DESIGN NOTES

1. 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.

2. 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: 34°
     - Cohesion = 0 psf
   - Foundation Soils:
     - Unit Weight: 120 pcf
     - Internal Friction Angle: 34°

   Traffic Surcharge Loading (LL) = 250 psf

   Worst Case Unfactored Bearing Load by MSE Wall- @ 14' Height - 3,825 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.

3. 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.

4. 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.

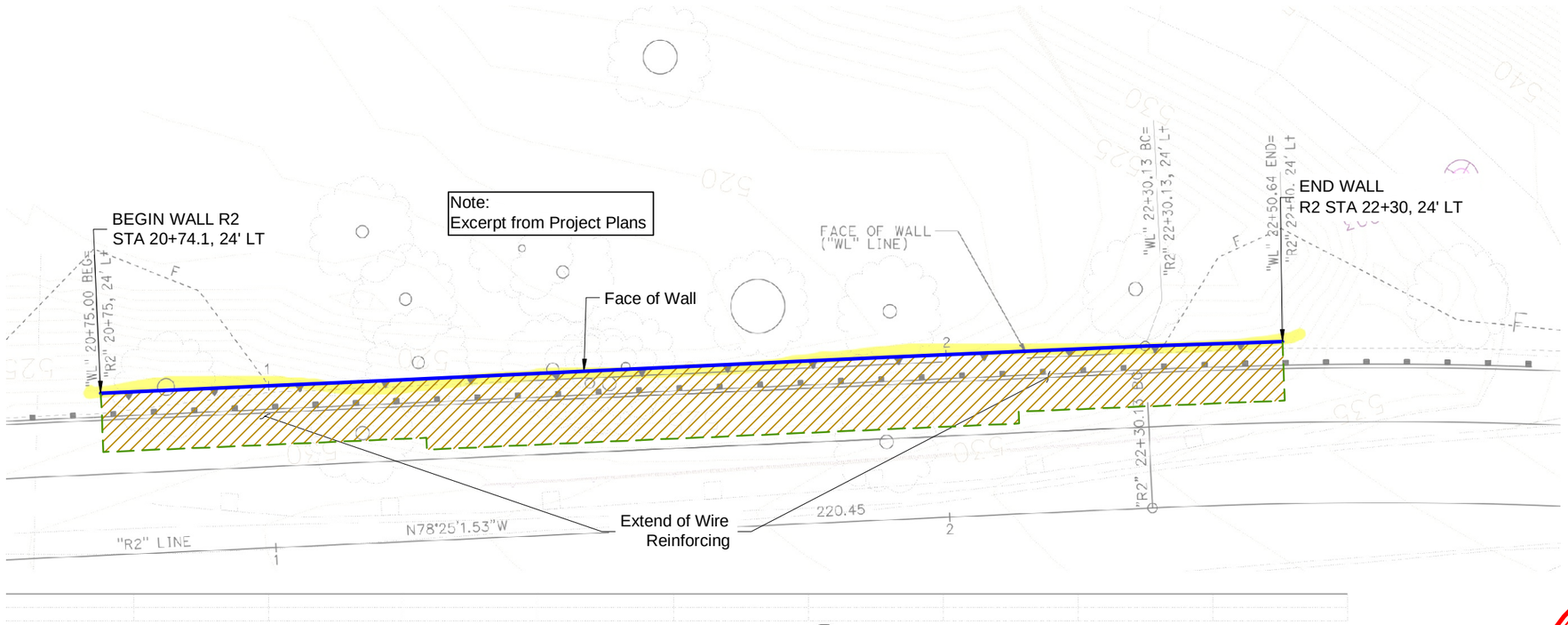
5. Design Procedure:
   Mechanically Stabilized Earth walls and Reinforced Soil Slopes, FHWA report No. FHWA-NHI-00-043.

6. 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.

7. 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 Prime Contractor shall be responsible for global stability and foundation competence. The Prime Contractor is responsible for all job site drainage, safety and fall protection provisions for workers in compliance with OSHA and any other applicable requirements.

SUPPLIED QUANTITIES:

WWW TOTAL AREA:	1968 FT^2



PLAN VIEW

SCALE: 1" = 20'

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.

REGISTERED PROFESSIONAL ENGINEER
KARL L. CESARETTI
NO. C69828
Exp. 6/30/24
CIVIL
STATE OF CALIFORNIA

HW 230406AW

REV.NO.	DATE	BY	DESCRIPTION
	04-14-23	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

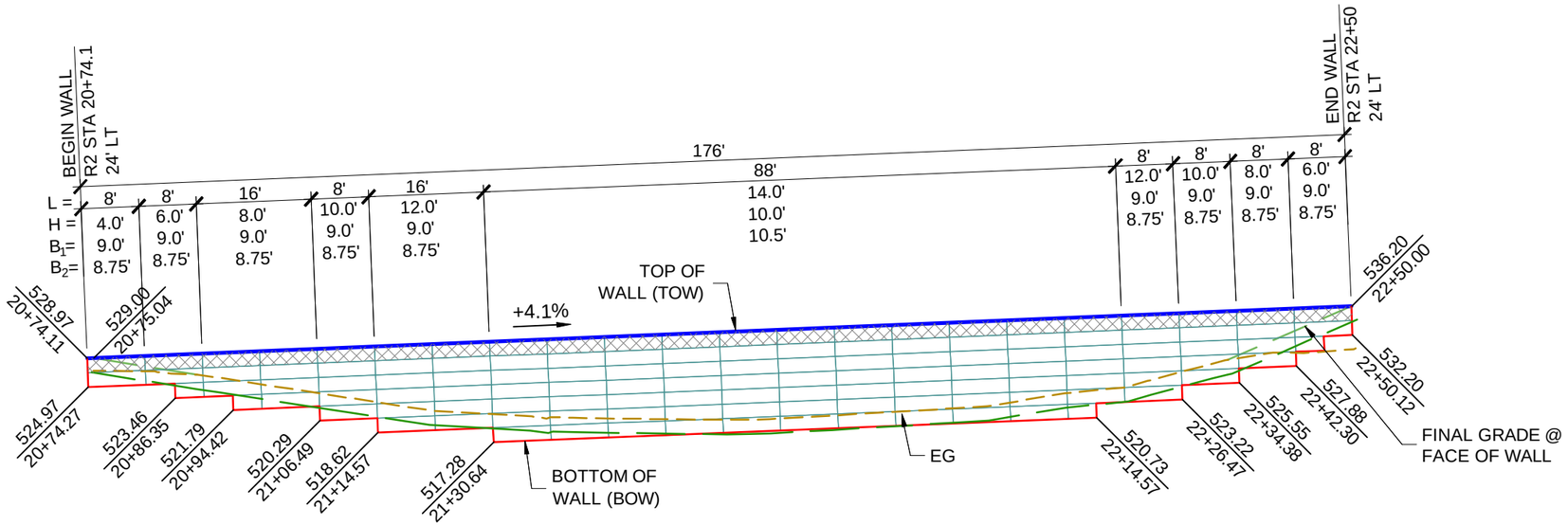
CESARETTI Engineered Solutions
CIVIL ENGINEERING SPECIALISTS
P.O. Box 132
Fortuna, CA 95540
Phone (707) 725-CESR
(707) 498-7193
CesarettiEngineered.com
KCesaretti@att.net

CT - 101 Cooks Valley EFA Wall

MSE WELDED WIRE WALL
PLAN VIEW & GENERAL NOTES

PROJECT	23-018
DATE	4-14-23
DESIGN	KLC
DRAWN	KLC

SHT 1 OF 4



ELEVATION (REAR) 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
≤12'	9.0'	8.75'
14'	10.0'	10.5'

Cap & Top Mats (B1) are: 8x12 W4.5x3.5 WWR (Type 1)
Standard Mats (B2) are: 8x10.5 W7.0x3.5 WWR (Type 2)

Finish: Commercial Galvanized - 75 Year Service Life

WALL WIRE TYPE LEGEND

FINISH: COMMERCIAL GALVANIZED
SERVICE LIFE: 75 YEAR

TYPE 1 - 8X12 W4.5x3.5 MATS
TYPE 2 - 8x10.5 W7.0x3.5 MATS

REGISTERED PROFESSIONAL ENGINEER
KIM CESARETTI
NO. C69828
Exp. 6/30/24
CIVIL
STATE OF CALIFORNIA

HW 230406AW

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.NO.	DATE	BY	DESCRIPTION
	04-14-23	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

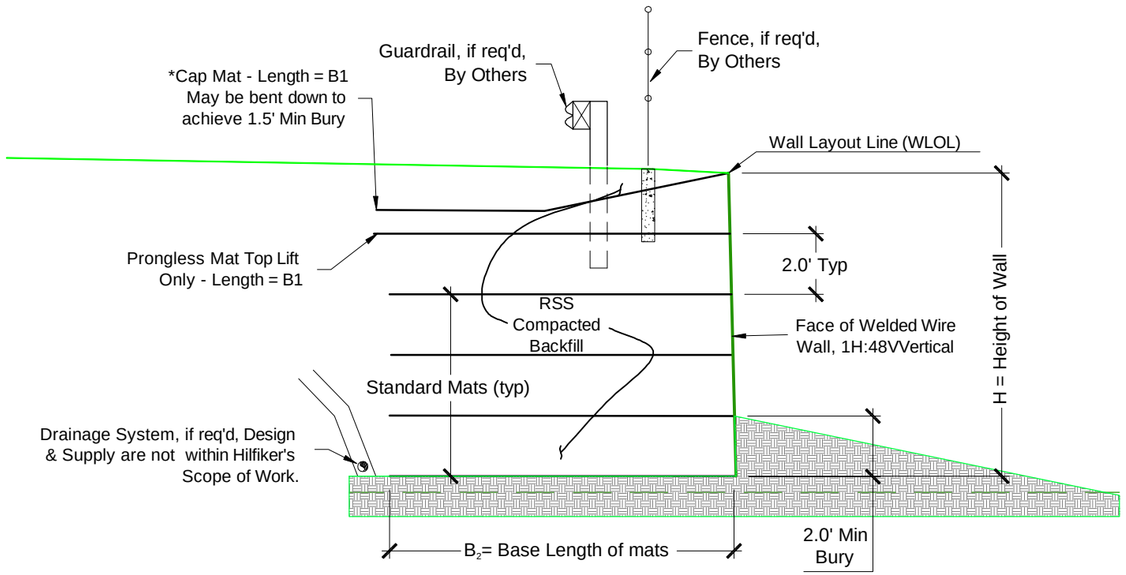
CESARETTI Engineered Solutions
CIVIL ENGINEERING SPECIALISTS
P.O. Box 132
Fortuna, CA 95540
Phone (707) 725-CESR
(707) 498-7193
CesarettiEngineered.com
KCesaretti@att.net

CT - 101 Cooks Valley EFA Wall

MSE WELDED WIRE WALL ELEVATION VIEW

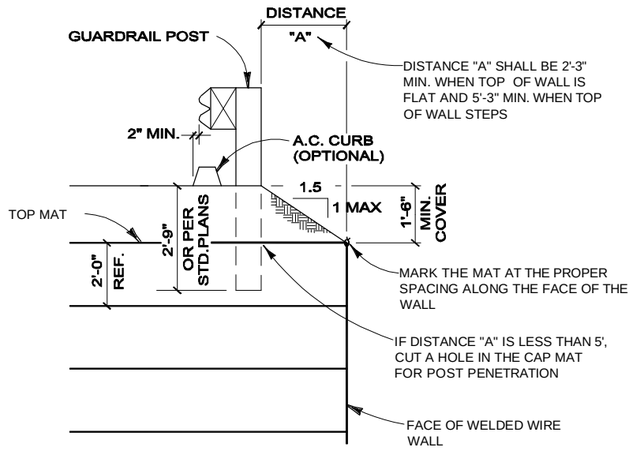
PROJECT 23-018
DATE 4-14-23
DESIGN KLC
DRAWN KLC

SHT 2 OF 4



TYP CROSS SECTION

1"=5'



SECTION

GUARDRAIL DETAIL

NOT TO SCALE

(FENCE DETAIL SIMILAR)

REGISTERED PROFESSIONAL ENGINEER
KIRK L. CESARETTI
NO. C69828
Exp. 6/30/24
CIVIL
STATE OF CALIFORNIA

HW 230406AW

REV.NO.	DATE	BY	DESCRIPTION
	04-14-23	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

CT - 101 Cooks Valley EFA Wall

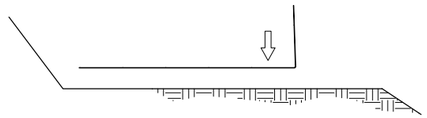
MSE WELDED WIRE WALL
CROSS SECTION & DETAILS

PROJECT	23-018
DATE	4-14-23
DESIGN	KLC
DRAWN	KLC

SHT 3 OF 4

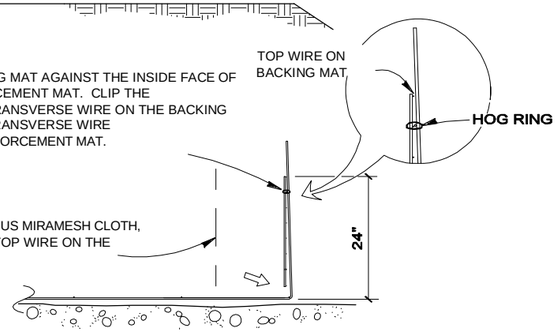
STEP 1

PLACE THE FIRST COURSE OF SOIL REINFORCEMENT MATS ON PREPARED FOUNDATION



STEP 2

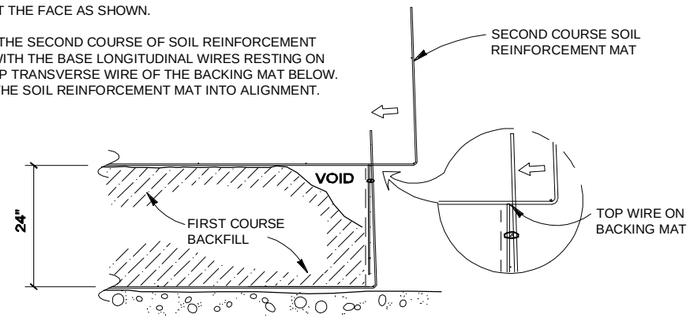
PLACE THE BACKING MAT AGAINST THE INSIDE FACE OF THE SOIL REINFORCEMENT MAT. CLIP THE SECOND-TO-TOP TRANSVERSE WIRE ON THE BACKING MAT TO THE TOP TRANSVERSE WIRE ON THE SOIL REINFORCEMENT MAT.



STEP 3

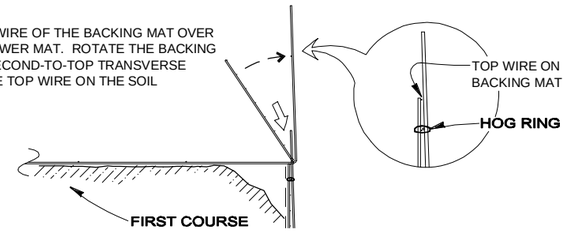
PLACE AND COMPACT THE BACKFILL IN LAYERS AND DENSITIES AS SPECIFIED IN THE PROJECT PLANS. LEAVE A VOID AT THE FACE AS SHOWN.

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.



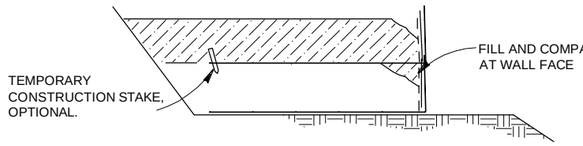
STEP 4

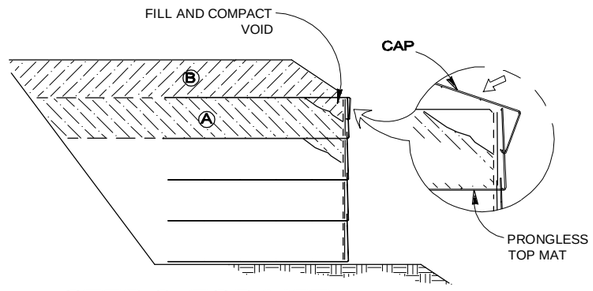
HOOK THE BOTTOM TRANSVERSE WIRE OF THE BACKING MAT OVER THE VERTICAL PRONGS ON THE LOWER MAT. ROTATE THE BACKING MAT TO VERTICAL AND CLIP THE SECOND-TO-TOP TRANSVERSE WIRE ON THE BACKING MAT TO THE TOP WIRE ON THE SOIL REINFORCEMENT MAT.



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.



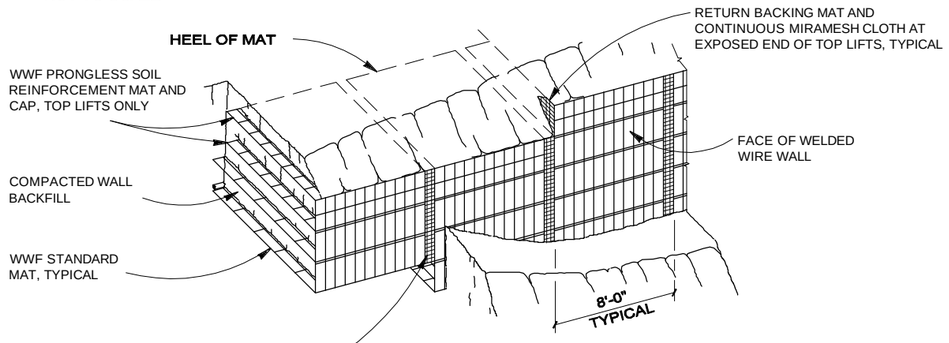


STEP 6: TOP LIFT

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.

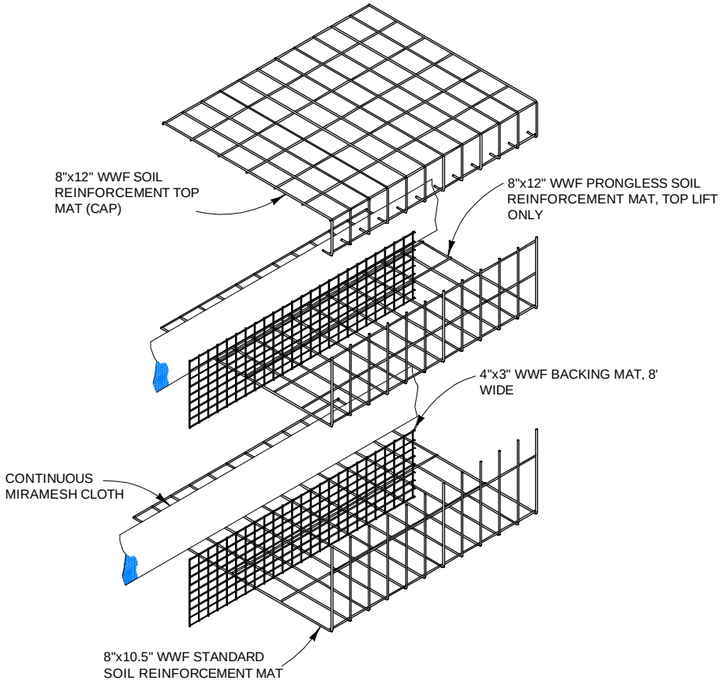
CONSTRUCTION SEQUENCE

NOT TO SCALE



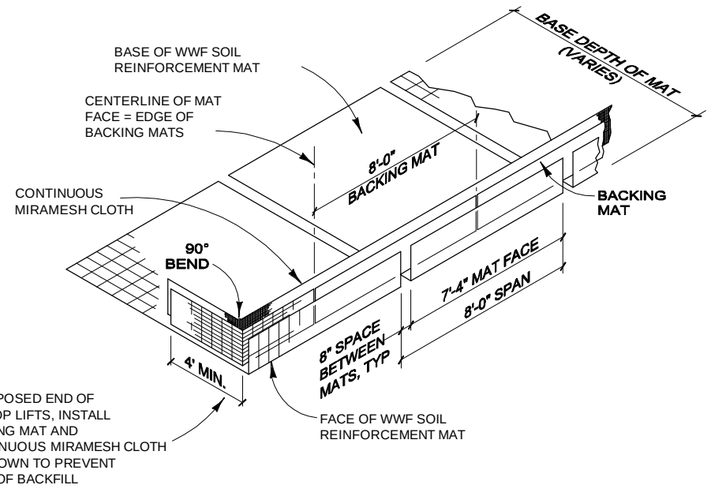
PICTORIAL ELEVATION

NOT TO SCALE



WALL COMPONENTS

NOT TO SCALE



ISOMETRIC VIEW

WELDED WIRE WALL COMPONENTS WITH RETURN MAT

NOT TO 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.

REGISTERED PROFESSIONAL ENGINEER — KYLE CESARETTI — NO. C69828 — Exp. 6/30/24 — CIVIL — STATE OF CALIFORNIA

HW 230406AW

REV.NO.	DATE	BY	DESCRIPTION
	04-14-23	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

CT - 101 Cooks Valley EFA Wall

MSE WELDED WIRE WALL CONSTRUCTION SEQUENCE & DETAILS

PROJECT	23-018
DATE	4-14-23
DESIGN	KLC
DRAWN	KLC

SHT 4 OF 4