

PROJECT NOTES

GENERAL NOTES

- THE INTENT OF THIS CONTRACT IS TO CONSTRUCT THE PROPOSED BRIDGE STRUCTURE AND THE ROADWAY SUBGRADE TO THE LIMITS SHOWN ON THE TYPICAL SECTIONS, PROFILES AND CROSS SECTIONS. SOME SELECT MATERIALS WILL BE INSTALLED ON THE BRIDGE APPROACHES TO THE LIMITS SHOWN ON THE PLANS AND DETAILS.
- ALL STATIONS ARE IN KILOMETERS, ALL ELEVATIONS ARE IN METERS, AND ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 20 DEGREES CELSIUS, UNLESS NOTED OTHERWISE.
- ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2006, AND ITS LATEST REVISIONS, AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 17TH EDITION, DATED 2002, AND ITS LATEST REVISIONS.
- DESIGN CRITERIA:
DESIGN LIVE LOAD FOR NEW SUPERSTRUCTURE: MS22.5
SEISMIC PERFORMANCE CATEGORY: A
INCLUDES 1.82 KN/M LOAD FOR FUTURE UTILITIES
- THE FOLLOWING MATERIAL CRITERIA, DESIGNATIONS AND UNIT WEIGHTS APPLY TO THESE PLANS FOR DESIGN PURPOSES:

STRUCTURAL STEEL: AASHTO M 270M GRADE 345W
AASHTO M 270M GRADE HPS 485W
REINFORCING STEEL: AASHTO M 31M GRADE 420 (PLAIN AND EPOXY COATED)
ASTM A955M GRADE 420 (SOLID STAINLESS)
UNIT WEIGHT OF SOIL: 2243 kg/m3
- STANDARD DRAWINGS ARE IN ENGLISH UNITS.

GENERAL TRAFFIC CONTROL NOTES

- TRAFFIC ON BRIDGE STREET SHALL BE MAINTAINED ON THE EXISTING ROADWAY DURING THE PROPOSED WATERLINE AND SANITARY SEWER CONSTRUCTION. ALTERNATING ONE WAY TRAFFIC WITH FLAGGER CONTROL SHALL BE UTILIZED DURING CONSTRUCTION. TRAFFIC MUST BE RETURNED TO TWO LANE TWO WAY OPERATION AT THE CLOSE OF DAILY CONSTRUCTION ACTIVITIES.
- ALL TEMPORARY TRAFFIC LANES SHALL BE A MINIMUM OF 3.6M IN WIDTH.
- ACCESS TO EXISTING DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES. SEE LAYOUT SHEETS FOR EXISTING DRIVEWAY LOCATIONS. NOTE THAT THE SEWER PLANT AND POWER PLANT DRIVEWAYS HAVE BEEN ABANDONED.
- FLAGGERS SHALL BE UTILIZED AT THE CONSTRUCTION ENTRANCE ON BISHOP MARSHALL DRIVE TO ASSIST CONSTRUCTION VEHICLES ACCESSING THE SCHOOL DRIVEWAY DURING SCHOOL HOURS OR AS DIRECTED BY THE RESIDENT ENGINEER.
- FLAGGERS SHALL BE UTILIZED AT THE CONSTRUCTION ENTRANCE ON BRIDGE STREET TO ASSIST CONSTRUCTION VEHICLES ACCESSING THE ROADWAY DURING PEAK TRAFFIC HOURS AS DIRECTED BY THE RESIDENT ENGINEER.
- CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN FOR REVIEW AND APPROVAL PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL, A SITE SPECIFIC TRAFFIC CONTROL PLAN AT LEAST 30 DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION. THE TRAFFIC CONTROL PLAN SHALL INCLUDE ALL PROPOSED SIGNAGE AND SHALL COMPLY WITH THE LATEST VERSION OF THE MUTCD.
- IT IS NOT THE INTENTION OF THIS PHASE OF THE CONSTRUCTION TO ALLOW THE VEHICLE TRAFFIC TO UTILIZE THE ROADWAY OR BRIDGE STRUCTURE. THEREFORE IF THE NEXT PHASE OF CONSTRUCTION HAS NOT STARTED PRIOR TO THE END OF THE CONSTRUCTION ON THIS PHASE, THE CONTRACTOR SHALL MAKE THE PROVISIONS TO PREVENT THE TRAVELING PUBLIC FROM UTILIZING THE ROADWAY OR BRIDGE STRUCTURE. AT A MINIMUM THIS SHALL INCLUDE POSTING "BRIDGE CLOSED" SIGNS AND PROVIDE IMMOVABLE BARRIERS AT THE PROJECT LIMITS.
- THE CONTRACTOR SHALL BE AWARE THAT THE USE OF THE BISHOP MARSHALL SCHOOL DRIVEWAY FOR CONSTRUCTION ACCESS MAY BE RESTRICTED DURING THE MORNING STUDENT DROP-OFFS AND AFTERNOON STUDENT PICK-UP TIMES AND DURING SPECIAL EVENTS AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL COORDINATE THE USE OF BISHOP MARSHALL SCHOOL DRIVEWAY WITH THE ENGINEER. IN ADDITION, THE CONTRACTOR WILL BE REQUIRED TO PROVIDE SAFE ACCESS TO PEDESTRIAN TRAFFIC ALONG THE BISHOP MARSHALL SCHOOL DRIVEWAY ADJACENT TO THE PROJECT AREA.

CONSTRUCTION NOTES

- THE CONTRACTOR SHALL CALL "DIG-SAFE" (1-888-344-7233) PRIOR TO PERFORMING ANY EXCAVATION, IN ACCORDANCE WITH "DIG-SAFE'S" RULES OF NOTIFICATION. LOCAL UTILITY OWNERS NOT SUBSCRIBED TO DIG SAFE SHALL ALSO BE MADE AWARE.
- ITEM 204.25, STRUCTURE EXCAVATION SHALL BE USED TO EXCAVATE TO THE LIMITS SHOWN ON THE PLANS UNLESS NOTED OTHERWISE. SEE EARTHWORK TYPICALS ON SHEETS 6 & 7 AND RETAINING WALL SHEETS 56 - 63.

- THE BRIDGE PLAQUE SHALL BE FURNISHED BY THE AGENCY OF TRANSPORTATION AND SHALL BE INSTALLED BY THE CONTRACTOR AS SHOWN ON SHEET 91, ALL COSTS SHALL BE INCLUDED IN ITEM 501.34, CONCRETE HIGH PERFORMANCE CLASS B.
- GRUBBING MATERIAL SHALL NOT BE PLACED ON THE STONE FILL IN THE AREA UNDER THE BRIDGE.
- STAY-IN-PLACE CORRUGATED METAL FORMS (SIPCMF) FOR SUPERSTRUCTURE DECK SLAB MAY BE USED ON THIS PROJECT.
- FOR PROJECT PERMITTING PURPOSES, WATERWAY IMPACT AREAS TO FACILITATE TEMPORARY ACCESS ROAD AND TEMPORARY SHORING FOR BRIDGE CONSTRUCTION HAVE BEEN ESTIMATED AND ARE SHOWN ON LAYOUT SHEET-2, SHEET 20. SHORING COST SHALL BE INCLUDED IN ITEM 506.55, STRUCTURAL STEEL (PLATE GIRDER).
- MARKER POSTS SHALL BE PLACED AS INDICATED OR AS DIRECTED BY THE ENGINEER.
- SLOPE ROUNDING: ALL CUT SLOPES TO BE ROUNDED IN ACCORDANCE WITH STANDARD DRAWING B-5.
- PAY LIMITS OF SAND BORROW: WHEN USED IN CONJUNCTION WITH UNDERDRAIN, SEE STANDARD DRAWING D-30.
- IT IS NOT THE INTENT OF THIS PHASE OF THE CONSTRUCTION TO INSTALL THE TOP LAYER OF PAVEMENT AND ALLOW VEHICLES TO USE THE COMPLETED BRIDGE STRUCTURE.
- ALL COMPONENTS FOR ITEM 620.12 CHAIN-LINK FENCE, 1.8m VINYL COATED AND ITEM 620.21 BRACING ASSEMBLY FOR CHAIN-LINK FENCE, 1.8m VINYL COATED NEED TO BE COLORED GREEN.

STRUCTURAL STEEL NOTES (SEE SHEETS 73 - 80)

- NEW STRUCTURAL STEEL SHALL BE AASHTO M 270M, GRADE 345W AND AASHTO M 270M, GRADE HPS 485W AS NOTED.
- ITEM 506.55, STRUCTURAL STEEL (PLATE GIRDER), SHALL INCLUDE ALL FABRICATED STRUCTURAL STEEL NOT LISTED IN ITEM 900.635, SPECIAL PROVISION (HIGH PERFORMANCE STEEL, GRADE 485W).
- ITEM 900.635, SPECIAL PROVISION (HIGH PERFORMANCE STEEL, GRADE 485W), SHALL INCLUDE WEB PLATES, TOP AND BOTTOM FLANGE PLATES DESIGNATED AASHTO M270M, GRADE HPS 485W, ALL INTERMEDIATE STIFFENERS AND WELD TESTING AS SPECIFIED ON SHEETS 74 AND 75.
- ALL BOLTED FIELD CONNECTIONS SHALL BE MADE WITH 22 MILLIMETER DIAMETER A325 HIGH STRENGTH BOLTS IN 24 MILLIMETER DIAMETER HOLES UNLESS OTHERWISE NOTED.
- SHEAR STUD CONNECTORS SHALL BE FIELD WELDED IN ACCORDANCE WITH THE LATEST EDITION OF AWS D1.5 AND SHALL BE PAID UNDER ITEM 508.15, SHEAR CONNECTORS.
- IF FRAMES CANNOT BE SHIPPED IN THE LENGTHS SHOWN ON THE PLANS, FIELD SPlice(S) WILL BE PERMITTED AT THE REQUEST OF THE CONTRACTOR. REQUESTS FOR ALTERNATE SPlice LOCATIONS SHOULD BE FORWARDED TO THE STRUCTURES ENGINEER FOR REVIEW. ALTERNATE FIELD SPlice DESIGN LOADS TO BE PROVIDED TO THE CONTRACTOR. ALTERNATE FIELD SPlices SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF VERMONT AND DETAILED BY THE FABRICATOR AND SUBMITTED TO THE STRUCTURES ENGINEER FOR APPROVAL. NO COMPENSATION WILL BE ALLOWED FOR SPlices.
- THE STABILITY OF PARTIAL FRAMES AND COMPLETE FRAMES SHALL BE MAINTAINED BY THE CONTRACTOR DURING ERECTION, UNTIL ALL FRAMES AND DIAPHRAGMS ARE IN PLACE AND ALL BOLTS ARE PROPERLY INSTALLED. A DETAILED ERECTION PLAN SHALL BE SUBMITTED TO THE STRUCTURES ENGINEER FOR REVIEW. THE PLAN SHALL DETAIL THE ERECTION LOADS INCLUDING, BUT NOT LIMITED TO, SELF WEIGHT OF THE STEEL MEMBERS, WIND LOADING AND CONSTRUCTION LIVE LOAD. LOADS ARE TO BE EVALUATED BY THE CONTRACTOR FOR STABILITY, STRESSES AND DEFLECTION ON THE STEEL MEMBERS DURING ALL STAGES OF ERECTION. SLANT LEG FOUNDATION ANCHOR BOLTS SHALL NOT BE ALLOWED TO GO INTO TENSION DURING ANY STAGE OF ERECTION.
- AFTER THE SUPERSTRUCTURE STEEL HAS BEEN ERECTED, ELEVATIONS ALONG THE TOP OF THE FRAME SHALL BE TAKEN, AS DIRECTED BY THE ENGINEER, FOR USE IN DETERMINING THE FINAL GRADE AND HAUNCH DEPTHS. COST SHALL BE INCLUDED IN ITEM 506.55.
- PROVIDE CHARPY V-NOTCH TESTING CONFORMING TO SECTION 714.
- THE ENDS OF FRAMES AT THE ABUTMENTS SHALL BE VERTICAL UNDER FULL DEAD LOAD DEFLECTION.
- A CLASS B CONTACT SURFACE IS REQUIRED AT ALL BOLTED FIELD SPlice CONNECTIONS.
- ALL STRUCTURAL STEEL WITHIN 3050 MILLIMETERS OF THE END OF FRAMES AT BOTH ABUTMENTS AND 1850 mm WITHIN THE ENDS OF THE LEGS AT BOTH FOUNDATIONS ALONG WITH TOP SURFACE OF STEEL BEARING ASSEMBLIES SHALL BE PAINTED BROWN, COLOR CHIP 20059. ALL COSTS WILL BE INCLUDED IN THE SECTION 513 CONTRACT ITEMS.
- IF 7/8" DIA. BOLTS ARE ALLOWED BY THE AGENCY IN LIEU OF 22 MILLIMETER DIA. THEN THE HOLES SHALL BE 15/16" DIA.
- WELDING OF SHEAR CONNECTORS TO FLANGE SPlice PLATES IS NOT PERMITTED.

REINFORCING STEEL NOTES

- REINFORCING STEEL IN THE DECK, BACKWALL, APPROACH SLABS, AND BRUSH CURBS SHALL BE EPOXY COATED AND PAID AS ITEM 507.17, EPOXY COATED REINFORCING STEEL. REINFORCING STEEL DOWELS INTO LEDGE AT SLANT LEG FOUNDATIONS SHALL BE STAINLESS STEEL AND PAID AS ITEM 900.635 SPECIAL PROVISION (STAINLESS STEEL REINFORCING). ALL OTHER REINFORCING STEEL SHALL BE PAID AS ITEM 507.15, REINFORCING STEEL.
- DRILLING AND GROUTING DOWELS SHALL BE PAID AS ITEM 507.16, DRILLING AND GROUTING DOWELS. ALL DRILLED HOLES SHALL HAVE A MINIMUM OF 150 MILLIMETERS CLEAR COVER.
- MINIMUM CLEAR COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

ALONG BACK FACES OF WALLS AGAINST EARTH: FIFTY (50) MILLIMETERS
ALONG TOP SURFACE OF DECK SLAB: SIXTY-FIVE (65) MILLIMETERS
ALONG BOTTOM SURFACE OF DECK SLAB: FORTY (40) MILLIMETERS
ELSEWHERE UNLESS OTHERWISE INDICATED: EIGHTY (80) MILLIMETERS
- REINFORCING STEEL PLACEMENT TOLERANCES SHALL BE:

SPACING: +/- 25 MILLIMETERS
CLEARANCE: +/- 5 MILLIMETERS
- WELDING OF REINFORCEMENT BARS DURING FABRICATION OR CONSTRUCTION IS NOT PERMITTED UNLESS SPECIFIED.

CONCRETE NOTES

- CONCRETE PAYMENT AND CLASSIFICATION SHALL BE AS FOLLOWS:

ITEM 900.608, SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, CLASS AA LOW CEMENT): DECK, CURBS AND WINGWALL CURBS
ITEM 501.34, CONCRETE, HIGH PERFORMANCE CLASS B: ABUTMENTS AND SLANTLEG FOUNDATIONS
ITEM 541.30, CONCRETE, CLASS C: NORTH SLANT LEG FOOTING
- ITEM 514.10, WATER REPELLENT, SILANE SHALL BE APPLIED TO ALL EXPOSED CONCRETE ON BRIDGE SUPERSTRUCTURE EXCEPT THE BOTTOM OF THE DECK BETWEEN THE DRIP NOTCHES. WATER REPELLENT SHALL ALSO BE APPLIED TO THE EXPOSED CONCRETE ON SUBSTRUCTURES.
- ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 25 MILLIMETERS BY 25 MILLIMETERS, UNLESS OTHERWISE NOTED. A 15 MILLIMETER RADIUS SHALL BE USED ON THE TOP INSIDE CORNER OF CURBS.
- JOINTS AND SCORE MARKS IN CONCRETE SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- PAYMENT FOR WATERSTOPS SHALL BE INCLUDED IN ITEM 501.34, CONCRETE HIGH PERFORMANCE CLASS B. OTHER CONFIGURATIONS THAN THOSE SHOWN MAY BE USED UPON APPROVAL OF THE ENGINEER.
- SEE SHEET 71 FOR DECK PLACEMENT SEQUENCE AND NOTES.

FOUNDATION NOTES (SEE SHEETS 88 TO 93)

- THE SOILS AND FOUNDATIONS ENGINEER SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO DRILLING AND GROUTING AND PLACEMENT OF CONCRETE TO VERIFY COMPETENT BEDROCK HAS BEEN REACHED.
- SLANT LEG FOUNDATION PEDESTAL DETAILS SHOWN ON THE PLANS REPRESENT THE FINAL MINIMUM DIMENSIONS PERMITTED AFTER ALL DEAD LOAD HAS BEEN APPLIED. THE CONTRACTOR IS PERMITTED TO DEVELOP AN ALTERNATIVE PEDESTAL SCHEME THAT SATISFIES THESE DIMENSION REQUIREMENTS IN ORDER TO FACILITATE HIS/HER ERECTION PLAN.
- THE CONTRACTOR'S PLAN TO CONSTRUCT PEDESTALS AND PLACE STEEL BEARING ASSEMBLIES SHALL BE SUBMITTED IN CONJUNCTION WITH THE ERECTION PLAN FOR REVIEW CONFORMING TO SECTION 506.
- FIELD VERIFICATION OF APPROVED PEDESTAL ELEVATIONS BY THE RESIDENT ENGINEER IS REQUIRED PRIOR TO ERECTION OF THE STEEL.
- THE HP 310x79 SHALL BE DRIVEN TO LEDGE AND SHALL ATTAIN AN ULTIMATE PILE CAPACITY OF 1400 KN. A MINIMUM OF ONE DYNAMIC PILE LOADING TEST SHALL BE CONDUCTED FOR EACH ABUTMENT.
- SEE SPECIAL PROVISIONS FOR BLASTING AND ROCK EXCAVATION REQUIREMENTS.
- ALL PILES SHALL HAVE PILE POINTS. THE PILE SHOES SHALL BE CAST STEEL POINTS.

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PROJECT NOTES SHEET #1			