



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, 4TH EDITION, DATED 2007 AND ITS LATEST REVISIONS.
- 2. THE BRIDGE IS DESIGNED FOR HL 93 LIVE LOAD WITH AN ALLOWANCE FOR 80mm (3") OF FUTURE PAVEMENT.
- 3. ALL DIMENSIONS SHOWN IN THE PLANS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 20 DEGREES CELSIUS UNLESS OTHERWISE NOTED.
- 4. THE CONTRACTOR'S ATTENTION IS DIRECTED TO SUBSECTION 301.06 REGARDING THE COMPACTION OF SUBBASE MATERIAL FOR THIS PROJECT.
- 5. ITEM 529.15 "REMOVAL OF STRUCTURE" IS FOR THE REMOVAL OF THE EXISTING STRUCTURE INCLUDING THE SUPERSTRUCTURE, PIER 1 DOWN TO THE ELEVATIONS SHOWN IN THE CHANNEL SECTIONS, ALL OF PIER 2, INCLUDING THE FOOTING, AND ANY PORTION OF THE ABUTMENTS OUTSIDE THE LIMITS OF STRUCTURE EXCAVATION OR UNCLASSIFIED CHANNEL EXCAVATION. ANY SHEET PILING THAT WAS PLACED TO PROTECT THE PIER(S) FROM SCOUR SHALL ALSO BE CUT OFF TO THE SAME ELEVATION OF THE PIERS OR COMPLETELY REMOVED AND PAYMENT SHALL BE INCIDENTAL TO CONTRACT ITEM 529.15.
- 6. THE AREA DISTURBED BY THE TEMPORARY DETOUR SHALL BE SEEDED AND MULCHED AFTER ALL THE FILL IS REMOVED TO THE ORIGINAL GROUND SURFACE. THE COST OF THE SEED, FERTILIZER, AND MULCH WILL BE PAID FOR UNDER THEIR RESPECTIVE ITEMS.
- 7. THE STONE FILL, TYPE IV SHALL BE PLACED IN FRONT OF THE ABUTMENTS BEFORE THE STRUCTURAL STEEL HAS BEEN SET.
- 8. THIS BRIDGE SHALL BE INSTRUMENTED AS SHOWN ON THE INSTRUMENTATION PLAN SHEETS.
- 9. ANY IN-STREAM CONSTRUCTION WORK WILL TAKE PLACE BETWEEN JULY 1ST AND OCTOBER 1ST.

CONCRETE

- 10. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 25 mm BY 25 mm.
- 11. JOINTS AND SCORE MARKS IN CONCRETE SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- 12. REINFORCING PLACEMENT TOLERANCES SHALL BE:
SPACING +/- 25 mm
CLEARANCE +/- 5 mm
- 13. FOR BRIDGE DECK POURS, THE MAXIMUM TIME LIMIT FOR ANY COMBINATION OF POURS DONE IN ANY ONE DAY SHALL BE EIGHT HOURS. THERE SHALL BE A MINIMUM OF 96 HOURS BETWEEN THE COMPLETION OF ONE DAY'S POUR AND THE BEGINNING OF OTHER ADJACENT POURS. ALL INDIVIDUAL DECK POURS SHALL START FROM THE LOW END OF THE BRIDGE.
- 14. THE DECK AND SUBSTRUCTURE CONCRETE ABOVE THE CONSTRUCTION JOINT SHALL BE SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, NO SILICA FUME).
- 15. WATER REPELLENT, SILANE SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES EXCEPT THE UNDERSIDE OF THE DECK BETWEEN THE DRIP NOTCHES. THE DECK AND APPROACH SLAB SURFACES SHALL BE CLEANED BY BEING PRESSURE WASHED. AFTER GROOVING OPERATIONS, PRIOR TO TREATMENT. PRESSURE WASHING SHALL BE INCIDENTAL TO ITEM 514.10 "WATER REPELLENT, SILANE".
- 16. ALL ABUTMENT CONCRETE ABOVE THE CONSTRUCTION JOINT SHALL BE PLACED MONOLITHICALLY WITH THE DECK.
- 17. THE SUBSTRUCTURE CONCRETE BELOW THE JOINT SHALL BE CONCRETE, HIGH PERFORMANCE CLASS B.
- 18. THE TOP SURFACE OF THE PILE CAP SHALL INITIALLY BE GIVEN A FLOAT FINISH TO GRADE. THE CONCRETE WITHIN THE REINFORCING CAGE SHALL THEN BE ROUGHENED BY RAKING PARALLEL TO THE FACE OF THE ABUTMENT TO AN AMPLITUDE OF 12 mm. THE CONCRETE OUTSIDE THE REINFORCING CAGE AND UNDER THE BEARING PADS SHALL REMAIN SMOOTH.

- 19. IN ACCORDANCE WITH SUBSECTION 506.23 (A) OF THE STANDARD SPECIFICATIONS 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.
- 20. THE DECK WILL HAVE A LONGITUDINAL GROOVED FINISH. THIS WORK WILL BE PAID FOR UNDER ITEM 900.675 SPECIAL PROVISION "LONGITUDINAL DECK GROOVING".
- 21. ALL REINFORCING STEEL DESIGNATED AS "SS" SHALL BE STAINLESS STEEL REINFORCING IN ACCORDANCE WITH THE SPECIFICATIONS FOR ITEM 900.635 "SPECIAL PROVISION (STAINLESS STEEL REINFORCING)".
- 22. THE TOP MAT OF REINFORCING STEEL IN THE DECK IS #13 BARS @ 300mm EACH WAY. EXTRA CHAIRS AND/OR PLYWOOD WALKING SURFACES WILL LIKELY BE REQUIRED TO PREVENT UNDESIRABLE DEFORMATION OF THE REINFORCING STEEL MAT PRIOR TO AND WHILE POURING THE DECK. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 900.635 SPECIAL PROVISION (STAINLESS STEEL REINFORCING).

STRUCTURAL STEEL

- 23. 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).
- 24. STRUCTURAL STEEL MEMBERS DESIGNATED "CVN" IN THE PLANS SHALL BE CHARPY V-NOTCH TESTED IN ACCORDANCE WITH SUBSECTION 714.01 OF THE STANDARD SPECIFICATIONS.
- 25. ALL WELDING SHALL CONFORM TO THE PROVISIONS OF SUBSECTION 506.10 "WELDING".
- 26. ANY BOLT HOLES IN THE WEBS OF THE FASCIA GIRDERS NOT OTHERWISE FILLED SHALL BE FILLED WITH EITHER BUTTON HEAD OR HEX HEAD BOLTS CONFORMING TO AASHTO M164M TYPE 3. THE BOLTS SHALL BE TIGHTENED IN ACCORDANCE WITH SUBSECTION 506.19 OF THE STANDARD SPECIFICATIONS.
- 27. ALL FIELD CONNECTIONS SHALL BE MADE WITH 22 DIAMETER BOLTS CONFORMING TO AASHTO M164M TYPE 3 IN 24 mm DIAMETER HOLES PER 506.19(a). ANY CONNECTIONS NOT DETAILED ON THE PLANS SHALL BE DETAILED BY THE FABRICATOR AND SUBMITTED TO THE STRUCTURES ENGINEER FOR APPROVAL.
- 28. AFTER THE GIRDERS HAVE BEEN SET ON THE ANCHOR BOLTS, ELEVATIONS SHALL BE TAKEN ALONG THE TOP OF THE GIRDERS, AS DIRECTED BY THE RESIDENT ENGINEER, TO DETERMINE IF THE ELEVATIONS AT THE END OF THE GIRDERS SHOULD BE ADJUSTED. AFTER ADJUSTMENT, MORE EXTENSIVE ELEVATIONS SHALL BE TAKEN ALONG THE TOP OF THE GIRDERS FOR CALCULATING THE HAUNCH DEPTHS.
- 29. FLEMING BRACKETS OR SIMILAR FALSEWORK SHALL BE SPACED AS REQUIRED BY DESIGN, BUT SHALL BE LIMITED TO A MAXIMUM SPACING OF 1 METER AND SHALL BEAR AT THE BOTTOM THIRD OF THE GIRDER AND BE ATTACHED TO THE TOP FLANGE. THE DESIGN OF THE FALSEWORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 30. TEMPORARY BRACING FOR THE GIRDERS SHALL BE PROVIDED BY THE CONTRACTOR TO DISTRIBUTE LOAD WHILE THE DECK IS BEING POURED. THE SUPPORTS SHALL BE LOCATED MIDWAY BETWEEN THE BAYS OF PERMANENT CROSS FRAMES AND SHALL BE ABLE TO SUPPORT A 90 KN LATERAL LOAD AT THE TOP FLANGE. THE CONNECTION OF THE TEMPORARY BRACE TO THE GIRDER SHALL BE DETAILED IN THE CONTRACTOR'S ERECTION PLAN, BUT IN NO CASE SHALL THE CONNECTION INVOLVE FIELD WELDING OR CUTTING HOLES IN THE GIRDER. ONCE THE DECK REACHES DESIGN STRENGTH, THE TEMPORARY BRACES SHALL BE REMOVED. THE CONTRACTOR SHALL INCLUDE THE TEMPORARY SUPPORTS IN THE ERECTION PLAN. THE TEMPORARY BRACING WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO ITEM 506.55 "STRUCTURAL STEEL, PLATE GIRDER".

PILES

- 31. THE PILES SHALL BE HP 310X125.
- 32. THE PILES SHALL BE EMBEDDED IN THE GROUND A MINIMUM OF 15 METERS AND BE DRIVEN TO A NOMINAL RESISTANCE OF 3000 KN. TO PREVENT DAMAGE TO THE PILES, PILE SHOES SHALL BE REQUIRED AND SHALL CONFORM TO SECTION 505.
- 33. PILE TESTING AND SEQUENCE
 - a. 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.

34. FOR ESTIMATING PURPOSES, THE PILE TIP ELEVATIONS WERE ASSUMED AS SHOWN ON THE BORING LOGS. THE ACTUAL IN PLACE LENGTHS MAY VARY.

35. ABUTMENT GAGES SHALL BE INSTALLED AND FUNCTIONING PROPERLY BEFORE BACKFILLING OPERATIONS.

TRAFFIC CONTROL

36. AS PART OF 900.645 SPECIAL PROVISION (TRAFFIC CONTROL, ALL-INCLUSIVE), THE CONTRACTOR SHALL SUBMIT A SITE SPECIFIC TRAFFIC CONTROL PLAN TO THE ROADWAY, TRAFFIC, AND SAFETY ENGINEER FOR APPROVAL PER SUBSECTION 105.03. SEE SPECIAL PROVISIONS.

37. ALL ITEMS REQUIRED TO IMPLEMENT THE CONTRACTOR'S TRAFFIC CONTROL PLAN WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO ITEM 900.645 SPECIAL PROVISION (ALL-INCLUSIVE TRAFFIC CONTROL). THIS INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING

- ITEMS: TEMPORARY TRAFFIC BARRIER
- UNIFORMED TRAFFIC OFFICER/FLAGGER
- TEMPORARY PAVEMENT MARKINGS
- REMOVAL OF EXISTING PAVEMENT MARKINGS
- TRAFFIC SIGNS, TYPE A

38. THE SPEED LIMIT SHALL BE REDUCED TO 35 MPH DURING CONSTRUCTION. THE CONTRACTOR SHALL PLACE REVISED SPEED LIMIT SIGNS AT MILE POST 3.80 EB AND 4.40 WB IN ACCORDANCE WITH THE LATEST REVISION OF THE MUTCD. ONCE WORK HAS BEEN COMPLETED THE SIGNS SHALL BE REMOVED. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 900.645 SPECIAL PROVISION (ALL-INCLUSIVE TRAFFIC CONTROL).

39. FOR ADDITIONAL SIGNING INSTRUCTIONS SEE STANDARDS E-101, E-102, E102A, E-107, E-107A AND E-121.

40. THE CONTRACTOR SHALL MAINTAIN THE TEMPORARY DETOUR IN ACCORDANCE WITH SUBSECTION 104.01 MAINTENANCE OF TRAFFIC. THE WORK REQUIRED UNDER SUBPART (e), IF NECESSARY, WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE INCLUDED IN THE BID PRICE FOR ITEM 900.645 SPECIAL PROVISION (ALL-INCLUSIVE TRAFFIC CONTROL).

TEMPORARY BRIDGE AND APPROACHES

41. TRAFFIC WILL BE MAINTAINED ON A TWO-WAY TEMPORARY BRIDGE.

42. THE DETOUR CURVES SHALL BE DESIGNED FOR A MINIMUM OF 25 MPH. ADVISORY SIGNS SHALL BE POSTED IN ACCORDANCE WITH VAOT STANDARD E-107. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 528.11 "TWO-WAY TEMPORARY BRIDGE".

43. LIMITS OF THE TEMPORARY DETOUR MUST BE WITHIN THE RIGHT-OF-WAY. ALL WORK NECESSARY TO MEET THIS CONDITION WILL BE INCIDENTAL TO ITEM 528.11 "TWO-WAY TEMPORARY BRIDGE". SEE ROW SHEETS FOR LOCATION OF TEMPORARY CONSTRUCTION LIMITS.

44. THE TEMPORARY BRIDGE APPROACHES SHALL BE PAVED WITH A MINIMUM OF 80mm (2 LIFTS OF 40mm) OF BITUMINOUS CONCRETE PAVEMENT.

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GENERAL NOTES	