REQUEST FOR CONDITIONAL LETTER OF MAP REVISION

UNNAMED TRIBUTARY 109 TO BLACK SQUIRREL CREEK, FALCON FIELD

Falcon, El Paso County, Colorado May 13, 2024

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DBC Project No. 21705-00BLWR

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- Appendix 3 Hydraulic Modeling
- Appendix 4 FEMA MT-2 Forms
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REQUEST FOR CONDITIONAL LETTER OF MAP REVISION UNNAMED TRIBUTARY 109 TO BLACK SQUIRREL CREEK FALCON FIELD

1.0 INTRODUCTION

1.1 Background

The following report and supporting documentation are being submitted to FEMA for the purpose of requesting a Conditional Letter of Map Revision (CLOMR) for a portion of the Unnamed Tributary 109 to Black Squirrel Creek (UTBSC) in El Paso County, Colorado.

Falcon Field consists of approximately 57 acres adjacent to and southeast of Highway 24 near Rio Lane as shown in **Figure 1**. The UTBSC flows southeast across the property and is proposed to be contained within a 10'x4' box culvert and open channel that will discharge into the existing tributary. A general site layout of the Falcon Field development is shown in the construction drawings included in **Appendix 1**.

The improvements associated with Falcon Field are in general conformance with the Falcon Basin, Drainage Basin Planning Study (Falcon DBPS), prepared by El Paso County in 2015. The hydrologic analysis completed for the Falcon DBPS was used as the basis for the current CLOMR.

The Effective FEMA Flood Insurance Rate Map (FIRM) Numbers 08041C0553G and 08041C0561G in **Appendix 5** show the UTBSC 100-year Zone A floodplain across the center of the Falcon Field. This report includes detailed hydraulic models showing that the proposed 100-year floodplain will be contained within a proposed box culvert and open channel.

It is the Owner/Developer's intent to comply with all floodplain regulations.

1.2 General Location and Project Description

This CLOMR is limited to the 57-acre parcel located at the southwest corner of Highway 24 and Rio Lane, in the east half of Section 7, Township 13 South, Range 64 West of the 6th P.M. in El Paso County, Colorado. The subject property will be developed with a mixed-use commercial and residential development (Falcon Field).

The Falcon Field development includes regrading the site and containing the UTBSC across the site. Approximately 1024 feet of the tributary will be impacted by the development, which intercepts the existing creek south of Highway 24 and conveys it via a 10'x4' box culvert and open channel to the existing creek downstream. The box culvert and open channel are designed to convey the full 100-year discharge.

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Figure 1 – Vicinity Map

1.3 Regulatory Floodplain

The Effective Zone A limits for the UTBSC on the Falcon Field site are defined on Map Numbers 8041C0553G and 08041C0561G dated December 7, 2018. No flow rates, floodway data or flood profiles were defined for this section of the UTBSC in the effective FIS for El Paso County, Colorado, Revised December 7, 2018.

2.0 PREVIOUS STUDIES

El Paso County completed hydrologic and hydraulic analyses summarized in a report titled Falcon Basin, Drainage Basin Planning Study, Selected Plan Report, Final, September 2015 (Falcon DBPS). The Falcon DBPS encompasses three unnamed tributaries to Black Squirrel Creek, including the "East Tributary" which flows across the subject property. Select output from the Falcon DBPS is included in **Appendix 2**.

The Colorado Water Conservation Board (CWCB) is currently performing a Base Level Engineering (BLE) study for El Paso County, and developed flood discharges of 68, 209, 379, 640, 996, and 1,408 cfs for the 10%, 4%, 2%, 1%, 1%+, and 0.2% annual-chance flood events respectively, for the UTBSC.

3.0 HYDROLOGIC ANALYSIS

The BLE discharges recommended by the CWCB are used for the hydraulic analyses and are summarized in Table 3-1.

Annual Chance (%)	Return Period (years)	Discharge (cfs)
10	10	68
4	25	209
2	50	379
1	100	640
1+	100+	996
0.2	500	1,408

Table 3-1. BLE flood discharges near Falcon Field on the UTBSC

4.0 HYDRAULIC ANALYSIS

4.1 General

The effective FIRM identifies an approximate Zone A floodplain across the Falcon Field property with no flood profiles, discharges, or BFE's defined. The Falcon Field development includes filling and regrading the site and rerouting the UTBSC through a box culvert and open channel across the site.

4.2 Vertical Datum

The effective FIRM is on the North American Vertical Datum of 1988 (NAVD88). The survey completed for the site, the design and construction drawings, and the hydraulic analyses completed for this CLOMR are all on the NAVD88. The Falcon DBPS was completed on the NGVD29.

4.3 Horizontal Datum

The field survey, design, construction drawings and hydraulic modeling for the Falcon Field project were completed on the North American Datum of 1983 (NAD83), Colorado State Plane coordinate system, Central Zone.

4.4 Box Culvert Hydraulic Analysis

Under existing conditions, the UTBSC discharges to an open channel through the site from 2-12'H x 4.83'W box culverts under Highway 24. The Falcon Field property limits are approximately 46 feet downstream of the Highway 24 box culvert exit. There is an 8-foot

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concrete vertical wall/drop immediately downstream of the culvert, then a short riprap channel section (shown in the photo below), before the open channel returns to a vegetated section through the site. This section of the tributary was realigned with the construction of the upstream railroad and highway and does not follow the historic flow path.



Existing 2-12'H x 4.83' W box culverts under Highway 24

The proposed 10' x 4' box culvert will begin at the upstream property boundary (approximately the fence line shown in the photo above) at a headwall and convey the tributary flows 750 feet downstream to a proposed open channel. StormCAD was used to evaluate the hydraulic performance of the box culvert. The profile and output for the 100-

Drexel, Barrell & Co. May 13, 2024 year storm event is included in **Appendix 3**, and the model files are provided. The HGL at of 6849.78 at the upstream end of the box was used to delineate the proposed floodplain at this location. Because the HGL is lower than the invert (6850.48) of the existing Highway 24 box culvert, there will be no impact to the existing box culvert.

4.5 Open Channel Hydraulic Analysis

The proposed box culvert discharges to a proposed open channel via a headwall. The proposed open channel conveys the UTBSC 275 feet downstream to the existing creek, and will be vegetated with mowable short grasses. The open channel has a 20-foot bottom width in a v-shape with two 10-foot sections set at a 2% slope to the invert. The side slopes above the v-shape bottom are set at a 3H:1V slope. HEC-RAS version 6.2 was used to model the proposed open channel and existing creek downstream. The profile and output for the 100-year storm event is included in **Appendix 3**, and the model files are provided.

The proposed geometry includes six cross sections over a modeled reach of 400 feet. Roughness coefficients (n-values) of 0.04 and 0.08 were used for the proposed and existing channel, respectively. The model was computed in a subcritical flow regime for the design flow of 640 cfs, with a normal depth starting water surface elevation.

5.0 NFIP REGULATION COMPLIANCE

5.1 Floodplain Work Map and Annotated FIRM

The effective Zone A 100-year floodplain delineation for the UTBSC begins downstream of Highway 24. The 100-year flood discharge will be contained in the proposed box culvert. The proposed floodplain for the on-site open channel is delineated on the Floodplain Work Map and Annotated FIRM in **Appendix 5**. The proposed Zone AE floodplain ties into the effective Zone A floodplain approximately 225 feet downstream of the Falcon Field downstream property limits.

5.2 Forms and Notifications

The appropriate FEMA forms are located in **Appendix 4**. Modifications to 100-year floodplain elevations and delineations are limited to the Falcon Field development. Furthermore, there are no proposed increases to the BFE's or floodplain extents. Therefore, individual legal notices are not required for this CLOMR submittal.

5.3 Compliance with Section 65.12

Although there are no increases to BFE's due to the proposed project, an alternatives evaluation was performed to evaluate options for closed conduit and open channel conveyance of the UTBSC. The alternatives evaluation can be provided upon request.

Furthermore, no structures are located in areas that would be impacted by the floodplain modifications proposed by this CLOMR.

5.4 Endangered Species Act (ESA)

ESA Compliance information is provided in Appendix 6.

6.0 CONCLUSIONS

The Falcon Field development will relocate a portion of an Unnamed Tributary 109 to Black Squirrel Creek (East Tributary). This report and supporting documentation are being submitted to FEMA for the purpose of requesting a CLOMR to conditionally change the floodplain in accordance with NFIP regulations.

7.0 **REFERENCES**

Bentley (formerly Haestad Methods, Inc.), StormCAD v4.1.1.

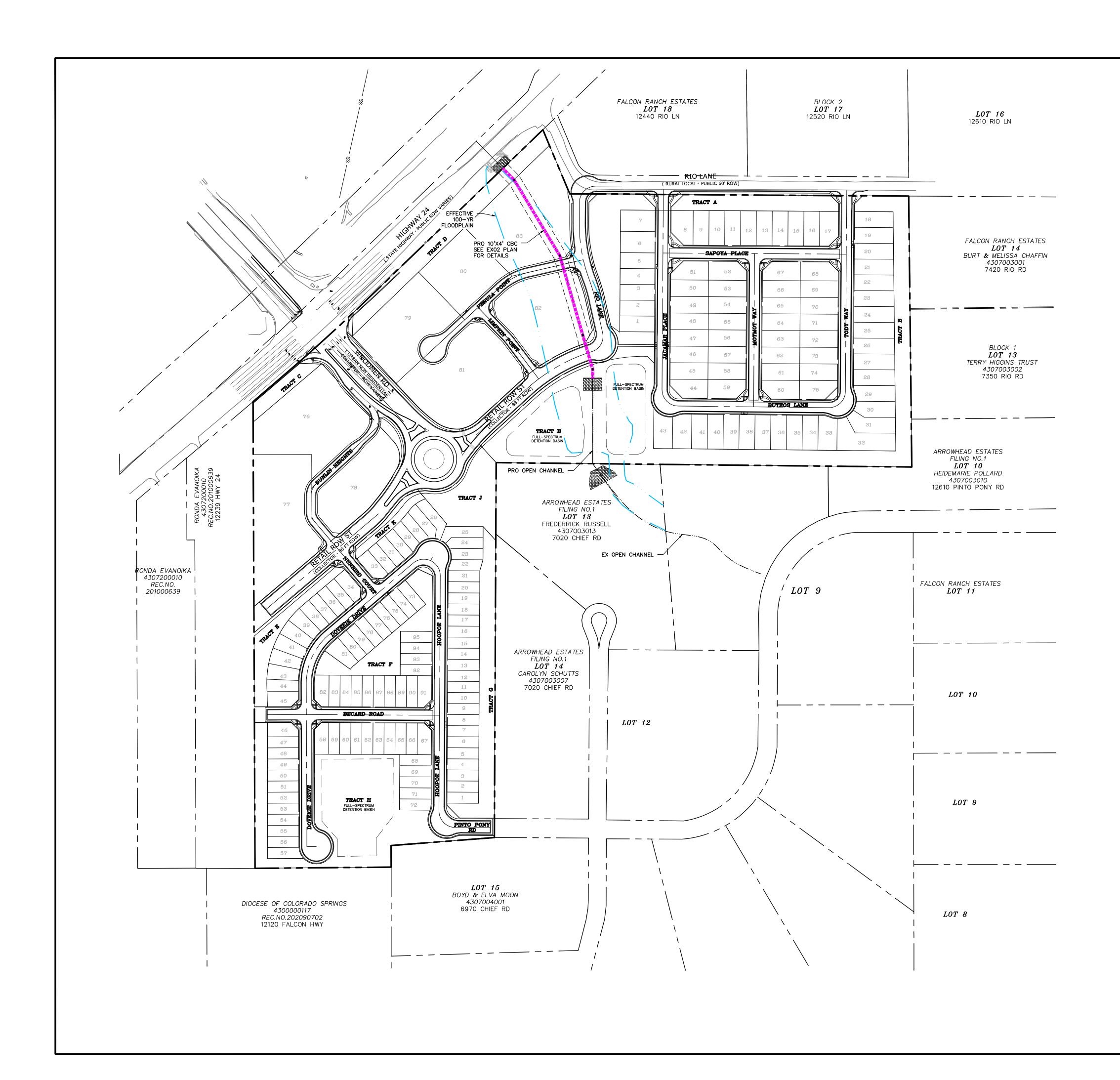
El Paso County, Drainage Criteria Manual, October 2018.

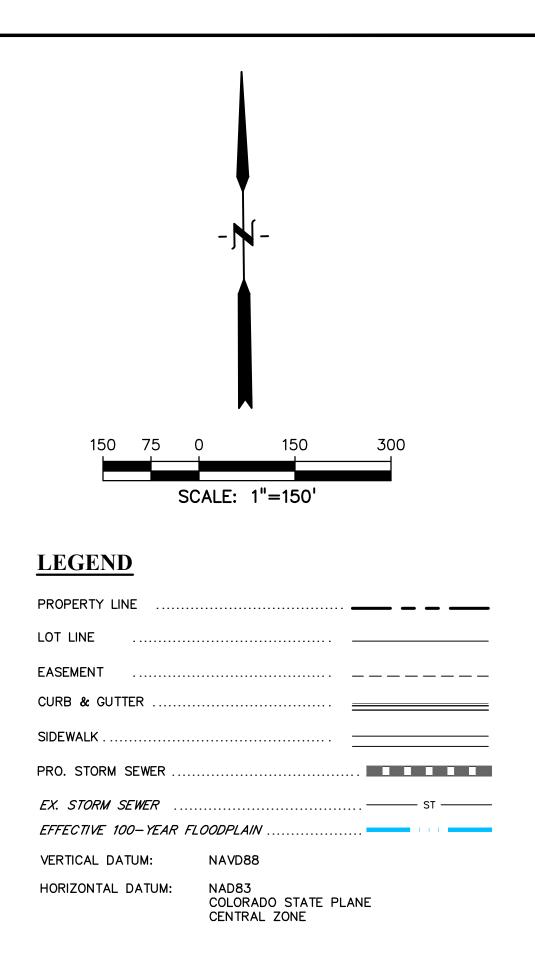
FEMA, FIRM Numbers 08041C0553G and 08041C0561G, El Paso County, Colorado and Incorporated Areas, Revised December 7, 2018.

FEMA, FIS Number 08041CV001A, El Paso County, Colorado and Incorporated Areas, Revised December 7, 2018.

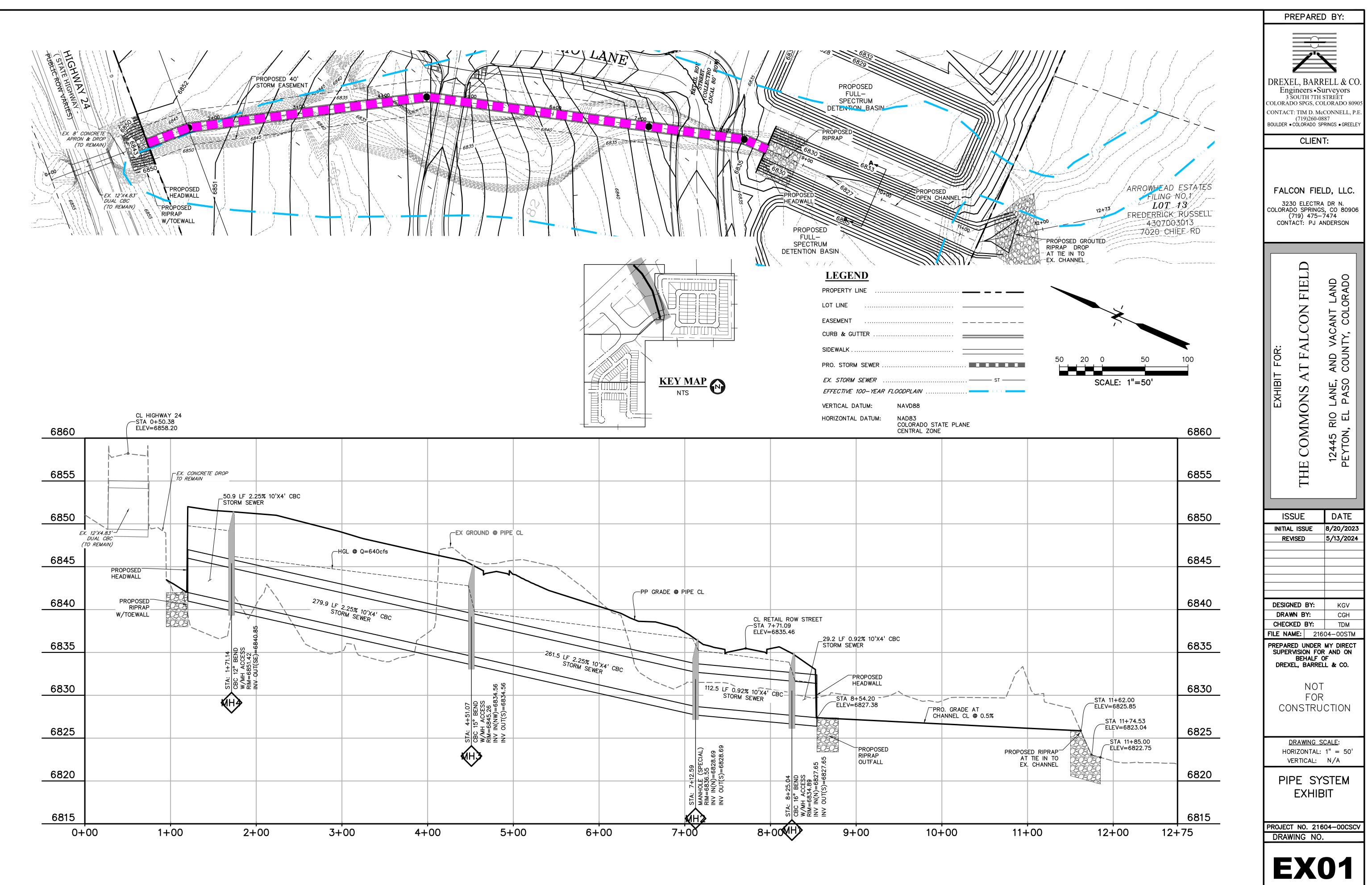
Matrix Design Group, Falcon Drainage Basin Planning Study, Selected Plan Report, Final, September 2015.

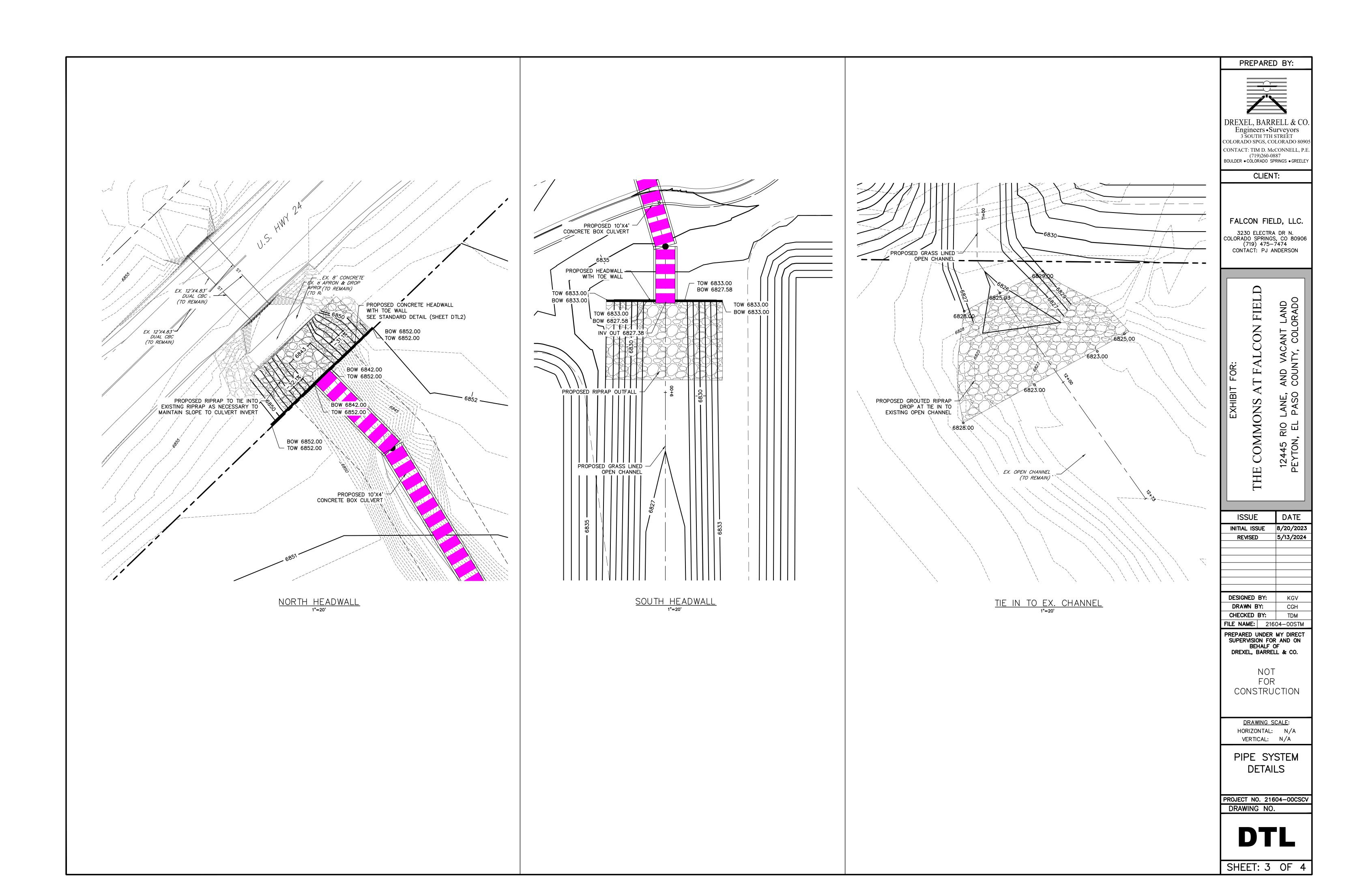
USACE, Hydrologic Engineering Center River Analysis System (HEC-RAS), Version 6.2, March 2022.

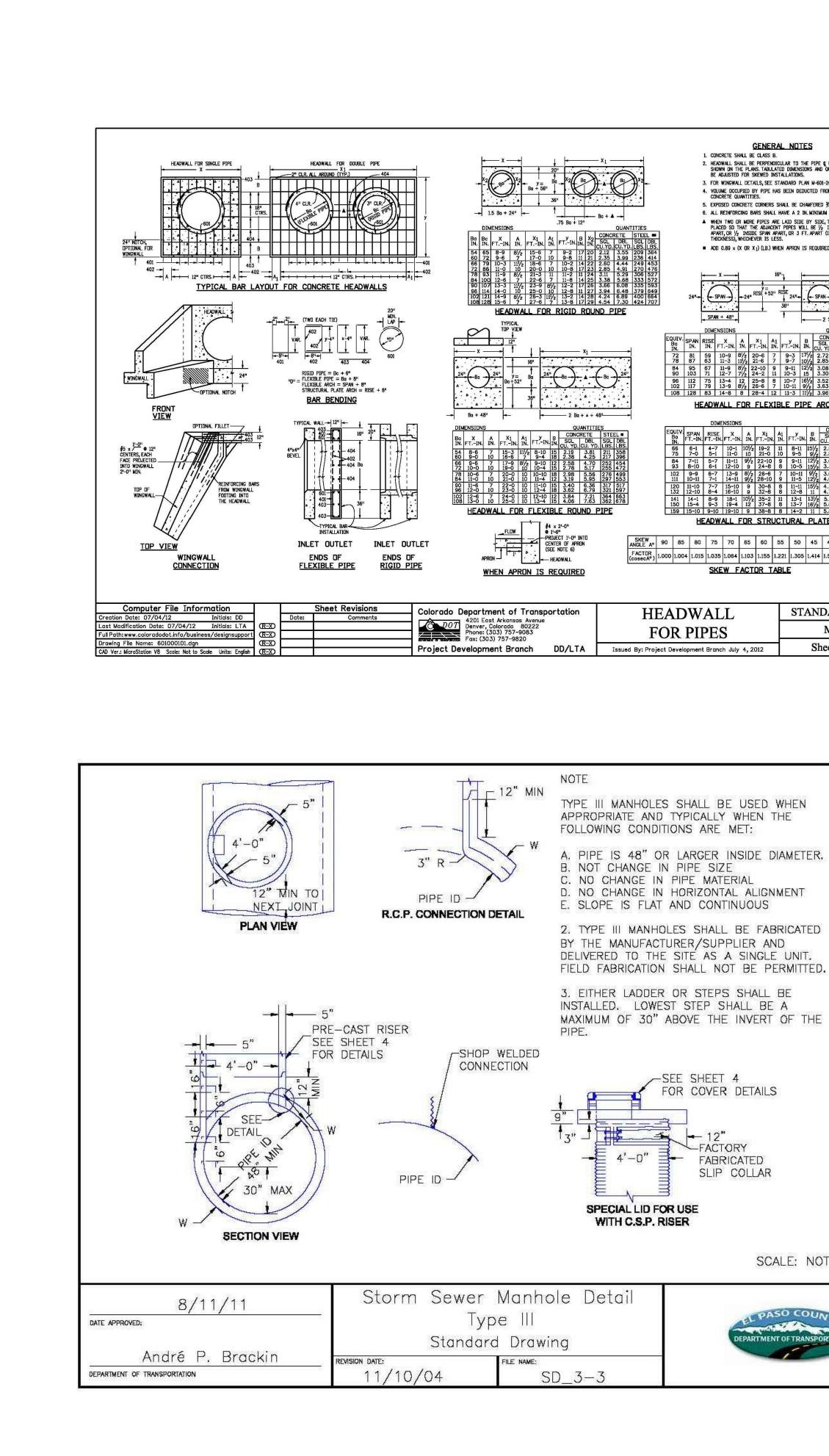




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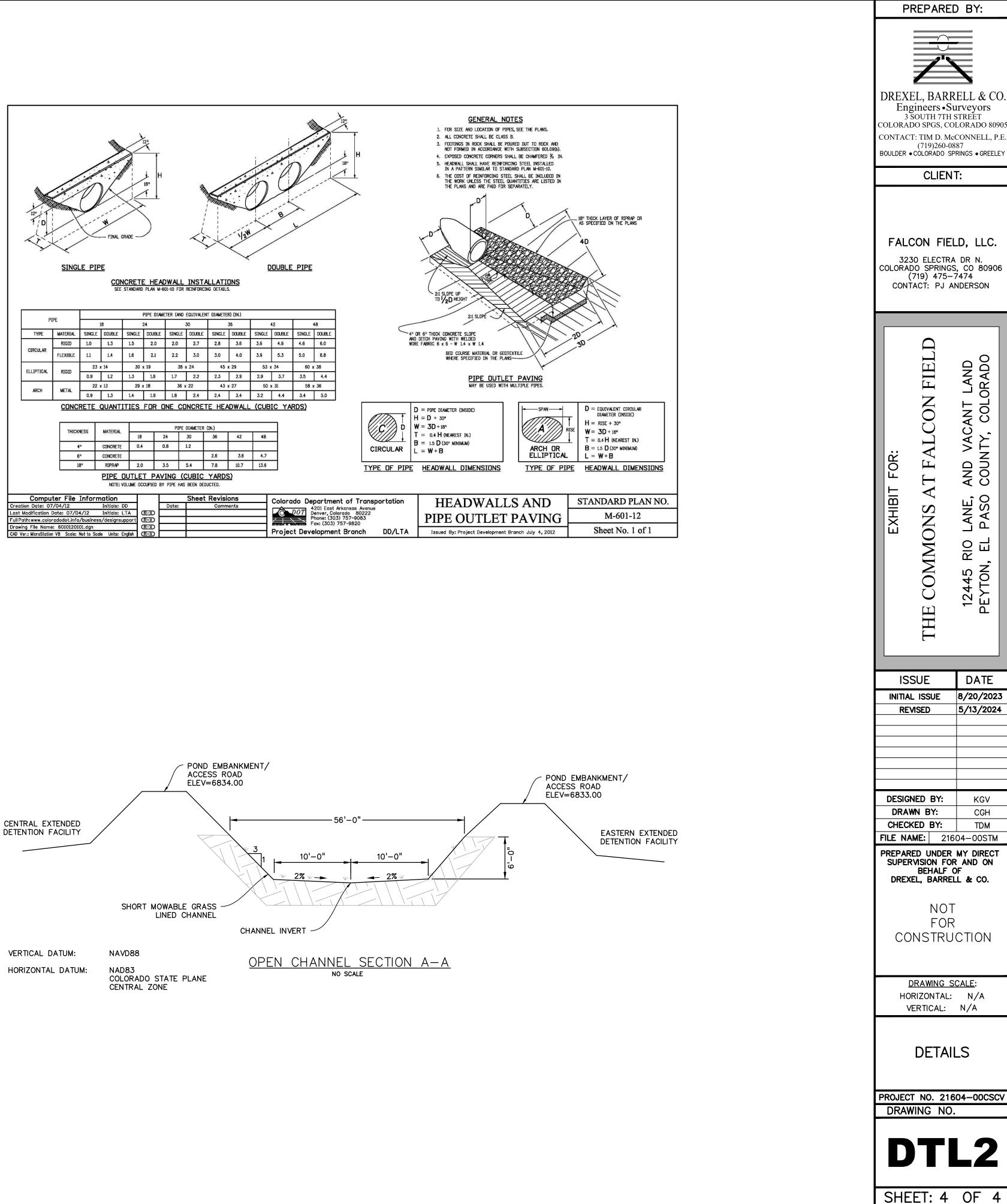


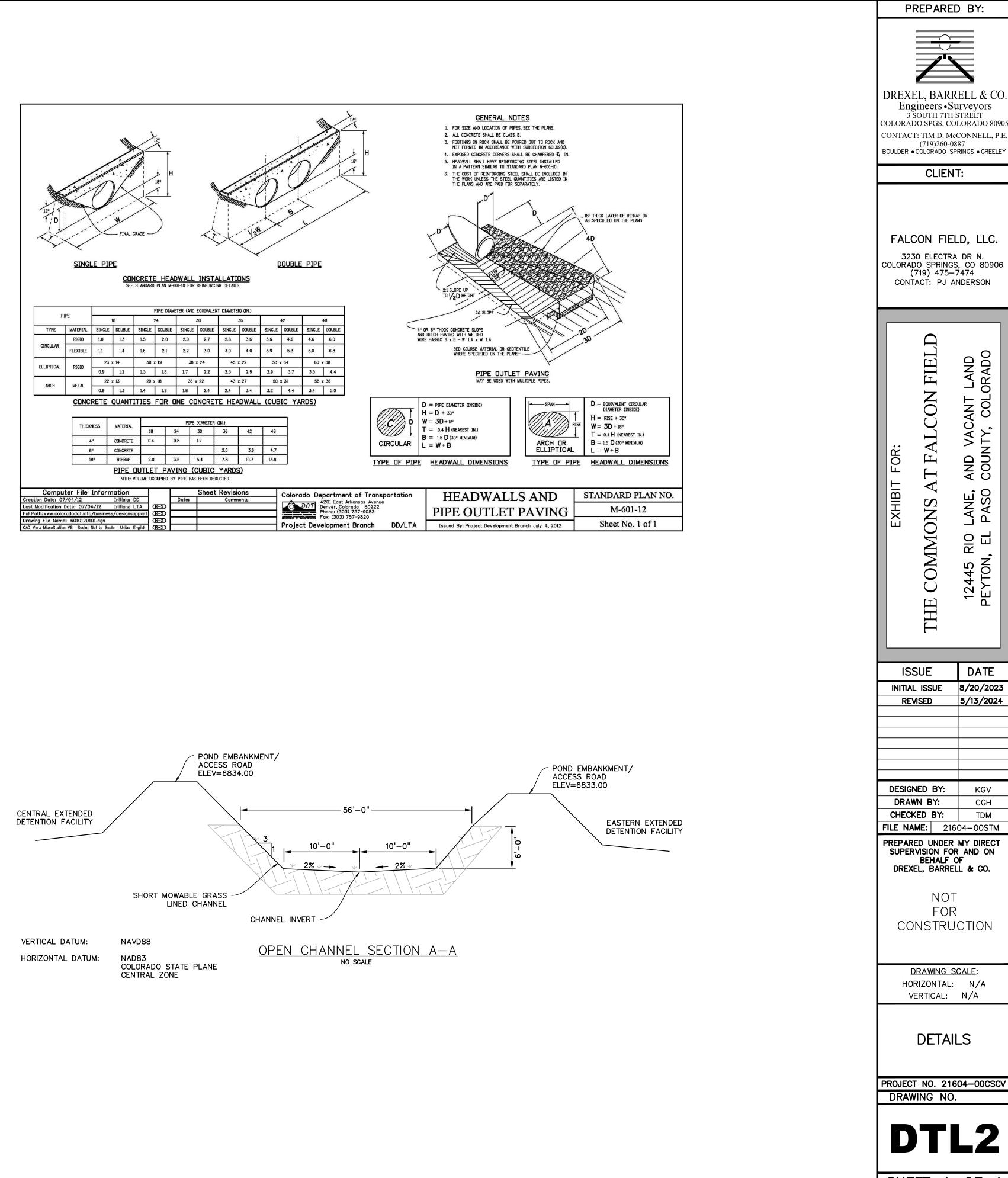


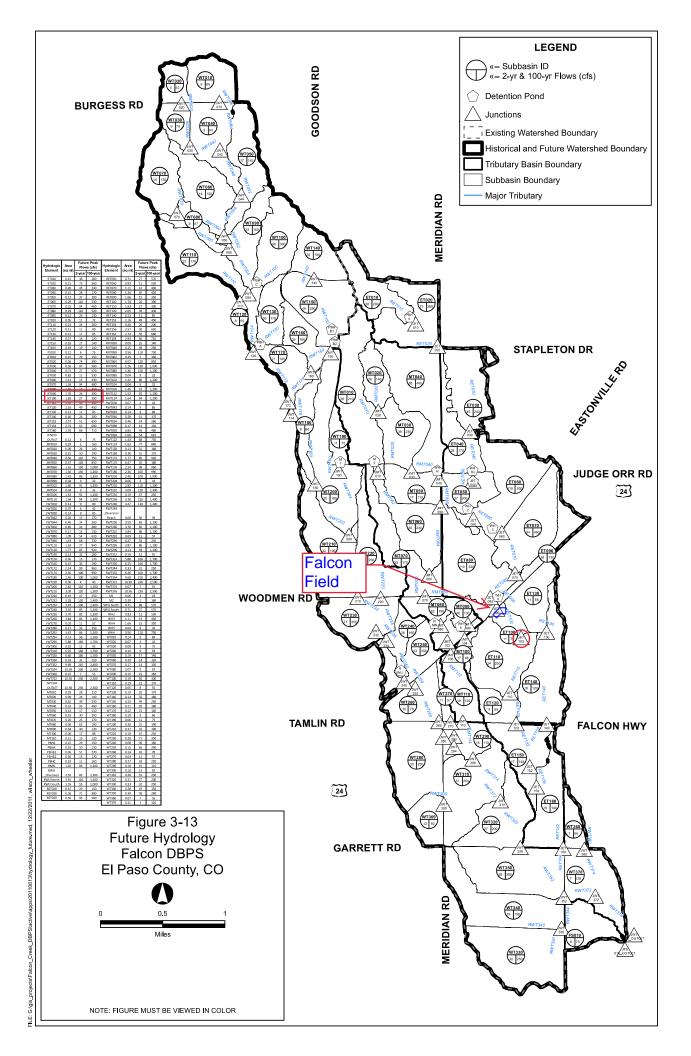
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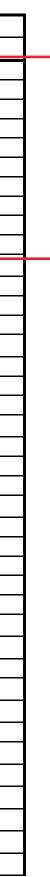






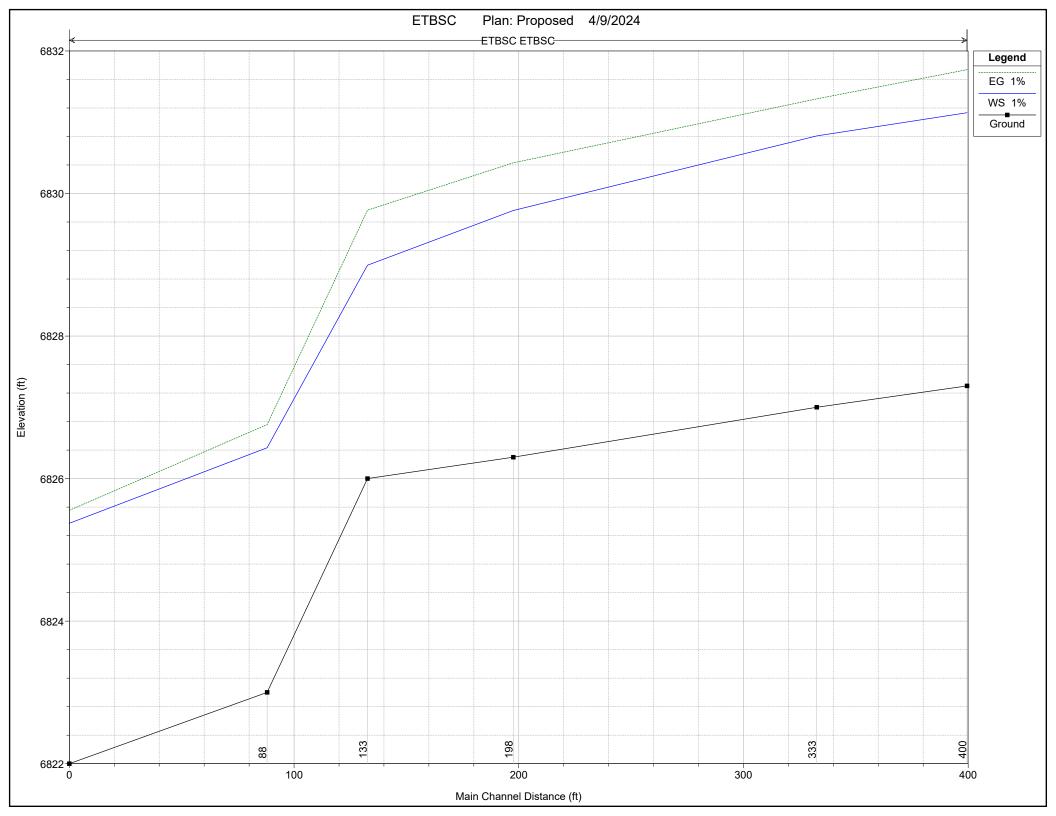
Subbasin Properties												
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ET010	0.15	21.72%	61	69	72	33.64	25.23	18.92				
ET020	0.21	19.07%	61	68	73	23.15	17.37	13.02				
ET030	0.20	27.31%	41	71	72	42.61	31.96	23.97				
ET040	0.15	20.35%	42	69	69	29.71	22.28	22.28				
ET050	0.12	19.07%	39	68	68	10.36	7.77	7.77				
ET060	0.29	21.94%	39	69	69	7.38	5.54	5.54				
ET070	0.25	26.60%	39	71	71	10.51	7.88	7.88				
ET080	0.29	37.81%	39	75	76	25.98	19.49	14.61				
ET090	0.12	12.34%	39	61	74	54.90	41.18	30.88				
ET100	0.05	3.12%	39	48	63	10.67	8.00	6.00				
ET110 ¹	0.23	1.49%	39	54	61	25.68	25.68	19.26				
ET120	0.11	6.79%	39	60	61	38.28	28.71	21.53				
ET130	0.13	6.57%	39	61	63	61.63	46.22	34.67				
ET140	0.27	3.21%	39	61	63	92.13	69.09	51.82				
ET150 ¹	0.18	1.79%	39	62	62	25.39	25.39	25.39				
ET160	0.19	3.36%	42	64	64	41.04	30.78	30.78				
FS010	0.12	1.16%	44	49	56	41.23	30.92	23.19				
MT010	0.29	6.99%	45	64	64	42.16	31.62	31.62				
MT020 ¹	0.09	1.48%	57	62	68	12.94	12.94	9.71				
MT030	0.16	13.35%	54	66	67	19.92	14.94	11.21				
MT040	0.31	7.07%	55	64	75	35.44	26.58	19.93				
MT050	0.12	16.00%	39	67	67	34.84	26.13	26.13				
MT060 ¹	0.19	1.83%	39	55	66	27.90	27.90	20.93				
MT070	0.20	5.68%	42	59	67	54.09	40.57	30.42				
MT080	0.06	63.24%	48	86	87	6.91	5.18	3.88				
MT090	0.04	60.08%	39	83	85	4.92	3.69	2.77				
MT100	0.06	13.21%	39	67	70	21.19	15.89	11.92				
MT110	0.12	18.56%	39	68	68	32.51	24.38	24.38				
WT010 ¹	0.14	2.31%	56	58	58	24.38	24.38	24.38				
WT020 ¹	0.07	2.39%	56	59	59	27.95	27.95	27.95				
WT030	0.08	3.57%	57	59	59	17.99	13.49	13.49				
WT040 ¹	0.19	2.72%	56	58	58	34.99	34.99	34.99				
WT050 ¹	0.19	1.60%	60	62	62	26.99	26.99	26.99				
WT060	0.20	2.35%	59	61	61	44.53	33.40	33.40				
WT070 ¹	0.17	1.31%	56	58	58	18.77	18.77	18.77				
WT080 ¹	0.07	1.95%	60	62	62	17.52	17.52	17.52				
WT090 ¹	0.15	0.66%	61	62	63	21.52	21.52	16.14				
WT100 ¹	0.19	1.28%	61	62	69	13.65	13.65	10.14				
WT100 WT110 ¹	0.19	2.04%	60	61	63	29.57	29.57	22.18				
WT110 WT120 ¹	0.05	2.04%	43	54	63	19.24	19.24	14.43				
VVIIZU	0.05	2.90%	43	54	63	19.24	19.24	14.43				

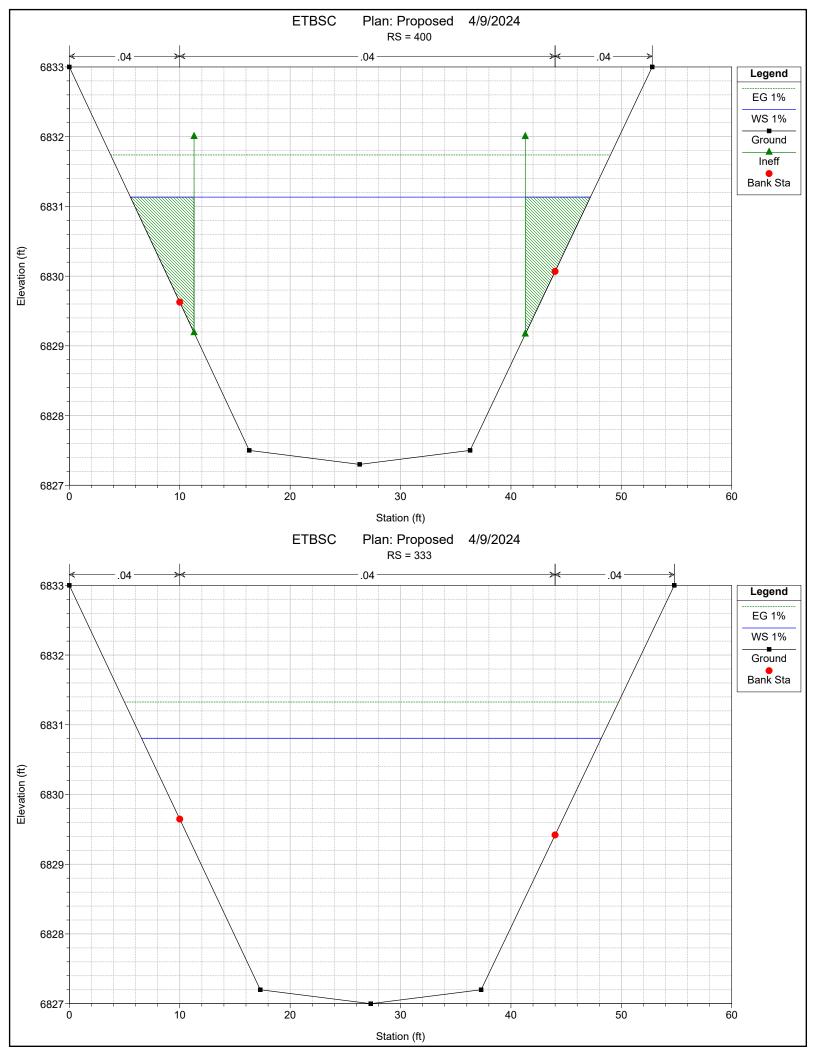
Falcon DBPS

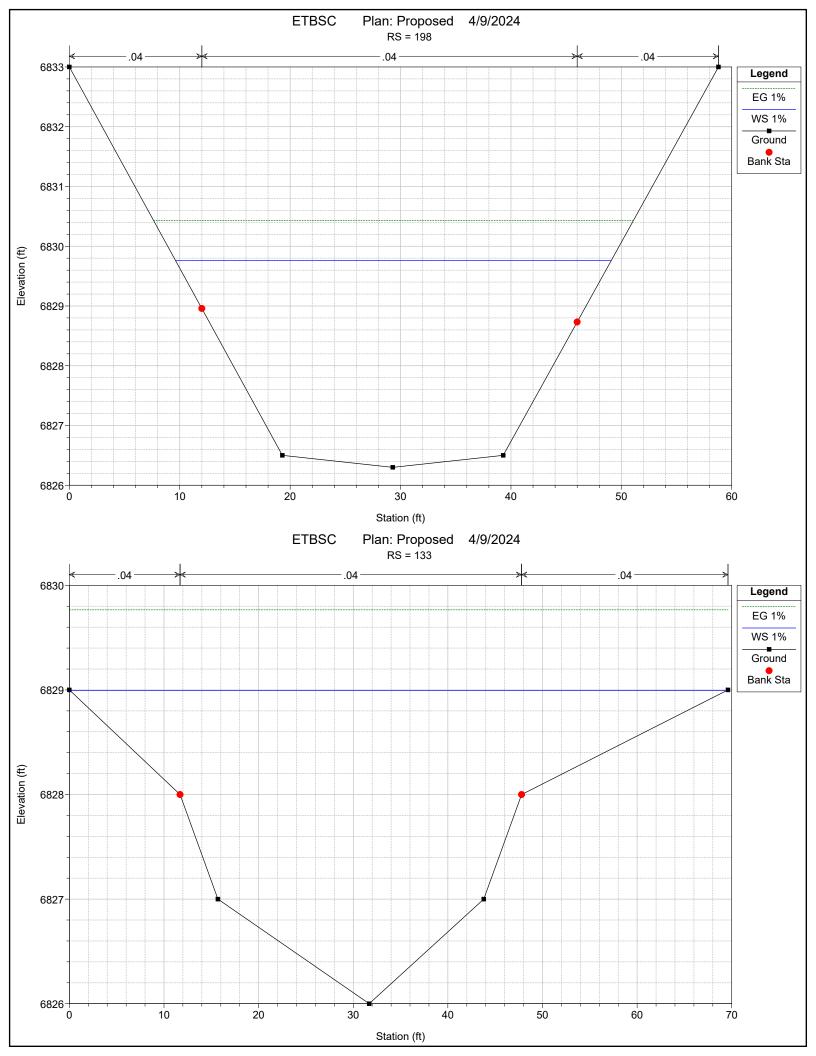


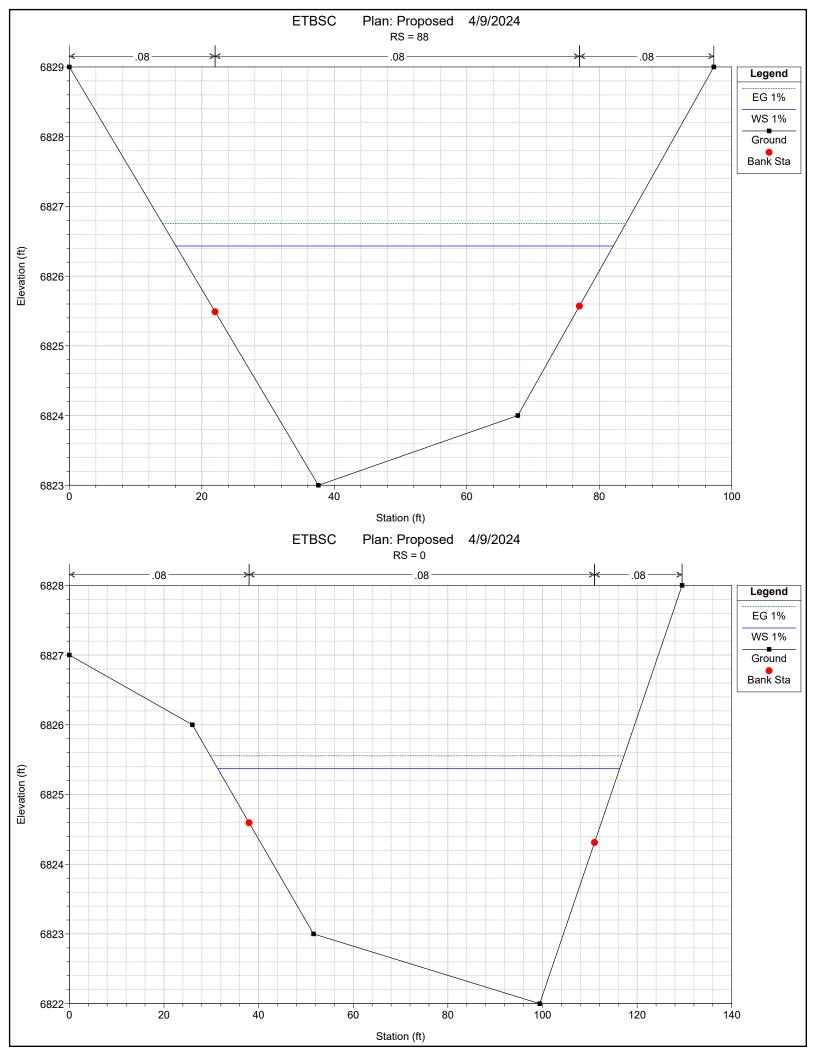
HEC-RAS	Plan: Proposed	River: ETBSC	Reach: ETBSC	

	Plan: Proposed					0.1111.0		F O O		-	-	E ".C.'.
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
ETBSC	400	10%	68.00	6827.30	6828.57	6828.10	6828.67	0.004630	2.53	26.84	26.39	0.44
ETBSC	400	4%	209.00	6827.30	6829.58	6828.83	6829.80	0.004507	3.73	55.97	32.39	0.48
ETBSC	400	2%	379.00	6827.30	6830.32	6829.43	6830.68	0.004874	4.85	78.14	36.80	0.53
ETBSC	400	1%	640.00	6827.30	6831.13	6830.14	6831.74	0.005604	6.24	102.61	41.67	0.59
ETBSC	400	1%+	996.00	6827.30	6832.13	6830.98	6832.80	0.004898	6.67	158.51	47.61	0.57
ETBSC	400	0.2%	1408.00	6827.30	6833.04	6831.83	6833.86	0.004768	7.50	204.36	52.80	0.58
ETBSC	333	10%	68.00	6827.00	6828.23		6828.34	0.005259	2.64	25.74	26.17	0.47
ETBSC	333	4%	209.00	6827.00	6829.26		6829.48	0.005012	3.74	55.94	32.36	0.50
ETBSC	333	2%	379.00	6827.00	6829.99		6830.34	0.005203	4.69	81.27	36.76	0.54
ETBSC	333	1%	640.00	6827.00	6830.81		6831.33	0.005397	5.82	113.20	41.65	0.58
ETBSC	333	1%+	996.00	6827.00	6831.76		6832.45	0.005155	6.78	155.78	47.39	0.59
ETBSC	333	0.2%	1408.00	6827.00	6832.70		6833.53	0.004908	7.57	202.48	52.97	0.59
ETBSC	198	10%	68.00	6826.30	6827.73		6827.81	0.002944	2.18	31.21	27.36	0.36
ETBSC	198	4%	209.00	6826.30	6828.63		6828.83	0.004446	3.59	58.27	32.74	0.47
ETBSC	198	2%	379.00	6826.30	6829.26		6829.61	0.005459	4.76	80.02	36.49	0.55
ETBSC	198	1%	640.00	6826.30	6829.76		6830.43	0.008055	6.58	99.01	39.48	0.69
ETBSC	198	1%+	996.00	6826.30	6830.17	6829.96	6831.38	0.012203	8.87	115.79	41.93	0.87
ETBSC	198	0.2%	1408.00	6826.30	6830.75	6830.75	6832.41	0.013747	10.49	140.83	45.36	0.95
ETBSC	133	10%	68.00	6826.00	6827.07	6827.07	6827.35	0.028658	4.25	15.98	28.64	1.00
ETBSC	133	4%	209.00	6826.00	6827.69	6827.69	6828.23	0.023856	5.91	35.38	33.62	1.02
ETBSC	133	2%	379.00	6826.00	6828.26	6828.26	6828.98	0.019100	6.80	56.64	44.79	0.97
ETBSC	133	1%	640.00	6826.00	6828.99	6828.99	6829.77	0.012976	7.27	98.54	69.39	0.85
ETBSC	133	1%+	996.00	6826.00	6829.57	6829.57	6830.50	0.012253	8.22	138.74	69.60	0.86
ETBSC	133	0.2%	1408.00	6826.00	6830.01	6830.01	6831.24	0.013615	9.53	169.26	69.60	0.93
ETBSC	88	10%	68.00	6823.00	6824.39		6824.46	0.015865	2.03	33.46	41.17	0.40
ETBSC	88	4%	209.00	6823.00	6825.18		6825.32	0.017273	3.00	69.62	50.76	0.45
ETBSC	88	2%	379.00	6823.00	6825.78		6826.00	0.017681	3.71	102.41	58.10	0.48
ETBSC	88	1%	640.00	6823.00	6826.43		6826.76	0.018152	4.59	142.68	66.01	0.51
ETBSC	88	1%+	996.00	6823.00	6827.13		6827.58	0.018420	5.46	192.00	74.56	0.54
ETBSC	88	0.2%	1408.00	6823.00	6827.79		6828.36	0.018732	6.23	243.47	82.54	0.56
ETBSC	0	10%	68.00	6822.00	6823.32	6822.83	6823.35	0.010008	1.55	43.77	57.10	0.31
ETBSC	0	4%	209.00	6822.00	6824.09	6823.29	6824.17	0.010006	2.27	91.89	67.56	0.34
ETBSC	0	2%	379.00	6822.00	6824.70	6823.67	6824.82	0.010004	2.80	135.86	75.86	0.36
ETBSC	0	1%	640.00	6822.00	6825.37	6824.13	6825.56	0.010007	3.44	189.89	84.97	0.38
ETBSC	0	1%+	996.00	6822.00	6826.10	6824.63	6826.35	0.010019	4.07	255.62	96.66	0.40
ETBSC	0	0.2%	1408.00	6822.00	6826.79	6825.12	6827.11	0.010009	4.63	329.76	118.08	0.41









Scenario: Base

>>>> Info: Subsurface Analysis iterations: 1
>>>> Info: Convergence was achieved.

Gravity subnetwork discharging at: 0-1
>>>> Info: Loading and hydraulic computations completed
 successfully.
>>>> Warning: P-1 Pipe fails minimum cover constraint.
>>>> Warning: P-1 Pipe fails maximum velocity constraint.
>>>> Warning: P-1 Pipe discharge is above full flow capacity.
>>>> Warning: P-2 Pipe fails minimum cover constraint.
>>>> Warning: P-2 Pipe fails maximum velocity constraint.
>>>> Warning: P-3 Pipe fails maximum velocity constraint.
>>>> Warning: P-4 Pipe fails maximum velocity constraint.
>>>> Warning: P-5 Pipe fails maximum velocity constraint.

CALCULATION SUMMARY FOR SURFACE NETWORKS

Label		Inlet		Inlet		Tot	cal		Total		Capture		Gutter	0	Gutter
I		Туре	1			Interd	cepted		Bypassed		Efficiency		Spread	I	epth
I.			1			Flo	W	1	Flow		(%)		(ft)		(ft)
			I			(ci	Es)		(cfs)						
	-		-					-		· -		- -			
I-1	Gen	eric Inlet	Generi	c Default	100%		0.00		0.00	I	100.0		0.00		0.00

CALCULATION SUMMARY FOR SUBSURFACE NETWORK WITH ROOT: 0-1

Label 	Number of Sections	Section Size 	Section Shape	Length (ft)	Total System Flow (cfs)	Average Velocity (ft/s) 	Hydraulic Grade Upstream (ft)	Hydraulic Grade Downstream (ft)
P-1	1	10 x 4 ft	Box	29.20	640.00	16.00	6,831.74	6,831.38
P-2	1	10 x 4 ft	Box	112.50	640.00	16.00	6,835.23	6,833.86
P-3	1	10 x 4 ft	Box	261.50	640.00	16.00	6,839.78	6,836.60
P-4	1	10 x 4 ft	Box	279.90	640.00	16.00	6,846.18	6,842.77
P-5	1	10 x 4 ft	Box	50.90	640.00	16.00	6 , 849.78	6,849.16

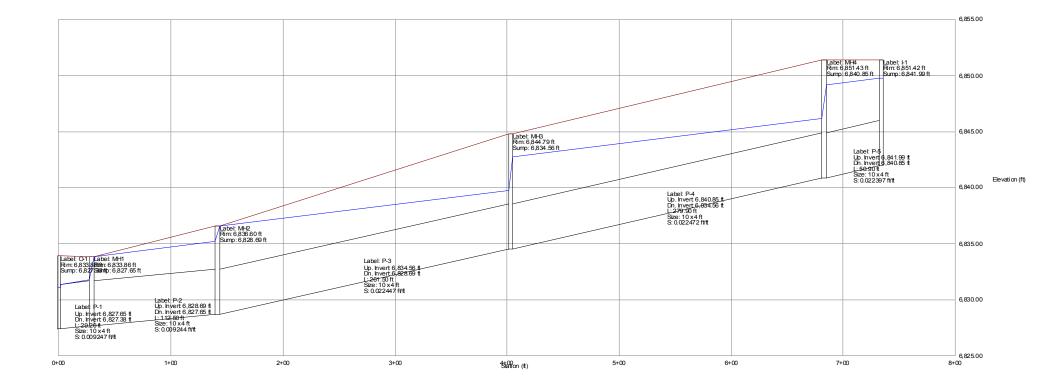
Label		Total		Ground		Hydraulic		Hydraulic	Ι
1		System		Elevation		Grade		Grade	
		Flow		(ft)		Line In		Line Out	

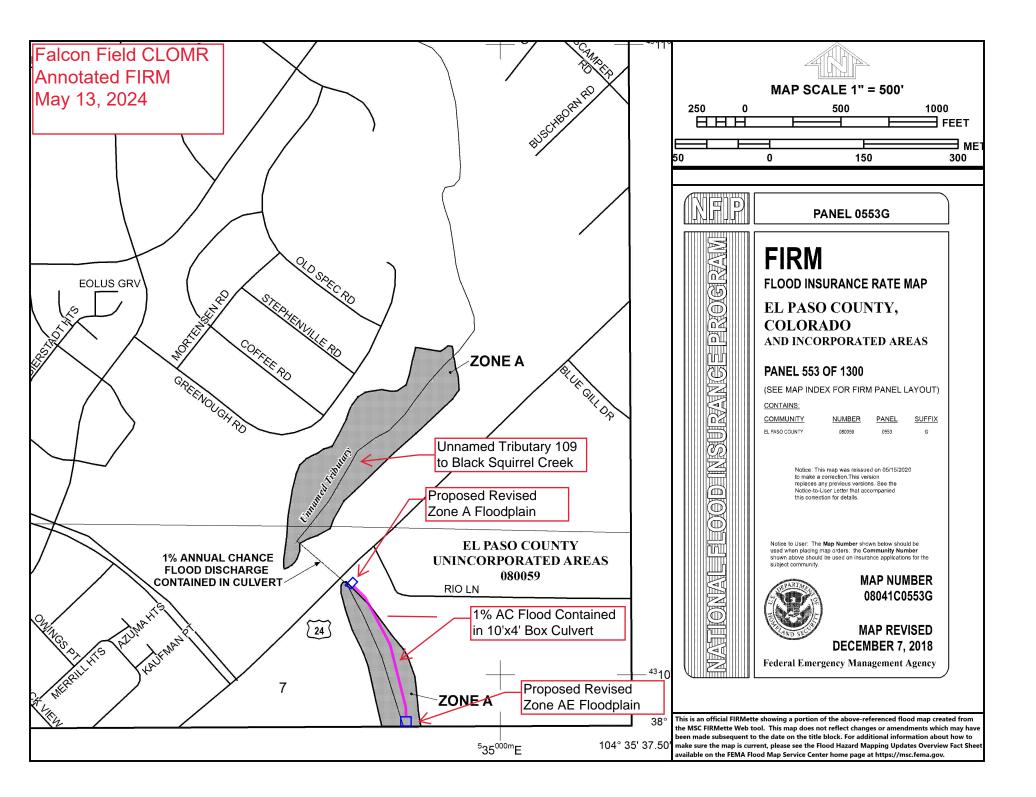
Title: Falcon Field h:\...\drainage\stormcad\falconfield640.stm 01/24/24 09:03:03 PM All elevations are referenced to NAVD88.

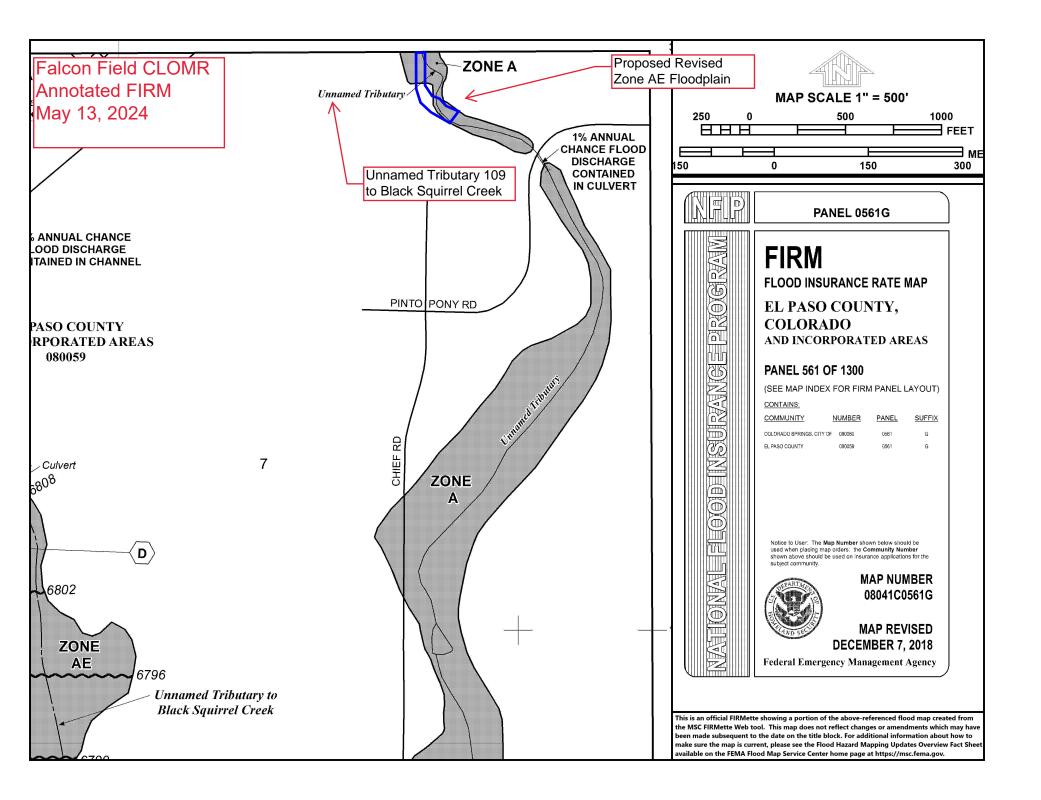
	(cfs)	(ft) (ft)
0-1	640.00	6,833.88 6,831.13 6,831.13
MH1	640.00	6,833.86 6,833.86 6,831.74
MH2	640.00	6,836.60 6,836.60 6,835.23
MH3	640.00	6,844.79 6,842.77 6,839.78
MH4	640.00	6,851.43 6,849.16 6,846.18
I-1	640.00	6,851.42 6,849.78 6,849.78

Completed: 01/24/2024 09:02:45 PM

Profile Scenario: Base







Professional Wetlands Consulting, Inc.

December 11, 2023

Michelle Iblings Drexel Barrell and Company 1376 Miners Drive, Suite 107 Lafayette, Colorado 80026

RE: ESA Clearance - No Take of Threatened & Endangered Species CLOMR for the Falcon Field Drainage Improvements and Site Development

Dear Michelle:

On behalf of Falcon Field LLC, I am writing to document that there will be No Take of Threatened & Endangered Species listed by the U.S. Fish and Wildlife Service from the Falcon Field site development and the proposed new box culvert at the unnamed tributary to Black Squirrel Creek in El Paso County, Colorado. Field review of the project site for Threatened & Endangered Species and potential habitat was completed on November 30th of 2023 by David Steinmann with Professional Wetlands Consulting, Inc.

<u>Project Location</u>: The Falcon Field project area is located at the southwest corner of Highway 24 and Rio Lane in El Paso County, Colorado near Woodman Avenue. The property is in Section 7, Township 13 South, Range 64 West of the 6th P.M. The 57-acre project site is mostly rural farmland and agricultural, with roads, utilities, and commercial development nearby. The unnamed tributary flows across the site from north to south. A map showing the approximate location of the project study area on the USGS topo and a photograph of the unnamed tributary are attached.

<u>Project Description</u> Site development, grading, stormwater management, and a new box culvert at the eroded and incised unnamed tributary are planned at the property. The proposed new box culvert will involve burying an 8' x 4' concrete box culvert for approximately 750' along the unnamed tributary. The temporarily disturbed areas associated with the project will be revegetated. Plans for the work are shown on Figures 1-3.

<u>Listed Threatened & Endangered Species for El Paso County</u> Threatened & Endangered Species that may occur at the project site or be affected by projects in this part of El Paso County as listed on the USFWS Information for Planning and Consulting (Ipac) website include the Gray Wolf, Eastern black rail, piping plover, pallid sturgeon, greenback cutthroat trout, and Ute Ladies' Tresses orchid.

Of these species, only the Ute Ladies' Tresses Orchid (*Spiranthes diluvialis*) and the Eastern Black Rail (*Laterallus jamaicensis jamaicensis*) could have had potential habitat at the site due to the presence of wetlands along the unnamed tributary. Field work indicated that the site does not contain potential habitat for either of these two species.

> 20 Rim Road • Boulder, CO 80302 303/444-1715 • FAX 303/443-6141



Lack of Habitat for the Ute Ladies' Tresses Orchid No known occupied habitat or potentially occupied habitat occurs along unnamed tributary at the project site that is suitable for the Ute Ladies' Tresses Orchid (*Spiranthes diluvialis*). The soil substrate at the site is mostly sand and gravel. The indicator plant species commonly associated with the Ute Ladies's Tresses Orchid are lacking in the wetlands at the site and along the unnamed tributary.

The unnamed tributary and the entire project area were examined for the Ute Ladies' Tresses Orchid and for potential orchid habitat during field work, and no orchids or potential orchid habitat were observed at the site. Additionally, no Ute Ladies' Tresses Orchids are known to occur in El Paso County in the vicinity of the Falcon Field project site.

Lack of Habitat for the Eastern Black Rail No known occupied habitat, potentially occupied habitat, or designated Critical Habitat was identified for the Eastern Black Rail (*Laterallus jamaicensis jamaicensis*) at the project site. There are no records of the Eastern black rail occurring at the unnamed tributary or near the project site.

<u>No Take</u> The proposed Falcon Field project and the new box culvert at the unnamed tributary will not result in the Take of any listed Threatened & Endangered Species. The site does not contain occupied habitat, or potentially occupied habitat, for any of the listed Threatened & Endangered Species which could potentially occur in El Paso County, including the Ute Ladies' Tresses Orchid, and Eastern Black Rail. There will be No Take of any Threatened and Endangered Species.

<u>Summary</u> The Falcon Field development project and the planned new box culvert at the unnamed tributary to Black Squirrel Creek will not affect any Threatened & Endangered Species that could occur in El Paso County including the Gray Wolf, Eastern black rail, piping plover, pallid sturgeon, greenback cutthroat trout, and Ute Ladies' Tresses orchid. The proposed project and the new box culvert will not result in the Take of any Threatened & Endangered Species in El Paso County.

Please contact me with any questions or if additional information is needed.

Sincerely,

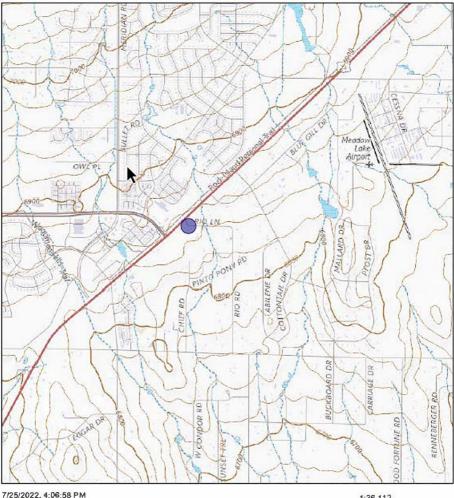
David Steinmann

attachments



Figure 4. Looking south at the eroded and incised unnamed drainage from Highway 24.

2021-180 USGS Topo





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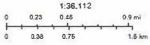
Falcon Field Site

Inland Waters

Normal Intermediate Contours

Forest/shrub Wetlands

Normal Index Contours



USBS The National Mepi National Boundaries Destinat, SCEP Elevation Program, Geographic Names Information System, Kelleval Hydrography Bahawit, National Land Crive Database, National Stuttures Destinat, and National Timepiration Bahamat, 19838 Global Ecosyldenies U.S. Cartus



DEPARTMENT OF THE ARMY CORPS OF ENGINEERS, ALBUQUERQUE DISTRICT SOUTHERN COLORADO REGULATORY BRANCH 201 WEST 8TH STREET, SUITE 350 PUEBLO, COLORADO 81003

August 26, 2022

Regulatory Division

SUBJECT: Jurisdictional Determination - Action No. SPA-2021-00180, Falcon Field

P. J. Anderson Falcon Field, LLC 31 North Tejon Street, Suite 516 Colorado Springs, CO 80903 pja5713@gmail.com

Dear P.J. Anderson:

This letter responds to your request for a jurisdictional determination (JD) for property located at latitude 38.936555635255, longitude -104.600429740897, in El Paso County, Colorado. We have assigned Action No. SPA-2021-00180 to your request. Please reference this number in all future correspondence concerning the site.

Based on the information provided, we have determined that the site does not contain waters of the United States that are subject to regulation under Section 404 of the Clean Water Act. The attached JD form describes the area that was evaluated and determined to contain no waters of the United States. If you intend to conduct work that could result in a discharge of dredged or fill material into waters of the United States, please contact this office for a determination of Department of the Army permit requirements and refer to Action No. SPA-2021-00180.

The basis for this approved JD (attached) is that the project site contains isolated wetlands and/or other waters. Wetland 1 through 5 are intrastate, isolated waters that do not flow into a traditional navigable waterway (attached). A copy of this JD is also available at <u>http://www.spa.usace.army.mil/reg/JD</u>. This approved JD is valid for 5 years unless new information warrants revision of the determination before the expiration date.

You may accept or appeal this approved JD or provide new information in accordance with the attached Notification of Administration Appeal Options and Process and Request for Appeal. If you elect to appeal this approved JD, you must complete Section II of the form and return it to the Army Engineer Division, South Pacific, CESPD-PDS-O, Attn: Travis Morse, Administrative Appeal Review Officer, P.O. Box 36023, 450 Golden Gate Avenue, San Francisco, CA 94102 within 60 days of the date of this notice. Failure to notify the Corps within 60 days of the date of this notice means that you accept the approved JD in its entirety and waive all rights to appeal the approved JD.

If you have any questions, please contact Kraig Jashinsky at (719) 439-7281 or by email at Kraig.A.Jashinsky@usace.army.mil. At your convenience, please complete a Customer Service Survey online at <u>https://regulatory.ops.usace.army.mil/customer-service-survey/</u>.

Sincerely,

Kara A. Hellige Chief, Southern Colorado Regulatory Branch

CC:

Daniel Maynard, Bristlecone Ecology, LLC, <u>dmaynard@bristleconeecology.com</u>

APPROVED JURISDICTIONAL DETERMINATION FORM U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): August 26, 2022

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Albuquerque District, Falcon Field AJD Request, SPA-2021-00180

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Colorado County/parish/borough: El Paso County City:

Center coordinates of site (lat/long in degree decimal format): Lat. 38.936555635255°, Long. -104.600429740897°

Universal Transverse Mercator: 13 534630.43 4309812.02

Name of nearest waterbody: Jimmy Camp Creek

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows:

Name of watershed or Hydrologic Unit Code (HUC): Chico, 11020004

Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form:

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

Office (Desk) Determination. Date: July 14, 2022

Field Determination. Date(s): June 28, 2022

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

Waters subject to the ebb and flow of the tide.

Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There Are no "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

- a. Indicate presence of waters of U.S. in review area (check all that apply): ¹
 - TNWs, including territorial seas
 - Wetlands adjacent to TNWs
 - Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs
 - Non-RPWs that flow directly or indirectly into TNWs
 - Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
 - Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
 - Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
 - Impoundments of jurisdictional waters
 - Isolated (interstate or intrastate) waters, including isolated wetlands
- b. Identify (estimate) size of waters of the U.S. in the review area:
 - Non-wetland waters: linear feet, wide, and/or acres. Wetlands: acres.
- c. Limits (boundaries) of jurisdiction based on: Pick List Elevation of established OHWM (if known):
- 2. Non-regulated waters/wetlands (check if applicable):³

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: The review area contains five wetlands totalling 7.15 acres. A review of the downstream connectivity of the associated wetlands found there to be a lack of a connection to downstream waters. The drainage features and associated wetlands presented a southward flow path until reaching E. Blaney Road. The flow path consisting of a varying degree of broken stream channel and connected wetlands terminated across a portion of flat terrain with not apparent wetland vegetation. Flow does not appear to reach any downstream waters via the nearby roadside ditch. Flow also does not cross E. Blaney Road due to the lack of culverts and a slight elevation rise. Due to a lack of downstream connectivity, the drainage features and associated wetlands under review are found to be isolated.

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW

Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size:	Pick List	
Drainage area:	Pick List	
Average annual rain	nfall: inches	
Average annual sno	owfall: inches	s

(ii) Physical Characteristics:

(a) <u>Relationship with TNW:</u>
 ☐ Tributary flows directly into TNW.
 ☐ Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are Pick List river miles from TNW.
Project waters are Pick List river miles from RPW.
Project waters are Pick List aerial (straight) miles from TNW.
Project waters are Pick List aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain:

Identify flow route to TNW⁵: Tributary stream order, if known:

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

- 3 -	
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	(b)	General Tributary Characteristics (check all that apply): Tributary is: Natural Artificial (man-made). Explain: Manipulated (man-altered). Explain:
		Tributary properties with respect to top of bank (estimate): Average width: feet Average depth: feet Average side slopes: Pick List.
		Primary tributary substrate composition (check all that apply):
		Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Presence of run/riffle/pool complexes. Explain: Tributary geometry: Pick List Tributary gradient (approximate average slope): %
	(c)	<u>Flow:</u> Tributary provides for: Pick List Estimate average number of flow events in review area/year: Pick List Describe flow regime: Other information on duration and volume:
		Surface flow is: Pick List. Characteristics:
		Subsurface flow: Pick List. Explain findings: Dye (or other) test performed:
		Tributary has (check all that apply): Bed and banks OHWM ⁶ (check all indicators that apply): the presence of litter and debris clear, natural line impressed on the bank the presence of litter and debris changes in the character of soil destruction of terrestrial vegetation shelving the presence of wrack line vegetation matted down, bent, or absent sediment sorting leaf litter disturbed or washed away scour sediment deposition multiple observed or predicted flow events water staining abrupt change in plant community other (list): Discontinuous OHWM. ⁷ Explain:
		If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply): High Tide Line indicated by: Mean High Water Mark indicated by: oil or scum line along shore objects survey to available datum; fine shell or debris deposits (foreshore) physical markings/characteristics tidal gauges other (list):
(iii)	Cha E	e mical Characteristics: aracterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: ntify specific pollutants, if known:
(iv)	Bio	logical Characteristics. Channel supports (check all that apply): Riparian corridor. Characteristics (type, average width): Wetland fringe. Characteristics: Habitat for:

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break. ⁷Ibid.

Federally Listed species. Explain findings:

Fish/spawn areas. Explain findings:

Other environmentally-sensitive species. Explain findings:

Aquatic/wildlife diversity. Explain findings:

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

- (a) <u>General Wetland Characteristics:</u> Properties: Wetland size: acres Wetland type. Explain: Wetland quality. Explain: Project wetlands cross or serve as state boundaries. Explain:
- (b) <u>General Flow Relationship with Non-TNW</u>: Flow is: **Pick List**. Explain:

Surface flow is: Pick List Characteristics:

Subsurface flow: **Pick List**. Explain findings: Dye (or other) test performed:

(c) <u>Wetland Adjacency Determination with Non-TNW:</u>

Directly abutting

□ Not directly abutting

Discrete wetland hydrologic connection. Explain:

- Ecological connection. Explain:
- Separated by berm/barrier. Explain:

(d) <u>Proximity (Relationship) to TNW</u>

Project wetlands are Pick List river miles from TNW.
Project waters are Pick List aerial (straight) miles from TNW.
Flow is from: Pick List.
Estimate approximate location of wetland as within the Pick List floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:

Identify specific pollutants, if known:

(iii) Biological Characteristics. Wetland supports (check all that apply):

- Riparian buffer. Characteristics (type, average width):
- Vegetation type/percent cover. Explain:

Habitat for:

- Federally Listed species. Explain findings:
- Fish/spawn areas. Explain findings:
- Other environmentally-sensitive species. Explain findings:
- Aquatic/wildlife diversity. Explain findings:

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **Pick List** Approximately acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N) Size (in acres)

Directly abuts? (Y/N)

Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

- 1. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
- 2. Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
- **3.** Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

- TNWs and Adjacent Wetlands. Check all that apply and provide size estimates in review area:

 TNWs:
 linear feet,
 wide, Or
 acres.

 Wetlands adjacent to TNWs:
 acres.
- 2. RPWs that flow directly or indirectly into TNWs.
 - Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
 - Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

Provide estimates for jurisdictional waters in the review area (check all that apply):

- Tributary waters: linear feet wide.
- Other non-wetland waters: acres.

Identify type(s) of waters:

3. Non-RPWs⁸ that flow directly or indirectly into TNWs.

Ukaterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

 Tributary waters: linear feet, wide.
 Other non-wetland waters: acres. Identify type(s) of waters:

- 5 -

Wetlands directly abutting an RPW that flow directly or indirectly into TNWs. 4.

Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.

- Used we transformed and the transformation of transformation of the transformation of tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:
- Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.

U Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs. 6.

Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

Impoundments of jurisdictional waters.9 7.

- As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
- Demonstrate that impoundment was created from "waters of the U.S.," or
- Demonstrate that water meets the criteria for one of the categories presented above (1-6), or

Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):10

which are or could be used by interstate or foreign travelers for recreational or other purposes.

- from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- which are or could be used for industrial purposes by industries in interstate commerce.
- Interstate isolated waters. Explain:
- Other factors. Explain:

Identify water body and summarize rationale supporting determination:

Provide estimates for jurisdictional waters in the review area (check all that apply):

- Tributary waters: linear feet, wide. acres.
- Other non-wetland waters:
- Identify type(s) of waters:
- Wetlands: acres.

NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY): F.

- If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
 - Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: Other: (explain, if not covered above):

⁹ To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰ Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

Provide acreage estimates for non-jurisdictional waters in the review area, where the <u>sole</u> potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

Non-wetland waters (i.e., rivers, streams): linear feet, wide.

Lakes/ponds: acres.

 \boxtimes Other non-wetland waters: acres. List type of aquatic resource:

Wetlands: 7.15 acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

Non-wetland waters (i.e., rivers, streams): linear feet, wide.

Lakes/ponds: acres.

- Other non-wetland waters: acres. List type of aquatic resource:
- Wetlands: acres.

SECTION IV: DATA SOURCES.

- A. SUPPORTING DATA. Data reviewed for JD (check all that apply checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
 - Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: 2021-180 Falcon Field AJD Request 12-15-2020 29-Nov-21.pdf
 - Data sheets prepared/submitted by or on behalf of the applicant/consultant. Office concurs with data sheets/delineation report. Office does not concur with data sheets/delineation report. Data sheets prepared by the Corps: Corps navigable waters' study: U.S. Geological Survey Hydrologic Atlas: USGS NHD data. USGS 8 and 12 digit HUC maps. U.S. Geological Survey map(s). Cite scale & quad name: 1:24K; Falcon USDA Natural Resources Conservation Service Soil Survey. Citation: 2021-180 Soil Map National wetlands inventory map(s). Cite name: 2021-180 NWI Map State/Local wetland inventory map(s): FEMA/FIRM maps: 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) Photographs: Aerial (Name & Date): 2021-180 Aerial - May 2020 or Other (Name & Date): Previous determination(s). File no. and date of response letter: Applicable/supporting case law: Applicable/supporting scientific literature: \boxtimes Other information (please specify): 2021-180 EPA Watershed Report, 2021-180 Flow Path and Pictures, 2021-180 Inspection

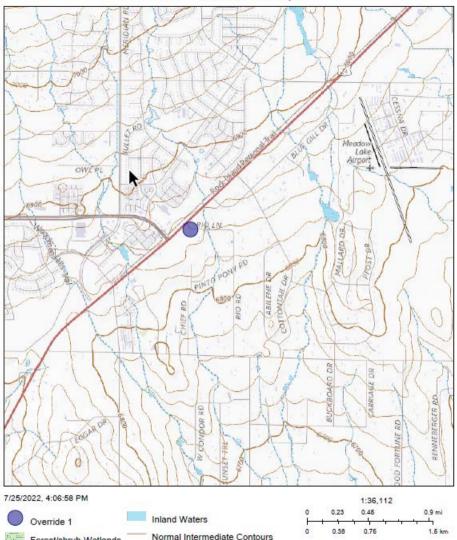
Report - June 2022, 2021-180 NE Stream StreamStats, 2021-180 SW Stream StreamStats, 2021-180 USGS Topo

ADDITIONAL COMMENTS TO SUPPORT JD:

B.

A review of the downstream connectivity of the associated wetlands found there to be a lack of a connection to downstream waters. The drainage features and associated wetlands presented a southward flow path until reaching E. Blaney Road. The flow path consisting of a varying degree of broken stream channel and connected wetlands terminated across a portion of flat terrain with not apparent wetland vegetation. Flow does not appear to reach any downstream waters via the nearby roadside ditch. Flow also does not cross E. Blaney Road due to the lack of culverts and a slight elevation rise. Due to a lack of downstream connectivity, the drainage features and associated wetlands under review are found to be isolated.

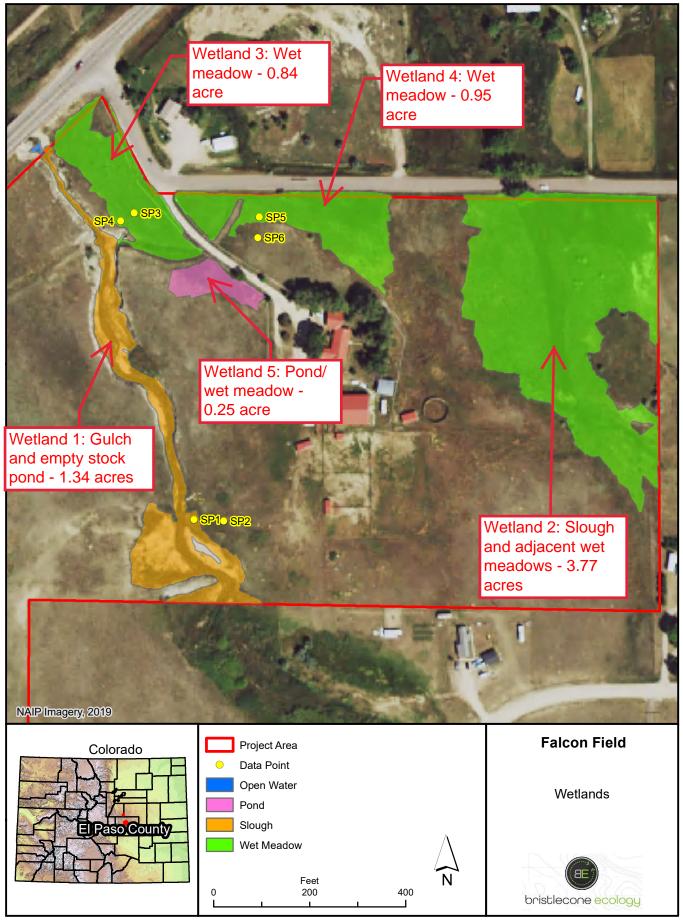
2021-180 USGS Topo



Normal Index Contours

Forest/shrub Wetlands

USOS The National Map: National Boundaries Dataset, 30EP Elevation Program, Geographic Natives Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Databaset, USOS Global Ecosystems; U.S. Census



12/8/2020 C:\GIS_Projects\Bristlecone_Ecology\20_013_Falcon_Field\Wetlands_Zoomed.mxd

The Pikes Peak Regional Building Department, as the acting floodplain administrator for floodplain management for El Paso County [in accordance with National Flood Insurance Program regulation 65.7(b)(1),] hereby gives notice of El Paso County's intent to revise the flood hazard information, generally located adjacent and to the southeast of Highway 24 near Rio Lane in Falcon, Colorado. The flood hazard revisions are being proposed as part of Conditional Letter of Map Revision (CLOMR) Case No. 23-08-0708R for a proposed project along the Unnamed Tributary 109 to Black Squirrel Creek. Drexel, Barrell & Co. is proposing to develop the 57-acre Falcon Field for commercial and residential purposes.

Once the project has been completed, a Letter of Map Revision (LOMR) request should be submitted that will, in part, revise the following hazards along the Unnamed Tributary 109 to Black Squirrel Creek.

- 1. Base Flood Elevations will be established along the Unnamed Tributary 109 to Black Squirrel Creek.
- 2. The Special Flood Hazard Area will be established along the Unnamed Tributary 109 to Black Squirrel Creek.

Maps and detailed analysis of the revision can be reviewed at the Pikes Peak Regional Building Department at 2880 International Circle, Colorado Springs, CO 80910. Interested persons may call the Floodplain Administrator at (719) 327-2898 for additional information, weekdays from 8 am to 5 pm.

DRAFT PUBLIC NOTIFICATION FOR Falcon Field FLOOD HAZARD REVISIONS



May 13, 2024

Subject: Falcon Field CLOMR Application, Case No. 23-08-0708R Response to FEMA A.D. Request dated February 14, 2024

Drexel, Barrell & Co. (DBC) received an email from the CWCB on February 14, 2024 following the second submittal of additional data. The issues are summarized below, followed by DBC responses in **bold italics**.

Issue 1: As this revision creates a detailed study for an unnamed stream, the name of "Unnamed Tributary 109 to Black Squirrel Creek" based on the Base Level Engineering (BLE) study in El Paso County has been designated. Please provide documentation that the community is in agreement with the desired name.

Email documentation is provided.

Issue 2. Our review of the HEC-HMS version 3.5 hydrologic analysis revealed the following issues. Please provide a hydrologic submittal that addresses the following comments.

a. Please verify if each detention pond upstream of the project is private or public. Detention ponds that are privately operated and maintained should not be included in the hydrologic analysis unless it can be shown that they attenuate downstream peak discharges.

b. The as-built public detention ponds upstream of the project are providing attenuation of the urbanized flow. Supporting documentation for these public detention ponds in compliance with FEMA requirements and CWCB Rules and Regulations for Regulatory Floodplains in Colorado, 2 CCR 408-1, Rule 9: Criteria for Determining the Effects of Flood Control Structures on Regulatory Floodplains, sections 9B, 9C and 9D are required in order to receive the credit of attenuation. This is only applied to as-built detention ponds upstream of the project. Proposed detention pond in the HEC-HMS model that has yet to be constructed should not be included in the hydrologic analysis.

c. If the required supporting documentation mentioned in 2b above are provided, effective base flood discharges of 330.8 cfs at JET090 and 335.4 cfs at JET100 should be used in the HEC-RAS model.

d. If the required supporting documentation in 2b above are not provided, it is recommended to use the base flood discharges of 68 cfs, 209 cfs, 379 cfs, 640 cfs, 996 cfs, and 1408 cfs for the 10%, 4%, 2%, 1%, 1%+, and 0.2%,- chance-flood-events respectively, in which these discharges are also being used in the current BLE modeling (draft) for El Paso County.

e. Please revise precipitation inputs for the effective hydrologic model to match NOAA Atlas 14. Currently values are 4.5100" for the 100-year storm and 1.96" for the 2-year storm. According to NOAA Atlas 14, the values should be 5.02" for the 100-year storm and 1.90" for the 2-year storm.

f. The following previously requested information in 316-AD1 letter dated November 2, 2023, were not provided in this submittal and should be provided in the next submittal:

i. Please provide a hydrologic base map for the revision area.

- ii. Please provide a land use map for the revision area.
- iii. Please provide Time of Concentration, Lag Time, and Curve Number Calculations

In the interest of reducing review time and resources, we are using the BLE discharges recommended in Item 2d above. The hydraulic analyses and mapping have been revised to reflect this. Therefore, no further hydrologic analyses are provided.

Falcon Field CLOMR Submittal April 12, 2023 February 14, 2024 Request for Additional Data

Issue 3. Our review of the submitted 6.2 HEC-RAS hydraulic analysis revealed the following issues. Please submit a revised analysis that corrects the following.

a. The following previously requested information in 316-AD1 letter dated November 2, 2023, was not provided in this submittal and should be provided in the next submittal:

i. Please include an existing conditions plan in the HEC-RAS hydraulic analysis model.

ii. Please provide the existing and proposed condition analyses of the existing 2-12'x4.83' RCB crossing State Highway 24 using StormCAD or HY-8, as the change of downstream condition from open flow free discharge (existing condition) to a small limited open area, then straight to the proposed 8'x4' RCB (proposed condition) would affect the base flood elevation at the outlet of the existing RCB. Therefore,

• The comparison of the base flood elevations between the existing and proposed condition is required to ensure the rise in base flood elevation (if any) is in compliance.

• The base flood elevation at the outlet of the existing 2-12'x4.83' RCB shall be used as the starting headwater elevation at the most upstream end of the proposed 8'x4' RCB to ensure the continuity of the hydraulic analysis.

b. The base flood elevation (6830.15 feet) at the outlet of the proposed 8'x4' RCB modeled in StormCAD does not match the base flood Elevation (6830.45 feet) at Cross Section 400, the most upstream limit of the proposed Unnamed Tributary 109 to Black Squirrel Creek. Please revise the base flood elevation at cross section 400 to match the base flood elevation at the outlet of the proposed RCB.

c. Please revise the hydraulic analysis based on hydrologic outputs after addressing the items listed above. Refer to items 2c and 2d above for the base flood discharges to be used in the hydraulic analysis.

The updated hydraulic analyses are provided. Furthermore, as discussed during a meeting on January 3, 2024, the 1% HGL at the upstream end of the proposed 10'x4' box culvert is below the downstream invert of the existing Highway 24 box culverts. Therefore, there will be no impact to the existing box culverts.

4. Our review of the report titled, "21705 CLOMR Report Signed," dated January 25, 2024, revealed that the certified topographic work map entitled, "CLOMR Floodplain Work Map," prepared by Drexel, Barrel & Co., dated January 25, 2024, has an incorrect scale. Please submit a revised report with a topographic work map that has a corrected scale.

As discussed during the meeting on January 3, 2024, the information in the PDF correctly matches the scale shown. The reviewer measured the scale in Bluebeam indicating that it was off by a factor of two. The drawing was set up in CAD as full-size and printed to PDF at half size (11'''x17'') for review purposes. This is a common practice in the industry. The electronic files submitted are true to scale. See attached email from the reviewer dated January 17 that the FPWM is sufficient.

5. Our review of the document titled, "Falcon Drainage Basin Planning Study," dated September 2015 revealed multiple maps with printing errors such as unclear coloring, and symbolism on Figures 3-5, 3-6, 3-10, 3-12, and 3-13. It is hard to review a map with black background for the entire map. Please provide a copy of this document with legible mapping.

We do not have access to any further DBPS documents. These were provided by the County.

Please contact us with any questions or matters needing clarification.

Sincerely, Drexel, Barrell & Co.

Michelle Iblings, P.E., CFM Vice President, Water Resources Group Leader

From:	Keith Curtis
To:	Michelle Iblings; Jeff Rice
Subject:	[EXTERNAL]Re: [EXTERNAL]23-08-0708R - AD2 Submittal
Date:	Monday, April 15, 2024 1:16:57 PM

I am ok with it as I understand it this is the "best available data"

Keith Curtis, PE, CFM, LEED AP

Floodplain Administrator Pikes Peak Regional Building Department 2880 International Circle Colorado Springs CO, 80910 **0:** 719-327-2898

From: Michelle Iblings <miblings@drexelbarrell.com>
Sent: Monday, April 15, 2024 2:20:15 PM
To: Jeff Rice <JeffRice@elpasoco.com>; Keith Curtis <keith@pprbd.org>
Subject: Fwd: [EXTERNAL]23-08-0708R - AD2 Submittal

Hello Jeff and Keith,

Can one of you please respond to this email accepting the use of <u>Unnamed Tributary 109 to</u> <u>Black Squirrel Creek</u> for this CLOMR? CDM is now requesting a written response rather than the verbal one you gave a few months ago.

Cheers, Michelle

Sent from my Verizon, Samsung Galaxy smartphone Get <u>Outlook for Android</u>

From: Duran, Dakota C. <durandc@cdmsmith.com> Sent: Monday, April 15, 2024 11:35:17 AM

To: Michelle Iblings <miblings@drexelbarrell.com>

Cc: Keith Curtis <keith@pprbd.org>; Christina Prete <ChristinaPrete@elpasoco.com>; Jeff Rice <JeffRice@elpasoco.com>; 'terri.fead@state.co.us' <terri.fead@state.co.us>; Marta Blanco Castano <marta.blancocastano@state.co.us>; January, Pei Yin (Michelle) <januaryp@cdmsmith.com>; Anderson, Paul <andersonp@cdmsmith.com>

Subject: [EXTERNAL]23-08-0708R - AD2 Submittal

Hello,

After reviewing your recent submittal we have found the following:

- Comment 1: The community agreement for the chosen name of "Unnamed Tributary 109 to Black Squirrel Creek," is needed in written documentation in the form of an email or letter.
- Comment 3.a.ii: This comment has not been addressed. In order to confirm that there will be

no impact to the box culverts under Highway 24, hydraulic analysis is needed. Please review this comment for further direction.

• Due to the updated BLE discharges being used in the hydraulic analyses, we have found a tiein discrepancy of over 0.5-ft between the existing conditions and proposed conditions models at Cross Section 0. It should be noted that the existing conditions model should also be using the updated BLE discharge values.

As a reminder, all data is required by May 14, 2024.

Please let me know if you have any questions. Thank you!

Dakota Duran Water Resources Engineer CDM Smith 555 17th St., Suite 500 | Denver, CO 80202 303.383.2436 cdmsmith.com



CAUTION: - This is an external email. Do not click links, open attachments, or reply unless you recognize the sender and know the content is safe.

From:	<u>Duran, Dakota C.</u>
То:	Michelle Iblings
Cc:	<u>January, Pei Yin (Michelle)</u>
Subject:	RE: 30 Day Email Notice for Additional Data Request for Case #: 23-08-0708R
Date:	Wednesday, January 17, 2024 7:54:36 AM
Attachments:	image002.png

Hi Michelle,

Yes, the Annotated FIRMs and FPWM look good!

Thank you,

Dakota Duran Water Resources Engineer CDM Smith 555 17th St., Suite 500 |Denver, CO 80202 303.383.2436 cdmsmith.com



From: Michelle Iblings <miblings@drexelbarrell.com>
Sent: Thursday, January 11, 2024 5:20 PM
To: Duran, Dakota C. <durandc@cdmsmith.com>
Subject: RE: 30 Day Email Notice for Additional Data Request for Case #: 23-08-0708R

Dakota

Can you please confirm the attached are what you're anticipating for Annotated FIRMs and FPWM? Obviously the annotation linework is approximate, and the exact culvert and floodplain alignments will be provided in CAD.

The FPWM scale was showing 1:40 (vs. 1:80) on your end because the sheet was set up full size then printed 11"x17". However the scale matches the map and this should be sufficient.

Michelle

From: Duran, Dakota C. <durandc@cdmsmith.com> Sent: Tuesday, January 9, 2024 1:48 PM