

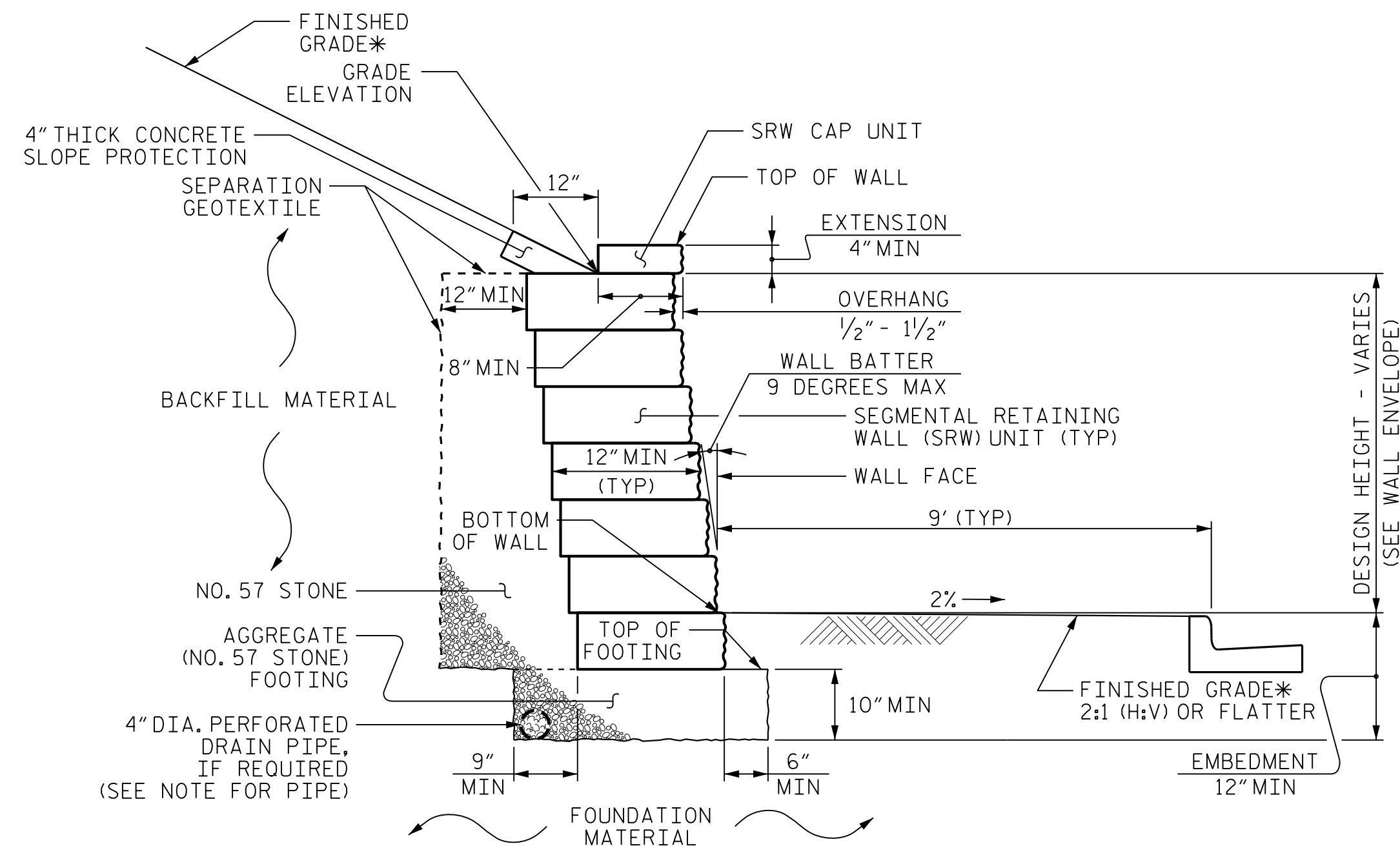
GEOTECHNICAL ENGINEER

ENGINEER



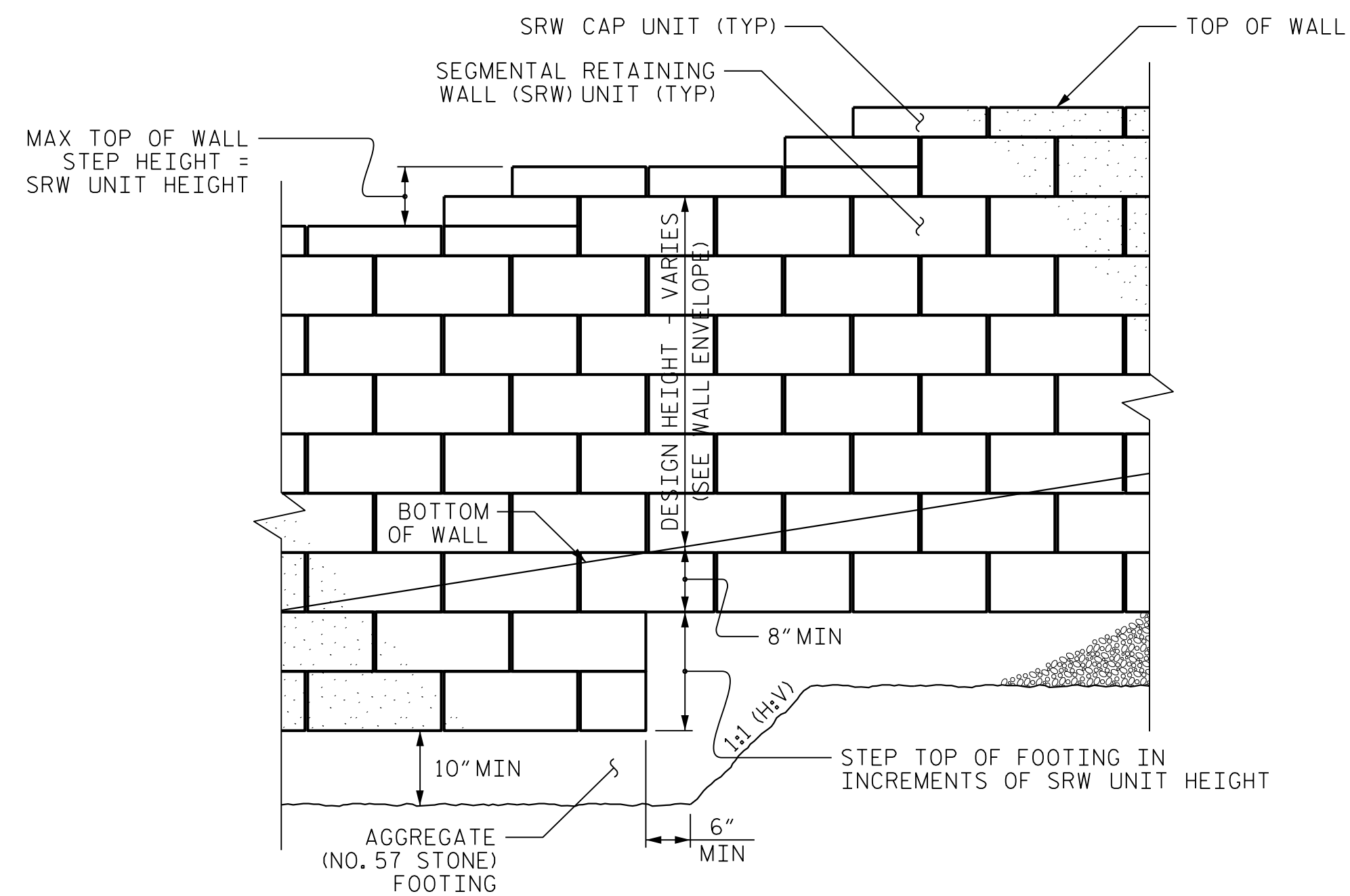
DocuSigned by: *Jinyoung Park* 10/26/2021

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



SEGMENTAL GRAVITY WALL - TYPICAL SECTION

*SEE ROADWAY PLANS FOR FINISHED GRADE DETAILS.



SEGMENTAL GRAVITY WALL - TYPICAL ELEVATION

ESTIMATED SEGMENTAL GRAVITY RETAINING WALL QUANTITIES	
RETAINING WALL NO.	SEGMENTAL GRAVITY RETAINING WALLS (SQUARE FEET)
1	300 SF
2	190 SF
3	120 SF
4	350 SF
① 7	130 SF
① 8	130 SF
TOTAL QUANTITY = 1,220 SF	

① NOTES:

FOR SEGMENTAL GRAVITY RETAINING WALLS, SEE SEGMENTAL GRAVITY RETAINING WALLS (SPECIAL) PROVISION.

USE SRW UNITS WITH A COLOR MATCHING WITH EXISTING WALL COLOR FOR RETAINING WALL NO. 1 THROUGH NO. 4, NO. 7 AND NO. 8.

A DRAIN PIPE IS REQUIRED FOR RETAINING WALL NO. 1 THROUGH NO. 4, NO. 7 AND NO. 8.

BEFORE BEGINNING SEGMENTAL GRAVITY WALL DESIGN FOR RETAINING WALL NO. 1 THROUGH NO. 4, NO. 7 AND NO. 8, 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 NO. 1 THROUGH NO. 4, NO. 7 AND NO. 8 FOR WALL HEIGHTS EQUAL TO THE DESIGN HEIGHT PLUS DEPTH TO TOP OF FOOTING (DIFFERENCE BETWEEN GRADE ELEVATION AND TOP OF FOOTING ELEVATION).

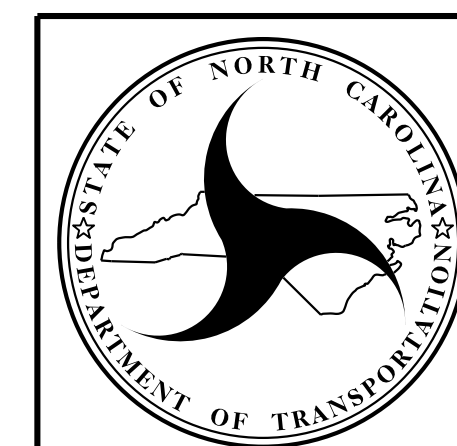
DESIGN RETAINING WALL NO. 1 THROUGH NO. 4, NO. 7 AND NO. 8 FOR THE FOLLOWING:
 1) MAXIMUM FACTORED VERTICAL PRESSURE ON FOUNDATION MATERIAL = 1,100 LB/SF (RW1), 770 LB/SF (RW2), 820 LB/SF (RW3), 560 LB/SF (RW4), 640 LB/SF (RW7) AND 680 LB/SF (RW8)
 2) MINIMUM EMBEDMENT = 1.0 FT
 3) IN-SITU ASSUMED MATERIAL PARAMETERS:

MATERIAL TYPE	UNIT WEIGHT (γ) LB/CF	FRICTION ANGLE (φ) DEGREES	COHESION (c) LB/SF
BACKFILL	120	30	0
FOUNDATION	120	30	0

DO NOT PLACE NO. 57 STONE FOR FOOTINGS FOR RETAINING WALL NO. 1 THROUGH NO. 4, NO. 7 AND NO. 8 UNTIL EXCAVATION DIMENSIONS AND FOUNDATION MATERIAL ARE APPROVED.

AT THE CONTRACTOR'S OPTION, "TEMPORARY SHORING FOR WALL CONSTRUCTION" MAY BE USED TO CONSTRUCT SEGMENTAL GRAVITY RETAINING WALL NO. 1 THROUGH NO. 4, NO. 7 AND NO. 8. SEE SEGMENTAL GRAVITY RETAINING WALLS PROVISION FOR TEMPORARY SHORING FOR WALL CONSTRUCTION.

WALL NO. 5 DOES NOT EXIST ON THIS PROJECT.



NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

GEOTECHNICAL ENGINEERING UNIT

NOTES AND DETAILS FOR SEGMENTAL GRAVITY RETAINING WALLS

REVISIONS

NO.	BY	DATE	NO.	BY	DATE
1	JINYOUNG PARK	10/2021	3		
2			4		