



2

- IF ACTUAL CHARACTERISTICS, GRADES OR DIMENSIONS OF SOIL MATERIALS DIFFER FROM THOSE LISTED ABOVE OR SHOWN ON THE PLANS HILFKEK RETAINING WALLS SHALL BE NOTIFIED TO EVALUATE THE NEED TO REDESIGN.
- THE DESIGN REQUIRES A NON-SATURATED BACKFILL TO PREVENT HYDROSTATIC PRESSURES AND ACCELERATED CORROSION OF THE SOIL REINFORCEMENT.
- DRAINAGE CONTROL SHALL BE AS SPECIFIED IN THE PROJECT PLANS AND SPECIFICATIONS OR AS DIRECTED BY THE OWNER'S ENGINEER. PAYMENT FOR DRAINAGE SHALL BE AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
- REFERENCE DOCUMENTS:
PLANS AND SPECIFICATIONS PROVIDED IN PDF PREPARED BY WASHDOT, ATKINSON CONSTRUCTION, AND JACOBS, DATED 3/19/20 (REV 0).

BASE DEPTH	STANDARD MAT W7xW4 (8x21)
38"-6"	205
28"-3"	140
22"-9"	104
WALL FACE SUPPLIED	7,184 SQ. FT.
MSE BACKFILL (BY OTHERS)	*8,257 C.Y.
BACKING MATS (2'-0" HIGH)	456 EA
FILTER FABRIC (2'-6" WIDE)	3,648 LIN FT
HOG RINGS	10,800 EA
PLIERS	5 EA

* TOP MAT TO BOTTOM MAT. NEAT



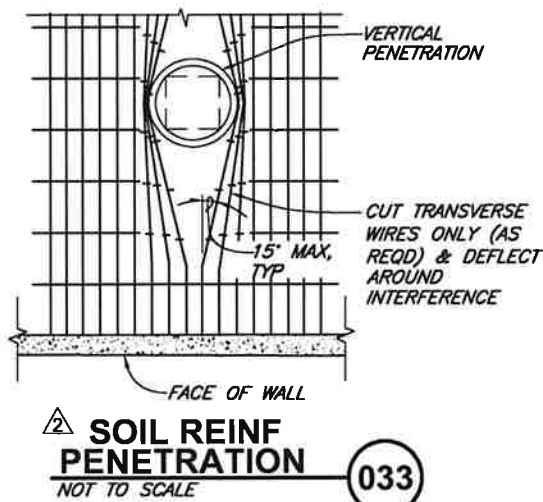
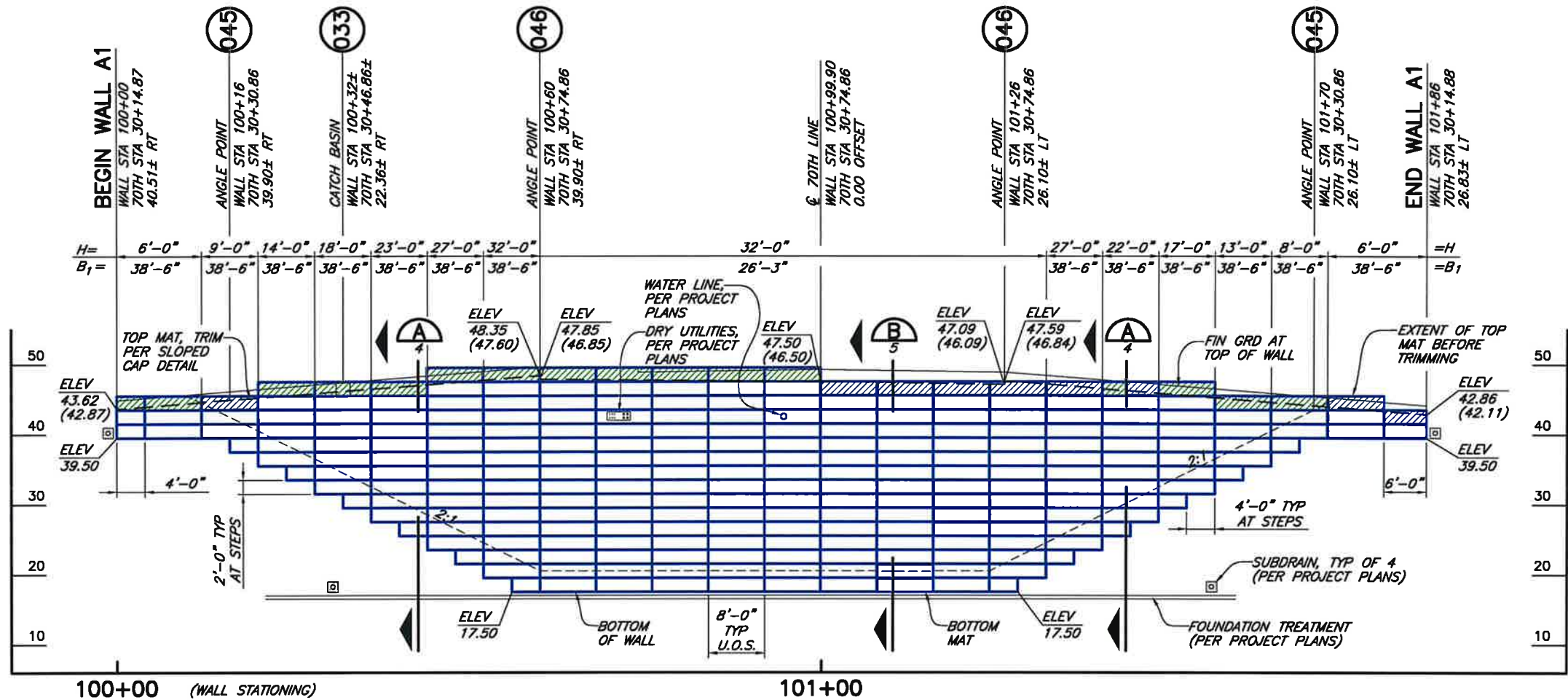
HILFIKER RETAINING WALLS



1902 Hilfkfer Lane
Eureka, CA 95503-5711
TOLL-FREE 800.762.8962
PH 707.443.5093 FAX 707.443.2891
WEB SITE www.hilfkfer.com E-MAIL info@hilfkfer.com



CAD: \\EUREKA\PROJECTS\2020\020026-SR-167-BRIDGE\DWGS\020026-SR167-R2.DWG
(HRW 019510 BE)



WALL A1 DEVELOPED ELEVATION

1"=10' HORIZ AND VERT
U.O.S.= UNLESS OTHERWISE STATED

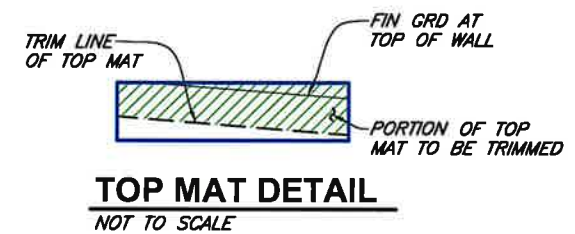
NOTE

TOP OF WALL ELEVATIONS ALLOW FOR 9" OF CONSTRUCTION PERIOD SETTLEMENT AT WINGWALLS AND 12" AT INTERIOR WALL. CONTRACTOR TO REVIEW ACTUAL SETTLEMENT BEFORE PLACING TOP MAT.

ELEV
42.86 WITHOUT SETTLEMENT
(42.11) AFTER SETTLEMENT

WWR MAT LEGEND

- 8x21, W7xW4 WWR SOIL REINFORCING MATS
- UNTRIMMED TOP MAT. TRIM PER ELEVATIONS.



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1902

VERIFY SCALES				812 W. WABASH AVE. EUREKA, CA 95501 WWW.SHM-ENG.COM 707-441-8655			
SHM				K/JW			
WSOT REVIEW COMMENTS				K/JW			
05/06/20				PLAN CHECK COMMENTS			
04/14/20				REVISION			
NO.				DATE			
DESIGN				NO.			
DR				NO.			
CHK				NO.			
APVD				NO.			
WSOT, CONT# 9333				SR 167/70TH AVE E. VICINITY BRIDGE REPLACEMENT			
SR 167/70TH AVE E. VICINITY BRIDGE REPLACEMENT				FIFE, PIERCE COUNTY, WASHINGTON			
WALL A1 ELEVATION				SHEET			
2 OF 6				DATE			
3/31/20				PROJ. NO.			
020026							

CAD: \\LEUREKA\PROJECTS\2020\020026-SR-167-BRIDGE\DWGS\020026-SR167-R2.DWG
(HRW 019510 BE)

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BEGIN WALL A2
WALL STA 200+00
70TH STA 35+36.79
30.10± LT

046 **ANGLE POINT**
WALL STA 200+05
70TH STA 35+31.40
30.10± LT

FACE OF WALL A2

046 **ANGLE POINT**
WALL STA 200+50
70TH STA 34+82.90
28.20± LT

FACE OF WALL W/O FASCIA

12" WATER LINE & CASING
PER PROJECT PLANS

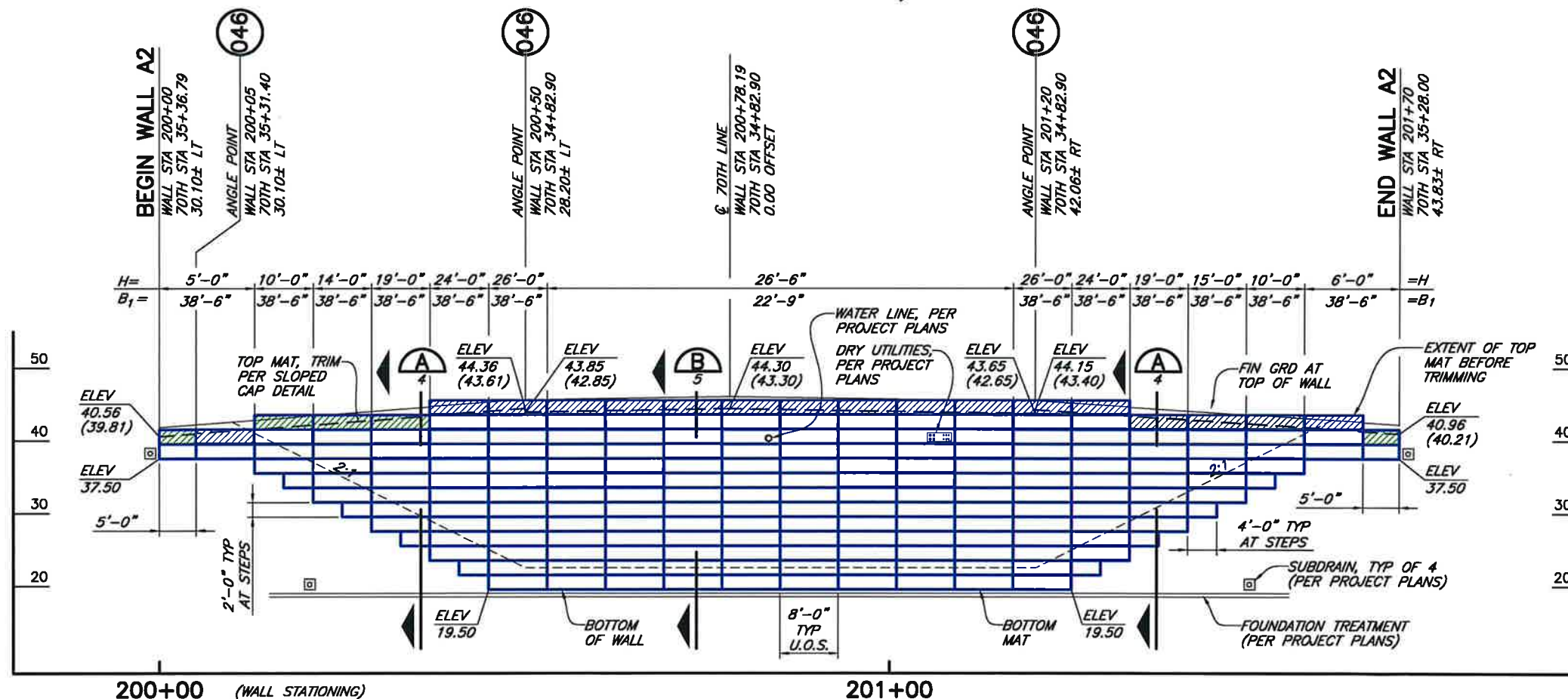
END WALL A2
WALL STA 201+70
70TH STA 35+28.00
43.83± RT

UNDERDRAIN, TYP
PER PROJECT PLANS

DRY UTILITIES
PER PROJECT PLANS

046 **ANGLE POINT**
WALL STA 201+20
70TH STA 34+82.90
42.06± RT

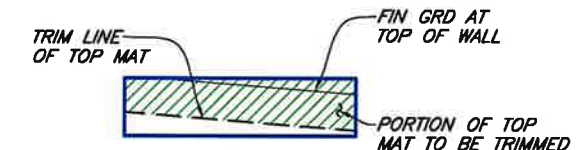
WALL A2 PLAN
1"=10'



**WALL A2
DEVELOPED ELEVATION**
1"=10' HORIZ AND VERT
U.O.S.= UNLESS OTHERWISE STATED

WWR MAT LEGEND

- 8x21, W7xW4 WWR SOIL REINFORCING MATS
- UNTRIMMED TOP MAT. TRIM PER ELEVATIONS.



TOP MAT DETAIL
NOT TO SCALE

NOTE

TOP OF WALL ELEVATIONS ALLOW FOR 9" OF CONSTRUCTION PERIOD SETTLEMENT AT WINGWALLS AND 12" AT INTERIOR WALL. CONTRACTOR TO REVIEW ACTUAL SETTLEMENT BEFORE PLACING TOP MAT.

ELEV
42.86 WITHOUT SETTLEMENT
(42.11) AFTER SETTLEMENT



E.R.S.

HILFIKER RETAINING WALLS



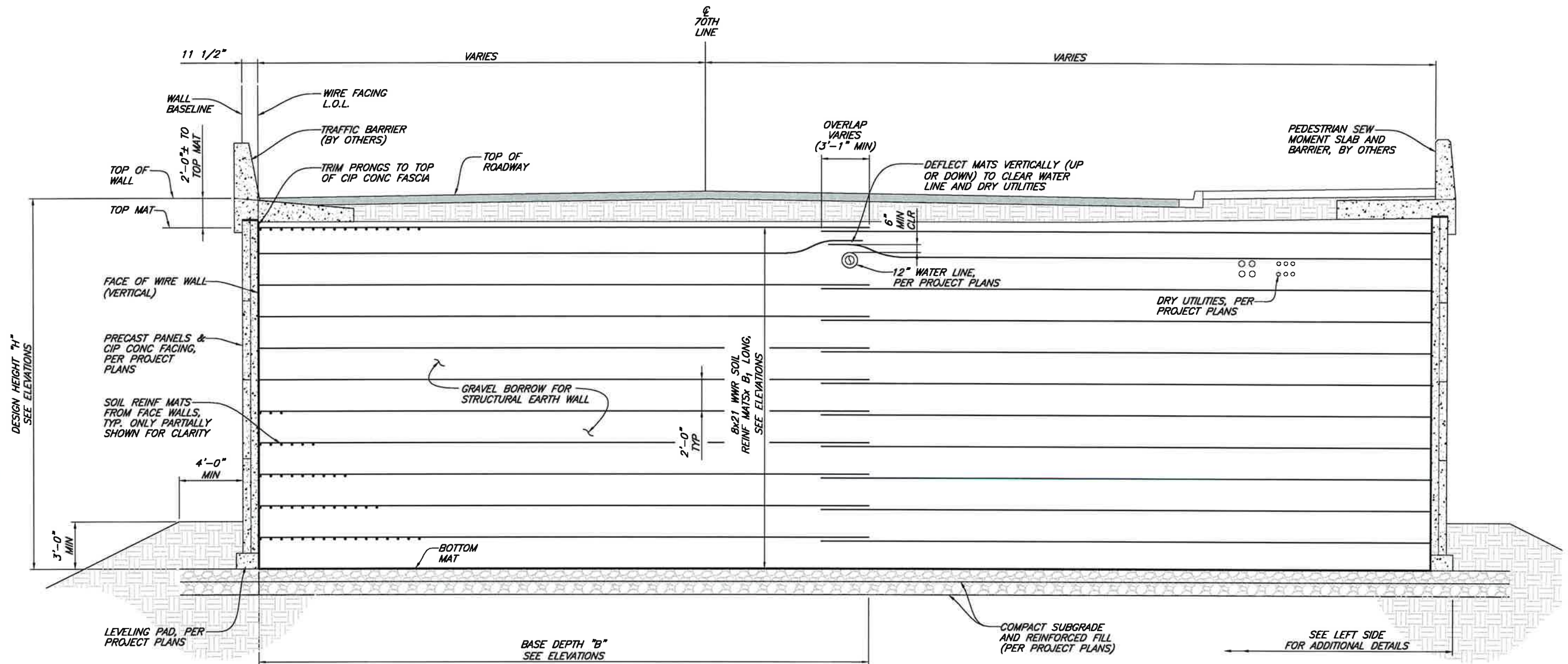
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VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON SCALES, ACCORDINGLY	612 W. WABASH AVE. EUREKA, CA 95501 WWW.HILFIKER.COM 707-441-5855	AC/W	AC/W	BY
WSOT REVIEW COMMENTS	PLAN CHECK COMMENTS	REVISION	DATE	NO.
05/06/20	04/14/20			
USDR	DR	CHK	APVD	
WSOT, CONT# 9333	SR 167/70TH AVE E. VICINITY BRIDGE REPLACEMENT	FIFE, PIERCE COUNTY, WASHINGTON	WALL A2 PLAN & ELEVATION	
SHEET	3	OF	6	
DATE	3/31/20	PROJ. NO.	020026	

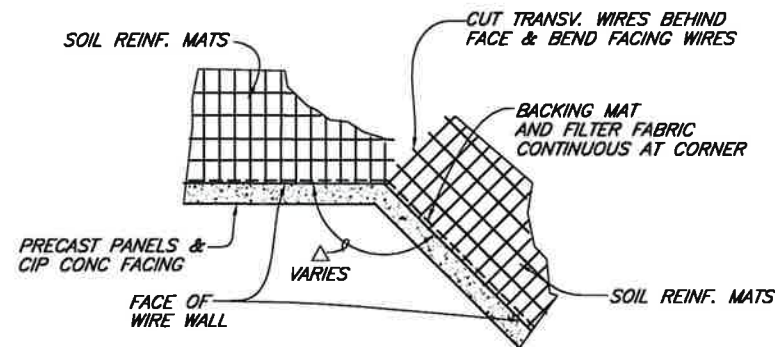
CAD: \\EUREKA\PROJECTS\2020\020026-SR-167-BRIDGE\DWGS\020026-SR167-R2.DWG
(HRW 019510 BE)

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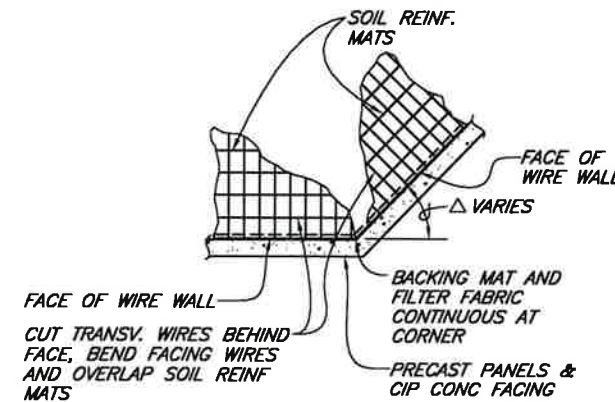


SECTION A
NOT TO SCALE 2,3
(LOOKING UP STATION)

NOTE
DEFLECT MATS VERTICALLY AS REQUIRED TO CLEAR DRY UTILITIES AND WATER LINE.



CONCAVE ANGLE POINT
NOT TO SCALE **045**



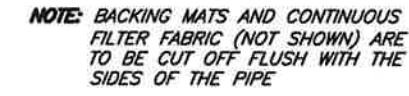
CONVEX ANGLE POINT
NOT TO SCALE **046**



E.R.S.

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

VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON SCALES ACCORDINGLY		812 W. WABASH AVE. EUREKA, CA 95501 WWW.HILFIKER.COM 707-441-8855	
K/JN	K/JN	BY	
WSDOT REVIEW COMMENTS		REVISION	
05/06/20		DATE	
04/14/20		NO.	
DR	CHK	APVD	
SECTION & DETAILS			
SR 167/70TH AVE E. VICINITY BRIDGE REPLACEMENT FIFE, PIERCE COUNTY, WASHINGTON			
WSDOT, CONT# 9333			
SHEET 4 OF 6			
DATE 3/31/20			
PROJ. NO. 020026			



052



1. PLACE THE SECOND MATS AND BACKING MATS FOR THE TOP LIFTS.
2. CUT THE SECOND MAT AND BACKING MAT FACES OFF PARALLEL TO THE SLOPE OF THE FINAL GRADE.
3. PLACE AND COMPACT THE BACKFILL IN THE TOP LIFTS TO PARALLEL THE FINAL GRADE SLOPE.
4. PLACE THE TOP MAT ON THE BACKFILL AND CLIP TO THE SECOND MAT FACES WITH HOG RINGS.
5. PLACE AND COMPACT THE FINAL COVER OVER THE CAP MATS.

NOT TO SCALE

SECTION B
NOT TO SCALE 2,3



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PLACE THE FIRST COURSE OF SOIL REINFORCEMENT MATS ON PREPARED FOUNDATION.

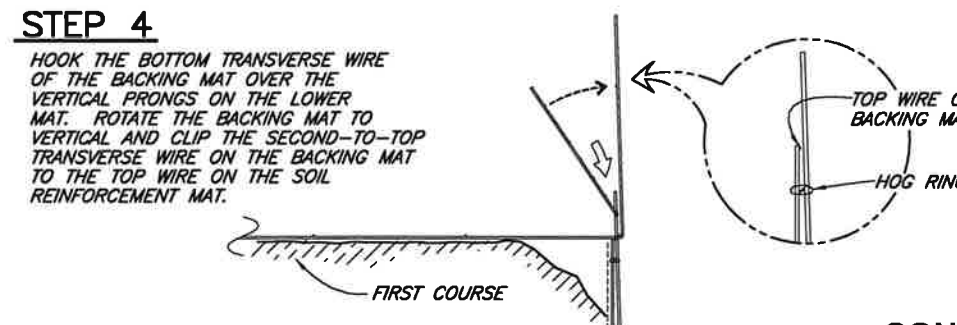


PLACE AND COMPACT THE BACKFILL IN LAYERS AND DENSITIES AS SPECIFIED IN THESE PLANS. LEAVE A VOID AT THE FACE AS SHOWN.

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.



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 REINFORCEMENT MAT.



INSTALL THE FILTER FABRIC.
PLACE AND COMPACT THE BACKFILL TO THE BASE
ELEVATION OF THE NEXT MAT.
REPEAT STEPS 3 THRU 5 TO THE 2ND LIFT FROM TOP.



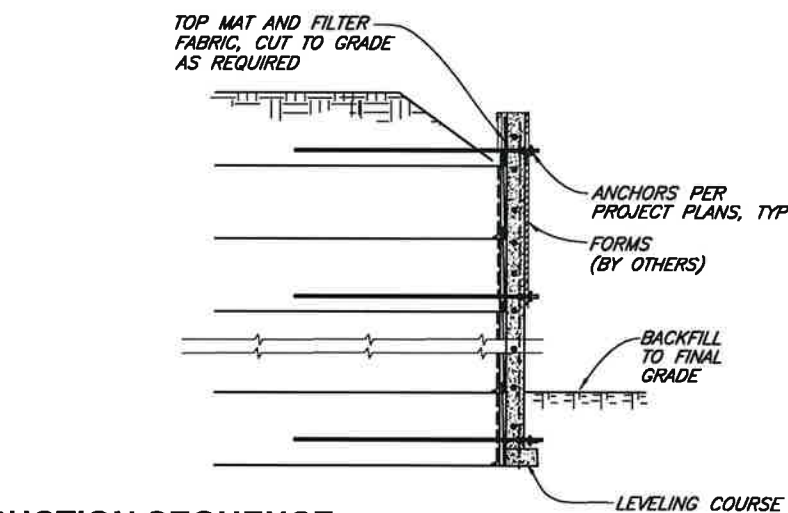
**PLACE THE TOP LIFT PRONGLESS CAP MAT AND
FILTER FABRIC.**

BACKFILL "A" TO 2'-0" MINIMUM COVER OVER THE TOP MAT (STANDARD MAT).
INSTALL FILTER FABRIC OR COAL-TAR PITCH EMULSION BARRIER AT FACE OF WALL.

INSTALL REINFORCING FOR CAST-IN-PLACE FACE.



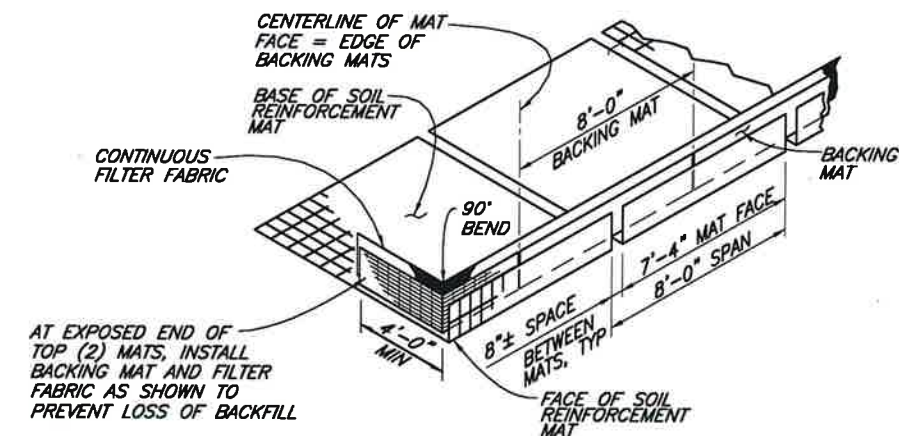
ATTACH THE FORMS TO THE FACING ANCHORS.
CAST CONCRETE FACING.
STRIP FORMS AND BACKFILL AT TOE TO FINAL GRADE.
FINISH TOP OF WALL PER PROJECT PLANS.



NOT TO SCALE



NOT TO SCALE



NOT TO SCALE



5/6/20

E.R.S.

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CAD: || EUREKA | PROJECTS | 2020 | 020026-SR-167-BRIDGE | DWGS | 020026-SR167-R2.DWG
(HRW 019510 BE)

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING

1" 

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

812 W. WABASH AVE.
EUREKA, CA. 95501
WWW.SHN-ENGR.COM
707-441-8855



BY	KJN	KJN
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WSDOT REVIEW COMMENTS
PLAN CHECK COMMENTS

05/06/2011	05/06/2011
05/06/2011	05/06/2011

DSGN	<i>KJN</i>
DR	<i>NMD</i>
CHK	<i>KJN</i>

WSDOT, CONT# 9333
SR 167/70TH AVE E. VICINITY BRIDGE REPLACEMENT
FIFE, PIERCE COUNTY, WASHINGTON
WALL COMPONENTS AND

SHEET
6 OF 6

DATE 3/31/
BROJ. NO.

020026