SITE DEVELOPMENT PLANS FOR

MURPHY USA (NTI)

EL PASO COUNTY, COLORADO

7825 MERIDIAN PARK DRIVE (MURPHY #7968)

Vicinity Map

NOT TO SCALE

SITE PLAN		
GENERAL DEVELOPMENT DATA		
SITE ADDRESS	7825 MERIDIAN PARK DRIVE, FALCON, CO 80831	
JURISDICTION	EL PASO COUNTY, COLORADO	
TAX SCHEDULE NUMBER	5301001015	
COUNTY FILE NUMBER	PPR-24-004	
SITE AREA/TOTAL ACREAGE	48,273 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 SF	
TOTAL LOT AREA	48,273 SF	
LOT AREA COVERAGE	5.89%	
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'	

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

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
	19	12	1	32
NO. OF FUEL ISLANDS: 6 NO. OF VEHICLE FUELING POINTS: 12				

PLAN INDEX:

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

RESOURCE LIST:

PLANNING & ZONING
EL PASO COUNTY PLANNING
2880 INTERNATIONAL CIRCLE, SUITE 110
COLORADO SPRINGS, CO 80910
CONTACT:
(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

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

GENERAL NOTES:

1. 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 ON ALL SALES DOCUMENTS AND ON PLAT NOTES TO ENSURE THAT A TITLE SEARCH WOULD FIND THE FEE OBLIGATION BEFORE SALE OF THE PROPERTY.
2. THE PARTIES RESPONSIBLE FOR THIS PLAN HAVE FAMILIARIZED THEMSELVES WITH CURRENT AMERICANS WITH DISABILITIES ACT (ADA) LAWS AND ACCESSIBILITY STANDARDS AND HAVE 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.

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.

DATE

MURPHY OIL USA, INC.

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

COPYRIGHT
THESE PLANS ARE AN INSTRUMENT OF SERVICE AND ARE THE PROPERTY OF GALLOWAY, AND MAY NOT BE DUPLICATED, DISCLOSED, OR REPRODUCED WITHOUT THE WRITTEN CONSENT OF GALLOWAY. COPYRIGHTS AND INFRINGEMENTS WILL BE ENFORCED AND PROSECUTED.

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

MURPHY USA

SITE DEVELOPMENT PLAN
MURPHY OIL USA #7968
PCD FILING NO. PPR-24-004

7825 MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

#	Date	Issue / Description	Init.

Project No:	MOC000099
Drawn By:	ASA, BLB
Checked By:	KG, CMWJ
Date:	05/17/2024

COVER SHEET

PCD FILE #: PPR244

C0.0

Sheet 1 of 3

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 (5460)
- EXISTING MINOR CONTOUR (52)
- 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 100-YEAR FLOODPLAIN
- 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

COPYRIGHT
THESE PLANS ARE AN INSTRUMENT OF SERVICE AND ARE THE PROPERTY OF GALLOWAY, AND MAY NOT BE DUPLICATED, DISCLOSED, OR REPRODUCED WITHOUT THE WRITTEN CONSENT OF GALLOWAY. COPYRIGHTS AND INFRINGEMENTS WILL BE ENFORCED AND PROSECUTED.

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

SITE DEVELOPMENT PLAN
MURPHY OIL USA #7968
PCD FILING NO. PPR-24-004

7825 MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

#	Date	Issue / Description	Init.

Project No:	MOC000099
Drawn By:	ASA, BLB
Checked By:	KG, CMWJ
Date:	05/17/2024

SITE PLAN

PCD FILE #: PPR244

C1.1

Sheet 2 of 3

DUMPSTER PAD
N.T.S.

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

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

WALL FOOTING
1"=1'-0"

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 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"

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

SECTION D

SECTION E

DUMPSTER ENCLOSURE GATE DETAIL
N.T.S.

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

PRELIMINARY
NOT FOR BIDDING
NOT FOR CONSTRUCTION

COPYRIGHT
THESE PLANS ARE AN INSTRUMENT OF SERVICE AND ARE THE PROPERTY OF GALLOWAY, AND MAY NOT BE DUPLICATED, DISCLOSED, OR REPRODUCED WITHOUT THE WRITTEN CONSENT OF GALLOWAY. COPYRIGHTS AND INFRINGEMENTS WILL BE ENFORCED AND PROSECUTED.

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

SITE DEVELOPMENT PLAN
MURPHY OIL USA #7968
PCD FILING NO. PPR-24-004

7825 MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

#	Date	Issue / Description	Init.

Project No:	MOC000099
Drawn By:	ASA, BLB
Checked By:	KG, CMWJ
Date:	05/17/2024

SITE DETAILS

PCD FILE #: PPR244

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]

Please complete a certification page for the gas station engineer and owner. Owner/Developer of the property must also sign. The Master TIS is used as an exhibit. The traffic memo/conformance letter still must has its owner certification page and signed by engineer and owner.

Provided

500 Gree
Greenwoo
03.770.8

PE

PTOE

024
so C
ce Letter

ts of a traffic conformance analysis performed in support of an
El Paso County, Colorado. The site is located north of Eastonville
e northeast quadrant of the Falcon Market Place/Eastonville Road
e site location is shown on Figure 1.

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.

Update to match current plat

Figure 2 meant to be a snip from the TIS. Language clarified in updated submission

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

Excerpts from the TIS, including trip generation and ADT estimates, 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 in Attachment I.

Table 2-35 of the Engineering Criteria Manual (ECM) states that the site distance requirement is 250' for this speed roadway. As shown in the attached site plan the access to the proposed development would have clear line of sight to the roundabout as well as 250' to the right. Sight distance will be maintained for the proposed access.

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. Note that this use will have a road impact fee of $22,880.
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 the request of El Paso County, CO. If you have any questions or need further information, please contact Brian Horan at BrianHoran@gallowayus.com or 303-770-8884.

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

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.

OWL PLACE COMMERCIAL
Traffic Impact Study

SM ROCHA, LLC
Traffic and Transportation Consultants

Figure 1
SITE LOCATION

April 2023
Page 3

Meridian Road
Eastonville Road
Owl Place
Falcon Market Place
Access C
Access B
Access A
LOT 1
1.24 ACRES
4,170 SF
BLDG
LOT 2
0.67
ACRES
2,000 SF
BLDG
LOT
1.20 AC
3,420 SF
BLDG
LOT
1.49 A
5,300 SF
BLDG
R.O.W. DEDICATION
PUBLIC IMPROVEMENT
EASEMENT
North
Not to Scale

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

			TRIP GENERATION RATES						
ITE			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 ENTER	AM PEAK HOUR EXIT	AM PEAK HOUR TOTAL	PM PEAK HOUR ENTER	PM PEAK HOUR EXIT	PM PEAK HOUR 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

			TOTAL NEW TRIPS GENERATED						
ITE			24	AM PEAK HOUR			PM PEAK HOUR		
CODE	LAND USE	SIZE	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.

OWL PLACE COMMERCIAL
Intersection Sight Distance Exhibit

December 2023

SM ROCHA, LLC
Traffic and Transportation Consultants

0 100 North

Attachment II
Site Plan

Vicinity Map

NOT TO SCALE

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 HARWG
(719) 495-4050
EMAIL: THARWG@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

PARKING INFORMATION: MURPHY OIL

REQUIRED:

RATIO	SPACES			
	REGULAR	UNDER CANOPY	ACCESSIBLE	TOTAL
3/PUMP 1/EMPLOYEE	20	N/A	1	21

PROVIDED:

RATIO	SPACES			
	REGULAR	UNDER CANOPY	ACCESSIBLE	TOTAL
5/PUMP 1/EMPLOYEE	19	12	1	32

NO. OF FUEL ISLANDS: 6
NO. OF VEHICLE FUELING POINTS: 12
NO. OF COMPACT STALLS: 0
NO. OF BIKE STALLS: 1

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 (5460)
- EXISTING MINOR CONTOUR (52)
- EXISTING STORM SEWER (LESS THAN 12"ø) (SD)
- EXISTING SANITARY SEWER (SS)
- EXISTING WATER (W)
- EXISTING UNDERGROUND ELECTRIC (UE)
- EXISTING OVERHEAD ELECTRIC (OHE)
- EXISTING FIBER OPTIC (FO)
- EXISTING GAS (G)
- 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

PROPOSED

- BOUNDARY LINE
- BUILDING CONTROL POINT
- CONCRETE PAVING
- REINFORCED CONCRETE PAVING
- ASPHALT PAVING
- PROPOSED ADA PATH

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

PRELIMINARY
NOT FOR BIDDING
NOT FOR CONSTRUCTION

COPYRIGHT
THESE PLANS ARE AN INSTRUMENT OF SERVICE AND ARE THE PROPERTY OF GALLOWAY, AND MAY NOT BE DUPLICATED, DISCLOSED, OR REPRODUCED WITHOUT THE WRITTEN CONSENT OF GALLOWAY. COPYRIGHTS AND INFRINGEMENTS WILL BE ENFORCED AND PROSECUTED.

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

PARKING LOT PLAN
MURPHY OIL USA #7968
PCD FILING NO. XXXXX

7825 MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

#	Date	Issue / Description	Init.

Project No:	MOC000099
Drawn By:	ASA
Checked By:	KG
Date:	5/17/2024

PARKING LOT PLAN

PCD FILE #: PPR244

P1.1
Sheet 1 of 2

FINAL DRAINAGE LETTER

LOT 1, OWL MARKETPLACE FILING NO. 1

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

PCD File No. PPR244

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:
May 17, 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.

ENGR Stamp, signature and date

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

Date

Sign/stamp will be provided when the overall FDR is approved.

Developer's Certification

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

Owner sign and date

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

I. Introduction 4
II. Existing Drainage Patterns and Features 5
Major Basin Description 5
Existing Drainage Patterns 5
Sub-Basin Descriptions 5
III. Drainage Design Criteria 6
Development Criteria Reference 6
Hydrologic Criteria 6
IV. Proposed Drainage Patterns and Features 7
Proposed Drainage Plan 9
Sub-Basin Descriptions 10
V. Basin Fees 11
IV. Conclusion 11
V. References 11

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

Review C1: 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.

I. Introduction

Review C2: Unresolved. This comment will stay unresolved until VR2321 gets approved.

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 o including a 1-story building with approximately 2,842 GSF and a fueling cano mps. The project's total disturbance is 1.14 acres. Black Squirrel Creek is t oposed development. Flows onsite are directed through an existing storr into Sub Regional Pond SR4, approximately 1,200 feet southwest of the pr

Acknowledged. Approval dates will be updated when available.

The Small Subdivision Drainage Report Format is being utilized instead of the Final Drainage Report because there is a complete drainage report pending approval for the subdivision, "Final Drainage Report for Owl Marketplace Filing No. 1" prepared by Drexel, Barrell & Co. dated January 2024 (**Owl Marketplace FDR**), and the proposed site will follow existing drainage patterns.

Please use approval date of the VR2321 once it is known.

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 +/- 1.18 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:

The existing off-site drainage patterns sheet flow from northeast to southwest, entering the site across the northern property line bordering Lot 2, Owl Marketplace Filing No. 1. Although the existing condition of the site conveys water onto the project site, the **Owl Marketplace FDR** plans for the developed condition of the other lots within Owl Marketplace Filing No. 1 to contain the flows within the respective properties.

Sub-Basin Descriptions

Note: Existing drainage map is provided in **Appendix E** and should be referenced when reading the 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.

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:

$$T_c = T_i + T_t$$

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 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:

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 beneath the 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 a proposed 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 a Water Quality Capture Volume with Slow Release**
   The proposed development utilizes formalized water quality capture volume to slow the release of runoff from the site. An existing public Sub-Regional Detention Pond (SR4) provides EURV volume for the new development which incorporates a 72-hour release. Water quality treatment will be provided for 100% of the disturbed area, 1.11 acres in total, by the Sub-Regional Detention Pond, SR4 (Public). This Sub-Regional Detention Pond, SR4 (Public) was designed to receive runoff from this site at a higher imperviousness than what is being proposed and has been analyzed as a part of the **Owl Marketplace FDR**. Although the site is considered a potential high-risk site due to the classification of being a gas station, hydrocarbons entering the storm system will be minimal. The highest potential area for hydrocarbon collection, the fueling canopy, will be protected by the canopy itself and the grading design, as flows are not directed across the canopy pad. For any hydrocarbons that manage to be picked up by storm runoff, pretreatment will be provided by a SNOUT Water Quality Device manufactured by BMP, Inc. This device will remove hydrocarbons from runoff prior to leaving the site and will be equivalent to utilizing Pervious Landscape Detention or Sand Filters as pretreatment. The proposed development will not have any adverse impacts on existing drainageways, conveyance system, or the existing detention pond (Public). The proposed disturbed areas of the site will ultimately be captured and treated by the existing Sub-Regional Detention Pond, SR4 (Public).

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, 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 Features

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 proposed 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.

Revised.

Please revise to be Appendix E.

Off-Site:

No off-site flows are anticipated on entering the site.

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.

Sub-Basin Descriptions

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

Basin A-1 (0.84 acres, Q5 = 1.78 cfs, Q100 = 3.71 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 proposed 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 proposed grassed swale. Runoff is ultimately directed into a proposed CDOT Type C Storm Sump Inlet (Private), **DP1**. Should the inlet clog, runoff will be directed to the existing Storm Inlet (Public) to the south and the existing 10' CDOT Type R Inlet (Public) located just outside the southwest corner of the site. 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.

Basin A-2 (0.09 acres, Q5 = 0.40 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.** Should the inlet clog, runoff will be directed to the existing Storm Inlet (Public) to the south and the existing 10' CDOT Type R Inlet (Public) located just outside the southwest corner of the site. The flows are then conveyed in pipes through the existing storm drain system.

Basin B-1 (0.14 acres, Q5 = 1.31 cfs, Q100 = 2.29 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 = 0.02 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	1.11	4.5	8.2	95.0%	A-1, A-2, B-1, B-2	1.28	2.2	4.4	69.3%

Since there are some proposed storm infrastructure elements within this project, please provide an engineer's cost estimate.

V. Basin Fees

Cost estimate added to Appendix A.

The project is located within the Falcon D 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 FDL 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**)

Please revise it to be approved date once it is known.

Approval dates will be updated when available.

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

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
- B 20.2 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
- 8 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

Review C1: This FDR has not been approved. Please update the excerpt once it gets approved. This comment stays unresolved until FDR gets approved and updated.

Review C2: Unresolved. This comment will stay unresolved until the FDR gets approved, and updated.

Acknowledged. Excerpts will be updated when available.

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
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 **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
PROJECT NO:	21611-01CSCV
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 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
PROJECT NO:	21611-01CSCV
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
- 6800 EX. MAJOR CONTOUR
- PR. MINOR CONTOUR
- 6800 PR. MAJOR CONTOUR
- STORM DRAIN
- ST EX. STORM DRAIN
- FLOODPLAIN BOUNDARY
- BASIN BOUNDARY
- FLOW DIRECTION
- DESIGN POINT
- BASIN
- AREA (ACRE) — OS-1 0.82 0.75 0.80 — 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'

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

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

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.

FILE: G:\gis_projects\Falcon_Creek_DBPS\activeapps\20130617\mapbooks\Sel_Alt_Middle_Trib.mxd, 1/11/2016, Jeff Clonts

APPENDIX C

HYDRAULIC COMPUTATIONS

Worksheet for Rock Cobble Swale

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.041	
Channel Slope	0.02500	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	0.49	ft
Flow Area	1.43	ft^2
Wetted Perimeter	5.01	ft
Hydraulic Radius	0.29	ft
Top Width	4.89	ft
Critical Depth	0.44	ft
Critical Slope	0.03918	ft/ft
Velocity	2.49	ft/s
Velocity Head	0.10	ft
Specific Energy	0.58	ft
Froude Number	0.81	
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	0.49	ft
Critical Depth	0.44	ft
Channel Slope	0.02500	ft/ft

Worksheet for Rock Cobble Swale

GVF Output Data

Critical Slope	0.03918	ft/ft

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: 5/17/24

		Paved Roads			Lawns			Roofs			
Basin ID	Total Area (ac)	% Imp.	Area (ac)	Weighted % Imp.	% Imp.	Area (ac)	Weighted % Imp.	% Imp.	Area (ac)	Weighted % Imp.	Basins Total 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	0.32	100	0.31	96.9	0	0.01	0.0	100	0.00	0.00	96.9
B-2	0.03	100	0.00	0.0	0	0.03	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: 5/17/24

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	100	2.2	8.4	117	2.5	15.0	2.4	0.8	9.3	217.0	11.2	9.3
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	0.32	A	96.9	0.86	0.83	100	1.4	4.4	185	1.3	20.0	2.3	1.4	5.8	285.0	11.6	5.8
B-2	0.03	A	0.0	0.11	0.00	12	1.5	6.1	155	1.5	7.0	0.9	3.0	9.1	167.0	10.9	9.1

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: 5-Year

Project Name: Murphy Oil - Falcon
Project No.: MOC99
Calculated By: ASA
Checked By: KG
Date: 5/17/24

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)	
		A-1	0.84	0.50	9.3	0.42	4.24	1.8													
		A-2	0.09	0.86	5.0	0.08	5.17	0.4													
	DP1								9.3	0.50	4.24	2.2									Total Proposed Flow at DP1 = 2.2 cfs
		B-1	0.32	0.83	5.8	0.27	4.95	1.3													
		B-2	0.03	0.00	9.1	0.00	4.27	0.0													
									9.1	0.27	4.27	1.3									Proposed Flow Leaving the Site = 1.3 cfs

Galloway

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: 5/17/24

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	9.3	0.52	7.12	3.7													
		A-2	0.09	0.89	5.0	0.08	8.68	0.7													
									9.3	0.60	7.12	4.4									Total Proposed Flow at DP1 = 4.4 cfs
		B-1	0.32	0.86	5.8	0.28	8.32	2.3													
		B-2	0.03	0.11	9.1	0.00	7.17	0.0													
									9.1	0.28	7.17	2.3									Proposed Flow Leaving the Site = 2.3 cfs

Galloway

APPENDIX E

DRAINAGE MAPS

LEGEND

- EX. MINOR CONTOUR
- 6800 EX. MAJOR CONTOUR
- PR. MINOR CONTOUR
- 6800 PR. MAJOR CONTOUR
- STORM DRAIN
- ST EX. STORM DRAIN
- FLOODPLAIN BOUNDARY
- BASIN BOUNDARY
- FLOW DIRECTION
- DESIGN POINT
- BASIN
- AREA (ACRE) — OS-1 0.82 0.75 0.80 — 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'

Please update both existing and proposed drainage maps to match the drainage map of VR2321 once the VR2321 gets approved.

Acknowledged. Map will be updated when available.

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
- 100YR — EXISTING 100-YEAR FLOODPLAIN
- BASIN BOUNDARY
- FLOW FOR CALCULATING TIME OF CONCENTRATION
- PROPOSED FLOW DIRECTION
- A / AC 5 100 — BASIN DESIGNATION; 5-YEAR RUNOFF IN CUBIC FEET PER SECOND; 100-YEAR RUNOFF IN CUBIC FEET PER SECOND; 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: 2.5%; 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	45,860.80	95.00
GROSS SITE	48,273.00	100

POST-CONSTRUCTION IMPERVIOUS SITE RATIO (ISR)		
AREA	SQUARE FEET	%
IMPERVIOUS (ROOF AND PAVING)	33,433.09	69.30
LANDSCAPE AREA	14,839.91	30.70
GROSS SITE	48,273.00	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	9.27	1.78	3.71
A-2	0.09	0.86	0.89	5.00	0.40	0.70
B-1	0.32	0.83	0.86	5.77	1.31	2.29
B-2	0.03	0.00	0.11	9.11	0.00	0.02

DESIGN POINT TABLE

Design Point	Q5 (cfs)	Q100 (cfs)
1	2.19	4.40

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

COPYRIGHT
THESE PLANS ARE AN INSTRUMENT OF SERVICE AND ARE THE PROPERTY OF GALLOWAY, AND MAY NOT BE DUPLICATED, DISCLOSED, OR REPRODUCED WITHOUT THE WRITTEN CONSENT OF GALLOWAY. COPYRIGHTS AND INFRINGEMENTS WILL BE ENFORCED AND PROSECUTED.

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

DRAINAGE PLAN
MURPHY OIL USA #7968

7825 MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

#	Date	Issue / Description	Init.

Project No:	MOC99
Drawn By:	ASA
Checked By:	KG
Date:	05/17/2024

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

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

GRADING & EROSION CONTROL PLANS FOR

MURPHY USA (NTI)

EL PASO COUNTY, COLORADO

7825 MERIDIAN PARK DRIVE (MURPHY #7968)

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

G0.0	COVER SHEET
G0.1	NOTES
G0.2	CUT & FILL EXHIBIT
G1.1	PHASE I (INITIAL) PHASE II (INTERIM)
G2.1	PHASE III (FINAL) EROSION CONTROL PLAN
G3.1	EROSION CONTROL DETAILS
C3.2	EROSION CONTROL DETAILS
C3.3	EROSION CONTROL DETAILS
C3.4	EROSION CONTROL DETAILS

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) 520-6300

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 HARWG
(719) 495-4050
EMAIL: THARWG@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

Engineer and owner to stamp/sign date. Engineer stamp all GEC pages with std seal signature
Owner to sign / date

Sign/stamp will be provided during final submittal.

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.

Know what's below. Call before you dig.

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

COPYRIGHT
THESE PLANS ARE AN INSTRUMENT OF SERVICE AND ARE THE PROPERTY OF GALLOWAY, AND MAY NOT BE DUPLICATED, DISCLOSED, OR REPRODUCED WITHOUT THE WRITTEN CONSENT OF GALLOWAY. COPYRIGHTS AND INFRINGEMENTS WILL BE ENFORCED AND PROSECUTED.

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

GEC PLAN
MURPHY OIL USA #7968
PCD FILE #: PPR244

7825 MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

#	Date	Issue / Description	Init.

Project No:	MOC000099
Drawn By:	ASA, BLB
Checked By:	KG, CMWJ
Date:	05/17/2024

COVER SHEET

PCD FILE #: PPR244

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 (SWMP) 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 K. 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, 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)

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

COPYRIGHT
THESE PLANS ARE AN INSTRUMENT OF SERVICE AND ARE THE PROPERTY OF GALLOWAY, AND MAY NOT BE DUPLICATED, DISCLOSED, OR REPRODUCED WITHOUT THE WRITTEN CONSENT OF GALLOWAY. COPYRIGHTS AND INFRINGEMENTS WILL BE ENFORCED AND PROSECUTED.

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

GEC PLAN
MURPHY OIL USA #7968
PCD FILE #: PPR244

7825 MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

#	Date	Issue / Description	Init.

Project No:	MOC000099
Drawn By:	ASA, BLB
Checked By:	KG, CMWJ
Date:	05/17/2024

NOTES

PCD FILE #: PPR244

G0.1

N

0 10 20

SCALE: 1"=20'

LEGEND

- AREAS OF CUT
- 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	221.06 CY
FILL	564.20 CY
NET	343.14 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 DRAWNGS. 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

COPYRIGHT
THESE PLANS ARE AN INSTRUMENT OF SERVICE AND ARE THE PROPERTY OF GALLOWAY, AND MAY NOT BE DUPLICATED, DISCLOSED, OR REPRODUCED WITHOUT THE WRITTEN CONSENT OF GALLOWAY. COPYRIGHTS AND INFRINGEMENTS WILL BE ENFORCED AND PROSECUTED.

MURPHY OIL USA, INC.

MURPHY USA

200 PEACH STREET
EL DORADO, AR 71730

GEC PLAN
MURPHY OIL USA #7968
PCD FILE #: PPR244

7825 MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

#	Date	Issue / Description	Init.

Project No:	MOC000099
Drawn By:	ASA, BLB
Checked By:	KG, CMWJ
Date:	05/17/2024

CUT & FILL EXHIBIT

PCD FILE #: PPR244

G0.2

N

0 10 20

SCALE: 1"=20'

USGS QUADRANGLE MAP
N.T.S.

DISTURBED AREA:

1. TOTAL SITE AREA = 1.11 ACS.
2. DISTURBED AREA = 1.18 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.

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 ½ 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.

C. SITE MAP MUST CLEARLY DELINEATE ALL STATE WATERS. PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.

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.

E. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES. CONTRACTOR SHALL CONSTRUCT TEMPORARY BERM ON DOWNSTREAM SIDES AS NEEDED.

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.

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 — LIMITS OF CONSTRUCTION/DISTURBANCE
- SC — PROPOSED SAWCUT LINE
- 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.

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

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.

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 DEFICIENCES 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"

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

COPYRIGHT
THESE PLANS ARE AN INSTRUMENT OF SERVICE AND ARE THE PROPERTY OF GALLOWAY, AND MAY NOT BE DUPLICATED, DISCLOSED, OR REPRODUCED WITHOUT THE WRITTEN CONSENT OF GALLOWAY. COPYRIGHTS AND INFRINGEMENTS WILL BE ENFORCED AND PROSECUTED.

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

GEC PLAN
MURPHY OIL USA #7968
PCD FILE #: PPR244

7825 MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

#	Date	Issue / Description	Init.

Project No:	MOC000099
Drawn By:	ASA, BLB
Checked By:	KG, CMWJ
Date:	05/17/2024

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

PCD FILE #: PPR244

G1.1

N

0 10 20

SCALE: 1"=20'

USGS QUADRANGLE MAP
N.T.S.

DISTURBED AREA:

1. TOTAL SITE AREA = 1.11 ACS.
2. DISTURBED AREA = 1.18 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.

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 ½ 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.

C. SITE MAP MUST CLEARLY DELINEATE ALL STATE WATERS. PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.

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.

E. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES. CONTRACTOR SHALL CONSTRUCT TEMPORARY BERM ON DOWNSTREAM SIDES AS NEEDED.

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. 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.

T. PLACE *CWS RAMPLESS CONTAINER WITH ULTRALINER* OR SIMILAR, AFTER PAVEMENT IS COMPLETE.

U. 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.

V. 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.

W. 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).

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

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

EXISTING

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

PROPOSED

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

EROSION DETAILS – SEE DETAIL SHEETS

- LOD — LIMITS OF CONSTRUCTION/DISTURBANCE
- SC — PROPOSED SAWCUT LINE
- SF — SILT FENCE
- VTC — VEHICLE TRACKING CONTROL
- CWA — CONCRETE WASHOUT AREA
- ECB — EROSION CONTROL BLANKET
- IP — INLET PROTECTION (IP-2)
- WP — WASHOUT POSTING
- SCL — SEDIMENT CONTROL LOGS
- RS — ROCK SOCKS
- SM — SEEDING & MULCHING

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.

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.

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.

GRASSED SWALE
N.T.S.
(BTM WIDTH: 1.0'; DEPTH: 0.47'; SIDE SLOPES:4:1; SLOPE:2.5%; Q_{100}: 3.57 CFS; V_{100}: 2.60 FPS)

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."

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

COPYRIGHT
THESE PLANS ARE AN INSTRUMENT OF SERVICE AND ARE THE PROPERTY OF GALLOWAY, AND MAY NOT BE DUPLICATED, DISCLOSED, OR REPRODUCED WITHOUT THE WRITTEN CONSENT OF GALLOWAY. COPYRIGHTS AND INFRINGEMENTS WILL BE ENFORCED AND PROSECUTED.

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

GEC PLAN
MURPHY OIL USA #7968
PCD FILE #: PPR244

7825 MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

#	Date	Issue / Description	Init.

Project No:	MOC000099
Drawn By:	ASA, BLB
Checked By:	KG, CMWJ
Date:	05/17/2024

PHASE III (FINAL)
EROSION CONTROL PLAN

PCD FILE #: PPR244

G2.1

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

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)

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.

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

COPYRIGHT
THESE PLANS ARE AN INSTRUMENT OF SERVICE AND ARE THE PROPERTY OF GALLOWAY, AND MAY NOT BE DUPLICATED, DISCLOSED, OR REPRODUCED WITHOUT THE WRITTEN CONSENT OF GALLOWAY. COPYRIGHTS AND INFRINGEMENTS WILL BE ENFORCED AND PROSECUTED.

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

GEC PLAN
MURPHY OIL USA #7968
PCD FILE #: PPR244

7825 MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

#	Date	Issue / Description	Init.

Project No:	MOC000099
Drawn By:	ASA, BLB
Checked By:	KG, CMWJ
Date:	05/17/2024

EROSION CONTROL DETAILS

PCD FILE #: PPR244

G3.1

TRENCHED SEDIMENT CONTROL LOG

SECTION Ⓐ
TRENCHED SEDIMENT CONTROL LOG

LOG JOINTS

SCL-1. TRENCHED SEDIMENT CONTROL LOG

COMPOST SEDIMENT CONTROL LOG (WEIGHTED)

SECTION Ⓐ
COMPOST SEDIMENT CONTROL LOG

LOG JOINTS

SCL-2. COMPOST SEDIMENT CONTROL LOG (WEIGHTED)

SCL-3. SEDIMENT CONTROL LOGS TO CONTROL SLOPE LENGTH

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

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

COPYRIGHT
THESE PLANS ARE AN INSTRUMENT OF SERVICE AND ARE THE PROPERTY OF GALLOWAY, AND MAY NOT BE DUPLICATED, DISCLOSED, OR REPRODUCED WITHOUT THE WRITTEN CONSENT OF GALLOWAY. COPYRIGHTS AND INFRINGEMENTS WILL BE ENFORCED AND PROSECUTED.

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

GEC PLAN
MURPHY OIL USA #7968
PCD FILE #: PPR244

7825 MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

#	Date	Issue / Description	Init.

Project No:	MOC000099
Drawn By:	ASA, BLB
Checked By:	KG, CMWJ
Date:	05/17/2024

EROSION CONTROL DETAILS

PCD FILE #: PPR244

C3.2

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

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 NOORSES 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
GallowayUS.com

COPYRIGHT
THESE PLANS ARE AN INSTRUMENT OF SERVICE AND ARE THE PROPERTY OF GALLOWAY, AND MAY NOT BE DUPLICATED, DISCLOSED, OR REPRODUCED WITHOUT THE WRITTEN CONSENT OF GALLOWAY. COPYRIGHTS AND INFRINGEMENTS WILL BE ENFORCED AND PROSECUTED.

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

GEC PLAN
MURPHY OIL USA #7968
PCD FILE #: PPR244

7825 MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

#	Date	Issue / Description	Init.

Project No:	MOC000099
Drawn By:	ASA, BLB
Checked By:	KG, CMWJ
Date:	05/17/2024

EROSION CONTROL DETAILS

PCD FILE #: PPR244

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.

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.

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

COPYRIGHT
THESE PLANS ARE AN INSTRUMENT OF SERVICE AND ARE THE PROPERTY OF GALLOWAY, AND MAY NOT BE DUPLICATED, DISCLOSED, OR REPRODUCED WITHOUT THE WRITTEN CONSENT OF GALLOWAY. COPYRIGHTS AND INFRINGEMENTS WILL BE ENFORCED AND PROSECUTED.

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

GEC PLAN
MURPHY OIL USA #7968
PCD FILE #: PPR244

7825 MERIDIAN PARK DRIVE
EL PASO COUNTY, COLORADO

#	Date	Issue / Description	Init.

Project No:	MOC000099
Drawn By:	ASA, BLB
Checked By:	KG, CMWJ
Date:	05/17/2024

EROSION CONTROL DETAILS

PCD FILE #: PPR244

C3.4

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

Updated: 10/2023

PROJECT INFORMATION		
Murphy Oil - Store #7968	5/17/2024	PPR244
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	785.	CY	$ 8.00	=	$ 6,280.00		$ 6,280.00	*
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	173.2	SY	$ 3.00	=	$ 519.60		$ 519.60	
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)				=	$ 2,362.37		$ 2,362.37	
* - Subject to defect warranty financial assurance. A minimum of 20% shall be retained until final acceptance (MAXIMUM OF 80% COMPLETE ALLOWED)		**Section 1 Subtotal**		**=**	**$ 16,564.01**		**$ 16,564.01**	
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		=	$ -		$ -	*

PROJECT INFORMATION		
Murphy Oil - Store #7968	5/17/2024	PPR244
Project Name	Date	PCD File No.

Description	Quantity	Units	Unit Cost		Total	(with Pre-Plat Construction) % Complete	Remaining	
				=	$ -		$ -	
[insert items not listed but part of construction plans]				=	$ -		$ -	*
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	5/17/2024	PPR244
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)	2181.31	SF	$ 12.00	=	$ 26,175.72		$ 26,175.72
Concrete Pavement (5" Thickness)	31833.9	SF	$ 10.00	=	$ 318,339.00		$ 318,339.00
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	244.1	SY	$ 62.00	=	$ 15,134.20		$ 15,134.20
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"	48.53	LF	$ 100.00	=	$ 4,853.00		$ 4,853.00
Water Service Pipe (Copper), Size 3/4"	183.14	LF	$ 75.00	=	$ 13,735.50		$ 13,735.50
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**	**=**	**$ 528,224.82**		**$ 528,224.82**

PROJECT INFORMATION		
Murphy Oil - Store #7968	5/17/2024	PPR244
Project Name	Date	PCD File No.

Description	Quantity	Units	Unit Cost		Total	(with Pre-Plat Construction) % Complete	Remaining
AS-BUILT PLANS (Public Improvements inc. Permanent WQCV BMPs)			$ -	=	$ -		$ -
POND/BMP CERTIFICATION (inc. elevations and volume calculations)		LS	$ -	=	$ -		$ -

Total Construction Financial Assurance **$ 544,788.83**

(Sum of all section subtotals plus as-builts and pond/BMP certification)

Total Remaining Construction Financial Assurance (with Pre-Plat Construction) **$ 544,788.83**

(Sum of all section totals less credit for items complete plus as-builts and pond/BMP certification)

Total Defect Warranty Financial Assurance **$ 2,840.33**

(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 [illegible] the Project.

Stamp, sign and date

Sign/stamp will be provided during final submittal.

Engineer (P.E. Seal Required)

Approved by Owner / Applicant — Date

Approved by El Paso County Engineer / ECM Administrator — Date

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.

Part I. Project Information	
1. Project Name: Murphy USA Fuel Station & Convenience Store	
2. El Paso County Project #: PPR244	**3. ESQCP #:**
4. Project Location: Falcon, CO	**Project Location in MS4 Permit Area (Y or N):** N
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, $\geq$ 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.		

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".

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 _____

please stamp, sign, and date

Sign/stamp will be provided during final submittal.

Also state that an additional Specialized BMP was required for this High Risk site per ECM Appendix I.7.2. And this req was met via the SNOUT.

Updated as requested.

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
    N/A – Runoff Reduction Standard is not required to be met.
    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
    N/A – Runoff is not conveyed via "Waters of the State".
    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.