

**GENERAL**

- 1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS FOR CONSTRUCTION, THE 2012 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, AND THEIR LATEST REVISIONS.
- 2. THE BRIDGE WAS DESIGNED FOR THE HL-93 LIVE LOAD.
- 3. ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL, AND ARE GIVEN AT 68 DEGREES FAHRENHEIT, UNLESS NOTED OTHERWISE.
- 4. THE DETAIL AND DIMENSIONS SHOWN ON THE PROJECT SPECIFIC PLAN AND DETAIL SHEETS SHALL TAKE PRECEDENCE OVER THE MORE GENERAL "STRUCTURES DETAIL SHEETS" PROVIDED AFTER THE PLAN SHEETS.
- 5. THE REMOVAL OF EXISTING STRUCTURE WILL BE PAID FOR UNDER ITEM 529.15 "REMOVAL OF STRUCTURE (3720 SF-EST.)". THIS WORK SHALL INCLUDE REMOVAL OF THE ENTIRE SUPERSTRUCTURE, ABUTMENT TWO IN ITS ENTIRETY, AND ANY PORTIONS OF THE OTHER SUBSTRUCTURE UNITS, ABOVE THE ELEVATIONS GIVEN BELOW, WHICH FALL OUTSIDE THE LIMITS OF ANY OTHER EXCAVATION ITEM.

ABUTMENT ONE – REMOVE ABOVE ELEVATION 476.00  
 PIER ONE – REMOVE ABOVE ELEVATION 464.00  
 PIER TWO – REMOVE ABOVE ELEVATION 462.00

**TRAFFIC CONTROL**

- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF A SITE SPECIFIC TRAFFIC CONTROL PLAN FOR ALL STAGES OF CONSTRUCTION. THE PLAN SHALL CLEARLY DETAIL HOW TRAFFIC WILL BE MAINTAINED. THE PLAN SHALL SHOW APPROPRIATE TEMPORARY TRAFFIC CONTROL. THE CONTRACTOR SHALL SUBMIT A DETAILED TRAFFIC CONTROL PLAN TO THE PROJECT MANAGER FOR ACCEPTANCE PER SUBSECTION 105.03. ALL COSTS WILL BE INCLUDED IN ITEM 900.645 "SPECIAL PROVISION (TRAFFIC CONTROL, ALL-INCLUSIVE)". NO WORK SHALL BEGIN UNTIL THE TRAFFIC-CONTROL PLAN HAS BEEN ACCEPTED.
- 7. ALL ITEMS REQUIRED TO IMPLEMENT THE TRAFFIC CONTROL PLAN WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO THE BID PRICE FOR ITEM 900.645 "SPECIAL PROVISION (TRAFFIC CONTROL, ALL-INCLUSIVE)". FLAGGERS, UNIFORMED TRAFFIC OFFICERS, AND PORTABLE CHANGEABLE MESSAGE SIGNS WILL BE PAID SEPARATELY.
- 8. ALL SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MUTCD. WHERE CONFLICTS EXIST BETWEEN THE MUTCD AND THE PLANS, THE MUTCD AND SHSM SHALL GOVERN. FOR ADDITIONAL SIGNING REQUIREMENTS, SEE THE T-SERIES OF THE STANDARDS.
- 9. INSTALLATION OF TEMPORARY TRAFFIC CONTROL SIGNS SHALL NOT BLOCK ANY EXISTING TRAFFIC CONTROL SIGN ASSEMBLIES. THE CONTRACTOR SHALL TRY TO MAINTAIN AT LEAST 200 FEET BETWEEN SIGN ASSEMBLIES.
- 10. VT 25B IN PROXIMITY OF THE PROJECT WILL BE CLOSED DURING THE BRIDGE CLOSURE PERIOD (BCP).
- 11. THE CONTRACTOR WILL BE ALLOWED TO CLOSE THE BRIDGE FOR A MAXIMUM OF 12 CONSECUTIVE WEEKS TO COMPLETE THE BRIDGE REPLACEMENT. SEE THE SPECIAL PROVISIONS FOR WORK REQUIREMENTS AND INCENTIVE/DISINCENTIVE PROVISIONS FOR THE BRIDGE CLOSURE PERIOD.
- 12. FULL ACCESS TO ALL SIDE ROADS AND DRIVES WITHIN THE PROJECT LIMITS SHALL BE MAINTAINED AT ALL TIMES. THIS WORK WILL BE CONSIDERED INCIDENTAL TO ITEM 900.645 "SPECIAL PROVISION (TRAFFIC CONTROL, ALL-INCLUSIVE)".
- 13. THE TEMPORARY DETOUR, TO BE USED WHILE THE BRIDGE IS CLOSED, IS SHOWN ON THE TRAFFIC DETOUR SHEET. THE INSTALLATION AND MAINTENANCE OF ALL SIGNING ASSOCIATED WITH THE TEMPORARY DETOUR SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 900.645 "SPECIAL PROVISION (TRAFFIC CONTROL ALL-INCLUSIVE)".
- 14. ALL SIGNS, BARRICADES, AND OTHER TRAFFIC CONTROL DEVICES SHALL BE CLEANED WEEKLY OR AS DIRECTED BY THE ENGINEER. ALL PORTABLE CHANGEABLE MESSAGE BOARDS SHALL BE INSPECTED TWICE A DAY (AM AND PM) EVERY DAY OF THE WEEK, INCLUDING WEEKENDS, TO BE SURE THAT THEY ARE OPERATING PROPERLY. THE COST FOR THIS WORK WILL BE CONSIDERED INCIDENTAL TO ITEM 900.645 "SPECIAL PROVISION (TRAFFIC CONTROL, ALL-INCLUSIVE)".

**EARTHWORK**

- 15. ITEM 613.12 "STONE FILL, TYPE III" UNDER THE BRIDGE AS SHOWN IN THE PLANS SHALL BE PLACED BEFORE THE NEW GIRDERS ARE SET.

- 16. THE CONTRACTOR MAY SUBSTITUTE SUBBASE MATERIAL FOR THE SAND BORROW SHOWN IN THE MATERIALS TRANSITION. 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 ITEM 649.11 "GEOTEXTILE FOR ROADBED SEPARATOR" SHALL BE PLACED BETWEEN THE SUBGRADE AND SUBBASE MATERIAL. ALL COSTS ASSOCIATED WITH THE SUBSTITUTION INCLUDING THE GEOTEXTILE WILL BE CONSIDERED INCIDENTAL TO ITEM 203.31 "SAND BORROW".

**STRUCTURAL STEEL**

- 17. SOME OF 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.
- 18. UNLESS OTHERWISE NOTED, ALL NEW STRUCTURAL STEEL SHALL CONFORM TO AASHTO M 270M/M 270M, GRADE 50 METALIZED AND WILL BE PAID FOR UNDER ITEM 506.56 "STRUCTURAL STEEL, CURVED PLATE GIRDER (METALIZED) (FPQ)".
- 19. 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.
- 20. ANY BOLT HOLES IN THE WEBS OF FASCIA GIRDERS NOT OTHERWISE FILLED SHALL BE FILLED WITH BUTTON HEAD OR HEX HEAD BOLTS. THE BOLTS SHALL BE TIGHTENED IN ACCORDANCE WITH SUBSECTION 506.19 OF THE STANDARD SPECIFICATIONS.
- 21. STRUCTURAL STEEL MEMBERS DESIGNATED "CVN" IN THE PLANS SHALL BE CHARPY V-NOTCH TESTED IN ACCORDANCE WITH SUBSECTION 714.01 OF THE STANDARD SPECIFICATIONS.
- 22. AFTER SUPERSTRUCTURE STEEL HAS BEEN ERECTED, ELEVATIONS ALONG THE TOP OF THE GIRDERS SHALL BE TAKEN AS DIRECTED BY THE ENGINEER FOR USE IN DETERMINING FINISHED GRADES.

**CONCRETE**

- 23. ALL RECESSED LIFTING POINTS AND BLOCKOUTS SHALL BE FILLED WITH A TYPE IV MORTAR PER SUBSECTION 707.03. PAYMENT WILL BE CONSIDERED INCIDENTAL TO THE APPROPRIATE PRECAST ITEM.
- 24. WATER REPELLENT, SILANE SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES, EXCEPT THE UNDERSIDE OF THE DECK BETWEEN DRIP NOTCHES. PAYMENT WILL BE MADE UNDER ITEM 514.10 "WATER REPELLENT, SILANE".
- 25. THE DECK IS TO BE PLACED IN ONE CONTINUOUS POUR WITH A MAXIMUM DURATION OF EIGHT HOURS. IF THE DECK PLACEMENT CANNOT BE COMPLETED, FOR SOME REASON, A CONSTRUCTION JOINT SHALL BE USED. A 96 HOUR DELAY BETWEEN THE COMPLETION OF ONE DAY'S PLACEMENT AND THE BEGINNING OF ANY OTHER ADJACENT SEGMENT SHALL BE OBSERVED.
- 26. CONCRETE INCLUDED IN THE DECK AND IN THE ABUTMENTS ABOVE THE BRIDGE SEAT ELEVATIONS SHALL MEET ALL OF THE REQUIREMENTS FOR ITEM 900.608 "SPECIAL PROVISION (CONCRETE HIGH PERFORMANCE, CLASS PC4) (FPQ)".
- 27. ITEM 900.608 "SPECIAL PROVISION (CONCRETE HIGH PERFORMANCE, CLASS PC4) (FPQ)" REQUIRES THAT THE CONTRACTOR PREPARE A MIX DESIGN. THE APPROVAL PROCESS MAY TAKE SIGNIFICANT TIME. SEE PROJECT SPECIAL PROVISIONS FOR DETAILS.
- 28. CONCRETE INCLUDED IN THE APPROACH SLABS SHALL MEET ALL OF THE REQUIREMENTS OF ITEM 501.34 "CONCRETE, HIGH PERFORMANCE CLASS B (FPQ)".
- 29. CONCRETE USED IN THE PILE CAVITIES FOR THE ABUTMENTS SHALL MEET ALL OF THE REQUIREMENTS FOR ITEM 900.608 "SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET) (FPQ)".
- 30. PRECAST CONCRETE IN THE ABUTMENTS SHALL MEET ALL OF THE REQUIREMENTS OF THE APPROPRIATE ABUTMENT ITEM.

**REINFORCING STEEL**

- 31. REINFORCING STEEL INCLUDED IN THE DECK AND IN THE ABUTMENTS ABOVE THE BRIDGE SEAT ELEVATIONS SHALL MEET ALL OF THE REQUIREMENTS FOR ITEM 507.13 "REINFORCING STEEL, LEVEL III".
- 32. REINFORCING STEEL INCLUDED IN THE APPROACH SLABS SHALL MEET ALL OF THE REQUIREMENTS OF ITEM 507.11 "REINFORCING STEEL, LEVEL I (EPOXY COATED)".

- 33. REINFORCING STEEL INCLUDED IN THE ABUTMENTS AND WINGWALLS WHICH IS COMPLETELY BELOW THE BRIDGE SEAT ELEVATIONS SHALL MEET ALL OF THE REQUIREMENTS FOR ITEM 507.11 "REINFORCING STEEL, LEVEL I (EPOXY COATED)". REINFORCING STEEL INCLUDED IN THE ABUTMENTS AND WINGWALLS WHICH IS ABOVE THE BRIDGE SEAT ELEVATIONS, OR WHICH EXTENDS ABOVE THE BRIDGE SEAT ELEVATIONS, SHALL MEET ALL OF THE REQUIREMENTS FOR ITEM 507.13 "REINFORCING STEEL, LEVEL III". IF THIS REINFORCING IS INCLUDED IN THE PORTIONS OF THE SUBSTRUCTURE WHICH WILL BE PRECAST, IT WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED INCIDENTAL TO THE APPROPRIATE ABUTMENT ITEM.

- 34. TEST BARS SHALL BE PROVIDED IN ACCORDANCE WITH THE "VERMONT AGENCY OF TRANSPORTATION MATERIAL SAMPLING MANUAL" AVAILABLE ON THE AGENCY WEBSITE.

- 35. MINIMUM CLEAR COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

ALONG BACK FACES OF WALLS AGAINST EARTH 2 INCH  
 ALONG TOP SURFACE OF DECK SLAB: 3 INCH  
 ALONG BOTTOM SURFACE OF DECK 1 1/2 INCH  
 ELSEWHERE UNLESS OTHERWISE INDICATED: 3 INCH

**PRECAST ABUTMENTS AND POST-TENSIONING**

- 36. IF A VERTICAL CONSTRUCTION JOINT IS REQUIRED BY THE CONTRACTOR FOR SHIPMENT OF THE ABUTMENTS, THE SECTIONS SHALL BE KEYED AND MATCH CAST. A JOINT DETAIL SHALL BE SHOWN ON THE FABRICATION DRAWINGS. NO LESS THAN TWO PILES SHALL SUPPORT EACH PRECAST ABUTMENT SECTION.
- 37. MECHANICAL SPLICE CONNECTIONS SHALL MEET THE REQUIREMENTS OF SUBSECTION 713.02. COATING SHALL MEET THE REQUIREMENTS OF SECTION 507 FOR LEVEL I (EPOXY COATING). PAYMENT WILL BE CONSIDERED INCIDENTAL TO THE APPROPRIATE PRECAST ITEM.
- 38. EPOXY BONDING COMPOUND SHALL BE APPLIED TO ALL VERTICAL MATCH CAST CONSTRUCTION JOINTS. SEE AGENCY WEBSITE FOR LIST OF APPROVED EPOXY BONDING COMPOUNDS. PAYMENT FOR EPOXY BONDING COMPOUND WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROPRIATE PRECAST ITEM.
- 39. POLYURETHANE JOINT SEALER SHALL BE APPLIED TO THE OUTSIDE FACE OF ALL VERTICAL MATCH CAST CONSTRUCTION JOINTS AND SHALL BE PAID FOR UNDER ITEM 524.21 "JOINT SEALER, POLYURETHANE".
- 40. POST-TENSIONING AND ASSOCIATED ITEMS ARE ONLY REQUIRED IF THE PILE CAP IS CONSTRUCTED OF MORE THAN ONE UNIT. 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. ANY POST-TENSIONING STRANDS AND CONDUITS SHALL ADHERE TO THE REQUIREMENTS OF SECTION 510 – PRESTRESSED CONCRETE. GALVANIZED ANCHOR ASSEMBLIES, CONDUIT, POLYPROPYLENE SHEATH, AND POST-TENSIONING STRANDS WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROPRIATE PRECAST ITEM.
- 41. POST-TENSIONING SHALL BE COMPLETED PRIOR TO POURING THE PILE CAVITY CLOSURE POUR.
- 42. GALVANIZE ANCHOR ASSEMBLIES AFTER FABRICATION ACCORDING TO AASHTO M 232M/M 232.
- 43. DESIGN VALUES
  - A. CONCRETE COMPRESSIVE STRENGTH:  $f_c = 5,000$  PSI.
  - B. POST-TENSIONING STRANDS: 0.5 INCH DIAMETER, 270 KSI, LOW RELAXATION 7-WIRE STRANDS.
  - C. ASSUMED MODULUS OF ELASTICITY IS 28,500 KSI.
  - D. THERE SHALL BE 2 STRANDS PER CONDUIT.
  - E. THE JACKING FORCE PER STRAND = 32 KIPS

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PROJECT LEADER: C. CARLSON	DRAWN BY: G. ROY
DESIGNED BY: M. EVANS-MONGEON	CHECKED BY: M. EVANS-MONGEON
PROJECT NOTES (1)	SHEET 5 OF 71