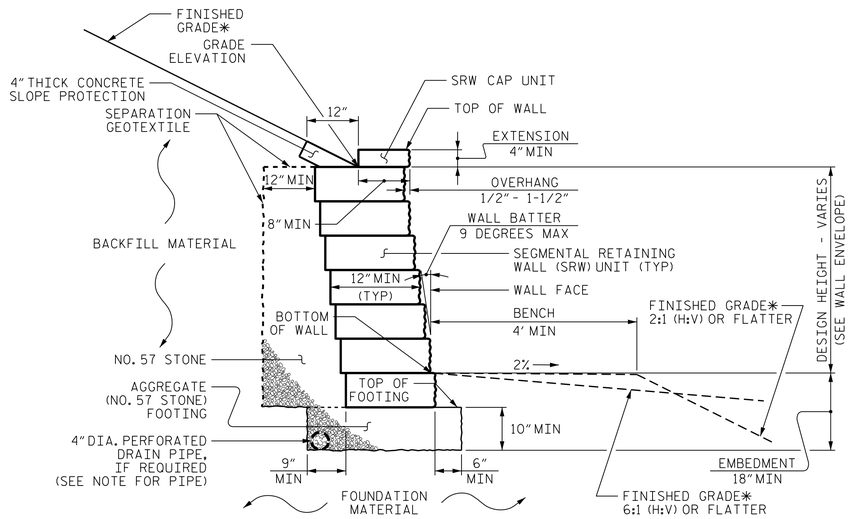
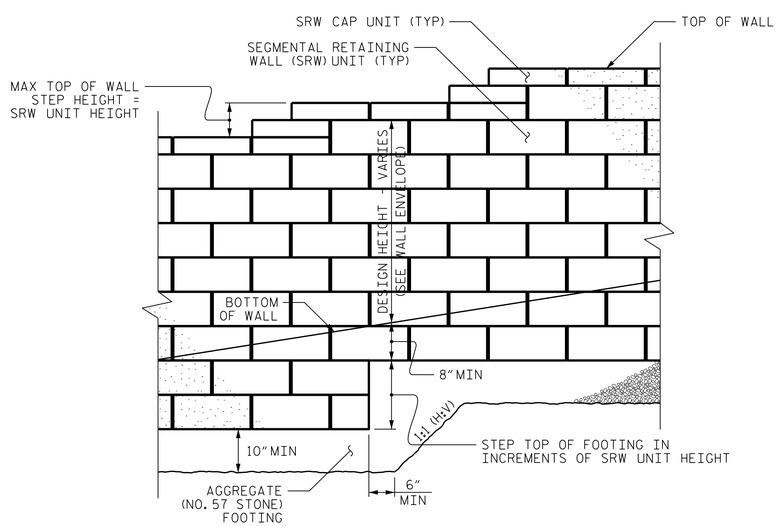
GEOTECHNICAL ENGINEER	ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 29869 ENGINEER SHANE C. CLARK DocuSigned by: Shane C. Clark 7/7/2015 1F4E87E0E0EADHEA SIGNATURE DATE	SIGNATURE DATE



SEGMENTAL GRAVITY WALL - TYPICAL SECTION

*SEE ROADWAY PLANS FOR FINISHED GRADE DETAILS.



SEGMENTAL GRAVITY WALL - TYPICAL ELEVATION

NOTES:

FOR SEGMENTAL GRAVITY RETAINING WALLS, SEE SEGMENTAL GRAVITY RETAINING WALLS PROVISION.

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

FOR SINGLE FACED PRECAST CONCRETE BARRIER, SEE ROADWAY PLANS AND SECTION 857 OF THE STANDARD SPECIFICATIONS.

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

USE SRW UNITS WITH A ASHLAR PATTERN FACE FOR RETAINING WALLS.

USE SRW UNITS WITH A RED BRICK COLOR MATCHING THE DECORATIVE CROSSWALK AT PINECREST STREET, OR AN APPROVED EQUAL AS DIRECTED BY THE ENGINEER, FOR THE RETAININING WALL.
A DRAIN PIPE IS REQUIRED FOR RETAINING WALLS.

BEFORE BEGINNING SEGMENTAL GRAVITY WALL DESIGN FOR RETAINING WALLS, 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 WALLS 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 WALLS FOR THE FOLLOWING:
1) MAXIMUM FACTORED VERTICAL PRESSURE ON FOUNDATON MATERIAL = 2000 LB/SF
2) MINIMUM EMBEDMENT ELEVATION = 1.5 FT. BELOW FINISHED GRADE
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

IF NECESSARY, DESIGN RETAINING WALLS FOR A PIPE EXTENDING THROUGH THE WALL AS SHOWN. VERIFY PIPE LOCATION AND ELEVATION BEFORE BEGINNING SEGMENTAL GRAVITY WALL DESIGN OR CONSTRUCTION.

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

PROJECT NO.: ER-2971H
RANDOLPH COUNTY
STATION: 8+18.27 TO 9+62.27 +/-
SHEET 1 OF 1 ALONG NORTH MAIN STREET

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

GEOTECHNICAL ENGINEERING UNIT

SEGMENTAL GRAVITY WALL WITH BACK SLOPE- TYPICALS & NOTES

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

PREPARED BY: EJS	DATE: 7/15
REVIEWED BY: SCC	DATE: 7/15