
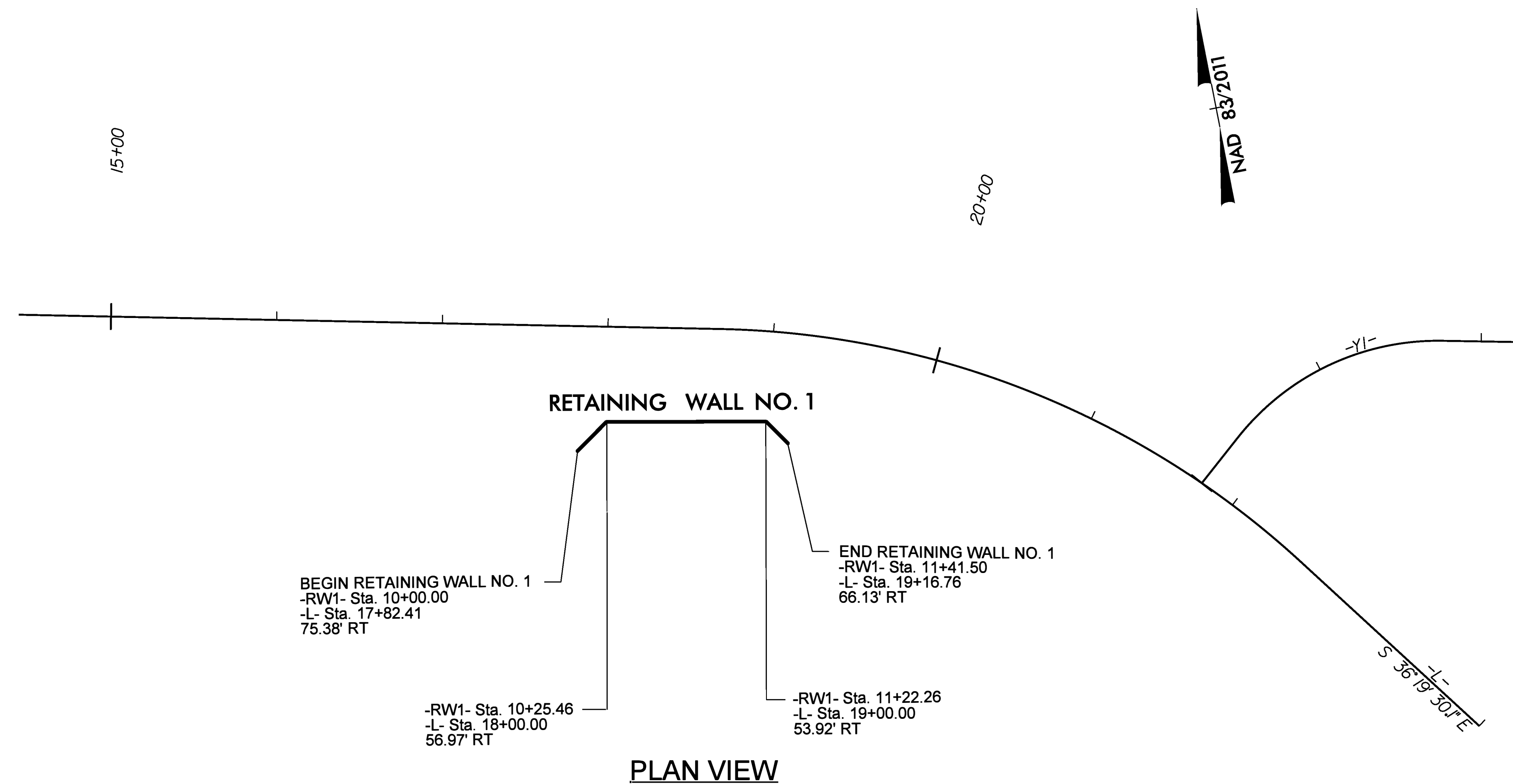
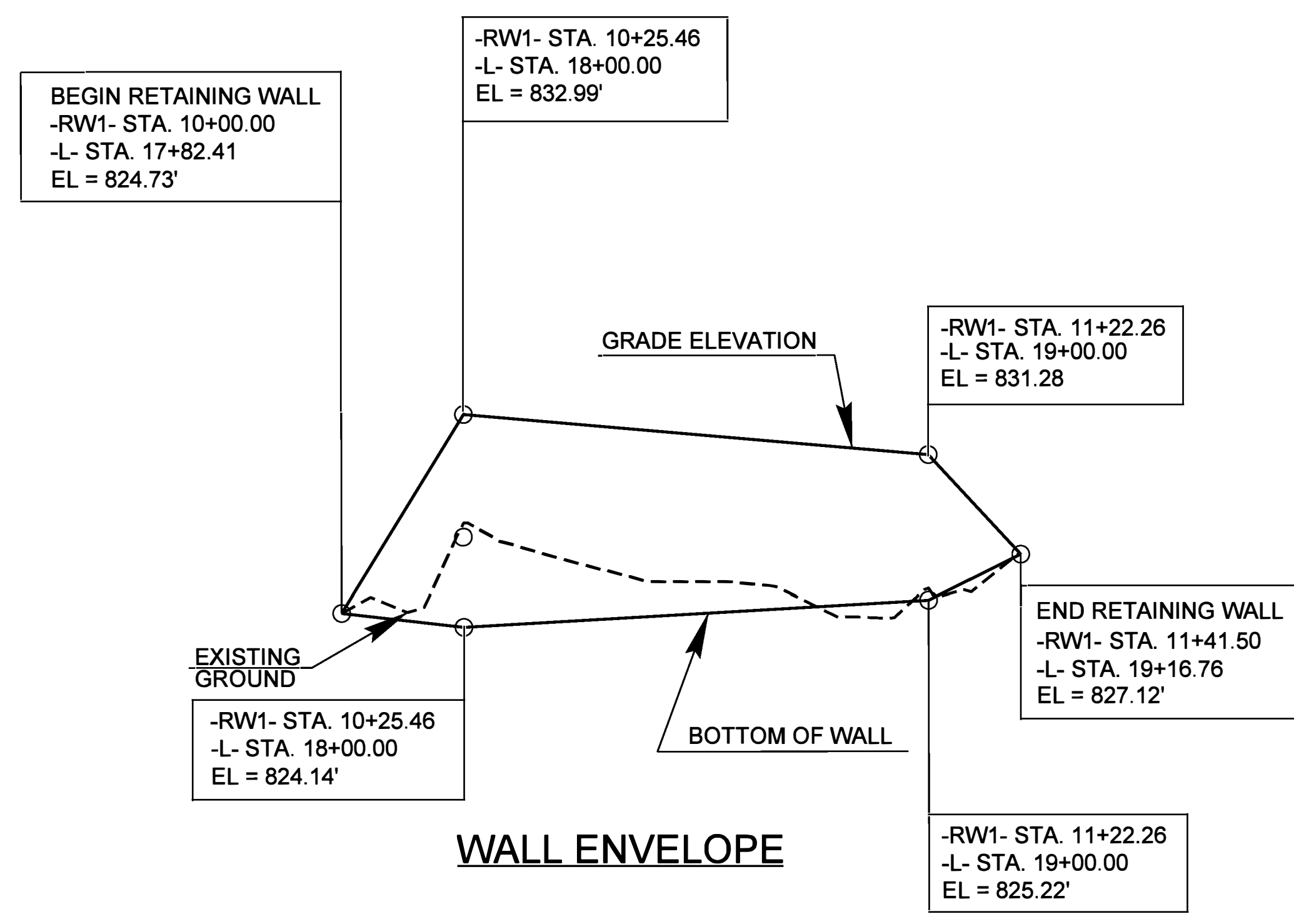
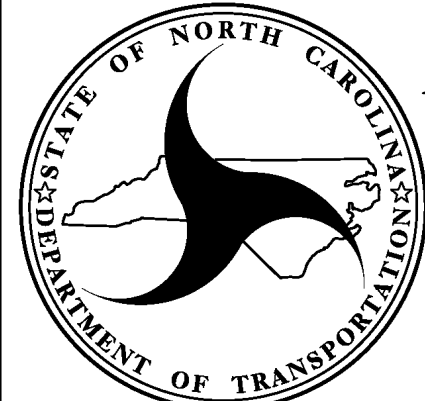


PROJECT REFERENCE NO. U-5743 (50165.1.1)	SHEET NO. W-1
GEOTECHNICAL ENGINEER  DocuSigned by: David L. Teague 03/23/2026 <small>9014EE44991546E</small>	ENGINEER
SIGNATURE	DATE
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



ESTIMATED MSE WALL QUANTITIES (SQUARE FEET)	
MSE RETAINING WALL NO. 1	1000 SF

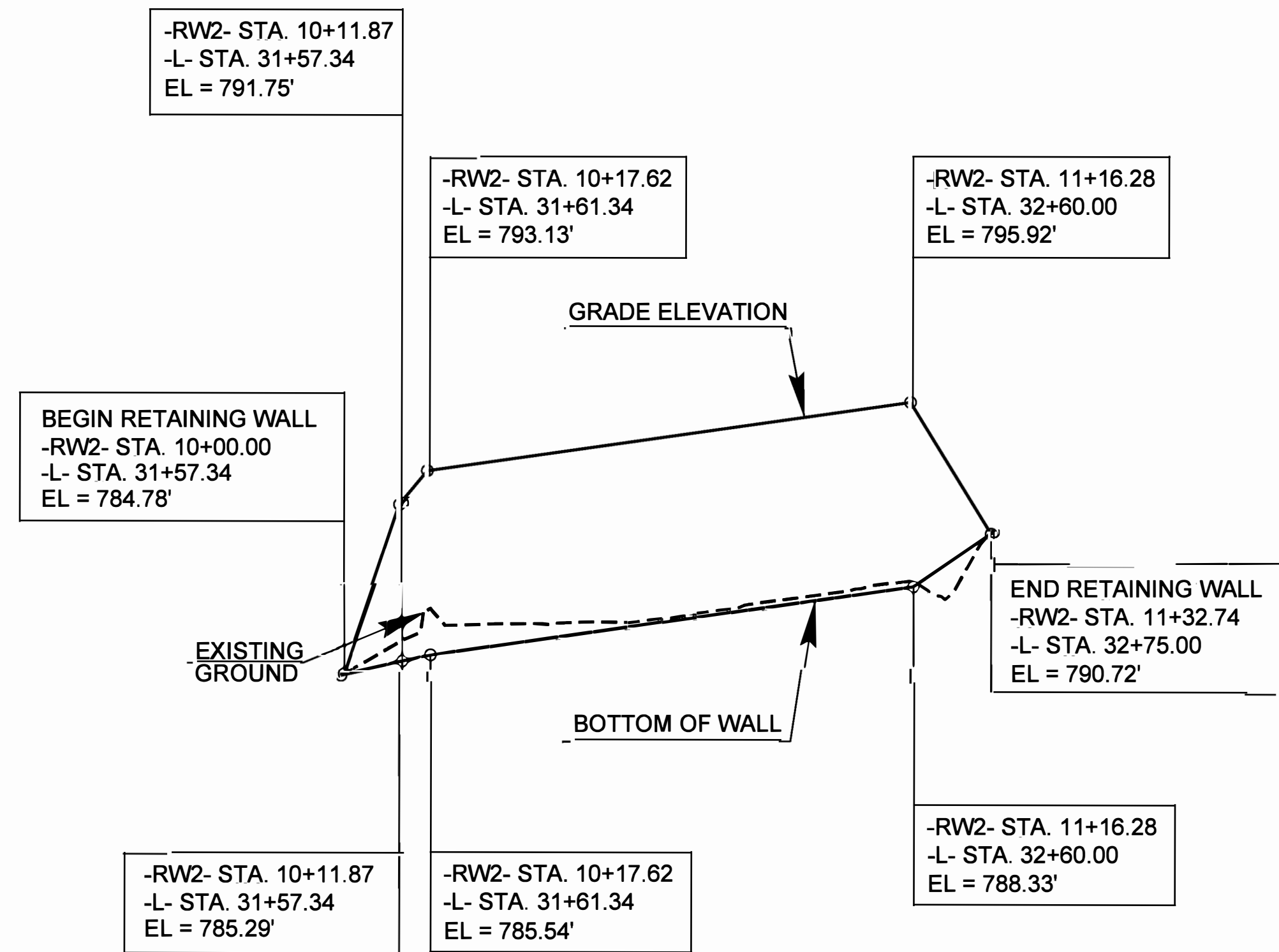
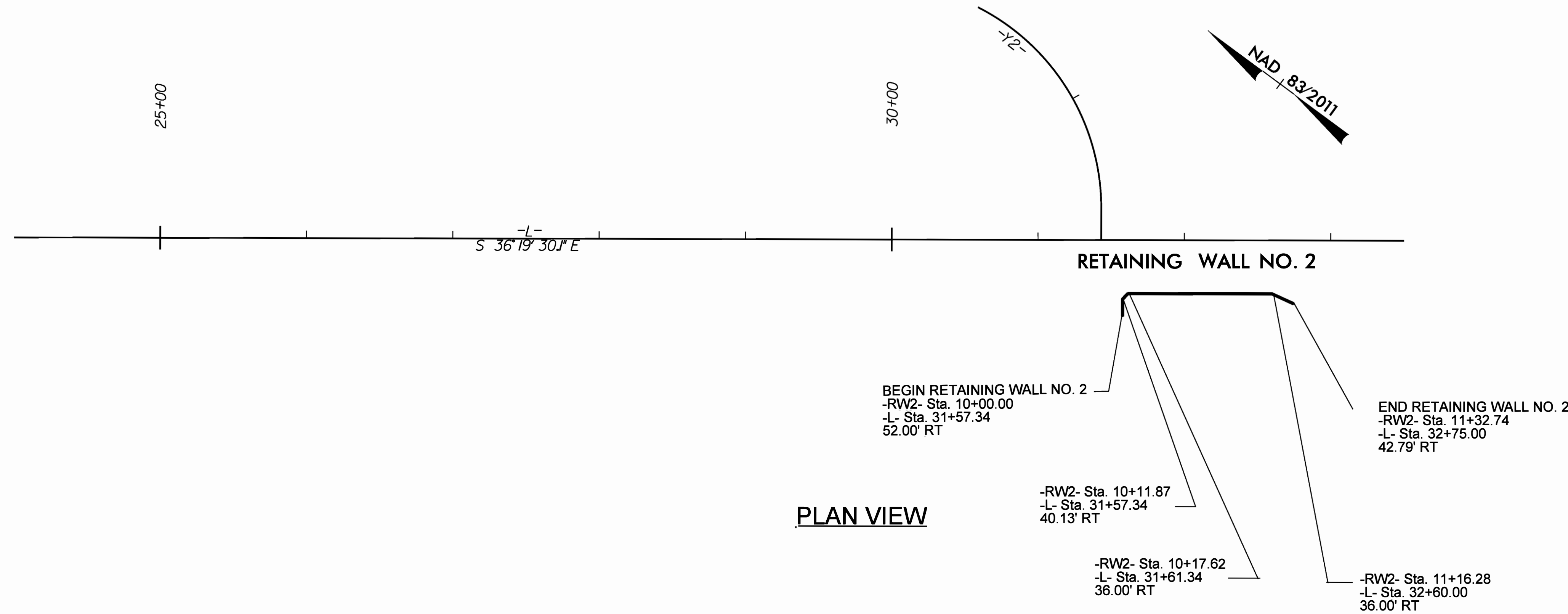



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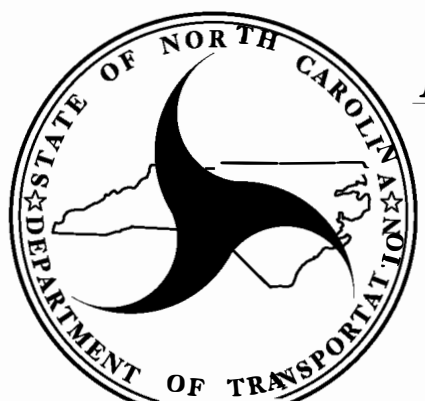
MSE WALL 1 PLAN VIEW WALL ENVELOPE					
REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		

PREPARED BY: D. TEAGUE	DATE: 6/2019
REVIEWED BY: C. CHEN	DATE: 6/2019



ESTIMATED MSE WALL QUANTITIES (SQUARE FEET)	
MSE RETAINING WALL NO. 2	844 SF

PREPARED BY: D. TEAGUE DATE: 5/2019
 REVIEWED BY: C. CHEN DATE: 5/2019



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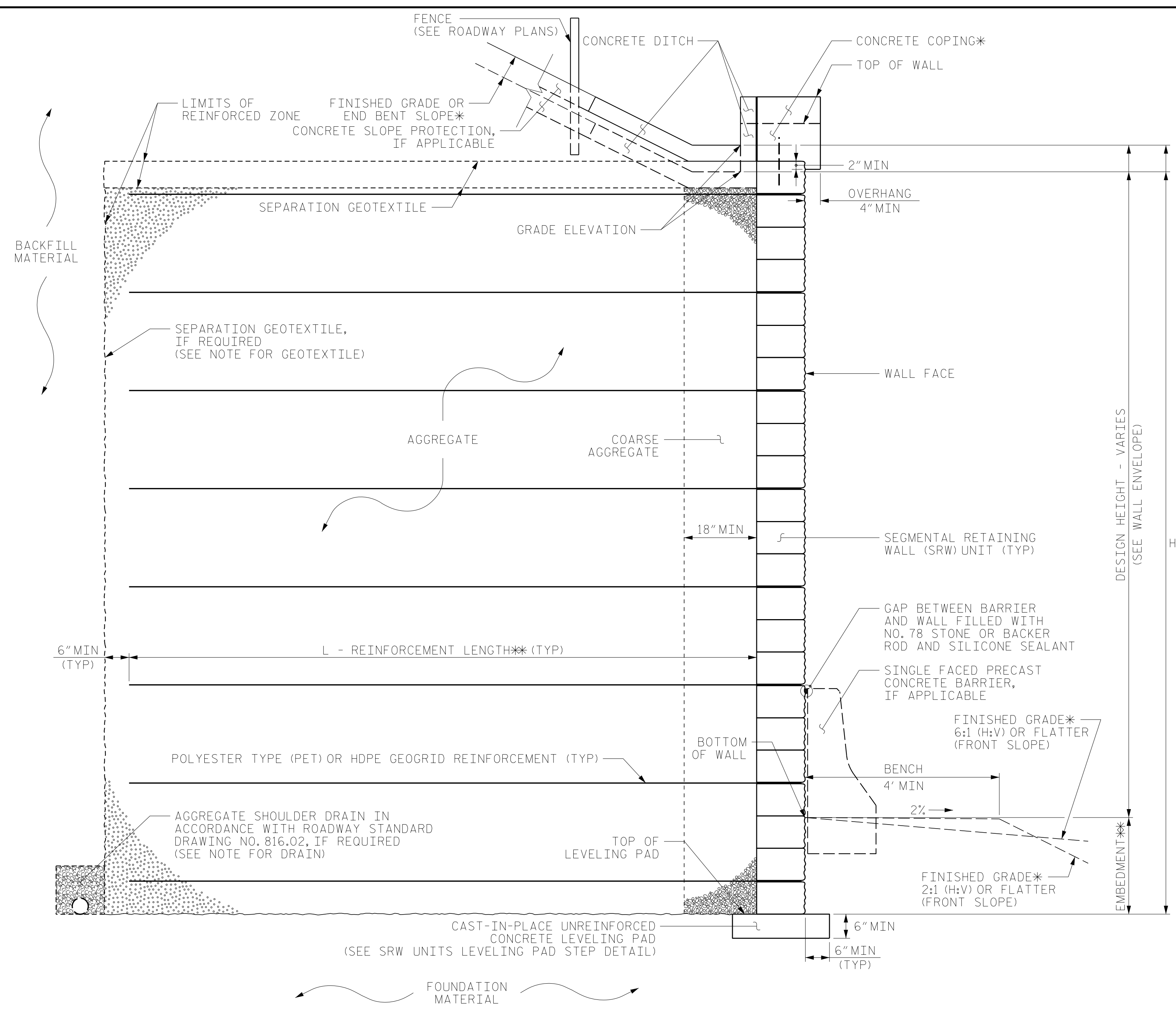
**MSE WALL 2
PLAN VIEW
WALL ENVELOPE**

REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		



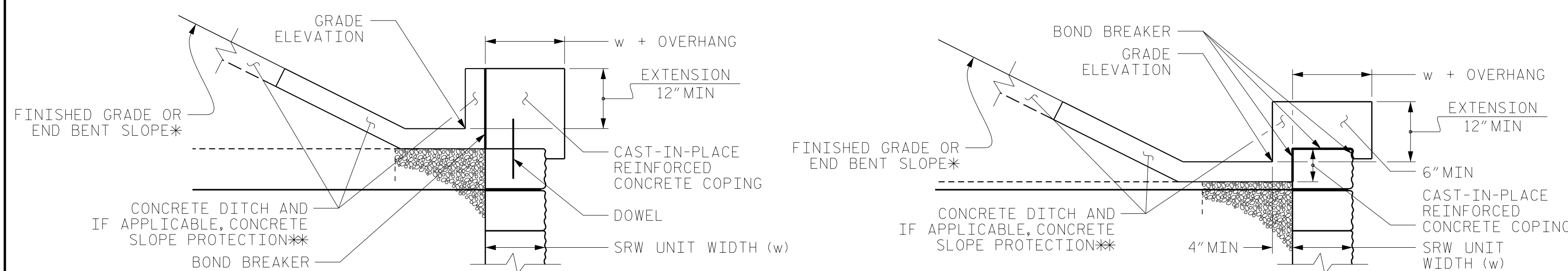
DocuSigned by:
David L. Teague 03/23/2026

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MSE WALL WITH SRW UNITS - TYPICAL SECTION

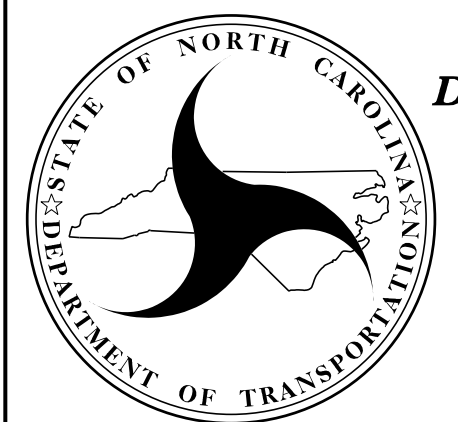
*SEE COPING DETAILS AND PLANS FOR FINISHED GRADE OR END BENT SLOPE DETAILS.
**SEE MSE RETAINING WALLS PROVISION AND IF APPLICABLE, MSE WALL NOTES FOR EMBEDMENT AND REINFORCEMENT LENGTH REQUIREMENTS.



COPING DETAILS

AT THE CONTRACTOR'S OPTION, CONNECT COPING TO SRW UNITS WITH DOWELS OR EXTEND COPING DOWN BACK OF SRW UNITS.
*SEE PLANS FOR FINISHED GRADE OR END BENT SLOPE DETAILS.
**SEE CONCRETE DITCH BEHIND WALL DETAILS.

PREPARED BY: D. TEAGUE	DATE: 6/2019
REVIEWED BY: C.CHEN	DATE: 6/2019

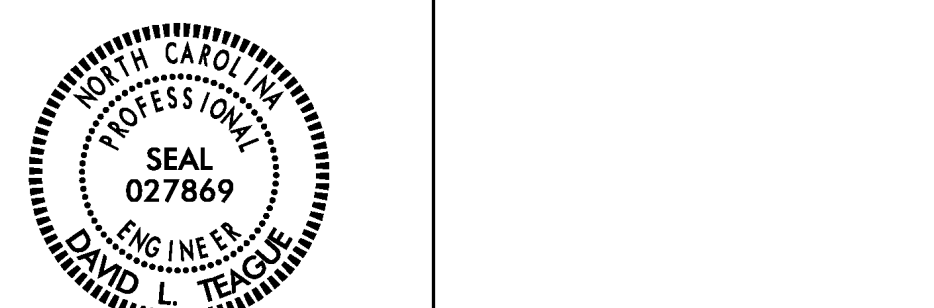


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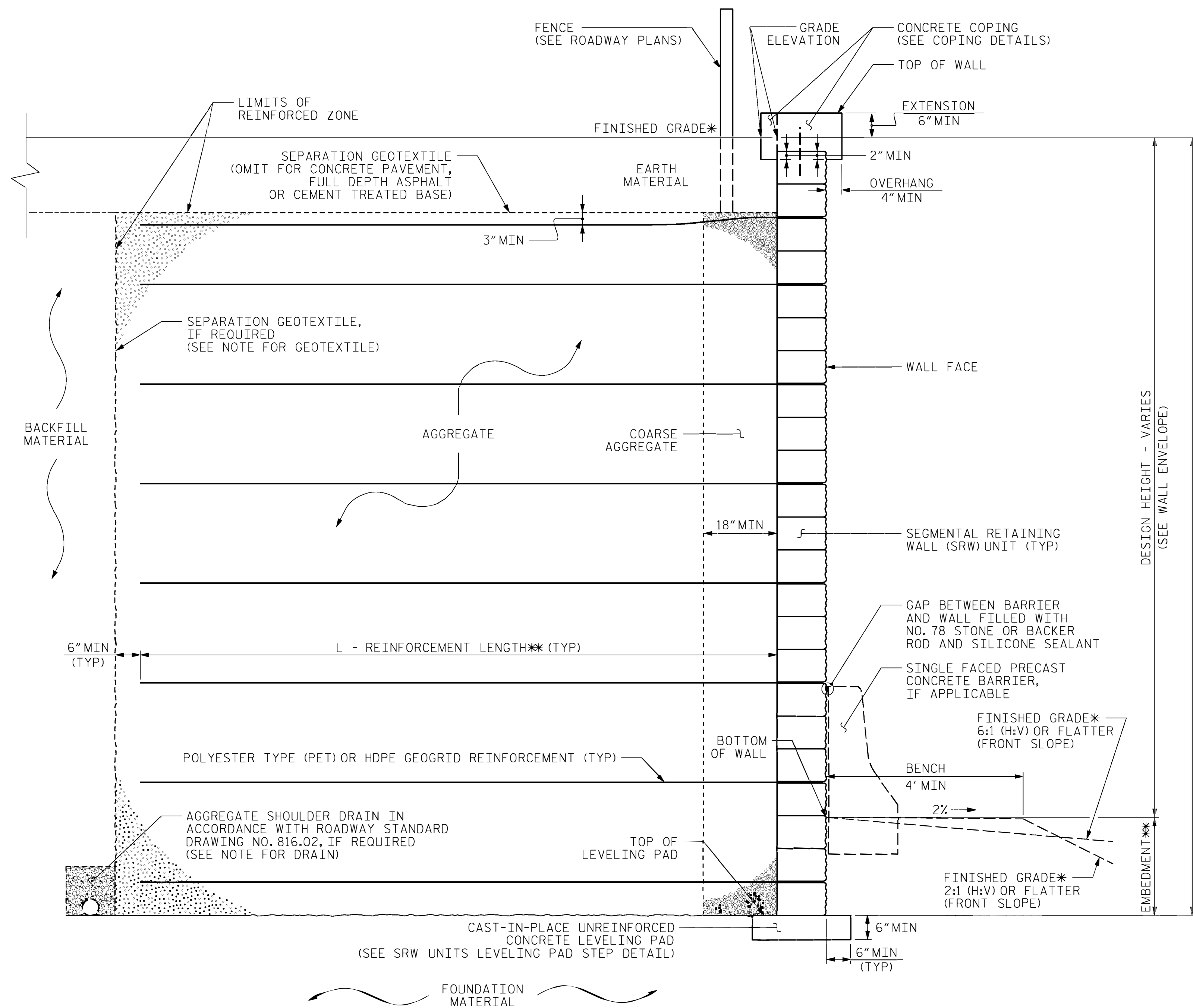
MSE WALL NO. 1
TYPICAL SECTION

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



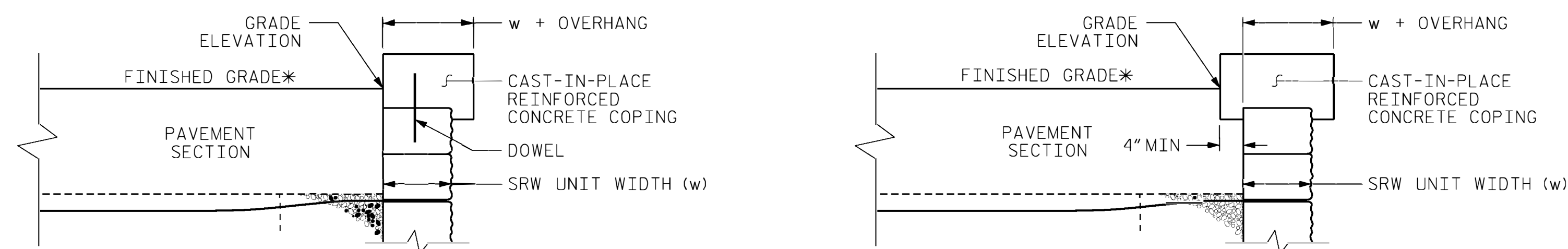
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 David L. Teague 03/23/2026
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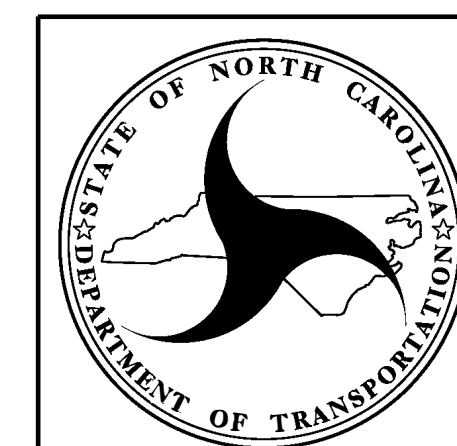
MSE WALL WITH SRW UNITS - TYPICAL SECTION

*SEE MSE RETAINING WALLS PROVISION AND IF APPLICABLE, MSE WALL NOTES FOR EMBEDMENT AND REINFORCEMENT LENGTH REQUIREMENTS.
 *SEE ROADWAY PLANS FOR FINISHED GRADE DETAILS.



COPING DETAILS

AT THE CONTRACTOR'S OPTION, CONNECT COPING TO SRW UNITS WITH DOWELS OR EXTEND COPING DOWN BACK OF SRW UNITS.
 *SEE ROADWAY PLANS FOR FINISHED GRADE DETAILS.



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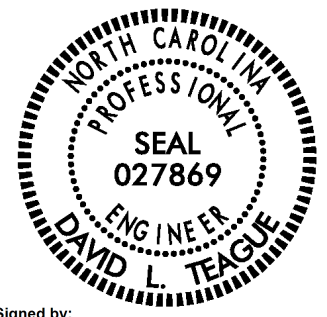
GEOTECHNICAL
 ENGINEERING UNIT

MSE WALL NO. 2
 TYPICAL SECTION

REVISIONS

NO.	BY	DATE	NO.	BY	DATE
1	-	-	3	-	-
2	-	-	4	-	-

PREPARED BY: D. TEAGUE	DATE: 7/2019
REVIEWED BY: C. CHEN	DATE: 7/2019

PROJECT REFERENCE NO. U-5743 (50165.1.1)	SHEET NO. W-5
GEOTECHNICAL ENGINEER  DocuSigned by: <i>David L. Teague</i> 03/23/2026 <small>5014EE44991546E</small>	ENGINEER
SIGNATURE	DATE
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

NOTES:

FOR MECHANICALLY STABILIZED EARTH (MSE) RETAINING WALLS, SEE MECHANICALLY STABILIZED EARTH RETAINING WALLS PROVISION. USE AN MSE WALL SYSTEM WITH SEGMENTAL RETAINING WALL UNITS (SRW) UNITS THAT MEET ARTICLE 1040-4 OF THE STANDARD SPECIFICATIONS FOR RETAINING WALLS NO.1 AND NO.2.

WHEN USING AN MSE WALL SYSTEM WITH SRW UNITS FOR RETAINING WALLS NO.1 AND NO.2, FREEZE-THAW DURABLE SRW UNITS THAT MEET ARTICLE 1040-4 OF THE STANDARD SPECIFICATIONS ARE REQUIRED.

AT THE CONTRACTOR'S OPTION, USE FINE AGGREGATE IN THE REINFORCED ZONE OF RETAINING WALLS NO.1 AND NO.2.

A SEPARATION GEOTEXTILE IS REQUIRED AT THE BACK OF THE REINFORCED ZONE FOR RETAINING WALLS NO.1 AND NO.2.

A DRAIN IS REQUIRED FOR RETAINING WALLS NO.1 AND NO.2.

BEFORE BEGINNING MSE WALL DESIGN FOR RETAINING WALLS NO.1 AND NO.2, 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 AND NO.2 FOR THE FOLLOWING:

- 1) H = DESIGN HEIGHT + EMBEDMENT
- 2) DESIGN LIFE = 75 YEARS
- 3) MAXIMUM FACTORED VERTICAL PRESSURE ON FOUNDATION MATERIAL = 2,800 PSF FOR WALL NO.1 AND 2,000 PSF FOR WALL NO.2
- 4) FOR RETAINING WALL NO.1, MINIMUM REINFORCEMENT LENGTH (L) = 1.3H OR 6 FT, WHICHEVER IS LONGER
- 5) FOR RETAINING WALL NO.2, MINIMUM REINFORCEMENT LENGTH (L) = 1.0H OR 6 FT, WHICHEVER IS LONGER

5) REINFORCED ZONE AGGREGATE PARAMETERS:

AGGREGATE TYPE*	UNIT WEIGHT (γ) PCF	FRICTION ANGLE (ϕ) DEGREES	COHESION (c) PSF
COARSE	110	38	0
FINE	115	34	0

*SEE MSE RETAINING WALLS PROVISION FOR COARSE AND FINE AGGREGATE MATERIAL REQUIREMENTS.

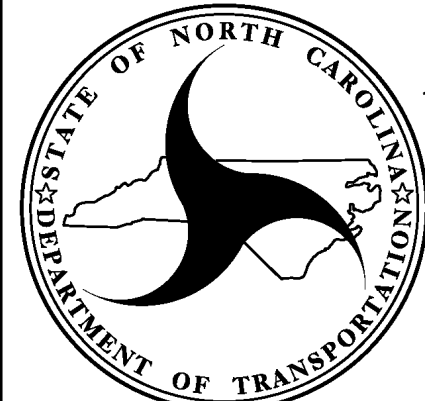
6) IN-SITU ASSUMED MATERIAL PARAMETERS:

MATERIAL TYPE	UNIT WEIGHT (γ) PCF	FRICTION ANGLE (ϕ) DEGREES	COHESION (c) PSF
BACKFILL	120	32	0
FOUNDATION	120	32	0

DO NOT PLACE LEVELING PAD CONCRETE, AGGREGATE OR REINFORCEMENT FOR RETAINING WALLS NO.1 AND NO.2 UNTIL EXCAVATION DIMENSIONS AND FOUNDATION MATERIAL ARE APPROVED.

EXISTING OR FUTURE OBSTRUCTIONS SUCH AS FOUNDATIONS, GUARDRAIL, FENCE OR HANDRAIL POSTS, PAVEMENTS, PIPES, INLETS OR UTILITIES WILL INTERFERE WITH REINFORCEMENT FOR RETAINING WALLS NO.1 AND NO.2.

PREPARED BY: D. TEAGUE	DATE: 6/2019
REVIEWED BY: C.CHEN	DATE: 6/2019



NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
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**MSE WALL NO. 1 AND NO. 2
NOTES ON PLANS**

REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		