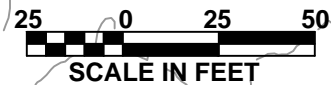


CARROLL ALAN TRUST    DUSTIN SHAWN D AND JANET N



INSTALL WILLOW CUTTINGS FOR PROTECTION ALONG THE ENTIRE LENGTH OF THE BANK STABILIZATION

VEGETATED FLOODPLAIN BENCH TO EXTEND 4'-6' INTO RIVER

KEY BURIED ROCK TOE INTO BANK

BURIED ROCK TOE

JEFFERSON RIVER

**LEGEND**

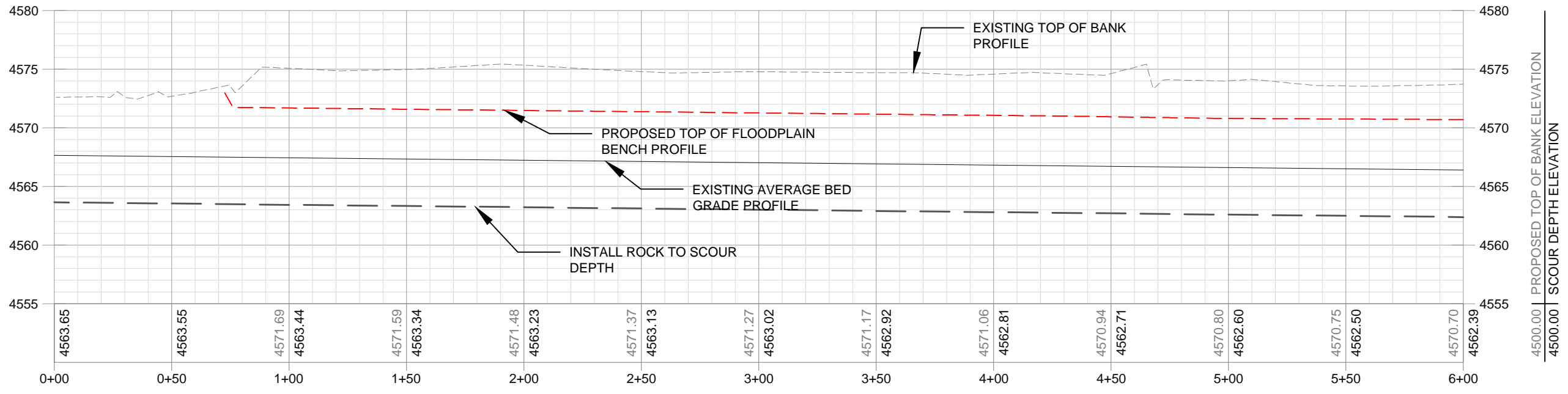
- EXISTING CONTOUR (1')
- - - PROPOSED BOTTOM OF BANK
- - - PROPERTY BOUNDARIES
- PROPOSED TOP OF BANK
- - - PROPOSED GRADING EXTENT
- PROPOSED RIP RAP KEY IN

DATE: 12/02/24	FILE NAME: 021-2026-UPPER JEFFERSON		
DESIGNED BY: ML, RR, KL	PROJECT NO.: RVD010		
CHECKED BY: MS			
REV	DATE	DESCRIPTION	BY
1	3/12/24	30% CONCEPT DESIGN	KL
2	6/06/24	60% CONCEPT DESIGN	CB
3	9/20/24	90% DESIGN PLANS	CB
4	12/02/24	100% DESIGN PLANS	CB



**UPPER JEFFERSON RIVER RESTORATION PROJECT**  
**100% DESIGN PLANS**  
 RUBY VALLEY CONSERVATION DISTRICT

**BANK STABILIZATION SITE 1 P&P STA 0+00 - STA 6+00**



**1 SITE 1 BANK STABILIZATION DESIGN PROFILE**  
 18 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 10'

DUSTIN SHAWN D AND JANET N DUSTIN SHAWN D AND JANET N

INSTALL WILLOW CUTTINGS FOR PROTECTION ALONG THE ENTIRE LENGTH OF THE BANK STABILIZATION

VEGETATED FLOODPLAIN BENCH TO EXTEND 4'-6' INTO RIVER

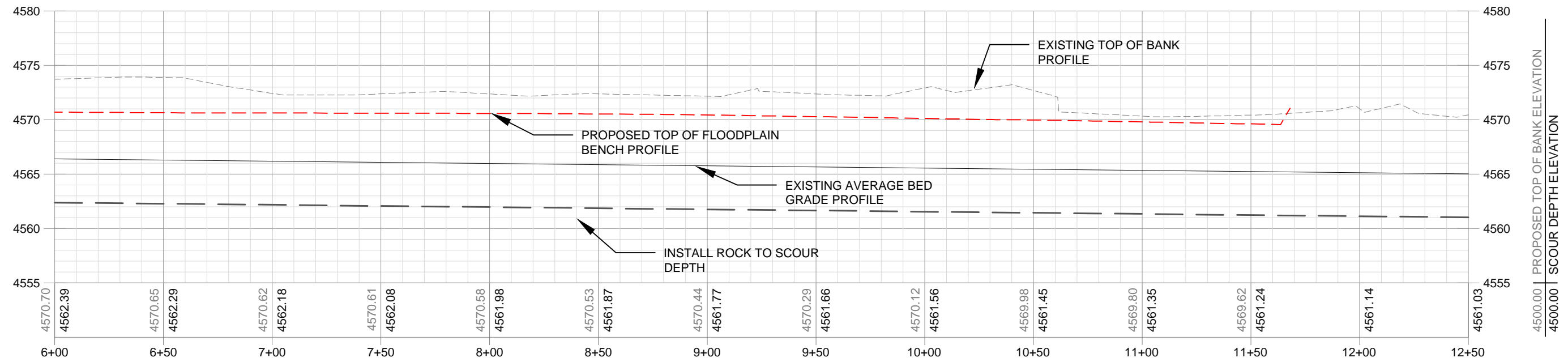
BURIED ROCK TOE

KEY BURIED ROCK TOE INTO BANK

JEFFERSON RIVER



LEGEND	
	EXISTING CONTOUR (1')
	EXISTING OVERHEAD POWER LINE
	PROPERTY BOUNDARIES
	PROPOSED BOTTOM OF BANK
	PROPOSED TOP OF BANK
	PROPOSED GRADING EXTENT
	PROPOSED RIP RAP KEY IN



**1** SITE 1 BANK STABILIZATION DESIGN PROFILE  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 10'

DATE: 12/02/24	CCJOB NO.: RAVD010			
DRAWN BY: ML, KL, CB	FILE NAME: 021-2026-UPPER JEFFERSON			
DESIGNED BY: ML, RR, KL	CHECKED BY: MS			
REV	DATE	DESCRIPTION	BY	APPD
1	5/12/24	30% CONCEPT DESIGN	KL	MS
2	6/26/24	60% CONCEPT DESIGN	CB	MS
3	9/20/24	90% DESIGN PLANS	CB	MS
4	12/02/24	100% DESIGN PLANS	CB	MS



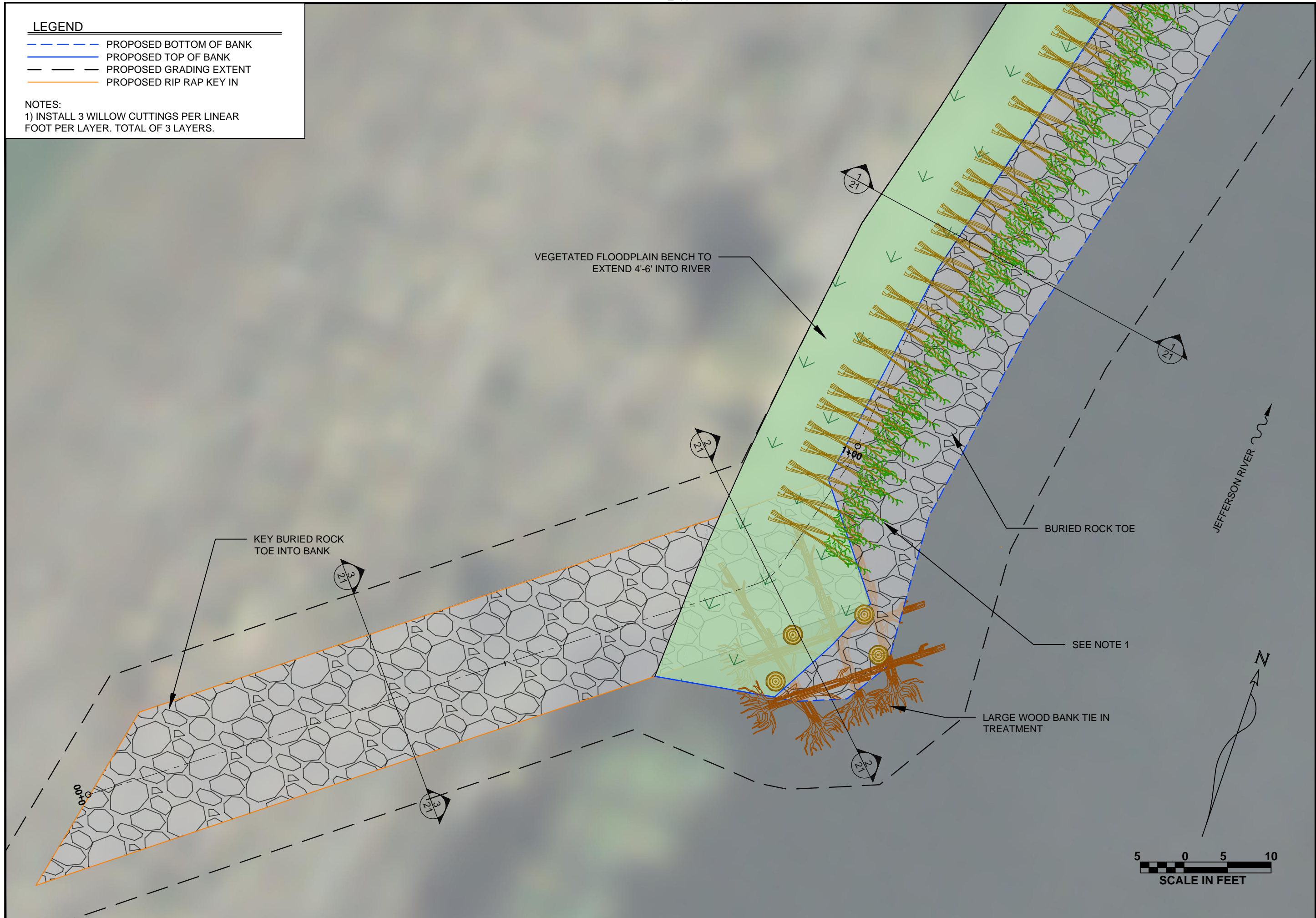
**UPPER JEFFERSON RIVER RESTORATION PROJECT**  
**100% DESIGN PLANS**  
 RUBY VALLEY CONSERVATION DISTRICT

BANK STABILIZATION  
 SITE 1 P&P STA 6+00 - STA 12+50

**LEGEND**

- PROPOSED BOTTOM OF BANK
- PROPOSED TOP OF BANK
- PROPOSED GRADING EXTENT
- PROPOSED RIP RAP KEY IN

NOTES:  
 1) INSTALL 3 WILLOW CUTTINGS PER LINEAR FOOT PER LAYER. TOTAL OF 3 LAYERS.

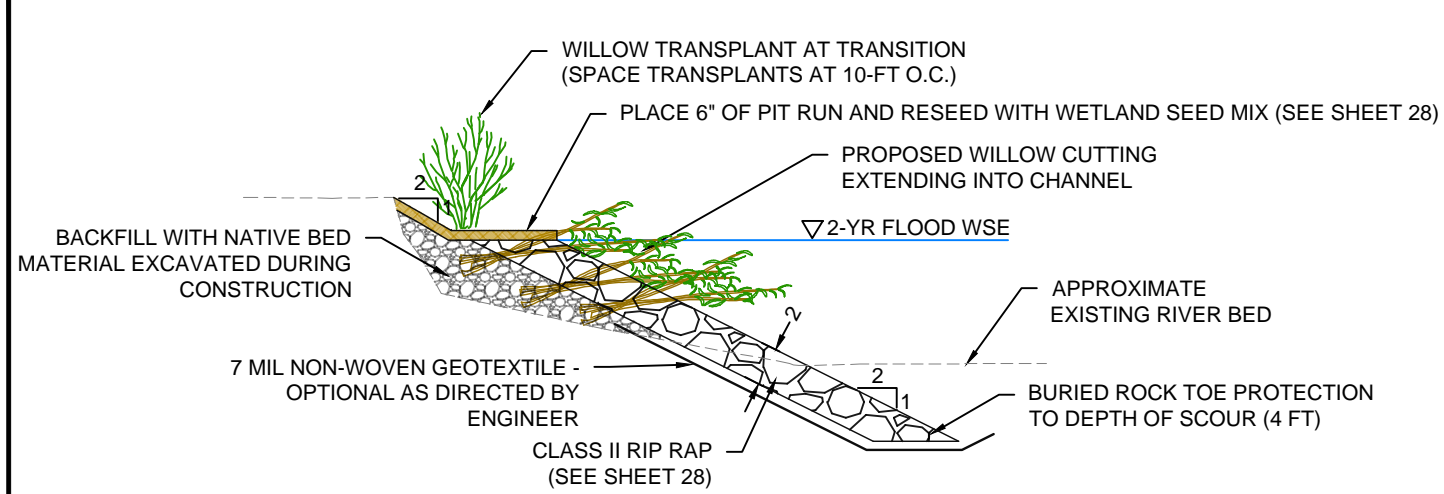


DRAWN BY: ML, KL, CB		DATE: 12/02/24		
DESIGNED BY: ML, RR, KL		PROJECT NO.: RAVD010		
CHECKED BY: MS		FILE NAME: RUBY VALLEY CONSERVATION DISTRICT		
REV	DATE	DESCRIPTION	BY	APPD
1	3/12/24	30% CONCEPT DESIGN	KL	MS
2	6/06/24	60% CONCEPT DESIGN	CB	MS
3	9/20/24	90% DESIGN PLANS	CB	MS
4	12/02/24	100% DESIGN PLANS	CB	MS

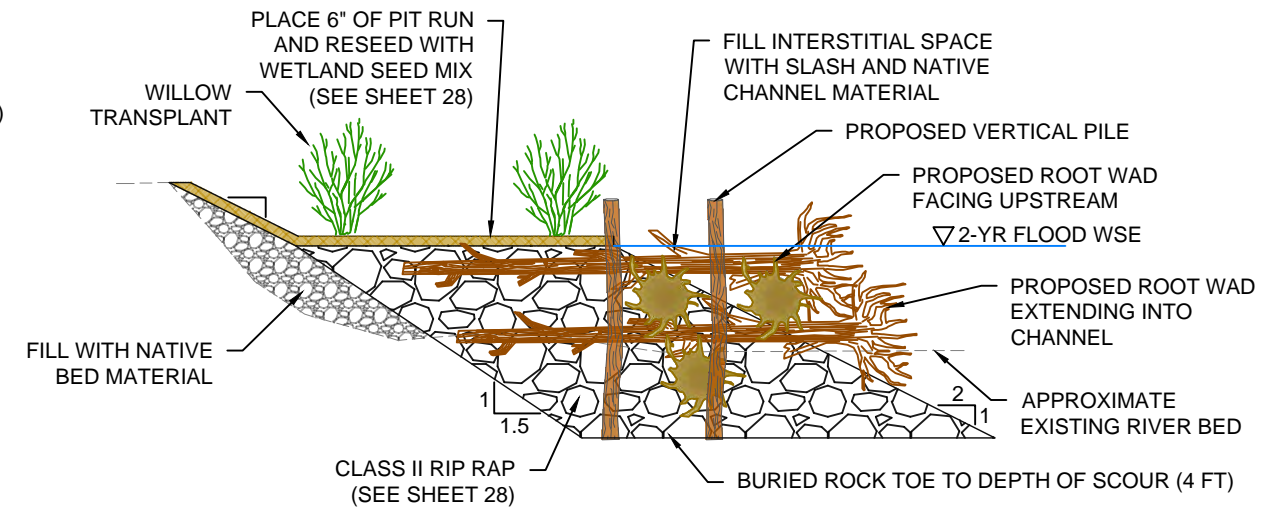


**UPPER JEFFERSON RIVER RESTORATION PROJECT**  
**100% DESIGN PLANS**  
 RUBY VALLEY CONSERVATION DISTRICT

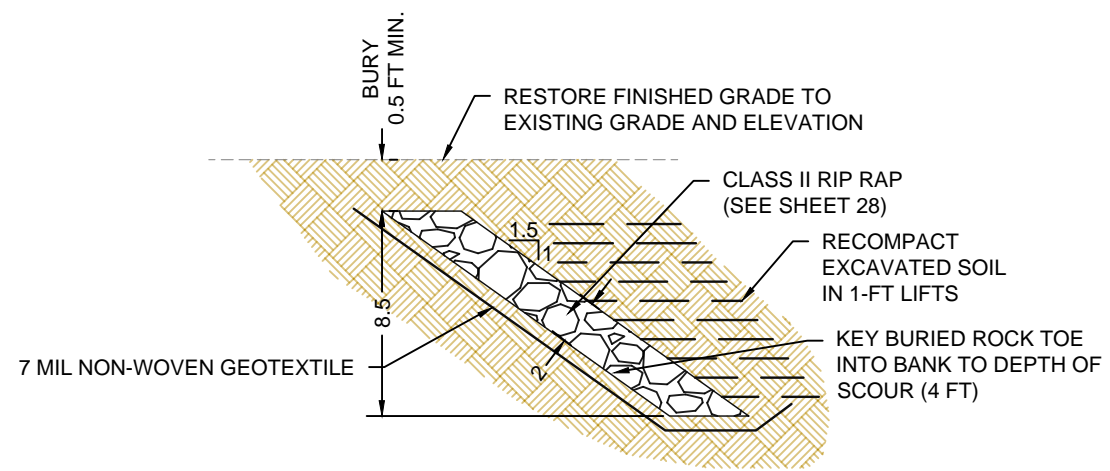
BANK STABILIZATION SITE 1 TIE IN



1  
21 PROPOSED SITE 1 BANK TREATMENT TYPICAL  
NOT TO SCALE



2  
21 PROPOSED SITE 1 BANK TIE IN TYPICAL  
NOT TO SCALE



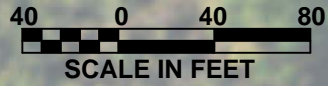
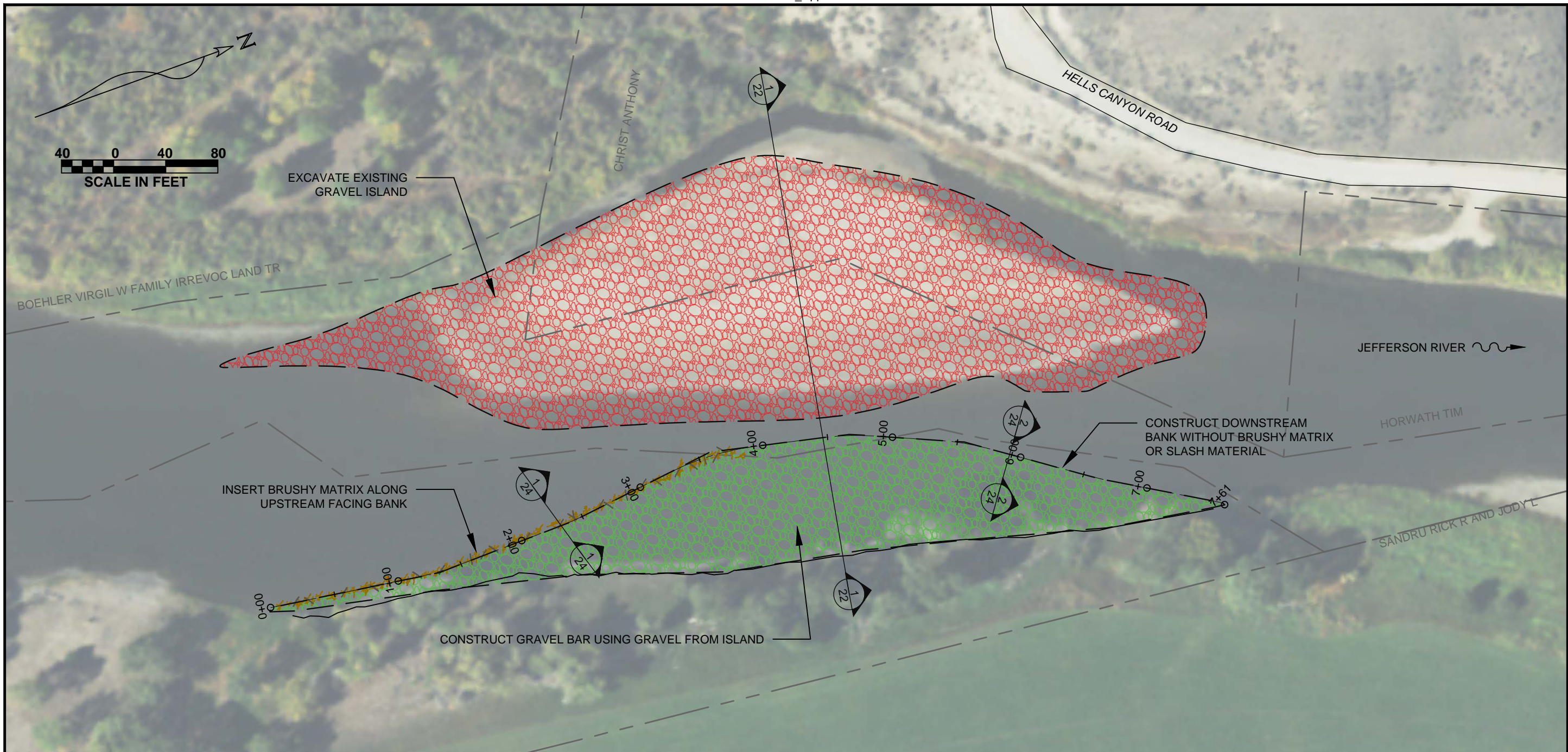
3  
21 PROPOSED SITE 1 BURIED ROCK TOE KEY IN TYPICAL  
NOT TO SCALE

DRAWN BY: ML, KL, CB		DATE: 12/6/24		
DESIGNED BY: ML, RR, KL		PROJECT NO.: RAVCD010		
CHECKED BY: MS		FILE NAME: RUBY VALLEY CONSERVATION DISTRICT		
REV	DATE	DESCRIPTION	BY	APPD
1	3/12/24	30% CONCEPT DESIGN	KL	MS
2	6/26/24	60% CONCEPT DESIGN	CB	MS
3	9/20/24	90% DESIGN PLANS	CB	MS
4	12/6/24	100% DESIGN PLANS	CB	MS



**UPPER JEFFERSON RIVER RESTORATION PROJECT**  
**100% DESIGN PLANS**  
**RUBY VALLEY CONSERVATION DISTRICT**

DETAILS (6)  
SITE 1 BANK  
STABILIZATION

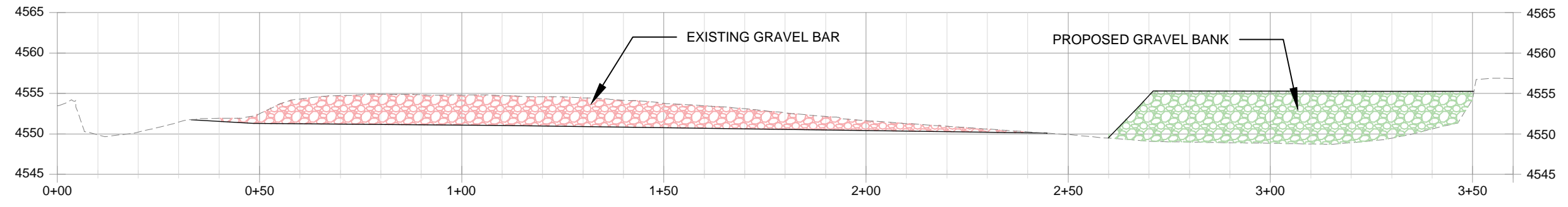


DRAWN BY: ML, KL, CB		DATE: 12/02/24		
DESIGNED BY: ML, RR, KL		PROJECT NO.: RUCD010		
CHECKED BY: MS		FILE NAME: RUCD010_021-2026_Upper Jefferson		
REV	DATE	DESCRIPTION	BY	APPD
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2	6/06/24	60% CONCEPT DESIGN	CB	MS
3	9/20/24	90% DESIGN PLANS	CB	MS
4	12/02/24	100% DESIGN PLANS	CB	MS



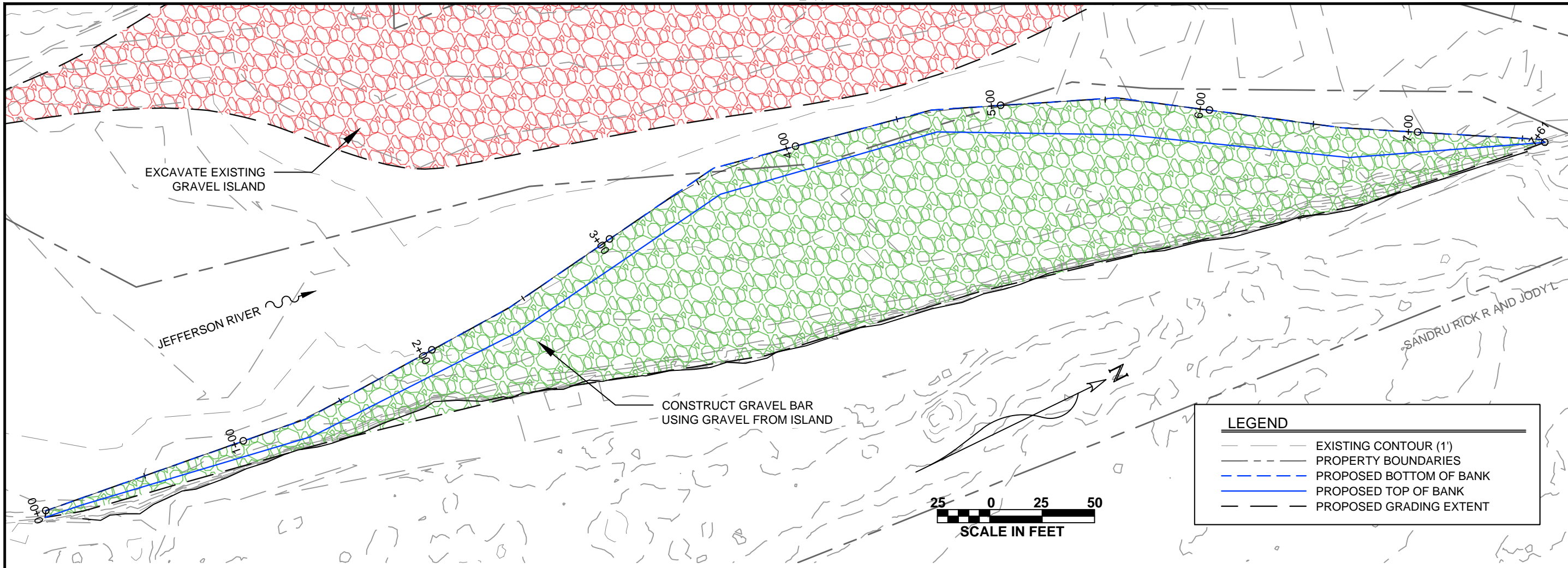
**UPPER JEFFERSON RIVER RESTORATION PROJECT**  
**100% DESIGN PLANS**  
 RUBY VALLEY CONSERVATION DISTRICT

**LEGEND**  
 - - - - - EXISTING GROUND  
 ————— PROPOSED GROUND



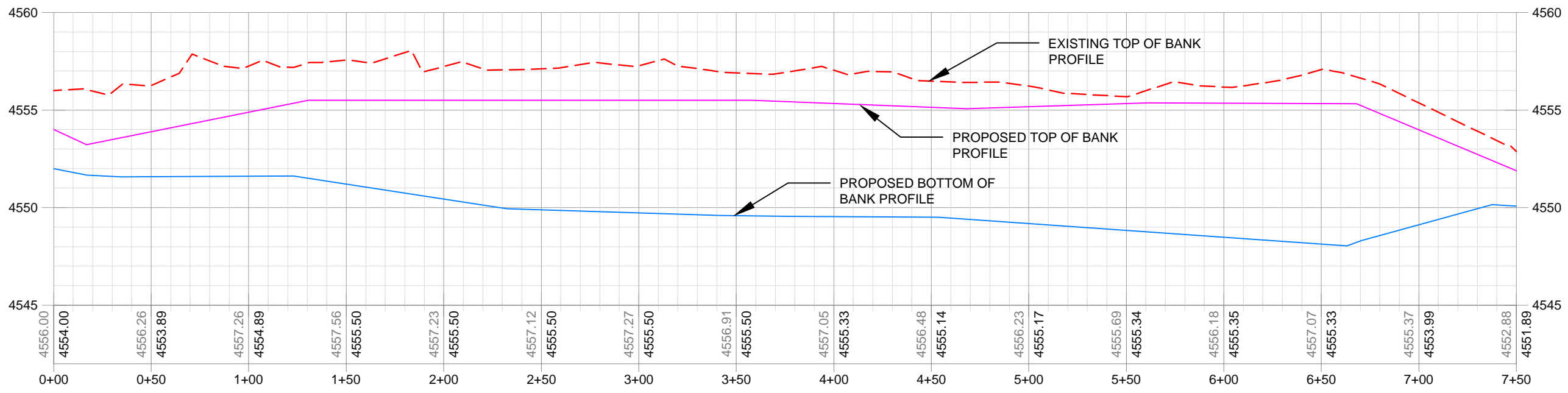
**1/22 SITE 2 BANK STABILIZATION CROSS SECTION**  
 HORIZONTAL SCALE: 1" = 30'  
 VERTICAL SCALE: 1" = 15'

**BANK STABILIZATION SITE 2 PLAN**



**LEGEND**

- EXISTING CONTOUR (1')
- - - PROPERTY BOUNDARIES
- - - PROPOSED BOTTOM OF BANK
- PROPOSED TOP OF BANK
- - - PROPOSED GRADING EXTENT



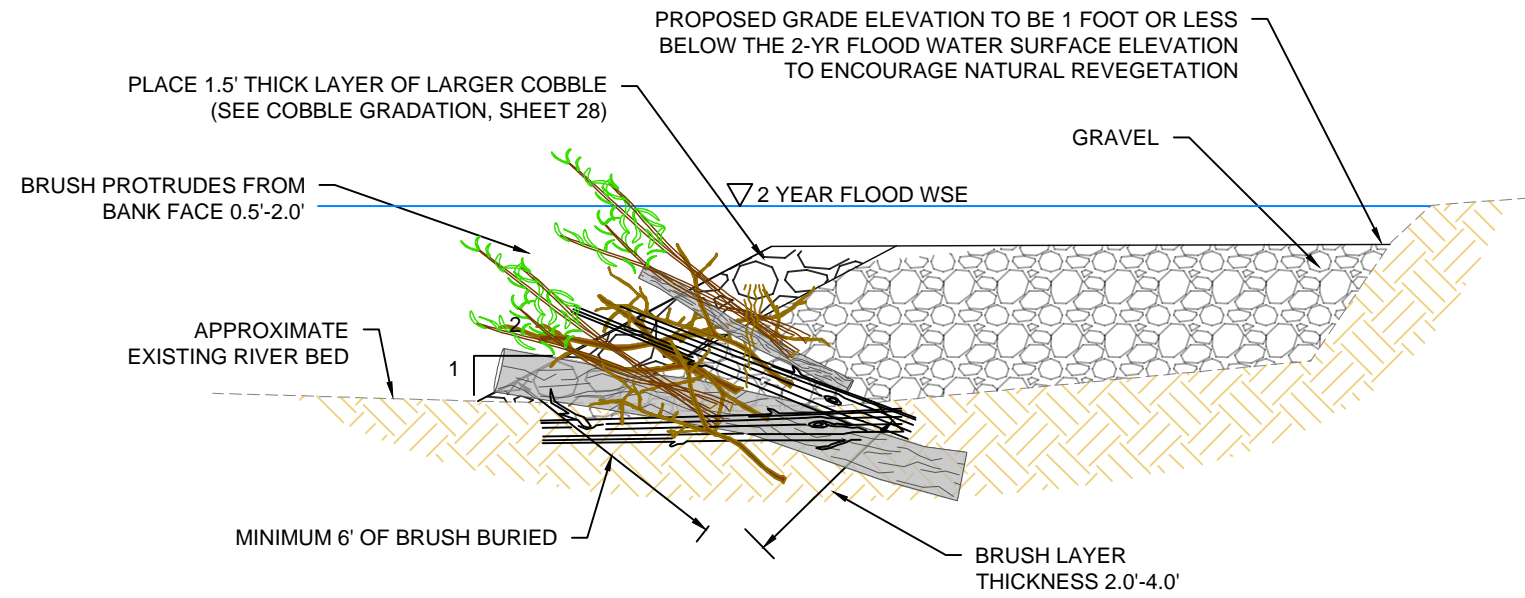
**1** SITE 2 BANK STABILIZATION DESIGN PROFILE  
**23** HORIZONTAL SCALE: 1" = 60'  
 VERTICAL SCALE: 1" = 6'

DATE: 12/02/24		CUI JOB NO.: RUCD010	
DRAWN BY: ML, RL, CB		FILE NAME: 021-2026-UPPER JEFFERSON	
DESIGNED BY: ML, RL, CB		CHECKED BY: MS	
REV	DATE	DESCRIPTION	BY
1	3/12/24	30% CONCEPT DESIGN	RL
2	6/06/24	60% CONCEPT DESIGN	CB
3	9/20/24	90% DESIGN PLANS	CB
4	12/02/24	100% DESIGN PLANS	CB

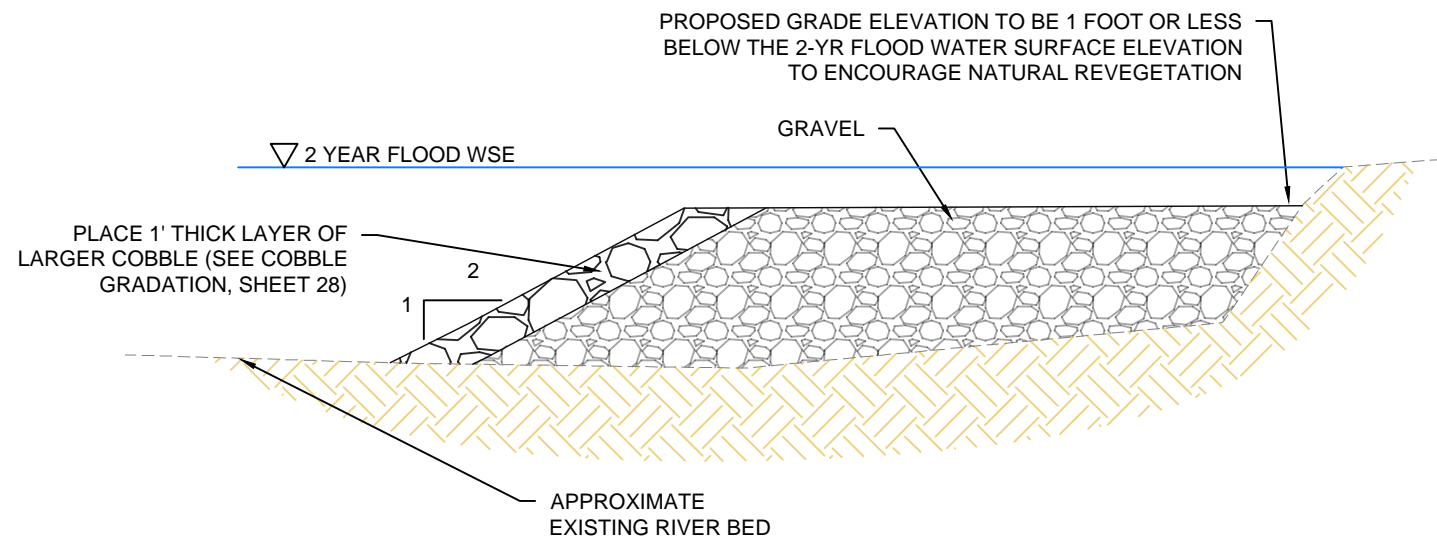


**UPPER JEFFERSON RIVER RESTORATION PROJECT**  
**100% DESIGN PLANS**  
 RUBY VALLEY CONSERVATION DISTRICT

**BANK STABILIZATION SITE 2 P&P STA 0+00 - STA 7+50**



1  
24 PROPOSED SITE 2 BANK TREATMENT TYPICAL  
NOT TO SCALE



2  
24 PROPOSED SITE 2 GRAVEL BAR TYPICAL  
NOT TO SCALE

DRAWN BY: ML, KL, CB		DATE: 12/6/24		
DESIGNED BY: ML, RR, KL		CCI JOB NO.: RVD010		
CHECKED BY: MS		FILE NAME: RVD010_001_100%DESIGN.PDF		
REV	DATE	DESCRIPTION	BY	APPD
1	5/12/24	30% CONCEPT DESIGN	KL	MS
2	6/26/24	60% CONCEPT DESIGN	CB	MS
3	9/20/24	90% DESIGN PLANS	CB	MS
4	12/6/24	100% DESIGN PLANS	CB	MS

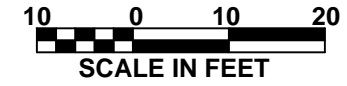


UPPER JEFFERSON RIVER RESTORATION PROJECT  
100% DESIGN PLANS  
RUBY VALLEY CONSERVATION DISTRICT

DETAILS (7)  
SITE 2 BANK  
STABILIZATION

**LEGEND**

- PROPOSED CREEK TOP OF BANK
- - - - PROPOSED CREEK BOTTOM OF BANK
- - - - APPROXIMATE PROPERTY BOUNDARY



NOTES:  
 1) APPROXIMATE PROPERTY BOUNDARIES OBTAINED FROM MT CADASTRAL



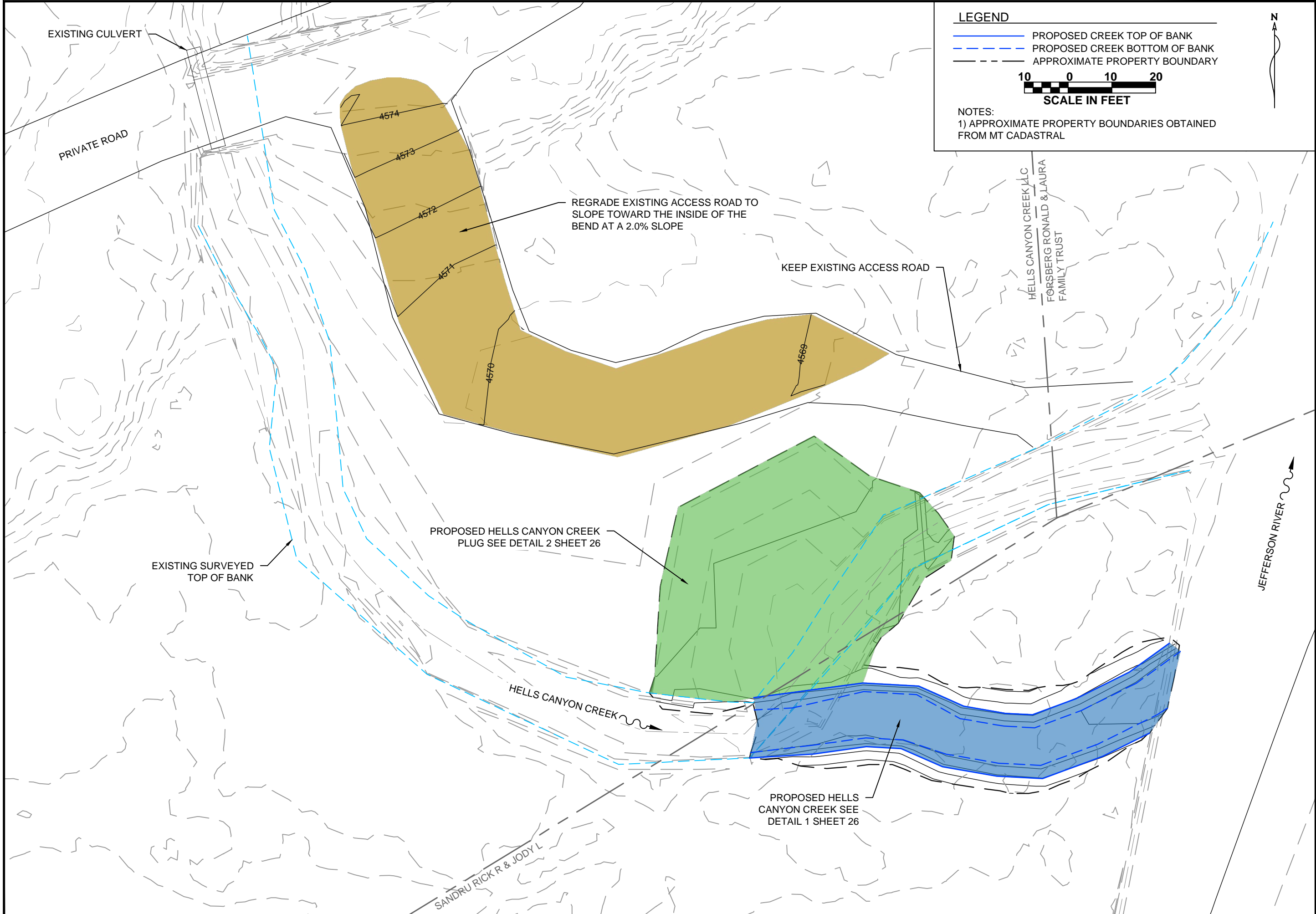
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DESIGNED BY: KL, RR, ML		PROJECT NO.: RAVD001		
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REV	DATE	DESCRIPTION	BY	APPD
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2	9/20/24	90% DESIGN PLANS	KL	MS
3	12/02/24	100% DESIGN PLANS	KL	MS

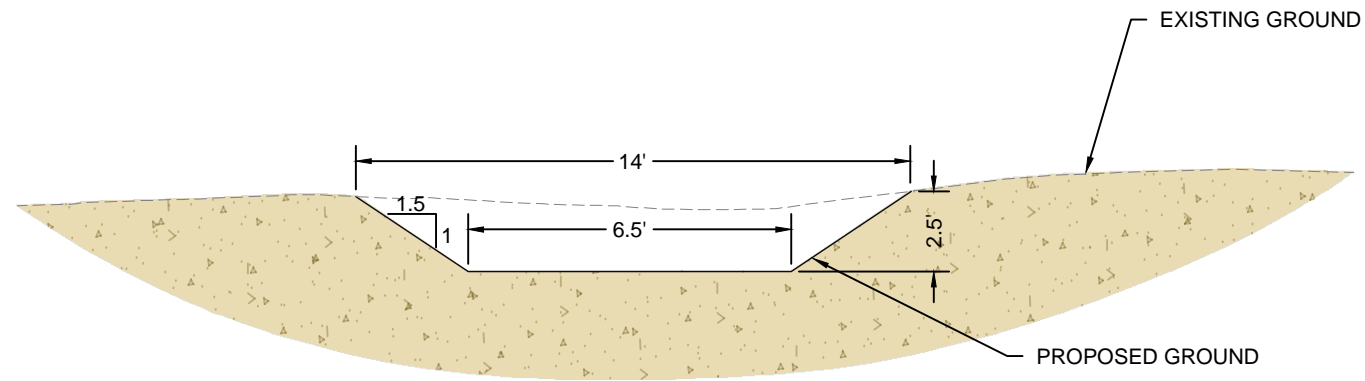


**UPPER JEFFERSON RIVER RESTORATION PROJECT**  
**100% DESIGN PLANS**  
 RUBY VALLEY CONSERVATION DISTRICT

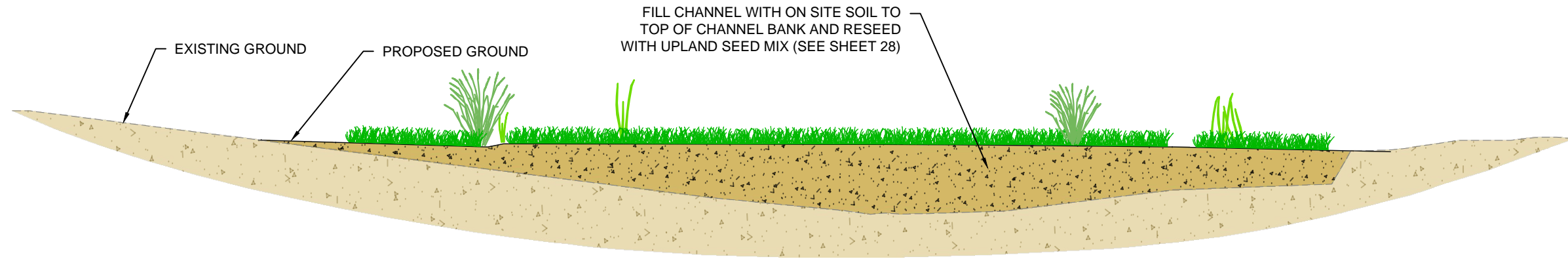
HELLS CANYON CREEK

SHEET: **25**





1  
26 PROPOSED CHANNEL TYPICAL  
NOT TO SCALE



2  
26 PROPOSED CHANNEL PLUG TYPICAL  
NOT TO SCALE

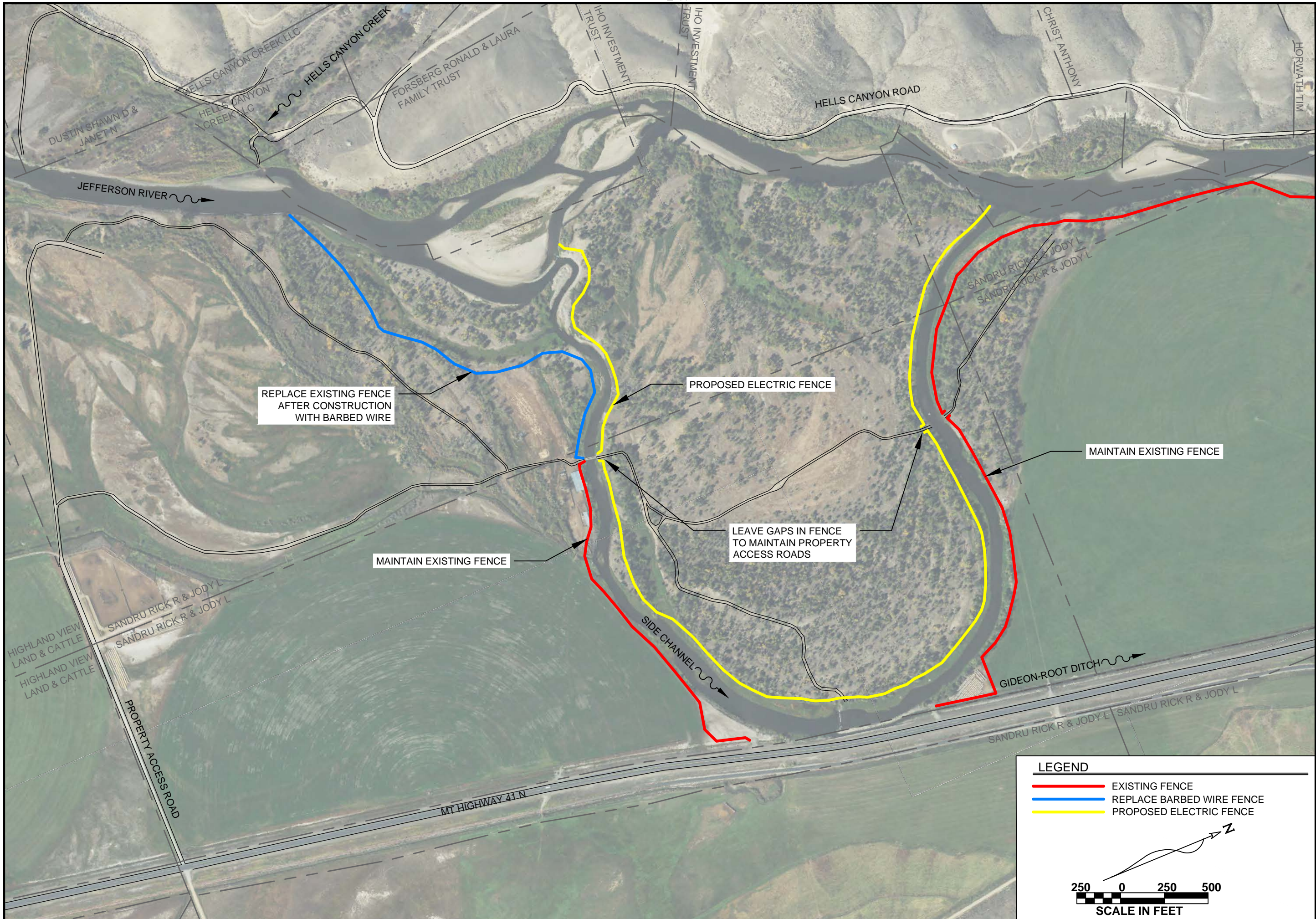


UPPER JEFFERSON RIVER RESTORATION PROJECT  
100% DESIGN PLANS  
RUBY VALLEY CONSERVATION DISTRICT

DETAILS (8)  
HELLS  
CANYON  
CREEK

SHEET: 26

DRAWN BY: ML, KL, CB		DATE: 12/6/24		
DESIGNED BY: ML, RB, KL		CCI JOB NO.: RUCD010		
CHECKED BY: MS		FILE NAME: RUCD010_100%_DESIGN_PLANS		
REV.	DATE	DESCRIPTION	BY	APPD
1	5/12/24	30% CONCEPT DESIGN	KL	MS
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3	9/20/24	90% DESIGN PLANS	CB	MS
4	12/6/24	100% DESIGN PLANS	CB	MS



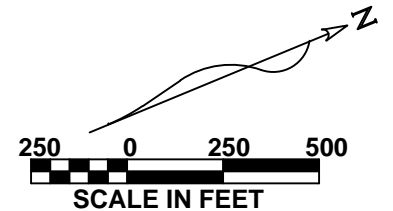
DATE: 12/02/24	FILE NAME: 021-2026_Upper Jefferson			
DESIGNED BY: CB	PROJECT NO.: RVD010			
CHECKED BY: MS				
REV	DATE	DESCRIPTION	BY	APPD
1	12/02/24	100% DESIGN PLANS	CB	MS



**UPPER JEFFERSON RIVER RESTORATION PROJECT**  
**90% DESIGN PLANS**  
 RUBY VALLEY CONSERVATION DISTRICT

**LEGEND**

<span style="color: red;">—</span>	EXISTING FENCE
<span style="color: blue;">—</span>	REPLACE BARBED WIRE FENCE
<span style="color: yellow;">—</span>	PROPOSED ELECTRIC FENCE



FENCING PLAN

SHEET: **27**

SITE 1 BANK STABILIZATION	
CLASS II RIPRAP (CY)	2200
NATIVE BED MATERIAL FILL (CY)	1053
NATIVE BED MATERIAL CUT (CY)	917
IMPORT GRAVEL NEEDED (CY)	137
PIT RUN (CY)	183
RESEED AREA (FT2)	12417
NON-WOVEN GEOTEXTILE (YD2)	2506
TOTAL BANK STABILIZED (LF)	1100
WILLOW CUTTINGS (EA)	9900
WILLOW TRANSPLANTS (EA)	112
LARGE WOOD (EA)	9

SITE 2 BANK STABILIZATION	
EXCAVATE EXISTING GRAVEL ISLAND (CY)	5807
CONSTRUCT GRAVEL BAR (CY)	5807
LARGE COBBLE FILL (CY)	497
BRUSH MATRIX TREATMENT LENGTH (LF)	400
TOTAL BANK STABILIZED (LF)	361

LEFT BANK BUILD OUT	
EXCAVATE HELLS CANYON GRAVEL BAR (CY)	2395
GRAVEL TO BUILD OUT LEFT BANK (CY)	2395
LARGE COBBLE FILL (CY)	402
RESEED AREA (FT2)	17164
LENGTH OF BRUSH TREATMENT (LF)	648

SIDE CHANNEL	
CLASS II RIPRAP (CY)	1677
EXCAVATE PROPOSED SIDE CHANNEL (CY)	9718
FILL EXISTING SIDE CHANNEL WITH RIVER BED MATERIAL (CY)	4523
LARGER COBBLE FILL FOR RIGHT BANK STABILIZATION (CY)	203
STOCKPILED STREAM MATERIAL (ESTIMATED) (CY)	2167
RESEED AREA (FT2)	56697
LENGTH OF BRUSH TREATMENT FOR RIGHT BANK STABILIZATION (LF)	217
POOL QUANTITY (EA)	20
POINT BAR QUANTITY (EA)	17

HELLS CANYON	
PROPOSED ROAD REGRADING CUT (CY)	13
PROPOSED ROAD REGRADING FILL (CY)	10
PLUG EXISTING CHANNEL (CY)	154
EXCAVATE NEW CHANNEL (CY)	152

DIVERSION	
CLASS II RIPRAP (CY)	718
CLASS I RIP RAP (CY)	86
GRAVEL FOR NARROWING (CY)	1777
CONCRETE (CY)	22
RESEED AREA (FT2)	34427
HANDRAIL (EA)	1
WALKWAY (EA)	1
DECK (EA)	1
DEBRIS RACK (EA)	1
3-FT WATERMAN SLIDE GATE MODEL A250 (EA)	1
40' L X 30" O.D. CMP CULVERT (EA)	2

FENCING PLAN	
ELECTRIC FENCE (LF)	7215
BARBED WIRE FENCE (LF)	2730

COBBLE GRADATION	
DIAMETER (IN)	PERCENT PASSING (%)
9.5	100
8.0	70-90
6.0	40-60
5.0	20-30
3.0	0-10

CLASS I RIPRAP	
DIAMETER (IN)	PERCENT PASSING (%)
13.0	100
11.0	70-90
8.0	40-60
6.5	20-30
3.0	0-10

CLASS II RIPRAP	
DIAMETER (IN)	PERCENT PASSING (%)
24.0	100
21.0	70-90
16.0	40-60
12.0	20-30
7.0	0-10

UPLAND SEED MIX		
SCIENTIFIC NAME	COMMON NAME	ESTIMATED RATE (LBS. PURE LIVE SEED/ACRE)
ACHNATHERUM HYMENOIDES	INDIAN RICEGRASS	3.6
BOUTELOUA GRACILIS	BLUE GRAMA	0.3
ELYMUS TRACHYCAULUS	SLENDER WHEATGRASS	7.2
KOELERIA MACRANTHA	PRAIRIE JUNEGRASS	0.3
NASSELLA VIRIDULA	GREEN NEEDLEGRASS	1.8
PASCOPYRUM SMITHII	WESTERN WHEATGRASS	9.6
PSEUDOROEGNERIA SPICATA	BLUEBUNCH WHEATGRASS	10.8
	TOTAL SEED:	33.6

WETLAND SEED MIX		
SCIENTIFIC NAME	COMMON NAME	ESTIMATED RATE (LBS. PURE LIVE SEED/ACRE)
BECKMANNIA SYZIGACHNE (ANNUAL COVER CROP)	AMERICAN SLOUGHGRASS	9.7
CAREX NEBRASCENSIS	NEBRASKA SEDGE	1.5
DESCHAMPسيا CAESPITOSA	TUFTED HAIRGRASS	0.9
ELYMUS TRACHYCAULUS	SLENDER WHEATGRASS	9.0
GLYCERIA ELATA	MANNAGRASS	1.8
JUNCUS BALTICUS	BALTIC RUSH	0.7
POA PALUSTRIS	FOWL BLUEGRASS	0.9
SCIRPUS MICROCARPUS	SMALL-FRUITED BULRUSH	0.6
	TOTAL SEED:	25.1

DATE: 12/02/24	FILE NAME: 021-2026-UPPER JEFFERSON		
DESIGNED BY: ML, RR, KL	CCTJOB NO.: RUCD010		
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1	5/12/24	30% CONCEPT DESIGN	KL
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4	12/02/24	100% DESIGN PLANS	MS



UPPER JEFFERSON RIVER RESTORATION PROJECT  
 100% DESIGN PLANS  
 RUBY VALLEY CONSERVATION DISTRICT

QUANTITIES

SHEET: 28