PREFABRICATED BRIDGE UNITS ALTERNATE

48. PREFABRICATED BRIDGE UNITS ARE NON-PROPRIETARY PRODUCTS.

49. STRUCTURAL STEEL MEMBERS DESIGNATED "CVN" IN THE PLANS SHALL BE CHARPY V-NOTCH TESTED IN ACCORDANCE WITH SUBSECTION 714.01.

50. ANY HOLES IN THE WEBS OF THE FASCIA BEAMS NOT OTHERWISE FILLED SHALL BE FILLED WITH BUTTON HEAD BOLTS. THESE BOLTS SHALL BE TIGHTENED IN ACCORDANCE WITH SUBSECTION 506.19.

51. ANY CONNECTIONS NOT DETAILED ON THE PLANS SHALL BE DETAILED BY THE FABRICATOR AND SUBMITTED TO THE PROJECT MANAGER FOR APPROVAL.

52. ALL FIELD CONNECTIONS SHALL BE MADE WITH 7/8" DIAMETER HIGH STRENGTH BOLTS IN 15/16" DIAMETER HOLES, PER SECTION 506 UNLESS OTHERWISE NOTED.

53. FLEMING BRACKETS OR SIMILAR FALSE WORK SHALL BE PLACED AT A MAXIMUM SPACING OF 4 FEET. THE BRACKETS SHALL BEAR NEAR THE BOTTOM FLANGE AND IN NO CASE SHALL THEY BEAR ABOVE THE BOTTOM QUARTER WEB.

54. AFTER THE SUPERSTRUCTURE STEEL HAS BEEN ERECTED AT THE DECK CASTING SITE, AND BEFORE ANY FORMWORK OR OTHER LOADS ARE ADDED TO THE GIRDERS, ELEVATIONS ALONG THE TOP OF THE GIRDERS SHALL BE TAKEN AS DIRECTED BY THE RESIDENT ENGINEER FOR USE IN DETERMINING DECK FORMWORK ELEVATIONS.

55. DURING THE FABRICATION OF THE PBU'S THE CONTRACTOR SHALL LOAD THE UNITS EVENLY TO MINIMIZE DIFFERENTIAL CAMBER BETWEEN UNITS.

56. BEAM WEBS AND CROSS FRAMES SHALL BE PLUMB IN FINAL POSITION.

57. PBU DECKS SHALL MEET THE REQUIREMENTS OF "CONCRETE, HIGH PERFORMANCE CLASS A".

58. PBU STRUCTURAL STEEL SHALL MEET THE REQUIREMENTS OF SECTION 506 OF THE STANDARD SPECIFICATIONS.

59. ALL CORNERS AND EDGES OF THE STRUCTURAL STEEL SHALL BE GROUND TO A 1/16 INCH RADIUS PRIOR TO GALVANIZING OR METALLIZING.

60. DUE TO STABILITY CONCERNS AT THE ABUTMENTS DURING THE ERECTION OF THE SUPERSTRUCTURE, THE CONTRACTOR SHALL SUBMIT THE ERECTION PLAN A MINIMUM OF 30 WORKING DAYS PRIOR TO THE BRIDGE CLOSURE PERIOD. UNDER NO CIRCUMSTANCES SHALL A BRIDGE CLOSURE PERIOD BEGIN PRIOR TO HAVING AN ACCEPTED ERECTION PLAN.

61. ALL WELDING TO THE STRUCTURAL STEEL SHALL BE COMPLETED PRIOR TO GALVANIZING OR METALIZING.

62. THE FABRICATOR MAY ALTER THE DESIGN AS DETAILED IN THESE PLANS TO ACCOMMODATE THEIR SPECIFIC OPERATION. THIS INCLUDES THE SUBSTITUTION OF THE W18X119 ROLLED BEAMS WITH A WELDED STRUCTURAL STEEL PLATE GIRDER FOR THE PREFABRICATED BRIDGE UNITS. THE FLANGES AND WEB SIZES OF THE WELDED STRUCTURAL STEEL PLATE GIRDER SHALL BE EQUAL TO OR GREATER THAN THAT OF THE ROLLED BEAMS (Sx AND Ix MUST BE EQUAL TO OR GREATER THAN THOSE VALUES FOR THE W18X119) AND THE OVERALL DEPTH OF THE WELDED STRUCTURAL STEEL PLATE GIRDER (TOP OF TOP FLANGE TO BOTTOM OF BOTTOM FLANGE) SHALL BE 19". ALL COSTS ASSOCIATED WITH ALTERING THE DESIGN WILL BE INCLUDED IN BID PRICE FOR THE PREFABRICATED BRIDGE UNITS.

63. IF THE FLANGE AND WEB SIZES INCREASED (Sx AND Ix ARE GREATER THAN THOSE VALUES FOR THE W18X119) THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING CHANGES TO THE DEAD LOAD DEFLECTION AND THE RESULTING CAMBER.

64. THE ALTERATION SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF VERMONT TO MEET SPECIFIED CRITERIA AND SHALL BE APPROVED BY THE PROJECT MANAGER.

65. PREFABRICATED BRIDGE UNITS WILL BE PAID UNDER ITEM 900.640, "SPECIAL PROVISION (PREFABRICATED BRIDGE UNIT SUPERSTRUCTURE) (FPQ)".

APPROACH SLAB AND SUPERSTRUCTURE LONGITUDINAL CLOSURE POURS

66. THE CONCRETE EDGES ALONG THE LONGITUDINAL CLOSURE POURS SHALL BE TREATED TO PROVIDE A ROUGHENED/EXPOSED AGGREGATE SURFACE. THE AMPLITUDE OF THE EXPOSED AGGREGATE SHALL BE A MINIMUM OF 1/8" AND BE COMPLETED PRIOR TO ERECTION OF THE BEAMS OR THE APPROACH SLABS. THE FABRICATOR SHALL INDICATE THE METHOD USED TO ACHIEVE THIS PROFILE ON THE FABRICATION DRAWINGS AND METHOD USED TO PROTECT THE REINFORCING STEEL.

67. THE CONCRETE FOR LONGITUDINAL CLOSURE POURS SHALL BE ITEM 900.608, "SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET)(FPQ)". SEE SPECIAL PROVISIONS FOR REQUIREMENTS.

68. THE LONGITUDINAL CLOSURE POUR CONCRETE SHALL OBTAIN A STRENGTH OF 4,000 PSI PRIOR TO ANY VEHICULAR LOADING.

H-PILES

69. THE PILES SHALL BE HP12X63.

70. TO PREVENT DAMAGE TO THE PILES, PILE SHOES ARE REQUIRED AND SHALL CONFORM TO SUBSECTION 505.04 (f).

71. THE TOPS OF THE PILES AFTER INSTALLATION SHALL NOT VARY FROM THE POSITION SHOWN ON THE PLANS BY MORE THAN 3 INCHES. THE PILE ORIENTATION SHALL NOT VARY BY MORE THAN 5 DEGREES. THE CONTRACTOR SHALL DEMONSTRATE TO THE SATISFACTION OF THE ENGINEER HOW THE TOLERANCES WILL BE MET. THESE MEASURES SHALL BE DEMONSTRATED IN A SUBMITTAL TO BE ACCEPTED BEFORE PILE DRIVING COMMENCES.

72. PRE-EXCAVATION IS REQUIRED AT ALL PILE LOCATIONS. PAYMENT WILL BE MADE UNDER ITEM 900.640 "SPECIAL PROVISION (PRE-EXCAVATION OF INTEGRAL ABUTMENT PILES, ROCK)" OR 900.640 "SPECIAL PROVISION (PRE-EXCAVATION OF INTEGRAL ABUTMENT PILES, EARTH)" AS APPROPRIATE. SAND PLACED AROUND THE PILES WILL BE INCIDENTAL TO ITEM 900.640 "SPECIAL PROVISION (PRE-EXCAVATION OF INTEGRAL ABUTMENT PILES, ROCK)".

73. THE PILE LOCATIONS AT THE ABUTMENTS SHALL BE PRE-EXCAVATED THREE (3) FEET MINIMUM INTO COMPETENT BEDROCK. THE MINIMUM REQUIRED PILE LENGTH IS SEVENTEEN (17) FEET AND TWELVE AND A HALF (12.5) FEET BELOW THE ABUTMENT PILE CAP AT ABUTMENT 1 AND ABUTMENT 2 RESPECTIVELY. THE PRE-EXCAVATED HOLES SHALL BE A MINIMUM OF TWENTY THREE (23 INCHES) IN DIAMETER. THE ENTIRE PRE-EXCAVATED HOLE SHALL BE BACKFILLED WITH SAND. SAND SHALL CONFORM TO THE REQUIREMENTS OF SUBSECTION 703.03. REFER TO THE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

74. PILES THAT ARE PRE-EXCAVATED INTO COMPETENT BEDROCK SHALL BE SEATED ON BEDROCK IN A METHOD APPROVED BY THE ENGINEER. ANY WORK REQUIRED FOR THIS WILL BE INCIDENTAL TO ITEM 900.640 "SPECIAL PROVISION (PRE-EXCAVATION OF INTEGRAL ABUTMENT PILES, ROCK)".

75. FOR ESTIMATING PURPOSES, THE PILE TIP ELEVATION WERE ASSUMED AND ARE SHOWN ON THE BORING LOGS. THE ACTUAL IN PLACE LENGTHS MAY VARY.

ABUTMENT CLOSURE/END DIAPHRAGM

76. THE CONCRETE FOR THE ABUTMENT CLOSURE POUR SHALL BE ITEM 900.608, "SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET)(FPQ)." SEE SPECIAL PROVISIONS FOR REQUIREMENTS.

77. AFTER THE CONCRETE HAS BEEN PLACED AND THE FINISHING OPERATIONS CONCLUDED, IT SHALL NOT BE WALKED ON OR DISTURBED IN ANY MANNER, INCLUDING THE REMOVAL OF FORMS FOR 12 HOURS.

78. THE END DIAPHRAGM CLOSURE POUR CONCRETE SHALL OBTAIN A STRENGTH OF 4000 PSI PRIOR TO ANY VEHICULAR LOADING.

APPROACH SLABS

79. PRECAST CONCRETE COMPRESSIVE STRENGTH: f'c = 5,000 PSI.

80. CORRUGATED POST-TENSIONING DUCTS IN THE PRECAST APPROACH SLABS FOR DOWEL CONNECTIONS SHALL BE CONSTRUCTED FOR 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 DUCTS WILL BE INCLUDED IN THE BID PRICE FOR THE APPROPRIATE PRECAST APPROACH SLAB OPTION.

81. GROUT USED TO FILL DOWEL DUCTS IN THE PRECAST APPROACH SLABS FOR DOWEL CONNECTION 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 CONNECTION WILL BE INCLUDED IN THE BID FOR THE APPROPRIATE PRECAST APPROACH SLAB OPTION.

MISCELLANEOUS

82. ITEM 520.10, "SHEET MEMBRANE WATERPROOFING, SPRAY APPLIED" SHALL BE APPLIED TO THE BRIDGE DECK AS PER THE MANUFACTURER'S INSTRUCTIONS AND EXTEND ONTO THE APPROACH SLAB 2'-0" BEYOND THE BEGIN BRIDGE/END OF BRIDGE.

REV.	DESCRIPTION	DATE
1	REVISED NOTE 74	12/01/2015

PROJECT NAME: WESTON
PROJECT NUMBER: BF 013-2(13)

FILE NAME: z13b076pn.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: J.J. WESTCOTT
PROJECT NOTES (2 OF 2)

PLOT DATE: 12/1/2015
DRAWN BY: K.C. BARRY
CHECKED BY: J.J. WESTCOTT
SHEET 8 OF 68

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