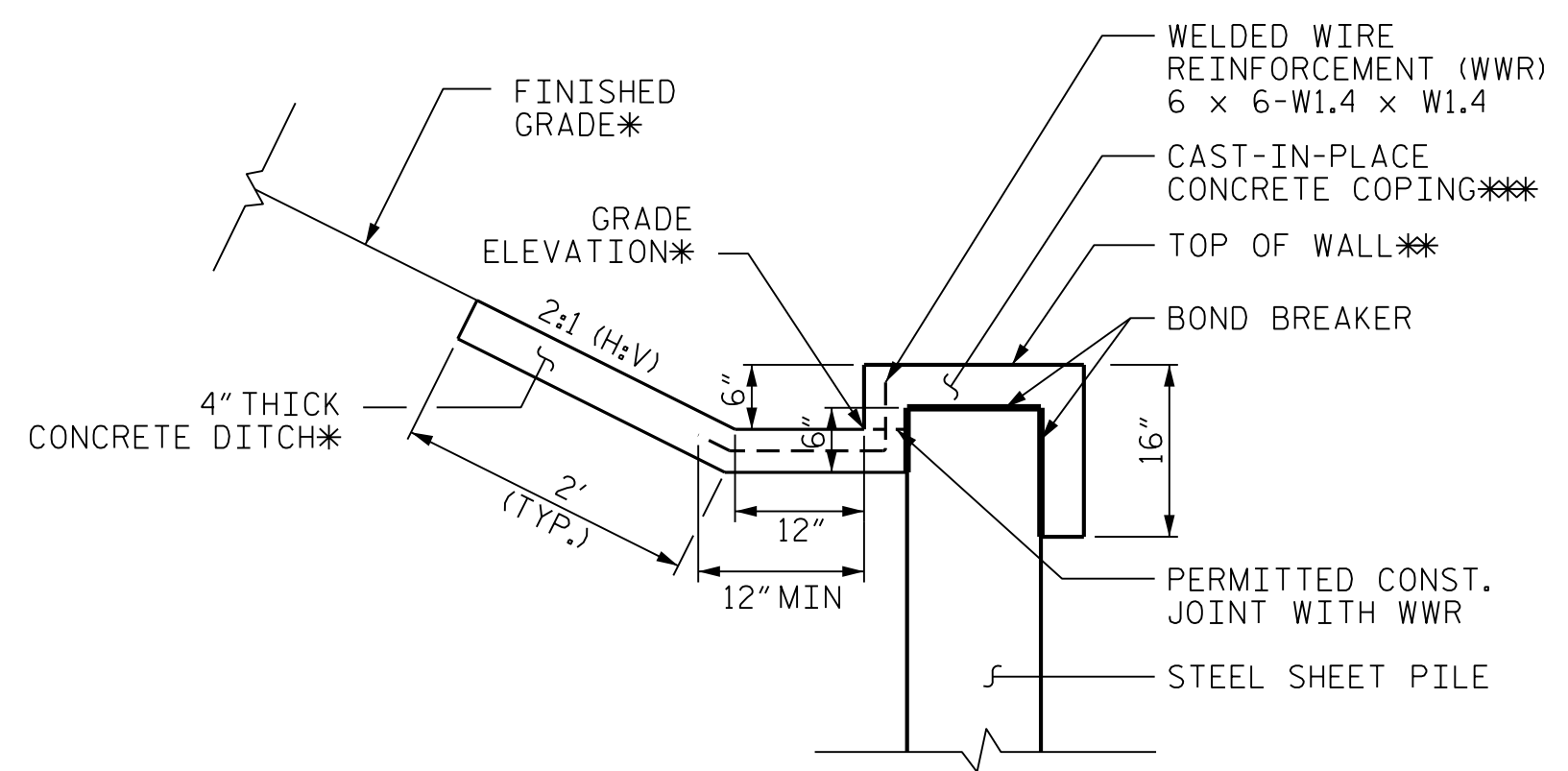


**SHEET PILE RETAINING WALL - TYPICAL SECTION**

\*SEE ROADWAY PLANS FOR FINISHED GRADE DETAILS.  
 \*\*SEE WALL ENVELOPES FOR TOP OF WALL AND BOTTOM OF WALL.  
 \*\*\*SEE CONCRETE DITCH WITH CONCRETE COPING DETAILS.  
 \*\*\*\*SEE STEEL SHEET PILE RETAINING WALLS SPECIAL PROVISION.



**CONCRETE DITCH WITH CONCRETE COPING DETAILS**

\*SEE ROADWAY PLANS FOR CONCRETE DITCH AND FINISHED GRADE DETAILS.  
 \*\*SEE WALL ENVELOPE FOR TOP OF WALL ELEVATIONS.  
 \*\*\*FOR CAST-IN-PLACE COPING REINFORCEMENT, SEE SHEET NO. C-17.

**NOTES:**

- FOR SHEET PILE RETAINING WALLS, SEE STEEL SHEET PILE RETAINING WALLS SPECIAL PROVISION.
- TIE RODS CONNECTED TO A DEADMAN SYSTEM ARE REQUIRED WHERE THE RATIO OF D/H (EMBEDMENT / DESIGN HEIGHT) IS LESS THAN 1.5.
- WHEN TIE RODS ARE INSTALLED, REMOVE ANY SAG IN RODS AND STRAIGHTEN RODS AS DIRECTED BY THE ENGINEER.
- OPERATION OF CONSTRUCTION EQUIPMENT OVER TIE RODS SHALL FOLLOW SECTION 300-7 OF STANDARD SPECIFICATIONS.
- FOR SHAPES, PLATES, TIE ROD ASSEMBLIES, BOLTS, NUTS, AND WASHERS, SEE STEEL SHEET PILE RETAINING WALLS SPECIAL PROVISION.
- BEFORE BEGINNING SHEET PILE RETAINING WALL DESIGN, SURVEY WALL LOCATION AND SUBMIT A REVISED WALL PROFILE VIEW (WALL ENVELOPE) FOR REVIEW. DO NOT START WALL DESIGN UNTIL THE REVISED WALL ENVELOPE IS ACCEPTED. DO NOT BEGIN WALL CONSTRUCTION UNTIL WALL DESIGN IS ACCEPTED BY THE ENGINEER.
- DESIGN RETAINING WALL NO.18 FOR THE FOLLOWING SOIL PARAMETERS:  
 1) IN-SITU ASSUMED MATERIAL PARAMETERS ABOVE ELEVATION 756± FT:  
 UNIT WEIGHT,  $\gamma = 120$  LB/CF  
 FRICTION ANGLE,  $f = 30$  DEGREES  
 COHESION,  $c = 0$  LB/SF  
 2) IN-SITU ASSUMED MATERIAL PARAMETERS BELOW ELEVATION 756± FT AND ABOVE 749± FT:  
 UNIT WEIGHT,  $\gamma = 120$  LB/CF  
 FRICTION ANGLE,  $f = 36$  DEGREES  
 COHESION,  $c = 0$  LB/SF  
 3) IN-SITU ASSUMED MATERIAL PARAMETERS BELOW ELEVATION 749± FT:  
 UNIT WEIGHT,  $\gamma = 120$  LB/CF  
 FRICTION ANGLE,  $f = 42$  DEGREES  
 COHESION,  $c = 0$  LB/SF
- CAST-IN-PLACE REINFORCED CONCRETE PAVED DITCH IS REQUIRED FOR STEEL SHEET PILE RETAINING WALLS. SEE SECTION 850 OF STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.

PREPARED BY: J. PARK	DATE: 06 / 2016
REVIEWED BY: J. BATTS	DATE: 06 / 2016

NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 GEOTECHNICAL  
 ENGINEERING UNIT

PROJECT NO.: U-2524D  
 GUILFORD COUNTY  
 STATION: -RPAY8- 6+35  
 SHEET 2 OF 2

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	
1	-	-	3	-	-	W-22
2	-	-	4	-	-	