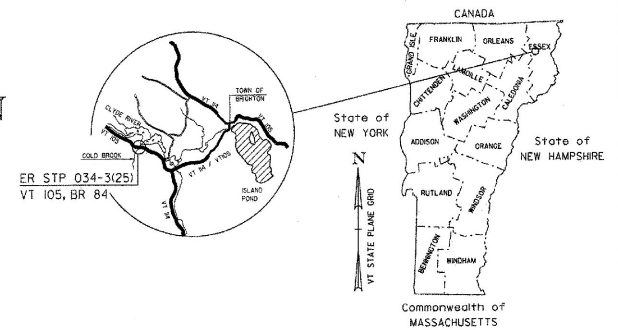


STATE OF VERMONT AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT BRIDGE PROJECT TOWN OF BRIGHTON, ESSEX COUNTY ROUTE NO : VT 105 (MINOR ARTERIAL) BRIDGE 84

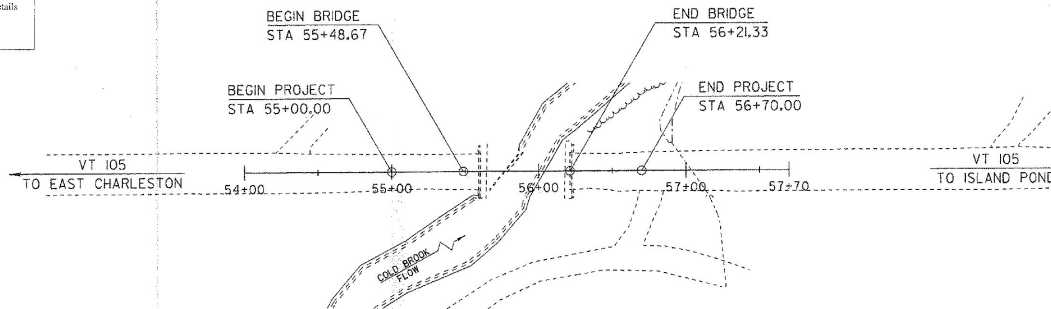


PROJECT LOCATION: BEGINNING AT A POINT ON VT. ROUTE 105 APPROXIMATELY 1.058 MILES SOUTH EASTERLY OF THE CHARLESTON / BRIGHTON TOWN LINE AND EXTENDING EASTERLY 0.031 MILES.

PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE 84 WITH A NEW CONCRETE STRUCTURE ON NEW ABUTMENTS, INCLUDING RELATED APPROACH AND CHANNEL WORK.

LENGTH OF STRUCTURE : 72.66 FEET
 LENGTH OF ROADWAY : 97.34 FEET
 LENGTH OF PROJECT : 170.00 FEET

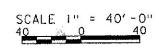
RECORD PLANS	
CONTRACTOR:	J. A. McDONALD INC. - LYNDON CENTER, VT.
RESIDENT ENGINEER:	DOUG BUMPS
CONSTRUCTION BEGAN:	JUNE 28, 2013
CONSTRUCTION COMPLETE:	NOVEMBER 11, 2013
RECORD PLANS BY:	DOUG BUMPS & CRAIG PIERCE
I HEREBY CERTIFY THAT ALL THE CONSTRUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.	
BY:	<i>Doug Bumps</i> RESIDENT ENGINEER
DATE:	4/3/14
NOTE: Any further information concerning final quantities, amounts or other details relative to this project may be found at Central Files in the electronic archives.	



QUALITY ASSURANCE PROGRAM LEVEL 2

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

SURVEYED BY : R. GILMAN
 SURVEYED DATE : 10/14/11
 DATUM
 VERTICAL NAVD 88
 HORIZONTAL NAD 83 (07)



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 2014, 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.

DIRECTOR OF PROGRAM DEVELOPMENT	
APPROVED:	<i>Richard F. Starnick</i> DATE: 4/12/14
PROJECT MANAGER : K. HIGGINS	
PROJECT NAME : BRIGHTON	
PROJECT NUMBER : ER STP 034-3(25)	
SHEET 1 OF 36 SHEETS	

PRELIMINARY INFORMATION SHEET (BRIDGE)

LRFD

INDEX OF SHEETS		STANDARDS LIST		FINAL HYDRAULIC REPORT		
PLAN SHEETS		STANDARDS LIST		HYDROLOGIC DATA Date: March 2012		
1	TITLE SHEET	E-101	CONSTRUCTION APPROACH SIGNS	01-02-2004		
2	PRELIMINARY INFORMATION SHEET	E-101	CONSTRUCTION SIGN DETAILS	05-30-2003		
3	GENERAL NOTES	E-102	CONSTRUCTION SIGN DETAILS	06-30-2003		
4-5	QUANTITY SHEETS 1-2	E-102A	CONSTRUCTION SIGN DETAILS	05-01-2004		
6-7	TYPICAL SECTIONS 1-2	E-106	CONSTRUCTION ZONE LONGITUDINAL DROP OFFS	05-06-2009		
8	TIE SHEET	E-114	BRIDGE NUMBER PLACUE	08-06-1995		
9	LAYOUT SHEET	E-164	SQUARE STEEL SIGN POST	06-08-2009		
10	MAINLINE PROFILE	E-193	PAVEMENT MARKING DETAILS	05-18-1995		
11	RAIL LAYOUT SHEET	G-18	BOX BEAM GUARDRAIL	06-01-1994		
12	BORING LAYOUT SHEET	S-364A	BRIDGE RAILING - GALVANIZED 3 RAIL BOX BEAM	04-23-2012		
13-14	BORING LOGS	S-364B	GUARDRAIL APPROACH SECTION, GALVANIZED 3 RAIL BOX BEAM	04-23-2012		
15	FRAMING PLAN	S-364C	GUARDRAIL APPROACH SECTION, GALVANIZED 3 RAIL BOX BEAM	04-23-2012		
16	NEXT BEAM TYPICAL SECTION	S-364D	GUARDRAIL APPROACH SECTION, GALVANIZED 3 RAIL BOX BEAM	04-23-2012		
17	BEARING DETAILS					
18	APPROACH SLAB DETAILS					
19	ABUTMENT PLAN					
20	ABUTMENT REINFORCING					
21	DECK CLOSURE POUR DETAILS					
22	WINDWALL DETAILS					
23-24	DETOUR PLAN 1-2	SD-501.00	CONCRETE DETAILS AND NOTES	05-07-2010		
25	EPSC NARRATIVE	SD-502.00	CONCRETE DETAILS AND NOTES	06-04-2010		
26	EPSC PLAN	SD-518.10	BRIDGE JOINT ASPHALTIC FLOW	05-07-2010		
27-28	EPSC DETAILS					
29-32	MAINLINE SECTIONS					
34-36	CHANNEL SECTIONS					
		STRUCTURES DETAILS		PROPOSED STRUCTURE		
				STRUCTURE TYPE: Single span prestressed concrete beam bridge CLEAR SPAN (NORMAL TO STREAM): 54' max, 30' min effective VERTICAL CLEARANCE ABOVE STREAMBED: 6.5' WATERWAY OF FULL OPENING: 180 sq. ft. WATER SURFACE ELEVATIONS AT: Q2.33 = 1166.0' VELOCITY = 5.3 fps Q10 = 1170.0' " 7.4 fps Q25 = 1170.7' " 8.4 fps Q50 = 1171.2' " 9.1 fps Q100 = 1171.8' " 10.0 fps IS THE ROADWAY OVERTOPPED BELOW Q100: No FREQUENCY: Above Q100 RELIEF ELEVATION: 1173.5' DISCHARGE OVER ROAD @Q100: None AVERAGE LOW ELEVATION OF SUPERSTRUCTURE: 1172.3' VERTICAL CLEARANCE: @ Q50 = 1.1' SCOUR: 4' of contraction scour up to Q50C. REQUIRED CHANNEL PROTECTION: Stone Fill, Type II PERMIT INFORMATION AVERAGE DAILY FLOW: 10 cfs DEPTH OR ELEVATION ORDINARY LOW WATER: 5 cfs Depth = 0.5' ORDINARY HIGH WATER: 80 cfs Depth = 2.0' TEMPORARY BRIDGE REQUIREMENTS STRUCTURE TYPE: No temporary bridge required. CLEAR SPAN (NORMAL TO STREAM): VERTICAL CLEARANCE ABOVE STREAMBED: WATERWAY AREA OF FULL OPENING: ADDITIONAL INFORMATION * The existing bridge was destroyed in a flood and removed. We do not have accurate information on that bridge, so no hydraulics was done for it. The new bridge is longer and higher and has a larger waterway area than the previous bridge, so it will be better hydraulically. TRAFFIC MAINTENANCE NOTES 1. MAINTAIN TRAFFIC ON AN OFF-SITE DETOUR. 2. TRAFFIC SIGNALS ARE NOT NECESSARY. 3. SIDEWALKS ARE NOT NECESSARY. DESIGN VALUES 1. DESIGN LIVE LOAD HL-93 2. FUTURE PAVEMENT dp: 3.0 INCH 3. DESIGN SPAN L: 70.00 FT 4. MIN. MID-SPAN POS. CAMBER @ RELEASE (PRESTRESSED UNITS) A: 3.88 INCH 5. PRESTRESSING STRAND (0.60 INCH DIAMETER - LOW RELAX) fs: 270 KSI 6. PRESTRESSED CONCRETE STRENGTH fc: 10.0 KSI 7. PRESTRESSED CONCRETE RELEASE STRENGTH fcr: 8.0 KSI 8. CONCRETE, HIGH PERFORMANCE CLASS A fs: --- 9. CONCRETE, HIGH PERFORMANCE CLASS A fc: --- 10. CONCRETE, HIGH PERFORMANCE CLASS B fs: --- 11. CONCRETE, CLASS C fc: --- 12. REINFORCING STEEL fs: 80 KSI 13. STRUCTURAL STEEL AASHTO M270 fs: --- 14. SOIL UNIT WEIGHT γ: 0.140 KCF 15. NOMINAL BEARING RESISTANCE OF SOIL qb: 4.0 KSF 16. SOIL BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD) β: --- 17. NOMINAL BEARING RESISTANCE OF ROCK qb: 10.0 KSF 18. ROCK BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD) β: --- 19. NOMINAL AXIAL PILE RESISTANCE qp: --- 20. PILE YIELD STRENGTH ASTM A572 fy: 50 KSI 21. PILE SIZE: HP 12X50 22. EST. PILE LENGTH Lp: 80 FT 23. PILE RESISTANCE FACTOR β: --- 24. LATERAL PILE DEFLECTION δ: --- 25. BASIC WIND SPEED vsb: --- 26. MINIMUM GROUNDING SNOW LOAD ps: --- 27. SEISMIC DATA PGA: --- S1: --- S2: --- PROJECT NAME: BRIGHTON PROJECT NUMBER: ER STP 034-3(25) FILE NAME: s11b208pl.xls FLOT DATE: 9/11/2012 PROJECT LEADER: K. HIGGINS DRAWN BY: J. SALVATORI DESIGNED BY: W. LAMMER CHECKED BY: W. LAMMER PRELIMINARY INFORMATION SHEET 1 SHEET 2 OF 36		
				DRAINAGE AREA: 5.0 sq. mi. CHARACTER OF TERRAIN: Hilly to mountainous, mostly forested land cover STREAM CHARACTERISTICS: Sinuous, alluvial, bend coming into the bridge NATURE OF STREAMBED: Sand, gravel and cobbles PEAK FLOW DATA Q 2.33 = 190 cfs Q 50 = 675 cfs Q 10 = 420 cfs Q 100 = 625 cfs Q 25 = 560 cfs Q 500 = 1150 cfs DATE OF FLOOD OF RECORD: Unknown ESTIMATED DISCHARGE: Unknown WATER SURFACE ELEV.: Unknown NATURAL STREAM VELOCITY: @ Q50 = 9.4 fps ICE CONDITIONS: Moderate DEBRIS: Moderate DOES THE STREAM REACH MAXIMUM HIGH-WATER ELEV. RAPIDLY? Yes IS ORDINARY RISE RAPID? Yes IS STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? No F YES, DESCRIBE: WATERSHED STORAGE: 2% HEADWATERS: X UNIFORM: _____ IMMEDIATELY ABOVE SITE: _____ EXISTING STRUCTURE INFORMATION STRUCTURE TYPE: Single span concrete slab bridge YEAR BUILT: Built 1926, reconstructed 1972 CLEAR SPAN (NORMAL TO STREAM): Approximately 20' VERTICAL CLEARANCE ABOVE STREAMBED: Approximately 3.5' WATERWAY OF FULL OPENING: Unknown * DISPOSITION OF STRUCTURE: It has already been removed. TYPE OF MATERIAL UNDER SUBSTRUCTURE: See boring logs WATER SURFACE ELEVATIONS AT: Q2.33 = " VELOCITY = " Q10 = " " Q25 = " " Q50 = " " Q100 = " " LONG TERM STREAMBED CHANGES: Unknown IS THE ROADWAY OVERTOPPED BELOW Q100: * FREQUENCY: _____ RELIEF ELEVATION: 1173.5' DISCHARGE OVER ROAD @Q100: * UPSTREAM STRUCTURE TOWN: None DISTANCE: _____ HIGHWAY #: _____ STRUCTURE #: _____ CLEAR SPAN: _____ CLEAR HEIGHT: _____ YEAR BUILT: _____ FULL WATERWAY: _____ STRUCTURE TYPE: _____ DOWNSTREAM STRUCTURE TOWN: N.A. - confluence with Clyde River DISTANCE: _____ HIGHWAY #: _____ STRUCTURE #: _____ CLEAR SPAN: _____ CLEAR HEIGHT: _____ YEAR BUILT: _____ FULL WATERWAY: _____ STRUCTURE TYPE: _____ LRFRD LOAD RATING FACTORS LOADING LEVELS TRUCK H20 HLE20 352 6 AXLE 24.5 FT 44.0 FT 6A 8B1M TONNAGE 20 36 36 66 30 34.5 3R INVENTORY 4.51 1.14 POSTING OPERATING 5.85 1.48 3.19 2.14 2.73 2.45 2.68 COMMENTS: PILE DRIVING AND TESTING REQUIREMENTS 1. NOMINAL PILE DRIVING CAPACITY 2. PILE TEST RESISTANCE FACTOR β = 0.65 3. MAXIMUM PILE TIP ELEVATION 4. A MINIMUM OF 3 DYNAMIC TESTS SHALL BE PERFORMED DURING INSTALLATION. IF LESS THAN 3, TEST SHOULD BE PERFORMED AT EACH APPROX. 10% INCREASING PILE DEPTH TO BE CALIBRATED BY 70% LOAD FOR ANALYSIS.		
TRAFFIC DATA						
YEAR	ADT	DHV	% D	% T	ADTT	20 year ESAL for flexible pavement from 2013 to 2033 2053000
2013	1600	180	56	12.7	250	40 year ESAL for flexible pavement from 2013 to 2053 4873000
2033	1700	190	56	18.2	380	Design Speed: 50 mph

GENERAL

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS FOR CONSTRUCTION, THE 2007 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, AND THEIR LATEST REVISIONS.
2. ALL PRECAST CONCRETE ELEMENTS TO BE FABRICATED TO THE SPECIFIED DIMENSIONS WITHIN THE TOLERANCES DICTATED IN THE PRECAST/PRESTRESSED CONCRETE INSTITUTE TOLERANCE MANUAL FOR PRECAST AND PRESTRESSED CONCRETE CONSTRUCTION, MNL 135-00, AND ITS LATEST REVISIONS.
3. ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL, AND ARE GIVEN AT 68 DEGREES FAHRENHEIT, UNLESS NOTED OTHERWISE.
4. NO ADJUSTMENTS TO THE BITUMINOUS WEARING SURFACE ON THE BRIDGE SHALL BE MADE TO ACCOUNT FOR THE DIFFERENCE BETWEEN BEAM CAMBER AND THE THEORETICAL ROADWAY PROFILE. THE WEARING SURFACES SHALL BE SHIMMED TRANSVERSELY AS NECESSARY TO ACCOUNT FOR POTENTIAL DIFFERENTIAL CAMBER OF THE ADJACENT BEAMS.
5. THERE ARE AERIAL ELECTRIC AND TELEPHONE LINES THAT RUN PARALLEL TO VT 105 ON THE NORTH SIDE OF THE PROJECT. NO PROVISION HAS BEEN MADE TO RELOCATE THESE LINES. THE CONTRACTOR SHALL WORK AROUND AND PROTECT THESE LINES. SEE UTILITY SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
6. NO SUBSTITUTION FOR PRECAST CONCRETE WILL BE PERMITTED.

TRAFFIC CONTROL

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING THE LOCAL TRAFFIC CONTROL PACKAGE IDENTIFYING THE CONSTRUCTION PROJECT BEFORE, DURING, AND AFTER THE BRIDGE CLOSURE PERIOD. THE CONTRACTOR SHALL SUBMIT A DETAILED TRAFFIC CONTROL PLAN TO THE RESIDENT ENGINEER FOR ALL STAGES OF CONSTRUCTION, FOR APPROVAL PER SUBSECTION 105.03. ALL COSTS SHALL BE INCLUDED IN ITEM 600.645 SPECIAL PROVISION (TRAFFIC CONTROL, ALL-INCLUSIVE). SEE SPECIAL PROVISIONS.
8. ALL SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MUTCD. WHERE CONFLICTS EXIST, THE MUTCD SHALL GOVERN. FOR ADDITIONAL SIGNING INSTRUCTIONS SEE THE E SERIES OF THE STANDARDS.
9. ALL ITEMS REQUIRED TO IMPLEMENT THE CONTRACTOR'S TRAFFIC CONTROL PLAN WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED INCLUDED IN THE BID PRICE FOR ITEM 600.645 SPECIAL PROVISION (TRAFFIC CONTROL, ALL-INCLUSIVE).

EARTHWORK

10. REMOVAL OF THE EXISTING, FAILED STRUCTURE SHALL BE UNDER ITEM 629.20, "PARTIAL REMOVAL OF STRUCTURE". THIS WORK SHALL INCLUDE REMOVAL OF ANY PORTIONS OF THE EXISTING ABUTMENTS THAT FALL OUTSIDE THE LIMITS OF STRUCTURE EXCAVATION OR UNCLASSIFIED CHANNEL EXCAVATION.
11. EXCAVATION OF SOILS TO THE LIMITS SHOWN ON THE TYPICAL ABUTMENT SECTION SHALL BE PAID FOR UNDER ITEM 203.25, "STRUCTURE EXCAVATION". ALL NECESSARY EXCAVATION OUTSIDE OF THESE LIMITS SHALL BE PAID FOR UNDER ITEM 203.27, "UNCLASSIFIED CHANNEL EXCAVATION".
12. THE "STONE FILL, TYPE II" UNDER THE BRIDGE AS SHOWN IN THE PLANS SHALL BE PLACED BEFORE THE NEW BEAMS ARE SET.

CONCRETE

13. ITEM 514.10, "WATER REPELLENT, SILANE", SHALL BE APPLIED TO ALL EXPOSED CONCRETE ON THE BRIDGE SUPERSTRUCTURE AND SUBSTRUCTURE, WITH THE EXCEPTION OF THE BOTTOM OF THE PRECAST NEXT BEAMS BETWEEN THE DRIP NOTCHES.
14. ALL CONCRETE PLACED INTEGRALLY WITH THE SUPERSTRUCTURE SHALL BE ITEM 900.608, "SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET)". ALL PRECAST SUBSTRUCTURE AND APPROACH SLAB CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 510 - PRECAST CONCRETE.
15. ALL REINFORCING STEEL SHALL BE DETAILED AND FABRICATED USING PROCEDURES AND TOLERANCES IN ACCORDANCE WITH APPLICABLE PUBLICATIONS OF THE "CONCRETE REINFORCING STEEL INSTITUTE".
16. ALL REINFORCING STEEL SHALL MEET THE REQUIREMENTS FOR REINFORCING STEEL LEVEL 1, EPOXY COATED.

PRECAST ABUTMENTS AND POST-TENSIONING

17. IF VERTICAL CONSTRUCTION JOINTS ARE REQUIRED BY THE CONTRACTOR FOR SHIPMENT OF THE ABUTMENTS, THEN THE SECTIONS SHALL BE KEED AND MATCH CAST. A JOINT DETAIL SHALL BE SHOWN ON THE FABRICATION DRAWINGS.
18. POST-TENSIONING AND ASSOCIATED ITEMS ARE ONLY REQUIRED IF THE PILE CAP IS CONSTRUCTED OF MORE THAN ONE UNIT. ANY POST-TENSIONING STRANDS AND CONDUIT SHALL ADHERE TO THE REQUIREMENTS OF SECTION 510 - PRESTRESSED CONCRETE GALVANIZED ANCHOR ASSEMBLIES, CONDUIT, AND POST-TENSIONING STRANDS SHALL BE INCLUDED UNDER ITEM 510.10, "PRECAST CONCRETE STRUCTURE (ABUTMENT #1) AND/OR "PRECAST CONCRETE STRUCTURE (ABUTMENT #2)" AS APPROPRIATE. POST-TENSIONING STRANDS SHALL BE COVERED WITH SEAMLESS POLYPROPYLENE SHEATH (WITH CORROSION INHIBITOR GREASE BETWEEN SHEATH AND STRAND) FOR THE LENGTH OF THE STRAND, EXCEPT AT ANCHORAGE LOCATIONS.
19. GALVANIZE ANCHOR ASSEMBLIES AFTER FABRICATION ACCORDING TO AASHTO M232M/232.
20. DESIGN VALUES
 - a. CONCRETE COMPRESSIVE STRENGTH: $f_c = 5000$ PSI.
 - b. POST-TENSIONING STRANDS: 0.5 INCH DIAMETER, 270 KSI, LOW RELAXATION 7-WIRE STRANDS.
 - c. ASSUME D MODULUS OF ELASTICITY IS 28,500 KSI.
 - d. THERE SHALL BE 2 STRANDS PER CONDUIT.
 - e. THE JACKING FORCE PER STRAND = 32 KIPS
21. THE CONCRETE FOR THE ABUTMENT #1 AND ABUTMENT #2 PILE CAVITIES SHALL MEET THE REQUIREMENTS OF ITEM 900.608, "SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET)".
22. THE CORRUGATED STEEL PIPE SHALL MEET THE REQUIREMENTS OF SUBSECTION 711.01. ALL COSTS ASSOCIATED WITH PLACING THE CORRUGATED STEEL PIPE SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 540.10, "PRECAST CONCRETE STRUCTURE (ABUTMENT #1)" AND ITEM 540.10, "PRECAST CONCRETE STRUCTURE (ABUTMENT #2)".
23. PROPOSED SEQUENCE OF CONSTRUCTION:
 - a. PREPARE AND GRADE FOUNDATION TO REQUIRED ELEVATION.
 - b. DRIVE PILES.
 - c. PLACE PRECAST ABUTMENTS AND INSTALL TRANSVERSE STRANDS (IF MORE THAN ONE UNIT).
 - d. APPLY EPOXY TO MATCH CAST FACES OF VERTICAL CONSTRUCTION JOINT.
 - e. USE A CALIBRATED JACK TO TENSION TO 3 KIPS TO REMOVE SAG IN STRANDS.
 - f. CHECK ALIGNMENT OF PILE CAP ELEMENTS.
 - g. STRESS POST-TENSIONING STRANDS USING A CALIBRATED JACK OPERATED BY QUALIFIED PERSONNEL WHO HAVE PREVIOUS EXPERIENCE IN POST-TENSIONING.
 - h. FILL PILE CAVITIES WITH ITEM 900.608, "SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET)".
 - i. PLACE PRECAST WINGWALLS AND GROUT SPLICE CONNECTORS.
 - j. BACKFILL MAY BE COMPLETED AFTER SPLICE CONNECTOR GROUT HAS REACHED 85% OF 5,000 PSI.
24. ALTERNATE SEQUENCE OF CONSTRUCTION MAY BE SUBMITTED FOR APPROVAL BY THE PROJECT MANAGER.

NEXT D BEAMS

25. NEXT D BEAMS ARE A NON-PROPRIETARY SHAPE DEVELOPED BY PCINORTHEAST (PCINE). STANDARDIZED SECTION PROPERTIES AND DETAILS MAY BE FOUND AT <http://www.pcine.org>
26. DESIGN VALUES
 - a. CONCRETE COMPRESSIVE STRENGTH: $f_c = 10,000$ PSI.
 - b. CONCRETE COMPRESSIVE STRENGTH AT RELEASE: $f_{cr} = 8,000$ PSI
 - c. PRESTRESSING STRANDS: 0.6 INCH DIAMETER, 270 KSI, LOW-RELAXATION 7-WIRE STRANDS
 - d. ASSUME D MODULUS OF ELASTICITY = 28,500 KSI.
 - e. THE JACKING FORCE PER STRAND = 47 KIPS
 - f. SERVICE LOADS

MEMBER MOMENT	857 K-FT
SUPERIMPOSED DEAD LOAD MOMENT	341 K-FT
LIVE LOAD AND IMPACT MOMENT	1,320 K-FT
DEAD LOAD REACTION	72 KIPS
LIVE LOAD AND IMPACT REACTION	98 KIPS
TOTAL REACTION	170 KIPS
FINAL CAMBER	1 5/16 INCHES
27. ENDS OF FLANGES IN CONTACT WITH GROUT SHALL BE SANDBLASTED PRIOR TO DELIVERY AND POWER WASHED WITH WATER PRIOR TO ERECTION OF THE BEAMS.
28. FILL FLANGE CONNECTION WITH TYPE IV MORTAR ACCORDING TO SECTION 510. MORTAR SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 7000 PSI AND SHALL BE EXTENDED WITH AGGREGATE. ALL OTHER MATERIAL PROPERTIES SHALL REMAIN IN ACCORDANCE WITH SUBSECTION 707.03(c). GROUTING SHALL BE PAID FOR UNDER ITEM 510.24, "GROUTING SHEAR KEYS". THE CONTRACTOR SHALL SUBMIT A MIX DESIGN FOR THIS ITEM FOR APPROVAL BY THE PROJECT MANAGER.

29. METHOD OF FORMING FLANGE CONNECTION SHALL BE DETERMINED BY THE CONTRACTOR. THE FORMS SHALL BE REMOVABLE AND ABLE TO ACCOMMODATE DIFFERENTIAL CAMBER. FORM SUPPORTS SHALL NOT PENETRATE THROUGH THE TOP OF POUR UNLESS APPROVED BY THE ENGINEER.
30. THE FABRICATOR MAY ALTER THE DESIGN AS DETAILED IN THESE PLANS TO ACCOMMODATE THEIR SPECIFIC OPERATION. THIS ALTERATION MUST BE DESIGNED BY A PROFESSIONAL ENGINEER AND MEET THE ABOVE CRITERIA AND SHALL BE APPROVED BY THE PROJECT MANAGER.
31. PROPOSED SEQUENCE OF CONSTRUCTION
 - a. LAY OUT WORKING LINES THE ENTIRE WIDTH OF THE BRIDGE ALONG CENTERLINE OF BEARINGS, MEASURED FROM A SINGLE WORKING POINT. THE WORKING LINES SHALL BE BASED ON THE NOMINAL BEAM WIDTHS.
 - b. VERIFY THE BEAM SEAT ELEVATIONS AND TAKE CORRECTIVE ACTION IF NECESSARY.
 - c. INSTALL BEARINGS
 - d. ERECT THE BEAMS TO FIT WITHIN THE WORKING LINES.
 - e. ADJUST FASCIA BEAM TO FIT SNUG AGAINST 1/2" CORK ON INTERIOR OF CHEEK WALL.
 - f. CONSTRUCT FORMS FOR THE FLANGE AND CURTAIN WALL CONNECTION POURS.
 - g. GROUT CONNECTIONS BETWEEN BEAM FLANGE AND CURTAIN WALL.
 - h. BACKFILL AND PREPARE GRADE FOR APPROACH SLABS.
 - i. COMPLETE BEAM-END CLOSURE POURS TO BOTTOM OF DECK ALLOWING FOR APPROACH SLAB BRACKET.
 - j. COMPLETE PLACEMENT OF BACKFILL AND PLACE APPROACH SLAB.
 - k. GROUT REBAR DOWELS IN APPROACH SLAB.
 - l. COMPLETE LONGITUDINAL CLOSURE POURS OF APPROACH SLAB.
 - m. COMPLETE BEAM-END CLOSURE POUR TO TOP OF DECK AND APPROACH SLABS.
32. ALTERNATE SEQUENCE OF CONSTRUCTION MAY BE SUBMITTED FOR APPROVAL BY THE PROJECT MANAGER.

H-PILES

33. TO PREVENT DAMAGE TO THE PILES, PILE SHOES ARE REQUIRED AND SHALL CONFORM TO SUBSECTION 505.04 (f).
34. THE PILES SHALL BE DRIVEN TO A NOMINAL PILE DRIVING RESISTANCE (R_{nd}) OF 286 KIPS, PROVIDED A MINIMUM PENETRATION OF 25 FEET BELOW THE BOTTOM OF PILE CAP HAS BEEN ACHIEVED.
35. A MINIMUM OF THREE DYNAMIC TESTS ARE REQUIRED DURING PILE INSTALLATION. NO LESS THAN ONE DYNAMIC PILE TEST SHALL BE CONDUCTED AT EACH ABUTMENT. PAYMENT IS ITEM 505.45, "DYNAMIC PILE LOADING TEST".
36. THE TOPS OF THE PILES AFTER DRIVING SHALL NOT VARY FROM THE POSITION SHOWN ON THE PLANS BY MORE THAN 3 INCHES. THE PILE ORIENTATION SHALL NOT VARY BY MORE THAN 5 DEGREES. THE CONTRACTOR SHALL DEMONSTRATE TO THE SATISFACTION OF THE ENGINEER HOW THE TOLERANCES WILL BE MET. THESE MEASURES SHALL BE DEMONSTRATED IN A SUBMITTAL TO BE ACCEPTED BEFORE PILE DRIVING COMMENCES.
37. FOR ESTIMATING PURPOSES, THE PILE TIP ELEVATIONS WERE ASSUMED AS SHOWN ON THE BORING LOGS. THE ACTUAL IN PLACE LENGTHS MAY VARY.

MISCELLANEOUS

38. ITEM 520.10, "MEMBRANE WATERPROOFING, SPRAY APPLIED" SHALL BE APPLIED TO THE BRIDGE DECK AS PER THE MANUFACTURER'S INSTRUCTIONS AND EXTEND ONTO THE APPROACH SLABS TWO FEET BEYOND THE BEGIN BRIDGE/END OF BRIDGE.
39. A TEMPORARY BRIDGE IS IN PLACE OVER THE EXISTING, FAILED STRUCTURE. REMOVAL OF THIS TEMPORARY BRIDGE SHALL BE PAID FOR UNDER ITEM 600.645, "SPECIAL PROVISION (REMOVAL OF TEMPORARY BRIDGE AND APPROACHES)". THE TEMPORARY BRIDGE IS THE PROPERTY OF VTTRANS AND SHALL BE RETURNED TO THE VTTRANS MAINTENANCE FACILITY IN MIDDLETOWN, VT. CONTACT BILL SARGENT AT (802) 828-2699 TO MAKE NECESSARY ARRANGEMENTS AS PER THE SPECIAL PROVISIONS.

△ REVISED 10-12-12

- REVISED NOTE 16

PROJECT NAME: BRIGHTON
PROJECT NUMBER: ER STP 034-3(25)

FILE NAME: slb208gen.dgn PLOT DATE: 12-OCT-2012
PROJECT LEADER: K. HIGGINS DRAWN BY: W. LAMMER
DESIGNED BY: W. LAMMER CHECKED BY: J. SALVATORI
GENERAL NOTES: SHEET 3 OF 36

QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS			DETAILED SUMMARY OF QUANTITIES			
					ROADWAY	EROSION CONTROL	BRIDGE	FULL C.E. ITEMS		GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
					1					1		LS	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	201.10				
					470					470		CY	COMMON EXCAVATION	203.15				
							430			430		CY	UNCLASSIFIED CHANNEL EXCAVATION	203.27				
					1					1		CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22				
							410			410		CY	STRUCTURE EXCAVATION	204.25				
							270			270		CY	GRANULAR BACKFILL FOR STRUCTURES	204.30				
					305					305		SY	COLD PLANING, BITUMINOUS PAVEMENT	210.10				
													BEGIN OPTION AA					
					435					435		CY	SUBBASE OF GRAVEL	301.15				
					435					435		CY	SUBBASE OF CRUSHED GRAVEL, COARSE GRADED	301.25				
					435					435		CY	SUBBASE OF DENSE GRADED CRUSHED STONE	301.35				
													END OPTION AA					
					25					25		CY	AGGREGATE SHOULDERS, IN PLACE	402.10				
					6					6		CWT	EMULSIFIED ASPHALT	404.65				
					1					1		LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	406.50				
							1			1		LS	FURNISHING EQUIPMENT FOR DRIVING PILING	504.10				
							800			800		LF	STEEL PILING, HP 12 X 53	505.15				
												EACH	DYNAMIC PILE LOADING TEST	505.45				
												LB	REINFORCING STEEL, LEVEL 1	507.11				
							2100			2100		LF	GROUTING SHEAR KEYS	510.24				
							15			15		GAL	WATER REPELLENT, SILANE	514.10				
							60			60		LF	BRIDGE EXPANSION JOINT, ASPHALTIC PLUG	518.10				
							255.53			255.53		SY	SHEET MEMBRANE WATERPROOFING, SPRAY APPLIED	520.10				
							153.32			153.32		LF	BRIDGE RAILING, GALVANIZED 3 RAIL BOX BEAM	525.335				
							1			1		EACH	PARTIAL REMOVAL OF STRUCTURE	529.20				
							16			16		EACH	BEARING DEVICE ASSEMBLY, STEEL REINFORCED ELASTOMERIC PAD	531.17				
							1			1		LS	PRECAST CONCRETE STRUCTURE (ABUTMENT #1)	540.10				
							1			1		LS	PRECAST CONCRETE STRUCTURE (ABUTMENT #2)	540.10				
							1			1		LS	PRECAST CONCRETE STRUCTURE (APPROACH SLAB #1)	540.10				
							1			1		LS	PRECAST CONCRETE STRUCTURE (APPROACH SLAB #2)	540.10				
							1			1		MGAL	DUST CONTROL WITH WATER	609.10				
							470			470		CY	STONE FILL, TYPE II	613.12				
					149					149		LF	BOX BEAM GUARDRAIL	621.30				
					3					3		EACH	MANUFACTURED TERMINAL SECTION, TANGENT	621.51				
					4					4		EACH	GUARDRAIL APPROACH SECTION, GALVANIZED 3 RAIL BOX BEAM	621.725				
					400					400		HR	FLAGGERS	630.15				
										1		LS	FIELD OFFICE, ENGINEERS	631.10				
										1		LS	TESTING EQUIPMENT, CONCRETE	631.16				
										1		LS	TESTING EQUIPMENT, BITUMINOUS	631.17				
										3000		DL	FIELD OFFICE TELEPHONE (N.A.B.I.)	631.26				

WE ONLY DID 2 DYNAMIC TESTS, NOT 3.
WE DID ONE AT EACH ABUTMENT.



REVISED 10-12-12

- REMOVED ITEM 507.12
- ADDED ITEM 507.11

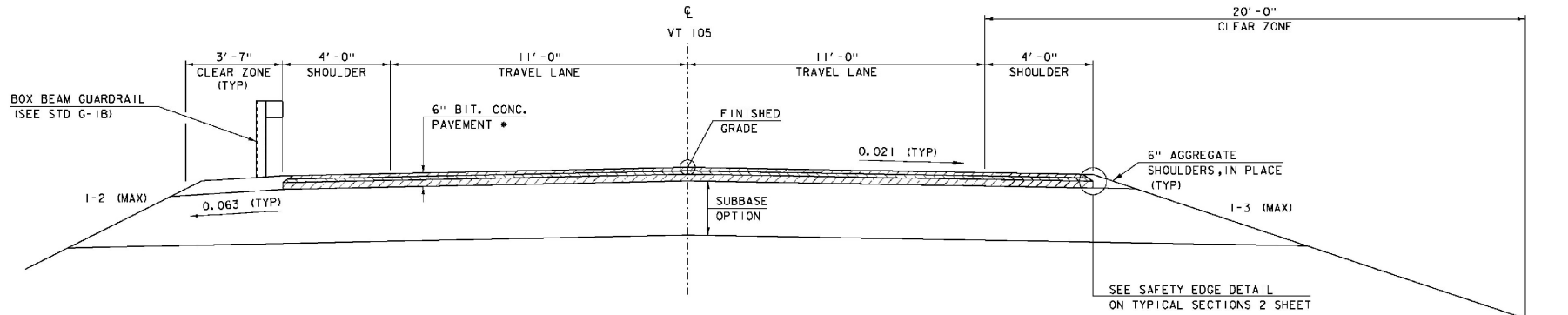
PROJECT NAME: BRIGHTON
PROJECT NUMBER: ER STP 034-3(25)
FILE NAME: slc208qs.dgn
PROJECT LEADER: K. HIGGINS
DESIGNED BY: W. LAMMER
QUANTITY SHEET 1

PLOT DATE: 12-OCT-2012
DRAWN BY: W. LAMMER
CHECKED BY: J. SALVATORI
SHEET 4 OF 36

QUANTITY SHEET 2

SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS			DETAILED SUMMARY OF QUANTITIES				
							ROADWAY	EROSION CONTROL	BRIDGE	FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
							1				1		LS	MOBILIZATION/DEMOBILIZATION	635.11				
							740				740		LF	4 INCH WHITE LINE	646.20				
							740				740		LF	4 INCH YELLOW LINE	646.21				
									470		470		SY	GEOTEXTILE UNDER STONE FILL	649.31				
								275			275		SY	GEOTEXTILE FOR SILT FENCE	648.51				
								81			81		SY	GEOTEXTILE FOR FILTER CURTAIN	649.61				
								10			10		LB	SEED	651.16				
								100			100		LB	FERTILIZER	651.18				
								1			1		TON	AGRICULTURAL LIMESTONE	651.20				
								1			1		TON	HAY MULCH	651.25				
								75			75		CY	TOPSOIL	651.35				
									120		120		SY	GRUBBING MATERIAL	651.40				
								1			1		LS	EPSC PLAN	652.10				
								40			40		HR	MONITORING EPSC PLAN	652.20				
								1			1		LU	MAINTENANCE OF EPSC PLAN (N.A.B.I.)	652.30				
								425			425		SY	TEMPORARY EROSION MATTING	653.20				
								60			60		CY	VEHICLE TRACKING PAD	653.35				
								605			605		LF	PROJECT DEMARCATION FENCE	653.55				
							0.66				0.66		SF	TRAFFIC SIGNS, TYPE A	675.20				
							16				16		LF	SQUARE TUBE SIGN POST AND ANCHOR	675.341				
									32		32		CY	SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE RAPID SET)(FPQ)	900.608				
									284		284		LF	SPECIAL PROVISION (PRESTRESSED CONCRETE NEXT D BEAM)(NEXT 28 D)	900.640				
									1		1		LS	SPECIAL PROVISION (REMOVAL OF TEMPORARY BRIDGE AND APPROACHES)	900.645				
								1			1		LS	SPECIAL PROVISION (TRAFFIC CONTROL, ALL-INCLUSIVE)	900.646				
								1			1		LU	SPECIAL PROVISION (INCENTIVE/DISINCENTIVE)(N.A.B.I.)	900.650				
								1			1		LU	SPECIAL PROVISION (MAT DENSITY PAY ADJUSTMENT, SMALL QUANTITY)(N.A.B.I.)	900.650				
								1			1		LU	SPECIAL PROVISION (MIXTURE PAY ADJUSTMENT)(N.A.B.I.)	900.650				
							285				285		TON	SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY)	900.680				

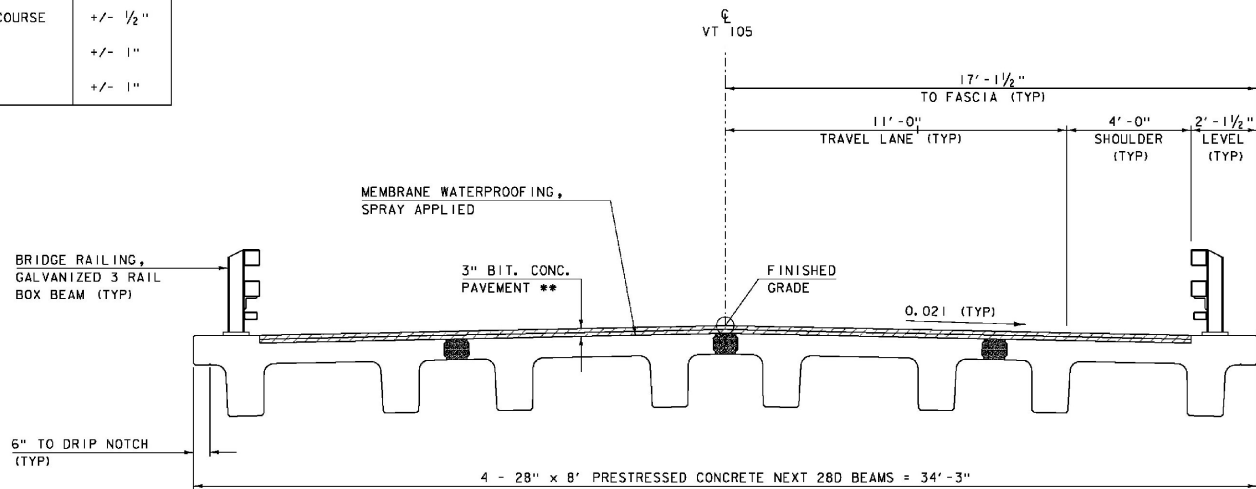
- * 1 1/2" SUPERPAVE BITUMINOUS CONCRETE PAVEMENT, TYPE IVS
 - 1 1/2" SUPERPAVE BITUMINOUS CONCRETE PAVEMENT, TYPE IVS
 - 3" SUPERPAVE BITUMINOUS CONCRETE PAVEMENT, TYPE IIS
- VARIES SUBBASE OPTION



ROADWAY TYPICAL SECTION
SCALE 1/2" = 1'-0"

MATERIAL TOLERANCES
(IF USED ON PROJECT)

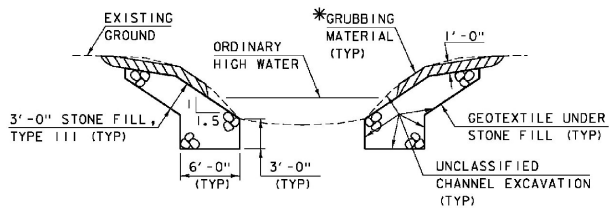
SURFACE	
- PAVEMENT (TOTAL THICKNESS)	+/- 1/4"
- AGGREGATE SURFACE COURSE	+/- 1/2"
SUBBASE	+/- 1"
SAND BORROW	+/- 1"



BRIDGE TYPICAL SECTION
SCALE 1/2" = 1'-0"

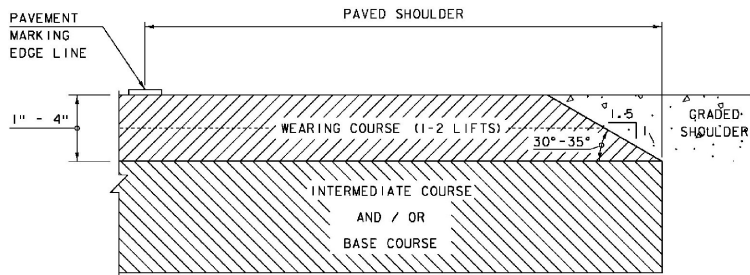
- ** 1 1/2" SUPERPAVE BITUMINOUS CONCRETE PAVEMENT, TYPE IVS
- 1 1/2" SUPERPAVE BITUMINOUS CONCRETE PAVEMENT, TYPE IVS

PROJECT NAME:	BRIGHTON	PLOT DATE:	12-SEP-2012
PROJECT NUMBER:	ER STP 034-3(25)	DRAWN BY:	J. SALVATORI
FILE NAME:	slb2081typ.dgn	CHECKED BY:	W. LAMMER
PROJECT LEADER:	K. HIGGINS	TYPICAL SECTIONS I	SHEET 6 OF 36
DESIGNED BY:	J. SALVATORI		



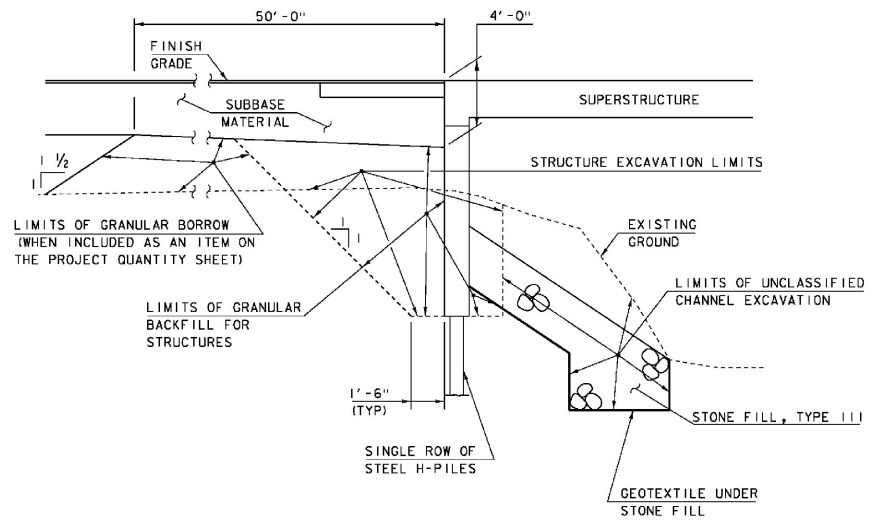
TYPICAL CHANNEL SECTION
NOT TO SCALE

*GRUBBING MATERIAL SHALL NOT BE PLACED ON THE STONE FILL IN THE AREA UNDER THE BRIDGE. WHENEVER CHANNEL SLOPE INTERSECTS ROADWAY SUBBASE, GRUBBING MATERIAL SHALL BEGIN AT THE BOTTOM OF SUBBASE.



SAFETY EDGE DETAIL
NOT TO SCALE

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



TYPICAL INTEGRAL ABUTMENT SECTION
NOT TO SCALE

ACTUAL LIMITS OF STRUCTURE EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR. HOWEVER, ONLY EXCAVATION BETWEEN THE LIMITS SHOWN WILL BE PAID FOR UNDER ITEM 204.25 "STRUCTURE EXCAVATION". EXCAVATION BY THE CONTRACTOR OUTSIDE OF THESE LIMITS WILL BE AT THE EXPENSE OF THE CONTRACTOR.

PROJECT NAME:	BRIGHTON	FILE NAME:	slb2081typ.dgn	PLOT DATE:	12-SEP-2012
PROJECT NUMBER:	ER STP 034-3(25)	PROJECT LEADER:	K.HIGGINS	DRAWN BY:	J. SALVATORI
		DESIGNED BY:	J. SALVATORI	CHECKED BY:	W. LAMMER
		TYPICAL SECTIONS	2	SHEET	7 OF 36

GPS CONTROL POINTS

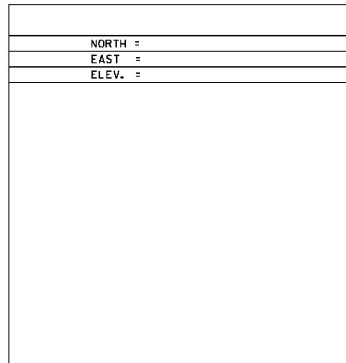
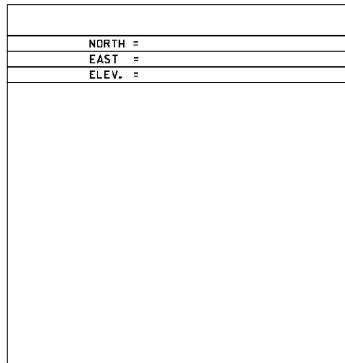
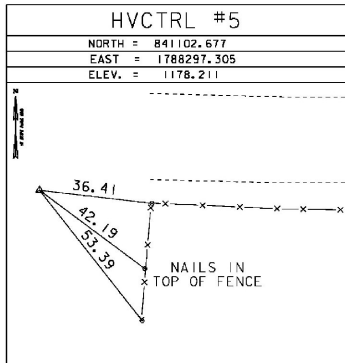
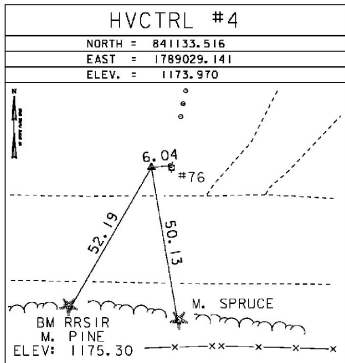
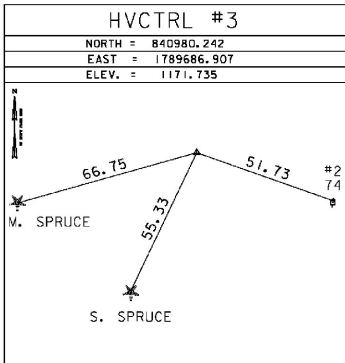
HVCTRL #1
 PORTER AZ MK
 NORTH = 839791.546
 EAST = 1791829.618
 ELEV. = 1189.855

HVCTRL #2
 PORTER
 NORTH = 840414.211
 EAST = 1790457.251
 ELEV. = 1200.817

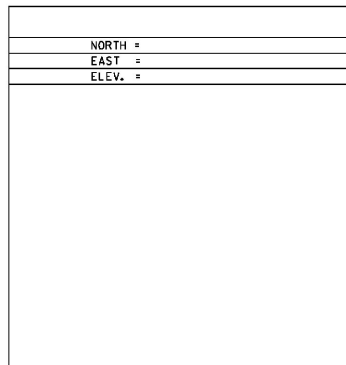
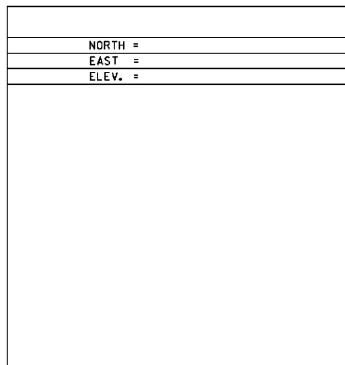
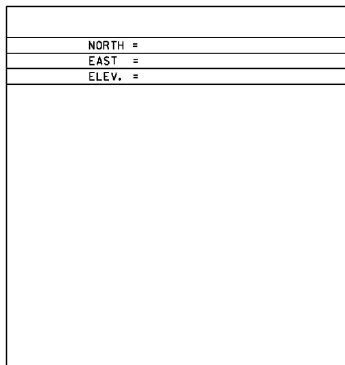
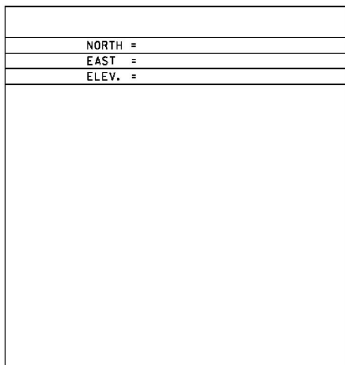
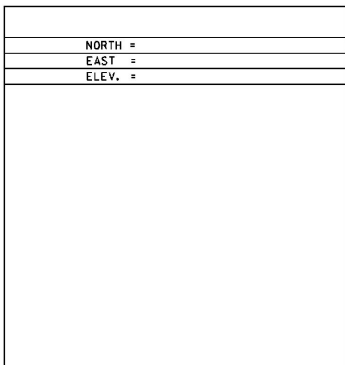
TO REACH FROM THE INTERSECTION OF VT 114 SOUTH AND VT 105, GO NORTHWEST ALONG VT 105 FOR 0.4 MI TO THE SITE OF THE MARK ON THE LEFT. THE MARK IS SET 4" BELOW GROUND SURFACE IN THE TOP OF A 12" DIAMETER CONCRETE MONUMENT. IT IS 22.3' WEST-SOUTHWEST OF AND 3.3' LOWER THE CENTERLINE OF VT 105, 110' NORTH-NORTHWEST OF THE CENTERLINE OF A GRAVEL DRIVE LEADING TO THE GOODHILL RESIDENCE, 41.7' SOUTH OF A METAL ROAD SIGN, 87.6' EAST-NORTHEAST OF A 16" PINE, 154.5' NORTHEAST OF THE NORTH CORNER OF A 2 BAY GARAGE, 12' NORTH OF A LILAC BUSH, 88.6' EAST OF A METAL POST FOR A SATELLITE DISH, AND 1' EAST-NORTHEAST OF A FIBERGLASS WITNESS POST.

TO REACH FROM THE INTERSECTION OF VT 114 SOUTH AND VT 105, GO NORTHWEST ALONG VT 105 FOR 0.8 MI TO THE SITE OF THE MARK ON THE LEFT. THE MARK IS SET 2" BELOW GROUND SURFACE IN THE TOP OF A 12" DIAMETER CONCRETE MONUMENT. IT IS 27.6' SOUTHWEST OF AND ABOUT 2.6' HIGHER THAN THE CENTERLINE OF VT 105, 89.2' WEST-NORTHWEST OF THE NORTH CORNER OF A SMALL WOODEN STORAGE BUILDING, 115' EAST-SOUTHEAST OF A 20" ELM, 74.5' WEST-SOUTHWEST OF AND ACROSS THE ROAD FROM THE SOUTH CORNER OF THE PORTER FARM BARN, 75.5' SOUTH-SOUTHWEST OF AND ACROSS THE ROAD FROM THE SOUTH CORNER OF THE ENCLOSED PORCH OF A 2 STORY HOUSE, 21' WEST OF THE CENTERLINE OF A FARM DRIVE, AND 1' NORTH-NORTHEAST OF A FIBERGLASS WITNESS POST.

TRAVERSE TIES



ALIGNMENT TIES



DATUM
 VERTICAL NAVD 88
 HORIZONTAL NAD 83 (07)
 ADJUSTMENT COMPASS

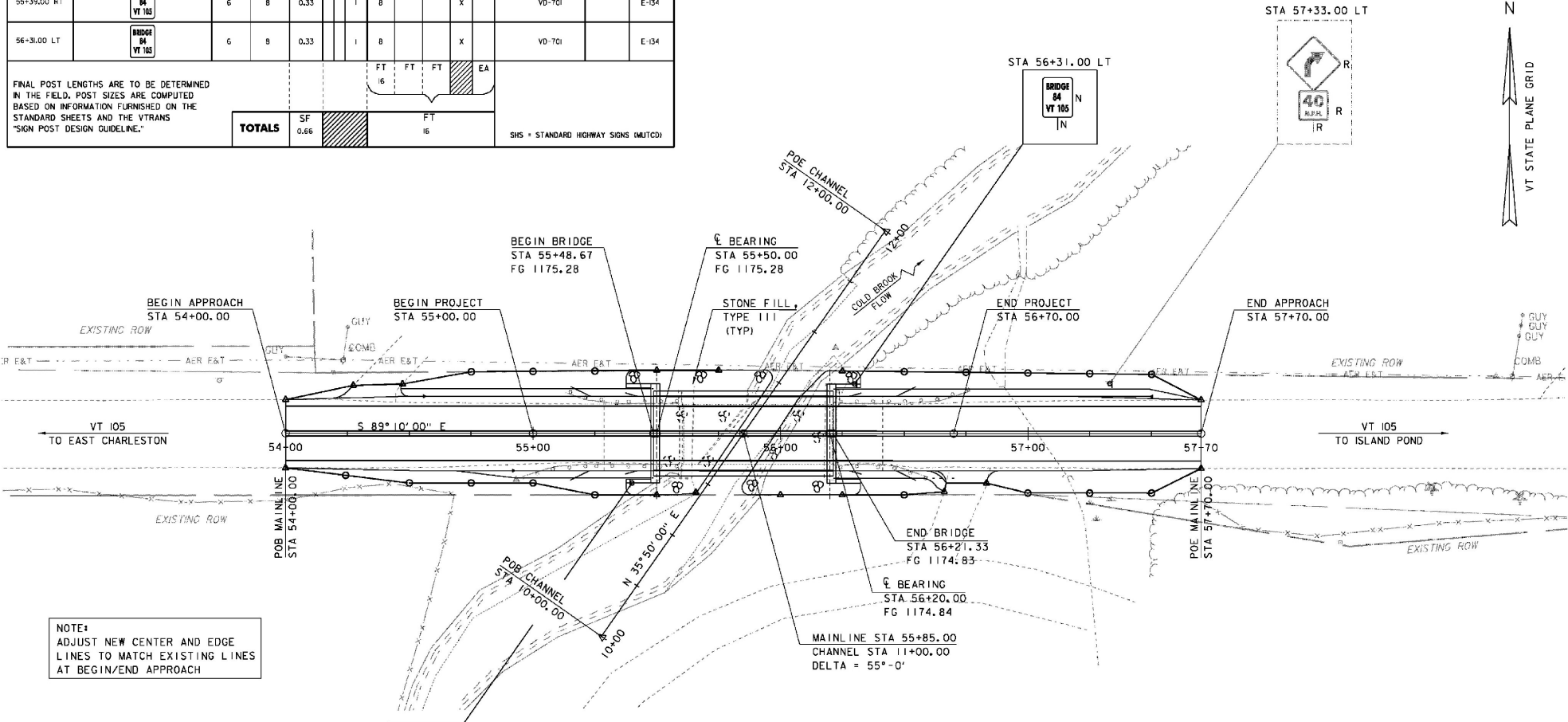
PROJECT NAME: BRIGHTON
 PROJECT NUMBER: ER STP 034-3(25)
 FILE NAME: s1lb208t1.dgn
 PROJECT LEADER: K. HIGGINS
 DESIGNED BY: W. LAMMER
 TIE SHEET
 PLOT DATE: 12-SEP-2012
 DRAWN BY: W. LAMMER
 CHECKED BY: J. SALVATORI
 SHEET 8 OF 36

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS		NEW SIGN "A"	EXIST. POST NO. OF P	NEW SIGN POSTS					REMARKS	SIGN DETAIL	
		WIDTH (ft)	HEIGHT (ft)			SQUARE STEEL (ft)			A N ROCK R	S T SIGNMENT		DETAIL ON SHEET NUMBER	STD. SHEET NUMBER
						1.75	2.0	2.5					
55+39.00 RT		6	8	0.33	1	8				X		VD-701	E-34
56+31.00 LT		6	8	0.33	1	8				X		VD-701	E-34
						FT	FT	FT		EA			
						TOTALS			SF		FT		
						0.66					16		

SIGN LEGEND
 N = NEW
 R = RETAIN

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."

SHS = STANDARD HIGHWAY SIGNS (MUTCD)



NOTE:
 ADJUST NEW CENTER AND EDGE LINES TO MATCH EXISTING LINES AT BEGIN/END APPROACH

LAYOUT SHEET
 SCALE 1" = 20'-0"
 20 0 20

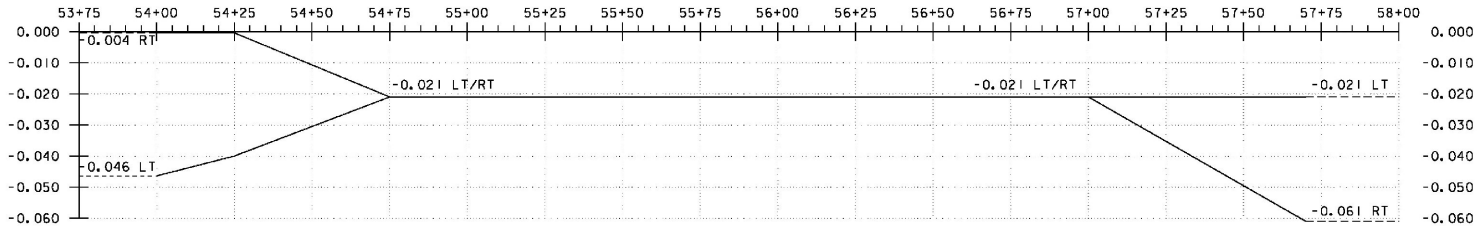
CONSTRUCT PAVED APRON (5 FT)
 STA 54+18.00 - 54+50.00 LT
 STA 56+62.00 - 56+88.00 RT

SPECIAL PROVISION (REMOVAL OF TEMPORARY BRIDGE AND APPROACHES)
 STA 55+00.00 - 57+00.00

TRAFFIC SIGNS, TYPE A
 STA 55+39.00 (RT)
 STA 56+31.00 (LT)

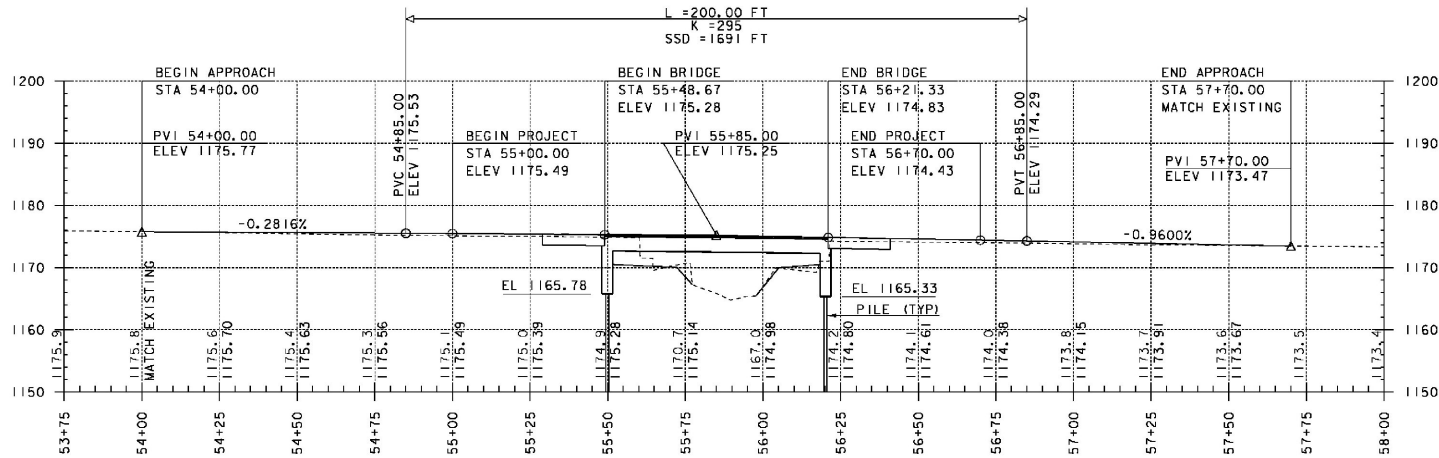
4" WHITE LINE (LT & RT)
 STA 54+00.00 - 57+00.00
 4" YELLOW LINE (DOUBLE)
 STA 54+00.00 - 57+00.00

PROJECT NAME:	BRIGHTON	PROJECT NUMBER:	ER STP 034-3(25)
FILE NAME:	slb208bdr.dgn	PLOT DATE:	12-SEP-2012
PROJECT LEADER:	K. HIGGINS	DRAWN BY:	J. SALVATORI
DESIGNED BY:	J. SALVATORI	CHECKED BY:	W. LAMMER
LAYOUT SHEET		SHEET	9 OF 36



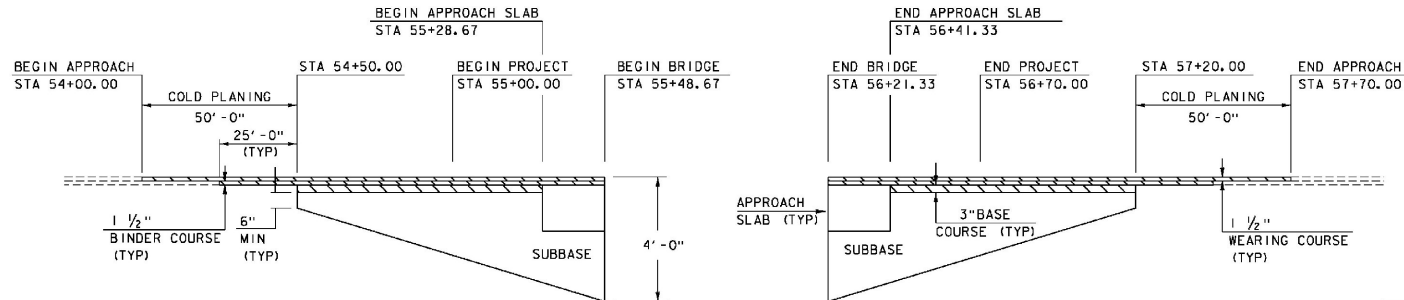
BANKING DIAGRAM

HORIZONTAL SCALE 1" = 20'-0"
 VERTICAL SCALE 1" = 10'-0"



MAINLINE PROFILE

HORIZONTAL SCALE 1" = 20'-0"
 VERTICAL SCALE 1" = 10'-0"



MATERIAL TRANSITION

HORIZONTAL SCALE 1" = 20'-0"
 VERTICAL SCALE 1/2" = 1'-0"

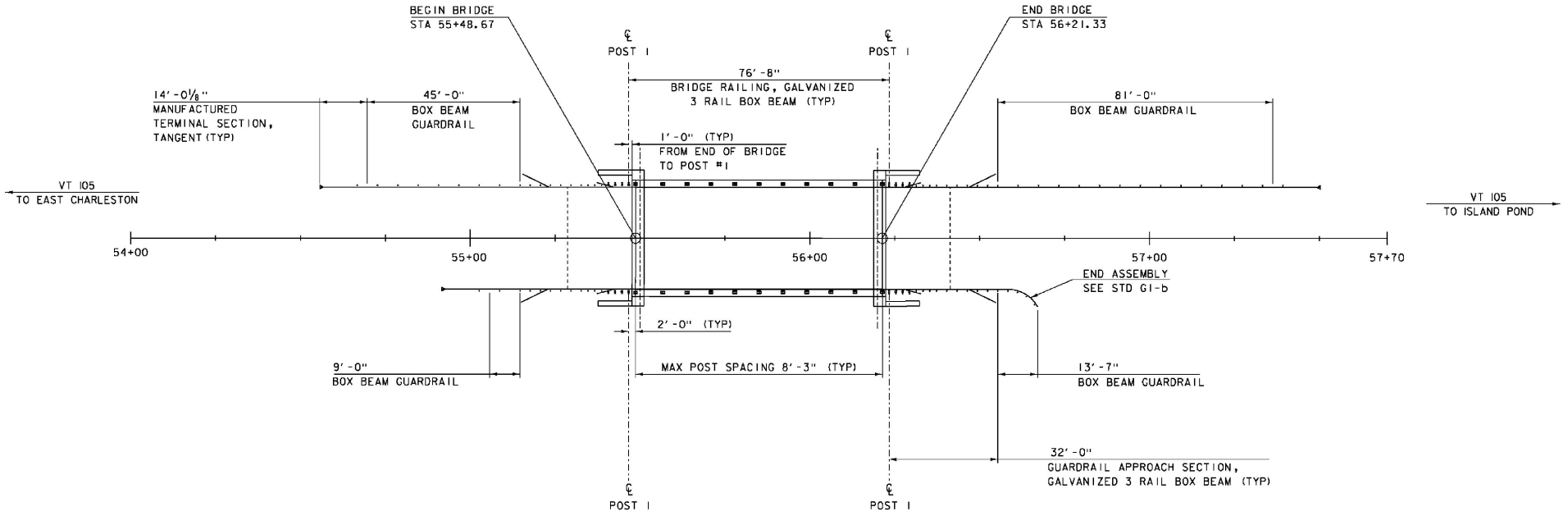
PROJECT NAME:	BRIGHTON	FILE NAME:	slb20bpro.dgn	PLOT DATE:	12-SEP-2012
PROJECT NUMBER:	ER STP 034-3(25)	PROJECT LEADER:	K. HIGGINS	DRAWN BY:	J. SALVATORI
		DESIGNED BY:	J. SALVATORI	CHECKED BY:	W. LAMMER
					SHEET 10 OF 36

BOX BEAM GUARDRAIL
 STA 54+69.67 - 55+14.67 LT
 STA 55+05.66 - 55+14.67 RT
 STA 56+55.33 - 57+36.34 LT
 STA 56+55.33 - 56+67.05 RT

MANUFACTURED TERMINAL SECTION, TANGENT
 STA 54+55.66 - 54+69.67 LT
 STA 54+91.65 - 55+05.66 RT
 STA 57+36.34 - 57+50.35 LT

BRIDGE RAILING, GALVANIZED 3 RAIL BOX BEAM
 STA 55+48.67 - 56+21.33 LT/RT

GUARDRAIL APPROACH SECTION, GALVANIZED 3 RAIL BOX BEAM
 STA 55+14.67 - 55+48.67 LT/RT
 STA 56+21.33 - 56+55.33 LT/RT



RAIL LAYOUT SHEET
 SCALE 1" = 15'-0"

PROJECT NAME:	BRIGHTON	FILE NAME:	slb208rail.dgn	PLOT DATE:	12-SEP-2012
PROJECT NUMBER:	ER STP 034-3(25)	PROJECT LEADER:	K. HIGGINS	DRAWN BY:	J. SALVATORI
		DESIGNED BY:	J. SALVATORI	CHECKED BY:	W. LAMMER
		RAIL LAYOUT SHEET			SHEET 11 OF 36

SOIL CLASSIFICATION

AASHTO

A1	Gravel and Sand
A3	Fine Sand
A2	Silty or Clayey Gravel and Sand
A4	Silty Soil - Low Compressibility
A5	Silty Soil - High Compressibility
A6	Clayey Soil - Low Compressibility
A7	Clayey Soil - High Compressibility

ROCK QUALITY DESIGNATION

R.Q.D. (%)	ROCK DESCRIPTION
<25	Very Poor
25 to 50	Poor
51 to 75	Fair
76 to 90	Good
>90	Excellent

SHEAR STRENGTH

UNDRAINED SHEAR STRENGTH IN P.S.F.

UNDRAINED SHEAR STRENGTH IN P.S.F.	CONSISTENCY
<250	Very Soft
250-500	Soft
500-1000	Med. Stiff
1000-2000	Stiff
2000-4000	Very Stiff
>4000	Hard

CORRELATION GUIDE OF "N" TO DENSITY/CONSISTENCY

DENSITY (GRANULAR SOILS)		CONSISTENCY (COHESIVE SOILS)	
N	DESCRIPTIVE TERM	N	DESCRIPTIVE TERM
<5	Very Loose	2	Very Soft
5-10	Loose	2-4	Soft
11-24	Med. Dense	5-8	Med. Stiff
25-50	Dense	9-15	Stiff
>50	Very Dense	16-30	Very Stiff
		31-60	Hard
		>60	Very Hard

COMMONLY USED SYMBOLS

▽	Water Elevation
⊕	Standard Penetration Boring
⊙	Auger Boring
⊗	Rod Sounding
S	Sample
N	Standard Penetration Test
	Blow Count Per Foot For:
	2" O.D. Sampler
	1 1/2" I.D. Sampler
	Hammer Weight Of 140 Lbs.
	Hammer Fall Of 30"
VS	Field Vane Shear Test
US	Undisturbed Soil Sample
B	Blast
DC	Diamond Core
MD	Mud Drill
WA	Wash Ahead
HSA	Hollow Stem Auger
AX	Core Size 1 1/8"
BX	Core Size 1 3/8"
NX	Core Size 2 1/8"
M	Double Tube Core Barrel Used
LL	Liquid Limit
PL	Plastic Limit
PI	Plasticity Index
NP	Non Plastic
w	Moisture Content (Dry Wgt. Basis)
D	Dry
M	Moist
MTW	Moist To Wet
W	Wet
Sat	Saturated
Bo	Boulder
Gr	Gravel
Sa	Sand
Sl	Silt
Cl	Clay
HP	Hardpan
Le	Ledge
NLTD	No Ledge To Depth
CNPF	Can Not Penetrate Further
TLOB	Top of Ledge Or Boulder
NR	No Recovery
Rec.	Recovery
%Rec.	Percent Recovery
RQD	Rock Quality Designation
CBR	California Bearing Ratio
<	Less Than
>	Greater Than
R	Refusal (N > 100)
VTSPG	NAD83 - See Note 7

COLOR

b/k	Black	pnk	Pink
bl	Blue	pu	Purple
brn	Brown	rd	Red
dk	Dark	tn	Tan
gr	Gray	wh	White
gn	Green	yel	Yellow
lt	Light	mltc	Multicolored
or	Orange		

DEFINITIONS (AASHTO)

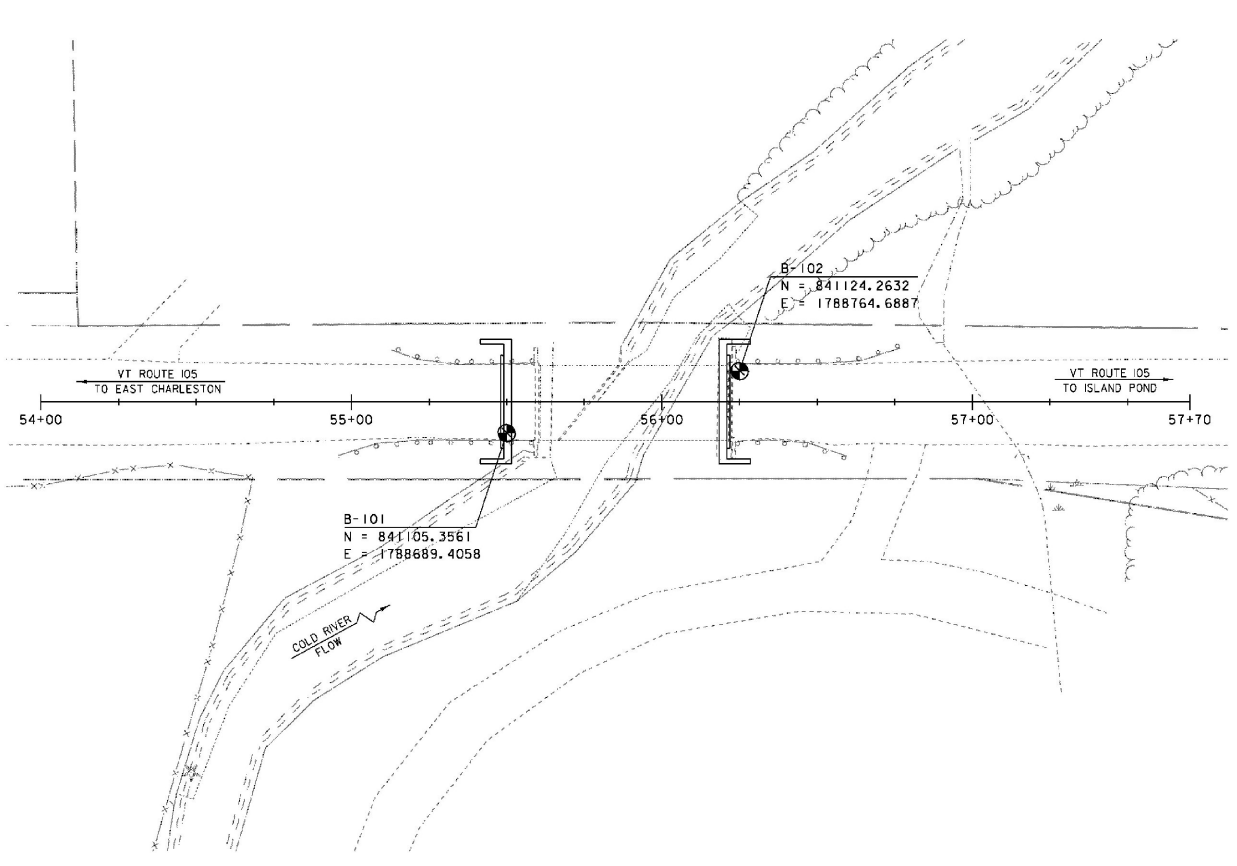
BEDROCK (LEDGE) - Rock in its native location of indefinite thickness.
BOLDER - A rock fragment with an average dimension > 12 inches.
COBBLE - Rock fragments with an average dimension between 3 and 12 inches.
GRAVEL - Rounded particles of rock < 3" and > 0.075" (#10 sieve).
SAND - Particles of rock < 0.075" (#10 sieve) and > 0.0029" (#200 sieve).
SILT - Soil < 0.0029" (#200 sieve), non or slightly plastic and exhibits no strength when air-dried.
CLAY - Fine grained soil, exhibits plasticity when moist and considerable strength when air-dried.

VARVED - Alternate layers of silt and clay.
HARDPAN - Extremely dense soil, cemented layer, not softened when wet.
MUCK - Soft organic soil (containing > 10% organic material).
MOISTURE CONTENT - Weight of water divided by dry weight of soil.
FLOWING SAND - Granular soil so saturated (loose) that it flows into drill casing during extraction of wash rod.
STRIKE - Angle from magnetic north to line of intersection of bed with a horizontal plane.
DIP - Inclination of bed with a horizontal plane.

The subsurface explorations shown herein were made between 04/05/12 and 04/20/12 by the Agency.
 Soil and rock classifications, profiles and descriptions are based on engineering interpretation from available subsurface information by the Agency and may not necessarily reflect actual variations in subsurface conditions that may be encountered between individual boring or sample locations.
 Observed water levels and/or conditions indicated are as recorded at the time of exploration and may vary according to the prevailing rainfall, methods of exploration and other factors.

GENERAL NOTES

- Engineering judgment was exercised in preparing the subsurface information presented herein. Analysis and interpretation of subsurface data was performed and interpreted for Agency design and estimating purposes. Presentation of the information in the Contract is intended to provide the Contractor access to the same data available to the Agency. The subsurface information is presented in good faith and is not intended as a substitute for personal investigation, independent interpretation, independent analysis or judgment by the Contractor.
- Pictorial structure details shown on the boring plan layout or soils profile are for illustrative purposes only and may not accurately portray final contract details.
- Terminology used on boring logs to describe the hardness, degree of weathering, and spacing of fractures, joints and other discontinuities in the bedrock is defined in the AASHTO Manual Subsurface Investigations, 1988.
- Northing and Easting coordinates are shown in Vermont State Plane Grid North American Datum 1983 in meters and survey feet.



BORING LAYOUT
 SCALE 1" = 20' - 0"
 20 0 20

BORING CHART

HOLE NO.	SURV. STATION	OFFSET	GROUND ELEV.
B-101	55+50	10' RT	1174.85
B-102	56+25	10' LT	1174.26

PROJECT NAME: BRIGHTON
 PROJECT NUMBER: ER STP 034-3(25)
 FILE NAME: s1lb20bbr.dgn
 PROJECT LEADER: K. HIGGS
 DESIGNED BY: J. SALVATORI
 BORING LAYOUT SHEET
 PLOT DATE: 12-SEP-2012
 DRAWN BY: J. SALVATORI
 CHECKED BY: W. LAMMER
 SHEET 12 OF 36



VTTrans		STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH SECTION SUBSURFACE INFORMATION		BORING LOG		Boring No.: B-101					
		BRIGHTON STP 034-3(25) VT-105 BR-84		Page No.: 1 of 2 Pin No.: 118208 Checked By: CCB							
Boring Crew: PORTER, DAVISON, HOLT		Casing Sampler		Groundwater Observations							
Date Started: 4/05/12 Date Finished: 4/16/12		Type: WB SS	I.D.: 4 in 1.5 in	Date	Depth (ft)	Notes					
VTSPG NAD83: N 841105.36 ft E 1788689.41 ft		Hammer Wt: N.A. 140 lb.	Hammer Fall: N.A. 30 in.	04/16/12	8.5	AM					
Station: 55+50 Offset: 10.00		Hammer/Rod Type: Auto/AWJ	Rig: CME 45C SKID	CE = 1.33							
Ground Elevation: 1174.85 ft											
Depth (ft)	Stroke (")	CLASSIFICATION OF MATERIALS (Description)		Run (log depth)	Comp. (RCB %)	Drill Rate (min/ft)	Blow (6"/ft)	Moisture Content %	Grav %	Sand %	Fine %
		Asphalt Pavement, 0.0 ft - 0.5 ft									
5		Visual Description: SISO with one piece of granite, brn. Moist, Rec. = 0.2 ft, Stone in end of sampler. Insufficient sample for testing.					8-6-8-11 (12)				
10		A-1-a, SaGr, brn, Moist, Rec. = 0.8 ft					8-8-8-5 (16)	54.2	36.9	8.9	
15		Field Note: No Recovery. Trace of silt in sampler					4-1-1-1 (2)				
20		A-2-4, Sa, gry, Moist, Rec. = 1.0 ft					15-12-11-12 (23)	19.0	15.8	72.9	11.3
25		A-1-b, Sa, brn, Moist, Rec. = 1.5 ft					5-6-8-9 (14)	19.2	7.9	86.1	8.0
30		A-2-4, Sa, brn, Moist, Rec. = 1.2 ft, Granite chips were within sample.					7-10-14-15 (24)	15.2	18.1	70.4	11.5
35		A-1-b, GrSa, brn, Moist, Rec. = 1.0 ft, Granite chips and broken rock were within sample.					17-17-21-24 (38)	13.7	40.7	44.9	14.4
40		A-1-b, GrSa, brn, Moist, Rec. = 0.8 ft, Granite chips and broken rock were within sample.					22-20-14-11 (54)	12.9	38.0	52.8	9.2
45		A-1-b, GrSa, brn, Moist, Rec. = 0.7 ft, Granite chips and broken rock were within sample.					14-12-16-15 (28)	12.6	40.2	50.5	9.3
		A-1-b, GrSa, gry-brn, Moist, Rec. = 1.1 ft, Granite chips were within sample.					8-11-18-8 (29)	15.6	38.2	53.8	8.0

ABUTMENT 1
BOT OF PILE CAP
EL 1165.78

DATE: 5/21/12

SCALE: 1"=10'

NOTES:

1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. R values have not been corrected for hammer energy. CE is the hammer energy corrected factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

VTTrans		STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH SECTION SUBSURFACE INFORMATION		BORING LOG		Boring No.: B-101					
		BRIGHTON STP 034-3(25) VT-105 BR-84		Page No.: 2 of 2 Pin No.: 118208 Checked By: CCB							
Boring Crew: PORTER, DAVISON, HOLT		Casing Sampler		Groundwater Observations							
Date Started: 4/05/12 Date Finished: 4/16/12		Type: WB SS	I.D.: 4 in 1.5 in	Date	Depth (ft)	Notes					
VTSPG NAD83: N 841105.36 ft E 1788689.41 ft		Hammer Wt: N.A. 140 lb.	Hammer Fall: N.A. 30 in.	04/16/12	8.5	AM					
Station: 55+50 Offset: 10.00		Hammer/Rod Type: Auto/AWJ	Rig: CME 45C SKID	CE = 1.33							
Ground Elevation: 1174.85 ft											
Depth (ft)	Stroke (")	CLASSIFICATION OF MATERIALS (Description)		Run (log depth)	Comp. (RCB %)	Drill Rate (min/ft)	Blow (6"/ft)	Moisture Content %	Grav %	Sand %	Fine %
55		A-1-b, GrSa, gry-brn, Moist, Rec. = 1.0 ft, Small Granite chips within size.					6-5-8-9 (13)	18.9	32.5	62.6	4.9
60		A-1-b, GrSa, gry-brn, Moist, Rec. = 1.1 ft					6-8-8-18 (17)	17.2	28.9	57.5	13.6
65		A-1-b, Sa, gry-brn, Moist, Rec. = 1.0 ft A-4, Si, brn, Moist, Rec. = 0.6 ft					9-10-21-32 (51)	18.3	17.3	78.6	4.1
70		A-4, Si, gry, Moist, Rec. = 1.3 ft					19-31-35-43 (66)	20.0	0.1	11.8	88.1
75		A-2-4, GrSa, gry, Moist, Rec. = 1.2 ft					22-25-35-37 (60)	11.6	22.3	58.6	19.1
80		Field Note: Cored ahead Field Note: Cobbles					R02.5"				
85		A-2-4, GrSiSa (HF), gry, Moist, Rec. = 0.2 ft					61- R02.5"	7.1	24.7	45.3	30.0
90		Field Note: Advanced casing to 87 feet. Cleaned out casing. 1.8 feet of rock inside bottom of casing. 87.0 ft - 92.0 ft, Light gray, With dark green splotches Diorite, Hard, Unweathered, Very good rock, BXMDC, RMR = 92		1	92	7	Top of Bedrock @ 87.0 ft				
95		92.0 ft - 97.0 ft, Light gray, With dark green splotches Diorite, Hard, Unweathered, Very good rock, BXMDC, Healed near vertical fracture from 95.0-97.0 feet. RMR = 92		2	100	5					
		Hole stopped @ 97.0 ft									

ABUTMENT 1
PILE TIP
EL 1087.85

DATE: 5/21/12

SCALE: 1"=10'

NOTES:

1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. R values have not been corrected for hammer energy. CE is the hammer energy corrected factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

PROJECT NAME: BRIGHTON
PROJECT NUMBER: ER STP 034-3(25)

FILE NAME: s1lb20bbor.dgn
PROJECT LEADER: K. HIGGINS
DESIGNED BY: W. LAMMER
BORING LOG 1

PLOT DATE: 12-SEP-2012
DRAWN BY: J. SALVATORI
CHECKED BY: W. LAMMER
SHEET 13 OF 36

VT Trans		STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH SECTION SUBSURFACE INFORMATION		BORING LOG		Boring No.: B-102		
				BRIGHTON STP 034-3(25) VT-105 BR-84		Page No.: 1 of 2 Pin No.: 118208 Checked By: CCB		
Boring Crew: PORTER, DAVIDSON		Type: WB	Sampler: SS	Groundwater Observations				
Date Started: 4/17/12	Date Finished: 4/20/12	I.D.: 4 in	1.5 in	Date	Depth (ft)	Notes		
VTSPG NAD83: N 841124.26 ft E 1788764.69 ft		Hammer Wt: N.A.	140 lb.	04/20/12	9.5	AM		
Station: 56+25	Offset: -10.00	Hammer Fall: N.A.	30 in.					
Ground Elevation: 1174.26 ft		Hammer/Rod Type: Auto/AWJ						
		Rig: CME 45C SKID	CE = 1.33					
Depth (ft)	Strata (i)	CLASSIFICATION OF MATERIALS (Description)		Blow/ft (N/100)	Moisture Content %	Gravel %	Sand %	Fines %
		Asphalt Pavement, 0.0 ft - 0.5 ft						
		A-1-b, GrSa, brn, Moist, Rec. = 1.0 ft		7-7-8-7 (15)	9.9	35.5	48.3	15.2
		A-1-a, SoGr, brn, Moist, Rec. = 0.9 ft		4-4-8-9 (12)	12.1	53.0	39.2	7.8
		A-1-b, GrSa, brn, Moist, Rec. = 0.6 ft		2-2-3-2 (5)	18.4	30.6	58.6	10.8
		A-1-a, SoGr, brn-gry, Moist, Rec. = 0.8 ft		14-14-15-20 (32)	12.0	52.5	37.5	10.0
		A-2-4, Sa, brn, Moist, Rec. = 1.0 ft		8-8-8-9 (14)	20.6	9.7	76.5	13.8
		A-3, Sa, brn, Moist, Rec. = 0.8 ft		6-6-7-7 (13)	16.9	9.0	81.5	9.5
		A-1-b, GrSa, brn, Moist, Rec. = 0.8 ft		7-16-17-18 (33)	16.7	42.4	53.9	3.7
		A-1-b, GrSa, brn, Moist, Rec. = 0.7 ft		8-7-6-7 (13)	16.4	30.9	61.1	6.0
		Field Note, No Recovery. Trace of sand		8-11-11-11 (22)				
		Visual Description: Broken Granite pieces with silty sand, brn, Moist, Rec. = 0.3 ft, Insufficient sample for testing.		27-25-17-15 (42)	17.7			
		A-3, Sa, brn, Moist, Rec. = 0.7 ft		5-9-13-19 (22)	6.7	0.5	91.3	8.2
Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual. 2. If Values have not been corrected for hammer energy, CE is the hammer energy correction factor. 3. Water level readings have been made of three or more under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.								

ABUTMENT 2
BOT OF PILE CAP
EL 1165.33

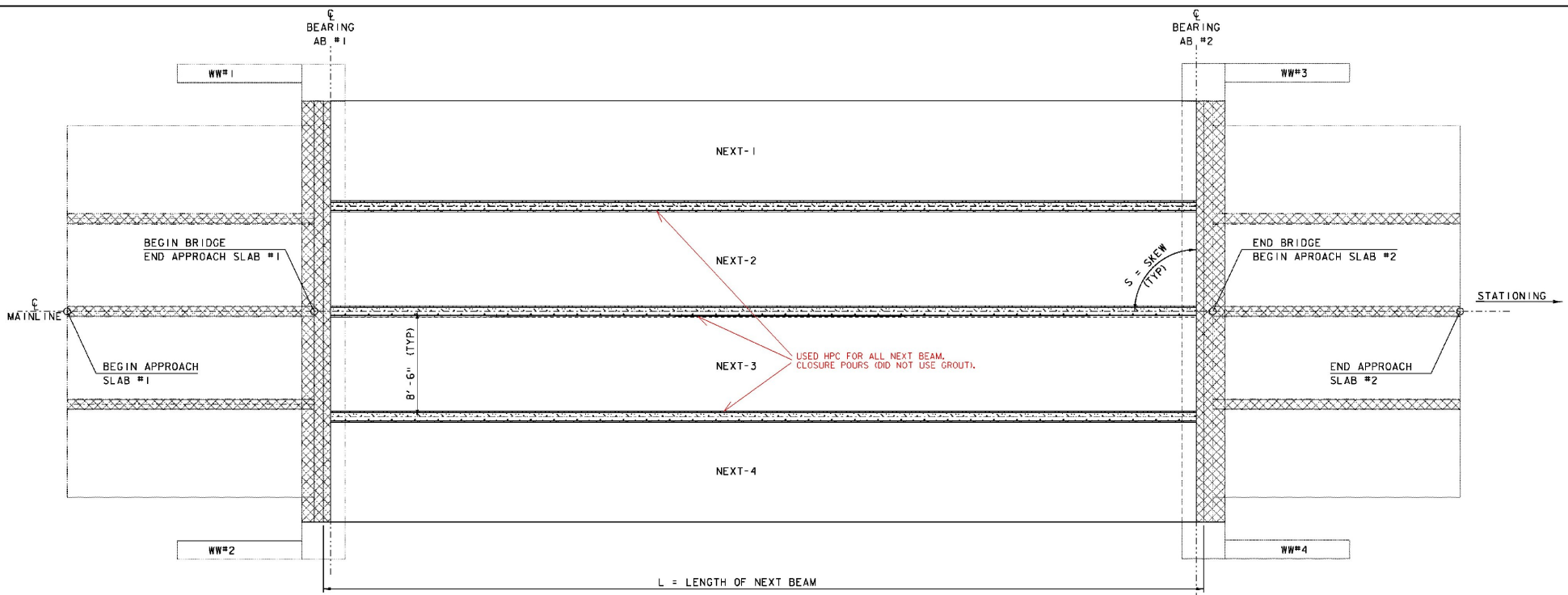
BORING LOG: STP 034-3(25) B-102, 3/20/12

VT Trans		STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH SECTION SUBSURFACE INFORMATION		BORING LOG		Boring No.: B-102		
				BRIGHTON STP 034-3(25) VT-105 BR-84		Page No.: 2 of 2 Pin No.: 118208 Checked By: CCB		
Boring Crew: PORTER, DAVIDSON		Type: WB	Sampler: SS	Groundwater Observations				
Date Started: 4/17/12	Date Finished: 4/20/12	I.D.: 4 in	1.5 in	Date	Depth (ft)	Notes		
VTSPG NAD83: N 841124.26 ft E 1788764.69 ft		Hammer Wt: N.A.	140 lb.	04/20/12	9.5	AM		
Station: 56+25	Offset: -10.00	Hammer Fall: N.A.	30 in.					
Ground Elevation: 1174.26 ft		Hammer/Rod Type: Auto/AWJ						
		Rig: CME 45C SKID	CE = 1.33					
Depth (ft)	Strata (i)	CLASSIFICATION OF MATERIALS (Description)		Blow/ft (N/100)	Moisture Content %	Gravel %	Sand %	Fines %
		A-1-b, Sa, brn, Moist, Rec. = 1.0 ft		9-11-12-12 (23)	22.5	10.5	82.5	7.0
		A-4, Si, brn, Moist, Rec. = 1.6 ft		14-16-18-20 (54)	22.0	0.5	17.3	82.2
		A-1-b, GrSa, brn, Moist, Rec. = 1.5 ft		15-13-27-46 (40)	12.2	29.6	52.7	17.7
		Field Note: Cobbles. Pieces of Granite		(N)				
		A-4, SaSi, gry, Moist, Rec. = 0.5 ft, Lab Note: (HP)		R06.0"	11.9	15.0	39.8	45.2
		Visual Description: Broken Rock with sand, gry, Moist, Rec. = 0.2 ft, Insufficient sample for testing.		R02.5"	7.3			
		Visual Description: Broken Rock, gry, Moist, Rec. = 0.2 ft, Insufficient sample for testing.		R02.5"				
		A-1-b, GrSa, gry, Moist, Rec. = 0.4 ft, Advanced casing to 99 ft.		R05.0"	8.1	38.7	43.6	17.7
		Field Note: Granite Boulder						
Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual. 2. If Values have not been corrected for hammer energy, CE is the hammer energy correction factor. 3. Water level readings have been made of three or more under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.								

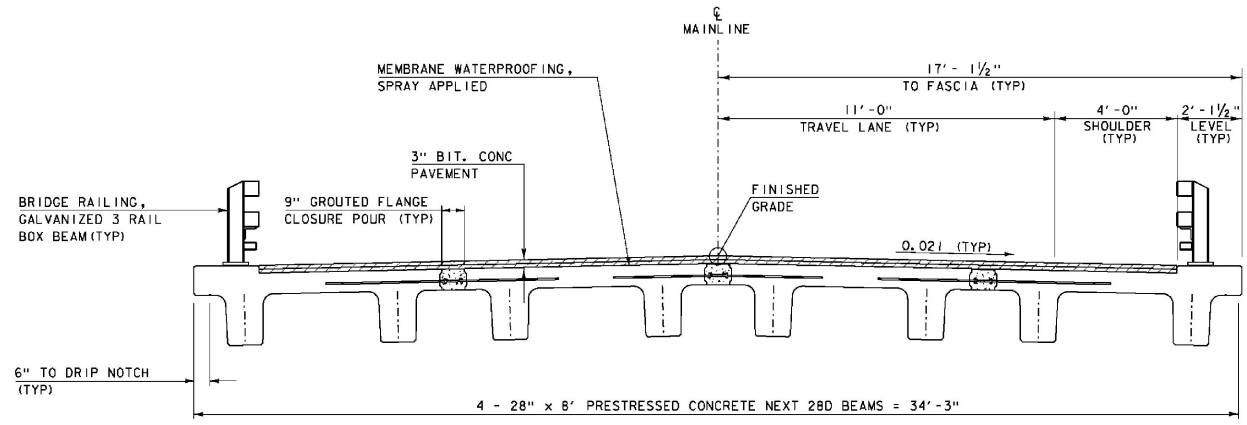
ABUTMENT 2
PILE TIP
EL 1087.33

BORING LOG: STP 034-3(25) B-102, 3/20/12

PROJECT NAME:	BRIGHTON	PLOT DATE:	12-SEP-2012
PROJECT NUMBER:	ER STP 034-3(25)	DRAWN BY:	J. SALVATORI
FILE NAME:	slb208bor.dgn	CHECKED BY:	W. LAMMER
PROJECT LEADER:	K. HIGGINS	SHEET	14 OF 36
DESIGNED BY:	W. LAMMER		
BORING LOG 2			



DECK PLAN
SCALE 1/4" = 1'-0"



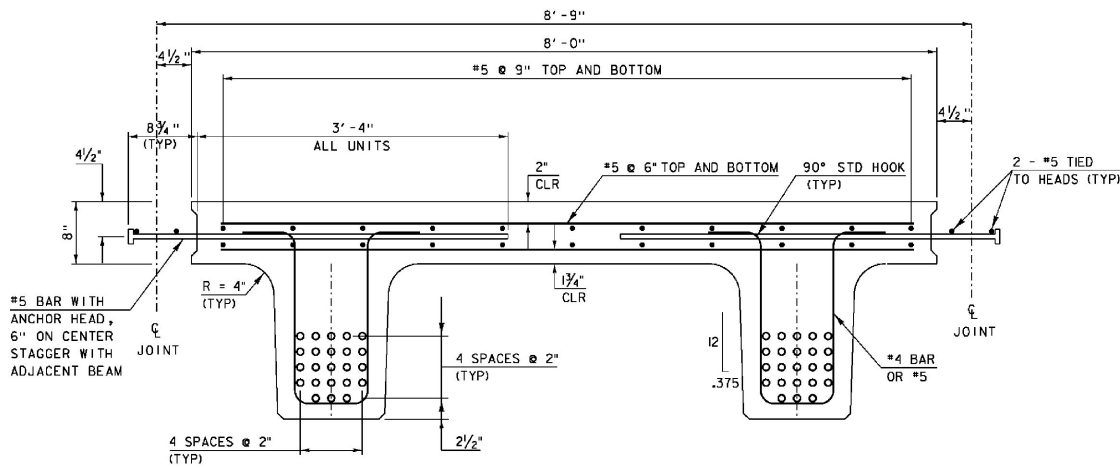
BRIDGE TYPICAL SECTION
SCALE 1/2" = 1'-0"

S	90°
L	71'-0"

LEGEND

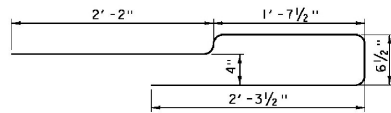
- SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY)
- HPC = SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET)
- GROUTING SHEAR KEYS

PROJECT NAME: BRIGHTON
 PROJECT NUMBER: ER STP 034-3(25)
 FILE NAME: s1b208sup.dgn
 PROJECT LEADER: K. HIGGINS
 DESIGNED BY: W. LAMMER
 FRAMING PLAN
 PLOT DATE: 12-SEP-2012
 DRAWN BY: J. SALVATORI
 CHECKED BY: W. LAMMER
 SHEET 15 OF 36



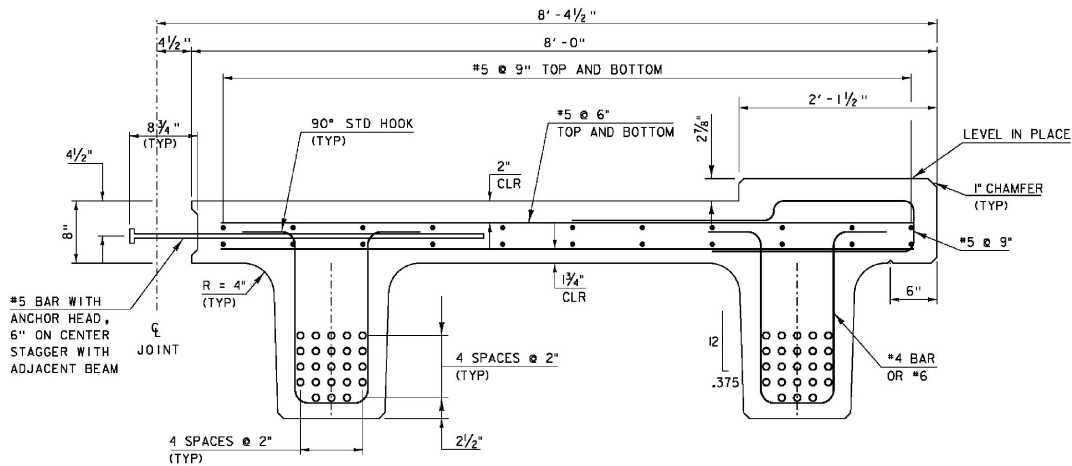
UNITS 2 & 3

SCALE: 1 1/2" = 1'-0"



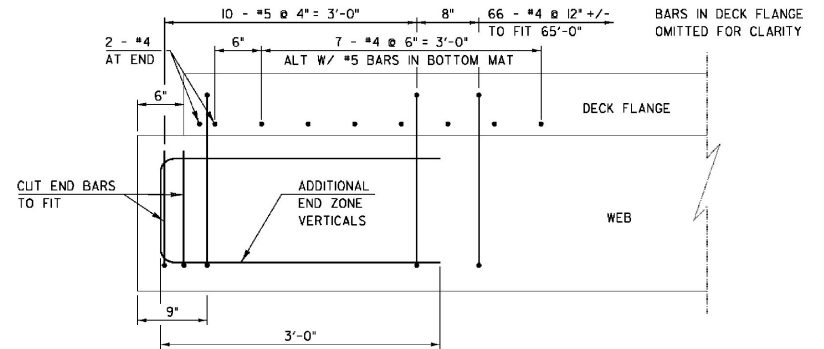
CURB BAR

SCALE: 1 1/2" = 1'-0"



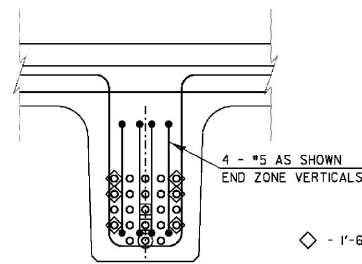
UNITS 1 & 4

SCALE: 1 1/2" = 1'-0"



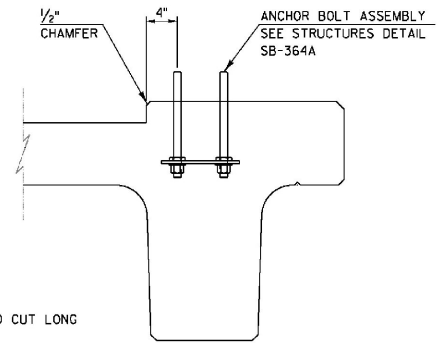
**ADDITIONAL END BEAM REINFORCING
LONGITUDINAL SECTION**

SCALE: 1 1/2" = 1'-0"



BEAM SECTION

SCALE: 1 1/2" = 1'-0"



END SECTION

SCALE: 1 1/2" = 1'-0"

- ◇ - 1'-6" STRAND CUT LONG
- - DEBONDED 4'
- - DEBONDED 6'

L_{NEXT} = 71 FT.
SKEW = 90°

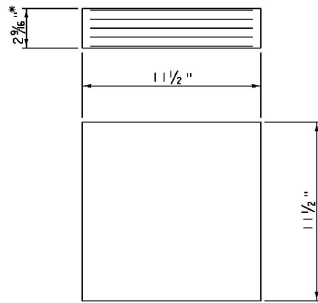
NOTES:

1. LEAVE SIX STRANDS 1'-6" LONG AS INDICATED. TIE STRANDS TO HORIZONTAL #5 REINFORCING IN DECK CLOSURE POUR.

△ REVISED 10-12-12

- REMOVED NOTE 2

PROJECT NAME:	BRIGHTON	FILE NAME:	silb208sup.dgn	PLOT DATE:	12-OCT-2012
PROJECT NUMBER:	ER STP 034-3(25)	PROJECT LEADER:	K. HIGGINS	DRAWN BY:	J. SALVATORI
		DESIGNED BY:	W. LAMMER	CHECKED BY:	W. LAMMER
		NEXT BEAM TYPICAL SECTIONS		SHEET	16 OF 36



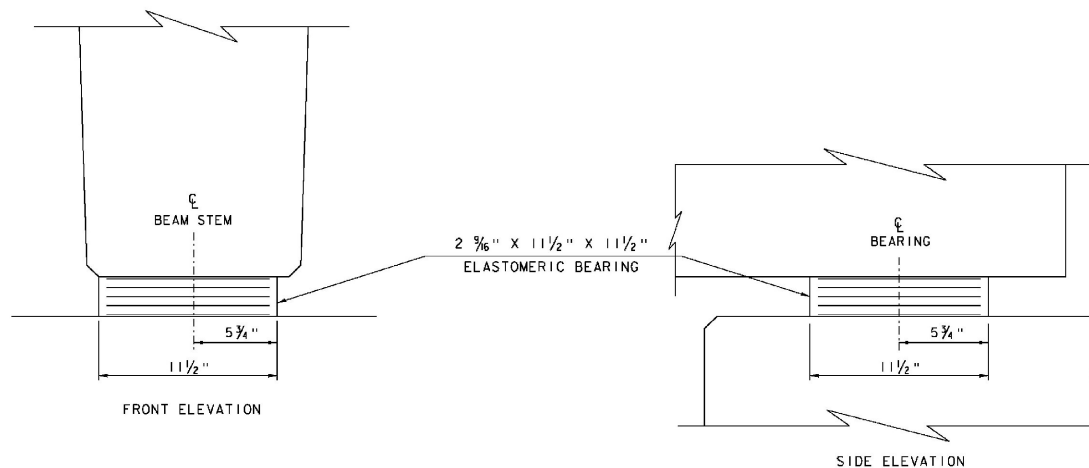
ELASTOMERIC BEARING DETAIL

SCALE 3" = 1'-0"

- * 2 - 1/8" EXTERIOR LAYERS OF ELASTOMER
- 4 - 1/2" INTERIOR LAYERS OF ELASTOMER
- 5- 1/16" STEEL REINFORCING PLATES

BEARING NOTES

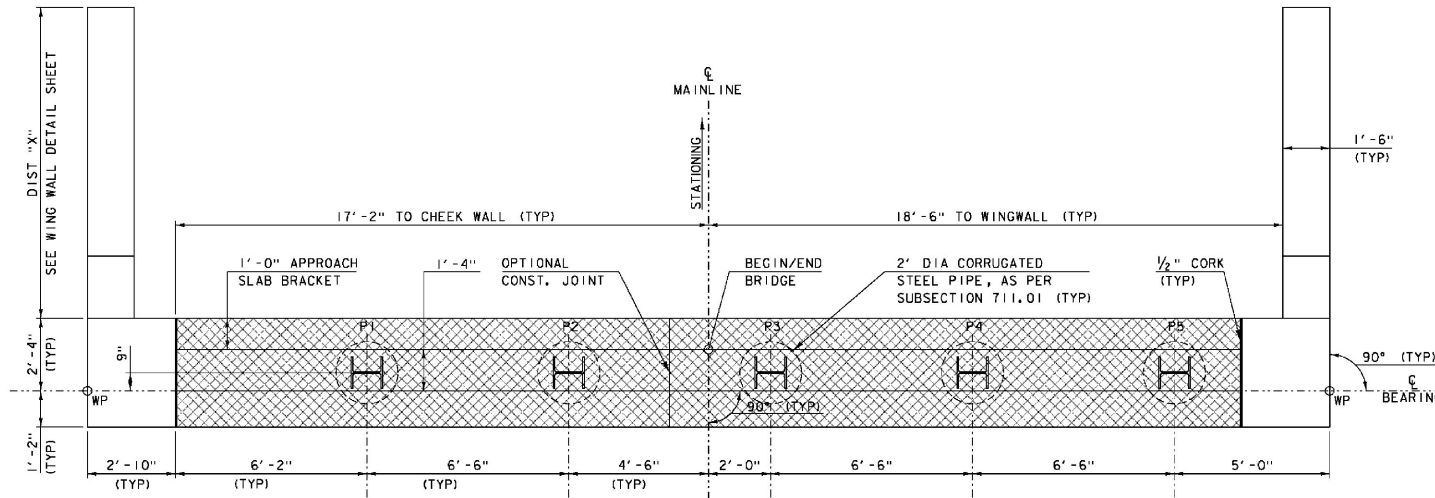
1. BEARINGS SHALL CONFORM TO THE APPLICABLE SUBSECTIONS OF SECTIONS 531 AND 731.
2. ALL REINFORCEMENT BETWEEN LAYERS OF ELASTOMER SHALL BE STEEL MEETING THE REQUIREMENTS OF SUBSECTION 714.02. ALL INTERNAL STEEL PLATES SHALL BE SAND BLASTED AND FREE OF COATINGS, RUST AND MILL SCALE. THE PLATES SHALL BE FREE OF SHARP EDGES AND BURRS.
3. STEEL REINFORCED ELASTOMERIC BEARINGS SHALL HAVE A MINIMUM 1/8" EDGE SEAL OF ELASTOMER INTEGRAL WITH BEARING OVER ALL INTERNAL PLATES.
4. THE ELASTOMER WAS DESIGNED WITH A SHEAR MODULUS OF 100 PSI +/- 15%
5. THE CONCRETE UNDER THE BEARING DEVICE SHALL BE LEVEL.
6. THE CONTRACTOR IS ADVISED TO HAVE A MINIMUM OF 16 - 1/4"x12 1/2"x12 1/2" GALVANIZED STEEL SHIMS AVAILABLE FOR USE FOR ELEVATION ADJUSTMENTS UPON THE SETTING OF THE SUPERSTRUCTURE UNITS. THE SHIMS SHALL BE FABRICATED ACCORDING TO SECTION 531 AND SHALL BE INCLUDED UNDER ITEM 531.17, 'BEARING DEVICE ASSEMBLY, STEEL REINFORCED ELASTOMERIC PAD'.



ELASTOMERIC BEARING DETAILS

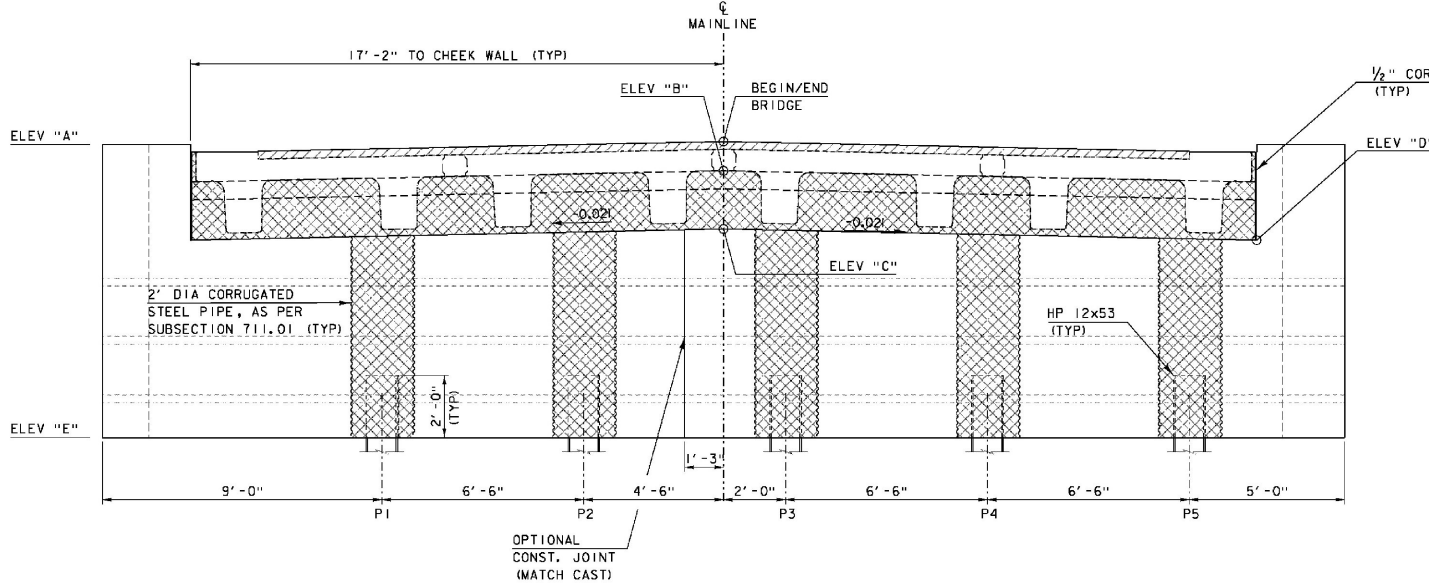
SCALE 3" = 1'-0"

PROJECT NAME: BRIGHTON	PLOT DATE: 12-SEP-2012
PROJECT NUMBER: ER STP 034-3(25)	DRAWN BY: J. SALVATORI
FILE NAME: s11b208brg.dgn	CHECKED BY: W. LAMMER
PROJECT LEADER: K. HIGGINS	SHEET 17 OF 36
DESIGNED BY: W. LAMMER	
BEARING DETAILS	



PCU I PLAN

SCALE 1/2" = 1'-0"

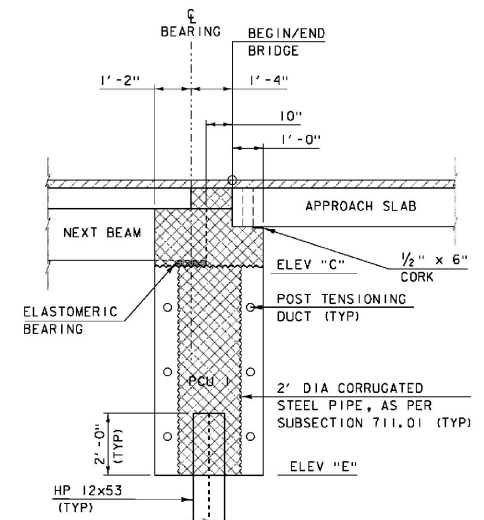


PCU I ELEVATION

SCALE 1/2" = 1'-0"

PCU I ELEVATIONS

	AB1	AB2
ELEV "A"	1175.25	1174.75
ELEV "B"	1174.36	1173.91
ELEV "C"	1172.49	1172.04
ELEV "D"	1172.13	1171.68
ELEV "E"	1165.78	1165.33



PCU I TYPICAL

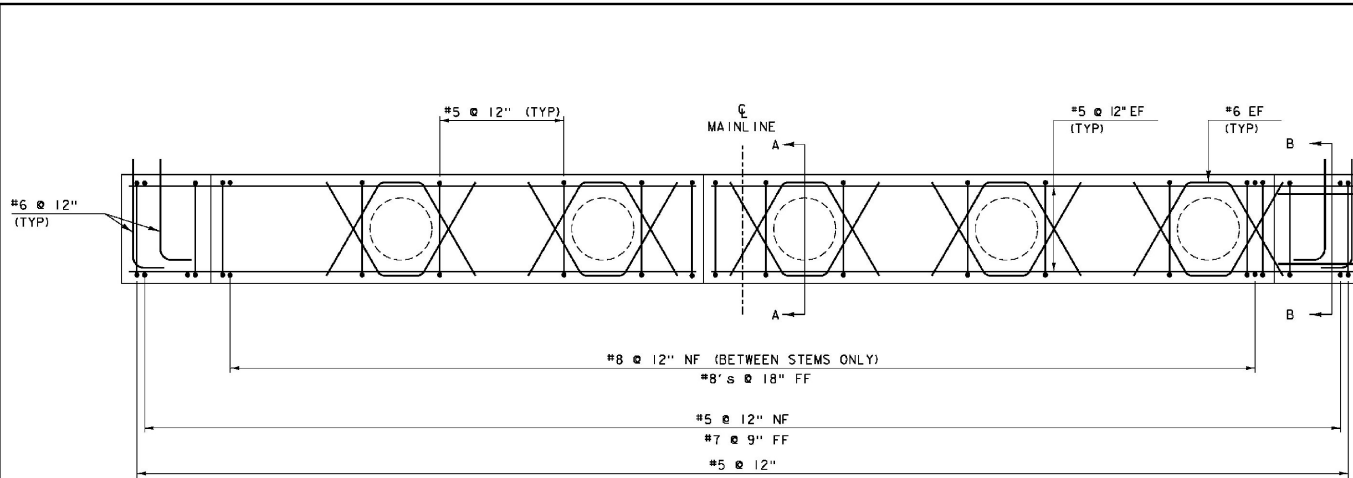
SCALE 1/2" = 1'-0"

NOTE: POST-TENSIONING AND ASSOCIATED ITEMS ONLY REQUIRED IF PILE CAP IS CONSTRUCTED OF MORE THAN ONE UNIT.

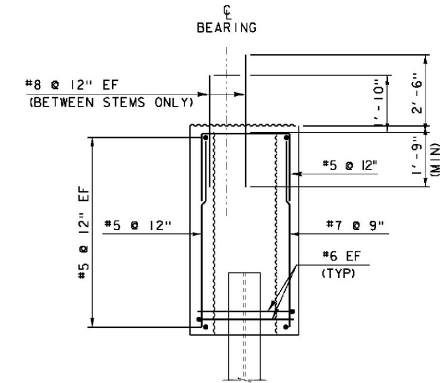
PROJECT NAME: BRIGHTON
PROJECT NUMBER: ER STP 034-3(25)

FILE NAME: s1lb208sub.dgn
PROJECT LEADER: K. HIGGINS
DESIGNED BY: W. LAMMER
ABUTMENT PLAN

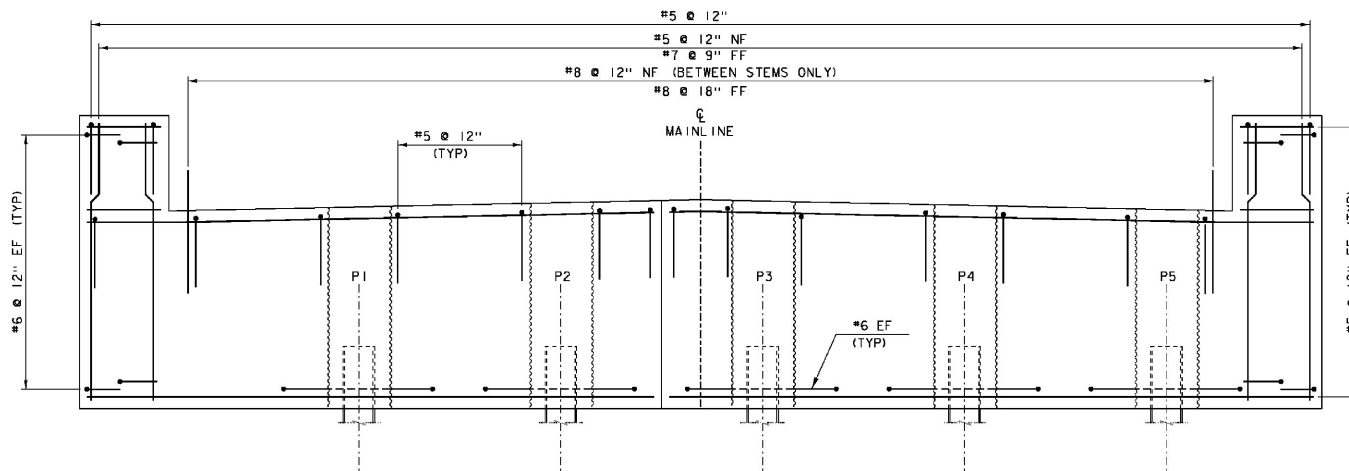
PLOT DATE: 12-SEP-2012
DRAWN BY: J. SALVATORI
CHECKED BY: W. LAMMER
SHEET 19 OF 36



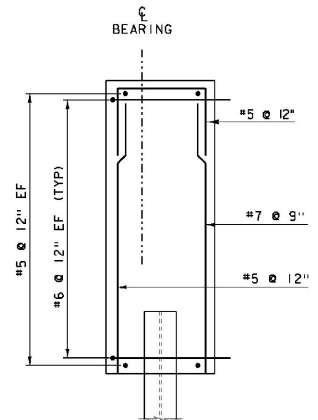
PCU I REINFORCING PLAN
SCALE 1/2" = 1'-0"



SECTION A-A
SCALE 1/2" = 1'-0"



PCU I REINFORCING ELEVATION
SCALE 1/2" = 1'-0"

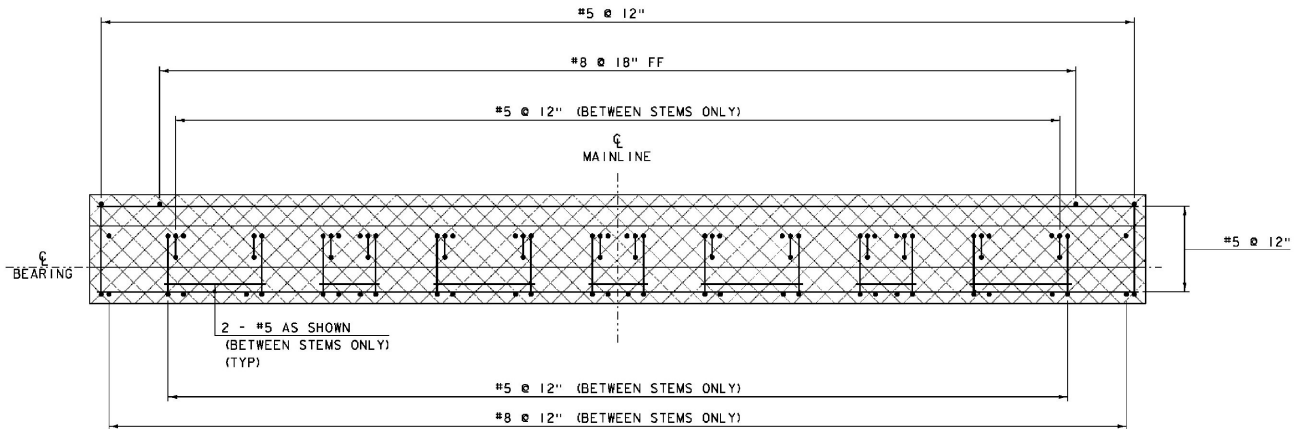


SECTION B-B
SCALE 1/2" = 1'-0"

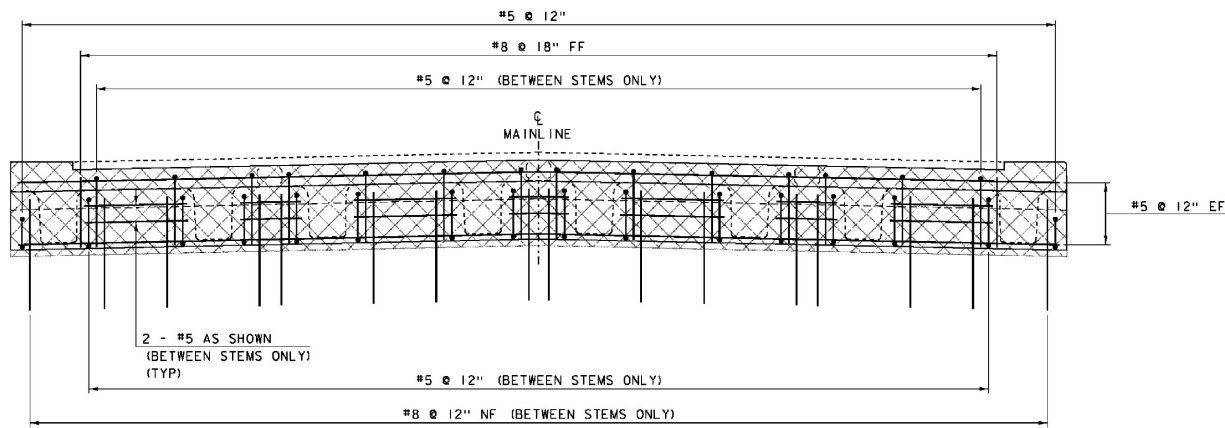
NOTE:

- NF = NEAR FACE
- FF = FAR FACE
- EF = EACH FACE
- ▲ = CUT TO FIT IN FIELD
- 3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
- 2' - 2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.

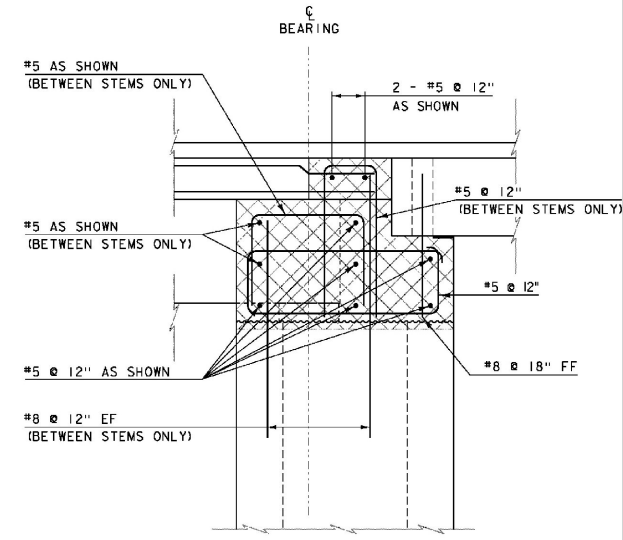
PROJECT NAME:	BRIGHTON	PLOT DATE:	12-SEP-2012
PROJECT NUMBER:	ER STP 034-3(25)	DRAWN BY:	J. SALVATORI
FILE NAME:	slb208sub.dgn	CHECKED BY:	W. LAMMER
PROJECT LEADER:	K. HIGGINS	ABUTMENT REINFORCING	SHEET 20 OF 36
DESIGNED BY:	W. LAMMER		



DECK CLOSURE POUR
REINFORCING PLAN
SCALE 1/2" = 1'-0"



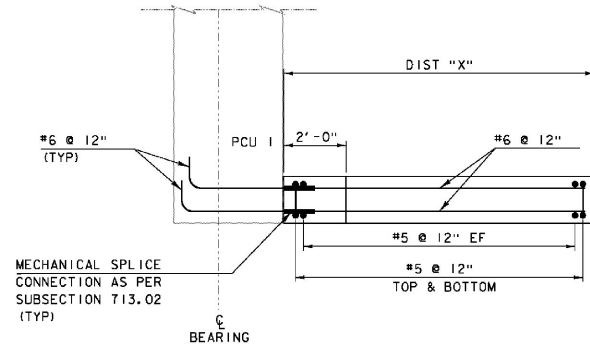
DECK CLOSURE POUR
REINFORCING ELEVATION
SCALE 1/2" = 1'-0"



REINFORCING TYPICAL
SCALE 1" = 1'-0"

NOTE:
 NF = NEAR FACE
 FF = FAR FACE
 EF = EACH FACE
 ▲ = CUT TO FIT IN FIELD
 3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
 2' - 2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.

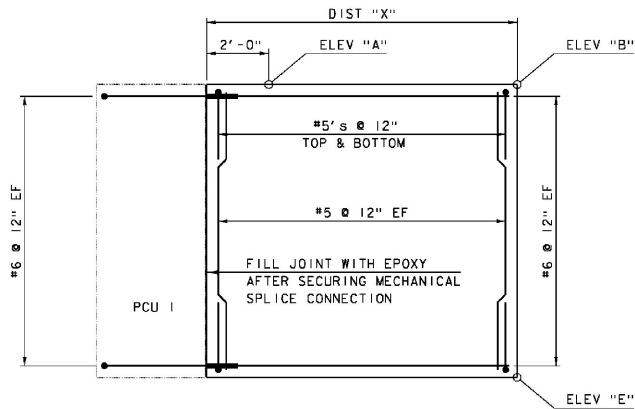
PROJECT NAME:	BRIGHTON	FILE NAME:	s1lb208sub.dgn	PLOT DATE:	12-SEP-2012
PROJECT NUMBER:	ER STP 034-3(25)	PROJECT LEADER:	K. HIGGINS	DRAWN BY:	J. SALVATORI
		DESIGNED BY:	W. LAMMER	CHECKED BY:	W. LAMMER
		DECK CLOSURE POUR DETAILS			SHEET 21 OF 36



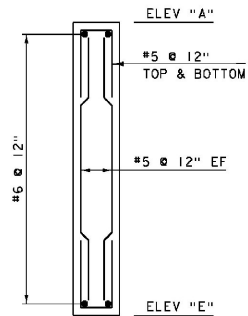
PCU 2 PLAN
SCALE 1" = 1'-0"

PCU 2 ELEVATIONS

	WW1	WW2	WW3	WW4
ELEV "A"	1175.25	1175.25	1174.75	1174.75
ELEV "B"	1175.25	1175.25	1174.75	1174.75
ELEV "E"	1165.78	1165.78	1165.33	1165.33
DIST "X"	10'-0"	10'-0"	10'-0"	10'-0"



PCU 2 ELEVATION
SCALE 1/2" = 1'-0"



PCU 2 TYPICAL
SCALE 1/2" = 1'-0"

NOTE:

- NF = NEAR FACE
- FF = FAR FACE
- EF = EACH FACE
- ▲ = CUT TO FIT IN FIELD
- 3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
- 2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.

NOTES:

1. EPOXY SHALL BE INCIDENTAL TO THE PRECAST CONCRETE STRUCTURE.

PROJECT NAME: BRIGHTON	PLOT DATE: 12-SEP-2012
PROJECT NUMBER: ER STP 034-3(25)	DRAWN BY: J. SALVATORI
FILE NAME: s11b208sub.dgn	CHECKED BY: W. LAMMER
PROJECT LEADER: K. HIGGINS	SHEET 22 OF 36
DESIGNED BY: W. LAMMER	WINGWALL DETAILS

V	T	1	0	5		
C	L	O	S	E		

PORTABLE CHANGABLE SIGN - PHASE 1

W	E	S	T		O	F
I	S	L	A	N	D	
P	O	N	D			

PORTABLE CHANGABLE SIGN - PHASE 2

*	M	M	M		D	D	-
*	M	M	M		D	D	

PORTABLE CHANGABLE SIGN - PHASE 3

* M=MONTH
D=DAY

(S)

NOTES:

1. THE PORTABLE CHANGABLE MESSAGE SIGNS SHALL BE FULLY OPERATIONAL A MINIMUM OF TWO WEEKS PRIOR TO THE CLOSURE OF VT 105.
2. DURING ACTUAL CLOSURE, ELIMINATE PHASE 3 ONLY.
3. DETOUR SIGNS SHALL BE LOCATED ADJACENT TO EXISTING INTERSECTION ROUTE MARKER ASSEMBLIES WHERE APPLICABLE.
4. DETOUR SIGNING IS THE RESPONSIBILITY OF THE CONTRACTOR. PAYMENT FOR ALL TEMPORARY TRAFFIC CONTROL DEVICES FOR IMPLEMENTING THE DETOUR, INCLUDING BUT NOT LIMITED TO SIGNS, BARRICADES AND MESSAGE BOARDS, WILL BE INCLUDED IN THE UNIT PRICE BID FOR CONTRACT ITEM 900.645 SPECIAL PROVISION (TRAFFIC CONTROL, ALL-INCLUSIVE).
5. THIS DETOUR PLAN IS AN OUTLINE ONLY AND THE CONTRACTOR SHALL SUBMIT A DETAILED PLAN OF EACH INTERSECTION SHOWING DETOUR SIGN LOCATIONS IN RELATION TO EXISTING SIGNS.

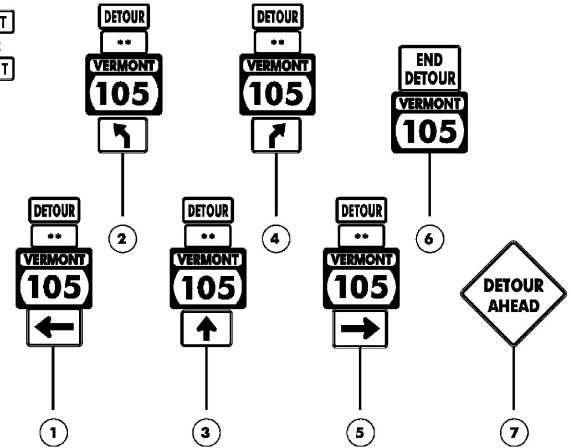


SIGN MOUNTING ON TYPE III BARRICADE (MODIFIED)
(A)



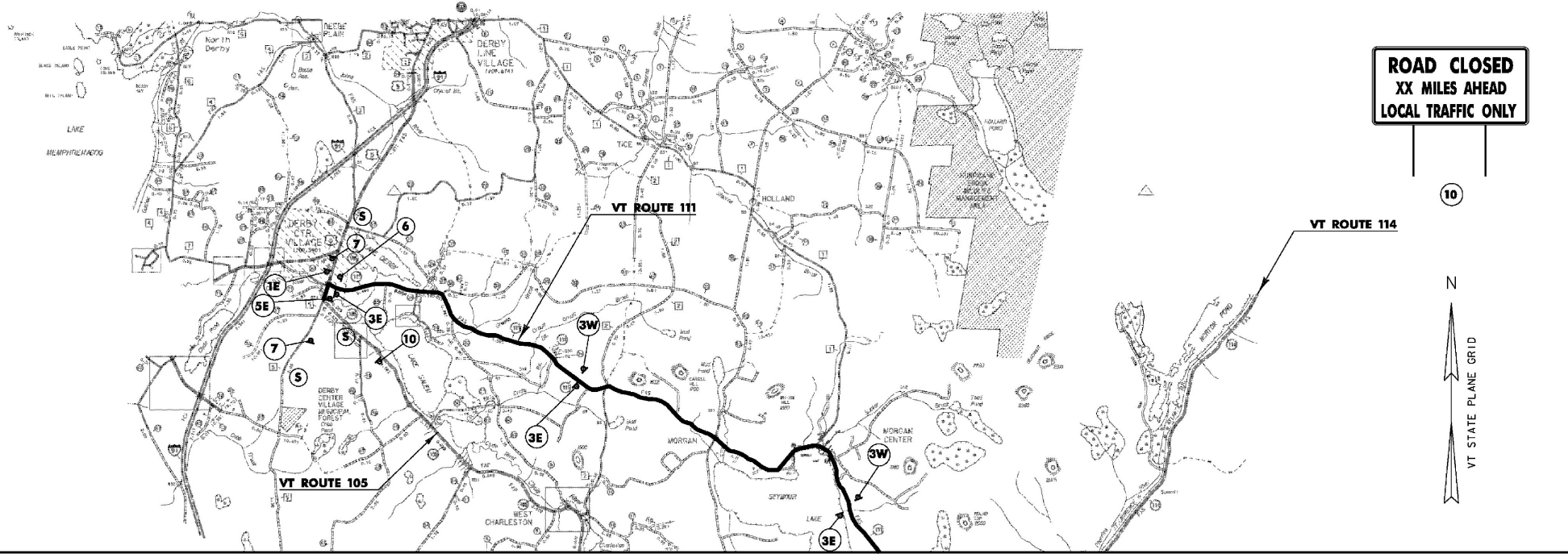
SIGN MOUNTING ON TYPE III BARRICADE (MODIFIED)
(B)

**E= EAST
OR
W= WEST



ROAD CLOSED
XX MILES AHEAD
LOCAL TRAFFIC ONLY

(10)

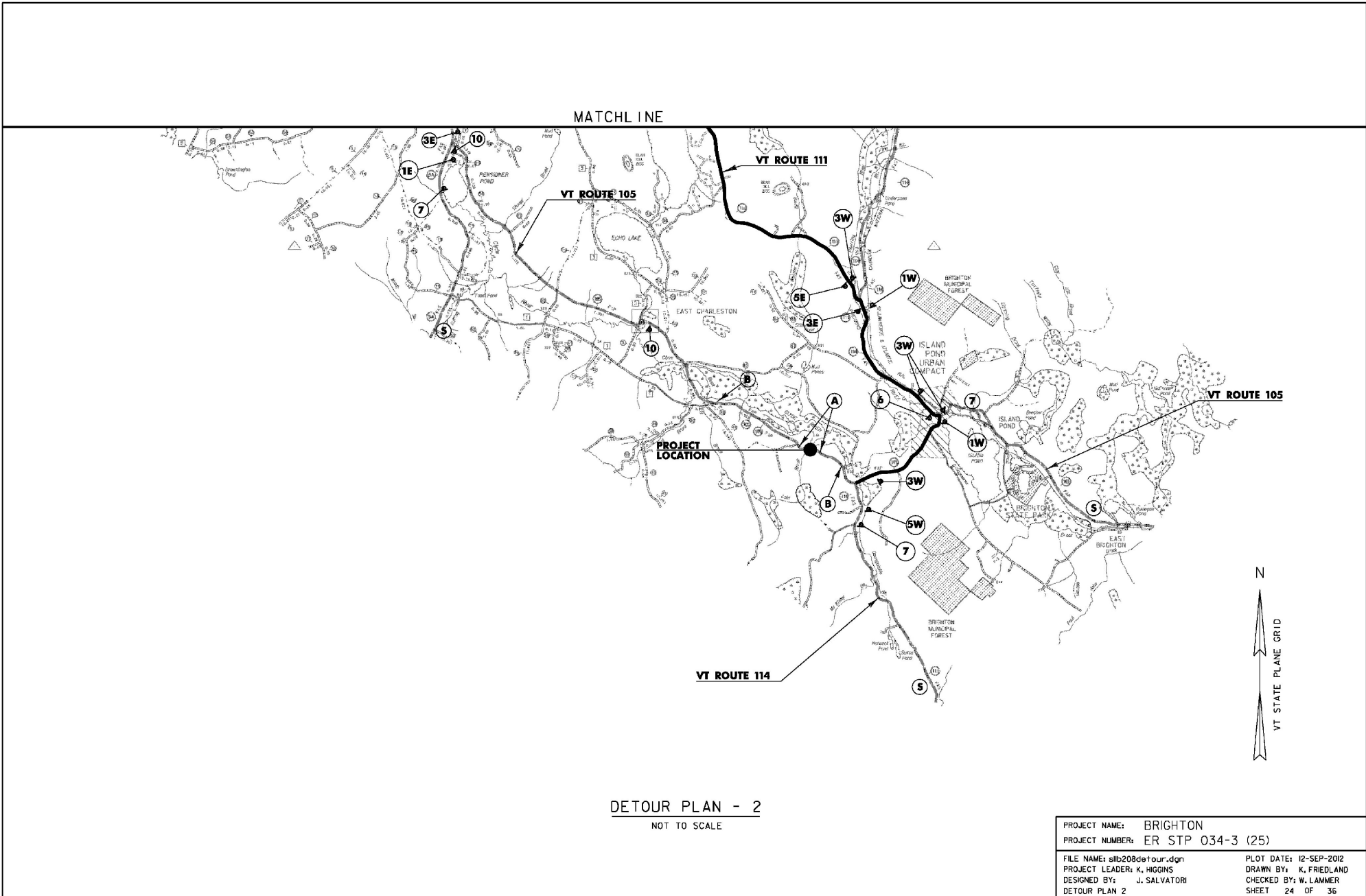


MATCH LINE

DETOUR PLAN - I

NOT TO SCALE

PROJECT NAME:	BRIGHTON	PLOT DATE:	12-SEP-2012
PROJECT NUMBER:	ER STP 034-3 (25)	DRAWN BY:	K. FRIEDLAND
FILE NAME:	s1b20bde1our.dgn	DESIGNED BY:	J. SALVATORI
		CHECKED BY:	W. LAMMER
		DETOUR PLAN I	SHEET 23 OF 36



DETOUR PLAN - 2
NOT TO SCALE

PROJECT NAME:	BRIGHTON	PLOT DATE:	12-SEP-2012
PROJECT NUMBER:	ER STP 034-3 (25)	DRAWN BY:	K. FRIEDLAND
FILE NAME:	s1lb208de1our.dgn	DESIGNED BY:	J. SALVATORI
		CHECKED BY:	W. LAMMER
		DETOUR PLAN 2	SHEET 24 OF 36

EPSC NARRATIVE

1.1 PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE REPLACEMENT OF BRIDGE #4 AND RELATED APPROACH AND CHANNEL WORK.

THE BRIDGE IS APPROXIMATELY 1.669 MILES SOUTH EASTERLY OF THE CHARLESTON/BRIGHTON TOWN LINE ALONG VT 105.

NOTE: AREA OF DISTURBANCE INCLUDES LIMITS OF EARTH DISTURBANCE WITHIN THE PROJECT AREA, AS WELL AS WASTE, BORROW AND STAGING AREAS, AND OTHER EARTH DISTURBING ACTIVITIES WITHIN OR DIRECTLY ADJACENT TO THE PROJECT LIMITS AS SHOWN ON THE ATTACHED EPSC PLAN.

TOTAL AREA OF DISTURBANCE AS SHOWN ON THE ATTACHED EPSC PLAN IS APPROXIMATELY 0.39 ACRES.

IT IS ANTICIPATED THAT THIS PROJECT WILL LAST ONE CONSTRUCTION SEASON.

1.2 SITE INVENTORY

1.2.1 TOPOGRAPHY

THE TOPOGRAPHY OF THE PROJECT AREA IS RELATIVELY FLAT, WITH THE ROADWAY RAISED SLIGHTLY FROM THE SURROUNDING TERRAIN.

1.2.2 DRAINAGE, WATERWAYS, BODIES OF WATER, AND PROXIMITY TO NATURAL OR MAN-MADE WATER FEATURES

THE COLD RIVER IS THE ONLY WATER SOURCE ON THE PROJECT SITE. THE RIVER IS CLASSIFIED AS SINUOUS, ALLUVIAL, WITH A BEND COMING IN TO THE BRIDGE. THE STREAM BED CONSISTS OF SAND, GRAVEL AND COBBLES. THERE IS AN EXISTING CULVERT AT STATION 57+00 THAT WILL NOT BE IMPACTED AS PART OF THIS PROJECT.

1.2.3 VEGETATION

THE VEGETATION IN THE PROJECT AREA CONSISTS MOSTLY FORESTED LAND COVER. THE IMPACT TO VEGETATION WILL BE LIMITED TO THAT WHICH IS DIRECTLY AFFECTED BY REPLACEMENT OF THE EXISTING CULVERT. UPON PROJECT COMPLETION, THE CHANNEL WILL BE ARMORED WITH STONE FILL TYPE III AS SPECIFIED ON THE PLANS. DISTURBED VEGETATION WILL BE REESTABLISHED WITH STANDARD SEED AND MULCH PRACTICES.

1.2.4 SOILS

ALL SOIL DATA CAME FROM THE U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE FOR THE COUNTY OF ESSEX, VERMONT.

SOILS ON THE PROJECT SITE ARE:

3A – CHARLES SILTY LOAM, 0% TO 2% SLOPES, "K FACTOR" = 0.32. THE SOIL IS CONSIDERED FREQUENTLY FLOODED.

6B – ADAMS LOAMY FINE SAND, 3% TO 8% SLOPES, "K FACTOR" = 0.17

NOTE: K-VALUES GENERALLY INDICATE THE FOLLOWING:
0.0-0.23 = LOW EROSION POTENTIAL
0.24-0.38 = MODERATE EROSION POTENTIAL
0.37 AND HIGHER = HIGH EROSION POTENTIAL

1.2.5 SENSITIVE RESOURCE AREAS

CRITICAL HABITATS: NO
HISTORICAL OR ARCHEOLOGICAL AREAS: NO
PRIME AGRICULTURAL LAND: NO
THREATENED AND ENDANGERED SPECIES: NO
WATER RESOURCE: COLD RIVER
WETLANDS: NO

1.3 RISK EVALUATION

THIS PROJECT DOES NOT FALL UNDER THE JURISDICTION OF GENERAL PERMIT 3-9029 FOR STORMWATER RUNOFF FROM CONSTRUCTION SITES. SHOULD CHANGES PRIOR TO OR DURING CONSTRUCTION RESULT IN ONE OR MORE ACRES OF EARTH DISTURBANCE OR SHOULD THE PROJECT BECOME PART OF A LARGER PLAN OF DEVELOPMENT, THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY ADDITIONAL PERMITTING.

1.4 EROSION PREVENTION AND SEDIMENT CONTROL

THE EROSION CONTROL PLANS ARE MEANT AS A GUIDELINE FOR PREVENTING EROSION AND CONTROLLING SEDIMENT TRANSPORT. THE PRINCIPLES OUTLINED IN THIS NARRATIVE CONSIST OF APPLYING MEASURES THROUGHOUT CONSTRUCTION OF THE PROJECT IN ORDER TO MINIMIZE SEDIMENT TRANSPORT TO THE RECEIVING WATERS. THE MEASURES INCLUDE STABILIZATION AND STRUCTURAL PRACTICES, STORM WATER CONTROLS AND OTHER POLLUTION PREVENTION PRACTICES. THEY HAVE BEEN PROPOSED BY THE DESIGNER AS A BASIS FOR PROTECTING RESOURCES AND WILL NEED TO BE BUILT UPON BASED ON THE SPECIFIC MEANS AND METHODS OF THE CONTRACTOR. REFER TO THE LOW RISK SITE HANDBOOK AND APPROPRIATE DETAIL SHEETS FOR SPECIFIC GUIDANCE AND CONSTRUCTION DETAILING.

ALL MEASURES SHALL BE REGULARLY MAINTAINED AND SHALL BE CHECKED FOR SEDIMENT BUILD-UP. SEDIMENT SHALL BE DISPOSED OF AT AN APPROVED SITE WHERE IT WILL NOT BE SUBJECT TO EROSION.

1.4.1 MARK SITE BOUNDARIES

SITE BOUNDARIES AND AREAS CONSTRUCTION EQUIPMENT CAN ACCESS SHALL BE DELINEATED.

PROJECT DEMARCATION FENCING (PDF) SHALL BE USED TO PHYSICALLY MARK SITE BOUNDARIES AS SHOWN ON THE PLANS.

1.4.2 LIMIT DISTURBANCE AREA

PREVENTING INITIAL SOIL EROSION BY MINIMIZING THE EXPOSED AREA IS MUCH MORE EFFECTIVE THAN TREATING ERODED SEDIMENT. EARTH DISTURBANCE CAN BE MINIMIZED THROUGH CONSTRUCTION PHASING BY ONLY OPENING UP EARTH AS NECESSARY. THIS CAN LIMIT THE AREA THAT WILL BE DISTURBED AND EXPOSED TO EROSION. EMPLOY TEMPORARY CONSTRUCTION STABILIZATION PRACTICES IN INCREMENTAL STAGES AS PHASES CHANGE. FOR PROJECTS WHICH FALL UNDER THE CONSTRUCTION GENERAL PERMIT, ONLY THE ACREAGE LISTED ON THE PERMIT AUTHORIZATION MAY BE EXPOSED AT ANY GIVEN TIME.

MAINTAINING VEGETATED BUFFERS ALONG STREAM BANKS, WETLANDS OR OTHER SENSITIVE AREAS IS A CRUCIAL EROSION AND SEDIMENT CONTROL MEASURE THAT SHOULD BE ESTABLISHED WHEREVER POSSIBLE.

1.4.3 SITE ENTRANCE/EXIT STABILIZATION

TRACKING OF SEDIMENT ONTO PUBLIC HIGHWAYS SHALL BE MINIMIZED TO REDUCE THE POTENTIAL FOR RUNOFF ENTERING RECEIVING WATERS. INSTALLATION SHALL COINCIDE WITH THE CONTRACTORS PROGRESS SCHEDULE.

STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND ANYWHERE EQUIPMENT WILL BE GOING FROM AREAS OF EXPOSED SOILS TO PAVED SURFACES.

1.4.4 INSTALL SEDIMENT BARRIERS

SEDIMENT BARRIERS SHALL BE UTILIZED TO INTERCEPT RUNOFF AND ALLOW SUSPENDED SEDIMENT TO SETTLE OUT. THEY SHALL BE INSTALLED PRIOR TO ANY UP SLOPE WORK.

SILT FENCE WILL BE INSTALLED AS PROPOSED ON THE EPSC PLAN.

FILTER CURTAIN WILL BE INSTALLED AS PROPOSED ON THE EPSC PLAN.

1.4.5 DIVERT UPLAND RUNOFF

DIVERSIONARY MEASURES SHALL BE USED TO INTERCEPT RUNOFF FROM ABOVE THE CONSTRUCTION AND DIRECT IT AROUND THE DISTURBED AREA SO THAT CLEAN WATER DOES NOT BECOME MUDDIED WHILE TRAVELING OVER EXPOSED SOILS ON THE CONSTRUCTION SITE.

THE PROJECT AREA IS RELATIVELY FLAT. THEREFORE IT IS NOT ANTICIPATED THAT DIVERSION MEASURES WILL BE NECESSARY.

1.4.6 SLOW DOWN CHANNELIZED RUNOFF

CHECK STRUCTURES SHALL BE UTILIZED TO REDUCE THE VELOCITY, AND THUS THE EROSION POTENTIAL, OF CONCENTRATED FLOW IN CHANNELS.

IT IS NOT ANTICIPATED THAT STONE CHECK DAMS WILL BE NECESSARY.

1.4.7 CONSTRUCT PERMANENT CONTROLS

PERMANENT STORMWATER TREATMENT DEVICES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH PERMIT CONDITIONS.

THERE ARE NO PERMANENT STORMWATER TREATMENT DEVICES ANTICIPATED ON THIS PROJECT.

1.4.8 STABILIZE EXPOSED SOILS DURING CONSTRUCTION

ALL AREAS OF DISTURBANCE MUST HAVE TEMPORARY STABILIZATION IN PLACE WITHIN 48 HOURS OF DISTURBANCE OR IN ACCORDANCE WITH THE CONSTRUCTION GENERAL PERMIT 3-9029 AUTHORIZATION.

SURFACE ROUGHENING OF ALL EXPOSED SLOPES, COMBINED WITH TEMPORARY MULCHING, SHALL BE UTILIZED ON A REGULAR BASIS.

BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED TO STABILIZE ALL SLOPES STEEPER THAN 1:3.

THE FORECAST OF RAINFALL EVENTS SHALL TRIGGER IMMEDIATE PROTECTION OF EXPOSED SOILS.

1.4.9 WINTER STABILIZATION

VARIOUS MEASURES SPECIFIC TO WINTER MAY BE NECESSARY SHOULD THE PROJECT EXTEND INTO WINTER (OCTOBER 15 THROUGH APRIL 15). REFER TO THE LOW RISK SITE HANDBOOK FOR GUIDANCE.

1.4.10 STABILIZE SOIL AT FINAL GRADE

EXPOSED SOIL MUST BE STABILIZED WITHIN 48 HOURS OF REACHING FINAL GRADE.

SEED, MULCH, FERTILIZER AND LIME SHALL BE USED TO ESTABLISH PERMANENT VEGETATION FOR SLOPES STEEPER THAN 1:3. BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED INSTEAD OF MULCH.

1.4.11 DE-WATERING ACTIVITIES

DISCHARGE FROM DEWATERING ACTIVITIES THAT FLOWS OFF OF THE CONSTRUCTION SITE MUST NOT CAUSE OR CONTRIBUTE TO A VIOLATION OF THE VERMONT WATER QUALITY STANDARDS.

IT IS NOT ANTICIPATED THAT DEWATERING WILL BE NECESSARY.

1.4.12 INSPECT YOUR SITE

INSPECT THE PROJECT SITE BASED ON SPECIAL PROVISION REQUIREMENTS OR CONSTRUCTION GENERAL PERMIT AUTHORIZATION STIPULATIONS.

1.5 SEQUENCE AND STAGING

THIS SECTION WILL BE DEVELOPED BY THE CONTRACTOR USING THE GUIDANCE OUTLINED IN THE VTRANS EPSC PLAN CONTRACTOR CHECKLIST.

1.5.1 CONSTRUCTION SEQUENCE

1.5.2 OFF-SITE ACTIVITIES

IN ADDITION TO THE CONTRACTOR CHECKLIST ANY ACTIVITIES OUTSIDE THE CONSTRUCTION LIMITS SHALL FOLLOW SUBSECTIONS 105.25- 105.29.

PROJECT NAME:	BRIGHTON	FILE NAME:	slb208epsc_nar.dgn	PLOT DATE:	12-SEP-2012
PROJECT NUMBER:	ER STP 034-3(25)	PROJECT LEADER:	K. HIGGINS	DRAWN BY:	J. SALVATORI
		DESIGNED BY:	J. SALVATORI	CHECKED BY:	W. LAMMER
		EPSC NARRATIVE		SHEET	25 OF 36

	CUT/FILL LIMITS
	PROJECT DEMARCATION FENCE
	ROLLED EROSION CONTROL PRODUCT (RECP)
	ROCK OUTLET PROTECTION
	SOIL GROUP LINE
	SILT FENCE
	STABILIZED CONSTRUCTION ENTRANCE
	TURBIDITY CURTAIN

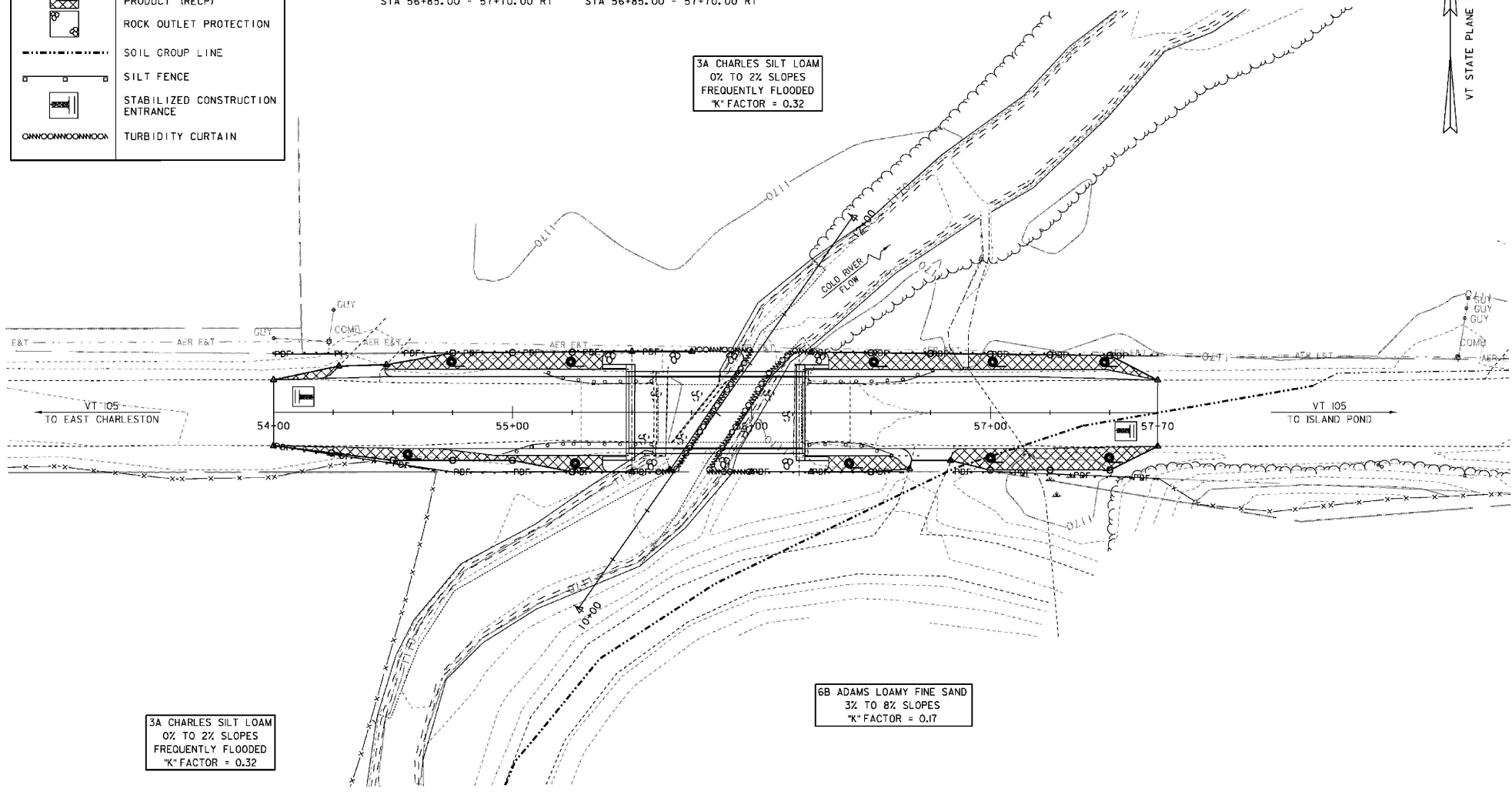
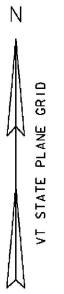
GEOTEXTILE FOR SILT FENCE
 STA 54+00.00 - 54+25.00 LT
 STA 54+00.00 - 55+60.00 RT
 STA 54+50.00 - 55+75.00 LT
 STA 56+00.00 - 56+65.00 RT
 STA 56+25.00 - 57+70.00 LT
 STA 56+85.00 - 57+70.00 RT

PROJECT DEMARCATION FENCE
 STA 54+00.00 - 54+25.00 LT
 STA 54+00.00 - 55+60.00 RT
 STA 54+50.00 - 55+75.00 LT
 STA 56+00.00 - 56+65.00 RT
 STA 56+25.00 - 57+70.00 LT
 STA 56+85.00 - 57+70.00 RT

3A CHARLES SILT LOAM
 0% TO 2% SLOPES
 FREQUENTLY FLOODED
 "K" FACTOR = 0.32

6B ADAMS LOAMY FINE SAND
 3% TO 8% SLOPES
 "K" FACTOR = 0.17

3A CHARLES SILT LOAM
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 FREQUENTLY FLOODED
 "K" FACTOR = 0.32

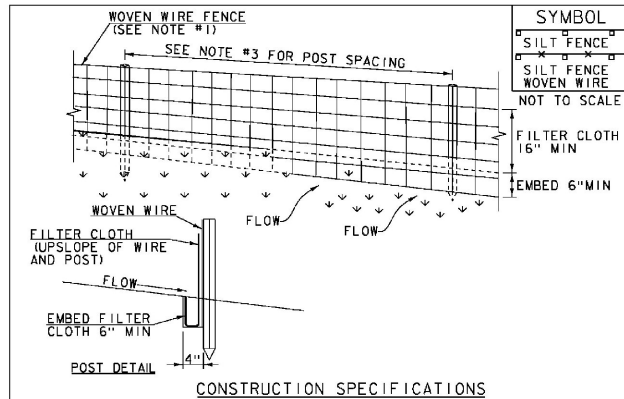


NOTES:

- EXISTING CONTOURS SHOWN. SEE CROSS SECTIONS FOR FINAL CONDITIONS.
- FOR CLARITY, AREAS TO BE SEEDED AND MULCHED HAVE NOT BEEN INDICATED. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED AS APPLICABLE.

EPSC PLAN
 SCALE 1" = 20' - 0"
 20 0 20

PROJECT NAME: BRIGHTON	PLOT DATE: 12-SEP-2012
PROJECT NUMBER: ER STP 034-3(25)	DRAWN BY: J. SALVATORI
FILE NAME: s1lb208epsc.dgn	CHECKED BY: W. LAMMER
PROJECT LEADER: K. HIGGINS	SHEET 26 OF 36
DESIGNED BY: J. SALVATORI	
EPSC PLAN	



- CONSTRUCTION SPECIFICATIONS**
- WOVEN WIRE REINFORCED FENCE IS REQUIRED WITHIN 100' UPSLOPE OF RECEIVING WATERS WHEN THE PROJECT FALLS UNDER A CONSTRUCTION STORMWATER PERMIT. WOVEN WIRE SHALL BE A MIN. 14 GAUGE WITH A 6" MAX. MESH OPENING.
 - FILTER CLOTH SHALL BE EITHER FILTER X, MIRAF1100X, STABILINKA T140N OR APPROVED EQUIVALENT.
 - POST SPACING FOR WIRE-BACKED FENCE SHALL BE 10' MAXIMUM. FOR FILTER-CLOTH FENCE, WHEN ELONGATION IS >50%, POST SPACING SHALL NOT EXCEED 4' AND WHEN ELONGATION IS <50%, POST SPACING SHALL NOT EXCEED 6'.
 - WOVEN WIRE FENCE IS TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES. FILTER CLOTH IS TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
 - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY 6" AND FOLDED.
 - MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN SEDIMENT REACHES HALF OF FABRIC HEIGHT.

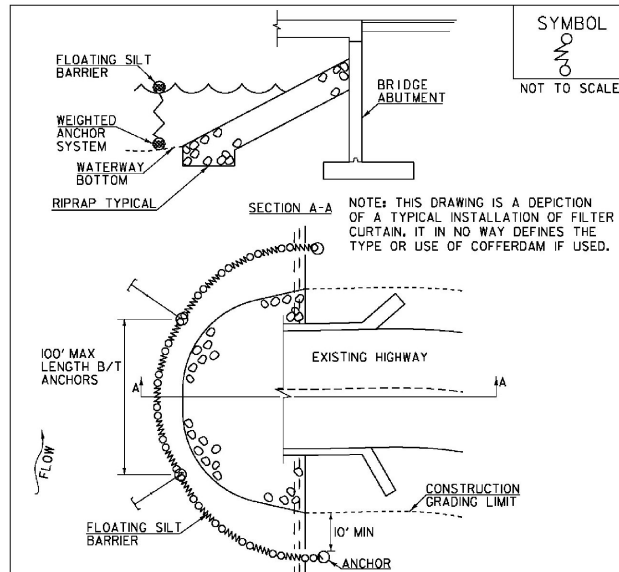
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SILT FENCE

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006-" FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 649 AND AS SHOWN IN THE PLANS FOR GEOTEXTILE FOR SILT FENCE (PAY ITEM 649.5) OR GEOTEXTILE FOR SILT FENCE, WOVEN WIRE-REINFORCED (PAY ITEM 649.515).

REVISIONS	
MARCH 21, 2008	WHF
DECEMBER 11, 2008	WHF
JANUARY 13, 2009	WHF

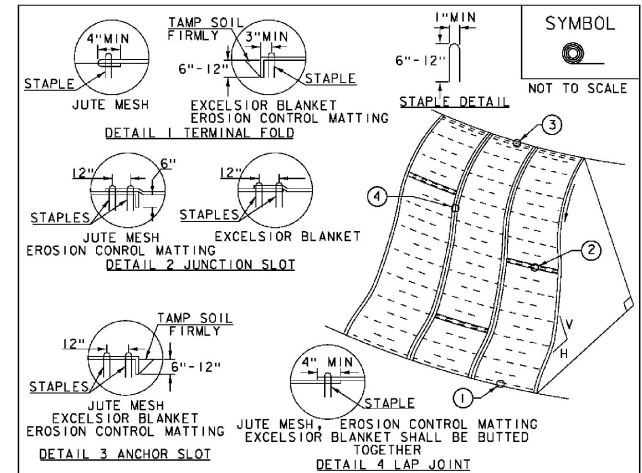


- CONSTRUCTION SPECIFICATIONS**
- FILTER CURTAIN SHALL NOT BE PLACED ACROSS A FLOWING WATERWAY, OR IN A WATERWAY WITH STREAM VELOCITIES GREATER THAN 1.5 FEET/SECOND.
 - MAXIMUM 100' LENGTH BETWEEN ANCHORS.
 - LAST SECTION SHALL TERMINATE A MINIMUM OF 10' BEYOND LIMIT OF DISTURBANCE.
 - THE WEIGHTED ANCHOR SYSTEM SHALL BE A TYPE WHICH ALLOWS THE CURTAIN TO CONFORM TO THE BOTTOM OF THE WATERWAY.
 - THE CURTAIN SHALL BE REMOVED BY SLOWLY PULLING TOWARD THE SHORE MINIMIZING THE ESCAPE OF SEDIMENTS INTO WATERWAY.

FILTER CURTAIN

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 649 FOR GEOTEXTILE FOR FILTER CURTAIN (PAY ITEM 649.6).

REVISIONS	
APRIL 1, 2008	WHF
JANUARY 13, 2009	WHF
SEPTEMBER 4, 2009	WHF



- CONSTRUCTION SPECIFICATIONS**
- APPLY TO SLOPES GREATER THAN 3H:1V OR WHERE NECESSARY TO AID IN ESTABLISHING VEGETATION.
 - APPLY FERTILIZER, LIME SEED PRIOR TO PLACING MATTING.
 - STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4' X 25' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4' X 150' ROLL OF MATERIAL.
 - DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
 - ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

ROLLED EROSION CONTROL PRODUCT (RECP) SIDE SLOPE

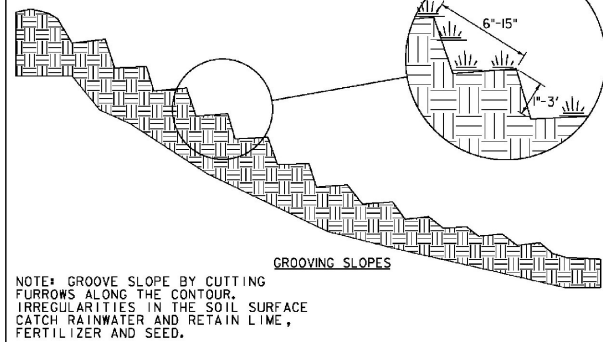
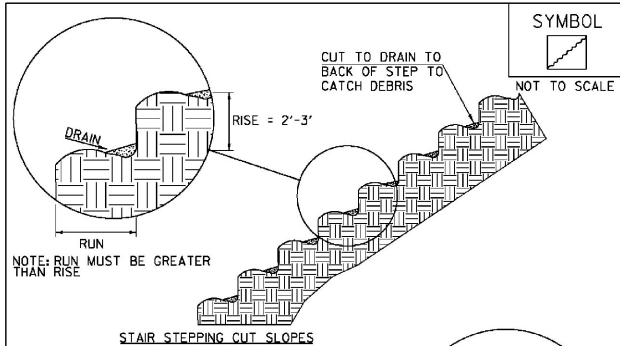
NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006-" FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.
THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 AND AS SHOWN IN THE PLANS FOR TEMPORARY EROSION MATTING (PAY ITEM 653.20) OR PERMANENT EROSION MATTING (PAY ITEM 653.20).

REVISIONS	
APRIL 16, 2007	JMF
JANUARY 13, 2009	WHF

PROJECT NAME: BRIGHTON
PROJECT NUMBER: ER STP 034-3(25)

FILE NAME: silb20@psc.def.dgn
PROJECT LEADER: K. HIGGINS
DESIGNED BY: J. SALVATORI
EPSC DETAILS SHEET 1

PLOT DATE: 12-SEP-2012
DRAWN BY: J. SALVATORI
CHECKED BY: W. LAMMER
SHEET 27 OF 36



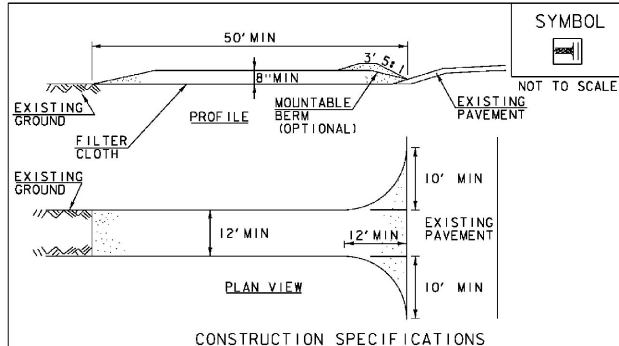
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SURFACE ROUGHENING

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR
EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM
THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL
GUIDANCE.

THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE
CONTRACT

REVISIONS	
APRIL 1, 2008	WHF
JANUARY 13, 2009	WHF



CONSTRUCTION SPECIFICATIONS

1. STONE SIZE- USE 1-4" STONE, RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH- NOT LESS THAN 50' (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30' MINIMUM LENGTH APPLIES).
3. THICKNESS- NOT LESS THAN 8".
4. WIDTH- 12' MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24" IF SINGLE ENTRANCE TO SITE.
5. GEOTEXTILE MUST BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE.
6. SURFACE WATER- ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED ACCORDING TO PERMIT REQUIREMENTS.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

**STABILIZED
CONSTRUCTION
ENTRANCE**

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR
EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM
THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL
GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH
SECTION 653 FOR VEHICLE TRACKING PAD (PAY ITEM 653.35)
OR AS SPECIFIED IN THE CONTRACT.

REVISIONS	
MARCH 24, 2008	WHF
JANUARY 13, 2009	WHF

VAOT RURAL AREA MIX					
% WEIGHT	LBS/AC		NAME	GERM %	PURITY %
	BROADCAST	HYDROSEED			
37.5%	22.5	45	CREeping RED FESCUE	85%	98%
37.5%	22.5	45	TALL FESCUE	90%	95%
5.0%	3	6	RED TOP	90%	95%
15.0%	9	18	BIRDSFOOT TREFOIL	85%	98%
5.0%	3	6	ANNUAL RYE GRASS	85%	95%
100%	60	120			

VAOT URBAN AREA MIX					
% WEIGHT	LBS/AC		NAME	GERM %	PURITY %
	BROADCAST	HYDROSEED			
42.5%	34	68	CREeping RED FESCUE	85%	98%
10.0%	8	16	PERENNIAL RYE GRASS	90%	95%
42.5%	34	68	KENTUCKY BLUE GRASS	85%	85%
5.0%	4	8	ANNUAL RYE GRASS	85%	95%
100%	80	160			

SOIL AMENDMENT GUIDANCE			
FERTILIZER		LIME	
BROADCAST	HYDROSEED	BROADCAST	HYDROSEED
10-20-10	FOLLOW	PELLETIZED	FOLLOW
500 LBS/AC	MANUFACTURER	2 TONS/AC	MANUFACTURER

CONSTRUCTION GUIDANCE

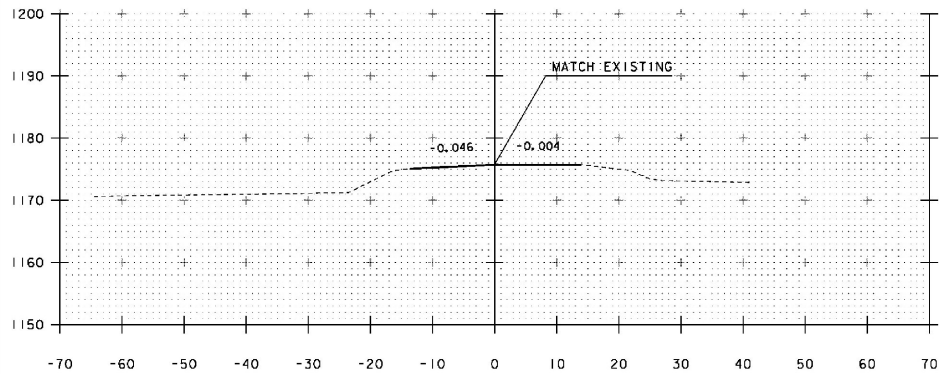
1. RURAL SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED UPLAND (NON WETLAND) AREAS DISTURBED BY THE CONTRACTOR.
2. URBAN SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED LAWN AREAS DISTURBED BY THE CONTRACTOR.
3. ALL SEED MIXTURES: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.
4. FERTILIZER AND LIMESTONE: SHALL FOLLOW RATES SHOWN ON PLAN OR AS DIRECTED BY THE ENGINEER
5. HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE, ACHIEVE 90% GROUND COVER OR AS DIRECTED BY THE ENGINEER.
6. TOPSOIL: TO BE USED WITH SEED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.
7. HYDROSEEDING: ALTHOUGH GUIDANCE IS GIVEN ABOVE THE SITE CONDITIONS AND THE TYPE OF HYDROSEED WILL ULTIMATELY DICTATE THE AMOUNTS AND TYPES OF SOIL AMENDMENTS TO BE APPLIED
8. TURF ESTABLISHMENT: PLACING SEED, FERTILIZER, LIME AND MULCH PRIOR TO SEPTEMBER 15 AND AFTER APRIL 15 CAN BETTER ENSURE A VIGOROUS GROWTH OF GRASS.

ADAPTED FROM VTRANS TECHNICAL LANDSCAPE MANUAL FOR
ROADWAYS AND TRANSPORTATION FACILITIES

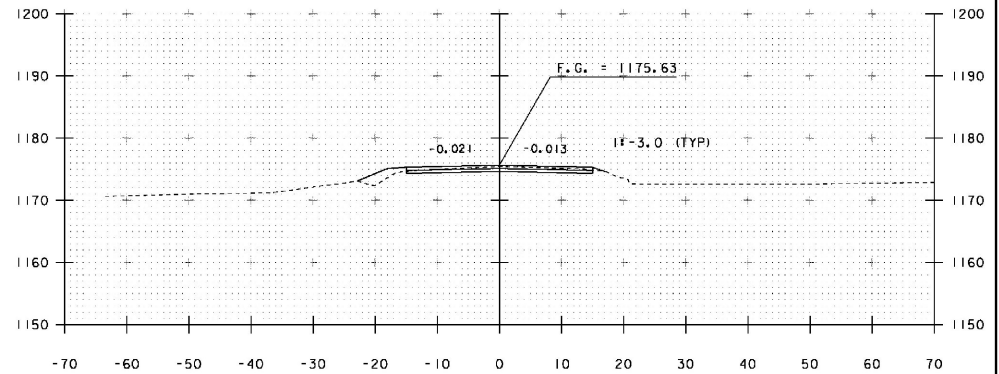
TURF ESTABLISHMENT

REVISIONS	
JUNE 23, 2009	WHF
JANUARY 15, 2010	WHF
FEBRUARY 16, 2011	WHF

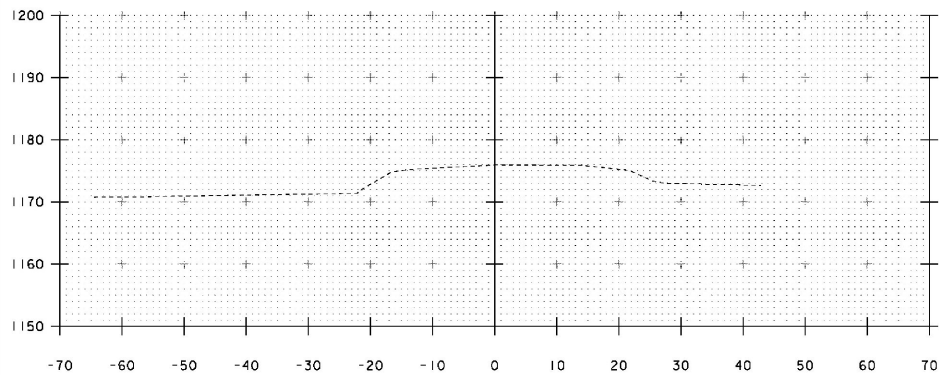
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PROJECT NUMBER:	ER STP 034-3(25)	DRAWN BY:	J. SALVATORI
FILE NAME:	slb208epsc.def.dgn	CHECKED BY:	W. LAMMER
PROJECT LEADER:	K. HIGGINS	SHEET	28 OF 36
DESIGNED BY:	J. SALVATORI		
EPSC DETAILS SHEET 2			



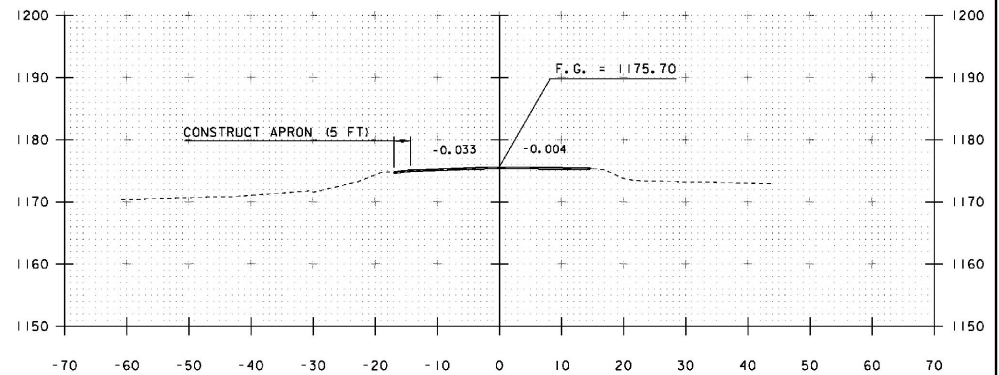
54+00
BEGIN APPROACH



54+50



53+75



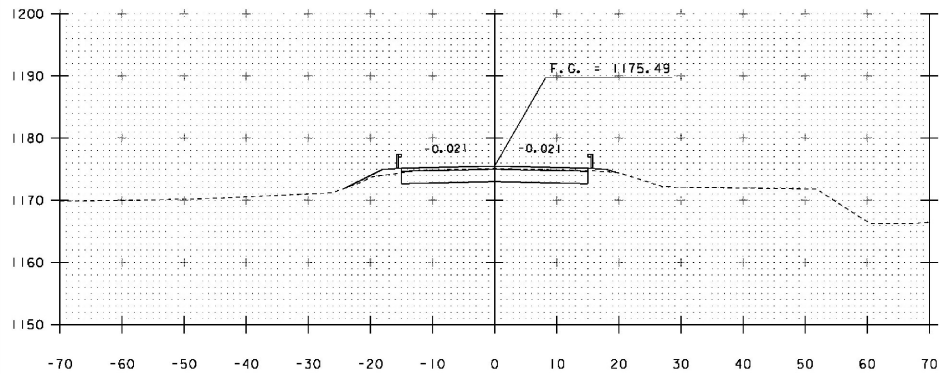
54+25

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PROJECT NUMBER: ER STP 034-3(25)

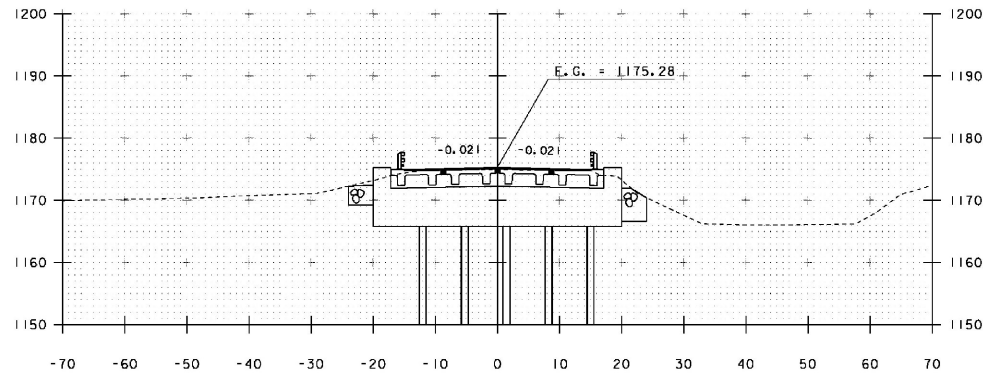
FILE NAME: s1b208xs.dgn
PROJECT LEADER: K. HIGGINS
DESIGNED BY: J. SALVATORI
MAINLINE SECTIONS

PLOT DATE: 12-SEP-2012
DRAWN BY: J. SALVATORI
CHECKED BY: W. LAMMER
SHEET 29 OF 36

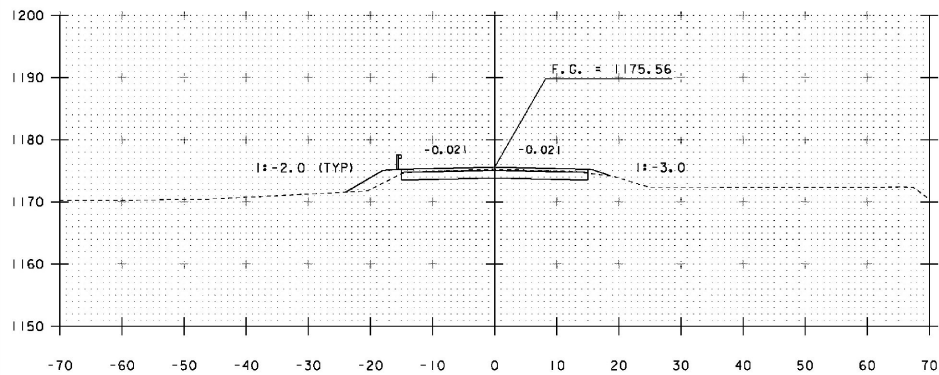
STA. 53+75 TO STA. 54+50



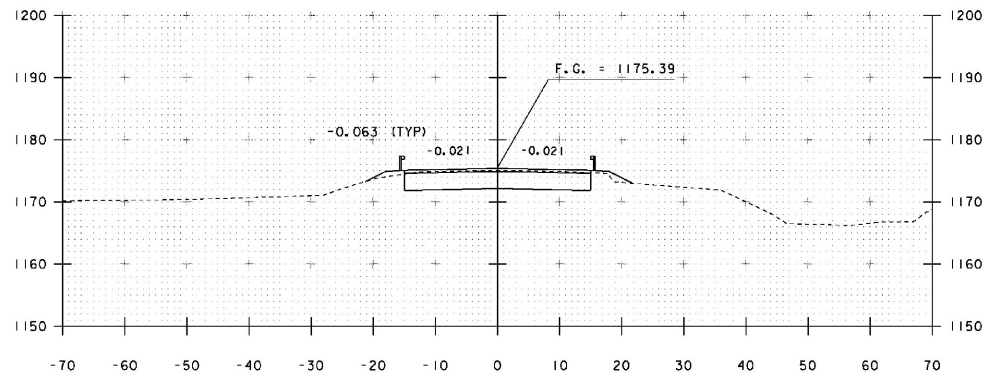
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 BEGIN PROJECT
 END APPROACH



55+50
 BEGIN BRIDGE STA 55+48.67



54+75



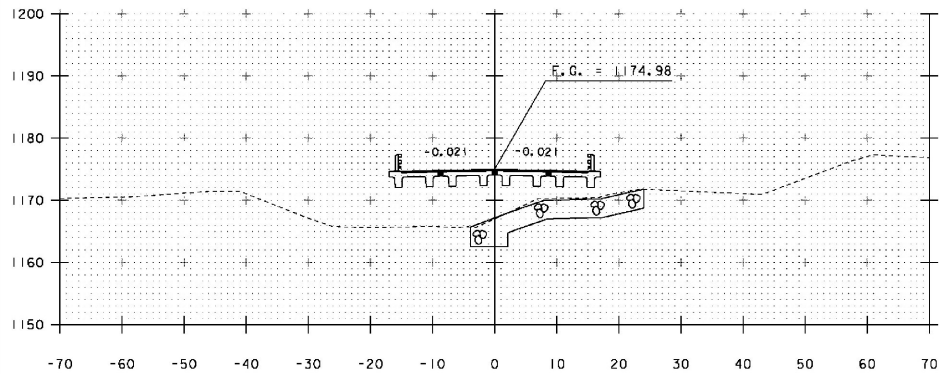
55+25

PROJECT NAME: BRIGHTON
 PROJECT NUMBER: ER STP 034-3(25)

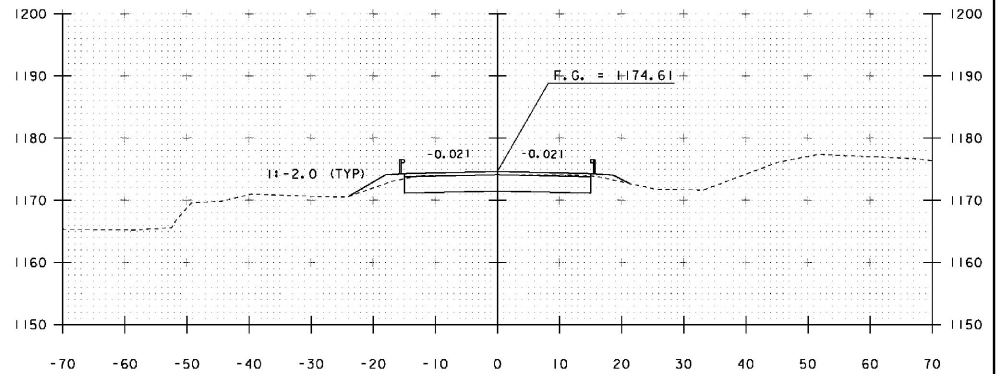
FILE NAME: s1b208xs.dgn
 PROJECT LEADER: K. HIGGINS
 DESIGNED BY: J. SALVATORI
 MAINLINE SECTIONS

PLOT DATE: 12-SEP-2012
 DRAWN BY: J. SALVATORI
 CHECKED BY: W. LAMMER
 SHEET 30 OF 36

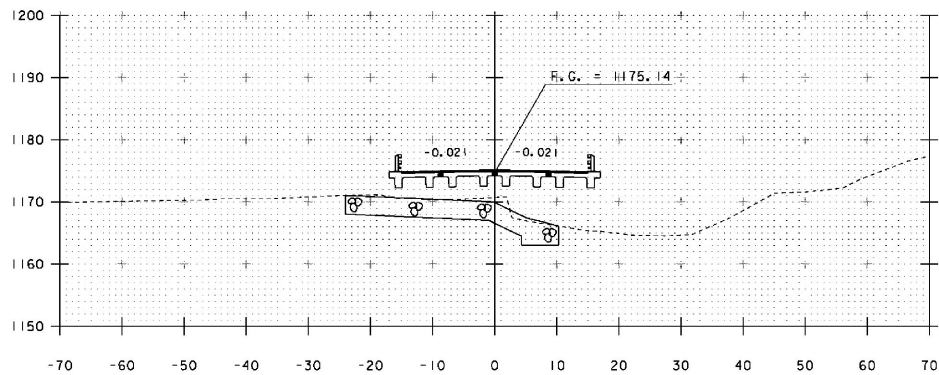
STA. 54+75 TO STA. 55+50



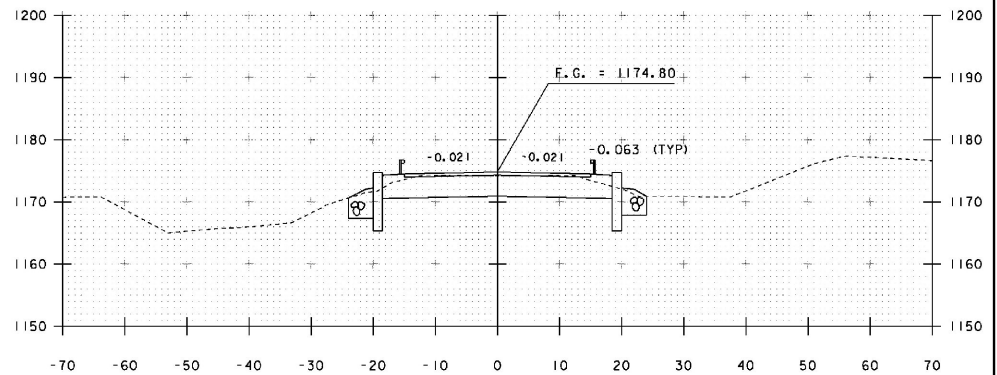
56+00



56+50



55+75

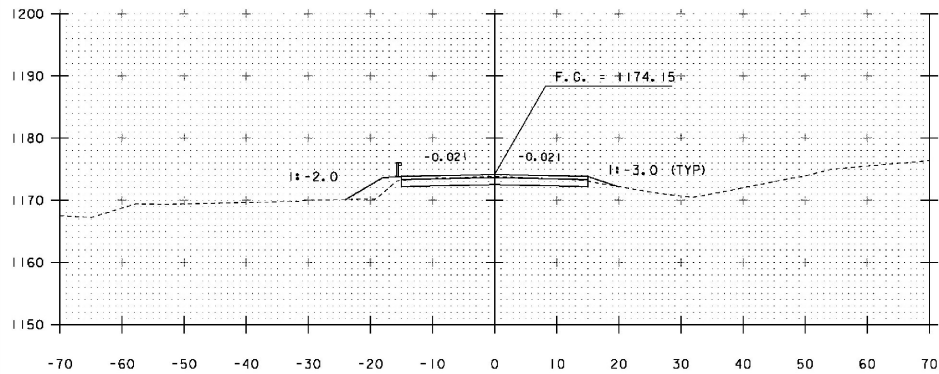


56+25

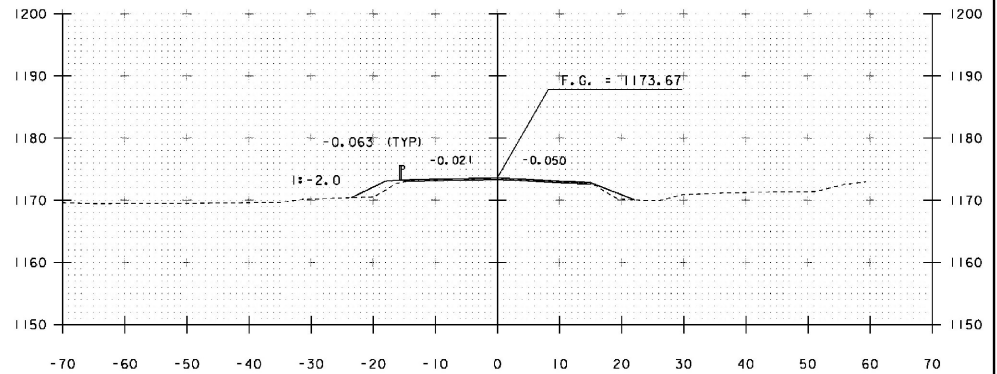
END BRIDGE STA 56+21.33

STA. 55+75 TO STA. 56+50

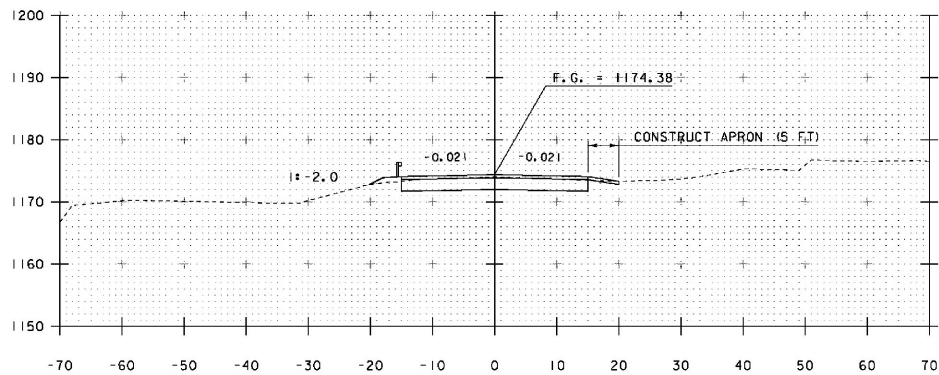
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PROJECT NUMBER:	ER STP 034-3(25)	DRAWN BY:	J. SALVATORI
FILE NAME:	s1b208xs.dgn	DESIGNED BY:	J. SALVATORI
PROJECT LEADER:	K. HIGGINS	CHECKED BY:	W. LAMMER
MAINLINE SECTIONS		SHEET	31 OF 36



57+00

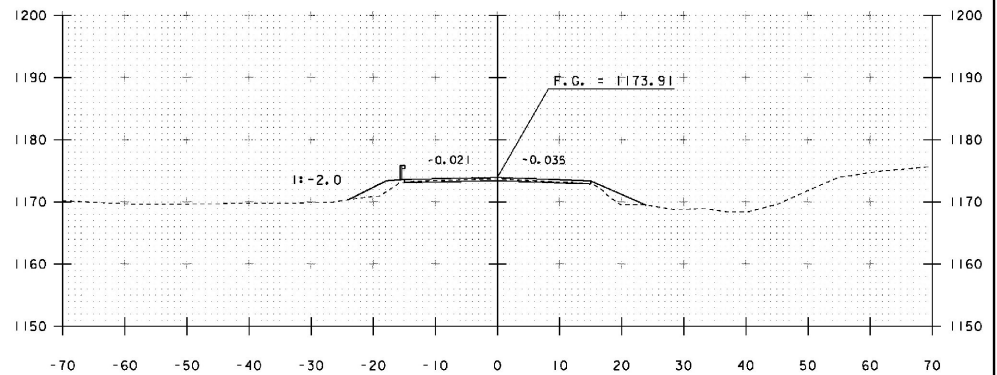


57+50



56+75

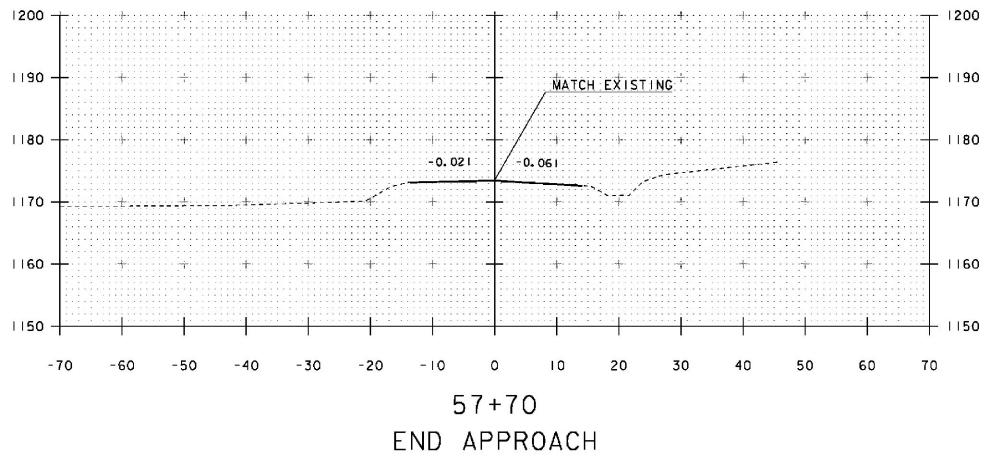
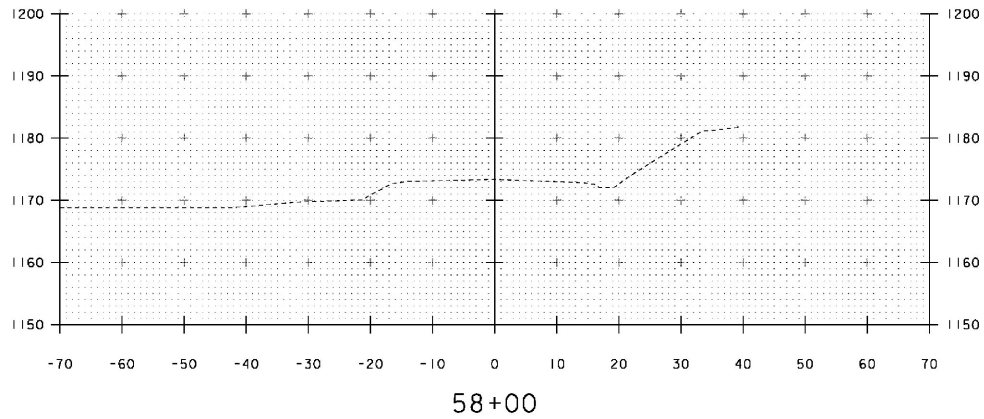
END PROJECT 56+70
BEGIN APPROACH



57+25

STA. 56+75 TO STA. 57+50

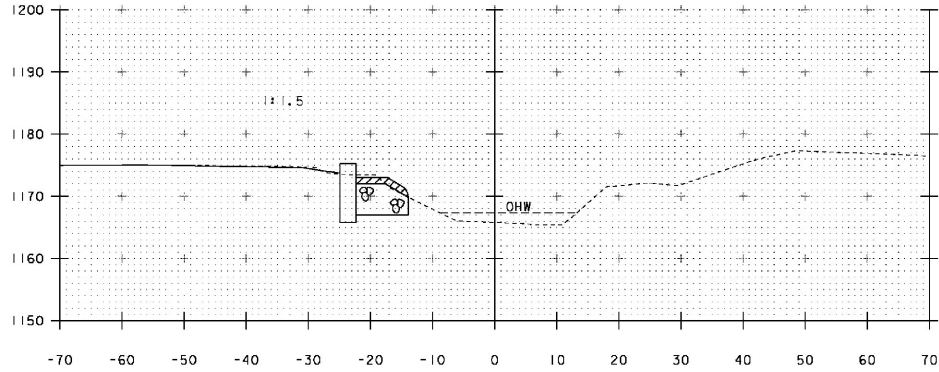
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PROJECT NUMBER:	ER STP 034-3(25)	PROJECT LEADER:	K. HIGGINS	DRAWN BY:	J. SALVATORI
		DESIGNED BY:	J. SALVATORI	CHECKED BY:	W. LAMMER
		MAINLINE SECTIONS			SHEET 32 OF 36



STA. 57+75 TO STA. 58+00

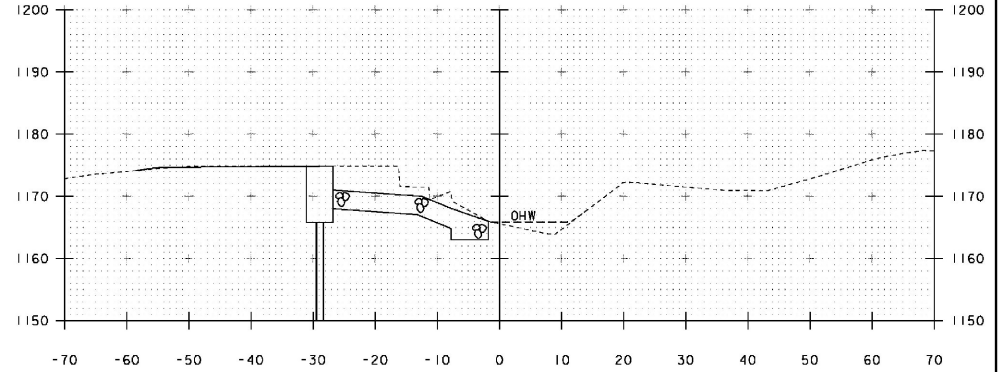
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PROJECT NUMBER:	ER STP 034-3(25)	DRAWN BY:	J. SALVATORI
FILE NAME:	s1b208xs.dgn	DESIGNED BY:	J. SALVATORI
PROJECT LEADER:	K. HIGGINS	CHECKED BY:	W. LAMMER
MAINLINE SECTIONS		SHEET	33 OF 36

STA 10+56 LT
 BEGIN CHANNEL EXCAVATION
 BEGIN GEOTEXTILE FABRIC UNDER STONE FILL
 BEGIN STONE FILL, TYPE III
 BEGIN GRUBBING MATERIAL



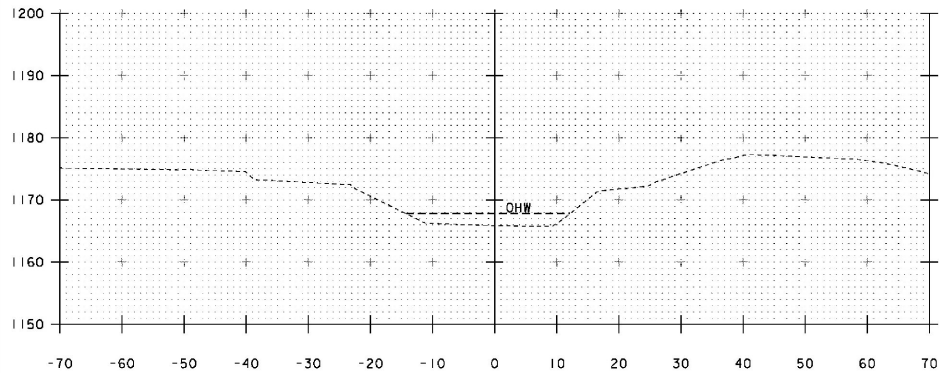
10+60

STA 10+81 RT
 BEGIN CHANNEL EXCAVATION
 BEGIN GEOTEXTILE FABRIC UNDER STONE FILL
 BEGIN STONE FILL, TYPE III
 BEGIN GRUBBING MATERIAL

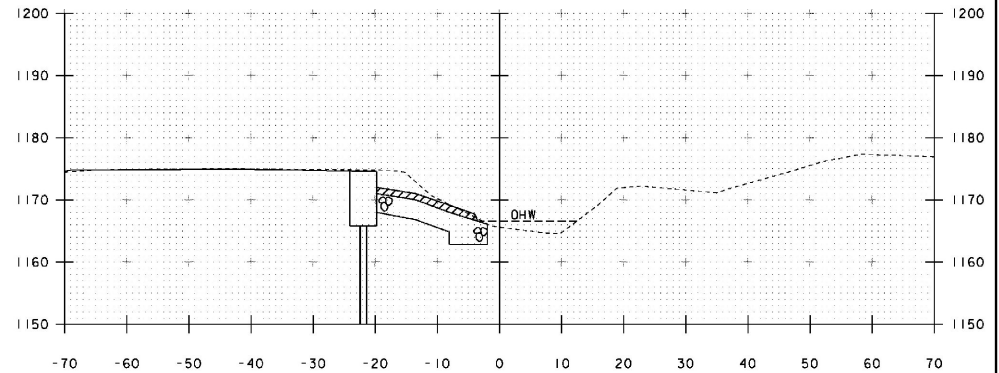


10+80

STA 10+74 LT
 END GRUBBING MATERIAL



10+50



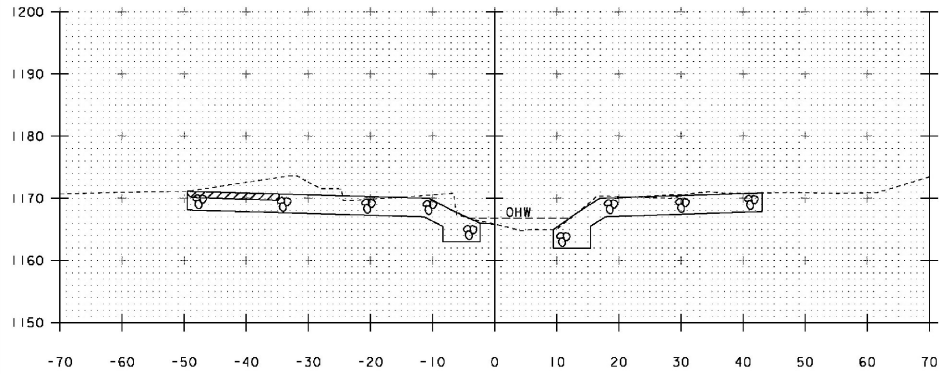
10+70

PROJECT NAME: BRIGHTON
 PROJECT NUMBER: ER STP 034-3(25)

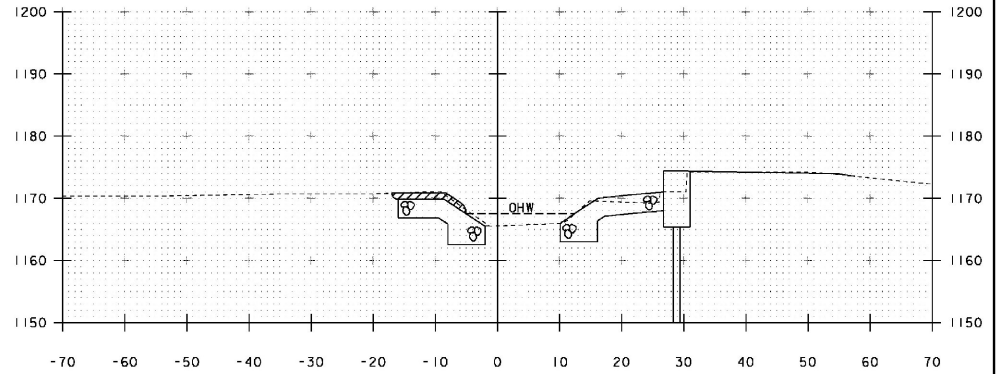
FILE NAME: s11b208xs.dgn
 PROJECT LEADER: K. HIGGINS
 DESIGNED BY: J. SALVATORI
 CHANNEL SECTIONS

PLOT DATE: 12-SEP-2012
 DRAWN BY: J. SALVATORI
 CHECKED BY: W. LAMMER
 SHEET 34 OF 36

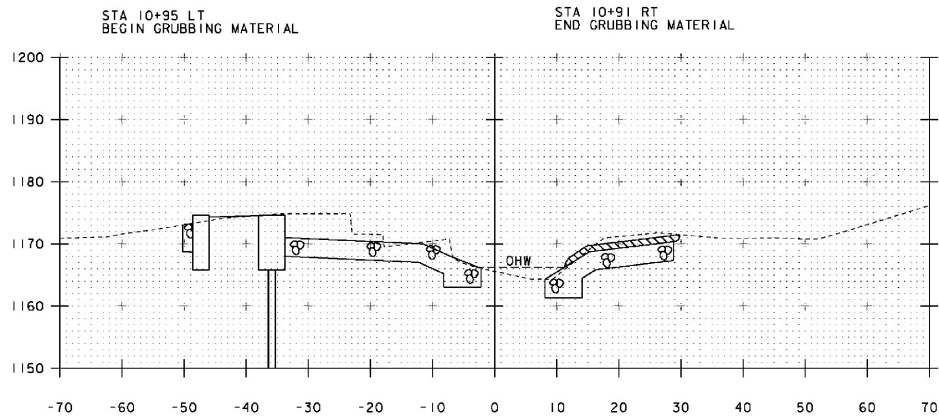
STA. 10+50 TO STA. 10+80



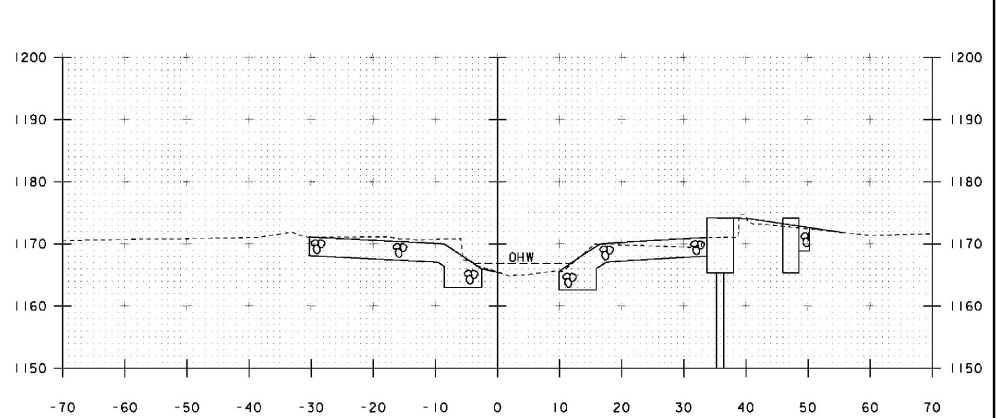
11+00



11+20



10+90

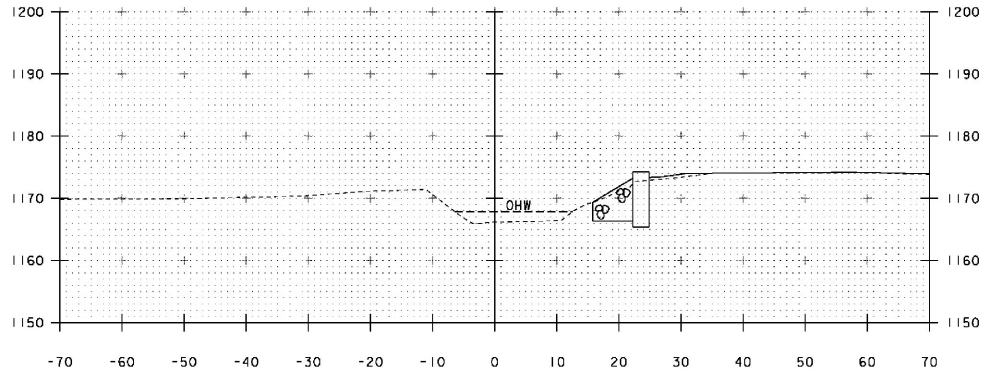


11+10

STA. 10+90 TO STA. 11+20

PROJECT NAME:	BRIGHTON	PLOT DATE:	13-SEP-2012
PROJECT NUMBER:	ER STP 034-3(25)	DRAWN BY:	J. SALVATORI
FILE NAME:	slb208xs.dgn	DESIGNED BY:	J. SALVATORI
PROJECT LEADER:	K. HIGGINS	CHECKED BY:	W. LAMMER
CHANNEL SECTIONS		SHEET	35 OF 36

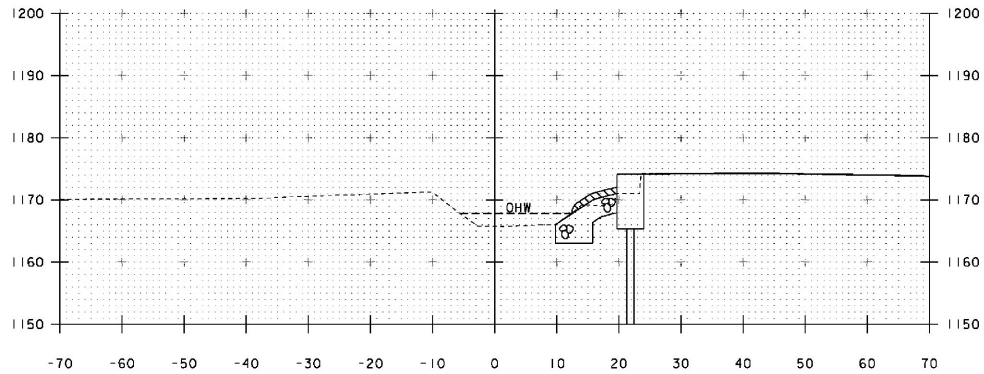
STA 11+44 RT
 END CHANNEL EXCAVATION
 END GEOTEXTILE FABRIC UNDER STONE FILL
 END STONE FILL, TYPE III
 END GRUBBING MATERIAL



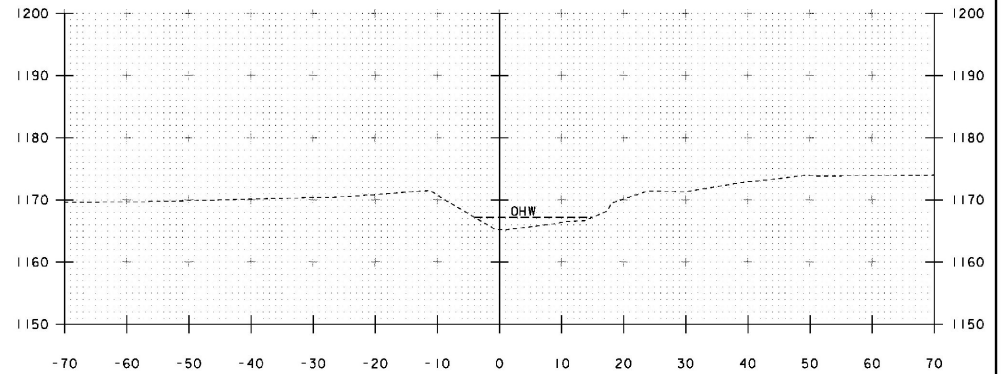
11+40

STA 11+27 LT
 END CHANNEL EXCAVATION
 END GEOTEXTILE FABRIC UNDER STONE FILL
 END STONE FILL, TYPE III
 END GRUBBING MATERIAL

STA 11+28 RT
 BEGIN GRUBBING MATERIAL



11+30



11+50

STA. 11+30 TO STA. 11+50

PROJECT NAME: BRIGHTON	PLOT DATE: 12-SEP-2012
PROJECT NUMBER: ER STP 034-3(25)	DRAWN BY: J. SALVATORI
FILE NAME: s11b208xs.dgn	CHECKED BY: W. LAMMER
PROJECT LEADER: K. HIGGINS	SHEET 36 OF 36
DESIGNED BY: J. SALVATORI	
CHANNEL SECTIONS	

WELDING PROCEDURE SPECIFICATION

Material Specification	A500 GR B	
Welding Process	FCAW	
Manual or Machine	SEMAUTOMATIC	
Position of Welding	FLAT	
Filler Metal Specification	A5.20 - 95	
Filler Metal Classification	E71T-1H8 E71T-9H8 LINCOLN ULTRACORE	
Flux	N/A	
Shielding Gas	CO 2	Dew Point -40DEG F Flow Rate 50CFH
Single or Multiple Pass	SINGLE	
Single or Multiple Arc	SINGLE	
Welding Current	DC	
Polarity	REVERSE ELECTRODE POSITIVE	
Welding Progression	STRINGER	
Root Treatment	CLEAN AS PER SECTION 603 OF THE NYSSCM	
Preheat and Interpass Temperature	PREHEAT AS PER TABLE 708 OF THE NYSSCM	
Postheat Temperature	NONE	
Heat Input	Min _____	Max _____

WELDING PROCEDURE

Pass no.	Electrode size	Welding Current		Travel speed	Joint detail
		Amperes	Volts		
1	1/16	300	26	14	
Variable	LIMITS	270 TO 330	24 TO 28	12.6 TO 15.4	
<p>Vermont Agency of Transportation RECEIVED CK'D BY <u>RMK</u> OK'D BY <u>JWC</u> January 4th, 2013 RESUBMIT <u>X</u> APPROVED <u> </u> BY <u>KMH</u> DATE <u>1-8-13</u></p>					

This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in Section 5.

Procedure No. 3007 Contractor Elderlee, Inc.
 Revision No. _____ Authorized By RANDY SCOTT
 Date 3/23/2011

WELDING PROCEDURE SPECIFICATION

Material Specification	A572 GRD. 50 /A992-06a		
Welding Process	FCAW		
Manual or Machine	SEMAUTOMATIC		
Position of Welding	FLAT		
Filler Metal Specification	A5.20		
Filler Metal Classification	E70 LINCOLN OUTERSHEILD		
Flux	N/A		
Shielding Gas	CO 2	Dew Point	-40DEG F Flow Rate 50 CFM
Single or Multiple Pass	SINGLE (45 TO 63 CFM)		
Single or Multiple Arc	N/A		
Welding Current	DC		
Polarity	DCEP		
Welding Progression	STRINGER		
Root Treatment	CLEAN AS PER SECTION 603 OF THE NYSSCM		
Preheat and Interpass Temperature	PREHEAT AS PER TABLE 708 OF THE NYSSCM		
Postheat Temperature	NONE		
Heat Input	Min		Max

WELDING PROCEDURE.

Pass no.	Electrode size	Welding Current		Travel speed	Joint detail
		Amperes	Volts		
1	3/32	390	27	12	
Variable	LIMITS	351 TO 429	25 TO 29	11 TO 13	

Vermont Agency of Transportation
RECEIVED
 CK'D BY RMK OK'D BY JWC
January 4th, 2013
 RESUBMIT X APPROVED
 BY KMH DATE 1-8-13

This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in Section 5.

Procedure No. 3008

Contractor Elderlee, Inc.

Revision No. _____

Authorized By RANDY SCOTT

Date 10/18/2011

WELDING PROCEDURE SPECIFICATION

Material Specification A709 TO A500 GR B
 Welding Process FCAW
 Manual or Machine SEMAUTOMATIC
 Position of Welding FLAT
 Filler Metal Specification A5.20 - 95
 Filler Metal Classification E71T-1H8 E71T-9H8 LINCOLN ULTRACORE
 Flux N/A
 Shielding Gas CO 2 Dew Point -40DEG F Flow Rate 50CFH
 Single or Multiple Pass SINGLE
 Single or Multiple Arc SINGLE
 Welding Current DC
 Polarity REVERSE ELECTRODE POSITIVE
 Welding Progression STRINGER
 Root Treatment CLEAN AS PER SECTION 603 OF THE NYSSCM
 Preheat and Interpass Temperature PREHEAT AS PER TABLE 708 OF THE NYSSCM
 Postheat Temperature NONE
 Heat Input Min _____ Max _____

WELDING PROCEDURE

Pass no.	Electrode size	Welding Current		Travel speed	Joint detail
		Amperes	Volts		
1	1/16	300	26	14	
Variable	LIMITS	270 TO 330	24 TO 28	12.6 TO 15.4	
<p style="text-align: center;">Vermont Agency of Transportation RECEIVED CK'D BY <u>RMK</u> OK'D BY <u>JWC</u> January 4th, 2013 RESUBMIT <u>APPROVED</u> ^x BY <u>KMH</u> DATE <u>1-8-13</u></p>					

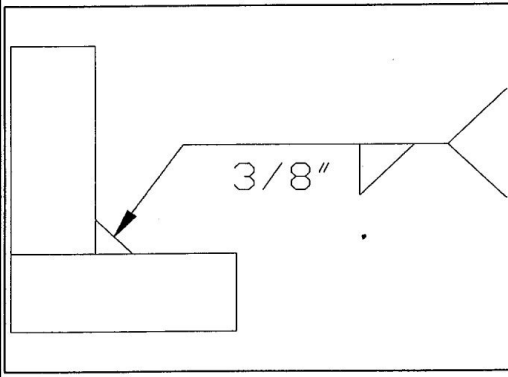
This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in Section 5.

Procedure No. 3009 Contractor Elderlee, Inc.
 Revision No. _____ Authorized By RANDY SCOTT
 Date 10/18/2011

WELDING PROCEDURE SPECIFICATION

Material Specification	ASTM-A36 A709 GR 36 CVN	
Welding Process	FCAW	
Manual or Machine	SEMAUTOMATIC	
Position of Welding	FLAT	
Filler Metal Specification	A5.20- 95	
Filler Metal Classification	E71T-1H8 E71T-9H8 LINCOLN ULTRACORE	
Flux	N/A	
Shielding Gas	CO 2	Dew Point -40DEG F Flow Rate 50CFH
Single or Multiple Pass	SINGLE	
Single or Multiple Arc	SINGLE	
Welding Current	DC	
Polarity	REVERSE	
Welding Progression	STRINGER	
Root Treatment	PER D1.5	
Preheat and Interpass Temperature	PER D1.5	
Postheat Temperature	NONE	
Heat Input	Min _____	Max _____

WELDING PROCEDURE

Pass no.	Electrode size	Welding Current		Travel speed	Joint detail
		Amperes	Volts		
1	1/16	300	26	14	
Variable	LIMITS	270 TO 330	24 TO 28	12.6 TO 15.4	
<p style="color: green; font-weight: bold; font-size: 1.2em;">RECEIVED</p> <p style="color: green; font-weight: bold;">Vermont Agency of Transportation</p> <p style="color: red; font-weight: bold;">CK'D BY <u>RMK</u> OK'D BY <u>JWC</u></p> <p style="color: red; font-weight: bold; font-size: 1.2em;">January 4th, 2013</p> <p style="color: green; font-weight: bold;">RESUBMIT <u> </u> APPROVED <u>X</u></p> <p style="color: green; font-weight: bold;">BY <u>KMH</u> DATE <u>1-8-13</u></p>					

This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in Section 5.

Procedure No. <u>3016</u>	Contractor <u>Elderlee, Inc.</u>
Revision No. _____	Authorized By <u>RANDY SCOTT</u>
	Date <u>1/3/2013</u>

WELDING PROCEDURE SPECIFICATION

Material Specification	ASTM A572 GR. 50 CVN	A500 GR B
Welding Process	FCAW	
Manual or Machine	SEMAUTOMATIC	
Position of Welding	FLAT	
Filler Metal Specification	A5.20 - 95	
Filler Metal Classification	E71T-1H8 E71T-9H8 LINCOLN ULTRACORE	
Flux	N/A	
Shielding Gas	CO 2	Dew Point -40DEG F Flow Rate
Single or Multiple Pass	SINGLE	
Single or Multiple Arc	SINGLE	
Welding Current	DC	
Polarity	REVERSE ELECTRODE POSITIVE	
Welding Progression	STRINGER	
Root Treatment	PER D1.5	
Preheat and Interpass Temperature	PER D1.5	
Postheat Temperature	NONE	
Heat Input	Min _____	Max _____

WELDING PROCEDURE

Pass no.	Electrode size	Welding Current		Travel speed	Joint detail
		Amperes	Volts		
1	1/16	300	26	14	
Variable	LIMITS	270 TO 330	24 TO 28	12.6 TO 15.4	
<p align="center">Vermont Agency of Transportation RECEIVED CK'D BY <u>RMK</u> OK'D BY <u>JWC</u> January 4th, 2013 RESUBMIT <u>X</u> APPROVED <u> </u> BY <u>KMH</u> DATE <u>1-8-13</u></p>					

This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in Section 5.

Procedure No. <u>3037</u>	Contractor <u>Elderlee, Inc.</u>
Revision No. _____	Authorized By <u>RANDY SCOTT</u>
	Date <u>12/20/2011</u>

WELDING PROCEDURE SPECIFICATION

Material Specification	A36		
Welding Process	GMAW		
Manual or Machine	SEMAUTOMATIC		
Position of Welding	FLAT		
Filler Metal Specification	A5.18		
Filler Metal Classification	L-50 .052 LINCOLN		
Flux	N/A		
Shielding Gas	90% ARGON /10% CO2	Dew Point	-40DEG F Flow Rate 50 CFM
Single or Multiple Pass	SINGLE		
Single or Multiple Arc	SINGLE		
Welding Current	DC		
Polarity	REVERSE		
Welding Progression	STRINGER		
Root Treatment	PER D1.5		
Preheat and Interpass Temperature	PER D1.5		
Postheat Temperature	NONE		
Heat Input	Min	Max	

WELDING PROCEDURE

Pass no.	Electrode size	Welding Current		Travel speed	Joint detail
		Amperes	Volts		
	.052	430	32	13	
Variable	LIMITS	387 TO 473	29 TO 34	12 TO 14	

Vermont Agency of Transportation

RECEIVED

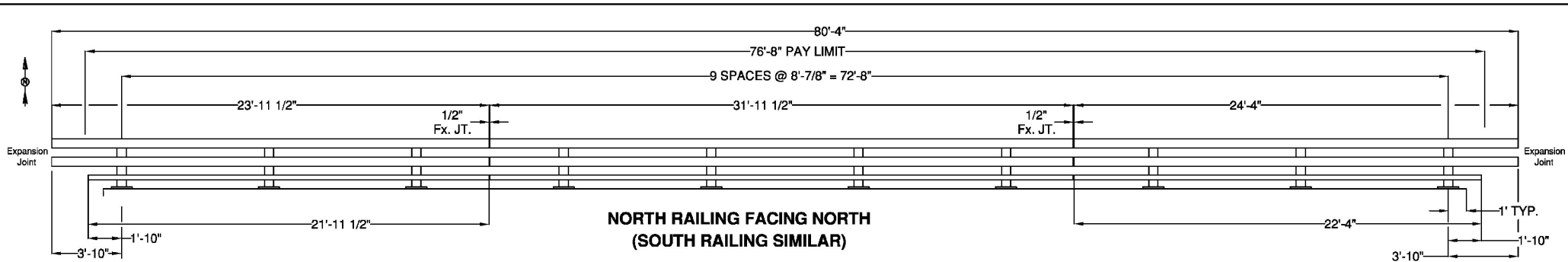
CK'D BY RMK OK'D BY JWC

January 4th, 2013

RESUBMIT APPROVED X
BY KMH DATE 1-8-13

This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in Section 5.

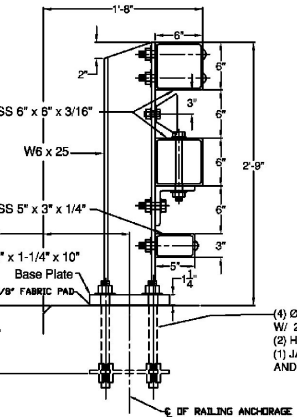
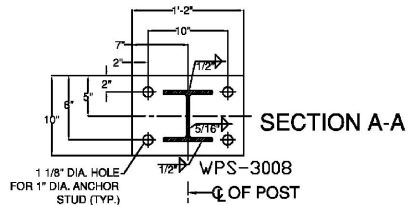
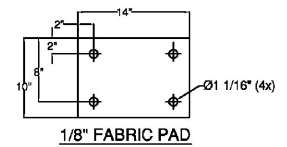
Procedure No. <u>3040</u>	Contractor <u>Elderlee, Inc.</u>
Revision No. <u> </u>	Authorized By <u>RANDY SCOTT</u>
	Date <u>12/20/2011</u>



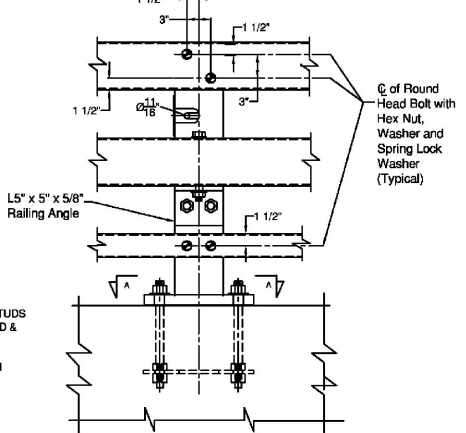
**NORTH RAILING FACING NORTH
(SOUTH RAILING SIMILAR)**

Vermont Agency of Transportation
RECEIVED
 CK'D BY R. Klinefelter OK'D BY J. Salvatore
 February 14, 2013
 RESUBMIT Approved X
 BY K. Higgins DATE 02/19/13

BILL OF MATERIAL		
QTY	DESCRIPTION	ASTM DESIGNATION
20	W6x25, THREE RAIL POST @ 2'-9" DIA ON 1 1/4x10x1"-2" B.P.	A572 Gr. 50
2	HSS 3" X 5" X 1/4" RAIL @ 21'-11 1/2"	A500 Gr. B
2	HSS 3" X 5" X 1/4" RAIL @ 22'-4"	A500 Gr. B
4	HSS 6" X 6" X 3/16" RAIL @ 23'-11 1/2"	A500 Gr. B
4	HSS 6" X 6" X 3/16" RAIL @ 31'-11 1/2"	A500 Gr. B
4	HSS 6" X 6" X 3/16" RAIL @ 24'-4"	A500 Gr. B
4	2-1/8" X 4-1/4" FIX. SPLICE BAR @ 2'-3"	A572 Gr. 50
8	HSS 5" X 5" X 5/16" FIX. SPLICE TUBE @ 2'-3"	A500 Gr. B, A572 Gr. 50
20	3/8" X 10" X 14" ANCHOR PLATES (END POST)	A572 Gr. 50
20	1/8" X 10" X 14" FABRIC PAD	AASHTO M251
80	1" X 13" ANCHOR STUDS, W/ 2 1/4" THD. EACH END	A449 Gr. 1, CLASS 8.8
160	1" HEAVY HEX NUTS & FLAT WASHERS	A563 & F436
80	1" HEX JAW NUTS	A563
80	7/8" X 8" ROUND HEAD BOLT, NUT, SQ. WASHER, L.W.	A449, A563, F436, ASME B18.2.1
20	3/4" X 8" HEX BOLT, NUT, (2) F.W., & L.W.	A325, A563, F436, & ASME B18.2.1
40	3/4" X 2-3/4" HEX BOLT, NUT, (2) F.W., & L.W.	A325, A563, F436, & ASME B18.2.1
32	3/4" X 7-1/2" HEX BOLT, NUT, (2) F.W., & L.W.	A325, A563, & F436
16	3/4" X 4-1/2" HEX BOLT, NUT, (2) F.W.	A325, A563, & F436
20	5/8" X 1-1/2" HEX BOLT, NUT, (2) F.W.	A325, A563, & F436
20	L5" X 5" X 5/8" RAILING ANGLE @ 6°	A572 Gr. 50
TBD	DELINEATORS	(SUPPLIED BY F.R. LAFAYETTE)



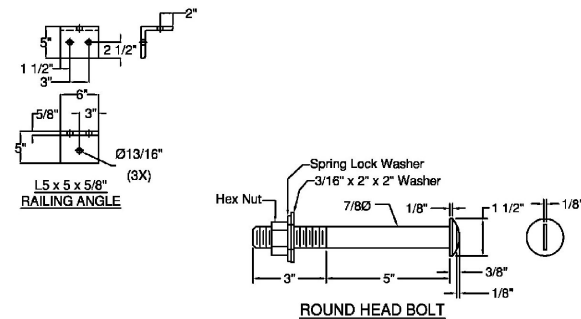
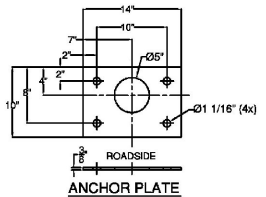
(4) Ø 1" X 13" ANCHOR STUDS
 W/ 2 1/4" THD. EACH END &
 (2) HEAVY HEX NUTS,
 (1) JAM NUT
 AND (1) WASHERS EACH



**ELEVATION
STEEL BRIDGE RAILING**

- GENERAL NOTES:
- 1) ALL RAILING IS TO BE FABRICATED AND ERECTED ACCORDING TO SECTION 525 OF THE STANDARD SPECIFICATIONS.
 - 2) PRIOR TO GALVANIZING THE ASSEMBLED POST, GRIND ALL EDGES TO A MINIMUM RADIUS OF 1/16".
 - 3) BOLTS SHALL BE TORQUED SNIUG TIGHT (APPROXIMATELY 100 FT-LB).
 - 4) RAIL TUBE EXPANSION JOINTS SHALL BE PROVIDED IN ANY RAIL BAY SPANNING THE END OF AN INTEGRAL ABUTMENT BRIDGE AND AT ALL SUPER STRUCTURE EXPANSION JOINTS. EXPANSION JOINT WIDTH SHALL BE 4" @ 66°F AND WILL BE ADJUSTED IN THE FIELD BY THE ENGINEER FOR OTHER TEMPERATURES.
 - 5) RETROREFLECTIVE MATERIAL SHALL MEET THE REQUIREMENTS OF SUBSECTION 750.08 AND SHALL BE A JOSEF ALUMINUM BACKING WHITE OR YELLOW REFLECTOR. WHITE IS TO BE INSTALLED ON THE DRIVERS RIGHT. FOR ONE WAY BRIDGES, YELLOW IS TO BE INSTALLED ON THE DRIVERS LEFT.
 - 6) PROTRUSIONS CAUSED BY WELDING OR GALVANIZING ARE NOT PERMITTED ON THE ADJOINING SURFACES OF THE BOX BEAM RAILS, SPLICE TUBES AND FILL PLATES.
 - 7) THE MINIMUM DISTANCE FROM THE POST TO AN EXPANSION JOINT SHALL BE DETERMINED BY THE MINIMUM EDGE DISTANCE OF 5' FROM ANY ANCHOR STUD TO THE END OF THE SLAB, OR THE EXPANSION JOINT RECESS POLE, IF ONE IS USED.
 - 8) ALL POST SHALL BE SET NORMAL TO GRADE. THE MAXIMUM CENTER TO CENTER SPACING OF BRIDGE RAIL POST IS 8' 9".
 - 9) ANY BENDING OF RAIL SHALL BE DONE AT THE FABRICATION PLANT ACCORDING TO A PROCEDURE PROVIDED BY THE FABRICATOR.
 - 10) STD. SPLICE HOLES ONLY IN BRIDGE RAIL TUBES. REST TO BE DRILLED BY CUSTOMER. FIELD DRILLED HOLES TO BE COATED WITH AN APPROVED ZINC-RICH PAINT PRIOR TO INSTALLATION.
 - 11) THIS RAILING MEETS THE REQUIREMENTS FOR A TL-4 SERVICE LEVEL.

RAIL BENDING PROCEDURE:
 RADII GREATER THAN 16' TO BE CURVED ON A TUBE BENDING MACHINE, RADII LESS THAN 16' TO BE 'PIE CUT' AND WELDED.



SECTION

ITEM #: 525.335
 APPROVED BY:

F.R. LAFAYETTE, P.O. 27399 SHEET 1 OF 2

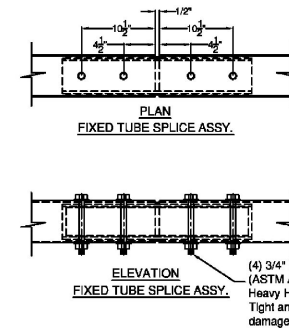
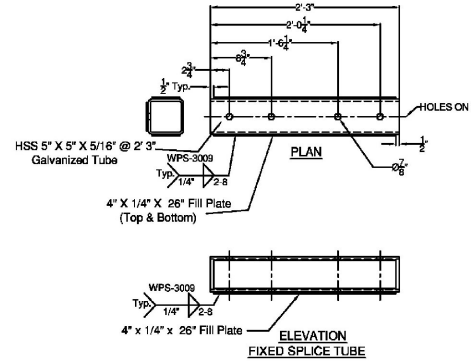
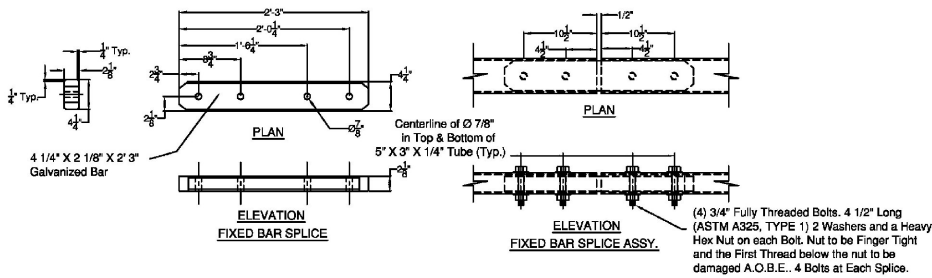
BRIDGE RAIL DETAILS SHEET
 PROJECT: BRIGHTON, PROJECT # FR STP 004-3(25), MINOR ARTERIAL, BRIDGE # 84
 TOWN OF BRIGHTON, ESSEX COUNTY, VT.

R NO.	DATE	DESCRIPTION	BY	R NO.	DATE	DESCRIPTION	BY
1	12/26/11	REVISED PER 12/26/12 EMAIL	E.P.	3	1/20/13	RAIL @ 1 1/2" FOR L&A 1/20/13	E.P.
2	1/9/13	REVISED PER 1/9/13 EMAIL	V				

ELDERLEE, INC.
 OAKS CORNERS, NEW YORK 14578
 E-Mail: eld@elderlee.com
 Tel: 315-789-8870 Fax: 315-789-8815

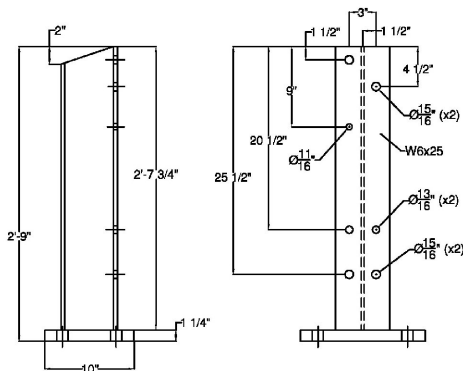
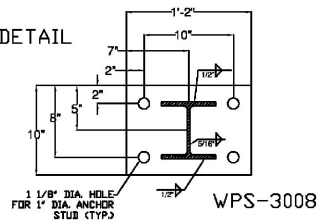
SCALE: _____
 DRAWING NO. F.R. LAFAYETTE BRIGHTON

SPLICE BAR - FIXED



SPLICE TUBE - FIXED

BRIDGE POST DETAIL



ITEM #: 525.335

F.R. LAFAYETTE, P.O. 27399

SHEET 2 OF 2

Vermont Agency of Transportation
RECEIVED

CK'D BY R. Klinefelter OK'D BY J. Salvatori

February 14, 2013

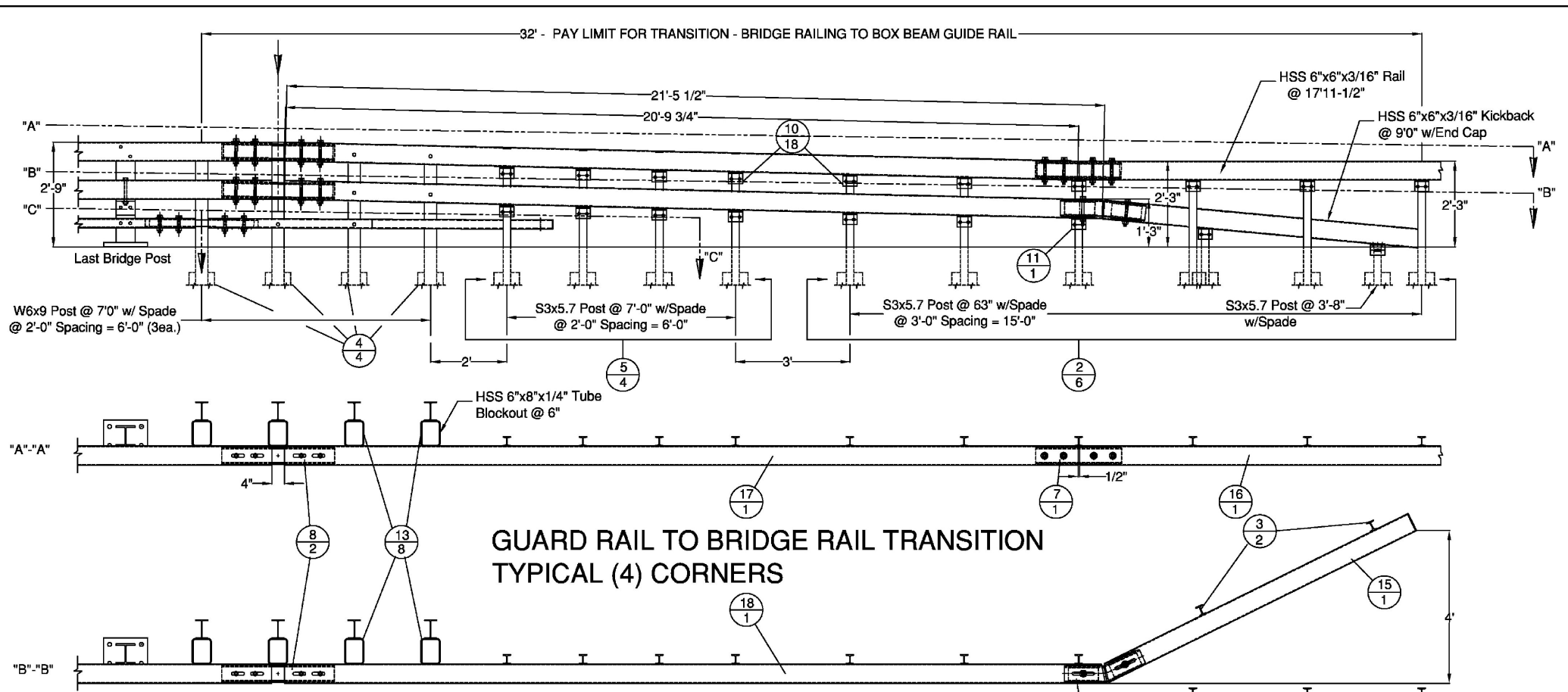
RESUBMIT Approved X
BY K. Higgins DATE 02/19/13

BRIDGE RAIL DETAILS SHEET

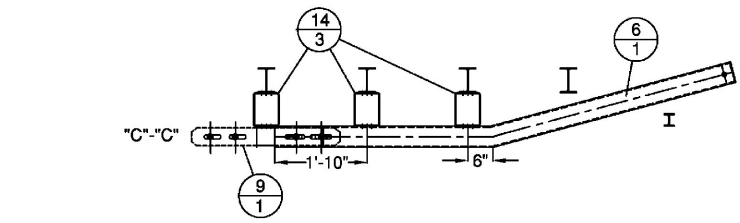
PROJECT: BRIGHTON, PROJECT # EP STP 004-3(25), MINOR ARTERIAL, BRIDGE # 84
TOWN OF BRIGHTON, ESSEX COUNTY, VT.

R NO.	DATE	DESCRIPTION	BY	R NO.	DATE	DESCRIPTION	BY
E 1	12/28/11	REVISED PER 12/26/12 EMAIL	E.P.	E 3	1/20/13	ADD W 10' FOR L&A 1/20/13	E.P.
V 2	1/9/13	REVISED PER 1/9/13 EMAIL	V				

<p>ELDERLEE, INC. OAKS CORNERS, NEW YORK 14578 E-Mail: clong@elderlee.com Tel: 315-789-8870 Fax: 315-789-8815</p>		DRAWN	E.P.	12/03/12
		CHECKED	D.L.	12/03/12
APPROVED		SCALE	SCHEMATIC	
DRAWING NO. F.R. LAFAYETTE BRIGHTON				



**GUARD RAIL TO BRIDGE RAIL TRANSITION
TYPICAL (4) CORNERS**



BILL OF MATERIALS, EACH OF (4) CORNERS

ITEM #	QTY.	DESCRIPTION	MATERIAL (ASTM)
1	5	3" I-POST, PUNCH P, & 20" V/SPD @ 63" LG	A375 Gr. 50
2	2	3" I-END POST V/SPD @ 3'-8" LG	A375 Gr. 50
4	4	W6x9 POST @ 7" V/SPD @ 3/8" HOLES	A375 Gr. 50
5	4	3" I-POST, PUNCH P, & 20" V/SPD @ 63" LG	A375 Gr. 50
6	1	HSS 6x6x 3/4" BTM TRANS RAIL W/SP @ 90° KB, EXP END	A300 Gr. B
7	1	HSS 3x5 TUBE SPLICE @ 2" LG W/ 1/4" SHIMS	A300 Gr. B / A572 Gr. 50
8	2	HSS 3x5 EXP TUBE SPLICE @ 36" LG W/ 1/4" SHIMS	A300 Gr. B / A572 Gr. 50
9	1	HT EXP BAR SPLICE @ 1/8" X 4'-1/4" @ 36" LG	A375 Gr. 50
10	18	REG 3B SHELF ANGLES @ 4'-1/2"	A375 Gr. 50
11	1	DUVY 3B SHELF ANGLES @ 4'-1/2"	A375 Gr. 50
12	1	HSS 5x5 3/8" 304L TUBE @ 90° @ 63" LG	A300 Gr. B / A572 Gr. 50
13	8	HSS 6x6x 3/4" TRANS. TUBE @ 6" LG	A300 Gr. B
14	3	HSS 6x6x 3/4" TRANS. TUBE @ 3" LG	A300 Gr. B
15	1	HSS 6x6x 3/8" @ 9'-0" KICKBACK, W/ CAP	A300 Gr. B / A36
16	0.5	HSS 6x6x 3/8" @ 1'-11 1/2" DRILL 3"	A300 Gr. B
17	1	HSS 6x6x 3/8" BTM TRANS @ 20'-9 3/4" LG W/EXP END	A300 Gr. B
18	1	HSS 6x6x 3/8" BTM TRANS @ 21'-5 1/2" LG W/EXP END	A300 Gr. B
19	18	3/8" X 7 1/2" BOLT, NUT, & E F W	A307, A563, F436
20	18	1/2" X 1-1/2" BOLT, NUT, & E F W	A307, A563, F436
21	22	1/2" X 1-1/2" BOLT, NUT, & F W & L V	A307, A563, F436
22	4	3/4" X 4'-1/2" BOLT, NUT, & F W	A307, A563, F436
23	12	3/4" X 7'-1/2" BOLT, NUT, & F W	A307, A563, F436
24	6	3/4" X 8" CARR BOLT, NUT, F W & L V	A307, A563, F436
25	2	3/4" X 8" BOLT, NUT, & F W, & L V	A307, A563, F436

HARDWARE NOTES

ITEM #	FUNCTION
19	BOLT RAIL TO SHELF ANGLE (ITEM #10)
20	BOLT SHELF ANGLE (ITEM #10 & 11) TO POST
21	BOLT BLOCK-OUTS (ITEM #13 & 14) TO HEAVY POST
22	C4 PER SPLICE BAR (ITEM #9)
23	C4 PER SPLICE TUBING (ITEM #13 & 14)
24	BOLT RAIL (ITEMS #13, 17, & 18) TO BLOCK-OUTS (ITEM #13 & 14) (WHERE FASTENED)
25	BOLT DOUBLE BEND SPLICE TUBE (ITEM #12) TO RAIL (ITEM #18) & KICKBACK (ITEM #15) & ITEM #11

7/8" BOLT

Vermont Agency of Transportation
RECEIVED
 CK'D BY R. Kinefelter OK'D BY J. Salvatoro
 February 14, 2013
 RESUBMIT Approved AS NOTED
 BY K Higgins DATE 02/19/13

ITEM #: 525.335
 APPROVED BY:

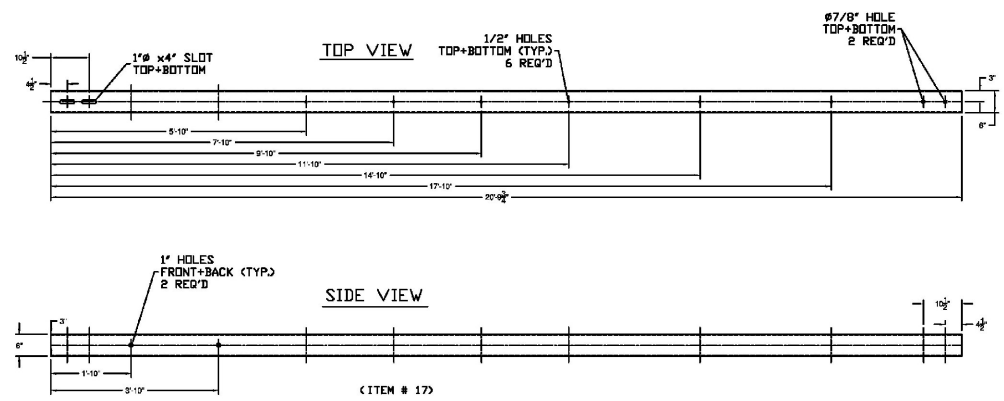
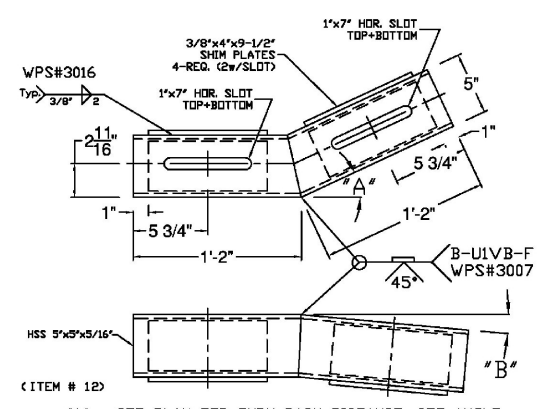
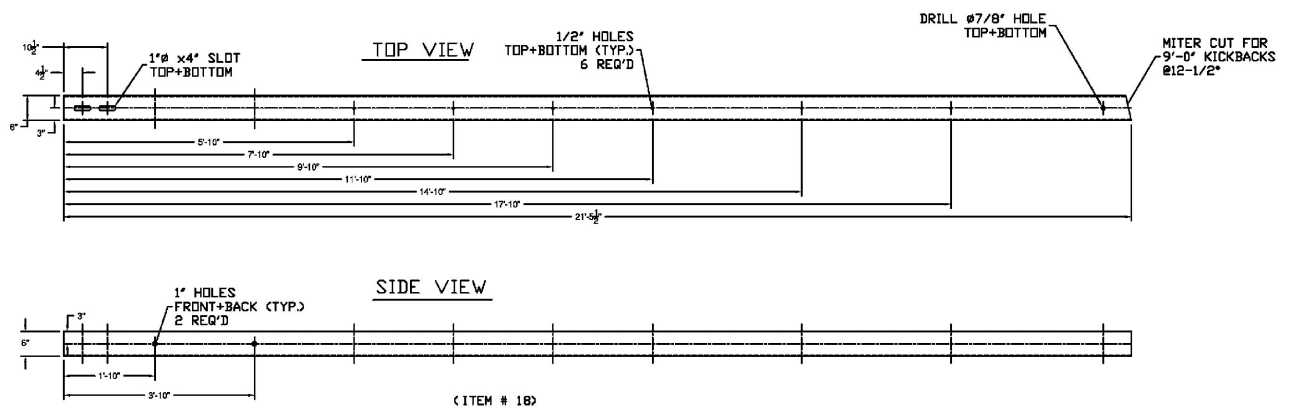
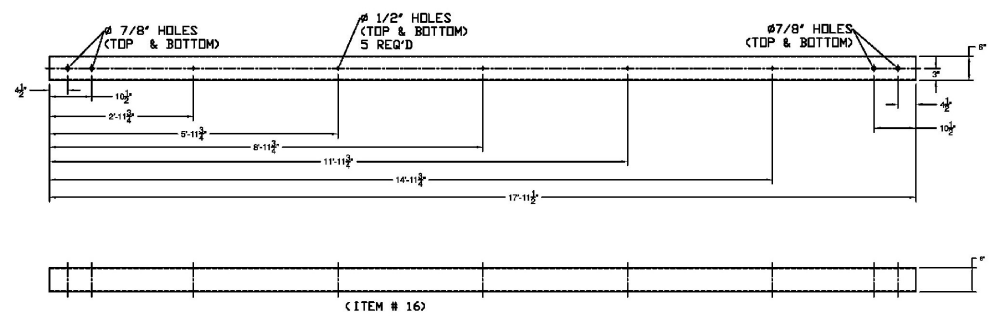
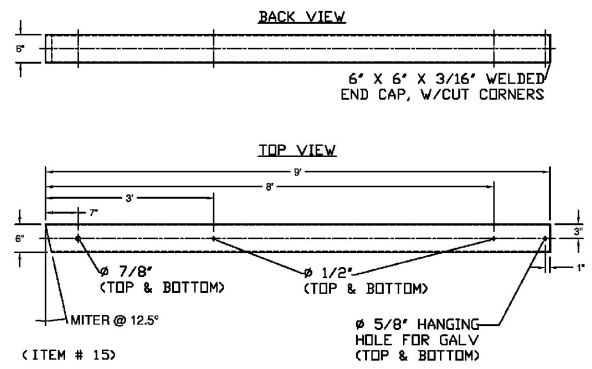
F.R. LAFAYETTE, P.O. 27399
GUARD RAIL TO BRIDGE RAIL TRANSITION DETAILS SHEET
 PROJECT: BRIGHTON, PROJECT # ER STP 034-3(25), MINOR ARTERIAL, BRIDGE # 84
 TOWN OF BRIGHTON, ESSEX COUNTY, VT.

SHEET 1 OF 4

R NO.	DATE	DESCRIPTION	BY	R NO.	DATE	DESCRIPTION	BY
E 1	12/28/12	REVISED PER 12/28/12 EMAIL	E.P.				
V 2	1/9/13	REVISED PER 1/9/13 EMAIL	E.P.				

DRAWN: E.P. 12/03/12
 CHECKED: D.L. 12/03/12
 APPROVED: [Signature]
 SCALE: [Blank]
 SCHEMATIC: [Blank]
 DRAWING NO. F.R. LAFAYETTE BRIGHTON

ELDERLEE, INC.
 OAKS CORNERS, NEW YORK 14578
 E-Mail: dlong@elderlee.com
 Tel: 315-788-8870 Fax: 315-788-8815



'A' - SEE PLAN FOR TURN BACK DISTANCE, SET ANGLE ACCORDINGLY.
 'B' - TURN DOWN ANGLE SET BY THE 9° MEASUREMENT AT THE END OF THE BOX BEAM.

- GENERAL NOTES:
- 1) ALL RAILING IS TO BE FABRICATED AND ERECTED ACCORDING TO SECTION 525 OF THE STANDARD SPECIFICATIONS.
 - 2) BOLTS SHALL BE TORQUED SNUG TIGHT (APPROXIMATELY 100 FT-LB).
 - 3) PROTRUSIONS CAUSED BY WELDING OR GALVANIZING ARE NOT PERMITTED ON THE ADJOINING SURFACES OF THE BOX BEAM RAILS, SPLICE TUBES AND FILL PLATES.
 - 4) BOX BEAM TUBE AND STEEL POST MATERIALS, DIMENSION SIZES AND NOTES SHALL BE THE SAME AS THOSE OF THE BRIDGE RAIL, UNLESS OTHERWISE NOTED.

ITEM #: 525.335

F.R. LAFAYETTE, P.O. 27399

SHEET 3 OF 4

APPROVED BY:

Vermont Agency of Transportation
RECEIVED
 CK'D BY R. Klinefelter OK'D BY J. Salvatore
 February 14, 2013
 RESUBMIT Approved X
 BY K. Higgins DATE 02/19/13

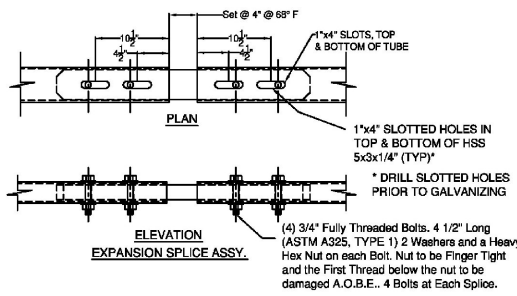
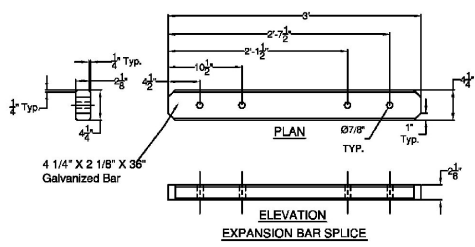
GUARD RAIL TO BRIDGE RAIL TRANSITION DETAILS SHEET
 PROJECT: BRIGHTON, PROJECT # ER STP 054-(265), MINOR ARTERIAL, BRIDGE # 84
 TOWN OF BRIGHTON, ESSEX COUNTY, VT.

R NO.	DATE	DESCRIPTION	BY	R NO.	DATE	DESCRIPTION	BY
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V 2	1/9/13	REVISED PER 1/9/13 EMAIL	V				

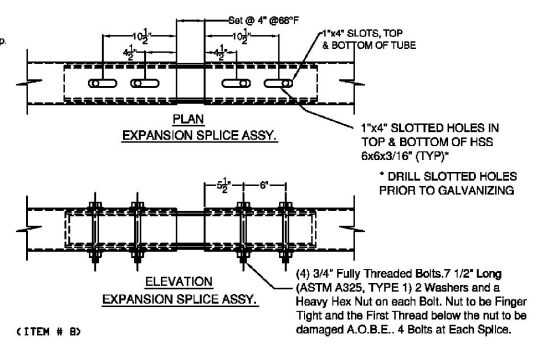
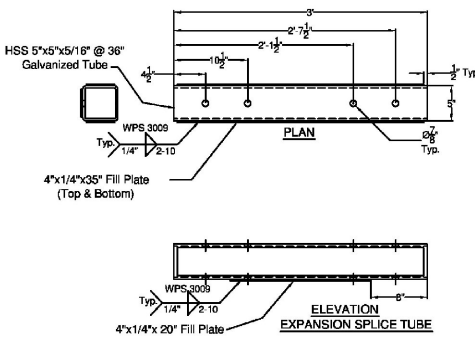
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CHECKED	D.L.	12/03/12
APPROVED		
SCALE	SCHEMATIC	
DRAWING NO. F.R. LAFAYETTE BRIGHTON		

ELDERLEE, INC.
 OAKS CORNERS, NEW YORK 14518
 E-Mail: eldlee@elderlee.com
 Tel: 315-789-6870 Fax: 315-789-6615

SPLICE BAR - EXPANSION

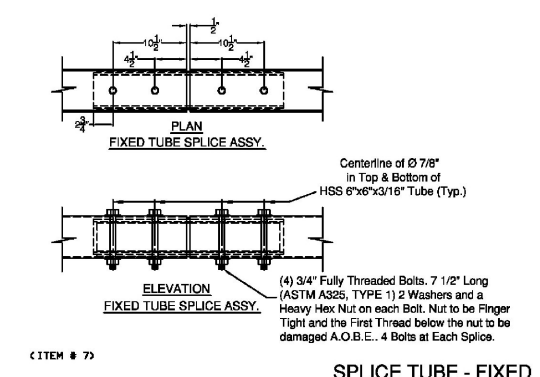
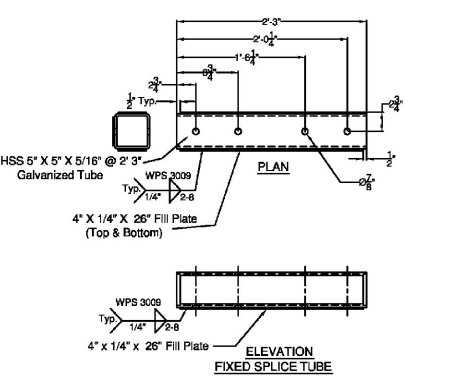


(ITEM # 9)



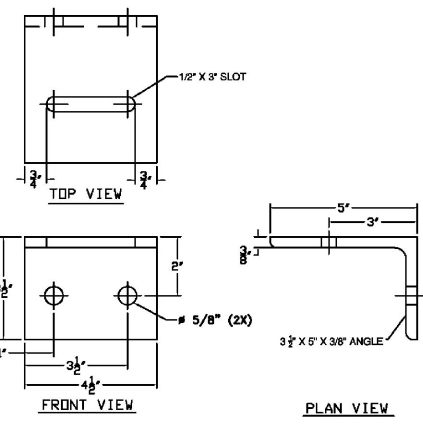
(ITEM # 8)

SPLICE TUBE - EXPANSION

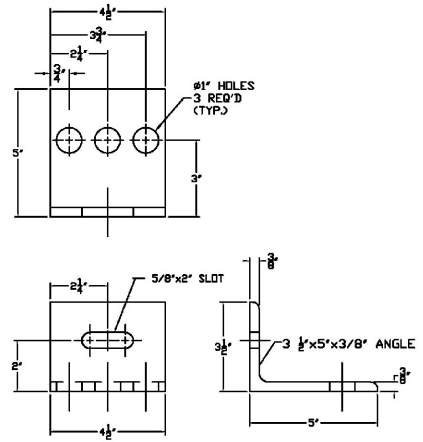


(ITEM # 7)

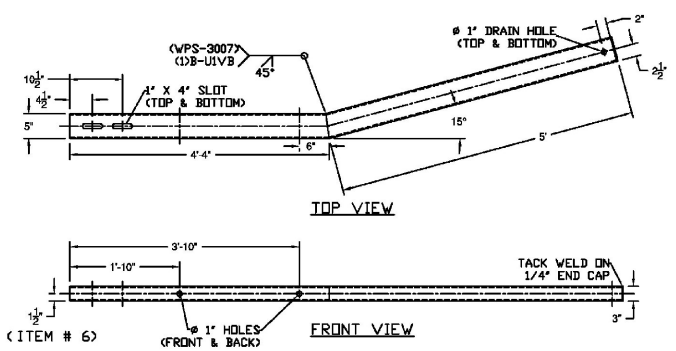
SPLICE TUBE - FIXED



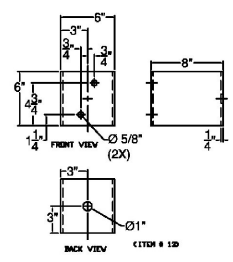
(ITEM # 10)



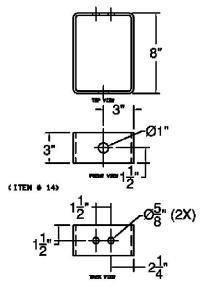
(ITEM # 11)



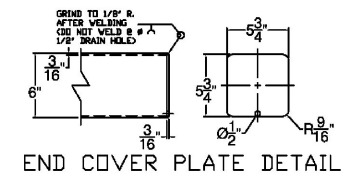
(ITEM # 6)



(ITEM # 12)



(ITEM # 14)



END COVER PLATE DETAIL

ITEM #: 525.335

Vermont Agency of Transportation

RECEIVED

CK'D BY R. Klinefelter OK'D BY J. Salvatori

February 14, 2013

RESUBMIT Approved X

BY K. Higgins DATE 02/19/13

F.R. LAFAYETTE, P.O. 27399 SHEET 4 OF 4

GUARD RAIL TO BRIDGE RAIL TRANSITION DETAILS SHEET
PROJECT: BRIGHTON, PROJECT # FR STP 034-3(25), MINOR ARTERIAL, BRIDGE # 84
TOWN OF BRIGHTON, ESSEX COUNTY, VT.

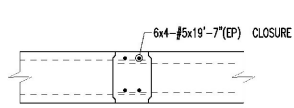
R NO.	DATE	DESCRIPTION	BY	R NO.	DATE	DESCRIPTION	BY	
E 1	12/26/11	REVISED PER 12/26/12 EMAIL	E.P.	E 1	12/03/12	DRAWN	E.P.	
V 2	1/9/13	REVISED PER 1/9/13 EMAIL	V.F.	E 2	12/03/12	CHECKED	D.L.	
							APPROVED	
							SCALE	SCHEMATIC
							DRAWING NO.	F.R. LAFAYETTE BRIGHTON



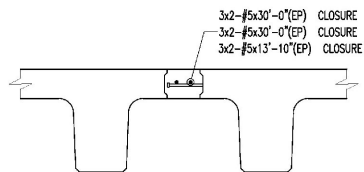
ELDERLEE, INC.
OAKS CORNERS, NEW YORK 14578
E-Mail: eldlee@elderlee.com
Tel: 315-789-8870 Fax: 315-789-8815



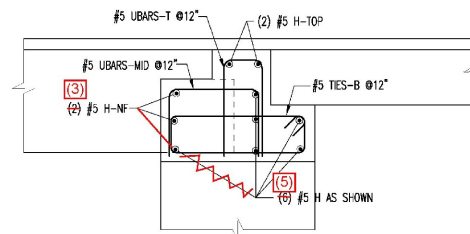
DRAWN E.P. 12/03/12
CHECKED D.L. 12/03/12
APPROVED
SCALE SCHEMATIC
DRAWING NO. F.R. LAFAYETTE BRIGHTON



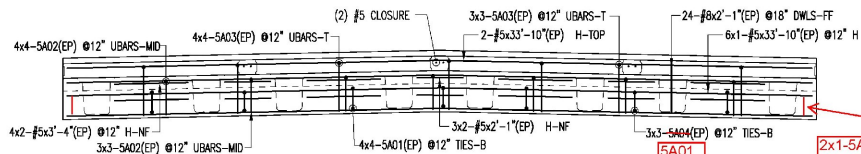
APPROACH SLAB CLOSURE



MAIN DECK CLOSURE



ABUTMENT CLOSURE POUR SECTION

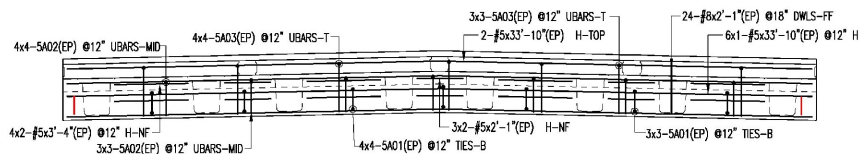
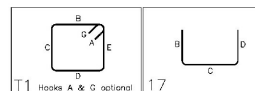


ABUTMENT #1 CLOSURE POUR

2x1-5A01(EP) TIES-B
(TYP ABUT 1 and 2)

Drawing Sheet: R01

Bar Mark	Qty	Size	Total Length	Type	W	W	W	W	W	W	W	W	W	W	W
5A01	4	#5	9'-0"	T1	5'	11'	5'-1"	11'	5'-1"	5'					
5A02	50	#5	3'-2"	T1	1'-4'	2'-1"	1'-4'	2'-1"	1'-4'	2'-1"					
5A03	50	#5	3'-1"	T1	2'-2'	1'	2'-2'	1'	2'-2'	1'					
5A04	2	#5	2'-10"	T1	5'	10'	5'-1"	10'	5'-1"	5'					



ABUTMENT #2 CLOSURE POUR

Vermont Agency of Transportation
RECEIVED

CK'D BY WDL OK'D BY GML

January 17, 2013

RESUBMIT NO Approved AsNoted
BY KMH DATE 01/22/13

1 APPROVAL PRINT		01/14/13 CPS	
No.	Description	Date	By
Revisions and Issue Record			
The full intent and purpose of this drawing is the placing of reinforcing steel bars ONLY. It is NOT to be used as a means of communication between the Architect, Engineer, Contractor or any other Sub-trades.			
THIS DRAWING IS NOT TO BE SCALED.			
BARKER STEEL LLC		CANAAN NEW HAMPSHIRE	
Project: BRIGHTON ER STP 034--(25) BRIGHTON VT 05451			
Drawing: POUR CLOSURES REINFORCEMENT			
Customer: J.A. MCDONALD			
Engineer:			
Refer to Release:			
Date	Drawn	Chkd.	JOB No.
01/14/13	CPS		10049037
			Dwg. No.
			R01

REINFORCED ELASTOMERIC BEARING FABRICATION SHEET 1103- Page #: 1

Project #: 38760-1103-1 (16 of 16) Customer: J A McDONALD (PO # 101912)

County: ESSEX State: VT Structure: BRIDGE 84

Pad I.D./Loc.: ABUTMENTS Quantity (Including Full Size Sample(s) - If Req'd): 16

Certifications Are Required Testing Req'd: YES, see below NO, random in-house only VADOT 2011
 Sample Req'd: YES - (If not full size, create another sheet) NO

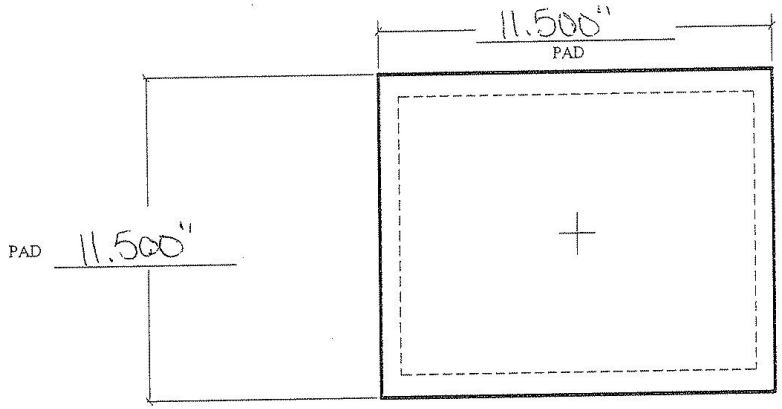
State D.O.T. Spec. Number (If Specified): SEC 631-731 Project # (req'd for cert.s): ER STP 034-3(25)

Special Notes: _____

Shim Steel Spec. (Circle One): A709 GR.36(250) A1011 GR.36(250)-Type 1 Other: _____

Durometer Requirement (Circle One): 50±5 60±5 Other: _____ Shear Modulus Requirement: 100 PSI ± 15%

Neoprene Grade (Circle One): 3 (4) Other Grade or Natural Rubber: NATURAL RUBBER



Vermont Agency of Transportation
RECEIVED
 CK'D BY JTS OK'D BY WDL
 December 6, 2012
 RESUBMIT _____ APPROVED _____ AS NOTED
 BY KMH 12-20-12

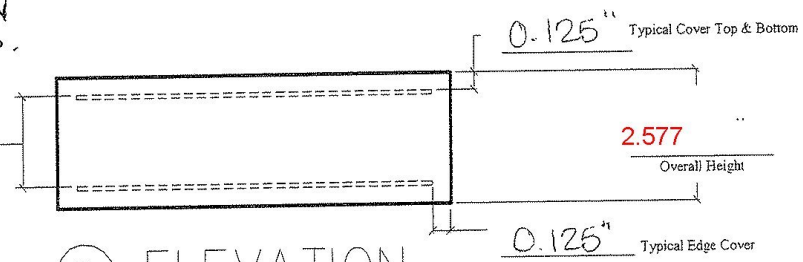
(A) PLAN

NOT TO SCALE

Please verify the use of 14 GA SHIMS IN LIEU OF 16 GA SHIMS.

of Reinforcing Plates: 5
 Plate Thickness: 14 GA

4 # of Inner Rubber Layers
 @ 0.484" = 1.936"



(B) ELEVATION

NOT TO SCALE

Name: Maureen Davis Date: 12-5-12

This shop drawing was prepared in accordance with the contract plans and specifications. The D.S. Brown Company does not accept liability for the design of the products detailed in the shop drawings.

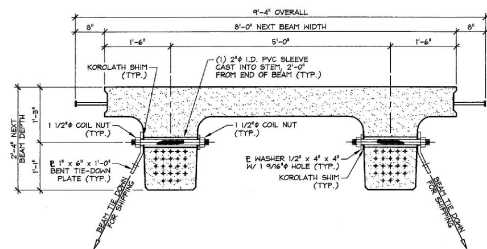
ABUTMENT & WING WALL GENERAL NOTES

- MIN. CONCRETE STRENGTH AT 28 DAYS SHALL BE 5,000 PSI.
- MIN. CONCRETE STRENGTH AT STRESS TRANSFER SHALL BE 3,500 PSI.
- REINFORCING STEEL SHALL BE GR-40, ASTM A-415 (AASHTO M51) EPOXY COATED.
- THE TOP OF ABUTMENTS SHALL RECEIVE A RAKE FINISH ROUGHENED TO 1/4" AMPLITUDE (UNLESS NOTED OTHERWISE).
- THE TOP OF WING WALLS SHALL RECEIVE A SMOOTH FLOAT FINISH (UNLESS NOTED OTHERWISE).
- SHEAR KEY SURFACES SHALL BE BLASTED CLEAN.
- PRECAST CONCRETE UNITS SHALL BE HANDLED AND ERECTED USING THE LIFTING INSERTS ONLY. THE MINIMUM SLING ANGLE FROM THE HORIZONTAL SHALL BE 60°. NON-PRESTRESSED UNITS SHALL BE STORED & TRANSPORTED WITH TOWER SUPPORTS AT 6ft POINTS, UNLESS APPROVED BY J.P. CARRARA & SONS, INC.
- MATERIAL SPECIFICATION AND MIX DESIGN SHALL CONFORM TO VERTICAL SPEC. PG.102 AND PG.103 RESPECTIVELY.
 - DESIGN USE: J.P.C. BRIDGE MIX #4291 NO DCI
 - KING WALLS: J.P.C. BRIDGE MIX #4291 NO DCI
 - APPROACH SLABS: J.P.C. BRIDGE MIX #4291 NO DCI
 - ABUTMENTS: J.P.C. BRIDGE MIX #4291
- QUALITY CONTROL PROCEDURES ARE IN ACCORDANCE WITH PCI REQUIREMENTS. J.P. CARRARA & SONS, INC. IS A PCI CERTIFIED PLANT.
- CURING METHOD: AS SOON AS THE TOP OF PRECAST CONCRETE UNITS ARE FINISHED A COVER OF RIGID INSULATION AND POLY WILL BE PLACED OVER THE UNIT. NATURAL CURE WITH NO EXTERNAL HEAT APPLIED.
 - A. ERECT PRECAST CONCRETE ABUTMENTS AND POST-TENSION CENTER TENDON TO APPROXIMATELY 5,000 LBS.
 - B. GROUT SHEAR KEY.
 - C. ONCE SHEAR KEY GROUT HAS ATTAINED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI, POST-TENSION TENDONS TO 32,000 LBS.

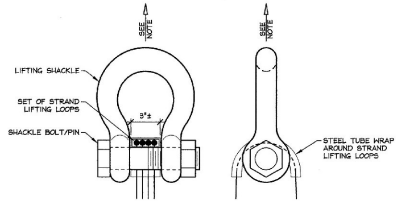
NEXT BEAM GENERAL NOTES

- MIN. CONCRETE STRENGTH AT 28 DAYS SHALL BE 5,000 PSI.
- MIN. CONCRETE STRENGTH AT STRESS TRANSFER SHALL BE 3,000 PSI.
- REINFORCING STEEL SHALL BE GR-40, ASTM A-415 (AASHTO M51) EPOXY COATED.
- PRESTRESSING STRANDS SHALL CONFORM TO ASTM A-46 (AASHTO M203) AND SHALL CONSIST OF 0.619" x 270 KSI 7-WIRE LOW RELAXATION STRANDS.
- PRESTRESSING STRANDS SHALL EACH BE PULLED TO HAVE A NET TENSION OF 44 K AFTER ACCOUNTING FOR CHICK SLIPPAGE. TENSION SHALL BE VERIFIED BY MEASURING STRAND ELONGATION. (SEE EXAMPLE ELONGATION CALCULATION AND TENSIONING PROCEDURE, THIS SHEET.)
- ENDS OF PRESTRESSING STRANDS SHALL BE CUT FLUSH WITH END OF NEXT BEAM STEPS (UNLESS NOTED OTHERWISE) AND EPOXY PAINTED.
- ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4".
- THE TOP OF BEAMS SHALL RECEIVE A SMOOTH FLOAT FINISH (UNLESS NOTED OTHERWISE).
- SHEAR KEY SURFACES SHALL BE BLASTED CLEAN.
- BEAMS SHALL BE HANDLED AND ERECTED USING THE LIFTING LOOPS ONLY. RIGGING SHALL BE CONFIGURED SUCH THAT EQUAL FORCES ARE APPLIED TO EACH OF THE TWO LIFTING LOOPS AT EACH END OF THE BEAM. THE PINS OF THE SHACKLES SHALL BE PLACED THROUGH THE LIFTING LOOPS. SEE DETAIL, THIS SHEET. BEAMS SHALL BE STORED & TRANSPORTED WITH TOWER SUPPORTS WITHIN 2'-0" OF THE BEAM ENDS, UNLESS APPROVED BY J.P. CARRARA & SONS, INC.
- MATERIAL SPECIFICATION AND MIX DESIGN SHALL CONFORM TO VERTICAL SPEC. PG.102 AND PG.103 RESPECTIVELY.
 - DESIGN USE: J.P.C. BRIDGE MIX #4291 (5 GAL. CYC DCI)
- QUALITY CONTROL PROCEDURES ARE IN ACCORDANCE WITH PCI REQUIREMENTS. J.P. CARRARA & SONS, INC. IS A PCI CERTIFIED PLANT.
- CURING METHOD: AS SOON AS THE TOP OF BEAM IS FINISHED, A COVER OF INSULATED POLY. THE DESIRED CURING TEMPERATURE RANGE SHALL NOT DROP BELOW 50°F. THE TEMPERATURE SHALL BE RECORDED BY AUTOMATIC SENSOR INSTRUMENTS ON GRAPH CHARTS, SPACED NOT MORE THAN 60" APART AND WILL CONTINUE UNTIL RELEASE STRENGTH IS ACHIEVED. EACH CHART SHALL BE MARKED WITH THE CASTING DATE AND LOCATION OF THE RECORDER. IF NECESSARY TO MAINTAIN CASTING BED TEMPERATURE PRIOR TO CONCRETE PLACEMENT OR TO ACCELERATE EARLY AGE STRENGTH GAIN, EXTERNAL RADIANT HEAT MAY BE EMPLOYED VIA HOT WATER DUCTS BENEATH AND WITHIN THE PERIMETER OF THE CASTING BED. MAXIMUM CURING TEMPERATURE SHALL NOT EXCEED PCI SPECIFIED LIMITS.
- OWNER SHALL PROVIDE APPROPRIATE WATERPROOFING TO GROUTED SHEAR KEYS. J.P. CARRARA & SONS, INC. SHALL NOT BE HELD LIABLE FOR PROBLEMS ASSOCIATED WITH MOISTURE INFILTRATING GROUTED SHEAR KEYS.

DRAWING INDEX			
SHT. #	DRAWING TITLE	REV. #	REV. DATE
C1	COVER SHEET		
F1	SUPERSTRUCTURE PLANS	1	12-10-12
F2	ABUTMENT ELEVATIONS	1	12-10-12
F3	ABUTMENT DETAILS		
F4	TRANSVERSE SECTIONS & DETAILS	1	12-10-12
NB1	PRESTRESSED NEXT BEAM DETAILS "B-NB2"	1	12-10-12
NB2	PRESTRESSED NEXT BEAM DETAILS "B-NB1"	1	12-10-12
NB3	PRESTRESSED NEXT BEAM DETAILS "B-NB3"	1	12-10-12
AB1	PRECAST APPROACH SLAB DETAILS "B-AS1" & "B-AS2"		
AS2	PRECAST APPROACH SLAB DETAILS "B-AS3" & "B-AS4"		
AB1	PRECAST ABUTMENT DETAILS "B-AB1"	1	12-10-12
AB2	PRECAST ABUTMENT DETAILS "B-AB3"	1	12-10-12
AB3	PRECAST ABUTMENT DETAILS "B-AB4"	1	12-10-12
AB4	PRECAST ABUTMENT DETAILS "B-AB2"	1	12-10-12
HW1	PRECAST KING WALL DETAILS	1	12-10-12
M1	MATERIALS LIST	1	12-10-12



NEXT BEAM 28D HOLD-DOWN DETAIL FOR SHIPPING
3/4" x 1'-0"



LIFTING SHACKLE DETAILS
N.T.S.

EXAMPLE PRESTRESSING STRAND ELONGATION CALC. AND TENSIONING

(NOT TO BE USED FOR CONSTRUCTION)

SIZE & GRADE: 0.619" x 270 KSI
 AREA: 0.217 IN²
 TENSION: 44,000 LB. EACH STRAND
 GRIP-TO-GRIP: 200'-0" = 200.00'
 Es = 28,400,000 PSI (ASSUMED FOR THESE CALCULATIONS; VALUE TO BE OBTAINED FOR STRAND SPEC. ACTUALLY USED)

EXAMPLE:

$$\Delta L = \frac{P_e}{AE} = \frac{(44,000 \times 0.217) \times 200.00 \times 1.12}{19,477} = 19.477'$$

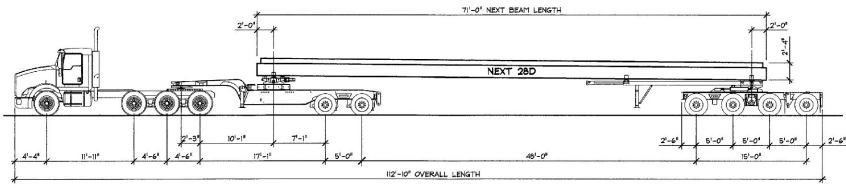
THEREFORE: (TOLERANCES ± 5%)
 Δ UPPER LIMIT = 1.08 x 19.477' = 20.96' ± 2"
 Δ LOWER LIMIT = 0.92 x 19.477' = 18.04' ± 2"
 EXTRA FORCE REQUIRED TO COMPENSATE FOR 1/2" CHUCK SLIPPAGE:

$$\Delta P = \frac{0.5 \times 49,000}{19.477} = 1,226 \text{ LBS.}$$

TOTAL TENSIONING FORCE = 44,000 + 1,026 = 45,026 LBS.

STRAND TENSIONING PROCEDURE:

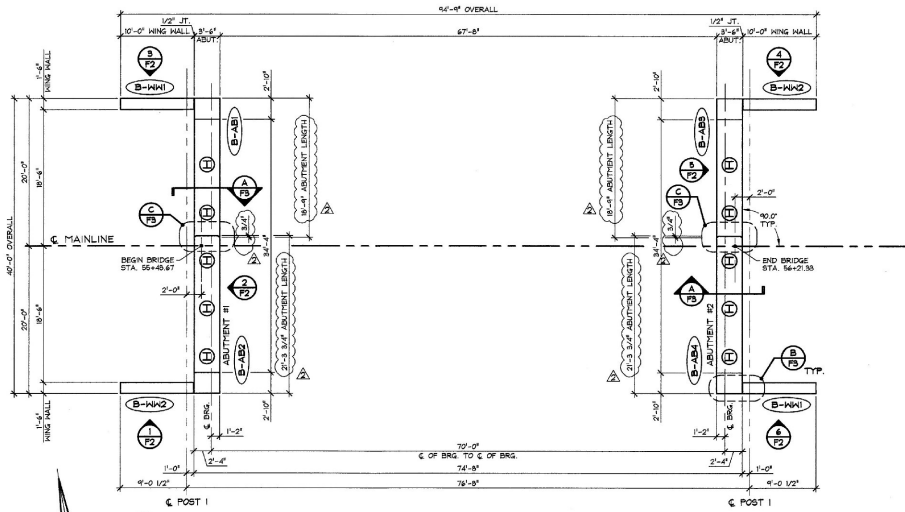
- PULL EACH STRAND INITIALLY TO 3,000 LBS. AND MARK STRAND.
 - THEN PULL EACH STRAND TO A TOTAL TENSION OF 45,026 LBS. AND MEASURE ELONGATION AFTER SEATING. IT MUST BE BETWEEN 18" AND 21".
- NOTE: FORCES READ ON STRESSING JACK GAUGES MUST BE MADE TO CORRESPOND TO ABOVE VALUES BASED ON CALIBRATION DATA FOR SPECIFIC JACK USED.



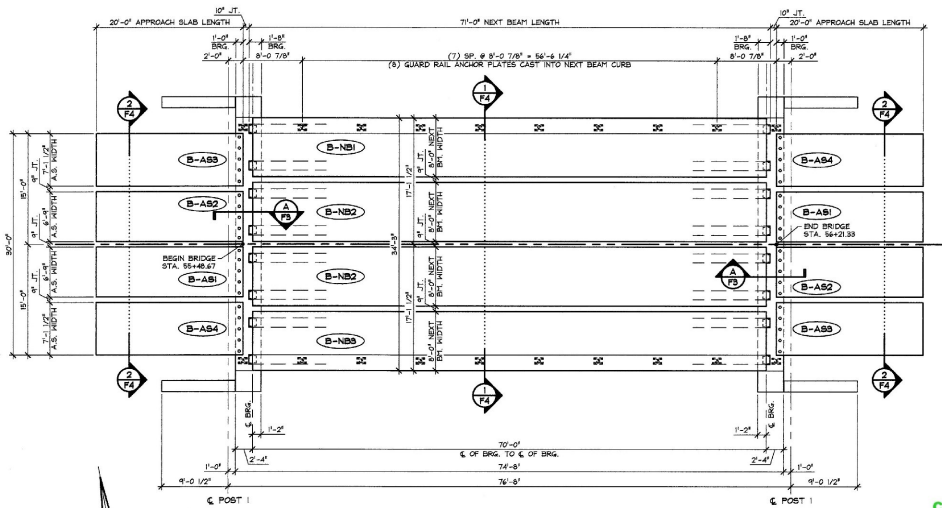
SHIPPING ELEVATION
N.T.S.

APPROVAL STAMP:
 Vermont Agency of Transportation
RECEIVED
 CK'D BY **WDL** OK'D BY **JTS**
 January 9th, 2013
 RESUBMIT BY **KMH** APPROVED X
 DATE **1-10-13**

J.P. CARRARA & SONS INC. Precast & Prestress Manufacturer <small>204 USE STR. BLDG.201 CHASE 0103 Phone: (802)398-6501 Fax: (802)398-9610</small>		J.A. McDONALD, INC. CONTRACTOR LYNDON CENTER, VERMONT	
STATE OF VERMONT AGENCY OF TRANSPORTATION COUNTY OF ESSEX		DATE: OCT. 30, 2012	SCALE: NOTED
TOWN OF BRIGHTON ROUTE NO. VT 105, MINOR ARTERIAL BRIDGE NO.: 84 PROJECT NO.: ER STP 034-B(26)		CHKD: B.C. DFTN: B.L.	JOB NO: 23954-012
COVER SHEET		DWG. NO:	C1



1 PRECAST CONCRETE ABUTMENT & WING WALL LAYOUT
1/8" = 1'-0"



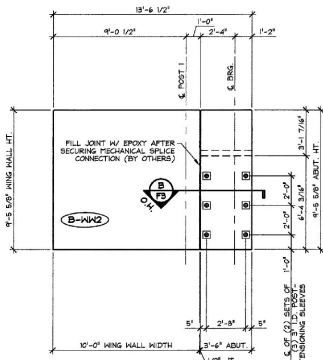
2 PRESTRESSED APPROACH SLAB & NEXT BEAM LAYOUT
1/8" = 1'-0"

- △ 1-3-13 REVISED AS NOTED
- △ 12-10-12 REVISE ABUTMENT #1 & WING WALL PIECE NUMBERS

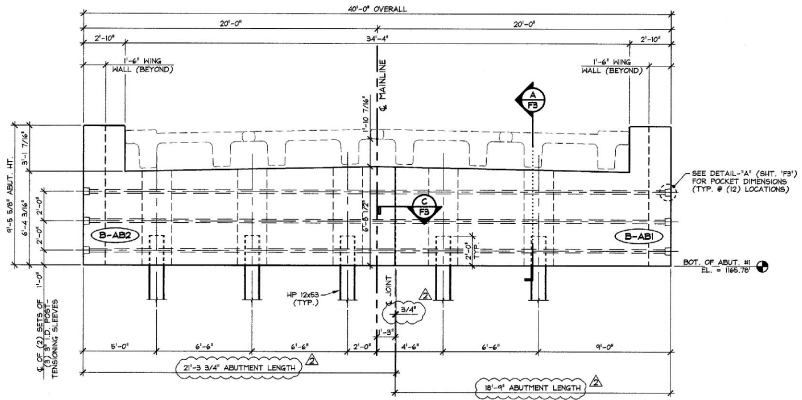
Vermont Agency of Transportation
RECEIVED
 CK'D BY WDL OK'D BY JTS
 January 9th, 2013
 RESUBMIT APPROVED X
 BY KMH DATE 1-10-13

J.P. CARRARA & SONS INC. Precast & Prestress Manufacturer <small>244 ONE ST., WASHINGTON, VERMONT 05353 Phone: (802) 258-5261 Fax: (802) 258-9910</small>		J.A. McDONALD, INC. CONTRACTOR <small>LYNDON CENTER, VERMONT</small>	
STATE OF VERMONT AGENCY OF TRANSPORTATION COUNTY OF ESSEX		DATE: OCT. 30, 2012 SCALE: NOTED	
TOWN OF BRIGHTON ROUTE NO. VT 105, MINOR ARTERIAL BRIDGE NO.: 84 PROJECT NO.: ER STP 054-3(25)		CHKD: B.C. DTM: B.L. JOB NO: 23304-012	
SUPERSTRUCTURE PLANS		DWG. NO: F1	

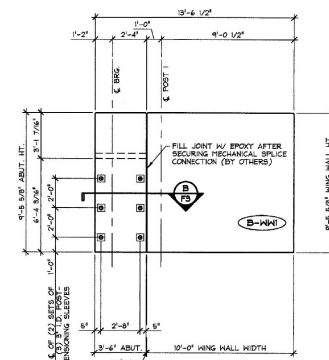
SUBMITTED
 JAN 9 2013
 J.P. CARRARA & SONS, INC.
 MIDDLEBURY, VT 05753



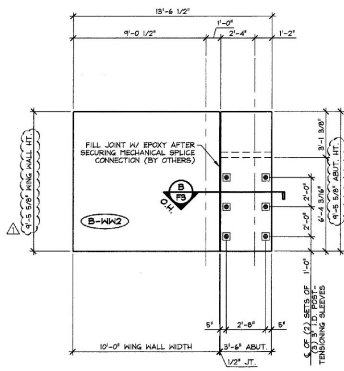
1 WING WALL #2 - SOUTH
F2 ELEVATION
1/4" = 1'-0"



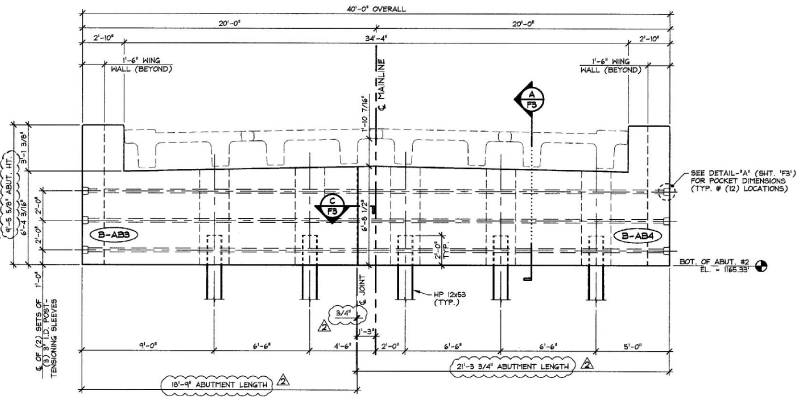
2 ABUTMENT #1 - EAST ELEVATION
F2
1/4" = 1'-0"



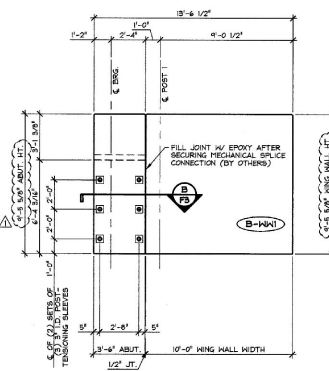
3 WING WALL #1 - NORTH
F2 ELEVATION
1/4" = 1'-0"



4 WING WALL #3 - NORTH
F2 ELEVATION
1/4" = 1'-0"



5 ABUTMENT #2 - WEST ELEVATION
F2
1/4" = 1'-0"



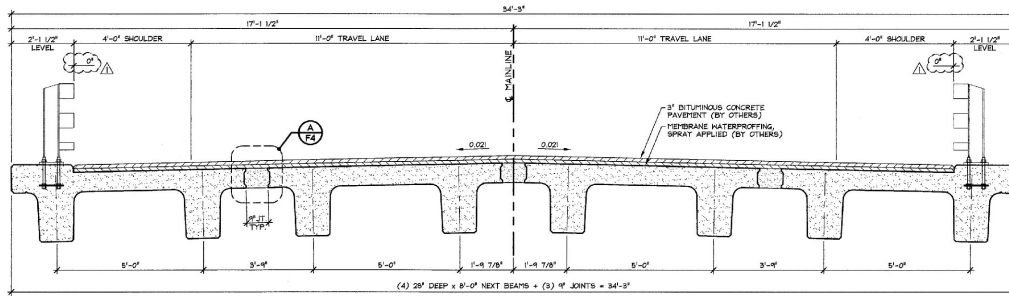
6 WING WALL #4 - SOUTH
F2 ELEVATION
1/4" = 1'-0"

1-3-13 REVISED AS NOTED
12-10-12 REVISE ABUTMENT #1 LAYOUT & ABUTMENT #2 ELEVATIONS

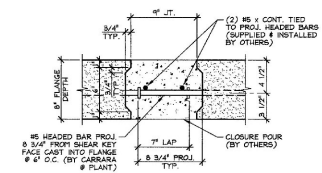
Vermont Agency of Transportation
RECEIVED
CK'D BY WDL OK'D BY JTS
January 9th, 2013
RESUBMIT APPROVED X
BY KMH DATE 1-10-13

J.P. CARRARA & SONS INC. Precast & Prestress Manufacturer 1464 ONE ST. WILKINSVILLE VT 05363 Phone: (802) 388-4381 Fax: (802) 388-8010	J.A. McDONALD, INC. CONTRACTOR LYNDON CENTER, VERMONT
STATE OF VERMONT AGENCY OF TRANSPORTATION COUNTY OF ESSEX	DATE: OCT. 30, 2012 SCALE: NOTED
TOWN OF BRIGHTON ROUTE NO. VT 105, MINOR ARTERIAL BRIDGE NO.: 84 PROJECT NO.: ER STP 094-3(26)	CHKD: B.C. DFM: B.L. JOB NO: 23364-012
ABUTMENT ELEVATIONS	DWG. NO: F2

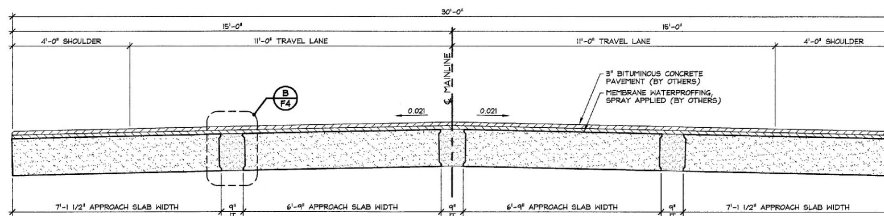
SUBMITTED
JAN 9 2013
J.P. CARRARA & SONS, INC.
Middletown, VT 05753



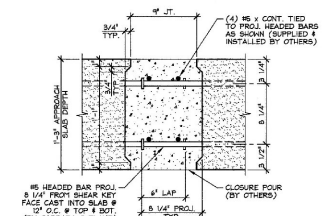
1 NEXT BEAM TRANSVERSE SECTION
F4
1/2" = 1'-0"



A NEXT BEAM CLOSURE POUR
F4
1/2" = 1'-0"



2 APPROACH SLAB TRANSVERSE SECTION
F4
1/2" = 1'-0"



B APPROACH SLAB CLOSURE POUR
F4
1/2" = 1'-0"

SUBMITTED

JAN 9 2013

J.P. CARRARA & SONS, INC.
MIDDLEBURY, VT 05753

12-10-12 REVISE GUARD RAIL LOCATIONS

Vermont Agency of Transportation

RECEIVED

CK'D BY WDL OK'D BY JTS

January 9th, 2013

RESUBMIT APPROVED X
BY KMH DATE 1-10-13

J.P. CARRARA & SONS INC.

Precast & Prestress Manufacturer
200 USE STR. ROADWAY CENTER RD. Phone: (802)338-6301 Fax: (802)338-9010

J.A. McDONALD, INC.

CONTRACTOR
LYNDON CENTER, VERMONT

STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF ESSEX

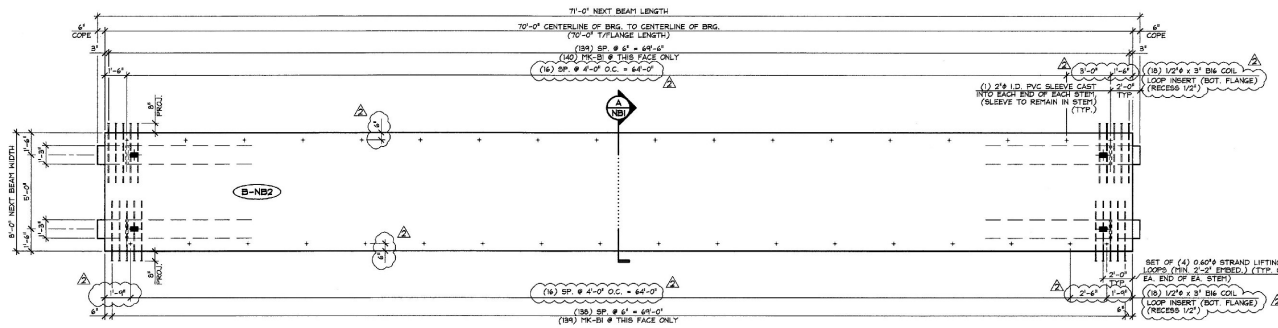
DATE: OCT. 30, 2012
SCALE: NOTED

TOWN OF BRIGHTON
ROUTE NO. VT 105, MINOR ARTERIAL
BRIDGE NO.: 84 PROJECT NO.: ER STP 034-3(25)

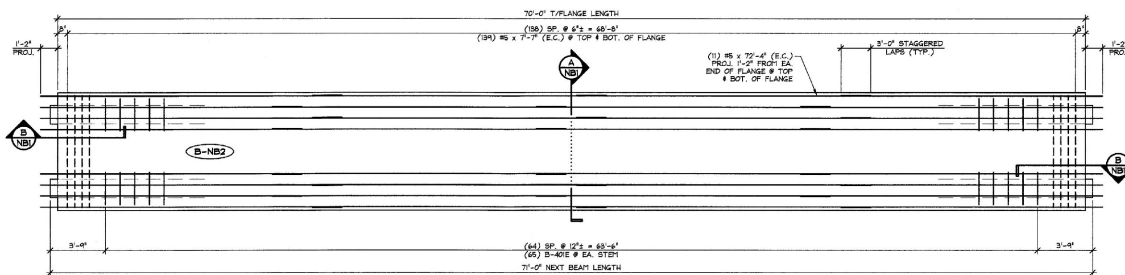
CHKD: B.G. DFTW: B.L.
JOB NO: 23854-012

TRANSVERSE SECTIONS & DETAILS

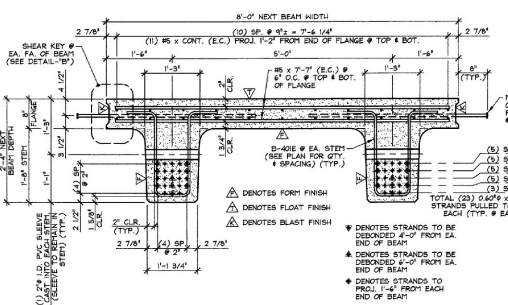
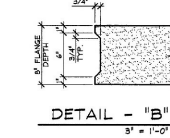
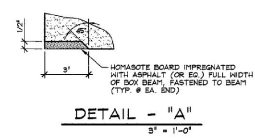
DWG. NO: **F4**



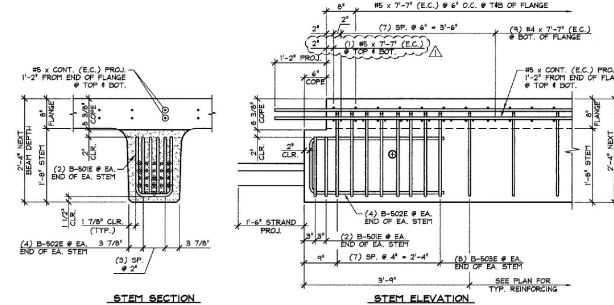
1 DIMENSIONAL PLAN VIEW IN FORM
NB1
1/4" = 1'-0"



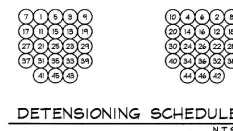
2 REINFORCING PLAN VIEW IN FORM
NB1
1/4" = 1'-0"



A DIMENSIONAL & REINFORCING SECTION
NB1
3/4" = 1'-0"



B END BLOCK STEM REINFORCING DETAILS
NB1
3/4" = 1'-0"



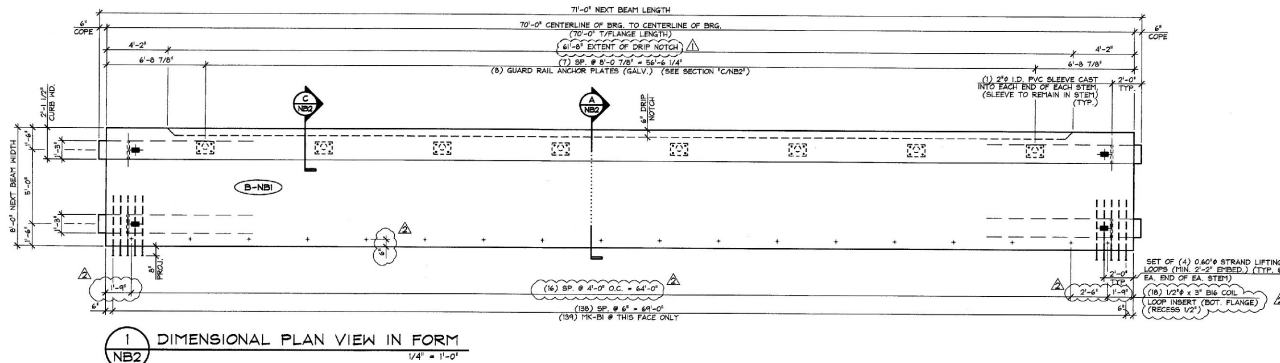
1-3-13 REVISED AS NOTED
12-10-12 REVISED AS NOTED

APPROVAL STAMP:	J.P. CARRARA & SONS INC. Precast & Prestress Manufacturer 2441 USE ST., WASHINGTON, VERMONT 05692 Phone: (802) 368-5381 Fax: (802) 368-9110	J.A. McDONALD, INC. CONTRACTOR LYNDON CENTER, VERMONT
STATE OF VERMONT AGENCY OF TRANSPORTATION COUNTY OF ESSEX		DATE: OCT. 30, 2012 SCALE: NOTED
TOWN OF BRIGHTON ROUTE NO. VT 105, MINOR ARTERIAL BRIDGE NO.: 84 PROJECT NO.: ER STP 084-3(26)		CHKD: B.C. DFM: B.L. JOB NO.: 23384-012
PRESTRESSED NEXT BEAM DETAILS		DWG. NO: NB1

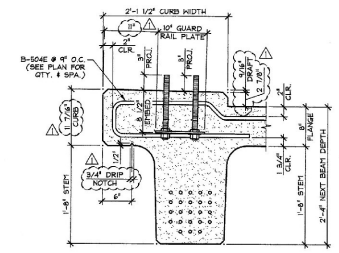
Vermont Agency of Transportation
RECEIVED
CK'D BY WDL OK'D BY JTS
January 9th, 2013
RESUBMIT X APPROVED
BY KMH DATE 1-10-13

SUBMITTED
JAN 9 2013
J.P. CARRARA & SONS, INC.
MIDDLEBURY, VT 05753

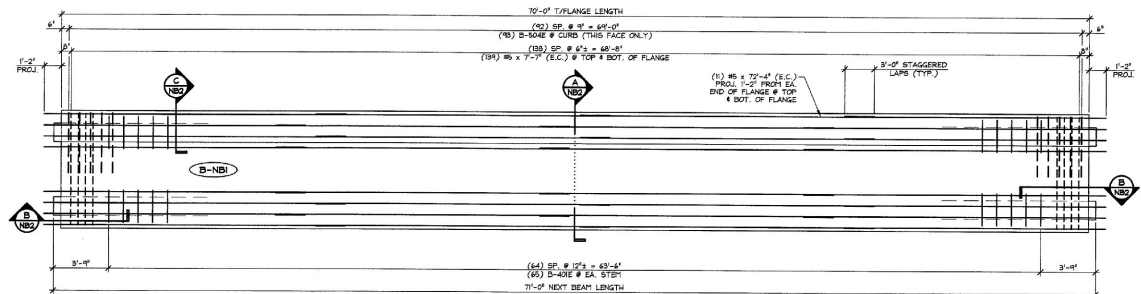
MARK: B-NB2	QTY: 2	WT.: 49.41 T	VOL.: 24.40 cy
MATERIAL LIST / BOX BEAM			
ITEM	MARK	DESCRIPTION	QTY.
1	B-40E	#4 BENT BAR (EPOXY COATED)	180
2		#4 x 7'-7" (EPOXY COATED)	18
3			
4	B-50E	#5 BENT BAR (EPOXY COATED)	8
5	B-50E	#5 BENT BAR (EPOXY COATED)	16
6	B-50E	#5 BENT BAR (EPOXY COATED)	32
7		#5 x 7'-7" (EPOXY COATED)	280
8		#5 x 72'-0" (N) (3) 3'-0" STAGGERED LAPS (EPOXY COATED)	22
9			
10			
11	11K-B1	#5 x 4'-11" HRC 505 HEADED REBAR (EPOXY COATED)	276
12			
13		1/2" x 3' BIG COIL LOOP INSERT (ELECTRO-PLATED FINISH)	34
14		SET OF (4) 0.607" STRAND LIFTING LOOPS	4
15			



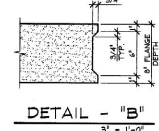
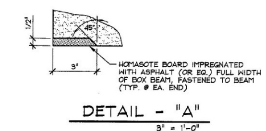
1 DIMENSIONAL PLAN VIEW IN FORM NB2 1/4" = 1'-0"



C CURB & GUARD RAIL ANCHOR PLATE SECTION NB2 1" = 1'-0"



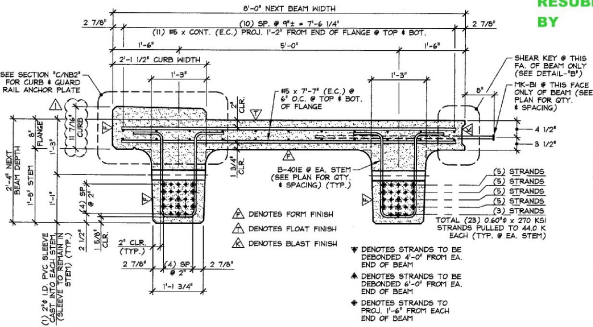
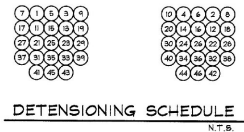
2 REINFORCING PLAN VIEW IN FORM NB2 1/4" = 1'-0"



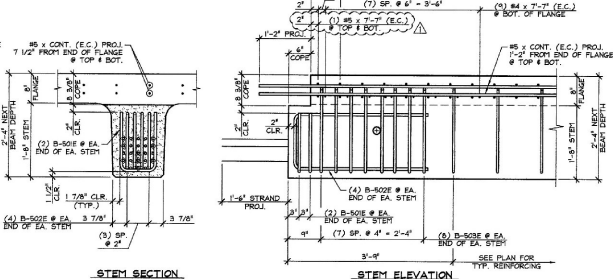
Vermont Agency of Transportation
RECEIVED
 CK'D BY WDL OK'D BY JTS
 January 9th, 2013
 RESUBMIT APPROVED X
 BY KMH DATE 1-10-13

SUBMITTED
 JAN 9 2013
 J.P. CARRARA & SONS, INC.
 MIDDLEBURY, VT 05753

MARK	B-NB1	QTY.	1	WT.	52.52 T	VOL.	25.94 cy
MATERIAL LIST / BOX BEAM							
ITEM	MARK	DESCRIPTION	QTY.				
1	B-40E	#4 BENT BAR (EPOXY COATED)	180				
2		#4 x 7'-3" (EPOXY COATED)	18				
3							
4	B-50E	#5 BENT BAR (EPOXY COATED)	8				
5	B-50E	#5 BENT BAR (EPOXY COATED)	14				
6	B-50E	#5 BENT BAR (EPOXY COATED)	32				
7	B-50E	#5 BENT BAR (EPOXY COATED)	43				
8		#5 x 7'-3" (EPOXY COATED)	282				
9		#5 x 7'-3" (EPOXY COATED)	22				
10							
11	FK-B1	#5 x 4'-1" HRC 165 HEADED REBAR (EPOXY COATED)	124				
12		1/2" x 3" DIA. COIL LOOP INSERT (ELECTRO-PLATED FINISH)	18				
13		GUARD RAIL ANCHOR PLATE (GALV.)	8				
14		SET OF (4) 0.60" x 270 KSI STRAND LIFTING LOOPS	4				
15							

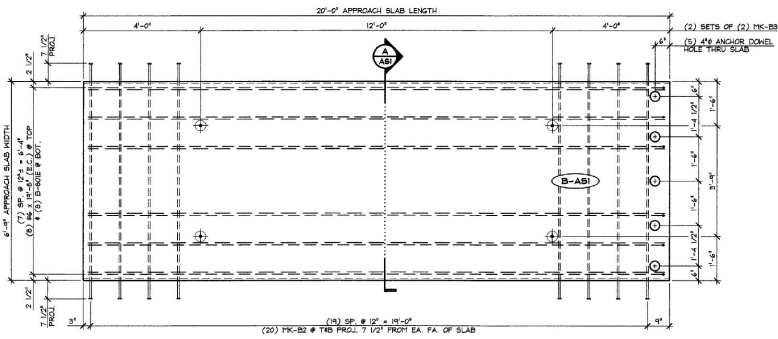


A DIMENSIONAL & REINFORCING SECTION NB2 3/4" = 1'-0"

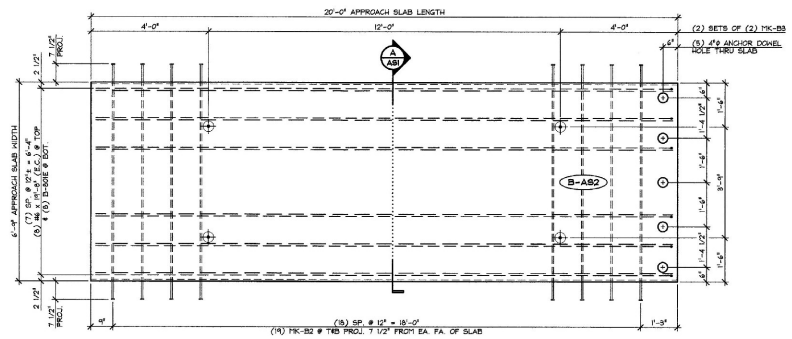


B END BLOCK STEM REINFORCING DETAILS NB2 3/4" = 1'-0"

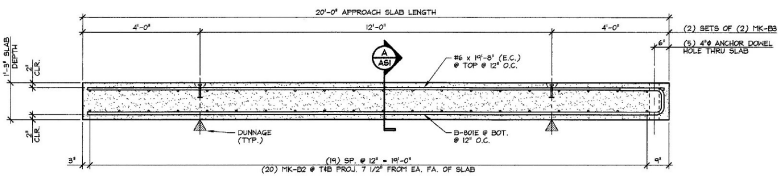
APPROVAL STAMP:
 1-5-13 REVISED AS NOTED
 12-10-12 REVISED AS NOTED
 J.P. CARRARA & SONS INC.
 Precast & Prestress Manufacturer
 284 GEE ST., MIDDLEBURY VERMONT 05753 Phone: (802) 388-4381 Fax: (802) 388-9510
 STATE OF VERMONT AGENCY OF TRANSPORTATION
 COUNTY OF ESSEX
 TOWN OF BRIGHTON
 ROUTE NO. VT 108, MINOR ARTERIAL
 BRIDGE NO.: 84 PROJECT NO.: ER STP 034-3(25)
 PRESTRESSED NEXT BEAM DETAILS
 DATE: OCT. 30, 2012
 SCALE: NOTED
 CHKD: B.C. DFTM: B.L.
 JOB NO: 23984-012
 DWG. NO: NB2



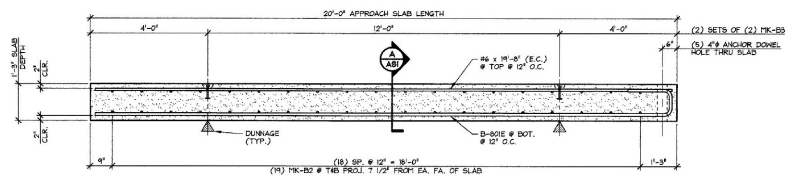
1 PLAN VIEW IN FORM
ASI 1/2" = 1'-0"



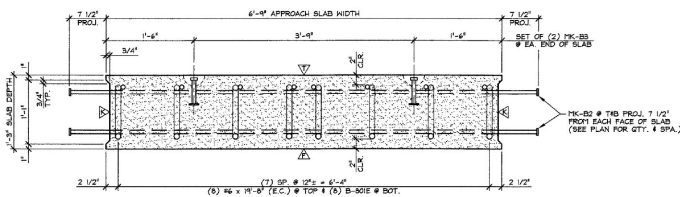
3 PLAN VIEW IN FORM
ASI 1/2" = 1'-0"



2 ELEVATION
ASI 1/2" = 1'-0"



4 ELEVATION
ASI 1/2" = 1'-0"



A APPROACH SLAB SECTION
ASI 1" = 1'-0"

△ DENOTES FORM FINISH
△ DENOTES FLOAT FINISH
△ DENOTES BLAST FINISH

SUBMITTED
JAN 9 2013
J.P. CARRARA & SONS, INC.
MIDDLEBURY, VT 05753

MARK: B-AS1	QTY.: 2	WT.: 12.46 T	VOL.: 6.16 cy
MARK: B-AS2	QTY.: 2	WT.: 12.46 T	VOL.: 6.16 cy

MATERIAL LIST / APPROACH SLAB				
ITEM	MARK	DESCRIPTION	QTY./SLAB	
			B-AS1	B-AS2
1		#6 x 11'-8" (EPOXY COATED)	0	0
2				
3	B-BOIE	#6 BENT BAR (EPOXY COATED)	0	0
4				
5				
6				
7	TK-B2	#6 x 8'-0" A193 DOUBLE-HEADED REBAR (EPOXY COATED)	40	30
8	TK-B3	47 x 5 1/2" SHIFTS LIFT LIFTER	4	4
9				
10				

Vermont Agency of Transportation
RECEIVED
CK'D BY WDL OK'D BY JTS
January 9th, 2013
RESUBMIT BY KMH APPROVED DATE 1-10-13

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
100 USE ST., WOODBURY CENTER RD. Phone: (802) 238-1381 Fax: (802) 238-1010

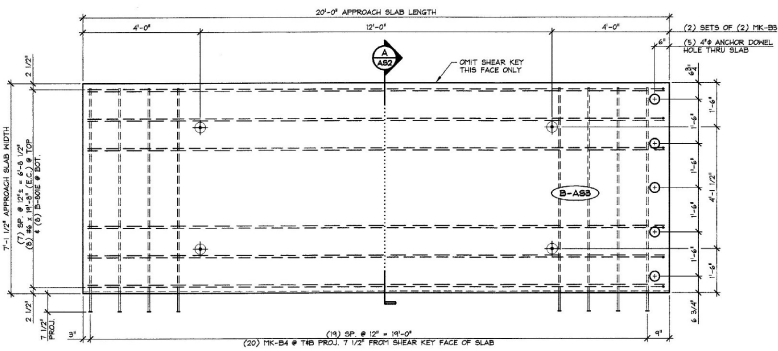
J.A. McDONALD, INC.
CONTRACTOR
LYNDON CENTER, VERMONT

STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF ESSEX

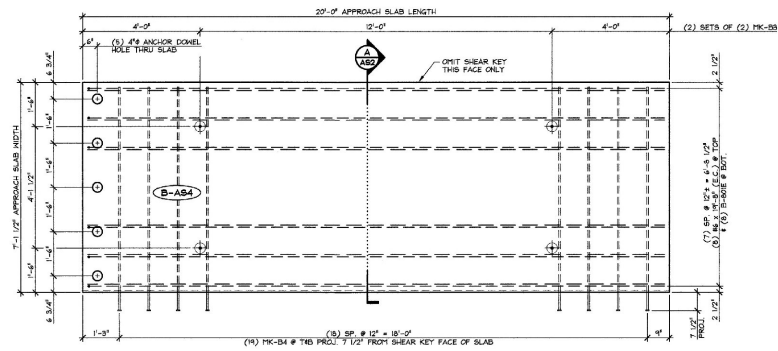
DATE: OCT. 30, 2012
SCALE: NOTED
CHKD: B.C. DFM: B.L.
JOB NO: 23884-012
DWG. NO: ASI

TOWN OF BRIGHTON
ROUTE NO. VT 105, MINOR ARTERIAL
BRIDGE NO.: 64 PROJECT NO.: ER 8TP 084-3(25)

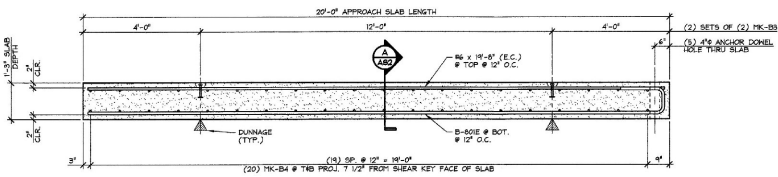
PRECAST APPROACH SLAB DETAILS



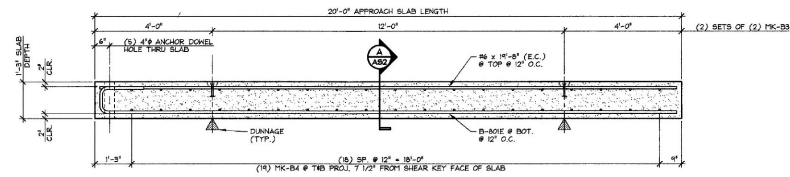
1 PLAN VIEW IN FORM
AS2 1/2" = 1'-0"



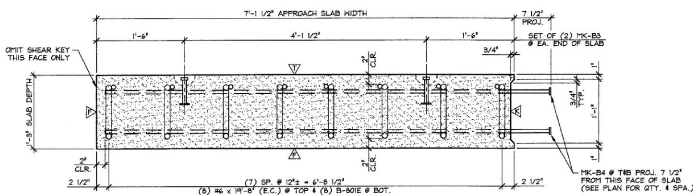
3 PLAN VIEW IN FORM
AS2 1/2" = 1'-0"



2 ELEVATION
AS2 1/2" = 1'-0"



4 ELEVATION
AS2 1/2" = 1'-0"



A APPROACH SLAB SECTION
AS2 1" = 1'-0"

▲ DENOTES FORM FINISH
▲ DENOTES FLOAT FINISH
▲ DENOTES BLAST FINISH

SUBMITTED
JAN 9 2013
J.P. CARRARA & SONS, INC.
MIDDLEBURY, VT 05753

MARK: B-AS3	QTY.: 2	WT.: 13.26 T	VOL.: 6.55 cy
MARK: B-AS4	QTY.: 2	WT.: 13.26 T	VOL.: 6.55 cy

MATERIAL LIST / APPROACH SLAB				
ITEM	MARK	DESCRIPTION	QTY./SLAB	
			B-AS3	B-AS4
1		#6 x 18"-8" (EPOXY COATED)	8	8
2				
3	B-BOE	#8 BENT BAR (EPOXY COATED)	6	6
4				
5				
6				
7				
8	MK-B3	4T x 5 1/2" SHFT LIFT LITTER	4	4
9	MK-B4	8# x 7'-7" JRC 566 HEADED REBAR (EPOXY COATED)	40	38
10				

Vermont Agency of Transportation
RECEIVED

CK'D BY WDL OK'D BY JTS

January 9th, 2013

RESUBMIT APPROVED X
BY KMH DATE 1-10-13

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
100 W. 5TH STREET, CHINA, VT 05741 Phone: 802/238-4351 Fax: 802/238-9010

J.A. McDONALD, INC.
CONTRACTOR
LYNDON CENTER, VERMONT

STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF ESSEX

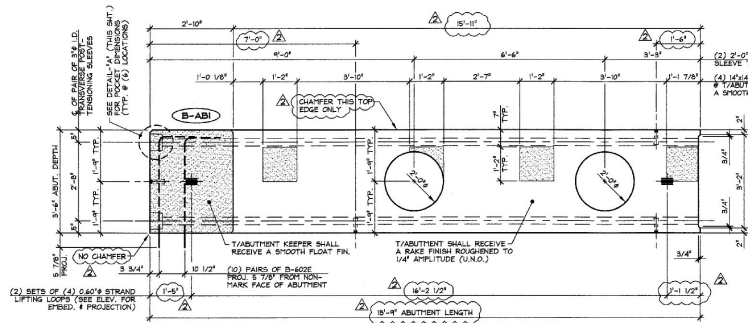
TOWN OF BRIGHTON
ROUTE NO. VT 105, MINOR ARTERIAL
BRIDGE NO.: B4 PROJECT NO.: ER STP 094-3(25)

PRECAST APPROACH SLAB DETAILS

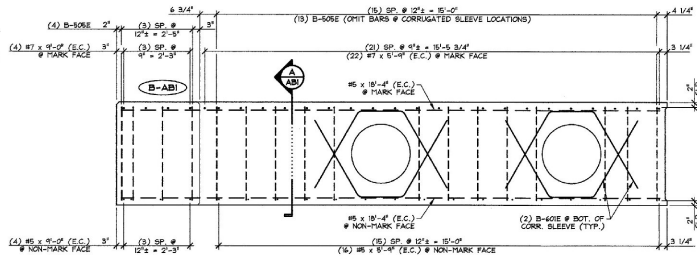
DATE: OCT. 30, 2012
SCALE: NOTED

CHKD: B.C. DFM: B.L.
JOB NO: 23384-012

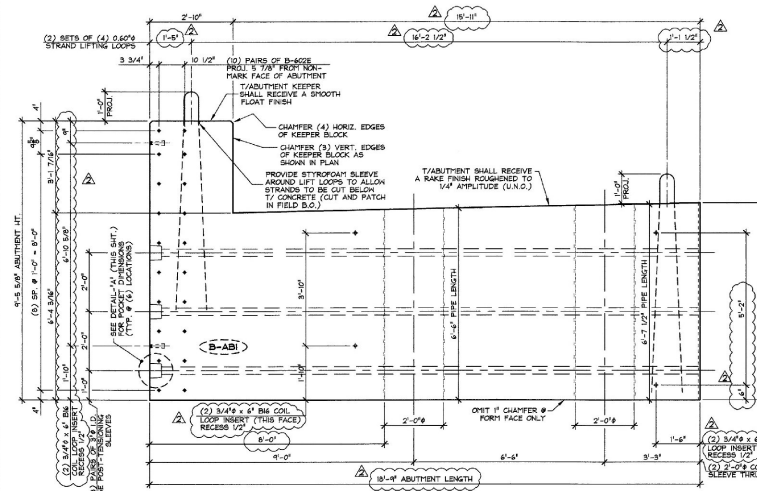
DWG. NO: AS2



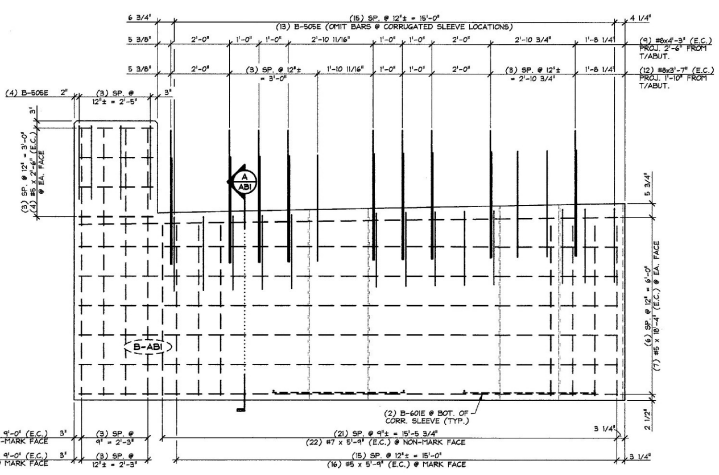
1 ABUTMENT DIMENSIONAL PLAN VIEW IN FORM
1/2" = 1'-0"



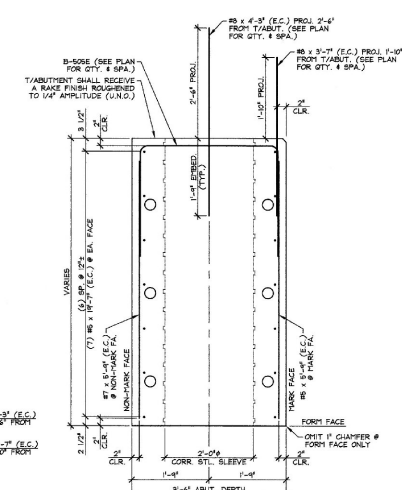
3 ABUTMENT REINFORCING PLAN VIEW IN FORM
1/2" = 1'-0"



2 ABUTMENT DIMENSIONAL NON-MARK FACE ELEVATION
1/2" = 1'-0"

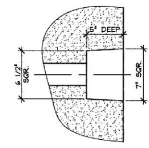


4 ABUTMENT REINFORCING NON-MARK FACE ELEVATION
1/2" = 1'-0"



A ABUTMENT SECTION
5/4" = 1'-0"

SHOP NOTE:
ALL EDGES OF ABUTMENT SHALL
RECEIVE A 1" CHAMFER (U.N.O.)



DETAIL - "A"
1/2" = 1'-0"

1-3-13 GENERAL REVISIONS
2-10-12 GENERAL REVISIONS

Vermont Agency of Transportation
RECEIVED
CK'D BY **WDL** OK'D BY **JTS**
January 9th, 2013
RESUBMIT **X** APPROVED
BY **KMH** DATE **1-10-13**

SUBMITTED
JAN 9 2013
J.P. CARRARA & SONS, INC.
Middlebury, VT 05758

MATERIAL LIST / ABUTMENT			
ITEM	MARK	DESCRIPTION	QTY.
1	B-506E	#6 BENT BAR (EPOXY COATED)	17
2		#6 x 2'-4" (EPOXY COATED)	8
3		#6 x 8'-4" (EPOXY COATED)	16
4		#6 x 4'-0" (EPOXY COATED)	4
5		#6 x 10'-4" (EPOXY COATED)	14
6			
7	B-60E	#6 BENT BAR (EPOXY COATED)	4
8	B-60E	#6 BENT BAR (EPOXY COATED)	20
9			
10		#7 x 9'-4" (EPOXY COATED)	22
11		#7 x 9'-0" (EPOXY COATED)	4
12			
13		#8 x 3'-7" (EPOXY COATED)	12
14		#8 x 4'-3" (EPOXY COATED)	8
15		3/4" x 4" x 6" BRG COIL INSERT (ELECTRO-PLATED FINISH)	9
16		2'-0" x 4'-7" 1/2" CORRUGATED STEEL PIPE (GALV)	1
17		2'-0" x 4'-4" CORRUGATED STEEL PIPE (GALV)	1
18		SET OF (4) 3/4" x 270 KSI STRAND LIFTING LOOPS	2
19			
20			

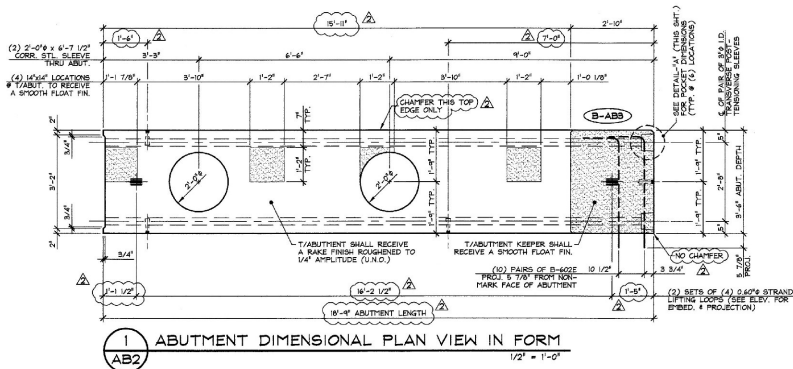
J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
244 ONE ST., WASHINGTON, VERMONT 05753 Phone: (802)388-4341 Fax: (802)388-4910

J.A. McDONALD, INC.
CONTRACTOR
LYNDEN CENTER, VERMONT

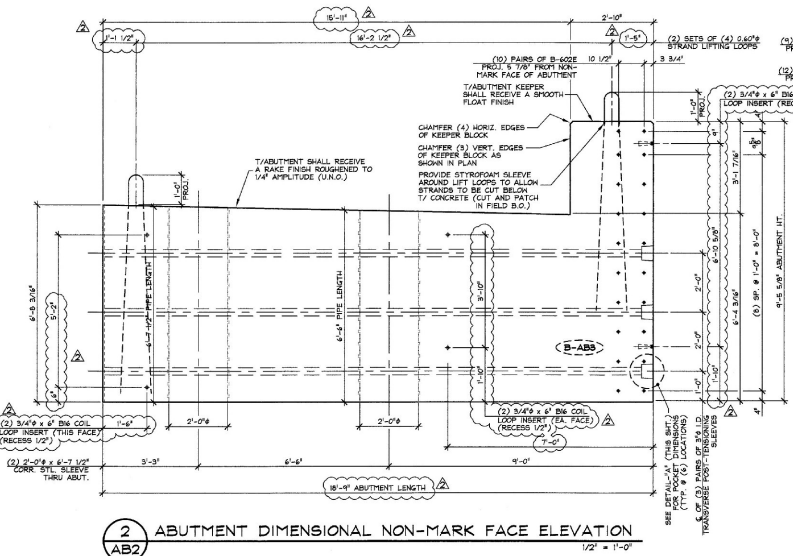
STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF ESSEX

TOWN OF BRIGHTON
ROUTE NO. VT 105, MINOR ARTERIAL
BRIDGE NO.: B4 PROJECT NO.: ER STP 084-3(25)

DATE: OCT. 30, 2012
SCALE: NOTED
CHKD: B.C. DTM: B.L.
JOB NO: 23364-012
DWG. NO: **ABI**

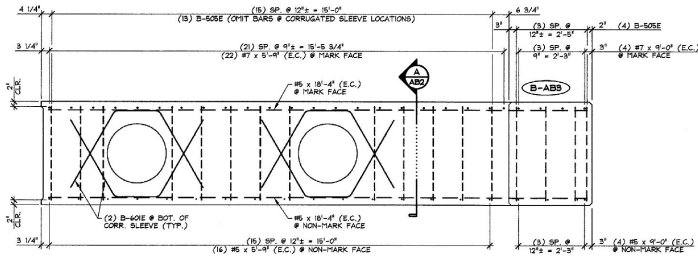


1 ABUTMENT DIMENSIONAL PLAN VIEW IN FORM
1/2" = 1'-0"

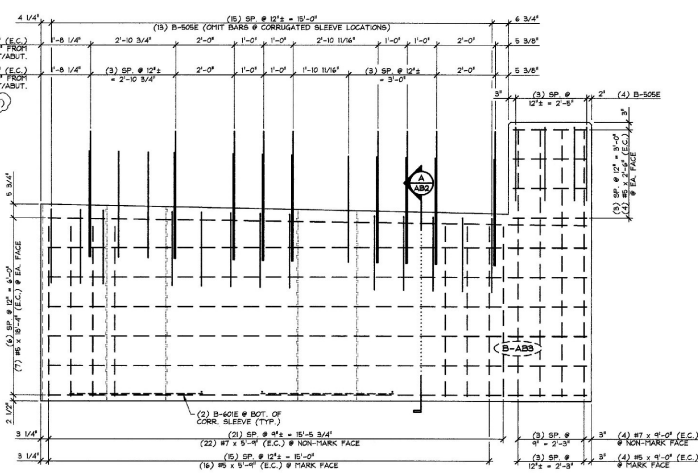


2 ABUTMENT DIMENSIONAL NON-MARK FACE ELEVATION
1/2" = 1'-0"

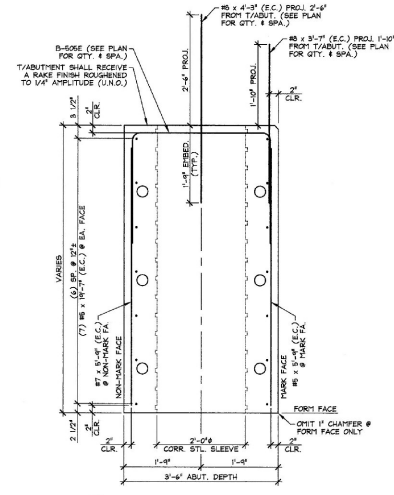
SHOP NOTE:
ALL EDGES OF ABUTMENT SHALL
RECEIVE A 1" CHAMFER (U.N.O.)



3 ABUTMENT REINFORCING PLAN VIEW IN FORM
1/2" = 1'-0"



4 ABUTMENT REINFORCING NON-MARK FACE ELEVATION
1/2" = 1'-0"

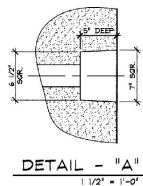


A ABUTMENT SECTION
3/4" = 1'-0"

SUBMITTED
JAN 9 2013
J.P. CARRARA & SONS, INC.
MIDDLEBURY, VT 05753

MARK: B-AB3 QTY: 1 WT: 31.15 T VOL: 15.38 cy

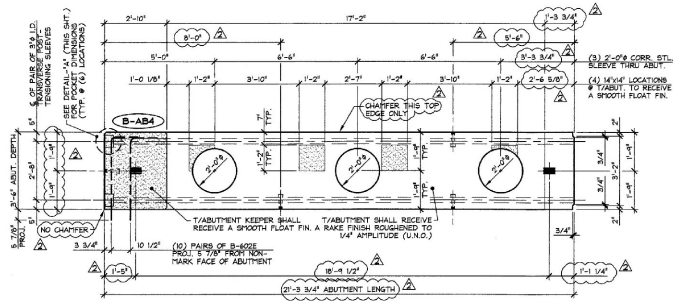
MATERIAL LIST / ABUTMENT			
ITEM	MARK	DESCRIPTION	QTY.
1	B-50SE	#6 BENT BAR (EPOXY COATED)	17
2		#6 x 2'-6" (EPOXY COATED)	8
3		#6 x 2'-6" (EPOXY COATED)	16
4		#6 x 11'-0" (EPOXY COATED)	4
5		#6 x 10'-4" (EPOXY COATED)	14
6		#6 BENT BAR (EPOXY COATED)	14
7	B-40E	#6 BENT BAR (EPOXY COATED)	20
8	B-40E	#6 BENT BAR (EPOXY COATED)	20
9			
10		#7 x 5'-4" (EPOXY COATED)	22
11		#7 x 5'-4" (EPOXY COATED)	4
12			
13		#8 x 3'-7" (EPOXY COATED)	12
14		#8 x 4'-3" (EPOXY COATED)	8
15		3/4" x 6" BKG COL INSERT (ELECTRO-PLATED FINISH)	8
16		2'-0" x 2'-0" x 1/2" CORRUGATED STEEL PIPE (GALV.)	1
17		2'-0" x 2'-0" x 1/4" CORRUGATED STEEL PIPE (GALV.)	1
18		SET OF (4) 240" x 270 KSI STRAND LIFTING LOOPS	2
19			
20			



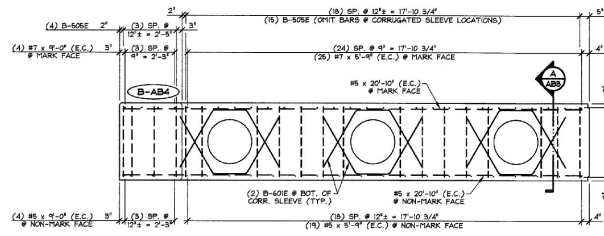
1-3-13 GENERAL REVISIONS
12-10-12 GENERAL REVISIONS

Vermont Agency of Transportation
RECEIVED
CK'D BY WDL OK'D BY JTS
January 9th, 2013
RESUBMIT APPROVED X
BY KMH DATE 1-10-13

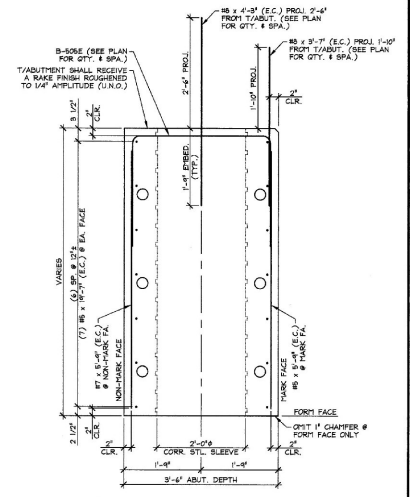
J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
284 ONE ST., MIDDLEBURY, VERMONT 05753 Phone: (802)388-6381 Fax: (802)388-6010
STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF ESSEX
TOWN OF BRIGHTON
ROUTE NO. VT 105, MINOR ARTERIAL
BRIDGE NO. 84 PROJECT NO. 1 ER STP 094-3(25)
PRECAST ABUTMENT DETAILS
J.A. McDONALD, INC.
CONTRACTOR
LYNDEN CENTER, VERMONT
DATE: OCT. 30, 2012
SCALE: NOTED
CHKD: B.C. DFM: B.L.
JOB NO: 23984-012
DWG. NO: AB2



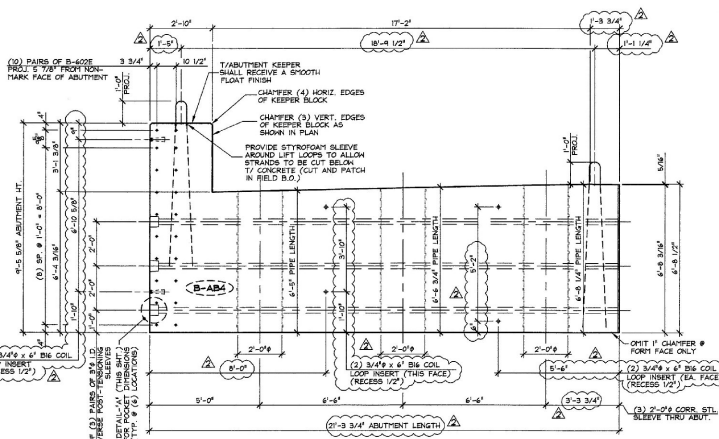
1 ABUTMENT DIMENSIONAL PLAN VIEW IN FORM
3/8" = 1'-0"



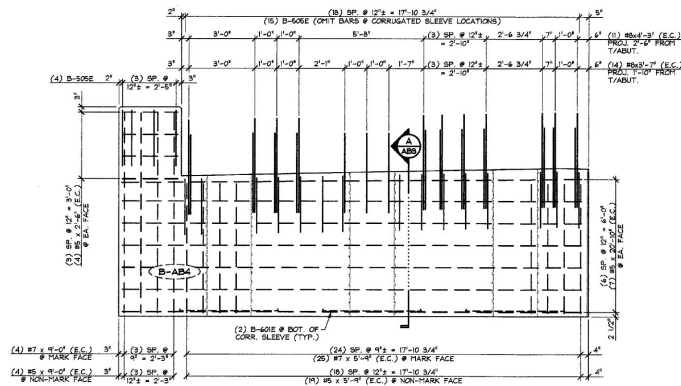
4 ABUTMENT REINFORCING PLAN VIEW IN FORM
3/8" = 1'-0"



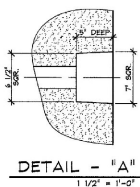
A ABUTMENT SECTION
3/4" = 1'-0"



2 ABUTMENT DIMENSIONAL NON-MARK FACE ELEVATION
3/8" = 1'-0"



3 ABUTMENT REINFORCING NON-MARK FACE ELEVATION
3/8" = 1'-0"



Vermont Agency of Transportation
RECEIVED
CK'D BY WDL OK'D BY JTS
January 9th, 2013
RESUBMIT BY KMH APPROVED DATE 1-10-13

SUBMITTED
JAN 9 2013
J.P. CARRARA & SONS, INC.
MIDDLETOWN, VT 05753

MATERIAL LIST / ABUTMENT			
ITEM	MARK	DESCRIPTION	QTY.
1	B-50SE	#5 BENT BAR (EPOXY COATED)	18
2		#5 x 2'-6" (EPOXY COATED)	19
3		#5 x 8'-6" (EPOXY COATED)	19
4		#5 x 4'-0" (EPOXY COATED)	4
5		#5 x 20'-0" (EPOXY COATED)	14
6	B-40E	#6 BENT BAR (EPOXY COATED)	6
8	B-40E	#6 BENT BAR (EPOXY COATED)	20
9			
10	#7	#7 x 8'-6" (EPOXY COATED)	25
11	#7	#7 x 4'-0" (EPOXY COATED)	4
12			
13			
14		#5 x 8'-7" (EPOXY COATED)	14
15		#5 x 4'-3" (EPOXY COATED)	11
16		3/4" x 4" BIC COIL INSERT (ELECTRO-PLATED FINISH)	8
17		2'-0" x 6'-8" CORRUGATED STEEL PIPE (GALV.)	1
18		2'-0" x 6'-8" CORRUGATED STEEL PIPE (GALV.)	1
19		2'-0" x 6'-8" CORRUGATED STEEL PIPE (GALV.)	1
20		SET OF (4) 5.60" x 270 KSI STRAND LIFTING LOOPS	2
21			
22			

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
2840 US ST. WAREHOUSING, VERMONT 05753 Phone (802)388-6331 Fax (802)388-9810

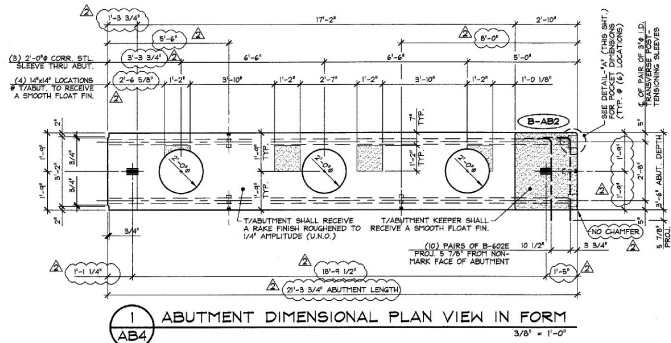
J.A. McDONALD, INC.
CONTRACTOR
LYNDON CENTER, VERMONT

STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF ESSEX

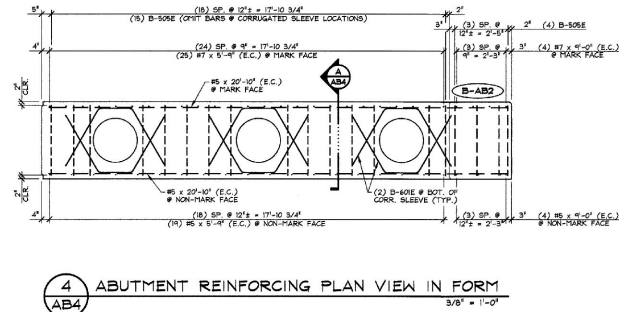
TOWN OF BRIGHTON
ROUTE NO. VT 105, MINOR ARTERIAL
BRIDGE NO. 84 PROJECT NO. 1 ER STP 034-B(25)

DATE: OCT. 30, 2012
SCALE: NOTED
CHKD: B.C. DFTM: B.L.
JOB NO: 23984-012
DWG. NO: AB3

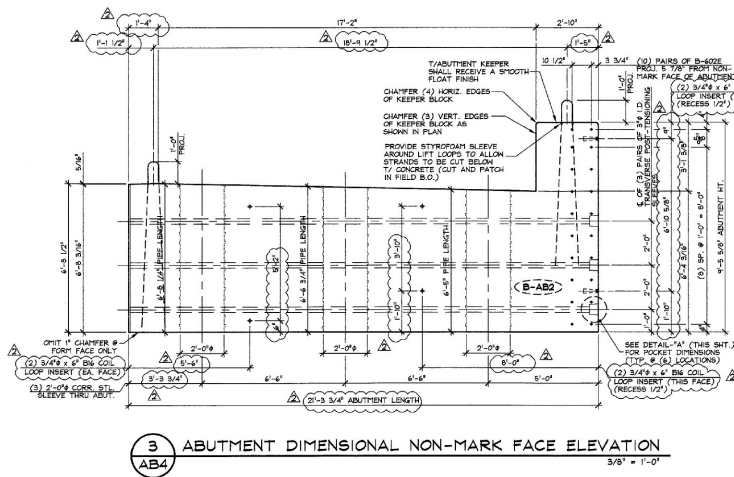
PRECAST ABUTMENT DETAILS



1 ABUTMENT DIMENSIONAL PLAN VIEW IN FORM
 AB4
 3/8" = 1'-0"

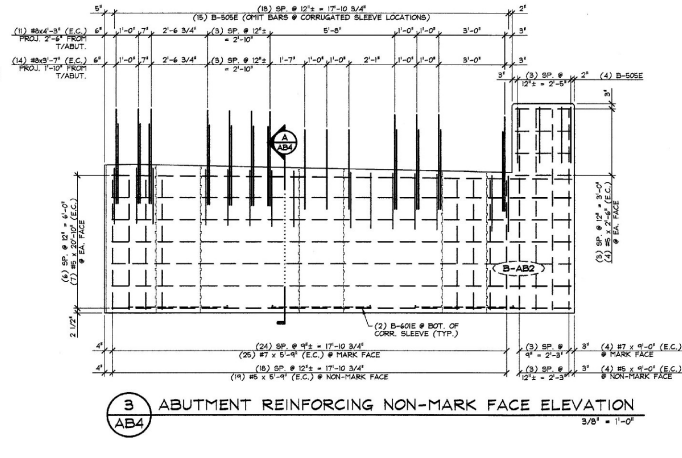


4 ABUTMENT REINFORCING PLAN VIEW IN FORM
 AB4
 3/8" = 1'-0"

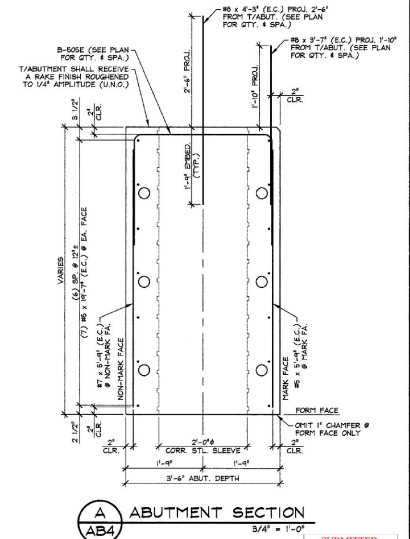


3 ABUTMENT DIMENSIONAL NON-MARK FACE ELEVATION
 AB4
 3/8" = 1'-0"

SHOP NOTE:
 ALL EDGES OF ABUTMENT SHALL RECEIVE A 1" CHAMFER (U.N.O.)



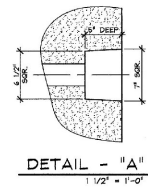
3 ABUTMENT REINFORCING NON-MARK FACE ELEVATION
 AB4
 3/8" = 1'-0"



A ABUTMENT SECTION
 AB4
 3/4" = 1'-0"

SUBMITTED
 JAN 9 2013
 J.P. Carrara & Sons, Inc.
 Middlebury, VT 05753

MATERIAL LIST / ABUTMENT		MARK: B-AB2	QTY: 1	WT.: 34.01 T	VOL.: 16.80 cy
ITEM	MARK	DESCRIPTION	QTY		
1	B-SOKE	#5 BENT BAR (EPOXY COATED)	18		
2		#5 x 2'-4" (EPOXY COATED)	8		
3		#5 x 12'-4" (EPOXY COATED)	18		
4		#5 x 9'-0" (EPOXY COATED)	4		
5		#5 x 20'-0" (EPOXY COATED)	14		
6		#5 x 5'-7" (EPOXY COATED)	14		
7	B-40E	#4 BENT BAR (EPOXY COATED)	4		
8	B-40SE	#4 BENT BAR (EPOXY COATED)	20		
9					
10		#7 x 5'-9" (EPOXY COATED)	25		
11		#7 x 9'-0" (EPOXY COATED)	4		
12					
13		#6 x 4'-3" (EPOXY COATED)	14		
14		#6 x 4'-3" (EPOXY COATED)	8		
15		3/4" x 2" x 2" BENT COUPLER ASSEMBLY (ELECTROPLATED FINISH)	1		
16		2'-0" x 8'-0" CORRUGATED STEEL PIPE (GALV.)	1		
17		2'-0" x 6'-4 1/4" CORRUGATED STEEL PIPE (GALV.)	1		
18		2'-0" x 6'-8 1/4" CORRUGATED STEEL PIPE (GALV.)	1		
19		2'-0" x 6'-8 1/4" CORRUGATED STEEL PIPE (GALV.)	1		
20		SET OF (4) 0.60" x 270 KSI STRAND LIFTING LOOPS	2		



1-3-13 GENERAL REVISIONS

Vermont Agency of Transportation
RECEIVED
 CK'D BY WDL OK'D BY JTS
 January 9th, 2013
 RESUBMIT BY KMH APPROVED DATE 1-10-13

J.P. CARRARA & SONS INC.
 Precast & Prestress Manufacturer
 244 ONE ST., MIDDLEBURY, VERMONT 05753 Phone: (802)388-6381 Fax: (802)388-6110

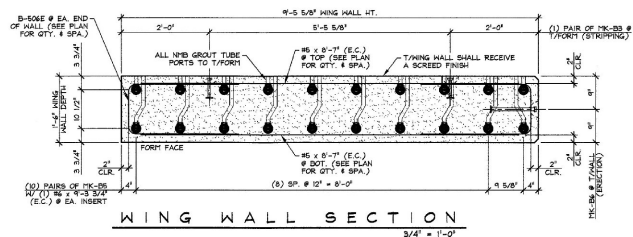
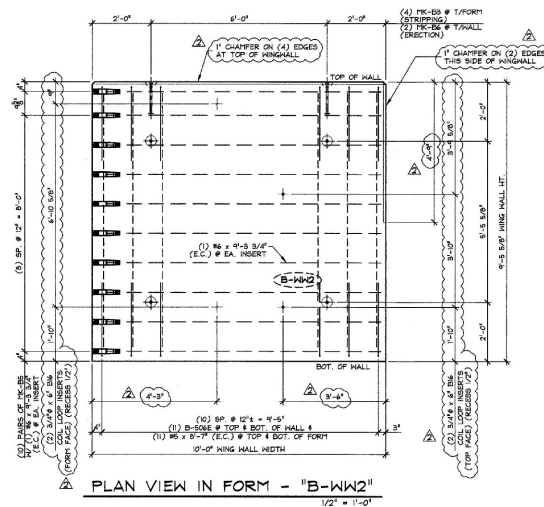
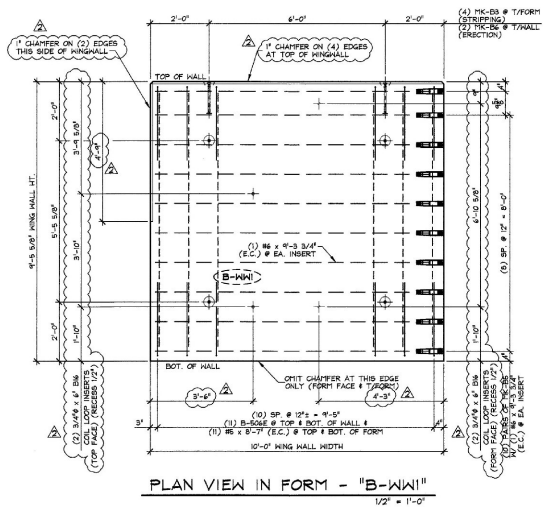
J.A. McDONALD, INC.
 CONTRACTOR
 LYNDON CENTER, VERMONT

STATE OF VERMONT AGENCY OF TRANSPORTATION
 COUNTY OF ESSEX

TOWN OF BRIGHTON
 ROUTE NO. VT 105, MINOR ARTERIAL
 BRIDGE NO.: 84 PROJECT NO.: ER STP 084-3(25)

DATE: OCT. 30, 2012
 SCALE: NOTED
 CHKD: B.C. DFTW: B.L.
 JOB NO.: 23864-012
 DWG. NO.: AB4

PRECAST ABUTMENT DETAILS



SHOP NOTE:
ALL EDGES OF WING WALLS, FORM FACE & T/WALL FACE, SHALL RECEIVE A 1" CHAMFER (UNLESS NOTED OTHERWISE)

1-3-13 REVISED AS NOTED
2-10-12 REVISED AS NOTED

SUBMITTED
JAN 9 2013
J. P. CARRARA & SONS, INC.
MIDDLEBURY, VT 05753

MARK: B-WW1	QTY.: 2	WT.: 10.65 T	VOL.: 5.26 cy
MARK: B-WW2	QTY.: 2	WT.: 10.65 T	VOL.: 5.26 cy
MARK: B-WW3	QTY.: 0	WT.: -	VOL.: -
MARK: B-WW4	QTY.: 0	WT.: -	VOL.: -

MATERIAL LIST / WING WALL				
ITEM	MARK	DESCRIPTION	QTY./WING WALL	
			B-WW1	B-WW2
1	B-606	#5 BENT BAR (EPOXY COATED)	22	22
2		#5 x 8'-7" (EPOXY COATED)	22	22
3				
4		#6 x 9'-3 3/4" (EPOXY COATED)	20	20
5				
6	TK-B8	4T x 5 1/2" SHFT LIFT LIFTER	4	4
7	TK-B8	N/B SPLICE SLEEVE 6U-X(PN) (EPOXY COATED)	20	20
8	TK-B6	4T x 8.5 3/8" SHFT LIFT LIFTER	2	2
9		3/4" x 12" 6G COIL LOOP INSERT (ELECTRO-PLATED FN)	2	2
10				

Vermont Agency of Transportation
RECEIVED
OK'D BY WDL OK'D BY JTS
January 9th, 2013
RESUBMIT APPROVED X
BY KMH DATE 1-10-13

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
244 ONE DR., WOODBURY, VERMONT 05753 Phone: (802) 368-8341 Fax: (802) 368-8910

J.A. McDONALD, INC.
CONTRACTOR
LYNDON CENTER, VERMONT

STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF ESSEX
TOWN OF BRIGHTON
ROUTE NO. VT 105, MINOR ARTERIAL
BRIDGE NO.: B4 PROJECT NO.: ER STP 084-3(25)

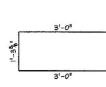
DATE: OCT. 30, 2012
SCALE: NOTED
CHKD: B.C. DFM: B.L.
JOB NO.: 28364-012
DWG. NO.: WW1



B-401E
#4 BENT BAR
(EPOXY COATED)
(92) REQ'D.



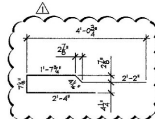
B-501E
#5 BENT BAR
(EPOXY COATED)
(32) REQ'D.



B-502E
#5 BENT BAR
(EPOXY COATED)
(64) REQ'D.



B-503E
#5 BENT BAR
(EPOXY COATED)
(28) REQ'D.



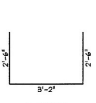
B-504E
#5 BENT BAR
(EPOXY COATED)
(56) REQ'D.

PRESTRESSED NEXT BEAMS

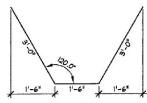


B-801E
#8 BENT BAR
(EPOXY COATED)
(64) REQ'D.

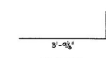
PRECAST APPROACH SLABS



B-605E
#5 BENT BAR
(EPOXY COATED)
(72) REQ'D.



B-601E
#6 BENT BAR
(EPOXY COATED)
(20) REQ'D.



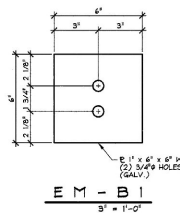
B-602E
#6 BENT BAR
(EPOXY COATED)
(60) REQ'D.

PRECAST ABUTMENTS



B-506E
#5 BENT BAR
(EPOXY COATED)
(88) REQ'D.

PRECAST WING WALLS



MISCELLANEOUS MATERIALS				
ITEM	MARK	QTY.	DESCRIPTION	REMARKS
1		72	#4 x 7'-7" (EPOXY COATED)	
2				
3		1,108	#5 x 7'-7" (EPOXY COATED)	
4		88	#5 x 72'-4" (N1) (3) 3'-0" STAGGERED LAPS (EPOXY COATED)	
5				
6	MK-B1	837	#5 x 4'-1" HRC 555 HEADED REBAR	EPOXY COATED
7				
8		18	GUARD RAIL ANCHOR PLATE (GALV.)	SUPPLIED BY OTHERS
9		16	SET OF (4) 0.6078 x 270 KSI STRAND LIFTING LOOPS	
10		20	1/2" x 3' 3/4" COIL INSERTS (ELECTRO-PLATE FINISH)	
11		84	#6 x 19'-8" (EPOXY COATED)	
12				
13	MK-B2	156	#5 x 8'-0" HRC 555 DOUBLE-HEADED REBAR	EPOXY COATED
14	MK-B3	32	4T x 5 1/2' SHIFT LIFT LIFTER	
15	MK-B4	156	#5 x 7'-7" HRC 555 HEADED REBAR	EPOXY COATED
16				
17				
18				
19				
20				
21		82	#5 x 2'-4" (EPOXY COATED)	
22		70	#5 x 8'-8" (EPOXY COATED)	
23		16	#5 x 9'-0" (EPOXY COATED)	
24		28	#5 x 18'-4" (EPOXY COATED)	
25		28	#5 x 20'-10" (EPOXY COATED)	
26				
27		44	#7 x 5'-8" (EPOXY COATED)	
28		16	#7 x 9'-0" (EPOXY COATED)	
29				
30		52	#8 x 3'-7" (EPOXY COATED)	
31		40	#8 x 4'-3" (EPOXY COATED)	
32				
33		8	SET OF (4) 0.6078 x 270 KSI STRAND LIFTING LOOPS	
34				
35		2	2'-0" x 6'-1" 1/2" CORRUGATED STEEL PIPE (GALV.)	
36		2	2'-0" x 6'-4" CORRUGATED STEEL PIPE (GALV.)	
37		2	2'-0" x 6'-8" CORRUGATED STEEL PIPE (GALV.)	
38		2	2'-0" x 6'-8" CORRUGATED STEEL PIPE (GALV.)	
39		2	2'-0" x 6'-8" 1/4" CORRUGATED STEEL PIPE (GALV.)	
40				
41	EP-B1	24	E 1" x 6" x 6" HV (2) 3/4" HOLES (GALV.)	FOR ERECTION SEE DETAIL THIS SHEET
42		24	1/2" x 42" POLY-STRAND	FOR ERECTION
43		48	1/2" SINGLE USE STRESSING CHUCK	FOR ERECTION
44		12	COMPRESSIBLE SEALER SELF ADHESIVE	FOR ERECTION
45		32	3/4" x 6' 3/4" COIL INSERTS (ELECTRO-PLATE FINISH)	
46		88	#5 x 8'-7" (EPOXY COATED)	
47				
48		80	#6 x 9'-3 3/4" (EPOXY COATED)	
49				
50	MK-B5	16	4T x 5 1/2' SHIFT LIFT LIFTER	
51	MK-B6	80	NMB BRIDGE SLEEVE 6U-X(PC) (EPOXY COATED) HV GROUT TUBES	GROUT TUBE LENGTH AS REQ'D.
52	MK-B6	8	8T x 13 3/4" SHIFT LIFT LIFTER	
53		16	3/4" x 6' 3/4" COIL INSERTS (ELECTRO-PLATE FINISH)	
54				
55				

PRESTRESSED NEXT BEAMS
 PRECAST APPROACH SLABS
 PRECAST ABUTMENTS
 PRECAST WING WALLS

1-3-13 REVISED AS NOTED
 12-10-12 REVISED AS NOTED

Vermont Agency of Transportation
RECEIVED
 CK'D BY **WDL** OK'D BY **JTS**
 January 9th, 2013
 RESUBMIT **APPROVED** X
 BY **KMH** DATE **1-10-13**

SUBMITTED
 JAN 9 2013
 J.P. CARRARA & SONS, INC.
 MINA BRIDGE, NY 02753

J.P. CARRARA & SONS INC.
 Precast & Prestress Manufacturer
 240 USE ST., WASHINGTON, VERMONT 05653 Phone: (802)388-6301 Fax: (802)388-6510
J.A. McDONALD, INC.
 CONTRACTOR
 LYNDON CENTER, VERMONT
STATE OF VERMONT AGENCY OF TRANSPORTATION
 COUNTY OF ESSEX
 TOWN OF BRIGHTON
 ROUTE NO. VT 105, MINOR ARTERIAL
 BRIDGE NO. 1 84 PROJECT NO. 1 ER STP 084-3(25)
 DATE: OCT. 30, 2012
 SCALE: NOTED
 CHKD: B.C. DFM: B.L.
 JOB NO: 23884-012
MATERIALS LIST
 DWG. NO: **M1**