3255 Hay Creek Road

Final Drainage Report

PCD File No: CDR2611

All Terrain Engineering Project No: 26013

November 2026

Prepared for:

Matt Dunston

3255 Hay Creek Road

Contact: (719) 559-2229

mattdunston@hotmail.com

Prepared by:

All Terrain Engineering LLC

Contact: Nicholas Q. Jokerst

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(530) 391-7635

ENGINEER'S STATEMENT

The attached drainage plan and report were prepared under my direction and supervision and are correct to the best of my knowledge and belief. Said drainage report has been prepared according to the criteria established by the County for drainage reports and said report is in conformity with the applicable master plan of the drainage basin. I accept responsibility for any liability caused by any negligent acts, errors or omissions on my part in preparing this report.



10/31/2026

Nicholas Q. Jokerst, PE Date

State of Colorado No. 59273

For and on behalf of All Terrain Engineering LLC

DEVELOPER'S STATEMENT

I, the owner/developer, have read and will comply with all of the requirements specified in this drainage report and plan.



Matt Dunston Date

EL PASO COUNTY ONLY

Filed in accordance with the requirements of the Drainage Criteria Manual, Volumes 1 and 2, El Paso County Engineering Criteria Manual and Land Development Code as amended.

Joshua J. Palmer, P.E. Date
County Engineer/ECM Administrator

Conditions:

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B. Hydrologic Analysis
C. Drainage Maps

I. General Purpose, Location & Description

a. Purpose & Project Description

The purpose of the Final Drainage Report (FDR) for 3255 Hay Creek Road is to describe the site's existing drainage patterns and proposed conditions associated with the construction activities that occurred at the site. Those include paving ~0.5 acres of existing gravel driveway with recycled, crushed asphalt, constructed a retaining wall, imported fill to level the driveway area & complete necessary grading tiebacks.

b. Location

3255 Hay Creek Road, referred to as 'the site' herein, is Lot 9 of the Hay Creek Ranch subdivision being a part of the Southeast Quarter of Section 33, Township 11 South, Range 67 West of the 6th P.M. The site is bound by Hay Creek Road to the north, Hay Creek Ranch to the south, unplatted land to the west and Hay Creek Ranch Filing 1A to the east. A vicinity map is presented in Appendix A.

c. Description of Property

The site is a 6.86 acre parcel Colorado Springs, CO. The project will pave a gravel driveway and perform onsite grading. The current property includes a single residence and associated structures.

In general, the site slopes south and east towards Hay Creek. Onsite elevations range from 6910' – 6982' with slopes ranging approximately 1 – 30%. Per an NRCS soil survey, the site is made up of Type B Jarre-Tecolote complex and Peyton-Pring complex. Hay Creek is located along the site's southern boundary. Per a site survey, existing utilities include water, sewer, communications and electric.

The ultimate receiving waters for the site are Hay Creek.

d. Floodplain Statement

Based on FEMA Firm map 08041C0267G dated December 7, 2018, the site is Zone X and Zone A. Zone X are areas determined to be outside the 0.2% annual chance flood. Zone A (no base flood elevations determined) areas are determined to be within the 1% annual chance of flooding zone. There is no development or disturbance proposed in Zone A portions of the site.

II. Drainage Basins

a. Major Basin Description

The site is located within the Hay Creek Valley which is within the Beaver Creek Major Drainage Basin. There is no current DBPS for the site. Hay Creek discharges to Beaver Creek approximately a mile downstream of the site.

b. Existing Subbasin Description

Basin EX-A is 7.33 acres of onsite area and Hay Creek Road. Basin EX-A stormwater (Q_5 = 4.3 cfs Q_{100} = 17.2 cfs) flows overland across the site to Hay Creek. All site stormwater converges at DP1 (Q_5 = 4.3 cfs Q_{100} = 17.2 cfs) and continues east offsite in Hay Creek.

c. Proposed Subbasin Description

Basin PR-A is 7.33 acres of onsite area and Hay Creek Road. The proposed condition of Basin A includes the asphalt paving of 0.50 acres of existing gravel driveway. There is no other improvement proposed within Basin A. Basin PR-A stormwater (Q_5 = 4.8 cfs Q_{100} = 17.9 cfs) flows overland across the site to Hay Creek. Existing drainage patterns are maintained in the proposed condition. All site stormwater converges at DP1 (Q_5 = 4.8 cfs Q_{100} = 17.9 cfs) and continues east offsite in Hay Creek.

The site's existing composite impervious is 13.8%. In the proposed condition, the impervious increases to 15.2%. See below for a comparison of the site's increase in stormwater discharge.

EXISTING V. PROPOSED FLOW COMPARISON				
LOCATION	**Ex $Q_{5\text{-YR}}$**	**Ex $Q_{100\text{-YR}}$**	**Pr $Q_{5\text{-YR}}$**	**Pr $Q_{100\text{-YR}}$**
Ex DP1/Pr DP1	4.3	17.2	4.8	17.9

At DP1, the proposed condition demonstrates a 0.5 cfs and 0.7 cfs increase in stormwater for the 5-year and 100-year scenarios, respectively. The increase in flow will have a negligible impact to downstream infrastructure. The existing site is heavily vegetated between the proposed driveway and Hay Creek. The existing vegetation and Type B soils will allow for infiltration of stormwater as it drains across the site to Hay Creek.

Drainage Design Criteria

a. Development Criteria Reference

The drainage analysis follows the criteria from the "Drainage Criteria Manual County of El Paso, Colorado" Volumes 1 and 2," as amended.

b. Hydrologic Criteria

Onsite drainage analysis included the 5-year storm (minor event) and 100-year storm (major event). Runoff is calculated per EPCDCM Chapter 5 – Storm Runoff Method of Analysis.

c.

d. Hydraulic Criteria

Hydraulic criteria for channel analysis are obtained from EPCDCM Chapter 10 - Open Channels and Structures.

III. Drainage Facility Design

a. General Concept

The site received a Stop Work Order (SWO) from El Paso County for unpermitted grading operations. This FDR addresses the impacts of the proposed disturbances to support an ESQCP application. The proposed disturbances include the asphalt paving of an existing gravel driveway and improved grading tie backs to the south. The total disturbance area associated with the site is ~1.8 acres. If disturbances exceed this value, the associated GEC plan shall be amended to address the additional area. No additional impervious should be added and existing drainage patterns on the site shall be maintained.

b. Water Quality & Detention

Water quality and detention for Basin EX-A/PR-A is not required. The site disturbed a total of 1.8 acres. 1.3 acres of the disturbed area are excluded from permanent water quality per Appendix I.6.1.B.7. The total unexcluded area is 0.5 ac asphalt paving and is requested to be excluded from permanent water quality by El Paso County.

For reference only, a runoff reduction calculation was performed. Downstream of the paved driveway is 3 acres of meadow/range land. UD BMP v3.07 shows that 15,000 square feet of receiving pervious area would provide complete water quality treatment of the 0.5 paved driveway.

c. Inspections & Maintenance

An Inspection and Maintenance Manual is not applicable as no permanent facilities are proposed.

d. Grading & Erosion Control Plan

A Grading & Erosion Control Plan has been submitted in conjunction with this FDR.

e. Four Step Method

Step 1 – Employ Runoff Reduction Practices: Existing roof drains discharge to landscaped areas. Implementation of landscaping and open space throughout the site slows runoff and increase infiltration.

Step 2 – Stabilize Drainageways: All new and re-development projects are required to construct or participate in the funding of channel stabilization measures. Drainage basin fees paid, at the time of platting, go towards channel stabilization with the drainage basin. Refer to Section F below.

Step 3 – Provide WQCV: Water quality treatment is not required for the site.

Step 4 – Consider the need for source controls: No industrial uses are proposed within this development and therefore no source controls are proposed.

f. Drainage Basin & Bridge Fees

The site is within the Beaver Creek Drainage Basin. The site is not being platted and therefore basin and bridge fees are not applicable.

g. Engineer's Opinion of Probable Cost

An El Paso County 2026 Financial Assurance estimate is included in Appendix E.

IV. Summary

3255 Hay Creek Road remains consistent with pre-development drainage conditions. The proposed development will not adversely affect downstream stormwater infrastructure or surrounding developments. This report is in accordance with the latest El Paso County Drainage criteria.

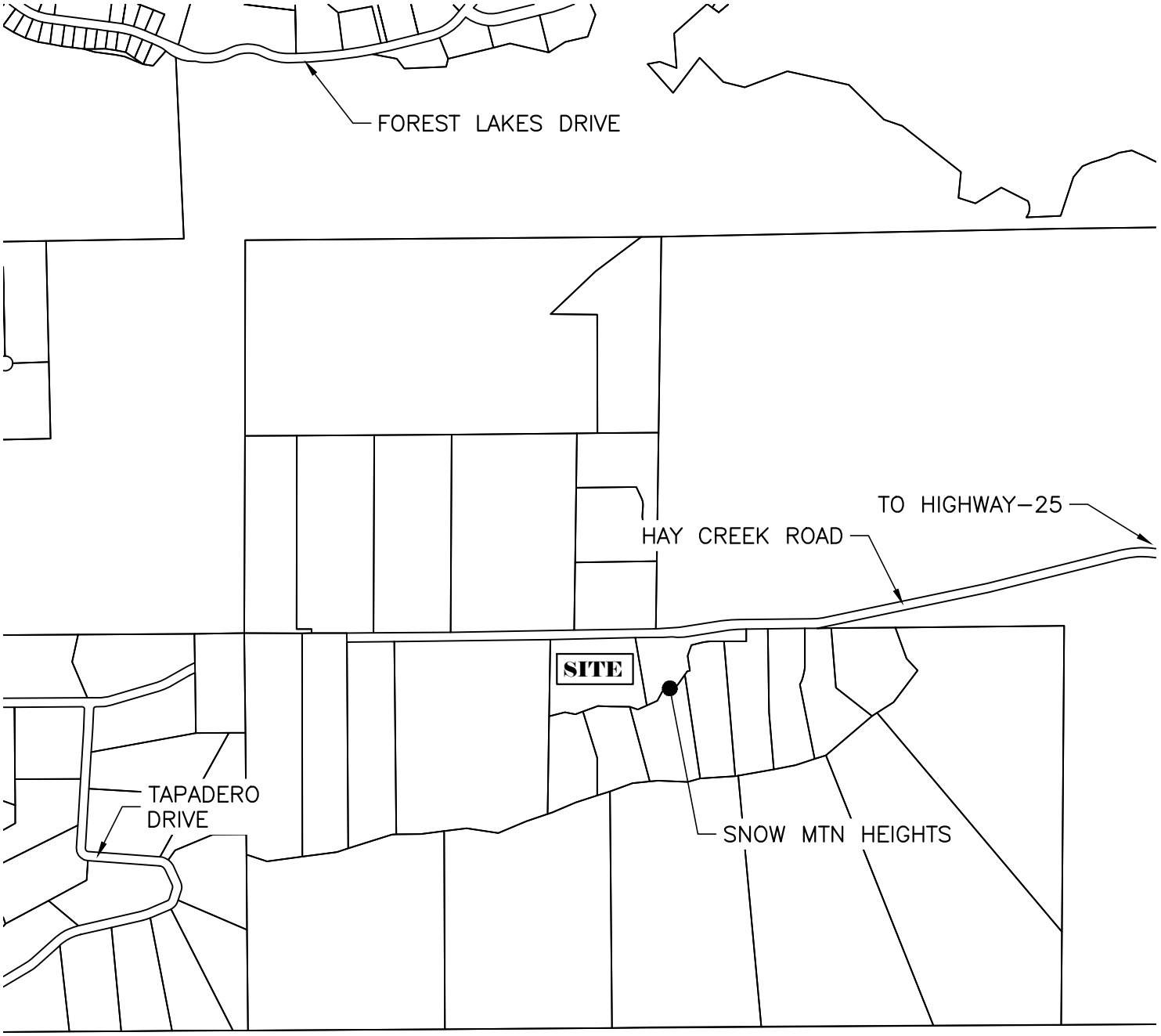
V. References

1. El Paso County – Drainage Criteria Manual, 2018 as amended.
2. Urban Storm Drainage Criteria Manual, Mile High Flood District, March 2024.
3. Federal Emergency Management Agency, Flood Map Service Center - https://msc.fema.gov/portal/home, September 2024.
4. Web Soil Survey, Natural Resources Conservation Service - https://websoilsurvey.nrcs.usda.gov/app/, September 2024.

APPENDIX A – VICINITY MAP, FEMA MAP, NRCS WEB SOIL SURVEY

3255 HAY CREEK DRIVE

VICINITY MAP



AIR FORCE ACADEMY

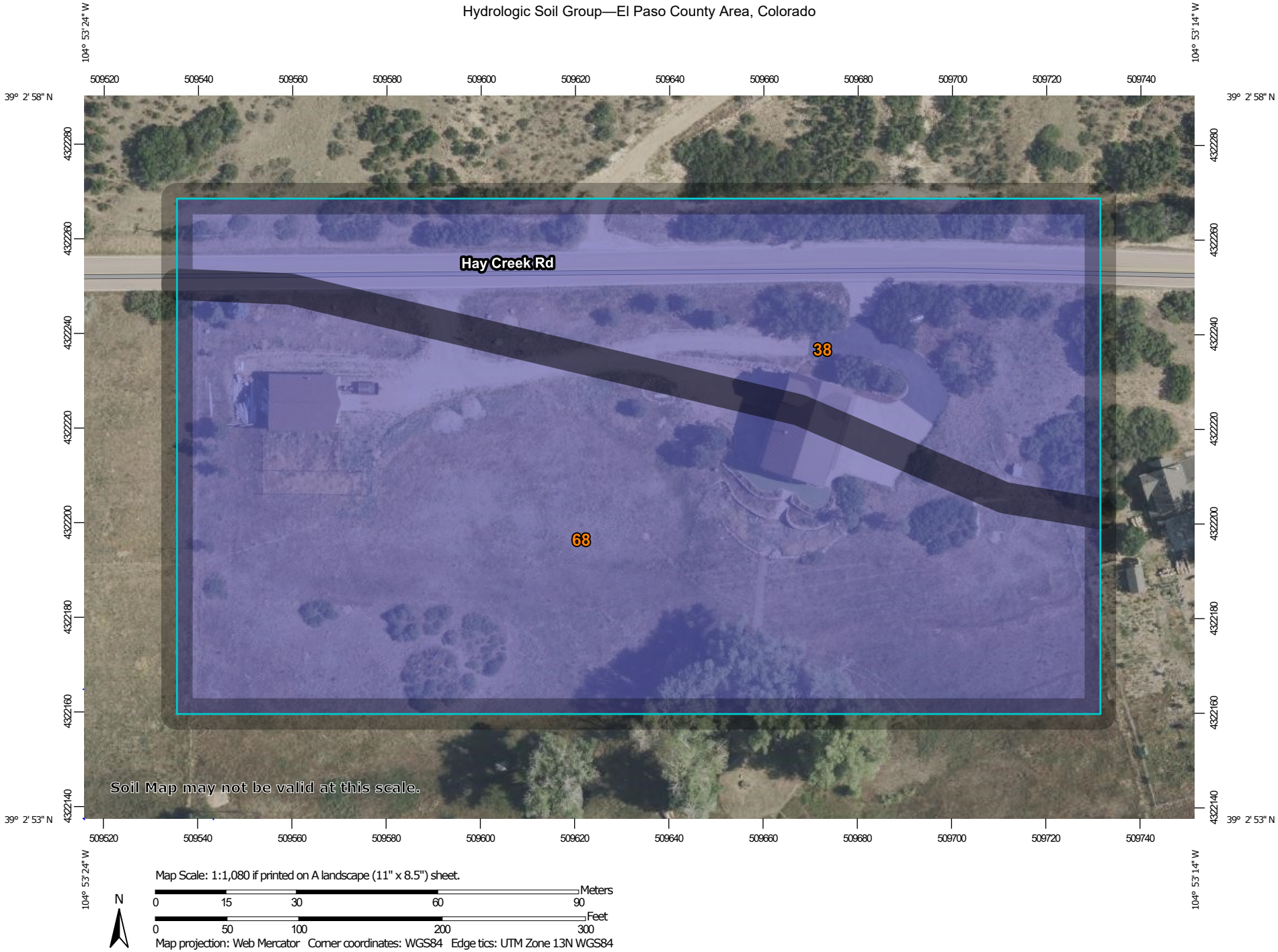
N

1000 500 0 1000 2000

ORIGINAL SCALE: 1" = 1000'

VICINITY MAP	
3255 HAY CREEK DRIVE	
JOB NO. 26013	
LOCATION: EPC	SHEET 1
09/11/2026	

ALL TERRAIN ENGINEERING
1004 WEST VAN BUREN STREET
COLORADO SPRINGS, CO 80907



Map Scale: 1:1,080 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 15 30 60 90

Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: El Paso County Area, Colorado
Survey Area Data: Version 23, Aug 29, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 23, 2024—Aug 4, 2024

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
38	Jarre-Tecolote complex, 8 to 65 percent slopes	B	1.9	35.4%
68	Peyton-Pring complex, 3 to 8 percent slopes	B	3.4	64.6%
Totals for Area of Interest			**5.3**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

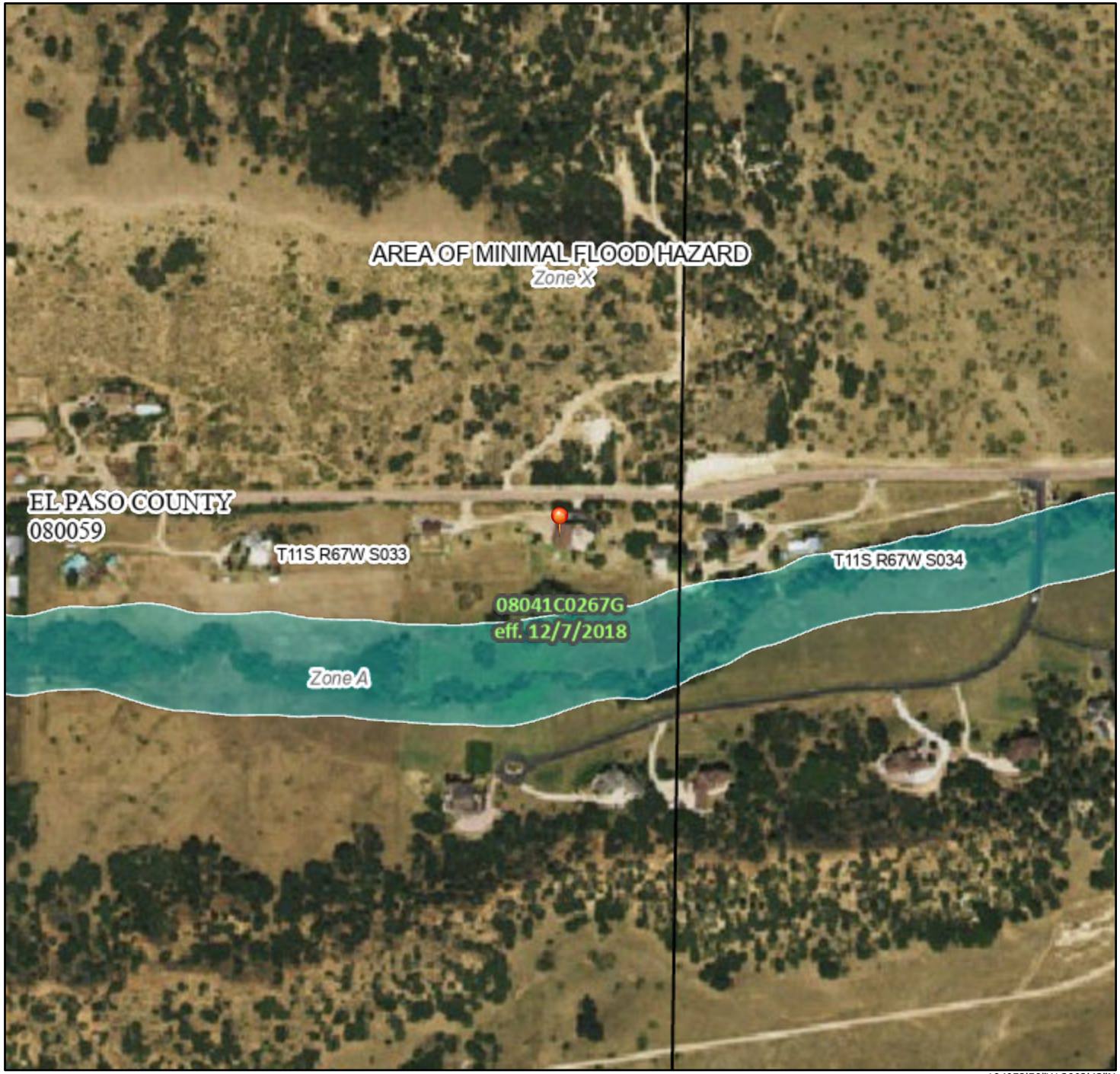
Rating Options

Aggregation Method: Dominant Condition

National Flood Hazard Layer FIRMette

FEMA

104°53'37"W 39°3'10"N



104°52'59"W 39°2'42"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/11/2026 at 8:26 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

APPENDIX B – HYDROLOGIC CALCULATIONS

Subdivision:	3255 Hay Creek Drive
Location:	El Paso County
Project Name:	3255 Hay Creek Drive
Project Number:	26013
Calculated By:	NQJ
Checked By:	REB
Date:	9/16/2026

EXISTING CONDITIONS - BASIN SUMMARY TABLE

Basin	Area (ac)	Impervious	C_5	C_{100}	t_c (min)	$Q_{5\text{-YR}}$ (cfs)	$Q_{100\text{-YR}}$ (cfs)
EX-A	7.33	14%	0.18	0.42	17.1	4.3	17.2
PR-A	7.33	15%	0.20	0.44	17.3	4.8	17.9

EXISTING CONDITIONS - DESIGN POINT SUMMARY TABLE

DP#	$Q_{5\text{-YR}}$	$Q_{100\text{-YR}}$
EX 1	4.3	17.2
PR 1	4.8	17.9

COMPOSITE % IMPERVIOUS CALCULATIONS - EXISTING CONDITIONS

Subdivision: 3255 Hay Creek Drive
Location: El Paso County

Project Name: 3255 Hay Creek Drive
Project No.: 26013.00
Calculated By: NQJ
Checked By: REB
Date: 9/16/26

		Gravel				Paved				Roofs				Undeveloped				Weighted C_5 & C_{100}		Basins Total Weighted % Imp.
Basin ID	Total Area (ac)	C_5	C_{100}	Area (ac)	% Imp.	C_5	C_{100}	Area (ac)	% Imp.	C_5	C_{100}	Area (ac)	% Imp.	C_5	C_{100}	Area (ac)	% Imp.	C_5	C_{100}	
EX-A	7.33	0.59	0.70	0.53	80.0%	0.90	0.96	0.37	100.0%	0.73	0.81	0.10	90.0%	0.09	0.36	6.33	2.0%	0.18	0.42	13.8%
PR-A	7.33	0.59	0.70	0.03	80.0%	0.90	0.96	0.87	100.0%	0.73	0.81	0.10	90.0%	0.09	0.36	6.33	2.0%	0.20	0.44	15.2%

STANDARD FORM SF-2 - EXISTING CONDITIONS
TIME OF CONCENTRATION

Subdivision: 3255 Hay Creek Drive
Location: El Paso County

Project Name: 3255 Hay Creek Drive
Project No.: 26013.00
Calculated By: NQJ
Checked By: REB
Date: 9/16/26

SUB-BASIN DATA						INITIAL/OVERLAND (T_i)			TRAVEL TIME (T_t)					*tc* CHECK (URBANIZED BASINS)			FINAL
BASIN ID	D.A. (ac)	Hydrologic Soils Group	Weighted C_5	Weighted C_{100}	Impervious (%)	L (ft)	S_o (%)	t_i (min)	L_t (ft)	S_t (%)	K	VEL. (ft/s)	t_t (min)	COMP. t_c (min)	TOTAL LENGTH (ft)	Urbanized t_c (min)	t_c (min)
EX-A	7.33	B	0.18	0.42	13.8%	300	12.9%	12.4	650	5.4%	10.0	2.3	4.7	17.1	950.0	27.9	17.1
PR-A	7.33	B	0.20	0.44	15.2%	300	12.7%	12.2	705	5.4%	10.0	2.3	5.1	17.3	1005.0	28.0	17.3

NOTES:

$$t_c = t_i + t_t$$

Where:

t_c = computed time of concentration (minutes)

t_i = overland (initial) flow time (minutes)

t_t = channelized flow time (minutes).

Eq
$$t_i = \frac{0.395(1.1 - C_5)\sqrt{L_i}}{S_o^{0.33}}$$

Where:

t_i = overland (initial) flow time (minutes)
C_5 = runoff coefficient for 5-year frequency (from Table 6-4)
L_i = length of overland flow (ft)
S_o = average slope along the overland flow path (ft/ft).

Equation 6-3

Table 6-2. NRCS Conveyance factors, K

Type of Land Surface	Conveyance Factor, K
Heavy meadow	2.5
Tillage/field	5
Short pasture and lawns	7
Nearly bare ground	10
Grassed waterway	15
Paved areas and shallow paved swales	20

$$t_t = \frac{L_t}{60K\sqrt{S_o}} = \frac{L_t}{60V_t}$$

Where:

t_t = channelized flow time (travel time, min)
L_t = waterway length (ft)
S_o = waterway slope (ft/ft)
V_t = travel time velocity (ft/sec) = $K\sqrt{S_o}$
K = NRCS conveyance factor (see Table 6-2).

Equation 6-4
$$t_c = \frac{26 - 17i) + L_t}{60(14i + 9)\sqrt{S_t}}$$

Where:

t_c = minimum time of concentration for first design point when less than t_c from Equation 6-1.
L_t = length of channelized flow path (ft)
i = imperviousness (expressed as a decimal)
S_t = slope of the channelized flow path (ft/ft).

Equation 6-5

Use a minimum t_c value of 5 minutes for urbanized areas and a minimum t_c value of 10 minutes for areas that are not considered urban. Use minimum values even when calculations result in a lesser time of concentration.

STANDARD FORM SF-3 - EXISTING CONDITIONS

STORM DRAINAGE SYSTEM DESIGN

(RATIONAL METHOD PROCEDURE)

Subdivision: 3255 Hay Creek Drive
Location: El Paso County
Design Storm: 5-Year

Project Name: 3255 Hay Creek Drive
Project No.: 26013.00
Calculated By: NQJ
Checked By: REB
Date: 9/16/26

DESCRIPTION	Design Point	DIRECT RUNOFF							TOTAL RUNOFF				OVERLAND			PIPE				TRAVEL TIME			REMARKS
		Basin ID	Area (Ac)	Runoff Coeff.	t_c (min)	C*A (Ac)	I (in/hr)	Q (cfs)	tc (min)	C*A (ac)	I (in/hr)	Q (cfs)	$Q_{overland}$ (cfs)	C*A (ac)	Slope (%)	Q_{pipe} (cfs)	C*A (ac)	Slope (%)	Pipe Size (inches)	Length (ft)	Velocity (fps)	t_t (min)	
		EX-A	7.33	0.18	17.1	1.29	3.33	4.3															BASIN A EXISTING CONDITIONS @ DP1
		PR-A	7.33	0.20	17.3	1.44	3.31	4.8															BASIN A PROPOSED CONDITIONS @ DP1

Notes:
Street and Pipe C*A values are determined by Q/i using the catchment's intensity value.

STANDARD FORM SF-3 - EXISTING CONDITIONS

STORM DRAINAGE SYSTEM DESIGN

(RATIONAL METHOD PROCEDURE)

Subdivision: 3255 Hay Creek Drive
Location: El Paso County
Design Storm: 100-Year

Project Name: 3255 Hay Creek Drive
Project No.: 26013.00
Calculated By: NQJ
Checked By: REB
Date: 9/16/26

		DIRECT RUNOFF							TOTAL RUNOFF				OVERLAND			PIPE				TRAVEL TIME			
STREET	Design Point	Basin ID	Area (ac)	Runoff Coeff.	t_c (min)	C*A (ac)	I (in/hr)	Q (cfs)	tc (min)	C*A (ac)	I (in/hr)	Q (cfs)	$Q_{OVERLAND}$ (cfs)	C*A (ac)	Slope (%)	Q_{pipe} (cfs)	C*A (ac)	Slope (%)	Pipe Size (inches)	Length (ft)	Velocity (fps)	t_t (min)	REMARKS
		EX-A	7.33	0.42	17.1	3.09	5.58	17.2															BASIN A EXISTING CONDITIONS @ DP1
		PR-A	7.33	0.44	17.3	3.22	5.56	17.9															BASIN A PROPOSED CONDITIONS @ DP1

Notes:
Street and Pipe C*A values are determined by Q/i using the catchment's intensity value.

Design Procedure Form: Runoff Reduction

UD-BMP (Version 3.07, March 2018) **Sheet 1 of 1**

Designer:	NQJ
Company:	ALL TERRAIN ENGINEERING
Date:	October 30, 2026
Project:	3255 Hay Creek Road
Location:	COLORADO SPRINGS

SITE INFORMATION (User Input in Blue Cells)

WQCV Rainfall Depth = 0.60 inches

Depth of Average Runoff Producing Storm, d_6 = 0.43 inches (for Watersheds Outside of the Denver Region, Figure 3-1 in USDCM Vol. 3)

Area Type	UIA:RPA											
Area ID	Paved											
Downstream Design Point ID	1											
Downstream BMP Type	None											
DCIA (ft^2)	--											
UIA (ft^2)	21,870											
RPA (ft^2)	15,000											
SPA (ft^2)	--											
HSG A (%)	0%											
HSG B (%)	100%											
HSG C/D (%)	0%											
Average Slope of RPA (ft/ft)	0.020											
UIA:RPA Interface Width (ft)	375.00											

CALCULATED RUNOFF RESULTS

Area ID	Paved											
UIA:RPA Area (ft^2)	36,870											
L / W Ratio	0.26											
UIA / Area	0.5932											
Runoff (in)	0.00											
Runoff (ft^3)	0											
Runoff Reduction (ft^3)	911											

CALCULATED WQCV RESULTS

Area ID	Paved											
WQCV (ft^3)	911											
WQCV Reduction (ft^3)	911											
WQCV Reduction (%)	100%											
Untreated WQCV (ft^3)	0											

CALCULATED DESIGN POINT RESULTS (sums results from all columns with the same Downstream Design Point ID)

Downstream Design Point ID	1											
DCIA (ft^2)	0											
UIA (ft^2)	21,870											
RPA (ft^2)	15,000											
SPA (ft^2)	0											
Total Area (ft^2)	36,870											
Total Impervious Area (ft^2)	21,870											
WQCV (ft^3)	911											
WQCV Reduction (ft^3)	911											
WQCV Reduction (%)	100%											
Untreated WQCV (ft^3)	0											

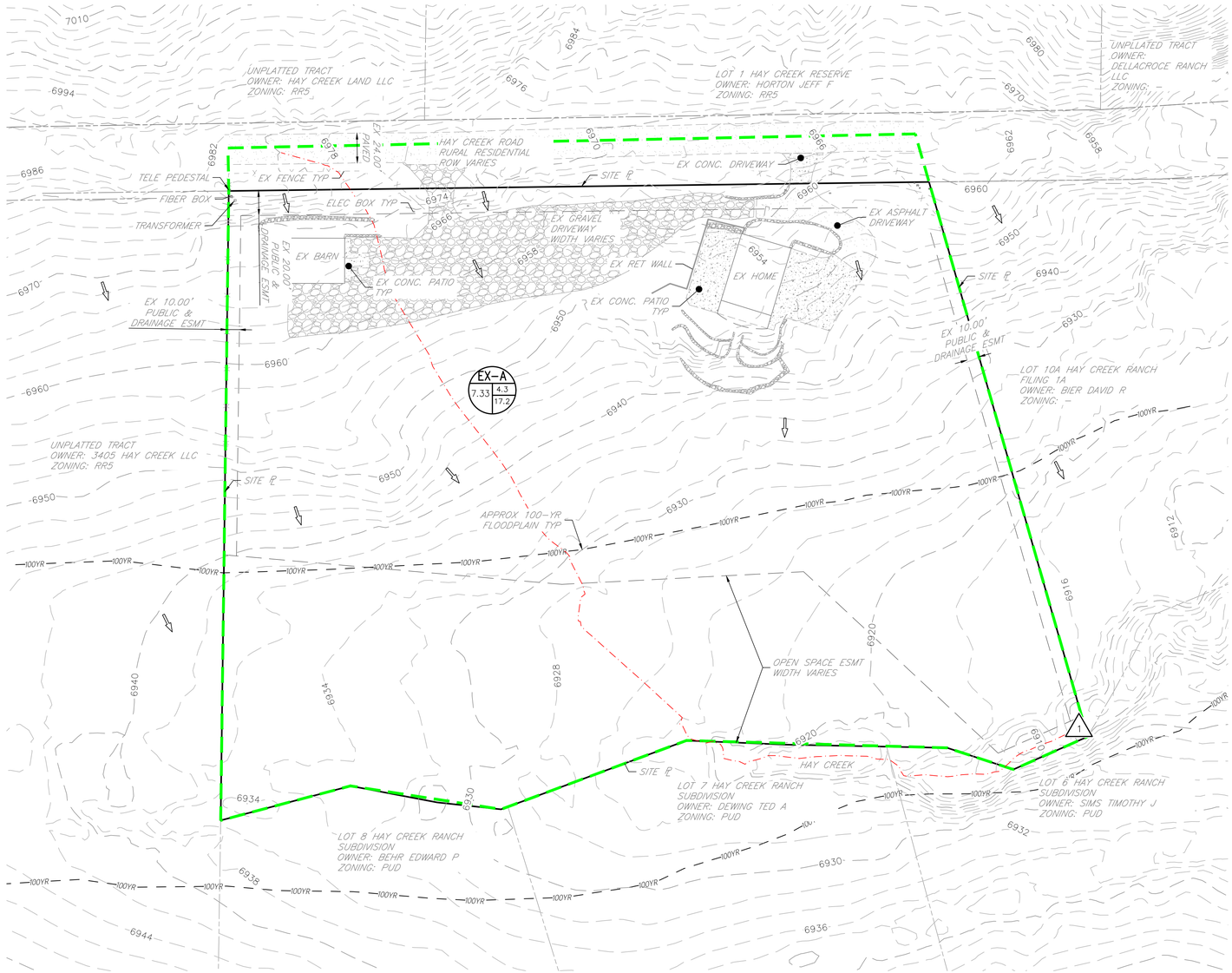
CALCULATED SITE RESULTS (sums results from all columns in worksheet)

Total Area (ft^2)	36,870
Total Impervious Area (ft^2)	21,870
WQCV (ft^3)	911
WQCV Reduction (ft^3)	911
WQCV Reduction (%)	100%
Untreated WQCV (ft^3)	0

APPENDIX C – DRAINAGE MAPS

3255 HAY CREEK ROAD

EXISTING DRAINAGE MAP



LEGEND

	EXISTING	PROPOSED
BOUNDARY LINE		
PROPERTY LINE		
EASEMENT LINE		
RIGHT OF WAY		
STORM SEWER		
SWALE/WATERWAY FLOWLINE		
INDEX CONTOUR	6100	6100
INTERMEDIATE CONTOUR		
FLOW DIRECTION		
BASIN ID	ID / AC / Q5 / Q100	
DESIGN POINT DESIGNATION	1	
DRAINAGE BASIN		
TC PATH		
LIMIT OF DISTURBANCE	LOD LOD LOD LOD LOD	

NOTES

1. EXISTING AND PROPOSED CONDITIONS OF BASIN A SHOWN BELOW. REFER TO PROPOSED DRAINAGE MAP FOR PROPOSED CONDITIONS OF BASIN A.

BASIN SUMMARY TABLE

Basin	Area (ac)	Impervious	C_5	C_{100}	t_c (min)	$Q_{5\text{-YR}}$ (cfs)	$Q_{100\text{-YR}}$ (cfs)
EX-A	7.33	14%	0.18	0.42	17.1	4.3	17.2
PR-A	7.33	15%	0.20	0.44	17.3	4.8	17.9

DESIGN POINT SUMMARY TABLE

DP#	$Q_{5\text{-YR}}$	$Q_{100\text{-YR}}$
EX 1	4.3	17.2
PR 1	4.8	17.9

N

50 25 0 50 100

ORIGINAL SCALE: 1" = 50'

EXISTING DRAINAGE MAP

3255 HAY CREEK ROAD

JOB NO. 26013
LOCATION: CS
09/16/2026

SHEET 1

ALL TERRAIN ENGINEERING

3255 HAY CREEK ROAD

PROPOSED DRAINAGE MAP



LEGEND

	EXISTING	PROPOSED
BOUNDARY LINE		
PROPERTY LINE		
EASEMENT LINE		
RIGHT OF WAY		
STORM SEWER		
SWALE/WATERWAY FLOWLINE		
INDEX CONTOUR	6100	6100
INTERMEDIATE CONTOUR		
FLOW DIRECTION		
BASIN ID	ID / AC / Q5 / Q100	DESIGN POINT DESIGNATION 1
DRAINAGE BASIN		
TC PATH		
LIMIT OF DISTURBANCE	LOD LOD LOD LOD LOD	

NOTES

1. EXISTING AND PROPOSED CONDITIONS OF BASIN A SHOWN BELOW. REFER TO EXISTING DRAINAGE MAP FOR EXISTING CONDITIONS OF BASIN A.

BASIN SUMMARY TABLE

Basin	Area (ac)	Impervious	C_5	C_{100}	t_c (min)	$Q_{5\text{-YR}}$ (cfs)	$Q_{100\text{-YR}}$ (cfs)
EX-A	7.33	14%	0.18	0.42	17.1	4.3	17.2
PR-A	7.33	15%	0.20	0.44	17.3	4.8	17.9

DESIGN POINT SUMMARY TABLE

DP#	$Q_{5\text{-YR}}$	$Q_{100\text{-YR}}$
EX 1	4.3	17.2
PR 1	4.8	17.9

N

50 25 0 50 100

ORIGINAL SCALE: 1" = 50'

PROPOSED DRAINAGE MAP

3255 HAY CREEK ROAD

JOB NO. 26013 | SHEET 1

LOCATION: CS

09/16/2026

ALL TERRAIN ENGINEERING