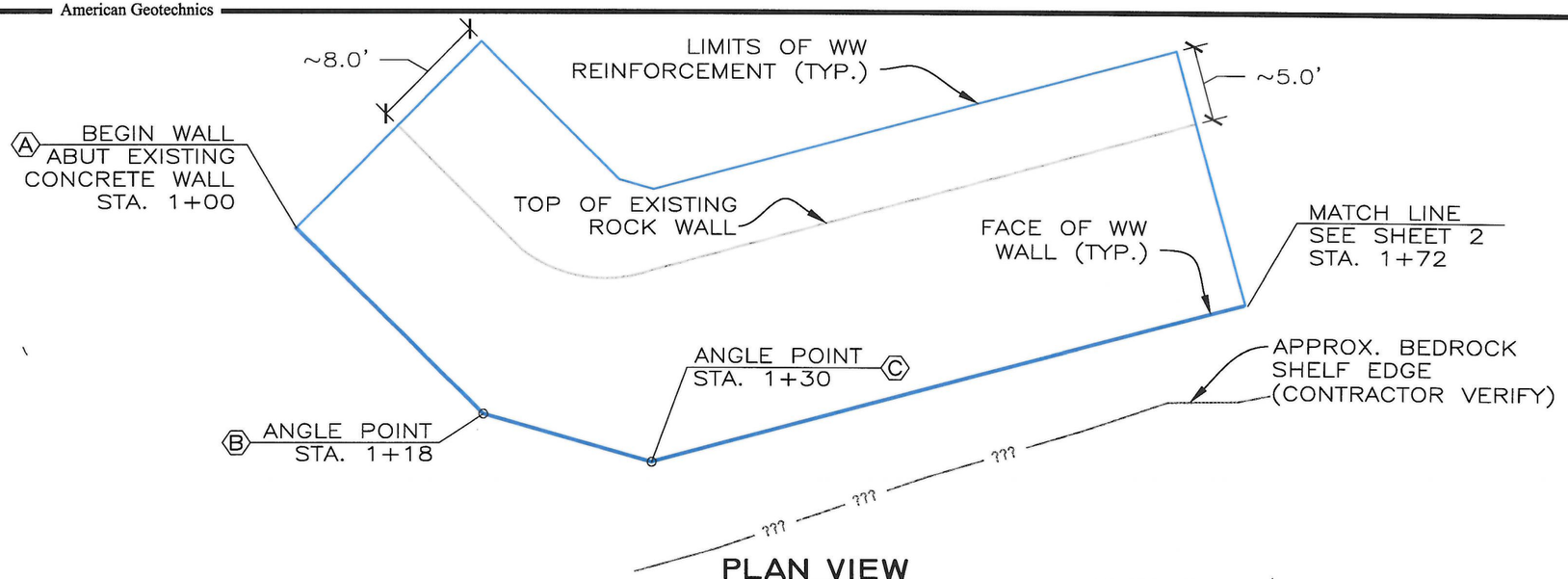
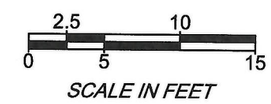


PLAN VIEW
GRAPHIC SCALE



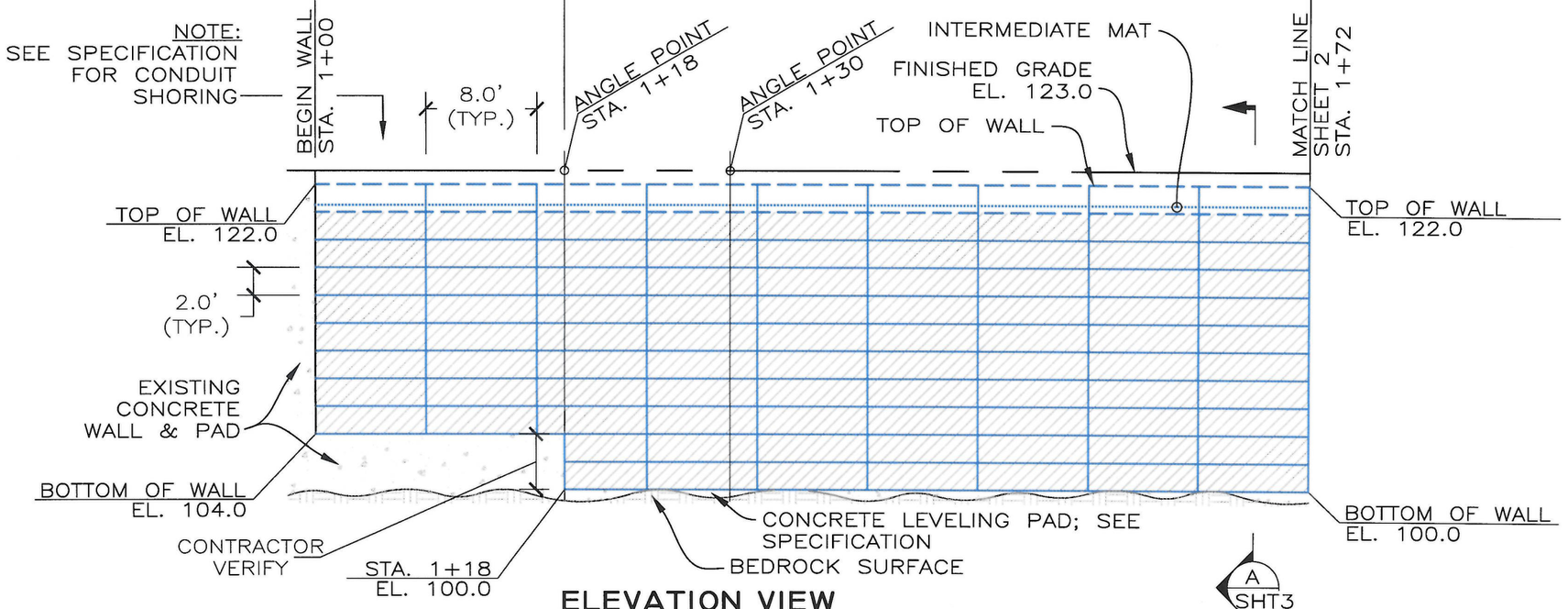
POINT	NORTHING*	EASTING*
A	1392077.14	402451.64
B	1392060.09	402445.88
C	1392052.00	402437.02

* IDAHO STATE PLANE CENTRAL ZONE US SURVEY USING NAVD88 GEOID 12B VERTICAL DATUM

TOTAL SQUARE FOOTAGE OF INSTALLED WALL FACING
3577 SQ. FT.

NOTE: SUPPLIED FACING MAY BE GREATER THAN INSTALLED FACING.

INTERMEDIATE MATS FOR CRANE AREA	NO INTERMEDIATE MATS; NO CRANE LOADING ALLOWED	
H= 18'	22'	=H
B1= 19'	19'	=B1
B2= 19'	19'	=B2
B3= 17.5'	17.5'	=B3



ELEVATION VIEW
MSE WALL (FRONT FACE)
GRAPHIC SCALE

LEGEND

B1	8"X12", W9.5xW4 — CAP, PRONGLESS MATS
B2	8"X12", W9.5xW4 — INTERMEDIATE MATS
B3	8"X21", W9.5xW4 — STANDARD MATS
H	WIRE WALL HEIGHT
B	MAT LENGTH

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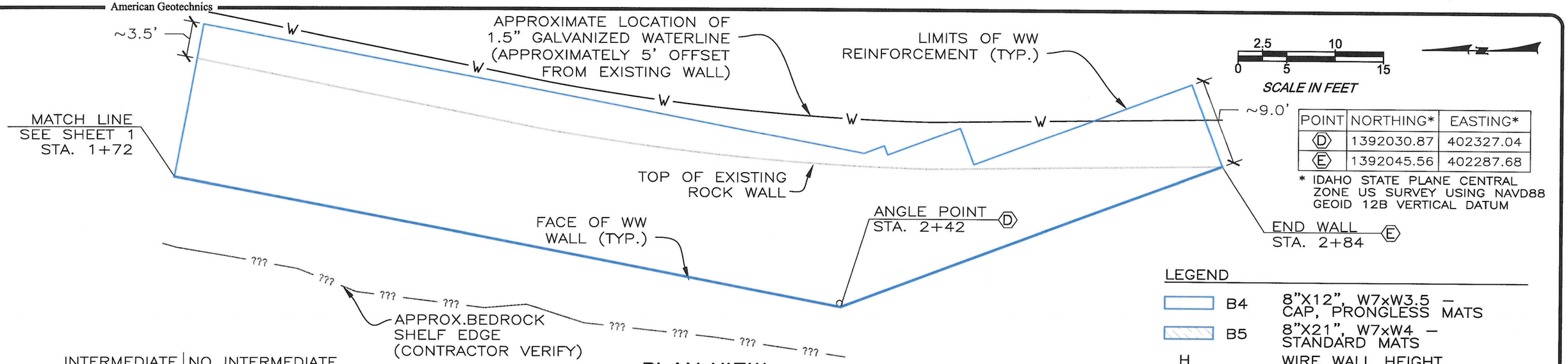


2.5 0 5 10 15

SCALE IN FEET

POINT	NORTHING*	EASTING*
D	1392030.87	402327.04
E	1392045.56	402287.68

* IDAHO STATE PLANE CENTRAL ZONE US SURVEY USING NAVD88 GEOID 12B VERTICAL DATUM

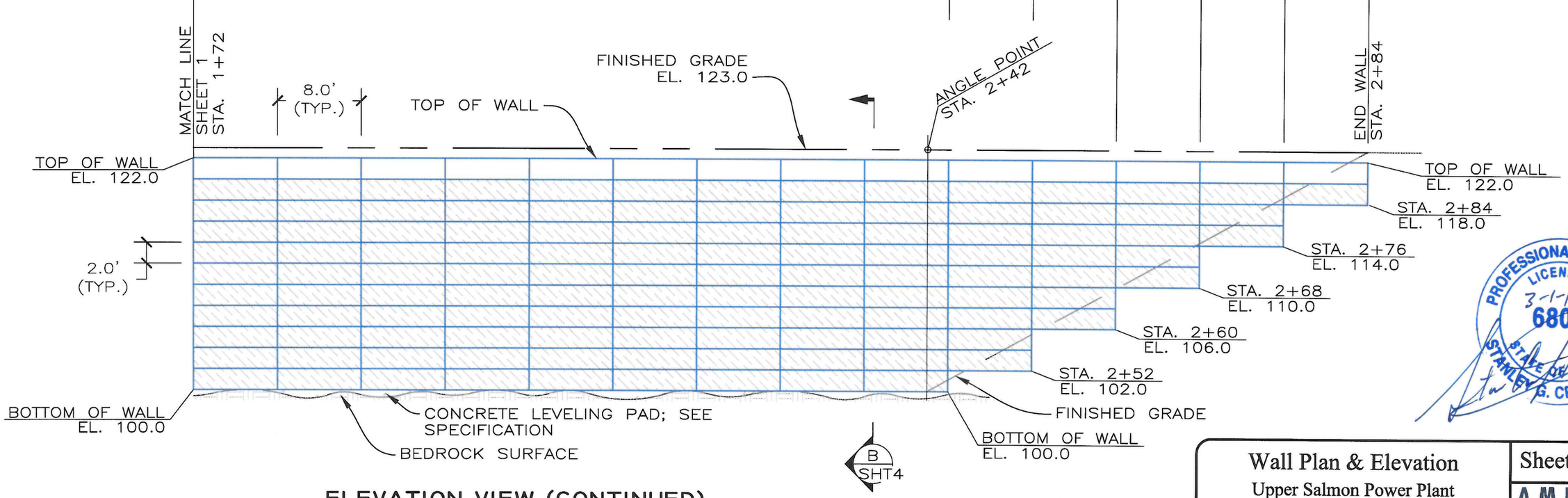
LEGEND

	B4	8"X12", W7xW3.5 – CAP, PRONGLESS MATS
	B5	8"X21", W7xW4 – STANDARD MATS
H		WIRE WALL HEIGHT
B		MAT LENGTH

INTERMEDIATE MATS FOR CRANE AREA | NO INTERMEDIATE MATS; NO CRANE LOADING ALLOWED

PLAN VIEW
GRAPHIC SCALE

H=	22'		20'	16'	12'	8'	4'	=H
B4=	16'		14'	13'	9'	9'	9'	=B4
B5=	15.75'		14'	12.25'	8.75'	8.75'	8.75'	=B5



ELEVATION VIEW (CONTINUED)
MSE WALL (FRONT FACE)
GRAPHIC SCALE

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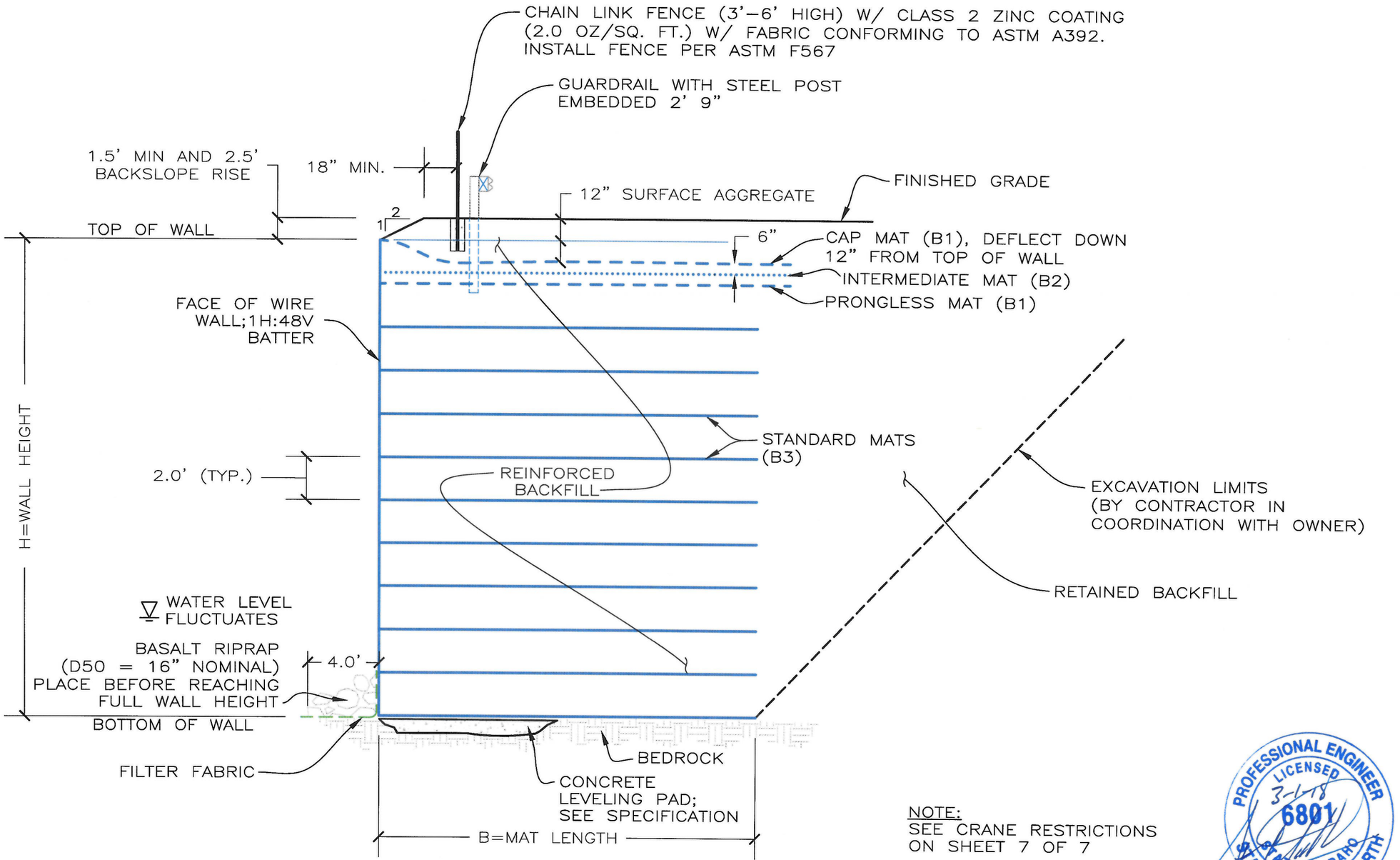

NOTE:
SEE CRANE RESTRICTIONS ON SHEET 7 OF 7

PROFESSIONAL ENGINEER LICENSED 3-1-18 6801 STATE OF IDAHO STANLEY G. CRAWFORTH

MAXIMUM SECTION
MSE WALL WITH CRANE LOAD

A / SHTI

NOT TO SCALE

Maximum Section Upper Salmon Power Plant MSE Wall	Sheet 3 of 7
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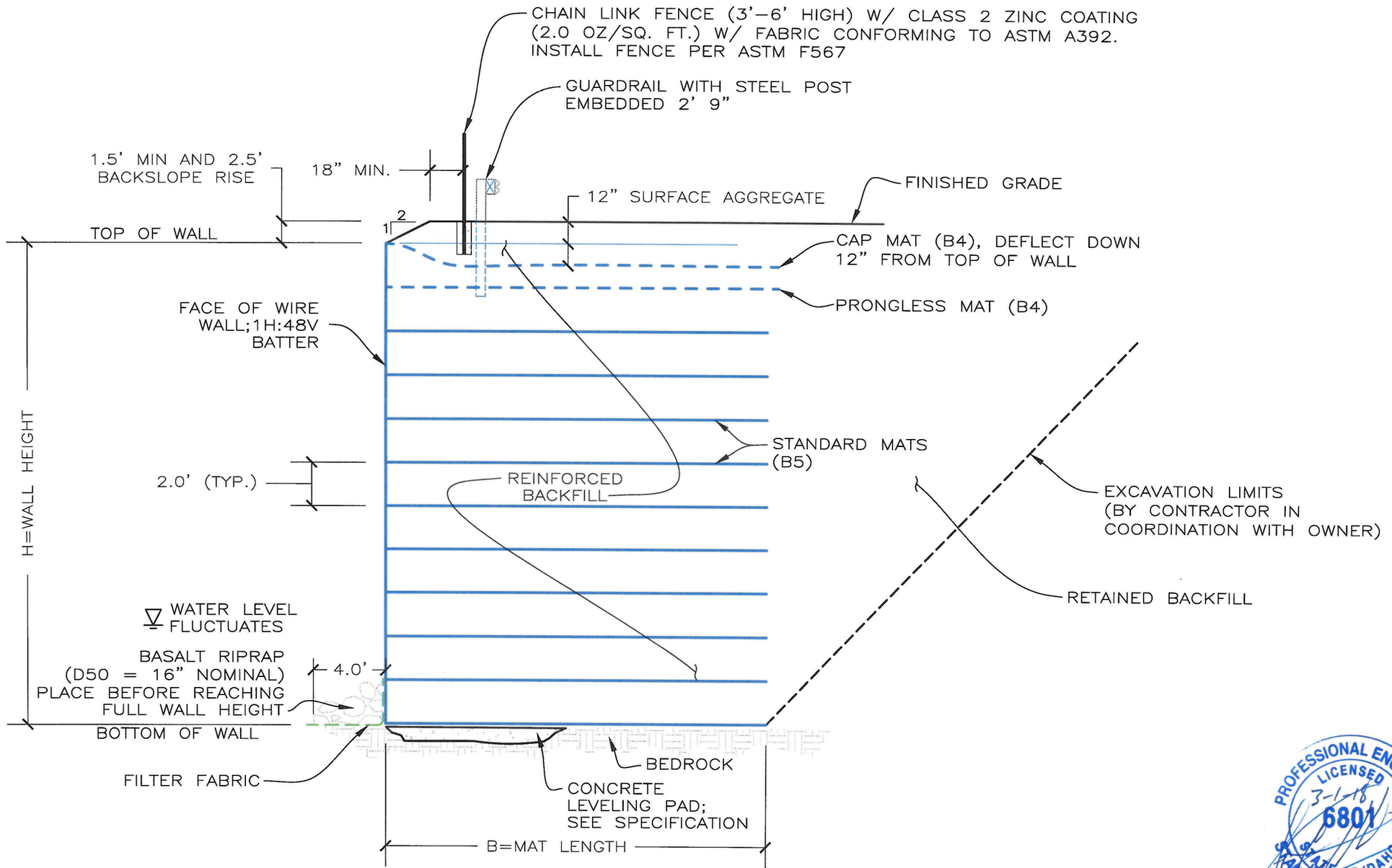
AMERICAN GEO TECHNICS



MAXIMUM SECTION
MSE WALL WITH NO CRANE LOAD

B
SHT2

NOT TO SCALE

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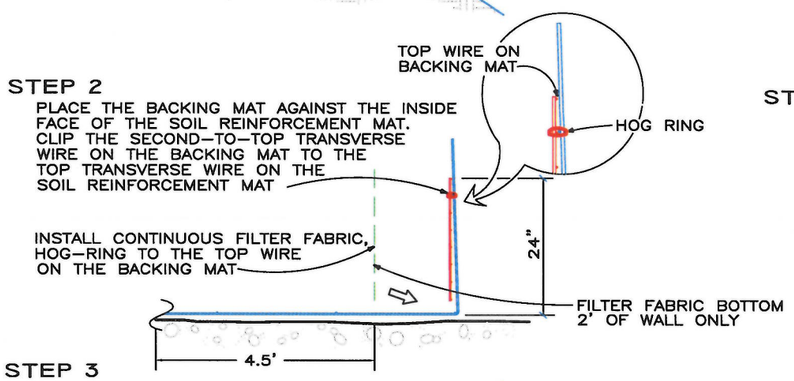
STEP 1

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

STEP 2

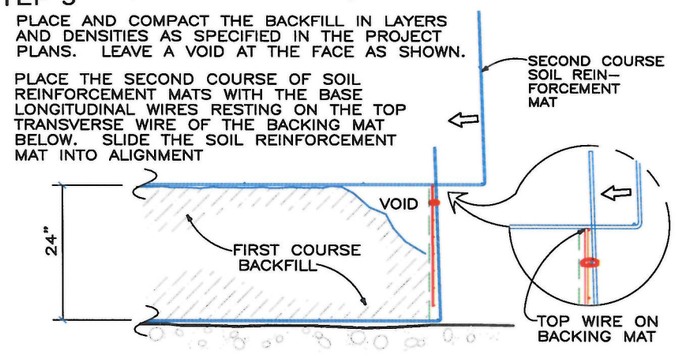
PLACE THE BACKING MAT AGAINST THE INSIDE FACE OF THE SOIL REINFORCEMENT MAT. CLIP THE SECOND–TO–TOP TRANSVERSE WIRE ON THE BACKING MAT TO THE TOP TRANSVERSE WIRE ON THE SOIL REINFORCEMENT MAT



STEP 3

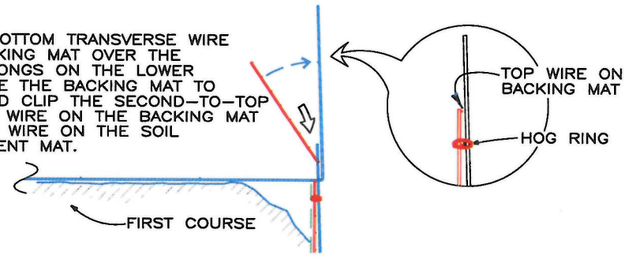
PLACE AND COMPACT THE BACKFILL IN LAYERS AND DENSITIES AS SPECIFIED IN THE PROJECT PLANS. LEAVE A VOID AT THE FACE AS SHOWN.

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

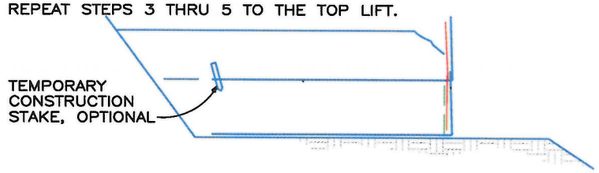
HOOK THE BOTTOM TRANSVERSE WIRE OF THE BACKING MAT OVER THE VERTICAL PRONGS ON THE LOWER MAT. ROTATE THE BACKING MAT TO VERTICAL AND CLIP THE SECOND–TO–TOP TRANSVERSE WIRE ON THE BACKING MAT TO THE TOP WIRE ON THE SOIL REINFORCEMENT MAT.

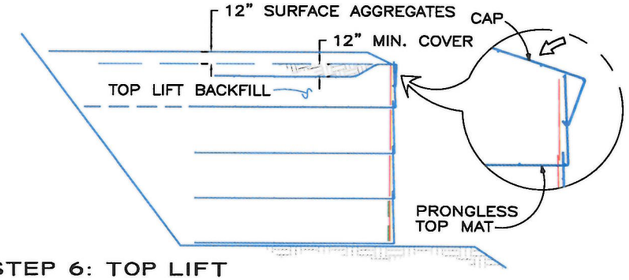


STEP 5

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

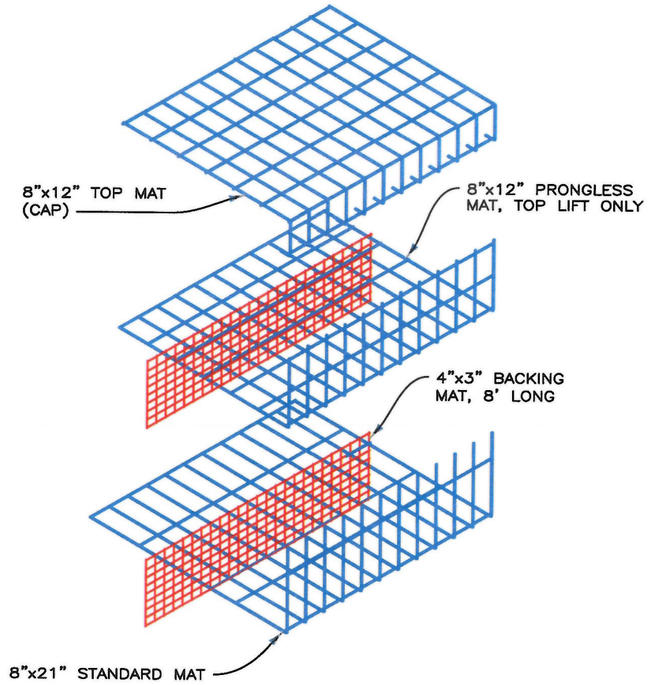
PLACE THE TOP LIFT PRONGLESS MAT AND BACKING MAT

HOOK THE CAP OVER THE MIDDLE TRANSVERSE WIRE ON THE PRONGLESS MAT, AND ROTATE INTO PLACE

BACKFILL MINIMUM COVER OVER THE CAP.

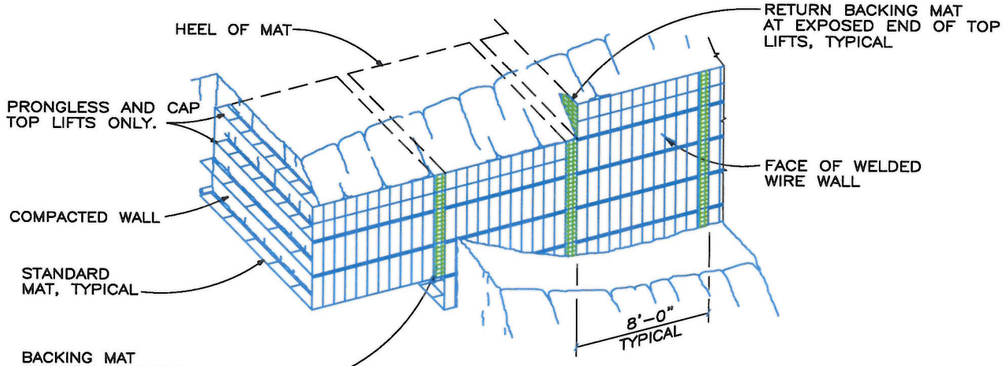
CONSTRUCTION SEQUENCE

NOT TO SCALE



WALL COMPONENTS

NOT TO SCALE



PICTORIAL ELEVATION

NOT TO SCALE

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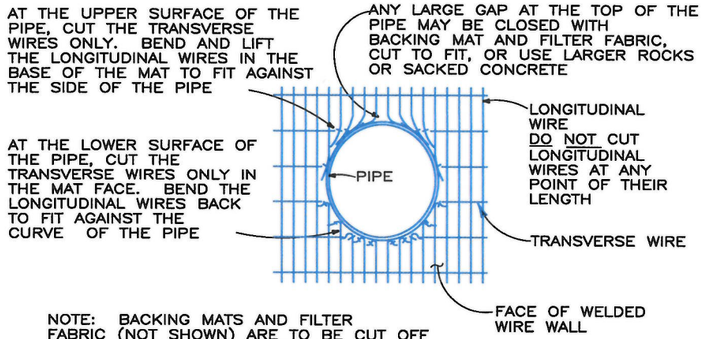
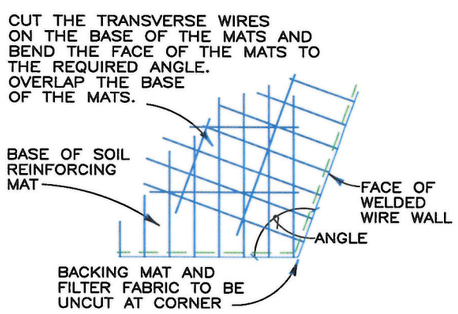


ELEVATION

PIPE THRU WALL FACE

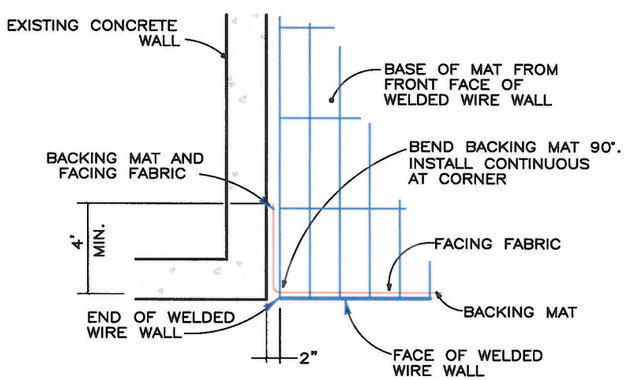
NOT TO SCALE



PLAN VIEW

OBTUSE CONVEX ANGLE

NOT TO SCALE



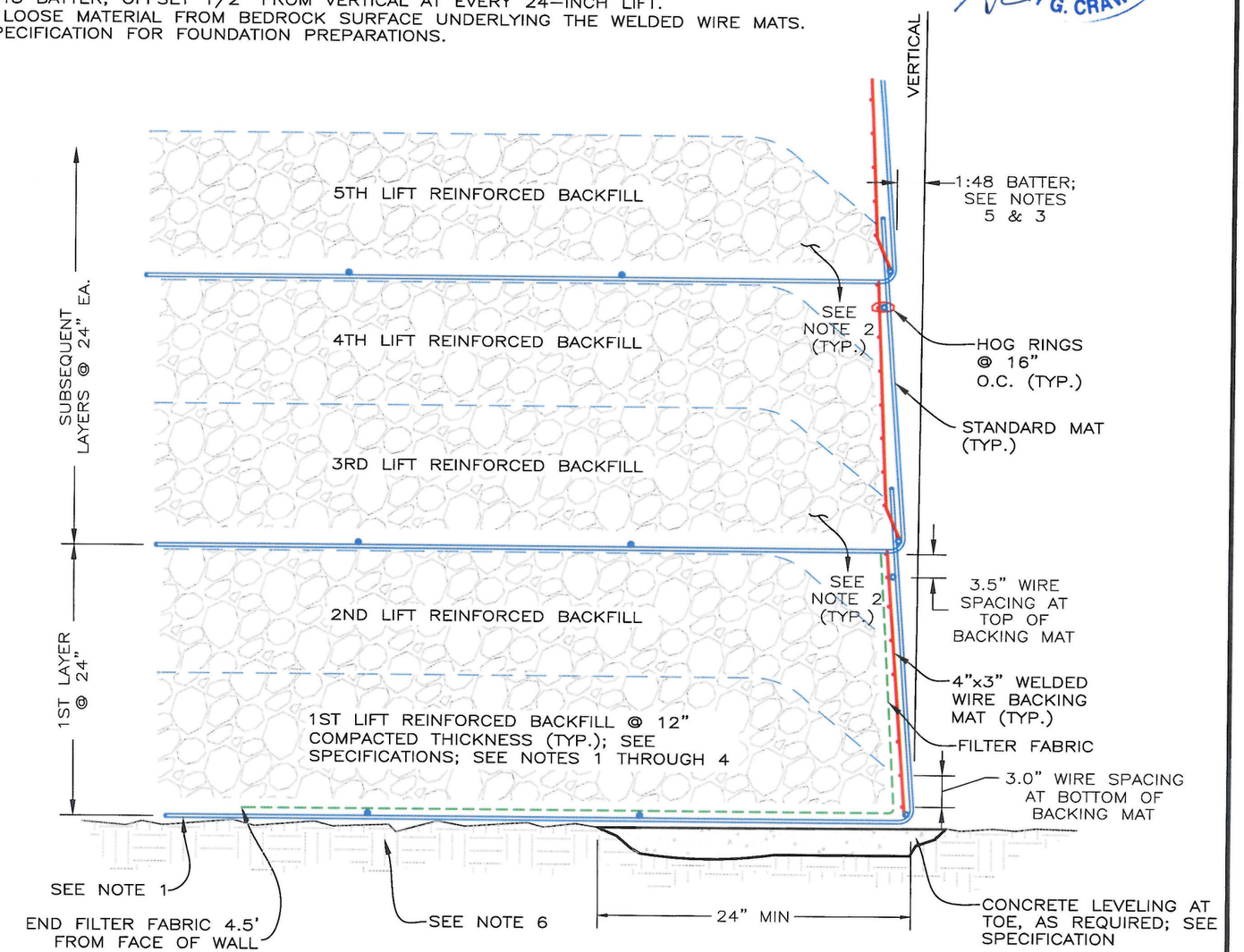
PLAN VIEW

WELDED WIRE WALL END AT EXISTING CONCRETE WALL

NOT TO SCALE

NOTES:

1. LOCK–DOWN THE MAT POSITION BEFORE BACKFILLING.
   A) POSITION THE MAT.
   B) HAVE A MAN STAND ON THE MAT.
   C) DROP BACKFILL ON THE MAT FOR A LOCK–DOWN WEIGHT.
2. DROP FACING ROCK THROUGH WELDED WIRE MAT AND HAND ROD THE ROCK BACKFILL WITH TAMPING BAR THROUGH WELDED WIRE MAT. ENSURE FACING ROCK FINISHES LEVEL WITH THE OVERLYING WELDED WIRE MAT.
3. ONE MAN SHOULD MONITOR AND MEASURE BATTER AT FACING ANY TIME COMPACTING NEAR THE FACE.
4. THREE FEET FROM FACE OF WALL USE A HEAVY (30,000 LB) VIBRATORY ROLLER. WITHIN THREE FEET, USE A JUMPING JACK OR DIESEL VIBRATORY PLATE COMPACTOR.
5. FOR 1:48 BATTER, OFFSET 1/2" FROM VERTICAL AT EVERY 24–INCH LIFT.
6. CLEAN LOOSE MATERIAL FROM BEDROCK SURFACE UNDERLYING THE WELDED WIRE MATS. SEE SPECIFICATION FOR FOUNDATION PREPARATIONS.



FACING AND WALL BACKFILL DETAIL

NOT TO SCALE

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DESIGN NOTES:

1. DESIGN IS BASED ON THE ASSUMPTION THAT THE BACKFILL WITHIN THE REINFORCED VOLUME, METHODS OF CONSTRUCTION AND QUALITY OF MATERIALS CONFORM TO THE REQUIREMENTS OF THE HILFIKER COMPANY AND THESE PLANS AND SPECIFICATIONS.

2. SPECIFICATIONS AND CALCULATIONS BY AMERICAN GEOTECHNICS, ALONG WITH THE HILFIKER RETAINING WALLS CONSTRUCTION GUIDE, ARE AN INTEGRAL PART OF THESE DRAWINGS.

3. THE PROJECT PLANS CONTAIN NOTES SPECIFIC TO THE CONSTRUCTION OF EACH WALL AND ARE INTEGRAL TO THE CONSTRUCTION OF THE HILFIKER WALLS.

4. THE CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING THE WALL LAYOUT LINE (WLOL) FROM THE REFERENCE LINE INFORMATION PROVIDED IN THE PROJECT PLANS. THE PROJECT PLANS ARE INTEGRAL TO THE CONSTRUCTION OF THE HILFIKER MSE WALLS.

5. CONTRACTOR SHALL PROVIDE FALL PROTECTION FOR WORKERS AND EQUIPMENT DURING CONSTRUCTION IN COMPLIANCE WITH OSHA AND ANY OTHER APPLICABLE REQUIREMENTS.

6. THE FOLLOWING DESIGN PARAMETERS HAVE BEEN UTILIZED:

SOIL TYPE	PHI	COHESION	UNIT WT.
REINFORCED BACKFILL	40 DEGREES	0 PSF	130 PCF
RETAINED SOIL	30 DEGREES	0 PSF	120 PCF
FOUNDATION SOIL	0 DEGREES	30,000 PSF	140 PSF

7. ANALYSIS PERIOD IS 100 YEARS. AASHTO CORROSION RATES WERE ASSUMED.

8. IF ACTUAL CHARACTERISTICS, GRADES OR DIMENSIONS OF SOIL MATERIALS DIFFER FROM THOSE LISTED ABOVE OR AS SHOWN IN THESE PLANS OR SPECIFICATIONS, AMERICAN GEOTECHNICS SHALL BE NOTIFIED TO EVALUATE THE NEED TO REDESIGN.

9. SEE THE HILFIKER RETAINING WALLS INSTALLATION GUIDE FOR MATERIALS HANDLING AND CONSTRUCTION.

10. THE CONTRACTOR IS RESPONSIBLE FOR ROUTING STORM WATER DRAINAGE AWAY FROM THE WALL DURING CONSTRUCTION.

11. THE CONTRACTOR IS RESPONSIBLE FOR DEWATERING AND IMPLEMENTING AN ACCEPTABLE SEDIMENT AND EROSION CONTROL PLAN, TOGETHER WITH REQUIRED AGENCY PERMITS AND NOTIFICATIONS.

12. IF EXISTING OR FUTURE STRUCTURES, PIPES, FOUNDATIONS OR GUARDRAIL POSTS, WHICH ARE WITHIN THE REINFORCED BACKFILL, INTERFERE WITH THE NORMAL PLACEMENT OF REINFORCEMENTS AND SPECIFIC DIRECTION HAS NOT BEEN PROVIDED ON THE PLANS, THE CONTRACTOR SHALL CONSULT WITH THE OWNER AND AMERICAN GEOTECHNICS TO DECIDE AN APPROPRIATE COURSE OF ACTION.

NOTES REGARDING CRANE LOADING AT TOP OF WALL:

1. MAXIMUM ALLOWABLE OUTRIGGER LOADING IS 56,580 LBS.
2. OUTRIGGER PADS SHALL BE MINIMUM 3' X 3' SQ.
3. OUTRIGGER SET-BACK FROM FACE OF WALL IS 6' MIN.
4. CRANE LOAD ALLOWED SOLELY WITHIN 72' OF THE NORTH END OF THE WALL.

Design Notes Upper Salmon Power Plant MSE Wall		Sheet 7 of 7
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