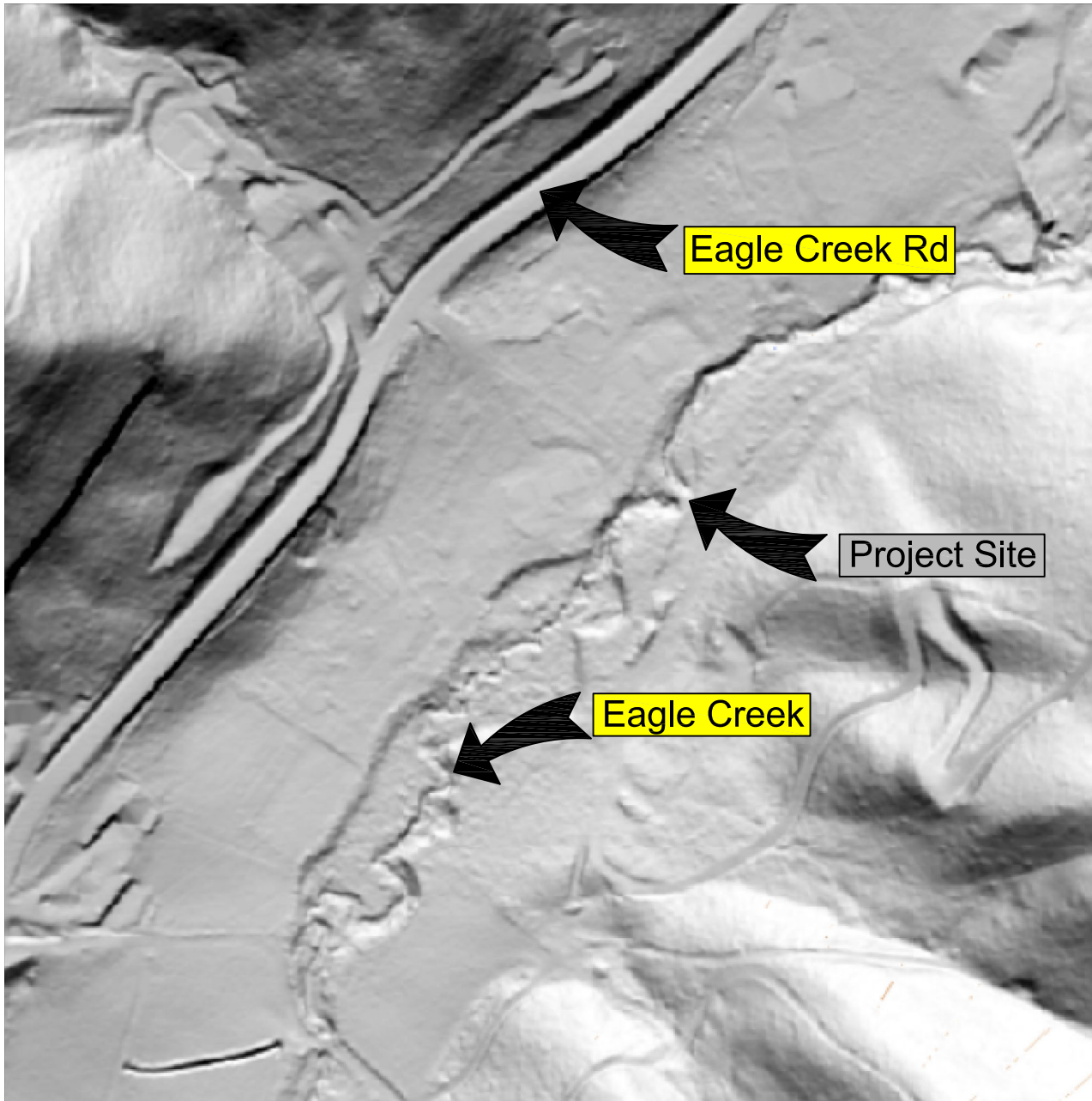


Contract Documents

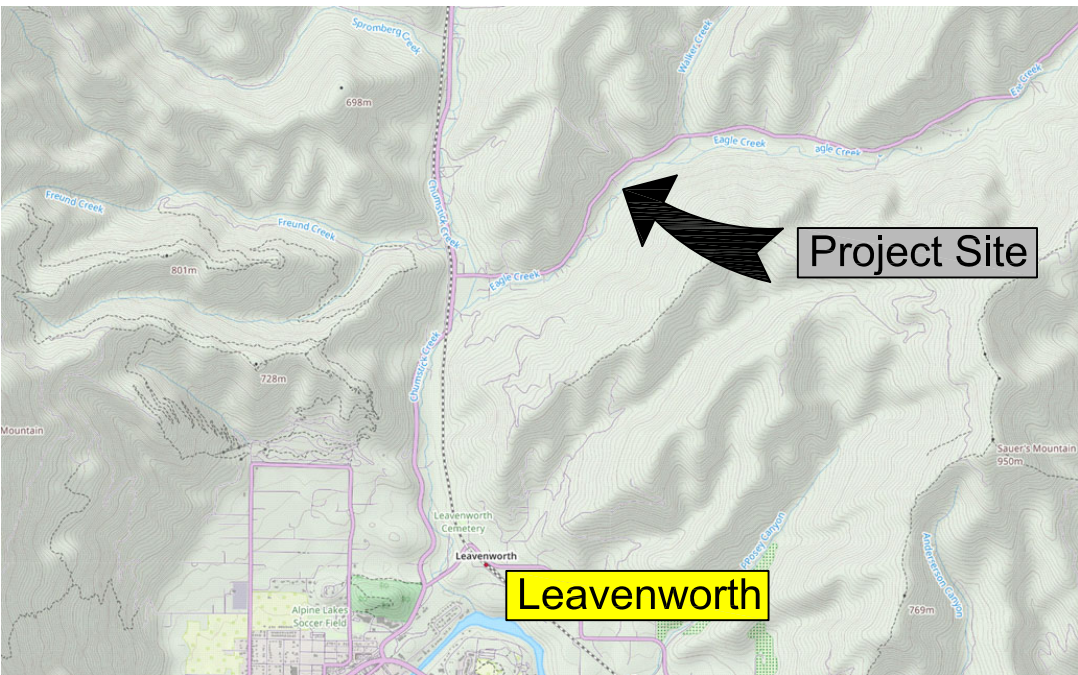
McCrate Culvert Replacement Project

Project Number 22-1226



DRAWING INDEX:

- 1. Cover Sheet
- 2. Legend and Notes
- 3. Site Plan Scale 1 to 50
- 4. Site Plan Scale 1 to 20
- 5. Construction Plan
- 6. Site Plan Proposed
- 7. Road Profiles
- 8. Stream Profiles
- 9. Precast Footing and Stemwall
- 10. Details
- 11. Details

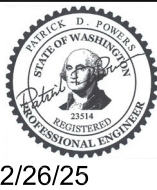


VICINITY MAP
NOT TO SCALE



McCrate - Eagle Creek

Landowner: See Sheet 3 (4 Landowners)
Sec Twnshp Range: Section 29, T25N, R18E
Lat and Long: 47° 38' 0.3"N, 120° 37' 42.8"W



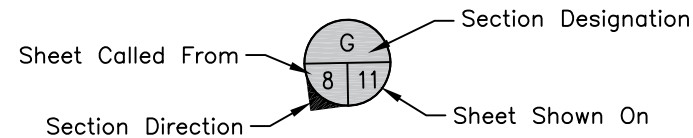
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SCALE VERIFICATION				IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.
BAR IS ONE INCH ON ORIGINAL DRAWING.				0 1"

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DRAWN BY:
DATE: 2/26/25

Cover Sheet

1 11
SHEET OF

SHEET SYMBOLS



SECTION CALLOUT



Survey by Mountain2Coast Survey with LiDAR Contours Added Outside of Survey by Waterfall Engineering. Coordinates State Plane North, Vertical NAVD88. This is not a Boundary Survey. Boundary Calculated per Short Plat No. 3544, AFN 2034278 and Short Plat No. 711, AFN 819736, Records of Chelan County.

PT	N	E	Elev.	Desc.
10	231299.93	1690671.81	1345.64	MNCC
11	231163.50	1690875.44	1326.83	MNCC
12	230891.19	1690939.34	1325.40	MNCC
13	231053.50	1690998.90	1326.55	MNHT
14	231165.23	1691024.46	1328.77	MNHT
15	231236.97	1691033.40	1327.87	MNHT
16	231199.74	1691106.87	1331.28	MNHT
17	231289.60	1691177.15	1332.23	MNHT
18	231344.85	1691046.74	1332.84	MNHT
19	231256.12	1690933.96	1329.11	MNHT
20	231206.61	1690814.57	1327.39	MNHT
21	231105.50	1690936.55	1323.54	MNHT

ABBREVIATIONS

USIE Upstream Culvert Invert Elev.
DSIE Downstream Culvert Invert Elev.

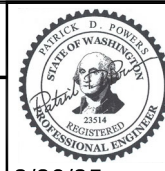
LEGEND

	BM1	Project Bench Mark
	ATP-01	Geotech Boring Locations
		Design Elevation
		Structures or Buildings
		Centerline
		Property Lines
		Easement Lines
	2550	Contour Elevation
		Denotes Survey/LiDAR Transition
		Denotes Excavation Extent/Clearing Limits/Staging Areas
		Fish Screen
		Silt Fence
		Sandbag Cofferdam
		Concrete
		Existing Gravel Road
		Crushed Rock Fill
		Rock or Gravel Fill
		Undisturbed Grade
	DF	Existing Trees > 12" Diam.
		Trees to be Removed
		Habitat Boulders
		Text Denotes Existing
		Text Denotes Proposed
		Text Denotes Proposed



McCrack - Eagle Creek

See Sheet 3 (4 Landowners)
Section 29, T25N, R18E
47° 38' 0.3"N, 120° 37' 42.8"W



2/26/25

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SCALE VERIFICATION				IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.
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Waterfall Engineering

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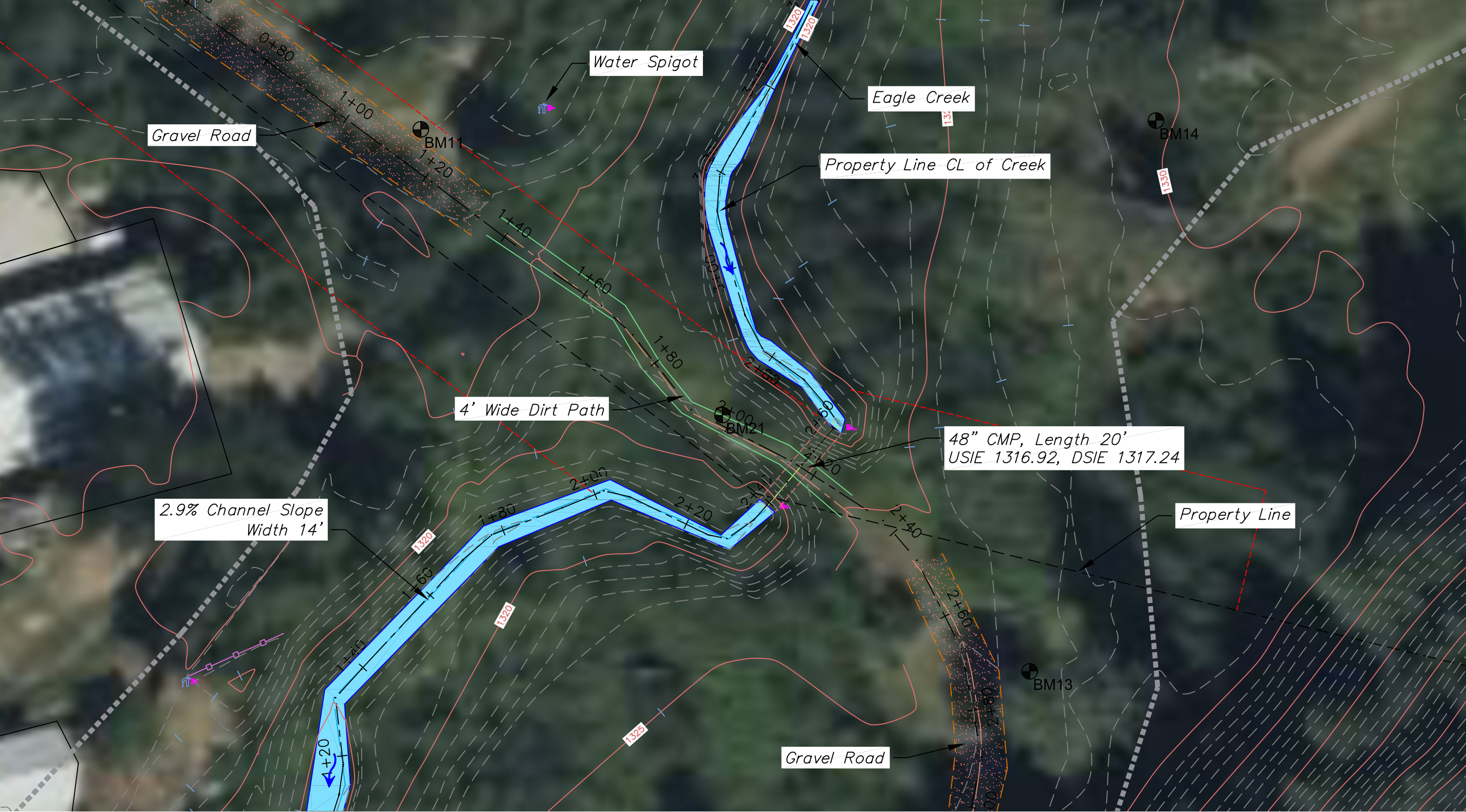
DATE:
12/27/24

Legend and Notes

2 11
SHEET OF



 **Site Plan**
Scale: 1" = 50'

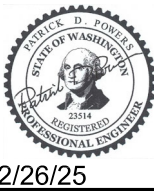


 **Site Plan**
SCALE: 1" = 20'



McCrate - Eagle Creek

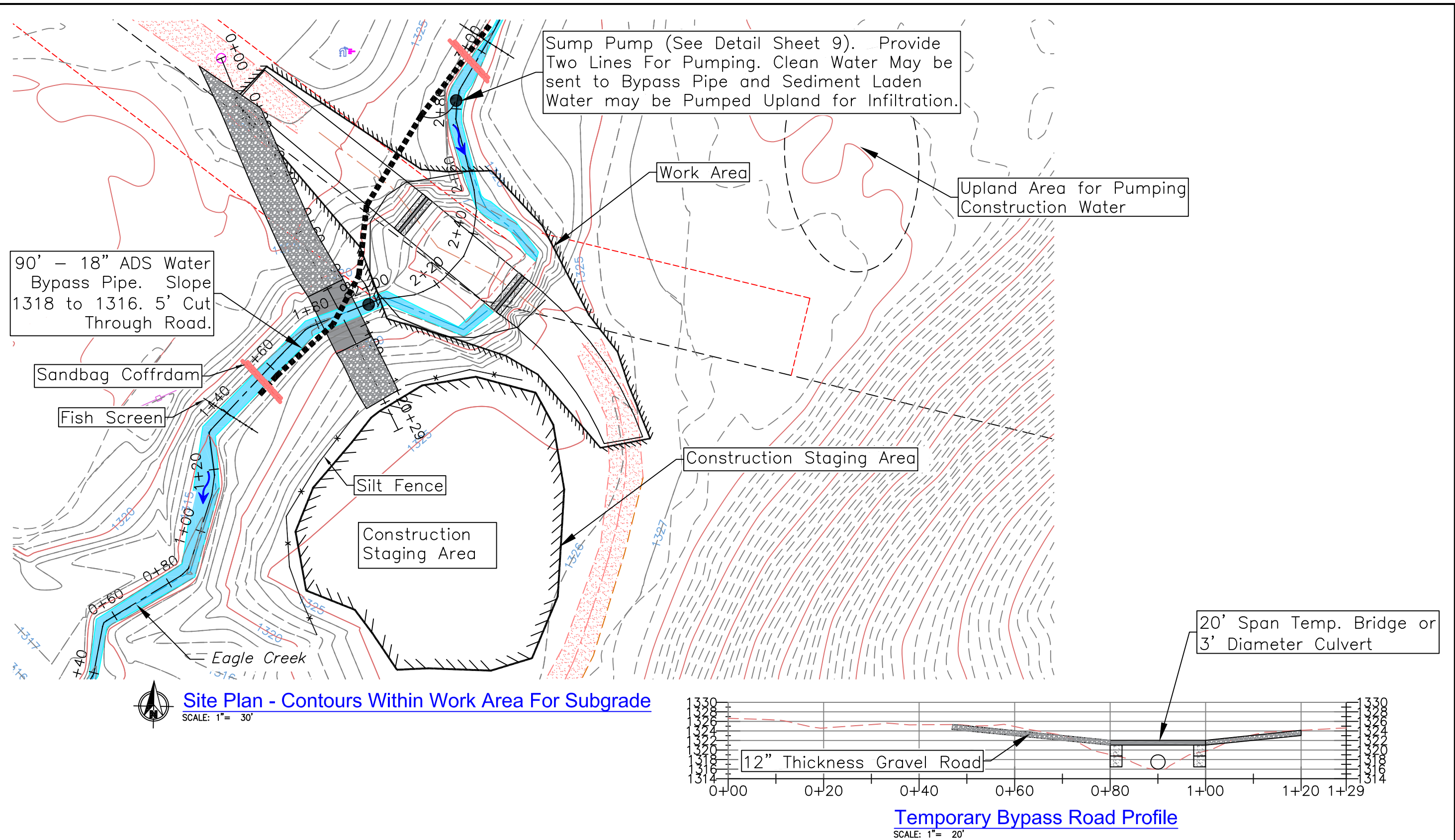
Landowner: See Sheet 3 (4 Landowners)
Sec Twnshp Range: Section 29, T25N, R18E
Lat and Long: 47° 38' 0.3"N, 120° 37' 42.8"W



REV	DATE	BY	APP'D	DESCRIPTION
SCALE VERIFICATION				IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.
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DRAWN BY:
DATE: 2/26/25

Existing Site



McCrate - Eagle Creek

Landowner: See Sheet 3 (4 Landowners)
Sec Twnshp Range: Section 29, T25N, R18E
Lat and Long: _____



2/26/25

REV	DATE	BY	APP'D	DESCRIPTION
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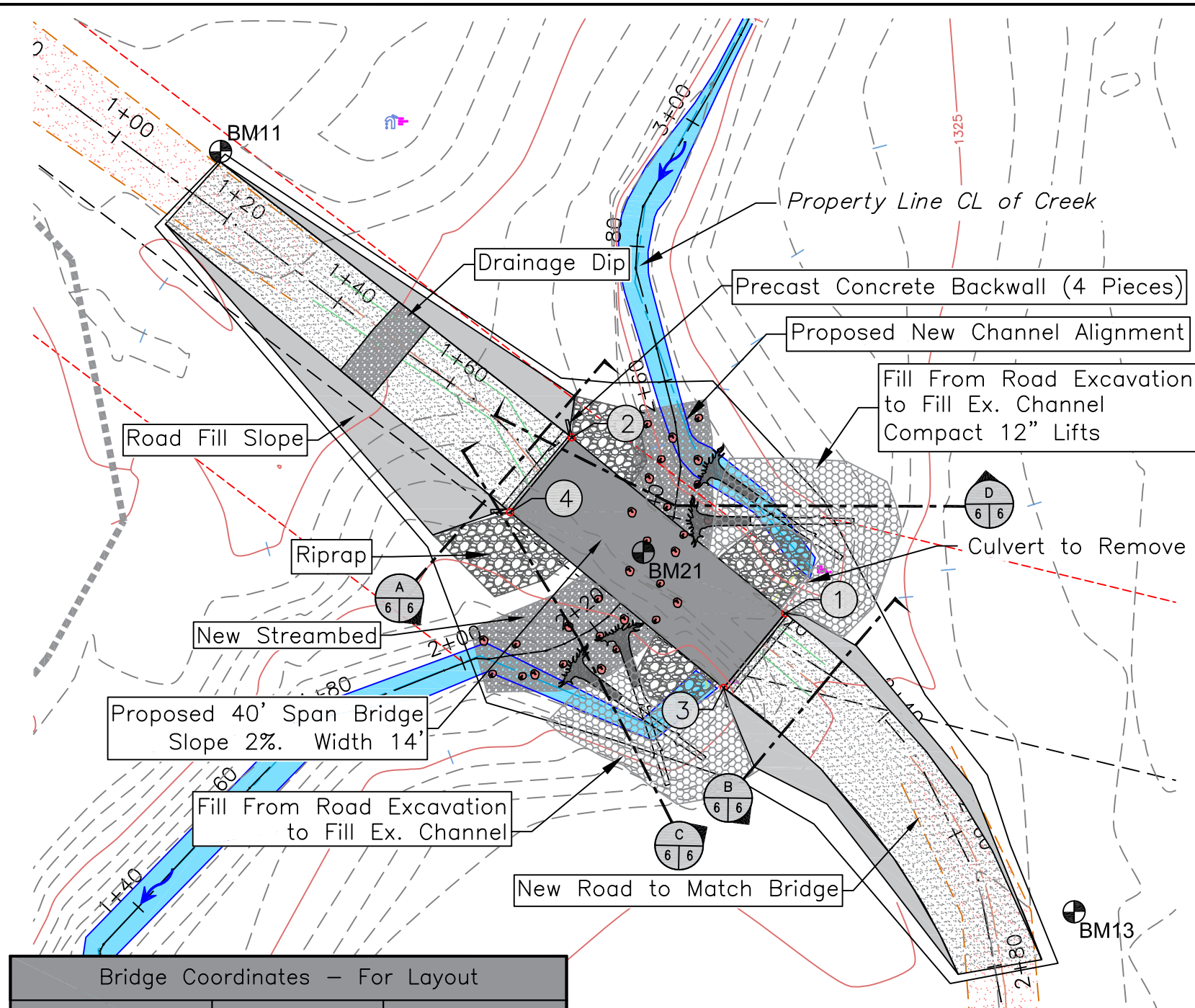
DESIGN BY:
Waterfall Engineering

DRAWN BY:

DATE:
2/26/25

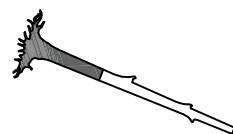
Construction Plan

5 11
SHEET OF

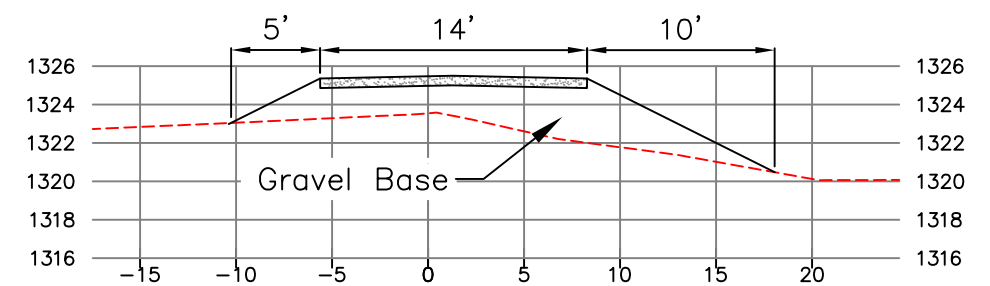


Bridge Coordinates - For Layout		
Number	Northing	Easting
①	231096.67	1690957.10
②	231122.09	1690926.21
③	231085.86	1690948.20
④	231111.28	1690917.32

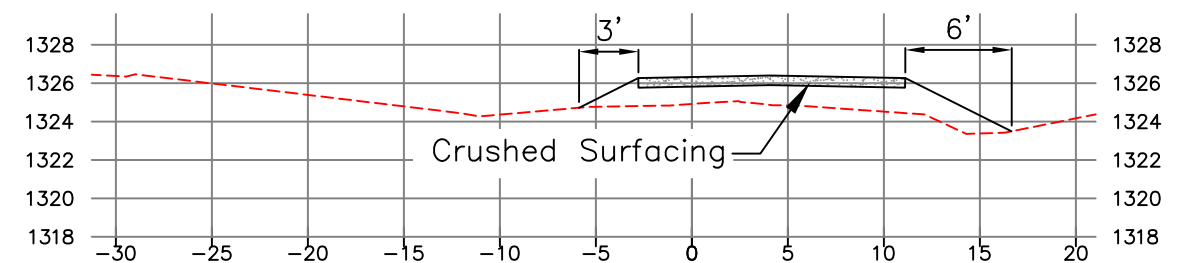
Site Plan
SCALE: 1" = 20'



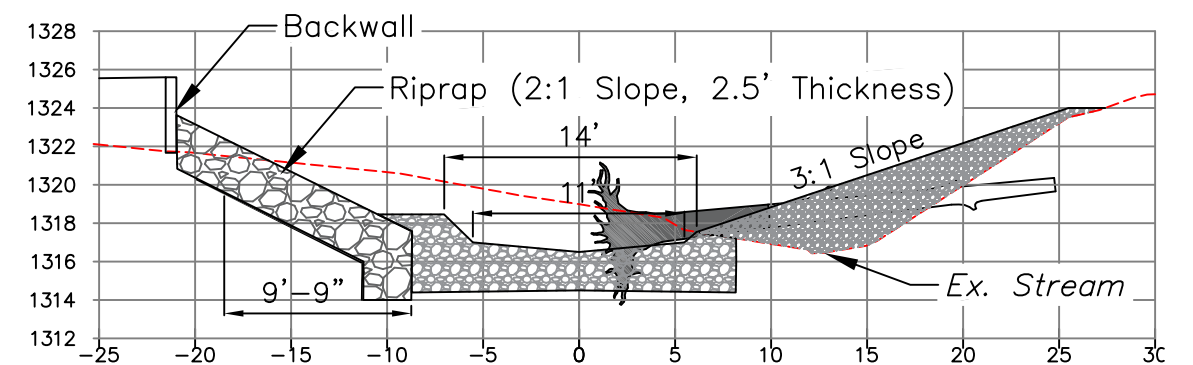
Denotes Log w/Rootwad (4 Total)
Extend 4' Into Streambed and Bury
End with Roadfill Removal Material.



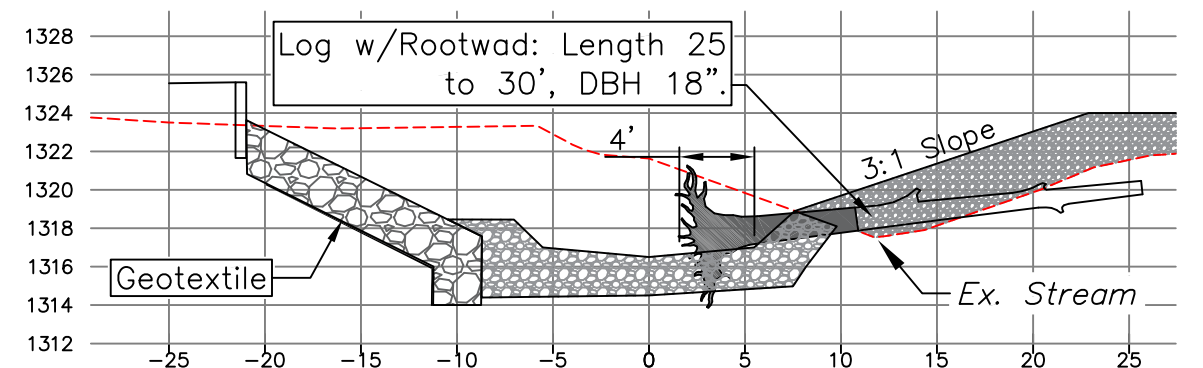
Road Section - STA 1+75
Scale: 1" = 10'



Road Section - STA 2+30
Scale: 1" = 10'



Stream Section - STA 2+17, View Upstream
Scale: 1" = 10'



Stream Section - STA 2+41, View Upstream
Scale: 1" = 10'



McCrack - Eagle Creek

Landowner: See Sheet 3 (4 Landowners)
Sec Twnshp Range: Section 29, T25N, R18E
Lat and Long: 47° 38' 0.3"N, 120° 37' 42.8"W



2/26/25

REV	DATE	BY	APP'D	DESCRIPTION

SCALE VERIFICATION

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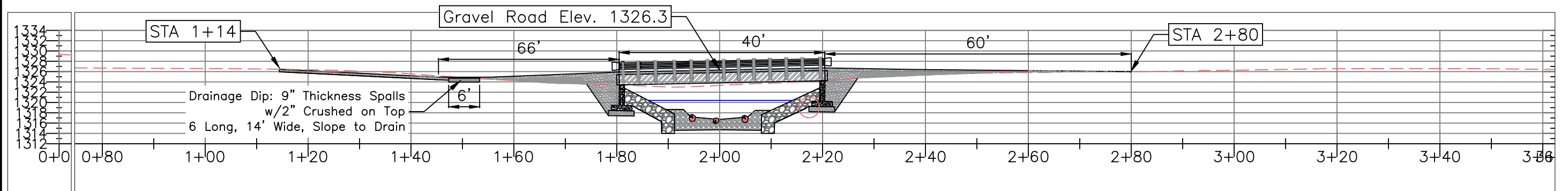
DESIGN BY:
Waterfall Engineering

DRAWN BY:

DATE:
2/26/25

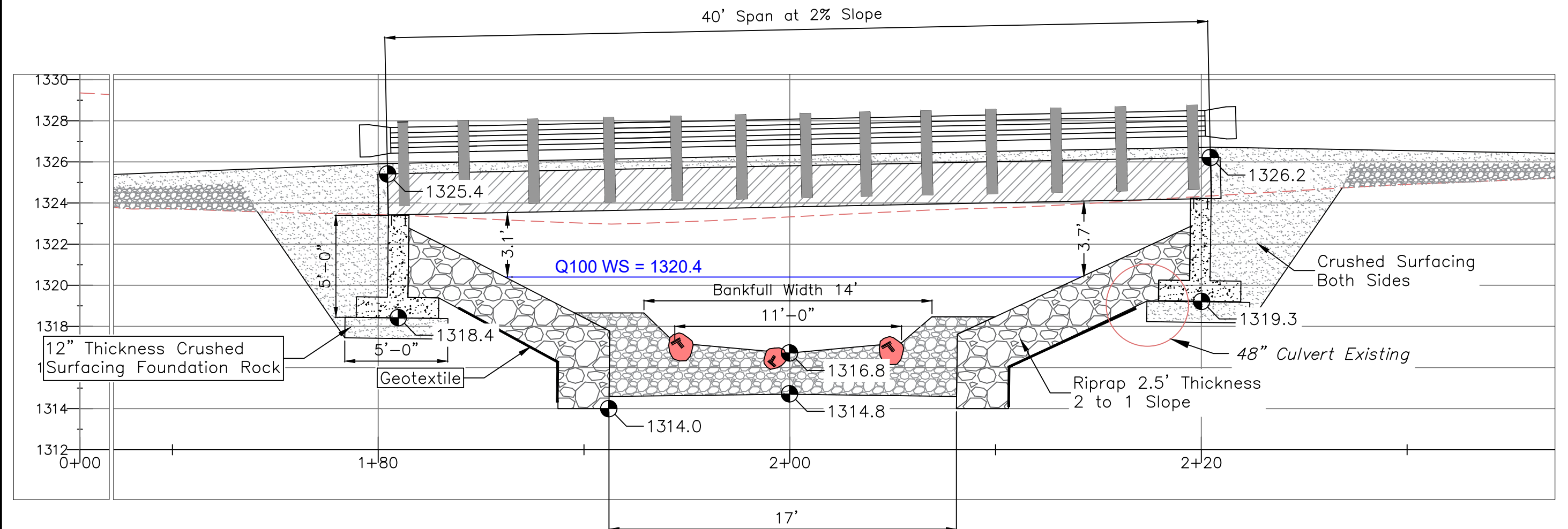
Proposed Site Plan

6 11
SHEET OF



Road Section - View Upstream

Scale: 1" = 20'



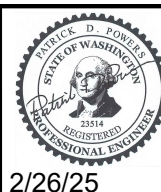
Road Section - View Upstream

Scale: 1" = 5'



McCrate - Eagle Creek

Landowner: See Sheet 3 (4 Landowners)
 Sec Twnshp Range: Section 29, T25N, R18E
 Lat and Long: 47° 38' 0.3"N, 120° 37' 42.8"W



2/26/25

REV	DATE	BY	APP'D	DESCRIPTION

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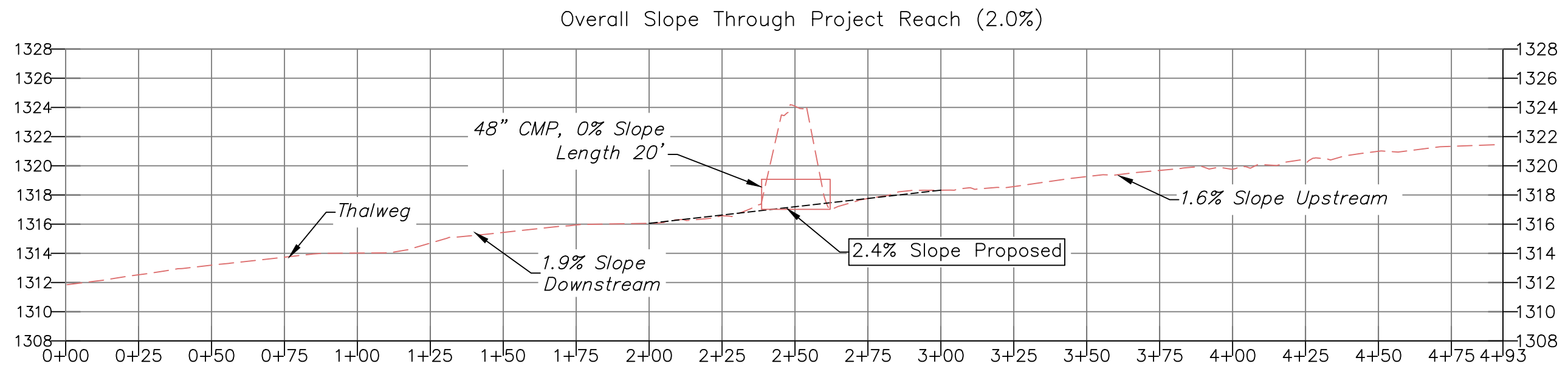
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Waterfall Engineering

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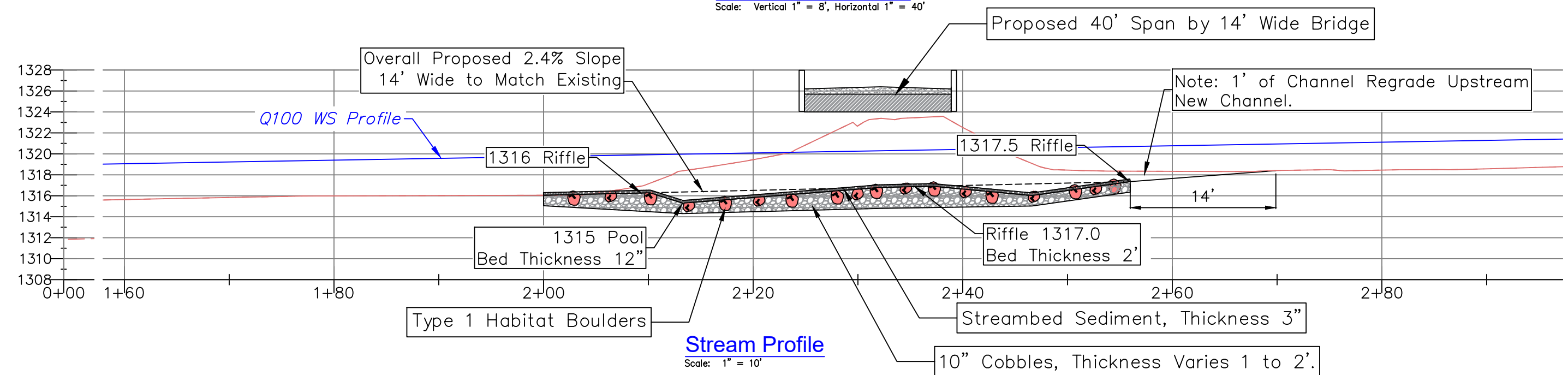
DATE:
2/26/25

Road Profiles

7 **11**
SHEET OF



Long Stream Profile
 Scale: Vertical 1" = 8', Horizontal 1" = 40'



Stream Profile
 Scale: 1" = 10'

Streambed Material: Approx Specification see WSDOT Standard Specs

Streambed Sediment: 15 yards – 100% < 2.5", 85% < 2", 50% < 1" 30% < 1/2" 20% fines

10" Cobbles: 53 yards – 100% < 10", 80% < 8", 50% < 4", 10% < 3/4" Rounded Gravel Material

Type 1 Habitat Boulders: 30 Each – 12 to 18" Rounded to Sub-Angular



McCrate - Eagle Creek

Landowner: See Sheet 3 (4 Landowners)

Sec Twnshp Range: Section 29, T25N, R18E

Lat and Long: 47° 38' 0.3"N, 120° 37' 42.8"W



REV	DATE	BY	APP'D	DESCRIPTION
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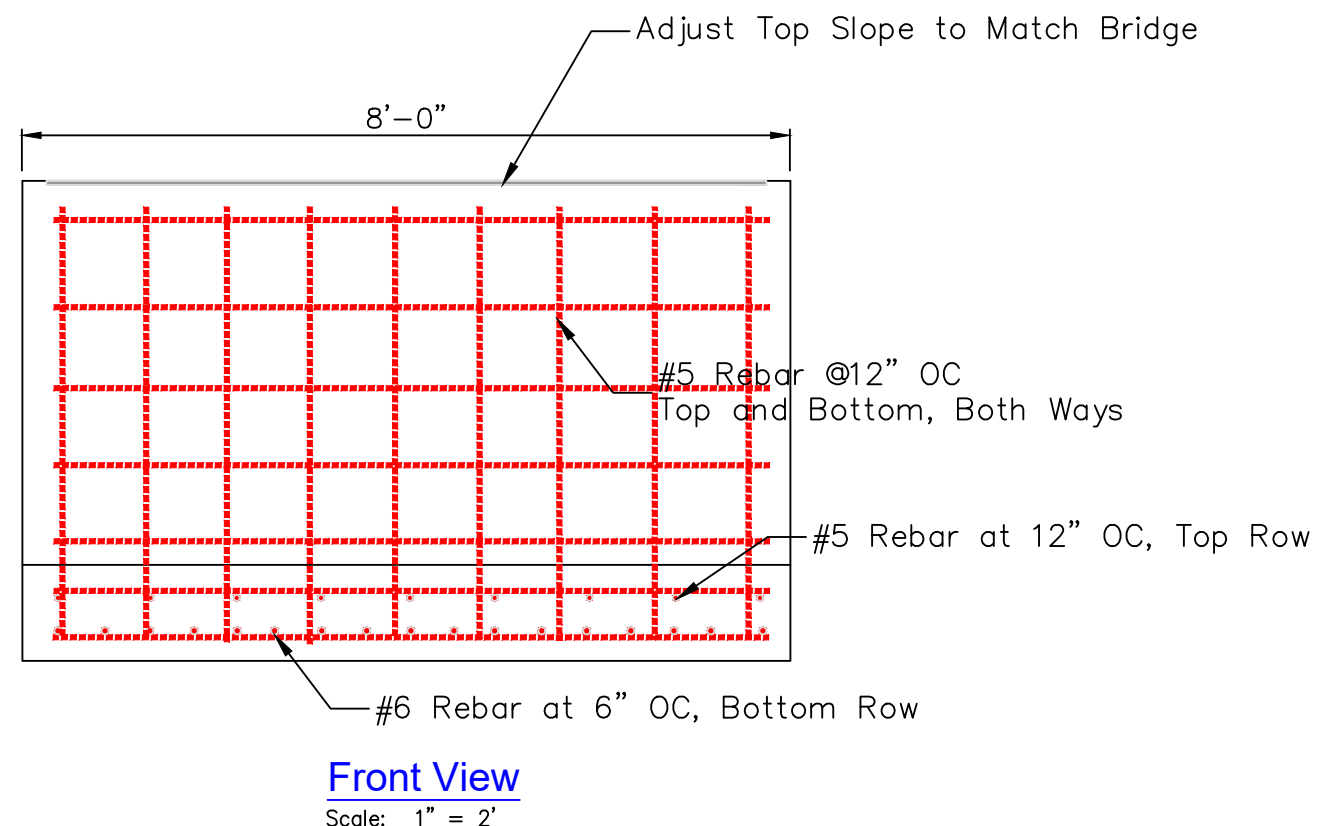
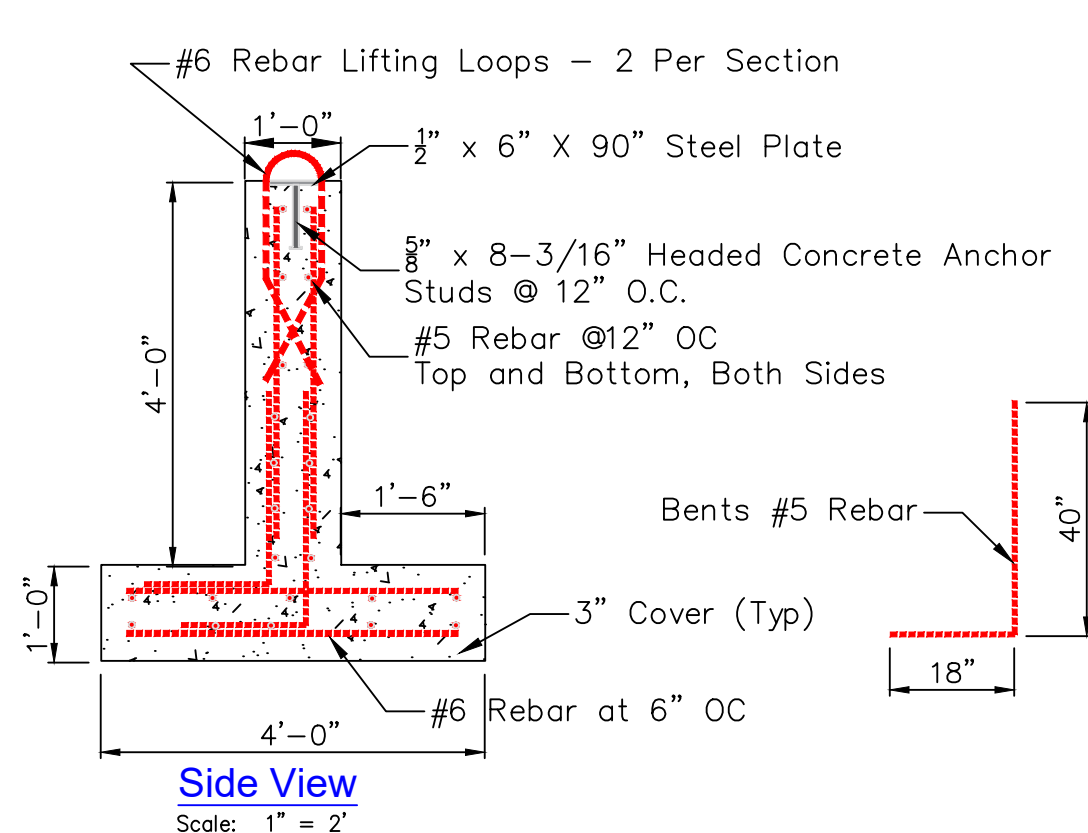
DESIGN BY:
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DATE:
2/26/25

Stream Profiles

8 11
SHEET OF

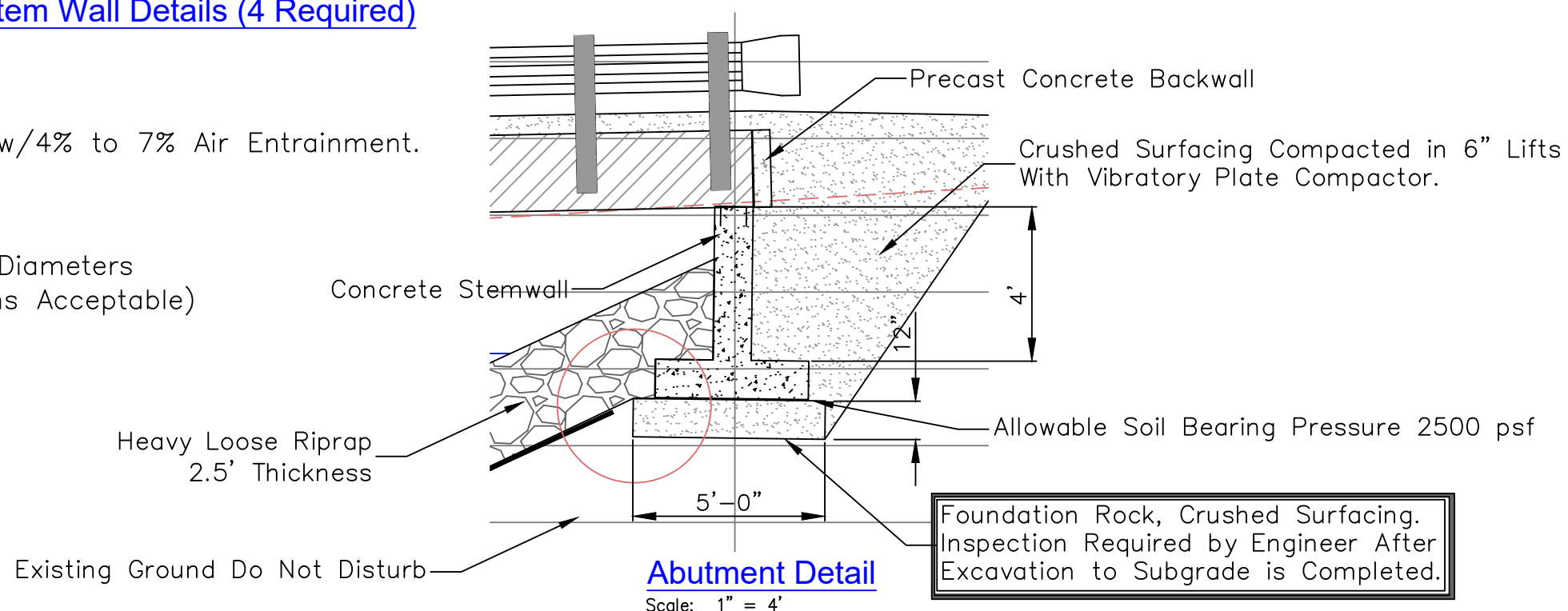


Concrete Footing/Stem Wall Details (4 Required)

Scale: 1" = 2'

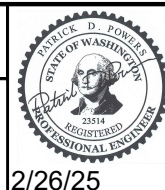
Notes:

1. Concrete Mix to be 6-Sack Mix (4000 psi) w/4% to 7% Air Entrainment.
2. Rebar to be Grade 60
3. Dowels to be Grade 60
4. Weight Per Unit = 9600 lbs.
5. All Rebar Splices Shall be Minimum 40 Bar Diameters
6. Lifting Loops Shown as Typical (Other Designs Acceptable)
7. Allowable soil bearing pressure 2500 psf.



McCrates - Eagle Creek

Landowner: See Sheet 3 (4 Landowners)
Sec Twnshp Range: Section 29, T25N, R18E
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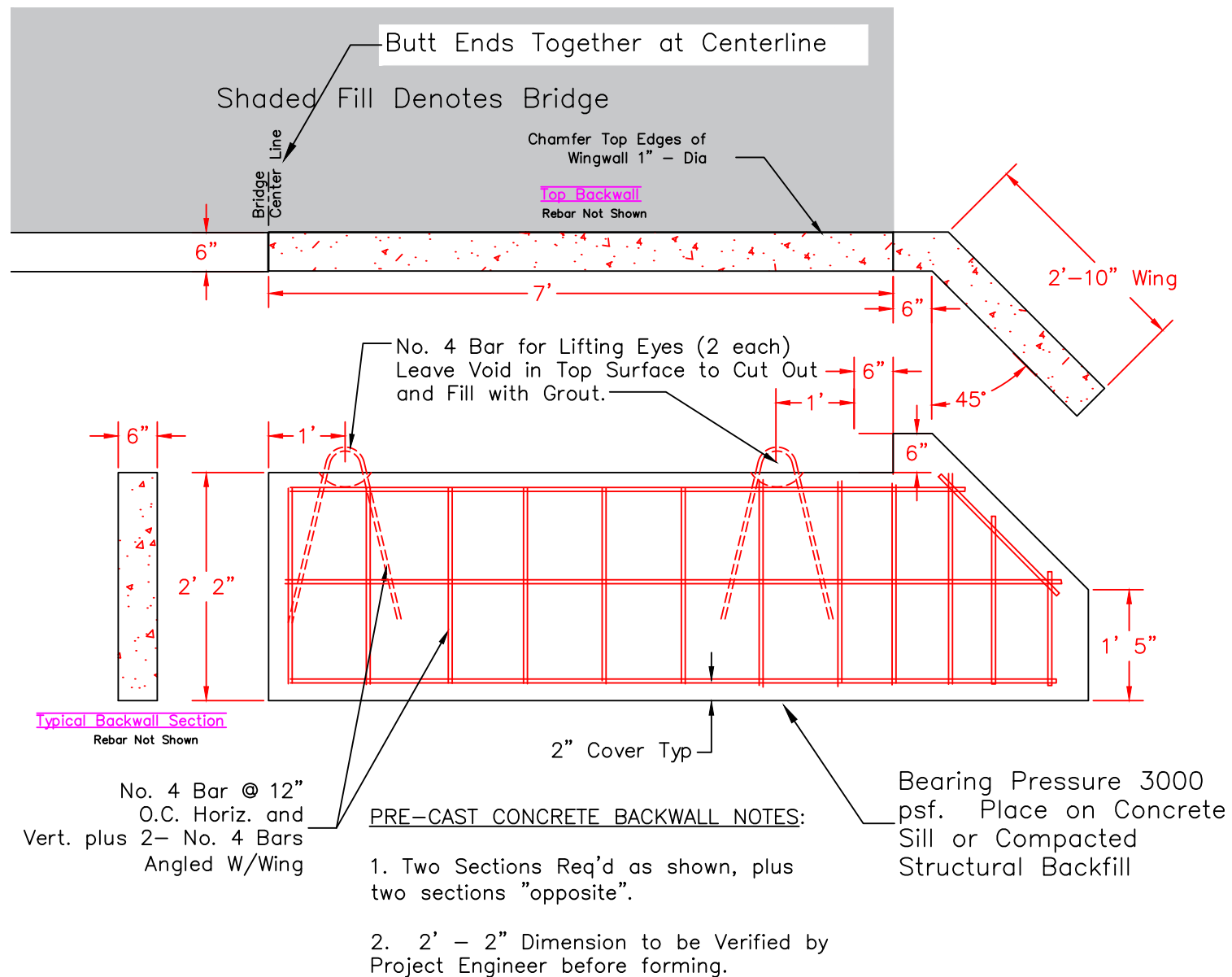
DESIGN BY:
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DATE:
2/26/25

Precast Footing

9 **11**
SHEET OF



Precast Concrete Backwall/Wingwalls

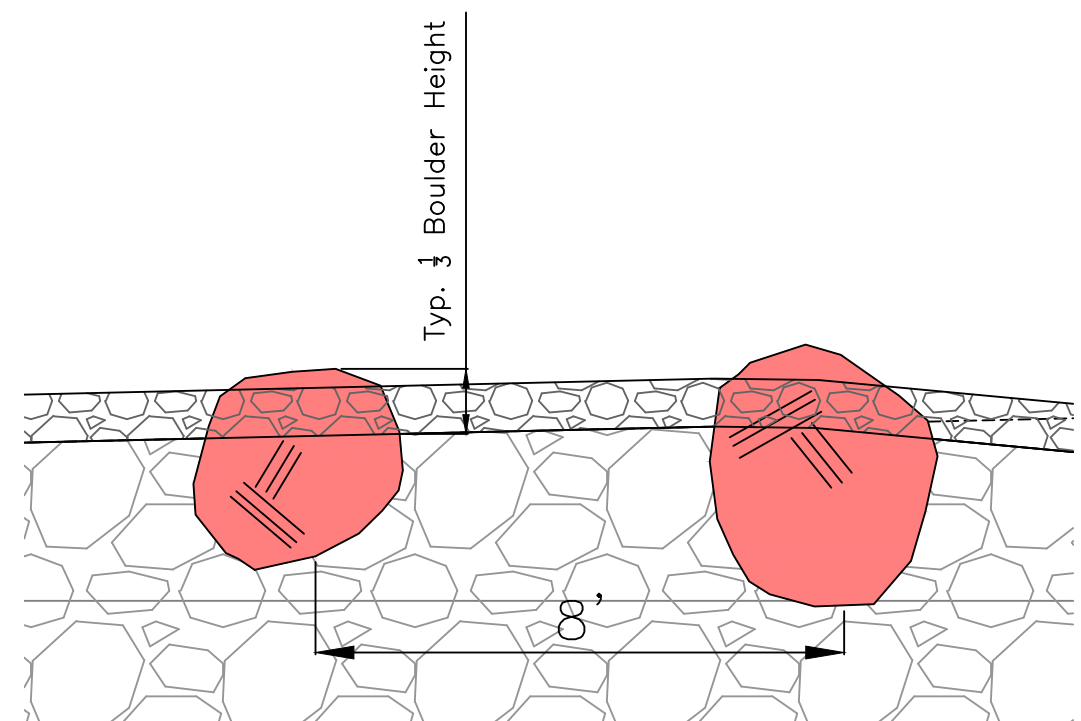
Scale 1" = 2'

Concrete:

1. Reinforced Concrete, Air Entrained Class A(AE) with a 28 day Compressive Strength of 4500 psi.
2. Reinforcing Steel: Conform to AASHTO M31 Grade 60. Two Inch Cover.
3. Light Broom Finish on Surface

Bridge Specifications:

Span 40'
Width 14'
TL1 Guard Rail
Slope 2%
Vehicle Live Load: HL93
Gravel Surface (6" Minimum Thickness)
Materials: Structural Steel (Weathering)
Bearing Plates to Match Footing Design and Bridge Slope



Typical Habitat Boulder Detail

Scale 1" = 1'

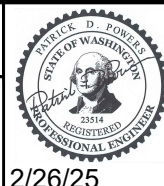


McCrates - Eagle Creek

Landowner: See Sheet 3 (4 Landowners)

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Lat and Long: 47° 38' 0.3"N, 120° 37' 42.8"W



2/26/25

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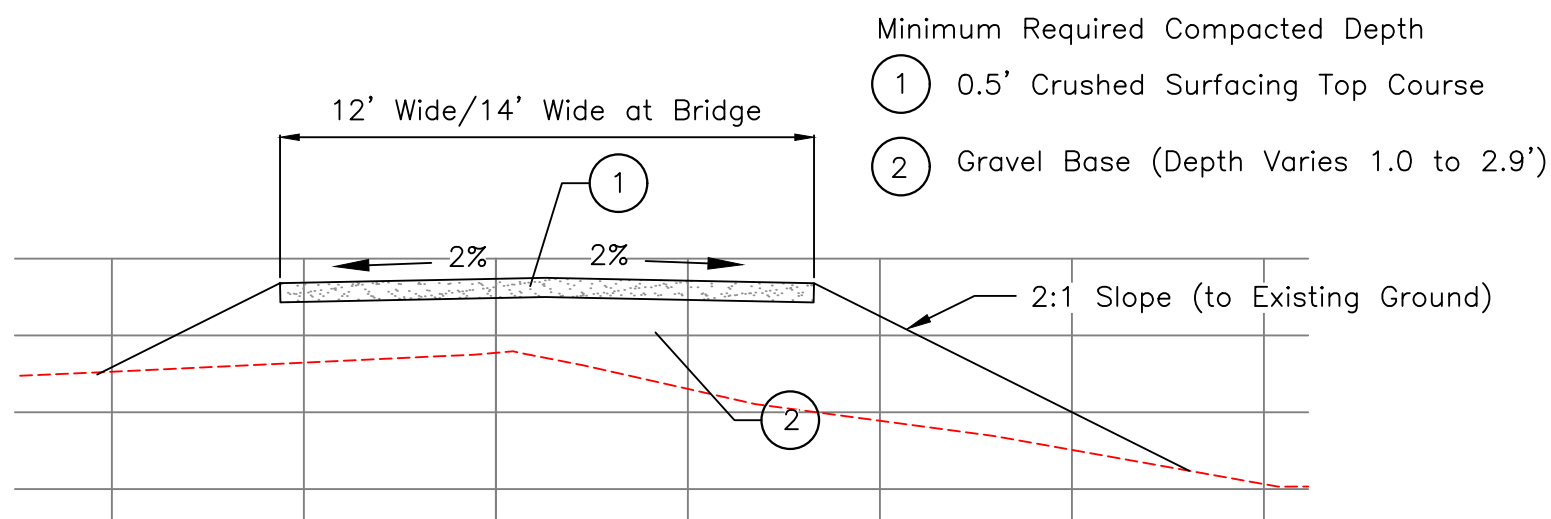
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DRAWN BY:

DATE:
2/26/25

Details

10 11
SHEET OF



Typical Road Section
Scale 1" = 5'

