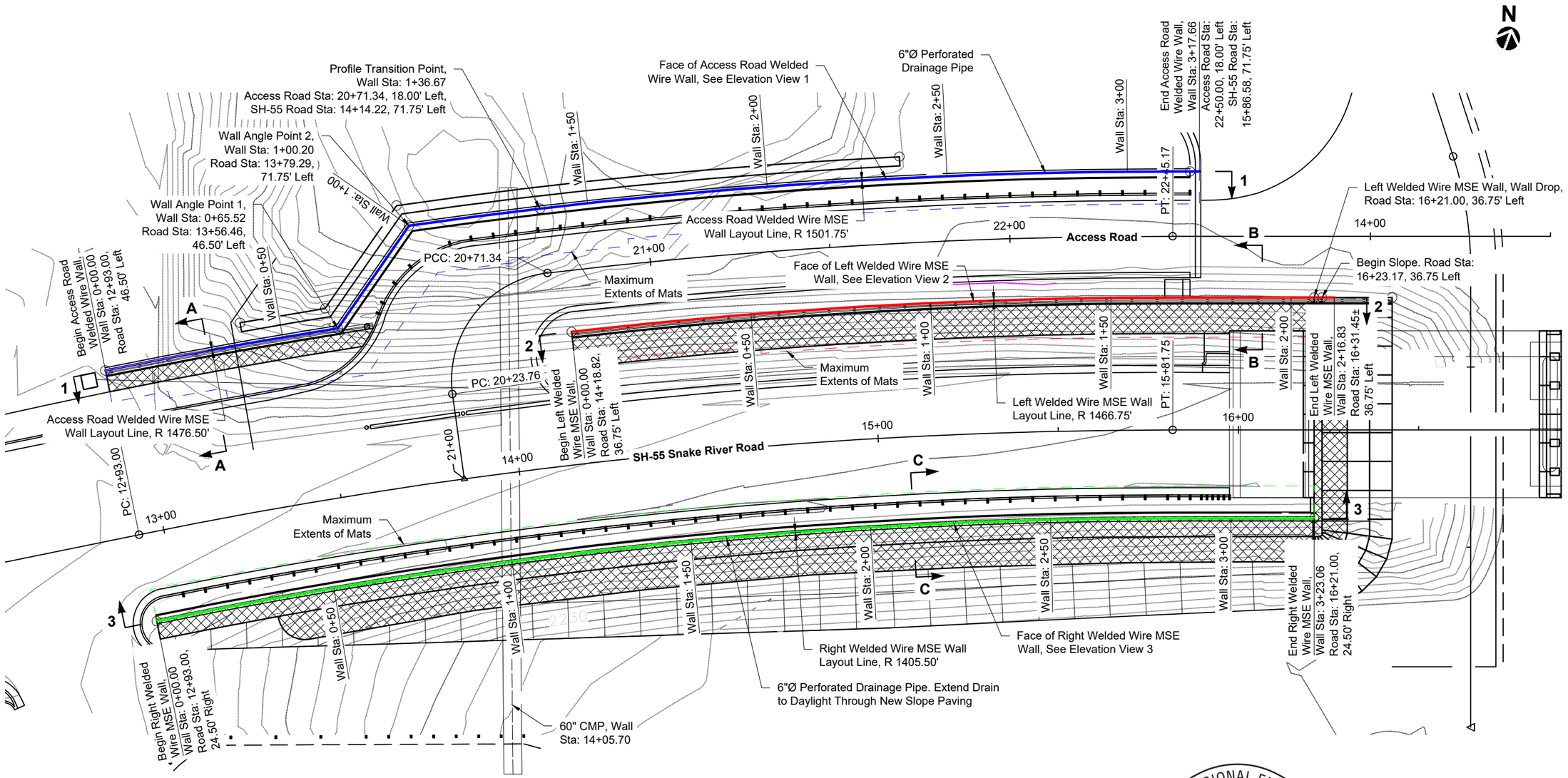

Notes:

1) Wall stations and offsets are to wall layout line/face of coping (Face of MSE wall offset from wall layout line/face of coping as determined by final precast panel design, estimated to be 1'-6" to 1'-10"). Wall layout line/face of coping to be surveyed in the field to provide the basis for MSE wall layout.

2) Existing utilities and facilities to be potholed and located prior to wall installation. The presence of utilities and other facilities may require modification to the walls.

Welded Wire MSE Walls
Plan View

0 30 60

Scale: 1" = 30'

PROFESSIONAL ENGINEER LICENSED 15952 STATE OF IDAHO Bret A. DeBernardi

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Date: 2019.03.05 10:41:05 -07'00'

REFERENCE:
Idaho Transportation Department, Bridge Plans Pgs. 2, 14-16, Project Code/No.: A013(387), Dated 03/07/2018

DATE	DESCRIPTION
12.19.18	Submitted for Review
02.22.19	Rev. #1 per ITD Review Comments Dated 01/04/2019
03.05.19	Rev. #2 Add Geotextile and Subdrain Gravel References per ITD Comments

DESIGNED FOR:
HILFIKER RETAINING WALLS
1902 Hilfiker Lane Eureka, CA 95503-5711 TOLL FREE 800.742.8992 PH 707.443.8992 FAX 707.444.3261 WEB SITE www.hilfiker.com EMAIL info@hilfiker.com

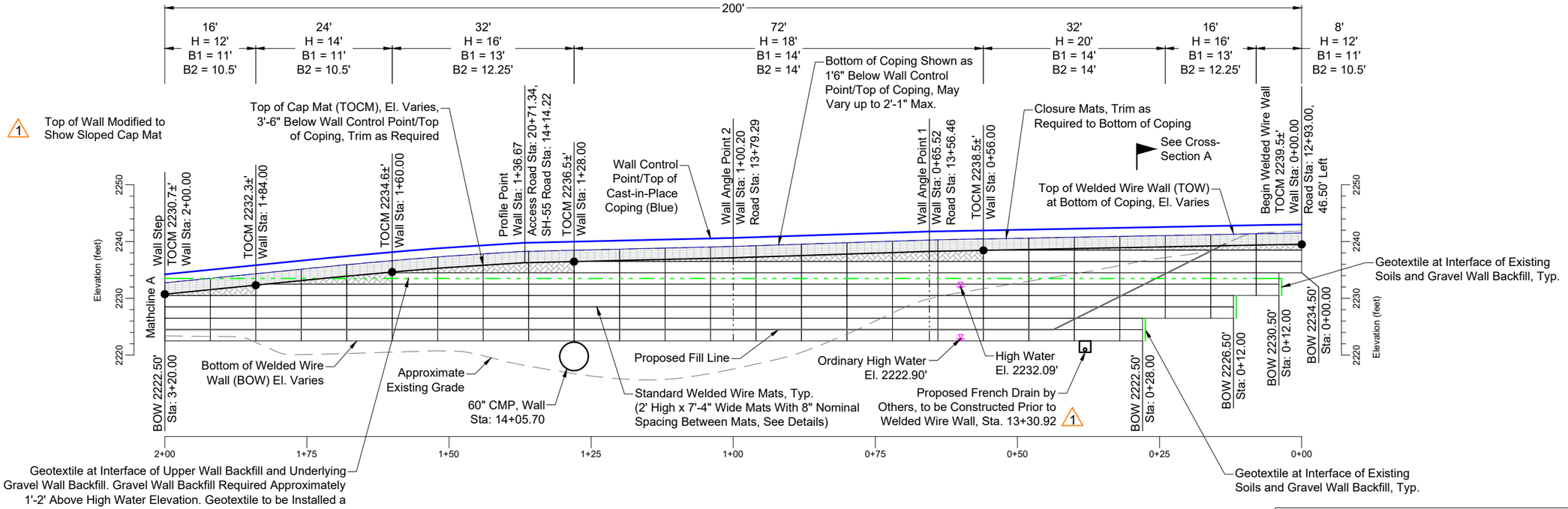
DESIGNED BY:
GORDON GEOTECHNICAL ENGINEERING, INC.
4426 South Century Drive, Ste 100, Salt Lake City, UT 84123 801-327-9600

Welded Wire MSE Walls
SH-55 Bridge Over Snake River,
Marsing, Idaho 83639
Federal Aid Project No: A013(387)
Key No: 13387

DESIGN BY: **BD** DRAWN BY: **TT** CHECKED BY: **BD** APPROVED BY: **BD**

Welded Wire MSE Walls
Plan View

G² PROJECT NO.: **219-016-18**
HRW NO.: **180622AE**
SHEET NO.: **1 of 9**



Access Road Welded Wire Wall Elevation View 1

0 20 40

Scale: 1" = 20'

Approximately 4,016* square face feet of welded wire wall supplied

* Square footage calculation includes closure mats.

Key	
H	Total nominal height of wall at each segment.*
B1	Base length of cap and prongless mat.
B2	Base length standard reinforcing mats.
	W7.0 x W3.5 WWF (8" x 12" Wire Spacing), Cap mat and prongless mats. See B1 for mat length.
	W7.0 x W3.5 WWF (8" x 10.5" Wire Spacing), Standard mats. See B2 for mat length.
	Closure mat.

* Nominal height of wall includes closure mats which are to be trimmed to grade at bottom of coping.

Notes:

1) Top of wall is shown at bottom of coping which has been set at 1'-5" below top of coping. Top of wall my vary between 1'-5" and 2'-1".

2) Elevation view of wall has been shown at wall control line. Actual MSE wall face will be located at an offset from wall layout control line. Final offset to be based up on panel configuration and is estimated to be between 1'-6" and 1'-10". Very minor field adjustments in mat spacing will be required to accommodate variations due to this offset.

1 **Note:**
Top of Cap Mat (TOCM) Elevations as Shown are Approximate and May Vary Due to Flexibility in Coping Thickness, Closure Mat Trimming and Sloped Cap Mat Trimming. On This Elevation View, Top of Cap Mat (TOCM) Has Been Shown as 3'-6" Below Wall Control Point/Top of Coping.

PROFESSIONAL ENGINEER LICENSED 15952 STATE OF IDAHO Bret A. DeBernardi

Bret DeBernardi

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DN: cn=Bret DeBernardi, o=Gordon Geotechnical Engineering Inc., ou, email=bret@gordongeotech.com, c=US
Date: 2019.03.05 10:41:18 -07'00'

REFERENCE:

DATE	DESCRIPTION
12.19.18	Submitted for Review
02.22.19	1 Rev. #1 per ITD Review Comments Dated 01/04/2019
03.05.19	2 Rev. #2 Add Geotextile and Subdrain Gravel References per ITD Comments

DESIGNED FOR: HILFIKER RETAINING WALLS

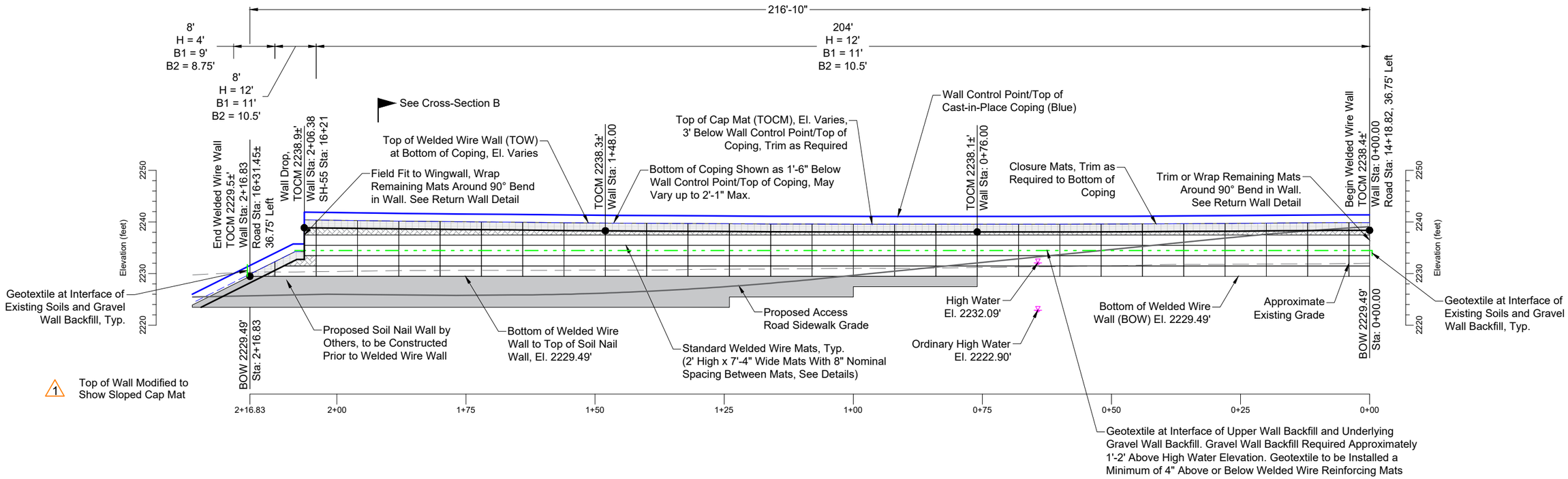
DESIGNED BY: GORDON GEOTECHNICAL ENGINEERING, INC.
4426 South Century Drive, Ste 100, Salt Lake City, UT 84123
801-327-9600

Welded Wire MSE Walls
SH-55 Bridge Over Snake River,
Marsing, Idaho 83639
Federal Aid Project No: A013(387)
Key No: 13387

DESIGN BY: **BD** DRAWN BY: **TT** CHECKED BY: **BD** APPROVED BY: **BD**

Welded Wire MSE Walls
Access Road Wall Elevation View 1

G² PROJECT NO.: **219-016-18**
HRW NO.: **180622AE**
SHEET NO.: **2 of 9**



Left Welded Wire Wall
Elevation View 2

0 20 40

Scale: 1" = 20'

Approximately 2,560* square face feet of welded wire wall supplied

* Square footage calculation includes closure mats.

Key	
H	Total nominal height of wall at each segment.*
B1	Base length of cap and prongless mat.
B2	Base length standard reinforcing mats.
	W7.0 x W3.5 WWF (8" x 12" Wire Spacing), Cap mat and prongless mats. See B1 for mat length.
	W7.0 x W3.5 WWF (8" x 10.5" Wire Spacing), Standard mats. See B2 for mat length.
	Closure mat.

* Nominal height of wall includes closure mats which are to be trimmed to grade at bottom of coping.

Notes:

1) Top of wall is shown at bottom of coping which has been set at 1'-5" below top of coping. Top of wall my vary between 1'-5" and 2'-1".

2) Elevation view of wall has been shown at wall control line. Actual MSE wall face will be located at an offset from wall layout control line. Final offset to be based up on panel configuration and is estimated to be between 1'-6" and 1'-10". Very minor field adjustments in mat spacing will be required to accommodate variations due to this offset.

1 **Note:**
Top of Cap Mat (TOCM) Elevations as Shown are Approximate and May Vary Due to Flexibility in Coping Thickness, Closure Mat Trimming and Sloped Cap Mat Trimming. On This Elevation View, Top of Cap Mat (TOCM) Has Been Shown as 3'-0" Below Wall Control Point/Top of Coping.

PROFESSIONAL ENGINEER LICENSED 15952 STATE OF IDAHO Bret A. DeBernardi

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Date: 2019.03.05 10:41:30 -07'00'

REFERENCE:

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12.19.18	Submitted for Review
02.22.19	1 Rev. #1 per ITD Review Comments Dated 01/04/2019
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DESIGNED FOR: HILFIKER RETAINING WALLS

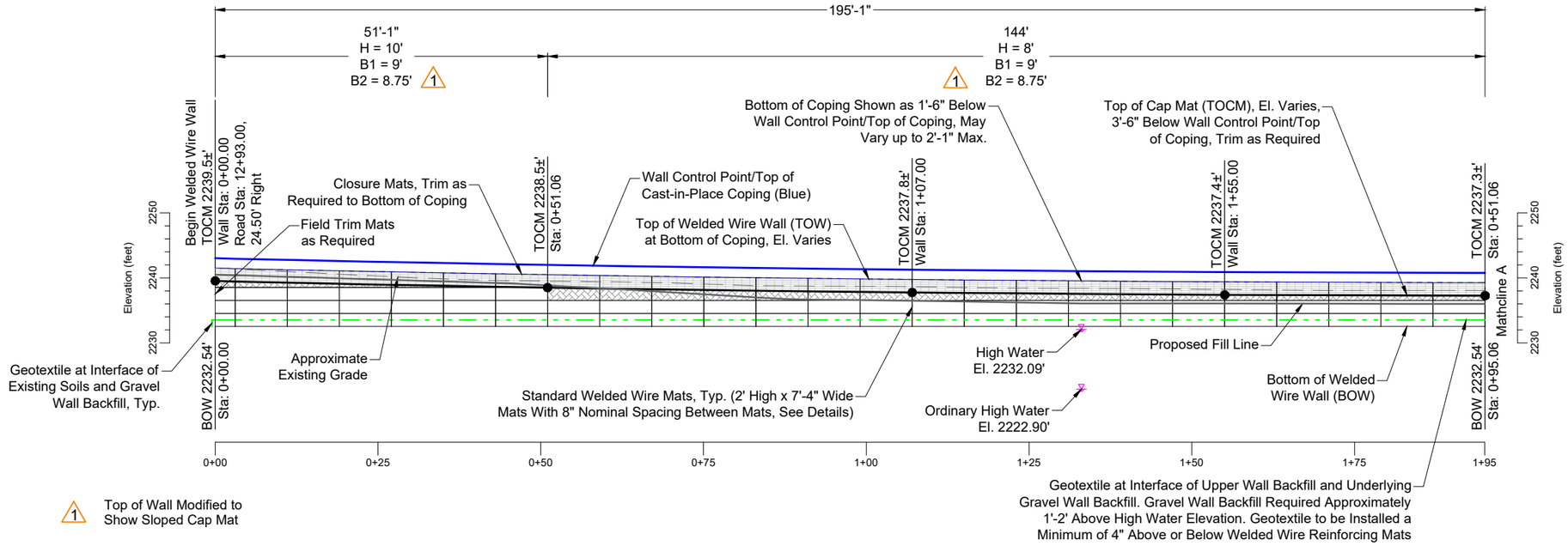
DESIGNED BY: GORDON GEOTECHNICAL ENGINEERING, INC.
4426 South Century Drive, Ste 100, Salt Lake City, UT 84123
801-327-9600

Welded Wire MSE Walls
SH-55 Bridge Over Snake River,
Marsing, Idaho 83639
Federal Aid Project No: A013(387)
Key No: 13387

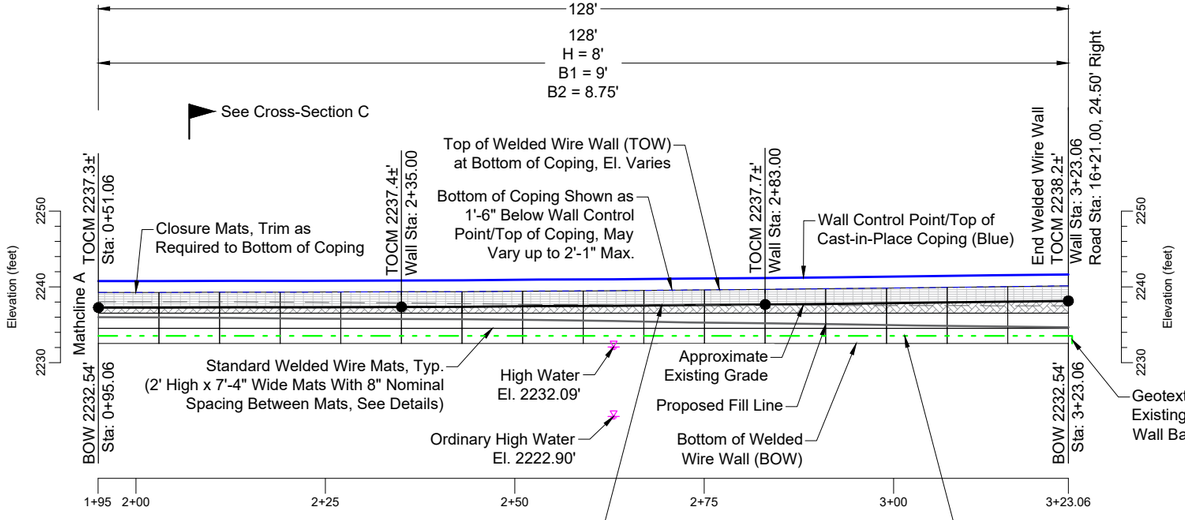
DESIGN BY: **BD** DRAWN BY: **TT** CHECKED BY: **BD** APPROVED BY: **BD**

Welded Wire MSE Walls
Left Wall Elevation View 2

G² PROJECT NO.: **219-016-18**
HRW NO.: **180622AE**
SHEET NO.: **3 of 9**



1 Top of Wall Modified to Show Sloped Cap Mat



Right Welded Wire Wall Elevation View 3

0 20 40

Scale: 1" = 20'

Approximately 2,720* square face feet of welded wire wall supplied

* Square footage calculation includes closure mats.

Key	
H	Total nominal height of wall at each segment.*
B1	Base length of cap and prongless mat.
B2	Base length standard reinforcing mats.
	W7.0 x W3.5 WWF (8" x 12" Wire Spacing), Cap mat and prongless mats. See B1 for mat length.
	W7.0 x W3.5 WWF (8" x 10.5" Wire Spacing), Standard mats. See B2 for mat length.
	Closure mat.

* Nominal height of wall includes closure mats which are to be trimmed to grade at bottom of coping.

Notes:

1) Top of wall is shown at bottom of coping which has been set at 1'-5" below top of coping. Top of wall my vary between 1'-5" and 2'-1".

2) Elevation view of wall has been shown at wall control line. Actual MSE wall face will be located at an offset from wall layout control line. Final offset to be based up on panel configuration and is estimated to be between 1'-6" and 1'-10". Very minor field adjustments in mat spacing will be required to accommodate variations due to this offset.

1 **Note:**
Top of Cap Mat (TOCM) Elevations as Shown are Approximate and May Vary Due to Flexibility in Coping Thickness, Closure Mat Trimming and Sloped Cap Mat Trimming. On This Elevation View, Top of Cap Mat (TOCM) Has Been Shown as 3'-6" Below Wall Control Point/Top of Coping.

PROFESSIONAL ENGINEER LICENSED 15952 STATE OF IDAHO Bret A. DeBernardi

Bret DeBernardi

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REFERENCE:

DATE	DESCRIPTION
12.19.18	Submitted for Review
02.22.19	1 Rev. #1 per ITD Review Comments Dated 01/04/2019
03.05.19	2 Rev. #2 Add Geotextile and Subdrain Gravel References per ITD Comments

DESIGNED FOR: HILFIKER RETAINING WALLS

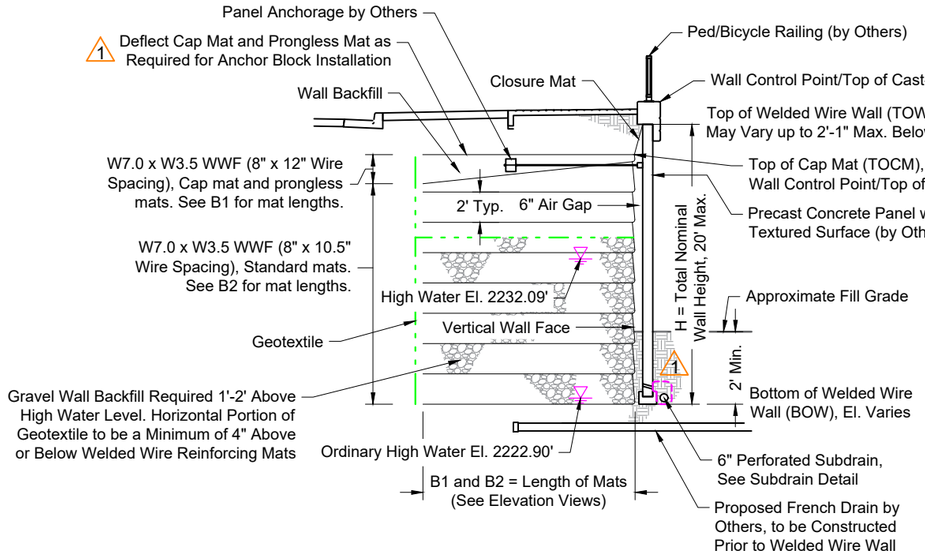
DESIGNED BY: GORDON GEOTECHNICAL ENGINEERING, INC.
4426 South Century Drive, Ste 100, Salt Lake City, UT 84123
801-327-9600

DESIGN BY: **BD** DRAWN BY: **TT** CHECKED BY: **BD** APPROVED BY: **BD**

Welded Wire MSE Walls
SH-55 Bridge Over Snake River,
Marsing, Idaho 83639
Federal Aid Project No: A013(387)
Key No: 13387

Welded Wire MSE Walls
Right Wall Elevation View 3

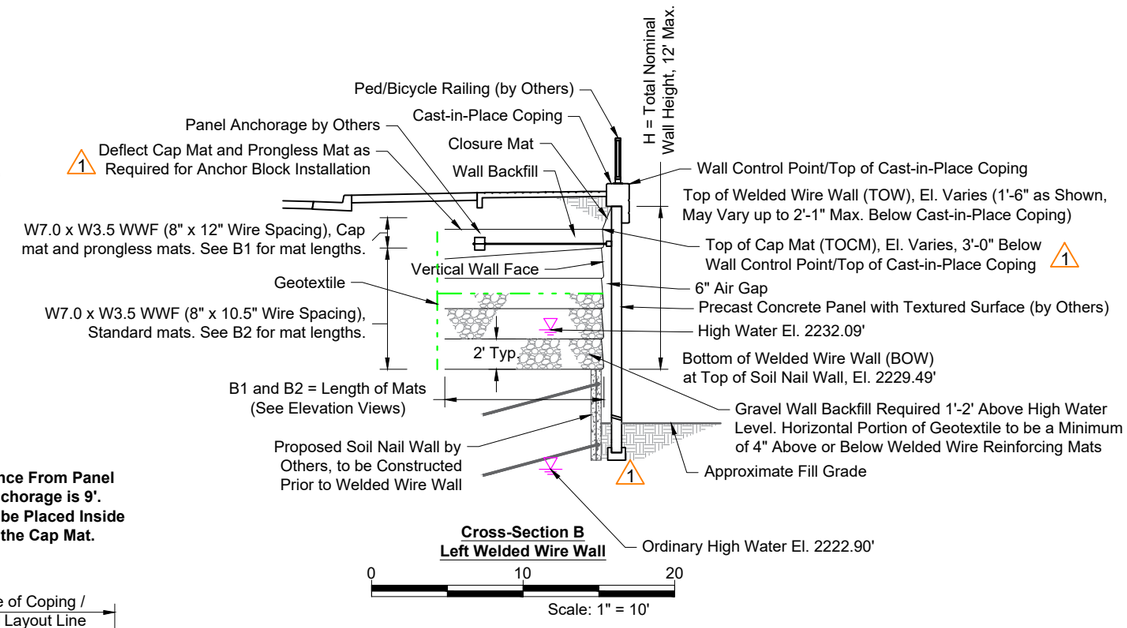
G² PROJECT NO.: **219-016-18**
HRW NO.: **180622AE**
SHEET NO.: **4 of 9**



Cross-Section A
Access Welded Wire Wall

0 10 20

Scale: 1" = 10'



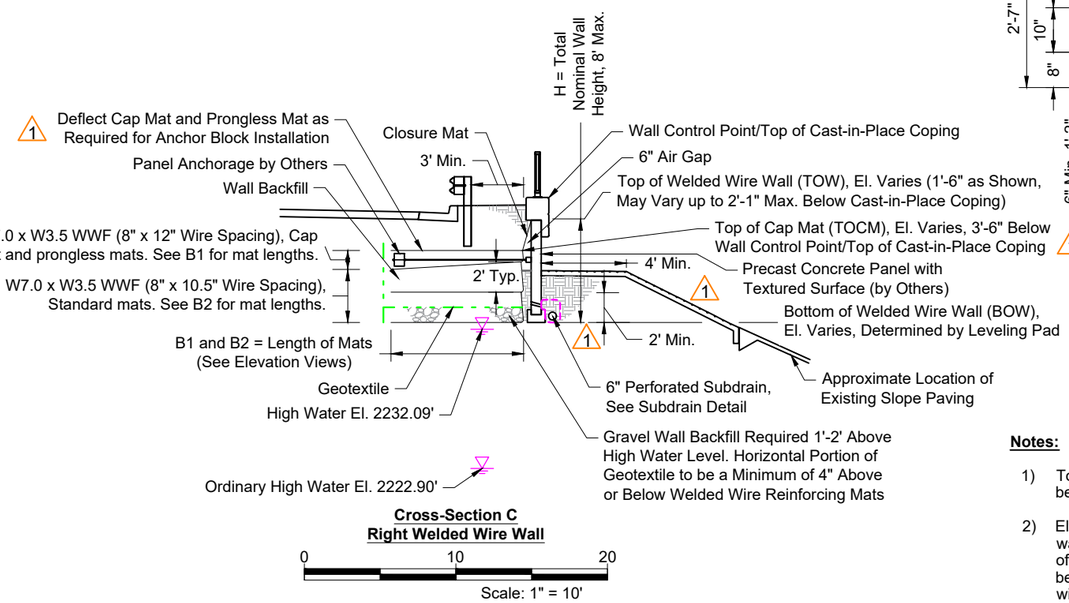
Cross-Section B
Left Welded Wire Wall

0 10 20

Scale: 1" = 10'

Note: 1

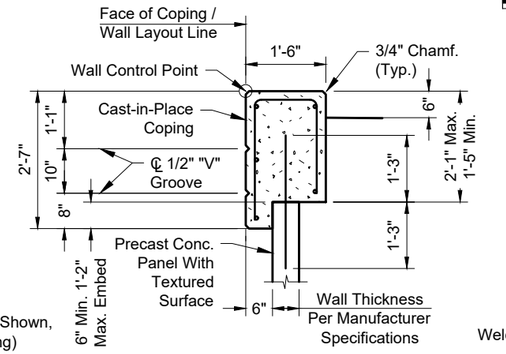
1. **Minimum Distance From Panel to Deadman Anchorage is 9'.**
2. **Deadman Must be Placed Inside the Wall Below the Cap Mat.**



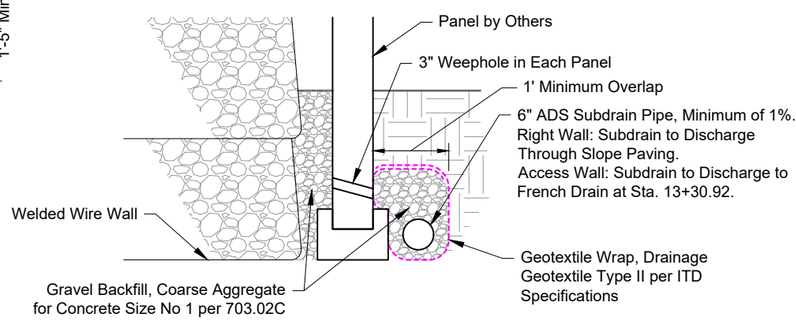
Cross-Section C
Right Welded Wire Wall

0 10 20

Scale: 1" = 10'



Cast-in-Place Coping Detail
Not to Scale



Subdrain Detail 1 2
Not to Scale

Notes:

1) Top of wall is shown at bottom of coping which has been set at 1'-6" below top of coping. Top of wall my vary between 1'-6" and 2'-1".

2) Elevation view of wall has been shown at wall control line. Actual MSE wall face will be located at an offset from wall layout control line. Final offset to be based up on panel configuration and is estimated to be between 1'-6" and 1'-10". Very minor field adjustments in mat spacing will be required to accommodate variations due to this offset.

PROFESSIONAL ENGINEER LICENSED 15952 STATE OF IDAHO Bret A. DeBernardi

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Date: 2019.03.05 10:41:54 -07'00'

REFERENCE:

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12.19.18	Submitted for Review
02.22.19	1 Rev. #1 per ITD Review Comments Dated 01/04/2019
03.05.19	2 Rev. #2 Add Geotextile and Subdrain Gravel References per ITD Comments

DESIGNED FOR: HILFIKER RETAINING WALLS

DESIGNED BY: GORDON GEOTECHNICAL ENGINEERING, INC.
4426 South Century Drive, Ste 100, Salt Lake City, UT 84123
801-327-9600

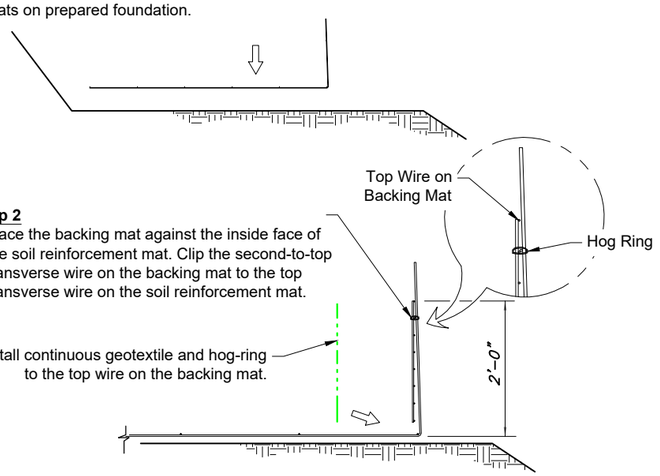
Welded Wire MSE Walls
SH-55 Bridge Over Snake River,
Marsing, Idaho 83639
Federal Aid Project No: A013(387)
Key No: 13387

DESIGN BY: **BD** DRAWN BY: **TT** CHECKED BY: **BD** APPROVED BY: **BD**

Welded Wire MSE Walls
Cross-Sections

G² PROJECT NO.: **219-016-18**
HRW NO.: **180622AE**
SHEET NO.: **5 of 9**

Step 1
Place the first course of soil reinforcement mats on prepared foundation.

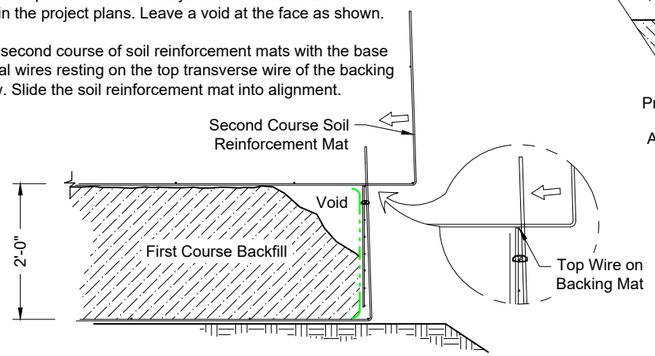


Step 2
Place the backing mat against the inside face of the soil reinforcement mat. Clip the second-to-top transverse wire on the backing mat to the top transverse wire on the soil reinforcement mat.

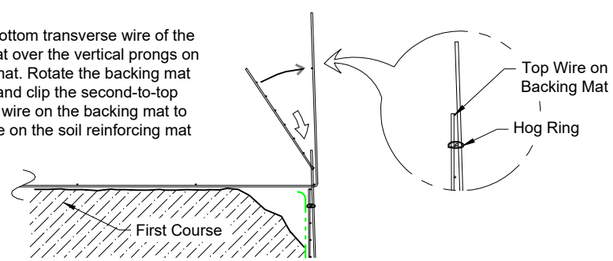
Install continuous geotextile and hog-ring to the top wire on the backing mat.

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 wire on the soil reinforcing mat



ERS Retaining Wall Construction Sequence

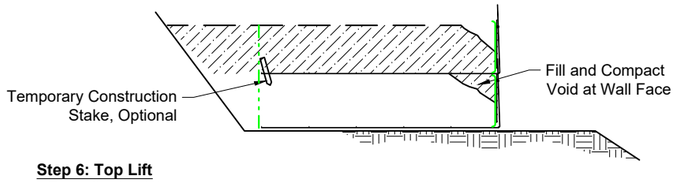
Not to Scale

2

Step 5
Install the geotextile.

Place and compact the backfill to the base elevation of the next mat.

Repeat steps 3 thru 5 to the top lift. Note that an intermediate geotextile is required between lower gravel backfill and upper wall backfill at lifts indicated on cross-sections / elevation view

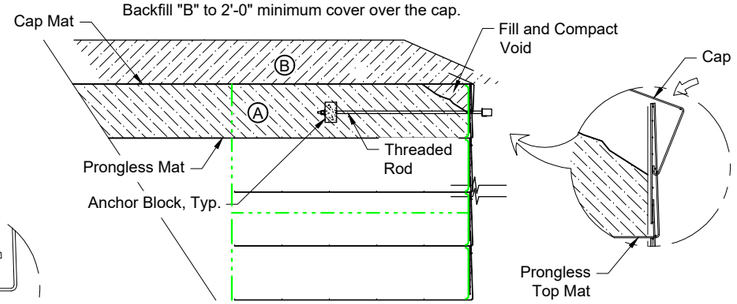


Step 6: Top Lift
Place the top lift prongless mat, backing mat, and geotextile. Install anchor blocks and threaded rods. Prongless mat may be deflected as required for anchor block installation.

Place and compact backfill in area "A".

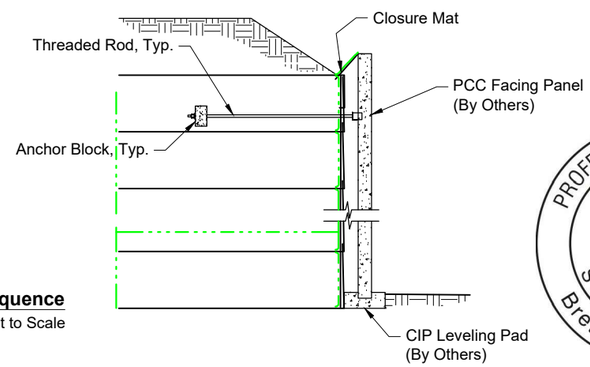
Hook the cap over the middle transverse wire on the prongless mat, and rotate into place.

Backfill "B" to 2'-0" minimum cover over the cap.



Step 7
Wait for settlement period (per contract specifications) and then pour CIP Leveling pad to elevation shown. Install PCC facing panels to CIP pad and threaded rods from anchor blocks.

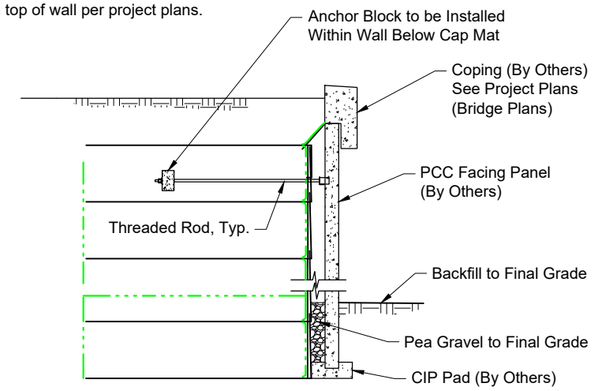
Place closure mat with backing mat and geotextile.



Step 8
Backfill at toe to final grade.

Place and compact backfill at closure mat.

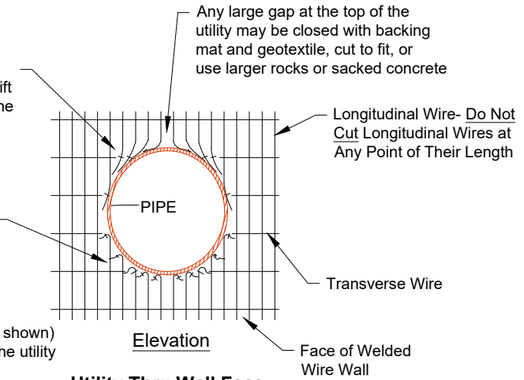
Finish top of wall per project plans.



At the upper surface of the utility, cut the transverse wires only. Bend and lift the longitudinal wires in the base of the mat to fit against the side of the utility

At the lower surface of the utility, cut the transverse wires only in the mat face. Bend the longitudinal wires back to fit against the curve of the utility

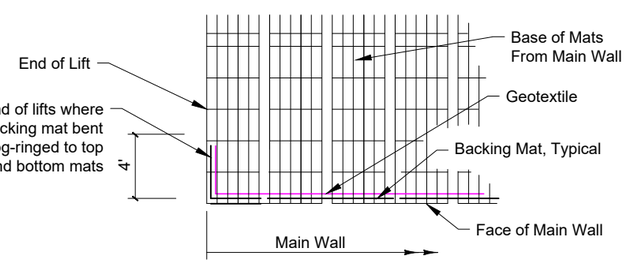
Note: Backing mats and geotextile (not shown) are to be cut off flush with the sides of the utility



Elevation

Utility Thru Wall Face

Not to Scale



Return Backing Mat Detail

Not to Scale

PROFESSIONAL ENGINEER LICENSED 15952 STATE OF IDAHO Bret A. DeBernardi

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Date: 2019.03.05 10:42:15 -07'00'

REFERENCE:

DATE	DESCRIPTION
12.19.18	Submitted for Review
02.22.19	1 Rev. #1 per ITD Review Comments Dated 01/04/2019
03.05.19	2 Rev. #2 Add Geotextile and Subdrain Gravel References per ITD Comments

DESIGNED FOR:
HILFIKER RETAINING WALLS

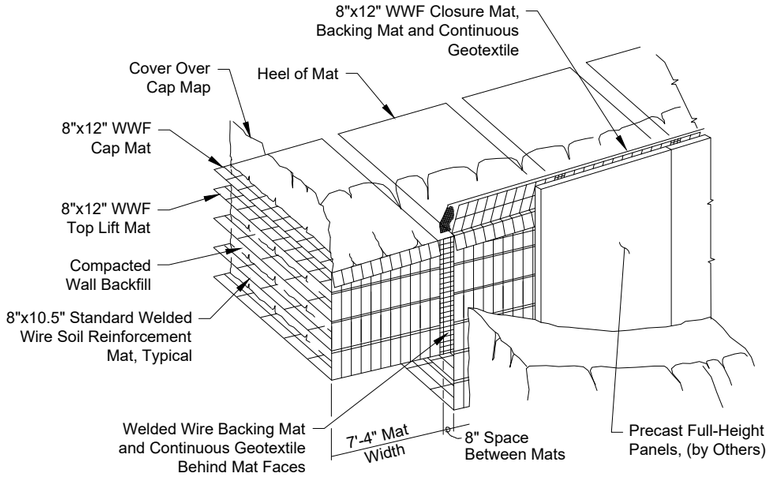
DESIGNED BY:
GORDON GEOTECHNICAL ENGINEERING, INC.
4426 South Century Drive, Ste 100, Salt Lake City, UT 84123
801-327-9600

Welded Wire MSE Walls
SH-55 Bridge Over Snake River,
Marsing, Idaho 83639
Federal Aid Project No: A013(387)
Key No: 13387

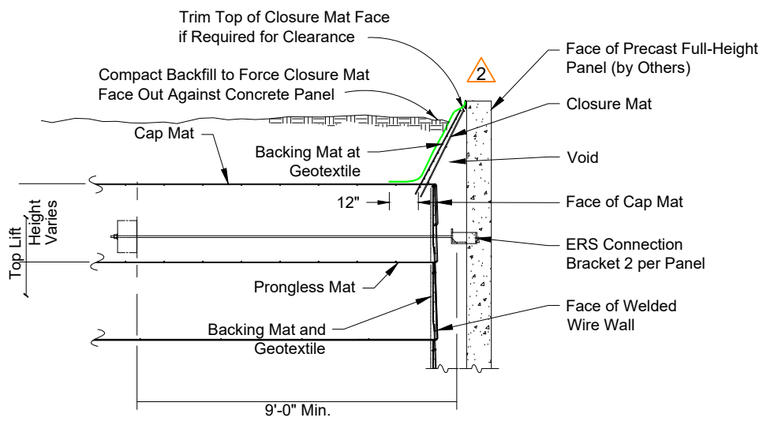
DESIGN BY: **BD** DRAWN BY: **TT** CHECKED BY: **BD** APPROVED BY: **BD**

Welded Wire MSE Walls
Details

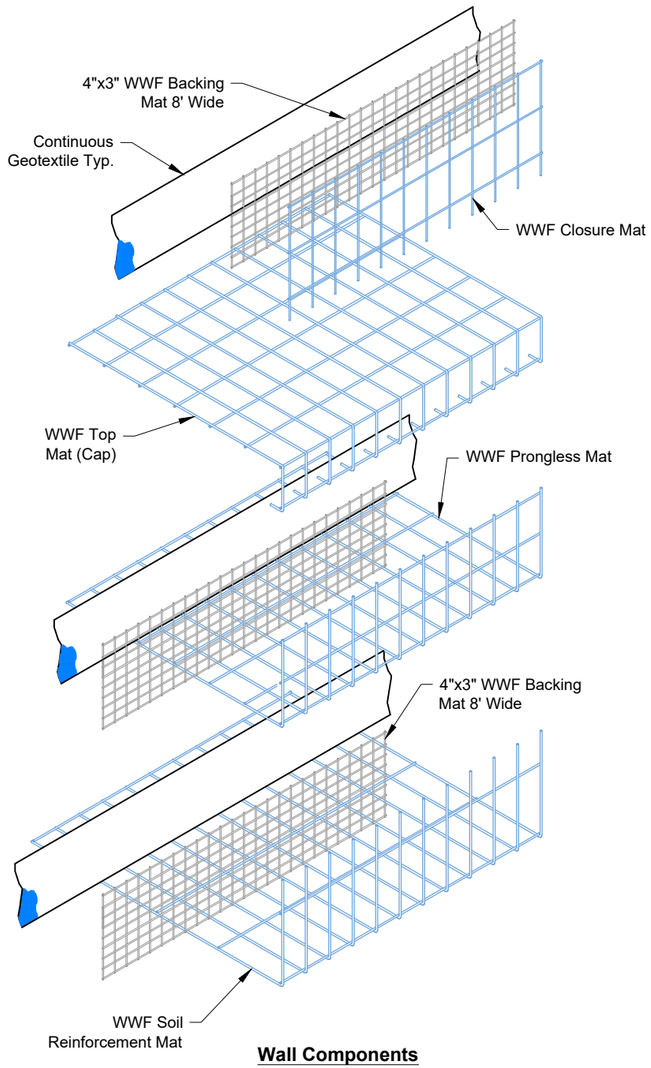
G² PROJECT NO.: **219-016-18**
HRW NO.: **180622AE**
SHEET NO.: **6 of 9**



ERS Pictorial Elevation
Not to Scale



Top of Wall and Panel Connection Details
Not to Scale



Wall Components
Not to Scale

Wall Quantities ⚠1

Item	Wire Spacing (Longitundianl x transverse)	Mat Type	Mat Length	Quantities		
				Access Wall	Left Wall	Right Wall
W7.0 x 3.5	8" x 12"	Cap	14'	13		
W7.0 x 3.5	8" x 12"	Cap	13'	6		
W7.0 x 3.5	8" x 12"	Cap	11'	6	27	
W7.0 x 3.5	8" x 12"	Cap	9'	15	1	41
W7.0 x 3.5	8" x 12"	Prongless	14'	13		
W7.0 x 3.5	8" x 12"	Prongless	13'	6		
W7.0 x 3.5	8" x 12"	Prongless	11'	6	27	
W7.0 x 3.5	8" x 12"	Prongless	9'	15	1	41
W7.0 x 3.5	8" x 10.5	Standard	14'	94		
W7.0 x 3.5	8" x 10.5	Standard	12.25'	36		
W7.0 x 3.5	8" x 10.5	Standard	10.5'	25	104	
W7.0 x 3.5	8" x 10.5	Standard	8.75'	16		88
Closure Mats				40	28	41
Backing Mats (2')				260	168	177
Hog Rings				5,100	3,200	3,100
Face Anchors				80	56	82
Geotextile				2,080 LF	1,344 LF	1,416 LF
Wall Backfill				427 CY	409 CY	563 CY
Gravel Wall Backfill				1122 CY	413 CY	105 CY
Total Wall Backfil				1549 CY	822 CY	668 CY

Backfill quantities are approximate and separated into all backfill (above geotextile) and gravel wall backfill (below the geotextile). Geotextile is at interface of the two wall backfill material types and is approximately at 1' to 2' above the high water elevation.

PROFESSIONAL ENGINEER LICENSED 15952 STATE OF IDAHO Bret A. DeBernardi

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Date: 2019.03.05 10:42:29 -07'00'

REFERENCE:

DATE	DESCRIPTION
12.19.18	Submitted for Review
02.22.19	⚠1 Rev. #1 per ITD Review Comments Dated 01/04/2019
03.05.19	⚠2 Rev. #2 Add Geotextile and Subdrain Gravel References per ITD Comments

DESIGNED FOR: HILFIKER RETAINING WALLS

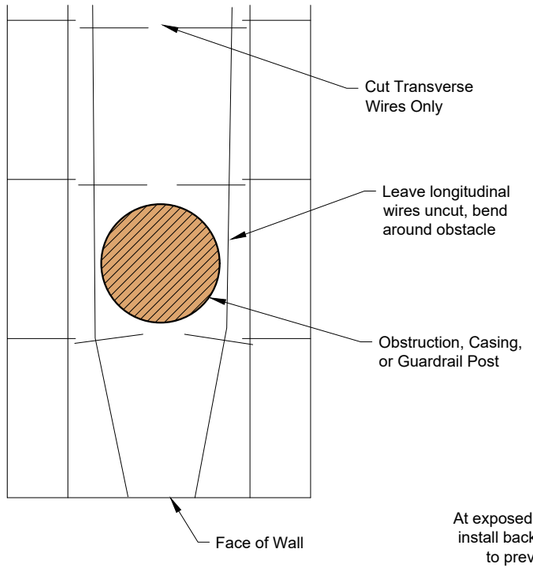
DESIGNED BY: GORDON GEOTECHNICAL ENGINEERING, INC.
4426 South Century Drive, Ste 100, Salt Lake City, UT 84123
801-327-9600

Welded Wire MSE Walls
SH-55 Bridge Over Snake River,
Marsing, Idaho 83639
Federal Aid Project No: A013(387)
Key No: 13387

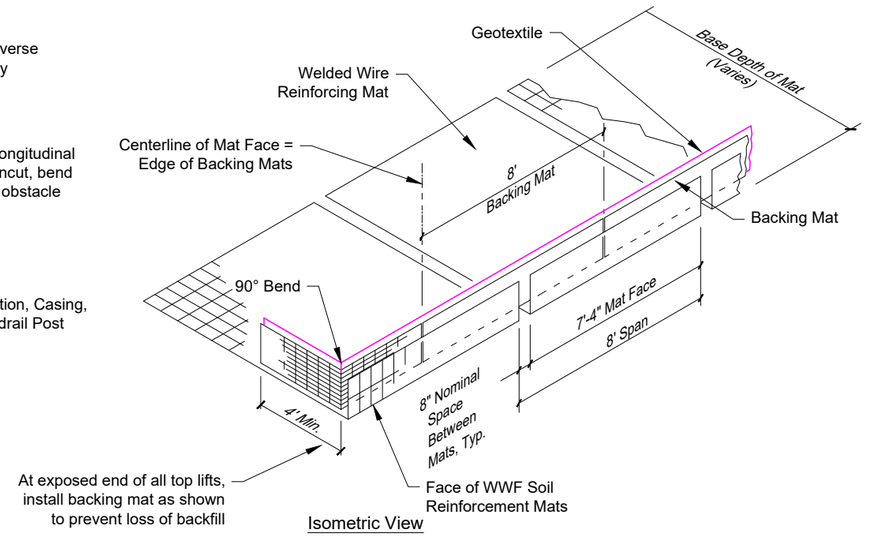
DESIGN BY: **BD** DRAWN BY: **TT** CHECKED BY: **BD** APPROVED BY: **BD**

Welded Wire MSE Walls
Details

G² PROJECT NO.: **219-016-18**
HRW NO.: **180622AE**
SHEET NO.: **7 of 9**

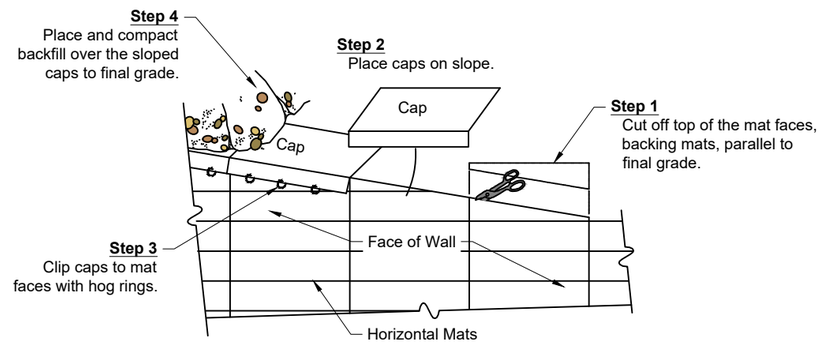


Fitting Mats to Vertical Obstructions
Not to Scale

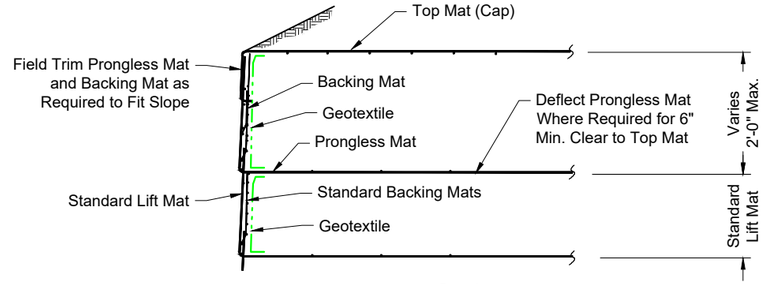


Isometric View

Welded Wire Wall Components With Return Backing Mat
Not to Scale



Elevation at Wall Face

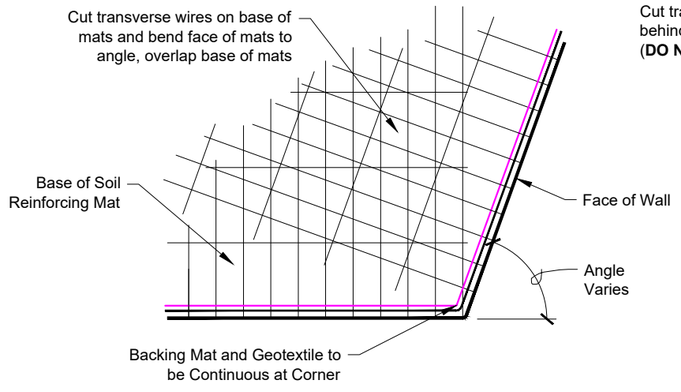


Section

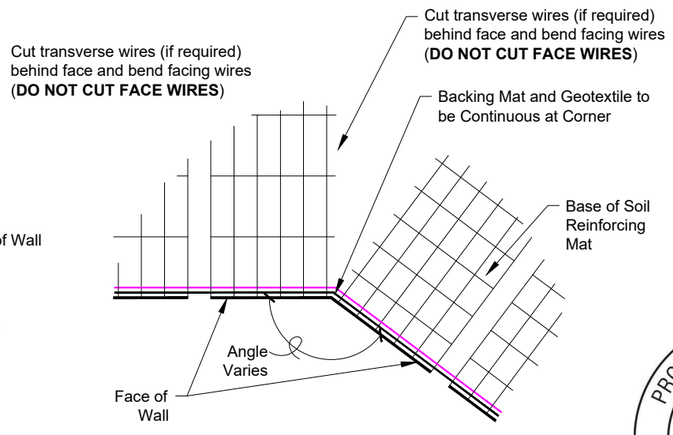
Installation Sequence

1. Place the prongless mats and backing mats for the top lifts.
2. Cut the prongless and backing mat faces off parallel to the slope of the final grade. Install geotextile.
3. Place and compact the backfill in the top lifts to parallel the final grade slope.
4. Place the caps on the backfill and clip them to the prongless mat faces with hog rings.
5. Place and compact the final cover over the cap mats.

1 **Sloped Cap Mat Details**
Not to Scale



Convex Angle Detail
Not to Scale



Concave Angle Detail
Not to Scale

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03.05.19	2 Rev. #2 Add Geotextile and Subdrain Gravel References per ITD Comments

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Welded Wire MSE Walls
Details

G³ PROJECT NO.: **219-016-18**
HRW NO.: **180622AE**
SHEET NO.: **8 of 9**

General Notes

Introduction

1. The scope of work outlined by these General Notes and Welded Wire Wall Specifications (separate document) include design and installation specifications for the Hilfiker Welded Wire MSE Walls as shown on these plans.

2. Grades shown herein as well as Welded Wire Wall layout and beginning and ending stations are approximate. Field conditions (both topography and geotechnical conditions exposed during construction) must be considered in determining final design configurations for construction. Conflicts between these plans and other project plans shall be resolved by Gordon Geotechnical Engineering Inc. (G^2), whose decision shall be final. Geometry and layout are in general accordance with project drawings and specifications entitled "SH-55 Snake River Bridge Marsing, Federal Aid Project No. A013(387), Key No. 13387, Owyhee & Canyon Counties," by Idaho Transportation Department, dated March 2018.

3. Existing and proposed facilities and utilities to be verified in field by the General Contractor. Conflicts that arise shall be resolved by Gordon Geotechnical Engineering Inc. of Salt Lake City, Utah, whose decision shall be final.

Welded Wire Walls

1. The work for this portion of the project shall consist of the construction of Welded Wire Walls to the lines, grades, details, and dimensions shown in these project plans and with the specifications provided for the project, as well as in conformance with all Project Plans and Specifications. Conflicts that arise shall be resolved by Gordon Geotechnical Engineering Inc. of Salt Lake City, Utah, whose decision shall be final.

2. The contractor shall purchase all Welded Wire Wall materials including wire mesh reinforcing mats, and backing materials from Hilfiker Retaining Walls, 1902 Hilfiker Lane, Eureka, California, 95503, 707-443-5093. Wire mesh reinforcing mats, closure mats, and backing mats shall be constructed of hot-dipped galvanized wire (minimum 2 oz/sf).

3. All Welded Wire Wall installation shall be in accordance with the installation guide as manufactured by Hilfiker Retaining Walls, and these plans. Conflicts that arise shall be resolved by Gordon Geotechnical Engineering Inc. whose decision shall be final. No warranty is expressed or implied, only that the design was prepared in general accordance with the design principles and practices in use at the time this work was performed. Changes to the design or layout shall only be made with express written permission of Gordon Geotechnical Engineering Inc.

4. Contractor is responsible for determining exact location of welded wire walls in accordance with the intent of these plans and the overall project objectives.

5. Soils used as Wall Backfill 1' to 2' above the High Water Elevation shall be a well graded, non-organic, granular soil meeting all Welded Wire Wall Specifications, Project Specifications for "Reinforced Zone Backfill" (See Section S501-15A, Section G) and having the following gradation: 100% by weight passing the 4-inch sieve, 0% to 60% by weight passing the No. 40- sieve, and 0 to 15% by weight passing the No. 200 sieve. The material shall have a Plasticity Index less than 6 and meet electrochemical properties indicated in Welded Wire Wall and Project Specifications. Gradations and material properties of candidate backfill materials proposed for use may be submitted to Gordon Geotechnical Engineering for review and approval. Backfill not conforming to these specifications shall not be used without express, written permission of Gordon Geotechnical Engineering. Wall Backfill shall be compacted to 95% of the maximum dry density, as determined by ASTM D-1557 (AASHTO-T-180) compaction criteria as a minimum. This exceeds Project Specifications. Maximum lift thickness shall be 8 inches and shall be reduced, if necessary, to obtain specified density. Refer to Welded Wire Wall Specifications and Project Specifications for all applicable information.

6. Soil used as Wall Backfill from the bottom of the wall up to a level that is 1' to 2' above the High Water Elevation shall consist of a 1.5" minus clean well graded gravel with no more than 5 percent by weight passing the 3/8" sieve. The material shall consist of durable, angular rock, and shall also comply with all electrochemical requirements and other requirements outlined in Welded Wire Wall Specifications and Project Specifications. Friable or fractured rock shall not be used. Wall Facing Gravel is to be placed in 12-inch maximum loose lifts and compacted by passing a smooth drum vibratory roller uniformly over the surface at least 4 times or as required by ITD standards for procedural compaction. Candidate materials shall have LA Abrasion test results and gradations available for approval. Alternative gravel gradations that are readily available may be submitted for review.

7. Geotextile utilized behind the wire face, encapsulating the gravel wall backfill, behind the reinforcing mat and around subdrain shall consist of 8 oz/sy non-woven needle punched polypropylene geotextile meeting Idaho DOT Specification for Drainage Geotextile Type II. 2

8. The surface of all walls, during and after construction, shall be graded to drain. No ponding or uncontrolled flowing water shall be allowed on or around any walls, at any time.

9. Contractor to provide fall protection for workers and equipment during construction in compliance with OSHA and any other applicable requirements. Owner shall also provide and maintain permanent fall protection as required by applicable building codes.

10. The wall foundation shall be prepared in accordance with Project Specifications and Welded Wire Wall specifications. The walls shall be established upon natural undisturbed soils. Any non-engineered fill, loose soils, etc., shall be removed and replaced with compacted granular structural fill meeting the requirements for wall backfill. Prior to placing structural replacement fill or beginning wall construction, the natural exposed subgrade shall be properly prepared in accordance with project Specifications with review by Project Geotechnical Engineer. As a minimum, the subgrade shall be proofrolled by passing a heavy steel drum roller heavy steel drum roller (minimum dynamic force of 30,000 lbs per impact and at least 1000 vibrations per minute) uniformly over the surface at least 12 times in accordance with Project Specifications. All loose or disturbed soil, organic material, trash, disturbed or generally deleterious materials or unsuitable soils shall be removed. If soft or moist conditions are encountered, the Project Geotechnical Engineer shall provide appropriate recommendations with review by G^2.

11. The walls have been designed for conventional vehicular traffic (250 psf) and soil surcharge of 270 psf (equivalent to 2'-1" maximum fill) using a 75-year service life. Walls have been designed for long term Strength 1 (static) and an Extreme Event 1 (seismic) using a pseudo-static seismic coefficient Kh = 0.12 with groundwater at the Ordinary High Water Level (Elevation 2222.90). Walls have been designed for Extreme Event II (flooding) with the High Water Level Elevation 2232.09.

12. The following soil properties have been utilized in the wall design:

    Wall Backfill: Moist unit weight = 120 pcf, friction angle = 34 degrees.

    Foundation and Retained Backfill: Moist unit weight = 125 pcf, friction angle = 34 degrees.

    Retained Backfill: Moist unit weight = 125 pcf, friction angle = 33 degrees.

13. In accordance with Project Plans, no geomembrane has been shown over the top of the wall. A geomembrane may be required in conjunction with the use of deicing salts or magnesium chloride on the roadway as required by Idaho Department of Transportation.

14. G^2 is responsible for internal and local external stability. Bearing capacity and global stability are the responsibility of the project geotechnical engineer.

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Welded Wire MSE Walls
General Notes

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SHEET NO.: **9 of 9**