GENERAL

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2011, AND ITS LATEST REVISIONS, THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, DATED 2012, AND ITS LATEST REVISIONS.

2. THE BRIDGE IS DESIGNED FOR HL-93 LIVE LOAD.

3. THE TEMPORARY BRIDGE IS IN PLACE OVER THE EXISTING, FAILED STRUCTURE. REMOVAL OF THIS TEMPORARY BRIDGE SHALL BE PAID FOR UNDER ITEM 900.645, "SPECIAL PROVISION (REMOVAL OF TEMPORARY BRIDGE). THE TEMPORARY BRIDGE IS THE PROPERTY OF VTRANS AND SHALL BE RETURNED TO THE VTRANS MAINTENANCE FACILITY IN MIDDLESEX, VT. CONTACT HOBERT GATES AT (802) 595-0910 TO MAKE NECESSARY ARRANGEMENTS AS PER THE SPECIAL PROVISIONS.

4. ITEM 529.15 "REMOVAL OF STRUCTURE" SHALL BE USED FOR REMOVAL OF THE EXISTING STEEL BEAM AND CONCRETE DECK BRIDGE UNDER TEMPORARY BRIDGE INCLUDING THE SUPERSTRUCTURE, AND ANY PORTION OF THE ABUTMENTS TO THE DEPTH SHOWN ON SHEET 20.

5. ALL DIMENSIONS SHOWN IN THE PLANS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 68 DEGREES FAHRENHEIT, UNLESS NOTED OTHERWISE.

6. THE "STONE FILL, TYPE III" UNDER THE BRIDGE AS SHOWN IN THE PLANS SHALL BE PLACED BEFORE THE NEW BEAMS ARE SET.

7. NO SUBSTITUTION FOR PRECAST CONCRETE WILL BE PERMITTED.

8. ITEM 520.10, "MEMBRANE WATERPROOFING, SPRAY APPLIED" SHALL BE APPLIED TO THE BRIDGE DECK AS PER THE MANUFACTURER'S INSTRUCTIONS AND EXTEND ONTO THE APPROACH SLABS TWO FEET BEYOND THE BEGIN BRIDGE/END OF BRIDGE.

9. THE CONTRACTOR IS RESPONSIBLE FOR DEVELOPING AND SUBMITTING EPSC PLAN IN ACCORDANCE WITH SECTION 105 OF THE STANDARD SPECIFICATIONS. THE PLAN SHALL INCLUDE ALL PROPOSED LIMITS OF DISTURBANCE ASSOCIATED WITH THE CONTRACTOR'S MEANS AND METHODS FOR COMPLETING THE WORK INCLUDING CONTRACTOR DESIGNED COMPONENTS SUCH AS THE ACCESS, WASTE, BORROW, STAGING AREAS AND DEWATERING. ANY WASTE, BORROW, STAGING AREAS AND HAUL ROADS MAY REQUIRE ADDITIONAL PERMITTING UNDER CONSTRUCTION GENERAL PERMIT 3-9020 (2006-AMENDED 2008), SECTION 1.6 AS "OFF-SITE SUPPORTING ACTIVITIES". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE THESE SITES REVIEWED BY THE VTRANS ENVIRONMENTAL SECTION AND VTRANS RESIDENT ENGINEER AND TO OBTAIN ANY NECESSARY PERMITS FOR THE AREAS PRIOR TO THEIR USE.

10. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1" x 1".

11. WATER REPELLENT, SILANE SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES, EXCEPT THE UNDERSIDE OF THE BRIDGE DECK BETWEEN THE DRIP NOTCHES.

12. THE EXISTING STRUCTURAL STEEL ON THIS PROJECT WAS PAINTED WITH A MATERIAL WHICH MAY CONTAIN LEAD. THE REMOVED STRUCTURAL STEEL IS THE PROPERTY OF THE CONTRACTOR. THE CONTRACTOR SHALL INDEMNIFY AND HOLD THE STATE, IT'S OFFICERS AND EMPLOYEES HARMLESS CONCERNING THE CONTRACTOR'S USE OR DISPOSITION OF THE STRUCTURAL STEEL.

MICROPILE FOUNDATIONS

13. THE ABUTMENT 1 MICROPILES ARE DESIGNED TO SUPPORT A MAXIMUM STRENGTH LIMIT STATE AXIAL LOAD OF 230 KIPS PER PILE IN COMPRESSION AND 168 KIPS PER PILE IN TENSION.

14. THE ABUTMENT 2 MICROPILES ARE DESIGNED TO SUPPORT A MAXIMUM STRENGTH LIMIT STATE AXIAL LOAD OF 225 KIPS PER PILE IN COMPRESSION AND 168 KIPS PER PILE IN TENSION.

15. MINIMUM MICROPILE STEEL CASING THICKNESS = 0.408 INCHES
MINIMUM OUTSIDE DIAMETER OF MICROPILE CASING = 7 INCHES
MINIMUM UNCASED DIAMETER = ~~6.184~~ 5.96" INCHES

16. EXTEND CASING A MINIMUM OF 2 FEET BELOW TOP OF LEDGE; EXTEND UNCASED PORTION OF MICROPILE A MINIMUM OF ~~12'~~ 12.5 AT ABUTMENT 1 AND ~~10'~~ 10.5 AT ABUTMENT 2 BELOW THE BOTTOM OF CASING.

17. ESTIMATED PILE LENGTH:
ABUTMENT 1: 26 FEET
ABUTMENT 2: VARIES 17 FEET TO 27 FEET

18. THE CONTRACTOR IS ADVISED THAT DIFFICULT DRILLING CONDITIONS ARE ANTICIPATED. THE CONTRACTOR SHALL MAKE PROVISIONS TO MAINTAIN THE TOLERANCES FOR LOCATION AND BATTER OF THE MICROPILES ESTABLISHED IN THE SPECIAL PROVISIONS AND AS NECESSARY TO ASSURE COMPATIBILITY WITH THE LOCATION OF THE PRECAST FOOTINGS.

PRECAST ABUTMENTS AND APPROACH SLAB

19. IF VERTICAL CONSTRUCTION JOINTS ARE REQUIRED BY THE CONTRACTOR FOR SHIPMENT OF THE ABUTMENTS, THEN THE SECTIONS SHALL BE KEYED . A JOINT DETAIL SHALL BE SHOWN ON THE FABRICATION DRAWINGS.

20. DESIGN VALUES:
CONCRETE COMPRESSIVE STRENGTH: F'c=5000 PSI

21. THE CONCRETE FOR THE ABUTMENT 1 AND ABUTMENT 2 PILE CAVITIES SHALL MEET THE REQUIREMENTS OF ITEM 900.608, "SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET)".

22. THE CORRUGATED STEEL PIPE SHALL MEET THE REQUIREMENTS OF SUBSECTION 711.01. ALL COSTS ASSOCIATED WITH PLACING THE CORRUGATED STEEL PIPE WILL BE INCLUDED FOR PAYMENT UNDER THE APPROPRIATE 540.10 CONTRACT ITEM.

23. REINFORCING STEEL IN THE PRECAST SUBSTRUCTURES SHALL MEET THE REQUIREMENTS OF SECTION 507 FOR UNCOATED LEVEL 1 REINFORCING STEEL AND WILL BE PAID FOR UNDER THE APPROPRIATE 540.10 CONTRACT ITEM.

24. REINFORCING STEEL IN THE APPROACH SLABS SHALL MEET THE REQUIREMENTS OF SECTION 507 FOR LEVEL II REINFORCING STEEL AND WILL BE PAID FOR UNDER THE APPROPRIATE 540.10 CONTRACT ITEM.

25. ALL CLEAR COVER SHALL BE 2 INCHES UNLESS NOTED OTHERWISE.

26. MECHANICAL SPLICE CONNECTORS SHALL MEET THE REQUIREMENTS OF SUBSECTION 713.02 AND WILL BE INCLUDED FOR PAYMENT UNDER THE APPROPRIATE 540.10 CONTRACT ITEM.

NEXT D BEAMS

27. NEXT D BEAMS ARE A NON-PROPRIETARY SHAPE DEVELOPED BY PCI NORTHEAST (PCINE). STANDARDIZED SECTION PROPERTIES AND DETAILS MAY BE FOUND AT HTTP://WWW.PCINE.ORG.

DESIGN VALUES:
CONCRETE COMPRESSIVE STRENGTH: F'C = 8,000 PSI.
CONCRETE COMPRESSIVE STRENGTH AT RELEASE: F'CI= 6,000 PSI.
PRESTRESSING STRANDS: 0.6 INCH DIAMETER, 270 KSI, LOW-RELAXATION 7-WIRE STRANDS.
ASSUMED MODULUS OF ELASTICITY = 29,000 KSI
THE JACKING FORCE PER STRAND = 44 KIPS.
SERVICE LOADS PER UNIT

MEMBER DEAD LOAD MOMENT	902 K-FT
SUPERIMPOSED DEAD LOAD MOMENT	246 K-FT
LIVE LOAD AND IMPACT MOMENT	1,498 K-FT
DEAD LOAD REACTION	67 KIPS
LIVE LOAD AND IMPACT REACTION	95 KIPS
TOTAL REACTION	162 KIPS
FINAL CAMBER	3 INCHES

28. ENDS OF FLANGES IN CONTACT WITH GROUT SHALL BE SANDBLASTED PRIOR TO DELIVERY AND POWER WASHED WITH WATER PRIOR TO ERECTION OF THE BEAMS. PAYMENT WILL BE CONSIDERED INCIDENTAL TO CONTRACT ITEM 900.640 SPECIAL PROVISION (PRESTRESSED CONCRETE NEXT D BEAMS) (NEXT 32D).

29. FILL FLANGE CONNECTION WITH SPECIAL PROVISION (HIGH PERFORMANCE, CONCRETE RAPID SET).

30. METHOD OF FORMING FLANGE CONNECTION SHALL BE DETERMINED BY THE CONTRACTOR. THE FORMS SHALL BE REMOVABLE AND ABLE TO ACCOMMODATE DIFFERENTIAL CAMBER. FORM SUPPORTS SHALL NOT PENETRATE THROUGH THE TOP OF POUR UNLESS APPROVED BY THE ENGINEER.

31. THE FABRICATOR MAY ALTER THE DESIGN AS DETAILED IN THESE PLANS TO ACCOMMODATE THEIR SPECIFIC OPERATION. THIS ALTERATION MUST BE DESIGNED BY A PROFESSIONAL ENGINEER, LICENSED IN THE STATE OF VERMONT TO MEET THE ABOVE CRITERIA AND SHALL BE APPROVED BY THE PROJECT MANAGER.

32. ALL SUPERSTRUCTURE REINFORCING STEEL SHALL MEET THE REQUIREMENTS OF SECTION 507 FOR LEVEL II REINFORCING STEEL AND WILL BE PAID FOR UNDER CONTRACT ITEM 900.640 SPECIAL PROVISION (PRESTRESSED CONCRETE NEXT D BEAMS) (NEXT 32 D).

Stantec

PROJECT NAME: ENOSBURG
PROJECT NUMBER: BRO 1448(40)

FILE NAME: ...\XX General_Notes.dgn
PROJECT LEADER: G. BOGUE
DESIGNED BY: T. KNIGHT
PLOT DATE: 10/22/2013
DRAWN BY: L. BUXTON
CHECKED BY: G. BOGUE
SHEET 5 OF 46

GENERAL NOTES