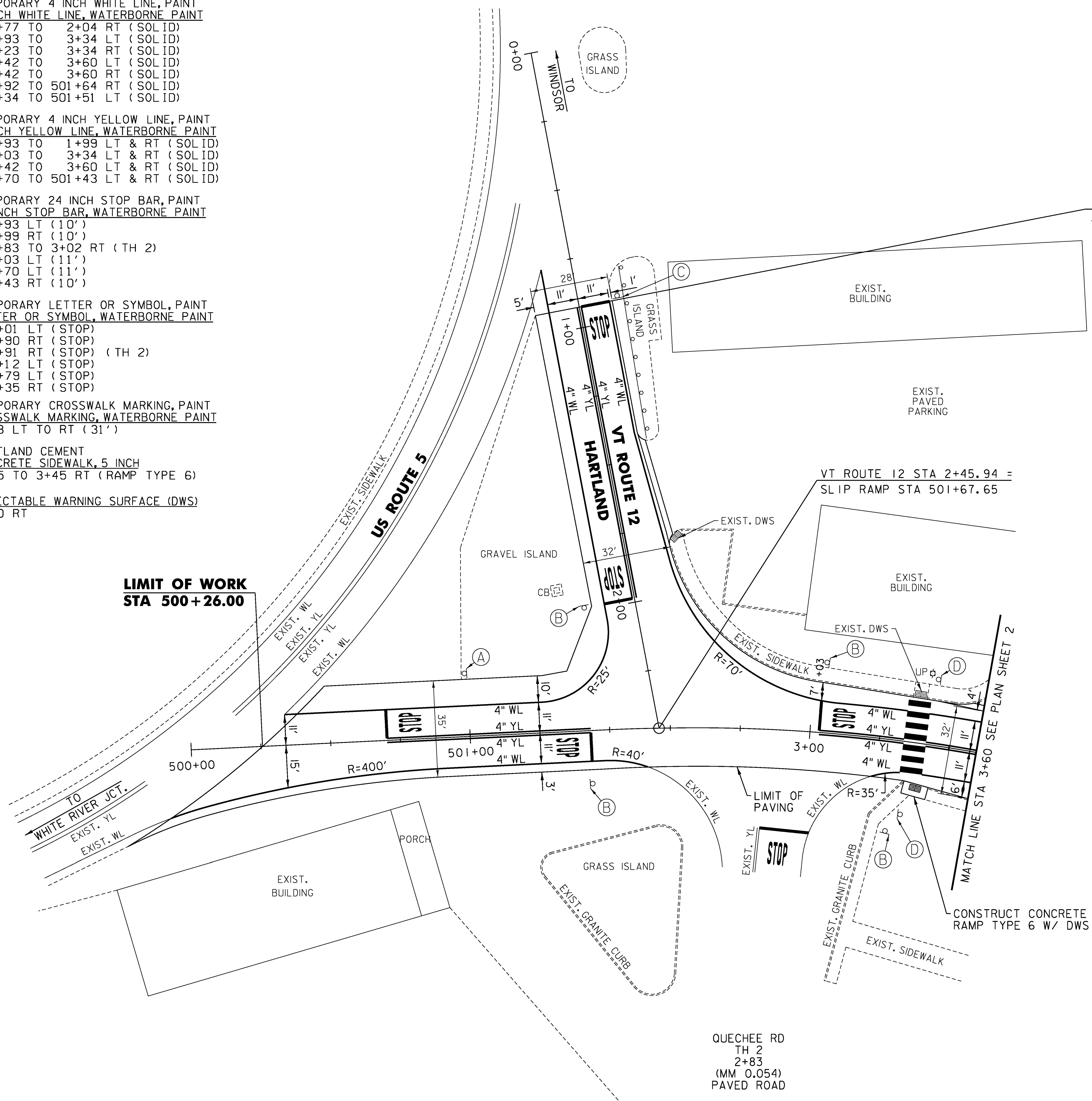
TEMPORARY 24 INCH STOP BAR, PAINT
 24 INCH STOP BAR, WATERBORNE PAINT
 0+93 LT (10')
 1+99 RT (10')
 2+83 TO 3+02 RT (TH 2)
 3+03 LT (11')
 500+70 LT (11')
 501+43 RT (10')

TEMPORARY LETTER OR SYMBOL, PAINT
 LETTER OR SYMBOL, WATERBORNE PAINT
 1+01 LT (STOP)
 1+90 RT (STOP)
 2+91 RT (STOP) (TH 2)
 3+12 LT (STOP)
 500+79 LT (STOP)
 501+35 RT (STOP)

TEMPORARY CROSSWALK MARKING, PAINT
 CROSSWALK MARKING, WATERBORNE PAINT
 3+38 LT TO RT (31')

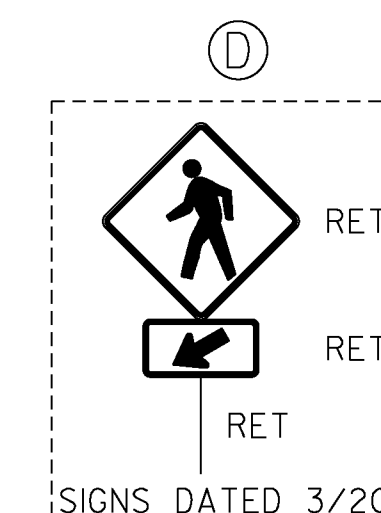
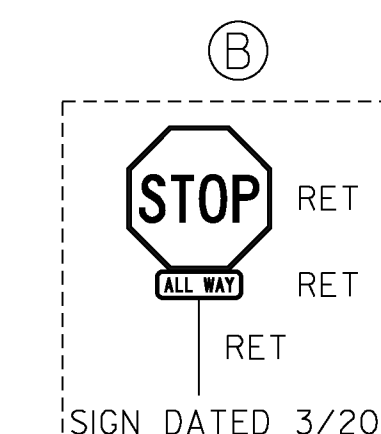
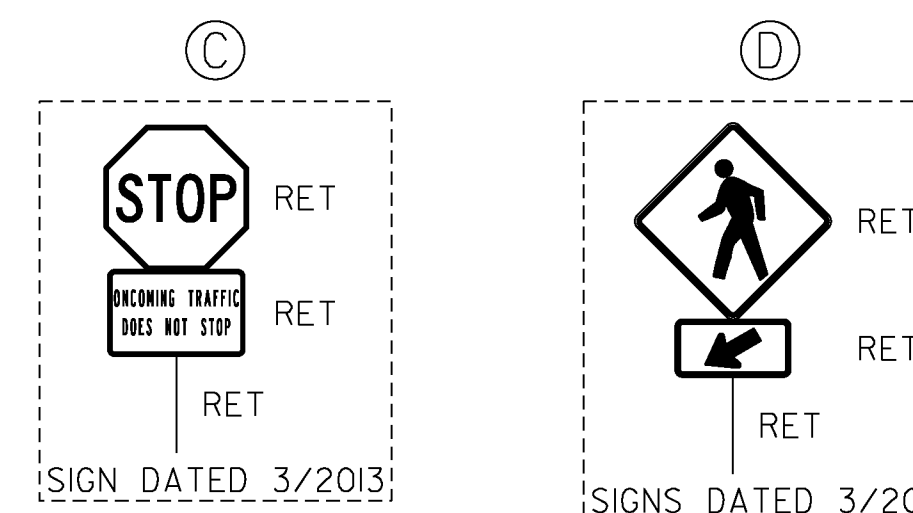
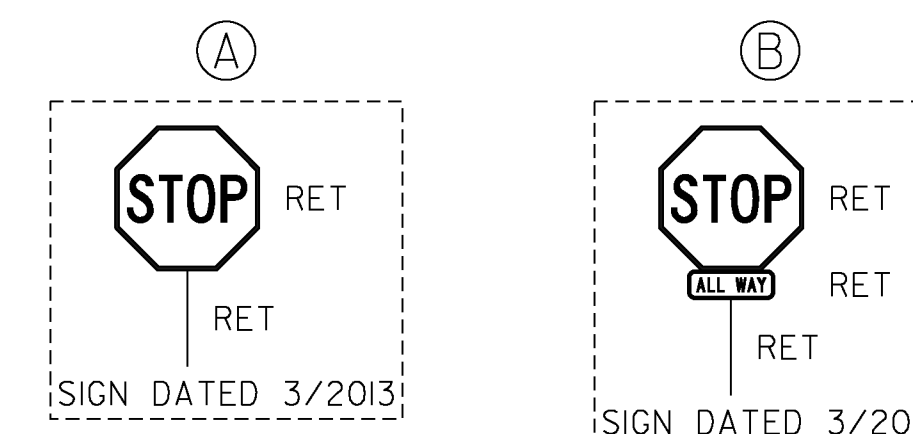
PORTLAND CEMENT
 CONCRETE SIDEWALK, 5 INCH
 3+35 TO 3+45 RT (RAMP TYPE 6)

DETECTABLE WARNING SURFACE (DWS)
 3+40 RT



BEGIN HARTLAND STP FPAV(8)
STA 0+93.00 (MM 0.018)
BEGIN COLD PLANE AND OVERLAY

LIMIT OF WORK
STA 500+26.00



QUECHEE RD
 TH 2
 2+83
 (MM 0.054)
 PAVED ROAD

NOT TO SCALE

PROJECT NAME: HARTLAND
 PROJECT NUMBER: STP FPAV(8)

FILE NAME: z16vl47detall.dgn
 PROJECT LEADER: P. SHEDD
 DESIGNED BY: S. GOODWIN
 PLAN SHEET 1

PLOT DATE: 4/14/2017
 DRAWN BY: S. GOODWIN
 CHECKED BY: N. LEMAY
 SHEET 16 OF 33

TEMPORARY 4 INCH WHITE LINE, PAINT
 4 INCH WHITE LINE, WATERBORNE PAINT
 (ALL LINES WILL INCLUDE EDGE LINE
 BREAKS AND RADII FOR SIDE ROADS)
 3+60 TO 30+00 LT & RT (SOLID)

TEMPORARY 4 INCH YELLOW LINE, PAINT
 4 INCH YELLOW LINE, WATERBORNE PAINT
 (ALL LINES WILL INCLUDE \square
 BREAKS FOR SIDE ROADS)
 3+60 TO 30+00 LT & RT (SOLID)

TEMPORARY CROSSWALK MARKING, PAINT
 CROSSWALK MARKING, WATERBORNE PAINT
 9+57 LT TO RT (28')

TEMPORARY LETTER OR SYMBOL, PAINT
 LETTER OR SYMBOL, WATERBORNE PAINT
 7+11 LT (AHEAD)
 7+51 LT (STOP)

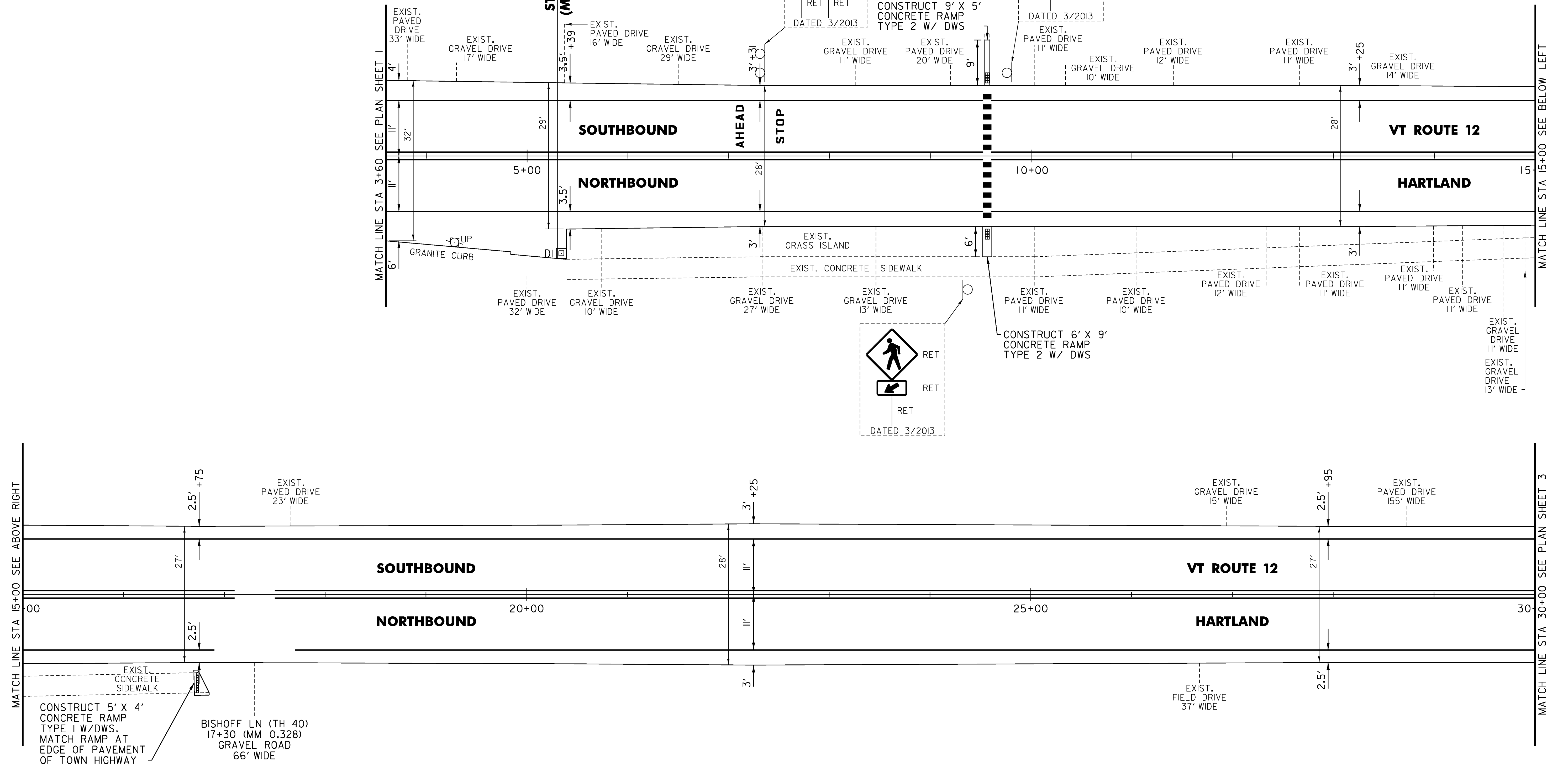
REHAB. DROP INLETS, CATCH BASINS,
 OR MANHOLES, CLASS J
 5+34 RT

PORTLAND CEMENT
 CONCRETE SIDEWALK, 5 INCH
 9+52 TO 9+61 RT (RAMP TYPE 2)
 9+54 TO 9+59 LT (RAMP TYPE 2)
 16+68 TO 16+85 RT (RAMP TYPE 1)

DETECTABLE WARNING SURFACE (DWS)
 9+57 LT
 9+57 RT
 16+75 RT

STOP COLD PLANE AND OVERLAY
BEGIN LEVEL AND OVERLAY

STA 5+30
(MM 0.100)



MATCH LINE STA 15+00 SEE ABOVE RIGHT

MATCH LINE STA 30+00 SEE PLAN SHEET 3

CONSTRUCT 5' X 4' CONCRETE RAMP TYPE 1 W/DWS. MATCH RAMP AT EDGE OF PAVEMENT OF TOWN HIGHWAY

BISHOFF LN (TH 40) 17+30 (MM 0.328) GRAVEL ROAD 66' WIDE

NOT TO SCALE

PROJECT NAME:	HARTLAND	FILE NAME:	z16vl47bdr.dgn	PLOT DATE:	5/12/2017
PROJECT NUMBER:	STP FPAV(8)	PROJECT LEADER:	P. SHEDD	DRAWN BY:	S. GOODWIN
		DESIGNED BY:	N. LEMAY	CHECKED BY:	P. SHEDD
		PLAN SHEET 2		SHEET 17 OF 33	

TEMPORARY 4 INCH WHITE LINE, PAINT
 4 INCH WHITE LINE, WATERBORNE PAINT
 (ALL LINES WILL INCLUDE EDGE LINE
 BREAKS AND RADII FOR SIDE ROADS)
 30+00 TO 58+00 LT & RT (SOLID)

TEMPORARY 4 INCH YELLOW LINE, PAINT
 4 INCH YELLOW LINE, WATERBORNE PAINT
 (ALL LINES WILL INCLUDE $\frac{1}{2}$
 BREAKS FOR SIDE ROADS)
 30+00 TO 58+00 LT & RT (SOLID)

REHAB. DROP INLETS, CATCH BASINS,
 OR MANHOLES, CLASS I
 50+84 LT
 52+56 LT

BITUMINOUS CONCRETE
 GUTTERS AND TRAFFIC ISLANDS
 50+60 TO 52+75 LT

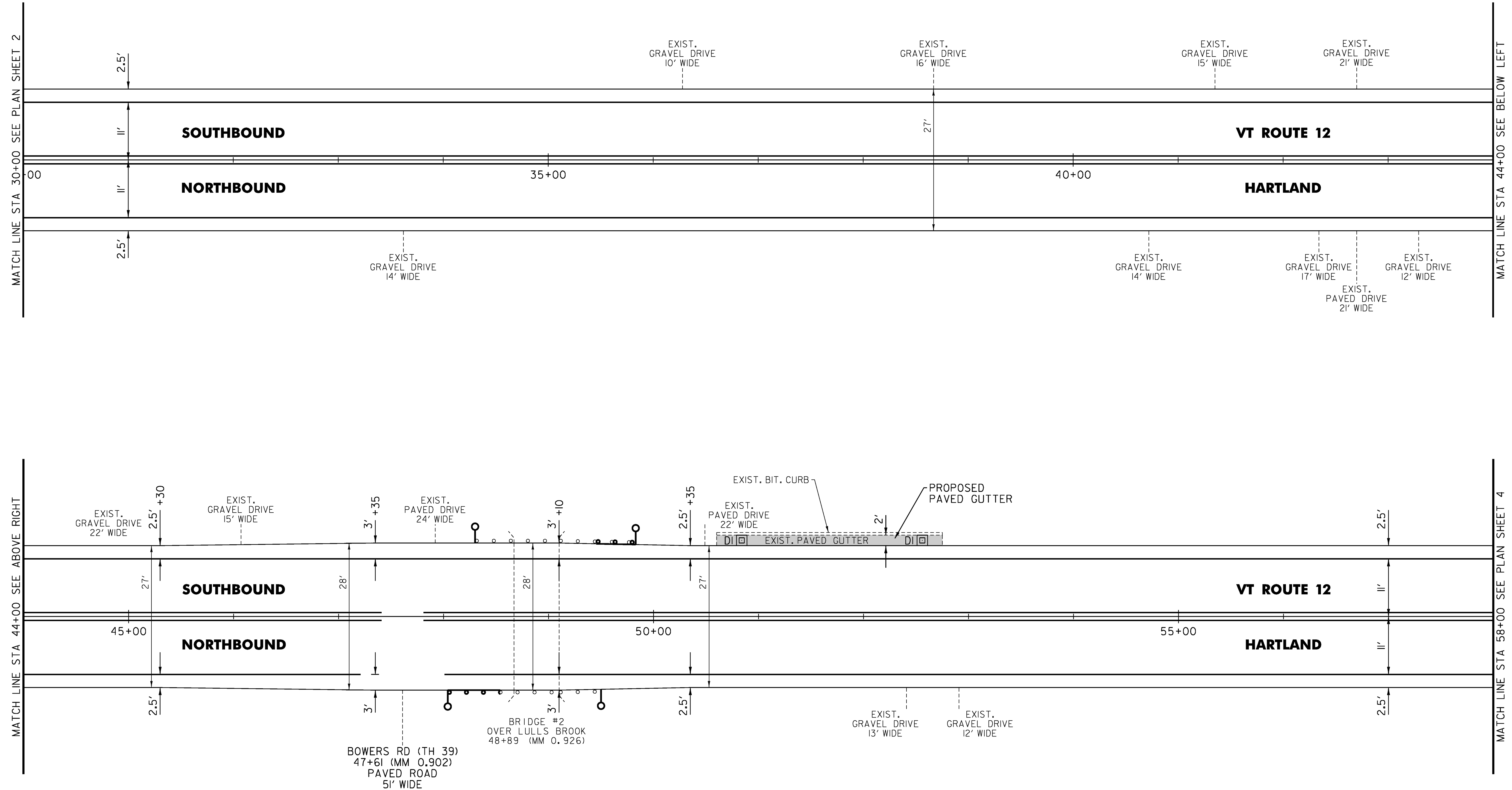
STEEL BEAM GUARDRAIL, GALVANIZED
 48+04 TO 48+41.5 RT
 49+45.5 TO 49+83 LT

ANCHOR FOR STEEL BEAM RAIL
 48+16.5 RT
 49+70.5 LT

ADJUST HEIGHT OF GUARDRAIL
 48+41.5 TO 48+54 RT

REMOVAL AND DISPOSAL OF GUARDRAIL
 48+04 TO 48+41.5 RT
 49+45.5 TO 49+83 LT

DELINEATOR WITH STEEL POST
 48+04 RT
 48+30 LT
 49+50 RT
 49+83 LT



NOT TO SCALE

PROJECT NAME:	HARTLAND	PLOT DATE:	4/14/2017
PROJECT NUMBER:	STP FPAV(8)	DRAWN BY:	S. GOODWIN
FILE NAME:	z16vl47bdr.dgn	CHECKED BY:	P. SHEDD
DESIGNED BY:	N. LEMAY	PLAN SHEET 3	SHEET 18 OF 33

TEMPORARY 4 INCH WHITE LINE, PAINT
 4 INCH WHITE LINE, WATERBORNE PAINT
 (ALL LINES WILL INCLUDE EDGE LINE
 BREAKS AND RADII FOR SIDE ROADS)
 58+00 TO 86+00 LT & RT (SOLID)

TEMPORARY 4 INCH YELLOW LINE, PAINT
 4 INCH YELLOW LINE, WATERBORNE PAINT
 (ALL LINES WILL INCLUDE \square
 BREAKS FOR SIDE ROADS)
 58+00 TO 86+00 LT & RT (SOLID)

REHAB. DROP INLETS, CATCH BASINS,
 OR MANHOLES, CLASS I
 77+07 RT

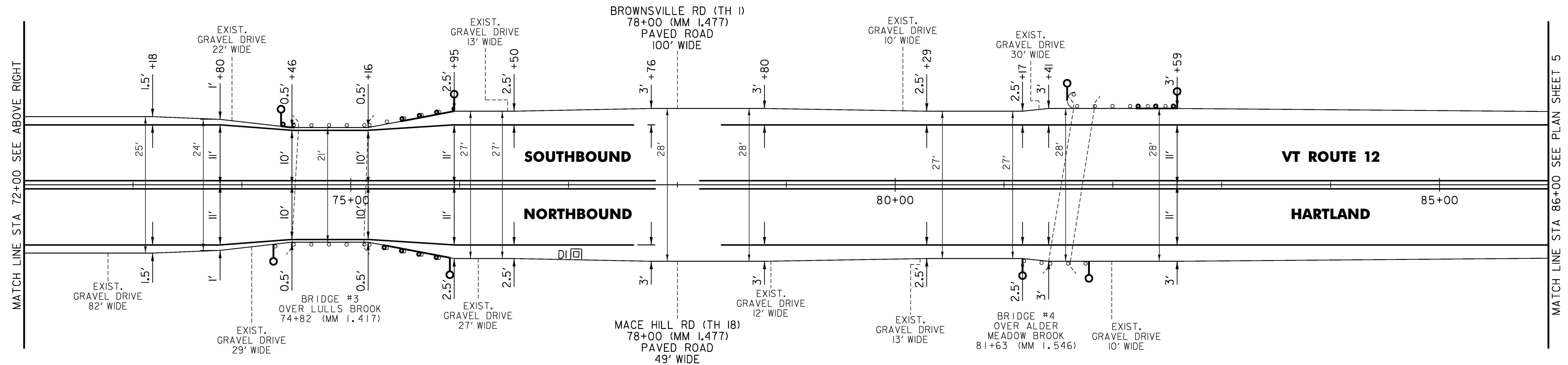
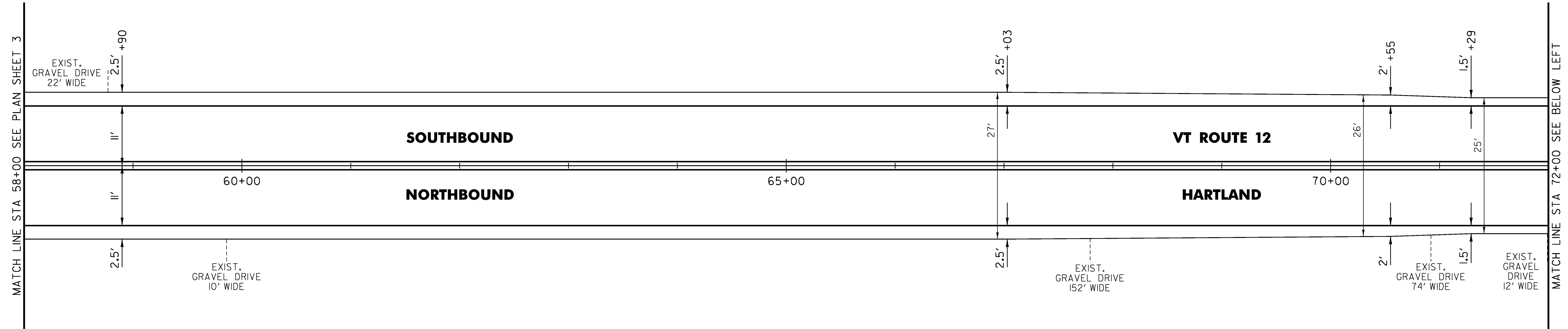
STEEL BEAM GUARDRAIL, GALVANIZED
 75+53.5 TO 75+91 RT
 75+57.5 TO 75+95 LT
 82+21.5 TO 82+59 LT

REMOVAL AND DISPOSAL OF GUARDRAIL
 75+53.5 TO 75+91 RT
 75+57.5 TO 75+95 LT
 82+21.5 TO 82+59 LT

ANCHOR FOR STEEL BEAM RAIL
 75+78.5 RT
 75+82.5 LT
 82+46.5 LT

ADJUST HEIGHT OF GUARDRAIL
 74+36 TO 74+48.5 LT
 75+28.5 TO 75+53.5 RT
 75+45 TO 75+57.5 LT

DELINEATOR WITH STEEL POST
 74+29 RT
 74+36 LT
 75+91 RT
 75+95 LT
 81+17 RT
 81+58 LT
 81+78 RT
 82+59 LT



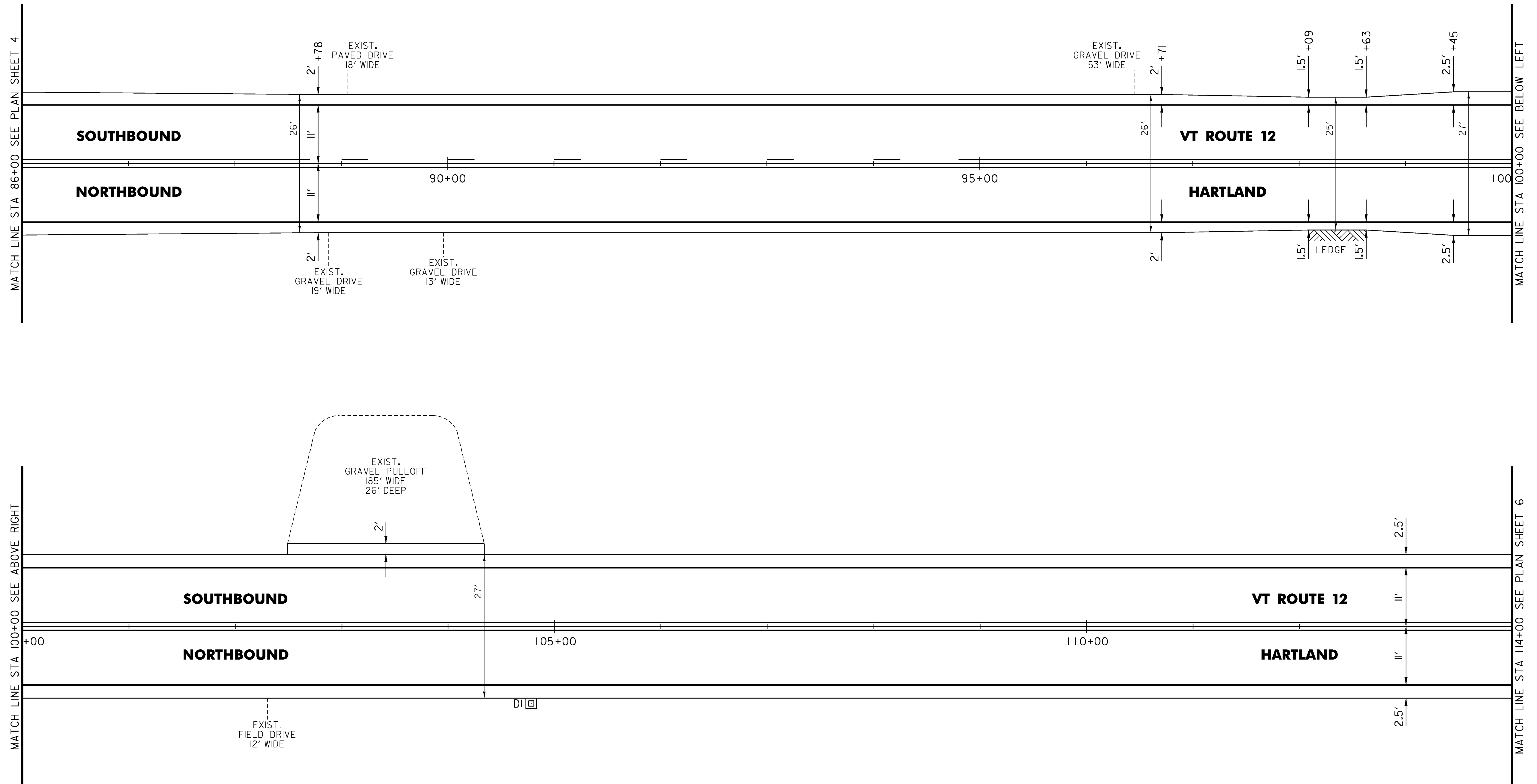
NOT TO SCALE

PROJECT NAME:	HARTLAND	PLOT DATE:	4/14/2017
PROJECT NUMBER:	STP FPAV(8)	DRAWN BY:	S. GOODWIN
FILE NAME:	z16vl47bdr.dgn	CHECKED BY:	P. SHEDD
DESIGNED BY:	N. LEMAY	SHEET	19 OF 33
PLAN SHEET 4			

TEMPORARY 4 INCH WHITE LINE, PAINT
 4 INCH WHITE LINE, WATERBORNE PAINT
 (ALL LINES WILL INCLUDE EDGE LINE
 BREAKS AND RADII FOR SIDE ROADS)
 86+00 TO 114+00 LT & RT (SOLID)

TEMPORARY 4 INCH YELLOW LINE, PAINT
 4 INCH YELLOW LINE, WATERBORNE PAINT
 (ALL LINES WILL INCLUDE ϕ
 BREAKS FOR SIDE ROADS)
 86+00 TO 88+70 LT & RT (SOLID)
 88+70 TO 94+80 LT (DASHED), RT (SOLID)
 94+80 TO 114+00 LT & RT (SOLID)

REHAB, DROP INLETS, CATCH BASINS,
 OR MANHOLES, CLASS I
~~104+78 RT~~
 NO REHAB



NOT TO SCALE

PROJECT NAME:	HARTLAND	PLOT DATE:	4/14/2017
PROJECT NUMBER:	STP FPAV(8)	DRAWN BY:	S. GOODWIN
FILE NAME:	z16v147bdr.dgn	DESIGNED BY:	N. LEMAY
PROJECT LEADER:	P. SHEDD	CHECKED BY:	P. SHEDD
PLAN SHEET 5		SHEET	20 OF 33

TEMPORARY 4 INCH WHITE LINE, PAINT
 4 INCH WHITE LINE, WATERBORNE PAINT
 (ALL LINES WILL INCLUDE EDGE LINE
 BREAKS AND RADII FOR SIDE ROADS)
 114+00 TO 142+00 LT & RT (SOLID)

TEMPORARY 4 INCH YELLOW LINE, PAINT
 4 INCH YELLOW LINE, WATERBORNE PAINT
 (ALL LINES WILL INCLUDE ϕ
 BREAKS FOR SIDE ROADS)
 114+00 TO 115+60 LT & RT (SOLID)
 115+60 TO 123+55 LT (SOLID), RT (DASHED)
 123+55 TO 128+30 RT (DASHED)
 128+30 TO 136+20 LT (DASHED), RT (SOLID)
 136+20 TO 142+00 LT & RT (SOLID)

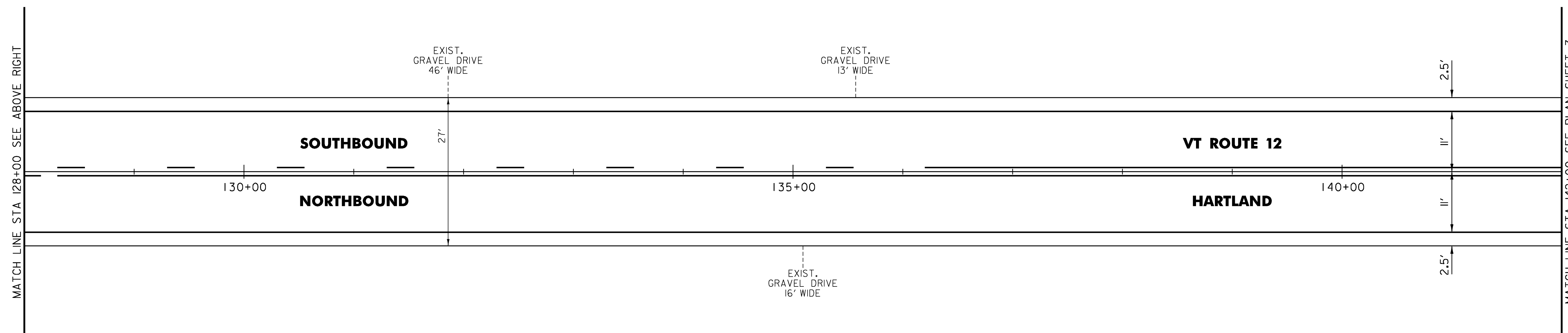
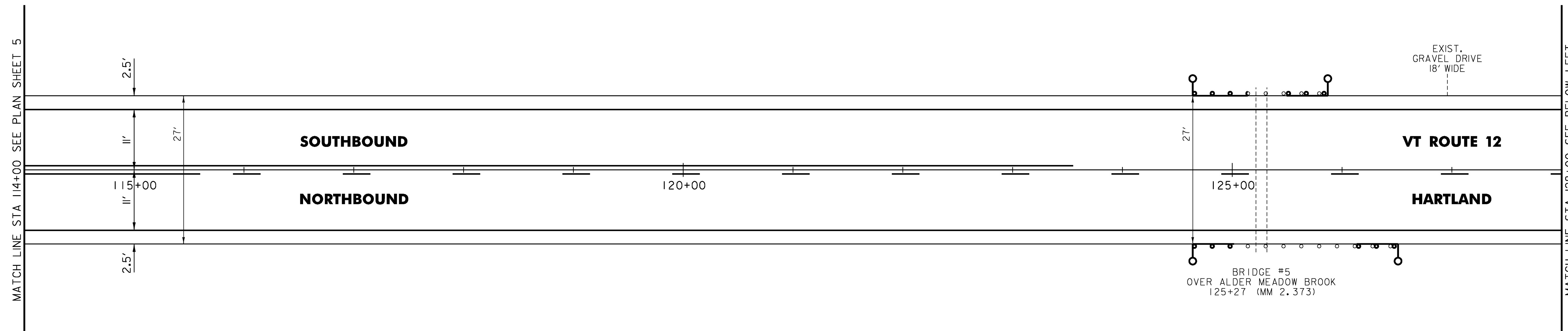
STEEL BEAM GUARDRAIL, GALVANIZED
 124+64 TO 125+01.5 LT
 124+64 TO 125+01.5 RT
 125+49.5 TO 125+87 LT
 126+13.5 TO 126+51 RT

REMOVAL AND DISPOSAL OF GUARDRAIL
 124+64 TO 125+01.5 LT
 124+64 TO 125+01.5 RT
 125+49.5 TO 125+87 LT
 126+13.5 TO 126+51 RT

ANCHOR FOR STEEL BEAM RAIL
 124+76.5 LT
 124+76.5 RT
 125+74.5 LT
 126+38.5 RT

DELINEATOR WITH STEEL POST
 124+64 LT
 124+64 RT
 125+87 LT
 126+51 RT

ADJUST HEIGHT OF GUARDRAIL
 125+01.5 TO 125+14 LT



NOT TO SCALE

PROJECT NAME:	HARTLAND	PLOT DATE:	4/14/2017
PROJECT NUMBER:	STP FPAV(8)	DRAWN BY:	S. GOODWIN
FILE NAME:	z16vl47bdr.dgn	CHECKED BY:	P. SHEDD
DESIGNED BY:	N. LEMAY	PLAN SHEET	6
		SHEET	21 OF 33

TEMPORARY 4 INCH WHITE LINE, PAINT
 4 INCH WHITE LINE, WATERBORNE PAINT
 (ALL LINES WILL INCLUDE EDGE LINE
 BREAKS AND RADII FOR SIDE ROADS)
 142+00 TO 170+00 LT & RT (SOLID)

TEMPORARY 4 INCH YELLOW LINE, PAINT
 4 INCH YELLOW LINE, WATERBORNE PAINT
 (ALL LINES WILL INCLUDE E
 BREAKS FOR SIDE ROADS)
 142+00 TO 170+00 LT & RT (SOLID)

STEEL BEAM GUARDRAIL, GALVANIZED

148+56 TO 148+93.5 RT
 150+13 TO 150+50.5 LT
 152+07.5 TO 152+45 LT
 157+73 TO 158+10.5 LT
 159+05 TO 159+42.5 RT
 167+27 TO 167+64.5 RT
 168+87.5 TO 169+25 RT

ANCHOR FOR STEEL BEAM RAIL

148+68.5 RT
 150+25.5 LT
 152+32.5 LT
 157+85.5 LT
 159+17.5 RT
 167+39.5 RT
 169+12.5 RT

ADJUST HEIGHT OF GUARDRAIL

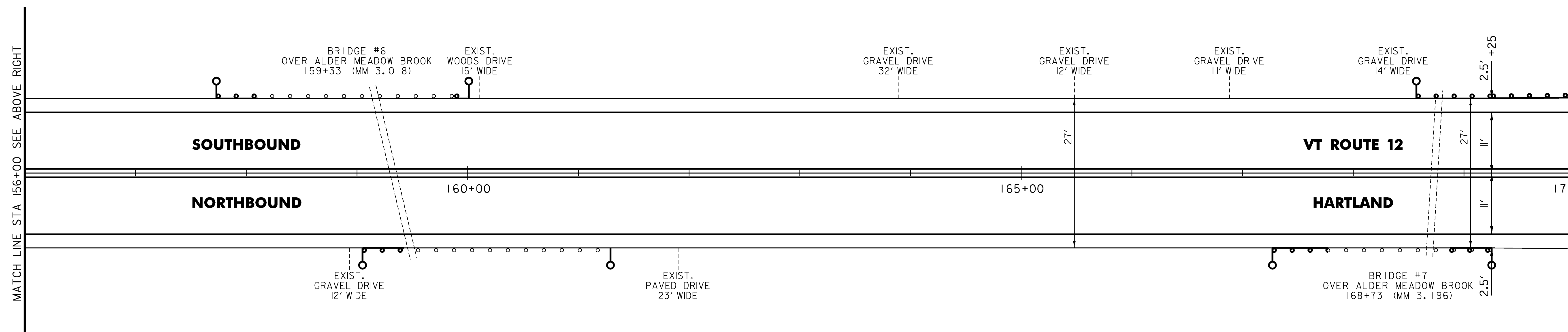
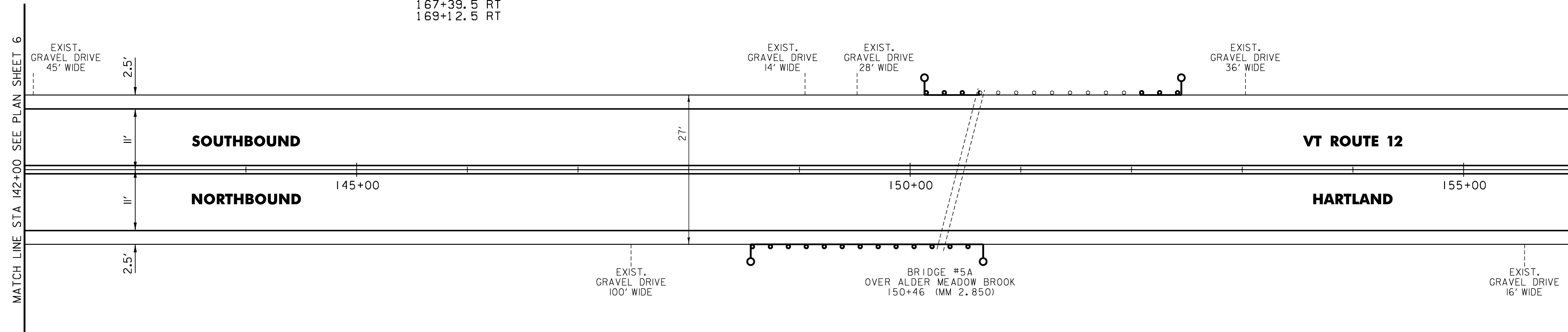
148+93.5 TO 150+66 RT
 150+50.5 TO 150+63 LT
 159+88.5 TO 160+01 LT
 167+64.5 TO 167+77 RT
 168+57 TO 170+00 LT

REMOVAL AND DISPOSAL OF GUARDRAIL

148+56 TO 148+93.5 RT
 150+13 TO 150+50.5 LT
 152+07.5 TO 152+45 LT
 157+73 TO 158+10.5 LT
 159+05 TO 159+42.5 RT
 167+27 TO 167+64.5 RT
 168+87.5 TO 169+25 RT

DELINEATOR WITH STEEL POST

148+56 RT
 150+13 LT
 150+66 RT
 152+45 LT
 157+73 LT
 159+05 RT
 160+01 RT
 161+29 RT
 167+27 RT
 168+57 LT
 169+25 RT



NOT TO SCALE

PROJECT NAME:	HARTLAND	PLOT DATE:	4/14/2017
PROJECT NUMBER:	STP FPAV(8)	DRAWN BY:	S. GOODWIN
FILE NAME:	z16vl47bdr.dgn	CHECKED BY:	P. SHEDD
DESIGNED BY:	N. LEMAY	PLAN SHEET 7	SHEET 22 OF 33

TEMPORARY 4 INCH WHITE LINE, PAINT
 4 INCH WHITE LINE, WATERBORNE PAINT
 (ALL LINES WILL INCLUDE EDGE LINE
 BREAKS AND RADII FOR SIDE ROADS)
 170+00 TO 198+00 LT & RT (SOLID)

TEMPORARY 4 INCH YELLOW LINE, PAINT
 4 INCH YELLOW LINE, WATERBORNE PAINT
 (ALL LINES WILL INCLUDE ϕ
 BREAKS FOR SIDE ROADS)
 170+00 TO 198+00 LT & RT (SOLID)

STEEL BEAM GUARDRAIL, GALVANIZED
 189+20.5 TO 189+58 LT
 190+13 TO 190+50.5 LT
 191+88 TO 192+25.5 RT

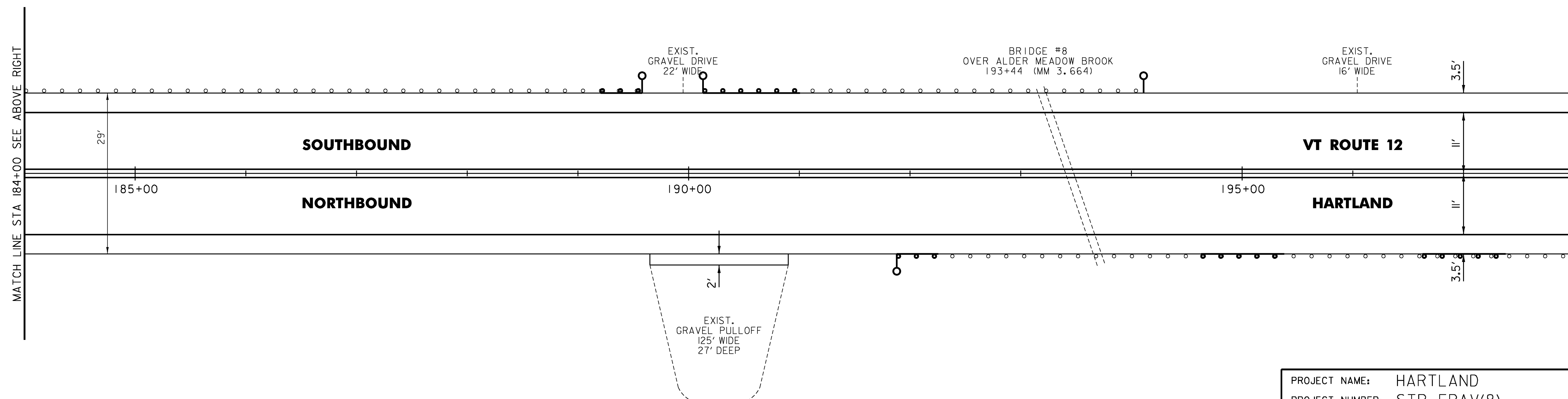
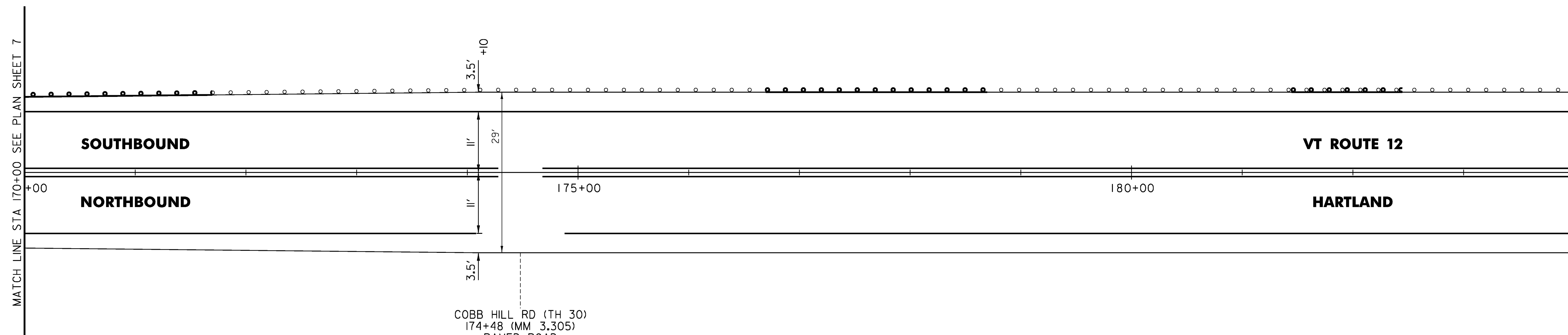
ANCHOR FOR STEEL BEAM RAIL
 189+45.5 LT
 190+25.5 LT
 192+00.5 RT

ADJUST HEIGHT OF GUARDRAIL
 170+00 TO 171+69.5 LT
 176+69.5 TO 178+69.5 LT
 181+44.5 TO 182+44.5 LT
 190+50.5 TO 191+00.5 LT
 194+63 TO 195+38 RT
 196+63 TO 197+13 RT

REPLACE GUARDRAIL POST ASSEMBLY
 REPLACE GUARDRAIL BEAM UNIT
 197+13 TO 197+38 RT

REMOVAL AND DISPOSAL OF GUARDRAIL
 189+20.5 TO 189+58 LT
 190+13 TO 190+50.5 LT
 191+88 TO 192+25.5 RT

DELINEATOR WITH STEEL POST
 189+58 LT
 190+13 LT
 191+88 RT
 194+11 LT



NOT TO SCALE

PROJECT NAME:	HARTLAND	PLOT DATE:	4/14/2017
PROJECT NUMBER:	STP FPAV(8)	DRAWN BY:	S. GOODWIN
FILE NAME:	z16vl47bdr.dgn	CHECKED BY:	P. SHEDD
DESIGNED BY:	N. LEMAY	PLAN SHEET	8
		SHEET	23 OF 33

TEMPORARY 4 INCH WHITE LINE, PAINT
 4 INCH WHITE LINE, WATERBORNE PAINT
 (ALL LINES WILL INCLUDE EDGE LINE
 BREAKS AND RADII FOR SIDE ROADS)
 198+00 TO 226+00 LT & RT (SOLID)

TEMPORARY 4 INCH YELLOW LINE, PAINT
 4 INCH YELLOW LINE, WATERBORNE PAINT
 (ALL LINES WILL INCLUDE $\frac{1}{2}$
 BREAKS FOR SIDE ROADS)
 198+00 TO 226+00 LT & RT (SOLID)

STEEL BEAM GUARDRAIL, GALVANIZED

200+71.5 TO 201+09 RT
 203+03 TO 203+40.5 LT
 206+66 TO 207+03.5 RT
 209+34.5 TO 209+72 LT
 210+64.5 TO 211+02 RT
 220+01 TO 220+38.5 RT
 223+69.5 TO 224+07 LT

ANCHOR FOR STEEL BEAM RAIL

200+96.5 RT
 203+15.5 LT
 206+78.5 RT
 209+59.5 LT
 210+89.5 RT
 220+13.5 RT
 223+94.5 LT

TREATED TIMBER CURB

205+78 TO 206+53 LT
 207+03 TO 208+03 LT
 208+53 TO 209+34.5 LT

ADJUST HEIGHT OF GUARDRAIL

198+63 TO 199+88 RT
 200+34 TO 200+71.5 RT
 203+40.5 TO 205+03 LT
 205+78 TO 206+53 LT
 207+03 TO 208+03 LT
 207+03.5 TO 208+03.5 RT
 208+53 TO 209+34.5 LT
 209+53.5 TO 209+78.5 RT
 220+38.5 TO 220+63.5 RT
 220+88.5 TO 221+38.5 RT
 221+60 TO 221+72.5 LT
 222+13.5 TO 222+30 RT
 223+09.5 TO 223+34.5 RT

REPLACE GUARDRAIL POST ASSEMBLY

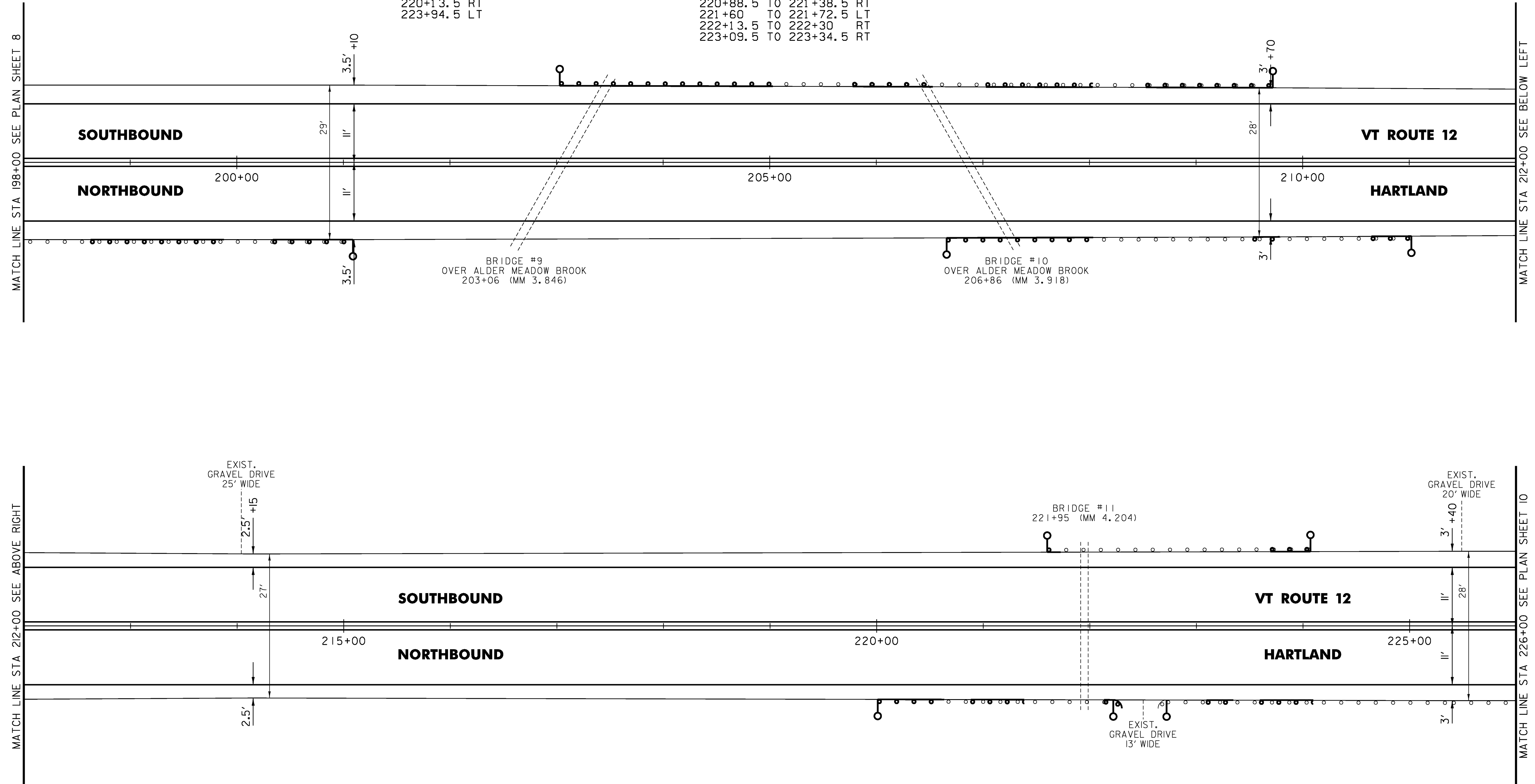
REPLACE GUARDRAIL BEAM UNIT
 223+59.5 TO 224+09.5 RT

REMOVAL AND DISPOSAL OF GUARDRAIL

200+71.5 TO 201+09 RT
 203+03 TO 203+40.5 LT
 206+66 TO 207+03.5 RT
 209+34.5 TO 209+72 LT
 210+64.5 TO 211+02 RT
 220+01 TO 220+38.5 RT
 223+69.5 TO 224+07 LT

DELINEATOR WITH STEEL POST

201+09 RT
 203+03 LT
 206+66 RT
 209+72 LT
 211+02 RT
 220+01 RT
 221+60 LT
 222+22 RT
 222+72 RT
 224+07 LT



PROJECT NAME:	HARTLAND
PROJECT NUMBER:	STP FPAV(8)
FILE NAME:	z16vl47bdr.dgn
PROJECT LEADER:	P. SHEDD
DESIGNED BY:	N. LEMAY
PLAN SHEET 9	
PLOT DATE:	4/14/2017
DRAWN BY:	S. GOODWIN
CHECKED BY:	P. SHEDD
SHEET 24	OF 33

NOT TO SCALE

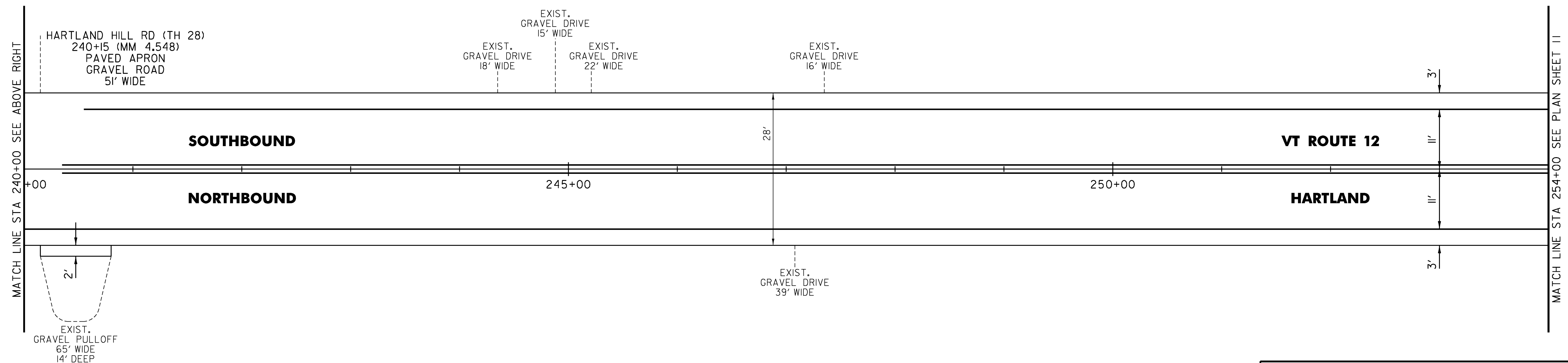
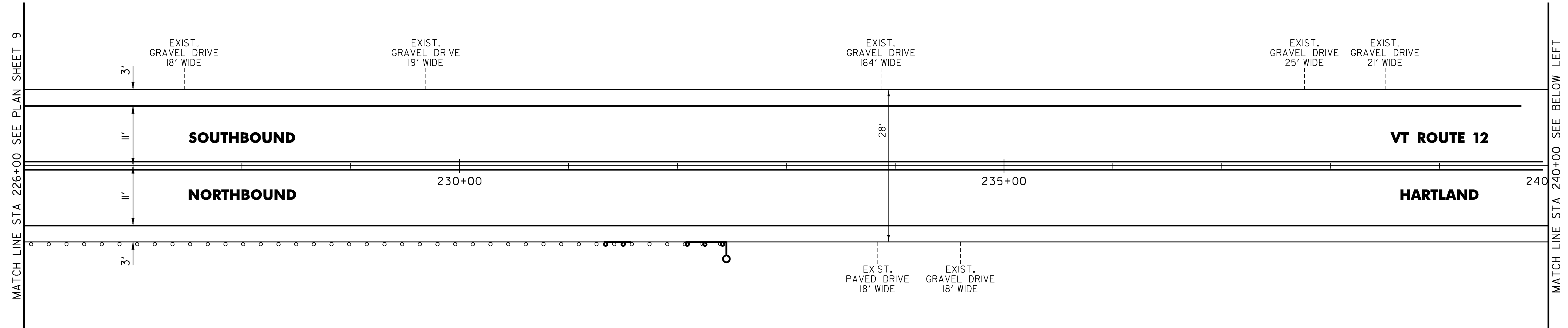
TEMPORARY 4 INCH WHITE LINE, PAINT
 4 INCH WHITE LINE, WATERBORNE PAINT
 (ALL LINES WILL INCLUDE EDGE LINE
 BREAKS AND RADII FOR SIDE ROADS)
 226+00 TO 254+00 LT & RT (SOL ID)

TEMPORARY 4 INCH YELLOW LINE, PAINT
 4 INCH YELLOW LINE, WATERBORNE PAINT
 (ALL LINES WILL INCLUDE $\frac{1}{2}$
 BREAKS FOR SIDE ROADS)
 226+00 TO 254+00 LT & RT (SOL ID)

STEEL BEAM GUARDRAIL, GALVANIZED
 232+07.5 TO 232+45 RT
 ANCHOR FOR STEEL BEAM RAIL
 232+32.5 RT

ADJUST HEIGHT OF GUARDRAIL
 231+32.5 TO 231+57.5 RT

REMOVAL AND DISPOSAL OF GUARDRAIL
 232+07.5 TO 232+45 RT
 DELINEATOR WITH STEEL POST
 232+45 RT



NOT TO SCALE

PROJECT NAME:	HARTLAND	PLOT DATE:	4/14/2017
PROJECT NUMBER:	STP FPAV(8)	DRAWN BY:	S. GOODWIN
FILE NAME:	z16vl47bdr.dgn	CHECKED BY:	P. SHEDD
DESIGNED BY:	N. LEMAY	PLAN SHEET	10
		SHEET	25 OF 33

TEMPORARY 4 INCH WHITE LINE, PAINT
 4 INCH WHITE LINE, WATERBORNE PAINT
 (ALL LINES WILL INCLUDE EDGE LINE
 BREAKS AND RADII FOR SIDE ROADS)
 254+00 TO 282+00 LT & RT (SOLID)

TEMPORARY 4 INCH YELLOW LINE, PAINT
 4 INCH YELLOW LINE, WATERBORNE PAINT
 (ALL LINES WILL INCLUDE $\frac{1}{2}$
 BREAKS FOR SIDE ROADS)
 254+00 TO 282+00 LT & RT (SOLID)

STEEL BEAM GUARDRAIL, GALVANIZED
 256+13 TO 256+50.5 RT
 256+67.5 TO 257+05 LT
 263+73.5 TO 264+11 RT
 266+95 TO 267+32.5 RT
 271+78.5 TO 272+16 RT

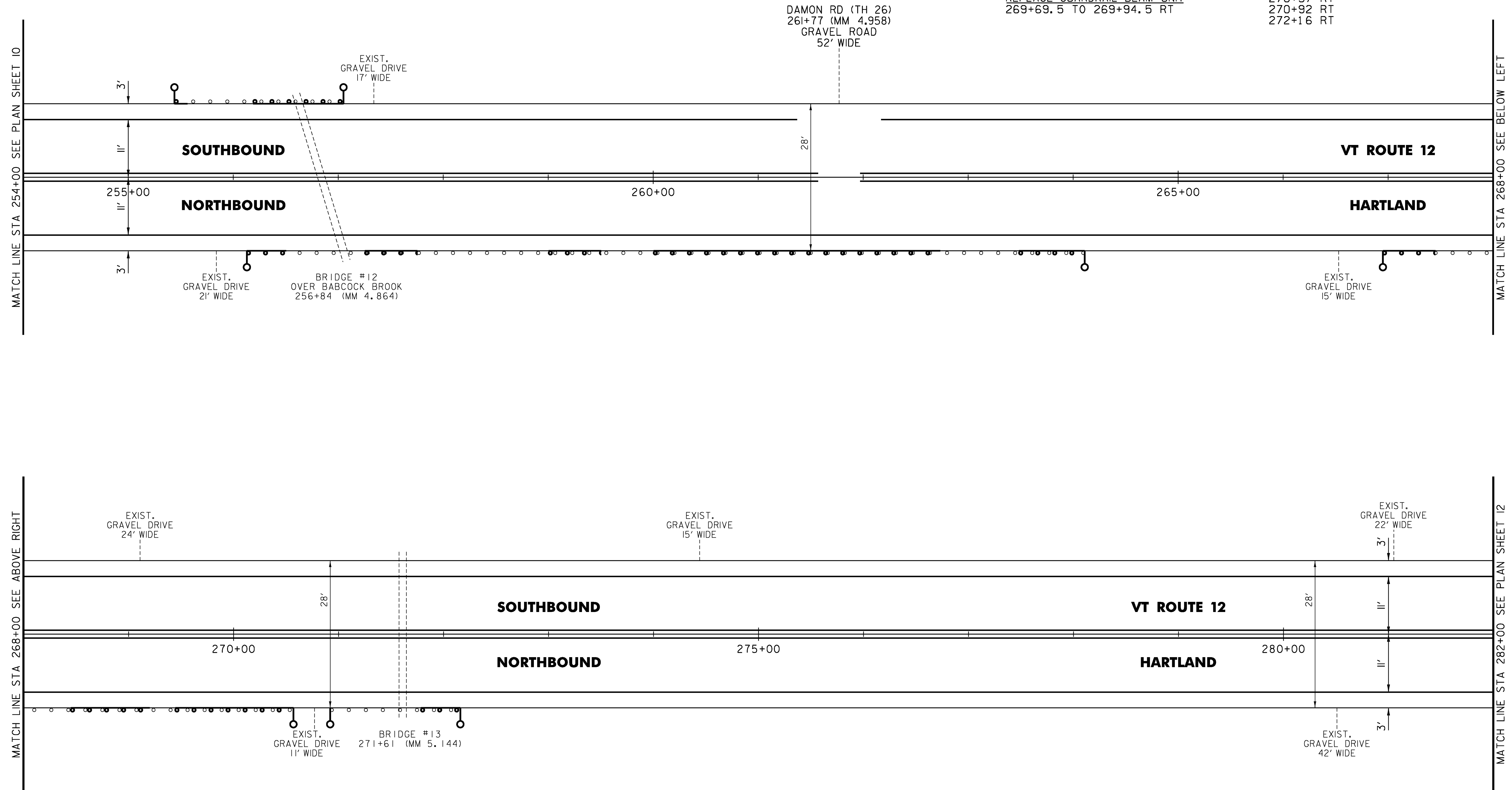
ANCHOR FOR STEEL BEAM RAIL
 256+25.5 RT
 256+92.5 LT
 263+98.5 RT
 267+07.5 RT
 272+03.5 RT

ADJUST HEIGHT OF GUARDRAIL
 255+44 TO 255+56.5 LT
 256+19 TO 256+67.5 LT
 257+25.5 TO 257+75.5 RT
 259+00.5 TO 259+50.5 RT
 260+00.5 TO 262+73.5 RT
 263+48.5 TO 263+73.5 RT
 267+32.5 TO 267+45 RT
 268+45 TO 269+20 RT
 269+44.5 TO 269+69.5 RT
 269+94.5 TO 270+57 RT

REPLACE GUARDRAIL POST ASSEMBLY
 REPLACE GUARDRAIL BEAM UNIT
 269+69.5 TO 269+94.5 RT

REMOVAL AND DISPOSAL OF GUARDRAIL
 256+13 TO 256+50.5 RT
 256+67.5 TO 257+05 LT
 263+73.5 TO 264+11 RT
 266+95 TO 267+32.5 RT
 271+78.5 TO 272+16 RT

DELINEATOR WITH STEEL POST
 255+44 LT
 256+13 RT
 257+05 LT
 264+11 RT
 266+95 RT
 270+57 RT
 270+92 RT
 272+16 RT



NOT TO SCALE

PROJECT NAME:	HARTLAND	PLOT DATE:	4/14/2017
PROJECT NUMBER:	STP FPAV(8)	DRAWN BY:	S. GOODWIN
FILE NAME:	z16vl47bdr.dgn	CHECKED BY:	P. SHEDD
DESIGNED BY:	N. LEMAY	PLAN SHEET 11	SHEET 26 OF 33

TEMPORARY 4 INCH WHITE LINE, PAINT
 4 INCH WHITE LINE, WATERBORNE PAINT
 (ALL LINES WILL INCLUDE EDGE LINE
 BREAKS AND RADII FOR SIDE ROADS)
 282+00 TO 310+00 LT & RT (SOLID)

TEMPORARY 4 INCH YELLOW LINE, PAINT
 4 INCH YELLOW LINE, WATERBORNE PAINT
 (ALL LINES WILL INCLUDE ϕ
 BREAKS FOR SIDE ROADS)
 282+00 TO 310+00 LT & RT (SOLID)

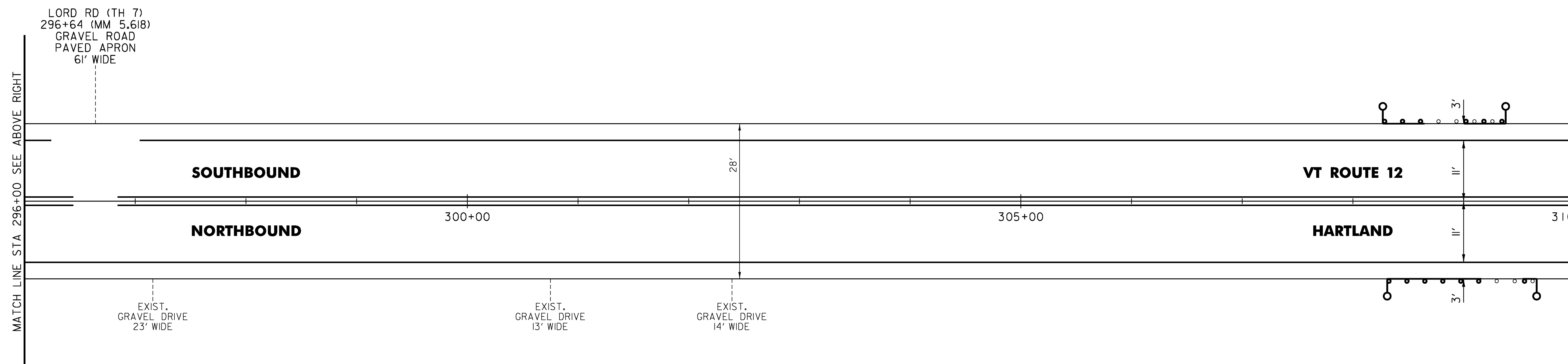
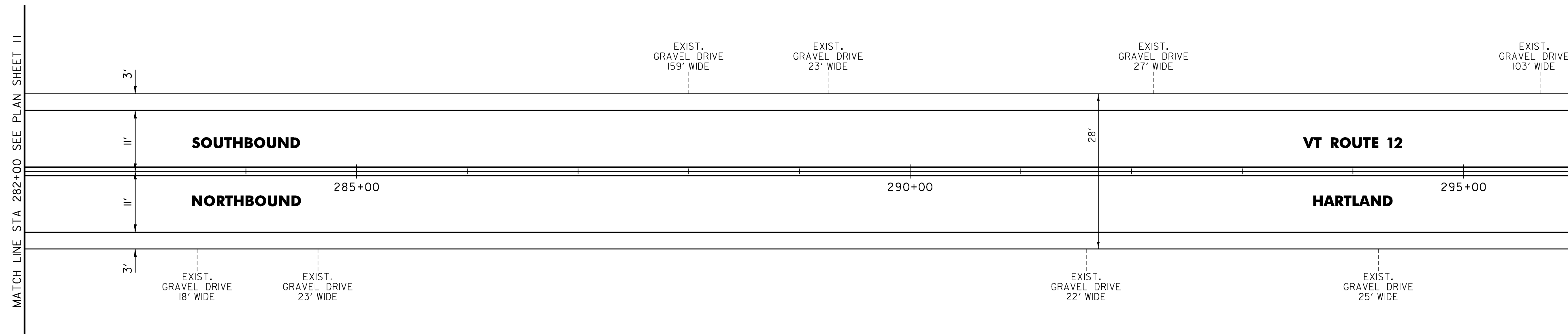
STEEL BEAM GUARDRAIL, GALVANIZED
 308+27 TO 308+64.5 LT
 308+31 TO 308+68.5 RT
 309+00.5 TO 309+38 LT

ADJUST HEIGHT OF GUARDRAIL
 308+68.5 TO 309+16 RT
 309+53.5 TO 309+66 RT

REMOVAL AND DISPOSAL OF GUARDRAIL
 308+27 TO 308+64.5 LT
 308+31 TO 308+68.5 RT
 309+00.5 TO 309+38 LT

ANCHOR FOR STEEL BEAM RAIL
 308+39.5 LT
 308+43.5 RT
 309+25.5 LT

DELINEATOR WITH STEEL POST
 308+27 LT
 308+31 RT
 309+38 LT
 309+66 RT



NOT TO SCALE

PROJECT NAME:	HARTLAND	PLOT DATE:	4/14/2017
PROJECT NUMBER:	STP FPAV(8)	DRAWN BY:	S. GOODWIN
FILE NAME:	z16vl47bdr.dgn	CHECKED BY:	P. SHEDD
DESIGNED BY:	N. LEMAY	PLAN SHEET 12	SHEET 27 OF 33

TEMPORARY 4 INCH WHITE LINE, PAINT
 4 INCH WHITE LINE, WATERBORNE PAINT
 (ALL LINES WILL INCLUDE EDGE LINE
 BREAKS AND RADII FOR SIDE ROADS)
 310+00 TO 338+00 LT & RT (SOL ID)

TEMPORARY 4 INCH YELLOW LINE, PAINT
 4 INCH YELLOW LINE, WATERBORNE PAINT
 (ALL LINES WILL INCLUDE ϕ
 BREAKS FOR SIDE ROADS)
 310+00 TO 338+00 LT & RT (SOL ID)

STEEL BEAM GUARDRAIL, GALVANIZED
 330+82 TO 331+19.5 RT
 336+52.5 TO 336+90 RT

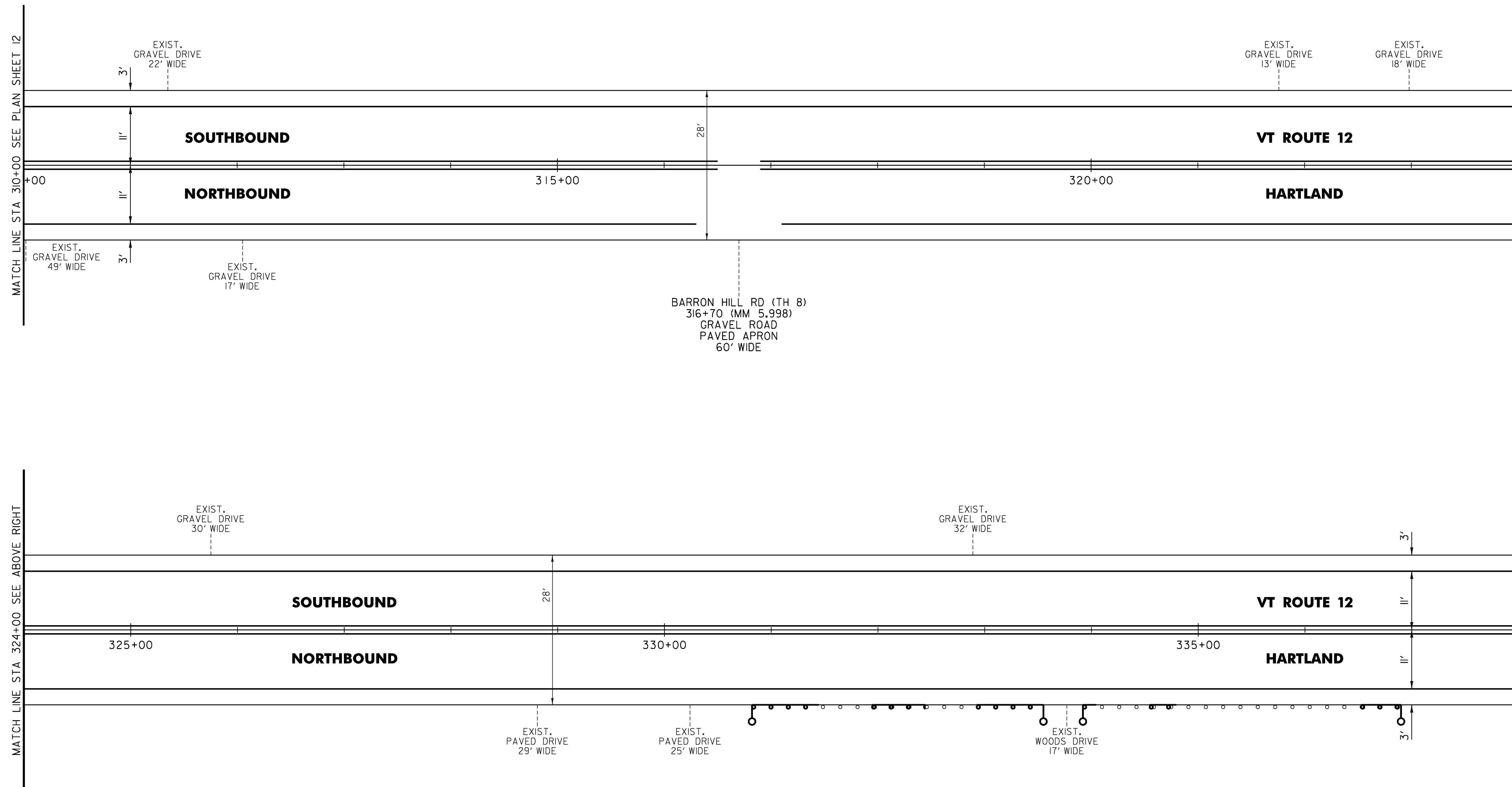
 ANCHOR FOR STEEL BEAM RAIL
 330+94.5 RT
 336+77.5 RT

ADJUST HEIGHT OF GUARDRAIL
 331+19.5 TO 331+44.5 RT
 331+94.5 TO 332+44.5 RT
 332+92.5 TO 333+17.5 RT
 333+42.5 TO 333+55 RT
 333+92 TO 334+04.5 RT
 334+54.5 TO 334+79.5 RT

 REPLACE GUARDRAIL POST ASSEMBLY
 REPLACE GUARDRAIL BEAM UNIT
 333+17.5 TO 333+42.5 RT

REMOVAL AND DISPOSAL OF GUARDRAIL
 330+82 TO 331+19.5 RT
 336+52.5 TO 336+90 RT

 DELINEATOR WITH STEEL POST
 330+82 RT
 333+55 RT
 333+92 RT
 336+90 RT



NOT TO SCALE

PROJECT NAME:	HARTLAND	PLOT DATE:	4/14/2017
PROJECT NUMBER:	STP FPAV(8)	DRAWN BY:	S. GOODWIN
FILE NAME:	z16vl47bdr.dgn	CHECKED BY:	P. SHEDD
DESIGNED BY:	N. LEMAY	PLAN SHEET 13	SHEET 28 OF 33

TEMPORARY 4 INCH WHITE LINE, PAINT
 4 INCH WHITE LINE, WATERBORNE PAINT
 (ALL LINES WILL INCLUDE EDGE LINE
 BREAKS AND RADII FOR SIDE ROADS)
 338+00 TO 366+00 LT & RT (SOL ID)

TEMPORARY 4 INCH YELLOW LINE, PAINT
 4 INCH YELLOW LINE, WATERBORNE PAINT
 (ALL LINES WILL INCLUDE ϕ
 BREAKS FOR SIDE ROADS)
 338+00 TO 366+00 LT & RT (SOL ID)

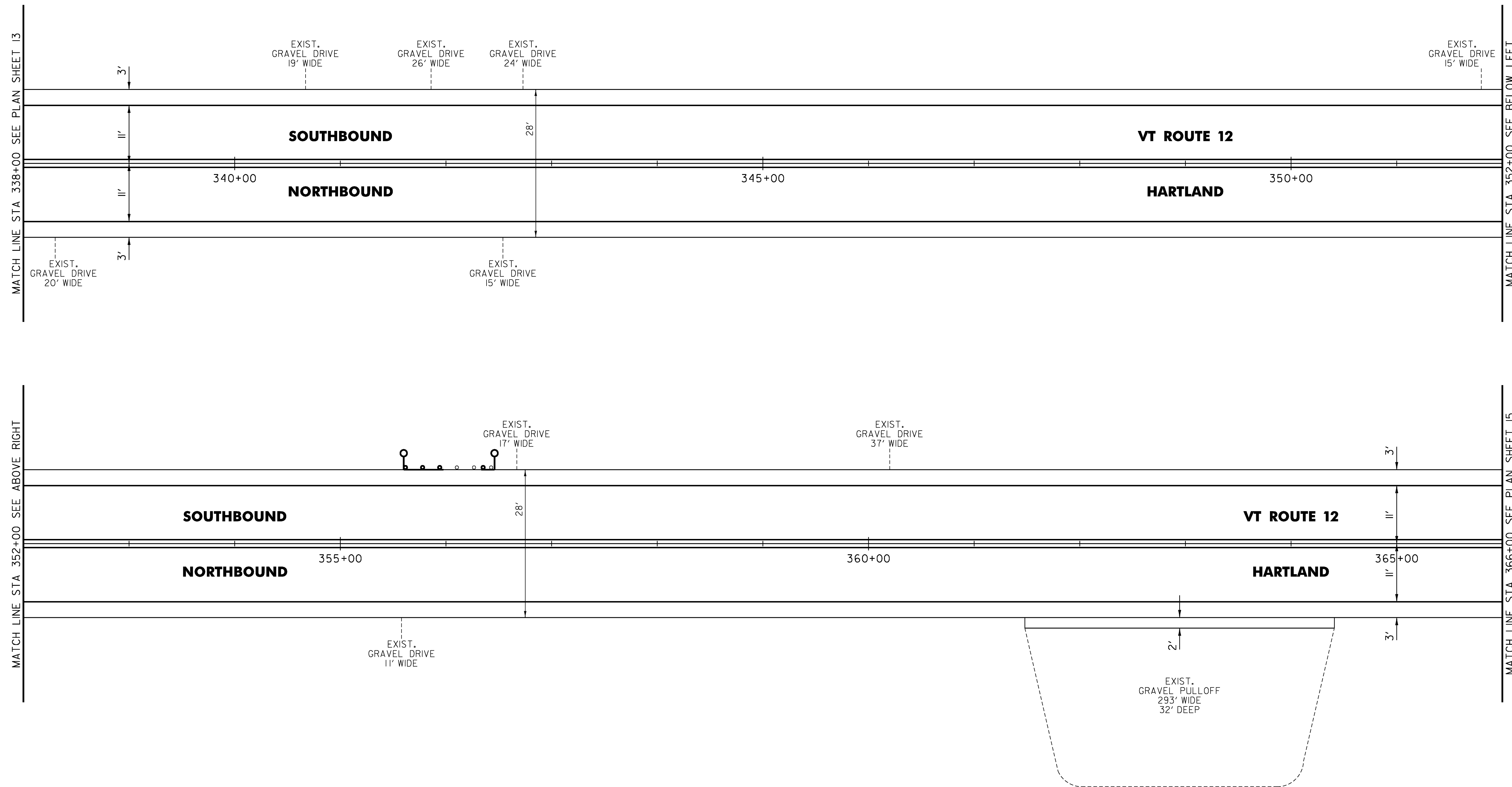
STEEL BEAM GUARDRAIL, GALVANIZED
 355+60 TO 355+97.5 LT

 ANCHOR FOR STEEL BEAM RAIL
 355+72.5 LT

ADJUST HEIGHT OF GUARDRAIL
 356+33.5 TO 356+46 LT

REMOVAL AND DISPOSAL OF GUARDRAIL
 355+60 TO 355+97.5 LT

 DELINEATOR WITH STEEL POST
 355+60 LT
 356+46 LT



NOT TO SCALE

PROJECT NAME:	HARTLAND	PLOT DATE:	4/14/2017
PROJECT NUMBER:	STP FPAV(8)	DRAWN BY:	S. GOODWIN
FILE NAME:	z16vl47bdr.dgn	DESIGNED BY:	N. LEMAY
PROJECT LEADER:	P. SHEDD	CHECKED BY:	P. SHEDD
DESIGNED BY:	N. LEMAY	PLAN SHEET 14	SHEET 29 OF 33

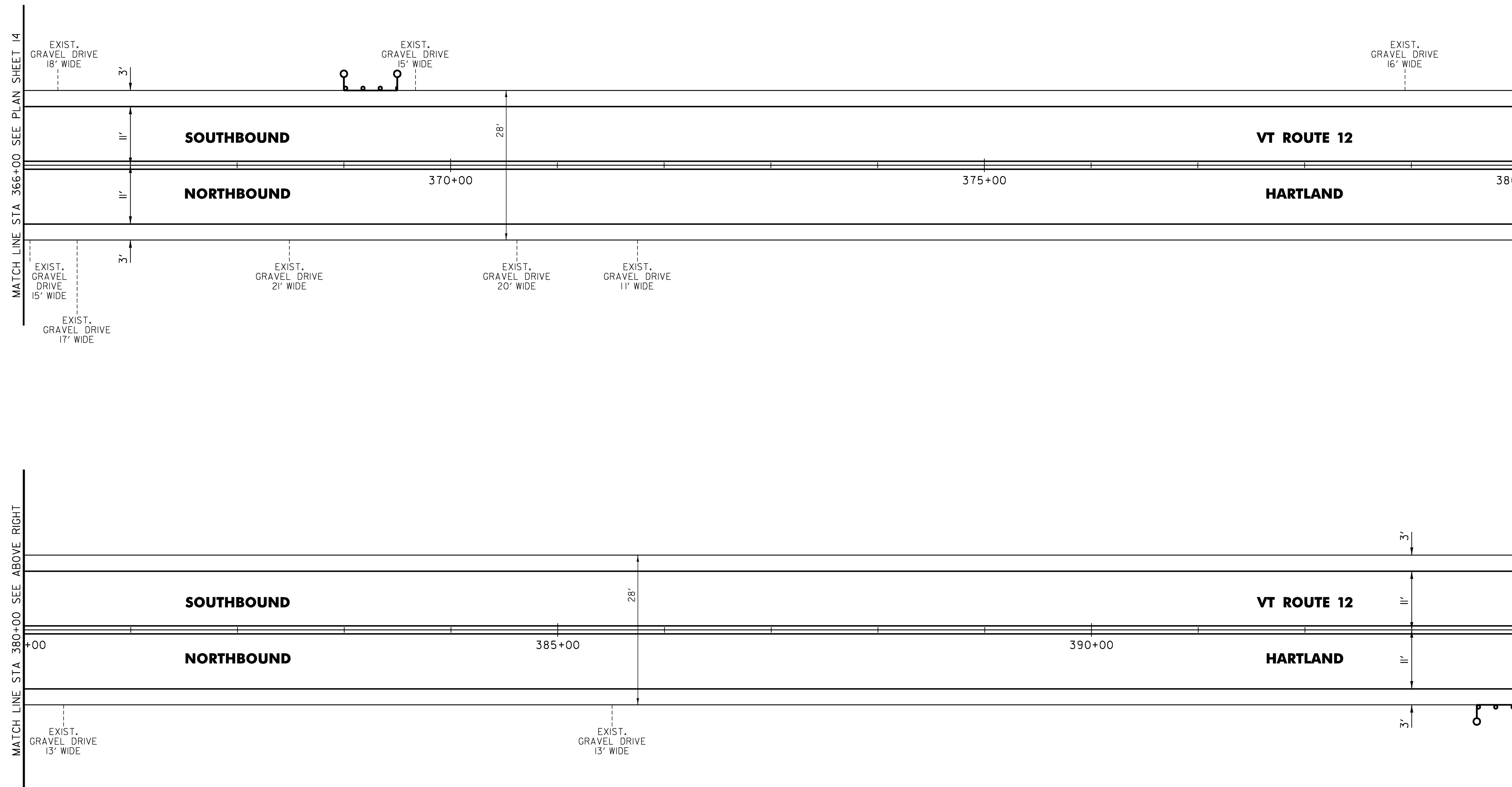
TEMPORARY 4 INCH WHITE LINE, PAINT
 4 INCH WHITE LINE, WATERBORNE PAINT
 (ALL LINES WILL INCLUDE EDGE LINE
 BREAKS AND RADII FOR SIDE ROADS)
 366+00 TO 394+00 LT & RT (SOL ID)

TEMPORARY 4 INCH YELLOW LINE, PAINT
 4 INCH YELLOW LINE, WATERBORNE PAINT
 (ALL LINES WILL INCLUDE ϕ
 BREAKS FOR SIDE ROADS)
 366+00 TO 394+00 LT & RT (SOL ID)

STEEL BEAM GUARDRAIL, GALVANIZED
 393+61 TO 393+98.5 RT
 ANCHOR FOR STEEL BEAM RAIL
 393+73.5 RT

ADJUST HEIGHT OF GUARDRAIL
 369+00 TO 369+50 LT

REMOVAL AND DISPOSAL OF GUARDRAIL
 393+61 TO 393+98.5 RT
 DELINEATOR WITH STEEL POST
 369+00 LT
 369+50 LT
 393+61 RT



NOT TO SCALE

PROJECT NAME:	HARTLAND	PLOT DATE:	4/14/2017
PROJECT NUMBER:	STP FPAV(8)	DRAWN BY:	S. GOODWIN
FILE NAME:	z16vl47bdr.dgn	CHECKED BY:	P. SHEDD
DESIGNED BY:	N. LEMAY	PLAN SHEET 15	SHEET 30 OF 33

TEMPORARY 4 INCH WHITE LINE, PAINT
 4 INCH WHITE LINE, WATERBORNE PAINT
 (ALL LINES WILL INCLUDE EDGE LINE
 BREAKS AND RADII FOR SIDE ROADS)
 394+00 TO 406+85 LT & RT (SOLID)

TEMPORARY 4 INCH YELLOW LINE, PAINT
 4 INCH YELLOW LINE, WATERBORNE PAINT
 (ALL LINES WILL INCLUDE ϕ
 BREAKS FOR SIDE ROADS)
 394+00 TO 406+60 LT & RT (SOLID)

TEMPORARY LETTER OR SYMBOL, PAINT
 LETTER OR SYMBOL, WATERBORNE PAINT
 399+78 RT (STOP)
 400+18 RT (AHEAD)
 406+51 RT (STOP)

TEMPORARY 24 INCH STOP BAR, PAINT
 24 INCH STOP BAR, WATERBORNE PAINT
 406+60 RT (23')

STEEL BEAM GUARDRAIL, GALVANIZED
 404+06 TO 404+43.5 RT

ANCHOR FOR STEEL BEAM RAIL
 404+18.5 RT

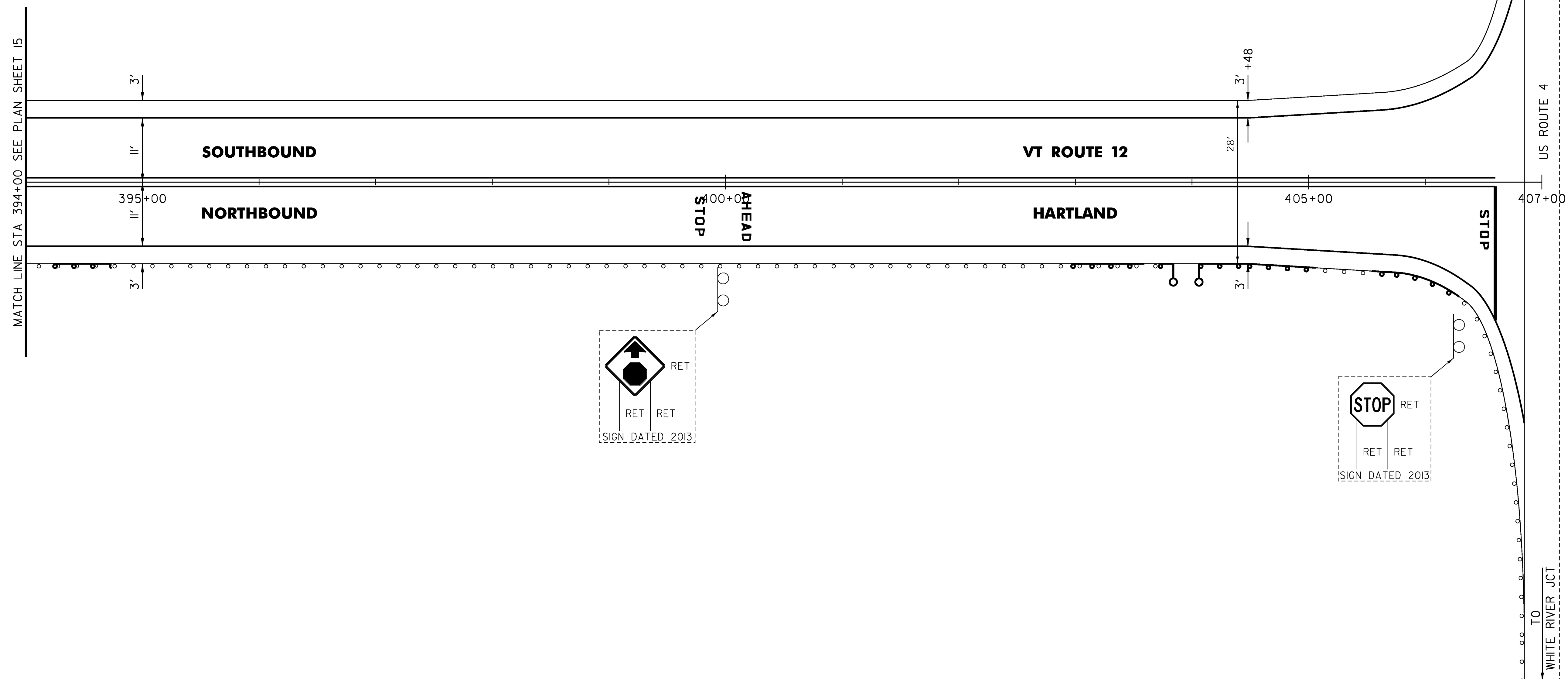
ADJUST HEIGHT OF GUARDRAIL
 394+23.5 TO 394+73.5 RT
 402+96.5 TO 403+59 RT
 403+71.5 TO 403+84 RT
 404+43.5 TO 404+81 RT
 405+54 TO 406+29 RT

REPLACE GUARDRAIL POST ASSEMBLY
 REPLACE GUARDRAIL BEAM UNIT
 404+81 TO 405+06 RT

REMOVAL AND DISPOSAL OF GUARDRAIL
 404+06 TO 404+43.5 RT

DELINEATOR WITH STEEL POST
 403+84 RT
 404+06 RT

END HARTLAND STP FPAV(8)
STA 406+85.00 (MM 7.705)
END LEVEL AND OVERLAY



NOT TO SCALE

PROJECT NAME:	HARTLAND	PLOT DATE:	4/14/2017
PROJECT NUMBER:	STP FPAV(8)	DRAWN BY:	S. GOODWIN
FILE NAME:	z16vl47bdr.dgn	DESIGNED BY:	N. LEMAY
DESIGNED BY:	N. LEMAY	CHECKED BY:	P. SHEDD
PLAN SHEET 16		SHEET	31 OF 33

TEMPORARY TRAFFIC CONTROL NOTES

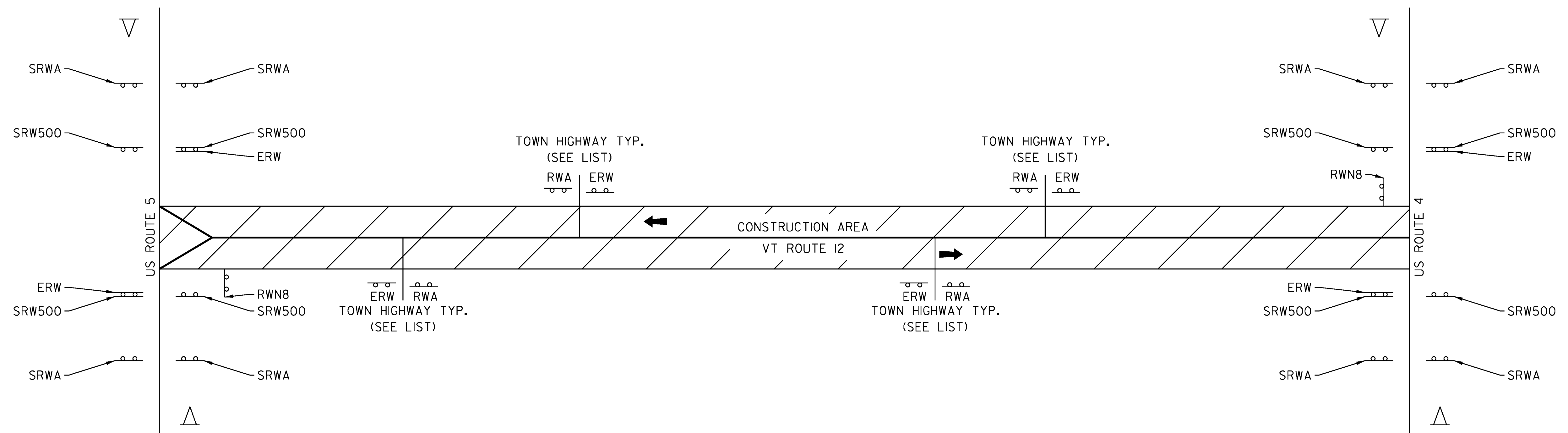
1. THE CONTRACTOR SHALL SUBMIT A SITE SPECIFIC TRAFFIC CONTROL PLAN TO THE ENGINEER FOR APPROVAL PRIOR TO THE START OF CONSTRUCTION. CONSTRUCTION OPERATIONS SHALL NOT BEGIN UNTIL THE TRAFFIC CONTROL PLAN IS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL INCLUDE A CONSTRUCTION SIGN PACKAGE FOR EXPECTED LANE CLOSURES, WORK ZONE SPEED REDUCTIONS AND PEDESTRIAN ACCESS IN COMPLIANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). THE COST OF PREPARING THIS PLAN (AND MAKING CHANGES IF NECESSARY) WILL 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 ENGINEER IN ADVANCE FOR APPROVAL. THE PCMS SHOULD BE RELOCATED AS DETERMINED BY THE ENGINEER TO PROVIDE WORK ZONE TRAVEL INFORMATION THAT IS OTHERWISE DIFFICULT TO CONVEY WITH STATIC SIGNS. THE COST OF PROVIDING THESE MESSAGE SIGNS AND THEIR RELOCATION IF NECESSARY WILL BE PAID UNDER ITEM 641.15 PORTABLE CHANGEABLE MESSAGE SIGN.
THE PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) AND THE MESSAGE IT DISPLAYS SHOULD NOT REPLACE ANY OF THE SIGNING DETAILED IN THE MUTCD AND SHOULD NOT BE USED IF STANDARD TRAFFIC CONTROL DEVICES ADEQUATELY PROVIDE THE INFORMATION THE MOTORISTS NEED TO TRAVERSE THE WORK ZONE SAFELY. THE PCMS SHALL CONSIST OF EITHER ONE OR TWO PHASES, TYPICALLY, A PHASE SHALL CONSIST OF UP TO THREE LINES OF EIGHT CHARACTERS PER LINE. THE PCMS SHOULD BE USED AS A SUPPLEMENT AND NOT AS A SUBSTITUTE FOR CONVENTIONAL STATIC SIGNS AND PAVEMENT MARKINGS. THE PCMS SHOULD COMMUNICATE WHAT INFORMATION MOTORIST WILL NEED TO KNOW, UNNECESSARY INFORMATION SHOULD BE AVOIDED. MESSAGES SHOULD BE UPDATED PERIODICALLY TO DESCRIBE CURRENT WORK ACTIVITY SO THAT THE PCMS CONTINUES TO COMMAND ATTENTION OF THE MOTORISTS.
3. THE BID PRICE FOR ITEM 641.10 TRAFFIC CONTROL SHALL INCLUDE BUT IS NOT LIMITED TO 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 THE MUTCD AND VAOT STANDARDS. ALL ADJUSTING, RELOCATING AND REMOVING OF THESE DEVICES AS DIRECTED BY THE ENGINEER SHALL ALSO BE INCLUDED.
4. THE LATEST EDITION OF THE 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 CONTROL 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. EXISTING SIGNS WHICH CONFLICT WITH TEMPORARY TRAFFIC CONTROL SHALL BE COMPLETELY COVERED OR REMOVED.
6. SEE VAOT STANDARDS T-10 AND T-17 FOR ADDITIONAL SIGN PLACEMENT DETAILS.
7. CONSTRUCTION ZONE SIGN LAYOUT SHALL BE IN ACCORDANCE WITH SECTION 6 OF THE LATEST EDITION OF THE MUTCD, AND AS OUTLINED IN THE SPECIAL PROVISIONS.
8. CONSTRUCTION SIGNS SHALL BE IN NEW OR LIKE NEW CONDITION PER VAOT STANDARDS AND SPECIAL PROVISIONS.
9. DIAMOND SHAPED SIGNS SHALL BE FOUR FOOT BY FOUR FOOT WITH BLACK TEXT AND BORDER ON A RETROREFLECTIVE FLUORESCENT ORANGE BACKGROUND.
10. RETROREFLECTIVE SHEETING SHALL BE AS NOTED ON VAOT STANDARD T-1 AND IN SUBSECTION 750.08.

11. WHERE TEMPORARY SIGNS ARE PLACED BEHIND GUARDRAIL, THEY SHALL BE ADJUSTED SUCH THAT THE BOTTOMS OF THE SIGNS ARE ABOVE THE TOP OF THE GUARDRAIL.
12. AS THE CONSTRUCTION OPERATION MOVES, FLAGGER SIGNS SHALL BE MOVED ACCORDINGLY. AT NO TIME SHOULD THE FLAGGER SYMBOL SIGN BE MORE THAN 500 FEET FROM THE FLAGGER STATION. FLAGGER SIGNS SHALL BE COVERED OR TURNED AWAY FROM TRAFFIC WHEN FLAGGING OPERATIONS CEASE FOR LONGER THAN 15 MINUTES.
13. BARRELS AND CONES SHALL BE USED TO CLEARLY DEFINE THE TRAVEL SPACE AND PROVIDE SEPARATION FROM THE WORK SPACE ALONG ITS ENTIRE LENGTH.
14. FOR TRAFFIC CONTROL GENERAL NOTES, SEE VAOT STANDARD T-1.
15. THE CONTRACTOR SHALL PROVIDE ACCESS THROUGH THE WORK ZONE AND MAINTAIN ACCESS TO ALL PROPERTIES FOR EMERGENCY VEHICLES AT ALL TIMES. ACCESS TO ALL COMMERCIAL AND MUNICIPAL PROPERTIES SHALL BE MAINTAINED DURING BUSINESS HOURS. ACCESS TO RESIDENTIAL PROPERTIES MAY BE RESTRICTED FOR A SHORT DURATION (A FEW HOURS). THIS WORK SHALL BE COORDINATED WITH THE OWNER. COORDINATE MAJOR WORK ON COMMERCIAL OR MUNICIPAL ACCESSES WITH THE OWNER AT LEAST ONE WEEK PRIOR TO STARTING THE WORK. ALL ACCESSES SHALL ALSO BE KEPT FREE OF WORK AND TRAFFIC CONTROLLED BY UNIFORMED TRAFFIC OFFICERS OR FLAGGERS AS REQUIRED BY THE ENGINEER.
16. A MINIMUM LANE WIDTH OF 10 FEET SHALL BE MAINTAINED AT ALL TIMES, INCLUDING SHOULDERS. THE DEPARTMENT OF MOTOR VEHICLES SHALL BE NOTIFIED FOR SUPER LOAD PERMIT ROUTING. THE APPLICANT HAS TEN (10) DAYS TO MOVE THEIR LOAD ONCE A PERMIT IS ISSUED. ADVANCE NOTICE MAY BE REQUIRED TO ENSURE ADEQUATE TIME IS PROVIDED.
17. WHEN COLD PLANED BITUMINOUS PAVEMENT IS OPEN TO TRAFFIC, A "MOTORCYCLES USE CAUTION" SIGN, AS PER VAOT STANDARD T-17, SHALL BE PROVIDED.
18. THE CONTRACTOR SHOULD LEAVE NO LONGITUDINAL DROP-OFFS DURING THE OVERNIGHT HOURS. THEREFORE, THE FULL ROADWAY WIDTH SHOULD BE COLD PLANED OR PAVED DURING THE DAILY WORK PERIOD. WHEN NECESSARY, DROP-OFF PROTECTION IN THESE AREAS SHALL CONFORM TO VAOT STANDARD T-36.
19. TRAFFIC SHALL NOT BE CHANGED FROM ONE TRAFFIC PATTERN TO THE NEXT TRAFFIC PATTERN UNTIL ALL TEMPORARY MARKINGS AND SIGNING WORK ARE COMPLETED. ANY CONFLICTING MARKINGS SHALL BE REMOVED.
20. ALL REASONABLE EFFORTS SHALL BE MADE TO ACCOMMODATE PEDESTRIAN TRAVEL AT ALL TIMES. THIS CAN INCLUDE, BUT IS NOT LIMITED TO A DEDICATED PEDESTRIAN ESCORT, SIGNAGE AND CONED OFF WALKING AREAS WITHIN CLOSED LANES. FLAGGERS SHALL NOT BE USED AS PEDESTRIAN ESCORTS. WHEN EXISTING PEDESTRIAN FACILITIES ARE DISRUPTED, CLOSED, OR RELOCATED IN A TEMPORARY TRAFFIC CONTROL ZONE, THE TEMPORARY FACILITIES SHALL BE DETECTABLE AND SHALL INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH THE FEATURES PRESENT IN THE EXISTING PEDESTRIAN FACILITY. PAYMENT WILL BE INCLUDED IN THE UNIT PRICE BIT FOR ITEM 641.10 TRAFFIC CONTROL.
21. PLEASE NOTE THAT THE UTO (UNIFORMED TRAFFIC OFFICER), UNDER AUTHORITY GRANTED BY LAW (TITLE 23 VSA) MAY DIRECT AND CONTROL TRAFFIC. SUITABLE EXAMPLES IN WORK MIGHT INCLUDE THE DIRECTION AND CONTROLS OF TRAFFIC AT INTERSECTIONS WHERE SIGNALS ARE NOT FUNCTIONING OR ARE MALFUNCTIONING. IN THESE CASES, THE PRESENCE OF THE BLUE LIGHT MAY NOT BE SUITABLE OR NECESSARY. THE WEARING OF DEPARTMENTALLY REQUIRED AND APPROVED REFLECTIVE GARMENTS IS REQUIRED. UTO (UNIFORMED TRAFFIC OFFICER) WILL BE PAID UNDER ITEM 630.10 UNIFORMED TRAFFIC OFFICERS.

TEMPORARY PEDESTRIAN TRAFFIC CONTROL NOTES

1. THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN THROUGH MOVEMENTS FROM ONE END OF THE CONSTRUCTION AREA TO THE OTHER, ON AT LEAST ONE SIDE OF THE STREET DURING CONSTRUCTION. ANY SIDEWALK CLOSURES SHALL MEET THE REQUIREMENTS OF THE MUTCD, PART 6.
2. PEDESTRIAN ACCESS SHALL BE PROVIDED TO ALL ADJACENT PROPERTIES, BUILDINGS, RESIDENCES AND COMMERCIAL PROPERTIES AT ALL TIMES. THIS MAY INCLUDE TEMPORARY WALKWAYS SPANNING THE CONSTRUCTION AREA.
3. IF SIDEWALKS ARE CLOSED, A TEMPORARY PEDESTRIAN ACCESS ROUTE (TPAR) SHALL BE PROVIDED ON THE SAME SIDE OF THE ROAD AS THE CLOSED SIDEWALK, IF POSSIBLE. SIGNS AND BARRICADES SHALL BE USED TO PROVIDE ADVANCE NOTICE OF THE CLOSURE AND THE ROUTE OF ANY PEDESTRIAN DETOURS. THE TPAR SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF FOUR FEET. IF THE TPAR IS LESS THAN FIVE FEET IN WIDTH, A FIVE FOOT BY FIVE FOOT PASSING SPACE SHALL BE PROVIDED AT LEAST EVERY 200 FEET. THE SURFACE OF THE TPAR SHALL BE SMOOTH AND CONTINUOUS FOR THE LENGTH OF THE TPAR. THE TPAR SHALL MAINTAIN THE SAME LEVEL OF ACCESSIBILITY AND DETECTABILITY AS THE FACILITY THAT IS BEING CLOSED. THE TPAR SHALL NOT LEAD PEDESTRIANS INTO CONFLICTS WITH VEHICLES, EQUIPMENT, OR CONSTRUCTION OPERATIONS.
4. IF THE TPAR IS ADJACENT TO MOVING TRAFFIC, CONSTRUCTION OPERATIONS/EQUIPMENT, OR DROP-OFFS, THEN CRASH WORTHY CHANNELIZING DEVICES THAT MEET THE REQUIREMENTS OF THE MUTCD SHALL BE USED.
5. THE CONTRACTOR SHALL NOT STORE OR PLACE ANY CONSTRUCTION MATERIALS, EQUIPMENT OR SIGNS IN THE PEDESTRIAN PATH OR TRAVEL.
6. THE CONTRACTOR'S OPERATIONS SHALL NOT OCCUPY SIDEWALKS EXCEPT WHERE PROPER PROTECTION AND A TPAR HAVE BEEN PROVIDED.
7. THE CONTRACTOR SHALL SUBMIT A TEMPORARY PEDESTRIAN TRAFFIC CONTROL PLAN FOR REVIEW AND WRITTEN APPROVAL A MINIMUM OF THREE WEEKS BEFORE SUCH PLAN IS IMPLEMENTED OR AS DIRECTED BY THE ENGINEER. THIS PLAN SHALL DETAIL THE CONSTRUCTION PHASING AND SCHEDULE AND THE SPECIFIC METHODS OF MAINTAINING SAFE PEDESTRIAN ACCESS THROUGHOUT THE CONSTRUCTION AREA. THIS PLAN SHALL PROVIDE THE LOCATION AND DETAILS OF TEMPORARY CONSTRUCTION SIGNING, MARKINGS, BARRICADES, CHANNELIZING DEVICES, TPARS AND METHODS TO MAINTAIN ACCESS TO ADJACENT PROPERTIES, BUSINESSES, RESIDENCES, ETC. PAYMENT WILL BE INCLUDED IN THE UNIT PRICE BID FOR CONTRACT ITEM 641.10 TRAFFIC CONTROL.

PROJECT NAME: HARTLAND	
PROJECT NUMBER: STP FPAV(8)	
FILE NAME: z16vl47frm.dgn	PLOT DATE: 5/12/2017
PROJECT LEADER: P. SHEDD	DRAWN BY: S. GOODWIN
DESIGNED BY: N. LEMAY	CHECKED BY: P. SHEDD
TRAFFIC CONTROL NOTES	SHEET 32 OF 33



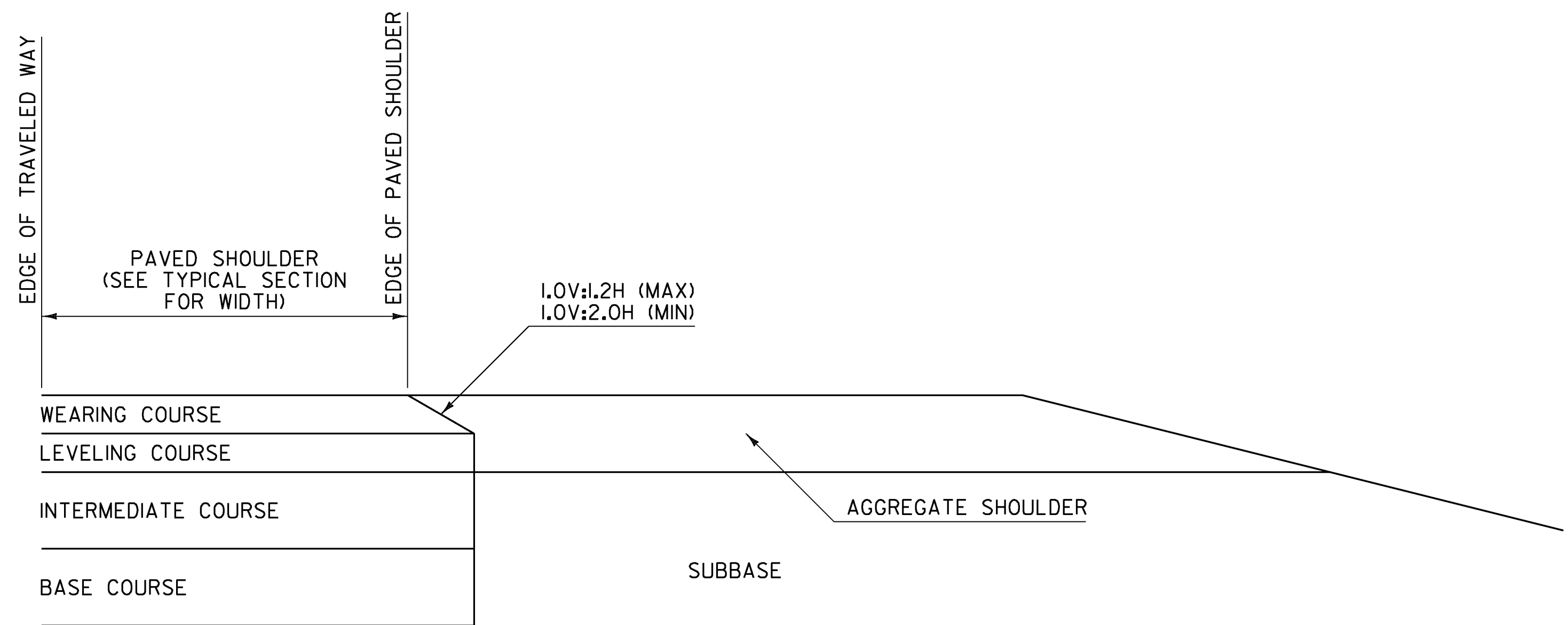
LIST OF TOWN/STATE HIGHWAYS
FOR CONSTRUCTION SIGNS

TOWN/STATE HIGHWAY NAME	ROAD WORK AHEAD (RWA)	END ROAD WORK (ERW)	ROAD WORK 500' (RW500)	SIDE ROAD WORK AHEAD (SRWA)	SIDE ROAD WORK 500' (SRW500)	ROAD WORK NEXT 8 MILES (RWN8)	PCMS
VT ROUTE 12							
BEGINNING OF PROJECT		2		4	4	1	2
TH 40	1	1					
TH 39	1	1					
TH 1	1	1					
TH 18	1	1					
TH 30	1	1					
TH 28	1	1					
TH 26	-	-					
TH 7	-	-					
TH 8	1	1					
END OF PROJECT		2		4	4	1	2
TOTAL	7	11		8	8	2	4

LEGEND

- RWA = ROAD WORK AHEAD
- RW500 = ROAD WORK IN 500 FEET
- SRWA = SIDE ROAD WORK AHEAD
- SRW500 = SIDE ROAD WORK IN 500 FEET
- RWN = ROAD WORK NEXT (XX MILES)
- ERW = END ROAD WORK
- △ = PORTABLE CHANGEABLE MESSAGE SIGN
- ▨ = WORK AREA
- ← = DIRECTION OF TRAFFIC FLOW

PROJECT NAME:	HARTLAND
PROJECT NUMBER:	STP FPAV(8)
FILE NAME: z16vl47frm.dgn	PLOT DATE: 4/14/2017
PROJECT LEADER: P. SHEDD	DRAWN BY: S. GOODWIN
DESIGNED BY: N. LEMAY	CHECKED BY: P. SHEDD
TRAFFIC CONTROL PLAN	SHEET 33 OF 33

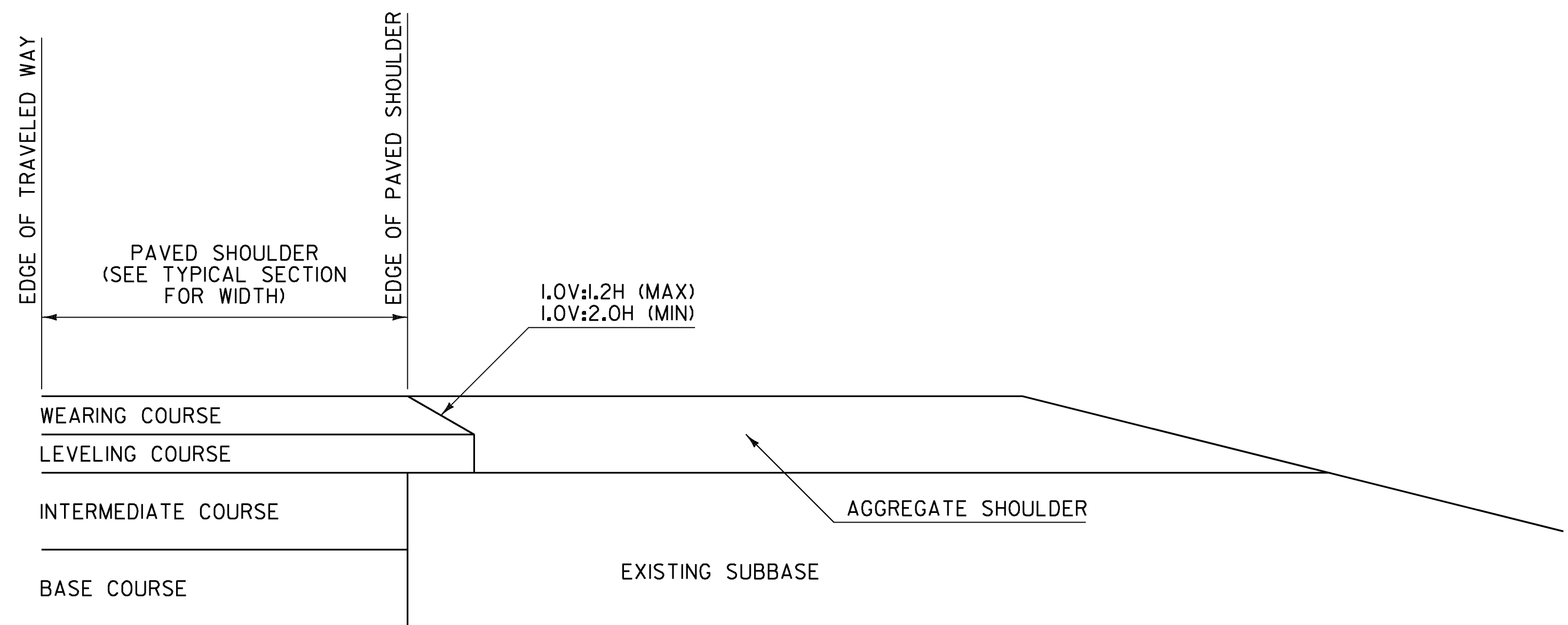


NOTES:

1. THIS DETAIL IS INTENDED FOR WHEN PAVING EXTENDS BELOW THE WEARING COURSE.
2. PRIOR TO PLACEMENT OF THE LEVELING AND/OR WEARING COURSE, THE SUBBASE LOCATED BENEATH THE AGGREGATE SHOULDER SHALL BE PREPARED FLUSH WITH THE BOTTOM OF THE LEVELING COURSE.
3. BASE COURSE LIMITS MAY VARY, SEE TYPICAL SECTIONS FOR WIDTH.

**SAFETY EDGE DETAIL
FOR PAVING BELOW WEARING COURSE**

SAFETY EDGE WIDTH BASED ON WEARING COURSE THICKNESS AND A 1V:1.6H SLOPE	
WEARING COURSE THICKNESS (INCHES)	NOMINAL SAFETY EDGE WIDTH (INCHES)
1.25	2.000
1.50	2.375
1.75	2.750
2.00	3.125
2.25	3.500
2.50	4.000



NOTES:

1. THIS DETAIL IS INTENDED FOR WHEN ONLY THE LEVELING AND/OR WEARING COURSE IS TO BE PLACED.
2. PAVEMENT COURSES MAY VARY, SEE TYPICAL SECTIONS FOR ACTUAL PAVEMENT COURSES REQUIRED.

**SAFETY EDGE DETAIL
FOR PAVING WEARING COURSE ONLY**

GENERAL NOTES:

1. PLACEMENT OF THE WEARING COURSE SHALL INCLUDE THE SAFETY EDGE, UNLESS THE FOLLOWING APPLIES:
 - A. THE ADJACENT SLOPE IS STEEPER THAN THE SAFETY EDGE.
 - B. THE EDGE OF PAVEMENT BEING PLACED ABUTS BOUND MATERIAL.
 - C. VEHICLES ARE RESTRICTED FROM LEAVING THE PAVED SURFACE (EXAMPLE: GUARDRAIL).
2. THE SAFETY EDGE SHALL BE FORMED IN SUCH A WAY THAT THE BITUMINOUS CONCRETE PAVEMENT IS EXTRUDED OR COMPRESSED TO FORM THE SLOPE. DEVICES THAT SIMPLY STRIKE-OFF THE MIX WITHOUT PROVIDING ANY COMPACTIVE EFFORT WILL NOT BE ALLOWED.
3. THE SAFETY EDGE SHALL NOT BE CONSIDERED PART OF THE PAVED SHOULDER.
4. THIS WORK SHALL BE INCIDENTAL TO THE RESPECTIVE BITUMINOUS CONCRETE PAVEMENT ITEM.

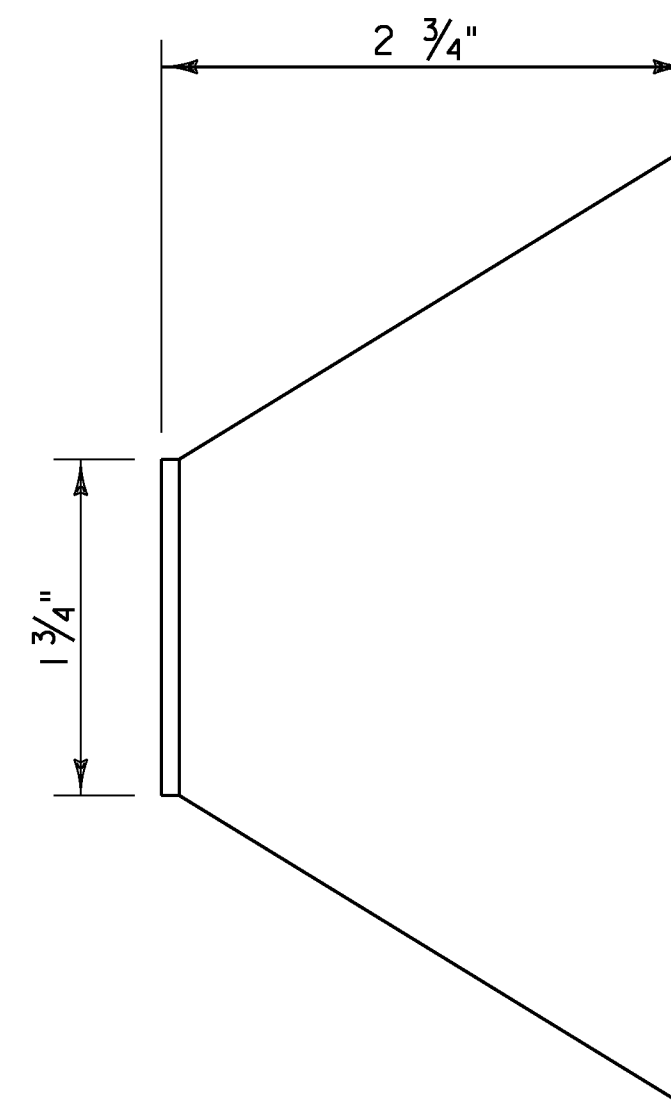
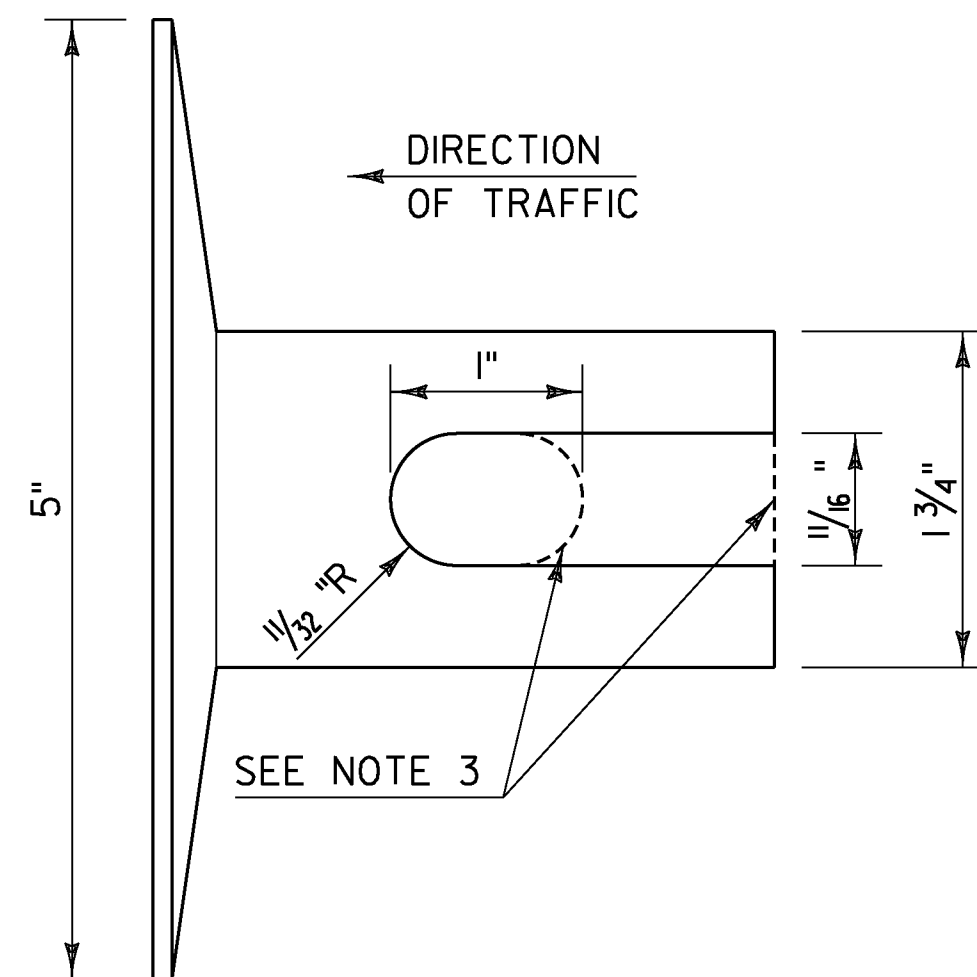
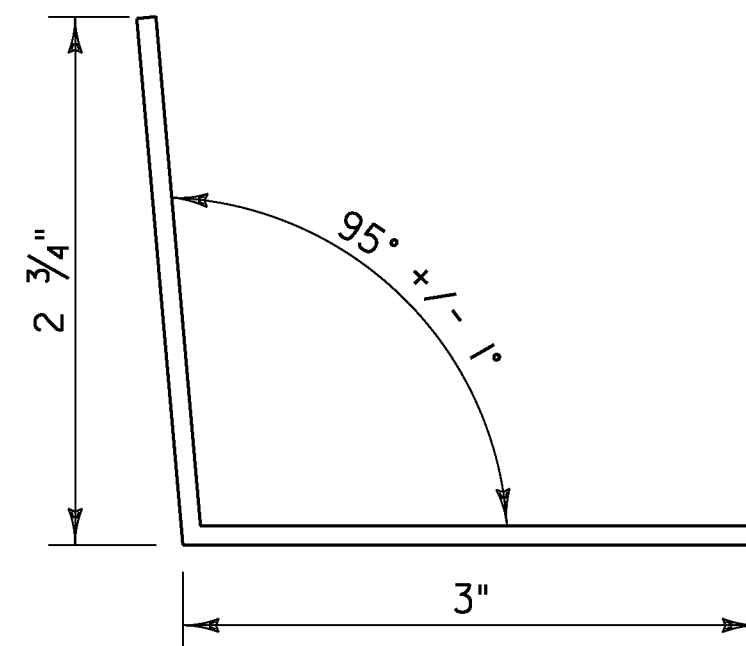
REV.	DATE	DESCRIPTION
0	MAR. 29, 2016	ORIGINAL APPROVAL
OTHER DETAILS REQUIRED: NONE		
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN		

SAFETY EDGE DETAILS



HIGHWAY SAFETY
& DESIGN DETAIL
HSD-400.01

GUARDRAIL DELINEATOR DETAIL



GUARDRAIL TERMINAL LABEL DETAIL



NOTES:

- I. LINE ONE SHALL INDICATE THE INSTALLATION YEAR (YYYY).
- II. LINE TWO SHALL INDICATE THE MODEL AS IDENTIFIED ON THE APPROVED PRODUCTS LIST. FOR GENERIC INSTALLATIONS THE STANDARD DRAWING DESIGNATION OR NAME AS IDENTIFIED IN THE FHWA ELIGIBILITY LETTER SHALL BE USED.
- III. LINE THREE SHALL INDICATE ADDITIONAL MODEL INFORMATION IF NECESSARY.
- IV. LINE FOUR SHALL INDICATE FLARED (FLRD) OR TANGENT (TANG).
- V. LEGEND SHALL BE SIZE 3/4 INCH ARIEL FONT.
- VI. LEGEND SHALL BE BLACK ON A WHITE BACKGROUND, LEGEND AND BACKGROUND SHALL NOT BE REFLECTIVE.
- VII. SUITABLE MATERIAL SHALL BE USED SO AS TO NOT DETERIORATE DURING EXPOSURE TO WEATHER.
- VIII. LABELS SHALL BE APPLIED IN SUCH A WAY THAT THEY REMAIN INTACT DURING THE LIFE OF THE TERMINAL.
- IX. FOR W-BEAM GUARDRAIL, LABEL SHALL BE PLACED ON THE TOP OF POST ONE FACING AWAY FROM TRAFFIC.
- X. FOR BOX BEAM GUARDRAIL, LABEL SHALL BE PLACED ON THE BOX BEAM ADJACENT TO POST ONE FACING AWAY FROM TRAFFIC.
- XI. PAYMENT SHALL BE INCIDENTAL TO OTHER TRAFFIC BARRIER ITEMS.

NOTES:

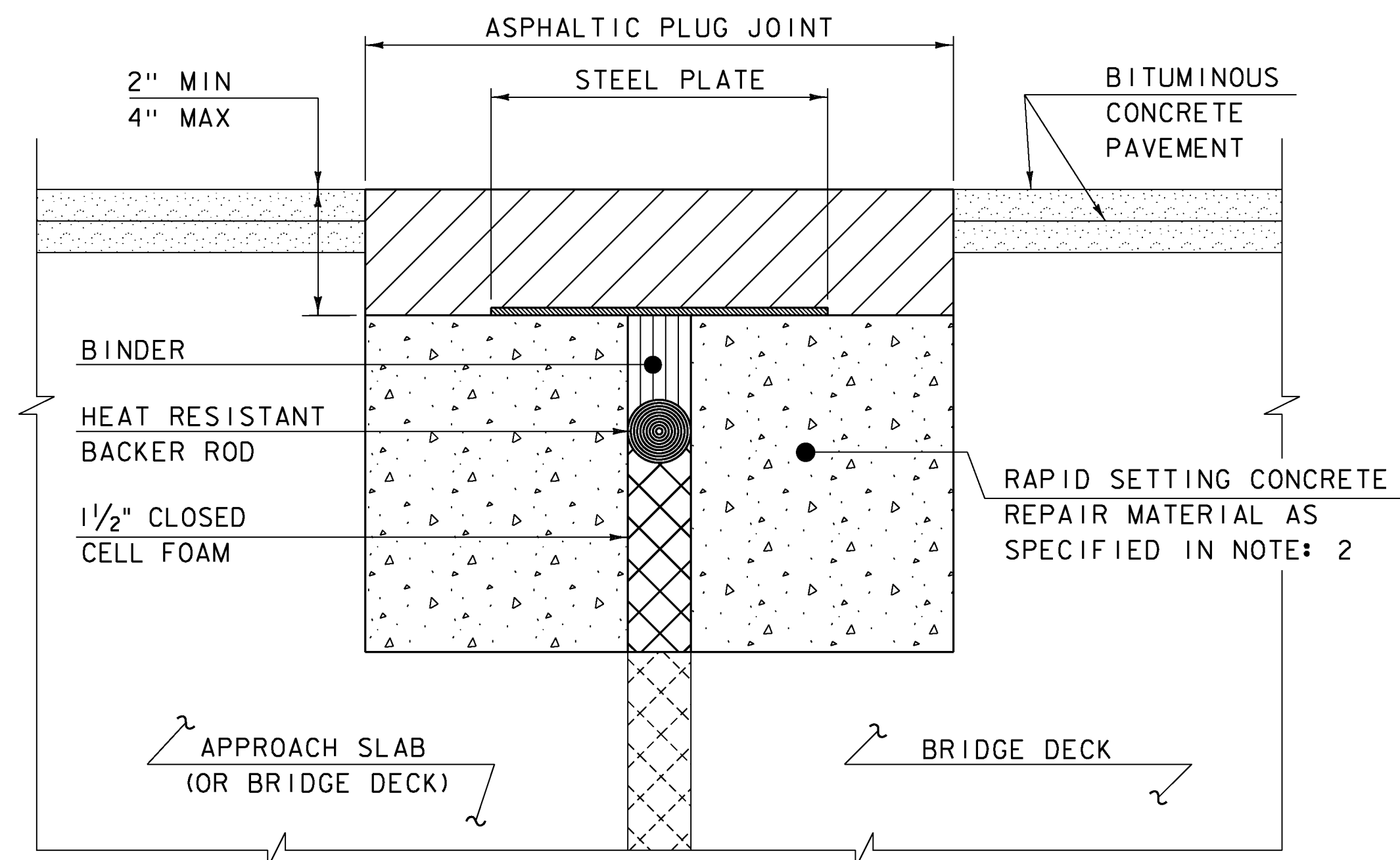
- I. GUARDRAIL DELINEATOR BASE MATERIAL SHALL BE 0.010 INCH THICK ALUMINUM IN ACCORDANCE WITH SUBSECTION 728.04 DELINEATION DEVICES.
- II. GUARDRAIL DELINEATORS SHALL HAVE WHITE RETROREFLECTIVE SHEETING, EQUAL TO OR EXCEEDING TYPE III IN ACCORDANCE WITH SUBSECTION 750.08(B)(3) ON THE RIGHT SIDE OF THE TRAVELED WAY AND YELLOW RETROREFLECTIVE SHEETING EQUAL TO OR EXCEEDING TYPE VII IN ACCORDANCE WITH SUBSECTION 750.08(B)(7) ON THE LEFT SIDE OF THE TRAVELED WAY IN RESPECT TO APPROACHING TRAFFIC. ON ONE DIRECTIONAL ROADWAYS RETROREFLECTIVE SHEETING MAY BE OMITTED ON FACES WHERE THERE WILL BE NO APPROACHING TRAFFIC.
- III. HOLE MAY BE USED IN PLACE OF SLOT.

REV.	DATE	DESCRIPTION
0	NOV. 3, 2015	ORIGINAL APPROVAL
1	FEB. 27, 2017	UPDATED NAME, MINOR CORRECTIONS AND ADDED GUARDRAIL DELINEATOR DETAIL
OTHER DETAILS REQUIRED: NONE		
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN		

MISCELLANEOUS GUARDRAIL DETAILS



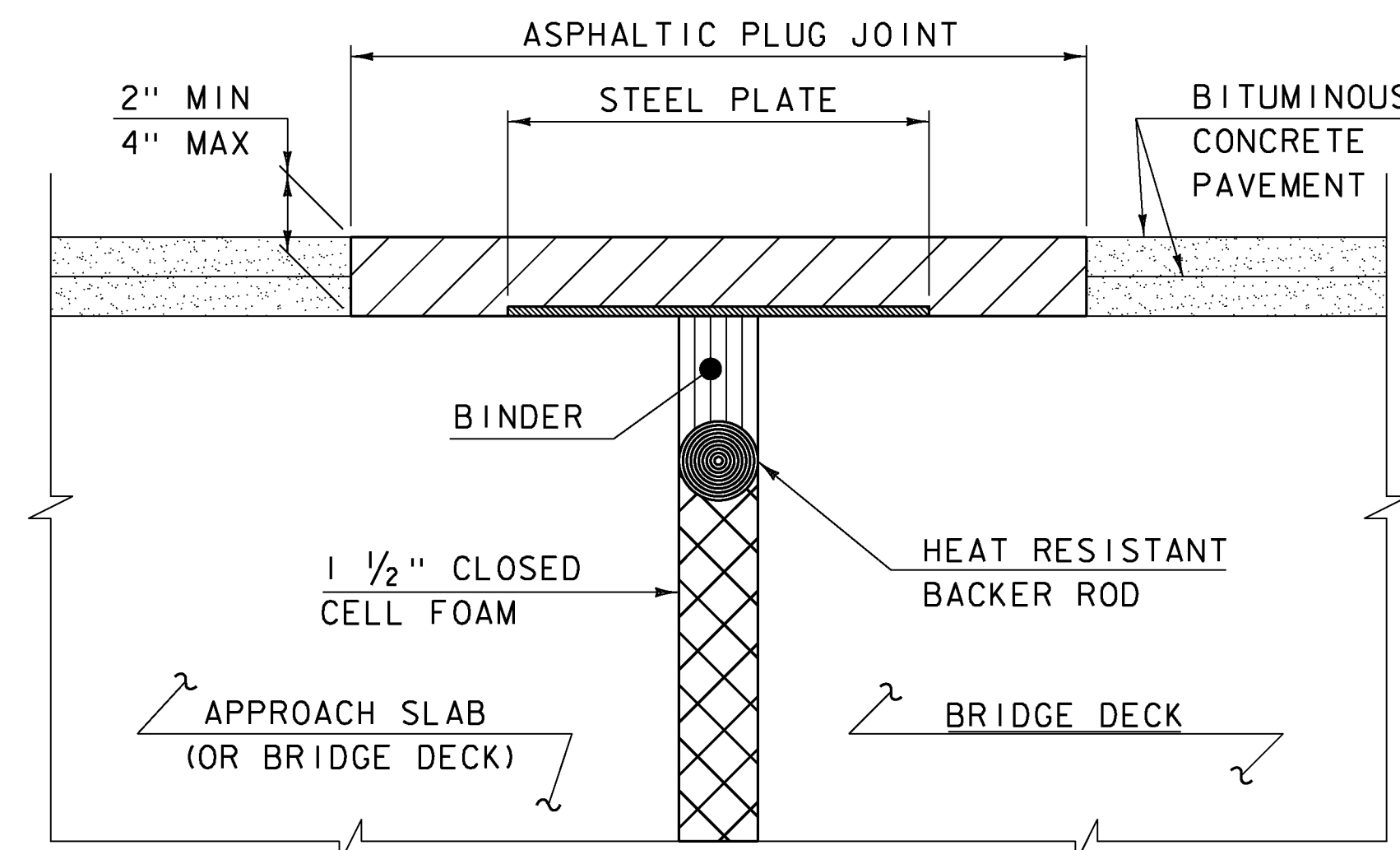
HIGHWAY SAFETY
& DESIGN DETAIL
HSD - 621.06



ASPHALTIC PLUG JOINT DETAIL - REHAB

NOTES:

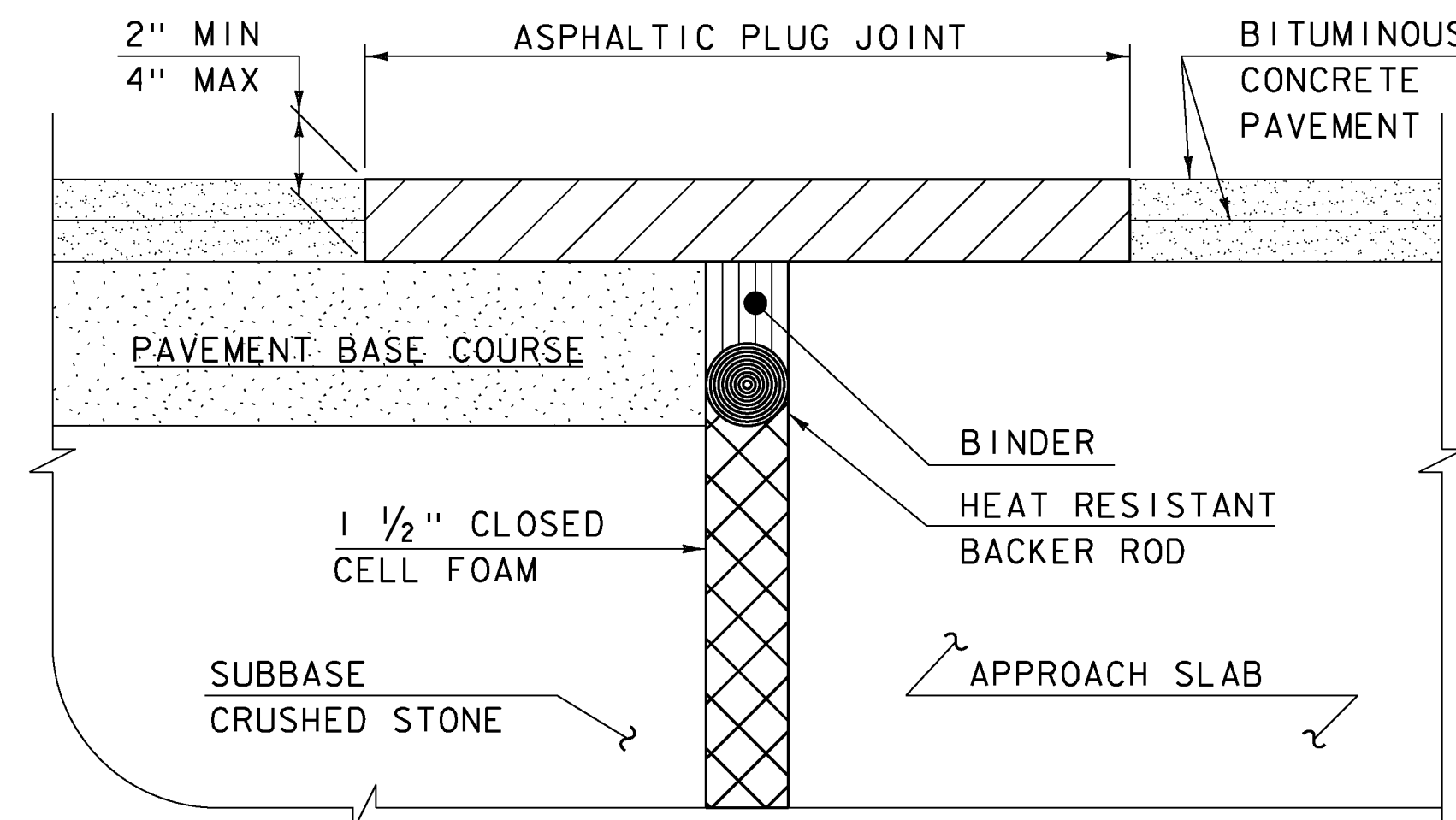
1. THE CONTRACTOR SHALL REMOVE ALL ASPHALTIC PLUG JOINT MATERIAL AND DETERIORATED CONCRETE AS DIRECTED BY THE ENGINEER. REMOVAL OF THE FIRST 4 INCHES OF MATERIAL SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 516.10 BRIDGE EXPANSION JOINT, ASPHALTIC PLUG. ANY REMOVAL OF MATERIAL GREATER THAN 4 INCHES SHALL BE INCLUDED IN THE BID PRICE OF ITEM 580.20 RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE 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.
4. 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.



ASPHALTIC PLUG JOINT DETAIL "A" - NEW

NOTE:

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.



ASPHALTIC PLUG JOINT DETAIL "B" - NEW

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. IMMEDIATELY AFTER TOP COATING, CAST AN ANTI-SKID MATERIAL OVER THE JOINT TO REDUCE THE RISK OF TRACKING.

WEATHER LIMITATIONS

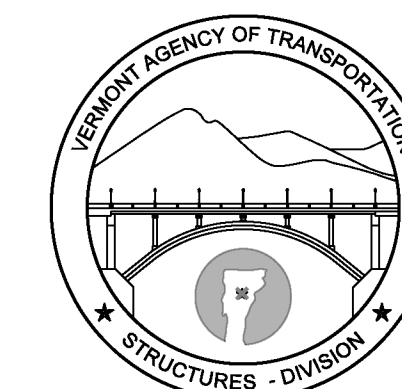
APPLY BINDER MATERIAL ONLY WHEN THE FOLLOWING CONDITIONS PREVAIL OR AS RECOMMENDED BY THE MANUFACTURER:

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.

DETAILS ON THIS SHEET ARE NOT TO SCALE.

REVISIONS	
MAY 7, 2010	APPROVED FOR USE BY VAOT STRUCTURES SECTION
AUGUST 29, 2011	ADD DETAIL "B" AND REV. NOTES

**BRIDGE JOINT
ASPHALTIC PLUG**



**STRUCTURES
DETAIL
SD-516.10**