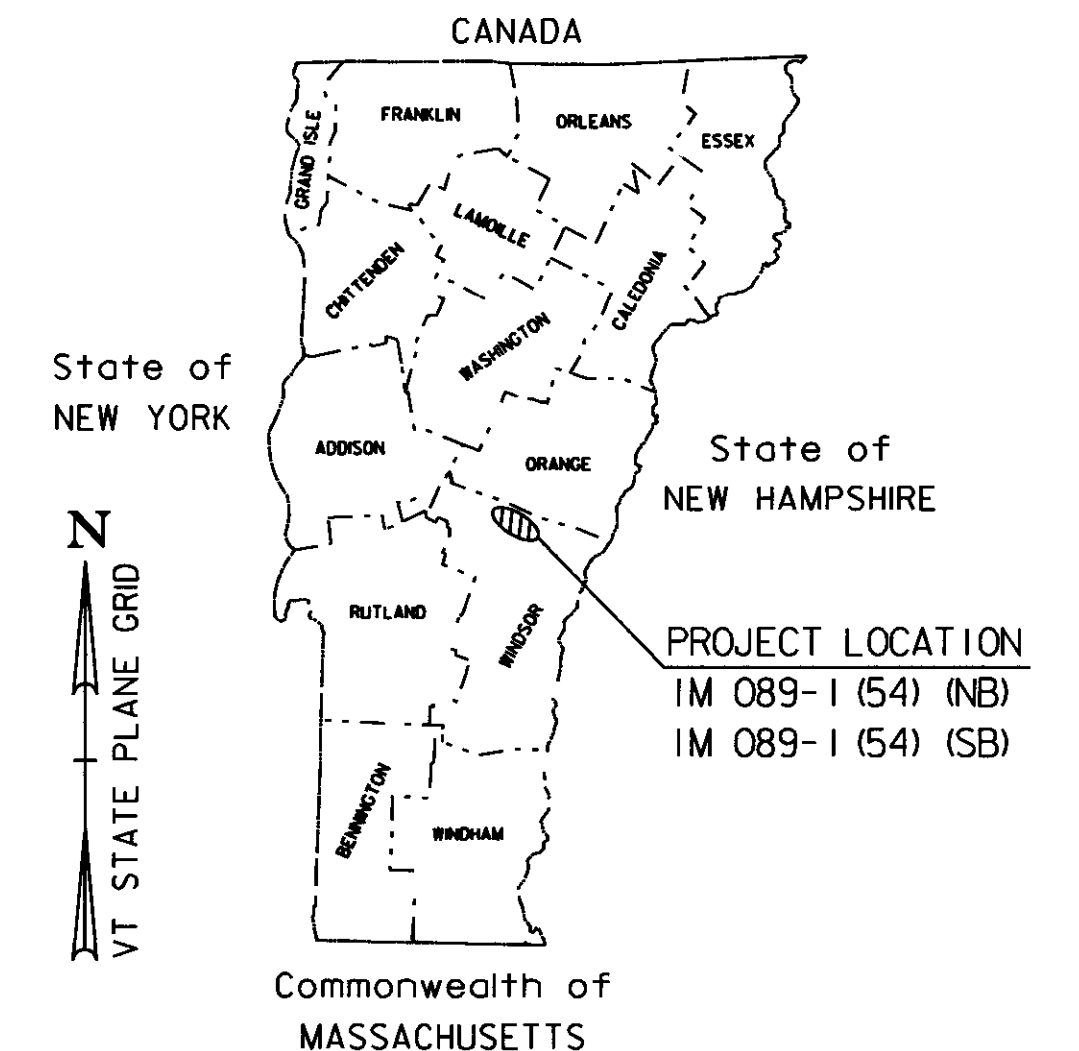


INDEX OF SHEETS
SEE SHEET 2

STATE OF VERMONT AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT TOWNS OF ROYALTON & BETHEL COUNTY OF WINDSOR INTERSTATE ROUTE 89 NB & 89 SB



RECORD PLANS

CONTRACTOR	PIKE INDUSTRIES, INC. - BERLIN, VT
RESIDENT ENGINEER	TOM CHASE
CONSTRUCTION BEGAN	APRIL 13, 2009
CONSTRUCTION COMPLETE	SEPTEMBER 17, 2009
RECORD PLANS BY	TOM CHASE & C. PIERCE

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

BY Thomas A. Chase RESIDENT ENGINEER
DATE 06/04/10

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

ROYALTON-BETHEL IM 089-1 (54) (NB)

BEGINNING IN ROYALTON ON I-89 AT STATION 924+00 (MM 17.500) AND EXTENDING NORTHERLY A DISTANCE OF 41,369 FEET (7.835 MILES) TO STATION 1337+69 (MM 25.335) IN THE TOWN OF BETHEL.

ROYALTON-BETHEL IM 089-1 (54) (SB)

BEGINNING IN ROYALTON ON I-89 AT STATION 924+00 (MM 17.500) AND EXTENDING NORTHERLY A DISTANCE OF 41,738 FEET (7.905 MILES) TO STATION 1341+38 (MM 25.405) IN THE TOWN OF BETHEL.

TRAFFIC DATA

BETWEEN EXITS 2 & 3 NB		
2009	ADT	= 7600
2009	DHV	= 1100
2019	ADT	= 9200
2019	DHV	= 1300
2009-2019	ESALS	= 9,376,000
2009-2029	ESALS	= 25,230,000
BETWEEN EXITS 3 & 4 NB		
2009	ADT	= 7700
2009	DHV	= 1100
2019	ADT	= 8100
2019	DHV	= 1100
2009-2019	ESALS	= 7,362,000
2009-2029	ESALS	= 18,603,000
BETWEEN EXITS 2 & 3 SB		
2009	ADT	= 8000
2009	DHV	= 1100
2019	ADT	= 9700
2019	DHV	= 1400
2009-2019	ESALS	= 8,750,000
2009-2029	ESALS	= 23,323,000
BETWEEN EXITS 3 & 4 SB		
2009	ADT	= 7600
2009	DHV	= 1100
2019	ADT	= 8000
2019	DHV	= 1100
2009-2019	ESALS	= 6,475,000
2009-2029	ESALS	= 16,346,000

PROJECT DATA

FROM	TO
924+00.00 (MM 17.500)	1337+69 (MM 25.335)
LENGTH OF ROADWAY = 7.835 MILES (41,369 FEET)	
LENGTH OF PROJECT = 7.835 MILES (41,369 FEET)	

WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES COLD PLANING AND RESURFACING OF THE NORTHBOUND LANES, NORTHBOUND INTERCHANGE RAMP AND MAINTENANCE U-TURNS WITH A LEVELING, WEARING COURSE, NEW PAVEMENT MARKINGS, GUARDRAIL, SIGNS, AND INCIDENTAL ITEMS AS SHOWN IN THE PROJECT QUANTITIES.

PROJECT DATA

FROM	TO
924+00 (MM 17.500)	1341+38 (MM 25.405)
LENGTH OF ROADWAY = 7.905 MILES (41,738 FEET)	
LENGTH OF PROJECT = 7.905 MILES (41,738 FEET)	

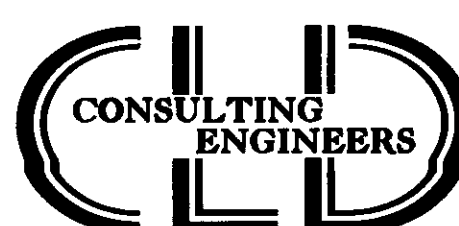
WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES COLD PLANING AND RESURFACING OF THE SOUTHBOUND LANES AND SOUTHBOUND INTERCHANGE RAMP WITH A LEVELING, WEARING COURSE, NEW PAVEMENT MARKINGS, GUARDRAIL, SIGNS, AND INCIDENTAL ITEMS AS SHOWN IN THE PROJECT QUANTITIES.

SUPERPAVE BITUMINOUS CONCRETE PAVEMENT MIXTURE DESIGN CRITERIA	
DESIGN LANE/DESIGN LIFE ESAL	23,323,000
DESIGN NUMBER OF GYRATIONS (NB)	80
DESIGN NUMBER OF GYRATIONS (SB)	80
PERFORMANCE GRADE ASPHALT BINDER SEE SECTION 490 GENERAL SPECIAL PROVISIONS	

CONVENTIONAL SYMBOLS

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

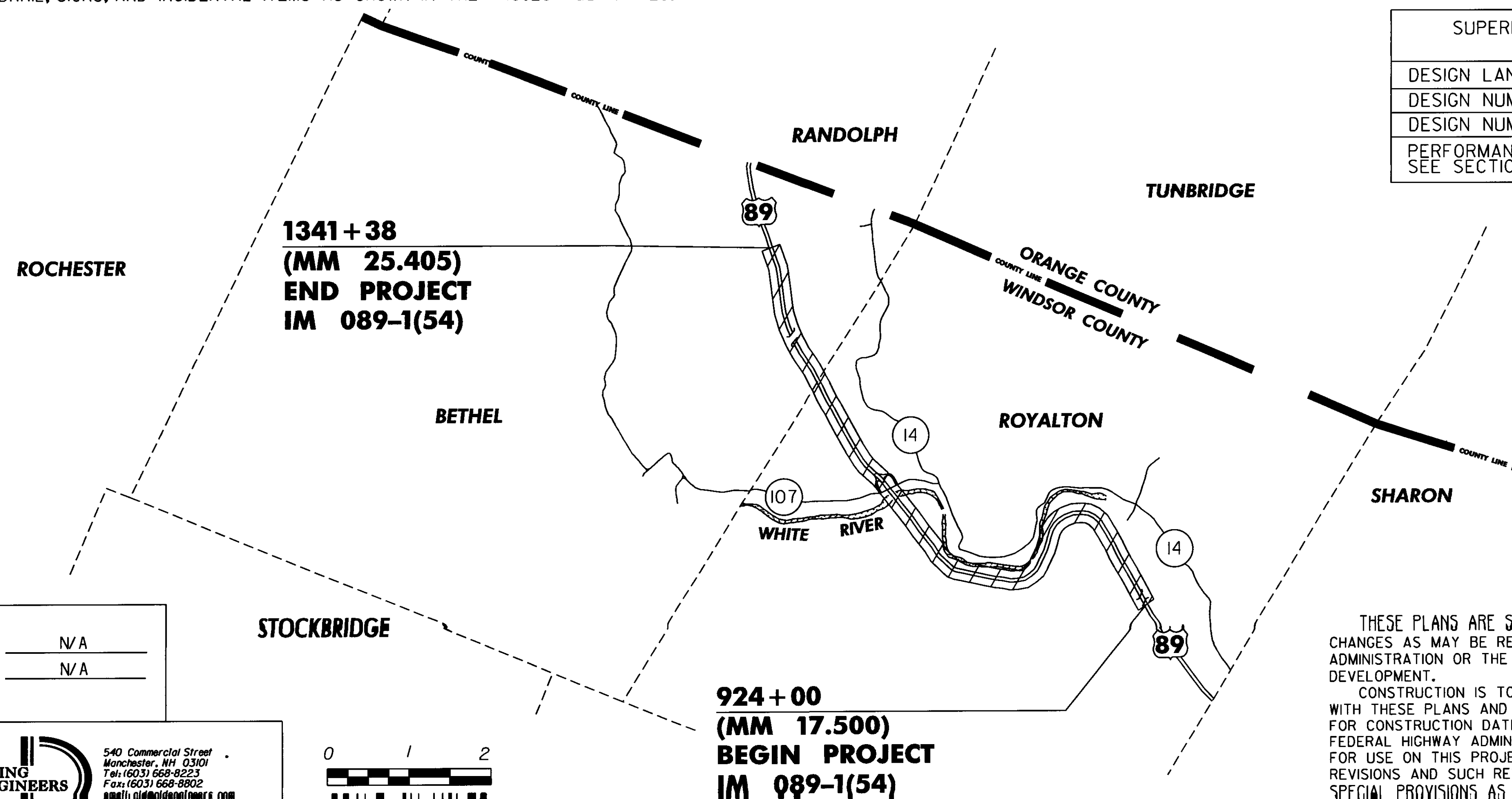
DATUM
VERTICAL N/A
HORIZONTAL N/A



540 Commercial Street
Monroe, NH 03101
Tel: (603) 668-8223
Fax: (603) 668-8802
www.consultingengineers.com
Maine • New Hampshire • Vermont

STOCKBRIDGE

0 1 2
SCALE IN MILES



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

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

UNLESS OTHERWISE NOTED, ALL DRAWINGS AND DETAILS OF THE PROJECT PLANS ARE 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.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATOR

APPROVED Mark D. Richter DATE 1-16-09

DIRECTOR OF PROGRAM DEVELOPMENT

APPROVED John P. Thomas DATE 12-11-08

PROJECT MANAGER: TED DOMEY

PROJECT NAME : ROYALTON-BETHEL

PROJECT NUMBER : IM 089-1 (54)

SHEET 1 OF 37 SHEETS

INDEX OF SHEETS

INDEX OF STANDARD PLANS

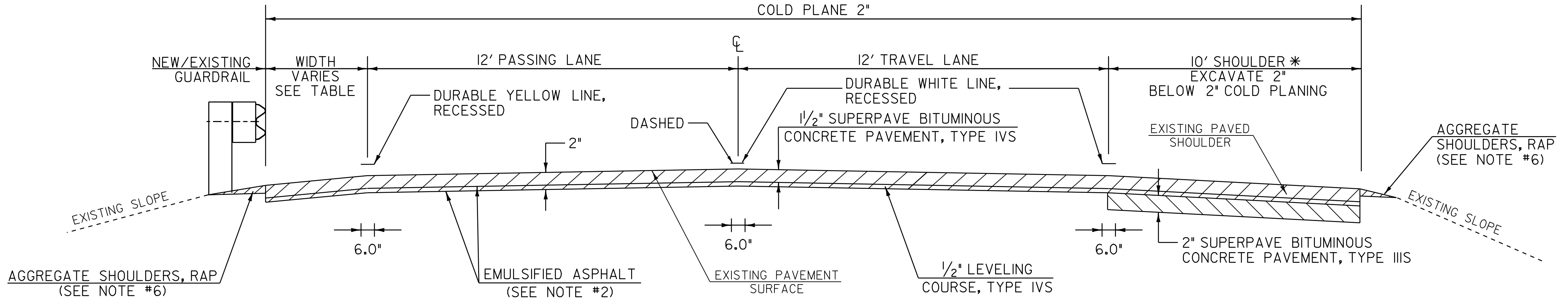
STD	DATE	DESCRIPTION
D-3	6/1/1994	TREATED GUTTERS
D-6	6/1/1994	REINFORCED CONCRETE DROP INLET W/GRATE (DITCHES)
D-10	6/1/1994	REINFORCED CONCRETE DROP INLET TOPS - BITUMINOUS CONCRETE CURB & GRANITE SLOPE EDGING
D-15	6/1/1994	PRECAST REINF. CONC. CATCH BASIN W/CAST IRON GRATE, PRECAST REINF. CONC. MANHOLE W/ CAST IRON COVER, CAST IRON GRATE WITH FRAME, TYPE D - CAST IRON GRATE WITH FRAME, TYPE E
E-100	1/2/2004	CONSTRUCTION APPROACH SIGNS
E-100A	1/2/2004	SIDE ROAD CONSTRUCTION APPROACH SIGNS
E-101	5/30/2003	CONSTRUCTION SIGN DETAILS
E-102	6/30/2003	CONSTRUCTION SIGN DETAILS
E-102A	5/1/2004	CONSTRUCTION SIGN DETAILS
E-103	3/1/2004	MAINLINE TRAFFIC CONTROL DIVIDED HIGHWAY - ONE LANE CLOSED
E-105	5/1/2004	TRAFFIC CONTROL FOR CONSTRUCTION VEHICLE - U-TURNS ON DIVIDED HIGHWAY
E-106	3/1/2004	TRAFFIC CONTROL - MISCELLANEOUS DETAILS
E-107	6/30/2003	DELINEATION, BARRICADES AND DETOURS FOR - U-TURNS ON DIVIDED HIGHWAY
E-107A	8/8/1995	BREAKAWAY BARRICADE DETAILS
E-108A	12/8/2008	CONSTRUCTION ZONE LONGITUDINAL DROP OFFS FOR PAVING
E-110	8/8/1995	MAJOR MAINTENANCE OPERATION LANE CLOSURE
E-111	3/11/1997	MINOR MAINTENANCE OPERATION
E-120	8/8/1995	STANDARD SIGN PLACEMENT - EXPRESSWAY & FREEWAY
E-123	3/16/2004	GUIDE SIGN PLACEMENT - MISCELLANEOUS DETAILS
E-132	8/18/1995	GENERAL MOTORIST SERVICE SIGN DETAILS
E-133	8/8/1995	SERVICE SIGN DETAILS
E-136B	8/8/1995	STATE ROUTE MARKER SIGN DETAILS
E-139	5/1/2004	MILEMARKER DETAILS - INTERSTATE
E-142	9/20/1995	REGULATORY SIGN DETAILS
E-143	6/15/2004	REGULATORY SIGN DETAILS
E-150	5/1/2004	WARNING SIGN DETAILS
E-151	5/1/2004	WARNING SIGN DETAILS
E-152	5/1/2004	WARNING SIGN DETAILS
E-155	5/1/2004	WARNING SIGN DETAILS
E-160	5/20/1999	FLANGED CHANNEL STEEL SIGN POST
E-161	8/18/1995	W-SHAPED STEEL SIGN POST
E-164	5/20/1999	SQUARE STEEL SIGN POST
E-191	2/1/1999	PAVEMENT MARKING DETAILS
E-192	10/12/2000	PAVEMENT MARKING DETAILS
E-193	8/18/1995	PAVEMENT MARKING DETAILS
E-197	4/1/2005	DELINEATOR PLACEMENT TYPICAL
E-198	4/1/2005	DELINEATORS AND MILEPOSTS
E-199	4/1/2005	DELINEATOR AND MILEPOST MOUNTING ON BRIDGE RAIL
F-2	6/1/1994	CHAIN LINK FENCE, TYPE I- DRIVE GATE FOR CHAIN LINK FENCE,TYPE I- WALK GATE FOR CHAIN LINK FENCE,TYPE I
G-1	1/3/2000	STEEL BEAM GUARDRAIL (50MPH & OVER) - HEAVY DUTY STEEL BEAM GUARDRAIL TWISTED END TERMINAL - ANCHOR FOR STEEL BEAM RAIL
G-ID	1/3/2000	STEEL BEAM GUARDRAIL (40MPH & LESS) - HEAVY DUTY STEEL BEAM GUARDRAIL STEEL BEAM MEDIAN BARRIER - ANCHOR FOR STEEL BEAM RAIL
G-19	11/15/2002	GENERIC GRADING PLANS FOR GUARDRAIL END TERMINALS
ESFM	7/10/1997	PERMANENT SNOW FENCE

INDEX OF SHEETS

1	TITLE SHEET
2	INDEX OF SHEETS
3-5	PROJECT TYPICAL SHEETS
6-8	QUANTITY SHEETS
9-11	ITEM DETAIL SHEETS
12-13	PAVING LAYOUT SHEETS
14-22	RAMP DETAIL SHEETS
23-28	TRAFFIC SIGN SUMMARY SHEETS
29	SIGN DETAILS
30	DECEL LANE WIDENING DETAIL
31	BRIDGE/GUARDRAIL TREATMENT DETAILS
32-33	ALUMINUM APPROACH RAILING DETAILS
34	TYPICAL PAVEMENT MARKINGS
35-36	MILLED RUMBLE STRIP DETAIL SHEETS
37	TEMPORARY TRAFFIC CONTROL PLAN

INDEX OF SHEETS

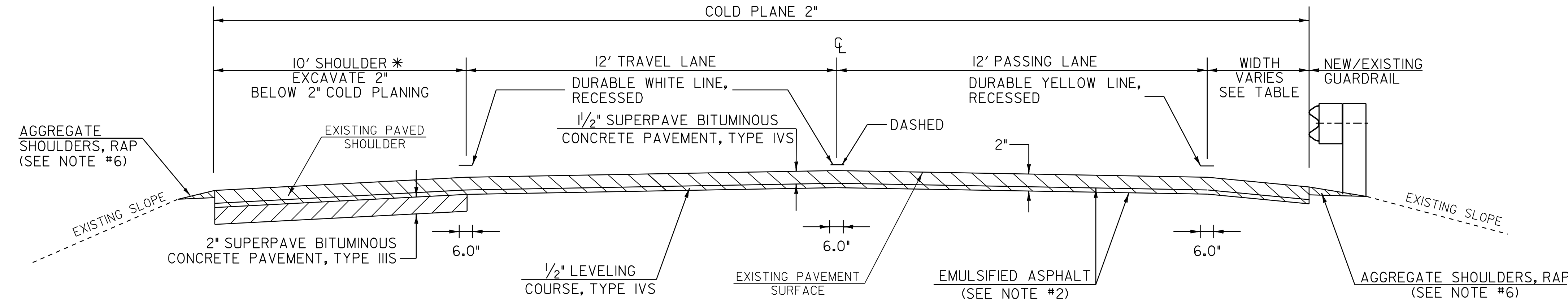
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PROJECT NUMBER:	IM 089-1(54)
FILE NAME: p06a198.dgn	PLOT DATE: 28-JUN-2010 15:11
PROJECT LEADER: PTS	DRAWN BY: MRS
DESIGNED BY: NULL	CHECKED BY: PTS
IPARM FILE NAME: p06a1981s.i	SHEET 2 OF 37



MAINLINE TYPICAL SECTION – NB

LOCATION
NB 924+00 TO 1157+80
NB 1167+83 TO 1337+69

* WHEN SHOULDER IS LESS THAN 10' IN WIDTH COLD PLANE 2" WITH 1/2", TYPE IVS, AND PAVE WITH 1 1/2" SUPERPAVE BITUMINOUS CONCRETE PAVEMENT, TYPE IVS.



MAINLINE TYPICAL SECTION – SB

LOCATION
SB 924+00 TO 1157+80
SB 1167+83 TO 1341+38

PROJECT PAVING LIMITS

TOWN	BEGIN STATION	END STATION	LEFT SHOULDER	LANE TYPICAL	RIGHT SHOULDER	WEARING DEPTH	BASE DEPTH	LEVELING	NOTES
I-89 NB									
ROYALTON	924+00	1157+80	4	12-12	10	1 1/2" IVS		1/2"	COLD PLANE 2", LEVEL 1/2" AND OVERLAY 1 1/2"
	1157+80	1167+83	3	12-12	3	1 1/4" IVS			COLD PLANE 1 1/4" AND OVERLAY 1 1/4", BRIDGE 26N
	1167+83	1172+63	4	12-12	VARIES	1 1/2" IVS		1/2"	COLD PLANE 2", LEVEL 1/2" AND OVERLAY 1 1/2"
	1172+63	1188+48	4	12-12	10	1 1/2" IVS		1/2"	COLD PLANE 2", LEVEL 1/2" AND OVERLAY 1 1/2"
	1188+48	1197+98	4	12-12	VARIES	1 1/2" IVS		1/2"	COLD PLANE 2", LEVEL 1/2" AND OVERLAY 1 1/2"
	1197+98	1254+13	4	12-12	10	1 1/2" IVS		1/2"	COLD PLANE 2", LEVEL 1/2" AND OVERLAY 1 1/2"
BETHEL	1254+13	1337+69	4	12-12	10	1 1/2" IVS		1/2"	COLD PLANE 2", LEVEL 1/2" AND OVERLAY 1 1/2"
I-89 SB									
ROYALTON	924+00	1157+80	10	12-12	4	1 1/2" IVS		1/2"	COLD PLANE 2", LEVEL 1/2" AND OVERLAY 1 1/2"
	1157+80	1167+83	3	12-12	3	1 1/4" IVS			COLD PLANE 1 1/4" AND OVERLAY 1 1/4", BRIDGE 26S
	1167+83	1174+53	VARIES	12-12	4	1 1/2" IVS		1/2"	COLD PLANE 2", LEVEL 1/2" AND OVERLAY 1 1/2"
	1174+53	1181+39	10	12-12	4	1 1/2" IVS		1/2"	COLD PLANE 2", LEVEL 1/2" AND OVERLAY 1 1/2"
	1181+39	1190+80	VARIES	12-12	4	1 1/2" IVS		1/2"	COLD PLANE 2", LEVEL 1/2" AND OVERLAY 1 1/2"
	1190+80	1254+13	10	12-12	4	1 1/2" IVS		1/2"	COLD PLANE 2", LEVEL 1/2" AND OVERLAY 1 1/2"
BETHEL	1254+13	1341+38	10	12-12	4	1 1/2" IVS		1/2"	COLD PLANE 2", LEVEL 1/2" AND OVERLAY 1 1/2"
NB ON RAMP (A)	200+00	215+43	4	16	4	1 1/2" IVS		1/2"	COLD PLANE 3", LEVEL 1/2" AND OVERLAY 2 LIFTS 1 1/2"
NB OFF RAMP (B)	100+00	101+50	VARIES	VARIES	VARIES	1 1/2" IVS		1/2"	COLD PLANE 2", LEVEL 1/2" AND OVERLAY 1 1/2"
	101+50	113+37	4	16	4	1 1/2" IVS		1/2"	COLD PLANE 2", LEVEL 1/2" AND OVERLAY 1 1/2"
SB ON RAMP (C)	400+00	401+50	VARIES	VARIES	VARIES	1 1/2" IVS		1/2"	COLD PLANE 2", LEVEL 1/2" AND OVERLAY 1 1/2"
	401+50	411+48	5	16	5	1 1/2" IVS		1/2"	COLD PLANE 2", LEVEL 1/2" AND OVERLAY 1 1/2"
SB OFF RAMP (D)	300+00	301+50	VARIES	VARIES	VARIES	1 1/2" IVS		1/2"	COLD PLANE 2", LEVEL 1/2" AND OVERLAY 1 1/2"
	301+50	313+13	4	16	4	1 1/2" IVS		1/2"	COLD PLANE 2", LEVEL 1/2" AND OVERLAY 1 1/2"

SEEDING FORMULA – RURAL AREAS

% 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 9-19-19 FORMULA)

AGRICULTURAL LIMESTONE: TO BE APPLIED 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.

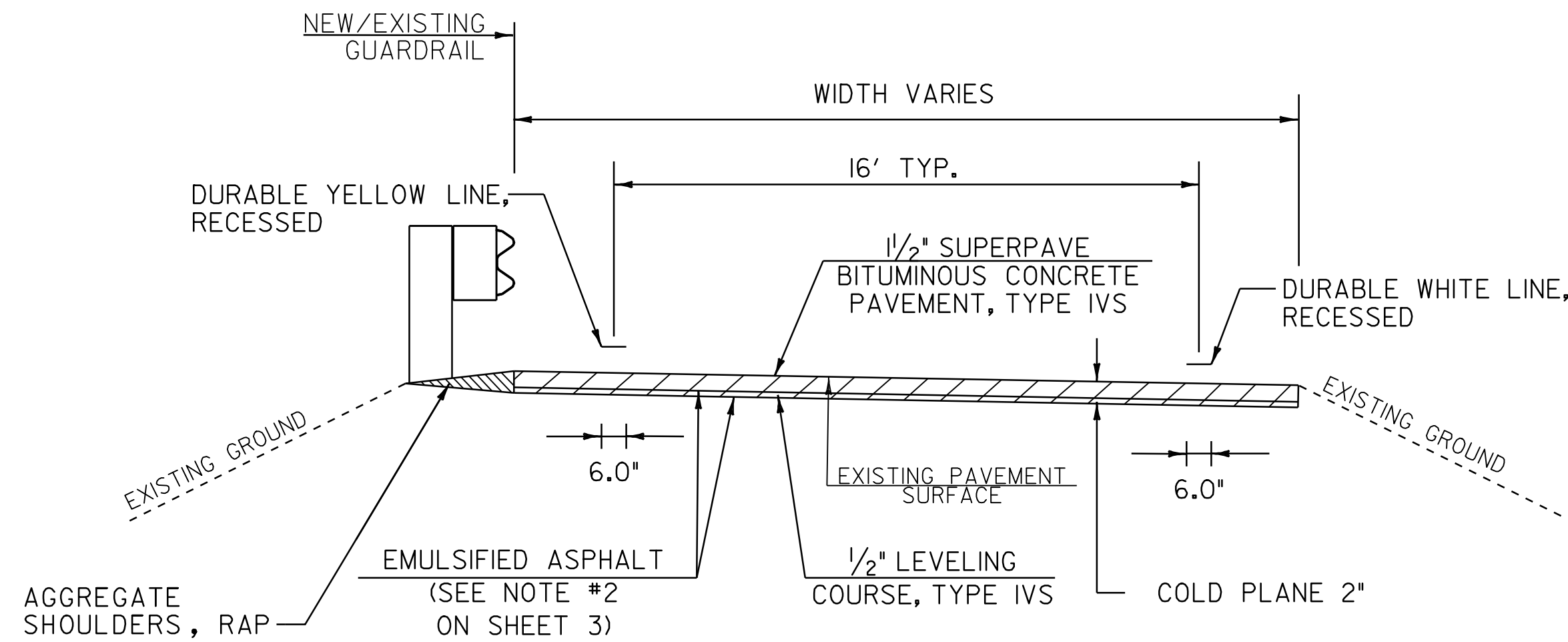
GENERAL NOTES

- COLD PLANE MAINLINE FULL WIDTH 2". EXCAVATE 10' SHOULDER AN ADDITIONAL 2". PAVE 10' SHOULDER 2" WITH TYPE IIIS, LEVEL MAIN LINE FULL WIDTH WITH TYPE IVS, PAVE MAINLINE FULL WIDTH WITH 1 1/2" TYPE IVS.
COLD PLANE RAMP A 3", LEVEL WITH TYPE IVS, PAVE WITH 2-1 1/2" LIFTS TYPE IVS.
COLD PLANE RAMPS B, C & D 2", LEVEL WITH TYPE IVS, PAVE WITH 1 1/2" TYPE IVS.
PAVE U-TURNS 1 1/2" WITH TYPE IVS. PAVING SHALL BE COMPLETED AS SHOWN ON THE TYPICALS, UNLESS OTHERWISE DIRECTED BY THE RESIDENT ENGINEER.
- EMULSIFIED ASPHALT SHALL BE APPLIED ON ALL EXISTING PAVEMENT SURFACES, COLD PLANED SURFACES AND BETWEEN ALL COURSES OF PAVEMENT AT THE RATE OF 0.025 GAL/SY OR AS DIRECTED BY THE RESIDENT ENGINEER.
- SUPERPAVE BITUMINOUS CONCRETE PAVEMENT TOLERANCE = 1/4 " ± (TOTAL THICKNESS EXCLUDING LEVELING COURSE).
- COLD PLANING SHALL BE COMPLETED ACCORDING TO THE TYPICAL SECTION OR AS DENOTED OTHERWISE ON THE PLANS. A FULL DEPTH BUTT JOINT SHALL BE CONSTRUCTED AT THE PROJECT BEGIN/END AND AT ALL RAMP APPROACHES AS NOTED ON THE PROJECT PLANS OR AS OTHERWISE DIRECTED BY THE RESIDENT ENGINEER. ALL BUTT JOINTS SHALL BE SAW CUT, INCIDENTAL TO ITEM 210.10, COLD PLANING, BITUMINOUS PAVEMENT.
- ESTIMATED QUANTITIES OF ITEM 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 TO PROVIDE FOR FLARE CONSTRUCTION. THE GUARDRAIL FLARES SHALL BE CAPPED WITH AN ESTIMATED 3 INCH DEPTH OF DITCHING MATERIAL OR 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.
- ALL EDGES OF PAVEMENT 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.
- ITEM 604.40, CHANGING ELEVATION OF DROP INLETS CATCH BASINS OR MANHOLES AND ITEM 604.412, REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I ARE ESTIMATED QUANTITIES AND SHALL BE PERFORMED AT LOCATIONS INDICATED ON THE LAYOUT SHEETS AND AS DIRECTED BY THE RESIDENT ENGINEER. ALL DROP INLETS AND CATCH BASINS SHALL BE RAISED OR REHABILITATED SUCH THAT THE GRATE ELEVATION IS LEVEL WITH THE SURROUNDING TERRAIN.
- COMPACTION, GRADING AND CLEAN UP ITEM 402.13, AGGREGATE SHOULDERS, RAP AND ITEM 651.35, TOPSOIL IS TO BE INCLUDED IN THE CONTRACT UNIT PRICE OF EACH ITEM.
- THE CONTRACTOR SHALL MAINTAIN COLD PLANE AND PAVING DEPTHS THAT DO NOT REDUCE THE CLEARANCE HEIGHTS OF THE ROADWAY OR SHOULDERS UNDER THE OVERPASS BRIDGES (BR-21 AND BR-28). THESE HEIGHTS SHALL BE RECORDED BY THE RESIDENT ENGINEER PRIOR TO THE START OF CONSTRUCTION AND SHALL BE REMEASURED AFTER PAVING OPERATIONS ARE COMPLETE. IF IT IS DETERMINED THAT A REDUCTION IN CLEAR HEIGHT HAS OCCURRED, THE CONTRACTOR SHALL RE- ESTABLISH THE ORIGINAL CLEAR HEIGHT AT NO ADDITIONAL EXPENSE TO THE STATE.
- AREAS ADJACENT TO THE SHOULDER, WHERE GUARDRAIL IS BEING RETAINED, THAT HAVE BUILT UP EXCESS MATERIAL ARE TO BE GRADED TO ALLOW THE SHOULDER TO DRAIN. PAYMENT IS TO BE INCLUDED UNDER ITEM 203.40, SHOULDER BERM REMOVAL.
- ALL DELINEATORS WITHIN THE PROJECT LIMITS ARE TO BE REPLACED. THESE ARE TO BE PAID FOR UNDER ITEM 676.10, DELINEATOR WITH STEEL POST AND 676.12, REMOVAL OF EXSITING DELINEATOR.

PROJECT TYPICAL SHEET I

PROJECT NAME:	ROYALTON-BETHEL	
PROJECT NUMBER:	IM 089-1(54)	
FILE NAME:	p06a198.dgn	PLOT DATE: 28-JUN-2010 15:11
PROJECT LEADER:	PTS	DRAWN BY: MRS
DESIGNED BY:	NULL	CHECKED BY: PTS
IPARM FILE NAME:	p06a198pt1.i	SHEET 3 OF 37

NOT TO SCALE



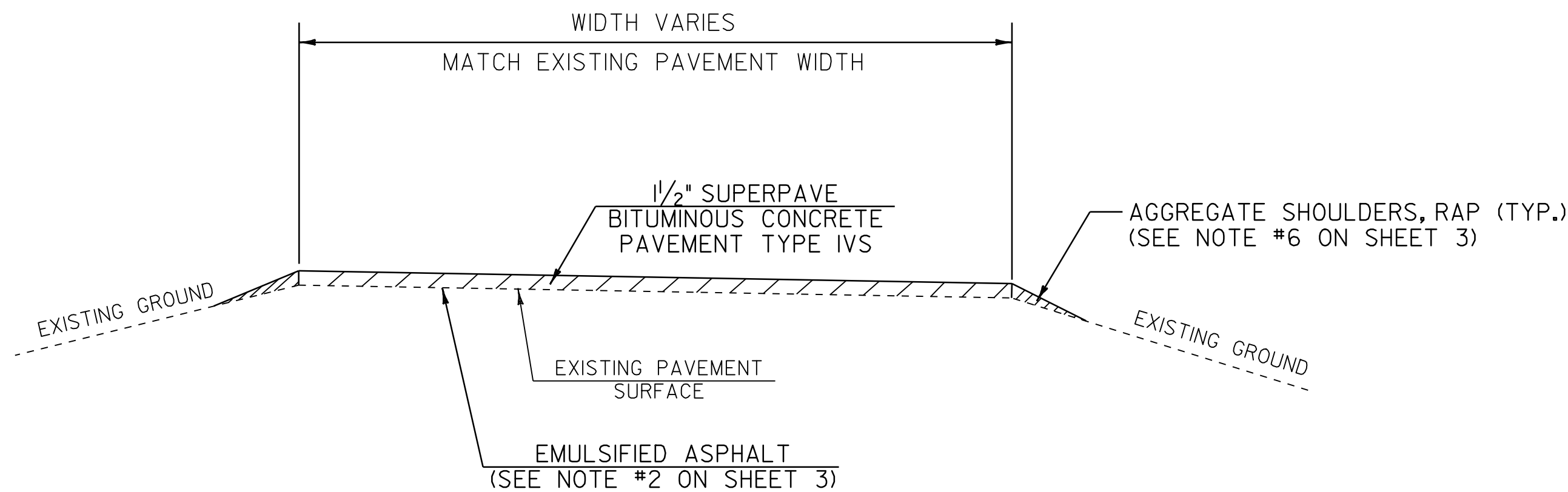
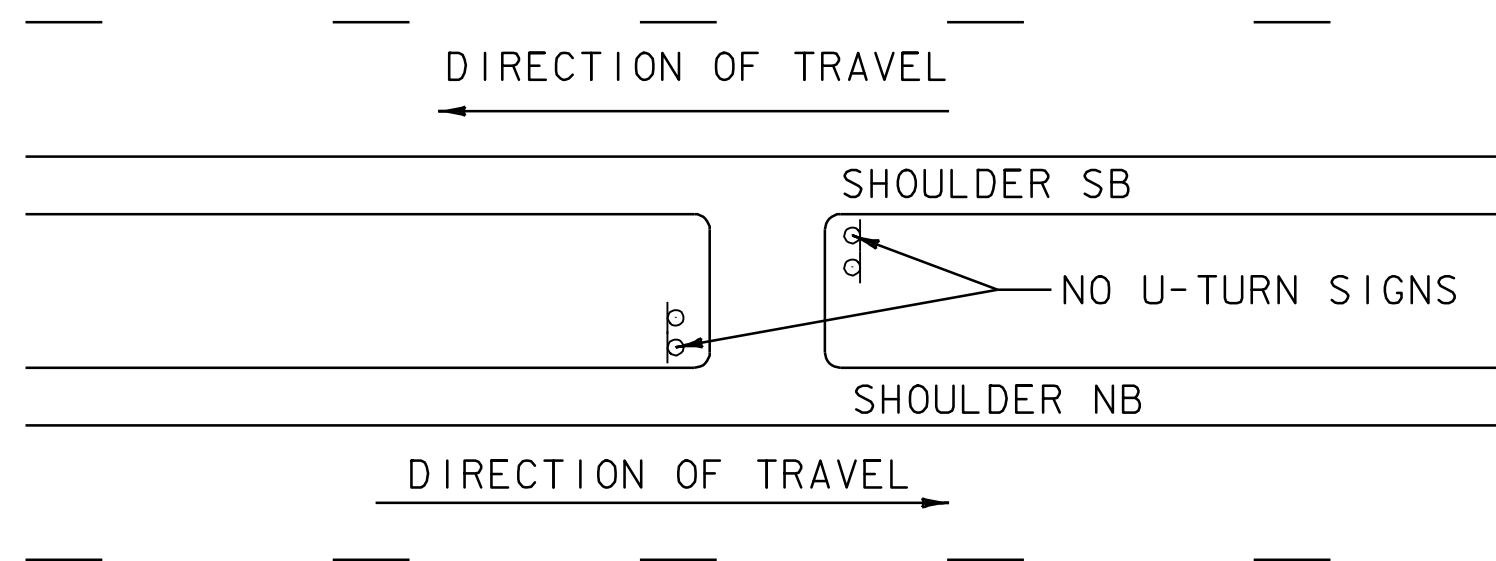
RAMP PAVEMENT TYPICAL

LOCATION

EXIT 3 NB OFF RAMP B - SEE SHEETS 14, 15

EXIT 3 SB ON RAMP C - SEE SHEETS 19, 20

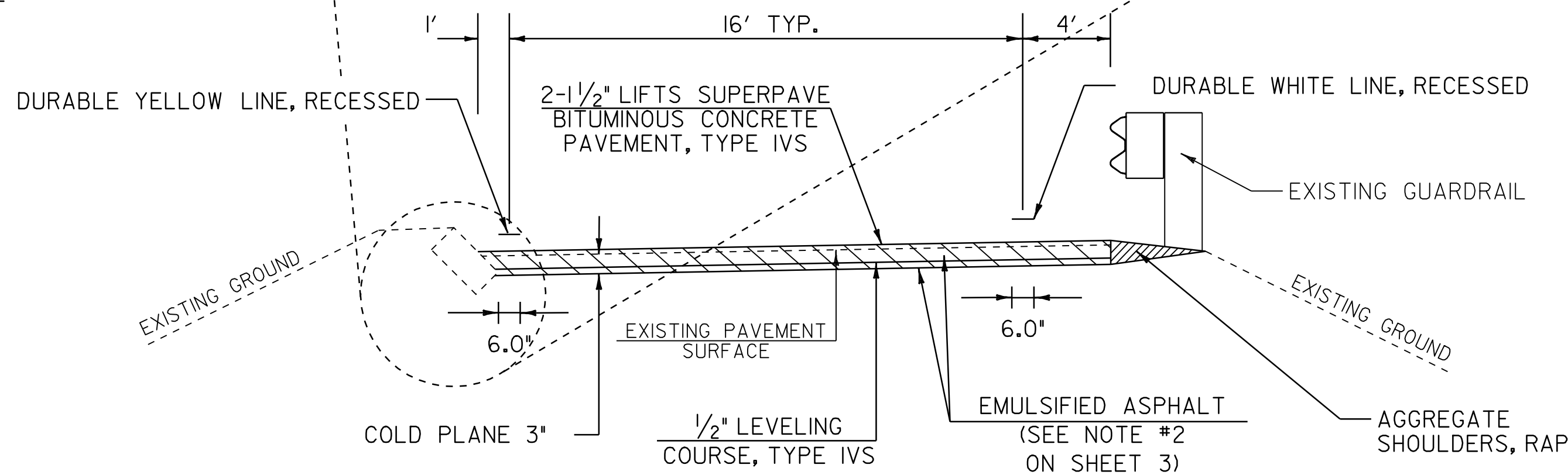
EXIT 3 SB OFF RAMP D - SEE SHEETS 21, 22



U-TURN TYPICAL

LOCATION

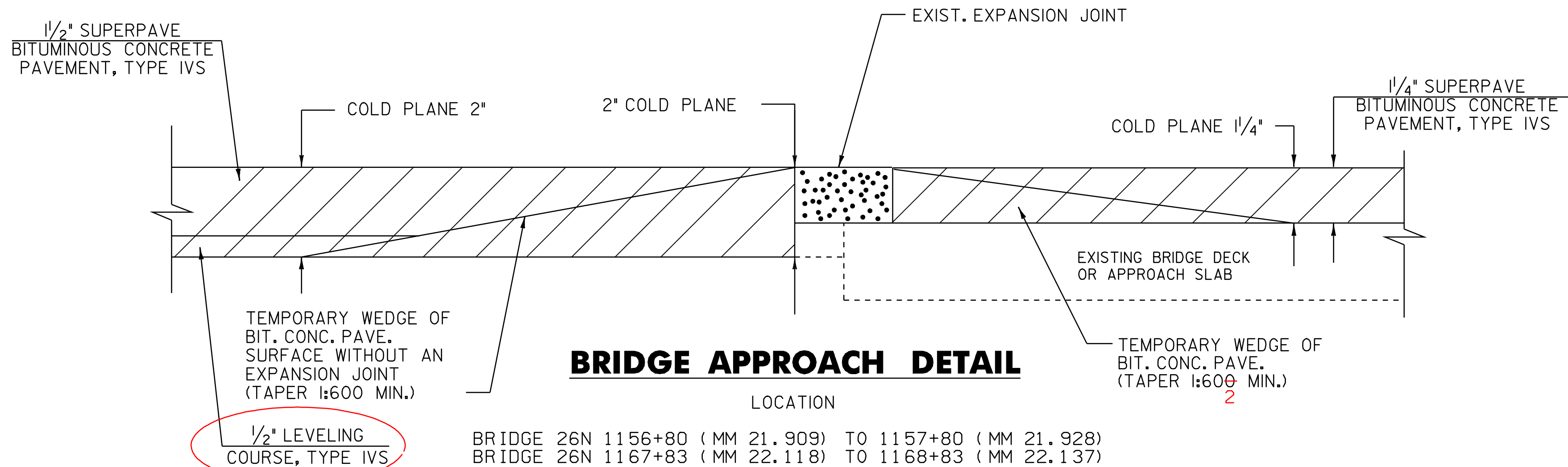
942+20 (MM 17.845) 50' X 80'
1077+43 (MM 20.406) 50' X 42'
1152+43 (MM 21.826) 50' X 30'
1208+72 (MM 22.892) 50' X 37'
1336+40 (MM 25.311) 215' X 29'



NB ON RAMP PAVEMENT TYPICAL

LOCATION

EXIT 3 NB ON RAMP A - 200+00 TO 215+43, SEE SHEET 16, 17



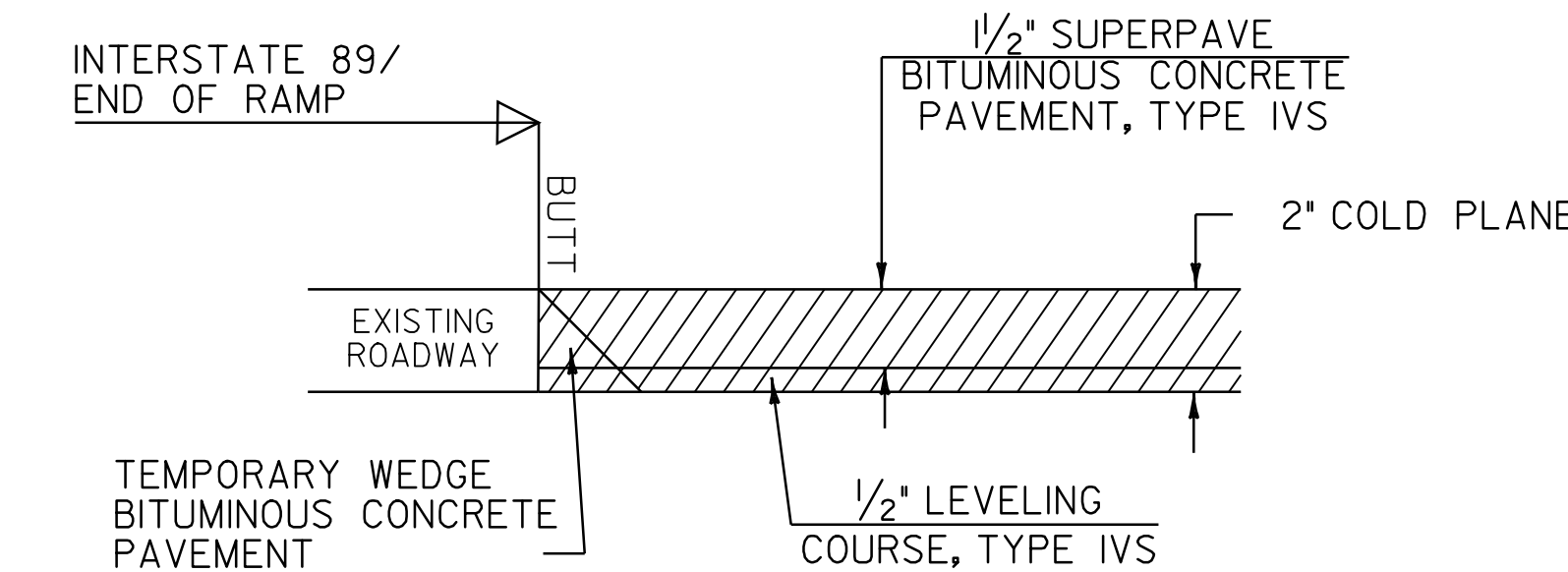
BRIDGE APPROACH DETAIL

LOCATION

BRIDGE 26N 1156+80 (MM 21.909) TO 1157+80 (MM 21.928)
BRIDGE 26N 1167+83 (MM 22.118) TO 1168+83 (MM 22.137)

BRIDGE 26S 1156+80 (MM 21.909) TO 1157+80 (MM 21.928)
BRIDGE 26S 1167+83 (MM 22.118) TO 1168+83 (MM 22.137)

NO PAVEMENT JOINTS REQUIRED PER BRIDGE TREATMENT RECOMMENDATIONS.
DAMAGE TO THE MEMBRANE DECK OR APPROACH SLABS WILL BE REPAIRED AT
THE CONTRACTORS EXPENSE.



MAINLINE /RAMP APPROACH AREA DETAIL

LOCATION

924+00 NB, ROYALTON - BEGIN COLD PLANING
924+00 SB, ROYALTON - BEGIN COLD PLANING
1337+69 NB, BETHEL - END COLD PLANING
1341+38 SB, BETHEL - END COLD PLANING

100+00 NB OFF RAMP @ VT ROUTE 107
200+00 NB ON RAMP @ VT ROUTE 107

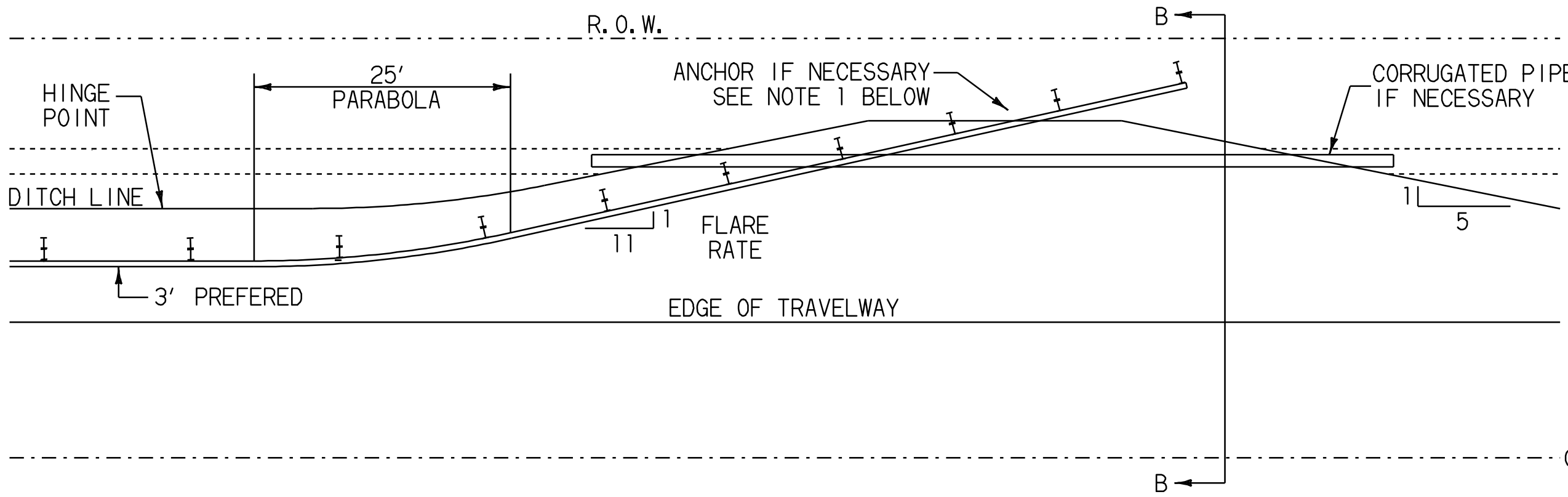
300+00 SB OFF RAMP @ VT ROUTE 107
400+00 SB ON RAMP @ VT ROUTE 107

NOT TO SCALE

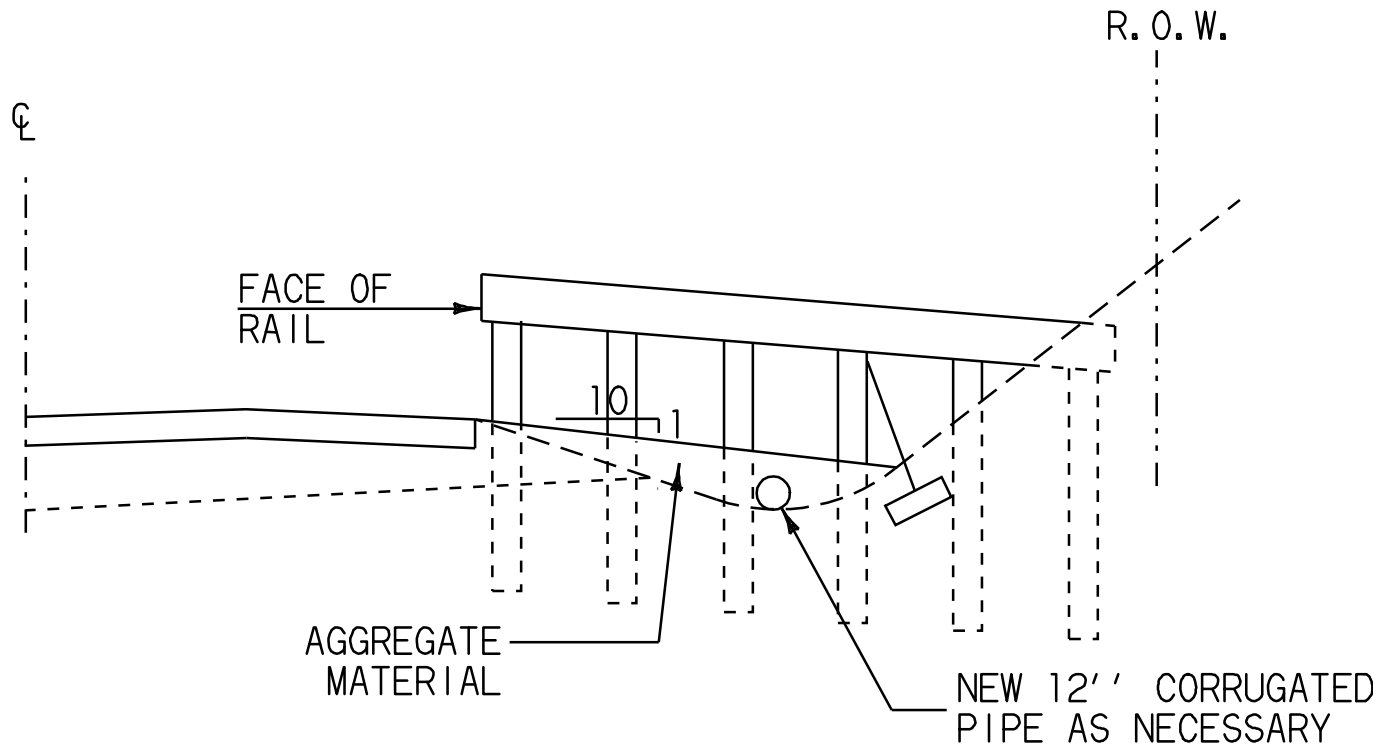
PROJECT TYPICAL SHEET 2

PROJECT NAME: ROYALTON-BETHEL
PROJECT NUMBER: IM 089-1(54)

FILE NAME: p06a198.dgn PLOT DATE: 28-JUN-2010 15:11
PROJECT LEADER: PTS DRAWN BY: MRS
DESIGNED BY: NLL CHECKED BY: PTS
IPARM FILE NAME: p06a198p2.1 SHEET 4 OF 37



DETAIL FOR BURIED GUARD RAIL ENDS INTO BACKSLOPES

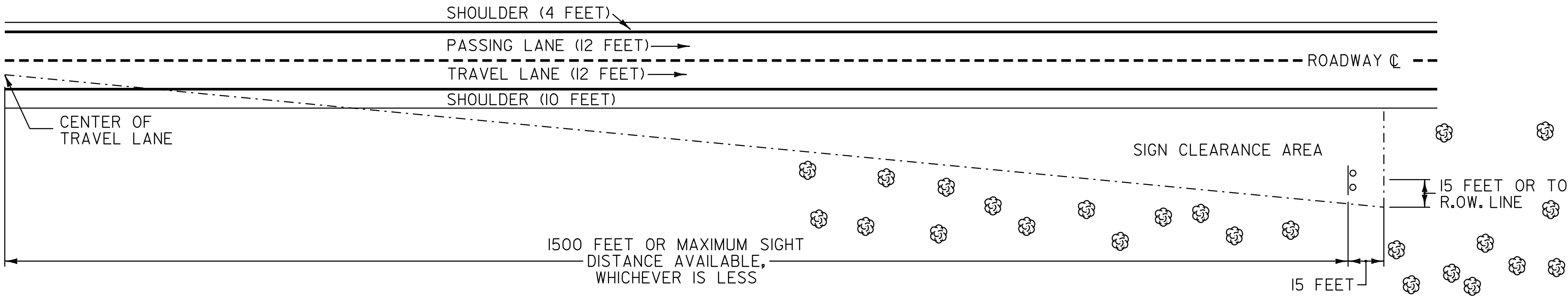


SECTION B-B

1. RAIL TO BE BURIED A DISTANCE OF 12'-6" INTO BACKSLOPE. IF THIS CANNOT BE OBTAINED, AN ANCHOR SHALL BE INSTALLED.

THIS WAS INTENDED FOR SB 22.52 OUT.
A MANUFACTURED TERMINAL SECTION, FLARED
WAS INSTALLED INSTEAD

THINNING AND TRIMMING FOR SIGNS DETAIL



THE CONTRACTOR SHALL REMOVE ALL WOODY STEMMED GROWTH INCLUDING BRUSH, SAPLINGS AND TREE LIMBS GROWING WITHIN OR PROJECTING INTO THE CLEARANCE AREA DOWN TO GROUND LEVEL OR AT LEAST 10 FEET BELOW THE BOTTOM OF THE SIGN, WHICHEVER IS LESS. PAYMENT WILL BE FOR THINNING AND TRIMMING FOR SIGNS, ITEM 201.31, AND PAID FOR PER EACH SIGN. NO CHEMICALS (POISONS OR DEFOLIANTS) WILL BE ALLOWED.

SIGN LOCATION:

1229+39 LT:

SOUTHBOUND:
MM 23.29

NOT TO SCALE

PROJECT TYPICAL SHEET 3

PROJECT NAME: ROYALTON-BETHEL
PROJECT NUMBER: IM 089-1(54)

FILE NAME: p06a198.dgn PLOT DATE: 28-JUN-2010 15:12
PROJECT LEADER: PTS DRAWN BY: MRS
DESIGNED BY: NLL CHECKED BY: PTS
IPARM FILE NAME: p06a198p+3.1 SHEET 5 OF 37

QUANTITY SHEET 1																													
SUMMARY OF ESTIMATED QUANTITIES															TOTALS		DESCRIPTIONS					DETAILED SUMMARY OF QUANTITIES							
														ROADWAY		TRAINING		FULL C.E. ITEMS		GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITY	UNIT	ITEMS	
														1						1		EACH	THINNING AND TRIMMING FOR SIGNS	201.31	-			COLD PLANING, BITUMINOUS PAVEMENT	
														5470						5470		CY	COMMON EXCAVATION	203.15	51.8	169931	SY	I-89 NB	
														80						80		CY	EXCAVATION OF SURFACES AND PAVEMENTS	203.28	8.9	207024	SY	I-89 SB	
														630						630		CY	EARTH BORROW	203.30	5	7823	SY	NB RAMPS	
														6600						6600		LF	SHOULDER BERM REMOVAL	203.40	57	6865	SY	SB RAMPS	
														1						1		CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22	-				
																													SUPERPAVE BITUMINOUS CONCRETE PAVEMENT
														393000						393000		SY	COLD PLANING, BITUMINOUS PAVEMENT (CONTRACTOR RETAINS ALL EXCESS GRINDINGS)	210.10	1357				
														393000						393000		SY	COLD PLANING, BITUMINOUS PAVEMENT (AGENCY RETAINS REQUESTED EXCESS GRINDINGS)	210.10	1357				
														159000						159000		LF	MILLED RUMBLE STRIPS	213.10	1217				
														7100						7100		TON	AGGREGATE SHOULDERS, RAP	402.13	45				
														1650						1650		CWT	EMULSIFIED ASPHALT	404.65	20				
														1						1		LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	406.50	-				
														58000						58000		TON	SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (0% RAP CONTENT)	490.30	191				
														58000						58000		TON	SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (0% < RAP CONTENT < 15.0%)	490.30	191				
														58000						58000		TON	SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (15.0% ≤RAP CONTENT< 25.0%)	490.30	191				
														58000						58000		TON	SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (25.0% ≤RAP CONTENT≤ 50.0%)	490.30	191				
														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	-				
														160						160		LF	12" CSP .064 (2-2/3 X 1/2)	601.0005	-				
														1						1		EACH	CHANGING ELEVATION OF DROP INLETS, CATCH BASINS, OR MANHOLES	604.40	-				
														23						23		EACH	REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I	604.412	-				
														20						20		EACH	REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS II	604.415	-				
														19						19		EACH	REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS III	604.418	-				
														690						690		HR	POWER GRADER RENTAL	608.15	11				
																							PROJECT NAME: ROYALTON-BETHEL-----			PROJECT NUMBER: IM 089-I(54)			
																							FILE NAME: p06a198.dgn			PLOT DATE: 28-JUN-2010 15:12			
																							PROJECT LEADER: PTS			DRAWN BY: MRS			
																							DESIGNED BY: NULL			CHECKED BY: PTS			
																							IPARM FILE NAME: p06a198qsl.i			SHEET 6 OF 37			

QUANTITY SHEET 2																																		
SUMMARY OF ESTIMATED QUANTITIES															TOTALS		DESCRIPTIONS					DETAILED SUMMARY OF QUANTITIES												
														ROADWAY		TRAINING		FULL C.E. ITEMS		GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITY	UNIT	ITEMS						
														470						470		HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25	2									
														400						400		HR	POWER BROOM RENTAL, TYPE II	608.31	-									
														470						470		HR	TRUCK RENTAL	608.37	2									
														470						470		HR	LOADER RENTAL, TYPE I	608.40	2									
														25						25		CY	STONE FILL, TYPE I	613.10	3									
														275						275		LF	TREATED TIMBER CURB	616.35	3									
														385						385		LF	REMOVAL OF EXISTING CURB	616.41	4									
														190						190		EACH	YIELDING MARKER POSTS	619.17	9									
														80						80		LF	CHAIN-LINK FENCE, 6 FEET	620.12	3									
														10						10		EACH	BRACING ASSEMBLY FOR CHAIN-LINK FENCE, 6 FEET	620.21	1									
														80						80		LF	SNOW BARRIER, GALVANIZED	620.75	3									
														3200						3200		LF	STEEL BEAM GUARDRAIL, GALVANIZED	621.20	77.5									
														16						16		EACH	MANUFACTURED TERMINAL SECTION, FLARED	621.50	-									
														9						9		EACH	ANCHOR FOR STEEL BEAM RAIL	621.60	-									
														50						50		LF	ALUMINUM APPROACH RAILING	621.74	-									
														1780						1780		EACH	REPLACE GUARDRAIL POST ASSEMBLY	621.76	EST									
														900						900		EACH	REPLACE GUARDRAIL BEAM UNIT	621.77	EST									
														2800						2800		LF	REMOVAL AND DISPOSAL OF GUARDRAIL	621.80	24									
														2140						2140		HR	UNIFORMED TRAFFIC OFFICERS	630.10	-									
														6420						6420		HR	FLAGGERS	630.15	-									
																		1		1		LS	FIELD OFFICE, ENGINEERS	631.10	-									
																		1		1		LS	TESTING EQUIPMENT, BITUMINOUS	631.17	-									
																		1		1		LU	FIELD OFFICE TELEPHONE (N.A.B.I.)	631.25	-									
																520				520		HR	EMPLOYEE TRAINEESHIP	634.10	-									
														1						1		LS	MOBILIZATION/DEMOBILIZATION	635.11	-									
														1						1		LS	TRAFFIC CONTROL	641.10	-									
														4						4		EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.15	-									
														110200						110200		LF	DURABLE 6 INCH WHITE LINE, RECESSED POLYUREA	646.426	306									
														88700						88700		LF	DURABLE 6 INCH YELLOW LINE, RECESSED POLYUREA	646.436	272									
														1670						1670		LF	DURABLE 12 INCH WHITE LINE, RECESSED POLYUREA	646.466	18									
														50						50		LF	DURABLE 24 INCH STOP BAR, THERMOPLASTIC	646.482	3									
																									PROJECT NAME: ROYALTON-BETHEL----- PROJECT NUMBER: IM 089-I(54) FILE NAME: p06aI98.dgn PROJECT LEADER: PTS DESIGNED BY: NULL IPARM FILE NAME: p06aI98qs2.I					PLOT DATE: 28-JUN-2010 15:12 DRAWN BY: MRS CHECKED BY: PTS SHEET 7 OF 37				

QUANTITY SHEET 3

SUMMARY OF ESTIMATED QUANTITIES														TOTALS				DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES					
													ROADWAY		TRAINING		FULL C.E. ITEMS		GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITY	UNIT	ITEMS
													28						28		EACH	DURABLE LETTER OR SYMBOL, THERMOPLASTIC	646.492	-			
													220400						220400		LF	TEMPORARY 6 INCH WHITE LINE, PAINT	646.622	612			
													177000						177000		LF	TEMPORARY 6 INCH YELLOW LINE, PAINT	646.632	144			
													3340						3340		LF	TEMPORARY 12 INCH WHITE LINE, PAINT	646.662	36			
													100						100		LF	TEMPORARY 24 INCH STOP BAR, PAINT	646.682	6			
													56						56		EACH	TEMPORARY LETTER OR SYMBOL, PAINT	646.692	-			
													6800						6800		EACH	LINE STRIPING TARGETS	646.76	111			
													70						70		SY	GEOTEXTILE UNDER STONE FILL	649.31	2.8			
													35						35		LB	SEED	651.15	EST			
													255						255		LB	FERTILIZER	651.18	EST			
													1						1		TON	AGRICULTURAL LIMESTONE	651.20	EST			
													25						25		CY	TOPSOIL	651.35	EST			
													400						400		SY	TEMPORARY EROSION MATTING	653.20	-			
													750						750		SF	TRAFFIC SIGNS, TYPE A	675.20	4.99			
													144						144		SF	TRAFFIC SIGNS, TYPE B	675.21	-			
													2320						2320		LB	W-SHAPE STEEL SIGN POST	675.31	10			
													45						45		LB	TUBULAR ALUMINUM SIGN POST	675.32	3			
													185						185		LB	TUBULAR STEEL SIGN POST	675.33	3			
													1335						1335		LF	SQUARE TUBE SIGN POST AND ANCHOR	675.341	-			
													2						2		EACH	FOUNDATION FOR W-SHAPE STEEL POST, 24 INCH DIAMETER	675.41	-			
													2						2		EACH	FOUNDATION FOR TUBULAR STEEL POST	675.43	-			
													122						122		EACH	REMOVING SIGNS (TYPE A)	675.50	-			
													2						2		EACH	REMOVING SIGNS (TYPE B)	675.50	-			
													2						2		EACH	ERECTING SALVAGED SIGNS (TYPE B)	675.60	-			
													505						505		EACH	DELINEATOR WITH STEEL POST	676.10	3			
													490						490		EACH	REMOVAL OF EXISTING DELINEATOR	676.12	4			
													1						1		LU	PRICE ADJUSTMENT, FUEL (N.A.B.I.)	690.50	-			
													2						2		EACH	SPECIAL PROVISION (FOUNDATION FOR W-SHAPE STEEL POST, 30 INCH DIAMETER)	900.620	-			
																								PROJECT NAME: ROYALTON-BETHEL			
																								PROJECT NUMBER: IM 089-1(54)			
																								FILE NAME: p06a198.dgn			
																								PROJECT LEADER: PTS			
																								DESIGNED BY: NULL			
																								IPARM FILE NAME: p06a198qs3.i			
																								PLOT DATE: 28-JUN-2010 15:12			
																								DRAWN BY: MRS			
																								CHECKED BY: PTS			
																								SHEET 8 OF 37			

LOCATION							DROP INLETS				GUARDRAIL								MISC.		DELINEATORS				REMARKS
STATION	STATION	POS.	203.15	616.41			604.40	604.412	604.415	604.418	601.0005	616.35	621.20	621.74	621.50		621.60	621.80			676.10				
			COMM. EXCAV.	REMOVAL OF EXIST. CURB			CHANGE ELEV. D. I.	REHAB DI, CB OR MH CLASS I	REHAB DI, CB OR MH CLASS II	REHAB DI, CB OR MH CLASS III	12" CSP .064	TREATED TIMBER CURB	STEEL BEAM G. R. GALV.	ALUMINUM APPROACH RAILING	M. T. S. FLARED		ANCHOR FOR G. R.	REMOVE & DISP. G. R.			TYPE I	TYPE II	TYPE III	TYPE I MILE POSTS	
INTERSTATE 89 SB			CY	LF			EA	EA	EA	EA	LF	LF	LF	LF	EA		EA	LF							
924+00	I34I+38							5	5	5											49	I7	IO	I52	FOR LOCATIONS SEE LAYOUT SHEETS. ESTIMATED QUANTITY TO BE USED AS DIRECTED BY THE RESIDENT ENGINEER SEE SHEET 3 FOR DETAIL
924+00	I34I+38	LT	2970.6																						
923+99.0	928+05.0	LT																							RETAIN EXISTING GUARDRAIL
924+88.0	926+62.0	RT																							RETAIN EXISTING GUARDRAIL
936+54.0	950+I6.0	LT																							RETAIN EXISTING GUARDRAIL AND BITUMINOUS CURB
957+55.0	965+04.0	LT																							RETAIN EXISTING GUARDRAIL
968+52.0	977+02.0	LT																							RETAIN EXISTING GUARDRAIL AND BITUMINOUS CURB
974+28.0	I066+I5.0	RT																							RETAIN EXISTING GUARDRAIL AND BITUMINOUS CURB
I022+67.0	I049+68.0	LT																							RETAIN EXISTING GUARDRAIL
I05I+95.0	I065+46.0	LT																							RETAIN EXISTING GUARDRAIL
I079+92.0	I09I+90.0	LT																							RETAIN EXISTING GUARDRAIL AND BITUMINOUS CURB
II03+72.0	II09+57.0	LT																							RETAIN EXISTING GUARDRAIL
III5+43.0	II3I+74.0	LT																							RETAIN EXISTING GUARDRAIL AND BITUMINOUS CURB
II52+5I.0	II74+53.0	LT																							RETAIN EXISTING GUARDRAIL (INCLUDES BRIDGE 26S) AND TIMBER CURB - ENDS ON RAMP @ 4I0+27
II56+70.0	II57+80.0	RT																II0							REMOVE ALUMINUM RAIL WITH TEXAS TWIST
II57+30.0	II57+80.0	RT											27.0	25.0			I								ANCHOR @ II57+30 (WITH ROUNDED "W" BEAM END SECTION), APPR. RAIL II57+55 ~ II57+80 SEE DETAIL ON SHEETS 33 AND 34.
II57+80.0	II68+20.5	RT																							BRIDGE 26S RETAIN EXIST. AL. BRIDGE RAIL, AL. APPROACH RAIL & I2.5' S.B.G.R.
II68+20.5	II70+34.0	RT																2I4							REMOVE BULLNOSE - SEE DETAIL SHEET 3I
II68+20.5	II72+08.0	RT											387.5		I					I					II68+20.5 ATTACH TO EXIST., MTS, @ II72+08 ~ II72+45.5
II83+60.0	II88+30.0	LT																470							REMOVE GUARDRAIL DUE TO SHOULDER WIDENING
II83+60.0	II88+60.0	LT											500				3								ANCHOR @ II83+60 (WITH ROUNDED "W" BEAM END SECTION), ANCHOR @ II86+62.0 BURIED END SECTION (SEE DETAIL ON SHEET 5) ANCHOR @ II88+60
II83+90.0	II86+62.0	LT										272													ANCHOR @ II83+60 (WITH ROUNDED "W" BEAM END SECTION), MTS II88+I0 ~ II88+60.0
II86+50.0	II89+97.0	LT	I5.9																						SHOULDER WIDENING FOR DECEL LANE
II87+35.0	II88+95.0	LT								I60															PIPE FOR BURIED END SECTION
I207+35.0	I2I7+00.5	LT																							RETAIN EXISTING GUARDRAIL
I2I7+00.5	I2I7+38.0	LT													I			37.5		I					REMOVE AND REPLACE EXISTING TERMINAL
I244+29.0	I275+62.5	RT																							RETAIN EXISTING GUARDRAIL
I264+55.0	I266+86.5	LT																							RETAIN EXISTING GUARDRAIL
I266+86.5	I267+24.0	LT													I			37.5		I					REMOVE AND REPLACE EXISTING TERMINAL
I275+62.5	I276+00.0	RT													I			37.5		I					REMOVE AND REPLACE EXISTING TERMINAL
I279+4I.0	I285+84.0	LT																643							
I283+35.0	I287+60.0	LT											427.0		I		I			I					ANCHOR @ I283+35 (WITH ROUNDED "W" BEAM END SECTION), MTS @ I287+60 ~ I287+97.5
SUBTOTAL SHEET 8			2986.5	0			0	5	5	5	I60	272	I3I4.5	25.0	5		5	I549.5			54	I7	IO	I52	ITEM DETAIL SHEET 2 SB PROJECT NAME: ROYALTON-BETHEL PROJECT NUMBER: IM 089-I(54) FILE NAME: p06al98.dgn PROJECT LEADER: PTS DESIGNED BY: NULL IPARM FILE NAME: p06al98Id2.I PLOT DATE: 28-JUN-20I0 I5:I2 DRAWN BY: MRS CHECKED BY: PTS SHEET IO OF 37

[illegible]

TEMPORARY 6" WHITE LINE, PAINT
DURABLE 6" WHITE LINE, RECESSED
924+00 TO 1167+99 SOLID RT
924+00 TO 1337+69 DASHED CL
1172+63 TO 1178+48 SOLID RT
1182+78 TO 1337+69 SOLID RT

TEMPORARY 6" YELLOW LINE, PAINT
DURABLE 6" YELLOW LINE, RECESSED
924+00 TO 1337+69 SOLID LT

CHAIN-LINK FENCE, 6'
BRACING ASSEMBLY FOR CHAIN-LINK FENCE, 6'
SNOW BARRIER, GALVANIZED
1210+71 LT - FROM ROW FENCE TO ROW
FENCE ALONG CONCRETE BOX CULVERT

SHOULDER BERM REMOVAL
922+04 TO 927+76 RT
953+51 TO 964+71 RT
972+10 TO 1024+40 RT
1041+12 TO 1045+87 RT
1063+55 TO 1064+13 RT
1076+96 TO 1079+01 RT
1096+11 TO 1099+96 RT
1102+34 TO 1103+18 RT
1113+31 TO 1117+06 RT
1136+74 TO 1144+50 RT
1146+88 TO 1151+36 RT
1204+34 TO 1207+88 RT
1241+97 TO 1248+14 RT
1270+88 TO 1273+16 RT
1277+80 TO 1278+69 RT
1309+78 TO 1328+56 RT

CHANGING ELEVATION OF DROP INLETS,
CATCH BASINS, OR MANHOLES
937+79 RT

DELINEATORS
REFER TO STANDARDS E-197,
E-198 AND E-199 FOR
PLACEMENT GUIDELINES

REMOVAL AND DISPOSAL OF GUARDRAIL
1204+34.0 TO 1204+71.5 RT
1270+88.0 TO 1271+25.5 RT
1309+78.0 TO 1310+15.5 RT

MANUFACTURED TERMINAL SECTION, FLARED
DELINEATOR WITH STEEL POST
1204+34.0 RT
1270+88.0 RT
1309+78.0 RT

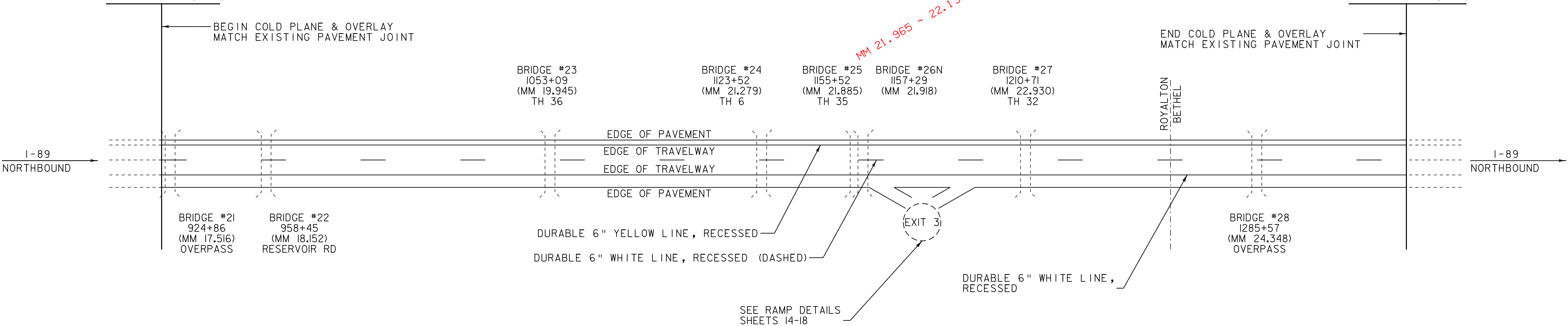
REHAB. DROP INLETS, CATCH BASINS,
OR MANHOLES, CLASS I, CLASS II OR CLASS III
931+88 RT 1081+28 RT
933+88 RT 1083+45 RT
940+21 RT 1117+11 RT
942+85 RT 1119+07 RT
944+80 RT 1121+60 RT
946+81 RT 1153+74 RT
948+81 RT 1156+27 RT
968+09 RT 1157+69 RT
970+10 RT 1167+72 RT
972+05 RT 1207+93 RT
1026+72 RT 1214+74 RT
1029+20 RT 1217+22 RT
1031+15 RT 1219+75 RT
1032+79 RT 1222+23 RT
1046+19 RT 1224+71 RT
1048+09 RT 1227+19 RT
1050+46 RT 1229+83 RT
1053+42 RT 1232+31 RT
1055+79 RT 1234+84 RT
1060+65 RT 1237+38 RT
1273+21 RT

TRAFFIC SIGNS, TYPE A
950+40 RT MM PLAQUE (18)
1003+20 RT MM PLAQUE (19)
1077+11 LT NO U-TURN
1108+80 RT MM PLAQUE (21)
1152+13 LT NO U-TURN
1208+30 LT NO U-TURN
1214+40 RT MM PLAQUE (23)
1267+20 RT MM PLAQUE (24)
1320+00 RT MM PLAQUE (25)
1336+00 LT NO U-TURN

REMOVING SIGNS
950+40 RT MM PLAQUE (18)
1003+20 RT MM PLAQUE (19)
1077+11 LT NO U-TURN
1108+80 RT MM PLAQUE (21)
1152+13 LT NO U-TURN
1208+30 LT NO U-TURN
1214+40 RT MM PLAQUE (23)
1267+20 RT MM PLAQUE (24)
1320+00 RT MM PLAQUE (25)
1336+00 LT NO U-TURN

INTERSTATE ROUTE 89 NB
924+00
(MM 17.500)
BEGIN PROJECT
IM 089-1(54)

INTERSTATE ROUTE 89 NB
1337+69
(MM 25.335)
LIMIT OF WORK
IM 089-1(54)



SEE PROJECT PAVING LIMITS TABLE ON
SHEET 3 FOR ROADWAY DIMENSIONS.

PAVING LAYOUT I

PROJECT NAME: ROYALTON-BETHEL
PROJECT NUMBER: IM 089-1(54)

FILE NAME: p06a198.dgn
PROJECT LEADER: PTS
DESIGNED BY: NULL
IPARM FILE NAME: p06a198p11.t
PLOT DATE: 28-JUN-2010 15:12
DRAWN BY: MRS
CHECKED BY: PTS
SHEET 12 OF 37

NOT TO SCALE

TEMPORARY 6" WHITE LINE, PAINT
DURABLE 6" WHITE LINE, RECESSED

924+00 TO 1173+23 SOLID LT
924+00 TO 1341+38 DASHED CL
1174+53 TO 1181+39 SOLID LT
1183+52 TO 1341+38 SOLID LT

TEMPORARY 6" YELLOW LINE, PAINT
DURABLE 6" YELLOW LINE, RECESSED

924+00 TO 1341+38 SOLID RT

CHAIN-LINK FENCE, 6'
BRACING ASSEMBLY FOR CHAIN-LINK FENCE, 6'
SNOW BARRIER, GALVANIZED

1210+71 LT - FROM ROW FENCE TO ROW
FENCE ALONG CONCRETE BOX CULVERT

SHOULDER BERM REMOVAL

923+99	TO	928+05	LT
936+54	TO	936+97	LT
947+75	TO	950+16	LT
957+55	TO	965+04	LT
968+52	TO	969+00	LT
973+32	TO	977+02	LT
974+28	TO	1022+99	RT
1022+67	TO	1049+68	LT
1051+95	TO	1065+46	LT
1062+26	TO	1066+15	RT
1079+92	TO	1080+82	LT
1088+47	TO	1091+90	LT
1103+72	TO	1109+57	LT
1115+43	TO	1116+22	LT
1123+29	TO	1131+74	LT
1152+51	TO	1157+80	LT
1207+35	TO	1217+38	LT
1244+29	TO	1276+00	RT
1264+55	TO	1267+24	LT
1313+94	TO	1318+80	LT
1324+39	TO	1325+04	LT
1330+73	TO	1333+15	LT

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

938+50	LT	1118+33	LT
940+87	LT	1120+81	LT
943+53	LT	1123+29	LT
945+43	LT	1159+34	LT
970+90	LT	1183+87	LT
1080+82	LT	1325+03	LT
1088+35	LT	1327+56	LT

STONE FILL, TYPE I

1033+02	RT	(PAVE 6' x30')
1034+31	RT	(PAVE 6' x30')
1038+21	RT	(PAVE 6' x30')

DELINEATORS

REFER TO STANDARDS E-197,
E-198 AND E-199 FOR
PLACEMENT GUIDELINES

REMOVAL AND DISPOSAL OF GUARDRAIL

1217+00.5	TO	1217+38.0	LT
1266+86.5	TO	1267+24.0	LT
1275+62.5	TO	1276+00.0	RT
1318+42.5	TO	1318+80.0	LT
1332+77.5	TO	1333+15.0	LT

MANUFACTURED TERMINAL SECTION, FLARED
DELINEATOR WITH STEEL POST

1217+38.0	LT
1267+24.0	LT
1276+00.0	RT
1318+80.0	LT
1333+15.0	LT

TRAFFIC SIGNS, TYPE A

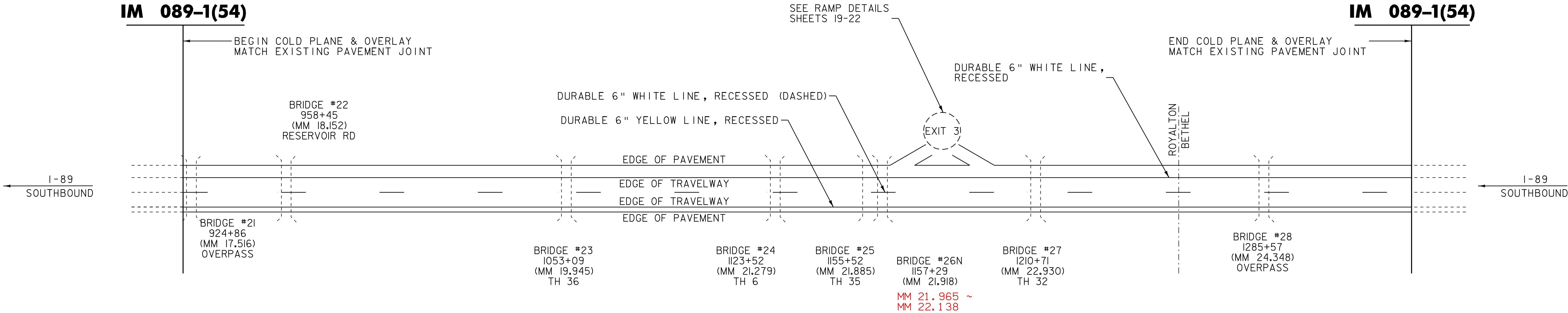
950+40	LT	MM	PLAQUE	(18)
1003+20	LT	MM	PLAQUE	(19)
1056+00	LT	MM	PLAQUE	(20)
1077+85	RT	NO	U-TURN	
1108+80	LT	MM	PLAQUE	(21)
1152+75	RT	NO	U-TURN	
1209+14	RT	NO	U-TURN	
1214+40	LT	MM	PLAQUE	(23)
1267+20	LT	MM	PLAQUE	(24)
1320+00	LT	MM	PLAQUE	(25)
1336+82	RT	NO	U-TURN	

REMOVING SIGNS

950+40	LT	MM	PLAQUE	(18)
1003+20	LT	MM	PLAQUE	(19)
1056+00	LT	MM	PLAQUE	(20)
1077+85	RT	NO	U-TURN	
1108+80	LT	MM	PLAQUE	(21)
1152+75	RT	NO	U-TURN	
1209+14	RT	NO	U-TURN	
1214+40	LT	MM	PLAQUE	(23)
1267+20	LT	MM	PLAQUE	(24)
1320+00	LT	MM	PLAQUE	(25)
1336+82	RT	NO	U-TURN	

INTERSTATE ROUTE 89 SB
924 + 00
(MM 17.500)
BEGIN PROJECT
IM 089-1(54)

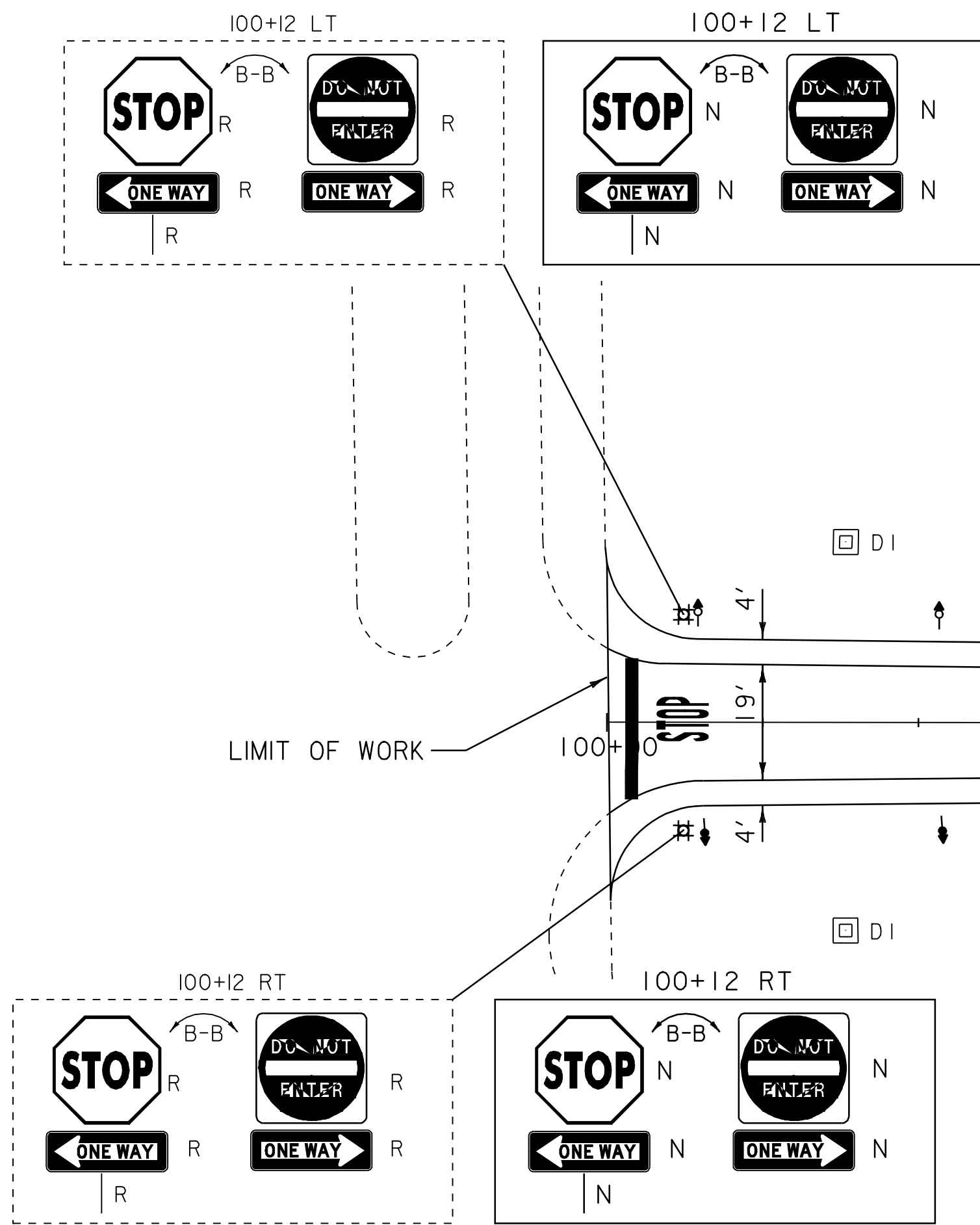
INTERSTATE ROUTE I-89 SB
1341 + 38
(MM 25.405)
END PROJECT
IM 089-1(54)



SEE PROJECT PAVING LIMITS TABLE ON
SHEET 3 FOR ROADWAY DIMENSIONS.

NOT TO SCALE

PAVING LAYOUT 2	
PROJECT NAME:	ROYALTON-BETHEL-----
PROJECT NUMBER:	IM 089-1(54)
FILE NAME:	p06a198.dgn
PROJECT LEADER:	PTS
DESIGNED BY:	NLL
IPARM FILE NAME:	p06a198pl2.1
PLOT DATE:	28-JUN-2010 15:12
DRAWN BY:	MRS
CHECKED BY:	PTS
SHEET	13 OF 37



TEMPORARY 6" WHITE LINE, PAINT
DURABLE 6" WHITE LINE, RECESSED
100+00 TO 110+50 SOLID LT

TEMPORARY 6" YELLOW LINE, PAINT
DURABLE 6" YELLOW LINE, RECESSED
100+00 TO 110+50 SOLID RT

TEMPORARY 24" STOP BAR, PAINT
DURABLE 24" STOP BAR, THERMOPLASTIC
100+04 LT TO RT

TEMPORARY LETTER OR SYMBOL, PAINT
DURABLE LETTER OR SYMBOL, THERMOPLASTIC

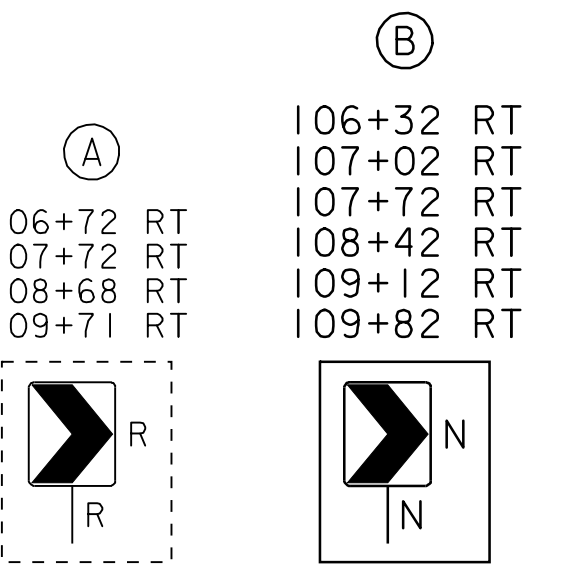
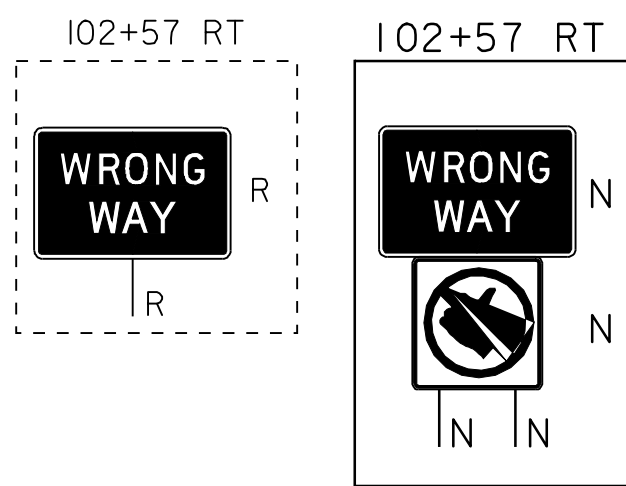
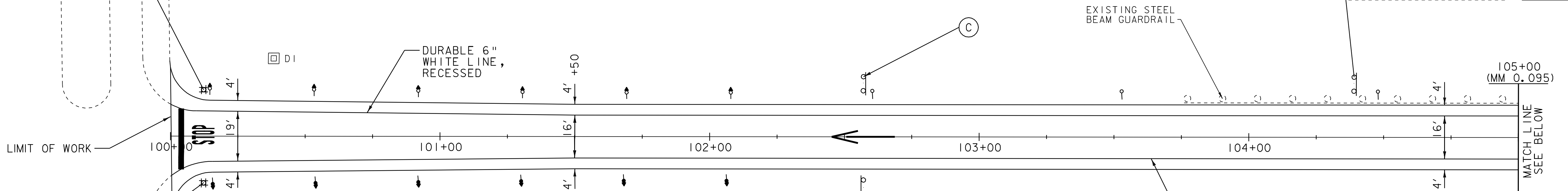
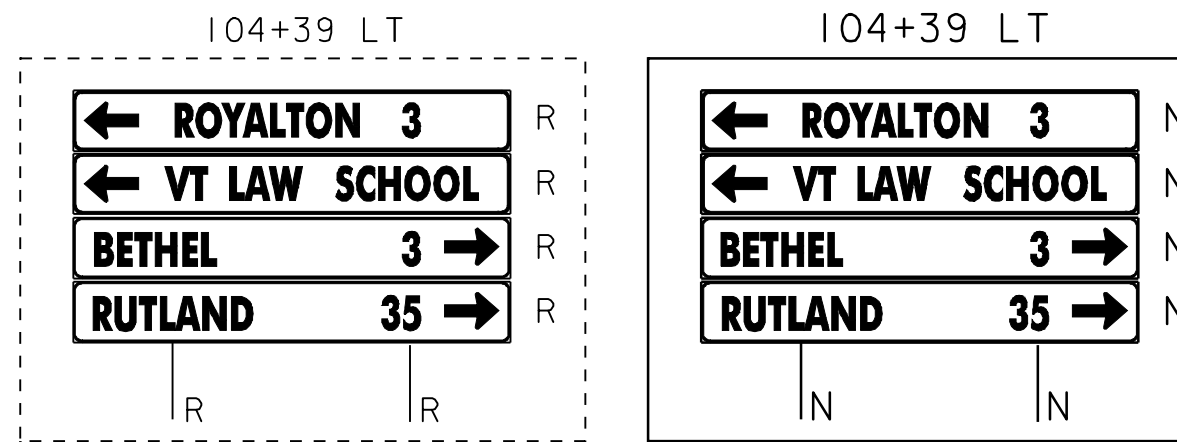
100+12 CL - "STOP"
102+57 CL - WRONG WAY ARROW
108+00 CL - "AHEAD"
108+44 CL - "STOP"

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

105+55 LT
108+58 LT

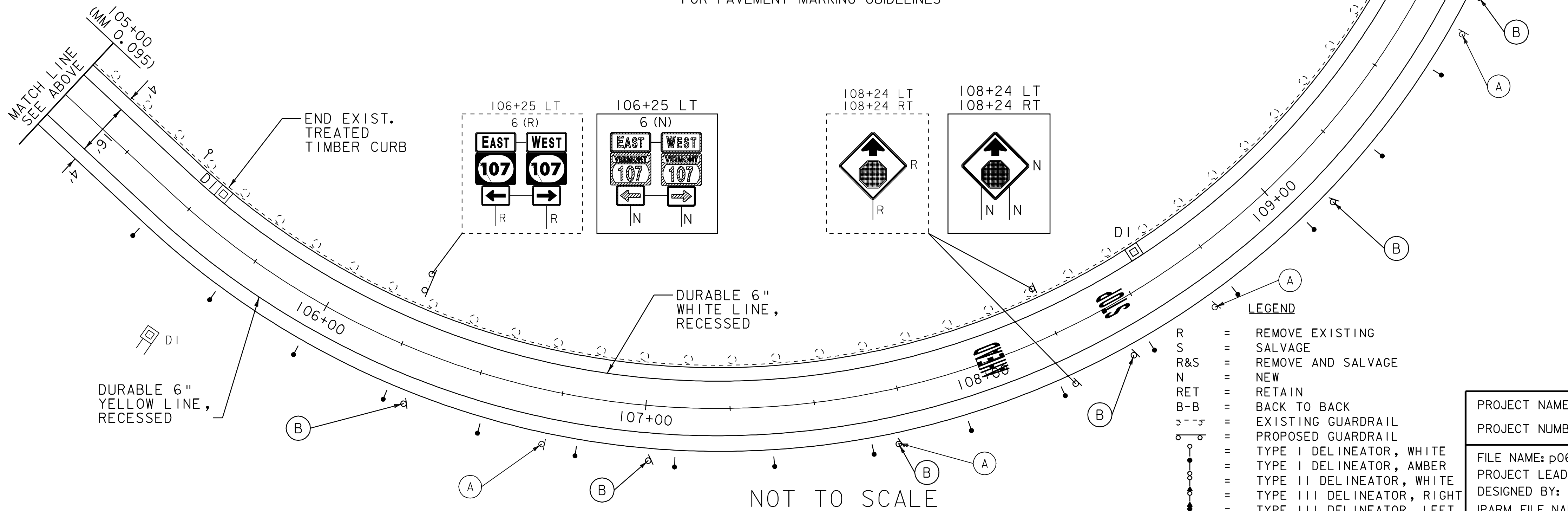
DELINEATORS
REFER TO STANDARDS E-197 AND
E-198 FOR PLACEMENT GUIDELINES

REMOVING SIGNS
AS SHOWN - 32



EXIT 3 - RAMP B NORTHBOUND OFF RAMP

SEE STANDARDS E-191, E-192 AND E-193
FOR PAVEMENT MARKING GUIDELINES



PAVEMENT CORES - (NO STATIONING GIVEN)			
NO.	STA	TOTAL DEPTH (in)	PCC
1	I-89 RAMP NB	8	NO
2	I-89 RAMP NB	6.5	NO
3	I-89 RAMP NB	8.25	NO

LEGEND	
R	= REMOVE EXISTING
S	= SALVAGE
R&S	= REMOVE AND SALVAGE
N	= NEW
RET	= RETAIN
B-B	= BACK TO BACK
---	= EXISTING GUARDRAIL
---	= PROPOSED GUARDRAIL
---	= TYPE I DELINEATOR, WHITE
---	= TYPE I DELINEATOR, AMBER
---	= TYPE II DELINEATOR, WHITE
---	= TYPE III DELINEATOR, RIGHT
---	= TYPE III DELINEATOR, LEFT

RAMP DETAIL #1

PROJECT NAME:	ROYALTON-BETHEL
PROJECT NUMBER:	IM 089-1(54)
FILE NAME:	p06a198.dgn
PROJECT LEADER:	PTS
DESIGNED BY:	NULL
IPARM FILE NAME:	p06a198-r.d1
PLOT DATE:	28-JUN-2010 15:12
DRAWN BY:	MRS
CHECKED BY:	PTS
SHEET	14 OF 37

EXIT 3 - RAMP B
NORTHBOUND OFF RAMP

SEE STANDARDS E-191, E-192 AND E-193
FOR PAVEMENT MARKING GUIDELINES

TEMPORARY 6" WHITE LINE, PAINT
DURABLE 6" WHITE LINE, RECESSED

110+50 TO 118+01 SOLID LT
114+79 TO 118+01 DOTTED RT
1167+56 TO 1167+99 DOTTED RT

TEMPORARY 6" YELLOW LINE, PAINT
DURABLE 6" YELLOW LINE, RECESSED

110+50 TO 113+37 SOLID RT

TEMPORARY 12" WHITE LINE, PAINT
DURABLE 12" WHITE LINE, RECESSED

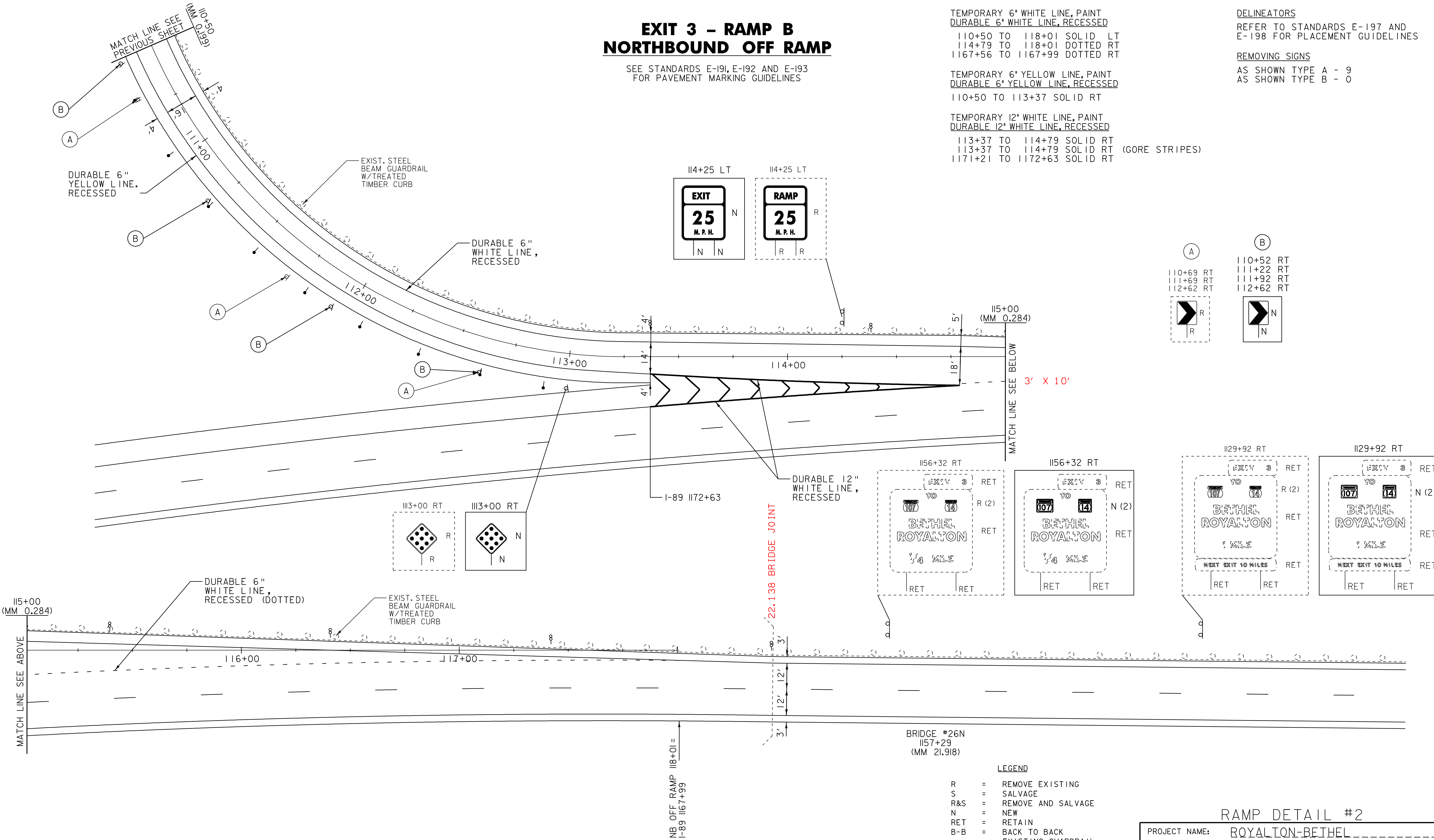
113+37 TO 114+79 SOLID RT
113+37 TO 114+79 SOLID RT (GORE STRIPES)
1171+21 TO 1172+63 SOLID RT

DELINEATORS

REFER TO STANDARDS E-197 AND
E-198 FOR PLACEMENT GUIDELINES

REMOVING SIGNS

AS SHOWN TYPE A - 9
AS SHOWN TYPE B - 0



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
 - o = TYPE I DELINEATOR, WHITE
 - o = TYPE I DELINEATOR, AMBER
 - o = TYPE II DELINEATOR, WHITE
 - o = TYPE III DELINEATOR, RIGHT
 - o = TYPE III DELINEATOR, LEFT

RAMP DETAIL #2

PROJECT NAME:	ROYALTON-BETHEL
PROJECT NUMBER:	IM 089-1(54)
FILE NAME:	p06a198.dgn
PROJECT LEADER:	PTS
DESIGNED BY:	NLL
IPARM FILE NAME:	p06a198rd2.1
PLOT DATE:	28-JUN-2010 15:12
DRAWN BY:	MRS
CHECKED BY:	PTS
SHEET	15 OF 37

EXIT 3 – RAMP A
NORTHBOUND ON RAMP

SEE STANDARDS E-191, E-192 AND E-193
FOR PAVEMENT MARKING GUIDELINES

TEMPORARY 6" WHITE LINE, PAINT
DURABLE 6" WHITE LINE, RECESSED
200+00 TO 210+50 SOLID RT

TEMPORARY 6" YELLOW LINE, PAINT
DURABLE 6" YELLOW LINE, RECESSED
200+00 TO 210+50 SOLID LT

SHOULDER BERM REMOVAL
202+37 TO 210+50 RT

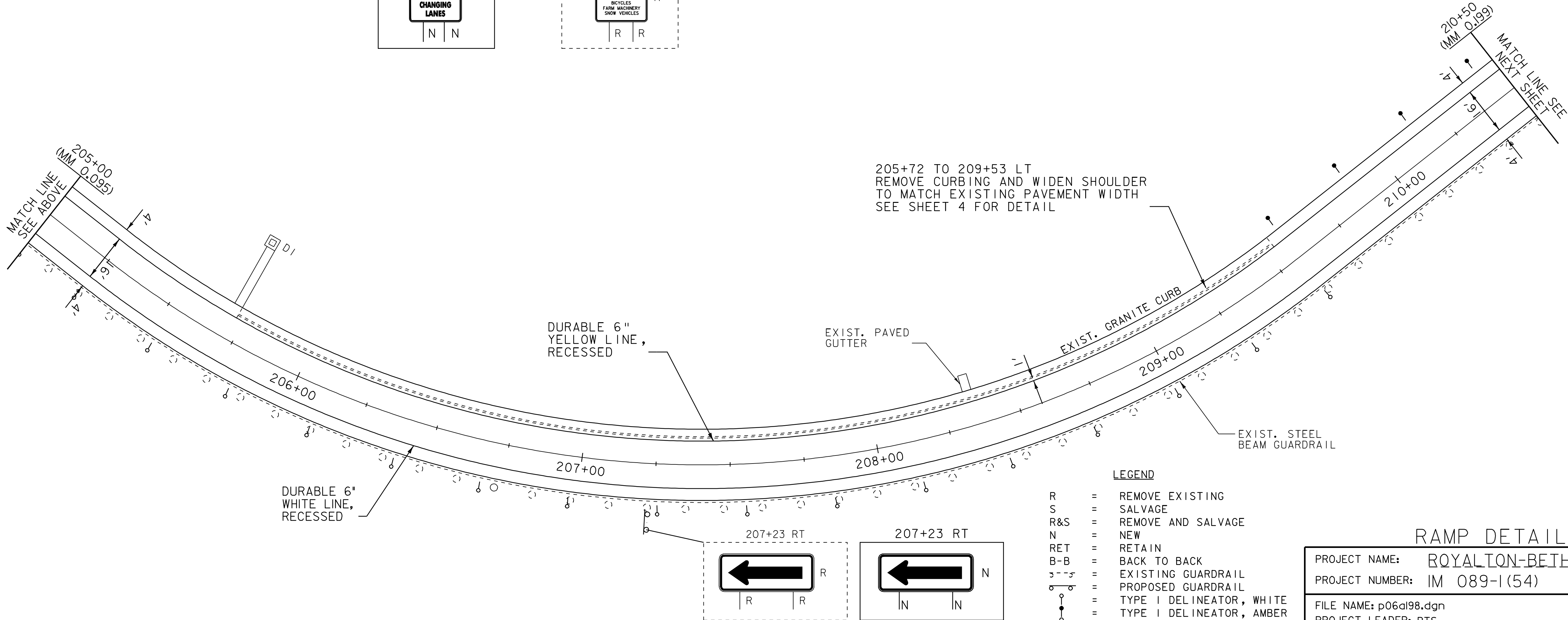
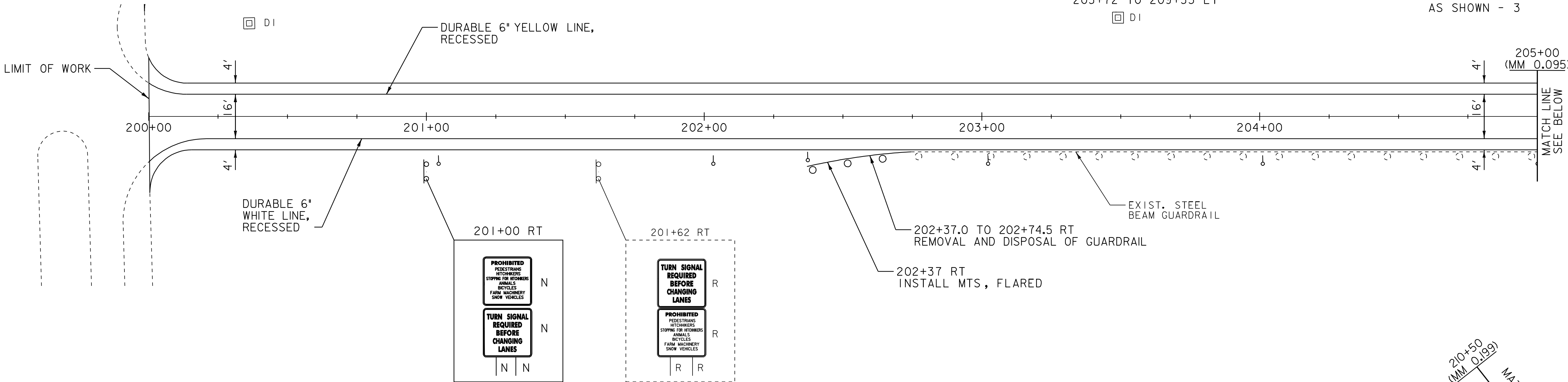
REMOVAL OF EXISTING CURB
205+72 TO 209+53 LT

DELINEATORS
REFER TO STANDARDS E-197 AND
E-198 FOR PLACEMENT GUIDELINES

REMOVAL AND DISPOSAL OF GUARDRAIL
202+37.0 TO 202+74.5 RT

MANUFACTURED TERMINAL SECTION, FLARED
DELINEATOR WITH STEEL POST
202+37 RT

REMOVING SIGNS
AS SHOWN - 3



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
 - = TYPE I DELINEATOR, WHITE
 - = TYPE I DELINEATOR, AMBER
 - = TYPE II DELINEATOR, WHITE
 - = TYPE III DELINEATOR, RIGHT
 - = TYPE III DELINEATOR, LEFT

RAMP DETAIL #3

PROJECT NAME:	ROYALTON-BETHEL
PROJECT NUMBER:	IM 089-1(54)
FILE NAME:	p06a198.dgn
PROJECT LEADER:	PTS
DESIGNED BY:	NLL
IPARM FILE NAME:	p06a198rd3.1
PLOT DATE:	28-JUN-2010 15:12
DRAWN BY:	MRS
CHECKED BY:	PTS
SHEET	16 OF 37

EXIT 3 - RAMP A
NORTHBOUND ON RAMP

SEE STANDARDS E-191, E-192 AND E-193
FOR PAVEMENT MARKING GUIDELINES

TEMPORARY 6" WHITE LINE, PAINT
DURABLE 6" WHITE LINE, RECESSED

210+50 TO 219+73 SOLID RT
1182+78 TO 1183+50 DASHED RT

TEMPORARY 6" YELLOW LINE, PAINT
DURABLE 6" YELLOW LINE, RECESSED

210+50 TO 215+43 SOLID LT

TEMPORARY 12" WHITE LINE, PAINT
DURABLE 12" WHITE LINE, RECESSED

215+43 TO 218+00 SOLID LT 257'
1178+48 TO 1182+78 SOLID RT 430'

SHOULDER BERM REMOVAL

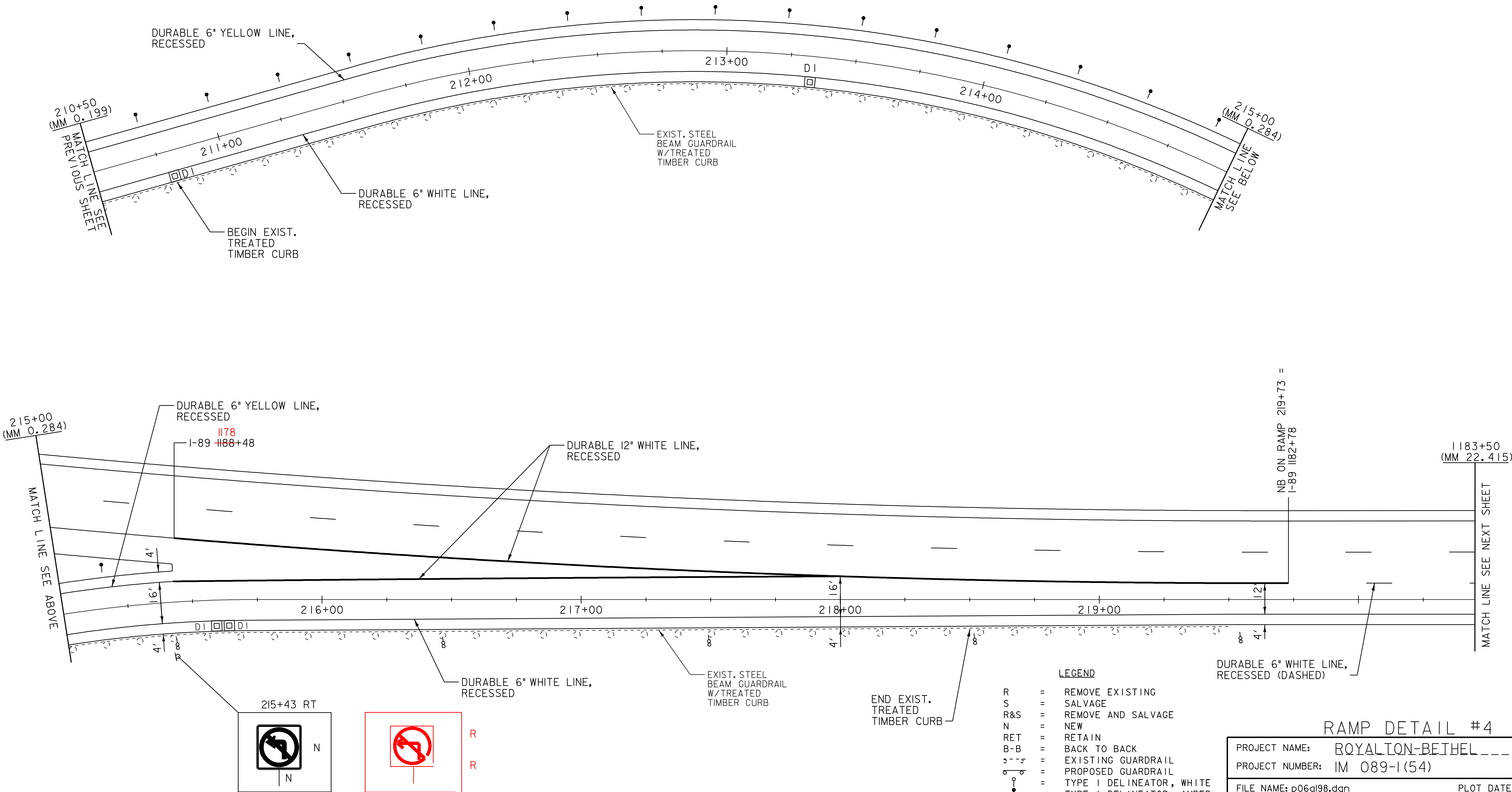
210+50 TO 210+80 RT
218+50 TO 219+50 RT

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

210+80 RT
213+33 RT
215+59 RT
215+64 RT

DELINEATORS

REFER TO STANDARDS E-197 AND
E-198 FOR PLACEMENT GUIDELINES



NOT TO SCALE

EXIT 3 – RAMP A
NORTHBOUND ON RAMP

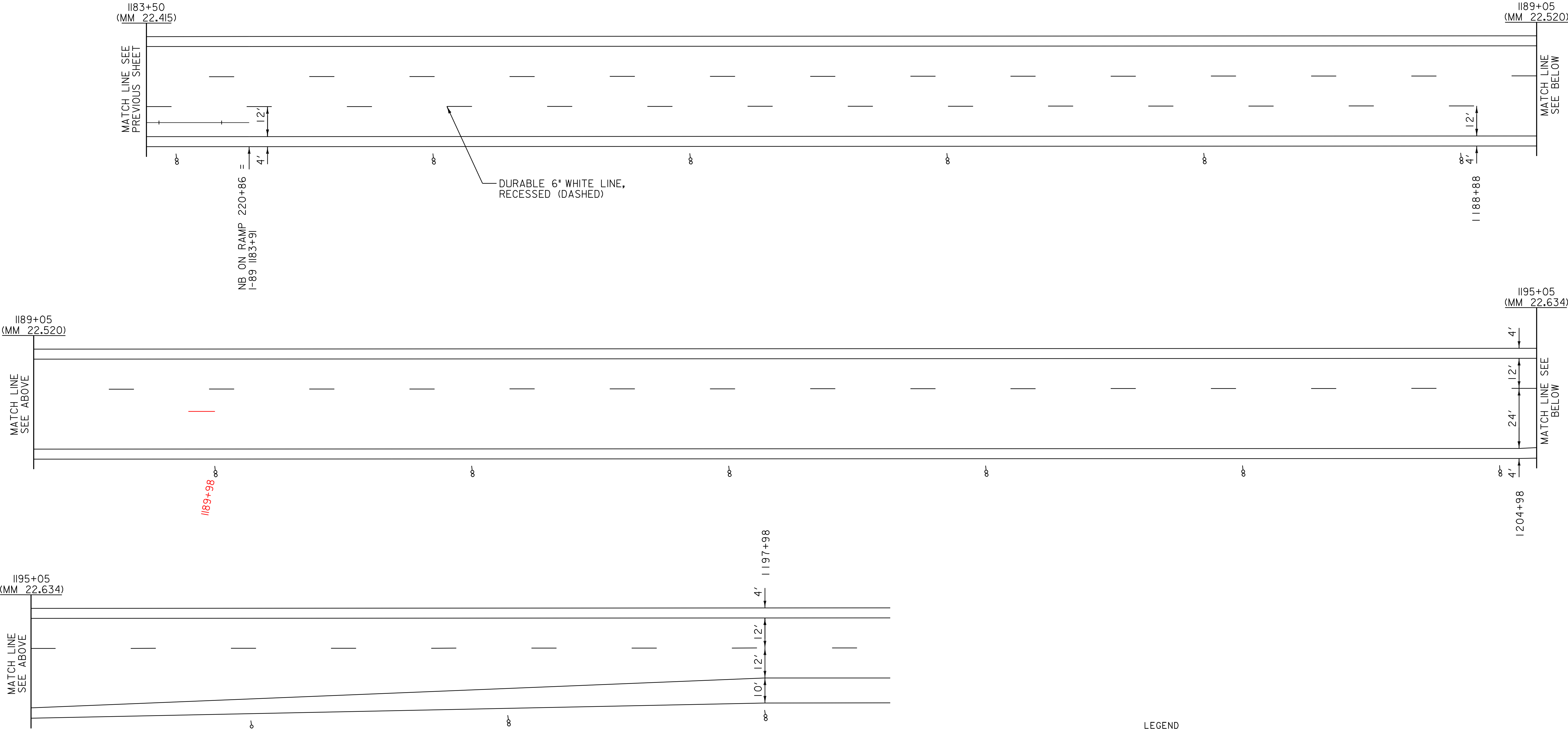
SEE STANDARDS E-191, E-192 AND E-193
FOR PAVEMENT MARKING GUIDELINES

TEMPORARY 6" WHITE LINE, PAINT
DURABLE 6" WHITE LINE, RECESSED

1183+50 TO 1188+88 DASHED RT 720' DASH

DELINEATORS

REFER TO STANDARDS E-197 AND
E-198 FOR PLACEMENT GUIDELINES



LEGEND		
R	=	REMOVE EXISTING
S	=	SALVAGE
R&S	=	REMOVE AND SALVAGE
N	=	NEW
RET	=	RETAIN
B-B	=	BACK TO BACK
---	=	EXISTING GUARDRAIL
---	=	PROPOSED GUARDRAIL
○	=	TYPE I DELINEATOR, WHITE
●	=	TYPE I DELINEATOR, AMBER
○	=	TYPE II DELINEATOR, WHITE
●	=	TYPE III DELINEATOR, RIGHT
●	=	TYPE III DELINEATOR, LEFT

RAMP DETAIL #5

PROJECT NAME:	ROYALTON-BETHEL-----	
PROJECT NUMBER:	IM 089-1(54)	
FILE NAME:	p06a198.dgn	PLOT DATE: 28-JUN-2010 15:12
PROJECT LEADER:	PTS	DRAWN BY: MRS
DESIGNED BY:	NLL	CHECKED BY: PTS
IPARM FILE NAME:	p06a198rd5.1	SHEET 18 OF 37

NOT TO SCALE

SEE STANDARDS E-191, E-192 AND E-193
FOR PAVEMENT MARKING GUIDELINES

REMOVING SIGNS
AS SHOWN - 7



EXIT 3 - RAMP C
SOUTHBOUND ON RAMP

SEE STANDARDS E-191, E-192 AND E-193
FOR PAVEMENT MARKING GUIDELINES

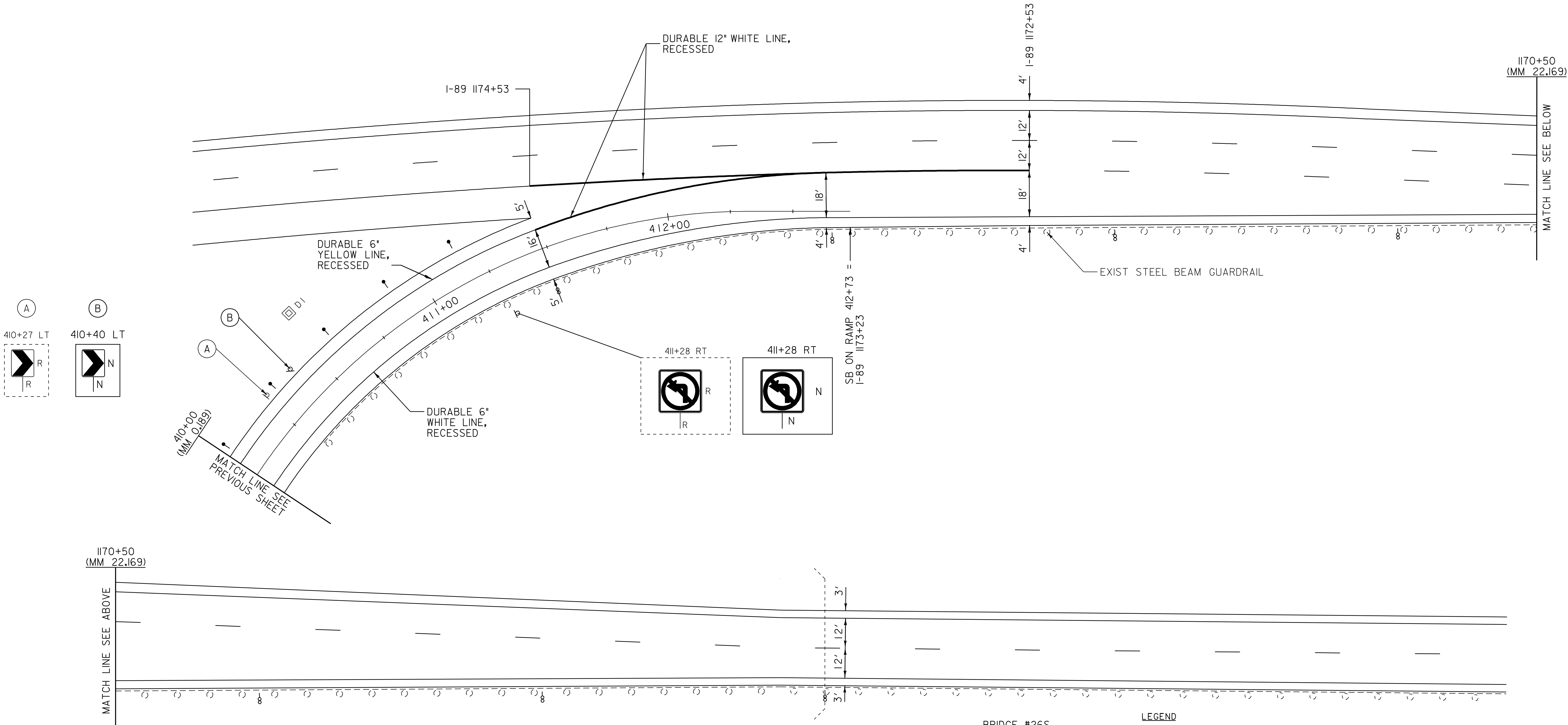
TEMPORARY 6" WHITE LINE, PAINT
DURABLE 6" WHITE LINE, RECESSED
410+00 TO 412+73 SOLID RT
1170+53 TO 1172+53 DASHED LT

TEMPORARY 6" YELLOW LINE, PAINT
DURABLE 6" YELLOW LINE, RECESSED
410+00 TO 411+48 SOLID LT

TEMPORARY 12" WHITE LINE, PAINT
DURABLE 12" WHITE LINE, RECESSED
411+48 TO 412+63 SOLID LT
1172+53 TO 1174+53 SOLID LT

DELINEATORS
REFER TO STANDARDS E-197 AND
E-198 FOR PLACEMENT GUIDELINES

REMOVING SIGNS
AS SHOWN - 2



BRIDGE #265
1157+29
(MM 21.918)

- LEGEND
- R = REMOVE EXISTING
 - S = SALVAGE
 - R&S = REMOVE AND SALVAGE
 - N = NEW
 - RET = RETAIN
 - B-B = BACK TO BACK
 - = EXISTING GUARDRAIL
 - - - = PROPOSED GUARDRAIL
 - = TYPE I DELINEATOR, WHITE
 - = TYPE I DELINEATOR, AMBER
 - = TYPE II DELINEATOR, WHITE
 - = TYPE III DELINEATOR, RIGHT
 - = TYPE III DELINEATOR, LEFT

RAMP DETAIL #7

PROJECT NAME: ROYALTON-BETHEL
PROJECT NUMBER: IM 089-1(54)

FILE NAME: p06a198.dgn
PROJECT LEADER: PTS
DESIGNED BY: NLL
IPARM FILE NAME: p06a198r.d7.1
PLOT DATE: 28-JUN-2010 15:12
DRAWN BY: MRS
CHECKED BY: PTS
SHEET 20 OF 37

NOT TO SCALE

TEMPORARY 6" WHITE LINE, PAINT
DURABLE 6" WHITE LINE, RECESSED
300+00 TO 312+00 SOLID LT

TEMPORARY 6" YELLOW LINE, PAINT
DURABLE 6" YELLOW LINE, RECESSED
300+00 TO 312+00 SOLID RT

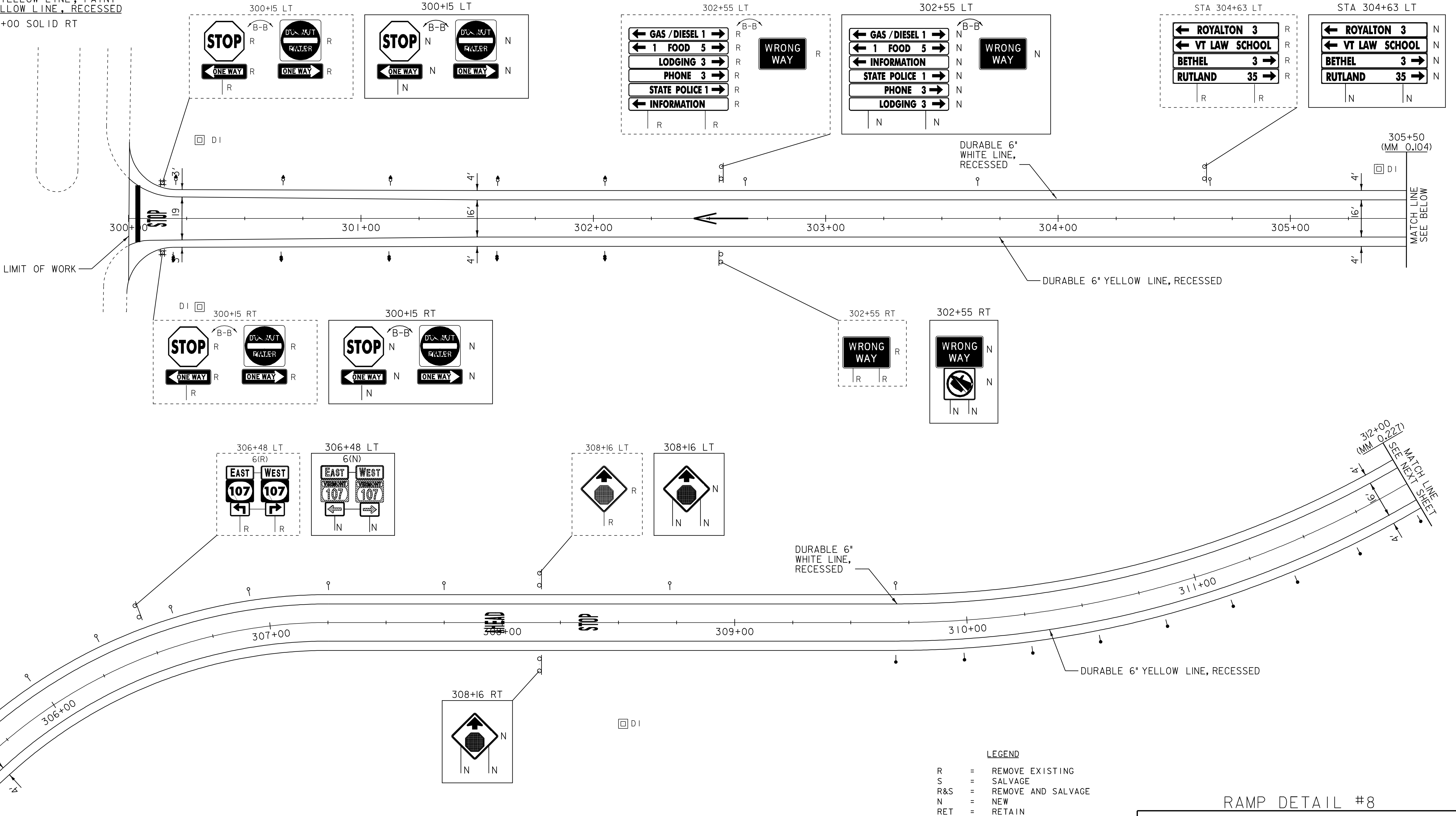
TEMPORARY 24" STOP BAR, PAINT
DURABLE 24" STOP BAR, THERMOPLASTIC
300+04 LT TO RT

EXIT 3 - RAMP D
SOUTHBOUND OFF RAMP

SEE STANDARDS E-191, E-192 AND E-193
FOR PAVEMENT MARKING GUIDELINES

TEMPORARY LETTER OR SYMBOL, PAINT
DURABLE LETTER OR SYMBOL, THERMOPLASTIC
300+12 CL "STOP"
302+57 CL WRONG WAY ARROW
307+96 CL "AHEAD"
308+36 CL "STOP"

DELINEATORS
REFER TO STANDARDS E-197 AND
E-198 FOR PLACEMENT GUIDELINES
REMOVING SIGNS
AS SHOWN - 27



- LEGEND
- R = REMOVE EXISTING
 - S = SALVAGE
 - R&S = REMOVE AND SALVAGE
 - N = NEW
 - RET = RETAIN
 - B-B = BACK TO BACK
 - = EXISTING GUARDRAIL
 - - - = PROPOSED GUARDRAIL
 - = TYPE I DELINEATOR, WHITE
 - = TYPE I DELINEATOR, AMBER
 - = TYPE II DELINEATOR, WHITE
 - = TYPE III DELINEATOR, RIGHT
 - = TYPE III DELINEATOR, LEFT

NOT TO SCALE

RAMP DETAIL #8

PROJECT NAME: ROYALTON-BETHEL
PROJECT NUMBER: IM 089-1(54)

FILE NAME: p06a198.dgn
PROJECT LEADER: PTS
DESIGNED BY: NLL
IPARM FILE NAME: pal981a10.1
PLOT DATE: 28-JUN-2010 15:12
DRAWN BY: MRS
CHECKED BY: PTS
SHEET 21 OF 37

EXIT 3 - RAMP D
SOUTHBOUND OFF RAMP

SEE STANDARDS E-191, E-192 AND E-193
FOR PAVEMENT MARKING GUIDELINES

TEMPORARY 6" WHITE LINE, PAINT
DURABLE 6" WHITE LINE, RECESSED

312+00 TO 315+27 SOLID LT
314+34 TO 315+27 DASHED RT
1183+52 TO 1185+90 DASHED LT
1185+90 TO 1190+80 DOTTED LT

TEMPORARY 6" YELLOW LINE, PAINT
DURABLE 6" YELLOW LINE, RECESSED

312+00 TO 313+13 SOLID RT

TEMPORARY 12" WHITE LINE, PAINT
DURABLE 12" WHITE LINE, RECESSED

313+13 TO 313+93 SOLID RT
313+13 TO 313+93 SOLID RT (GORE STRIPES)
1181+39 TO 1182+62 SOLID LT

REMOVAL AND DISPOSAL OF GUARDRAIL

1183+60.0 TO 1188+30.0 LT

STEEL BEAM GUARDRAIL, GALVANIZED

1183+60.0 TO 1188+60.0 LT

ANCHOR FOR STEEL BEAM RAIL

1183+60.0 LT

1186+62.0 LT

1188+60.0 LT

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

1183+89 LT (DI)

TREATED TIMBER CURB

1183+90 TO 1186+62 LT

12" CSP .064

1187+35 TO 1188+95 LT

DELINEATORS

REFER TO STANDARDS E-197 AND
E-198 FOR PLACEMENT GUIDELINES

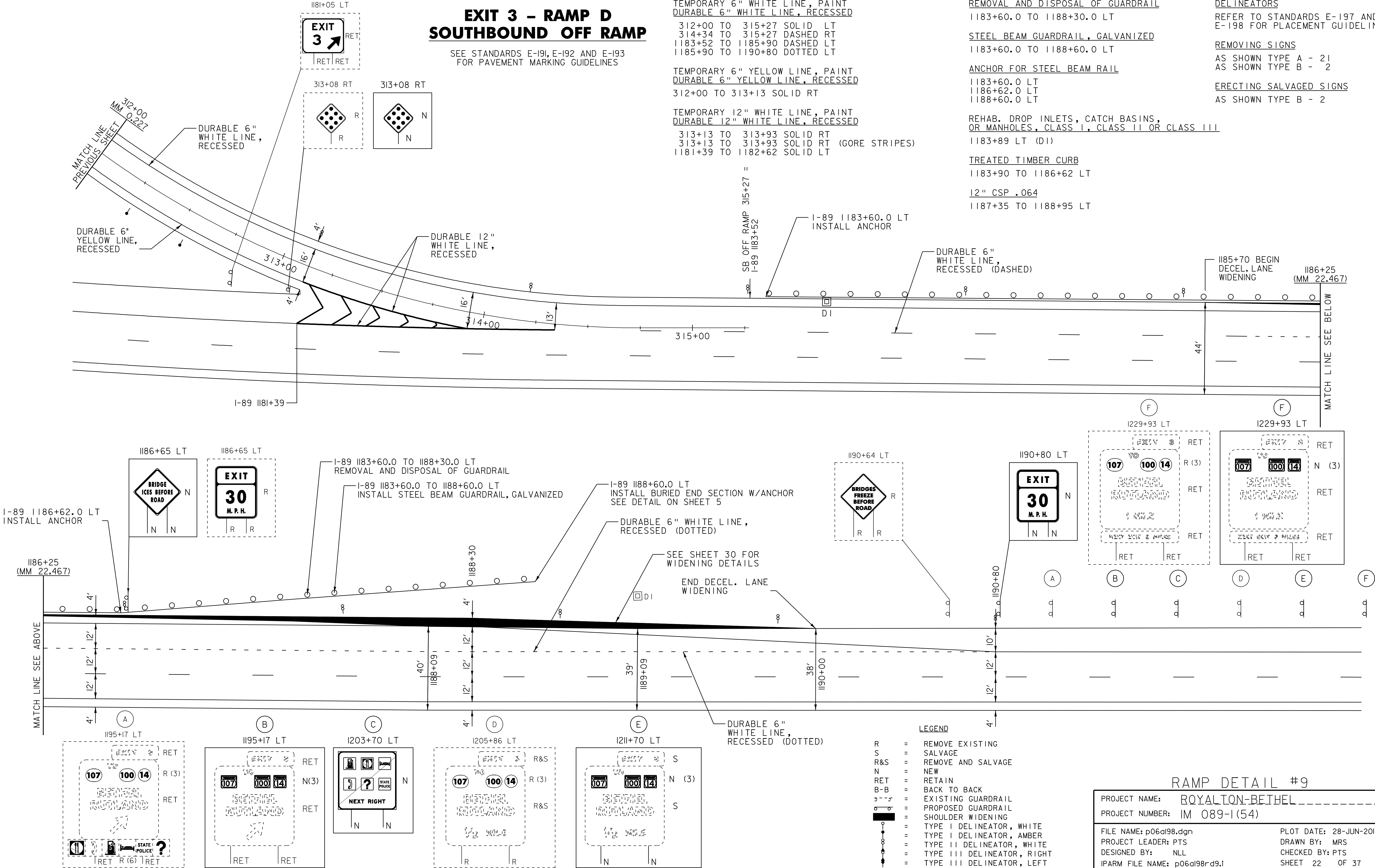
REMOVING SIGNS

AS SHOWN TYPE A - 21

AS SHOWN TYPE B - 2

ERECTING SALVAGED SIGNS

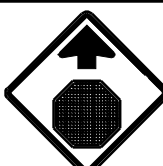
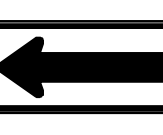
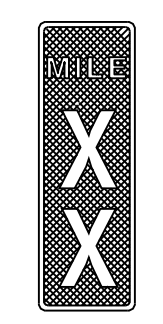
AS SHOWN TYPE B - 2



TRAFFIC SIGN SUMMARY SHEET #2

[illegible]

TRAFFIC SIGN SUMMARY SHEET #3

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST RETAIN	SALVAGE	NO. OF POSTS	FLANGED CHANNEL			SQUARE STEEL					TUBULAR ALUMINUM			TUBULAR STEEL					W-SHAPE STEEL				REQUIRED SIGNAGE	REMARKS		SIGN DETAIL	
					"A"	"B"	SALV SIGN	SALV TIS				lb/ft			(in)			ANCHOR	SLEEVE	Ø (in)			FOUND- ATION	Ø (in)			FTG. SIZE		WEIGHT	POST SIZE	DETAIL ON SHEET NUMBER				STD. SHEET NUMBER	
		1.12	2.0	3.0								1.75	2.0	2.5	3.0	4.0	4.0 MOD			3.0	3.5	4.0		5.0	24"	30"										
		1.12	2.0	3.0								1.88	2.16	3.35	1b/ft	1.7	1.7			7.6	9.0	10.8		14.6	24"	30"										
OPTION ITEMS																																				
108+24 RT 108+24 LT		2	36	36	9.00						24					15-0/15-6 X		X													W3-1A		E-150			
113+00 RT		1	18	18	2.25						1				X	10-0		X													OMI-1		E-150			
114+25 LT		1	48	60	20.00						2									42											W13-2	ASTM TYPE VII, VIII OR IX FLUORESCENT YELLOW RETROREFLECTIVE BACKGROUND SHEETING		E-150		
EXIT 3 RAMP A NB ON RAMP 201+00 RT		1	36	36	9.00						2					17-0 X 17-6		X														VR-046		E-142		
		1	36	36	9.00																											VR-002		E-142		
207+23 RT		1	48	24	8.00						2					14-0 X 13-0		X														W1-6		E-152		
215+43 RT		1	30	30	6.25						1					13-6 X		X														R3-2		E-143		
1-89 SB 950+40 LT 1003+20 LT 1056+00 LT 1108+80 LT 1214+40 LT 1267+20 LT 1320+00 LT		7	12	36	21.00						7					X		X														D10-2		E-139		
1-89 SB 1077+85 RT 1152+75 RT 1209+14 RT 1336+82 RT	 MM 21.85	4	36	36	36.00						8					X	13-6	14-0	X													R3-4		E-143		
1186+65 LT MM 22.47		1	48	48	16.00						2					X	16-0 17-0		X													W8-13		E-150		
1190+80 LT		1	48	60	20.00						2									2	182											W13-2	ASTM TYPE VII, VIII OR IX FLUORESCENT YELLOW RETROREFLECTIVE BACKGROUND SHEETING		E-150	
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE ROADWAY, TRAFFIC AND SAFETY, AND PAVEMENT MANAGEMENT SECTION'S "SIGN POST DESIGN GUIDELINE."												FT	FT	FT	FT	FT	FT	EA	LB	LB	LB		LB	LB	LB	LB										
																15	420						182													
												FT	FT			FT				LB	LB			EA.	LB			EA.	EA.	LB						
													FT			FT				42	435			2	182											

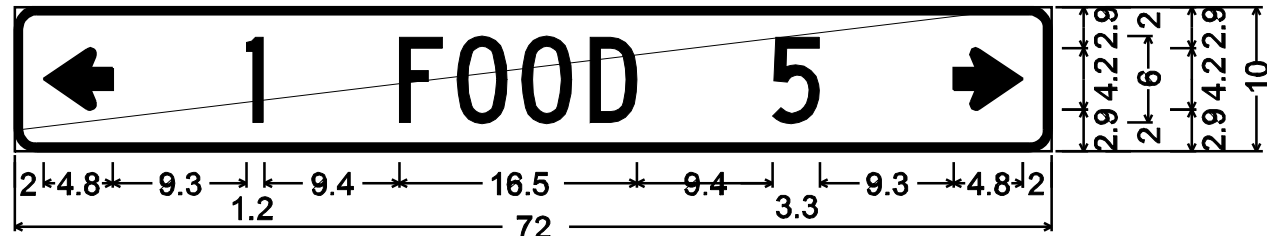
STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET #4

[illegible]

TRAFFIC SIGN SUMMARY SHEET #6

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST	NO. OF POSTS	FLANGED CHANNEL			SQUARE STEEL					TUBULAR ALUMINUM			TUBULAR STEEL					W-SHAPE STEEL				REQUIREMENTS	REMARKS	SIGN DETAIL		
					"A"	"B"	SALV SIGN	SALV TIS	REMAIN		SALVAGE	lb/ft	lb/ft	lb/ft	ANCHOR	SLEEVE	Ø (in)		FOUND- ATION	Ø (in)		FTG. SIZE		WEIGHT	POST SIZE	DETAIL ON SHEET NUMBER	STD. SHEET NUMBER								
		1.12	2.0	3.0													1.75	2.0		2.5	3.0	4.0	4.0 MOD					3.0	3.5	4.0			5.0	24"	30"
		EA	WIDTH (in)	HEIGHT (in)													1.12	2.0		3.0	1.88	2.16	3.35					1.3	1.7	1.7			7.6	9.0	10.8
OPTION ITEMS																																			
304+63 LT	ROYALTON 3	I	72	12	6.00						2					X		X													DI-I	E-I23			
	VT LAW SCHOOL	I	72	12	6.00											15.5														DI-I	E-I23				
	BETHEL 3	I	72	12	6.00											17.58														DI-I	E-I23				
	RUTLAND 35	I	72	12	6.00																									DI-I	E-I23				
306+48 LT	EAST	I	24	12	2.00						2					X		X													M3-2	E-I36B			
	WEST	I	24	12	2.00											14.4															M3-4	E-I36B			
		I	30	24	5.00											16.2															MI-5	E-I23			
		I	30	24	5.00																										MI-5	E-I23			
		I	21	15	2.19																										M6-I	E-I36B			
		I	21	15	2.19																										M6-I	E-I36B			
308+16 LT 308+16 RT	LT RT	2	36	36	18.00						4					15.25 15.5 X 15.2 15.7		X													W3-1A	E-I50			
313+08 RT		I	18	18	2.25						I					X 9.75		X													OMI-I	E-I50			
	SHEET 23 SHEET 24 SHEET 25 SHEET 26 SHEET 27 SHEET 28			144.5 183.5	141.50 128.38 165.50 122.75 124.25 62.63	0 0 0 144.00 0 0	0 0 0 2 0 0						0 0 0 0 0 0 ROUNDDING	270 240 420 45 210 120	305.41 235 427.15 49.50 204.16 135.08 1.24 357.55 LF			0 0 2 0 0 0 0	44.85	0	0	0 0 0 0 0	182 216.50					0 0 0 2 0 0 0	0 0 0 2 0 0 0	2295					
	ROUNDING				4.99	0	0						0	0				-3			-0	-3					-0	-0	-10						
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE ROADWAY, TRAFFIC AND SAFETY, AND PAVEMENT MANAGEMENT SECTION'S "SIGN POST DESIGN GUIDELINE."												FT	FT	FT	FT	FT	FT	EA	LB	LB	LB		LB	LB	LB	LB									
					</																														



1.5" Radius, 0.5" Border, White on ~~Green~~; **BLUE**
Standard Arrow Custom 4.8" X 4.3" 180°; [1] C; [FOOD] C; [5] C;
Standard Arrow Custom 4.8" X 4.3" 0°;



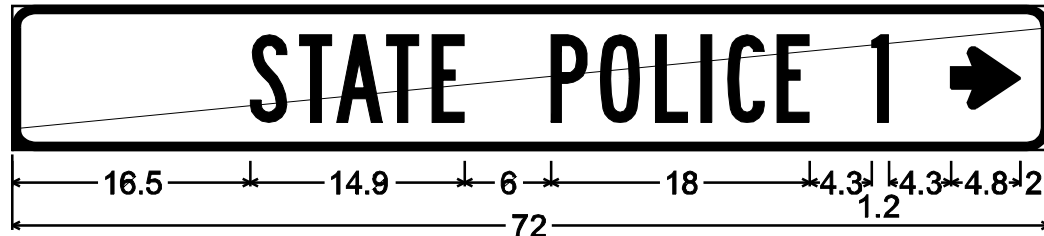
1.5" Radius, 0.5" Border, White on ~~Green~~; **BLUE**
[PHONE] C; [3] C; Standard Arrow Custom 4.8" X 4.3" 0°;



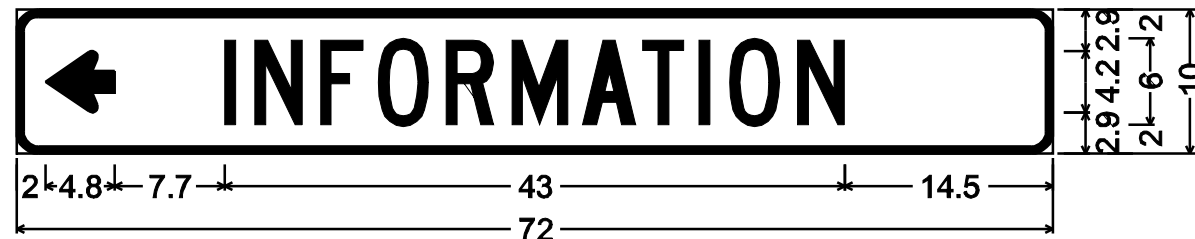
1.5" Radius, 0.5" Border, White on ~~Green~~; **BLUE**
Standard Arrow Custom 4.8" X 4.3" 180°; [GAS/DIESEL] C; [1] C;
Standard Arrow Custom 4.8" X 4.3" 0°;



1.5" Radius, 0.5" Border, White on ~~Green~~; **BLUE**
[LODGING] C; [3] C; Standard Arrow Custom 4.8" X 4.3" 0°;



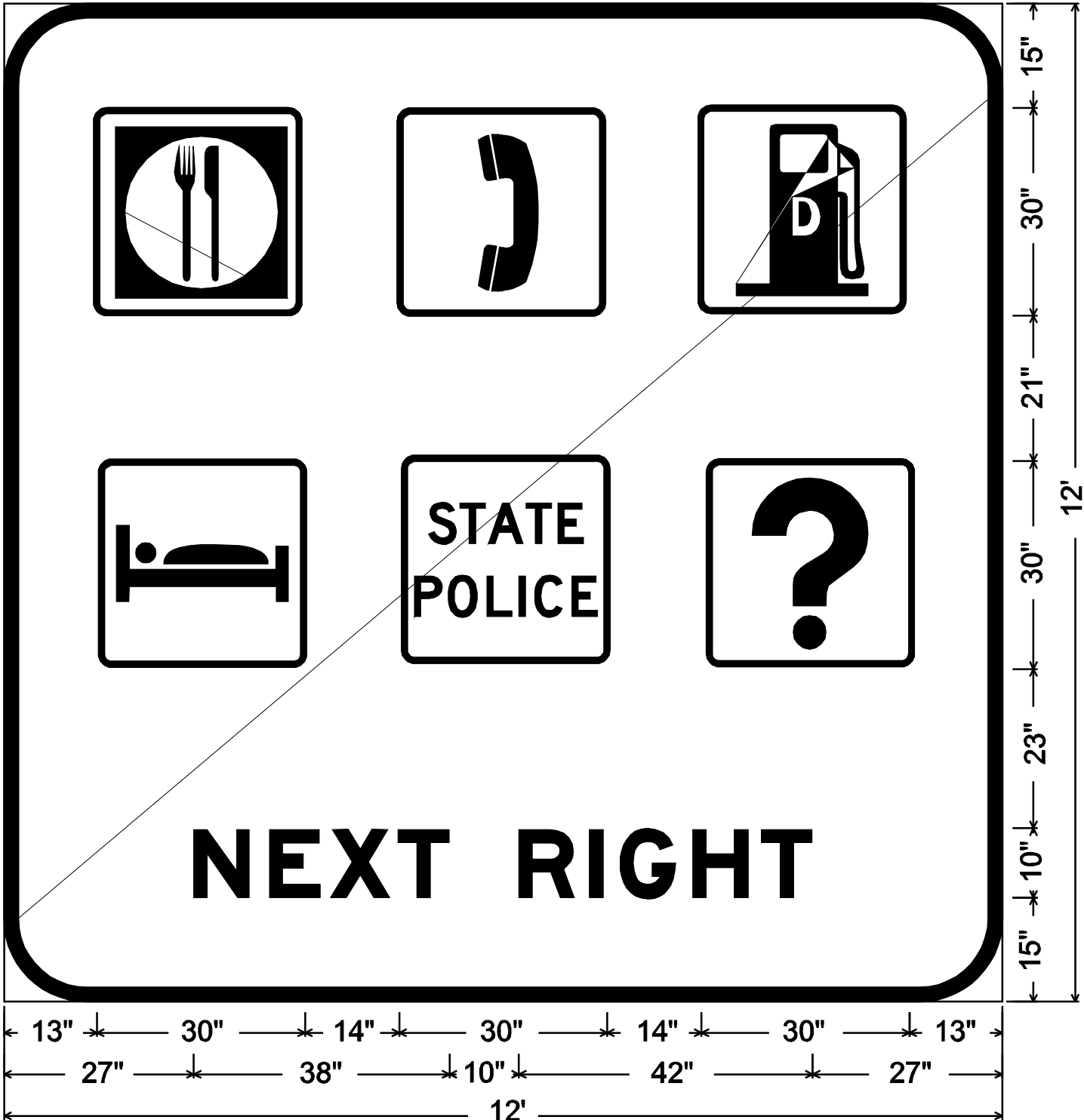
1.5" Radius, 0.5" Border, White on ~~Green~~; **BLUE**
[STATE POLICE] B; [1] B; Standard Arrow Custom 4.8" X 4.3" 0°;



1.5" Radius, 0.5" Border, White on ~~Green~~; **BLUE**
Standard Arrow Custom 4.8" X 4.3" 180°; [INFORMATION] C;

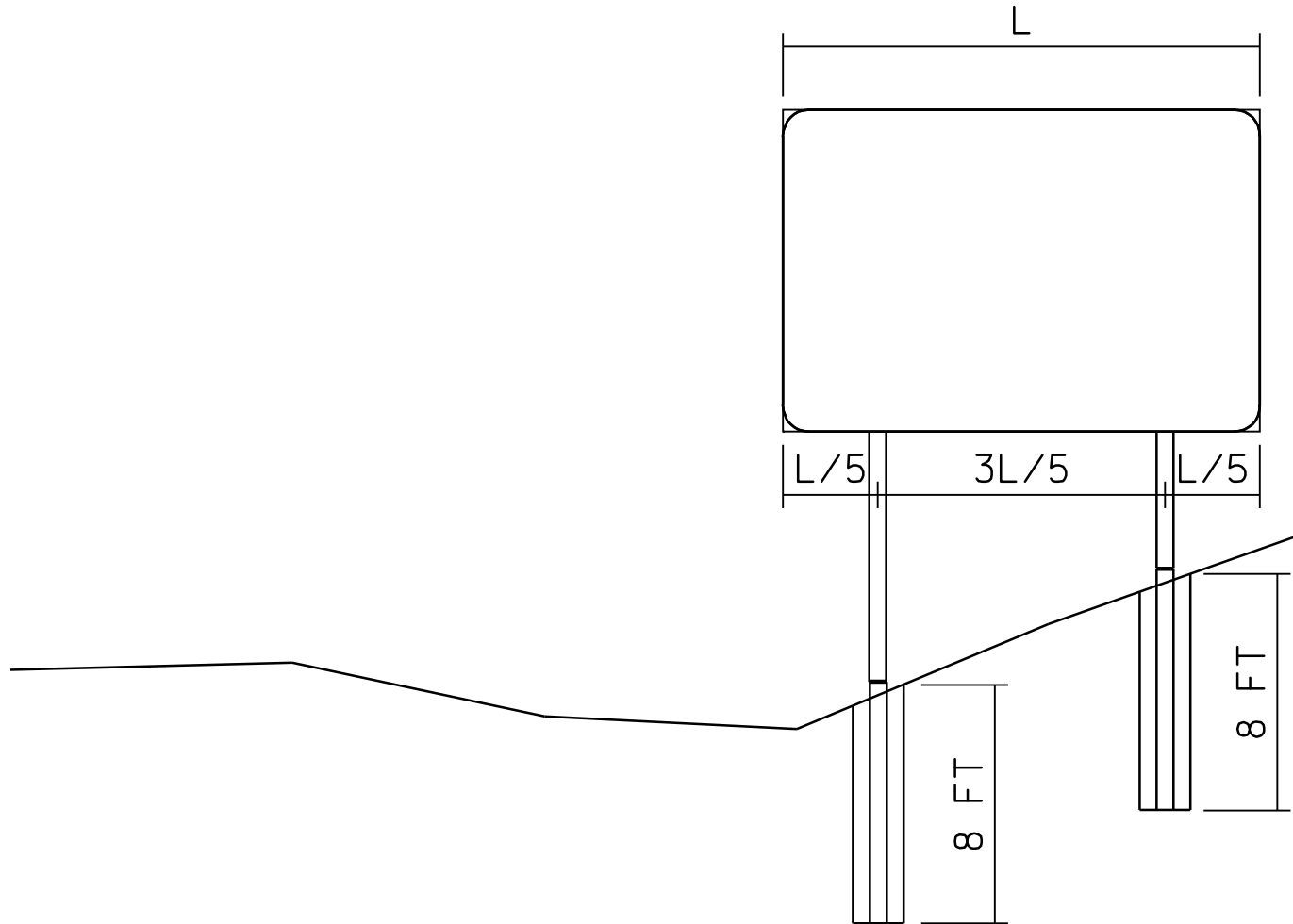
GENERAL NOTES

- ALL NEW SIGNS SHALL BE INSTALLED IN ACCORDANCE WITH THESE PLANS, MUTCD, APPLICABLE VTRANS E-SERIES STANDARDS OR AS DIRECTED BY THE RESIDENT ENGINEER.
- TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH APPLICABLE VTRANS E-SERIES STANDARDS AND PART 6 OF THE MUTCD OR AS DIRECTED BY THE RESIDENT ENGINEER.
- TEXT LAYOUT DIMENSIONS AND DESIGN OF SYMBOLS FOR STANDARD SIGNS NOT DETAILED ON THESE PLANS OR IN THE E-SERIES STANDARDS CAN BE FOUND IN THE LATEST PUBLICATION OF THE MUTCD STANDARD HIGHWAY SIGNS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE TO PRIVATE OR PUBLIC PROPERTY CAUSED BY THE CONTRACTOR, AT THE SOLE COST OF THE CONTRACTOR.
- THE CONTRACTOR SHALL ERECT NEW POSTS AND MOUNT NEW SIGNS BEHIND EXISTING SIGNS PRIOR TO REMOVING THE OLD SIGN AND POST, WHERE APPLICABLE, OR AS DIRECTED BY THE RESIDENT ENGINEER.
- ANY REFERENCE TO "LEFT" OR "RIGHT" REFERS TO THE DIRECTION OF STATIONING AND NOT THE DIRECTION OF TRAFFIC.
- DELINEATORS: NEW MAINLINE DELINEATORS WITH OR WITHOUT MILEPOST PLAQUES ARE NOT SHOWN ON THE PLANS. REFER TO STANDARD E-197 AND SHEETS 19 - 27 FOR GENERAL PLACEMENT AND SPACING CRITERIA. AN ESTIMATED QUANTITY OF DELINEATORS W/STEEL POSTS AND REMOVAL OF EXISTING DELINEATORS HAS BEEN INCLUDED. DELINEATORS TO BE REMOVED SHALL NOT BE CUT BUT SHALL BE COMPLETELY REMOVED FROM THE GROUND.



12" Radius, 2" Border, White on Blue;
[NEXT RIGHT] E Mod 2K;

NOTE:
INDIVIDUAL SERVICE PANELS SHALL BE MOUNTED
INDEPENDENTLY ONTO THE TYPE B EXTRUDED
PANELS USING RIVETS.

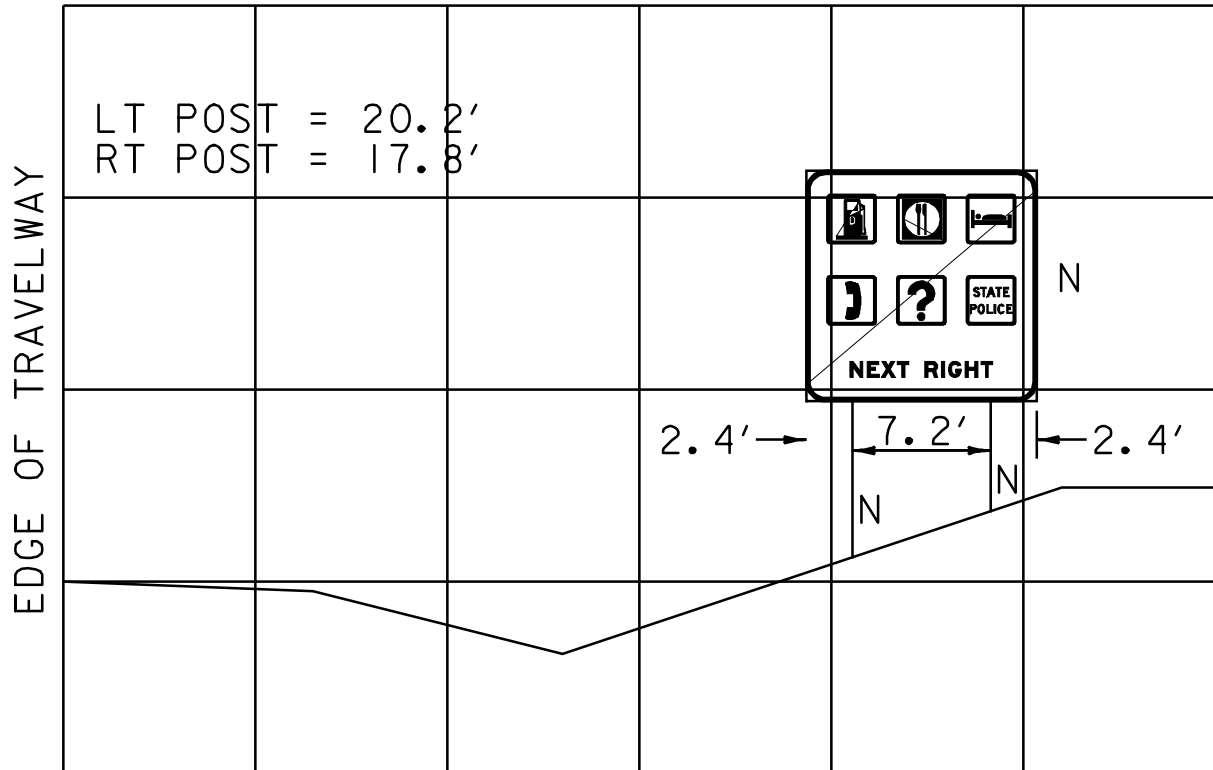


W-SHAPE FOOTING DETAIL

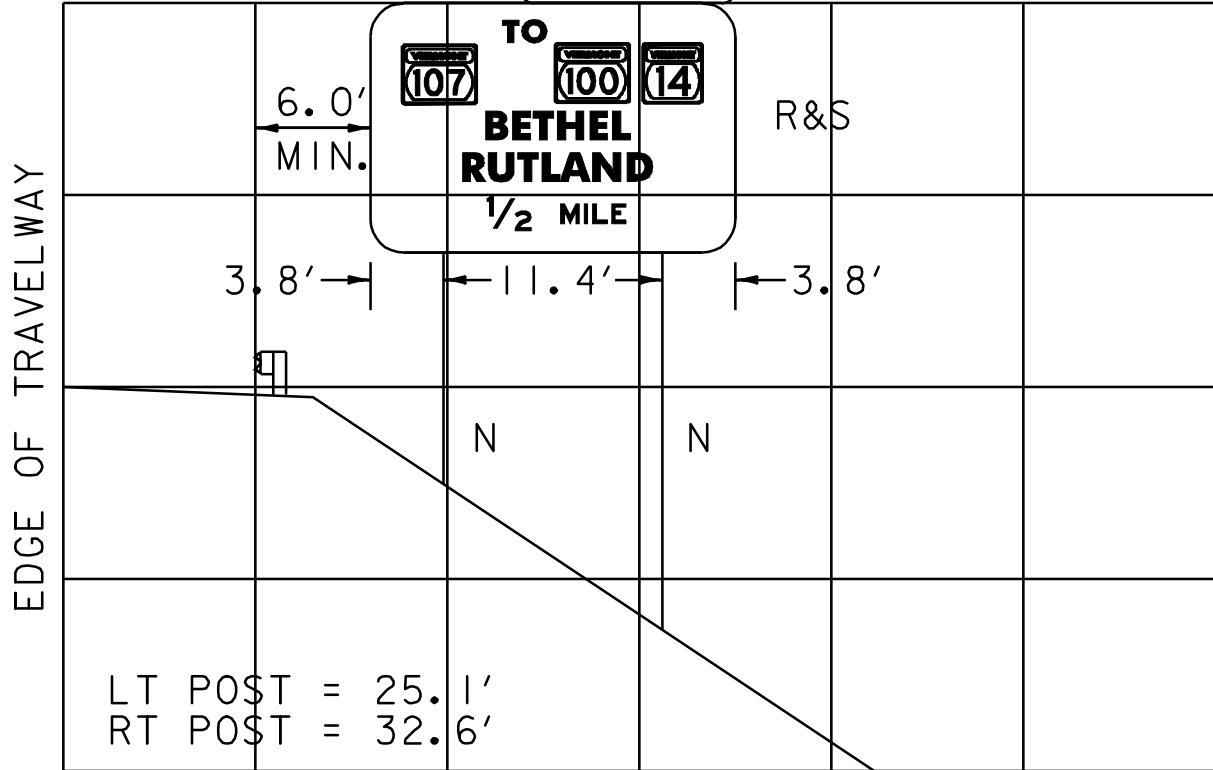
NOTES

- THE LONGER CONCRETE FOOTINGS SHALL BE USED AT POST LOCATIONS ON STEEP SIDE SLOPES AS IDENTIFIED ON THE PLANS OR AS DIRECTED BY THE RESIDENT ENGINEER.
- FORMS/TUBES FOR THE LONGER CONCRETE FOOTINGS SHALL BE SMOOTH. CORRUGATED PIPE SHALL NOT BE USED.
- REFER TO VTRANS STANDARD E-161 FOR ADDITIONAL NOTES AND DETAILS REGARDING CONCRETE FOOTINGS.
- PAYMENT FOR THE LONGER CONCRETE FOOTINGS SHALL BE PAID FOR UNDER ITEM 900.620, SPECIAL PROVISION (8' FOUNDATION FOR W-SHAPE STEEL POST, 30 INCH DIAMETER).

1203 + 70



1211 + 70

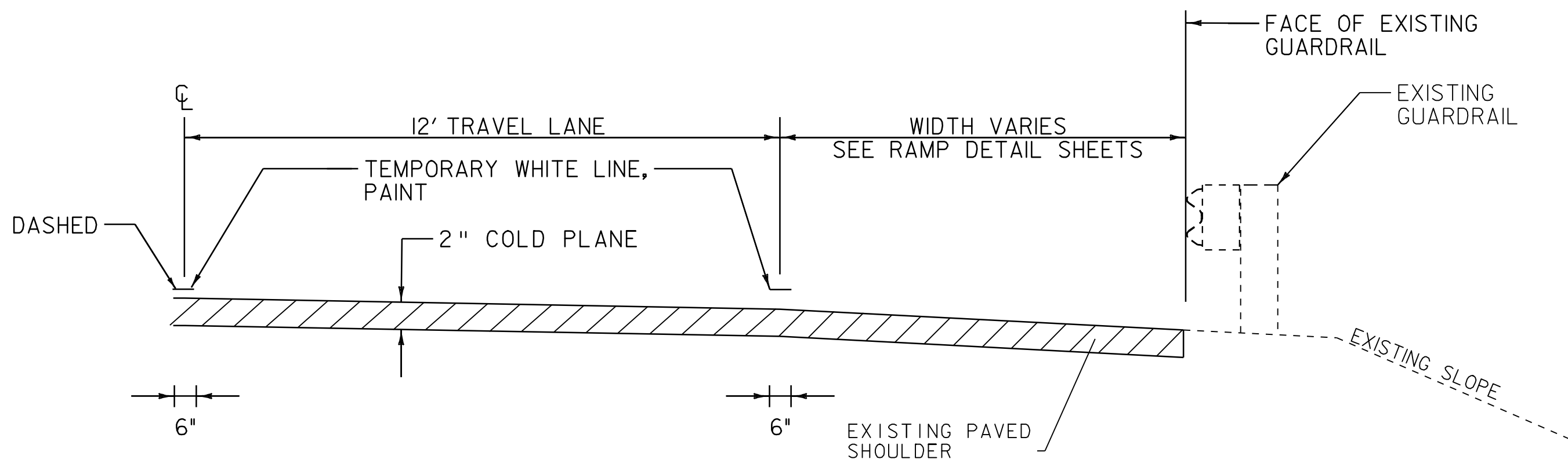


SIGN DETAILS

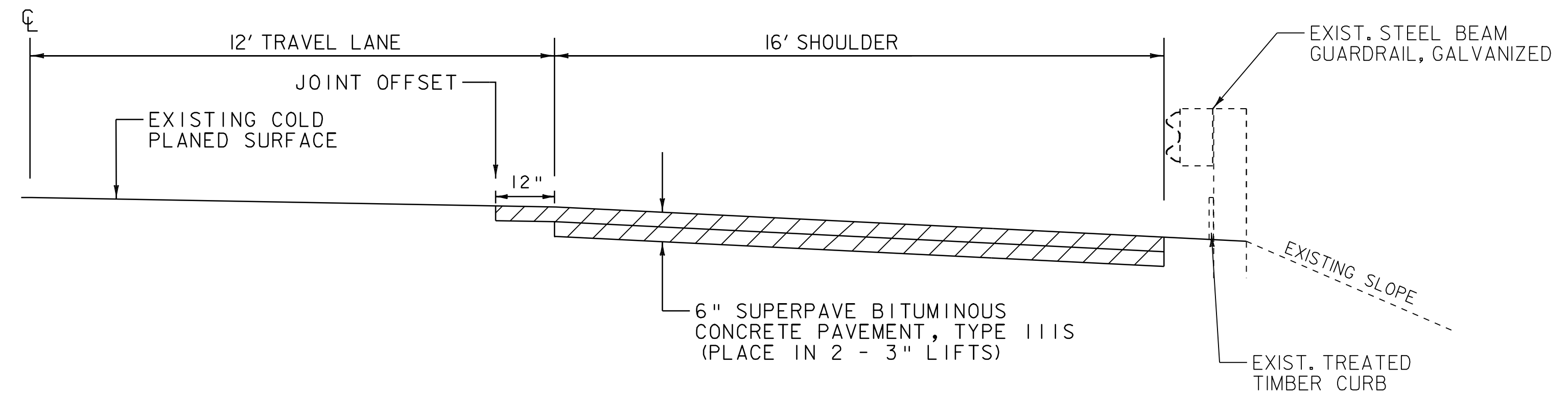
PROJECT NAME: ROYALTON-BETHEL
PROJECT NUMBER: IM 089-1(54)

FILE NAME: p06a198.dgn
PROJECT LEADER: PTS
DESIGNED BY: NULL
IPARM FILE NAME: p06a198sd.l
PLOT DATE: 28-JUN-2010 15:12
DRAWN BY: MRS
CHECKED BY: PTS
SHEET 29 OF 37

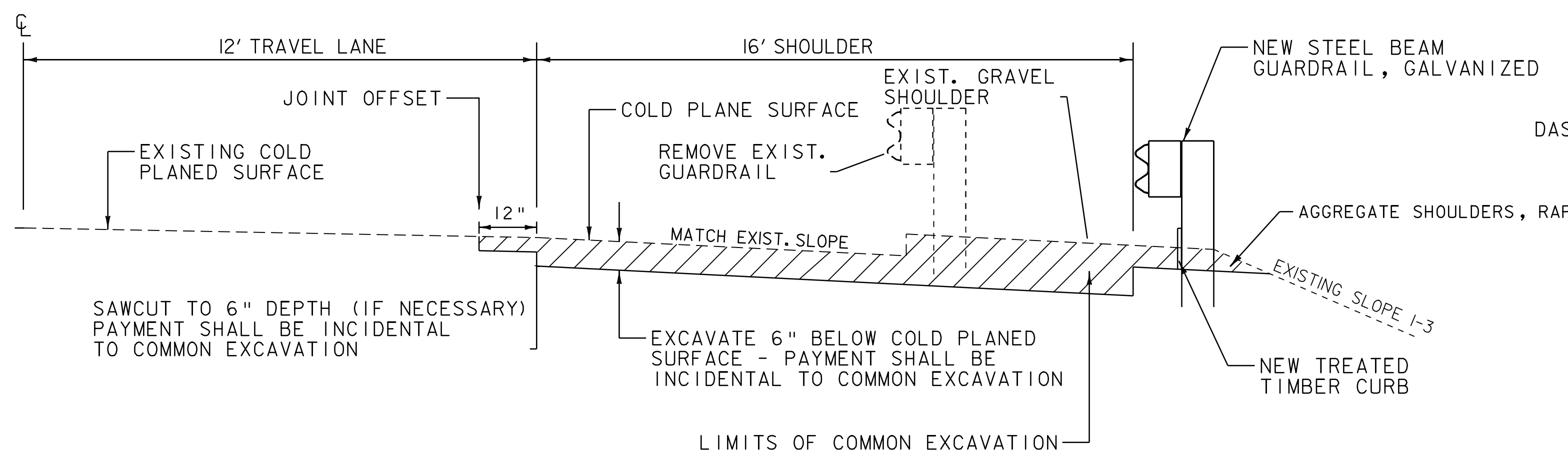
NOT TO SCALE



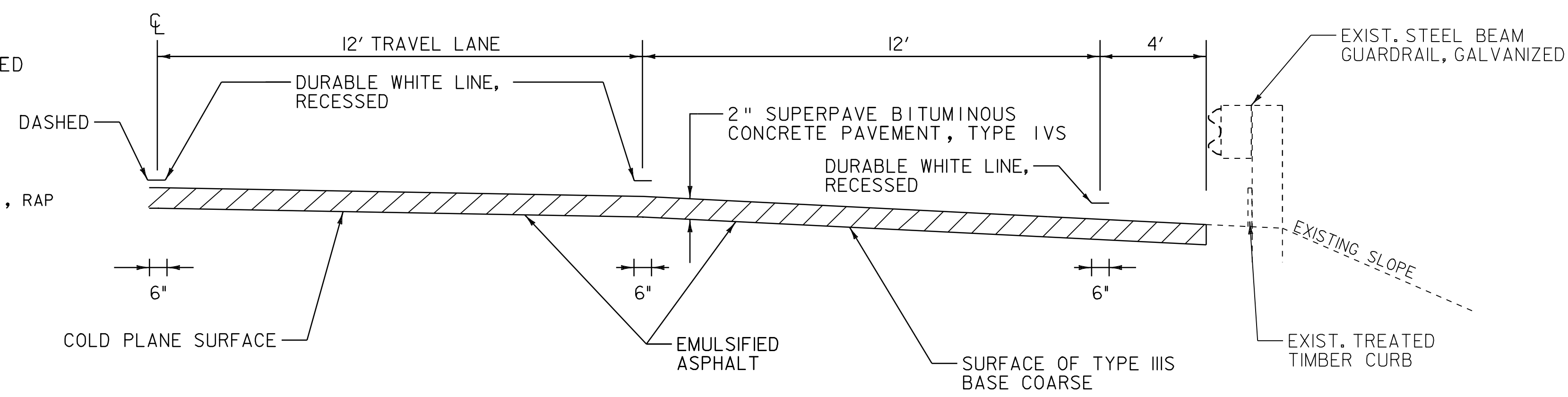
PHASE I



PHASE III



PHASE II



PHASE IV

NOTE:

- I. THE CONTRACTOR SHALL NOT LEAVE THE UNPROTECTED 6" DROP OFF EXPOSED TO VEHICULAR TRAFFIC. THE CONTRACTOR SHALL EXCAVATE TO A 6" DEPTH AND OVERLAY WITH 6" OF SUPERPAVE BITUMINOUS CONCRETE PAVEMENT, TYPE IIIS IN THE SAME WORKDAY, UNLESS OTHERWISE DIRECTED BY THE RESIDENT ENGINEER.

NOT TO SCALE

STA 1185+70 TO 1190+00
DECEL LANE WIDENING DETAILS

PROJECT NAME:	ROYALTON-BETHEL	PROJECT NUMBER:	IM 089-1(54)
FILE NAME:	p06al98.dgn	PLOT DATE:	28-JUN-2010 15:12
PROJECT LEADER:	PTS	DRAWN BY:	MRS
DESIGNED BY:	NLL	CHECKED BY:	PTS
IPARM FILE NAME:	p06al98dlwd.1	SHEET	30 OF 37

GUARDRAIL TREATMENT AT BULLNOSE LOCATION - BRIDGE

BRIDGE 26 NORTHBOUND & SOUTHBOUND MM 21.918
INTERSTATE 89 OVER WHITE RIVER AND VT 107

REMOVAL AND DISPOSAL OF GUARDRAIL

NB 1155+58.0 TO 1157+80.0 LT
NB 1168+20.5 TO 1170+34.0 LT
SB 1156+70.0 TO 1157+80.0 RT
SB 1168+20.5 TO 1170+34.0 RT

STEEL BEAM GUARDRAIL, GALVANIZED

NB 1153+55.0 TO 1157+55.0 LT
NB 1168+20.5 TO 1168+45.5 LT
SB 1157+30.0 TO 1157+55.0 RT
SB 1168+20.5 TO 1172+08.0 RT

ALUMINUM APPROACH RAILING

NB 1157+55.0 TO 1157+80.0 LT
SB 1157+55.0 TO 1157+80.0 RT

MANUFACTURED TERMINAL SECTION, FLARED
DELINEATOR WITH STEEL POST

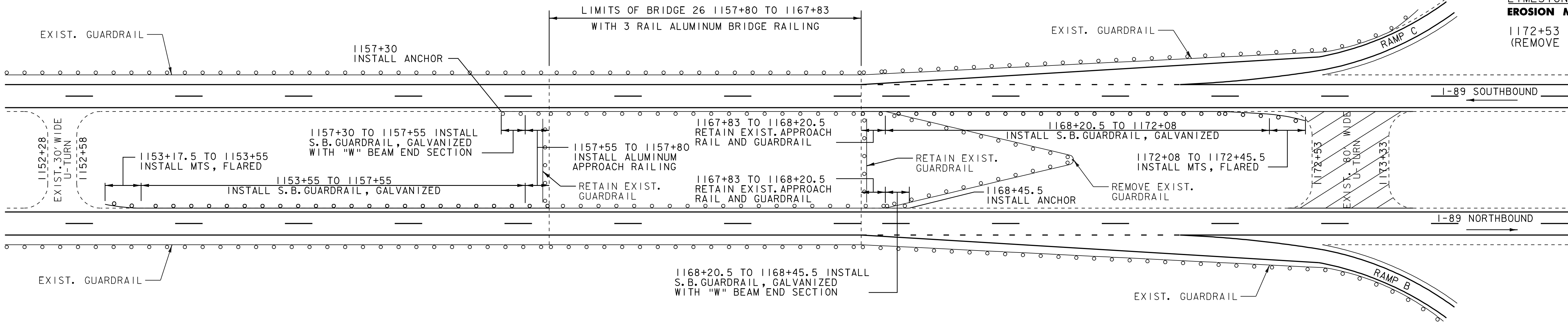
NB 1153+17.5 TO 1153+55.0 LT
SB 1172+08.0 TO 1172+45.5 RT

ANCHOR FOR STEEL BEAM RAIL

NB 1168+45.5 LT
SB 1157+30.0 RT

EXCAVATION OF SURFACES
AND PAVEMENTS (PLACE 4"
TOPSOIL, SEED, FERTILIZER,
LIMESTONE AND **TEMPORARY**
EROSION MATTING

1172+53 TO 1173+33
(REMOVE U-TURN)



GUARDRAIL LOCATIONS - OVERPASS

BRIDGE 28 MM 24.348
TH 6 OVER INTERSTATE 89

REMOVAL AND DISPOSAL OF GUARDRAIL

NB 1281+28.0 TO 1284+76.0 RT
NB 1283+65.0 TO 1284+55.0 LT
SB 1279+41.0 TO 1285+84.0 LT
SB 1283+65.0 TO 1284+55.0 RT

STEEL BEAM GUARDRAIL, GALVANIZED

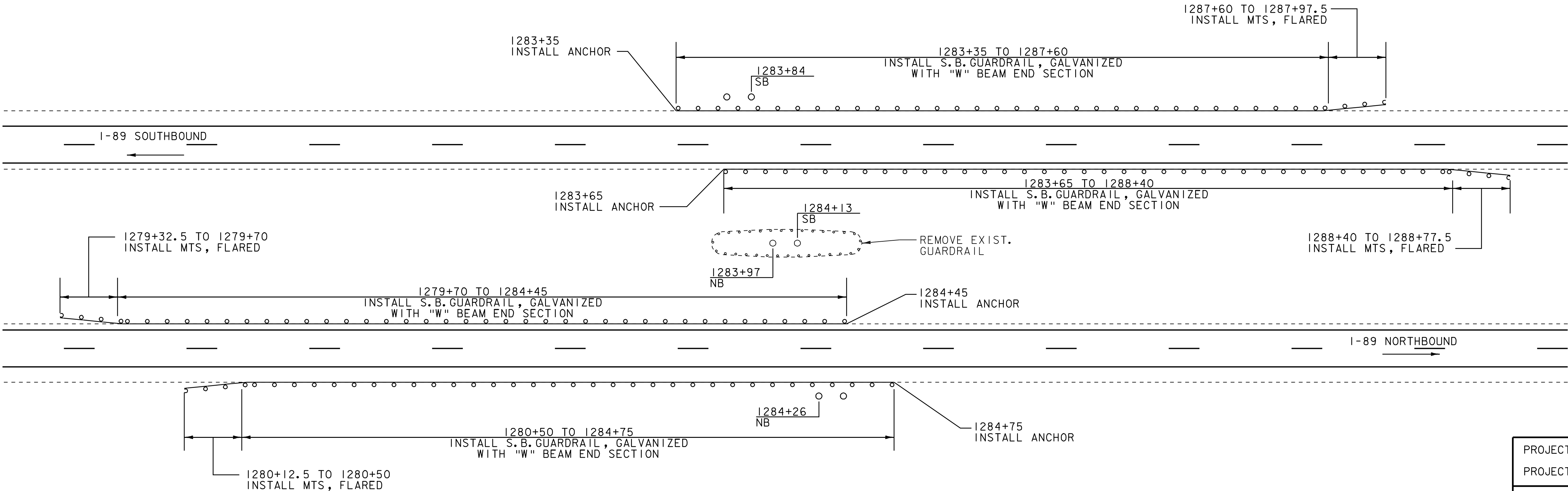
NB 1279+70.0 TO 1284+45.0 LT
NB 1280+50.0 TO 1284+75.0 RT
SB 1283+35.0 TO 1287+60.0 LT
SB 1283+65.0 TO 1288+40.0 RT

MANUFACTURED TERMINAL SECTION, FLARED
DELINEATOR WITH STEEL POST

NB 1279+32.5 TO 1279+70.0 LT
NB 1280+12.5 TO 1280+50.0 RT
SB 1287+60.0 TO 1287+97.5 LT
SB 1288+40.0 TO 1288+77.5 RT

ANCHOR FOR STEEL BEAM RAIL

NB 1284+45 LT
NB 1284+75 RT
SB 1283+35 LT
SB 1283+65 RT



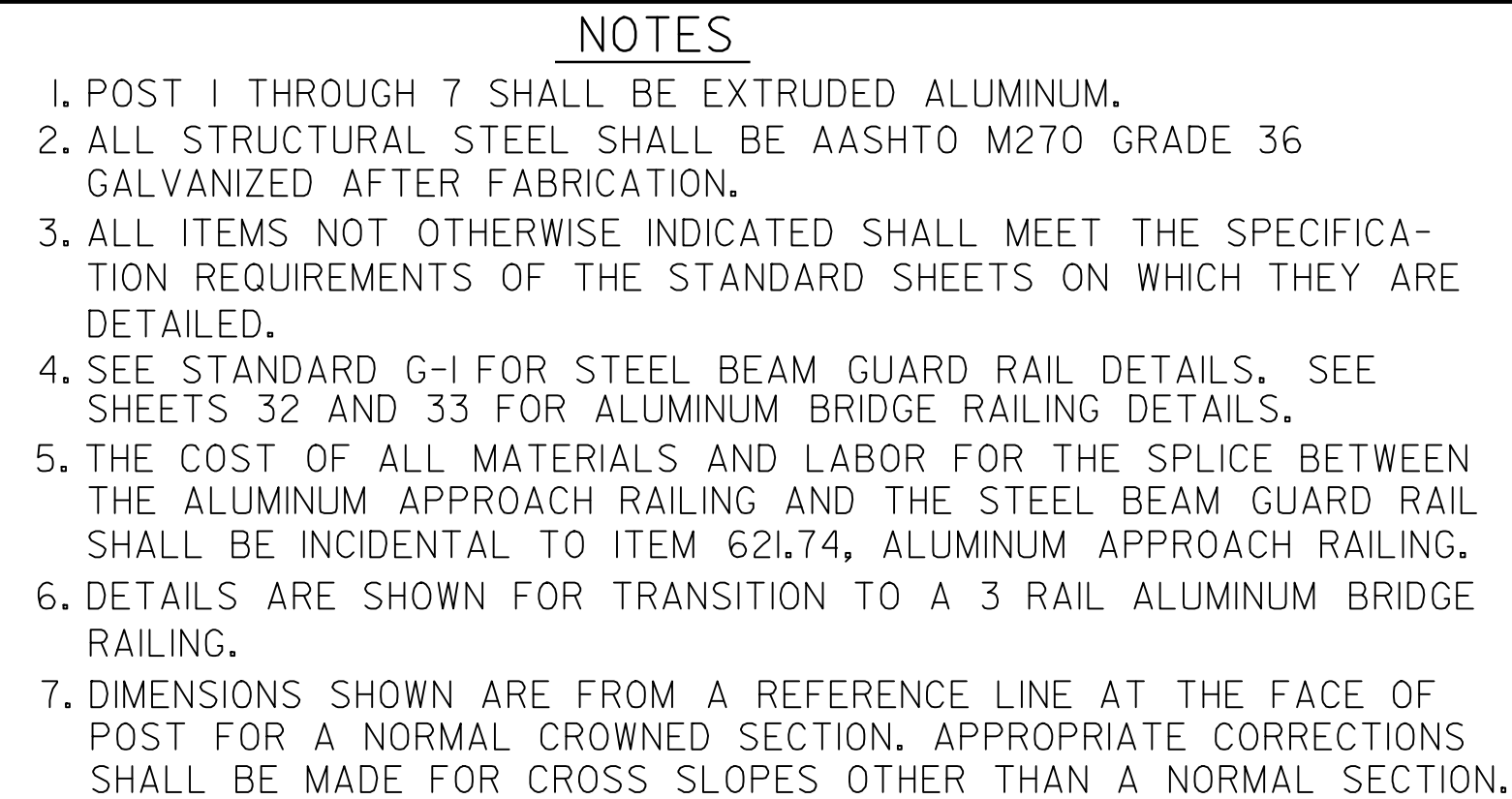
BRIDGE/GUARDRAIL
TREATMENT DETAILS

PROJECT NAME: ROYALTON-BETHEL
PROJECT NUMBER: IM 089-1(54)

FILE NAME: p06a198.dgn
PROJECT LEADER: PTS
DESIGNED BY: NLL
IPARM FILE NAME: p06a198bg+d.l
PLOT DATE: 28-JUN-2010 15:12
DRAWN BY: MRS
CHECKED BY: PTS
SHEET 31 OF 37

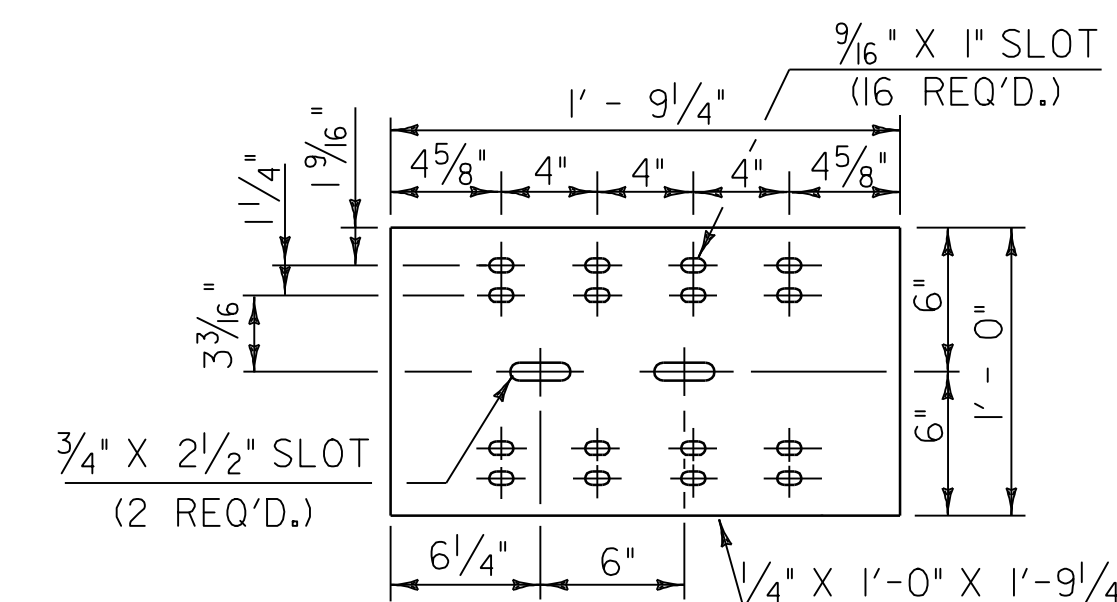
NOT TO SCALE

REVISED 02-17-09

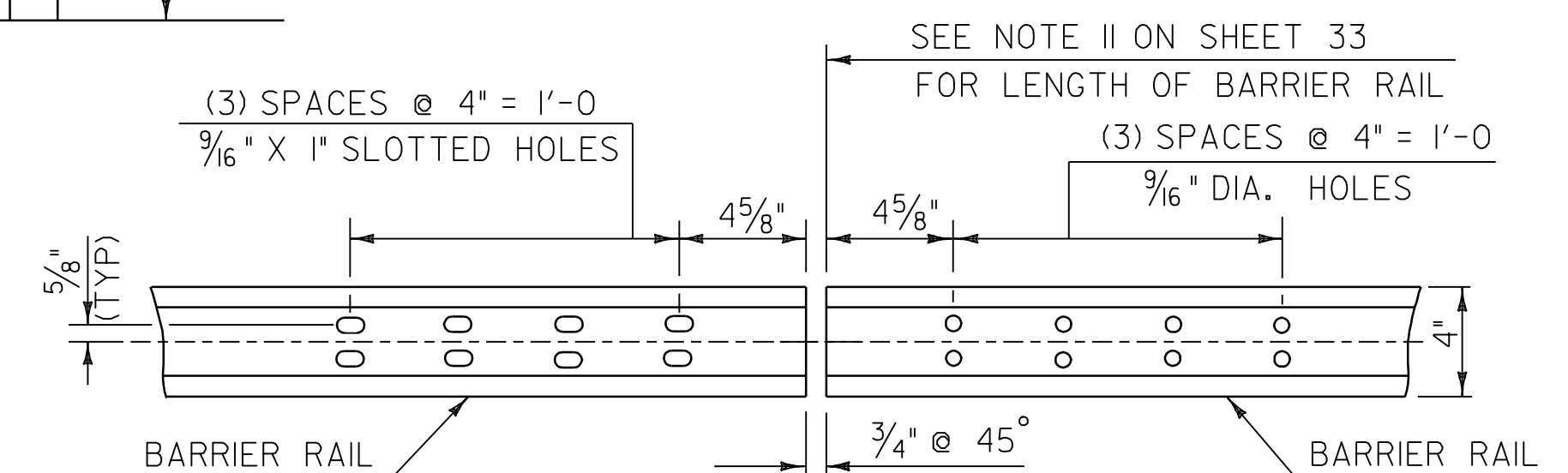


POST NO.	RAIL HEIGHT DIMENSIONS			OFFSET BLOCK DIMENSIONS			
	A	B	C	D	E	F	G
1	3'-8 1/16"	2'-10 3/8"	1'-9 3/4"	0'-9 11/16"	1'-0 9/16"	2'-2 7/8"	
2	3'-5 13/16"	2'-9 3/8"	1'-9 3/8"	0'-8 7/16"	0'-11 5/16"	2'-1"	
3	3'-3 9/16"	2'-8 3/8"	1'-9"	0'-7 1/4"	0'-11 5/16"	1'-11 1/8"	
4	3'-1 3/8"	2'-7 3/8"	1'-8 5/8"	0'-6"	0'-10 11/16"	1'-9 1/4"	
5		2'-6"	1'-8 1/8"		0'-9 7/8"		1'-2 7/16"
6		2'-4 11/16"	1'-7 5/8"		0'-9 1/16"		1'-1 5/16"
7		2'-3 3/8"	1'-7 1/8"		0'-8 3/16"		1-0 3/4"

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

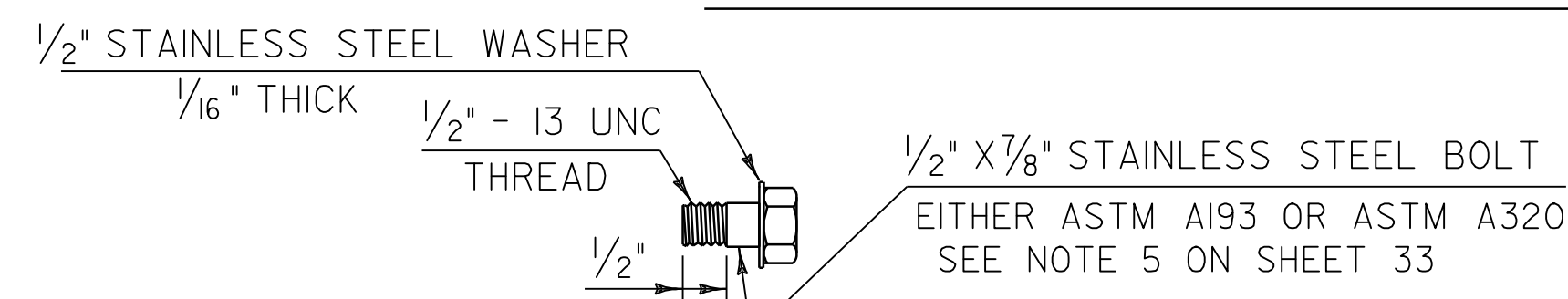


BACK-UP PLATE DETAILS

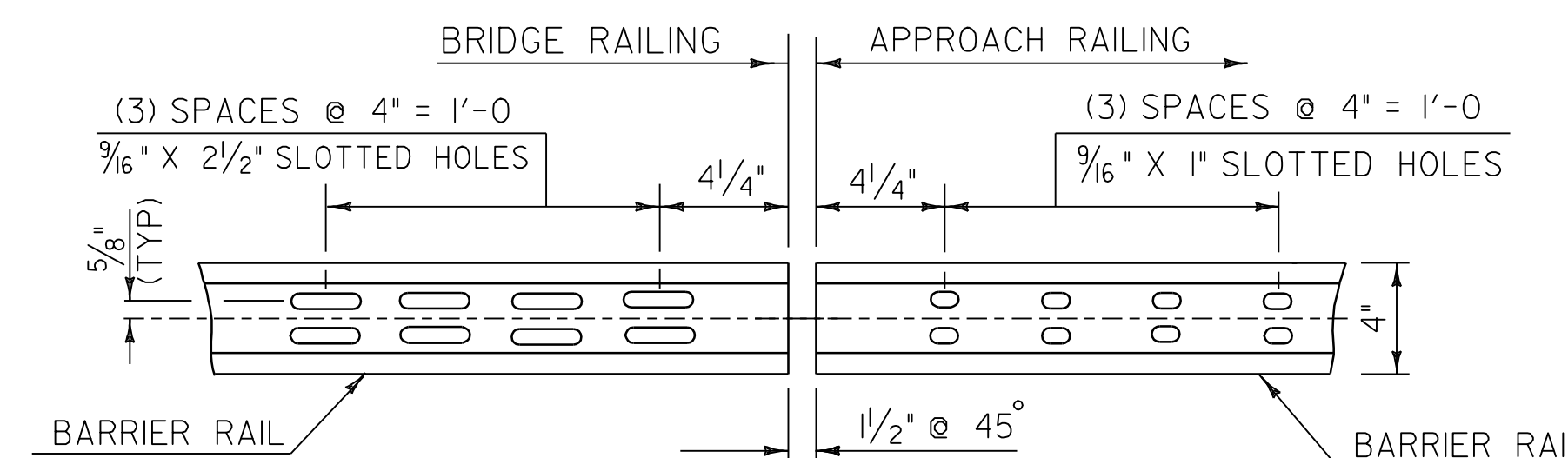


ELEVATION OF BARRIER RAIL (FROM BACK)
AT ALL INTERMEDIATE RAIL SPLICES

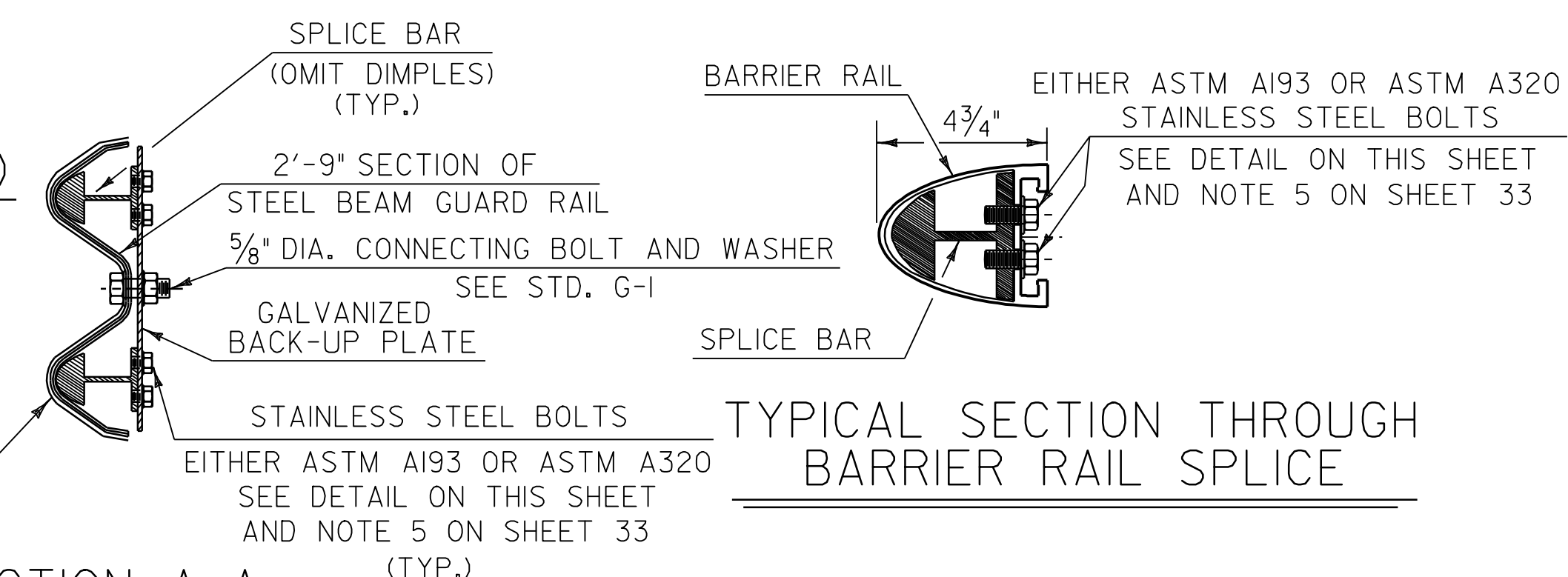
	SIDEWALK SIDE	CURB SIDE
"X"		11/16 "
"Y"		5/16 "
"Z"		1/8 "



STAINLESS STEEL BOLT DETAILS



ELEVATION OF BARRIER RAIL (FROM BACK)

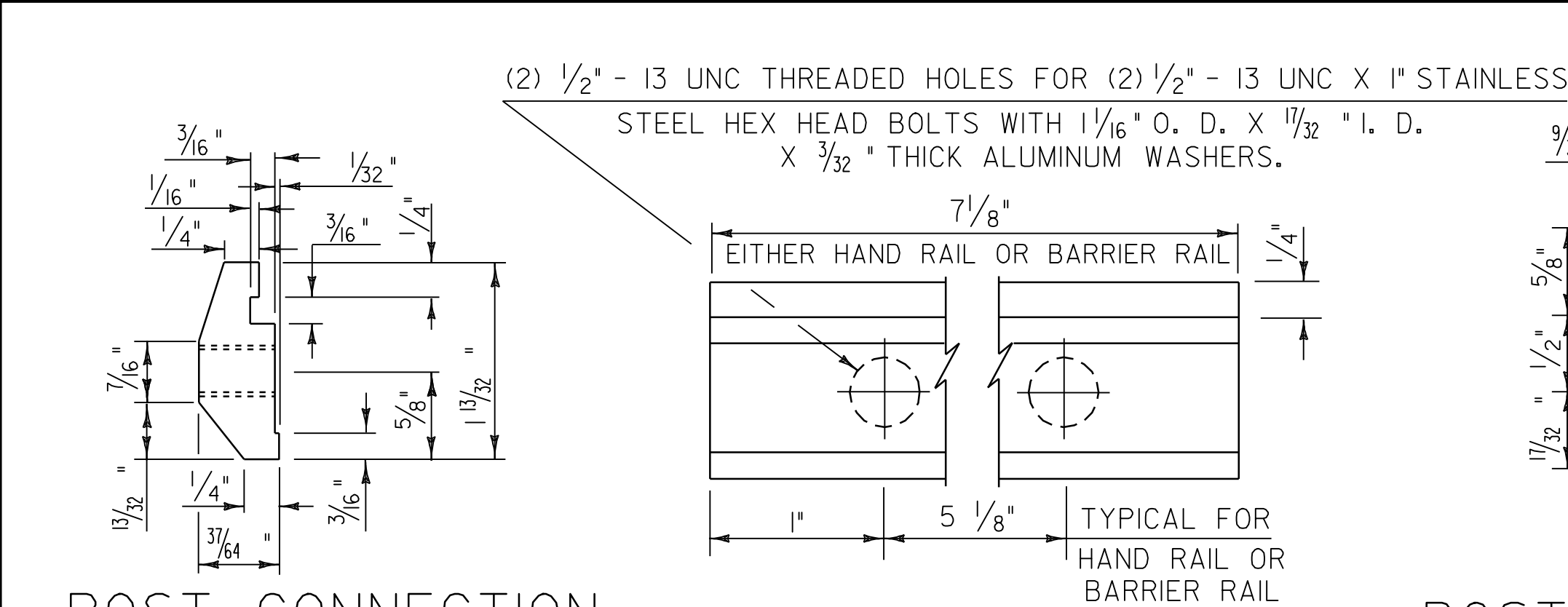


TYPICAL SECTION THROUGH
BARRIER RAIL SPLICE

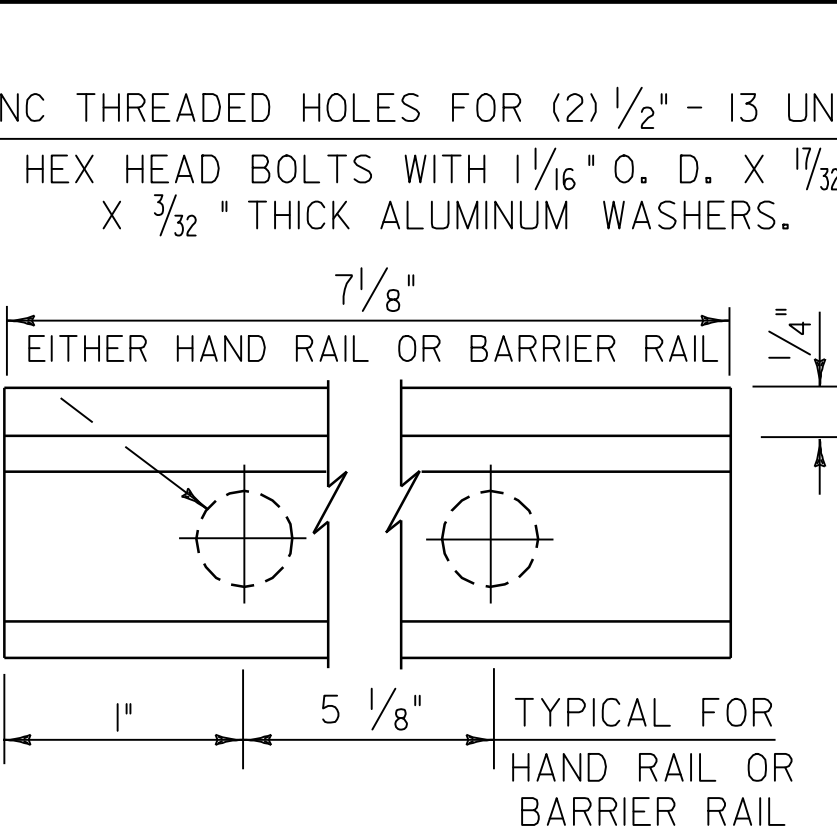
BRIDGE 26N & 26S
ALUMINUM APPROACH RAILING DETAILS

PROJECT NAME: ROYALTON-BETHEL_____	
PROJECT NUMBER: IM 089-1(54)	
FILE NAME: p06a198.dgn	PLOT DATE: 28-JUN-2010 15:11
PROJECT LEADER: PTS	DRAWN BY: MRS
DESIGNED BY: NLL	CHECKED BY: PTS
IPARM FILE NAME: p06a198aardl.l	SHEET 32 OF 37

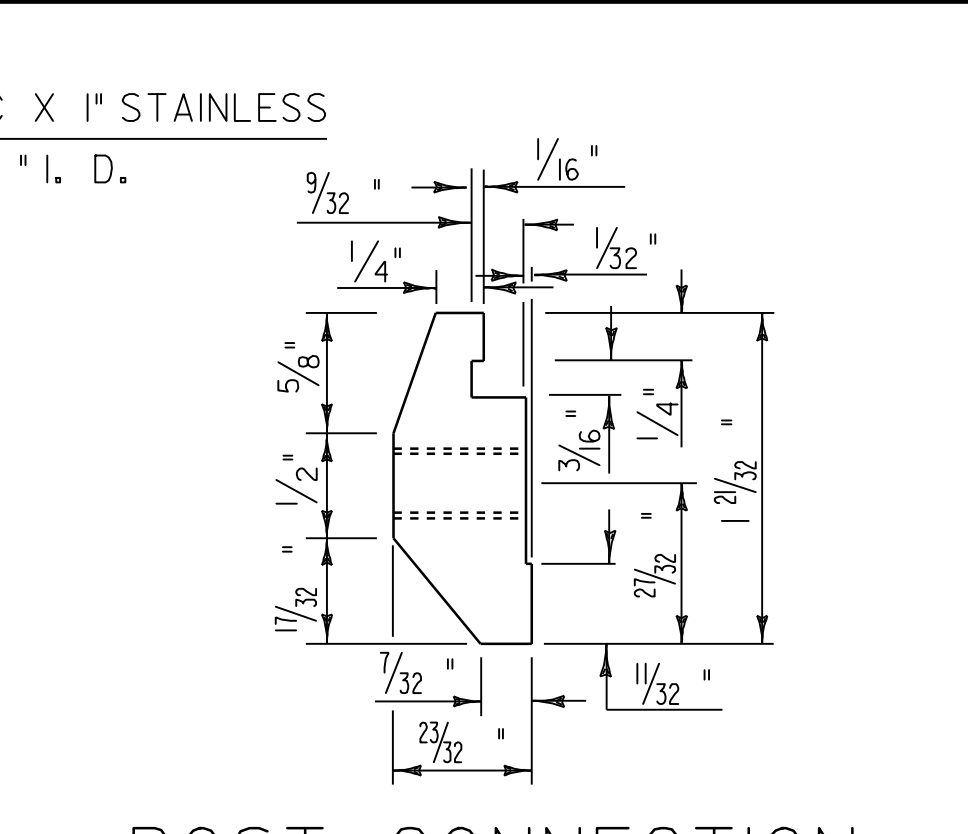
NOT TO SCALE



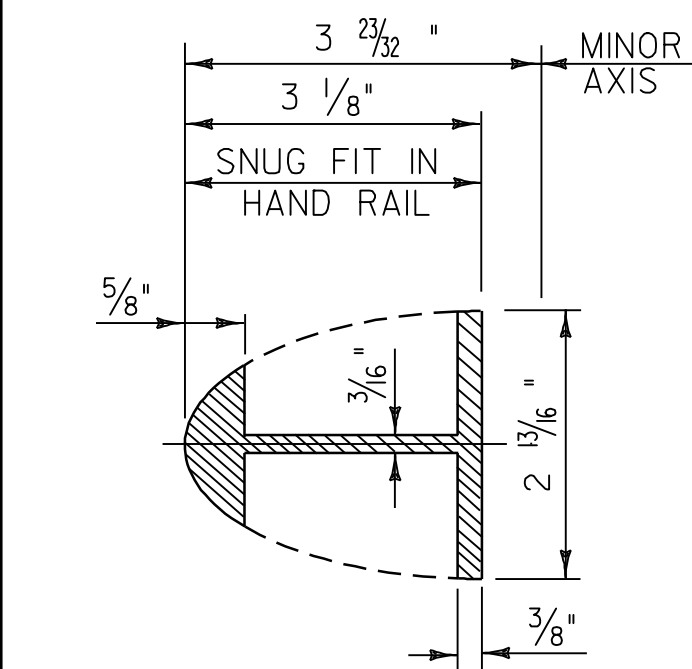
POST CONNECTION
HAND RAIL SECTION



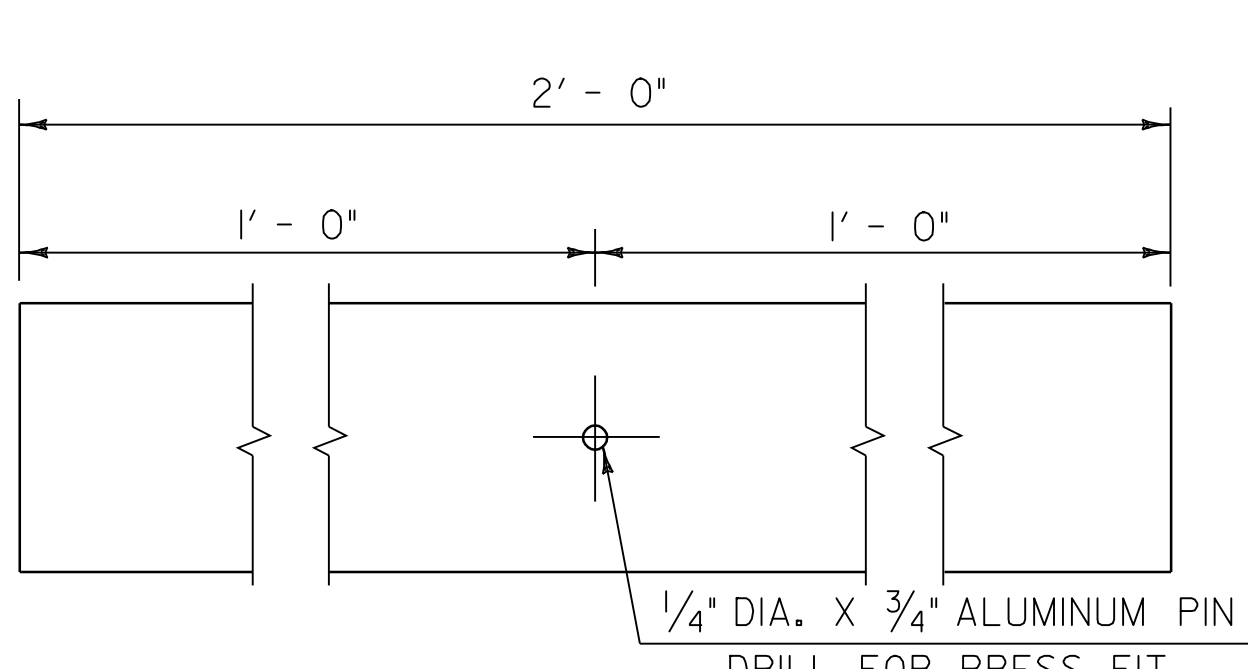
POST CONNECTION
ELEVATION



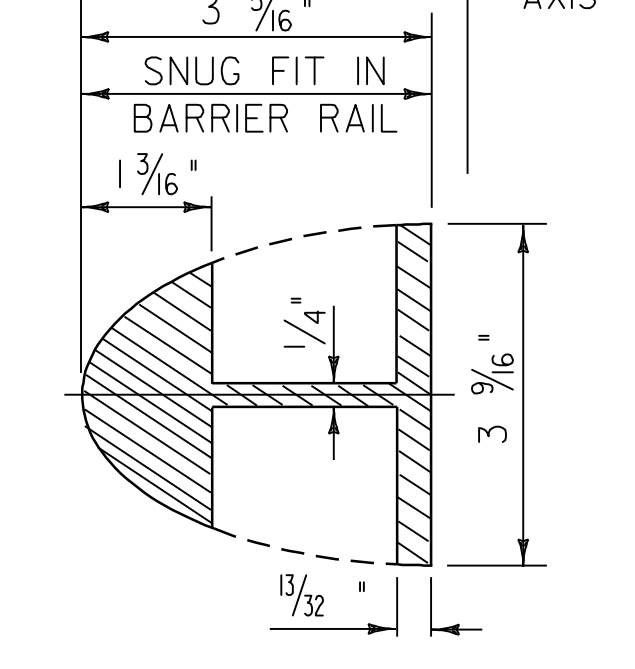
POST CONNECTION
BARRIER RAIL SECTION



HAND RAIL
SPLICE SECTION

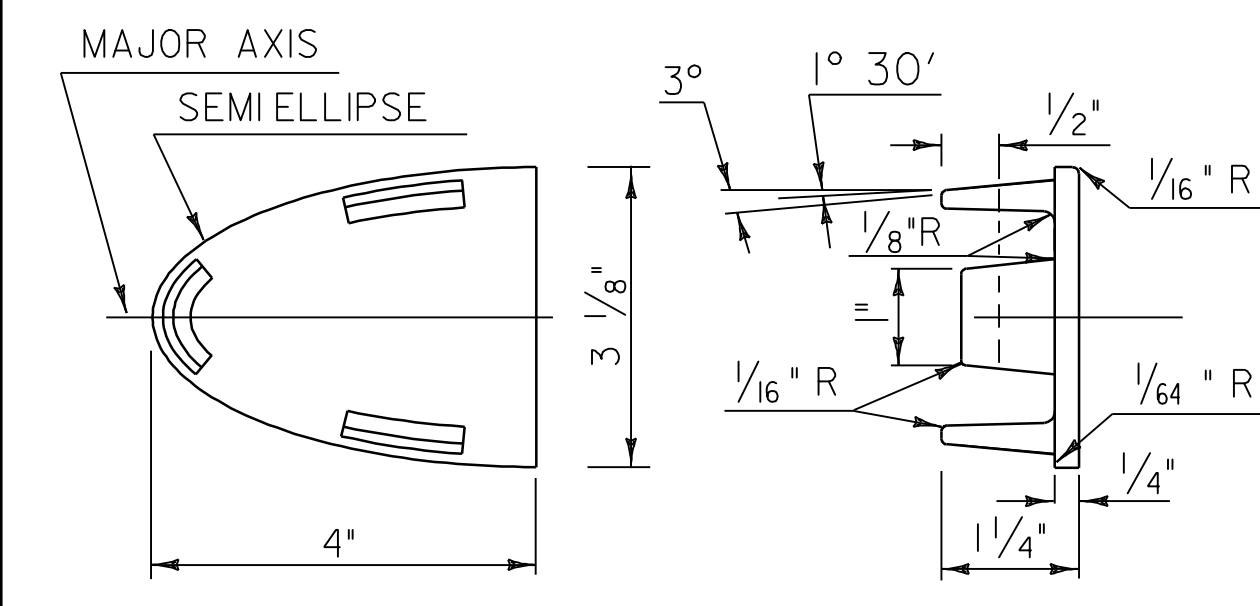


ELEVATION OF
HAND RAIL SPLICE BAR

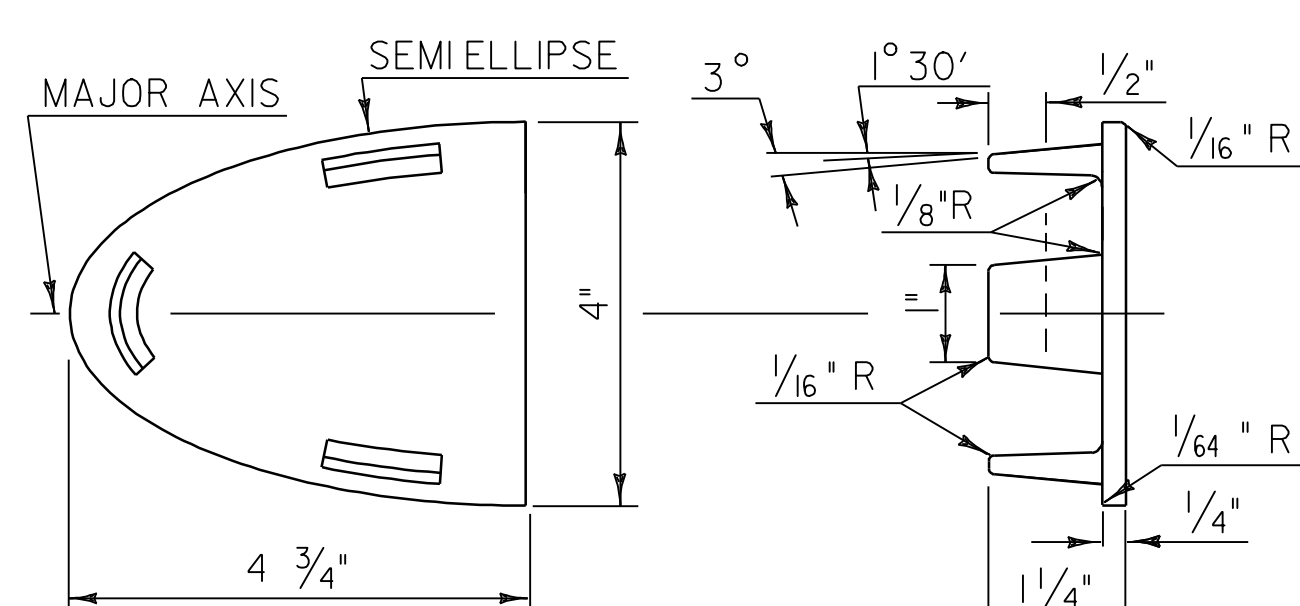


BARRIER RAIL
SPLICE SECTION

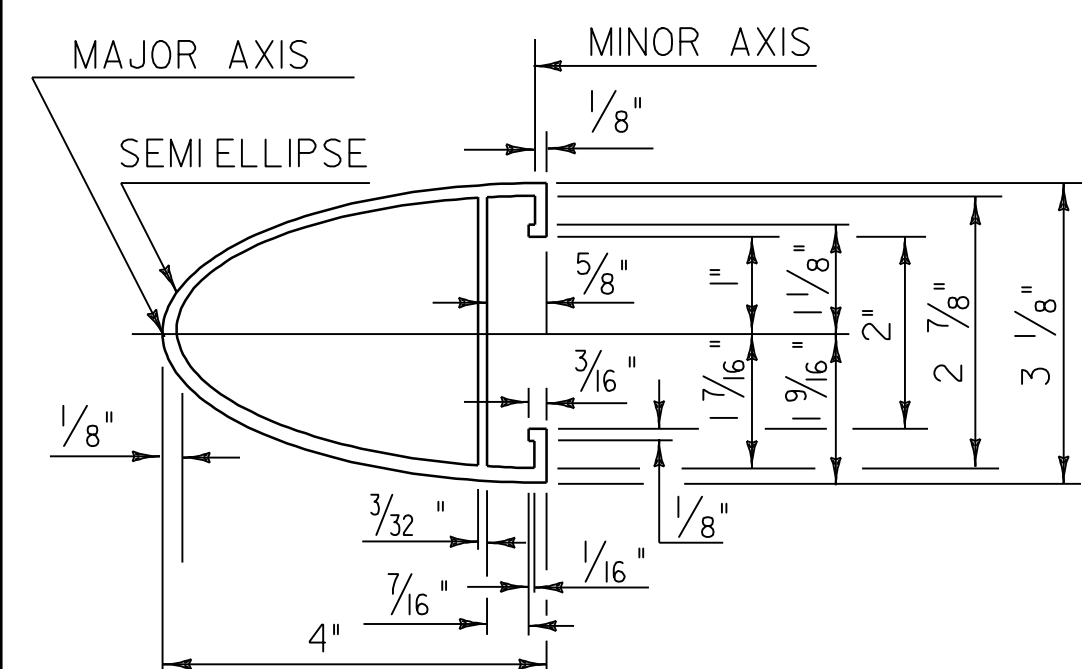
(SEE SHEETS 32 & 33 FOR ELEVATION
OF BARRIER RAIL SPLICE BAR)



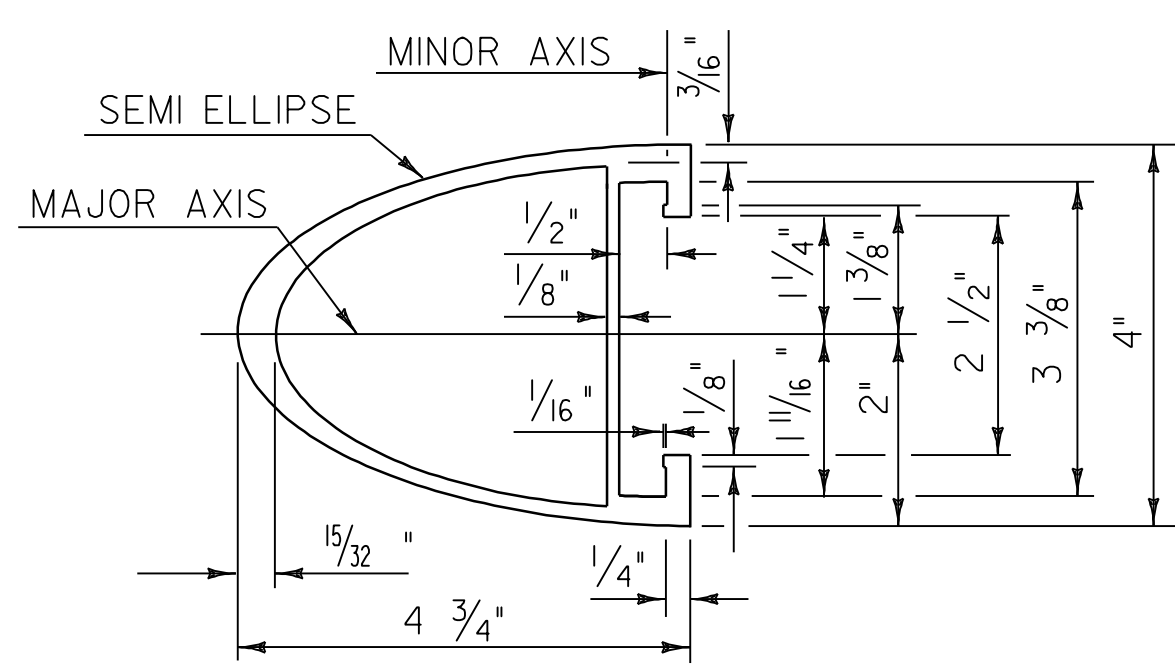
HAND RAIL END CAP



BARRIER RAIL END CAP

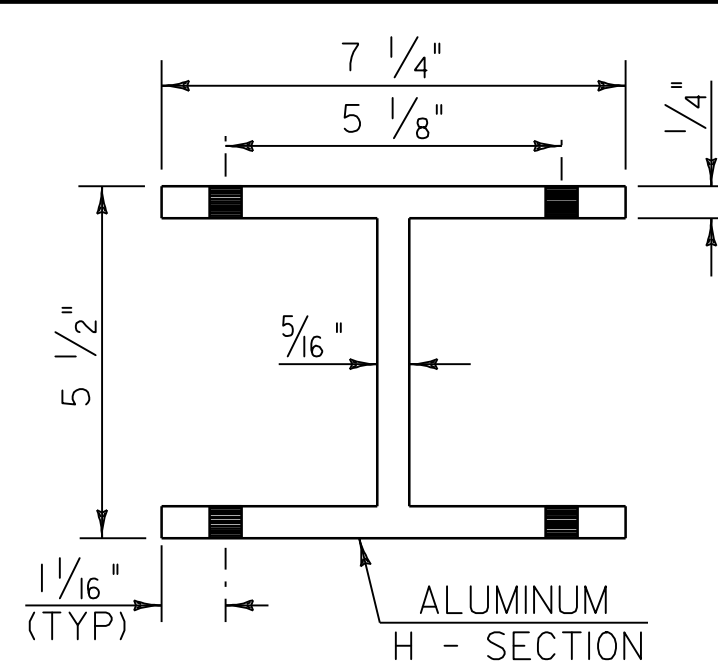


HAND RAIL SECTION



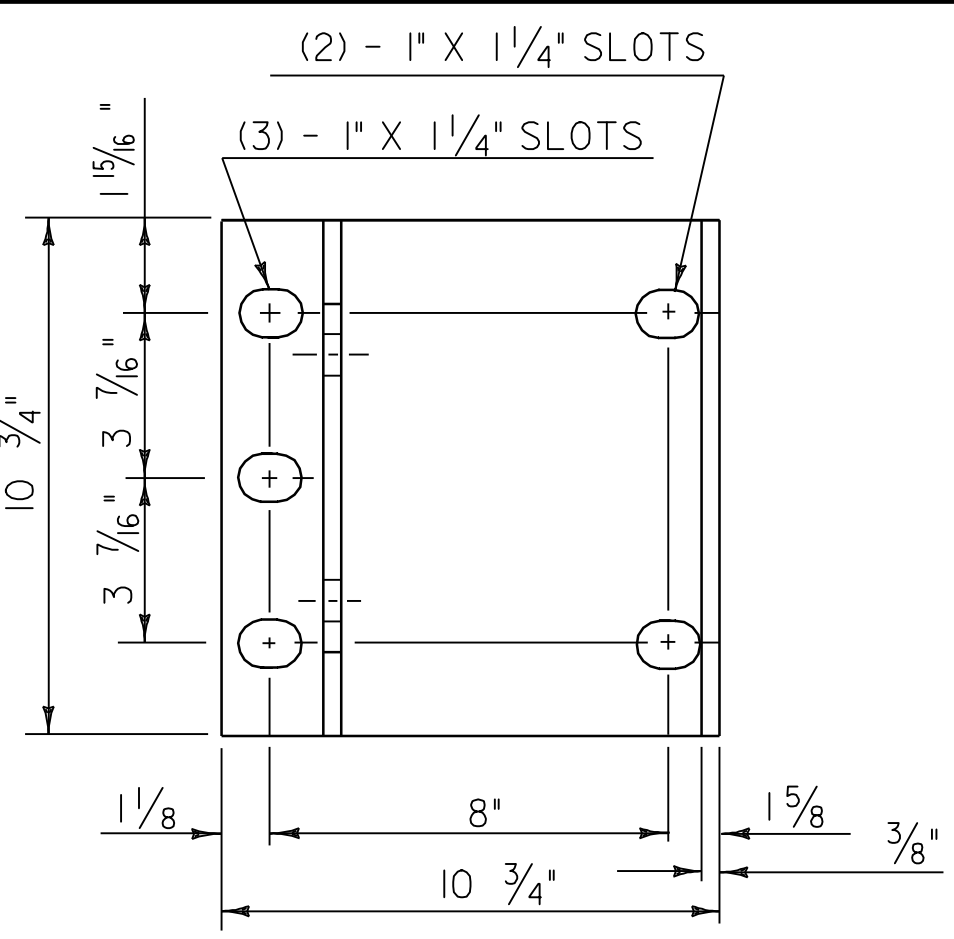
BARRIER RAIL SECTION

(SEE SHEETS 32 & 33 FOR ELEVATION
OF BARRIER RAIL)

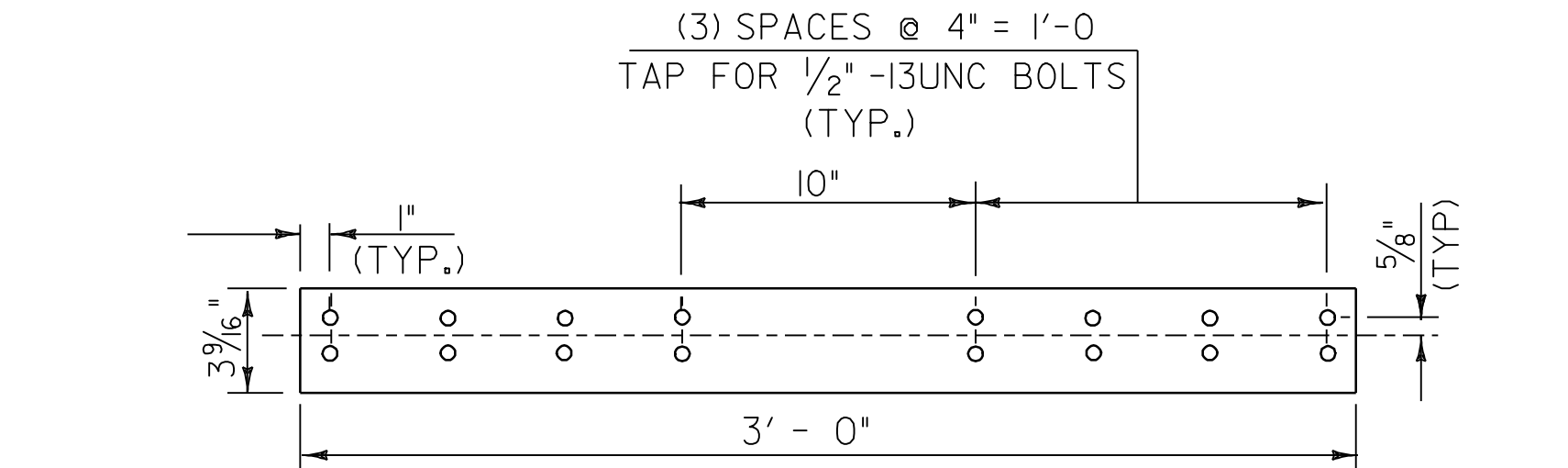


PLAN VIEW OF
OFFSET BLOCK

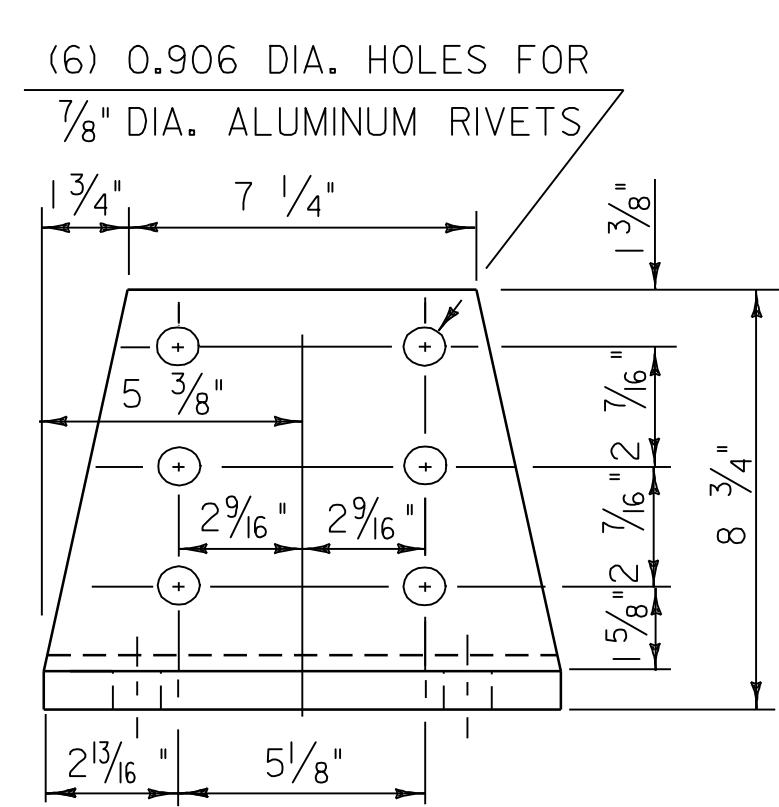
(TO BE USED ON
SUPERSTRUCTURE
ON CURB SIDE)



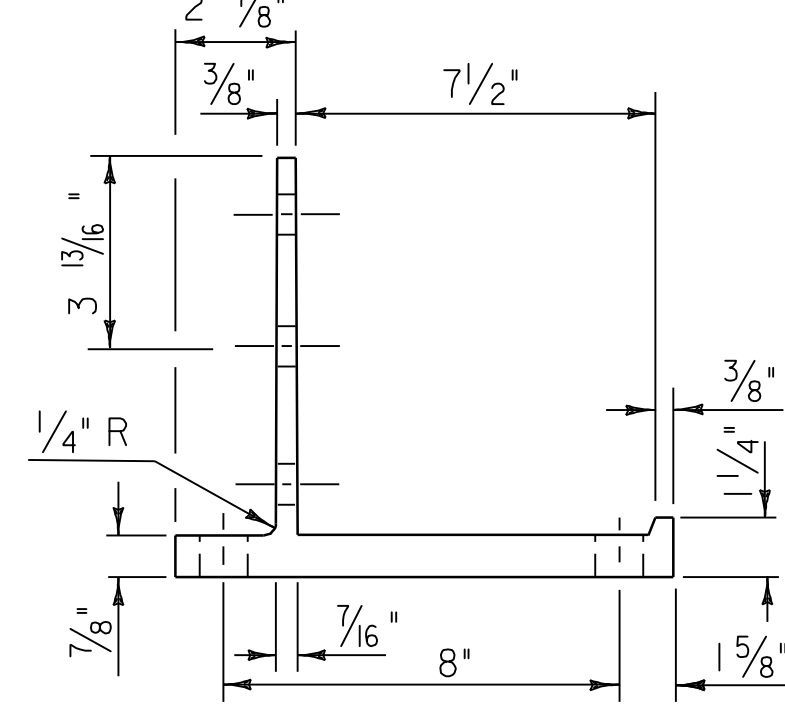
POST BASE
PLAN



ELEVATION OF STD. BARRIER RAIL SPLICE BAR
(FROM BACK)



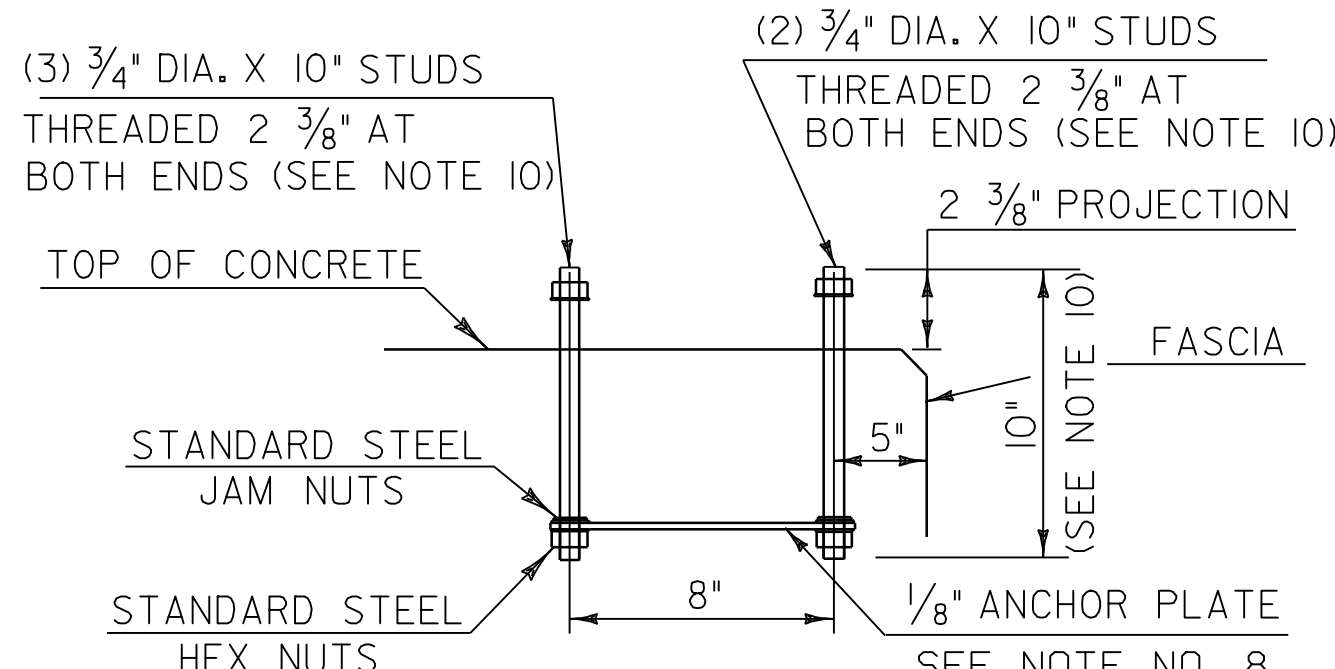
POST BASE
FRONT ELEVATION



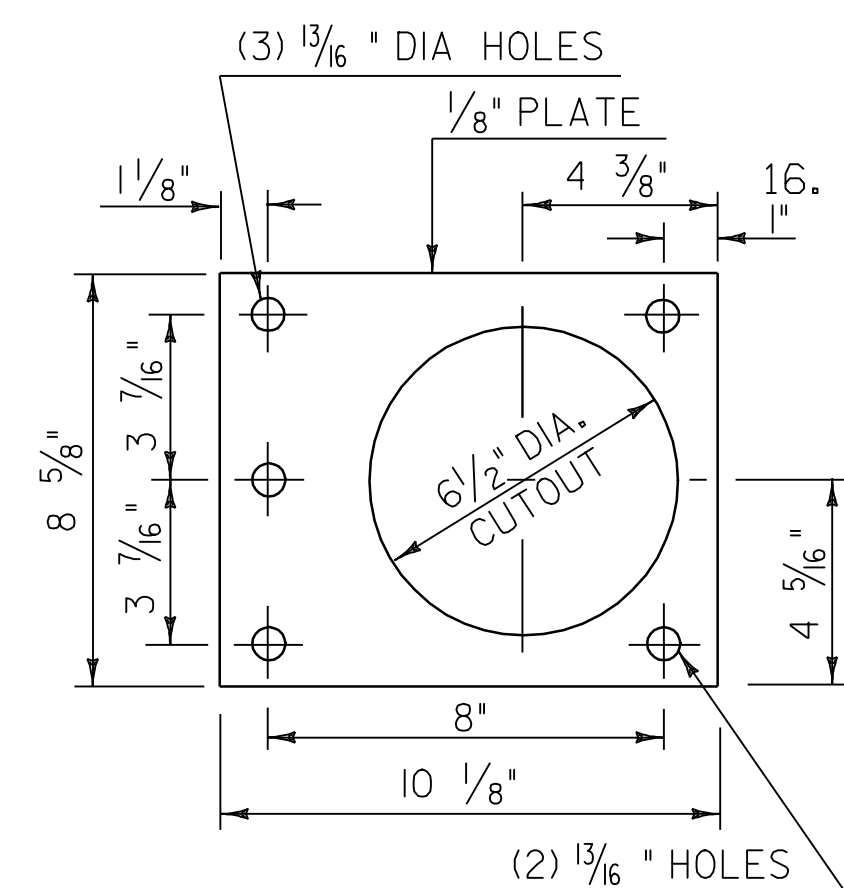
POST BASE
SECTION

- ANCHOR BOLTS, WASHERS AND HEAVY HEX NUTS MAY BE ANY OF THE FOLLOWING:
 - ASTM A449 GALVANIZED, OR
 - AASHTO M164 (ASTM A325) GALVANIZED
 - BOLTS AND WASHERS OF STAINLESS STEEL ASTM A276, TYPE 304 (MINIMUM ULTIMATE STRENGTH OF 100,000 PSI) WITH STAINLESS STEEL NUTS OF ASTM A194, GRADE 8NA.
- ALUMINUM POSTS, POST BASES, SPLICE BARS, CONNECTION BARS, RAILS AND BALUSTER FRAMES SHALL CONFORM TO ASTM B221 ALLOY 6061-T6 OR ALLOY 6351-T5. MINIMUM ALLOWABLE STRESS $F_y = 35,000$ PSI.
- ALUMINUM BALUSTER TUBES SHALL CONFORM TO ASTM B210 ALLOY 6061-T5 OR 6063-T5.
- ALUMINUM RAIL END CAPS SHALL CONFORM TO ASTM B26 ALLOY 356-T6.
- THE POST, RAIL, AND OFFSET BLOCK CONNECTION BOLTS SHALL BE EITHER ASTM A193 OR ASTM A320. EITHER ONE SHALL BE CLASS 1, B8 GRADE AISI 304 WITH AN ULTIMATE TENSILE STRENGTH OF 75,000 PSI. NUTS FOR EITHER OF THE ABOVE BOLTS SHALL BE ASTM A194, GRADE 8, STAINLESS STEEL WITH AN ULTIMATE TENSILE STRENGTH OF 75,000 PSI.
- SET SCREWS FOR ATTACHING BALUSTERS TO RAILING SHALL BE ASTM F880, TYPE 303 MATERIAL.
- RIVETS SHALL BE COLD DRIVEN HIGH BUTTON HEAD "CONE POINT", CONFORMING TO ASTM B316 ALLOY 6061-T6.
- THE ANCHOR PLATE FOR THE POST ANCHOR ASSEMBLY SHALL BE ASTM A36 STRUCTURAL STEEL.
- WELDING SHALL CONFORM TO THE REQUIREMENTS OF SUBSECTION 506.10 USING THE GMAW-INERT GAS PROCESS AND AWS ER 5356 ELECTRODE WIRE.
- UNLESS OTHERWISE SPECIFIED, ANCHOR BOLTS SHALL BE CAST INTO THE CONCRETE AS DETAILED.
- WHENEVER FEASIBLE BARRIER RAIL AND HAND RAIL SECTIONS, SHALL BE FULL LENGTH SECTIONS ($40' \pm$) AND WHEN POSSIBLE SHALL BE ATTACHED TO THREE POSTS. RAILS SHALL BE SPLICED AT EACH DECK JOINT AND INTERMITTENTLY AS REQUIRED. SPLICES SHALL OCCUR WITHIN THE SAME PANEL.
- ENDS OF RAILS SHALL BE CUT SQUARE AND GROUND FREE OF BURRS OR RAGGED EDGES. EXPOSED ENDS SHALL BE CAPPED.
- THE CONCRETE CONTACT SURFACE AT THE POST BASE SHALL BE BUSH HAMMERED AND/OR SHIMMED AS REQUIRED FOR PROPER POST ALIGNMENT. POST HEIGHT ADJUSTMENTS LESS THAN 1/4" SHALL BE WITH 1/16" AND 1/8" SHIMS. CORRECTIONS EXCEEDING 1/4" SHALL BE WITH EPOXY MORTAR CONFORMING WITH SECTION 524. FABRIC BEARING PADS AND ANY REQUIRED SHIMS OR EPOXY MORTAR ARE INCIDENTAL TO THE UNIT PRICE BID FOR THE RAILING.
- SHIMS AND 1/8" FABRIC BEARING PADS SHALL BE 10 3/4" SQUARE WITH SLOTTED HOLES SIZED AND LOCATED THE SAME AS THE POST BASE DETAIL. FABRIC BEARING PADS SHALL CONFORM TO SUBSECTION 731.01 OR 731.02, SHIM MATERIAL SHALL BE ASTM B 209 ALLOY 1100-0.
- EXTRUDED SECTIONS ARE DETAILED TO COMPLY WITH CURRENT AASHTO-AGC-ARTBA STANDARDS. MINOR VARIATIONS OF THE DETAILS SHOWN MAY BE CONSIDERED PROVIDING THEY DO NOT REDUCE THE STRENGTH CAPACITY OF THE RAIL SYSTEM.

ALUMINUM WASHERS SHALL BE ASTM B209 ALLOY ACLAD 2024-T4.



POST ANCHOR ASSEMBLY



ANCHOR PLATE

NOTES

NOT TO SCALE
BRIDGE 26 N & S
ALUMINUM APPROACH RAILING DETAILS

PROJECT NAME:	ROYALTON-BETHEL	PLOT DATE:	28-JUN-2010 15:12
PROJECT NUMBER:	IM 089-1(54)	DRAWN BY:	MRS
FILE NAME:	p06a198.dgn	DESIGNED BY:	NULL
IPARM FILE NAME:	pal98aard3.1	CHECKED BY:	PTS
		SHEET	33 OF 37

3' 5' 6'

DOTTED LINE (WHITE) *



SOLID LINE (WHITE OR YELLOW)

6"



Technical drawing of an arrowhead detail and a full arrow. The arrowhead detail shows a width of 4'-6" and a height of 10'-0". The full arrow shows a total height of 23'-6" and a base width of 1'-0".

DURABLE 12" WHITE LINE,
RECESSED

13.75'

10'

DURABLE 6" WHITE LINE, RECESSED (DASHED)

SHOULDER

DURABLE 6" SOLID WHITE LINE, RECESSED

DURABLE 6" SOLID YELLOW LINE, RECESSED

SHOULDER

30 FT (TYP.)

10 FT (TYP.)

Diagram illustrating the proposed 12-foot wide travel lane with a 4-foot shoulder. The diagram shows a cross-section of the road with a 4-foot shoulder on the left, a 12-foot travel lane, and a 10-foot shoulder on the right. The travel lane is divided into two 6-foot sections by a dashed white line. The 6-foot section on the left is marked with a solid yellow line, and the 6-foot section on the right is marked with a solid white line. The diagram also shows a 30-foot typical width for the travel lane and a 10-foot typical width for the shoulder. Arrows indicate the direction of travel towards the "NORTHBOUND" direction.

 6" WHITE LINES
 6" YELLOW LINES
 DIRECTION OF TRAFFIC FLOW

PROJECT NAME: ROYALTON-BETHEL
PROJECT NUMBER: IM 089-1(54)

FILE NAME: p06d198.dgn	PLOT DATE: 28-JUN-2010 15:11
PROJECT LEADER: PTS	DRAWN BY: MRS
DESIGNED BY: NLL	CHECKED BY: PTS
IPARM FILE NAME: p06d198+pm.l	SHEET 34 OF 37

NOT TO SCALE

EDGE OF TRAVEL WAY

WHITE OR YELLOW LINE

90°

7"

16"

12"

A

A

FOR
PLACE
LINE

PAVEMENT SURFACE

$R=1/4$ FT

$1/2" \pm 0.06"$

7"

The diagram illustrates a highway cross-section with a central dashed line. On both sides, there is a shoulder and a passing lane. The shoulder is marked with a horizontal line labeled "EDGE OF SHOULDER". The passing lane is marked with a horizontal line labeled "EDGE OF PASSING LANE". The distance between the edge of the shoulder and the edge of the passing lane is indicated as "60 FT" on both sides. A thick black arrow points to the right, indicating the direction of travel. Below the passing lane, a dashed line is labeled "HIGHWAY CL" (centerline).

STOP MILLED RUMBLE STRIPS

RESUME MILLED RUMBLE STRIPS

DO NOT CUT INTO CONCRETE APPROACH SLABS

20 FT MIN. **

20 FT MIN. **

BRIDGE DETAIL

LEGEND

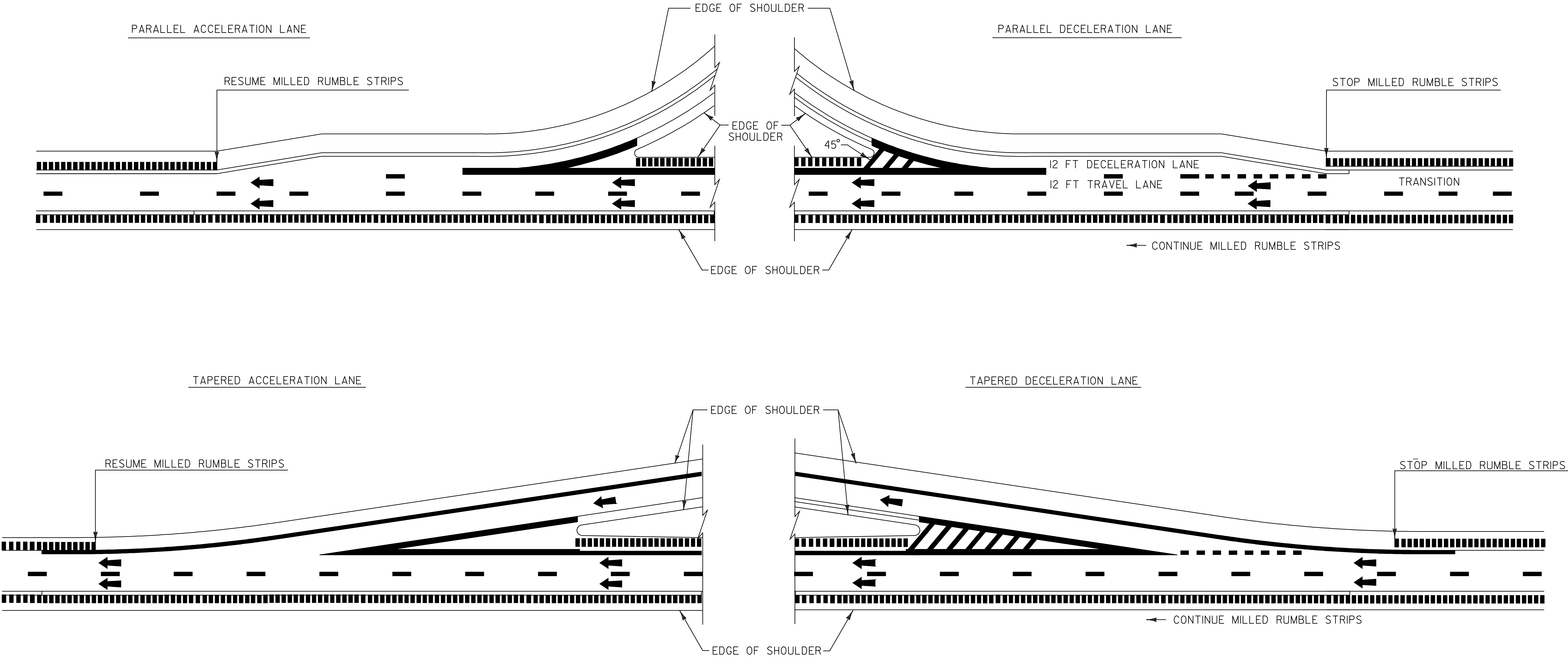
 DIRECTION OF TRAFFIC FLOW
 MILLED RUMBLE STRIPS

MILLED RUMBLE
STRIP DETAILS SHEET 1

PROJECT NAME:	ROYALTON-BETHEL-----
PROJECT NUMBER:	IM 089-1(54)

FILE NAME: p06a198.dgn	PLOT DATE: 28-JUN-2010 15:12
PROJECT LEADER: PTS	DRAWN BY: MRS
DESIGNED BY: NULL	CHECKED BY: PTS
IPARM FILE NAME: p06a198mrstdl.i	SHEET 35 OF 37

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.

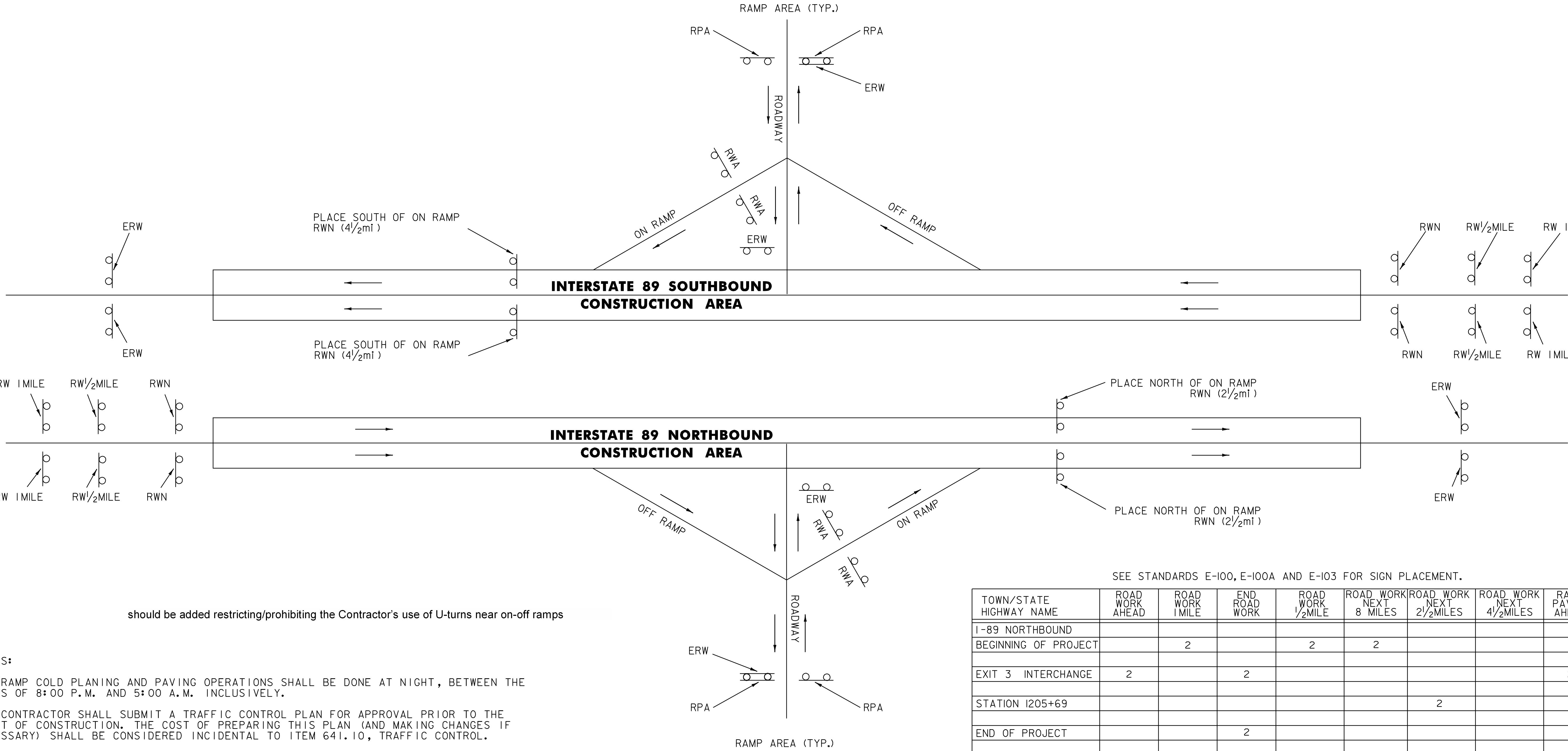
NOT TO SCALE

LEGEND

-  DIRECTION OF TRAFFIC FLOW
-  MILLED RUMBLE STRIPS

MILLED RUMBLE STRIP DETAILS SHEET 2

PROJECT NAME: ROYALTON-BETHEL	
PROJECT NUMBER: IM 089-1(54)	
FILE NAME: p06a198.dgn	PLOT DATE: 28-JUN-2010 15:12
PROJECT LEADER: PTS	DRAWN BY: MRS
DESIGNED BY: NLL	CHECKED BY: PTS
IPARM FILE NAME: p06a198mrds2.1	SHEET 36 OF 37



NOTES:

- 1.ALL RAMP COLD PLANING AND PAVING OPERATIONS SHALL BE DONE AT NIGHT, BETWEEN THE HOURS OF 8:00 P.M. AND 5:00 A.M. INCLUSIVELY.
- 2.THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN FOR APPROVAL PRIOR TO THE START OF CONSTRUCTION. THE COST OF PREPARING THIS PLAN (AND MAKING CHANGES IF NECESSARY) SHALL BE CONSIDERED INCIDENTAL TO ITEM 641.10, TRAFFIC CONTROL.
- 3.DURING CONSTRUCTION IT WILL BE NECESSARY FOR THE CONTRACTOR TO MAINTAIN ONE-LANE TRAFFIC FOR EXTENDED PERIODS OF TIME. IN NO CASE SHALL THE PAVED WIDTH FOR THIS ONE- LANE TRAFFIC, INCLUDING SHOULDERS, BE REDUCED TO LESS THAN 15 FEET. THIS PAVED WIDTH SHALL REMAIN FREE OF OBSTRUCTIONS AND OBSTACLES AT ALL TIMES.
- 4.FOUR (4) PORTABLE CHANGEABLE MESSAGE SIGNS WILL BE PROVIDED FOR USE ALONG THIS PROJECT. THE CONTRACTOR SHALL POSITION A PORTABLE CHANGEABLE MESSAGE SIGN ON I-89 PRIOR TO THE PROJECT NORTHBOUND AND SOUTHBOUND, AND ON VT ROUTE 107 EASTBOUND AND WESTBOUND PRIOR TO THE I-89 INTERCHANGE WARNING MOTORISTS OF THE COLD PLANED SURFACE AND REDUCED ROADWAY WIDTHS AHEAD. THE MESSAGE TO BE DISPLAYED SHALL BE SUBMITTED TO THE RESIDENT ENGINEER IN ADVANCE FOR APPROVAL. THE CONTRACTOR SHALL ALSO INSTALL AND MAINTAIN THE APPROPRIATE CONSTRUCTION SIGNING WHICH WARNS THE TRAVELING PUBLIC OF THE ROUGH ROADWAY SURFACE. THE COST OF PROVIDING THESE MESSAGE SIGNS SHALL BE PAID UNDER CONTRACT ITEM 641.15, PORTABLE CHANGEABLE MESSAGE SIGN.
- 5.THE CONTRACTOR SHALL INCLUDE A CONSTRUCTION SIGN PACKAGE FOR EXPECTED LANE CLOSURES AND WORK ZONE SPEED REDUCTIONS IN COMPLIANCE WITH STANDARD E-103. PAYMENT FOR PROVIDING THIS PACKAGE SHALL BE INCIDENTAL TO ITEM 641.10, TRAFFIC CONTROL.
- 6.PAYMENT FOR TEMPORARY CONSTRUCTION SIGNING WILL BE INCLUDED IN THE UNIT PRICE BID FOR CONTRACT ITEM 641.10.
- 7.THE CONTRACTOR SHALL BE RESTRICTED FROM USING U-TURNS UNLESS THEY GET A U-TURN PERMIT FROM THE VAOT CONSTRUCTION DIVISION.

SEE STANDARDS E-100, E-100A AND E-103 FOR SIGN PLACEMENT.

TOWN/STATE HIGHWAY NAME	ROAD WORK AHEAD	ROAD WORK 1 MILE	END ROAD WORK	ROAD WORK 1/2 MILE	ROAD WORK NEXT 8 MILES	ROAD WORK NEXT 2 1/2 MILES	ROAD WORK NEXT 4 1/2 MILES	RAMP PAVING AHEAD
I-89 NORTHBOUND								
BEGINNING OF PROJECT		2		2	2			
EXIT 3 INTERCHANGE	2		2					2
STATION I205+69						2		
END OF PROJECT			2					
I-89 SOUTHBOUND								
BEGINNING OF PROJECT		2		2	2			
EXIT 3 INTERCHANGE	2		2					2
STATION I15+440							2	
END OF PROJECT			2					
TOTAL	4	4	8	4	4	2	2	4

- LEGEND
- RW 1 MILE = ROAD WORK 1 MILE
 - RW 1/2 MILE = ROAD WORK 1/2 MILE
 - RWA = ROAD WORK AHEAD
 - RWN = ROAD WORK NEXT XX MILES
 - ERW = END ROAD WORK
 - RPA = RAMP PAVING AHEAD
 - = TRAFFIC FLOW ARROWS

TEMPORARY TRAFFIC CONTROL PLAN

PROJECT NAME:	ROYALTON-BETHEL-----
PROJECT NUMBER:	IM 089-1(54)
FILE NAME: p06a198.dgn	PLOT DATE: 28-JUN-2010 15:12
PROJECT LEADER: PTS	DRAWN BY: MRS
DESIGNED BY: NULL	CHECKED BY: PTS
IPARM FILE NAME: p06a198++cp.1	SHEET 37 OF 37

NOT TO SCALE