

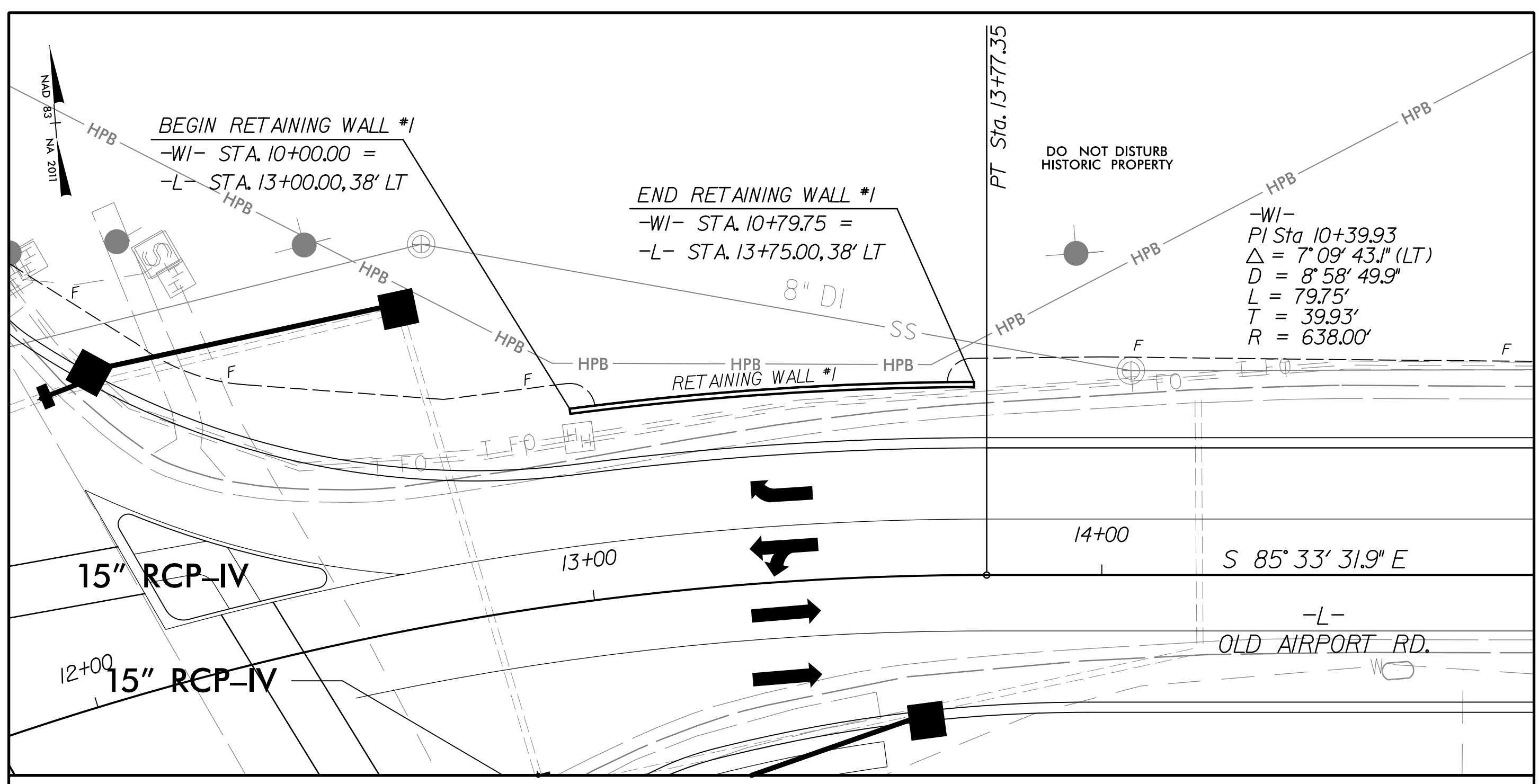
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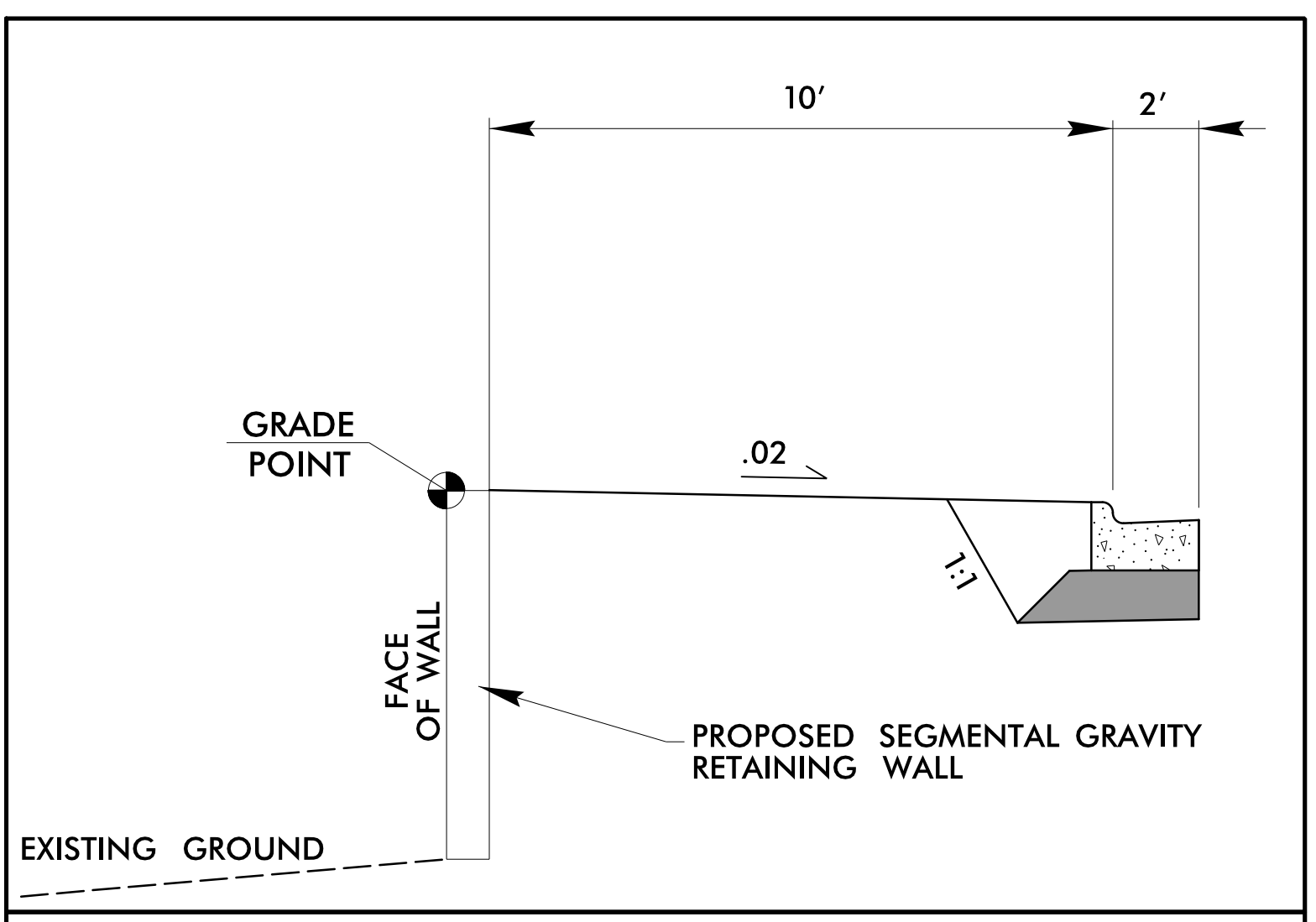
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RETAINING WALL #1 DETAIL SHEET

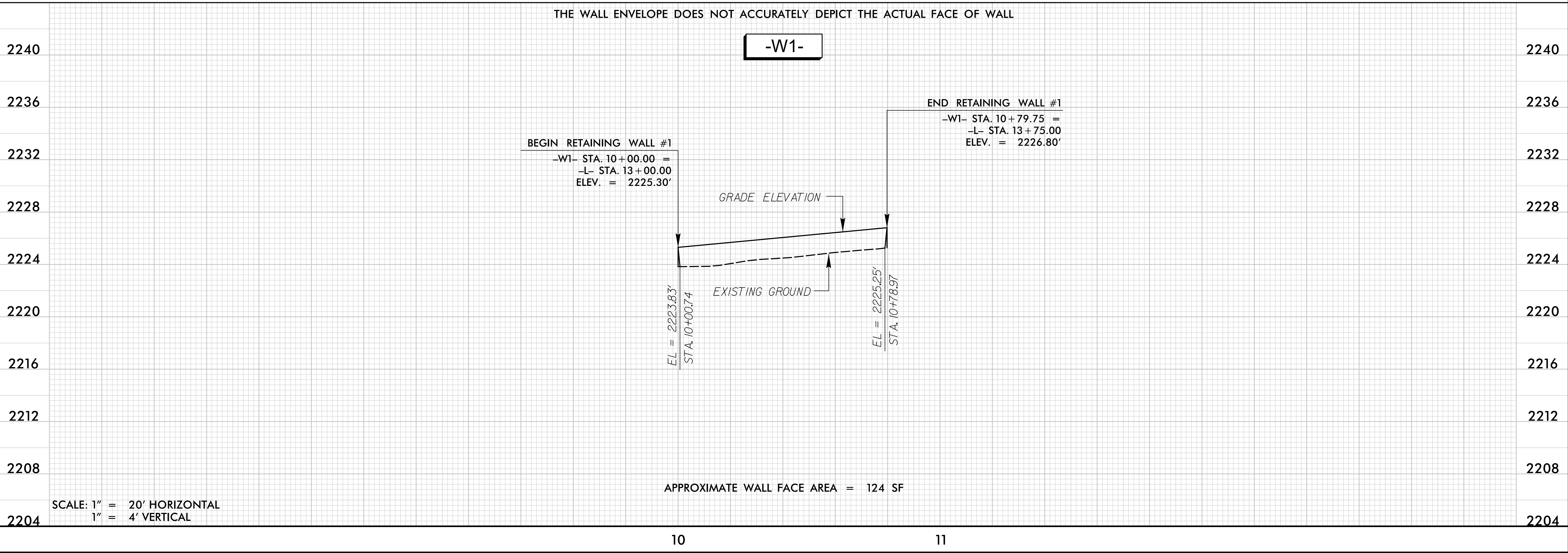
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| PROJECT REFERENCE NO. U-5840 | SHEET NO. W-1 |
| RW SHEET NO. | |
| ROADWAY DESIGN ENGINEER | |
| | |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | |
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SCALE 1" = 20'
 PLAN VIEW
 SEE SHEET 4 FOR FULL PLAN VIEW



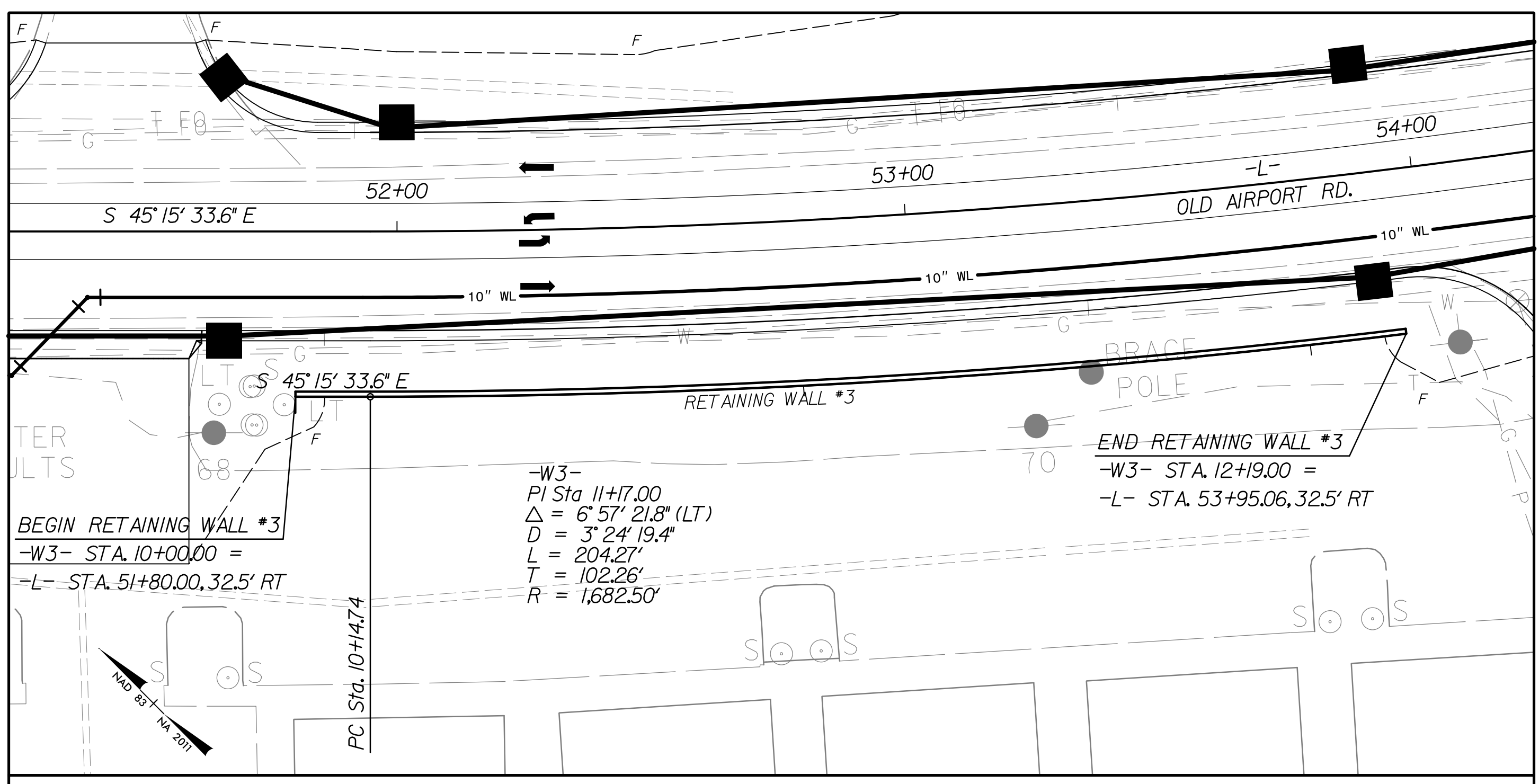
RETAINING WALL DETAIL
 NOT TO SCALE



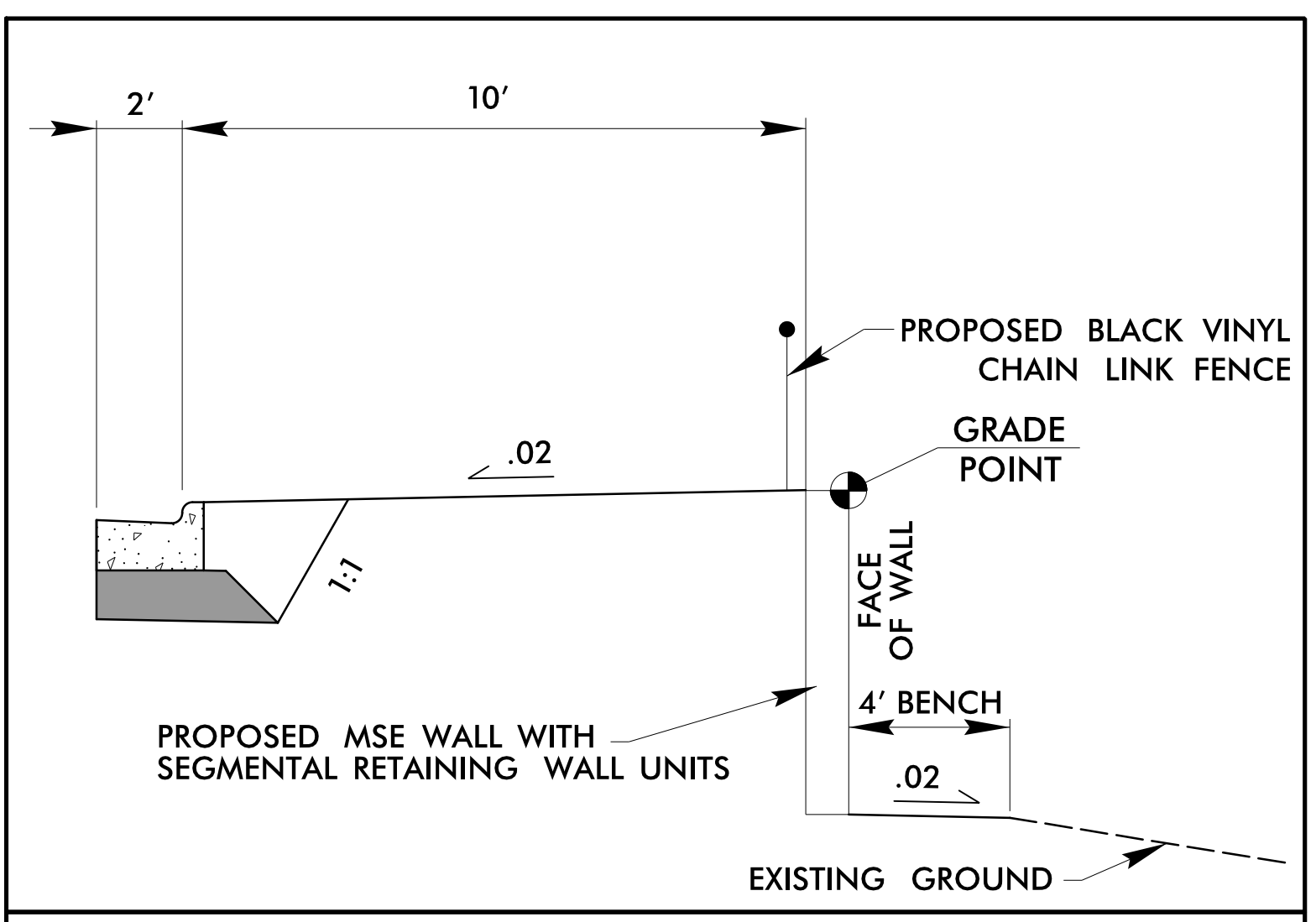
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| PROJECT REFERENCE NO. U-5840 | SHEET NO. W-3 |
| RW SHEET NO. | |
| ROADWAY DESIGN ENGINEER | |
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RETAINING WALL #3 DETAIL SHEET

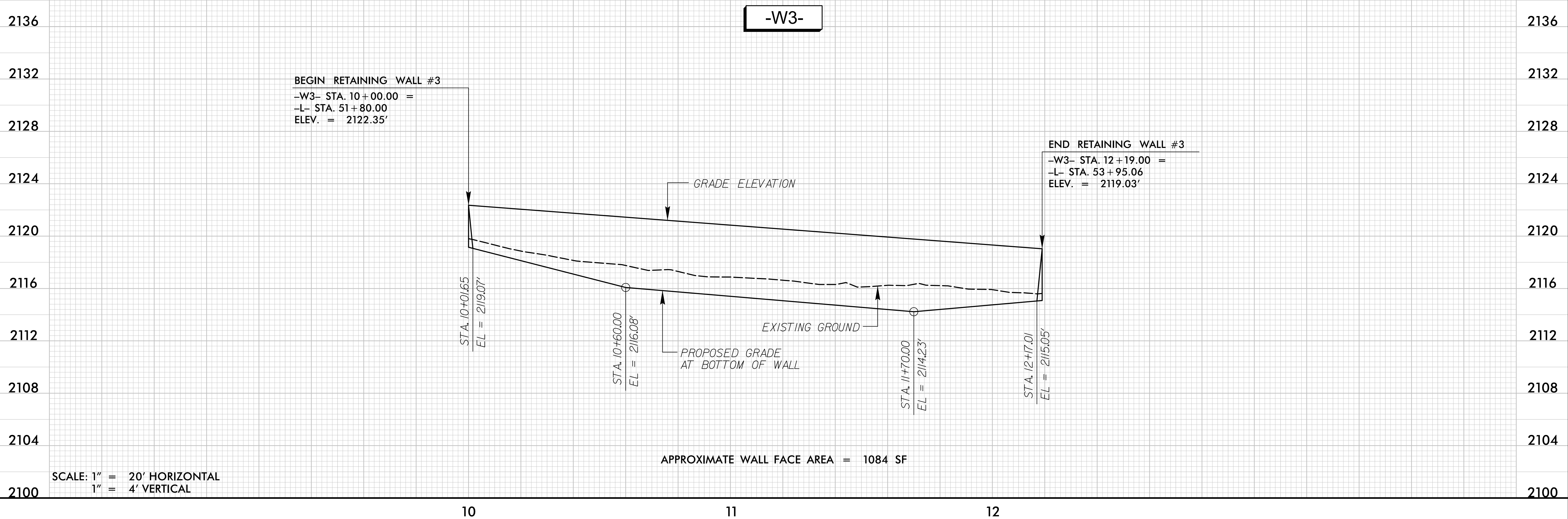


SCALE 1" = 20' PLAN VIEW SEE SHEET 7 FOR FULL PLAN VIEW



RETAINING WALL DETAIL
NOT TO SCALE

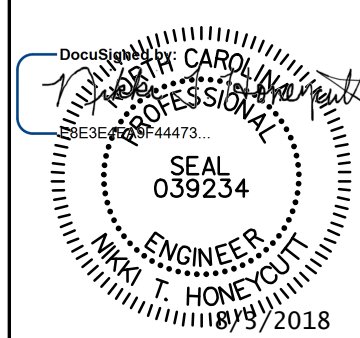

THE WALL ENVELOPE DOES NOT ACCURATELY DEPICT THE ACTUAL FACE OF WALL

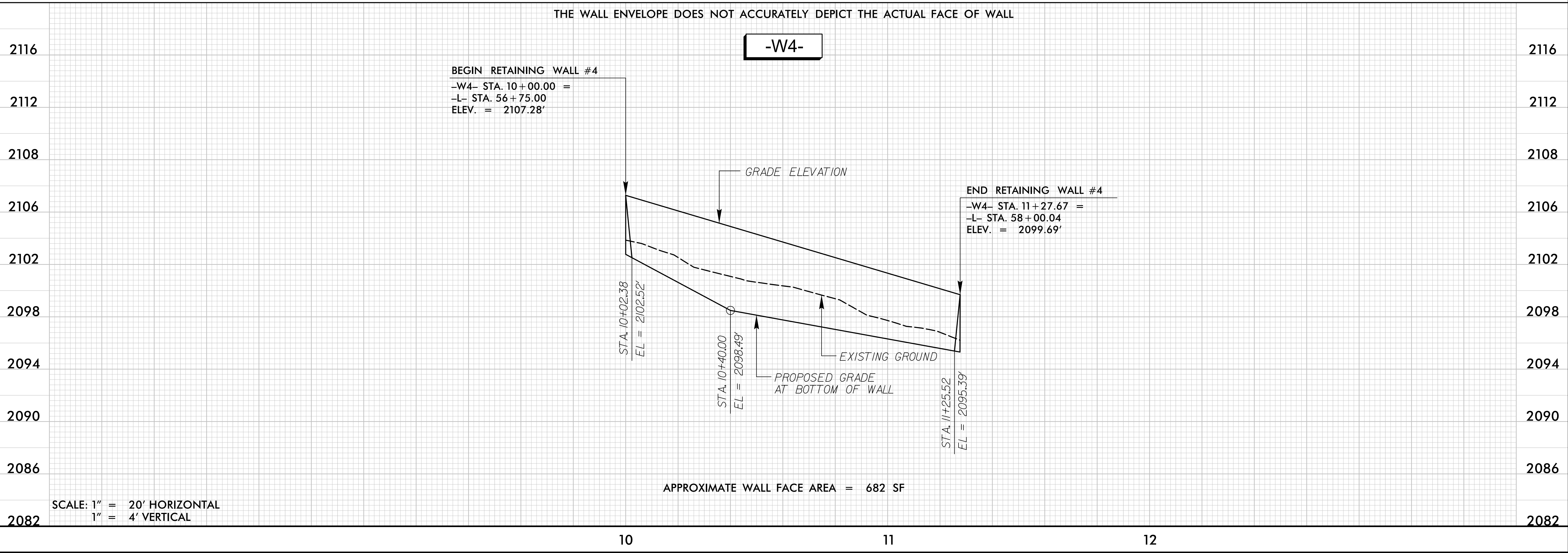
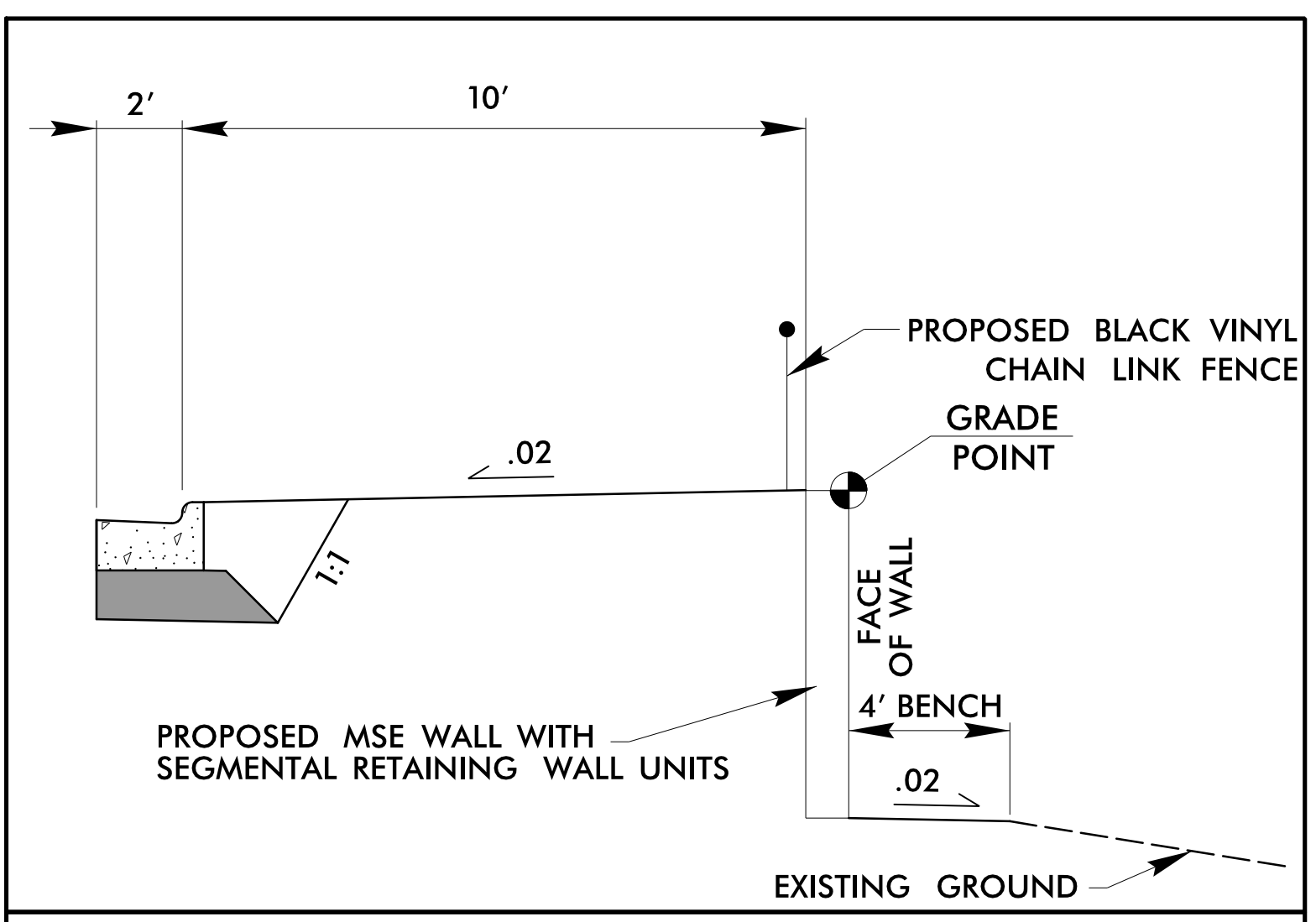
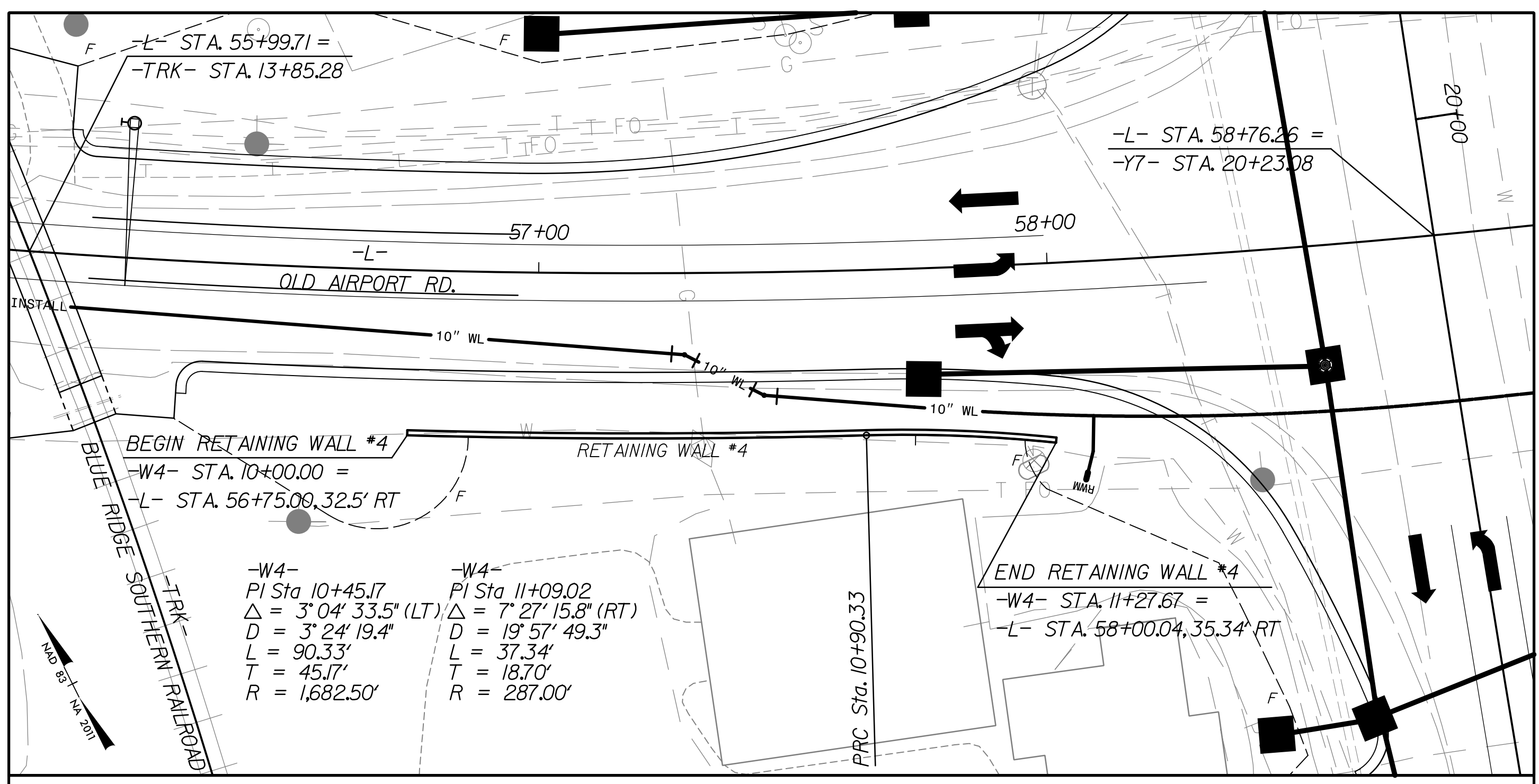


SCALE: 1" = 20' HORIZONTAL
1" = 4' VERTICAL

8/17/99
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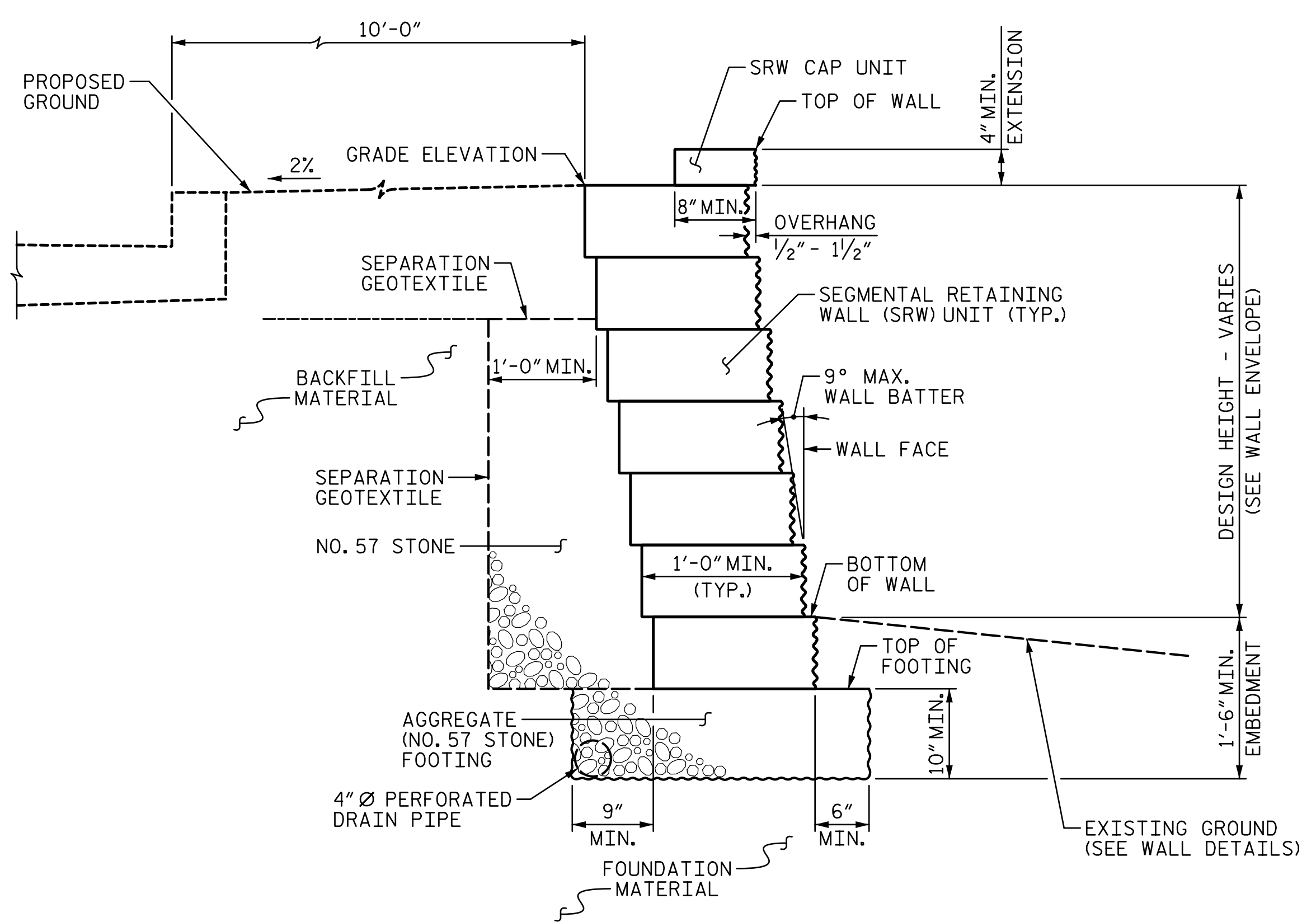
RETAINING WALL #4 DETAIL SHEET

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|---|-------------------------|
| PROJECT REFERENCE NO. <i>U-5840</i> | SHEET NO. <i>W-4</i> |
| RW SHEET NO. | |
| ROADWAY DESIGN ENGINEER | |
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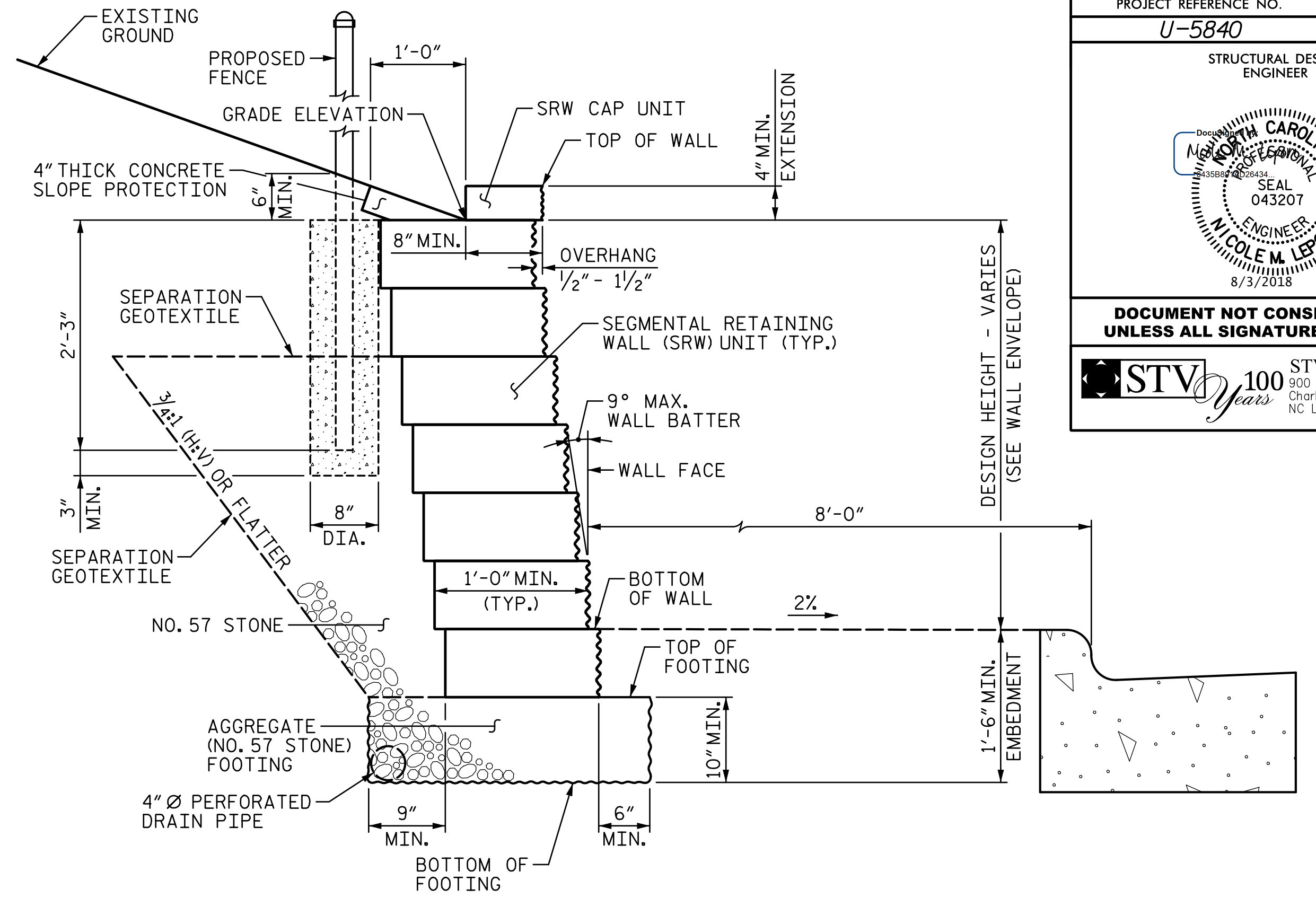


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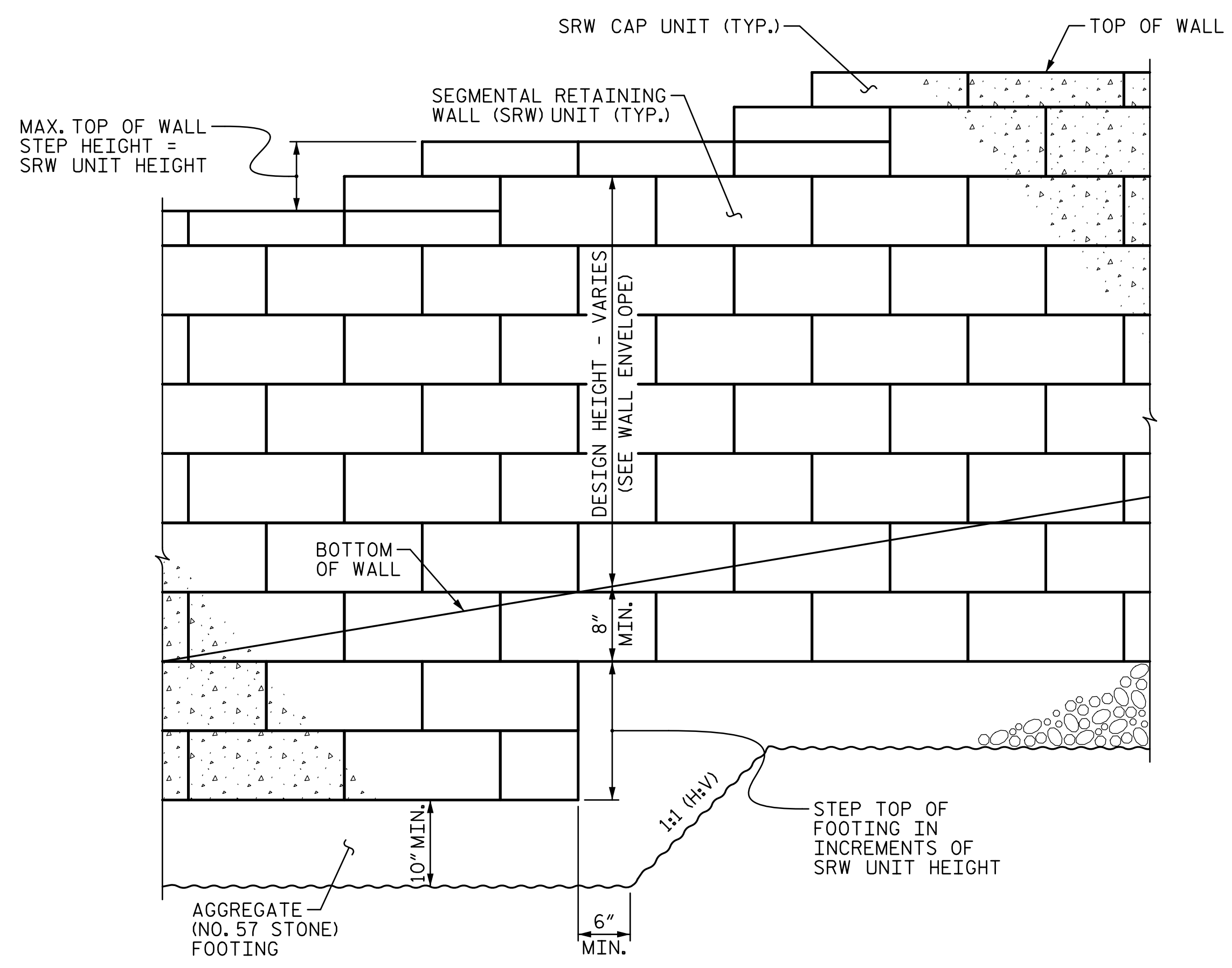
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| PROJECT REFERENCE NO. U-5840 | SHEET NO. W-5 |
| STRUCTURAL DESIGN ENGINEER | |
| | |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | |
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SEGMENTAL GRAVITY WALL -W1- TYPICAL SECTION



SEGMENTAL GRAVITY WALL -W2- TYPICAL SECTION



SEGMENTAL GRAVITY WALL TYPICAL ELEVATION

(FENCE FOR WALL -W2- NOT SHOWN FOR CLARITY)

NOTES:

- FOR SEGMENTAL GRAVITY RETAINING WALLS, SEE SECTION 454 OF THE STANDARD SPECIFICATIONS.
 - FREEZE-THAW DURABLE SRW UNITS THAT MEET ARTICLE 1040-4 OF THE STANDARD SPECIFICATIONS ARE REQUIRED.
 - SUBMIT A SAMPLE OF THE SRW UNIT FOR THE RETAINING WALLS TO THE DIVISION ENGINEER FOR APPROVAL.
 - USE SRW UNITS WITH A WHITE NEUTRAL CONCRETE COLOR FOR RETAINING WALLS.
 - A DRAIN PIPE IS REQUIRED FOR RETAINING WALLS. VERIFY PIPE LOCATION AND ELEVATION BEFORE BEGINNING SEGMENTAL GRAVITY WALL DESIGN OR CONSTRUCTION.
 - 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 WALL -W1- FOR THE FOLLOWING:**

 - 1) MAXIMUM FACTORED VERTICAL STRESS ON FOUNDATION MATERIAL = 2,000 LB/SF. THIS ASSUMES ANY FILL OR SOFT SOILS, IF ENCOUNTERED, WILL BE UNDERCUT AND REPLACED.
 - 2) MAXIMUM COEFFICIENT OF FRICTION = 0.35
 - 3) GROUNDWATER WAS NOT ENCOUNTERED IN THE BORING TERMINATION DEPTHS.
 - 4) 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 | 28 | 0 |

DESIGN RETAINING WALL -W2- FOR THE FOLLOWING:

 - 1) MAXIMUM FACTORED VERTICAL STRESS ON FOUNDATION MATERIAL = 2,500 LB/SF. THIS ASSUMES ANY FILL OR SOFT SOILS, IF ENCOUNTERED, WILL BE UNDERCUT AND REPLACED.
 - 2) MAXIMUM COEFFICIENT OF FRICTION = 0.35
 - 3) GROUNDWATER WAS NOT ENCOUNTERED IN THE BORING TERMINATION DEPTHS.
 - 4) 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 | 28 | 0 |
- IGNORE PASSIVE EARTH PRESSURES IN THE UPPER 18 INCHES OF RETAINING WALLS -W1- AND -W2-.
- DESIGN RETAINING WALL -W1- FOR A LIVE LOAD SURCHARGE OF 250 PSF.
- DO NOT PLACE NO. 57 STONE FOR FOOTINGS FOR RETAINING WALLS UNTIL EXCAVATION DIMENSIONS AND FOUNDATION MATERIAL ARE APPROVED.
- FOR PROPOSED FENCE DETAILS, SEE SPECIAL PROVISION.

3/12/2018
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