

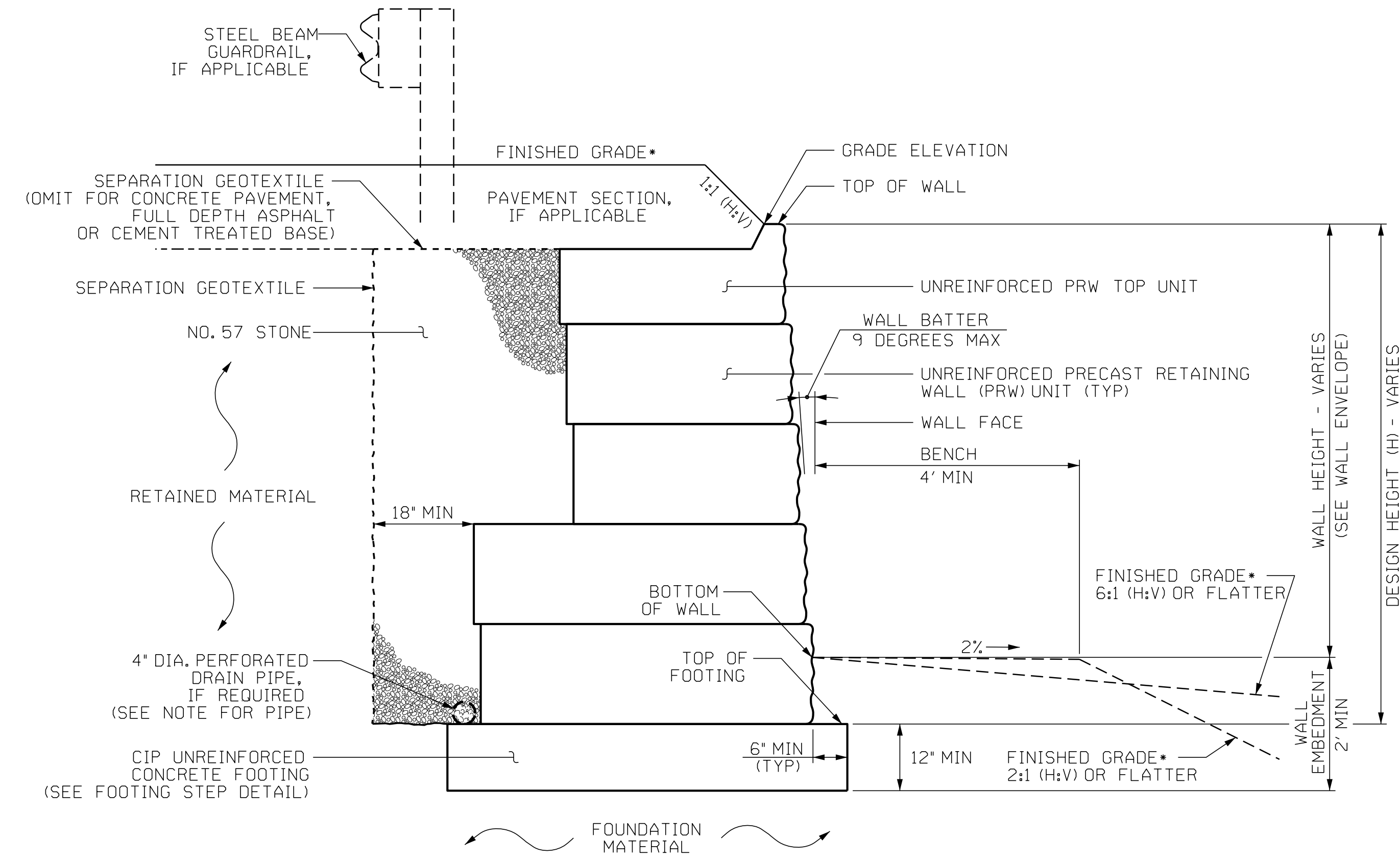
GEOTECHNICAL ENGINEER

ENGINEER

DocuSigned by:
Michael H. Stephens 08/18/2023

DATE: 08/18/2023

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**



**PRECAST GRAVITY WALL WITH
TOP PRW UNIT - TYPICAL SECTION**

*SEE ROADWAY PLANS FOR FINISHED GRADE DETAILS.

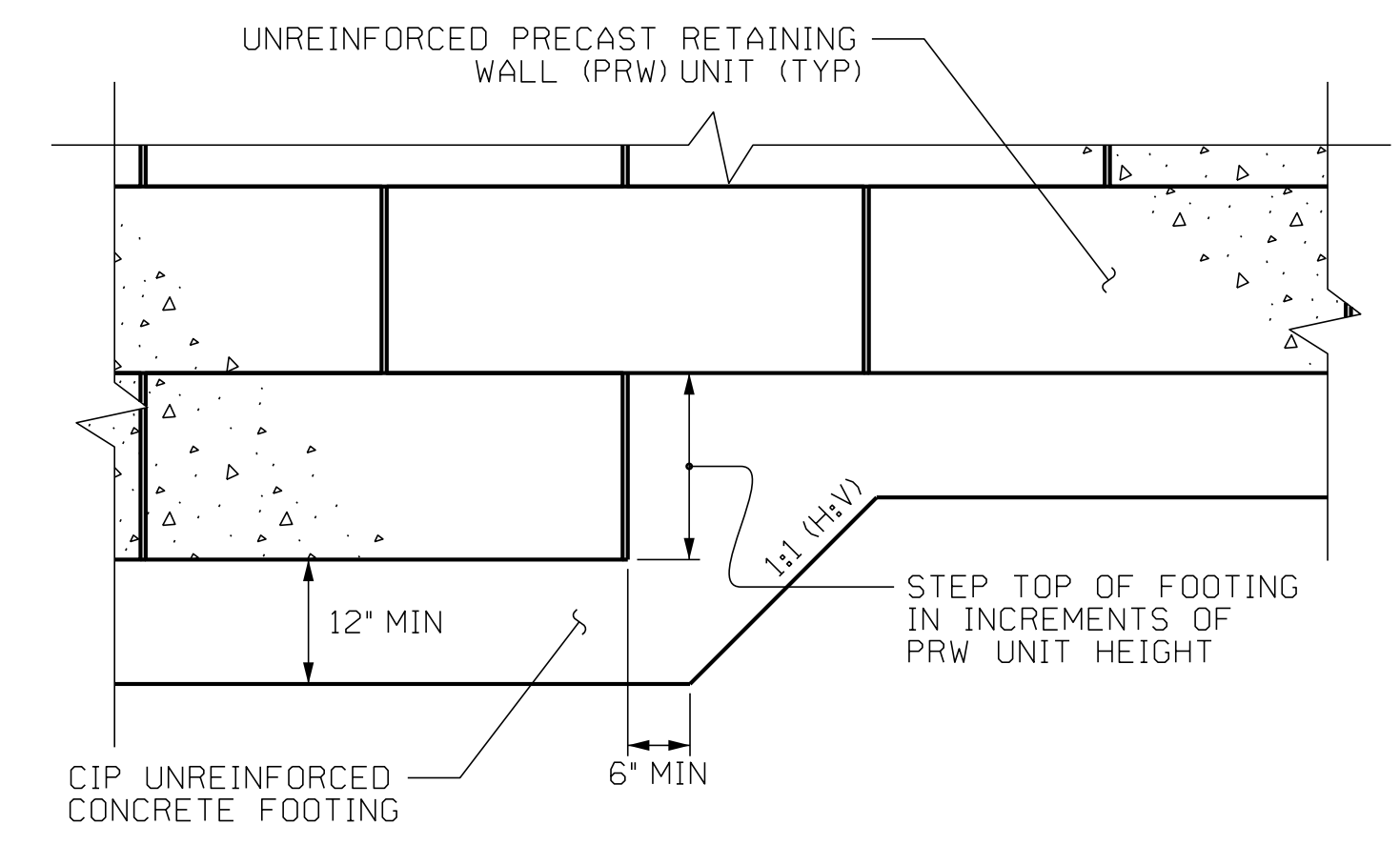
NOTES:

- FOR PRECAST GRAVITY RETAINING WALLS, SEE SECTION 455 OF THE STANDARD SPECIFICATIONS.
- FOR STEEL BEAM GUARDRAIL, SEE ROADWAY PLANS AND SECTION 862 OF THE STANDARD SPECIFICATIONS.
- A DRAIN PIPE IS REQUIRED FOR RETAINING WALL NOS. 5 AND 6.
- BEFORE BEGINNING PRECAST GRAVITY WALL DESIGN FOR RETAINING WALL NOS. 5 AND 6, SURVEY WALL LOCATION AND SUBMIT A REVISED WALL PROFILE VIEW (WALL ENVELOPE) FOR REVIEW. DO NOT START WALL DESIGN OR CONSTRUCTION UNTIL THE REVISED WALL ENVELOPE IS ACCEPTED.
- DESIGN RETAINING WALL NOS. 5 AND 6 FOR DESIGN HEIGHTS EQUAL TO THE WALL HEIGHT PLUS DEPTH TO TOP OF FOOTING (DIFFERENCE BETWEEN GRADE ELEVATION AND TOP OF FOOTING ELEVATION).
- DESIGN RETAINING WALL NOS. 5 AND 6 FOR THE FOLLOWING:
 - 1) MAXIMUM FACTORED VERTICAL PRESSURE ON FOUNDATION MATERIAL = 2,700 PSF
 - 2) MINIMUM WALL EMBEDMENT ELEVATION = 2 FT
 - 3) IN-SITU ASSUMED MATERIAL PARAMETERS:

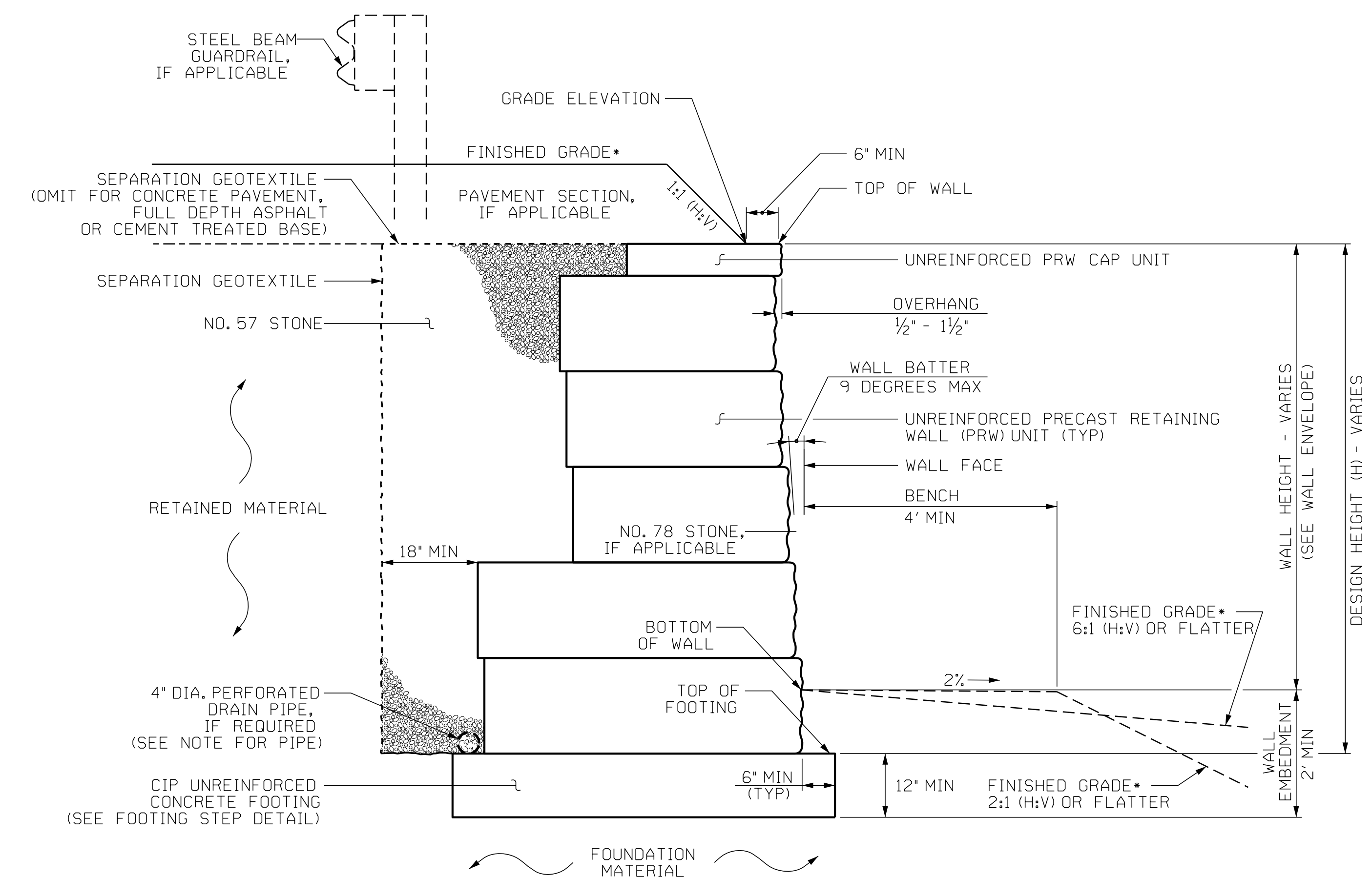
MATERIAL TYPE	UNIT WEIGHT (γ) PCF	FRICTION ANGLE (ϕ) DEGREES	COHESION (c) PSF
RETAINED	120	30	0
FOUNDATION	120	30	0

DESIGN RETAINING WALL NO. FOR A LIVE LOAD (TRAFFIC) SURCHARGE.

DO NOT PLACE CONCRETE FOR FOOTINGS FOR RETAINING WALL NOS. 5 AND 6 UNTIL EXCAVATION DIMENSIONS AND FOUNDATION MATERIAL ARE APPROVED.



FOOTING STEP DETAIL



**PRECAST GRAVITY WALL WITH
CAP PRW UNIT - TYPICAL SECTION**

*SEE ROADWAY PLANS FOR FINISHED GRADE DETAILS.

PROJECT NO.: 44395.1.1 (U-5824)

FORSYTH COUNTY

STATION: STA -L- 102+30

SHEET 5 OF 5 WALL NOS. 5 AND 6

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

GEOTECHNICAL
ENGINEERING UNIT

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	
1	MHS	8/23	3			W-5
2			4			

PREPARED BY: MHS	DATE: 2/3/23
REVIEWED BY: SCC	DATE: 2/3/23