

LOOKINGGLASS CREEK RESTORATION PROJECT

#20220025

UNION COUNTY, OR

FINAL DESIGN
MARCH 2026

AJ Jones AJ Jones
3/27/2026
FINAL DESIGN



WOLF WATER RESOURCES, INC.
1001 SE WATER AVE, SUITE #180
PORTLAND, OR 97214
503.207.6688



CTUIR
LOOKINGGLASS CREEK
UNION, OR

VICINITY MAP & SHEET INDEX

REVISION NUMBER

No.	Date	Revision

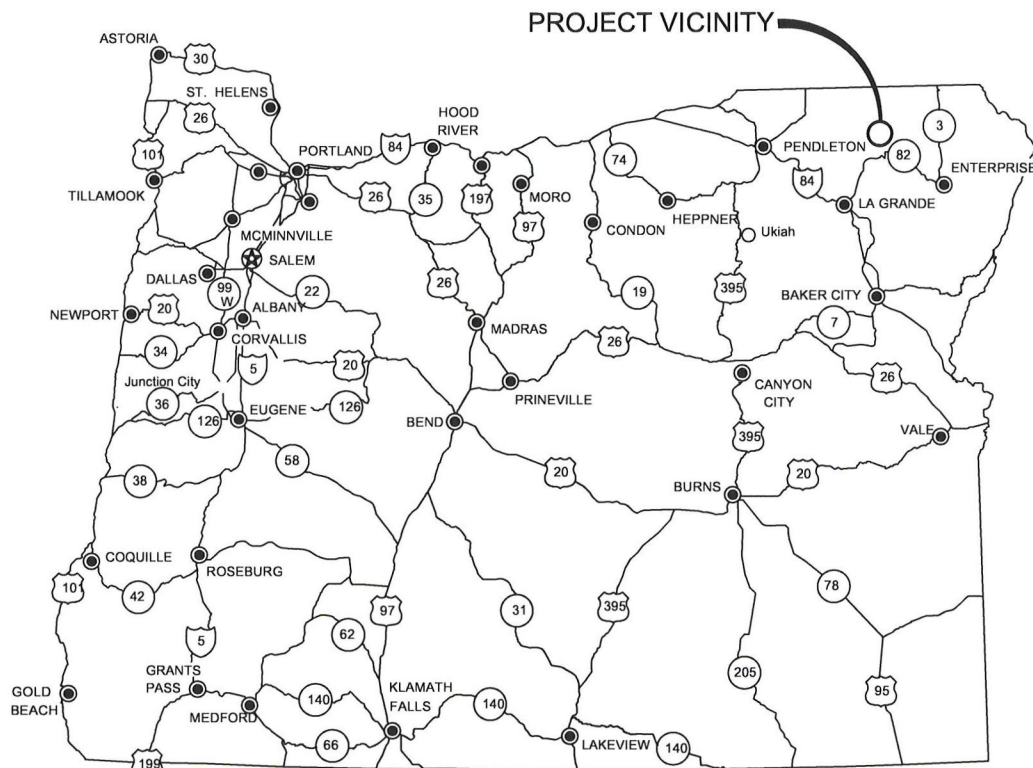
Date: 3/23/2026
Designed By: AJ
Drawn By: AD, BS
Checked By: AJ

SCALE
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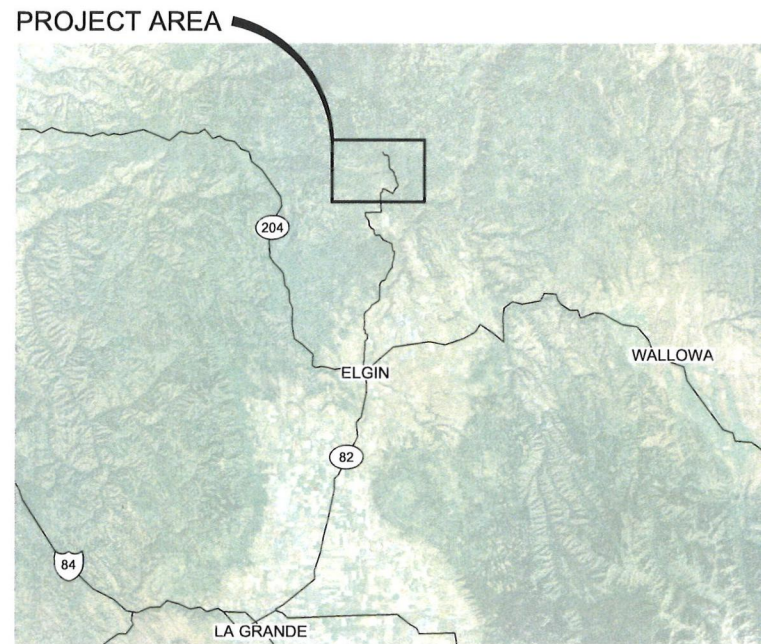
JOB NO.

SHEET NO.

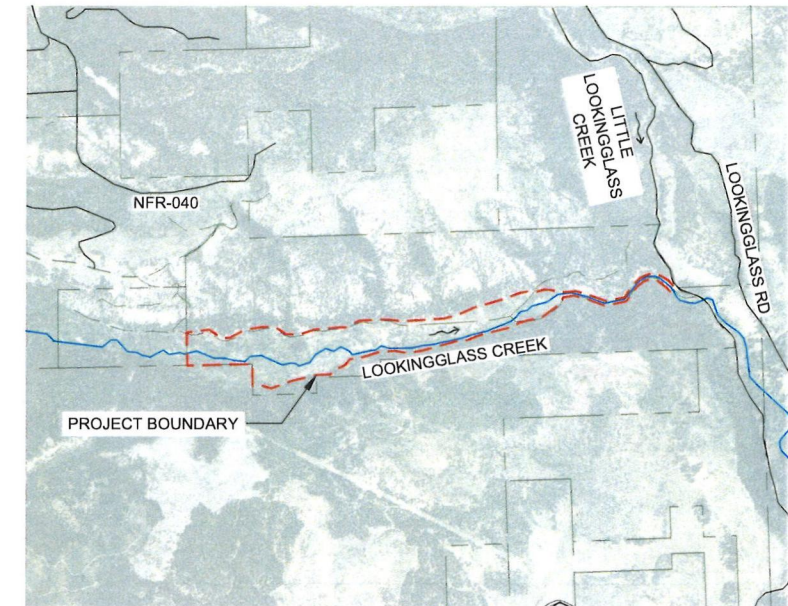
G1.1
1 OF 37



REGIONAL MAP
NTS



PROJECT VICINITY
NTS



PROJECT AREA
NTS

PROJECT TEAM

PROJECT OWNER
CONFEDERATED TRIBES OF THE UMATILLA INDIAN RESERVATION (CTUIR)
46411 TUMINE WAY,
PENDLETON, OR 97801
(541) 429-7010

ENGINEER
WOLF WATER RESOURCES, INC
AJ JONES, PE
AJones@wolfwaterresources.com
1001 SE WATER AVE, SUITE #180
PORTLAND, OR 97214
(503) 207-6688

PROJECT INFO

SPATIAL REFERENCE
HORIZONTAL:
NAD 83 OREGON STATE PLANE
(POLYCONIC) NORTH ZONE, INT FT
VERTICAL: NAVD88

PROJECT SITE LOCATION:

ELGIN, OR, 97827
UNION COUNTY
LATITUDE: 45.75045°
LONGITUDE: -117.87669°
WATERBODY: LOOKINGGLASS CREEK

SHEET INDEX

SHEET NUMBER	SHEET NAME	SHEET DESCRIPTION	SHEET NUMBER	SHEET NAME	SHEET DESCRIPTION
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15	C2.7	PLAN & PROFILE 6	33	C6.4	TEMPORARY CROSSING DETAIL
16	C2.8	ROADWAY PLAN & PROFILE 1	34	C6.5	TEMPORARY EROSION CONTROL DETAILS
17	C2.9	ROADWAY PLAN & PROFILE 2	35	L1.1	SITE REVEGETATION PLAN
18	C3.1	SECTIONS 1	36	S1	GENERAL STRUCTURAL NOTES & QUALITY ASSURANCE PLAN
			37	S2	BRIDGE PLANS, DETAILS, & SECTIONS

NOTICE TO EXCAVATORS:

ATTENTION: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER.
(NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS 503-232-1987).

POTENTIAL UNDERGROUND FACILITY OWNERS

Dig Safely.

Call the Oregon One-Call Center
DIAL 811 or 1-800-332-2344

EMERGENCY TELEPHONE NUMBERS

NW NATURAL GAS
M-F 7am-6pm 503-226-4211 Ext.4313
AFTER HOURS 503-226-4211
PGE 503-464-7777
CENTURYLINK 1-800-573-1311
CITY BUREAU OF MAINTENANCE 503-823-1700
CITY WATER 503-823-4874
VERIZON 1-800-483-1000



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CONFEDERATED TRIBES OF THE
UMATILLA INDIAN RESERVATION
10507 NORTH McALISTER RD
ISLAND CITY, OR 97850
541.425.7941

CTUIR
LOOKINGGLASS CREEK
UNION, OR

PROPOSED ACCESS & STAGING
OVERVIEW

REVISION NUMBER

No.	Date	Revision

Date	Designed By
Drawn By	Checked By
AD, BS	AJ

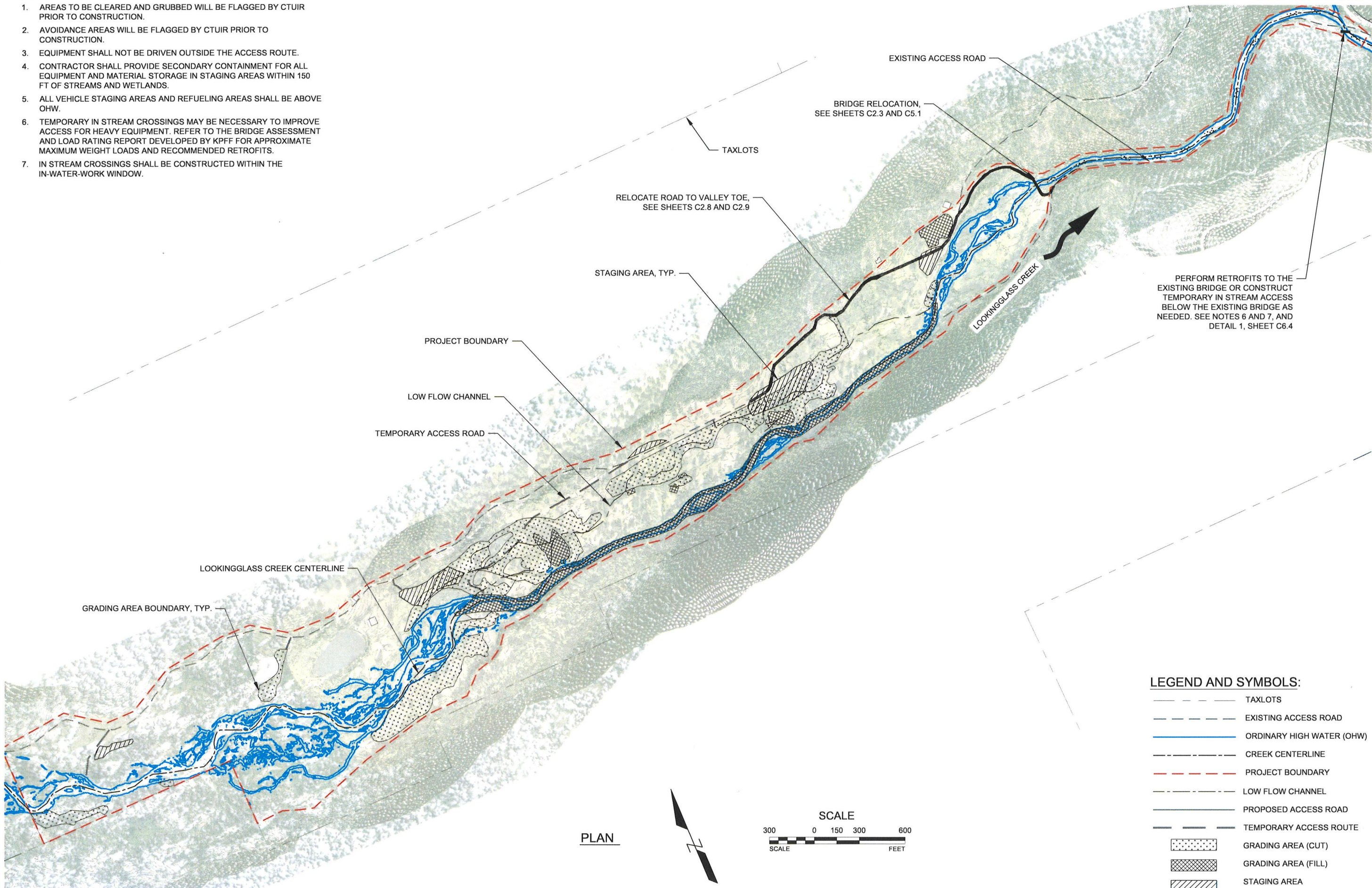
SCALE 1" = 300'

JOB NO.

SHEET NO.

C1.2
7 OF 37

- NOTES:**
1. AREAS TO BE CLEARED AND GRUBBED WILL BE FLAGGED BY CTUIR PRIOR TO CONSTRUCTION.
 2. AVOIDANCE AREAS WILL BE FLAGGED BY CTUIR PRIOR TO CONSTRUCTION.
 3. EQUIPMENT SHALL NOT BE DRIVEN OUTSIDE THE ACCESS ROUTE.
 4. CONTRACTOR SHALL PROVIDE SECONDARY CONTAINMENT FOR ALL EQUIPMENT AND MATERIAL STORAGE IN STAGING AREAS WITHIN 150 FT OF STREAMS AND WETLANDS.
 5. ALL VEHICLE STAGING AREAS AND REFUELING AREAS SHALL BE ABOVE OHW.
 6. TEMPORARY IN STREAM CROSSINGS MAY BE NECESSARY TO IMPROVE ACCESS FOR HEAVY EQUIPMENT. REFER TO THE BRIDGE ASSESSMENT AND LOAD RATING REPORT DEVELOPED BY KPFF FOR APPROXIMATE MAXIMUM WEIGHT LOADS AND RECOMMENDED RETROFITS.
 7. IN STREAM CROSSINGS SHALL BE CONSTRUCTED WITHIN THE IN-WATER-WORK WINDOW.



- LEGEND AND SYMBOLS:**
- TAXLOTS
 - EXISTING ACCESS ROAD
 - ORDINARY HIGH WATER (OHW)
 - CREEK CENTERLINE
 - PROJECT BOUNDARY
 - LOW FLOW CHANNEL
 - PROPOSED ACCESS ROAD
 - TEMPORARY ACCESS ROUTE
 - [Dotted Pattern] GRADING AREA (CUT)
 - [Cross-hatched Pattern] GRADING AREA (FILL)
 - [Diagonal Line Pattern] STAGING AREA

PLAN

DWG: Z:\Shared\W21\CAD\2025\lookingglass creek (ctuir)\DWGS\SHETS\LGC-C2.0 - PROPOSED OVERVIEW.dwg USER: tschoner
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PORTLAND, OR 97214
503.207.6668



CTUIR
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UNION, OR

PLAN & PROFILE 2

REVISION NUMBER

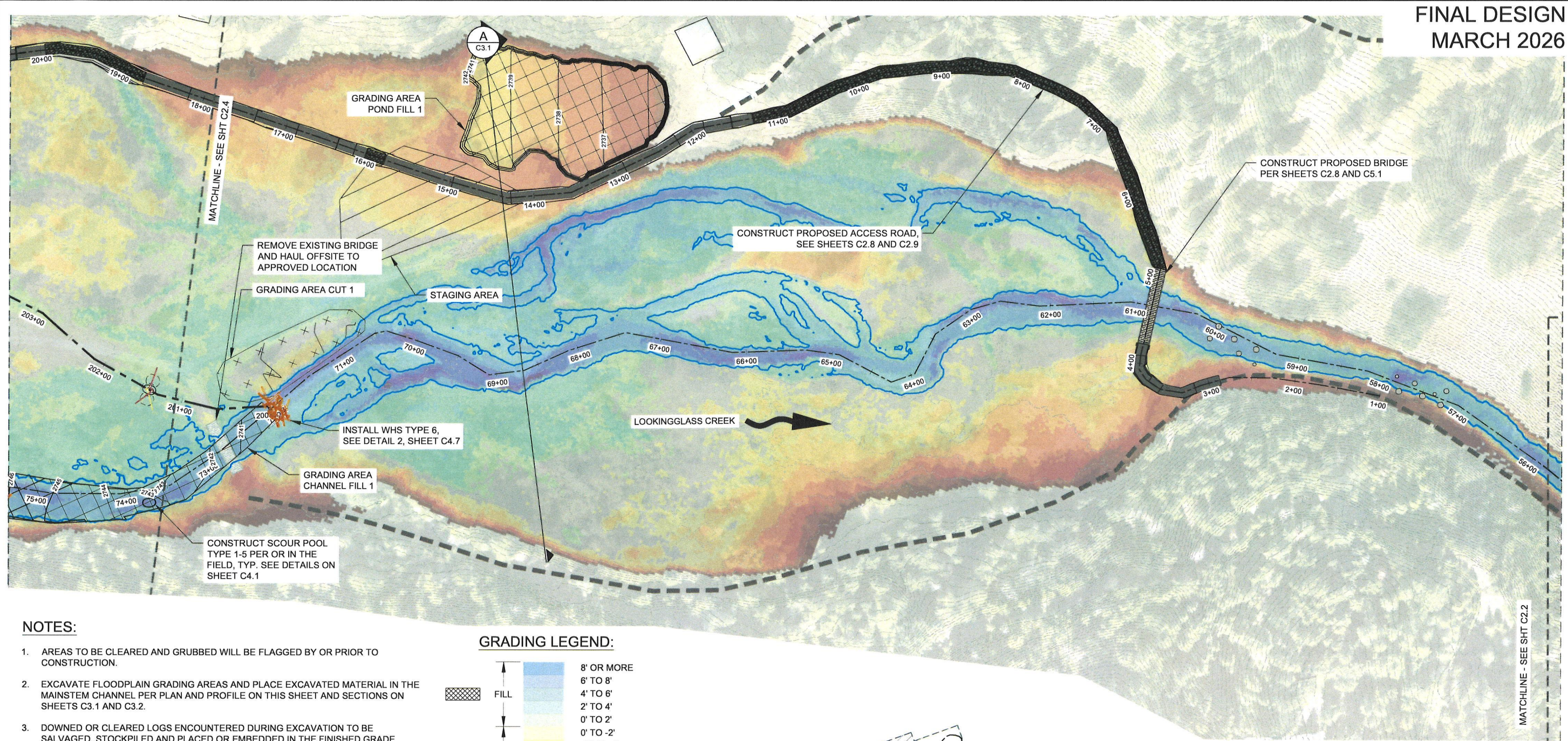
No.	Date	Revision

Date: _____
Designed By: AJ
Drawn By: AD, BS
Checked By: AJ

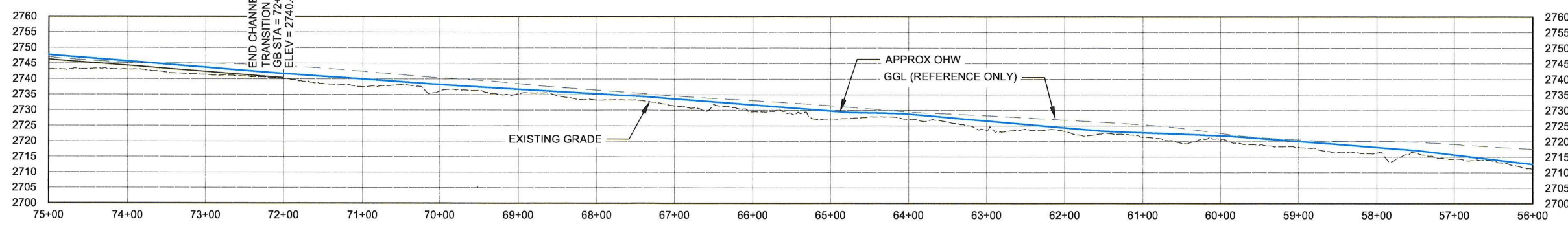
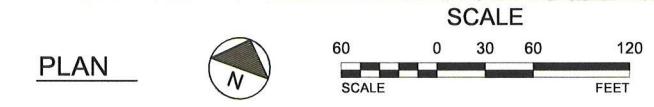
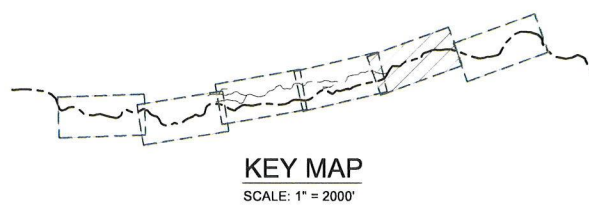
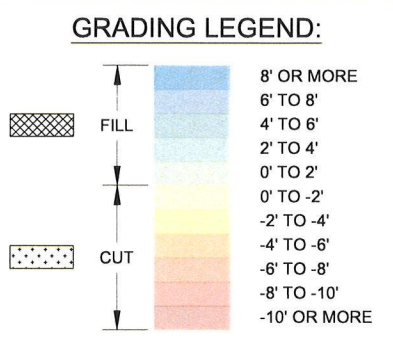
SCALE: 1" = 80'
JOB NO. _____

SHEET NO. _____

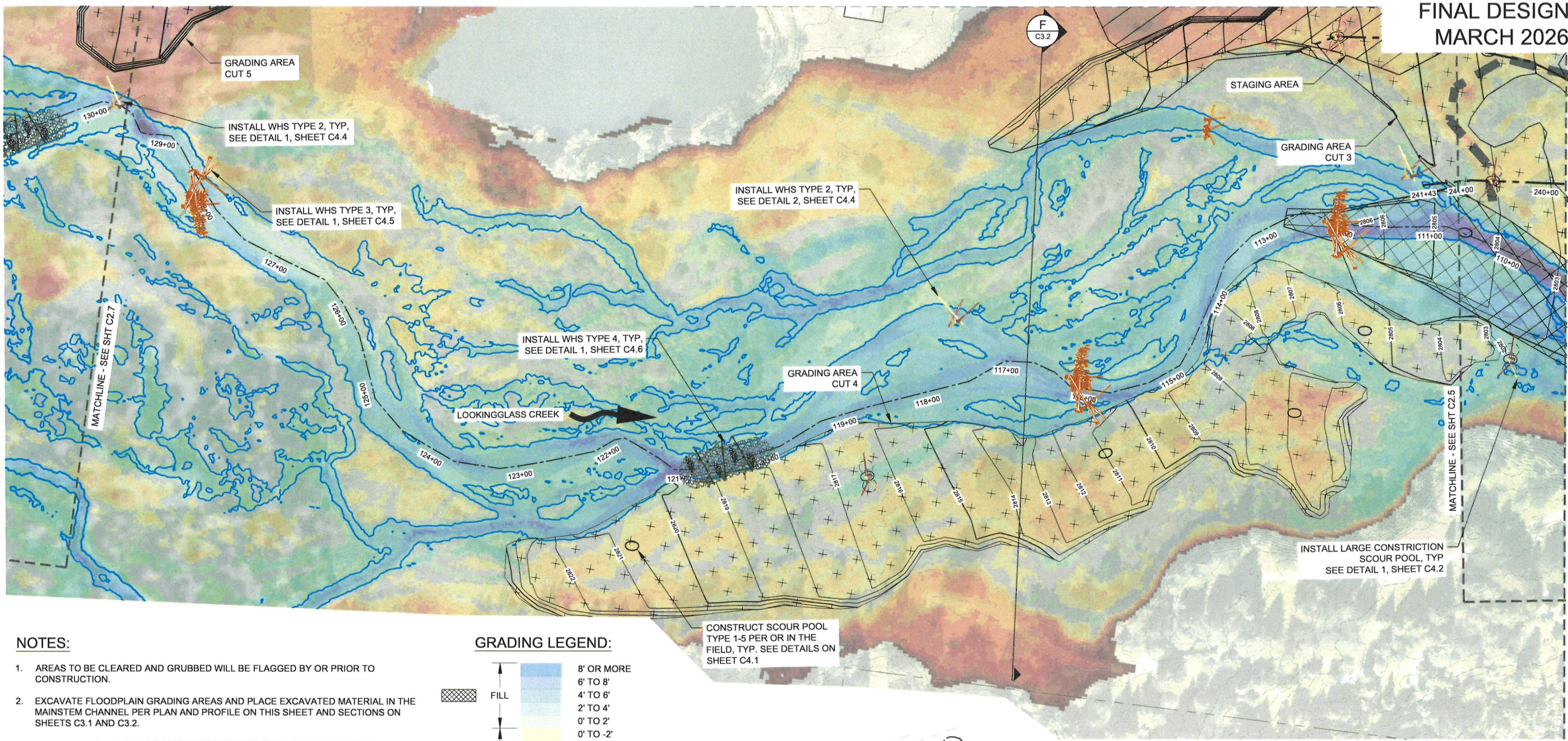
C2.3
11 OF 37



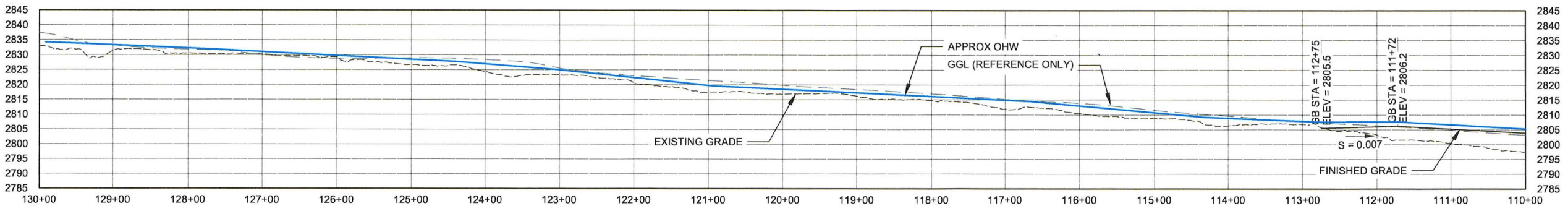
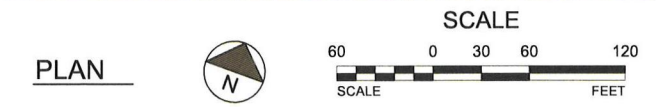
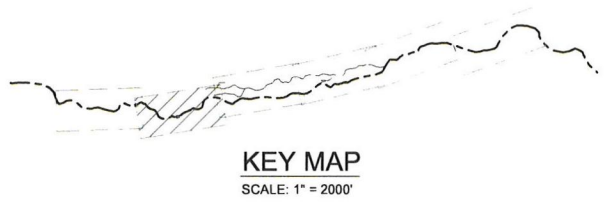
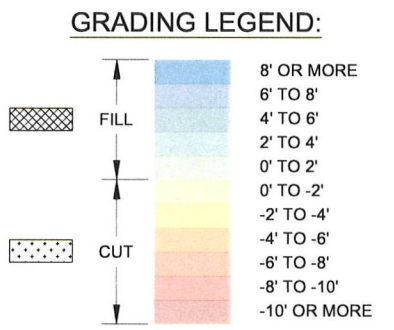
- NOTES:**
- AREAS TO BE CLEARED AND GRUBBED WILL BE FLAGGED BY OR PRIOR TO CONSTRUCTION.
 - EXCAVATE FLOODPLAIN GRADING AREAS AND PLACE EXCAVATED MATERIAL IN THE MAINSTEM CHANNEL PER PLAN AND PROFILE ON THIS SHEET AND SECTIONS ON SHEETS C3.1 AND C3.2.
 - DOWNED OR CLEARED LOGS ENCOUNTERED DURING EXCAVATION TO BE SALVAGED, STOCKPILED AND PLACED OR EMBEDDED IN THE FINISHED GRADE ACCORDING TO THE GRADING AND WOOD HABITAT DETAILS ON SHEETS C4.1 - C4.8.
 - CONSTRUCT WHS PER SHEETS C4.1 - C4.8.
 - INSTALL 40-50 FLOODPLAIN LOGS/ ACRE IN CUT AND CHANNEL FILL AREAS, AS DIRECTED IN THE FIELD BY THE ENGINEER, AND PER THE FLOODPLAIN LOG DETAILS ON SHEET C4.3.



DWG: Z:\Share\W2\CAD\2026\025-Lookingglass Creek (CTUIR)\DWGS\SHETS\C2-X-LGC-PLAN & PROFILE 1.dwg USER: bschoner
 DATE: Mar 23, 2026 12:38pm XREFS: X:\B-W2-22x34 LGC_X-AERIAL LGC_X-REM LGC_X-DESIGN-BASE LGC_X-MAP-BASE LGC_X-LEGEND LGC_X-SURFACE-EG LIDAR



- NOTES:**
- AREAS TO BE CLEARED AND GRUBBED WILL BE FLAGGED BY OR PRIOR TO CONSTRUCTION.
 - EXCAVATE FLOODPLAIN GRADING AREAS AND PLACE EXCAVATED MATERIAL IN THE MAINSTEM CHANNEL PER PLAN AND PROFILE ON THIS SHEET AND SECTIONS ON SHEETS C3.1 AND C3.2.
 - DOWNED OR CLEARED LOGS ENCOUNTERED DURING EXCAVATION TO BE SALVAGED, STOCKPILED AND PLACED OR EMBEDDED IN THE FINISHED GRADE ACCORDING TO THE GRADING AND WOOD HABITAT DETAILS ON SHEETS C4.1 - C4.8.
 - CONSTRUCT WHS PER SHEETS C4.1 - C4.8.
 - INSTALL 40-50 FLOODPLAIN LOGS/ ACRE IN CUT AND CHANNEL FILL AREAS, AS DIRECTED IN THE FIELD BY THE ENGINEER, AND PER THE FLOODPLAIN LOG DETAILS ON SHEET C4.3.



STREAM PROFILE: LOOKINGGLASS CREEK
SCALE: HORIZONTAL 1" = 80'
SCALE: VERTICAL 1" = 20'

REVISION NUMBER

No.	Date	Revision

Date: Designed By: AJ
Drawn By: AD, BS Checked By: AJ

SCALE: 1" = 100'

JOB NO. SHEET NO. C2.6
14 OF 37

DWG: Z:\Shared\W21\CAD\2026\Lookingglass Creek (CTUIR)\DWGSHEETS\C2-X-LGC-PLAN & PROFILE 1.dwg USER: bschoner
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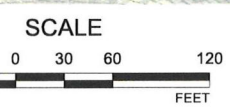
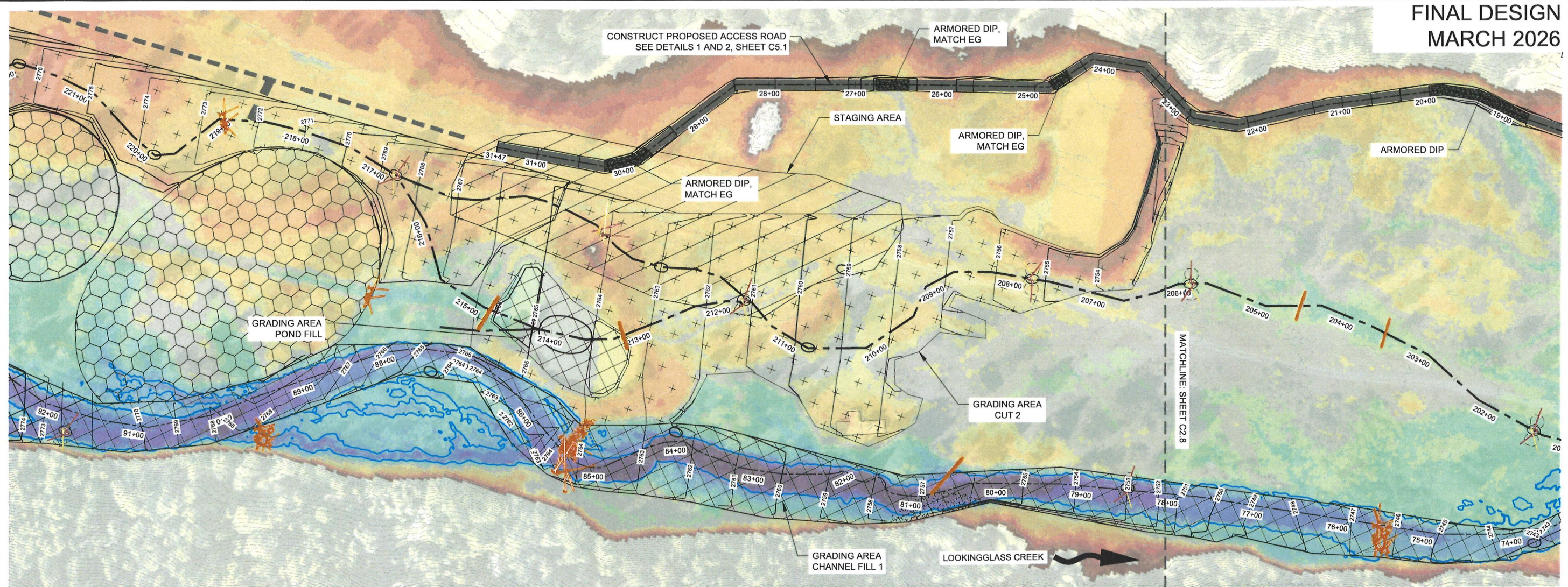


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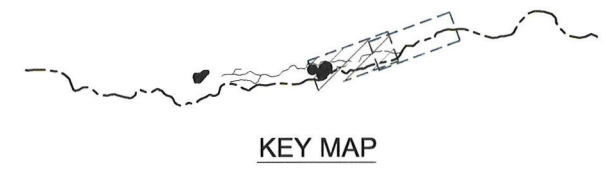


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LOOKINGGLASS CREEK
UNION, OR

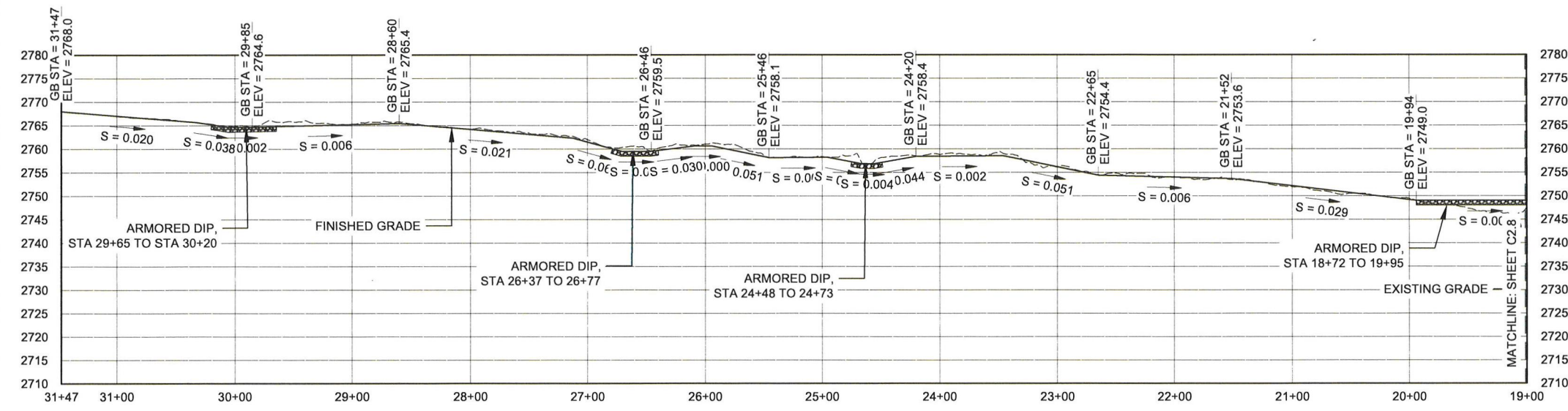
ROADWAY PLAN & PROFILE 2



PLAN



KEY MAP



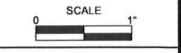
NOTES:

- AREAS TO BE CLEARED AND GRUBBED WILL BE FLAGGED PRIOR TO CONSTRUCTION.
- CONSTRUCT ACCESS ROAD PER ROADWAY SECTION DETAILS 1 AND 2 ON SHEET C5.1.

REVISION NUMBER

No.	Date	Revision

Date: _____ Designed By: AJ
Drawn By: AD, BS Checked By: AJ



JOB NO. _____

SHEET NO. _____

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RENEWS: 6/30/2027



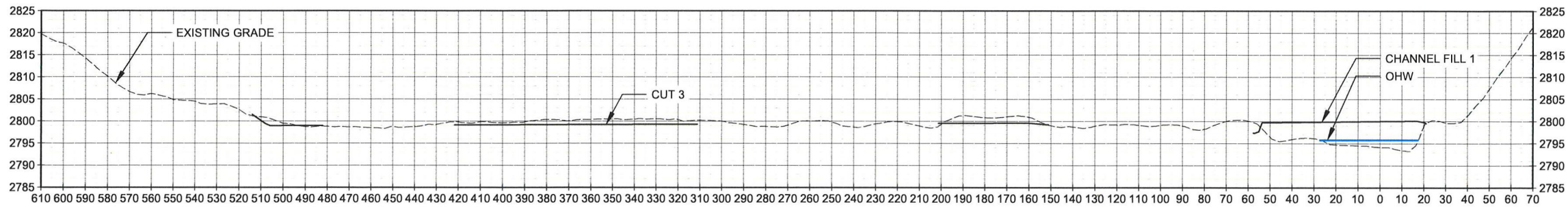
WOLF WATER RESOURCES, INC.
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ISLAND CITY, OR 97850
541.428.7941

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LOOKINGGLASS CREEK
UNION, OR

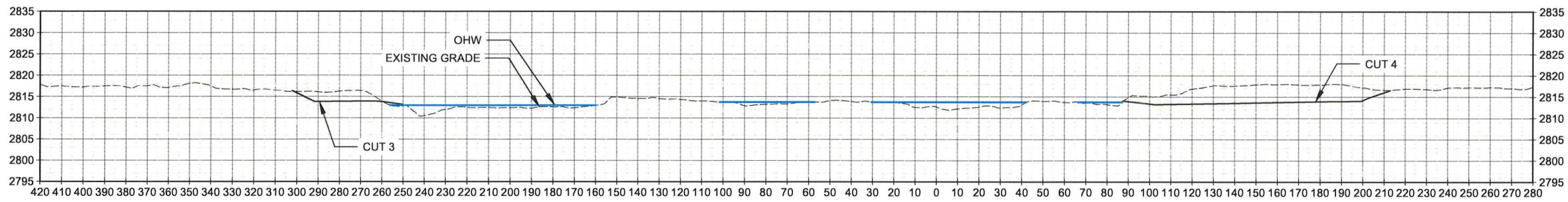
SECTIONS 2



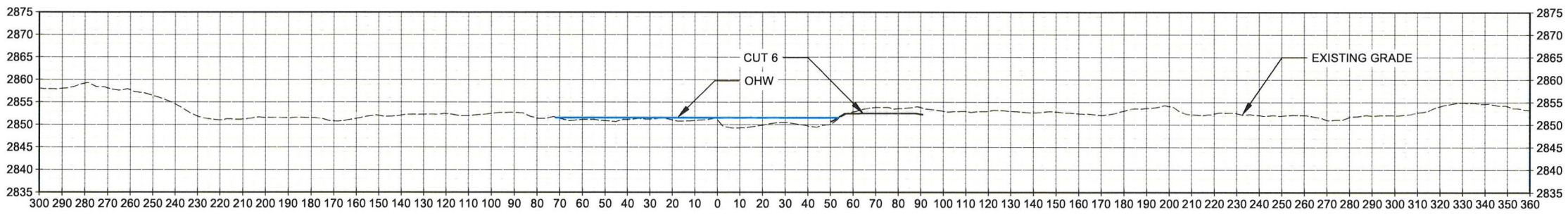
E SECTION: CHANNEL FILL 1 & CUT 6
C2.5 SCALE: HORIZONTAL 1" = 30'
SCALE: VERTICAL 1" = 15'

NOTES:

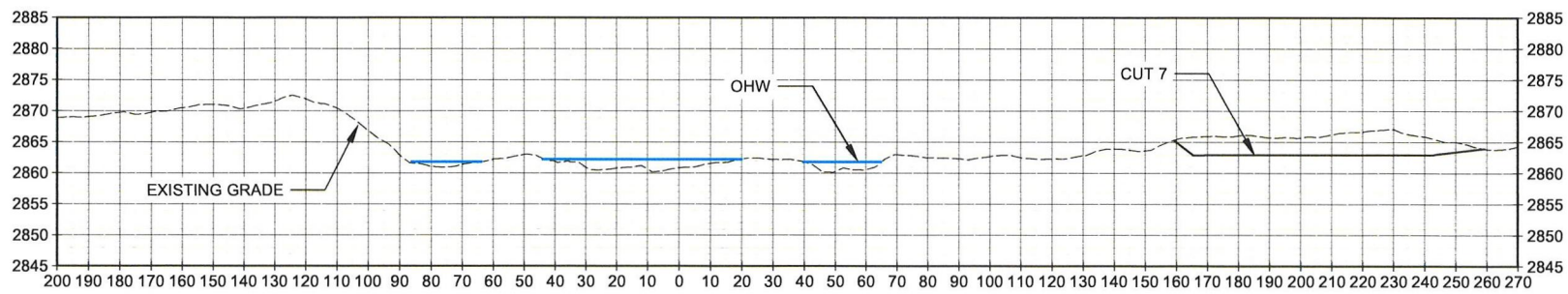
1. SECTIONS LOOK DOWNSTREAM.
2. SECTIONS ARE IN FT, NAVD88.
3. SECTIONS ARE VERTICALLY EXAGGERATED 2X.



F SECTION: CUT 6 & 7
C2.6 SCALE: HORIZONTAL 1" = 30'
SCALE: VERTICAL 1" = 15'



G SECTION: CUT 9
C2.7 SCALE: HORIZONTAL 1" = 30'
SCALE: VERTICAL 1" = 15'



H SECTION: CUT 10
C2.7 SCALE: HORIZONTAL 1" = 30'
SCALE: VERTICAL 1" = 15'

REVISION NUMBER

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Date	Designed By
Drawn By	Checked By
AD, BS	AJ

SCALE 1" = 1'

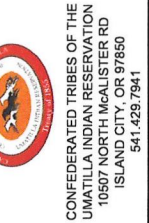
JOB NO.

SHEET NO.

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 DATE: Mar 23, 2026 12:44pm XREFS: X-TB-W21-22x34 LGC_X-DESIGN-BASE



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CTUIR
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UNION, OR

HABITAT DETAILS 2

REVISION NUMBER

No.	Date	Revision

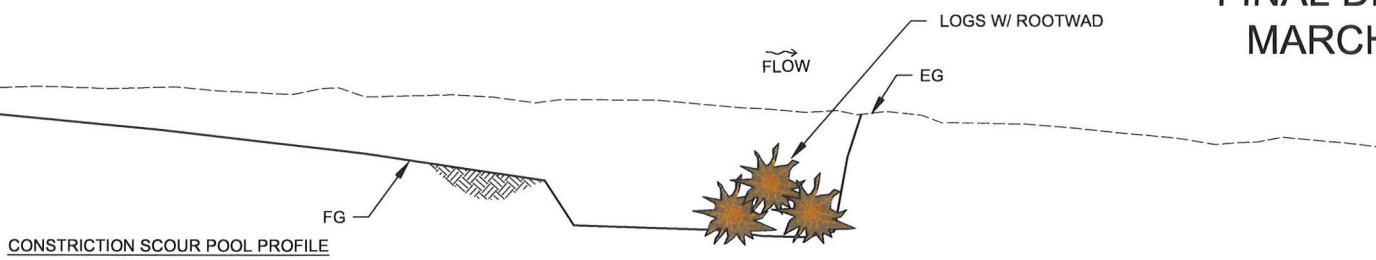
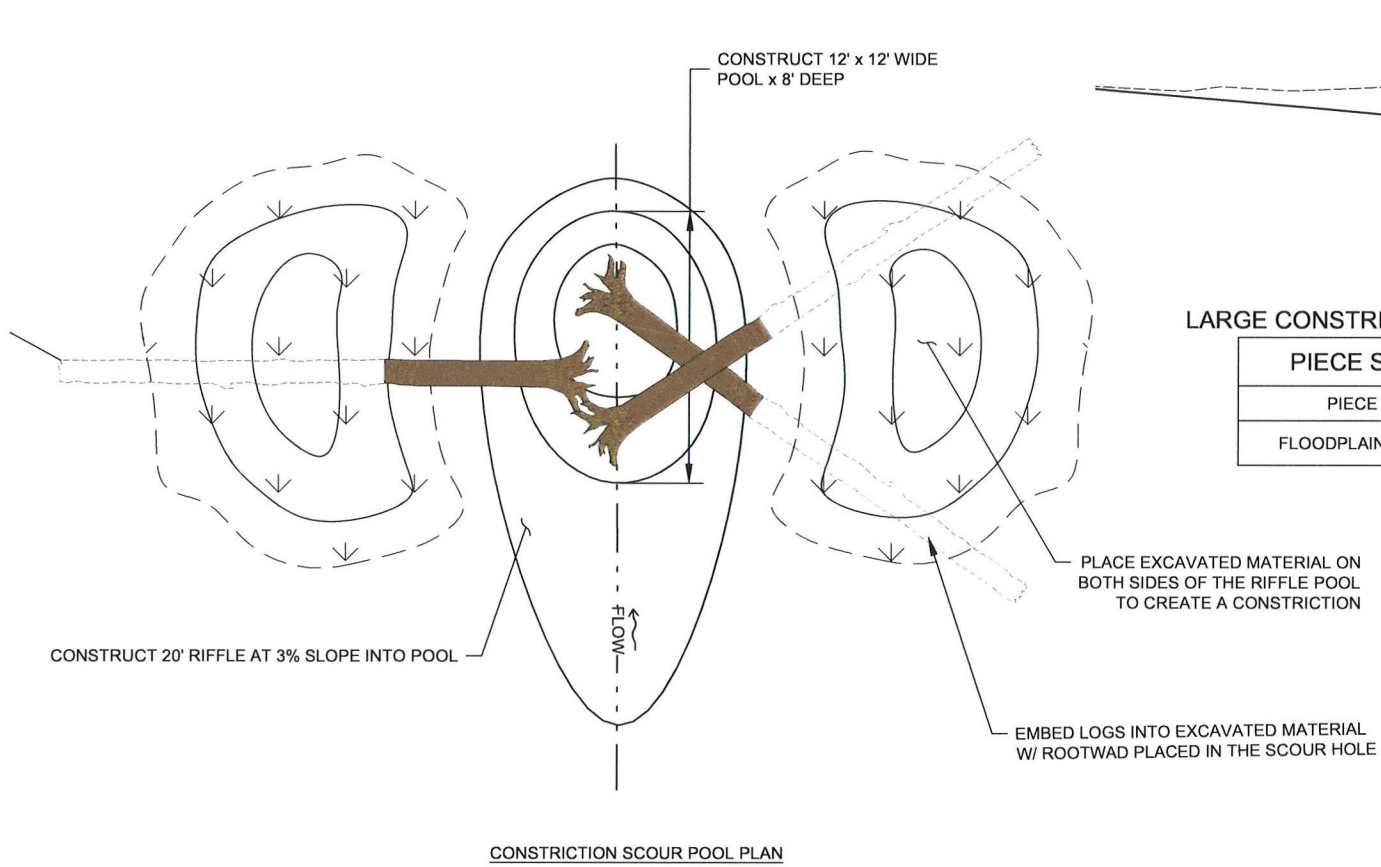
Date: _____
Designed By: AJ
Drawn By: AD, BS
Checked By: AJ

SCALE: 1" = 10'

JOB NO. _____

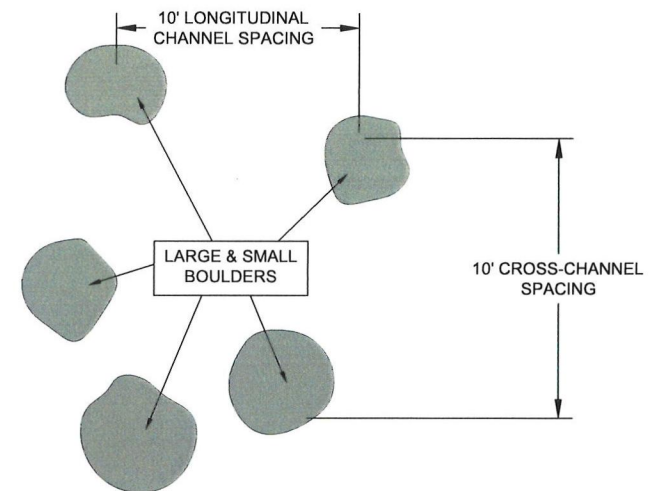
SHEET NO. C4.2

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LARGE CONSTRICTION SCOUR POOL

PIECE SUMMARY	
PIECE	QTY
FLOODPLAIN LOG	3



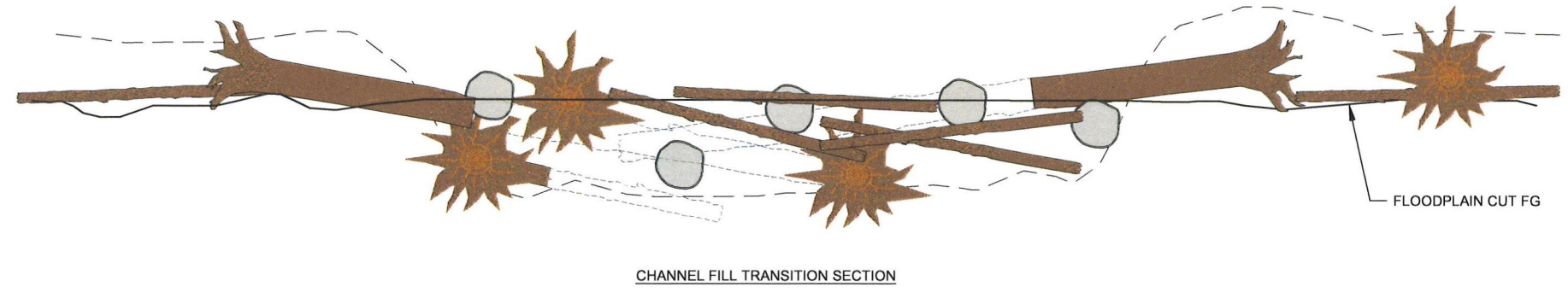
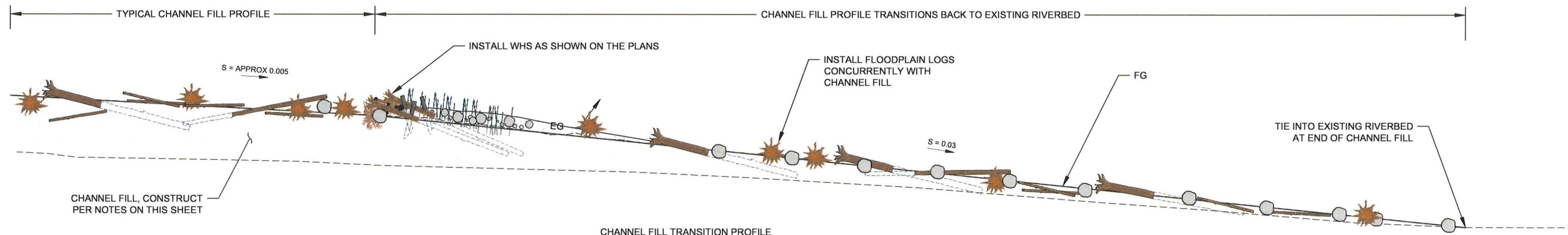
LOOKINGGLASS HABITAT BOULDERS	
STATION	QTY
29+27	8
31+50	8
33+32	8
36+58	8
38+17	8
41+30	8
45+00	8
48+50	8
50+50	8
52+45	8
54+60	8
57+46	8
59+67	8

1 LARGE CONSTRICTION SCOUR POOL

NOT TO SCALE

2 BOULDER PLACEMENT DETAIL PLAN VIEW

NOT TO SCALE



3 TYPICAL CHANNEL FILL TRANSITION RIFFLE

NOT TO SCALE

CHANNEL FILL NOTES:

- CHANNEL FILL SHALL CONSIST OF GRAVELS, COBBLES AND BOULDERS ENCOUNTERED DURING FLOODPLAIN EXCAVATION DURING THIS PROJECT.
- CONTRACTOR SHALL PRIORITIZE USE OF LARGER COBBLES AND BOULDERS ENCOUNTERED DURING GRADING ACTIVITIES FOR USE IN CHANNEL FILL. CONTRACTOR SHALL COORDINATE WITH ENGINEER AND/OR OR TO VISUALLY INSPECT THE PROPOSED FILL MATERIAL PRIOR TO PLACING IN CHANNEL.
- ALL FILL MATERIAL SHALL BE PLACED IN SUCH A MANNER THAT ALL VOIDS ARE FILLED WITH THE FINER MATERIALS TO PROVIDE A WELL GRADED COMPACT MASS.
- CHANNEL FILL SHALL BE PLACED AFTER AND CONCURRENTLY WITH INSTALLATION OF LARGE WOOD STRUCTURES WITHIN THE CHANNEL.
- CHANNEL FILL SHALL BE PLACED TO THE ELEVATIONS AND EXTENTS SHOWN ON THE PLANS. CHANNEL FILL SHALL BE PLACED IN 12-INCH LIFTS AND COMPACTED WITH MACHINE TRACKS OR EXCAVATOR BUCKET TO FIRM CONDITION. FOLLOWING COMPACTION OF EACH LIFT, INDIVIDUAL WOOD PIECES SHALL BE PLACED AT VARIED ANGLES AND DEPTHS TO FORM COMPLEX WOOD-COBBLE MATRIX. REPEAT FOR EACH LAYER OF CHANNEL FILL.
- BETWEEN EACH 12-INCH LIFT, PLACE AND PUMP WASH NATIVE FINES INTO THE ROCK MATRIX UNTIL WATER NO LONGER INFILTRATES OR FINES ARE NO LONGER RETAINED. REFER TO SECTION 8-28.
- FINISH GRADE TOLERANCE IN THE CHANNEL AND BANKS SHALL GENERALLY ALLOW FOR LARGER ROCK TO PROTRUDE ABOVE THE STATED FINISH GRADE.

DWG: Z:\Shared\W21\CAD\2025\lookingglass creek (ctuir)\DWG\SHEETS\C4-X-LGC-WHS DETAILS.dwg USER: bschoner DATE: Mar 23, 2026 12:46pm XREFS: X-TB-W21-22x34



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ISLAND CITY, OR 97650
541.429.7541

CTUIR
LOOKINGGLASS CREEK
UNION, OR

WHS DETAILS 4

REVISION NUMBER

No.	Date	Revision

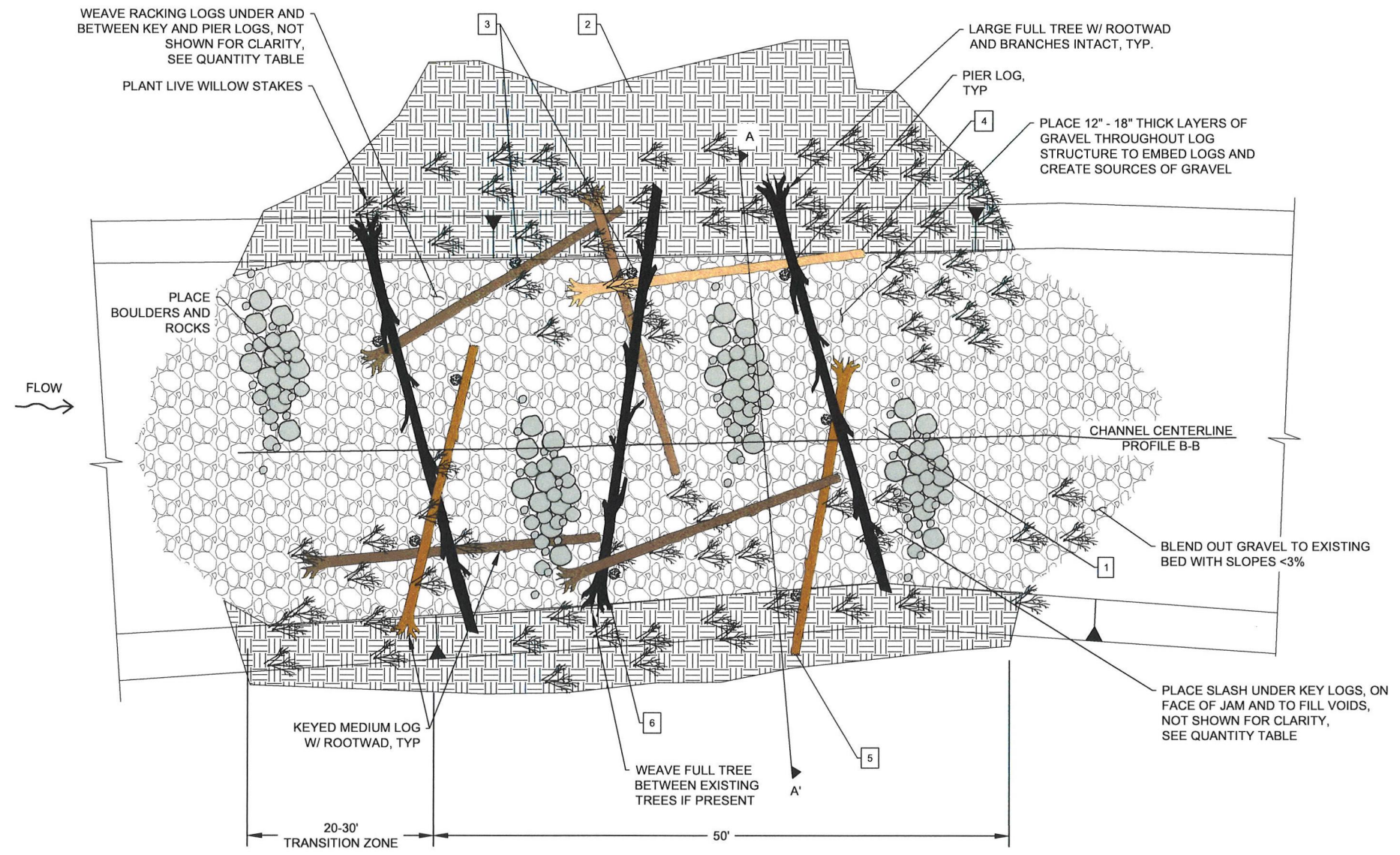
Date: AJ
Designed By: AJ
Drawn By: AD, BS
Checked By: AJ

SCALE: 1" = 1'

JOB NO.

SHEET NO. C4.6

25 OF 37



LOG INSTALLATION NOTES:

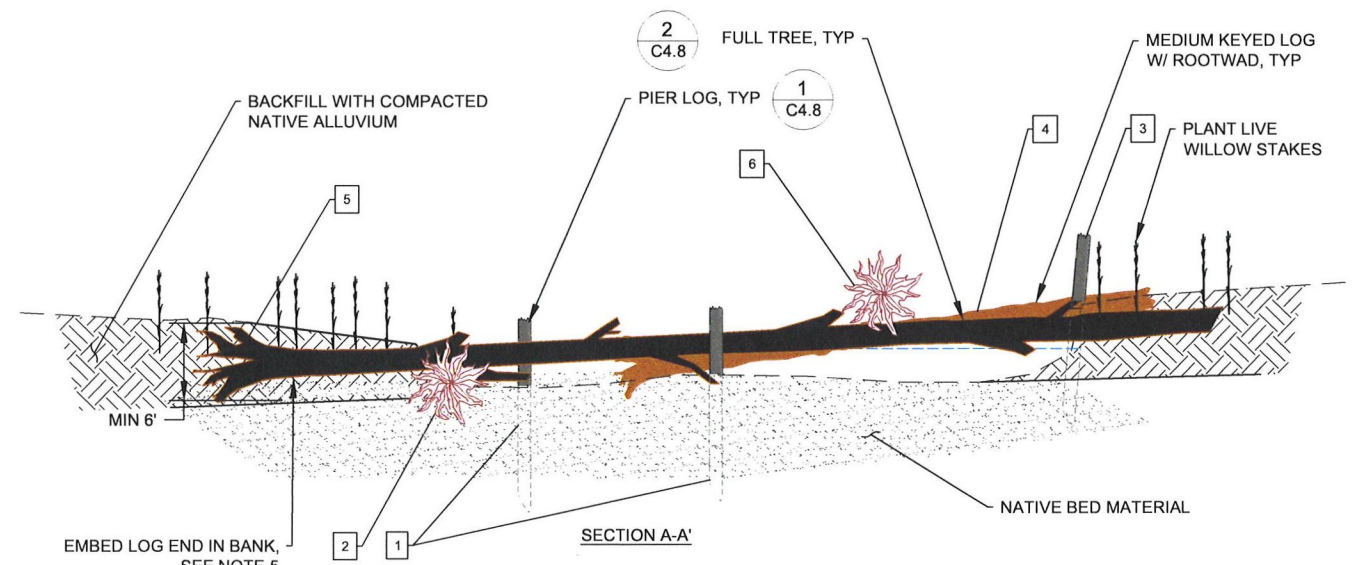
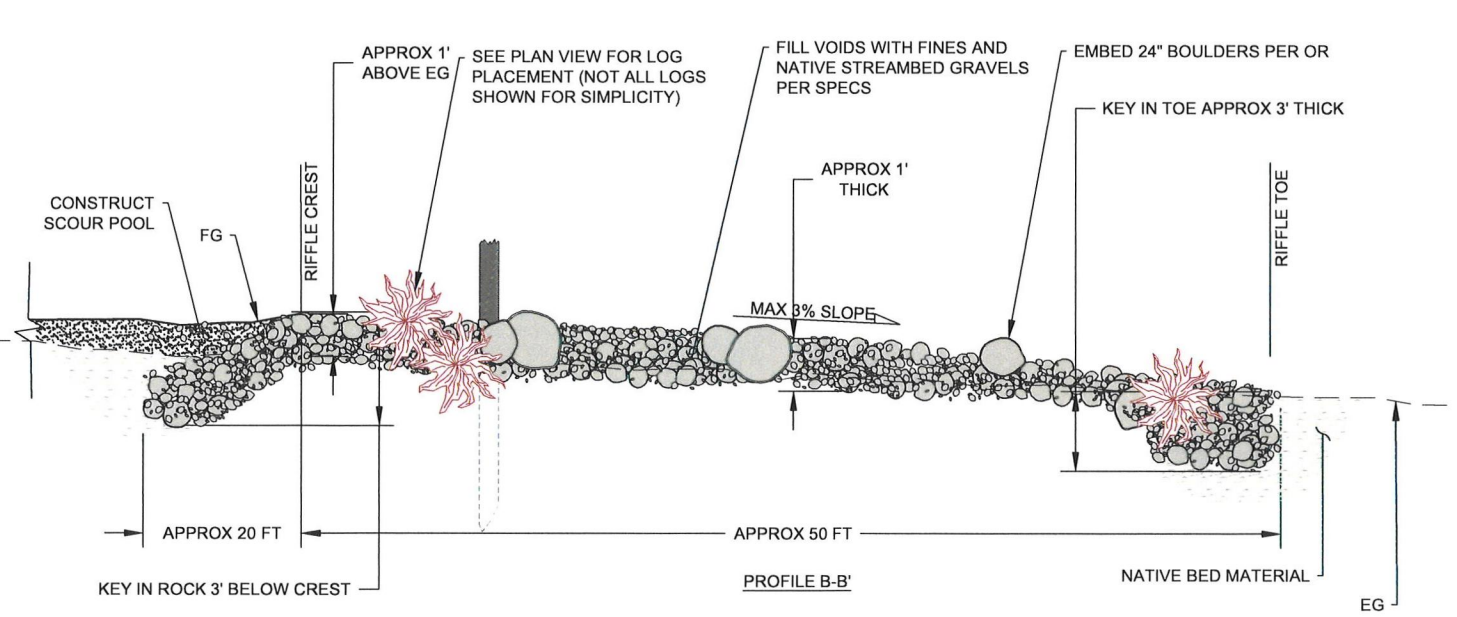
1. SELECT NATIVE BACKFILL SHALL BE PLACED IN 12" LIFTS AND COMPACTED TO FIRM CONDITION.
2. CONTRACTOR TO COORDINATE LOG PLACEMENT WITH ENGINEER PRIOR TO CONSTRUCTION. PLACEMENT CAN BE FIELD FIT, BUT THE ENGINEER OR OWNER REPRESENTATIVE SHALL APPROVE FINAL STRUCTURE ORIENTATION AND LOCATION BEFORE COMPLETION.
3. WHERE POSSIBLE, LOGS PROTRUDING FROM BANK SHALL BE PLACED CANTILEVERED BETWEEN EXISTING LIVE TREES. THE SUPPORTING TREE NEAREST TO THE BANK SHALL BE ON THE DOWNSTREAM SIDE OF THE LOGS.
4. EMBEDDED LOGS SHALL BE INSTALLED BY EXCAVATING A TRENCH, PLACING THE LOG, BACKFILLING, AND MACHINE COMPACTING BACKFILL PER SPECIFICATIONS. WHERE EXCAVATION IS NOT POSSIBLE LOG ENDS SHALL BE TIED INTO NATIVE MATERIAL AND BURIED WITH NATIVE MATERIAL PER SPECIFICATIONS.
5. FOR BURIED KEYED LOGS EMBED A MINIMUM OF 2/3 THE TOTAL LENGTH OF THE LOG.
6. EMBED ROOTWAD AS NEEDED TO ACHIEVE REQUIRED BURIAL DEPTH AND ALLOW FOR FULL CONTACT BETWEEN THE BOTTOM OF THE LOG AND THE BOTTOM OF THE CHANNEL. BACKFILL AROUND ROOTWAD WITH SELECT NATIVE BACKFILL.
7. KEYED LOG DIAMETER MEASURED AT BREAST HEIGHT (DBH) AND LENGTH AS SHOWN ON PLANS.
8. CRUSH ALL EXPOSED SAW-CUT FACES

DENOTES PLACEMENT ORDER

WHS TYPE 4

PIECE SUMMARY

PIECE	QTY	LENGTH / DBH
PIER	9	15' / MIN 12"
MEDIUM W/ RW	7	MIN 35' / 12-18"
FULL TREE W/ RW	3	~60' / MIN 18"
RACKING WOOD	20	MIN 10' / MIN 6"
SLASH (CY)	40	
LIVE WILLOW STAKE	50	



1 WHS TYPE 4 - CHANNEL SPANNING RIFLE JAM
NOT TO SCALE

DWG: Z:\Shared\WZ\CAD\2025\lookingglass creek (ctui)\DWGS\HETS\C4-X-LGC- WHS DETAILS.dwg USER: bschoner DATE: Mar 23, 2026 12:32pm XREFS: X-TB-WZ-22x34

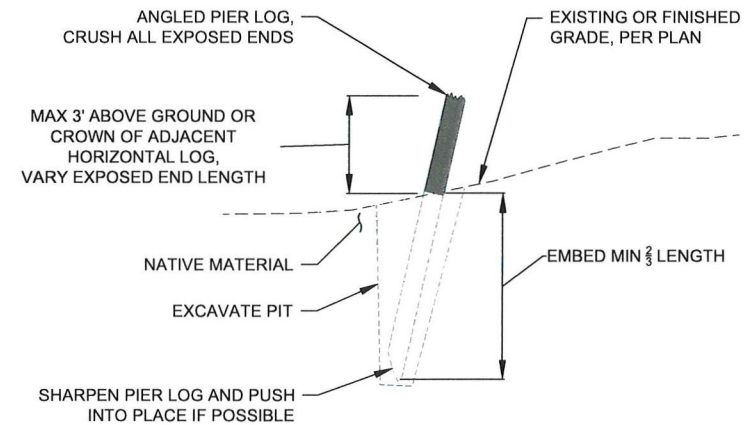


WOLF WATER RESOURCES, INC.
1001 SE WATER AVE, SUITE #180
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10507 NORTH MCALISTER RD
ISLAND CITY, OR 97850
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UNION, OR

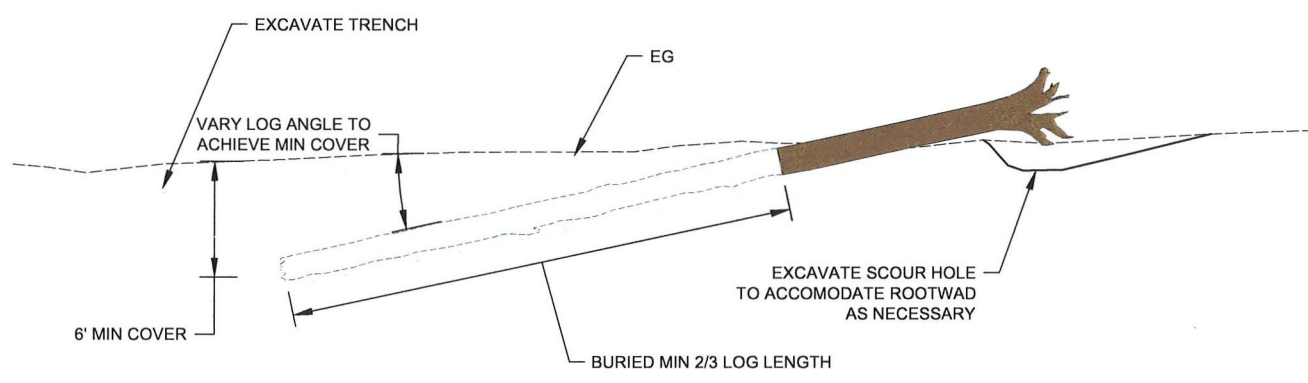
WHS DETAILS G



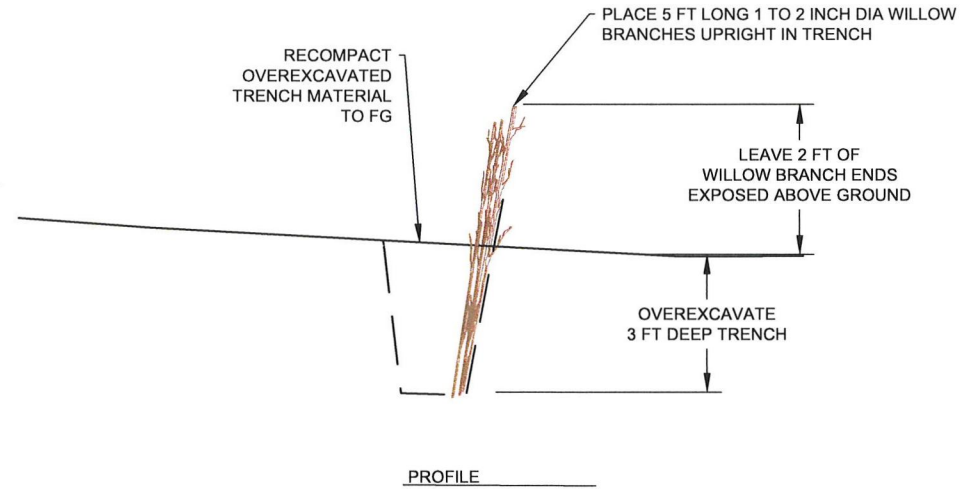
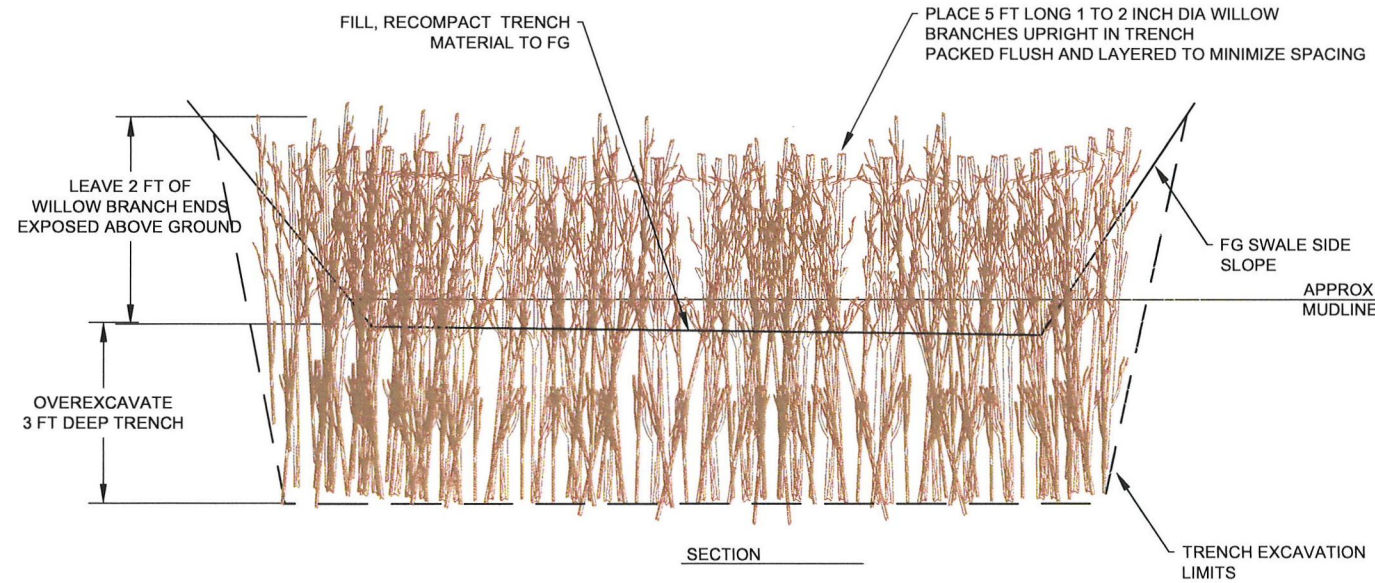
PIER LOG NOTES:

1. ALL PIER LOGS TO BE ANGLLED WITHIN 10°-30° OF VERTICAL. VARY ANGLE OF PIER LOGS TO LOOK NATURAL..
2. PIER LOGS SHALL BE USED TO PIN ADJACENT LOGS.
3. PIER LOG HEIGHTS TO VARY FROM 2' TO 3' MAX ABOVE GROUND OR ADJACENT HORIZONTAL LOG.

1 PIER LOG
NOT TO SCALE



2 KEYED LOG
NOT TO SCALE



3 WILLOW TRENCH BEAVER DAM ANALOGUE (BDA)
NOT TO SCALE

BDA STRUCTURE COMPONENTS			
MATERIAL	DIAMETER (IN)	LENGTH (FT)	QUANTITY PER STRUCTURE
WILLOW BRANCH	1 TO 2	5	500

NOTES:

1. COORDINATE WITH ENGINEER OR THE OR ON SITE TO CONSTRUCT FIRST BDA TO ENSURE PROPER LOCATION, CONSTRUCTION METHODS, INTENT, AND FINAL INSTALLED CONDITION.
2. BEAVER DAM ANALOGUES SHALL BE PACKED WITH MUD AND NATIVE ORGANIC MATERIAL TO SEAL HOLES IN THE BOTTOM 6 INCHES OF THE STRUCTURE.

REVISION NUMBER

No.	Date	Revision

Date: _____ Designed By: AJ
Drawn By: AD, BS Checked By: AJ

SCALE 1" = _____

JOB NO. _____

SHEET NO. _____

DWG: Z:\Shared\W2\CAD\2026\2025-lookingglass creek (ctuir)\DWG\SHEETSC4-X-LGC-WHS DETAIL.S.dwg USER: bschoner DATE: Mar 23, 2026 12:30pm XREFS: X-TB-W2-22x34



RENEWS: 6/30/2027



CTUIR
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UNION, OR

ROADWAY DETAILS

REVISION NUMBER

No.	Date	Revision

Date: Designed By: AJ
Drawn By: AD, BS Checked By: AJ

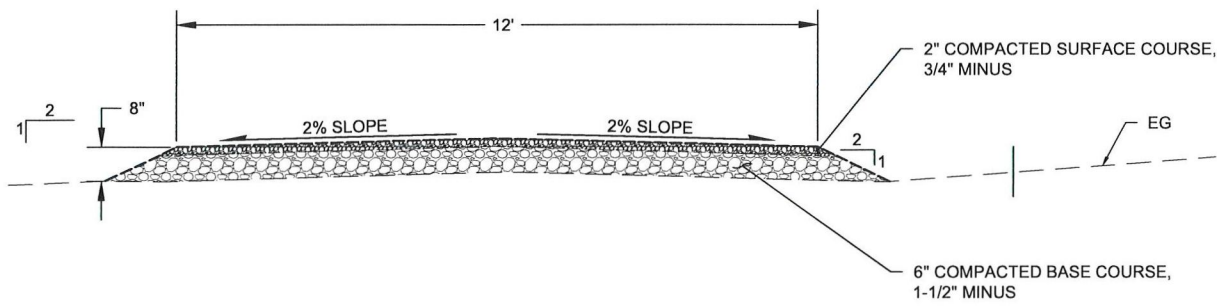
SCALE: 1" = 1'

JOB NO.

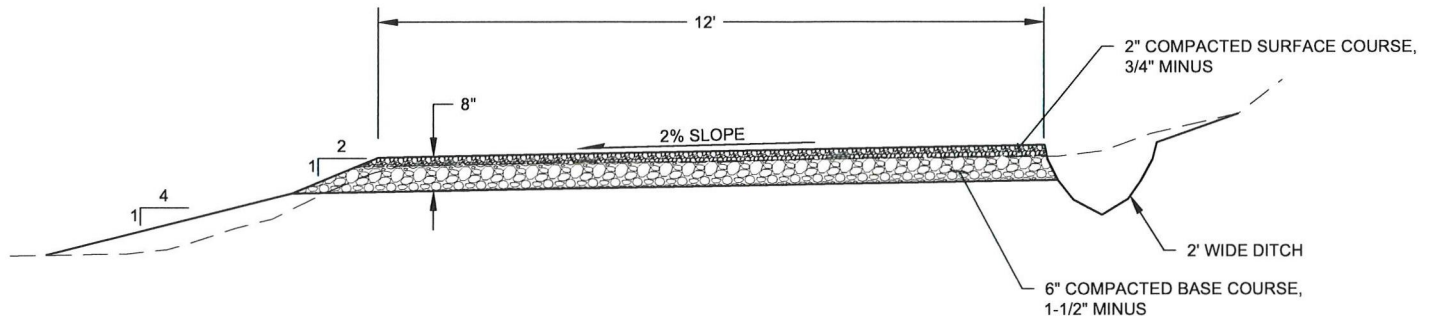
SHEET NO.

C5.2

29 OF 37



A ROAD - TYPICAL SECTION A
NOT TO SCALE

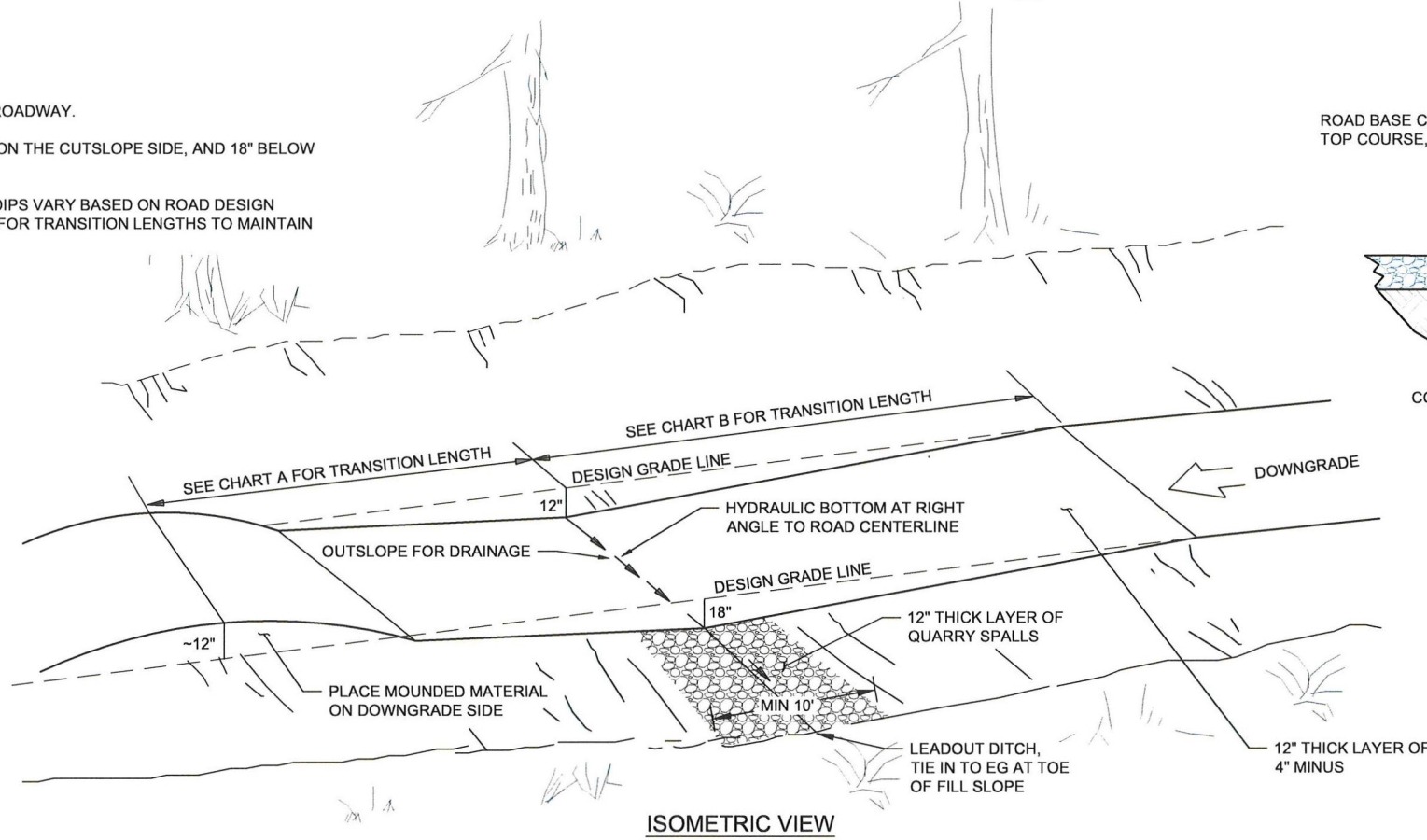


B ROAD - TYPICAL SECTION B
NOT TO SCALE

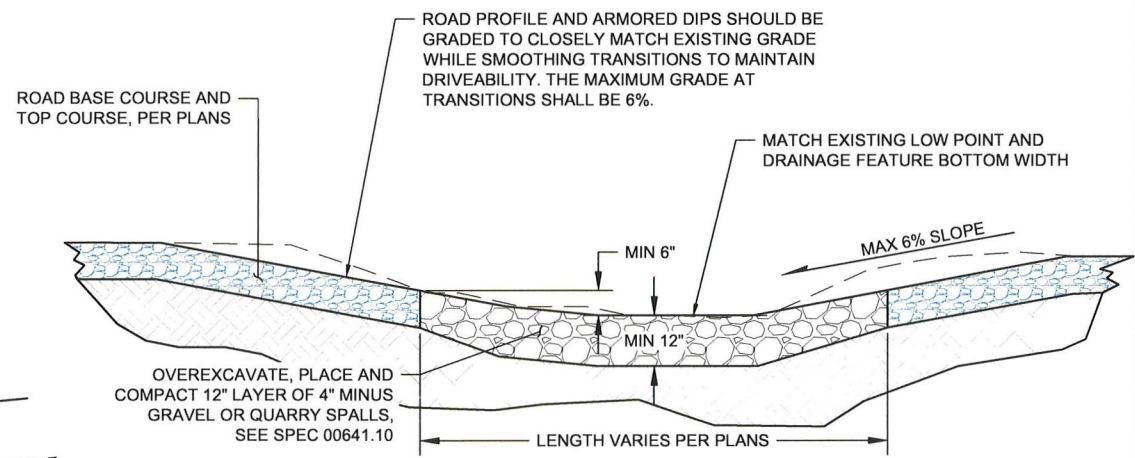
- DIRECT OUTFLOW TO FILL SIDE OF ROADWAY.
- CUT OUT SLOPE 12" BELOW GRADE ON THE CUTSLOPE SIDE, AND 18" BELOW GRADE ON THE FILL SLOPE SIDE.
- TRANSITION LENGTHS FOR GRADE DIPS VARY BASED ON ROAD DESIGN SLOPE. REFER TO CHARTS A AND B FOR TRANSITION LENGTHS TO MAINTAIN DRAINAGE AND DRIVEABILITY.

ROAD GRADE	LENGTH
0 - 3%	35'-0"
3-6%	25'-0"
OVER 6%	15'-0"

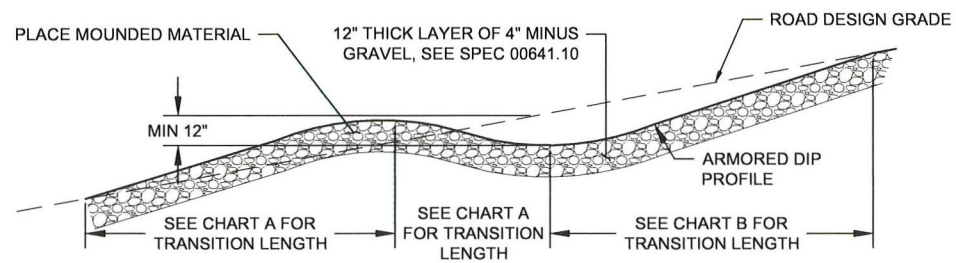
ROAD GRADE	LENGTH
0 - 3%	65'-0"
3-6%	75'-0"
OVER 6%	85'-0"



ISOMETRIC VIEW



D ARMORED DIP - TYPICAL PROFILE
NOT TO SCALE



PROFILE VIEW

C SURFACE CROSS DRAIN - TYPICAL DETAIL
NOT TO SCALE

DWG: Z:\Shared\W2\2025\lookingglass creek (ctuir)\DWG\SHEETS\LGC - ROAD PLAN & PROFILE.dwg USER: bschoner DATE: Mar 23, 2026 12:31pm XREFS: X-TB-W2-22-34 LGC_X-AERIAL LGC_X-WHS LGC_X-DESIGN-BASE LGC_X-MAP-BASE LGC_X-LEGEND LGC_X-REM LGC_X-SURFACE-EG LIDAR

No.	Date	Revision

Date	Designed By AJ
Drawn By AD, BS	Checked By AJ

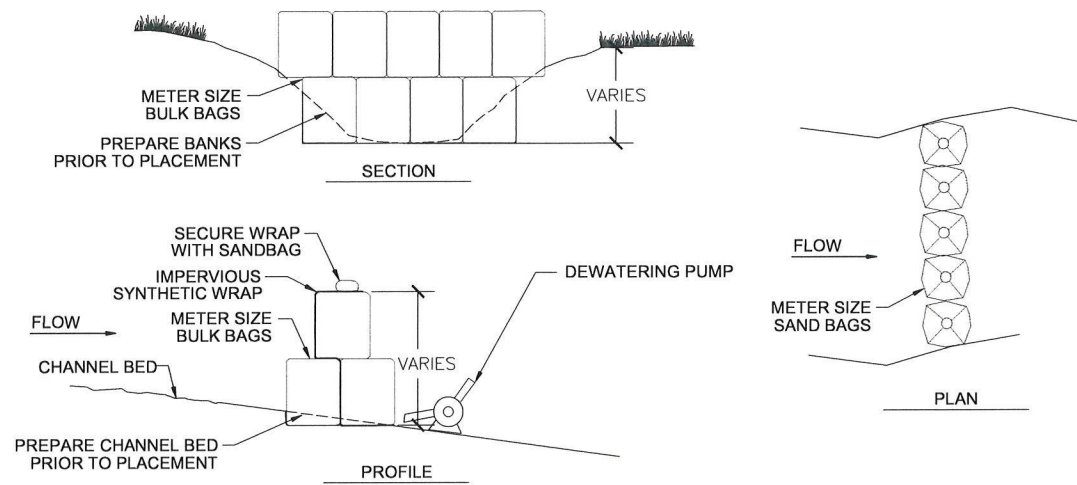
SCALE: 1" = 10'

JOB NO.

SHEET NO.

C6.5

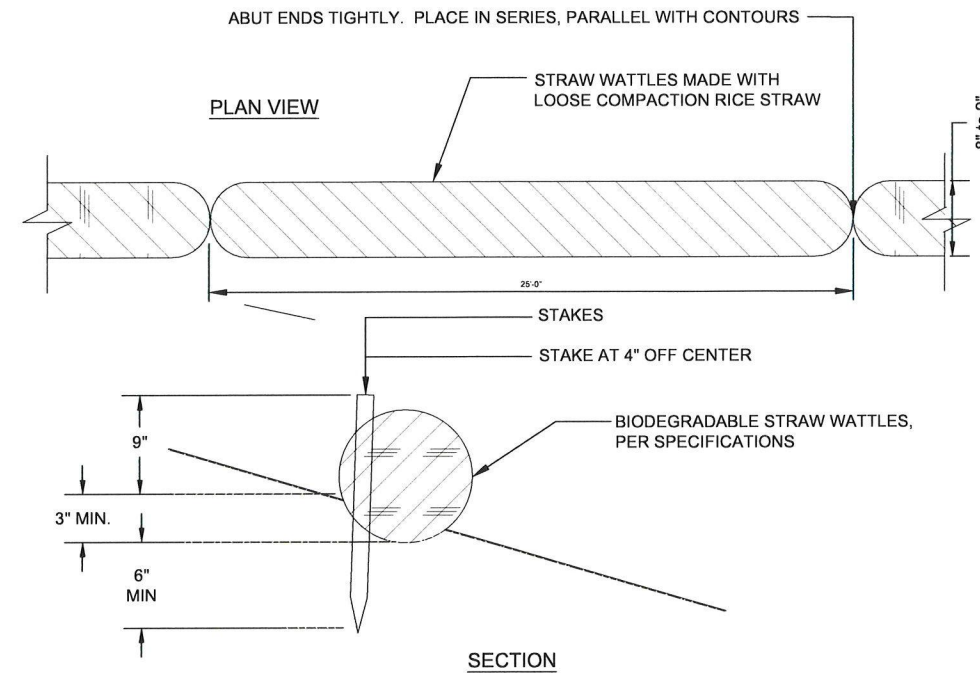
34 OF 37



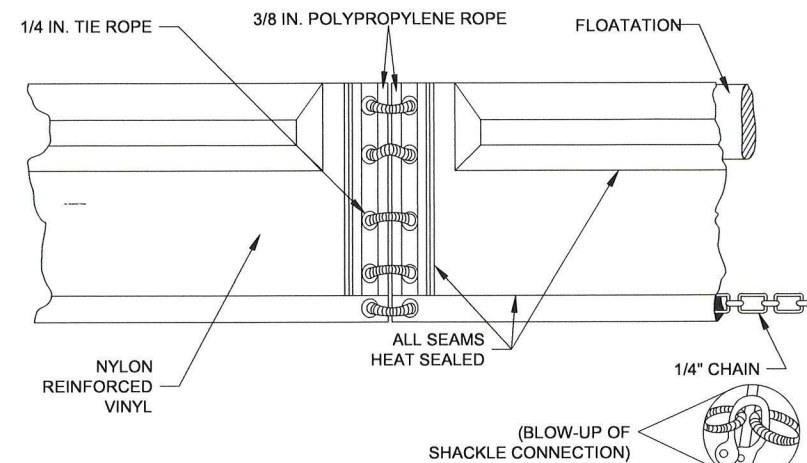
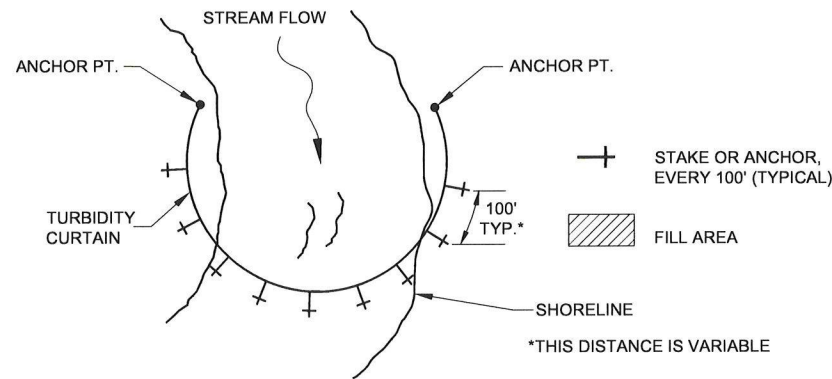
NOTE:

1. CONSTRUCTION CREWS SHALL INSTALL BULK BAG COFFER DAMS AS SHOWN ON PLAN TO ISOLATE THE EXCAVATION AREAS.
2. IN ADDITION TO BULK BAGS, USE AN IMPERVIOUS SYNTHETIC LINER TO REDUCE PERMEABILITY OF BULK BAG COFFER DAM.
3. HEIGHT OF THE BULK BAG COFFER DAMS SHALL BE HIGH ENOUGH TO PREVENT BYPASS FLOWS FROM ENTERING THE ISOLATED WORK AREA. DAM HEIGHTS AND MATERIALS SHALL BE INCLUDED IN THE CONTRACTOR'S WORK CONTAINMENT AND DEWATERING PLAN.
4. INSTALL DEWATERING PUMP AS NECESSARY.

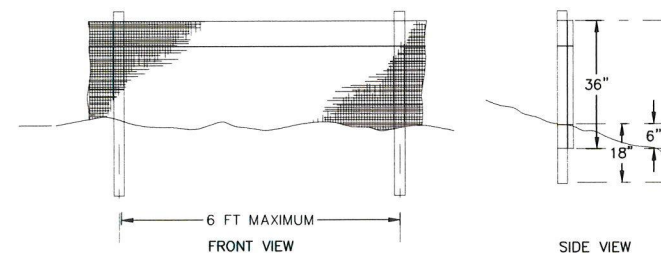
1 TEMPORARY BULK BAG COFFER DAM
C6.5 SCALE: NTS



2 STRAW WATTLES
C6.5 SCALE: NTS



3 TURBIDITY CURTAIN (AS NEEDED)
C6.5 SCALE: NTS



NOTES:

1. BURY BOTTOM OF FILTER FABRIC 6" MIN. VERTICALLY BELOW GRADE.
2. 2" x 2" FIR, PINE, OR STEEL FENCE POSTS.
3. STITCHED LOOPS TO BE INSTALLED UPHILL SIDE OF SLOPE.
4. COMPACT NATIVE FILL IN ALL AREAS OF FILTER FABRIC TRENCH.

4 TEMPORARY SEDIMENT FENCE
C6.5 SCALE: NTS

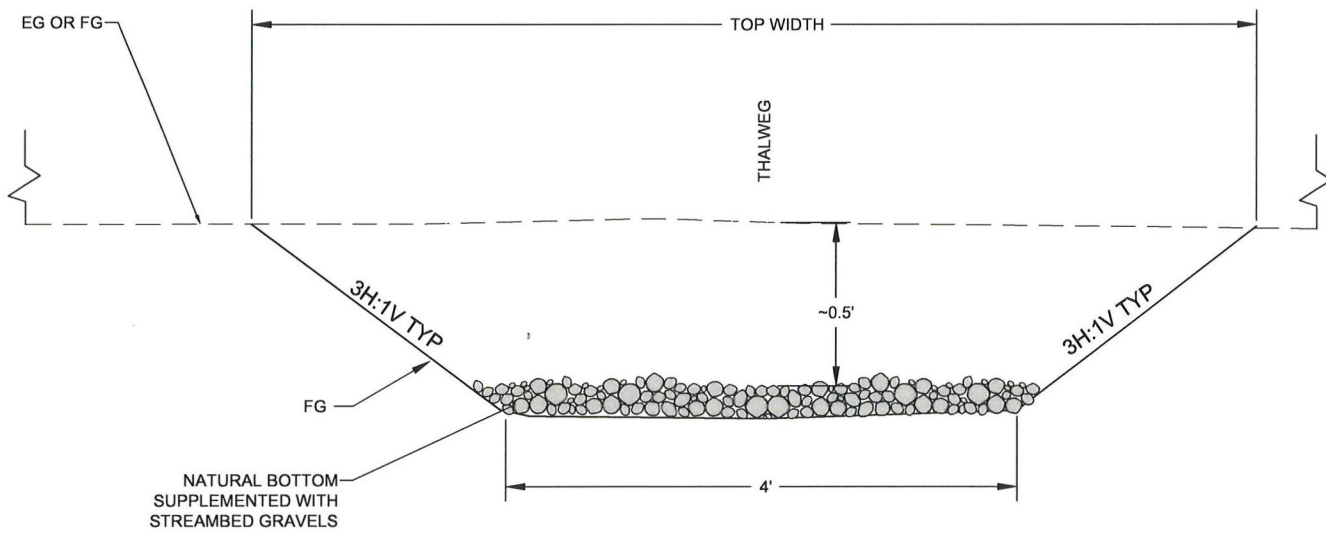


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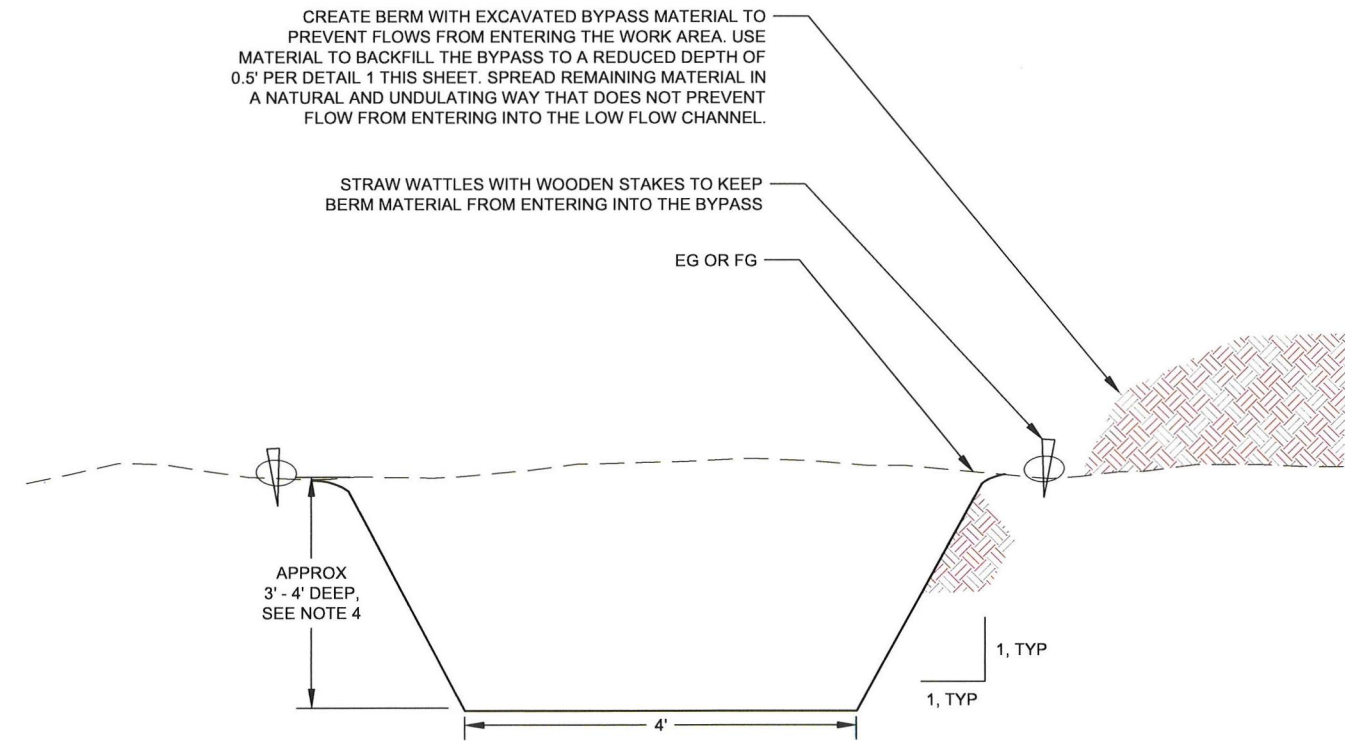
LOW FLOW CHANNEL AND
TEMP BYPASS DETAIL

BYPASS NOTES:

1. CONTRACTOR SHALL COORDINATE THE BYPASS CONSTRUCTION TIMING, PHASING, AND FISH SALVAGE WITH THE OR PRIOR TO IMPLEMENTATION.
2. REFER TO SHEETS C6.1 AND C6.2 FOR TEMPORARY BYPASS PHASING PLAN AND SEQUENCING DETAILS.
3. CLEAR AND GRUB BYPASS DIVERSION PRIOR TO CONSTRUCTION.
4. CONSTRUCT TEMPORARY BYPASS CHANNEL WITH A 4 FOOT BOTTOM WITH AND APPROXIMATELY 3-4' DEEP OR AS NECESSARY TO TEMPORARILY DIVERT FLOW FROM THE CHANNEL PER DETAIL 2 THIS SHEET. CONSTRUCT BERM WITH EXCAVATED MATERIAL TO HELP PREVENT FLOW FROM ENTERING INTO THE WORK AREA.
5. TEMPORARY BYPASS CHANNEL SIDE SLOPES SHALL BE APPROXIMATELY 1H:1V BUT MAY VARY TO PREVENT IMPACTS.
6. ONCE THE MAIN CHANNEL IS AT FINISHED GRADE AND THE FLOODPLAIN RESTORATION IS COMPLETE, THE BYPASS SHALL BE DECOMMISSIONED TO A LOW FLOW CHANNEL WITH A MAXIMUM DEPTH OF 0.5 FEET AND SHALLOW SIDE SLOPES PER DETAIL 1 THIS SHEET.
7. SCOUR POOLS, WHS, AND BDAS SHALL BE CONSTRUCTED IN THE LOW CHANNEL AS SHOWN ON THE PLANS.
8. MONITOR TURBIDITY DOWNSTREAM OF THE BYPASS. IF TURBIDITY REQUIREMENTS ARE NOT MET, CREEK FLOWS SHALL BE DIVERTED BACK INTO THE CHANNEL.



1 LOW FLOW CHANNEL TYPICAL SECTION
NOT TO SCALE



2 TEMP BYPASS CHANNEL TYPICAL SECTION
NOT TO SCALE

REVISION NUMBER

No.	Date	Revision

Date	Designed By AJ
Drawn By AD, BS	Checked By AJ

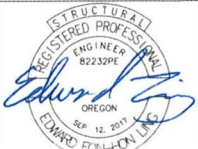
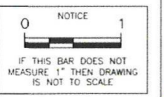
SCALE
0 1'

JOB NO.

SHEET NO.

C6.3
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NOTE: MAX RAIL CAR WEIGHT OF 53,000 LB. CONTACT ENGINEER IF RAIL CAR WEIGHT EXCEEDS MAXIMUM.



PSE
PETERSON STRUCTURAL ENGINEERS
 4710 Village Plaza Loop, Ste. 170
 Eugene, OR 97401
 (458) 240-2160

CLIENT INFO:
 WOLF WATER RESOURCES
 1001 SE WATER AVE, STE 180
 PORTLAND, OR 97214

PROJECT SITE:
 ELGIN, OR
 45.7505, -117.8767

SHEET CONTENT
 BRIDGE PLANS, DETAILS, & SECTIONS

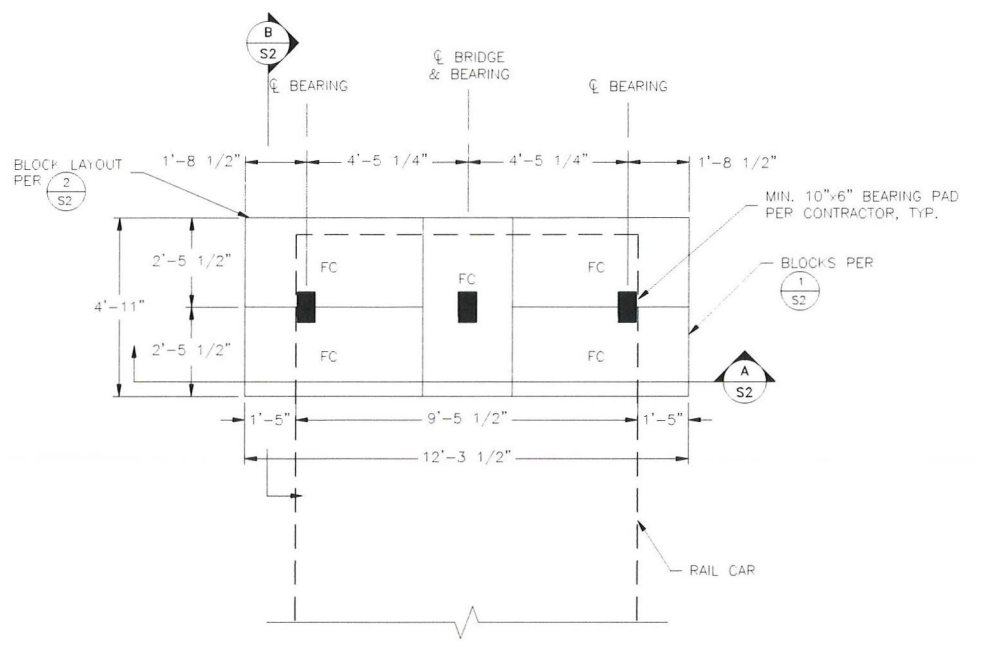
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DRAWN MQE **CHECKED** KES

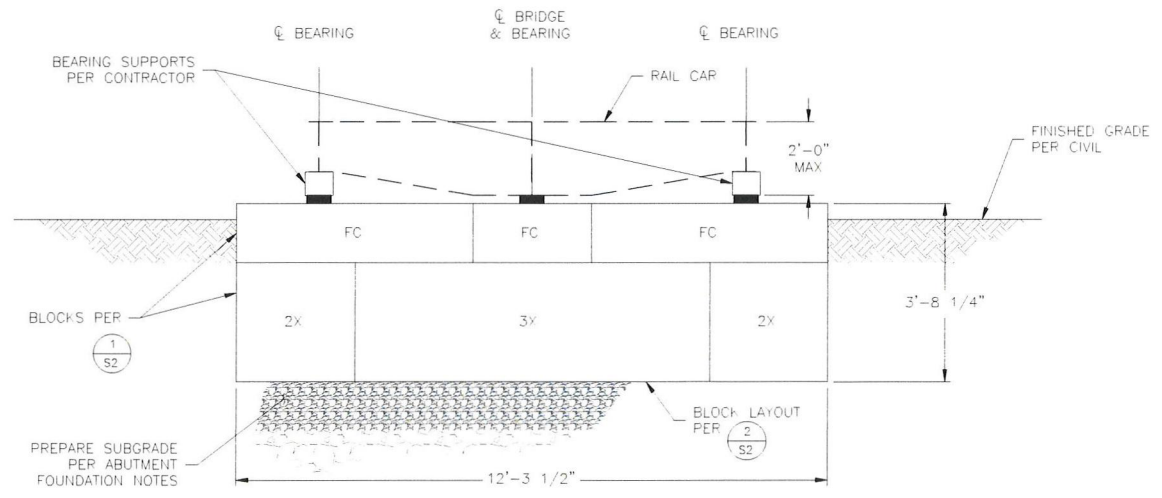
DATE 01/23/26

REVISIONS

SHEET
 S2 OF 2

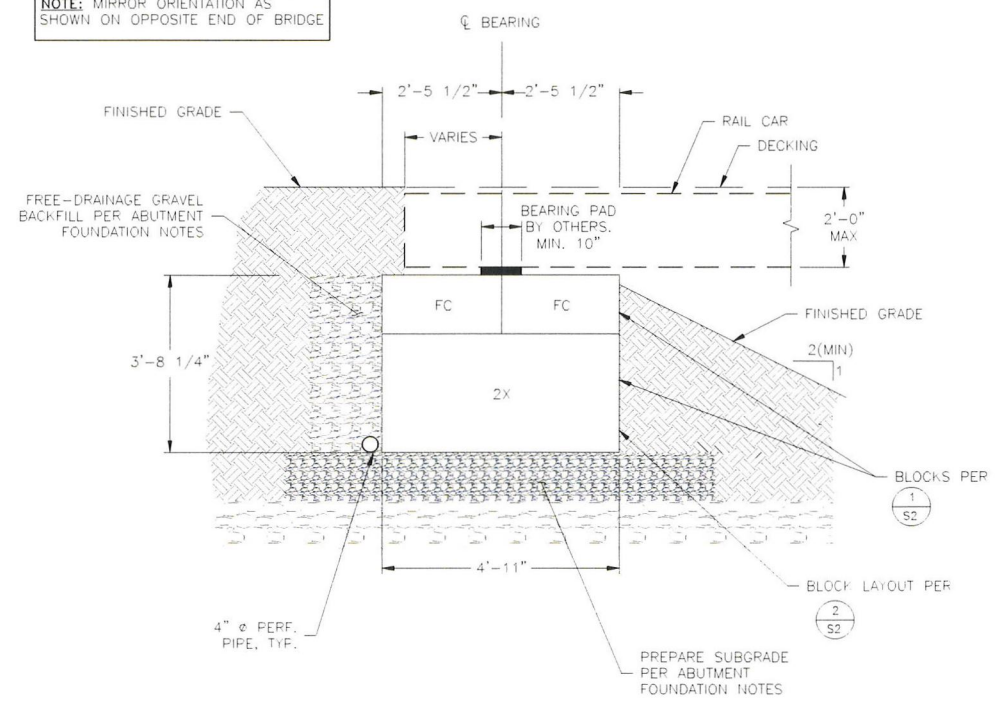


BRIDGE ABUTMENT PLAN
 3/8" = 1'-0"

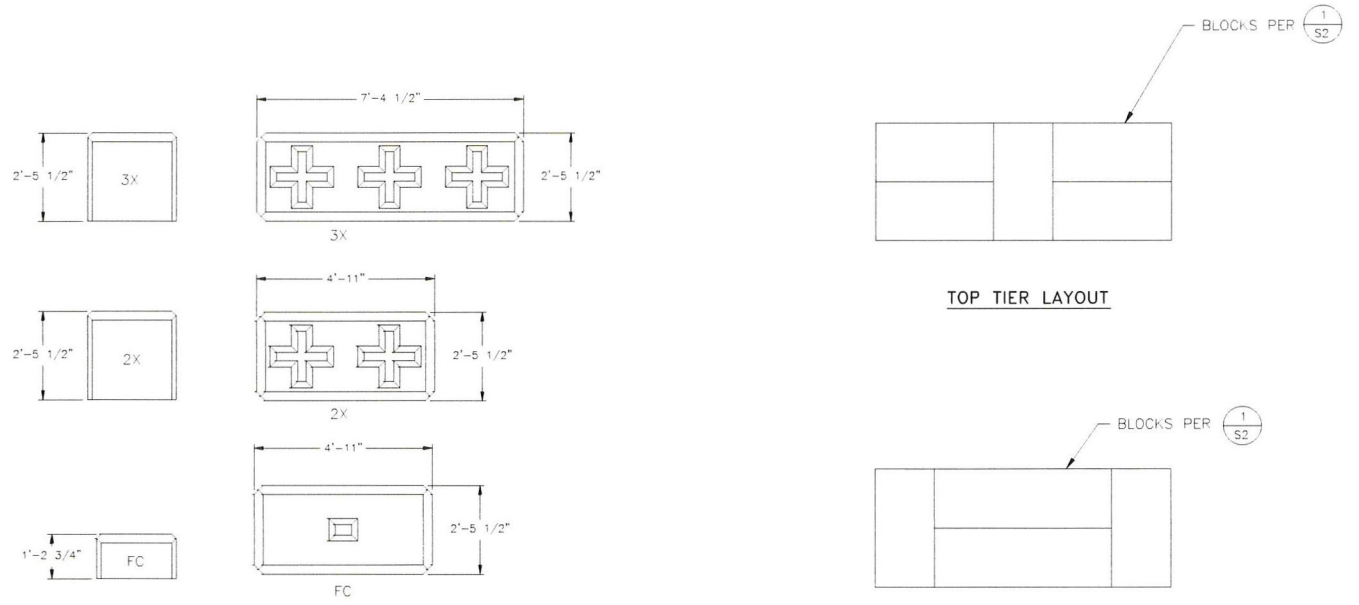


ABUTMENT ELEVATION
 1/2" = 1'-0"

NOTE: MIRROR ORIENTATION AS SHOWN ON OPPOSITE END OF BRIDGE



ABUTMENT SECTION
 1/2" = 1'-0"



ULTRABLOCK DETAILS
 3/8" = 1'-0"

PLAN BLOCK LAYOUTS
 1/4" = 1'-0"

ABUTMENT FOUNDATION NOTE(S):
 SUBGRADE AND FILL TO BE PREPARED IN ACCORDANCE WITH GEOTECHNICAL REPORT. REQUIREMENTS INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

- STRUCTURAL FILL
 - THE BRIDGE ABUTMENTS SHOULD REST ON A 24" THICK FILL PAD COMPRISED OF 1 1/2" MINUS CRUSHED SURFACING BASE COURSE (CSBC) OR SIMILAR ANGULAR ROCK MATERIAL. THE COMPACTED CSBC PAD SHOULD BE PLACED OVER ALLUVIUM OR FIRMER MATERIAL. SHOULD COMPETENT BASALT BE ENCOUNTERED WITHIN THE ENTIRETY OF A SPREAD FOOTING, THIS FILL PAD THICKNESS CAN BE REDUCED TO 12 INCHES.
 - DRAINAGE SYSTEM TO BE INSTALLED BEHIND THE ABUTMENTS CONSISTING OF FREE-DRAINAGE BACKFILL, GEOTEXTILES, AND PERFORATED DRAIN PIPE. DRAIN PIPE SHOULD BE LOCATED AT THE BASE OF ABUTMENTS WITH ITS DISCHARGE POINT DIRECTED ON TO BEDROCK OR QUARRY SPALL SIZED OR LARGER MATERIAL TO REDUCE EROSION. FREE-DRAINAGE GRAVEL BACKFILL SHOULD BE PLACED WITHIN 18 INCHES OF THE WALLS AND CONSIST OF GRAVEL WITH MAXIMUM PARTICLE SIZE OF 1" AND NO MORE THAN 2% PASSING THE NO. 200 SIEVE.
 - GRAVEL SURFACING SHOULD CONSIST OF CSBC WITH MINIMUM THICKNESS OF 8".
- NATIVE STRUCTURAL FILL
 - IF ONSITE MATERIALS ARE USED, STRUCTURAL FILL SHALL MEET THE REQUIREMENTS FOR SELECTED GRANULAR BACK-FILL PER ODOT SS 00330.14.
- SCOUR PROTECTION
 - SCOUR PROTECTION PER CIVIL