

GENERAL NOTES

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, AGENCY OF TRANSPORTATION, 1990 STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, AND ALL STANDARD SUPPLEMENTALS, AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DATED 1996, AND ITS LATEST REVISIONS.
2. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT, DUE TO THE NATURE OF RECONSTRUCTION PROJECTS, THE EXACT EXTENT OF RECONSTRUCTION WORK CANNOT ALWAYS BE ACCURATELY DETERMINED PRIOR TO THE COMMENCEMENT OF WORK. THESE CONTRACT DOCUMENTS HAVE BEEN PREPARED BASED ON FIELD INSPECTION INFORMATION AND AS-BUILT DETAILS FROM THE 1935 DRAWINGS AVAILABLE FROM THE V.A.O.T. STRUCTURES DIVISION. ACTUAL FIELD CONDITIONS MAY REQUIRE MODIFICATIONS TO THE CONSTRUCTION DETAILS AND EXTENT OF WORK EFFORTS. THE CONTRACTOR SHALL PERFORM THE WORK IN ACCORDANCE WITH THE FIELD CONDITIONS.
3. THE CONTRACTOR SHALL EXAMINE AND VERIFY IN THE FIELD ALL EXISTING CONDITIONS AND DIMENSIONS WITH THOSE SHOWN ON THE PLANS. IF FIELD CONDITIONS OR DIMENSIONS DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL USE THE FIELD CONDITIONS AND DIMENSIONS AND MAKE THE APPROPRIATE CHANGES TO THE PLANS AT THE APPROVAL OF THE ENGINEER.
4. AS DIRECTED BY THE ENGINEER AND THE STANDARD SPECIFICATIONS, SECTION 105, THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT SILTATION OR POLLUTION, ESPECIALLY RAW CONCRETE AND PAINT, FROM ENTERING THE WALLOOMSAC RIVER.
5. AFTER REMOVAL OF ALL DIRT, DEBRIS, AND OTHER FOREIGN MATERIAL, AND INSPECTION OF THE BRIDGE SEATS, THE RESIDENT ENGINEER SHALL DETERMINE IF THERE ARE ANY AREAS OF NEEDED REPAIRS ALONG THE BRIDGE SEATS. THESE AREAS WILL BE REPAIRED IN ADDITION TO THE AREAS ASSOCIATED WITH THE BEARING ANCHOR BOLT REPLACEMENTS AS DETAILED IN THE PLANS. ALL UNSOUND, DETERIORATED CONCRETE DISCOVERED SHALL BE REMOVED AND REPLACED WITH CONCRETE, CLASS B IN ACCORDANCE WITH THE SPECIFICATIONS.
6. ANCHOR BOLT REPLACEMENTS WILL OCCUR AT ALL SUPERSTRUCTURE BEARINGS, BOTH FIXED AND EXPANSION. THE COSTS FOR THE NEW ANCHOR BOLTS SHALL BE INCLUDED UNDER THE PRICE BID FOR ITEM 501.25, CONCRETE CLASS B, AS REQUIRED.
7. JACKING AND SHORING OF THE SUPERSTRUCTURE BEARINGS, ITEM 502.11, IS REQUIRED IN ORDER TO REPLACE THE EXISTING BEARING ANCHOR BOLTS. DETAILS OF THE CONTRACTOR'S PROPOSED SHORING METHODS AND CALCULATIONS SHALL BE CREATED BY A QUALIFIED REGISTERED PROFESSIONAL ENGINEER LICENSED AS A CIVIL OR STRUCTURAL ENGINEER. THE DETAILS AND CALCULATIONS SHALL BE SIGNED, STAMPED AND DATED BY THE PROFESSIONAL ENGINEER AND SUBMITTED TO THE RESIDENT ENGINEER, FOR HIS INFORMATION ONLY, AT LEAST 2 WEEKS PRIOR TO PERFORMING THE WORK AND SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 502.11.
8. THE CONTRACTOR WILL BE PAID ONLY ONCE FOR JACKING AND SHORING ANY ONE BEARING (I. e. A MAXIMUM OF TWO (2) PER ABUTMENT). ANY SHORING OF ADJACENT BEAMS, REQUIRED TO REPAIR OR REPLACE THE BEARING OR BRIDGE SEAT IN QUESTION, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE SHORING OF THE BEARING OR BRIDGE SEAT BEING REPAIRED OR REPLACED.
9. ALL NEW ANCHOR RODS, M-183, ASTM A-36, SHALL HAVE THE PROPOSED DIAMETER FIELD VERIFIED.
10. THE WORK REQUIRED TO REMOVE EXISTING ANCHOR BOLTS IN ORDER TO INSTALL NEW ANCHOR RODS AS SHOWN IN THE PLANS, SHALL BE INCLUDED UNDER THE ITEM FOR REMOVAL OF CONCRETE OR MASONRY, ITEM 529.25.
11. ALL STEEL REPAIRS SHALL BE AS SHOWN ON THE PLANS. ANY ADDITIONAL REPAIRS DISCOVERED BEFORE, DURING OR AFTER CLEANING OF THE SUPERSTRUCTURE SHALL BE APPROVED BY THE ENGINEER PRIOR TO WORK EFFORTS BY THE CONTRACTOR.
12. AFTER REMOVAL OF THE EXISTING BRIDGE DECK DURING STAGES 1 AND 2, THE EXISTING BACKWALLS SHALL BE INSPECTED BY THE ENGINEER TO DETERMINE AREAS OF REPAIR, ITEM 580.13, REPAIR OF CONCRETE SUBSTRUCTURE. REPAIRS SHALL BE IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION SECTION 580. THE QUANTITIES OF ITEM 580.13 SHALL BE FIELD DETERMINED BY THE ENGINEER, THOSE SHOWN IN THE PLANS ARE FOR ESTIMATING ONLY.
13. THE EXISTING STRUCTURE CONTAINS MANY LOCATIONS WHERE RIVET REPLACEMENTS ARE REQUIRED AS SHOWN IN THE PLANS. THESE LOCATIONS AS WELL AS FIELD DISCOVERED LOCATIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO REMOVAL EFFORTS BY THE CONTRACTOR. RIVET HEADS SHALL BE SHEAR CUT USING A PNEUMATIC RIVET BREAKER AND DRIVEN OUT WITH A HAND HELD PUNCH. OPTIONAL METHODS OF REMOVAL SHALL BE SUBMITTED FOR APPROVAL BY THE ENGINEER. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS SO AS TO NOT DAMAGE EXISTING STEEL THAT IS TO REMAIN. ANY DAMAGED AREAS THAT ARE TO REMAIN SHALL BE REPAIRED AND REPLACED AT NO ADDITIONAL COST TO THE OWNER.
14. ALL RIVET REPLACEMENTS SHALL OCCUR WITH NEW ASTM A-325, TYPE I, H.S. BOLTS OF EQUIVALENT DIAMETER. BOLTS USED FOR REPLACEMENT WILL BE PAID FOR BY THE POUND AS ITEM 506.60 - STRUCTURAL STEEL (BOLTS). COSTS FOR THE REMOVAL OF EXISTING RIVETS OR FASTENERS SHALL BE SUBSIDIARY TO ITEM 506.60, STRUCTURAL STEEL (BOLTS).
15. ALL STEEL SUPERSTRUCTURE REPAIR LOCATIONS SHALL BE FIELD DETERMINED BY THE ENGINEER AFTER REMOVAL OF THE EXISTING PAINT SYSTEM. REPAIR WORK SHALL NOT COMMENCE UNTIL THE ENGINEER HAS APPROVED THE CONTRACTOR'S PROPOSED REPAIR PROCEDURE. THE COST TO PRODUCE SHOP DRAWINGS AND PERFORM THE REPAIR(S), INCLUDING ALL MATERIAL, LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY SHALL BE PAID FOR UNDER ITEM 506.60-MOD, STRUCTURAL STEEL (REPAIR PLATE). REPAIRS SHALL BE MADE USING NEW ASTM A-36 STEEL AND 7/8" DIA. ASTM A-325, TYPE I, H.S. BOLTS UNLESS OTHERWISE NOTED.
16. ALL EXISTING STRUCTURAL STEEL SHALL HAVE COMMERCIAL BLAST CLEANING PERFORMED IN ACCORDANCE WITH SSPC-SP6, NO. 6, COMMERCIAL BLAST CLEANING
17. WELDING TO PERFORM STRUCTURAL STEEL REPAIRS IS PROHIBITED IN THIS PROJECT.
18. THE ASPHALT OVERLAY ON THE APPROACH SLABS AND EXISTING BRIDGE DECK SHALL BE REMOVED AND DISPOSED, ITEM 529.10, THEREAFTER, THE EXISTING CONCRETE APPROACH SLABS SHALL BE INSPECTED BY THE ENGINEER TO DETERMINE AREAS OF REPAIR, ITEM 580.11, REPAIR OF CONCRETE SUPERSTRUCTURE, CLASS I, REPAIRS SHALL BE IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION SECTION 580. THE QUANTITIES OF ITEM 580.11 SHALL BE FIELD DETERMINED BY THE ENGINEER, THOSE SHOWN IN THE PLANS ARE FOR ESTIMATING ONLY.
19. THE EXISTING BRIDGE SUPERSTRUCTURE SHALL HAVE THE CONCRETE DECK SYSTEM REMOVED AND REPLACED WITH A PRECAST CONCRETE DECK SYSTEM, ITEM 510.20-MOD. THE PRECAST DECK SYSTEM SHALL NOT BE REQUIRED TO ACT COMPOSITELY WITH THE STEEL FLOORBEAMS AND GIRDERS. A MECHANICAL CONNECTION WILL BE REQUIRED TO FASTEN THE DECK PANELS TO THE STEEL FLOORBEAMS. THE PANELS SHALL BE ARRANGED TO CORRESPOND WITH THE STAGED BRIDGE RECONSTRUCTION AS DEPICTED IN THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE DESIGN AND SHOP DRAWINGS FOR THE PRECAST DECK SYSTEM. THE DRAWINGS AND CALCULATIONS PERFORMED BY A PROFESSIONAL ENGINEER, STAMPED AND SEALED, SHALL BE SUBMITTED TO THE ENGINEER FOR INFORMATION ONLY. COSTS FOR THE DESIGN AND DEVELOPMENT OF SHOP DRAWINGS FOR THE DECK SYSTEM SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 510.20-MOD. SEE SPECIAL PROVISIONS FOR DETAILS OF MODIFIED ITEM 510.20.
20. THE EXISTING CONCRETE DECK SHALL BE REMOVED UNDER ITEM 529.20, PARTIAL REMOVAL OF STRUCTURES.
21. DUE TO THE CAMBER OF THE EXISTING FLOORBEAMS, THE HAUNCH DIMENSION OF THE NEW PRECAST DECK WILL VARY ALONG THE LENGTH OF EACH FLOORBEAM TO MEET THE DESIGNED ROADWAY PROFILE. THE CONTRACTOR SHALL SURVEY THE TOP FLANGE PROFILE OF THE EXISTING TRANSVERSE FLOORBEAMS BEFORE AND AFTER REMOVAL OF THE EXISTING CONCRETE DECK. THESE SURVEYS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO THE PLACEMENT OF THE NEW PRECAST CONCRETE DECK. THE PRECAST DECK PANELS SHALL BE LEVELLED TO THE ELEVATIONS SHOWN IN THE PLANS TO ENSURE THE PROPOSED PROFILE.
22. ANY PROPOSED WELDING ASSOCIATED WITH AND OR REQUIRED FOR THE MANUFACTURING AND INSTALLATION OF THE PRE-CAST DECK PANELS SHALL CONFORM TO THE LATEST ANSI/ AWS CODES AND LATEST REVISIONS.
23. THE EXISTING CONCRETE SIDEWALKS ON THE BRIDGE, AS SHOWN IN THE PLANS, SHALL BE REMOVED AND REPLACED WITH SILICA-FUME CONCRETE SIDEWALKS, ITEM 501.60.
24. THE COST TO REMOVE AND DISPOSE OF EXISTING APPROACH SIDEWALKS AND BRICK SIDEWALK RAMPS, AS DEPICTED IN THE PLANS, SHALL BE PAID UNDER ITEM 529.26, REMOVAL OF CONCRETE OR MASONRY. THE NEW APPROACH SIDEWALKS AND SIDEWALK RAMPS SHALL BE PORTLAND CEMENT CONCRETE, ITEM 618.10.
25. THE NEW BRIDGE AND APPROACH SIDEWALKS SHALL RECEIVE A BROOMED FINISH IN ACCORDANCE WITH STANDARD SPECIFICATION 618.03(d). AREAS OF THE SIDEWALK RAMPS TO RECEIVE AN EXPOSED AGGREGATE FINISH SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIAL PROVISIONS AND ACCEPTABLE FINISHING TECHNIQUES.
26. THE BRIDGE AND APPROACHES, AS SHOWN IN THE PLANS, SHALL RECEIVE NEW SILICA-FUME CONCRETE CURBS, ITEM 501.60.
27. ALL REINFORCING STEEL SHALL BE DETAILED AND FABRICATED USING PROCEDURES AND TOLERANCES IN ACCORDANCE WITH APPLICABLE PUBLICATIONS OF THE "CONCRETE REINFORCING STEEL INSTITUTE".
28. FABRICATION DRAWINGS FOR THE STEEL REINFORCING SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL TWO WEEKS PRIOR TO FABRICATION.
29. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1" BY 1" EXCEPT WHERE NOTED.
30. THE CONTRACTOR SHALL PLACE CURBS IN 15'-0" MAXIMUM LENGTH SECTIONS. THE POUR SEQUENCE SHALL BE IN ALTERNATING SECTIONS FOR SIDEWALKS AND CURBS.
31. THE CONCRETE BRIDGE SIDEWALKS SHALL BE PLACED IN ALTERNATING SEQUENCE WITH THE CONSTRUCTION JOINTS BEING LOCATED ABOVE THE CENTERLINE OF EACH INTERIOR FLOORBEAM. THE CONCRETE SHALL BE PLACED IN ALTERNATING SECTIONS WITH A MINIMUM OF 48 HOURS DELAY BETWEEN ADJACENT POURS.
32. MINIMUM COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS:
BRIDGE SIDEWALKS-----1 INCH CLEAR TO BOTTOM REBAR, 3 INCH CLEAR TO TOP REBAR
CURBS-----3 INCH CLEAR EVERYWHERE
PRECAST DECK PANELS-----2 1/2 INCH CLEAR TO TOP REBAR, 1 1/2 INCH CLEAR TO BOTTOM REBAR
REINFORCING PLACEMENT TOLERANCES SHALL BE:
SPACING +/- 1"
CLEARANCE +/- 1/4"
33. FLAME CUTTING OF EPOXY COATED REINFORCING STEEL SHALL NOT BE PERMITTED.
34. WATER REPELLENT SHALL BE APPLIED TO ALL EXPOSED NEW BRIDGE AND APPROACH SIDEWALK SURFACES, ITEM 514.10.
35. JOINTS AND SCORE MARKS IN THE CONCRETE SIDEWALKS AND CURBS SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO SCORE SIDEWALK PANELS IN EQUAL INCREMENTS TO PRODUCE EVENLY SIZED SIDEWALK PANELS.
36. POLYURETHANE JOINT SEALER SHALL BE USED IN CURB CONSTRUCTION JOINTS OR AT EXPANSION OR FIXED END CURB JOINTS AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.
37. THE FOLLOWING ALLOWABLE STRESSES AND WEIGHTS APPLY TO THESE PLANS FOR DESIGN PURPOSES.
CAST IN PLACE CONCRETE: F'c=5000 psi Fc=2000 psi SILICA-FUME
PRECAST DECK PANELS: F'c=6000 psi Fc=2400 psi
REINFORCING STEEL: F+24,000 psi Fy=60,000 psi GRADE 60
38. THERE ARE UNDERGROUND UTILITY CONDUITS THAT ARE ATTACHED TO THE BRIDGE SUPERSTRUCTURE. THE EXACT NATURE, WHETHER ACTIVE OR ABANDONED, OF EACH UTILITY DUCT IS UNKNOWN AT THIS TIME, THEREFORE ALL DUCTS SHALL BE CONSIDERED LIVE. THESE UTILITY DUCTS SHALL BE MAINTAINED AND NOT DISTURBED. THE CONTRACTOR SHALL USE CAUTION WHEN WORKING AROUND THESE UTILITIES AND/OR COORDINATE TEMPORARY RELOCATION WITH THE UTILITY COMPANY, AFTER DISCUSSION WITH THE ENGINEER. SEE CONTRACT SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.
39. ACCESS SHALL BE MAINTAINED TO DRIVEWAY AND BUSINESS ENTERANCES, AS SHOWN IN THE PLANS, DURING THE CONSTRUCTION OF THIS PROJECT UNDER ITEM 527.10, MAINTENANCE OF TRAFFIC FOR BRIDGE PROJECTS. THE CONTRACTOR SHALL PROVIDE SAFE PEDESTRIAN PASSAGE THROUGH THE SITE AND SURROUNDING AREA. PEDESTRIANS SHALL HAVE CLEAR, UNINTRUDED PASSAGE ALONG THE SIDEWALK AND TEMPORARY CROSSWALK AS DESIGNATED IN THE STAGING PLANS.
40. THE CONTRACTOR SHALL COORDINATE WITH THE TOWN, ADJACENT PROPERTY OWNERS AND BUSINESSES TO OBTAIN A SUITABLE STAGING AREA, AND SUBMIT THE PROPOSAL TO THE ENGINEER FOR CONCURRENCE.
41. THE CONTRACTOR SHALL UTILIZE AND MAINTAIN, 24 HRS. A DAY OVER THE DURATION OF THE PROJECT, THE CHANGEABLE MESSAGE SIGNS TO PROVIDE INFORMATION TO TRAVELING MOTORISTS. THE CONTRACTOR SHALL DISPLAY ALL ANTICIPATED BRIDGE CLOSURES ON THE WORK ZONE MESSAGE SIGN, A MINIMUM OF 2 DAYS PRIOR TO CLOSURE. THE CHANGEABLE MESSAGE SIGNS SHALL BE PLACED TO CLEARLY DISPLAY MESSAGES TO MOTORIST WITH NO OBSTRUCTIONS. IT IS PAID FOR UNDER ITEM 641.15 AS "EACH".
42. TACK COAT: EMULSIFIED ASPHALT IS TO BE APPLIED AT THE RATE OF 0.015 GAL./SY BETWEEN SUCCESSIVE COURSES OF PAVEMENT AS DIRECTED BY THE ENGINEER. COSTS ARE INCLUDED UNDER ITEM 406.25, BITUMINOUS CONCRETE PAVEMENT.
43. ALL DIMENSIONS ARE EITHER HORIZONTAL OR VERTICAL AND ARE GIVEN AT 68 DEGREES F, EXCEPT AS NOTED.

PROJECT NO. TH1-9914

BHF 1000 (17)S

Greenman-Pederson
CONSULTING ENGINEERS

BENNINGTON BRIDGE #10 (U.S. ROUTE 7)
OVER THE WALLOOMSAC RIVER

GPI

GENERAL NOTES

55 Monument Ave.
Bennington, VT. 05201

DRAWING NO. GN-1	SCALE: AS SHOWN	DATE: DEC ., 1999	SHEET NO. 4 OF 20
---------------------	--------------------	----------------------	----------------------

IN CHARGE OF J. STEVENS
 DESIGNED BY J. RIZZO
 DRAFTED BY K. COLE
 CHECKED BY J. STEVENS
 04/19/99 08:00 AM New York, NY