

GENERAL NOTES:

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT AGENCY OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" (2006) AND ITS LATEST REVISIONS, AASHTO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" (2002) AND ITS LATEST REVISIONS, AND AASHTO "GUIDE SPECIFICATIONS FOR HORIZONTALLY CURVED HIGHWAY BRIDGES" (2003) AND ITS LATEST REVISIONS.
2. DESIGN IS FOR MS-22.5 LOADING APPLIED IN ACCORDANCE WITH THE PROVISIONS OF AASHTO STANDARD SPECIFICATIONS.
3. ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 20' C, UNLESS SHOWN OTHERWISE.
4. ANY REFERENCE TO "LEFT" AND/OR "RIGHT" ON THE PLANS OR IN THE NOTES REFERS TO THE DIRECTION OF STATIONING AND NOT THE DIRECTION OF TRAFFIC.
5. ALL STRUCTURAL STEEL SHALL CONFORM TO AASHTO DESIGNATION M270M/M270, GRADE 345W AND M270M/M270, GRADE 485W, EXCEPT AS NOTED IN THE PLANS.
6. THE FOLLOWING TABLE OF DESIGN STRENGTHS APPLIES TO THESE PLANS FOR DESIGN PURPOSES:

CONCRETE:	
ITEM 501.33 - HIGH PERFORMANCE CLASS A; f'c = 30 MPa	(DECK, EXPANSION JOINT BLOCKOUT, AND CURBS)
ITEM 501.34 - HIGH PERFORMANCE CLASS B; f'c = 25 MPa	(PIERS, ABUTMENTS, AND WINGWALLS)
ITEM 900.608 - SPECIAL PROVISION HIGH PERFORMANCE CONCRETE, MASS POUR; f'c = 25 MPa	(PIER FOOTING)
NEW STRUCTURAL STEEL:	
ITEM 506.56 - AASHTO M270M/M270, GR345W	Fy = 345 MPa
ITEM 900.635 - SPECIAL PROVISION AASHTO M270M/M270, GR485W	Fy = 485 MPa
NEW REINFORCING STEEL:	
ITEM 507.15 AND ITEM 507.17 - Fy = 420 MPa	(GRADE 420)
7. EPOXY COATED REINFORCING STEEL SHALL BE PROVIDED AT THE FOLLOWING LOCATIONS:
 - BRIDGE DECK SLAB
 - APPROACH SLABS
 - ABUTMENT (WHERE SHOWN IN PLANS), BACKWALL, AND CURBS
8. ALL MAIN LOAD CARRYING MEMBERS INCLUDING WELDED PLATE GIRDERS AND CURVED GIRDER CROSS FRAME MEMBERS ARE SUBJECT TO THE CHARPY V-NOTCH TEST PER SECTION 714 OF THE SPECIFICATIONS.
9. ALL CONNECTIONS OF UNPAINTED MEMBERS SHALL BE MADE WITH 22 DIAMETER AASHTO M164M, TYPE 3 BOLTS IN 24 DIAMETER HOLES, EXCEPT AS NOTED IN THE PLANS. ALL CONNECTIONS OF PAINTED OR GALVANIZED MEMBERS SHALL BE MADE WITH AASHTO M164M TYPE 1 GALVANIZED BOLTS. BOLTS THAT HAVE BEEN FULLY TIGHTENED SHALL NOT BE RE-USED.
10. WHERE CONNECTIONS ARE NOT DETAILED ON THE PLANS, THEY SHALL BE DETAILED BY THE FABRICATOR AND SUBMITTED TO THE STRUCTURES ENGINEER FOR APPROVAL.
11. ALL WELDING AND DIMENSIONAL TOLERANCES OF WELDED MEMBERS SHALL CONFORM TO THE LATEST ANSI/AASHTO/AWS BRIDGE WELDING CODE AND ITS LATEST REVISIONS.
12. WHERE GALVANIZING HAS BEEN REMOVED BY ANY MEANS FROM BRIDGE COMPONENTS, INCLUDING DOWNSPOUTS AND ASSOCIATED HARDWARE, IT SHALL BE REPAIRED IN ACCORDANCE WITH SECTION 513 OF THE SPECIFICATIONS. COSTS FOR THIS WORK SHALL BE INCIDENTAL TO THE ITEM UNDER WHICH THE GALVANIZED COMPONENT IS PROVIDED.
13. ANY FORM BRACKET HOLES IN FASCIA GIRDER WEBS NOT OTHERWISE FILLED SHALL BE FILLED WITH BUTTON HEAD OR HEX HEAD, AASHTO M164M, TYPE 3 BOLTS, EXCEPT IN AREAS OF PAINTED STEEL, WHERE TYPE 1 GALVANIZED BOLTS SHALL BE USED.
14. THE CONTRACTOR SHALL PROVIDE FOR THE STABILITY OF STRUCTURAL STEEL DURING ALL PHASES OF ERECTION AND CONSTRUCTION AS SPECIFIED IN SECTION 506 OF 2006 STANDARD SPECIFICATIONS FOR CONSTRUCTION.
15. FASCIA OVERHANG BRACKET DESIGN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR BUT THE MAXIMUM SPACING OF THESE BRACKETS SHALL NOT EXCEED 1200.
16. ALL REINFORCING STEEL SHALL BE DETAILED AND FABRICATED USING PROCEDURES IN ACCORDANCE WITH APPLICABLE PUBLICATIONS OF THE CONCRETE REINFORCING STEEL INSTITUTE.
17. REINFORCEMENT PLACING TOLERANCES SHALL BE:
 - SPACING +/- 25
 - CLEARANCE +/- 6
18. MINIMUM COVER FOR REINFORCING STEEL (EXCEPT IN THE DECK) SHALL BE 50 IN BACK FACES OF SUBSTRUCTURES AGAINST EARTH, 100 IN PIER COLUMNS AND CAP BEAMS, AND 80 ELSEWHERE, UNLESS OTHERWISE SHOWN.
19. FLAME CUTTING OF EPOXY COATED REINFORCING STEEL SHALL NOT BE PERMITTED. ALL CUT ENDS OF EPOXY COATED REINFORCEMENT SHALL BE FIELD COATED WITH A TWO PART EPOXY APPROVED BY THE REBAR EPOXY MANUFACTURER.
20. CONCRETE FOR DECK, EXPANSION JOINT BLOCKOUT AND CURBS SHALL BE HIGH PERFORMANCE CLASS A AND WILL BE PAID UNDER ONE OF THE ALTERNATE BID ITEMS, ITEM 501.33, "CONCRETE, HIGH PERFORMANCE CLASS A (FPQ)" OR 501.33 "CONCRETE, HIGH PERFORMANCE CLASS A (SIPCMF) (FPQ)". ALL OTHER CONCRETE SHALL BE HIGH PERFORMANCE CLASS B AND WILL BE PAID FOR UNDER ITEM 501.34, "CONCRETE, HIGH PERFORMANCE CLASS B" UNLESS OTHERWISE NOTED. ALL EXPOSED EDGES OF CONCRETE IN THE SUBSTRUCTURE AND THE SUPERSTRUCTURE SHALL BE CHAMFERED 25 X 25, UNLESS OTHERWISE SHOWN.
21. ABUTMENT AND WINGWALL CONCRETE ABOVE THE ADJACENT BRIDGE SEAT ELEVATIONS SHALL NOT BE PLACED UNTIL GIRDERS HAVE BEEN ERECTED, BEAM PROFILES HAVE BEEN TAKEN, AND FINAL FINISH GRADE OF DECK IS APPROVED BY THE ENGINEER.

22. SURFACES OF BRIDGE SEATS UNDER BEARING DEVICES SHALL BE LEVEL. OTHER BRIDGE SEAT AREAS SHALL BE SLOPED 4%. ABUTMENT SEATS SHALL BE SLOPED FULL WIDTH TOWARD CENTER SPAN. THE ENTIRE BRIDGE SEAT SURFACE SHALL BE SMOOTH WITH FLOAT FINISH AS PER SUBSECTION 501.16.
23. IN ALL HORIZONTAL AND VERTICAL CONSTRUCTION JOINTS, SHEAR KEYS SHALL BE FORMED AS SHOWN IN THE TYPICAL BRIDGE DETAILS, BRIDGE SHEET BR513, AND THEY SHALL BE CONTINUOUS UP TO 75 FROM EACH END OF THE JOINT. THE UPWARD KEY SHALL BE PLACED INTEGRALLY WITH THE CONCRETE BELOW THE JOINT. ALL KEYS SHALL BE MONOLITHIC AND CONTINUOUS FOR THE FULL LENGTH OF THE JOINT. JOINTS AND SCORE MARKS SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE RESIDENT ENGINEER.
24. POLYURETHANE JOINT SEALER SHALL BE USED IN CURB CONSTRUCTION JOINTS OR AT FIXED END CURB JOINTS AS DIRECTED BY THE ENGINEER, IN ACCORDANCE WITH THE CURB JOINT DETAILS SHOWN IN THE TYPICAL BRIDGE DETAILS, BRIDGE SHEET BR512.
25. ITEM 514.10, "WATER REPELLANT-SILANE" SHALL BE APPLIED TO ALL EXPOSED CONCRETE ON THE SUPERSTRUCTURE, EXCEPT THE BOTTOM OF THE DECK BETWEEN THE DRIP BEADS. IT SHALL ALSO BE APPLIED TO ALL EXPOSED SUBSTRUCTURES.
26. THE COST OF INSTALLING PVC WATERSTOPS, AS SHOWN IN THE PLANS, SHALL BE INCIDENTAL TO ITEM 501.34, "CONCRETE, HIGH PERFORMANCE, CLASS B". THE TYPE OF PVC WATERSTOP TO BE USED SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER FOR APPROVAL.
27. ALL FABRIC TROUGHES AND DOWNSPOUTS SHALL BE THOROUGHLY FLUSHED BY THE CONTRACTOR AFTER ALL PAVING IS COMPLETED. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE INCIDENTAL TO ITEM 490.30, "SUPERPAVE BITUMINOUS CONCRETE PAVEMENT". FOLLOWING PAVING, ANY BITUMINOUS CONCRETE PAVEMENT THAT IS LODGED IN THE EXPANSION JOINTS, OR THAT ENTERS DRAIN TROUGHES, HOPPERS OR DOWNSPOUTS, SHALL BE REMOVED BY THE CONTRACTOR AT NO COST TO THE STATE.
28. SNOW FENCE SHALL BE INSTALLED ON BRIDGE RAIL OVER ALL ROADWAYS AND FUTURE MULTI-USE TRAILS AS SHOWN ON BRIDGE SHEET BR543, AND PAID FOR UNDER ITEM 620.75, "SNOW BARRIER, GALVANIZED".
29. ITEM 404.65, "EMULSIFIED ASPHALT" HAS BEEN INCLUDED TO BE USED AS A TACK COAT BETWEEN LIFTS OF PAVEMENT AT AN APPLICATION RATE OF 0.70 L/m² OR AS DIRECTED BY THE ENGINEER.
30. PAYMENT FOR BACKFILL AROUND ABUTMENTS AND PIERS FOLLOWING PLACEMENT OF NEW CONCRETE SHALL BE MADE UNDER ITEM 204.30, "GRANULAR BACKFILL FOR STRUCTURES".
31. STONE FILL SHALL BE PLACED IN FRONT OF ABUTMENTS BEFORE SUPERSTRUCTURE STEEL IS PLACED.
32. LIMITS OF IN-STREAM CONSTRUCTION WILL BE AS SPECIFIED IN ALL APPLICABLE PERMITS.
33. DETAILS FOR ITEM 208.40, "COFFERDAM (ABUTMENT)" CAN BE FOUND ON SHEET EC-02B CONSTRUCTION IMPACTS PLAN.

NOTE: THE TRANSVERSE DECK BARS WERE DESIGNED 50mm SHORT, IN ORDER TO KEEP THE 60mm OVERLAP. THE DESIGNER APPROVED AN ADDITIONAL 25mm COVER AT EACH FASCIA IN THE CURB AREA. THIS RESULTED IN A MINIMUM COVER OF 105mm RATHER THAN THE 80mm AS SHOWN ON THE FASCIA DETAIL ON BR513.

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of BENNINGTON	Bridge No. B12
Highway No. VT RTE 279	Log Sta. Surv. Sta.
VT ROUTE 279 OVER FURNACE BROOK	
GENERAL NOTES	
Designed By J.J. MANUSE	Drawn By D.J. HENDERSON
Checked By B.J. CARLSON	Date 04/07
Bridge Design Supervisor K.M. WOJTKOWSKI Date 04/07	
PROJECT BENNINGTON	PROJECT NO. AC NH FO19-(53)
TVGA CAD Drawing No. FBGenNotes.dgn	Date 04/10/2007
Bridge Sheet No. BR511	Sheet 203 of 577

