

GENERAL

- 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 STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DATED 2002, AND ITS LATEST REVISIONS.
- BRIDGE 81 IS CURRENTLY CLOSED TO VEHICULAR TRAFFIC AND IS OPEN FOR BICYCLES AND PEDESTRIANS. THE BRIDGE WILL BE CLOSED TO ALL VEHICLES, PEDESTRIANS AND BICYCLES DURING CONSTRUCTION OF THE PROJECT. BICYCLES AND PEDESTRIANS WILL BE DETOURED ONTO TOWN HIGHWAY 68 (PERLEY GORDON RD.) DURING CONSTRUCTION.
- THE TOWN WILL BE RESPONSIBLE FOR OFF PROJECT DETOUR SIGNS. THE CONTRACTOR SHALL ERECT AND MAINTAIN ALL ON AND OFF-PROJECT CONSTRUCTION SIGNS AND BARRICADES. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 641.10, "TRAFFIC CONTROL."
- THE EXISTING BARRICADES, CONCRETE BARRIER AND SIGNS (WITHIN THE PROJECT LIMITS) THAT ARE CURRENTLY BEING USED FOR THE CLOSURE OF THE BRIDGE ARE THE PROPERTY OF THE TOWN OF SPRINGFIELD. THE CONTRACTOR SHALL CALL HARRY HENDERSON, PUBLIC WORKS DIRECTOR AT (802) 886-2208 TOWN TWO WEEKS PRIOR TO THE REMOVAL OF THESE ITEMS. PROJECT SIGNS AND BARRICADES SHALL BE IN PLACE PRIOR TO REMOVING TOWN OWNED SIGNS AND BARRICADES.
- FULL ACCESS TO ALL SIDE ROADS, DRIVES AND THE BIKE/PEDESTRIAN PATH WITHIN THE PROJECT LIMITS SHALL BE MAINTAINED AT ALL TIMES. IF THE CONTRACTOR MUST RESTRICT ACCESS, THEY MUST NOTIFY THE PROPERTY OWNERS AND TOWN IN ADVANCE. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 641.10, "TRAFFIC CONTROL."
- THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT SILTATION OR POLLUTION, IN PARTICULAR THE DISCHARGE OF RAW CONCRETE INTO THE BLACK RIVER, AS DIRECTED BY THE RESIDENT ENGINEER AND STANDARD SPECIFICATIONS SECTION 105.
- FOR INFORMATION REGARDING UTILITIES, SEE THE SPECIAL PROVISIONS.
- (A) EXISTING DIMENSIONS: DIMENSIONS AND ANGLES OF THE EXISTING STRUCTURE SHOWN ON THESE PLANS ARE FOR GENERAL REFERENCE ONLY. THEY HAVE BEEN TAKEN FROM LIMITED FIELD INVESTIGATION AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL TAKE ALL FIELD MEASUREMENTS NECESSARY TO ASSURE PROPER FIT OF THE FINISHED WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY. WHEN SHOP DRAWINGS BASED ON FIELD MEASUREMENTS ARE SUBMITTED FOR APPROVAL, THE FIELD MEASUREMENTS SHALL ALSO BE SUBMITTED FOR REFERENCE BY THE REVIEWER. NO EXTRA PAYMENT WILL BE MADE FOR OBTAINING THE NECESSARY MEASUREMENTS.

(B) THESE PLANS WERE PREPARED BASED ON INFORMATION OBTAINED FROM REFERENCE PLANS SHEETS 63-85. THE CONTRACTOR MAY BE REQUIRED TO MAKE MINOR CHANGES TO THE DIMENSIONS SHOWN ON THE PLANS TO FIT THE ACTUAL FIELD CONDITIONS.
- ALL DIMENSIONS SHOWN IN THE PLANS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 68 DEGREES FAHRENHEIT, UNLESS NOTED OTHERWISE

EARTHWORK AND RELATED ITEMS

- ITEM 529.20, "PARTIAL REMOVAL OF STRUCTURES" SHALL INCLUDE REMOVAL AND DISPOSAL OF THE FOLLOWING:
 - CONCRETE BRIDGE DECK
 - EXISTING LATERAL BRACING
 - EXISTING BOTTOM CHORD MEMBERS
 - EXISTING FLOOR BEAMS AND STRINGERS
 - EXISTING ANGLES, PLATES OR STRUCTURAL SECTIONS REMOVED TO MAKE REPAIRS TO THE BRIDGE
 - VERTICAL AND DIAGONAL MEMBERS OF THE TRUSS DESIGNATED TO BE REPLACED
 - EXISTING BRIDGE RAILING
 - EXISTING BEARINGS (STRINGERS, FLOOR BEAMS AND TRUSSES)
 - EXISTING RAILROAD TRACKS ON AND OFF THE BRIDGE WITHIN THE PROJECT LIMITS

STRUCTURAL STEEL

- ALL STRUCTURAL STEEL PAID FOR UNDER THE ITEM 506.50 "STRUCTURAL STEEL (ROLLED BEAM)", 506.55 "STRUCTURAL STEEL (PLATE GIRDER) AND 506.60, "STRUCTURAL STEEL" SHALL CONFORM TO AASHTO M 270M/M 270, GRADE 50 (PAINTED).
- ITEM 506.50 "STRUCTURAL STEEL (ROLLED BEAM) " SHALL INCLUDE THE FOLLOWING:
 - REPLACEMENT OF FLOOR BEAMS WITH W24 X 117 ROLLED BEAMS AS DETAILED ON SHEETS 25 AND 25A
 - REPLACEMENT OF STRINGERS WITH W18 X 50 ROLLED BEAMS AS DETAILED ON SHEET 24
 - ANGLES REQUIRED FOR REPLACEMENT OF BOTTOM CHORDS
 - CHANNELS AND ANGLES REQUIRED FOR REPLACEMENT OF TRUSS MEMBERS
 - REPLACEMENT OF LATERAL BRACING

- ITEM 506.55 "STRUCTURAL STEEL (PLATE GIRDER) SHALL INCLUDE THE FOLLOWING:
 - REPLACEMENT OF DIAGONAL MEMBERS AS DETAILED ON SHEET 23
 - AN ADDITIONAL 2000 POUNDS OF STRUCTURAL STEEL (PLATE GIRDER) IS INCLUDED IN THIS PAY ITEM FOR ANY ADDITIONAL DIAGONALS OR VERTICALS THAT REQUIRE REPLACEMENT.
- A) ITEM 506.60, "STRUCTURAL STEEL"; SHALL INCLUDE ALL NEW STEEL NOT OTHERWISE DESIGNATED, INCLUDING BUT NOT LIMITED TO:
 - NEW GUSSET PLATES
 - NEW LATTICE BARS
 - NEW DOWNSPOUT DETAILED ON SHEET 35
 - NEW PLATES THAT MAKE UP BOTTOM CHORDS OR TRUSS MEMBERS
 - NEW CHANNELS, ANGLES, PIPES AND ATTACHMENTS THAT MAKE UP THE BRIDGE RAILING ON THE TRUSS (SEE SHEETS 37B - 37D)
- B) 2000 POUNDS OF ADDITIONAL PAINTED STRUCTURAL STEEL HAVE BEEN INCLUDED FOR ANY UNIDENTIFIED TRUSS REPAIRS. AFTER INITIAL REMOVAL OF TRUSS MEMBERS IDENTIFIED IN THE PLANS FOR REPLACEMENT AND CLEANING OF THE AREAS OF THE REMAINING MEMBERS NOW EXPOSED, CONTACT THE VTRANS STRUCTURES PROJECT MANAGER AND/OR PROJECT ENGINEER. PERSONNEL FROM THE STRUCTURES DESIGN SECTION WILL INSPECT THE TRUSS WITH THE RESIDENT ENGINEER TO DETERMINE IF ADDITIONAL TRUSS REPAIRS OR TRUSS MEMBER REPLACEMENT ARE REQUIRED. PAYMENT OF ANY OF ADDITIONAL 2000 POUNDS QUANTITY WILL ONLY BE MADE FOR REPAIRS DIRECTED BY THE ENGINEER.
- ALL NEW STRUCTURAL STEEL ELEMENTS SUBJECT TO TENSION SHALL BE CHARPY V-NOTCH TESTED. THESE MEMBERS ARE DESIGNATED BY (CVN) IN THE APPLICABLE DETAILS.
- WHEREVER POSSIBLE, EXISTING RIVETS THAT ARE REMOVED FOR REPAIRS SHALL BE REPLACED WITH 7/8" DIAMETER DOME-HEADED HIGH STRENGTH BOLTS MEETING AASHTO M-164 TYPE I. IN LOCATIONS DOME-HEADED BOLTS CAN NOT BE INSTALLED, HIGH STRENGTH BOLTS, NUTS AND WASHERS SHALL BE USED.
- CONNECTIONS NOT DETAILED SHALL BE DETAILED BY THE FABRICATOR AND SUBMITTED TO THE STRUCTURES ENGINEER FOR APPROVAL.
- ALL BOLTS SHALL BE COATED IN ACCORDANCE WITH AASHTO M-298 CLASS 50, TYPE I. BOLTS SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO OTHER STRUCTURAL STEEL ITEMS.
- THE EXISTING STRUCTURAL STEEL ON THIS PROJECT WAS PAINTED WITH A MATERIAL WHICH MAY CONTAIN LEAD. THE REMOVED STRUCTURAL STEEL IS TO BECOME 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 STRUCTURAL STEEL.
- ANY NECESSARY SHORING OF THE TRUSS SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 502 OF THE STANDARD SPECIFICATIONS AND SHALL BE PAID FOR UNDER ITEM 502.10, "SHORING SUPERSTRUCTURE". THE CONTRACTOR SHALL TAKE CARE SUCH THAT THE TRUSS REMAINS STABLE DURING DISMANTLING OF THE EXISTING FLOOR SYSTEM AND DURING REPAIR WORK TO TRUSS MEMBERS, SUBSTRUCTURES, AND BEARINGS. THE CONTRACTOR SHALL SUBMIT PLANS FOR DISMANTLING AND SHORING, INCLUDING ASSOCIATED DESIGN CALCULATIONS TO THE STRUCTURES ENGINEER. (SEE SUBSECTION 502.02 OF THE SPECIFICATIONS)

PAINTING

- THE FAYING SURFACES OF THE TRUSS WHERE THE NEW FLOOR BEAM BRACKETS CONNECT TO THE EXISTING TRUSS MEMBERS SHALL BE BLAST CLEANED AND PRIMED IN ACCORDANCE WITH VAOT SPECIFICATION 513, PRIOR TO THE INSTALLATION OF THE NEW STEEL ELEMENTS. THE TRUSS FAYING SURFACE AND ALL OTHER FAYING SURFACES SHALL MEET THE CLASS "B" COEFFICIENT IN THE "AASHTO SPECIFICATIONS FOR HIGHWAY BRIDGES." THIS IS REQUIRED FOR THOSE LOCATIONS WHERE NEW STEEL IS TO BE ATTACHED TO THE EXISTING TRUSS.
- THE COLOR OF THE FINAL COAT OF PAINT SHALL BE ~~GREEN~~ ^{BLACK} (COLOR CHIP ~~44662~~ ²⁷⁰³⁸) IN ACCORDANCE WITH FEDERAL STANDARD NO. 595.
- AFTER THE FINAL COAT OF PAINT HAS BEEN APPLIED AND HAS THOROUGHLY CURED, THE FOLLOWING SHALL BE GREASED PER THE 513 VAOT SPECIFICATION:
 - ENTIRE FLOOR SYSTEM
 - ALL TRUSS COMPONENTS BELOW THE TOP OF CURB
 - BEARINGS

PAYMENT FOR THE GREASE SHALL BE INCIDENTAL TO ITEM 513.30, "STRUCTURAL STEEL PAINTING, FIELD APPLIED." THE COLOR OF THE GREASE SHALL BE ~~GREEN~~ ^{BLACK}.

- ALL NEW STEEL ELEMENTS UNDER THE ITEM 506.50, "STRUCTURAL STEEL (ROLLED BEAM), 506.55 STRUCTURAL STEEL (PLATE GIRDER), 506.60, "STRUCTURAL STEEL" SHALL BE GIVEN AN APPROVED SHOP APPLIED PAINTING SYSTEM PER SPECIFICATION 513.

• THE FAYING SURFACES WERE NOT PRIMED WHEN DISMANTLED. A PENETRATING SEALER (RUST BOND) WAS USED AFTER THE GUSSETS WERE REASSEMBLED.

- THE PAINT SYSTEM USED IN THE FIELD AND THE SHOP APPLIED PAINT SYSTEM SHALL BE COMPATIBLE AND PROVIDED FROM THE SAME MANUFACTURER.

CONCRETE

- (A) ABUTMENTS FROM ABOVE CUT LINE TO CONSTRUCTION JOINT AND APPROACH SLABS SHALL BE HIGH PERFORMANCE CLASS B AND SHALL BE PAID FOR UNDER ITEM 501.34, "CONCRETE, HIGH PERFORMANCE CLASS B". DECK (INCLUDING BACK WALLS AND APPROACH SLAB BRACKETS) AND CURB CONCRETE SHALL BE HIGH PERFORMANCE CLASS A AND SHALL BE PAID FOR UNDER ITEM 501.33, "CONCRETE, HIGH PERFORMANCE CLASS A".

(B) ABUTMENT AND WINGWALL FACINGS SHALL BE SELF CONSOLIDATING CONCRETE AND SHALL BE PAID FOR UNDER ITEM 900.608, "SPECIAL PROVISION (SELF-CONSOLIDATING CONCRETE)"

(C) THE CONTRACTOR SHALL CONTACT THE CONCRETE PRODUCER EARLY SO THAT THE PRODUCER WILL HAVE TIME TO DO TRIAL MIXES AND TESTING FOR THE SELF-CONSOLIDATING CONCRETE.
- CONCRETE PORTIONS OF ABUTMENTS AND WINGWALLS ABOVE ADJACENT BRIDGE SEAT ELEVATIONS SHALL NOT BE PLACED UNTIL FINISH GRADES HAVE BEEN DETERMINED BY THE RESIDENT ENGINEER.
- 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.
- ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1 INCH X 1 INCH.
- WATER REPELLENT, SILANE (ITEM 514.10) SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES, EXCEPT THE UNDERSIDE OF THE DECK BETWEEN DRIP NOTCHES. SEE SUPPLEMENTAL SPECIFICATION 514.
- JOINTS AND SCORE MARKS IN CONCRETE SHALL BE CONSTRUCTED AS SHOWN IN THE PLANS OR AS DIRECTED BY THE RESIDENT ENGINEER.
- THE KEY IN CONCRETE CONSTRUCTION JOINTS SHALL BE MONOLITHIC AND CONTINUOUS FOR THE FULL LENGTH OF THE JOINT. UPWARD KEYS SHALL BE PLACED INTEGRALLY WITH THE CONCRETE BELOW THE JOINT.
- ALL SUPERSTRUCTURE REINFORCING STEEL 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.
- MINIMUM COVER FOR REINFORCING STEEL SHALL BE AS INDICATED IN THE PLANS.
- REINFORCING STEEL PLACEMENT TOLERANCES SHALL BE:
SPACING: +/- 1 INCH
CLEARANCE: +/- 1/4 INCH
- FOLLOWING THE DRILLING AND GROUTING OF DOWELS, THE EXISTING CONCRETE SURFACES SHALL BE PRESSURE WASHED PRIOR TO PLACEMENT OF FORMS. THIS WORK WILL BE INCIDENTAL TO ITEM 529.25, "REMOVAL OF CONCRETE OR MASONRY".

MISCELLANEOUS

- (A) IN ADDITION TO CLEARING AND GRUBBING AREAS DESCRIBED IN THE STANDARD SPECIFICATIONS, THE CONTRACTOR SHALL REMOVE ALL TREES AND VEGETATION LOCATED FROM STA 11+25 LT TO STA 11+40 LT ON AND AROUND THE EXISTING WINGWALL AND OLD STONE ABUTMENT. THIS WORK WILL BE PAID FOR UNDER ITEM 201.10 "CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS."

(B) THE CONTRACTOR SHALL PLACE 6" OF TOPSOIL OVER THIS REMOVAL AREA. THE AREA SHALL ALSO BE SEEDED AND MULCHED.
- THE CONTRACTOR SHALL USE CARE WHILE WORKING IN THE AREA OF THE PARK WHERE THE BENCHES, STONE SIDEWALK AND SHRUBS ARE LOCATED. ANY DAMAGE THAT IS INCURRED SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE AGENCY.

PROJECT NAME:	SPRINGFIELD
PROJECT NUMBER:	BHO 1442 (30)
FILE NAME:	96j348/str/s96j348pn.dgn
PROJECT MANAGER:	R. R. WHITCOMB
DESIGNED BY:	C. CARLSON
s96j348pn.i	PLOT DATE: 27-DEC-2007
	DRAWN BY: G. ROY
	CHECKED BY: C. CARLSON
	SHEET 21 OF 85