GENERAL NOTES

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION ADOPTED 2001, AND IT'S LATEST REVISIONS AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 16TH EDITION, DATED 1996, AND IT'S LATEST REVISIONS.
2. DESIGN OF THE REHABILITATED STRUCTURE IS FOR AN AASHTO H6 TRUCK LOAD.
3. ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE CHECKED IN THE FIELD PRIOR TO COMMENCING THE WORK. ACTUAL WORK SHALL MATCH FIELD CONDITIONS.
4. BRIDGE 41 SHALL REMAIN CLOSED TO TRAFFIC DURING CONSTRUCTION.
5. THE CONTRACTOR SHALL ERECT AND MAINTAIN ALL CONSTRUCTION SIGNS AND BARRACADES. ALL DETOUR TRAFFIC CONTROL SIGNS WILL BE SUPPLIED, INSTALLED, MAINTAINED AND REMOVED BY THE TOWN OF MONTGOMERY.
6. ANY EXISTING SIGNS SHALL BECOME THE PROPERTY OF THE TOWN OF MONTGOMERY.
7. PARTIAL REMOVAL OF THE EXISTING BRIDGE STRUCTURE, ITEM 529.20 EXCEPT AS NOTED OTHERWISE ON THE PLANS, SHALL INCLUDE THE REMOVAL AND DISPOSAL OF THE FOLLOWING EXISTING ITEMS:
   - A. ROOFING (METAL ROOF AND SHAKES)
   - B. FLOOR DECKING AND FLOOR BEAMS
   - C. LONGITUDINAL FLOOR BEAM SUPPORT MEMBERS
   - D. BEARING BLOCKS
   - E. SIDING (PARTIAL)

   REMOVAL AND DISPOSAL OF EXISTING BRIDGE MEMBERS, NOT NOTED ABOVE, SHALL BE CONSIDERED INCIDENTAL TO THE APPLICABLE ITEM 522.20 AND SHALL BE INCLUDED IN THE REPLACEMENT COST. ALL REMOVED MATERIAL SHALL BE STOCKPILED ON SITE FOR REMOVAL BY THE TOWN.
8. THE CONTRACTOR SHALL TAKE SPECIAL CARE AND PRECAUTION TO INSURE THAT NO DEBRIS FALLS INTO THE TROUT RIVER DURING CONSTRUCTION.
9. ALL WORK SHALL BE COMPLETED WITHIN THE R.O.W. AS SHOWN ON SHEET 4.
10. THE CONTRACTOR SHALL AVOID UNNECESSARY DISASSEMBLY OF THE TOWN LATTICE TRUSSES. ONLY THE JOINTS THAT MUST BE DISASSEMBLED TO EFFECT REPAIRS TO THE TRUSSES SHALL BE DISASSEMBLED. AT NO POINT IN THE CONSTRUCTION SEQUENCE SHALL THE TRUSSES BE DISASSEMBLED TO THE EXTENT THAT THE EXISTING GEOMETRY AND MEMBER LOCATION IS LOST.

CONCRETE NOTES

C1. ALL REINFORCING STEEL SHALL BE DETAILED AND FABRICATED USING PROCEDURES AND TOLERANCES IN ACCORDANCE WITH APPLICABLE PUBLICATIONS OF THE "CONCRETE REINFORCING STEEL INSTITUTE" (CRSI).

C2. REINFORCING PLACEMENT TOLERANCES SHALL BE:

SPACING	+/- 1"
CLEARANCE	+/- 1/4"

C3. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4" BY 3/4".

C4. WATER REPELLENT SHALL BE APPLIED TO ALL NEW AND EXISTING EXPOSED CONCRETE SURFACES.

STRUCTURAL STEEL NOTES

S1. ALL STRUCTURAL STEEL ASSOCIATED WITH THE BRIDGE INCLUDING PLATES, BOLTS, LAG BOLTS, TURNBUCKLES, NUTS, WASHERS, RODS AND MISCELLANEOUS STEEL, SHALL BE HOT DIPPED GLAVANIZED IN ACCORDANCE WITH ASTM/AASHTO 232M/M232, ASTM A153/A153M EXCEPT FOR PLATES WHICH SHALL BE GALVANIZED PER AASHTO M 111M/M 111 AND PAID FOR UNDER ITEM 506.75 UNLESS OTHERWISE NOTED. ALL STEEL PLATES SHALL BE ASTM A36, ALL RODS SHALL BE ASTM A307.

S2. THE ONLY STEEL ITEMS NOT PAID FOR UNDER ITEM 506.75 ARE REBAR, AND BOLTS, NUTS, PLATES ETC. REQUIRED FOR THE STEEL BACKED GUARDRAIL AND AS NOTED IN THE NOTE W4. THE HOLD DOWN RODS, NUTS AND PLATES ARE TO BE PAID UNDER ITEM 531.10.

RECOMMENDED SEQUENCE OF WORK

1. THE TOWN OF MONTGOMERY WILL INSTALL THE TEMPORARY DETOUR SIGNS. THE CONTRACTOR SHALL INSTALL CONSTRUCTION SIGNS AND BARRICADES AT EACH END OF THE BRIDGE AND CLOSE IT TO TRAFFIC.
2. INSTALL TEMPORARY BRIDGE SUPPORT STRUCTURE OR MOVE THE BRIDGE TO A STAGING AREA TO COMPLETE REPAIRS. THE CONTRACTOR SHALL SUBMIT PLANS AND DESIGN CALCULATIONS FOR THE PROPOSED TEMPORARY STRUCTURE, IF USED, TO THE RESIDENT ENGINEER PRIOR TO THE INSTALLATION OF THE SUPPORT STRUCTURE.
3. REMOVE EXISTING METAL ROOF AND SHAKES.
4. REMOVE THE EXISTING FLOOR DECKING, FLOOR BEAMS, LONGITUDINAL FLOOR BEAM SUPPORTS AND SIDING MEMBERS. PROVIDE TEMPORARY SUPPORT OF THE LOWER CHORDS AS REQUIRED.
5. CHORD 4 OF EACH TRUSS AND ALL TRUNNELS THROUGH IT SHALL BE REMOVED IN THEIR ENTIRETY TO FACILITATE MEMBER INSPECTION AND NEW FLOOR BEAM INSTALLATION.
6. THE EXISTING BRIDGE SHALL BE JACKED AND SHORED AS REQUIRED TO STRAIGHTEN, RELEASE STRESSES, PLUMB AND RE-ALIGN THE TRUSSES. SHIMMING OF THE EXISTING TRUSSES WITH HARDWOOD SHIMS MAY BE REQUIRED. THE CONTRACTOR SHALL SUBMIT THE PROPOSED METHOD OF JACKING AND SHORING TO THE RESIDENT ENGINEER PRIOR TO THE START OF JACKING OPERATIONS. (SEE SPECIFICATIONS).
7. REPLACE BRIDGE MEMBERS AS DETAILED IN CONTRACT DRAWINGS AND COMPLETE ABUTMENT WORK.
8. COMPLETE ROADWAY AND APPROACH WORK AS DETAILED ON DRAWINGS.
9. COMPLETE REMAINING WORK ITEMS, REMOVE TEMPORARY BRIDGE SUPPORT STRUCTURE, IF USED, REOPEN BRIDGE TO TRAFFIC.

WOOD NOTES

W1. ALL WOOD CONSTRUCTION SHALL COMPLY WITH THE LATEST AASHTO SPECIFICATIONS, THE NATIONAL DESIGN SPECIFICATION (NDS) AND SUPPLEMENT FOR WOOD CONSTRUCTION, AND THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (AITC) SPECIFICATION.

W2. MOISTURE CONTENT OF WOOD USED SHALL NOT EXCEED 16% AT THE TIME OF USE FOR ALL MEMBERS LESS THAN 5" THICK AND 19% FOR ALL MEMBERS EQUAL TO OR GREATER THAN 5" THICK.

W3. EACH PIECE OF WOOD OR TIMBER SHALL BE GRADED, BY A RECOGNIZED LUMBER GRADING AGENCY. A CERTIFICATE OF COMPLIANCE SHALL BE SUBMITTED FOR ALL WOOD.

W4. ALL NUTS, BOLTS, WASHERS, AND SCREWS SHALL CONFORM TO ASTM A307, ALL NAILS AND SPIKES SHALL CONFORM TO ASTM 1667 AND BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153. THE COST OF CONNECTORS FOR WOOD MEMBERS (CURBS, PLANKS, ETC.) IS PAID FOR UNDER THE CORRESPONDING LUMBER AND TIMBER PAY ITEM.

W5. ALL WOOD SHALL BE DOUGLAS FIR NO. 1 OR BETTER WHERE THE SPECIES IS NOT NOTED.

W6. ALL FIELD CUTS AND BORINGS OF TREATED WOOD SHALL BE TREATED WITH TWO COATS OF COPPER NAPHTHENATE LIBERALLY APPLIED PER SPECIFICATION SECTION 522.

W7. EXISTING TRUSS, ROOF RAFTER AND UPPER LATERAL BRACING JOINTS SHALL BE REPLICATED ON ALL STRUCTURE MEMBERS TO BE REPLACED UNLESS OTHERWISE NOTED IN THE CONTRACT DRAWINGS.

W8. THE WOOD CURB BLOCKING, AND TRIM TREATMENT SHALL COMPLY WITH STANDARD SPECIFICATION 726.01 TYPE II PENTACHLOROPHENOL.

W9. APPLY FIRE RETARDANT AND INSECTICIDE/FUNGICIDE COATING TO WOODEN BRIDGE MEMBERS AS OUTLINED IN THE SPECIFICATIONS.

WOOD MATERIALS LIST

COMPONENT	EXISTING (AVERAGE SIZE IN INCHES)	PROPOSED (ACTUAL SIZE IN INCHES)	PROPOSED SPECIES & GRADE
CROSSBEAM	7½x7½	7½x7½	DOUGLAS FIR NO. 1
FLOOR BEAM	7½x12	8X12	P.T. DOUGLAS FIR SELECT STRUCT.
FLOOR DECKING	5½" THICK	5½" THICK	P.T. EASTERN SPRUCE NO. 1
KNEE BRACING	4x4	4x4	EASTERN HEMLOCK - TAMARACK NO. 1
LOWER LATERAL BRACE	---	4½X4½	DOUGLAS FIR NO. 1
LOWER LATERAL BRACING BEARING BLOCKS	---	VARIES	WHITE OAK NO. 1
RAFTERS	3X4	3X4	EASTERN WHITE PINE NO. 1
RIDGE BEAM	6½x9	8x8~~6½x9~~	EASTERN HEMLOCK - TAMARACK NO. 1
RIDGE BEAM POST	6x6	8x8 ~~6x6~~	EASTERN HEMLOCK - TAMARACK NO. 1
ROOF BOARDS	¾" THICK	1.0¾" THICK	EASTERN WHITE PINE NO. 1
ROOF BRACE	4x4	4x4	EASTERN HEMLOCK - TAMARACK NO. 1
SIDING	1" THICK	1" THICK	EASTERN WHITE PINE -COMMON- PREMIUM GRADE
SLEEPER BEAM	---	9"x9" THICK	P.T. DOUGLAS FIR SELECT STRUCT.
TRUSS BEARING BLOCK	---	10" WIDE 2" OR 5" THICK	BLACK LOCUST NO. 1
TRUSS CHORD (1+2)	3X11	3X11	DOUGLAS FIR SELECT STRUCT.
TRUSS CHORD (3)	3x10½	3x10½	DOUGLAS FIR SELECT STRUCT.
TRUSS CHORD 4	3x11½	3x11½	DOUGLAS FIR SELECT STRUCT.
TRUSS END POST	6x18	6x18	DOUGLAS FIR SELECT STRUCT.
TRUSS LATTICE	3x10½	3x10½	DOUGLAS FIR SELECT STRUCT.
UPPER LATERAL BRACE	3¾x5	3¾x5	EASTERN HEMLOCK - TAMARACK NO. 1
WOOD CURB	---	5½x11½	P.T. DOUGLAS FIR NO. 1
WOOD CURB BLOCKING	---	5½x11½	P.T. DOUGLAS FIR NO. 1

MINIMUM ALLOWABLE WOOD STRESSES

SPECIES	SIZE	GRADE	F_b (PSI)	F_t (PSI)	F_v (PSI)	F_c (PSI)	E (10^6 PSI)
DOUGLAS FIR	2"-4" THICK	NO. 1	1000	675	95	1500	1.7
DOUGLAS FIR	BEAMS & STRINGERS*	NO. 1	1350	675	85	925	1.6
DOUGLAS FIR	POSTS & TIMBERS**	NO. 1	1200	825	85	1000	1.6
DOUGLAS FIR	2"-4" THICK	SELECT STRUCTURAL	1500	1000	95	1700	1.9
DOUGLAS FIR	BEAMS & STRINGERS*	SELECT STRUCTURAL	1600	950	85	1100	1.6
EASTERN HEMLOCK-TAMARACK	2"-4" THICK	NO. 1	775	350	85	1000	1.1
EASTERN HEMLOCK-TAMARACK	BEAMS & STRINGERS*	NO. 1	1150	775	85	800	1.2
EASTERN HEMLOCK-TAMARACK	POSTS & TIMBERS**	NO. 1	1100	725	85	875	1.3
EASTERN SPRUCE (SOFTWOODS)	2"-4" THICK	NO. 1	775	350	70	1000	1.1
EASTERN WHITE PINE	2"-4" THICK	NO. 1	775	350	70	1000	1.1
WHITE OAK	BEAMS & STRINGERS*	NO. 1	1200	575	105	775	1.0

* 5" & THICKER AND WIDTH MORE THAN 2 IN. GREATER THAN THICKNESS (E.G. 8x12)

** 5" & THICKER AND WIDTH NOT MORE THAN 2 IN. GREATER THAN THICKNESS (E.G. 6x6)

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STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of MONTGOMERY	Bridge No. 41
Highway No. 42	Log Sta. —
	Surv. Sta. —

COMSTOCK COVERED BRIDGE

GENERAL NOTES

Designed By J.W. ROCKWELL	Drawn By J.D. GEER
Checked By S.T. JAMES Date 1-2003	Bridge Design Supervisor Date
PROJECT MONTGOMERY	PROJECT NO. BHO 1448(26)
L.G.C. Info. —	Z.A.304GNT
Bridge Sheet No. 6	Sheet 6 of 18