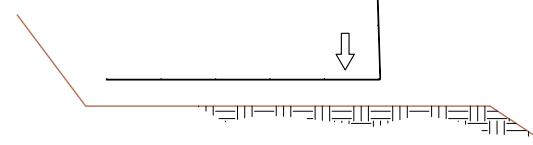
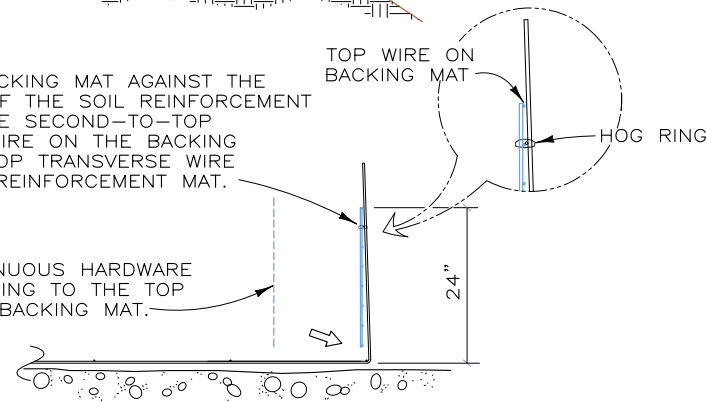


**STEP 1**  
PLACE THE FIRST COURSE OF SOIL REINFORCEMENT MATS ON PREPARED FOUNDATION



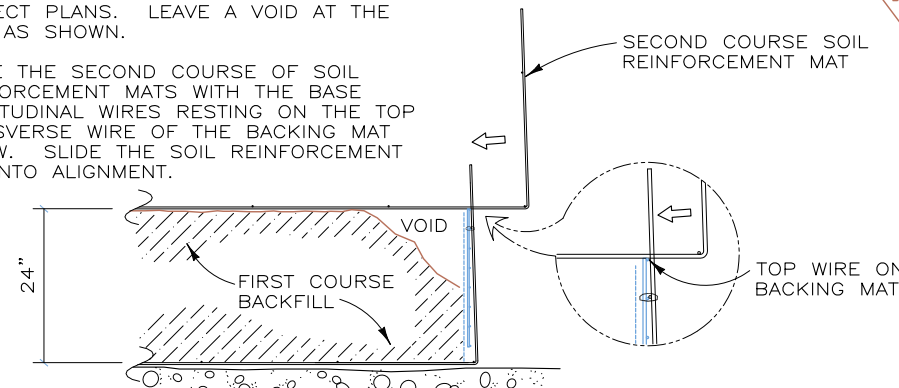
**STEP 2**  
PLACE THE BACKING MAT AGAINST THE INSIDE FACE OF THE SOIL REINFORCEMENT MAT. CLIP THE SECOND-TO-TOP TRANSVERSE WIRE ON THE BACKING MAT TO THE TOP TRANSVERSE WIRE ON THE SOIL REINFORCEMENT MAT.

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

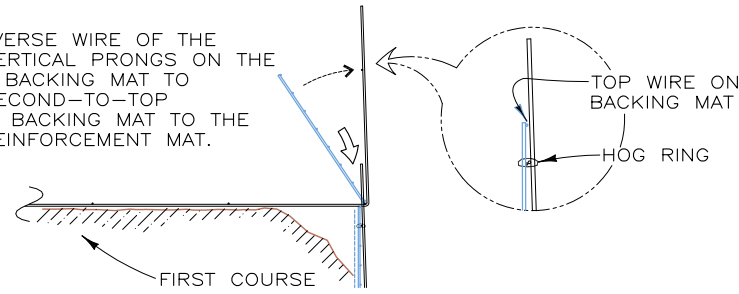


**STEP 3**  
PLACE AND COMPACT THE BACKFILL IN LAYERS AND DENSITIES AS SPECIFIED IN THE PROJECT PLANS. LEAVE A VOID AT THE FACE AS SHOWN.

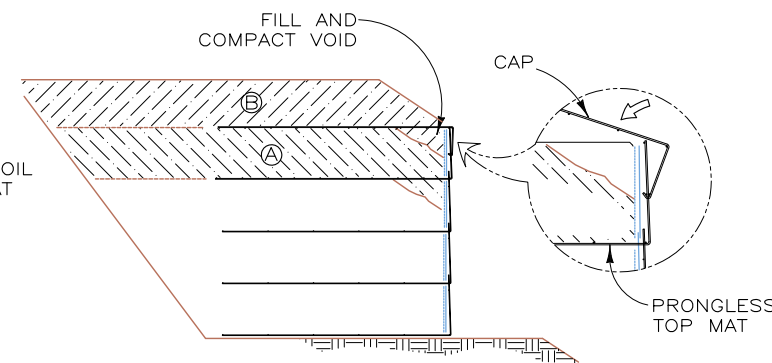
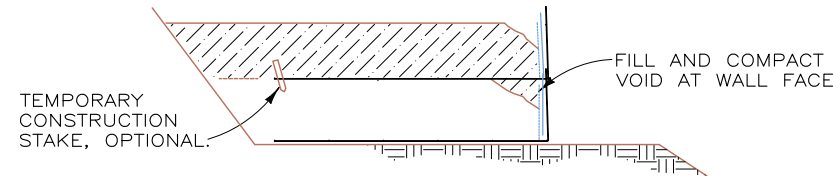
PLACE THE SECOND COURSE OF SOIL REINFORCEMENT MATS WITH THE BASE LONGITUDINAL WIRES RESTING ON THE TOP TRANSVERSE WIRE OF THE BACKING MAT BELOW. SLIDE THE SOIL REINFORCEMENT MAT INTO ALIGNMENT.



**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.



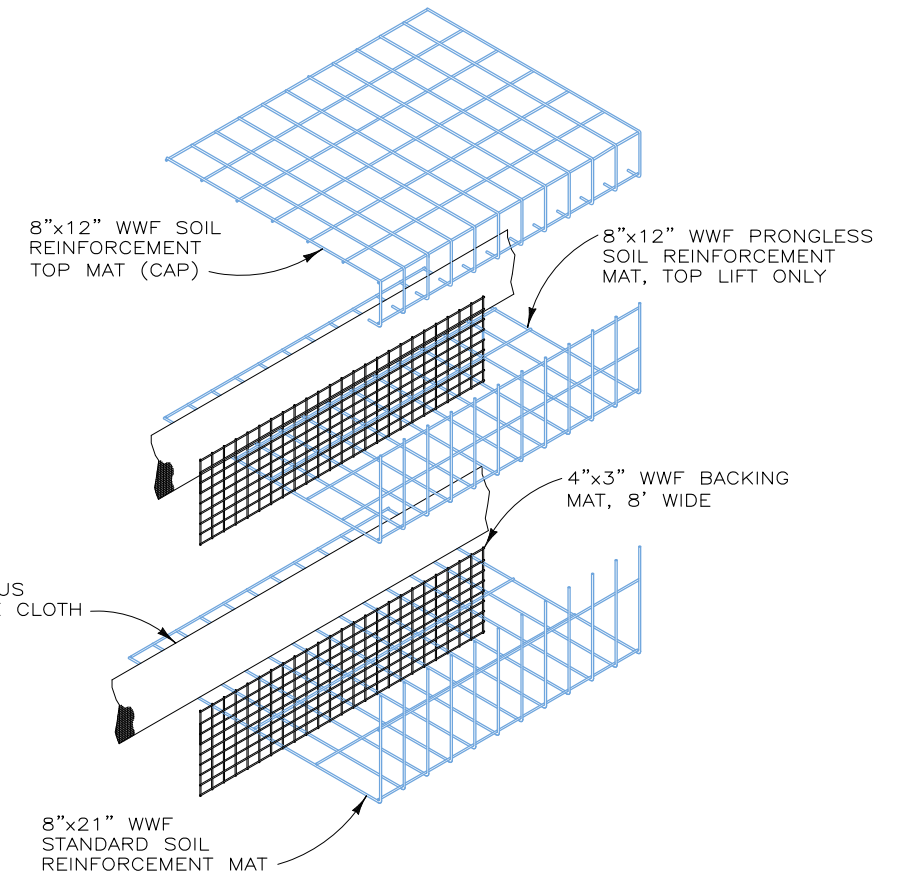
**STEP 5**  
INSTALL THE CONTINUOUS HARDWARE CLOTH. PLACE AND COMPACT THE BACKFILL TO THE BASE ELEVATION OF THE NEXT MAT. REPEAT STEPS 3 THROUGH 5 TO THE TOP LIFT.



**STEP 6: TOP LIFT**  
PLACE THE TOP LIFT PRONGLESS MAT, BACKING MAT AND CONTINUOUS 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" MIN. COVER OVER THE CAP.

**CONSTRUCTION SEQUENCE**

NOT TO SCALE



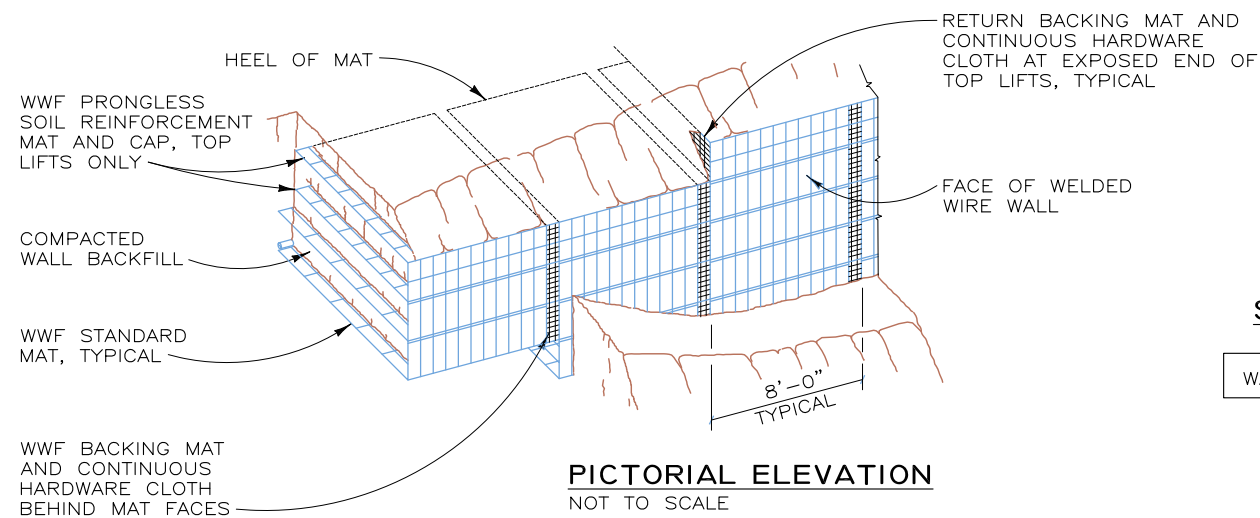
**WALL COMPONENTS**  
NOT TO SCALE

**PROJECT-SPECIFIC NOTES:**

1. REFERENCE DRAWINGS: UNDATED PDF DRAWINGS RECEIVED 15 MARCH AND CADD FILE FROM JACOBS ASSOCIATES RECEIVED 20 MARCH AND REVISED CADD SHOWING REVISED WALL GEOMETRY RECEIVE 7 DECEMBER 2012.
2. BLACK AND WHITE REPRODUCTION OF THIS COLOR ORIGINAL MAY REDUCE ITS EFFECTIVENESS AND LEAD TO INCORRECT INTERPRETATION.
3. IT IS ASSUMED THAT ALL MATERIALS, BACKFILL AND CONSTRUCTION METHODS FOR HILFIKER M.S.E. WALLS AND/OR GABIONS WILL CONFORM TO HILFIKER'S SPECIFICATIONS AND/OR THOSE OF THE HILFIKER ENGINEERING CONSULTANT.
4. THIS IS NOT AN ENGINEERED SUBMITTAL. 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.
5. UPON ENGINEERED DESIGN, 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/CONTRACTOR SHALL BE RESPONSIBLE FOR ALL JOB SITE DRAINAGE, SAFETY AND FALL PROTECTION PROVISIONS FOR WORKERS IN COMPLIANCE WITH OSHA AND ANY OTHER APPLICABLE REQUIREMENTS.
6. WALL DESIGN SHALL REQUIRE A NON-SATURATED BACKFILL. SURFACE AND SUBSURFACE DRAINAGE CONTROL MAY BE REQUIRED TO PREVENT SATURATION OF THE BACKFILL OR TO RELIEVE HYDROSTATIC PRESSURES. DRAINAGE CONTROL SHALL BE AS SPECIFIED IN THE OWNER'S PROJECT PLANS AND SPECIFICATIONS, OR AS DIRECTED BY THE OWNER'S ENGINEER.

**SUPPLIED QUANTITIES:**

WALL FACE AREA: 5,984 SQ. FT.

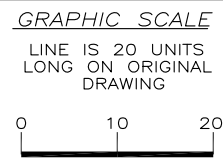


**PICTORIAL ELEVATION**  
NOT TO SCALE

120315BW LILLIWAUP FALLS POWER PROJECT

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4	15 JAN 13	AMJ	REVISED WALL GEOMETRY PER REQUEST
5	21 MAY 14	AMJ	REMOVED EL. 257 TO EL. 259, 2' SHORTER



PROJ. MGR.  
HKH  
ENGINEER  
CADD BY  
AMJ

**HILFIKER RETAINING WALLS**

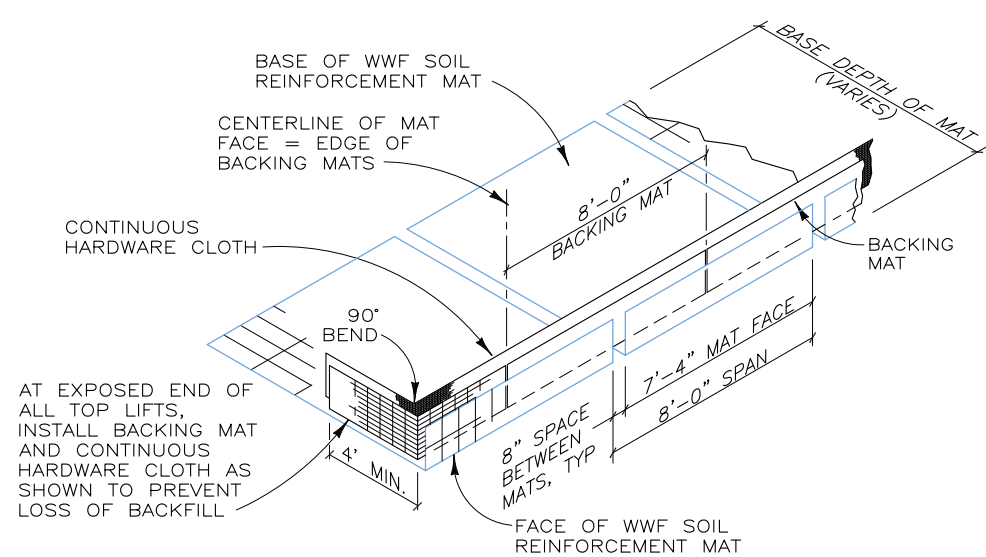
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QUALITY PRODUCTS

DWG DATE  
29 MAR 12  
REVISION DATE  
21 MAY 14  
SCALE  
NOTED

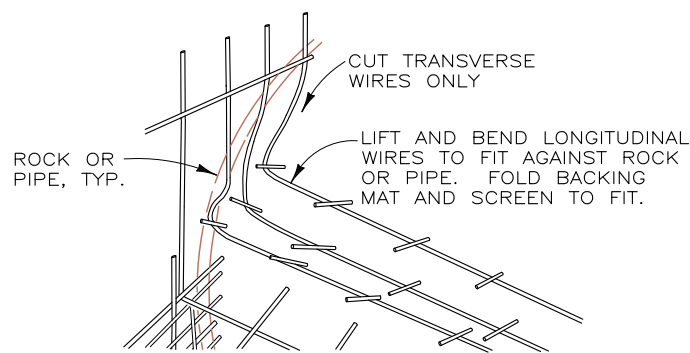
**FOR BIDDING PURPOSES ONLY**  
WELDED WIRE RETAINING WALL  
**LILLIWAUP FALLS POWER PROJECT**  
LILLIWAUP FALLS GENERATING COMPANY  
LILLIWAUP, WASHINGTON  
DETAILS AND NOTES

PROJECT NO.  
120315BW  
SHEET  
**1**  
OF 5



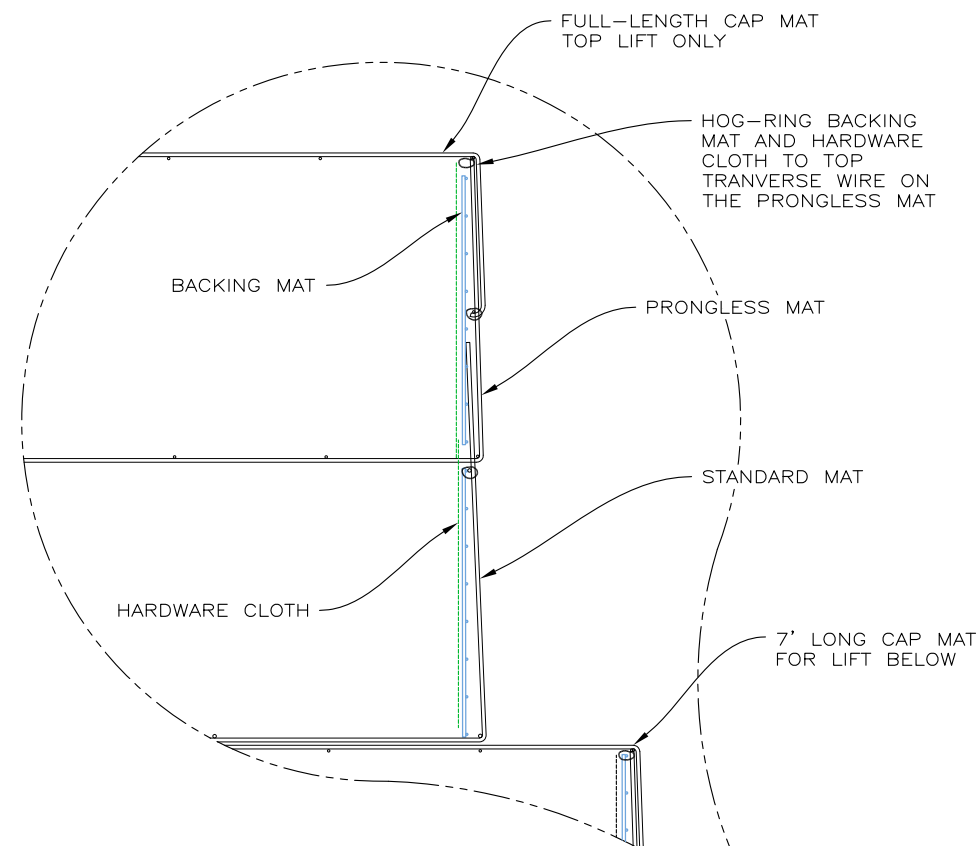
ISOMETRIC VIEW

**WELDED WIRE WALL COMPONENTS WITH RETURN MAT**  
NOT TO SCALE

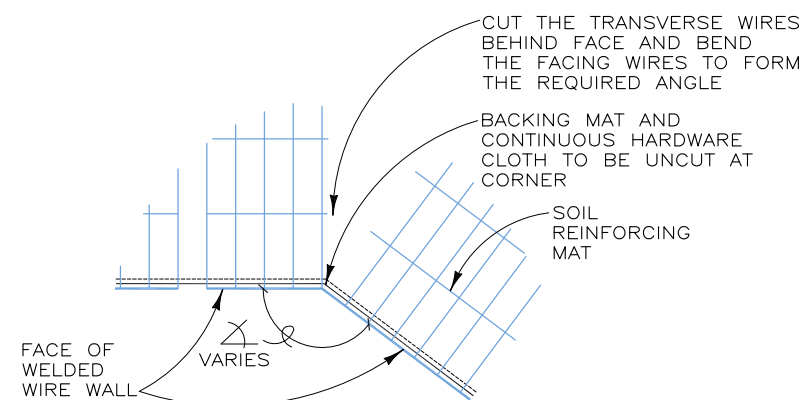


PICTORIAL

**FITTING MATS TO OBSTRUCTION**  
NOT TO SCALE

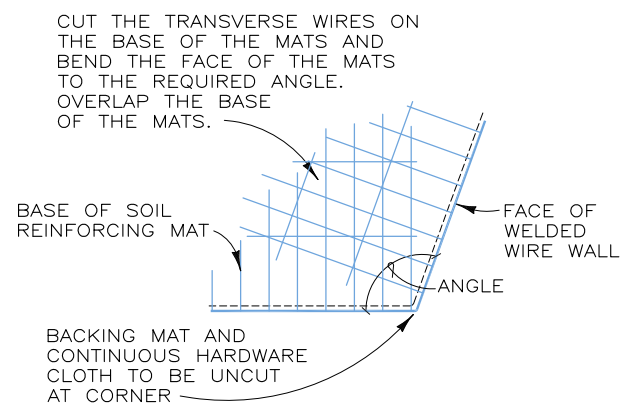


**ENLARGED DETAIL**  
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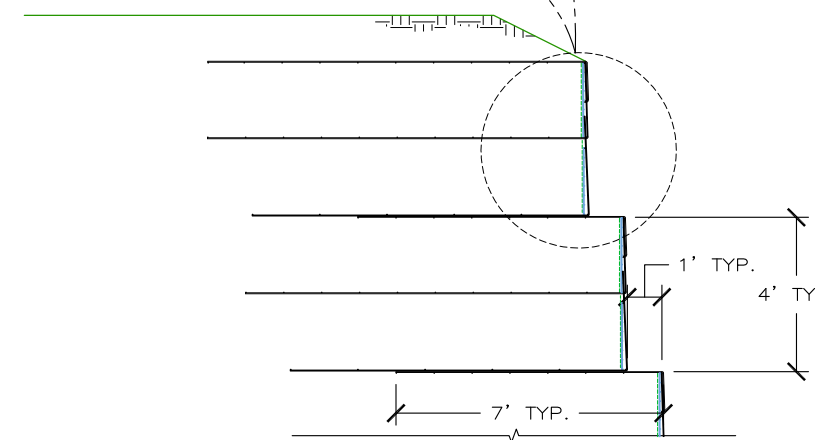
PLAN VIEW

**CONCAVE ANGLE DETAIL**  
NOT TO SCALE



PLAN VIEW

**OBTUSE CONVEX ANGLE**  
NOT TO SCALE

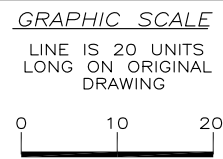


**SECTION DETAIL**  
SCALE: 1" = 5'

120315BW LILLIWAUP FALLS POWER PROJECT

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PROJ.MGR.  
HKH  
ENGINEER  
CADD BY  
AMJ

**HILFIKER RETAINING WALLS**

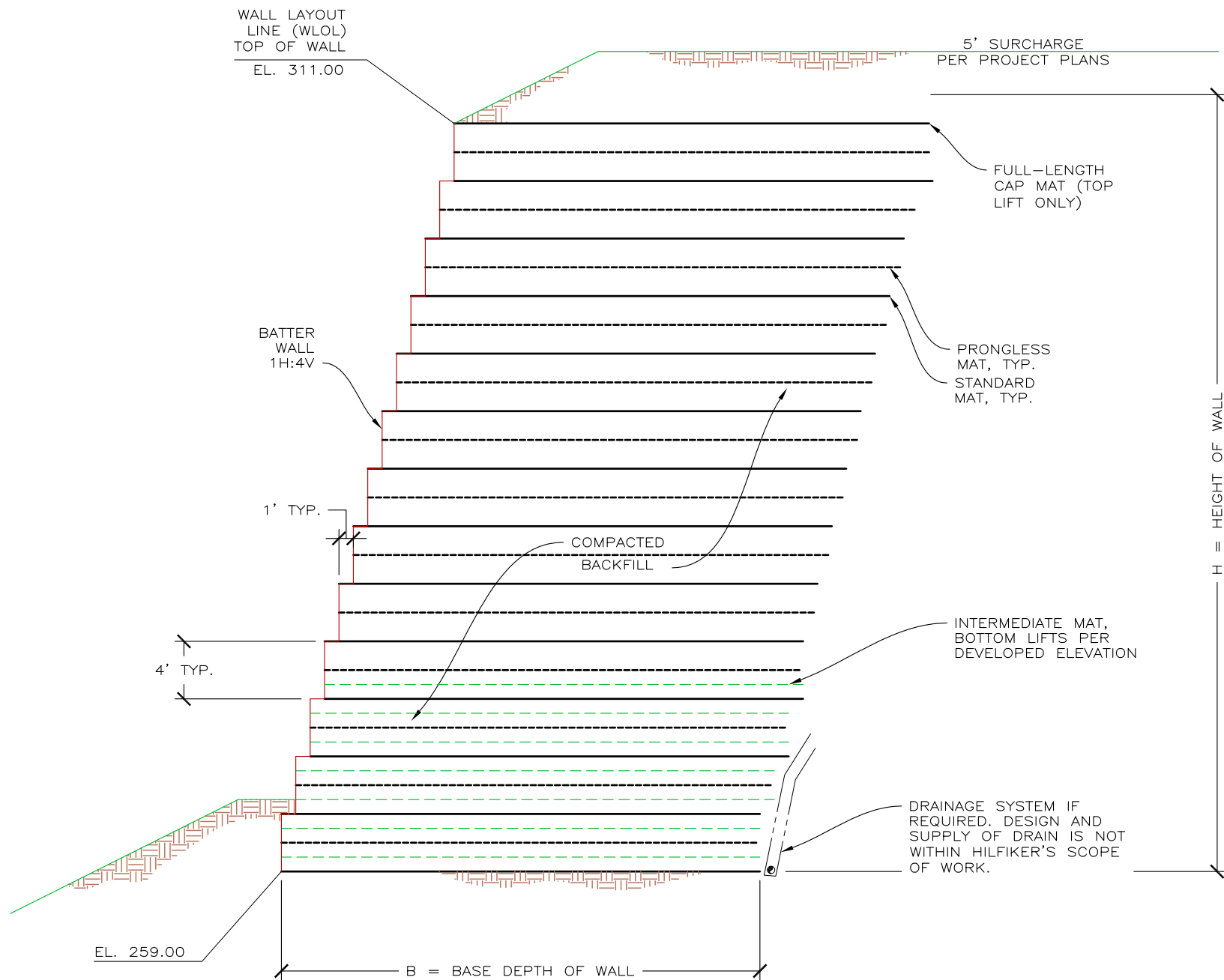
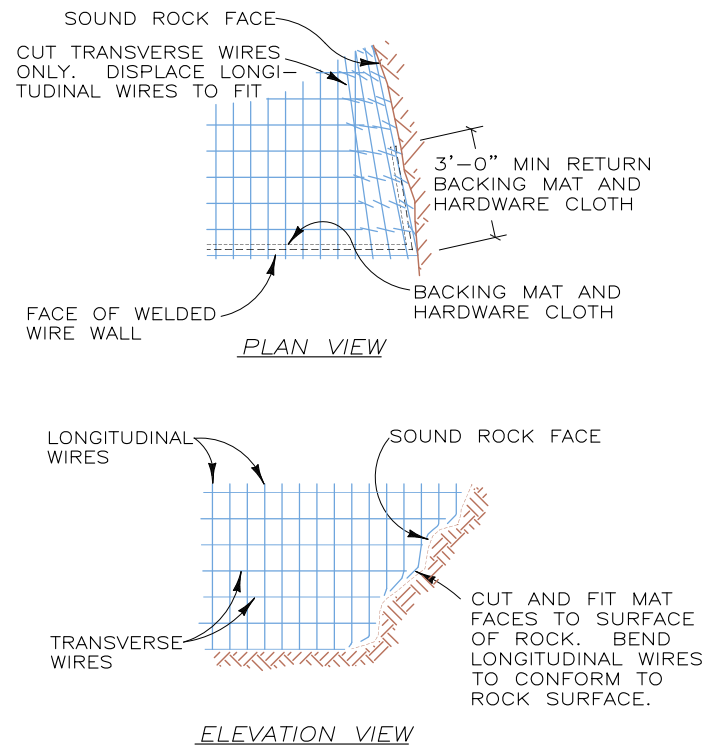
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21 MAY 14  
SCALE  
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WELDED WIRE RETAINING WALL  
**LILLIWAUP FALLS POWER PROJECT**  
LILLIWAUP FALLS GENERATING COMPANY  
LILLIWAUP, WASHINGTON  
DETAILS

PROJECT NO.  
120315BW  
SHEET  
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OF 5

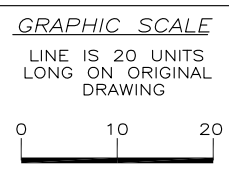
120315BW LILLIWAUP FALLS POWER PROJECT



NOTE: CAP MATS ARE 7' LONG AND ARE PLACED ON THE TOP OF EACH PRONGLESS MAT EXCEPT THE TOP CAP MAT WHICH IS FULL LENGTH.

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ENGINEER  
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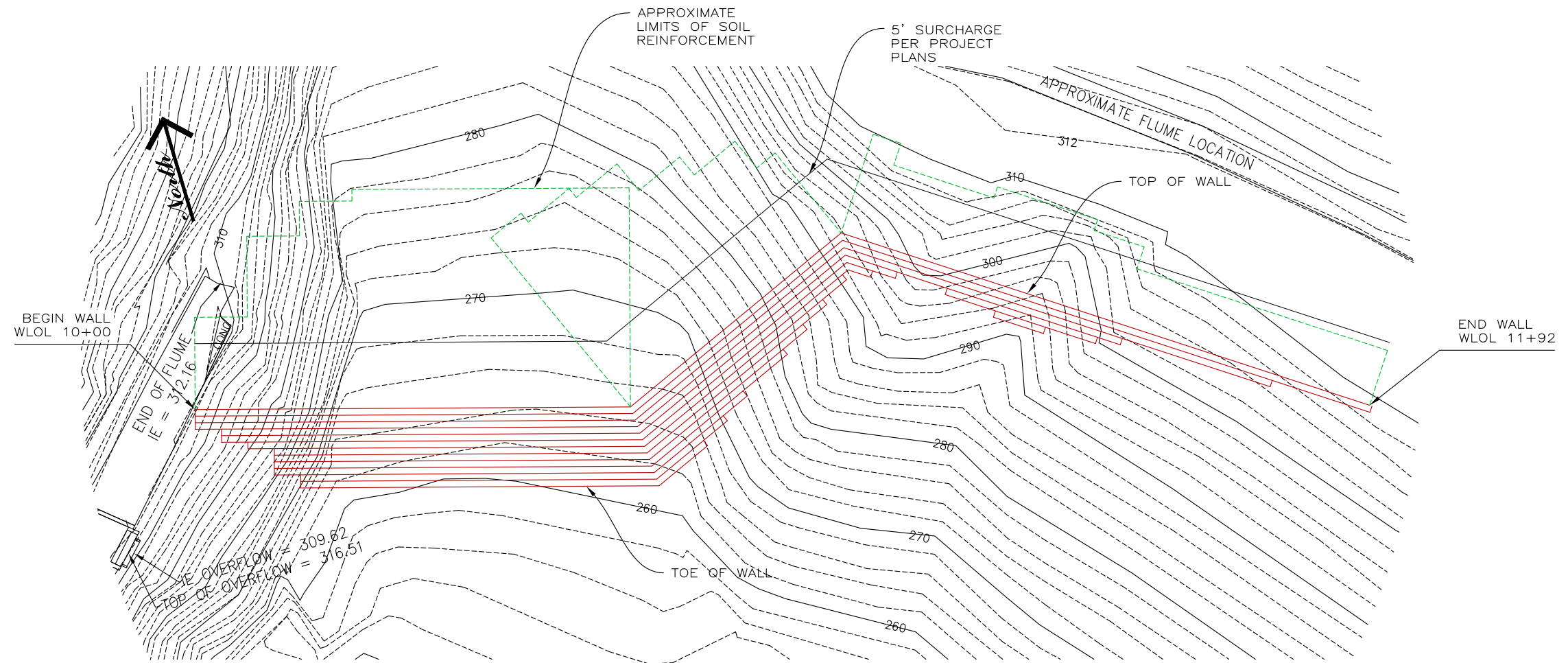
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WELDED WIRE RETAINING WALL  
**LILLIWAUP FALLS POWER PROJECT**  
LILLIWAUP FALLS GENERATING COMPANY  
LILLIWAUP, WASHINGTON  
TYPICAL SECTION

PROJECT NO.  
120315BW  
SHEET  
**3**  
OF 5

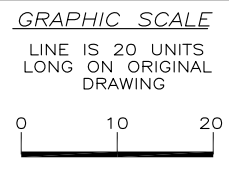
120315BW LILLIWAUP FALLS POWER PROJECT



**PLAN VIEW**  
SCALE: 1" = 20'

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**HILFIKER RETAINING WALLS**

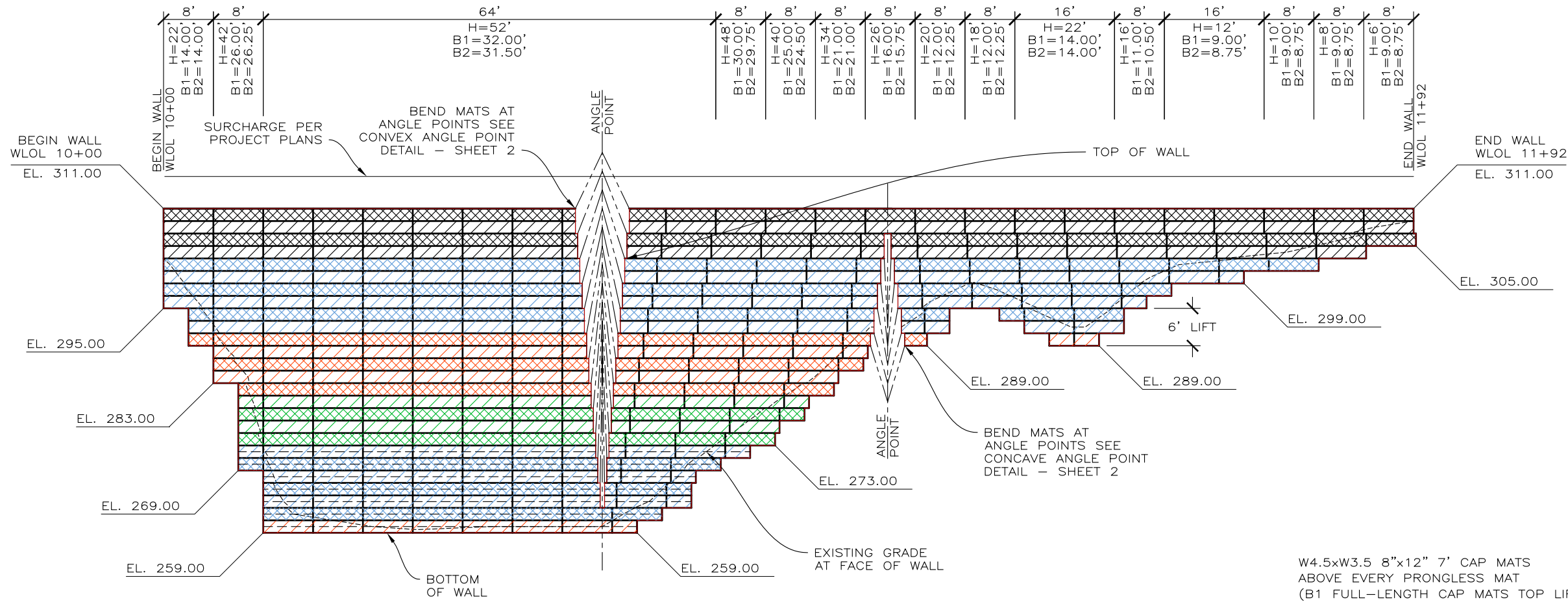
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LILLIWAUP FALLS GENERATING COMPANY  
LILLIWAUP, WASHINGTON  
PLAN VIEW

PROJECT NO.  
120315BW  
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120315BW LILLIWAUP FALLS POWER PROJECT

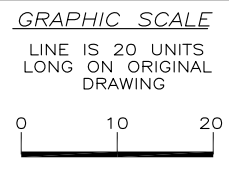


**DEVELOPED ELEVATION**  
SCALE: 1" = 20' FRONT FACE

- W4.5xW3.5 8"x12" 7' CAP MATS ABOVE EVERY PRONGLESS MAT (B1 FULL-LENGTH CAP MATS TOP LIFT ONLY)
- B1 W7.0xW3.5 8"x12" PRONGLESS MATS
- B2 W7.0xW4.0 8"x21" STANDARD MATS
- B1 W9.5xW4.0 8"x12" PRONGLESS MATS
- B2 W9.5xW4.0 8"x21" STANDARD MATS
- B2 W9.5xW4.0 8"x21" INTERMEDIATE MATS
- B1 W12xW5.0 8"x12" PRONGLESS MATS
- B2 W12xW5.0 8"x21" STANDARD MATS
- B2 W12xW5.0 8"x21" INTERMEDIATE MATS
- B1 W14xW7.0 8"x12" PRONGLESS MATS
- B2 W14xW7.0 8"x21" STANDARD MATS

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HKH  
ENGINEER  
CADD BY  
AMJ

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**HW**

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WELDED WIRE RETAINING WALL

**LILLIWAUP FALLS POWER PROJECT**  
LILLIWAUP FALLS GENERATING COMPANY  
LILLIWAUP, WASHINGTON

DEVELOPED ELEVATION

PROJECT NO.  
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**5**  
OF 5