

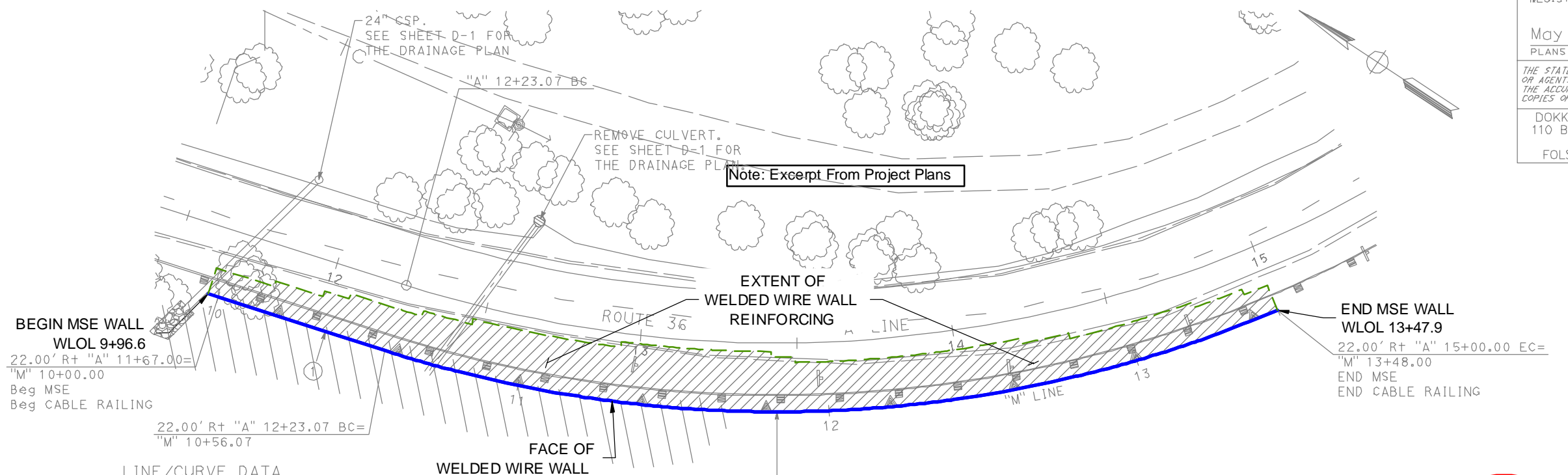
DESIGN NOTES

- 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: 120 pcf
 Internal Friction Angle: 34°
 Cohesion = 0 psf
 Retained Backfill:
 Unit Weight: 120 pcf
 Internal Friction Angle: 30°
 Cohesion = 0 psf
 Foundation Soils:
 Unit Weight: 120 pcf
 Internal Friction Angle: 30°
 Cohesion = 150 psf
 Traffic Surcharge Loading (LL) = 240 psf
- If during construction, the wall location, structure location or loads are different than that proposed in this plan set and calculation package, HRW shall be notified to evaluate the need for a 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.
- Design Procedure:
 Mechanically Stabilized Earth walls and Reinforced Soil Slopes, FHWA report No. FHWA-NHI-00-043.
- All information hereon is derived from the reference drawings, and is subject to geometric and geotechnical confirmation. The applicable Hilfiker construction guide and specifications are an integral part of this submittal.
- Hilfiker Retaining Walls shall be responsible only for the internal stability of the retaining wall, and not for global stability or foundation bearing capacity. The Owner shall be responsible for global stability and foundation competence. The Owner is responsible for all job site drainage, safety and fall protection provisions for workers in compliance with OSHA and any other applicable requirements.

Worst Case Applied Bearing Pressure by MSE Wall - @ 22' Height - 2850 psf.

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.

DATA, CONTACT THE DISTRICT OFFICE.



INSTALLED QUANTITIES:

WELDED WIRE WALL : 5856 FT²

LINE / CURVE DATA

No.	R	Δ	T	L
1	-	N15°46'57\"W	-	56.07'
2	412.00'	39°9'46\"	146.56'	293.93'

"M" PLAN
SCALE: 1"=20'

PLAN VIEW

SCALE: 1" = 40'



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REV. NO.	DATE	BY	DESCRIPTION
	3-15-22	KLC	Initial .pdf Release

HILFIKER RETAINING WALLS

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

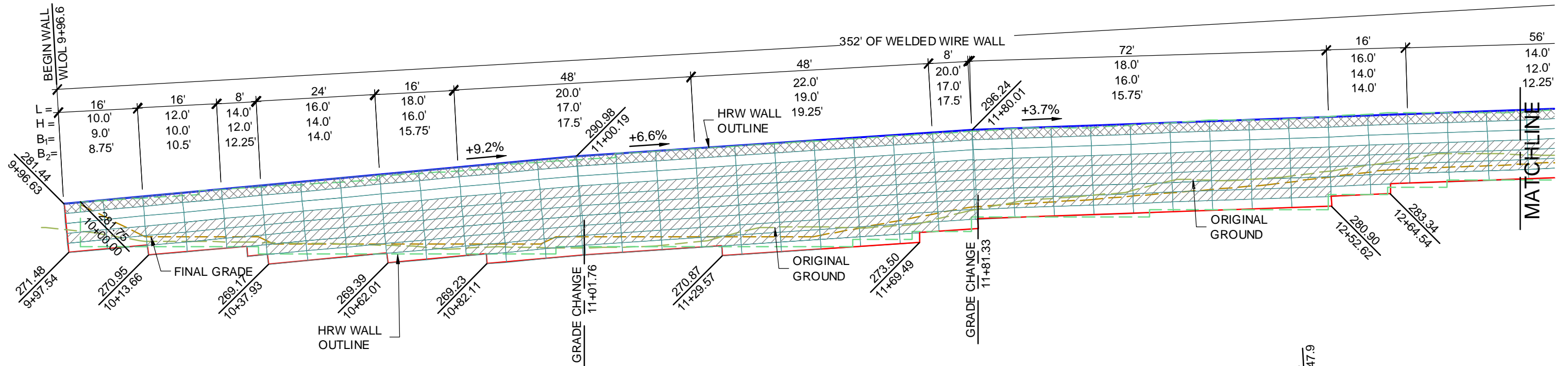
CESARETTI
 Engineered
 Solutions
 CIVIL ENGINEERING SPECIALISTS

P.O. Box 132
 Fortuna, CA 95540
 Phone (707) 725-CESR
 (707) 498-7193
 CesarettiEngineered.com
 KCesaretti@att.net

CALTRANS 01-0F1604
**MSE WELDED WIRE WALL
 PLAN VIEW & GENERAL NOTES**

HW 210803AG

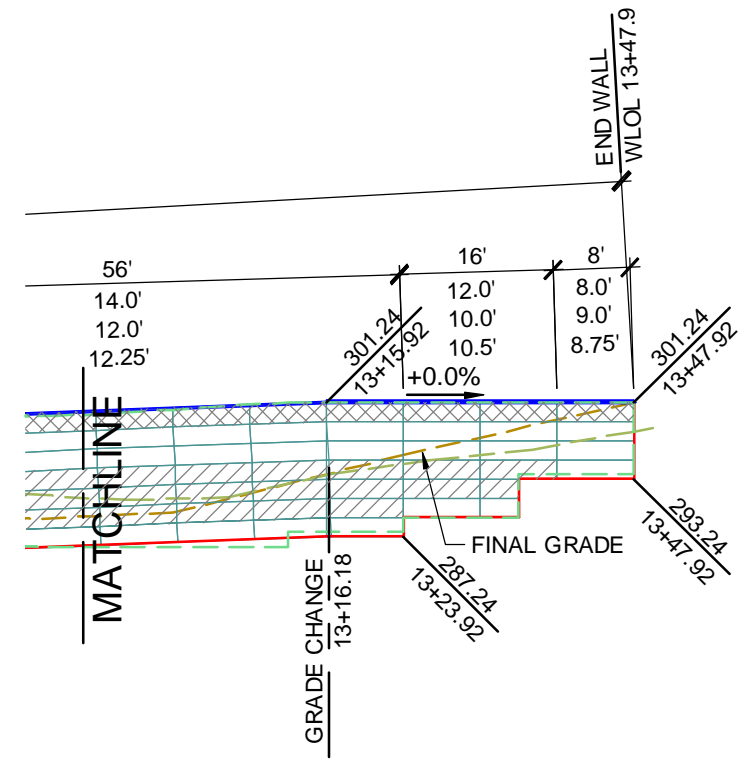
PROJECT	22-009
DATE	3-15-22
DESIGN	KLC
DRAWN	KLC
SHT	1 OF 4



ELEVATION VIEW
SCALE: 1" = 20'

WELDED WIRE WALL PARAMETERS		
Height of Wall (H) ft	Length of Cap & Prongless Mats (B ₁) ft	Base Length of Mats (B ₂) ft
≤10'	9.0'	8.75'
12'	10.0'	10.5'
14'	12.0'	12.25'
16'	14.0'	14.0'
18'	16.0'	15.75'
20'	17.0'	17.5'
22'	19.0'	19.25'

- WALL WIRE TYPE LEGEND**
FINISH: HOT DIP GALVANIZED
SERVICE LIFE: 75 YEARS
- TYPE 1 - 8X12 W4.5x3.5 MATS
 - TYPE 2 - 8x10.5 W4.5x3.5 MATS
 - TYPE 3 - 8x21 W7.0x4.0 MATS



ELEVATION VIEW (CONT'D)
SCALE: 1" = 20'



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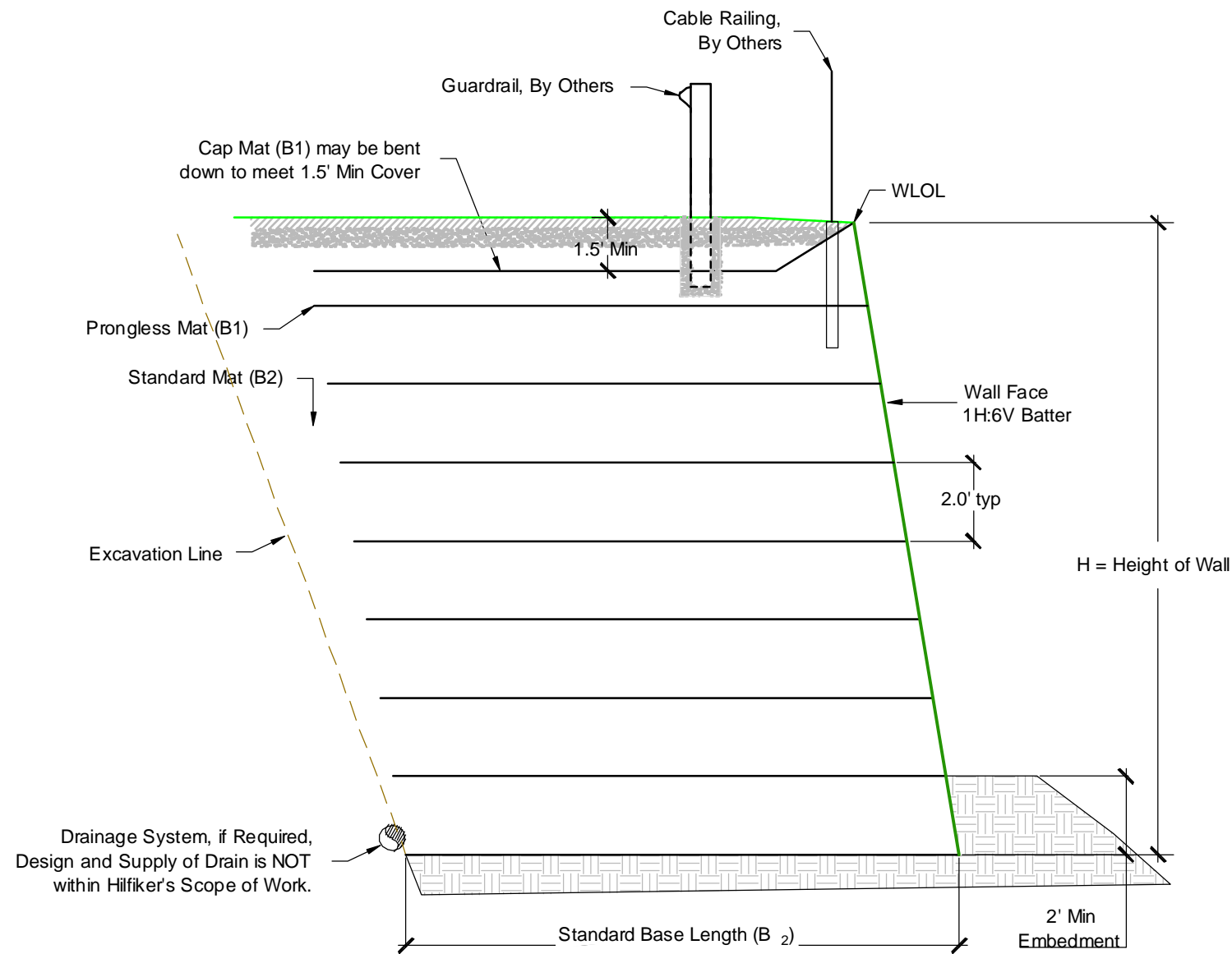
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**MSE WELDED WIRE WALL
ELEVATION VIEW**

HW 210803AG

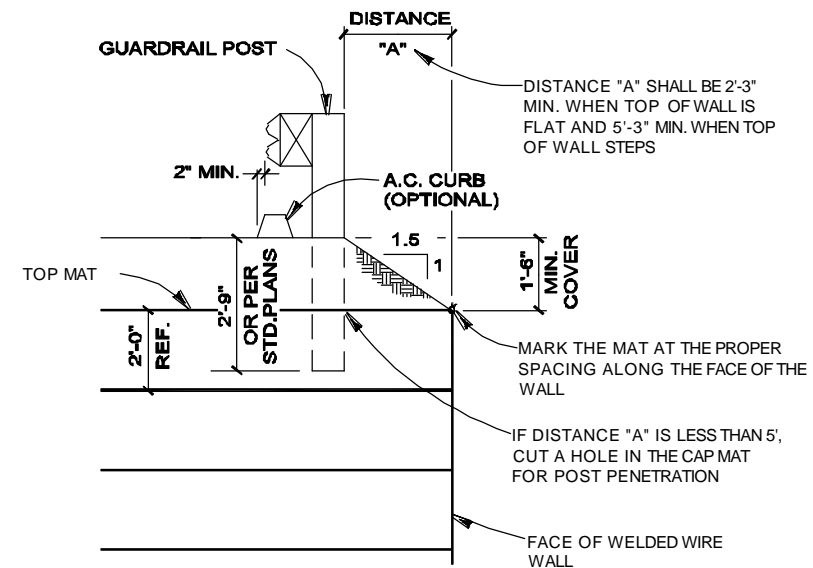
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SHT 2 OF 4

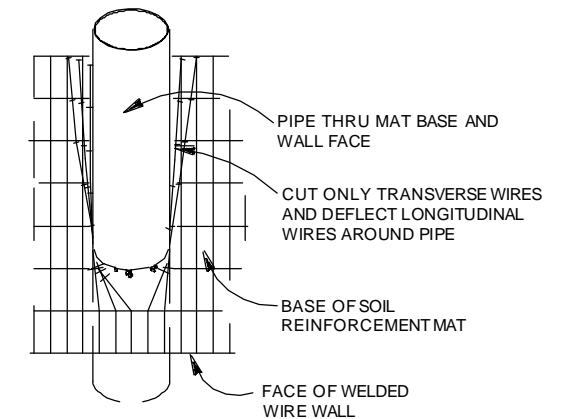


CROSS SECTION, TYP
SCALE: 1" = 4'

Drainage System, if Required, Design and Supply of Drain is NOT within Hilfiker's Scope of Work.



SECTION GUARDRAIL DETAIL
NOT TO SCALE
(FENCE DETAIL SIMILAR)

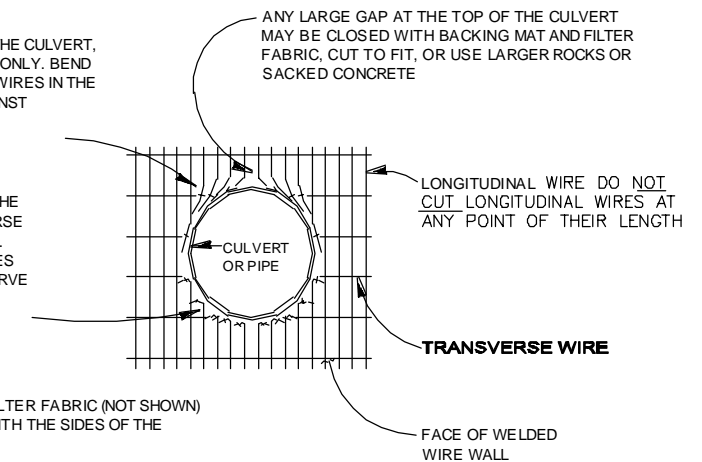


PLAN VIEW PIPE OR SLEVE PENETRATION
NOT TO SCALE

AT THE UPPER SURFACE OF THE CULVERT, CUT THE TRANSVERSE WIRES ONLY. BEND AND LIFT THE LONGITUDINAL WIRES IN THE BASE OF THE MAT TO FIT AGAINST THE SIDE OF THE CULVERT

AT THE LOWER SURFACE OF THE CULVERT, CUT THE TRANSVERSE WIRES ONLY IN THE MAT FACE. BEND THE LONGITUDINAL WIRES BACK TO FIT AGAINST THE CURVE OF THE CULVERT

NOTE: BACKING MATS AND FILTER FABRIC (NOT SHOWN) ARE TO BE CUT OFF FLUSH WITH THE SIDES OF THE CULVERT



ELEVATION CULVERT THRU WALL FACE
NOT TO SCALE

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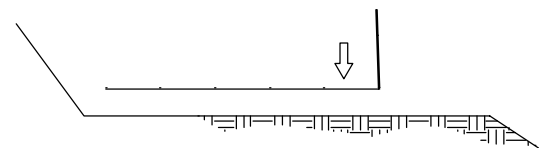
**MSE WELDED WIRE WALL
CROSS SECTION & DETAILS**

HW 210803AG

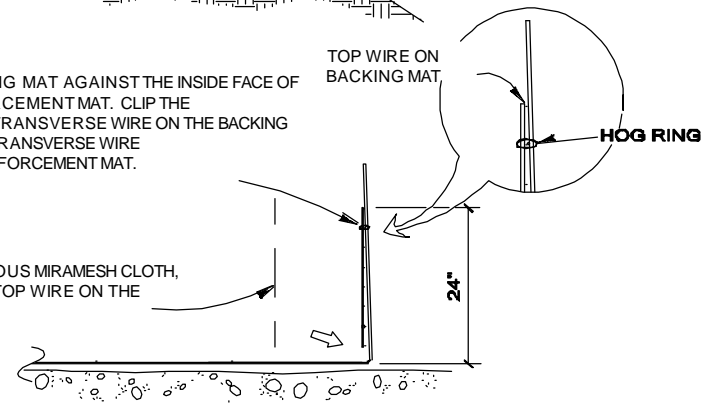
PROJECT	22-009
DATE	3-15-22
DESIGN	KLC
DRAWN	KLC
SHT	3 OF 4



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

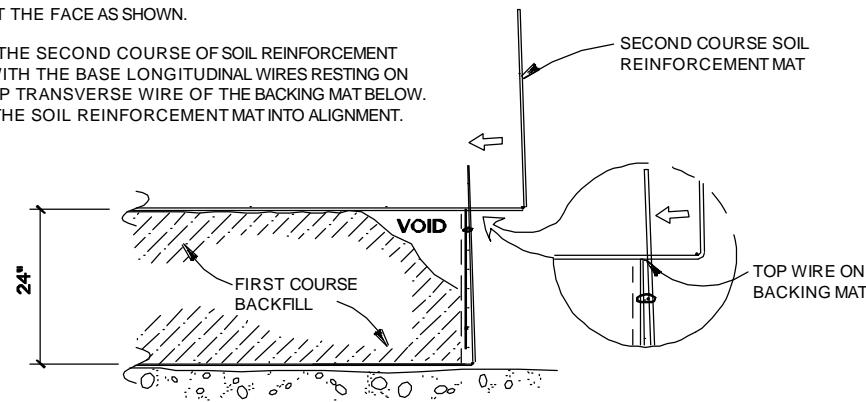


STEP 2
PLACE THE BACKING MAT AGAINST THE INSIDE FACE OF THE SOIL REINFORCEMENT MAT. CLIP THE SECOND-TO-TOP TRANSVERSE WIRE ON THE BACKING MAT TO THE TOP TRANSVERSE WIRE ON THE SOIL REINFORCEMENT MAT.

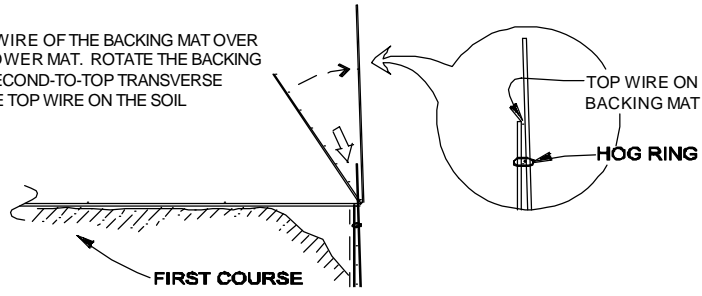


STEP 3
PLACE AND COMPACT THE BACKFILL IN LAYERS AND DENSITIES AS SPECIFIED IN THE PROJECT PLANS. LEAVE A VOID AT THE FACE AS SHOWN.

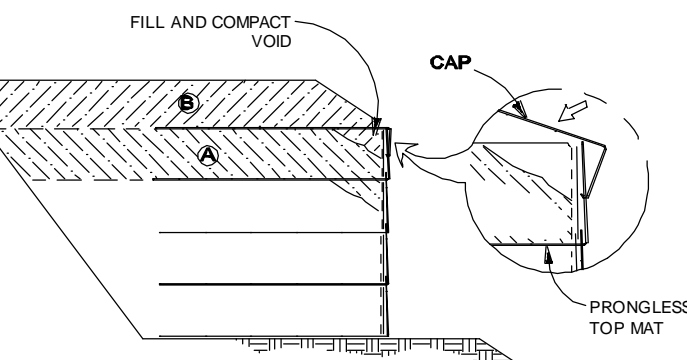
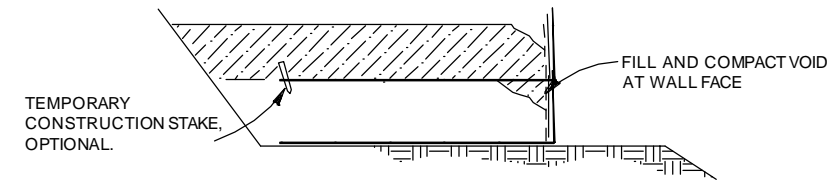
PLACE THE SECOND COURSE OF SOIL REINFORCEMENT MATS WITH THE BASE LONGITUDINAL WIRES RESTING ON THE TOP TRANSVERSE WIRE OF THE BACKING MAT BELOW. SLIDE THE SOIL REINFORCEMENT MAT INTO ALIGNMENT.



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 REINFORCEMENT MAT.

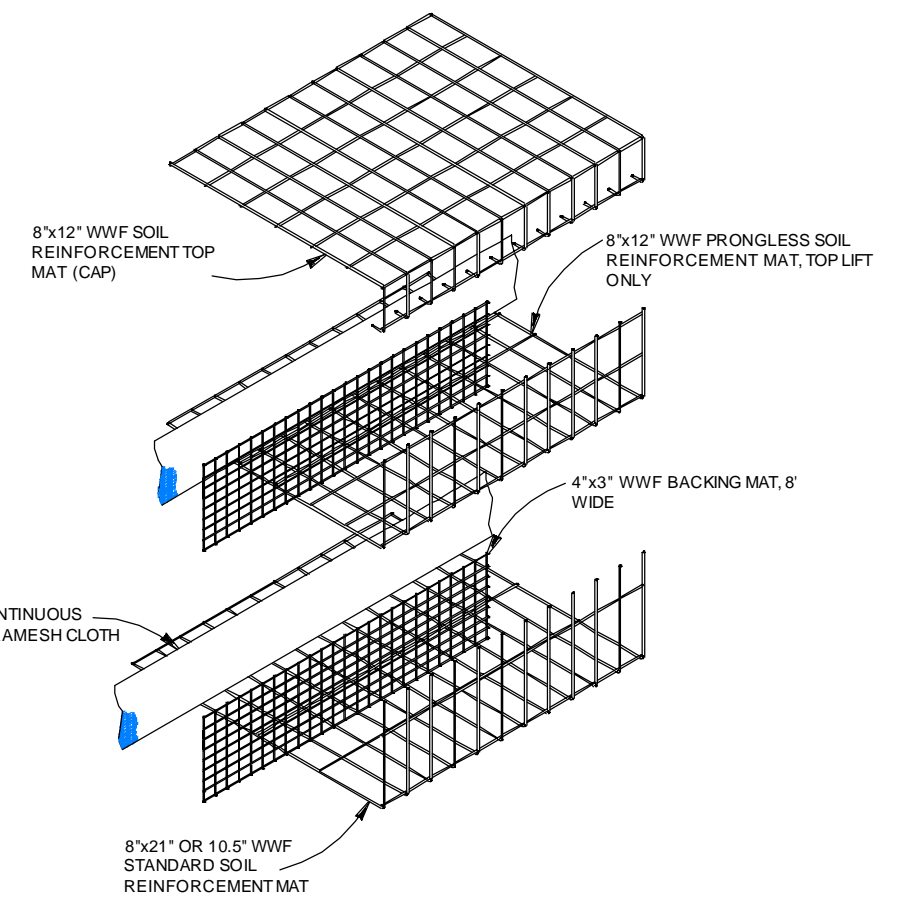


STEP 5
INSTALL THE CONTINUOUS MIRAMESH CLOTH. PLACE AND COMPACT THE BACKFILL TO THE BASE ELEVATION OF THE NEXT MAT. REPEAT STEPS 3 THROUGH 5 TO THE TOP LIFT.

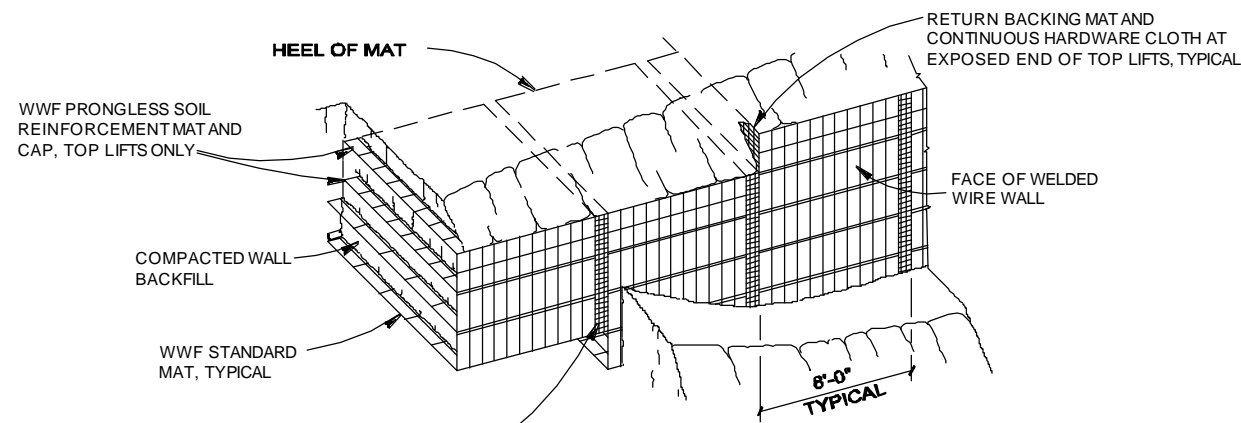


STEP 6: TOP LIFT
PLACE THE TOP LIFT PRONGLESS MAT, BACKING MAT AND CONTINUOUS MIRAMESH CLOTH. PLACE AND COMPACT BACKFILL IN AREA "A". HOOK THE CAP OVER THE MIDDLE TRANSVERSE WIRE ON THE PRONGLESS MAT, AND ROTATE INTO PLACE. BACKFILL "B" TO 1'-6" MIN. COVER OVER THE CAP.

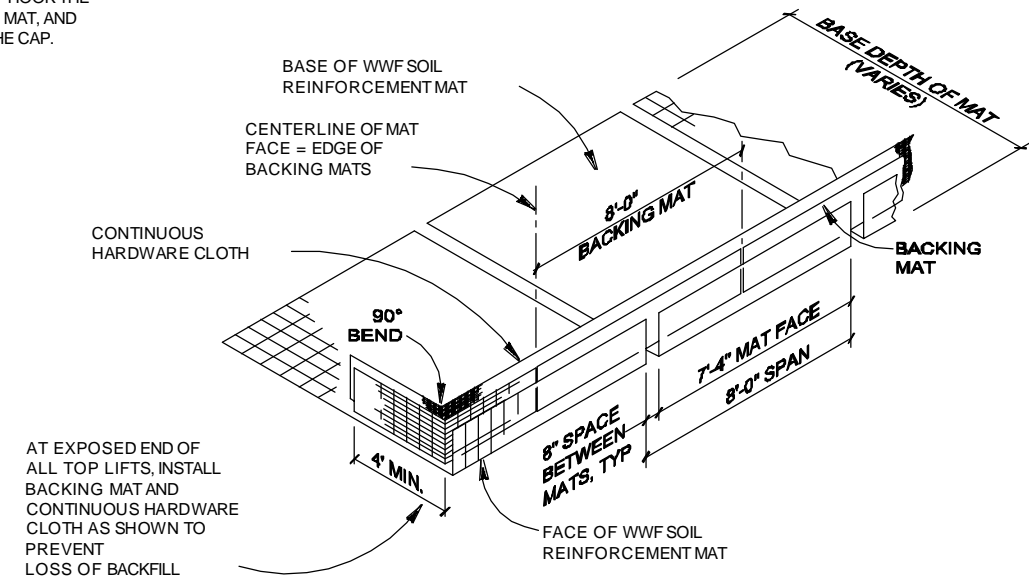
CONSTRUCTION SEQUENCE
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WALL COMPONENTS
NOT TO SCALE



PICTORIAL ELEVATION
NOT TO SCALE



ISOMETRIC VIEW
WELDED WIRE WALL COMPONENTS WITH RETURN MAT
NOT TO SCALE

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SHT	4 OF 4