

PROJECT NOTES

GENERAL

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2011, AND ITS LATEST REVISIONS, AND THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 5TH EDITION, AND ITS LATEST REVISIONS.
2. THE BRIDGE IS DESIGNED FOR HL-93 LIVE LOAD WITH A 3.0 INCH ALLOWANCE FOR FUTURE PAVEMENT.
3. SALVAGED SIGNS NOT REUSED SHALL REMAIN THE PROPERTY OF THE TOWN OF BRATTLEBORO. THE CONTRACTOR SHALL DELIVER THE SIGNS TO THE TOWN AT THE DEPT. OF PUBLIC WORKS GARAGE LOCATED AT 211 FAIRGROUND ROAD.
4. ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 68 DEGREES FAHRENHEIT UNLESS NOTED OTHERWISE.
5. THE LIMITS OF THE COFFERDAM ARE TO BE DETERMINED BY THE CONTRACTOR.
6. ITEM 529.15 "REMOVAL OF STRUCTURE" IS FOR THE COMPLETE REMOVAL AND DISPOSAL OF THE EXISTING BRIDGE SUBSTRUCTURE AND SUPERSTRUCTURE, INCLUDING ALL BRIDGE RAIL, BEARINGS AND ANCHOR BOLTS, WHERE THE REMOVAL IS OUTSIDE OF THE AREAS COVERED BY ANY OF THE EXCAVATION ITEMS.
7. THE EXISTING BRIDGE CONTAINS STRUCTURAL STEEL ENCASED IN CONCRETE. THE STRUCTURAL STEEL MAY BE PAINTED WITH A MATERIAL THAT MAY CONTAIN LEAD. THE CONTRACTOR SHALL FOLLOW ALL APPLICABLE REGULATIONS WHEN HANDLING AND WORKING WITH THIS STEEL. THE REMOVED STRUCTURAL STEEL IS THE PROPERTY OF THE CONTRACTOR. THE CONTRACTOR SHALL INDEMNIFY AND HOLD THE STATE, ITS OFFICERS, AND EMPLOYEES HARMLESS CONCERNING THE CONTRACTOR'S USE OR DISPOSITION OF THE REMOVED EXISTING STRUCTURAL STEEL.
8. REMOVAL OF EXISTING BRIDGE PAVEMENT SHALL BE PAID AS ITEM 529.10, "REMOVAL OF BRIDGE PAVEMENT".
9. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL BURIED AND AERIAL UTILITIES AND POLES PRIOR TO STARTING WORK. SOME UTILITIES HAVE BEEN RELOCATED DURING THE PREPARATION OF THESE PLANS AND THE CONTRACTOR WILL NEED TO COORDINATE WITH ALL UTILITY OWNERS TO CONFIRM ACTUAL LOCATIONS PRIOR TO CONSTRUCTION. SEE THE UTILITY SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

EARTHWORK AND RELATED ITEMS

10. TEMPORARY CONSTRUCTION FILLS WITHIN THE WATERCOURSE FOR ANY PURPOSE SHALL CONSIST OF CLEAN STONE FILL ONLY. NO OTHER FILLING IN THE STREAM SHALL OCCUR WITHOUT THE APPROVAL OF THE STREAM ALTERATION ENGINEER.
11. A COFFERDAM IS REQUIRED FOR THE CONSTRUCTION OF THE ABUTMENTS. REFER TO THE "TYPICAL EARTHWORKS SECTIONS" FOR COFFERDAM NOTES.
12. STONE FILL, TYPE III SHALL BE PLACED IN FRONT OF THE ABUTMENTS BEFORE THE NEW BEAMS ARE SET, AS SHOWN ON THE PLANS.
13. ANY TEMPORARY MEANS OF SUPPORTING EXCAVATION NECESSARY TO MAINTAIN TRAFFIC SHALL BE INCIDENTAL TO ITEM 528.10, "ONE-WAY TEMPORARY BRIDGE", AND SHALL MEET THE REQUIREMENTS OF SECTION 204. ASSOCIATED CONSTRUCTION DRAWINGS SHALL BE SUBMITTED IN ACCORDANCE WITH SECTION 105.
14. THE HEIGHT OF THE FILL BEHIND ABUTMENTS SHALL BE LIMITED TO THE BRIDGE SEAT ELEVATION UNTIL THE OVERLAY HAS BEEN POURED AND THE CURING PERIOD IS UP.
15. THE AREA DISTURBED BY THE TEMPORARY DETOUR SHALL BE RESTORED TO ITS ORIGINAL GRADE AND VEGETATED IF NECESSARY. ALL COSTS WILL BE INCIDENTAL TO ITEM 528.10, "ONE-WAY TEMPORARY BRIDGE".
16. NEW TREES WILL BE PLANTED AT THE SITE WHERE TREES WERE REMOVED FOR THE TEMPORARY DETOUR AND WILL FOLLOW THE PLANTING SCHEDULE INCLUDED IN THE PLANS.

TRAFFIC MAINTENANCE DURING CONSTRUCTION

17. THE CONTRACTOR SHALL IMPLEMENT THE ROAD CLOSURE, TRAFFIC CONTROL, AND DETOUR AS SHOWN ON THE PLANS.
18. THE CONTRACTOR SHALL NOTIFY THE TOWN A MINIMUM OF TWO (2) WEEKS PRIOR TO CLOSING THE ROAD AND IMPLEMENTING THE DETOUR.
19. DURING CONSTRUCTION, TRAFFIC SHALL BE MAINTAINED ON A ONE-WAY TEMPORARY BRIDGE LOCATED UPSTREAM OF THE NEW STRUCTURE. THE TEMPORARY BRIDGE AND DETOUR SHALL BE PAVED. CONSTRUCTION AND MAINTENANCE OF THE TEMPORARY BRIDGE AND ITS APPROACHES SHALL BE PAID FOR UNDER ITEM 528.10, "ONE-WAY TEMPORARY BRIDGE".
20. FULL ACCESS TO ALL SIDE ROADS AND DRIVES WITHIN THE PROJECT LIMITS SHALL BE MAINTAINED AT ALL TIMES. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 641.10, "TRAFFIC CONTROL".

21. UNLESS COVERED UNDER INDIVIDUAL PAY ITEMS OR NOTED OTHERWISE, ALL COSTS FOR WORK SHOWN ON THE TRAFFIC CONTROL SHEETS AND FOR TEMPORARY TRAFFIC CONTROL DEVICES WILL BE CONSIDERED TO BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR TRAFFIC CONTROL, ITEM 641.10, "TRAFFIC CONTROL". THIS INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING ITEMS:

RETROREFLECTIVE DRUMS
 PORTABLE TRAFFIC LIGHTS
 PORTABLE LUMINAIRE
 TYPE III BARRICADES
 ENERGY ABSORPTION ATTENUATOR
 SIGNS
 SIGN POSTS

ENERGY ABSORPTION ATTENUATOR(S) SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 621.

22. ALL SIGNS SHALL BE IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND THE "STANDARD HIGHWAY SIGNS AND MARKINGS" BOOK (SHSM) PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION (FHWA).
23. ALL TEMPORARY PORTABLE TRAFFIC CONTROL SIGNALS AND PORTABLE LIGHT TOWERS SHALL BE IN ACCORDANCE WITH SECTION 678 AND THE CURRENT EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD).
24. SIGNAL TIMING/TIMING ADJUSTMENTS REQUESTED BY THE ENGINEER SHALL BE ACCOMPLISHED WITHIN 24 HOURS AFTER BEING REQUESTED. PAYMENT SHALL BE INCIDENTAL TO ITEM 641.10 "TRAFFIC CONTROL". THE CONTRACTOR, AT THE DIRECTION OF THE ENGINEER, SHALL MAKE SEVERAL TRIAL RUNS TO DETERMINE THE PROPER ALL-RED CLEARANCE INTERVAL.

CONCRETE

25. CONCRETE FOR THE OVERLAY SHALL BE ITEM 501.32, "CONCRETE, HIGH PERFORMANCE, CLASS AA". CONCRETE FOR THE CURBS SHALL BE ITEM 501.33, "CONCRETE, HIGH PERFORMANCE, CLASS A". SUBSTRUCTURE CONCRETE SHALL BE ITEM 501.34, "CONCRETE, HIGH PERFORMANCE CLASS B", UNLESS OTHERWISE NOTED.
26. THE KEY IN CONCRETE CONSTRUCTION JOINTS SHALL BE MONOLITHIC AND CONTINUOUS FOR THE FULL LENGTH OF THE JOINT.
27. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1" BY 1".
28. JOINTS AND SCORE MARKS IN CONCRETE SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
29. ALL REINFORCING STEEL SHALL BE DETAILED AND FABRICATED USING PROCEDURES AND TOLERANCES IN ACCORDANCE WITH APPLICABLE PUBLICATIONS OF THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI).
30. REINFORCING STEEL PLACEMENT TOLERANCES SHALL BE:

SPACING ± 1"
 CLEARANCE ± ¼"

31. MINIMUM COVER FOR REINFORCING STEEL SHALL BE 2" ALONG THE BACK FACES OF WALLS AGAINST EARTH AND 3" ELSEWHERE, UNLESS OTHERWISE NOTED.
32. NO CONCRETE IN THE ABUTMENTS OR WINGWALLS SHALL BE PLACED ABOVE THE BRIDGE SEAT ELEVATIONS UNTIL THE BEAMS OR SLABS HAVE BEEN PROFILED AND THE FINISHED GRADE OF THE DECK HAS BEEN DETERMINED.
33. RELATIVE TO GRADE, ALL DECK POURS SHALL BEGIN FROM THE LOW ELEVATION END AND PROCEED TOWARDS THE HIGH ELEVATION END.
34. SURFACES OF BRIDGE SEATS UNDER BEARING DEVICES SHALL BE LEVEL IN THE LONGITUDINAL DIRECTION (FROM THE APPROACH SLAB SEAT TO THE FRONT FACE OF THE ABUTMENT). ALL OTHER AREAS SHALL BE SLOPED DOWN 1/2 INCH PER FOOT FROM THE APPROACH SLAB SEAT TOWARD THE NEAREST OUTSIDE FACE OF THE SUBSTRUCTURE UNIT, SUCH AS TO PREVENT PONDING ON THE BRIDGE SEAT AREA. THE ENTIRE BRIDGE SEAT SURFACE SHALL BE SMOOTH STEEL TROWEL FINISHED.
35. WATER REPELLENT, SILANE, SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES EXCEPT THE UNDERSIDE OF THE DECK BETWEEN THE DRIP NOTCHES.
36. ½" SACRIFICIAL WEARING SURFACE HAS BEEN ADDED TO THE TOP OF THE CONCRETE OVERLAY. SEE SECTION 501 FOR DETAILS ON PROVIDING TEXTURING.
37. ALL SUPERSTRUCTURE REINFORCING STEEL SHALL MEET THE REQUIREMENTS OF SECTION 507 FOR LEVEL II REINFORCEMENT. REINFORCEMENT FOR OVERLAY SHALL BE PAID FOR UNDER ITEM 507.12, "REINFORCING STEEL, LEVEL II". REINFORCEMENT FOR PRESTRESSED CONCRETE NON-VOIDED SLABS SHALL BE PAID FOR UNDER ITEM 900.640, "SPECIAL PROVISION (PRESTRESSED CONCRETE NON-VOIDED SLABS)". REINFORCING FOR THE SUBSTRUCTURE SHALL BE PAID FOR UNDER ITEM 507.11, "REINFORCING STEEL, LEVEL I" AND ITEM 507.12, REINFORCING STEEL, LEVEL II". CUTTING AND REPAIRING DAMAGED AREAS OF COATED REINFORCING STEEL SHALL BE PERFORMED IN ACCORDANCE WITH SUBSECTION 507.

SUBSTRUCTURE ON LEDGE

38. FOOTINGS AND SUB-FOOTINGS SHALL BE FOUNDED ON LEDGE WHICH HAS BEEN CLEANED OF ALL LOOSE ROCK AND DEBRIS TO ENSURE THAT SUBSTRUCTURES ARE PLACED ON COMPETENT ROCK.
39. UPON COMPLETION OF THE EXCAVATION FOR SUBSTRUCTURES FOUNDED ON BEDROCK AND PRIOR TO PLACING FORMWORK, THE ENGINEER SHALL NOTIFY THE PROJECT MANAGER AND THE VTRANS STATE GEOLOGIST. THE GEOLOGIST WILL DETERMINE IF THE BEDROCK IS COMPETENT TO OBTAIN THE NOMINAL BEARING RESISTANCE AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL NOTIFY THE GEOLOGIST 72 HOURS PRIOR TO WHEN THE ANALYSIS WILL BE NEEDED.
40. LEDGE THAT IS EXCAVATED FOR PLACEMENT OF FOOTINGS SHALL BE EXCAVATED TO PROVIDE A LEVEL SURFACE OR AS DIRECTED BY THE ENGINEER.
41. A MAXIMUM OF 6" OVER BREAKAGE WILL BE REPLACED WITH "HIGH PERFORMANCE CLASS B CONCRETE". OVER BREAKAGE BEYOND 6" SHALL BE REPLACED WITH HIGH PERFORMANCE CLASS B CONCRETE" AT THE EXPENSE OF THE CONTRACTOR.
42. THE LIMITS OF THE SUBFOOTING SHALL BE 1'-0" OUTSIDE THE LIMITS OF THE FOOTING.
43. THE SUBSTRUCTURE UNITS HAVE BEEN DESIGNED FOR THE TOP OF FOOTING ELEVATIONS SHOWN ON THE PLANS. IF THE LEDGE ELEVATION IS GREATER THAN 1'-0" BELOW THE DESIGN BOTTOM OF FOOTING, A SUBFOOTING SHALL BE POURED SO THAT THE DESIGN TOP OF FOOTING IS AT THE REQUIRED ELEVATION.
44. FOR ALL SUBSTRUCTURES, WHERE LEDGE IS WITHIN ONE FOOT FROM THE BOTTOM OF THE FOOTING AS DESIGNED, THE FOOTING MAY BE POURED TO THE TOP OF THE LEDGE USING "CONCRETE, HIGH PERFORMANCE CLASS B".
45. FOR ALL SUBSTRUCTURE UNITS WHERE LEDGE IS BELOW TOP OF FOOTING BY LESS THAN THE DEPTH OF FOOTING DETAILED IN THE PLANS, THE LEDGE SHALL BE EXCAVATED DOWN TO THE INDICATED BOTTOM OF FOOTING FOR THE FULL WIDTH (TOE TO HEEL) OF THE CONFIGURATION.
46. IF LEDGE IS ABOVE THE DESIGN TOP OF FOOTING, THE FOOTING MAY BE RAISED. BEFORE ANY UPWARD ADJUSTMENT IS MADE IN FOOTING ELEVATION, THE PROJECT MANAGER SHALL BE CONTACTED AND PROVIDED WITH A LEDGE PROFILE. NO FURTHER WORK SHALL BE DONE UNTIL APPROVAL OF THE CONFIGURATION IS RECEIVED.
47. #8 DOWELS SHALL BE DRILLED AND GROUTED INTO THE LEDGE AS SHOWN ON THE PLANS. THE DOWELS SHALL HAVE A MINIMUM 2'-0" EMBEDMENT INTO THE LEDGE AND SHALL EXTEND INTO THE FOOTING A MINIMUM OF 1'-6". IN AREAS WHERE A SUBFOOTING IS REQUIRED #8 DOWELS WILL ALSO BE USED AT THE INTERFACE BETWEEN SUBFOOTING AND FOOTING. THE DRILLING AND GROUTING SHALL BE PAID FOR UNDER THE ITEM 507.16, "DRILLING AND GROUTING DOWELS".
48. PRIOR TO ANY COLD WEATHER CONCRETE PLACEMENT AS DEFINED IN SECTION 501, THE CONTRACTOR SHALL SUBMIT A PLAN TO THE ENGINEER FOR APPROVAL. THE PLAN AT A MINIMUM SHALL PROVIDE METHODS FOR INSULATING, CURING, AND HEATING, TEMPERATURE MONITORING, AND ANY WEATHER RESTRICTIONS FOR CONCRETE PLACEMENT. THE PLAN SHALL BE SPECIFIC TO THE LOCATION OF THE PLACEMENT AND BE SUBMITTED A MINIMUM OF 14 DAYS PRIOR TO THE ANTICIPATED PLACEMENT DATE. COLD WEATHER CONCRETE SHALL NOT BE PLACED PRIOR TO APPROVAL OF THE PLAN.

PRESTRESSED NON-VOIDED SLABS

49. PRESTRESSED CONCRETE NON-VOIDED SLABS SHALL BE PAID FOR UNDER ITEM 900.640, "SPECIAL PROVISION (PRESTRESSED CONCRETE NON-VOIDED SLABS)(18"x36")" OR ITEM 900.640, "SPECIAL PROVISION (PRESTRESSED CONCRETE NON-VOIDED SLABS)(18"x48")".
50. ITEM 900.640, "SPECIAL PROVISION (PRESTRESSED CONCRETE NON-VOIDED SLAB)" SHALL:
 - A. CONFORM TO SECTION 510 "PRESTRESSED CONCRETE".
 - B. HAVE THE ENDS OF THE STRANDS RECESSED AND GROUTED ACCORDING TO STANDARD PRACTICE.
 - C. INCLUDE COLD POURED JOINT FILLER AND TRANSVERSE TENDONS.
 - D. GALVANIZE TRANSVERSE THREADED STEEL ROD PLATES AND ANCHOR NUTS AFTER FABRICATION ACCORDING TO AASHTO M 232M/M 232.
51. ITEM 510.24, "GROUTING SHEAR KEYS": FILL THE JOINTS BETWEEN THE BEAMS WITH MORTAR, TYPE IV, AS DESCRIBED IN SUBSECTION 510.13.

REV.	DESCRIPTION	DATE
△	PRESTRESSED NON-VOIDED SLAB NOTES	11/20/2013
PROJECT NAME: BRATTLEBORO		
PROJECT NUMBER: BRO 1442(35)		
FILE NAME: z10J062pn.dgn	PLOT DATE: 11/20/2013	
PROJECT LEADER: S.E. BURBANK	DRAWN BY: E.A. FIALA	
DESIGNED BY: S.E. BURBANK	CHECKED BY: S.E. BURBANK	
PROJECT NOTES (1 OF 2)	SHEET 6 OF 68	

