

**GENERAL NOTES**

1. DESIGN IS BASED ON THE SOIL DESIGN PARAMETERS LISTED BELOW AND THE ASSUMPTION THAT THE MATERIALS AND CONSTRUCTION OF MATERIALS CONFORM TO THE APPLICABLE PROJECT TECHNICAL SPECIFICATIONS FOR MSE WALLS.

2. SOIL DESIGN PARAMETERS (TO BE VERIFIED BY THE ENGINEER OF RECORD):

SOUTH, UPPER AND LOWER SOUTHBOUND, UPPER AND LOWER NORTHBOUND MSE WALLS

MSE BACKFILL  
 TOTAL UNIT WEIGHT: 130 PCF  
 INTERNAL FRICTION: 34° (ASTM D3080)  
 COHESION: 0 PSF  
 RETAINED BACKFILL:  
 TOTAL UNIT WEIGHT: 130 PCF  
 INTERNAL FRICTION: 33°  
 COHESION: 0 PSF  
 FOUNDATION SOILS:  
 TOTAL UNIT WEIGHT: 100 PCF  
 INTERNAL FRICTION: 28° MIN  
 COHESION: 0 PSF MIN

NORTH MSE WALL

MSE BACKFILL  
 TOTAL UNIT WEIGHT: 130 PCF  
 INTERNAL FRICTION: 34° (ASTM D3080)  
 COHESION: 0 PSF  
 RETAINED BACKFILL:  
 TOTAL UNIT WEIGHT: 130 PCF  
 INTERNAL FRICTION: 33°  
 COHESION: 0 PSF  
 FOUNDATION SOILS:  
 TOTAL UNIT WEIGHT: 105 PCF  
 INTERNAL FRICTION: 31° MIN  
 COHESION: 0 PSF MIN

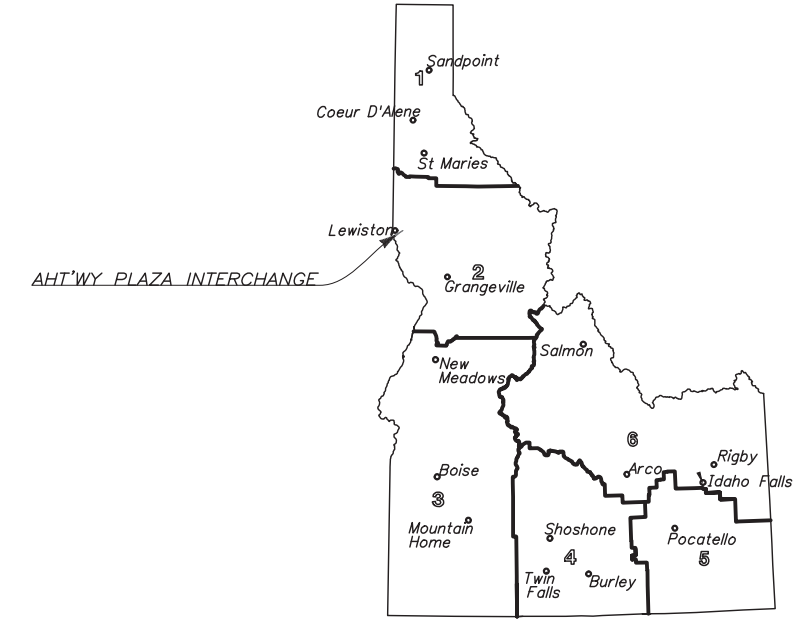
IF THE TESTED UNIT WEIGHT FOR THE MSE BACKFILL OR THE RETAINED BACKFILL VARIES MORE THAN +/- 10% AS INDICATED ABOVE, THEN NOTIFY THE ENGINEER OF RECORD AND THE WALL DESIGN ENGINEER TO ASSESS POTENTIAL CHANGES TO THE WALL DESIGN.

IF THE INTERNAL SHEAR STRENGTH (FRICTION AND COHESION) OF THE MSE BACKFILL AND THE RETAINED BACKFILL IS LESS THAN THE VALUES INDICATED ABOVE, THEN NOTIFY THE ENGINEER OF RECORD AND THE WALL DESIGN ENGINEER TO ASSES POTENTIAL CHANGES TO THE WALL DESIGN.

- 3. DESIGN REQUIRES A NON-SATURATED BACKFILL. SURFACE AND SUBSURFACE DRAINAGE CONTROL IS REQUIRED TO PREVENT SATURATION OF THE BACKFILL OR TO RELIEVE HYDROSTATIC PRESSURE.
- 4. SUBSURFACE DRAINAGE CONTROL SHALL BE AS SPECIFIED IN THE PROJECT PLANS AND SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER OF RECORD.
- 5. SOIL REINFORCEMENTS SHALL BE FABRICATED OF WELDED WIRE FABRIC CONFORMING TO AASHTO M-32 AND M-55 AND SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M-111 FOLLOWING FABRICATION. MINIMUM GALVANIZING SHALL BE 2.0 OZ/SF (3.4 MIL THICKNESS)
- 6. THIS IS A PERMANENT MSE WALL DESIGNED FOR 75 YEARS OF SERVICE. THE OWNER IS THE IDAHO TRANSPORTATION DEPARTMENT.
- 7. THIS DESIGN SUBMITTAL IS BASED ON ASTM A1115 - STANDARD PRACTICE FOR CONSTRUCTION OF MECHANICALLY STABILIZED EARTH WALLS WITH INEXTENSIBLE SOIL REINFORCEMENT (LATEST APPROVAL). SHANNON & WILSON IS NOT THE OWNER'S "ENGINEER OF RECORD" OR THE OWNER'S "GEOTECHNICAL ENGINEER OF RECORD" OR THE OWNER'S "HYDRAULIC ENGINEER." THE OWNER IS RESPONSIBLE FOR THE FOLLOWING:
  - A. EVALUATING GLOBAL STABILITY
  - B. ESTABLISHING BEARING CAPACITY CRITERIA
  - C. IMPLEMENTING AN ADEQUATE QUALITY CONTROL PROGRAM
- 8. HILFIKER RETAINING WALLS (800-762-8962) IS THE "WALL SUPPLIER" WHOSE SYSTEM AND COMPONENTS ARE THE SOLE BASIS OF THIS SUBMITTAL.
- 9. SHANNON & WILSON (208-658-8700) IS THE "WALL DESIGN ENGINEER," AS DESCRIBED IN ASTM A1115. SHANNON & WILSON HAS SPECIFIED THE TYPE(S), SIZES, AND LOCATIONS OF BURIED REINFORCEMENTS.
- 10. THE ENGINEER OF RECORD ADMINISTERS THE OWNER'S REQUIREMENTS FOR THE LONG-TERM STABILITY OF THE MSE WALL, INCLUDING:
  - A. FOUNDATION PROOF ROLLING, REMOVAL OF UNSATISFACTORY SOIL, REPLACEMENT WITH SATISFACTORY AGGREGATE, COMPACTION, VERIFICATION TESTING OR OTHER FOUNDATION PREPARATION REQUIREMENTS OF THE GEOTECHNICAL ENGINEER OF RECORD.
  - B. SCOUR COUNTERMEASURES ALONG THE TOE
  - C. EROSION COUNTERMEASURES AT THE ENDS
  - D. SURFACE WATER DRAINAGE CONTROLS ABOVE THE WALL

- E. CONSTRUCTION OF THE SUPPLIED MSE WALL SYSTEM ACCORDING TO WALL SUPPLIER REQUIREMENTS WITH ALL APPURTENANT COMPONENTS
- F. PROTECTION OF REINFORCEMENT, SUCH THAT UNAUTHORIZED CUTTING OF WIRES DOES NOT OCCUR

- 11. DESIGN ALLOWS FOR USE OF HS-20/HL-93 TRUCKS ABOVE THE MSE WALL OR LESS THAN 2 FEET OF SOIL HAVING NO MORE THAN 250 PSF LOAD.
- 12. DESIGN DOES NOT ALLOW ON THE MSE WALL ANY HEAVY TRUCK, EXCAVATOR, OR CRANE LOAD. SUCH LOADS SHALL BE ENTIRELY SET BACK FROM THE FACE OF THE MSE WALL A DISTANCE EXCEEDING THE HEIGHT OF THE WALL. CONTRACTOR SHALL COORDINATE ANY HEAVY LOADS WITH THE ENGINEER OF RECORD AND THE WALL DESIGN ENGINEER PRIOR TO THE WALL SUPPLIER'S FABRICATION OF REINFORCEMENTS.
- 13. IF THERE ARE BOTTOM OF WALL ELEVATION DISCREPANCIES, NOTIFY THE ENGINEER OF RECORD AND THE WALL DESIGN ENGINEER SO THAT MSE WALL DESIGN MODIFICATION CAN BE CONSIDERED.



**VICINITY MAP**

NOT TO SCALE



**RENDERING**

COURTESY OF ITD

|                          |           |
|--------------------------|-----------|
| TOTAL WALL FACE SUPPLIED | 54,592 SF |
|--------------------------|-----------|

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| REV. | DATE       | BY  | DESCRIPTION                | CADD:         |
|------|------------|-----|----------------------------|---------------|
| 0    | 7/10/2023  | RGV | ISSUED FOR HILFIKER REVIEW | RGV           |
| 1    | 7/12/2023  | RGV | ISSUED FOR OWNER REVIEW    | DESIGNED: RGV |
| 2    | 8/7/2023   | RGV | ISSUED FOR OWNER REVIEW    | CHECKED: SGC  |
| 3    | 8/18/2023  | RGV | ISSUED FOR OWNER REVIEW    |               |
| 4    | 10/13/2023 | RGV | REVISED BOTTOM OF WALL     |               |

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**HILFIKER RETAINING WALLS**

1802 HilfiKER Lane  
 Eureka, CA 95503-5711  
 TEL: 909.762.8962  
 FAX: 909.762.8962  
 WWW.HILFIKER.COM

**SHANNON & WILSON, INC.**  
 GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

5260 Chinden Blvd.  
 Boise, ID 83714  
 (208) 658-8700  
 Fax: (208) 658-8703

|                          |             |
|--------------------------|-------------|
| VICINITY, NOTES          | DWG DATE:   |
| ERS WALL                 | 13 OCT 2023 |
| AHT'WY PLAZA INTERCHANGE | HRW NO.:    |
| ITD                      | 220321AE    |
| NEZ PERCE COUNTY, ID     | SHEET       |
|                          | 1           |
|                          | OF 32       |

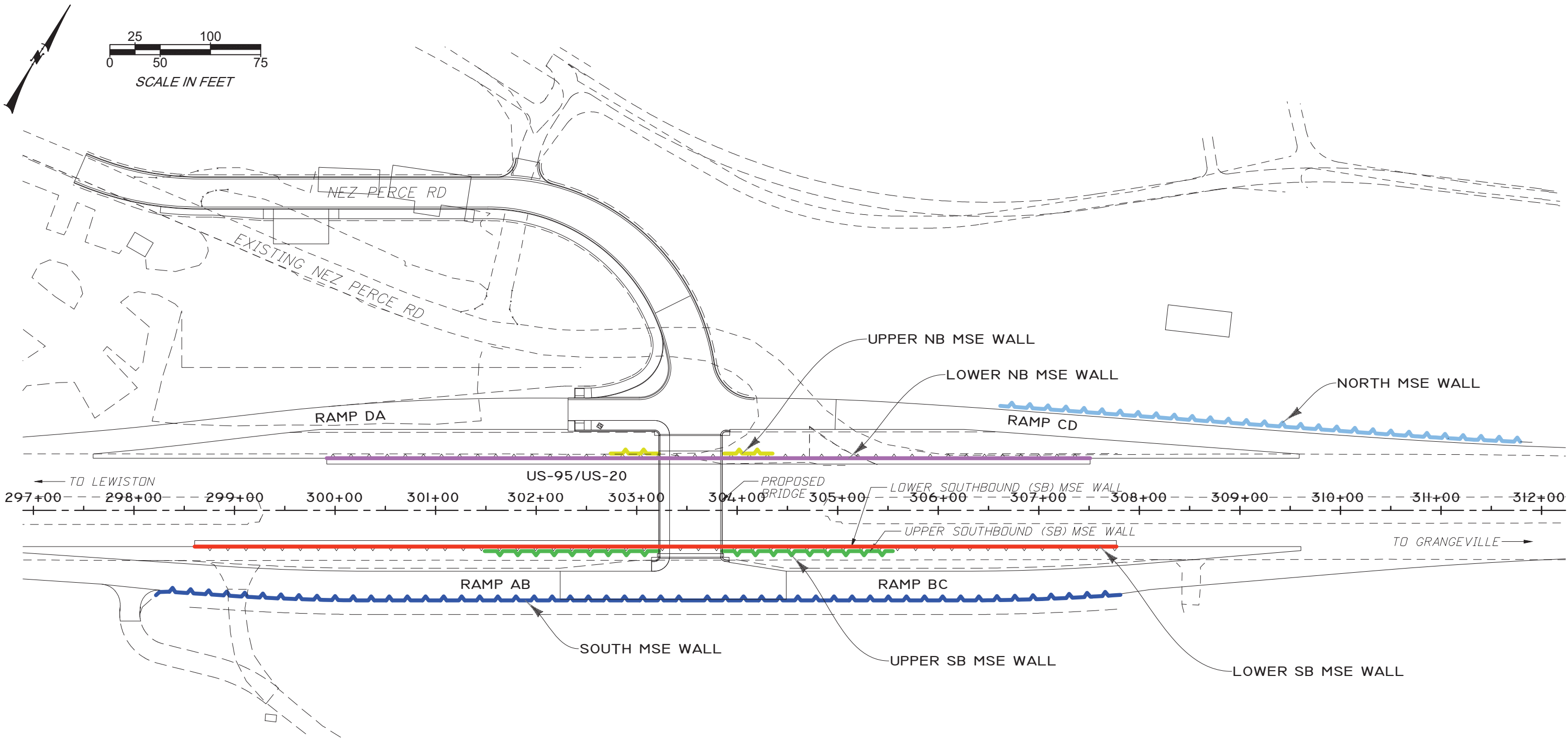
PROFESSIONAL ENGINEER

10/13/2023

15993

STATE OF IDAHO

G. VAN LEUVEN



**KEY PLAN**  
GRAPHIC SCALE

11/29/2023 3:21 PM  
8/18/2023 3:21 PM  
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IC PREPARED 08/18/2023.dwg

THE DESIGN CONTAINED ON THESE DRAWINGS IS BASED ON INFORMATION PROVIDED BY THE OWNER. ON THE BASIS OF THIS INFORMATION, THE HILFIKER COMPANY HAS DESIGNED, AND IS RESPONSIBLE FOR THE INTERNAL STABILITY OF THE STRUCTURE ONLY. EXTERNAL STABILITY, INCLUDING FOUNDATION AND SLOPE STABILITY, IS THE RESPONSIBILITY OF THE OWNER.

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KEY PLAN  
ERS WALL  
AHT'WY PLAZE INTERCHANGE  
ITD NEZ PERCE COUNTY, ID

|           |             |
|-----------|-------------|
| DWG DATE: | 13 OCT 2023 |
| HRW NO.:  | 220321AE    |
| SHEET     | 2           |
| OF        | 32          |



**SOUTH MSE WALL**

| SUPPLIED REINFORCEMENT QUANTITIES |                                |                                      |                                   |                                     |                                       |
|-----------------------------------|--------------------------------|--------------------------------------|-----------------------------------|-------------------------------------|---------------------------------------|
| BASE LENGTH                       | CAP MAT<br>W7XW3.5<br>(8"X12") | PRONGLESS<br>MAT W7XW3.5<br>(8"X12") | STANDARD<br>MAT W7XW4<br>(8"X21") | STANDARD<br>MAT W9.5XW4<br>(8"X21") | INTERMEDIATE<br>MAT W7XW4<br>(8"X21") |
| 29'                               | 27                             | 27                                   |                                   |                                     |                                       |
| 28'                               |                                |                                      | 54                                | 262                                 | 19                                    |
| 27'                               | 15                             | 15                                   |                                   |                                     |                                       |
| 26.25'                            |                                |                                      | 30                                | 128                                 |                                       |
| 25'                               | 11                             | 11                                   |                                   |                                     |                                       |
| 24.5'                             |                                |                                      | 22                                | 84                                  |                                       |
| 23'                               | 7                              | 7                                    |                                   |                                     |                                       |
| 22.75'                            |                                |                                      | 14                                | 47                                  |                                       |
| 22'                               | 13                             | 13                                   |                                   |                                     |                                       |
| 21'                               |                                |                                      | 25                                | 73                                  |                                       |
| 20'                               | 4                              | 4                                    |                                   |                                     |                                       |
| 19.25'                            |                                |                                      | 8                                 | 20                                  |                                       |
| 18'                               | 4                              | 4                                    |                                   |                                     |                                       |
| 17.5'                             |                                |                                      | 12                                | 12                                  |                                       |
| 16'                               | 10                             | 10                                   |                                   |                                     |                                       |
| 15.75'                            |                                |                                      | 30                                | 25                                  |                                       |
| 15'                               | 12                             | 12                                   |                                   |                                     |                                       |
| 14'                               |                                |                                      | 42                                | 12                                  |                                       |
| 13'                               | 10                             | 10                                   |                                   |                                     |                                       |
| 12.25'                            |                                |                                      | 37                                |                                     |                                       |
| 11'                               | 6                              | 6                                    |                                   |                                     |                                       |
| 10.5'                             |                                |                                      | 15                                |                                     |                                       |
| 9'                                | 5                              | 4                                    |                                   |                                     |                                       |
| 8.75'                             |                                |                                      | 8                                 |                                     |                                       |

|                           |           |
|---------------------------|-----------|
| WALL FACE SUPPLIED        | 20,656 SF |
| CLOSURE MATS              | 119 EA    |
| BACKING MATS (2'-0" HIGH) | 1,215 EA  |
| BACKING MATS (3'-0" HIGH) | 59 EA     |
| FILTER FABRIC (30" WIDE)  | 10,192 LF |
| HOG RINGS                 | 27,500 EA |
| PLIERS                    | 8 EA      |
| FACE ANCHOR ASSEMBLIES    | 158 EA    |

|                                 |     |
|---------------------------------|-----|
| FOUNDATION MAT W7XW3.5 (8"X12") | 119 |
|---------------------------------|-----|

**LOWER SB MSE WALL**

| SUPPLIED REINFORCEMENT QUANTITIES |                                |                                      |                                   |                                     |                                       |
|-----------------------------------|--------------------------------|--------------------------------------|-----------------------------------|-------------------------------------|---------------------------------------|
| BASE LENGTH                       | CAP MAT<br>W7XW3.5<br>(8"X12") | PRONGLESS<br>MAT W7XW3.5<br>(8"X12") | STANDARD<br>MAT W7XW4<br>(8"X21") | STANDARD<br>MAT W9.5XW4<br>(8"X21") | INTERMEDIATE<br>MAT W7XW4<br>(8"X21") |
| 30'                               | 15                             | 15                                   |                                   |                                     |                                       |
| 29.75'                            |                                |                                      | 90                                |                                     | 90                                    |
| 29'                               | 5                              | 5                                    |                                   |                                     |                                       |
| 28'                               |                                |                                      | 30                                |                                     | 30                                    |
| 27'                               | 8                              | 8                                    |                                   |                                     |                                       |
| 26.25'                            |                                |                                      | 48                                |                                     | 48                                    |
| 25'                               | 7                              | 7                                    |                                   |                                     |                                       |
| 24.5'                             |                                |                                      | 42                                |                                     | 42                                    |
| 23'                               | 3                              | 3                                    |                                   |                                     |                                       |
| 22.75'                            |                                |                                      | 18                                |                                     | 18                                    |
| 22'                               | 3                              | 3                                    |                                   |                                     |                                       |
| 21'                               |                                |                                      | 18                                |                                     | 18                                    |
| 20'                               | 10                             | 10                                   |                                   |                                     |                                       |
| 19.25'                            |                                |                                      | 60                                |                                     | 60                                    |
| 18'                               | 6                              | 6                                    |                                   |                                     |                                       |
| 17.5'                             |                                |                                      | 20                                | 16                                  |                                       |
| 16'                               | 5                              | 5                                    |                                   |                                     |                                       |
| 15.75'                            |                                |                                      | 15                                | 10                                  |                                       |
| 15'                               | 10                             | 10                                   |                                   |                                     |                                       |
| 14'                               |                                |                                      | 34                                | 12                                  |                                       |
| 13'                               | 8                              | 8                                    |                                   |                                     |                                       |
| 12.25'                            |                                |                                      | 30                                |                                     |                                       |
| 11'                               | 4                              | 4                                    |                                   |                                     |                                       |
| 10.5'                             |                                |                                      | 12                                |                                     |                                       |
| 9'                                | 31                             | 31                                   |                                   |                                     |                                       |
| 8.75'                             |                                |                                      | 41                                |                                     |                                       |

|                           |           |
|---------------------------|-----------|
| WALL FACE SUPPLIED        | 12,824 SF |
| CLOSURE MATS              | 115 EA    |
| BACKING MATS (2'-0" HIGH) | 756 EA    |
| BACKING MATS (3'-0" HIGH) | 36 EA     |
| FILTER FABRIC (30" WIDE)  | 6,336 LF  |
| HOG RINGS                 | 16,100 EA |
| PLIERS                    | 6 EA      |
| FACE ANCHOR ASSEMBLIES    | 154 EA    |

|                                 |     |
|---------------------------------|-----|
| FOUNDATION MAT W7XW3.5 (8"X12") | 115 |
|---------------------------------|-----|

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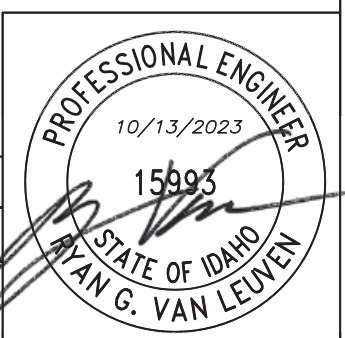
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Boise, ID 83714  
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Fax: (208) 658-8703

|                          |
|--------------------------|
| QUANTITIES               |
| ERS WALL                 |
| AHT'WY PLAZE INTERCHANGE |
| ITD NEZ PERCE COUNTY, ID |

|           |             |
|-----------|-------------|
| DWG DATE: | 13 OCT 2023 |
| HRW NO.:  | 220321AE    |
| SHEET     | 3           |
| OF        | 32          |



**LOWER NB MSE WALL**

| SUPPLIED REINFORCEMENT QUANTITIES |                          |                                |                             |                               |                                 |
|-----------------------------------|--------------------------|--------------------------------|-----------------------------|-------------------------------|---------------------------------|
| BASE LENGTH                       | CAP MAT W7XW3.5 (8"X12") | PRONGLESS MAT W7XW3.5 (8"X12") | STANDARD MAT W7XW4 (8"X21") | STANDARD MAT W9.5XW4 (8"X21") | INTERMEDIATE MAT W7XW4 (8"X21") |
| 29'                               | 29                       | 29                             |                             |                               |                                 |
| 28'                               |                          |                                | 30                          |                               | 30                              |
| 27'                               | 1                        | 1                              |                             |                               |                                 |
| 26.25'                            |                          |                                | 6                           |                               | 6                               |
| 25'                               | 2                        | 2                              |                             |                               |                                 |
| 24.5'                             |                          |                                | 12                          |                               | 12                              |
| 23'                               | 2                        | 2                              |                             |                               |                                 |
| 22.75'                            |                          |                                | 12                          |                               | 12                              |
| 22'                               | 1                        | 1                              |                             |                               |                                 |
| 21'                               |                          |                                | 6                           |                               | 6                               |
| 20'                               | 1                        | 1                              |                             |                               |                                 |
| 19.25'                            |                          |                                | 6                           |                               | 6                               |
| 18'                               | 18                       | 18                             |                             |                               |                                 |
| 17.5'                             |                          |                                | 60                          | 48                            | 48                              |
| 16'                               | 10                       | 10                             |                             |                               |                                 |
| 15.75'                            |                          |                                | 25                          | 30                            | 6                               |
| 15'                               | 11                       | 11                             |                             |                               |                                 |
| 14'                               |                          |                                | 39                          | 10                            |                                 |
| 13'                               | 9                        | 9                              |                             |                               |                                 |
| 12.25'                            |                          |                                | 32                          |                               |                                 |
| 11'                               | 11                       | 11                             |                             |                               |                                 |
| 10.5'                             |                          |                                | 27                          |                               |                                 |
| 9'                                | 24                       | 24                             |                             |                               |                                 |
| 8.75'                             |                          |                                | 21                          |                               |                                 |

|                           |           |
|---------------------------|-----------|
| WALL FACE SUPPLIED        | 10,120 SF |
| CLOSURE MATS              | 95 EA     |
| BACKING MATS (2'-0" HIGH) | 546 EA    |
| BACKING MATS (3'-0" HIGH) | 62 EA     |
| FILTER FABRIC (30" WIDE)  | 4,864 LF  |
| HOG RINGS                 | 12,200 EA |
| PLIERS                    | 5 EA      |
| FACE ANCHOR ASSEMBLIES    | 127 EA    |

|                                 |    |
|---------------------------------|----|
| FOUNDATION MAT W7XW3.5 (8"X12") | 95 |
|---------------------------------|----|

**NORTH MSE WALL**

| SUPPLIED REINFORCEMENT QUANTITIES |                          |                                |                             |                               |
|-----------------------------------|--------------------------|--------------------------------|-----------------------------|-------------------------------|
| BASE LENGTH                       | CAP MAT W7XW3.5 (8"X12") | PRONGLESS MAT W7XW3.5 (8"X12") | STANDARD MAT W7XW4 (8"X21") | STANDARD MAT W9.5XW4 (8"X21") |
| 20'                               | 4                        | 4                              |                             |                               |
| 19.25'                            |                          |                                | 8                           | 20                            |
| 18'                               | 13                       | 13                             |                             |                               |
| 17.5'                             |                          |                                | 39                          | 39                            |
| 16'                               | 6                        | 6                              |                             |                               |
| 15.75'                            |                          |                                | 18                          | 12                            |
| 15'                               | 6                        | 6                              |                             |                               |
| 14'                               |                          |                                | 22                          | 4                             |
| 13'                               | 15                       | 15                             |                             |                               |
| 12.25'                            |                          |                                | 52                          |                               |
| 11'                               | 8                        | 8                              |                             |                               |
| 10.5'                             |                          |                                | 21                          |                               |
| 9'                                | 16                       | 16                             |                             |                               |
| 8.75'                             |                          |                                | 23                          |                               |

|                           |          |
|---------------------------|----------|
| WALL FACE SUPPLIED        | 6,664 SF |
| CLOSURE MATS              | 67 EA    |
| BACKING MATS (2'-0" HIGH) | 374 EA   |
| BACKING MATS (3'-0" HIGH) | 31 EA    |
| FILTER FABRIC (30" WIDE)  | 3,240 LF |
| HOG RINGS                 | 8,100 EA |
| PLIERS                    | 4 EA     |
| FACE ANCHOR ASSEMBLIES    | 89 EA    |

|                                 |    |
|---------------------------------|----|
| FOUNDATION MAT W7XW3.5 (8"X12") | 16 |
|---------------------------------|----|

**UPPER NB MSE WALL**

| SUPPLIED REINFORCEMENT QUANTITIES |                          |                                |                             |
|-----------------------------------|--------------------------|--------------------------------|-----------------------------|
| BASE LENGTH                       | CAP MAT W7XW3.5 (8"X12") | PRONGLESS MAT W7XW3.5 (8"X12") | STANDARD MAT W7XW4 (8"X21") |
| 11'                               | 6                        | 6                              |                             |
| 10.5'                             |                          |                                | 16                          |
| 9'                                | 8                        | 7                              |                             |
| 8.75'                             |                          |                                | 8                           |

|                           |          |
|---------------------------|----------|
| WALL FACE SUPPLIED        | 960 SF   |
| CLOSURE MATS              | 12 EA    |
| BACKING MATS (2'-0" HIGH) | 46 EA    |
| BACKING MATS (3'-0" HIGH) | 10 EA    |
| FILTER FABRIC (30" WIDE)  | 448 LF   |
| HOG RINGS                 | 1,100 EA |
| PLIERS                    | 2 EA     |
| FACE ANCHOR ASSEMBLIES    | 16 EA    |

|                                 |    |
|---------------------------------|----|
| FOUNDATION MAT W7XW3.5 (8"X12") | 12 |
|---------------------------------|----|

**UPPER SB MSE WALL**

| SUPPLIED REINFORCEMENT QUANTITIES |                          |                                |                             |
|-----------------------------------|--------------------------|--------------------------------|-----------------------------|
| BASE LENGTH                       | CAP MAT W7XW3.5 (8"X12") | PRONGLESS MAT W7XW3.5 (8"X12") | STANDARD MAT W7XW4 (8"X21") |
| 13'                               | 9                        | 9                              |                             |
| 12.25'                            |                          |                                | 27                          |
| 11'                               | 12                       | 12                             |                             |
| 10.5'                             |                          |                                | 33                          |
| 9'                                | 21                       | 20                             |                             |
| 8.75'                             |                          |                                | 20                          |

|                           |          |
|---------------------------|----------|
| WALL FACE SUPPLIED        | 3,072 SF |
| CLOSURE MATS              | 40 EA    |
| BACKING MATS (2'-0" HIGH) | 161 EA   |
| BACKING MATS (3'-0" HIGH) | 22 EA    |
| FILTER FABRIC (30" WIDE)  | 1,464 LF |
| HOG RINGS                 | 3,400 EA |
| PLIERS                    | 3 EA     |
| FACE ANCHOR ASSEMBLIES    | 54 EA    |

|                                 |    |
|---------------------------------|----|
| FOUNDATION MAT W7XW3.5 (8"X12") | 40 |
|---------------------------------|----|

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| REV. | DATE       | BY  | DESCRIPTION                | CADD:         |
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| 4    | 10/13/2023 | RGV | REVISED BOTTOM OF WALL     |               |

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WEB SITE www.hilfiKER.com E-MAIL info@hilfiKER.com

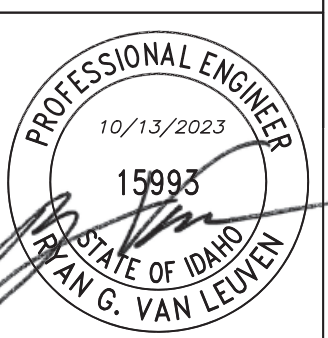
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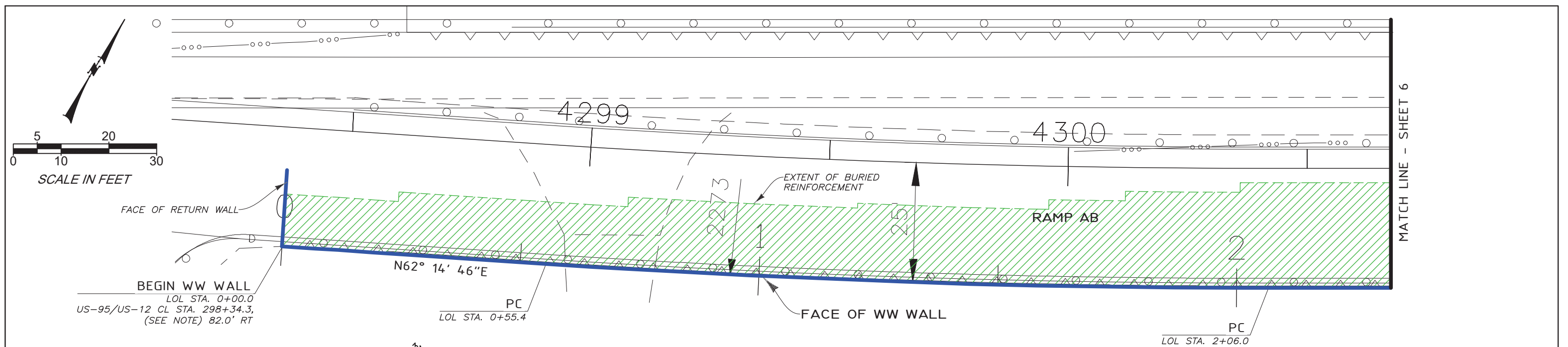
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|                          |
|--------------------------|
| QUANTITIES               |
| ERS WALL                 |
| AHT'WY PLAZE INTERCHANGE |
| ITD NEZ PERCE COUNTY, ID |

|           |             |
|-----------|-------------|
| DWG DATE: | 13 OCT 2023 |
| HRW NO.:  | 220321AE    |
| SHEET     | 4           |
| OF        | 32          |

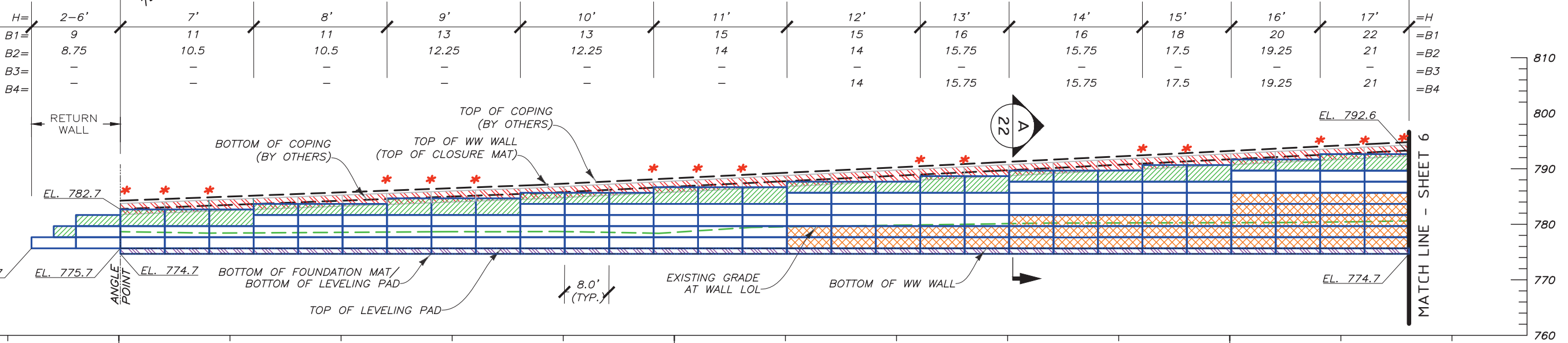




**PLAN - SOUTH MSE WALL**

GRAPHIC SCALE

OFFSET FROM US-95/US-20 WAS DETERMINED ASSUMING AN 8-INCH THICK CONCRETE PANEL AND 6-INCH AIR GAP OR 6-INCH THICK CONCRETE PANEL AND 8-INCH AIR GAP. CONTRACTOR SHALL CONFIRM STATIONING AND OFFSETS



**LEGEND**

- B1 8"x12", W7xW3.5-HDG
- B2 8"x21", W7xW4-HDG
- B3 8"x21", W7xW4-HDG INTERMEDIATE (FLAT) MAT
- B4 8"x21", W9.5xW4-HDG
- CLOSURE MATS (TOP OF WALL)
- 8"x12", W7xW3.5 FOUNDATION MAT
- LOL LAYOUT LINE
- H WALL HEIGHT (BOTTOM MAT TO CLOSURE MAT FOR ERS WALLS, TO CAP MAT FOR RETURN WW WALLS)
- B MAT LENGTH (FT)
- WW WELDED WIRE
- \* APPROXIMATE LOCATION OF THE MIDDLE OF EACH 3' BACKING MAT

**DEVELOPED ELEVATION - SOUTH MSE WALL (FRONT FACE)**

GRAPHIC SCALE

| REV. | DATE       | BY  | DESCRIPTION                | CADD:         |
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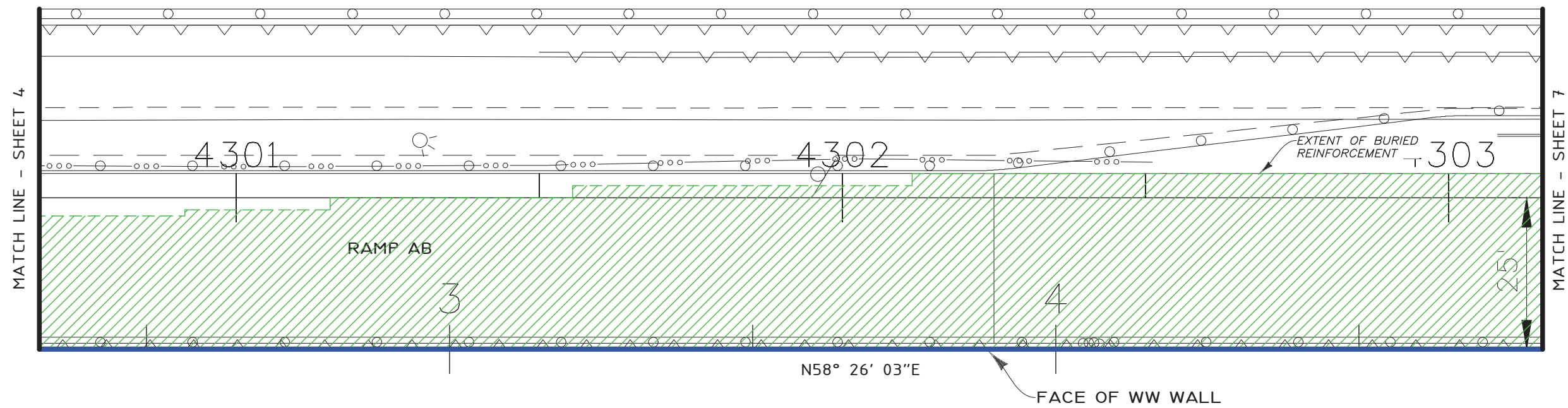
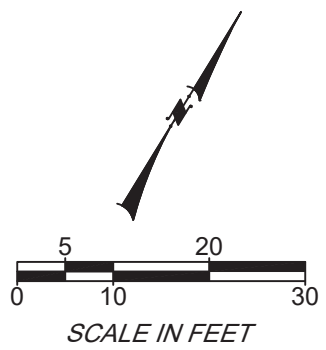
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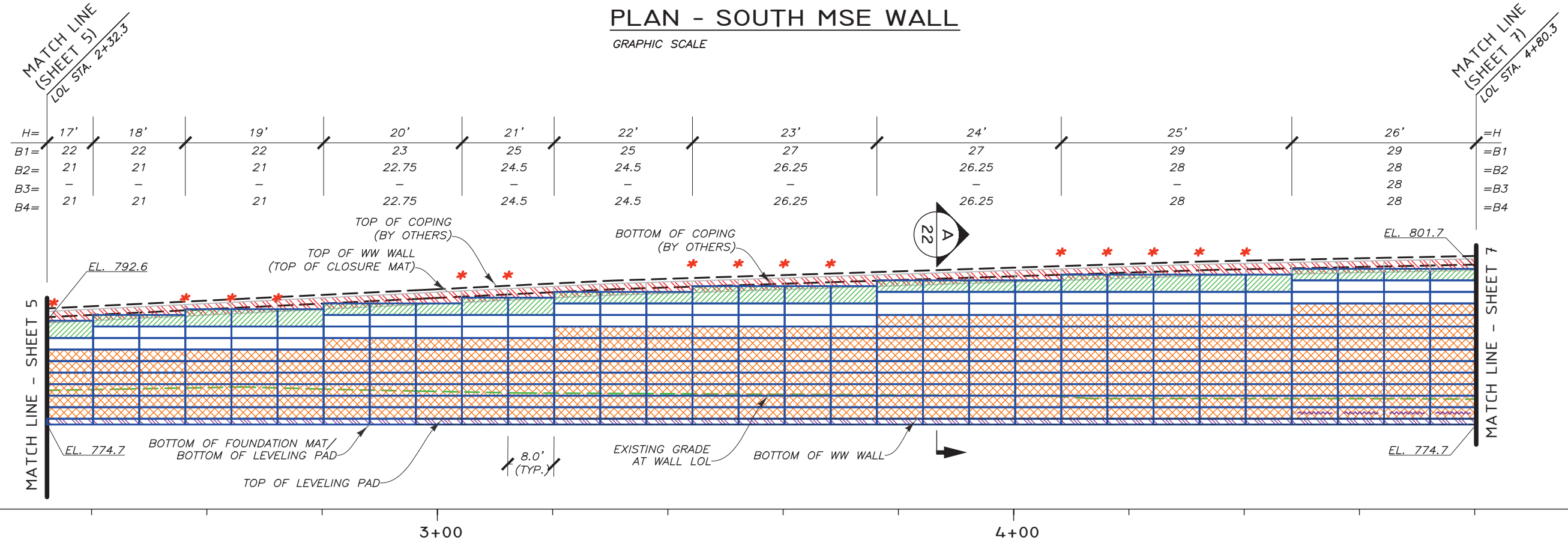
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| ERS WALL                 | HRW NO.:<br>220321AE     |
| AHT'WY PLAZE INTERCHANGE | SHEET<br>5               |
| ITD NEZ PERCE COUNTY, ID | OF 32                    |

PROFESSIONAL ENGINEER  
10/13/2023  
15993  
JAN G. VAN LEUVEN  
STATE OF IDAHO

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**PLAN - SOUTH MSE WALL**  
GRAPHIC SCALE



**DEVELOPED ELEVATION - SOUTH MSE WALL (FRONT FACE)**  
GRAPHIC SCALE

**LEGEND**

|  |                                |   |     |   |
|--|--------------------------------|---|-----|---|
|  | B1                             | 8"x12", W7xW3.5-HDG                       | LOL | LAYOUT LINE   |
|  | B2                             | 8"x21", W7xW4-HDG                         | H   | WALL HEIGHT (BOTTOM MAT TO CLOSURE MAT FOR ERS WALLS, TO CAP MAT FOR RETURN WW WALLS) |
|  | B3                             | 8"x21", W7xW4-HDG INTERMEDIATE (FLAT) MAT | B   | MAT LENGTH (FT)   |
|  | B4                             | 8"x21", W9.5xW4-HDG                       | WW  | WELDED WIRE   |
|  | CLOSURE MATS (TOP OF WALL)     |   | *   | APPROXIMATE LOCATION OF THE MIDDLE OF EACH 3' BACKING MAT                             |
|  | 8"x12", W7xW3.5 FOUNDATION MAT |   |     |   |

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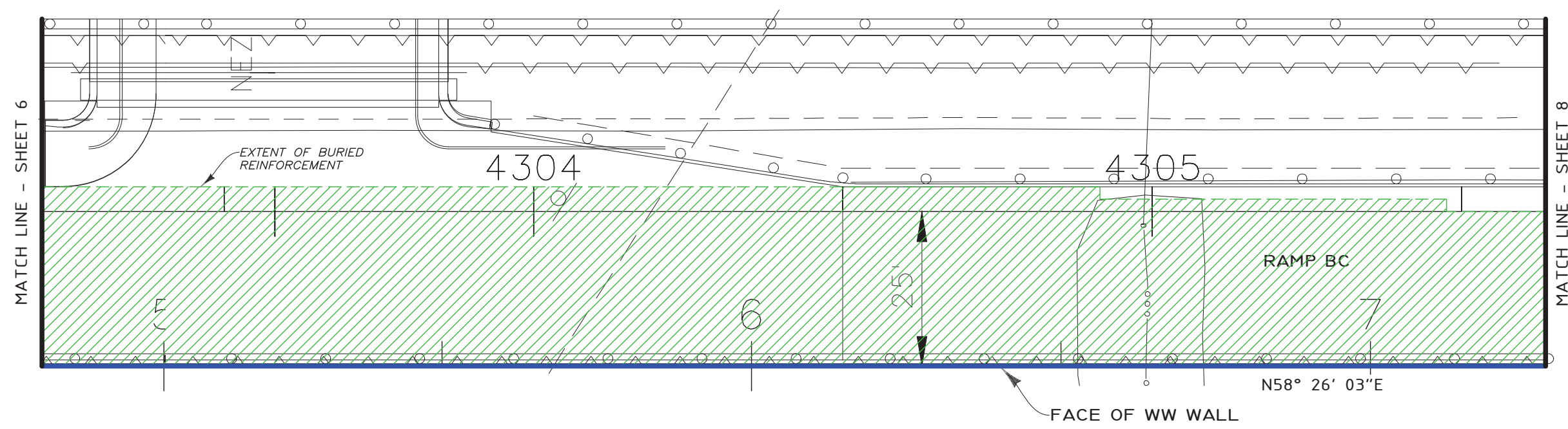
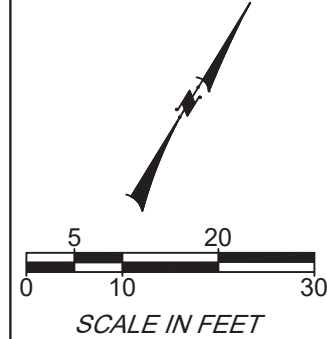
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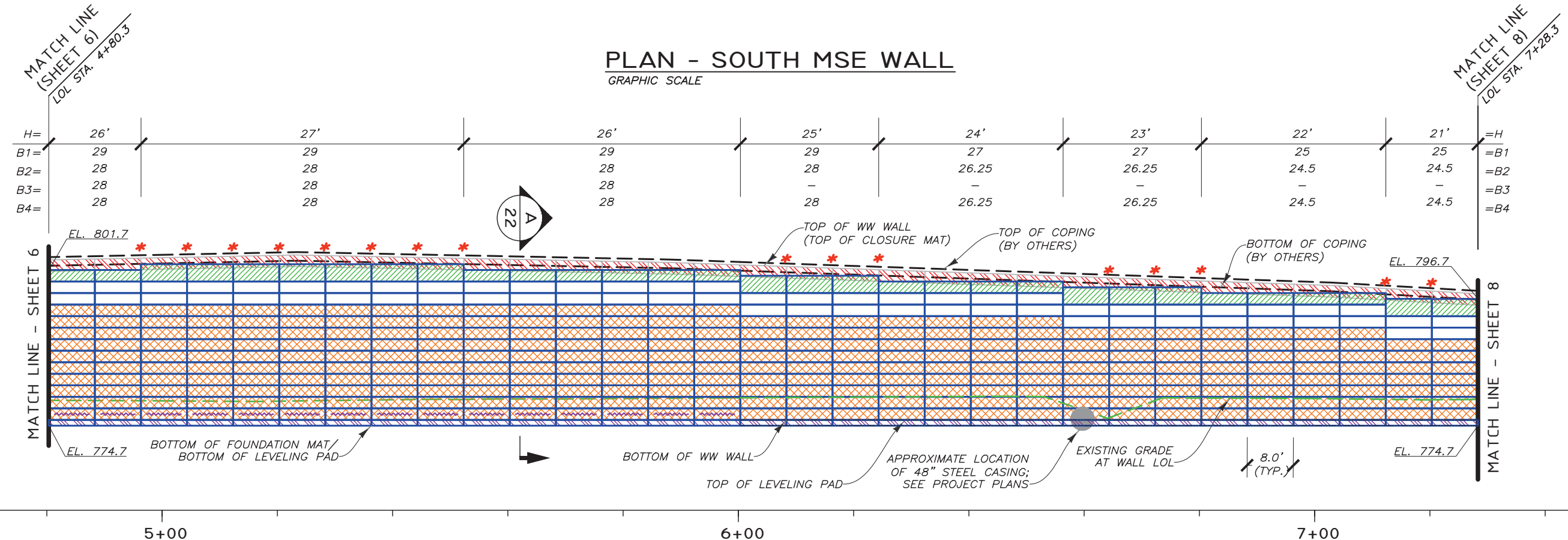
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| AHT'WY PLAZE INTERCHANGE | SHEET<br>6               |
| ITD                      | OF 32                    |

NEZ PERCE COUNTY, ID

PROFESSIONAL ENGINEER  
10/13/2023  
15993  
AN G. VAN LEUVEN



**PLAN - SOUTH MSE WALL**  
GRAPHIC SCALE



**DEVELOPED ELEVATION - SOUTH MSE WALL (FRONT FACE)**  
GRAPHIC SCALE

| LEGEND |  | LOL LAYOUT LINE |   |
|--------|--|-----------------|---|
|        | B1 8"x12", W7xW3.5-HDG                       | H               | WALL HEIGHT (BOTTOM MAT TO CLOSURE MAT FOR ERS WALLS, TO CAP MAT FOR RETURN WW WALLS) |
|        | B2 8"x21", W7xW4-HDG                         | B               | MAT LENGTH (FT)   |
|        | B3 8"x21", W7xW4-HDG INTERMEDIATE (FLAT) MAT | WW              | WELDED WIRE   |
|        | B4 8"x21", W9.5xW4-HDG                       | *               | APPROXIMATE LOCATION OF THE MIDDLE OF EACH 3' BACKING MAT                             |
|        | CLOSURE MATS (TOP OF WALL)                   |                 |   |
|        | 8"x12", W7xW3.5 FOUNDATION MAT               |                 |   |

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**HILFIKER RETAINING WALLS**

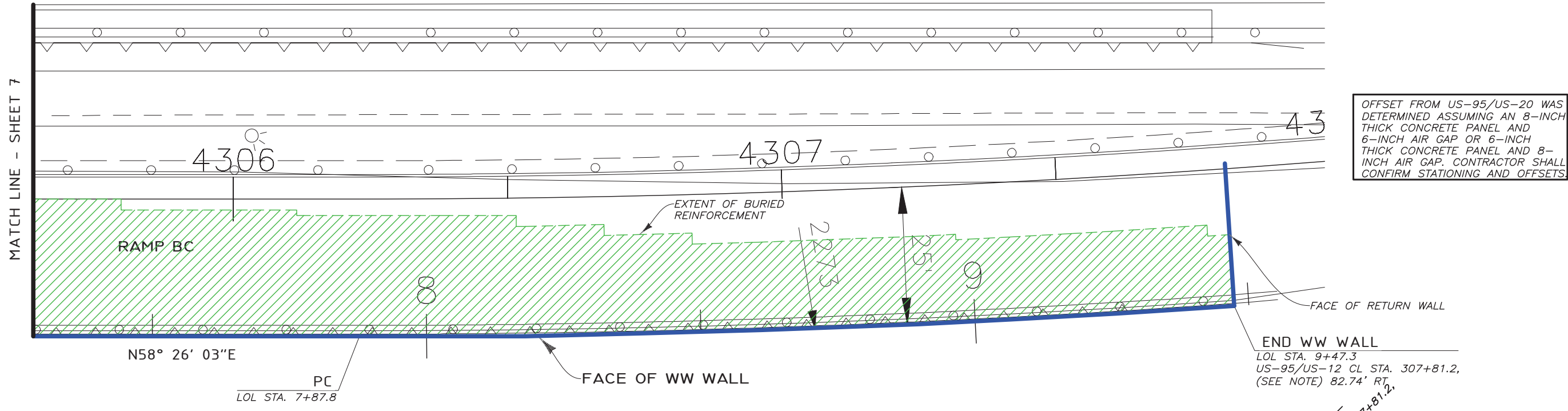
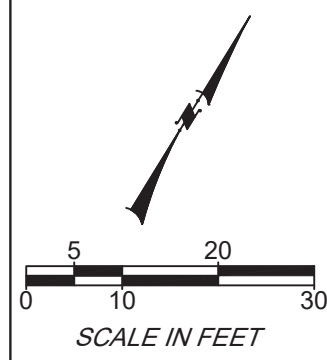
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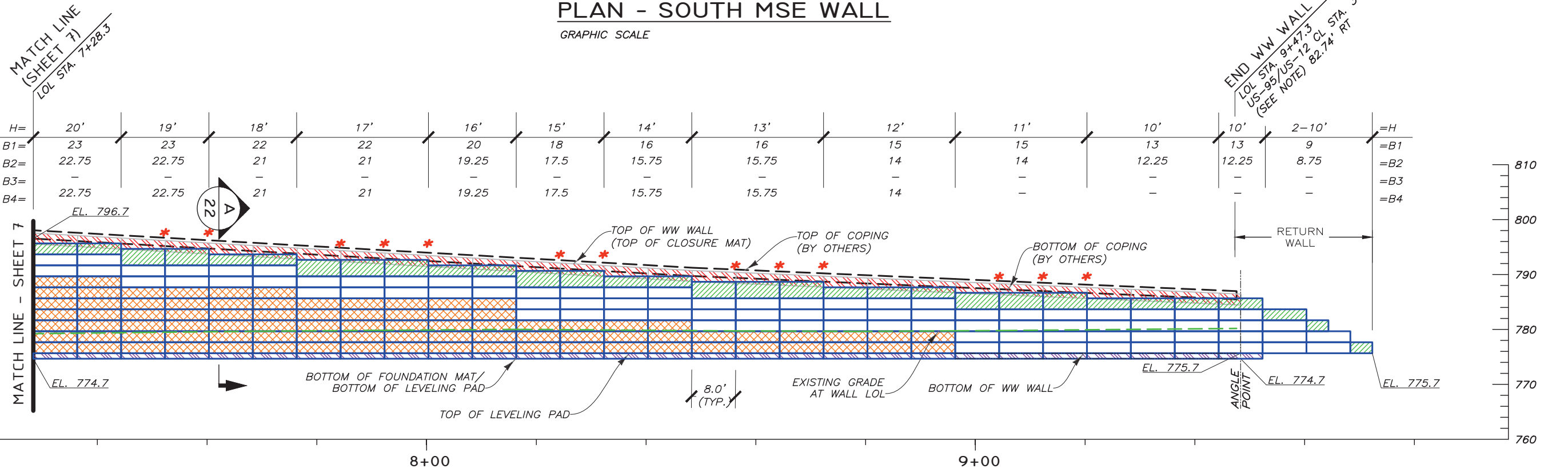
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| ERS WALL                 | HRW NO.:<br>220321AE     |
| AHT'WY PLAZE INTERCHANGE | SHEET<br>7               |
| ITD NEZ PERCE COUNTY, ID | OF 32                    |

PROFESSIONAL ENGINEER  
10/13/2023  
15993  
RYAN G. VAN LEUVEN  
STATE OF IDAHO



**PLAN - SOUTH MSE WALL**  
GRAPHIC SCALE



**LEGEND**

|  |    |   |     |   |
|--|----|---|-----|---|
|  | B1 | 8"x12", W7xW3.5-HDG                       | LOL | LAYOUT LINE   |
|  | B2 | 8"x21", W7xW4-HDG                         | H   | WALL HEIGHT (BOTTOM MAT TO CLOSURE MAT FOR ERS WALLS, TO CAP MAT FOR RETURN WW WALLS) |
|  | B3 | 8"x21", W7xW4-HDG INTERMEDIATE (FLAT) MAT | B   | MAT LENGTH (FT)   |
|  | B4 | 8"x21", W9.5xW4-HDG                       | WW  | WELDED WIRE   |
|  |    | CLOSURE MATS (TOP OF WALL)                | *   | APPROXIMATE LOCATION OF THE MIDDLE OF EACH 3' BACKING MAT                             |
|  |    | 8"x12", W7xW3.5 FOUNDATION MAT            |     |   |

**DEVELOPED ELEVATION - SOUTH MSE WALL (FRONT FACE)**  
GRAPHIC SCALE

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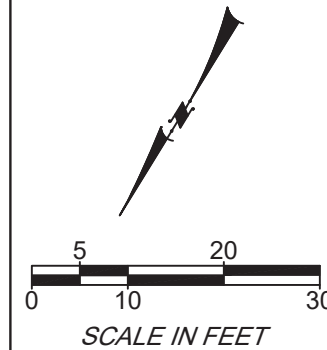
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| PLAN & PROFILE           | DWG DATE: 13 OCT 2023 |
| ERS WALL                 | HRW NO.: 220321AE     |
| AHT'WY PLAZE INTERCHANGE | SHEET 8 OF 32         |
| ITD NEZ PERCE COUNTY, ID |                       |

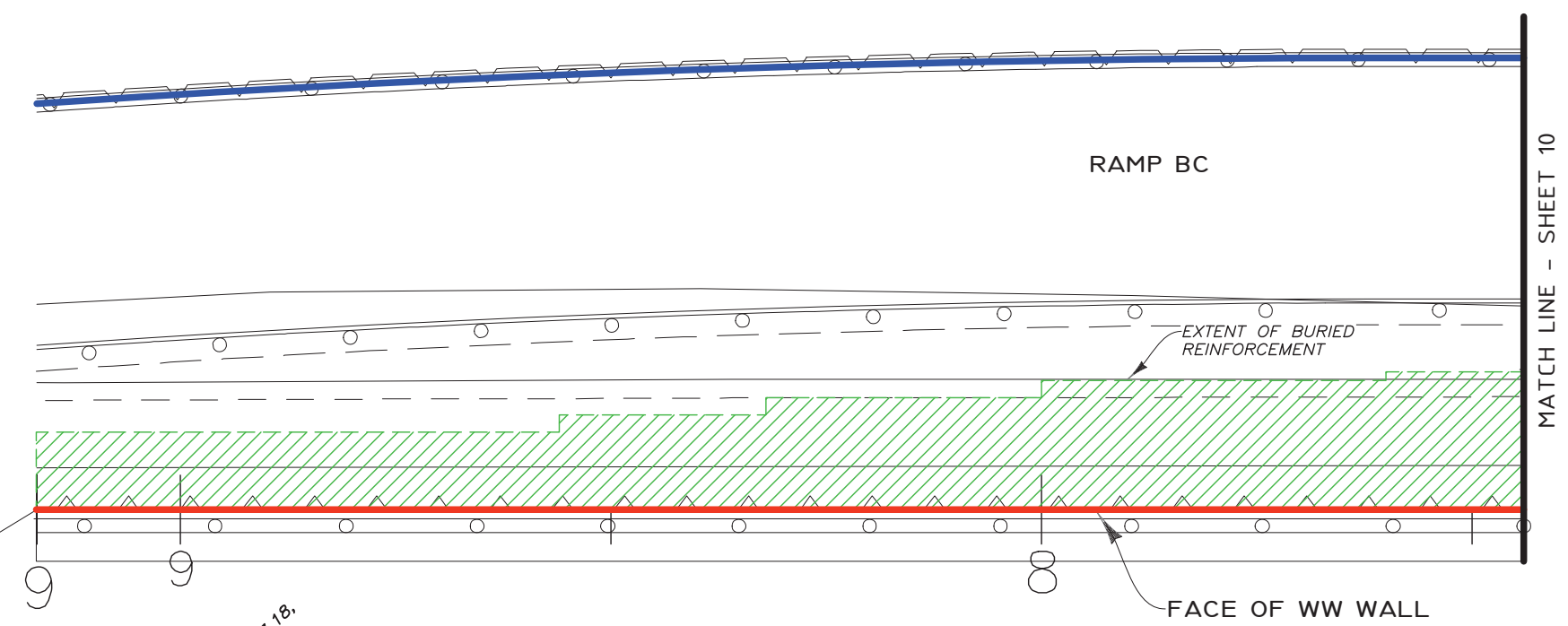
PROFESSIONAL ENGINEER  
10/13/2023  
15993  
STATE OF IDAHO  
RYAN G. VAN LEUVEN

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END WW WALL  
 LOL STA. 9+16.7  
 US-95/US-12 CL STA. 307+77.2,  
 37.2' RT (SEE NOTE)

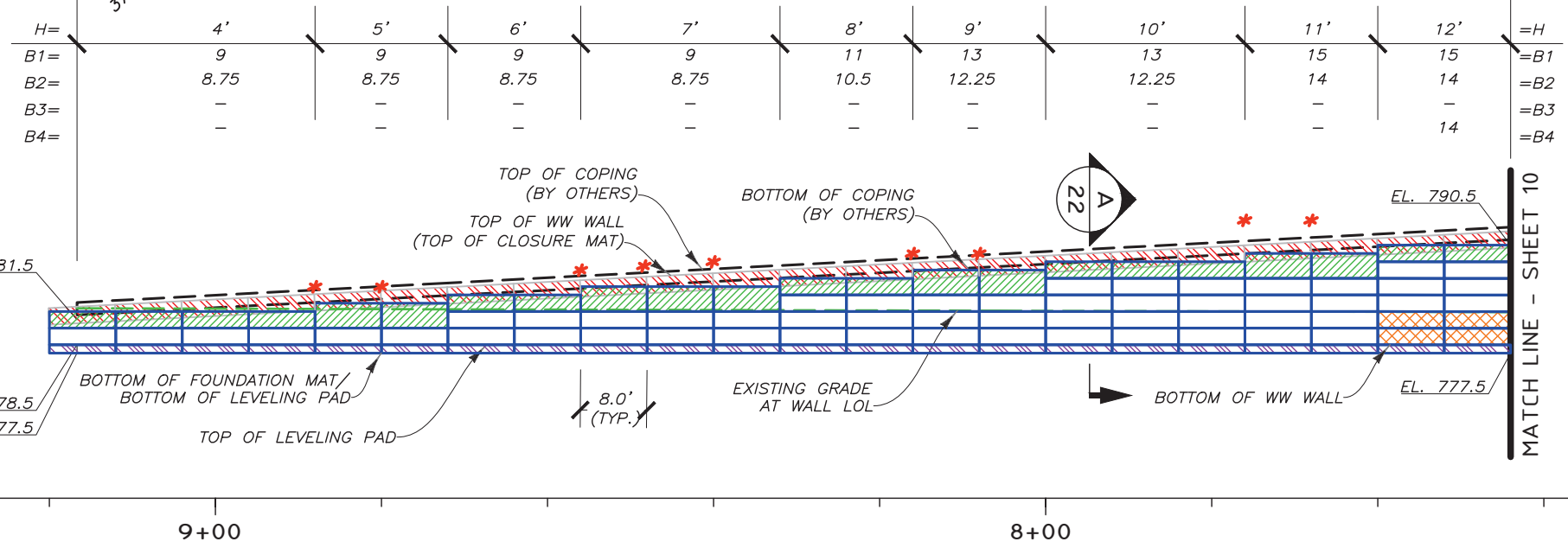


**PLAN - LOWER SB MSE WALL**

GRAPHIC SCALE

END WW WALL  
 LOL STA. 9+16.7  
 US-95/US-20 CL STA. 307+77.18,  
 37.2' RT (SEE NOTE)

MATCH LINE  
 (SHEET 10)  
 LOL STA. 7+44.0



OFFSET FROM US-95/US-20 WAS DETERMINED ASSUMING AN 8-INCH THICK CONCRETE PANEL AND 6-INCH AIR GAP OR 6-INCH THICK CONCRETE PANEL AND 8-INCH AIR GAP. CONTRACTOR SHALL CONFIRM STATIONING AND OFFSETS.

ELEVATION IN FEET

ELEVATION IN FEET

**LEGEND**

- B1 8"x12", W7xW3.5-HDG
- B2 8"x21", W7xW4-HDG
- B3 8"x21", W7xW4-HDG INTERMEDIATE (FLAT) MAT
- B4 8"x21", W9.5xW4-HDG
- CLOSURE MATS (TOP OF WALL)
- 8"x12", W7xW3.5 FOUNDATION MAT
- LOL LAYOUT LINE
- H WALL HEIGHT (BOTTOM MAT TO CLOSURE MAT FOR ERS WALLS, TO CAP MAT FOR RETURN WW WALLS)
- B MAT LENGTH (FT)
- WW WELDED WIRE
- \* APPROXIMATE LOCATION OF THE MIDDLE OF EACH 3' BACKING MAT

**DEVELOPED ELEVATION - LOWER SB MSE WALL (FRONT FACE)**

GRAPHIC SCALE

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| 4    | 10/13/2023 | RGV | REVISED BOTTOM OF WALL     | SGC       |

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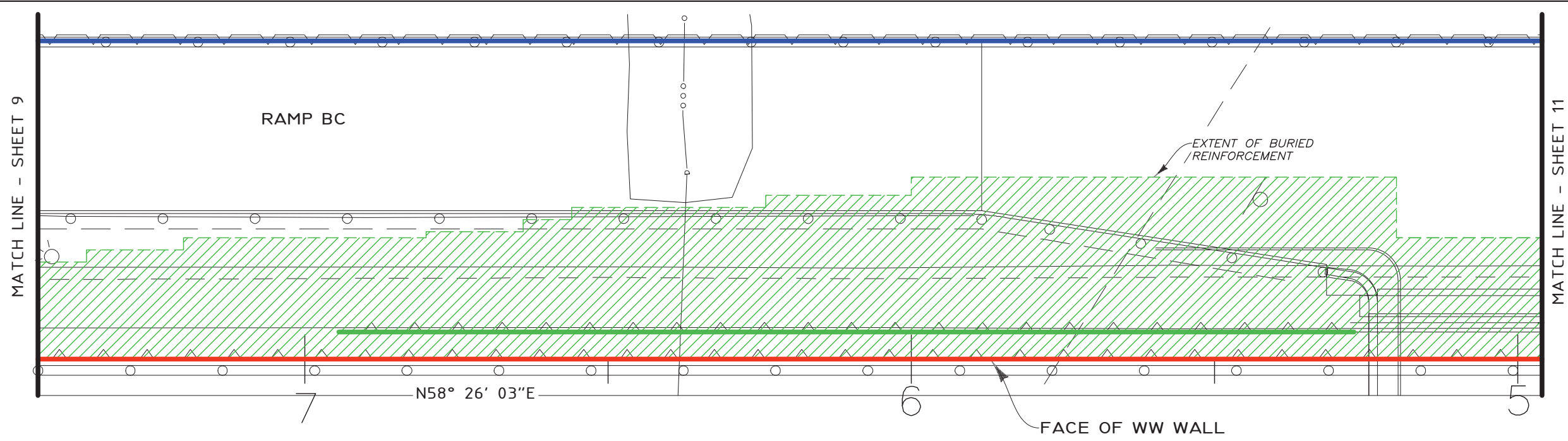
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| AHT'WY PLAZE INTERCHANGE | SHEET<br>9               |
| ITD                      | OF 32                    |

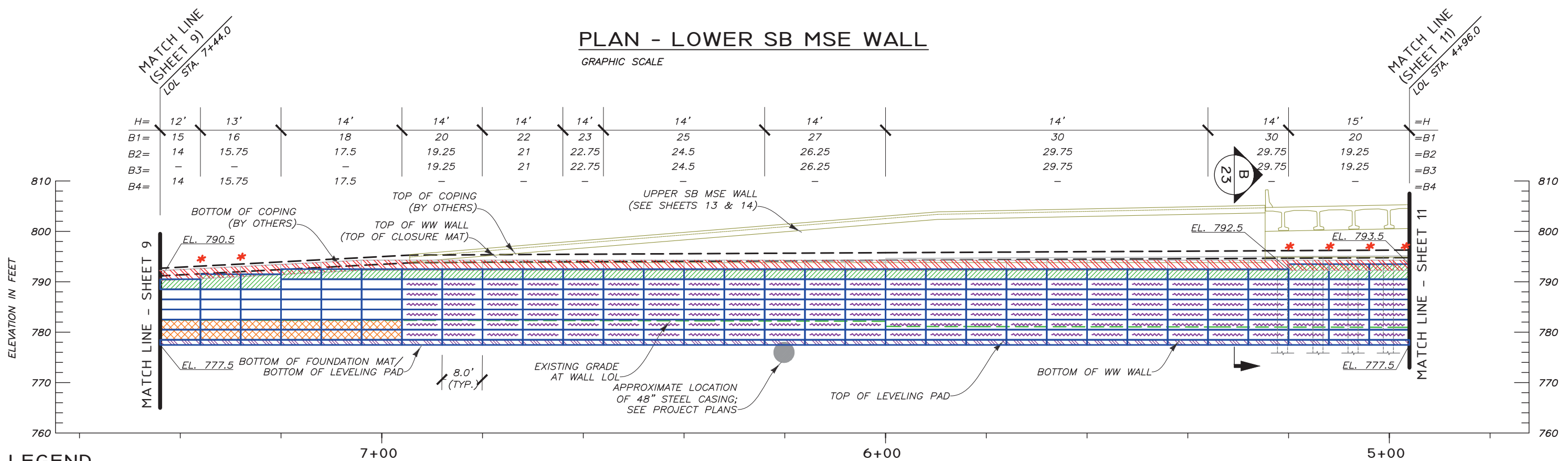
NEZ PERCE COUNTY, ID





**PLAN - LOWER SB MSE WALL**

GRAPHIC SCALE



**LEGEND**

- B1 8"x12", W7xW3.5-HDG
- B2 8"x21", W7xW4-HDG
- B3 8"x21", W7xW4-HDG INTERMEDIATE (FLAT) MAT
- B4 8"x21", W9.5xW4-HDG
- CLOSURE MATS (TOP OF WALL)
- 8"x12", W7xW3.5 FOUNDATION MAT
- LOL LAYOUT LINE
- H WALL HEIGHT (BOTTOM MAT TO CLOSURE MAT FOR ERS WALLS, TO CAP MAT FOR RETURN WW WALLS)
- B MAT LENGTH (FT)
- WW WELDED WIRE
- \* APPROXIMATE LOCATION OF THE MIDDLE OF EACH 3' BACKING MAT

**DEVELOPED ELEVATION - LOWER SB MSE WALL (FRONT FACE)**

GRAPHIC SCALE

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| ITD                      | NEZ PERCE COUNTY, ID  |

PROFESSIONAL ENGINEER

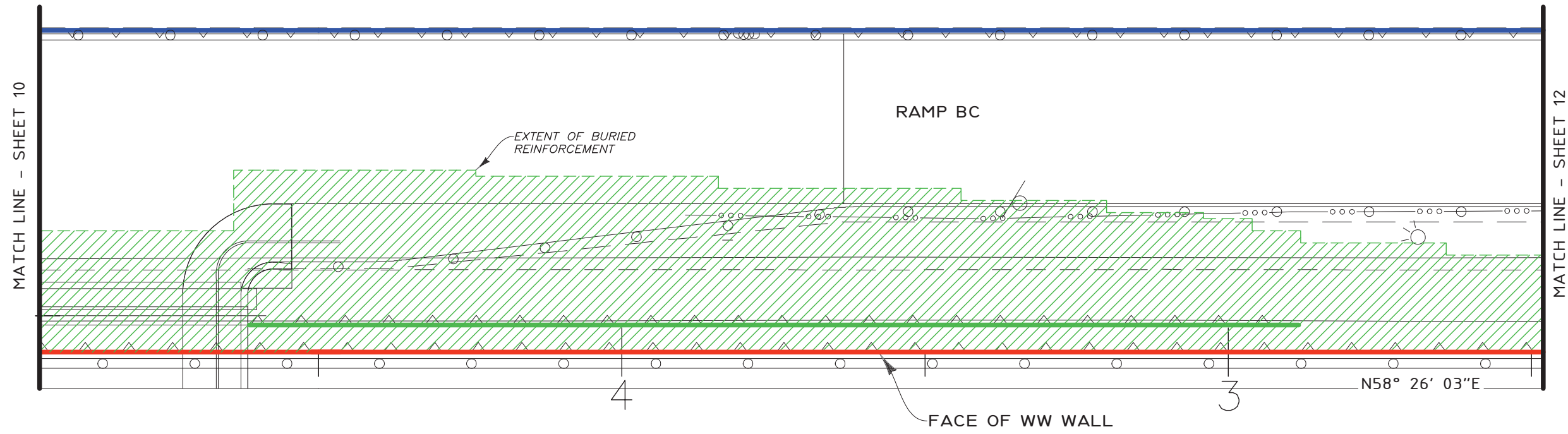
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STATE OF IDAHO

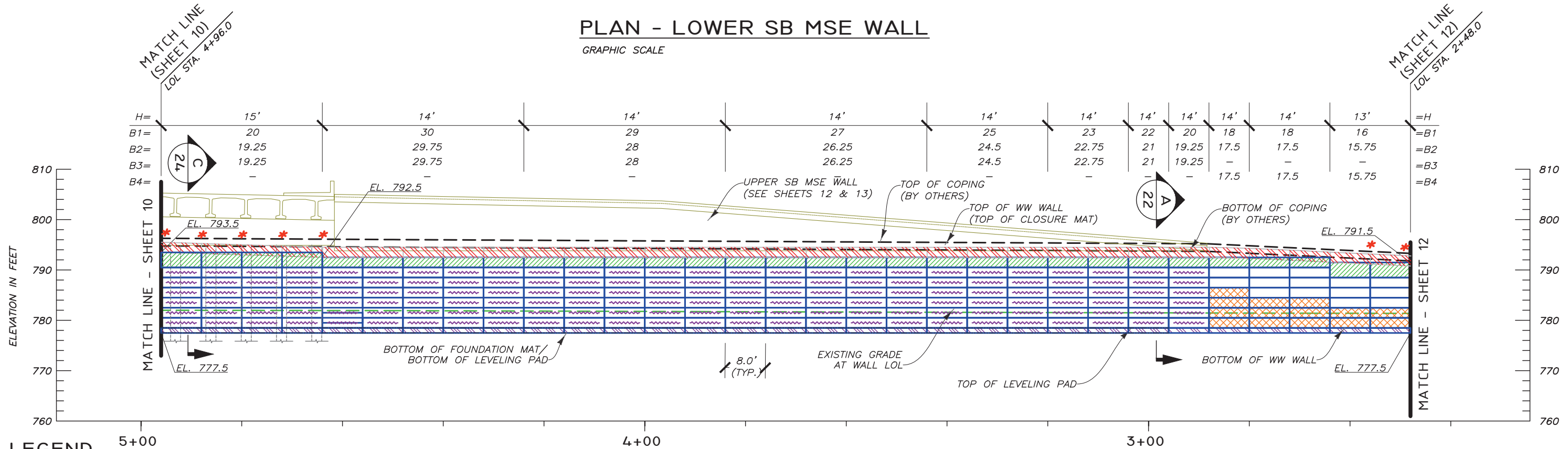
G. VAN LEUVEN

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**PLAN - LOWER SB MSE WALL**

GRAPHIC SCALE



**LEGEND**

- B1 8"x12", W7xW3.5-HDG
- B2 8"x21", W7xW4-HDG
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- B MAT LENGTH (FT)
- WW WELDED WIRE
- \* APPROXIMATE LOCATION OF THE MIDDLE OF EACH 3' BACKING MAT

**DEVELOPED ELEVATION - LOWER SB MSE WALL (FRONT FACE)**

GRAPHIC SCALE

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**HILFIKER RETAINING WALLS**

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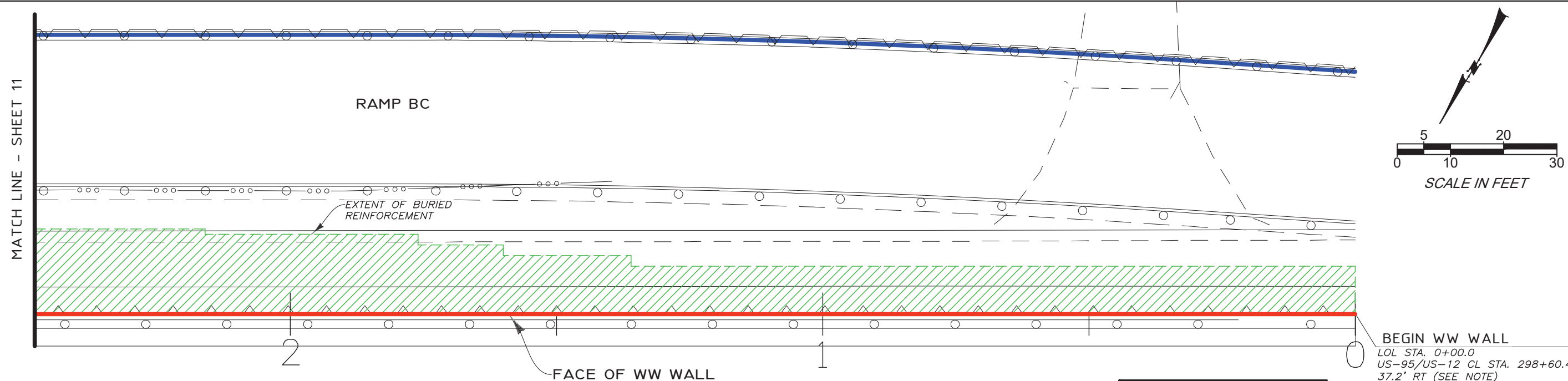
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| PLAN & PROFILE           | DWG DATE: 13 OCT 2023 |
| ERS WALL                 | HRW NO.: 220321AE     |
| AHT'WY PLAZE INTERCHANGE | SHEET 11 OF 32        |
| ITD NEZ PERCE COUNTY, ID |                       |

PROFESSIONAL ENGINEER  
10/13/2023  
15993  
BY: G. VAN LEUVEN  
STATE OF IDAHO

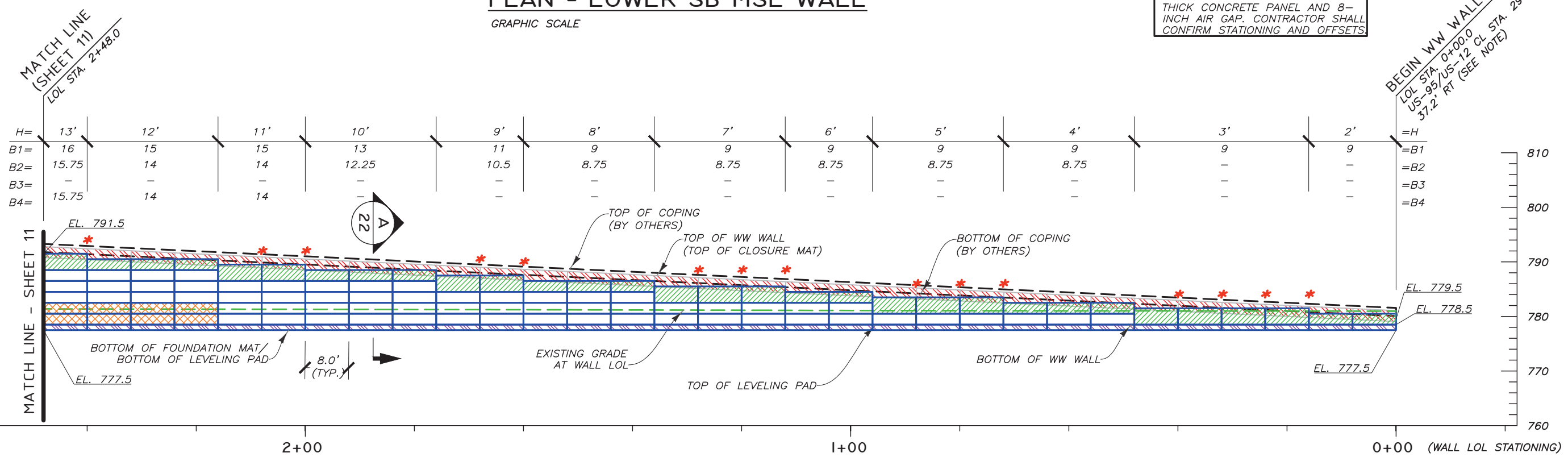
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**PLAN - LOWER SB MSE WALL**

GRAPHIC SCALE

OFFSET FROM US-95/US-20 WAS DETERMINED ASSUMING AN 8-INCH THICK CONCRETE PANEL AND 6-INCH AIR GAP OR 6-INCH THICK CONCRETE PANEL AND 8-INCH AIR GAP. CONTRACTOR SHALL CONFIRM STATIONING AND OFFSETS



**LEGEND**

- B1 8"x12", W7xW3.5-HDG
- B2 8"x21", W7xW4-HDG
- B3 8"x21", W7xW4-HDG INTERMEDIATE (FLAT) MAT
- B4 8"x21", W9.5xW4-HDG
- CLOSURE MATS (TOP OF WALL)
- 8"x12", W7xW3.5 FOUNDATION MAT
- LOL LAYOUT LINE
- H WALL HEIGHT (BOTTOM MAT TO CLOSURE MAT FOR ERS WALLS, TO CAP MAT FOR RETURN WW WALLS)
- B MAT LENGTH (FT)
- WW WELDED WIRE
- \* APPROXIMATE LOCATION OF THE MIDDLE OF EACH 3' BACKING MAT

**DEVELOPED ELEVATION - LOWER SB MSE WALL (FRONT FACE)**

GRAPHIC SCALE

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| 4    | 10/13/2023 | RGV | REVISED BOTTOM OF WALL     |               |

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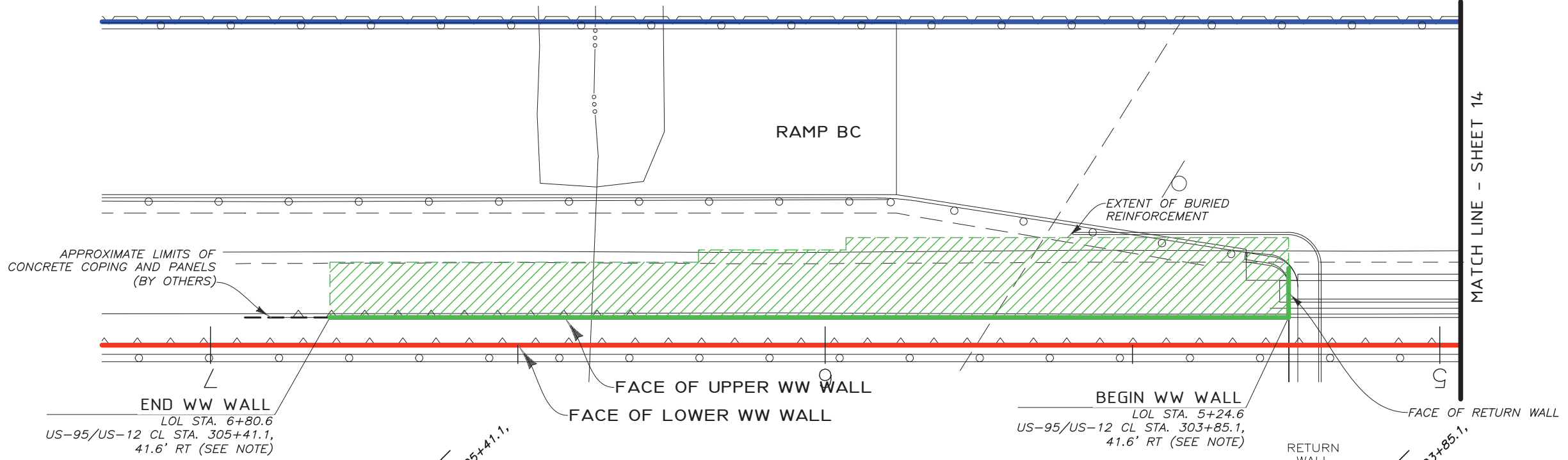
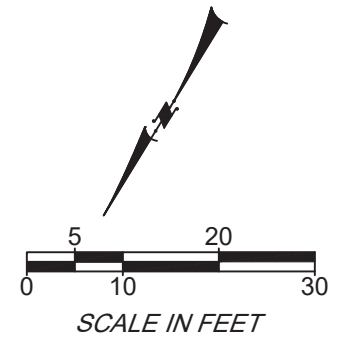
PLAN & PROFILE  
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AHT'WY PLAZE INTERCHANGE  
ITD NEZ PERCE COUNTY, ID

DWG DATE:  
13 OCT 2023  
HRW NO.:  
220321AE  
SHEET  
12  
OF 32

PROFESSIONAL ENGINEER  
10/13/2023  
15993  
STATE OF IDAHO  
G. VAN LEUVEN

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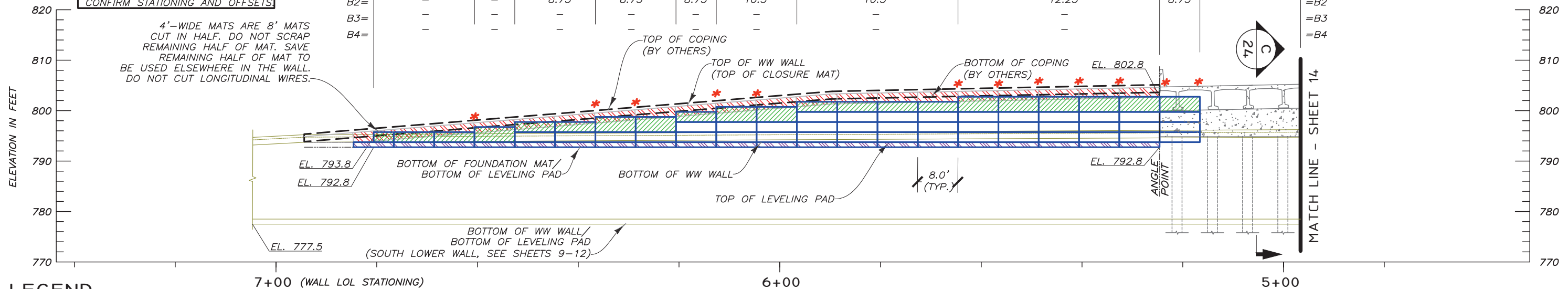


**PLAN - UPPER SB MSE WALL**  
GRAPHIC SCALE

OFFSET FROM US-95/US-20 WAS DETERMINED ASSUMING AN 8-INCH THICK CONCRETE PANEL AND 6-INCH AIR GAP OR 6-INCH THICK CONCRETE PANEL AND 8-INCH AIR GAP. CONTRACTOR SHALL CONFIRM STATIONING AND OFFSETS.

|     |    |    |      |      |      |      |      |       |      |  |
|-----|----|----|------|------|------|------|------|-------|------|--|
| H=  | 2' | 3' | 4'   | 5'   | 6'   | 7'   | 8'   | 9'    |      |  |
| B1= | 9  | 9  | 9    | 9    | 9    | 11   | 11   | 13    | 9    |  |
| B2= | -  | -  | 8.75 | 8.75 | 8.75 | 10.5 | 10.5 | 12.25 | 8.75 |  |
| B3= | -  | -  | -    | -    | -    | -    | -    | -     | -    |  |
| B4= | -  | -  | -    | -    | -    | -    | -    | -     | -    |  |

4'-WIDE MATS ARE 8' MATS CUT IN HALF. DO NOT SCRAP REMAINING HALF OF MAT. SAVE REMAINING HALF OF MAT TO BE USED ELSEWHERE IN THE WALL. DO NOT CUT LONGITUDINAL WIRES.



**LEGEND**

- B1 8"x12", W7xW3.5-HDG
- B2 8"x21", W7xW4-HDG
- B3 8"x21", W7xW4-HDG INTERMEDIATE (FLAT) MAT
- B4 8"x21", W9.5xW4-HDG
- CLOSURE MATS (TOP OF WALL)
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- LOL LAYOUT LINE
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- B MAT LENGTH (FT)
- WW WELDED WIRE
- \* APPROXIMATE LOCATION OF THE MIDDLE OF EACH 3' BACKING MAT

**DEVELOPED ELEVATION - UPPER SB MSE WALL (FRONT FACE)**

GRAPHIC SCALE

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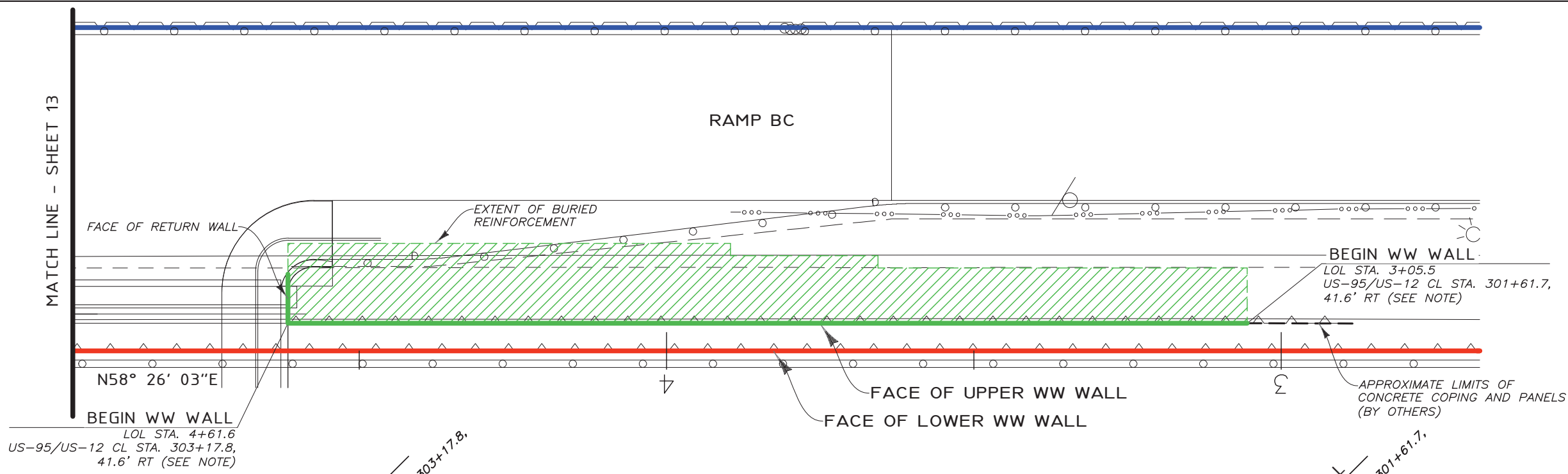
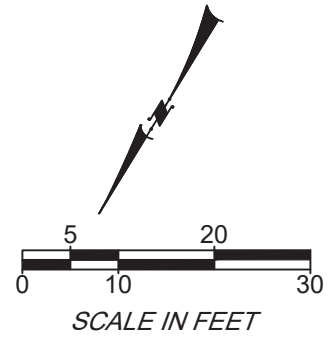
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| ITD NEZ PERCE COUNTY, ID | OF 32                    |

PROFESSIONAL ENGINEER  
10/13/2023  
15993  
RYAN G. VAN LEUVEN  
STATE OF IDAHO

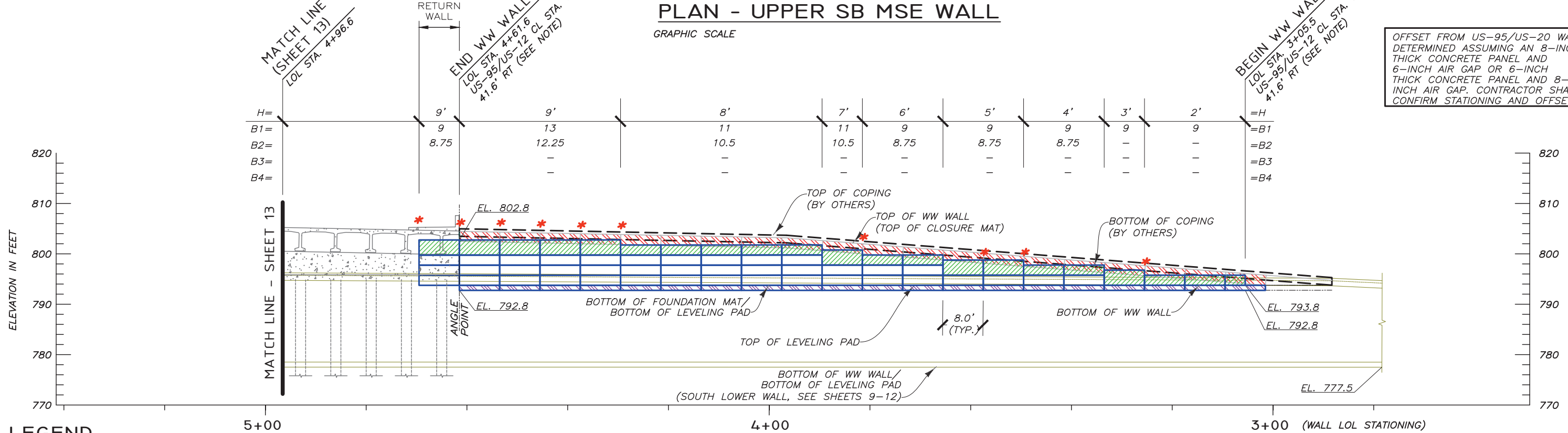
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**PLAN - UPPER SB MSE WALL**

GRAPHIC SCALE

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**DEVELOPED ELEVATION - UPPER SB MSE WALL (FRONT FACE)**

GRAPHIC SCALE

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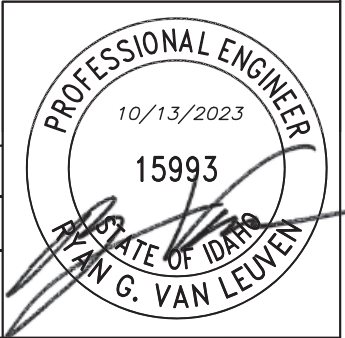
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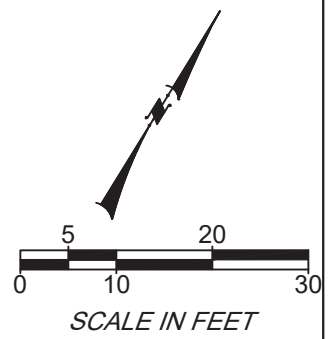
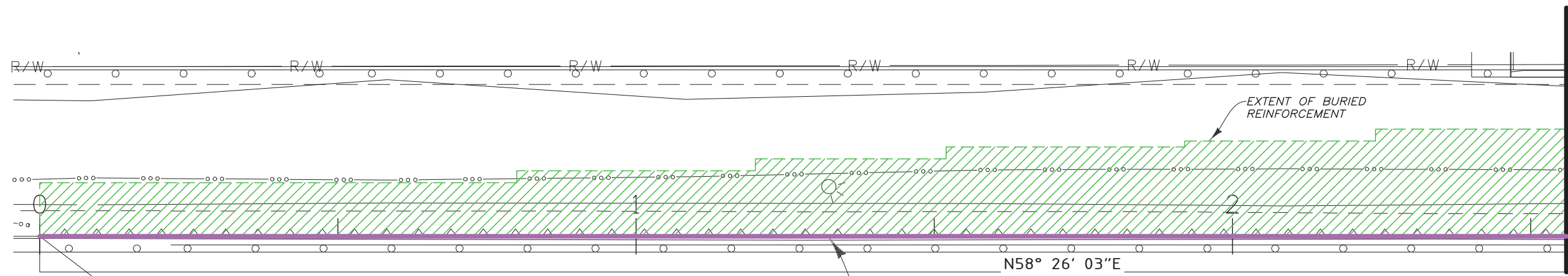
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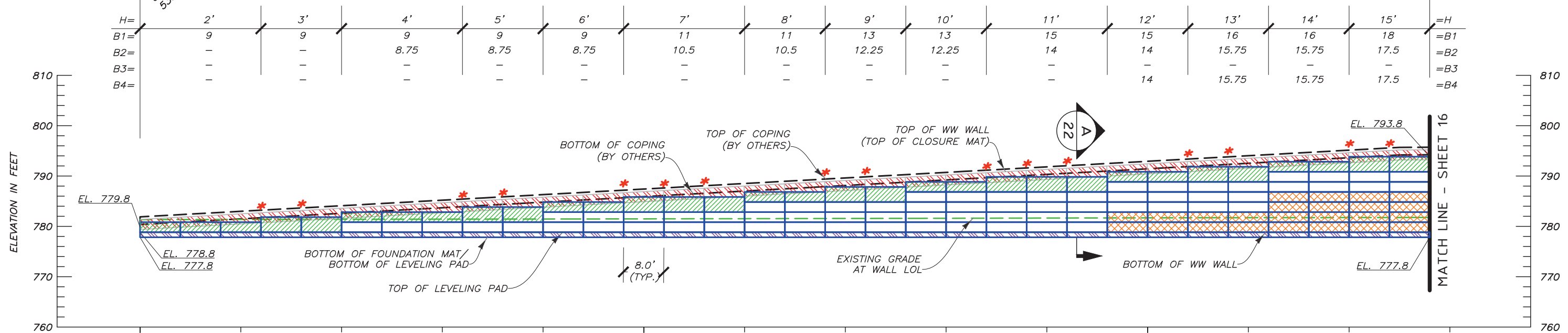
**BEGIN WW WALL**  
 LOL STA. 0+00.0  
 US-95/US-12 CL STA. 299+91.7,  
 53.2' RT (SEE NOTE)

**BEGIN WW WALL**  
 LOL STA. 0+00.0  
 US-95/US-12 CL STA. 299+91.7,  
 53.2' LT (SEE NOTE)

### PLAN - LOWER NB MSE WALL

GRAPHIC SCALE

**MATCH LINE (SHEET 16)**  
 LOL STA. 2+56.0



**LEGEND** 0+00 (WALL LOL STATIONING)

- B1 8"x12", W7xW3.5-HDG
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### DEVELOPED ELEVATION - LOWER NB MSE WALL (FRONT FACE)

GRAPHIC SCALE

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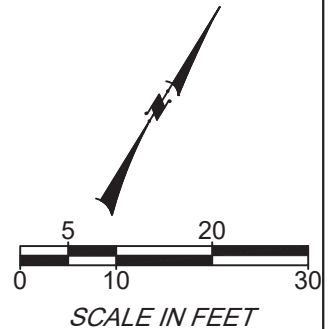
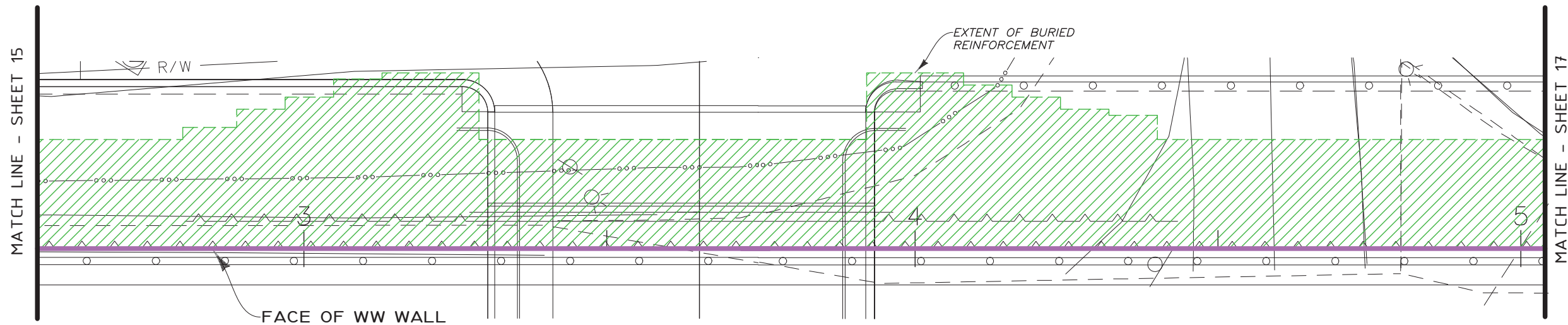
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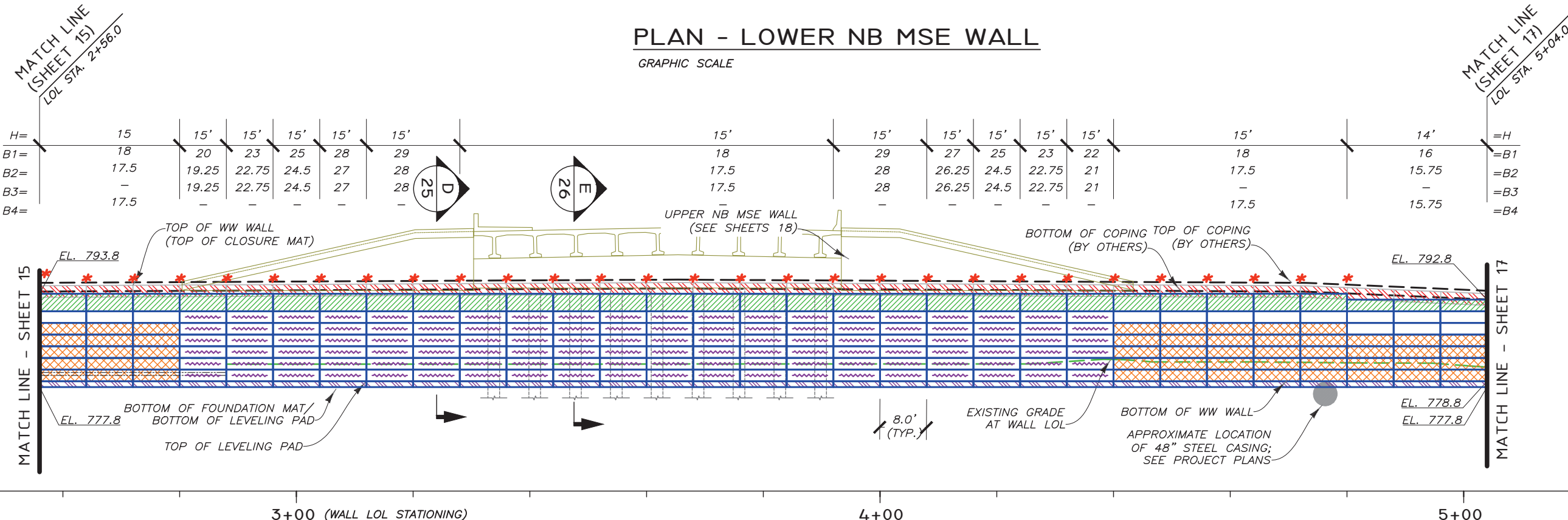
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| AHT'WY PLAZE INTERCHANGE | SHEET<br>15              |
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PROFESSIONAL ENGINEER  
 10/13/2023  
 15993  
 G. VAN LEUVEN



**PLAN - LOWER NB MSE WALL**

GRAPHIC SCALE



**LEGEND**

- B1 8"x12", W7xW3.5-HDG
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**DEVELOPED ELEVATION - LOWER NB MSE WALL (FRONT FACE)**

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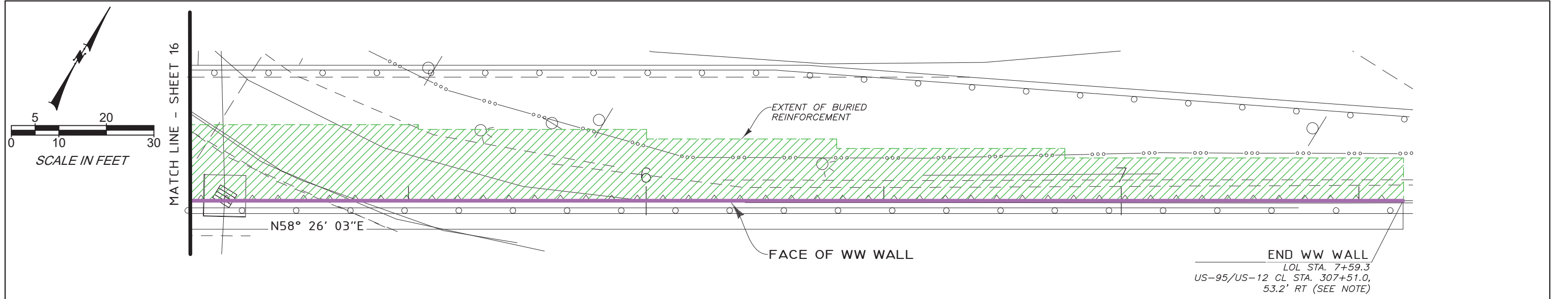
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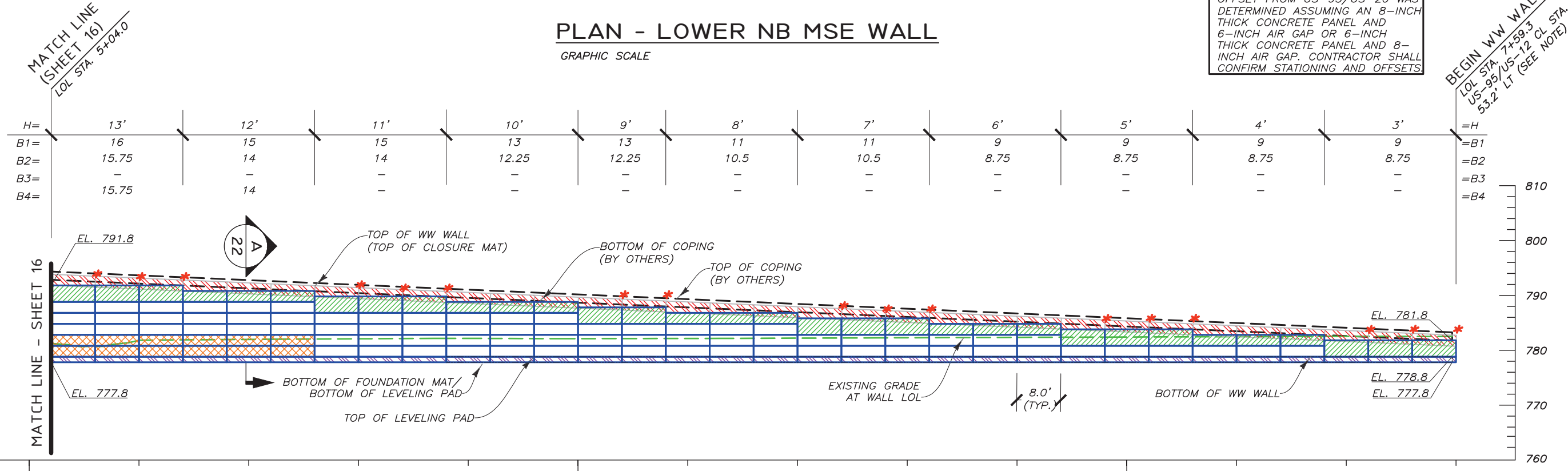




**PLAN - LOWER NB MSE WALL**

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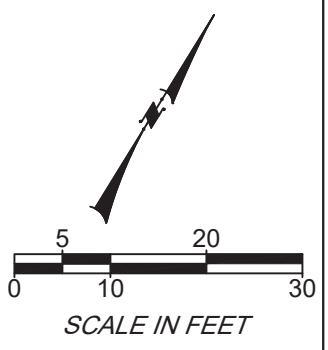
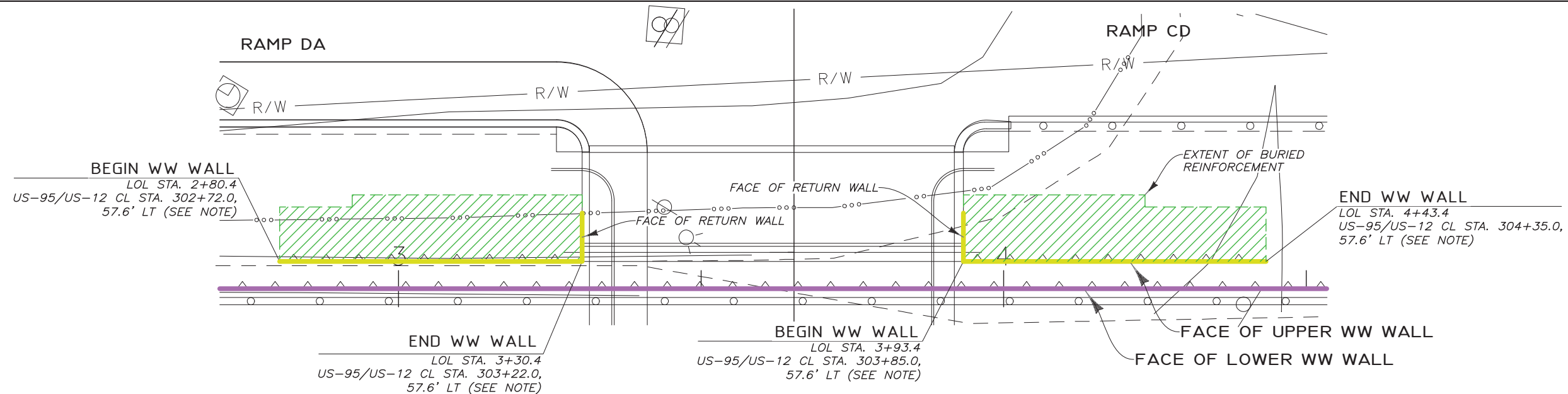
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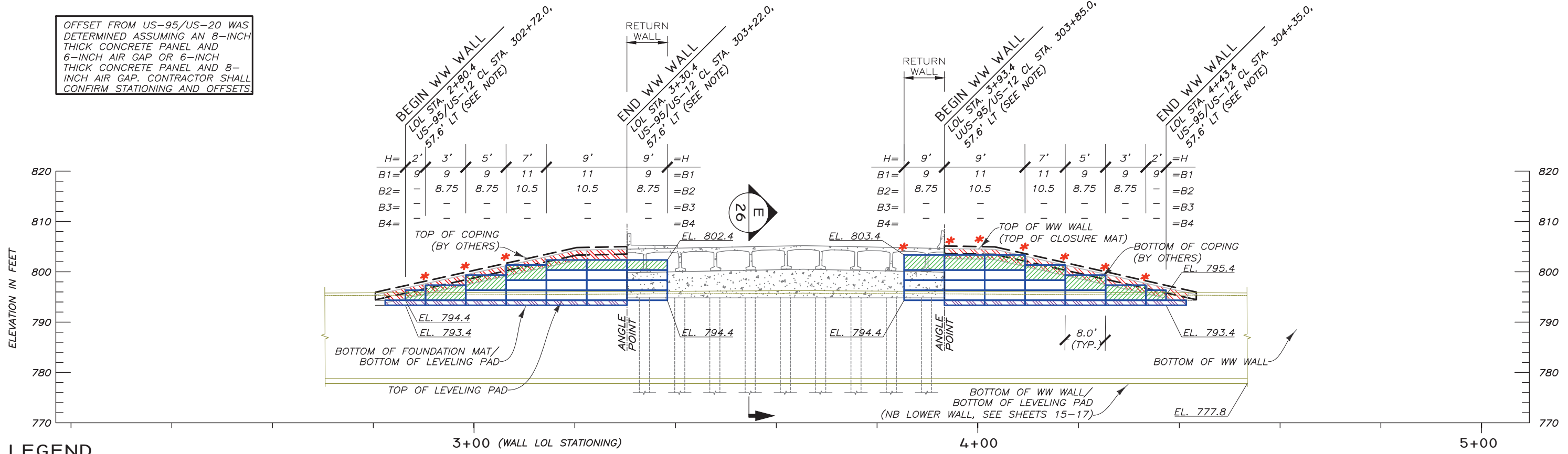
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**PLAN - UPPER NB MSE WALL**

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- CLOSURE MATS (TOP OF WALL)
- 8"x12", W7xW3.5 FOUNDATION MAT
- LOL LAYOUT LINE
- H WALL HEIGHT (BOTTOM MAT TO CLOSURE MAT FOR ERS WALLS, TO CAP MAT FOR RETURN WW WALLS)
- B MAT LENGTH (FT)
- WW WELDED WIRE
- \* APPROXIMATE LOCATION OF THE MIDDLE OF EACH 3' BACKING MAT

**DEVELOPED ELEVATION - UPPER NB MSE WALL (FRONT FACE)**

GRAPHIC SCALE

THE DESIGN CONTAINED ON THESE DRAWINGS IS BASED ON INFORMATION PROVIDED BY THE OWNER. ON THE BASIS OF THIS INFORMATION, THE HILFIKER COMPANY HAS DESIGNED, AND IS RESPONSIBLE FOR THE INTERNAL STABILITY OF THE STRUCTURE ONLY. EXTERNAL STABILITY, INCLUDING FOUNDATION AND SLOPE STABILITY, IS THE RESPONSIBILITY OF THE OWNER.

| REV. | DATE       | BY  | DESCRIPTION                | CADD:         |
|------|------------|-----|----------------------------|---------------|
| 0    | 7/10/2023  | RGV | ISSUED FOR HILFIKER REVIEW | RGV           |
| 1    | 7/12/2023  | RGV | ISSUED FOR OWNER REVIEW    | DESIGNED: RGV |
| 2    | 8/7/2023   | RGV | ISSUED FOR OWNER REVIEW    | CHECKED: SGC  |
| 3    | 8/18/2023  | RGV | ISSUED FOR OWNER REVIEW    |               |
| 4    | 10/13/2023 | RGV | REVISED BOTTOM OF WALL     |               |

**HILFIKER RETAINING WALLS**

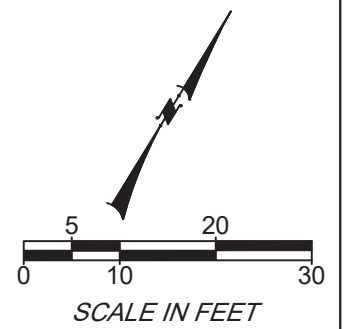
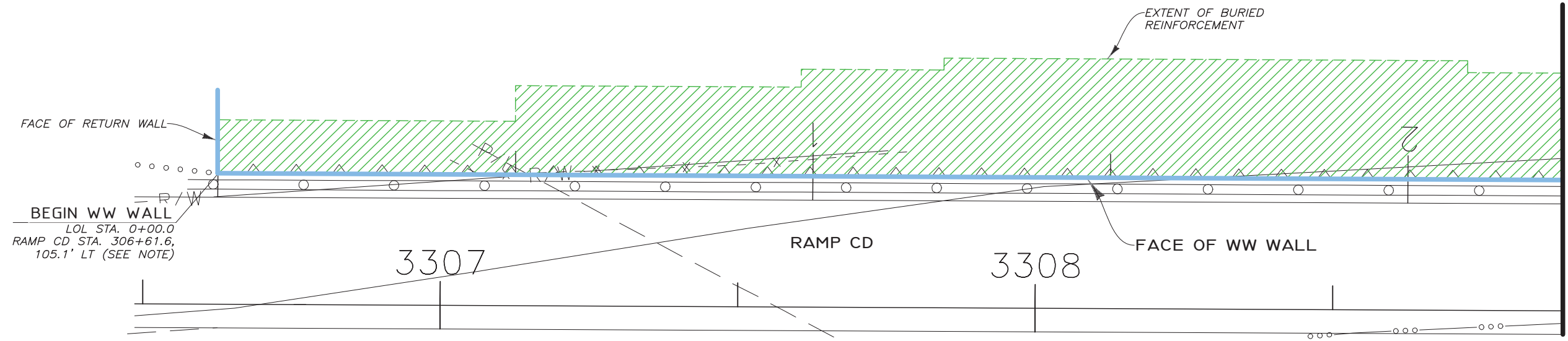
1802 HilfiKER Lane  
Eureka, CA 95503-5711  
TOLL-FREE 800-762-9962  
TEL 707-443-5893 FAX 707-443-2891  
WWW.HILFIKER.COM EMAIL info@hilfiKER.com

**SHANNON & WILSON, INC.**  
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5260 Chinden Blvd.  
Boise, ID 83714  
(208) 658-8700  
Fax: (208) 658-8703

|                          |                          |
|--------------------------|--------------------------|
| PLAN & PROFILE           | DWG DATE:<br>13 OCT 2023 |
| ERS WALL                 | HRW NO.:<br>220321AE     |
| AHT'WY PLAZE INTERCHANGE | SHEET<br>18              |
| ITD NEZ PERCE COUNTY, ID | OF 32                    |

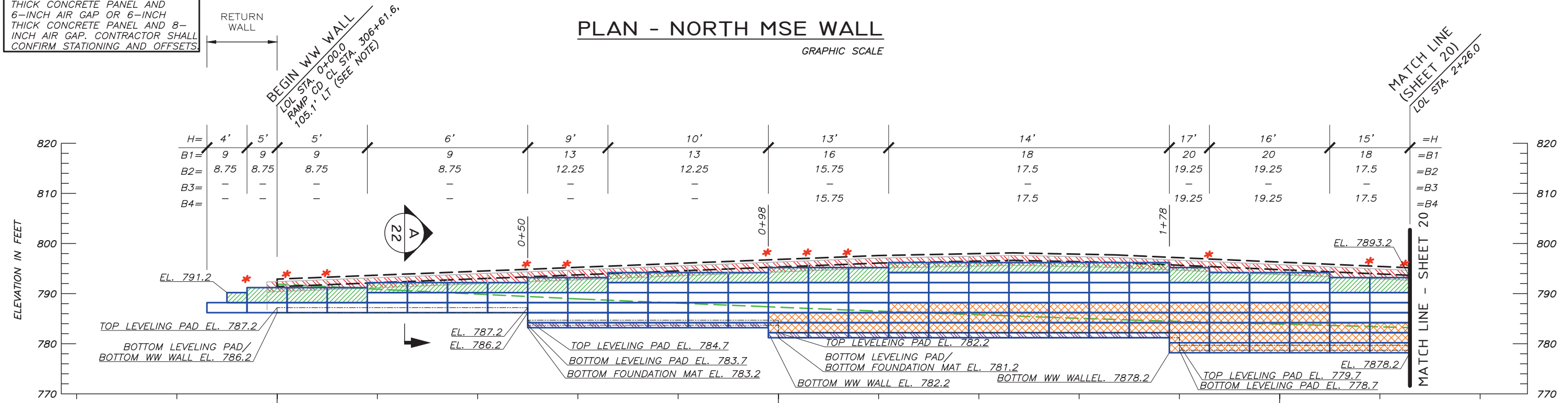
PROFESSIONAL ENGINEER  
10/13/2023  
15993  
STATE OF IDAHO  
G. VAN LEUVEN



OFFSET FROM US-95/US-20 WAS DETERMINED ASSUMING AN 8-INCH THICK CONCRETE PANEL AND 6-INCH AIR GAP OR 6-INCH THICK CONCRETE PANEL AND 8-INCH AIR GAP. CONTRACTOR SHALL CONFIRM STATIONING AND OFFSETS

### PLAN - NORTH MSE WALL

GRAPHIC SCALE



### LEGEND

- B1 8"x12", W7xW3.5-HDG
- B2 8"x21", W7xW4-HDG
- B3 8"x21", W7xW4-HDG INTERMEDIATE (FLAT) MAT
- B4 8"x21", W9.5xW4-HDG
- CLOSURE MATS (TOP OF WALL)
- 8"x12", W7xW3.5 FOUNDATION MAT
- LOL LAYOUT LINE
- H WALL HEIGHT (BOTTOM MAT TO CLOSURE MAT FOR ERS WALLS, TO CAP MAT FOR RETURN WW WALLS)
- B MAT LENGTH (FT)
- WW WELDED WIRE
- \* APPROXIMATE LOCATION OF THE MIDDLE OF EACH 3' BACKING MAT

### DEVELOPED ELEVATION - NORTH MSE WALL (FRONT FACE)

GRAPHIC SCALE

| REV. | DATE       | BY  | DESCRIPTION                | CADD:         |
|------|------------|-----|----------------------------|---------------|
| 0    | 7/10/2023  | RGV | ISSUED FOR HILFIKER REVIEW | RGV           |
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| 3    | 8/18/2023  | RGV | ISSUED FOR OWNER REVIEW    |               |
| 4    | 10/13/2023 | RGV | REVISED BOTTOM OF WALL     |               |

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TEL 707-443-5893 FAX 707-443-2891  
WEBSITE www.hilfiKER.com EMAIL info@hilfiKER.com

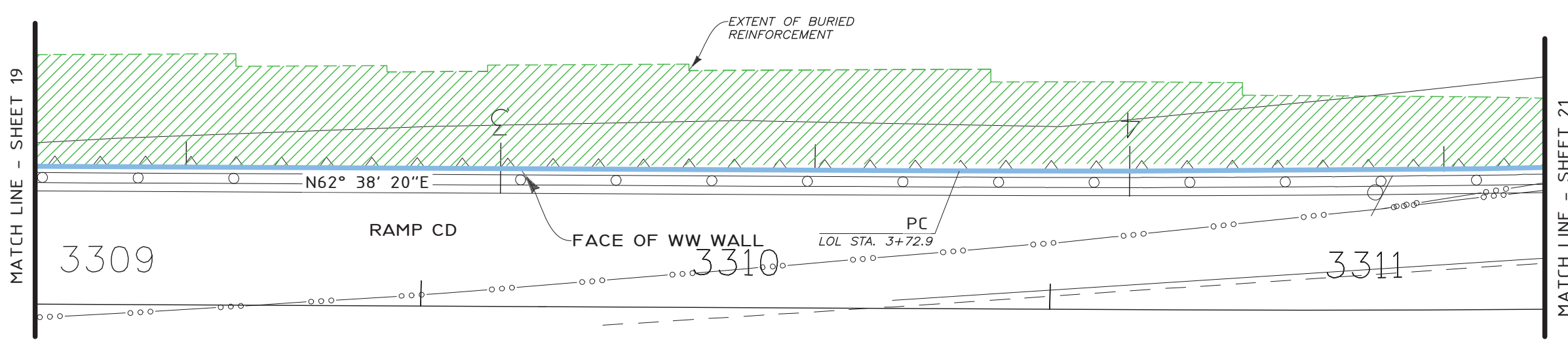
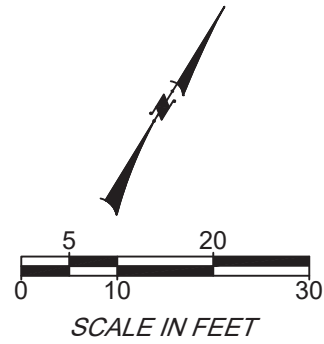
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|                          |                       |
|--------------------------|-----------------------|
| PLAN & PROFILE           | DWG DATE: 13 OCT 2023 |
| ERS WALL                 | HRW NO.: 220321AE     |
| AHT'WY PLAZE INTERCHANGE | SHEET 19 OF 32        |
| ITD                      | NEZ PERCE COUNTY, ID  |

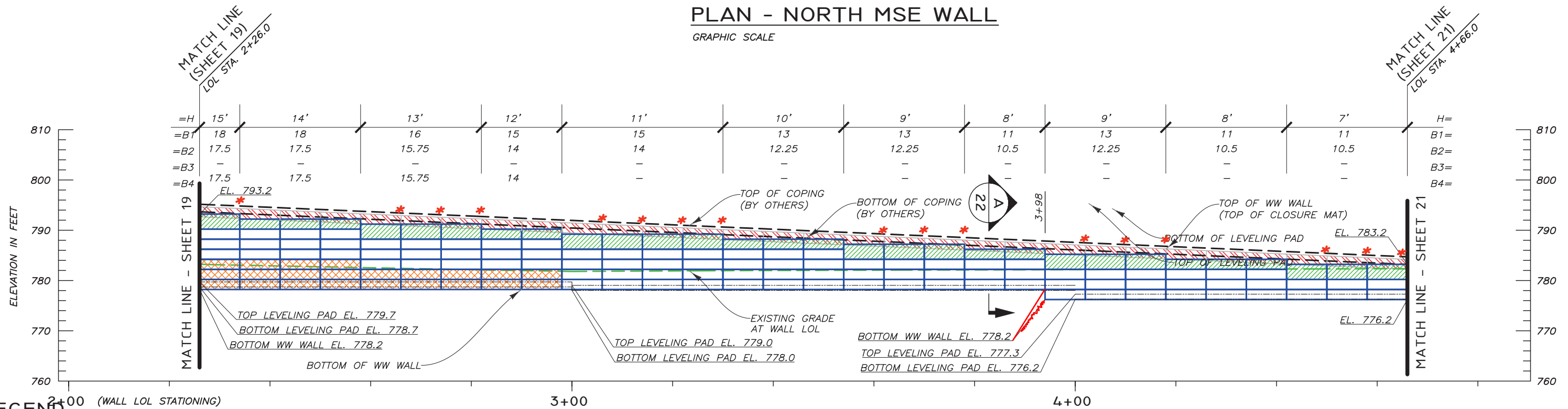
PROFESSIONAL ENGINEER  
10/13/2023  
15993  
STATE OF IDAHO  
G. VAN LEUVEN

11/204-AHTWY Plaze IC PREPARED 08-18-2023.dwg 8/18/2023 3:21 PM RGV



**PLAN - NORTH MSE WALL**

GRAPHIC SCALE



**LEGEND**

- B1 8"x12", W7xW3.5-HDG
- B2 8"x21", W7xW4-HDG
- B3 8"x21", W7xW4-HDG INTERMEDIATE (FLAT) MAT
- B4 8"x21", W9.5xW4-HDG
- CLOSURE MATS (TOP OF WALL)
- 8"x12", W7xW3.5 FOUNDATION MAT

- LOL LAYOUT LINE
- H WALL HEIGHT (BOTTOM MAT TO CLOSURE MAT FOR ERS WALLS, TO CAP MAT FOR RETURN WW WALLS)
- B MAT LENGTH (FT)
- WW WELDED WIRE
- \* APPROXIMATE LOCATION OF THE MIDDLE OF EACH 3' BACKING MAT

**DEVELOPED ELEVATION - NORTH MSE WALL (FRONT FACE)**

GRAPHIC SCALE

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| 4    | 10/13/2023 | RGV | REVISED BOTTOM OF WALL     |               |

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WWW.SITE: www.hilfiKER.com E-MAIL: info@hilfiKER.com

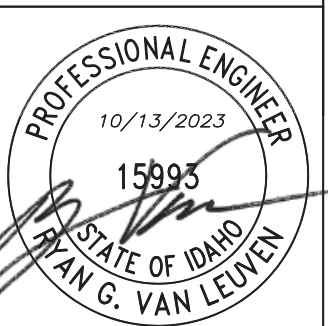


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PLAN & PROFILE  
ERS WALL  
AHT'WY PLAZE INTERCHANGE  
ITD NEZ PERCE COUNTY, ID

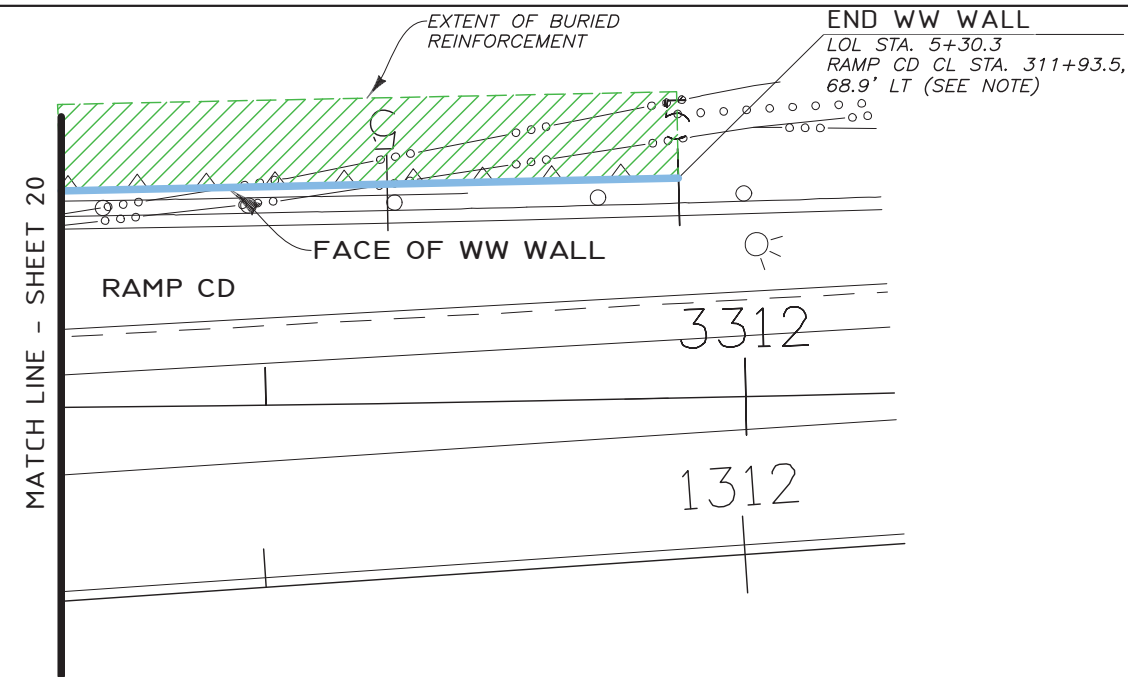
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| DWG DATE: | 13 OCT 2023 |
| HRW NO.:  | 220321AE    |
| SHEET     | 20          |
| OF        | 32          |



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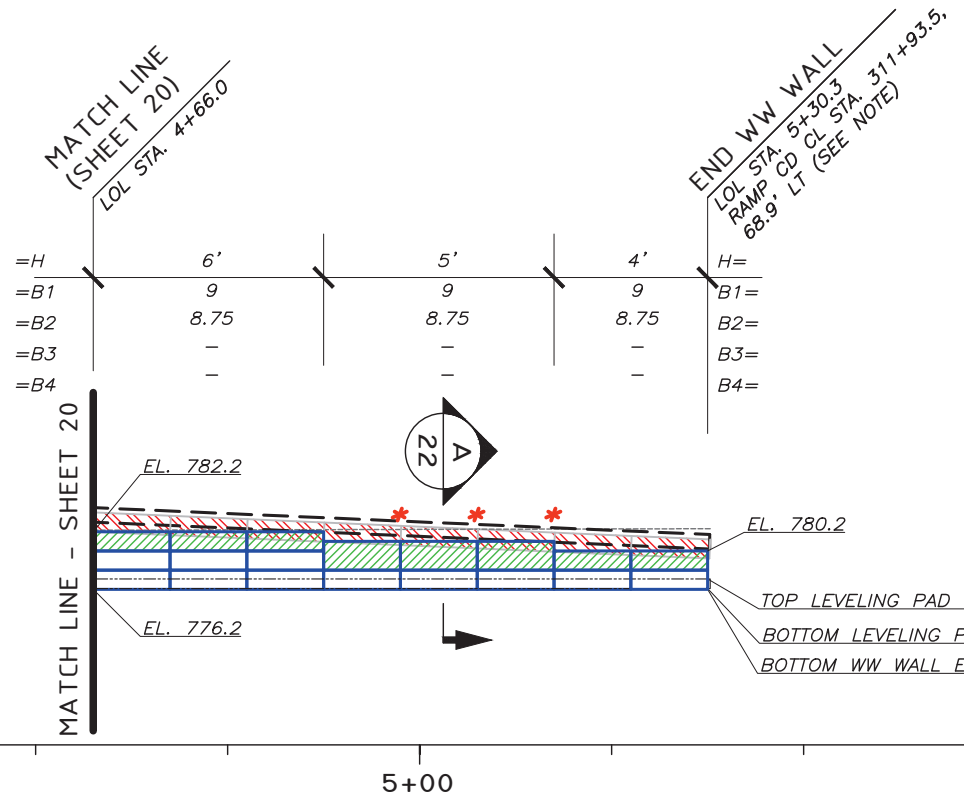
8/16/2023 3:21 PM



**PLAN - NORTH MSE WALL**

GRAPHIC SCALE

OFFSET FROM US-95/US-20 WAS DETERMINED ASSUMING AN 8-INCH THICK CONCRETE PANEL AND 6-INCH AIR GAP OR 6-INCH THICK CONCRETE PANEL AND 8-INCH AIR GAP. CONTRACTOR SHALL CONFIRM STATIONING AND OFFSETS.



**DEVELOPED ELEVATION - NORTH MSE WALL (FRONT FACE)**

GRAPHIC SCALE

**LEGEND**

|  |    |   |     |   |
|--|----|---|-----|---|
|  | B1 | 8"x12", W7xW3.5-HDG                       | LOL | LAYOUT LINE   |
|  | B2 | 8"x21", W7xW4-HDG                         | H   | WALL HEIGHT (BOTTOM MAT TO CLOSURE MAT FOR ERS WALLS, TO CAP MAT FOR RETURN WW WALLS) |
|  | B3 | 8"x21", W7xW4-HDG INTERMEDIATE (FLAT) MAT | B   | MAT LENGTH (FT)   |
|  | B4 | 8"x21", W9.5xW4-HDG                       | WW  | WELDED WIRE   |
|  |    | CLOSURE MATS (TOP OF WALL)                | *   | APPROXIMATE LOCATION OF THE MIDDLE OF EACH 3' BACKING MAT                             |
|  |    | 8"x12", W7xW3.5 FOUNDATION MAT            |     |   |

| REV. | DATE       | BY  | DESCRIPTION                | CADD:         |
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| 4    | 10/13/2023 | RGV | REVISED BOTTOM OF WALL     |               |

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TEL 707-443-5893 FAX 707-443-2891  
WEBSITE www.hilfiKER.com EMAIL info@hilfiKER.com

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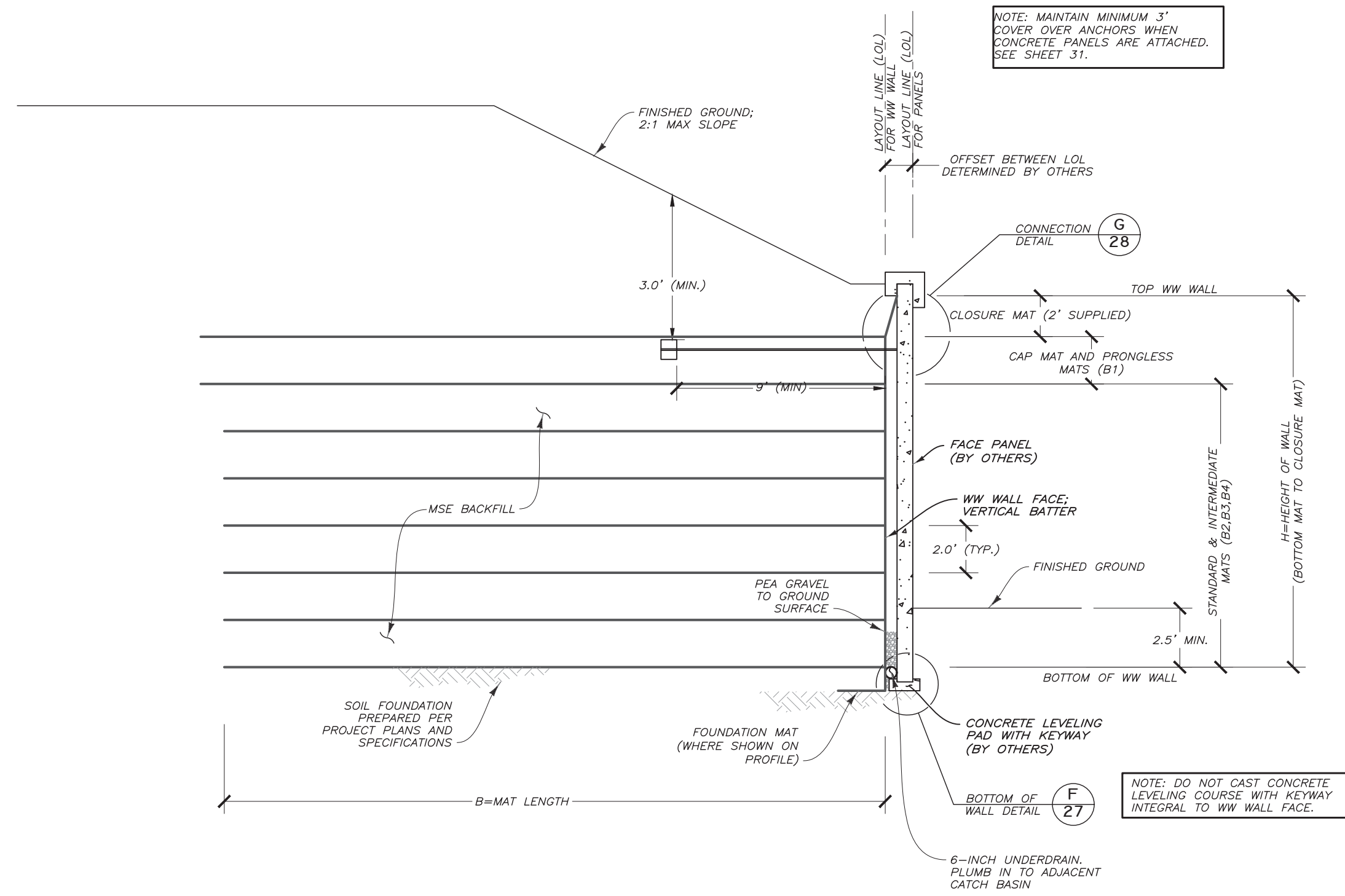
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Fax: (208) 658-8703

|                          |                       |
|--------------------------|-----------------------|
| PLAN & PROFILE           | DWG DATE: 13 OCT 2023 |
| ERS WALL                 | HRW NO.: 220321AE     |
| AHT'WY PLAZE INTERCHANGE | SHEET 21 OF 32        |
| ITD                      | NEZ PERCE COUNTY, ID  |

PROFESSIONAL ENGINEER  
10/13/2023  
15993  
AN G. VAN LEUVEN  
STATE OF IDAHO

11/29/2023 10:18:23 AM

8/16/2023 3:21 PM



NOTE: MAINTAIN MINIMUM 3' COVER OVER ANCHORS WHEN CONCRETE PANELS ARE ATTACHED. SEE SHEET 31.

NOTE: DO NOT CAST CONCRETE LEVELING COURSE WITH KEYWAY INTEGRAL TO WW WALL FACE.

**TYPICAL SECTION - MSE WALL**  
NOT TO SCALE

A  
5-21

THE DESIGN CONTAINED ON THESE DRAWINGS IS BASED ON INFORMATION PROVIDED BY THE OWNER. ON THE BASIS OF THIS INFORMATION, THE HILFIKER COMPANY HAS DESIGNED, AND IS RESPONSIBLE FOR THE INTERNAL STABILITY OF THE STRUCTURE ONLY. EXTERNAL STABILITY, INCLUDING FOUNDATION AND SLOPE STABILITY, IS THE RESPONSIBILITY OF THE OWNER.

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| 4    | 10/13/2023 | RGV | REVISED BOTTOM OF WALL     | SGC       |

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|                          |             |
|--------------------------|-------------|
| SECTION                  | DWG DATE:   |
| ERS WALL                 | 13 OCT 2023 |
| AHT'WY PLAZE INTERCHANGE | HRW NO.:    |
| ITD                      | 220321AE    |
| NEZ PERCE COUNTY, ID     | SHEET       |
|                          | 22          |
|                          | OF 32       |

PROFESSIONAL ENGINEER

10/13/2023

15993

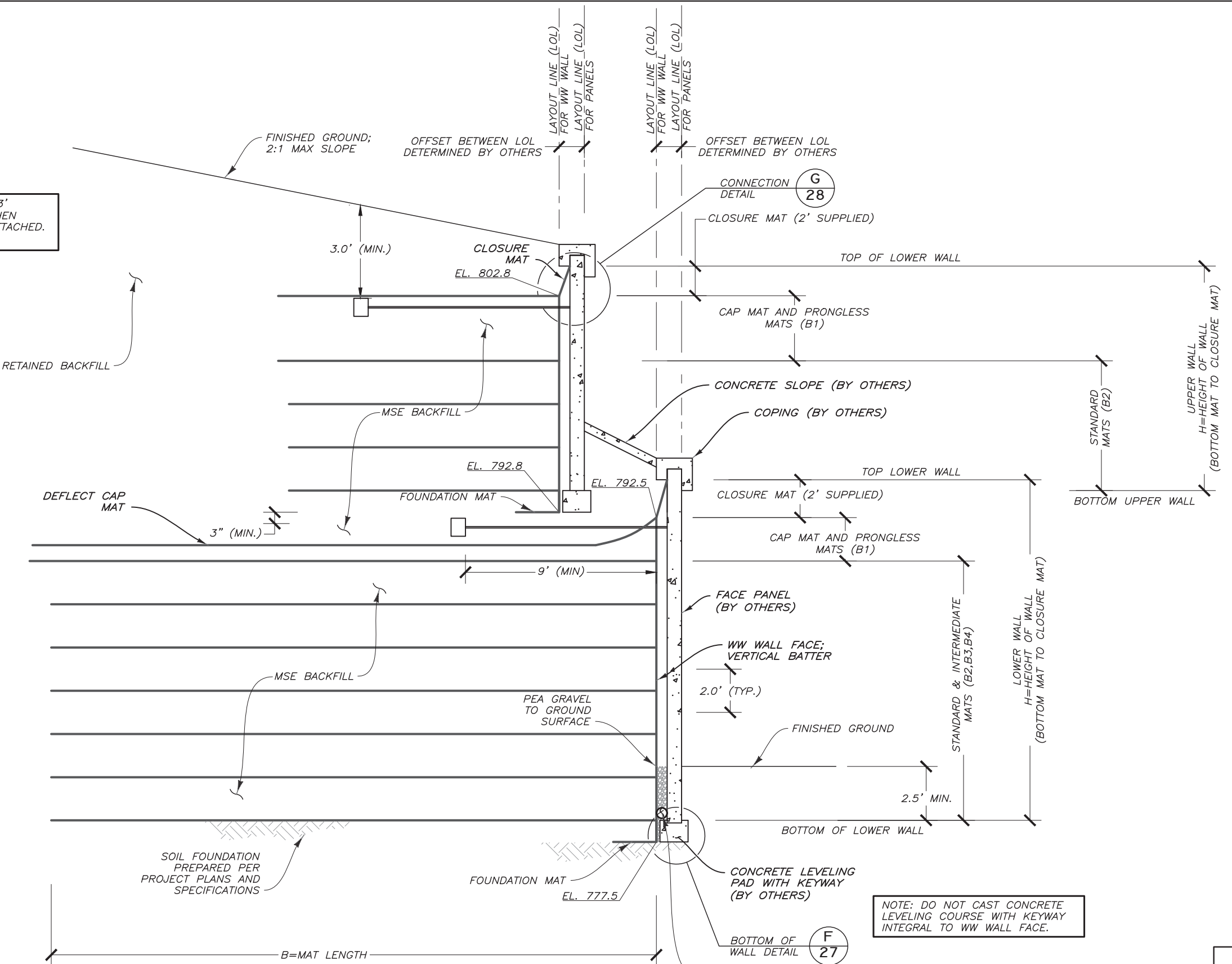
STATE OF IDAHO

RYAN G. VAN LEUVEN

11/29/2023 10:18:20 AM

8/16/2023 3:21 PM

NOTE: MAINTAIN MINIMUM 3' COVER OVER ANCHORS WHEN CONCRETE PANELS ARE ATTACHED. SEE SHEET 31.



**SECTION - TIERED SB MSE WALL** (B 10)  
NOT TO SCALE

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|------|------------|-----|----------------------------|---------------|
| 0    | 7/10/2023  | RGV | ISSUED FOR HILFIKER REVIEW | RGV           |
| 1    | 7/12/2023  | RGV | ISSUED FOR OWNER REVIEW    | DESIGNED: RGV |
| 2    | 8/7/2023   | RGV | ISSUED FOR OWNER REVIEW    | CHECKED: SGC  |
| 3    | 8/18/2023  | RGV | ISSUED FOR OWNER REVIEW    |               |
| 4    | 10/13/2023 | RGV | REVISED BOTTOM OF WALL     |               |

**HILFIKER RETAINING WALLS**

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PH 707.443.5893 FAX 707.443.2891  
WEB SITE www.hilfiKER.com E-MAIL info@hilfiKER.com

1902

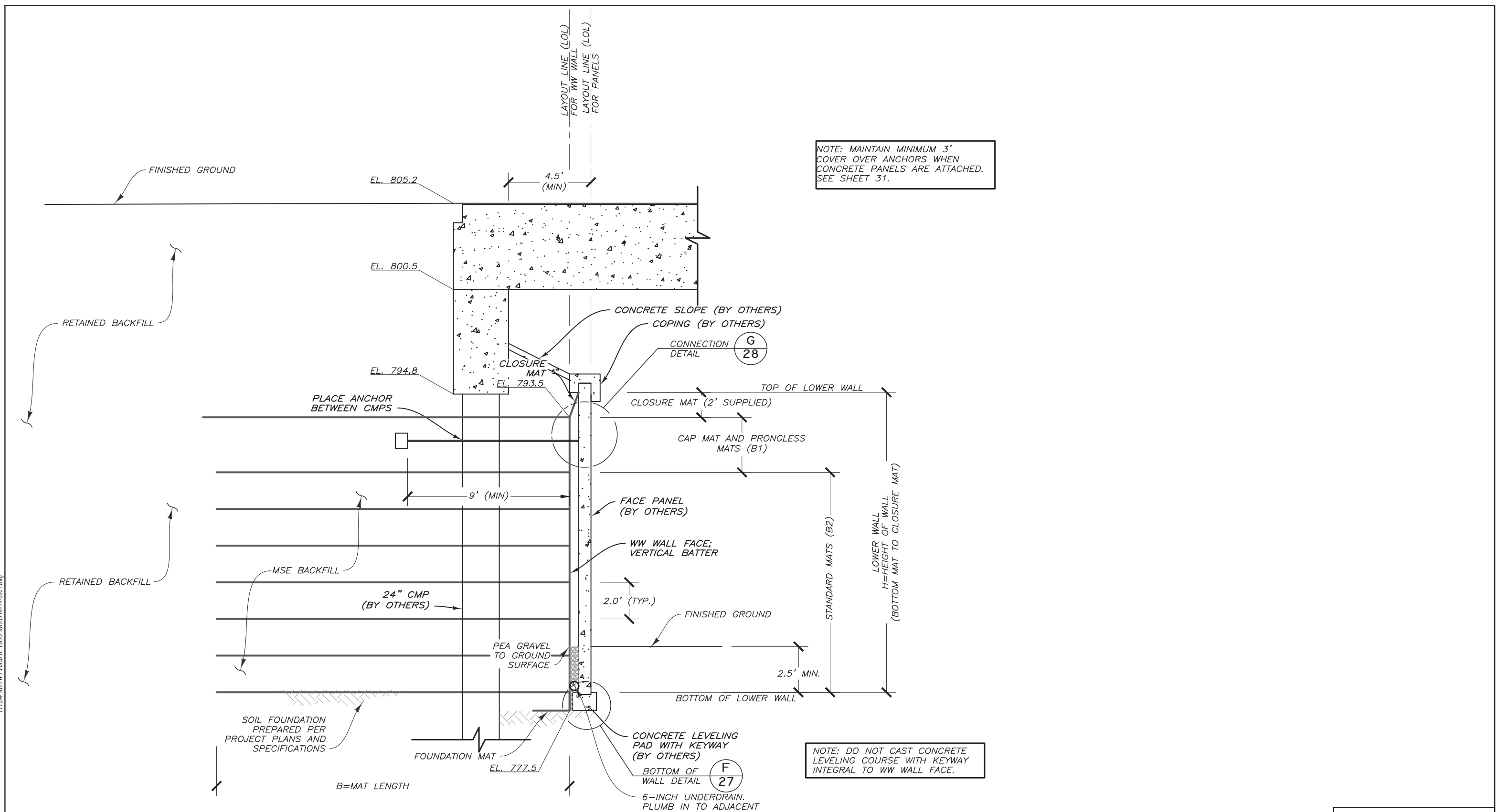
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|--------------------------|-------------|
| SECTION                  | DWG DATE:   |
| ERS WALL                 | 13 OCT 2023 |
| AHT'WY PLAZE INTERCHANGE | HRW NO.:    |
|                          | 220321AE    |
| ITD                      | SHEET       |
| NEZ PERCE COUNTY, ID     | 23          |
|                          | OF 32       |

PROFESSIONAL ENGINEER  
10/13/2023  
15993  
STATE OF IDAHO  
JAN G. VAN LEUVEN

11/294-AHTWY Plaze IC PREPARED 08-18-2023.dwg  
8/18/2023 3:21 PM



**SECTION - LOWER SB MSE WALL**  
NOT TO SCALE

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|------|------------|-----|----------------------------|-----------|
| 0    | 7/10/2023  | RGV | ISSUED FOR HILFIKER REVIEW | RGV       |
| 1    | 7/12/2023  | RGV | ISSUED FOR OWNER REVIEW    | DESIGNED: |
| 2    | 8/7/2023   | RGV | ISSUED FOR OWNER REVIEW    | RGV       |
| 3    | 8/18/2023  | RGV | ISSUED FOR OWNER REVIEW    | CHECKED:  |
| 4    | 10/13/2023 | RGV | REVISED BOTTOM OF WALL     | SGC       |

**HILFIKER RETAINING WALLS**

**HW**

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WEB SITE www.hilfiaker.com EMAIL info@hilfiaker.com

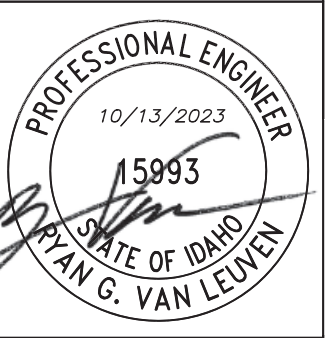
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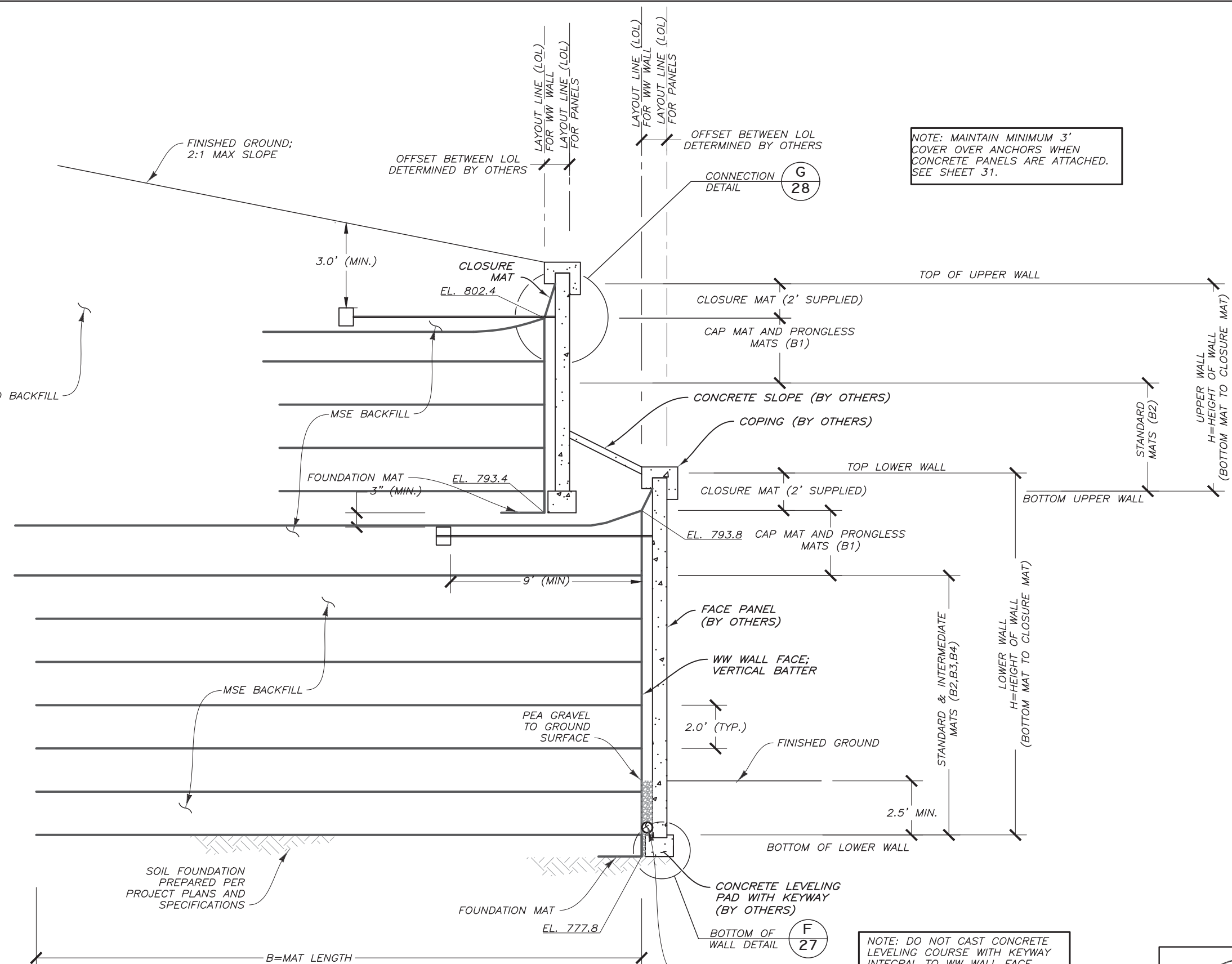
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| SECTION                  | ERS WALL             |
| AHT'WY PLAZE INTERCHANGE |                      |
| ITD                      | NEZ PERCE COUNTY, ID |

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|-----------|-------------|
| DWG DATE: | 13 OCT 2023 |
| HRW NO.:  | 220321AE    |
| SHEET     | 24          |
| OF        | 32          |





8/18/2023 3:21 PM 117294-AHTWY Plaze IC PREPARED 08-18-2023.dwg



NOTE: MAINTAIN MINIMUM 3' COVER OVER ANCHORS WHEN CONCRETE PANELS ARE ATTACHED. SEE SHEET 31.

NOTE: DO NOT CAST CONCRETE LEVELING COURSE WITH KEYWAY INTEGRAL TO WW WALL FACE.

**SECTION - TIERED NB MSE WALL** D 16  
NOT TO SCALE

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**HW**

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| SECTION                  | DWG DATE:   |
| ERS WALL                 | 13 OCT 2023 |
| AHT'WY PLAZE INTERCHANGE | HRW NO.:    |
|                          | 220321AE    |
| ITD                      | SHEET       |
| NEZ PERCE COUNTY, ID     | 25          |
|                          | OF 32       |

PROFESSIONAL ENGINEER

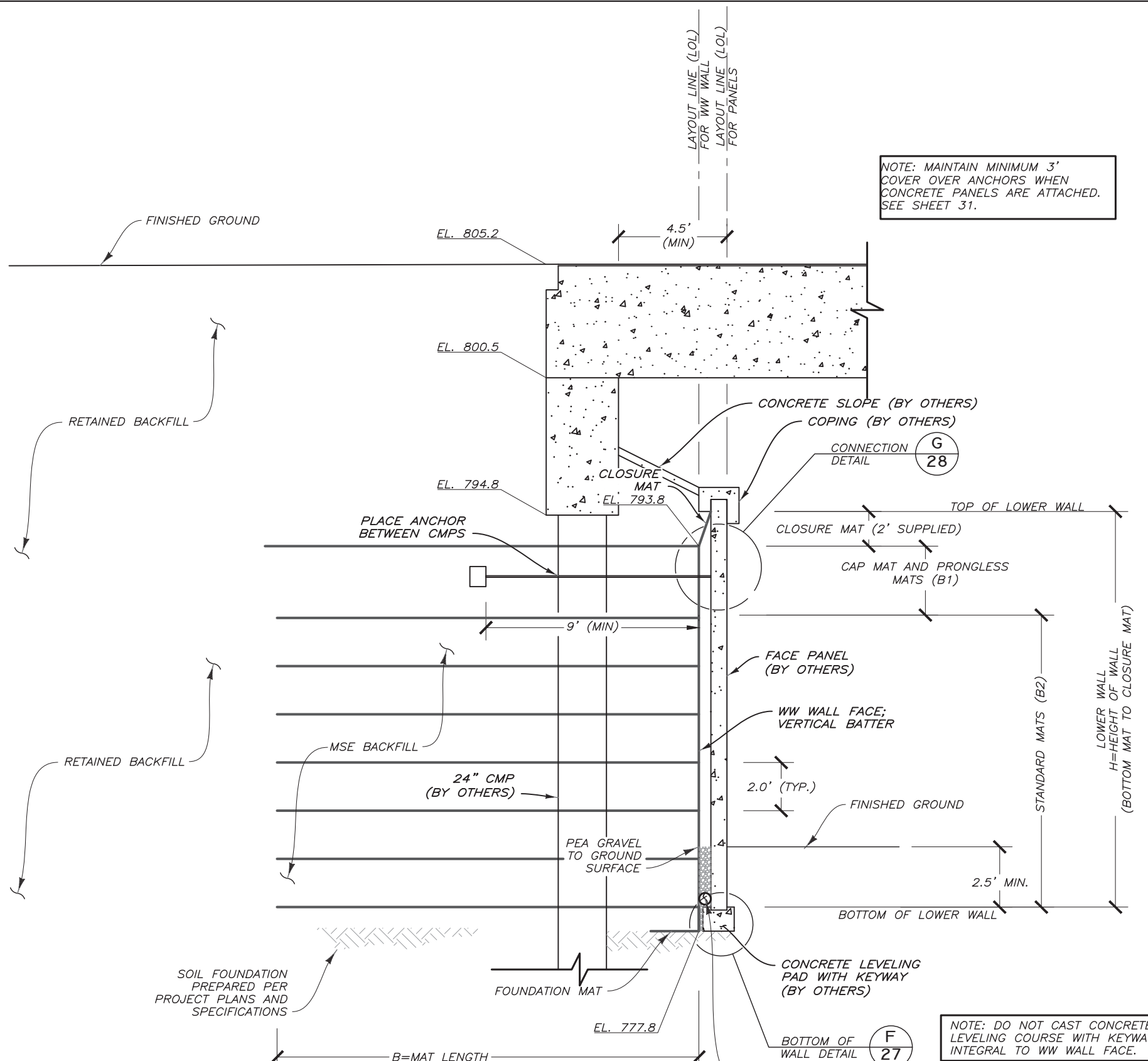
10/13/2023

15993

STATE OF IDAHO

RYAN G. VAN LEUVEN

11/29/2023 3:21 PM 8/18/2023 3:21 PM 11/29/2023 3:21 PM



**SECTION - LOWER NB MSE WALL**  
NOT TO SCALE

4 OR 6-INCH UNDERDRAIN.  
DAYLIGHT INTO GORE DITCH  
AS SHOWN ON PROJECT PLANS.

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SECTION  
ERS WALL  
AHT'WY PLAZE INTERCHANGE  
ITD NEZ PERCE COUNTY, ID

DWG DATE:  
13 OCT 2023  
HRW NO.:  
220321AE  
SHEET  
26  
OF 32



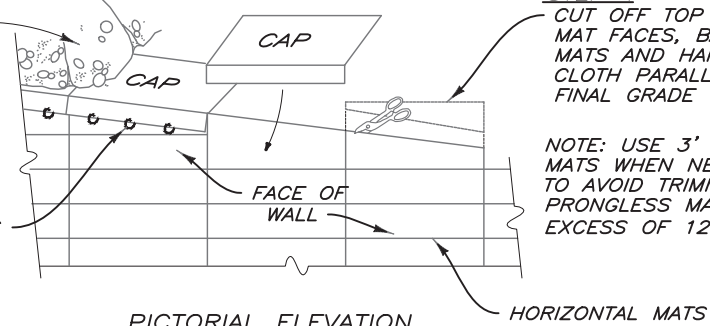
**STEP 4**  
PLACE AND COMPACT  
BACKFILL OVER THE  
SLOPED CAPS TO  
FINAL GRADE

**STEP 2**  
PLACE CAPS ON SLOPE

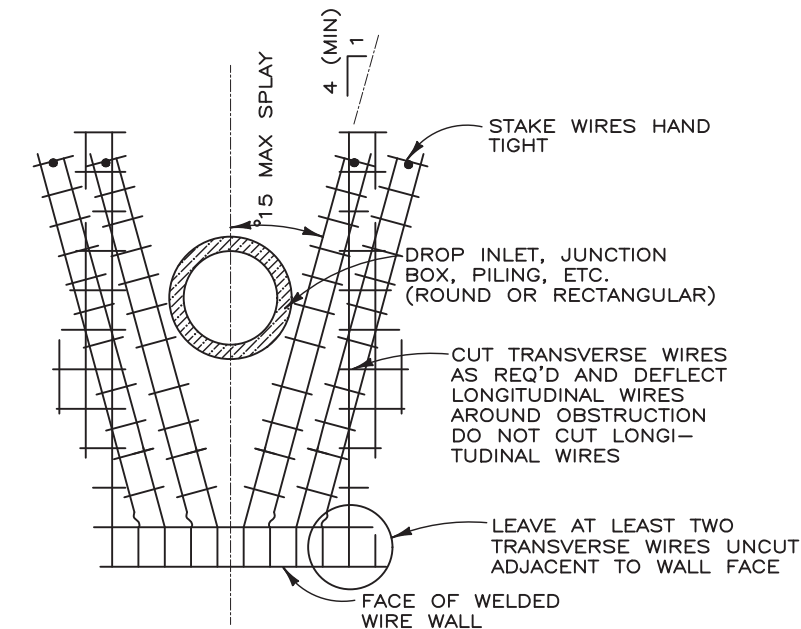
**STEP 1**  
CUT OFF TOP OF THE  
MAT FACES, BACKING  
MATS AND HARDWARE  
CLOTH PARALLEL TO  
FINAL GRADE

NOTE: USE 3' BACKING  
MATS WHEN NECESSARY  
TO AVOID TRIMMING  
PRONGLESS MAT IN  
EXCESS OF 12" VERTICAL

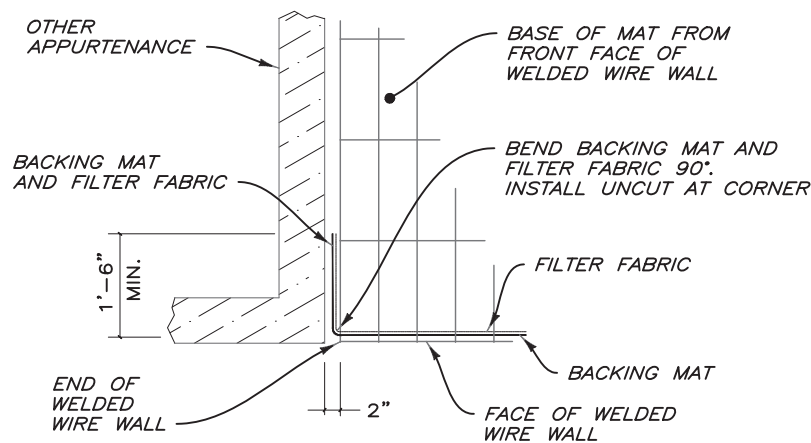
**STEP 3**  
CLIP CAPS TO  
MAT FACES  
WITH HOG-RINGS



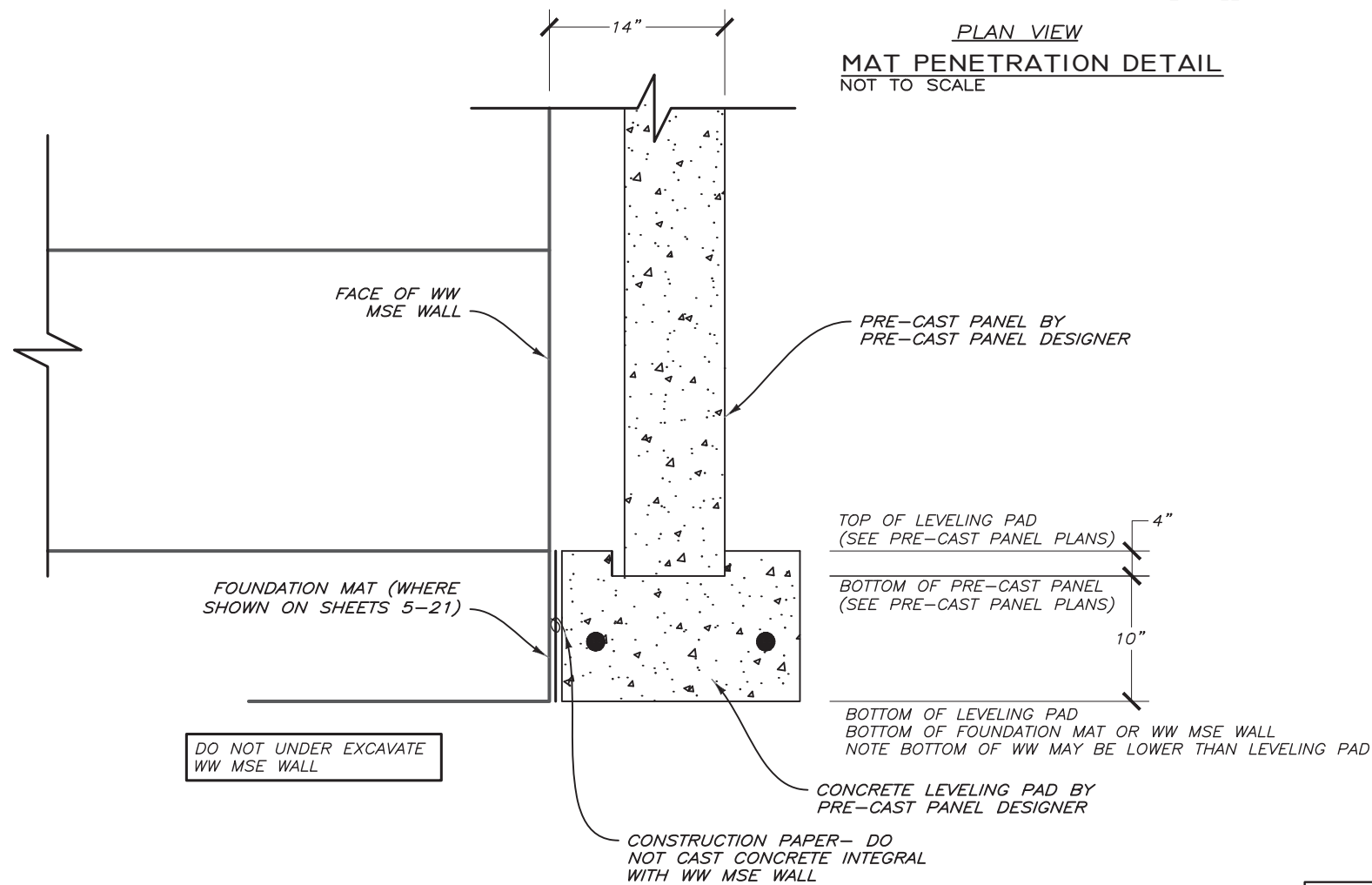
PICTORIAL ELEVATION  
**SLOPED CAP MAT DETAIL**  
NOT TO SCALE



PLAN VIEW  
**MAT PENETRATION DETAIL**  
NOT TO SCALE



PLAN VIEW  
**WELDED WIRE WALL END  
AT OTHER APPURTENANCE**  
NOT TO SCALE



**BOTTOM OF WALL DETAIL** (F)  
NOT TO SCALE 22-26

11/29/2023 10:18:20 AM

8/16/2023 3:21 PM

| REV. | DATE       | BY  | DESCRIPTION                | CADD:         |
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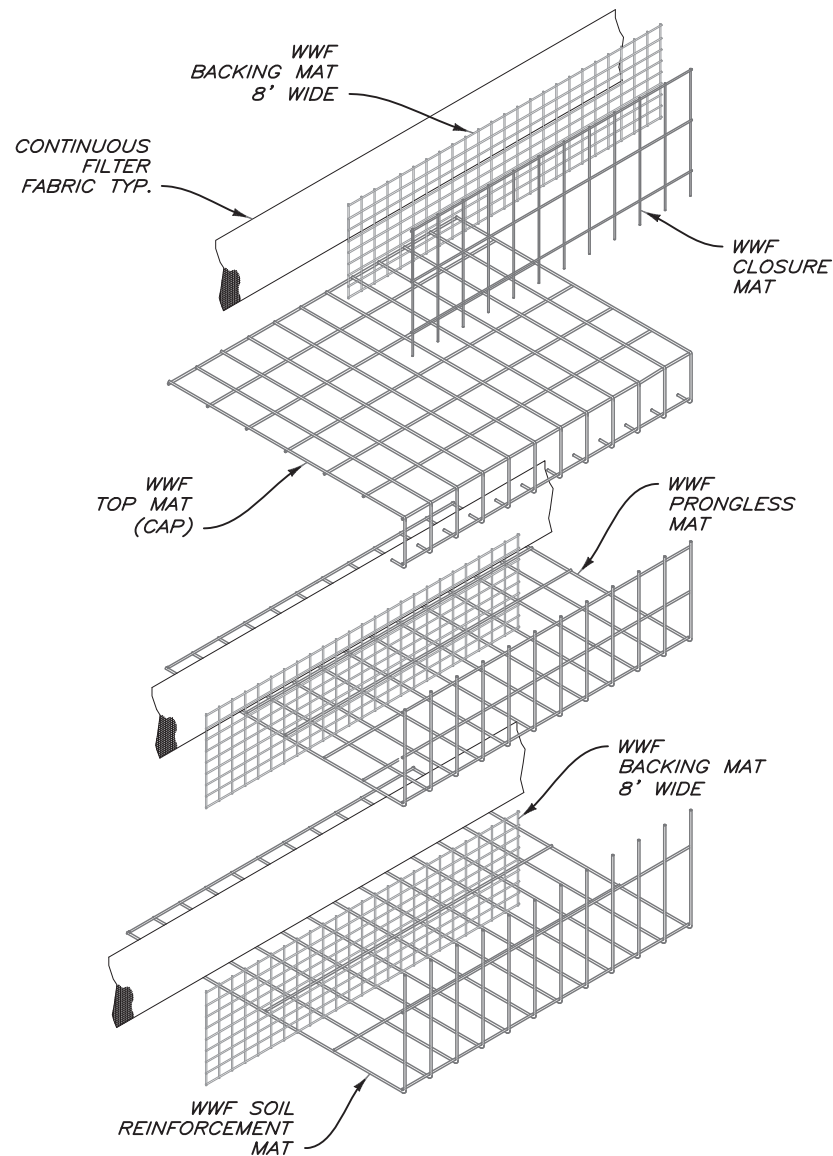
5260 Chinden Blvd.  
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DETAILS  
ERS WALL  
AHT'WY PLAZE INTERCHANGE  
ITD NEZ PERCE COUNTY, ID

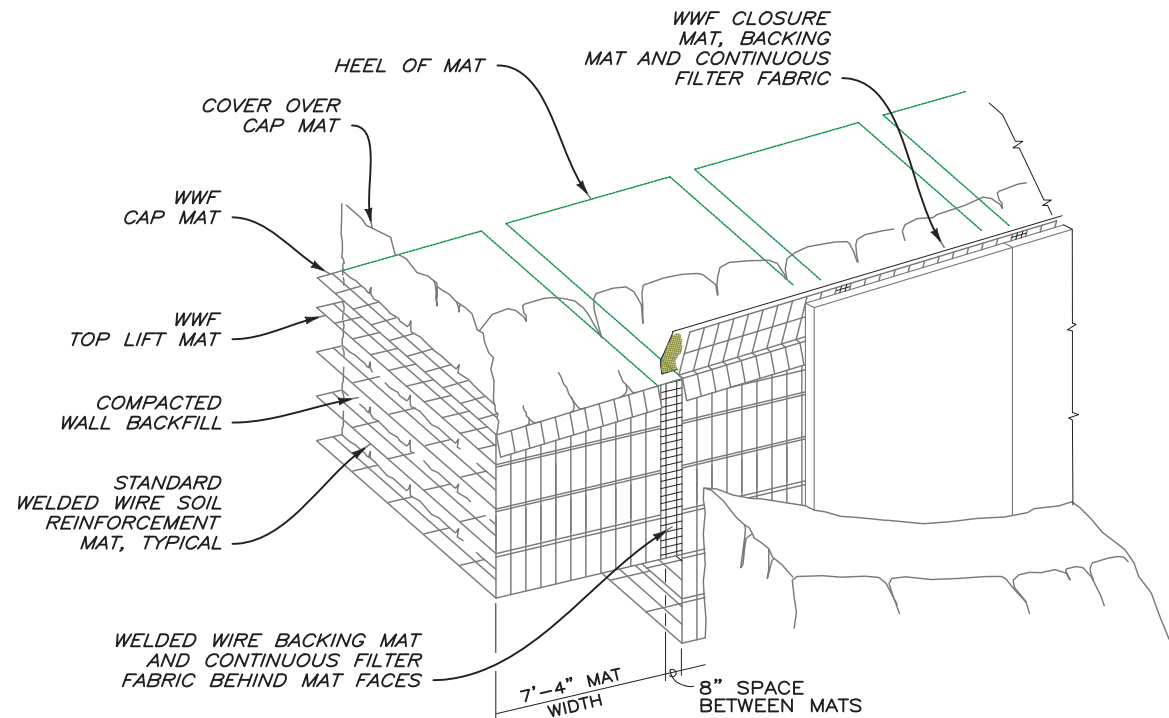
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| DWG DATE: | 13 OCT 2023 |
| HRW NO.:  | 220321AE    |
| SHEET     | 27          |
| OF        | 32          |

PROFESSIONAL ENGINEER  
10/13/2023  
15993  
STATE OF IDAHO  
AN G. VAN LEUVEN

8/18/2023 3:21 PM  
117294-AHT'WY Plaze IC PREPARED 08-18-2023.dwg

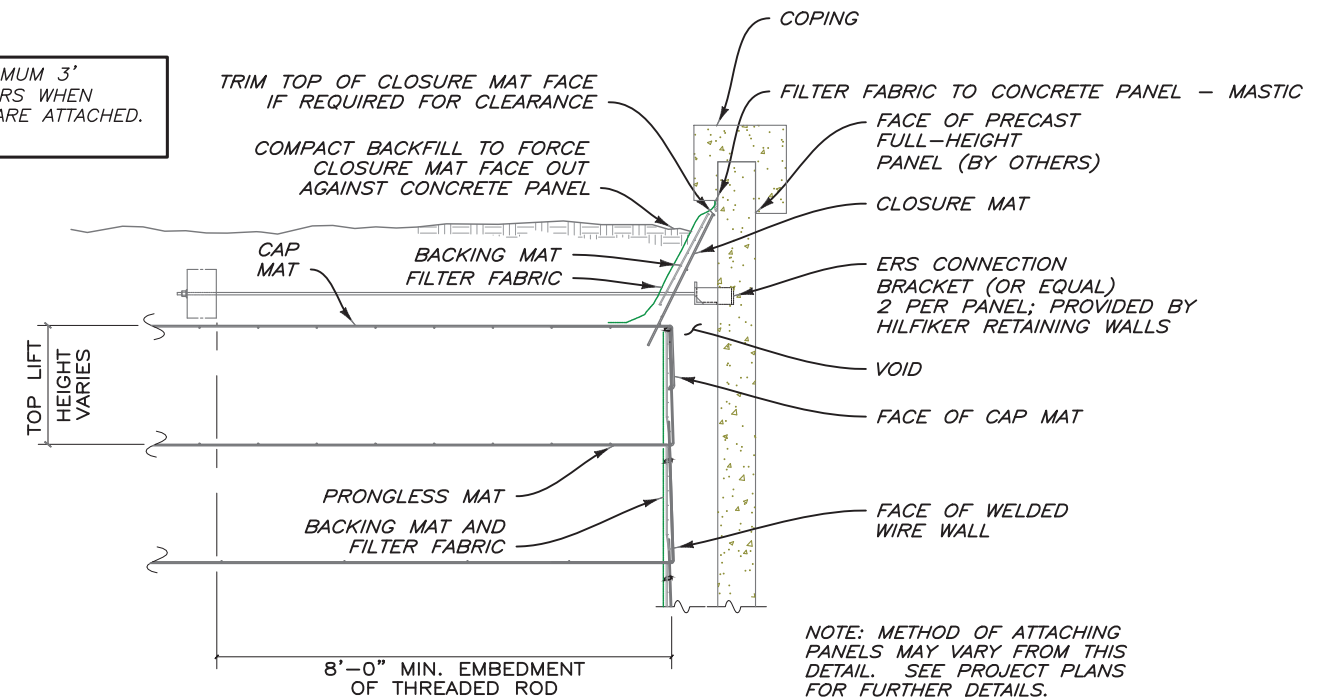


**WALL COMPONENTS**  
NOT TO SCALE



**ERS PICTORIAL ELEVATION**  
NOT TO SCALE

NOTE: MAINTAIN MINIMUM 3' COVER OVER ANCHORS WHEN CONCRETE PANELS ARE ATTACHED. SEE SHEET 31.



**TOP OF WALL AND PANEL CONNECTION DETAILS** G  
NOT TO SCALE 22-26

NOTE: METHOD OF ATTACHING PANELS MAY VARY FROM THIS DETAIL. SEE PROJECT PLANS FOR FURTHER DETAILS.

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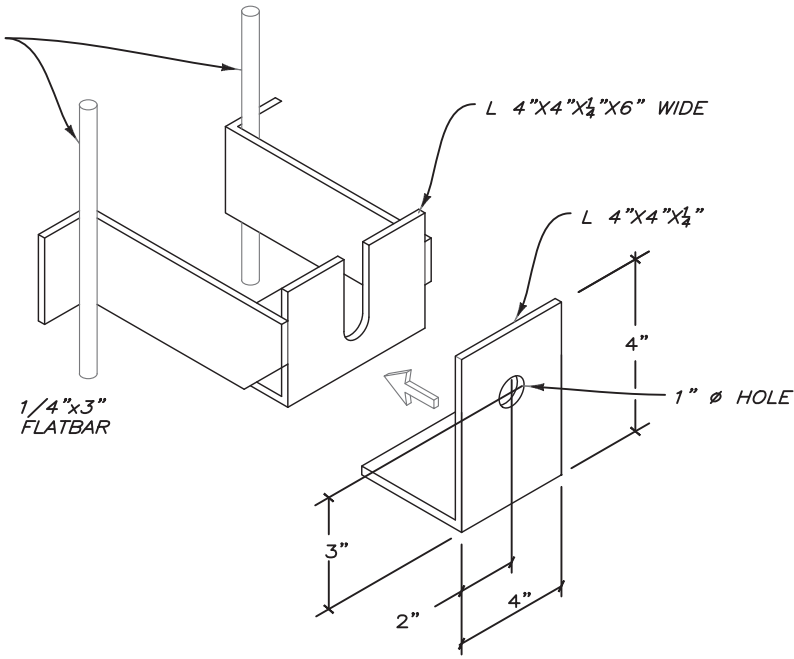
5260 Chinden Blvd.  
Boise, ID 83714  
(208) 658-8700  
Fax: (208) 658-8703

DETAILS  
ERS WALL  
AHT'WY PLAZE INTERCHANGE  
ITD NEZ PERCE COUNTY, ID

|           |             |
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| SHEET     | 28          |
| OF        | 32          |

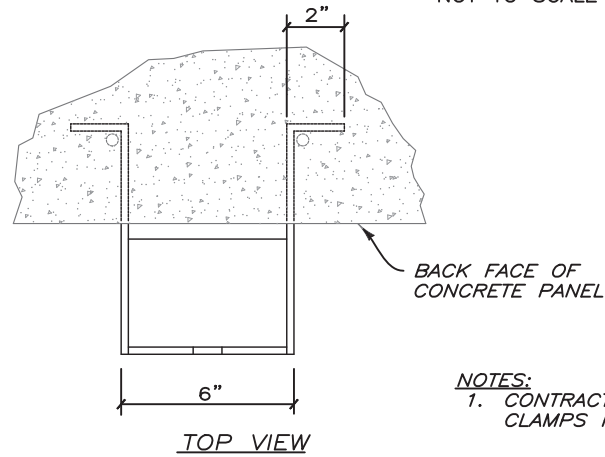
PROFESSIONAL ENGINEER  
10/13/2023  
15993  
RYAN G. VAN LEUVEN  
STATE OF IDAHO

LONGITUDINAL PANEL REINFORCING OR EXTRA #4 2' LONG WHERE PANEL REINFORCING NOT ENCOUNTERED. CENTER EXTRA REINFORCING ON 3" FLATBAR

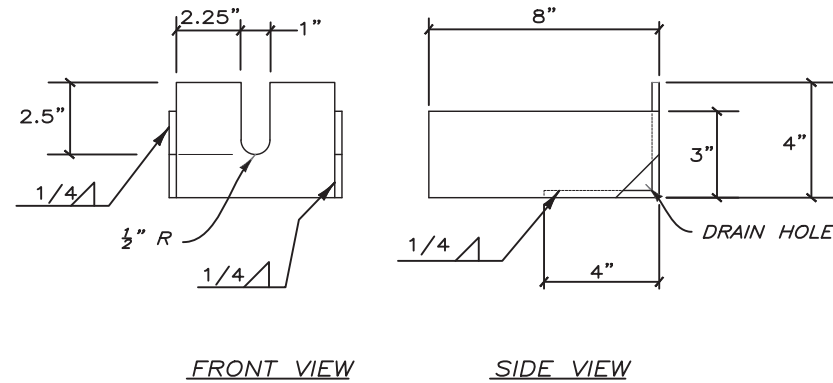


ISOMETRIC VIEW

PRECAST PANEL CONNECTION BRACKET  
NOT TO SCALE



TOP VIEW

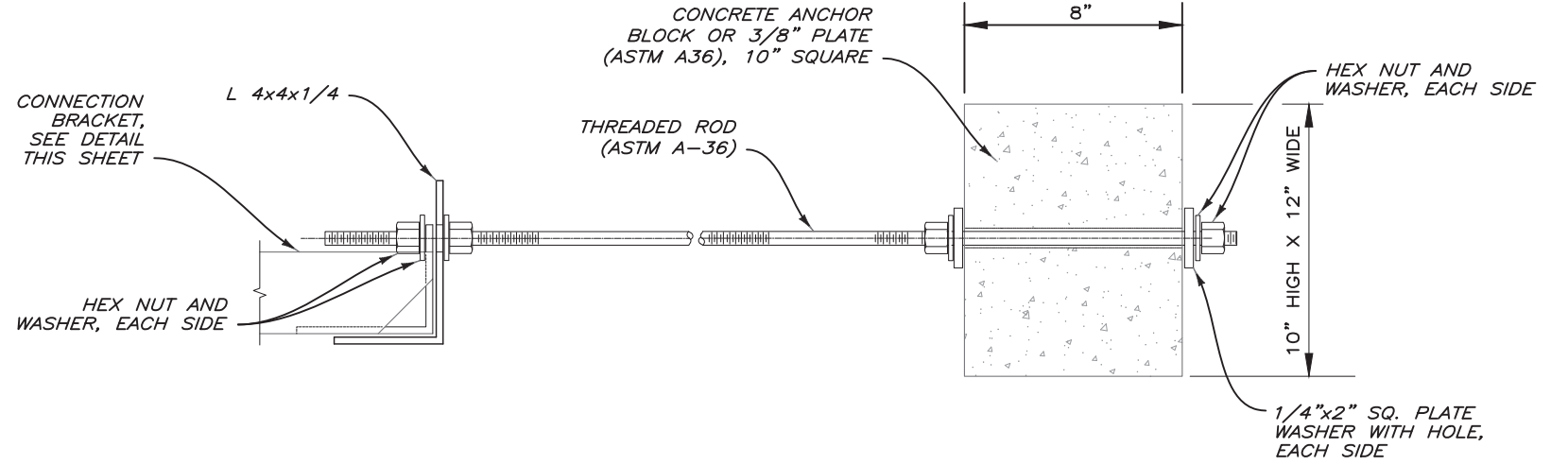


FRONT VIEW

SIDE VIEW

PRECAST PANEL CONNECTION BRACKET  
NOT TO SCALE

NOTES:  
1. CONTRACTOR TO VERIFY LOCATION OF PANEL CLAMPS PRIOR TO CASTING PANELS.

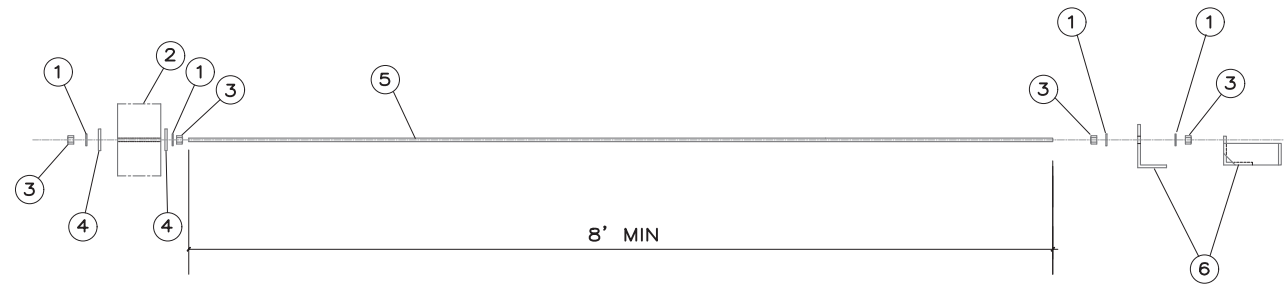


PANEL ANCHORAGE ASSEMBLY  
NOT TO SCALE

PARTS LIST:

| PART NO. | DESCRIPTION                              |
|----------|--|
| 1        | WASHER                                   |
| 2        | 10"x12"x8" CONCRETE ANCHOR BLOCK         |
| 3        | HEX NUT                                  |
| 4        | 1/4"x2"x2" PLATE WASHER WITH CENTER HOLE |
| 5        | 3/4" THREADED 10' ROD                    |
| 6        | ERS CONNECTION BRACKET                   |

THREADED RODS, PLATES, NUTS AND WASHERS MAY BE HOT-DIP GALVANIZED AFTER FABRICATION (2 OZ/SQ FT MIN)



PANEL ANCHORAGE COMPONENTS

11/29/2023 10:18:23 AM

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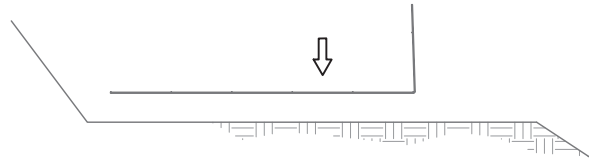
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Boise, ID 83714  
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AHT'WY PLAZE INTERCHANGE  
ITD NEZ PERCE COUNTY, ID

|           |             |
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| HRW NO.:  | 220321AE    |
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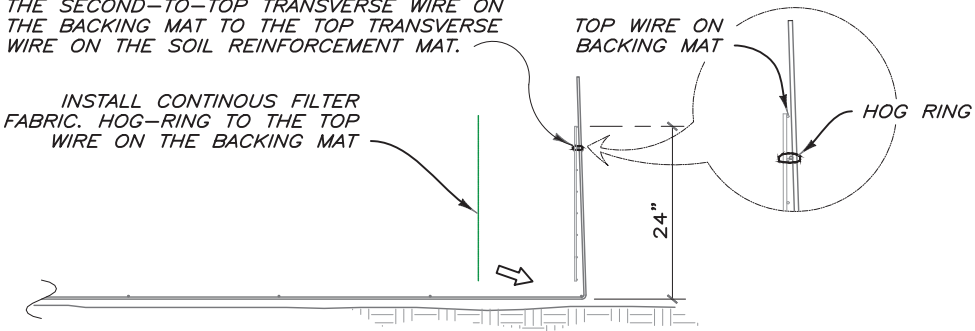
PROFESSIONAL ENGINEER  
10/13/2023  
15993  
STATE OF IDAHO  
JAN G. VAN LEUVEN

**STEP 1**  
PLACE THE FIRST COURSE OF SOIL REINFORCEMENT MATS ON PREPARED FOUNDATION



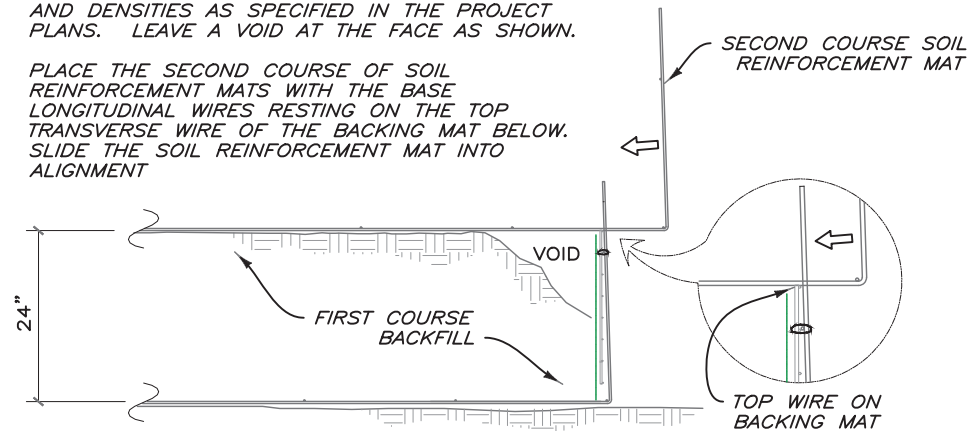
**STEP 2**  
PLACE THE BACKING MAT AGAINST THE INSIDE FACE OF THE SOIL REINFORCEMENT MAT. CLIP THE SECOND-TO-TOP TRANSVERSE WIRE ON THE BACKING MAT TO THE TOP TRANSVERSE WIRE ON THE SOIL REINFORCEMENT MAT.

INSTALL CONTINUOUS FILTER FABRIC. HOG-RING TO THE TOP WIRE ON THE BACKING MAT

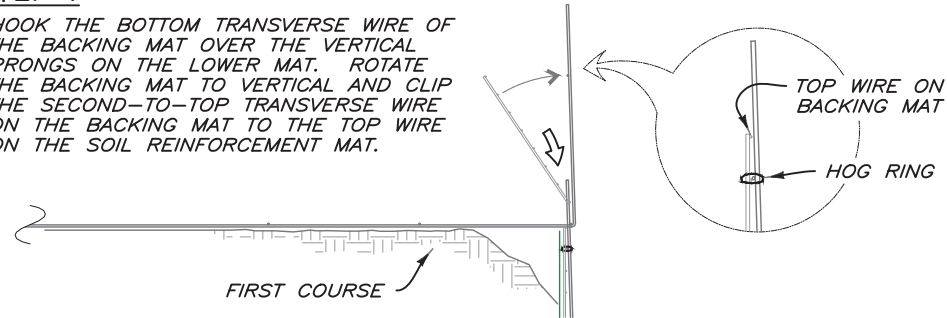


**STEP 3**  
PLACE AND COMPACT THE BACKFILL IN LAYERS AND DENSITIES AS SPECIFIED IN THE PROJECT PLANS. LEAVE A VOID AT THE FACE AS SHOWN.

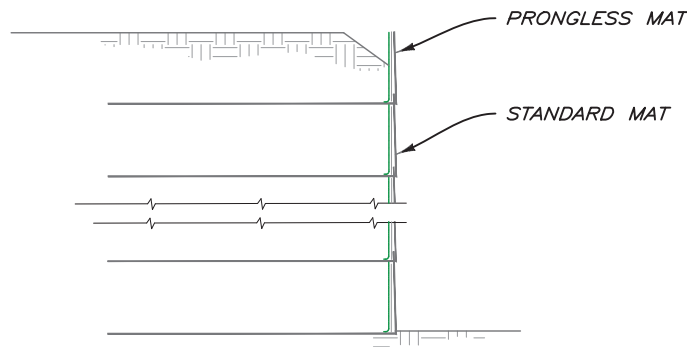
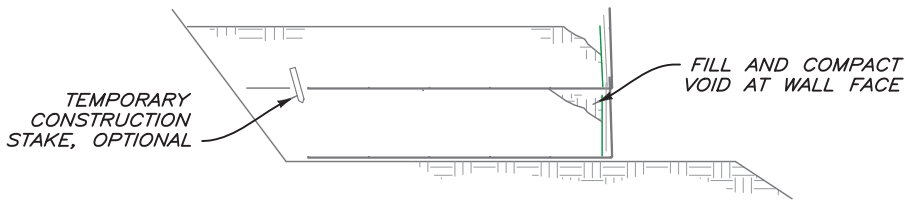
PLACE THE SECOND COURSE OF SOIL REINFORCEMENT MATS WITH THE BASE LONGITUDINAL WIRES RESTING ON THE TOP TRANSVERSE WIRE OF THE BACKING MAT BELOW. SLIDE THE SOIL REINFORCEMENT MAT INTO ALIGNMENT



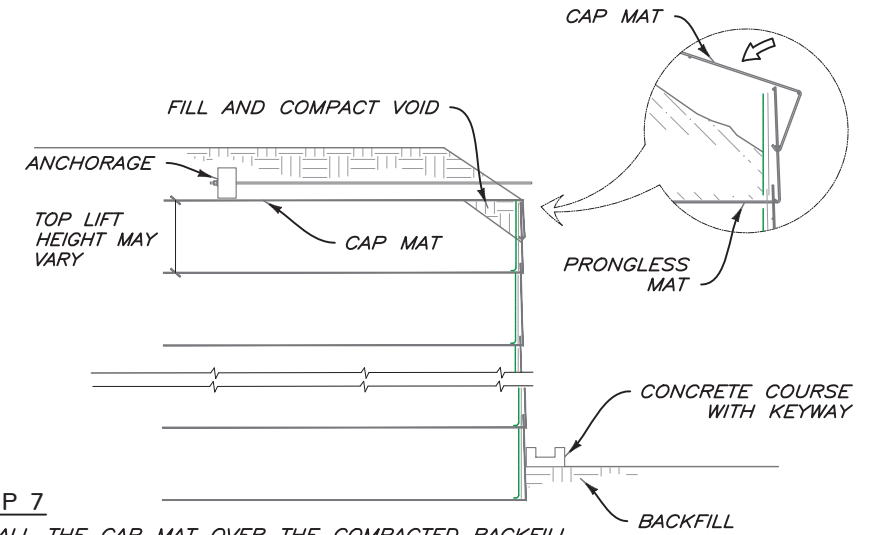
**STEP 4**  
HOOK THE BOTTOM TRANSVERSE WIRE OF THE BACKING MAT OVER THE VERTICAL PRONGS ON THE LOWER MAT. ROTATE THE BACKING MAT TO VERTICAL AND CLIP THE SECOND-TO-TOP TRANSVERSE WIRE ON THE BACKING MAT TO THE TOP TRANSVERSE WIRE ON THE SOIL REINFORCEMENT MAT.



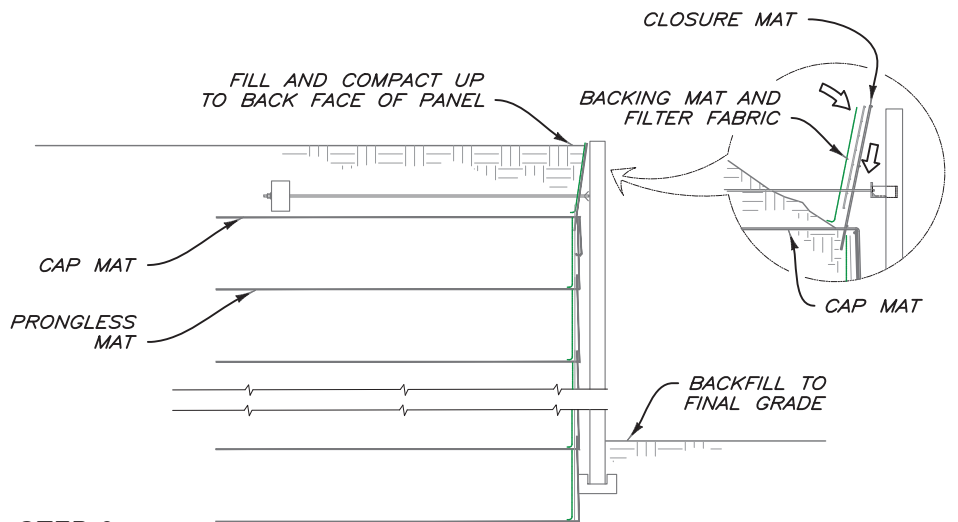
**STEP 5**  
INSTALL FILTER FABRIC BEHIND THE BACKING MATS. PLACE AND COMPACT THE BACKFILL TO THE BASE ELEVATION OF THE NEXT MAT. REPEAT STEPS 3 THRU 5 TO THE TOP LIFT.



**STEP 6**  
PLACE THE TOP LIFT PRONGLESS MAT, BACKING MAT AND FILTER FABRIC. CUT OFF HEIGHT OF PRONGLESS MAT FACE AND FILTER FABRIC, IF REQUIRED, TO PARALLEL FINISHED GRADE. PLACE AND COMPACT THE BACKFILL IN THE PRONGLESS MAT LIFT.



**STEP 7**  
INSTALL THE CAP MAT OVER THE COMPACTED BACKFILL. INSTALL THE PANEL ANCHORAGES TO THE SPACING SHOWN IN THE PROJECT PLANS. BACKFILL TO 1'-6" MINIMUM COVER OVER THE TOP MAT.  
  
BACKFILL AT THE TOE TO THE ELEVATION OF THE BOTTOM OF THE LEVELING COURSE. FORM THE LEVELING COURSE WITH KEYWAY, AS SHOWN IN THE PROJECT PLANS.



**STEP 8**  
PLACE THE BOTTOM OF THE PRECAST FULL-HEIGHT PANEL INTO THE KEYWAY ON THE LEVELING COURSE. RAISE THE PANEL TO VERTICAL AND ATTACH TO THE PANEL ANCHORAGE AFTER COMPLETION OF SETTLEMENT MONITORING IN ACCORDANCE WITH ITD SETTLEMENT MONITORING SP AND ACCEPTANCE BY THE ENGINEER.  
  
PUSH PRONGS OF THE CLOSURE MAT INTO SOIL BEHIND THE BEND IN THE TOP MAT AND ROTATE TOP OF THE CLOSURE MAT FORWARD UNTIL IT CONTACTS THE BACK OF THE PANEL. PLACE BACKING MATS AND FILTER FABRIC BEHIND CLOSURE MATS AND BACKFILL.  
  
BACKFILL AT TOE TO FINAL GRADE. FINISH THE TOP OF THE WALL PER PROJECT PLANS.

**ERS RETAINING WALL CONSTRUCTION SEQUENCE**  
NOT TO SCALE

11/29/2023 3:21 PM 8/18/2023 3:21 PM 11/29/2023 3:21 PM

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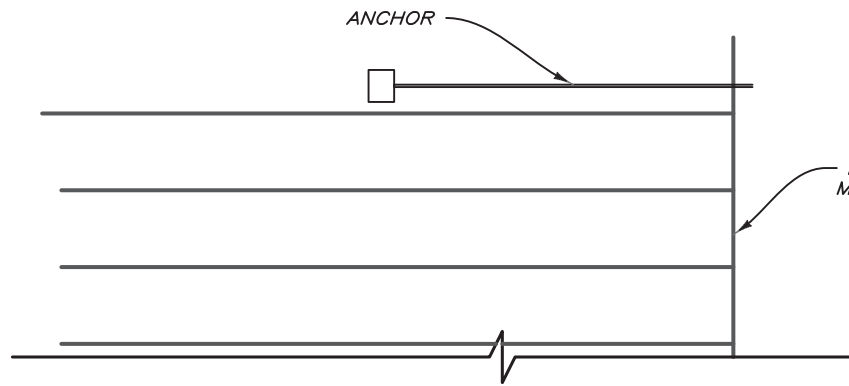
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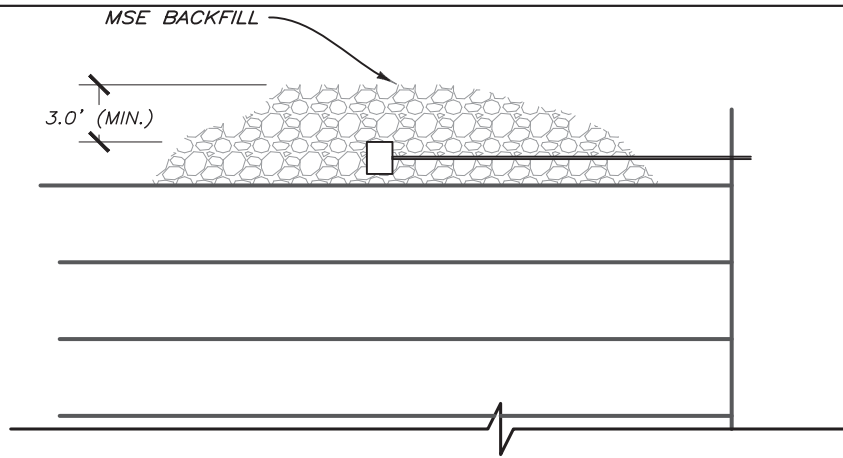
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|--------------------------|-------------|
| SEQUENCE                 | DWG DATE:   |
| ERS WALL                 | 13 OCT 2023 |
| AHT'WY PLAZE INTERCHANGE | HRW NO.:    |
| ITD                      | 220321AE    |
| NEZ PERCE COUNTY, ID     | SHEET       |
|                          | 30          |
|                          | OF 32       |

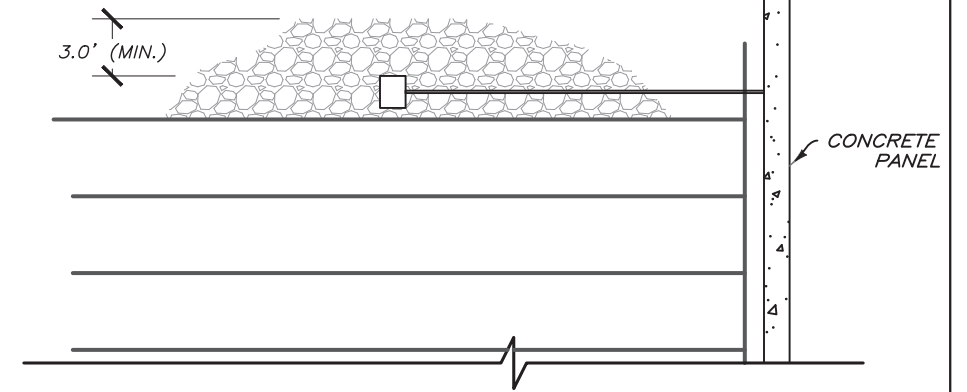
PROFESSIONAL ENGINEER  
10/13/2023  
15993  
RYAN G. VAN LEUVEN  
STATE OF IDAHO



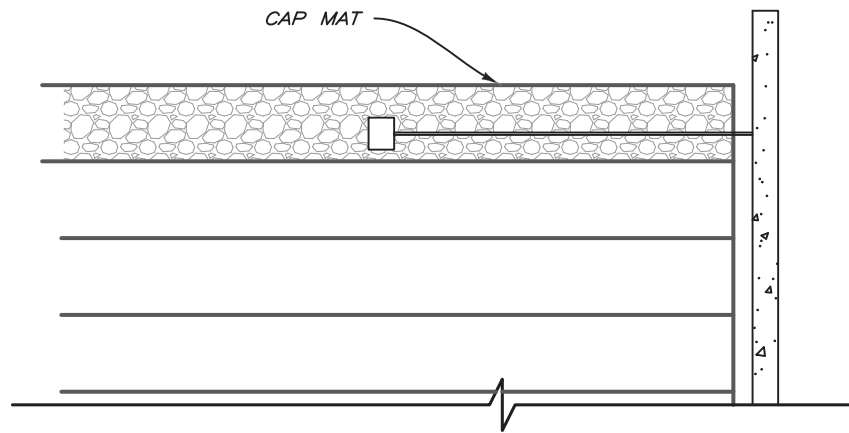
**STEP 1**  
 PLACE ANCHOR AT APPROPRIATE LOCATION AS MSE WALL IS CONSTRUCTED.



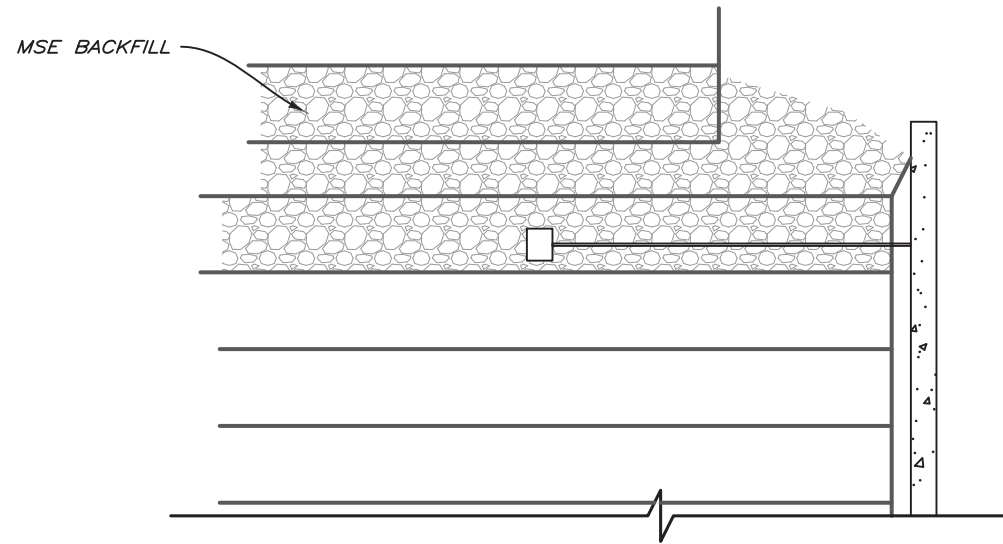
**STEP 2**  
 PLACE MSE BACKFILL AROUND AND OVER ANCHOR. MAINTAIN MINIMUM OF 3' OF COVARAGE.



**STEP 3**  
 CONNECT CONCRETE PANEL TO ANCHOR. MAINTAIN BACKFILL OVER ANCHOR.



**STEP 4**  
 LEAVE BACKFILL OVER ANCHOR UNTIL READY TO CONTINUE BUILDING WALL. WHEN READY TO CONTINUE CONSTRUCTION, BLADE BACKFILL AND PLACE CAP MAT.



**STEP 5**  
 IMMEDIATELY AFTER BLADING BACKFILL AND PLACING CAP MAT, PLACE ADDITIONAL BACKFILL AND CONSTRUCT SUBSEQUENT MSE WALL LIFTS AS REQUIRED.

**MAINTAINING COVER OVER WALL ANCHORS**  
 NOT TO SCALE

11/29/2023 3:21 PM  
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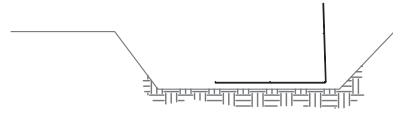
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ANCHOR SEQUENCE  
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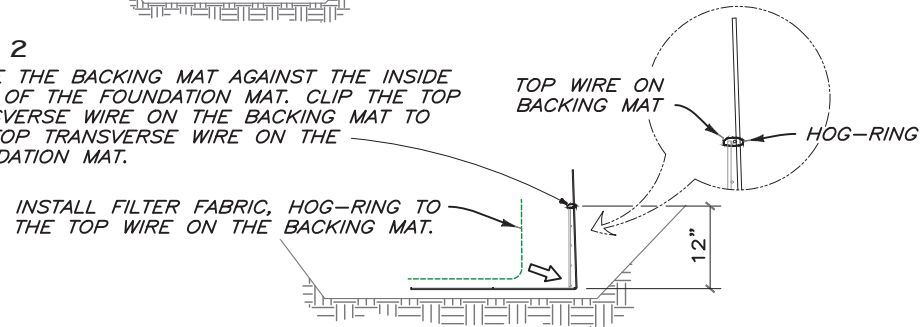
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 220321AE  
 SHEET  
 31  
 OF 32

PROFESSIONAL ENGINEER  
 10/13/2023  
 15993  
 STATE OF IDAHO  
 BRIAN G. VAN LEUVEN

**STEP 1**  
PLACE THE FOUNDATION MAT ON PREPARED FOUNDATION

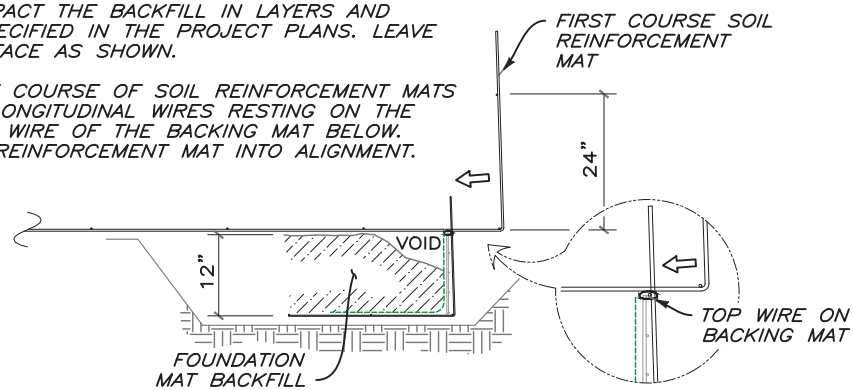


**STEP 2**  
PLACE THE BACKING MAT AGAINST THE INSIDE FACE OF THE FOUNDATION MAT. CLIP THE TOP TRANSVERSE WIRE ON THE BACKING MAT TO THE TOP TRANSVERSE WIRE ON THE FOUNDATION MAT.



**STEP 3**  
PLACE AND COMPACT THE BACKFILL IN LAYERS AND DENSITIES AS SPECIFIED IN THE PROJECT PLANS. LEAVE A VOID AT THE FACE AS SHOWN.

PLACE THE FIRST COURSE OF SOIL REINFORCEMENT MATS WITH THE BASE LONGITUDINAL WIRES RESTING ON THE TOP TRANSVERSE WIRE OF THE BACKING MAT BELOW. SLIDE THE SOIL REINFORCEMENT MAT INTO ALIGNMENT.



**INSTALLATION OF FOUNDATION MAT**  
NOT TO SCALE

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FOUNDATION MAT SEQUENCE  
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BY: AN G. VAN LEUVEN  
STATE OF IDAHO