

DRAINAGE LETTER

STOCKPILES AT ASPEN RIDGE COLA UNPLATTED TRACT OF LAND IN THE NW QUARTER SECTION OF SECTION 9, TOWNSHIP 15S, RANGE 65W EL PASO COUNTY, COLORADO

June 2023

Prepared for:

**El Paso County Colorado
Planning and Development**
2880 International Circle, Suite 110
Colorado Springs, CO 80910

COLA

555 Middle Creek Parkway, Suite 380
Colorado Springs, CO 80921

Prepared by:



Matrix

2435 Research Parkway, Suite 300
Colorado Springs, CO 80920
(719) 575-0100
fax (719) 572-0208

Matrix Project No. 20.886.028

Add "PCD File No. CDR2312"

Engineer's Statement:

The attached drainage plan and report for the Stockpiles at Aspen Ridge was prepared by me (or under my direct supervision) and are correct to the best of my knowledge and belief. Said drainage letter and plan has been prepared in accordance with the El Paso County Drainage Criteria and the City of Colorado Springs Drainage Criteria Manual and is in conformity with the master plan of the drainage basin. I understand that El Paso County does not and will not assume liability for drainage facilities designed by others. I accept responsibility for any liability caused by any negligent acts, errors or omissions on my part in preparing this report.



Robin Allen
Registered Professional Engineer
State of Colorado #52853

Developer's Statement:

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

COLA

Business Name
By: Tim Buschar
Title: Director of Entitlement
Address: 555 Middle Creek Parkway, Suite 380
Colorado Springs, CO 80921

Developer's signature is required.

El Paso County

Filed in accordance with Section 51.1 of the El Paso Land Development Code, as amended.

Director of Public Works

Date

Conditions:

Revise EPC statement to the following:

El Paso County:

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 Palmer, P.E.
County Engineer / ECM Administrator

Date

Conditions:

Introduction

The purpose of this Drainage Letter is prepared in accordance with El Paso County criteria, which follows the City of Colorado Springs DCM, and satisfies the requirements for the proposed site revisions. The proposed site development entails moving dirt from 2 parcels East of Powers Blvd (5509200002 and 55093001134) to a piece of land west of Powers Blvd. The material will be stockpiled on parcel 5500000333 in the north ½ section of the northeast ¼ section of Section 9, Township 15S Range 65W in El Paso County, Colorado.

Currently, the site is covered in natural vegetation. The proposed site will move material from one parcel to another. The new stockpiles will be seeded and mulched, adding 0 square feet of impervious surface area to the site. The total area of the project is 117.7 acres, with 28.5 acres of soil disturbance planned. The existing 73.2 acres of the destination site is currently a vegetated, permeable surface. Adding nearby soil and reseeded the top layers will not decrease its permeability significantly, nor add any impervious surface area. The project is not part of a larger common plan.

Location

The proposed project area is situated near of the intersection of Powers Boulevard and Bradley Rd. in Fountain, Colorado, and consists of 3 undeveloped sites. As part of the Trails at Aspen Ridge Development, parcels to the east of Powers Blvd have excess dirt on parcels 5509200002 and 5509301134. Material from parcels on the east side of Powers Blvd will be relocated to the proposed site on the West side of Powers Blvd. (5500000333). The final destination for material placement is located at Latitude: 38.7597 and Longitude: -104.6862 and is bounded to the north and east by Hwy 24 (Powers Rd). Bluestem Prairie Open Space (City of Colorado Springs owned Park) borders the site on the West and the South.

The site is not located within a streamside overlay or a floodplain.

Drainage Characteristics

The existing land cover within the proposed site development area is native soil and vegetation comprised of weeds/grasses and small bushes in fair condition. The lot coverage by existing structures and paving is 0 percent. Runoff currently drains from the North to the south at an 8% grade. The proposed stockpile grading will match the existing site slope to 8% or less, in the same direction with side slopes of 3:1. Overall change to the runoff from the site is expected to be negligible as no additional flow is anticipated, given that no impervious surface area will be added to the site. Downstream infrastructure will not be impacted by the site development.

Address how flows become concentrated and are directed around stock pile area via grass swales.

Floodplain Statement

The proposed site is neither in nor adjacent to the regulatory 100-year floodpl located within FIRM #08041C0764G and FIRM #08041C0768G

Drainage Basin Fees

The site is unplatted and will remain so during this development, therefore Drainage Basin Fees for Sand Creek Drainage Basin will not be applied.

Conclusion

The proposed Stockpiles at Aspen Ridge site development does not significantly increase developed runoff values above present conditions, does not adversely impact the FEMA regulatory floodplain,

Add a statement discussing WQ treatment and the exclusion that applies to this site.

downstream or surrounding developments, and is consistent with the requirements of the El Paso County and the City of Colorado Springs DCM.

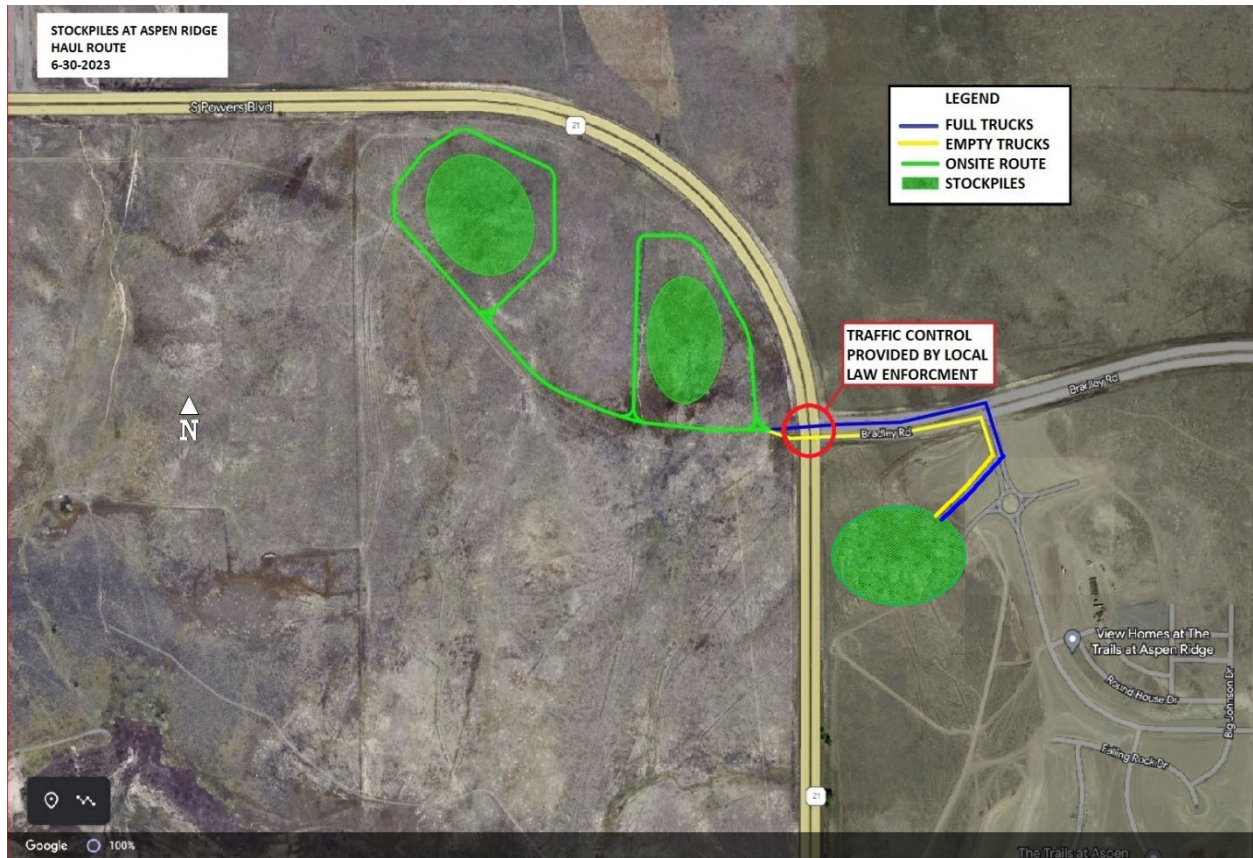
Discuss the temporary sediment basins and proposed drainage infrastructure (culverts, riprap, etc). Provide hydrological and hydraulic analysis for the basin sizing, culverts, and riprap.

Address how flows become concentrated and are directed around stock pile area via grass swales. Provide calculations for swales to ensure they can adequately handle flows.

Attachments

Vicinity Map/Haul Route
Site Plan

Vicinity Map/Haul Route



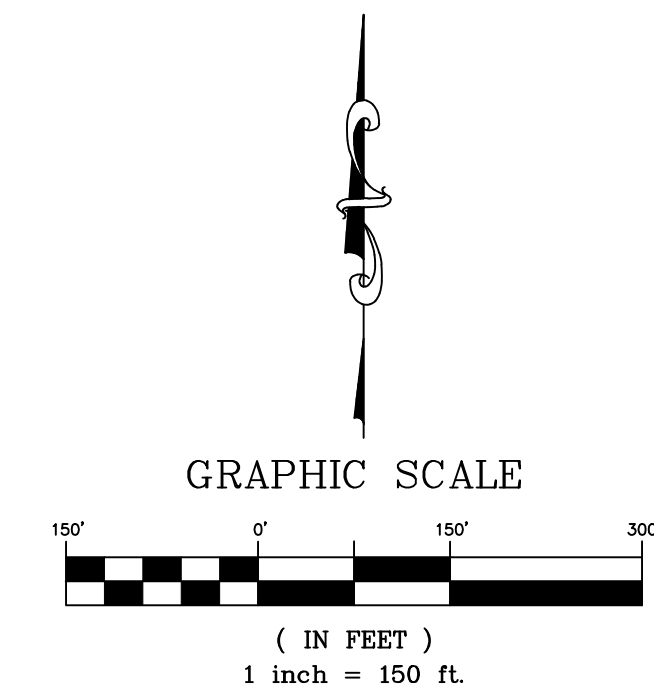
Site plan



Know what's below. Call before you dig.

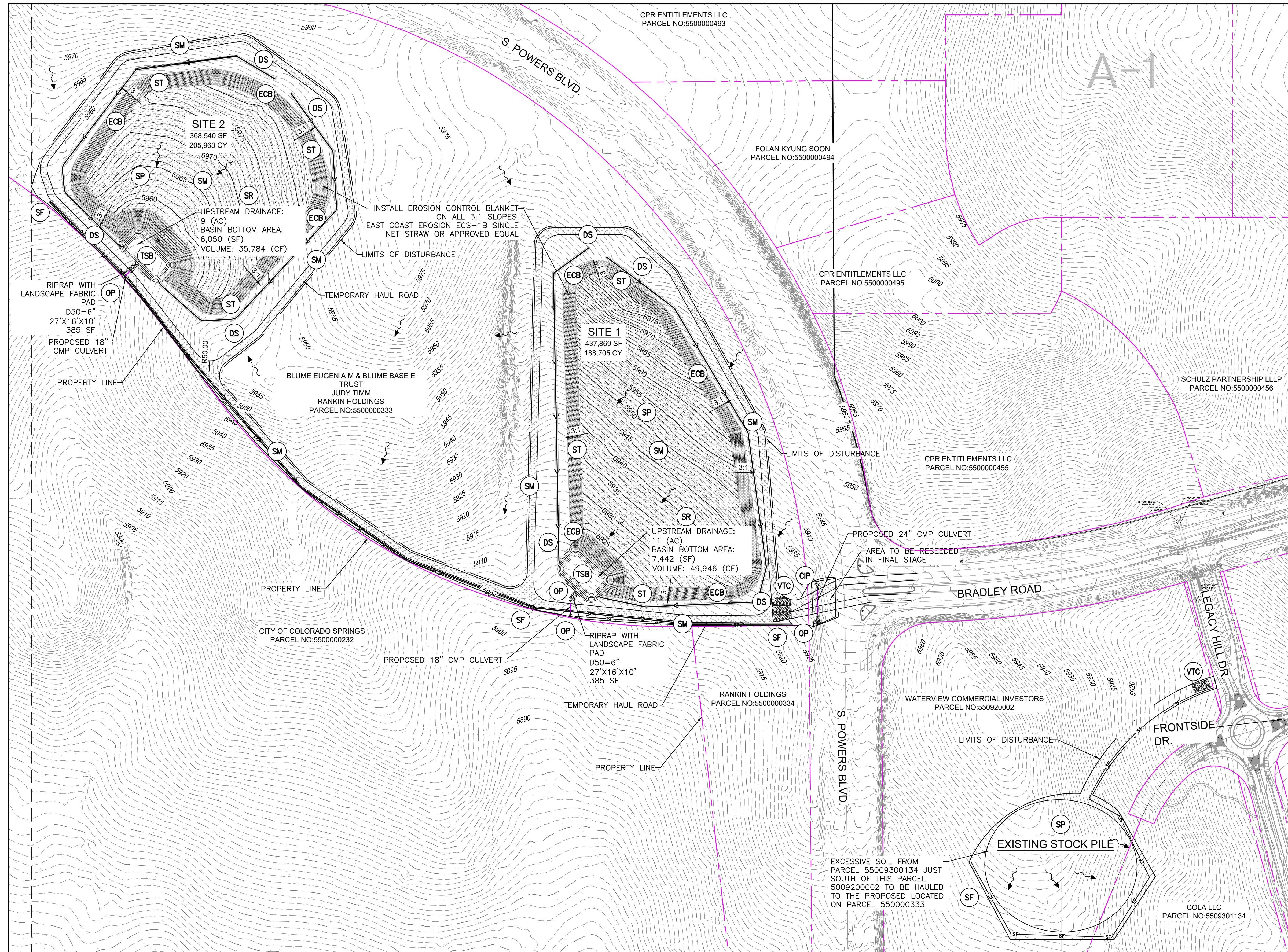
EROSION CONTROL LEGEND

INITIAL BMPS	
SF	SILT FENCE
VTC	VEHICLE TRACKING CONTROL
TSB	TEMPORARY SEDIMENT BASINS
INTERIM BMPS	
SP	STOCKPILE MANAGEMENT
SR	SURFACE ROUGHENING ON STOCKPILES SLOPES FLATTER THAN 3:1
ST	SLOPE TRACKING ON 3:1 SLOPES
FINAL BMPS	
SM	SEEDING AND MULCHING
ECB	EROSION CONTROL BLANKET IN FINAL STAGE
CIP	CULVERT INLET PROTECTION/ OUTLET PROTECTION
DS	DRAINAGE SWALE WITH EROSION CONTROL BLANKET
GENERAL ITEMS	
7050	PROPOSED CONTOURS
5975	EXISTING CONTOURS
4:1	SLOPE LABEL
	PROPERTY LINE
	LIMITS OF DISTURBANCE/ CONSTRUCTION SITE BOUNDARY
	PROPOSED TEMPORARY ROAD



- NOTES:
- ALL DRAINAGE SWALES SHALL HAVE A MINIMUM LONGITUDINAL SLOPE OF 0.5%, MINIMUM 1.5' DEPTH, AND MAXIMUM 3:1 SIDE SLOPES. LINE SWALES WITH EAST COAST EROSION ECC-2B DOUBLE NET COCONUT BIODEGRADABLE ROLLED EROSION CONTROL PRODUCT OR APPROVED EQUAL.
 - ALL EROSION CONTROL BLANKET SHALL BE INSPECTED 24-MONTHS AFTER INSTALLATION. EROSION CONTROL BLANKET MAY BE REQUIRED TO RE-INSTALLED PER MANUFACTURER SPECIFICATIONS. CONTRACTOR TO USE SLOPE TRACKING OR EROSION CONTROL BLANKET ON SLOPES 3:1 OR GREATER PER CITY STANDARDS.
 - ALL EROSION CONTROL MEASURES REQUIRED WITHIN THE INITIAL AND INTERIM PHASE OF THIS PLAN ARE TO REMAIN UNTIL FINAL STABILIZATION IS ACHIEVED UNLESS OTHERWISE NOTED.
 - AREAS WITHIN THE SITE THAT ARE INACTIVE FOR 30 DAYS OR GREATER TO BE STABILIZED WITH NATIVE SEED AS SHOWN OR ACCORDING TO AN APPROVED LANDSCAPE PLAN.
 - AREAS WITHIN THE SITE THAT ARE INACTIVE FOR 60 DAYS OR GREATER TO BE STABILIZED WITH NATIVE SEED, AS SHOWN ON SHEET ECN03.
 - CONTRACTOR TO PROVIDE DOCUMENTATION FROM GEOTECHNICAL ENGINEER TO CONFIRM STOCKPILES MAY HAVE 3:1 SIDE SLOPES WITH NO COMPACTION PRIOR TO PLACEMENT OF EROSION CONTROL BLANKET.

EPC'S EDARP FILE NUMBER: CDR2312



REFERENCE DRAWINGS	DESCRIPTION	BY
X-886-EX SURVEY		
886-pr legacy drive		
X-Title-GEC		
X-886-EX-BASE		
X-886-PR SITE_F1		
X-886-PR SITE_F2		
886-PR Legacy Drive-Roundabout		
X-Title-GEC-haul route		
Parade		

No.	DATE	DESCRIPTION	BY
REVISIONS			
COMPUTER FILE MANAGEMENT			
FILE NAME: S:\20.886.028 Trails PUDSP Major Amend\100 Dwg\104 Plan Sets\Construction Plans\GEC Plan\haul_route GEC.dwg			
CTB FILE: ---			
PLOT DATE: June 20, 2023 11:14:51 AM			
THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.			

SHEET KEY

BENCHMARK
COLORADO SPRINGS UTILITIES (FIMS) MONUMENT F206
A BERNTSEN TOP SECURITY MONUMENT SYSTEM WITH A 3.5-INCH DIAMETER ALUMINUM CAP IN A ROAD BOX, LOCATED ON THE NORTHWEST CORNER OF FONTAINE BOULEVARD AND POWERS BOULEVARD.
ELEVATION - 5897.89' U.S. SURVEY FT

BASIS OF BEARING
BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHWEST QUARTER OF SECTION 9, TOWNSHIP 15 SOUTH, RANGE 65 WEST OF THE 6TH P.M. SAID LINE BEARS S89°51'23"E FROM THE NORTHWEST CORNER OF SAID SECTION 9 (2 1/2' AULM. CAP PLS 17664) TO THE N 1/2 CORNER OF SAID SECTION 9 (3 1/2' AULM. CAP PLS 10377)

PREPARED BY:

SEAL

PRELIMINARY
THIS DRAWING HAS NOT BEEN APPROVED BY GOVERNING AGENCIES AND IS SUBJECT TO CHANGE

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT NO. 23.886.078

TRAILS AT ASPEN RIDGE - STOCKPILE					
CONSTRUCTION DRAWINGS GRADING AND EROSION CONTROL PLANS					
GRADING AND EROSION CONTROL PLAN					
DESIGNED BY:	NMS	SCALE	DATE ISSUED:	MAY 2023	DRAWING No.
DRAWN BY:	TRS	HORIZ	N/A		
CHECKED BY:	NMS	VERT.	N/A	SHEET	3 OF 8
					GEC01

V2_Drainage Letter.pdf Markup Summary

Drainage Report - County (1)



Subject: Drainage Report - County
Page Label: 2
Author: Carlos
Date: 7/17/2023 5:25:28 PM
Status:
Color: ■
Layer:
Space:

El Paso County:

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

Conditions:

SW - Textbox (1)



Subject: SW - Textbox
Page Label: 3
Author: Glenn Reese - EPC Stormwater
Date: 7/13/2023 9:17:31 AM
Status:
Color: ■
Layer:
Space:

Add a statement discussing WQ treatment and the exclusion that applies to this site.

Text Box (6)

with Section 51.1 of the El Paso Land Development



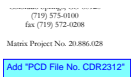
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Page Label: 2
Author: Carlos
Date: 7/17/2023 5:26:06 PM
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Revise EPC statement to the following:



Subject: Text Box
Page Label: 2
Author: Carlos
Date: 7/18/2023 7:35:39 AM
Status:
Color: ■
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Space:

Developer's signature is required.



Subject: Text Box
Page Label: 1
Author: Carlos
Date: 7/18/2023 7:40:13 AM
Status:
Color: ■
Layer:
Space:

Add "PCD File No. CDR2312"



Subject: Text Box
Page Label: 4
Author: Carlos
Date: 7/18/2023 8:13:40 AM
Status:
Color: ■
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Discuss the temporary sediment basins and proposed drainage infrastructure (culverts, riprap, etc). Provide hydrological and hydraulic analysis for the basin sizing, culverts, and riprap.

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one Drainage Basin Fees for

Subject: Text Box
Page Label: 3
Author: CDurham
Date: 7/18/2023 3:17:29 PM
Status:
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Space:

Address how flows become concentrated and are directed around stock pile area via grass swales.



Subject: Text Box
Page Label: 4
Author: CDurham
Date: 7/18/2023 3:18:17 PM
Status:
Color: ■
Layer:
Space:

Address how flows become concentrated and are directed around stock pile area via grass swales. Provide calculations for swales to ensure they can adequately handle flows.