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

remove checklist from report

EL PASO COUNTY
STORMWATER MANAGEMENT PLAN CHECKLIST

EPC Project Number:

Revised: October 2021

		Applicant	EPC
1. STORMWATER MANAGEMENT PLAN (in the "Applicant" column specify the page number for each item)			
1	Applicant (owner/designated operator), SWMP Preparer, Qualified Stormwater Manager, and Contractor Information. (On cover/title sheet)	1	
2	Table of Contents	i	
3	Site description and location to include: vicinity map with nearest street/crossroads description	1	
4	Narrative description of construction activities proposed (e.g., may include clearing and grubbing, temporary stabilization, road grading, utility / storm installation, final grading, final stabilization, and removal of temporary control measures)	3	
5	Phasing plan – may require separate drawings indicating initial, interim, and final site phases for larger projects. Provide “living maps” that can be revised in the field as conditions dictate	15	
6	Proposed sequence for major activities: Provide a construction schedule of anticipated starting and completion dates for each stage of land-disturbing activity depicting conservation measures anticipated, including the expected date on which the final stabilization will be completed	15	
7	Estimates of the total site area and area to undergo disturbance; current area of disturbance must be updated on the SWMP as changes occur	3	
8	Soil erosion potential and impacts on discharge that includes a summary of the data used to determine soil erosion potential	2	
9	A description of existing vegetation at the site and percent ground cover and method used to determine ground cover	2	
10	Location and description of all potential pollution sources including but not limited to: disturbed and stored soils; vehicle tracking; management of contaminated soils; loading and unloading operations; outdoor storage of materials; vehicle and equipment maintenance and fueling; significant dust generating process; routine maintenance activities involving fertilizers, pesticides, herbicides, detergents, fuels, solvents, oils, etc.; on-site waste management; concrete truck/equipment washing; dedicated asphalt, concrete batch plants and masonry mixing stations; non-industrial waste such as trash and portable toilets	6	
11	Material handling to include spill prevention and response plan and procedures	14	
12	Spill prevention and pollution controls for dedicated batch plants	7	
13	Other SW pollutant control measures to include waste disposal and off-site soil tracking	13	
14	Location and description of any anticipated allowable non-stormwater discharge (ground water, springs, irrigation, discharge covered by CDPHE Low Risk Guidance, etc.)	22	
15	Name(s) of ultimate receiving waters; size, type and location of stormwater outfall or storm sewer system discharge	4	
16	Description of all stream crossings located within the project area or statement that no streams cross the project area	3	

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

EL PASO COUNTY
STORMWATER MANAGEMENT PLAN CHECKLIST

EPC Project Number:

Revised: October 2021

		Applicant	EPC
17	SWMP Map to include:		
17a	construction site boundaries	C905	
17b	flow arrows to depict stormwater flow directions	C905	
17c	all areas of disturbance	C905	
17d	areas of cut and fill	C905	
17e	areas used for storage of building materials, soils (stockpiles) or wastes	C905	
17f	location of any dedicated asphalt / concrete batch plants	N/A	
17g	location of all structural control measures	C905	
17h	location of all non-structural control measures	C905	
17i	springs, streams, wetlands and other surface waters, including areas that require maintenance of pre-existing vegetation within 50 feet of a receiving water	3	
18	Narrative description of all structural control measures to be used. Modifications to EPC standard control measures must meet or exceed County-approved details	7	
19	Description of all non-structural control measures to be used including seeding, mulching, protection of existing vegetation, site watering, sod placement, etc.	10	
20	Technical drawing details for all control measure installation and maintenance; custom or other jurisdiction's details used must meet or exceed EPC standards	C910	
21	Procedure describing how the SWMP is to be revised	5	
22	Description of Final Stabilization and Long-term Stormwater Quality (describe nonstructural and structural measures to control SW pollutants after construction operations have been completed, including detention, water quality control measure etc.)	20	
23	Specification that final vegetative cover density is to be 70% of pre-disturbed levels	20	
24	Outline of permit holder inspection procedures to install, maintain, and effectively operate control measures to manage erosion and sediment	17	
25	Record keeping procedures identified to include signature on inspection logs and location of SWMP records on-site	18	
26	If this project relies on control measures owned or operated by another entity, a documented agreement must be included in the SWMP that identifies location, installation and design specifications, and maintenance requirements and responsibility of the control measure(s)	17	
	Please note: all items above must be addressed. If not applicable, explain why, simply identifying "not applicable" will not satisfy CDPHE requirement of explanation.		
2. <u>ADDITIONAL REPORTS/PERMITS/DOCUMENTS</u>			
a	Grading and Erosion Control Plan (signed)	App. E	
b	Erosion and Stormwater Quality Control Permit (ESQCP) (signed)	App. C	

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

EL PASO COUNTY
STORMWATER MANAGEMENT PLAN CHECKLIST

EPC Project Number:

Revised: October 2021

		Applicant	EPC
3. APPLICANT COMMENTS			
a			
b			
c			
4. CHECKLIST REVIEW CERTIFICATIONS			
a	Applicant: The Stormwater Management Plan was prepared under my direction and supervision and is correct to the best of my knowledge and belief. Said Plan has been prepared according to the criteria established by the County and State for Stormwater Management Plans. Digitally signed by Jay M. Newell SN: C=US CN=Jay M. Newell O="Sterling Design Associates, llc" E=jay@sterlingdesignassociates.com Date: 2022.07.25 09:40:48 -06'00' Engineer of Record and/or Qualified Stormwater Manager Signature — Date: August 2022		
b	Review Engineer: The Stormwater Management Plan was reviewed and found to meet the checklist requirements except where otherwise noted or allowed by an approved deviation request. Review Engineer — Date		

STORMWATER MANAGEMENT PLAN / EROSION & STORMWATER QUALITY CONTROL PLAN

SPACE VILLAGE FILING NO. 4

EL PASO COUNTY
STATE OF COLORADO

PREPARED FOR:

COMMERCIAL BUILDING SERVICES
7561 S. GRANT STREET, SUITE A-4
LITTLETON, COLORADO 80122
CONTACT: DAVID SPRATLEN
PHONE: 303.730.3001

PREPARED BY:

STERLING DESIGN ASSOCIATES, LLC
2009 W. LITTLETON BLVD. #300
LITTLETON, CO 80120
CONTACT: JAY M. NEWELL, PE
PHONE: 303.794.4727

AUGUST, 2022

STERLING DESIGN ASSOCIATES
Civil Engineers | Landscape Architects

TABLE OF CONTENTS

OWNER STATEMENT

I. CONTACTS 1

II. PROJECT DESCRIPTION 1

A. Location 1

B. Existing Condition 2

C. Adjacent Properties 3

D. Proposed Construction 3

E. Receiving Water 4

F. Miscellaneous 4

III. SITE MAP COMPONENT 4

IV. SWMP ADMINISTRATOR 5

V. STORMWATER MANAGEMENT CONTROLS 5

A. Potential Pollution Sources 6

B. Structural Control Measures 7

C. Non-Structural Control Measures 10

D. Ancillary Controls 12

E. Good Housekeeping Procedures 13

1. Solid or Construction Waste 13

2. Sanitary and Septic Waste 13

3. Building Material Handling and Staging 14

4. Hazardous Materials and Wastes 14

F. Construction Phasing and Sequencing 15

VI. INSPECTION AND MAINTENANCE 17

VII. FINAL STABILIZATION AND LONG-TERM CONTROLS 20

VIII. PERMIT COVERAGE 21

A. Permit Application 21

B. Limitations 21

C. Notifications and Records 22

IX. FAMILIARITY REQUIRED 23

X. REFERENCES 24

STERLING
DESIGN ASSOCIATES
Civil Engineers | Landscape Architects

Appendix A Vicinity Map
NRCS Web Soil Survey Soil Data Maps
SCS Soil Survey
Flood Insurance Rate Map

Appendix B Spill Prevention and Control Plan
Colorado Dept. of Public Health & Environment (CDPHE) Environmental Spill Reporting
Colorado Dept. of Public Health & Environment (CDPHE) Five Day Reporting Form

Appendix C Colorado Dept. of Public Health & Environment (CDPHE) CDPS Documents
- Colorado Environmental Online Services (CEOS) Help Guide
- CDPS COR400000 General Permit
- Low Risk Discharge Guidance – Discharges of Uncontaminated Groundwater to Land (WQP-27)

El Paso County Documents
- Erosion and Stormwater Quality Control Permit (ESQCP) Application
- Inspection Checklist – Grading, Erosion, and Stormwater Quality Controls

Appendix D Example Logs and Inspection Forms

Appendix E Site Maps (Grading and Erosion Control Plans)
Landscape Plan (Final Stabilization Plan)

STERLING
DESIGN ASSOCIATES
Civil Engineers | Landscape Architects

OWNER STATEMENT

The Owner will comply with the requirements of the Erosion and Stormwater Quality Control Plan.

_____ _____

Signature Date

I. CONTACTS

OWNER (CO-APPLICANT):

Hampton Partners
201 Fillmore St., Suite 201
Denver, Colorado 80206
Contact: Tucker Robinson
Phone: (303) 694-1085

GENERAL CONTRACTOR (CO-APPLICANT):

Commercial Building Services
7561 S. Grant St., Suite A-4
Littleton, Colorado 80122
Contact: David Spratlen
Phone: (303) 730-3001

SWMP ADMINISTRATOR:

Name: TBD
Address:
Contact:
Phone:

PLAN PREPARER:

Sterling Design Associates, LLC
2009 W. Littleton Blvd., Ste. 300
Littleton, Colorado 80120
Contact: Jay M. Newell, PE
Phone: (303) 794-4727 x203

II. PROJECT DESCRIPTION

This Stormwater Management Plan (SWMP); simultaneously acting as the county's Erosion & Stormwater Quality Control Plan (ESQCP), is prepared to address the earth disturbing activities associated with construction of outdoor storage facilities on Space Village Filing No. 4, in El Paso County, Colorado. Wherever within this document or its associated Site Maps reference to the SWMP is made, it shall be understood to refer to the ESQCP and its associated plan(s) as well.

A. LOCATION

Additional to the provided address above the site is further described as being situated in a portion of the Northwest quarter of Section 17, Township 14 South, Range 65 West of the Sixth Principal Meridian, County of El Paso, State of Colorado. Relative to local public roadways, Space Village Avenue is immediate to the site's north property line; Space Village Avenue's intersection with

Peterson Boulevard is approximately one-quarter mile to the west; and its intersection with Marksheffel Road is approximately one-half mile to the east. Primary parcel access is off Space Village Avenue at an existing dirt access at the site's northwest corner.

SITE LOCATION: 38º 50' 17" N Latitude
104º 41' 38" W Longitude

A vicinity map is provided as Appendix A attached hereto.

B. EXISTING CONDITION

A portion of the site has been most recently used as an outdoor storage area. This portion is largely denuded of vegetation. The remainder of the site has remained vacant and covered with native grasses and a handful of widely spaced trees.

SITE VEGETATIVE COVER, RELATIVE TO ENTIRE SITE: 70%
DENSITY OF EXISTING VEGETATIVE COVER: 80%

Both the extents and density of existing vegetation were determined through a review of aerial imagery available online dated July, 2021.

SOIL DATA - The United Stated Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Web Soil Survey, identifies the underlying soils as being Blakeland loamy sand, 1 to 9 percent slopes (8) with a Hydrologic Soil Group A rating. Refer to prints in Appendix A for reference. The USDA, Soil Conservation Service (SCS), *Soil Survey of El Paso County Area, Colorado*, of 1981 states that typically this soil's "…surface layer is dark grayish brown loamy sand about 11 inches thick…" with a "…substratum, to a depth of 27 inches [that] is brown loamy sand [which] grades to pale brown sand that extends to a depth of 60 inches." This document also indicates the soil's "…hazard of erosion is moderate, and the hazard of soil blowing is severe." The survey describes the soil as "…deep, somewhat excessively drained…" with a permeability that is "rapid."

SITE DRAINAGE PATTERNS – There are two low areas and a ridge that generally divides the site into an east and west basin for drainage considerations. The terrain within the site generally falls at 1.0 to 4.5 percent grades conveying runoff as sheet flow from the north towards, if not onto, Peterson Air Force Base (PAFB) to the south. Likely due to the highly pervious soil(s), there is no significant indication of continuous stormwater flows either in low flow channels or rill on the site. Discharge of runoff from the site is likely into the ground, as conveyance of flow onto (PAFB) is not readily evident. A dual 30-inch CMP culvert under Space Village Avenue discharges offsite runoff onto the site approximately 260-feet from the east property line. There is a shallow area onsite where, it is assumed, most runoff events have ponded and infiltrated as there is no evidence of a significant low flow channel or rill that would be caused by frequent subjection to flowing water. Any discharge to PAFB would be conveyed by the base's topography and collected by the PAFB Municipal Separate Storm Sewer System (MS4).

FLOODPLAIN REVIEW – This site lies in an area identified as Zone X, "areas determined to be outside the 0.2% annual chance floodplain" as shown on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for El Paso County, Colorado and Incorporated Areas,

Map Number 08041C0754G with an effective date of December 7, 2018. Copies of the referenced FIRM can be found in the Appendix A.

No named streams cross the site.

C. Adjacent Properties

The property to the west is, except for a partial access road, an undeveloped portion of commercial Lot 1, Cowperwood SAIC. To the south is PAFB. To the east is open space belonging to the City of Colorado Springs. Several commercial developments exist north of the adjacent Space Village Avenue R.O.W. including Winwater's Colorado Springs wholesale yard and warehouse, Storage Sense's Colorado Springs/Peterson Air Force Base interior and exterior storage facilities, A Better R.V. Storage's exterior and covered storage facilities, and various other smaller retail, office, and related uses.

Offsite runoff tributary to the site other than by means of the dual CMP culvert described previously is minimal and mainly from the south half of the Space Village Avenue R.O.W., as the drainage patterns of the adjacent properties generally direct runoff away from or around the site. An approximately 6.8 acre area north of Space Village Avenue, separate from that area tributary to the dual culvert, could contribute discharge over the road and onto the site's western property boundary in very large rain events. There is no evidence this has occurred; however, there is no apparent means for water accumulating at that location to discharge other than into the ground or over the road and onto the site.

D. Proposed Construction

Development of the site will, to the greatest extent practical, retain all peripheral improvements. The subject site, herein described as Space Village Filing No. 4, is identified as being 22.8 acres on the *ALTA/NSPS Land Title Survey* prepared by Altura Land Consultants and dated April 28, 2022 (ALTA). As a construction site it is slightly larger due to the inclusion of minor amounts of peripheral transition work as well as off-site access drives.

Parcel Limits:	22.8 acre
Construction Site Boundary:	23.0 acre
Disturbance Area Estimate:	23.0 acre

There are no proposed structures. Paving (concrete, asphalt, or similar) for access will account for 4,655 square feet. Paving (gravel, asphalt millings, recycled concrete, or similar) will account for 720,815 square feet. The remaining 276,410 square feet will be landscaping including a mix of native seed, mulch, trees, and/or shrubs. Construction activities (described in more detail below) are anticipated to include clearing and grubbing, temporary stabilization, final grading, final stabilization, and removal of temporary control measures.

Post Construction Drainage – Site drainage patterns are not anticipated to change with development of the site as a storage yard. Runoff will be conveyed as surface flow to one of two proposed detention and stormwater quality facilities.

E. RECEIVING WATER

Drainage conveyance is collected within one of two proposed onsite detention and stormwater quality facilities. These facilities are designed as infiltration basins with no offsite surface discharge. In the event that the facilities are full and operating under emergency conditions, the facilities' southern side berms will act as level spreaders, dispersing runoff as sheet flow to PAFB comparable to the historic condition. Any discharge to PAFB would be conveyed by the base's topography and collected by the PAFB MS4 which is tributary to East Fork Sand Creek.

DISCHARGE LOCATION: 38° 49' 49" N LATITUDE
104° 42' 49" W LONGITUDE

East Fork Sand Creek is tributary to Sand Creek approximately 2 miles downstream. Sand Creek is tributary to Fountain Creek approximately 3.2 miles downstream and southwest of the site. Fountain Creek is tributary to the Arkansas River approximately 43 miles downstream.

F. MISCELLANEOUS

To the best of our knowledge, research, and analysis we have found:

EARTHWORK VOLUMES - The site is anticipated to balance for earthwork and not generate significant amounts of import or export spoils assuming the excess cut material from the proposed detention and stormwater quality facilities can be spread evenly over the entire site. This may vary depending on final paving and foundation sections selected and provided for.

III. SITE MAP COMPONENT

The accompanying Site Maps are an integral part of this SWMP and must be updated and revised as site conditions change. Information found thereon includes:

- Construction site boundaries;
- Existing and Proposed topography and flow arrows depicting drainage patterns;
- Areas of ground surface disturbance;
- Areas of cut and fill;
- Location of existing and proposed improvements;
- Storage areas for equipment, soil, building materials and waste;
- Location of construction activity structural and non-structural control measures;
- Locations where alternative temporary stabilization schedules apply, as applicable;
- Details and installation guides of construction activity structural and non-structural control measures, and;
- Location of streams and other surface waters as applicable.

All concrete and asphalt used during construction will be sourced from established, permanent suppliers and by dedicated batch plants.

IV. SWMP ADMINISTRATOR

Identified in Section I, the SWMP Administrator is responsible for implementing, maintaining, and revising this SWMP throughout the life of the construction project, including final site stabilization and filing of the Notice of Termination and any county closeout documents.

Administrator duties include:

- Providing a detailed phasing and control measure implementation plan;
- Setting the Pre-Construction agenda;
- Scheduling and supervising the installation of structural and non-structural control measures;
- Scheduling and supervising control measure inspection and maintenance,
- Modifying the SWMP, including site maps, to reflect any additions or amendments necessary (see below);
- Documentation and collation of SWMP associated records;
- Providing required notifications for any bypasses, upsets, or spills;
- Educating site personnel on their roles and responsibilities relative to stormwater controls;
- Documenting final site stabilization and filing the Notice of Termination and any county closeout documents.

Amending the Plan – The SWMP Administrator is required to amend the Plan whenever any of the following situations occur:

- There is a change in the design, construction, operation, or maintenance of the site that requires implementation of a new or revised control measure:
- The SWMP proves ineffective in controlling pollutants in stormwater runoff in compliance with the permit conditions;
- Control measures identified in the SWMP are no longer necessary and are removed;
- Corrective actions are taken onsite that result in a change to the SWMP.

All changes must be dated and initialed by the SWMP Administrator.

The SWMP Administrator shall be selected by the General Contractor and a list of that individual's qualifications and certifications pertinent to construction erosion and sediment control shall be kept on file with this SWMP. The General Contractor is responsible to the Owner (Co-Permittee) for any deficiencies resulting from the failure of the SWMP Administrator to adequately perform their responsibilities.

V. STORMWATER MANAGEMENT CONTROLS

Site and building construction disturbs the existing stabilized cover at a given location and increases the potential for erosion and the exposure of construction related pollutants to the environment. Listed below are the potential pollution sources anticipated to be associated with the construction and the control measures that should be installed and maintained coincident to each of those sources.

A. Potential Pollution Sources

The following activities have the potential to adversely affect the quality of stormwater discharges from the construction site:

a. disturbed and stored soils;
b. vehicle tracking of sediments;
c. management of contaminated soils;
d. loading and unloading operations;
e. outdoor storage activities (erodible building materials, fertilizers, chemicals, etc.);
f. vehicle and equipment maintenance and fueling;
g. significant dust or particulate generating processes (e.g., saw cutting material, including dust);
h. routine maintenance activities involving fertilizers, pesticides, herbicides, detergents, fuels, solvents, oils, etc.;
i. on-site waste management practices (waste piles, liquid wastes, dumpsters);
j. concrete truck/equipment washing, including washing of the concrete truck chute and associated fixtures and equipment;
k. dedicated asphalt, concrete batch plants and masonry mixing stations;
l. non-industrial waste sources such as worker trash and portable toilets.

Activity:	Potential Pollutant:	Location, Initiation and Duration Time Frame:
1. Clearing and grubbing operation	sediment, dust	entire site; construction start with implication through final site stabilization
2. Vehicle access and parking	sediment, dust, tracking; incidental (non-reporting level) fuel, oils, hydraulic fluid leaks	access drive and staging area; entire duration
3. Operation of motorized construction equipment (loaders, fork lift, etc…)	sediment, dust, tracking; incidental (non-report level) fuel, oils, hydraulic fluid leaks and spills	entire site; entire duration
4. Topsoil stripping and stockpiling	sediment, dust	existing landscape areas within the limits of construction and specified stockpile areas (ref. site maps); initial phase with implication through final site stabilization
5. Demolition of the existing structures	general building materials construction waste	locations of existing structures; early with short duration (1 to 2 weeks expected)
6. Motorized equipment maintenance and fueling	Incidental (non-report level) fuel (diesel, gas), oils, hydraulic fluid leaks and spills	staging area; entire duration
7. Storage and loading/unloading of construction or maintenance materials with a water-soluble chemical component (i.e. squeegee, mortar, paint, glue, fertilizer, solvents, etc…)	oils, petroleum distillates, polymers, epoxies, metal oxides, perchloroethylene, arsenic, naptha, etc…	· staging area; initial, entire duration · within new construction

Activity:	Potential Pollutant:	Location, Initiation and Duration Time Frame:
8. Storage and loading/unloading of water neutral construction materials (i.e. forming, block, structural steel, base material, etc…)	sediment, dust	entire site; initial through remaining duration
9. Routine site maintenance involving fertilizers, pesticides, detergents, solvents, etc…)	nitrogen, phosphorous, chlorinated hydrocarbons, arsenic, methylene chloride, pertroleum distillates	entire site; initial through remaining duration
10. General paving, and site appurtenance construction	dust, tracking, liquid and solid wastes	entire site; entire duration
11. Concrete construction and equipment cleaning	dust, limestone, sand, pH, chromium	entire site; interim (post overlot grading) through remaining duration
12. General construction wastes	packing materials, materials excess/trim/spall, employee and/or office trash	entire site; entire duration
13. Personnel sanitary facilities	bacteria, parasites, and viruses	staging area; entire duration
14. Landscape installation	fertilizers, pesticides, sediment, packing materials, materials excess/trim/spall	all site areas with a pervious final finish; final weeks of construction

Dedicated asphalt or concrete batch plants will not be used on this project and, therefore, do not constitute a potential source of pollution at this site.

B. Structural Control Measures

These are the traditional 'brick and mortar' techniques that will be employed at the site to minimize erosion and sediment transport.

Check Dams (CD)	
Description: Check dams are temporary grade control structures placed in drainage channels to limit the erosivity of stormwater by reducing flow velocity. Check dams are typically constructed from rock, gravel bags, sand bags, or, sometimes, proprietary devices. Reinforced check dams are typically constructed from rock and wire gabion. Although the primary function of check dams is to reduce the velocity of concentrated flows, a secondary benefit is sediment trapping upstream of the structure.	
Installation Schedule	May be part of an initial installation where used in existing or temporary diversion swales. As part of a phased installation they will be placed consecutively with the reference control measure.
Maintenance and Inspection	Replace missing rocks causing voids in the check dam. If gravel bags or sandbags are used, replace or repair torn or displaced bags. Remove accumulated sediment, as needed to maintain control measure effectiveness, typically before the sediment depth upstream of the check dam is within one-half of the crest height. Remove accumulated sediment prior to mulching, seeding, or chemical soil stabilization.

Concrete Washout Area (CWA)	
Description: Concrete waste management involves designating and properly managing a specific area of the construction site as a concrete washout area. A concrete washout area can be created using one of several approaches designed to receive wash water from washing of tools and concrete mixer chutes, liquid concrete waste from dump trucks, mobile batch mixers, or pump trucks. Three basic approaches are available: excavation of a pit in the ground, use of an above ground storage area, or use of prefabricated haul-away concrete washout containers.	
Installation Schedule	This is an interim installation that must be in-place and available prior to any concrete delivery to the site.
Maintenance and Inspection	Part of inspecting and maintaining washout areas is ensuring that adequate signage is provided and in good repair and that the washout area is being used, as opposed to washout in non-designated areas of the site. Remove concrete waste in the washout area, as needed to maintain functionality (typically when filled to about two-thirds of its capacity). Collect concrete waste and deliver offsite to a designated disposal location.

Construction Fence (CF)	
Description: Temporary fencing consisting of studded steel tee posts and orange plastic mesh. Its use restricts site access to designated entrances and exits, delineates construction site boundaries, and keeps construction out of sensitive areas such as natural areas to be preserved as open space, wetlands, and riparian areas.	
Installation Schedule	To be in-place for the initial site inspection and prior to any earth disturbing activities.
Maintenance and Inspection	The integrity of construction fencing installations should be inspected at least daily and continually any time construction occurs in close proximity. Misalignments, gaps, and fallen or sagging sections, are to be repaired in place or removed and replaced as appropriate to the deficiency noted.

Culvert Inlet Protection (CIP)	
Description: Culvert inlet protection is constructed of gravel that has been wrapped by wire mesh or a geotextile to form an elongated cylindrical filter. Culvert inlet protection is typically used either as a perimeter control or as part of culvert protection. Culvert inlet protection is intended to trap sediment from stormwater runoff that flows onto roadways as a result of construction activities.	
Installation Schedule	Perimeter placement is an initial installation. Phasing installation may be necessary as construction of additional curb and gutter is completed.
Maintenance and Inspection	Culvert inlet protection is susceptible to displacement and breaking due to vehicle traffic. Inspect the control measure for damage and repair or replace as necessary. Remove sediment by sweeping or vacuuming as needed to maintain the functionality of the measure, typically when sediment has accumulated behind the measure to one-half of the measure's height.

Sediment Control Log (SCL)	
Description: A sediment control log is a linear roll made of natural materials such as straw, coconut fiber, or other fibrous material trenched into the ground and held with a wooden stake. Sediment control logs are also often referred to as "straw wattles." They are used as a sediment barrier to intercept sheet flow runoff from disturbed areas.	
Installation Schedule	Perimeter placement is an initial installation. Phasing installation may be necessary as construction of curbs, gutters, and sidewalks is completed.
Maintenance and Inspection	Be aware that sediment control logs will eventually degrade. Remove accumulated sediment before the depth is one-half the height of the sediment log and repair damage to the sediment log, typically by replacing the damaged section.

Sediment Trap (ST)	
Description: Sediment traps are formed by excavating an area or by placing an earthen embankment across a low area or drainage swale. Sediment traps are designed to capture drainage from disturbed areas and allow settling of sediment.	
Installation Schedule	May be an initial installation or phased as drainage patterns are modified during overlot grading. Regardless, they should be in-place prior to disturbing upstream areas.
Maintenance and Inspection	Inspect the sediment trap embankments for stability and seepage. Remove accumulated sediment as needed to maintain the effectiveness of the sediment trap, typically when the sediment depth is approximately one-half the height of the outflow embankment. Inspect the outlet for debris and damage. Repair damage to the outlet, and remove all obstructions.

Stabilized Staging Area (SSA)	
Description: A stabilized surface, either paved or covered with 3-inch diameter or larger aggregate, providing a clearly designated area where construction equipment and vehicles, stockpiles, waste bins, and other construction-related materials are stored. The contractor office trailer may also be located in this area.	
Installation Schedule	Initial, typically constructed with at the same time as the vehicle tracking control installation.
Maintenance and Inspection	Maintenance of stabilized staging areas includes maintaining a stable surface cover of gravel, repairing perimeter controls, and following good housekeeping practices.

Vehicle Tracking Control (VTC)
Description: A coarse-aggregate surfaced pad underlain by a geotextile that provides a stabilized construction site access for vehicles to exit the site onto paved public roads. An effective vehicle tracking control helps remove sediment (mud or dirt) from vehicle tires, reducing tracking onto the paved surface.

Installation Schedule	An initial installation in all cases where a paved access and staging area is not available. If a paved access and staging area is available tracking controls must be in place as soon as they are removed if that removal is to be a part of the construction activities.
Maintenance and Inspection	Inspect the area for degradation and replace aggregate or material used for a stabilized entrance/exit as needed. If the area becomes clogged and ponds water, remove and dispose of excess sediment or replace material with a fresh layer of aggregate as necessary. With aggregate vehicle tracking controls, ensure rock and debris from this area do not enter the public right-of-way. Remove sediment that is tracked onto the public right of way daily or more frequently as needed. Excess sediment in the roadway indicates that the stabilized construction entrance needs maintenance.

The site maps show location and timing for each structural control installation and includes a detail for the control measures construction.

C. Non-Structural Control Measures

The following controls measures require mechanical means of construction or installation but, generally, their installs will not require removal and they will become integral to the finished site.

Seeding & Mulching (SM)	
Description: Temporary seeding can be used to stabilize disturbed areas that will be inactive for an extended period. Permanent seeding should be used to stabilize areas at final grade that will not be otherwise stabilized. Effective seeding includes preparation of a seedbed, selection of an appropriate seed mixture, proper planting techniques, and protection of the seeded area with mulch, geotextiles, or other appropriate measures. Mulching consists of evenly applying straw, hay, shredded wood mulch, rock, bark or compost to disturbed soils and securing the mulch by crimping, tackifiers, netting or other measures. Mulching helps reduce erosion by protecting bare soil from rainfall impact, increasing infiltration, and reducing runoff. Although often applied in conjunction with temporary or permanent seeding, it can also be used for temporary stabilization of areas that cannot be reseeded due to seasonal constraints.	
Installation Schedule	Seeding dates for the highest success probability of perennial species along the Front Range are generally in the spring from April through early May and in the fall after the first of September until the ground freezes. If the area is irrigated, seeding may occur in summer months, as well. Installer should refer to the specific planting information on the project Landscape Plan included within this SWMP. Apply mulch promptly after final grading is reached, typically within no more than 7 days, on portions of the site not otherwise permanently stabilized. Generally used in conjunction with seeding to help protect the seedbed and stabilize the soil. However, it can also be used as temporary cover on low to mild slopes to help temporarily stabilize disturbed areas

	where growing season constraints prevent effective re-seeding.
Maintenance and Inspection	Monitor and observe seeded areas to identify areas of poor growth or areas that fail to germinate. 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. Reseed and mulch these areas, as needed. After mulching, the bare ground surface should not be more than 10 percent exposed. Reapply mulch, as needed, to cover bare areas.

Stockpile Management (SP)	
Description: Stockpile management includes measures to minimize erosion and sediment transport from soil stockpiles.	
Installation Schedule	An initial improvement required to be in-place upon first need for pile storage.
Maintenance and Inspection	Inspect perimeter controls and inlet protection in accordance with their respective Fact Sheets. Where seeding, mulch and/or soil binders are used, reseeding or reapplication of soil binder may be necessary.

Surface Roughening (SR)	
Description: An erosion control practice that involves tracking, scarifying, imprinting, or tilling a disturbed area to provide temporary stabilization of those areas. Surface roughening creates variations in the soil surface that help to minimize wind and water erosion. Depending on the technique used, surface roughening may also help establish conditions favorable to establishment of vegetation.	
Installation Schedule	Surface roughening should be performed either after final grading or to temporarily stabilize an area during active construction that may be inactive for a short time period.
Maintenance and Inspection	Care should be taken not to drive vehicles or equipment over areas that have been surface roughened. Tire tracks will smooth the roughened surface and may cause runoff to collect into rills and gullies.

Wind Erosion / Dust Control (DC)	
Description: Wind erosion and dust control measures help to keep soil particles from entering the air as a result of land disturbing construction activities. These controls include a variety of practices generally focused on either graded disturbed areas or construction roadways. For graded areas, practices such as seeding and mulching, use of soil binders, site watering, or other practices that provide prompt surface cover should be used. For construction roadways, road watering and stabilized surfaces should be considered.	
Installation Schedule	Continuous through the life of the project.
Maintenance and Inspection	When using any kind of water spray measure to aid in dust control, be careful not to overwater. Overwatering will cause construction vehicles to track mud off-site.

Portable Toilets (PT)	
Description: Portable toilets do not require any pre-existing services or infrastructure, but are completely self-contained thereby minimizing the risk of pollutant migration.	
Installation Schedule	Continuous through the life of the project.
Maintenance and Inspection	Portable toilets shall be serviced at necessary intervals to eliminate the possibility of overflow.

Street Sweeping (SS)	
Description: Street sweeping removes sediment that has been tracked onto roadways by means of sweeping and/or vacuuming. It can be conducted by shovel(s) and broom(s), or by mechanical means.	
Installation Schedule	Continuous through the life of the project.
Maintenance and Inspection	Roadways should be inspected daily, or more frequently as necessary. Sediment should be removed and disposed of appropriate to the material and pollutants collected.

The site maps show location and timing for each non-structural control installation and includes a detail for the control measures construction.

D. Ancillary Controls

Temporary Soil Stabilization is required on any area of the site where ground disturbing construction activity has permanently ceased, or temporarily ceased for more than 14 calendar days. It is preferred that completed work areas receive installation of final landscaping. However, when out of season or in consideration of the temporary cessation condition it may be necessary to apply tarps, soil binders, erosion control blankets, and temporary seeding and mulching (SM). The contractor will follow the recommendations of an appropriately knowledgeable landscape or stormwater management professional as to the type, means, and application most appropriate to the time of year and dormancy period under consideration.

Dust Control is required throughout construction when dry and friable exposed earth, masonry materials, or sawcut fines may become suspended in the air as a result of construction disturbance. In those conditions the contractor shall apply enough water to the exposed soils or materials to prevent the suspension; means may be mechanical or manual as appropriate to the magnitude of the operation. However, the contractor shall not use excessive water creating mud, runoff, or noticeable erosion.

Groundwater dewatering is not anticipated on this construction site. Regardless, should it prove necessary, groundwater water may NOT be discharged to surface waters or to storm sewer systems without separate permit coverage. The discharge of groundwater water to the land is permitted per the specific conditions of the CDPH&E "Low Risk Discharge Guidance – Discharges of Uncontaminated Groundwater to Land" (Policy 27). The SWMP Administrator must modify the SWMP accordingly; including identifying the location of such operations on the site map and the control practices used to ensure the requirements of Policy 27 are met.

The discharge of pumped stormwater dewatering water, only, from excavations, ponds, depressions, etc., to surface waters, or to a MS4 is allowed by the Colorado Discharge Permit System (CDPS)

General Permit for Stormwater Discharges Associated with Construction Activities (Stormwater Construction Permit), as long as the dewatering activity and associated control measures are identified in the SWMP (including location of the activity), and those control measures are implemented in accordance with the SWMP. The general contractor and/or SWMP Administrator must amend this SWMP to include control measure implementation for stormwater dewatering discharge should that activity become necessary for the progression of the construction project. [Note: Pumping stormwater does not by itself render the pumped water a process water, provided that the pump does not contribute additional pollutants to the discharge.]

In addition, the contractor shall meet and document all county ESQCP requirements regarding dewatering.

E. Good Housekeeping Procedures

This section covers practices that will be implemented to prevent pollution associated with solid, liquid, and hazardous construction-related materials stored and used on site. Practices include trash disposal, recycling, proper material handling, and cleanup measures to reduce the potential for stormwater runoff to pick up construction site wastes and discharge them to surface waters. For hazardous or toxic materials, such as paints, solvents, petroleum products, pesticides, wood preservatives, acids, roofing tar, and others a comprehensive set of waste-management practices is established that includes storage, handling, inventory, and cleanup procedures in case of spills.

No construction waste materials are to be buried on site.

All personnel will be instructed regarding the correct procedure for waste disposal; hazardous or otherwise. Notices stating these practices will be clearly posted on site and the contractor who manages the day-to-day site operations will be responsible for seeing that these procedures are followed.

1. Solid or Construction Waste

Proper solid waste disposal consists of keeping all solid materials from discharging from the site. No uncontained waste piles will be allowed on site. All solid waste, including disposable materials incidental to the construction activities, must be collected and placed in containers; including, but not limited to, packaging, spoils, and worker litter. Containers will be sited within the SSA unless otherwise indicated on the site map. The containers will be emptied periodically by a contract trash disposal service and hauled away from the site in accordance with local, state, and federal regulations. Collection frequency will be targeted to avoid overflowing containers and will be at an accelerated rate during any active demolition work. Where practical reuse and/or recycling of demolition or construction materials is encouraged.

2. Sanitary and Septic Waste

Temporary sanitary facilities (PT) shall be provided for all site personnel to use within the SSA as shown on the site map. These facilities are to be maintained and emptied by an appropriately licensed commercial operator of such facilities who will treat or dispose of sanitary and septic waste in accordance with state and local regulations. Individual units are to be tied or staked down to avoid accidental overturning. Check facilities for leaks as a part of the regular inspection schedule and, if found, repair or replace immediately.

3. BUILDING MATERIAL HANDLING AND STAGING

The site entrance and exit are to be clearly marked so that delivery vehicles are directed in and out over the VTC and can operate within the SSA to the greatest extent practical. An effort will be made to receive and store only enough products required to do the job. All materials stored on site will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure. Storage areas are to be notated on the site maps, by the general contractor, along with any appropriate control measures or secondary containment measures.

The general contractor shall create a clearly designated on-site fueling and maintenance area that is clean and dry; location to be reflected on the site maps. This location may, ideally, be within the SSA and should be away from drainage facilities and watercourses. Above ground storage tanks are not to be installed on the construction site. A spill kit will be kept at this location and staff are to be trained in its use. Inspect on-site vehicles and equipment regularly for leaks, equipment damage, and other service problems. Use drip pans, drip cloths, or absorbent pads when replacing spent fluids. Collect all spent fluids, store in appropriate labeled containers in the proper storage areas, and recycle fluids whenever possible.

To the greatest extent practical do not wash equipment or vehicles on the construction site. Use off-site washing facilities when available. Unavoidable cleaning should occur at a location where wash water will be captured and infiltrated; the CWA as designated on the site map is appropriate. Do not use detergents.

4. HAZARDOUS MATERIALS AND WASTES

Paints, solvents, pesticides, fuels and oils, other hazardous materials or building materials that have the potential to contaminate stormwater are to be stored indoors or under cover whenever possible and always per the manufacturer's recommendation and the Spill Prevention and Control Plan (SPCP) in the Appendix of this report. The general contractor's designated representative may use the provided SPCP or prepare one of their own. Regardless, the "active" SPCP shall be included in the appropriate appendix of this report and a copy kept with the clean-up equipment and supplies location.

The following general guidelines shall be adhered to in the storage, use, and disposal of all hazardous materials and wastes:

- Consult with local waste management authorities about the requirements for disposing of hazardous materials.
- Whenever possible all of a product will be used up before disposing of the container.
- To prevent leaks, empty and clean hazardous waste containers before disposing of them.
- Never remove the original product label from the container because it contains important safety information. Follow the manufacturer's recommended method of disposal, which should be printed on the label.
- Never mix excess products when disposing of them, unless specifically recommended by the manufacturer.

To ensure the proper disposal of contaminated soils that have been exposed to and still contain hazardous substances, consult with state or local solid waste regulatory agencies or private

firms. Contract with an appropriately licensed landfill to accept contaminated soils and provide any required laboratory tests in compliance with local, state, or federal regulation.

Paint and dirt are often removed from surfaces by sandblasting. Sandblasting grits are the byproducts of this procedure and consist of the sand used and the paint and dirt particles that are removed from the surface. These materials are considered hazardous if they are removed from older structures because they are more likely to contain lead-, cadmium-, or chrome-based paints. To ensure proper disposal of sandblasting grits, contract with a licensed waste management or transport and disposal firm.

Some additional product specific guidelines that are to be followed on site include:

- Fertilizers used will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked into the soil to limit exposure to stormwater. Storage will be in a covered shed, or equivalent covered enclosure. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.
- All paint containers will be tightly sealed and stored when not required for use. Excess paint will not be discharged to the storm sewer system, but will be properly disposed of according to manufacturer's instructions or state and local regulations.

Inspect storage and use areas and identify containers or equipment that could malfunction and cause leaks or spills. Check equipment and containers for leaks, corrosion, support or foundation failure, or other signs of deterioration, and test them for soundness. Immediately repair or replace any that are found to be defective.

An effective waste management system requires training and signage to promote awareness of the hazards of improper storage, handling, and disposal of wastes. The only way to be sure that waste management practices are being followed is to be aware of worker habits and to inspect storage areas regularly. Management time, to the extent required to ensure that all workers are following the proper procedures, is a part of this SWMP.

F. Construction Phasing and Sequencing

Construction phasing refers to disturbing only part of a site at a time in order to limit the potential for erosion from areas that could be allowed to remain dormant. The scope, size, and time frame involved for this proposed construction project does not allow for effective phasing; overlot grading through final stabilization will occur as a single mobilization. All work areas within the Limits of Construction (LOC) will be disturbed simultaneously and are expected to be stabilized together.

Construction sequencing or scheduling refers to a specified order of work that coordinates the timing of land disturbing activities and the installation of erosion and sediment control practices. The general contractor is to provide a full and detailed schedule, with dates, addressing all major construction activities and the installation/removal of associated control measures.

The following is an outline for control measure sequencing that the general contractor shall address in their provided schedule. Until such time as the general contractor provides a schedule it is assumed the construction start date is fall 2022 and the construction completion date is spring 2023:

Time Line Operation	Control Measures
Pre-Disturbance, Site Access [Control Measures shown as "Initial" on Site Map]	· Begin observation of adjacent road for track out. Sweep on a regular basis and immediately upon observation of track out. · Establish vehicle tracking control (VTC) at entrances from/to peripheral paved roadways. · Install sediment control logs (SCL), culvert inlet protection (CIP), and construction fence (CF) at the perimeter of the planned area of initial disturbance. HALT: Permittee shall schedule and pass an initial inspection prior to any site clearing, grubbing, grading, or excavation activity if required by county ESQCP regulations.
Site Clearing and Grubbing [Control Measures shown as "Initial" on Site Map]	Clear and grub the immediate area to be utilized as a stabilized staging area. · Install stabilized staging areas (SSA). · Portable toilets (PT) are to be located within the SSA on a flat surface away from drainage paths. Toilets are to be staked in place to protect against tipping. · Locate a waste disposal area within the SSA. · Implement materials management and good housekeeping practices. This includes handling of trash/construction waste and the sanitizing of portable toilets. Begin general clearing, grubbing, and earthwork activities within the area of initial disturbance. · Establish a central stockpile location and begin implementation stockpile management practices (SP). · Separate and stockpile topsoil, leave roughened and/or cover. · Protect stockpiles with perimeter control measures. Stockpiles should be located away from drainage paths and should be accessed from the upgradient side so that perimeter controls can remain in place on the downgradient side. Use erosion control blankets, temporary seeding, and/or mulch for stockpiles that will be inactive for an extended period. · Leave disturbed area of site in a roughened condition or purposefully surface roughen (SR) to limit erosion. Consider temporary revegetation (SM) for areas of the site that have been disturbed but that will be inactive for an extended period. · Mechanically tack in place mulch (SM) in areas that will not be worked further for at least 14 days. · Water to minimize dust (DC) but not to the point that watering creates runoff.
Paving and Grading [Added Control Measures shown as "Interim" on Site Map]	Implement grading and preparation for site paving operations. In addition to the above Control Measures: · Implement construction site good housekeeping practices to prevent pollution associated with solid, liquid and

	hazardous construction-related materials and wastes, including street sweeping (SS). · Construct a concrete washout area (CWA) and provide signage thereto. · Conduct overlot grading starting with construction of temporary sediment traps (ST), diversion channel and diversion swale. · Install check dam(s) (CD) in conjunction with construction of diversion channel and swale. · Remove excess or waste materials. · Remove stored materials. · Protect and repair control measures as necessary. Install site paving.
Final Stabilization	In Addition to the above Control Measures: · Install Landscaping. · Remove all temporary control measures when site has reached final stabilization.

The general contractor shall include a copy of the full and detailed schedule in this SWMP. When the construction schedule is altered, erosion and sediment control measures in the SWMP and construction drawings should be appropriately adjusted to reflect actual "on the ground" conditions at the construction site.

To date, the proposed development of the site described herein does not rely on control measures owned or operated by another entity.

VI. INSPECTION AND MAINTENANCE

Inspection and maintenance practices are generally noted on the Control Measure Descriptions found in Section IV.B and IV.C above. Additional direction may be found on the associated details included on the site maps. Execution of these requirements are the responsibility of the designated SWMP Administrator and shall be completed in compliance with all local, state, and federal statutes.

INSPECTION SCHEDULES – The first site inspection must occur within seven calendar days of commencement of construction activities. Thereafter, the minimum inspection schedule requires a thorough inspection of the stormwater management system be performed and documented immediately after the installation of any control measure; at least every 7 days; and within 24 hours of any precipitation event that causes surface erosion (i.e., that results in stormwater running across the ground). If more frequent inspections are required to ensure that control measures are properly maintained and operated, or to meet county requirements; the inspection schedule must be modified to meet this need.

INSPECTION PROCEDURES - During each inspection the inspector must evaluate overall pollutant control system performance as well as particular details of individual system components. Additional factors should be considered as appropriate to the circumstances. Inspections must include observation of the following:

- The construction site perimeter and discharge points (including discharges into a storm sewer system). All discharge points must be inspected to determine whether erosion control measures are effective in preventing significant impacts to receiving waters;
- Locations where vehicles enter and exit the site and haul routes must be inspected for evidence of offsite tracking;
- Locations where stormwater has the potential to discharge offsite;
- All disturbed areas;
- Areas used for material/waste storage that are exposed to precipitation;
- Other areas determined to have a significant/high potential for stormwater pollution, such as demolition areas or concrete washout locations;
- All erosion and sediment control measures identified in the SWMP;
- Any other structural control measures that may require maintenance, including but not limited to measures such as secondary containment around fuel tanks and the condition of spill response kits.

The inspection must determine if there is evidence of, or the potential for, pollutants entering the drainage system. Control measures shall be reviewed to determine if they still meet the design and operational criteria in the SWMP, and if they continue to adequately control pollutants at the site. Any control measure not operating in accordance with the SWMP must be addressed as soon as possible, immediately in most cases, to minimize the discharge of pollutants, and the SWMP must be updated as described below.

At nearly every site, the implemented control measures will have to be modified to adapt to changing site conditions, or to ensure that potential pollutants are consistently and properly managed. The pollutant sources and management practices at a site must be reviewed on an ongoing basis (and specifically during the required inspections listed in the Stormwater Construction Permit or in applicable county requirements). When control measures or other site conditions change, the SWMP must be modified to accurately reflect the field conditions. Examples include, but are not limited to, removal of control measures, identification of new potential pollutant sources, addition of control measures, modification of control measure installation and implementation criteria or maintenance procedures, and changes in items included in the site map and/or description. SWMP revisions must be made prior to changes in site conditions, except for Responsive SWMP Changes, as follows:

- SWMP revisions must be made immediately after changes are made in the field to address control measure installation and/or implementation issues; or
- SWMP revisions must be made as soon as practicable, but in no case more than 72 hours, after change(s) in control measure installation and/or implementation occur at the site that require development of materials to modify the SWMP (e.g., design of retention pond capacity)

The SWMP shall be kept on site at all times during construction and revised, as needed, to reflect the actual site conditions, control measure locations, and control measure status.

Control measures shall be inspected in accordance with the standards included on the Site Maps associated with this SWMP.

INSPECTION DOCUMENTATION/RECORD KEEPING - Good record keeping is important, and required, for a period of three years following expiration or inactivation of permit coverage. Sample forms are in the appendices and shall include:

- Inspection date;
- Name(s) and title(s) of personnel making the inspection;
- Weather conditions at the time of inspection;
- Project name and location;
- Reason for the inspection;
- Location(s) of discharges of sediment or other pollutants from the site;
- Location(s) and condition(s) of control measures that need maintenance;
- Location(s) and condition(s) of control measures that failed to operate as designed or proved inadequate for a particular location and need to be replaced;
- Location(s) of control measures that need to be added, or were not in place at the time of inspection;
- Minimum inspection frequency and reasons for and deviations from minimum inspection schedule;
- Maintenance requirements;
- Descriptions of corrective action and dates when corrective action was implemented;
- Descriptions of measures taken to prevent future violations including requisite changes to the SWMP, as necessary;
- After adequate corrective action(s) has been taken, or where a report does not identify any incidents requiring corrective action, the inspection form shall contain be signed and certified by the SWMP Manager as follows:

  "I verify that, to the best of my knowledge and belief, all corrective action and maintenance items identified during the inspection are complete, and the site is currently in compliance with the permit."

Additional record keeping, including a log book, is required. Such record keeping shall include other items related to the SWMP such as:

- Dated photographs;
- Field notebooks;
- Drawings and maps;
- Control measure operation and maintenance;
- Stormwater contamination;
- Contacts with suppliers;
- Notes on the need for and performance of preventative maintenance and repairs;
- Implementation of specific items in the SWMP;
- Training events given or attended;
- Events involving material handling and storage;
- Contacts with regulatory agencies and personnel;
- Notes of employee activities, contact, notifications, etc.

Records of spills, leaks, or overflows that result in the discharge of pollutants must be documented and maintained. Information that should be recorded for all occurrences includes the time and date, weather conditions, reasons for the spill, etc. Certain spills may require immediate reporting. Refer to the attached SPCP for additional requirements entailed for addressing a spill condition.

MAINTENANCE - All erosion and sediment control practices and other protective measures identified in the SWMP must be maintained in effective operating condition and in accordance with good engineering, hydrologic, and pollution control practices. Site inspection procedures above must address maintenance of control measures that are found to no longer function as needed and designed, as well as preventative maintenance to proactively ensure continued operation. Control measures that have failed, or have the potential to fail without maintenance must be addressed as soon as possible, immediately in most cases, to prevent the discharge of pollutants. Maintenance shall be in accordance with town, county, stormwater authority, state, and manufacturer standards, specifications and recommended procedures.

Maintenance practices in addition to those described elsewhere in the SWMP must include the following:

- Control measures at locations where vehicles enter and exit the site must be supplemented as necessary to prevent tracking of sediment off-site, or the adjacent street must be swept.
- Material storage areas that are exposed to precipitation must be covered, or original covers must be repaired or supplemented. Protective berms must be built or repaired in order to contain runoff from these areas.
- Sediment barriers must be enlarged or cleaned in order to provide additional capacity if necessary, and to remove the potential for stored sediment to discharge from the site. All material excavated from behind sediment barriers must be moved to an appropriate location where it will not become an additional pollutant source.

Control measures shall be maintained in accordance with the documentation in Section V.B and V.C above as well as any additional information which may be included on the site map details or in accordance with county requirements.

VII. FINAL STABILIZATION AND LONG-TERM CONTROLS

All on-site open space will receive landscaping in accordance with the approved Landscape Plan included as a part of this SWMP. Landscaped areas are considered stabilized upon completion of the entire installation and final site walk and acceptance by the owner's construction representative. Other open space will receive seeding in accordance with specifications of that same document or as indicated in the Site Maps and can be considered 'stabilized' upon establishment of vegetative cover with an individual plant density of at least 70% of pre-disturbance levels. Remaining improvement areas are stabilized upon installation of the final lift of asphalt, completion of concrete placement including form removal, or completion of other pavement placement.

Inactivation of coverage under the Stormwater Construction Permit and the ESQCP may be requested from the Colorado Department of Health and Environment (CDPHE) and the county by the permittee when the site has attained final stabilization, all temporary erosion and sediment control measures have been removed, and all components of the SWMP are complete.

Permanent stormwater quality control is provided for this development within the detention and stormwater quality facilities to be constructed as a part of the project along the site's south property line. These facilities are designed to provide a Water Quality Capture Volume (WQCV) within Stormwater Quality Infiltration Basins which discharge by means of infiltration to the ground.

VIII. PERMIT COVERAGE

Stormwater Construction Permit coverage is required by county, state, and federal regulations for stormwater discharged from the construction activity identified by this SWMP. The owner and the awarded general contractor will be the permittee from the start of construction through final stabilization, Inactivation Notice, and county closeout documentation.

A. PERMIT APPLICATION

All water quality permit applications, submittals, authorization changes, and coverage terminations are now handled through Colorado Environmental Online Services (CEOS). Instructions for establishing an account and making permit related submittals can be found in the CDPHE appendix, "Water Quality Permits – Public CEOS Portal Standard Operating Procedures" tab. Said portal is accessed via:

https://ceos.colorado.gov/CO/CEOS/Public/Client/CO_CIMPLE/Shared/Pages/Main/Login.aspx

Be aware that initial permit application may take up to 10 business days to process and that coverage is required prior to any earth disturbing activities on site; including the installation of initial control measures.

Similarly, the general contractor will be responsible for obtaining coverage under El Paso County regulations. Application is the responsibility of the contractor.

B. LIMITATIONS

The following limitations apply to CDPS permit coverage at a minimum. The contractor is responsible for adhering to more stringent county limitations as necessary:

- Stormwater discharges from construction activities shall not cause, have the reasonable potential to cause, or measurably contribute to an exceedance of any water quality standard, including narrative standards for water quality.
- Concrete washout water shall not be discharged to state surface waters or to storm sewer systems. On-site permanent disposal of concrete washout waste is not authorized by this permit. Discharge to the ground of concrete washout waste that will subsequently be disposed of off-site is authorized by this permit.
- Bulk storage structures for petroleum products and any other chemicals shall have secondary containment or equivalent adequate protection so as to contain all spills and prevent any spilled material from entering State waters.
- No chemicals are to be added to the discharge unless permission for the use of a specific chemical is granted by the CDPHE – Water Quality Division. In granting the use of such chemicals, special conditions and monitoring may be addressed by separate correspondence.
- The CDPHE – Water Quality Division reserves the right to require sampling and testing, on a case-by-case basis, in the event that there is reason to suspect that compliance with the SWMP is a problem, or to measure the effectiveness of the control measures in removing pollutants in the effluent. Such monitoring may include Whole Effluent Toxicity testing.
- All site wastes must be properly managed to prevent potential pollution of state waters. This permit does not authorize on-site waste disposal.

- All dischargers must comply with the lawful requirements of federal agencies, municipalities, counties, drainage districts and other local agencies regarding any discharges of stormwater to storm drain systems or other water courses under their jurisdiction, including applicable requirements in municipal stormwater management programs developed to comply with CDPS permits. Dischargers must comply with local stormwater management requirements, policies or guidelines including erosion and sediment control.

All discharge covered by the CDPS permit shall be composed entirely of stormwater associated with construction activity excepting that discharge from the following sources, when combined with stormwater, are permitted. The contractor is responsible for adhering to more stringent county limitations as necessary:

- Discharges from uncontaminated springs that do not originate from an area of land disturbance;
- Discharges of landscape irrigation return flow;
- Emergency firefighting activities.

There is no anticipation that any of these occurrences will be encountered during construction. However, should they occur or be encountered during construction the SWMP Administrator must modify this SWMP to document the occurrence as well as address appropriate control measures put in place to mitigate their impacts to stormwater quality.

Concrete chute washwater is allowed as infiltration discharge to the ground within the site limits as detailed in Section V.B. Stormwater (only) dewatering is also allowed under this permit as described in Section V.D. Groundwater dewatering with discharge off of the site requires separate permit coverage be attained from the CDPHE. Groundwater dewatering to the land is allowed under the Policy 27 guidelines as detailed in section V.D. The contractor is responsible for adhering to more stringent county limitations as necessary.

Except for the case where no feasible alternative exists to avoid loss of life, personal injury, or severe property damage any bypass causing effluent limitations to be exceeded is prohibited.

C. Notifications and Records

In addition to correspondence with the county for application or transfer of permit coverage in conformance with county requirements and using county forms, etc.; the following permit modifications require CDPHE notification through the CEOS portal:

- Reassignment of some portion of the covered site to another operator
- Modification to the construction limits
- Change of any contacts listed in the application
- To file a Termination Application

Oral and written notification to CDPHE is also required in the following instances:

- Circumstances leading to any noncompliance which may endanger health or the environment regardless of the cause of the incident;

- Circumstances leading to any unanticipated bypass which exceeds any effluent limitations in the permit;
- Circumstances leading to any upset which causes an exceedance of any effluent limitation in the permit;
- Daily maximum violations for any of the pollutants limited by Part I of the CDPS Permit. This includes any toxic pollutant or hazardous substance or any pollutant specifically identified as the method to control any toxic pollutant or hazardous substance.

Oral Notifications, during normal business hours shall be to:

Clean Water Compliance Section
Water Quality Control Division
Telephone: (303) 692-3500

Written notification shall be to:

Clean Water Compliance Section
Water Quality Control Division
Colorado Department of Public Health and Environment
WQCD-WQP-B2
4300 Cherry Creek Drive South
Denver, CO 80246-1530

The permittee is required to keep the SWMP on file and available, upon request, for three calendar years following coverage termination (or longer as required by the county). All documentation should be retained including, but not limited to:

- Documentation of all SWMP modifications
- Inspection and corrective action logs
- Governing authority inspection reports
- Any notice of violation, corrective action, or penalties incurred

The SWMP must be on-site and available from project initiation to permit inactivation.

IX. FAMILIARITY REQUIRED

This SWMP has been prepared to meet the requirements established in the Stormwater Construction Permit and by El Paso County as they apply to the proposed development of an outdoor storage facility at Space Village Filing No. 4, El Paso County, Colorado circa 2022. The preparer of this document has made an effort to address all applicable requirements but does not guarantee the comprehensiveness of this report as it may apply to the project; either upon initiation or through construction progression. The requirement to comply with the provisions of the Stormwater Construction Permit and county requirements remains with the Permittee and it is incumbent on them to be familiar with those requirements and make any SWMP amendments necessary to be in full compliance. A copy of the State of Colorado General Permit is provided in the Appendix of this report.

X. REFERENCES

A. *Soil Map – El Paso County Area, Colorado*, USDA NRCS Web Soil Survey, current online edition.

B. *Soil Survey of El Paso County Area, Colorado*, USDA SCS, 1981.

C. *Flood Insurance Rate Map, Map Number 08041C0754G*, FEMA, effective date December 7, 2018.

D. *ALTA/NSPS Land Title Survey*, Altura Land Consultants, April 28, 2022.

E. *COR400000 Stormwater Management Plan Guidance,* Colorado Department of Health and the Environment, current online edition.

F. *COR400000 General Permit Stormwater Discharges Associated with Construction Activity Authorization to Discharge Under the Colorado Discharge Permit System (CDPS)*, current online edition.

G. *Engineering Criteria Manual*, El Paso County, current online edition, revised December 13, 2016; published 2018.

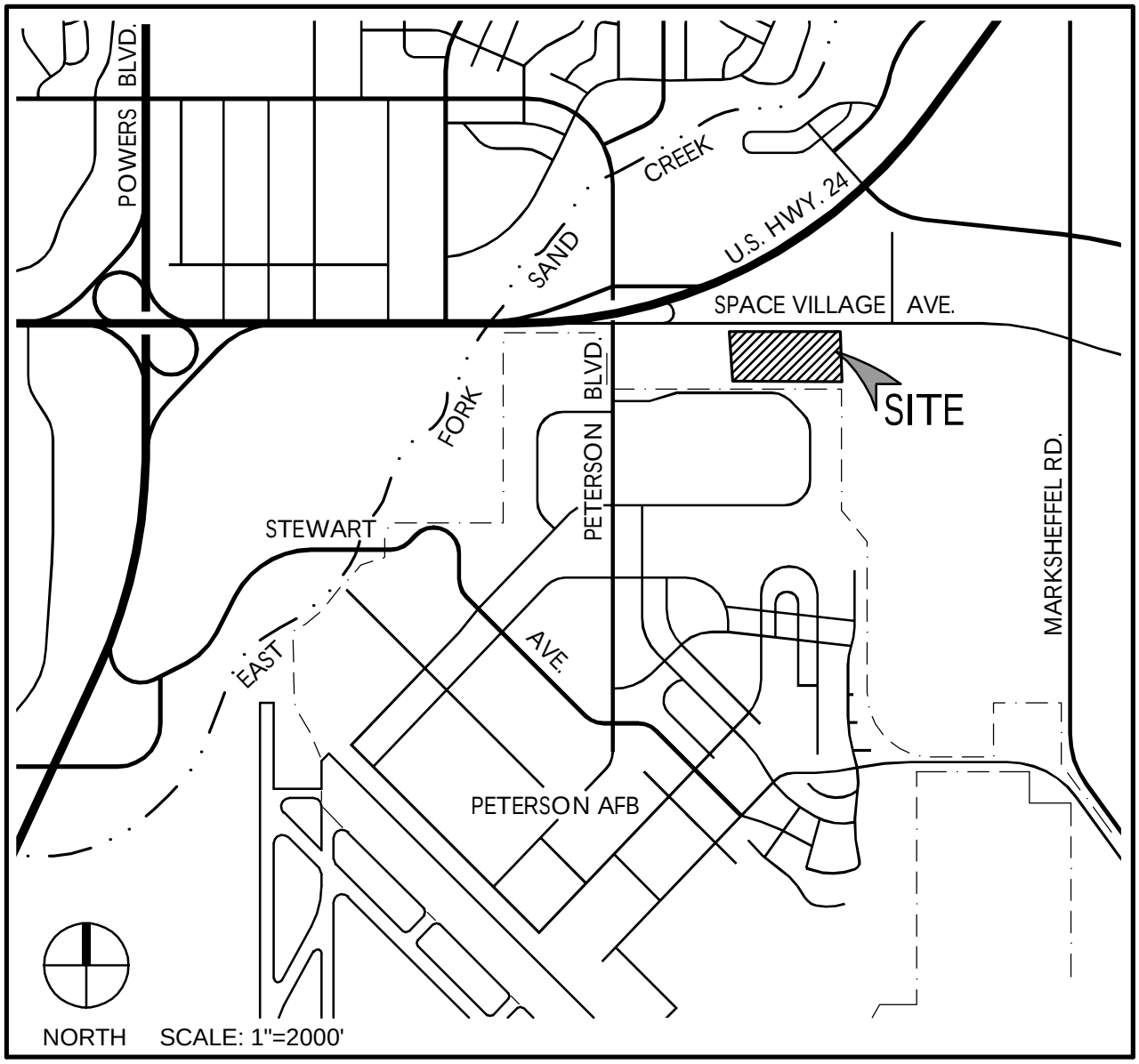
H. *Drainage Criteria Manual, Volumes 1 and 2, Volume 1 Update*, El Paso County, current online edition (October 31, 2018).

I. *Urban Storm Drainage Criteria Manual, Volumes 1 through 3*, Mile High Flood District, current online edition

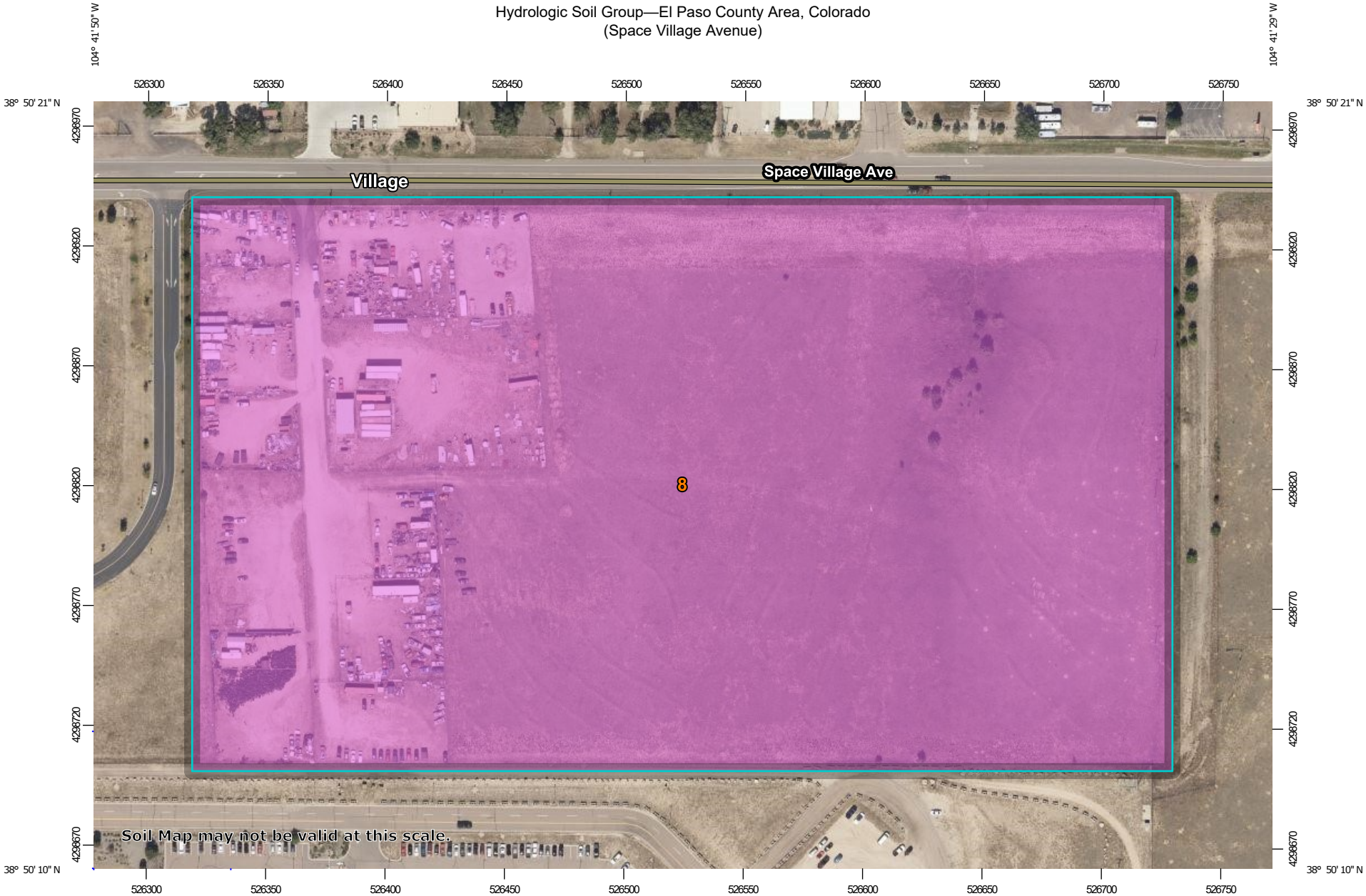
APPENDIX A

- Vicinity Map
- NRCS Web Soil Survey Soil Data Maps
- SCS Soil Survey
- Flood Insurance Rate Map

VICINITY MAP



Hydrologic Soil Group—El Paso County Area, Colorado
(Space Village Avenue)



Map Scale: 1:2,260 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 30 60 120 180

Feet: 0 100 200 400 600

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

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

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

Soil Rating Lines

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

Soil Rating Points

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

Water Features

Streams and Canals

Transportation

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

Background

Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: El Paso County Area, Colorado
Survey Area Data: Version 19, Aug 31, 2021

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

Date(s) aerial images were photographed: Aug 19, 2018—Sep 23, 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.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
8	Blakeland loamy sand, 1 to 9 percent slopes	A	24.4	100.0%
Totals for Area of Interest			**24.4**	**100.0%**

Description

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

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

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

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

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

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

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

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

SOIL SURVEY OF

EL PASO COUNTY AREA, COLORADO

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
in cooperation with the
COLORADO AGRICULTURAL EXPERIMENT STATION

is severely eroded and blowouts have developed, the new seeding should be fertilized.

Windbreaks and environmental plantings are generally suited to this soil. Soil blowing is the main limitation for the establishment of trees and shrubs. This limitation can be overcome by cultivating only in the tree rows and leaving a strip of vegetation between the rows. Supplemental irrigation may be necessary when planting and during dry periods. Trees that are best suited and have good survival are Rocky Mountain juniper, eastern redcedar, ponderosa pine, Siberian elm, Russian-olive, and hackberry. Shrubs that are best suited are skunkbush sumac, lilac, and Siberian peashrub.

This soil is suited to wildlife habitat. It is best suited to habitat for openland and rangeland wildlife. In cropland areas, habitat favorable for ring-necked pheasant, mourning dove, and many nongame species can be developed by establishing areas for nesting and escape cover. For pheasant, the provision of undisturbed nesting cover is vital and should be included in plans for habitat development. Rangeland wildlife, such as pronghorn antelope, can be encouraged by developing livestock watering facilities, properly managing livestock grazing, and reseeding range where needed.

This soil has good potential for use as homesites. Shallow excavation is severely limited because cut banks cave in. This sandy soil requires special management practices to reduce water erosion and soil blowing. Capability subclasses IIIe, irrigated, and IVe, nonirrigated.

7—Bijou sandy loam, 3 to 8 percent slopes. This deep, well drained soil is on flood plains, terraces, and uplands. It formed in sandy alluvium and eolian material derived from arkose deposits. Elevation ranges from 5,400 to 6,200 feet. The average annual precipitation is about 13 inches, the average annual air temperature is about 49 degrees F, and the average frost-free period is about 145 days.

Typically, the surface layer is brown sandy loam about 4 inches thick. The subsoil is brown or grayish brown sandy loam about 24 inches thick. The substratum is pale brown loamy coarse sand.

Included with this soil in mapping are small areas of Olney sandy loam, 3 to 5 percent slopes; Valent sand, 1 to 9 percent slopes; Vona sandy loam, 3 to 9 percent slopes; and Wigton loamy sand, 1 to 8 percent slopes.

Permeability of this Bijou soil is rapid. Effective rooting depth is 60 inches or more. Available water capacity is moderate. Organic matter content of the surface layer is low. Surface runoff is slow, and the hazards of erosion and soil blowing are moderate.

Almost all areas of this soil are used for range.

This soil is suited to the production of native vegetation suitable for grazing. Because of the hazards of water erosion and soil blowing, the soil is not suited to nonirrigated crops.

Native vegetation is dominantly blue grama, sand dropseed, needleandthread, side-oats grama, and buckwheat.

Seeding is a suitable practice if the range has deteriorated. Seeding the native grasses is a good practice. If the range is severely eroded and blowouts have developed, the new seeding should be fertilized. Brush control and grazing management may be needed to improve the depleted range. Grazing should be managed so that enough forage is left standing to protect the soil from blowing, to increase infiltration of water, and to catch and hold snow.

Windbreaks and environmental plantings are generally suited to this soil. Soil blowing is the main limitation for the establishment of trees and shrubs. This limitation can be overcome by cultivating only in the tree rows and leaving a strip of vegetation between the rows. Supplemental irrigation may be needed when planting and during dry periods. Trees that are best suited and have good survival are Rocky Mountain juniper, eastern redcedar, ponderosa pine, Siberian elm, Russian-olive, and hackberry. Shrubs that are best suited are skunkbush sumac, lilac, and Siberian peashrub.

This soil is suited to wildlife habitat. It is best suited to habitat for openland and rangeland wildlife. Rangeland wildlife, such as pronghorn antelope, can be encouraged by developing livestock watering facilities, by properly managing livestock grazing, and by reseeding range where needed.

This soil has good potential for use as homesites. Shallow excavation is severely limited because cut banks cave in. This soil requires special management practices to reduce water erosion and soil blowing. Capability subclass VIe.

8—Blakeland loamy sand, 1 to 9 percent slopes. This deep, somewhat excessively drained soil formed in alluvial and eolian material derived from arkosic sedimentary rock on uplands. The average annual precipitation is about 15 inches, the average annual air temperature is about 47 degrees F, and the average frost-free period is about 135 days.

Typically, the surface layer is dark grayish brown loamy sand about 11 inches thick. The substratum, to a depth of 27 inches, is brown loamy sand; it grades to pale brown sand that extends to a depth of 60 inches.

Included with this soil in mapping are small areas of Bresser sandy loam, 0 to 3 percent slopes; Bresser sandy loam, 3 to 5 percent slopes; Truckton sandy loam, 0 to 3 percent slopes; Truckton sandy loam, 3 to 9 percent slopes; and Stapleton sandy loam, 3 to 8 percent slopes. In some areas, mainly north of Colorado Springs in the Cottonwood Creek area, arkosic beds of sandstone and shale are at a depth of 0 to 40 inches.

Permeability of this Blakeland soil is rapid. Effective rooting depth is 60 inches or more. Available water capacity is low to moderate. Organic matter content of the surface layer is medium. Surface runoff is slow, the hazard of erosion is moderate, and the hazard of soil blowing is severe.

Most areas of this soil are used for range, homesites, and wildlife habitat.

Native vegetation is dominantly western wheatgrass, side-oats grama, and needleandthread. This soil is best suited to deep-rooted grasses.

Proper range management is necessary to prevent excessive removal of plant cover from the soil. Interseeding improves the existing vegetation. Deferment of grazing in spring increases plant vigor and soil stability. Proper location of livestock watering facilities helps to control grazing.

Windbreaks and environmental plantings are fairly well suited to this soil. Blowing sand and low available water capacity are the main limitations for the establishment of trees and shrubs. The soil is so loose that trees need to be planted in shallow furrows and plant cover needs to be maintained between the rows. Supplemental irrigation may be needed to insure survival. Trees that are best suited and have good survival are Rocky Mountain juniper, eastern redcedar, ponderosa pine, and Siberian elm. Shrubs that are best suited are skunkbush sumac, lilac, and Siberian peashrub.

This soil is suited to wildlife habitat. It is best suited to habitat for openland and rangeland wildlife. Rangeland wildlife, such as pronghorn antelope, can be encouraged by developing livestock watering facilities, properly managing livestock grazing, and reseeding range where needed.

This soil has good potential for urban development. Soil blowing is a hazard if protective vegetation is removed. Special erosion control practices must be provided to minimize soil losses. Capability subclass VIe.

9—Blakeland complex, 1 to 9 percent slopes. This complex is on uplands, mostly in the Falcon area. The average annual precipitation is about 15 inches, the average annual air temperature is about 47 degrees F, and the frost-free period is about 135 days.

This complex is about 60 percent Blakeland loamy sand, about 30 percent Fluvaquentic Haplaquolls, and 10 percent other soils.

Included with these soils in mapping are areas of Columbine gravelly sandy loam, 0 to 3 percent slopes, Ellicott loamy coarse sand, 0 to 5 percent slopes, and Ustic Torrifluvents, loamy.

The Blakeland soil is in the more sloping areas. It is deep and somewhat excessively drained. It formed in sandy alluvium and eolian material derived from arkosic sedimentary rock. Typically, the surface layer is dark grayish brown loamy sand about 11 inches thick. The substratum, to a depth of 27 inches, is brown loamy sand; it grades to pale brown sand that extends to a depth of 60 inches or more.

Permeability of the Blakeland soil is rapid. The effective rooting depth is more than 60 inches. The available water capacity is moderate to low. Surface runoff is slow, and the hazard of erosion is moderate.

The Fluvaquentic Haplaquolls are in swale areas. They are deep, poorly drained soils. They formed in alluvium derived from arkosic sedimentary rock. Typically, the surface layer is brown. The texture is variable throughout. The water table is at a depth of 0 to 3 feet.

The Blakeland soil is well suited to deep-rooted grasses. Native vegetation is dominantly western wheatgrass, side-oats grama, and needleandthread. Rangeland vegetation on the Fluvaquentic Haplaquolls is dominantly tall grasses, including sand bluestem, switchgrass, prairie cordgrass, little bluestem, and sand reedgrass. Cattails and bulrushes are common in the swampy areas.

Proper range management is needed to prevent excess removal of plant cover from these soils. It is also needed to maintain the productive grasses. Interseeding improves the existing vegetation. Deferment of grazing during the growing season increases plant vigor and soil stability, and it helps to maintain and improve range condition. Proper location of livestock watering facilities helps to control grazing of animals.

Windbreaks and environmental plantings are fairly well suited to these soils. Blowing sand and low available water capacity are the main limitations to the establishment of trees and shrubs. The soils are so loose that trees need to be planted in shallow furrows and plant cover needs to be maintained between the rows. Supplemental irrigation may be needed to insure survival. Trees that are best suited and have good survival are Rocky Mountain juniper, eastern redcedar, ponderosa pine, and Siberian elm. Shrubs that are best suited are skunkbush sumac, lilac, and Siberian peashrub.

The Blakeland soil is well suited to wildlife habitat. It is best suited to habitat for openland and rangeland wildlife. Rangeland wildlife, such as pronghorn antelope, can be encouraged by developing livestock watering facilities, properly managing livestock grazing, and reseeding range where needed. Wetland wildlife can be attracted to the Fluvaquentic Haplaquolls and the wetland habitat can be enhanced by several means. Shallow water developments can be created by digging or by blasting potholes to create open-water areas. Fencing to control livestock grazing is beneficial, and it allows wetland plants such as cattails, reed canarygrass, and rushes to grow. Control of unplanned burning and prevention of drainage that would remove water from the wetlands are good practices. Openland wildlife use the vegetation on these soils for nesting and escape cover. These shallow marsh areas are especially important for winter cover if natural vegetation is allowed to grow.

The Blakeland soil has good potential for homesites, roads, and streets. It needs to be protected from erosion when vegetation has been removed from building sites. The Fluvaquentic Haplaquolls have poor potential for homesites. Their main limitations for this use are the high water table and the hazard of flooding. Capability subclass VIe.

10—Blendon sandy loam, 0 to 3 percent slopes. This deep, well drained soil formed in sandy arkosic alluvium on alluvial fans and terraces. The average annual precipitation is about 15 inches, the mean annual air temperature is about 47 degrees F, and the average frost-free period is about 135 days.

National Flood Hazard Layer FIRMette

FEMA

104°41'53"W 38°50'34"N

104°41'16"W 38°50'6"N

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

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

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 5/4/2022 at 6:52 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

APPENDIX B

- Spill Prevention and Control Plan
- Colorado Department Of Public Health & Environment (CDPHE) Environmental Spill Reporting
- Colorado Department Of Public Health & Environment (CDPHE) Five Day Reporting Form

SPILL PREVENTION AND CONTROL PLAN

Spills and leaks of solid and liquid materials processed, handled or stored outdoors can be a significant source of stormwater pollutants. Spilled substances can reach receiving waters when runoff washes these materials from impervious surfaces or when spills directly enter the storm sewer system during dry weather conditions.

It is not expected that the construction activities occurring at Space Village Filing No. 4, in El Paso County, Colorado in development of approximately 22.8 acres of commercial space, will result in the legal requirement to have in place a Spill Prevention Control and Countermeasure (SPCC) plan (a.k.a. Spill Prevention and Control Plan [SPCP]) under Section 311 of the Clean Water Act. However, spills are a possibility on any construction site and this SPCP provides the contractor with an effective Best Management Practice to prevent stormwater contamination and a resultant degradation in downstream water quality. The projects general contractor may elect to provide a separately prepared SPCP for site implementation but all relevant sections of that document must be incorporated into the SWMP and vice versa.

SPILL PREVENTION MEASURES

Effective spill control includes both spill prevention and spill response measures and depends on proper employee training for spill response measures and may also include structural spill containment, particularly at industrial locations. Structural spill containment measures typically include temporary or permanent curbs or berms that surround a potential spill site. Berms may be constructed of concrete, earthen material, metal, synthetic liners, or other material that will safely contain the spill. Spill control devices may also include valves, slide gates, or other devices that can control and contain spilled material before it reaches the storm sewer system or receiving waters.

The general contractor shall:

- Train employees on potential sources of pollution on-site and provide clear, common-sense spill prevention practices. Require that these practices be strictly followed.
- Identify equipment that may be exposed to stormwater, pollutants that may be generated, and possible sources of leaks or discharges.
- Perform regular inspection and preventative maintenance of equipment to ensure proper operation and to check for leaks or evidence of discharge (stains). Provide clear procedures to ensure that needed repairs are completed and provide temporary leak containment until such repairs can be implemented.
- Drain or replace motor oil and other automotive fluids in a designated area away from storm sewer inlets. Collect spent fluids and recycle or dispose of properly. Never dispose of these fluids in the storm sewer or sanitary sewer.
- In fueling areas, clean up spills with dry methods (absorbents) and use damp cloths on gas pumps and damp mops on paved surfaces. Never use a hose to “wash down” a fuel spill.
- Where practical, reduce stormwater contact with equipment and materials by implementing indoor or covered storage, implementing stormwater run-on control measures, and following good housekeeping practices.

IDENTIFICATION OF POTENTIAL SPILL AREAS

The following areas construction areas are potential spill areas and should be identified on the SWMP site maps. Appropriate BMPs are to be in place at all times to limit the possibility that accidental spills wind up affecting water quality:

- Loading and unloading areas
- Outdoor storage areas
- Waste disposal/storage areas
- Areas that generate significant dust or particulates (e.g. mason's area)
- Locations where other routine maintenance activities occur such as equipment maintenance and cleaning, pesticide/fertilizer application, etc. Additionally, areas where smaller leaks may occur such as parking should also have basic spill cleanup procedures.

MATERIAL HANDLING PROCEDURES

From a water quality perspective, the primary principle behind effective material handling practices is to minimize exposure to stormwater. This can be accomplished by storing the material indoors under weather-resistant covering, elevating the material off the ground by using pallets, and diverting stormwater around materials storage areas. The following handling procedures are to be followed during construction:

- Keep bulk solid materials such as raw materials, sand, gravel, topsoil, compost, concrete, packing materials, metal products and other materials covered and protected from stormwater.
- When practical, store materials on impermeable surfaces.
- Store hazardous materials according to federal, state, and local hazardous materials requirements.
- Adopt procedures that reduce the chance of spills or leaks during filling or transfer of materials.
- Substitute less toxic or non-toxic materials for toxic materials.
- Store containers that are easily punctured or damaged away from high traffic areas (i.e., adopt a materials flow/plant layout plan).
- Add waste-capture containers such as collection pans for lubricating fluids.
- Store drums and containers with liquid materials on impermeable surfaces and provide secondary containment where appropriate. Drums stored outdoors should be located on pallets to minimize contact with runoff.

STOCKPILES OF DRY MATERIALS

The following spill prevention procedures shall be implemented:

All materials shall be stockpiled in designated areas, with control measures used to reduce and minimize the runoff of contaminants. Control measures such as silt fence and sediment control logs will be installed according to municipal, stormwater authority, and state criteria using the details shown in the Site Maps. Loading and unloading operations shall be performed in a manner to limit materials from being spilled. Any spilled materials shall be swept up immediately after the operations are performed.

VEHICLE FUELING

The following spill prevention procedures shall be implemented:

All vehicle fueling will be done off-site as much as possible. All on-site fueling operations will be performed in areas specifically designated and monitored by the superintendent. Measures will be taken where necessary to reduce and minimize spills during vehicle fueling operations. These measures may include the placement of a temporary berm around the fueling area, covering the fueling area under a temporary portable structure, and/or the placement of drip pans under valves and tank openings. Berms will be constructed around all fueling areas. An adequate supply of absorbents will also be stockpiled at each fueling area.

ROUTINE VEHICLE AND EQUIPMENT MAINTENANCE

The following spill prevention procedures shall be implemented:

All vehicle maintenance will be performed off-site when possible. However, there may be occasions where construction equipment and vehicles may break down at the site and on-site repairs are more feasible. On-site vehicle and equipment maintenance, if needed, will be performed in designated areas, where practical, and enclosed by earthen berms. All maintenance areas will maintain an adequate supply of drip pans and absorbent materials. The pans will be placed underneath vehicles as needed and absorbents will be used in the event of a minor spill or leak.

SPILL RESPONSE

NOTE: IN CASE OF FIRE, EVACUATE ALL PERSONNEL FROM THE IMMEDIATE AREA, RENDER FIRST AID TO ANYONE WHO IS INJURED, AND DIAL 911 IMMEDIATELY. TAKE APPROPRIATE STEPS TO PROTECT HUMAN LIFE AND CONTROL FIRES FIRST. SPILL CONTROL IS A SECONDARY CONCERN.

CLEANUP AND REMOVAL PROCEDURES

Upon detection of any spill, the first action to be taken is to ensure personal safety. All possible ignition sources, including running engines, electrical equipment (including cellular telephones, etc.), or other hazards will be immediately turned off or removed from the area. The extent of the spill and the nature of the spilled material will be evaluated to determine if remedial actions could result in any health hazards, escalation of the spill, or further damage that would intensify the problem. If such conditions exist, a designated employee will oversee the area of the spill and the construction SWMP Administrator will be notified immediately.

The source of the spill will be identified and, if possible, the flow of pollutants stopped if it can be done safely. However, no employee will attend to the source and begin cleanup of the spill until ALL emergency priorities (fire, injuries, etc.) have been addressed.

SMALL SPILLS

Small spills (usually less than 5 gallons) consist of minor quantities of gasoline, oil, anti-freeze, or other materials that can be cleaned up by a single person using readily available materials.

The following procedure shall be used for clean-up of small spills:

1. Ensure personal safety, evaluate the spill, and if possible, stop the flow of pollutants.

2. Contain the spread of the spill using absorbents, portable berms, sandbags, or other available measures.

3. Spread absorbent materials on the area to soak up as much of the liquid as possible and to prevent or minimize infiltration into the soil.

4. Once the liquids have been absorbed, remove all absorbents from the spill and place the materials in a suitable storage container. On paved areas, wipe any remaining liquids from the surface and place the materials in a storage container. Do not spray or wash down the area using water. For open soil areas, excavate any contaminated soil as soon as possible and place the soil in a suitable storage container. All materials will then be transported off-site for disposal at an approved facility.

5. If immediate transfer and storage of the contaminated soil is not practical, excavate and place the contaminated soil on a double thickness sheet of 3-mil or higher polyethylene film. In addition, a small berm should be formed around the outer edges of the soil stockpile, underneath the polyethylene film; to ensure that contaminants are not washed from the site during precipitation events and that materials do not seep through the berm.

6. Record all significant facts and information about the spill, including the following:

   - Type of pollutant
   - Location of spill
   - Apparent source of spill
   - Estimated volume of spill
   - Time of discovery
   - Actions taken to clean up spill

7. Notify the SWMP Administrator of the spill and provide the information from above. The SWMP Administrator will then make any required authority contact.

MEDIUM TO LARGE SPILLS

Medium to large spills consist of larger quantities of materials (usually greater than 5 and up to 25 gallons) that are used on-site that cannot be controlled by a single person. Generally, a number of facility personnel will be needed to control the spill and a response may require the suspension of other facility activities.

The following procedure shall be used for the cleanup of medium to large spills:

1. Ensure personal safety, evaluate the spill, and if possible, stop the flow of pollutants.

2. Immediately dispatch a front-end loader or similar equipment to the spill and construct a berm of soil down gradient of the spill to minimize the spread of

potential pollutants. On paved surfaces, portable berms, sandbags, booms, or other measures will be used to control the lateral spread of pollutants.

3. When the spread of the spill has been laterally contained, contact the SWMP Administrator or designated facility employee and provide them information on the location, type, and amount of spilled material, and a briefing on the extent of the spread and measures undertaken to contain the contaminants.

4. Depending on the nature of the spill, mobilize additional resources as needed to contain the contaminants.

5. Cleanup will commence when the lateral spread has been contained and the notification to the SWMP Administrator has been made.

6. Freestanding liquid will be bailed or pumped into 55-gallon storage drums, steel tanks, or other suitable storage containers. When all the liquid has been removed from the pavement or soil layer, absorbents will be applied to the surface and transferred to the storage containers when they have soaked up as much of the spill as possible.

7. On paved surfaces, the remaining contaminants will be removed to the extent possible, with rags, sweeping, or similar measures. The area of the spill will not be sprayed or washed down using water. Any contaminant-soaked materials will be placed into the storage containers with the other absorbents.

8. The remaining contaminated soils will be excavated and loaded into a dump truck(s) for disposal off-site at a designated facility. If transport off-site is not immediately available, the remaining soils will be stockpiled on a double thickness sheet of 3-mil or higher polyethylene film. In addition, a small berm will be formed around the outer edges of the soil stockpile, underneath the polyethylene film, to ensure that contaminants are not washed from the site during precipitation events and that materials do not seep through the berm.

9. Record all significant facts and information about the spill, including the following:

   - Type of pollutant
   - Location of spill
   - Apparent source of spill
   - Estimated volume of spill
   - Time of discovery
   - Actions taken to clean up spill

10. Provide the SWMP Administrator (or designated employee) with the information from above. The SWMP Administrator will then make any required authority contact.

NOTIFICATION

Notification to the Colorado Department of Public Health & Environment (CDPHE) is required if there is any release or suspected release of any substance, including oil or other substances that spill into or threaten State waters. Unless otherwise noted, notifications are to be made by the SWMP Administrator and only after emergency responses related to the release have been implemented. This will prevent misinformation and assures that notifications are properly conducted.

The notification requirements are as follows:

1. Spills into or Threatens State Waters: Immediate notification is required for releases that occur beneath the surface of the land or impact or threaten waters of the State or threaten the public health and welfare. Notifications that will be made are:

   a. For any substance, regardless of quantity, contact CDPHE at 1-877-518-5608.

      State as follows:

      - Give your name
      - Give location of spill (name of city/town)
      - Give date and time of incident
      - Give permit number (if applicable)
      - Give potentially responsible party contact name, phone number, and e-mail
      - Describe the nature of the spill, type of product, and estimate size of spill
      - Describe type of action taken thus far, type of assistance or equipment needed

   b. For any quantity of oil, other fluids, designated hazardous substances; and for Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) reportable releases, immediately call the National Response Center at 1-800-424-8802. For any quantity of oil or other fluids, and for Emergency Planning and Community Right-to-Know Act (EPCRA) reportable releases, immediately call the:

      - National Response Center at 1-800-424-8802
      - State Emergency Response Center (SERC); CDPHE 24-hour Emergency and Incident Reporting Line at 1-877-518-5608
      - Affected Local Emergency Planning Committee (LEPC); El Paso County Emergency Management 24-hour Contact at 1-719-575-8422

      and state as follows:

      - Give your name
      - Give location of spill (name of city/town and state)
      - Describe the nature of the spill, type of product, and estimate size of spill
      - Describe type of action taken thus far, type of assistance or equipment needed

c. For any accidental discharge to the sanitary sewer system, immediately call the local sewer authority and the affected wastewater treatment plant.

2. Reportable Quantity Spill on Land Surface: Immediate notification is required of a release upon the land surface of an oil in quantity that exceeds 25 gallons, or of a hazardous substance that equals or exceeds 10 pounds of its reportable quantity under Section 101(14) of the Comprehensive Environmental Response, Compensation Liability Act (CERCLA) of 1980 as amended (40 CFR Part 302) and Section 329 (3) of the Emergency Planning and Community Right to Know Act of 1986 (40 CFR Part 355) whichever is less. This requirement does apply at a minimum to the substances listed in Table A below.

TABLE A
Substances Requiring Notification

SUBSTANCE	REPORTABLE QUANTITY
Motor Oil	25 Gallons
Hydraulic Oil	25 Gallons
Gasoline/Diesel Fuel	25 Gallons

The notification procedures to be followed are:

- Give your name
- Give location of spill (name of city/town and state)
- Describe the nature of the spill, type of product, and estimate size of spill
- Describe type of action taken thus far, type of assistance or equipment needed
- Give name of land owner
- Specify department responsible for any facilities that may be impacted

3. Notification is not required for release of oil upon the land surface of 25 gallons or less that will not constitute a threat to public health and welfare, the environment or a threat of entering the waters of the State.

4. Notification, as required in paragraphs 1 and 2 above, will be made to the CDPHE using the 24-hour telephone number to report environmental spills. All information known about the release at the time of discovery is to be included, such as the time of occurrence, quantity and type of material, location and any corrective or clean-up actions presently being taken.

5. Contacts: It is the responsibility of the SWMP Administrator to contact the Local Emergency Planning Committee contact, CDPHE, and/or the National Response Center.

   The National Response Center is to be contacted when a release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR 110, 4- DFR 117, or 40 CFR 302 occurs during a 24-hour period.

Notification to the CDPHE is required if there is any release or suspected release of any material, including oil or hazardous substances that spill into or threaten State waters.

TABLE B
Emergency Notifications Contacts
(For All Emergencies Dial 911)

Name/Agency	Number
Cimarron Hills Fire Department	911
El Paso County Hazardous Materials Team	911
El Paso County Sheriff	911
Ambulance	911
Hospital	911
National Response Center	1-800-424-8802
CDPHE – Report Environmental Spills (24hrs/day)	1-877-518-5608
LEPC	1-719-575-8422
US EPA Region 8 Emergency Response Spill Report Line	1-800-227-8914

6. Reports: The CDPHE requires written notification of a spill or discharge of oil or other substance that may cause pollution of the waters of the State of Colorado. A written report must be submitted to the Water Quality Control Division (WQCD) within 5 days after becoming aware of the spill or discharge. Their "Five day reporting form" is included as an attachment hereto.

   The CDPHE required a written final report within 15 days for all releases of an oil or hazardous substance that requires implementation of a contingency plan. The CDPHE may also require additional reports on the status of the clean-up until any required remedial action has been completed.

   Written notification must contain at a minimum:

   a. Date, time, and duration of the release.
   b. Location of the release.
   c. Person or persons causing and responsible for the release.
   d. Type and amount of oil or substance released.
   e. Cause of the release.
   f. Environmental damage caused by the release.
   g. Actions taken to respond to, contain, and clean-up the release.
   h. Location and method of ultimate disposal of the oil or other fluids.
   i. Actions taken to prevent a reoccurrence of the release.
   j. Any known or anticipated acute or chronic health risks associated with the release.
   k. When appropriate, advice regarding medical attention necessary for exposed individuals.

Environmental Spill Reporting

24—Hour Emergency and Incident Reporting Line
Office of Emergency Preparedness & Response

1-877-518-5608

Updated: June, 2018

Reporting chemical spills and releases in Colorado

General

For all hazardous substance incidents, local emergency response agencies must be notified.

Releases from fixed facilities

The Superfund Amendments and Reauthorization Act (SARA) Title III, requires reporting releases from fixed facilities

Refer to the SARA Title III List of Lists, available from the Environmental Protection Agency (EPA), for the reportable quantity.

The party that owns the spilled material must immediately notify the following agencies or organizations:

- National Response Center (NRC) 1-800-424-8802;
- Colorado Emergency Planning Committee (CEPC), represented by the Colorado Department of Public Health and Environment (CDPHE) 1-877-518-5608; and
- Local Emergency Planning Committee (LEPC) 1-720-852-6600.

In addition to telephone notification, the responsible party must also send written notification describing the release and associated emergency response to both the CEPC (in this case, CDPHE) and the LEPC.

Releases from RCRA facilities

Emergency releases from facilities permitted under the Resource Conservation and Recovery Act (RCRA) are reportable according to the permit requirements.

The permit often requires reporting to CDPHE, even if the amount of the release is less than a reportable quantity under SARA Title III (6 CCR 1007-3 Part 264).

Permitted facilities and generators and transporters of hazardous waste are required to have and implement a contingency plan that describes the actions facility personnel must take in response to fires, explosions or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, surface or ground water at the facility (6 CCR 1007-3 Sections 261, 262, 263, 264 and 265).

Whenever there is an imminent or actual emergency situation, appropriate state or local agencies, with designated response roles as described in the contingency plan, must be notified immediately.

The National Response Center or government official designated as the regional on-scene coordinator must be notified immediately if it is determined that the facility has had a release, fire or explosion that could threaten human health or the environment outside the facility.

CDPHE and local authorities must be notified when the facility is back in compliance and ready to resume operations. In addition, the facility must send a written report to CDPHE within 15 days of any incident that requires implementation of the contingency plan. The contingency plan should include current contact information for notification and submittal of written reports.

Permitted facilities, generators and transporters that store hazardous waste must notify CDPHE within 24 hours of any release to the environment that is greater than one (1) pound and must submit a written report to CDPHE within 30 days of the release (6 CCR 1007-3).

Transportation accidents

Transportation accidents that require reporting:

- Result in a spill or release of a hazardous substance in excess of the reportable quantity (40 CFR Part 302.6)
- Cause injury or death or cause estimated property damage exceeding $50,000.
- Cause an evacuation of the general public lasting one or more hours.

Those that close or shut down one or more major transportation arteries or facilities or result in fire, breakage, spillage, or suspected contamination from radioactive or infectious substances must immediately be reported to the National Response Center.

Refer to the EPA SARA Title III List of Lists for those substances that have reportable quantities.

In addition to the NRC being notified, the local emergency number (9-1-1) must be called and CDPHE should be notified.

Written notification of any transportation accident involving a release of hazardous materials must be provided to the U.S. Department of Transportation within 30 days (49 CFR Part 171.16)

Since hazardous waste is a subset of hazardous materials, transporters who have discharged hazardous waste must notify the NRC and provide a written report to the US Department of Transportation as noted in the above reporting requirements.

The transporter must give immediate notice to the nearest Colorado State Patrol office (8 CCR 1507-8 HMP 5) and the nearest law enforcement agency if the accident or spill involved a vehicle (42-20-113(3) CRS).

Notification and a written report detailing the ultimate disposition of the discharge of hazardous waste must also be provided to CDPHE (6 CCR 1007-2 Section 263.30). This may be a duplicate copy of the US Department of Transportation report

In the event of a spill or discharge of hazardous waste at a transfer facility, the transporter must notify CDPHE within 24 hours if the spill exceeds 55 gallons or if there is a fire or explosion.

Within 15 days of a reportable incident, the transporter must submit a written report of the incident to CDPHE, including the final disposition of the material (6 CCR 1007-2 Section 263.40).

Releases of hazardous waste at a transfer facility may also require notification to the National Response Center and a written report to the U.S. Department of Transportation.

Releases to water

A release of any chemical, oil, petroleum product, sewage, etc., which may enter waters of the State of Colorado (which include surface water, ground water and dry gullies or storm sewers leading to surface water) must be reported to CDPHE immediately (25-8-601 CRS).

Written notification to CDPHE must follow within five (5) days (5 CCR 1002-61, Section 61.8(5)(d)).

Any accidental discharge to the sanitary sewer system must be reported immediately to the local sewer authority and the affected wastewater treatment plant.

Releases of petroleum products and certain hazardous substances listed under the Federal Clean Water Act (40 CFR Part 116) must be reported to the National Response Center as well as to CDPHE (1-877-518-5608) as required under the Clean Water Act and the Oil Pollution Act.

Releases to air

Any unpredictable failure of air pollution control or process equipment that results in the violation of emission

control regulations should be reported CDPHE by 10 a.m. of the following working day, followed by a written notice explaining the cause of the occurrence and describing action that has been or is being taken to correct the condition causing the violation and to prevent such excess emissions in the future (5 CCR 1001-2 Common Provisions Regulations Section II.E).

If emergency conditions cause excess emissions at a permitted facility, the owner/operator must provide notice to CDPHE no later than noon of the next working day following the emergency, and follow by written notice within one month of the time when emission limitations were exceeded due to the emergency (5 CCR 1001-5, Regulation 3 Part C, Section VII.C.4).

Releases from oil and gas wells

All spills or releases of exploration and production wastes or produced fluids which meet the reporting thresholds of the Colorado Oil and Gas Conservation Commission (COGCC) Rule 906 shall be reported verbally to the COGCC within 24 hours of discovery and on the COGCC Spill/Release Report Form 19 within 72 hours of discovery.

Spills or releases are reportable to the COGCC in the following circumstances:

1) the spill or release impacts or threatens to impact any waters of the state, (which include surface water, ground water and dry gullies or storm sewers leading to surface water), a residence or occupied structure, livestock or a public byway;
2) a spill or release in which 1 barrel or more is released outside of berms or other secondary containment; or
3) any spill or release of 5 barrels or more.

COGCC also requires reportable spills or releases be reported to the surface owner and local government. Whether or not they are reportable, spills or releases of any size must be stopped, cleaned up, and investigated as soon as practicable.

If the spill or release impacts or threatens to impact waters of the state, it must also be reported immediately to CDPHE (25-8-601 CRS).

Releases from storage tanks

Petroleum releases of 25 gallons or more (or any size that causes a sheen on nearby surface waters) from regulated aboveground and underground fuel storage tanks must be reported to the Division of Oil and Public Safety (303-318-8547) within 24 hours. If the report is made after business hours, please leave a message on the technical assistance line for the Division of Oil and Public Safety, and contact the 24 hour CDPHE Emergency and Incident Reporting Line. This includes spills from fuel dispensers.

Spills or releases of hazardous substances from regulated storage tanks in excess of the reportable quantity (40 CFR Part 302.6) must be reported to the National Response Center and the local fire authority immediately, and to the Division of Oil and Public Safety within 24 hours. (8-20.5-208 CRS and 7 CCR 1101-14 Article 4).

Owners/operators of regulated storage tanks must contain and immediately clean up a spill or overfill of less than 25 gallons of petroleum and a spill or overfill of a hazardous substance that is less than the reportable quantity.

If cleanup cannot be accomplished within 24 hours, the Division of Oil and Public Safety must be notified immediately (7 CCR 1101-14 Article 4-4).

CDPHE should also be notified in the case of hazardous substance releases as cleanup activities may be covered by state solid or hazardous waste requirements (6 CCR 1007-2, 6 CCR 1007-3).

Any release that has or may impact waters of the state (which include surface water, ground water and dry

gullies or storm sewers leading to surface water), no matter how small, must be reported immediately to CDPHE (25-8-601 CRS).

Releases from pipelines

Releases of five or more gallons of hazardous liquids or carbon dioxide from a pipeline that result in explosion or fire, cause injury or death or cause estimated property damage (including cost of clean-up and recovery, value of lost product and property damage) exceeding $50,000 must be reported immediately to the US Department of Transportation Office of Pipeline Safety (49 CFR Part 195 Subpart B) and the National Response Center.

Releases of five or more gallons of hazardous liquids or carbon dioxide from interstate pipelines that do not involve explosion or fire, injury or death or property damage exceeding $50,000 should be reported to the US Department of Transportation Office of Pipeline Safety within 30 days after the incident.

Releases of natural gas from intrastate pipelines that cause injury or death, property damage in excess of $50,000 (including the cost of lost product), closure of a public road, or evacuation of 50 or more people must be reported immediately to the Colorado Public Utilities Commission, Pipeline Safety Group (4 CCR 723-11-2).

Releases of natural gas or liquefied natural gas (LNG) from interstate pipelines that cause injury or death, property damage in excess of $50,000 (including the cost of lost product), or results in an emergency shutdown of the facility must be reported immediately to the National Response Center and the US Dept of Transportation Office of Pipeline Safety.

Releases of oil, petroleum products or other hazardous liquids from interstate and intrastate pipelines that have or may enter waters of the State of Colorado (which include surface water, ground water and dry gullies or storm sewers leading to surface water) must be reported to CDPHE immediately (25-8-601 CRS). CDPHE should also be notified of releases to soil, as cleanup activities may be covered by state solid or hazardous waste requirements (6 CCR 1007-2, 6 CCR 1007-3).

Radiological accidents, incidents, and events

CDPHE must be notified of any condition that has caused or threatens to cause an event, which meets or exceeds the criteria specified in (6 CCR 1007-1) RH 4.51 and RH 4.52 of the State of Colorado *Rules and Regulations Pertaining to Radiation Control*. Reportable events include lost radioactive materials, lost radiation producing machines, over-exposures to persons, contamination events and fires or explosions involving radioactive materials.

Depending upon the severity of the event, notification may be required immediately, within 24 hours, or within 30 days. In most cases, a written follow-up report is also required.

If you are unsure of the proper notification requirement, please contact CDPHE immediately. Telephone event notifications can be made to the CDPHE Radiation Program at any time by calling 1-303-877-9757.

Notification Numbers

Colorado Department of Public Health and Environment toll-free 24-hour environmental emergency and incident reporting line: (877) 518-5608 (24-hour)

National Response Center
(800) 424-8802 (24-hour)

State Oil Inspector (Colorado Division of Oil & Public Safety-Above & Underground Storage Tank Regulators)
(303) 318-8547

COLORADO
Water Quality Control Division
Department of Public Health & Environment

Five day reporting form

Incident / spill / sanitary sewer overflow release

Use this form to report incidents impacting waters of the state

The Water Quality Control Division distinguishes between reporting requirements for incidents that occur at entities operating under a Colorado Discharge Permit System (CDPS) permit and those resulting from non-permitted activities.

Permitted activities - Reporting and management of non-compliance incidents and spills that occur as a result of permitted activities should be performed in accordance with the specific requirements in the notifications section of your permit. You may use this form to submit the information requested in the permit.

Non-permitted activities - In the case of an activity where a permit does not address reporting of, or response to, a given spill please submit a written summary of the event, your response, and clean up efforts to the division within five working days of the date of the event. This form is provided for your convenience. If you have any questions please contact the division's field services staff person assigned to your spill case.

Prior to the five working day deadline you may request an extension to submit the report if needed for sampling analysis or other reasons. To request an extension please send an email to the division's field services staff person assigned to your spill case or to the spill administrator. The field services contact list is available at: www.colorado.gov/cdphe/wq-inspection-services-contact-us.

Please send the completed form or report with signature to the division's field services spill administrator:

Michelle Thiebaud
222 S. Sixth Street, 232
Grand Junction, CO 81501

Telephone: 970-248-7150
Fax: 970-248-7198
Email: michelle.thiebaud@state.co.us

1. Incident background information					
Incident/spill number (division provided)		Date of event		County	
Type of incident / spill / SSO (check one)					
☐ Sanitary sewer overflow		☐ Potable water/reuse water/ reclaimed water		☐ Biosolids	
☐ Wastewater treatment plant bypass or upset (authorized outfall point)		☐ Petroleum product		☐ Oil or gas field production spill	
☐ Wastewater treatment plant spill or overflow (other than outfall)		☐ Chemical		☐ Other	
Estimated volume released					
Size and depth of area affected					
Contact information					
Potentially responsible party contact name					
Potentially responsible party company/agency name					
CDPHE Permit number and facility name (if applicable)					
Email address				Phone	
2. Incident information: Please provide the following information.					
A. Describe incident including source, cause, and location (e.g. address, latitude/longitude).					
B. Material released, e.g. untreated wastewater, specific chemical or product, biosolids. Please attach the OSHA Material Safety Data Sheets for any and all chemicals or products in spill or release.					

C.	Actual or estimated duration of the event and time spill was fully controlled/stopped. If release is still occurring, the date and time the release is expected to be stopped.
D.	Describe measures taken or planned to contain, reduce, and clean up spill or release.
E.	Describe steps taken or planned to prevent reoccurrence.

3.	Incident impact to state waters (As defined in § 25-8-103(19), C.R.S.). Examples of state waters include: stormwater conveyances (when they discharge to surface water), perennial streams, intermittent or ephemeral gulches, ditches, ponds, lakes, reservoirs, irrigation canals, wetlands and groundwater.
A.	Did flow or materials reach surface water of the state? If so, identify the water body or bodies and describe the path of flow. What quantity of material reached the surface waters and what was the resulting impact?
B.	Did flow or materials reach groundwater of the state? If so, identify the water body or bodies and describe the path of flow. If yes, what quantity of material reached the ground or groundwater and what was the resulting impact?
C.	Did the incident include any of the following? If so, please include additional details below.

☐ Chemical release	☐ Fish kill	☐ Sheen on water

D.	Were any water quality samples or other samples taken? If so, please describe sampling process, sampling location(s) in relationship to the incident, i.e. up/down stream and attach results.

4.	Incident impact to areas or water users
A.	Describe the potential impact of the incident/spill/SSO to public use areas or downstream water users. This includes parks and swim beaches or public water system sources and irrigation diversions.
B.	Were the impacted area users and downstream water users notified and describe the method of notification, e.g. signs posted, via phone.
C.	List any downstream users who were notified.

I hereby certify that the information presented above is accurate and complete.

Signature	Name and title	Company, organization	Date

APPENDIX C

- Colorado Department Of Public Health & Environment (CDPHE) CDPS Documents
  - Colorado Environmental Online Services (CEOS) Help Guide
  - CDPS COR400000 General Permit
  - Low Risk Discharge Guidance - Discharges of Uncontaminated Groundwater to Land (WQP-27)

- El Paso County Documents
  - Erosion and Stormwater Quality Control Permit (ESQCP) Application
  - Inspection Checklist – Grading, Erosion, and Stormwater Quality Controls

Water Quality Permits

Public CEOS Portal Standard Operating Procedures

Objective:

This document details the step by step processes of establishing and managing a public CEOS account, and making permit-related submittals to the Water Quality Control Division (division).

Definitions:

- **CEOS:** Colorado Environmental Online Services "see-ohs"
  - An online service comprised of a Public Portal and an Agency Portal where submittals can be submitted to the Agency, reviewed, and letters can be issued by the Agency back to the public user.
- **RO:** Responsible Official
  - The person responsible for the facility/entity, and is able to submit submittals.
- **Preparer:**
  - A person authorized to complete submittals on behalf of the RO.
- **Submittal:**
  - Project documentation submitted by the entity to the Agency.

1. Creating an Account and Logging In

Overview

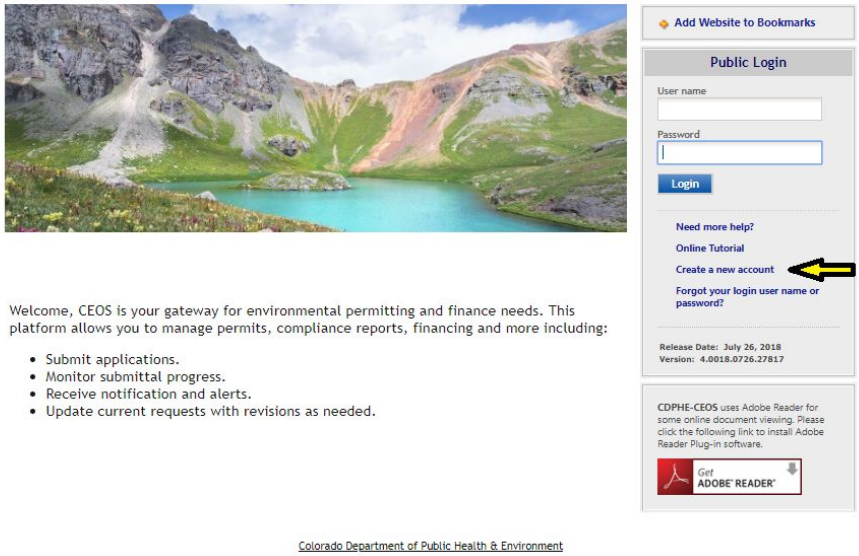
This section covers the steps to create an account on the CEOS Public Portal.

Responsibility

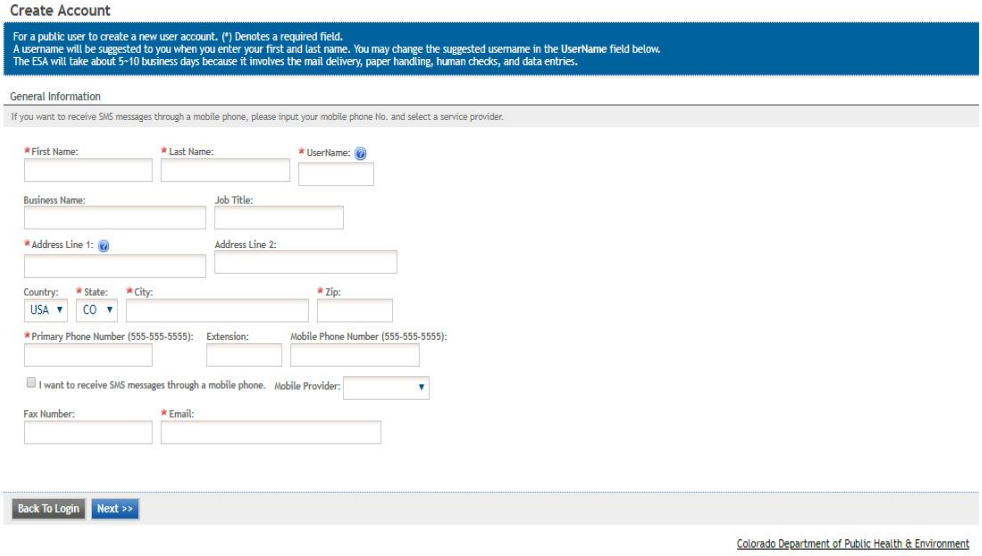
This is the responsibility of the Responsible Officer and/or Preparer. In some circumstances, the Permits Section may have already created an account for you.

Process

1. Navigate to the Public Portal home page.
   - https://ceos.colorado.gov/CO/CEOS/Public
2. Click on the "Create a new account button on the right-hand side of the page.



3. Enter the relevant personal information. Items marked with a red star are required. A username will be generated for you based on your first and last name, but you are free to customize it however you would like.
    - You may only create one CEOS account per email address.

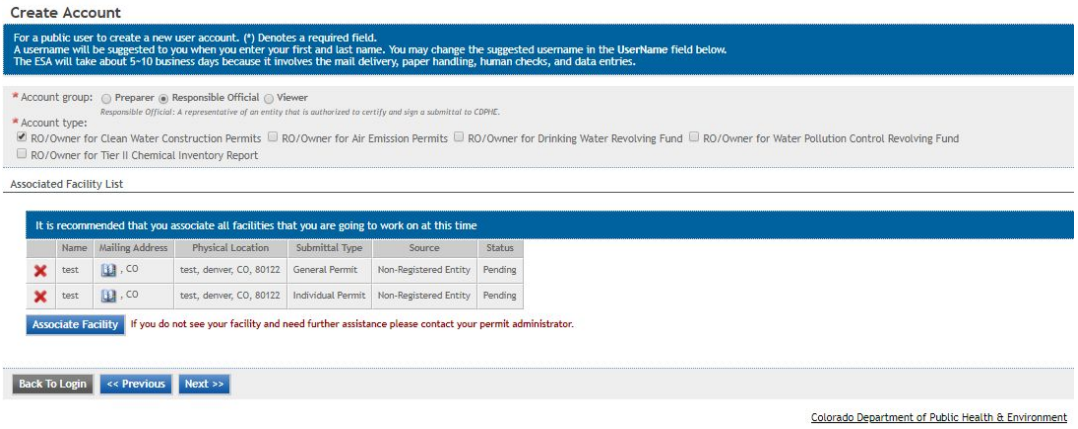


4. Select your account group, type, and associate your facility:
    - **Preparer**
        i. If you are authorized by an entity to prepare documents on their behalf, under “Account group”, select “Preparer”.
        ii. Next, under “Account Type”, check the “Preparer” box.
        iii. Click the “Next” button at the bottom of the page.
    - **Responsible Official**
        i. If you are the town or district official that is responsible for a project, under “Account group” select “Responsible Official”.

ii. Next, under “Account type”, select which fund you are the Responsible Official for. Select both if you are the “RO” for both Drinking Water and Clean Water (i.e., discharge permit) programs.

iii. Next, associate your account with the facility you are the RO for.

1. Click the “Associate Facility” button.
2. Search for your Facility.
    a. You must search for a facility, but if your facility cannot be found you may enter a new facility.
        i. When creating a facility please complete all fields, even those without an asterisk.
        ii. The mailing address fields should be the primary location where the company receives correspondence – it doesn’t have to be a Colorado address, nor does it need to be a physical location (PO boxes are fine)
    b. You may associate a facility now or from the dashboard after an account has been created.
3. Check the box on the right of your facility.
4. Check the box for each submittal type you are responsible for. Checking the “select all” box will select all of the submission types for your facility.
5. Scroll to the bottom of the page and click the “OK” button.
6. Click the next button at the bottom of the page.



5. Choose and answer the security questions. Make sure that you answer in a way that you will remember. Your answers are case sensitive.

6. Fill out the captcha verification. This is case sensitive. Click the “Create Account” button.

7. Click the “back to login” button at the bottom of the page.

8. Logging in for the first time.
   - You will receive an email with your username and a temporary password. Enter this information on the Public Portal home page, and click “Login”.
   - You will be presented with a field to create a new, personal password and PIN number. Fill out these forms and click “Save”.

2. Editing Account Information

Overview

This section covers how to update public user account information after an account has been created.

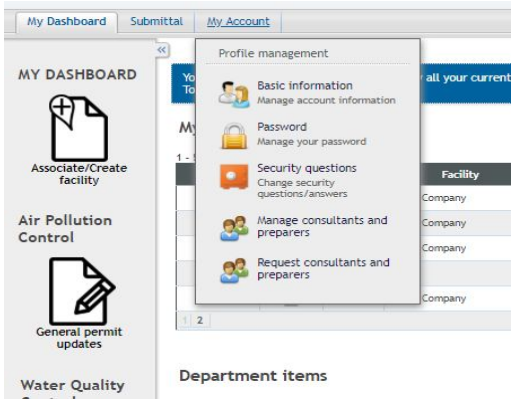
Responsibility

Updating account information is the responsibility of the user.

Process

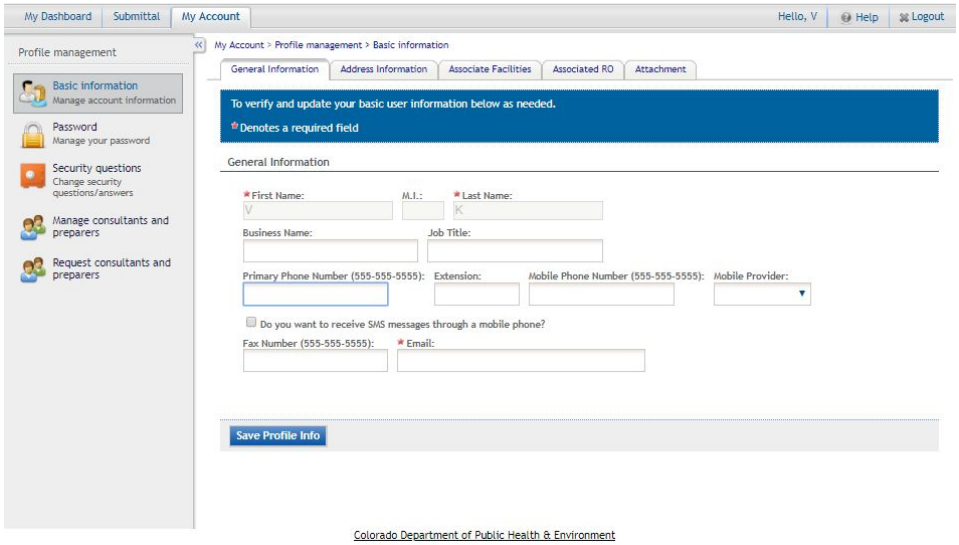
1. Log in to your account and click “Go to your dashboard”.

2. Hover over the “My Account” tab, and click “Basic Information”.



3. From the “General Information” tab on this page, you can update your phone numbers and email. Click “Save Profile Info” when finished.

a. To change your name, please contact the permits administrative team
b. Please note that usernames cannot be changed once an account is created.



Colorado Department of Public Health & Environment

4. To update your address, click on the "Address Information" tab. Click "Save Address Info" when finished.

5. To add a new facility and submittals to your account, click on the "Associate Facilities" tab, click "Associate Facility", search for the facility, and select the facility and submittals you wish to add. Click "OK" when finished.
    a. Please note, to change your account type, or delete a facility association, please contact the permits administrative team.

3. Changing Your Password and Security Questions

Overview

This covers how to change passwords and security questions.

Responsibility

Account security is the responsibility of the account owner.

Process

1. Log in to your account and click "Go to your dashboard".

2. To change your password, hover over the "My Account" tab, and click "Password".
    a. Enter your old password, then create a new password and confirm the new password.
    b. Click "Save Password".

c. Next time you log in to CEOS, use the new password that was just created.

3. To change your security questions, hover over the “My Account Tab, and click “Security Questions”.
   a. You may choose a different question from the “Question” dropdown menus, or you can use the same questions.
   b. Enter your new answer/s into the “Answer” box.
   c. Enter a reason for making the change to your security questions.
   d. Click “save”. Your questions and answers have now been updated and will be used to verify your identity when submitting a submittal.

4. Managing Consultants and Preparers

Overview

This section covers how a Responsible Official (RO) can associate consultants and preparers with their CEOS account so that they are able to fill out submittals for the RO's facility.

Responsibility

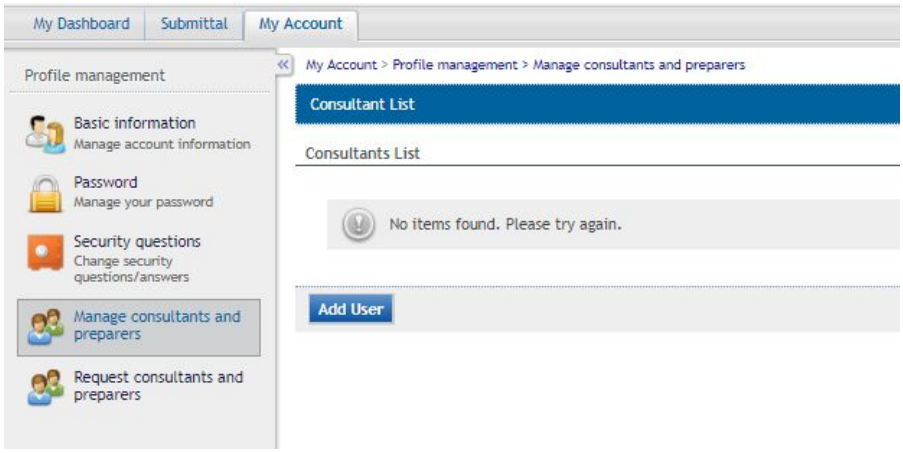
It is the responsibility of the facility’s RO to manage consultants and preparers. The consultants and preparers are responsible for creating their own CEOS accounts.

Process

1. Instruct the person you wish to add as a preparer to create their own CEOS account, with the “preparer” account type selection.

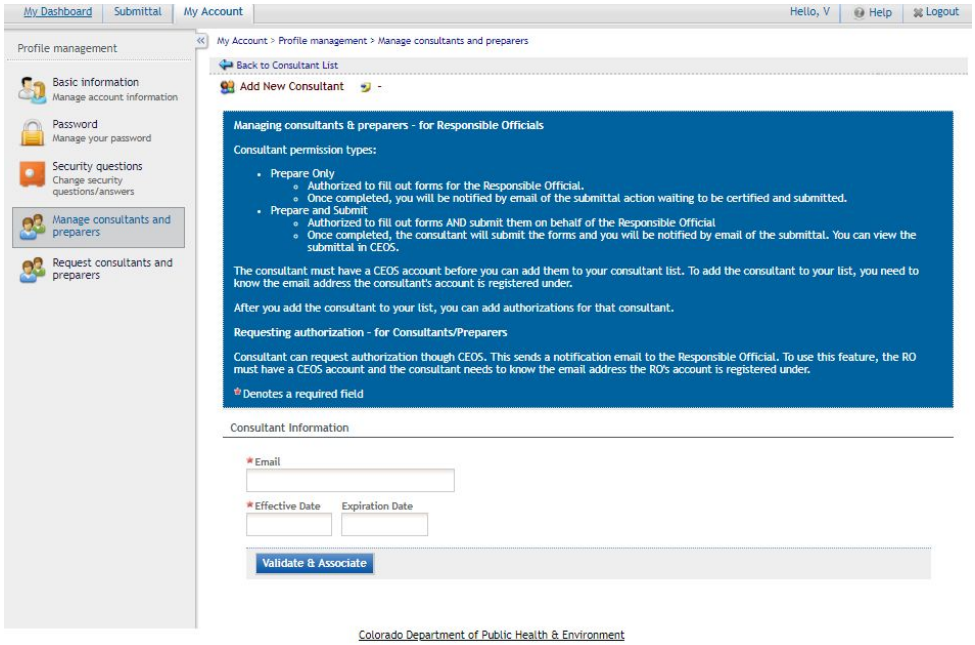
2. As an RO, login to your account and click on “Go to your Dashboard”.

3. Hover over the “My Account” tab, and click on “Manage consultants and preparers”.



4. Click on the “Add User” button.

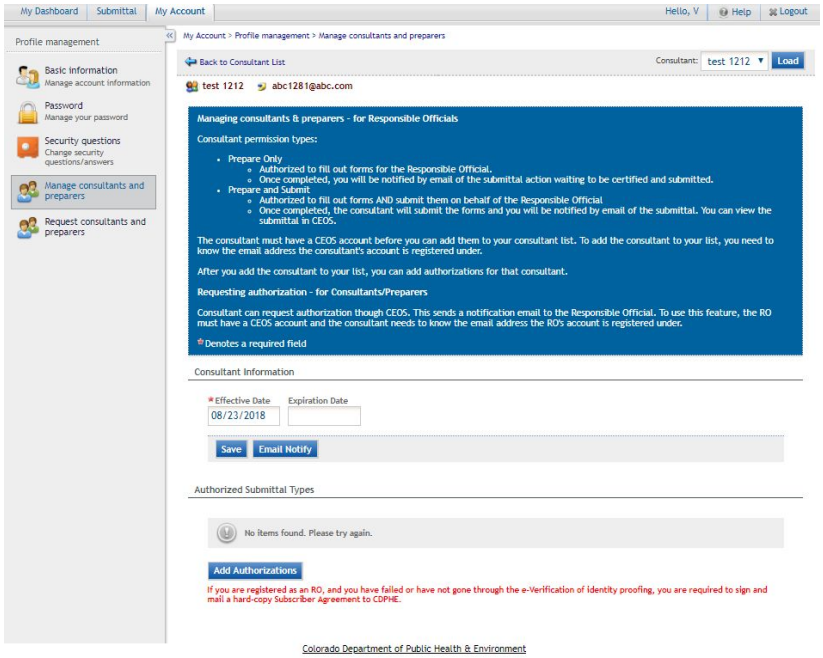
5. Read the information box at the top of the page, and enter the email of the preparer you wish to add.



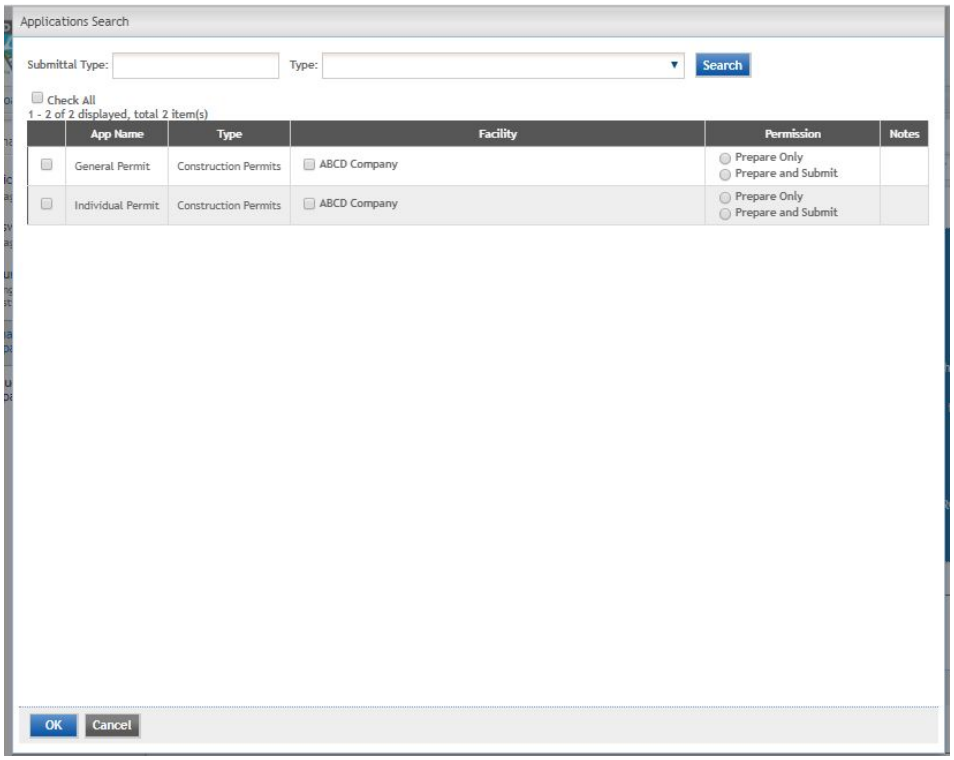
6. Enter a date that you want the person to be eligible to start creating and filling out submittals. Optionally, you may enter the date that this access should end.

7. Click “Validate and Associate”

8. A new screen will load, and it is on this page that you will add the submittals that the preparer is authorized to fill out. Click on the “Add Authorizations” button.



9. Select the required checkboxes for the submittal types that you want to give the preparer access to. If they are authorized for everything, click the "Check All" box at the top of the table.
    a. "Prepare only" will be what is automatically selected. If you would like the preparer to be able to submit any and all applications on your behalf, change it to "Prepare and Submit".



10. Click "OK" to add the authorizations to the preparer.

11. If you would like to send a CEOS system email notification about the authorizations you made to the preparer, click “Email Notify”.

12. Finally, scroll down to the bottom and click “Save” (the save below the dates only saves the dates the preparer is active). The preparer can now log in to their account, and create and fill out the authorized submittals for your facility.

5. Completing a submittal

Overview

This section covers the steps for completing a submittal for your facility/project.

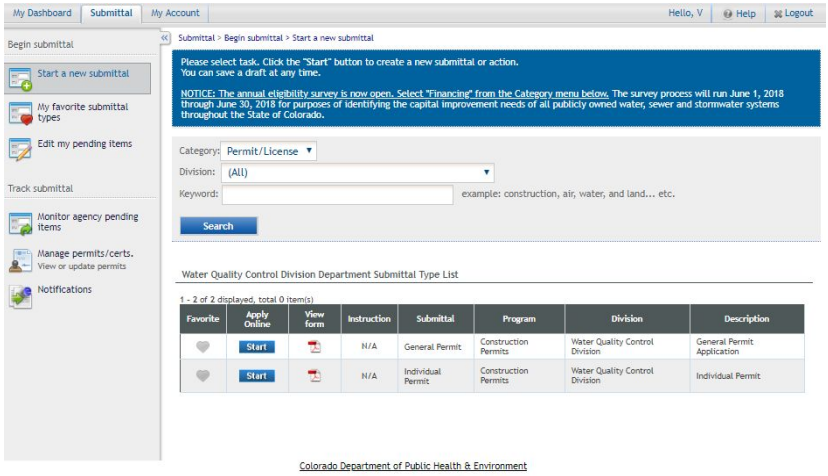
Responsibility

The facility’s RO, or an authorized preparer.

Process

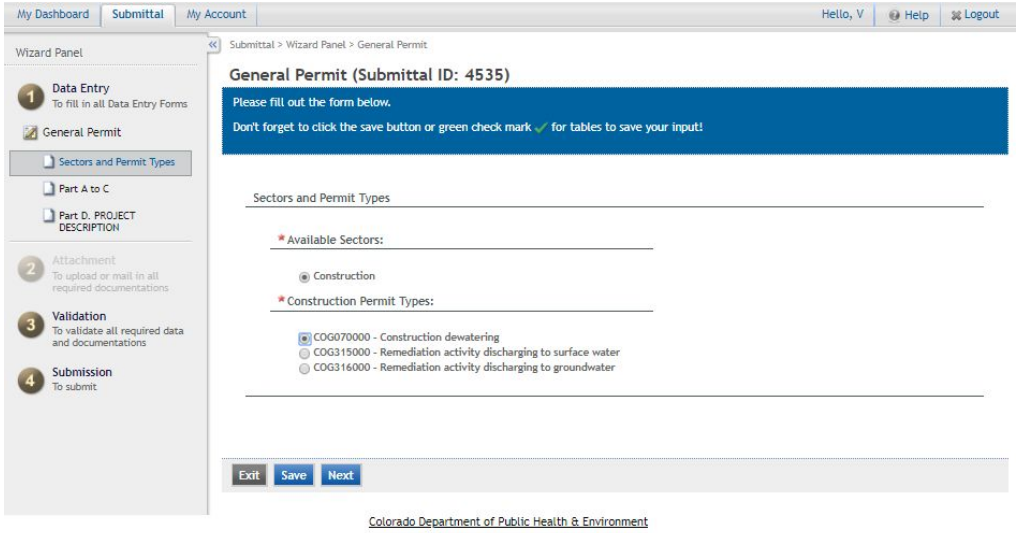
1. From the Landing page, or “My Dashboard” page, click on the “Permits” under Water Quality Control” link. If on any other page, hover your mouse over the “Submittal” tab, and click on “Start a New Submittal”.

2. All Permit submittals will be under the “Permit/License” category and the “Water Quality Control Division” . If you are not seeing any submittals, ensure that “Permit/License” is selected from the “Category” drop-down menu, and click “Search”.

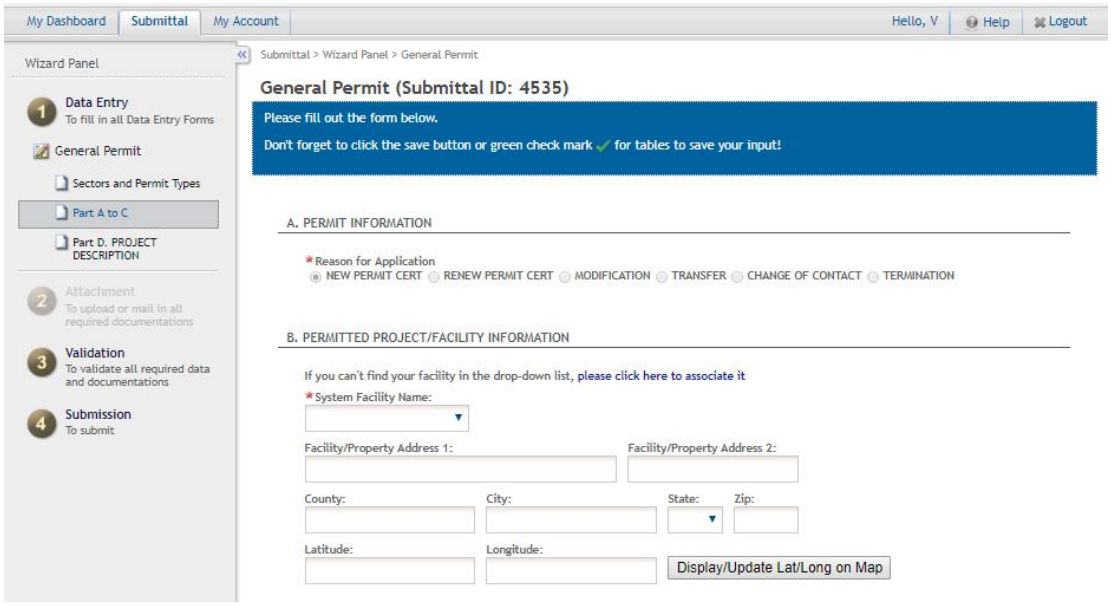


3. Next, find the submittal you wish to begin, and click the “Start” button.
   a. Submittals for General Permits and Individual Permits are unique. If you are an RO for both General and Individual, make sure you select the submittal that corresponds to the correct permit for the project you are currently working on.

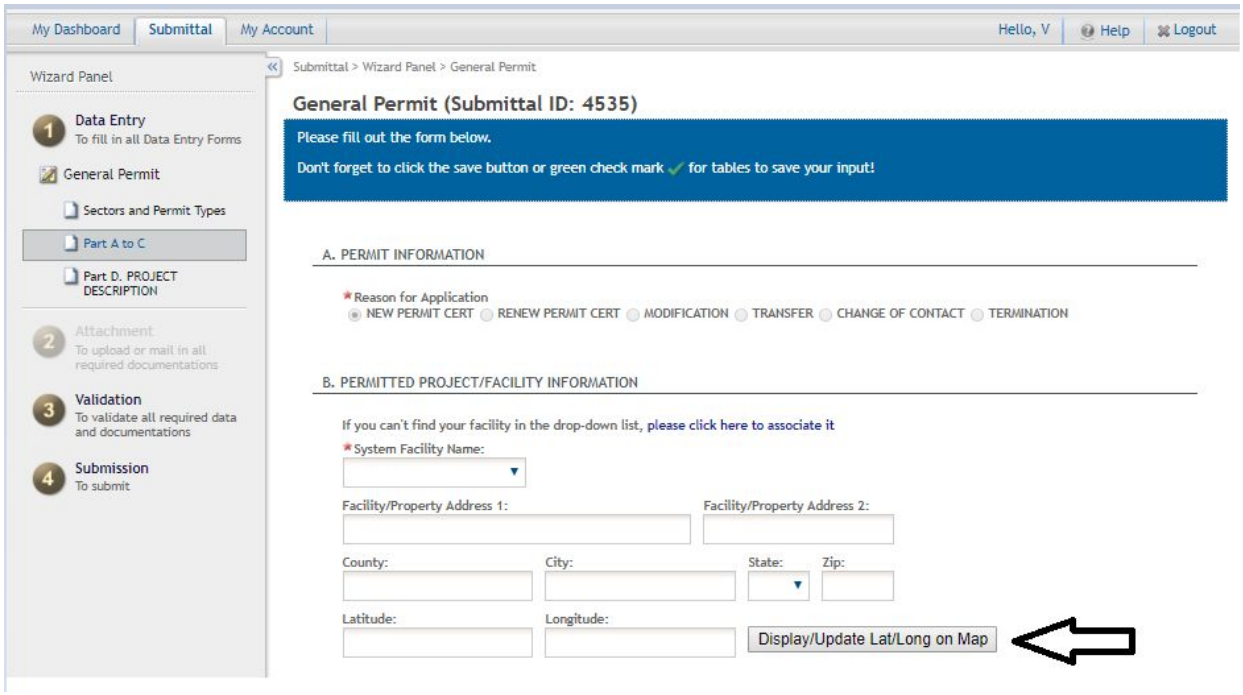
4. Read the information on the page, select the sector and permit type you need, then click “Next”.



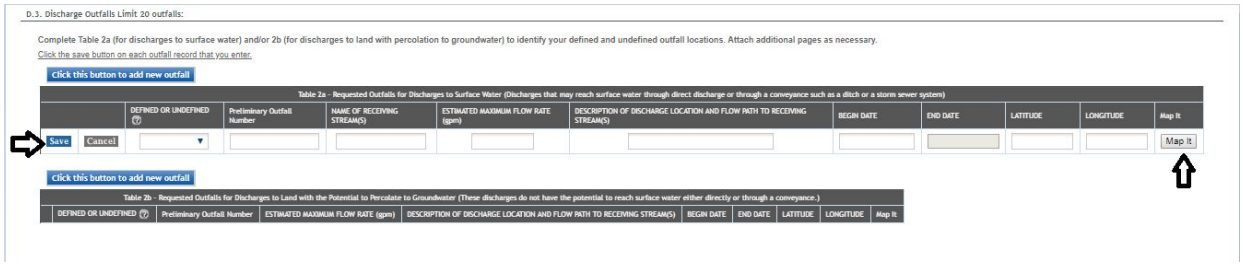
5. Fill out the submittal with the relevant information. Fields marked with a red star are required fields.



a. If you miss a required item when you click next, it will prompt you to fill out the boxes or selections that are highlighted in red.
b. Please use the map it feature to obtain the latitude and longitude of your project.



c. If you wish to save your work and come back to the submittal at a later date, be sure to click the "Save" button at the bottom of the page before closing the page.
d. When you are filling out the outfall table - you must click the "Save" button associated with each record at the left of the table. Clicking on "Save" at the bottom of the page will not save your outfall and generate an error message.
e. Please use the Map it feature to locate your outfalls.

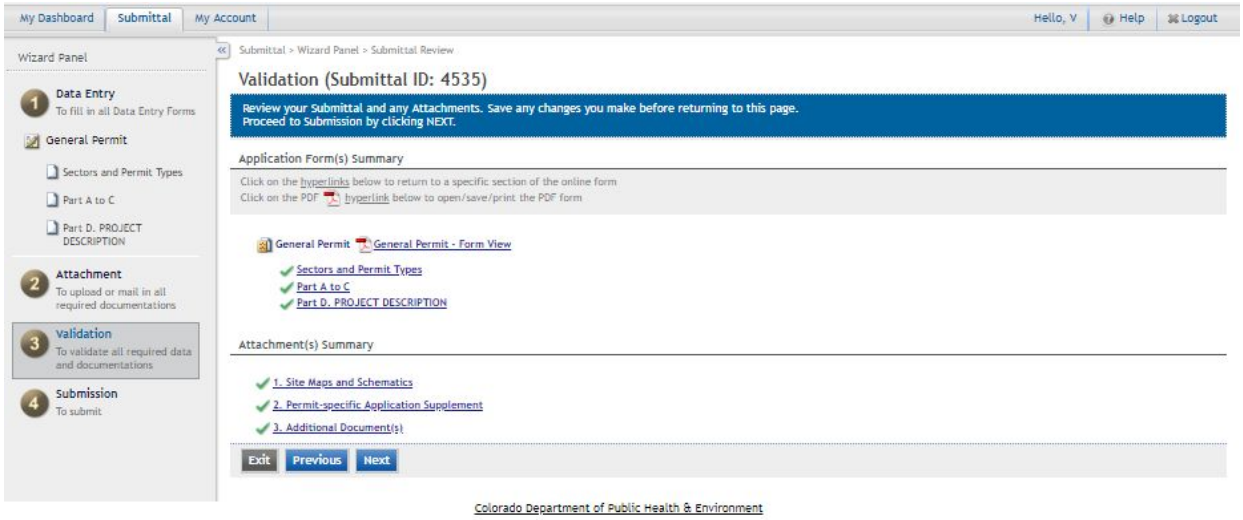


6. Once you have completed filling out any necessary fields, you will be brought to the "Attachments" portion of the submittal.

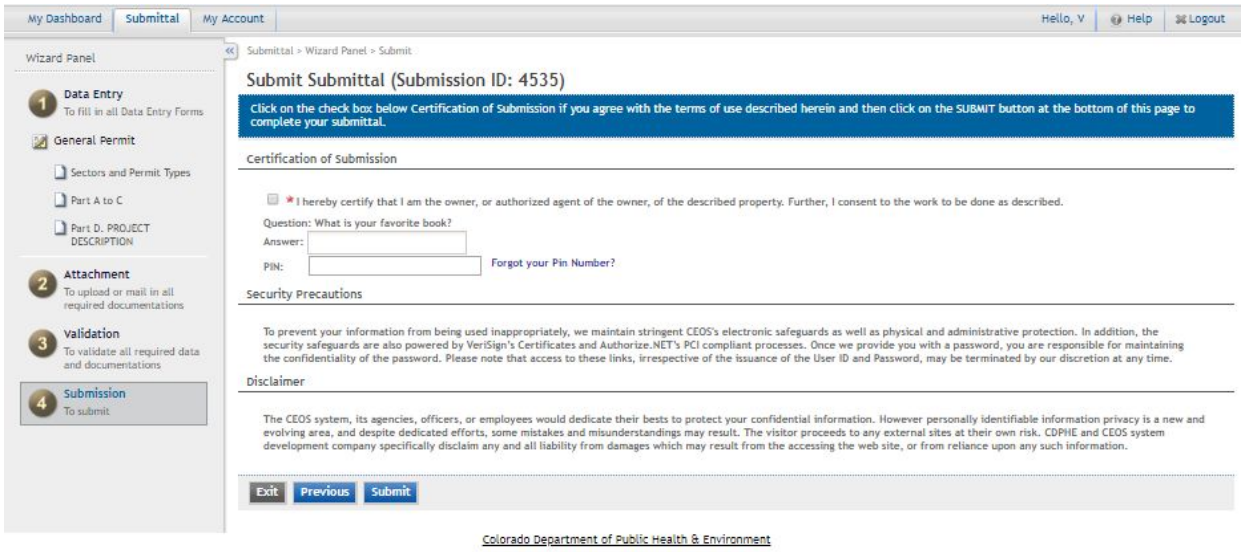
a. To upload any required attachments or supporting documents, click on the "online" button.
b. Next, click on the "Upload" button.
c. Then, click on "Choose File". Navigate to the file you wish to upload, then click "Open"
   i. Repeating steps a and b if you have multiple files to upload.

7. When all of your attachments have been uploaded, click the "Next" button at the bottom of the page.

8. On the "Validation" page, ensure that all of the required fields and attachments have been uploaded by looking for the green checkmark next to each item. Once verifying that all requirements have been met, click the "Next" button.
   a. If you see a red "X", the requirements for the corresponding field or attachment have not been met. Navigate back to that item and ensure that you have answered the required questions, or attached the required documents.



9. On the “Submission” page, click the checkbox to certify that you are the RO, or authorized agent of the RO, of the described property. Verify your identity by answering your security question and filling out your PIN. When complete, click the “Submit” button at the bottom of the page.



10. Your submittal has now been submitted to the division to review. You will get an email notification with any updates to your submittal.
    a. If you are a preparer, your RO will need to sign off through CEOS to submit the application to the division.

6. Requesting to Revise or Withdraw a Submittal

Overview

If you need to revise or withdraw a submittal, you can send a request to the division through CEOS for each submittal.

Responsibility

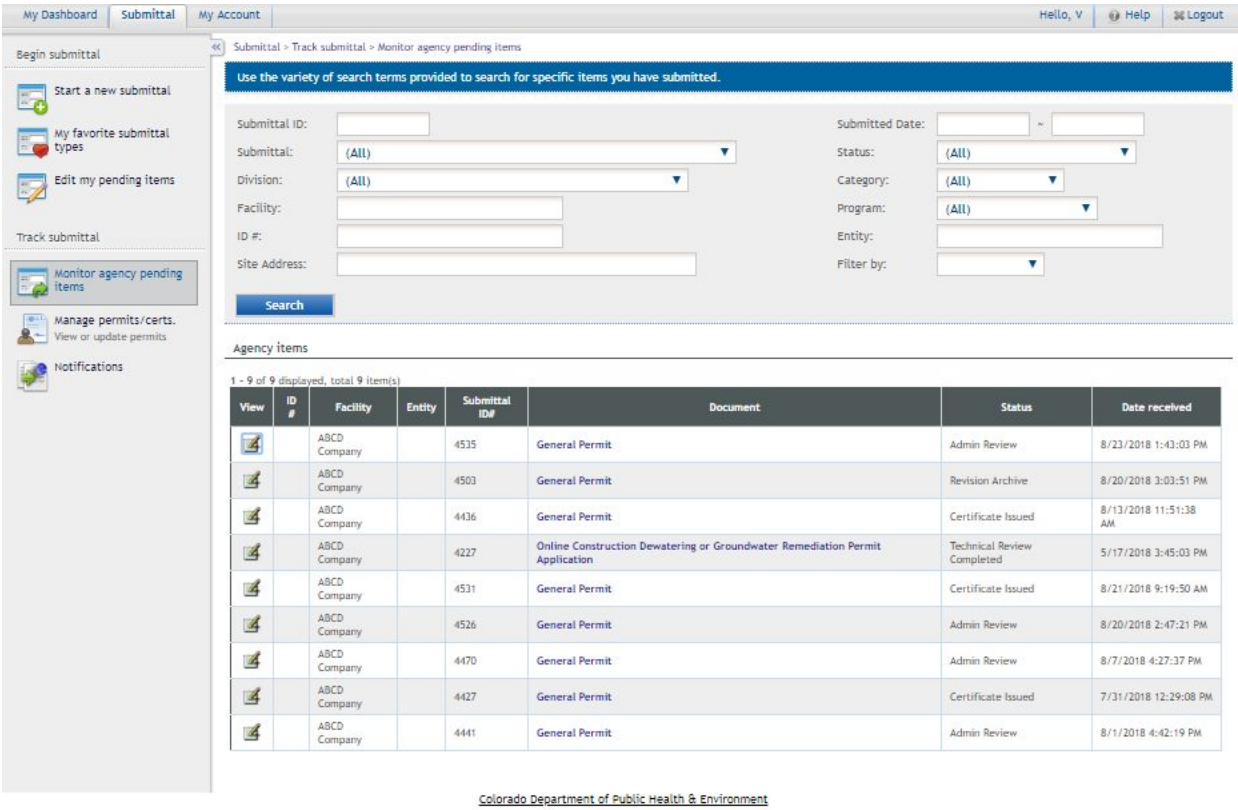
A Responsible Official must initiate a Revise or Withdrawal request unless you gave the Preparer the ability to submit for you.

Process

1. Login to your CEOS account, and click “Go to your dashboard”.

2. Hover over the “Submittal” tab, and click on “Monitor agency pending items”, change the category to “Permits/License” and click “Search”.

3. Click on the paper and pencil icon on the left side of the table to view more information about the submittal.



4. To request to withdraw a submittal, find the “Application Withdrawal” section of the page, enter a reason for your request, and click the “Request for Withdrawal” button.
    a. The division will receive a notification and review your request.

5. To request to revise a submittal, find the “Application Revision” section of the page, enter a reason for your request, and click the “Request for Revision” button.
    a. The division will receive a notification and review your request.
    b. Once approved by the division, you will receive a notification, and you will be able to log into CEOS, find and revise your submittal under “My pending items”.

7. Monitoring Agency Review and Viewing Issuances

Overview

Once you have submitted a submittal for review, you can monitor the division's review process and view Issuances related to the submittal from the division.

Responsibility

Responsible Officials or preparers can monitor the division's review steps, and view and download Issuances

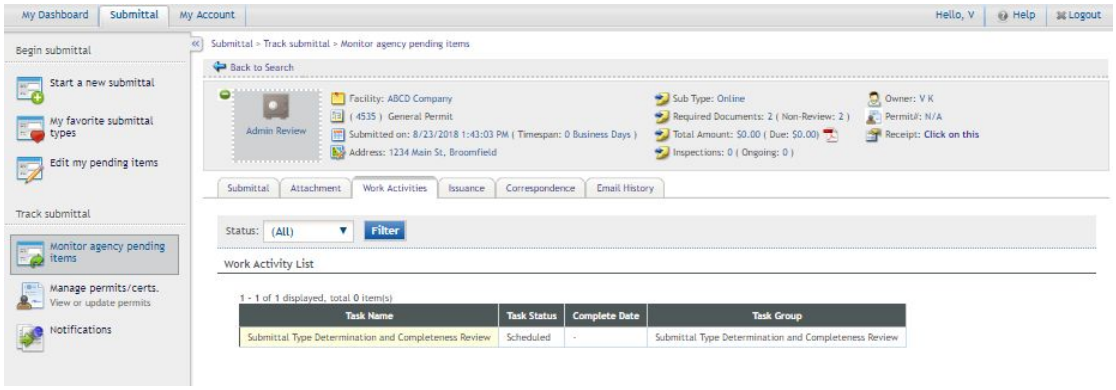
Process

1. Login to your CEOS account, and click "Go to your dashboard".

2. Hover over the "Submittal" tab, and click on "Monitor agency pending items", change the category to "Permit/License" and click "Search".

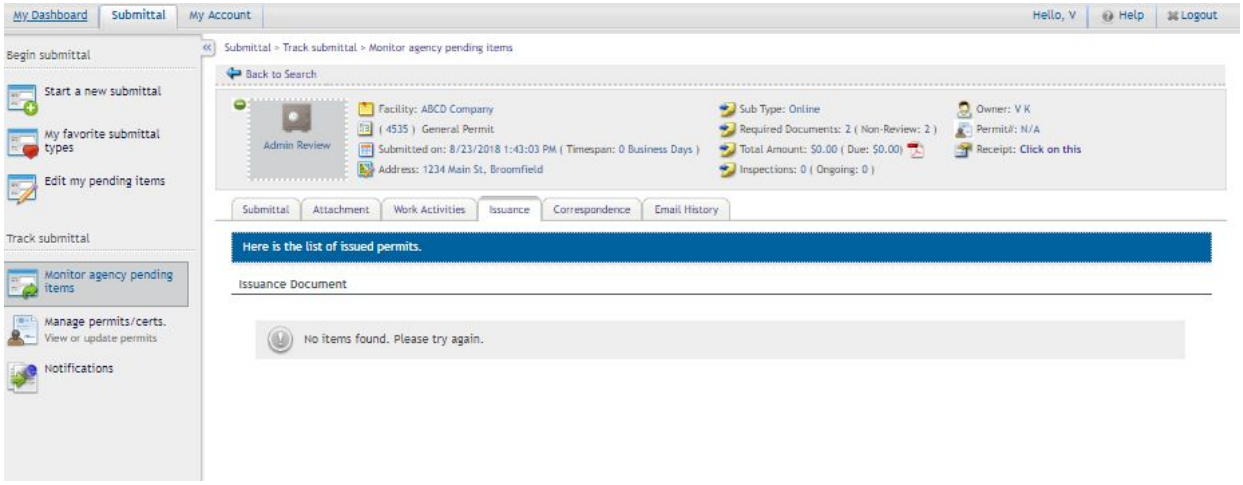
3. Click on the paper and pencil icon on the left side of the table to view more information about the submittal.

4. To view the Agency review process, find and click on the "Work Activities" tab.
    a. The Work Activity List shows an overview of the Agency review process and the current status of the submittal review.



5. To view Issuances from the Agency related to the selected submittal, click on the "Issuances" tab.
    a. To view the Issuances, click on the PDF icon in the table. This will open a new page with a PDF view of the issuance for your review.

b. To download the PDF for your records, click on the “download” icon at the top of the page.



8. Further Assistance

If you have additional questions or need assistance with CEOS , please contact us at:
Email: cdphe_ceos_support@state.co.us
CEOS Phone: 303-691-7919 **Permits Phone:** 303-692-3517

STATE OF COLORADO

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
Water Quality Control Division

CDPS GENERAL PERMIT

STORMWATER DISCHARGES ASSOCIATED WITH

CONSTRUCTION ACTIVITY

AUTHORIZATION TO DISCHARGE UNDER THE

COLORADO DISCHARGE PERMIT SYSTEM (CDPS)

In compliance with the provisions of the Colorado Water Quality Control Act, (25-8-101 et seq., CRS, 1973 as amended) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq.; the "Act"), this permit authorizes the discharge of stormwater associated with construction activities (and specific allowable non-stormwater discharges in accordance with Part I.A.1. of the permit) certified under this permit, from those locations specified throughout the State of Colorado to specified waters of the State.

Such discharges shall be in accordance with the conditions of this permit. This permit specifically authorizes the facility listed on the certification to discharge in accordance with permit requirements and conditions set forth in Parts I and II hereof. All discharges authorized herein shall be consistent with the terms and conditions of this permit.

This permit becomes effective on April 1, 2019, and shall expire at midnight March 31, 2024.

Issued and signed this 1st day of November 2018.

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Ellen Howard Kutzer, Permits Section Manager
Water Quality Control Division

Permit History
Originally signed and issued October 31, 2018; effective April 1, 2019.

Table of Contents

Part I 1

A. COVERAGE UNDER THIS PERMIT 1

1. Authorized Discharges 1

2. Limitations on Coverage 1

3. Permit Certification and Submittal Procedures 2

B. EFFLUENT LIMITATIONS 6

1. Requirements for Control Measures Used to Meet Effluent Limitations 6

2. Discharges to an Impaired Waterbody 9

3. General Requirements 10

C. STORMWATER MANAGEMENT PLAN (SWMP) REQUIREMENTS 11

1. SWMP General Requirements 11

2. SWMP Content 11

3. SWMP Review and Revisions 13

4. SWMP Availability 14

D. SITE INSPECTIONS 14

1. Person Responsible for Conducting Inspections 14

2. Inspection Frequency 14

3. Inspection Frequency for Discharges to Outstanding Waters 15

4. Reduced Inspection Frequency 15

5. Inspection Scope 16

E. DEFINITIONS 17

F. MONITORING 20

G. Oil and Gas Construction 21

Part II: Standard Permit Conditions 22

A. DUTY TO COMPLY 22

B. DUTY TO REAPPLY 22

C. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE 22

D. DUTY TO MITIGATE 22

E. PROPER OPERATION AND MAINTENANCE 22

F. PERMIT ACTIONS 22

G. PROPERTY RIGHTS 22

H. DUTY TO PROVIDE INFORMATION 23

I. INSPECTION AND ENTRY 23

J. MONITORING AND RECORDS 23

K. SIGNATORY REQUIREMENTS 24

1. Authorization to Sign: 24
2. Electronic Signatures 25
3. Change in Authorization to Sign 25
L. REPORTING REQUIREMENTS 25
1. Planned Changes 25
2. Anticipated Non-Compliance 25
3. Transfer of Ownership or Control 25
4. Monitoring reports 26
5. Compliance Schedules 26
6. Twenty-four hour reporting 26
7. Other non-compliance 27
8. Other information 27
M. BYPASS 27
1. Bypass not exceeding limitations 27
2. Notice of bypass 27
3. Prohibition of Bypass 27
N. UPSET 28
1. Effect of an upset 28
2. Conditions necessary for demonstration of an Upset 28
3. Burden of Proof 28
O. RETENTION OF RECORDS 28
1. Post-Expiration or Termination Retention 28
2. On-site Retention 29
P. REOPENER CLAUSE 29
1. Procedures for modification or revocation 29
2. Water quality protection 29
Q. SEVERABILITY 29
R. NOTIFICATION REQUIREMENTS 29
1. Notification to Parties 29
S. RESPONSIBILITIES 30
1. Reduction, Loss, or Failure of Treatment Facility 30
T. Oil and Hazardous Substance Liability 30
U. Emergency Powers 30
V. Confidentiality 30
W. Fees 30

X. Duration of Permit 30
Y. Section 307 Toxics 30

Part I
Note: At the first mention of terminology that has a specific connotation for the purposes of this permit, the terminology is electronically linked to the definitions section of the permit in Part I.E.

A. COVERAGE UNDER THIS PERMIT

1. Authorized Discharges

   This general permit authorizes permittee(s) to discharge the following to state waters: stormwater associated with construction activity and specified non-stormwater associated with construction activity. The following types of stormwater and non-stormwater discharges are authorized under this permit:

   a. Allowable Stormwater Discharges

      i. Stormwater discharges associated with construction activity.

      ii. Stormwater discharges associated with producing earthen materials, such as soils, sand, and gravel dedicated to providing material to a single contiguous site, or within ¼ mile of a construction site (i.e. borrow or fill areas)

      iii. Stormwater discharges associated with dedicated asphalt, concrete batch plants and masonry mixing stations (Coverage under this permit is not required if alternative coverage has been obtained.)

   b. Allowable Non-Stormwater Discharges

      The following non-stormwater discharges are allowable under this permit if the discharges are identified in the stormwater management plan in accordance with Part I.C. and if they have appropriate control measures in accordance with Part I.B.1.

      i. Discharges from uncontaminated springs that do not originate from an area of land disturbance.

      ii. Discharges to the ground of concrete washout water associated with the washing of concrete tools and concrete mixer chutes. Discharges of concrete washout water must not leave the site as surface runoff or reach receiving waters as defined by this permit.

      iii. Discharges of landscape irrigation return flow.

   c. Emergency Fire Fighting

      Discharges resulting from emergency firefighting activities are authorized by this permit.

2. Limitations on Coverage

   Discharges not authorized by this permit include, but are not limited to, the discharges and activities listed below. Permittees may seek individual or alternate general permit coverage for the discharges, as appropriate and available.

   a. Discharges of Non-Stormwater

Discharges of non-stormwater, except the authorized non-stormwater discharges listed in Part I.A.1.b., are not eligible for coverage under this permit.

b. Discharges Currently Covered by another Individual or General Permit

c. Discharges Currently Covered by a Water Quality Control Division (division) Low Risk Guidance Document

3. Permit Certification and Submittal Procedures

a. Duty to apply
The following activities shall apply for coverage under this permit:

i. Construction sites that will disturb one acre or more; or

ii. Construction sites that are part of a common plan of development or sale; or

iii. Stormwater discharges that are designated by the division as needing a stormwater permit because the discharge:

(a) Contributes to a violation of a water quality standard; or

(b) is a significant contributor of pollutants to state waters.

b. Application Requirements
To obtain authorization to discharge under this permit, applicants applying for coverage following the effective date of the renewal permit shall meet the following requirements:

i. Owners and operators submitting an application for permit coverage will be co-permittees subject to the same benefits, duties, and obligations under this permit.

ii. Signature requirements: Both the owner and operator (permittee) of the construction site, as defined in Part I.E., must agree to the terms and conditions of the permit and submit a completed application that includes the signature of both the owner and the operator. In cases where the duties of the owner and operator are managed by the owner, both application signatures may be completed by the owner. Both the owner and operator are responsible for ensuring compliance with all terms and conditions of the permit, including implementation of the stormwater management plan.

iii. Applicants must use the paper form provided by the division or the electronic form provided on the division's web-based application platform when applying for coverage under this permit.

iv. The applicant(s) must develop a stormwater management plan (SWMP) in accordance with the requirements of Part I.C. The applicant(s) must also certify that the SWMP is complete, or will be complete, prior to commencement of any construction activity.

v. The applicant(s) must submit a complete, accurate, and signed permit application electronically, by mail or hand delivery to the division at least 10 days prior to the commencement of construction activity except that construction activities that are in response to a public emergency related site shall apply for coverage no later than 14 days after the commencement of construction activities. The provisions of this part in no way remove a violation of the Colorado Water Quality Control Act if a point source discharge occurs prior to the issuance of a CDPS permit.

vi. The application must be signed in accordance with the requirements of Part IA. Applications submitted by mail or hand delivered should be directed to:

Colorado Department of Public Health and Environment
Water Quality Control Division
Permits Section, WQCD-PS-B2
4300 Cherry Creek Drive South
Denver, CO 80246

vii. The applicant(s) must receive written notification that the division granted permit coverage prior to conducting construction activities except for construction activities that are in response to a public emergency related site

c. Division Review of Permit Application

Within 10 days of receipt of the application, and following review of the application, the division may:

i. Issue a certification of coverage;

ii. request additional information necessary to evaluate the discharge;

iii. delay the authorization to discharge pending further review;

iv. notify the applicant that additional terms and conditions are necessary; or

v. deny the authorization to discharge under this general permit.

d. Alternative Permit Coverage

i. Division Required Alternate Permit Coverage:
The Division may require an applicant or permittee to apply for an individual permit or an alternative general permit if it determines the discharge does not fall under the scope of this general permit. In this case, the Division will notify the applicant or permittee that an individual permit application is required.

ii. Permittee Request for alternate permit coverage:
A permittee authorized to discharge stormwater under this permit may request to be excluded from coverage under this general permit by applying for an individual permit. In this case, the permittee must submit an individual application, with reasons supporting the request, to the Division at least 180 days prior to any discharge. When an individual permit is issued, the permittee's authorization to discharge under this permit is terminated on the effective date of the individual permit.

e. Submittal Signature Requirements

Documents required for submittal to the division in accordance with this permit, including applications for permit coverage and other documents as requested by the division, must include signatures by both the owner and the operator, except for instances where the duties of the owner and operator are managed by the owner.

Signatures on all documents submitted to the division as required by this permit must meet the Standard Signatory Requirements in Part II.K. of this permit in accordance with 40 C.F.R. 122.41(k).

i. Signature Certification
Any person(s) signing documents required for submittal to the Division must make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

f. Compliance Document Signature Requirements
Documents which are required for compliance with the permit, but for which submittal to the division is not required unless specifically requested by the division, must be signed by the individual(s) designated as the Qualified Stormwater Manager, as defined in Part I.E.

i. Any person(s) signing inspection documents required for compliance with the permit must make the following statement:

"I verify that, to the best of my knowledge and belief, all corrective action and maintenance items identified during the inspection are complete, and the site is currently in compliance with the permit."

g. Field Wide Permit Coverage for Oil and Gas Construction
At the discretion of the division, a single permit certification may be issued to a single oil and gas permittee to cover construction activity related discharges from an oil and gas field at multiple locations that are not necessarily contiguous.

h. Permit Coverage without Application
Qualifying Local Program: When a small construction site is within the jurisdiction of a qualifying local program, the owner and operator of the construction activity are authorized to discharge stormwater associated with small construction activity under this general permit without the submittal of an application to the division. Sites covered by a qualifying local program are exempt from the following sections of this general permit:

Part I.A.3.a.; Part I.A.3.b.; Part I.A.3.c.; Part I.A.3.d.; Part I.A.3.g.; Part I.A.3.i.; Part I.A.3.j.; Part I.A.3.k.

Sites covered by a qualifying local program are subject to the following requirements:

i. Local Agency Authority: This permit does not pre-empt or supersede the authority of local agencies to prohibit, restrict, or control discharges of stormwater to storm drain systems or other water courses within their jurisdiction.

ii. Permit Coverage Termination: When a site under a Qualifying Local Program is finally stabilized, coverage under this permit is automatically terminated.

iii. Compliance with Qualifying Local Program: Qualifying Local Program requirements that are equivalent to the requirements of this permit are incorporated by reference. Permittees authorized to discharge under this permit, must comply with the equivalent requirements of the Qualifying Local Program that has jurisdiction over the site as a condition of this permit.

iv. Compliance with Remaining Permit Conditions. Requirements of this permit that are in addition to or more stringent than the requirements of the Qualifying Local Program apply in addition to the requirements of the Qualifying Local Program.

v. Written Authorization of Coverage: The division or local municipality may require any permittee within the jurisdiction of a Qualifying Local Program covered under this permit to apply for, and obtain written authorization of coverage under this permit. The permittee must be notified in writing that an application for written authorization of coverage is required.

i. Permittee Initiated Permit Actions

Permittee initiated permit actions, including but not limited to modifications, contact changes, transfers, reassignments, and terminations, shall be conducted following division guidance and using appropriate division-provided forms.

j. Sale of Residence to Homeowner

Residential construction sites only: The permittee may remove residential lots from permit coverage once the lot meets the following criteria:

i. the residential lot has been sold to the homeowner(s) for private residential use;

ii. a certificate of occupancy, or equivalent, is maintained on-site and is available during division inspections;

iii. the lot is less than one acre of disturbance;

iv. all construction activity conducted on the lot by the permittee is complete;

v. the permittee is not responsible for final stabilization of the lot; and

vi. the SWMP was modified to indicate the lot is no longer part of the construction activity.

If the residential lot meets the criteria listed above then activities occurring on the lot are no longer considered to be construction activities with a duty to apply and maintain permit coverage. Therefore, the permittee is not required to meet the final stabilization requirements and may terminate permit coverage for the lot.

k. Permit Expiration and Continuation of Permit Coverage

Authorization to discharge under this general permit shall expire at midnight on March 31, 2024. While Regulation 61.4 requires a permittee to submit an application for continuing permit coverage 180 days before the permit expires, the division is requiring that permittees desiring continued coverage under this general permit must reapply at least 90 days in advance of this permit expiration. The Division will determine if the permittee may continue to discharge stormwater under the terms of the general permit. An individual permit may be required for any facility not reauthorized to discharge under the reissued general permit.

If this permit is not reissued or replaced prior to the expiration date, it will be administratively continued and remain in force and effect. For permittees that have applied for continued permit coverage, discharges authorized under this permit prior to the expiration date will automatically remain covered by this permit until the earliest of:

i. An authorization to discharge under a reissued permit, or a replacement of this permit, following the timely and appropriate submittal of a complete application requesting authorization to discharge under the new permit and compliance with the requirements of the new permit; or

ii. The issuance and effect of a termination issued by the Division; or

iii. The issuance or denial of an individual permit for the facility's discharges; or

iv. A formal permit decision by the Division not to reissue this general permit, at which time the Division will identify a reasonable time period for covered dischargers to seek coverage under an alternative general permit or an individual permit. Coverage under this permit will cease when coverage under another permit is granted/authorized; or

v. The Division has informed the permittee that discharges previously authorized under this permit are no longer covered under this permit.

B. EFFLUENT LIMITATIONS

1. Requirements for Control Measures Used to Meet Effluent Limitations

The permittee must implement control measures to minimize the discharge of pollutants from all potential pollutant sources at the site. Control measures must be installed prior to commencement of activities that may contribute pollutants to stormwater discharges. Control measures must be selected, designed, installed and maintained in accordance with good engineering, hydrologic and pollution control practices. Control measures implemented at the site must be designed to prevent pollution or degradation of state waters.

a. Stormwater Pollution Prevention

The permittee must implement structural and/or nonstructural control measures that effectively minimize erosion, sediment transport, and the release of other pollutants related to construction activity.

i. Control Measures for Erosion and Sediment Control

Control measures for erosion and sediment control may include, but are not limited to, wattles/sediment control logs, silt fences, earthen dikes, drainage swales, sediment traps, subsurface drains, pipe slope drains, inlet protection, outlet protection, gabions, sediment basins, temporary vegetation, permanent vegetation, mulching, geotextiles, sod stabilization, slope roughening, maintaining existing vegetation, protection of trees, and preservation of mature vegetation. Specific non-structural control measures must meet the requirements listed below.

Specific control measures must meet the requirements listed below.

(a) Vehicle tracking controls shall either be implemented to minimize vehicle tracking of sediment from disturbed areas, or the areas where vehicle tracking occurs shall meet subsection Part I.B.1.a.i(b);

(b) Stormwater runoff from all disturbed areas and soil storage areas for which permanent or temporary stabilization is not implemented, must flow to at least one control measure to minimize sediment in the discharge. This may be accomplished through filtering, settling, or straining. The control measure must be selected, designed, installed and adequately sized in accordance with good engineering, hydrologic and pollution control practices. The control measure(s) must contain or filter flows in order to prevent the bypass of flows without treatment and must be appropriate for stormwater runoff from disturbed areas and for the expected flow rate, duration, and flow conditions (i.e., sheet or concentrated flow);

(c) Outlets that withdraw water from or near the surface shall be installed when discharging from basins and impoundments, unless infeasible.

(d) Maintain pre-existing vegetation or equivalent control measures for areas within 50 horizontal feet of receiving waters as defined by this permit, unless infeasible.

(e) Soil compaction must be minimized for areas where infiltration control measures will occur or where final stabilization will be achieved through vegetative cover.

(f) Unless infeasible, topsoil shall be preserved for those areas of a site that will utilize vegetative final stabilization.

(g) Minimize the amount of soil exposed during construction activity, including the disturbance of steep slopes.

ii. Practices for Other Common Pollutants

(a) Bulk storage, 55 gallons or greater, for petroleum products and other liquid chemicals must have secondary containment, or equivalent protection, in order to contain spills and to prevent spilled material from entering state waters.

(b) Control measures designed for concrete washout waste must be implemented. This includes washout waste discharged to the ground as authorized under this permit and washout waste from concrete trucks and masonry operations contained on site. The permittee must ensure the washing activities do not contribute pollutants to stormwater runoff, or receiving waters in accordance Part I.A.1.b.ii. Discharges that may reach groundwater must flow through soil

that has buffering capacity prior to reaching groundwater, as necessary to meet the effluent limits in this permit, including Part I.B.3.a. The concrete washout location shall be not be located in an area where shallow groundwater may be present and would result in buffering capacity not being adequate, such as near natural drainages, springs, or wetlands. This permit authorizes discharges to the ground of concrete washout waste.

iii. Stabilization Requirements
The following requirements must be implemented for each site.

(a) Temporary stabilization must be implemented for earth disturbing activities on any portion of the site where ground disturbing construction activity has permanently ceased, or temporarily ceased for more than 14 calendar days. Temporary stabilization methods may include, but are not limited to, tarps, soil tackifier, and hydroseed. The permittee may exceed the 14-day schedule when either the function of the specific area of the site requires it to remain disturbed, or, physical characteristics of the terrain and climate prevent stabilization. The SWMP must document the constraints necessitating the alternative schedule, provide the alternate stabilization schedule, and identify all locations where the alternative schedule is applicable on the site map.

(b) Final stabilization must be implemented for all construction sites. Final stabilization is reached when all ground surface disturbing activities at the construction site are complete; and, for all areas of ground surface disturbing activities, either a uniform vegetative cover with an individual plant density of at least 70 percent of pre-disturbance levels is established, or equivalent permanent alternative stabilization methods are implemented. The division may approve alternative final stabilization criteria for specific operations.

(c) Final stabilization must be designed and installed as a permanent feature. Final stabilization measures for obtaining a vegetative cover or alternative stabilization methods include, but are not limited to, the following as appropriate:

(1) Seed mix selection and application methods;

(2) Soil preparation and amendments;

(3) Soil stabilization methods (e.g., crimped straw, hydro mulch or rolled erosion control products);

(4) Appropriate sediment control measures as needed until final stabilization is achieved;

(5) Permanent pavement, hardscape, xeriscape, stabilized driving surfaces;

(6) Other alternative stabilization practices as applicable;

(d) The permittee(s) must ensure all temporary control measures are removed from the construction site once final stabilization is achieved, except when the control measure specifications allow the control measure to be left in place (i.e., bio-degradable control measures).

b. Maintenance

The permittee must ensure that all control measures remain in effective operating condition and are protected from activities that would reduce their effectiveness. Control measures must be maintained in accordance with good engineering, hydrologic and pollution control practices. Observations leading to the required maintenance of control measures can be made during a site inspection, or during general observations of site conditions. The necessary repairs or modifications to a control measure requiring routine maintenance, as defined in Part I.E., must be conducted to maintain an effective operating condition. This section is not subject to the requirements in Part I.B.1.c. below.

c. Corrective Actions

The permittee must assess the adequacy of control measures at the site, and the need for changes to those control measures, to ensure continued effective performance. When an inadequate control measure, as defined in Part I.E., is identified (i.e., new or replacement control measures become necessary), the following corrective action requirements apply. The permittee is in noncompliance with the permit until the inadequate control measure is replaced or corrected and returned to effective operating condition in compliance with Part I.B.1. and the general requirements in Part I.B.3. If the inadequate control measure results in noncompliance that meets the conditions of Part II.L., the permittee must also meet the requirements of that section.

i. The permittee must take all necessary steps to minimize or prevent the discharge of pollutants, until a control measure is implemented and made operational and/or an inadequate control measure is replaced or corrected and returned to effective operating condition. If it is infeasible to install or repair of control measure immediately after discovering the deficiency, the following must be documented and kept on record in accordance with the recordkeeping requirements in Part II.

(a) Describe why it is infeasible to initiate the installation or repair immediately; and

(b) Provide a schedule for installing or repairing the control measure and returning it to an effective operating condition as soon as possible.

ii. If applicable, the permittee must remove and properly dispose of any unauthorized release or discharge (e.g., discharge of non-stormwater, spill, or leak not authorized by this permit.) The permittee must also clean up any contaminated surfaces to minimize discharges of the material in subsequent storm events.

2. Discharges to an Impaired Waterbody

a. Total Maximum Daily Load (TMDL)

If the permittee's discharge flows to or could reasonably be expected to flow to any water body for which a TMDL has been approved, and stormwater discharges

associated with construction activity were assigned a pollutant-specific Wasteload Allocation (WLA) under the TMDL, the division may:

i. ensure the WLA is implemented properly through alternative local requirements, such as by a municipal stormwater permit; or

ii. notify the permittee of the WLA and amend the permittee's certification to add specific effluent limits and other requirements, as appropriate. The permittee may be required to do the following:

(a) under the permittee's SWMP, implement specific control measures based on requirements of the WLA, and evaluate whether the requirements are met through implementation of existing stormwater control measures or if additional control measures are necessary. Document the calculations or other evidence demonstrating that the requirements are expected to be met; and

(b) if the evaluation shows that additional or modified control measures are necessary, describe the type and schedule for the control measure additions or modifications.

iii. Discharge monitoring may also be required. The permittee may maintain coverage under the general permit provided they comply with the applicable requirements outlined above. The division reserves the right to require individual or alternate general permit coverage.

3. General Requirements

a. Discharges authorized by this permit shall not cause, have the reasonable potential to cause, or measurably contribute to an exceedance of any applicable water quality standard, including narrative standards for water quality.

b. The division may require sampling and testing, on a case-by-case basis, in the event that there is reason to suspect that the SWMP is not adequately minimizing pollutants in stormwater or in order to measure the effectiveness of the control measures in removing pollutants in the effluent. Such monitoring may include Whole Effluent Toxicity testing.

c. The permittee must comply with the lawful requirements of federal agencies, municipalities, counties, drainage districts and other local agencies including applicable requirements in Municipal Stormwater Management Programs developed to comply with CDPS permits. The permittee must comply with local stormwater management requirements, policies and guidelines including those for erosion and sediment control.

d. All construction site wastes must be properly managed to prevent potential pollution of state waters. This permit does not authorize on-site waste disposal.

e. This permit does not relieve the permittee of the reporting requirements in 40 CFR 110, 40 CFR 117 or 40 CFR 302. Any discharge of hazardous material must be handled in accordance with the division's Noncompliance Notification Requirements (see Part II.L. of the permit).

C. STORMWATER MANAGEMENT PLAN (SWMP) REQUIREMENTS

1. SWMP General Requirements

   a. A SWMP shall be developed for each construction site covered by this permit. The SWMP must be prepared in accordance with good engineering, hydrologic and pollution control practices.

      i. For public emergency related sites a SWMP shall be created no later than 14 days after the commencement of construction activities.

   b. The permittee must implement the provisions of the SWMP as written and updated, from commencement of construction activity until final stabilization is complete. The division may review the SWMP.

   c. A copy of the SWMP must be retained onsite or be onsite when construction activities are occurring at the site unless the permittee specifies another location and obtains approval from the division.

2. SWMP Content

   a. The SWMP, at a minimum, must include the following elements.

      i. Qualified Stormwater Manager. The SWMP must list individual(s) by title and name who are designated as the site's qualified stormwater manager(s) responsible for implementing the SWMP in its entirety. This role may be filled by more than one individual.

      ii. Spill Prevention and Response Plan. The SWMP must have a spill prevention and response plan. The plan may incorporate by reference any part of a Spill Prevention Control and Countermeasure (SPCC) plan under section 311 of the Clean Water Act (CWA) or a Spill Prevention Plan required by a separate CDPS permit. The relevant sections of any referenced plans must be available as part of the SWMP consistent with Part I.C.4.

      iii. Materials Handling. The SWMP must describe and locate all control measures implemented at the site to minimize impacts from handling significant materials that could contribute pollutants to runoff. These handling procedures can include control measures for pollutants and activities such as, exposed storage of building materials, paints and solvents, landscape materials, fertilizers or chemicals, sanitary waste material, trash and equipment maintenance or fueling procedures.

      iv. Potential Sources of Pollution. The SWMP must list all potential sources of pollution which may reasonably be expected to affect the quality of stormwater discharges associated with construction activity from the site. This shall include, but is not limited to, the following pollutant sources:

         (a) disturbed and stored soils;

         (b) vehicle tracking of sediments;

         (c) management of contaminated soils;

         (d) loading and unloading operations;

(e) outdoor storage activities (erodible building materials, fertilizers, chemicals, etc.);

(f) vehicle and equipment maintenance and fueling;

(g) significant dust or particulate generating processes (e.g., saw cutting material, including dust);

(h) routine maintenance activities involving fertilizers, pesticides, herbicides, detergents, fuels, solvents, oils, etc.;

(i) on-site waste management practices (waste piles, liquid wastes, dumpsters);

(j) concrete truck/equipment washing, including washing of the concrete truck chute and associated fixtures and equipment;

(k) dedicated asphalt, concrete batch plants and masonry mixing stations;

(l) non-industrial waste sources such as worker trash and portable toilets.

v. Implementation of Control Measures. The SWMP must include design specifications that contain information on the implementation of the control measure in accordance with good engineering hydrologic and pollution control practices; including as applicable drawings, dimensions, installation information, materials, implementation processes, control measure-specific inspection expectations, and maintenance requirements.

The SWMP must include a documented use agreement between the permittee and the owner or operator of any control measures located outside of the permitted area, that are utilized by the permittee's construction site for compliance with this permit, but not under the direct control of the permittee. The permittee is responsible for ensuring that all control measures located outside of their permitted area, that are being utilized by the permittee's construction site, are properly maintained and in compliance with all terms and conditions of the permit. The SWMP must include all information required of and relevant to any such control measures located outside the permitted area, including location, installation specifications, design specifications and maintenance requirements.

vi. Site Description. The SWMP must include a site description which includes, at a minimum, the following:

(a) the nature of the construction activity at the site;

(b) the proposed schedule for the sequence for major construction activities and the planned implementation of control measures for each phase. (e.g.: clearing, grading, utilities, vertical, etc.);

(c) estimates of the total acreage of the site, and the acreage expected to be disturbed by clearing, excavation, grading, or any other construction activities;

(d) a summary of any existing data used in the development of the construction site plans or SWMP that describe the soil or existing potential for soil erosion;

(e) a description of the percent of existing vegetative ground cover relative to the entire site and the method for determining the percentage;

(f) a description of any allowable non-stormwater discharges at the site, including those being discharged under a division low risk discharge guidance policy;

(g) a description of areas receiving discharge from the site. Including a description of the immediate source receiving the discharge. If the stormwater discharge is to a municipal separate storm sewer system, the name of the entity owning that system, the location of the storm sewer discharge, and the ultimate receiving water(s); and

(h) a description of all stream crossings located within the construction site boundary.

vii. Site Map. The SWMP must include a site map which includes, at a minimum, the following:

(a) construction site boundaries;

(b) flow arrows that depict stormwater flow directions on-site and runoff direction;

(c) all areas of ground disturbance including areas of borrow and fill;

(d) areas used for storage of soil;

(e) locations of all waste accumulation areas, including areas for liquid, concrete, masonry, and asphalt;

(f) locations of dedicated asphalt, concrete batch plants and masonry mixing stations;

(g) locations of all structural control measures;

(h) locations of all non-structural control measures;

(i) locations of springs, streams, wetlands and other state waters, including areas that require pre-existing vegetation be maintained within 50 feet of a receiving water, where determined feasible in accordance with Part I.B.1.a.i.(d).; and

(j) locations of all stream crossings located within the construction site boundary.

viii. Final Stabilization and Long Term Stormwater Management. The SWMP must describe the practices used to achieve final stabilization of all disturbed areas at the site and any planned practices to control pollutants in stormwater discharges that will occur after construction operations are completed. Including but not limited to, detention/retention ponds, rain gardens, stormwater vaults, etc.

ix. Inspection Reports. The SWMP must include documented inspection reports in accordance with Part ID.

3. SWMP Review and Revisions

Permittees must keep a record of SWMP changes made that includes the date and identification of the changes. The SWMP must be amended when the following occurs:

a. a change in design, construction, operation, or maintenance of the site requiring implementation of new or revised control measures;

b. the SWMP proves ineffective in controlling pollutants in stormwater runoff in compliance with the permit conditions;

c. control measures identified in the SWMP are no longer necessary and are removed; and

d. corrective actions are taken onsite that result in a change to the SWMP.

For SWMP revisions made prior to or following a change(s) onsite, including revisions to sections addressing site conditions and control measures, a notation must be included in the SWMP that identifies the date of the site change, the control measure removed, or modified, the location(s) of those control measures, and any changes to the control measure(s). The permittee must ensure the site changes are reflected in the SWMP. The permittee is noncompliant with the permit until the SWMP revisions have been made.

4. SWMP Availability

A copy of the SWMP must be provided upon request to the division, EPA, and any local agency with authority for approving sediment and erosion plans, grading plans or stormwater management plans within the time frame specified in the request. If the SWMP is required to be submitted to any of these entities, the submission must include a signed certification in accordance with Part I.A.3.e., certifying that the SWMP is complete and compliant with all terms and conditions of the permit.

All SWMPs required under this permit are considered reports that must be available to the public under Section 308(b) of the CWA and Section 61.5(4) of the CDPS regulations. The permittee must make plans available to members of the public upon request. However, the permittee may claim any portion of a SWMP as confidential in accordance with 40 CFR Part 2.

D. SITE INSPECTIONS

Site inspections must be conducted in accordance with the following requirements. The required inspection schedules are a minimum frequency and do not affect the permittee's responsibility to implement control measures in effective operating condition as prescribed in the SWMP. Proper maintenance of control measures may require more frequent inspections. Site inspections shall start within 7 calendar days of the commencement of construction activities on site.

1. Person Responsible for Conducting Inspections

The person(s) inspecting the site may be on the permittee's staff or a third party hired to conduct stormwater inspections under the direction of the permittee(s). The permittee is responsible for ensuring that the inspector is a qualified stormwater manager.

2. Inspection Frequency

Permittees must conduct site inspections in accordance with one of the following minimum frequencies, unless the site meets the requirements of Part ID.3

a. At least one inspection every 7 calendar days. Or

b. At least one inspection every 14 calendar days, if post-storm event inspections are conducted within 24 hours after the end of any precipitation or snowmelt event that causes surface erosion. Post-storm inspections may be used to fulfill the 14-day routine inspection requirement.

c. When site conditions make the schedule required in this section impractical, the permittee may petition the Division to grant an alternate inspection schedule. The alternative inspection schedule may not be implemented prior to written approval by the division and incorporation into the SWMP.

3. Inspection Frequency for Discharges to Outstanding Waters

Permittees must conduct site inspections at least once every 7 calendar days for sites that discharge to a water body designated as an Outstanding Water by the Water Quality Control Commission.

4. Reduced Inspection Frequency

The permittee may perform site inspections at the following reduced frequencies when one of the following conditions exists:

a. Post-Storm Inspections at Temporarily Idle Sites
For permittees choosing to combine 14-day inspections and post-storm-event-inspections, if no construction activities will occur following a storm event, post-storm event inspections must be conducted prior to re-commencing construction activities, but no later than 72 hours following the storm event. The delay of any post-storm event inspection must be documented in the inspection record. Routine inspections must still be conducted at least every 14 calendar days.

b. Inspections at Completed Sites/Areas
When the site, or portions of a site are awaiting establishment of a vegetative ground cover and final stabilization, the permittee must conduct a thorough inspection of the stormwater management system at least once every 30 days. Post-storm event inspections are not required under this schedule. This reduced inspection schedule is allowed if all of the following criteria are met:

i. all construction activities resulting in ground disturbance are complete;

ii. all activities required for final stabilization, in accordance with the SWMP, have been completed, with the exception of the application of seed that has not occurred due to seasonal conditions or the necessity for additional seed application to augment previous efforts; and

iii. the SWMP has been amended to locate those areas to be inspected in accordance with the reduced schedule allowed for in this paragraph.

c. Winter Conditions Inspections Exclusion

Inspections are not required for sites that meet all of the following conditions: construction activities are temporarily halted, snow cover exists over the entire site for an extended period, and melting conditions posing a risk of surface erosion do not exist. This inspection exception is applicable only during the period where melting conditions do not exist, and applies to the routine 7-day, 14-day and monthly inspections, as well as the post-storm-event inspections. When this inspection exclusion is implemented, the following information must be documented in accordance with the requirements in Part II:

i. dates when snow cover existed;

ii. date when construction activities ceased; and

iii. date melting conditions began.

5. Inspection Scope

a. Areas to be Inspected
When conducting a site inspection the following areas, if applicable, must be inspected for evidence of, or the potential for, pollutants leaving the construction site boundaries, entering the stormwater drainage system, or discharging to state waters:

i. construction site perimeter;

ii. all disturbed areas;

iii. designated haul routes;

iv. material and waste storage areas exposed to precipitation;

v. locations where stormwater has the potential to discharge offsite; and

vi. locations where vehicles exit the site.

b. Inspection Requirements

i. Visually verify whether all implemented control measures are in effective operational condition and are working as designed in their specifications to minimize pollutant discharges.

ii. Determine if there are new potential sources of pollutants.

iii. Assess the adequacy of control measures at the site to identify areas requiring new or modified control measures to minimize pollutant discharges.

iv. Identify all areas of non–compliance with the permit requirements and, if necessary, implement corrective action in accordance with Part IB.1.c.

c. Inspection Reports
The permittee must keep a record of all inspections conducted for each permitted site. Inspection reports must identify any incidents of noncompliance with the terms and conditions of this permit. Inspection records must be retained in accordance with Part II.O. and signed in accordance with Part I.A.3.f. At a minimum, the inspection report must include:

i. the inspection date;

ii. name(s) and title(s) of personnel conducting the inspection;

iii. weather conditions at the time of inspection;

iv. phase of construction at the time of inspection;

v. estimated acreage of disturbance at the time of inspection

vi. location(s) of discharges of sediment or other pollutants from the site;

vii. location(s) of control measures needing maintenance;

viii. location(s) and identification of inadequate control measures;

ix. location(s) and identification of additional control measures are needed that were not in place at the time of inspection;

x. description of the minimum inspection frequency (either in accordance with Part I.D.2., I.D.3. or I.D.4.) utilized when conducting each inspection.

xi. deviations from the minimum inspection schedule as required in Part I.D.2.;

xii. after adequate corrective action(s) and maintenance have been taken, or where a report does not identify any incidents requiring corrective action or maintenance, the report shall contain a statement as required in Part I.A.3.f.

E. DEFINITIONS

For the purposes of this permit:

(1) Bypass - the intentional diversion of waste streams from any portion of a treatment facility in accordance with 40 CFR 122.41(m)(1)(i) and Regulation 61.2(12).

(2) Common Plan of Development or Sale - A contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules, but remain related. The Division has determined that "contiguous" means construction activities located in close proximity to each other (within ¼ mile). Construction activities are considered to be "related" if they share the same development plan, builder or contractor, equipment, storage areas, etc. "Common plan of development or sale" includes construction activities that are associated with the construction of field wide oil and gas permits for facilities that are related.

(3) Construction Activity - Ground surface disturbing and associated activities (land disturbance), which include, but are not limited to, clearing, grading, excavation, demolition, installation of new or improved haul roads and access roads, staging areas, stockpiling of fill materials, and borrow areas. Construction does not include routine maintenance to maintain the original line and grade, hydraulic capacity, or original purpose of the facility. Activities to conduct repairs that are not part of routine maintenance or for replacement are construction activities and are not routine maintenance. Repaving activities where underlying and/or surrounding soil is exposed as part of the repaving operation are considered construction activities. Construction activity is from initial ground breaking to final stabilization regardless of ownership of the construction activities.

(4) Control Measure - Any best management practice or other method used to prevent or reduce the discharge of pollutants to state waters. Control measures include, but are not limited to, best management practices. Control measures can include other methods such as the installation, operation, and maintenance of structural controls and treatment devices.

(5) Control Measure Requiring Routine Maintenance - Any control measure that is still operating in accordance with its design and the requirements of this permit, but requires maintenance to prevent a breach of the control measure. See also inadequate control measure.

(6) Dedicated Asphalt, Concrete Batch Plants and Masonry Mixing Stations – are batch plants or mixing stations located on, or within ¼ mile of, a construction site and that provide materials only to that specific construction site.

(7) Final Stabilization - The condition reached when all ground surface disturbing activities at the site have been completed, and for all areas of ground surface disturbing activities where a uniform vegetative cover has been established with an individual plant density of at least 70 percent of pre-disturbance levels, or equivalent permanent, physical erosion reduction methods have been employed.

(8) Good Engineering, Hydrologic and Pollution Control Practices: are methods, procedures, and practices that:
   a. Are based on basic scientific fact(s).
   b. Reflect best industry practices and standards.
   c. Are appropriate for the conditions and pollutant sources.
   d. Provide appropriate solutions to meet the associated permit requirements, including practice based effluent limits.

(9) Inadequate Control Measure - Any control measure that is not designed or implemented in accordance with the requirements of the permit and/or any control measure that is not implemented to operate in accordance with its design. See also Control Measure Requiring Routine Maintenance.

(10) Infeasible – Not technologically possible, or not economically practicable and achievable in light of best industry practices.

(11) Minimize - reduce or eliminate to the extent achievable using control measures that are technologically available and economically practicable and achievable in light of best industry practice.

(12) Municipality - A city, town, county, district, association, or other public body created by, or under, State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or a designated and approved management agency under section 208 of CWA (1987).

(13) Municipal Separate Storm Sewer System (MS4) - A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

   a) owned or operated by a State, city, town, county, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or a designated and approved management agency under section 208 of the CWA that discharges to state waters;

      i. designed or used for collecting or conveying stormwater;
      ii. are not a combined sewer; and
      iii. are not part of a Publicly Owned Treatment Works (POTW). See 5 CCR 1002-61.2(62).

(14) Municipal Stormwater Management Program - A stormwater program operated by a municipality, typically to meet the requirements of the municipalities MS4 discharge certification.

(15) Operator - The party that has operational control over day-to-day activities at a project site which are necessary to ensure compliance with the permit. This party is authorized to direct individuals at a site to carry out activities required by the permit.(e.g. the general contractor)

(16) Owner - The party that has overall control of the activities and that has funded the implementation of the construction plans and specifications. This is the party with ownership of, a long term lease of, or easements on the property on which the construction activity is occurring (e.g., the developer).

(17) Permittee(s) - The owner and operator named in the discharge certification issued under this permit for the construction site specified in the certification.

(18) Point Source - Any discernible, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. Point source does not include irrigation return flow. See 5 CCR 102-61.2(75).

(19) Pollutant - Dredged spoil, dirt, slurry, solid waste, incinerator residue, sewage, sewage sludge, garbage, trash, chemical waste, biological nutrient, biological material, radioactive material, heat, wrecked or discarded equipment, rock, sand, or any industrial, municipal or agricultural waste. See 5 CCR 1002-61.2(76).

(20) Presentation of credentials – a government issued form of identification, if in person; or (ii) providing name, position and purpose of inspection if request to enter is made via telephone, email or other form of electronic communication. A Permittee's non-response to a request to enter upon presentation of credentials constitutes a denial to such request, and may result in violation of the Permit.

(21) Process Water - Any water which, during manufacturing or processing, comes into contact with or results from the production of any raw material, intermediate product, finished product, by product or waste product.

(22) Public Emergency Related Site - a project initiated in response to an unanticipated emergency (e.g., mud slides, earthquake, extreme flooding conditions, disruption in essential public services), for which the related work requires immediate authorization to avoid imminent endangerment to human health or the environment, or to reestablish essential public services.

(23) Qualified Stormwater Manager - An individual knowledgeable in the principles and practices of erosion and sediment control and pollution prevention, and with the skills to assess conditions at construction sites that could impact stormwater quality and to assess the effectiveness of stormwater controls implemented to meet the requirements of this permit.

(24) Qualifying Local Program - A municipal program for stormwater discharges associated with small construction activity that was formally approved by the division as a qualifying local program.

(25) Receiving Water - Any classified or unclassified surface water segment (including tributaries) in the State of Colorado into which stormwater associated with construction activities discharges. This definition includes all water courses, even if they are usually dry, such as borrow ditches, arroyos, and other unnamed waterways.

(26) Severe Property Damage - substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. See 40 CFR 122.41(m)(1)(ii).

(27) Significant Materials - Include, but not limited to, raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical the permittee is required to report under section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA); fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with stormwater discharges.

(28) Small Construction Activity - The discharge of stormwater from construction activities that result in land disturbance of equal to, or greater than, one acre and less than five acres. Small construction activity also includes the disturbance of less than one acre of total land area that is part of a larger common plan of development or sale, if the larger common plan ultimately disturbs equal to, or greater than, one acre and less than five acres.

(29) Spill - An unintentional release of solid or liquid material which may pollute state waters.

(30) State Waters - means any and all surface and subsurface waters which are contained in or flow in or through this state, but does not include waters in sewage systems, waters in treatment works of disposal systems, waters in potable water distribution systems, and all water withdrawn for use until use and treatment have been completed.

(31) Steep Slopes: where a local government, or industry technical manual (e.g., stormwater BMP manual) has defined what is to be considered a “steep slope”, this permit’s definition automatically adopts that definition. Where no such definition exists, steep slopes are automatically defined as those that are 3:1 or greater.

(32) Stormwater - Precipitation runoff, snow melt runoff, and surface runoff and drainage. See 5 CCR 1002-61.2(103).

(33) Total Maximum Daily Loads (TMDLs) -The sum of the individual wasteload allocations (WLA) for point sources and load allocations (LA) for nonpoint sources and natural background. For the purposes of this permit, a TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. A TMDL includes WLAs, LAs, and must include a margin of safety (MOS), and account for seasonal variations. See section 303(d) of the CWA and 40 C.F.R. 130.2 and 130.7.

(34) Upset - an exceptional incident in which there is unintentional and temporary noncompliance with permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation in accordance with 40 CFR 122.41(n) and Regulation 61.2(114).

F. MONITORING

The division may require sampling and testing, on a case-by-case basis. If the division requires sampling and testing, the division will send a notification to the permittee. Reporting procedures for any monitoring data collected will be included in the notification.

If monitoring is required, the following applies:

1. the thirty (30) day average must be determined by the arithmetic mean of all samples collected during a thirty (30) consecutive-day period; and

2. a grab sample, for monitoring requirements, is a single “dip and take” sample.

G. Oil and Gas Construction

Stormwater discharges associated with construction activities directly related to oil and gas exploration, production, processing, and treatment operations or transmission facilities are regulated under the Colorado Discharge Permit System Regulations (5 CCR 1002-61), and require coverage under this permit in accordance with that regulation. However, references in this permit to specific authority under the CWA do not apply to stormwater discharges associated with these oil and gas related construction activities, to the extent that the references are limited by the federal Energy Policy Act of 2005.

Part II: Standard Permit Conditions

A. DUTY TO COMPLY

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Water Quality Control Act and is grounds for:

a. enforcement action;

b. permit termination, revocation and reissuance, or modification; or

c. denial of a permit renewal application.

B. DUTY TO REAPPLY

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain authorization as required by Part I.A.3.k. of the permit.

C. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

D. DUTY TO MITIGATE

A permittee must take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

E. PROPER OPERATION AND MAINTENANCE

A permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of this permit. This requirement can be met by meeting the requirements for Part I.B., I.C., and I.D. above. See also 40 C.F.R. § 122.41(e).

F. PERMIT ACTIONS

This permit may be modified, revoked and reissued, or terminated for cause. The permittee request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. Any request for modification, revocation, reissuance, or termination under this permit must comply with all terms and conditions of Regulation 61.8(8).

G. PROPERTY RIGHTS

In accordance with 40 CFR 122.41(g) and 5 CCR 1002-61, 61.8(9):

1. The issuance of a permit does not convey any property or water rights in either real or personal property, or stream flows or any exclusive privilege.

2. The issuance of a permit does not authorize any injury to person or property or any invasion of personal rights, nor does it authorize the infringement of federal, state, or local laws or regulations.
3. Except for any toxic effluent standard or prohibition imposed under Section 307 of the Federal act or any standard for sewage sludge use or disposal under Section 405(d) of the Federal act, compliance with a permit during its term constitutes compliance, for purposes of enforcement, with Sections 301, 302, 306, 318, 403, and 405(a) and (b) of the Federal act. However, a permit may be modified, revoked and reissued, or terminated during its term for cause as set forth in Section 61.8(8) of the Colorado Discharge Permit System Regulations.

H. DUTY TO PROVIDE INFORMATION

The permittee shall furnish to the division, within a reasonable time, any information which the division may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the division, upon request, copies of records required to be kept by this permit in accordance with 40 CFR 122.41(h) and/or Regulation 61.8(3)(q).

I. INSPECTION AND ENTRY

The permittee shall allow the division and the authorized representative, upon the presentation of credentials as required by law, to allow for inspections to be conducted in accordance with 40 CFR 122.41(i), Regulation 61.8(3), and Regulation 61.8(4):

1. to enter upon the permittee's premises where a regulated facility or activity is located or in which any records are required to be kept under the terms and conditions of this permit;
2. at reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit;
3. at reasonable times, inspect any monitoring equipment or monitoring method required in the permit; and
4. to enter upon the permittee's premises in a reasonable manner and at a reasonable time to inspect or investigate, any actual, suspected, or potential source of water pollution, or any violation of the Colorado Water Quality Control Act. The investigation may include: sampling of any discharges, stormwater or process water, taking of photographs, interviewing site staff on alleged violations and other matters related to the permit, and assessing any and all facilities or areas within the site that may affect discharges, the permit, or an alleged violation.

The permittee shall provide access to the division or other authorized representatives upon presentation of proper credentials. A permittee's non-response to a request to enter upon presentation of credentials constitutes a denial of such request, and may result in a violation of the permit.

J. MONITORING AND RECORDS

1. Samples and measurements taken for the purpose of monitoring must be representative of the volume and nature of the monitored activity.

2. The permittee must retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date the permit expires or the date the permittee's authorization is terminated. This period may be extended by request of the division at any time.

3. Records of monitoring information must include:
   a. The date, exact place, and time of sampling or measurements;
   b. The individual(s) who performed the sampling or measurements;
   c. The date(s) analyses were performed
   d. The individual(s) who performed the analyses;
   e. The analytical techniques or methods used; and
   f. The results of such analyses.

4. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in the permit.

K. SIGNATORY REQUIREMENTS

1. Authorization to Sign:

   All documents required to be submitted to the division by the permit must be signed in accordance with the following criteria:

   a. For a corporation: By a responsible corporate officer. For the purpose of this subsection, a responsible corporate officer means:

      i. a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or

      ii. the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

   b. For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or

   c. For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this subsection, a principal executive officer of a federal agency includes

      i. (i) the chief executive officer of the agency, or

ii. (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency. (e.g., Regional Administrator of EPA)

2. Electronic Signatures

For persons signing applications for coverage under this permit electronically, in addition to meeting other applicable requirements stated above, such signatures must meet the same signature, authentication, and identity-proofing standards set forth at 40 CFR § 3.2000(b) for electronic reports (including robust second-factor authentication). Compliance with this requirement can be achieved by submitting the application using the Colorado Environmental Online Service (CEOS) system.

3. Change in Authorization to Sign

If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization must be submitted to the division, prior to the re-authorization, or together with any reports, information, or applications to be signed by an authorized representative.

L. REPORTING REQUIREMENTS

1. Planned Changes

The permittee shall give advance notice to the division, in writing, of any planned physical alterations or additions to the permitted facility in accordance with 40 CFR 122.41(l) and Regulation 61.8(5)(a). Notice is required only when:

a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or

b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.41(a)(1).

2. Anticipated Non-Compliance

The permittee shall give advance notice to the division, in writing, of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements. The timing of notification requirements differs based on the type of non-compliance as described in subparagraphs 5, 6, 7, and 8 below.

3. Transfer of Ownership or Control

The permittee shall notify the division, in writing, ten (10) calendar days in advance of a proposed transfer of the permit. This permit is not transferable to any person except after notice is given to the division.

a. Where a facility wants to change the name of the permittee, the original permittee (the first owner or operators) must submit a Notice of Termination.

b. The new owner or operator must submit an application. See also signature requirements in Part II.K, above.

c. A permit may be automatically transferred to a new permittee if:

   i. The current permittee notifies the Division in writing 30 calendar days in advance of the proposed transfer date; and

   ii. The notice includes a written agreement between the existing and new permittee(s) containing a specific date for transfer of permit responsibility, coverage and liability between them; and

   iii. The division does not notify the existing permittee and the proposed new permittee of its intent to modify, or revoke and reissue the permit.

   iv. Fee requirements of the Colorado Discharge Permit System Regulations, Section 61.15, have been met.

4. Monitoring reports

   Monitoring results must be reported at the intervals specified in this permit per the requirements of 40 CFR 122.41(l)(4).

5. Compliance Schedules

   Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule in the permit, shall be submitted on the date listed in the compliance schedule section. The fourteen (14) calendar day provision in Regulation 61.8(4)(n)(i) has been incorporated into the due date.

6. Twenty-four hour reporting

   In addition to the reports required elsewhere in this permit, the permittee shall report the following circumstances orally within twenty-four (24) hours from the time the permittee becomes aware of the circumstances, and shall mail to the division a written report containing the information requested within five (5) working days after becoming aware of the following circumstances:

   a. Circumstances leading to any noncompliance which may endanger health or the environment regardless of the cause of the incident;

   b. Circumstances leading to any unanticipated bypass which exceeds any effluent limitations in the permit;

   c. Circumstances leading to any upset which causes an exceedance of any effluent limitation in the permit;

d. Daily maximum violations for any of the pollutants limited by Part I of this permit. This includes any toxic pollutant or hazardous substance or any pollutant specifically identified as the method to control any toxic pollutant or hazardous substance.

e. The division may waive the written report required under subparagraph 6 of this section if the oral report has been received within 24 hours.

7. Other non-compliance

A permittee must report all instances of noncompliance at the time monitoring reports are due. If no monitoring reports are required, these reports are due at least annually in accordance with Regulation 61.8(4)(p). The annual report must contain all instances of non-compliance required under either subparagraph 5 or subparagraph 6 of this subsection.

8. Other information

Where a permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to the Permitting Authority, it has a duty to promptly submit such facts or information.

M. BYPASS

1. Bypass not exceeding limitations

The permittees may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Part II.M.2 of this permit. See 40 CFR 122.41(m)(2).

2. Notice of bypass

a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, the permittee must submit prior notice, if possible at least ten days before the date of the bypass. ee 40 CFR §122.41(m)(3)(i) and/or Regulation 61.9(5)(c).

b. Unanticipated bypass. The permittee must submit notice of an unanticipated bypass in accordance with Part II.L.6. See 40 CFR §122.41(m)(3)(ii) .

3. Prohibition of Bypass

Bypasses are prohibited and the division may take enforcement action against the permittee for bypass, unless:

i. the bypass is unavoidable to prevent loss of life, personal injury, or severe property damage;

ii. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

iii. proper notices were submitted to the division.

N. UPSET

1. Effect of an upset

An upset constitutes an affirmative defense to an action brought for noncompliance with permit effluent limitations if the requirements of Part II.N.2. of this permit are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review in accordance with Regulation 61.8(3)(j).

2. Conditions necessary for demonstration of an Upset

A permittee who wishes to establish the affirmative defense of upset shall demonstrate through properly signed contemporaneous operating logs, or other relevant evidence that

a. an upset occurred and the permittee can identify the specific cause(s) of the upset;

b. the permitted facility was at the time being properly operated and maintained; and

c. the permittee submitted proper notice of the upset as required in Part II.L.6.(24-hour notice); and

d. the permittee complied with any remedial measure necessary to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. In addition to the demonstration required above, a permittee who wishes to establish the affirmative defense of upset for a violation of effluent limitations based upon water quality standards shall also demonstrate through monitoring, modeling or other methods that the relevant standards were achieved in the receiving water.

3. Burden of Proof

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

O. RETENTION OF RECORDS

1. Post-Expiration or Termination Retention

Copies of documentation required by this permit, including records of all data used to complete the application for permit coverage to be covered by this permit, must be

retained for at least three years from the date that permit coverage expires or is terminated. This period may be extended by request of EPA at any time.

2. On-site Retention

   The permittee must retain an electronic version or hardcopy of the SWMP at the construction site from the date of the initiation of construction activities to the date of expiration or inactivation of permit coverage; unless another location, specified by the permittee, is approved by the division.

P. REOPENER CLAUSE

1. Procedures for modification or revocation

   Permit modification or revocation of this permit or coverage under this permit will be conducted according to Regulation 61.8(8).

2. Water quality protection

   If there is evidence indicating that the stormwater discharges authorized by this permit cause, have the reasonable potential to cause or contribute to an excursion above any applicable water quality standard, the permittee may be required to obtain an individual permit, or the permit may be modified to include different limitations and/or requirements.

Q. SEVERABILITY

The provisions of this permit are severable. If any provisions or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances and the application of the remainder of this permit shall not be affected.

R. NOTIFICATION REQUIREMENTS

1. Notification to Parties

   All notification requirements, excluding information submitted using the CEOS portal, shall be directed as follows:

   a. Oral Notifications, during normal business hours shall be to:
      Clean Water Compliance Section
      Water Quality Control Division
      Telephone: (303) 692-3500

   b. Written notification shall be to:
      Clean Water Compliance Section
      Water Quality Control Division
      Colorado Department of Public Health and Environment
      WQCD-WQP-B2
      4300 Cherry Creek Drive South
      Denver, CO 80246-1530

S. RESPONSIBILITIES

1. Reduction, Loss, or Failure of Treatment Facility

   The permittee has the duty to halt or reduce any activity if necessary to maintain compliance with the effluent limitations of the permit. It shall not be a defense for a permittee in an enforcement action that it would be necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

T. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under Section 311 (Oil and Hazardous Substance Liability) of the CWA.

U. Emergency Powers

Nothing in this permit shall be construed to prevent or limit application of any emergency power of the division.

V. Confidentiality

Any information relating to any secret process, method of manufacture or production, or sales or marketing data which has been declared confidential by the permittee, and which may be acquired, ascertained, or discovered, whether in any sampling investigation, emergency investigation, or otherwise, shall not be publicly disclosed by any member, officer, or employee of the Water Quality Control Commission or the division, but shall be kept confidential. Any person seeking to invoke the protection of of this section shall bear the burden of proving its applicability. This section shall never be interpreted as preventing full disclosure of effluent data.

W. Fees

The permittee is required to submit payment of an annual fee as set forth in the 2016 amendments to the Water Quality Control Act. Section 25-8-502 (1.1) (b), and the Colorado Discharge Permit System Regulations 5 CCR 1002-61, Section 61.15 as amended. Failure to submit the required fee when due and payable is a violation of the permit and will result in enforcement action pursuant to Section 25-8-601 et. seq., C.R.S.1973 as amended.

X. Duration of Permit

The duration of a permit shall be for a fixed term and shall not exceed five (5) years. If the permittee desires to continue to discharge, a permit renewal application shall be submitted at least ninety (90) calendar days before this permit expires. Filing of a timely and complete application shall cause the expired permit to continue in force to the effective date of the new permit. The permit's duration may be extended only through administrative extensions and not through interim modifications. If the permittee anticipates there will be no discharge after the expiration date of this permit, the division should be promptly notified so that it can terminate the permit in accordance with Part I.A.3.i.

Y. Section 307 Toxics

If a toxic effluent standard or prohibition, including any applicable schedule of compliance specified, is established by regulation pursuant to Section 307 of the Federal Act for a toxic pollutant which is present in the permittee's discharge and such standard or prohibition is more stringent than any limitation upon such pollutant in the discharge permit, the division

shall institute proceedings to modify or revoke and reissue the permit to conform to the toxic effluent standard or prohibition

Low Risk Discharge Guidance
Discharges of Uncontaminated Groundwater to Land

Originally Issued September 2009
Revised August 8, 2017

Table of Contents

Scope and Purpose of Modification……. Page 1
Background and Discussion……. Page 1
Criteria, Conditions, and Control Measures…. Page 2
Alternative Disposal Options…….. Page 4

Scope and Purpose of Modification

This revised guidance document is effective August 4, 2017. In addition to organizational and editorial revisions, the following substantive modifications were made:

- Additional information was added regarding determining if the discharge is uncontaminated. Refer to the Criteria section.
- Removed the reference to solid waste permitting in the background and discussion portion of the document. Uncontaminated groundwater would typically not be regulated as a solid waste, and therefore the discussion was not likely to be applicable to discharges covered by this guidance. However, it remains the responsible parties' obligation to ensure compliance with other applicable laws and regulations, including solid waste requirements.
- The requirement that the discharge be returned to the same aquifer that it was drawn from was added. This is consistent with the intent of the original version, as identified by the examples of covered discharges provided: construction dewatering, subterranean or foundation dewatering, uncontaminated vault dewatering, and utility work.

Background and Discussion

This discharge policy guidance has been developed in accordance with WQP-27, Low Risk Discharges Policy. This guidance is only applicable to discharges meeting the low risk discharge criteria and conditions identified below. **Refer to the Alternative Disposal Options section at the end of this document for additional information for discharges that do not meet the criteria and conditions of this guidance.**

The division has issued general permits for point source discharges of groundwater to land, as identified in the Alternative Disposal Options section. However, for the category of point source discharges that meet the criteria and conditions outlined in this document, the division has determined it is appropriate to manage the discharges through the development of guidance instead of through pursuing permit coverage. When the criteria and provisions of this guidance are met, the division will not actively pursue permitting or enforcement for discharges of groundwater to land, unless on a case-by-case basis, the division finds that a discharge has resulted in an adverse impact to the quality of any state waters receiving the discharge.

Discharges of uncontaminated groundwater to land that are typically associated with short term or intermittent

discharges are not expected to contain pollutants in concentrations that are toxic, or in concentrations that would cause or contribute to a violation of a water quality standard for ground water. A large number of these types of discharges occur state-wide every year, which requires a resource-intensive effort to permit without a resulting general benefit to environmental quality in the vast majority of situations.

Discharges of uncontaminated groundwater to land that may be covered under this guidance document when all the provisions in the document are adhered to may include, but are not limited to: construction dewatering, subterranean or foundation dewatering, uncontaminated vault dewatering, and utility work.

Criteria, Conditions, and Control Measures

- **Definitions**
  - **Control Measures:** are any best management practice or other method used to prevent or reduce the discharge of pollutants to waters of the state.

- **Low Risk Discharge Criteria**

  This guidance is applicable to point source discharges that meet the following criteria and that meet the conditions listed in the next section. Refer to the Alternative Disposal Options section for guidance on addressing water not meeting these criteria.

  - The source of the discharge must solely be uncontaminated groundwater or uncontaminated groundwater combined with stormwater. Refer to the guidance in the Control Measure section below for information on identifying potentially contaminated groundwater.
  - To be considered uncontaminated, the source ground water must not contain pollutants in concentrations that exceed water quality standards for groundwater applicable to the receiving groundwater. For ground water for which standards have not already been assigned in Regulation 42, Site-Specific Water Quality Classifications and Standards for Ground Water (5 CCR 1002-42), pollutants shall not exceed the criteria set forth in Tables 1 through 4 of "The Basic Standards for Ground Water," in Regulation 41, The Basic Standards for Ground Water (5 CCR 1002-41). This guidance does not include consideration of criteria for groundwater based on existing ambient quality as of January 31, 1994, as set forth in Regulation No. 41.5.C.6.b.i(A). Because a site-specific evaluation and determination is necessary for application of such criteria, the division has determined that consideration of this allowance is not appropriate under this guidance. The source groundwater must be from the same aquifer that the water will be returned to. Specifically, this guidance is not applicable to discharges from deep wells that draw water from confined aquifers which will often have substantially different water quality compositions than the shallower unconfined aquifers to which the water will be discharged.
  - The discharge must be to land. Point source discharges to surface waters of the state, storm sewers, or other drainage conveyance systems are not covered by this guidance.

- **Conditions**

  The following conditions must be met by anyone discharging wastewater in accordance with this guidance:

  - **Prohibition of pollutants in the discharge:**
    - No chemicals may be added.
    - If the discharge is from vaults or similar structures, the discharge cannot be contaminated by process materials used, stored, or conveyed in the structures, or by introduced surface water runoff from outside environments that may contain oil, grease, and corrosives.
    - A visible sheen must not be evident in the source water or discharge.
  - **Exclusion of Process Discharges:**
    - The groundwater shall not be used in any additional processes. Processes include, but are not limited to, any type of washing, heat exchange, or manufacturing.
  - **Controlling the discharge:**
    - The groundwater discharge cannot leave the operational control of the entity administering the land application. The owner of the property where the discharge is occurring must have prior knowledge and grant permission for the land application.
    - Land application must be conducted at a rate and location that does not allow for any runoff into state waters or other drainage conveyance systems, including but not limited to streets, curb and

gutter, inlets, borrow ditches, open channels etc. If the land application is to agricultural land, it must not reach or have the potential to reach an agricultural ditch. Discharges to drainage conveyance systems as described above are a discharge to surface water that require a discharge permit and are not covered under this guidance document.

- Land application must be conducted at a rate that does not allow for any ponding of the groundwater on the surface, unless the ponding is a result of implementing control measures that are designed to reduce flow velocity. If the control measures used result in ponding, the land application must be done in an area with a constructed containment, such as an excavation or bermed area with no designed outfall. The constructed containment shall prevent the discharge of the ponding water offsite as runoff.

❖ **Compliance with construction stormwater discharge permits:** If the discharge is located at a facility covered by a CDPS General Permit for Stormwater Discharge Associated with Construction Activities, the requirements in that permit associated with the discharge of groundwater must be complied with, including identification in the Stormwater Management Plan.

❖ **Controlling erosion:** The discharge shall not cause erosion of a land surface that could cause pollution of the receiving water. Signs of visible erosion that have the potential to cause pollution without downstream controls measures implemented include the formation of rills or gullies on the land surface. Energy dissipation devices designed to protect downstream areas from erosion by reducing velocity of flow (such as hose attachments and erosion controls) may be necessary to prevent erosion.

❖ **Controlling pollutant potential of deposited sediment:** Control measures shall be implemented to prevent any sediment deposited during land application from being transported by stormwater runoff to surface waters or other conveyances.

❖ **Additional Requirements and Property Rights:**

- All discharges must comply with the lawful requirements of federal agencies, municipalities, counties, drainage districts, ditch owners, and other local agencies regarding any discharges to storm drain systems, conveyances, ditches or other water courses under their jurisdiction.
- The guidance included in this document in no way reduces the existing authority of the owner of a storm sewer, ditch owner, or other local agency, from prohibiting or placing additional conditions on the discharge.
- The discharge shall not result in flooding of neighboring property, streets, gutters or storm sewers. The discharge must be diverted from building foundations or other areas that may be damaged from ground settling or swelling.

➢ **<u>Implementation of Control Measures</u>**

Control measures should be implemented as necessary to meet the conditions above, by anyone discharging in accordance with this guidance. The following control measures have been developed by the division to help ensure that the discharge will not negatively affect water quality. Refer to the Alternative Disposal Options section for guidance where these control measures cannot be implemented.

❖ **Identifying potentially contaminated groundwater:** It the groundwater is located within 1 mile of a landfill, abandoned landfill, mine or mine tailing area, a Leaking Underground Storage Tank (LUST), Brownfield site, or other area of contamination, there is an increased likelihood that groundwater contamination exists. In those cases additional work is appropriate to determine if your dewatering area is in an area of contamination. The following is a list of contamination and plume resources and is helpful when determining if your dewatering area is in an area of contamination, however the list is not all inclusive and in some cases site-specific characterization of groundwater may be necessary.

CDPHE Environmental Cleanup Web Page (refer to the resources under "sites and facilities"): https://www.colorado.gov/pacific/cdphe/categories/services-and-information/environment/environmental-cleanup#sites

EPA Cleanups in My Community Maps and Lists:
https://www.epa.gov/cleanups/cleanups-my-community

- All control measures used to meet the provisions of this guidance document must be selected, installed, implemented and maintained according to good engineering, hydrologic and pollution control practices. These control measures must be adequately designed to provide control for all potential pollutant sources associated with the discharge of uncontaminated groundwater to land.

- The discharge should be routed in such a way that it will not contact petroleum products/waste, a visible sheen must not be evident in the discharge.

- To minimize potential for creating stormwater pollution sources, control measures (such as a filter bag or similar filtration device) should be used to remove sediment/solids prior to land application.

Alternative Disposal Options

Water that does not meet the criteria of this guidance or that cannot be discharged in a manner that meets the conditions of this guidance must be either authorized by a Colorado Discharge Permit System (CDPS) discharge permit issued by the division or disposed of through an alternative means.

The Water Quality Control Division has general permits available for discharges to surface water and/or land associated with construction dewatering, subterranean structure/foundation dewatering, and the remediation of groundwater. Obtaining coverage one of these permits will likely be the most efficient solution for discharges that do not meet the criteria and conditions of this guidance.

For discharges associated with construction projects, guidance on determining the appropriate permit and applying in included in the Application Guidance Document for these general permits, available on the division's construction sector permitting page: https://www.colorado.gov/pacific/cdphe/wq-construction-general-permits

Discharges from subterranean structures (basement, foundation, footer drains, etc.) are covered by the Subterranean Dewatering or Well Development general permit. The application and other information for this general permit can be found on the commerce and industry sector permitting page: https://www.colorado.gov/pacific/cdphe/clean-water-commerce-and-industry-permitting

For more information, contact the Water Quality Control Division's Permitting Section or Clean Water Compliance Unit, at (303) 692-3517.

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

EPC Project Number:

APPLICANT INFORMATION ***PERMIT NUMBER*** _____

Owner Information	
Property Owner	
Applicant Name (Permit Holder)	
Company/Agency	
Position of Applicant	
Address (physical address, not PO Box)	
City	
State	
Zip Code	
Mailing address, if different from above	
Telephone	
FAX number	
Email Address	
Cellular Phone number	
Contractor/Operator Information	
Name (person of responsibility)	
Company	
Address (physical address, not PO Box)	
City	
State	
Zip Code	
Mailing address, if different from above	
Telephone	
FAX number	
Email Address	
Cellular Phone number	
Erosion Control Supervisor (ECS)*	
ECS Phone number*	
ECS Cellular Phone number*	

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

PROJECT INFORMATION

Project Information	
Project Name	Space Village Filing No. 4
Legal Description	Lots 1 and 2, Block 1, Space Village Filing No. 4
Address (or nearest major cross streets)	Space Village Avenue & Peterson Boulevard
Acreage (total and disturbed)	Total: 23.0 acres Disturbed: 23.0 acres
Schedule	Start of Construction: Completion of Construction: Final Stabilization:
Project Purpose	Construction of an outdoor storage facility
Description of Project	There are no proposed structures. Paving (concrete, asphalt, etc.) for access accounts for 0.1 ac. Paving (gravel, asphalt millings, recycled conc., etc.) accounts for 16.6 ac. The remaining 6.3 ac. includes landscaping.
Tax Schedule Number	

FOR OFFICE USE ONLY

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

Signature of ECM Administrator: _____ Date _____

1.1 REQUIRED SUBMISSIONS

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

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

1.2 RESPONSIBILITY FOR DAMAGE

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

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

1.3 APPLICATION CERTIFICATION

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

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

_____ Date:_____

Signature of Owner or Representative

_____

Print Name of Owner or Representative

_____ Date:_____

Signature of Operator or Representative

_____

Print Name of Operator or Representative

Permit Fee $_____

Surcharge $_____

Financial Surety $_____ Type of Surety _____

Total $_____

EL PASO COUNTY

DATE/TIME:
INSPECTOR:
TYPE OF INSPECTION: Self-Monitoring_____ Initial _____ Compliance_____ Follow-Up_____ Reconnaissance_____ Complaint_____ Final____

SITE:	DATE OF PERMIT:
ADDRESS:	
CONTRACTOR: CONTACT: PHONE:	OWNER/OWNER'S REPRESENTATIVE: CONTACT: PHONE:
STAGE OF CONSTRUCTION: Initial BMP Installation/Prior to Construction_____ Clearing & Grubbing_____ Rough Grading_____ Finish Grading_____ Utility Construction_____ Building Construction_____ Final Stabilization_____	

OVERALL SITE INSPECTION	**YES/NO/N.A.**	**REMARKS/ACTIONS**
Is there any evidence of sediment leaving the construction site? If so, note areas.		
Have any adverse impacts such as flooding, structural damage, erosion, spillage, or accumulation of sediment, debris or litter occurred on or within public or private property, wetlands or surface waters –to include intermittent drainageways and the City's stormwater system (storm sewers, gutters, ditches, etc.)?		
Are the BMPs properly installed and maintained?		
Have the BMPs been placed as shown on approved plans?		
Are the BMPs functioning as intended?		
Is work being done according to approved plans and any phased construction schedule?		
Is the construction schedule on track?		
Are drainage channels and outlets adequately stabilized?		
Is there any evidence of discharges or spills of fuels, lubricants, chemicals, etc.?		

BMP MAINTENANCE CHECKLIST	YES/NO/N.A.	REMARKS/ACTIONS NECESSARY
CHECK DAM Has accumulated sediment and debris been removed per maintenance requirements?		
EROSION CONTROL BLANKET Is fabric damaged, loose or in need of repairs?		
INLET PROTECTION Is the inlet protection damaged, ineffective or in need of repairs? Has sediment been removed per maintenance requirements?		
MULCHING Distributed uniformly on all disturbed areas? Is the application rate adequate? Any evidence of mulch being blown or washed away? Has the mulched area been seeded, if necessary?		
SEDIMENT BASIN Is the sediment basin properly constructed and operational? Has sediment and debris been cleaned out of the basin?		
SILT FENCE Is the fence damaged, collapsed, unentrenched or ineffective? Has sediment been removed per maintenance requirements? Is the silt fence properly located?		
SLOPE DRAIN Is water bypassing or undercutting the inlet or pipe? Is erosion occurring at the outlet of the pipe?		
STRAW BALE BARRIER Are the straw bales damaged, ineffective or unentrenched? Has sediment been removed per maintenance requirements? Are the bales installed and positioned correctly?		

BMP MAINTENANCE CHECKLIST	YES/NO/N.A.	REMARKS/ACTIONS NECESSARY
SURFACE ROUGHENING Is the roughening consistent/uniform on slopes?? Any evidence of erosion?		
TEMPORARY SEEDING Are the seedbeds protected by mulch? Has any erosion occurred in the seeded area? Any evidence of vehicle tracking on seeded areas?		
TEMPORARY SWALES Has any sediment or debris been deposited within the swales? Have the slopes of the swale eroded or has damage occurred to the lining? Are the swales properly located?		
VEHICLE TRACKING Is gravel surface clogged with mud or sediment? Is the gravel surface sinking into the ground? Has sediment been tracked onto any roads and has it been cleaned up? Is inlet protection placed around curb inlets near construction entrance?		
OTHER		

FINAL INSPECTION CHECKLIST	YES/NO/N.A.	REMARKS/ACTIONS NECESSARY
Has all grading been completed in compliance with the approved Plan, and all stabilization completed, including vegetation, retaining walls or other approved measures?		
Has final stabilization been achieved – uniform vegetative cover with a density of at least 70 percent of pre-disturbance levels, and cover capable of adequately controlling soil erosion; or permanent, physical erosion methods?		
Have all temporary measures been removed?		
Have all stockpiles, construction materials and construction equipment been removed?		
Are all paved surfaces clean (on-site and off-site)?		
Has sediment and debris been removed from drainage facilities (on-site and off-site) and other off-site property, including proper restoration of any damaged property?		
Have all permanent stormwater quality BMPs been installed and completed?		

ADDITIONAL COMMENTS:

The items noted as needing action must be remedied no later than _____. The contractor shall notify the inspector when all the items noted above have been addressed.

By signing this inspection form, the owner/owner's representative and the contractor acknowledge that they have received a copy of the inspection report and are aware it is their responsibility to take corrective actions by the date noted above. Failure to sign does not relieve the contractor and owner/owner's representative of their responsibility to take the necessary corrective action and of their liability for any damages that have occurred or may occur.

INSPECTOR'S SIGNATURE:	DATE:
OWNER/OWNER'S REPRESENTATIVE SIGNATURE:	DATE:
CONTRACTOR'S SIGNATURE:	DATE:

APPENDIX D

- Example Logs and Inspection Forms

CONSTRUCTION STORMWATER SITE INSPECTION REPORT

Facility Name		Permittee	
Date of Inspection		Weather Conditions	
Permit Certification #		Disturbed Acreage	
Phase of Construction		Inspector Title	
Inspector Name			

	YES	NO
Is the above inspector a qualified stormwater manager? (permittee is responsible for ensuring that the inspector is a qualified stormwater manager)	☐	☐

INSPECTION FREQUENCY	
Check the box that describes the minimum inspection frequency utilized when conducting each inspection	
At least one inspection every 7 calendar days	☐
At least one inspection every 14 calendar days, with post-storm event inspections conducted within 24 hours after the end of any precipitation or snowmelt event that causes surface erosions	☐
• This is this a post-storm event inspection. Event Date: _____	☐
Reduced inspection frequency - Include site conditions that warrant reduced inspection frequency	☐
• Post-storm inspections at temporarily idle sites	☐
• Inspections at completed sites/area	☐
• Winter conditions exclusion	☐
Have there been any deviations from the minimum inspection schedule? If yes, describe below.	YES ☐ NO ☐

INSPECTION REQUIREMENTS*
i. Visually verify all implemented control measures are in effective operational condition and are working as designed in the specifications
ii. Determine if there are new potential sources of pollutants
iii. Assess the adequacy of control measures at the site to identify areas requiring new or modified control measures to minimize pollutant discharges
iv. Identify all areas of non-compliance with the permit requirements, and if necessary, implement corrective action
*Use the attached **Control Measures Requiring Routine Maintenance** and **Inadequate Control Measures Requiring Corrective Action** forms to document results of this assessment that trigger either maintenance or corrective actions

AREAS TO BE INSPECTED			
Is there evidence of, or the potential for, pollutants leaving the construction site boundaries, entering the stormwater drainage system or discharging to state waters at the following locations?			
	NO	YES	If "YES" describe discharge or potential for discharge below. Document related maintenance, inadequate control measures and corrective actions **Inadequate Control Measures Requiring Corrective Action** form
Construction site perimeter	☐	☐	
All disturbed areas	☐	☐	
Designated haul routes	☐	☐	
Material and waste storage areas exposed to precipitation	☐	☐	
Locations where stormwater has the potential to discharge offsite	☐	☐	
Locations where vehicles exit the site	☐	☐	
Other: _____	☐	☐	

CONTROL MEASURES REQUIRING ROUTINE MAINTENANCE

Definition: Any control measure that is still operating in accordance with its design and the requirements of the permit, but requires maintenance to prevent a breach of the control measure. These items are not subject to the corrective action requirements as specified in Part I.B.1.c of the permit.

Are there control measures requiring maintenance?	NO	YES	
	☐	☐	If "YES" document below

Date Observed	Location	Control Measure	Maintenance Required	Date Completed

INADEQUATE CONTROL MEASURES REQUIRING CORRECTIVE ACTION

Definition: Any control measure that is not designed or implemented in accordance with the requirements of the permit and/or any control measure that is not implemented to operate in accordance with its design. This includes control measures that have not been implemented for pollutant sources. If it is infeasible to install or repair the control measure immediately after discovering the deficiency the reason must be documented and a schedule included to return the control measure to effective operating condition as possible.

Are there inadequate control measures requiring corrective action?	NO	YES	
	☐	☐	If "YES" document below

Are there additional control measures needed that were not in place at the time of inspection?	NO	YES	
	☐	☐	If "YES" document below

Date Discovered	Location	Description of Inadequate Control Measure	Description of Corrective Action	Was deficiency corrected when discovered? YES/NO if "NO" provide reason and schedule to correct	Date Corrected

REPORTING REQUIREMENTS

The permittee shall report the following circumstances orally within twenty-four (24) hours from the time the permittee becomes aware of the circumstances, and shall mail to the division a written report containing the information requested within five (5) working days after becoming aware of the following circumstances. The division may waive the written report required if the oral report has been received within 24 hours.

All Noncompliance Requiring 24-Hour Notification per Part II.L.6 of the Permit

a. Endangerment to Health or the Environment

Circumstances leading to any noncompliance which may endanger health or the environment regardless of the cause of the incident (See Part II.L.6.a of the Permit)

This category would primarily result from the discharge of pollutants in violation of the permit

b. Numeric Effluent Limit Violations

- Circumstances leading to any unanticipated bypass which exceeds any effluent limitations (See Part II.L.6.b of the Permit)
- Circumstances leading to any upset which causes an exceedance of any effluent limitation (See Part II.L.6.c of the Permit)
- Daily maximum violations (See Part II.L.6.d of the Permit)

Numeric effluent limits are very uncommon in certifications under the COR400000 general permit. This category of noncompliance only applies if numeric effluent limits are included in a permit certification.

Has there been an incident of noncompliance requiring 24-hour notification?	NO	YES	
	☐	☐	If "YES" document below

Date and Time of Incident	Location	Description of Noncompliance	Description of Corrective Action	Date and Time of 24 Hour Oral Notification	Date of 5 Day Written Notification *

*Attach copy of 5 day written notification to report. Indicate if written notification was waived, including the name of the division personnel who granted waiver.

After adequate corrective action(s) and maintenance have been taken, or where a report does not identify any incidents requiring corrective action or maintenance, the individual(s) designated as the Qualified Stormwater Manager, shall sign and certify the below statement:

"I verify that, to the best of my knowledge and belief, all corrective action and maintenance items identified during the inspection are complete, and the site is currently in compliance with the permit."

Name of Qualified Stormwater Manager	Title of Qualified Stormwater Manager
Signature of Qualified Stormwater Manager	Date

Notes/Comments

APPENDIX E

- Site Maps (Grading and Erosion Control Plans)
- Landscape Plan (Final Stabilization Plan)

SPACE VILLAGE FILING NO. 4

A PORTION OF THE NW 1/4 OF SEC. 17, T14S, R65W, OF THE 6th P.M., EL PASO COUNTY, COLORADO
GRADING & EROSION CONTROL PLAN

EL PASO COUNTY STANDARD NOTES

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

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

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 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 PLANT DENSITY OF 70 PERCENT OF PRE-DISTURBANCE LEVELS ESTABLISHED OR EQUIVALENT PERMANENT ALTERNATIVE STABILIZATION METHOD IS IMPLEMENTED. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL STABILIZATION AND BEFORE PERMIT CLOSURE.

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 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 MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF COMPACTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, ALL AREAS DESIGNATED FOR INFILTRATION AND VEGETATIVE 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 WASHOUTS SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK, OR STREAM.

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, SOIL AND SAND THAT MAY ACCUMULATE IN ROADS, STORM DRAINS AND OTHER DRAINAGE CONVEYANCE SYSTEMS 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 ARE TO BE STORED OR USED ON-SITE UNLESS PERMISSION FOR THE USE OF SUCH CHEMICALS IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING APPROVAL FOR THE USE OF SUCH CHEMICAL(S), SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.

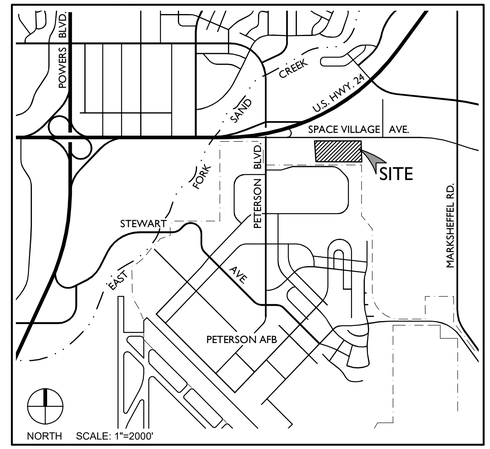
CAUTION - NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING IMPROVEMENTS AND UTILITIES AND SHALL REPAIR ANY DAMAGE AT HIS EXPENSE.

Know what's below. Call before you dig.

VICINITY MAP



SHEET INDEX

1	C900	GRADING & EROSION CONTROL COVER SHEET (SWMP - SITE MAP)
2	C901	GRADING & EROSION CONTROL NOTES (SWMP SITE MAP)
3	C905	GRADING & EROSION CONTROL PLAN (SWMP - SITE MAP)
4	C910	GRADING & EROSION CONTROL DETAILS (SWMP - SITE MAP)
5	C911	GRADING & EROSION CONTROL DETAILS (SWMP - SITE MAP)
6	C912	GRADING & EROSION CONTROL DETAILS (SWMP - SITE MAP)
7	C913	GRADING & EROSION CONTROL DETAILS (SWMP - SITE MAP)

FLOODPLAIN

ZONE X, "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN." AS SHOWN ON FEMA FIRM MAP NO. 08041C0754G, EFFECTIVE DATE, DECEMBER 7, 2018.

EL PASO COUNTY STANDARD NOTES (CONTINUED)

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

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

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

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

26. PRIOR TO CONSTRUCTION THE PERMITTEE 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 XXXXX XXXXX XXXXX, DATE XXX; 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 ONE (1) ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLID HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP), OF WHICH THE 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 80246-15330
    ATTN: PERMITS UNIT

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 TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR GRADING AND EROSION CONTROL PLANS AS APPLICABLE. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS, OR OMISSIONS ON MY PART IN PREPARING THIS PLAN FOR AND ON BEHALF OF STERLING DESIGN ASSOCIATES, LLC.

JAY M. NEWELL, PE
CO PE #35219
FOR AND ON BEHALF OF STERLING DESIGN ASSOCIATES, LLC

OWNER'S STATEMENT

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

OWNER/DEVELOPER SIGNATURE DATE

EL PASO COUNTY

COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY, THROUGH THE APPROVAL OF THIS DOCUMENT, ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT.

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUAL VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL, AS AMENDED.

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

JENNIFER IRVINE, PE
COUNTY ENGINEER / ECM ADMINISTRATOR DATE

STERLING DESIGN ASSOCIATES
Civil Engineers | Landscape Architects
2009 W. Littleton Blvd. #300 Littleton, CO 80120
303.794.4727 | www.SterlingDesignAssociates.com

PREPARED UNDER THE DIRECT SUPERVISION OF
JAY M. NEWELL, PE
COLORADO REGISTRATION 35219
FOR & ON BEHALF OF STERLING DESIGN ASSOCIATES, LLC

COLORADO REGISTERED JAY M. NEWELL 35219 PROFESSIONAL ENGINEER

8 / 10 / 22

STERLING DESIGN ASSOCIATES, LLC

ISSUES & REVISIONS

NO.:	DATE:	BY:	DESCRIPTION:
1			
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-
6	-	-	-

DATE: 08/2022	SCALE: N/A
PROJECT MANAGER: JS	PROJECT NO.:
DRAWN BY: JN	DRAWING FILE:

PROJECT:

SPACE VILLAGE FILING NO. 4
EL PASO COUNTY, CO

CLIENT:

COMMERCIAL BUILDING SERVICES
7561 S. GRANT STR., SUITE A-4
LITTLETON, COLORADO 80122

TEL: (303) 730-3001

SHEET TITLE:

GRADING & EROSION CONTROL COVER SHEET (SWMP-SITE MAP)

SHEET NUMBER:

1 **C900**

SPACE VILLAGE FILING NO. 4

A PORTION OF THE NW 1/4 OF SEC. 17, T14S, R65W, OF THE 6th P.M., EL PASO COUNTY, COLORADO

PRELIMINARY DRAINAGE PLAN

EL PASO COUNTY STANDARD NOTES

1. ALL MATERIALS, WORKMANSHIP, AND CONSTRUCTION OF IMPROVEMENTS SHALL MEET OR EXCEED THE GOVERNING CITY, COUNTY AND/OR STATE AND APPLICABLE UTILITY DISTRICT STANDARDS AND SPECIFICATIONS, AND APPLICABLE STATE AND FEDERAL REGULATIONS. WHERE THERE IS CONFLICT BETWEEN THESE PLANS AND ANY APPLICABLE STANDARDS, THE HIGHER QUALITY STANDARD SHALL APPLY. ALL WORK SHALL BE INSPECTED AND APPROVED BY THE CITY AND APPLICABLE UTILITY DISTRICT(S).

2. THE CONTRACTOR SHALL HAVE ONE (1) SIGNED COPY OF THE APPROVED PLANS, ONE (1) COPY OF THE APPROPRIATE STANDARDS AND SPECIFICATIONS, AND A COPY OF ANY PERMITS AND EXTENSION AGREEMENTS NEEDED FOR THE JOB ON SITE AT ALL TIMES.

3. ALL REFERENCES TO ANY PUBLISHED STANDARDS SHALL REFER TO THE LATEST REVISION OF SAID STANDARDS, UNLESS SPECIFICALLY STATED OTHERWISE.

4. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL LABOR AND MATERIALS NECESSARY FOR THE COMPLETION OF THE INTENDED IMPROVEMENTS SHOWN ON THESE DRAWINGS OR DESIGNATED TO BE PROVIDED, INSTALLED, CONSTRUCTED, REMOVED, AND RELOCATED UNLESS SPECIFICALLY NOTED OTHERWISE.

5. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR RECEIVING, UNLOADING, STORING, AND UNCRATING ALL EQUIPMENT FURNISHED BY THE OWNER/DEVELOPER AND DELIVERED TO THE SITE.

6. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES, AS SHOWN ON THESE PLANS, IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL VERIFY PERTINENT LOCATIONS AND ELEVATIONS, ESPECIALLY AT THE CONNECTION POINTS AND AT POTENTIAL UTILITY CONFLICTS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES THAT CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.

7. THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH THE GOVERNING CITY, COUNTY, AND/OR STATE AND ALL UTILITY COMPANIES/DISTRICTS INVOLVED WITH REGARD TO RELOCATIONS OR ADJUSTMENTS OF EXISTING UTILITIES DURING CONSTRUCTION AND TO ASSURE THAT THE WORK IS ACCOMPLISHED IN A TIMELY FASHION AND WITH A MINIMUM DISRUPTION OF SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL PARTIES AFFECTED BY ANY DISRUPTION OF ANY UTILITY SERVICE.

8. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL UTILITY RELOCATIONS, WHETHER SHOWN OR NOT SHOWN ON THE PLANS.

9. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH UTILITY COMPANIES/DISTRICTS TO OBTAIN TEMPORARY POWER, TELEPHONE AND WATER SERVICE DURING CONSTRUCTION. ALL COST FOR TEMPORARY SERVICES SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND LICENSES FOR WORK INCLUDING, BUT NOT LIMITED TO DEMOLITION, STREET CUTS, UTILITY INTERFERENCES, TRAFFIC CONTROL, GRADING, AND UTILITY FROM ALL APPLICABLE AGENCIES; AND FOR COMPLYING WITH ALL PROVISIONS INCLUDED THEREIN.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ASPECTS OF PROJECT SAFETY INCLUDING, BUT NOT LIMITED TO, EXCAVATION, TRENCHING, SHORING, TRAFFIC CONTROL, AND SECURITY.

12. THE CONTRACTOR SHALL INSTALL AND MAINTAIN CONSTRUCTION FENCE PRIOR TO, AND THROUGHOUT CONSTRUCTION.

13. UTILITY TRENCHES ARE TO BE SLOPED OR BRACED AND SHEETED AS NECESSARY TO FURNISH SAFE WORKING CONDITIONS FOR THE WORKMEN AND THE PROTECTION OF OTHER UTILITIES IN COMPLIANCE WITH APPLICABLE LOCAL, STATE, AND FEDERAL HEALTH AND SAFETY RULES AND REGULATIONS.

14. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN, IN ACCORDANCE WITH THE M.U.T.C.D. TO THE APPROPRIATE RIGHT-OF-WAY AUTHORITY (CITY, COUNTY, OR STATE) FOR APPROVAL, PRIOR TO ANY CONSTRUCTION ACTIVITIES WITHIN, OR AFFECTING, THE RIGHT-OF-WAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ANY AND ALL TRAFFIC CONTROL DEVICES AS MAY BE REQUIRED BY THE CONSTRUCTION ACTIVITIES.

15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL WORK, INSPECTIONS, AND CERTIFICATIONS AS REQUIRED BY THE CITY, STATE, OR LOCAL DISTRICTS. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COST ASSOCIATED WITH INSPECTION AND CERTIFICATION UNLESS OTHERWISE ARRANGED WITH THE OWNER/DEVELOPER; AND SHALL COORDINATE ALL CERTIFICATIONS, AND PROVIDE FIELD SURVEYED AS-BUILT INFORMATION FOR REVIEW BY THE OWNER/DEVELOPER AND/OR ENGINEER AS EARLY AS POSSIBLE IN THE CONSTRUCTION SCHEDULE TO AVOID POTENTIAL DELAYS.

16. THE CONTRACTOR SHALL NOTIFY THE GOVERNING CITY, COUNTY, AND/OR STATE AND LOCAL UTILITY COMPANIES/DISTRICTS AT LEAST 48 HOURS PRIOR TO THE START OF ANY CONSTRUCTION.

17. THE CONTRACTOR SHALL NOTIFY THE GOVERNING CITY, COUNTY, AND/OR STATE AND LOCAL UTILITY COMPANIES/DISTRICTS AT LEAST 48 HOURS PRIOR TO THE START OF ANY EARTH DISTURBING ACTIVITY.

18. ALL STRUCTURAL EROSION CONTROL MEASURES SHALL BE INSTALLED AT THE LIMITS OF CONSTRUCTION, PRIOR TO ANY GROUND-DISTURBING ACTIVITY. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED IN GOOD REPAIR BY THE CONTRACTOR UNTIL SUCH TIME AS THE ENTIRE DISTURBED AREA IS STABILIZED WITH HARD SURFACE OR PERMANENT LANDSCAPING. THE CONTRACTOR IS RESPONSIBLE FOR REFERRING TO ANY EROSION AND SEDIMENT CONTROL, STORMWATER MANAGEMENT, STORMWATER POLLUTION PREVENTION, OR SIMILAR PLAN AND/OR NARRATIVE AND ASSOCIATED PERMITS INCLUDING, BUT NOT LIMITED TO GRADING PERMITS; AND COMPLYING WITH THE REQUIREMENTS THEREIN.

19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ROADWAYS FREE AND CLEAR OF ALL CONSTRUCTION DEBRIS AND DIRT TRACKED FROM THE SITE.

20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE RESTORATION OF ANY EXISTING IMPROVEMENTS INCLUDING, BUT NOT LIMITED TO STREET PAVEMENT, FENCES, SOD, LANDSCAPING, SPRINKLER SYSTEMS, AND UTILITIES DISTURBED DURING CONSTRUCTION TO THEIR ORIGINAL LOCATION AND CONDITION.

21. INCLUDED IN THIS PACKAGE IS THE DEMOLITION AND DISPOSAL OF ALL EXISTING UTILITIES, SITE IMPROVEMENTS AND SITE FURNISHINGS NEEDED FOR CONSTRUCTION OF THE IMPROVEMENTS SHOWN IN THIS SET OF CONSTRUCTION DRAWINGS. ALL QUESTIONS IN REGARD TO DEMOLITION SHALL BE SUBMITTED TO THE OWNER IN WRITING PRIOR TO BID.

22. ALL DEMOLITION, REMOVAL, DISPOSAL AND ABANDONMENT OF UTILITIES, STRUCTURES, SITE IMPROVEMENTS AND SITE FURNISHINGS SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL STANDARDS AND SPECIFICATIONS, AND PERMIT REQUIREMENTS.

23. DIMENSIONS FOR LAYOUT AND CONSTRUCTION ARE NOT TO BE SCALED FROM ANY DRAWING. IF PERTINENT DIMENSIONS ARE NOT SHOWN, CONTACT THE CONSULTING ENGINEER FOR CLARIFICATION, AND ANNOTATE THE DIMENSION ON THE AS-BUILT RECORD DRAWINGS.

24. RIM ELEVATIONS SHOWN ARE APPROXIMATE ONLY AND ARE NOT TO BE TAKEN AS FINAL ELEVATIONS. THE CONTRACTOR SHALL USE PRECAST CONCRETE ADJUSTMENT RINGS, GROUT, AND STEEL SHIMS TO ADJUST THE MANHOLE FRAMES TO THE REQUIRED FINAL GRADE IN CONFORMANCE WITH THE CITY OR UTILITY COMPANY/DISTRICT STANDARD SPECIFICATIONS. ALL FRAMES SHALL BE ADJUSTED TO FINISH GRADE PRIOR TO THE FINAL LIFT OF ASPHALT.

25. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING AS-BUILT INFORMATION ON A SET OF RECORD DRAWINGS KEPT AT THE CONSTRUCTION SITE WHICH SHALL BE AVAILABLE TO THE GOVERNING CITY, COUNTY, AND/OR STATE AND UTILITY DISTRICT INSPECTOR AT ALL TIMES.

26. AS-BUILT PLANS AND FIELD NOTES SHALL BE PROVIDED BY THE CONTRACTOR TO THE CITY, COUNTY, STATE, FEDERAL OR UTILITY DISTRICT; OR TO THE OWNER/DEVELOPER AS REQUIRED BY AND IN ACCORDANCE WITH THE GOVERNING AUTHORITY'S OR OWNER/DEVELOPER'S CRITERIA. THE CONTRACTOR SHALL CONFIRM ANY REQUIREMENTS AS EARLY AS POSSIBLE IN THE CONSTRUCTION SCHEDULE TO ACCOUNT FOR PREPARATION AND REVIEW OF THE INFORMATION TO AVOID POTENTIAL DELAYS.

27. NO REVISIONS SHALL BE MADE TO THESE PLANS WITHOUT THE APPROVAL OF THE OWNER/DEVELOPER AND THE ENGINEER OF RECORD.

28. IF, DURING THE CONSTRUCTION PROCESS, CONDITIONS ARE ENCOUNTERED BY THE CONTRACTOR, HIS SUBCONTRACTORS, OR OTHER AFFECTED PARTIES, WHICH COULD INDICATE A SITUATION THAT IS NOT IDENTIFIED IN THE PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL CONTACT THE PROJECT MANAGER FOR THE OWNER/DEVELOPER AND THE ENGINEER IMMEDIATELY.

29. BENCHMARK VERIFICATION: THE CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS AND PROPOSED ELEVATIONS IN THIS CONSTRUCTION PLAN SET AGAINST THE PROJECT BENCHMARK, IDENTIFIED HEREIN, PRIOR TO COMMENCING WORK.

30. ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH THE GOVERNING AUTHORITY'S STANDARDS AND SPECIFICATIONS.

31. THE SITE CONSTRUCTION PLANS LISTED WITHIN THIS PLAN SET ARE NOT FOR CONSTRUCTION UNLESS APPROVED BY THE APPROPRIATE GOVERNING JURISDICTION. THE CONTRACTOR SHALL CONFIRM SAID APPROVAL PRIOR TO CONSTRUCTION.

32. THE SITE CONSTRUCTION PLANS INDICATE THE WORK TO BE COMPLETED FOR THE PROJECT. THE CONTRACTOR SHALL COORDINATE SAID WORK WITH THE OWNER AND THE TENANT CONSTRUCTION MANAGER(S) TO CONFIRM THE LIMITS AND DETAILS OF THE WORK TO BE PROVIDED AND COMPLETED. CONSTRUCTION SHALL ALSO BE COORDINATED WITH TENANT IMPROVEMENT PLANS AND LANDLORD WORKLETTER.

33. IF, DURING THE OVERLOT GRADING PROCESS, CONDITIONS ARE ENCOUNTERED BY THE CONTRACTOR, HIS SUBCONTRACTORS, OR OTHER AFFECTED PARTIES, WHICH COULD INDICATE A SITUATION THAT IS NOT IDENTIFIED IN THE PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL CONTACT THE GEOTECHNICAL ENGINEER IMMEDIATELY FOR RECOMMENDATIONS.

34. ALL EARTHWORK, GRADING, OVERLOT GRADING, BACKFILLING, FILLING, EXCAVATION, COMPACTION, PAVEMENT, AND FLATWORK CONSTRUCTION WILL BE IN ACCORDANCE WITH THE RECOMMENDATIONS FROM A GEOTECHNICAL INVESTIGATION PREPARED SPECIFICALLY FOR THIS SITE.

35. ALL CONCRETE PAVEMENT, CONCRETE FLATWORK, CONCRETE STRUCTURES AND CONCRETE UTILITIES SHALL BE IN ACCORDANCE WITH THE MATERIAL RECOMMENDATIONS FROM A GEOTECHNICAL INVESTIGATION PREPARED SPECIFICALLY FOR THIS SITE.

36. THE EARTHWORK FOR ANY BUILDING FOUNDATIONS AND SLABS SHALL BE IN ACCORDANCE WITH ARCHITECTURAL AND STRUCTURAL PLANS AND SPECIFICATIONS, AND THE GEOTECHNICAL INVESTIGATION.

37. SPOT ELEVATIONS SHALL TAKE PRECEDENCE OVER CONTOURS AND SLOPES SHOWN. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF SPOT ELEVATIONS WHICH DO NOT APPEAR TO BE CONSISTENT WITH THE CONTOURS AND SLOPES. SPOT ELEVATIONS AND SPECIFIC PROFILE DESIGN SHALL BE USED FOR SETTING ELEVATIONS OF CURB AND GUTTER AND UTILITIES.

38. SPOT ELEVATIONS REPRESENT FLOWLINE (BOTTOM FACE OF CURB) WHERE SHOWN AT CURB AND GUTTER UNLESS OTHERWISE NOTED.

39. CONTOURS SHOWN ARE FOR FINISHED PAVING, SIDEWALK, SLAB, OR GROUND. ADJUSTMENT TO SUBGRADE IS THE CONTRACTOR'S RESPONSIBILITY.

40. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING HIS OWN ESTIMATE OF EARTHWORK QUANTITIES.

41. THE CONTRACTOR SHALL HAVE FORMS CHECKED BY A SURVEYOR FOR INSTALLATIONS OF CURB & GUTTER OR CROSSPANS ADJACENT TO EXISTING PAVING. THE CROSS SLOPE SHALL NOT BE LESS THAN 2% OR GREATER THAN 4% FROM THE ESTABLISHED SAWCUT LINE TO THE PROPOSED EDGE OF CONCRETE. DO NOT PLACE CONCRETE IN APPLICABLE FORMS THAT HAVE NOT BEEN CHECKED, DO NOT PROVIDE CROSS SLOPES WITHIN THE SPECIFIED RANGE, OR APPEAR IN ANY WAY INCONSISTENT WITH SMOOTH AND CONTINUOUS TRAFFIC AND PEDESTRIAN OPERATIONS. CONTACT THE ENGINEER IMMEDIATELY FOR CLARIFICATIONS OR CORRECTIONS.

42. THE CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.

43. THE CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL LANDSCAPED AND PAVED AREA.

44. ALL DISTURBED AREAS THAT ARE NOT DESIGNATED TO BE PAVED SHALL BE LANDSCAPED OR SEEDED, ACCORDING TO THE LANDSCAPE PLAN.

45. EXISTING DRAINAGE STRUCTURES SHALL BE INSPECTED AND REPAIRED AS NEEDED, AND EXISTING PIPES CLEANED OUT TO REMOVE ALL SILT AND DEBRIS.

46. IF ANY EXISTING STRUCTURES, SIDEWALK, AND/OR CURB AND GUTTER, MODIFIED OR REMAINING, ARE DAMAGED DURING CONSTRUCTION, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER PRIOR TO PROJECT CLOSEOUT.

47. ALL GRATES, MANHOLE RIMS, VALVE BOXES, VALVE COVERS, CLEANOUTS, AND VAULT OR BOX COVERS SHALL BE ADJUSTED TO THE "AS CONSTRUCTED" FINISHED GRADE PRIOR TO THE FINAL LIFT OF ASPHALT.

48. NO PROPOSED SLOPE IN LANDSCAPED AREAS OR OPEN SPACE SHALL EXCEED THREE (3) HORIZONTAL FEET TO ONE (1) VERTICAL FOOT, OR AS OTHERWISE SPECIFIED BY LOCAL CRITERIA.

49. THE CONTRACTOR SHALL PROTECT THE PROJECT BENCHMARK THROUGHOUT CONSTRUCTION AND SET ADDITIONAL PROJECT BENCHMARKS AS NECESSARY TO MAINTAIN VERTICAL CONTROL THROUGHOUT THE DURATION OF THE PROJECT.

50. THE CONTRACTOR SHALL FILL AND COMPACT BASEMENTS, CESSPOOLS, AND OTHER LARGE EXCAVATED AREAS WITH CLEAN FILL SUITABLE TO THE OWNER, AND IN ACCORDANCE WITH RECOMMENDATIONS OBTAINED FROM THE GEOTECHNICAL INVESTIGATION OR GEOTECHNICAL ENGINEER AND GRADE TO MATCH EXISTING OR PROPOSED FINISH GRADE; OR CONFIRM SUCH WORK HAS BEEN PERFORMED PRIOR TO CONSTRUCTION.

51. SITE IMPROVEMENTS ARE REQUIRED TO BE COVERED UNDER THE COLORADO DISCHARGE PERMIT SYSTEM (CDPS) GENERAL PERMIT COR400000 FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES AS WELL AS EL PASO COUNTY REGULATIONS. STATE PERMIT APPLICATION SHALL BE MADE WITH THE COLORADO DEPARTMENT OF HEALTH & THE ENVIRONMENT THROUGH THE COLORADO ENVIRONMENTAL ONLINE SYSTEM (CEOS) ACCESSIBLE AT HTTPS://CEOS.COLORADO.GOV/CO/CEOS/PUBLIC. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING, COMPLETING, AND SUBMITTING ANY EL PASO COUNTY APPLICATION OR RELATED DOCUMENTS.

52. PERMIT(S) COVERAGE REQUIRES THE DEVELOPMENT OF A STORMWATER MANAGEMENT PLAN (PLAN) IDENTIFYING AND ADDRESSING THE FOLLOWING ITEMS SPECIFIC TO THIS CONSTRUCTION ACTIVITY: (A) QUALIFIED STORMWATER MANAGER, (B) SPILL PREVENTION AND RESPONSE PLAN, (C) MATERIALS HANDLING, (D) POTENTIAL SOURCES OF POLLUTION, (E) IMPLEMENTATION OF CONTROL MEASURES, (F) SITE DESCRIPTION, (G) SITE MAP, (H) FINAL STABILIZATION AND LONG TERM STORMWATER MANAGEMENT, AND (I) SITE INSPECTION REPORTS.

53. STERLING DESIGN ASSOCIATES, LLC HAS PREPARED AND MADE AVAILABLE A PLAN FOR THE OWNER PROVIDING FOR LOCAL JURISDICTIONAL ENTITLEMENT REVIEW, ONLY. THE PLAN IS INCOMPLETE WITHOUT ADDITIONAL INPUT FROM THE OPERATOR; INCLUDING, BUT NOT LIMITED TO, IDENTIFICATION OF THE PROJECT STORMWATER MANAGER AND INCLUSION OF A DETAILED CONSTRUCTION AND CONTROL MEASURE IMPLEMENTATION SCHEDULE. THE OPERATOR IS SOLELY RESPONSIBLE FOR COMPLETENESS AND IMPLEMENTATION OF A PLAN COMPLIANT WITH THE CDPS COR400000 AND LOCAL PERMIT REQUIREMENTS AT ALL TIMES OF SITE PERMIT COVERAGE.

54. THE OWNER AND OPERATOR MUST IMPLEMENT THE PROVISIONS OF THE PLAN AS WRITTEN AND AS MAY BE UPDATED, FROM COMMENCEMENT OF CONSTRUCTION ACTIVITY UNTIL FINAL STABILIZATION IS COMPLETE.

55. THE OPERATOR SHALL ENSURE ALL MATERIALS IMPORTED OR EXPORTED FROM THE SITE ARE PROPERLY SECURED AND COVERED TO PREVENT LOSS DURING TRANSPORT. ALL HAUL ROUTES SHALL BE DOCUMENTED WITHIN THE PLAN. ALL OFF-SITE SPOIL, BORROW, AND WASTE DISPOSAL FACILITIES SHALL BE PROPERLY PERMITTED FOR OPERATION.

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

CAUTION - NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING IMPROVEMENTS AND UTILITIES AND SHALL REPAIR ANY DAMAGE AT HIS EXPENSE.

STERLING DESIGN ASSOCIATES
Civil Engineers | Landscape Architects
2009 W. Littleton Blvd. #300 Littleton, CO 80120
303.794.4727 | www.SterlingDesignAssociates.com

PREPARED UNDER THE DIRECT SUPERVISION OF
JAY M. NEWELL, PE
COLORADO REGISTRATION 35219
FOR & ON BEHALF OF STERLING DESIGN ASSOCIATES, LLC

COLORADO REGISTERED JAY M. NEWELL 35219 PROFESSIONAL ENGINEER

8 / 10 / 22

STERLING DESIGN ASSOCIATES, LLC

ISSUES & REVISIONS

NO.:	DATE:	BY:	DESCRIPTION:
1			
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-
6	-	-	-

DATE: **08/2022**	SCALE: **N/A**
PROJECT MANAGER: **JS**	PROJECT NO.:
DRAWN BY: **JN**	DRAWING FILE:

PROJECT:

SPACE VILLAGE FILING NO. 4
EL PASO COUNTY, CO

CLIENT:

COMMERCIAL BUILDING SERVICES
7561 S. GRANT STR., SUITE A-4
LITTLETON, COLORADO 80122

TEL: (303) 730-3001

SHEET TITLE:

GRADING & EROSION CONTROL NOTES (SWMP-SITE MAP)

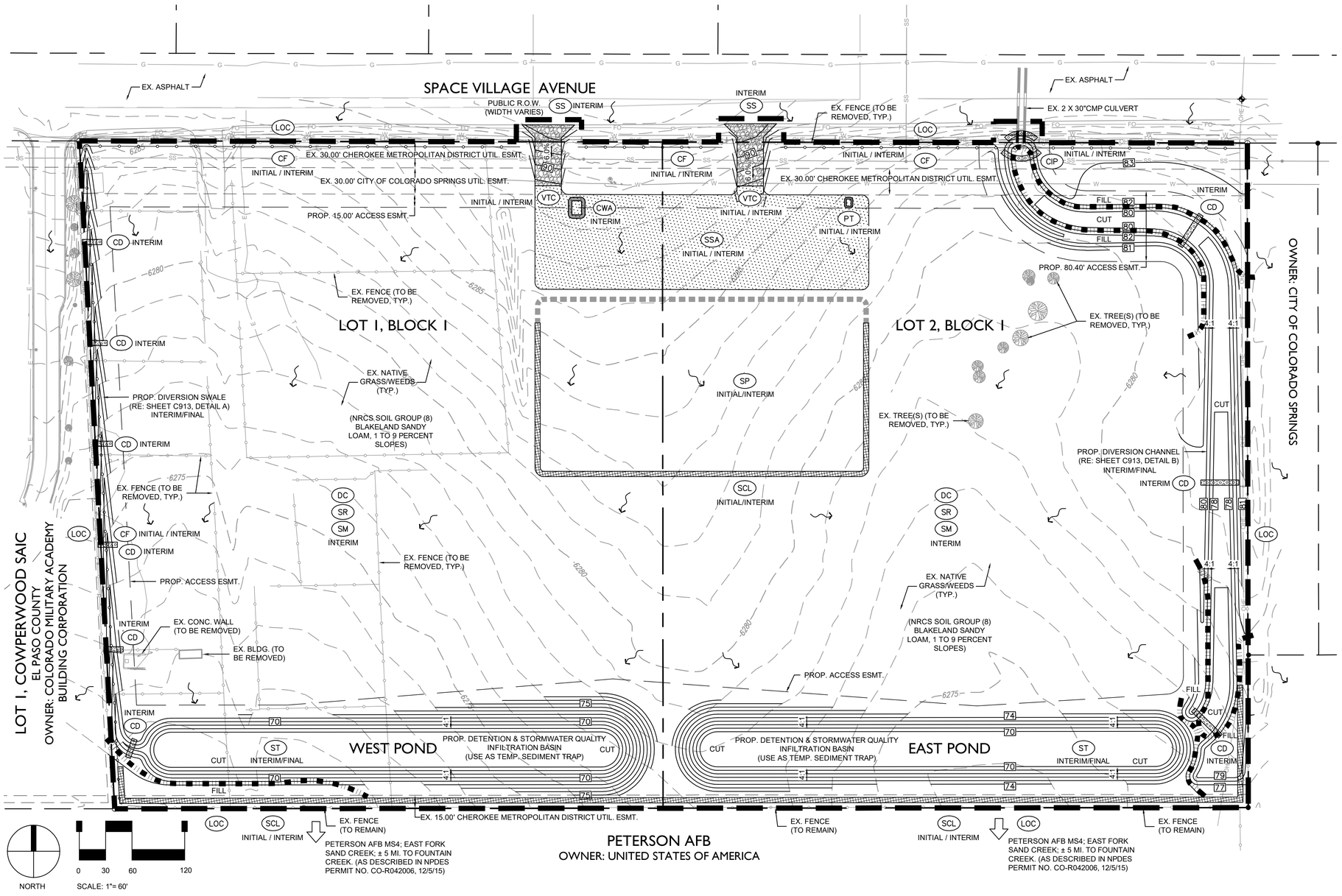
SHEET NUMBER:

2 **C901**

SPACE VILLAGE FILING NO. 4

A PORTION OF THE NW 1/4 OF SEC. 17, T14S, R65W, OF THE 6th P.M., EL PASO COUNTY, COLORADO

GRADING & EROSION CONTROL PLAN



BENCHMARK

AS PROVIDED ON *ALTA/NSPS LAND TITLE SURVEY* PREPARED BY ALTURA LAND CONSULTANTS, DATED APRIL 28, 2022 FOR THIS PROJECT:

"NGS BENCHMARK "R 76" - LOCATED 0.2 MILE EAST ALONG HIGHWAY 94, FROM PETERSON ROAD, 22 FEET SOUTH-SOUTHEAST OF THE SOUTHEAST CORNER OF AN ADDITION TO THE BUILDING (SANDY'S RESTAURANT), 48 FEET NORTH OF THE CENTERLINE OF THE HIGHWAY, 3.5 FEET SOUTH OF A POWER POLE AND 3 FEET SOUTH OF A FIBERGLASS WITNESS POST. ELEVATION = 6289.86 FEET (NAVD 1988)"

GENERAL NOTES

1. REFER TO SHEETS C900 AND C901 FOR PROJECT GENERAL NOTES.
2. THE PLAN SHALL NOT SUBSTANTIALLY CHANGE THE DEPTH OF COVER, OR ACCESS TO UTILITY FACILITIES. ADDITIONALLY, THE PLAN SHALL NOT INCREASE OR DIVERT WATER TOWARDS UTILITY FACILITIES. ANY CHANGES TO UTILITY FACILITIES TO ACCOMODATE THE PLAN, MUST BE DISCUSSED AND AGREED TO BY THE AFFECTED UTILITY PRIOR TO IMPLEMENTING THE PLAN. THE RESULTING COST TO RELOCATE OR PROTECT UTILITIES, OR PROVIDE INTERIM ACCESS IS AT THE EXPENSE OF THE PLAN APPLICANT.

CUT/FILL SUMMARY

CUT	=	± 17,941 CY
FILL	=	± 1,248 CY
EXPORT	=	± 16,693 CY
(EXPORT OVER 22.8 AC. = 0.45')		
FINAL EXPORT	=	± 0 CY

CUT AND FILL ANALYSIS IS FROM EXISTING FINISH GRADE TO PROPOSED FINISH GRADE AND DOES NOT ACCOUNT FOR COMPACTION, SHRINK/SWELL, PAVEMENT SECTIONS, ETC., AND IS THEREFORE APPROXIMATE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING HIS OWN ESTIMATE OF EARTHWORK QUANTITIES.

STERLING DESIGN ASSOCIATES
Civil Engineers | Landscape Architects
2009 W. Littleton Blvd. #300 Littleton, CO 80120
303.794.4727 | www.SterlingDesignAssociates.com

PREPARED UNDER THE DIRECT SUPERVISION OF JAY M. NEWELL, PE
COLORADO REGISTRATION 35219
FOR & ON BEHALF OF STERLING DESIGN ASSOCIATES, LLC

COLORADO REGISTERED JAY M. NEWELL 35219 PROFESSIONAL ENGINEER

8 / 10 / 22

STERLING DESIGN ASSOCIATES, LLC

ISSUES & REVISIONS

NO.:	DATE:	BY:	DESCRIPTION:
1			
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-
6	-	-	-

DATE:	SCALE:
08/2022	1" = 60'-0"
PROJECT MANAGER: JS	PROJECT NO.:
DRAWN BY: JN	DRAWING FILE:

PROJECT:

SPACE VILLAGE FILING NO. 4
EL PASO COUNTY, CO

CLIENT:

COMMERCIAL BUILDING SERVICES
7561 S. GRANT STR., SUITE A-4
LITTLETON, COLORADO 80122

TEL: (303) 730-3001

SHEET TITLE:

GRADING & EROSION CONTROL PLAN (SWMP-SITE MAP)

SHEET NUMBER:

3 **C905**

CAUTION - NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING IMPROVEMENTS AND UTILITIES AND SHALL REPAIR ANY DAMAGE AT HIS EXPENSE.

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

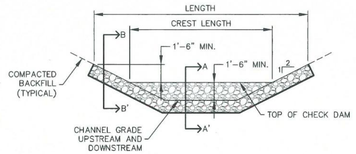
LEGEND

PROPERTY LINE
ADJACENT PROPERTY LINE
EASEMENT LINE
6275 EXIST. MAJOR CONTOUR
EXIST. MINOR CONTOUR
75 PROP. CONTOUR
EXIST. FENCE
EXIST. EDGE OF ASPHALT
EXIST. CURB AND GUTTER
OHE EXIST. OVERHEAD ELECTRIC
SS EXIST. SANITARY SEWER
W EXIST. WATERLINE
G EXIST. GAS LINE
E EXIST. ELECTRIC
T EXIST. TELEPHONE
FO EXIST. FIBER OPTIC

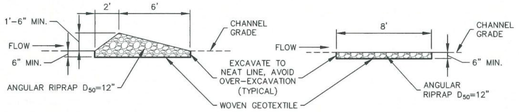
PROP. CONCRETE
LOC LIMITS OF CONSTRUCTION
CF CONSTRUCTION FENCE (TYPE = FENCE (TYP. ALL))
SCL SEDIMENT CONTROL LOG
CD CHECK DAM
DISCHARGE POINT
FLOW DIRECTION

VTC VEHICLE TRACKING CONTROL (PRE-MANUFACTURED MAT) (FOR USE ON TOP OF EXISTING PAVEMENT)
SSA STABILIZED STAGING AREA
CWA CONCRETE WASHOUT AREA
CUT/FILL LIMIT
PT PORTABLE TOILET(S)
CIP CULVERT INLET PROTECTION

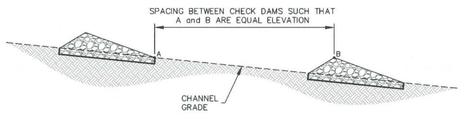
ST SEDIMENT TRAP
SR SURFACE ROUGHENING
SM SEEDING & MULCHING
DC DUST CONTROL
SS STREET SWEEPING
SP STOCKPILE MANAGEMENT



CHECK DAM ELEVATION VIEW



SECTION A-A' SECTION B-B'



PROFILE

INSTALLATION NOTES

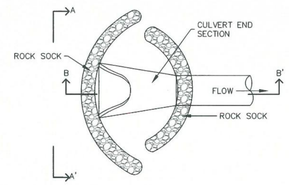
1. CHECK DAMS SHOULD BE INSTALLED BEFORE UPSTREAM LAND DISTURBING ACTIVITIES.
2. RIPRAP PAD SHOULD BE TRENCHED INTO GROUND BY A MINIMUM OF 6".

MAINTENANCE NOTES

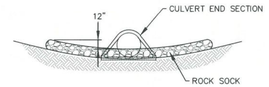
1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES ½ THE HEIGHT OF THE CHECK DAM CREST.
3. CHECK DAMS MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
4. PERMANENTLY STABILIZE AREA AFTER CHECK DAMS ARE REMOVED IF REMOVAL IS REQUIRED.

CD

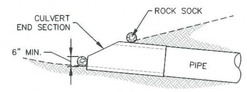
STORMWATER ENTERPRISE | CHECK DAM | APPROVED: SWENT MANAGER | ISSUED: 10/7/19 | REVISED: 8/19/2020 | DRAWING NO. 900-CD



CULVERT INLET PROTECTION PLAN



SECTION A-A'



SECTION B-B'

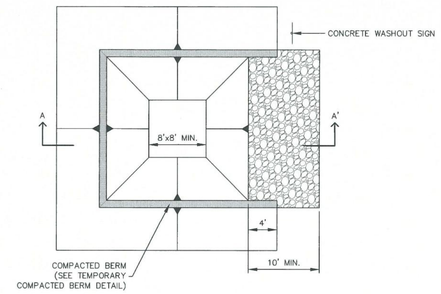
MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ACCUMULATED SEDIMENT UPSTREAM OF THE CULVERT SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS ½ HEIGHT OF THE ROCK SOCK.
3. CULVERT INLET PROTECTION SHALL REMAIN UNTIL THE UPSTREAM AREA IS PERMANENTLY STABILIZED.

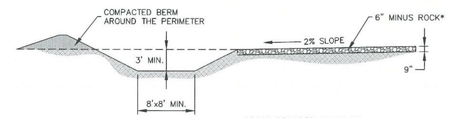
CIP

STORMWATER ENTERPRISE | CULVERT INLET PROTECTION | APPROVED: SWENT MANAGER | ISSUED: 10/7/19 | REVISED: 8/19/2020 | DRAWING NO. 900-CIP

(MODIFIED AUGUST 2022)



CONCRETE WASHOUT AREA PLAN

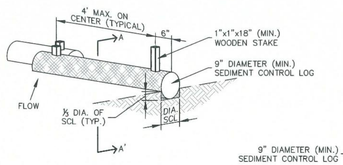


SECTION A-A'

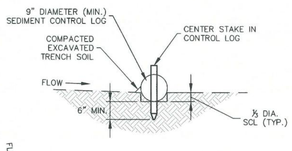
*ROCK REQUIRED BASED ON SITE CONDITIONS AT THE DISCRETION OF THE GEC INSPECTOR

CWA

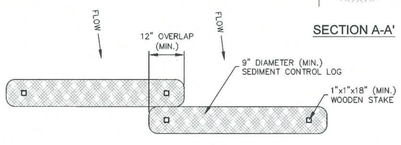
STORMWATER ENTERPRISE | CONCRETE WASHOUT AREA | APPROVED: SWENT MANAGER | ISSUED: 10/7/19 | REVISED: 8/19/2020 | DRAWING NO. 900-CWA-1



SEDIMENT CONTROL LOG



SECTION A-A'



SEDIMENT CONTROL LOG JOINTS

INSTALLATION NOTES

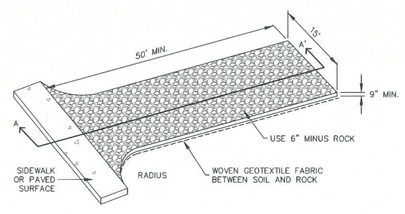
1. ALL SEDIMENT CONTROL LOGS MUST BE EMBEDDED TO ⅓ OF THE HEIGHT OF THE LOG
2. LARGER DIAMETER SEDIMENT CONTROL LOGS NEED TO BE EMBEDDED DEEPER.
3. PLACE SEDIMENT CONTROL LOG AGAINST SIDEWALK OR BACK OF CURB WHEN ADJACENT TO THESE FEATURES.
4. SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR OR COCONUT FIBER, AND SHALL BR FREE FROM ANY NOXIOUS WEED SEEDS OF DEFECTS INCLUDING RIPS, HOLES AND OBVIOUS WEAR.
5. IF USING AS SLOPE PROTECTION, INSTALL SEDIMENT CONTROL LOGS ALONG THE CONTOUR.

MAINTENANCE NOTES

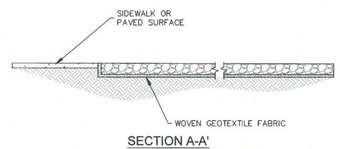
1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES ½ OF THE HEIGHT OF THE SEDIMENT CONTROL LOG.
3. PERMANENTLY STABILIZE AREA AFTER SEDIMENT CONTROL LOGS HAVE BEEN REMOVED.

SCL

STORMWATER ENTERPRISE | SEDIMENT CONTROL LOGS | APPROVED: SWENT MANAGER | ISSUED: 10/7/19 | REVISED: 8/19/2020 | DRAWING NO. 900-SCL



AGGREGATE VEHICLE TRACKING CONTROL



SECTION A-A'

INSTALLATION NOTES

1. A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHOULD BE LOCATED AT ALL POINTS WHERE VEHICLES EXIT THE CONSTRUCTION SITE TO ADJACENT ROADWAY.
2. STABILIZED CONSTRUCTION ENTRANCE/EXITS SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
3. RADIUS MUST BE ADEQUATE FOR INTENDED CONSTRUCTION VEHICLE TURNING.
4. ROCK SHOULD CONSIST OF 6" MINUS ROCK.
5. INSTALL CONSTRUCTION FENCE ON BOTH SIDES OF VEHICLE TRACKING CONTROL PAD WHEN NEEDED OR REQUIRED BY INSPECTOR.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. SEDIMENT TRACKED ONTO THE ADJACENT ROAD SHALL BE REMOVED DAILY, BY SWEEPING OR SHOVELING, AND NEVER WASHED DOWN STORM DRAINS.
3. ROUGHEN, REPLACE AND/OR ADD ROCK AS NEEDED TO MAINTAIN CONSISTENT DEPTH AND TO PREVENT SEDIMENT TRACKING ONTO ADJACENT STREET.
4. PERMANENTLY STABILIZE AREA AFTER VEHICLE TRACKING CONTROL IS REMOVED.

VTC

STORMWATER ENTERPRISE | VEHICLE TRACKING CONTROL | APPROVED: SWENT MANAGER | ISSUED: 10/7/19 | REVISED: 8/19/2020 | DRAWING NO. 900-VTC

INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   -LOCATION OF CONCRETE WASHOUT AREA
2. LOCATE AT LEAST 50' AWAY FROM STATE WATERS MEASURED HORIZONTALLY.
3. AN IMPERMEABLE LINER (16 MIL. MINIMUM THICKNESS) IS REQUIRED IF CONCRETE WASH AREA IS LOCATED WITHIN 400' OF STATE WATERS OR 1000' OF WELLS OR DRINKING WATER SOURCES.
4. DO NOT LOCATE IN AREAS WHERE SHALLOW GROUNDWATER MAY BE PRESENT.
5. THE CONCRETE WASH AREA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
6. CONCRETE WASH AREA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8'.
7. BERM SURROUNDING SIDES AND BACK OF CONCRETE WASH AREA SHALL HAVE A MINIMUM HEIGHT OF 2 FEET.
8. CONCRETE WASH AREA ENTRANCE SHALL BE SLOPED 2% TOWARDS THE CONCRETE WASH AREA.
9. SIGNS SHALL BE PLACED AT THE CONCRETE WASH AREA.
10. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. THE CONCRETE WASH AREA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS ACCUMULATED IN THE PIT SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF ⅔ THE HEIGHT OF THE CONCRETE WASH AREA.
3. 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.
4. THE CONCRETE WASH AREA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
5. PERMANENTLY STABILIZE AREA AFTER CONCRETE WASH AREA IS REMOVED.

CWA

STORMWATER ENTERPRISE | CONCRETE WASHOUT AREA | APPROVED: SWENT MANAGER | ISSUED: 10/7/19 | REVISED: 8/19/2020 | DRAWING NO. 900-CWA-2

STERLING DESIGN ASSOCIATES
Civil Engineers | Landscape Architects
2009 W. Littleton Blvd. #300 Littleton, CO 80120
303.794.4727 | www.SterlingDesignAssociates.com

PREPARED UNDER THE DIRECT SUPERVISION OF
JAY M. NEWELL, PE
COLORADO REGISTRATION 35219
FOR & ON BEHALF OF STERLING DESIGN ASSOCIATES, LLC

COLORADO REGISTERED JAY M. NEWELL 35219 PROFESSIONAL ENGINEER

8 / 10 / 22

STERLING DESIGN ASSOCIATES, LLC

ISSUES & REVISIONS

NO.:	DATE:	BY:	DESCRIPTION:
1			
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-
6	-	-	-

DATE: 08/2022	SCALE: N/A
PROJECT MANAGER: JS	PROJECT NO.:
DRAWN BY: JN	DRAWING FILE:

PROJECT:

SPACE VILLAGE FILING NO. 4
EL PASO COUNTY, CO

CLIENT:

COMMERCIAL BUILDING SERVICES
7561 S. GRANT STR., SUITE A-4
LITTLETON, COLORADO 80122

TEL: (303) 730-3001

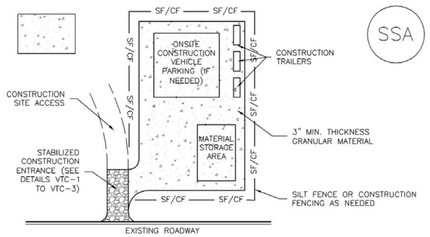
SHEET TITLE:

GRADING & EROSION CONTROL DETAILS (SWMP-SITE MAP)

SHEET NUMBER:

4 **C910**

Stabilized Staging Area (SSA) SM-6



SSA-1. STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES

1. SEE PLAN VIEW FOR
   -LOCATION OF STAGING AREA(S).
   -CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.

2. STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.

3. STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.

4. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.

5. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.

6. ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.

STABILIZED STAGING AREA MAINTENANCE NOTES

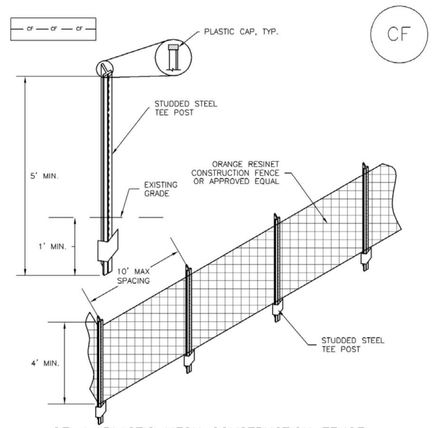
1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

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

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

4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

SM-3 Construction Fence (CF)



CF-1. PLASTIC MESH CONSTRUCTION FENCE

CONSTRUCTION FENCE INSTALLATION NOTES

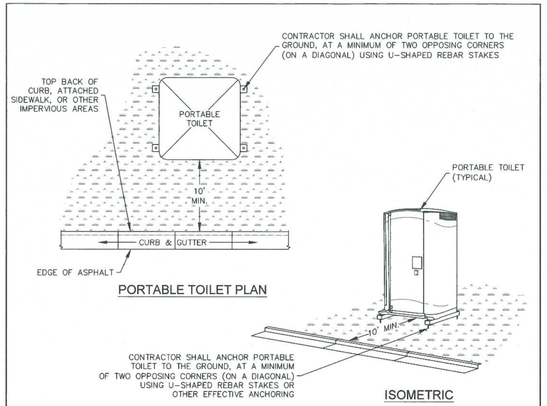
1. SEE PLAN VIEW FOR:
   -LOCATION OF CONSTRUCTION FENCE.

2. CONSTRUCTION FENCE SHOWN SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

3. CONSTRUCTION FENCE SHALL BE COMPOSED OF ORANGE, CONTRACTOR-GRADE MATERIAL THAT IS AT LEAST 4' HIGH. METAL POSTS SHOULD HAVE A PLASTIC CAP FOR SAFETY.

4. STUDDED STEEL TEE POSTS SHALL BE UTILIZED TO SUPPORT THE CONSTRUCTION FENCE. MAXIMUM SPACING FOR STEEL TEE POSTS SHALL BE 10'.

5. CONSTRUCTION FENCE SHALL BE SECURELY FASTENED TO THE TOP, MIDDLE, AND BOTTOM OF EACH POST.



INSTALLATION NOTES

1. PORTABLE TOILETS SHALL BE PLACED A MINIMUM OF 10 FEET BEHIND ALL CURBS, SIDEWALKS, AND OTHER IMPERVIOUS AREAS; 50 FEET FROM STORM INLETS, AND 100 FEET FROM WATERWAYS.
2. PORTABLE TOILETS IN THE RIGHT-OF-WAY ARE REQUIRED TO BE PLACED ON MOBILE TRAILERS AND MUST BE ANCHORED OR WEIGHTED DOWN. PORTABLE TOILETS MAY BE INSTALLED IN ACCORDANCE WITH NOTE #1 IN STAGING AREAS/YARDS.
3. PORTABLE TOILETS SHALL BE SECURELY ANCHORED TO THE GROUND USING U-SHAPED REBAR STAKES, OR OTHER EFFECTIVE ANCHORING.
4. ANCHORING SHALL BE POSITIONED ON AT LEAST TWO OPPOSING (DIAGONAL) CORNERS.
5. TOILET CONTAINMENT PANS MAY BE USED IN PLACE OF A TRAILER AT THE GEC INSPECTOR'S DISCRETION. TOILET CONTAINMENT PANS MUST BE ANCHORED IN PLACE AND MUST NOT BE USED WITHIN THE CITY R.O.W.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. PORTABLE TOILETS SHALL BE SERVICED AT THE NECESSARY INTERVALS TO ELIMINATE THE POSSIBILITY OF OVERFLOW.
3. WHEN THE PORTABLE TOILETS ARE REMOVED, ANY DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE TOILETS MUST BE PERMANENTLY STABILIZED.

PT

PORTABLE TOILET		
APPROVED: SWENE MANAGER		
ISSUED: 2/19/19	REVISED: 8/19/2020	DRAWING NO. 900-PTM

SM-6 Stabilized Staging Area (SSA)

STABILIZED STAGING AREA MAINTENANCE NOTES

5. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.

6. THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.

NOTE: MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE-ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.

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, NOT AVAILABLE IN AUTOCAD)

Construction Fence (CF) SM-3

CONSTRUCTION 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. CONSTRUCTION FENCE SHALL BE REPAIRED OR REPLACED WHEN THERE ARE SIGNS OF DAMAGE SUCH AS RIPS OR SAGS. CONSTRUCTION FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

5. WHEN CONSTRUCTION FENCES ARE REMOVED, ALL DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE FENCE SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

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.

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

Sediment Trap (ST) SC-8

SEDIMENT TRAP INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   -LOCATION, LENGTH AND WIDTH OF SEDIMENT TRAP.

2. SEDIMENT TRAPS SHALL BE INSTALLED PRIOR TO ANY UPGRADIENT LAND-DISTURBING ACTIVITIES.

3. SEDIMENT TRAP BERM SHALL BE CONSTRUCTED FROM MATERIAL FROM EXCAVATION. THE BERM SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D698.

SEDIMENT TRAP 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. REMOVE SEDIMENT ACCUMULATED IN TRAP AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP, TYPICALLY WHEN THE SEDIMENT DEPTH REACHES ½ THE HEIGHT OF THE RIPRAP OUTLET.

5. SEDIMENT TRAPS SHALL REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

6. WHEN SEDIMENT TRAPS ARE REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAILS ADAPTED FROM DOUGLAS COUNTY, 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.

STERLING DESIGN ASSOCIATES
Civil Engineers | Landscape Architects
2009 W. Littleton Blvd. #300 Littleton, CO 80120
303.794.4727 | www.SterlingDesignAssociates.com

PREPARED UNDER THE DIRECT SUPERVISION OF
JAY M. NEWELL, PE
COLORADO REGISTRATION 35219
FOR & ON BEHALF OF STERLING DESIGN ASSOCIATES, LLC

COLORADO REGISTERED JAY M. NEWELL 35219 ORIGINAL SIGNATURE

8 / 10 / 22

STERLING DESIGN ASSOCIATES, LLC

ISSUES & REVISIONS

NO.:	DATE:	BY:	DESCRIPTION:
1			
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-
6	-	-	-

DATE: 08/2022	SCALE: N/A
PROJECT MANAGER: JS	PROJECT NO.:
DRAWN BY: JN	DRAWING FILE:

PROJECT:

SPACE VILLAGE FILING NO. 4
EL PASO COUNTY, CO

CLIENT:

COMMERCIAL BUILDING SERVICES
7561 S. GRANT STR., SUITE A-4
LITTLETON, COLORADO 80122

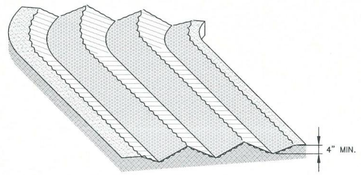
TEL: (303) 730-3001

SHEET TITLE:

GRADING & EROSION CONTROL DETAILS (SWMP-SITE MAP)

SHEET NUMBER:

5 **C911**



SURFACE ROUGHENING

INSTALLATION NOTES

1. SURFACE ROUGHENING MAY BE USED IN AREAS FLATTER THAN 3:1. INSTALL FURROWS ALONG CONTOUR TO INTERCEPT SHEET FLOW.
2. SURFACE ROUGHENING MAY BE ACCOMPLISHED BY FURROWING, SCARIFYING, RIPPING OR DISKING THE SOIL.
3. FURROWS MUST BE A MINIMUM OF 4" IN DEPTH.
4. SURFACE ROUGHENING SHALL NOT BE USED ON EXTREMELY SANDY OR ROCKY SOILS. CONTRACTOR SHALL CONFIRM USE OF SURFACE ROUGHENING WITH COUNTY PRIOR TO ANY APPLICATION.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. VEHICLES AND EQUIPMENT SHALL NOT BE DRIVEN OVER AREAS THAT HAVE BEEN SURFACE ROUGHENED.

SR

STORMWATER ENTERPRISE	SURFACE ROUGHENING		
	APPROVED: SWENT MANAGER		
	ISSUED: 10/7/19	REVISED: 8/19/2020	DRAWING NO. 900-SR

(MODIFIED AUGUST 2022)

SEEDING & MULCHING

ALL SOIL TESTING, SOILS AMENDMENT AND FERTILIZER DOCUMENTATION, AND SEED LOAD AND BAG TICKETS MUST BE ADDED TO THE CSWMP.

SOIL PREPARATION

1. IN AREAS TO BE SEEDED, THE UPPER 6 INCHES OF THE SOIL MUST NOT BE HEAVILY COMPACTED, AND SHOULD BE IN FRIABLE CONDITION. LESS THAN 85% STANDARD PROCTOR DENSITY IS ACCEPTABLE. AREAS OF COMPACTION OR GENERAL CONSTRUCTION ACTIVITY MUST BE SCARIFIED TO A DEPTH OF 6 TO 12 INCHES PRIOR TO SPREADING TOPSOIL TO BREAK UP COMPACTED LAYERS AND PROVIDE A BLENDING ZONE BETWEEN DIFFERENT SOIL LAYERS.
2. AREAS TO BE PLANTED SHALL HAVE AT LEAST 4 INCHES OF TOPSOIL SUITABLE TO SUPPORT PLANT GROWTH.
3. THE CITY RECOMMENDS THAT EXISTING AND/OR IMPORTED TOPSOIL BE TESTED TO IDENTIFY SOIL DEFICIENCIES AND ANY SOIL AMENDMENTS NECESSARY TO ADDRESS THESE DEFICIENCIES. SOIL AMENDMENTS AND/OR FERTILIZERS SHOULD BE ADDED TO CORRECT TOPSOIL DEFICIENCIES BASED ON SOIL TESTING RESULTS.
4. TOPSOIL SHALL BE PROTECTED DURING THE CONSTRUCTION PERIOD TO RETAIN ITS STRUCTURE AVOID COMPACTION, AND TO PREVENT EROSION AND CONTAMINATION. STRIPPED TOPSOIL MUST BE STORED IN AN AREA AWAY FROM MACHINERY AND CONSTRUCTION OPERATIONS, AND CARE MUST BE TAKEN TO PROTECT THE TOPSOIL AS A VALUABLE COMMODITY. TOPSOIL MUST NOT BE STRIPPED DURING UNDESIRABLE WORKING CONDITIONS (E.G. DURING WET WEATHER OR WHEN SOILS ARE SATURATED). TOPSOIL SHALL NOT BE STORED IN SWALES OR IN AREAS WITH POOR DRAINAGE.

SEEDING

1. ALLOWABLE SEED MIXES ARE INCLUDED IN THE CITY OF COLORADO SPRINGS STORMWATER CONSTRUCTION MANUAL. ALTERNATIVE SEED MIXES ARE ACCEPTABLE IF INCLUDED IN AN APPROVED LANDSCAPING PLAN.
2. SEED SHOULD BE DRILL-SEEDED WHENEVER POSSIBLE
   - SEED DEPTH MUST BE ¼ TO ½ INCHES WHEN DRILL-SEEDING IS USED
3. BROADCAST SEEDING OR HYDRO-SEEDING WITH TACKIFIER MAY BE SUBSTITUTED ON SLOPES STEEPER THAN 3:1 OR ON OTHER AREAS NOT PRACTICAL TO DRILL SEED.
   - SEEDING RATES MUST BE DOUBLED FOR BROADCAST SEEDING OR INCREASED BY 50% IF USING A BRILLION DRILL OR HYDRO-SEEDING
   - BROADCAST SEEDING MUST BE LIGHTLY HAND-RAKED INTO THE SOIL
4. THE CONTRACTOR SHALL CONFIRM WHICH SEED MIX TO USE WITH THE COUTNY PRIOR TO ORDERING OR ANY APPLICATION.

MULCHING

1. MULCHING SHOULD BE COMPLETED AS SOON AS PRACTICABLE AFTER SEEDING, HOWEVER PLANTED AREAS MUST BE MULCHED NO LATER THAN 14 DAYS AFTER PLANTING.
2. MULCHING REQUIREMENTS INCLUDE:
   - HAY OR STRAW MULCH
     - ONLY CERTIFIED WEED-FREE AND CERTIFIED SEED-FREE MULCH MAY BE USED. MULCH MUST BE APPLIED AT 2 TONS/ACRE AND ADEQUATELY SECURED BY CRIMPING AND/OR TACKIFIER.
     - CRIMPING MUST NOT BE USED ON SLOPES GREATER THAN 3:1 AND MULCH FIBERS MUST BE TUCKED INTO THE SOIL TO A DEPTH OF 3 TO 4 INCHES.
     - TACKIFIER MUST BE USED IN PLACE OF CRIMPING ON SLOPES STEEPER THAN 3:1.
   - HYDRAULIC MULCHING
     - HYDRAULIC MULCHING IS AN OPTION ON STEEP SLOPES OR WHERE ACCESS IS LIMITED.
     - IF HYDRO-SEEDING IS USED, MULCHING MUST BE APPLIED AS A SEPARATE, SECOND OPERATION.
     - WOOD CELLULOSE FIBERS MIXED WITH WATER MUST BE APPLIED AT A RATE OF 2,000 TO 2,500 POUNDS/ACRE, AND TACKIFIER MUST BE APPLIED AT A RATE OF 100 POUNDS/ACRE.
   - EROSION CONTROL BLANKET
     - EROSION CONTROL BLANKET MAY BE USED IN PLACE OF TRADITIONAL MULCHING METHODS.

SM

STORMWATER ENTERPRISE	SEEDING & MULCHING		
	APPROVED: SWENT MANAGER		
	ISSUED: 10/7/19	REVISED: 8/19/2020	DRAWING NO. 900-SM

(MODIFIED AUGUST 2022)

Wind Erosion/Dust Control (DC) EC-14

Description

Wind erosion and dust control BMPs help to keep soil particles from entering the air as a result of land disturbing construction activities. These BMPs include a variety of practices generally focused on either graded disturbed areas or construction roadways. For graded areas, practices such as seeding and mulching, use of soil binders, site watering, or other practices that provide prompt surface cover should be used. For construction roadways, road watering and stabilized surfaces should be considered.

Photograph DC-1. Water truck used for dust suppression. Photo courtesy of Douglas County.

Appropriate Uses

Dust control measures should be used on any site where dust poses a problem to air quality. Dust control is important to control for the health of construction workers and surrounding waterbodies.

Design and Installation

The following construction BMPs can be used for dust control:

- An irrigation/sprinkler system can be used to wet the top layer of disturbed soil to help keep dry soil particles from becoming airborne.
- Seeding and mulching can be used to stabilize disturbed surfaces and reduce dust emissions.
- Protecting existing vegetation can help to slow wind velocities across the ground surface, thereby limiting the likelihood of soil particles to become airborne.
- Spray-on soil binders form a bond between soil particles keeping them grounded. Chemical treatments may require additional permitting requirements. Potential impacts to surrounding waterways and habitat must be considered prior to use.
- Placing rock on construction roadways and entrances will help keep dust to a minimum across the construction site.
- Wind fences can be installed on site to reduce wind speeds. Install fences perpendicular to the prevailing wind direction for maximum effectiveness.

Wind Erosion Control/ Dust Control

Functions	
Erosion Control	Yes
Sediment Control	No
Site/Material Management	Moderate

Maintenance and Removal

When using an irrigation/sprinkler control system to aid in dust control, be careful not to overwater. Overwatering will cause construction vehicles to track mud off-site.

Table 5-1. El Paso County Conservation District All-Purpose Mix for Upland, Transition and Permanent Control Measure Areas

Common Name	Scientific Name	Growth Season / Form	% of Mix	Pounds PLS		
				• Irrigated broadcast • Irrigated hydroseeded 80 seeds/sq ft	• Non-irrigated broadcast • Non-irrigated hydroseeded • Irrigated drilled 40 seeds/sq ft	• Non-irrigated drilled 20 seeds/sq ft
Bluestem, big	*Andropogon gerardii*	Warm, sod	20	4.4	2.2	1.1
Grama, blue	*Bouteloua gracilis*	Warm, bunch	10	0.5	0.25	0.13
Green needlegrass[2]	*Nassella viridula*	Cool, bunch	10	2	1	0.5
Wheatgrass, western[2]	*Pascopyrum smithii*	Cool, sod	20	6.4	3.2	1.6
Grama, sideoats	*Bouteloua curtipendula*	Warm, bunch	10	2	1	0.5
Switchgrass[2]	*Panicum virgatum*	Warm, bunch/sod	10	0.8	0.4	0.2
Prairie sandreed	*Calimovilfa longifolia*	Warm, sod	10	1.2	0.6	0.3
Yellow indiangrass[2]	*Sorghastrum nutans*	Warm, sod	10	2	1	0.5
Seed rate (lbs PLS/acre)				19.3	9.7	4.8

[1]For portions of facilities located near or on the bottom or where wet soil conditions occur. Planting of potted nursery stock wetland plants 2-foot on-center is recommended for sites with wetland hydrology.

[2]Species that will do well in the bottom of pond areas.

Table 5-2. El Paso County All-Purpose Low Grow Mix for Upland and Transition Areas

Common Name	Scientific Name	Growth Season / Form	% of Mix	Pounds PLS		
				• Irrigated broadcast • Irrigated hydroseeded 80 seeds/sq ft	• Non-irrigated broadcast • Non-irrigated hydroseeded • Irrigated drilled 40 seeds/sq ft	• Non-irrigated drilled 20 seeds/sq ft
Buffalograss	*Buchloe dactyloides*	Warm, sod	25	9.6	4.8	2.4
Grama, blue	*Bouteloua gracilis*	Warm, bunch	20	10.8	5.4	2.7
Grama, sideoats	*Bouteloua curtipendula*	Warm, bunch	29	5.6	2.8	1.4
Green needlegrass	*Nassella viridula*	Cool, bunch	5	3.2	1.6	0.8
Wheatgrass, western	*Pascopyrum smithii*	Cool, sod	20	12	6	3
Dropseed, sand	*Sporobolus cryptandrus*	Warm, bunch	1	0.8	0.4	0.2
Seed rate (lbs PLS/acre)				42	21	10.3

Street Sweeping and Vacuuming (SS) SM-7

Description

Street sweeping and vacuuming remove sediment that has been tracked onto roadways to reduce sediment transport into storm drain systems or a surface waterway.

Photograph SS-1. A street sweeper removes sediment and potential pollutants along the curb line at a construction site. Photo courtesy of Tom Gore.

Appropriate Uses

Use this practice at construction sites where vehicles may track sediment offsite onto paved roadways.

Design and Installation

Street sweeping or vacuuming should be conducted when there is noticeable sediment accumulation on roadways adjacent to the construction site. Typically, this will be concentrated at the entrance/exit to the construction site. Well-maintained stabilized construction entrances, vehicle tracking controls and tire wash facilities can help reduce the necessary frequency of street sweeping and vacuuming.

On smaller construction sites, street sweeping can be conducted manually using a shovel and broom. Never wash accumulated sediment on roadways into storm drains.

Maintenance and Removal

- Inspect paved roads around the perimeter of the construction site on a daily basis and more frequently, as needed. Remove accumulated sediment, as needed.
- Following street sweeping, check inlet protection that may have been displaced during street sweeping.
- Inspect area to be swept for materials that may be hazardous prior to beginning sweeping operations.

Street Sweeping/ Vacuuming

Functions	
Erosion Control	No
Sediment Control	Yes
Site/Material Management	Yes

STERLING DESIGN ASSOCIATES
Civil Engineers | Landscape Architects
2009 W. Littleton Blvd. #300 Littleton, CO 80120
303.794.4727 | www.SterlingDesignAssociates.com

PREPARED UNDER THE DIRECT SUPERVISION OF
JAY M. NEWELL, PE
COLORADO REGISTRATION 35219
FOR & ON BEHALF OF STERLING DESIGN ASSOCIATES, LLC

COLORADO REGISTERED JAY M. NEWELL 35219 PROFESSIONAL ENGINEER
8 / 10 / 22

STERLING DESIGN ASSOCIATES, LLC

ISSUES & REVISIONS

NO.:	DATE:	BY:	DESCRIPTION:
1			
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-
6	-	-	-

DATE: 08/2022	SCALE: N/A
PROJECT MANAGER: JS	PROJECT NO.:
DRAWN BY: JN	DRAWING FILE:

PROJECT:

SPACE VILLAGE FILING NO. 4
EL PASO COUNTY, CO

CLIENT:

COMMERCIAL BUILDING SERVICES
7561 S. GRANT STR., SUITE A-4
LITTLETON, COLORADO 80122

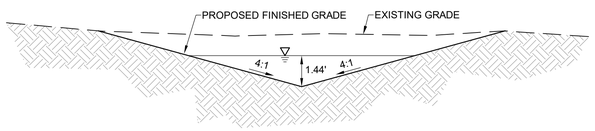
TEL: (303) 730-3001

SHEET TITLE:

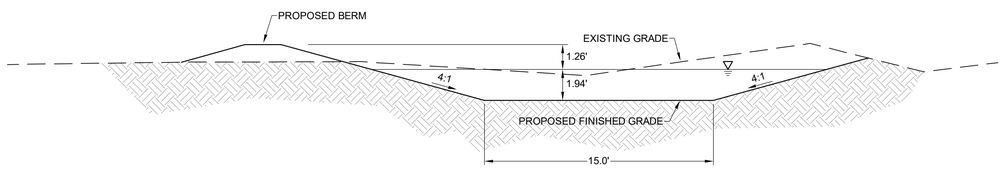
GRADING & EROSION CONTROL DETAILS (SWMP-SITE MAP)

SHEET NUMBER:

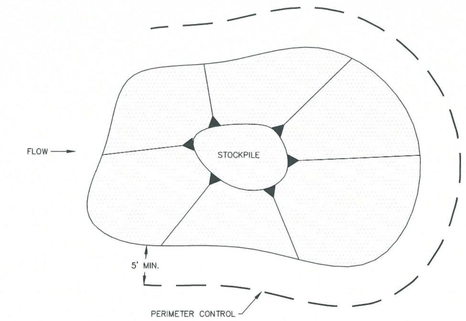
6 **C912**



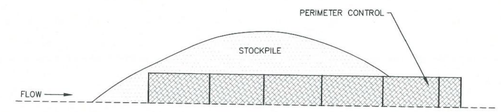
DIVERSION SWALE (A)
NOT TO SCALE



DIVERSION CHANNEL (B)
NOT TO SCALE



STOCKPILE PROTECTION PLAN



STOCKPILE PROTECTION ELEVATION

INSTALLATION NOTES

1. INSTALL PERIMETER CONTROL AROUND STOCKPILE ON DOWNGRADIENT SIDE. PERIMETER CONTROL MUST BE SUITABLE TO SITE CONDITIONS AND INSTALLED ACCORDING TO THE RELEVANT DETAIL.
2. FOR 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.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. IF PERIMETER CONTROLS MUST BE MOVED TO ACCESS STOCKPILE, REPLACE PERIMETER CONTROLS BY THE END OF THE WORK DAY.
3. ACCUMULATED SEDIMENT MUST BE REMOVED ACCORDING TO PERIMETER CONTROL DETAIL.

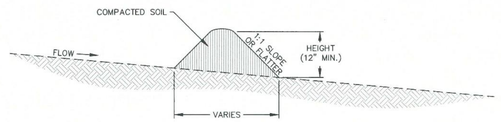
SP

STORMWATER ENTERPRISE

STOCKPILE PROTECTION

APPROVED: SWENT MANAGER

ISSUED:	REVISED:	DRAWING NO.
10/7/19	8/19/2020	900-SP



TEMPORARY COMPACTED BERM

INSTALLATION NOTES

1. COMPACTED BERM MUST BE A MINIMUM HEIGHT OF ONE FOOT. BASE WIDTH IS DETERMINED BY HEIGHT.
2. COMPACTED BERMS MUST BE ADEQUATELY COMPACTED. NOT ALL SOILS ARE SUITABLE FOR COMPACTED BERMS.
3. INSTALL COMPACTED BERMS ALONG CONTOUR; DO NOT INSTALL PERPENDICULAR TO SLOPE.
4. THE MAXIMUM TRIBUTARY DRAINAGE AREA PER 100 LINEAR FEET OF COMPACTED BERMS SHALL BE ¼ ACRE.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES ½ OF THE DESIGN DEPTH OF THE BERM.

TCB

STORMWATER ENTERPRISE

TEMPORARY COMPACTED BERM

APPROVED: SWENT MANAGER

ISSUED:	REVISED:	DRAWING NO.
10/7/19	8/19/2020	900-TCB

STERLING DESIGN ASSOCIATES
Civil Engineers | Landscape Architects
2009 W. Littleton Blvd. #300 Littleton, CO 80120
303.794.4727 | www.SterlingDesignAssociates.com

PREPARED UNDER THE DIRECT SUPERVISION OF
JAY M. NEWELL, PE
COLORADO REGISTRATION 35219
FOR & ON BEHALF OF STERLING DESIGN ASSOCIATES, LLC

COLORADO REGISTERED JAY M. NEWELL 35219 PROFESSIONAL ENGINEER

8 / 10 / 22

STERLING DESIGN ASSOCIATES, LLC

ISSUES & REVISIONS

NO.:	DATE:	BY:	DESCRIPTION:
1			
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-
6	-	-	-

DATE: 08/2022	SCALE: N/A
PROJECT MANAGER: JS	PROJECT NO.:
DRAWN BY: JN	DRAWING FILE:

PROJECT:

SPACE VILLAGE FILING NO. 4
EL PASO COUNTY, CO

CLIENT:

COMMERCIAL BUILDING SERVICES
7561 S. GRANT STR., SUITE A-4
LITTLETON, COLORADO 80122

TEL: (303) 730-3001

SHEET TITLE:

GRADING & EROSION CONTROL DETAILS (SWMP-SITE MAP)

SHEET NUMBER:

7 **C913**