Revise "Report" to "Letter"

Revised.

FINAL DRAINAGE REPORT

LOT 1, OWL MARKETPLACE FILING NO. 1

MURPHY OIL #7968
7440 MERIDIAN PARK DRIVE
FALCON, CO 80831

PCD File No. XXXXX

PPR244

Revised.

PREPARED FOR:
Murphy Oil USA
200 Peach Street
El Dorado, AR 71730
Contact: Grant Dennis
Phone: (870) 315-3430

PREPARED BY:
Galloway & Company, Inc.
1155 Kelly Johnson Blvd., Suite 305
Colorado Springs, CO 80920
Contact: Kyle Goodwin, P.E.
Phone: (719) 900-7220

DATE:
February 16, 2024

Signature Page
Lot 1, Owl Marketplace Filing No. 1

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.

Kyle Goodwin, PE # 63208
For and on behalf of Galloway & Company, Inc.

Date

Developer's Certification

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

By:

Date

Address: Grant Dennis
200 Peach Street
El Dorado, AR 71730

El Paso County Certification

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:

TABLE OF CONTENTS

Appendices:

A. Exhibits and Figures
B. Existing Drainage Reports
C. Hydraulic Computations
D. Hydrologic Computations
E. Drainage Maps

Additional comments may be provided after the final drainage report is approved.

Acknowledged.

I. Introduction

This document is the Final Drainage Report for Murphy Oil #7968. The purpose of this report is to show that this development is in conformance with the governing drainage documents. The project consists of a fuel dispensing facility on approxi
GSF and a
Black Squir
through an existing storm drain s
feet southwest of the project site.

Acknowledged.

The small subdivision drainage report is required for which a complete drainage report has previously been approved by the County Engineer, and no significant changes from such report are proposed. This drainage letter cannot be approved until the previous FDR gets approved. Please include the approved date once it gets approved.

The Small Subdivision Drainage
because there is a complete drainage report pending approval for the subdivision, "Final Drainage Report for Owl Marketplace Filing No. 1" (**Owl Marketplace FDR**), and the proposed site will follow existing drainage patterns.

Please include information on who prepared this report.

Revised.

Location

Lot 1, Owl Marketplace Filing No. 1 is located in the North Half of the Southeast Quarter of Section 1, Township 13 South, Range 66 West of the 6th Principal Meridian, County of El Paso, State of Colorado.

The project site is located at 7440 Meridian Park Drive, bounded to the North by Lot 2, Owl Marketplace Filing No. 1, to the South by Eastonville Road, to the West by Meridian Park Drive, and to the East by Meridian Road. A Vicinity Map is provided in **Appendix A**.

Description of Property

The site consists of an existing 1-story restaurant building and associated parking with zoning classified as CS (Commercial). The site is not located within the Streamside Zone. The existing ground is covered with gravel/dirt and scattered with native vegetation. In the present condition, the parcel drains from northeast to southwest at approximately 2% with a planned imperviousness of 95%, per **Owl Marketplace FDR**. The proposed development will have an approximate composite imperviousness of 69.3% for the overall development. The approximate disturbed area associated with this development is +/- 1.14 acres.

The property is located within the Falcon Drainage Basin as described in the "Falcon Drainage Basin Planning Study" prepared by Matrix Design Group dated October 6, 2015 (**DBPS**). This property conforms to the requirements of the **DBPS**.

Existing drainage reports are provided in **Appendix B** for reference.

Flood Insurance Rate Map

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) #08041C0553G, effective date December 7, 2018, the majority of the project site is located in Zone X (0.2% Annual Chance Flood Hazard). The western portion of the site is located within Zone A (Without Base Flood Elevation (BFE)). A copy of the FIRM map is provided in **Appendix A** for reference.

A CLOMR to modify the effective floodplain was approved by FEMA, Case No. 22-08-0669R (December 21, 2022).

Soil Survey

According to the U.S. Department of Agriculture Natural Resources Conservation Service Soil Survey of El Paso County, Colorado the primary soil found are Columbine gravelly sandy loam, classified as Soil Conservation Service (SCS) hydrologic soil group "A".

Table 1 – USDA NRCS Soil Data

Soil Name	HSG	Percent of Site
Columbine gravelly sandy loam	A	100%

The predominant on-site HSG is 'A'. Refer to **Appendix A** for soils information.

II. Existing Drainage Patterns and Features

Major Basin Description

Murphy Oil #7968 (Lot 1, Owl Marketplace Filing No. 1) is located within the MT060 drainage basin as described in the Falcon DBPS. The Falcon Watershed is located in the north central portion of El Paso County and flows southeasterly from the southern slope of the Black Forest. The Falcon watershed contains three perennial streams and has a contributing drainage area of approximately 10.6 square miles at its confluence with Black Squirrel Creek.

Existing drainage reports are provided in **Appendix B** for reference.

Existing Drainage Patterns

On-Site:

The existing drainage patterns sheet flow from northeast to southwest, entering Meridian Park Drive by flowing over top of the curb. Flows become concentrated in the existing curb and gutter on the east side of Meridian Park Drive where they are conveyed south to an existing 10' CDOT Type R Inlet (Public) near the roundabout at the intersection of Meridian Park Drive and Eastonville road. Therefore, no changes to existing drainage patterns, flows, calculations, conveyance system, and detention facilities are anticipated with this development.

Off-site flows discussed.

Please discuss existing off-site flows if there are any. This comment is applied to both drainage conditions.

Sub-Basin Descriptions

Note: Existing drainage map is provided in **Appendix D** and should be refer
basin descriptions below.

Basin D (1.08 acres, Q5 = 4.5 cfs, Q100 = 8.2 cfs): a basin that encompasses all of Lot 1, Owl Marketplace Filing No. 1 (project site). Runoff is conveyed by sheet flows to the southwestern driveway and then out into Meridian Park Drive, **DP4**. The flows are then conveyed in curb and gutter to an existing 10' CDOT Type R Inlet (Public) on the northeast corner of the roundabout at the intersection of Meridian Park Drive and Eastonville Road.

Please revise it to be Appendix E.

Revised.

III. Drainage Design Criteria

Development Criteria Reference

The analysis and design of the drainage concept and stormwater management system for this project was prepared in accordance with the criteria set forth in the El Paso County Drainage Criteria Manual (DCM) dated October 31, 2018 and supplemented by the Mile High Flood District (MHFD) Urban Storm Drainage Criteria Manual (USDCM) dated January 2016.

Hydrologic Criteria

The rational method was used to calculate peak flows as the tributary areas are less than 100 acres. An analysis of the hydrology using the rational method can be found in **Appendix C** - Hydrologic Calculations. The rational method has proved to be accurate for basins of this size and is based on the following formula:

$Q = CIA$

Where:

Q = Peak Discharge (cfs)
C = Runoff Coefficient
I = Runoff intensity (inches/hour)
A = Drainage area (acres)

The rainfall intensity calculations are based on the DCM Figure 6-5 and IDF equations. The one-hour point rainfall data for the design is listed in Table 1 below.

Table 2 - Precipitation Data

Return Period	One Hour Depth (in).	Intensity (in/hr)
5-year	1.50	5.17
100-year	2.52	8.68

*The intensities above are calculated using Tc=5 minutes

Time of concentrations have been adapted from equation 6-7 of The City of Colorado Springs Drainage Criteria Manual, Volume 1 which are as follows:

$$Tc=T_i + T_t$$

Where:

T_c = time of concentration (min)
T_i = overland (initial) flow time (min)
T_t = travel time in the ditch, channel, gutter, storm sewer, etc. (min)

Overland (Initial) Flow Time: from equations 6-8 from the City of Colorado Springs Drainage Criteria Manual, Volume 1.

$$t_t = \frac{0.395(1.1 - C_5)\sqrt{L}}{S^{0.33}}$$

Where:

T_i = overland (initial) flow (min)
C_5 = runoff coefficient for 5-year frequency
L = length of overland flow (ft) (300 ft maximum for non-urban land uses, 100 ft maximum for urban land uses)
S = average basin slope (ft/ft)

Travel Time

$V = C_v * S_w 0.5$

Where:

V = Velocity (ft/s)
C_v = conveyance coefficient
S_w = watercourse slope (ft/ft)

The runoff coefficients are calculated based on land use, percent imperviousness, and design storm for each basin, as shown in the DCM, (Table 6-6).

Hydraulic Criteria

Street Capacity

Existing streets around Lot 1, Owl Marketplace Filing No. 1 are Meridian Park Drive, local road to the west of the site, Eastonville Road, local road to the south of the site, and Meridian Road, principal arterial to the east of the site. Because overland flows from this site are reduced compared to the flows in the existing condition, street capacity is not anticipated to be exceeded.

Storm Inlets

A majority of the runoff for the site will be captured by a CDOT Type C Inlet (Private) located at the southwest corner of the site. The 10' CDOT Type R Storm Inlet (Public) at the northeast corner of the roundabout at the intersection of Meridian Park Drive and Eastonville Road receives all runoff that leaves the site into Meridian Park Drive. Due to the fact that runoff generated by this site will be reduced compared to the flows in the existing condition, respective storm inlet capacities are not anticipated to be exceeded.

Detention Pond

Sub-Regional Detention Pond, SR4 (Public), was designed as part of the **DBPS**. Excerpts from the **DBPS** with respect to the detention pond design have been included in **Appendix B** for reference. Excerpts from the **Owl Marketplace FDR** have also been included in **Appendix B** to show the planned flows entering *Sub-Regional Detention Pond, SR4 (Public)* from each lot of Owl Marketplace Filing No. 1. With generated runoff from this site being reduced compared to the flows anticipated in the above referenced

Swales are shown on Landscape Plan as being "rock cobble mulch." Revise to remove discrepancy.

Revised. Swale lining changed to native seed.

reports, the *Sub-Regional Detention Pond, SR4 (Public)* has capacity to accommodate full-spectrum detention for the proposed project site.

Four Step Process

The Four Step Process is used to minimize the adverse impacts of urbanization and is a vital component of developing a balanced, sustainable project. Below identifies the approach to the four-step process:

Please clarify this. Do you mean "from" or "beneath" drive aisles?

Beneath added.

1. **Employ Runoff Reduction Practices**
   This step uses low impact development (LID) practices to reduce runoff at the source. Generally, rather than creating point discharges that are directly connected to impervious areas, runoff is routed through pervious areas to promote infiltration. The roof drains for the proposed fueling canopy will drain directly to proposed conveyance pipe drive aisles and connect to the proposed CDOT Type C Storm Inlet (Private) in the southwest corner of the site. The remainder of hardscaped surfaces sheet flow across the site to the south and west to the landscaped area, including grassed swale, between the proposed parking lot and Meridian Park Drive to the west, where it will enter the existing storm drain system through the proposed CDOT Type C Storm Inlet (Private) in the southwest corner of the site. Planned Infiltration Areas (PIA) have been designed to serve as Receiving Pervious Areas (RPA) mitigating the impacts of the on-site impervious areas. The proposed drainage plan incorporates the landscaping to the south and west of the site to receive the flows from hardscaped areas, including the drive aisles, sidewalks, and convenience store roof.

2. **Implement CM's That Provide**
   The proposed development util
   runoff from the site. An existing
   volume for the new developme
   will be provided for 100% of the
   Detention Pond, SR4 (Public).
   receive runoff from this site at a
   proposed development will not
   system, or the existing detention pond (Public). The proposed disturbed areas
   ultimately be captured and treated by the existing Sub-Regional Detention Por

Please provide excerpts describing the existing regional pond, including text, calculations, and a map demonstrating its accountability for managing runoff from the project. Please confirm if the existing pond meets current criteria and is functioning properly.

All calculations on the site meeting the criteria of the existing pond should be shown in the Owl Marketplace FDR by Drexel, Barrell. This was discussed in a meeting with Glenn Reese and Hao Vo. This drainage letter will show that we conform to that FDR.

3. **Stabilize Drainageways**
   This step implements stabilization of channels to accommodate developed flows while protecting infrastructure and controlling sediment loading from erosion in the drainageways. All new re-development projects are required to construct or participate in the funding of channel stabilization within the drainage basin. Black Squirrel Creek has had improvements made in the past to stabilize it, as well as proposed improvements as part of the proposed developments immediately upstream. The proposed development is approximately 1,200-ft northeast of the outlet to Sub Regional Pond SR4 and Black Squirrel Creek that the adjacent public storm drain system discharges to.

4. **Implement Site Specific and Other Source Control Measures**
   The biggest source control BMP is public education which can be found on the El Paso County website and discuss topics such as: pet waste, car washing, private maintenance landscaping,

Given the "high-risk" nature of gas stations, please consider some form of onsite pre-treatment for hydrocarbons. Specialized BMPs are requested for high-risk sites. See ECM App I.7.2 for info on high-risk sites and Specialized BMPs.

Pretreatment added to the proposed inlet.

fall leaves, and snow melt and deicer. A no vehicle maintenance policy will be enforced to avoid the potential contaminations caused from vehicle fluid replacement, and equipment replacement and repair. In addition, the landscaping and snow removal is handled completely by the property management to ensure proper lawn mowing and grass clipping disposal, lawn aeration, and fertilizer application is being followed. Snow removal will also be handled by the property manager to ensure proper consideration of snow pile placement and use of deicing chemicals.

IV. Proposed Drainage Patterns and Fe

Please state whether the grassed swale are proposed or existing.

Revised.

Proposed Drainage Plan

On-Site:

The proposed condition of the project site consists of a 1-story convenience store building and a fuel canopy with 6 multi-dispenser pumps with one shared access driveway to Meridian Park Drive on the northwest corner of the property. The drainage design maintains existing drainage patterns by sheet flowing runoff through the site to a grassed swale along the western and southern borders of the site. The swale then directs flows to a CDOT Type C Storm Inlet (Private) located at the southwest corner of the site. Portion of the site to the north and south sheet flow runoff into Meridian Park Drive to be captured by the existing 10' CDOT Type R Storm Inlet (Public) located at the northeast corner of the roundabout at the intersection of Meridian Park Drive and Eastonville Road.

The existing imperviousness of Basin D (see the Existing Drainage Map in **Appendix D**) is 95.0% of the basin (1.03 acres of imperviousness). The proposed basin delineation of this area includes Basins A-1, A-2, B-1, and B-2 (see the Proposed Drainage Map in **Appendix D**) and will have a proposed imperviousness of 69.3% (0.77 acres of imperviousness). This will provide reduced runoff in this area of the site compared to the planned imperviousness, per the **Owl Marketplace FDR.**

The overall planned imperviousness of the site (overall site acreage = 1.11 acres) is 95.0% (1.11 x 0.93 = 1.05 acres of imperviousness), per the **Owl Marketplace FDR**. The proposed imperviousness of the site is 69.3% (1.11 x 0.693 = 0.77 acres of imperviousness). The reduced runoff for the overall project site presents no adverse impacts to the overall development and is in conformance with the governing drainage documents.

Please revise to be Appendix E.

Revised.

Sub-Basin Descriptions

Note: a proposed drainage map is provided in **Appendix D** and should be referenced when reading the basin descriptions below.

Basin A-1 (0.84 acres, Q5 = 1.37 cfs, Q100 = 3.57 cfs): a basin that encompasses the majority of Lot 1, Owl Marketplace Filing No. 1 (project site). Runoff is conveyed by sheet flows and in curb and gutter directed to a grassed swale along the western and southern borders of the site. The proposed roof is pitched in one direction, forcing runoff to the south where runoff is directed to roof drains utilizing internal piping that daylight into the grassed swale. Runoff is ultimately directed into a CDOT Type C Storm Inlet (Private), **DP1**. A portion of the basin encompasses the roof of the convenience store building. The flows are then conveyed in pipes through the existing storm drain system.

Please state this is a private proposed sump inlet to match the drainage map. Please indicate the emergency pathway if the inlet gets clogged

Revised.

Basin A-2 (0.09 acres, Q5 = 0.32 cfs, Q100 = 0.70 cfs): a basin that encompasses the roof of the fuel canopy. The proposed roof is pitched so that runoff is directed to roof drains connected to internal piping in the canopy columns. The internal piping connects to proposed PVC storm pipe (Private) running underneath the canopy to the southwest. The proposed storm system conveys flows to a CDOT Type C Storm Inlet (Private), **DP1.** The flows are then conveyed in pipes through the existing storm drain system.

Basin B-1 (0.14 acres, Q5 = 0.42 cfs, Q100 = 0.94 cfs): a basin that covers an area along the northern border of the site. Runoff sheet flows to the west where it leaves the site through the driveway entrance. Flows are then conveyed in curb and gutter, ultimately captured in an existing 10' CDOT Type R Storm Inlet (Public). The flows are then conveyed in pipes through the existing storm drain system.

Basin B-2 (0.04 acres, Q5 = 0.00 cfs, Q100 = 0.03 cfs): a basin that encompasses a portion of the landscape area along the southern property line of Lot 1, Owl Marketplace Filing No. 1. Runoff sheet flows to the southwest to existing curb and gutter and into the existing 10' CDOT Type R Storm Inlet (Public). The flows are then conveyed in pipes through the existing storm drain system.

A table has been provided below to show the difference in area and runoff between the original values of the basins described above from the planned condition:

	PLANNED SITE				PROPOSED SITE				
BASIN	AREA (Ac)	Q5	Q100	IMPERVIOUSNESS	BASIN	AREA (Ac)	Q5	Q100	IMPERVIOUSNESS
D	1.08	4.5	8.2	95.0%	A-1, A-2, B-1, B-2	1.11	2.1	5.3	69.3%

V. Basin Fees

The project is located within the Falcon Drainage Basin. The property is already platted, therefore no drainage basin fees are required.

IV. Conclusion

This Final Drainage Letter for Lot 1, Owl Marketplace Filing No. 1 has demonstrated that the proposed development will comply with the governing DCM, DBPS, and El Paso County MS4 permit. The downstream facilities are adequate to protect the runoff proposed from the site. The site runoff will not adversely affect the downstream and surrounding developments. Therefore, we recommend approval of the proposed development.

Variances

No variances are being requested at this time. Any variances that arise at the construction plan stage will be addressed within an FDR Amendment.

V. References

1. *Drainage Criteria Manual,* El Paso County, dated October 31, 2018.

2. *Urban Storm Drainage Criteria Manual,* Urban Drainage and Flood Control District, latest revision.

3. Flood Insurance Rate Map – El Paso County, Colorado and Incorporated Areas Community Panel No. 08041C0553G, Effective December 7th, 2018.

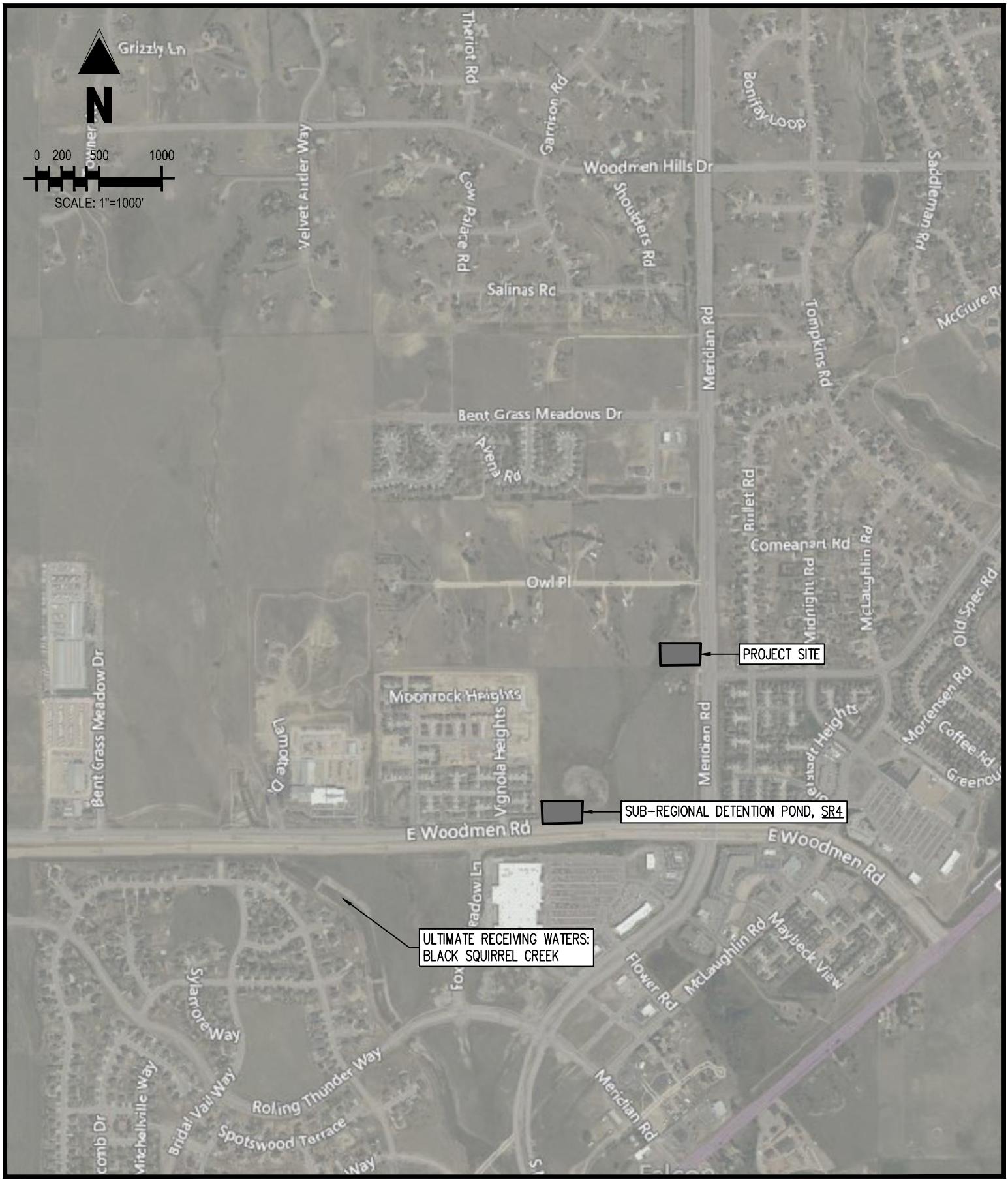
4. Soil Map – El Paso County Area, Colorado as available through the Natural Resources Conservation Service National Cooperative Soil Survey web site via Web Soil Survey 2.0.

5. "Final Drainage Report for Owl Marketplace Filing No. 1" prepared by Drexel, Barrell & Co., dated January 2023.

6. "Falcon Drainage Basin Planning Study" prepared by Matrix Design Group, dated October 6th, 2015. (**DBPS**)

APPENDIX A

EXHIBITS AND FIGURES



LOT 1, OWL MARKETPLACE FILING NO. 1
MURPHY OIL #7968

7440 MERIDIAN PARK DRIVE
FALCON, CO 80831

VICINITY MAP

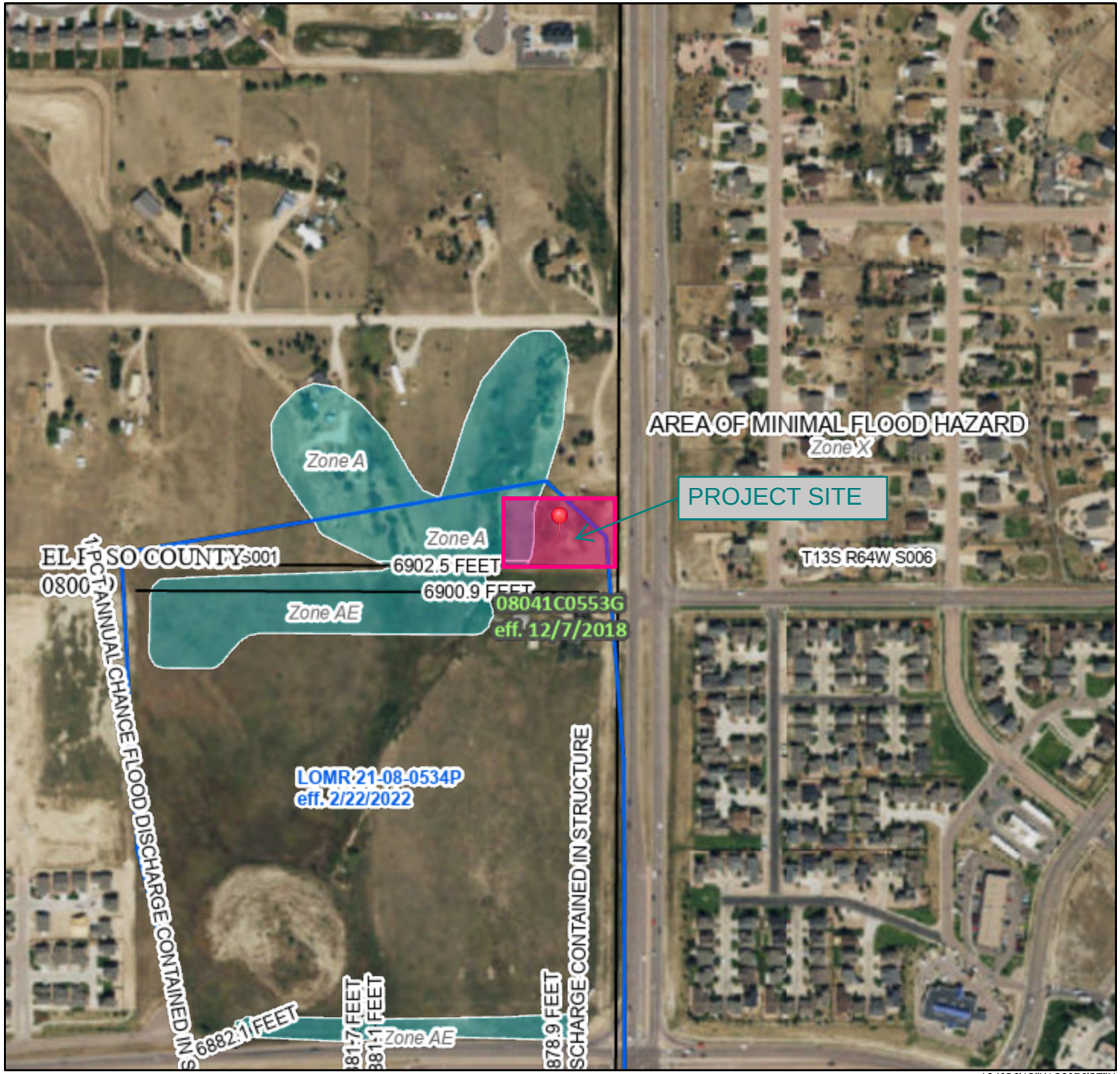
Project No:	MOC99
Drawn By:	ASA
Checked By:	KG
Date:	02/16/2024

Galloway
1155 Kelly Johnson Blvd., Suite 305
Colorado Springs, CO 80920
719.900.7220 • GallowayUS.com

National Flood Hazard Layer FIRMette

FEMA

104°36'49"W 38°56'55"N



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

1:6,000

104°36'12"W 38°56'27"N

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 2/6/2024 at 8:31 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.

Map Scale: 1:596 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 5 10 20 30

Feet
0 25 50 100 150

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 Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

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 21, Aug 24, 2023

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

Date(s) aerial images were photographed: Sep 11, 2018—Oct 20, 2018

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.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
19	Columbine gravelly sandy loam, 0 to 3 percent slopes	1.8	100.0%
Totals for Area of Interest		**1.8**	**100.0%**

El Paso County Area, Colorado

19—Columbine gravelly sandy loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 367p
Elevation: 6,500 to 7,300 feet
Mean annual precipitation: 14 to 16 inches
Mean annual air temperature: 46 to 50 degrees F
Frost-free period: 125 to 145 days
Farmland classification: Not prime farmland

Map Unit Composition

Columbine and similar soils: 97 percent
Minor components: 3 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Columbine

Setting

Landform: Flood plains, fan terraces, fans
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium

Typical profile

A - 0 to 14 inches: gravelly sandy loam
C - 14 to 60 inches: very gravelly loamy sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.5 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: A
Ecological site: R049XY214CO - Gravelly Foothill
Hydric soil rating: No

Minor Components

Fluvaquentic haplaquolls

Percent of map unit: 1 percent

Landform: Swales
Hydric soil rating: Yes

Other soils
Percent of map unit: 1 percent
Hydric soil rating: No

Pleasant
Percent of map unit: 1 percent
Landform: Depressions
Hydric soil rating: Yes

Data Source Information

Soil Survey Area: El Paso County Area, Colorado
Survey Area Data: Version 21, Aug 24, 2023

APPENDIX B

EXISTING DRAINAGE REPORTS

This FDR has not been approved. Please update the excerpt once it gets approved. This comment stays unresolved until FDR gets approved and updated.

Acknowledged.

FINAL DRAINAGE REPORT

for

OWL MARKETPLACE FILNG NO. 1

Falcon, Colorado

January 2024

Prepared for:

Meridian & Owl X, LLC
450 N McClintock Drive
Chandler, AZ 85226
Contact: Brian Zurek
(480)-313-2724

Prepared by:

Drexel, Barrell & Co.
3 South 7th Street
Colorado Springs, CO 80905
Contact: Tim McConnell, P.E.
(719) 260-0887

El Paso County File No. VR2321

(Basin A). Flows continue south from this manhole via proposed public 24" RCP storm sewer.

Design Point 3 is located at the manhole where Basin C combines with Design Point DP2. Flows continue south from this manhole via proposed public 24" RCP storm sewer.

Rational Method Runoff Summary

DEVELOPED				
BASIN	**DP**	**Area (Ac.)**	**Q_5 (CFS)**	**Q_{100} (CFS)**
A	1	1.27	5.2	9.5
B		0.68	2.8	5.1
	2	1.95	8.0	14.5
C		1.07	4.4	8.0
	3	3.02	12.2	22.2
D	4	1.08	4.5	8.2
	5	0.00	0.6	1.5
	6	0.00	1.0	2.1
E		0.83	3.5	6.3
	7	1.91	8.2	15.3
F		0.53	2.4	4.4
	8	0.53	3.4	6.5
	9	5.46	22.8	42.2
G	10	0.23	0.1	0.6
H	11	0.11	0.0	0.3

Design Point 4 is located at the proposed temporary sediment basin and subsequent private 18" RCP storm sewer stub for the southernmost basin D.

Due to the concurrent development to the north (Falcon Ranchettes Filing No. 1a – Meridian Storage), the flowrates entering this property from the north are based on those defined in the aforementioned report for Falcon Ranchettes Filing No. 1a, by Galloway & Co. See appendix for excerpts and further information. **Design Point 5** receives rates of Q_5=0.6 cfs and Q_{100}=1.5 cfs (identified as DP12 in Galloway report) and **Design Point 6** (identified as DP13 in the Galloway report) receives flows of Q_5=1.0 cfs and Q_{100}=2.1 cfs. These design points are located at the north end of Meridian Park Drive at Owl Place. These flows are inclusive of any bypass flow from the proposed upstream at-grade inlets, and are straight added to the downstream design points further described in this report.

Basin E covers 0.84-acres and includes Owl Place along the property boundary to the north, as well as the eastern half of the proposed Meridian Park Drive. Within the basin, flows will travel west along proposed curb and gutter on Owl Place, before combining with those flows from Design Point 5, turning south and traveling along the proposed easterly curb and gutter of Meridian Park Drive. Flows will be captured in their entirety by a proposed public 10' Type R sump inlet located at **Design Point 7.** Emergency overflow for this inlet is to the east behind the curb, and south to the existing inlet on Eastonville Road.

Basin F represents the western half of Meridian Park Drive and a small portion of the southwestern part of Owl Place. Runoff from this basin, which totals 0.53 acres in size, will combine with that from Design Point 6 and travel to the south along the westerly curb line

PROJECT INFORMATION

PROJECT:	Owl Marketplace
PROJECT NO:	21611-01CSCV
DESIGN BY:	KGV
REV. BY:	TDM
AGENCY:	El Paso County
REPORT TYPE:	Final
DATE:	1/5/2024

Drexel, Barrell & Co.

	C2*	C5*	C10*	C100*	% IMPERV
Business - Commercial Area		0.81		0.88	95
Pasture/Meadow/Lawn		0.08		0.35	0
Streets - Gravel		0.90		0.96	100
Streets - Paved		0.90		0.96	100

*C-Values and Basin Imperviousness based on Table 6-6, City of Colorado Springs Drainage Criteria Manual

C	Business - Commercial Area	*1.07*		*0.81*		*0.88*	*95*
	Pasture/Meadow/Lawn	*0.00*		*0.08*		*0.35*	*0*
	Streets - Paved	*0.00*		*0.90*		*0.96*	*100*
C TOTAL	*WEIGHTED AVERAGE*	1.07		0.81		0.88	95
D	Business - Commercial Area	*1.08*		*0.81*		*0.88*	*95*
	Pasture/Meadow/Lawn	*0.00*		*0.08*		*0.35*	*0*
	Streets - Paved	*0.00*		*0.90*		*0.96*	*100*
D TOTAL	*WEIGHTED AVERAGE*	1.08		0.81		0.88	95
E	Business - Commercial Area	*0.00*		*0.81*		*0.88*	*95*
	Pasture/Meadow/Lawn	*0.00*		*0.08*		*0.35*	*0*
	Streets - Paved	*0.83*		*0.90*		*0.96*	*100*
E TOTAL	*WEIGHTED AVERAGE*	0.83		0.90		0.96	100
F	Business - Commercial Area	*0.00*		*0.81*		*0.88*	*95*
	Pasture/Meadow/Lawn	*0.00*		*0.08*		*0.35*	*0*
	Streets - Paved	*0.53*		*0.90*		*0.96*	*100*
F TOTAL	*WEIGHTED AVERAGE*	0.53		0.90		0.96	100
G	Business - Commercial Area	*0.00*		*0.81*		*0.88*	*95*
	Pasture/Meadow/Lawn	*0.23*		*0.08*		*0.35*	*0*
	Streets - Paved	*0.00*		*0.90*		*0.96*	*100*
G TOTAL	*WEIGHTED AVERAGE*	0.23		0.08		0.35	0
H	Business - Commercial Area	*0.00*		*0.81*		*0.88*	*95*
	Pasture/Meadow/Lawn	*0.11*		*0.08*		*0.35*	*0*
	Streets - Paved	*0.00*		*0.90*		*0.96*	*100*
H TOTAL	*WEIGHTED AVERAGE*	0.11		0.08		0.35	0

PROJECT INFORMATION

PROJECT: Owl Marketplace
PROJECT NO: 21611-01CSCV
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REV. BY: TDM
AGENCY: El Paso County
REPORT TYPE: Final
DATE: 1/5/2024

Drexel, Barrell & Co.

RATIONAL METHOD CALCULATIONS FOR STORM WATER RUNOFF

DEVELOPED TIME OF CONCENTRATION STANDARD FORM SF-2

SUB-BASIN DATA					INITIAL/OVERLAND TIME (t_i)			TRAVEL TIME (t_t)				TIME OF CONC. t_c		FINAL t_c
BASIN	DESIGN PT:	C_5	C_{100}	AREA	LENGTH	SLOPE	t_i	LENGTH	SLOPE	VEL.	t_t	COMP.	*MINIMUM*	
				Ac	Ft	%	Min	Ft	%	FPS	Min	t_c	t_c	Min
EXISTING														
RMT064	**X1**	Flow directly added												
OSE1	**E1**	0.20	0.41	1.26	100	3.0	11.7	150	1.0	1.5	1.7	13.3	*5.0*	**13.3**
E2		0.08	0.35	1.95	100	2.0	15.1	340	3.0	4.3	1.3	16.5	*5.0*	**16.5**
OS1+E2	**E2**	0.13	0.37	3.21	From OSE1		13.3	350	3.0	4.3	1.4	14.7	*5.0*	**14.7**
E3	**E3**	0.08	0.35	2.34	100	2.0	15.1	410	3.0	4.3	1.6	16.7	*5.0*	**16.7**
E4	**E4**	0.08	0.35	0.33	50	2.0	10.7	550	2.0	3.8	2.4	13.1	*5.0*	**13.1**
MT060	**X2**	Flow directly added												
DEVELOPED														
A	**1**	0.81	0.88	1.27	50	3.0	2.7	366	2.3	4.3	1.4	4.1	*5.0*	**5.0**
B		0.81	0.88	0.68	50	3.0	2.7	291	2.5	4.3	1.1	3.8	*5.0*	**5.0**
DP1+B	**2**	0.81	0.88	1.95	From DP1		5.0	110	1.4	11.3	0.2	5.2	*5.0*	**5.2**
C		0.81	0.88	1.07	50	3.0	2.7	318	2.5	4.3	1.2	3.9	*5.0*	**5.0**
DP2+C	**3**	0.81	0.88	3.02	From DP2		5.2	167	1.3	11.3	0.2	5.4	*5.0*	**5.4**
D	**4**	0.81	0.88	1.08	50	3.0	2.7	270	2.3	4.3	1.0	3.7	*5.0*	**5.0**
Offsite	**5**	Flow directly added from offsite basin - Falcon Ranchettes #1A DP12												
Offsite 2	**6**	Flow directly added from offsite basin - Falcon Ranchettes #1A DP13												
E		0.90	0.96	0.83	50	2.0	2.1	1036	2.0	3.8	4.5	6.6	*5.0*	**6.6**
DP4+DP5+E	**7**	0.85	0.91	1.91	From Basin E		6.6					6.6	*5.0*	**6.6**
F		0.90	0.96	0.53	50	2.0	2.1	617	1.5	3.8	2.7	4.8	*5.0*	**5.0**
DP6+F	**8**	0.90	0.96	0.53	From Basin F		5.0				0.0	5.0	*5.0*	**5.0**
DP3+DP7+DP8	**9**	0.83	0.90	5.46	From DP7		6.6	45	1.2	11.3	0.1	6.7	*5.0*	**6.7**
G	**10**	0.08	0.35	0.23	50	20.0	5.0	669	1.7	3.8	2.9	7.9	*5.0*	**7.9**
H	**11**	0.08	0.35	0.11	50	20.0	5.0					5.0	*5.0*	**5.0**

PROJECT INFORMATION

PROJECT:	Owl Marketplace
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DESIGN BY:	KGV
REV. BY:	TDM
AGENCY:	El Paso County
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DATE:	1/5/2024

Drexel, Barrell & Co.

RATIONAL METHOD CALCULATIONS FOR STORM WATER RUNOFF

DEVELOPED RUNOFF — **5 YR STORM** — **P1= 1.50**

BASIN (S)	DIRECT RUNOFF						
	DESIGN POINT	AREA (AC)	RUNOFF COEFF	t_c (MIN)	C * A	I (IN/HR)	Q (CFS)
EXISTING							
RMT064	X1						**288.5**
OSE1	E1	1.26	0.20	13.3	0.25	3.60	**0.9**
E2		1.95	0.08	16.5	0.16	3.26	**0.5**
	E2	3.21	0.13	14.7	0.41	3.44	**1.4**
E3	E3	2.34	0.08	16.7	0.19	3.23	**0.6**
E4	E4	0.33	0.08	13.1	0.03	3.62	**0.1**
MT060	X2						**60.1**
DEVELOPED							
A	1	1.27	0.81	5.0	1.03	5.09	**5.2**
B		0.68	0.81	5.0	0.55	5.09	**2.8**
	2	1.95	0.81	5.2	1.58	5.04	**8.0**
C		1.07	0.81	5.0	0.86	5.09	**4.4**
	3	3.02	0.81	5.4	2.44	4.98	**12.2**
D	4	1.08	0.81	5.0	0.88	5.09	**4.5**
	5						**0.6**
	6						**1.0**
E		0.83	0.90	6.6	0.74	4.69	**3.5**
	7	1.91	0.85	6.6	1.62	4.69	**8.2**
F		0.53	0.90	5.0	0.48	5.09	**2.4**
	8	0.53	0.90	5.0	0.48	5.09	**3.4**
	9	5.46	0.83	6.7	4.54	4.67	**22.8**
G	10	0.23	0.08	7.9	0.02	4.43	**0.1**
H	11	0.11	0.08	5.0	0.01	5.09	**0.0**

PROJECT INFORMATION

PROJECT:	Owl Marketplace
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DESIGN BY:	KGV
REV. BY:	TDM
AGENCY:	El Paso County
REPORT TYPE:	Final
DATE:	1/5/2024

Drexel, Barrell & Co.

RATIONAL METHOD CALCULATIONS FOR STORM WATER RUNOFF

DEVELOPED RUNOFF **100 YR STORM** **P1= 2.52**

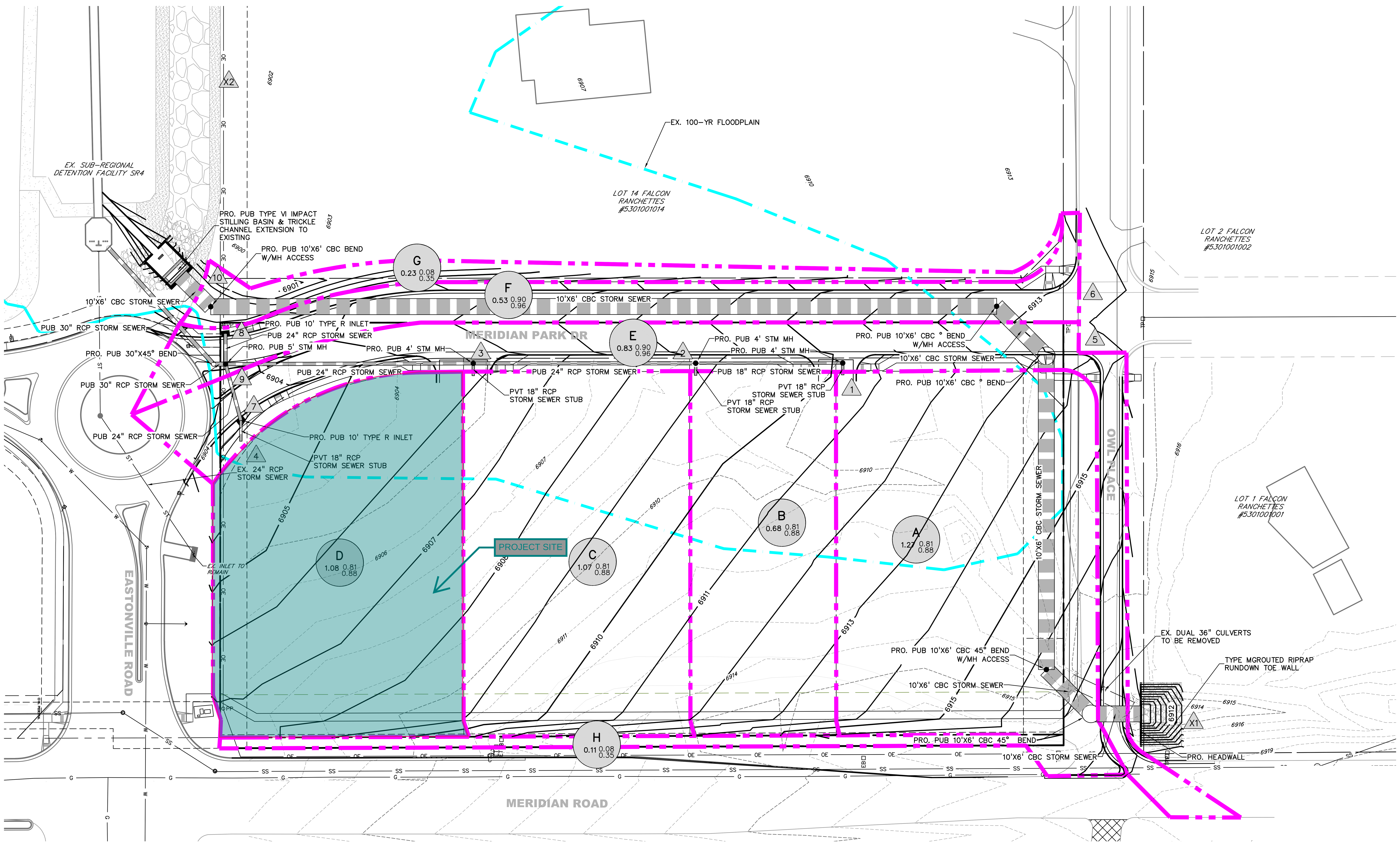
BASIN (S)	DIRECT RUNOFF						
	DESIGN POINT	AREA (AC)	RUNOFF COEFF	t_c (MIN)	C * A	I (IN/HR)	Q (CFS)
EXISTING							
RMT064	X1						**920.0**
OSE1	E1	1.26	0.41	13.3	0.52	6.04	**3.1**
E2		1.95	0.35	16.5	0.68	5.47	**3.7**
	E2	3.21	0.37	14.7	1.20	5.78	**6.9**
E3	E3	2.34	0.35	16.7	0.82	5.43	**4.4**
E4	E4	0.33	0.35	13.1	0.12	6.08	**0.7**
MT060	X2						**196.8**
DEVELOPED							
A	1	1.27	0.88	5.0	1.11	8.55	**9.5**
B		0.68	0.88	5.0	0.60	8.55	**5.1**
	2	1.95	0.88	5.2	1.72	8.48	**14.5**
C		1.07	0.88	5.0	0.94	8.55	**8.0**
	3	3.02	0.88	5.4	2.65	8.37	**22.2**
D	4	1.08	0.88	5.0	0.95	8.55	**8.2**
	5						**1.5**
	6						**2.1**
E		0.83	0.96	6.6	0.79	7.88	**6.3**
	7	1.91	0.91	6.6	1.75	7.88	**15.3**
F		0.53	0.96	5.0	0.51	8.55	**4.4**
	8	0.53	0.96	5.0	0.51	8.55	**6.5**
	9	5.46	0.90	6.7	4.91	7.85	**42.2**
G	10	0.23	0.35	7.9	0.08	7.44	**0.6**
H	11	0.11	0.35	5.0	0.04	8.55	**0.3**

LEGEND

- EX. MINOR CONTOUR
- EX. MAJOR CONTOUR (6800)
- PR. MINOR CONTOUR
- PR. MAJOR CONTOUR (6800)
- STORM DRAIN
- EX. STORM DRAIN (ST)
- FLOODPLAIN BOUNDARY
- BASIN BOUNDARY
- FLOW DIRECTION
- DESIGN POINT (D2)
- BASIN (OS-1), AREA (ACRE), C5, C100

DEVELOPED				
BASIN	DP	Area (Ac.)	Q_5 (CFS)	Q_{100} (CFS)
A	1	1.27	5.2	9.5
B		0.68	2.8	5.1
	2	1.95	8.0	14.5
C		1.07	4.4	8.0
	3	3.02	12.2	22.2
D	4	1.08	4.5	8.2
	5	0.00	0.6	1.5
	6	0.00	1.0	2.1
E		0.83	3.5	6.3
	7	1.91	8.2	15.3
F		0.53	2.4	4.4
	8	0.53	3.4	6.5
	9	5.46	22.8	42.2
G	10	0.23	0.1	0.6
H	11	0.11	0.0	0.3

40 0 40 80
SCALE: 1"=40'



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450 N MCCLINTOCK DRIVE
CHANDLER, AZ 85226
(480) 313-2724

DRAINAGE PLANS FOR:
OWL MARKETPLACE
FALCON, COLORADO

ISSUE	DATE
INITIAL ISSUE	9-29-2023
RESUBMITTAL	1-4-2024

DESIGNED BY:	KGV
DRAWN BY:	CGH
CHECKED BY:	TDM
FILE NAME:	21611-DRN-PP

PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF DREXEL, BARRELL & CO.

DRAWING SCALE:
HORIZONTAL: 1" = 40"
VERTICAL: N/A

PROPOSED DRAINAGE MAP

PROJECT NO. 21611-01CSCV
DRAWING NO.
DRN
SHEET: 2 OF 2

FALCON DRAINAGE BASIN PLANNING STUDY

SELECTED PLAN REPORT

FINAL - SEPTEMBER 2015

Prepared for:

El Paso County Public Services Department
3275 Akers Drive
Colorado Springs, CO 80922

Prepared By:

Matrix Design Group
2435 Research Parkway, Suite 300
Colorado Springs, CO 80920

Matrix Project No. 10.122.003

Sheet 6-23
Falcon DBPS
Conceptual Plan
Middle Tributary
El Paso County, CO

MT 6 - Woodmen Rd.
EX Size: 4' Circular RCP (x3)
PR Size: 5' Circular RCP (x3)
* Sub-Regional Pond SR4 will be designed to mitigate capacity issues.

Floodplain Enters Underground Storm System

Sub Regional Pond SR4
WQCV = 7.3 AF
100-yr Volume = 19 AF
$Q_{2\ in}$ = 130 cfs
$Q_{2\ out}$ = 27 cfs
$Q_{100\ in}$ = 1000 cfs
$Q_{100\ out}$ = 730 cfs
See Detail on Sheet 6-55

MT 7 - Owl Place
EX Size: 1.75' (W) x 1.25' (H) CMP Elliptical (x4)
PR Size: 4' (W) x 2' (H) Concrete Box (x9)
* Road profile would need to be raised to implement a feasible solution.

MT 6-2 - Woodmen Rd.
EX Size: 4' Circular RCP (x3)
PR Size: 5' Circular RCP (x3)
* Sub-Regional Pond SR4 will be designed to mitigate capacity issues.

Small Drop Structure
See Detail on Sheet 6-54

Future conveyance from Meridian Rd roadside ditch TBD

Note:
Infrastructure and channel improvements shown may vary slightly from the final list published in the accompanying report as a result of fee revisions that have occurred following the preparation of this figure. For current information as of September 2015, please see tables in Section 6 of the accompanying report.

Drainageway Crossing
Stream Centerline
Existing Approximate 100-yr Floodplain*
Floodplain Study Limit

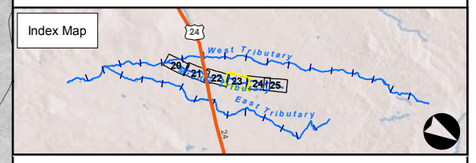
Storm Sewer
Inlet
Manhole
Pipe

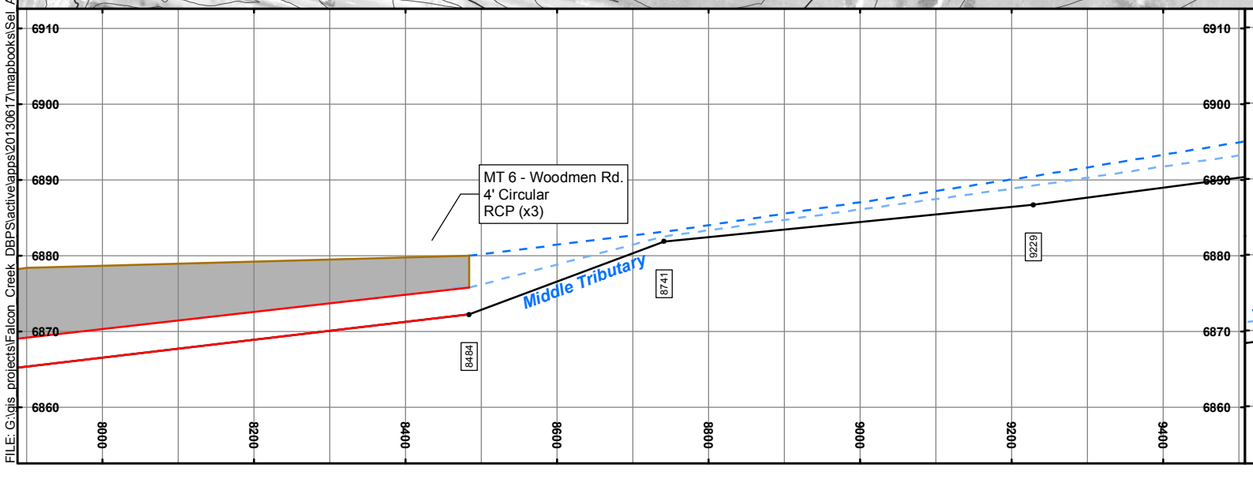
Reach Improvements
Natural Channel Design
Protect In Place
Roadside Ditch Improvement
Small Drop Structures w/ Toe Protection
Existing Detention
Proposed Detention
Proposed Detention Grading
Small Drop Structure
Cross Vane
Immediate Action Required to Preserve Existing Condition

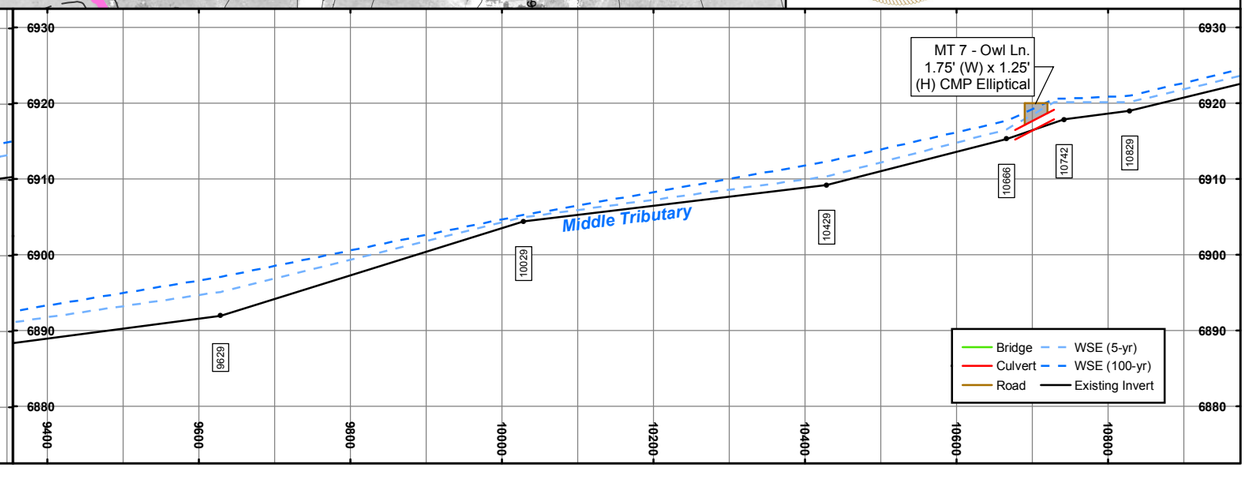
0 100 200 Feet

* These approximate 100-yr floodplain boundaries are for planning purposes only. This information is not intended to replace the information provided on the FEMA Flood Insurance Rate Maps for this area.
** These are conceptual design drawings and are subject to change. These drawings are not intended for construction purposes.

Index Map







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APPENDIX C

HYDRAULIC COMPUTATIONS

Worksheet for Grassed Swale

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.030	
Channel Slope	0.01500	ft/ft
Left Side Slope	4.00	ft/ft (H:V)
Right Side Slope	4.00	ft/ft (H:V)
Bottom Width	1.00	ft
Discharge	3.57	ft^3/s

Results

Normal Depth	0.47	ft
Flow Area	1.38	ft^2
Wetted Perimeter	4.91	ft
Hydraulic Radius	0.28	ft
Top Width	4.80	ft
Critical Depth	0.44	ft
Critical Slope	0.02098	ft/ft
Velocity	2.60	ft/s
Velocity Head	0.10	ft
Specific Energy	0.58	ft
Froude Number	0.85	
Flow Type	Subcritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

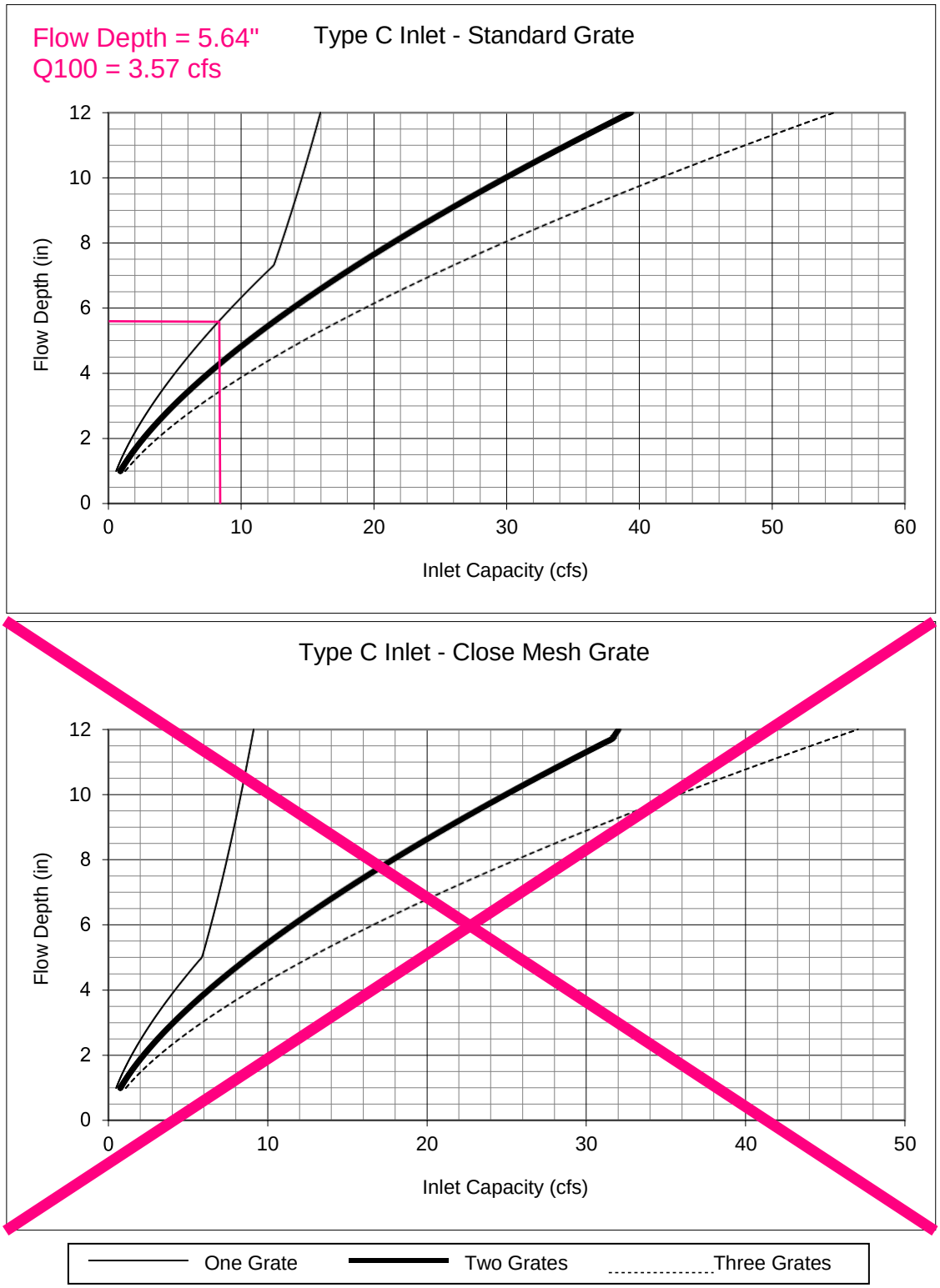
Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.47	ft
Critical Depth	0.44	ft
Channel Slope	0.01500	ft/ft

Worksheet for Grassed Swale

GVF Output Data

Critical Slope	0.02098	ft/ft

Figure 8-10. Inlet Capacity Chart Sump Conditions, Area (Type C) Inlet



Notes:
1. The standard inlet parameters must apply to use these charts.

APPENDIX D

HYDROLOGIC COMPUTATIONS

COMPOSITE % IMPERVIOUS CALCULATIONS

Subdivision: Owl Marketplace Filing No. 1
Location: CO, Colorado Springs

Project Name: Murphy Oil - Falcon
Project No.: MOC99
Calculated By: ASA
Checked By: KG
Date: 2/16/24

		Paved Roads			Lawns			Roofs			Basins Total
Basin ID	Total Area (ac)	% Imp.	Area (ac)	Weighted % Imp.	% Imp.	Area (ac)	Weighted % Imp.	% Imp.	Area (ac)	Weighted % Imp.	Weighted % Imp.
A-1	0.84	100	0.48	57.1	0	0.29	0.0	100	0.07	8.30	65.4
A-2	0.09	100	0.00	0.0	0	0.00	0.0	100	0.09	100.00	100.0
B-1	0.14	100	0.13	92.9	0	0.01	0.0	100	0.00	0.00	92.9
B-2	0.04	100	0.00	0.0	0	0.04	0.0	100	0.00	0.00	0.0

Galloway

STANDARD FORM SF-2
TIME OF CONCENTRATION

Subdivision: Owl Marketplace Filing No. 1
Location: CO, Colorado Springs

Project Name: Murphy Oil - Falcon
Project No.: MOC99
Calculated By: ASA
Checked By: KG
Date: 2/16/24

SUB-BASIN DATA						INITIAL/OVERLAND (T_i)			TRAVEL TIME (T_t)					Tc CHECK (URBANIZED BASINS)			FINAL
BASIN ID	D.A. (AC)	Hydrologic Soils Group	Impervious (%)	C_{100}	C_5	L (FT)	S (%)	T_i (MIN)	L (FT)	S (%)	Cv	VEL. (FPS)	T_t (MIN)	COMP. T_c (MIN)	TOTAL LENGTH (FT)	Urbanized T_c (MIN)	T_c (MIN)
A-1	0.84	A	65.4	0.62	0.50	88	2.2	7.9	345	1.5	20.0	2.4	2.3	10.3	433.0	12.4	10.3
A-2	0.09	A	100.0	0.89	0.86	15	2.0	1.4	138	2.0	20.0	2.8	0.8	2.2	153.0	10.9	5.0
B-1	0.14	A	92.9	0.83	0.78	35	1.4	3.1	440	1.3	20.0	2.3	3.2	6.3	475.0	12.6	6.3
B-2	0.04	A	0.0	0.11	0.00	100	1.5	17.6	340	1.5	7.0	0.9	6.6	24.2	440.0	12.4	12.4

NOTES:

T_i = (0.395*(1.1 - C_5)*(L)^0.5)/((S)^0.33), S in ft/ft

T_t=L/60V (Velocity From Fig. 501)

Velocity V=Cv*S^0.5, S in ft/ft

Tc Check = 10+L/180

For Urbanized basins a minimum T_c of 5.0 minutes is required.

For non-urbanized basins a minimum T_c of 10.0 minutes is required

Galloway

STANDARD FORM SF-3
STORM DRAINAGE SYSTEM DESIGN
(RATIONAL METHOD PROCEDURE)

Subdivision: Owl Marketplace Filing No. 1
Location: CO, Colorado Springs
Design Storm: 2-Year

Project Name: Murphy Oil - Falcon
Project No.: MOC99
Calculated By: ASA
Checked By: KG
Date: 2/16/24

		DIRECT RUNOFF							TOTAL RUNOFF				STREET		PIPE			TRAVEL TIME			
STREET	Design Point	Basin ID	Area (Ac)	Runoff Coeff.	Tc (min)	C*A (Ac)	I (in/hr)	Q (cfs)	Tc (min)	C*A (Ac)	I (in/hr)	Q (cfs)	Slope (%)	Street Flow (cfs)	Design Flow (cfs)	Slope (%)	Pipe Size (inches)	Length (ft)	Velocity (fps)	Tt (min)	REMARKS
		A-1	0.84	0.50	10.3	0.42	3.26	1.4													
		A-2	0.09	0.86	5.0	0.08	4.12	0.3													
	DP1								10.3	0.50	3.26	1.7									Total Proposed Flow at DP1 = 1.7 cfs
		B-1	0.14	0.78	6.3	0.11	3.84	0.4													
		B-2	0.04	0.00	12.4	0.00	3.03	0.0													
									12.4	0.11	3.03	0.4									Proposed Flow Leaving the Site = 0.4 cfs

STANDARD FORM SF-3
STORM DRAINAGE SYSTEM DESIGN
(RATIONAL METHOD PROCEDURE)

Subdivision: Owl Marketplace Filing No. 1
Location: CO, Colorado Springs
Design Storm: 100-Year

Project Name: Murphy Oil - Falcon
Project No.: MOC99
Calculated By: ASA
Checked By: KG
Date: 2/16/24

STREET	Design Point	DIRECT RUNOFF							TOTAL RUNOFF				STREET		PIPE			TRAVEL TIME			REMARKS
		Basin ID	Area (Ac)	Runoff Coeff.	Tc (min)	C*A (Ac)	I (in/hr)	Q (cfs)	Tc (min)	C*A (Ac)	I (in/hr)	Q (cfs)	Slope (%)	Street Flow (cfs)	Design Flow (cfs)	Slope (%)	Pipe Size (inches)	Length (ft)	Velocity (fps)	Tt (min)	
	P1	A-1	0.84	0.62	10.3	0.52	6.86	3.6													
		A-2	0.09	0.89	5.0	0.08	8.68	0.7													
									10.3	0.60	6.86	4.3									Total Proposed Flow at DP1 = 4.3 cfs
		B-1	0.14	0.83	6.3	0.12	8.09	1.0													
		B-2	0.04	0.11	12.4	0.00	6.38	0.0													
									12.4	0.12	6.38	1.0									Proposed Flow Leaving the Site = 1.0 cfs

APPENDIX E

DRAINAGE MAPS

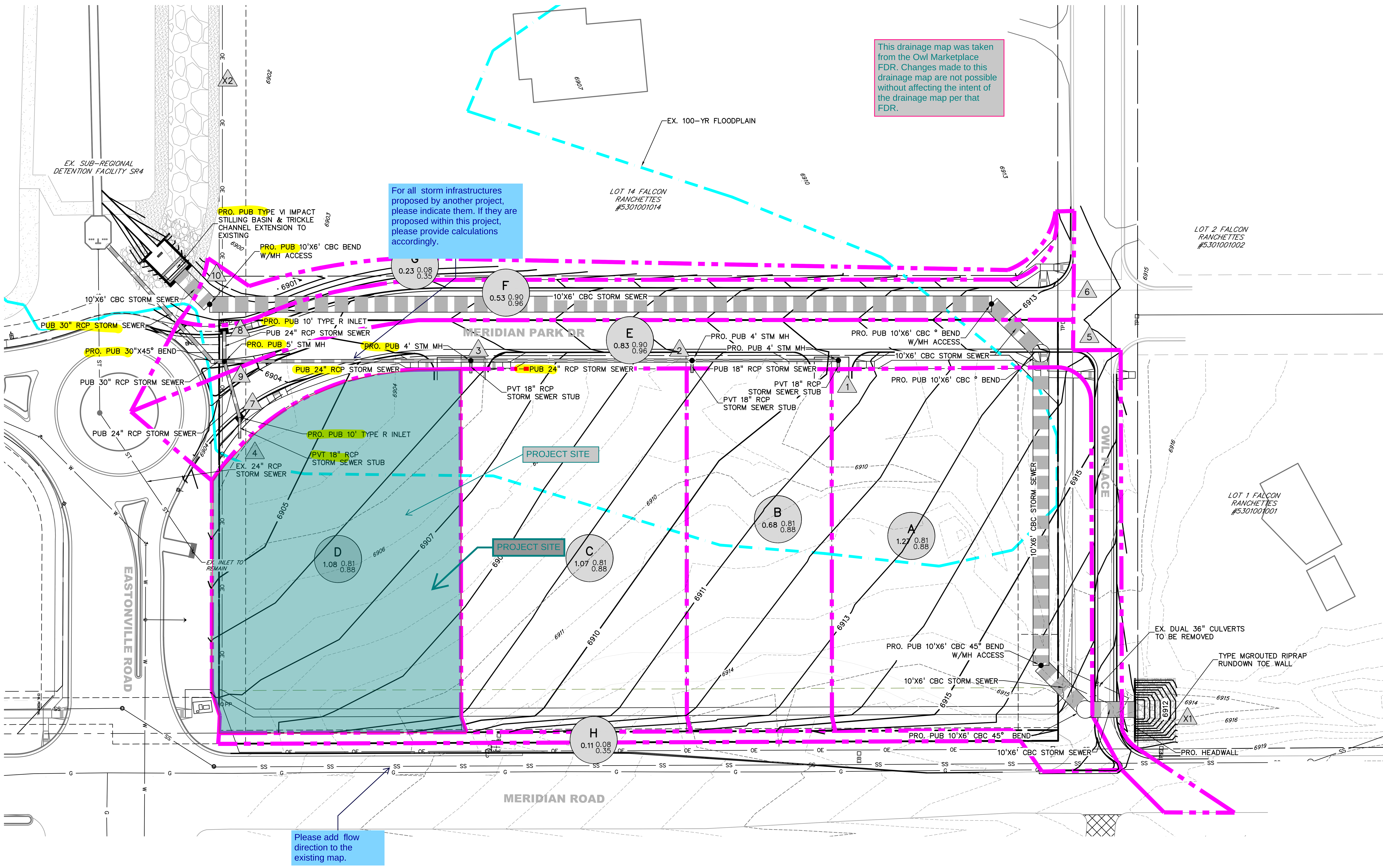
LEGEND

EX. MINOR CONTOUR
EX. MAJOR CONTOUR
PR. MINOR CONTOUR
PR. MAJOR CONTOUR
STORM DRAIN
EX. STORM DRAIN
FLOODPLAIN BOUNDARY
BASIN BOUNDARY
FLOW DIRECTION
DESIGN POINT
BASIN
AREA (ACRE)
C5
C100

DEVELOPED				
BASIN	DP	Area (Ac.)	Q_5 (CFS)	Q_{100} (CFS)
A	1	1.27	5.2	9.5
B		0.68	2.8	5.1
	2	1.95	8.0	14.5
C		1.07	4.4	8.0
	3	3.02	12.2	22.2
D	4	1.08	4.5	8.2
	5	0.00	0.6	1.5
	6	0.00	1.0	2.1
E		0.83	3.5	6.3
	7	1.91	8.2	15.3
F		0.53	2.4	4.4
	8	0.53	3.4	6.5
	9	5.46	22.8	42.2
G	10	0.23	0.1	0.6
H	11	0.11	0.0	0.3

40 0 40 80

SCALE: 1"=40'



This drainage map was taken from the Owl Marketplace FDR. Changes made to this drainage map are not possible without affecting the intent of the drainage map per that FDR.
For all storm infrastructures proposed by another project, please indicate them. If they are proposed within this project, please provide calculations accordingly.
EX. SUB-REGIONAL DETENTION FACILITY SR4
PRO. PUB TYPE VI IMPACT STILLING BASIN & TRICKLE CHANNEL EXTENSION TO EXISTING
PRO. PUB 10'X6' CBC BEND W/MH ACCESS
10'X6' CBC STORM SEWER
PUB 30" RCP STORM SEWER
PRO. PUB 30"X45° BEND
PUB 30" RCP STORM SEWER
PUB 24" RCP STORM SEWER
PRO. PUB 10' TYPE R INLET
PUB 24" RCP STORM SEWER
PRO. PUB 5' STM MH
PRO. PUB 4' STM MH
PUB 24" RCP STORM SEWER
MERIDIAN PARK DR
EX. 100-YR FLOODPLAIN
LOT 14 FALCON RANCHETTES #5301001014
LOT 2 FALCON RANCHETTES #5301001002
LOT 1 FALCON RANCHETTES #5301001001
PRO. PUB 4' STM MH
PRO. PUB 10'X6' CBC ° BEND W/MH ACCESS
10'X6' CBC STORM SEWER
PRO. PUB 10'X6' CBC ° BEND
PVT 18" RCP STORM SEWER STUB
PUB 18" RCP STORM SEWER
PRO. PUB 10' TYPE R INLET
PVT 18" RCP STORM SEWER STUB
EX. 24" RCP STORM SEWER
PROJECT SITE
EX. INLET TO REMAIN
EASTONVILLE ROAD
OWL PLACE
10'X6' CBC STORM SEWER
EX. DUAL 36" CULVERTS TO BE REMOVED
TYPE MGROUTED RIPRAP RUNDOWN TOE WALL
PRO. PUB 10'X6' CBC 45° BEND W/MH ACCESS
10'X6' CBC STORM SEWER
PRO. PUB 10'X6' CBC 45° BEND
10'X6' CBC STORM SEWER
PRO. HEADWALL
MERIDIAN ROAD
Please add flow direction to the existing map.

Please revise it to be existing drainage map.

PREPARED BY:

DREXEL, BARRELL & CO.
Engineers • Surveyors
101 S SAHWATCH ST, #100
COLORADO SPGS, COLORADO 80903
CONTACT: TIM D. McCONNELL, P.E.
(719)260-0887
COLORADO SPRINGS • LAFAYETTE

CLIENT:

BH RE INVESTMENTS, LLC
450 N MCCLINTOCK DRIVE
CHANDLER, AZ 85226
(480) 313-2724

DRAINAGE PLANS FOR:
OWL MARKETPLACE
FALCON, COLORADO

ISSUE	DATE
INITIAL ISSUE	9-29-2023
RESUBMITTAL	1-4-2024

DESIGNED BY:	KGV
DRAWN BY:	CGH
CHECKED BY:	TDM
FILE NAME:	21611-DRN-PP

PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF DREXEL, BARRELL & CO.

DRAWING SCALE:
HORIZONTAL: 1" = 40'
VERTICAL: N/A

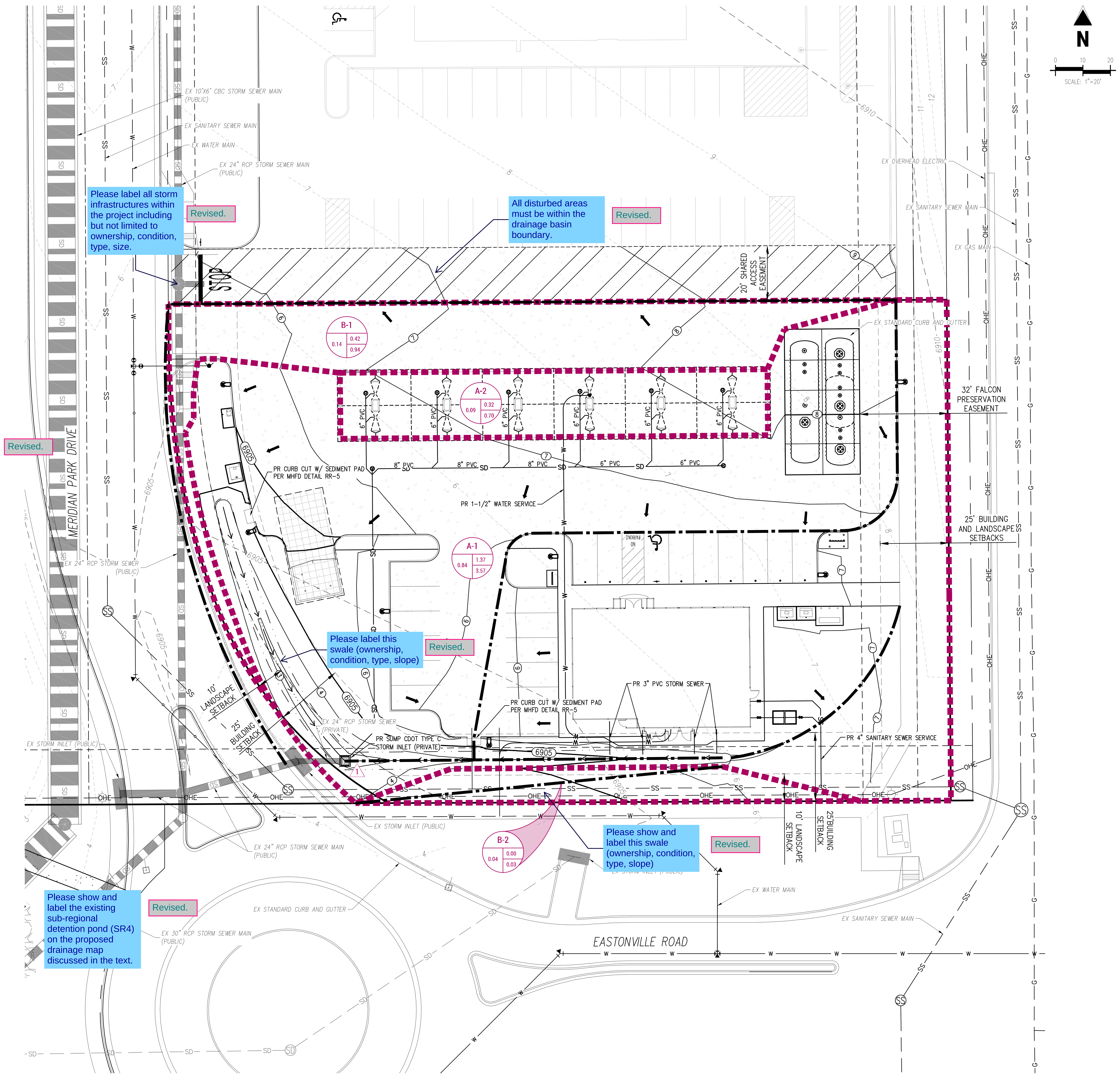
PROPOSED DRAINAGE MAP

PROJECT NO. 21611-01CSCV

DRAWING NO.

DRN

SHEET: 2 OF 2



SITE LEGEND

- PROPERTY BOUNDARY LINE
- ADJACENT PROPERTY BOUNDARY LINE
- RIGHT OF WAY BOUNDARY LINE
- EXISTING ADJACENT LOT LINE
- PROPOSED LOT LINE
- EXISTING EASEMENT LINE
- PROPOSED EASEMENT LINE
- ROAD CENTERLINE
- PROPOSED CURB AND GUTTER
- EXISTING CURB AND GUTTER
- EXISTING SIGN
- PROPOSED SIGN

PAVING LEGEND

- PROPOSED CONCRETE
- REINFORCED CONCRETE PAVING

UTILITY LEGEND

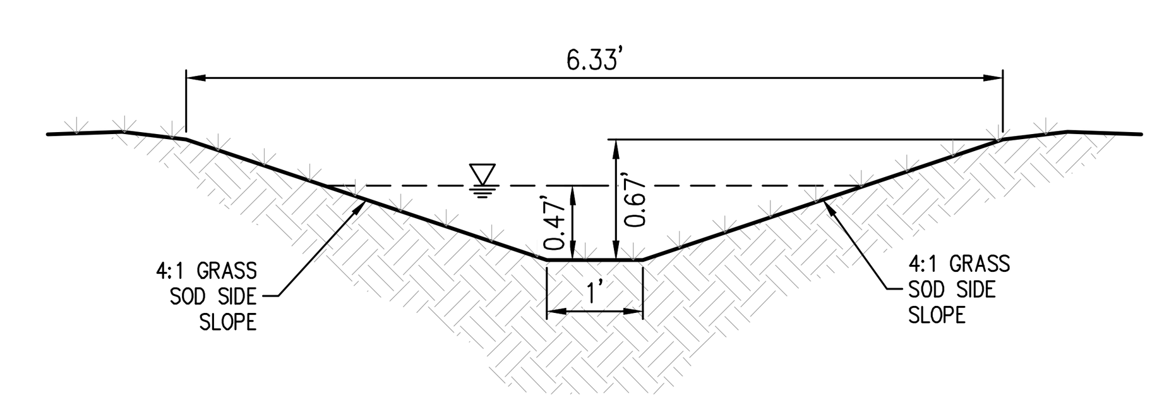
- EXISTING WATER LINE
- PROPOSED WATER LINE
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING STORM SEWER
- PROPOSED STORM SEWER (LESS THAN 12"ø)
- EXISTING GAS LINE
- PROPOSED GAS LINE
- EXISTING STREET LIGHT
- PROPOSED STREET LIGHT
- PROPOSED WATER METER
- EXISTING WATER VALVE
- PROPOSED WATER VALVE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING STORM SEWER MANHOLE
- PROPOSED STORM SEWER MANHOLE
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE

DRAINAGE LEGEND

- 5460 EXISTING MAJOR CONTOUR
- 52 EXISTING MINOR CONTOUR
- 5465 PROPOSED MAJOR CONTOUR
- 66 PROPOSED MINOR CONTOUR
- BASIN BOUNDARY
- FLOW FOR CALCULATING TIME OF CONCENTRATION
- PROPOSED FLOW DIRECTION
- A — BASIN DESIGNATION
- 5 — 5-YEAR RUNOFF IN CUBIC FEET PER SECOND
- 100 — 100-YEAR RUNOFF IN CUBIC FEET PER SECOND
- AC — BASIN AREA IN ACRES
- 1 — DESIGN POINT

NOTES

1. SEE APPENDIX A FOR LIMITS OF DISTURBANCE EXHIBIT



GRASSED SWALE

N.T.S.

(BTM WIDTH: 1.0'; DEPTH: 0.47'; SIDE SLOPES: 4:1; SLOPE: 1.5%; Q_{100}: 3.57 CFS; V_{100}: 2.60 FPS)

PRE-CONSTRUCTION IMPERVIOUS SITE RATIO (ISR)		
AREA	SQUARE FEET	%
IMPERVIOUS (ROOF AND PAVING)	2,412.20	5.00
LANDSCAPE AREA	45,831.80	95.00
GROSS SITE	48,244.00	100

POST-CONSTRUCTION IMPERVIOUS SITE RATIO (ISR)		
AREA	SQUARE FEET	%
IMPERVIOUS (ROOF AND PAVING)	33,433.09	69.30
LANDSCAPE AREA	14,810.91	30.70
GROSS SITE	48,244.00	100

BASIN SUMMARY TABLE						
Tributary Sub-basin	Area (acres)	C_5	C_{100}	t_c (min)	Q_5 (cfs)	Q_{100} (cfs)
A-1	0.84	0.50	0.62	10.27	1.37	3.57
A-2	0.09	0.86	0.89	5.00	0.32	0.70
B-1	0.14	0.78	0.83	6.31	0.42	0.94
B-2	0.04	0.00	0.11	12.63	0.00	0.03

DESIGN POINT TABLE		
Design Point	Q5 (cfs)	Q100 (cfs)
1	1.70	4.26

CAUTION – NOTICE TO CONTRACTOR

1. ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.

811 Know what's below. Call before you dig.

Galloway
1155 Kelly Johnson Blvd., Suite 305
Colorado Springs, CO 80920
719.900.7220
GallowayUS.com

PRELIMINARY NOT FOR BIDDING NOT FOR CONSTRUCTION

MURPHY OIL USA, INC.
200 PEACH STREET
EL DORADO, AR 71730

MURPHY USA

DRAINAGE PLAN
MURPHY OIL USA #7968
7440 MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

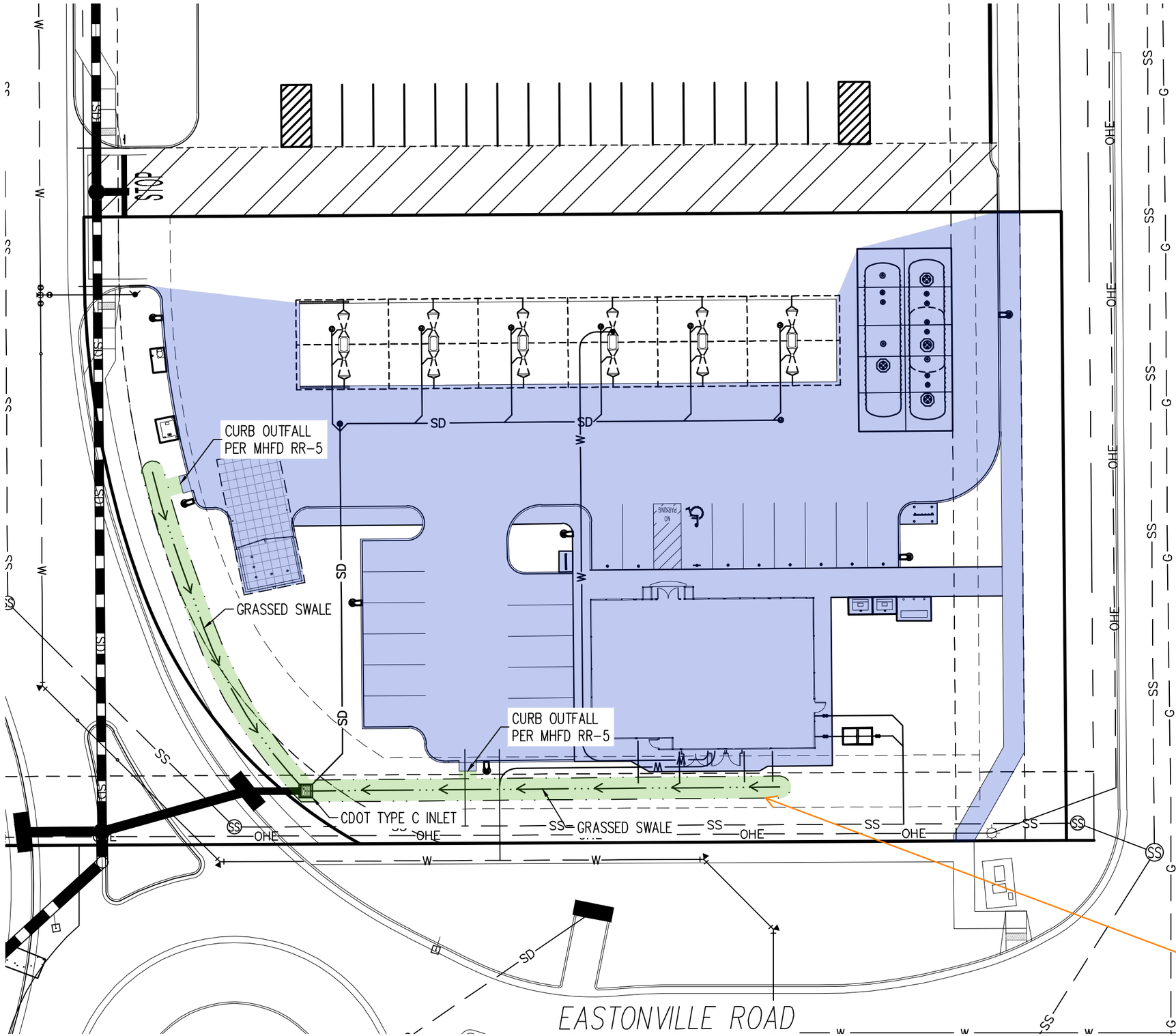
#	Date	Issue / Description	Init.

Project No: MOC99
Drawn By: ASA
Checked By: KG
Date: 02/16/2024

PROPOSED DRAINAGE MAP

DR1.1

Sheet 1 of 1



N

0 15 30

SCALE: 1"=30'

MURPHY OIL – MERIDIAN RD. & EASTONVILLE RD.	
TOTAL SITE DISTURBED AREA, SF	49,691
LOT AREA, SF	48,250
UPSTREAM IMPERVIOUS AREA (IN BLUE), SF	23,823
RECEIVING PERVIOUS AREA (IN GREEN), SF	1,589
PLANNED IMPERVIOUS AREA, SF	44,873
PROPOSED IMPERVIOUS AREA, SF	33,814

Revised. Swale lining changed to native seed.

These swales cannot be considered RPA's if they are to be rock cobble as specified in the Landscape Plan. Cobble is comprable to 80% impervious gravel on Table 6-6 of the DCMv1 Chapter 6 update. And therefore is not very pervious.

Galloway
1155 Kelly Johnson Blvd., Suite 305
Colorado Springs, CO 80920
719.900.7220 • GallowayUS.com

Project No: MOC99
Drawn By: ASA
Checked By: KG
Date: 02/16/2024

LOT 1, OWL MARKETPLACE FILING NO. 1
MURPHY OIL - MERIDIAN RD. & EASTONVILLE RD.
7440 MERIDIAN PARK DRIVE
FALCON, CO 80831
GREEN INFRASTRUCTURE EXHIBIT

Revised.

PPR244

2024 Financial Assurance Estimate Form
(with pre-plat construction)

Updated: 10/2023

PROJECT INFORMATION		
Murphy Oil - Store #7968	2/16/2024	xxxxx
Project Name	Date	PCD File No.

Description	Quantity	Units	Unit Cost		Total	(with Pre-Plat Construction) % Complete	Remaining	
SECTION 1 - GRADING AND EROSION CONTROL (Construction and Permanent BMPs)								
Earthwork								*
less than 1,000; $5,300 min	396.	CY	$ 8.00	=	$ 5,300.00		$ 5,300.00	*
1,000-5,000; $8,000 min		CY	$ 6.00	=	$ -		$ -	*
5,001-20,000; $30,000 min		CY	$ 5.00	=	$ -		$ -	*
20,001-50,000; $100,000 min		CY	$ 3.50	=	$ -		$ -	*
50,001-200,000; $175,000 min		CY	$ 2.50	=	$ -		$ -	*
greater than 200,000; $500,000 min		CY	$ 2.00	=	$ -		$ -	*
Permanent Erosion Control Blanket		SY	$ 9.00	=	$ -		$ -	*
Permanent Seeding (inc. noxious weed mgmnt.) & Mulching		AC	$ 2,018.00	=	$ -		$ -	*
Permanent Pond/BMP (provide engineer's estimate)		EA		=	$ -		$ -	*
Concrete Washout Basin	1.	EA	$ 1,172.00	=	$ 1,172.00		$ 1,172.00	
Inlet Protection	3.	EA	$ 217.00	=	$ 651.00		$ 651.00	
Rock Check Dam		EA	$ 651.00	=	$ -		$ -	
Safety Fence		LF	$ 3.00	=	$ -		$ -	
Sediment Basin		EA	$ 2,294.00	=	$ -		$ -	
Sediment Trap		EA	$ 538.00	=	$ -		$ -	
Silt Fence	184.	LF	$ 3.00	=	$ 552.00		$ 552.00	
Slope Drain		LF	$ 43.00		$ -		$ -	
Straw Bale		EA	$ 33.00	=	$ -		$ -	
Straw Wattle/Rock Sock	180.	LF	$ 8.00	=	$ 1,440.00		$ 1,440.00	
Surface Roughening		AC	$ 269.00		$ -		$ -	
Temporary Erosion Control Blanket	57.74	SY	$ 3.00	=	$ 173.22		$ 173.22	
Temporary Seeding and Mulching	.28	AC	$ 1,793.00	=	$ 502.04		$ 502.04	
Vehicle Tracking Control	1.	EA	$ 3,085.00	=	$ 3,085.00		$ 3,085.00	
				=	$ -		$ -	
[insert items not listed but part of construction plans]				=	$ -		$ -	
		MAINTENANCE (35% of Construction BMPs)		=	$ 2,241.14		$ 2,241.14	
* - Subject to defect warranty financial assurance. A minimum of 20% shall be retained until final acceptance (MAXIMUM OF 80% COMPLETE ALLOWED)		**Section 1 Subtotal**		**=**	**$ 15,116.40**		**$ 15,116.40**	
SECTION 2 - PUBLIC IMPROVEMENTS *								
ROADWAY IMPROVEMENTS								*
Construction Traffic Control		LS		=	$ -		$ -	*
Aggregate Base Course (135 lbs/cf)		Tons	$ 37.00	=	$ -		$ -	*
Aggregate Base Course (135 lbs/cf)		CY	$ 66.00		$ -		$ -	*
Asphalt Pavement (3" thick)		SY	$ 18.00		$ -		$ -	*
Asphalt Pavement (4" thick)		SY	$ 25.00		$ -		$ -	*
Asphalt Pavement (6" thick)		SY	$ 38.00		$ -		$ -	*
Asphalt Pavement (147 lbs/cf) __" thick		Tons	$ 114.00	=	$ -		$ -	*
Raised Median, Paved		SF	$ 11.00	=	$ -		$ -	*
Regulatory Sign/Advisory Sign		EA	$ 392.00					
Guide/Street Name Sign		EA						
Epoxy Pavement Marking		SF	$ 17.00					
Thermoplastic Pavement Marking		SF	$ 30.00					
Barricade - Type 3		EA	$ 259.00					
Delineator - Type I		EA	$ 31.00	=	$ -			
Curb and Gutter, Type A (6" Vertical)		LF	$ 38.00	=	$ -			
Curb and Gutter, Type B (Median)		LF	$ 38.00	=	$ -		$ -	*
Curb and Gutter, Type C (Ramp)		LF	$ 38.00	=	$ -		$ -	*
4" Sidewalk (common areas only)		SY	$ 62.00	=	$ -		$ -	*
5" Sidewalk		SY	$ 77.00	=	$ -		$ -	*
6" Sidewalk		SY	$ 94.00	=	$ -		$ -	*
8" Sidewalk		SY	$ 125.00		$ -		$ -	*
Pedestrian Ramp		EA	$ 1,496.00	=	$ -		$ -	*
Cross Pan, local (8" thick, 6' wide to include return)		LF	$ 79.00	=	$ -		$ -	*
Cross Pan, collector (9" thick, 8' wide to include return)		LF	$ 119.00		$ -		$ -	*
Curb Opening with Drainage Chase		EA	$ 1,926.00	=	$ -		$ -	*
Guardrail Type 3 (W-Beam)		LF	$ 65.00	=	$ -		$ -	*
Guardrail Type 7 (Concrete)		LF	$ 94.00	=	$ -		$ -	*
Guardrail End Anchorage		EA	$ 2,731.00	=	$ -		$ -	*
Guardrail Impact Attenuator		EA	$ 4,902.00	=	$ -		$ -	*
Sound Barrier Fence (CMU block, 6' high)		LF	$ 102.00		$ -		$ -	*
Sound Barrier Fence (panels, 6' high)		LF	$ 104.00	=	$ -		$ -	*
Electrical Conduit, Size =		LF	$ 22.00	=	$ -		$ -	*
Traffic Signal, (provide engineer's estimate)		EA		=	$ -		$ -	*
				=	$ -		$ -	
[insert items not listed but part of construction plans]				=	$ -		$ -	*

Add stop sign at exit to Meridian Park Drive

Stop sign is on the property and is included in the section below.

PROJECT INFORMATION		
Murphy Oil - Store #7968	2/16/2024	xxxxx
Project Name	Date	PCD File No.

Description	Quantity	Units	Unit Cost		Total	(with Pre-Plat Construction) % Complete	(with Pre-Plat Construction) Remaining	
STORM DRAIN IMPROVEMENTS								*
Concrete Box Culvert (M Standard), Size (W x H)		LF		=	$ -		$ -	*
18" Reinforced Concrete Pipe		LF	$ 82.00	=	$ -		$ -	*
24" Reinforced Concrete Pipe		LF	$ 98.00	=	$ -		$ -	*
30" Reinforced Concrete Pipe		LF	$ 123.00	=	$ -		$ -	*
36" Reinforced Concrete Pipe		LF	$ 151.00	=	$ -		$ -	*
42" Reinforced Concrete Pipe		LF	$ 201.00	=	$ -		$ -	*
48" Reinforced Concrete Pipe		LF	$ 245.00	=	$ -		$ -	*
54" Reinforced Concrete Pipe		LF	$ 320.00	=	$ -		$ -	*
60" Reinforced Concrete Pipe		LF	$ 374.00	=	$ -		$ -	*
66" Reinforced Concrete Pipe		LF	$ 433.00	=	$ -		$ -	*
72" Reinforced Concrete Pipe		LF	$ 495.00	=	$ -		$ -	*
18" Corrugated Steel Pipe		LF	$ 105.00	=	$ -		$ -	*
24" Corrugated Steel Pipe		LF	$ 121.00	=	$ -		$ -	*
30" Corrugated Steel Pipe		LF	$ 154.00	=	$ -		$ -	*
36" Corrugated Steel Pipe		LF	$ 184.00	=	$ -		$ -	*
42" Corrugated Steel Pipe		LF	$ 212.00	=	$ -		$ -	*
48" Corrugated Steel Pipe		LF	$ 223.00	=	$ -		$ -	*
54" Corrugated Steel Pipe		LF	$ 327.00	=	$ -		$ -	*
60" Corrugated Steel Pipe		LF	$ 353.00	=	$ -		$ -	*
66" Corrugated Steel Pipe		LF	$ 427.00	=	$ -		$ -	*
72" Corrugated Steel Pipe		LF	$ 502.00	=	$ -		$ -	*
78" Corrugated Steel Pipe		LF	$ 578.00	=	$ -		$ -	*
84" Corrugated Steel Pipe		LF	$ 691.00	=	$ -		$ -	*
Flared End Section (FES) RCP Size = (unit cost = 6x pipe unit cost)		EA		=	$ -		$ -	*
Flared End Section (FES) CSP Size = (unit cost = 6x pipe unit cost)		EA		=	$ -		$ -	*
End Treatment- Headwall		EA		=	$ -		$ -	*
End Treatment- Wingwall		EA		=	$ -		$ -	*
End Treatment - Cutoff Wall		EA		=	$ -		$ -	*
Curb Inlet (Type R) L=5', Depth < 5'		EA	$ 7,212.00	=	$ -		$ -	*
Curb Inlet (Type R) L=5', 5'≤ Depth < 10'		EA	$ 9,377.00	=	$ -		$ -	*
Curb Inlet (Type R) L =5', 10'≤ Depth < 15'		EA	$ 10,859.00	=	$ -		$ -	*
Curb Inlet (Type R) L =10', Depth < 5'		EA	$ 9,925.00	=	$ -		$ -	*
Curb Inlet (Type R) L =10', 5'≤ Depth < 10'		EA	$ 10,230.00	=	$ -		$ -	*
Curb Inlet (Type R) L =10', 10'≤ Depth < 15'		EA	$ 12,805.00	=	$ -		$ -	*
Curb Inlet (Type R) L =15', Depth < 5'		EA	$ 12,907.00	=	$ -		$ -	*
Curb Inlet (Type R) L =15', 5'≤ Depth < 10'		EA	$ 13,835.00	=	$ -		$ -	*
Curb Inlet (Type R) L =15', 10'≤ Depth < 15'		EA	$ 15,130.00	=	$ -		$ -	*
Curb Inlet (Type R) L =20', Depth < 5'		EA	$ 13,755.00	=	$ -		$ -	*
Curb Inlet (Type R) L =20', 5'≤ Depth < 10'		EA	$ 15,181.00	=	$ -		$ -	*
Grated Inlet (Type C), Depth < 5'		EA	$ 6,037.00	=	$ -		$ -	*
Grated Inlet (Type D), Depth < 5'		EA	$ 7,458.00	=	$ -		$ -	*
Storm Sewer Manhole, Box Base		EA	$ 15,130.00	=	$ -		$ -	*
Storm Sewer Manhole, Slab Base		EA	$ 8,322.00	=	$ -		$ -	*
Geotextile (Erosion Control)		SY	$ 9.00	=	$ -		$ -	*
Rip Rap, d50 size from 6" to 24"		Tons	$ 104.00	=	$ -		$ -	*
Rip Rap, Grouted		Tons	$ 124.00	=	$ -		$ -	*
Drainage Channel Construction, Size (W x H)		LF		=	$ -		$ -	*
Drainage Channel Lining, Concrete		CY	$ 741.00	=	$ -		$ -	*
Drainage Channel Lining, Rip Rap		CY	$ 145.00	=	$ -		$ -	*
Drainage Channel Lining, Grass		AC	$ 1,911.00	=	$ -		$ -	*
Drainage Channel Lining, Other Stabilization				=	$ -		$ -	*
				=	$ -		$ -	
[insert items not listed but part of construction plans]				=	$ -		$ -	
* - Subject to defect warranty financial assurance. A minimum of 20% shall be retained until final acceptance (MAXIMUM OF 80% COMPLETE ALLOWED)		**Section 2 Subtotal**		**=**	**$ -**		**$ -**	

PROJECT INFORMATION		
Murphy Oil - Store #7968	2/16/2024	xxxxx
Project Name	Date	PCD File No.

Description	Quantity	Units	Unit Cost		Total	(with Pre-Plat Construction) % Complete	Remaining
SECTION 3 - COMMON DEVELOPMENT IMPROVEMENTS (Private or District and NOT Maintained by EPC)**							
ROADWAY IMPROVEMENTS							
Aggregate Base Course (135 lbs/cf)	390.71	CY	$ 66.00	=	$ 25,786.86		$ 25,786.86
Concrete Pavement (8" Thickness)	2164.25	SF	$ 12.00	=	$ 25,971.00		$ 25,971.00
Concrete Pavement (5" Thickness)	29483.54	SF	$ 10.00	=	$ 294,835.40		$ 294,835.40
Regulatory Sign/Advisory Sign	1.	EA	$ 392.00	=	$ 392.00		$ 392.00
Curb and Gutter (6" Vertical)	485.07	LF	$ 38.00	=	$ 18,432.66		$ 18,432.66
Epoxy Pavement Marking	161	SF	$ 38.00	=	$ 6,105.46		$ 6,105.46
4" Sidewalk	193.71	SY	$ 62.00	=	$ 12,010.02		$ 12,010.02
STORM DRAIN IMPROVEMENTS (Exception: Permanent Pond/BMP shall be itemized under Section 1)							
3" PVC Pipe	38.29	LF	$ 6.00	=	$ 229.74		$ 229.74
6" PVC Pipe	206.34	LF	$ 15.50	=	$ 3,198.27		$ 3,198.27
8" PVC Pipe	219.16	LF	$ 24.00	=	$ 5,259.84		$ 5,259.84
CDOT Type C Storm Inlet	1.	EA	$ 6,700.00	=	$ 6,700.00		$ 6,700.00
Storm Sewer Cleanout (Single)	8.	EA	$ 399.50	=	$ 3,196.00		$ 3,196.00
Drainage Channel Construction, Size (W x H)	241	LF	$ 2.75	=	$ 663.30		$ 663.30
Drainage Channel Lining, Grass	.04	AC	$ 1,911.00	=	$ 68.80		$ 68.80
WATER SYSTEM IMPROVEMENTS							
Water Service Pipe (Copper), Size 1-1/2"	68.07	LF	$ 100.00	=	$ 6,807.00		$ 6,807.00
Water Service Pipe (Copper), Size 3/4"	167.53	LF	$ 75.00	=	$ 12,564.75		$ 12,564.75
Water Service Line Installation, inc. tap and valves	1.	EA	$ 1,723.00	=	$ 1,723.00		$ 1,723.00
				=	$ -		$ -
[insert items not listed but part of construction plans]				=	$ -		$ -
SANITARY SEWER IMPROVEMENTS							
Sewer Service Pipe (PVC), Size 4"	82.05	LF	$ 60.50	=	$ 4,964.03		$ 4,964.03
Grease Interceptor	1.	EA	$ 12,000.00	=	$ 12,000.00		$ 12,000.00
Sanitary Service Line Installation, complete	1.	EA	$ 1,825.00	=	$ 1,825.00		$ 1,825.00
Sanitary Cleanout (Double)	3.	EA	$ 600.00	=	$ 1,800.00		$ 1,800.00
				=	$ -		$ -
[insert items not listed but part of construction plans]				=	$ -		$ -
LANDSCAPING IMPROVEMENTS (For subdivision specific condition of approval, or PUD)							
Deciduous Trees - 2" cal. B&B	1.	EA	$ 500.00	=	$ 500.00		$ 500.00
Evergreen Trees - 6' ht. B&B	6.	EA	$ 400.00	=	$ 2,400.00		$ 2,400.00
Deciduous Ornamental Trees - 1.5" cal. B&B	19.	EA	$ 250.00	=	$ 4,750.00		$ 4,750.00
Deciduous Shrubs - 5 gal. (Including Amend. & Soil Prep.)	78.	EA	$ 40.00	=	$ 3,120.00		$ 3,120.00
Evergreen Shrubs - 5 gal. (Including Amend. & Soil Prep.)	22	EA	$ 60.00	=	$ 1,320.00		$ 1,320.00
Ornamental Grasses - 1 gal.	25	EA	$ 25.00	=	$ 625.00		$ 625.00
Rock Cobble Mulch	12,192	SF	$ 1.75	=	$ 21,336.00		$ 21,336.00
Weed Barrier Fabric	12,192	SF	$ 0.15	=	$ 1,828.80		$ 1,828.80
2'-3' Landscape Boulders	7	EA	$ 650.00	=	$ 4,550.00		$ 4,550.00
Soil Amendments	7,594	SF	$ 0.60		$ 4,556.40		$ 4,556.40
Drip Irrigation for Planting Beds	10,125	SF	$ 1.25	=	$ 12,656.25		$ 12,656.25
** - Section 3 is not subject to defect warranty requirements			**Section 3 Subtotal**	**=**	**$ 502,175.57**		**$ 502,175.57**
AS-BUILT PLANS (Public Improvements inc. Permanent WQCV BMPs)			$ -	=	$ -		$ -
POND/BMP CERTIFICATION (inc. elevations and volume calculations)		LS	$ -	=	$ -		$ -

Total Construction Financial Assurance **$ 517,291.97**
(Sum of all section subtotals plus as-builts and pond/BMP certification)

Total Remaining Construction Financial Assurance (with Pre-Plat Construction) **$ 517,291.97**
(Sum of all section totals less credit for items complete plus as-builts and pond/BMP certification)

Total Defect Warranty Financial Assurance **$ 2,575.05**
(20% of all items identified as (*). To be collateralized at time of preliminary acceptance)

Approvals

I hereby certify that this is an accurate and complete estimate of costs for the work as shown on the Grading and Erosion Control Plan and Construction Drawings associated with the Project.

Stamp, sign and date

Revised.

Engineer (P.E. Seal Required)

Approved by Owner / Applicant — Date

Approved by El Paso County Engineer / ECM Administrator — Date

Galloway
5500 Greenwood Plaza Blvd., Suite 200
Greenwood Village, CO 80111
303.770.8884 • GallowayUS.com

2/12/24

Letter of Intent

To: El Paso County
Community Development

From: Galloway & Company, Inc
Brynhildr Halsten, PLA

Re: Murphy USA 11745 Owl Pl Gas Station & Convenience Store Site Development Plan

Owner:
Meridian & Owl X LLC
PO Box 220
Scottsdale AZ, 85252
Brian Zurek
Brian@doubletreeventures.com
480.313.2724

Galloway Responses

Applicant:
Murphy USA
200 E. Peach Street
El Dorado, AR 71730
Grant Dennis, PE
Grant.Dennis@MurphyUSA.com
870.315.3430

Consultant:
Galloway & Company Inc.
1155 Kelly Johnson Blvd., Suite 305
Colorado Springs, CO 80920
Brynhildr Halsten, PLA
brynhildrhalsten@gallowayus.com
719.900.7220

Revised

PCD File: **PPR24-xxx** 004

PPR244

Site Details:

TSN: TBD with recordation of Owl Marketplace Filing No. 1 Final Plat (County File # VR2321)
Address: TBD with recordation of Final Plat (County File # VR2321)
Acreage: ±1.1 Acres (Lot 1, Owl Place Marketplace Filing No. 1)
Zoning: CS
Current Use: Mobile Home on Lot 15 Falcon Ranchettes TSN 5301001015

Revised

This is not part of the subdivision name. Please remove.

Per comments from Enumerations:
Store address should be 7825 Meridian Park Drive , Gas Canopy is 7829 Meridian Park Drive.

Revised

REQUEST

Galloway, on behalf of Murphy USA, requests approval of a Site Development Plan on approximately 1.1 Acres northwest of the intersection of Meridian Road and Eastonville Road. Murphy USA, is proposing an approximately 2,824 SF convenience store with fueling facility including Multi Product Fuel Dispensers with associated on-site improvements to include 21 parking spaces with 1 ADA stall, along with landscaping requirements per the El Paso County Code.

SITE DESCRIPTION

Location & Land Use

The Project is in El Paso County west of Meridian Road a divided, 4 lane road with commercial and residential uses and north of Owl Place. A proposed self storage facility is proposed to the north, residential lots are located to the west and existing/future commercial to the south. Bent Grass East Commercial is to the north and Falcon Marketplace to the south. The site is currently vacant. The property slopes from the north to the south. The site is mostly native prairie grassland and weeds with trees sparsely located around the site.

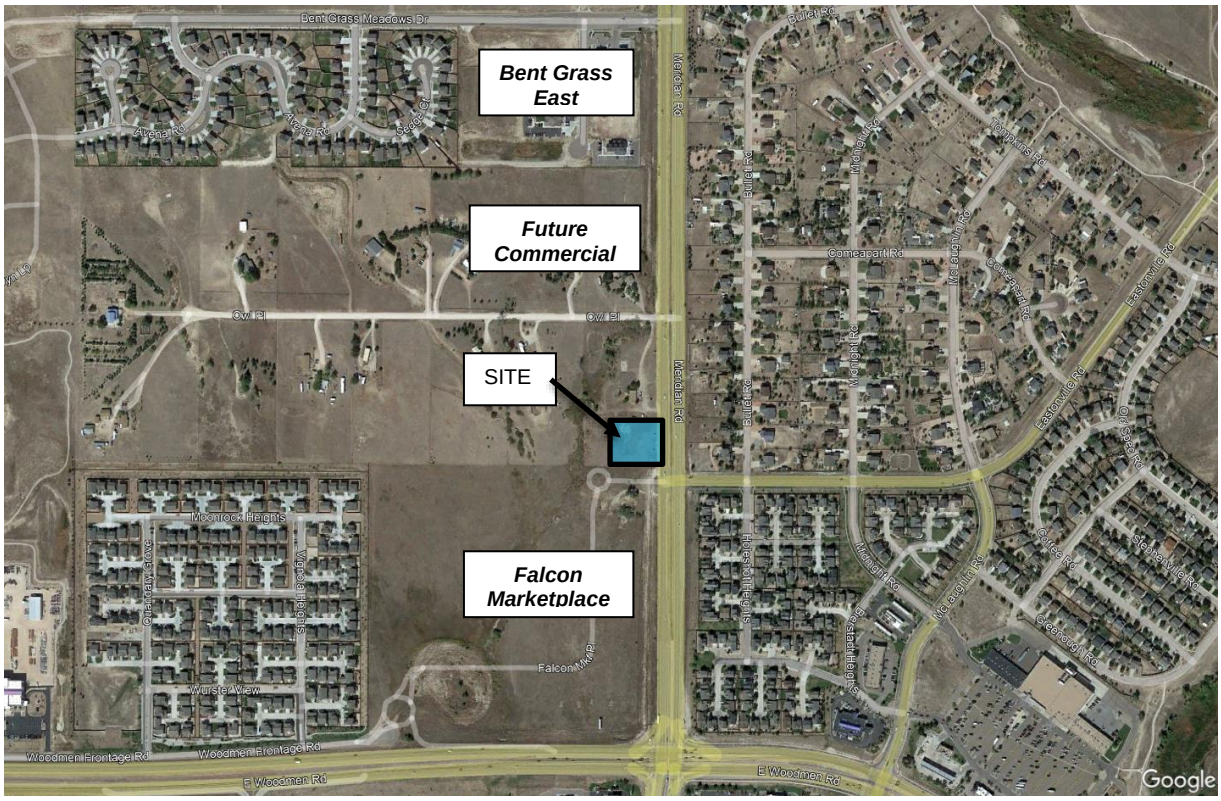


Figure 1 – Project Location

Zoning:
The property is zoned CS. West and north of the site is within the CS zoning. South is within the CR zoning. The residential area to the east is within the RR-0.5 zoning.

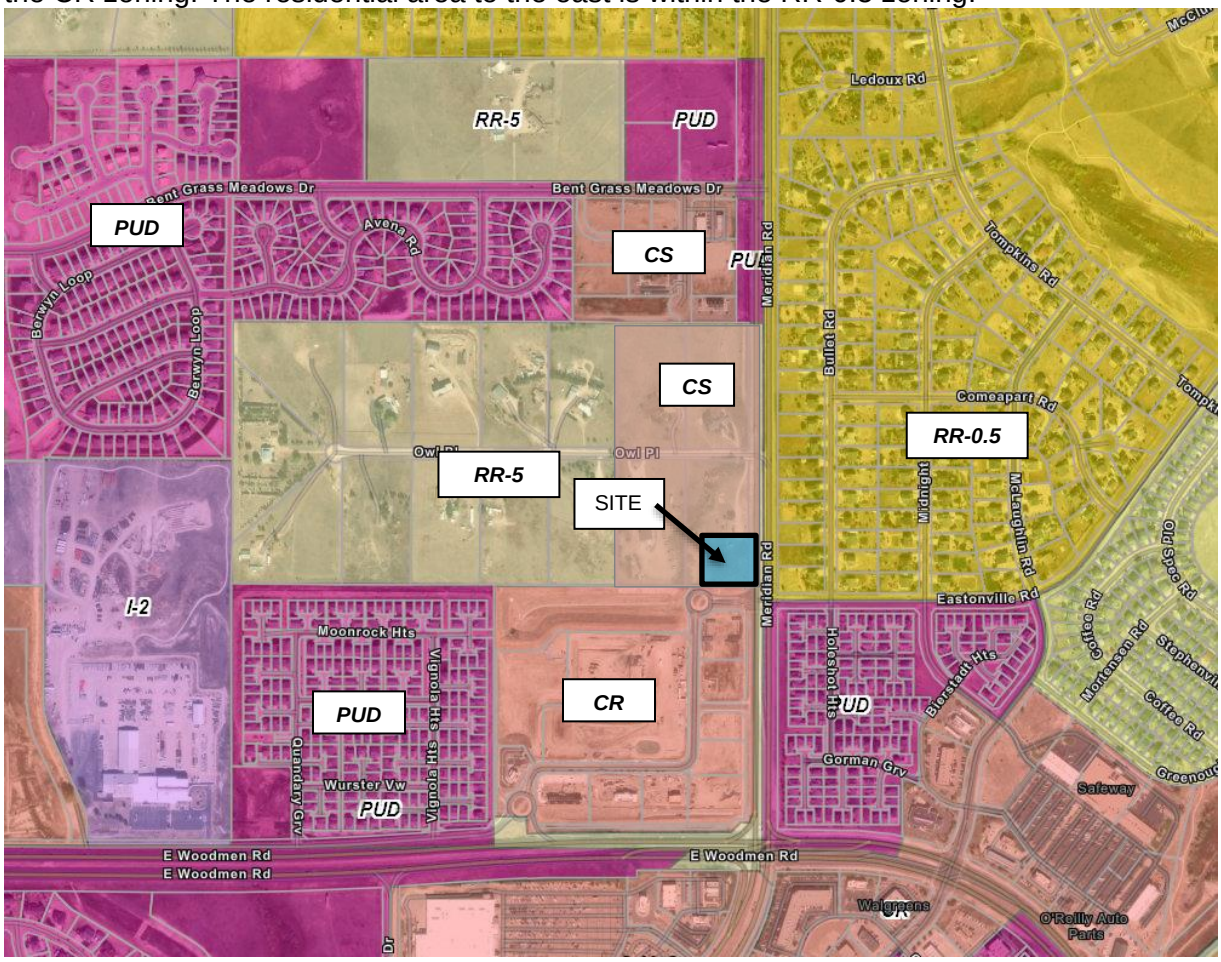


Figure 2 – Zoning

PROJECT DESCRIPTION & CONTEXT

This Site Development Plan is requested to facilitate the development of a convenience store and fuel station. As the area surrounding the original Falcon Ranchettes subdivision has developed, the land uses have redeveloped into a more intense urban development that utilizes urban services. The proposed convenience store and fuel station matches the urban character and intensity while accommodating the increase in population with commercial services. The intended convenience store and fuel station would provide additional commercial services to the growing neighborhoods in the Falcon area.

The subject property is currently vacant and surrounded by a mix of residential and commercial uses. A lighting plan has been provided with the Site Development Plan set. Overall site lighting includes 20' site pole fixtures and building mounted. All fixtures will be downcast. Landscape screening and buffering measures are proposed to enhance aesthetics and reduce visual impacts. The development will meet all building setback and maximum lot coverage requirements as shown on the Site Development Plan Site Plan.

DEFINITION OF PROPOSED USE AND SPECIFIC DEVELOPMENT STANDARDS

Definition:

Convenience Stores are permitted in the CS zone district, and are defined as:

> "*An establishment for the purpose of offering for sale to the neighborhood in which it is located such items as groceries, ready to eat food, over the counter drugs, and sundries. A convenience store may include retail sale of gasoline and other petroleum products."*

Gas Stations are permitted in the CS zone district, and are defined as:

> "*A property where the retail sale of gasoline, diesel fuel, oil, or other fuel for vehicles and which may include, as an incidental use, the retail sale and installation of vehicle accessories, the making of minor repairs, and facilities for washing and servicing of not more than 3 vehicles completely enclosed in a structure."*

Specific Development Standards:

There are no specific development standards for convenience stores and gas stations, such use is permitted in the CS zone district.

UTILITIES

Electric:

Electric service will be provided by Mountain View Electric. A commitment letter was included with the Owl Marketplace replat application. In the letter, Mountain View Electric states that these services are available to meet the demands of the new development.

Water:

The proposed development will be served by a central water supply system provided by Woodmen Hills Metropolitan District. A commitment letter was included with the Owl Marketplace replat application.

Wastewater:

The proposed development will be served by a central sanitary sewer system provided by Woodmen Hills Metropolitan District. A commitment letter was included with the Owl Marketplace replat application.

Natural Gas:

Natural gas service will be provided by Colorado Springs Utilities. A commitment letter was included with the Owl Marketplace replat application. In the letter, CSU states that these services are available to meet the demands of the new development.

ACCESS AND TRAFFIC

Access:

Upon completion, the proposed site will have a shared access onto Meridian Park Drive with the proposed development to the north within the Owl Marketplace commercial development.

Traffic:

A Traffic Conformance Letter is included with this Site Development Plan application. The Traffic Letter provides recommendations for improvements to existing surrounding streets

that will support this development. The Traffic Letter analyzed the proposed development within the context of the Traffic Impact Studies prepared by SM Rocha for the Rezone Map Amendment and the Owl Marketplace Replat. The Traffic Letter found that the project will have minimal effect on the existing and future roadway network and any recommendations to improve failing intersections are the responsibility of El Paso County to be implemented.

PARKING

Parking requirements for gas stations are based on the number of service bays (MPDs) and number of employees. The development consists of 6 MPDs and will have a maximum of 3 employee on the premises. The Land Development Code requires 3 spaces per bay or stall, plus 1 space per employee on maximum shift. Therefore, a total of 21 parking spaces are required. The development provides a total of 21 parking spaces, including 1 ADA van accessible space

STORMWATER

Is this referring to the existing 10'x6' storm pipe that is beneath Meridian Park Drive? If so, clarify that that was installed as part of the overall development of all 4 lots, not for the development of this specific Lot 1.

Revised to clarify the overall development

There is an existing stormwater conveyance ditch on the east property line of the site that conveys flows from north to south along Meridian Road. As a part of this development, it is proposed to capture and route the off-site flows via conduit through the site, matching the existing outfall location. Stormwater will be treated and released in accordance with County standards, following historic drainage patterns. All on-site drainage improvements will be owned and maintained by the owner of the development.

A Drainage Letter is included with this submittal. The purpose of this report is to:

1. Identify on-site and off-site drainage patterns.
2. Design storm water facilities to collect and convey storm runoff from the proposed development to appropriate discharge and/or detention locations.
3. Design water quality and detention facilities to control discharge release rates to below historic.
4. Demonstrate compliance with surrounding major drainage basin planning studies, master development drainage plans, and flood insurance studies.

ENVIRONMENTAL

Wetlands & Floodplain:

There are no wetlands within the project boundaries. The site is located in Zone X and Zone A (FEMA Floodplain Map No. 08041C0553G dated December 7, 2018). The site is undergoing a Letter of Map Revision (“LOMR”) from FEMA to remove the proposed development from the area designated as a floodway or special flood hazard area on FEMA’s maps

Wildlife:

In general, the site provides poor quality habitat for wildlife. The site is surrounded by urban development and has been previously disturbed and thus does not provide ideal habitat for wildlife species. Impact of development on potential wildlife habitat will be negligible and there are no known protected species on the site. The site is not suitable habitat for any Federally-listed threatened and endangered species.

Wildfire:

The primary wildland fuel type is grassland. The Colorado State Forest Service has determined a moderate-high wildfire hazard potential and listed a moderate risk, as this area is currently undisturbed grassland. Development of the site will reduce available wildfire fuels in this area.

LANDSCAPE, BUFFERING & SCREENING

Perimeter Landscape and Buffering:
Landscaping at the perimeter of the property is required based on proximity to right of way and will be provided below:

Street Name	Street Classification	Landscape Width	Number of Trees
Meridian Road	Expressway/Principal Arterial	25’	1 per 20 feet
Eastonville Road	Non-Arterial	10’	1 per 30 feet
Meridian Park Drive	Non-Arterial	10’	1 per 30 feet

Parking Lot Landscaping:
Parking lots are required to be screened to a minimum height of 3’ from view of adjacent roads and properties with differing land use. Two-thirds of the lot line with parking that abuts the street/differing land use must be screened. This screening is accomplished with trees and shrubs.

Internal Landscaping:
A minimum of 5% of the lot area is required to be landscaped, and include one tree per 500 square feet of required landscape area. With a development area of 48,352 sq ft, 2,418 sq ft must be landscaped, and must include 5 trees.

Conclusion
The Site Development Plan is harmonious and consistent with the surrounding land uses. The Proposed Development complies with the requirements of the zone district in which it is located, is consistent with the intent and purpose of the Zoning Code and is com surrounding the site.

Please contact me at 719-900-7220 with any questions or comments.

Sincerely,
GALLOWAY
Brynhildr Halsten, PLA

Discussion added under Districts Serving Property Section

Discuss if this property will be included in the Woodmen Road Metro District or not.
Discuss payment of Road Impact fees

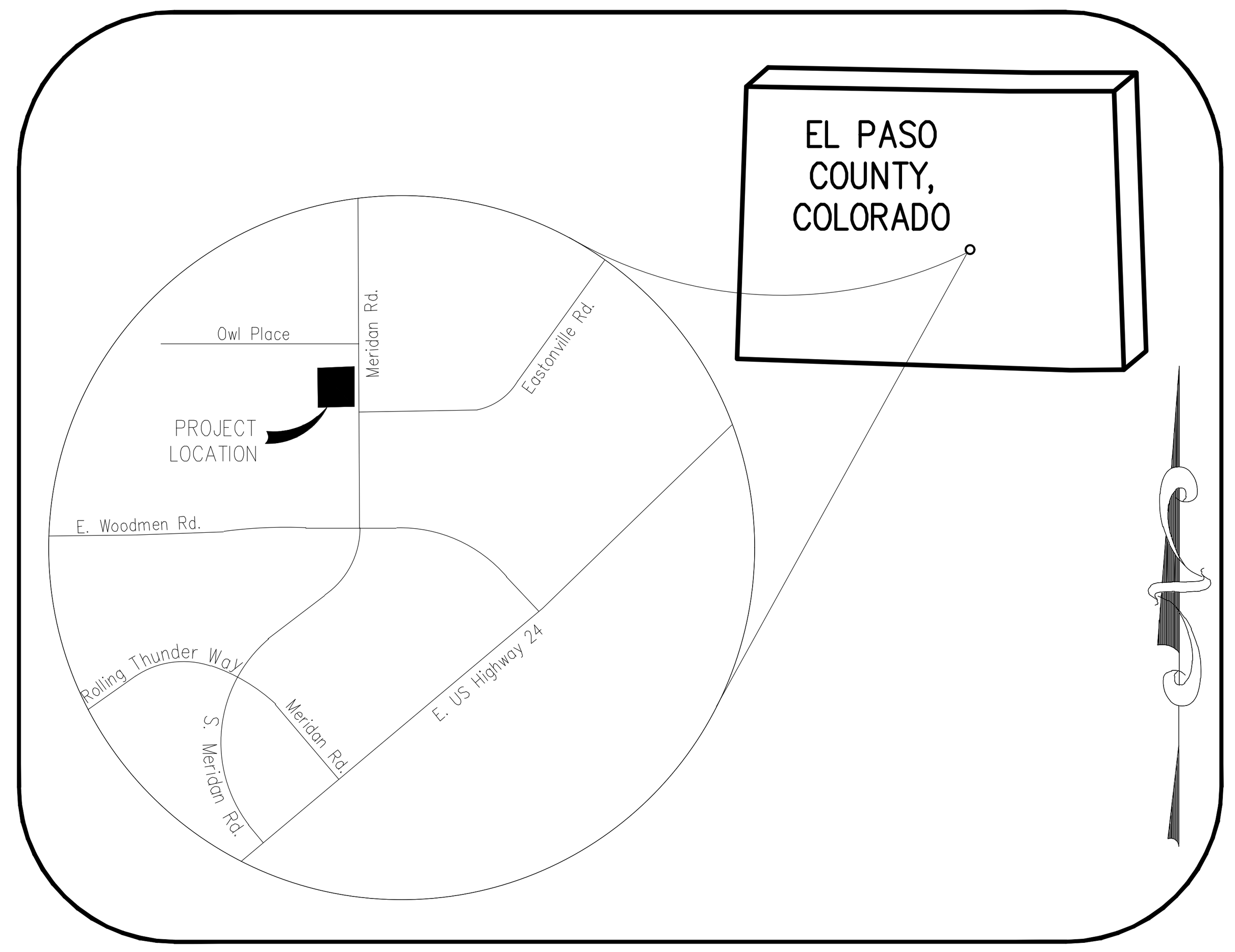
SITE DEVELOPMENT PLANS FOR
MURPHY USA (NTI)
EL PASO COUNTY, COLORADO
7440 MERIDIAN PARK DRIVE (MURPHY #7968)

Please include a note somewhere on the plans stating:
The owner agrees on behalf of him/herself and any developer or builder successors and assignees that Subdivider and/or said successors and assigns shall be required to pay traffic impact fees in accordance with the El Paso County Road Impact Fee Program Resolution (Resolution No. 19-471), or any amendments thereto, at or prior to the time of building permit submittals.The fee obligation, if not paid at final plat recording, shall be documented and on plat notes to ensure that a title search would find the fee obligation before sale of the property.

Revised.

Please also include the following standard ADA note:
The subdivider/developer has familiarized itself with current Americans with Disabilities Act (ADA) laws and accessibility standards and has laid out the plat and associated grading and construction plans so that all site elements meet the applicable ADA design standards as published by the United States Department of Justice. Approval of this plat and associated construction documents by El Paso County does not assure compliance with the ADA or any regulations or guidelines enacted or promulgated under or with respect to such laws.
It is the responsibility of the developer/home builder to ensure ADA accessibility during construction of the private sidewalks.

Revised.



Vicinity Map

NOT TO SCALE

PLAN INDEX:

SHEET INDEX	
SHEET NUMBER	SHEET TITLE
1	COVER SHEET
2	SITE PLAN
3	SITE DETAILS

SITE PLAN		
GENERAL DEVELOPMENT DATA		
SITE ADDRESS	7440 MERIDIAN PARK DRIVE, FALCON, CO 80831	
JURISDICTION	EL PASO COUNTY, COLORADO	
TAX SCHEDULE NUMBER	5301001015	
COUNTY FILE NUMBER	PPRXXXX (PPR-24-004)	
SITE AREA/TOTAL ACREAGE	48,244 SF / 1.11 ACRES	
DEVELOPMENT SCHEDULE	FALL 2024	
REQUIRED SETBACKS	BUILDING	LANDSCAPE
	FRONT (NORTH): 0'	FRONT (NORTH): 0'
	REAR (SOUTH): 25'	REAR (SOUTH): 10'
	SIDE (EAST): 25'	SIDE (EAST): 25'
	SIDE (WEST): 25'	SIDE (WEST): 10'
TOTAL GROSS BUILDING SQUARE FOOTAGE	2,842 SQ. FT.	
TOTAL BUILDING FOOTPRINT	2,842 SQ. FT	
LOCATION OF NO-BUILD AREAS	NO GRADING OR IMPROVEMENTS WILL BE OCCURRING IN ANY FLOOD PLAINS OR DRAINAGE AREAS.	
EXISTING DEVELOPMENT DATA		
ZONING DISTRICT	CS (COMMERCIAL)	
EXISTING LAND USE	SINGLE FAMILY RESIDENTIAL	
DRAINAGE BASIN	FALCON DBPS	
PROPOSED DEVELOPMENT DATA		
PROPOSED LAND USE	CONVENIENCE STORE, FUEL STATION	
FUELING PUMPS	6	
PROPOSED CANOPY HEIGHT	18'-9"	
PROPOSED BUILDING HEIGHT	18'-6"	
MAXIMUM ALLOWABLE BUILDING HEIGHT	45'	

Revised.

PRE-CONSTRUCTION IMPERVIOUS SITE RATIO (ISR)

AREA	SQUARE FEET	%
IMPERVIOUS	2,412.20	5.00
LANDSCAPE AREA	45,831.80	95.00
GROSS SITE	48,244.00	100

POST-CONSTRUCTION IMPERVIOUS SITE RATIO (ISR)

AREA	SQUARE FEET	%
IMPERVIOUS (ROOF AND PAVING)	33,433.09	69.30
LANDSCAPE AREA	14,810.91	30.70
GROSS SITE	48,244.00	100

Please indicate lot area coverage calculations

Revised.

PARKING INFORMATION: MURPHY OIL				
REQUIRED:				
RATIO	SPACES			
3/PUMP 1/EMPLOYEE	REGULAR	UNDER CANOPY	ACCESSIBLE	TOTAL
	20	N/A	1	21
PROVIDED:				
RATIO	SPACES			
5/PUMP 1/EMPLOYEE	REGULAR	UNDER CANOPY	ACCESSIBLE	TOTAL
	20	12	1	33
NO. OF FUEL ISLANDS: 6 NO. OF VEHICLE FUELING POINTS: 12				

RESOURCE LIST:

PLANNING & ZONING
EL PASO COUNTY PLANNING
2880 INTERNATIONAL CIRCLE, SUITE 110
COLORADO SPRINGS, CO 80910
CONTACT:
(719) 385-5905

Revised.

This number is for City Planning. Please change to County Planning at 719-520-6300

CODE ENFORCEMENT
EL PASO COUNTY
2880 INTERNATIONAL CIRCLE, SUITE 110
COLORADO SPRINGS, CO 80910
CONTACT:
(719) 520-6300

OWNER
MURPHY OIL USA, INC.
200 PEACH STREET
EL DORADO, AR 71730
PM: GRANT DENNIS
(870) 315-3430

STORMWATER
EL PASO COUNTY DEPT. PUBLIC WORKS
3275 AKERS DR.,
COLORADO SPRINGS, CO 80922
CONTACT:
(719) 520-6460

HEALTH DEPARTMENT
EL PASO COUNTY PUBLIC HEALTH
1675 W. GARDEN OF THE GODS RD.,
SUITE 2044
COLORADO SPRINGS, CO 80907
(719) 578-3199

CIVIL ENGINEER
GALLOWAY & COMPANY, INC.
1155 KELLY JOHNSON BLVD., SUITE 305
COLORADO SPRINGS, CO 80920
CONTACT: KYLE GOODWIN
(719) 900-7227

ELECTRIC
MOUNTAIN VIEW ELECTRIC ASSOCIATION
11140 E. WOODMEN RD.
FALCON, CO 80831
CONTACT: GINA PERRY
(800) 388-9881

FIRE
FALCON FIRE PROTECTION DISTRICT
7030 OLD MERIDAN ROAD
FALCON, CO 80831
CONTACT: TRENT HARWIG
(719) 495-4050

GEOTECHNICAL
UNITED CONSULTING
625 HOLCOMB BRIDGE RD.
NORCROSS, GA 30071
CONTACT: CHRIS ROBERDS
(770) 209-0029

Revised.

PPR-24-004

SEWER & WATER
WOODMEN HILLS METRO DISTRICT
8046 EASTONVILLE ROAD
FALCON, CO 80831
CONTACT: CODY RITTER
(719) 495-2500

LANDSCAPE
GALLOWAY & COMPANY, INC.
1155 KELLY JOHNSON BLVD., SUITE 305
COLORADO SPRINGS, CO 80920
CONTACT: JON ROMERO
(719) 308-2532

BUILDING CANOPY MANUFACTURER
FREY MOSS STRUCTURES
1801 ROCKDALE INDUSTRIAL BLVD.
CONYERS, GEORGIA 30012
CONTACT: JENNIFER GOODMAN
(770) 483-7543 EXT. 151

TANK AND PRODUCT PIPING
GALLOWAY & COMPANY, INC.
5500 GREENWOOD PLAZA BLVD SUITE 200
GREENWOOD VILLAGE, CO 80111
CONTACT: DAVE JONES
(303) 962-8506

BUILDING/CANOPY DESIGN
GREENBERG FARROW
3 EXECUTIVE DRIVE, SUITE 150
SOMERSET, NJ 08873
CONTACT: CHRIS CERBO
(732) 537-0832

Revised.

Per comments from Enumerations:
Store address should be 7825 Meridian Park Drive , Gas Canopy is 7829 Meridian Park Drive.

LEGAL DESCRIPTION:

LOT 1, OWL MARKETPLACE FILING NO. 1, LOCATED IN THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 1, TOWNSHIP 13 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO

OWNER'S STATEMENT

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE DEVELOPMENT PLAN.

MURPHY OIL USA, INC. DATE

Revised.

PCD File # PPR244

MEGGAN HERINGTON
EXECUTIVE DIRECTOR DATE

GALLOWAY & COMPANY, INC.
1155 KELLY JOHNSON BLVD.
COLORADO SPRINGS, CO 80920
(719) 900-7227
CONTACT: KYLE GOODWIN, P.E.

Galloway
1155 Kelly Johnson Blvd., Suite 305
Colorado Springs, CO 80920
719.900.7220
GallowayUS.com

PRELIMINARY
NOT FOR BIDDING
NOT FOR CONSTRUCTION

MURPHY OIL USA, INC.
200 PEACH STREET
EL DORADO, AR 71730
MURPHY USA

SITE DEVELOPMENT PLAN
MURPHY OIL USA #7968
PCD FILING NO. XXXXX
7440 MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

#	Date	Issue / Description	Init.

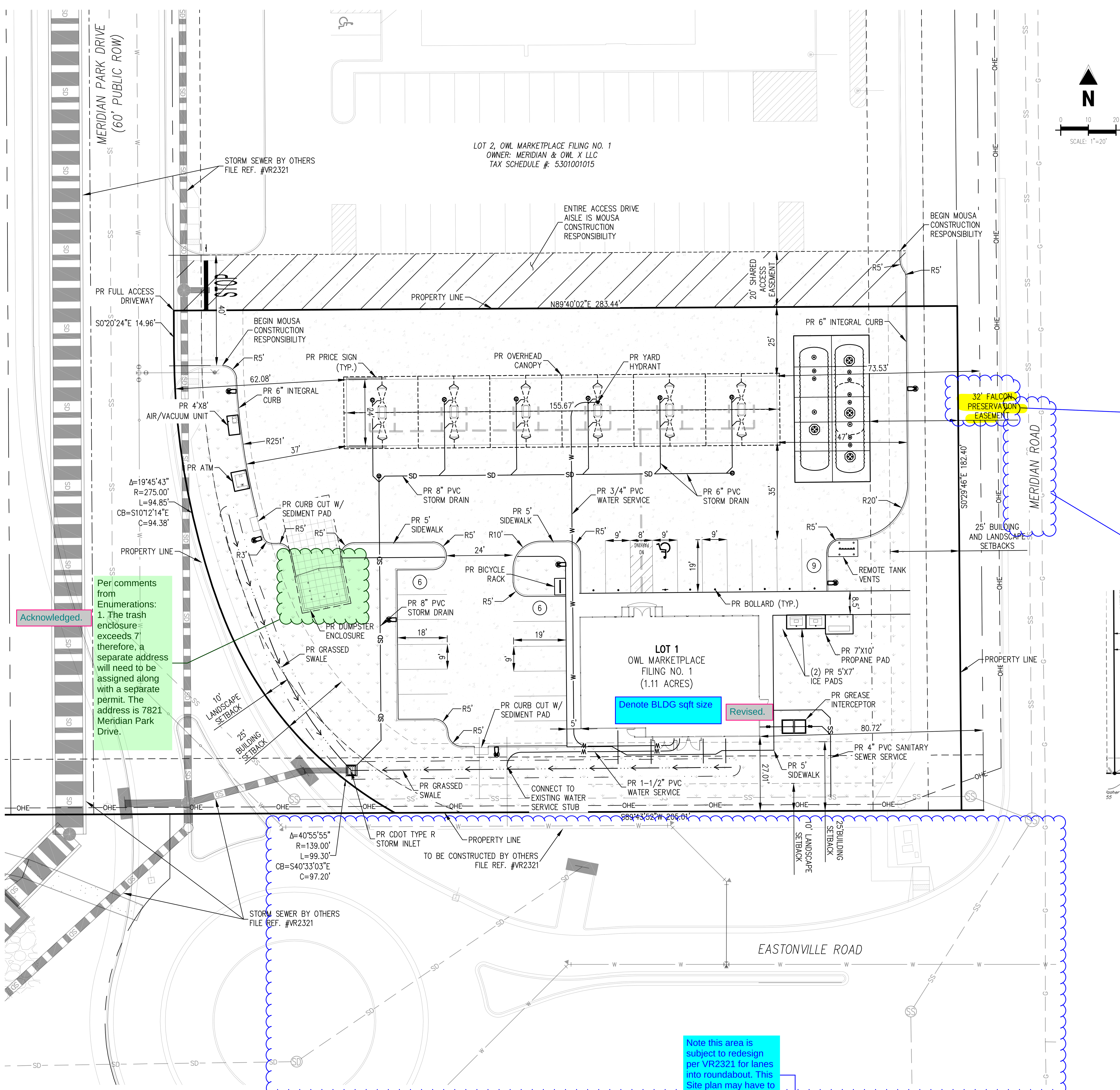
Project No:	MOC000099
Drawn By:	ASA, BLB
Checked By:	KG, CMWJ
Date:	02/16/2024

COVER SHEET

XXXXX

C0.0

Sheet 1 of 3



Check and correct this value against plat

Value correct. Revised to public improvement easement.

Add missing ROW width
Refer to VR231 Plat

Revised.

Per comments from Enumerations: 1. The trash enclosure exceeds 7' therefore, a separate address will need to be assigned along with a separate permit. The address is 7821 Meridian Park Drive.

Acknowledged.

Denote BLDG sqft size

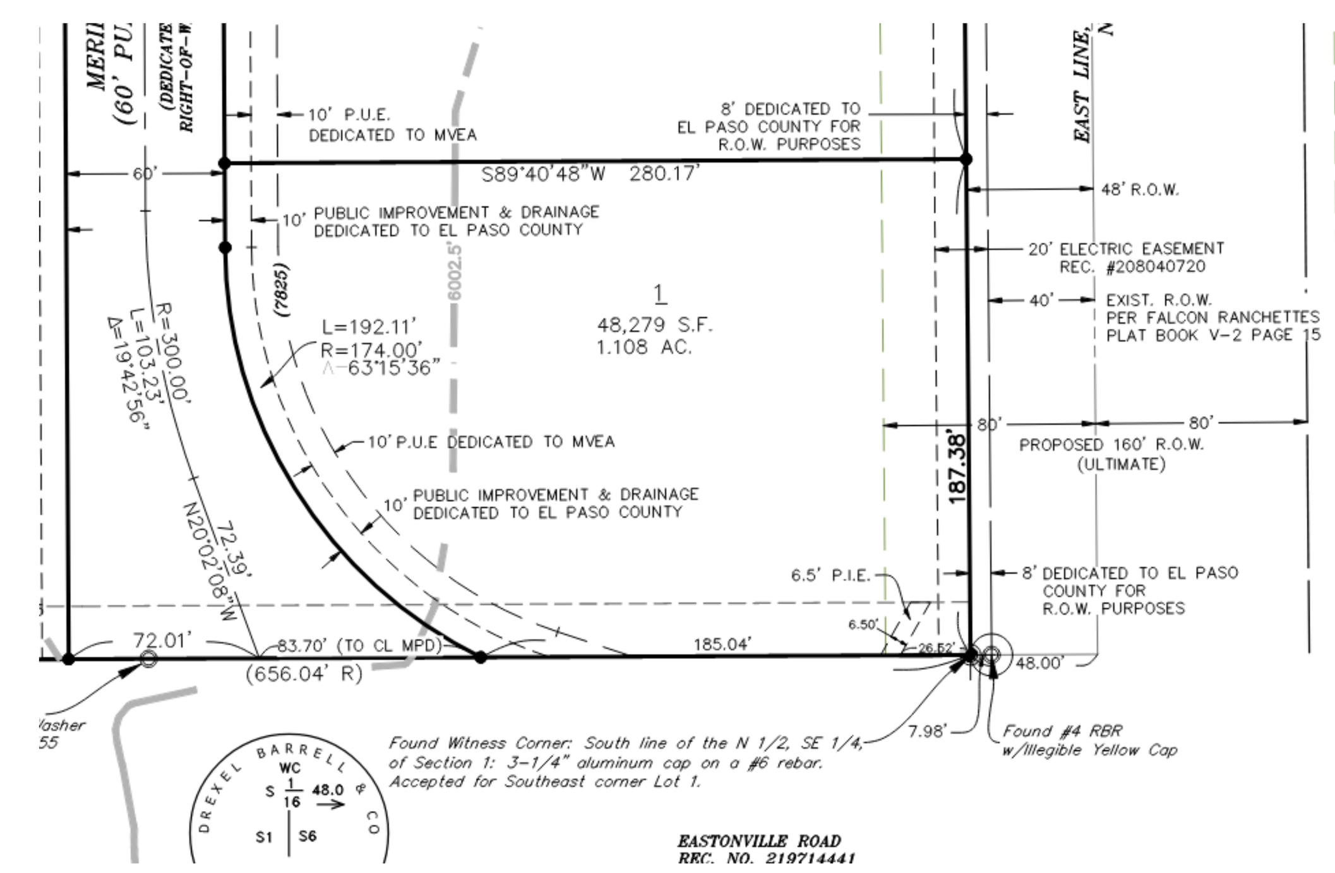
Revised.

Note this area is subject to redesign per VR2321 for lanes into roundabout. This Site plan may have to be corrected once VR2321 is completed.

Acknowledged.

BUILDING SETBACKS:	
NORTH: BUILDING=0'	LANDSCAPE=0'
WEST: BUILDING=25'	LANDSCAPE=10'
SOUTH: BUILDING=25'	LANDSCAPE=10'
EAST: BUILDING=25'	LANDSCAPE=25'

ZONING: CS (COMMERCIAL)



Revised.

Revised.

Per comments from Enumerations: Store address should be 7825 Meridian Park Drive , Gas Canopy is 7829 Meridian Park Drive.

EXISTING

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING STORM SEWER (LESS THAN 12"ø)
- STORM SEWER (BY OTHERS)
- EXISTING SANITARY SEWER
- EXISTING WATER
- EXISTING UNDERGROUND ELECTRIC
- EXISTING OVERHEAD ELECTRIC
- EXISTING FIBER OPTIC
- EXISTING GAS
- EXISTING STREET LIGHT
- EXISTING TRANSFORMER
- EXISTING ELECTRIC METER
- EXISTING ELECTRIC BOX
- EXISTING FIBER OPTIC BOX
- EXISTING GAS METER
- EXISTING SANITARY SEWER MANHOLE
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING FIRE HYDRANT
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING TREE

PROPOSED

- BOUNDARY LINE
- BUILDING CONTROL POINT
- CONCRETE PAVING
- REINFORCED CONCRETE PAVING
- ASPHALT PAVING
- PROPOSED ADA PATH
- PROPOSED LANDSCAPE AREAS (SEE LANDSCAPE PLANS)
- PROPOSED STORM SEWER (LESS THAN 12"ø)
- PROPOSED SANITARY SEWER SERVICE
- PROPOSED WATER SERVICE

Galloway
1155 Kelly Johnson Blvd., Suite 305
Colorado Springs, CO 80920
719.900.7220
GallowayUS.com

PRELIMINARY
NOT FOR BIDDING
NOT FOR CONSTRUCTION

MURPHY OIL USA, INC.
200 PEACH STREET
EL DORADO, AR 71730

MURPHY USA

PPR-24-004

SITE DEVELOPMENT PLAN
MURPHY OIL USA #7968
PCD FILING NO. XXXXX
7440 MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

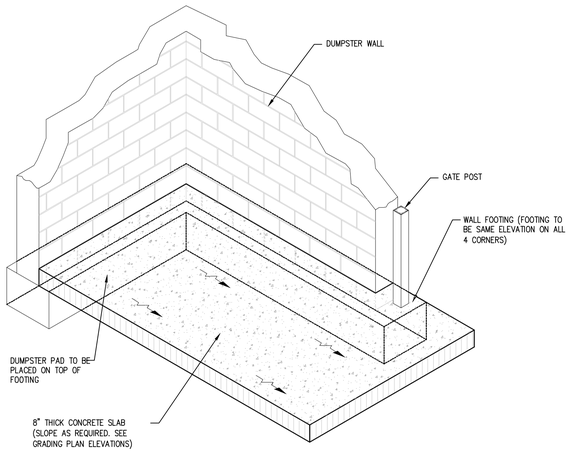
#	Date	Issue / Description	Init.

Project No:	MOC000099
Drawn By:	ASA, BLB
Checked By:	KG, CMWJ
Date:	02/16/2024

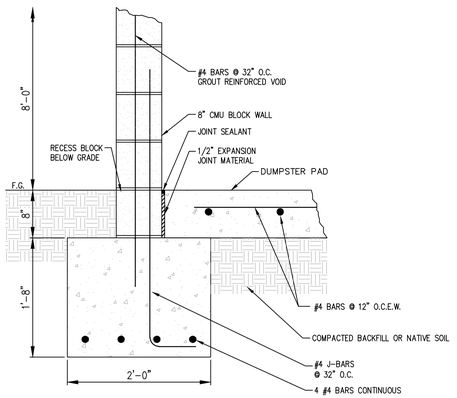
SITE PLAN

XXXXX

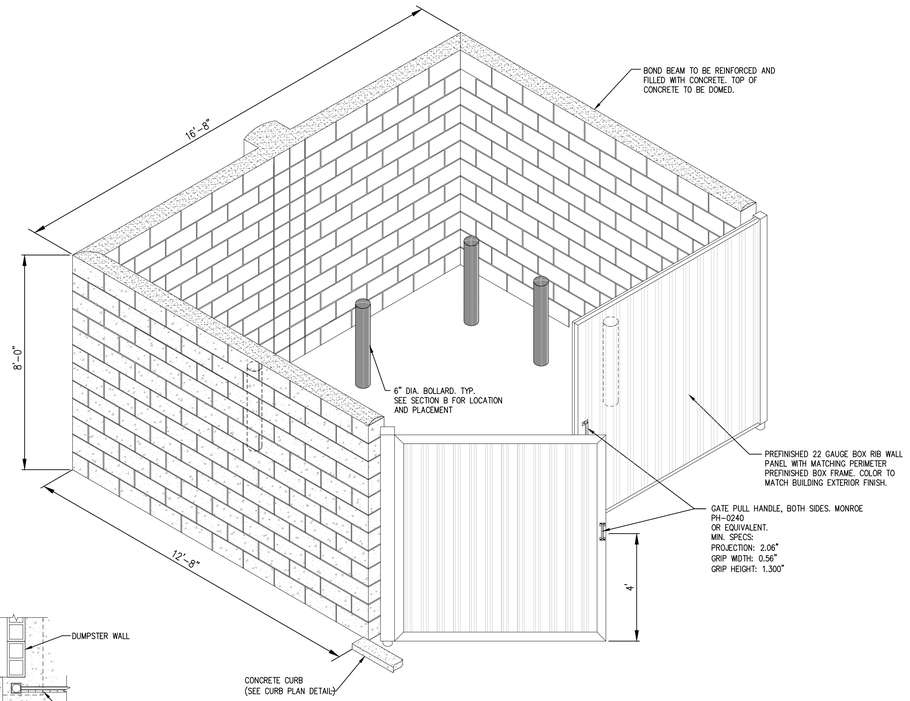
C1.1
Sheet 2 of 3



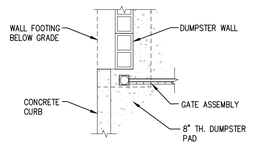
DUMPSTER PAD
N.T.S.



WALL FOOTING
1"=1'-0"

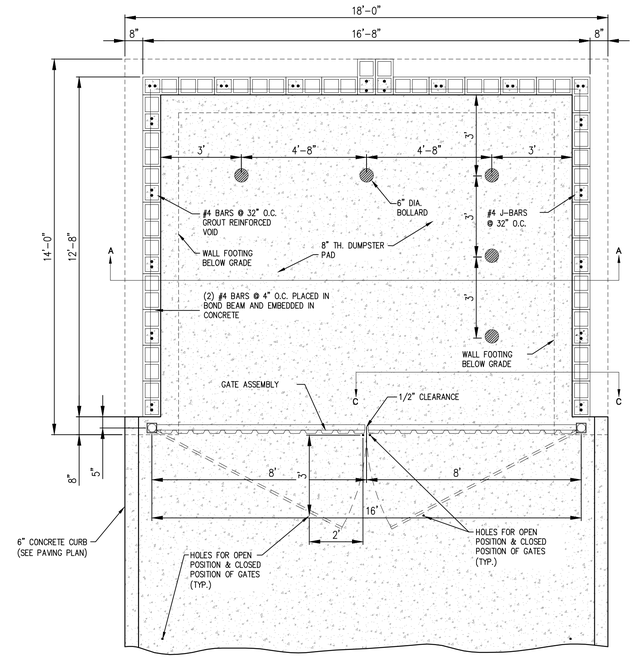


MASONRY CMU BLOCK 8"x8"x16" – DUMPSTER ENCLOSURE
DESIGN WIND SPEED: 130 M.P.H.

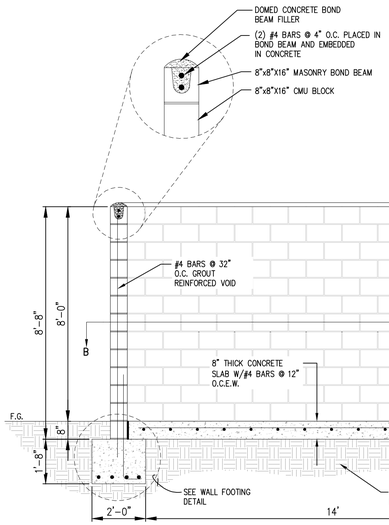


CURB PLAN DETAIL
N.T.S.

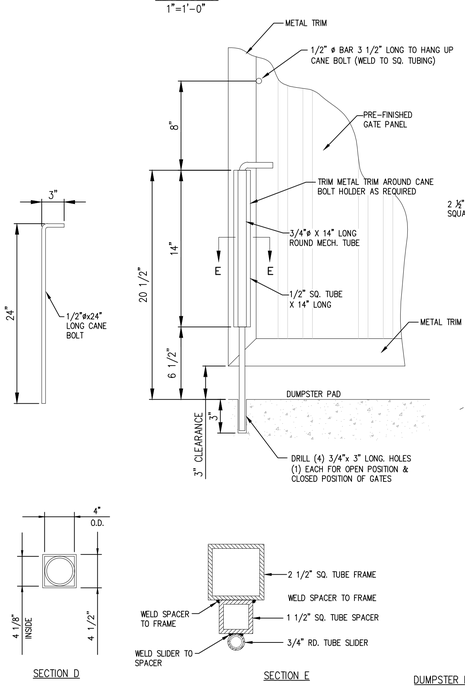
DUMPSTER TO BE:
- 8' HT. SMOOTH FACE CMU BLOCK WALL COLOR TO MATCH BUILDING EXTERIOR FINISH
- ENDURAMAX PRE-BLENDED MORTAR (GROUT), COLOR "GRAY"



SECTION B
DUMPSTER FOUNDATION PLAN
SCALE: 3/8" = 1'-0"



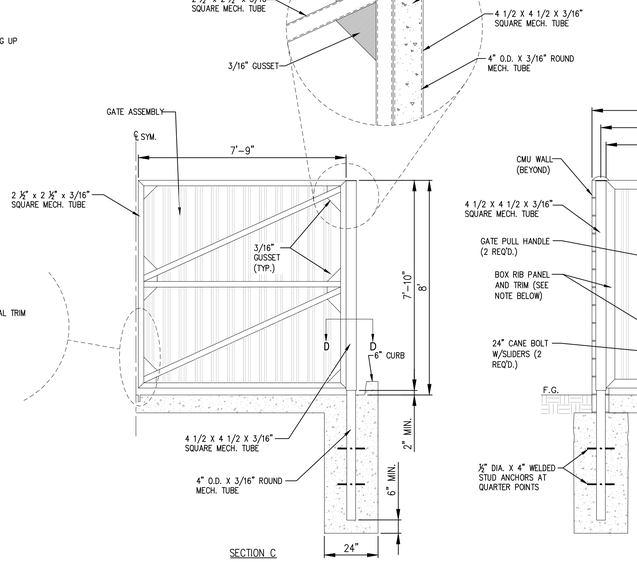
SECTION A
DUMPSTER FOUNDATION SECTION
SCALE: 3/8" = 1'-0"



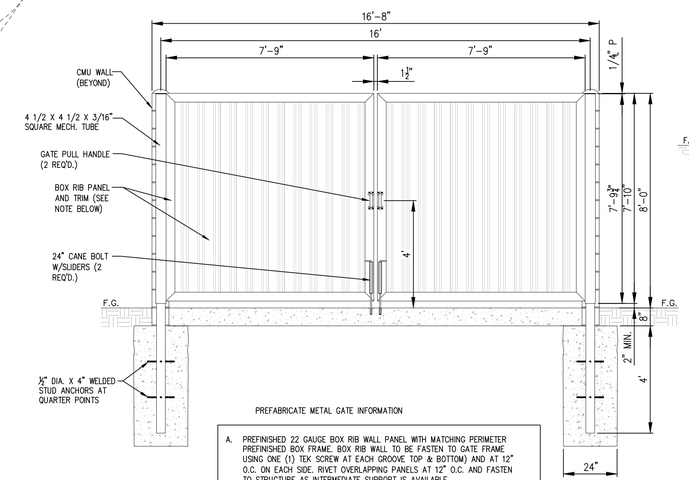
SECTION D

SECTION E

DUMPSTER ENCLOSURE GATE DETAIL
N.T.S.



SECTION C



PREFABRICATE METAL GATE INFORMATION

A. PREFINISHED 22 GAUGE BOX RIB WALL PANEL WITH MATCHING PERIMETER PREFINISHED BOX FRAME. BOX RIB WALL TO BE FASTEN TO GATE FRAME USING ONE (1) TEK SCREW AT EACH GROOVE TOP & BOTTOM) AND AT 12" O.C. ON EACH SIDE. RIVET OVERLAPPING PANELS AT 12" O.C. AND FASTEN TO STRUCTURE AS INTERMEDIATE SUPPORT IS AVAILABLE

DUMPSTER GATE ELEVATION
SCALE: 3/8" = 1'-0"

FINISH OF FRAMING (ALL EXPOSED METAL SURFACES) – UPON PREPARATION AND CLEANING PER PAINT MANUFACTURER'S RECOMMENDATIONS, CONTRACTOR SHALL UTILIZE THE FOLLOWING COATINGS:

1. PRIMER COAT – CPS-26 ZINC CHROMATE PRIMER (3 TO 4 MILS DFT)
2. FINISH COAT – 100 SERIES INDUSTRIAL ALKYD ENAMEL W/ HARDNER ADDITIVE (3 TO 5 MILS DFT) – COLOR – BLACK

CMU DUMPSTER ENCLOSURE (METAL GATES) 2E

Galloway
1155 Kelly Johnson Blvd., Suite 305
Colorado Springs, CO 80920
719.900.7220
GallowayUS.com

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MURPHY OIL USA, INC.
200 PEACH STREET
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SITE DEVELOPMENT PLAN
MURPHY OIL USA #7968
PCD FILING NO. XXXXX

7440 MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

#	Date	Issue / Description	Init.

Project No:	MOC000099
Drawn By:	ASA, BLB
Checked By:	KG, CMWJ
Date:	02/16/2024

SITE DETAILS

XXXXX

C2.1
Sheet 3 of 3

Please include the following signature block:

Traffic Engineer's Statement

The attached traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports.

_____
_____

[Name, P.E. #_____] Date

Developer's Statement

I, the Developer, have read and will comply with all commitments made on my behalf within this report.

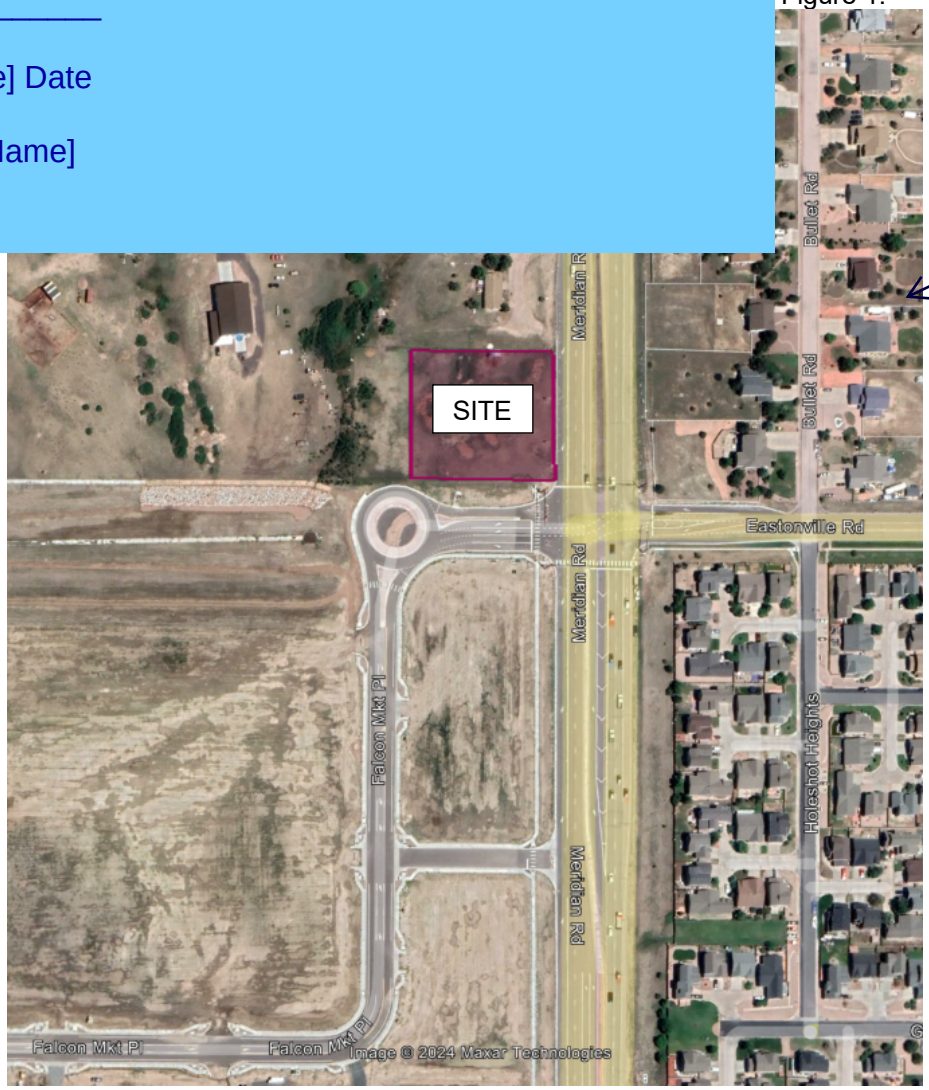
_____
_____

[Name, Title] Date

[Business Name]

[Address]

e analysis performed in support of an The site is located north of Eastonville Falcon Market Place/Eastonville Road Figure 1.



Please provide north arrow and scale information.

Figure 1 – Site Location

BACKGROUND

The subject site was previously studied as a gas station with convenience store as part of a larger proposed development, Owl Place Commercial, which was supported by a Traffic Impact Study (TIS) approved on May 11, 2023, and amended December 21, 2023, by SM Rocha, LLC. The subject site was specifically studied as the southernmost use in the TIS and the overall development analyzed a mix of auto oriented uses. The full site plan for Owl Place Commercial is shown on Figure 2.

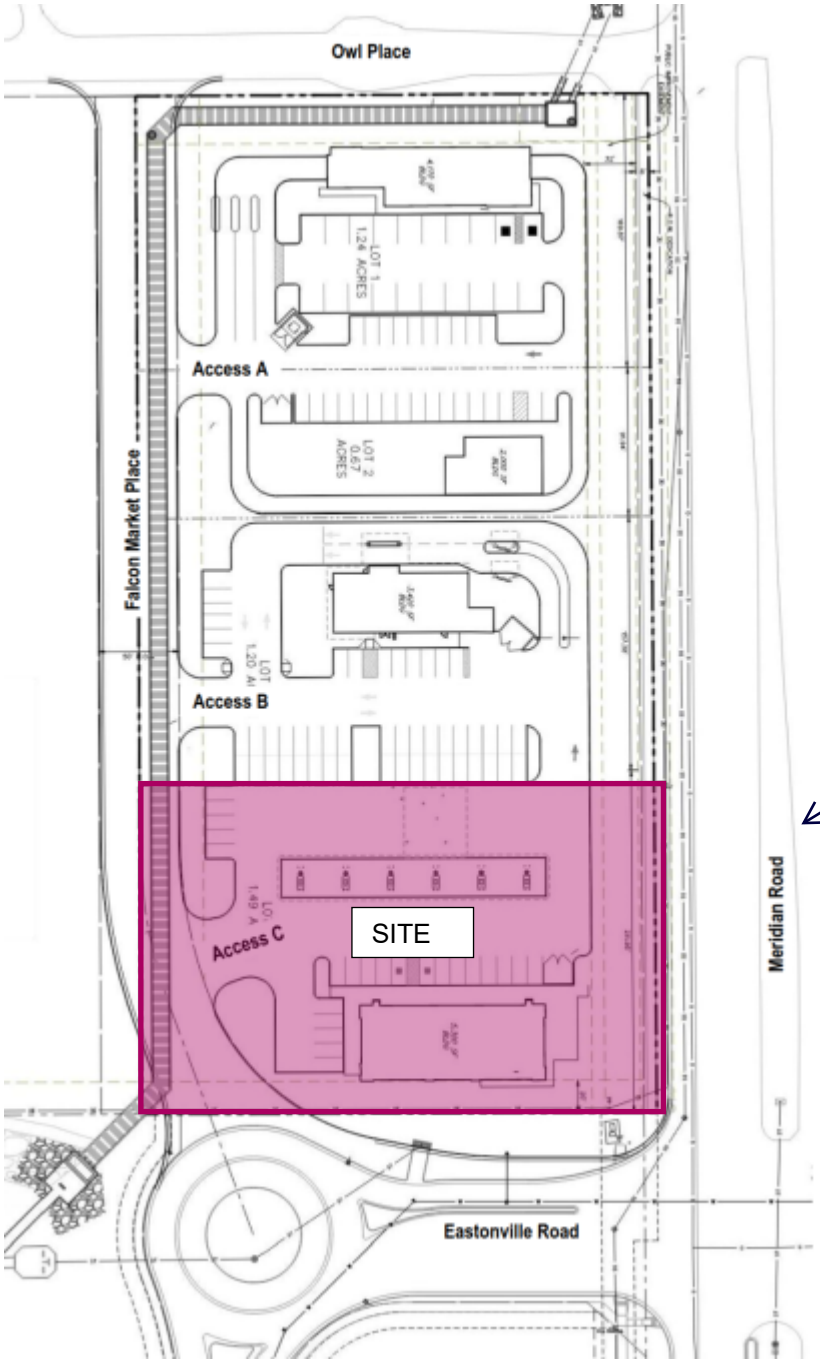


Figure 2 – Owl's Place Commercial

The TIS analyzed the area which encompasses the subject site with the following use:

- 5.3 KSF Gas Station & Convenience Store with 12 FP
- 3.4 KSF Fast Food Restaurant & Drive Through
- 2.0 KSF Coffee Shop & Drive Though
- 1 Tunnel Automated Car Wash

State the actual number of ADT trips and peak hour that the development will generate based on the ITE

Excerpts from the TIS are included as Attachment I.

The Applicant, Murphy Oil, proposes to develop the subject site within the larger development with a gas station with convenience store use. Specifically, the Applicant is proposing a 2.6 KSF convenience store and 12 fueling position (FP) gas station use. A full-sized copy of the site plan is provided as Attachment II.

The following memorandum has been prepared for the County as required. The purpose is to confirm that the currently proposed gas station & convenience store use is in conformance with the approved TIS.

PROPOSED DEVELOPMENT

The Applicant is proposing a 2.6 KSF convenience store and 12 FP gas station use for the subject site in place of the previously assumed 5.3 KSF convenience store and 12 FP gas station use in the approved TIS. Additionally, during the course of review the Access C shown in Figure 2 was removed to provide better access spacing to the other uses as well as the roundabout to the south. The proposed development represents fewer trips due to the smaller convenience store size as well as a better access configuration. A site distance exhibit was provided within the TIS to show how the currently proposed layout would meet sight distance and access spacing requirements. This is shown below as Figure 3.

State the required entering sight distance per ECM Table 2-35 and what is being provided Line of Sight was not provided in the Plat TIS for the entrances. State what the sight distance is for every affected access and whether it can be met. If it cannot be met, state the required modifications so that it can be met.

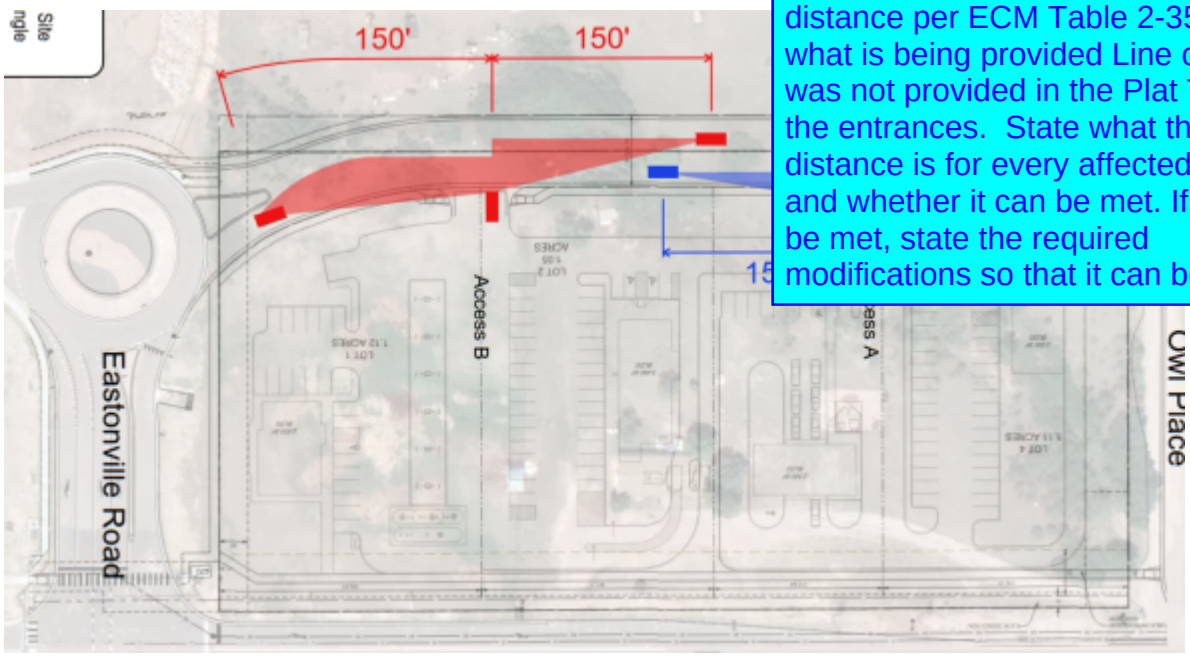


Figure 3 – Owl's Place Commercial

Please provide north arrow and scale information.

TIS RECOMMENDATIONS

The TIS concluded that "the site generated traffic is expected to create no negative impact upon consideration for, and application of, all applicable roadway and intersection improvements identified in the approved TIS. All conclusions and recommendations presented in the previous site traffic study remain valid." Since the proposed development represents fewer site trips as well as an improved access condition, the conclusions and recommendations of the approved TIS would remain valid.

CONCLUSIONS

The conclusions of this analysis are as follows:

1. The subject site was previously contemplated as a single lot use within the larger Owl Place Commercial TIS.

2. According to the Owl Place Commercial Traffic Impact Study (TIS) approved on May 11, 2023, and amended December 21, 2023, by SM Rocha, LLC, the subject site was analyzed with the following use:

    - 5.3 KSF convenience store and 12 FP gas station use.

3. Improvements to the local network as recommended by the TIS have been or are being constructed by the overall developer.
4. The Applicant, Murphy Oil, proposes to develop the subject site with a 2.6 KSF convenience store and 12 FP gas station use.

5. The project would consolidate access and share access with the use to the north to provide the greatest separation possible from the roundabout as well as to the accesses to the north.

6. Based on the reduction of convenience store size as well as the consolidation and improvement of access conditions, the proposed gas station & convenience store use would not negatively impact the conclusions of the TIS. The traffic impacts associated with the proposed use would be adequately accommodated by the constructed/proposed road network without the need for additional improvements.

We trust that the information contained herein satisfies
any questions or need further information, please cont
or 303-770-8884.

State the Road Impact fee for Convenience Commercial.

Convenience Commercial $8,800/1000sqft

Traffic Memorandum. The key elements of the project impact assessment shall be specified by the ECM Administrator from the following list:
- Peak hour link volume and LOS;
- Peak hour access LOS;
- Appropriateness of access locations;
- Location and requirements for turn lanes or acceleration/deceleration lanes at the access, including recommendations for taper lengths, storage length, acceleration/deceleration lengths, and other geometric design requirements;
- Sight distance evaluations and recommendations (intersection, stopping, passing);
- Continuity and adequacy of pedestrian and bicycle facilities within the study area;
- Appropriateness of the existing roadway signing and striping;

Attachment I

Owl Place Commercial – Traffic Impact Study approved on May 11, 2023, and amended December 21, 2023, by SM Rocha, LLC Excerpts

SM ROCHA, LLC
TRAFFIC AND TRANSPORTATION CONSULTANTS

This excerpt needs to be updated once the TIS is approved.

December 21, 2023

Brian Zurek
Double Tree Ventures
4148 N Arcadia Drive
Phoenix, AZ 85018

RE: Owl Place Commercial / Traffic Impact Study Addendum
El Paso County, Colorado

Dear Brian,

SM ROCHA, LLC is pleased to provide traffic information for the development entitled Owl Place Commercial. This development is located at the northwest corner of the intersection of Meridian Road with Eastonville Road in El Paso County, Colorado.

The intent of this analysis is to present updated traffic impact analyses for short-term and long-term build-out scenarios pursuant to the latest proposed site plan, land uses, and access locations. This analysis is provided as an addendum to the previously approved Owl Place Commercial Traffic Impact Study[1].

The following is a summary of analysis results.

Site Description and Access

Land for the development is currently occupied by a single-family dwelling unit and is surrounded by a mix of residential, commercial, and open space land uses. The proposed development is understood to entail the new construction of two fast-food restaurants with drive-throughs totaling approximately 5,500 square feet, one quick lubrication vehicle shop approximately 2,500 square feet in size, and one 2,800 square foot gas station convenience store supporting 12 vehicle fueling positions.

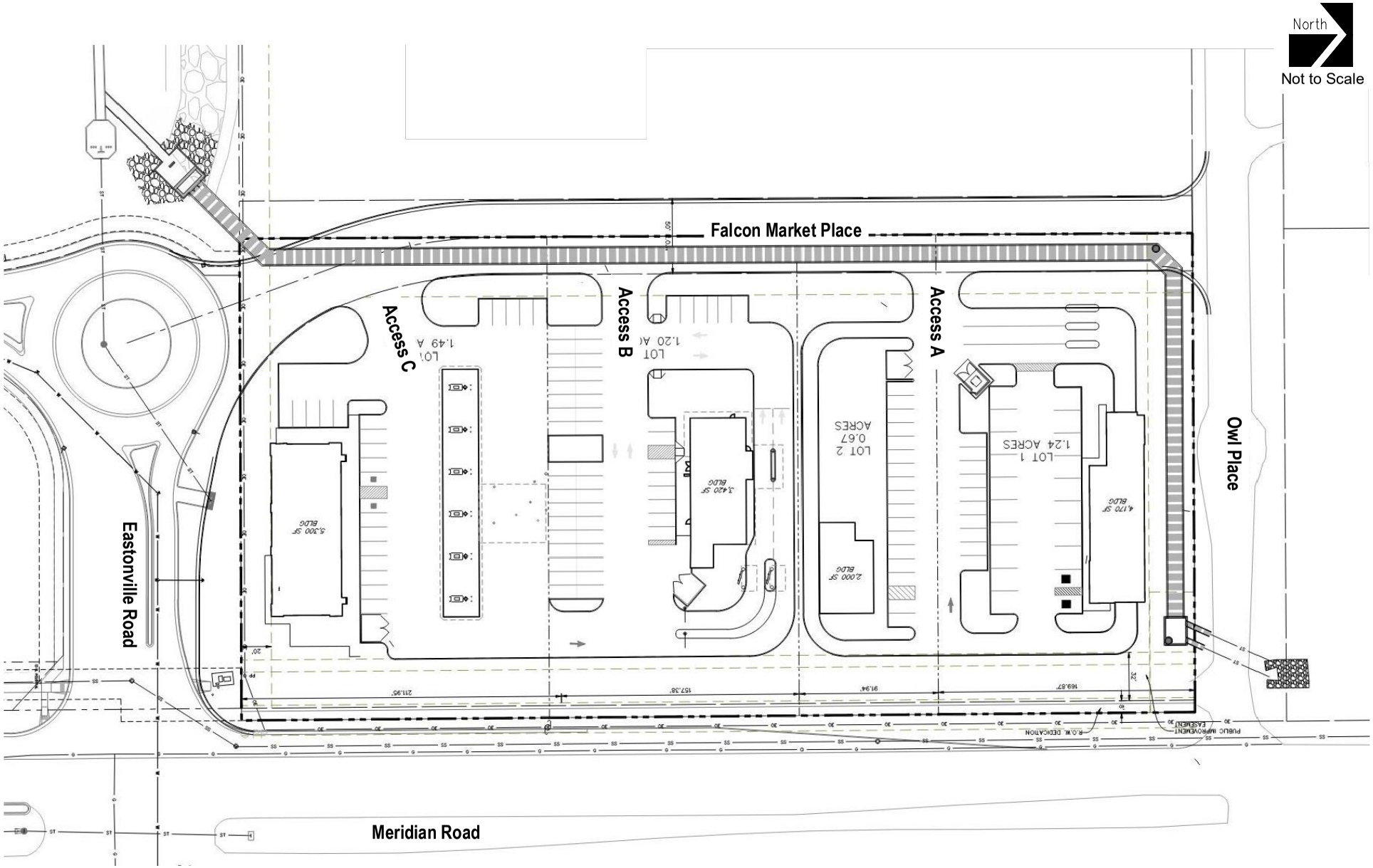
Proposed access to the development is provided at the following locations: two full-movement accesses onto the planned extension of Falcon Market Place (referred to as Access A and Access B).

[1] Owl Place Commercial Traffic Impact Study, SM Rocha LLC, April 2023.

A conceptual sight distance exhibit, illustrating an approximate intersection sight distance triangle for site access, is included for reference in Attachment A. This two-dimensional exhibit does not consider potential landscaping or utility obstructions and is provided for illustrative purposes only.

General site and access locations are shown on Figure 1. A conceptual site plan, as prepared by Drexel, Barrell & Co., is shown on Figure 2. This plan is provided for illustrative purposes only.


North
Not to Scale
Bent Grass Meadows Drive
Meridian Road
Owl Place
Development Site
Eastonville Road
Patron Market Place
E Woodmen Road


North
Not to Scale
Falcon Market Place
Access C
Access B
Access A
Owl Place
Eastonville Road
Meridian Road
LOT 2
0.67
ACRES
LOT 1
1.24 ACRES

Vehicle Trip Generation

Standard traffic generation characteristics compiled by the Institute of Transportation Engineers (ITE) in their report entitled Trip Generation Manual, 11th Edition, were applied to the previously approved and proposed land uses in order to estimate the average daily traffic (ADT) and peak hour vehicle trips. A vehicle trip is defined as a one-way vehicle movement from point of origin to point of destination.

Table 1 presents average trip generation rates for previously approved land uses and the proposed development areas. Use of average trip generation rates presents a conservative analysis. ITE land use codes 934 (Fast-Food Restaurant with Drive-Through Window), 937(Coffee/Donut Shop with Drive-Through Window), 941 (Quick Lubrication Vehicle Shop), 945 (Convenience Store/Gas Station), and 948 (Automated Car Wash) were used for analysis because of their best fit to the previously approved and proposed land uses.

Table 1 – Trip Generation Rates

ITE			TRIP GENERATION RATES						
			24	AM PEAK HOUR			PM PEAK HOUR		
CODE	LAND USE	UNIT	HOUR	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
934	Fast-Food Restaurant w/DTW	KSF	467.48	22.75	21.86	44.61	17.18	15.85	33.03
937	Coffe/Donut Shop w/DTW	KSF	533.57	43.80	42.08	85.88	19.50	19.50	38.99
941	Quick Lubrication Vehicle Shop	KSF	69.57	4.35	1.45	5.80	3.65	5.05	8.70
945	Convenience Store/Gas Station	KSF	700.43	28.26	28.26	56.52	27.26	27.26	54.52
948	Automated Car Wash	CWT	775.00	*	*	*	38.75	38.75	77.50

Key: KSF = Thousand Square Feet Gross Floor Area. CWT = Car Wash Tunnel.
* = ITE does not report significant AM peak hour generation due to the nature of the buisness (ie. Operating hours typically open after AM peak)
Note: All data and calculations above are subject to being rounded to nearest value.

Table 2 summarizes the projected ADT and peak hour traffic volumes likely generated by the land use area proposed and provides comparison to traffic volume estimates for the previously approved land uses.

Table 2 – Trip Generation Summary

ITE CODE	LAND USE	SIZE	TOTAL TRIPS GENERATED						
			24 HOUR	AM PEAK HOUR			PM PEAK HOUR		
				ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
Site Development - Previously Approved									
934	Fast-Food Restaurant w/DTW	3.4 KSF	1,599	78	75	153	59	54	113
937	Coffe/Donut Shop w/DTW	2.0 KSF	1,067	88	84	172	39	39	78
945	Convenience Store/Gas Station	5.3 KSF	3,712	150	150	300	144	144	289
948	Automated Car Wash	1.0 CWT	775	*	*	*	39	39	78
	Previously Approved Total:		*7,153*	*315*	*309*	*624*	*281*	*276*	*557*
Site Development - Proposed									
934	Fast-Food Restaurant w/DTW	5.5 KSF	2,562	125	120	244	87	87	174
941	Quick Lubrication Vehicle Shop	2.5 KSF	174	11	4	15	13	13	25
945	Convenience Store/Gas Station	2.8 KSF	1,982	80	80	160	77	77	154
	Proposed Total:		*4,718*	*216*	*203*	*419*	*177*	*177*	*353*
	Difference Total:		***-2,435***	***-100***	***-105***	***-205***	***-104***	***-100***	***-204***

Key: KSF = Thousand Square Feet Gross Floor Area. CWT = Car Wash Tunnel.
* = ITE does not report significant AM peak hour generation due to the nature of the buisness (ie. Operating hours typically open after AM peak)
Note: All data and calculations above are subject to being rounded to nearest value.

As Table 2 shows, the proposed development area has the potential to generate approximately 4,718 daily trips with 586 of those occurring during the morning peak hour and 528 during the afternoon peak hour. Table 2 further shows how proposed development traffic volumes do not exceed those approved in the Owl Place Commercial Traffic Impact Study.

Adjustments to Trip Generation Rates

A development of this type is likely to attract pass-by trips from the adjacent roadway system. ITE defines a pass-by trip as an intermediate stop on the way from an origin to a primary trip destination without a route diversion. Due to this behavior, pass-by trips are not considered as “new” traffic generated by the development since the trips are already present on the roadway network enroute to their primary destination.

Pass-by trips are especially to fast-food restaurant, coffee/donutshop, and gas station land uses given the convenience provided by these businesses on the way to another primary destination such as a place of work or home. As example, published ITE Pass-by and diverted link trip data indicates an average trip generation reduction rate of 49 percent during the AM peak traffic hour and 50 percent during the PM peak traffic hour as typical to fast-food restaurants with drive-through window.

Table 3 illustrates projected ADT, AM Peak Hour, and PM Peak Hour traffic volumes likely generated by the previously approved development and proposed development upon build-out with reductions applied due to pass-by trips. Average daily (24-Hour) pass-by trip percentages were estimated as the average between the AM and PM peak hour rates indicated by ITE.

Table 3 – Trip Generation Summary with Pass-By Trip Reductions

ITE CODE	LAND USE	SIZE	TOTAL NEW TRIPS GENERATED						
			24 HOUR	AM PEAK HOUR			PM PEAK HOUR		
				ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
Site Development - Previously Approved									
		Pass-By Trip Reduction:	*50%*	*49%*	*49%*	*49%*	*50%*	*50%*	*50%*
934	Fast-Food Restaurant w/DTW	3.4 KSF	807	40	38	78	29	27	56
		Pass-By Trip Reduction:	*60%*	*60%*	*60%*	*60%*	*60%*	*60%*	*60%*
937	Coffe/Donut Shop w/DTW	2.0 KSF	427	35	34	69	16	16	31
		Pass-By Trip Reduction:	*59%*	*62%*	*62%*	*62%*	*56%*	*56%*	*56%*
945	Convenience Store/Gas Station	5.3 KSF	1,522	57	57	114	64	64	127
		Pass-By Trip Reduction:	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*
948	Automated Car Wash	1.0 CWT	775	*	*	*	39	39	78
		Previously Approved Total:	*3,531*	*132*	*129*	*260*	*147*	*145*	*292*
Site Development - Proposed									
		Pass-By Trip Reduction:	*50%*	*49%*	*49%*	*49%*	*50%*	*50%*	*50%*
934	Fast-Food Restaurant w/DTW	5.5 KSF	1,294	64	61	125	47	43	91
		Pass-By Trip Reduction:	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*
941	Quick Lubrication Vehicle Shop	2.5 KSF	174	11	4	15	9	13	22
		Pass-By Trip Reduction:	*59%*	*62%*	*62%*	*62%*	*56%*	*56%*	*56%*
945	Convenience Store/Gas Station	2.8 KSF	813	30	30	61	34	34	68
		Proposed Total:	*2,280*	*105*	*95*	*200*	*90*	*90*	*180*
		Difference Total:	***-1,251***	***-27***	***-34***	***-60***	***-57***	***-55***	***-112***

Key: KSF = Thousand Square Feet Gross Floor Area. CWT = Car Wash Tunnel.
* = ITE does not report significant AM peak hour generation due to the nature of the buisness (ie. Operating hours typically open after AM peak)
Note: All data and calculations above are subject to being rounded to nearest value.

Upon build-out and with consideration for pass-by trip reductions, Table 3 illustrates that the proposed development has the potential to generate approximately 2,280 daily trips with 200 of those occurring during the morning peak hour and 180 during the afternoon peak hour. Furthermore, Table 3 continues to show how the proposed development does not exceed estimates originally anticipated in the previously approved traffic study.

Trip Distribution & Assignment

The overall directional distribution was previously established by the corresponding traffic impact study. However, due to the proposed changes in anticipated land uses, distribution and assignment of site-generated traffic has been updated. These updated trip distribution patterns to site-generated traffic provide the overall site-generated trips at study intersections upon build-out for Years 2024 and Year 2040, which are shown on Figure 3 and 4, respectively.

It is to be noted that the overall site-generated trip assignments shown on Figures 3 and 4 represent the combination of both primary trip generation and pass-by trips. Due to the application of pass-by trips, some negative site-generated trips are shown at the study intersections. These negative trips are the result of redistributing existing through volumes along Meridian Road to site-generated ingress volumes.

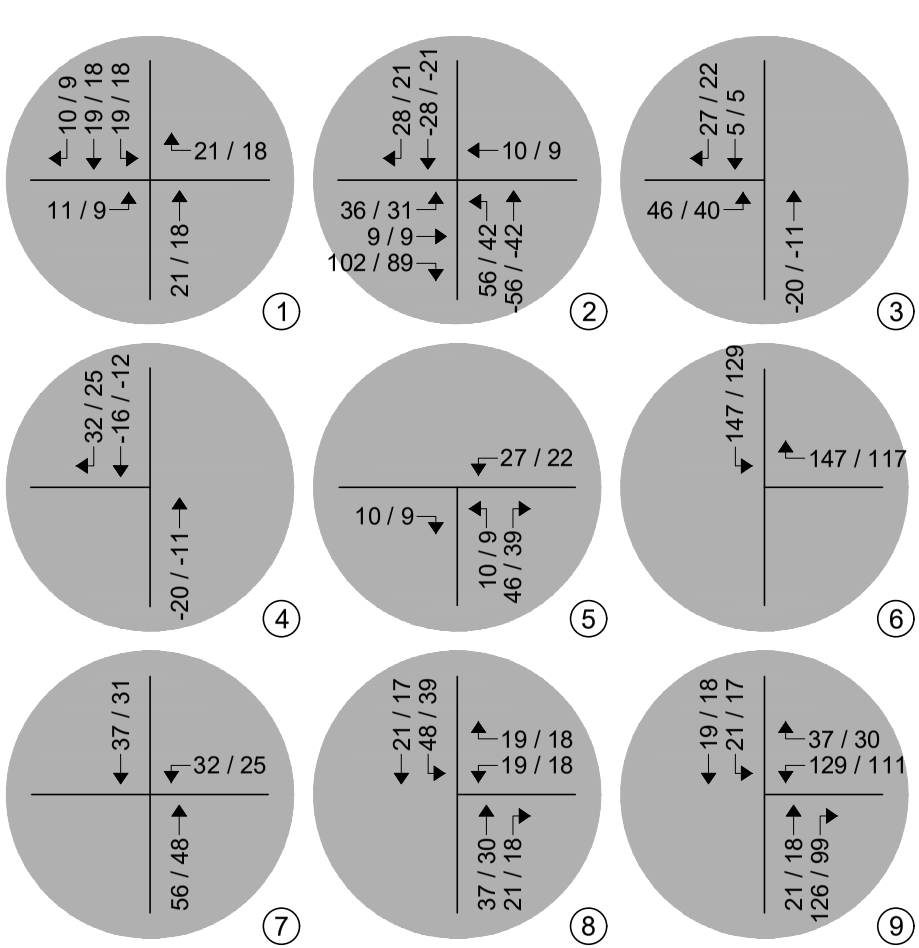
Owl Place – Interim Right-In Only Access

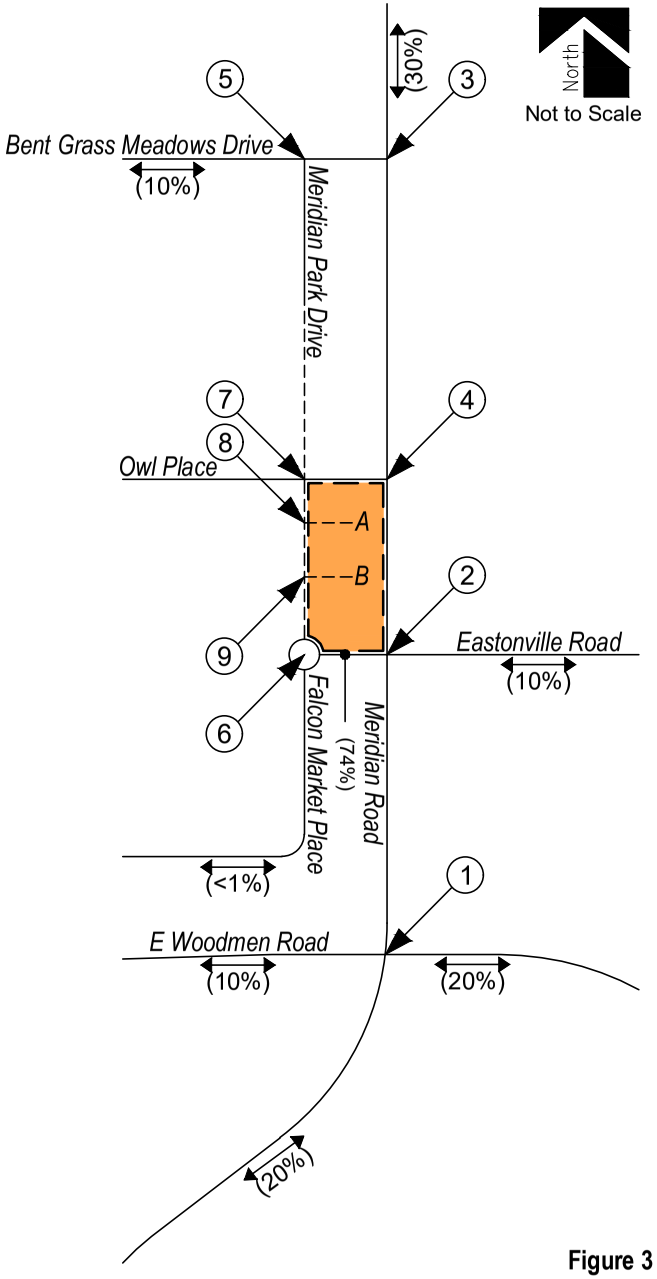
Pursuant to planned roadway improvements, as identified in the previously approved traffic impact study, it is anticipated that Meridian Road will be widened to six through lanes, and with completion of Falcon Market Place, the intersection of Owl Place and Meridian Road will be closed. However, until these improvements occur an interim condition may allow for continued use of the intersection as a restricted right-in only access as shown on Figure 2. Therefore, Year 2024 total traffic conditions analyze the access as a right-in only upon site development build-out. It is noted that this configuration can utilize the existing southbound right turn lane that begins at Bent Grass Meadows Drive until such time that roadway widening is required.

Total Traffic Analysis Results Upon Development Build-Out

Total traffic is the traffic projected to be on area roadways with consideration of the proposed development. Total traffic includes background traffic projections for Years 2024 and 2040 as established within the Owl Place Commercial Traffic Impact Study, Figure 5 and 6, with consideration of the updated site-generated traffic.

The following Figures 5 and 6 show the projected total traffic volumes for Year 2024 and Year 2040, respectively.



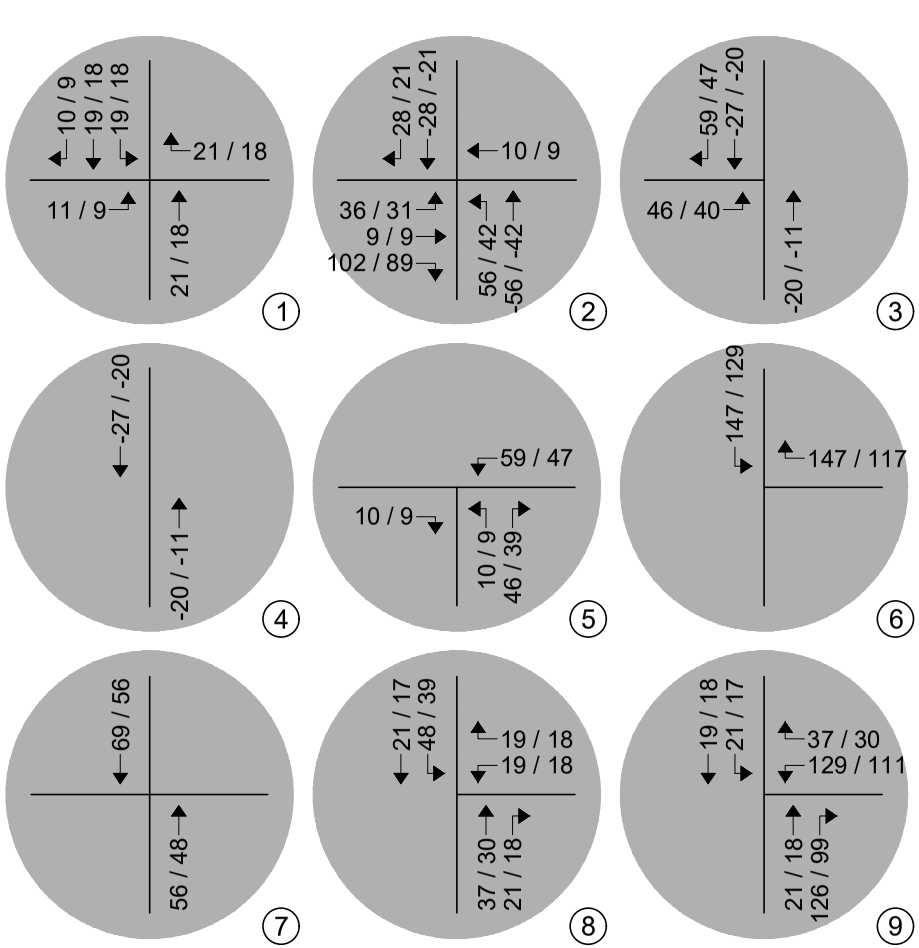


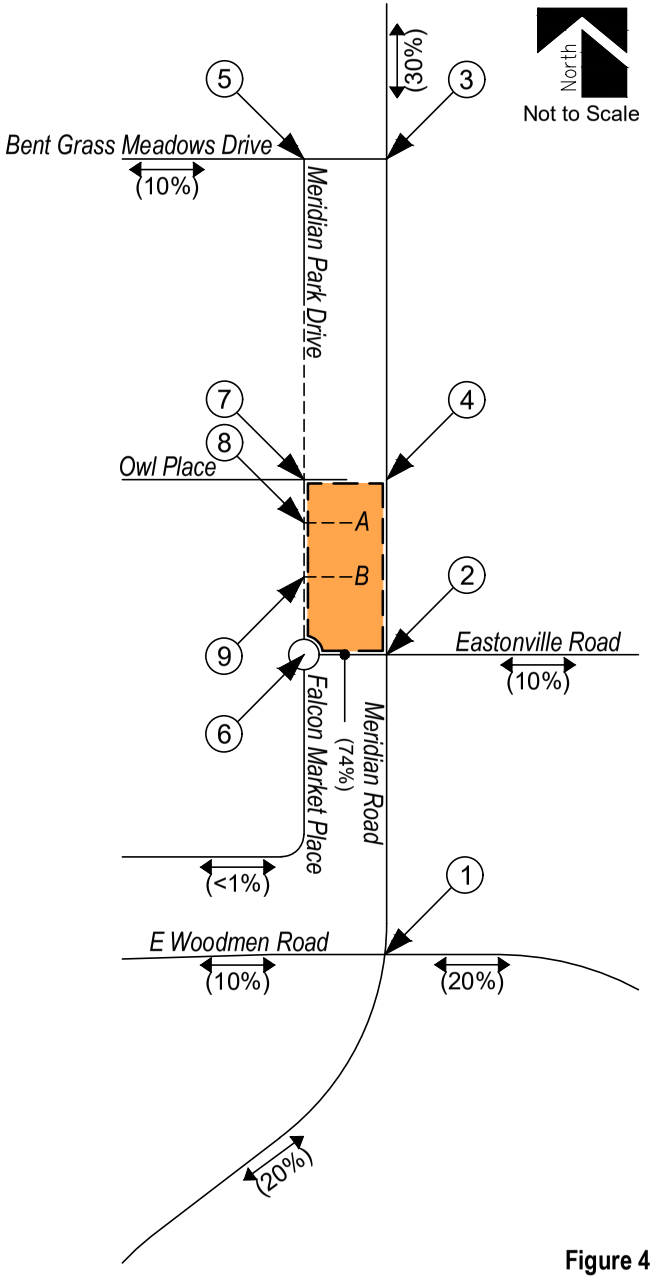
LEGEND

Study Intersection Volumes

Development Site

Figure 3
SITE DEVELOPMENT DISTRIBUTION - YEAR 2024
(%) : Overall
SITE-GENERATED
AM / PM Peak Hour



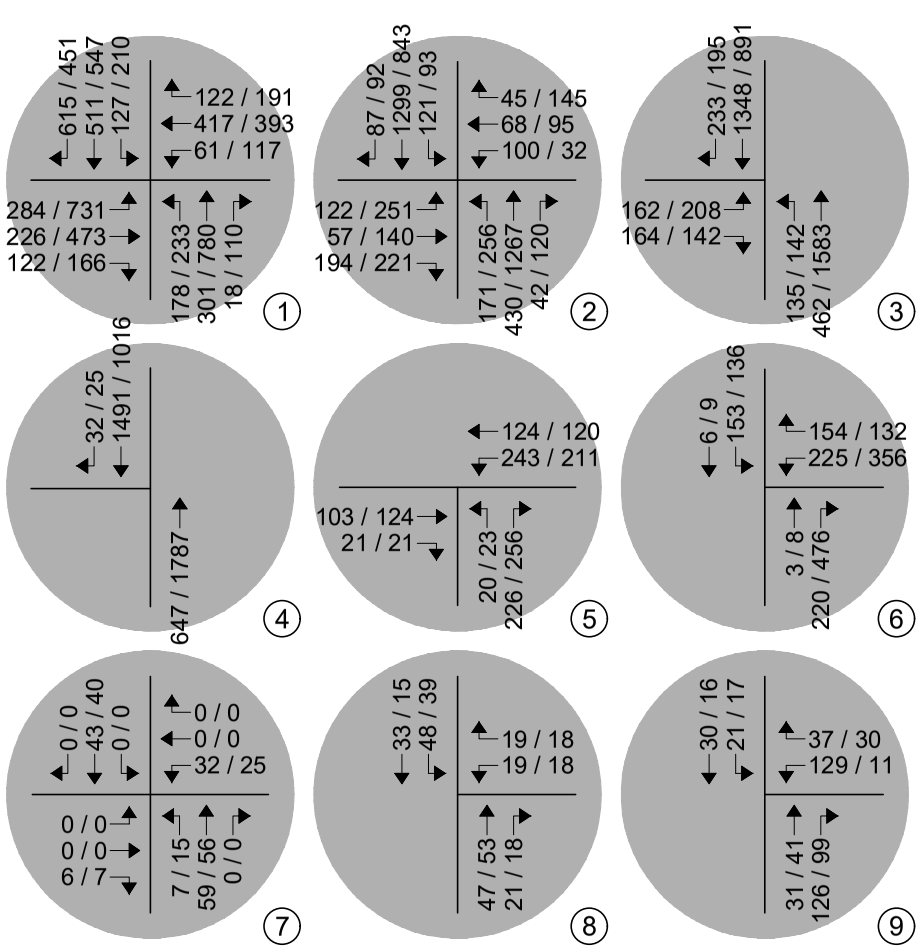


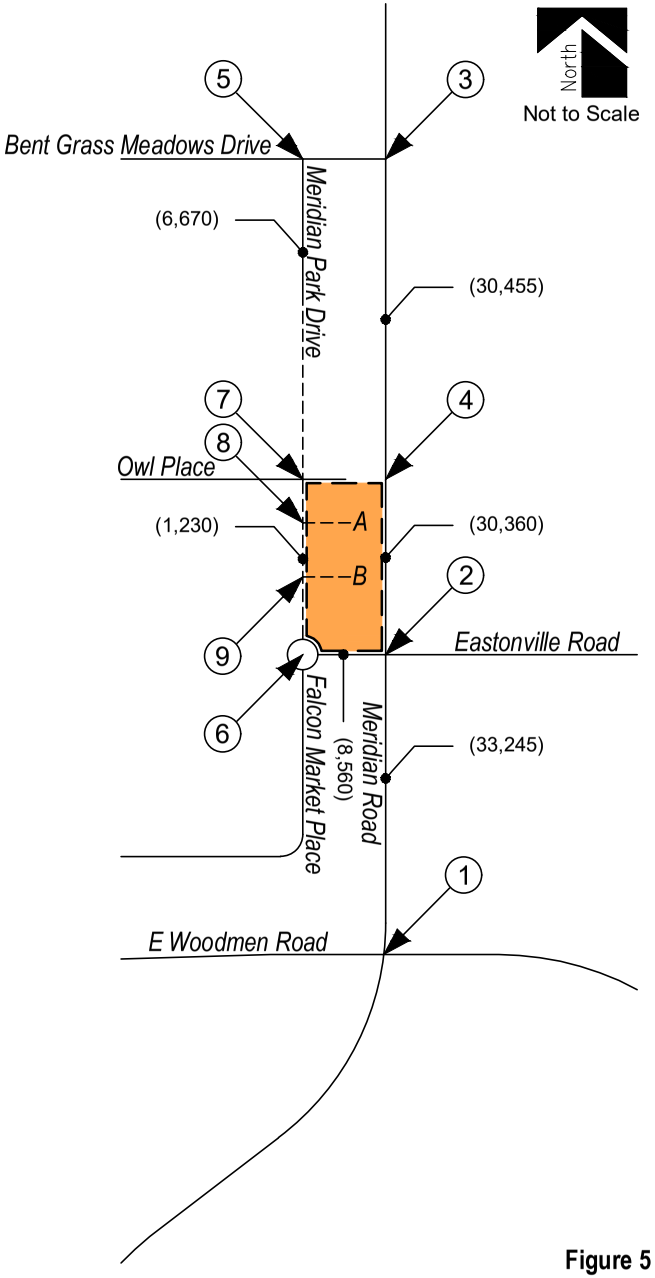
LEGEND

Study Intersection Volumes

Development Site

Figure 4
SITE DEVELOPMENT DISTRIBUTION - YEAR 2040
(%) : Overall
SITE-GENERATED
AM / PM Peak Hour



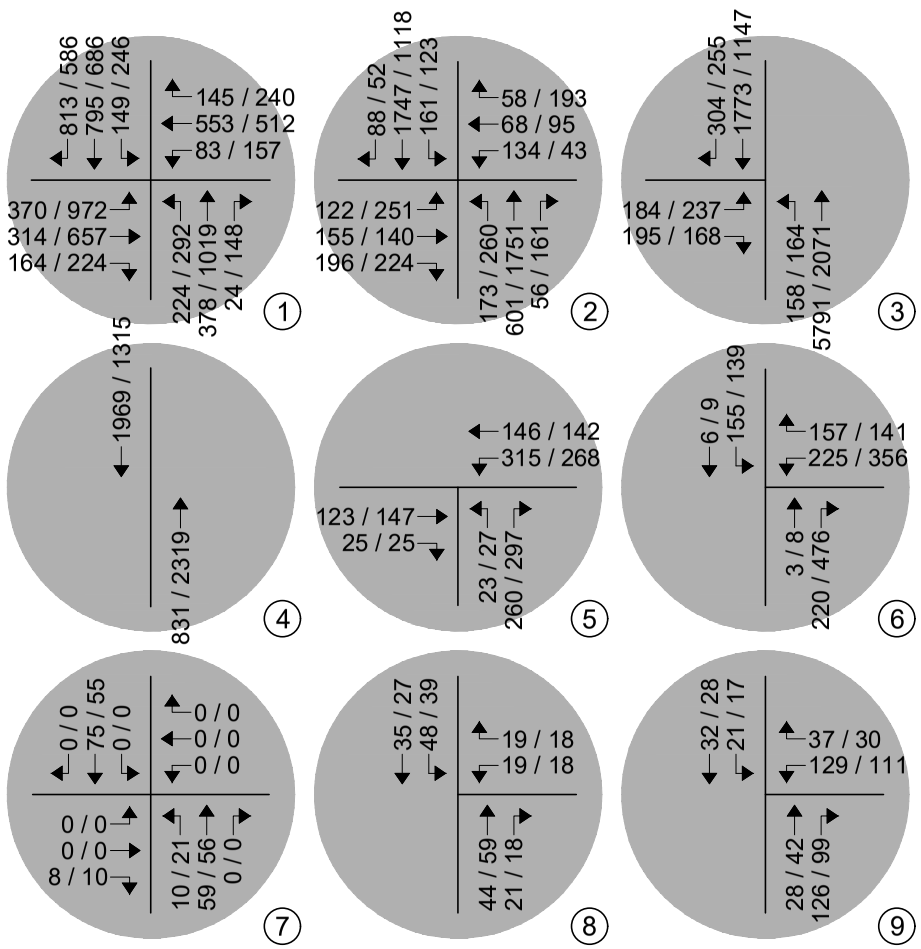


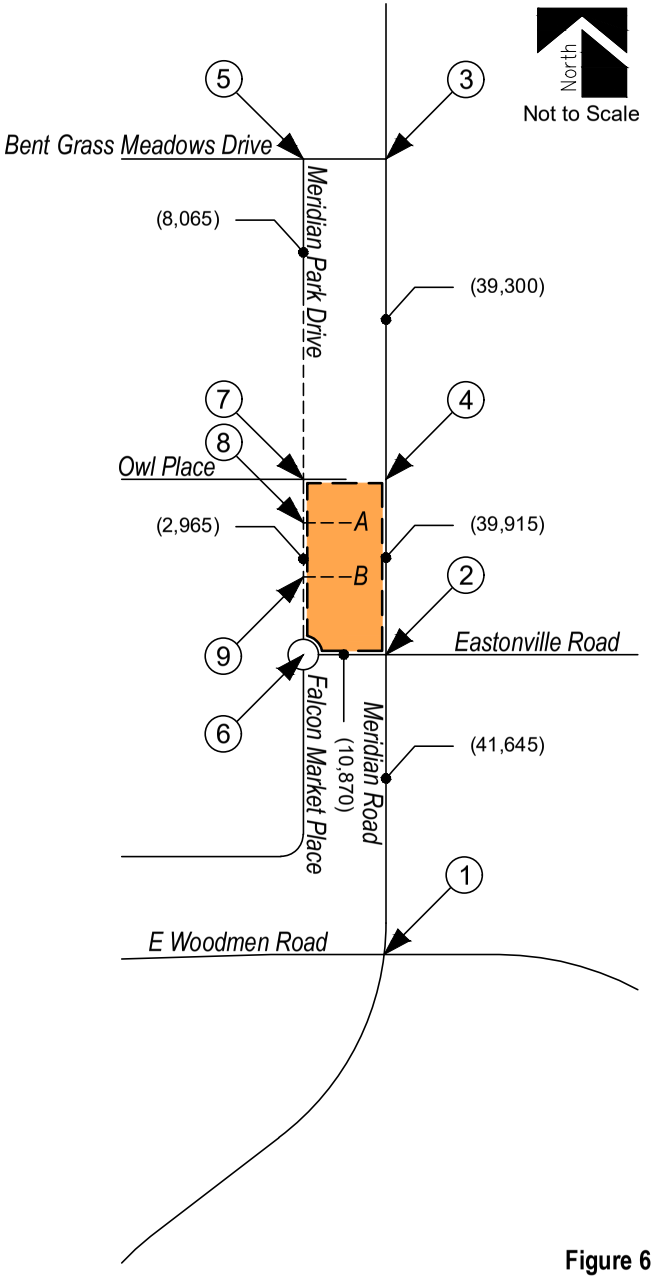
LEGEND

Study Intersection Volumes

Development Site

Figure 5
TOTAL TRAFFIC - YEAR 2024
Volumes
AM / PM Peak Hour
(ADT) : Average Daily Traffic





LEGEND

Study Intersection Volumes

Development Site

Figure 6
TOTAL TRAFFIC - YEAR 2040
Volumes
AM / PM Peak Hour
(ADT) : Average Daily Traffic

Development Impacts & Peak Hour Intersection Levels of Service

The analyses and procedures described in this study were performed in accordance with the latest Highway Capacity Manual (HCM) and are based upon the worst-case conditions that occur during a typical weekday upon build-out of site development and analyzed land uses. Therefore, study intersections are likely to operate with traffic conditions better than those described within this study, which represent the peak hours of weekday operations only.

The operations of the study intersections were analyzed under projected total traffic conditions using the SYNCHRO computer program.

Total traffic level of service analysis results for Year 2025 and 2040 total traffic level of service analysis results are summarized in Table 4 and 5, respectively. Intersection capacity worksheets are provided in Attachment B.

Table 4 – Intersection Capacity Analysis Summary – Total Traffic – Year 2025

INTERSECTION	LEVEL OF SERVICE	
LANE GROUPS	AM PEAK HOUR	PM PEAK HOUR
Meridian Road / E Woodmen Road (Signalized)	C (32.2)	D (46.3)
Meridian Road / Eastonville Road (Signalized)	C (28.4)	C (24.8)
Meridian Road / Bent Grass Meadows Drive (Signalized)	B (16.6)	A (9.4)
Bent Grass Meadows Drive / Meridian Park Drive (Stop-Controlled)		
Westbound Left	A	A
Northbound Left and Right	B	B
Eastonville Road / Falcon Market Place (Roundabout)		
Eastbound Left and Right	A	A
Northbound Through and Right	A	A
Southbound Left and Through	A	A
Owl Place / Falcon Market Place (Stop-Controlled)		
Eastbound Left, Through and Right	A	A
Westbound Left, Through and Right	A	A
Northbound Left, Through and Right	A	A
Southbound Left, Through and Right	A	A
Access A / Falcon Market Place (Stop-Controlled)		
Westbound Left and Right	A	A
Southbound Left and Through	A	A
Access B / Falcon Market Place (Stop-Controlled)		
Westbound Left and Right	B	B
Southbound Left and Through	A	A

Key: Signalized Intersection: Level of Service (Control Delay in sec/veh)
Stop-Controlled Intersection: Level of Service
Roundabout Intersection: Level of Service

Table 5 – Intersection Capacity Analysis Summary – Total Traffic – Year 2040

INTERSECTION LANE GROUPS	LEVEL OF SERVICE AM PEAK HOUR	 PM PEAK HOUR
Meridian Road / E Woodmen Road (Signalized)	D (35.8)	E (78.2)
Meridian Road / Eastonville Road (Signalized)	D (43.3)	C (27.9)
Meridian Road / Bent Grass Meadows Drive (Signalized)	C (23.6)	B (13.6)
Bent Grass Meadows Drive / Meridian Park Drive (Stop-Controlled)		
Westbound Left	A	A
Northbound Left and Right	B	B
Eastonville Road / Falcon Market Place (Roundabout)		
Eastbound Left and Right	A	A
Northbound Through and Right	A	A
Southbound Left and Through	A	A
Owl Place / Falcon Market Place (Stop-Controlled)		
Eastbound Left, Through and Right	A	A
Westbound Left, Through and Right	A	A
Northbound Left, Through and Right	A	A
Southbound Left, Through and Right	A	A
Access A / Falcon Market Place (Stop-Controlled)		
Westbound Left and Right	A	A
Southbound Left and Through	A	A
Access B / Falcon Market Place (Stop-Controlled)		
Westbound Left and Right	B	B
Southbound Left and Through	A	A

Key: Signalized Intersection: Level of Service (Control Delay in sec/veh)
Stop-Controlled Intersection: Level of Service
Roundabout Intersection: Level of Service

Total Traffic Analysis Results Upon Development Build-Out

Table 4 illustrates how, by Year and upon Development build-out, the signalized intersection of Meridian Road with E Woodmen Road shows an overall LOS D operation during the morning peak traffic hour and LOS E operation during the afternoon peak traffic hour. Operations of Meridian Road with E Woodmen Road are comparable to or better than those previously stated in the Owl Place Commercial Traffic Impact Study. All improvement recommendations made in the previous traffic impact study remain valid.

The signalized intersection of Meridian Road with Eatonville Road is projected to have morning peak traffic hour operations at LOS D during and LOS C during the afternoon peak traffic hour.

The signalized intersection of Meridian Road with Bent Grass Meadows Drive is projected to have morning and afternoon peak traffic hour operations at LOS C and B, respectively.

The stop-controlled intersection of Bent Grass Meadows Drive with Meridian Park Drive is projected to have turning movement operations at LOS B or better for both the morning and afternoon peak traffic hour.

The roundabout intersection of Eatonville Road with Falcon Market Place is projected to have turning movement operations at LOS A for both the morning and afternoon peak traffic hours.

The stop-controlled intersection of Owl Place with Falcon Market Place is projected to have turning movement operations at LOS A for both the morning and afternoon peak traffic hours.

The stop-controlled intersections of site access A and B with Falcon Market Place are projected to have turning movement operations at LOS B or better for both the morning and afternoon peak traffic hours.

Compared to analysis results originally presented within the Owl Place Commercial TIS, it is concluded that the LOS results stated above are generally better than, or comparable to, those previously presented. As such, all roadway improvements and intersection improvements identified in the previous Owl Place Commercial Traffic Impact Study remain valid.

Queue Length Analysis

Queue lengths for the study intersections were previously assessed in the approved Owl Place Commercial Traffic Impact Study. This analysis provided queue length estimates using Year 2040 total traffic conditions. Queue analysis results yields estimates for 95th percentile queue lengths, which have only a five percent probability of being exceeded during the analysis time period. Projected queue lengths were updated using the latest trip generation estimates provided in Tables 2 and 3, with results being summarized in Table 6.

Table 6 – Queue Length Analysis

Intersection	Turn Movement		Existing Turn Lane Length (feet)	AM Peak Hour 95th Percentile Queue Length (feet)	PM Peak Hour 95th Percentile Queue Length (feet)	Recommended Turn Lane Length (feet)
Signalized Intersections						
Meridian Road / E Woodmen Road	EB	L	720' x2	228'	646'	720' x2
		T	-	152'	326'	-
		R	635'	0'	0'	635'
	WB	L	440' x2	63'	103'	440' x2
		T	-	327'	387'	-
		R	210'	0'	89'	210'
	NB	L	420' x2	150'	212'	420' x2
		T	-	176'	636'	-
		R	330'	0'	0'	330'
	SB	L	460' x2	71'	207'	460' x2
		T	-	260'	386'	-
		R	575'	0'	0'	575'
Meridian Road / Eastonville Road	EB	L	100' x2	73'	152'	100' x2
		T	-	300'	238'	-
		R	100'	122'	68'	100'
	WB	L	100'	198'	66'	100'
		T	-	108'	144'	-
		R	100'	0'	39'	100'
	NB	L	100'	178'	102'	100'
		T	-	173'	216'	-
		R	400'	11'	1'	400'
	SB	L	375'	19'	174'	375'
		T	-	994'	600'	-
		R	400'	0'	0'	400'
Meridian Road / Bent Grass Meadows Drive	EB	L	160' X2	117'	144'	160' X2
		R	-	119'	68'	-
	NB	L	700'	176'	10'	700'
		T	-	175'	881'	-
	SB	T	-	777'	376'	-
		R	330'	36'	35'	330'
Stop-Controlled Intersections						
Bent Grass Meadows Drive / Meridian Park Drive	EB	T	-	0'	0'	-
		R	-	0'	0'	-
	WB	L	-	23'	20'	-
		T	-	0'	0'	-
	NB	L,R	-	53'	68'	-
Falcon Market Place / Owl Place	EB	L,T,R	-	0'	0'	-
	WB	L,T,R	-	0'	0'	-
	NB	L,T,R	-	0'	0'	-
	SB	L,T,R	-	0'	0'	-
Meridian Park Drive / Access A	WB	L,R	-	3'	3'	-
	NB	T,R	-	0'	0'	-
	SB	L,T	-	3'	3'	-
Meridian Park Drive / Access B	WB	L,R	-	20'	18'	-
	NB	T,R	-	0'	0'	-
	SB	L,T	-	0'	0'	-
Roundabout Intersections						
Meridian Park Drive / Eastonville Road / Falcon Market Place	WB	L,R	-	25'	50'	-
	NB	T,R	-	25'	50'	-
	SB	L,T	-	25'	25'	-

Note: Turn Lane Length does not include taper length.
Key: x2 = Dual Turn Lanes.

As Table 6 shows, updated queue analysis results remain comparable to, or better than those presented in the original Owl Place Commercial Traffic Impact Study. All previous assumptions and recommendations for potential roadway or intersection improvements remain valid.

Road Impact Fees

This site is subject to the El Paso County Road Impact Fee Program (Resolution 19-471), as amended and falls within the category of General Commercial. Pursuant to the latest proposed site plan and land use densities as previously described, it is anticipated that 10,810 square feet of on-site building area may be considered for determination of applicable fees. Based on this square footage, a resulting impact fee of $64,469 is estimated. Obligation for payment will be selected at the final land use approval stage, which is understood to be concurrent with the site plan application.

Conclusion

This analysis assessed traffic generation for the Owl Place Commercial development, provided a traffic volume comparison to previous land use assumptions approved for the development site, and considered potential impacts to the adjacent roadway network.

It is our professional opinion that the proposed site-generated traffic is expected to create no negative impact upon consideration for, and application of, all applicable roadway and intersection improvements identified in the approved TIS. All conclusions and recommendations presented in the previous site traffic study remain valid.

We trust that our findings will assist in the planning and approval of the Owl Place Commercial development. Please contact us should further assistance be needed.

Sincerely,

SM ROCHA, LLC
Traffic and Transportation Consultants

Stephen Simon, EIT
Traffic Engineer

Fred Lantz, PE
Traffic Engineer

Traffic Engineer's Statement

The attached traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports.

_____ 12/21/2023

Fred Lantz, P.E. #23410 Date

Developer's Statement

I, the Developer, have read and will comply with all commitments made on my behalf within this report.

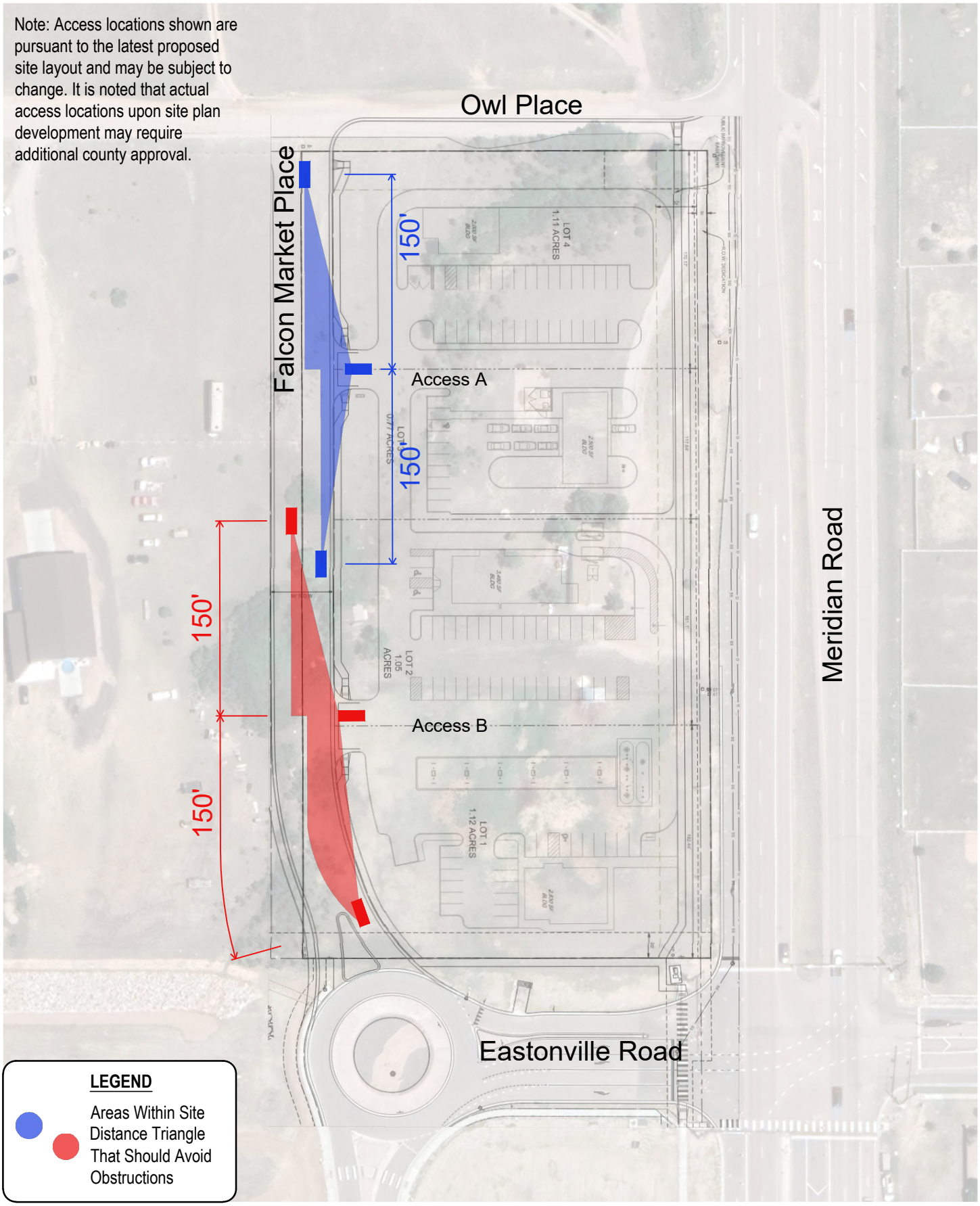
_____ 12/21/2023

Brian Zurek Date
Double Tree Ventures, LLC
1776 N Scottsdale Rd.
PO Box 220
Scottsdale, AZ 85257-2115

ATTACHMENT A

Site Distance Exhibit

Note: Access locations shown are pursuant to the latest proposed site layout and may be subject to change. It is noted that actual access locations upon site plan development may require additional county approval.



LEGEND

Areas Within Site Distance Triangle That Should Avoid Obstructions

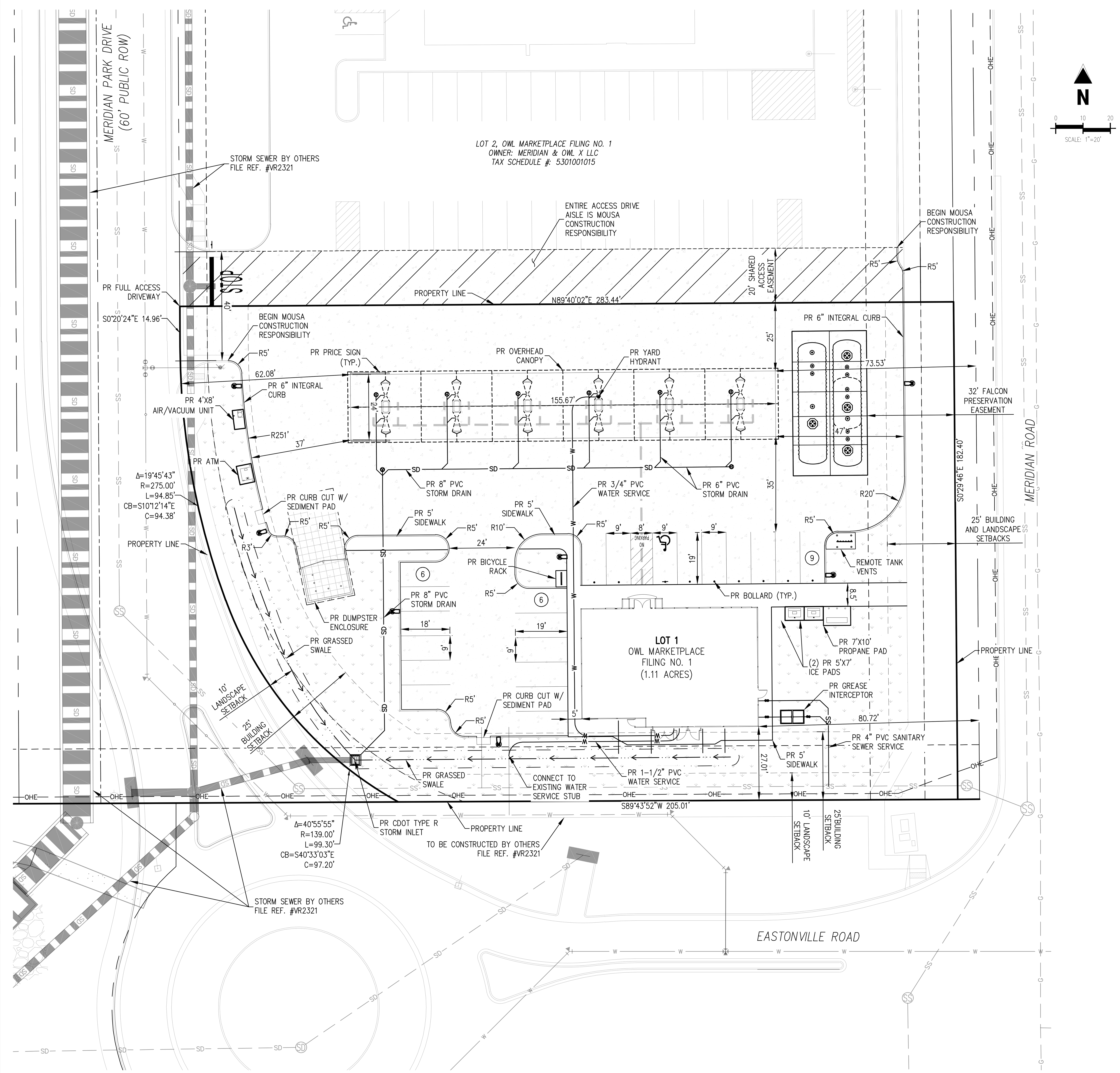
OWL PLACE COMMERCIAL
Intersection Sight Distance Exhibit

SM ROCHA, LLC
Traffic and Transportation Consultants

December 2023

0 100 North

Attachment II
Site Plan



BUILDING SETBACKS:	
NORTH: BUILDING=0'	LANDSCAPE=0'
WEST: BUILDING=25'	LANDSCAPE=10'
SOUTH: BUILDING=25'	LANDSCAPE=10'
EAST: BUILDING=25'	LANDSCAPE=25'

ZONING: CS (COMMERCIAL)

EXISTING

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING STORM SEWER (LESS THAN 12"ø)
- STORM SEWER (BY OTHERS)
- EXISTING SANITARY SEWER
- EXISTING WATER
- EXISTING UNDERGROUND ELECTRIC
- EXISTING OVERHEAD ELECTRIC
- EXISTING FIBER OPTIC
- EXISTING GAS
- EXISTING STREET LIGHT
- EXISTING TRANSFORMER
- EXISTING ELECTRIC METER
- EXISTING ELECTRIC BOX
- EXISTING FIBER OPTIC BOX
- EXISTING GAS METER
- EXISTING SANITARY SEWER MANHOLE
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING FIRE HYDRANT
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING TREE

PROPOSED

- BOUNDARY LINE
- BUILDING CONTROL POINT
- CONCRETE PAVING
- REINFORCED CONCRETE PAVING
- ASPHALT PAVING
- PROPOSED ADA PATH
- PROPOSED LANDSCAPE AREAS (SEE LANDSCAPE PLANS)
- PROPOSED STORM SEWER (LESS THAN 12"ø)
- PROPOSED SANITARY SEWER SERVICE
- PROPOSED WATER SERVICE

Galloway
1155 Kelly Johnson Blvd., Suite 305
Colorado Springs, CO 80920
719.900.7220
GallowayUS.com

PRELIMINARY
NOT FOR BIDDING
NOT FOR CONSTRUCTION

MURPHY OIL USA, INC.

200 PEACH STREET
EL DORADO, AR 71730

MURPHY USA

SITE DEVELOPMENT PLAN
MURPHY OIL USA #7968
PCD FILING NO. XXXXX

7440 MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

#	Date	Issue / Description	Init.

Project No:	MOC000099
Drawn By:	ASA, BLB
Checked By:	KG, CMWJ
Date:	02/16/2024

SITE PLAN

XXXXX

C1.1

Sheet 2 of 3

Planning and Community Development Department

2880 International Circle, Colorado Springs, CO 80910
Phone 719.520.6300 | Fax 719.520.6695 | www.elpasoco.com

Type C Application Form (1-2B)

Please check the applicable application type (Note: each request requires completion of a separate application form):

- ☐ Administrative Relief
- ☐ Certificate of Designation, Minor
- ☑ Site Development Plan, Major
- ☐ Site Development Plan, Minor
- ☐ CMRS Co-Location Agreement
- ☐ Condominium Plat
- ☐ Crystal Park Plat
- ☐ Early Grading Request associated with a Preliminary Plan
- ☐ Maintenance Agreement
- ☐ Minor PUD Amendment
- ☐ Resubmittal of Application(s) (>3 times)
- ☐ Road or Facility Acceptance, Preliminary
- ☐ Road or Facility Acceptance, Final
- ☐ Townhome Plat

Administrative Special Use (mark one)
- ☐ Extended Family Dwelling
- ☐ Temporary Mining or Batch Plant
- ☐ Oil and/or Gas Operations
- ☐ Rural Home Occupation
- ☐ Tower Renewal
- ☐ Other_____

Construction Drawing Review and Permits (mark one)
- ☐ Approved Construction Drawing Amendment
- ☐ Review of Construction Drawings
- ☐ Construction Permit
- ☐ Major Final Plat
- ☐ Minor Subdivision with Improvements
- ☑ Site Development Plan, Major
- ☐ Site Development Plan, Minor
- ☐ Early Grading or Grading
- ☐ ESQCP

Minor Vacations (mark one)
- ☐ Vacation of Interior Lot Line(s)
- ☐ Utility, Drainage, or Sidewalk Easements
- ☐ Sight Visibility
- ☐ View Corridor

☐ Other: _____

This application form shall be accompanied by all required support materials.

For PCD Office Use:	
Date:	File :
Rec'd By:	Receipt #:
DSD File #:	

PROPERTY INFORMATION: Provide information on the properties and the proposed development. Attached additional sheets if necessary.

Revised.

Property Address(es):	
11745 OWL PL	Per comments from Enumerations: Store address should be 7825 Meridian Park Drive , Gas Canopy is 7829 Meridian Park Drive.
Tax ID/Parcel Numbers(s): 5301001015 Revised.	Parcel size(s) in Acres: Fill in parcel size to be platted
Existing Land Use/Development: Vacant	Zoning District: CS

☐ Check this box if **Administrative Relief** is being requested in association with this application and attach a completed Administrative Relief request form.

☐ Check this box if any **Waivers** are being requested in association with this application for development and attach a completed Waiver request form.

PROPERTY OWNER INFORMATION: Indicate the person(s) or organization(s) who own the property proposed for development. Attached additional sheets if there are multiple property owners.

Name (Individual or Organization): Brian Zurek MERIDIAN & OWL X LLC	
Mailing Address: PO BOX 220 SCOTTSDALE AZ, 85252-0220	
Daytime Telephone: 480-313-2724	Fax:
Email or Alternative Contact Information: Brian@doubletreeventures.com	

Description of the request: *(attach additional sheets if necessary):*

Site Development Plan for Fuel Service and Convenience Store on approximately 1.1 acres to be platted as Lot 1 Owl Marketplace Filing No 1. A part of the Owl Marketplace Filing No 1 subdivision reference County File # VR2321

Planning and Community Development Department

2880 International Circle, Colorado Springs, CO 80910
Phone 719.520.6300 | Fax 719.520.6695 | www.elpasoco.com

APPLICANT(S): Indicate person(s) submitting the application if different than the property owner(s) (attach additional sheets if necessary).

Name (Individual or Organization): Grant Dennis on behalf of Murphy USA	
Mailing Address: 200 E. Peach Street | El Dorado, AR 71730	
Daytime Telephone: (870) 315-3430	Fax:
Email or Alternative Contact Information: Grant.Dennis@MurphyUSA.com	

AUTHORIZED REPRESENTATIVE(S): Indicate the person(s) authorized to represent the property owner and/or applicants (attach additional sheets if necessary).

Name (Individual or Organization): Galloway & Company	
Mailing Address: 1155 Kelly Johnson Blvd. Suite 305 Colorado Springs, CO 80920	
Daytime Telephone: 7199007220	Fax:
Email or Alternative Contact Information: brynhildrhalsten@gallowayus.com	

AUTHORIZATION FOR OWNER'S APPLICANT(S)/REPRESENTATIVE(S):
An owner signature is not required to process a Type A or B Development Application. An owner's signature may only be executed by the owner or an authorized representative where the application is accompanied by a completed Authority to Represent/Owner's Affidavit naming the person as the owner's agent

OWNER/APPLICANT AUTHORIZATION:
To the best of my knowledge, the information on this application and all additional or supplemental documentation is true, factual and complete. I am fully aware that any misrepresentation of any information on this application may be grounds for denial or revocation. I have familiarized myself with the rules, regulations and procedures with respect to preparing and filing this application. I also understand that an incorrect submittal may delay review, and that any approval of this application is based on the representations made in the application and may be revoked on any breach of representation or condition(s) of approval. I verify that I am submitting all of the required materials as part of this application and as appropriate to this project, and I acknowledge that failure to submit all of the necessary materials to allow a complete review and reasonable determination of conformance with the County's rules, regulations and ordinances may result in my application not being accepted or may extend the length of time needed to review the project. I hereby agree to abide by all conditions of any approvals granted by El Paso County. I understand that such conditions shall apply to the subject property only and are a right or obligation transferable by sale. I acknowledge that I understand the implications of use or development restrictions that are a result of subdivision plat notes, deed restrictions, or restrictive covenants. I agree that if a conflict should result from the request I am submitting to El Paso County due to subdivision plat notes, deed restrictions, or restrictive covenants, it will be my responsibility to resolve any conflict. I hereby give permission to El Paso County, and applicable review agencies, to enter on the above described property with or without notice for the purposes of reviewing this development application and enforcing the provisions of the LDC. I agree to at all times maintain proper facilities and safe access for inspection of the property by El Paso County while this application is pending.

Owner (s) Signature: _____ Date: 1.3.2023

Owner (s) Signature: _____ Date: _____

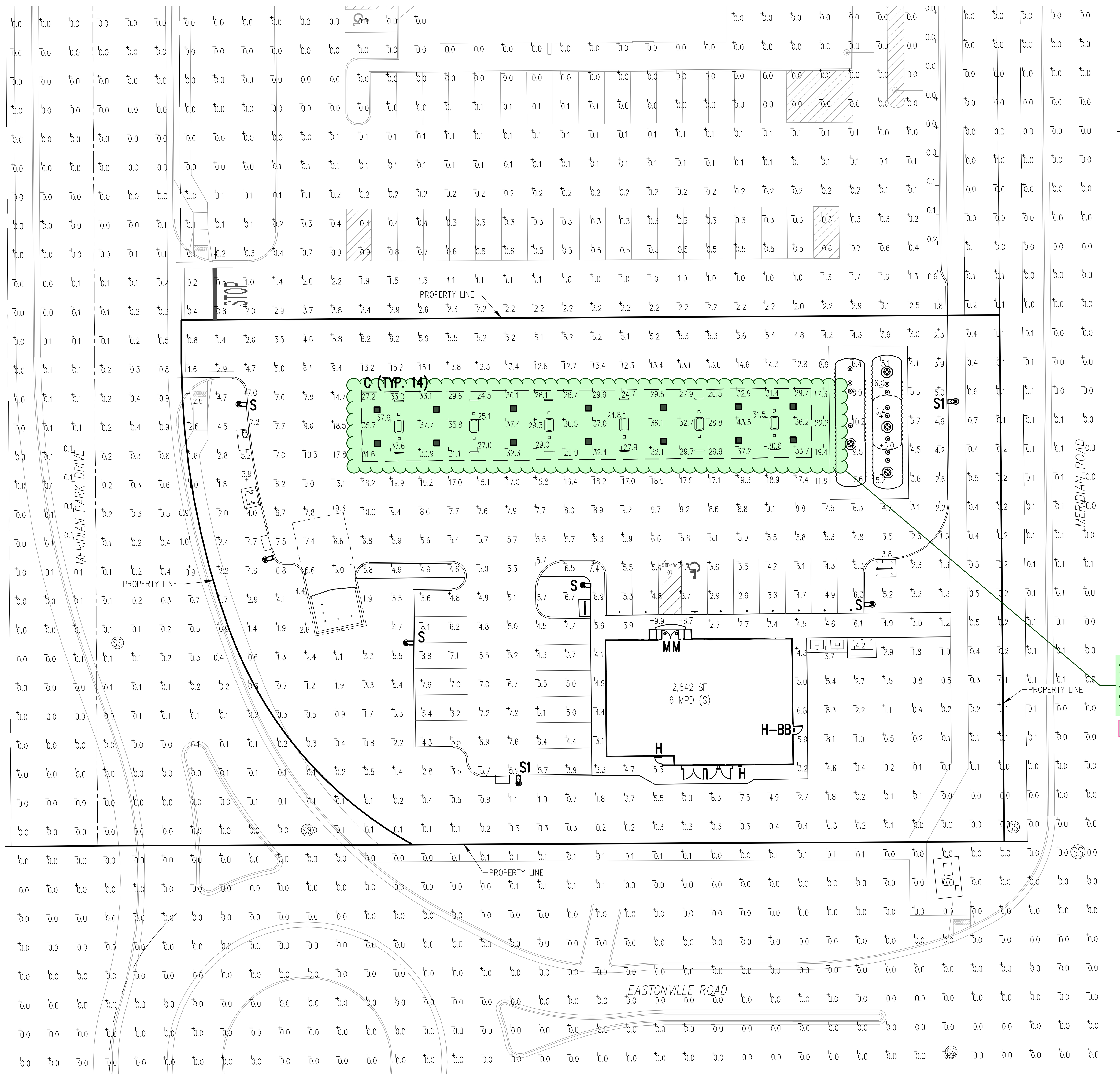
Applicant (s) Signature: _____ Date: _____

Representative can only sign on behalf of the owner/applicant if application is accompanied by a completed Authority to Represent /Owner's Affidavit naming the person as the owner's agent.

TY

Signature of applicant provided .

LOT 15 FALCON RANCHETTES	add: "to be platted as Lot 1 Owl Marketplace Fil. No. 1 (County File #VR2321)"	Revised.



Address these areas that exceed 20 foot candles which is the maximum allowed illuminance level under a canopy per Section 6.2.3.B.1.h. of the Land Development Code.

Revised.

1 PHOTOMETRIC SITE PLAN

SCALE: 1"=20'-0"

LUMINAIRE SCHEDULE

MOUNTING CONFIG	SYMBOL	QTY	ASSEMBLY HEIGHT	POLE HEIGHT	LUMENS	TOTAL WATTS	MODEL NUMBER	DESCRIPTION
S		5	20'-0"	18'-0"	18904	135	SLM-18L-SIL-FT-UNV-50-70-BRZ	LSI LIGHTING, SLICE MEDIUM LED SERIES AREA LIGHT, 18,000 LUMENS PACKAGE, 5000K 70 CRI, SINGLE HEAD FLAT LENS FIXTURE, FORWARD THROW
S1		2	20'-0"	18'-0"	18904	135	SLM-18L-SIL-FT-UNV-50-70-BRZ-IL	LSI LIGHTING, SLICE MEDIUM LED SERIES AREA LIGHT, 18,000 LUMENS PACKAGE, 5000K 70 CRI, SINGLE HEAD FLAT LENS FIXTURE, FORWARD THROW WITH INTERNAL LOUVER
C		14	15'-0"	N/A	19071	125	CRUS-SC-LED-HO-50-UE-WHT	LSI LIGHTING, LEGACY SERIES, HIGH OUTPUT DRIVER, FLAT LENS CANOPY FIXTURE
H H-BB		2 1	8'-3"	N/A	4124	30	XWM 3 LED 04L 50 UE BRZ XWM 3 LED 04L 50 UE BRZ CWBB	LSI LIGHTING, MIRADA (XWM) WALL MOUNT LUMINAIRE, 5000k CCT, 4000 LUMEN PACKAGE, BRONZE COLOR, H-BB WITH BATTERY BACK-UP
M		2	8'-8"	N/A	2333	22	LCD6LED25LUNVDIM135WF TR6RWWHAZ EM	LSI LIGHTING, LCD6 DOWN LIGHT LUMINAIRE, 3500k CCT, 2500 LUMENS, WIDE FLOOD HAZE SEMI-DIFFUSED WALL WASH REFLECTOR, WHITE OR EQUIVALENT

NOTES: ALL AREA SITE LIGHT FIXTURES AND POLES TO BE MOUNTED ON CONCRETE BASE PER DETAIL, THIS SHEET
ALL ANCHOR BOLTS TO BE ORIENTED IN THE SAME DIRECTION (SQUARE) AT INSTALLATION PER MANUFACTURER'S SPECIFICATIONS.
ALL PROPOSED FIXTURES ARE FULL CUT-OFF FIXTURES

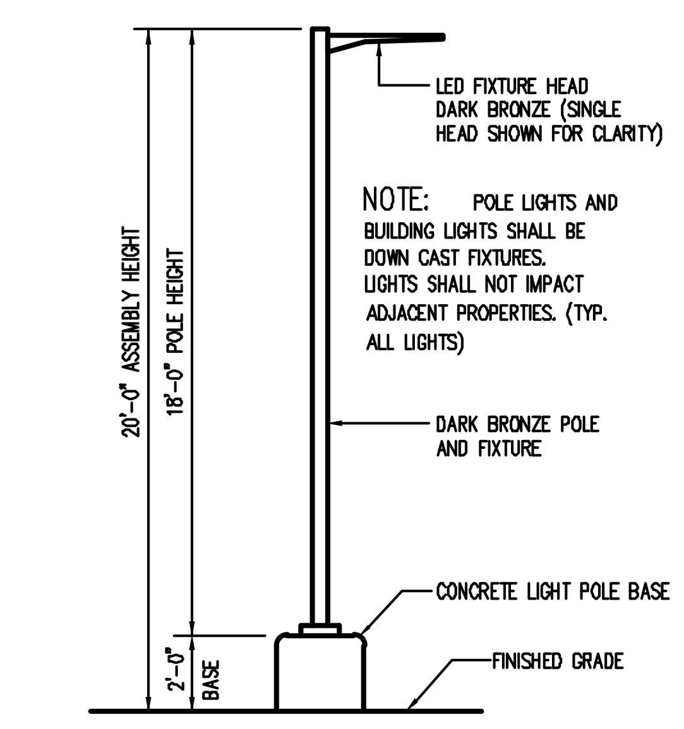
N

SCALE: 1"=20'

CONTRACTOR TO ENSURE THE LIGHT POLE AND HANDICAP PARKING SIGN ARE AT LEAST 2' FROM THE BACK OF CURB TO PREVENT VEHICLES FROM STRIKING THE LIGHT POLE OR HANDICAP PARKING SIGN. PROPOSED LIGHT POLE BASES SHOWN AT A MINIMUM OF 2'-6" FROM BACK OF CURB TO CENTER OF POLE/BASE. ENGINEER TO VERIFY PROPOSED LOCATIONS FOR ANY CONFLICTS OR MISPLACEMENTS. REPORT TO LIGHTING DESIGNER ANY DISCREPANCIES OR CONFLICTS

CALCULATION SUMMARY

LABEL	UNITS	AVG	MAX	MIN	AVG/MIN	MAX/MIN
CANOPY	FC	31.42	43.5	24.5	1.28 to 1	1.78 to 1
CANOPY INFLUENCE AREA	FC	13.46	22.2	7.5	1.79 to 1	2.96 to 1
PARKING	FC	5.36	8.8	2.9	1.85 to 1	3.03 to 1
DRIVES	FC	5.57	10.3	1.4	3.98 to 1	7.36 to 1
LIFE SAFETY PATH	FC	4.84	9.9	1.2	4.03 to 1	8.25 to 1



2 AREA LIGHT DETAIL

SCALE: NOT TO SCALE

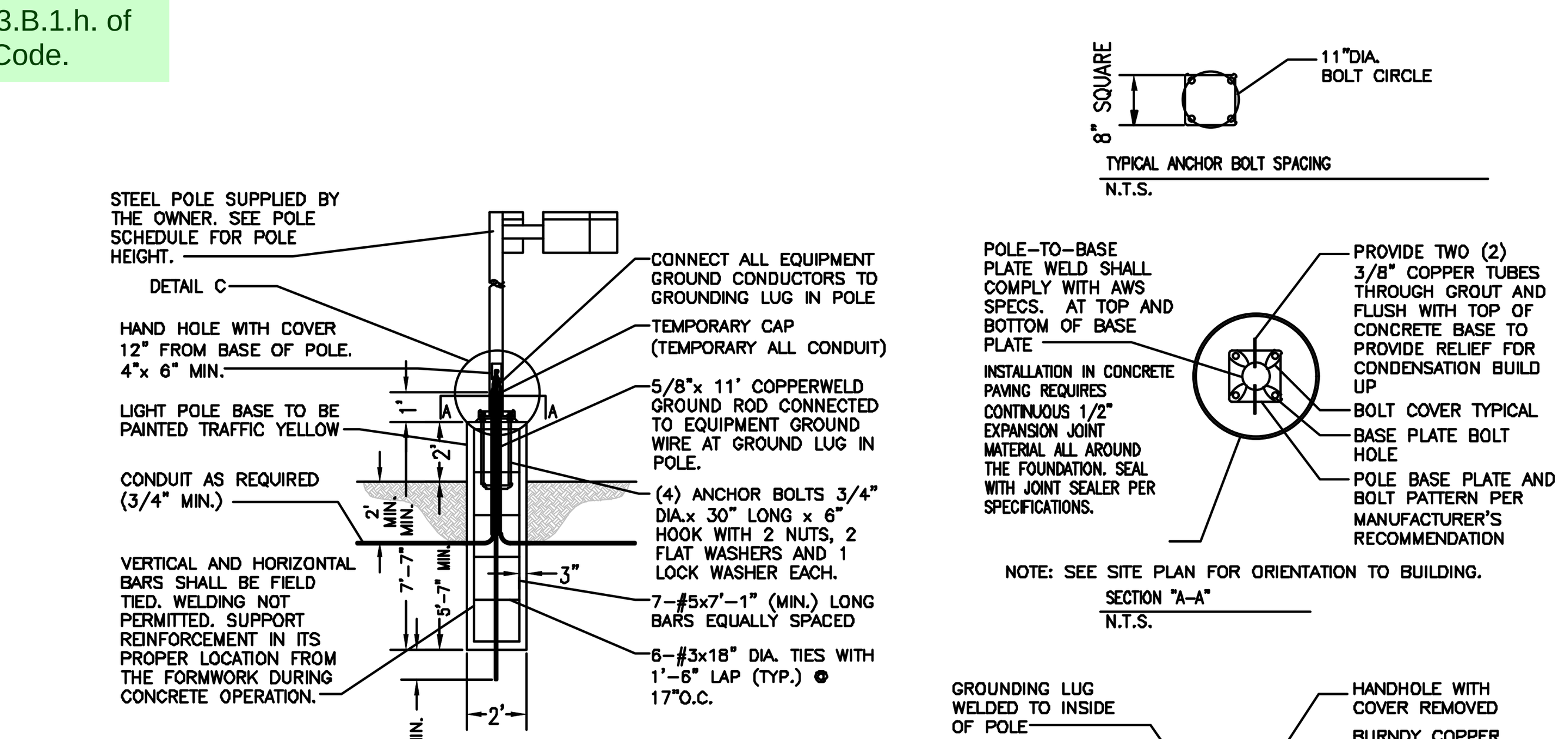
Please include the following:
- Property Tax Schedule number
- Current zoning
- Lot/parcel size
- Vicinity Map

Provided.

POLE SCHEDULE

MOUNTING CONFIG	SYMBOL	QTY	POLE HEIGHT	MODEL NUMBER	DESCRIPTION
S & S1	&	3	18'-0"	4SQB3-S11G-18-S-BRZ-4BC	LSI LIGHTING, STEEL SQUARE POLE, BOLT-ON ARM MOUNT, BRONZE

NOTES: ALL AREA SITE LIGHT FIXTURES AND POLES TO BE MOUNTED ON CONCRETE BASE PER DETAIL, THIS SHEET
POLES RATED TO 130 MPH WIND VELOCITY



FOUNDATION NOTES:

REFERENCED CODES AND STANDARDS
- INTERNATIONAL BUILDING CODE (IBC) 2012 EDITION, SECTION 1807.3 "EMBEDDED POSTS AND POLES"
- ASCE STANDARD 7-10, "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
- ACI 301-10 "SPECIFICATIONS FOR STRUCTURAL CONCRETE"
- ACI 318-11 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE"

WIND DESIGN DATA
- BASIC WIND SPEED (Vult, ULTIMATE DESIGN WIND SPEED)______130 MPH
- EXPOSURE CATEGORY______C
- RISK CATEGORY______I

FOUNDATION DESIGN DATA
- ALLOWABLE LATERAL BEARING PRESSURE______100 PSF/FT (CLAY & SILTS)

CONCRETE MIX DESIGN REQUIREMENTS
- COMPRESSIVE STRENGTH, 28 DAY______4,000 PSI
- W/CM RATIO______0.50
- AGGREGATE SIZE, MAXIMUM______1 IN
- AIR CONTENT RANGE______4-7%
- SLUMP, MAXIMUM______5 IN

TYPICAL LIGHT POLE BASE DETAIL 13A

NOT TO SCALE

Per comments from Enumerations: Store address should be 7825 Meridian Park Drive , Gas Canopy is 7829 Meridian Park Drive.

Revised.

PLANNING AND COMMUNITY DEVELOPMENT DIRECTOR:

Galloway
1155 Kelly Johnson Blvd., Suite 305
Colorado Springs, CO 80920
719.900.7220
GallowayUS.com

PRELIMINARY
NOT FOR BIDDING
NOT FOR CONSTRUCTION

MURPHY OIL USA, INC.
200 PEACH STREET
EL DORADO, AR 71730

MURPHY USA

SITE DEVELOPMENT PLAN
MURPHY OIL USA #7968
XXXX MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

#	Date	Issue / Description	Init.

Project No:	Moc901028
Drawn By:	JMG
Checked By:	JMG
Date:	02/09/2024

PHOTOMETRIC SITE PLAN

L1.0

Sheet 1 of 2

Scottsdale® Legacy (CRUS)

LED Canopy Luminaire

Catalog #: Project: Prepared By: Date: Type: CAN

IP66

OVERVIEW	
Lumen Package	5,000 - 22,000
Wattage Range	38 - 152
Efficacy Range (LPW)	114 -156
Weight lbs(kg)	23 (10.4)

QUICK LINKS: Ordering Guide | Performance | Photometrics | Dimensions

FEATURES & SPECIFICATIONS

Construction

- Features a ultra-slim 11/16" profile die-cast housing, with flat clear or diffused tempered glass lens. Unit is water-resistant, sealed and IP66 rated. Integral designed heat sink does not trap dirt and grime, ensuring cool running performance over the life of the fixture.
- Standard color is white and is finished with LSI's DuraGrip® polyester powder coat process. DuraGrip withstands extreme weather changes without cracking or peeling.
- Luminaire assembly incorporates a pressure stabilizing vent breather to prevent seal fatigue and failure.

Optical System

- Features an array of select, mid-power, high brightness, high efficiency LED; 3000K, 4000K, 5000K color temperature, 80 CRI (nominal).
- Choice of Symmetric or Asymmetric distribution. Asymmetric provides a wider distribution pattern. Optional symmetric with diffused lens also available.
- Forward Throw distribution provides an industry leading unique distribution pattern that illuminates the area under the gas canopy and beyond. The forward through optic directs the light to the forecourt from the gas canopy eliminating the need for supplemental floodlights and extensive perimeter lighting.
- Diffuse lens available as an option to soften brightness of the luminaire.
- Six Lumen Packages: 5,000, 9,000, 10,000, 13,000, 18,000 and 22,000 Lumens.

Electrical

- High performance factory programmable driver features over-voltage, under voltage, short-circuit and over temperature protection with integral 6kV surge protection that meets IEEE C62.41.2 and ANSI C82.77-5 Location Category C Low operation (per ANSI/IEEE C62.41.2). Additional field replaceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2). Custom lumen and wattage packages available.
- Driver components are fully encased in potting for moisture resistance. Complies with IEC and FCC standards. 0-10 V dimming supplied standard with all drive currents.
- Die-cast aluminum, wet location rated driver/electrical enclosure is elevated above canopy deck to prevent water entry, provide easy "knock-out" connection of primary wiring and acts as the primary heatsink ensuring cool operation of internal components for longer life. Seals to optical housing via one-piece molded silicone gasket.
- Universal voltage power supply, 120-277 VAC, 50/60 HZ and 347-480 VAC, 50/60 HZ input.
- -40°C to 55°C (-40°F to 131°F) ambient operating temperature. (Varies based on lumen package and mounting style see performance data for specifics.)
- Minimum 60,000 to 100,000 hours depending upon the ambient temperature of the installation location (see performance data for specifics.)

Hazardous Location

- Designed for lighter than air fuel applications. Product is suitable for Class 1 Divisions 2 only when properly installed per LSI installation instructions. See lsicorp.com for specific guidance. Not available on SLW.

Installation

- One-person installation.
- Installs in a 12" or 16" deck pan. Deck penetration consists of a 4" hole, simplifying installation and water sealing. Unit is designed to quickly retrofit into existing Scottsdale (4") hole as well as openings for Encore and Encore Top Access and to reconnect wiring for the SC/ECTA without having to relocate the conduit.
- Retro panels are available for existing Encores as well as kits for recessed and 2x2 installations (see separate spec sheets). Support brackets are provided standard, to prevent sagging of deck.

Warranty

- LSI LED fixtures carry a 5-year warranty (contact your LSI representative for extended warranty options.)

Listings

- UL and ETL listed to UL 1598, UL 8750 and other U.S. and International safety standards. Suitable for wet locations.
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.
- Meets Buy American Act requirements.
- IDA compliant with 3000K or lower color temperature.

Type: CAN

Scottsdale® Legacy (CRUS) LED Canopy Luminaire

ORDERING GUIDE — Back to Quick Links

TYPICAL ORDER EXAMPLE: CRUS SC LED SS 50 UE WHT

Prefix: CRUS - LED Canopy Luminaire | Distribution: SC - Symmetric, AC - Asymmetric, SCFT - Combination Standard Symmetric and Forward Throw | Light Source: LED | Driver: SLM - 5,000 Lumens, VLM - 9,000 Lumens, LM - 13,000 Lumens, SS - 13,000 Lumens, HO - 19,000 Lumens, VHO - 22,000 Lumens; Custom Lumen Packages: VHO - 22,000 Lumens | Color Temperature: 50 - 5000K, 40 - 4000K, 30 - 3000K | Input Voltage: UE - Universal Voltage (120-277V), HV - High Voltage (347-480V) | Finish: WHT - White, BRZ - Bronze, BLK - Black | Options: HL - Hazardous Location, DFL - Diffuse Lens

Accessory Ordering Information (Accessories are field installed)

Description	Order Number
Retrofit Panels - EC / ECTA / SCF to CRUS, for 16" Deck Panel	525946
Retrofit Panels - ECTA / SCF to CRUS, for 12" Deck Panel	530289
Retrofit 2x2 Cover Panel Blank (no holes)	357282

Description	Order Number
Retrofit WC Cover Panel Blank (no holes)	354702
Kit - Hole Plugs and Silicone (enough for 25 retrofits)	1520540

Slice Medium (SLM)

Outdoor LED Area Light

Catalog #: Project: Prepared By: Date: Type: S & S1

IP66 IK08

OVERVIEW	
Lumen Package	9,000 - 48,000
Wattage Range	63 - 401
Efficacy Range (LPW)	112 - 156
Weight lbs(kg)	30 (13.6)

QUICK LINKS: Ordering Guide | Performance | Photometrics | Dimensions

FEATURES & SPECIFICATIONS

Construction

- Rugged die-cast aluminum housing contains factory prewired driver and optical unit. Cast aluminum wiring access door located underneath.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Shipping weight: 37 lbs in carton.

Optical System

- State-of-the-Art one piece silicone optic sheet delivers industry leading optical control with an integrated gasket to provide IP66 rated seal.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in distribution types 2, 3, 5W, FT, FTA and AM.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 93%.
- Zero uplight.
- Available in 5000K, 4000K, and 3000K color temperatures per ANSI C78.377. Also available in phosphor converted amber with peak intensity at 610nm.
- Minimum CRI of 70.
- Integral louver (IL) and house-side shield (IH) options available for improved backlight control without sacrificing street side performance. See page 3 for more details.

Electrical

- High-performance driver features overvoltage, under-voltage, short-circuit and over temperature protection.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 VAC) Input 50/60 Hz or optional High Voltage (347-480 VAC).
- L80 Calculated Life: >100k Hours (See Lumen Maintenance on Page 5)
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F). 42L and 48L lumen packages rated to +40°C.
- Power factor: >.90
- Input power stays constant over life.
- Field replaceable 10KV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Driver is fully encased in potting material for moisture resistance and complies with FCC standards. Driver and key electronic components can easily be accessed.

Controls

- Optional integral passive infrared Bluetooth™ motion and photocell sensor. Fixtures operate independently and can be commissioned via iOS or Android configuration app.
- LSI's AirLink™ wireless control system options reduce energy and maintenance costs while optimizing light quality 24/7.

Installation

- A single fastener secures the hinged door, underneath the housing and provides quick & easy access to the electrical compartment.
- Included terminal block accepts up to 12 ga. wire.
- Utilizes LSI's traditional B3 drill pattern. (See drawing on page 9)

Warranty

- LSI luminaires carry a 5-year limited warranty. Refer to https://www.lsiindustries.com/resources/terms-and-warranty.aspx for more information.

Listings

- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- IDA compliant; with 3000K color temperature selection.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet locations.
- IP66 rated Luminaire per IEC 60598-1.
- 3G rated for ANSI C136.31 high vibration applications.
- IK08 rated luminaire per IEC 66262 mechanical impact code.
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.
- Patented Silicone Optics (US Patent NO. 10,816,165 B2)

Type: S & S1

Slice Medium Outdoor LED Area Light

ORDERING GUIDE — Back to Quick Links

TYPICAL ORDER EXAMPLE: SLM LED 36L SIL FTA UNV DIM 50 70CRI ALSCS04 BRZ IL

Luminaire Prefix: SLM - Slice Medium | Light Source: LED | Lumen Package: 9L - 9,000 lms, 12L - 12,000 lms, 18L - 18,000 lms, 24L - 24,000 lms, 30L - 30,000 lms, 36L - 36,000 lms, 42L - 42,000 lms, 48L - 48,000 lms, Custom Lumen Packages | Light Output: SIL - Silicone | Distribution: 2 - Type 2, 3 - Type 3, 5W - Type 5 Wide, FT - Forward Throw, FTA - Forward Throw Automotive, AM - Automotive Merchandise | Orientation: (blank) - standard (no rotation), L - Optics rotated left 90°, R - Optics rotated right 90° | Voltage: UNV - Universal Voltage (120-277V), HV - High Voltage (347-480V) | Driver: DIM - 0-10V Dimming (0-10%)

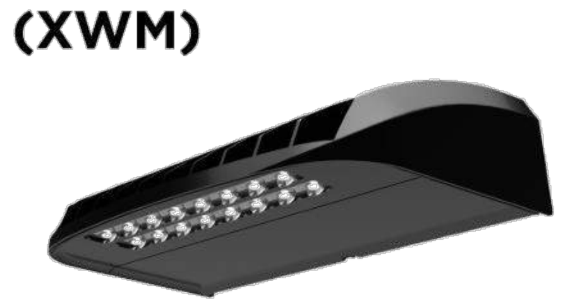
Color Temp: 50 - 5,000 CCT, 40 - 4,000 CCT, 30 - 3,000 CCT, AMB - Phosphor Converted Amber | Color Rendering: 70CRI - 70 CRI | Controls (Choose One): (Blank) - None; Wireless Controls System: ALSC - AirLink Synapse Control System, ALSCS02 - AirLink Synapse Control System with 12-20' Motion Sensor, ALSCS04 - AirLink Synapse Control System with 20-40' Motion Sensor, ALBCS1 - AirLink Blue Wireless Motion & Photo Sensor Controller (8-24' mounting height), ALBCS2 - AirLink Blue Wireless Motion & Photo Sensor Controller (25-40' mounting height); Stand-Alone Controls: EXT - 0-10V Dimming leads extended to housing exterior, CR7P - 7 Pin Control Receptacle ANSI C136.41, IMSBT1 - Integral Bluetooth™ Motion and Photocell Sensor (8-24' MH), IMSBT2 - Integral Bluetooth™ Motion and Photocell Sensor (25-40' MH); Button Type Photocells: PC120 - 120V, PC208-277 - 208-277V, PC347 - 347V | Finish: BLK - Black, BRZ - Dark Bronze, GMG - Gun Metal Gray, GPT - Graphite, MSV - Metallic Silver, PLP - Platinum Plus, SVG - Satin Verde Green, WHT - White | Options: (Blank) - None, IH - Integral Houseside Shield, IL - Integral Louver (Sharp Spill Light Cutoff) =S1

Accessories Ordering Information (Controls Accessories, Fusing Options, Shielding Options, Mounting Accessories, Shielding & Miscellaneous Accessories)

Mirada Medium Wall Sconce (XWM)

Outdoor Wall Sconce

Catalog #: Project: Prepared By: Date: Type: H & H-BB



IK08

OVERVIEW	
Lumen Package (lm)	3,000 - 21,000
Wattage Range (W)	23 - 175
Efficacy Range (LPW)	125 - 158
Weight lbs (kg)	27 (12.2)

QUICK LINKS: Ordering Guide | Performance | Photometrics | Dimensions

FEATURES & SPECIFICATIONS

Construction

- Rugged die-cast aluminum housing contains factory prewired driver and optical unit. Hinged die-cast aluminum wiring access door located underneath.
- Galvanized-steel universal wall mount bracket comes standard with hinging mechanism to easily access the junction box wire connections without removing the luminaire.
- Optional pole-mounting bracket (XPMA) permits mounting to standard poles.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Max shipping weight: 30lbs in carton

Optical System

- State-of-the-Art one piece silicone optic provides industry leading optical control while also acting as an integrated gasket reducing system complexity and improving fixture reliability.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in Types 2, 3, and Forward Throw (FT) distributions.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 93%.
- Zero uplight.
- Available in 5000K, 4000K and 3000K color temperatures per ANSI C78.377. Also Available in Phosphor Converted Amber with Peak intensity at 610nm.
- Minimum CRI of 70.

Electrical

- High-performance programmable driver features over-voltage, under-voltage, short-circuit and over temperature protection. Custom lumen and wattage packages available.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz or optional High Voltage (347-480 Vac).
- L80 Calculated Life: >100k Hours
- Total harmonic distortion: <20%
- 3L to 12L operating temperature: -40°C to +50°C (-40°F to +122°F)
- 15L operating temperature: -40°C to +45°C (-40°F to +113°F).
- 18L operating temperature: -40°C to +40°C (-40°F to +104°F).
- 21L operating temperature: -40°C to +35°C (-40°F to + 95°F).
- Power factor: >.90
- Input power stays constant over life.
- Optional 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed via hinged door.
- Optional integral emergency battery pack provides 90-minutes of constant power to the LED system, ensuring code compliance. A test switch/indicator button is installed on the housing for ease of maintenance. The fixture delivers 1500 lumens during emergency mode.

Controls

- Integral passive infrared Bluetooth™ motion sensor options. Fixtures operate independently and can be commissioned via an iOS or Android configuration app. Updates and modifications to the control strategy are easily implemented via an intuitive app.
- LSI's AirLink™ Blue lighting control system is a simple feature rich wireless Bluetooth mesh network. The integrated fixture sensor module provides wireless control of grouped fixtures based on motion sensors, daylight or a fully customizable schedule.

Installation

- Universal wall mounting plate easily mounts directly to 4" octagonal or square junction box.
- 2 fasteners secure the hinged door underneath the housing and provide quick & easy access to the electrical compartment for installing/servicing.
- Optional terminal block accepts up to 12 ga wire.

Warranty

- LSI luminaires carry a 5-year limited warranty. Refer to https://www.lsicorp.com/resources/terms-warranty/ for more information.
- 1 Year warranty on Battery Back-up option.

Listings

- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- IDA compliant; with 3000K or lower color temperature selection.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet Locations.
- IP65 rated luminaire per IEC 60598.
- 3G rated for ANSI C136.31 high vibration applications when pole mounted (using optional XPMA bracket) or wall mounted.
- IK08 rated luminaire per IEC 66262 mechanical impact code
- DesignLights Consortium® (DLC) Premium qualified product. Not all versions of this product may be DLC Premium qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

Type: H & H-BB

Mirada Medium Wall Sconce (XWM) Outdoor Wall Sconce

Have questions? Call us at (800) 436-7800

ORDERING GUIDE — Back to Quick Links

TYPICAL ORDER EXAMPLE: XWM 2 LED 03L 30 UE BRZ ALSC

Family: XWM - Mirada Medium Wall Sconce | Distribution: 2 - Type 2, 3 - Type 3, FT - Type 4 Forward Throw | Light Source: LED | Lumen Package: 3L - 3,000, 4L - 4,000, 6L - 6,000, 8L - 8,000, 12L - 12,000, 15L - 15,000, 18L - 18,000, 21L - 21,000, Custom Lumen Packages | Color Temperature: 30 - 3000K, 40 - 4000K, 50 - 5000K, AMB - Phosphor Converted Amber

Voltage: UE - Universal Voltage (120-277V), HV - High Voltage (347-480V) | Finish: BLK - Black, BRZ - Dark Bronze, GMG - Gun Metal Gray, GPT - Graphite, MSV - Metallic Silver, PLP - Platinum Plus, SVG - Satin Verde Green, WHT - White | Controls: Blank - None; Wireless Controls: ALSC - AirLink Synapse Control System, ALSCS02 - AirLink Synapse Control System with 8-12' Motion Sensor, ALSCS04 - AirLink Synapse Control System with 12-20' Motion Sensor, ALBCS1 - AirLink Blue Wireless Motion & Photo Sensor Controller (8-24' MH), ALBCS2 - AirLink Blue Wireless Motion & Photo Sensor Controller (25-40' MH); Standalone Controls: DIM - 0-10V Dimming leads extended to housing exterior, IMSBT1 - Integral Bluetooth™ Motion and Photocell Sensor (8-24' MH), IMSBT2 - Integral Bluetooth™ Motion and Photocell Sensor (25-40' MH); Button Type Photocells: PC120 - 120V, PC208-277 - 208-277V, PC347 - 347V | Options: Blank - None, BB - Battery Back-up (0°C) =H-BB, CWBB - Cold Weather Battery Backup (-20°C), XPMA - Pole Mounting Bracket, SP1 - 10kV Surge Protection, TB - Terminal Block

Need more information? Click here for our glossary. Have additional questions? Call us at (800) 436-7800

FUSING ACCESSORY ORDERING INFORMATION

Part Number	Description
FK120	FK120 - Single Fusing
FK277	FK277 - Single Fusing
FK347	FK347 - Single Fusing
DFK208	DFK - Double Fusing
DFK240	DFK - Double Fusing (240V)
DFK480	DFK - Double Fusing (480V)

MOUNTING ACCESSORY ORDERING INFORMATION

Part Number	Description
356925CLR	XWM Wet Location Surface Conduit/Wiring Box
751652	10' Linear Bird Spike Kit (2' Recommended per Luminaire)

Catalog # : Project : Prepared By : Date :

Type: M

LCD6

6" LED Commercial Downlight

6 inch LED new construction downlight delivers superior performance and energy efficiency. Designed to use anodized aluminum reflectors delivering even illumination and low glare. The high performance luminaire offers 1000 up to 4000 lumens with color temperatures of 2700K, 3000K, 3500K, 4000K at 80 CRI. Standard driver offers universal (120-277V) and 0 -10V dimming down to 1%. The LCD series is ideal for low to medium ceiling heights for retail, hospitality and commercial applications.

Origin

Features & Specifications

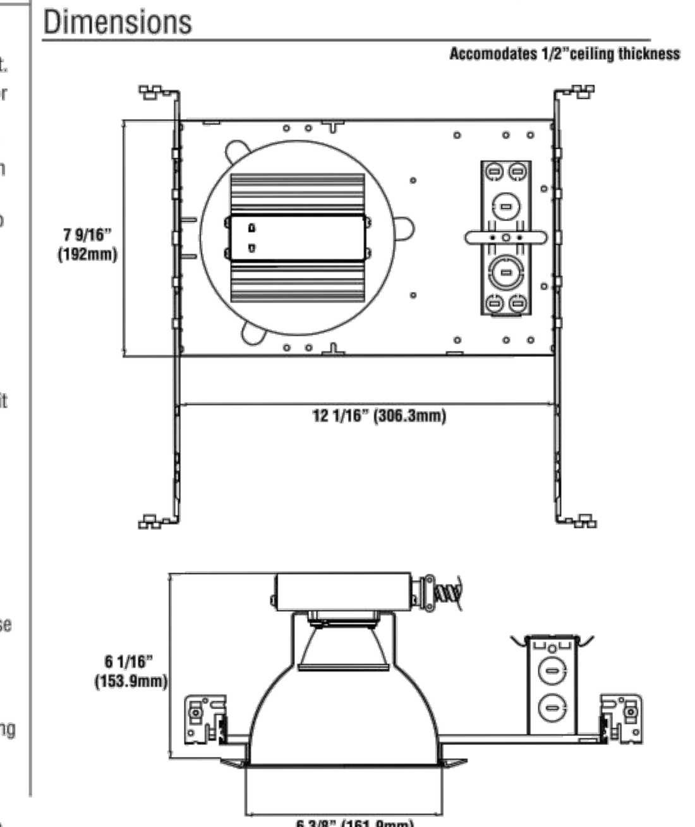
Optical System

- LED source provides superior lumen output with maximum visual comfort.
- Tailored spot, narrow flood, flood and wide flood beam optics designed for glare free illumination.
- Choice of flanged or flangeless spun reflector utilizing heavy gauge highly reflective diffuse anodized aluminum to deliver low glare, even illumination of the space.
- Reflectors are retained with three retention clips holding the flange tight to the finished ceiling surface.
- Minimum CRI of 80.

Electrical

- High-performance driver features over-voltage, under voltage, short-circuit and over temperature protection.
- 0-10 volt dimming (1% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz.
- L70 Calculated Life: > 50k Hours projected @ 25°C per IESNA TM-21-11.
- Total harmonic distortion: <20%
- Power factor: > .90
- Input power stays constant over life.
- Compatible with Triac (forward-phase or leading-edge), ELV (reverse-phase or trailing edge) dimming only at 120 Vac.
- Driver can be accessed from below plenum for servicing.
- High-efficacy LEDs with integrated circuit board mount directly to an extruded aluminum heatsink to maximize heat dissipation and promote long life.
- Remote Emergency Battery (120-277V) field installed is available to meet critical life safety lighting requirements. The 90-minute battery provides 7.8watts constant power to the LED system, ensuring code compliance. To calculate light output during emergency mode(EM battery 7.8 watts x LPW of fixture being powered - see spec sheet). Detailed wiring diagram and installation instructions located on website.

Dimensions



Type: M

LCD6

6" LED Commercial Downlight

Luminaire Ordering Guide

TYPICAL ORDER EXAMPLE: LCD6 LED 25L UNV DIM1 35 NF TR6R HAZ

Family/Size: LCD6 - 6" New Construction | LED Gen: LED | Lumen Package: 10L - 1000, 15L - 1500, 20L - 2000, 25L - 2500, 30L - 3000, 40L - 4000 | Voltage: UNV - 120-277V | Driver: DIM1 - Dims to 1% (0-10V dimming) | Color Temperature: 27 - 2700K, 30 - 3000K, 35 - 3500K, 40 - 4000K | CRI: Blank - 80 CRI | Beam Optic: SP - Spot, NF - Narrow Flood, FL - Flood, WF - Wide Flood

	Reflector	Finish
Self-Flange	TR6R - Open Reflector	SF HAZ - Haze semi-diffused; SF SPC - Specular clear
	TR6RWW - Wall Wash	SF HAZ - Haze semi-diffused
Flangeless (ship standard w/ white plastic trim ring)	TR6R - Open Reflector	HAZ - Haze semi-diffused, white trim ring; SPC - Specular clear, white trim ring
	TR6RFL - Frosted Floating Lens	HAZ - Haze semi-diffused Reflector w/ Frosted Floating Lens, w/ integrated white metal trim ring (optional trim ring not compatible); SPC - Specular Clear Reflector w/ Frosted Floating Lens, w/ integrated white metal trim ring (optional trim ring not compatible)
	TR6RWW - Wall Wash	HAZ - Haze semi-diffused wall wash reflector, white trim ring
	TR6B - Baffle	HAZ - Haze semi-diffused; WH - White baffle and white trim ring; BL - Black baffle and white trim ring
	TR6BL - Baffle w/ Regressed Lens	HAZ - Haze semi-diffused; SPC - Specular clear; WH - White baffle and white trim ring; BL - Black baffle and white trim ring
	TR6RL - Regressed Lens	HAZ - Haze semi-diffused reflector w/ specular clear regressed lens and white trim ring; SPC - Specular clear reflector w/ specular clear regressed lens and white trim ring

Accessory Ordering Information (Accessories are field installed)

Description	Order Number
WH - White metal trim ring (only compatible w/flangeless trims)	618106
EM - Emergency Battery	669833

Per comments from Enumerations: Store address should be 7825 Meridian Park Drive , Gas Canopy is 7829 Meridian Park Drive.

PLANNING AND COMMUNITY DEVELOPMENT DIRECTOR:

Galloway

1155 Kelly Johnson Blvd., Suite 305
Colorado Springs, CO 80920
719.900.7220
GallowayUS.com

PRELIMINARY
NOT FOR BIDDING
NOT FOR CONSTRUCTION

MURPHY OIL USA, INC.
200 PEACH STREET
EL DORADO, AR 71730

MURPHY USA

SITE DEVELOPMENT PLAN
MURPHY OIL USA #7968
XXXX MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

#	Date	Issue / Description	Init.

Project No:	Moc901028
Drawn By:	JMG
Checked By:	JMG
Date:	02/09/2024

PHOTOMETRIC DETAILS

L1.1

Sheet 2 of 2

Stratus™

stratusunlimited.com
888.503.1569

LOCATION NUMBER:

22120

SITE ADDRESS:

Meridian Rd & Eastonville Rd
Falcon, CO 80831

Per comments from Enumerations:
Store address should be 7825 Meridian Park Drive , Gas Canopy is 7829 Meridian Park Drive.

Revised.

Please include:
- tax schedule number
- current zoning

Provided.

MURPHY USA

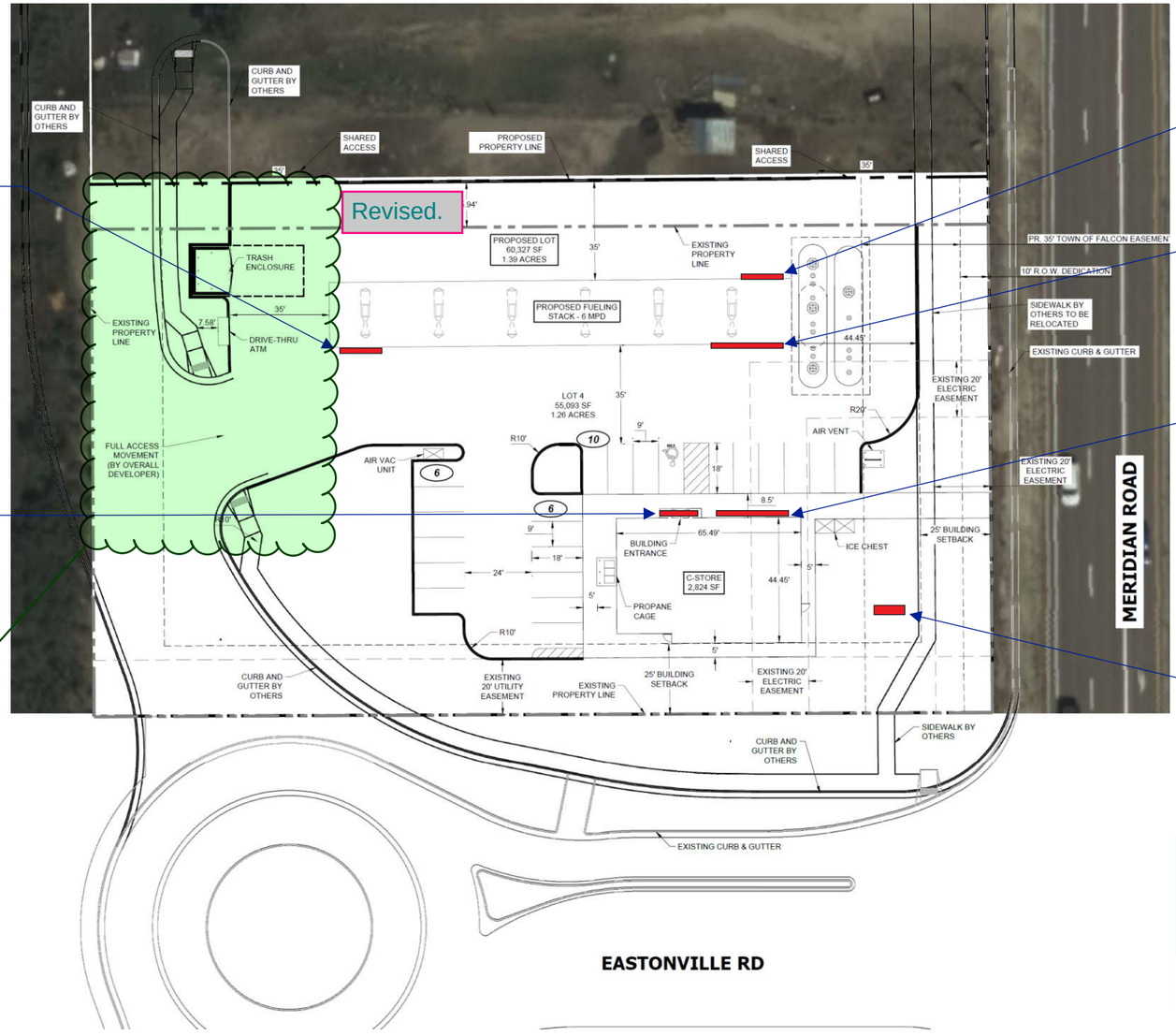
SITE PLAN

REFERENCE ONLY

N

Please include a graphic scale

Provided.



PRICERS **E02**
UNL / DSL
57.9 square feet

E01 **PRICERS**
UNL / DSL
57.9 square feet

E03 **MURPHY USA COPY**
34.1 square feet

E04 **MURPHY USA COPY**
34.1 square feet

STAR LOGO **E05**
34.9 square feet

This area does not match up with the Site Development Plan

Revised.

E06 **D/F ILLUM MONUMENT**
75 square feet

Please include location height and intensity of outdoor illumination for signs where applicable

Provided.

Stratus™
stratusunlimited.com
8959 Tyler Boulevard
Mentor, Ohio 44060
888.503.1569

CLIENT: MURPHY USA

ADDRESS: Meridian Rd & Eastonville Rd
Falcon, CO 80831

PAGE NO.: 2

ORDER NUMBER: 1188345

PROJECT NUMBER: 82972

SITE NUMBER: 22120

PROJECT MANAGER: WAYNE MCGAHEE

ELECTRONIC FILE NAME: G:\ACCOUNTS\M\MURPHY'S USA_LOCATIONS\2023\CO\22120_Falcon\22120_Falcon Visibility.cdr

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CODE CHECK

Meridian Rd & Eastonville Rd
Falcon, CO 80831

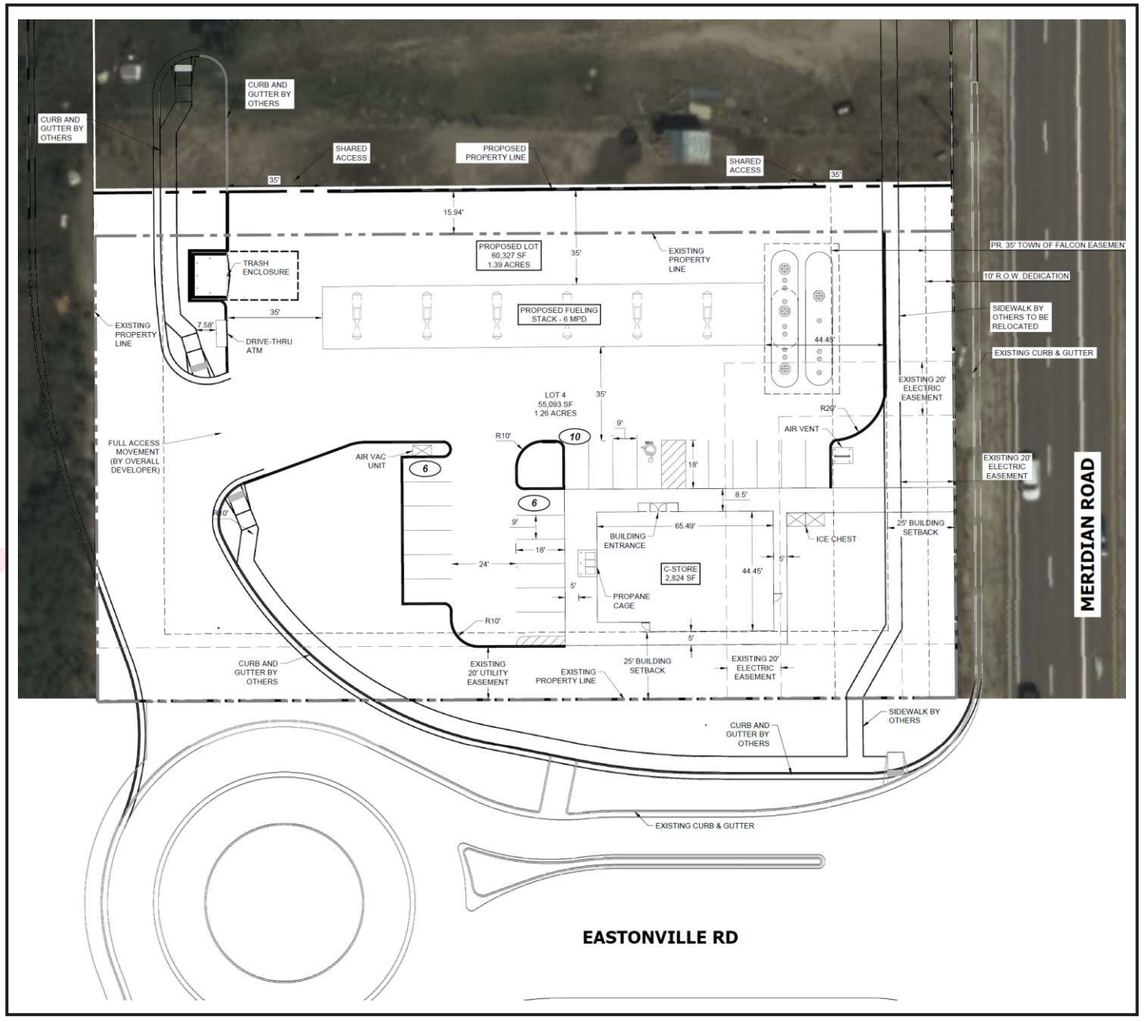
MURPHY USA

SIGN CODE

SIGN TYPE	DESCRIPTION	SQUARE FOOTAGE ALLOWED	SQUARE FOOTAGE PROPOSED
BUILDING SIGNAGE	1.5 sq. ft. per linear ft. of building wall.	----	STOREFRONT MURPHYS LOGO - 34.1' SF STAR LOGO - 34.9' SF
FREESTANDING SIGNAGE	Free standing sign can be a max of 2 sq. ft. for each linear ft. of building wall closest to the free-standing sign. Maximum height is height of building.	----	(1) MONUMENT 75'SF
CANOPY SIGNAGE	1.5 sq. ft. per linear ft. of building wall.	----	(2) PRICER-57.9'SF (1) MU COPY - 34.1'SF

VARIANCE DETAILS

NOTES	$1000 min – 2-3 months processing time – Depends on hardship



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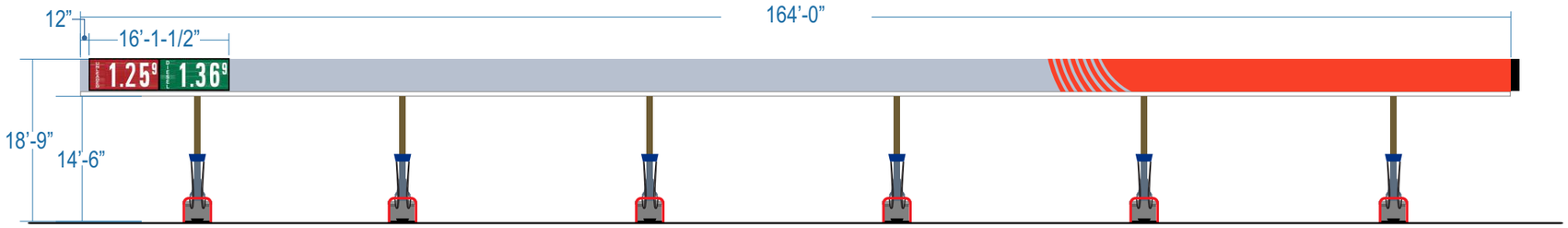
Rev #	Req #	Date/Artist	Description

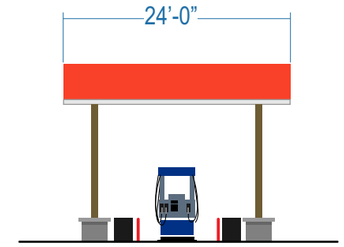
CANOPY ELEVATIONS

Scale: 1/16”=1’-0”

FOR MOCK UP ONLY
ACTUAL BUILDING RENDERING TO FOLLOW

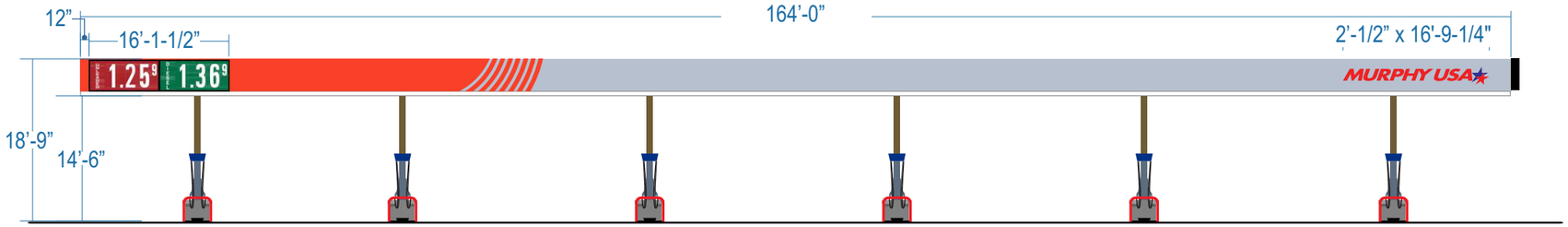


FRONT ELEVATION



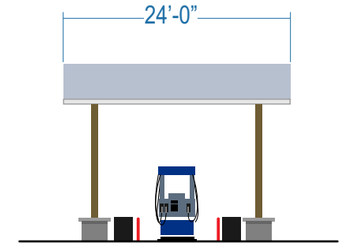
RIGHT ELEVATION

FACING MERIDIAN ROAD

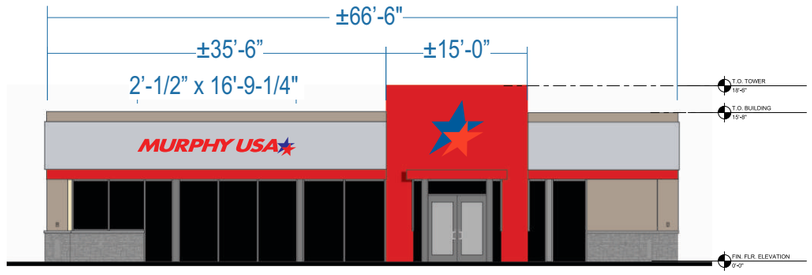


REAR ELEVATION

FACING EASTONVILLE ROAD



LEFT ELEVATION



FRONT ELEVATION (...)

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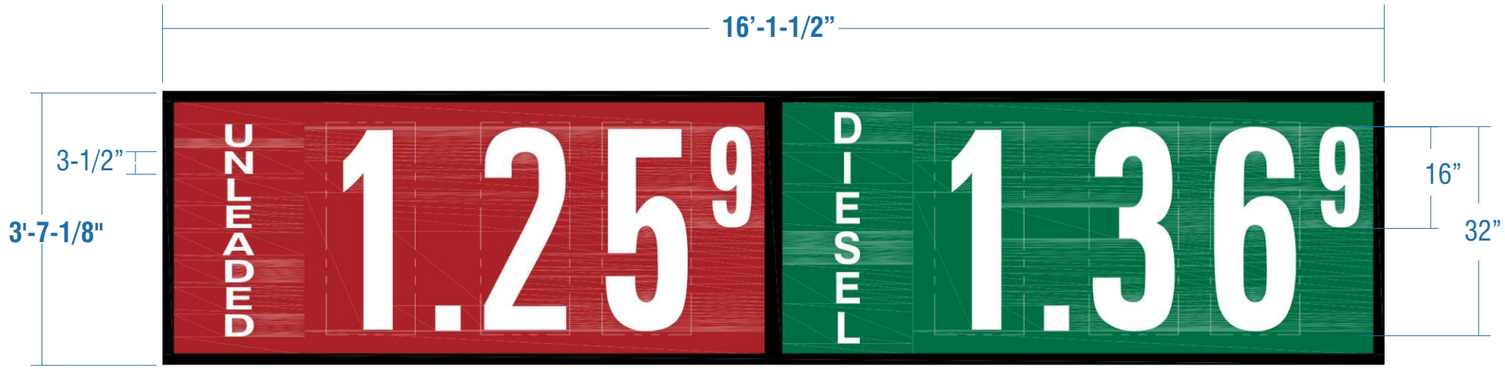
E01 PRICER CABINETS

E02

Scale: 1/2”=1’-0”

57.9 square feet



12” deep pricer cabinets to be provided by Others

Stratus to install sign cabinets to canopy

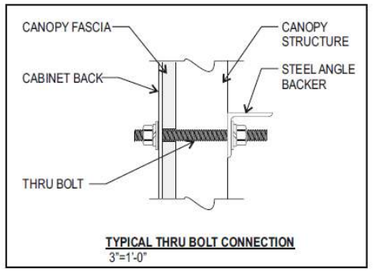
(2) Two cabinets required

JOB NOTES: Sign cabinet to be provided by others; STRATUS to install
STRATUS responsible for install only

Connection Specifications: Signs A
Total connectors required - Attach Wall Signs to Canopy According to Schedule Below and on the Attached Drawing Sheets. Don't Overtighten. Screw Retainer or Trimcap @ 8" O.C. Max.

CONNECTION QUANTITY	❶ 3/8" THRU BOLTS
CABINET (3'-7" x 16'-2")	12

Thru Bolts - Continous Horizontal 3" Angle Backers Behind Vertical Canopy Fascia Supports



TYPICAL THRU BOLT CONNECTION
3"=1'-0"

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E03 CANOPY SIGNAGE

Scale: 1/2”=1’-0”

34.1 sq. ft.

ACM PANEL COPY

(1) ONE REQUIRED

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E04 BUILDING SIGNAGE

Scale: 1/2”=1’-0”

34.1 sq. ft.

ACM PANEL COPY

(1) ONE REQUIRED

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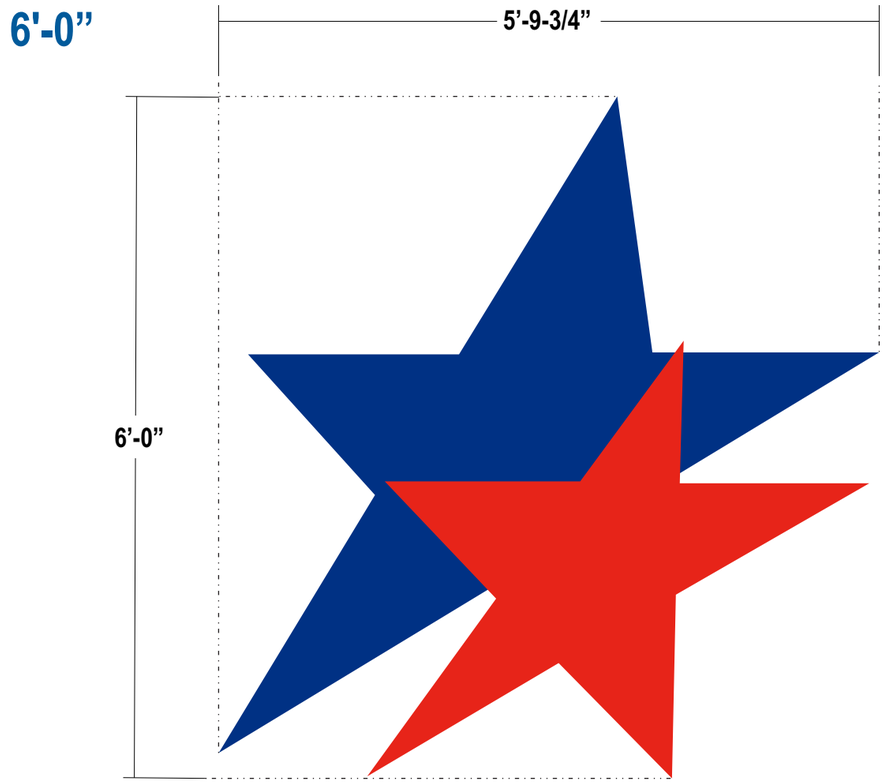
Original	442165	08/18/23 KW					

E05 S/F ILLUM. STAR LOGO — ME-STAR-72

Scale: 3/4"=1'-0" — 34.9 square feet



FACES: .187 White polycarbonate w/ surface applied translucent vinyl graphics as shown

TRIMCAP: 2” trimcap - red & Blue as required to match faces

RETURNS: 5” deep .063 alum. - pre-finished White

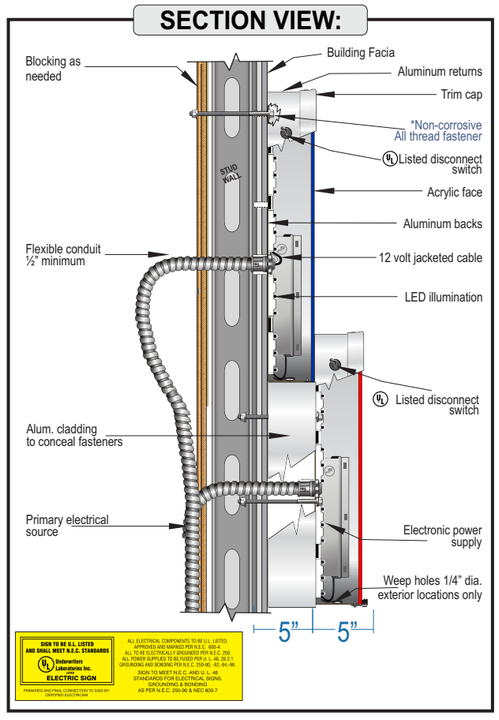
BACKS: .063 alum. - insides pre-finished White

ILLUM.: ***White GE led illumination w/ self contained power supplies; Disconnect switch must be located on outside of returns***

INSTALL: *BLUE STAR:* Thru bolted using all thread into blocking as required 12” standard length of threaded rod will be supplied unless otherwise noted; 3/8” threaded rod into blocking or Stratus approved equivalent *RED STAR:* Mounted on top of Blue star with attachment points in open areas only - 5” stand off from wall

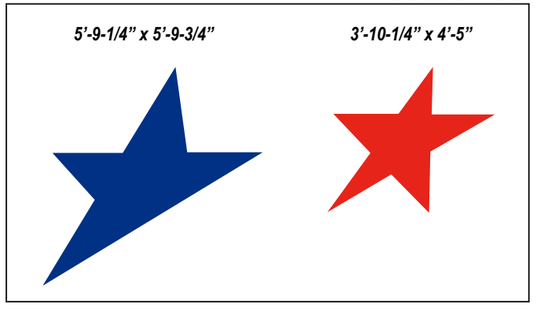
CLADDING: Fab’d aluminum shroud to surround red star 5” deep to conceal fasteners and stand offs; Painted White to match returns

SECTION VIEW:



EACH STAR IS FABRICATED AS A SEPARATE CHANNEL LETTER

SCALE: 1/4”=1'-0”



COLOR PALETTE

STAR / TRIMCAP:
Pantone 287 Blue
3M 3630-87 Royal Blue

STAR / TRIMCAP:
Pantone 485 Red
3M 3630-43 Red

RETURNS:
White

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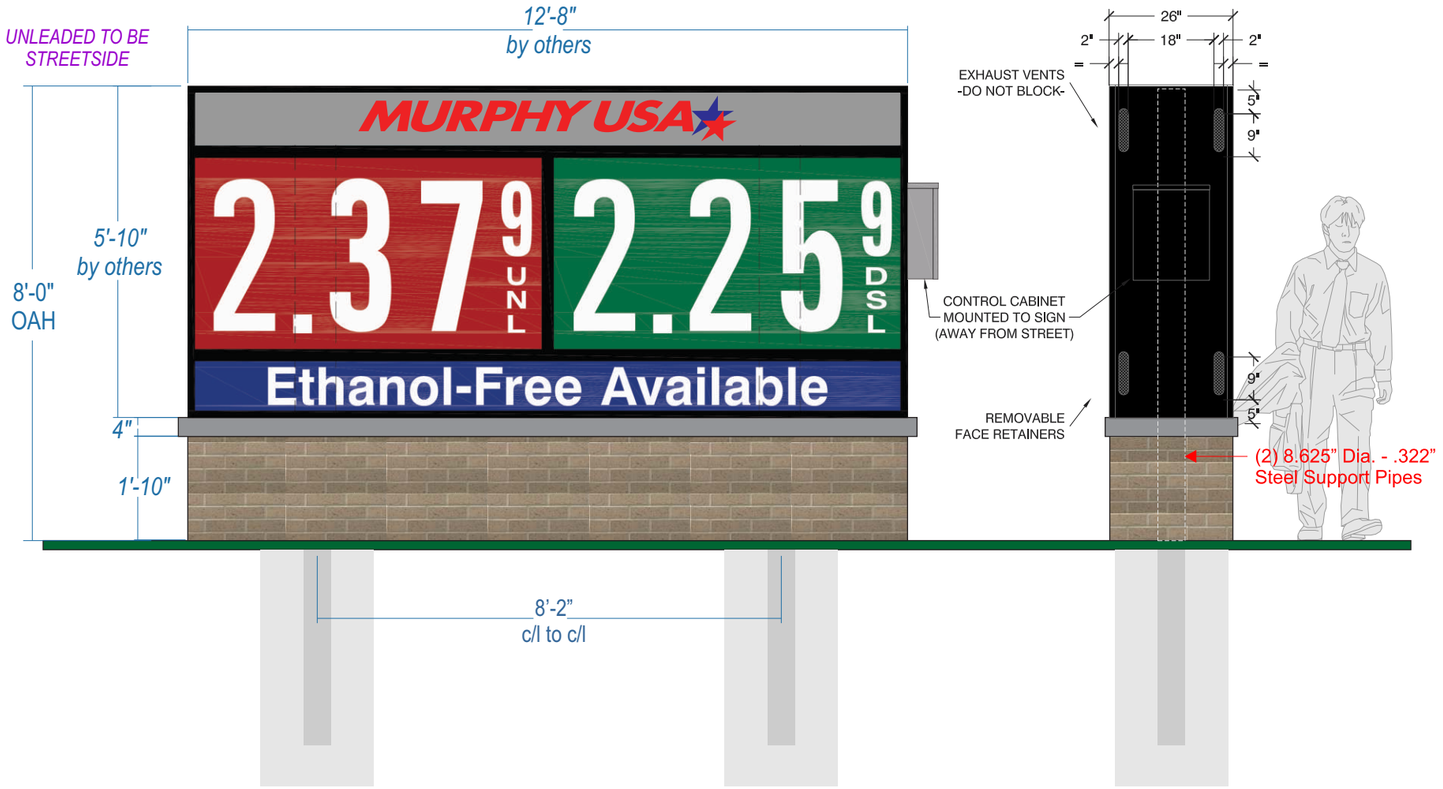
E06 D/F ILLUM. MONUMENT

Scale: 3/8”=1’-0” 75 square feet



CABINET: 26” deep D/F Illum. cabinet provided BY OTHERS

SUPPORT POLE: (2) Two 8.625” \ .322” thick internal support pole required

INSTALL: Direct burial installation as required by city code and engineering requirements;
ENGINEERING AND FOUNDATION DETAILS TO FOLLOW

BASE: Option A: Masonry Brick Construction w/ 4" Capstone - *Provided by GC;*
Option B: Fab’d alum. framework for pole covers with 3/4” backer board or equivalent overlay; Endicott Thin Brick veneer installed over framework; Brick veneer shown as Light Sandstone Velour 4” capstone - *Provide by GC*

JOB NOTES: Sign cabinet to be provided by others; STRATUS to install
STRATUS responsible for footer/ foundation/ support poles;
Base with capstone - Provided by Others

MODULAR BRICK VENEER
LIGHT - SANDSTONE VELOUR
BY ENDICOTT

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OVERVIEW SITE PLAN

REFERENCE ONLY

PROPOSED LOCATION

N

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STREET VIEW

REFERENCE ONLY

1

SOUTH ON MERIDIAN ROAD

2

SOUTH ON MERIDIAN ROAD

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STREET VIEW

REFERENCE ONLY

3

SOUTH ON MERIDIAN ROAD

4

EASTONVILLE ROAD

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STREET VIEW

REFERENCE ONLY

5

NORTH ON MERIDIAN ROAD

6

NORTH ON MERIDIAN ROAD

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STREET VIEW

REFERENCE ONLY

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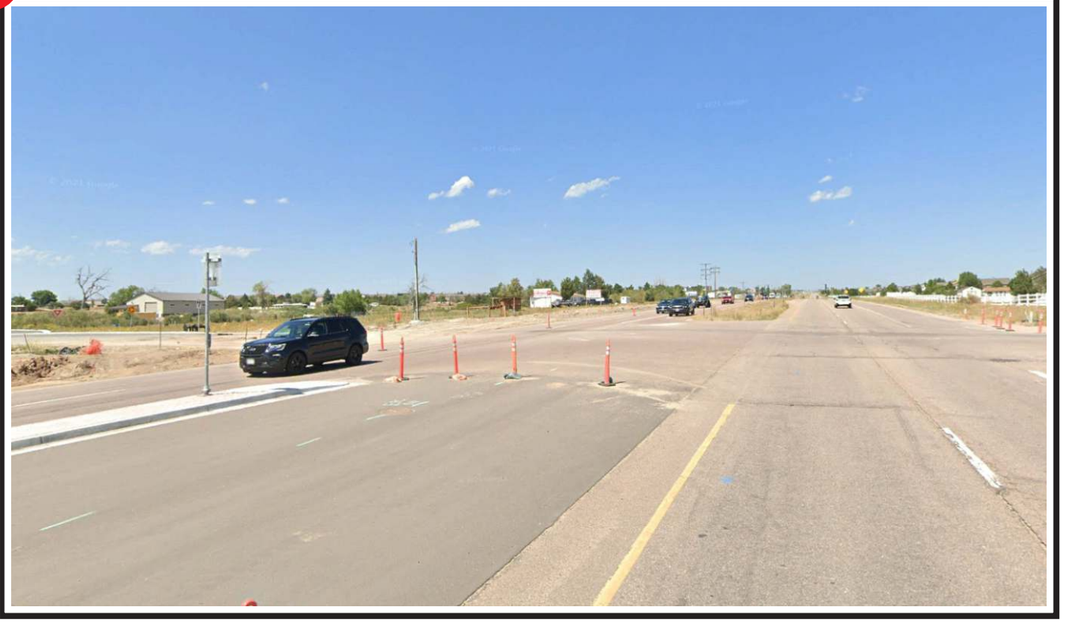
NORTH ON MERIDIAN ROAD



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EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP)
EL PASO COUNTY APPLICATION AND PERMIT

EPC Project Number: EA2377 PPR244 Revised.

APPLICANT INFORMATION ***PERMIT NUMBER*** _____

Owner Information	
Property Owner	Meridian & Owl X, LLC
Applicant Name (Permit Holder)	Brian Zurek
Company/Agency	Meridian & Owl X, LLC
Position of Applicant	
Address (physical address, not PO Box)	4148 N Arcadia Drive
City	Phoenix
State	AZ
Zip Code	85018
Mailing address, if different from above	PO Box 220, Scottsdale AZ, 85252
Telephone	(480) 313-2724
FAX number	
Email Address	Brian@doubletreeventures.com
Cellular Phone number	
Contractor/Operator Information	
Name (person of responsibility)	
Company	
Address (physical address, not PO Box)	
City	
State	
Zip Code	
Mailing address, if different from above	
Telephone	
FAX number	
Email Address	
Cellular Phone number	
Erosion Control Supervisor (ECS)*	
ECS Phone number*	
ECS Cellular Phone number*	

*Required for all applicants. May be provided at later date pending securing a contract when applicable.

PROJECT INFORMATION

Project Information	
Project Name	Murphy USA Fuel Station & Convenience Store
Legal Description	Lot 1, Owl Marketplace Filing No. 1
Address (or nearest major cross streets)	Meridian Park Drive & Eastonville Rd
Acreage (total and disturbed)	Total: 1.108 acres Disturbed: 1.140 acres
Schedule	Start of Construction: 5/15/2025 Completion of Construction: 9/15/2025 Final Stabilization: 09/15/2026
Project Purpose	The purpose of this project is to develop a pad ready lot into a Murphy USA fuel station & convenience store.
Description of Project	Located at the NEC of Meridian Park Drive & Eastonville Rd, this project will include grading, utilities, storm drain, drainage swales, and concrete paving to support a Murphy USA fuel station & convenience store.
Tax Schedule Number	5301001015 (Subject to change w/ Final Plat recording)

FOR OFFICE USE ONLY

The following signature from the ECM Administrator signifies the approval of this ESQCP. All work shall be performed in accordance with the permit, the El Paso County Engineering Criteria Manual (ECM) Standards, City of Colorado Springs Drainage Criteria Manual, Volume 2 (DCM2) as adopted by El Paso County Addendum, approved plans, and any attached conditions. The approved plans are an enforceable part of the ESQCP. Construction activity, except for the installation of initial construction BMPs, is not permitted until issuance of a Construction Permit and Notice to Proceed.

Signature of ECM Administrator: _____ Date _____

1.1 REQUIRED SUBMISSIONS

In addition to this completed and signed application, the following items must be submitted to obtain an ESQCP:

- Permit fees;
- Stormwater Management Plan (SWMP) meeting the requirements of DCM2 and ECM either as part of the plan set or as a separate document;
- Operation and Maintenance Plan for any proposed permanent stormwater control measures; and
- Signed Private Detention Basin/Stormwater Quality Best Management Practice Maintenance Agreement and Easement, if any permanent stormwater control measures are to be constructed.

1.2 RESPONSIBILITY FOR DAMAGE

The County and its officers and employees, including but not limited to the ECM Administrator, shall not be answerable or accountable in any manner for damage to property or for injury to or death of any person, including but not limited to a permit holder, persons employed by the permit holder, or persons acting in behalf of the permit holder, from any cause. The permit holder shall be responsible for any liability imposed by law and for damage to property or injuries to or death of any person, including but not limited to the permit holder, persons employed by the permit holder, persons acting in behalf of the permit holder, arising out of work or other activity permitted and done under a permit, or arising out of the failure to perform the obligations under any permit with respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work or other activity, or at any subsequent time work or other activity is being performed under the obligations provided by and contemplated by the permit.

The permit holder shall indemnify, save, and hold harmless the County and its officers and employees, including but not limited to the BOCC and ECM Administrator, from all claims, suits or actions of every name, kind and description brought for or on account of damage to property or injuries to or death of any person, including but not limited to the permit holder, persons employed by the permit holder, persons acting in behalf of the permit holder and the public, resulting from the performance of work or other activity under the permit, or arising out of the failure to perform obligations under any permit with respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work or other activity, or at any subsequent time work or other activity is being performed under the obligations provided by and contemplated by the permit, except as otherwise provided by state law. The permit holder waives any and all rights to any type of expressed or implied indemnity against the County, its officers or employees. It is the intent of the parties that the permit holder will indemnify, save, and hold harmless the County, its officers and employees from any and all claims, suits or actions as set forth above regardless of the existence or degree of fault of or negligence, whether active or passive, primary or secondary, on the part of the County, the permit holder, persons employed by the permit holder, or persons acting in behalf of the permit holder

1.3 APPLICATION CERTIFICATION

We, as the Applicants or the representative of the Applicants, hereby certify that this application is correct and complete as per the requirements presented in this application, the El Paso County Engineering Criteria Manual, and Drainage Criteria Manual, Volume 2 and El Paso County Addendum.

We, as the Applicants or the representatives of the Applicants, have read and will comply with all of the requirements of the specified Stormwater Management Plan and any other documents specifying stormwater best management practices to be used on the site, including permit conditions that may be required by the ECM Administrator. We understand that the stormwater control measures are to be maintained on the site and revised as necessary to protect stormwater quality as the project progresses. We further understand that a Construction Permit must be obtained and all necessary stormwater quality control measures are to be installed in accordance with the SWMP, the El Paso County Engineering Criteria Manual, Drainage Criteria Manual, Volume 2 and El Paso County Addendum before land disturbance begins and that failure to comply will result in a Stop Work Order and may result in other penalties as allowed by law. We further understand and agree to indemnify, save, and hold harmless the County and its officers and employees, including but not limited to the BOCC and ECM Administrator, from all claims, suits or actions of every name, kind and description as outlined in Section 1.2 Responsibility for Damage

_____ Date:_____

Signature of Owner or Representative

_____

Print Name of Owner or Representative

Owner sign and date

Signed.

_____ Date:_____

Signature of Operator or Representative

_____

Print Name of Operator or Representative

Permit Fee $_____

Surcharge $_____

Financial Surety $_____ Type of Surety _____

Total $_____

3275 Akers Drive
Colorado Springs, CO 80922
Phone 719-520-6460
Fax 719-520-6879
www.elpasoco.com

Y - Satisfies criteria

N - Needs to be addressed

EL PASO COUNTY
GRADING AND EROSION CONTROL PLAN CHECKLIST

PPR244 Revised.

EPC Project Number: XXXXX

Revised: October 2021

		Applicant	EPC
1. GRADING AND EROSION CONTROL PLAN (complete form using Y, N, N/A in the "Applicant" column)			
a	Vicinity map	X	Y
b	Adjacent city/town/jurisdictional boundaries, subdivision names, and property parcel numbers labeled	X	Y
c	North arrow and acceptable scale (1"=20' to 1"=100') Revised.	X	Y
d	Legend for all symbols used in the plan Update per my comments on Shts G1.1 &2.1	X	N
e	Existing and proposed property lines. Proposed subdivision boundary for subdivision projects	X	Y
f	All existing structures	X	Y
g	All existing utilities	X	Y
h	Construction site boundaries	X	N
i	Existing vegetation (notes are acceptable in cases where there is no notable vegetation, only grasses/weeds, or site has already been stripped)	X	Y
j	FEMA 100-yr floodplain	N/A	N/A
k	Existing and proposed water courses including springs, streams, wetlands, detention ponds, stormwater quality structures, roadside ditches, irrigation ditches and other water surfaces. Show maintenance of pre-existing vegetation within 50 feet of a receiving water	X	Y
l	Existing and proposed contours 2 feet or less (except for hillside)	X	Y
m	Limits of disturbance delineating all anticipated areas of soil disturbance	X	Y
n	Identify and protect areas outside of the construction site boundary with existing fencing, construction fencing or other methods as appropriate	X	Y
o	Off-site grading clearly shown and called out	X	Y
p	Areas of cut and fill identified	X	Y
q	Conclusions from soils/geotechnical report and geologic hazards report incorporated in grading design (slopes, embankments, materials, mitigation, etc.)	X	Y
r	Proposed slopes steeper than 3:1 with top and toe of slope delineated. Erosion control blanketing or other protective covering required	X	Y
s	Stormwater flow direction arrows	X	Y
t	Location of any dedicated asphalt / concrete batch plants	N/A	N/A
u	Areas used for staging, storage of building materials, soils (stockpiles) or wastes. The use of construction office trailers requires PCD permitting	X	Y
v	All proposed temporary construction control measures, structural and non-structural. Temporary construction control measures shall be identified by phase of implementation to include" "initial," "interim," and "final" or shown on separate phased maps identifying each phase	X	Y
w	Vehicle tracking provided at all construction entrances/exits. Construction fencing, barricades, and/or signage provided at access points not to be used for construction	X	Y
x	Temporary sediment ponds provided for disturbed drainage areas greater than 1 acre	N/A	N/A

3275 Akers Drive
Colorado Springs, CO 80922
Phone 719-520-6460
Fax 719-520-6879
www.elpasoco.com

EL PASO COUNTY
GRADING AND EROSION CONTROL PLAN CHECKLIST

EPC Project Number: XXXXX

Revised: October 2021

		Applicant	EPC
y	Dewatering operations to include locations of diversion, pump and discharge(s) as anticipated at time of design	X	N/A
z	All proposed temporary construction control measure details. Custom or other jurisdiction's details used must meet or exceed EPC standards	X	Y
aa	Any off-site stormwater control measure proposed for use by the project and not under the direct control or ownership of the Owner or Operator	X	Y
bb	Existing and proposed permanent storm water management facilities, including areas proposed for stormwater infiltration or subsurface detention	X	Y
cc	Existing and proposed easements (permanent and construction) including required off-site easements	X	Y
dd	Retaining walls shall not to be located in County ROW unless approved via license agreement. A building permit from Regional Building Department is required for walls greater than or equal to 4 feet in height, series of walls, or walls supporting a surcharge and must be design by P.E.	N/A	N/A
ee	Plan certified by a Colorado Registered P.E., with EPC standard signature blocks for Engineer, Owner and EPC	X	Y
ff	Engineer's Statement (for standalone GEC Plan): This Grading and Erosion Control Plan was prepared under my direction and supervision and is correct to the best of my knowledge and belief. Said Plan has been prepared according to the criteria established by the County for Grading and Erosion Control Plans. I accept responsibility for any liability caused by any negligent acts, errors or omissions on my part in preparing this plan. _____ 2/16/2024 Engineer of Record Signature Date	X	Y
gg	Engineer's Statement (for GEC Plan within Construction Drawing set): These detailed plans and specifications were prepared under my direction and supervision. Said plans and specifications have been prepared according to the criteria established by the County for detailed roadway, drainage, grading and erosion control plans and specifications, and said plans and specifications are in conformity with applicable master drainage plans and master transportation plans. Said plans and specifications meet the purposes for which the particular roadway and drainage facilities are designed and are correct to the best of my knowledge and belief. I accept responsibility for any liability caused by any negligent acts, errors or omissions on my part in preparation of these detailed plans and specifications. _____ 2/16/2024 Engineer of Record Signature Date	X	N/A
hh	Owner's Statement (for standalone GEC Plan): I, the owner/developer have read and will comply with the requirements of the Grading and Erosion Control Plan. _____ _____ Owner Signature Date	X	Y
ii	Owner's Statement (for GEC Plan within Construction Drawing set): I, the owner/developer have read and will comply with the requirements of the grading and erosion control plan and all of the requirements specified in these detailed plans and specifications. _____ _____ Owner Signature Date	X	N/A

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jj	El Paso County: County plan review is provided only for general conformance with County Design Criteria. The County is not responsible for the accuracy and adequacy of the design, dimensions, and/ or elevations which shall be confirmed at the job site. The County through the approval of this document assumes no responsibility for completeness and/ or accuracy of this document. Filed in accordance with the requirements of the El Paso County Land Development Code, Drainage Criteria Manual Volumes 1 and 2, and Engineering Criteria Manual, as amended. In accordance with ECM Section 1.12, these construction documents will be valid for construction for a period of 2 years from the date signed by the El Paso County Engineer. If construction has not started within those 2 years, the plans will need to be resubmitted for approval, including payment of review fees at the Planning and Community Development Director's discretion. _____ _____ County Engineer/ECM Administrator Date	X	Y
2. ADDITIONAL REPORTS/PERMITS/DOCUMENTS			
a	Soils report / geotechnical investigation as appropriate for grading/utilities/drainage/road construction.	X	
b	Use Agreement/easement between the Owner or Operator and other third party for use of all off-site grading or stormwater control measures, used by the owner or operator but not under their direct control or ownership.	X	
c	Floodplain Development Permit	N/A	
d	USACE 404/wetlands permit/mitigation plan	N/A	
e	FEMA CLOMR	N/A	
f	State Engineer's permit/Notice Of Intent to Construct	X	
g	Stormwater Management Plan (SWMP)	X	
h	Financial Assurance Estimate (FAE) (signed)	X	
i	Erosion and Stormwater Quality Control Permit (ESQCP) (signed)	X	
j	Pre-Development Site Grading Acknowledgement & Right of Access Form (signed)	X	
k	Conditions of Approval met?	X	

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		Applicant	EPC
3. STANDARD NOTES FOR EL PASO COUNTY GRADING AND EROSION CONTROL PLANS			
1	Stormwater discharges from construction sites shall not cause or threaten to cause pollution, contamination, or degradation of State Waters. All work and earth disturbance shall be done in a manner that minimizes pollution of any on-site or off-site waters, including wetlands.	X	Y
2	Notwithstanding anything depicted in these plans in words or graphic representation, all design and construction related to roads, storm drainage and erosion control shall conform to the standards and requirements of the most recent version of the relevant adopted El Paso County standards, including the Land Development Code, the Engineering Criteria Manual, the Drainage Criteria Manual, and the Drainage Criteria Manual Volume 2. Any deviations from regulations and standards must be requested, and approved, in writing.	X	Y
3	A separate Stormwater Management Plan (SMWP) for this project shall be completed and an Erosion and Stormwater Quality Control Permit (ESQCP) issued prior to commencing construction. Management of the SWMP during construction is the responsibility of the designated Qualified Stormwater Manager or Certified Erosion Control Inspector. The SWMP shall be located on-site at all times during construction and shall be kept up to date with work progress and changes in the field.	X	Y
4	Once the ESQCP is approved and a “Notice to Proceed” has been issued, the contractor may install the initial stage erosion and sediment control measures as indicated on the approved GEC. A Preconstruction Meeting between the contractor, engineer, and El Paso County will be held prior to any construction. It is the responsibility of the applicant to coordinate the meeting time and place with County staff.	X	Y
5	Control measures must be installed prior to commencement of activities that could contribute pollutants to stormwater. Control measures for all slopes, channels, ditches, and disturbed land areas shall be installed immediately upon completion of the disturbance.	X	Y
6	All temporary sediment and erosion control measures shall be maintained and remain in effective operating condition until permanent soil erosion control measures are implemented and final stabilization is established. All persons engaged in land disturbance activities shall assess the adequacy of control measures at the site and identify if changes to those control measures are needed to ensure the continued effective performance of the control measures. All changes to temporary sediment and erosion control measures must be incorporated into the Stormwater Management Plan.	X	Y
7	Temporary stabilization shall be implemented on disturbed areas and stockpiles where ground disturbing construction activity has permanently ceased or temporarily ceased for longer than 14 days.	X	Y
8	Final stabilization must be implemented at all applicable construction sites. Final stabilization is achieved when all ground disturbing activities are complete and all disturbed areas either have a uniform vegetative cover with individual plant density of 70 percent of pre-disturbance levels established or equivalent permanent alternative stabilization method is implemented. All temporary sediment and erosion control measures shall be removed upon final stabilization and before permit closure.	X	Y
9	All permanent stormwater management facilities shall be installed as designed in the approved plans. Any proposed changes that effect the design or function of permanent stormwater management structures must be approved by the ECM Administrator prior to implementation.	X	Y

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		Applicant	EPC
10	Earth disturbances shall be conducted in such a manner so as to effectively minimize accelerated soil erosion and resulting sedimentation. All disturbances shall be designed, constructed, and completed so that the exposed area of any disturbed land shall be limited to the shortest practical period of time. Pre-existing vegetation shall be protected and maintained within 50 horizontal feet of a waters of the state unless shown to be infeasible and specifically requested and approved.	X	Y
11	Compaction of soil must be prevented in areas designated for infiltration control measures or where final stabilization will be achieved by vegetative cover. Areas designated for infiltration control measures shall also be protected from sedimentation during construction until final stabilization is achieved. If compaction prevention is not feasible due to site constraints, all areas designated for infiltration and vegetation control measures must be loosened prior to installation of the control measure(s).	X	Y
12	Any temporary or permanent facility designed and constructed for the conveyance of stormwater around, through, or from the earth disturbance area shall be a stabilized conveyance designed to minimize erosion and the discharge of sediment off-site.	X	Y
13	Concrete wash water shall be contained and disposed of in accordance with the SWMP. No wash water shall be discharged to or allowed to enter State Waters, including any surface or subsurface storm drainage system or facilities. Concrete washouts shall not be located in an area where shallow groundwater may be present, or within 50 feet of a surface water body, creek or stream.	X	Y
14	During dewatering operations, uncontaminated groundwater may be discharged on-site, but shall not leave the site in the form of surface runoff unless an approved State dewatering permit is in place.	X	Y
15	Erosion control blanketing or other protective covering shall be used on slopes steeper than 3:1.	X	Y
16	Contractor shall be responsible for the removal of all wastes from the construction site for disposal in accordance with local and State regulatory requirements. No construction debris, tree slash, building material wastes or unused building materials shall be buried, dumped, or discharged at the site.	X	Y
17	Waste materials shall not be temporarily placed or stored in the street, alley, or other public way, unless in accordance with an approved Traffic Control Plan. Control measures may be required by El Paso County Engineering if deemed necessary, based on specific conditions and circumstances.	X	Y
18	Tracking of soils and construction debris off-site shall be minimized. Materials tracked off-site shall be cleaned up and properly disposed of immediately.	X	Y
19	The owner/developer shall be responsible for the removal of all construction debris, dirt, trash, rock, sediment, soil, and sand that may accumulate in roads, storm drains and other drainage conveyance systems and stormwater appurtenances as a result of site development.	X	Y
20	The quantity of materials stored on the project site shall be limited, as much as practical, to that quantity required to perform the work in an orderly sequence. All materials stored on-site shall be stored in a neat, orderly manner, in their original containers, with original manufacturer's labels.	X	Y
21	No chemical(s) having the potential to be released in stormwater are to be stored or used on-site unless permission for the use of such chemical(s) is granted in writing by the ECM Administrator. In granting approval for the use of such chemical(s), special conditions and monitoring may be required.	X	Y
22	Bulk storage of allowed petroleum products or other allowed liquid chemicals in excess of 55 gallons shall require adequate secondary containment protection to contain all spills on-site and to prevent any spilled materials from entering State Waters, any surface or subsurface storm drainage system or other facilities.	X	Y

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23	No person shall cause the impediment of stormwater flow in the curb and gutter or ditch except with approved sediment control measures.	X	Y
24	Owner/developer and their agents shall comply with the "Colorado Water Quality Control Act" (Title 25, Article 8, CRS), and the "Clean Water Act" (33 USC 1344), in addition to the requirements of the Land Development Code, DCM Volume II and the ECM Appendix I. All appropriate permits must be obtained by the contractor prior to construction (1041, NPDES, Floodplain, 404, fugitive dust, etc.). In the event of conflicts between these requirements and other laws, rules, or regulations of other Federal, State, local, or County agencies, the most restrictive laws, rules, or regulations shall apply.	X	Y
25	All construction traffic must enter/exit the site only at approved construction access points.	X	Y
26	Prior to construction the permittee shall verify the location of existing utilities.	X	Y
27	A water source shall be available on-site during earthwork operations and shall be utilized as required to minimize dust from earthwork equipment and wind.	X	Y
28	The soils report for this site has been prepared by **[Company Name, Date of Report]** and shall be considered a part of these plans.	X	Y
29	At least ten (10) days prior to the anticipated start of construction, for projects that will disturb one (1) acre or more, the owner or operator of construction activity shall submit a permit application for stormwater discharge to the Colorado Department of Public Health and Environment, Water Quality Division. The application contains certification of completion of a stormwater management plan (SWMP), of which this Grading and Erosion Control Plan may be a part. For information or application materials contact: Colorado Department of Public Health and Environment Water Quality Control Division WQCD – Permits 4300 Cherry Creek Drive South Denver, CO 80246-1530 Attn: Permits Unit	X	Y
4. APPLICANT COMMENTS			
a	X		
b	X		
c	X		

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		Applicant	EPC
5. CHECKLIST REVIEW CERTIFICATIONS			
a	Engineer of Record: The Grading and Erosion Control Plan was prepared under my direction and supervision and is complete and correct to the best of my knowledge and belief. Said Plan has been prepared according to the criteria established by the County for Grading and Erosion Control Plans. Kyle Goodwin Digitally signed by Kyle Goodwin DN: C=US, E=kylegoodwin@gallowayus.com, CN=Kyle Goodwin Date: 2024.02.16 15:22:25-07'00' 2/16/2024 Engineer of Record Signature Date	Y	Y
b	Review Engineer: The Grading and Erosion Control Plan was reviewed and found to meet the checklist requirements except where otherwise noted or allowed by an approved deviation request. Review Engineer Date		

GRADING & EROSION CONTROL PLANS FOR

MURPHY USA (NTI)

EL PASO COUNTY, COLORADO

7440 MERIDIAN PARK DRIVE (MURPHY #7968)

Galloway
1155 Kelly Johnson Blvd., Suite 305
Colorado Springs, CO 80920
719.900.7220
GallowayUS.com

GENERAL NOTES:

A. CONTRACTOR SHALL BE RESPONSIBLE FOR RAZING AND REMOVAL OF THE EXISTING STRUCTURES, RELATED UTILITIES, PAVING, UNDERGROUND STORAGE TANKS AND ANY OTHER EXISTING IMPROVEMENTS AS NOTED.

B. CONTRACTOR IS TO REMOVE AND DISPOSE OF ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM PREVIOUS AND CURRENT DEMOLITION OPERATIONS. DISPOSAL WILL BE IN ACCORDANCE WITH ALL LOCAL, STATE AND/OR FEDERAL REGULATIONS GOVERNING SUCH OPERATIONS.

C. THE GENERAL CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR AND SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT.

D. SAFETY NOTICE TO CONTRACTOR: IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY AND SECURITY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. ANY CONSTRUCTION OBSERVATION BY THE ENGINEER OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES, IN, ON OR NEAR THE CONSTRUCTION SITE.

E. ALL SITE WORK FOR THIS PROJECT SHALL MEET OR EXCEED THE SPECIFICATIONS OF THE RELEVANT UTILITY COMPANY OR REGULATORY AUTHORITY, AND THE SPECIFICATIONS FOR THE CONSTRUCTION OF THE EXISTING IMPROVEMENTS WHICH ARE BEING ALTERED OR REPLACED. CONTRACTOR SHALL CONTACT THE ENGINEER FOR SPECIFICATION SECTIONS FOR ITEMS SUCH AS LANDSCAPING AND IRRIGATION THAT ARE AFFECTED BY THE WORK BUT NOT COMPLETELY DETAILED OR SPECIFIED ON THESE PLANS.

F. CONSTRUCTION AND INSTALLATION OF 2,824 SF BUILDING, ALL UTILITY ENTRANCES AND (1) 25,000 GALLON & (1) 26,000 GALLON UNDERGROUND TANKS SHALL BE IN ACCORDANCE WITH ASSOCIATED PLANS.

G. THE GENERAL CONTRACTOR TO COORDINATE THE CANOPY SIGN LOCATIONS AND FREE-STANDING SIGNAGE WITH MURPHY'S DEVELOPMENT PROJECT MANAGER AND SIGN COMPANY.

NOTES TO CONTRACTOR:

A. THE CONTRACTOR SHALL PROVIDE THE ENGINEER OF RECORD WITH THE DATE WHEN CONSTRUCTION IS TO BEGIN.
B. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION STAKING AND LAYOUT.
C. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING THE ENGINEER OF RECORD OF ANY DEVIATIONS DURING CONSTRUCTION AND SHALL REPORT THEM IMMEDIATELY.
D. CONTRACTOR IS REQUIRED TO KEEP REDLINE AS-BUILTS AND TO PROVIDE THOSE TO MURPHY UPON COMPLETION.
E. CONTRACTOR IS RESPONSIBLE FOR UNDERSTANDING THE AS-BUILT AND CERTIFICATE OF OCCUPANCY (C.O.) REQUIREMENTS FOR THE ISSUING AUTHORITY.
F. IF AN ELEVATION CERTIFICATE OR AS-BUILT SURVEY IS REQUIRED BY THE ISSUING AUTHORITY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE SCHEDULING OF THE SURVEY WITH THE CIVIL CONSULTANT PRIOR TO DEADLINE FOR OBTAINING THE C.O. AND AFTER NECESSARY COMPLETED WORK TO BE SHOWN ON SURVEY.

WETLANDS NOTES:

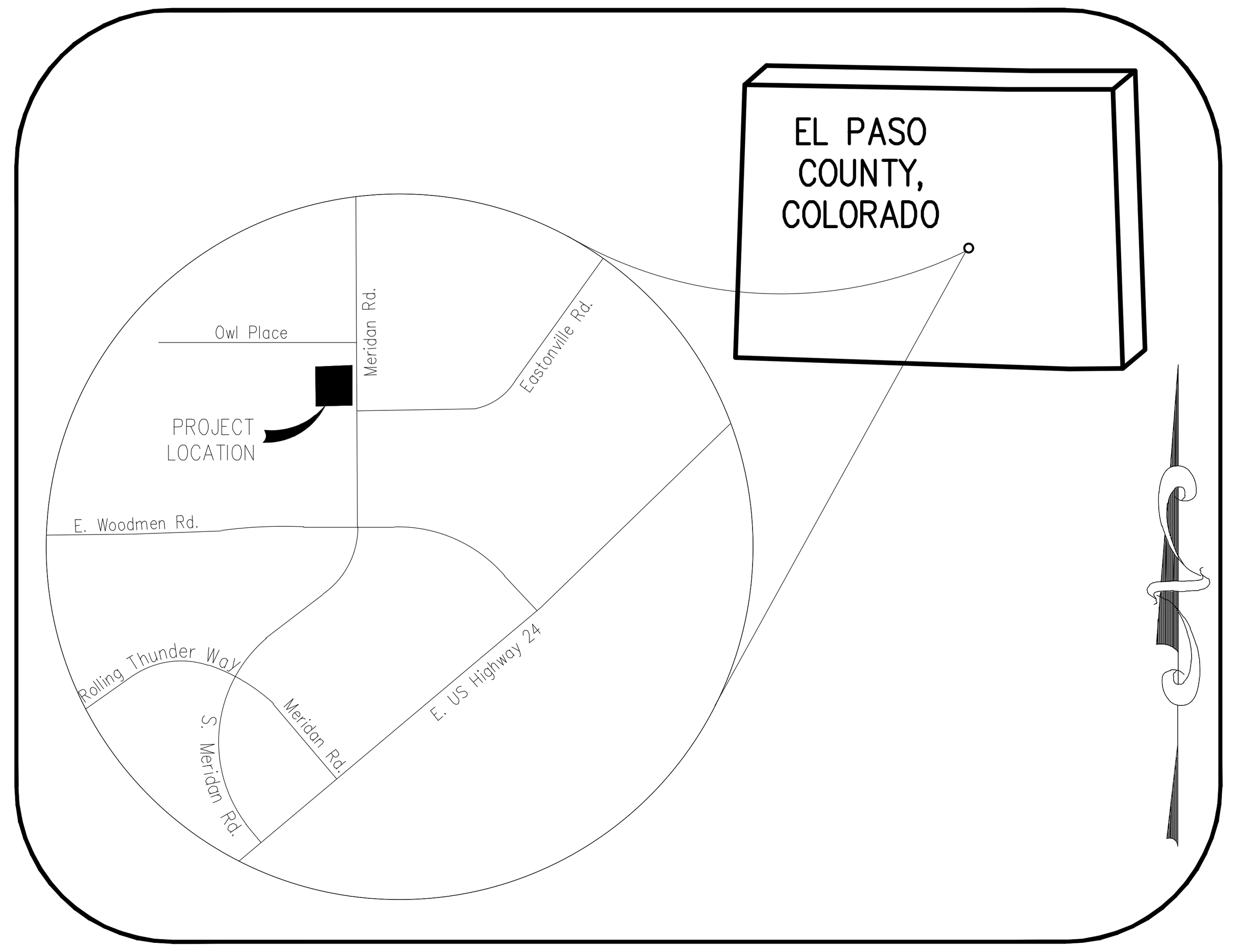
ANY DEVELOPMENT, EXCAVATION, CONSTRUCTION, OR FILLING IN A U.S. ARMY CORPS OF ENGINEERS DESIGNATED WETLAND IS SUBJECT TO LOCAL, STATE AND FEDERAL APPROVALS. THE CONTRACTOR SHALL COMPLY WITH ALL PERMIT REQUIREMENTS AND/OR RESTRICTIONS AND ANY VIOLATION WILL BE SUBJECT TO FEDERAL PENALTY. THE CONTRACTOR SHALL HOLD THE OWNER/DEVELOPER, THE ENGINEER AND THE LOCAL GOVERNING AGENCIES HARMLESS AGAINST SUCH VIOLATION.

FLOOD CERTIFICATION:

THIS PROPERTY IS LOCATED WITHIN ZONE X-AREA OF MINIMAL FLOOD HAZARD AS DETERMINED BY THE FEMA FLOOD INSURANCE RATE MAP, PANEL MAP NUMBER 08041C0553 G HAVING AN EFFECTIVE DATE OF DECEMBER 7, 2018. A CONDITIONAL LETTER OF MAP REVISION (CLOMR) HAS BEEN APPROVED FOR THE SITE PER FEMA CASE NO. 22-08-0669R, DATED DEC. 21, 2022. PIKES PEAK REGIONAL BUILDING DEPARTMENT WILL REQUIRE AN EFFECTIVE LOMR REMOVING LOTS #1-5 FROM THE FLOODPLAIN PRIOR TO THE ISSUANCE OF ANY BUILDING PERMITS FOR THE INDIVIDUAL LOTS.

FLOOD CERTIFICATION:

ALL QUESTIONS REGARDING THE PREPARATION OF THE GENERAL CONTRACTOR'S BID SHALL BE DIRECTED THROUGH MURPHY'S CONSTRUCTION WEBSITE (HTTPS://MURPHYUSA.PROJECTMATES.COM/) INCLUDING Q&A, RFI'S, BID SUBMISSION, CHANGE ORDER REQUESTS, ETC. ONCE AWARDED THE CONTRACTOR SHALL COORDINATE WITH THE OWNER'S PROJECT MANAGER. SUBCONTRACTORS MUST DIRECT THEIR QUESTIONS THROUGH THE GENERAL CONTRACTOR. THE CONSULTING ARCHITECT AND/OR THE CONSULTING ENGINEER SHALL NOT BE CONTACTED DIRECTLY WITHOUT PRIOR AUTHORIZATION FROM THE OWNER/DEVELOPER.



Vicinity Map
NOT TO SCALE

PLAN INDEX:

CIVIL ENGINEERING CONSULTANT

BASED ON SURVEY BY:
DREXEL, BARRELL & CO.
3 SOUTH 7TH STREET
COLORADO SPRINGS, CO 80905
EMAIL: XXXX
PHONE: (719) 260-0887
DATE: 05/30/23

GALLOWAY & COMPANY, INC.
1155 KELLY JOHNSON BLVD.
COLORADO SPRINGS, CO 80920
(719) 900-7227
CONTACT: KYLE GOODWIN, P.E.

RESOURCE LIST:

PLANNING & ZONING
EL PASO COUNTY PLANNING
2880 INTERNATIONAL CIRCLE, SUITE 110
COLORADO SPRINGS, CO 80910
CONTACT: TBD
(719) 385-5905

STORMWATER
EL PASO COUNTY DEPT. PUBLIC WORKS
3275 AKERS DR.,
COLORADO SPRINGS, CO 80922
CONTACT:
(719) 520-6460

ELECTRIC
MOUNTAIN VIEW ELECTRIC ASSOCIATION
11140 E. WOODMEN RD.
FALCON, CO 80831
CONTACT: GINA PERRY
(800) 388-9881

SEWER & WATER
WOODMEN HILLS METRO DISTRICT
8046 EASTONVILLE ROAD
FALCON, CO 80831
CONTACT: CODY RITTER
(719) 495-2500

CODE ENFORCEMENT
EL PASO COUNTY
2880 INTERNATIONAL CIRCLE, SUITE 110
COLORADO SPRINGS, CO 80910
CONTACT:
(719) 520-6300

HEALTH DEPARTMENT
EL PASO COUNTY PUBLIC HEALTH
1675 W. GARDEN OF THE GODS RD.,
SUITE 2044
COLORADO SPRINGS, CO 80907
(719) 578-3199

FIRE
FALCON FIRE PROTECTION DISTRICT
7030 OLD MERIDAN ROAD
FALCON, CO 80831
CONTACT: TRENT HARWIG
(719) 495-4050
EMAIL: THARWIG@FALCONFIREPD.ORG

LANDSCAPE
GALLOWAY & COMPANY, INC.
1155 KELLY JOHNSON BLVD., SUITE 305
COLORADO SPRINGS, CO 80920
CONTACT: JON ROMERO
(719) 308-2532

TANK AND PRODUCT PIPING
GALLOWAY & COMPANY, INC.
5500 GREENWOOD PLAZA BLVD SUITE 200
GREENWOOD VILLAGE, CO 80111
CONTACT: DAVE JONES
(303) 962-8506

OWNER
MURPHY OIL USA, INC.
200 PEACH STREET
EL DORADO, AR 71730
PM: GRANT DENNIS
(870) 315-3430

CIVIL ENGINEER
GALLOWAY & COMPANY, INC.
1155 KELLY JOHNSON BLVD., SUITE 305
COLORADO SPRINGS, CO 80920
CONTACT: KYLE GOODWIN
(719) 900-7227

GEOTECHNICAL
UNITED CONSULTING
625 HOLCOMB BRIDGE RD.
NORCROSS, GA 30071
CONTACT: CHRIS ROBERDS
(770) 209-0029
EMAIL: CROBERDS@UNITEDCONSULTING.COM

BUILDING CANOPY MANUFACTURER
FREY MOSS STRUCTURES
1801 ROCKDALE INDUSTRIAL BLVD.
CONYERS, GEORGIA 30012
CONTACT: JENNIFER GOODMAN
(770) 483-7543 EXT. 151

BUILDING/CANOPY DESIGN
GREENBERG FARROW
3 EXECUTIVE DRIVE, SUITE 150
SOMERSET, NJ 08873
CONTACT: CHRIS CERBO
(732) 537-0832

ENGINEER'S STATEMENT

THIS GRADING AND EROSION CONTROL PLAN WAS PREPARED UNDER MY DIRECTION AND SUPERVISION AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. SAID PLAN HAS BEEN PREPARED ACCORDING THE CRITERIA ESTABLISHED BY THE COUNTY FOR GRADING AND EROSION CONTROL PLANS. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY AN NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARING THIS PLAN.

KYLE R. GOODWIN, COLORADO P.E. NO. 63208   DATE

OWNER'S STATEMENT

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN.

OWNER   DATE

BENCHMARK:

ELEVATIONS ARE BASED ON COLORADO SPRINGS UTILITIES FACILITIES INFORMATION SYSTEM (FMS) "BLT 167", A 2" ALUMINUM CAP IN CONCRETE LOCATED ON AN ELECTRIC TRANSFORMER PAD AT THE SOUTHEAST CORNER OF WOODMEN ROAD AND MERIDAN ROAD, WITH AN ELEVATION OF 6873.18 (NGVD 29).

LEGAL DESCRIPTION:

LOT 1, OWL MARKETPLACE FILING NO. 1, LOCATED IN THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 1, TOWNSHIP 13 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO

EL PASO COUNTY

COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/ OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/ OR ACCURACY OF THIS DOCUMENT. FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL AS AMENDED.

IN ACCORDANCE WITH ECM SECTION 1.12, THESE CONSTRUCTION DOCUMENTS WILL BE VALID FOR CONSTRUCTION FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT STARTED WITHIN THOSE 2 YEARS, THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTORS DISCRETION.

JOSHUA PALMER, P.E.   DATE
COUNTY ENGINEER / ECM ADMINISTRATOR

CAUTION - NOTICE TO CONTRACTOR

1. ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.

2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.

811 Know what's below. Call before you dig.

MURPHY OIL USA, INC.
200 PEACH STREET
EL DORADO, AR 71730

GEC PLAN
MURPHY OIL USA #7968
XXXXX

7440 MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

#	Date	Issue / Description	Init.
-			
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-			

Project No:	MOC000099
Drawn By:	ASA, BLB
Checked By:	KG, CMWJ
Date:	02/16/2024

COVER SHEET

PPR2444   Revised.

XXXXX

G0.0

STANDARD NOTES FOR GEC PLANS

1. STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON-SITE OR OFFSITE WATERS, INCLUDING WETLANDS.

2. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS TO REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.

3. A SEPARATE STORMWATER MANAGEMENT PLAN (SMWP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. MANAGEMENT OF THE SWMP DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OR CERTIFIED EROSION CONTROL INSPECTOR. THE SWMP SHALL BE LOCATED ON-SITE AT ALL TIMES DURING CONSTRUCTION AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.

4. ONCE THE ESQCP IS APPROVED AND A "NOTICE TO PROCEED" HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON THE APPROVED GEC. A PRECONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND EL PASO COUNTY WILL BE HELD PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY STAFF.

5. CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT COULD CONTRIBUTE POLLUTANTS TO STORMWATER. CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, AND DISTURBED LAND AREAS SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE.

6. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATING CONDITION UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND FINAL STABILIZATION IS ESTABLISHED. ALL PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL ASSESS THE ADEQUACY OF CONTROL MEASURES AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CONTROL MEASURES ARE NEEDED TO ENSURE THE CONTINUED EFFECTIVE PERFORMANCE OF THE CONTROL MEASURES. ALL CHANGES TO TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES MUST BE INCORPORATED INTO THE STORMWATER MANAGEMENT PLAN.

7. TEMPORARY STABILIZATION SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS.

8. FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING ACTIVITIES ARE COMPLETE AND ALL DISTURBED AREAS EITHER HAVE A UNIFORM VEGETATIVE COVER WITH INDIVIDUAL PLAN DENSITY OF 70 PERCENT OF PRE-DISTURBANCE LEVELS ESTABLISHED OR EQUIVALENT PERMANENT ALTERNATIVE STABILIZATION METHOD IS IMPLEMENTED. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL STABILIZATION AND BEFORE PERMIT CLOSURE.

9. ALL PERMANENT STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT EFFECT THE DESIGN OR FUNCTION OF PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.

10. EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY MINIMIZE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME. PRE-EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED WITHIN 50 HORIZONTAL FEET OF A WATERS OF THE STATE UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED.

11. COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OR WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF COMPACTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, ALL AREAS DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOOSENED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S).

12. ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE A STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE OF SEDIMENT OFF-SITE.

13. CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO ENTER STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES. CONCRETE WASHOUT SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK OR STREAM.

14. DURING DEWATERING OPERATIONS, UNCONTAMINATED GROUNDWATER MAY BE DISCHARGED ON-SITE, BUT SHALL NOT LEAVE THE SITE IN THE FORM OF SURFACE RUNOFF UNLESS AN APPROVED STATE DEWATERING PERMIT IS IN PLACE.

15. EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.

16. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.

17. WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. CONTROL MEASURES MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.

18. TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.

19. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, AND SAND THAT MAY ACCUMULATE IN ROADS, STORM DRAINS AND OTHER DRAINAGE CONVEYANCE SYSTEM AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.

20. THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS.

21. NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER UNLESS PERMISSION FOR THE USE OF SUCH CHEMICAL(S) IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING THE USE OF SUCH CHEMICAL(S), SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.

22. BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL REQUIRE ADEQUATE SECONDARY CONTAINMENT PROTECTION TO CONTAIN ALL SPILLS AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER FACILITIES.

23. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.

24. OWNER/DEVELOPER AND THEIR AGENTS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS), AND THE "CLEAN WATER ACT" (33 USC 1344), IN ADDITION TO THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE, DCM VOLUME II AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (1041, NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND OTHER LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, LOCAL, OR COUNTY AGENCIES, THE MORE RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.

25. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.

26. PRIOR TO ACTUAL CONSTRUCTION THE PERMITEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.

27. A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND SHALL BE UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.

28. THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY UNITED CONSULTING, DATED FEBRUARY 08, 2024 AND SHALL BE CONSIDERED A PART OF THESE PLANS.

29. AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB (1) ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP), OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART. FOR INFORMATION OR APPLICATION MATERIALS CONTACT:

    COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
    WATER QUALITY CONTROL DIVISION
    WQCD - PERMITS
    4300 CHERRY CREEK DRIVE SOUTH
    DENVER, CO 80246-1530
    ATTN: PERMITS UNIT

STANDARD NOTES FOR CONSTRUCTION PLANS

1. ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL.

2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD NOTIFICATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC).

3. CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN, THE STORMWATER MANAGEMENT PLAN (SWMP), THE SOILS AND GEOTECHNICAL REPORT, AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES, INCLUDING THE FOLLOWING:
   A. EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
   B. CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2
   C. COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
   D. CDOT M & S STANDARDS

4. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING. ANY MODIFICATIONS NECESSARY TO MEET CRITERIA AFTER-THE-FACT WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.

5. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH ONSITE AND OFFSITE, ON THE CONSTRUCTION PLANS. ANY MODIFICATIONS NECESSARY DUE TO CONFLICTS, OMISSIONS, OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.

6. CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT (PCD) - INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.

7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND THE REQUIREMENTS OF ALL JURISDICTIONAL AGENCIES AND TO OBTAIN ALL REQUIRED PERMITS, INCLUDING BUT NOT LIMITED TO EL PASO COUNTY EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP), REGIONAL BUILDING FLOODPLAIN DEVELOPMENT PERMIT, U.S. ARMY CORPS OF ENGINEERS-ISSUED 401 AND/OR 404 PERMITS, AND COUNTY AND STATE FUGITIVE DUST PERMITS.

8. CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE DESIGN ENGINEER AND PCD. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.

9. ALL STORM DRAIN PIPE SHALL BE CLASS III RCP UNLESS OTHERWISE NOTED AND APPROVED BY PCD.

10. CONTRACTOR SHALL COORDINATE GEOTECHNICAL TESTING PER ECM STANDARDS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY PCD PRIOR TO PLACEMENT OF CURB AND GUTTER AND PAVEMENT.

11. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.

12. SIGHT VISIBILITY TRIANGLES AS IDENTIFIED IN THE PLANS SHALL BE PROVIDED AT ALL INTERSECTIONS. OBSTRUCTIONS GREATER THAN 18 INCHES ABOVE FLOWLINE ARE NOT ALLOWED WITHIN SIGHT TRIANGLES.

13. SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY DOT AND MUTCD CRITERIA. [IF APPLICABLE, ADDITIONAL SIGNING AND STRIPING NOTES WILL BE PROVIDED.]

14. CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DOT, INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.

15. THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE UNLESS OTHERWISE NOTED. THE OWNER/DEVELOPER SHALL OBTAIN WRITTEN PERMISSION AND EASEMENTS, WHERE REQUIRED, FROM ADJOINING PROPERTY OWNER(S) PRIOR TO ANY OFF-SITE DISTURBANCE, GRADING, OR CONSTRUCTION.

EROSION CONTROL NOTES

1. SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN TWENTY-ONE (21) CALENDAR DAYS AFTER FINAL GRADING, OR FINAL EARTH DISTURBANCE HAS BEEN COMPLETED. DISTURBED AREAS AND STOCKPILES WHICH ARE NOT AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS SHALL ALSO BE MULCHED WITHIN 21 DAYS AFTER INTERIM GRADING. AN AREA THAT IS GOING TO REMAIN IN AN INTERIM STATE FOR MORE THAN 60 DAYS SHALL ALSO BE SEEDED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND BMPS SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED.

2. CONSTRUCTION FENCE AND SILT FENCE OFFSET FOR CLARITY. CONTRACTOR TO ENSURE BMPS ARE PLACED DOWNSTREAM OF DISTURBED AREAS TO PREVENT SEDIMENT FROM LEAVING THE SITE.

3. OWL PLACE & MERIDIAN PARK DRIVE SHALL BE STREET SWEPT AND INSPECTED ON A REGULAR BASIS DURING CONSTRUCTION.

4. THE EXISTING VEGETATION CONSISTS OF NATIVE GRASSES AND WEEDS. THE EXISTING SOIL TYPES WITHIN THE PROPERTY CONSISTS OF COLUMBINE GRAVELLY SANDY LOAM. ALL SOILS ARE DEFINED AS HAVING A HYDROLOGIC SOIL GROUP OF A, AS DETERMINED BY THE NRCS WEB SOIL SURVEY FOR EL PASO COUNTY AREA.

5. THIS PROJECT DOES NOT ANTICIPATE UTILIZING ONSITE BATCH PLANTS.

GENERAL CONSTRUCTION NOTES

1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES ALONG THE ROUTE OF THE WORK. THE OMISSION FROM OR THE INCLUSION OF UTILITY LOCATIONS ON THE PLANS IS NOT TO BE CONSIDERED AS THE NONEXISTENCE OF OR A DEFINITE LOCATION OF EXISTING UNDERGROUND UTILITIES.

2. THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES FROM DAMAGE DUE TO THIS OPERATION. ANY DAMAGE TO THE UTILITIES WILL BE REPLACED AT THE CONTRACTORS EXPENSE AND ANY SERVICE DISRUPTION WILL BE SETTLED BY THE CONTRACTOR.

3. ADDITIONAL EROSION CONTROL STRUCTURES MAY BE REQUIRED AT THE TIME OF CONSTRUCTION.

4. ALL BACKFILL, SUB-BASE AND / OR BASE COURSE (CLASS 6) MATERIAL SHALL BE COMPACTED TO THE SOILS ENGINEERS RECOMMENDATIONS, AND APPROVED BY EL PASO COUNTY DEVELOPMENT SERVICES ENGINEERING DIVISION.

5. ALL STATIONING IS CENTERLINE UNLESS OTHERWISE INDICATED. ALL ELEVATIONS ARE FLOW LINE UNLESS OTHERWISE INDICATED.

6. ALL DISTURBED PAVEMENT EDGES SHALL BE CUT TO NEAT LINES. REPAIR SHALL CONFORM TO THE EPC ECM APPENDIX K - 1.2C.

7. ALL INTERSECTION ACCESSES TO BE CONSTRUCTED WITH A 25 FOOT SIGHT VISIBILITY TRIANGLES AND THERE SHALL BE NO OBSTRUCTIONS GREATER THAN 18" IN THIS AREA.

8. ALL CULVERT AND STORM PIPES SHALL BE SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE (HDPE), OR REINFORCED CONCRETE PIPE (RCP), ALL CULVERTS SHALL BE PLACED COMPLETE WITH FLARED END SECTIONS. ADEQUACY OF MATERIAL THICKNESS FOR ANY CSP INSTALLED SHALL BE VERIFIED BY OWNERS GEOTECHNICAL ENGINEER TO SUPPORT MINIMUM 50 YEAR DESIGN LIFE. CULVERTS MUST CONFORM TO EPC ECM SECTION 3.32 - CULVERTS.

9. ASPHALT THICKNESS AND BASE COURSE THICKNESS (COMPACTED FOR ROADS SHALL BE PER DESIGN REPORT BY OWNERS GEOTECHNICAL ENGINEER. OWNERS GEOTECHNICAL ENGINEER TO BE ON SITE AT TIME OF ROAD CONSTRUCTION TO EVALUATE SOIL CONDITIONS AND DETERMINE IF ADDITIONAL MEASURES ARE NECESSARY TO ASSURE STABILITY OF THE NEW ROADS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY DEVELOPMENT SERVICES ENGINEERING DIVISION PRIOR TO CONSTRUCTION.

10. TYPE M RIP-RAP WITH 4" OF TYPE II GRANULAR BEDDING AND MIRAFI 180N OR EQUAL MAY BE SUBSTITUTED WHERE TYPE L RIP-RAP WITH MIRAFI FW 700 OR EQUAL IS SPECIFIED.

11. ALL MATERIALS AND INSTALLATION PROCEDURES SHALL BE IN COMPLIANCE WITH ANY AND ALL APPLICABLE EL PASO COUNTY STANDARDS AND WITH WOODMAN HILLS METRO DISTRICT CONSULTING ENGINEER APPROVAL.

12. ALL POTABLE WATER MAINS SHALL BE AWWA C900-SDR18 PVC WITH PUSH-ON SINGLE GASKET TYPE JOINTS AND SHALL MEET THE REQUIREMENTS OF ANSI / NSF 61.

13. ALL WATER MAIN FITTINGS SHALL BE MADE FROM GRAY-IRON OR DUCTILE IRON AND FURNISHED WITH MECHANICAL JOINT ENDS. ALL FITTINGS SHALL HAVE A PRESSURE RATING OF 250 PSI AND SHALL MEET THE REQUIREMENTS OF ANSI / NSF 61.

14. ALL WATER LINE BENDS, TEES, BLOW-OFFS AND PLUGS AT DEAD-END MAINS SHALL BE PROTECTED FROM THRUST BY USING CONCRETE THRUST BLOCKS AND / OR RODDING AND RESTRAINED PIPE PER THE WOODMEN HILLS METRO DISTRICT CONSULTING ENGINEER APPROVAL.

15. MAXIMUM DEFLECTION OF 8" OR 12" PVC WATER MAIN JOINTS IS 4 DEGREES. CORRESPONDING MINIMUM CURVE RADIUS IS 286'. ADDITIONAL 11.25° OR 22.5° BENDS MAY BE REQUIRED FOR PROPER ALIGNMENT.

16. CONTRACTOR IS RESPONSIBLE FOR PROVIDING DETAILED AS-BUILTS OF ALL WATER MAIN, STORM SEWER AND SANITARY SEWER MAIN INSTALLATIONS, INCLUDING ACCURATE DISTANCES OF MAIN LINES, VALVES, FITTINGS, MANHOLES AND LOCATIONS OF WATER AND SEWER SERVICES.

17. SANITARY SEWER PIPE AND FITTINGS: PVC 4" - 8" ASTM D3034, TYPE PSM, SDR 35: PUSH-ON JOINTS AND MOLDED RUBBER GASKETS MAXIMUM HORIZONTAL DEFLECTIONS, AFTER INSTALLATION AND BACK FILLING SHALL NOT EXCEED 3% OF THE PIPE DIAMETER. (MINIMUM CURVE RADIUS IS 100' FOR 8" PVC SANITARY SEWER MAIN)

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1155 Kelly Johnson Blvd., Suite 305
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719.900.7220
GallowayUS.com

MURPHY OIL USA, INC.
200 PEACH STREET
EL DORADO, AR 71730

MURPHY USA

GEC PLAN
MURPHY OIL USA #7968
XXXXX

7440 MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

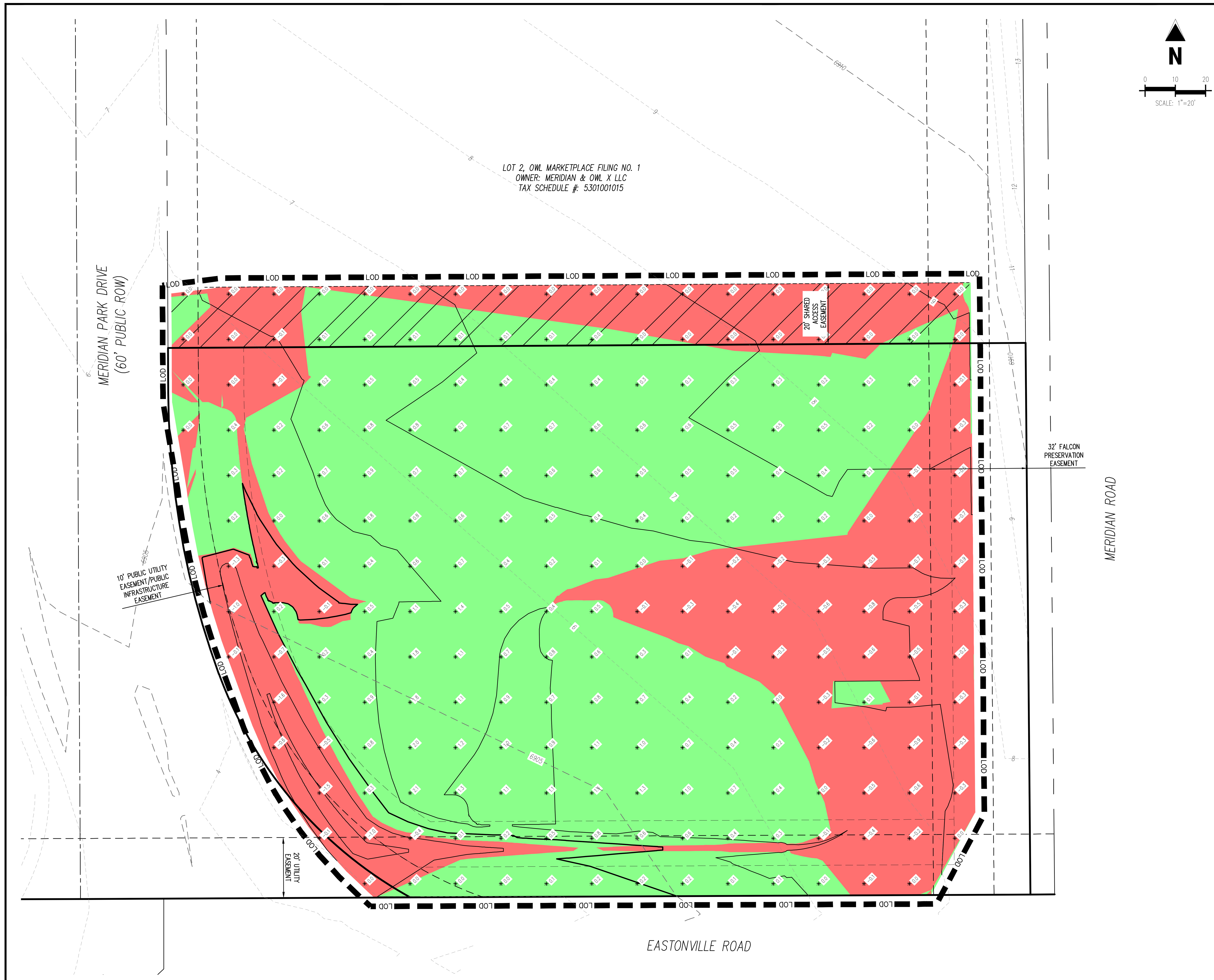
#	Date	Issue / Description	Init.

Project No:	MOC000099
Drawn By:	ASA, BLB
Checked By:	KG, CMWJ
Date:	02/16/2024

NOTES

XXXXX

G0.1



LEGEND

(red fill)	AREAS OF CUT
(green fill)	AREAS OF FILL
LOD	LIMITS OF DISTURBANCE / CONSTRUCTION
5460	EXISTING MAJOR CONTOUR
52	EXISTING MINOR CONTOUR
500YR	FLOODPLAIN BOUNDARY
	PROJECT BOUNDARY LINE
	ADJACENT PROPERTY BOUNDARY LINE
	RIGHT OF WAY LINE
	EXISTING ADJACENT LOT LINE
	EXISTING EASEMENT LINE

CUT & FILL SUMMARY	
CUT	207.85 CY
FILL	604.29 CY
NET	396.44 CY (FILL)

NOTES

1. CUT & FILL SUMMARIES ARE BASED ON FINAL FINISH GRADE SURFACES. ACCURATE EARTHWORK QUANTITIES MUST TAKE INTO ACCOUNT CONCRETE FOR BUILDING FOUNDATIONS, ROADWAY SECTIONS, SIDEWALK, ETC.
2. ALL SOIL AND PAVEMENT PREPARATION SHALL FOLLOW RECOMMENDATIONS FROM THE GEOTECH REPORT.
3. LIMITS OF DISTURBANCE/CONSTRUCTION IS OFFSET FOR CLARITY.

SOIL PREPARATION AND PAVEMENT DESIGN NOTE

SOIL PREPARATION AND PAVEMENT DESIGN SHALL BE PER RECOMMENDATIONS FROM A GEOTECHNICAL REPORT PREPARED FOR THIS SITE AS FOLLOWS: GEOTECHNICAL EVALUATION: ARMSTRONG SELF STORAGE

GEOTECHNICAL ENGINEER: UNITED CONSULTING

PROJECT NO: MPOIL-23-CO-07149-02 DATE: FEBRUARY 8, 2024

THE CONTRACTOR MUST FULLY REVIEW THIS REPORT PRIOR TO CONSTRUCTION. INFORMATION IN THE GEOTECHNICAL REPORT SUPERSEDES ANY CONFLICTING INFORMATION CONTAINED IN THE CONSTRUCTION PLANS AND SPECIFICATIONS. REFER TO GENERAL STRUCTURAL NOTES FOR SPECIFIC SOIL PREPARATION AT SITE STRUCTURES.

NOTE: CONTRACTOR SHALL PROTECT ALL EXISTING SURVEY MONUMENTATION. CONTRACTOR SHALL HAVE LICENSED SURVEYOR REPLACE ANY DAMAGED OR DISTURBED MONUMENTATION AT THEIR COST.

SURVEYOR TO OBTAIN AUTOCAD FILE FROM ENGINEER AND VERIFY ALL HORIZONTAL CONTROL DIMENSIONING PRIOR TO CONSTRUCTION STAKING. SURVEYOR MUST VERIFY ALL BENCHMARK, BASIS OF BEARING AND DATUM INFORMATION TO ENSURE IMPROVEMENTS WILL BE AT THE SAME HORIZONTAL AND VERTICAL LOCATIONS SHOWN ON THE DESIGN CONSTRUCTION DRAWINGS. PRIOR TO CONSTRUCTION STAKING ANY DISCREPANCY MUST BE REPORTED TO OWNER AND ENGINEER PRIOR TO CONTINUATION OF ANY FURTHER STAKING OR CONSTRUCTION WORK.

CAUTION – NOTICE TO CONTRACTOR

1. ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.

811 Know what's below. Call before you dig.

Galloway
1155 Kelly Johnson Blvd., Suite 305
Colorado Springs, CO 80920
719.900.7220
GallowayUS.com

MURPHY OIL USA, INC.
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MURPHY USA

GEC PLAN
MURPHY OIL USA #7968
XXXXX

7440 MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

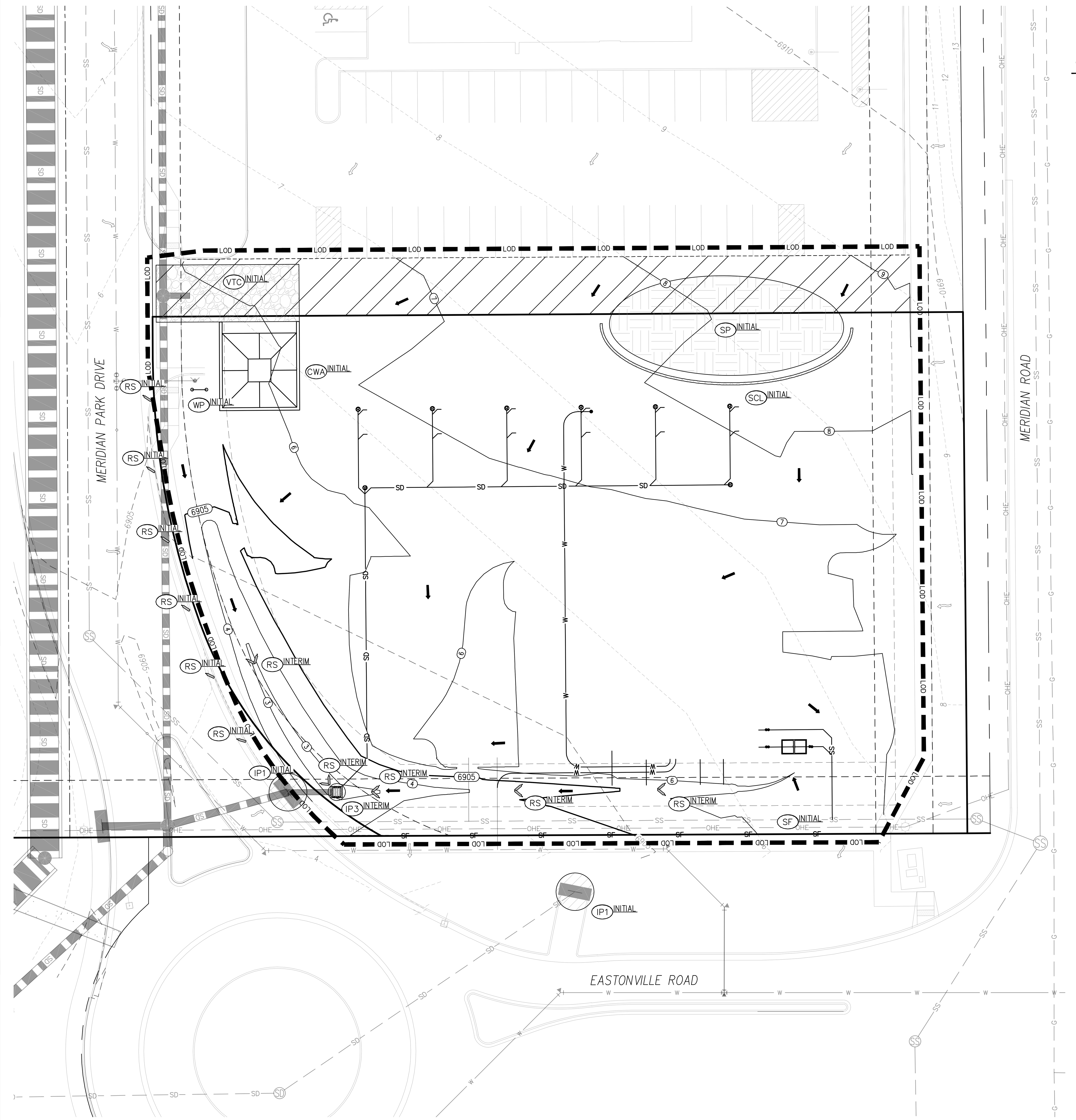
#	Date	Issue / Description	Init.

Project No:	MOC000099
Drawn By:	ASA, BLB
Checked By:	KG, CMWJ
Date:	02/16/2024

CUT & FILL EXHIBIT

XXXXX

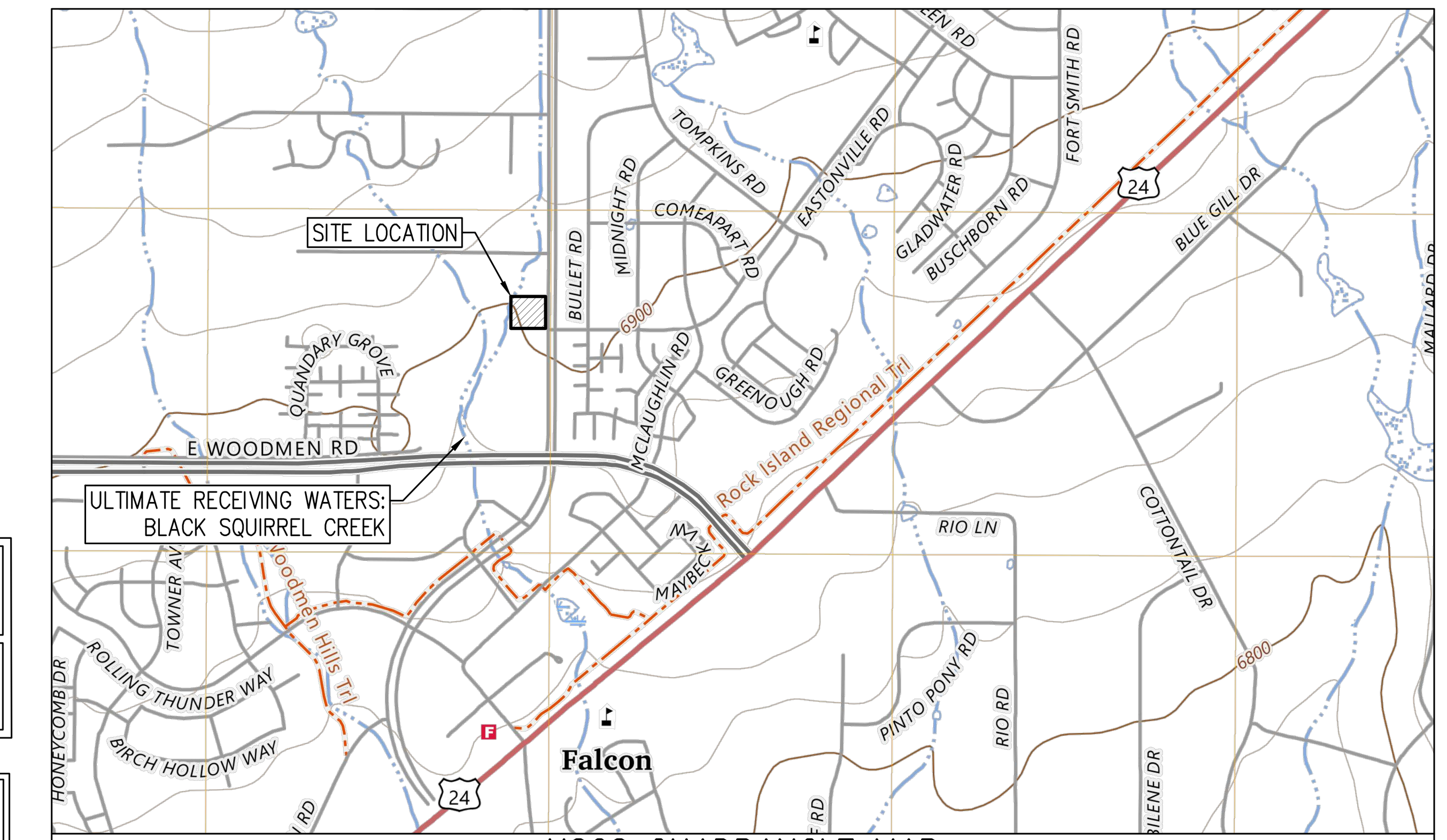
G0.2



DISTURBED AREA:

1. TOTAL SITE AREA = 1.11 ACS.
2. DISTURBED AREA = 1.14 ACS.

THE LOCATION OF THE SILT FENCE ON THE DRAWINGS IS FOR GRAPHICAL REPRESENTATION ONLY. THE CONTRACTOR IS TO ENSURE THAT THE SILT FENCE AND CONSTRUCTION FENCE ENCOMPASSES THE ENTIRE WORK AREA.



USGS QUADRANGLE MAP
N.T.S.

BMP MAINTENANCE NOTES

ALL MEASURES STATED ON THIS SITE MAP, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURE SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION.
2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF OF THE SILT FENCE.
4. THE CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRED PERIODIC TOP DRESSING OF THE CONSTRUCTION EXITS AS CONDITIONS DEMAND.
5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AREA AS CONDITIONS DEMAND.
6. FILTER TUBES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM TUBES WHEN IT REACHES $\frac{1}{3}$ OF ITS EXPOSED HEIGHT. SEE DETAILS.
7. PRIOR TO LEAVING THE SITE, ALL VEHICLES SHALL BE CLEANED OF DEBRIS. ANY DEBRIS AND/OR SEDIMENT REACHING THE PUBLIC STREET SHALL BE CLEANED IMMEDIATELY BY A METHOD OTHER THAN FLUSHING.

GENERAL EROSION NOTES

A. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AND INSPECTIONS AS REQUIRED BY THIS STORM WATER POLLUTION PREVENTION PLAN AND LOCAL/STATE AUTHORITIES. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST OF OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.

B. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.

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D. CONTRACTOR TO LIMIT DISTURBANCE OF SITE IN STRICT ACCORDANCE WITH EROSION CONTROL SEQUENCING SHOWN ON THIS PLAN, OR AS REQUIRED BY THE APPLICABLE GENERAL PERMIT. NO UNNECESSARY OR IMPROPERLY SEQUENCED CLEARING AND/OR GRADING SHALL BE PERMITTED.

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F. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.

G. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.

H. DUST ON THE SITE SHALL BE MINIMIZED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.

I. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORMWATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.

J. ALL DENUDED/BARE AREAS THAT WILL BE INACTIVE FOR 14 DAYS OR MORE. MUST BE STABILIZED IMMEDIATELY UPON COMPLETION OF MOST RECENT GRADING ACTIVITY.

K. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY STABILIZED AS SHOWN ON THE PLANS. THESE AREAS SHALL BE STABILIZED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. REFER TO THE GRADING PLAN AND/OR LANDSCAPE PLAN.

L. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO PREVENT TRACKING OF DIRT, DUST OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE. ONLY USE INGRESS/EGRESS LOCATIONS AS PROVIDED.

M. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

N. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DETENTION POND AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.

O. ON-SITE AND OFF-SITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.

P. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.

Q. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION AND SEDIMENT CONTROL MEASURES (SILT FENCES, ETC.) TO PREVENT EROSION AND POLLUTANT DISCHARGE.

R. GENERAL CONTRACTOR IS TO DESIGNATE/IDENTIFY AREAS ON THE SITE MAPS, INSIDE OF THE LIMITS OF DISTURBANCE, FOR WASTE DISPOSAL AND DELIVERY AND MATERIAL STORAGE.

S. PRIOR TO AN CONSTRUCTION, INCLUDING SITE GRADING AND EXCAVATION, AN APPROVED 'EROSION AND SEDIMENT CONTROL PLAN' SHALL BE POSTED ON-SITE AND ALL REQUIRED BMPS INSTALLED.

T. GENERAL CONTRACTOR SHALL MAINTAIN AND UPDATE THE 'EROSION AND SEDIMENT CONTROL PLAN' AS CONSTRUCTION DICTATES. CURRENT AND CORRECT PLAN SHALL ALWAYS REMAIN ON-SITE AND BE READILY ACCESSIBLE TO THE CITY STORMWATER INSPECTOR.

U. GENERAL CONTRACTOR OR HIS REPRESENTATIVE SHALL INSPECT, AT A MINIMUM, THE SITE EVERY 2 WEEKS AND WITHIN 24 HOURS OF ANY PRECIPITATION OR SNOWMELT EVENT THAT CAUSES SURFACE EROSION. (I.E., THAT RESULTS IN STORMWATER RUNNING ACROSS THE GROUND).

V. GENERAL CONTRACTOR/OWNER IS FULLY RESPONSIBLE TO MAINTAIN ALL REQUIRED BMPS TO PREVENT EROSION AND SEDIMENT FROM LEAVING THE CONSTRUCTION SITE.

W. FAILURE TO COMPLY WITH MINIMUM REQUIREMENTS IS A VIOLATION OF CITY ORDINANCES.

GEC Checklist Items H and M. If "limits of disturbance" and "construction boundary" are the same, change to "limits of construction/disturbance" or otherwise show as separate line types for each on the legend and figure.

Revised.

EXISTING

5460	EXISTING MAJOR CONTOUR
52	EXISTING MINOR CONTOUR
SD	EXISTING STORM SEWER (LESS THAN 12"ø)
	EXISTING FLOW DIRECTION

EROSION DETAILS – SEE DETAIL SHEETS

LOD	(LOD)	LIMITS OF DISTURBANCE
	(SC)	PROPOSED SAWCUT LINE
SF	(SF)	SILT FENCE
	(VTC)	VEHICLE TRACKING CONTROL
	(SP)	STOCKPILING
	(CWA)	CONCRETE WASHOUT AREA
	(IP)	INLET PROTECTION (IP–2)
	(WP)	WASHOUT POSTING
	(SCL)	SEDIMENT CONTROL LOGS
	(RS)	ROCK SOCKS

SEQUENCE OF CONSTRUCTION

PHASE I (INITIAL)
1. INSTALL PERIMETER CONSTRUCTION FENCE.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCES.
3. PREPARE TEMPORARY PARKING AND STORAGE AREA.
4. CONSTRUCT THE SILT FENCES ON THE SITE.
5. INSTALL ALL PERIMETER SEDIMENT MEASURES.
6. INSTALL ALL TEMPORARY EROSION & SEDIMENT CONTROLS AS NEEDED.
7. DEMOLISH ANY EXISTING STRUCTURES AS REQUIRED FOR PROPOSED IMPROVEMENTS.
8. CLEAR THE SITE.
9. BEGIN GRADING THE SITE.

Silt Fence too? It is discussed in the SWMP and shown on plans.

Silt fence is covered in item 4.

PHASE II (INTERIM)
10. TEMPORARILY STABILIZE DENUDED AREAS.
11. INSTALL UTILITIES, UNDER DRAINS, STORM SEWERS, CURBS AND GUTTERS.
12. INSTALL INLET/FLUME PROTECTION DEVICES.

PHASE III (FINAL)
13. START CONSTRUCTION OF UST INSTALL, BUILDING FOOTINGS, STRUCTURES, AND ANY OFF-SITE IMPROVEMENTS.
14. PREPARE SITE FOR PAVING.
15. PAVE SITE.
16. AFTER EARTHWORK & PAVEMENT IS COMPLETE, REMOVE VTC. IF ROAD IS INSTALLED, BUT ADJACENT EARTHWORK & PAVEMENT IS NOT COMPLETE, RUBBER OR PLASTIC TRACKOUT CONTROL MATTING IS REQUIRED.
17. PLACE *CWS RAMPLESS CONTAINER WITH ULTRALINER* OR SIMILAR, AFTER PAVEMENT IS COMPLETE.
18. COMPLETE GRADING AND INSTALL PERMANENT AND PLANTINGS.
19. REMOVE EROSION AND TEMPORARY SEDIMENT CONTROL DEVICES AFTER FINAL STABILIZATION IS ACHIEVED.

PROJECT INFORMATION

RECEIVING WATER IS THE BLACK SQUIRREL CREEK.

PROPOSED PROJECT SITE MADE UP OF A SINGLE COMMERCIAL LOT. STORM RUN-OFF FROM SITE WILL ENTER INTO THE EL PASO COUNTY STORM SYSTEM VIA PIPE AND A GRASSED SWALE WHICH WILL ACCOMMODATE STORM RUN-OFF FOR THE FUELING STATION LOT.

PROPOSED PROJECT IS CONSTRUCTING A FUELING STATION CONSISTING OF 2842 S.F. CONVENIENT STORE WITH 6 DISPENSER ISLANDS AND ASSOCIATED PARKING AREA.

ANTICIPATED CONSTRUCTION START DATE IS WINTER, 2024 AND COMPLETION DATE IS FALL, 2025.

CONTRACTOR TO TAKE APPROPRIATE MEASURES TO KEEP SEDIMENT FROM ESCAPING SITE AND ALL ACCUMULATED SEDIMENT SHALL BE CLEANED OUT AND REMOVED FROM SITE.

DOWNSTREAM CONDITION WILL NOT BE NEGATIVELY AFFECTED BY PROPOSED DEVELOPMENT.

SITE SOILS

(MSL) MSL – MANVEL SILT LOAM, GENTLY SLOPING, WELL DRAINED

THESE DRAWINGS DO NOT INCLUDE COMPONENTS FOR CONSTRUCTION SAFETY

CAUTION – NOTICE TO CONTRACTOR

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2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.

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NOTES:
1. EROSION CONTROL AND TREE PROTECTION MEASURES SHALL BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION ACTIVITY AND MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
2. "THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH LAND-DISTURBING ACTIVITIES."
3. "EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE"

H:\M\Murphy Oil USA\CO, El Paso County - MOC000099.20 - Woodmen & Meridian Rd\0CIV\3-CD\GEC\MOC99_G1.1 Intial & Interim Erosion Control.dwg

Galloway
1155 Kelly Johnson Blvd., Suite 305
Colorado Springs, CO 80920
719.900.7220
GallowayUS.com

MURPHY OIL USA, INC.
200 PEACH STREET
EL DORADO, AR 71730

MURPHY USA

GEC PLAN
MURPHY OIL USA #7968
XXXXX

7440 MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

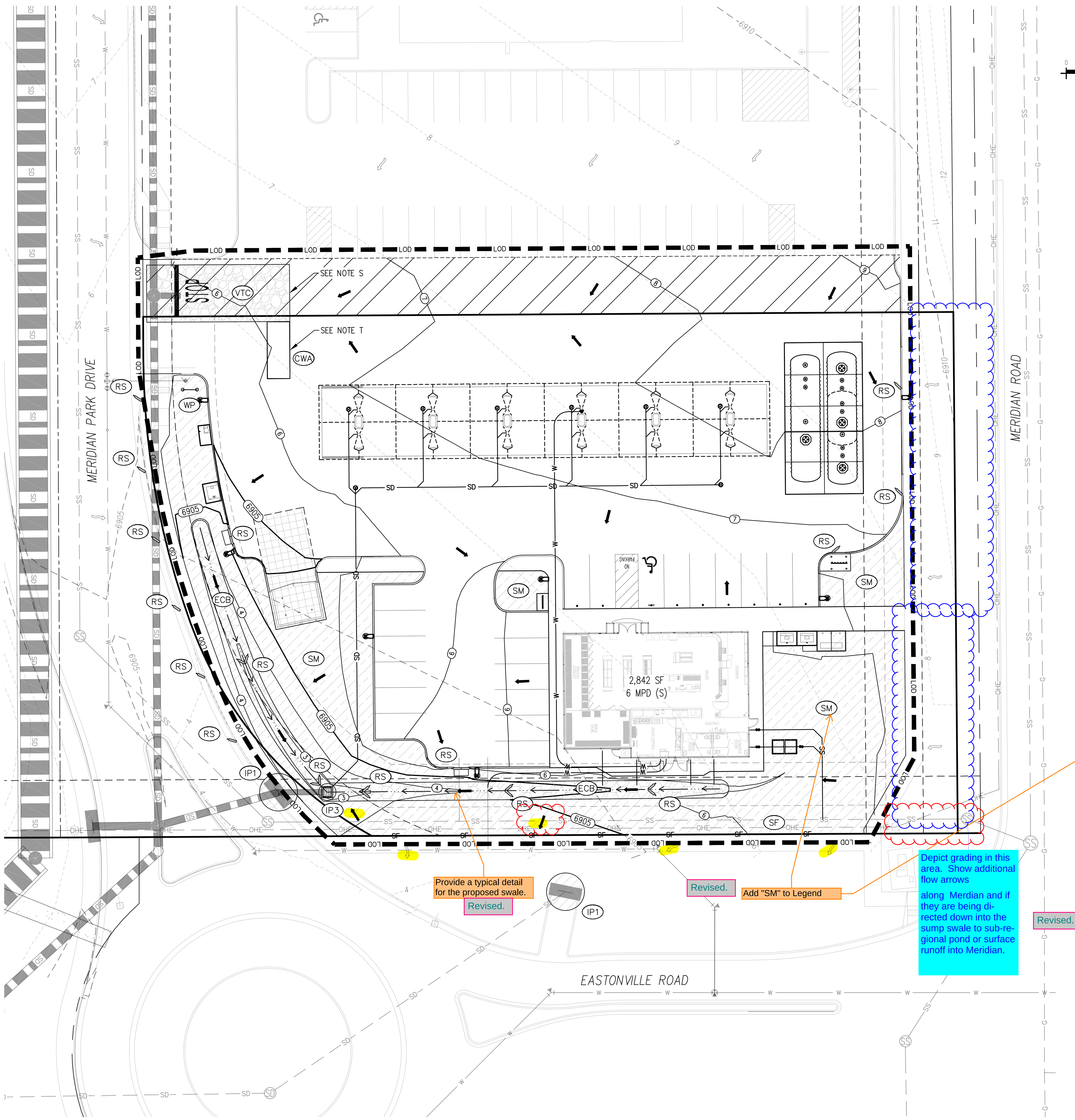
#	Date	Issue / Description	Init.

Project No:	MOC000099
Drawn By:	ASA, BLB
Checked By:	KG, CMWJ
Date:	02/16/2024

PHASE I (INITIAL)
PHASE II (INTERIM)
EROSION CONTROL PLAN

XXXXX

G1.1



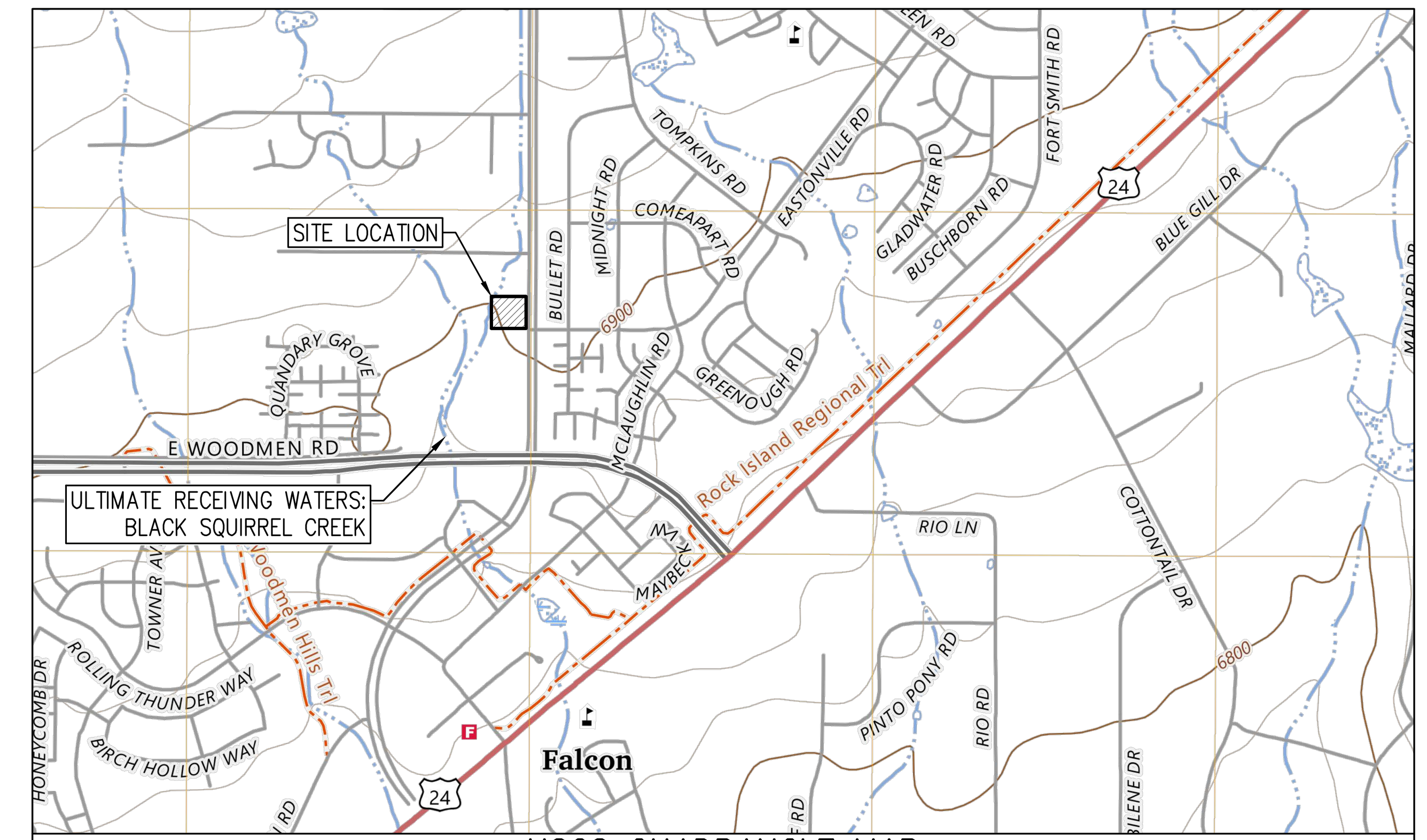
N

SCALE: 1"=20'

DISTURBED AREA:

1. TOTAL SITE AREA = 1.11 ACS.
2. DISTURBED AREA = 1.14 ACS.

THE LOCATION OF THE SILT FENCE AND CONSTRUCTION FENCE ON THE DRAWINGS IS FOR GRAPHICAL REPRESENTATION ONLY. THE CONTRACTOR IS TO ENSURE THAT THE SILT FENCE AND CONSTRUCTION FENCE ENCOMPASSES THE ENTIRE WORK AREA.



USGS QUADRANGLE MAP
N.T.S.

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EXISTING

— 5460 —	EXISTING MAJOR CONTOUR
— 52 —	EXISTING MINOR CONTOUR
— SD —	EXISTING STORM SEWER (LESS THAN 12"ø)
SD SD SD	EXISTING STORM SEWER (12"ø AND LARGER)

PROPOSED

5465	PROPOSED MAJOR CONTOUR
66	PROPOSED MINOR CONTOUR
— SD —	PROPOSED STORM SEWER (LESS THAN 12"ø)
SD SD SD	PROPOSED STORM SEWER (12"ø AND LARGER)

EROSION DETAILS – SEE DETAIL SHEETS

LOD	LOD	LIMITS OF DISTURBANCE
	SC	PROPOSED SAWCUT LINE
SF	SF	SILT FENCE
	VTC	VEHICLE TRACKING CONTROL
	CWA	CONCRETE WASHOUT AREA
	ECB	EROSION CONTROL BLANKET
	IP	INLET PROTECTION (IP–2)
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	SCL	SEDIMENT CONTROL LOGS
	RS	ROCK SOCKS

SEQUENCE OF CONSTRUCTION

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1. INSTALL PERIMETER CONSTRUCTION FENCE.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCES.
3. PREPARE TEMPORARY PARKING AND STORAGE AREA.
4. CONSTRUCT THE SILT FENCES ON THE SITE.
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6. INSTALL ALL TEMPORARY EROSION & SEDIMENT CONTROLS AS NEEDED.
7. DEMOLISH ANY EXISTING STRUCTURES AS REQUIRED FOR PROPOSED IMPROVEMENTS.
8. CLEAR THE SITE.
9. BEGIN GRADING THE SITE.

PHASE II (INTERIM)
10. TEMPORARILY STABILIZE DENUDED AREAS.
11. INSTALL UTILITIES, UNDER DRAINS, STORM SEWERS, CURBS AND GUTTERS.
12. INSTALL INLET/FLUME PROTECTION DEVICES.

PHASE III (FINAL)
13. START CONSTRUCTION OF UST INSTALL, BUILDING FOOTINGS, STRUCTURES, AND ANY OFF-SITE IMPROVEMENTS.
14. PREPARE SITE FOR PAVING.
15. PAVE SITE.
16. AFTER EARTHWORK & PAVEMENT IS COMPLETE, REMOVE VTC. IF ROAD IS INSTALLED, BUT ADJACENT EARTHWORK & PAVEMENT IS NOT COMPLETE, RUBBER OR PLASTIC TRACKOUT CONTROL MATTING IS REQUIRED.
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ALL EROSION CONTROL MEASURES SHALL BE IN PLACE AS REQUIRED BY THE ENGINEER, PLANS, AND CITY REPRESENTATIVE. SILTATION CONTROL MEASURES SHALL BE INSPECTED PER THE NPDES PERMIT REQUIREMENTS. ANY DEFICIENCIES SHALL BE CORRECTED IMMEDIATELY AND NO FURTHER WORK WILL PROCEED UNTIL SAID DEFICIENCIES ARE CORRECTED TO THE CITY ENGINEER'S APPROVAL.

NOTES:
1. EROSION CONTROL AND TREE PROTECTION MEASURES SHALL BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION ACTIVITY AND MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
2. "THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH LAND-DISTURBING ACTIVITIES."
3. "EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE"

H:\M\Murphy Oil USA\CO, El Paso County - MOC000099.20 - Woodmen & Meridian Rd\0CIV\3-CD\GEC\MOC99_G2.1 Final Erosion

Galloway
1155 Kelly Johnson Blvd., Suite 305
Colorado Springs, CO 80920
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MURPHY OIL USA, INC.
MURPHY USA
200 PEACH STREET
EL DORADO, AR 71730

GEC PLAN
MURPHY OIL USA #7968
XXXXX

7440 MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

#	Date	Issue / Description	Init.
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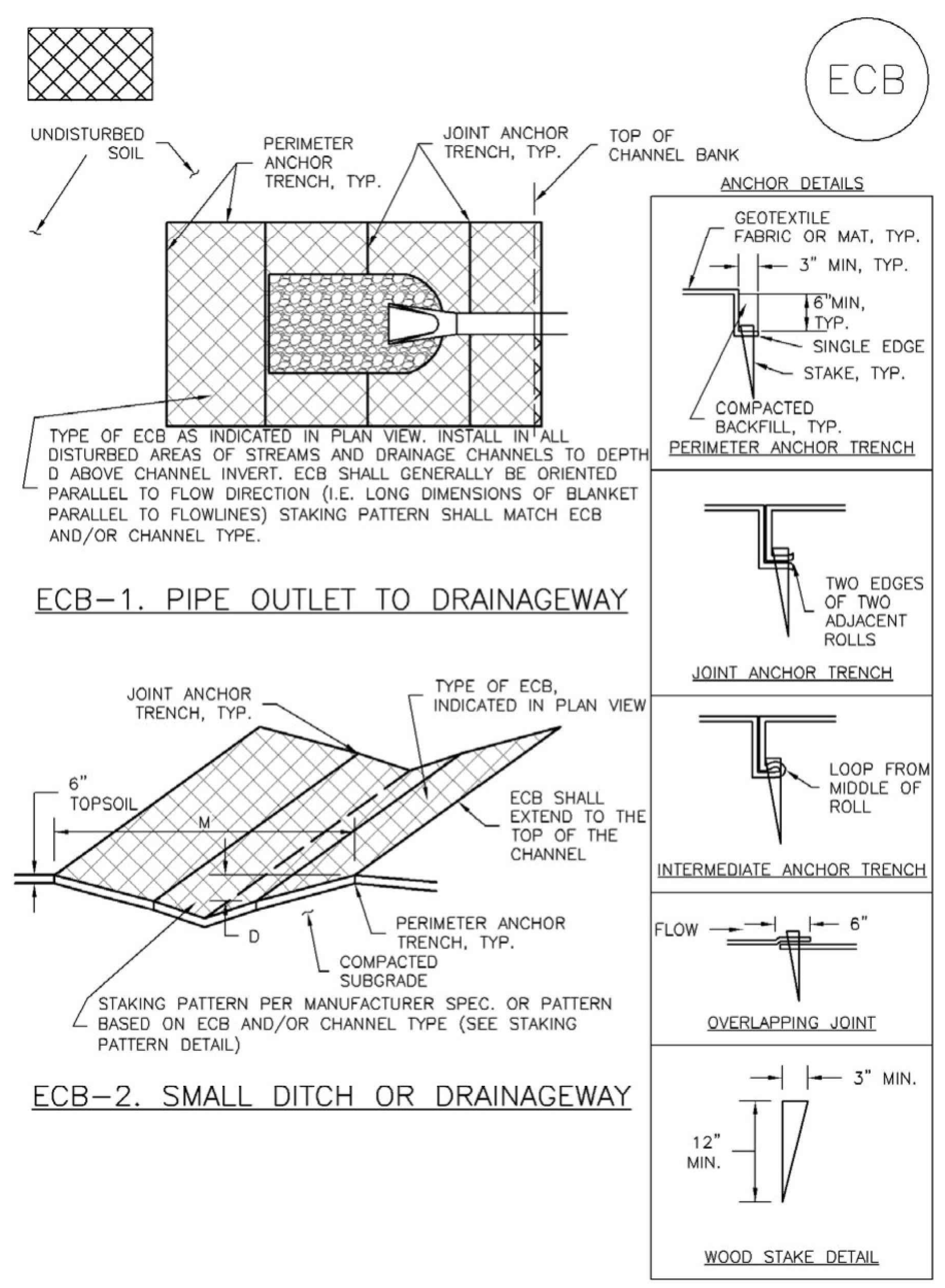
Project No:	MOC000099
Drawn By:	ASA, BLB
Checked By:	KG, CMWJ
Date:	02/16/2024

PHASE III (FINAL)
EROSION CONTROL PLAN

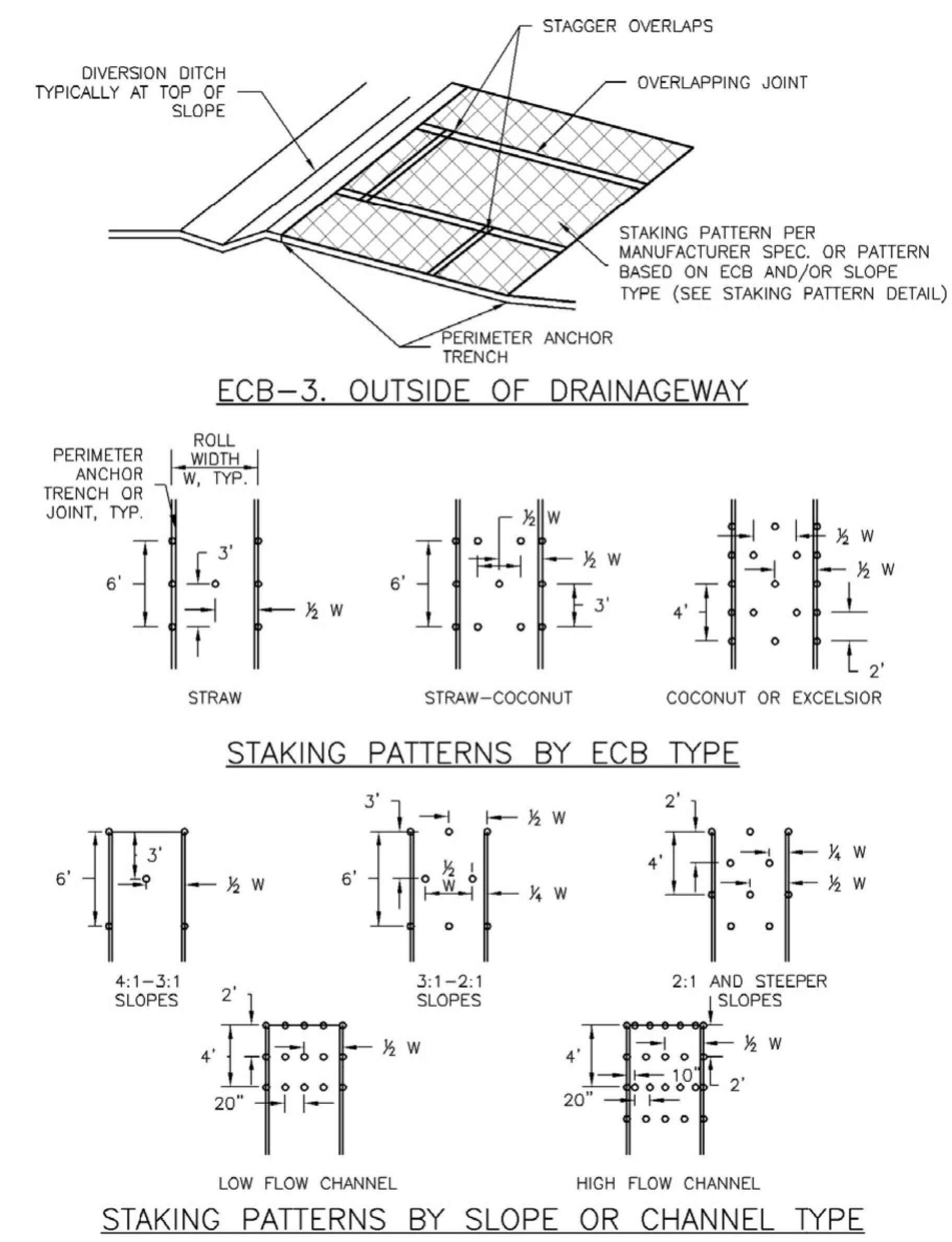
XXXXX

G2.1

EC-6 Rolled Erosion Control Products (RECP)



Rolled Erosion Control Products (RECP) EC-6



EC-6 Rolled Erosion Control Products (RECP)

EROSION CONTROL BLANKET INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATION OF ECB.
   - TYPE OF ECB (STRAW, STRAW-COCONUT, COCONUT, OR EXCELSIOR).
   - AREA, A, IN SQUARE YARDS OF EACH TYPE OF ECB.

2. 100% NATURAL AND BIODEGRADABLE MATERIALS ARE PREFERRED FOR RECPs, ALTHOUGH SOME JURISDICTIONS MAY ALLOW OTHER MATERIALS IN SOME APPLICATIONS.

3. IN AREAS WHERE ECBs ARE SHOWN ON THE PLANS, THE PERMITTEE SHALL PLACE TOPSOIL AND PERFORM FINAL GRADING, SURFACE PREPARATION, AND SEEDING AND MULCHING. SUBGRADE SHALL BE SMOOTH AND MOIST PRIOR TO ECB INSTALLATION AND THE ECB SHALL BE IN FULL CONTACT WITH SUBGRADE. NO GAPS OR VOIDS SHALL EXIST UNDER THE BLANKET.

4. PERIMETER ANCHOR TRENCH SHALL BE USED ALONG THE OUTSIDE PERIMETER OF ALL BLANKET AREAS.

5. JOINT ANCHOR TRENCH SHALL BE USED TO JOIN ROLLS OF ECBs TOGETHER (LONGITUDINALLY AND TRANSVERSELY) FOR ALL ECBs EXCEPT STRAW WHICH MAY USE AN OVERLAPPING JOINT.

6. INTERMEDIATE ANCHOR TRENCH SHALL BE USED AT SPACING OF ONE-HALF ROLL LENGTH FOR COCONUT AND EXCELSIOR ECBs.

7. OVERLAPPING JOINT DETAIL SHALL BE USED TO JOIN ROLLS OF ECBs TOGETHER FOR ECBs ON SLOPES.

8. MATERIAL SPECIFICATIONS OF ECBs SHALL CONFORM TO TABLE ECB-1.

9. ANY AREAS OF SEEDING AND MULCHING DISTURBED IN THE PROCESS OF INSTALLING ECBS SHALL BE RESEEDED AND MULCHED.

10. DETAILS ON DESIGN PLANS FOR MAJOR DRAINAGEWAY STABILIZATION WILL GOVERN IF DIFFERENT FROM THOSE SHOWN HERE.

TABLE ECB-1. ECB MATERIAL SPECIFICATIONS

TYPE	COCONUT CONTENT	STRAW CONTENT	EXCELSIOR CONTENT	RECOMMENDED NETTING**
STRAW*	–	100%	–	DOUBLE/ NATURAL
STRAW-COCONUT	30% MIN	70% MAX	–	DOUBLE/ NATURAL
COCONUT	100%	–	–	DOUBLE/ NATURAL
EXCELSIOR	–	–	100%	DOUBLE/ NATURAL

*STRAW ECBs MAY ONLY BE USED OUTSIDE OF STREAMS AND DRAINAGE CHANNEL.
**ALTERNATE NETTING MAY BE ACCEPTABLE IN SOME JURISDICTIONS

Rolled Erosion Control Products (RECP) EC-6

EROSION CONTROL BLANKET MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

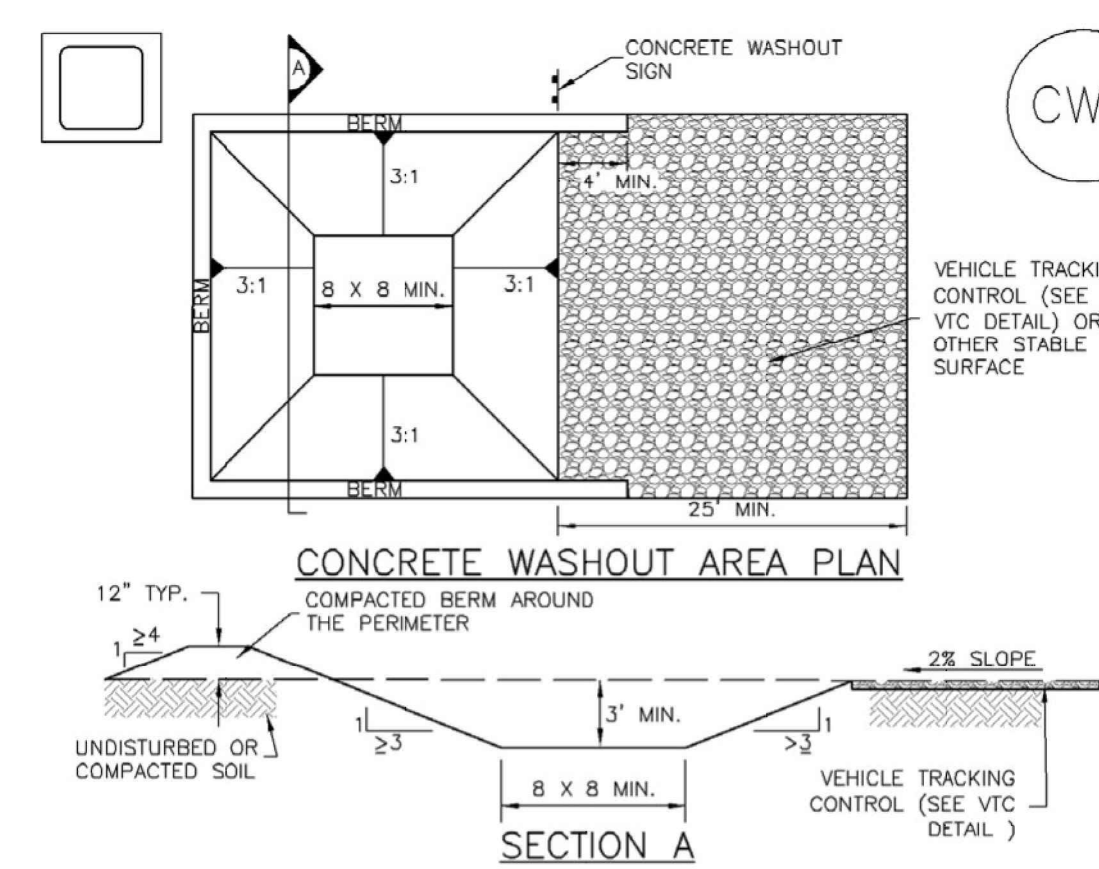
4. ECBs SHALL BE LEFT IN PLACE TO EVENTUALLY BIODEGRADE, UNLESS REQUESTED TO BE REMOVED BY THE LOCAL JURISDICTION.

5. ANY ECB PULLED OUT, TORN, OR OTHERWISE DAMAGED SHALL BE REPAIRED OR REINSTALLED. ANY SUBGRADE AREAS BELOW THE GEOTEXTILE THAT HAVE ERODED TO CREATED A VOID UNDER THE BLANKET, OR THAT REMAIN DEVOID OF GRASS SHALL BE REPAIRED, RESEEDED AND MULCHED AND THE ECB REINSTALLED.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO AND TOWN OF PARKER COLORADO, NOT AVAILABLE IN AUTOCAD)

Concrete Washout Area (CWA) MM-1



CWA-1. CONCRETE WASHOUT AREA

CWA INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - CWA INSTALLATION LOCATION.

2. DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (16 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE ARE SHOULD BE USED.

3. THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.

4. CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.

5. BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'.

6. VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.

7. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.

8. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

MM-1 Concrete Washout Area (CWA)

CWA MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS, ACCUMULATED IN PIT, SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.

5. CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER-TIGHT CONTAINER AND DISPOSED OF PROPERLY.

6. THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.

7. WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD).

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

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MURPHY USA

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MURPHY OIL USA #7968
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7440 MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

#	Date	Issue / Description	Init.

Project No:	MOC000099
Drawn By:	ASA, BLB
Checked By:	KG, CMWJ
Date:	02/16/2024

EROSION CONTROL DETAILS

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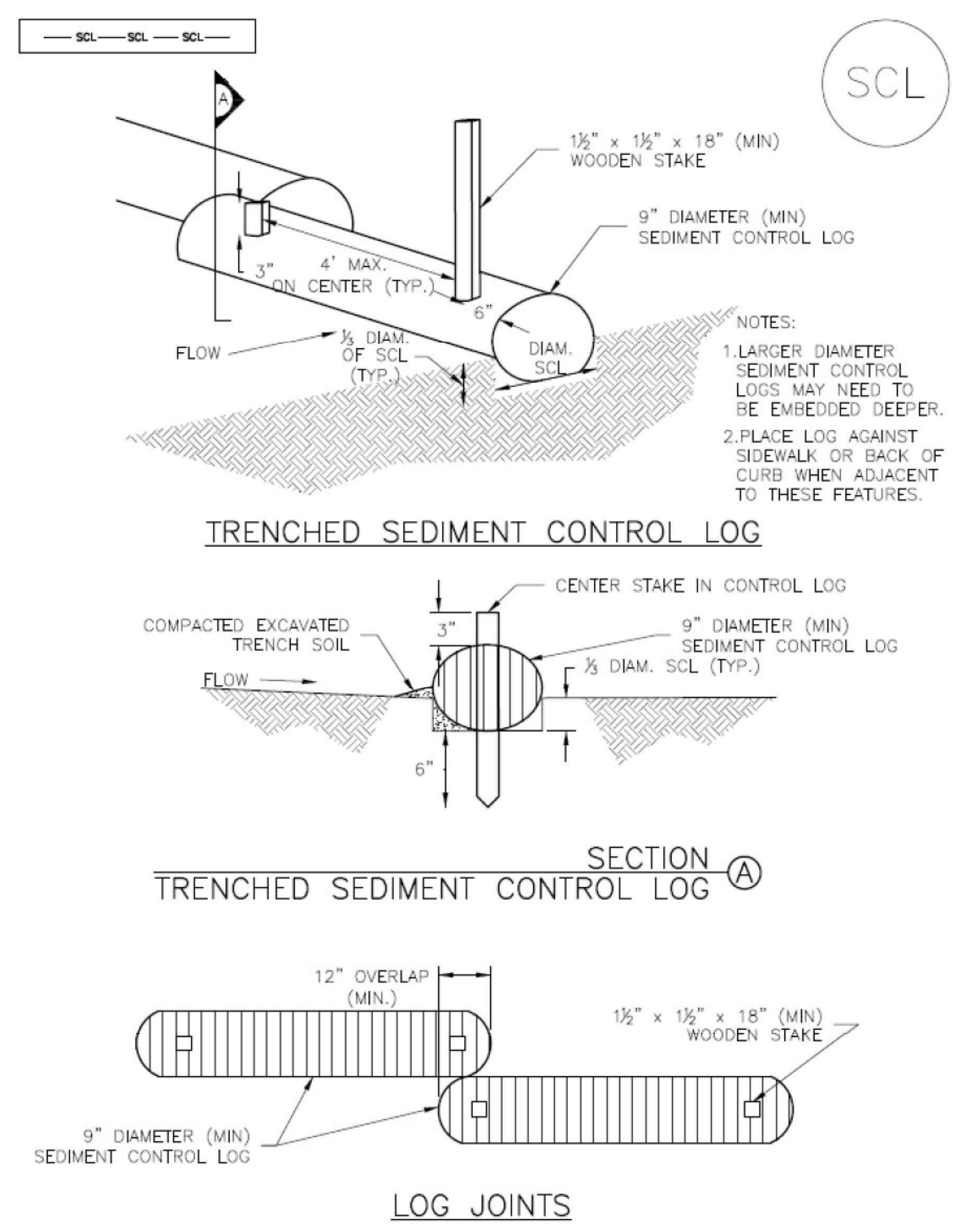
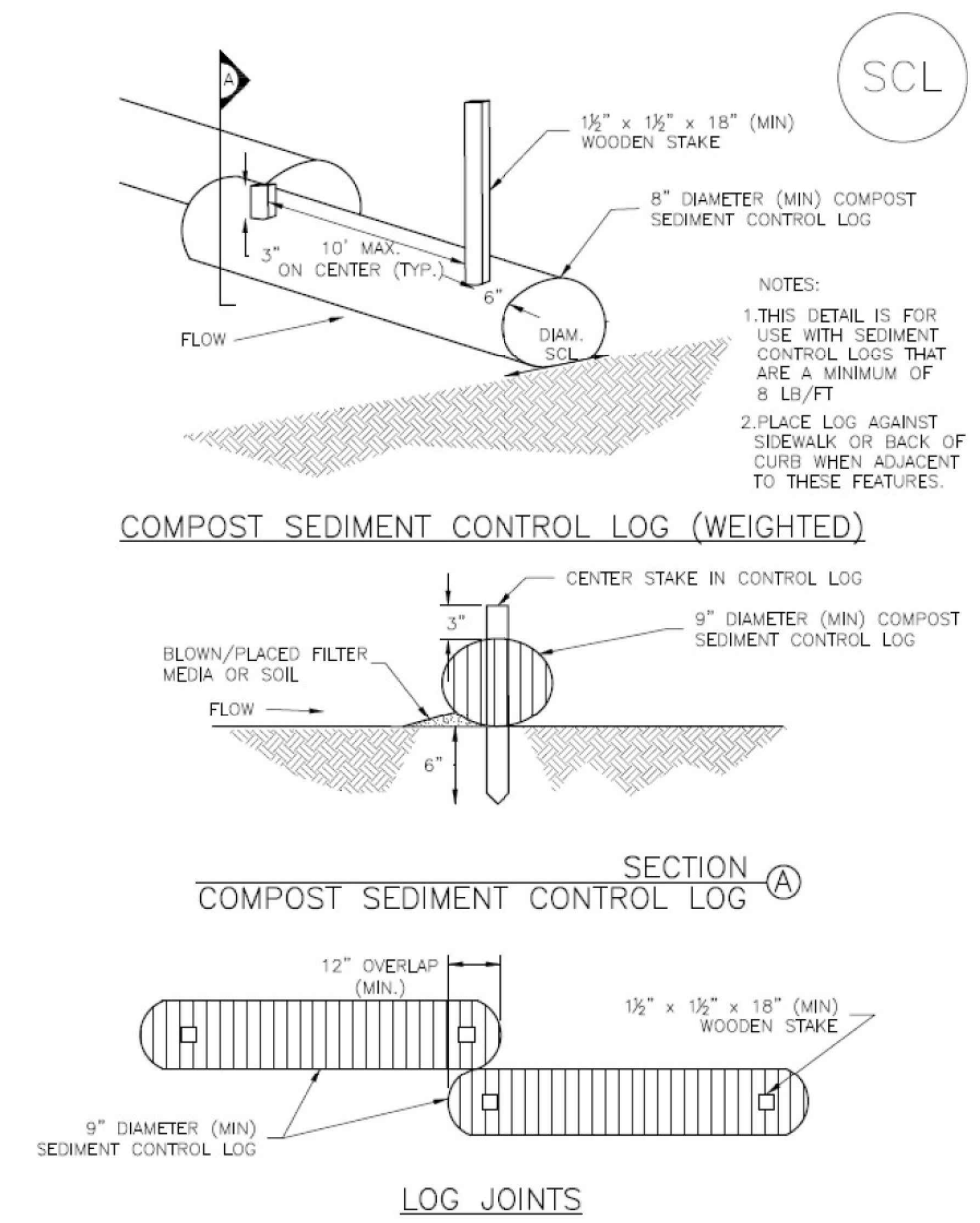
G3.1

Sediment Control Log (SCL) SC-2



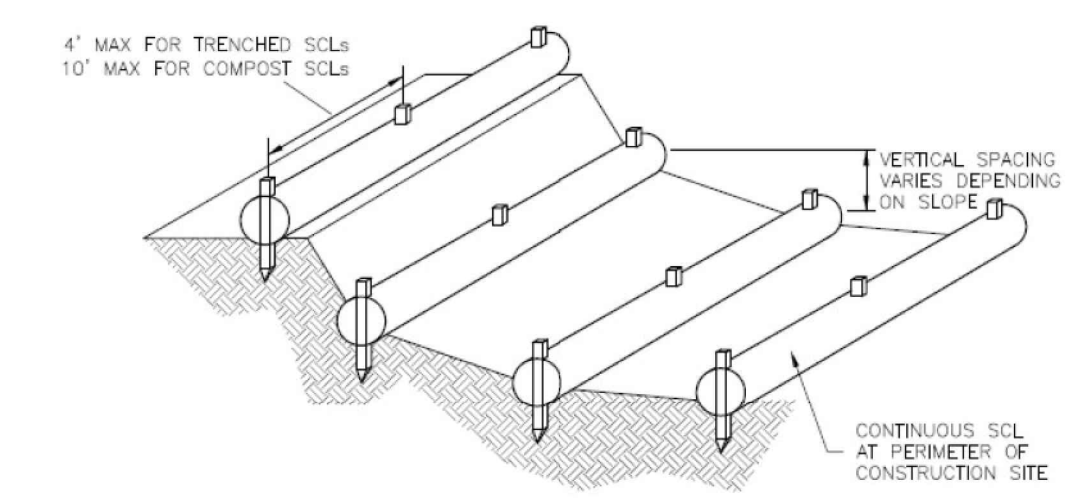
SCL-1. TRENCHED SEDIMENT CONTROL LOG

SC-2 Sediment Control Log (SCL)



SCL-2. COMPOST SEDIMENT CONTROL LOG (WEIGHTED)

Sediment Control Log (SCL) SC-2



SCL-3. SEDIMENT CONTROL LOGS TO CONTROL SLOPE LENGTH

SC-2 Sediment Control Log (SCL)

SEDIMENT CONTROL LOG INSTALLATION NOTES

1. SEE PLAN VIEW FOR LOCATION AND LENGTH OF SEDIMENT CONTROL LOGS.

2. SEDIMENT CONTROL LOGS THAT ACT AS A PERIMETER CONTROL SHALL BE INSTALLED PRIOR TO ANY UPGRADIENT LAND-DISTURBING ACTIVITIES.

3. SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR OR COCONUT FIBER, AND SHALL BE FREE OF ANY NOXIOUS WEED SEEDS OR DEFECTS INCLUDING RIPS, HOLES AND OBVIOUS WEAR.

4. SEDIMENT CONTROL LOGS MAY BE USED AS SMALL CHECK DAMS IN DITCHES AND SWALES. HOWEVER, THEY SHOULD NOT BE USED IN PERENNIAL STREAMS.

5. IT IS RECOMMENDED THAT SEDIMENT CONTROL LOGS BE TRENCHED INTO THE GROUND TO A DEPTH OF APPROXIMATELY ⅓ OF THE DIAMETER OF THE LOG. IF TRENCHING TO THIS DEPTH IS NOT FEASIBLE AND/OR DESIRABLE (SHORT TERM INSTALLATION WITH DESIRE NOT TO DAMAGE LANDSCAPE) A LESSER TRENCHING DEPTH MAY BE ACCEPTABLE WITH MORE ROBUST STAKING. COMPOST LOGS THAT ARE 8 LB/FT DO NOT NEED TO BE TRENCHED.

6. THE UPHILL SIDE OF THE SEDIMENT CONTROL LOG SHALL BE BACKFILLED WITH SOIL OR FILTER MATERIAL THAT IS FREE OF ROCKS AND DEBRIS. THE SOIL SHALL BE TIGHTLY COMPACTED INTO THE SHAPE OF A RIGHT TRIANGLE USING A SHOVEL OR WEIGHTED LAWN ROLLER OR BLOWN IN PLACE.

7. FOLLOW MANUFACTURERS' GUIDANCE FOR STAKING. IF MANUFACTURERS' INSTRUCTIONS DO NOT SPECIFY SPACING, STAKES SHALL BE PLACED ON 4' CENTERS AND EMBEDDED A MINIMUM OF 6" INTO THE GROUND. 3" OF THE STAKE SHALL PROTRUDE FROM THE TOP OF THE LOG. STAKES THAT ARE BROKEN PRIOR TO INSTALLATION SHALL BE REPLACED. COMPOST LOGS SHOULD BE STAKED 10' ON CENTER.

SEDIMENT CONTROL LOG MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

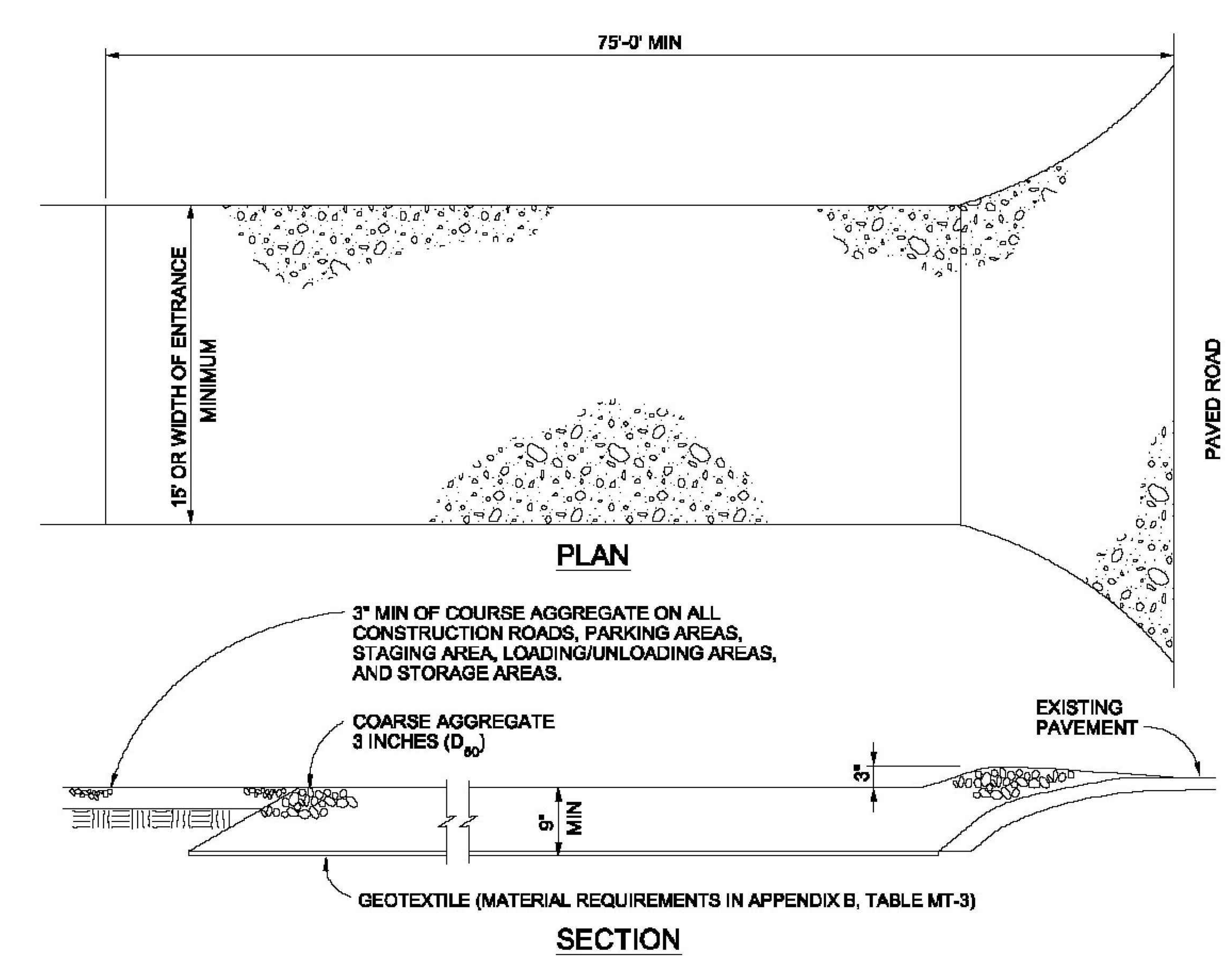
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOG SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY ½ OF THE HEIGHT OF THE SEDIMENT CONTROL LOG.

5. SEDIMENT CONTROL LOG SHALL BE REMOVED AT THE END OF CONSTRUCTION.COMPOST FROM COMPOST LOGS MAY BE LEFT IN PLACE AS LONG AS BAGS ARE REMOVED AND THE AREA SEEDED. IF DISTURBED AREAS EXIST AFTER REMOVAL, THEY SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAILS ADAPTED FROM TOWN OF PARKER, COLORADO, JEFFERSON COUNTY, COLORADO, DOUGLAS COUNTY, COLORADO, AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.



VEHICLE TRACKING
NTS

VEHICLE TRACKING NOTES

INSTALLATION REQUIREMENTS

1. ALL ENTRANCES TO THE CONSTRUCTION SITE ARE TO BE STABILIZED PRIOR TO CONSTRUCTION BEGINNING.

2. CONSTRUCTION ENTRANCES ARE TO BE BUILT WITH AN APRON TO ALLOW FOR TURNING TRAFFIC, BUT SHOULD NOT BE BUILT OVER EXISTING PAVEMENT EXCEPT FOR A SLIGHT OVERLAP.

3. AREAS TO BE STABILIZED ARE TO BE PROPERLY GRADED AND COMPACTED PRIOR TO LAYING DOWN GEOTEXTILE AND STONE.

4. CONSTRUCTION ROADS, PARKING AREAS, LOADING/UNLOADING ZONES, STORAGE AREAS, AND STAGING AREAS ARE TO BE STABILIZED.

5. CONSTRUCTION ROADS ARE TO BE BUILT TO CONFORM TO SITE GRADES, BUT SHOULD NOT HAVE SIDE SLOPES OR ROAD GRADES THAT ARE EXCESSIVELY STEEP.

MAINTENANCE REQUIREMENTS

1. REGULAR INSPECTIONS ARE TO BE MADE OF ALL STABILIZED AREAS, ESPECIALLY AFTER STORM EVENTS.

2. STONES ARE TO BE REAPPLIED PERIODICALLY AND WHEN REPAIR IS NECESSARY.

3. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED DAILY BY SHOVELING OR SWEEPING. SEDIMENT IS NOT TO BE WASHED DOWN STORM SEWER DRAINS.

4. STORM SEWER INLET PROTECTION IS TO BE IN PLACE, INSPECTED, AND CLEANED IF NECESSARY.

5. OTHER ASSOCIATED SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED TO ENSURE GOOD WORKING CONDITION.

City of Colorado Springs Stormwater Quality	Figure VT-2 Vehicle Tracking Application Examples

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1155 Kelly Johnson Blvd., Suite 305
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GallowayUS.com

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MURPHY USA

GEC PLAN
MURPHY OIL USA #7968
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7440 MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

#	Date	Issue / Description	Init.

Project No:	MOC000099
Drawn By:	ASA, BLB
Checked By:	KG, CMWJ
Date:	02/16/2024

EROSION CONTROL DETAILS

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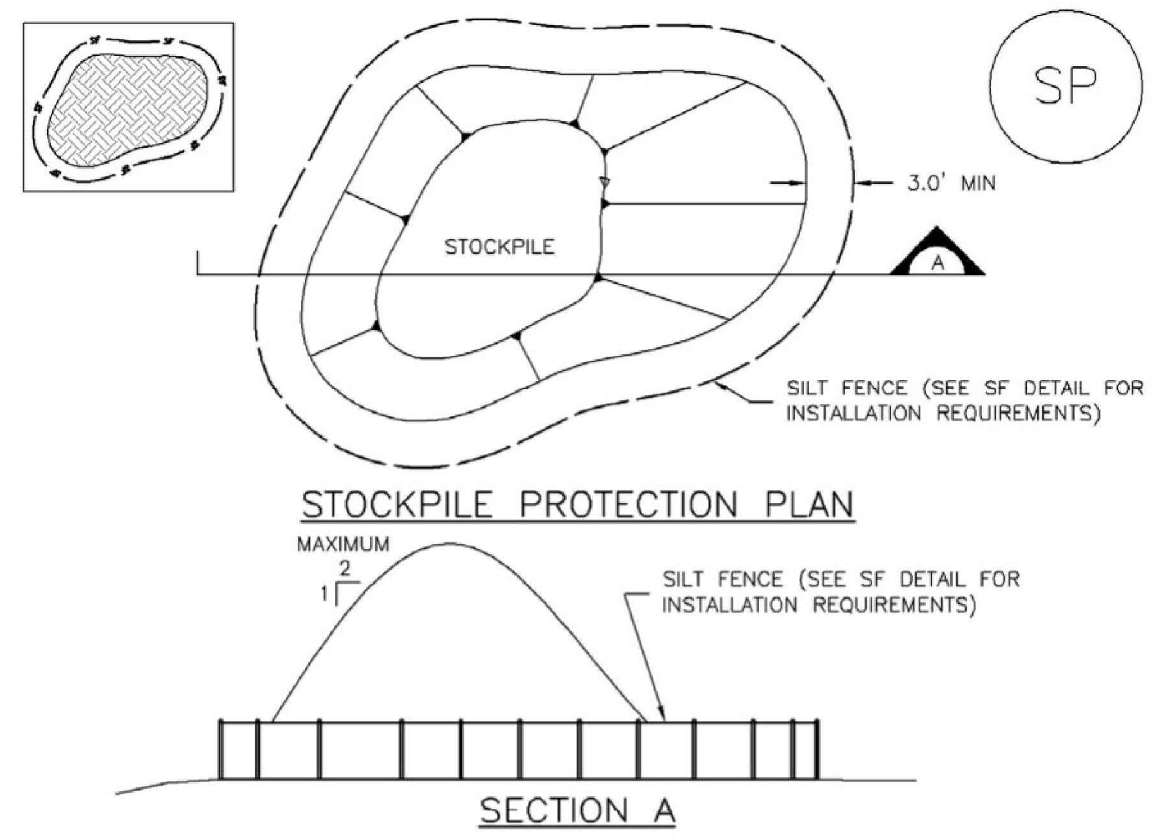
C3.2

Stockpile Management (SP) MM-2



SP-1. STOCKPILE PROTECTION

STOCKPILE PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATION OF STOCKPILES.
   - TYPE OF STOCKPILE PROTECTION.

2. INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH THEIR RESPECTIVE DESIGN DETAILS. SILT FENCE IS SHOWN IN THE STOCKPILE PROTECTION DETAILS; HOWEVER, OTHER TYPES OF PERIMETER CONTROLS INCLUDING SEDIMENT CONTROL LOGS OR ROCK SOCKS MAY BE SUITABLE IN SOME CIRCUMSTANCES. CONSIDERATIONS FOR DETERMINING THE APPROPRIATE TYPE OF PERIMETER CONTROL FOR A STOCKPILE INCLUDE WHETHER THE STOCKPILE IS LOCATED ON A PERVIOUS OR IMPERVIOUS SURFACE, THE RELATIVE HEIGHTS OF THE PERIMETER CONTROL AND STOCKPILE, THE ABILITY OF THE PERIMETER CONTROL TO CONTAIN THE STOCKPILE WITHOUT FAILING IN THE EVENT THAT MATERIAL FROM THE STOCKPILE SHIFTS OR SLUMPS AGAINST THE PERIMETER, AND OTHER FACTORS.

3. STABILIZE THE STOCKPILE SURFACE WITH SURFACE ROUGHENING, TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS, OR SOIL BINDERS. SOILS STOCKPILED FOR AN EXTENDED PERIOD (TYPICALLY FOR MORE THAN 60 DAYS) SHOULD BE SEEDED AND MULCHED WITH A TEMPORARY GRASS COVER ONCE THE STOCKPILE IS PLACED (TYPICALLY WITHIN 14 DAYS). USE OF MULCH ONLY OR A SOIL BINDER IS ACCEPTABLE IF THE STOCKPILE WILL BE IN PLACE FOR A MORE LIMITED TIME PERIOD (TYPICALLY 30-60 DAYS).

4. FOR TEMPORARY STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRADIENT CONTROLS, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.

MM-2 Stockpile Management (SM)

STOCKPILE PROTECTION MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

STOCKPILE PROTECTION MAINTENANCE NOTES

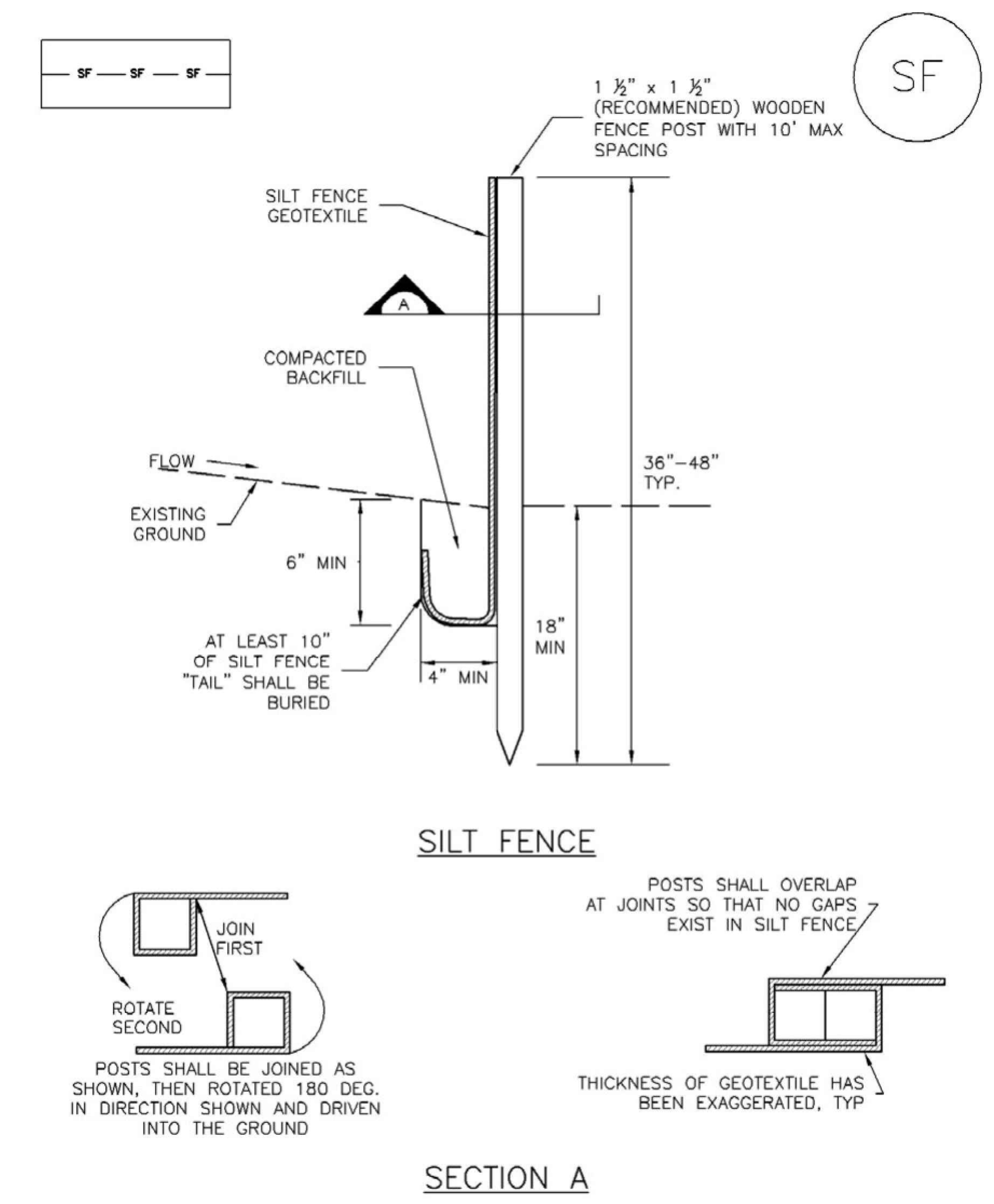
4. IF PERIMETER PROTECTION MUST BE MOVED TO ACCESS SOIL STOCKPILE, REPLACE PERIMETER CONTROLS BY THE END OF THE WORKDAY.

5. STOCKPILE PERIMETER CONTROLS CAN BE REMOVED ONCE ALL THE MATERIAL FROM THE STOCKPILE HAS BEEN USED.

(DETAILS ADAPTED FROM PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

Silt Fence (SF) SC-1



SF-1. SILT FENCE

SC-1 Silt Fence (SF)

SILT FENCE INSTALLATION NOTES

1. SILT FENCE MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PONDING. SILT FENCE AT THE TOE OF A SLOPE SHOULD BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (2-5 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR PONDING AND DEPOSITION.

2. A UNIFORM 6" X 4" ANCHOR TRENCH SHALL BE EXCAVATED USING TRENCHER OR SILT FENCE INSTALLATION DEVICE. NO ROAD GRADERS, BACKHOES, OR SIMILAR EQUIPMENT SHALL BE USED.

3. COMPACT ANCHOR TRENCH BY HAND WITH A "JUMPING JACK" OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.

4. SILT FENCE SHALL BE PULLED TIGHT AS IT IS ANCHORED TO THE STAKES. THERE SHOULD BE NO NOTICEABLE SAG BETWEEN STAKES AFTER IT HAS BEEN ANCHORED TO THE STAKES.

5. SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING 1" HEAVY DUTY STAPLES OR NAILS WITH 1" HEADS. STAPLES AND NAILS SHOULD BE PLACED 3" ALONG THE FABRIC DOWN THE STAKE.

6. AT THE END OF A RUN OF SILT FENCE ALONG A CONTOUR, THE SILT FENCE SHOULD BE TURNED PERPENDICULAR TO THE CONTOUR TO CREATE A "J-HOOK." THE "J-HOOK" EXTENDING PERPENDICULAR TO THE CONTOUR SHOULD BE OF SUFFICIENT LENGTH TO KEEP RUNOFF FROM FLOWING AROUND THE END OF THE SILT FENCE (TYPICALLY 10' - 20').

7. SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

SILT FENCE MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SEDIMENT ACCUMULATED UPSTREAM OF THE SILT FENCE SHALL BE REMOVED AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 6".

5. REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING, OR COLLAPSE.

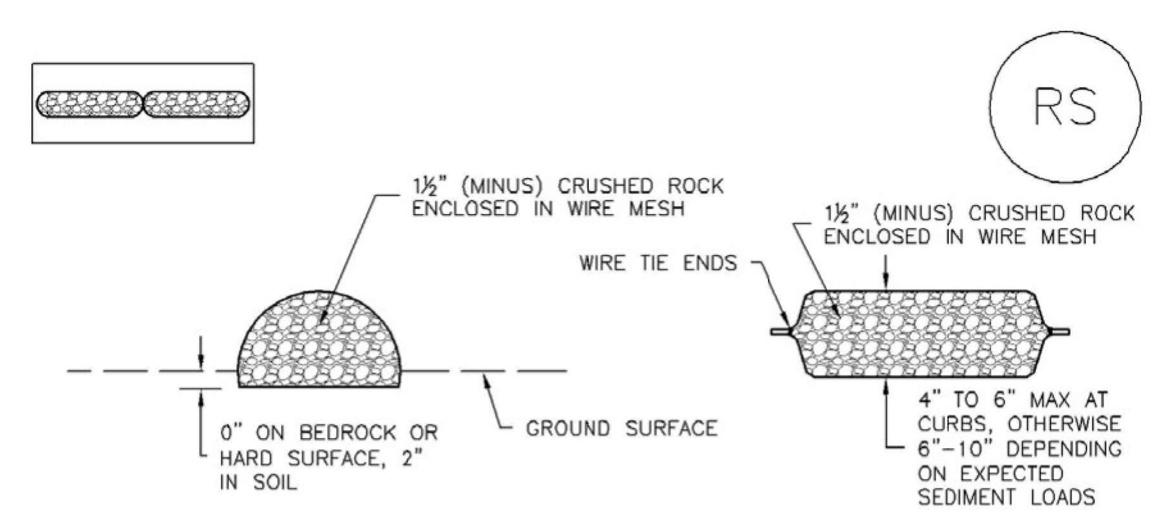
6. SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERIMETER SEDIMENT CONTROL BMP.

7. WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, NOT AVAILABLE IN AUTOCAD)

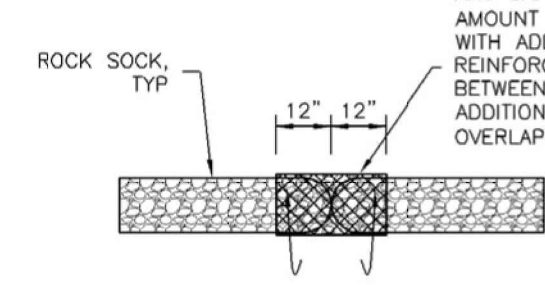
NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

SC-5 Rock Sock (RS)



ROCK SOCK SECTION ROCK SOCK PLAN

ANY GAP AT JOINT SHALL BE FILLED WITH AN ADEQUATE AMOUNT OF 1½" (MINUS) CRUSHED ROCK AND WRAPPED WITH ADDITIONAL WIRE MESH SECURED TO ENDS OF ROCK REINFORCED SOCK. AS AN ALTERNATIVE TO FILLING JOINTS BETWEEN ADJOINING ROCK SOCKS WITH CRUSHED ROCK AND ADDITIONAL WIRE WRAPPING, ROCK SOCKS CAN BE OVERLAPPED (TYPICALLY 12-INCH OVERLAP) TO AVOID GAPS.



ROCK SOCK JOINTING

GRADATION TABLE	
SIEVE SIZE	MASS PERCENT PASSING SQUARE MESH SIEVES
	NO. 4
2"	100
1½"	90 - 100
1"	20 - 55
¾"	0 - 15
⅜"	0 - 5
MATCHES SPECIFICATIONS FOR NO. 4 COARSE AGGREGATE FOR CONCRETE PER AASHTO M43. ALL ROCK SHALL BE FRACTURED FACE, ALL SIDES.	

ROCK SOCK INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATION(S) OF ROCK SOCKS.

2. CRUSHED ROCK SHALL BE 1½" (MINUS) IN SIZE WITH A FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON THIS SHEET (1½" MINUS).

3. WIRE MESH SHALL BE FABRICATED OF 10 GAGE POULTRY MESH, OR EQUIVALENT, WITH A MAXIMUM OPENING OF ½", RECOMMENDED MINIMUM ROLL WIDTH OF 48"

4. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6" CENTERS ALONG ALL JOINTS AND AT 2" CENTERS ON ENDS OF SOCKS.

5. SOME MUNICIPALITIES MAY ALLOW THE USE OF FILTER FABRIC AS AN ALTERNATIVE TO WIRE MESH FOR THE ROCK ENCLOSURE.

RS-1. ROCK SOCK PERIMETER CONTROL

Rock Sock (RS) SC-5

ROCK SOCK MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, OR DAMAGED BEYOND REPAIR.

5. SEDIMENT ACCUMULATED UPSTREAM OF ROCK SOCKS SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY ½ OF THE HEIGHT OF THE ROCK SOCK.

6. ROCK SOCKS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

7. WHEN ROCK SOCKS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

NOTE: THE DETAILS INCLUDED WITH THIS FACT SHEET SHOW COMMONLY USED, CONVENTIONAL METHODS OF ROCK SOCK INSTALLATION IN THE DENVER METROPOLITAN AREA. THERE ARE MANY OTHER SIMILAR PROPRIETARY PRODUCTS ON THE MARKET. UDFCD NEITHER NDORSES NOR DISCOURAGES USE OF PROPRIETARY PROTECTION PRODUCTS; HOWEVER, IN THE EVENT PROPRIETARY METHODS ARE USED, THE APPROPRIATE DETAIL FROM THE MANUFACTURER MUST BE INCLUDED IN THE SWMP AND THE BMP MUST BE INSTALLED AND MAINTAINED AS SHOWN IN THE MANUFACTURER'S DETAILS.

Galloway
1155 Kelly Johnson Blvd., Suite 305
Colorado Springs, CO 80920
719.900.7220
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MURPHY OIL USA, INC.
200 PEACH STREET
EL DORADO, AR 71730
MURPHY USA

GEC PLAN
MURPHY OIL USA #7968
XXXXX
7440 MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

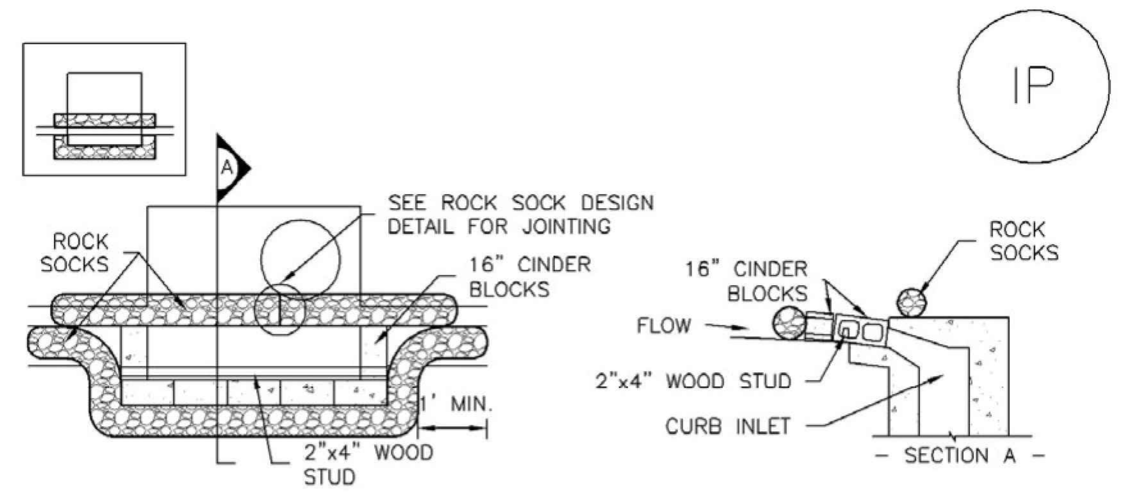
#	Date	Issue / Description	Init.

Project No:	MOC000099
Drawn By:	ASA, BLB
Checked By:	KG, CMWJ
Date:	02/16/2024

EROSION CONTROL DETAILS

XXXXX

C3.3



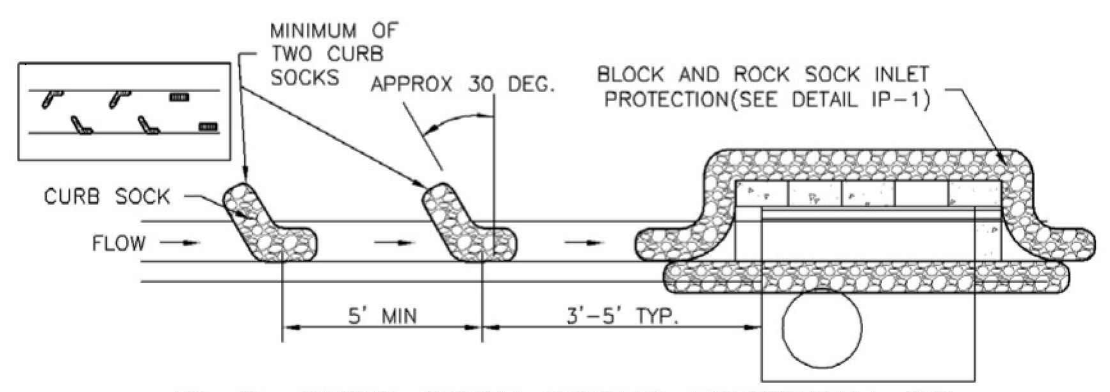
IP-1. BLOCK AND ROCK SOCK SUMP OR ON GRADE INLET PROTECTION

BLOCK AND CURB SOCK INLET PROTECTION INSTALLATION NOTES

1. SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.

2. CONCRETE "CINDER" BLOCKS SHALL BE LAID ON THEIR SIDES AROUND THE INLET IN A SINGLE ROW, ABUTTING ONE ANOTHER WITH THE OPEN END FACING AWAY FROM THE CURB.

3. GRAVEL BAGS SHALL BE PLACED AROUND CONCRETE BLOCKS, CLOSELY ABUTTING ONE ANOTHER AND JOINTED TOGETHER IN ACCORDANCE WITH ROCK SOCK DESIGN DETAIL.



IP-2. CURB ROCK SOCKS UPSTREAM OF INLET PROTECTION

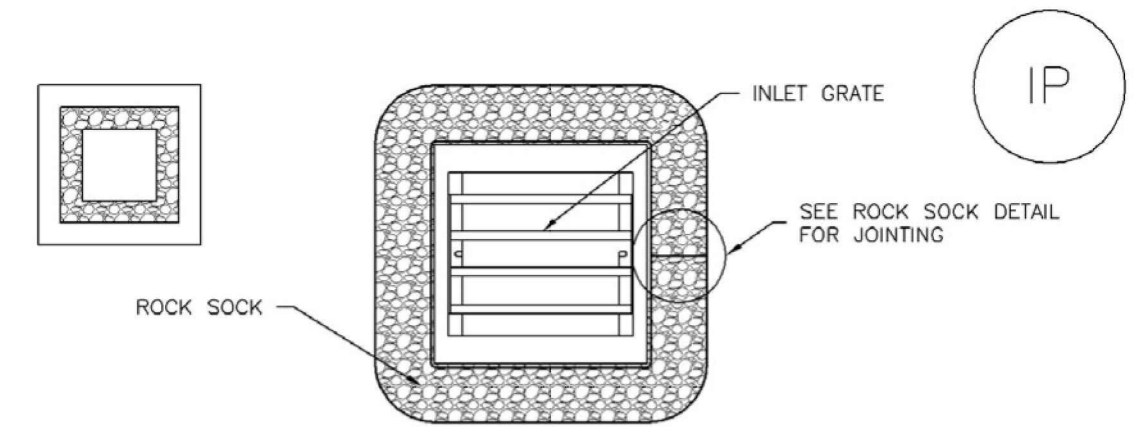
CURB ROCK SOCK INLET PROTECTION INSTALLATION NOTES

1. SEE ROCK SOCK DESIGN DETAIL INSTALLATION REQUIREMENTS.

2. PLACEMENT OF THE SOCK SHALL BE APPROXIMATELY 30 DEGREES FROM PERPENDICULAR IN THE OPPOSITE DIRECTION OF FLOW.

3. SOCKS ARE TO BE FLUSH WITH THE CURB AND SPACED A MINIMUM OF 5 FEET APART.

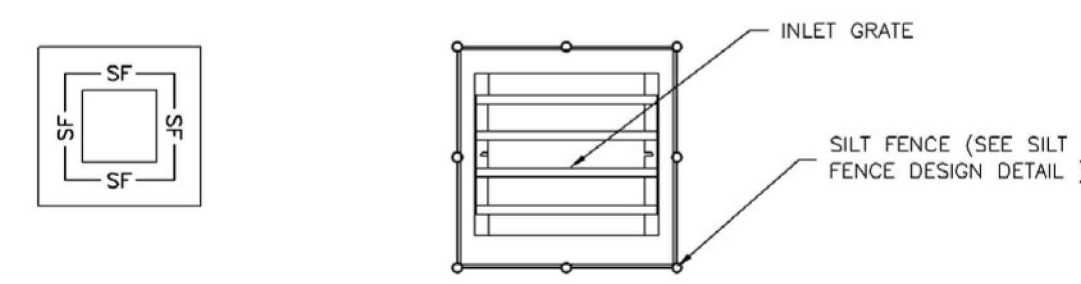
4. AT LEAST TWO CURB SOCKS IN SERIES ARE REQUIRED UPSTREAM OF ON-GRADE INLETS.



IP-3. ROCK SOCK SUMP/AREA INLET PROTECTION

ROCK SOCK SUMP/AREA INLET PROTECTION INSTALLATION NOTES
1. SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.

2. STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF ROCK SOCKS FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.



IP-4. SILT FENCE FOR SUMP INLET PROTECTION

SILT FENCE INLET PROTECTION INSTALLATION NOTES

1. SEE SILT FENCE DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.

2. POSTS SHALL BE PLACED AT EACH CORNER OF THE INLET AND AROUND THE EDGES AT A MAXIMUM SPACING OF 3 FEET.

3. STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF SILT FENCE FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.

GENERAL INLET PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   -LOCATION OF INLET PROTECTION.
   -TYPE OF INLET PROTECTION (IP.1, IP.2, IP.3, IP.4, IP.5, IP.6)

2. INLET PROTECTION SHALL BE INSTALLED PROMPTLY AFTER INLET CONSTRUCTION OR PAVING IS COMPLETE (TYPICALLY WITHIN 48 HOURS). IF A RAINFALL/RUNOFF EVENT IS FORECAST, INSTALL INLET PROTECTION PRIOR TO ONSET OF EVENT.

3. MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

INLET PROTECTION MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SEDIMENT ACCUMULATED UPSTREAM OF INLET PROTECTION SHALL BE REMOVED AS NECESSARY TO MAINTAIN BMP EFFECTIVENESS, TYPICALLY WHEN STORAGE VOLUME REACHES 50% OF CAPACITY, A DEPTH OF 6" WHEN SILT FENCE IS USED, OR ¼ OF THE HEIGHT FOR STRAW BALES.

5. INLET PROTECTION IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED, UNLESS THE LOCAL JURISDICTION APPROVES EARLIER REMOVAL OF INLET PROTECTION IN STREETS.

6. WHEN INLET PROTECTION AT AREA INLETS IS REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

NOTE: THE DETAILS INCLUDED WITH THIS FACT SHEET SHOW COMMONLY USED, CONVENTIONAL METHODS OF INLET PROTECTION IN THE DENVER METROPOLITAN AREA. THERE ARE MANY PROPRIETARY INLET PROTECTION METHODS ON THE MARKET. UDFCD NEITHER ENDORSES NOR DISCOURAGES USE OF PROPRIETARY INLET PROTECTION; HOWEVER, IN THE EVENT PROPRIETARY METHODS ARE USED, THE APPROPRIATE DETAIL FROM THE MANUFACTURER MUST BE INCLUDED IN THE SWMP AND THE BMP MUST BE INSTALLED AND MAINTAINED AS SHOWN IN THE MANUFACTURER'S DETAILS.

NOTE: SOME MUNICIPALITIES DISCOURAGE OR PROHIBIT THE USE OF STRAW BALES FOR INLET PROTECTION. CHECK WITH LOCAL JURISDICTION TO DETERMINE IF STRAW BALE INLET PROTECTION IS ACCEPTABLE.

GEC Checklist Item Z. Include details for the following BMP's. Examples of acceptable details for each are provided:

Details added.

	Detail # and Source		
BMP	DCM (Vol 2: Chap 3.3)	MHFD (USDCM Vol 3: Chap 7)	COS - Stormwater Construction Manual (App E
Mulching	MU-1	EC-4	X
Seeding	TS-1	EC-2	X

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1155 Kelly Johnson Blvd., Suite 305
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719.900.7220
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MURPHY OIL USA, INC.
200 PEACH STREET
EL DORADO, AR 71730
MURPHY USA

GEC PLAN
MURPHY OIL USA #7968
XXXXX
7440 MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

#	Date	Issue / Description	Init.

Project No:	MOC000099
Drawn By:	ASA, BLB
Checked By:	KG, CMWJ
Date:	02/16/2024

EROSION CONTROL DETAILS

XXXXX

C3.4

RESOURCE LIST:

PLANNING & ZONING
EL PASO COUNTY PLANNING
2880 INTERNATIONAL CIRCLE, SUITE 110
COLORADO SPRINGS, CO 80910
CONTACT:
(XXX) XXX-XXX

CODE ENFORCEMENT
EL PASO COUNTY
2880 INTERNATIONAL CIRCLE, SUITE 110
COLORADO SPRINGS, CO 80910
CONTACT:
(719) 520-6300

OWNER
MURPHY OIL USA, INC.
200 PEACH STREET
EL DORADO, AR 71730
PM: GRANT DENNIS
(870) 315-3430

STORMWATER
EL PASO COUNTY DEPT. PUBLIC WORKS
3275 AKERS DR.,
COLORADO SPRINGS, CO 80922
CONTACT:
(719) 520-6460

HEALTH DEPARTMENT
EL PASO COUNTY PUBLIC HEALTH
1675 W. GARDEN OF THE GODS RD.,
SUITE 2044
COLORADO SPRINGS, CO 80907
(719) 578-3199

CIVIL ENGINEER
GALLOWAY & COMPANY, INC.
1155 KELLY JOHNSON BLVD., SUITE 305
COLORADO SPRINGS, CO 80920
CONTACT: KYLE GOODWIN
(719) 900-7227

ELECTRIC
MOUNTAIN VIEW ELECTRIC ASSOCIATION
11140 E. WOODMEN RD.
FALCON, CO 80831
CONTACT: GINA PERRY
(800) 388-9881

FIRE
FALCON FIRE PROTECTION DISTRICT
7030 OLD MERIDAN ROAD
FALCON, CO 80831
CONTACT: TRENT HARWIG
(719) 495-4050
EMAIL: THARWIG@FALCONFIREPD.ORG

GEOTECHNICAL
UNITED CONSULTING
625 HOLCOMB BRIDGE RD.
NORCROSS, GA 30071
CONTACT: CHRIS ROBERDS
(770) 209-0029
EMAIL: CROBERDS@UNITEDCONSULTING.COM

SEWER & WATER
WOODMEN HILLS METRO DISTRICT
8046 EASTONVILLE ROAD
FALCON, CO 80831
CONTACT: CODY RITTER
(719) 495-2500

LANDSCAPE
GALLOWAY & COMPANY, INC.
1155 KELLY JOHNSON BLVD., SUITE 305
COLORADO SPRINGS, CO 80920
CONTACT: JON ROMERO
(719) 308-2532

BUILDING CANOPY MANUFACTURER
FREY MOSS STRUCTURES
1801 ROCKDALE INDUSTRIAL BLVD.
CONYERS, GEORGIA 30012
CONTACT: JENNIFER GOODMAN
(770) 483-7543 EXT. 151

INTERNET CABLE COMPANY
NAME
ADDRESS
ADDRESS
CONTACT:
(XXX) XXX-XXX

TANK AND PRODUCT PIPING
GALLOWAY & COMPANY, INC.
5500 GREENWOOD PLAZA BLVD SUITE 200
GREENWOOD VILLAGE, CO 80111
CONTACT: DAVE JONES
(303) 962-8506

BUILDING/CANOPY DESIGN
GREENBERG FARROW
3 EXECUTIVE DRIVE, SUITE 150
SOMERSET, NJ 08873
CONTACT: CHRIS CERBO
(732) 537-0832

IRRIGATION CONCEPT

1. AN AUTOMATIC IRRIGATION SYSTEM SHALL BE INSTALLED AND OPERATIONAL BY THE TIME OF FINAL INSPECTION. THE ENTIRE IRRIGATION SYSTEM SHALL BE INSTALLED BY A QUALIFIED IRRIGATION CONTRACTOR.
2. THE IRRIGATION SYSTEM WILL HAVE APPROPRIATE BACKFLOW PREVENTION DEVICES INSTALLED TO PREVENT CONTAMINATION OF THE WATER SOURCE IF APPLICABLE.
3. ALL NON-TURF/SEED PLANTED AREAS WILL BE DRIP IRRIGATED. TURF SOD/SEED SHALL RECEIVE POP-UP SPRAY IRRIGATION FOR HEAD TO HEAD COVERAGE.
4. ALL PLANTS SHARING SIMILAR HYDROZONE CHARACTERISTICS SHALL BE PLACED ON A VALVE DEDICATED TO PROVIDE THE NECESSARY WATER REQUIREMENTS SPECIFIC TO THAT HYDROZONE.
5. THE IRRIGATION SYSTEM SHALL BE DESIGNED AND INSTALLED, TO THE MAXIMUM EXTENT POSSIBLE, TO CONSERVE WATER BY USING THE FOLLOWING DEVICES AND SYSTEMS: MATCHED PRECIPITATION RATE TECHNOLOGY ON ROTOR AND SPRAY HEADS (WHEREVER POSSIBLE), RAIN SENSORS, AND SMART MULTI-PROGRAM COMPUTERIZED IRRIGATION CONTROLLERS FEATURING SENSORY INPUT CAPABILITIES.

LANDSCAPE GUARANTEE AND MAINTENANCE

1. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL TREES, SHRUBS, PERENNIALS, SOD, SEEDED AREAS, AND IRRIGATION SYSTEMS FOR A PERIOD OF ONE YEAR FROM THE DATE OF THE OWNER'S ACCEPTANCE. THE CONTRACTOR SHALL REPLACE, AT HIS OWN EXPENSE, ANY PLANTS WHICH DIE IN THAT TIME, OR REPAIR ANY PORTIONS OF THE IRRIGATION SYSTEM WHICH OPERATE IMPROPERLY.
2. THE LANDSCAPE CONTRACTOR SHALL MAINTAIN THE LANDSCAPE IN A NEAT, CLEAN, AND HEALTHY CONDITION FOR A PERIOD OF 90 DAYS. THIS SHALL INCLUDE PROPER PRUNING, MOWING AND AERATION OF LAWNS, WEEDING, REPLACEMENT OF MULCH, REMOVAL OF LITTER, AND THE APPROPRIATE WATERING OF ALL PLANTINGS. IRRIGATION SHALL BE MAINTAINED IN PROPER WORKING ORDER, WITH SCHEDULING ADJUSTMENTS BY SEASON AND TO MAXIMIZE WATER CONSERVATION. IF SITE OPENS DURING WINTER, TO AVOID FREEZE DAMAGE ON PLANTINGS, THE 90 DAYS SHOULD BEGIN AFTER ACCEPTANCE OF THE WORK.
3. DURING THE LANDSCAPE MAINTENANCE PERIOD, THE LANDSCAPE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM STRUCTURES IN ALL LANDSCAPE AREAS AT THE MINIMUM SLOPE SPECIFIED IN THE GEOTECHNICAL REPORT. LANDSCAPE AREAS WHICH SETTLE AND CREATE THE POTENTIAL FOR PONDING SHALL BE REPAIRED TO ELIMINATE PONDING POTENTIAL AND BLEND IN WITH THE SURROUNDING GRADES. SHOULD ANY CONFLICTS AND/OR DISCREPANCIES ARISE BETWEEN THE GEOTECHNICAL REPORT, THE GRADING PLANS, THESE NOTES, AND ACTUAL CONDITIONS, THE CONTRACTOR SHALL IMMEDIATELY BRING SUCH ITEMS TO THE ATTENTION OF THE LANDSCAPE ARCHITECT AND OWNER.
4. LANDSCAPE IMPROVEMENTS AND MAINTENANCE SHALL BE THE RESPONSIBILITY OF OWNER AND/OR THEIR ASSIGNS.

UTILITY NOTES

1. THE LANDSCAPE CONTRACTOR IS REQUIRED TO CONTACT THE COUNTY PUBLIC WORKS DEPARTMENT, AND ANY OTHER PUBLIC OR PRIVATE AGENCY NECESSARY FOR UTILITY LOCATION PRIOR TO ANY CONSTRUCTION.
2. THIS DRAWING IS A PART OF A COMPLETE SET OF BID DOCUMENTS, SPECIFICATIONS, ADDITIONAL DRAWINGS, AND EXHIBITS. UNDER NO CIRCUMSTANCES SHOULD THESE PLANS BE USED FOR CONSTRUCTION PURPOSES WITHOUT EXAMINING ACTUAL LOCATIONS OF UTILITIES ON SITE, AND REVIEWING ALL RELATED DOCUMENTS.
3. THE LOCATION OF THE ALL UNDERGROUND UTILITIES ARE LOCATED ON THE ENGINEERING DRAWINGS FOR THIS PROJECT. THE MOST CURRENT REVISION IS HERE IN MADE PART OF THIS DOCUMENT. UNDERGROUND UTILITIES EXIST THROUGHOUT THIS SITE AND MUST BE LOCATED PRIOR TO ANY CONSTRUCTION ACTIVITY. WHERE UNDERGROUND UTILITIES EXIST, FIELD ADJUSTMENT MAY BE NECESSARY AND MUST BE APPROVED BY A REPRESENTATIVE OF THE OWNER. NEITHER THE OWNER NOR THE LANDSCAPE ARCHITECT ASSUMES ANY RESPONSIBILITY WHATSOEVER, IN RESPECT TO THE CONTRACTORS ACCURACY IN LOCATING THE INDICATED PLANT MATERIAL, AND UNDER NO CIRCUMSTANCES SHOULD THESE PLANS BE USED WITHOUT REFERENCING THE ABOVE MENTIONED DOCUMENTS.

PLANTING NOTES

GENERAL

1. ALL WORK SHALL CONFORM TO ALL APPLICABLE STATE AND LOCAL CODES, STANDARDS, AND SPECIFICATIONS.
2. LANDSCAPE DESIGN IS DIAGRAMMATIC IN NATURE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN TAKEOFFS AND QUANTITY CALCULATIONS. IN THE EVENT OF A DISCREPANCY BETWEEN THE PLAN AND THE LANDSCAPE LEGEND, THE PLANT QUANTITY AS SHOWN ON THE PLAN SHALL TAKE PRECEDENCE AND NOTIFY THE LANDSCAPE ARCHITECT OF THESE DISCREPANCIES. MINOR ADJUSTMENTS TO THE LANDSCAPE MATERIAL AND LOCATIONS MAY BE PROPOSED FOR CITY CONSIDERATION AT THE CONSTRUCTION DOCUMENT STAGE TO RESPOND TO MARKET AND FIELD CONDITIONS. HOWEVER, THERE SHALL BE NO REDUCTION IN THE NUMBER AND SIZE OF MATERIALS.
3. CONTRACTOR SHALL MAKE HIMSELF AWARE OF THE LOCATIONS OF EXISTING AND PROPOSED UTILITIES, AND SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE UTILITIES AND/OR ANY INJURY TO ANY PERSON. THIS DRAWING IS PART OF A COMPLETE SET OF CONTRACT DOCUMENTS. UNDER NO CIRCUMSTANCES SHOULD THIS PLAN BE USED FOR CONSTRUCTION PURPOSES WITHOUT EXAMINING ACTUAL LOCATIONS OF UTILITIES ON SITE AND REVIEW ALL RELATED PLANS AND DOCUMENTS.
4. ALL UTILITY EASEMENTS SHALL REMAIN UNOBSTRUCTED AND FULLY ACCESSIBLE ALONG THEIR ENTIRE LENGTH FOR MAINTENANCE EQUIPMENT.
5. THE CONTRACTOR SHALL TAKE EXTREME CARE NOT TO DAMAGE ANY EXISTING PLANTS INDICATED AS "TO REMAIN". ANY SUCH PLANTS DAMAGED BY THE CONTRACTOR SHALL BE REPLACED WITH THE SAME SPECIES, SIZE, AND QUANTITY AT THE CONTRACTOR'S OWN EXPENSE, AND AS ACCEPTABLE TO THE OWNER. REFER TO THE TREE PROTECTION NOTES ON THE PLANS (AS APPLICABLE).
6. LANDSCAPE CONTRACTOR SHALL EXAMINE THE SITE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED AND NOTIFY THE GENERAL CONTRACTOR IN WRITING OF UNSATISFACTORY CONDITIONS. IF SITE CONDITIONS OR PLANT AVAILABILITY REQUIRE CHANGES TO THE PLAN, THEN AN APPROVAL WILL BE OBTAINED FROM THE CITY. DO NOT PROCEED UNTIL CONDITIONS HAVE BEEN CORRECTED.
7. ALL CONSTRUCTION DEBRIS AND MATERIAL SHALL BE REMOVED AND CLEANED OUT PRIOR TO INSTALLATION OF TOPSOIL, TREES, SHRUBS, AND TURF.
8. FOR ALL INFORMATION ON SURFACE MATERIAL OF WALKS, DRIVES, AND PARKING LOTS, SEE THE SITE PLAN. SEE PHOTOMETRIC PLAN FOR FREE STANDING LIGHTING INFORMATION.
9. THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT ONE WEEK PRIOR TO BEGINNING CONSTRUCTION.
10. WINTER WATERING SHALL BE AT THE EXPENSE OF THE CONTRACTOR UNTIL SUCH TIME AS FINAL ACCEPTANCE IS RECEIVED.
11. ALL LANDSCAPE CONSTRUCTION PRACTICES, WORKMANSHIP, AND ETHICS SHALL, BE IN ACCORDANCE WITH INDUSTRY STANDARDS SET FORTH IN THE CONTRACTORS HANDBOOK PUBLISHED BY THE COLORADO LANDSCAPE CONTRACTORS ASSOCIATION.
12. LANDSCAPE AND IRRIGATION WORK SHALL BE COMPLETED PRIOR TO THE ISSUANCE OF THE FINAL CERTIFICATE OF OCCUPANCY.

FINISH GRADING AND SOIL PREPARATION

13. CONTRACTOR SHALL CONSTRUCT AND MAINTAIN FINISH GRADES AS RECOMMENDED BY THE GEOTECHNICAL REPORT. ALL LANDSCAPE AREAS SHALL HAVE POSITIVE DRAINAGE AWAY FROM STRUCTURES AT THE MINIMUM SLOPE SPECIFIED IN THE REPORT, AND AREAS OF POTENTIAL PONDING SHALL BE REGRADED TO BLEND IN WITH THE SURROUNDING GRADES AND ELIMINATE PONDING POTENTIAL. SHOULD ANY CONFLICTS AND/OR DISCREPANCIES ARISE BETWEEN THE GEOTECHNICAL REPORT, THE GRADING PLANS, THESE NOTES, AND ACTUAL CONDITIONS, THE CONTRACTOR SHALL IMMEDIATELY BRING SUCH ITEMS TO THE ATTENTION OF THE LANDSCAPE ARCHITECT AND OWNER.
14. AFTER FINISH GRADES HAVE BEEN ESTABLISHED, IT IS RECOMMENDED THAT THE CONTRACTOR SHALL HAVE SOIL SAMPLES TESTED BY AN ESTABLISHED SOIL TESTING LABORATORY FOR THE FOLLOWING: GENERAL SOIL FERTILITY, PH, ORGANIC MATTER CONTENT, SALT (CEC), LIME, SODIUM ADSORPTION RATIO (SAR) AND BORON CONTENT. EACH SAMPLE SUBMITTED SHALL CONTAIN NO LESS THAN ONE QUART OF SOIL. CONTRACTOR SHALL ALSO SUBMIT THE PROJECT'S PLANT LIST TO THE LABORATORY ALONG WITH THE SOIL SAMPLES. THE SOIL REPORT PRODUCED BY THE LABORATORY SHALL CONTAIN RECOMMENDATIONS FOR THE FOLLOWING (AS APPROPRIATE): GENERAL SOIL PREPARATION AND BACKFILL MIXES, PRE-PLANT FERTILIZER APPLICATIONS, AND ANY OTHER SOIL RELATED ISSUES. THE REPORT SHALL ALSO PROVIDE A FERTILIZER PROGRAM FOR THE ESTABLISHMENT PERIOD AND FOR LONG-TERM MAINTENANCE.
15. THE CONTRACTOR SHALL RECOMMEND INSTALLATION OF SOIL AMENDMENTS AND FERTILIZERS PER THE SOILS REPORT FOR THE THE OWNER/OWNER'S REPRESENTATIVE CONSIDERATION.
16. AT A MINIMUM, ALL TOPSOIL SHALL BE AMENDED WITH NITROGEN STABILIZED ORGANIC AMENDMENT COMPOST AT A RATE OF 5.0 CUBIC YARDS AND AMMONIUM PHOSPHATE 16-20-0 AT A RATE OF 15 POUNDS PER THOUSAND SQUARE FEET OF LANDSCAPE AREA. COMPOST SHALL BE MECHANICALLY INTEGRATED INTO THE TOP 6" OF SOIL BY MEANS OF ROTOTILLING AFTER CROSS-RIPPING. GROUND COVER & PERENNIAL BED AREAS SHALL BE AMENDED AT A RATE OF 8 CUBIC FEET PER THOUSAND SQUARE FEET OF NITROGEN STABILIZED ORGANIC AMENDMENT AND 10 LBS. OF 12-12-12 FERTILIZER PER CU. YD., ROTOTILLED TO A DEPTH OF 8". NO MANURE OR ANIMAL-BASED PRODUCTS SHALL BE USED FOR ORGANIC AMENDMENTS.

PLANTING

17. ALL DECIDUOUS TREES SHALL HAVE FULL, WELL-SHAPED HEADS/ALL EVERGREENS SHALL BE UNSHEARED AND FULL TO THE GROUND; UNLESS OTHERWISE SPECIFIED. TREES WITH CENTRAL LEADERS WILL NOT BE ACCEPTED IF LEADER IS DAMAGED OR REMOVED. PRUNE ALL DAMAGED TWIGS AFTER PLANTING.
18. ALL PLANTS WITHIN A SPECIES SHALL HAVE SIMILAR SIZE, AND SHALL BE OF A FORM TYPICAL FOR THE SPECIES. ANY PLANT DEEMED UNACCEPTABLE BY THE LANDSCAPE ARCHITECT SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND SHALL BE REPLACED WITH AN ACCEPTABLE PLANT OF LIKE TYPE AND SIZE AT THE CONTRACTOR'S OWN EXPENSE. ANY PLANTS APPEARING TO BE UNHEALTHY, EVEN IF DETERMINED TO STILL BE ALIVE, SHALL NOT BE ACCEPTED. THE LANDSCAPE ARCHITECT SHALL BE THE SOLE JUDGE AS TO THE ACCEPTABILITY OF PLANT MATERIAL.
19. ALL TREES SHALL BE GUYED AND WOOD STAKED AS PER DETAILS. NO 'T-STAKES' SHALL BE USED FOR TREES.
20. ALL PLANT MATERIALS SHALL BE TRUE TO TYPE, SIZE, SPECIES, QUALITY, AND FREE OF INJURY, BROKEN ROOT BALLS, PESTS, AND DISEASES, AS WELL AS CONFORM TO THE MINIMUM REQUIREMENTS DESCRIBED IN THE "AMERICAN STANDARD FOR NURSERY STOCK". FOLLOW GREENCO TREE PLANTING RECOMMENDATIONS FOR MINIMUM QUALITY REQUIREMENTS FOR TREES.
21. ALL TREE AND SHRUB BED LOCATIONS ARE TO BE STAKED OUT ON SITE FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
22. ALL TREES PLANTED ADJACENT TO PUBLIC AND/OR PEDESTRIAN WALKWAYS SHALL BE PRUNED CLEAR OF ALL BRANCHES BETWEEN GROUND AND A HEIGHT OF EIGHT (8) FEET FOR THAT PORTION OF THE PLAN LOCATED OVER THE SIDEWALK AND/OR ROAD.
23. ALL PLANT MATERIAL SHALL NOT BE PLANTED PRIOR TO INSTALLATION OF TOPSOIL.
24. ALL PLANT BEDS SHALL BE CONTAINED WITH STEEL EDGER. STEEL EDGER IS NOT REQUIRED ALONG CURBS, WALKS OR BUILDING FOUNDATIONS. ALL EDGING SHALL OVERLAP AT JOINTS A MINIMUM OF 6-INCHES, AND SHALL BE FASTENED WITH A MINIMUM OF 4 PINS PER EACH 10 FOOT SECTION. THE TOP OF ALL EDGING MATERIAL SHALL BE A ROLLED TOP AND 1/2 INCH ABOVE THE FINISHED GRADE OF ADJACENT LAWN OR MULCH AREAS. COLOR: GREEN.
25. THE DEVELOPER, HIS SUCCESSOR, OR ASSIGNEE SHALL BE RESPONSIBLE FOR ESTABLISHING AND CONTINUING A REGULAR PROGRAM OF MAINTENANCE FOR ALL LANDSCAPED AREAS. SEE LANDSCAPE GUARANTEE AND MAINTENANCE NOTE.
26. A 3-FOOT CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF ALL FIRE HYDRANTS.
27. LANDSCAPE CONTRACTOR TO SUBMIT SAMPLES OF MISCELLANEOUS LANDSCAPING MATERIALS TO THE LANDSCAPE ARCHITECTS AND OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO INSTALLATION, IE.; MULCH, EDGER, LANDSCAPE FABRIC, ETC.

MULCHING

28. AFTER ALL PLANTING IS COMPLETE, THE CONTRACTOR SHALL INSTALL A MINIMUM 4" THICK LAYER OF MULCH AS SPECIFIED IN THE PLANTING LEGEND. INSTALL A 4" THICK RING OF DOUBLE SHREDDED CEDAR BARK MULCH AROUND ALL PLANT MATERIAL IN ROCK MULCH BEDS WHERE LANDSCAPING IS SHOWN ON THE PLANS. WOOD MULCH RING SIZE SHALL BE THE CONTAINER SIZE OF THE SHRUBS, PERENNIALS, AND ORNAMENTAL GRASSES. TREE RING SIZE SHALL BE GREEN INDUSTRIES OF COLORADO INDUSTRY STANDARD WIDTH.
29. ALL MULCH SHALL BE HARVESTED IN A SUSTAINABLE MANNER FROM A LOCAL SOURCE.
30. INSTALL DEWITT PRO-5 WEED BARRIER FABRIC UNDER ALL ROCK MULCH SHRUB BEDS SPECIFIED ON THE PLANS ONLY. NO LANDSCAPE FABRIC SHALL BE USED IN WOOD MULCH AREAS. NO PLASTIC WEED BARRIERS SHALL BE SPECIFIED.
31. ABSOLUTELY NO EXPOSED GROUND SHALL BE LEFT SHOWING ANYWHERE ON THE PROJECT AFTER MULCH HAS BEEN INSTALLED.
32. ALL PLANTING AREAS WITH LESS THAN A 4:1 GRADIENT SHALL RECEIVE A LAYER OF MULCH, TYPE AND DEPTH PER PLANS. SUBMIT 1 CUBIC FOOT SAMPLE OF MULCH (ONE SAMPLE PER TYPE) TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION. THE MULCH SHALL BE SPREAD EVENLY THROUGHOUT ALL PLANTING AREAS EXCEPT SLOPES 4:1 OR STEEPER, OR AS OTHERWISE DENOTED ON THE PLAN. ABSOLUTELY NO EXPOSED GROUND SHALL REMAIN IN AREAS TO RECEIVE MULCH AFTER MULCH HAS BEEN INSTALLED.
33. ALL PLANTING AREAS ON SLOPES OVER 4:1 SHALL RECEIVE COCONUT FIBER EROSION CONTROL NETTING FROM ROLLS. NETTING SHALL BE #CT-125, AS MANUFACTURED BY NORTH AMERICAN GREEN (OR EQUAL). INSTALL AND STAKE PER MANUFACTURER'S SPECIFICATIONS. SEE ALSO THE CIVIL ENGINEER'S EROSION CONTROL PLAN.

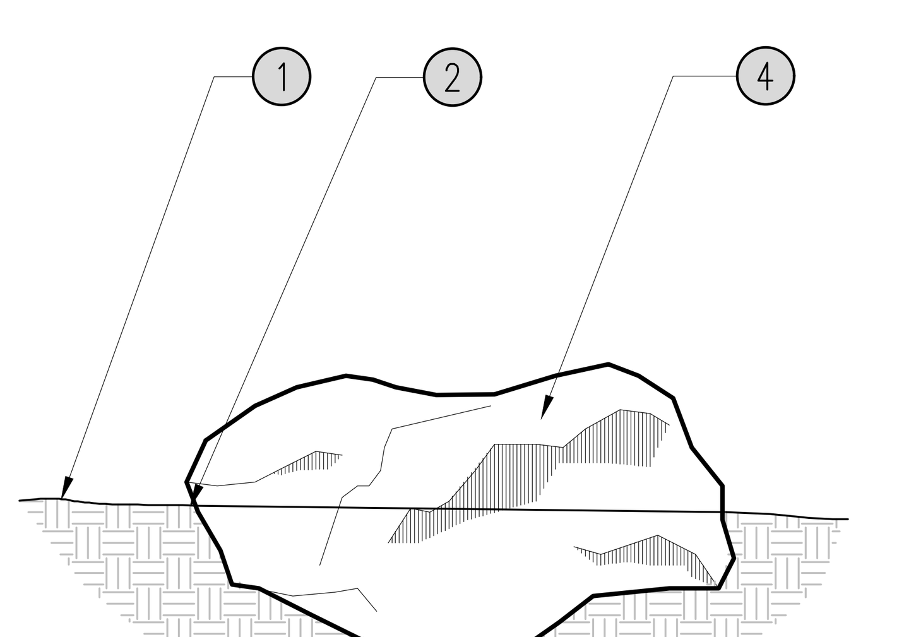
PLANT SCHEDULE

SYMBOL	CODE	QTY	COMMON NAME	BOTANICAL NAME	CONT.	CAL / SIZE	HT. X SPD.	WATER USE
DECIDUOUS TREES								
	ACTR	1	MAIN STREET® SHANTUNG MAPLE	ACER TRUNCATUM 'WF-AT1'	B&B	2" CAL	30`X25`	LOW
EVERGREEN TREES								
	PIJG	6	JEANGENIE COLORADO BLUE SPRUCE	PICEA PUNGENS 'MONEVA' PPAF	B&B	6` HT	15`X8`	LOW
ORNAMENTAL TREES								
	ACTM	4	HOT WINGS TATARIAN MAPLE	ACER TATARICUM 'GARANN' TM	B&B	1.5" CAL	25`X20`	MODERATE
	AMGR	6	AUTUMN BRILLIANCE APPLE SERVICEBERRY	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE'	B&B	1.5" CAL	20`X10`	MODERATE
	MACO	5	CORALBURST CRABAPPLE	MALUS X 'CORALCOLE' TM	B&B	1.5" CAL	12`X10`	LOW
	MASP	1	SPRING SNOW CRABAPPLE	MALUS X 'SPRING SNOW'	B&B	1.5" CAL	20`X15`	LOW
	PRCE	3	CRIMSON POINTE FLOWERING PLUM	PRUNUS X CERASIFERA 'CRIPOIZAM'	B&B	1.5" CAL	25`X6`	HIGH

SYMBOL	CODE	QTY	COMMON NAME	BOTANICAL NAME	CONT.	HT. X SPD.	WATER USE	LIGHT REQ.
DECIDUOUS SHRUBS								
	AMCS	3	LEADPLANT	AMORPHA CANESCENS	#5 CONT.	4`X4`	VERY LOW	SUN/PART SHADE
	CACL	9	BLUE MIST SPIREA	CARYOPTERIS X CLANDONENSIS 'BLUE MIST'	#5 CONT.	3`X3`	VERY LOW	SUN
	CHNA	9	RABBITBRUSH	CHRYSOTHAMNUS NAUSEOSUS	#5 CONT.	4`X4`	VERY LOW	SUN
	PHOP	3	LITTLE DEVIL DWARF NINEBARK	PHYSOCARPUS OPULIFOLIUS 'DONNA MAY' TM	#5 CONT.	4`X4`	LOW	SUN
	PHOM	7	DIABOLO NINEBARK	PHYSOCARPUS OPULIFOLIUS 'MONLO' TM	#5 CONT.	8`X8`	LOW	SUN
	PBEP	20	PAWNEE BUTTES SAND CHERRY	PRUNUS BESSEYI 'P011S' TM	#5 CONT.	1.5`X6`	VERY LOW	SUN
	RHAR	4	GRO-LOW FRAGRANT SUMAC	RHUS AROMATICA 'GRO-LOW'	#5 CONT.	3`X8`	LOW	SUN
	SPJL	14	LITTLE PRINCESS JAPANESE SPIREA	SPIRAEA JAPONICA 'LITTLE PRINCESS'	#5 CONT.	2`X3`	LOW	SUN/PART SHADE
	SYPA	9	MISS KIM KOREAN LILAC	SYRINGA PATULA 'MISS KIM'	#5 CONT.	5`X5`	VERY LOW	SUN/PART SHADE
EVERGREEN SHRUBS								
	JNCH	6	ARMSTRONG JUNIPER	JUNIPERUS CHINENSIS 'ARMSTRONGII'	#5 CONT.	4`X4`	VERY LOW	SUN
	JNHY	15	CREEPING JUNIPER	JUNIPERUS HORIZONTALIS 'YOUNGSTOWN'	#5 CONT.	1.5`X6`	VERY LOW	SUN/PART SHADE
	PIMM	1	MOPS MUGO PINE	PINUS MUGO 'MOPS'	#5 CONT.	5`X6`	LOW	SUN
ORNAMENTAL GRASSES								
	CAAK	8	KARL FOERSTER FEATHER REED GRASS	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	#1 CONT.	5`X2`	LOW	SUN
	SCSC	17	LITTLE BLUESTEM	SCHIZACHYRIUM SCOPARIUM	#1 CONT.	3`X2`	VERY LOW	SUN

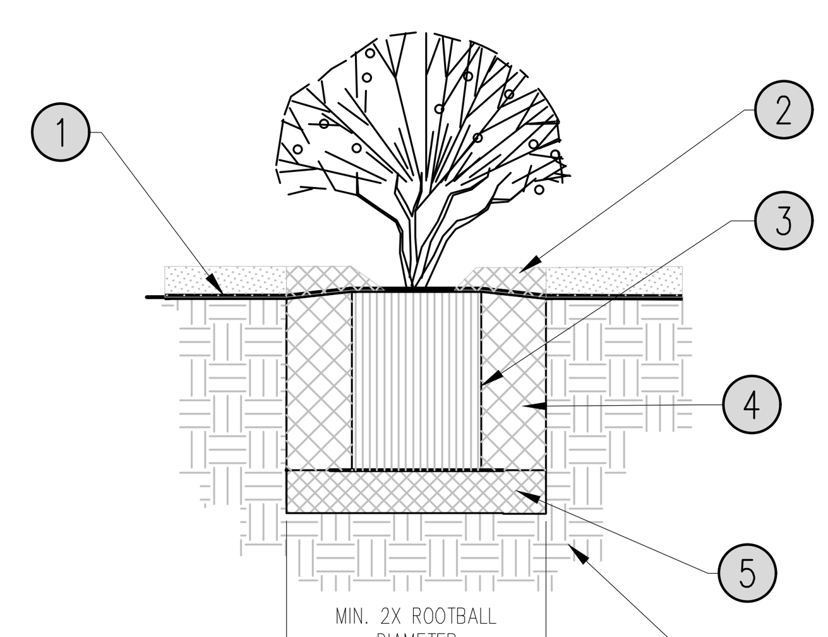
SYMBOL	CODE	QTY	COMMON NAME	BOTANICAL NAME	TYPE
MULCH					
	RMULCH1	9,587 SF	2"-4" GRAY ROCK COBBLE MULCH	2"-4" GRAY ROCK COBBLE MULCH	MULCH
	RMULCH2	2,605 SF	4"-6" GRAY ROCK COBBLE MULCH	4"-6" GRAY ROCK COBBLE MULCH	MULCH

BOULDER	CODE	QTY	COMMON NAME	BOTANICAL NAME
	BOULDER	7	2'-3' GRAY GRANITE BOULDER	2'-3' GRAY GRANITE BOULDER



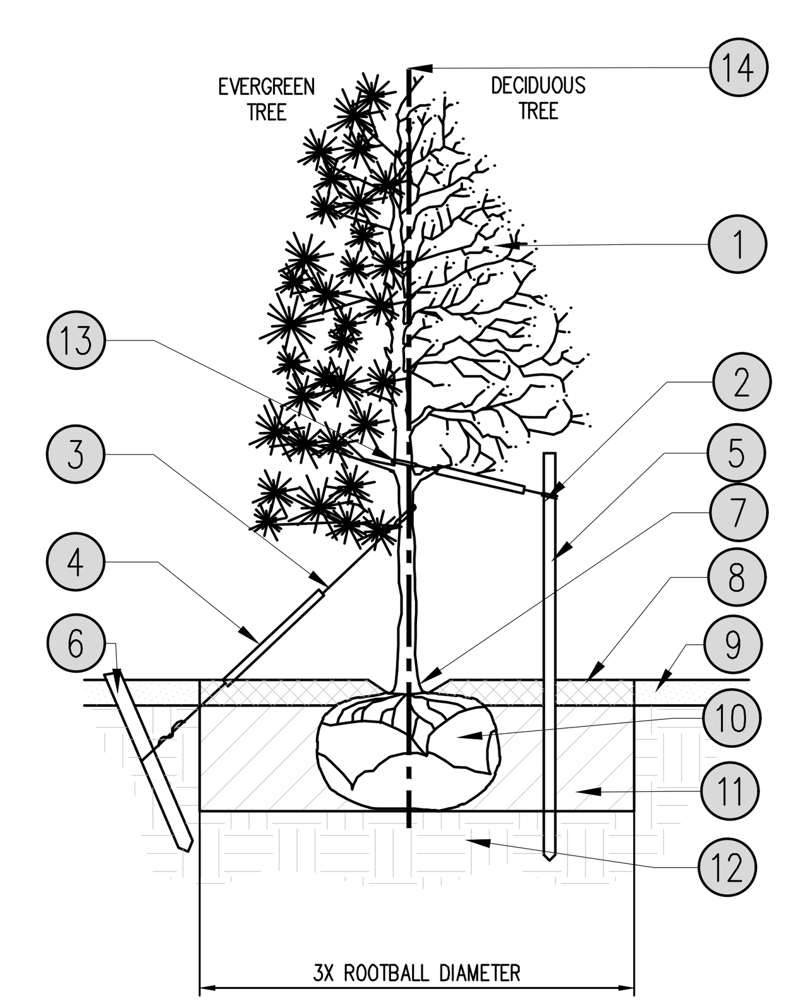
1. FINISH GRADE
2. 1/3 TO 1/2 OF BOULDER SHALL BE BURIED
3. COMPACTED SUBGRADE
4. HARVEST BOULDERS FROM A LOCAL SOURCE, REFERENCE SPECIFICATIONS FOR TYPE & PLANS FOR LOCATIONS.

1 LANDSCAPE BOULDER
N.T.S.



1. FINISH GRADE. SEE PLANTING PLAN FOR GROUND COVER TREATMENT
2. SHREDDED BARK MULCH, 3" MIN. DEPTH, ROUGHLY THE EXTENTS OF ROOTBALL
3. PLANT ROOT BALL. SET TOP ROOTBALL 2" ABOVE ADJACENT GRADE. IN BERMED AREAS SET ROOTBALL 2" ABOVE LOWER ADJACENT GRADE - INSTALL WATER RING (2 - 3" HT.)
4. BACKFILL MIX (PER PLANTING SPECIFICATIONS). AMEND AND FERTILIZE ONLY AS RECOMMENDED IN SOIL FERTILITY ANALYSIS. JET BACKFILL WITH WATER TO ELIMINATE VOIDS.
5. COMPACTED BACKFILL MIX (75%).
6. UNDISTURBED NATIVE SOIL.

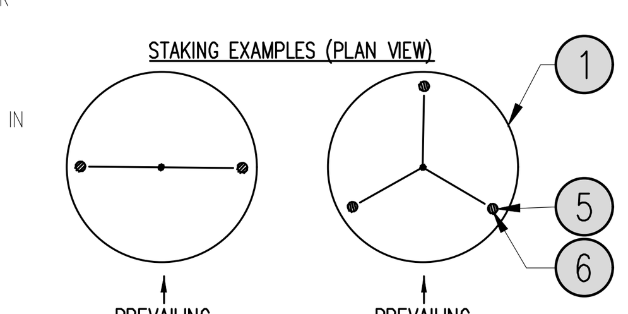
2 SHRUB/PERENNIAL PLANTING
N.T.S.



1. TREE CANOPY
2. NYLON TREE STRIPS AT ENDS OF WIRES - SECURE TO STAKE OR DEADEN WITH NAILS
3. 12 GAUGE GALVANIZED WIRE. SECURE TO TRUNK JUST ABOVE LOWEST MAJOR BRANCHES.
4. 24"X3/4" P.V.C. MARKERS OVER WIRES.
5. PRESSURE-TREATED WOOD STAKE, 2" DIA. EXTEND STAKES 12" MIN. INTO UNDISTURBED SOIL.
6. PRESSURE-TREATED WOOD DEADMEN. TWO PER TREE (MIN.). BURY OUTSIDE OF PLANTING PIT AND 18" MIN. INTO UNDISTURBED SOIL.
7. TRUNK FLARE
8. WOOD MULCH TREE RING 3' DIA. MIN. TYPE & DEPTH PER PLANS. DO NOT PLACE MULCH WITHIN 3" OF TRUNK.
9. FINISH GRADE. SEE PLANTING PLAN FOR GROUND COVER TREATMENT
10. ROOT BALL - SEE NOTE 3, THIS DETAIL
11. BACKFILL. AMEND & FERTILIZE ONLY AS RECOMMENDED IN SOIL FERTILITY ANALYSIS.
12. UNDISTURBED NATIVE SOIL
13. SOFT VELCRO, OR OTHER FABRIC WRAP
14. CENTRAL LEADER, SEE PLANTING NOTES

NOTES:
1. SCARIFY SIDES OF PLANTING PIT PRIOR TO SETTING TREE.
2. REMOVE EXCESS SOIL APPLIED ON TOP OF THE ROOTBALL THAT COVERS THE ROOT FLARE. THE PLANTING HOLE DEPTH SHALL BE SUCH THAT THE ROOTBALL RESTS ON UNDISTURBED SOIL, AND THE ROOT FLARE IS 3"-5" ABOVE FINISH GRADE.
3. CUT OFF BOTTOM 1/3 OF WIRE BASKET BEFORE PLACING TREE IN HOLE, CUT OFF AND REMOVE REMAINDER OF BASKET AFTER TREE IS SET IN HOLE, REMOVE ALL NYLON TIES, TWINE, ROPE, AND OTHER PACKING MATERIAL. REMOVE ALL BURLAP FROM AROUND ROOTBALL.
4. TREE WRAP IS NOT TO BE USED ON ANY NEW PLANTINGS, EXCEPT IN LATE FALL PLANTING SITUATIONS, AND ONLY THEN AFTER CONSULTATION WITH THE LANDSCAPE ARCHITECT. WHEN WRAPPING TREE, WRAP FROM TRUNK FLARE TO LOWEST MAJOR BRANCH.
5. REMOVE ALL NURSERY STAKES AFTER PLANTING.
6. FOR TREES OVER 3" CALIPER, USE THREE STAKES OR DEADMEN (AS APPROPRIATE), SPACED EVENLY AROUND TREE.
7. DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING.

STAKING EXAMPLES (PLAN VIEW)



3 TREE PLANTING
N.T.S.

Galloway Responses

Revised

Per comments from Enumerations:
Store address should be 7825 Meridian Park Drive , Gas Canopy is 7829 Meridian Park Drive.

PLANNING AND COMMUNITY DEVELOPMENT DIRECTOR: ____________________

Galloway
1155 Kelly Johnson Blvd., Suite 305
Colorado Springs, CO 80920
719.900.7220
GallowayUS.com

PRELIMINARY
NOT FOR BIDDING
NOT FOR CONSTRUCTION

MURPHY OIL USA, INC.
200 PEACH STREET
EL DORADO, AR 71730

MURPHY USA

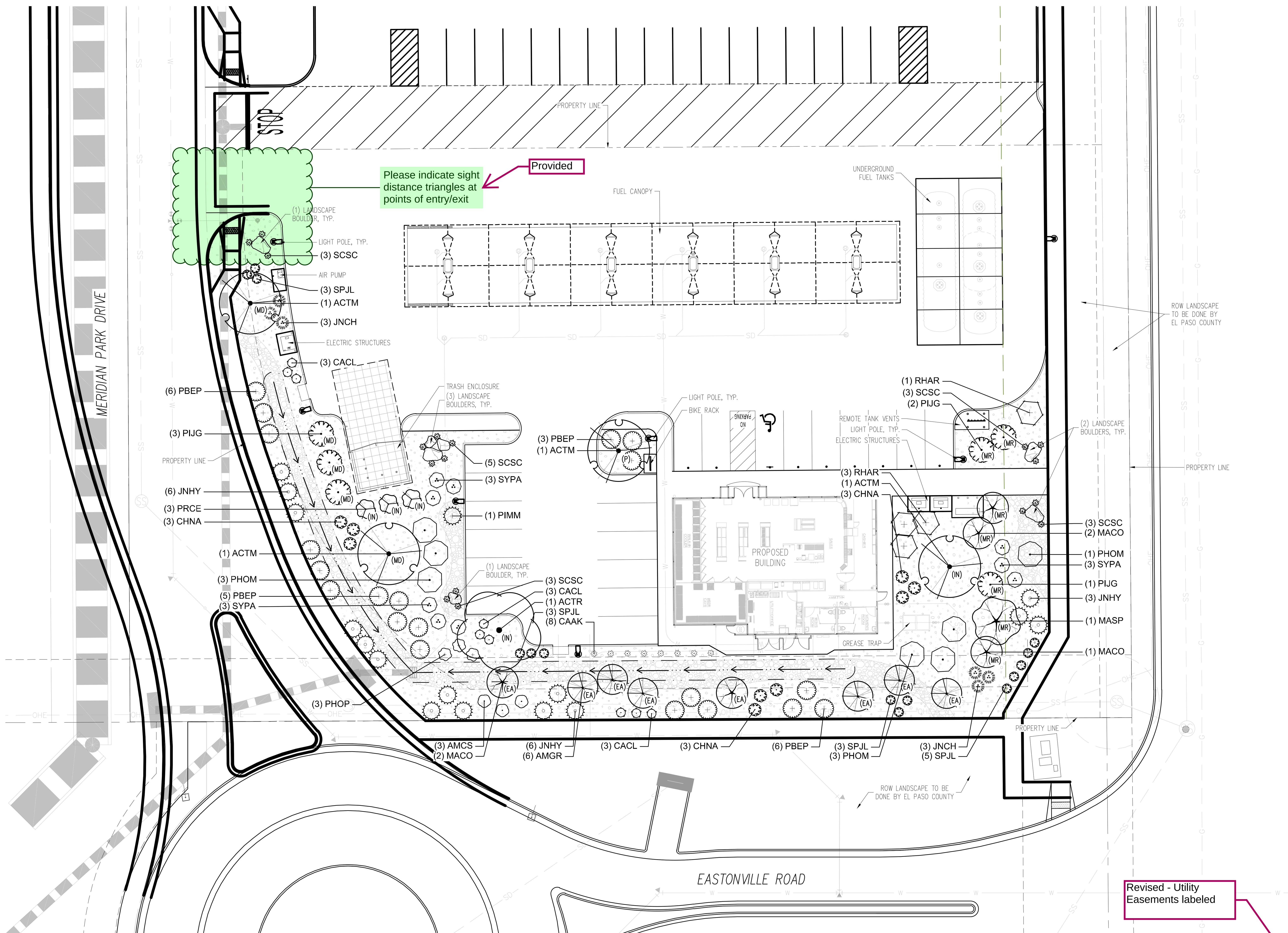
SITE DEVELOPMENT PLAN
MURPHY OIL USA #7968
XXXX MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

#	Date	Issue / Description	Init.

Project No:	MOC000099
Drawn By:	TR
Checked By:	JS
Date:	FEBRUARY 9, 2024

LANDSCAPE PLAN & SCHEDULE

LP-1



Please refer to VR2321 for locations of utility easements and depict the easements on this plan.

N

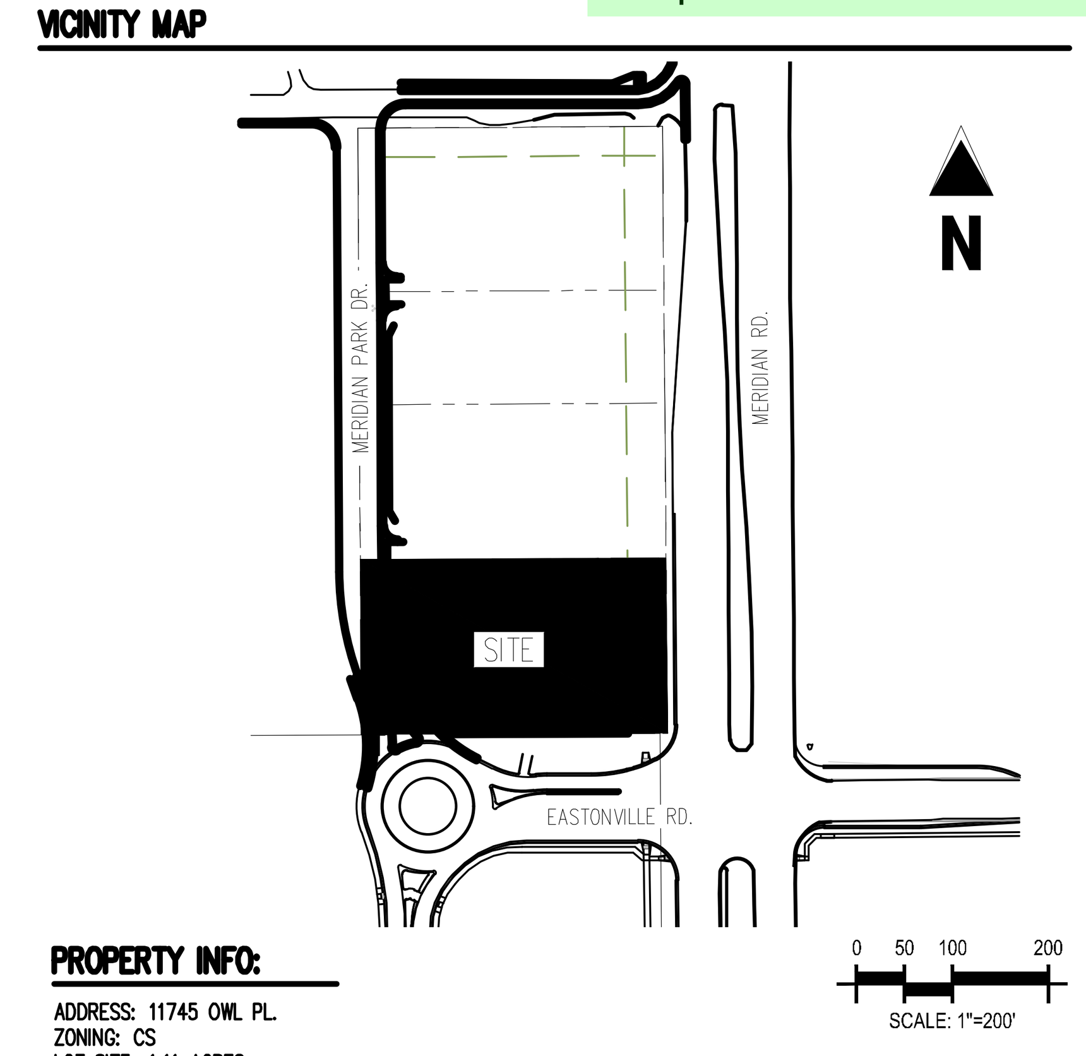
0 10 20
SCALE: 1"=20'

LANDSCAPE REQUIREMENTS

CODE SECTION	CATEGORY	FORMULA	CALCULATION	REQUIRED	PROVIDED	ABBREVIATION DENOTED ON PLAN
6.2.2 (B) (1)	ROADWAY LANDSCAPING (MERIDIAN RD; MINOR ARTERIAL)	20' LANDSCAPE SETBACK; 1 TREE / 25 LF	182 LF / 25	7 TREES	7 TREES*; 0 SHRUB SUBSTITUTES	(MR)
6.2.2 (B) (1)	ROADWAY LANDSCAPING (MERIDIAN PARK DR; NON-ARTERIAL)	10' LANDSCAPE SETBACK; 1 TREE / 30 LF	158 LF / 30	5 TREES	5 TREES; 0 SHRUB SUBSTITUTES	(MD)
6.2.2 (B) (1)	ROADWAY LANDSCAPING (EASTONVILLE RD; NON-ARTERIAL)	10' LANDSCAPE SETBACK; 1 TREE / 30 LF	184 LF / 30	8 TREES	8 TREES; 0 SHRUB SUBSTITUTES	(EA)
6.2.2 (C) (1)	PARKING LOT LANDSCAPING	1 TREE / 15 PARKING SPACES	21 PARKING SPACES / 15	1 TREES	1 TREES	(P)
6.2.2 (C) (5)	PARKING LOT SCREENING	2/3 OF PARKING LOT SCREENED	55 LF x 0.66	36 LF	43 LF	NA
6.2.2 (E) (2)	MINIMUM LANDSCAPE AREA	5% OF LOT TO BE LANDSCAPED	46,042 SF** x 0.05	2,302 SF	12,216 SF	NA
6.2.2 (E) (2)	MINIMUM LANDSCAPE AREA	1 TREE / 500 SF	2,302 SF / 500	5 TREES	5 TREES; 0 SHRUB SUBSTITUTES	(IN)
6.2.2 (F) (2)	REQUIRED LIVE GROUNDCOVER	75% OF REQUIRED LANDSCAPE AREAS TO BE LIVING GROUNDCOVER	2,302 SF x 0.75	1,727 SF	1,832 SF (80%)	NA

* TREES LOCATED OUTSIDE SETBACK DUE TO EASEMENT CONFLICT
** TOTAL LOT AREA DOES NOT INCLUDE BUILDING FOOTPRINT

VICINITY MAP



PROPERTY INFO:

ADDRESS: 11745 OWL PL.
ZONING: CS
LOT SIZE: 1.11 ACRES
PARCEL NUMBER: 5301001015

PLANT LEGEND

SYMBOL	CODE	QTY	COMMON NAME	BOTANICAL NAME
DECIDUOUS TREES				
	ACTR	1	MAIN STREET® SHANTUNG MAPLE	ACER TRUNCATUM 'WF-AT1'
EVERGREEN TREES				
	PIJG	6	JEANGENIE COLORADO BLUE SPRUCE	PICEA PUNGENS 'MONEVA' PPAF
ORNAMENTAL TREES				
	ACTM	4	HOT WINGS TATARIAN MAPLE	ACER TATARICUM 'GARANN' TM
	AMGR	6	AUTUMN BRILLIANCE APPLE SERVICEBERRY	AMELANCHIER X GRANDIFLORA 'AUTUMN BRI
	MACO	5	CORALBURST CRABAPPLE	MALUS X 'CORALCOLE' TM
	MASP	1	SPRING SNOW CRABAPPLE	MALUS X 'SPRING SNOW'
	PRCE	3	CRIMSON POINTE FLOWERING PLUM	PRUNUS X CERASIFERA 'CRIPOIZAM'

SYMBOL	CODE	QTY	COMMON NAME	BOTANICAL NAME
DECIDUOUS SHRUBS				
	AMCS	3	LEADPLANT	AMORPHA CANESCENS
	CACL	9	BLUE MIST SPIREA	CARYOPTERIS X CLANDONENSIS 'BLUE MIST'
	CHNA	9	RABBITBRUSH	CHRYSOTHAMNUS NAUSEOSUS
	PHOP	3	LITTLE DEVIL DWARF NINEBARK	PHYSOCARPUS OPULIFOLIUS 'DONNA MAY' TI
	PHOM	7	DIABOLO NINEBARK	PHYSOCARPUS OPULIFOLIUS 'MONLO' TM
	PBEP	20	PAWNEE BUTTES SAND CHERRY	PRUNUS BESSEYI 'P011S' TM
	RHAR	4	GRO-LOW FRAGRANT SUMAC	RHUS AROMATICA 'GRO-LOW'
	SPJL	14	LITTLE PRINCESS JAPANESE SPIREA	SPIRAEA JAPONICA 'LITTLE PRINCESS'
	SYPA	9	MISS KIM KOREAN LILAC	SYRINGA PATULA 'MISS KIM'
EVERGREEN SHRUBS				
	JNCH	6	ARMSTRONG JUNIPER	JUNIPERUS CHINENSIS 'ARMSTRONGII'
	JNHY	15	CREEPING JUNIPER	JUNIPERUS HORIZONTALIS 'YOUNGSTOWN'
	PIMM	1	MOPS MUGO PINE	PINUS MUGO 'MOPS'
ORNAMENTAL GRASSES				
	CAAK	8	KARL FOERSTER FEATHER REED GRASS	CALAMAGROSTIS X ACUTIFLORA 'KARL FOER
	SCSC	17	LITTLE BLUESTEM	SCHIZACHYRIUM SCOPARIUM

SYMBOL	CODE	QTY	COMMON NAME	BOTANICAL NAME
MULCH				
	RMULCH1	9,587 SF	2"-4" GRAY ROCK COBBLE MULCH	2"-4" GRAY ROCK COBBLE MULCH
	RMULCH2	2,605 SF	4"-6" GRAY ROCK COBBLE MULCH	4"-6" GRAY ROCK COBBLE MULCH

BOULDER	CODE	QTY	COMMON NAME	BOTANICAL NAME
	BOULDER	7	2'-3' GRAY GRANITE BOULDER	2'-3' GRAY GRANITE BOULDER

Is this a typo? Is it supposed to be either rock cobble or mulch?

Mulch would not be ideal because it is likely to get washed to the area inlet and into Pond SR4.

Rock cobble would be fine but you'd have to

REVISED - specifications changed to be cobble

Revised - Specification updated to Rock Cobble

Per comments from Enumerations:
Store address should be 7825 Meridian Park Drive , Gas Canopy is 7829 Meridian Park Drive.

Revised

CAUTION – NOTICE TO CONTRACTOR

1. ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.

811 Know what's below. Call before you dig.

D COMMUNITY DEVELOPMENT DIRECTOR:

Galloway
1155 Kelly Johnson Blvd., Suite 305
Colorado Springs, CO 80920
719.900.7220
GallowayUS.com

PRELIMINARY
NOT FOR BIDDING
NOT FOR CONSTRUCTION

MURPHY OIL USA, INC.
200 PEACH STREET
EL DORADO, AR 71730
MURPHY USA

SITE DEVELOPMENT PLAN
MURPHY OIL USA #7968
XXXX MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

#	Date	Issue / Description	Init.

Project No: MOC000099
Drawn By: TR
Checked By: JS
Date: FEBRUARY 9, 2024

LANDSCAPE NOTES & DETAILS

LP-2

Galloway
5500 Greenwood Plaza Blvd., Suite 200
Greenwood Village, CO 80111
303.770.8884 • GallowayUS.com

2/12/24

Letter of Intent

To: El Paso County
Community Development

From: Galloway & Company, Inc
Brynhildr Halsten, PLA

Re: Murphy USA 11745 Owl Pl Gas Station & Convenience Store Site Development Plan

Owner: **Meridian & Owl X LLC**
PO Box 220
Scottsdale AZ, 85252
Brian Zurek
Brian@doubletreeventures.com
480.313.2724

Galloway Responses

Applicant: **Murphy USA**
200 E. Peach Street
El Dorado, AR 71730
Grant Dennis, PE
Grant.Dennis@MurphyUSA.com
870.315.3430

Consultant: **Galloway & Company Inc.**
1155 Kelly Johnson Blvd., Suite 305
Colorado Springs, CO 80920
Brynhildr Halsten, PLA
brynhildrhalsten@gallowayus.com
719.900.7220

Revised

PCD File: **PPR24-xxx** 004

PPR244

Site Details:

TSN: TBD with recordation of Owl Marketplace Filing No. 1 Final Plat (County File # VR2321)
Address: TBD with recordation of Final Plat (County File # VR2321)
Acreage: ±1.1 Acres (Lot 1, Owl Place Marketplace Filing No. 1)
Zoning: CS
Current Use: Mobile Home on Lot 15 Falcon Ranchettes TSN 5301001015

Revised

This is not part of the subdivision name. Please remove.

Per comments from Enumerations:
Store address should be 7825 Meridian Park Drive , Gas Canopy is 7829 Meridian Park Drive.

Revised

REQUEST

Galloway, on behalf of Murphy USA, requests approval of a Site Development Plan on approximately 1.1 Acres northwest of the intersection of Meridian Road and Eastonville Road. Murphy USA, is proposing an approximately 2,824 SF convenience store with fueling facility including Multi Product Fuel Dispensers with associated on-site improvements to include 21 parking spaces with 1 ADA stall, along with landscaping requirements per the El Paso County Code.

SITE DESCRIPTION

Location & Land Use

The Project is in El Paso County west of Meridian Road a divided, 4 lane road with commercial and residential uses and north of Owl Place. A proposed self storage facility is proposed to the north, residential lots are located to the west and existing/future commercial to the south. Bent Grass East Commercial is to the north and Falcon Marketplace to the south. The site is currently vacant. The property slopes from the north to the south. The site is mostly native prairie grassland and weeds with trees sparsely located around the site.

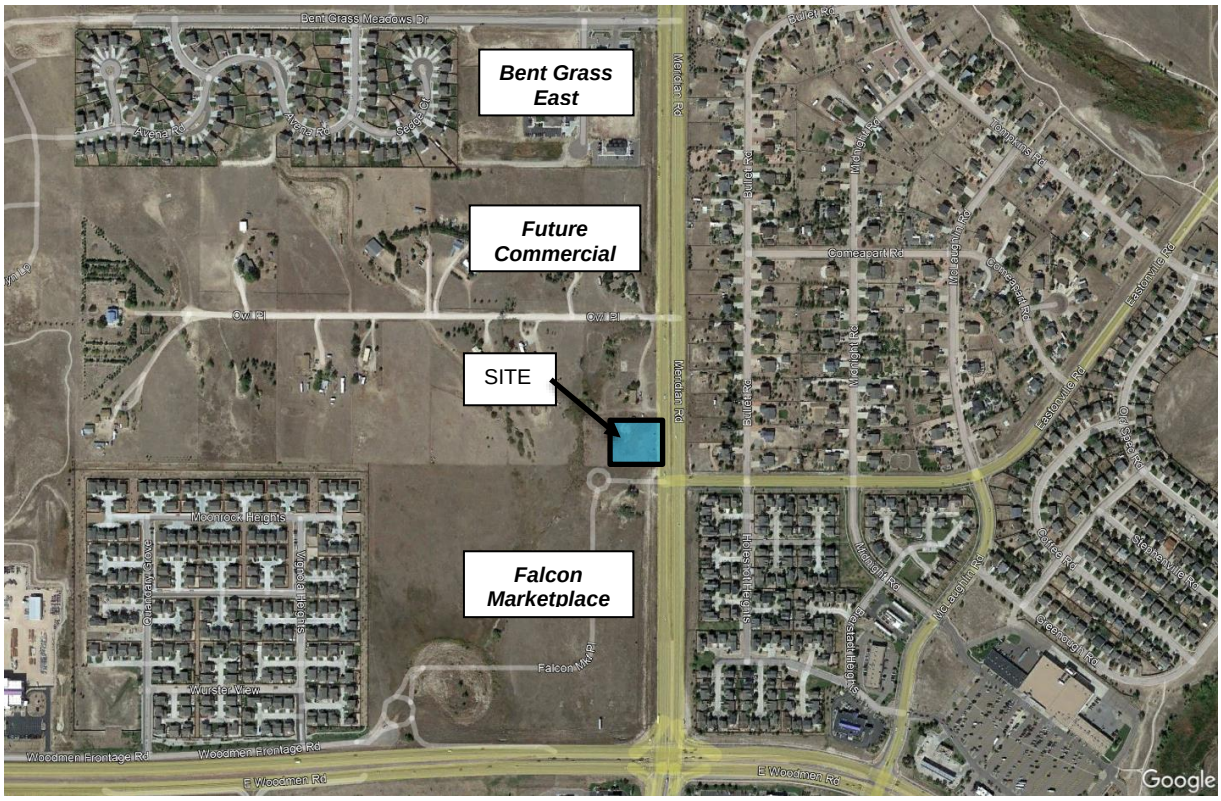


Figure 1 – Project Location

Zoning:
The property is zoned CS. West and north of the site is within the CS zoning. South is within the CR zoning. The residential area to the east is within the RR-0.5 zoning.

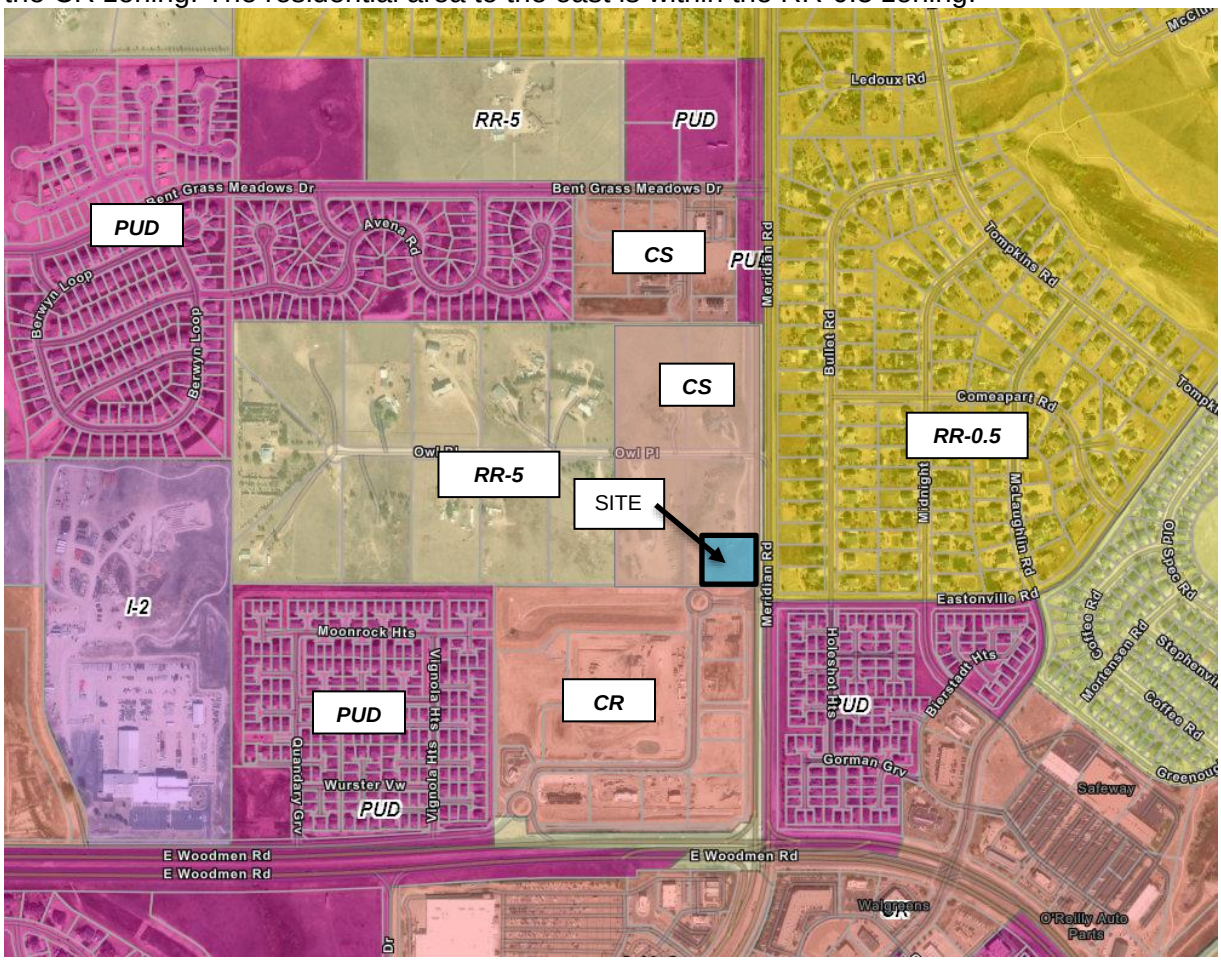


Figure 2 – Zoning

PROJECT DESCRIPTION & CONTEXT

This Site Development Plan is requested to facilitate the development of a convenience store and fuel station. As the area surrounding the original Falcon Ranchettes subdivision has developed, the land uses have redeveloped into a more intense urban development that utilizes urban services. The proposed convenience store and fuel station matches the urban character and intensity while accommodating the increase in population with commercial services. The intended convenience store and fuel station would provide additional commercial services to the growing neighborhoods in the Falcon area.

The subject property is currently vacant and surrounded by a mix of residential and commercial uses. A lighting plan has been provided with the Site Development Plan set. Overall site lighting includes 20' site pole fixtures and building mounted. All fixtures will be downcast. Landscape screening and buffering measures are proposed to enhance aesthetics and reduce visual impacts. The development will meet all building setback and maximum lot coverage requirements as shown on the Site Development Plan Site Plan.

DEFINITION OF PROPOSED USE AND SPECIFIC DEVELOPMENT STANDARDS

Definition:

Convenience Stores are permitted in the CS zone district, and are defined as:

> "*An establishment for the purpose of offering for sale to the neighborhood in which it is located such items as groceries, ready to eat food, over the counter drugs, and sundries. A convenience store may include retail sale of gasoline and other petroleum products."*

Gas Stations are permitted in the CS zone district, and are defined as:

> "*A property where the retail sale of gasoline, diesel fuel, oil, or other fuel for vehicles and which may include, as an incidental use, the retail sale and installation of vehicle accessories, the making of minor repairs, and facilities for washing and servicing of not more than 3 vehicles completely enclosed in a structure."*

Specific Development Standards:

There are no specific development standards for convenience stores and gas stations, such use is permitted in the CS zone district.

UTILITIES

Electric:

Electric service will be provided by Mountain View Electric. A commitment letter was included with the Owl Marketplace replat application. In the letter, Mountain View Electric states that these services are available to meet the demands of the new development.

Water:

The proposed development will be served by a central water supply system provided by Woodmen Hills Metropolitan District. A commitment letter was included with the Owl Marketplace replat application.

Wastewater:

The proposed development will be served by a central sanitary sewer system provided by Woodmen Hills Metropolitan District. A commitment letter was included with the Owl Marketplace replat application.

Natural Gas:

Natural gas service will be provided by Colorado Springs Utilities. A commitment letter was included with the Owl Marketplace replat application. In the letter, CSU states that these services are available to meet the demands of the new development.

ACCESS AND TRAFFIC

Access:

Upon completion, the proposed site will have a shared access onto Meridian Park Drive with the proposed development to the north within the Owl Marketplace commercial development.

Traffic:

A Traffic Conformance Letter is included with this Site Development Plan application. The Traffic Letter provides recommendations for improvements to existing surrounding streets

that will support this development. The Traffic Letter analyzed the proposed development within the context of the Traffic Impact Studies prepared by SM Rocha for the Rezone Map Amendment and the Owl Marketplace Replat. The Traffic Letter found that the project will have minimal effect on the existing and future roadway network and any recommendations to improve failing intersections are the responsibility of El Paso County to be implemented.

PARKING

Parking requirements for gas stations are based on the number of service bays (MPDs) and number of employees. The development consists of 6 MPDs and will have a maximum of 3 employee on the premises. The Land Development Code requires 3 spaces per bay or stall, plus 1 space per employee on maximum shift. Therefore, a total of 21 parking spaces are required. The development provides a total of 21 parking spaces, including 1 ADA van accessible space

STORMWATER

Is this referring to the existing 10'x6' storm pipe that is beneath Meridian Park Drive? If so, clarify that that was installed as part of the overall development of all 4 lots, not for the development of this specific Lot 1.

Revised to clarify the overall development

There is an existing stormwater conveyance ditch on the east property line of the site that conveys flows from north to south along Meridian Road. As a part of this development, it is proposed to capture and route the off-site flows via conduit through the site, matching the existing outfall location. Stormwater will be treated and released in accordance with County standards, following historic drainage patterns. All on-site drainage improvements will be owned and maintained by the owner of the development.

A Drainage Letter is included with this submittal. The purpose of this report is to:

1. Identify on-site and off-site drainage patterns.
2. Design storm water facilities to collect and convey storm runoff from the proposed development to appropriate discharge and/or detention locations.
3. Design water quality and detention facilities to control discharge release rates to below historic.
4. Demonstrate compliance with surrounding major drainage basin planning studies, master development drainage plans, and flood insurance studies.

ENVIRONMENTAL

Wetlands & Floodplain:

There are no wetlands within the project boundaries. The site is located in Zone X and Zone A (FEMA Floodplain Map No. 08041C0553G dated December 7, 2018). The site is undergoing a Letter of Map Revision (“LOMR”) from FEMA to remove the proposed development from the area designated as a floodway or special flood hazard area on FEMA’s maps

Wildlife:

In general, the site provides poor quality habitat for wildlife. The site is surrounded by urban development and has been previously disturbed and thus does not provide ideal habitat for wildlife species. Impact of development on potential wildlife habitat will be negligible and there are no known protected species on the site. The site is not suitable habitat for any Federally-listed threatened and endangered species.

Wildfire:

The primary wildland fuel type is grassland. The Colorado State Forest Service has determined a moderate-high wildfire hazard potential and listed a moderate risk, as this area is currently undisturbed grassland. Development of the site will reduce available wildfire fuels in this area.

LANDSCAPE, BUFFERING & SCREENING

Perimeter Landscape and Buffering:
Landscaping at the perimeter of the property is required based on proximity to right of way and will be provided below:

Street Name	Street Classification	Landscape Width	Number of Trees
Meridian Road	Expressway/Principal Arterial	25’	1 per 20 feet
Eastonville Road	Non-Arterial	10’	1 per 30 feet
Meridian Park Drive	Non-Arterial	10’	1 per 30 feet

Parking Lot Landscaping:
Parking lots are required to be screened to a minimum height of 3’ from view of adjacent roads and properties with differing land use. Two-thirds of the lot line with parking that abuts the street/differing land use must be screened. This screening is accomplished with trees and shrubs.

Internal Landscaping:
A minimum of 5% of the lot area is required to be landscaped, and include one tree per 500 square feet of required landscape area. With a development area of 48,352 sq ft, 2,418 sq ft must be landscaped, and must include 5 trees.

Conclusion
The Site Development Plan is harmonious and consistent with the surrounding land uses. The Proposed Development complies with the requirements of the zone district in which it is located, is consistent with the intent and purpose of the Zoning Code and is compatible with the land uses surrounding the site.

Please contact me at 719-900-7220 with any questions or comments.

Sincerely,
GALLOWAY
Brynhildr Halsten, PLA

Discuss if this property will be included in the Woodmen Road Metro District or not.
Discuss payment of Road Impact fees

Post Construction Stormwater Management Applicability Evaluation Form

This form is to be used by the Engineer of Record to evaluate applicable construction activities to determine if the activities are eligible for an exclusion to permanent stormwater quality management requirements. Additionally Part III of the form is used to identify and document which allowable control measure design standard is used for the structure.

Revised.

add: PPR244

Revised.

Revise to "N"

Part I. Project Information	
1. Project Name: Murphy USA Fuel Station & Convenience Store	
2. El Paso County Project #: EA2377	**3. ESQCP #:**
4. Project Location: Falcon, CO	**Project Location in MS4 Permit Area (Y or N):** Y
5. Project Description: Located NEC of Meridian Park Drive & Eastonville Rd, project includes grading, utilities, storm drain, swales, and concrete paving, to support a fuel station and convenience store.	
If project is located within the El Paso County MS4 Permit Area, please provide copy of this completed form to the Stormwater Quality Coordinator for reporting purposes; and save completed form with project file.	

Part II. Exclusion Evaluation: Determine if Post-Construction Stormwater Management exclusion criteria are met. Note: Questions A thru K directly correlate to the MS4 permit Part I.E.4.a.i (A) thru (K). If Yes, to any of the following questions, then mark Not Applicable in Part III, Question 2.

Questions	Yes	No	Not Applicable	Notes:
A. Is this project a "Pavement Management Site" as defined in Permit Part I E.4.a.i.(A)?		X		This exclusion applies to "roadways" only. Areas used primarily for parking or access to parking are not included.
B. Is the project "Excluded Roadway Development"?				
• Does the site add less than 1 acre of paved area per mile?		X		
• Does the site add 8.25 feet or less of paved width at any location to the existing roadway?		X		
C. Does the project increase the width of the existing roadway by less than 2 times the existing width?		X		For redevelopment of existing roadways, only the area of the existing roadway is excluded from post-construction requirements when the site does not increase the width by two times or more. ***This exclusion only excludes the original roadway area it does NOT apply to entire project.***
D. Is the project considered an aboveground and Underground Utilities activity?		X		Activity can NOT permanently alter the terrain, ground cover or drainage patterns from those present prior to the activity
E. Is the project considered a "Large Lot Single-Family Site"?		X		Must be a single-residential lot or agricultural zoned land, ≥ 2.5 acres per dwelling and total lot impervious area < 10 percent.

Questions (cont'd)	Yes	No	Not Applicable	Notes
F. Do Non-Residential or Non-Commercial Infiltration Conditions exist? Post-development surface conditions do not result in concentrated stormwater flow or surface water discharge during an 80th percentile stormwater runoff event.		X		Exclusion does not apply to residential or commercial sites for buildings. A site specific study is required and must show: rainfall and soil conditions; allowable slopes; surface conditions; and ratios of imperviousness area to pervious area.
G. Is the project land disturbance to Undeveloped Land where undeveloped land remains undeveloped following the activity?		X		Project must be on land with no human made structures such as buildings or pavement.
H. Is the project a Stream Stabilization Site?		X		Standalone stream stabilization projects are excluded.
I. Is the project a bike or pedestrian trail?		X		Bike lanes for roadways are not included in this exclusion, but may qualify if part of larger roadway activity is excluded in A, B or C above.
J. Is the project Oil and Gas Exploration?		X		Activities and facilities associated with oil and gas exploration are excluded.
K. Is the project in a County Growth Area?				Note, El Paso County does not apply this exclusion. All Applicable Construction Activity in El Paso County must comply the Post-Construction Stormwater Management criteria.

Part III. Post Construction (Permanent) Stormwater Control Determination		
Questions	**Yes**	**No**
1. Is project an Applicable Construction Activity?	X	
2. Do any of the Exclusions (A-K in Part II) apply?		X
If the project is an Applicable Construction Activity and no Exclusions apply then Post-Construction (Permanent) Stormwater Management is required. Complete the applicable sections of Part IV below and then coordinate signatures for form and place in project file. If the project is not an Applicable Construction Activity, or Exclusion(s) apply then Post-Construction (Permanent) Stormwater Management is NOT required. Coordinate signatures for form and place in project file.		

On the MS4 Permit, Item C is a specific WQ treatment measure that must be supported by calculations (see MHFD's UD-BMP spreadsheet). However, in your FDR, you are just saying that some pervious swales are going to provide some informal runoff reduction to satisfy Step 1 of the 4-Step Process. "Runoff Reduction" in Step 1 is different from "Runoff Reduction" as a PBMP in the MS4 Permit. Confusing, I know. So Please revise this Item to "No" on this page.

Revised.

Part IV: Onsite PWQ Requirements, Documentation and Considerations	Yes	No
1. Check which Design Standard(s) the project will utilize. Standards align with Control Measure Requirements identified in permit Part I.E.4.a.iv.		
A. Water Quality Capture Volume (WQCV) Standard	X	
B. Pollutant Removal/80% Total Suspended Solids Removal (TSS)		X
C. Runoff Reduction Standard	X	
D. Applicable Development Site Draining to a Regional WQCV Control Measure	X	
E. Applicable Development Site Draining to a Regional WQCV Facility	X	
F. Constrained Redevelopment Sites Standard		X
G. Previous Permit Term Standard		X
2. Will any of the project permanent stormwater control measure(s) be maintained by another MS4? If Yes, you must obtain a structure specific maintenance agreement with the other MS4 prior to advertisement.		X
3. Will any of the project permanent stormwater control measures be maintained by a private entity or quasi-governmental agency (e.g. HOA or Special District, respectively)? If Yes, a Private Detention Basin/Stormwater Quality Best Management Practice Maintenance Agreement and Easement must be recorded with the El Paso County Clerk and Recorder.		X

Part V Notes (attach an additional sheet if you need more space)

See following sheet for "Part V Notes".

Per the MS4 Permit, Item E is only for when there is conveyance to the Regional Facility via "Waters of the State," which is not the case with this site. So please revise to "No."

Revised.

Project design is complete to include the project design, construction plans, drainage report, specifications, and maintenance and access agreements as required. The engineering, drainage considerations and information used to complete these documents is complete, true, and accurate to the best of my belief and knowledge.

Signature and Stamp of Engineer of Record _____ Date _____

Post-Construction Stormwater Management Applicability Form has been reviewed and the project design, construction plans, drainage report, specifications, and maintenance and access agreements as required, have been reviewed for compliance with the Post Construction Stormwater Management process and MS4 Permit requirements.

Signature of El Paso County Project Engineer _____ Date _____

Revised.

Revise per my comment on the previous page.

1. Check which Design Standard(s) the project will utilitize. Standards align with Control Measure Requirements identified in permit Part I.E.4.a.iv.
    a. Water Quality Capture Volume (WQCV) Standard
    WQCV treatment provided with sub-regional pond (SR4) immediately downstream from project site
    b. Pollutant Removal/80% Total Suspended Solids Removal (TSS)
    N/A – No pollutant removal structures proposed.
    c. Runoff Reduction Standard
    Runoff reduction proposed with grass-lined drainage swale receiving impervious surface. See Final Drainage Report for more information.
    d. Applicable Development Site Draining to a Regional WQCV Control Measure
    Project site drains directly into sub-regional pond SR4 where water quality and detention is provided.
    e. Applicable Development Site Draining to a Regional WQCV Facility
    Project site drains directly into sub-regional pond SR4 where water quality and detention is provided.
    f. Constrained Redevelopment Sites Standard
    N/A
    g. Previous Permit Term Standard
    N/A
2. Will any of the project permanent stormwater control measure(s) be maintained by another MS4? *(If Yes, you must obtain a structure specific maintenance agreement with the other MS4 prior to advertisement.)*
    No permanent stormwater control measure treating this project will be maintained by another MS4.
3. Will any of the project permanent stormwater control measures be maintained by a private entity or quasi-governmental agency (e.g. HOA or Special District, respectively)? *(If Yes, a Private Detention Basin/Stormwater Quality Best Management Practice Maintenance Agreement and Easement must be recorded with the El Paso County Clerk and Recorder.)*
    No, pond SR4 is owned and maintained by El Paso County.

3275 Akers Drive
Colorado Springs, CO 80922
Phone 719-520-6460
Fax 719-520-6879
www.elpasoco.com

Y - Satisfies criteria

N - Needs to be addressed

EL PASO COUNTY
STORMWATER MANAGEMENT PLAN CHECKLIST

PPR244

Revised.

Thanks for including the page numbers, it is very helpful for my review!

EPC Project Number: EA2377

Revised: October 2021

		Applicant	EPC
1. STORMWATER MANAGEMENT PLAN (in the "Applicant" column specify the page number for each item)			
1	Applicant (owner/designated operator), SWMP Preparer, Qualified Stormwater Manager, and Contractor Information. (On cover/title sheet)	1	Y
2	Table of Contents	2	Y
3	Site description and location to include: vicinity map with nearest street/crossroads description	4	Y
4	Narrative description of construction activities proposed (e.g., may include clearing and grubbing, temporary stabilization, road grading, utility / storm installation, final grading, final stabilization, and removal of temporary control measures)	4	Y
5	Phasing plan – may require separate drawings indicating initial, interim, and final site phases for larger projects. Provide "living maps" that can be revised in the field as conditions dictate	4	Y
6	Proposed sequence for major activities: Provide a construction schedule of anticipated starting and completion dates for each stage of land-disturbing activity depicting conservation measures anticipated, including the expected date on which the final stabilization will be completed	5	Y
7	Estimates of the total site area and area to undergo disturbance; current area of disturbance must be updated on the SWMP as changes occur	10	Y
8	Soil erosion potential and impacts on discharge that includes a summary of the data used to determine soil erosion potential	6	Y
9	A description of existing vegetation at the site and percent ground cover and method used to determine ground cover	6	Y
10	Location and description of all potential pollution sources including but not limited to: disturbed and stored soils; vehicle tracking; management of contaminated soils; loading and unloading operations; outdoor storage of materials; vehicle and equipment maintenance and fueling; significant dust generating process; routine maintenance activities involving fertilizers, pesticides, herbicides, detergents, fuels, solvents, oils, etc.; on-site waste management; concrete truck/equipment washing; dedicated asphalt, concrete batch plants and masonry mixing stations; non-industrial waste such as trash and portable toilets	7	Y
11	Material handling to include spill prevention and response plan and procedures	13	Y
12	Spill prevention and pollution controls for dedicated batch plants	14	Y
13	Other SW pollutant control measures to include waste disposal and off-site soil tracking	13	Y
14	Location and description of any anticipated allowable non-stormwater discharge (ground water, springs, irrigation, discharge covered by CDPHE Low Risk Guidance, etc.)	14	Y
15	Name(s) of ultimate receiving waters; size, type and location of stormwater outfall or storm sewer system discharge	16	Y
16	Description of all stream crossings located within the project area or statement that no streams cross the project area	16	Y

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EL PASO COUNTY
STORMWATER MANAGEMENT PLAN CHECKLIST

EPC Project Number: EA2377

Revised: October 2021

Revised.

		Applicant	EPC
17	SWMP Map to include:		
17a	construction site boundaries	APP D	N
17b	flow arrows to depict stormwater flow directions	APP D	Y
17c	all areas of disturbance	APP D	Y
17d	areas of cut and fill	APP D	Y
17e	areas used for storage of building materials, soils (stockpiles) or wastes	APP D	Y
17f	location of any dedicated asphalt / concrete batch plants	APP D	Y
17g	location of all structural control measures	APP D	Y
17h	location of all non-structural control measures	APP D	Y
17i	springs, streams, wetlands and other surface waters, including areas that require maintenance of pre-existing vegetation within 50 feet of a receiving water	APP D	Y
18	Narrative description of all structural control measures to be used. Modifications to EPC standard control measures must meet or exceed County-approved details	11	Y
19	Description of all non-structural control measures to be used including seeding, mulching, protection of existing vegetation, site watering, sod placement, etc.	10	Y
20	Technical drawing details for all control measure installation and maintenance; custom or other jurisdiction's details used must meet or exceed EPC standards	APP E	Y
21	Procedure describing how the SWMP is to be revised	18	Y
22	Description of Final Stabilization and Long-term Stormwater Quality (describe nonstructural and structural measures to control SW pollutants after construction operations have been completed, including detention, water quality control measure etc.)	5	Y
23	Specification that final vegetative cover density is to be 70% of pre-disturbed levels	5	Y
24	Outline of permit holder inspection procedures to install, maintain, and effectively operate control measures to manage erosion and sediment	17	Y
25	Record keeping procedures identified to include signature on inspection logs and location of SWMP records on-site	18	Y
26	If this project relies on control measures owned or operated by another entity, a documented agreement must be included in the SWMP that identifies location, installation and design specifications, and maintenance requirements and responsibility of the control measure(s)	7	Y
	Please note: all items above must be addressed. If not applicable, explain why, simply identifying "not applicable" will not satisfy CDPHE requirement of explanation.		
2. ADDITIONAL REPORTS/PERMITS/DOCUMENTS			
a	Grading and Erosion Control Plan (signed)	Y	
b	Erosion and Stormwater Quality Control Permit (ESQCP) (signed)	Y	

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EL PASO COUNTY
STORMWATER MANAGEMENT PLAN CHECKLIST

EPC Project Number: EA2377

Revised: October 2021

		Applicant	EPC
3. APPLICANT COMMENTS			
a			
b			
c			
4. CHECKLIST REVIEW CERTIFICATIONS			
a	Applicant: The Stormwater Management Plan was prepared under my direction and supervision and is correct to the best of my knowledge and belief. Said Plan has been prepared according to the criteria established by the County and State for Stormwater Management Plans. Kyle Goodwin Digitally signed by Kyle Goodwin DN: C=US, E=kylegoodwin@gallowayus.com, CN=Kyle Goodwin Date: 2024.02.16 15:13:12-07'00' 2/16/2024 Engineer of Record and/or Qualified Stormwater Manager Signature — Date	Y	Y
b	Review Engineer: The Stormwater Management Plan was reviewed and found to meet the checklist requirements except where otherwise noted or allowed by an approved deviation request. Review Engineer — Date		

STORMWATER MANAGEMENT PLAN

LOT 1, OWL MARKETPLACE FILING NO. 1
PCD FILING NO.: XXXXX

PPR244

Revised.

Stormwater Permit # COR: _____
Certification #: _____

OWNER/DEVELOPER:
Murphy Oil USA
200 Peach St.
El Dorado, AR 71730
Contact: Grant Dennis
Phone: (870) 315-3430

CONTRACTOR:
TO BE DETERMINED

DATE:
February 16, 2024

PREPARED BY:
Galloway & Company, Inc.
1155 Kelly Johnson Blvd.,
Suite 305
Colorado Springs, CO 80920
Contact: Kyle Goodwin, P.E.
Phone: (719) 900-7220

SWMP ADMINISTRATOR/QSM
TO BE DETERMINED

SWMP LOCATION:
On-Site (Copy) & Murphy Oil USA (Original)

TABLE OF CONTENTS

Appendices:

A. Vicinity Map
B. NRCS Soil Survey
C. FEMA Firmette
D. GEC Plan (Site Map)
E. Erosion Control Details
F. ESQCP

SWMP REPORT REVISION LOG

REVISION #	DATE	BY	COMMENTS
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			

I. Project Description

Location

Lot 1, Owl Marketplace Filing No. 1 project site is located in a portion of the north half of the southeast quarter of Section 1, Township 13 South, Range 65 West of the 6th Principal Meridian, County of El Paso, State of Colorado.

Legal Description

Lot 1, Owl Marketplace Filing No. 1:

A PARCEL OF LAND IN THE NORTH ONE-HALF OF THE SOUTHEAST QUARTER OF SECTION 1, TOWNSHIP 13 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

LOTS 14 AND 15 FALCON RANCHETTES, AS SHOWN ON THE PLAT THEREOF RECORDED IN PLAT BOOK V-2, PAGE 15 OF THE RECORDS OF EL PASO COUNTY, COLORADO.

CONTAINING 9.60 ACRES, MORE OR LESS.

Description of Property

Lot 1, Owl Marketplace Filing No. 1 contains a calculated area of 48,244 SF or 1.108 acres, more or less. The existing parcel is undeveloped. It's mainly covered by native prairie grass land.

Construction Activity

Lot 1, Owl Marketplace Filing No. 1 proposes a fueling station with six multi-pump dispensers and a related convenience store. Construction activities include but are not limited to grading, street pavement, stormwater conveyance (pipes, inlets, channels, etc.), potable water services, and sanitary sewer services. Construction will commence with preliminary over lot grading followed by utility installation. Construction will be completed with final stabilization including concrete pavement, seeding (or sod) and sidewalks.

Temporary stabilization measures (silt fence) will be installed prior to construction. During construction, temporary stabilization measures, including inlet protection, rock socks, and vehicle tracking, will be utilized to control stormwater runoff. Once final stabilization is achieved, temporary erosion control measures will be removed.

II. Phasing and Proposed Construction Sequence

Phasing

Construction actives will be completed in three phases, Initial, Interim, and Final. Initial phase includes the installation of silt fence around the project's Limit of Disturbance area, inlet protection around existing inlets, and curb socks. Interim phase includes the installation of temporary sediment controls as construction progresses. Refer to the provided phasing table on the Early Grading and Erosion Control Plans. The final phase will be completed once the site is stabilized and all temporary measures are removed.

Construction Documentation

Construction drawings are provided with this document showing each of these phases and are intended to be a “living” document used by the SWMP Manager to document construction activities. See Section IX “Inspection and Record Keeping” for additional information.

Proposed sequence for major construction activities

Construction for the development of this project is currently projected to begin in Spring of 2024. It is estimated that construction activities will be completed by Fall of 2025. Final stabilization is expected in the Summer of 2026. The anticipated sequence of construction is as follows:

Initial:

1. Install Vehicle Tracking Control at entrances as shown on the grading and erosion control plans.
2. Installation of perimeter silt fence as shown on the grading and erosion control plans.
3. Placement of inlet protection erosion control measures along existing roadways.
4. Placement of curb socks along existing roadways.

Interim:

5. Install all proposed storm drain infrastructure and utilities (water/sewer/storm).
6. Add all associated construction control measures once utilities are installed.

Final:

7. Construct curb/gutter and pavement.
8. Final stabilize areas outside of ROW.
9. Construct gas/electric/cable/phone in the ROW areas.
10. Final stabilize ROW.
11. Final erosion control measures as areas are completed. (Final BMPs)
12. Remove construction BMPs once vertical construction of storage units and applicable landscaping is complete and final stabilization is achieved.

See Section VI “Areas and Volumes” for information on anticipated disturbed area and grading volumes.

III. Final Stabilization

Final site stabilization will be achieved when all final landscaping and paving is complete and a vegetation density greater than 70 percent of pre-disturbance density is achieved. The remainder of the site will consist of hardscape (drives and walks) or be a part of the building footprint. All final stabilization on the site is permanent. All temporary BMPs will be removed upon completion of construction. It is the responsibility of the contractor to remove all dirt and garbage from the site.

IV. Pre-Development Conditions & Soils

Floodway

According to the current FEMA Flood Insurance Rate Map (FIRM) Panel No. 08041C0553G, dated December 7, 2018 (See Appendix C for the FEMA FIRM Exhibit) this site is designated as Zone X (outside 0.2% chance of flood). The western portion of the site is located within Zone A (Without Base Flood Elevation (BFE)).

Existing Vegetation

Existing vegetation and soils were determined from in-person field site visits and existing aerial inspection from Google Earth and the United States Department of Agriculture Natural Resources Conservation Service (NRCS) Web Soil Survey. The site is currently undeveloped. Vegetation consists of native grasses/weeds that have been heavily grazed for years.

Existing Drainage Patterns

The site is in Basin MT060 of the Falcon DBPS. The existing parcel is developed with two single family homes, mainly covered by native prairie grass land, flowing from north to south. An existing drainage-way traverses the site flowing from the north to south direction, named “Unnamed Tributary to Black Squirrel Creek”. Significant drainage improvements are proposed to this tributary; No additional road crossings are proposed to avoid disturbing any natural features of the drainage-way.

Existing Slopes

The site generally drains from northeast to southwest with an average slope of approximately 2%.

Existing Soil Types

Soil data for this project was obtained from the United States Department of Agriculture Natural Resources Conservation Service (NRCS) Web Soil Survey.

The following table summarizes the characteristics of the soil type:

Soil	Hydro Group	Shrink/Swell Potential	Permeability	Surface Runoff Potential	Erosion Hazard
19-Columbine gravelly sandy loam, 0 to 3 percent slopes	A	Low	High	Very Low	Slight

The existing soil types have a slight potential for erosion which can be mitigated by employing appropriate downstream construction BMPs before/during/after construction to limit potential impacts to stormwater discharges. The potential impacts are sediment discharge into the existing wet weather conveyance and proposed storm sewer system. Sediment should not be allowed to enter these existing and proposed facilities and can be mitigated by constructing a small temporary sediment basin at a low point prior to discharge into the systems. Potential impacts from runoff flowing to the existing wet weather conveyance will be mitigated by constructing inlet protection measures and by grading the site to reduce drainage area. Based upon the location of the different soil types and type of construction, the contractor shall employ the most appropriate method of erosion control measures based on the El Paso County/City of Colorado Springs Drainage Criteria Manual, Vol. 2 or as directed by the SWMP administrator or his/her representative.

More detailed soils information can be found in the SCS soils survey for El Paso County.

V. Description of Potential Pollutants

Potential sources of sediment to stormwater runoff include earth moving and concrete activities associated with grading and landscaping.

Potential pollutants and sources, other than sediment, to stormwater runoff include trash, debris, line transfer, dewatering, fueling, and equipment failure.

A dewatering permit is not required at this time.

Construction activities can produce a variety of pollutants that can potentially cause storm water contamination. Grading activities remove rocks, vegetation and other erosion controlling surfaces, resulting in the exposure of underlying soil to the elements. Because the soil surface is unprotected, soil and sand particles are easily picked up by wind and/or washed away by rain or other water sources.

Potential Sources of Pollution

The following sections highlight the potential sources of pollution at the Project Site and list the "Best Management" strategies that will be used to prevent migration of pollution offsite. This Project Site does not rely on control measures owned or operated by another entity. Chemical materials stored indoors or that have no reasonable chance of impacting storm water quality will not be discussed in this plan.
Materials of significance stored on the project site include:

- Sediment
- Concrete Washout
- Cement
- Trash & Debris
- Sanitary Wastes
- Fuels & Oils

Wind Erosion & Dust Control
Pollutant:

- Sediment

Best Management Strategies:

- Daily inspections will occur for areas experiencing excessive winds, vehicle traffic, or precipitation events.
- Water trucks will spray down dust on the project Site as needed to not impact adjacent properties.
- Attention will be given to prevent the over-use of water in dust control operations to minimize any muddying of the surface and possible sediment transportation.

Vehicular Transport
Pollutant:

- Sediment Tracking

Best Management Strategies:

- Construct a stabilized construction entrance to provide ingress and egress of the site.
- Restrict access to the stabilized construction entrance.
- Fencing will be erected if problems with access control are evident.

- Maintain track out pads by fluffing up the rock material or by adding additional rock as needed.
- Inspect, sweep and clean adjacent streets where track out is evident.

Stockpiles
Pollutant:
- Sediment

Best Management Strategies:
- Locate stockpiles clear of any water flow paths.
- Locate stockpiles within the property boundary.
- Stockpiles will have erosion control devices as needed installed around the base to prevent the migration of soil.
- Topsoil stock-piles and disturbed portions of the site where construction activity temporarily ceases for at least 14 days will be stabilized with temporary seed and mulch no later than 14 days from the last construction activity in the area.

Grading, Trenching, Export/Import
Pollutant:
- Sediment

Best Management Strategies:
- Earth moving will be minimized by the engineering balancing of the site.
- Disturbed portions of the site where construction activity temporarily ceases for at least 14 days will be stabilized with temporary seed and mulch no later than 14 days from the last construction activity in the area.
- Seed bed preparation is not required if soil is in loose condition.
- Prior to seeding, fertilizer shall be applied to each acre to be stabilized in accordance with the manufacturer's specifications.
- If required seeding areas shall be mulched with straw to a uniformed cover. The straw mulch is to be tacked into place by a disk with blades set nearly straight.
- A site specific erosion control drawing has been developed showing the location of Best Management practices to be used during site construction.
- Where indicated on the erosion control plan, Best Management Practices will be installed.
- Material shall be in accordance with the plans and specifications and all construction shall be provided in accordance with the manufacturer's specifications.
- All BMPs will be inspected bi-weekly and cleaned/maintained as required.

Waste, Residual Concrete
Pollutant:
- Concrete, paint, and Phosphoric Acid

Best Management Strategies:
- A cleanup and washout area will be designated and posted.
- Subcontractors will be instructed on the locations and importance of the washout and cleanup areas. No on-site disposal is allowed.
- Instruct subcontractors to remove waste for which proper onsite disposal facilities are not provided back to their own facilities for ultimate transport, storage & disposal.
- Subcontractors and subcontractor employees are held responsible for improper washout.

Sanitary Facilities, Trash Containers & Littering
Pollutant:

- Bacteria, Ammonia, Trash

Best Management Strategies:

- Portable facilities will be regularly serviced to prevent excessive waste containment and overflow.
- Portable facilities will be located a minimum of 50 feet from state waters. They shall be adequately staked and cleaned on a weekly basis. They will be inspected daily for spills.
- All waste materials will be collected and stored in a container which will meet all local and any state solid waste management regulations.
- Trash dumpsters will be emptied prior to becoming 90% full or when debris control becomes an issue.
- Employees will be instructed on the importance of recycling and waste management and will be held responsible for improper waste management.

Fueling, Hazardous Materials, Equipment Leakage, Fertilizer
Pollutant:

- Petroleum Hydrocarbons, Ethylene Glycol, Sediment

Best Management Strategies:

- MSDS sheets will be maintained in the project trailer for all onsite materials
- All dry materials such as cement will be covered and protected from rain.
- Secondary containment will be provided for stored fuel, oil, paint and any material classified as hazardous.
- Subcontractors are responsible for hazardous waste removal back to their own facilities for ultimate transportation, storage and disposal.
- Supplies will be kept onsite as necessary to control any potential spill.
- Employees will be held responsible for any illegal dumping.
- Seals will be checked by a qualified professional on all equipment and containers containing significant materials that could contribute potential pollutants and will be replaced as necessary.
- Equipment will be inspected by a qualified professional.
- Drip pans will be available for minor leaks and during fueling operations.
- Fueling nozzles, gauges, hoses, seals, and emergency shutoff valves will be inspected for leaks prior to use.
- Under no circumstances during fueling will the fueling hose/nozzle be left unattended.
- Fertilizers used will be applied only in the minimum amounts recommended by soil tests.
- Once applied, fertilizers will be worked into the soil to limit exposure to storm water.
- Stored fertilizer will be protected from exposure to precipitation and storm water runoff.

Dewatering – *not needed, shown for information only*
Pollutant:

- Sediment, Oil and/or Grease and Phosphoric Acid

Best Management Strategies:

- All dewatering will be filtered through rock and/or woven geo mesh fabric.
- All dewatering will be tested for Pollutants per state guidelines weekly.

Concrete and Asphalt Batch Plant – *not needed, shown for information only*

Drilling Slurry for Drilling Piers. – *not needed, shown for information only*
No drilling slurry is allowed to be deposited onto the job site. All drilling slurry shall be collected and pumped into an on-site frac tank and shall be disposed of off-site.

Additional (Non-Structural) Best Management Practices for Sediment:

- Earth moving will be minimized by the engineering balancing of the site where feasible.
- Soil erosion control measures for all slopes, channels, ditches, or any disturbed land area shall be completed within twenty-one calendar days after final grading, or final earth disturbance has been completed. Disturbed areas and stockpiles which are not at final grade but will remain dormant for longer than 30 days shall also be mulched within 21 days after interim grading. An area that is going to remain in an interim state for more than 60 days shall also be seeded. All temporary soil erosion control measures and BMPs shall be maintained until permanent soil erosion control measures are implemented.
- Seed bed preparation is not required if soil is in loose condition.
- Prior to seeding, fertilizer shall be applied to each acre to be stabilized in accordance with the manufacturer's specifications.
- Required seeding areas shall be mulched with straw to a uniformed cover. The straw mulch is to be tacked into place by a disk with blades set nearly straight.
- A site-specific erosion control drawing has been developed showing the location of Best Management practices to be used during site construction.
- Where indicated on the erosion control plan, BMPs will be installed.
- Material shall be in accordance with the plans and specifications and all construction shall be provided in accordance with the manufacturer's specifications.
- All BMPs will be inspected bi-weekly and cleaned/maintained as required.

VI. Areas and Volumes

The site consists of 1.108 acres. 1.141 acres is expected to be disturbed per the Grading & Erosion Control Plan.

The unadjusted cut and fill quantities as of the writing of this report are listed below:

- Cut Volume = 208 CY
- Fill Volume = 604 CY
- Net Volume = 396 CY (Fill)

Note: The Total disturbed area shall be updated on the SWMP as changes occur.

VII. Appropriate Controls and Measures

Also refer to the Grading & Erosion Control Plan (Site Map) for placement and phasing of erosion control measures.

Minimize Disturbed Area and Protect Natural Features and Soil
All work will occur inside the limits of construction per the Site Map.

Phase Construction Activity
The sequence for the installation and removal of erosion and sediment control measures is as follows: Perimeter control measures (silt barriers and fencing) installed at designated areas as noted on the site plans, cleaning of street surfaces during construction if applicable, site grading, installation of utilities, paving final and grading, installation of sod or other vegetation, removal of temporary practices and perimeter controls, and site cleanup.

Control Stormwater Flowing onto and Through the Project
No offsite stormwater flows on to this project. Developed runoff generated on-site will be directed to the southwest corner of the property and sediment will be mitigated by BMPs located throughout the site. No sediment will enter the downstream receiving waters.

Stabilize Soils
Soil erosion control measures for all slopes, channels, ditches, or any disturbed land area shall be completed within twenty-one calendar days after final grading, or final earth disturbance has been completed. Disturbed areas and stockpiles which are not at final grade but will remain dormant for longer than 30 days shall also be mulched within 21 days after interim grading. An area that is going to remain in an interim state for more than 60 days shall also be seeded. All temporary soil erosion control measures and BMPs shall be maintained until permanent soil erosion control measures are implemented. All slopes within the project limits that are found to be eroding excessively within two years of permanent stabilization shall be provided additional slope stabilization methods such as seeding and mulching or erosion control blanket. Water is to be used for dust control. The Contractor will prevent the release of this water and any sediment it may carry from the construction site.

Protect Slopes
Temporary stabilization will include the installation of silt fences on level contours spaces at 10-20 foot intervals. Slopes will be seeded and covered with hay, straw or erosion control blankets on slopes greater than 3:1, as needed to provide for temporary stabilization until vegetation is permanently established. All slopes within the project limits that are found to be eroding excessively within two years of permanent stabilization shall be provided additional slope stabilization methods such as seeding and mulching. Where slopes exceed 3:1, erosion control blankets (per specification requirements) will be utilized for final stabilization.

Protect Storm Drain Inlets
Inlet protection will be installed as soon as storm drain inlets are installed and before land disturbance activities begin in areas with existing storm drain systems. At the Contractor's discretion, additional temporary erosion control practices to include rock bags/socks and sandbag barriers may be installed to prevent sediment transport. Inlet protection will include rock bags/socks, erosion logs, and curb inlet sediment filters where an overflow capacity is necessary to prevent excessive ponding in front of the curb inlet. Concrete block and wire screen inlet protection detail, if used, will be added to Appendix prior to installation. This measure would be used where heavy flows are expected and where an overflow capacity is necessary to prevent excessive ponding around the inlet. Inlet protection devices will be inspected at regular intervals and accumulated sediment will be removed as needed.

Establish Perimeter Controls and Sediment Barriers
Temporary stabilization will include the installation of silt fences on the downslope perimeter of project area. The silt fence will be trenched in on the uphill side 6 inches deep and 6 inches wide, as detailed in the silt

fence exhibit. Sediment will be removed when it reaches 1/3 the height of the fence. Silt fence will be inspected and replaced or repaired as needed.

Retain Sediment On-Site
At a minimum, silt fences, vegetative buffer strips or equivalent sediment source controls are required for all down-slope boundaries (and for those side slope boundaries deemed appropriate as dictated by individual site conditions) of the construction. The use of a combination of sediment and erosion control measures in order to achieve maximum pollutant removal will be utilized.

Establish Stabilized Construction Entrance/Exits
Construction entrance locations for vehicle tracking control (VTC) will be established from the entry point off Meridian Park Drive. The construction entrances will be at least 75 feet in length and approximately 20 feet wide and graded so runoff does not leave the project site. The aggregate will be established at 8-inch thick on top of 4-inch minimum thick free draining material on top of geotextile and will consist of Type G dense graded material. A stabilized stone pad with a filter fabric under liner will be placed at points of vehicular ingress and egress.

Additional BMPs Schedule:
All sediment and erosion control Best Management Practices (BMPs - detailed below and only on BMP Site Map and details if utilized onsite) will be installed prior to any excavation or demolition and will be coordinated with the construction schedule. As construction changes and new temporary BMPs are needed to control sediment and erosion, temporary BMPs will be installed within 24 hours of inspection report.

Recommended BMPs: All recommended BMPs will be installed prior to excavation near any sensitive areas.

- **Culvert Inlet Protection** will be used to protect existing and new culvert inlets. Inlet Protection Detail will be included in Appendix E before using onsite. Removal of this BMP will occur only after vegetation is established to a minimum of 70% pre-construction coverage and after removal of BMP all sediment builds up will be removed and the area exposed shall be seeded.
- **Silt Fence** is to be installed in sensitive areas to protect stream channels, pond, and overland runoff. On this site it will be used to protect runoff from the slip pits. See Silt Fence Detail. Removal of this BMP will occur only after vegetation is established to a minimum of 70% pre-construction coverage and after removal of BMP all sediment builds up will be removed and the area exposed shall be seeded.
- **Vehicle Tracking Control** is needed at the main construction entrance location. Vehicle tracking control shall be installed at the edge of the construction staging area where construction vehicles regularly exit onto existing asphalt road. If sediment tracking occurs it will be cleaned within 24 hours. See Vehicle Tracking Control Detail in Construction Drawings. Removal of this BMP will occur only after project is substantially complete and is ready for seeding operations; the area will then be seeded per specification with the rest of the project.
- **Portable Toilets** are brought in from a service contractor and will be maintained in accordance with standard waste disposal practices using vacuum trucks and place on stable ground to minimize risk of spillage. All portable toilets will be kept a minimum of 500’ from any waterway.

- **Waste Disposal**: If needed Roll offs will be utilized for standard construction waste. A qualified contractor will remove waste weekly and take to an appropriate dump site off this project.

Permanent BMPs:

- **Re-vegetation**: During construction any disturbed areas and stockpiles which are not at final grade but will remain dormant for longer than 30 days shall be mulched within 21 days after interim grading. An area that is going to remain in an interim state for more than 60 days shall also be seeded. All temporary soil erosion control measures and BMPs shall be maintained until permanent soil erosion control measures are implemented.

VIII. Materials Handling and Spill Prevention

Material Handling and Waste Management

The site will use a private refuse collector that will remove litter twice weekly. No less than one litter receptacle will be present at the construction site. In the event that unusual items such as tanks, cylinders, unidentified containers, etc. which could contain potentially hazardous materials are discovered or disturbed, the Fire and Rescue services will be notified. Litter and debris will be picked up and disposed of properly daily. Temporary toilet facilities will be located 500 feet away from any storm drain inlets and all waters of the state.

Establish Proper Building Material Staging Areas

A designated staging area will be used, location to be determined based on available space in the field and plans will be redline. The staging area will be contained per SWMP guidelines. All Equipment and Materials will be brought into the site as needed.

Designate Washout Areas

A concrete washout will be installed to detail as shown on the Site Map and will be placed more than 500 feet away from any waters of the state.

Establish Proper Equipment/Vehicle Fueling and Maintenance Practices

During construction the site will be exposed to operation and maintenance of construction equipment. The contractor shall be responsible for all activities such as fueling, oil changing, lubrication and repair which require use of petroleum products. Such products shall be transported to and from the site in special trucks equipped for that purpose. No waste petroleum products, rags, residue, or equipment parts shall be left on site. In the event of a spill or leak, causing soil to be contaminated, that soil shall be excavated placed in sealed barrels and removed from the site for transport to an approved location for disposal.

Control Equipment/Vehicle Washing

This activity will not be allowed onsite.

Revised.

Portable toilets will be located a minimum of 10ft from stormwater inlets and 50ft from state waters. They will be secured at all four corners to prevent overturning and cleaned on a weekly basis. They will be inspected daily for spills.

Any Additional BMPs

Additional BMPs will be added to this SWMP as needed.

Allowable Non-Stormwater Discharge Management
There are no visible natural springs or irrigation, or other non-stormwater discharges anticipated to be encountered.

Dedicated Batch Plants
There are no dedicated batch plans proposed with this project.

Selecting Post-Construction BMPs
Post Construction BMPs. Re-vegetation including seeding, mulching and erosion control blanket will be final BMPs. Permanent stabilization will be achieved with 70% preconstruction vegetative establishment.

Spill Prevention and Control Plan

The Site Superintendent will act as the point of contact for any spill that occurs at this jobsite. The project manager will be responsible for implementation of prevention practices, spill containment / cleanup, worker training, reporting and complete documentation in the event of a spill. The ECO shall immediately notify the Owner/Developer, Construction Manager, State and the Local Fire Department in addition to the legally required Federal, State, and Local reporting channels (including the National Response Center, 800.424.8802) if a reportable quantity is released to the environment.

Spill Prevention Best Management Practices This section describes spill prevention methods Best Management Practices (BMP) that will be practiced to eliminate spills before they happen.

- Equipment Staging and Maintenance: Store and maintain equipment in a designated area Reduce the amount of hazardous materials and waste by substituting non-hazardous or less hazardous materials. Use secondary containment (drain pan) to catch spills when removing or changing fluids. Use proper equipment (pumps, funnels) to transfer fluids Keep spill kits readily accessible Check incoming vehicles for leaking oil and fluids. Transfer used fluids and oil filters to waste or recycling drums immediately following generation. Inspect equipment routinely for leaks and spills Repair equipment immediately, if necessary, implement a preventative maintenance schedule for equipment and vehicles.
- Fueling Area: Perform fueling in designated fueling area minimum 50’ away from federal waters Use secondary containment (drain pan) to catch spills Use proper equipment (pumps, funnels) to transfer fluids Keep spill kits readily accessible Inspect fueling areas routinely for leaks and spills Hazardous Material Storage Areas Reduce the amount of hazardous materials by substituting non-hazardous or Less hazardous materials.
- Hazardous Material Storage Areas: Minimize the quantity of hazardous materials brought onsite Store hazardous materials in a designated area away from drainage points.
- Unexpected Contaminated Soil and Water: Perform all excavation activities carefully and only after the Owner/Construction Manager directed any activities.

Spill Containment Methods
The following discussion identifies the types of secondary containment that will be used in the event of a spill. The Table below summarizes the containment methods for each potential source.

- Equipment Staging and Maintenance Area: An equipment leak from a fuel tank, equipment seal, or hydraulic line will be contained within a spill containment cell placed beneath all stationary potential leak sources. An undetected leak from parked equipment

will be cleaned up using hand shovels and containerized in a 55-gallon steel drum for offsite disposal.

- Fueling Area: A small spill during fueling operations will be contained using fuel absorbent pads at the nozzle. The transfer of fuel into portable equipment will be performed using a funnel and/or hand pump and a spill pad used to absorb any incidental spills/drips. Any leaking tanks or drums will have fluids removed and transferred to another tank, drum, or container for the fluids. A spill response kit will be located near the fueling area or on the fuel truck for easy access. The spill response kit will include plastic sheeting, tarps, over pack drums, absorbent litter, and shovels.
- Hazardous Material Storage Area: A spill from containers or cans in a hazardous material storage area will be contained within the storage cabinet these materials are kept in.
- Unexpected Contaminated Soil: If contaminated soil is encountered during the project, the Owner/Construction Manager will be notified immediately. Small quantities of suspected contaminated soil will be placed on a 6-mil plastic liner and covered with 6-mil plastic. A soil berm or silt fence will be used to contain the stockpile and prevent migration of contaminated liquids in the soil.

Spill Prevention and Containment Methods Table

Potential Spill Source	Response Method
Equipment Staging and Maintenance Area	Spill containment pad, spill kit, pumps, funnels
Fueling Area (site equipment only)	Spill containment pad, spill kit, pumps, funnels
Hazardous Material Staging Area	Spill containment pad, spill kit, pumps, funnels
Unexpected Contaminated Soil	Plastic liner, plastic cover, soil berm, hay bales, lined super sacks

Spill Countermeasures

Every preventative measure shall be taken to keep contaminated or hazardous materials contained. If a release occurs, the following actions shall be taken:

1. Stop the Spill: The severity of a spill at the site is anticipated to be minimal as large containers/quantities of Hazardous Materials (HM) are not anticipated. The type of spill would occur while dispensing material at the HM storage facility and would likely be contained in secondary containment. Thus, the use spill kits or other available absorbent materials should stop the spill.
2. Warn Others: Notify co-workers and supervisory personnel of the release. Notify emergency responders if appropriate. For site personnel, an alarm system will consist of three one second blasts on an air horn sounded by the person discovering a spill or fire. In the event of any spill, the Superintendent and Project Manager shall be notified if the spill is 5 gallons or more the State will be contacted along with the Fire Department.
3. Isolate the Area: Prevent public access to the area and continue to minimize the spread of the material. Minimize personal exposure throughout emergency response actions.
4. Containment: A spill shall only be contained by trained personnel and if it is safe to do so. Do not place yourself in danger. Attempt to extinguish a fire only if it is in the incipient stage; trash can size or smaller. For larger spills, wait for the arrival of emergency response personnel and provide directions to the location of the emergency.

5. Complete a Spill and Incident Report: For each spill of a Hazardous Material a spill and incident report shall be completed and submitted to the Owner/Construction Manager and if applicable to the Engineer and the State of Colorado Department of Public Health and Environment

X. Receiving Waters

The project site is located within Basin MT060 of the Falcon DBPS. Stormwater from this site will drain into the existing sub-regional detention pond (DBPS – SR4).

Stream Crossing – There are no stream crossings proposed in this project.

IX. Inspection and Record Keeping

The project is subject to inspections by the Colorado Division of Public Health and Environment (CDPHE), the Environmental Protection Agency (EPA), and El Paso County at any time. Inspection of the stormwater management system shall be performed, by the SWMP Administrator, at least every 14 calendar days and after the occurrence of precipitation or snow melt event that may cause noticeable erosion or run-off. Time span greater than 14 calendar days is a violation of the CDPS permit.

SWMP Administrator

The individual(s), position, or title responsible for developing, implementing, maintaining, and revising the SWMP is to be determined upon award of the project. The individual(s) will be sufficiently qualified for the required duties per the *El Paso County ECM Appendix I.5*. The individual listed as the Erosion Control Supervisor shall fill out the information below and place in the on-site copy before beginning installation of the BMPs for this site and notify the County of the appropriate contact information.

SWMP Administrator Name:
Cell Phone:
Office Phone:
Email:

Inspection Schedules

Inspections of the stormwater management system are required at least every 14 calendar days and within 24 hours after any precipitation or snowmelt event that causes surface runoff. A more frequent inspection schedule may be necessary to ensure that BMPs continue to operate as designed. Differences or modifications in the field from the approved SWMP are required to be made within 72 hours site changes are observed. The SWMP shall be onsite at all times when onsite construction activity is occurring.

Inspection Scope

The construction site perimeter, all disturbed areas, material and/or waste storage areas that are exposed to precipitation, discharge locations, and locations where vehicles access the site shall be inspected for evidence of, or the potential for pollutants leaving the construction site boundaries or discharging to State Waters. All erosion and sediment control practices identified in the SWMP shall be evaluated to ensure that they are maintained and operating correctly.

Inspection Report
A thorough record of inspection shall be maintained and identify any incidents of non-compliance with the SWMP. Inspection records shall be retained for three years from expiration or inactivation of permit coverage. Federal, State, local authority reserves the right to request that a copy of the inspection reports be submitted. At a minimum, the inspection report shall include the following:

1. Inspection date
2. Name(s) and title(s) and signature(s) of personnel making the inspection
3. Location(s) of discharges of sediment or other pollutants from the site
4. Location(s) of BMPs that need to be maintained
5. Location(s) of BMPs that failed to operate as designed or proved inadequate for a particular location
6. Location(s) where additional BMPs are needed or were not in place at the time of inspection
7. Deviations from the minimum inspection schedule
8. Description of corrective action for items c, d, e and f above, dates corrective action(s) taken, and measures taken to prevent future violations, including requisite changes to the SWMP, as necessary
9. After adequate corrective action(s) have been taken, or where a report does not identity any incidents requiring corrective action, the report shall contain a signed statement indicating the site is in compliance with the permit to the best of the signer's knowledge and belief
10. The date and amount of storm or snowmelt events that cause erosion.

BMP Maintenance/Replacement and Failed BMPs
Adequate site assessment shall be performed as part of comprehensive Inspection and Maintenance procedures to assess the adequacy of BMPs at the site and to evaluate the necessity of changes to those BMPs to ensure continued effective performance. Where site assessment results in the determination that new or replacement BMPs are necessary, the BMPs shall be installed to ensure ongoing implementation. Failed BMPs must be addressed as soon as possible, in most cases immediately, to ensure continued performance and minimize the likelihood of pollutant discharge. The SWMP shall be updated once new BMPs are installed or failed BMPs replaced. A specific timeline for implementing maintenance procedures is not included in the State Permit because BMP maintenance is expected to be proactive, not responsive. Observations resulting in BMP maintenance activities can be made during a site inspection, or during general observations of site conditions. BMPs shall be maintained per DCM2 criteria and ECM criteria. Please refer to the Appendix for specific maintenance required for each BMP.

Plan Review and Revisions
1. The plan must be signed in accordance with the general permit.
2. The plan must be made available, upon request, to CDPHE, United States Environmental Protection Agency, or operator of the local municipal storm sewer system, if applicable.
3. The plan must be amended whenever there is a change in design, construction, operation or maintenance that could have a significant effect on the potential for the discharge of pollutants to State Waters. It also must be amended if it is found to be ineffective in controlling pollutants present in stormwater.

Record Keeping and Documenting of Inspection
The permittee shall retain a copy of the SWMP required by this permit (including a copy of the permit language) at the construction site (or other local location accessible to the Director; a State or local

agency approving sediment and erosion plans, grading plans, or stormwater management plans; local government officials; or the operator of a municipal separate storm sewer receiving discharges from the site) from the date of project initiation to the date of final stabilization. Permittees with day-to-day operational control over SWMP implementation shall have a copy of the SWMP available at a central location on-site for the use of all operators and those identified as having responsibilities under the SWMP whenever they are on the construction site. If minor modifications to the SWMP are required, they shall be recorded on the owner's copy of the SWMP and be available during inspections. Whenever a significant change is made to the SWMP (including changes to design, construction, operation or maintenance), an amended SWMP shall be submitted for review and approval. The following documents must be kept in a field office, trailer, shed or vehicle that is onsite during normal working hours:

1. A completed and signed copy of the Notice of Intent
2. The permit coverage letter from the Colorado Department of Public Health and Environment (CDPHE)
3. The Stormwater Management Plan
4. Site Inspection Records
5. A copy of the Colorado General Permit for Stormwater Discharges from Construction Activities

If a reasonable onsite location is not available, then the documents may be retained at a readily available alternative location, preferably with the SWMP plan contact. If the site is inactive, then the documents may be stored at a local office. All records and information must be kept for at least three years or longer if requested by the Colorado Department of Public Health and Environment or United States Environmental Protection Agency.

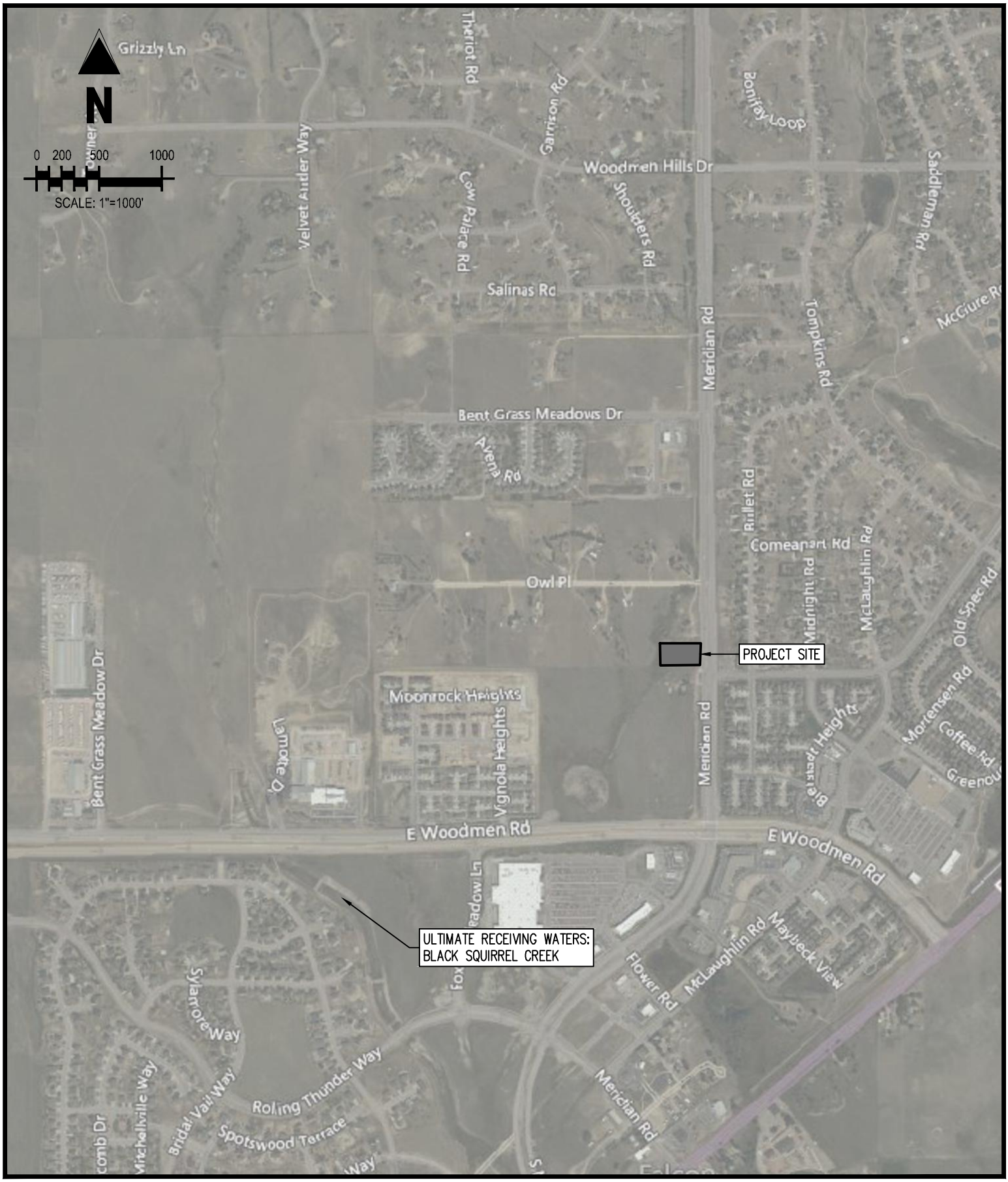
Record Keeping

The SWMP is a "living document" that is continuously reviewed and modified. The ECS shall make changes to the SWMP, including but not limited to: additions, deletions, changing locations of BMPs shall be marked in the plans, dated and initialed at time of occurrence. All inspection and maintenance activities or other repairs will be documented by the ECS and the records kept on the project site. Records of spill, leaks or overflows that result in the discharge of pollutants will be documented and maintained. The following Information will be recorded for all occurrences:

1. Time and date
2. Weather conditions
3. Reasons for spill
4. A release of any chemical, oil, petroleum product, sewage, etc., which may enter state waters must be reported.

At 14-day inspections incidents of noncompliance, such as uncontrolled releases of pollutants including mud, muddy water or measurable quantities of sediment found off-site shall be noted, along with a brief explanation as to measures taken to prevent future violations and measures taken to clean up sediment that has left the site. After measures have been taken to correct any problems and recorded, or where a report does not identify incidents of noncompliance, the report shall contain a signed certification indicating the site is in compliance.

APPENDIX A



LOT 1, OWL MARKETPLACE FILING NO. 1
MURPHY OIL #7968

7440 MERIDIAN PARK DRIVE
FALCON, CO 80831

VICINITY MAP

Project No:	MOC99
Drawn By:	ASA
Checked By:	KG
Date:	02/09/2024

Galloway
1155 Kelly Johnson Blvd., Suite 305
Colorado Springs, CO 80920
719.900.7220 • GallowayUS.com

APPENDIX B

Map Scale: 1:596 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 5 10 20 30

Feet
0 25 50 100 150

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 Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

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 21, Aug 24, 2023

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

Date(s) aerial images were photographed: Sep 11, 2018—Oct 20, 2018

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.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
19	Columbine gravelly sandy loam, 0 to 3 percent slopes	1.8	100.0%
Totals for Area of Interest		**1.8**	**100.0%**

El Paso County Area, Colorado

19—Columbine gravelly sandy loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 367p
Elevation: 6,500 to 7,300 feet
Mean annual precipitation: 14 to 16 inches
Mean annual air temperature: 46 to 50 degrees F
Frost-free period: 125 to 145 days
Farmland classification: Not prime farmland

Map Unit Composition

Columbine and similar soils: 97 percent
Minor components: 3 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Columbine

Setting

Landform: Flood plains, fan terraces, fans
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium

Typical profile

A - 0 to 14 inches: gravelly sandy loam
C - 14 to 60 inches: very gravelly loamy sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.5 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: A
Ecological site: R049XY214CO - Gravelly Foothill
Hydric soil rating: No

Minor Components

Fluvaquentic haplaquolls

Percent of map unit: 1 percent

Landform: Swales
Hydric soil rating: Yes

Other soils
Percent of map unit: 1 percent
Hydric soil rating: No

Pleasant
Percent of map unit: 1 percent
Landform: Depressions
Hydric soil rating: Yes

Data Source Information

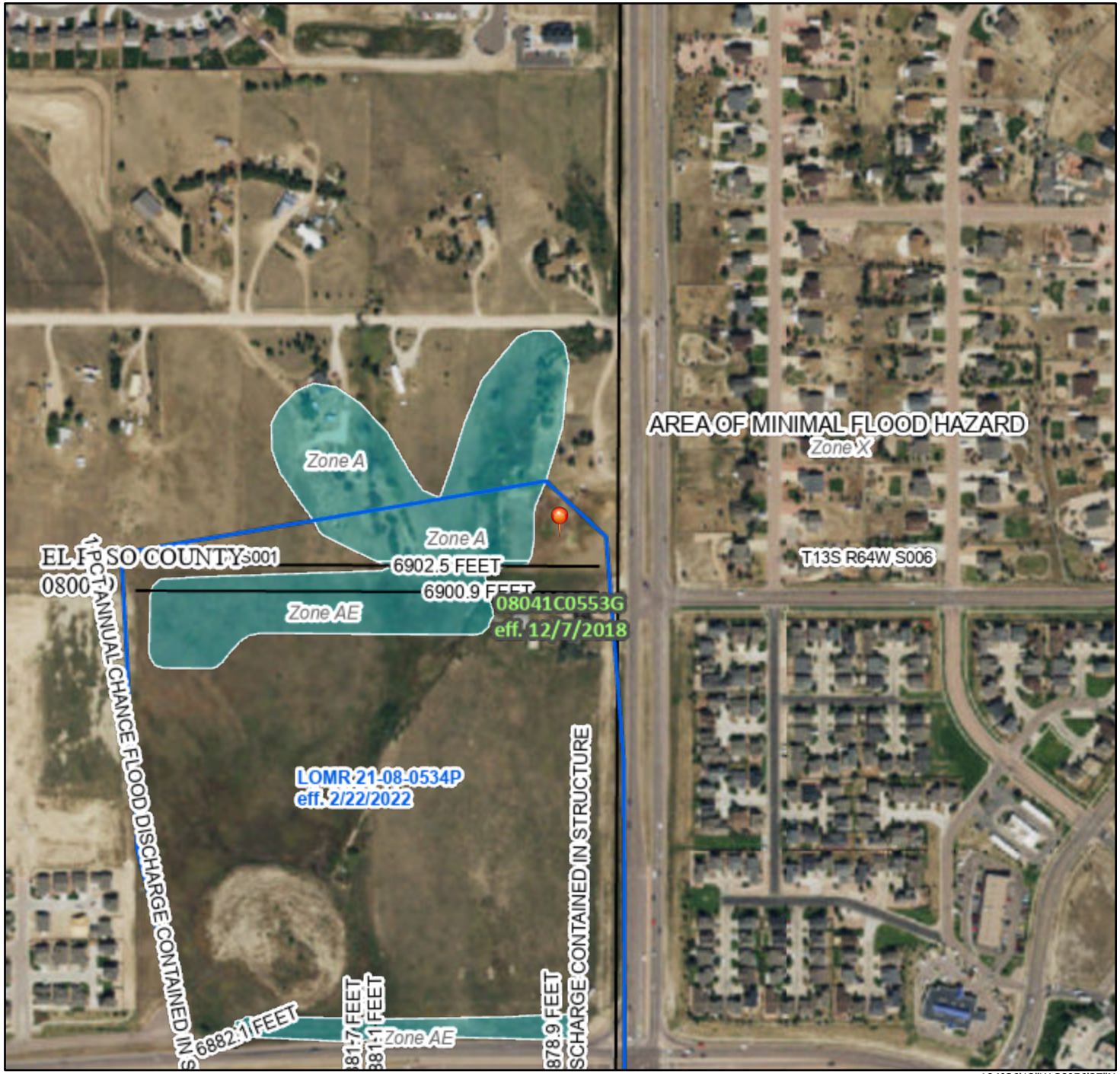
Soil Survey Area: El Paso County Area, Colorado
Survey Area Data: Version 21, Aug 24, 2023

APPENDIX C

National Flood Hazard Layer FIRMette

FEMA

104°36'49"W 38°56'55"N



104°36'12"W 38°56'27"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 2/6/2024 at 8:31 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 D

CONTRACTOR TO INSERT THE APPROVED AND SIGNED GRADING & EROSION CONTROL PLANS (SITE MAPS). SEE EL PASO COUNTY FILING NO.: VR239 & PPR2336

APPENDIX E

Seeding dates for the highest success probability of perennial species along the Front Range are generally in the spring from April through early May and in the fall after the first of September until the ground freezes. If the area is irrigated, seeding may occur in summer months, as well. See Table TS/PS-3 for appropriate seeding dates.

Table TS/PS-1. Minimum Drill Seeding Rates for Various Temporary Annual Grasses

Species[a] (Common name)	Growth Season[b]	Pounds of Pure Live Seed (PLS)/acre[c]	Planting Depth (inches)
1. Oats	Cool	35 - 50	1 - 2
2. Spring wheat	Cool	25 - 35	1 - 2
3. Spring barley	Cool	25 - 35	1 - 2
4. Annual ryegrass	Cool	10 - 15	½
5. Millet	Warm	3 - 15	½ - ¾
6. Sudangrass	Warm	5–10	½ - ¾
7. Sorghum	Warm	5–10	½ - ¾
8. Winter wheat	Cool	20–35	1 - 2
9. Winter barley	Cool	20–35	1 - 2
10. Winter rye	Cool	20–35	1 - 2
11. Triticale	Cool	25–40	1 - 2

[a] Successful seeding of annual grass resulting in adequate plant growth will usually produce enough dead-plant residue to provide protection from wind and water erosion for an additional year. This assumes that the cover is not disturbed or mowed closer than 8 inches.

Hydraulic seeding may be substituted for drilling only where slopes are steeper than 3:1 or where access limitations exist. When hydraulic seeding is used, hydraulic mulching should be applied as a separate operation, when practical, to prevent the seeds from being encapsulated in the mulch.

[b] See Table TS/PS-3 for seeding dates. Irrigation, if consistently applied, may extend the use of cool season species during the summer months.

[c] Seeding rates should be doubled if seed is broadcast, or increased by 50 percent if done using a Brillion Drill or by hydraulic seeding.

Table TS/PS-2. Minimum Drill Seeding Rates for Perennial Grasses

Common[a] Name	Botanical Name	Growth Season[b]	Growth Form	Seeds/ Pound	Pounds of PLS/acre
Alakali Soil Seed Mix					
Alkali sacaton	*Sporobolus airoides*	Cool	Bunch	1,750,000	0.25
Basin wildrye	*Elymus cinereus*	Cool	Bunch	165,000	2.5
Sodar streambank wheatgrass	*Agropyron riparium 'Sodar'*	Cool	Sod	170,000	2.5
Jose tall wheatgrass	*Agropyron elongatum 'Jose'*	Cool	Bunch	79,000	7.0
Arriba western wheatgrass	*Agropyron smithii 'Arriba'*	Cool	Sod	110,000	5.5
Total					**17.75**
Fertile Loamy Soil Seed Mix					
Ephriam crested wheatgrass	*Agropyron cristatum 'Ephriam'*	Cool	Sod	175,000	2.0
Dural hard fescue	*Festuca ovina 'duriuscula'*	Cool	Bunch	565,000	1.0
Lincoln smooth brome	*Bromus inermis leyss 'Lincoln'*	Cool	Sod	130,000	3.0
Sodar streambank wheatgrass	*Agropyron riparium 'Sodar'*	Cool	Sod	170,000	2.5
Arriba western wheatgrass	*Agropyron smithii 'Arriba'*	Cool	Sod	110,000	7.0
Total					**15.5**
High Water Table Soil Seed Mix					
Meadow foxtail	*Alopecurus pratensis*	Cool	Sod	900,000	0.5
Redtop	*Agrostis alba*	Warm	Open sod	5,000,000	0.25
Reed canarygrass	*Phalaris arundinacea*	Cool	Sod	68,000	0.5
Lincoln smooth brome	*Bromus inermis leyss 'Lincoln'*	Cool	Sod	130,000	3.0
Pathfinder switchgrass	*Panicum virgatum 'Pathfinder'*	Warm	Sod	389,000	1.0
Alkar tall wheatgrass	*Agropyron elongatum 'Alkar'*	Cool	Bunch	79,000	5.5
Total					**10.75**
Transition Turf Seed Mix[c]					
Ruebens Canadian bluegrass	*Poa compressa 'Ruebens'*	Cool	Sod	2,500,000	0.5
Dural hard fescue	*Festuca ovina 'duriuscula'*	Cool	Bunch	565,000	1.0
Citation perennial ryegrass	*Lolium perenne 'Citation'*	Cool	Sod	247,000	3.0
Lincoln smooth brome	*Bromus inermis leyss 'Lincoln'*	Cool	Sod	130,000	3.0
Total					**7.5**

Table TS/PS-2. Minimum Drill Seeding Rates for Perennial Grasses (cont.)

Common Name	Botanical Name	Growth Season[b]	Growth Form	Seeds/ Pound	Pounds of PLS/acre
Sandy Soil Seed Mix					
Blue grama	*Bouteloua gracilis*	Warm	Sod-forming bunchgrass	825,000	0.5
Camper little bluestem	*Schizachyrium scoparium 'Camper'*	Warm	Bunch	240,000	1.0
Prairie sandreed	*Calamovilfa longifolia*	Warm	Open sod	274,000	1.0
Sand dropseed	*Sporobolus cryptandrus*	Cool	Bunch	5,298,000	0.25
Vaughn sideoats grama	*Bouteloua curtipendula 'Vaughn'*	Warm	Sod	191,000	2.0
Arriba western wheatgrass	*Agropyron smithii 'Arriba'*	Cool	Sod	110,000	5.5
Total					**10.25**
Heavy Clay, Rocky Foothill Seed Mix					
Ephriam crested wheatgrass[d]	*Agropyron cristatum 'Ephriam'*	Cool	Sod	175,000	1.5
Oahe Intermediate wheatgrass	*Agropyron intermedium 'Oahe'*	Cool	Sod	115,000	5.5
Vaughn sideoats grama[e]	*Bouteloua curtipendula 'Vaughn'*	Warm	Sod	191,000	2.0
Lincoln smooth brome	*Bromus inermis leyss 'Lincoln'*	Cool	Sod	130,000	3.0
Arriba western wheatgrass	*Agropyron smithii 'Arriba'*	Cool	Sod	110,000	5.5
Total					**17.5**

[a] All of the above seeding mixes and rates are based on drill seeding followed by crimped straw mulch. These rates should be doubled if seed is broadcast and should be increased by 50 percent if the seeding is done using a Brillion Drill or is applied through hydraulic seeding. Hydraulic seeding may be substituted for drilling only where slopes are steeper than 3:1. If hydraulic seeding is used, hydraulic mulching should be done as a separate operation.

[b] See Table TS/PS-3 for seeding dates.

[c] If site is to be irrigated, the transition turf seed rates should be doubled.

[d] Crested wheatgrass should not be used on slopes steeper than 6H to 1V.

[e] Can substitute 0.5 lbs PLS of blue grama for the 2.0 lbs PLS of Vaughn sideoats grama.

Table TS/PS-3. Seeding Dates for Annual and Perennial Grasses

	Annual Grasses (Numbers in table reference species in Table TS/PS-1)		Perennial Grasses	
Seeding Dates	**Warm**	**Cool**	**Warm**	**Cool**
January 1–March 15			✓	✓
March 16–April 30	4	1,2,3	✓	✓
May 1–May 15	4		✓	
May 16–June 30	4,5,6,7			
July 1–July 15	5,6,7			
July 16–August 31				
September 1–September 30		8,9,10,11		
October 1–December 31			✓	✓

Mulch

Cover seeded areas with mulch or an appropriate rolled erosion control product to promote establishment of vegetation. Anchor mulch by crimping, netting or use of a non-toxic tackifier. See the Mulching BMP Fact Sheet for additional guidance.

Maintenance and Removal

Monitor and observe seeded areas to identify areas of poor growth or areas that fail to germinate. Reseed and mulch these areas, as needed.

An area that has been permanently seeded should have a good stand of vegetation within one growing season if irrigated and within three growing seasons without irrigation in Colorado. Reseed portions of the site that fail to germinate or remain bare after the first growing season.

Seeded areas may require irrigation, particularly during extended dry periods. Targeted weed control may also be necessary.

Protect seeded areas from construction equipment and vehicle access.

- Clean, weed-free and seed-free cereal grain straw should be applied evenly at a rate of 2 tons per acre and must be tacked or fastened by a method suitable for the condition of the site. Straw mulch must be anchored (and not merely placed) on the surface. This can be accomplished mechanically by crimping or with the aid of tackifiers or nets. Anchoring with a crimping implement is preferred, and is the recommended method for areas flatter than 3:1. Mechanical crimpers must be capable of tucking the long mulch fibers into the soil to a depth of 3 inches without cutting them. An agricultural disk, while not an ideal substitute, may work if the disk blades are dull or blunted and set vertically; however, the frame may have to be weighted to afford proper soil penetration.

- Grass hay may be used in place of straw; however, because hay is comprised of the entire plant including seed, mulching with hay may seed the site with non-native grass species which might in turn out-compete the native seed. Alternatively, native species of grass hay may be purchased, but can be difficult to find and are more expensive than straw. Purchasing and utilizing a certified weed-free straw is an easier and less costly mulching method. When using grass hay, follow the same guidelines as for straw (provided above).

- On small areas sheltered from the wind and heavy runoff, spraying a tackifier on the mulch is satisfactory for holding it in place. For steep slopes and special situations where greater control is needed, erosion control blankets anchored with stakes should be used instead of mulch.

- Hydraulic mulching consists of wood cellulose fibers mixed with water and a tackifying agent and should be applied at a rate of no less than 1,500 pounds per acre (1,425 lbs of fibers mixed with at least 75 lbs of tackifier) with a hydraulic mulcher. For steeper slopes, up to 2000 pounds per acre may be required for effective hydroseeding. Hydromulch typically requires up to 24 hours to dry; therefore, it should not be applied immediately prior to inclement weather. Application to roads, waterways and existing vegetation should be avoided.

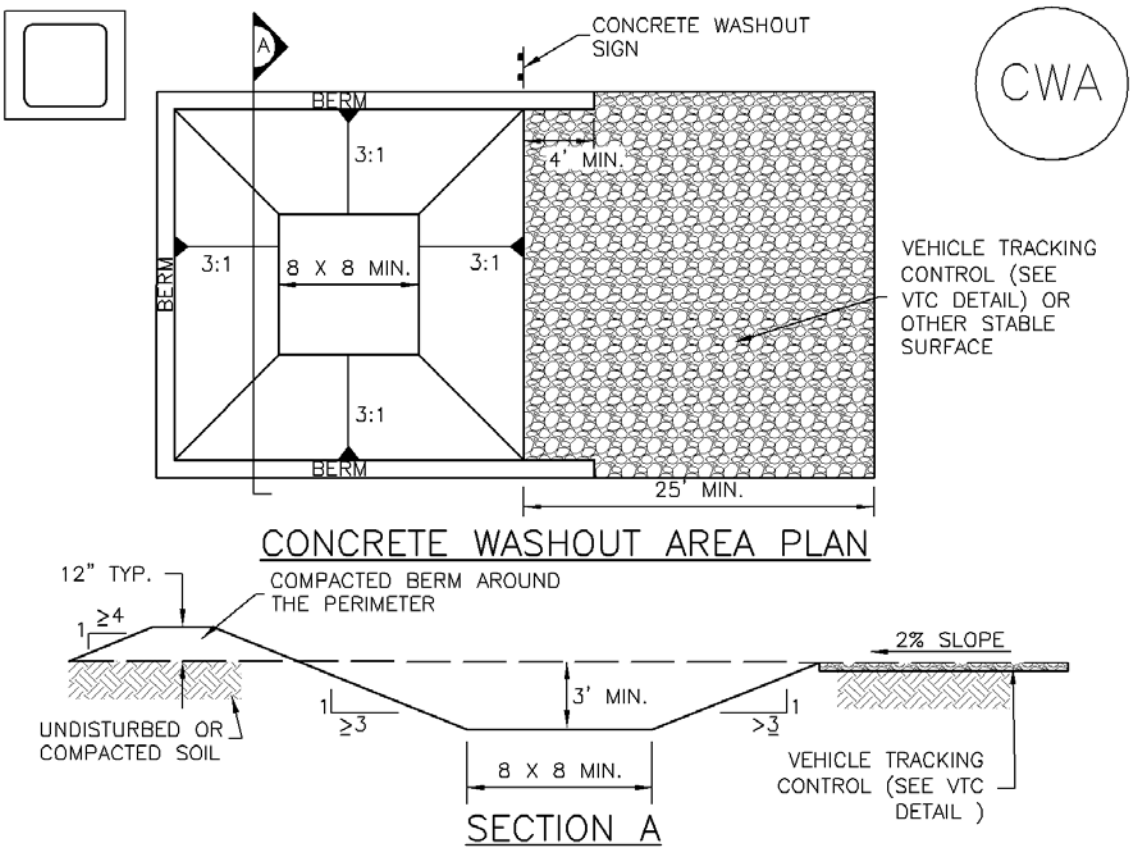
- Erosion control mats, blankets, or nets are recommended to help stabilize steep slopes (generally 3:1 and steeper) and waterways. Depending on the product, these may be used alone or in conjunction with grass or straw mulch. Normally, use of these products will be restricted to relatively small areas. Biodegradable mats made of straw and jute, straw-coconut, coconut fiber, or excelsior can be used instead of mulch. (See the ECM/TRM BMP for more information.)

- Some tackifiers or binders may be used to anchor mulch. Check with the local jurisdiction for allowed tackifiers. Manufacturer's recommendations should be followed at all times. (See the Soil Binder BMP for more information on general types of tackifiers.)

- Rock can also be used as mulch. It provides protection of exposed soils to wind and water erosion and allows infiltration of precipitation. An aggregate base course can be spread on disturbed areas for temporary or permanent stabilization. The rock mulch layer should be thick enough to provide full coverage of exposed soil on the area it is applied.

Maintenance and Removal

After mulching, the bare ground surface should not be more than 10 percent exposed. Reapply mulch, as needed, to cover bare areas.



CWA–1. CONCRETE WASHOUT AREA

CWA INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –CWA INSTALLATION LOCATION.

2. DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (16 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE ARE SHOULD BE USED.

3. THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.

4. CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.

5. BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'.

6. VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.

7. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.

8. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

CWA MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS, ACCUMULATED IN PIT, SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.

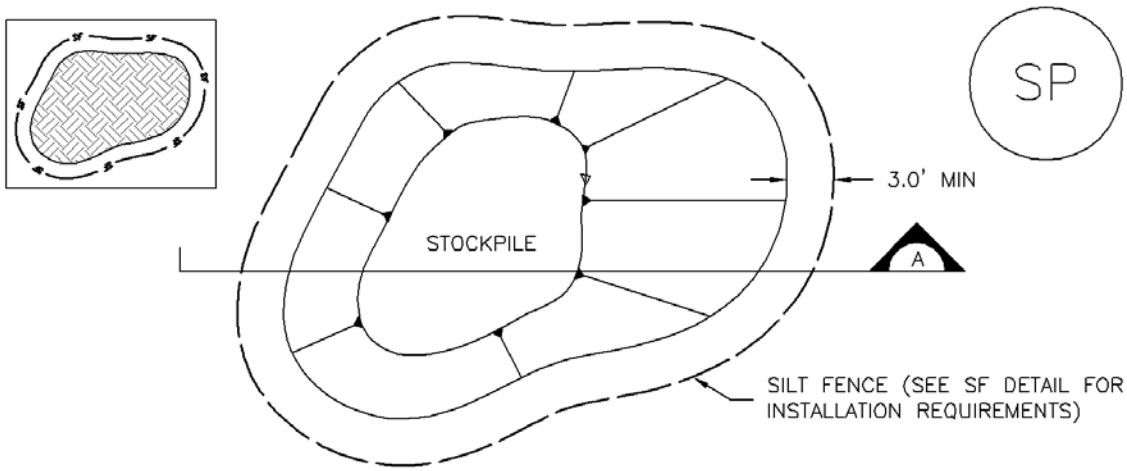
5. CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER–TIGHT CONTAINER AND DISPOSED OF PROPERLY.

6. THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.

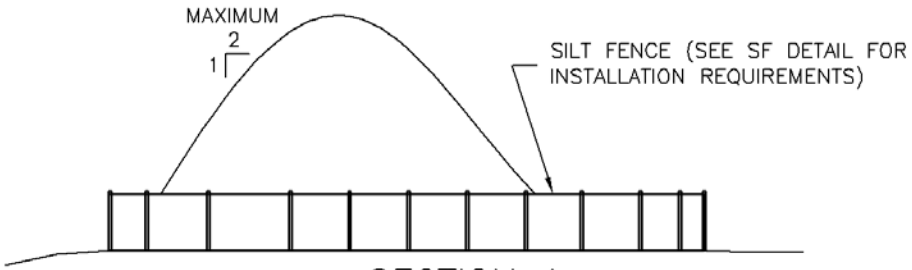
7. WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD).

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.



STOCKPILE PROTECTION PLAN



SECTION A

SP–1. STOCKPILE PROTECTION

STOCKPILE PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –LOCATION OF STOCKPILES.
   –TYPE OF STOCKPILE PROTECTION.

2. INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH THEIR RESPECTIVE DESIGN DETAILS. SILT FENCE IS SHOWN IN THE STOCKPILE PROTECTION DETAILS; HOWEVER, OTHER TYPES OF PERIMETER CONTROLS INCLUDING SEDIMENT CONTROL LOGS OR ROCK SOCKS MAY BE SUITABLE IN SOME CIRCUMSTANCES. CONSIDERATIONS FOR DETERMINING THE APPROPRIATE TYPE OF PERIMETER CONTROL FOR A STOCKPILE INCLUDE WHETHER THE STOCKPILE IS LOCATED ON A PERVIOUS OR IMPERVIOUS SURFACE, THE RELATIVE HEIGHTS OF THE PERIMETER CONTROL AND STOCKPILE, THE ABILITY OF THE PERIMETER CONTROL TO CONTAIN THE STOCKPILE WITHOUT FAILING IN THE EVENT THAT MATERIAL FROM THE STOCKPILE SHIFTS OR SLUMPS AGAINST THE PERIMETER, AND OTHER FACTORS.

3. STABILIZE THE STOCKPILE SURFACE WITH SURFACE ROUGHENING, TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS, OR SOIL BINDERS. SOILS STOCKPILED FOR AN EXTENDED PERIOD (TYPICALLY FOR MORE THAN 60 DAYS) SHOULD BE SEEDED AND MULCHED WITH A TEMPORARY GRASS COVER ONCE THE STOCKPILE IS PLACED (TYPICALLY WITHIN 14 DAYS). USE OF MULCH ONLY OR A SOIL BINDER IS ACCEPTABLE IF THE STOCKPILE WILL BE IN PLACE FOR A MORE LIMITED TIME PERIOD (TYPICALLY 30–60 DAYS).

4. FOR TEMPORARY STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRADIENT CONTROLS, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.

STOCKPILE PROTECTION MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

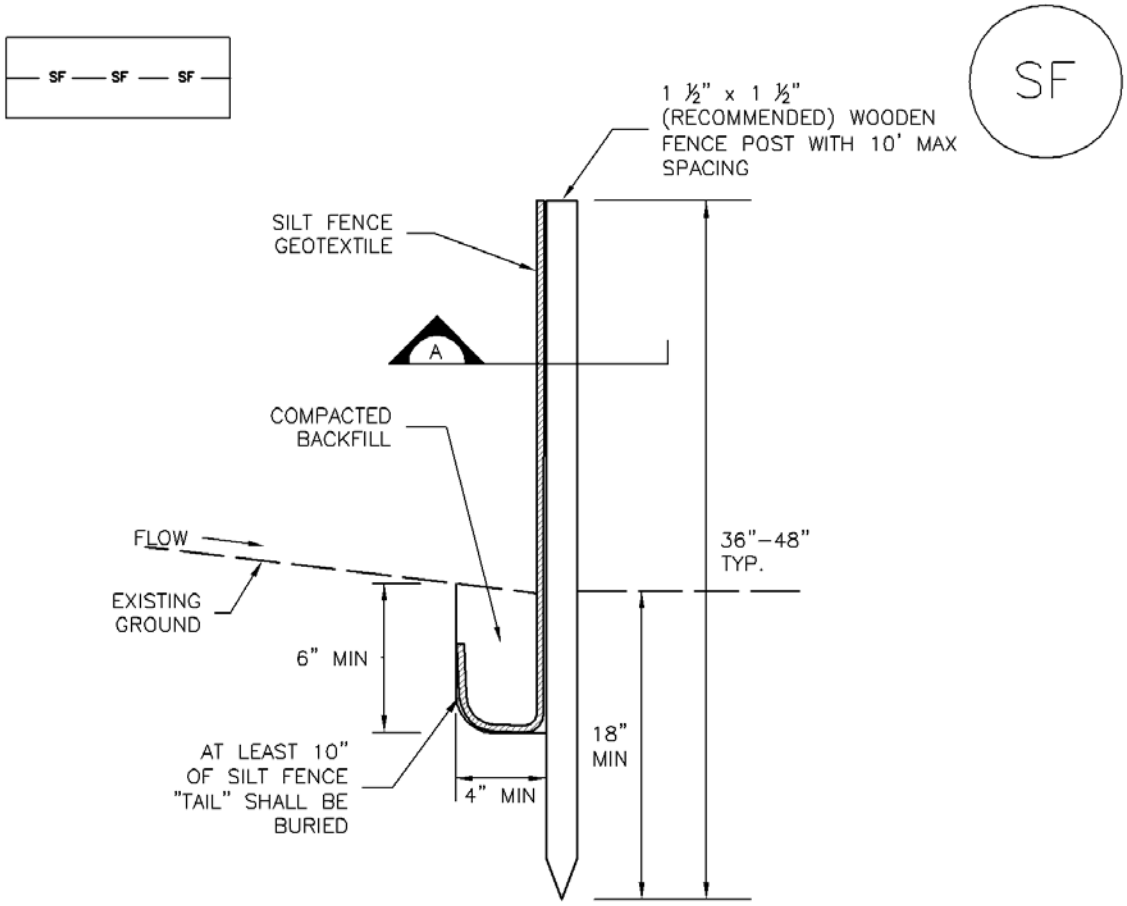
STOCKPILE PROTECTION MAINTENANCE NOTES

4. IF PERIMETER PROTECTION MUST BE MOVED TO ACCESS SOIL STOCKPILE, REPLACE PERIMETER CONTROLS BY THE END OF THE WORKDAY.

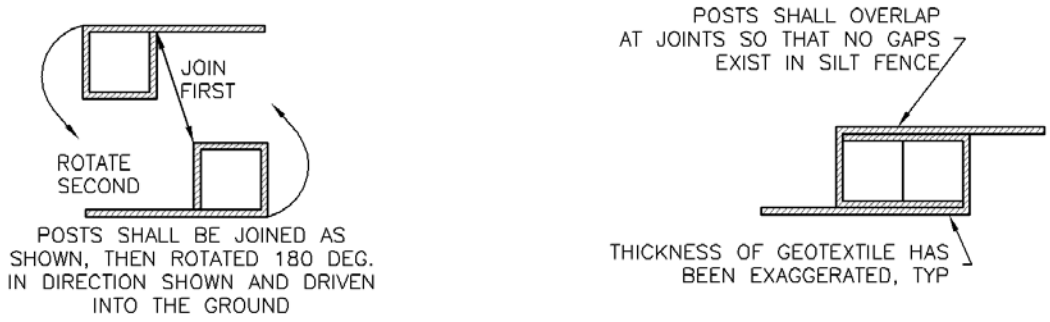
5. STOCKPILE PERIMETER CONTROLS CAN BE REMOVED ONCE ALL THE MATERIAL FROM THE STOCKPILE HAS BEEN USED.

(DETAILS ADAPTED FROM PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.



SILT FENCE



SECTION A

SF–1. SILT FENCE

SILT FENCE INSTALLATION NOTES

1. SILT FENCE MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PONDING. SILT FENCE AT THE TOE OF A SLOPE SHOULD BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (2–5 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR PONDING AND DEPOSITION.

2. A UNIFORM 6" X 4" ANCHOR TRENCH SHALL BE EXCAVATED USING TRENCHER OR SILT FENCE INSTALLATION DEVICE. NO ROAD GRADERS, BACKHOES, OR SIMILAR EQUIPMENT SHALL BE USED.

3. COMPACT ANCHOR TRENCH BY HAND WITH A "JUMPING JACK" OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.

4. SILT FENCE SHALL BE PULLED TIGHT AS IT IS ANCHORED TO THE STAKES. THERE SHOULD BE NO NOTICEABLE SAG BETWEEN STAKES AFTER IT HAS BEEN ANCHORED TO THE STAKES.

5. SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING 1" HEAVY DUTY STAPLES OR NAILS WITH 1" HEADS. STAPLES AND NAILS SHOULD BE PLACED 3" ALONG THE FABRIC DOWN THE STAKE.

6. AT THE END OF A RUN OF SILT FENCE ALONG A CONTOUR, THE SILT FENCE SHOULD BE TURNED PERPENDICULAR TO THE CONTOUR TO CREATE A "J–HOOK." THE "J–HOOK" EXTENDING PERPENDICULAR TO THE CONTOUR SHOULD BE OF SUFFICIENT LENGTH TO KEEP RUNOFF FROM FLOWING AROUND THE END OF THE SILT FENCE (TYPICALLY 10' – 20').

7. SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

SILT FENCE MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SEDIMENT ACCUMULATED UPSTREAM OF THE SILT FENCE SHALL BE REMOVED AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 6".

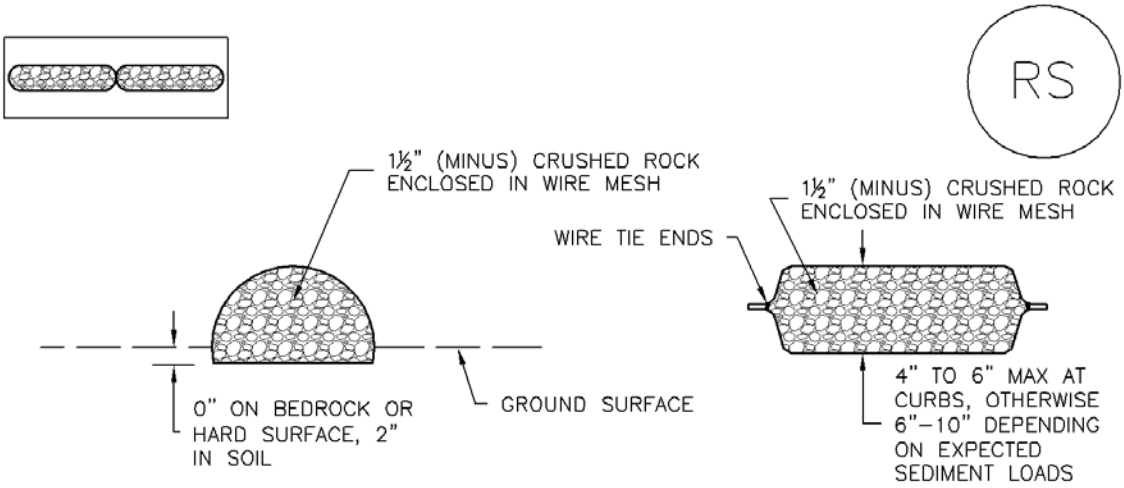
5. REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING, OR COLLAPSE.

6. SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERIMETER SEDIMENT CONTROL BMP.

7. WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

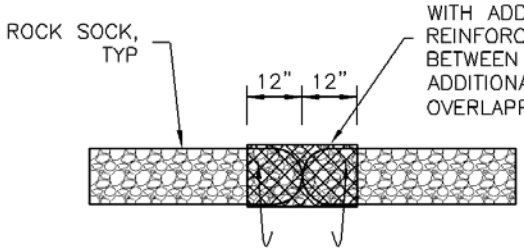
(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.



ROCK SOCK SECTION

ROCK SOCK PLAN



ANY GAP AT JOINT SHALL BE FILLED WITH AN ADEQUATE AMOUNT OF 1½" (MINUS) CRUSHED ROCK AND WRAPPED WITH ADDITIONAL WIRE MESH SECURED TO ENDS OF ROCK REINFORCED SOCK. AS AN ALTERNATIVE TO FILLING JOINTS BETWEEN ADJOINING ROCK SOCKS WITH CRUSHED ROCK AND ADDITIONAL WIRE WRAPPING, ROCK SOCKS CAN BE OVERLAPPED (TYPICALLY 12–INCH OVERLAP) TO AVOID GAPS.

ROCK SOCK JOINTING

GRADATION TABLE	
SIEVE SIZE	MASS PERCENT PASSING SQUARE MESH SIEVES
	NO. 4
2"	100
1½"	90 – 100
1"	20 – 55
¾"	0 – 15
⅜"	0 – 5
MATCHES SPECIFICATIONS FOR NO. 4 COARSE AGGREGATE FOR CONCRETE PER AASHTO M43. ALL ROCK SHALL BE FRACTURED FACE, ALL SIDES.	

ROCK SOCK INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –LOCATION(S) OF ROCK SOCKS.

2. CRUSHED ROCK SHALL BE 1½" (MINUS) IN SIZE WITH A FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON THIS SHEET (1½" MINUS).

3. WIRE MESH SHALL BE FABRICATED OF 10 GAGE POULTRY MESH, OR EQUIVALENT, WITH A MAXIMUM OPENING OF ½", RECOMMENDED MINIMUM ROLL WIDTH OF 48"

4. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6" CENTERS ALONG ALL JOINTS AND AT 2" CENTERS ON ENDS OF SOCKS.

5. SOME MUNICIPALITIES MAY ALLOW THE USE OF FILTER FABRIC AS AN ALTERNATIVE TO WIRE MESH FOR THE ROCK ENCLOSURE.

RS–1. ROCK SOCK PERIMETER CONTROL

ROCK SOCK MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, OR DAMAGED BEYOND REPAIR.

5. SEDIMENT ACCUMULATED UPSTREAM OF ROCK SOCKS SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY ½ OF THE HEIGHT OF THE ROCK SOCK.

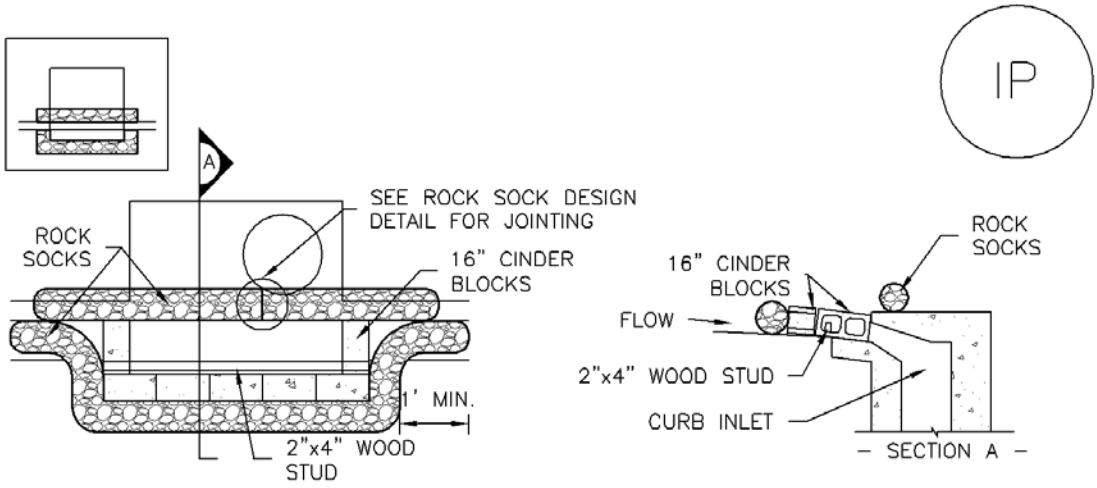
6. ROCK SOCKS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

7. WHEN ROCK SOCKS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

NOTE: THE DETAILS INCLUDED WITH THIS FACT SHEET SHOW COMMONLY USED, CONVENTIONAL METHODS OF ROCK SOCK INSTALLATION IN THE DENVER METROPOLITAN AREA. THERE ARE MANY OTHER SIMILAR PROPRIETARY PRODUCTS ON THE MARKET. UDFCD NEITHER NDORSES NOR DISCOURAGES USE OF PROPRIETARY PROTECTION PRODUCTS; HOWEVER, IN THE EVENT PROPRIETARY METHODS ARE USED, THE APPROPRIATE DETAIL FROM THE MANUFACTURER MUST BE INCLUDED IN THE SWMP AND THE BMP MUST BE INSTALLED AND MAINTAINED AS SHOWN IN THE MANUFACTURER'S DETAILS.



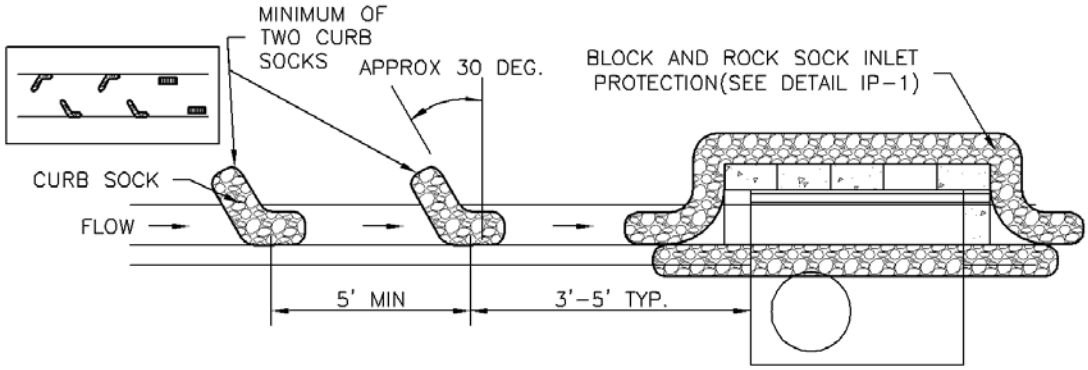
IP–1. BLOCK AND ROCK SOCK SUMP OR ON GRADE INLET PROTECTION

BLOCK AND CURB SOCK INLET PROTECTION INSTALLATION NOTES

1. SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.

2. CONCRETE "CINDER" BLOCKS SHALL BE LAID ON THEIR SIDES AROUND THE INLET IN A SINGLE ROW, ABUTTING ONE ANOTHER WITH THE OPEN END FACING AWAY FROM THE CURB.

3. GRAVEL BAGS SHALL BE PLACED AROUND CONCRETE BLOCKS, CLOSELY ABUTTING ONE ANOTHER AND JOINTED TOGETHER IN ACCORDANCE WITH ROCK SOCK DESIGN DETAIL.



IP–2. CURB ROCK SOCKS UPSTREAM OF INLET PROTECTION

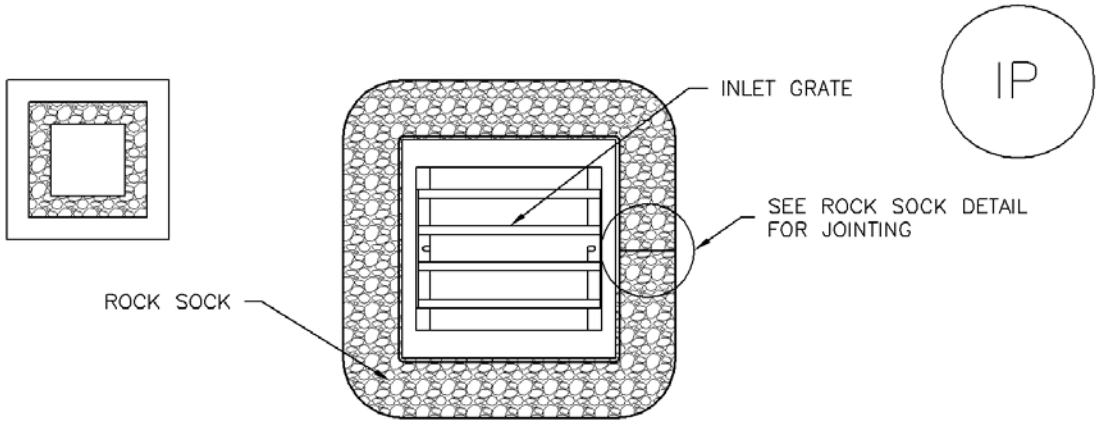
CURB ROCK SOCK INLET PROTECTION INSTALLATION NOTES

1. SEE ROCK SOCK DESIGN DETAIL INSTALLATION REQUIREMENTS.

2. PLACEMENT OF THE SOCK SHALL BE APPROXIMATELY 30 DEGREES FROM PERPENDICULAR IN THE OPPOSITE DIRECTION OF FLOW.

3. SOCKS ARE TO BE FLUSH WITH THE CURB AND SPACED A MINIMUM OF 5 FEET APART.

4. AT LEAST TWO CURB SOCKS IN SERIES ARE REQUIRED UPSTREAM OF ON–GRADE INLETS.

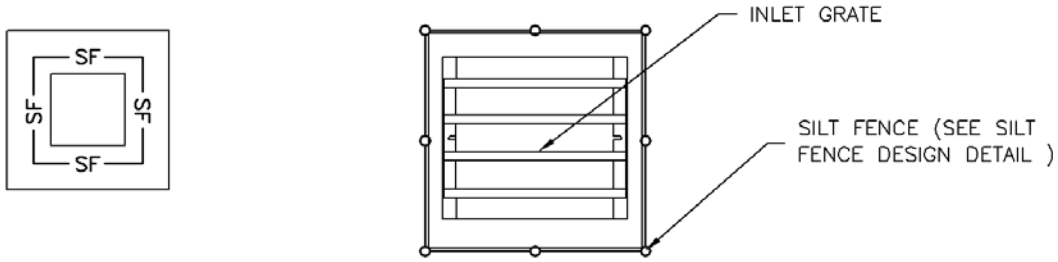


IP–3. ROCK SOCK SUMP/AREA INLET PROTECTION

ROCK SOCK SUMP/AREA INLET PROTECTION INSTALLATION NOTES

1. SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.

2. STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF ROCK SOCKS FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.



IP–4. SILT FENCE FOR SUMP INLET PROTECTION

SILT FENCE INLET PROTECTION INSTALLATION NOTES

1. SEE SILT FENCE DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.

2. POSTS SHALL BE PLACED AT EACH CORNER OF THE INLET AND AROUND THE EDGES AT A MAXIMUM SPACING OF 3 FEET.

3. STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF SILT FENCE FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.

GENERAL INLET PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –LOCATION OF INLET PROTECTION.
   –TYPE OF INLET PROTECTION (IP.1, IP.2, IP.3, IP.4, IP.5, IP.6)

2. INLET PROTECTION SHALL BE INSTALLED PROMPTLY AFTER INLET CONSTRUCTION OR PAVING IS COMPLETE (TYPICALLY WITHIN 48 HOURS). IF A RAINFALL/RUNOFF EVENT IS FORECAST, INSTALL INLET PROTECTION PRIOR TO ONSET OF EVENT.

3. MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

INLET PROTECTION MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SEDIMENT ACCUMULATED UPSTREAM OF INLET PROTECTION SHALL BE REMOVED AS NECESSARY TO MAINTAIN BMP EFFECTIVENESS, TYPICALLY WHEN STORAGE VOLUME REACHES 50% OF CAPACITY, A DEPTH OF 6" WHEN SILT FENCE IS USED, OR ¼ OF THE HEIGHT FOR STRAW BALES.

5. INLET PROTECTION IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED, UNLESS THE LOCAL JURISDICTION APPROVES EARLIER REMOVAL OF INLET PROTECTION IN STREETS.

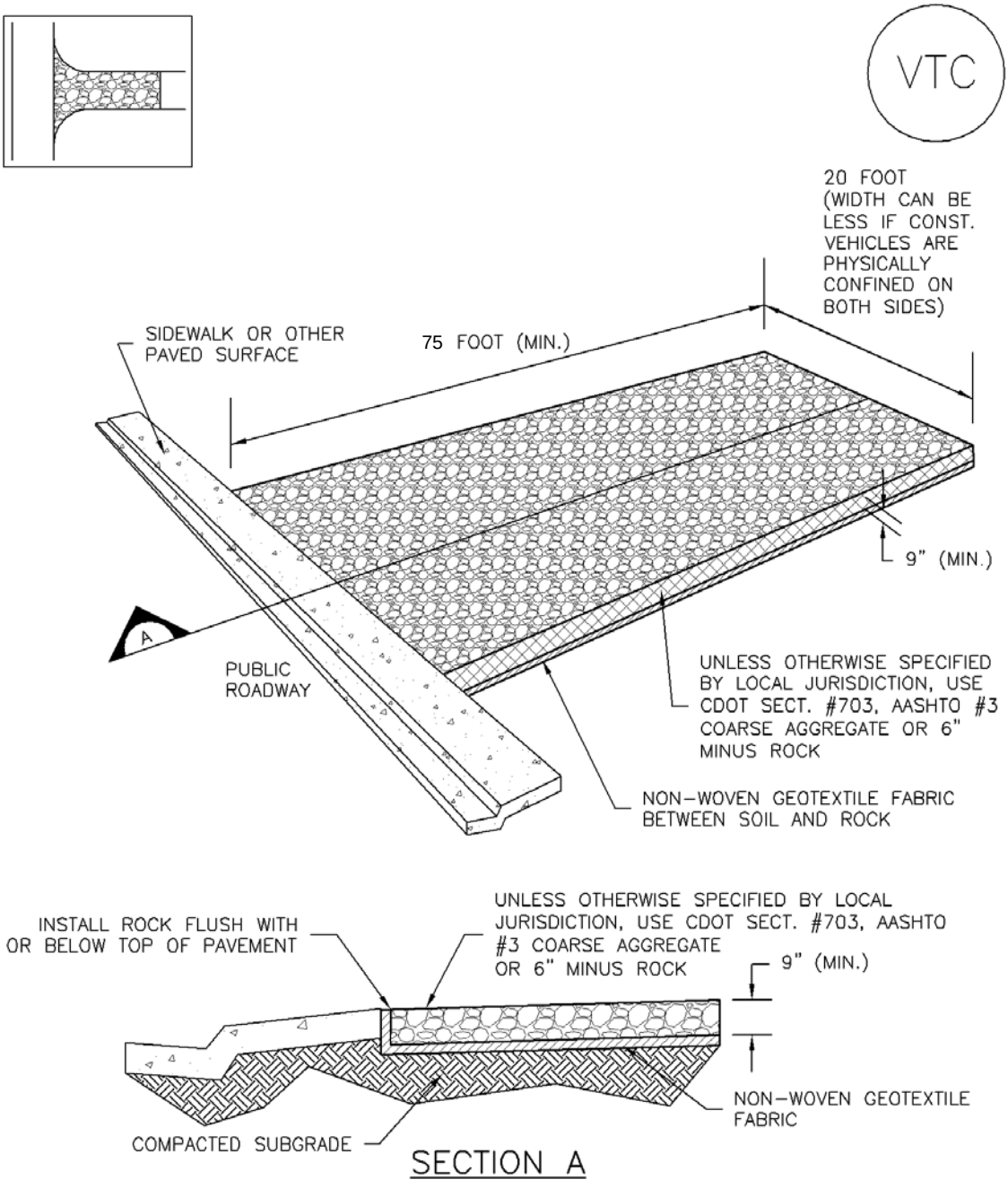
6. WHEN INLET PROTECTION AT AREA INLETS IS REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

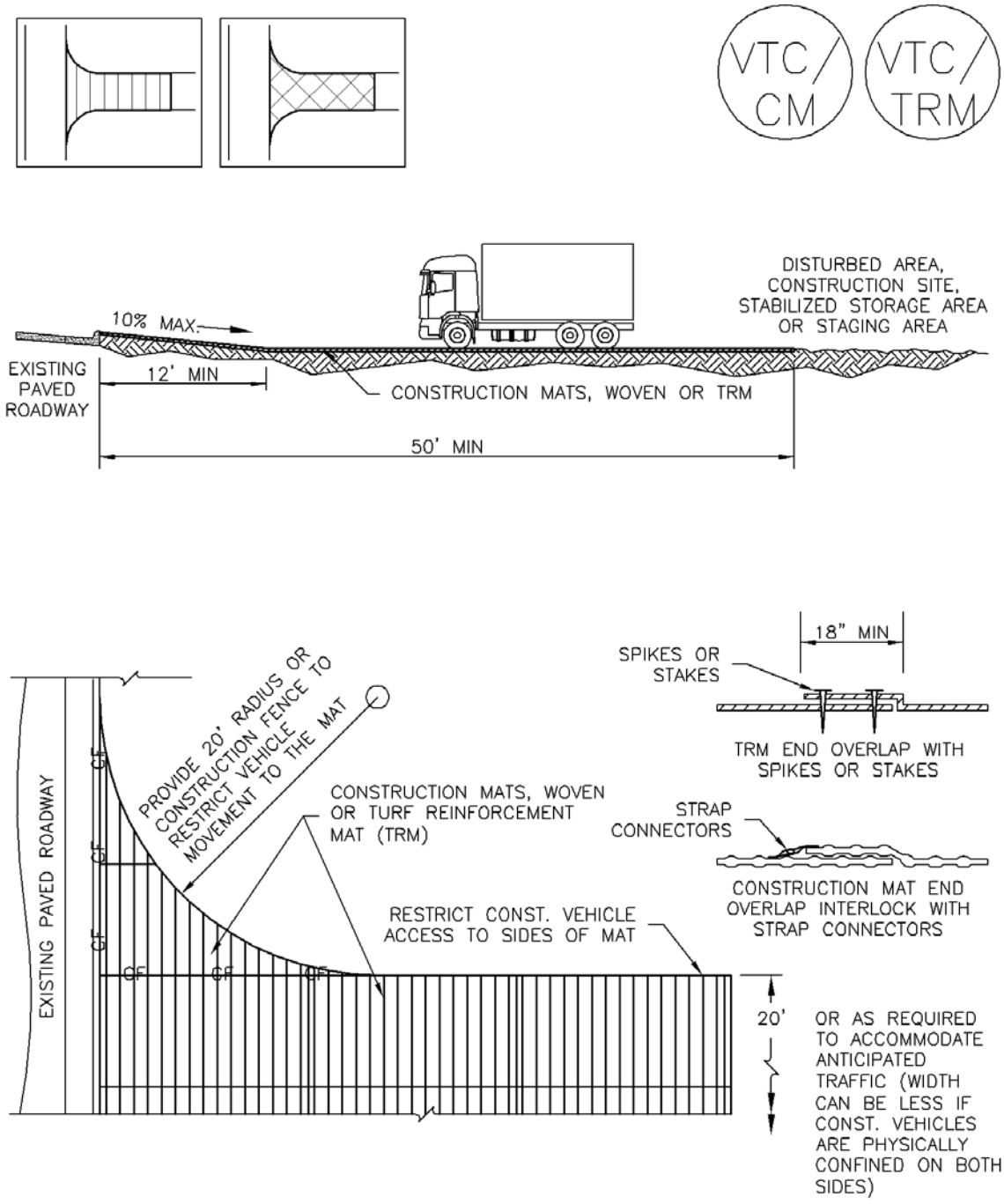
NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

NOTE: THE DETAILS INCLUDED WITH THIS FACT SHEET SHOW COMMONLY USED, CONVENTIONAL METHODS OF INLET PROTECTION IN THE DENVER METROPOLITAN AREA. THERE ARE MANY PROPRIETARY INLET PROTECTION METHODS ON THE MARKET. UDFCD NEITHER ENDORSES NOR DISCOURAGES USE OF PROPRIETARY INLET PROTECTION; HOWEVER, IN THE EVENT PROPRIETARY METHODS ARE USED, THE APPROPRIATE DETAIL FROM THE MANUFACTURER MUST BE INCLUDED IN THE SWMP AND THE BMP MUST BE INSTALLED AND MAINTAINED AS SHOWN IN THE MANUFACTURER'S DETAILS.

NOTE: SOME MUNICIPALITIES DISCOURAGE OR PROHIBIT THE USE OF STRAW BALES FOR INLET PROTECTION. CHECK WITH LOCAL JURISDICTION TO DETERMINE IF STRAW BALE INLET PROTECTION IS ACCEPTABLE.



VTC-1. AGGREGATE VEHICLE TRACKING CONTROL



VTC–3. VEHICLE TRACKING CONTROL W/ CONSTRUCTION MAT OR TURF REINFORCEMENT MAT (TRM)

STABILIZED CONSTRUCTION ENTRANCE/EXIT INSTALLATION NOTES

1. SEE PLAN VIEW FOR
   -LOCATION OF CONSTRUCTION ENTRANCE(S)/EXIT(S).
   -TYPE OF CONSTRUCTION ENTRANCE(S)/EXITS(S) (WITH/WITHOUT WHEEL WASH, CONSTRUCTION MAT OR TRM).

2. CONSTRUCTION MAT OR TRM STABILIZED CONSTRUCTION ENTRANCES ARE ONLY TO BE USED ON SHORT DURATION PROJECTS (TYPICALLY RANGING FROM A WEEK TO A MONTH) WHERE THERE WILL BE LIMITED VEHICULAR ACCESS.

3. A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE LOCATED AT ALL ACCESS POINTS WHERE VEHICLES ACCESS THE CONSTRUCTION SITE FROM PAVED RIGHT-OF-WAYS.

4. STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

5. A NON-WOVEN GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE STABILIZED CONSTRUCTION ENTRANCE/EXIT PRIOR TO THE PLACEMENT OF ROCK.

6. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.

STABILIZED CONSTRUCTION ENTRANCE/EXIT MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY TO THE STABILIZED ENTRANCE/EXIT TO MAINTAIN A CONSISTENT DEPTH.

5. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED THROUGHOUT THE DAY AND AT THE END OF THE DAY BY SHOVELING OR SWEEPING. SEDIMENT MAY NOT BE WASHED DOWN STORM SEWER DRAINS.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM CITY OF BROOMFIELD, COLORADO, NOT AVAILABLE IN AUTOCAD)

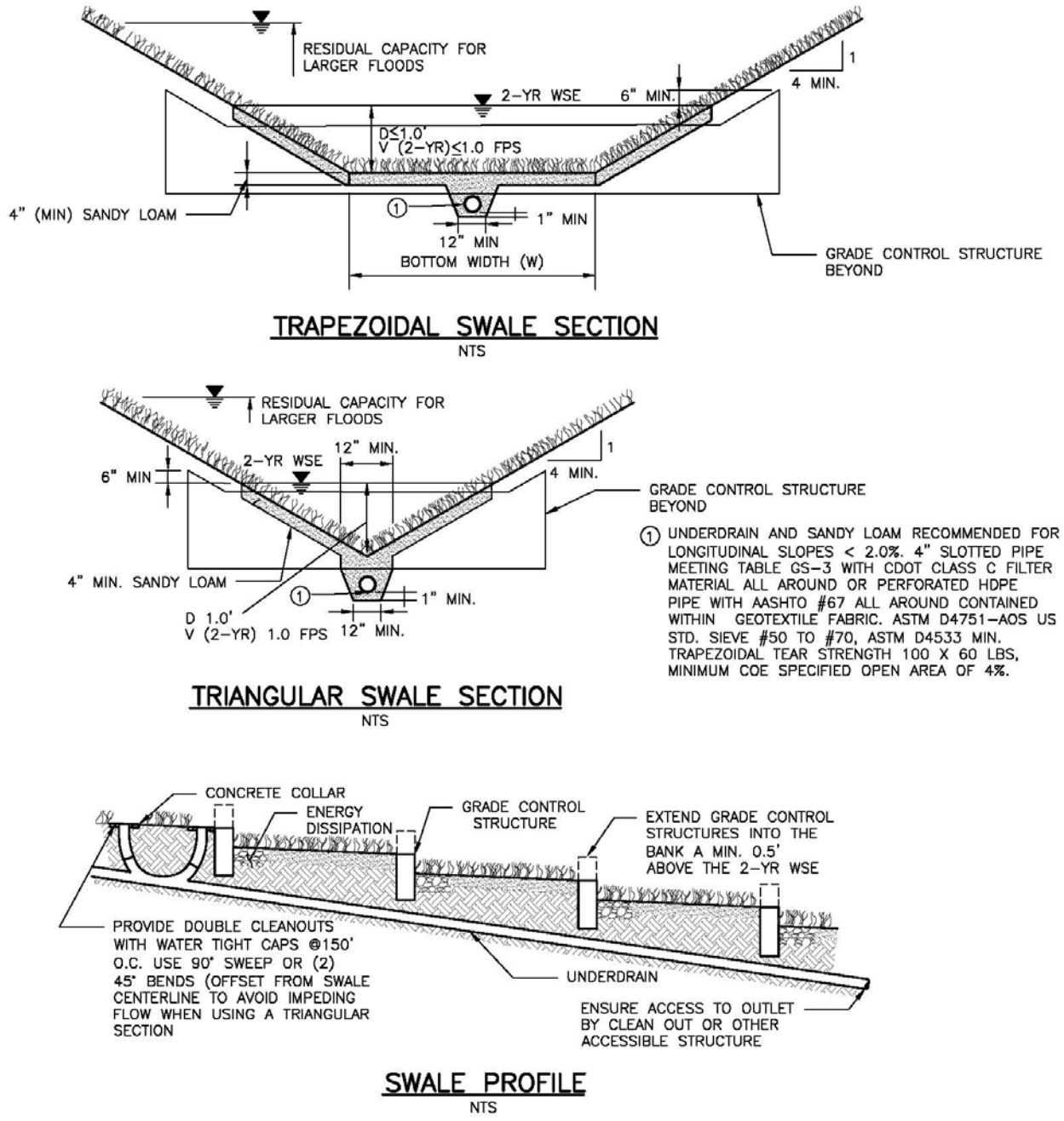


Figure GS-1. Grass Swale Profile and Sections

Design Example

The *UD-BMP* workbook, designed as a tool for both designer and reviewing agency is available at www.udfcd.org. This section provides a completed design form from this workbook as an example.

APPENDIX F

CONTRACTOR TO INSERT THE APPROVED AND SIGNED EROSION STORMWATER QUALITY CONTROL PERMIT (ESQCP). SEE EL PASO COUNTY FILING NO.: VR239 & PPR2336

Agency Review Comments

Link	Agency	Comment	Date
	Pikes Peak Regional Building Department	1. The trash enclosure exceeds 7' therefore, a separate address will need to be assigned along with a separate permit. The address is 7821 Meridian Park Drive. 2. Store address is NOT 7440 Meridian Park Drive but should be 7825 Meridian Park Drive , Gas Canopy is 7829 Meridian Park Drive. No further comment. Amy Vanderbeek Enumerations Plans Examiner Pikes Peak Regional Building Department O: 719-327-2930 E: Amy@pprbd.org Noted. Thank you	3/19/2024 1:48:58 PM
	PCD Project Manager	Planning has made review comments on the following documents: - Application-Petition Form - Financial Assurance Forms - Landscape Plan drawings - Legal Description - Letter of Intent - Lighting Plan - Sign Plan - Site Development Plan Reviewed by: Lacey Dean laceydean2@elpasoco.com Responses provided.	3/26/2024 1:49:19 PM
View	PCD Project Manager	Application-Petition Form	3/26/2024 1:50:45 PM
View	PCD Project Manager	Legal Description	3/26/2024 1:52:04 PM
View	PCD Project Manager	Lighting Plan	3/26/2024 1:53:06 PM
View	PCD Project Manager	Sign Plan	3/26/2024 1:53:26 PM
	EPC Stormwater Review	Review 1: EPC DPW Stormwater comments have been provided (in orange text boxes) on the following uploaded documents: - Drainage Report....(to be uploaded with Development Services comments) - ESQCP - GEC Plan - GEC Checklist - Landscape Plan - Letter of Intent - PBMP Applicability Form - SWMP - SWMP Checklist Reviewed by: Glenn Reese, P.E. Stormwater Engineer III GlennReese@elpasoco.com	3/28/2024 1:52:52 PM
	PCD Engineering Division	Engineering Review Ver.1 Please see engineering review comments on the following documents Road Impact Fee are applicable for Convenience Commercial Note: Additional comments may be provided once VR2321 Plat documents are finalized Site Plan may not be approved until Plat is recorded. TIS_V1 Site Plan_V1 LOI_V1 FAE_V1 GEC_V1 FDR_V1 Thank you Edward	3/28/2024 1:56:12 PM

		Schoenheit, Engineer I E.P.C. Dept. of Public Works 2880 International Circle Colorado Springs, CO. 80910 Office: 719.520.6813 Cell: 719.502.9659 https://planningdevelopment.elpasoco.com/	
View	Mountain View Electric Association, Inc.	See attached comments	3/28/2024 1:39:05 PM
View	PCD Engineering Division	FDR_V1	3/28/2024 1:50:02 PM
View	PCD Engineering Division	TIS_V1	3/28/2024 1:50:42 PM
View	PCD Engineering Division	LOI_V1	3/28/2024 1:51:46 PM
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View	EPC Stormwater Review	ESQCP	3/28/2024 1:53:10 PM
View	EPC Stormwater Review	GEC Plan	3/28/2024 1:53:30 PM
View	EPC Stormwater Review	GEC Checklist	3/28/2024 1:53:46 PM
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View	EPC Stormwater Review	Landscape Plan	3/28/2024 1:54:01 PM
View	EPC Stormwater Review	Letter of Intent	3/28/2024 1:54:15 PM
View	EPC Stormwater Review	PBMP Applicability Form	3/28/2024 1:54:29 PM
View	EPC Stormwater Review	SWMP	3/28/2024 1:54:45 PM
View	EPC Stormwater Review	SWMP Checklist	3/28/2024 1:55:01 PM

A Member-Owned Cooperative

MOUNTAIN VIEW ELECTRIC ASSOCIATION, INC.

Your Touchstone Energy® Cooperative

March 28, 2024

Lacey Dean
El Paso County Development Services
2880 International Circle, Suite 110
Colorado Springs, CO 80910

SUBJECT: Engineering Review Comment
Mountain View Electric Association Inc. (MVEA)

To El Paso County:

MVEA has these comments about the following:

Project Name: 11745 Owl Place – Lot 1, Owl Marketplace Filing 1
Project Number: PPR244
Description: Proposed commercial development of a gas station and convenience store located at Owl Place, west of Meridian Rd. in Township 13S, Range 65W, Section 01.

This area is within Mountain View Electric Association, Inc. certificated area. MVEA currently serves this parcel according to our Line Extension Policy. Information concerning connection requirements, fees, and upgrades under MVEA's Line Extension Policy can be obtained by contacting MVEA's Engineering Department.

MVEA requests twenty (20) foot front, side, and rear utility easements on commercial lots and will work with the developer on the design of the electric service and to acquire any additional easements. MVEA also requests the platting of MVEA's existing facilities with easements on the plat.

MVEA has existing facilities near and within this parcel of land. If there is any damage, removal or relocation of facilities it will be at the expense of the applicant.

If additional information is required, please contact me at (719) 494-2636. Our office hours are 7:00 a.m. to 5:30 p.m., Monday – Thursday.

Sincerely,

Gina Perry
Gina Perry
Right-of-Way Specialist