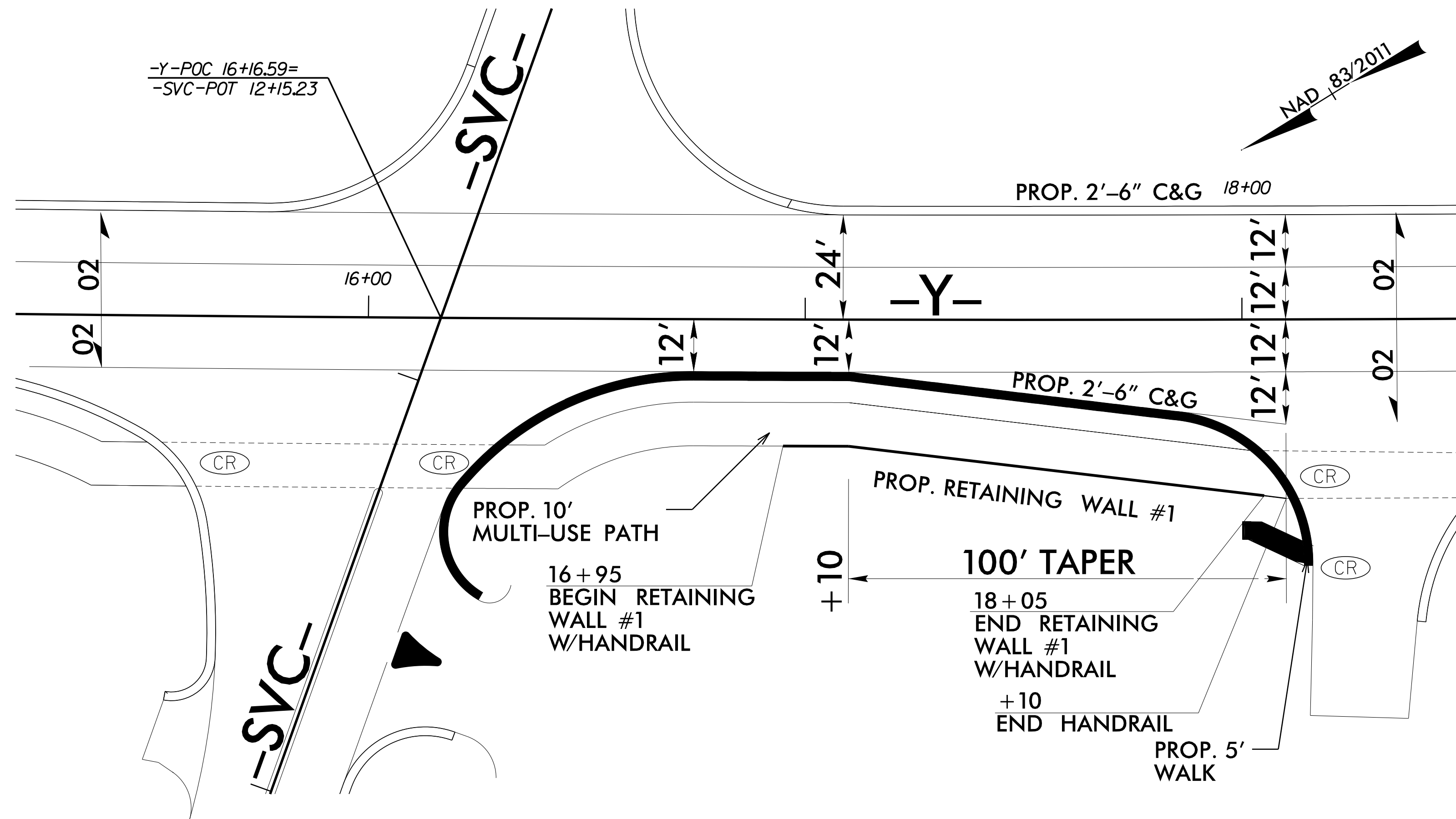
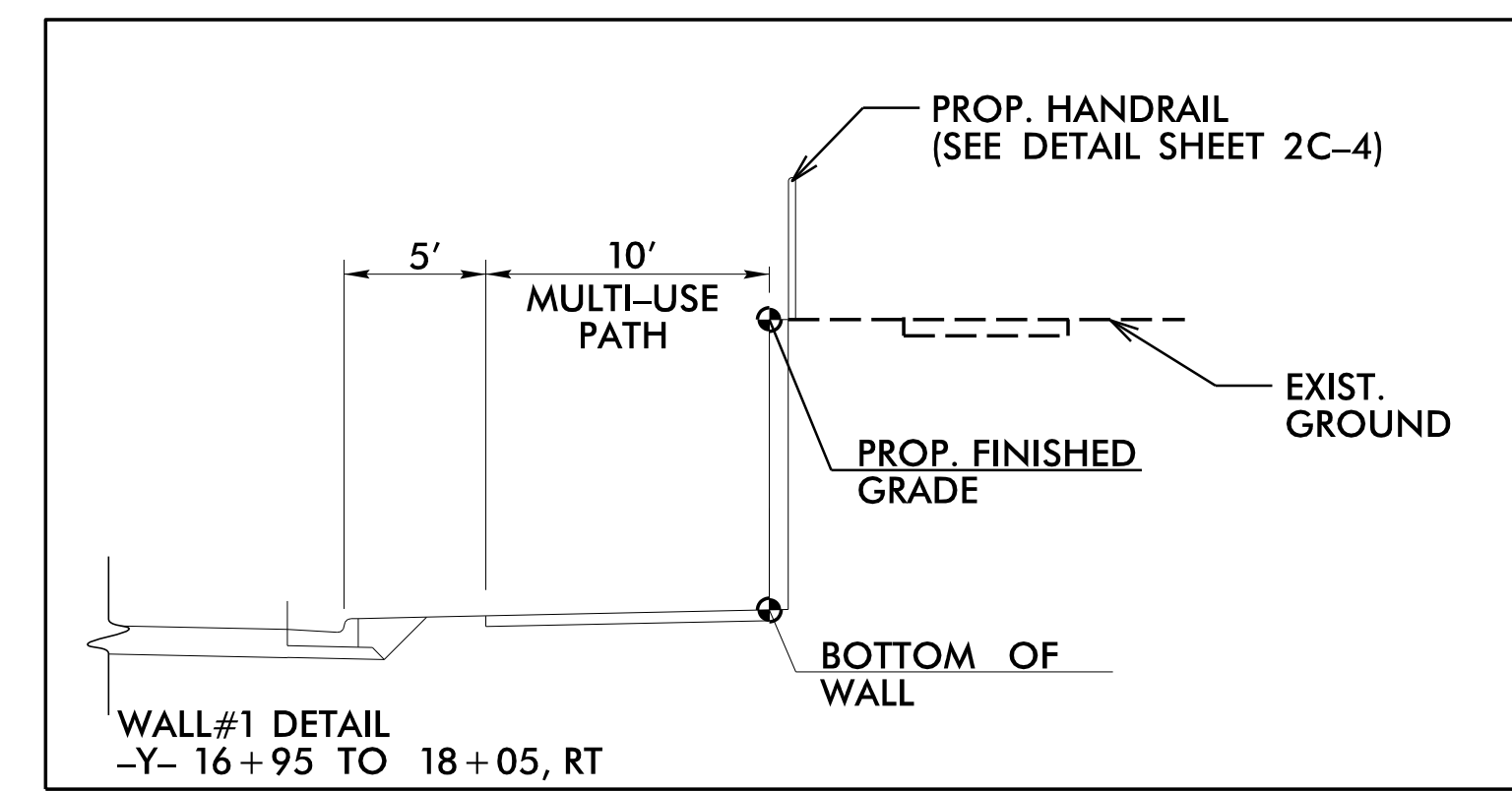


# RETAINING WALL #1:



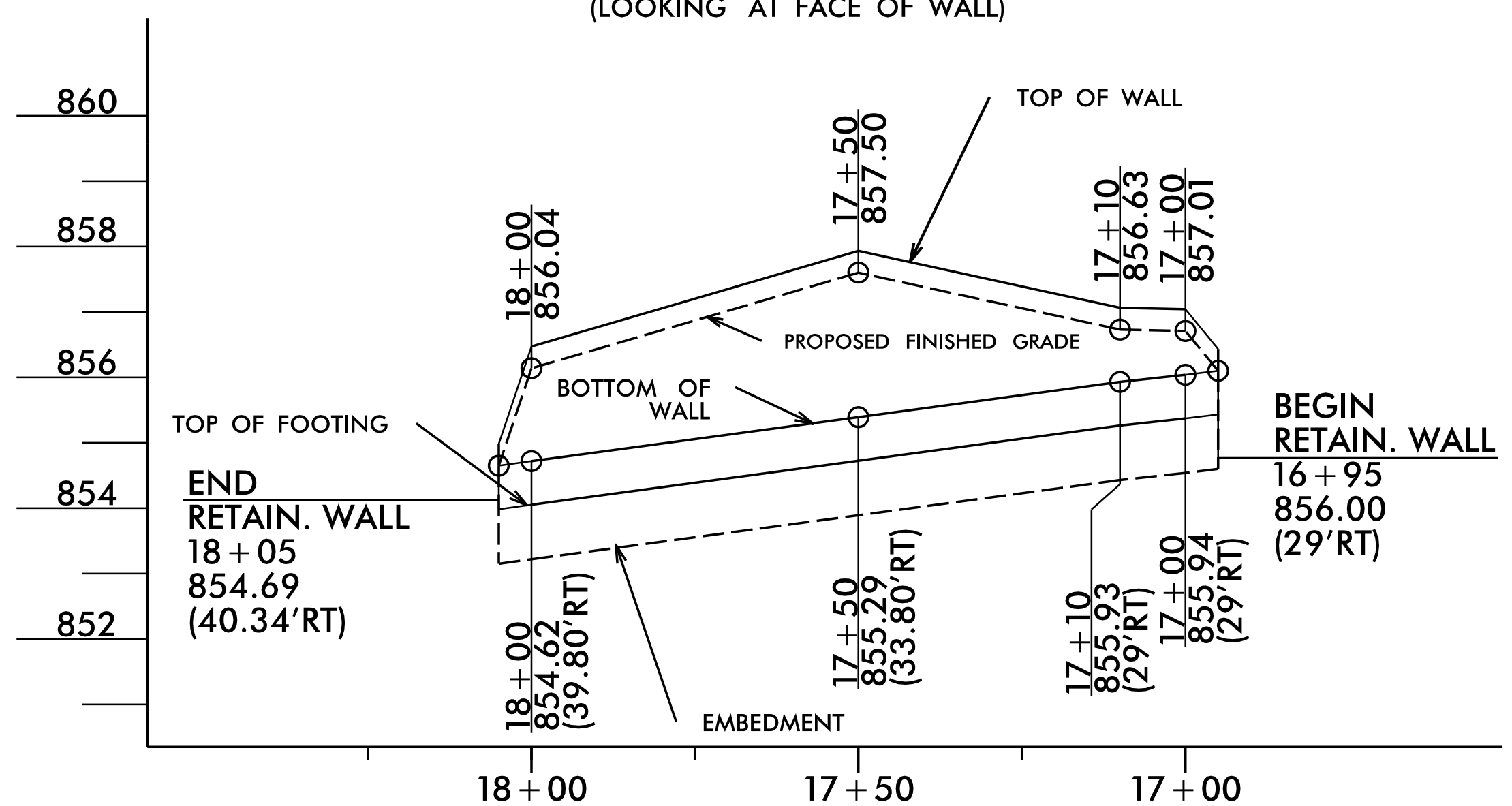
GEOTECHNICAL ENGINEER  
 ENGINEER  
 PROFESSIONAL SEAL  
 041986  
 ENGINEER  
 MATTHEW BREWER, P.E.  
 DocuSigned by:  
 D. Matthew Brewer 4/1/2023  
 SIGNATURE DATE  
**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**



DETAIL FOR WALL #1

# RETAINING WALL #1:

NOT TO SCALE  
(LOOKING AT FACE OF WALL)



STANDARD SEGMENTAL GRAVITY RETAINING WALL QUANTITY	
RETAINING WALL # 1	280 SQ. FT.

NOTE: ESTIMATED WALL QUANTITY MEASURED FROM TOP OF WALL TO TOP OF FOOTING.

PROJECT NO.: U-5775  
 CLEVELAND COUNTY  
 STATION: 16+95, 29 ft RT to 18+05, 40 ft RT  
 SHEET 1 OF 2 WALL ID RETAINING WALL #1

PREPARED BY: M. BREWER, P.E. DATE: 3/29/23  
 REVIEWED BY: R. KRAL, P.E. DATE: 3/29/23

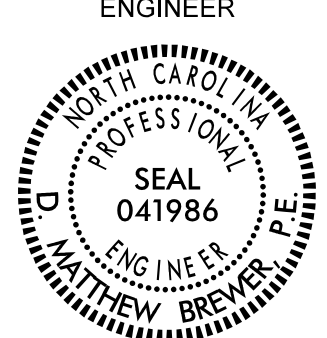
Prepared in the Office of:

**CAROLINAS GEOTECHNICAL GROUP**  
 2400 CROWNPPOINT EXECUTIVE DRIVE  
 SUITE 800  
 CHARLOTTE, NC 28227  
 (980) 339-8684

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

**GEOTECHNICAL ENGINEERING UNIT**

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

GEOTECHNICAL ENGINEER  SEAL 041986 ENGINEER MATTHEW BREWER, P.E.	ENGINEER    DATE: 4/1/2023 SIGNATURE: <i>D. Matthew Brewer</i>
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

**NOTES:**

FOR STANDARD SEGMENTAL GRAVITY RETAINING WALLS, SEE SECTION 454 OF THE STANDARD SPECIFICATIONS.

FOR STEEL BEAM GUARDRAIL, SEE ROADWAY PLANS AND SECTION 862 OF THE STANDARD SPECIFICATIONS.

DO NOT ATTACH FENCES OR HANDRAILS TO STANDARD SEGMENTAL GRAVITY WALLS.

DO NOT USE STANDARD SEGMENTAL GRAVITY WALLS FOR INTERSTATE HIGHWAY OR RAILROAD PROJECTS.

DO NOT USE STANDARD SEGMENTAL GRAVITY WALLS WHEN SURCHARGE LOADS WILL BE WITHIN 5'-6" OF THE BACK OF SRW CAP UNITS FOR WALL HEIGHTS UP TO 4' AND WITHIN 10' OF THE BACK OF SRW CAP UNITS FOR WALL HEIGHTS GREATER THAN 4' TO 5'.

DO NOT USE STANDARD SEGMENTAL GRAVITY WALLS WHEN VERY LOOSE OR SOFT SOIL OR MUCK IS BELOW WALLS.

SEGMENTAL RETAINING WALL (SRW) UNITS ARE APPROVED FOR EITHER 2' OR 5' MAXIMUM WALL HEIGHTS. FOR DETAILS AND DIMENSIONS OF APPROVED SRW UNITS AND MAXIMUM WALL HEIGHTS, SEE [connect.ncdot.gov/resources/Geological/Pages/Products.aspx](http://connect.ncdot.gov/resources/Geological/Pages/Products.aspx)

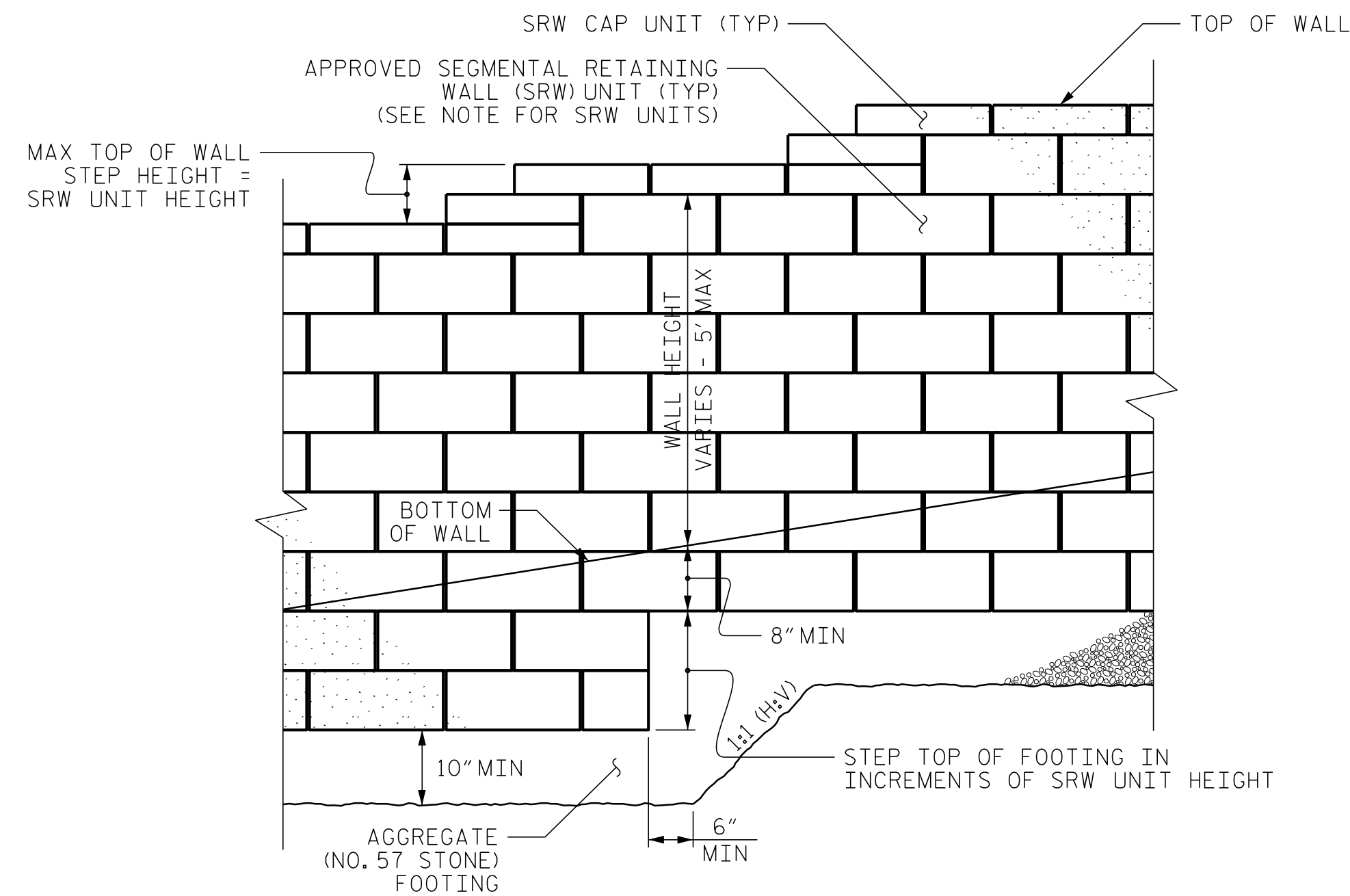
DO NOT MIX APPROVED SRW UNITS FROM DIFFERENT VENDORS ON THE SAME STANDARD SEGMENTAL GRAVITY WALL. USE THE SAME SIZE APPROVED SRW UNITS FOR EACH WALL SECTION.

FREEZE-THAW DURABLE SRW UNITS THAT MEET ARTICLE 1040-4 OF THE STANDARD SPECIFICATIONS ARE REQUIRED.

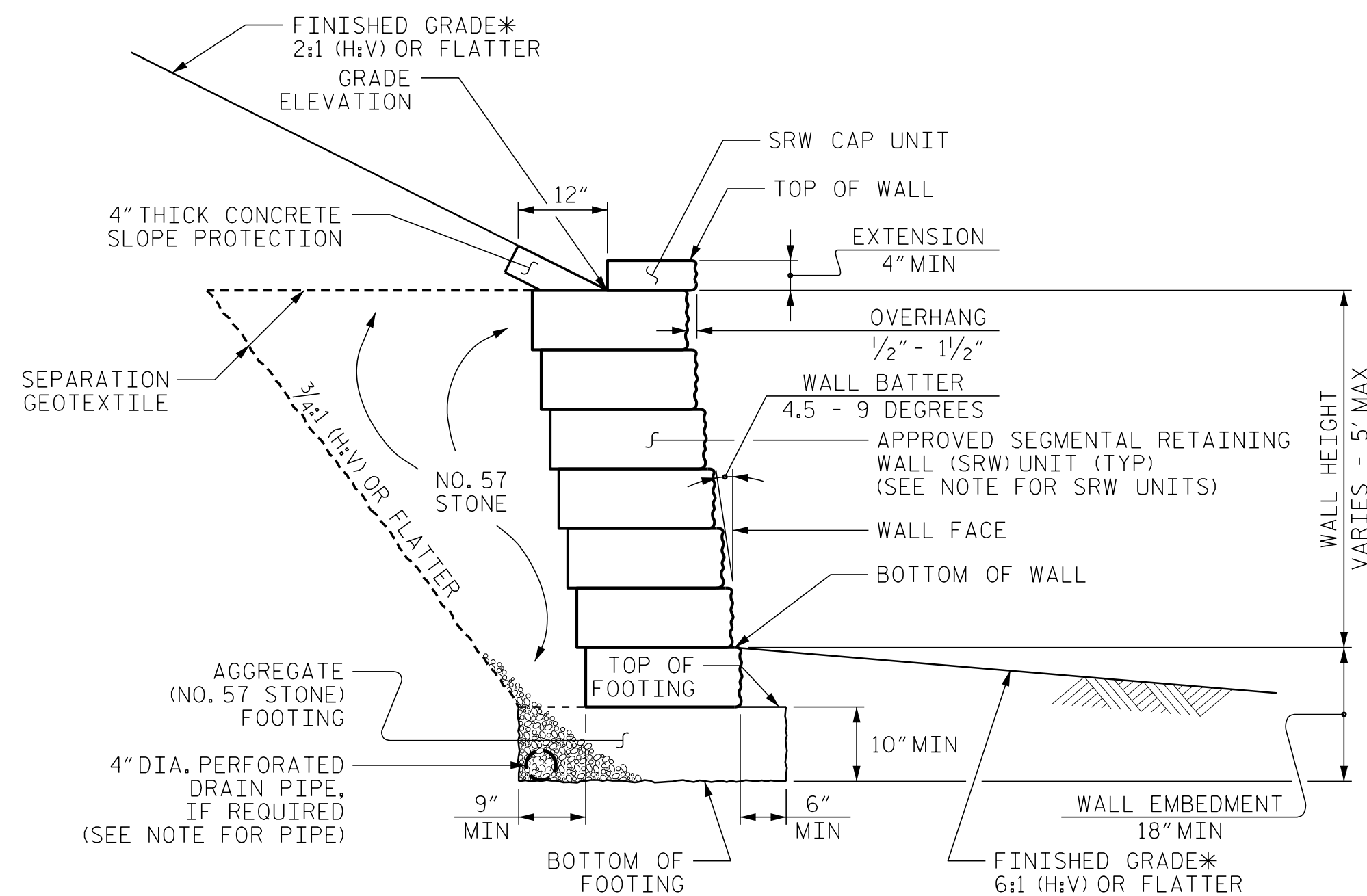
BEFORE BEGINNING STANDARD SEGMENTAL GRAVITY WALL CONSTRUCTION, SURVEY WALL LOCATIONS AND SUBMIT WALL PROFILE VIEWS (WALL ENVELOPES) FOR REVIEW. FOR WALL ENVELOPES, INCLUDE BOTTOM OF WALL, EXISTING GROUND AND GRADE ELEVATIONS AND OTHER ELEVATIONS AS NEEDED AT INTERVALS OF 25' OR LESS ALONG WALLS. DO NOT START WALL CONSTRUCTION UNTIL WALL ENVELOPES ARE ACCEPTED.

A DRAIN PIPE IS REQUIRED IF GROUNDWATER IS ABOVE BOTTOM OF FOOTINGS.

DO NOT PLACE NO. 57 STONE FOR FOOTINGS UNTIL EXCAVATION DIMENSIONS AND FOUNDATION MATERIAL ARE APPROVED.

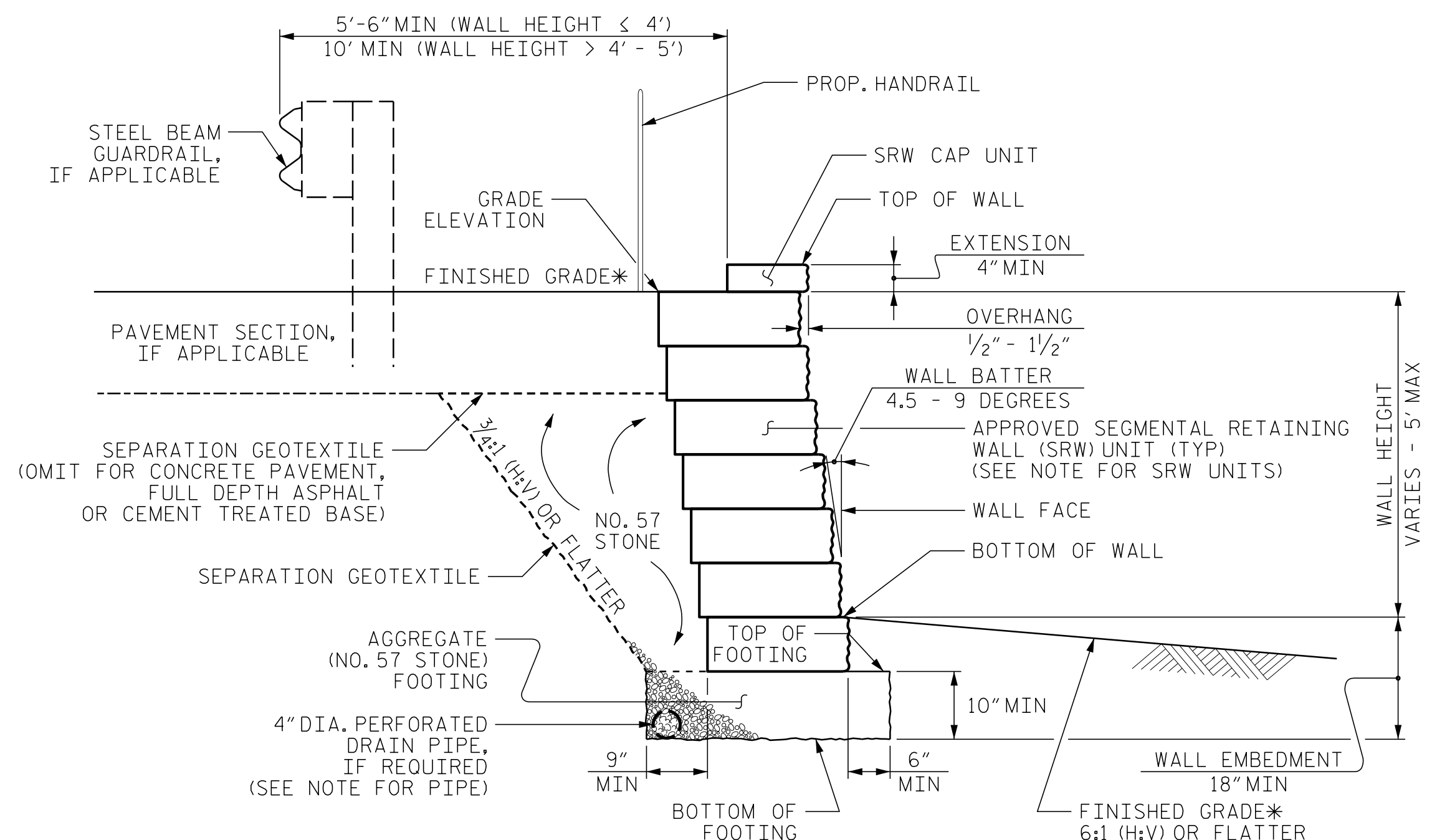


**STANDARD SEGMENTAL GRAVITY WALL - PARTIAL ELEVATION**



**STANDARD SEGMENTAL GRAVITY WALL WITH SLOPE**

\*SEE ROADWAY PLANS FOR FINISHED GRADE DETAILS.



**STANDARD SEGMENTAL GRAVITY WALL WITHOUT SLOPE**

\*SEE ROADWAY PLANS FOR FINISHED GRADE DETAILS.

PROJECT NO.: U-5775

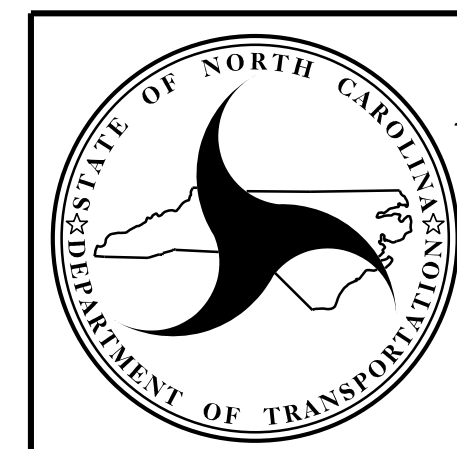
CLEVELAND COUNTY

STATION: 16+95, 29 ft RT to 18+05, 40 ft RT

SHEET 2 OF 2

WALL ID RETAINING WALL #1

PREPARED BY: M. BREWER, P.E.	DATE: 4/1/23
REVIEWED BY: R. KRAL, P.E.	DATE: 4/1/23



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

**GEOTECHNICAL  
ENGINEERING UNIT**

**STANDARD DETAIL NO. 454.02**

**STANDARD SEGMENTAL  
GRAVITY RETAINING WALL  
WITH FREEZE-THAW  
DURABLE SRW UNITS**

SHEET NO. W-2

DATE: 10-19-21