

## GENERAL

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2006, AND ITS LATEST REVISIONS, AND THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, DATED 2010, AND ITS LATEST REVISIONS.
2. THE BRIDGE IS DESIGNED FOR HL-93 LIVE LOAD WITH AN ALLOWANCE FOR 3" OF FUTURE PAVEMENT.
3. DURING CONSTRUCTION, TRAFFIC SHALL BE MAINTAINED ON A TWO-WAY TEMPORARY BRIDGE CONSTRUCTED DOWNSTREAM OF THE EXISTING 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 528.11, TWO-WAY TEMPORARY BRIDGE.
4. THE CONTRACTOR SHALL ERECT AND MAINTAIN ALL TEMPORARY ON AND OFF-PROJECT SIGNS AND BARRICADES AS SHOWN IN THE PLANS AND AS DIRECTED BY THE RESIDENT ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 641.10, TRAFFIC CONTROL.
5. 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.
6. ITEM 529.15 REMOVAL OF STRUCTURE SHALL INCLUDE THE REMOVAL AND DISPOSAL OF EXISTING BRIDGE SUPERSTRUCTURES, EXISTING CONCRETE BARRIER USED AS BRIDGE RAIL AND REMOVAL OF THE ABUTMENTS, WHERE THEIR REMOVAL IS OUTSIDE OF THE AREAS COVERED BY ANY OF THE EXCAVATION ITEMS.
7. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT SILTATION OR POLLUTION, IN PARTICULAR THE DISCHARGE OF RAW CONCRETE INTO LOCUST CREEK, AS DIRECTED BY THE RESIDENT ENGINEER AND STANDARD SPECIFICATIONS SECTION 105.
8. ALL DIMENSIONS SHOWN IN THE PLANS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 68 DEGREES FAHRENHEIT, UNLESS NOTED OTHERWISE.
9. THE EXISTING STRUCTURAL STEEL IS 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.
10. "STRUCTURES DETAIL SHEETS" LISTED ON THE INDEX ARE PROVIDED AFTER THE PLAN SHEETS. DETAILS AND DIMENSIONS SHOWN IN THE PROJECT PLAN SHEETS SHALL TAKE PRECEDENCE OVER THOSE SHOWN IN THE "STRUCTURES DETAIL SHEETS"
11. THE CONTRACTOR SHALL NOTE THE EXISTANCE OF A WATERLINE AND SLEEVE LOCATED APPROXIMATELY AT STA. 103+00. EFFORTS SHALL BE MADE TO LEAVE THIS WATERPIPE AND SLEEVE UNDISTURBED. REPLACEMENT OF DAMAGED WATERLINE AND SLEEVE SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

## EARTHWORK AND RELATED ITEMS

12. A COFFERDAM IS REQUIRED FOR THE CONSTRUCTION OF ABUTMENT #1. REFER TO "EARTHWORK TYPICAL" FOR COFFERDAM NOTES.
13. THE CONTRACTOR MAY SUBSTITUTE SUBBASE MATERIAL FOR THE SAND BORROW SHOWN ON THE PLANS. THE SUBBASE MATERIAL SHALL BE THE TYPE SPECIFIED IN THE CONTRACT AND SHALL BE PLACED TO MEET THE SUBBASE SPECIFICATIONS. IF SUBBASE IS PLACED IN LIEU OF SAND BORROW, A GEOTEXTILE MEETING THE REQUIREMENTS OF SECTION 649 "GEOTEXTILE FOR ROAD BED SEPARATOR" SHALL BE PLACED BETWEEN THE SUBGRADE AND THE SUBBASE MATERIAL. ALL COSTS ASSOCIATED WITH THE SUBSTITUTION INCLUDING THE GEOTEXTILE SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 203.31 "SAND BORROW".
14. THE HEIGHT OF FILL BEHIND ABUTMENTS WILL BE LIMITED TO THE BRIDGE SEAT ELEVATION UNTIL THE DECK HAS BEEN POURED AND THE CURING PERIOD IS UP.
15. THE CONTRACTOR'S ATTENTION IS DIRECTED TO SUBSECTION 301.06 REGARDING THE COMPACTION OF THE SUBBASE MATERIAL.
16. THE "STONE FILL, TYPE III" UNDER THE BRIDGE AS SHOWN IN THE PLANS SHALL BE PLACED BEFORE THE NEW SUPERSTRUCTURE ARE SET.
17. "STONE FILL, TYPE I" SHALL BE USED FOR EROSION CONTROL AS SHOWN IN THE PLANS AND AT THE DISCRETION OF THE RESIDENT ENGINEER. PAYMENT FOR MATERIAL AND PLACEMENT SHALL BE MADE UNDER ITEM 613.10, "STONE FILL, TYPE I".

18. THE AREA DISTURBED BY THE TEMPORARY DETOUR SHALL BE RESTORED TO ITS ORIGINAL GRADE AND VEGETATED. THE COST OF THE SEED, FERTILIZER, MULCH AND LIME WILL BE PAID FOR UNDER THEIR RESPECTIVE ITEMS.

## STRUCTURAL STEEL

19. NEW STRUCTURAL STEEL SHALL BE AASHTO M270, GRADE 50W 9AASHTO M270M, GRADE 345W UNLESS OTHERWISE NOTED
20. ITEM 506.55 "STRUCTURAL STEEL, PLATE GIRDER" SHALL INCLUDE ALL COMPONENTS OF PLATE GIRDERS, DIAPHRAGMS AND CROSS FRAMES.
21. ALL STRUCTURAL STEEL SHALL BE DETAILED AND FABRICATED USING PROCEDURES AND TOLERANCES IN ACCORDANCE WITH APPLICABLE PUBLICATIONS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC).
22. STRUCTURAL STEEL MEMBERS DESIGNATED "CVN" IN THE PLANS SHALL BE CHARPY V-NOTCH TESTED IN ACCORDANCE WITH SUBSECTION 714.01 OF THE STANDARD SPECIFICATIONS.
23. FLEMING BRACKETS OR SIMILAR FALSEWORK SHALL BE SPACED AS REQUIRED BY DESIGN, BUT SHALL BE LIMITED TO A MAXIMUM SPACING OF 4 FEET. THE DESIGN OF FALSEWORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
24. ENDS OF GIRDERS ARE TO BE VERTICAL IN FINAL POSITION.

## CONCRETE

25. SUBSTRUCTURE CONCRETE EXCLUDING APPROACH SLABS SHALL BE HIGH PERFORMANCE CLASS B AND SHALL BE PAID FOR UNDER ITEM 501.34, "CONCRETE, HIGH PERFORMANCE CLASS B". DECK (INCLUDING BACKWALLS AND APPROACH SLAB BRACKETS ABOVE BRIDGE SEAT ELEVATION), APPROACH SLABS, AND BRIDGE CURB CONCRETE SHALL BE HIGH PERFORMANCE CLASS A AND SHALL BE PAID FOR UNDER ITEM 501.33, "CONCRETE, HIGH PERFORMANCE CLASS A".
26. PRIOR TO ANY COLD WEATHER CONCRETE PLACEMENT AS DEFINED IN SECTION 501, THE CONTRACTOR SHALL SUBMIT A PLAN TO THE RESIDENT ENGINEER FOR APPROVAL. THE PLAN AT A MINIMUM SHALL PROVIDE METHODS FOR INSULATING, CURING, 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.
27. NO CONCRETE IN ABUTMENTS OR WINGWALLS SHALL BE PLACED ABOVE THE BRIDGE SEAT ELEVATIONS UNTIL THE STRINGERS OR BEAMS HAVE BEEN PROFILED AND THE FINISHED GRADE OF THE DECK HAS BEEN DETERMINED.
28. RELATIVE TO GRADE, ALL DECK POURS SHALL BEGIN FROM THE LOW ELEVATION END AND PROCEED TOWARDS THE HIGH ELEVATION END.
29. SURFACES OF BRIDGE SEATS UNDER BEARING DEVICES SHALL BE LEVEL. ALL OTHER AREAS OF BRIDGE SEATS SHALL BE SLOPED DOWN 1/2 INCH PER FOOT TOWARD THE NEAREST OUTSIDE FACE OF THE SUBSTRUCTURE UNIT, SUCH AS TO PREVENT WATER PONDING ON THE BRIDGE SEAT AREA. THE ENTIRE BRIDGE SEAT SURFACE SHALL BE GIVEN A MAGNESIUM FLOAT FINISH.
30. IN ACCORDANCE WITH SUBSECTION 506.23(A) OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION AND AS DIRECTED BY THE RESIDENT ENGINEER, THE CONTRACTOR SHALL TAKE MEASURES NECESSARY TO PROTECT ALL SUBSTRUCTURE CONCRETE FROM STAINING DUE TO OXIDE FORMATION ON THE STRUCTURAL STEEL PRIOR TO PLACEMENT OF THE DECK. THESE MEASURES WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO ITEM 501.34, "CONCRETE, HIGH PERFORMANCE CLASS B". ANY SUCH STAINING THAT OCCURS PRIOR TO DECK PLACEMENT SHALL BE REMOVED AT NO ADDITIONAL COST TO THE STATE.
31. THE DECK IS TO BE POURED IN ONE CONTINUOUS POUR WITH A MAXIMUM DURATION OF EIGHT HOURS. IF CIRCUMSTANCES BEYOND THE CONTRACTOR'S CONTROL PREVENT THIS FROM BEING ACCOMPLISHED, A TRANSVERSE CONSTRUCTION JOINT SHALL BE USED BETWEEN ADJACENT POURS. A MINIMUM 96 HOUR DELAY BETWEEN ADJACENT POURS SHALL BE OBSERVED.
32. LOADING ALLOWANCE ON THE NEW DECK SHALL BE IN ACCORDANCE WITH SUBSECTION 501.18(B) OF THE STANDARD SPECIFICATIONS.
33. WATER REPELLENT, SILANE, SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES, EXCEPT THE UNDERSIDE OF THE DECK BETWEEN DRIP NOTCHES.
34. JOINTS AND SCORE MARKS IN CONCRETE SHALL BE CONSTRUCTED AS SHOWN IN THE PLANS OR AS DIRECTED BY THE RESIDENT ENGINEER.

35. THE VERTICAL KEY IN CONCRETE CONSTRUCTION JOINTS SHALL BE MONOLITHIC AND CONTINUOUS FOR THE FULL LENGTH OF THE JOINT.

36. ALL SUPERSTRUCTURE REINFORCING STEEL AND VERTICAL REINFORCING STEEL IN ABUTMENT 1 SHALL BE EPOXY COATED AND PAID FOR UNDER ITEM 507.17, "EPOXY COATED REINFORCING STEEL". CUTTING AND REPAIRING DAMAGED AREAS OF COATED REINFORCING STEEL SHALL BE PERFORMED IN ACCORDANCE WITH SUBSECTION 507.04 OF THE STANDARD SPECIFICATIONS.

37. MINIMUM COVER FOR REINFORCING STEEL SHALL BE AS INDICATED IN THE PLANS.

38. REINFORCING STEEL PLACEMENT TOLERANCES SHALL BE:

SPACING: +/- 1 INCH  
CLEARANCE: +/- 1/4 INCH

## PILES

39. THE PILES SHALL BE HP12X84.
40. A MINIMUM OF ONE DYNAMIC PILE TEST SHALL BE CONDUCTED FOR EACH SUBSTRUCTURE UNIT. MORE TESTS MAY BE REQUIRED BY THE ENGINEER. THE FIRST TEST PILE SHALL BE THE FIRST PRODUCTION PILE DRIVEN FOR THE SUBSTRUCTURE UNIT. THE PILE WILL BE DRIVEN AT THE PLAN LOCATION AND THE PILE SHALL BE MEASURED FOR PAYMENT UNDER CONTRACT ITEM 505.265.
41. THE PILES SHALL BE DRIVEN TO A NOMINAL RESISTANCE OF 395 KIPS.
42. FOR ESTIMATING PURPOSES, THE PILE TIP ELEVATIONS WERE ASSUMED AS SHOWN ON THE BORING LOGS. ACTUAL IN PLACE LENGTHS MAY VARY.
43. TO PREVENT DAMAGE TO THE PILES, PILE SHOES ARE REQUIRED AND SHALL CONFORM TO SECTION 505.

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