Stormwater Management Plan (SWMP)

for construction activities at:

Maverik Site Code – CO-0258
I-25 & County Line Road
Monument, Colorado
El Paso County

SWMP Preparation Date: 9-28-2021
SWMP Revision Date: N/A
Docs. #3697430-v2

Add text:
PCD Filing No.:
PPR2154

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Basic Acronyms:

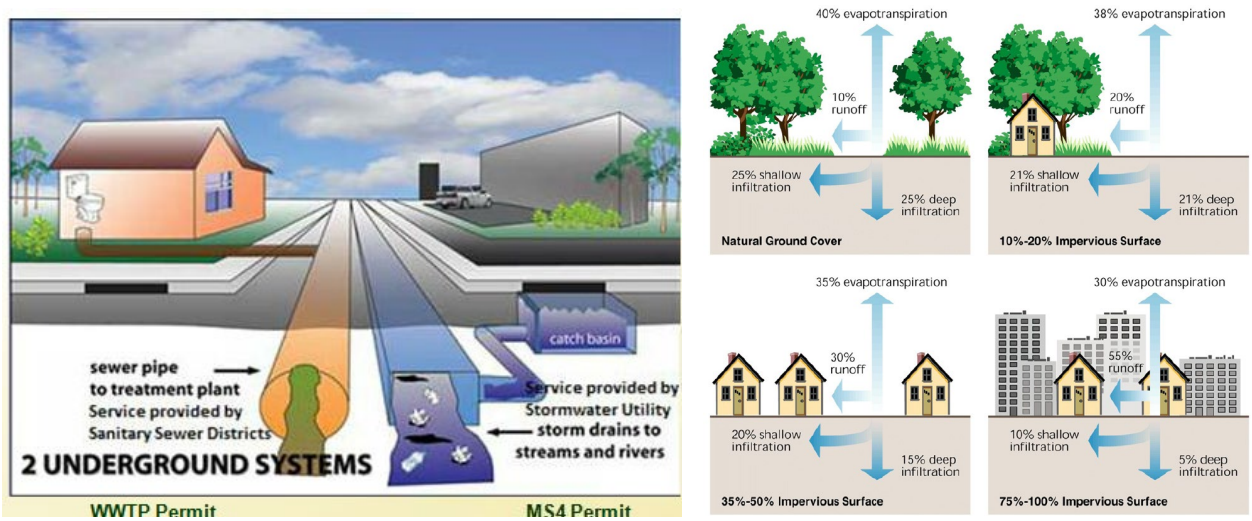
SWMP: Stormwater Management Plan = **ESCP:** Erosion and Sediment Control Plan = **SWPPP**: Stormwater Pollution Prevention Plan
EC Plan: Erosion Control Plan (Site Map)
CM: Control Measures = **BMP**: Best Management Practices
MS4: Municipal Separate Storm Sewer System

Objectives:

The SWMP identifies potential pollutant sources that may contribute to stormwater pollution, and identifies CMs to reduce or eliminate water quality impacts during construction activities. The goal is to keep sediments on-site. The most efficient construction site control measures are those that prevent erosion from occurring.

The SWMP must be completed and implemented prior to project breaking ground, and revised by the contractor's Qualified Stormwater Manager as construction proceeds, to accurately reflect the site conditions and practices until final stabilization is reached. The SWMP intends to meet the minimum requirements to comply with the State of Colorado CDPS General Permit for Stormwater Discharges Associated with Construction Activity, and local city and county regulations.

Stormwater is runoff water from rain or snowmelt that does not infiltrate into the ground, and instead flows across the land discharging directly into the environment without treatment.



Runoff from construction sites can contain pollutants when runoff moves over and across disturbed areas discharging them into lakes, rivers, wetlands, and into MS4 systems.

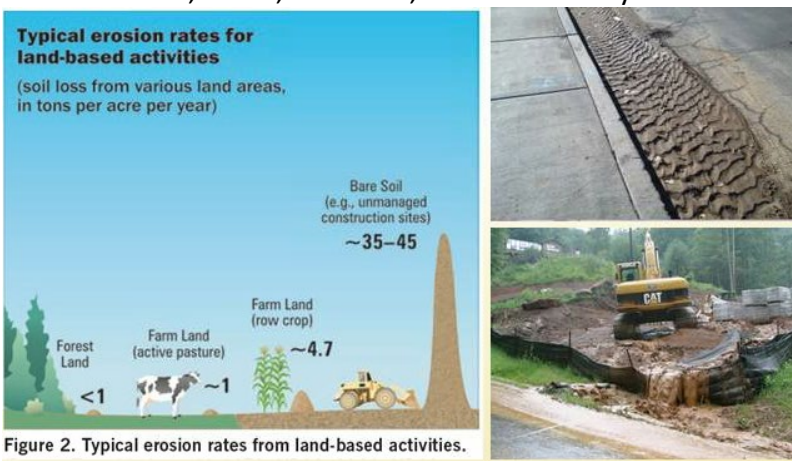
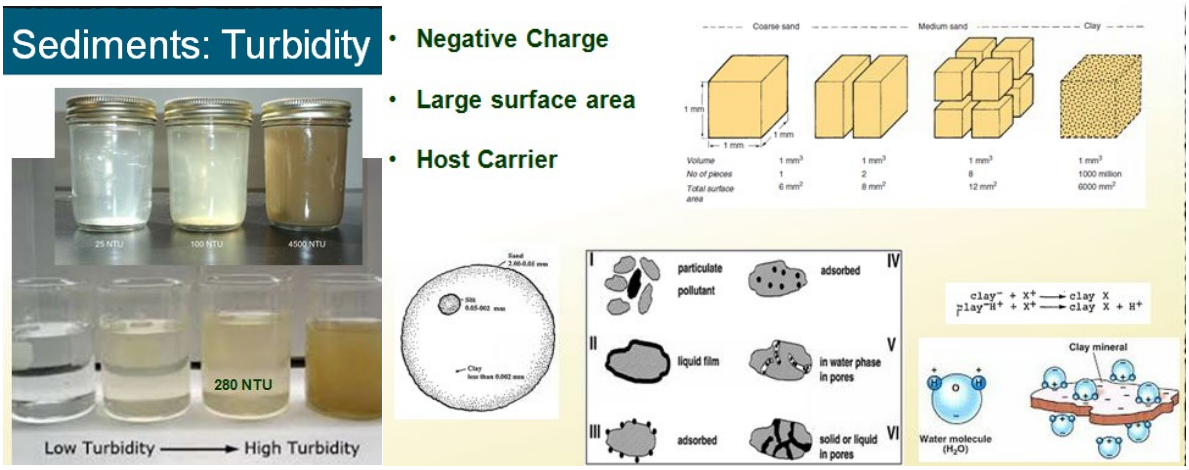


Figure 2. Typical erosion rates from land-based activities.

Unmanaged construction soils erodes about **6 times more** than farming activities

Typically, **sediment** from disturbed areas is the main pollutant source at construction sites.



Sediments easily attach to other pollutants and acts as a carrier, as well as impacting clarity of water which is critical for aquatic life and fish species spawning areas preservation.

SECTION 1: SITE EVALUATION, ASSESSMENT, AND PLANNING

1.1 Project/Site Information

Instructions:

- Include basic site information identifying general project information, permit numbers.
- Include a project vicinity map in **Appendix 1**.
- Attach the State of Colorado CDPS Stormwater Construction Permit Certification Page in **Appendix 2**.
- Attach a copy of the City/County Stormwater Permit in **Appendix 2**.

Project/Site Name: Maverik Site ID – CO-0258

Project Location: I-25 & County Line Road

City: Monument (El Paso County) State: CO ZIP Code: 80132

Subdivision: N/A

State of Colorado - CDPS Stormwater Discharge Permit associated with Construction Activities
Permit Number: COR-04 Insert Permit Number

1.2 Contact Information/Responsible Parties

Instructions:

List the owner, operator, stormwater contact, and organization that prepared the SWMP. Complete by selecting the blue text, double right click, then type in the applicable information.

Owner:

Per checklist Item 1 - move this contact info to the cover sheet.

Maverik Inc.
Jana Ward (Project Manager)
185 South State Street, Suite 800, Salt Lake City, Utah 84111
Cell #: 801-678-1996 Email: Jana.ward@maverik.com

Site Superintendent: TO BE DETERMINED WHEN CONTRACTOR IS SELECTED

Insert Site Supervisor(s) Company or Organization Name
Insert Site Supervisor(s) Name
Insert Site Supervisor(s) Address, City, State, Zip Code
Office #: (xxx)-xxx-xxxx Cell #: (xxx)-xxx-xxxx Email: xxx@xxx.com

Qualified Stormwater Manager: TO BE DETERMINED WHEN CONTRACTOR IS SELECTED

Individual responsible for implementing, maintaining, and revising the SWMP, knowledgeable in the principles and practices of ESC and pollution prevention, with the skills to:

- Assess conditions at construction sites that could impact stormwater quality, and
- Assess the effectiveness of stormwater controls measures (CMs).

Insert ESC Qualified Stormwater Manager(s) Company or Organization Name
Insert ESC Qualified Stormwater Manager(s) Name
Insert ESC Qualified Stormwater Manager(s) Title
Insert ESC Qualified Stormwater Manager(s) Address, City, State, Zip Code
Office #: (xxx)-xxx-xxxx Cell #: (xxx)-xxx-xxxx Email: xxx@xxx.com

Qualified Stormwater Manager's area of control (if more than 1 operator at site):

It is anticipated that there will be a single operator on site and they will be responsible for the entire site.

SWMP prepared by:

Horrocks Engineers
Zachary Scott
2162 Grove Parkway #400 Pleasant Grove, Utah 84062
Office #: 801-763-5100 Cell #: 435-659-4771 Email: zach.scott@horrocks.com

1.3 Nature and Sequence of Construction Activity

Instructions:

- Describe the scope of the construction activity at the project site.
- Identify the purpose of the construction activity, include estimated dates to begin and conclude.
- Describe the sequence for major construction activities at each phase of the construction project.

Project scope of work:

The general scope of construction includes development of a convenience store/gas station on a vacant lot. This will include grading of the site, installation of underground utilities and fuel tanks, installation of concrete and asphalt pavement, construction of a small c-store type structure as well as overhead coverings near fuel pumps. Various landscape areas are also planned. The project consists of a 5,951 sf convenience store, parking, patio, and (2) fuel canopies. The area will also include miscellaneous fuel systems, underground tanks, pumps and facilities typical to the operation of an automotive fuel center.

Type of construction activity:

☐ Residential ☒ Commercial ☐ Industrial ☐ Road Construction ☐ Linear Utility

☐ Other (please specify): N/A

Estimated Project Start Date November 30, 2021

Estimated Project Completion Date: July 30, 2022

Estimated Project Final Stabilization: July 30, 2022

Major phases of construction:

☒ Initial Control Measures (CM)

☒ Demolition

☒ Grading

☒ Utility Installation

☒ Interim CM

☒ Road Construction

☒ Vertical Construction

☒ Final Grade

☒ Final Stabilization CM

☐ Other (please specify such as Over-Excavation, etc.): N/A

Earth Work Summary:

Total Disturbed Area: 268,848 SF

Cut: 532 CY

Fill: 75,649 CY

If excess dirt: To be hauled off by contractor, to contractor chosen site.

If importing dirt:

Is the off-site borrow/fill area within ¼ mile of the project? **No**

If yes: either incorporate off-site area to the project's SWMP/EC plan, or submit a separate SWMP/EC Plan for the off-site area.

1.4 Soils, Drainage Patterns, and Vegetation

Instructions:

- Describe the existing soil conditions at the construction site including soil type(s), drainage patterns, and other topographic features that might affect erosion and sediment control.
- Describe the pre-disturbance vegetation and include color pre-disturbance photos in **Appendix 3**.

Soil type:

Alamosa Loam 1 to 3 Percent Slopes

Peyton ring Complex 8 to 15 percent Slopes

Tomah-Crowfoot Loamy Sands 3 to 8 Percent Slopes

Source if this data:

Web Soil Survey

Soil's erosion potential:

The two soil types for the site are rocky and clay soils. All soil types on site are well drained and have either a low or medium run-off class. The site is fairly flat with very moderate slopes. Erosion based on soil type and slopes should be low.

Top Soil:

Describe quality of site's existing topsoil?

The existing site is mostly undisturbed. Topsoil quality will be average and will likely be stockpiled for implementation into landscape areas.

Depth of top soil that will be preserved?

It is anticipated that all of the topsoil will be preserved and re-used in seed areas per the landscape plan.

Where will the top-soil be stored during construction?

Any stockpiled topsoil will be stored on-site.

Where will the top soil be ultimately re-utilized?

In designated landscape areas around the perimeter of the site.

Drainage pattern - Describe existing drainage patterns, slopes and changes due to the proposed grading:

The topography for the site slopes to the east at slopes ranging from 2% to 15%. The site is slightly depressed in comparison to the interstate to the east and county line road to the north. Grading efforts will include the import of fill material to raise the site up to the elevation of the county line road. Drainage will

Vegetation:

Describe type of pre-disturbance vegetation:

The existing site is mostly void of woody vegetation with the exception of a few trees along the perimeter of the site and sparse shrub cover. Most of the site is covered with perennial herbaceous grass that has been lightly disturbed in some areas.

Estimate the percentage of pre-existing vegetation cover of the entire site (%):

Approximately 90% of the site.

Describe method for determining the percentage:

Aerial Imagery was used to outline vegetated areas. Some areas were reduced based on actual coverage visible from site photos.

1.5 Construction Site Estimates

Instructions:

- Estimate total project area.
- Estimate the area to be disturbed by excavation, grading, or other construction activities, including off-site improvements, pavement cuts, dedicated off-site borrow or fill areas within ¼ mile from the site, equipment and material storage areas, and staging areas.

Total site area:	Approximately 6.17 Acres
Construction area to be disturbed:	The entire site will be disturbed, 6.17 acres

Are there any control measures (CMs) located **outside** the permitted area (or limits of construction), that are utilized for compliance, but not under the direct control of the Permittee?: No

If Yes: attach "Use Agreement" signed by the off-site owner/operator under **Appendix 11** and describe CMs location, specifications, etc.

1.6 Receiving Waters

Instructions:

- List the jurisdictional storm sewer system or drainage system that stormwater from your site discharges to, such as storm system within Monument City MS4, CDOT MS4, etc.
- Indicate inside which watershed the project is located.
- List the waterbody(s) that would receive stormwater from your site, including streams, rivers, lakes and wetlands. Describe each as clearly as possible, such as: *Clear Creek, a tributary to the South Platte River*. Including water courses even if they are usually dry, such as borrow ditches, arroyos, and other unnamed waterways.
- Indicate if the stream segment of the waterbody(s) is impaired and if a Total Maximum Daily Load (TMDL) has been adopted for any pollutant.

Location of the site's storm **discharge**: The site's storm discharges to the east of the site after passing through underground storage basins and treatment facilities.

If the site discharges to a public **Municipal Separate Storm Sewer System (MS4)**, insert the name of the MS4 owner: N/A

Name and description of the project's **watershed**: The site is at the southern most boundary of the Upper South Platte HUC Zone.

Name and description of ultimately **receiving water**(s), including stream segment designation: There are no adjacent receiving waters. The nearest waters and their distances from the site are listed below:

But which creek does the site ultimately drain to?

Monument Creek – 12,000 LF
Crystal Creek – 10,000 LF
Carpenter Creek – 9,000 LF
Antelope Creek – 10,000 LF

- Distance from the project to the closest receiving water: various, see above
- Is the receiving water stream segment impaired? ☐ Yes / ☒ No
- If yes, list TMDL's adopted for each pollutant: N/A
- Are these pollutants expected to be present at the construction site? ☐ Yes / ☒ No
- Which pollutant?: N/A
- Describe specific control measures (CMs) selected for the pollutant-specific Wasteload Allocation (WLA): N/A

Are **stream crossings** within the construction site boundary? ☐ Yes / ☒ No

- Location within the site: N/A
- Stream name: N/A

- Description of any disturbed upland areas that may contribute to the stream at the stream crossing locations: N/A
- Description of the CMs to be implemented for those contributing disturbed upland areas: N/A

Other: N/A

1.7 Protected Site Features and Sensitive Areas

Instructions:

- Describe unique site features or sensitive area including historic structures, floodplain/floodway of streams, stream buffers, wetlands, specimen trees, natural vegetation, steep slopes, or highly erodible soils that are to be preserved. Describe the measures that will be used to protect these features. Include unique features and sensitive areas on the EC Plan drawings.
- Describe any known soil or groundwater contamination. Note that additional permitting is required from the State of Colorado, Water Quality Control Division.
  Refer to http://www.cdphe.state.co.us/hm/HMSiteCover.htm and access the Hazardous Materials and Waste Management Division Site Locator Mapping Application.

Describe unique site feature or sensitive area to be preserved during construction:

N/A

Describe measures to preserve unique site feature or sensitive area during construction:

N/A

Describe any known soil or groundwater contamination:

N/A

Describe management plan for contaminated soils and/or groundwater:

N/A

Attach applicable Permits (check if applicable):

- ☐ 404 Permit
- ☐ 401 Permit
- ☐ Dewatering Permit (off-site)
- ☐ Remediation Permit
- ☐ Other

1.8 Potential Sources of Pollution

Instructions:

- List and describe measures to control potential sources of pollution, which may reasonably be expected to affect stormwater quality discharges from the construction site.
- Below is a comprehensive list. Add rows if additional potential sources of pollution are identified.
- If a potential pollutant source is applicable to the site, then select the blue Yes/No, **then** type "**Yes**" or "**No**".

Potential Pollution Source	Potential on this site?	Control Measures (CM)	CM Implementation (as needed)
Disturbed & Stored Soils - grading - spoils - stockpiles	Yes	ESC CMs (IP, SF, SSA, TRM, RECP, TOP, SCL, SBB, RS, SB, ST) Preservation of existing vegetation (PV, VB, CF, CP) Materials management Solid waste management (SP, GH) Stockpile management (SP) Vehicle tracking control (VTC)	1. Delineate protected areas prior to construction. 2. Install CMs prior construction. 3. Manage materials effectively once they arrive on site. 4. Place trash receptacles prior to construction. 5. Implement spill response. 6. Implement stockpile mgnt controls. 7. Delineate vehicle travel areas prior to construction, adjust as needed.
Vehicle Tracking - all permitted vehicle traffic	Yes	ESC CMs (IP, SF, SSA, TRM, RECP, TOP, SCL, SBB, RS, SB, ST) Vehicle traffic controls Vehicle tracking controls (VTC) Street sweeping (SS)	1. Install CMs prior construction. 2. Delineate vehicle travel areas prior to construction, adjust as needed. 3. Install VTC prior to construction. 4. Implement SS as needed, in conjunction with start of construction.
Contaminated Soils	Unknown /Not Expected	Hazardous materials management (GH, CT) Spill response & notification (GH) Stockpile management (SP)	1. Implement hazardous materials management. 2. Implement spill response procedures. 3. Implement stockpile mgnt controls.
Loading & Unloading - construction materials	Yes	Material management (GH) Vehicle traffic controls (VTC)	1. Manage materials effectively once they arrive on site. 2. Delineate vehicle travel areas prior to construction, adjust as needed.
Vehicle/equip ment maint. & fueling - gas, oil, - diesel - lubricants - hydraulic fluids	Yes	Spill prevention controls (GH) Designated fuel storage area (GH) Spill response & notification (GH)	1. Designate fuel storage area. 2. Implement spill prevention controls. 3. Implement spill response and notification procedures.

* Refer to Section 2, for acronyms used to identify CM details.

Potential Pollution Source	Potential on this site?	Control Measures (CM)	CM Implementation
Outdoor storage - building materials - fertilizers - chemicals	Yes	Material storage procedures (GH)	1. Designate material storage areas prior to delivery. 2. Materials left outdoors must be covered if they can pollute stormwater. 3. Secondary containment must be used for hazardous materials.
Dust - wind transport - saw cutting	Yes	Dust control (DC) Temporary soil stabilization (SF, SD, GB, SSA, TRM, RECP, TOP) Street sweeping (SS) Preservation of existing vegetation (PV, VB, CF)	1. Delineate protected areas prior to construction. 2. Implement dust control in conjunction with soil disturbing activities. 3. Implement temporary soil stabilization measures as soon as practical. 4. Implement street sweeping at the start of major construction and maintain as needed.
Routine Maintenance Activities - fertilizers - pesticides - detergents - solvents - fuels, oils, etc.	Yes	Material storage (GH) Hazardous waste management (GH, Chemical Treatment) ESC CMs (IP, SF, SSA, RECP, TOP, SCL, SBB, RS, SB, ST)	1. Designate materials storage areas prior to site arrival. 2. Practice hazardous waste management procedures during the storage of such materials. 3. Install ESC measures prior to landscape work.
Non-industrial Waste - worker trash - portable toilets	Yes	Sanitary waste (GH) Solid waste management (GH)	1. Place temporary sanitary facilities on site and prevent off-site discharges. 2. Place trash receptacles on site.
On-site Industrial Waste - construction debris, etc	Yes	Waste management (GH) Liquid waste management (GH) Hazardous waste management (GH, CT)	1. Place trash receptacles on site. 2. Place designated watertight receptacles or washout area(s) prior to activities that produce liquid waste. 3. Implement hazardous waste management procedures.
Concrete Truck Chute/Tool Washing	Yes	Concrete washout area (CWA)	Install designated concrete washout(s) prior to concrete work.
Drywall Mud and Paint	Yes	Liquid waste management (GH)	Place designated watertight receptacles or washout area(s) prior to activities that produce liquid waste.
Fly Ash - concrete - flow fill	Yes	Concrete washout area (CWA) Hazardous waste management (GH)	1. Install designated CWA prior to concrete activities. 2. Implement hazardous waste management procedures.

* Refer to Section 2, for acronyms used to identify CM details.

State somewhere in SWMP that:
Portable toilets will be located a minimum of 10ft from stormwater inlets and 50ft from state waters. They will be secured at all four corners to prevent overturning and cleaned on a weekly basis. They will be inspected daily for spills.

Potential Pollution Source	Potential on this site?	Control Measures (CM)	CM Implementation
Dedicated: - Asphalt Plants - Concrete Batch Plants -Mortar/Masonry Mixing Stations	No	Secondary containment Concrete washout area (CWA) Solid waste management (GH) materials management (GH)	1. Install secondary containment CMs prior to using dedicated batch plants. 2. Establish dedicated washout area before construction begins. 3. Place trash receptacles on site. 4. Manage materials effectively once they arrive on site.
Waste from: - Geo-tech Test - Potholing - Saw Cutting - Utility borings for locates	Yes	Dust control (DC) Material storage (GH) Solid waste management (GH)	1. Implement dust control in conjunction with soil disturbing activities. 2. Designate materials storage areas prior to their arrival on site. 3. Place trash receptacles on site.
Demolition of infrastructure: - concrete curb - asphalt road - steel/rebar	Yes	Dust control (DC) Solid waste management (GH)	1. Implement dust control in conjunction with soil disturbing activities. 2. Place trash receptacles.
Electric Generator - pump	Yes	Secondary containment Spill response & notification (GH) Hazardous waste management (GH, CT)	1. Install secondary containment CMs prior to using generators. 2. Implement hazardous waste management procedures.
Areas where potential spills can occur	Yes	Hazardous waste management (GH) Spill response & notification (GH)	1. Implement hazardous waste management. 2. Implement spill response and notification procedures.
Flushing Waterlines	Yes	ESC CMs Low Risk Guidance for Potable Water **See **Appendix 12**	1. Install ESC measures prior to discharge. 2. Follow CMs required by the Low Risk Guidance**See **Appendix 12**

* Refer to Section 2, for acronyms used to identify CM details.

Potential hazardous material & chemical pollutants to stormwater:

Potentially on Site?	Material/ Chemical	Physical Description	Stormwater Pollutants	Location
Yes	Fertilizer	Liquid or solid grains	Nitrogen, phosphorous	Newly seeded areas
Yes	Cleaning solvents	Colorless, blue, or yellow-green liquid	Perchloroethylene, methylene chloride, trichloroethylene, petroleum distillates	Staging areas
Yes	Asphalt	Black solid	Oil, petroleum distillates	Streets
Yes	Concrete and Grout	White solid/grey liquid	Limestone, sand, pH, chromium	Curb and gutter, sidewalk, building construction
Yes	Curing compounds	Creamy white liquid	Naphtha	Curb and gutter, sidewalk, driveways, concrete slabs
Yes	Hydraulic oil/ fluids	Brown, oily petroleum hydrocarbon	Mineral oil	Leaks or broken hoses from equipment
Yes	Gasoline	Colorless, pale brown or pink petroleum hydrocarbon	Benzene, ethyl benzene, toluene, xylene, MTBE	Secondary containment/staging area
Yes	Antifreeze/ coolant	Clear green/yellow liquid	Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)	Leaks or broken hoses from equipment or vehicles
Yes	Sanitary toilets	Various colored liquid	Bacteria, parasites, and viruses	Staging areas

1.9 Anticipated Allowable Sources of Non-stormwater Discharge

Instructions:

- Check box for presence of any anticipated allowable sources of non-stormwater discharge at the site such as: uncontaminated springs, landscape irrigation return flows, construction dewatering, concrete washout, super-chlorinated water for pipeline testing, etc.
- Include location (if applicable).

Description and location of any anticipated allowable sources of non-stormwater discharge at the site. Check if applicable:

☐ Natural springs, only if:
- Uncontaminated, and
- Spring flows are not exposed to land disturbance

Location: Not applicable

☐ Landscape irrigation return flow

Location: Not applicable, landscape irrigation will be on a closed system

☐ Construction dewatering, only if:
- Groundwater or groundwater combined with stormwater is uncontaminated, and
- Dewatering CMs are identified in the SWMP (filtration measures at pump intake and outlet), and
- The discharge does not leave the site as surface runoff or to surface waters.

Note: For **off-site** discharges a separate State of Colorado Dewatering Permit is required.

Location: Not anticipated

☒ Concrete washout (CWA), only if:
- Liquids from washing concrete tools and concrete mixer chutes are properly contained, and
- No concrete washout water leaves the site as surface runoff or reach receiving waters

Liner under CWA is required if:
- The groundwater table level is high.
- CWA is within 400 feet of any natural drainage pathway or waterbody, or
- CWA is within 1,000 feet of any wells or drinking water sources.

☒ Check if the CWA liner is needed for this site.

Location: At location of wash out shown on plan sheet

☐ Super-chlorinated water for line testing (**Refer to **Appendix 12** for State Low Risk Guidance).
- Discharge only after dechlorination CMs, such as industry standard dechlorination techniques or chemical treatment to “no measurable chlorine” content, and
- Control flow during discharge to allow infiltration and reduce erosion of land

Location: Not applicable

Description and location of any other anticipated allowable sources of non-stormwater discharge at the site: N/A

1.10 Demolition

Instructions:

- Before demolition of a structure begins, a copy of the Asbestos Certification from the State of Colorado certifying the structure is free of asbestos and other pollutants must be obtained. Attach a copy of the Demolition Permit, including the State of Colorado Asbestos Abatement Permit in Appendix 4.

Are there any building structures to be demolished at this site?

☐ Yes ☒ No

If yes:

1) Place a copy of Demolition Permit in Appendix 4.
2) Place a copy of the State of Colorado Asbestos Certification in Appendix 4.
3) Initial CMs must be installed prior beginning demolition work.
4) Describe additional steps taken to address demolition: N/A

SECTION 2: EROSION & SEDIMENT CONTROL MEASURES

Instructions:

Multiple permanent (structural) and temporary (non-structural) Control Measures (CM) are used for each phase of construction to minimize stormwater pollution. Select and categorize each CM according to their purpose:

1. Minimize disturbed area, and protect natural features and soil
2. Control stormwater flowing onto and through the project
3. Soil stabilization and slope protection
4. Storm drain inlet protection
5. Perimeter control and sediment barriers
6. Retention of sediment on-site
7. Construction entrance/exit stabilization
8. Additional CMs

Describe the CMs that will be implemented to control pollutants in stormwater discharges. A list of standard and commonly use CM is provided. The information also includes the e*xpected level of information* for each CM. The e*xpected level of information* must address the following:

- ***What*** *CMs will be installed? Select and describe CMs.*
- ***When*** *will the CMs be implemented and removed? Timing, temporary or permanent. All CMs shall be installed as a phased operation as construction progresses.*
- ***Where*** *will the CMs be implemented? Location.*
- ***How*** *will the CMs be maintained? Describe the maintenance and inspection procedures. Include protocols, thresholds, and schedules for cleaning, repairing or replacing damaged or failing CMs.*

If a construction project uses a CM that is not included below, add the CMs and ensure that the *expected level of information* is included.

Place CM detail drawings in **Appendix 5**. Use Urban Drainage Flood Control District's Detail Drawings:

https://udfcd.org/wp-content/uploads/uploads/vol3%20criteria%20manual/Chapter%207%20Construction%20BMPs.pdf

Indicate on the sections below which permanent (structural) or temporary (non-structural) control measure will be implemented to prevent stormwater pollution according to the following priorities:

1. Minimize Disturbed Area and Protect Natural Features and Soil

- Limits of Construction (LOC)
- Construction Phasing (CP)

2. Control Stormwater Flowing onto and through the Project

- Silt Fence (SF) SC-1
- Earthen Berms

3. Soil Stabilization and Slope Protection

- Surface Roughening (SR) EC-1
- Mulching (MU) EC-4
- Rolled Erosion Control Product (RECP) EC-6
- Wind Erosion/Dust Control (DC) EC-14

4. Storm Drain Inlet Protection

- Inlet Protection (IP) SC-6

5. Perimeter Controls and Sediment Barriers

- Construction Fence (CF) SM-3
- Vehicle Tracking Control (VTC) SM-4

6. Retention of Sediment On-Site

- Silt Fence (SF) SC-1
- Sediment Control Log (SCL) SC-2

7. Construction Entrance/Exit Stabilization

- Vehicle Tracking Control (VTC) SM-4
- Stabilized Construction Roadway (SCR) SM-5
- Stabilized Staging Area (SSA) SM-6
- Street Sweeping (SS) SM-7

8. Additional CMs

- Concrete Washout Areas (CWA) MM-1
- Stockpile Management (SP) MM-2

2.1 Minimize Disturbed Area & Protect Natural Features and Soil

Instructions:

- Select methods (signs, construction fence) to protect unique site feature or sensitive area that shall not be disturbed. Describe how each unique site feature or sensitive area identified earlier will be protected during construction activity. Include these areas and associated measures on the EC Plan (site map).
- Indicate applicable measure by selecting the blue Yes/No then type "**Yes**" or "**No**". Identify the phase of construction during which the CM will be implemented: 1, 2, or 3, and check whether the CM is Permanent (structural) or Temporary (non-structural). Add any additional CMs as needed.

Limits of Construction (LOC)	Used: Yes	Phase(s): All
☐ ***Permanent***	☒ ***Temporary***	
What: Description	LOC is use to designate the area of land that will be disturbed by construction activities.	
When: Installation	The permitted LOC shall be designated prior to land disturbing activities. If land is disturbed outside of the limits, then the State and Local stormwater construction discharge permits and SWMP/EC Plan must be amended.	
Where: Location	The permitted LOC shall be identified on the EC Plan.	
How: Maintenance & Inspection	LOC are typically delineated by silt fence or construction fence. Inspect LOC continuously and maintain the permitted LOC in an effort to not disturb land outside of the boundaries.	

Construction Phasing (CP)	Used: Yes	Phase(s): All
☐ ***Permanent***	☒ ***Temporary***	
What: Description	CP is scheduling and sequencing of land disturbing activities to limit erosion on dormant parts of the site.	
When: Installation	At planning	
Where: Location	The permitted CP shall be identified on the SWMP/EC Plan.	
How: Maintenance & Inspection	At least establish CMs for initial, interim and final phase.	

2.2 Control Stormwater Flowing onto and through the Project

Instructions:

- Select practices to divert flows from exposed soils, retain or detain flows, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site.
- Indicate applicable measure by selecting the blue Yes/No then type "**Yes**" or "**No**". Identify the phase of construction during which the CM will be implemented: 1, 2, or 3, and check whether the CM is Permanent (structural) or Temporary (non-structural). Add any additional CMs as needed.

Silt Fence (SF) SC-1	***Used: Yes***	***Phase(s): All***
☐ ***Permanent***	☒ ***Temporary***	
What: Description	SF is a woven geotextile fabric attached to wooden posts and trenched into the ground. It is use to intercept sheet flow runoff from disturbed areas.	
When: Installation	SF shall be installed prior to land disturbing activities. SF shall be removed when the upstream area is stabilized.	
Where: Location	SF shall be installed at the locations identified on the SWMP. SF is typically installed along the contour of slopes, which is down slope of a disturbed area to accept sheet flow, and placed along the perimeter of a construction site. ***SF is not designed to receive concentrated flow, or to be used a filter fabric.***	
How: Maintenance & Inspection	SF shall be installed per detail SC-1 (Appendix 5). Inspect regularly and maintain SF throughout construction. Any section of SF that has a tear, hole, slumping, undercutting or has been bypassed shall be replaced. Accumulated sediment shall be removed before it reaches a depth of 6 inches.	

2.3 Soil Stabilization and Slope Protection

Instructions:

- Soil Stabilization: Select controls to stabilize exposed soils where construction activities have temporarily or permanently ceased and measures to control dust generation.
- Slope Protection: Select controls that will be implemented to protect slopes from eroding.
- Indicate applicable measure by selecting the blue Yes/No then type "**Yes**" or "**No**". Identify the phase of construction during which the CM will be implemented: 1, 2, or 3, and check whether the CM is Permanent (structural) or Temporary (non-structural). Add any additional CMs as needed.

Surface Roughening (SR) EC-1	Used: Yes	Phase(s): After Initial Grading
☐ ***Permanent***	☒ ***Temporary***	
What: Description	SR is tracking, scarifying, imprinting or tilling a disturbed area to provide temporary stabilization. Variations in the soil are created to help minimize wind and water erosion.	
When: Installation	SR shall be performed either after final grading or to temporarily stabilize an area during active construction.	
Where: Location	SR shall be used in the locations identified on the SWMP. It can be used on mild and steep slopes.	
How: Maintenance & Inspection	SR shall be installed per detail EC-1 (Appendix 5). SR shall always be perpendicular to the slope. Continuously inspect and maintain all surfaces that are roughened throughout construction. SR shall be inspected for erosion as it is only a temporary control. Vehicles and equipment shall not be driven over areas that have been surface roughening. Refresh SR as needed.	

Rolled Erosion Control Product (RECP) EC-6	Used: Yes/No	Phase(s): Prior to final Landscaping
☐ ***Permanent***	☒ ***Temporary***	
What: Description	RECP consist of a variety of temporary or permanently installed manufactured products designed to control erosion and enhance vegetation establishment and survivability, especially on slopes and in channels. Categories of RECP: mulch control netting, open weave textile, erosion control blanket, and turf reinforcement mat.	
When: Installation	RECP shall be installed upon completion of slope grading and when revegetation measures are completed. RECP are biodegradable typically and do not need to be removed after construction.	
Where: Location	RECP shall be installed at the locations identified on the SWMP. Install RECP according to manufacturer's specifications.	

How: Maintenance & Inspection	RECP shall be installed per EC-6 (Appendix 5). Continuously inspect and maintain all RECP throughout construction. Check for signs of erosion, including voids under the mat. Also check for damaged or loose stakes and secure loose sections of the blanket.

Wind Erosion/Dust Control (DC) EC-14	Used: Yes	Phase(s): All
☐ ***Permanent***	☒ ***Temporary***	
What: Description	DC helps keep sediments (from soils and stockpiles) from entering the air as a result of land disturbing construction activities. A variety of practices that focus on grading disturbed areas may be used.	
When: Installation	Implement DC during conditions which result in dust from either construction activities or from naturally occurring winds. Do not overwater.	
Where: Location	Dust abatement shall be completed throughout the project area where any material exists that has the potential to become airborne.	
How: Maintenance & Inspection	DC measures shall be performed per detail EC-14 (Appendix 5). Apply water or magnesium chloride, seed and mulch or use spray-on soil binders on disturbed areas. Water and magnesium chloride shall be applied such that concentrated flows do not form.	

2.4 Storm Drain Inlet Protection

Instructions:

- Select controls, including design specifications and details, that will be implemented to protect storm drain inlets receiving stormwater from the project.
- Indicate applicable measure by selecting the blue Yes/No then type "**Yes**" or "**No**". Identify the phase of construction during which the CM will be implemented: 1, 2, or 3, and check whether the CM is Permanent (structural) or Temporary (non-structural). Add any additional CMs as needed.

Inlet Protection (IP) SC-6	Used: Yes	Phase(s): All
☐ ***Permanent***	☒ ***Temporary***	
What: Description	IP is a permeable barrier that is installed around an inlet drain to filter runoff and remove sediment before entering the storm system. IP can be constructed of: RS, SCL, SF, blocks and RS, or other materials.	
When: Installation	Install IP for existing catch basins prior to land disturbing activities upslope from the inlet. IP for proposed catch basins shall be installed immediately after the drain is constructed. IP and associated sediment must be removed and properly disposed of when the drainage area upstream is stabilized.	
Where: Location	Install IP at the locations identified on the EC Plan. IP is not a stand-alone measure. It shall be used in conjunction with other up gradient measures.	
How: Maintenance & Inspection	Install IP per detail SC-6 (Appendix 5). IP shall enable the drain to function without completely blocking the flow. Inspect regularly and maintain IP throughout construction as it is the final measure before runoff enters the storm drain. Accumulated sediment shall be removed when it has reached ½ of the height of the IP or looses functionality, whichever comes first. IP is not standalone measure and shall be part of redundant system.	

2.5 Perimeter Control & Sediment Barriers

Instructions:

- Select measures, including design specifications and details, to filter and trap sediment before it leaves the construction site.
- Indicate applicable measure by selecting the blue Yes/No then type "**Yes**" or "**No**". Identify the phase of construction during which the CM will be implemented: 1, 2, or 3, and check whether the CM is Permanent (structural) or Temporary (non-structural). Add any additional CMs as needed.

Construction Fence (CF) SM-3	Used: Yes	Phase(s): All
☐ ***Permanent***	☒ ***Temporary***	
What: Description	CF restricts site access to designated entrances and exits, delineates construction site boundaries, and keeps construction out of sensitive locations such as natural areas to be preserved as open space, wetlands and riparian areas.	
When: Installation	CF shall be installed prior to earth disturbing activities; and removed once construction is complete.	
Where: Location	Install CF along the site perimeter or any area within the site where access shall be restricted.	
How: Maintenance & Inspection	CF shall be installed, maintained and removed per detail SM-3 (Appendix 5). Inspect CF for damages and slumping. The CF shall be tight and any areas with slumping or fallen posts shall be reinstalled or replaced.	

Vehicle Tracking Control (VTC) SM-4	Used: Yes	Phase(s): Until Paving is complete.
☐ ***Permanent***	☒ ***Temporary***	
What: Description	VTC is a stabilized site access point that helps remove sediment from vehicle tires and reduces tracking of sediment onto paved surfaces.	
When: Installation	Install VTC prior to any land disturbing activities; and removed when there is no longer the potential for vehicle tracking to occur.	
Where: Location	VTC shall be installed at the location identified on the SWMP. Locate VTC where frequent vehicle traffic will exit the construction site onto a paved roadway.	
How: Maintenance & Inspection	VTC shall be installed per detail SM-4 (Appendix 5). All VTC must have non-woven geotextile fabric between the soil and rock pad. Recycled concrete aggregate is not allowed because concrete dust elevates pH in stormwater. Inspect regularly and maintain VTCs throughout construction. If the area becomes clogged with sediment, remove and dispose of excess sediment or replace material with a fresh layer of rock. Any sediment that is tracked onto adjacent roadways shall be cleaned with brooms, shovels (no water washing), or mechanically cleaned with a street vacuum sweeper.	

2.6 Retention of Sediment On-Site

Instructions:

- Select sediment control practices, including design specifications and details (volume, dimensions, outlet structure) that will be implemented at the construction site to retain sediments on-site.
- Indicate applicable measure by selecting the blue Yes/No then type "**Yes**" or "**No**". Identify the phase of construction during which the CM will be implemented: 1, 2, or 3, and check whether the CM is Permanent (structural) or Temporary (non-structural). Add any additional CMs as needed.

Silt Fence (SF) SC-1 Used: Yes Phase(s): Until Final Landscaping is installed

☐ ***Permanent*** ☒ ***Temporary***

What: Description	SF is a woven geotextile fabric attached to wooden posts and trenched into the ground. It is use to intercept sheet flow runoff from disturbed areas.
When: Installation	SF shall be installed prior to land disturbing activities. SF shall be removed when the upstream area is stabilized.
Where: Location	SF shall be installed at the locations identified on the SWMP. SF is typically installed along the contour of slopes, which is down slope of a disturbed area to accept sheet flow, and placed along the perimeter of a construction site. ***SF is not designed to receive concentrated flow, or to be used a filter fabric.***
How: Maintenance & Inspection	SF shall be installed per detail SC-1 (Appendix 5). Inspect regularly and maintain SF throughout construction. Any section of SF that has a tear, hole, slumping, undercutting or has been bypassed shall be replaced. Accumulated sediment shall be removed before it reaches a depth of 6 inches.

Earthen Berm Used: Yes Phase(s): All until landscaping and final grading are complete

☐ ***Permanent*** ☒ ***Temporary***

What: Description	An earthen berm constructed from on site materials shall be installed on the perimeter of the site (especially on the downhill side) to capture any sediment that may bypass other BMPs on site.
When: Installation	The contractor will construct the berm during the initial grading phase.
Where: Location	The berm will be located on the site perimeter anywhere that sediment may leave the site during a storm event. In some locations the contractor may elect to install berms to prevent sediment from entering the site from adjacent properties.
How: Maintenance & Inspection	Berm shall be installed per details in plans. Inspect regularly and maintain throughout construction.

2.7 Construction Entrance/Exit Stabilization

Instructions:

- Select CM to stabilize vehicle entrance(s) and exit(s) to minimize off-site vehicle tracking of sediments and discharges to stormwater.
- Indicate applicable measure by selecting the blue Yes/No then type "**Yes**" or "**No**". Identify the phase of construction during which the CM will be implemented: 1, 2, or 3, and check whether the CM is Permanent (structural) or Temporary (non-structural). Add any additional CMs as needed.

Vehicle Tracking Control (VTC) SM-4	Used: Yes	Phase(s): Until Paving is complete
☐ ***Permanent***	☒ ***Temporary***	

What: Description	Refer to Section 2.5
When: Installation	Refer to Section 2.5
Where: Location	Refer to Section 2.5
How: Maintenance & Inspection	Refer to Section 2.5

Stabilized Construction Roadway (SCR) SM-5	Used: Yes	Phase(s): Until paving is complete
☐ ***Permanent***	☒ ***Temporary***	

What: Description	SCR is a temporary method to control sediment runoff, vehicle tracking, and dust from roads during construction activities consisting of aggregate base course of 3-inch diameter granular material (recycled concrete aggregate is not allowed because concrete dust elevates pH in stormwater).
When: Installation	SCR is installed on high traffic construction roads to minimize dust and erosion, and use in place of rough cut street controls on roadways with frequent construction and vehicle traffic. Gravel shall be removed once the road is ready to be paved. Prior to paving, the road should be inspected for grade changes and damage. Re-grade and repair as necessary.
Where: Location	SCR shall be installed at the locations identified on the SWMP. Apply gravel to disturbed areas that are used as a route for vehicles.
How: Maintenance & Inspection	SCR shall be installed per detail SM-5 (Appendix 5). Inspect regularly and maintain SCR throughout construction. A stable surface cover of rigid gravel shall be maintained as well as repairing any perimeter controls. Inspect drainage ditches along the roadway for erosion and stabilize as needed.

Stabilized Staging Area (SSA) SM-6	Used: Yes	Phase(s): All
☐ ***Permanent***	☒ ***Temporary***	
What: Description	SSA is a clearly designated area where construction equipment and vehicles, stockpiles, waste bins and other construction-related materials are stored. If the construction site is big, more than one SSA may be necessary.	
When: Installation	SSA shall be installed prior to any land disturbing activities.	
Where: Location	SSA shall be installed at the location identified on the SWMP.	
How: Maintenance & Inspection	SSA shall be installed per detail SM-6 (Appendix 5). Inspect regularly and maintain SSA throughout construction. A stable surface cover of rigid gravel shall be maintained as well as repairing any perimeter controls and following good housekeeping practices.	

Street Sweeping (SS) SM-7	Used: Yes	Phase(s): All
☐ ***Permanent***	☒ ***Temporary***	
What: Description	SS is used where vehicles track sediment onto paved roadways to reduce the transport of it into storm drain systems or surface waterways.	
When: Installation	Manual SS or mechanical vacuuming SS shall be conducted when there is noticeable sediment accumulation on roadways adjacent to the construction site. SS shall be completed prior to any precipitation events, at the end of the workday as needed, and at the end of construction.	
Where: Location	SS shall be utilized throughout the site and also on adjacent areas to construction.	
How: Maintenance & Inspection	SS shall be performed per detail SM-7 (Appendix 5). Use standard SS equipment to adequately remove sediment from roadways adjacent to the construction site.	

2.8 Additional Control Measures (CMs)

Instructions:

Indicate applicable CMs by selecting the blue Yes/No then type "**Yes**" or "**No**". Identify the phase of construction during which the CM will be implemented: 1, 2, or 3, and check whether the CM is Permanent (structural) or Temporary (non-structural). Add any additional CMs as needed.

Concrete Washout Areas (CWA) *MM-1*	Used: Yes	Phase(s): All
☐ ***Permanent***	☒ ***Temporary***	
What: Description	CWA is a specific area for concrete washing activities. It can be an excavation of a pit in the ground, above ground storage area or prefabricated haul-away container.	
When: Installation	CWA shall be installed prior to any concrete delivery to the construction site; and remove upon termination of use of the washout. Accumulated solid waste, including concrete waste and any contamination soils, must be removed from the site to a designated disposal location.	
Where: Location	CWA shall be installed at the locations identified on the SWMP. Lined CWA if the groundwater table is high; or if the CWA will be placed within 400 ft of a natural drainage pathway/waterbody; or within 1,000 ft of a wells or drinking water source.	
How: Maintenance & Inspection	CWA shall be installed per detail MM-1 (Appendix 5). Inspect regularly and maintain CWA throughout construction. Ensure adequate signage is in place identifying the location of the CWA. Remove concrete waste when filled to about ⅔ of CWA capacity to maintain functionality.	

Stockpile Management (SP) *MM-2*	Used: Yes	Phase(s): All
☐ ***Permanent***	☒ ***Temporary***	
What: Description	SP includes measures to minimize erosion and sediment transport from stockpiles. SP shall be used when soils or other erodible materials are stored.	
When: Installation	SP locations shall be determined during construction. If temporary removal of a CM is necessary to access the SP, ensure CMs area re-installed per detail drawing. When SP is no longer needed, properly dispose of excess materials and re-vegetate or stabilize the ground surface where the SP was located.	
Where: Location	SP locations shall be placed away from areas where concentrated stormwater flow is anticipated, major drainageways, gutters, and storm sewer inlets. SP locations shall be noted on the SWMP.	
How: Maintenance & Inspection	SP shall be installed per detail MM-2 (Appendix 5). Inspect regularly and maintain SP throughout construction. It is recommended to place SP on a pervious surface and protected from sediment transport with measures such as SCL, VB and/or SF. SP are only allowed on impervious surfaces if no other	

	practical alternative exists. Provide weighted sediment control measures around the perimeter of the SP, such as RS or sand bags.

Paving and Grinding Operations (PGO) SM-12 Used: Yes Phase(s): During Paving	
☐ ***Permanent*** ☒ ***Temporary***	
What: Description	Runoff management practices shall be used during all PGO. A variety of management practices can be used such as: IP, perimeter controls, store materials away from the storm sewer system, drainages and waterways, and keep a spill kit onsite.
When: Installation	PGO shall be scheduled during dry weather. Recycle asphalt and pavement material when feasible. Material that cannot be recycled must be disposed of properly.
Where: Location	Use runoff management practices during all paving and grinding operations such as surfacing, resurfacing, and saw cuts.
How: Maintenance & Inspection	PGO shall be installed per detail SM-12 (Appendix 5). Inspect regularly and maintain PGO throughout construction.

SECTION 3: CONSTRUCTION SITE PHASING & EC PLAN

3.1 Construction Site Phasing Summary

Instructions:
The SWMP and EC Plan (Site Map) shall clearly delineate the construction sequencing between the separate phases of construction, and the CM/BMP implementation of the permanent and temporary CMs.
Using the information under **Section 1.3 Nature and Sequence of Construction Activity**, describe the construction phase and the permanent or temporary CMs associated with each of the following 3 phases:

- **Initial Construction = Phase I, Initial BMP/CMs**
- **Interim Construction = Phase II, Interim BMP/CM**s
- **Final Construction = Phase III, Final BMP/CM**s

The EC Plan **must** identify location of the proposed CMs to be implemented during the 3 phases of construction. **Develop 3 separate phased detailed site maps** (one plan sheet representing one phase; do not combine). Place the EC Plan sheets in **Appendix 6.** Place CMs details in **Appendix 5**.

- **Initial Construction - Phase I**

- Select applicable construction activities

☐ Demolition
☒ Clearing, Grubbing, Tree and Shrub Removal
☒ Top Soil Stripping and Stock Piling
☒ Grading
☐ Over-excavation/Soil conditioning
☒ Utility Installation
☐ Dewatering
☒ VTC to to enter/exit onto public roads

☒ Initial Control Measures (CM)
- ☐ Stabilized Staging Area (SSA) SM-6
- ☒ VTC to enter/exit into public roads
- ☒ Perimeter Control
- ☐ Inlet Protection (IP) SC-6 on existing site or off-site storm drains
- ☐ Check Dams (CD) EC-12
- ☐ Rock Sock (RS) SC-5
- ☒ Silt Fence (SF) SC-1
- ☐ Sediment Control Log (SCL) SC-2
- ☐ Sediment Basin (SB) SC-7
- ☐ Sediment Trap (ST) SC-8
- ☐ Earth Dikes/Drainage Swales (ED/DS) EC-10
- ☐ Dewatering Operations (DW) SM-9
- ☒ Stockpile Management (SP) MM-2
- ☒ Surface Roughening (SR) EC-1
- ☐ Temporary Seeding (TS) EC-2

☐ Soil Binders (SB) EC-3
☒ Limits of Construction (LOC)
☐ Protection of Existing Vegetation (PV) SM-2
☒ Employee Training
☒ Street Sweeping (SS) SM-7
☒ Dust Control (DC) EC-14
☒ Good Housekeeping Practices **(required)**
☒ Spill Prevention, Containment and Control **(required)**
☒ Covering Outdoor Storage and Handling Areas **(required)**
☐ Other: Insert Here

- **Interim Construction - Phase II**

- Select applicable construction activities

☒ Road Construction
☒ Parking lot Construction
☒ Vertical Construction
☐ Dewatering
☐ Other: Insert Here

☒ Interim Control Measures (CM) - BMPs/CMs associated with this Phase
☒ Inlet Protection (IP) SC-6 as new storm drains are constructed
☒ Outlet Protection (OP)
☐ Check Dams (CD) EC-12
☐ Rock Sock (RS) SC-5
☒ Installation of additional CMs at curbside, sidewalks, medians, and parking islands once pavement is laid (until landscape begins)
☒ VTC to enter/exit dirt lots from internal roads or parkinglot
☒ Concrete Washout Areas (CWA) MM-1
☐ Temporary Cement Mixing Area
☒ Stabilized Staging Area (SSA) SM-6
☒ Silt Fence (SF) SC-1
☐ Sediment Control Log (SCL) SC-2
☐ Sediment Basin (SB) SC-7
☒ Sediment Trap (ST) SC-8
☐ Earth Dikes/Drainage Swales (ED/DS) EC-10
☒ Surface Roughening (SR) EC-1
☐ Temporary Seeding (TS) EC-2
☐ Soil Binders (SB) EC-3
☐ Dewatering Operations (DW) SM-9
☒ Stockpile Management (SP) MM-2

☒ Limits of Construction (LOC)
☐ Protection of Existing Vegetation (PV) SM-2
☒ Employee Training
☒ Street Sweeping (SS) SM-7
☒ Dust Control (DC) EC-14
☒ Good Housekeeping Practices **(required)**
☒ Spill Prevention, Containment and Control **(required)**
☒ Covering Outdoor Storage and Handling Areas **(required)**
☐ Other: Insert Here

- **Final Construction - Phase III**

- Select applicable construction activities

☒ Final Grade
☒ Top Soil Placement
☒ Landscape (per approved plan)
☐ Removal of applicable temporary BMPs/CMs
☐ Permanent pond conversion + removal of sediments on the SB
☐ Other: Insert Here

☒ Final Stabilization - BMPs/CMs associated with this Phase
☒ Sod
☒ Permanent Seeding & Mulching (PS/MU)
☐ Erosion Control blankets (RECP)
☒ Limits of Construction (LOC)
☐ Protection of Existing Vegetation (PV) SM-2
☐ Employee Training
☒ Street Sweeping (SS) SM-7
☒ Dust Control
☒ Good Housekeeping Practices **(required)**
☒ Spill Prevention, Containment and Control **(required)**
☒ Covering Outdoor Storage and Handling Areas **(required)**
☐ Other: Insert Here

SECTION 4: WASTE MANAGEMENT PLAN

Instructions:

Complete the Waste Management Plan below by describing site-specific pollution prevention CMs that will be implemented to control pollutants in stormwater from construction sites. Indicate which of the following CM categories are applicable for your construction site:

- Covering Outdoor Storage and Handling Areas **(required)**
- Spill Prevention and Response Plan **(required)**
- Good Housekeeping **(required)**
- Vehicle Maintenance, Fueling and Storage **(required, if applicable)**
- Street Sweeping and Cleaning **(required, if applicable)**
- Storm Sewer System Cleaning **(required, if applicable)**

4.1 Covering Outdoor Storage and Handling Areas

Instructions:

- Practices for outdoor storage and handling areas are required to be implemented in all 3 phases of construction (initial, interim and final).

Covering Outdoor Storage and Handling Areas	Used: Yes	Phase(s): All
☐ ***Permanent***	☒ ***Temporary Procedure***	

Description: When raw materials, byproducts, finished products, storage tanks, and other materials are stored or handled outdoors, stormwater runoff that comes in contact with the materials can become contaminated. Proactively covering storage and handling areas can be an effective source control for such areas. Coverings can be permanent or temporary and consist of tarp, plastic sheeting, roofing, enclosed structures, or other approaches that reduce exposure of materials to precipitation and wind.

Uses: Covering is appropriate for areas where solids (e.g., gravel, compost, building materials) or liquids (e.g., oil, gas, tar) are stored, prepared, or transferred. Cover the following areas that are applicable to this construction site:

- **Loading and Unloading:** Loading and unloading operations usually take place at outside storage or staging area on the construction site. Materials may be spilled during transfer between storage facilities and trucks during pumping of liquids, pneumatic transfer of dry chemicals, and mechanical transfer of bags, boxes, drums, or other containers by material handling equipment.
- **Aboveground Tanks/Liquid Storage:** Accidental releases of chemicals from above-ground liquid storage can contaminate stormwater with a variety of pollutants. Several common causes of accidental releases from above-ground storage include: external corrosion and structural failure, problems due to improper installation, spills and overfills due to operator error, failure of piping systems, and leads or spills during pumping of liquids or gases between trucks to a storage facility.
- **Outside Manufacturing:** Common outside manufacturing activities may include parts assembly, rock grinding or crushing, metals painting or coating, grinding or sanding, degreasing, concrete manufacturing, parts cleaning or operations that use hazardous materials. These activities can result in dry deposition of dust, metal and wood shavings and liquid discharges of dripping or leaking fluids from equipment or process and other residuals being washed away in storm runoff. In addition, outside storage of materials and waste products may occur in conjunction with outside manufacturing.
- **Waste Management:** Wastes spilled, leached, or lost from outdoor waste management areas or outside manufacturing activities may accumulate in soils or on other surfaces and be carried away by storm runoff. There is also the potential for liquid wastes from surface impoundments to overflow to surface waters or soak the soil where they can be picked up by runoff. Possible stormwater contaminants include toxic compounds, oil and grease, oxygen-demanding organics, paints and solvents, heavy metals and high levels of

suspended solids. Lack of coverage of waste receptacles can result in precipitation seeping through the material and collecting contaminants or the material being blown around the site and into the storm sewer system. Containment sources include waste piles, wastewater and solid waste treatment and disposal, land application sites, dumpsters, or unlabeled drums.

- **Outside Storage of Materials:** Raw materials, intermediate products, byproducts, process residuals, finished products, containers, and materials storage areas can be sources of pollutants such as metals, oils and grease, sediment and other contaminants. Pollutant transport can occur when solid materials wash off or dissolve into water, or when spills or leaks occur.

Practice Procedures:

- Where practical, conduct operations indoors. If outdoors, then select a temporary or permanent covering to reduce exposure of materials to precipitation and runoff.
- The type of covering selected depends on a variety of factors such as the type and size of activity being conducted and materials involved. Types of cover range from relatively inexpensive tarps and plastic sheeting to overhead structures or fully enclosed buildings equipped with ventilation, lighting, etc.
- Covering practices should be combined with Good Housekeeping to be most effective.
- Tarps and plastic sheets require more frequent inspection and maintenance.

4.2 Spill Prevention and Response Plan

Instructions: Implement spill prevention, containment and control practices during all 3 phases of construction.

Spill Prevention & Response Plan	Used: Yes	Phase(s): 1, 2, 3
☐ ***Permanent***	☒ ***Temporary Procedure***	

Spills and leaks of solid and liquid materials processed, handled or stored outdoors can be a source of stormwater pollution. Spilled substances can reach receiving waters when runoff washes these materials from impervious surfaces or when spills directly enter the storm system during dry weather conditions. Effective controls depend on spill prevention and response measures, proper training, and may include structural spill containment or control devices. Spill containment measures 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. Spill control devices include valves, slide gates, or other devices that can control and contain spilled material.

Spill Prevention Measures

- Train key employees in plan and provide clear, common-sense spill prevention practices and clean-up procedures to be strictly followed.
- Identify equipment that is exposed to precipitation, pollutants that may be generated and possible sources of leaks or discharges.
- Perform inspections and preventative maintenance of equipment for proper operation and to check for leaks or evidence of discharge (stains). Ensure repairs are completed or provide temporary leak containment until such repairs can be made.
- Drain used motor oil and other automotive fluids in a designated area away from storm inlets. Collect spent fluids and recycle or dispose of properly. Never dispose into storm 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 hose down a spill or absorbent materials into the storm drain, or down into an interior floor drain which leads to the sanitary sewer system.
- Reduce stormwater contact with equipment and materials by implementing covered storage, reduce stormwater run-on and follow good housekeeping practices.
- Post signs at critical locations with Spill Prevention and Response Plan information.

Identification of Spill Areas: Spill prevention and response measures shall be implemented at construction sites in areas where materials may be spilled in quantities that can adversely impact receiving waters or the storm system. Identify potential spill areas, potential spill volumes, material types, frequency of material used, and drainage paths from spill areas with relation to storm sewer inlets, adjacent water bodies, structural CMs, and containment structures. Use this information to determine the types of spill prevention and control measures needed specific to the site conditions. Show the potential spill areas on the EC Plan:

- Loading and unloading areas
- Outdoor storage areas
- Outdoor manufacturing or processing activities
- Waste disposal
- Areas that generate significant dust or particulates that may later deposit on the ground
- Areas prone to spills based on past experience at the site
- Locations where other routine maintenance activities occur
- Areas where smaller leaks may occur (parkinglots)

Material Handling Procedures: From a water quality perspective, the primary principle behind effective material handling practices is to minimize exposure to precipitation. Store the material indoors, otherwise implement the following outdoor materials handling procedures:

- Divert stormwater around materials storage areas.
- Keep bulk solid materials (raw materials, sand, gravel, topsoil, compost, concrete, packing materials, metal products, etc) covered and protected from stormwater.
- When practical, store materials on impermeable surfaces.
- Store hazardous materials according to federal, state, and local requirements.
- Adopt procedures to reduce spills or leaks during filling or transfer of materials.
- Substitute less toxic or nontoxic materials for toxic materials.
- Store containers that are easily punctured or damaged away from high traffic areas.
- Add waste-capture containers such as collection pans for lubricating fluids.
- Store drums and containers with liquids on impermeable surfaces and provide 2dary containment. Place drums stored outdoors on pallets to minimize contact with runoff.

Spill Response Procedures: Tailor spill response procedures to site-specific conditions and industry-specific regulatory requirements. Follow procedures:

- Contain and cleanup spills promptly after the spill is discovered.
- Sweep up small quantities of pollutants to reduce exposure to runoff.
- Place absorbents at fueling areas or areas susceptible to spills.
- Wipe up small spills with a rag, store rags in appropriate containers, dispose of rags properly or use a professional industrial cleaning service.
- Contain medium-sized spills with absorbents and use berms or absorbent "snakes" as temporary booms for the spill. Store and dispose of absorbents properly. Wet/dry vacuums may be used, but not for volatile fluids.
- Install drip pans below minor equipment leaks until a repair can be made.
- For large spills, first contain the spill and plug storm inlet where the liquid may migrate off-site, then clean up the spill.

- Excavation of spill areas to removed contaminated material may be required where large liquid spills occur on unpaved surfaces.
- Maintain an inventory of cleanup materials onsite and strategically locate them based on the types and quantities of chemicals present.
- Records of spills, leaks, or overflows that result in the discharge of pollutants must be documented and maintained.

Two approaches are used when implementing spill containment measures: 1) Design system to contain the entire spill; or 2) Use curbing to route spilled material to a collection basin. Both containment berming and curbing should be sized to safely contain or convey to a collection basin a spill from the largest storage tank, tanker truck, or other containment device in the possible spill area. The spill containment area must have an impermeable surface (impermeable liner, asphalt or concrete) to prevent groundwater contamination. Design containment system to enable collection and removal of spilled material through a pump or vacuum trucks, sorbent or gelling material, etc. Material removed must be disposed of or recycled according to local, state, and federal standards. If the capacity of the spill containment is exceeded, supplemental measures should be available such as a portable containment device, sorbent materials, or gelling agents to solidify the material. Water that collects within containment areas due to rainfall or snowmelt must be appropriately treated before release from the spill area.

Emergency 24-Hour Site Contact (with spill response and clean-up authority):

Insert Designated Person - TO BE DETERMINED WHEN CONTRACTOR IS SELECTED

Insert Company Name

Office #: (xxx)-xxx-xxxx Cell #: (xxx)-xxx-xxxx Email: xxx@xxx.com

Notification Procedures: Some spills may need to be reported to the State of Colorado, Water Quality Control Division and Monument City Stormwater Division immediately upon discovery. Releases of chemical, oil, petroleum product, sewage, etc., which may enter State Waters must be reported to: State of Colorado, 24-hour Emergency Spill Reporting Line: 1-877-518-5608. www.cdphe.state.co.us/emp/spillsandreleased.htm).
Insert: Other Notification numbers in the event of a spill

Insert: List of spill clean-up materials on-site

Insert: Incorporate by reference any part of a Spill Prevention Control and Countermeasure (SPCC) plan under section 311 of the Clean Water Act (CWA)
The relevant sections of any referenced plans must be available on-site

Insert: Incorporate by reference any part of the Spill Prevention Plan required by a separate CDPS permit
The relevant sections of any referenced plans must be available on-site

INSERT ADDITIONAL INFORMATION HERE

4.3 Good Housekeeping

Instructions: Implement good housekeeping practices during all 3 phases of construction (initial, interim & final).

Good Housekeeping Practices	Used: Yes	Phase(s): 1, 2, 3
☐ ***Permanent***	☒ ***Temporary***	

Description: Good housekeeping practices are designed to maintain a clean and orderly work environment. The most effective first steps towards preventing stormwater pollution at construction sites simply involve using common sense to improve the site's basic housekeeping methods. Poor housekeeping practices result in increased waste and potential for stormwater contamination. A clean and orderly work site reduces the possibility of accidental spills caused by mishandling of chemicals and equipment and should reduce safety hazards to personnel. A well-maintained material and chemical storage area will reduce the possibility of stormwater mixing with pollutants. Some simple procedures a site can use to promote good housekeeping include improved operation and maintenance of machinery and processes, material storage practices, material inventory controls, routine and regular clean-up schedules, maintaining well organized work areas, signage, and educational program for employees and the general public.

Practice Procedures for Operation and Maintenance:

- Maintain dry and clean floors and ground surfaces by using brooms, shovels, vacuums or cleaning machines, rather than wet clean-up methods.
- Regularly collect and dispose of garbage and waste material.
- Routinely inspect equipment to ensure that it is functioning properly without leaking and conduct preventative maintenance and needed repairs.
- Train employees on proper clean up and spill response procedures.
- Designate separate areas for auto parking, vehicle refueling and routine maintenance.
- Promptly clean up leaks, drips and other spills.
- Cover and maintain dumpsters and waste receptacles. Add additional dumpsters or increase frequency of waste collection if overflowing conditions reoccur.
- For outdoor painting and sanding: Conduct activities in designated areas that provide adequate protection to prevent overspray and uncontrolled emissions. All operations should be conducted on paved surfaces to facilitate cleanup. Use portable containment as necessary for outside operations. Clean up and properly dispose of excess paint, paint chips, protective coatings, grit waste, etc.
- Maintain vegetation on facility grounds in a manner that minimizes erosion. Follow the Landscape Maintenance and Pesticide, Herbicide and Fertilizer Usage CMs to ensure that minimum amounts of chemicals needed for healthy vegetation are applied to minimize transport of these materials in runoff.

Practice Procedures for Material Storage Practices:

- Provide adequate aisle space to facilitate material transfer and access for inspection.

- Store containers, drums, and bags away from direct traffic routes to reduce container damage resulting in accidental spills.
- Stack containers according to manufacturer's instructions to avoid damaging the containers from improper weight distribution. Also store materials in accordance with directions in Material Safety Data Sheets (MSDSs).
- Store containers on pallets or similar devices to prevent corrosion of containers that results from containers coming in contact with moisture on the ground.
- Store toxic or hazardous liquids within curbed areas or secondary containers.

Practice Procedures for Material Inventory Practices: An up-to-date materials inventory can keep material costs down by preventing overstocking, track how materials are stored and handled onsite, and identify which materials and activities pose the most risk to the environment. Assign responsibility of hazardous material inventory to individuals trained to handle such materials. A material inventory should include these steps:

- Identify all chemical substances present at work site. Perform a walk-through of the site, review purchase orders, list all chemical substances used and obtain Material Safety Data Sheets (MSDS) for all chemicals.
- Label all containers with name and type of substance, stock number, expiration date, health hazards, handling suggestions, and first aid information. Find info on the MSDS.
- Clearly identify special handling, storage, use and disposal considerations for hazardous materials on the material inventory.
- Institute a shelf-life program to improve material tracking and inventory to reduce the amount of materials overstocked and ensure proper disposal of expired materials. Careful tracking of materials ordered can result in more efficient materials use. Decisions on the amounts of hazardous materials that are stored on site should include an evaluation-of any emergency control systems that are in place. All storage areas for hazardous materials should be designed to contain spills.

Practice Procedures for Training and Participation: Provide frequent and proper training in good housekeeping techniques to reduce mishandling of chemicals or equipment. Educate by:

- Discussing good housekeeping practices in training programs and meetings.
- Publicizing pollution prevention concepts through posters or signs.
- Posting bulletin boards with updated good housekeeping procedures and tips.

4.4 Vehicle Maintenance, Fueling and Storage

Instructions:

- Identify procedures by selecting the blue Yes/NA **then** type "**Yes**" or "**N/A**".
- If applicable, CMs is required during all 3 phases of construction (initial, interim and final).

Vehicle Maintenance, Fueling and Storage	Used: Yes	Phase(s): 1, 2, 3
☐ ***Permanent***	☒ ***Temporary***	

Description: Areas where vehicles are fueled, maintained, and stored/parked can be pollutant "hot spots" that can result in hydrocarbons, trace metals, and other pollutants being transported in precipitation runoff. Proper fueling operations, storage of automotive fluids and effective spill cleanup procedures can help reduce contamination of stormwater runoff from vehicle maintenance and fueling facilities. Fuel-related spills can occur due to lack of attention during fueling or "topping off" fuel tanks. Common activities at construction sites include vehicle fluid replacement and equipment replacement and repair. Some of the wastes generated maintaining automobiles include solvents (degreasers, paint thinners, etc.), antifreeze, brake fluid, brake pad dust, battery acid, motor oil, fuel, and lubricating grease.

Uses: procedures are applicable to vehicle maintenance and fueling. Vehicle wash water is considered process wastewater that will not be discharged to the storm sewer system.

Practice Procedures for Vehicle Maintenance: The most effective way to minimize wastes generated by automotive maintenance activities is to prevent their production in the first place. The following practices will be implemented:

- Perform maintenance activities inside or under cover. When repairs cannot be performed indoors, use drip pans or absorbents.
- Keep equipment clean and free of excessive oil and grease buildup.
- Promptly cleanup spills using dry methods and properly dispose of waste. When water is required, use as little as possible to clean spills, leaks, and drips.
- Use a solvent collection service to collect spent solvent used for parts cleaning.
- When using liquids for cleaning, use a centralized station to ensure that solvents and residues stay in one area. Locate drip pans and draining boards to direct solvents back into a solvent sink or holding tank for reuse.
- Store used oil for recycling in labeled tanks. Locate used oil tanks and drums away from storm sewer, flowing streams, and preferably indoors.
- Use non-hazardous or less hazardous alternatives when practical. For example, replace chlorinated organic solvents with non-chlorinated ones like kerosene or mineral spirits.
- Properly recycle or dispose of grease, oil, antifreeze, brake fluid, cleaning solutions, hydraulic fluid, batteries, transmission fluid, worn parts, filters, and rags.
- Drain and crush oil filters before recycling or disposal.
- Drain all fluids and remove batteries from salvage vehicles and equipment.

- Closely monitor parked vehicles for leaks and place pans under leaks to collect the fluids for proper disposal or recycling.
- Install berms or other measures to contain spills and prevent work surface runoff from entering storm sewer system.
- Develop a spill prevention plan with measures such as spill kits, and information about location of storm drains and how to protect them if a large spill occurs.
- Conduct periodic employee training to reinforce proper disposal practices.
- Promptly transfer used fluids to recycling drums or hazardous waste containers.
- Store cracked batteries in leak-proof secondary containers.
- Inspect outdoor storage areas regularly for drips, spills and improperly stored materials (for example: unlabeled containers, auto parts that might contain grease or fluids, etc). This is particularly important for parking areas for vehicles awaiting repair.
- Structural CMs, such as traps, installed in vehicle hotspot areas require routine cleanout of oil and grease. During heavy rainfall, cleanout is required more often to ensure that pollutants are not washed through the trap. Sediment removal is also required on a regular basis to keep the CM working efficiently.

Practice Procedures for Vehicle Fueling:

- Fueling areas should be designed to prevent stormwater runoff and spills. Fuel-dispensing areas should be paved with concrete or equivalent impervious surface, with an adequate slope to prevent ponding, and separated from the rest of the site by a grade break or berm to prevent run-on of precipitation.
- For sites using a mobile fuel truck, establish a designated fueling area. Place temporary "caps" over nearby catch basins or manhole covers so that if a spill occurs, it is prevented from entering the storm sewer. 2dary containment should be used when transferring fuel from the tank truck to the fuel tank. Cover storm drains in the vicinity. Install vapor recovery nozzles to help control drips, and reduce air pollution.
- Keep spill response information and spill cleanup materials onsite and readily available.
- Employ dry cleanup methods cleaning up fuel spills. Such methods include sweeping to remove litter and debris, and using rags and absorbents for leaks and spills.
- Water should not be used to wash fuel spill areas. During routine cleaning, use a damp cloth on the pumps and a damp mop on the pavement. Fuel dispensing nozzles should be fitted with automatic shutoff except where prohibited by fire department. Post signs at the fuel dispenser warning operators against "topping off' vehicle fuel tanks.
- Provide written procedures describing CMs to employees who will be fueling.

4.5 Street Sweeping and Cleaning

Instructions:

- Identify CMs for the construction site by selecting the blue Yes/NA **then** type "**Yes**" or "**N/A**".
- If applicable, street sweeping shall be implemented for all 3 phases of construction (initial, interim and final).

Street Sweeping (SS)	Used: Yes	Phase(s): 1, 2, 3
☐ ***Permanent***	☒ ***Temporary***	

Description: SS uses either manual or mechanical pavement cleaning practices to collect or vacuum sediment, litter and other debris from the streets before being washed into storm sewers by runoff. This practice can reduce pollutant loading to receiving waters, reduce clogging of storm sewer pipes, prolong the life of infiltration CMs and reduce clogging of outlet structures in detention ponds. Mechanical designs include: broom and conveyor belt sweeper, wet or dry vacuum-assisted sweepers, and regenerative-air sweepers. The effectiveness depends upon particle loadings being swept, street texture, moisture conditions, parked cars, equipment conditions and frequency of cleaning.

Uses: SS is a technique in urban areas where sediment and litter accumulated on streets is of concern for aesthetic, sanitary, water and air quality reasons. SS is required at constructions sites per SWMP to reduce off-site tracking.

Procedures:

1. SS may be performed manually (broom and shovel) or with a vacuum sweeper (no kick-broom). Choose the most effective approach for site conditions.
2. SS shall be completed when there is sediment tracking from the construction site exits into the public road or right-of-way.
3. SS frequency depends on presence of sediment tracking. If tracking is occurring, either a VTC shall be installed, the VTC needs maintenance, or the VTC is inadequate; all require SWMP updates.
4. Off-site sediment tracking from the construction site shall be swept immediately.
5. Conduct SS prior to precipitation events.
6. Operate sweepers at manufacturer recommended optimal speed levels.
7. Regularly inspect vehicles and equipment for leaks and repair promptly.
8. Keep accurate logs of number of curb-miles swept and amount of waste collected.
9. Dispose of SS debris and dirt at a landfill.
10. Do not store swept material along the side of the street or near a storm drain inlet.

4.6 Storm Sewer Cleaning

Instructions:

- Select CMs to remove accumulated sediment, trash, and other pollutants from the storm system for the applicable construction site wastes identified in **Section 1.8 Potential Sources of Pollution** to maintain a clean and orderly construction site.
- Identify CMs by selecting the blue Yes/NA **then** type "**Yes**" or "**N/A**". If applicable, the following practices shall be implemented for all 3 phases of construction (initial, interim and final).

Storm Sewer System Cleaning	Used: Yes	Phase(s): 1, 2,3
☐ ***Permanent***	☒ ***Temporary***	

Description: Periodic storm sewer cleaning can help remove accumulated sediment, trash, and other pollutants from the storm system including inlets, pipes and also construction CMs. Routine cleaning reduces the amount of pollutants in the storm system and in receiving waters. Clogged drains can cause overflow, leading to increase erosion. Cleaning increases dissolved oxygen, reduces levels of bacteria, and supports in-stream habitat. Areas with flat grades or low flows should be given special attention because they rarely achieve high enough flows to flush themselves. Water used in storm drain cleaning must be collected and properly disposed of, typically at a sanitary wastewater treatment facility. Simpler methods in localized areas can also include manual trash collection and shoveling sediment and debris from inlets and outlets. Frequency and prioritization of storm sewer cleaning is affected by the activity and intensity of construction and the proper installation and maintenance for construction CMs.

Uses: Inspection of the existing storm system is recommended prior construction to document condition. The storm sewer shall be cleaned at minimum at completion of construction.

Practice Guidelines: Inspect the storm system as part of the required stormwater inspection.

- **Technology available**: manual cleaning (shovel), vacuum cleaning and vacuum combination jet cleaning. Choose the most effective approach for site conditions.
- **Staff training**: train about maintenance, waste collection and disposal methods.
- **Waste disposal**: Most catch basin waste is acceptable for landfills. If hazardous material is suspected, it should be tested and disposed of accordingly.

SECTION 5: STORMWATER INSPECTIONS

5.1 Inspections

Instructions:

Identify the individual responsible for conducting inspections and describe qualifications. Certifications, such as "Certified Inspector of Sediment and Erosion Control" (CISEC), or equivalent, are recommended.
Select the frequency of inspections and procedures to inspect CMs that will occur at your site.
Identify procedures to document the repairs and maintenance of CMs as a result of the inspections.
Use the Stormwater Inspection Form in **Appendix 7**. Place completed stormwater inspections in **Appendix 9**.

1. Inspection Personnel:

Identify the person(s) who will be responsible for conducting stormwater inspections and describe their qualifications:

INSERT NAME AND QUALIFICATIONS HERE – TO BE DETERMINED WHEN CONTRACTOR IS SELECTED

Identify QSM in the SWMP and provide documentation of their credentials and/or state: "The QSM will be sufficiently qualified for the required duties per the ECM Appendix I.5.2.A"

2. Inspection Frequency:

Inspections shall start within 7 calendar days of commencement of construction activities.

Minimum Stormwater Inspection Schedule: A thorough inspection of the site inspection shall be performed in accordance with one of the following minimum frequencies:

- At least one inspection every 7 calendar days, **or**
- 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.

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.

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

Item 25 - state that the inspection log must be signed by the QSM.

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.

The minimum inspection frequency required does not affect the permittee's responsibility to implement and maintain effective control measures as prescribed in the SWMP. Proper maintenance may require more frequent inspections.

3. Inspection Procedures:

- At minimum, inspect the construction site perimeter, all disturbed area, designated haul routes, material and/or waste storage areas that are exposed to precipitation, discharge location, and locations where vehicles exit the site shall be inspected for evidence of, or the potential for, pollutants leaving the Permitted boundaries, entering the storm sewer system, or discharging to the MS4.
- Refer to **Section 5.3 Inspection Sequence**.
- Visually verify whether all implemented CMs are in effective operational condition and are working as designed in their specifications to minimize pollutant discharges.
- Determine if there are new potential sources of pollutants.
- Assess the adequacy of CMs at the site to identify areas requiring new or modified CMs to minimize pollutant discharges.
- Identify all areas of non-compliance and implement corrective action.

4. Correcting Problems:

Take steps to minimize the discharge of pollutants until a CM is implemented and operational, or an inadequate CM is replaced or corrected, and returned to effective operating condition. If it is infeasible to install or repair the CM immediately after discovering the deficiency, the following must be documented:
(a) Describe why it is infeasible to initiate the installation or repair immediately; and
(b) Provide a schedule for installing or repairing the CM and returning it to an effective operating condition asap.
Remove and properly dispose of any unauthorized release or discharge. Clean up any contaminated surfaces to minimize discharges of the material in subsequent storm events.

Responsible staff or company for making corrections: INSERT NAME HERE – TO BE DETERMINED WHEN CONTRACTOR IS SELECTED

5. Inspection Form:

Use the form (or equivalent) in **Appendix 7**.Place completed inspections in **Appendix 9**. Document: Inspection date, name & title of inspector; weather conditions; phase of construction; estimated acreage of disturbance at the time of inspection; location(s) of discharges of sediment or other pollutants from the site; location(s) of CMs needing maintenance; location(s) and identification of inadequate CMs; location(s) and identification of additional CMs needed that were not in place at the time of inspection; description of the minimum inspection frequency; deviations from the minimum inspection schedule; certification statement for corrective action(s) or inspection (if no actions).

5.2 Delegation of Authority

Instructions:

- Delegation of Authority is **optional**. Attach a copy of the signed delegation of authority form in **Appendix 8**.
- Identify the individual(s) or specifically describe the position where the construction site operator has delegated authority for the purposes of signing inspection reports, certifications, or other information.

Duly Authorized Representative(s) or Position(s):

Insert Company or Organization Name – TO BE DETERMINED WHEN CONTRACTOR IS SELECTED

Insert Name

Insert Title

Insert Address

Insert City, State, Zip Code

Insert Telephone Number

Insert Fax/Email

5.3 Inspection Sequence

Instructions:

When conducting stormwater inspections of your construction site it is recommended that one always follows this recommended inspection sequence to ensure that all procedures and measures are being followed.

Place all completed inspections in **Appendix 9.**

1. **Plan the stormwater inspection**
   - Use the inspection form (or equivalent) under **Appendix 7**.
   - Obtain a copy of the EC Plan (Site Map) with CMs locations marked.
   - Plan to walk the entire site, including discharge points from the site and any off-site support activities.
   - Follow a consistent pattern each time to ensure you inspect all areas.
2. **Determine Inspection frequency**
   - Site inspections must be conducted at least once every 7; **or** 14 calendar days.
   - If 14-day inspections, then post-storm inspections must be conducted within 24 hours after the end of any precipitation or snowmelt event that causes surface erosion.
   - 30-day inspections are conducted once construction is complete, temporary stabilizations has been installed and the site is waiting to reach final stabilization.
3. **Inspect discharge points and downstream, off-site areas**
   - Inspect discharge locations to determine whether erosion and sediment control measures are effective.
   - Inspect nearby downstream locations.
   - Walk down the street to inspect off-site areas for signs of discharges.
   - Inspect down slope existing catch basins to ensure they are free of sediment and other pollutants and to ensure that they are adequately protected.
4. **Inspect perimeter controls and slopes**
   - Inspect perimeter controls to determine if sediment should be removed.
   - Check the structural integrity of the CM. Determine if CM replacement is needed.
   - Inspect slopes and temporary stockpiles to determine if erosion controls are effective.
5. **Compare CMs in the EC Plan with the construction site conditions**
   - Determine whether CMs are in place as required by the EC plan.
   - Evaluate whether CMs have been adequately installed and maintained.
   - Look for areas where CMs are needed but are missing on the field, or are not documented on the SWMP.
6. **Inspect construction site entrances**

- Inspect the construction exits to determine if there is tracking of sediment from the site onto the street.
- Refresh or replace the rock in designated entrances and concrete washout areas.
- Look for evidence of additional construction exits being used that are not in the SWMP or are not stabilized.
- Sweep the street if there is evidence of sediment accumulation.

7. Inspect sediment controls

- Inspect any sediment basins for sediment accumulation.
- Remove sediment when it reduces the capacity of the basin by ⅓ of the design storage volume.

8. Inspect pollution prevention and good housekeeping practices

- Inspect trash areas to ensure that waste is properly contained.
- Inspect material storage and staging areas to verify that potential pollutant sources are not exposed to stormwater runoff.
- Verify that concrete, paint, and stucco washouts are being used properly and are correctly sized for the volume of wash water.
- Inspect vehicle/equipment fueling and maintenance areas for signs of stormwater pollutant exposure.

9. Inspect for final stabilization

- Inspect all temporary and permanent CMs for correct application and installation with the CM details.
- Remove sediment from the private storm sewer system - do not jet pollutants down into the public storm sewer system.

5.4 Common Compliance Problems

The following are problems commonly found at construction sites:

Problem #1 - Not using phased grading or providing temporary or permanent soil stabilization

Problem #2 - No sediment controls on-site

Problem #3 - No sediment control for temporary stockpiles

Problem #4 - No inlet protection

Problem #5 - No CMs or inadequate CMs to minimize vehicle tracking onto the road

Problem #6 - Inadequate or improper solid waste or hazardous waste management

Problem #7 - Unpermitted dewatering and other pollutant discharge at the construction site

Problem #8 - Poorly managed washouts (concrete, paint, stucco)

Problem #9 - Inadequate maintenance of CMs

Problem #10 - Inadequate documentation

Required Non-Compliance Notifications

Report non-compliance orally within twenty-four (24) hours from the time of awareness, and mail to the State a written report within five (5) working days after if:

- Any non-compliance issues which may endanger health or the environment regardless of the cause of the incident (these types of circumstances would primarily result from the discharge of pollutants in violation of the Construction Stormwater Permit);
- Any un-anticipated bypass which exceeds any effluent limitations in the Construction Stormwater Permit
- Any upset which causes an exceedance of any effluent limitation in the Construction Stormwater Permit
- Any daily maximum violations for any of the pollutants limited by Part I of the Construction Stormwater 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 (these types of circumstances would primarily result from an exceedance of a numeric effluent).

SECTION 6: RECORDKEEPING

6.1 Recordkeeping

Instructions:

The following section provides a list of records that shall be kept available at your construction site for review, including the length of time those records shall be preserved for.

The following records shall be kept available at the construction site, or be on-site when construction activities are occurring:

- ✓ An updated SWMP, reflecting current conditions and CMs.
- ✓ Keep record of SWMP/EC Plan changes made including the date and identification of the changes (*).
- ✓ Completed inspection reports, which shall be placed in **Appendix 9**.
- ✓ Any document or plan incorporated by reference to the SWMP.

Specify where will the SWMP be located on-site:
Adjacent to the stabilized construction entrance.

(*) The SWMP must be amended when the following occurs:

1) A change in design, construction, operation, or maintenance of the site requiring implementation of new or revised control measures;
2) The SWMP proves ineffective in controlling pollutants in stormwater runoff in compliance with the permit conditions;
3) Control measures identified in the SWMP are no longer necessary and are removed; and
4) Corrective actions are taken onsite that result in a change to the SWMP.

A notation must be included in the SWMP to identify 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 non-compliant with the permit until the SWMP revisions have been made

SWMP documentation 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.

Records will be retained for a minimum period of at least 3 years <u>after</u> the CDPHE permit is terminated.

Item 21. Add text stating that the SWMP should be viewed as a "living document" that is continuously being reviewed and modified as a part of the overall process of evaluating and managing SW quality issues at the site. The QSM shall amend the SWMP when there is a change in design, construction, O&M of the site which would require the implementation of new or revised BMPs or if the SWMP proves to be ineffective in achieving the general objectives of controlling pollutants in SW discharges associated with construction activity or when BMPs are no longer necessary and are removed.

SECTION 7: FINAL STABILIZATION

7.1 Final Stabilization Requirement

Instructions:

Final stabilization of the construction sites occurs when there is 70% uniform vegetated cover. The vegetation MUST be uniform so that there are no open patches of soil.

Final Stabilization means that all land disturbing activities are complete, and all disturbed areas have either been built on, paved over or a uniform vegetative cover has been established per SWMP. Prior to closing the State and County Stormwater Permit, all the items listed below must be completed in order for the construction site to be considered to have final stabilization.

1. The site has a uniform vegetative cover with a density of at least 70% compared to the original undisturbed site. Such cover must be capable of adequately controlling soil erosion.

2. If applicable, proper installation and maintenance of all approved, permanent, post-construction stormwater quality treatment drainage facilities.

3. Removal of all stockpiles of soil, construction material/debris, construction equipment, etc. from the construction site.

4. Streets, parking lots and other surrounding paved surfaces are clean and free of any sediment or debris.

5. Removal of sediment, debris or other pollutants within the private and adjacent public storm drainage system.

6. Restoration of any damaged public infrastructure caused by the construction activities.

7.2 Removal of Temporary CMs

Once the site has met the final stabilization conditions, the remaining temporary CMs such as perimeter controls, inlet protection, silt fence, etc. shall be removed and disposed of properly.

7.3 Stormwater Permits Close-out

Contact the County to close the local Stormwater Permit.

Submit the CDPS Stormwater Discharge Permit Inactivation Form to the State of Colorado, CDPHE.

7.4 Final Stabilization Measures

Instructions:

Describe CMs for final stabilization of all disturbed areas at the site, such as: erosion control blankets, mulch and seeding, approved landscape plan, etc. Update the EC Plan (site map) to indicate areas that have achieved final stabilization.

Others:

☒ ***Permanent*** ☐ ***Temporary***

INSERT PAVEMENT Used: Yes Phase(s): 3 ☒ ***Permanent*** - ☐ ***Temporary***

Describe: The majority of the site will be paved as parking areas, fueling stations or vehicular circulation paths.

INSERT HARDSCAPE Used: Yes Phase(s): 3 ☒ ***Permanent*** - ☐ ***Temporary***

Describe: New sidewalks, plaza areas, and other concrete hardscape will cover areas not stabilized by asphalt pavement or final landscape.

INSERT LANDSCAPE PLAN Used: Yes Phase(s): 3 ☒ ***Permanent*** - ☐ ***Temporary***

Describe: Final landscaping will be per the approved landscape plan and will include a combination of sod, decorative rock, trees, shrubs, perennials, and ornamental grasses.

7.6 Long Term Stormwater Management

Instructions:

Describe planned water quality drainage facilities to control pollutants in stormwater discharges that will be installed and remain after construction operations are completed. Including, but not limited to, water quality detention basin, rain gardens, underground hydrodynamic separators, etc.

Describe type and location of the permanent water quality drainage facilities designed to control pollutants in stormwater discharges that will remain after construction operations are completed:

The site has various long term stormwater management features that will remain in place following construction to ensure proper treatment of stormwater. These features are:

1. Permanent landscaping in all areas not covered by buildings or impervious pavement. This includes, plantings and landscape rock which will aid in erosion and sediment control.
2. Roof drains connected to the storm drain system.
3. Catch basin inlets per APWA standards
4. Rip-Rap outlet protection at all flared end sections.
5. Underground stormwater detention facility (stormtech chambers) with cleanout.
6. Hydrodynamic separator apparatus (barracuda) for storm water treatment.

Recorded Access and Drainage Easement over water quality facility: N/A

Operation and Maintenance (O&M) Plan for the water quality facility: N/A

If applicable: Submit copy to the O&M plan to the County for approval

SECTION 8: STORMWATER VIOLATIONS

8.1 Stormwater Violations

Federal, State and Local jurisdictions are able to enforce their respective Stormwater Pollution Prevention Regulations upon the Permittee or violator of these regulations. Administrative or judicial enforcement tools vary and may involve written warning, notice of violation, stop work order, permit revocation, surety withdrawal, civil or criminal penalties, which may require abatement of any violation, etc.

VIOLATIONS ARE SUBJECT TO ENFORCEMENT FROM THE TIME THE VIOLATION STARTS

8.2 Potential Stormwater Violations

The following items are considered a violation:

1. Conducting a permit covered activity without a local Stormwater Permit.
2. Conducting construction activities outside the permitted boundary of the local Stormwater Permit.
3. Failure to prepare a SWMP.
4. Failure to prepare an Erosion Control (EC) Plan, aka Site Map.
5. Conducting a permit covered activity without County/City's SWMP approval.
6. Conducting construction activity without a State CDPS Stormwater Discharge Permit.
7. Failure to renew Stormwater Permits.
8. Failure to renew financial surety.
9. Deficient SWMP.
10. Failure to update the SWMP adequately to reflect current site conditions.
11. Failure to install, maintain or properly select Control Measures (CM), aka Best Management Practices (BMP).
12. Failure to correct findings from previous City/County Regulatory Inspections
13. Failure to perform stormwater inspections of the permitted construction site.
14. Failure to submit requested documentation to the City/County.
15. Failure to adequately respond to the City/County's written directives.
16. Failure to install permanent post-construction BMPs (if applicable).
17. Lack of good housekeeping practices.
18. Pollution, contamination or degradation of stormwater quality.
19. An illicit discharge into the City/County's Municipal Separate Storm Sewer System (MS4).

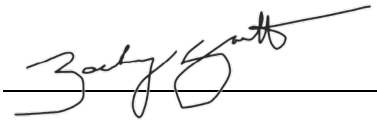
SECTION 9: SWMP CERTIFICATION

9.1 SWMP Certification Statement

Instructions:

The Permittee shall certify the SWMP by signing the certification statement below. It is recommended that all subcontractors sign the Subcontractor Certifications/Agreements in **Appendix 10**.

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 gathered and evaluated 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.

Name:	Zachary Scott	Title:	Landscape Architect
Signature:		Date:	9-28-2021

SWMP APPENDICES

Attach the following documentation:

Appendix 1 - Project Vicinity Map	***(Section 1.1)***
Appendix 2 - State CDPS Stormwater Construction Permit + Local Permit	***(Section 1.2)***
Appendix 3 - Pre-disturbance Photos	***(Section 1.4)***
Appendix 4 -Demolition Permit and State Asbestos Permit	***(Section 1.9)***
Appendix 5 - Erosion and Sediment BMPs/CMs Details	***(Section 1.10)***
Appendix 6 - Erosion Control Plan (EC Plan) - Site Map	***(Section 2.10)***
Appendix 7 - Stormwater Inspection Form (Template)	***(Section 5.1)***
Appendix 8 - Delegation of Authority (optional)	***(Section 5.2)***
Appendix 9 - Completed Stormwater Inspection Logs	***(Sections 5.3 & 5.5)***
Appendix 10 - Subcontractor Certifications/Agreements (optional)	***(Section 9.1)***
Appendix 11 - Agreement for off-site Control Measures (if applicable)	***(Section 1.5)***
Appendix 12 - Low Risk Guidance for Discharges of Potable Water	***(Section 1.8 & 1.9)***
Appendix 13 – Erosion and Sediment Control General Notes	***(Section 3.2)***

APPENDIX 1: Project Vicinity Map

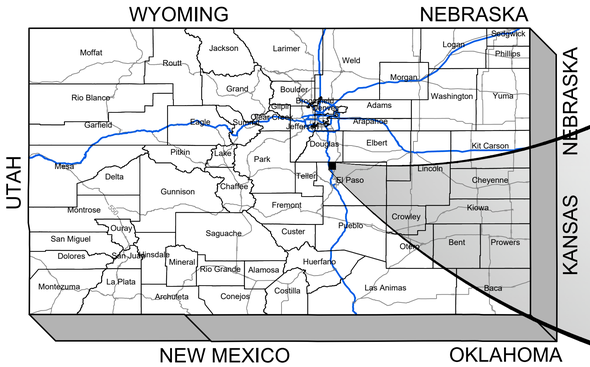
CONSTRUCTION PLANS

FOR

MAVERIK, INC. - SITE CODE CO-0258

I-25 & COUNTY LINE ROAD MONUMENT, CO

EL PASO COUNTY, CO
LOCATED AT I-25 & COUNTY LINE RD.



STATE MAP

VICINITY MAP

SHEET INDEX		
PAGE #	SHEET #	SHEET TITLE
1	C.0.0	COVER SHEET & SHEET INDEX
2	C.0.1	GENERAL NOTES
3	C.0.2	GENERAL LEGEND & ABBREVIATIONS
4	C.1.0	EXISTING CONDITIONS AND DEMOLITION PLAN
5	C.1.1	EXISTING CONDITIONS AND DEMOLITION PLAN - OFFSITE
6	C.1.2	SITE PLAN
7	C.1.3	SITE PLAN - OFFSITE
8	C.2.0	GRADING PLAN
9	C.2.1	GRADING PLAN - OFFSITE
10	C.2.2	FUEL DESPENSER GRADING PLAN
11	C.2.3	STORM DRAIN PLAN
12	C.2.4	SECTIONS & PROFILES
13	C.3.0	UTILITY PLAN
14	C.3.1	SEPTIC FIELD ENLARGEMENT PLAN & PROFILE
15	C.4.0	SITE DETAILS
16	C.4.1	SITE DETAILS
17	C.4.2	SITE DETAILS
18	C.4.3	SITE DETAILS
19	C.4.4	SITE DETAILS
20	C.5.0	STORM WATER MANAGEMENT PLAN
21	C.5.1	STORM WATER MANAGEMENT DETAILS
22	L.1.0	LANDSCAPE PLAN
23	L.2.0	LANDSCAPE DETAILS
24	C.6.1	STRIPING PLAN
25	E-1.2	PHOTOMETRIC PLAN
26	E-1.3	ELECTRICAL CUT SHEETS
27	E-1.4	ELECTRICAL CUT SHEETS
28	E-1.5	ELECTRICAL CUT SHEETS
29	E-1.6	ELECTRICAL CUT SHEETS
30	E-1.7	ELECTRICAL CUT SHEETS
31	E-1.8	ELECTRICAL CUT SHEETS
32	E-1.9	ELECTRICAL CUT SHEETS
33	E-2.0	ELECTRICAL CUT SHEETS
34	E-2.1	ELECTRICAL CUT SHEETS
35	E-2.2	ELECTRICAL CUT SHEETS

Know what's below.
Call before you dig.

OWNER/APPLICANT:

MAVERIK, INC.
185 S STATE STREET, SUITE 800
SALT LAKE CITY, UT
(801) 683-3237
CONTACT: PAUL HEYWOOD

CIVIL ENGINEER:

HORROCKS ENGINEERS
2162 West Grove Pkwy., Suite 400
Pleasant Grove, UT 84062
(801) 763-5100
CONTACT: SCOTT DUFFIN, PE

LANDSCAPE ARCHITECT:

HORROCKS ENGINEERS
2162 West Grove Pkwy., Suite 400
Pleasant Grove, UT 84062
(801) 763-5100
CONTACT: ZACH SCOTT, PLA

ENGINEER'S NOTICE TO CONTRACTOR

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE DRAWINGS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE DRAWINGS AND WE ASSUME NO RESPONSIBILITY AS TO THE ACCURACY OF THEIR DEPICTED LOCATION ON THESE DRAWINGS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN, AND ALL OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE DRAWING BY VERIFICATION OF THEIR LOCATION IN THE FIELD PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.

LEGAL NOTICE TO CONTRACTOR

HORROCKS ENGINEERS
555 South Bluff St., Suite 101
St. George, UT 84770
(435) 986-7888
www.horrocks.com

WARNING
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE

REVISIONS
REV # | DATE
*SEE GENERAL NOTES SHEET

DRAWING INFO
DATE SEP 3, 2021
DESIGNED TMD
DRAWN TMD
CHECKED RP
PROJECT CO-2658-2008

PRELIMINARY
NOT FOR CONSTRUCTION

MAVERIK, INC. - SITE CODE CO-0258
I-25 & COUNTY LINE ROAD MONUMENT, CO

COVER SHEET & SHEET INDEX

C.0.0

APPENDIX 2: CDPHE Stormwater Construction Permit + Local Stormwater Permit

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)

COR400000

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 28th day of January, 2021.

Meg Parish

Meg Parish, Permits Section Manager Water Quality Control Division

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Permit History
Minor Modification Issued January 28, 2021 Effective February 1, 2021
Modification Issued December 31, 2020 Effective February 1, 2021
Originally signed and issued October 31, 2018; effective April 1, 2019

Table of Contents

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 (e.g. 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. Concrete on-site waste disposal is not authorized by this permit except in accordance with Part I.B.1.a.ii(b).

iii. Discharges of landscape irrigation return flow.

iv. Discharges from diversions of state waters within the permitted site.

c. Emergency Fire Fighting

Discharges resulting from emergency firefighting activities during the active emergency response 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 activity that will disturb one acre or more; or

ii. Construction activity that is 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. 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.

iv. In order to apply for certification under this general permit, the applicant(s) must submit a complete, accurate, and signed permit application form as provided by the division by electronic delivery at least 10 days prior to the commencement of construction activity, except those construction activities that are in response to a public emergency related site; public emergency related sites 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.

v. The application in its entirety must be submitted via the division's online permitting system unless a waiver is granted by the division. If a waiver is granted, the application in its entirety, including signatures by both the owner and operator, must be submitted 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

vi. 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 Alternative 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, including if any additional terms and conditions are necessary in order to ensure that 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. In this case, the division will notify the applicant or permittee that an individual permit application is required.

ii. Permittee Request for Alternative 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 per Part I.D.5.c.xiii must make the following statement and provide the date of the statement:

"I verify that, to the best of my knowledge and belief, that if any corrective action items were identified during the inspection, those corrective actions 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, and terminations, shall be conducted following Part II.L, 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 construction activities. 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 control measures must meet the requirements listed below.

(a) Structural and nonstructural vehicle tracking controls shall be implemented to minimize vehicle tracking of sediment from disturbed areas and may include tracking pads, minimizing site access, wash racks, graveled parking areas, maintaining vehicle traffic to paved areas, street sweeping and sediment control measures.

(b) Stormwater runoff from all disturbed areas and soil storage areas must utilize or flow to one or more control measures to minimize erosion or sediment in the discharge. The control measure(s) must be selected, designed, installed and adequately sized in accordance with good engineering, hydrologic and pollution control practices for the intended application. 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 (e.g. sheet or concentrated flow).

(c) Selection of control measures should prioritize the use of structural and nonstructural control measures that minimize the potential for erosion (i.e. covering materials). Selection should also prioritize phasing construction activities to minimize the amount of soil disturbance at any point in time throughout the duration of construction.

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

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

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

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

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

(i) Diversion control measures must minimize soil transport and erosion within the entire diversion, minimize erosion during discharge, and minimize run-on into the diversion. The permittee must minimize the discharge of pollutants throughout the installation, implementation and removal of the diversion. Diversions must meet one or more of the following conditions:

(1) Lined or piped structures that result in no erosion in all flow conditions.

(2) Diversion channels, berms, and coffer dams must be lined or composed of a material that minimizes potential for soil loss in the entire wetted perimeter during anticipated flow conditions (e.g. vegetated swale, non-erosive soil substrate). The entire length of the diversion channel must be designed with all of the following considerations: maximum flow velocity for the type of material(s) exposed to the anticipated flows to ensure that the calculated maximum shear stress of flows in the channel is not expected to result in physical damage to the channel or liner and result in discharge of pollutants. Additionally, the conditions relied on to minimize soil loss must be maintained for the projected life of the diversion (i.e. a vegetated swale must be limited to a period of time that ensures vegetative growth, minimizes erosion and maintains stable conditions).

(3) An alternative diversion criteria, approved by the division prior to implementation. The diversion method must be designed to minimize the discharge of pollutants and to prevent the potential for pollution or degradation to state waters as a result of the diverted flow through the diversion structure. In addition, the alternative diversion method must minimize the discharge of pollutants throughout the installation, implementation and removal of the diversion.

ii. Practices for Other Common Pollutants

(a) Bulk storage, individual containers of 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 must 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, but does not authorize on-site waste disposal per Part I.B.3.d.

(c) In the event that water remains onsite and contains pollutants either from the

firefighting activities or picked up from the site (i.e. in a gutter, sediment basin, etc.) after active emergency response is complete, the permittee must ensure the remaining water containing pollutants is properly removed and disposed of in order to minimize pollutants from discharging from the site, unless infeasible.

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. Minimum inspection frequency and scope, as directed in Part I.D., must be followed for temporarily stabilized areas.

(b) Final stabilization must be implemented for all construction sites covered under this permit. Final stabilization is reached when (1), (2), and (3) below are complete:

(1) All construction activities are complete.

(2) Permanent stabilization methods are complete. Permanent stabilization methods include, but are not limited to, permanent pavement or concrete, hardscape, xeriscape, stabilized driving surfaces, vegetative cover, or equivalent permanent alternative stabilization methods. The division may approve alternative final stabilization criteria for specific operations. Vegetative cover must meet the following criteria:

a. Evenly distributed perennial vegetation, and

b. Coverage, at a minimum, equal to 70 percent of what would have been provided by native vegetation in a local, undisturbed area or adequate reference site, and

(3) The permittee 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).

(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 to provide adequate protection to minimize erosion (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;

(d) Other alternative stabilization practices as applicable.

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 from the permitted area and manage any stormwater run-on onto the site 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 the control measure immediately after discovering the deficiency, the following must be documented in the SWMP in Part I.D.5.c 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 within and from the permitted area (e.g., discharge of non-stormwater, untreated stormwater containing pollutants, spill, or leak not authorized by this permit.) The permittee must also clean up any contaminated surfaces, if feasible, to minimize discharges of the material in subsequent storm events, including water remaining from the response that contains pollutants after active emergency firefighting response is complete.

2. Discharges to an Impaired Waterbody

a. Total Maximum Daily Load (TMDL)

If the discharge from the site of permit coverage 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 listed under Part I.A.3.a, including but not limited to, construction activity that will disturb one acre or more and/or are part of a common plan of development or sale 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 responsible for implementing the SWMP in its entirety and meet the definition of a Qualified Stormwater Manager. 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. Other CDPS Permits. The SWMP must list the applicable CDPS permits associated with the permitted site and the activities occurring on the permitted site (e.g. a CDPS Dewatering Permit).

iv. Materials Handling. The SWMP must describe handling procedures of 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.

v. 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 may 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, if known to be present, or if contaminated soils are found during construction;

(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.

vi. Implementation of Control Measures. The SWMP must include design specifications that contain information on the implementation of all the structural and nonstructural control measures in use on the site 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.

vii. 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 and sources used in the development of the construction site plans or SWMP that describe the soil types found in the permitted area and the erodibility of the identified soil types;

(e) A description of the percent cover of native vegetation on the site if the site is undisturbed, or the percent cover of native vegetation in a similar, local undisturbed area or adequate reference area if the site is disturbed. Include the source or methodology for determining the percentage. If a percent cover is not appropriate for the site location (i.e. arid), describe the technique and justification for the identified cover of native vegetation;

(f) A description of any allowable non-stormwater discharges at the site, including those being discharged under a separate CDPS permit or a division low risk discharge guidance policy, and applicable control measures installed;

(g) A description of the drainage patterns from the site, including a description of the immediate source receiving the discharge and the receiving water(s) of the discharge, if different than the immediate source. If the stormwater discharge is to a municipal separate storm sewer system, include the name of the entity owning that system, the location(s) of the stormwater discharge, and the receiving water(s);

(h) A description of all stream crossings located within the construction site boundary; and

(i) A description of the alternate temporary stabilization schedule, if applicable (Part I.B.1.a.iii(a)).

(j) A description of the alternative diversion criteria as approved by the division, if applicable (Part I.B.1.a.i(i)(3)).

viii. 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 (e.g. temporary stabilization);

(i) Locations of springs, streams, wetlands, diversions 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(e);

(j) Locations of all stream crossings located within the construction site boundary; and

(k) Locations where alternative temporary stabilization schedules apply.

ix. Temporary Stabilization, Final Stabilization and Long Term Stormwater Management.

(a) The SWMP must document the constraints necessitating an alternative temporary stabilization schedule, as referenced in Part I.B.1.a.iii(a), provide the alternate stabilization schedule, and identify all locations where the alternative schedule is applicable on the site map.

(b) The SWMP must describe and locate the methods used to achieve final stabilization of all disturbed areas at the site, as listed in Part I.B.1.a.iii(b).

(c) The SWMP must describe the measures used to establish final stabilization through vegetative cover or alternative stabilization method, as referenced in Part I.B.1.a.iii(c), and describe and locate any temporary control measures in place during the process of final stabilization.

(d) The SWMP must describe and locate any planned permanent control measures 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.

x. Inspection Reports. The SWMP must include documented inspection reports in accordance with Part I.D.5.c.

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.

e. The site or areas of the site qualifying for reduced frequency inspections under Part I.D.4.

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, Part I.C.2.a.vi, as 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 meets the definition of a Qualified Stormwater Manager. The inspector may be different than the individual(s) listed in Part I.C.2.a.i.

2. Inspection Frequency

Permittees must conduct site inspections in accordance with on the following minimum frequencies, unless the site meets the requirements of Part I.D.3. All inspections must be recorded per Part I.D.5.c.

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 must 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 an inspection frequency pursuant to Part I.D.2.b and if no construction activities will occur following a storm event, post-storm event inspections must be conducted prior to re-commencing construction activities, and no later than 72 hours following the storm event. If the post-storm event inspection qualifies under this section, the inspection delay must be documented in the inspection record per Part I.D.5.c. 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 Part I.B.1.a.iii(b) & (c) and 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 I.C.3 and Part I.D.5.c:

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. Locations of installed control measures;

iv. Designated haul routes;

v. Material and waste storage areas exposed to precipitation;

vi. Locations where stormwater has the potential to discharge offsite; and

vii. 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(s) in accordance with Part I.B.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. All inspection reports must be signed and dated in accordance with Part I.A.3.f. Inspection records must be retained in accordance with Part II.O. 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) and identification of control measures requiring routine maintenance;

vii. Location(s) and identification of discharges of sediment or other pollutants from the site;

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

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

x. Description of corrective action(s) for items vii, viii, ix, above, dates corrective action(s) were completed, including requisite changes to the SWMP, as necessary;

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

xii. Deviations from the minimum inspection schedule as required in Part I.D.2. This would include documentation of division approval for an alternate inspection schedule outlined in Part I.D.2.c;

xiii. After adequate corrective action(s) have been taken, or where a report does not identify any incidents requiring corrective action, 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) Diversion – Discharges of state waters that are temporarily routed through channels or structures (e.g. in-stream, uncontaminated springs, non-pumped groundwater, temporary rerouting of surface waters).

(8) Final Stabilization - The condition reached when construction activities at the site have been

completed, permanent stabilization methods are complete, and temporary control measures are removed. Areas being stabilized with a vegetative cover must have evenly distributed perennial vegetation. The vegetation coverage must be, at a minimum, equal to 70 percent of what would have been provided by native vegetation in a local, undisturbed area or adequate reference site.

(9) 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.

(10) 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.

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

(12) 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.

(13) 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).

(14) 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).

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

(16) 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 (i.e. the general contractor).

(17) Outstanding Waters - Waters designated as outstanding waters pursuant to Regulation 31, Section 31.8(2)(a). The highest level of water quality protection applies to certain waters that constitute an outstanding state or national resource.

(18) 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 that may have ownership of, a long term lease of, or easements on the property on which the construction activity is occurring (e.g. the developer).

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

(20) 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).

(21) 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).

(22) 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.

(23) 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.

(24) 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.

(25) 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.

(26) 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.

(27) 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.

(28) 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).

(29) 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.

(30) 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.

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

(32) 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.

(33) 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.

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

(35) 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.

(36) 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:

1. Enforcement action;

2. Permit termination, revocation and reissuance, or modification; or

3. 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. The chief executive officer of the agency, or

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:

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

b. 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

c. 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 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

APPENDIX 3: Pre-Disturbance Photos

(ADD COLOR PICTURES)

Untitled Map

Write a description for your map.

Legend

Google Earth

200 ft

N

APPENDIX 4: Local Demolition Permit + State Asbestos Permit

Not Applicable

APPENDIX 5: Erosion & Sediment CMs/BMPs Details

SCALE: 1" = 30'

EROSION CONTROL KEYNOTES

- A — EARTH DIKE/BERM
- B — CONSTRUCTION FENCE
- C — INLET PROTECTION
- D — CONCRETE WASHOUT AREA
- E — STABILIZED CONSTRUCTION ENTRANCE

LEGEND

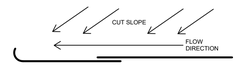
- EARTH DIKE/BERM FENCE (SEE DETAIL SHEET C.5.1)
- CONSTRUCTION FENCE
- PROPERTY BOUNDARY
- LIMITS OF DISTURBANCE
- DIRECTION OF EXISTING OVERLAND FLOW
- INLET PROTECTION (SEE DETAIL SHEET C.5.1)
- INLET PROTECTION (SEE DETAIL SHEET C.5.1)
- PORTABLE TOILET CONTAINMENT (SEE DETAIL SHEET C.5.1)
- JOBSITE DUMPSTER
- CONCRETE WASHOUT AREA (SEE DETAIL SHEET C.5.1)
- STABILIZED CONSTRUCTION ENTRANCE (SEE DETAIL SHEET C.5.1)
- MATERIAL STORAGE AREA
- STOCK PILE AREA

EROSION CONTROL NOTES

1. EROSION CONTROL GRAPHICS ARE SCHEMATIC AND DO NOT REFLECT EXACT PLACEMENT. ACTUAL PLACEMENT WILL BE DETERMINED IN FIELD.
2. SELECTION AND PLACEMENT OF EROSION CONTROL BMP'S CAN CHANGE BASED ON FIELD CONDITIONS AND CONSTRUCTION ACTIVITIES.
3. EROSION CONTROL DETAILS AS SHOWN ON SHEET C.5.1 ARE FOR REFERENCE ONLY AND ARE SUPERSEDED BY THE BMP'S OF THE JURISDICTIONAL ENTITY AS OUTLINED ON SHEET C.0.1.
4. ALL EROSION AND SEDIMENTATION CONTROL BMP'S SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE LATEST VERSION OF THE JURISDICTIONAL ENTITIES DESIGN GUIDELINES AS OUTLINED ON SHEET C.0.1.
5. PROTECT ALL TREES TO REMAIN. CONSTRUCT ACCESS WAYS OUTSIDE OF DRIP LINES. DO NOT STORE EQUIPMENT OR MATERIALS WITHIN DRIP LINES.
6. ALL STOCKPILES OF STRIPPING, TOPSOIL OR OTHER MATERIALS SHALL BE ENCLOSED WITH A SILT FENCE.
7. CONTRACTOR SHALL PROVIDE SUITABLE EQUIPMENT TO CONTROL DUST AND AIR POLLUTION CAUSED BY CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL ALSO PROVIDE SUITABLE MUD AND DIRT CONTAINMENT TO MAINTAIN WORK SITE, ACCESS ROADWAYS AND ADJACENT PROPERTIES. A WATER TRUCK WILL BE MAINTAINED AS NEEDED FOR DUST CONTROL PURPOSES.
8. SWEEP STREETS AS NEEDED OR AS DIRECTED.
9. IT IS NOT INTENDED FOR THE SITE TO RECEIVE ANY ONCOMING FLOW FROM OUTSIDE SOURCES NOT CONTAINED IN EXISTING FLOW STRUCTURES.
10. FIELD MARK LIMITS OF DISTURBANCE FOR APPROVAL BY LOCAL AUTHORITY AND OBTAIN APPROPRIATE STORM WATER MANAGEMENT PERMIT.
11. INSTALL SILT FENCE AND/OR ENVIRONMENTAL FENCE AROUND PERIMETER OF PROJECT AS INDICATED ON THIS PLAN SHEET.
12. INSTALL SEDIMENT CONTROL MEASURES INDICATED IN ALL EXISTING STORM DRAIN INLETS ADJACENT TO THE CONSTRUCTION SITE.
13. AS CONSTRUCTION OF NEW DRAINAGE ELEMENTS ARE COMPLETED, CONSTRUCT SEDIMENT PROTECTION AT ALL NEW INLETS.
14. AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WILL BE STABILIZED WITH NATIVE GRASS MATERIAL OUTSIDE THE STREET RIGHT OF WAY AND PAVEMENT AREAS OF PARKING AND DRIVEWAY AREAS. SITE STABILIZATION OF AREAS DISTURBED BY CONSTRUCTION ACTIVITIES TO BE COMPLETED WITHIN 14 DAYS OF FINISHING AN AREA TO THE FINAL LINES AND GRADES INDICATED ON THE GRADING PLAN. SEE LANDSCAPE PLANS.
15. LANDSCAPE ESTABLISHMENT, REMOVE TEMPORARY MEASURES AND CLEAN STORM DRAIN SYSTEM PRIOR TO RELEASING SYSTEM TO PROJECT OWNER. SEE LANDSCAPE PLANS.
16. THE BMP'S AND SITE WILL BE MONITORED REGULARLY, ANY ADDITIONAL BMP'S THAT ARE NEEDED WILL BE DETERMINED DURING REGULAR INSPECTIONS AND INSTALLED ACCORDING TO SPECIFICATIONS.
17. CONTRACTOR TO UTILIZE STABILIZED CONSTRUCTION ENTRANCE FOR VEHICLE TIRE WASH, AS NECESSARY.

LINEAR FIBER ROLL NOTES:

THE END OF THE ROLL SHOULD BE BENT TOWARD THE RUNOFF, FORMING A "HOOK" TO ACT AS A CHECK DAM



FIBER ROLLS SHOULD BE PLACED FLUSH END TO END, OR WITH THE UPSTREAM ROLL OVERLAPPING THE DOWNSTREAM ROLL.

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St. George, UT 84770
(435) 986-7888
www.horrocks.com

WARNING
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE

REVISIONS

REV #	DATE

*SEE GENERAL NOTES SHEET

DRAWING INFO

DATE	SEP 3, 2021
DESIGNED	TMD
DRAWN	TMD
CHECKED	RP
PROJECT	CO-2658-2008

PRELIMINARY
NOT FOR CONSTRUCTION

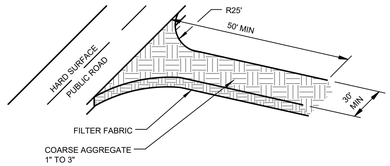
MAVERIK, INC. - SITE CODE CO-0258

I-25 & COUNTY LINE
ROAD MONUMENT, CO

STORM WATER MANAGEMENT PLAN

MAVERIK

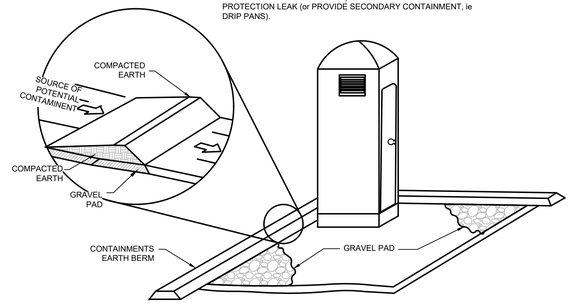
C.5.0



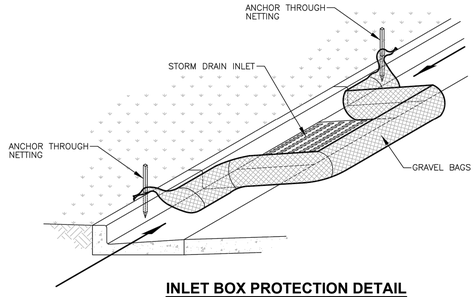
STABILIZED CONSTRUCTION ENTRANCE
N.T.S.

NOTES:

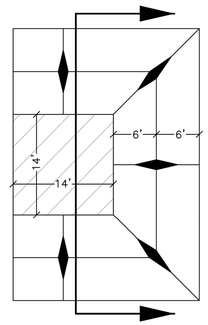
1. LOCATE PORTABLE TOILETS IN CONVENIENT LOCATIONS THROUGHOUT THE SITE.
2. PREPARE LEVEL GRAVEL SURFACE & PROVIDE CLEAR ACCESS TO THE TOILETS FOR SERVICING & FOR ON-SITE PERSONNEL.
3. CONSTRUCT EARTH BERM PERIMETER (SEE EARTH BERM BARRIER INFORMATION SHEET) CONTROL FOR SPILL PROTECTION LEAK (or PROVIDE SECONDARY CONTAINMENT, ie DRIP PANS).

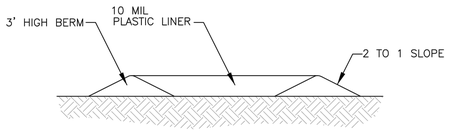


PORTABLE TOILET DETAIL
N.T.S.

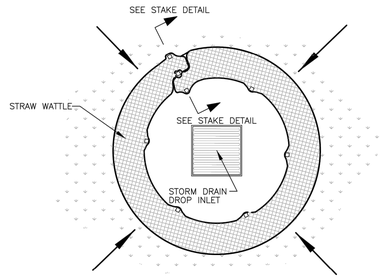


INLET BOX PROTECTION DETAIL
N.T.S.

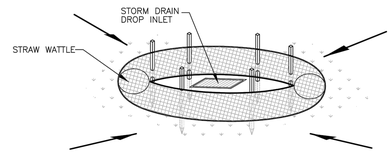




CONCRETE WASHOUT AREA
N.T.S.

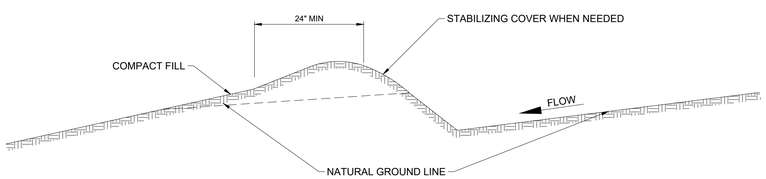


Plan View

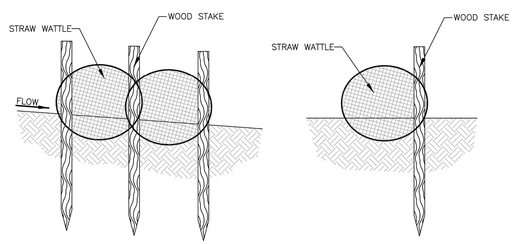


DROP INLET PROTECTION DETAIL
N.T.S.

NOTES:
1. STABILIZE INLET, OUTLETS AND SLOPES.
2. PROPERLY COMPACT THE SUBGRADE.



EARTH DIKE/BERM
N.T.S.



STAKE DETAIL
N.T.S.

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NOT FOR CONSTRUCTION

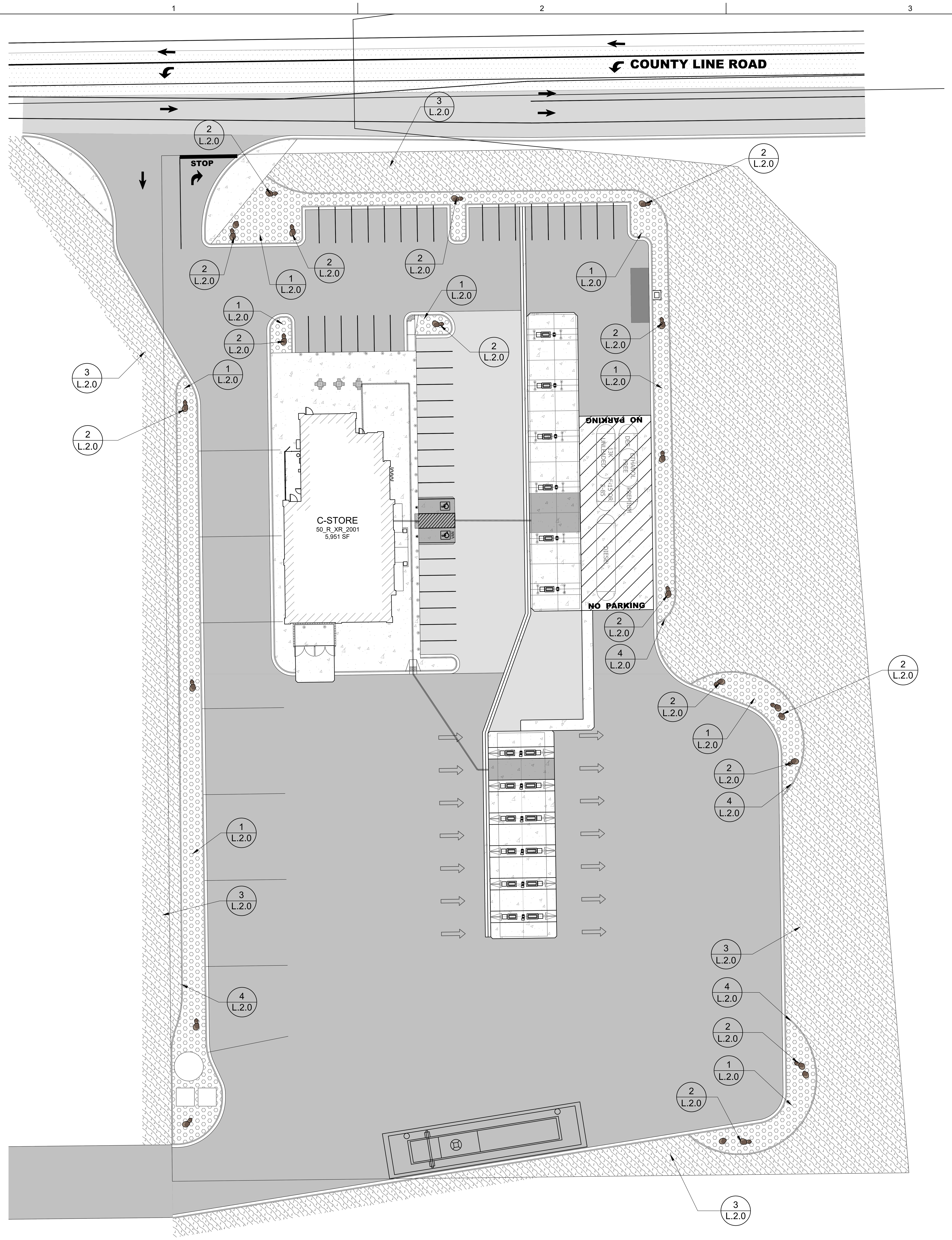
MAVERIK, INC. - SITE CODE CO-0258
I-25 & COUNTY LINE ROAD MONUMENT, CO

STORM WATER MANAGEMENT DETAILS

MAVERIK

C.5.1

Q:\2020\CO-2658-2008 Maverik County Line Road (Monument)\Project Data\02 CAD\2.03 Sheet Files\Construction Drawings\CO-2658-SWPPP.dwg - C.5.1 - 9/03/2021 02:00pm, taylord



SITE INFORMATION AND CALCULATIONS

TOTAL SITE AREA: 4.93 ACRES / 215,161 SF

PROVIDED LANDSCAPE AREA: 1.70 ACRES / 74,332 SF

REQUIREMENT	CALCULATION
5% OF THE LOT OR PARCEL SHALL BE LANDSCAPED	10,737 REQUIRED LANDSCAPE AREA, 74,332 SF PROVIDED (SOME FOR OFFSITE GRADING RESTORATION)
1 TREE PER 500 SF OF REQUIRED INTERNAL LANDSCAPE AREA	WELL SITE, PERMIT DOES NOT ALLOW FOR EXTERNAL WATERING. NO TREES PROPOSED.
50% OF REQUIRED TREES MAY BE SUBSTITUTED WITH SHRUBS. 10 (5 GALLON) SHRUBS PER TREE	WELL SITE, PERMIT DOES NOT ALLOW FOR EXTERNAL WATERING. NO SHRUBS PROPOSED. PROPOSED NATIVE SEED MIX CONTAINS SOME WOODY SHRUBS
75% LIVE COVER, 25% MAY BE ROCK STONE, BARK, OR OTHER LANDSCAPE MATERIALS.	13,133 SF OF DECORATIVE LANDSCAPE ROCK (18%) OF TOTAL LANDSCAPE AREA. 61199 SF OF NATIVE SEED MIX (82%)

GENERAL LANDSCAPE NOTES

1. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR VERIFYING QUANTITIES OF ALL MATERIALS FOR BIDDING AND INSTALLATION PURPOSES. IF DISCREPANCIES EXIST, THE PLAN SHALL DICTATE QUANTITIES TO BE USED.
2. OMIT WEED BARRIER FABRIC FROM ALL ROW TREE PLANTING AREAS.
3. PLANT MATERIAL TO BE INSTALLED PER PLANT LEGEND. IF SUBSTITUTIONS ARE WANTED, PROPOSED CHANGES MUST BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO PLANTING.
4. TOPSOIL TO BE IMPLEMENTED AT THE FOLLOWING DEPTHS:
   - 4.1. 6" DEPTH IN ALL PLANTER BED AREAS
   - 4.2. 4" DEPTH IN ALL TURF SOD AREAS
   - 4.3. 4" DEPTH IN ALL NEW SEED AREAS.
   - 4.4. 2" DEPTH IN ALL RESTORATION AREAS THAT WERE PREVIOUSLY VEGETATED.
5. EDGING SHALL BE IMPLEMENTED BETWEEN ALL VARYING LANDSCAPE MATERIALS SUCH AS TURF GRASS AND BARK MULCH, BARK MULCH AND ROCK MULCH, TURF GRASS AND BROADCAST SEED, ETC. EXACT TYPE OF EDGING SHALL BE INDICATED ON THE PLANS. IF NO EDGING IS INDICATED ON THE PLANS A 6" X 6" SLIP FORMED, SQUARE CONCRETE CURB SHALL BE USED.
6. LANDSCAPE ROCK AND BARK MULCH COLOR AND TYPE TO BE APPROVED BY OWNER. SUBMIT SAMPLES FOR APPROVAL PRIOR TO INSTALLATION. MULCH MATERIAL SHALL BE IMPLEMENTED IN ALL PLANTER BED AREAS INDICATED ON THE PLANS AT THE FOLLOWING DEPTHS:
   - 6.1. SHREDDED BARK MULCH : 4"
   - 6.2. 1-2" DIAMETER FRACTURED STONE : 4"
   - 6.3. 2-4" DIAMETER FRACTURED STONE: 4"
   - 6.4. 1-2" COBBLE MULCH: 4"
   - 6.5. 2-4" COBBLE MULCH: 6"
   - 6.6. PULL MULCH MIN. OF 3" AWAY FROM BASE OF ALL PERENNIALS AND SHRUBS AND MIN. 6" AWAY FROM ALL TREES.
7. ALL TREES SHALL BE INSTALLED IN PLANTER BED AREAS WITH SHREDDED BARK MULCH TOP DRESSING AND PER CITY DETAILS ON SHEET L.2.0.
8. INSTALLATION SHALL COMPLY WITH ALL NATIONAL, STATE AND LOCAL LAWS AND ORDINANCES.
9. ALL MATERIALS SHALL BE NEW AND WITHOUT FLAWS OR DEFECTS OF THE QUALITY AND PERFORMANCE SPECIFIED, AND SHALL MEET THE REQUIREMENTS OF THIS SYSTEM. USE MATERIALS AS SPECIFIED, NO SUBSTITUTIONS SHALL BE PERMITTED WITHOUT WRITTEN PERMISSION OF THE OWNER OR LANDSCAPE ARCHITECT
10. BASE PLAN & LOCATION OF EXISTING EQUIPMENT ARE SCHEMATIC IN NATURE. FIELD VERIFY ALL BASE & EXISTING ELEMENTS PRIOR TO CONSTRUCTION & PROVIDE NECESSARY ADJUSTMENTS.
12. ALL PLANTS SHALL BE WATERED THOROUGHLY TWICE DURING THE FIRST 24 HOUR PERIOD AFTER PLANTING. ALL PLANTS SHALL THEN BE WATERED ON A REGULAR SCHEDULE DURING THE FIRST GROWING SEASON.
13. THE CONTRACTOR SHALL WARRANTY ALL PLANT MATERIAL FOR ONE-YEAR AFTER DATE OF FINAL ACCEPTANCE.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION AND AVOIDANCE OF ALL UNDERGROUND UTILITIES DURING THE INSTALLATION OF LANDSCAPE AND IRRIGATION ELEMENTS. SHOULD ANY DAMAGE OCCUR TO UNDERGROUND UTILITIES THE CONTRACTOR SHALL REPLACE OR REPAIR THE DAMAGE AT NO ADDITIONAL COST TO THE OWNER.
15. TREES PLANTED ON SLOPES EXCEEDING 3:1 SHALL HAVE BOULDER RETAINING ON THE DOWNHILL PORTION OF THE SLOPE TO CREATE A LEVEL PLANTING AREA PER DETAILS.
16. AREAS DISTURBED BY GRADING ACTIVITIES WHICH ARE NOT SHOWN ON THIS PLAN MUST BE STABILIZED VIA BROADCAST SEED WITH TACKIFIER PER DETAILS AND THE SEED MIX IN THE PLANS. SLOPES STEEPER THAN 2:1 SHALL HAVE EROSION CONTROL BLANKETS OVER THE SEED MIX AREAS PER DETAILS.

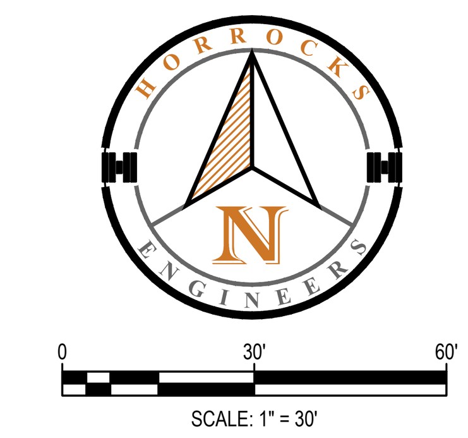
LEGEND

SYMBOL	DESCRIPTION	QTY
(boulder)	3-5` ACCENT BOULDER	42

SYMBOL	DESCRIPTION	QTY
(rock)	4" DEPTH OF 1-2" FRACTURED LANDSCAPE ROCK SUBMIT SAMPLES TO OWNER PRIOR TO INSTALLATION	13,133 SF
(seed)	BROADCAST SEED MIX	61,199 SF

REVEGETATION SEED MIX

GRASSES/FORBS	SEED NO.	COMMON NAME	BOTANICAL NAME	% OF MIX
G	1	Indian Ricegrass	Achnatherum hymenoides	10.00%
G	2	Crested Wheatgrass	Agropyron desertorum	15.00%
G	3	Blue Grama	Sporobolus cryptandrus	15.00%
G	4	Sideoats Grama	Bouteloua gracilis	15.00%
G	5	Mountain Brome	Bouteloua curtipendula	15.00%
F	6	Rocky Mountain Beeplant	Cleome serrulata	3.00%
G	7	Sulphur-Flower Buckwheat	Eriogonum umbellatum	3.00%
F	8	Blue Flax	Linum lewisii	3.00%
F	9	Chokecherry Lupine	Lupinus prunophilus	3.00%
G	10	Western Wheatgrass	Pascopryrum smithii	15.00%
F	11	Rocky Mountain Penstemon	Penstemon strictus	3.00%
				100.00%
				27 lbs/acre



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WARNING
0 1 2
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE

REVISIONS
REV # | DATE
*SEE GENERAL NOTES SHEET

DRAWING INFO
DATE: SEP 3, 2021
DESIGNED: TMD
DRAWN: TMD
CHECKED: RP
PROJECT: CO-2658-2008

PRELIMINARY
NOT FOR CONSTRUCTION

MAVERIK, INC. - SITE CODE CO-0258

I-25 & COUNTY LINE ROAD MONUMENT, CO

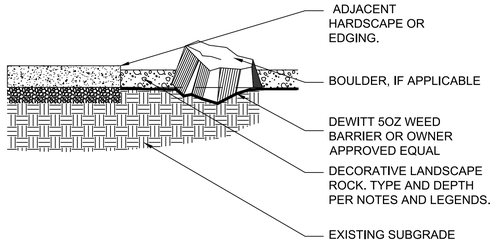
LANDSCAPE PLAN

MAVERIK

L.1.0

NOTES:

1. KEEP TOP OF DECORATIVE ROCK 1/2" BELOW ADJACENT WALKS AND CURBS. DO NOT ALLOW MULCH TO TOUCH THE TRUNK OF ANY PLANT. INSTALL MULCH AFTER INSTALLATION OF WEED BARRIER FABRIC AND PLANT MATERIAL.
2. CONTRACTOR TO ENSURE THAT TOP OF WEED BARRIER FABRIC IS FREE OF SOILS AND DEBRIS PRIOR TO PLACING MULCH.
3. ROCK/STONE MULCH COLOR AND SIZE PER LEGEND AND SPECIFICATIONS.

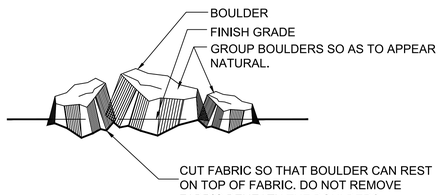


1 DECORATIVE LANDSCAPE ROCK

NOT TO SCALE P-CO-22

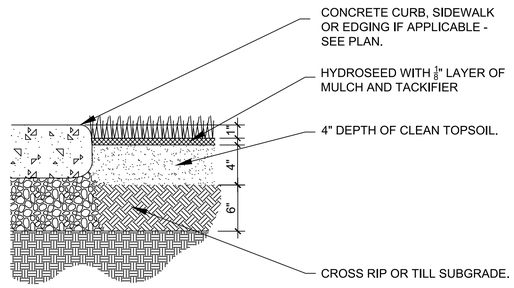
NOTES:

1. PLACE ALL BOULDERS SUCH THAT 1/4 OF THE TOTAL MASS OF EACH BOULDER IS BELOW FINISH GRADE.



2 ACCENT BOULDERS

NOT TO SCALE P-CO-24



NOTES:

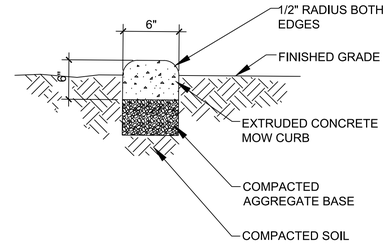
1. ENSURE FINISH GRADE IS 1" BELOW TOP OF CURB, WALK, OR EDGING.
2. SEED MIX SHALL BE PER PLANS.

3 HYDROSEED

NOT TO SCALE P-CO-30

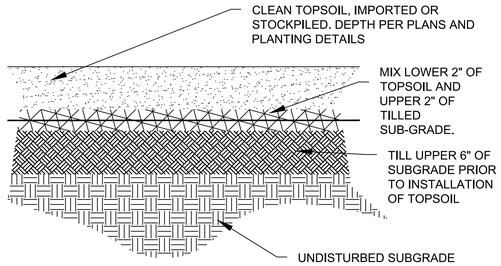
NOTES:

1. WHEN INSTALLING CONCRETE MOWCURB FOR CURVED PLANTER BEDS MAKE SURE THAT CURVES ARE SMOOTH AND EVEN.
2. LANDSCAPE ARCHTIECT TO APPROVE PRIOR TO BACKFILL.



4 CONCRETE MOWCURB

NOT TO SCALE P-CO-31



NOTES:

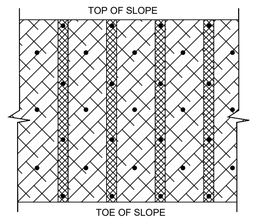
1. CONFIRM SUBBASE FINISH GRADE WITH CONTRACTOR PRIOR TO INSTALLATION OF TOPSOIL.
2. CONTRACTOR RESPONSIBLE TO LEAVE TOPSOIL FINISH GRADE AT THE CORRECT LEVEL TO ACCOMMODATE TURFGRASS OR MULCH AND STILL BE ½ - 1" BELOW ADJACENT HARDSCAPES.
3. CONTRACTOR RESPONSIBLE TO COMPACT AND ALLOW SETTLING OF TOPSOIL AND SUB-GRADE PRIOR TO PLANTING, SEEDING, OR LAYING OF TURF SOD.

5 TOPSOIL

NOT TO SCALE P-CO-35

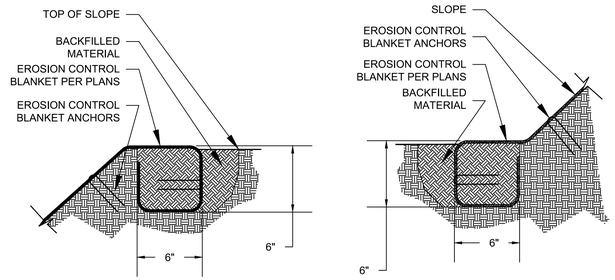
NOTES:

1. ALL EROSION CONTROL FABRIC SHALL BE INSTALLED PARALLEL WITH THE DRAINAGE DIRECTION.
2. KEY IN EROSION CONTROL FABRIC AT THE TOP AND TOE OF SLOPES AS SHOWN IN DETAILS.
3. OVERLAP EDGES OF EROSION CONTROL FABRIC BY A MINIMUM OF 6 INCHES.
4. ANCHOR PATTERN SHALL BE STAGGERED PATTERN AND WILL VARY IN DENSITY BASED ON THE SLOPE.
5. ANCHORS SHALL BE APPLIED AT A DENSITY OF 2 ANCHORS PER YARD ON ALL SLOPES 2:1 OR GREATER.
6. ANCHORS SHALL BE APPLIED AT A DENSITY OF 1.5 ANCHORS PER YARD ON ALL SLOPES 1:1 TO 2:1.
7. ANCHORS SHALL BE APPLIED AT A DENSITY OF 1 ANCHOR PER YARD ON ALL SLOPES LESS THAN 1:1.



6 EROSION CONTROL BLANKET LAYOUT

NOT TO SCALE P-CO-90



7 EROSION CONTROL BLANKET TOP AND BOTTOM KEY IN

NOT TO SCALE P-CO-91

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REVISIONS
REV # | DATE

*SEE GENERAL NOTES SHEET

DRAWING INFO
DATE SEP 3, 2021
DESIGNED TMD
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CHECKED RP
PROJECT CO-2658-2008

PRELIMINARY
NOT FOR CONSTRUCTION

MAVERIK, INC. - SITE CODE CO-0258
I-25 & COUNTY LINE ROAD MONUMENT, CO

LANDSCAPE DETAILS

MAVERIK

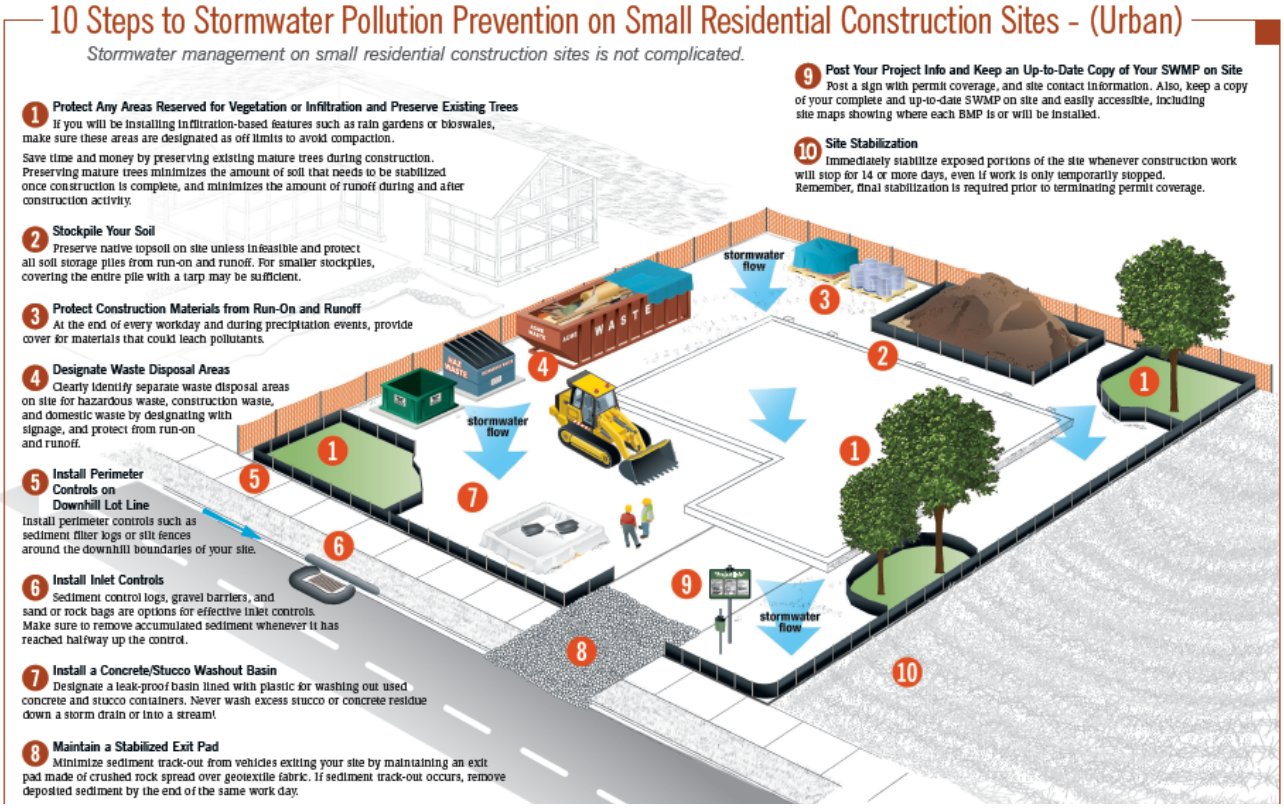
L.2.0

APPENDIX 6: Erosion Control Plan (EC Plan) – Site Map

EC Plan includes, at a minimum, the following:

1. Construction site boundaries;
2. Flow arrows that depict stormwater flow directions on-site and runoff direction;
3. Areas of ground disturbance including areas of borrow and fill;
4. Areas used for storage of soil;
5. Location of all waste accumulation areas, including areas for liquid, concrete, masonry, and asphalt;
6. Location of dedicated asphalt, concrete batch plants and masonry mixing stations;
7. Location of all structural control measures;
8. Location of all non-structural control measures;
9. Location of springs, streams, wetlands and other state waters, including areas that require pre-existing vegetation be maintained within 50 ft of a receiving water; and
10. Location of all stream crossings located within the construction site boundary.

Urban Poster:



Rural Poster: http://www.adcogov.org/sites/default/files/Stormwater%20Rural%20-%20Small%20Builder.pdf

APPENDIX 7: Stormwater Inspection Form (Template)

Instructions:
This inspection report has been developed to complete the 7 day (**or** 14 day and storm event site inspections) and 30-day inspections at completed sites.

Using the Inspection Report:
You can complete the items in the upper section that will remain constant, such as the date, project name, and inspector. You will either need to print out multiple copies of this inspection report or save an electronic version as a master form to use during your inspections.

Ensure that all items are completed by checking "Yes", "No", or "N/A" –Not Applicable. Document any "Corrective Action Needed". Under "BMP/CMs Description", document the CMs that are required per plan and/or installed, if maintenance is needed and document any "Corrective Action Needed" as necessary.

When issues are present at a construction site, ensure you enter the date when the issue has been addressed, on the same inspection form. Document when the issue was addressed by filling in the "Date Fixed".

Stormwater Inspection Form

Project Name: Insert Project Name	Inspection Date/Time: Date/Time
Project Location: Insert Project Location	Current Weather: temperature / rainy, sunny, etc
Company Name: Insert Company Name	Current Disturbed Acres: Estimate acreage
Qualified SW Manager Name & Title: Insert Name & Title Here Phone Number: Insert Phone Number	Current Construction Phase: Initial (Demo, Grading, Utilities, Road), Interim (Building Filing/Block/Lot), Final (Landscape,etc)

Type of Inspection

☐ 14-Day Inspection ☐ Post-Storm Event Inspection	☐ 7-Day Inspection	☐ 30-Day Reduced Frequency Inspection (Construction and Final Stabilization completed + SWMP updated)
☐ Winter Conditions Inspections Exclusion: Dates when snow cover existed Dates when construction activities ceased Dates melting conditions began		Deviation from minimum inspection frequency: Y/N If **Yes**, Explain:

Off-Site Discharge Assessment

Have pollutants been discharge off-site?	Y/N	If **Yes**: Insert Location, type of pollutant, date and corrective action.

Minimum Requirements:

Are there any new potential sources of pollutants?: Y/N
Does stormwater runoff from all disturbed areas flow thru at least **one** control measure? Y/N
Is VTC installed? Y/N (If **NOT**, area must run thru at least **one** control measure)
Is pre-existing vegetation (or equivalent CM) maintained for areas within 50 ft of receiving waters? Y/N/NA
Does all bulk storage (55+ gall) of petroleum products and liquid chemicals have secondary containment (or equivalent) Y/N/NA
Is outlet installed to withdrawn water just below surface level at basin? Y/N/NA
Are **inactive disturbed areas** stabilized within 14 days? Y/N (if **NOT**, then document constraints, alternative schedule and location in SWMP)
Are natural areas (streams, wetlands, trees) protected? Y/N
Has soil compaction been minimized? Y/N
Has topsoil been preserved? Y/N
Has the amount of soil exposed been minimized (including the disturbance of steep slopes)? Y/N
Is construction perimeter contained? Y/N
Are designated haul routes in compliance? Y/N
Are washout facilities identified and maintained? Y/N (Add liner if shallow groundwater or close to stream/channels/wetland)
Are potential stormwater pollutants stored properly? Y/N
Are equipment maintenance areas free of spills/leaks? Y/N
Are non-stormwater discharges properly controlled? (on-site dewatering, CWA, potable water, etc) Y/N
Has the SWMP/EC Plan (site map) been updated to reflect current field conditions?: Y/N/NA
Notes: If "YES" describe discharge or potential for discharge below. Document related maintenance, inadequate CMs and corrective actions.

BMP/Control Measure (CM) Description	Code	In EC plan? Y/N	Installed? Y/N	Describe Corrective Action: Additional BMP Maintenance Removal	Location:	Date Fixed
Sediment Control BMPs/CMs						
Silt Fence	SF					
Sediment Control Log	SCL					
Straw Bale Barrier	SBB					
Rock Sock	RS					
Inlet Protection	IP					
Sediment Basin	SB					
Sediment Trap	ST					
Vegetated Buffer	VB					
Other:						
Erosion Control BMPs/CMs						
Surface Roughening	SR					
Temp. & Permanent Seed	TS/PS					
Soil Binders	SB					
Mulching	MU					
Rolled Erosion Control Prod.	RECP					
Temp. Slope Drain	TSD					
Temp. Outlet Protection	TOP					
Earth Dikes/Drainage Swales	ED/DS					
Terracing	TER					
Check Dams	CD					
Streambank Stabilization	SS					
Dust Control	DC					
Other:						
Materials Management						
Concrete Washout Area	CWA					
Stockpile Management	SP					
Stabilize Staging Area	SSA					
Good Housekeeping	GH					
Portable Toilets	PT					
Blowing Trash	Waste					
Spills and Leaks	Spills					
Equip. Maint. & Fueling	Equip					
Other:						
Site Management Controls						
Protection of Vegetation	PV					
Construction Fence	CF					
Vehicle Tracking Control	VTC					
Stabilized Construction Rd	SCR					
Street Sweeping	SS					
Temp. Diversion Channel	TDC					
Dewatering Ops.	DW					
Temp. Stream Crossing	TSC					
Paving & Grinding Ops.	PGO					
Other:						

Certification Statement (if all CMs are in Good Condition, or After Corrective Actions are Completed): I verify that, to the best of my knowledge and belief, all corrective action and maintenance identified in the inspection are complete, and the site is in compliance w/ permit.

Signature: Insert Signature **Date:** Insert Date

Reporting Requirements
Report the following circumstances orally within twenty-four (24) hours from the time the permittee becomes aware of the circumstances, and mail to the State a written report containing the information requested within five (5) working days after becoming aware of the following circumstances.

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 non-compliance 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 non-compliance requiring 24-hour notification? Y/N/NA

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

APPENDIX 8: Delegation of Authority Form

I, Insert Name Here, hereby designate the person or specifically described position below to be a duly authorized representative for the purpose of overseeing compliance with environmental requirements, including the Construction General Permit, at the Insert Name of Project construction site. The designee is authorized to sign any reports, stormwater pollution prevention plans and all other documents required by the permit.

Insert Name & Title
Insert Company Name
Insert Company Address
Insert Company City, State, Zip Code
Insert Company Phone

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in Insert State Permit No + City/County Stormwater Permit No, and that the designee above meets the definition of a "**duly authorized representative**"

APPENDIX: 9 Completed Stormwater Inspection Logs

(File completed inspection forms here)

APPENDIX 10: Subcontractor Certifications/Agreements

SUBCONTRACTOR CERTIFICATION
STORMWATER MANAGEMENT PLAN (SWMP)

Project Number: _____

Project Title: _____

Operator(s): _____

As a subcontractor, you are required to comply with the SWMP, for any work that you perform on-site. Any person or company who violates any condition of the SWMP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWMP. A copy of the SWMP is available for your review at: Insert Location of Documents.

Each subcontractor engaged in activities at the construction site that could impact stormwater must be identified and sign the following certification statement:

I certify under the penalty of law that I have read and understand the terms and conditions of the SWMP for the above designated project and agree to follow the CMs and practices described in the SWMP.

This certification is hereby signed in reference to the above named project:

Company: _____

Address: _____

Telephone Number: _____

Type of construction service to be provided: _____

_____

_____

Signature: _____

Title: _____

Date: _____

APPENDIX 11: Agreement for off-site Control Measures

***(if* applicable)**

Attach use agreement between the Permittee and the owner/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.

Include all information to any such off-site control measures located outside the permitted area, including location, installation specifications, design specifications and maintenance requirements

APPENDIX 12: Low Risk Discharge Guidance for Discharges of Potable Water

***If Flushing New Waterlines including fire suppression lines, irrigation lines, etc , the State of Colorado Low Risk Discharge Guidance for Discharges of Potable Water must be followed.*

Discharges of potable water are short term infrequent discharges that with proper management 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. The typical pollutant of concern is total residual chlorine, however, total suspended solids (TSS) and oil&grease may also become pollutants of concern. These pollutants can be handled using dechlorination techniques, filters, oil booms, and other control measures (CM).

The following conditions must be followed by anyone discharging potable water: The discharge of cleaning materials or chemicals, including dyes, is strictly prohibited, and shall be sent to the sanitary sewer, with permission of the local wastewater treatment facility, or otherwise collected and disposed of. Except for additional chlorine and dechlorination chemicals in accordance with manufacturer's label. The potable water shall **not** be used in any additional process. Processes include, but are not limited to, any type of washing, heat exchange, manufacturing, and hydrostatic testing of pipelines not associated with treated water distribution systems. The discharge shall be from a potable water distribution system, tank or storage that has been maintained for potable water distribution use. Discharges from a distribution system, tank or storage that is used for conveyance or storage of materials other than potable water is not authorized. The discharge shall not cause erosion of a land surface. Energy dissipation devices designed to protect downstream areas from erosion y reducing velocity of flow (such as hose attachments and erosion controls), may be necessary. The discharge shall not contain solid materials in concentrations that can settle to form bottom deposits detrimental to the beneficial uses of the state waters or form floating debris, scum, or other surface materials sufficient to harm existing beneficial uses. 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. This guidance 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.

If the discharge is directly to a State surface water (any stream, creek, gully, whether dry or flowing), it must not contain any residual chlorine in excess of 0.011 mg/l. The operator is responsible for determining what is necessary for removing chlorine from the discharge. If the discharge is to a ditch, chlorine content may be limited by the owner of the ditch. However, if the ditch returns flow to classified state waters, it must not contain any residual chlorine in excess of 0.011 mg/l at the point where it discharges to the classified state water. Removal of residual chlorine in excess of 0.011 ml/l, must be done for any direct discharge to state surface waters or for any discharge to a storm sewer or conveyance where the chlorine will not dissipate below 0.011 mg/l prior to reaching state surface water. Dechlorination, if necessary, may be achieved by allowing water to stand uncovered until no chlorine is detected, or by dechlorination using a portable dechlorinator. Pay particular attention when handling super-chlorinated waters. A longer time is needed to dissipate chlorine from super-chlorinated waters.

When using chemicals in the dechlorination process, the operator must ensure that proper quantities and rates are used, based on the concentration of chlorine; that adequate mixing occurs; and that enough time is allowed prior to flow reaching a surface water for the dechlorination chemicals to react with the chlorine in the water. In cases where the discharge of water that had been super-chlorinated will occur, operators should allow additional time for the chlorine to dissipate. It is the operators' responsibility to ensure that adequate processes are followed to meet the 0.011 mg/L chlorine limitation prior to discharge to classified state surface water. It is not required that an EPA approved test method be used to make this determination. For many methods, it will be necessary to have a test result indicating no (0 mg/L) residual chlorine to ensure that this limitation is met. Discharging without Testing is possible without analysis. This may be based on a determination that the given hold time or travel time to classified state water, based on other discharge-specific variables, will adequately reduce chlorine levels to result in the chlorine limitation being met. It is the operator's responsibility to ensure they understand the variables associated with a specific discharge to ensure that the chlorine limitation has been met. CMs shall be implemented as necessary to meet the conditions above, by anyone discharging potable water.

For discharge to the ground: the water shall not cause any toxicity to vegetation. When discharging, allow the water to drain slowly so that it soaks into the ground as much as possible. Dechlorination is not required for discharges into the ground if the discharge does not reach state surface water. This option should be considered as an alternative to dechlorination.

Pollutants Picked Up After Release: The discharge should be conducted to minimize the potential to pick up additional pollutants following release from the potable water distribution systems and prior to discharge to a water of the state. The discharge should be conducted to minimize the potential to pick up additional suspended solids and to control erosion. It is understood that minimal suspension of sediment is inherent to any water running across soils. However potential water quality impacts should

be minimized through practices such as diffusing flows and avoiding flows across bare soils. The discharge should be conducted to minimize the potential that it will contact petroleum products/waste, and avoid picking up any oil and grease. When possible, an absorbent oil pad, boom or similar device should be used to eliminate oil from the discharge. A visible sheen must not be evident in the discharge. The discharge shall be conducted to minimize the potential that it will not pick up any oil and grease. When possible, an absorbent oil pad, boom or similar device shall be used to eliminate oil from the discharge.

Preparing and Installing Components: When installing new pipe, fittings and appurtenances into a potable water distribution system, the components should be prepared and maintained in a way to minimize the potential for contribution of pollutants to discharges covered under this guidance. All pipe, fittings, and other appurtenances associated with the discharge should meet industry standards for cleanliness for public water. Examples of standard operating procedures include, but are not limited to, those found in ANSI/AWWA Standard C600-10, (Installation of ductile-Iron mains and their appurtenances), or any other applicable standard operating procedures that reflect industry standards of cleanliness. When it is necessary to remove debris, foreign material or other gross contamination from components prior to installation, wastewater generated from such activities may not be covered under this guidance. Such activity should occur at a location that allows for generated wastewater to be sent to the sanitary sewer with permission of the local wastewater treatment facility. Such wastewater could also be otherwise collected and disposed of. Practices should be implemented during transport, storage, installation, and maintenance to minimize introduction of contaminants to pipe, fittings, and other appurtenances that could contribute pollutants to discharges.

Removing Pollutants: Control measures for filtering or settling suspended solids and other debris should be used to remove solids or other debris that have either been picked up after discharge or that originated from within the potable water system. Examples of suspended solid removal practices include check dams and filter bags. As a final measure downstream from additional control measures, inlet protection can be used to provide some additional removal and to allow for redundancy. Pollutant removal control measures should be used and maintained in accordance with manufacturers' specifications.

Alternative Disposal Options:
Water not meeting the criteria and conditions of this guidance may be sent to the sanitary sewer with permission of the local wastewater treatment facility or otherwise collected and disposed. If discharge is to the sanitary sewer, contact the local wastewater treatment facility prior to discharge. System owners may grant blanket authorization to discharge to their systems. This must be done to ensure that the facility is able to accept the discharge. Not all facilities are able to accept such discharges. Note that additional restrictions or local guidelines may apply. If the waste is collected for disposal, it may be hauled off site for disposal at a facility that is authorized to discharge the water through an existing CDPS permit or in accordance with disposal requirements administered through the Colorado Hazardous Materials and Waste Management Division. Alternatively the water may be land applied in a way that results in complete evapotranspiration. This will likely only be an option when the quantities of water are small.

Low Risk Guidance for Discharges of Uncontaminated Groundwater to Land

Applicable to:
• The source of the discharge must solely be uncontaminated groundwater or uncontaminated groundwater combined with stormwater. To be considered uncontaminated, the source must not contain pollutants in concentrations that exceed water quality standards for the applicable receiving groundwater.
• The discharge must be to land. Point source discharges to surface waters, storm sewers, or other drainage conveyance systems are not covered by this guidance.

Conditions:
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 additional processes, such as 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 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 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 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.
• This guidance 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.

Implementation of Control Measures:
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. 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. Control measures must be adequately designed to provide control for all potential pollutant sources associated with the discharge of uncontaminated groundwater to land. Route discharge 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. 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 Application Guidance Document for these general permits, visit: 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. Visit: https://www.colorado.gov/pacific/cdphe/clean-water-commerce-and-industry-permitting

APPENDIX 13: Erosion and Sediment Control Standard Notes

Erosion Control Plan - General Notes:

1 All construction projects, regardless of the size, shall install, maintain and repair stormwater pollution **control measures (CMs)** to effectively minimize erosion, sediment transport, and the release of pollutants related to construction activity. CMs example include: sediment control logs (SCL), silt fence (SF), dikes/swales, sediment traps (ST), inlet protection (IP), outlet protection (OP), check dams (CD), sediment basins (SB), temporary/permanent seeding and mulching (MU), soil roughening, maintaining existing vegetation and protection of trees. CMs must be selected, designed, adequately sized, installed and maintained in accordance with good engineering, hydrologic and pollution control practices. CMs/BMPs installation and maintenance details shall conform to Urban Drainage Flood Control Criteria Manual Volume 3, or the Colorado Department of Transportation (CDOT) Item Code Book. CMs must filter, settle, contain or strain pollutants from stormwater flows in order to prevent bypass of flows without treatment. CMs must be appropriate to treat the runoff from the amount of disturbed area, the expected flow rate, duration, and flow conditions (i.e., sheet or concentrated flow). CMs/BMPs **shall be specified in the SWMP (if applicable), and the locations shown on the EC Plan.**

1) Prior to construction, projects disturbing 1 or more acres of land, or any project belonging to a common plan of development disturb 1 or more acres, must obtain:
   - A General **Permit** for Stormwater Discharges associated with Construction Activities, from the Colorado Department of Public Health and Environment, and
   - A Stormwater Quality Permit from the local county/municipality.
2) Permitted projects shall develop a Stormwater Management Plan (**SWMP**), aka Erosion and Sediment Control Plan (ESCP), in compliance with CDPHE minimum requirements. The approved SWMP, including Erosion Control (EC) Plan (Site Map), shall be **kept** on site and **updated** at all times. The **Qualified Stormwater Manager** is responsible for implementing the SWMP and CMs (aka BMPs) during construction.
3) Permitted projects shall perform regular **Stormwater Inspections** every 7 calendar days; **or** every 14 calendar days and within 24 hours after any precipitation or snowmelt event that causes surface erosion. Inspection frequency can be reduced for **Post-Storm Event inspections at Temporarily Idle Sites** and also for **Stormwater Inspections at Completed Sites waiting for final stabilization.** Inspection reports must identify any incidents of non-compliance.
4) **Tracking** of dirt onto paved public or private paved roads is not allowed. The use of dirt ramps to enter/exit from an unpaved into a paved area is prohibited. Vehicle tracking controls shall be implemented, otherwise entrance area must drain thru a CM towards the private site.
5) **Truck loads** of fill material imported to or cut material exported from the site shall be properly covered to prevent loss of the material during transportation on public ROW. Haul routes must be permitted by the County. No material shall be transported to another site without applicable permits.

6) Control measures designed for **concrete washout waste** must be implemented. This includes washout waste discharged to the ground and washout waste from concrete trucks and masonry operations.
7) Temporary **CMs/BMPs shall be removed** after the site has reached final stabilization.
8) **Dewatering operations** discharging off-site into any waters conveyance systems including wetlands, irrigation ditches, canals, rivers, streams or storm sewer systems, require a State Construction Dewatering Permit.
9) Permitted projects shall **keep** the CDPHE's Stormwater Discharge Permit, Stormwater Management Plan (SWMP) and inspection logs available on-site throughout the duration of the project, and for an additional 3 years after permit close-out.
10) Permitted landowner and/or contractor shall **close** the State and City/County permit once **final stabilization** is reached. Stormwater inspections shall continue until Inactivation Notice is filed with CDPHE.

Performance Standard Notes:

1. Stormwater runoff from disturbed areas must flow to at least **one (1)** CM to minimize sediment in the discharge. Do not allow **sediment to leave** the site. The best way to prevent sediment or pollutants from entering the storm sewer system is to stabilize the site as quickly as possible, preventing erosion and stopping sediment run-off at its source.
2. **Phase construction to minimize disturbed areas**, including disturbance of steep slopes. (i.e. the entire project site should not be disturbed if construction will only be occurring in one particular section of the site).Limit soil exposure to the shortest possible period of time. Protect natural features and **existing vegetation** whenever possible. Removal of existing vegetation shall be limited to the area required for immediate construction operations. Maintain pre-existing vegetation (or equivalent CMs) for areas within 50 horizontal ft of receiving waters.
3. **Soil compaction** must be minimized for areas where infiltration CMs will occur or where final stabilization will be achieved through vegetative cover.
4. All **soil imported** to or **exported** from the site shall be properly covered to prevent the loss of material during transport.
5. **Dust** emissions resulting from grading activities or wind shall be controlled.
6. **Install construction fence** (orange) to protect wetlands and other sensitive areas and to prevent access, and to delineate the Limits of Construction. Do not use silt fence to protect wetlands since trenching may impact these areas.
7. CMs intended to capture overland, low velocity **sheet flow** at a fairly level grade shall only be installed along contours.
8. Install CMs, such as **check dams,** perpendicular to the **concentrated flows** to reduce flow velocity.
9. Storm drain **inlets** within and adjacent to the construction site must be protected. Any ponding of stormwater around inlet protection must not cause excessive flooding or damage adjacent areas or structures.
10. Install **Vehicle Tracking Control (VTC)** to enter/exit unpaved area. Do not use recycled crushed concrete or asphalt millings for vehicle tracking pads.

11. **Straw bales** shall not be used for primary erosion or sediment control (i.e. straw bales may be used for reinforcement behind another BMP such as silt fence).
12. **Outlets** systems (such as skimmer or perforated riser pipe) shall be installed to withdraw water from or near the surface level when discharging from basins. Water cannot drain from the bottom of the pond.
13. **Temporary stabilization** must be implemented for earth disturbing activities on any portion of the site where land disturbing activities have permanently or temporarily ceased (for more than 14 calendar days). Temporary stabilization methods examples: tarps, soil tackifier, and hydroseed. Temporary stabilization requirement may **exceed** the 14-day schedule when either the function of the specific area requires it to remain disturbed, or, physical characteristics of the terrain and climate prevent stabilization as long as the constraints and alternative schedule is documented on the SWMP, and locations are identified on the EC Plan (site map).
14. Runoff from **stockpile area** must be controlled. Soils that will be stockpiled for more than 30 days shall be protected from wind and water erosion within 14 days of stockpile construction. Install CMs/BMPs 5 ft away from the toe of the stockpile's slope.
15. Water use to clean concrete trucks shall be discharged into a **concrete washout area** (CWA). The predefined containment area must be identified with a sign, and shall allow the liquids to evaporate or dry out. CWA discharges that may reach groundwater must flow through soil that has buffering capacity prior to reaching groundwater. 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. In this case, a liner underneath is needed for areas with high groundwater levels. CWA shall not be placed in low areas, ditches or adjacent to state waters. Place CWA 50 ft away from state waters.
16. **Waste**, such as building materials, workers trash and construction debris, must be properly managed to prevent stormwater pollution.
17. Install **stabilized staging area (SSA)** to store materials, construction trailer, etc.
18. If conditions in the field warrant **additional** CMs/BMPs to the ones originally approved on the SWMP or EC Plan (civil drawing), the landowner or contractor shall implement measures determined necessary, as **directed by the County**.
19. Permanent CMs/BMPs for slopes, channels, ditches, or disturbed land area shall be performed immediately after final grading. Consider the use **erosion control blankets** on slopes 3:1 or steeper and areas with **concentrated flows** such as swales, long channels and roadside ditches.
20. The discharge of **sanitary waste** into the storm sewer system is prohibited. Portable toilets must be provided, secured and placed on permeable surfaces, away from the curbside, storm inlets and/or drainage ways.
21. **Remove temporary CMs/BMPs** once final stabilization is reached, unless otherwise authorized.
22. **Final stabilization** must be implemented. Final stabilization is reached when all soil disturbing activities have been completed, and either a uniform vegetative cover has been established with an individual plant density of at least 70% of pre-disturbance levels, or equivalent permanent alternative method has been implemented.

23. Provide **spill prevention** and containment measures for construction materials, waste and fuel storage areas. **Bulk storage** (55 gallons or greater) of petroleum products and liquid chemicals must have secondary containment, or equivalent protection, in order to contain spills and to prevent spilled material from entering state waters.
24. **Report** spills or releases of chemical, oil, petroleum product, sewage, etc., which may reach the storm sewer or enter state waters within **24-hours** from time of discovery. Guidance available at www.cdphe.state.co.us/emp/spillsandreleased.htm. State of Colorado Spill-line: 1-877-518-5608.

Maintenance Standard Notes:

1. Maintain and repair CMs according to approved Erosion Control Plan (civil drawing) to assure they continue performing as originally intended.
2 CMs/BMPs requiring maintenance or adjustment shall be **repaired immediately** after observation of the failing BMP.
3 CMs shall be cleaned when sediment levels accumulate to **half the design** unless otherwise specified.
4 SWMP and EC plan shall be continuously **updated** to reflect new or revised CMs/BMPs due to changes in design, construction, operation, or maintenance, to accurately reflect the actual field conditions. A notation shall be made in the SWMP, including date of changes in the field, identification of the CMs removed, modified or added, and the locations of those CMs. Updates must be made within 72-hours following the change.
5 Maintain **Vehicle Tracking Control (VTC**), if sediment tracking occurs, clean-up immediately. Sweep by hand or the use street sweepers (with vacuum system). Flushing off paved surfaces with water is prohibited.
6 **CWA** must be cleaned once waste accumulation reaches ⅔ of the wet storage capacity of the structure. Legally disposed of concrete waste. Do not bury on-site.
7 **Clean-up spills** immediately after discovery, or contain until appropriate cleanup methods can be employed. Follow Manufacturer's recommended methods for spill cleanup, along with proper disposal methods. **Records** of spills, leaks, or overflows that result in discharge of pollutants must be documented and maintained.
8 Remove sediment from storm sewer infrastructure (ponds, storm pipes, outlets, inlets, roadside ditches, etc.), and restore volume capacity upon completion of project or prior to initial acceptance of public improvements (if applicable). Do not flush sediment offsite, capture on-site and disposed of at an approved location.

These notes are not intended to be all-inclusive, but to highlight the basic stormwater pollution prevention requirements for construction activities to **comply** with CDPS Stormwater Construction Permit and be in **conformance** with County standards.