

GENERAL NOTES

- US ROUTE 5 ROADWAY, ACCESS ROADS, AND GENERAL SITE GRADING WORK IS SHOWN IN THIS PLAN SET FOR REFERENCE ONLY, DETAILS WILL BE PROVIDED IN WP 3.3.2.2.
- WACR RAILROAD WORK IS SHOWN IN THIS PLAN SET FOR REFERENCE ONLY, DETAILS WILL BE PROVIDED IN WP 3.3.2.1.

FOUNDATION AND BACKFILL NOTES

- EXCAVATION AND BACKFILL WILL BE IN ACCORDANCE WITH SECTION 204 OF THE SPECIFICATIONS, AND THE BACKFILL AND COMPACTION DIAGRAM ON SHEET 13 OF THESE PLANS.
- FOOTINGS WILL BE CONSTRUCTED ON UNDISTURBED NATURAL SUBSOIL, EXCEPT FOR THE US 5 OUTLET AND WACR INLET WINGWALLS (WW #3, 4, 5, AND 6), WHICH WILL BE CONSTRUCTED ON A 1'-0" LAYER OF SPECIAL PROVISION (COARSE AGGREGATE BACKFILL), AS SHOWN. THE GEOTECHNICAL AND STRUCTURES ENGINEERS OF THE DESIGN-BUILD TEAM WILL REVIEW THE SUBGRADE PRIOR TO CONSTRUCTION OF THE FOOTINGS.
- MEASURES TO MINIMIZE DISTURBANCE OF SUBGRADE INCLUDE EXCAVATING THE LAST 6 IN. TO 12 IN. WITH A SMOOTH BLADED BUCKET IMMEDIATELY PRIOR TO PLACING FOOTING REINFORCING AND CONCRETE. LIMIT THE TIME THAT THE FINAL FOOTING SUBGRADE WILL REMAIN OPEN OR EXPOSED TO SIGNIFICANT PRECIPITATION (> 0.3 IN.). UTILIZE SUMPS OR OTHER FORMS OF DEWATERING TO KEEP THE WATER LEVEL BELOW THE FOOTING SUBGRADE UNTIL THE FOOTING CONCRETE IS IN PLACE.
- NATURAL SUBSOIL MATERIAL WHICH HAS BEEN DISTURBED OR HAS BEEN DETERMINED TO BE UNSUITABLE WILL BE REMOVED AND REPLACED WITH A 1'-0" MIN. DEPTH OF COMPACTED COARSE AGGREGATE FOR CONCRETE, MEETING THE REQUIREMENTS OF TABLE 704.02B OF THE SPECIFICATIONS. GEOTEXTILE FOR ROADBED SEPARATOR, MEETING THE REQUIREMENTS OF SUBSECTION 720, EXCEPT NON-WOVEN, WILL BE PLACED UNDER THE COARSE AGGREGATE FOR CONCRETE WHERE USED BELOW FOOTINGS.
- SOIL UNIT WEIGHTS ARE AS FOLLOWS:

A. GRANULAR BORROW	138 PCF
B. EXCAVATED FILL (TO BE USED AS EARTH BORROW)	129 PCF
- SUBSURFACE INFORMATION IS AVAILABLE IN WP 3.2.2 PART 2 - GEOTECHNICAL DATA REPORT (REV. 1).
- DURING THE BACKFILL AND COMPACTION PROCESS, TIEBACK AND SOIL NAIL NUTS AND PLATES WILL BE REMOVED AND ENDS WILL BE CUT TO FACILITATE FUTURE REMOVAL OF SHEET PILES. DETAILS TO BE PROVIDED IN WP 5.2.6.2, 5.2.6.3, 5.2.6.4, AND WP 5.3.7.2, 5.3.7.3, 5.3.7.4.
- WHEN BACKFILLING BEHIND PEDESTAL WALLS AND BURIED STRUCTURES, OPERATIONS WILL PROGRESS IN A MANNER SYMMETRICAL ABOUT THE CENTERLINE OF STRUCTURES, SUCH THAT THERE IS NOT MORE THAN A BACKFILL ELEVATION DIFFERENCE OF 3.3' FOR THE STEM WALLS, 4.8' FOR THE CHANNEL WALLS AND 4.0' FOR THE ARCH BETWEEN OPPOSING SIDES OF THE STRUCTURES.
- BACKFILL OF CHANNEL MATERIAL ON THE INSIDE OF PEDESTAL WALLS WILL PROGRESS AS BACKFILL IS PLACED ON THE OUTSIDE OF PEDESTAL WALLS. BACKFILL WILL BE PLACED ON THE INSIDE OF THE PEDESTAL WALLS, UP TO THE CHANNEL INVERT ELEVATION AND ON THE OUTSIDE OF PEDESTAL WALLS, UP TO 1'-0" BELOW THE TOP OF PEDESTAL WALL, PRIOR TO BURIED STRUCTURE CONSTRUCTION.
- THE MAXIMUM SIZE OF STONE PARTICLES IN THE GRANULAR BORROW BACKFILL WILL NOT EXCEED 3", WITHIN 2'-0" OF THE STRUCTURE.

STRUCTURE NOTES

- CONCRETE WILL CONFORM TO SECTION 501 OF THE SPECIFICATIONS AND BE AS FOLLOWS:
 - ALL PORTIONS OF THE PEDESTAL WALLS, CHANNEL WALLS, AND WINGWALLS FOOTINGS AND STEMS WILL BE "CONCRETE, HIGH PERFORMANCE CLASS B" WITH A 28-DAY COMPRESSIVE STRENGTH OF 3,500 PSI.
 - ALL PORTIONS OF THE BURIED STRUCTURES AND HEADWALLS WILL BE "CONCRETE, HIGH PERFORMANCE CLASS A (MOD.)" WITH A 28-DAY COMPRESSIVE STRENGTH OF 5,000 PSI.
 CALCIUM NITRITE BASED CORROSION INHIBITING ADMIXTURE WILL BE USED IN ALL CAST-IN-PLACE CONCRETE.
- REINFORCING STEEL WILL CONFORM TO SECTION 507 OF THE SPECIFICATIONS AND BE AS FOLLOWS:
 - THE REINFORCING STEEL IN THE HEADWALLS, WINGWALL STEMS, AND CHANNEL WALL STEMS WILL BE DUAL-COATED OR STAINLESS CLAD (LEVEL II).
 - ALL OTHER REINFORCING STEEL WILL BE PLAIN, UNCOATED (LEVEL I).
- ALL REINFORCING STEEL FOR EACH DESIGNATED LEVEL WILL BE THE SAME TYPE. SOLID STAINLESS REINFORCING STEEL (LEVEL III) MAY BE SUBSTITUTED FOR LEVEL II, PROVIDED ALL OF THE LEVEL II REINFORCING STEEL IS SUBSTITUTED.
- ALL REINFORCING STEEL WILL BE DETAILED AND FABRICATED USING PROCEDURES AND TOLERANCES IN ACCORDANCE WITH APPLICABLE PUBLICATIONS OF THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI). FABRICATION DRAWINGS WILL BE SUBMITTED WITH WP 4.1.1.1, 4.1.1.2, 4.1.1.3, AND 4.1.1.4. FABRICATION DRAWINGS WILL DETAIL BAR BENDS, LENGTHS, AND QUANTITIES, BASED ON INFORMATION PROVIDED IN THESE DRAWINGS. ALL HOOKS ARE STANDARD 90 OR 180 DEGREE HOOKS, UNLESS OTHERWISE NOTED. ADDITIONAL TEST BARS WILL BE DESIGNATED AND SUPPLIED IN ACCORDANCE WITH THE VERMONT AGENCY OF TRANSPORTATION'S MATERIALS SAMPLING MANUAL.
- MINIMUM COVER FOR REINFORCING STEEL WILL BE AS FOLLOWS:

A. FOOTINGS CAST AGAINST EARTH	3.0 IN.
B. WALL FACES	2.0 IN.
C. BURIED STRUCTURES AND HEADWALLS	2.0 IN.
- SHEET MEMBRANE WATERPROOFING, TORCH APPLIED WILL BE APPLIED OVER THE ENTIRE BURIED SURFACES OF THE US 5 AND WACR BURIED STRUCTURES, INCLUDING OVER THE BURIED SURFACES OF THE HEADWALLS. THE MEMBRANE WILL EXTEND UP THE BACK FACES OF THE HEADWALLS TO 6" BELOW FINISHED GRADE AND WILL BE SEALED AT THE TOP PER MANUFACTURER'S RECOMMENDATIONS. THE MEMBRANE WILL EXTEND A MIN. OF 1'-0" BELOW THE BURIED STRUCTURE/PEDESTAL WALL JOINT. SHEET MEMBRANE WATERPROOFING, TORCH APPLIED WILL MEET THE REQUIREMENTS OF SECTION 519 OF THE SPECIFICATIONS, EXCEPT THAT ABRASIVE BLAST CLEANING CAN BE OMITTED. THE MEMBRANE WILL BE APPLIED IN A SHINGLED PATTERN SO THAT WATER IS PERMITTED TO DRAIN OFF THE STRUCTURE. SIDE LAP JOINTS WILL BE A MINIMUM OF 3" AND END LAP JOINTS WILL BE A MINIMUM OF 6", OR PER THE MANUFACTURER'S RECOMMENDATIONS.
- GEOTEXTILE FOR ROADBED SEPARATOR, MEETING THE REQUIREMENTS OF SECTION 649 OF THE SPECIFICATIONS, WILL BE PLACED OVER MEMBRANE FOR PROTECTION. MATERIAL FOR GEOTEXTILE WILL MEET THE REQUIREMENTS OF SECTION 720 OF THE SPECIFICATIONS, EXCEPT WILL BE A 16 OZ. WEIGHT, NON-WOVEN TYPE. GEOTEXTILE WILL BE LAPPED A MINIMUM OF 12".
- WATER REPELLENT, SILANE, CONFORMING TO SECTION 514 OF THE SPECIFICATIONS, WILL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES INCLUDING THE UNDERSIDES OF THE BURIED STRUCTURES, PRIOR TO PLACING THE STREAM THROUGH THE STRUCTURES.
- ALL EXPOSED EDGES OF CONCRETE COMPONENTS SHALL BE CHAMFERED 1" X 1".

STRUCTURE NOTES (CONTINUED)

- CONSTRUCTION AND EXPANSION JOINTS WILL BE CONSTRUCTED AS SHOWN IN THE PLANS, OR AS REFERENCED TO IN SD-501.00. WATERSTOPS, AS DETAILED IN SD-501.00, FOR CONSTRUCTION OR EXPANSION JOINTS AS APPROPRIATE, WILL BE USED ON THE BACKFACE OF ALL JOINTS, EXCEPT AS NOTED FOR THE BURIED STRUCTURE JOINTS. EXPANDING CONCRETE JOINT (HYDROPHILIC) WATERSTOPS WILL BE USED WHERE INDICATED. EXPANDING CONCRETE JOINT WATERSTOPS WILL BE WATERSTOP RX-101, AND WILL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.
- MECHANICAL BAR CONNECTORS WILL BE USED AT ALL VERTICAL CONSTRUCTION JOINTS, BURIED STRUCTURE JOINTS, AND OTHER LOCATIONS AS NOTED. MECHANICAL BAR CONNECTORS WITHIN A COMPONENT WITH DUAL-COATED REINFORCING STEEL WILL BE EPOXY COATED.
- FORMLINER WILL BE USED IN LOCATIONS SHOWN ON THE PLANS AND WILL BE A DRY-STACKED STONE PATTERN. SPECIFIC FORMLINER DETAILS WILL BE SUBMITTED WITH THE APPROPRIATE WORK PACKAGE (WP 5.2.5.4, 5.2.5.5, 5.2.5.6, AND WP 5.3.6.4, 5.3.6.5, 5.3.6.6). FORMLINER WILL BE EITHER GREENSTREAK NO. 328 - DRYSTACK RANDOM STONE, OR GREENSTREAK NO. 477 - MERAMEC DRYSTACK STONE, WITH MAXIMUM RECESS DEPTHS OF 1 1/2" AND 1 1/8" RESPECTIVELY. FORMS WILL BE ADJUSTED SUCH THAT THE SPECIFIED MINIMUM CLEAR COVER IS OBTAINED, ACCOUNTING FOR THESE RECESS DEPTHS.
- CONCRETE FOR THE PEDESTAL WALLS, CHANNEL WALLS, AND BURIED STRUCTURES WILL BE PLACED IN ALTERNATING SECTIONS BETWEEN THE CONSTRUCTION JOINTS AS INDICATED ON THESE PLANS. THERE WILL BE A MINIMUM OF A 72 HOUR DELAY BETWEEN ADJACENT CONCRETE PLACEMENTS.
- 4"Ø WEEP HOLES WILL BE CONSTRUCTED AS SHOWN ON PLANS. DRAINAGE AGGREGATE WRAPPED IN GEOTEXTILE FOR UNDERDRAIN TRENCH LINING WILL BE PLACED ON THE BACKSIDE OF ALL WEEP HOLES PER DETAIL ON SHEET 12.
- IT IS THE INTENT TO CONSTRUCT THE HEADWALLS PRIOR TO CONSTRUCTION OF THE BURIED STRUCTURES. DETAILS OF FORMING AND CONCRETE PLACEMENT FOR THE BURIED STRUCTURES WILL BE PROVIDED IN WP 5.2.5.3 AND 5.3.6.3.

PROJECT NAME: RYEGATE
PROJECT NUMBER: STP CULV(10)



FILE NAME: z06cl56strnotes.dgn
PROJECT LEADER: E. DETRICK
DESIGNED BY: R. BARNES
CULVERT NOTES

PLOT DATE: 3/23/16
DRAWN BY: R. BARNES
CHECKED BY: E. DETRICK
SHEET 6 OF 36