
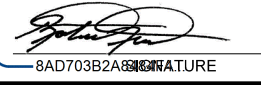
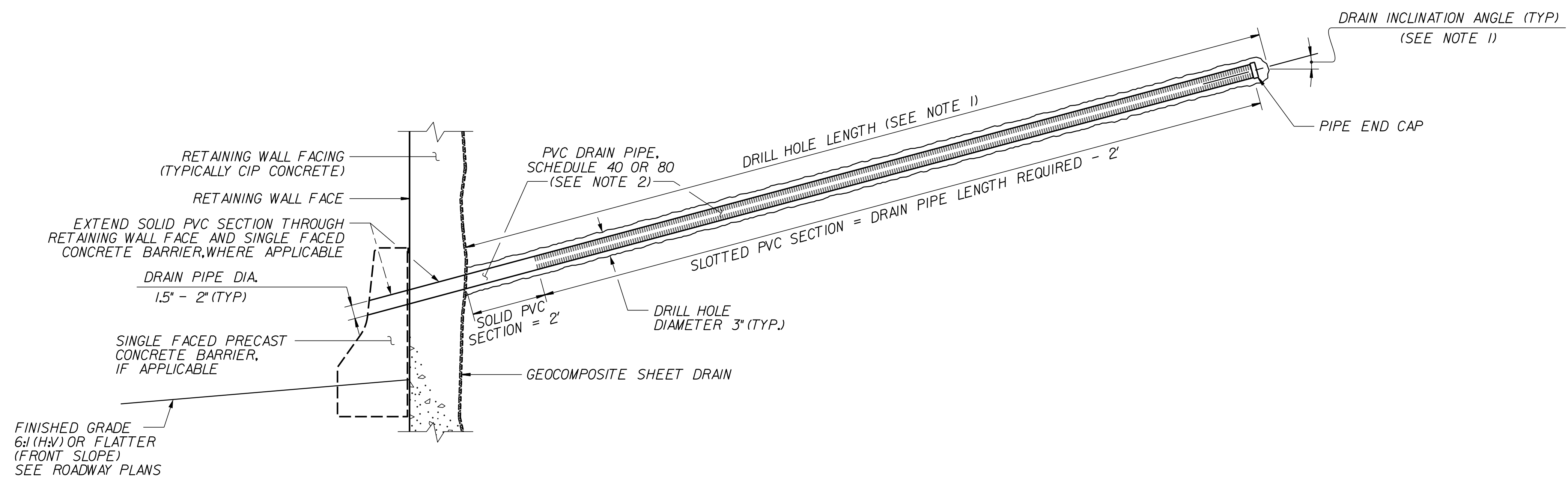
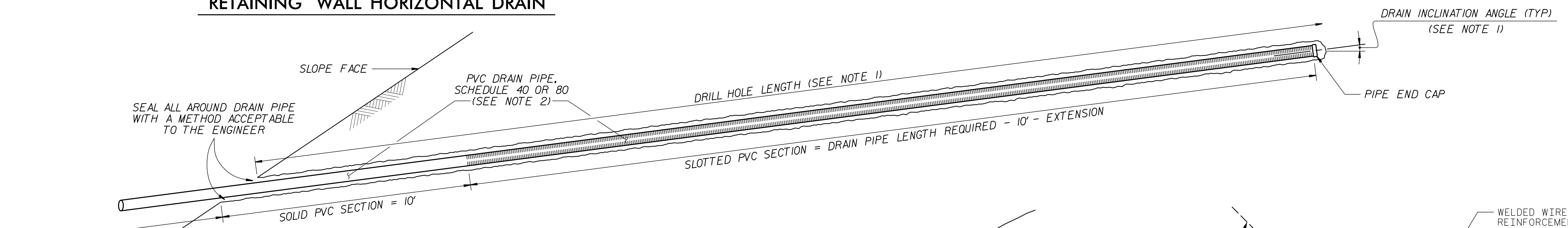


GEOTECHNICAL ENGINEER  SEAL 042642 ROBERT E. KRAL	ENGINEER SIGNATURE _____ DATE _____
DocuSigned by:  7/14/2022 DATE	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

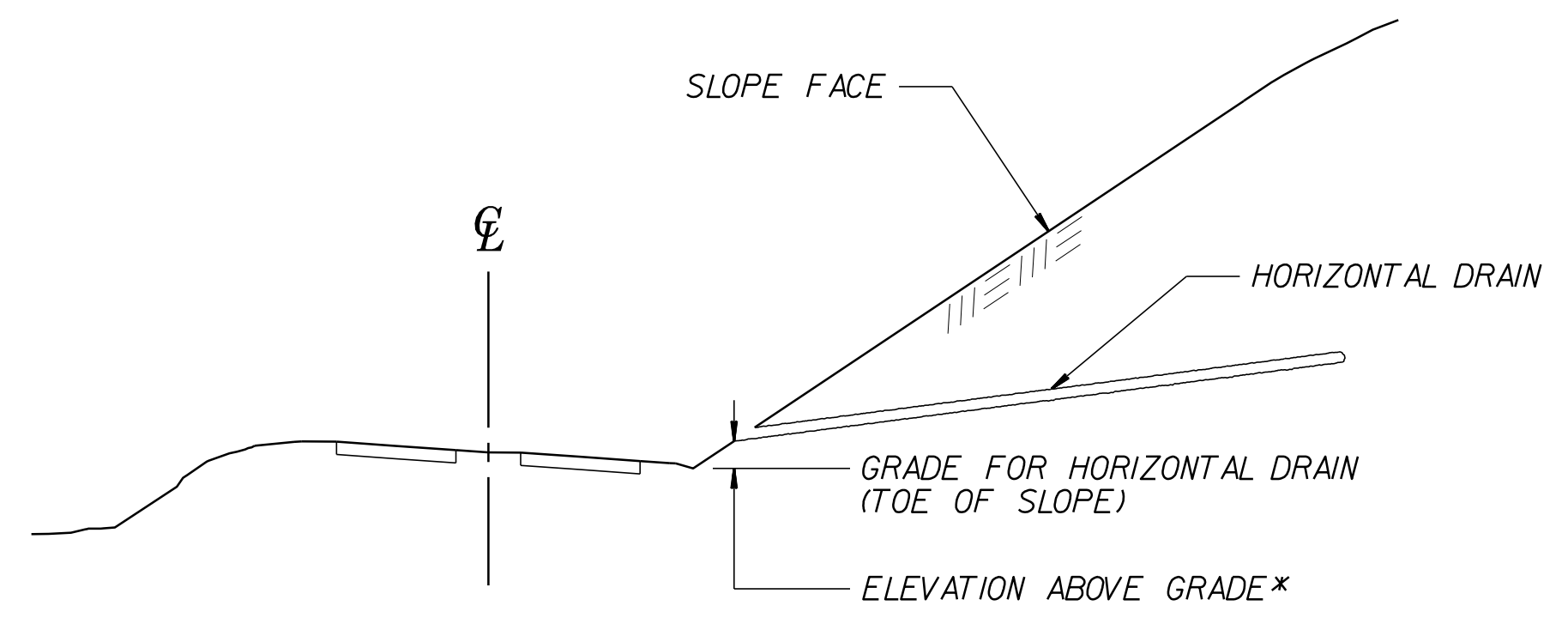


RETAINING WALL HORIZONTAL DRAIN

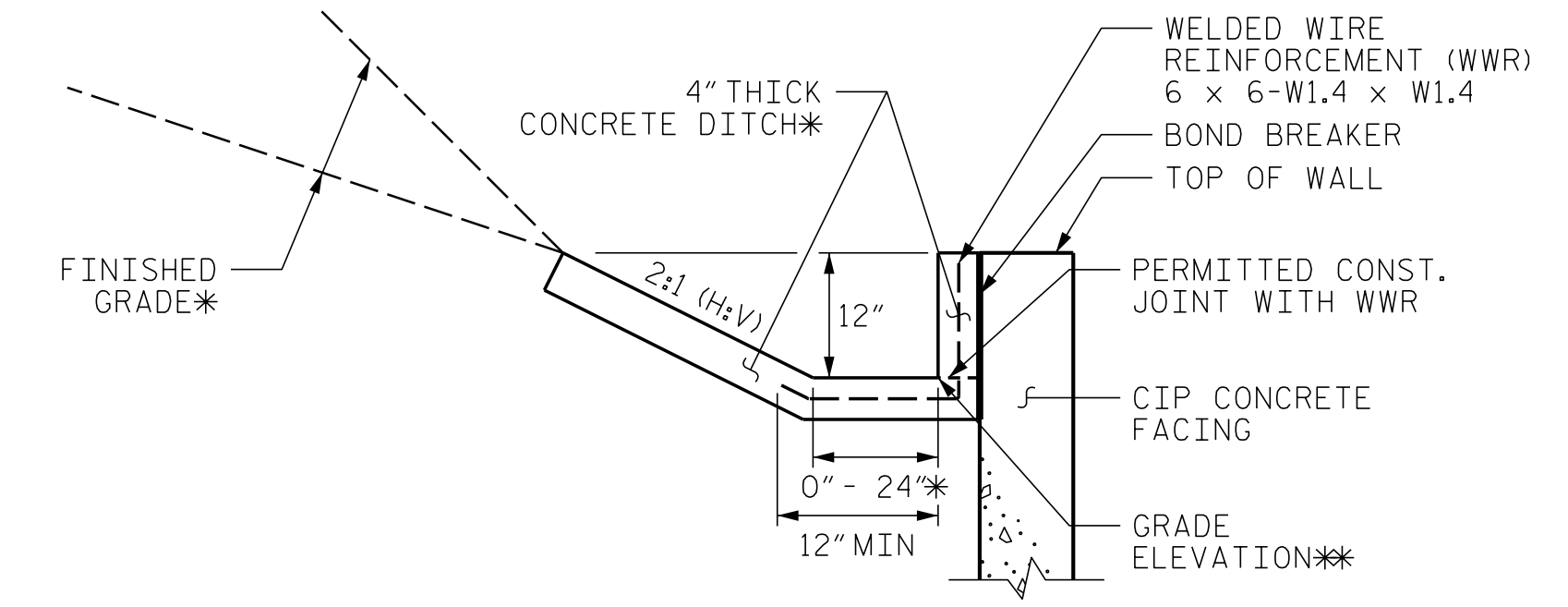


SLOPE HORIZONTAL DRAIN

***EXTEND SOLID PVC SECTION TO CONNECT PIPE TO A DRAINAGE SYSTEM OR DISCHARGE WATER AS DIRECTED**



**EXAMPLE CROSS-SECTION WITH SLOPE HORIZONTAL DRAIN
*SEE NOTE 1 FOR DRAIN ELEVATIONS ABOVE (OR BELOW) GRADE**



CONCRETE DITCH BEHIND WALL WITH CONCRETE FACING

*SEE ROADWAY PLANS FOR CONCRETE DITCH AND FINISHED GRADE DETAILS.
**SEE WALL ENVELOPE FOR GRADE ELEVATIONS.

NOTES:

- SEE ROADWAY SUMMARY SHEETS FOR APPROXIMATE KNOWN HORIZONTAL DRAIN LOCATIONS, ELEVATIONS, INCLINATION AND LENGTHS. ADDITIONAL DRAINS MAY BE REQUIRED AS DETERMINED BY THE ENGINEER.
- DRAIN PIPES MAY BE OMITTED FOR SOME HORIZONTAL DRAINS. SEE ROADWAY SUMMARY SHEETS FOR DRAIN PIPE REQUIREMENTS INCLUDING THOSE DRAINS WITHOUT PIPES.
- FOR HORIZONTAL DRAINS, SEE HORIZONTAL DRAINS SPECIAL PROVISION (GT-12).

PROJECT NO.: A-0009CB

GRAHAM COUNTY

RETAINING WALL #42: -L- 382+30, 59.5' RT TO 383+50, 65.6' RT

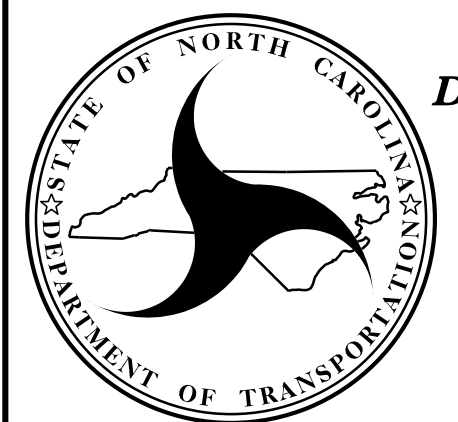
SHEET 3 OF 3

PREPARED BY: R. KRAL	DATE: 7/14/2022
REVIEWED BY: M. BREWER	DATE: 7/14/2022

Prepared in the Office of:



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GEOTECHNICAL
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CHARLOTTE, NC 28227
(980) 339-8684



**NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS**

**GEOTECHNICAL
ENGINEERING UNIT**

**RETAINING WALL #42
SOIL NAIL RETAINING WALL WITH
CAST-IN-PLACE CONCRETE FACE**

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	
1			3			W42-3
2			4			