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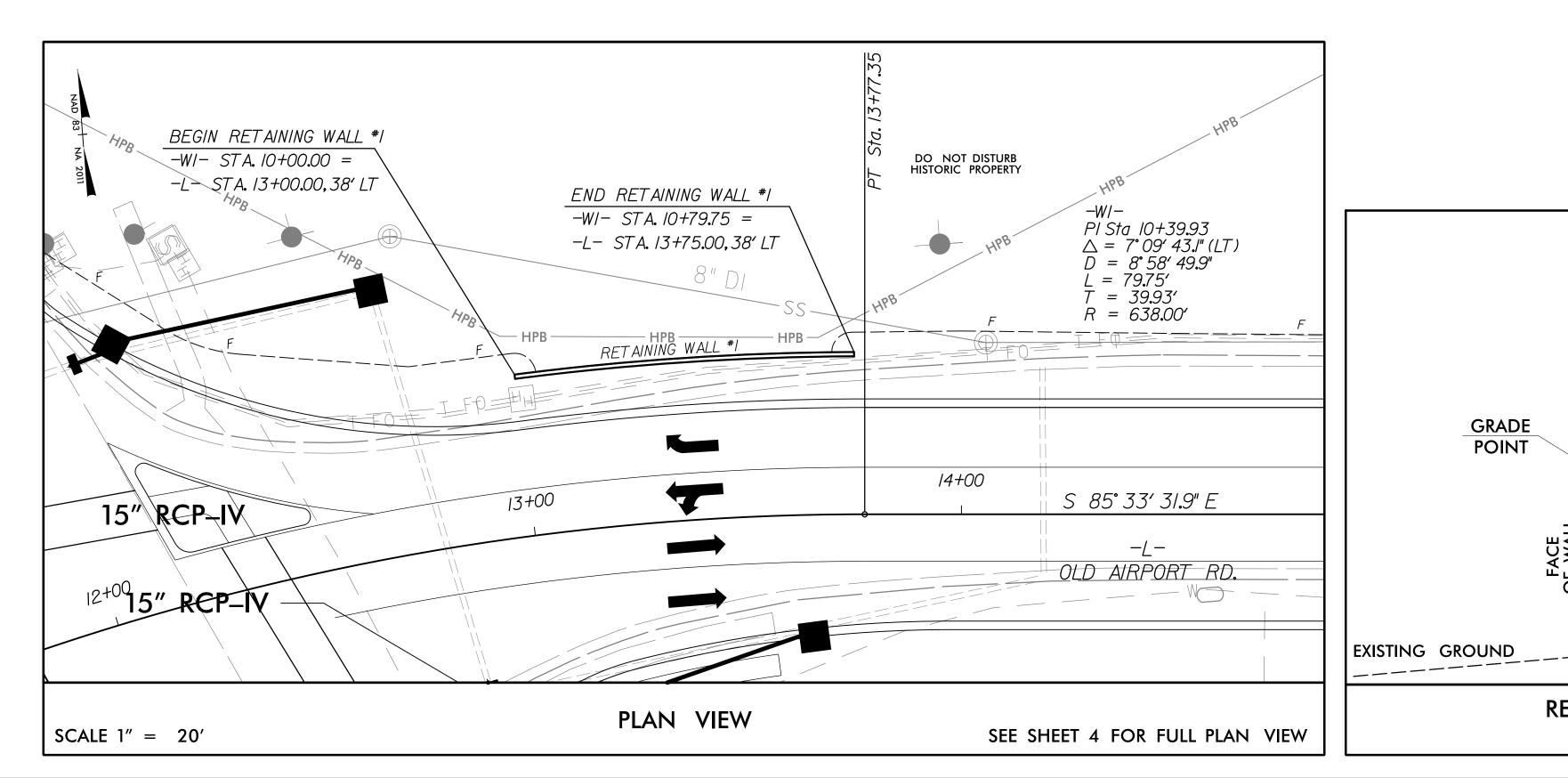
# RETAINING WALL #1 DETAIL SHEET

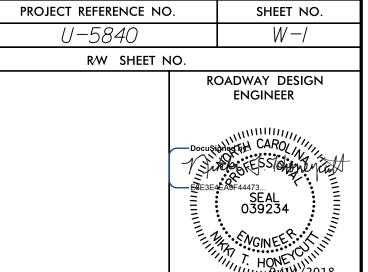
GRADE POINT

PROPOSED SEGMENTAL GRAVITY RETAINING WALL

RETAINING WALL DETAIL

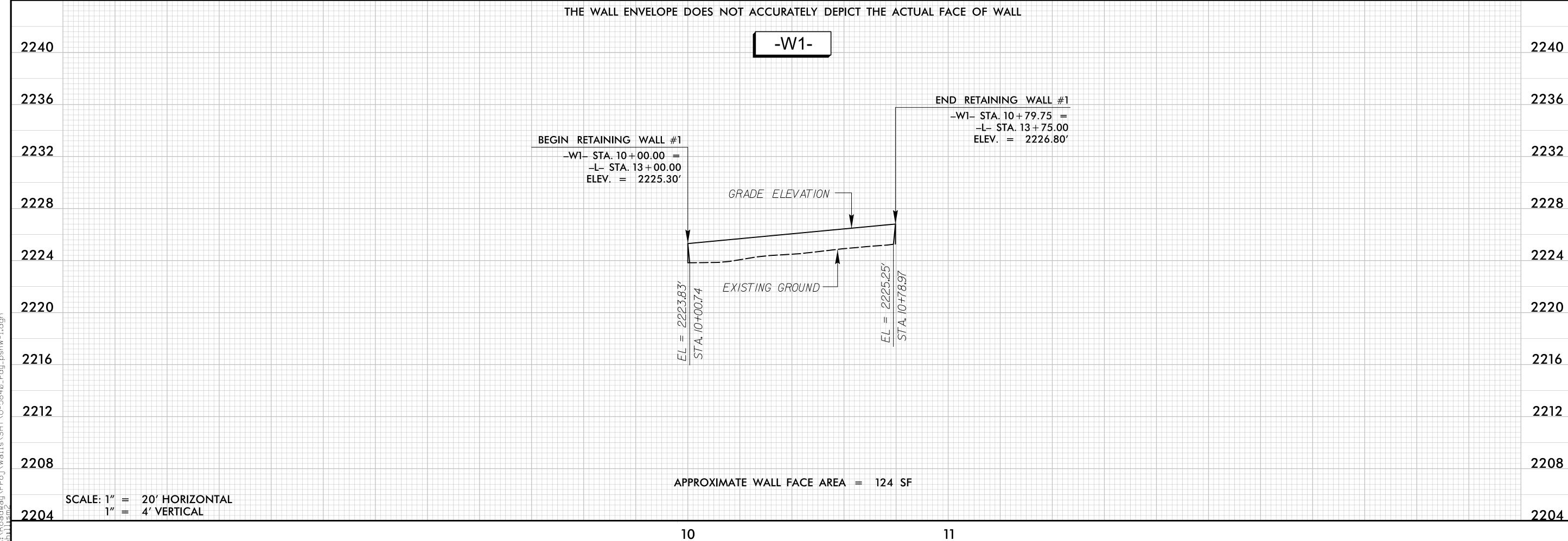
NOT TO SCALE



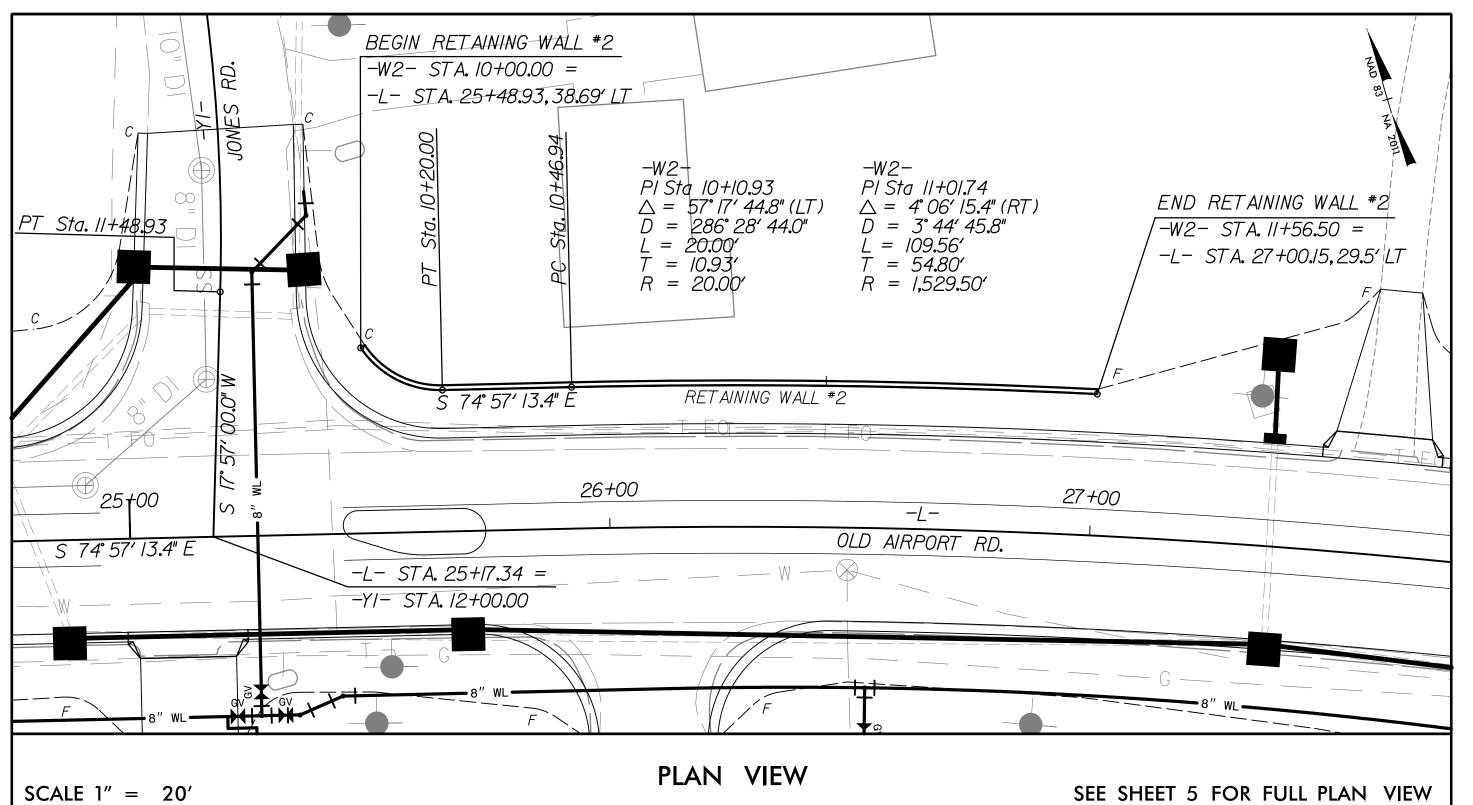


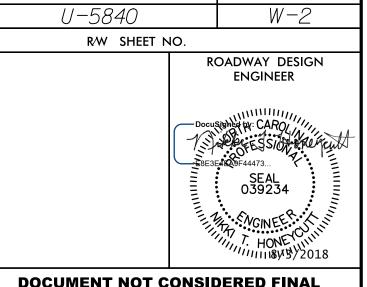
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# RETAINING WALL #2 DETAIL SHEET



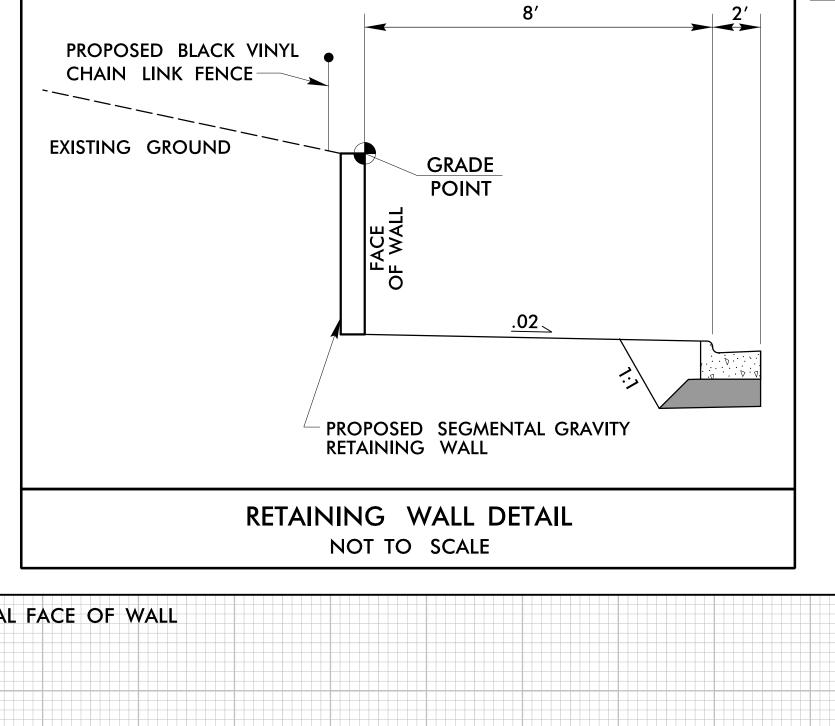


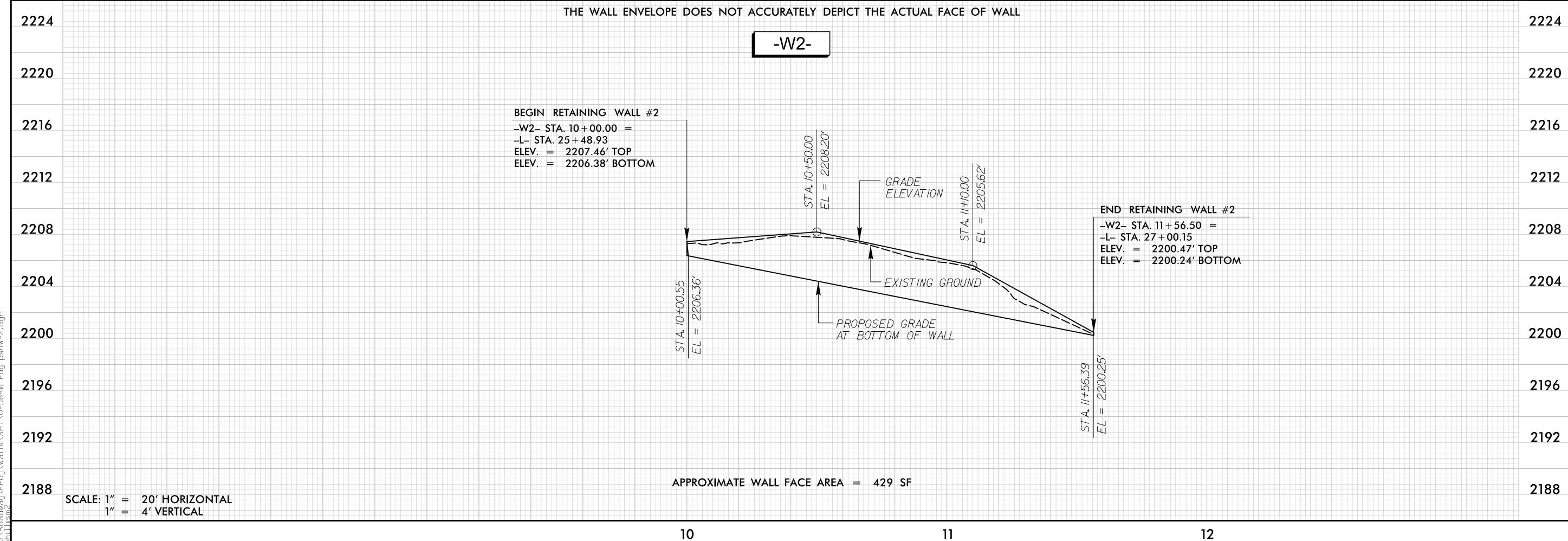
SHEET NO.

PROJECT REFERENCE NO.

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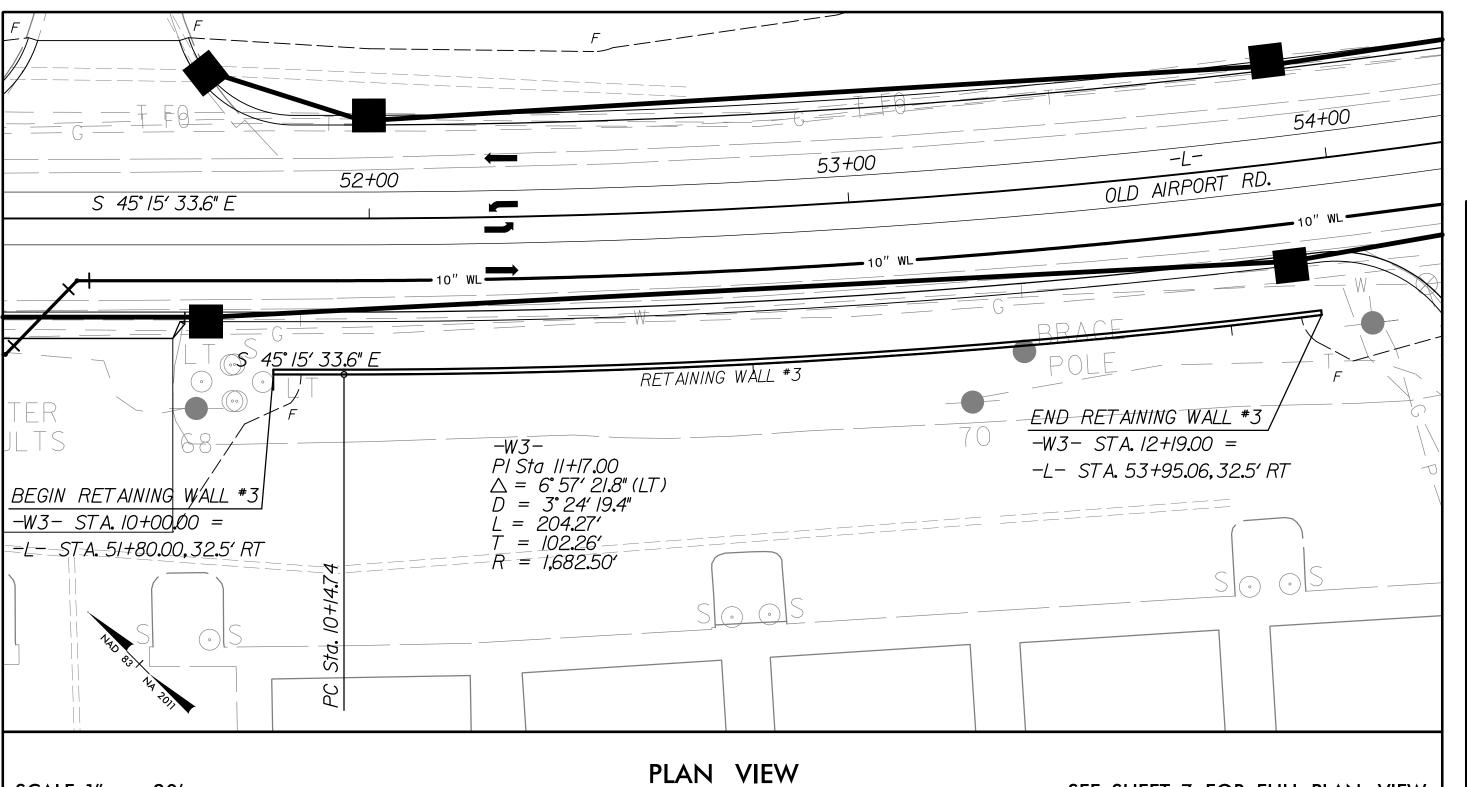


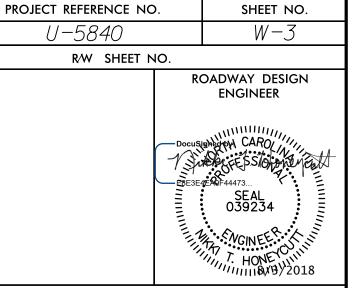




SCALE 1'' = 20'

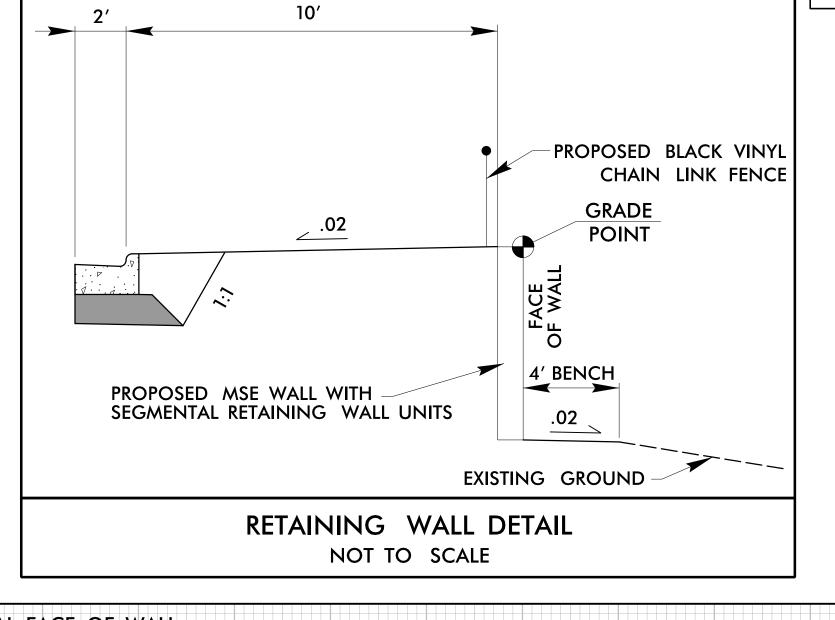
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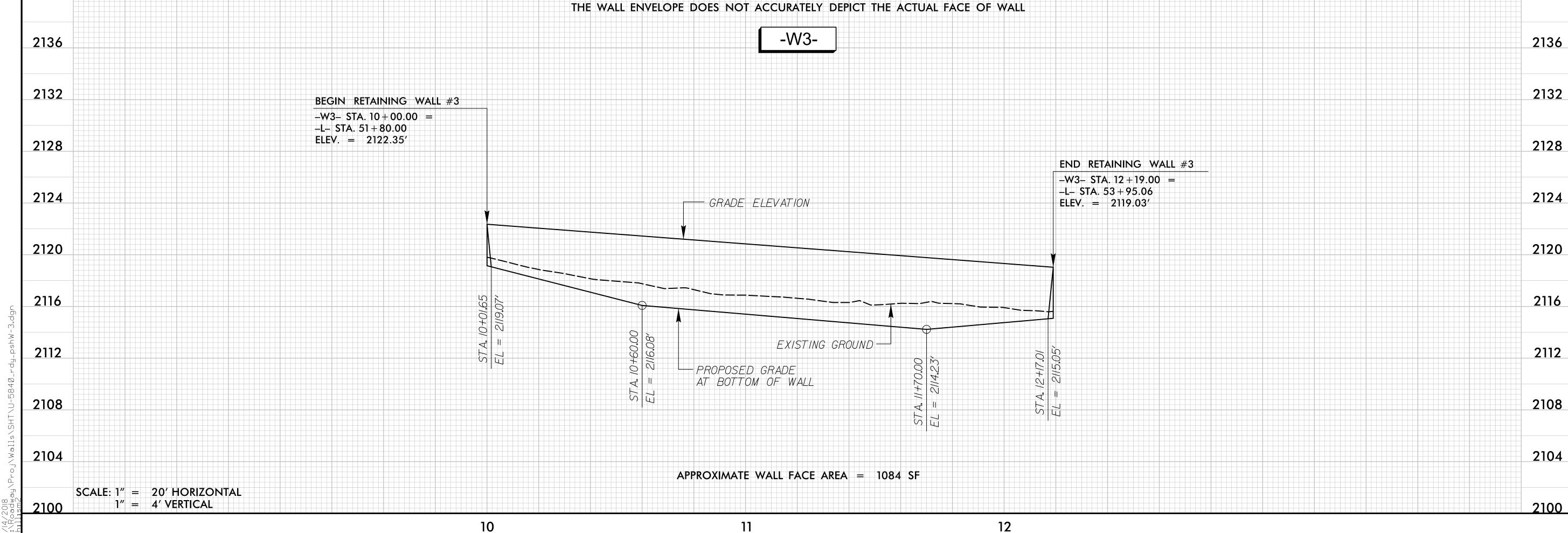




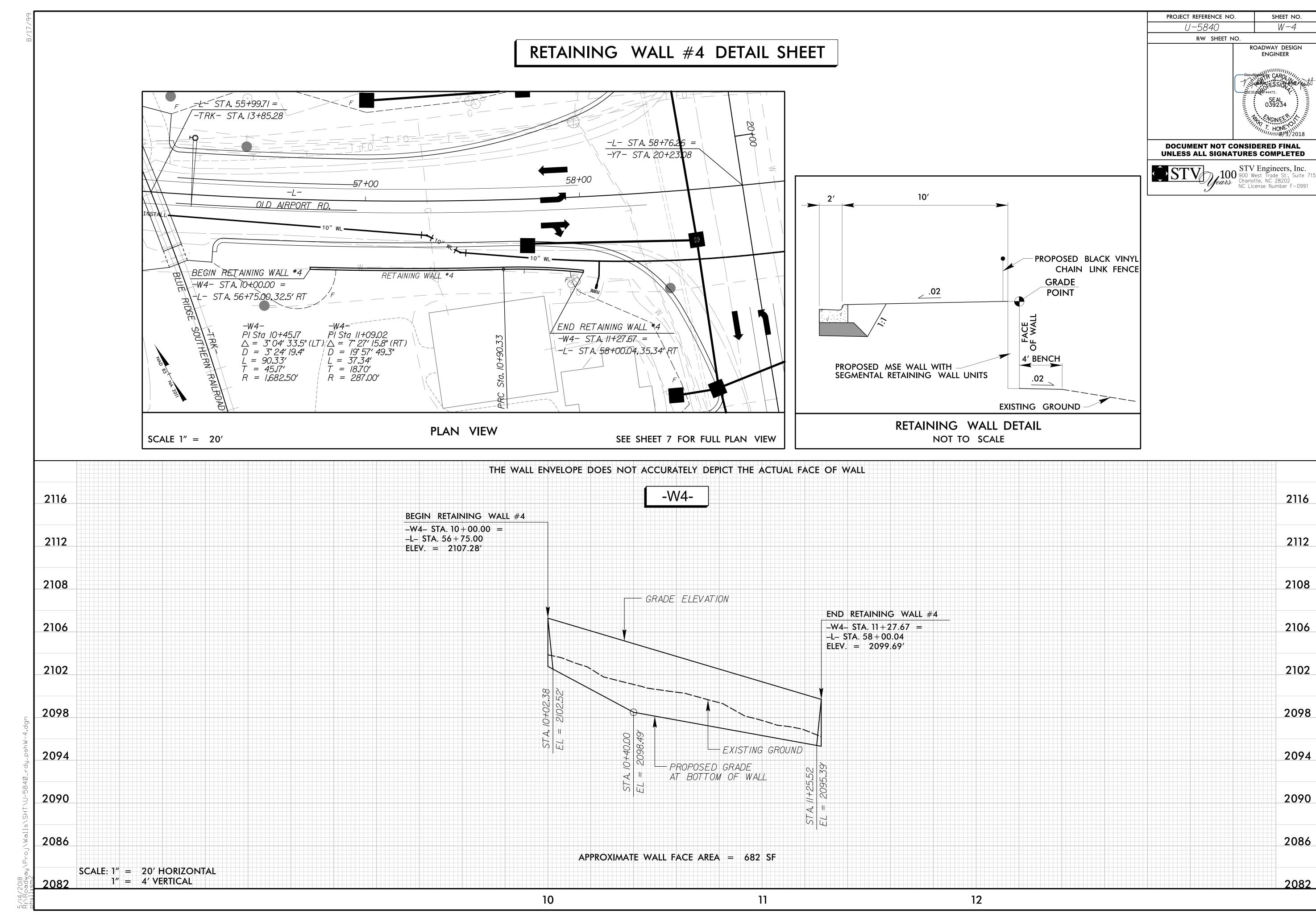
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

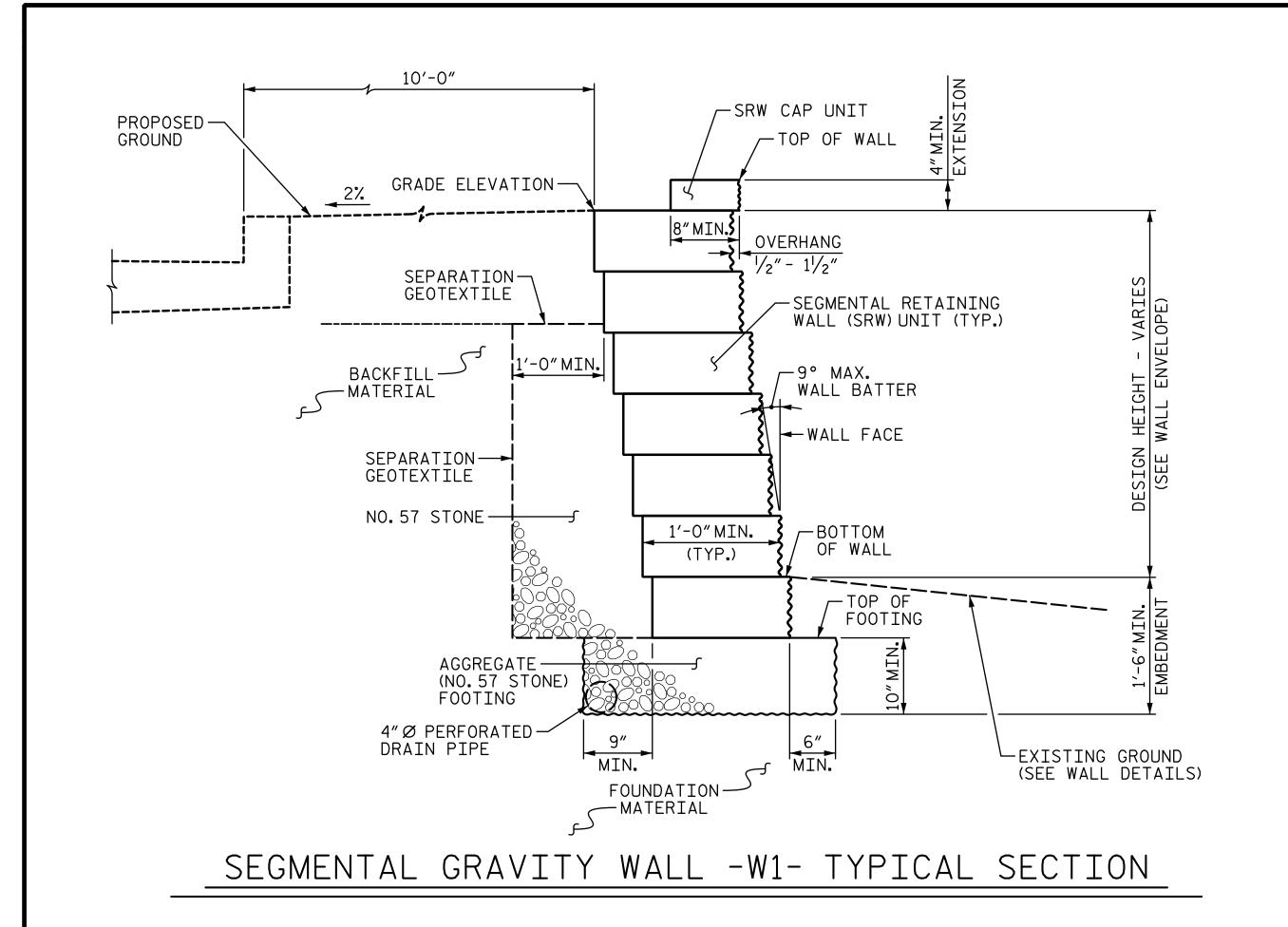


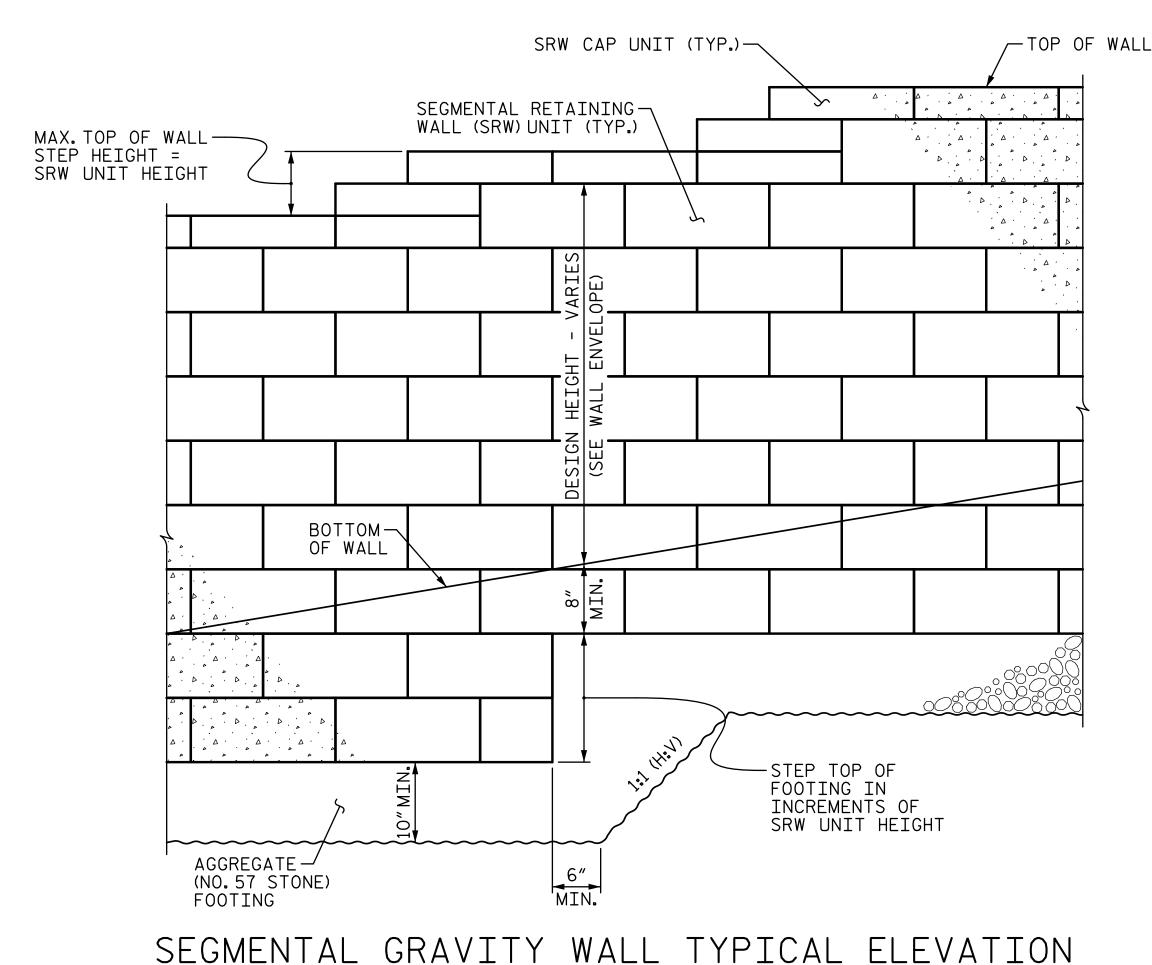




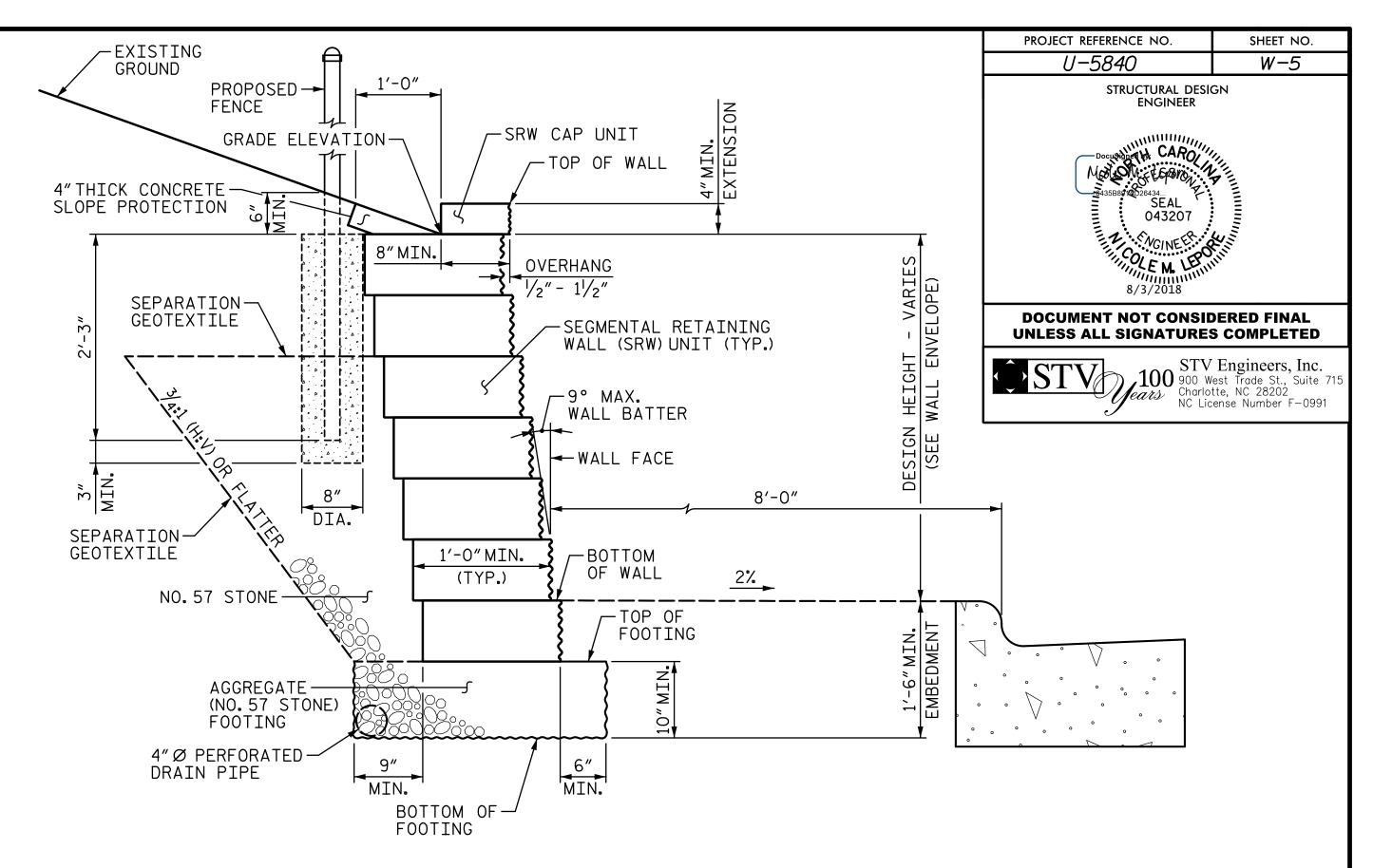
SEE SHEET 7 FOR FULL PLAN VIEW







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



## SEGMENTAL GRAVITY WALL -W2- TYPICAL SECTION

### 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 & LB/CF	FRICTION ANGLE	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.

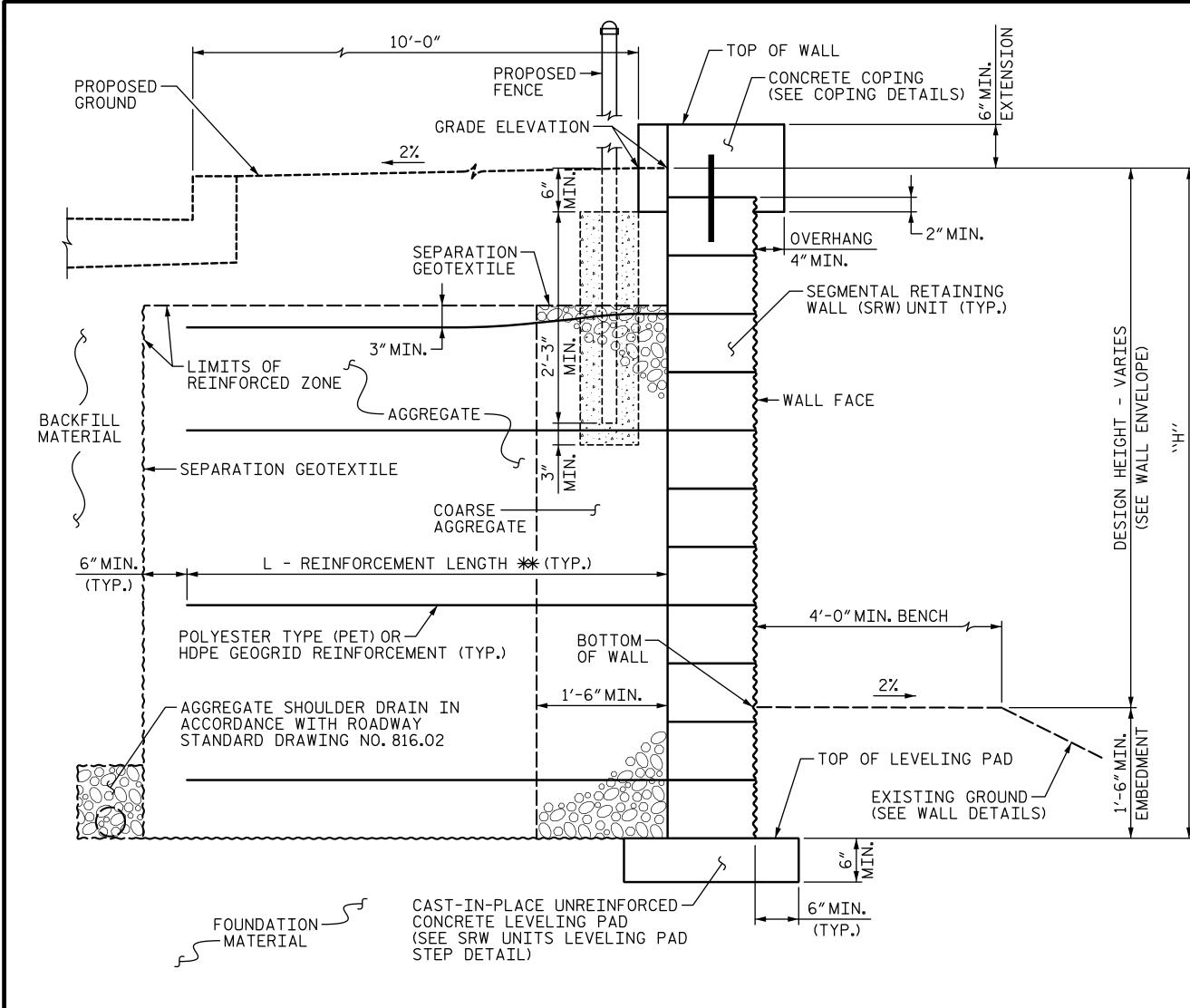
  2) MAXIMUM COEFFICIENT OF FRICTION = 0.35
- 3) GROUNDWATER WAS NOT ENCOUNTERED IN THE BORING TERMINATION DEPTHS.
- 4) IN-SITU ASSUMED MATERIAL PARAMETERS:

MATERIAL TYPE	UNIT WEIGHT	FRICTION ANGLE  	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-.

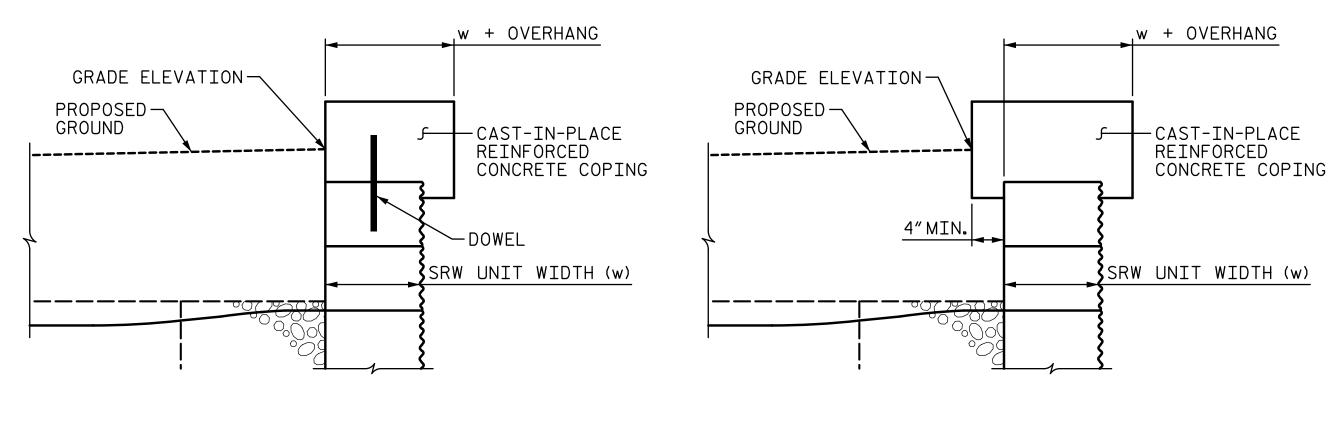
DESIGN RETAINING WALL -W1- FOR A LIVE LOAD SURCHARGE OF 250 PSF.

DO NOT PLACE NO.57 STONE FOR FOOTINGS FOR RETAINING WALLS UNTIL EXCAVATION DIMENSIONS AND FOUNDATION MATERIAL ARE APROVED. FOR PROPOSED FENCE DETAILS, SEE SPECIAL PROVISION.



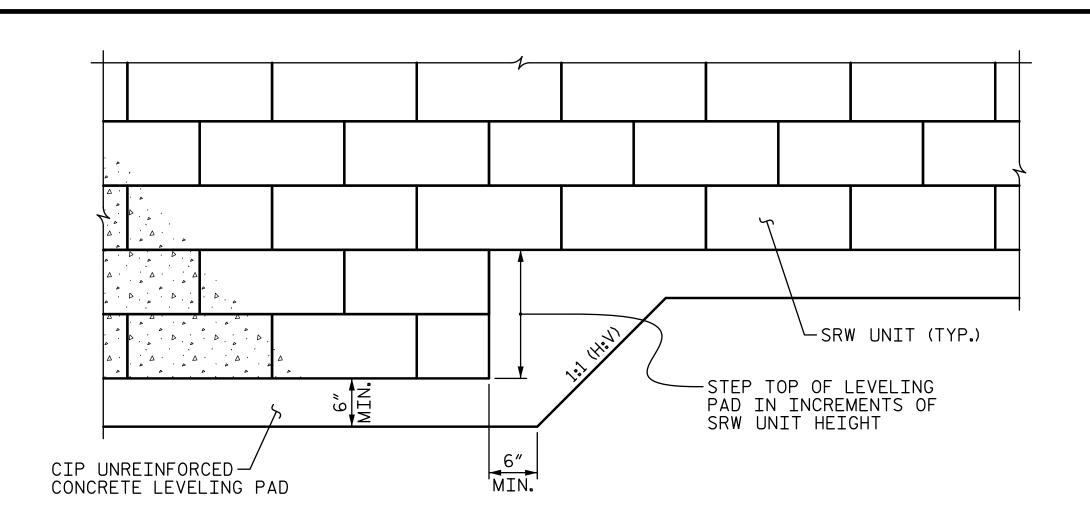
### SEGMENTAL GRAVITY WALL -W3- AND -W4- TYPICAL SECTION

\*\* SEE MSE RETAINING WALLS PROVISION AND IF APPLICABLE, MSE WALL NOTES FOR 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.



# PROJECT REFERENCE NO. ### 100

### SRW UNITS LEVELING PAD STEP DETAIL

### NOTES:

FOR MECHANICALLY STABILIZED EARTH (MSE) RETAINING WALLS, SEE MECHANICALLY STABILIZED EARTH RETAINING WALLS PROVISION.

USE AN MSE WALL SYSTEM WITH SEGMENTAL RETAINING WALL (SRW) UNITS THAT MEET ARTICLE 1040-4 OF THE STANDARD SPECIFICATIONS FOR RETAINING WALLS -W3- AND -W4-.

WHEN USING AN MSE WALL SYSTEM WITH SRW UNITS FOR RETAINING WALLS -W3- AND -W4-, 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 -W3- AND -W4-.

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 -W3- AND -W4-.

A SEPARATION GEOTEXTILE IS REQUIRED AT THE BACK OF THE REINFORCED ZONE FOR RETAINING WALLS -W3- AND -W4-.

A DRAIN IS REQUIRED FOR RETAINING WALLS -W3- AND -W4-.

BEFORE BEGINNING MSE WALL DESIGN FOR RETAINING WALLS -W3- AND -W4-, 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 -W3- FOR THE FOLLOWING:

1) H = DESIGN HEIGHT + EMBEDMENT 2) DESIGN LIFE = 75 YEARS

- 3) 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.

  4) MINIMUM REINFORCEMENT LENGTH (L) = 0.8H OR 6 FT, WHICHEVER IS LONGER
- 5) REINFORCED ZONE AGGREGATE PARAMETERS:

AGGREGATE TYPE ●	UNIT WEIGHT & LB/CF	FRICTION ANGLE	COHESION (c) LB/SF
COARSE	110	38	0
FINE	115	34	0

- DESIGN RETAINING WALL -W4- FOR THE FOLLOWING:
  1) H = DESIGN HEIGHT + EMBEDMENT
- 2) DESIGN LIFE = 75 YEARS
  3) MAXIMUM FACTORED VERTICAL STRESS ON FOUNDATION MATERIAL
  = 2,000 LB/SF. THIS ASSUMES ANY FILL OR SOFT SOILS,
  TE ENCOUNTERED WILL BE UNDERSOLT AND REPLACED.
- IF ENCOUNTERED, WILL BE UNDERCUT AND REPLACED.

  4) MINIMUM REINFORCEMENT LENGTH (L) = 0.9H OR 6 FT, WHICHEVER IS LONGER
- 5) REINFORCED ZONE AGGREGATE PARAMETERS:

AGGREGATE TYPE●	UNIT WEIGHT & LB/CF	FRICTION ANGLE	COHESION (c) LB/SF
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 & LB/CF	FRICTION ANGLE \$\phi\$ DEGREES	COHESION (c) LB/SF
BACKFILL	120	30	0
FOUNDATION	120	28	0

6) TN-	STTIL A	SSUMED	MATERTAL	PARAMETER

MATERIAL TYPE	UNIT WEIGHT & LB/CF	FRICTION ANGLE \$\phi\$ DEGREES	COHESION (c) LB/SF
BACKFILL	120	30	0
FOUNDATION	110	26	0

DESIGN RETAINING WALLS -W3- AND -W4- FOR A LIVE LOAD (TRAFFIC) SURCHARGE.

IGNORE PASSIVE EARTH PRESSURE IN THE UPPER 18 INCHES OF RETAINING WALLS -W3- AND -W4-.

DO NOT PLACE LEVELING PAD CONCRETE, AGGREGATE OR REINFORCEMENT FOR RETAINING WALLS -W3- AND -W4- UNTIL EXCAVATION DIMENSIONS AND FOUNDATION MATERIAL ARE APPROVED.

AT THE CONTRACTOR'S OPTION, "TEMPORARY SHORING FOR WALL CONSTRUCTION" MAY BE USED TO CONSTRUCT RETAINING WALLS -W3- AND -W4-. SEE MSE RETAINING WALLS PROVISION FOR TEMPORARY SHORING FOR WALL CONSTRUCTION.

FOR PROPOSED FENCE DETAILS, SEE SPECIAL PROVISION.

FOUNDATIONS FOR FENCE POSTS WILL BE LOCATED BEHIND RETAINING WALLS -W3- AND -W4- AND WILL INTERFERE WITH REINFORCEMENT. BEFORE BEGINNING MSE WALL CONSTRUCTION, SUBMIT PROPOSED CONSTRUCTION METHODS FOR THESE FOUNDATIONS FOR APPROVAL.