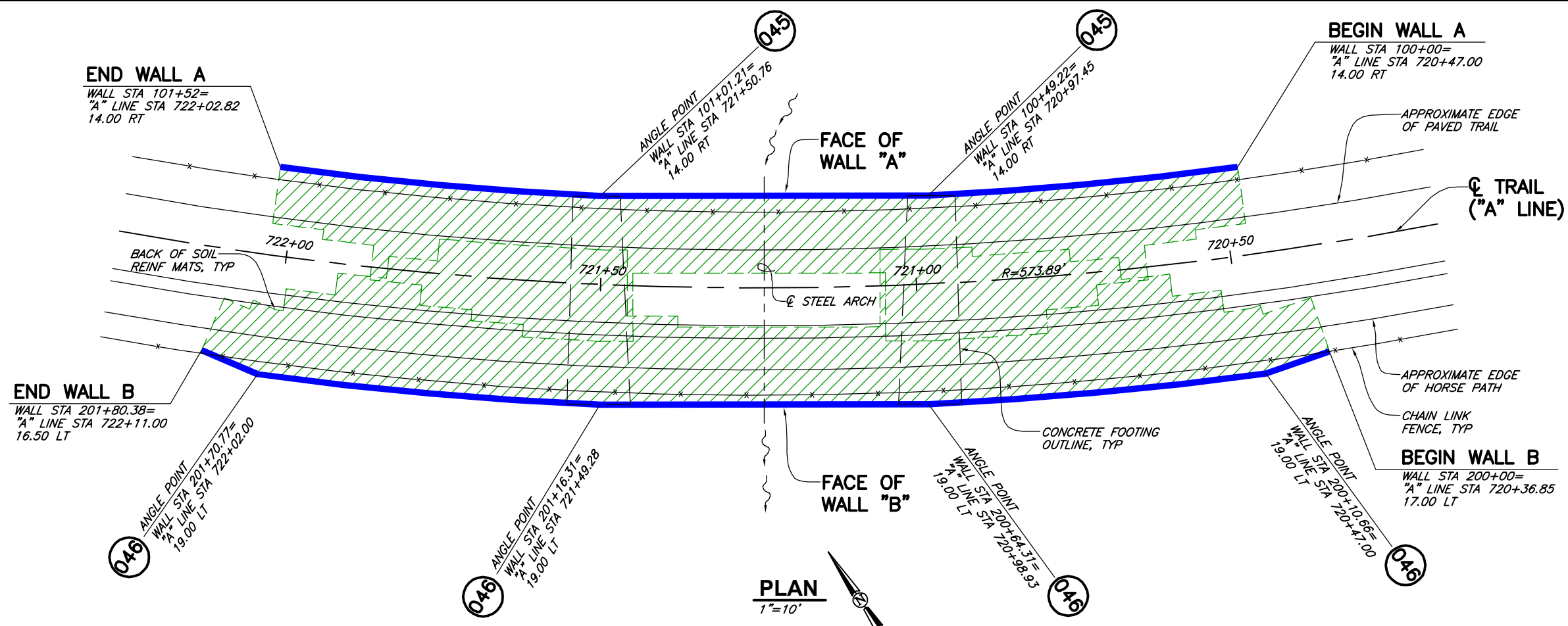


CAD: \\EUREKA\SURVNEW\PROJECTS\2017\017166-FOOTHILLS-TR\DWGS\017166-FOOTHILLS-R1.DWG (HRW 161.08 BW)



DESIGN NOTES

- DESIGN IS BASED ON THE ASSUMPTION THAT BACKFILL WITHIN THE REINFORCED SOIL MASS, METHODS OF CONSTRUCTION AND QUALITY OF MATERIALS CONFORM TO THE REQUIREMENTS OF HILFIKER RETAINING WALLS.
- ASSUMED SOIL CHARACTERISTICS:
 WALL BACKFILL:
 UNIT WEIGHT: 130 PCF
 INTERNAL FRICTION ANGLE: 36°
 COHESION: 0 PSF
 RANDOM BACKFILL:
 UNIT WEIGHT: 130 PCF
 INTERNAL FRICTION ANGLE: 36°
 COHESION: 0 PSF
 COEFFICIENT OF ACTIVE SOIL PRESSURE: 0.260
 FOUNDATION SOILS:
 FRICTION ANGLE FOR SLIDING: 34°
 COHESION: 0 PSF
 MAXIMUM APPLIED BEARING PRESSURE: 6.96 KSF (FACTORED)
 5.00 KSF (UNFACTORED) (D.L.+L.L.)
 IF ACTUAL CHARACTERISTICS, GRADES OR DIMENSIONS OF SOIL MATERIALS DIFFER FROM THOSE LISTED ABOVE OR SHOWN ON THE PLANS HILFIKER RETAINING WALLS SHALL BE NOTIFIED TO EVALUATE THE NEED TO REDESIGN.
- THE DESIGN REQUIRES A NON-SATURATED BACKFILL. SURFACE AND SUB-SURFACE DRAINAGE CONTROL MAY BE REQUIRED TO PREVENT SATURATION OF THE BACKFILL OR RELIEVE HYDROSTATIC PRESSURES.
 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.
- IF THE WALL BACKFILL CONTAINS MORE THAN 50% BY WEIGHT SANDS AND FINES (PASSING THE NO. 4 SIEVE) GRAVEL OR OTHER METHODS AS APPROVED BY THE HILFIKER COMPANY SHALL BE USED TO CONTAIN THE BACKFILL AT THE FACE OF THE WALL.
- REFERENCE DOCUMENTS:
 ELECTRONIC FILES IN .PDF FORMAT, PREPARED BY PIERCE COUNTY PUBLIC WORKS, DRAWINGS DATED MAY 10, 2017.

WALL QUANTITIES

BASE DEPTH	CAP MAT W4.5xW3.5 (8x12)	PRONGLESS MAT W4.5xW3.5 (8x12)	STANDARD MAT W7xW4 (8x21)
24'-6"	-	-	80
24'-0"	6	6	-
23'-0"	7	7	-
22'-9"	-	-	88
21'-0"	3	3	34
19'-3"	-	-	20
19'-0"	2	2	-
17'-6"	-	-	17
17'-0"	2	2	-
16'-0"	2	2	-
15'-9"	-	-	15
14'-0"	3	3	19
12'-3"	-	-	31
12'-0"	9	9	-
10'-6"	-	-	15
10'-0"	4	4	-
9'-0"	4	4	-
8'-9"	-	-	5
WALL FACE SUPPLIED	6,040 SQ FT		
MSE BACKFILL (BY OTHERS)	*4,231 CU YD		
BACKING MATS 2' HIGH	374 EA		
BACKING MATS 3' HIGH	23 EA		
HARDWARE CLOTH 2'-2" HIGH	32 ROLLS		
HOG RINGS	8,800 EA		
PLIERS	4 EA		

* TOP MAT TO BOTTOM MAT, NEAT.



EXPIRES: 2/09/2018
WELDED WIRE WALLS

HILFIKER RETAINING WALLS



1902 Hilfiker Lane
 Eureka, CA 95503-5711
 TOLL-FREE 800.762.8962
 PH 707.443.5093 FAX 707.443.2891
 WEBSITE www.hilfiker.com E-MAIL info@hilfiker.com



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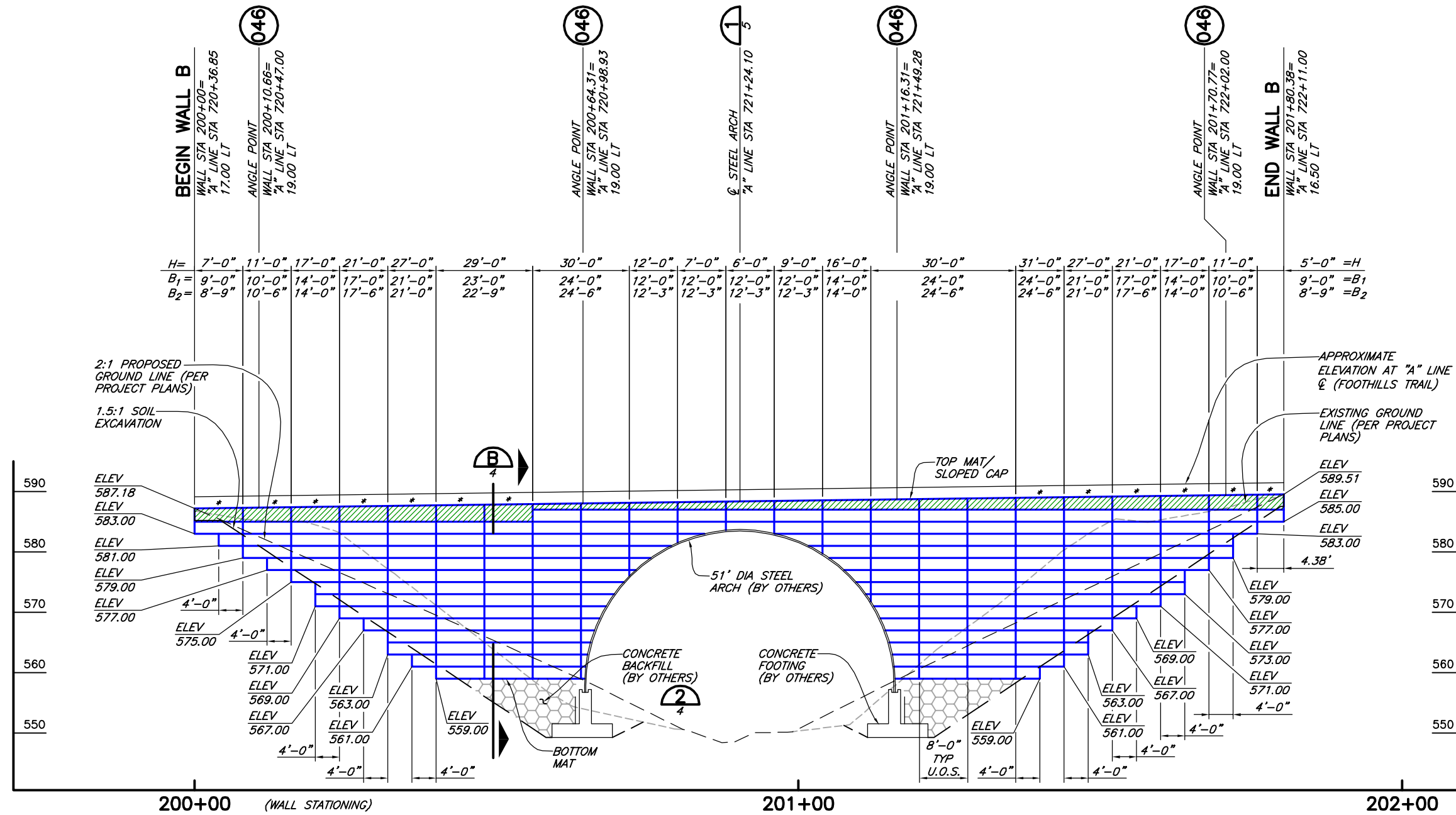
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 812 W. Wabasha
 Eureka, CA 95501 FAX (707)441-8877

PLAN CHECK COMMENTS
 K/JM BY
 08/17/17 DATE
 NO.

PIERCE COUNTY PUBLIC WORKS (PROC. #6159)
 FOOTHILLS TRAIL BRIDGE
 BUCKLEY, PIERCE COUNTY, WASHINGTON
WALL PLAN, NOTES & QUANTITIES

SHEET
1 OF 6
 DATE 7/20/17
 PROJ. NO. 017166

CAD: \\EUREKA\SRVNEW\PROJECTS\2017\017166-FOOTHILLS-TR\DWGS\017166-FOOTHILLS-R1.DWG
(HRW 161.08 BW)



WALL B
DEVELOPED ELEVATION (BACKFACE)
(LOOKING DOWNSTREAM)

1"=10' HORIZ AND VERT
U.O.S.= UNLESS OTHERWISE STATED
* 3'-0" HIGH BACKING MATS

- WWR MAT LEGEND**
- 8x12, W4.5xW3.5 WWR SOIL REINFORCING MATS
 - 8x21, W7xW4 WWR SOIL REINFORCING MATS



EXPIRES: 2/09/2018
WELDED WIRE WALLS

HILFIKER RETAINING WALLS



1902
1902
1902

1902

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1	08/17/17	KJM		PLAN CHECK

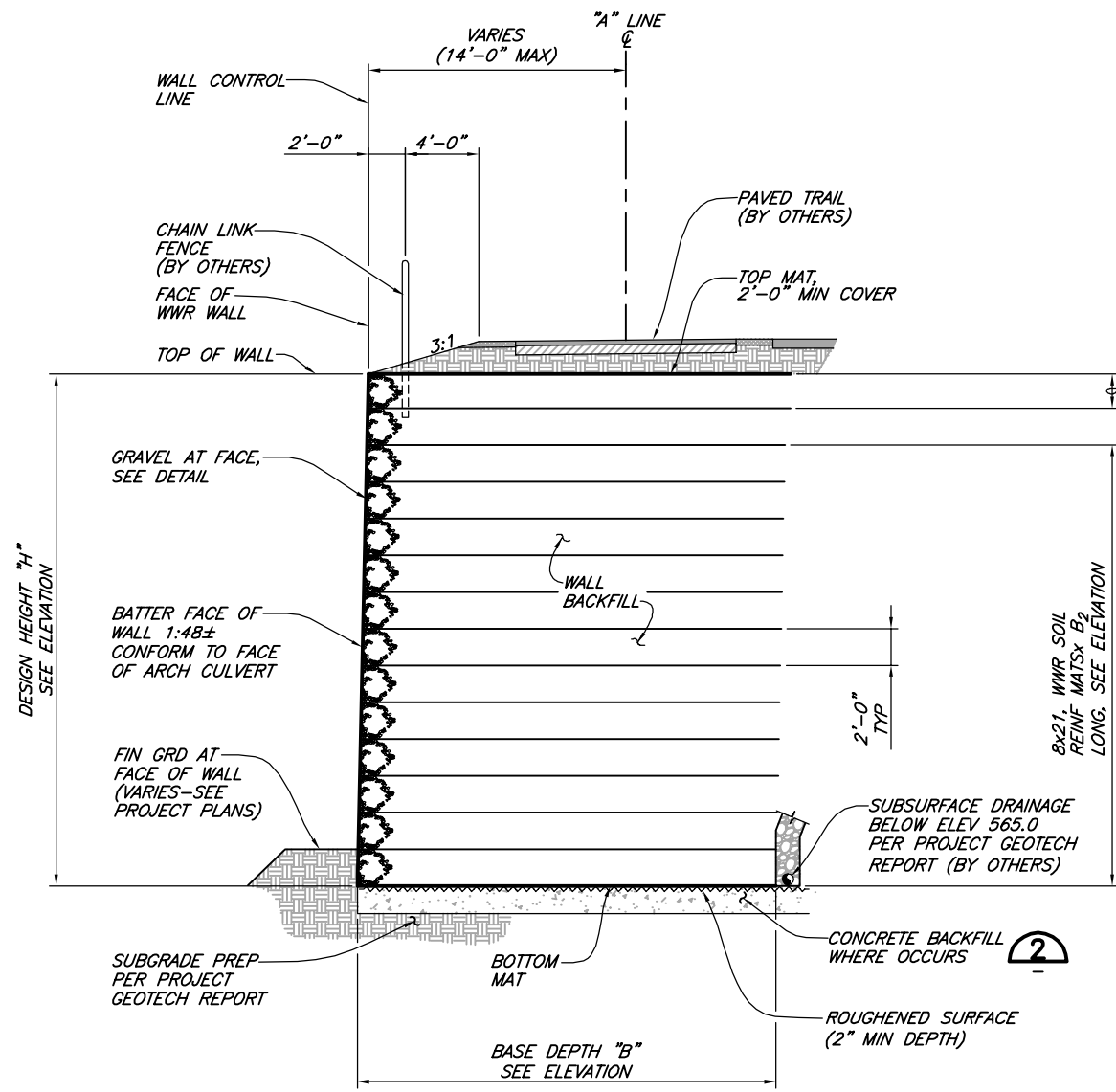
DESIGN	DR	CHK	APPROV
KJM	MMD	KJM	

PIERCE COUNTY PUBLIC WORKS (PROC. #6159)
FOOTHILLS TRAIL BRIDGE
BUCKLEY, PIERCE COUNTY, WASHINGTON

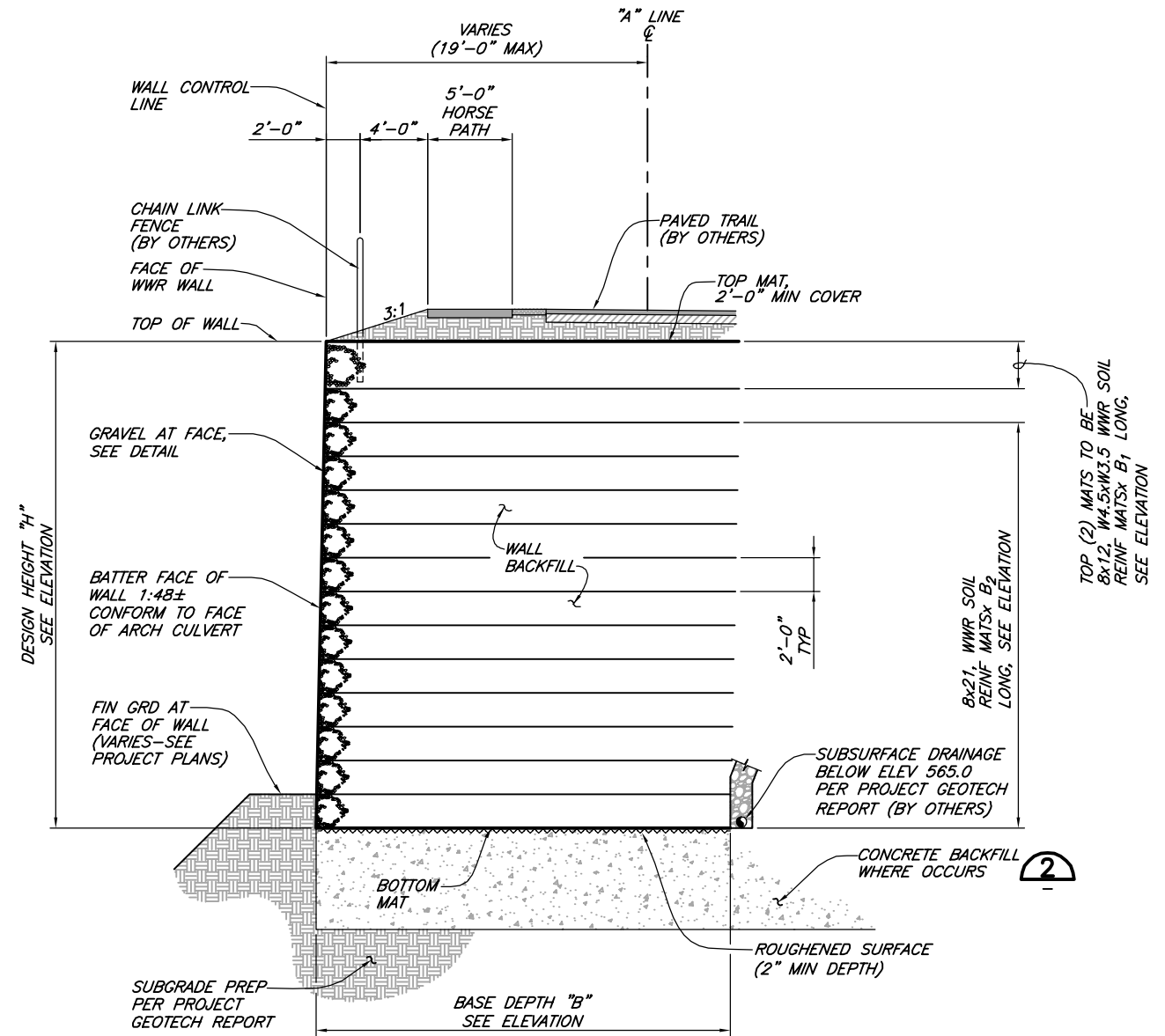
WALL B ELEVATION

SHEET 3 OF 6
DATE 7/20/17
PROJ. NO. 017166

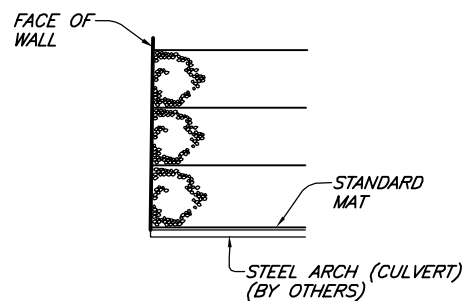
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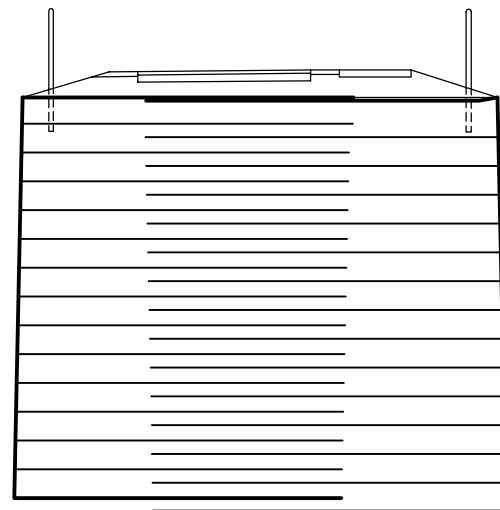
SECTION-WALL A
NOT TO SCALE



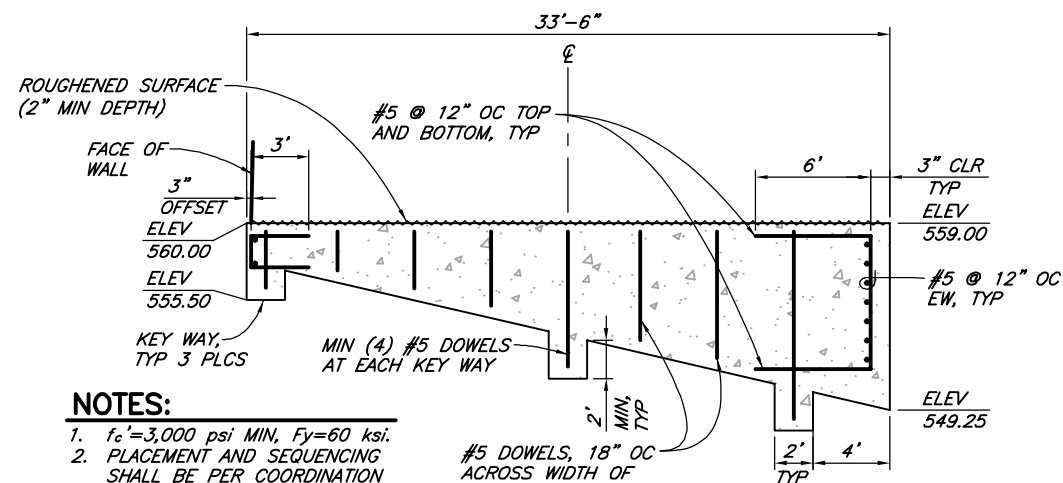
SECTION-WALL B
NOT TO SCALE



WELDED WIRE WALL AT HEADWALL
NOT TO SCALE



OVERLAPPING MATS
NOT TO SCALE



NOTES:

- $f_c = 3,000$ psi MIN, $F_y = 60$ ksi.
- PLACEMENT AND SEQUENCING SHALL BE PER COORDINATION DRAWINGS BY PROSPECT CONSTRUCTION, INC. DATED 7/24/2017.

DETAIL 2
NOT TO SCALE



EXPIRES: 2/09/2018
WELDED WIRE WALLS

HILFIKER RETAINING WALLS



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 FAX (707)441-8877

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 NO. 3
 BY: K/JM
 REVISION:

SECTIONS & DETAILS
 PIERCE COUNTY PUBLIC WORKS (PROC. #6159)
 FOOTHILLS TRAIL BRIDGE
 BUCKLEY, PIERCE COUNTY, WASHINGTON

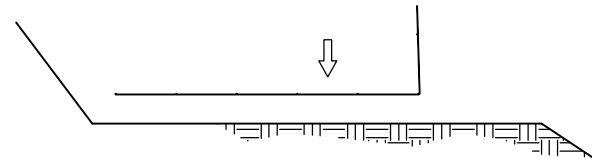
SHEET 4 OF 6
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STEP 1

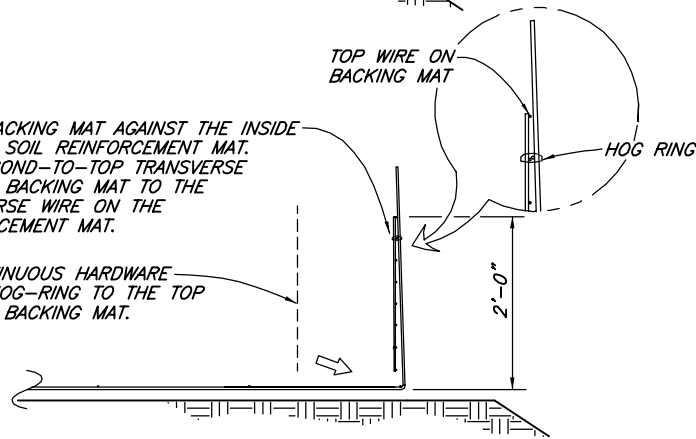
PLACE THE FIRST COURSE OF SOIL REINFORCEMENT MATS ON PREPARED FOUNDATION.



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.

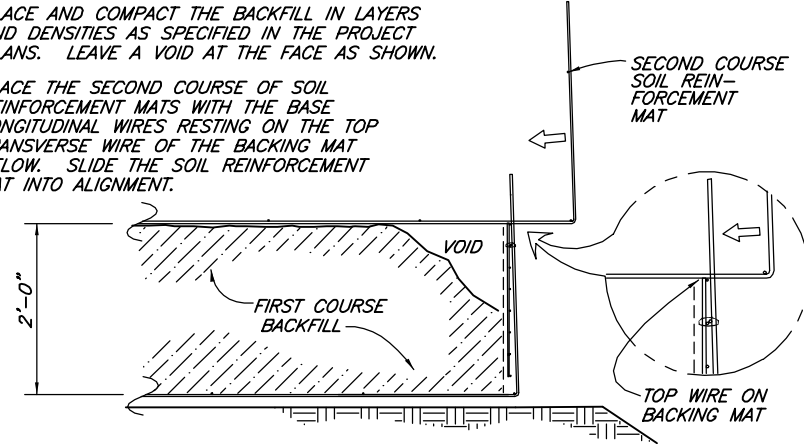
INSTALL CONTINUOUS HARDWARE CLOTH AND HOG-RING TO THE TOP WIRE ON THE BACKING MAT.



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.

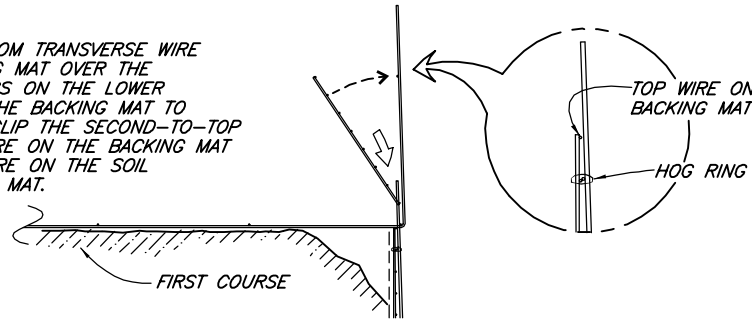


CONSTRUCTION SEQUENCE

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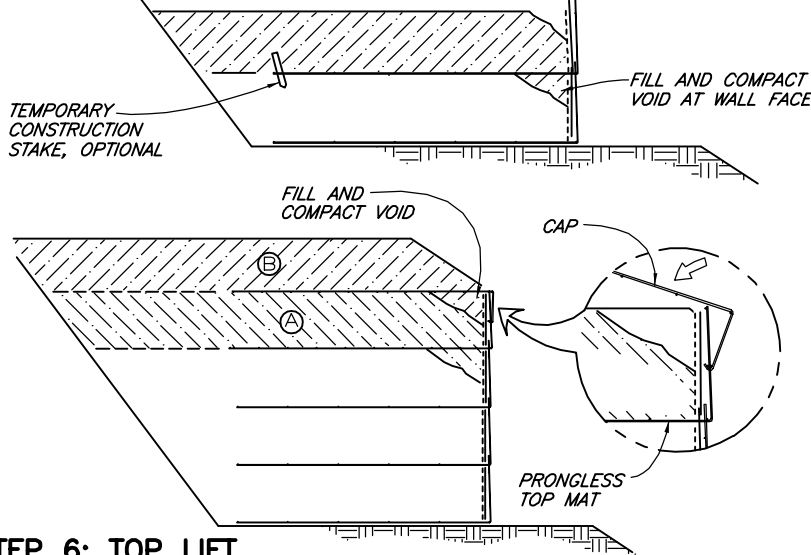
STEP 4

HOOKE 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.



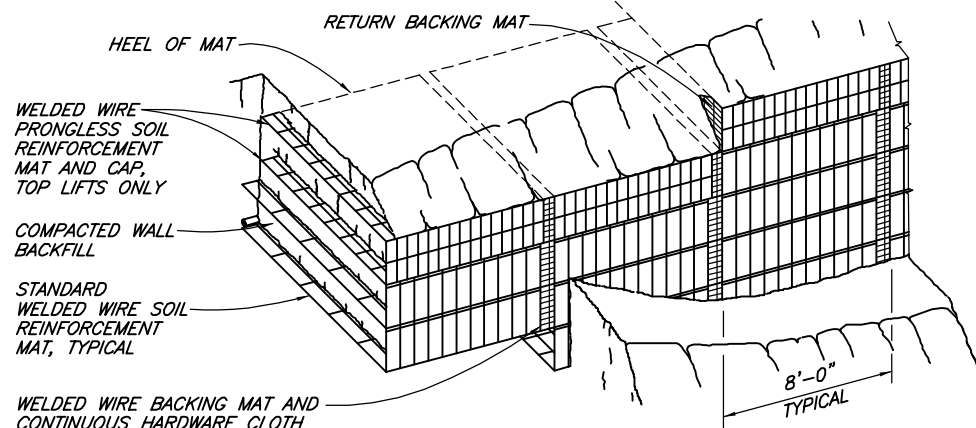
STEP 5

INSTALL THE HARDWARE CLOTH. PLACE AND COMPACT THE BACKFILL TO THE BASE ELEVATION OF THE NEXT MAT. REPEAT STEPS 3 THRU 5 TO THE TOP LIFT.



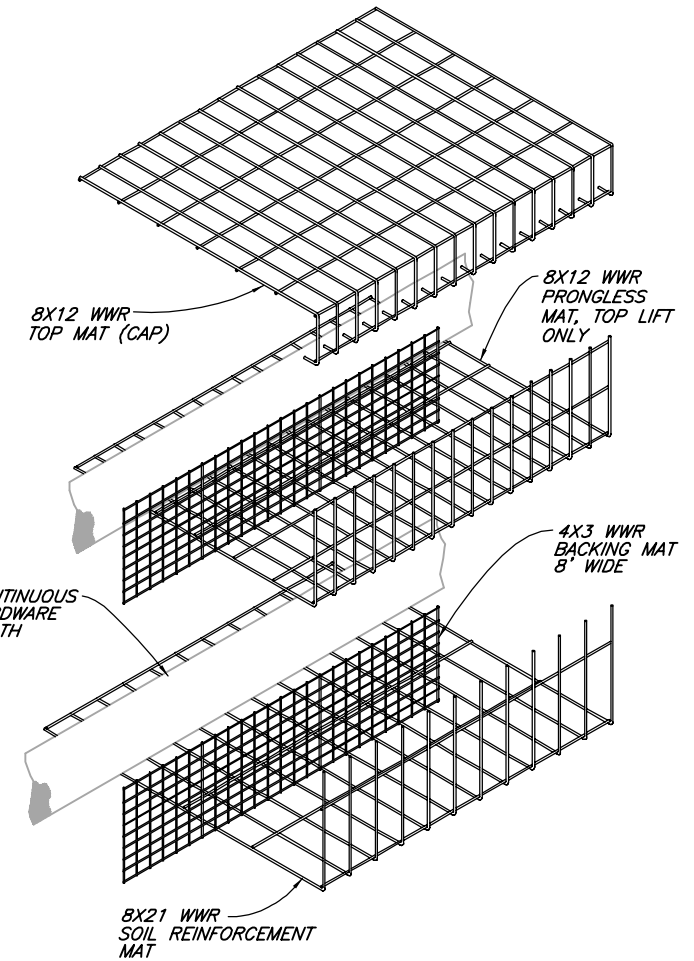
STEP 6: TOP LIFT

PLACE THE TOP LIFT PRONGLESS MAT, BACKING MAT AND HARDWARE CLOTH. 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 1'-6" MINIMUM COVER OVER THE CAP.



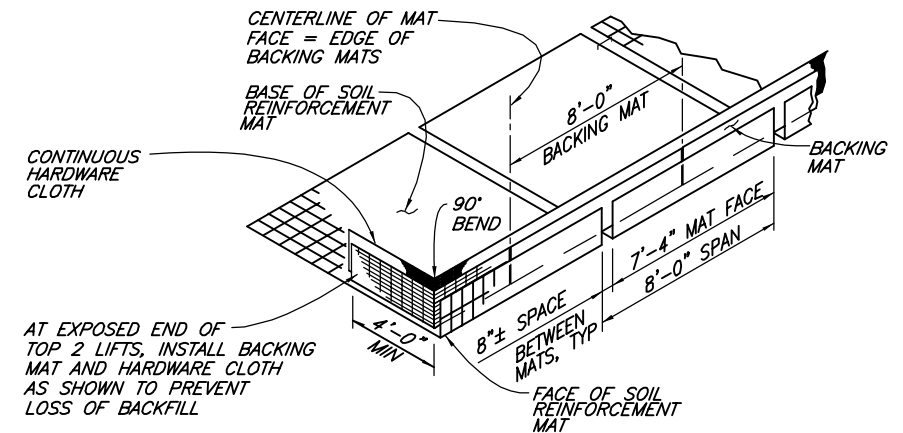
PICTORIAL ELEVATION

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WALL COMPONENTS

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ASSEMBLED WALL COMPONENTS

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BY	REVISION	NO.	DATE
DR	K/JN		
CHK	MMD		
APVD	K/JN		
DSGN	K/JN		
PIERCE COUNTY PUBLIC WORKS (PROG. #6159) FOOTHILLS TRAIL BRIDGE BUCKLEY, PIERCE COUNTY, WASHINGTON			
WALL COMPONENTS AND CONSTRUCTION SEQUENCE			
SHEET 6 OF 6			
DATE 7/20/17			
PROJ. NO. 017166			

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