GENERAL

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS FOR CONSTRUCTION, THE 2014 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, AND THEIR LATEST REVISIONS.

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

3. NO ADJUSTMENTS TO THE BITUMINOUS WEARING SURFACE ON THE BRIDGE SHALL BE MADE TO ACCOUNT FOR THE DIFFERENCE BETWEEN BEAM CAMBER AND THE THEORETICAL ROADWAY PROFILE.

4. THE REMOVAL OF EXISTING SUPERSTRUCTURE AND BRIDGE RAIL WILL BE PAID FOR UNDER ITEM 529.15, 'REMOVAL OF STRUCTURE'. THIS WORK SHALL INCLUDE BUT NOT BE LIMITED TO THE REMOVAL OF:
    - APPROACH SLABS
    - APPROACH RAILS
    - METAL HAND RAILING
    - RIGID PAVEMENT
    - SIDEWALKS
    - WINGWALLS AND RETAINING WALLS NECESSARY TO ADJUST ELEVATION
    - ENTIRE SUPERSTRUCTURE AND ANY PORTIONS OF THE EXISTING ABUTMENTS NECESSARY TO ADJUST THE BRIDGE SEAT ELEVATIONS
    - EXISTING ABANDONED UTILITY

5. CONCRETE REMOVAL AROUND THE EXISTING UTILITY CONDUITS AND LOWERING TO THE LOCATION SPECIFIED IN THE PLANS IS INCLUDED UNDER ITEM 529.15, "REMOVAL OF STRUCTURE". REPAIRS TO AND OR REPLACEMENT OF THE CONDUIT WILL BE THE RESPONSIBILITY OF FAIRPOINT COMMUNICATION.

6. THE CONTRACTOR SHALL SUBMIT TO THE RESIDENT ENGINEER A DEMOLITION PLAN SPECIFICALLY ADDRESSING THE STEPS TO DROP THE FIVE OCCUPIED UTILITY CONDUITS BELOW THE EXISTING BRIDGE SEAT.

7. FOR INFORMATION REGARDING UTILITIES, SEE THE SPECIAL PROVISIONS.

8. THE CONTRACTOR SHALL CONTACT THE WOODSTOCK GARDEN CLUB FOR THE REMOVAL BY OTHERS OF THE FLOWER BOXES ON THE BRIDGE.

9. THESE PLANS WERE PREPARED BASED ON THE INFORMATION OBTAINED FROM A SURVEY COMPLETED BY VTRANS AND FROM HISTORICAL PLANS FROM THE 1935 REHABILITATION OF THE STRUCTURE. THE CONTRACTOR MAY BE REQUIRED TO MAKE CHANGES TO THE DIMENSIONS SHOWN ON THE PLANS TO FIT THE ACTUAL FIELD CONDITIONS. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.

10. US ROUTE 4 (CENTRAL STREET) IS UNDERLAIN WITH CONCRETE PAVEMENT. THESE PLANS HAVE BEEN DEVELOPED BASED ON THE LOCATION OF PAVEMENT CRACKS THAT MAY INDICATE THE SECTIONS IN THE CONCRETE PAVEMENT. ADJUSTMENT IN THE FIELD MAY BE REQUIRED TO ADJUST THE BEGIN AND END APPROACH OF THE PROJECT.

TRAFFIC CONTROL

11. TRAFFIC MANAGEMENT WILL BE ACCOMPLISHED USING AN OFF-SITE LOCAL DETOUR ON PLEASANT STREET AND ELM STREET, AND A TRUCK DETOUR ON VT 106/VT 44/US 5/ VT 12 DURING A THREE WEEK BRIDGE CLOSURE PERIOD. A BICYCLE/PEDESTRIAN DETOUR VIA LOCAL ROADS WILL BE SIGNED AS SHOWN. REFER TO THE TRAFFIC CONTROL SHEET FOR ADDITIONAL TRAFFIC CONTROL NOTES.

CONCRETE

12. ALL LIFTING POINTS IN THE SUPERSTRUCTURE SHALL BE REMOVABLE TO THE MINIMUM CLEAR COVER FOR REINFORCING STEEL SPECIFIED IN THE PLANS. THE LIFTING POINTS SHALL BE DETAILED IN THE FABRICATION DRAWING. PAYMENT FOR THIS WORK WILL BE CONSIDERED INCIDENTAL TO THE APPROPRIATE PRECAST ITEM.

13. ALL RECESSED LIFTING POINTS AND BLOCKOUTS SHALL BE FILLED WITH A TYPE IV MORTAR PER SUBSECTION 707.03 PAYMENT WILL BE CONSIDERED INCIDENTAL TO THE APPROPRIATE PRECAST ITEM.

14. THE METHOD OF FORMING FOR SUBSEQUENT POURS AFTER PLACING PRECAST/PRESTRESSED SUPERSTRUCTURE UNITS SHALL BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR IS ENCOURAGED TO WORK WITH THE FABRICATOR IF ADDITIONAL SUPPORTS ARE REQUIRED. IN NO CASE SHALL THE CONTRACTOR ATTACH ADDITIONAL FORM OR SCREED SUPPORTS BY DRILLING OR SIMILAR MEANS INTO ANY PRECAST/PRESTRESSED SUPERSTRUCTURE UNIT.

15. ALL FORM SUPPORTS AND FORM TIES THAT ARE TO REMAIN PERMANENTLY IN THE CONCRETE ABOVE THE BRIDGE SEAT SHALL BE GALVANIZED AND CONFORM TO SECTION 726 OF THE STANDARD SPECIFICATIONS.

16. HIGH PERFORMANCE CONCRETE, RAPID SET IN THE SUPERSTRUCTURE AND APPROACH SLAB CLOSURE POURS SHALL BE WET-CURED UNTIL IT HAS OBTAINED A COMPRESSIVE STRENGTH OF 4000 PSI AS VERIFIED BY TESTING OF FIELD CURED CYLINDERS.

17. SIDEWALK OR BRIDGE RAIL SHALL NOT BE POURED UNTIL THE CONCRETE IN THE LONGITUDINAL CLOSURE POUR BETWEEN THE SOLID SLAB BEAMS HAS REACHED A MINIMUM STRENGTH OF 4,000 PSI.

18. THE SIDEWALK SHALL ACHIEVE A MINIMUM CONCRETE STRENGTH OF 2000 PSI PRIOR TO POURING THE CONCRETE BRIDGE RAIL.

19. THE EFFECTIVE CURE TIME OF THE BRIDGE RAIL MAY BE REDUCED TO A MINIMUM OF (7) SEVEN DAYS PROVIDED THAT THE CONCRETE HAS REACHED 85% OF THE COMPRESSIVE STRENGTH.

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

21. ALL EXPOSED EDGES SHALL HAVE A 1"X1" CHAMFER UNLESS OTHERWISE NOTED.

22. THE CORK ON THE BRIDGE SEAT AND REQUIRED FOR THE BRIDGE RAIL SHALL BE INCLUDED IN THE UNIT PRICE FOR THE ADJACENT CONCRETE ITEM.

REINFORCING STEEL

23. ALL REINFORCING STEEL SHALL BE DETAILED AND FABRICATED USING PROCEDURES AND TOLERANCES IN ACCORDANCE WITH APPLICABLE PUBLICATIONS OF THE CONCRETE REINFORCING STEEL INSTITUTE.

24. TEST BARS SHALL BE PROVIDED IN ACCORDANCE WITH THE "VERMONT AGENCY OF TRANSPORTATION MATERIAL SAMPLING MANUAL" AVAILABLE ON THE AGENCY WEBSITE. A MINIMUM OF TWO TEST SECTIONS ARE REQUIRED FOR EACH SIZE, BRAND, AND GRADE OR TYPE OF REINFORCING. SEE THE MANUAL FOR ACCEPTABLE DIMENSIONS OF TEST SECTIONS. ALL COSTS ASSOCIATED WITH PROVIDING BARS FOR TESTING WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROPRIATE PRECAST ITEM.

25. ALL REINFORCING STEEL IN THE PRECAST SUPERSTRUCTURE, SIDEWALK ATTACHED TO THE PRECAST SUPERSTRUCTURE, APPROACH SLABS, AND BRIDGE RAIL SHALL MEET THE REQUIREMENTS OF SECTION 507 FOR "REINFORCING STEEL, LEVEL III" AND WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROPRIATE CONCRETE ITEM.

26. ALL REINFORCING STEEL IN THE PRECAST SUPERSTRUCTURE CLOSURE POURS AND APPROACH SLAB CLOSURE POURS SHALL MEET THE REQUIREMENTS OF SECTION 507 FOR "REINFORCING STEEL, LEVEL III" AND WILL BE PAID FOR UNDER ITEM 507.13 "REINFORCING STEEL, LEVEL III".

27. ALL REINFORCING STEEL IN THE BRIDGE SEAT, WINGWALL AND RETAINING WALL SHALL MEET THE REQUIREMENTS OF SECTION 507 FOR "REINFORCING STEEL, LEVEL III" AND WILL BE PAID FOR UNDER ITEM 507.13 "REINFORCING STEEL, LEVEL III".

28. MINIMUM CLEAR COVER SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE:

LOCATION	CLEAR COVER (INCHES)
UNDERSIDE OF SUPERSTRUCTURE	1.5
EXPOSED TO EARTH OR WEATHER	2.0
TOP OF SUPERSTRUCTURE AND APPROACH SLABS	2.5*
DIRECT EXPOSURE TO DEICING SALTS (FASCIA AND CURB)	3.0
CAST AGAINST EARTH	3.0

* VALUE PROVIDED IS IN THE FINAL CONDITION. 3.5 INCHES SHALL BE PROVIDED DURING INITIAL SOLID SLAB CASTING IN AREAS SUBJECT TO POTENTIAL DIAMOND GRINDING.

29. REINFORCING STEEL PLACEMENT TOLERANCES SHALL BE:
    SPACING: +/- 1 INCH
    CLEARANCE: +/- 1/4 INCH

PRECAST SOLID SLAB BEAMS

30. CONCRETE COMPRESSIVE STRENGTH = 8,000 PSI
    CONCRETE COMPRESSIVE STRENGTH @ RELEASE = 5,500 PSI
    PRESTRESSING STRANDS: 0.6 INCH DIAMETER, LOW-RELAXATION 7-WIRE STRANDS.

31. THE FABRICATOR SHALL PROVIDE A CALCULATED CAMBER ESTIMATE FOR EACH OF THE PRECAST SOLID SLAB BEAMS AT RELEASE, ERECTION, AND FINAL CONDITIONS PRIOR TO ANY SUPERIMPOSED LOADING OF THE BEAMS. THE FABRICATOR SHALL SUBMIT THE CALCULATIONS WITH THE FABRICATION DRAWINGS AND ALL ASSOCIATED COSTS WILL BE CONSIDERED INCIDENTAL TO ITEM 900.640 SPECIAL PROVISION (PRESTRESSED CONCRETE SOLID SLABS). IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM AT THE TIME OF FABRICATION DRAWING REVIEW THAT THE CALCULATED CAMBER ESTIMATE IS COMPATIBLE WITH THE GRADES AND ELEVATIONS OF THE REST OF THE STRUCTURE.

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

33. NO HOLES MAY BE DRILLED IN ANY PRECAST ELEMENTS WITHOUT THE APPROVAL OF THE FABRICATOR AND THE AGENCY.

34. REINFORCING STEEL FROM THE SOLID SLABS INTO THE BRIDGE SIDEWALK SHALL BE CONTINUOUS AND NEITHER SPLICED NOR JOINED WITH A MECHANICAL CONNECTOR.

35. THE CONCRETE FOR LONGITUDINAL CLOSURE POURS SHALL BE ITEM 900.608 "SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET) (FPQ)" AND WILL BE PAID UNDER ITEM 900.608 "SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET) (FPQ)".

36. THE SOLID SLABS SHALL BE CAST TO AN INITIAL THICKNESS OF 19 INCHES, WHICH INCLUDES A NOMINAL ONE INCH (1") OVERPOUR. AFTER THE LONGITUDINAL CLOSURE POURS, SIDEWALK AND BRIDGE RAILINGS HAVE BEEN CAST AND CURED, THE ENTIRE BRIDGE DECK SURFACE SHALL BE DIAMOND GROUND A NOMINAL ONE INCH (1") TO ACHIEVE THE DESIRED BRIDGE DECK PROFILE. PAYMENT WILL BE MADE UNDER ITEM 900.670 SPECIAL PROVISION (CONCRETE BRIDGE DECK SURFACE PREPARATION).

37. ELEVATIONS SHOWN ON THE PLANS ARE BASED ON THE FINAL DESIRED CONDITIONS. THE CONTRACTOR SHALL ACCOUNT FOR THE OVERPOUR IN ALL FABRICATION DRAWINGS, SUBMITTALS, AND WORK EFFORTS.

38. ITEM 900.640 SPECIAL PROVISION (PRESTRESSED CONCRETE SOLID SLABS) SHALL INLCUDE THE COST TO SUPPLY AND INSTALL THE COLD-POURED JOINT SEALER AROUND THE ANCHOR BOLT LOCATIONS.

PRECAST APPROACH SLABS

39. PRECAST APPROACH SLAB CONCRETE STRENGTH: f'c = 5,000 PSI.

40. CORRUGATED POST-TENSIONING DUCTS IN THE PRECAST APPROACH SLABS FOR DOWEL CONNECTIONS SHALL BE CONSTRUCTED FROM EITHER POLYETHYLENE OR POLYPROPYLENE. THE DUCT SHALL HAVE A MINIMUM MATERIAL THICKNESS OF 0.080 IN. +/- 0.010 IN. AND SHALL HAVE A WHITE COATING ON THE OUTSIDE OR SHALL BE OF WHITE MATERIAL WITH ULTRAVIOLET STABILIZERS ADDED. POLYETHYLENE DUCT SHALL BE FABRICATED FROM RESINS MEETING OR EXCEEDING THE REQUIREMENTS OF ASTM D 3350 WITH A CELL CLASSIFICATION OF 345464A. POLYPROPYLENE DUCT SHALL BE FABRICATED FROM RESINS MEETING OR EXCEEDING THE REQUIREMENTS OF ASTM D 4101 WITH A CELL CLASSIFICATION RANGE OF PP0340B44544 TO PP340B65884. ALL COSTS ASSOCIATED WITH PLACING THE DUCT WILL BE INCIDENTAL TO THE APPROPRIATE PRECAST APPROACH SLAB OPTION.

41. GROUT USED TO FILL DOWEL DUCTS IN THE PRECAST APPROACH SLABS FOR DOWEL CONNECTIONS SHALL BE MORTAR, TYPE IV IN ACCORDANCE WITH SECTION 540 - PRECAST CONCRETE. ALL COSTS ASSOCIATED WITH PROVIDING AND PLACING GROUT FOR THE APPROACH SLAB DOWEL CONNECTIONS WILL BE INCIDENTAL TO THE APPROPRIATE PRECAST APPROACH SLAB OPTION.

PROJECT NAME: WOODSTOCK VILLAGE
PROJECT NUMBER: BF 020-2(43)

FILE NAME: sl3j280gen.dgn
PROJECT LEADER: R. YOUNG
DESIGNED BY: W. LAMMER
GENERAL NOTES I

PLOT DATE: 09-AUG-2017
DRAWN BY: W. LAMMER
CHECKED BY: S. COLEY
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