

GENERAL NOTES

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE AGENCY OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2001, AND ITS LATEST REVISIONS, AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SEVENTEENTH EDITION, DATED 2002, AND ITS LATEST REVISIONS. ALL WOOD CONSTRUCTION SHALL COMPLY WITH THE LATEST AASHTO SPECIFICATIONS, THE NATIONAL DESIGN SPECIFICATION (NDS), SUPPLEMENT FOR WOOD CONSTRUCTION, AND THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (AITC) SPECIFICATION.
2. BRIDGE IS DESIGNED FOR H20-44 LIVE LOAD WITH NO ALLOWANCE FOR FUTURE PAVEMENT.
3. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A SUITABLE STAGING AREA, INCLUDING NECESSARY PERMITS AND CLEARANCES.
4. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT SILTATION OR POLLUTION, ESPECIALLY THE DISCHARGE OF RAW CONCRETE, INTO ANY BROOK, STREAM OR RIVER.
5. THE COST OF ANY ON OR OFF PROJECT SIGNING AND BARRICADES, EXCLUDING TEMPORARY TRAFFIC BARRIER, SHALL BE CONSIDERED INCIDENTAL TO CONTRACT ITEM 641.10. TEMPORARY TRAFFIC BARRIERS SHALL BE PAID FOR UNDER CONTRACT ITEM 621.90.
6. ALL WORK SHALL PROCEED IN A CAREFUL, ORDERLY MANNER SO THAT AFFECTED HISTORIC STRUCTURES ARE NOT DAMAGED IN ANY WAY. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL DAMAGE TO THE STRUCTURE AS A RESULT OF ITS OPERATIONS AT NO COST TO THE STATE. ALL DAMAGE WILL BE REPORTED TO THE PROJECT MANAGER IMMEDIATELY AND NO REPAIRS WILL BE MADE UNTIL APPROVED BY THE AGENCY.
7. THE FOLLOWING TABLE OF ALLOWABLE STRESSES AND WEIGHTS APPLY TO THESE PLANS FOR DESIGN PURPOSES:

STRUCTURAL STEEL, AASHTO M270/M270M GRADE 50
F_y = 50,000 PSI

CONCRETE, HIGH PERFORMANCE CLASS B: f'_c = 3500 PSI f_c = 1600 PSI

REINFORCING STEEL: F_t 24,000 PSI GRADE 60
SOIL: UNIT WEIGHT 140 PCF

CONCRETE
8. ALL CONCRETE SHALL BE CONCRETE, HIGH PERFORMANCE CLASS B AND SHALL BE PAID FOR UNDER ITEM 501.34, CONCRETE HIGH PERFORMANCE CLASS B.
9. ALL REINFORCING STEEL SHALL BE EPOXY COATED AND PAID FOR UNDER ITEM 507.17, EPOXY COATED REINFORCING STEEL. WHEN EPOXY COATED REINFORCING IS TO BE CUT, THE UNCOATED ENDS SHALL BE REPAIRED WITH MATERIALS AND PROCEDURES APPROVED BY THE COATING MANUFACTURER. FLAME CUTTING OF EPOXY COATED REINFORCING STEEL WILL NOT BE PERMITTED.
10. THE KEY IN CONCRETE CONSTRUCTION JOINTS SHALL BE MONOLITHIC AND CONTINUOUS FOR THE FULL LENGTH OF THE JOINT, ANY UPWARD KEY SHALL BE PLACED INTEGRALLY WITH THE CONCRETE BELOW THE JOINT.
11. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1" BY 1".
12. JOINTS AND SCORE MARKS IN CONCRETE SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
13. ALL REINFORCING STEEL SHALL BE DETAILED AND FABRICATED USING PROCEDURES AND TOLERANCES IN ACCORDANCE WITH APPLICABLE PUBLICATIONS OF THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI).
14. REINFORCING PLACEMENT TOLERANCES SHALL BE:
SPACING + - 1"
CLEARANCE + - 1/4"
15. MINIMUM COVER FOR REINFORCING STEEL SHALL BE TWO (2) INCHES ALONG THE BACK FACES OF WALLS AGAINST EARTH, AND THREE INCHES (3") ELSEWHERE UNLESS OTHERWISE NOTED.
16. SURFACES OF BRIDGE SEATS UNDER BEARING DEVICES SHALL BE LEVEL, OTHER BRIDGE SEAT AREAS SHALL BE SLOPED 1/4" PER FOOT TOWARDS MID-SPAN. THE ENTIRE BRIDGE SEAT SURFACE SHALL BE SMOOTH MAGNESIUM FLOAT FINISHED.
17. WATER REPELLENT (MOD.- SILANE) SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES, PROPOSED AND EXISTING.
18. ABUTMENT #1 WILL HAVE A CONCRETE PATCH APPLIED TO THE CONCRETE BELOW THE LAID-UP-STONE, THE LIMITS OF THE PATCH WILL BE DETERMINED BY THE RESIDENT ENGINEER AND PAID UNDER ITEM 580.13, REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS I, ITEM 580.14, REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS II, AND ITEM 580.15, REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS III.

STRUCTURAL STEEL

19. 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 CONTRACTORS USE OR DISPOSITION OF THE REMOVED EXISTING STRUCTURAL STEEL.
 20. PAINTING OF NEW STEEL SHALL BE PAID FOR UNDER ITEM 513.25 "STRUCTURAL PAINTING, SHOP APPLIED". ALL EXISTING STEEL RETAINED IN THE REHABILITATED STRUCTURE SHALL BE BLAST CLEANED AND REPAINTED. PAINTING OF EXISTING STEEL SHALL BE PAID FOR UNDER ITEM 513.30 "STRUCTURAL PAINTING, FIELD APPLIED". ALL STRUCTURAL STEEL, EXCEPT THAT WHICH IS SPECIFIED TO BE EITHER GALVANIZED OR METALIZED, SHALL BE PAINTED AS DESCRIBED UNDER ITEM 513.30 STRUCTURAL PAINTING FIELD APPLIED. THE FINAL COAT OF PAINT SHALL BE BROWN AND SHALL CONFORM WITH FEDERAL STANDARD NO. 595, COLOR CHIP NO. 20059. THE CONTRACTOR SHALL ENSURE COMPATIBILITY BETWEEN THE SHOP AND FIELD PAINT SYSTEMS. SEE SECTION 513 OF THE SUPPLEMENTAL SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
 21. ALL NEW STRUCTURAL STEEL SHALL BE AASHTO M270 GRADE 50 PAINTED UNLESS OTHERWISE NOTED. DIAPHRAGMS (IF NEEDED), CONNECTING ANGLES, CHANNELS AT THE ENDS OF THE DECK PLATES SHALL BE PAID FOR UNDER ITEM 506.60 STRUCTURAL STEEL.
 22. ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 68 DEGREES F UNLESS OTHERWISE NOTED.
 23. ANY CONNECTIONS THAT ARE NOT DETAILED ON THE PLANS SHALL BE DETAILED BY THE FABRICATOR AND SUBMITTED TO THE STRUCTURES ENGINEER FOR APPROVAL.
 24. ALL WELDING SHALL CONFORM TO THE PROVISIONS OF VERMONT SPECIFICATION 506.10.
 25. ALL FIELD CONNECTIONS SHALL BE MADE WITH 7/8" DIAMETER ASTM DESIGNATION A-325 TYPE I BOLTS IN 15/16" DIAMETER HOLES, UNLESS OTHERWISE NOTED.
 26. ALL NEW BOLTS, LAG SCREWS, SCREWS, NUTS AND WASHERS, OR OTHER METAL ELEMENTS SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO SPECIFICATION M 232. PAYMENT WILL BE CONSIDERED INCIDENTAL TO 522.20 STRUCTURAL LUMBER AND TIMBER - UNTREATED.
 27. ABUTMENT #2 AND PIER BEARINGS TO BE CLEANED IN PLACE, WITH NO REMOVAL OF THE BEARINGS REQUIRED, THIS WILL BE PAID FOR UNDER ITEM 513.41, SURFACE PREPARATION, FIELD.
- TEMPORARY DETOUR
28. TOWN HIGHWAY #6 IS TO BE CLOSED TO THRU TRAFFIC DURING CONSTRUCTION.
 29. THE CONTRACTOR SHALL NOTIFY THE TOWN A MINIMUM OF TWO (2) WEEKS PRIOR TO CLOSING THE ROAD.
 30. BRIDGE NO.27 WILL BE CLOSED TO ALL PEDESTRIAN AND VEHICULAR TRAFFIC DURING CONSTRUCTION. TRAFFIC SHALL BE TEMPORARILY REROUTED AROUND THE SITE. FOR TEMPORARY DETOUR SIGNING AND TRAFFIC CONTROL NOTES SEE TEMPORARY DETOUR SIGNAGE AND ROUTING SHEETS.
 31. THE REMOVAL AND/OR RESETTING OF TRAFFIC SIGNS, AS DEEMED NECESSARY BY THE RESIDENT ENGINEER, WILL BE PAID FOR UNDER ITEM 675.60 ERECTING SALVAGED SIGNS.
 32. ALL EXISTING SIGNS NOT RE-USED SHALL REMAIN THE PROPERTY OF THE TOWN OF THETFORD. THE CONTRACTOR SHALL STOCKPILE THESE ITEMS AT THE PROJECT SITE FOR REMOVAL BY TOWN FORCES. THE CONTRACTOR SHALL CONTACT THE THETFORD TOWN OFFICE WHEN THESE ITEMS ARE READY FOR REMOVAL FROM THE PROJECT SITE.
- TIMBER
33. DIMENSIONS, ANGLES, AND BEARINGS OF THE EXISTING BRIDGE SHOWN ON THESE PLANS WERE OBTAINED FROM LIMITED FIELD INVESTIGATION AND RECORD PLANS AND MAY NOT ACCURATELY REFLECT ACTUAL FIELD CONDITIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING FIELD MEASUREMENTS OF ALL EXISTING STRUCTURE COMPONENTS IMPACTED BY THE NEW WORK TO ASSURE CONSISTENCY WITH THE PROPOSED MODIFICATIONS. ANY DISCREPANCIES IN DIMENSIONS, CHARACTER OR EXTENT OF THE EXISTING FEATURES SHALL BE BROUGHT TO THE ATTENTION OF THE RESIDENT ENGINEER BEFORE ADVANCING THE WORK.
 34. THE CONTRACTOR SHALL DEVELOP A METHOD TO SUPPORT BOTH TIMBER AND STEEL AT ITS CURRENT LOCATION THAT WILL ALLOW ALL SUPERSTRUCTURE AND SUBSTRUCTURE WORK TO BE COMPLETED AS REQUIRED IN THE CONTRACT OR AS ORDERED BY THE RESIDENT ENGINEER. THE CONTRACTOR SHALL SUBMIT TO THE STRUCTURES DIVISION FOR APPROVAL CONSTRUCTION DRAWINGS PER SUBSECTION 105.03 OF THE VDOT STANDARD SPECIFICATIONS FOR ALL NECESSARY JACKING, SHORING, AND LIFTING OF THE BRIDGE FOR ALL PHASES OF THE PROJECT. THE CONSTRUCTION DRAWINGS SHALL BE STAMPED BY A PROFESSIONAL ENGINEER AND NO WORK SHALL COMMENCE UNTIL THE DRAWINGS HAVE BEEN APPROVED. THIS WORK SHALL BE PAID AS ITEM 502.10 SHORING SUPERSTRUCTURE.

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35. THE CONTRACTOR SHALL AVOID UNNECESSARY DISASSEMBLY OF THE TRUSS AND FLOOR SYSTEM. ONLY THE JOINTS THAT MUST BE DISASSEMBLED TO AFFECT THE REPAIRS TO THE TRUSSES SHALL BE DISASSEMBLED.
36. ALL TIMBER MEMBERS AND CONNECTIONS SHALL BE JOINTLY INSPECTED BY THE CONTRACTOR AND RESIDENT ENGINEER TO DETERMINE IF ADDITIONAL REPAIRS ARE NECESSARY. THE FINAL DETERMINATION SHALL BE MADE BY THE RESIDENT ENGINEER.
37. IF THE CONTRACTOR FINDS THAT A SPECIFIC TIMBER ELEMENT IS NOT AVAILABLE, HE MAY SUBMIT AN ALTERNATIVE SPECIES WITH COMPARABLE PROPERTIES FOR CONSIDERATION AND APPROVAL BY THE RESIDENT ENGINEER AT NO ADDITIONAL COST.
38. EXTREME CARE SHALL BE TAKEN TO ENSURE THAT ANY EXISTING HOLES IN MEMBERS TO BE RETAINED SHALL NOT BE ELONGATED OR ENLARGED. THIS INCLUDES, BUT IS NOT LIMITED TO, BOLT HOLES AND TRUNNEL HOLES. THE CONTRACTOR SHALL DEMONSTRATE THEIR METHOD OF INSTALLING NEW MEMBERS WHILE MAINTAINING THE EXISTING HOLE PATTERN IN ADJACENT RETAINED MEMBERS TO THE RESIDENT ENGINEER FOR APPROVAL.
39. ALL EXISTING WOOD TRUNNELS THAT ARE FOUND TO BE DEFICIENT, OR FOUND MISSING, SHALL BE REPLACED WITH NEW WOOD TRUNNELS, AS DEEMED NECESSARY BY THE RESIDENT ENGINEER. NEW TRUNNELS SHALL BE UNTREATED, DRIED (MAXIMUM MOISTURE CONTENT OF 19%), CLEAR, DRY WHITE OAK AND SHALL BE DRIVEN IN A MANNER WHICH AVOIDS SPLITTING OF THE TRUNNELS OR THE ELEMENTS CONNECTED BY THESE TRUNNELS. THE TRUNNELS MAY BE DIPPED IN BOILED LINSEED OIL PRIOR TO DRIVING. PAYMENT FOR TRUNNELS, ALONG WITH REMOVAL AND INSTALLATION COSTS, SHALL BE INCIDENTAL TO ITEM 522.20.
40. AFTER THE BRIDGE SUPERSTRUCTURE IS COMPLETE AND ALL TIMBER HAS BEEN INSTALLED, THE BRIDGE SHALL BE COATED WITH A FIRE RETARDANT COATING AND AN INSECTICIDE/FUNGICIDE COATING. ALL NEW WOOD AND WOOD TO BE RETAINED WILL BE COATED. THE FIRE RETARDANT COATING AND INSECTICIDE/FUNGICIDE COATING SHALL BE PAID UNDER ITEM 513.30, "STRUCTURAL PAINTING, FIELD APPLIED (MOD.)."
41. TREATED LUMBER AND DECK SHALL BE PRESSURE TREATED WITH TYPE II (PENTACHLOROPHENAL) PER SECTION 726 OF THE SUPPLEMENTAL SPECIFICATIONS, UNLESS OTHERWISE NOTED. ALL EXPOSED ENDS AND HOLES DRILLED IN TREATED MEMBERS SHALL BE TREATED BY APPROVED METHODS, PRIOR TO ASSEMBLY.
42. ALL NEW TIMBER CONNECTIONS, INCLUDING NOTCHES, SCARF JOINTS, MORTISE-AND-TENDON JOINTS, AND OTHER CONNECTIONS, SHALL MATCH THE EXISTING JOINTING CONFIGURATION AND SHALL BE CUT TO PROVIDE A TIGHT JOINT. THE RESIDENT ENGINEER SHALL APPROVE ANY DEVIATION FROM THE EXISTING JOINTING TECHNIQUES.
43. ANY EXISTING TRUSS MEMBER (UPPER CHORD, LOWER CHORD, ARCH, DIAGONALS AND VERTICALS) DEEMED TO REMAIN IN PLACE, WHICH IN THE OPINION OF THE RESIDENT ENGINEER NEEDS INSTEAD TO BE REPLACED, WILL BE REPLACED WITH EASTERN SPRUCE, STRUCTURAL GRADE. PAYMENT FOR THIS WORK WILL BE MADE UNDER ITEM 522.20, STRUCTURAL LUMBER AND TIMBER - UNTREATED.
44. ALL NEW STRUCTURAL TIMBER SHALL CONFORM TO SECTION 709.01. NEW ELEMENTS SHALL HAVE A ROUGH FINISH AND MATCH THE EXISTING ELEMENT DIMENSIONS.
45. ALL SIDING BOARDS AND SIDING NAILERS SHALL BE FASTENED WITH 2 1/2" LONG GALVANIZED STEEL SCREWS. COST SHALL BE INCIDENTAL TO ITEM 522.30.
46. ITEM 529.20, PARTIAL REMOVAL OF STRUCTURE, SHALL INCLUDE REMOVING AND DISPOSING OF THE FOLLOWING ITEMS:
 - EXISTING TIMBER DECK AND PAVEMENT
 - EXISTING SIDING
 - STRUCTURAL STEEL CONNECTING TIMBER TRUSS TO FASCIA BEAMS
 - STRUCTURAL STEEL PLATES AT EACH END OF THE DECK AND CHANNELS WHICH SUPPORT THEM.
 - DETERIORATED TIMBER, AS DETERMINED BY THE ENGINEER, (SEE NOTE 37)
 - STEEL RODS AND PLATES AND TIMBER USED TO REPAIR DAMAGED BRIDGE, AREA SHOWN ON SHEET 28.
 - CONCRETE ABUTMENT CAP AT ABUTMENT #1
 - BEARINGS AT ABUTMENT #1
 - HARDWOOD BLOCKS AT ABUTMENTS AND PIERS (IF NECESSARY)
47. THE BRIDGE SHALL BE STRAIGHT ALONG A HORIZONTAL LINE BETWEEN THE ABUTMENTS AND NOT BE RACKED WHEN COMPLETED.

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GENERAL NOTES SHEET #1		SHEET	18 OF 60