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GEOTECHNICAL ENGINEER

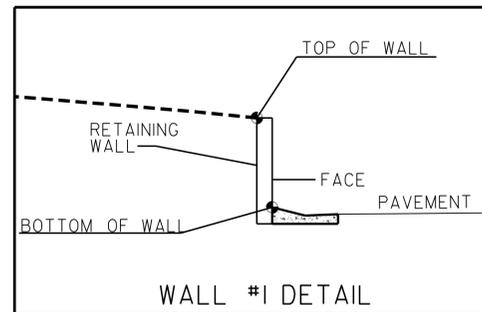
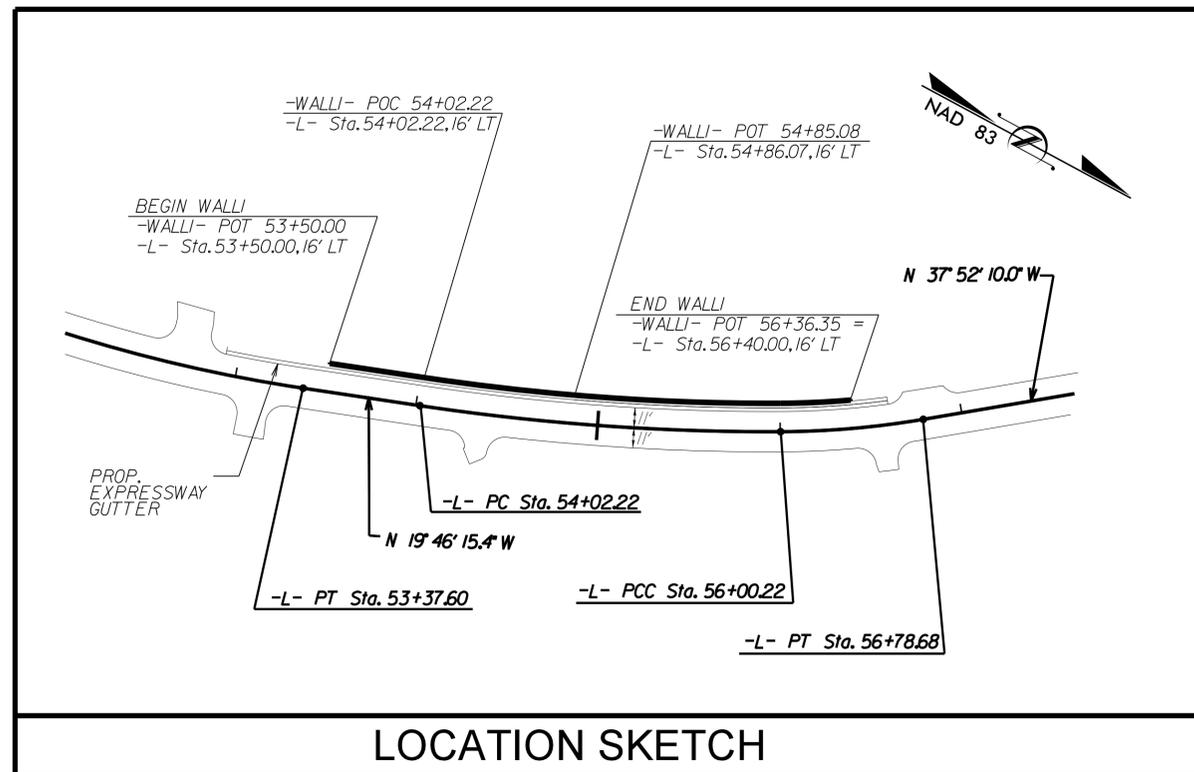
ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 29869

Shane C. Clark

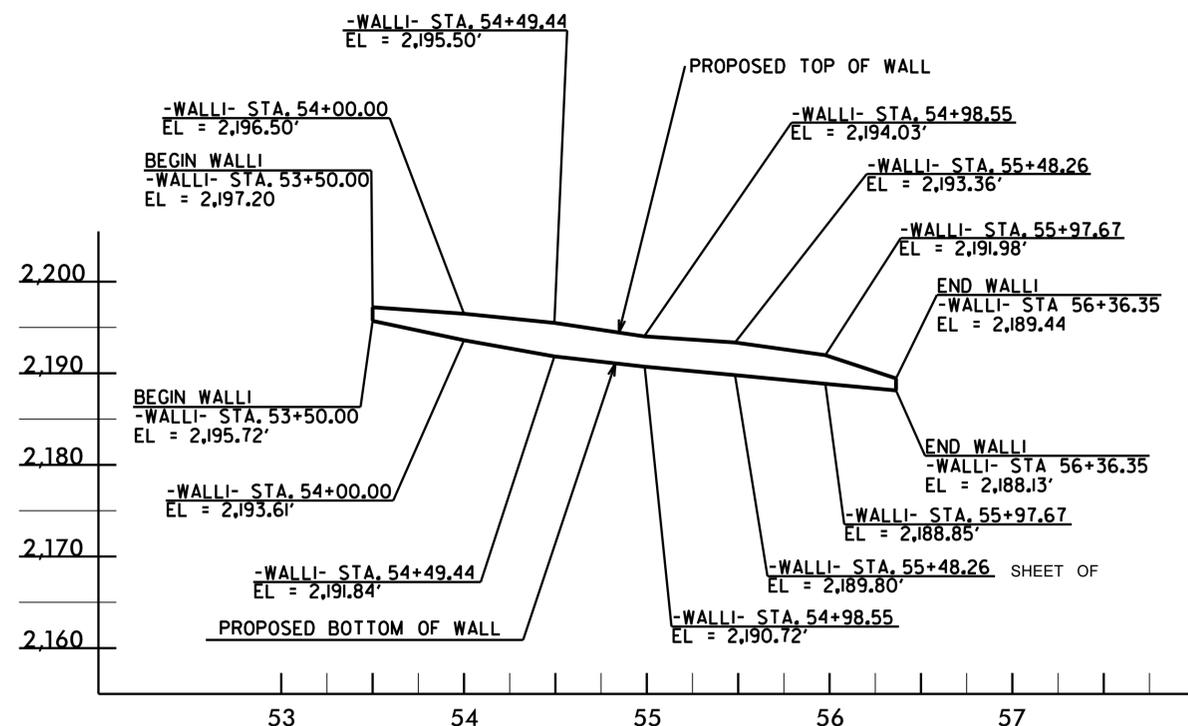
5/6/2015

SIGNATURE DATE SIGNATURE DATE



ESTIMATED WALL QUANTITY

RETAINING WALL NO.	CAST-IN-PLACE GRAVITY RETAINING WALL (SQUARE FEET)
1	850
	SIMULATED STONE FORM LINER FINISH (SQUARE FEET)
1	850



NOTE: WALL OFFSET IS 16 FT. LEFT OF CENTERLINE -L-

PROJECT NO.: R-5206
 JACKSON COUNTY
 STATION: 53+50.00 -L- TO 56+40.00 -L-
 SHEET 1 OF 4

PREPARED BY: EJS DATE: 4/15
 REVIEWED BY: SCC DATE: 4/15

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

GEOTECHNICAL ENGINEERING UNIT

CAST-IN-PLACE GRAVITY RETAINING WALL

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

GEOTECHNICAL ENGINEER

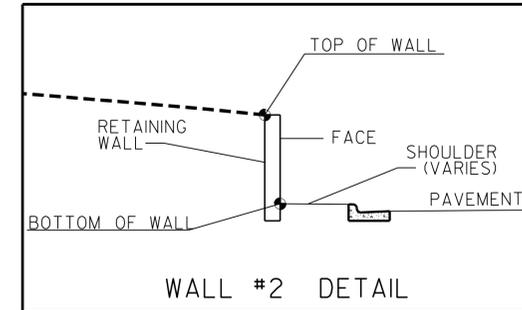
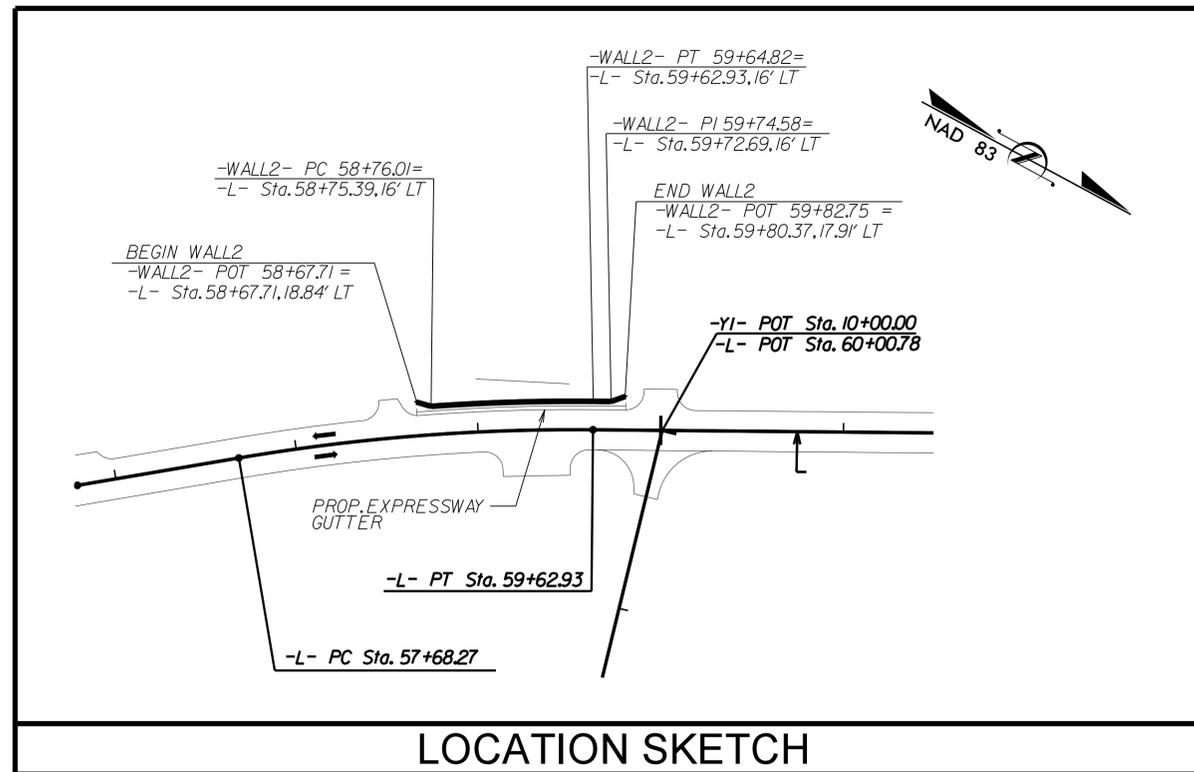
ENGINEER

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 29869

Slone C. Clark

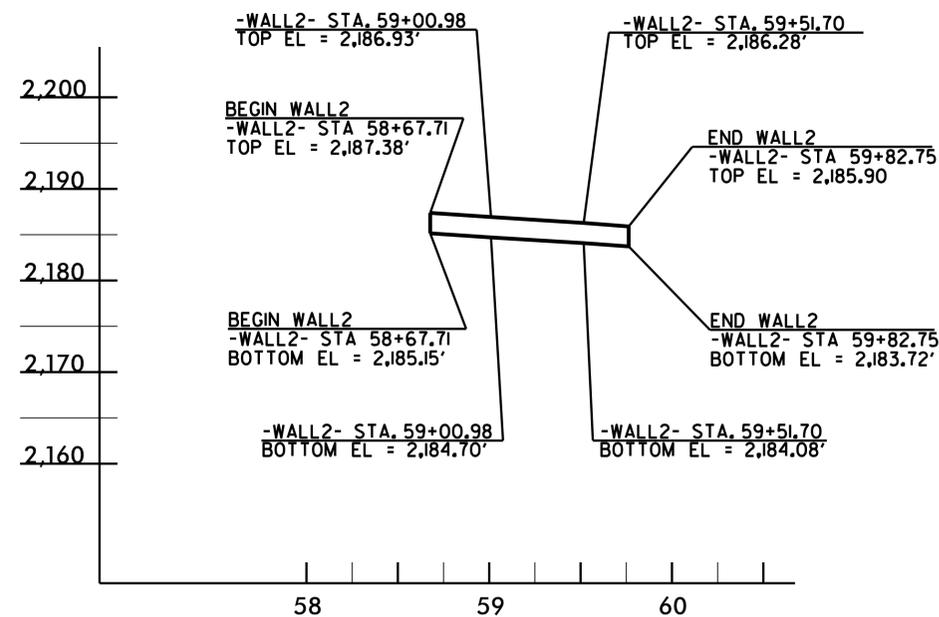
5/6/2015

SIGNATURE DATE SIGNATURE DATE



ESTIMATED WALL QUANTITY

RETAINING WALL NO.	CAST-IN-PLACE GRAVITY RETAINING WALL (SQUARE FEET)
2	245
	SIMULATED STONE FORM LINER FINISH (SQUARE FEET)
2	245



NOTE: SEE LOCATION SKETCH FOR WALL OFFSETS AND TURNING POINT LOCATIONS

ELEVATION - WALL #2

PROJECT NO.: R-5206
 JACKSON COUNTY
 STATION: 58+67.71 -L- TO 59+80.37 -L-
 SHEET 2 OF 4

PREPARED BY: EJS DATE: 4/15
 REVIEWED BY: SCC DATE: 4/15

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

GEOTECHNICAL ENGINEERING UNIT

CAST-IN-PLACE GRAVITY RETAINING WALL

REVISIONS

NO.	BY	DATE	NO.	BY	DATE	SHEET NO.
1			3			W2
2			4			

GEOTECHNICAL ENGINEER

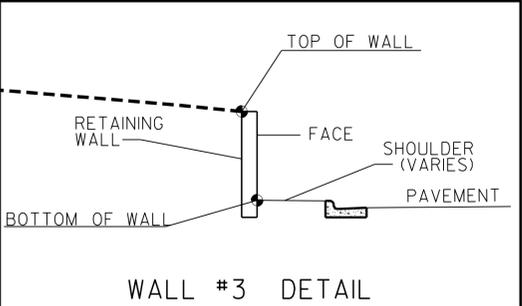
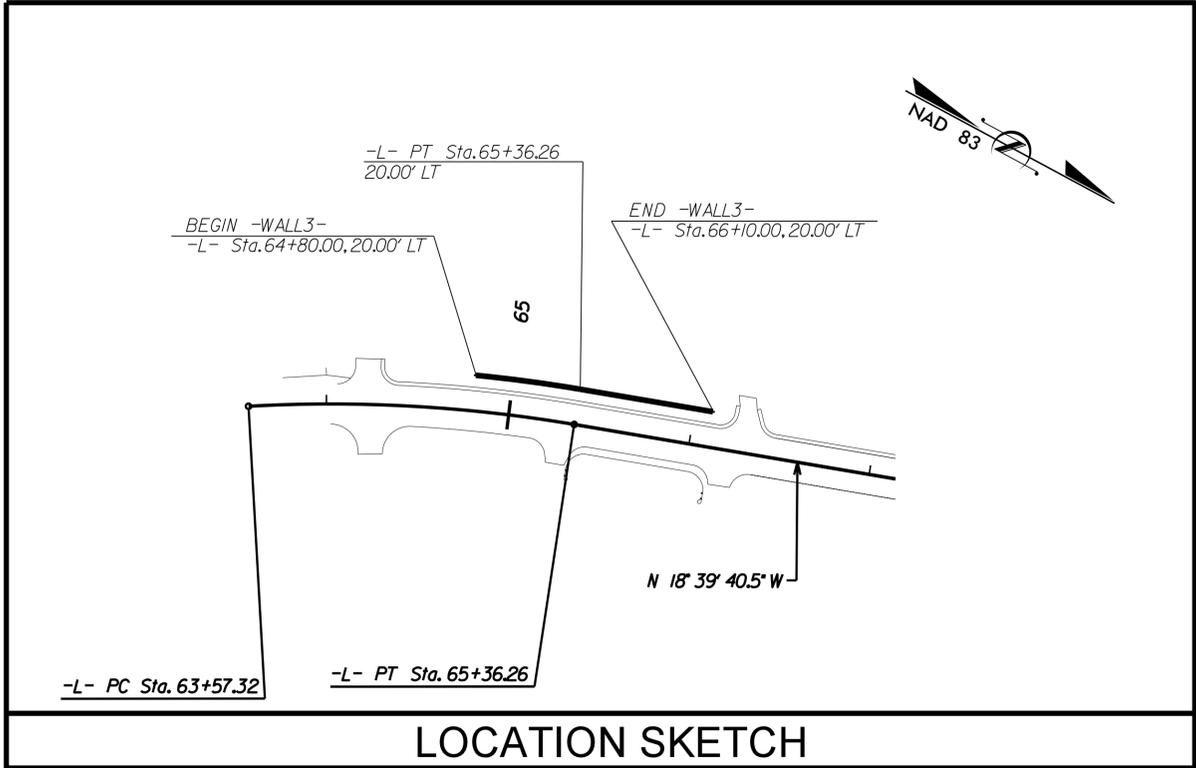
ENGINEER

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 29869

Slawson & Clark, Inc.

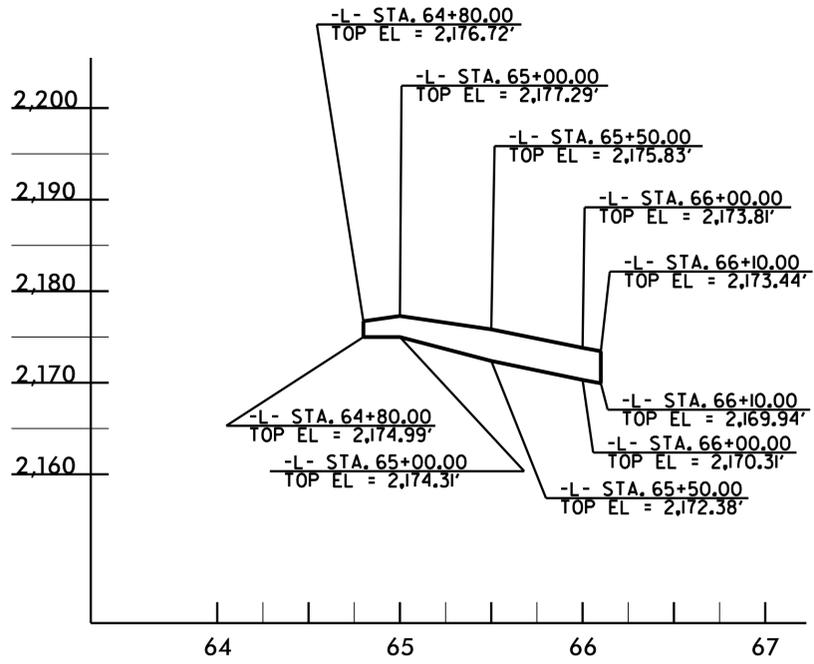
1F487E8D0AD4EEA 5/6/2015

SIGNATURE DATE SIGNATURE DATE



ESTIMATED WALL QUANTITY

RETAINING WALL NO.	CAST-IN-PLACE GRAVITY RETAINING WALL (SQUARE FEET)
3	390
	SIMULATED STONE FORM LINER FINISH (SQUARE FEET)
3	390



NOTE: WALL OFFSET IS 20 FT. LEFT OF CENTERLINE -L-

ELEVATION - WALL #3

PROJECT NO.: R-5206
 JACKSON COUNTY
 STATION: 64+00.00 -L- TO 66+10.00 -L-
 SHEET 3 OF 4

NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

**GEOTECHNICAL
 ENGINEERING UNIT**

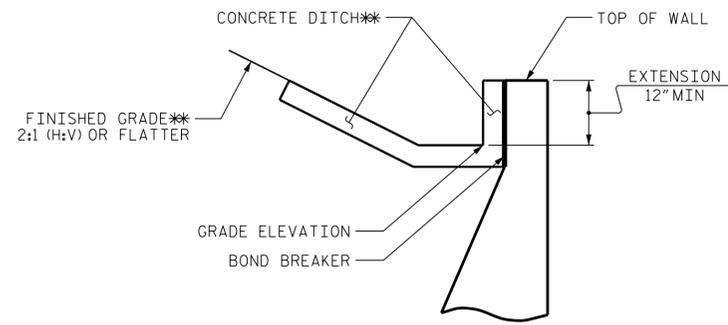
**CAST-IN-PLACE GRAVITY
 RETAINING WALL**

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

SHEET NO. W3

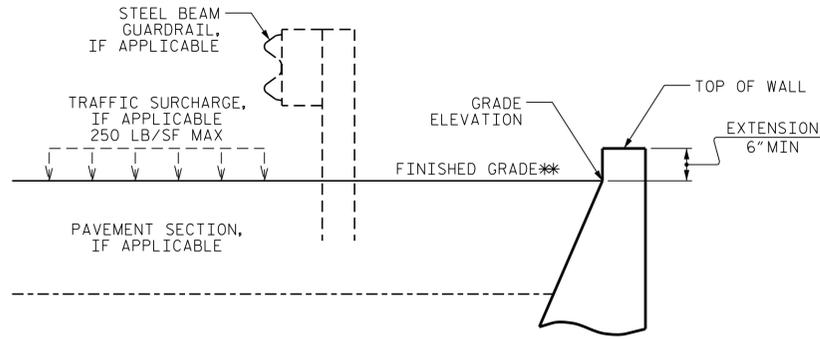
PREPARED BY: EJS	DATE: 4/15
REVIEWED BY: SCC	DATE: 4/15

GEOTECHNICAL ENGINEER  SIGNATURE: _____ DATE: 5/6/2015	ENGINEER SIGNATURE: _____ DATE: _____
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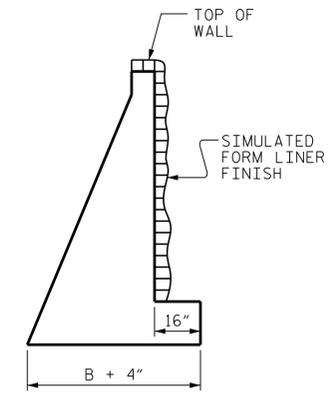
SLOPE CASE

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



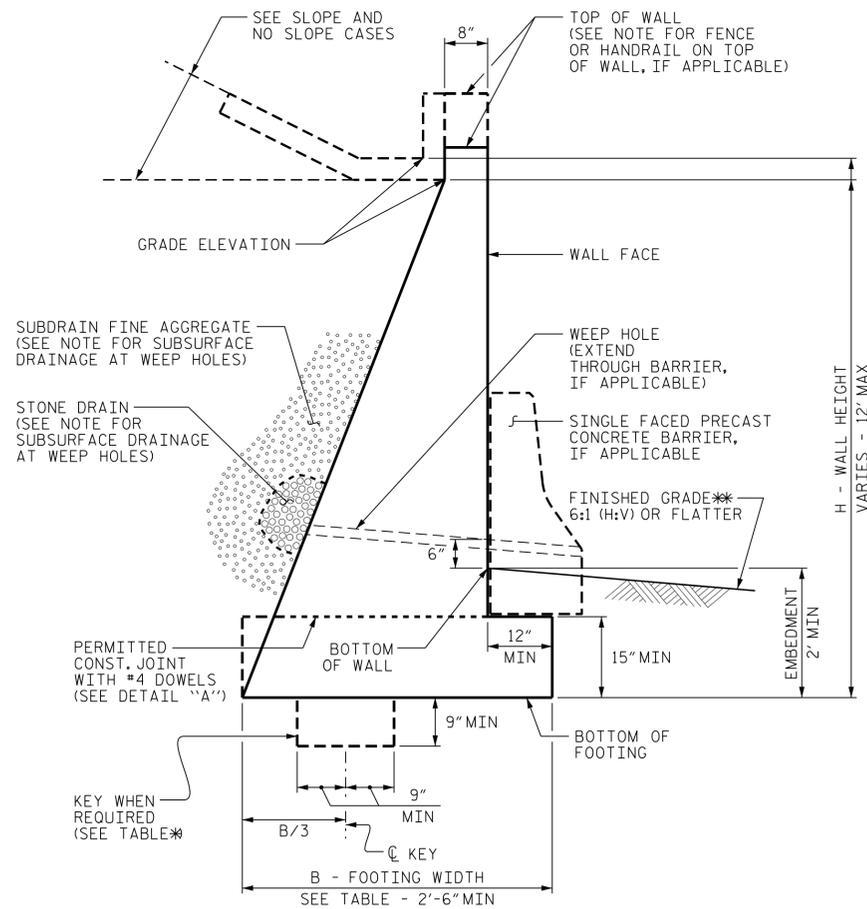
NO SLOPE CASE

**SEE ROADWAY PLANS FOR FINISHED GRADE DETAILS.



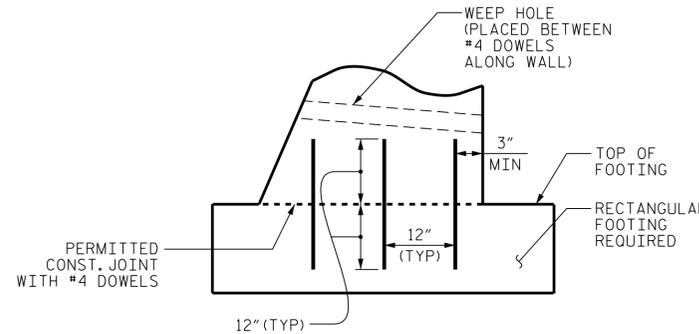
FORM LINER DETAIL

(WHEN APPLICABLE)



STANDARD CIP GRAVITY WALL

**SEE ROADWAY PLANS FOR FINISHED GRADE DETAILS.



DETAIL "A"

H (FT)	3 - < 6	6 - 9	> 9 - 12
SLOPE CASE	.66	.70*	.75*
NO SLOPE CASE WITH TRAFFIC SURCHARGE	.80	.75*	.70*
NO SLOPE CASE WITHOUT TRAFFIC SURCHARGE	.60	.60	.60

B/H RATIO (B = 2'-6" MIN)

**KEY IS REQUIRED FOR "SLOPE CASE" OR "NO SLOPE CASE WITH TRAFFIC SURCHARGE" WHEN H IS 6' OR GREATER.

NOTES:

- FOR STANDARD CAST-IN-PLACE (CIP) GRAVITY RETAINING WALLS, SEE CAST-IN-PLACE GRAVITY RETAINING WALLS PROVISION.
- FOR SUBSURFACE DRAINAGE AT WEEP HOLES, SEE ARTICLE 414-8 OF THE STANDARD SPECIFICATIONS.
- STANDARD CIP GRAVITY WALLS ARE BASED ON THE FOLLOWING IN-SITU ASSUMED SOIL PARAMETERS:
 UNIT WEIGHT, $\gamma = 120$ LB/CF
 FRICTION ANGLE, $\phi = 35$ DEGREES (GROUNDWATER WITHIN 7' OF BOTTOM OF FOOTING)
 FRICTION ANGLE, $\phi = 30$ DEGREES (GROUNDWATER MORE THAN 7' BELOW BOTTOM OF FOOTING)
 COHESION, $c = 0$ LB/SF
- DO NOT USE STANDARD CIP GRAVITY WALLS IF ASSUMED SOIL PARAMETERS ARE NOT APPLICABLE OR GROUNDWATER IS ABOVE BOTTOM OF FOOTING.
- DO NOT USE STANDARD CIP GRAVITY WALLS WHEN VERY LOOSE OR SOFT SOIL OR MUCK IS BELOW WALLS.
- BEFORE BEGINNING STANDARD CIP 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.
- FOR SIMULATED FORM LINER FINISH, SEE SPECIAL PROVISIONS BEFORE BEGINNING STANDARD CIP GRAVITY WALL CONSTRUCTION.
- DO NOT PLACE CONCRETE FOR FOOTINGS UNTIL EXCAVATION DIMENSIONS AND FOUNDATION MATERIAL ARE APPROVED.
- WHEN CONSTRUCTING STANDARD CIP GRAVITY WALLS WITH A CONSTRUCTION JOINT AS SHOWN IN DETAIL "A", PROVIDE A MINIMUM OF 3 EQUALLY SPACED #4 DOWELS AT INTERVALS OF 1'-6" ALONG WALLS.
- GRADING AT ENDS OF WALL MAY BE REQUIRED TO TRANSITION SOIL AROUND ENDS OF WALLS TO MAINTAIN A 2:1 SLOPE. THIS WORK SHOULD BE PERFORMED AS DIRECTED BY THE ENGINEER.

PROJECT NO.: R-5206
 JACKSON COUNTY
 STATION: VARIES, SEE WALL ENVELOPES
 SHEET 4 OF 4


NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

GEOTECHNICAL
ENGINEERING UNIT

STANDARD DETAIL NO. 453.01

STANDARD
CAST-IN-PLACE (CIP)
GRAVITY RETAINING WALL

 DATE: 3-17-15

SHEET NO. W4