

Stormwater Management Plan (SWMP)

for

Pumphouse 6 Utility Building

Site Development Plan

Owner/Operator:

Paint Brush Hills Metropolitan District
Robert Guevara
9985 Towner Avenue
Falcon, CO 80831
(719) 495-8188

Engineer/SWMP Preparer:

RG and Associates, LLC
Jordan Schneider, P.E.
4885 Ward Rd, Suite 100
Wheat Ridge, CO 80033
(303) 468-8476

Contractor:

Company: (TBD after project is awarded)
SW Manager Name: _____
Address: _____

Phone: _____

Qualified Stormwater Manager:

Company: _____
SW Manager Name: _____
Address: _____

Phone: _____

SWMP Preparation Date: 4/5/2023

SWMP Revision Date: 7/7/2023

Revision No. 2

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Objectives:

The SWMP identifies possible pollutant sources that may contribute to stormwater pollution and identifies control measures to reduce or eliminate potential water quality impacts during construction activities. 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 conditions and practices at the site until final stabilization is reached. The SWMP meets the minimum requirements to comply with the State of Colorado CDPS General Permit for Stormwater Discharges Associated with Construction Activity, and the local regulations.

General Instructions:

To fill out the Stormwater Management Plan (SWMP) Template, select (double right click) the [blue text](#) and enter applicable information. When a blue box is present, check the applicable selection. **No sections shall be left blank!** If a section is "Not Applicable" to the project, select the [blue text](#) and enter "N/A".

Basic Acronyms:

BMP: Best Management Practices

ESCP: Erosion and Sediment Control Plan (Site Map)

CM: Control Measures

ECB: Erosion Control Blanket

MS4: Municipal Separate Storm Sewer System

SCL: Sediment Control Log

TOP: Temporary Outlet Protection

SECTION 1: SITE EVALUATION, ASSESSMENT, AND PLANNING

1.1 Project/Site Information

Project/Site Name: PBHMD Pump House #6

Project Location: Tract A and Tract B lie between Keynes Drive and Rockingham Drive on the western edge of the Paint Brush Hills Metropolitan District.

See **Appendix A** for a Vicinity Map.

County: El Paso **City:** Peyton **State:** CO **ZIP Code:** 80831

Subdivision/Project: Pump House 6

1.2 Contact Information/Responsible Parties

Owner/Operator

Paint Brush Hills Metropolitan District

Robert Guevara

9985 Towner Avenue, Peyton, CO 80831

Office #: (719) 495-8188

Email: robert@pbhmd.com

Site Superintendent:

Name: _____

Title: _____

Address: _____

Office #: _____ Cell #: _____ Email: _____

Qualified Stormwater Manager: 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,
- Assess the effectiveness of stormwater controls, and
- Perform inspections.

Primary Stormwater Manager:

Name: (TBD after project is awarded) _____

Title: _____

Address: _____

Office #: _____ Cell #: _____ Email: _____

SWMP Prepared By:

RG and Associates, LLC

Jordan Schneider, PE; Project Engineer

4885 Ward Road, Suite 100

Wheat Ridge, CO 80033

Office #: (303) 468-8476

Cell #: (907) 440-9963

Email: jschneider@rgengineers.com

1.3 Nature and Sequence of Construction Activity

Project scope of work:

The scope of work for the Pump House 6 Project consists of the removal of an existing storage shed which houses hypochlorite storage and a pump feed system, a wooden fence, and an 8’x15’ wooden lean-to structure with a sheet metal roof for existing pump controls and VFDs. Construction consists of a 40’x22’ pump house for existing wells no. 10, 11, and 12 to enclose existing pump controls, sodium hypochlorite storage and feed, underground vault with associated piping, flow meters, and PRVs. 0.63 acres of the total 3.78 acres of the two parcels will be disturbed. The remainder will be left as maintained open space.

The sequence of construction activity in general will consist of temporary stabilization, installation of initial control measures, flatwork, final grading, final stabilization, and removal of temporary control measures.

Type of construction activity:

- Residential Commercial Industrial Road Construction
 Linear Utility Other (please specify):

Estimated Project Start Date: Summer 2023
Estimated Project Completion Date: Fall 2023
Estimated Project Final Stabilization: Fall 2023

Major phases of Construction:

- Initial CM Demolition Grading
 Utility Installation Interim CM Road Construction
 Vertical Construction Final Grade Final Stabilization CM
 Other:

Earth Work Summary:

Cut: 135.56 CY
Fill: 61.64 CY

1.4 Soils, Drainage Patterns, and Vegetation

Soil type:

The National Resources Conservation Service (NRCS) Site Soil Mapping shows the site to be 98% Pring Coarse Sandy Loam and 2% Columbine Gravelly Sandy Loam. Pring Coarse Sandy Loam is identified as being part of Hydrologic Soil Group B. Columbine Gravelly Sandy Loam is identified as being part of Hydrologic Soil Group A.

Soil’s erosion potential:

According to the Soil Survey of El Paso County Area, Colorado, The Pring coarse sandy loam soils are deep and well drained, with rapid permeability and moderate water capacity. Surface runoff is

medium, and the hazard of erosion is moderate. Erosion control practices are needed to control soil blowing and water erosion on construction sites where the ground cover has been removed.

The Columbine gravelly sandy loam soils are deep, well drained to excessively drained, with very rapid permeability and low to moderate water capacity. Surface runoff is slow, and the hazard of erosion is slight to moderate.

Erosion control measures such as silt fence and sediment control logs will be installed prior to construction to prevent sediment migration from the site due to stormwater runoff.

Drainage pattern:

The Pumpouse 6 Site generally slopes to the southwest to Pond C of Tract A of Paint Brush Hills Filing No. 12. Pond C is considered to be on-site.

Existing Vegetation:

The Site consists of the following native weeds and grasses: Crested Wheat Grass, Perennial Rye, Western Wheat Grass, Smooth Brome Grass, Side oats Grama, Little Bluestem, Sand Dropseed, Switch Grass, Weeping Love Grass, Slender Wheat Grass. Methods used to determine approximately 70% vegetative ground cover of the Site included Site visits, photographs of the Site, and aerial imagery of the Site.

1.5 Construction Site Estimates

Total site area:

The total area of the Site is approximately 3.78 acres.

Area to be disturbed:

The total area of disturbance is expected to be approximately 0.64 acres.

1.6 Receiving Waters

Name and description of watershed:

The Site is located within the Falcon Area Drainage Basin and ultimately discharges to Black Squirrel Creek via storm sewer and open channel systems.

Distance from the project to the closest receiving water:

The Site is approximately 1 mile from Black Squirrel Creek.

Description of all stream crossings located within the construction site boundary:

There are no stream crossings located within the construction site boundary.

1.7 Protected Site Features and Sensitive Areas

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

There are no known unique site features or sensitive areas to be preserved during construction. The Site is within a residential subdivision and any unique site features, or

sensitive areas have been identified by the Master Development Drainage Plan Report for the subdivision; none were identified. Erosion and sediment control measures are to be implemented for construction of the pumphouse to mitigate sediment runoff to the adjacent stormwater pond.

Describe any known soil or groundwater contamination:

Contaminated soils and/or groundwater are not anticipated on this project.

Describe management plan for contaminated soils and/or groundwater:

Contaminated soils and/or groundwater are not anticipated on this project.

1.8 Potential Sources of Pollution

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 to construction. 3. Manage materials effectively once they arrive on site. 4. Place trash receptacles prior to construction. 5. Implement spill response. 6. Implement stockpile management 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	NO	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 management controls.

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

Potential Pollution Source	Potential on this site?	Control Measures (CM)	CM Implementation
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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 or equipment maintenance & 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.
Outdoor storage - building materials - fertilizers - chemicals	NO	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.	NO	Material storage (GH) Hazardous waste management (GH, CT) ESC CMs (IP, SF, SSA, TRM, 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.

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

Potential Pollution Source	Potential on this site?	Control Measures (CM)	CM Implementation
Concrete Truck Chute/Tool Washing	YES	Concrete washout area (CWA)	Install designated concrete washout(s) prior to concrete work.
Drywall Mud and Paint	NO	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.
Dedicated: - asphalt plants - concrete batch plants - 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	NO	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	NO	Dust control (DC) Solid waste management (GH)	1. Implement dust control in conjunction with soil disturbing activities. 2. Place trash receptacles.
Electric Generator - pump	NO	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 <u>potential spills</u> can occur	NO	Hazardous waste management (GH) Spill response & notification (GH)	1. Implement hazardous waste management. 2. Implement spill response and notification procedures.

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

1.9 Potential Hazardous Material & Chemical Pollutants to Stormwater

Potentially on Site?	Material/ Chemical	Physical Description	Stormwater Pollutants	Location
NO	Fertilizer	Liquid or solid grains	Nitrogen, phosphorous	Newly seeded areas

NO	Cleaning solvents	Colorless, blue, or yellow-green liquid	Perchloroethylene, methylene chloride, trichloroethylene, petroleum distillates	Staging areas
NO	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

1.10 Anticipated Sources of Authorized Non-stormwater Discharge

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

Landscape irrigation return flow

Emergency fire fighting

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 reaches 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.

Description of any other anticipated allowable sources of non-stormwater discharge at the site:

There are no other anticipated allowable sources of non-stormwater discharge at the site. If other sources of non-stormwater discharge are encountered at the site, they will be recorded on the SWMP maps and control measures will be implemented accordingly.

SECTION 2: EROSION & SEDIMENT CONTROL MEASURES

2.1 Sediment Control Measures

<i>Silt Fence (SF)</i>		<input type="checkbox"/> <i>Permanent</i>	<input checked="" type="checkbox"/> <i>Temporary</i>
What: Description	SF is a woven geotextile fabric attached to wooden posts and trenched into the ground. It is used 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. <i>SF is not designed to receive concentrated flow, or to be used a filter fabric.</i>		
How: Maintenance & Inspection	SF shall be installed per detail (Appendix 4). 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 ½ the height of the of the silt fence usually 6 inches.		

<i>Sediment Control Log (SCL)</i>		<input type="checkbox"/> <i>Permanent</i>	<input checked="" type="checkbox"/> <i>Temporary</i>
What: Description	SCL, aka “Straw Wattle”, is a linear roll made of natural materials (straw, coconut fiber or other fibrous material), trenched into the ground, and held with wooden stakes, used to intercept sheet flows from disturbed areas.		
When: Installation	SCL shall be installed during land disturbing activities, and it may also be installed after formation of a stockpile. Once the upstream area is stabilized, remove, and properly dispose of the SCL. If disturbed areas exist after removal, the area shall be covered with topsoil, seeded, and mulched.		
Where: Location	SCL shall be installed at the locations identified on the ECSP. SCL are typically used for stockpile control, IP, and CD in small drainage ditches, on disturbed slopes to shorten flow lengths and/or as part of multi-layered perimeter control along receiving waters such as a stream, pond, or wetland. SCL work well in combination with other layers of erosion and sediment controls. Stockpiles stored on impervious surfaces shall not be placed in a flowline and SCL shall be weighted. Stockpiles stored on pervious surfaces may be protected by pervious SCL, SF or adequate vegetative cover.		
How: Maintenance & Inspection	SCL shall be installed per detail (Appendix 4), along (parallel) the slope contour to avoid concentrating flows. Inspect regularly and maintain SCL throughout construction as they will eventually degrade. Accumulated sediment shall be removed before the depth is ½ the height of the SCL.		

Inlet Protection (IP)		<input type="checkbox"/> Permanent	<input checked="" type="checkbox"/> 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 (Appendix 4). 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 loses functionality, whichever comes first. IP is not standalone measure and shall be part of redundant system.		

Rock Sock (RS)		<input type="checkbox"/> Permanent	<input checked="" type="checkbox"/> Temporary
What: Description	RS is an elongated cylindrical filter constructed of gravel wrapped by wire mesh or woven geotextile (aka “curb socks” if placed at angles at curb line).		
When: Installation	Install RS prior to land disturbing activities, once upstream stabilization is complete. Accumulated sediment shall be removed and properly disposed of.		
Where: Location	RS shall be installed at the locations identified on the EC Plan. They are used for perimeter control of a disturbed area, or as part of IP.		
How: Maintenance & Inspection	Install RS per detail (Appendix 4). Inspect regularly and maintain RS as they are susceptible to displacement and breakage due to vehicle traffic. Accumulated sediment shall be removed to maintain functionality.		

2.2 Erosion Control Measures

Temporary and Permanent Seeding (TS/PS)		<input checked="" type="checkbox"/> Permanent	<input checked="" type="checkbox"/> Temporary
What: Description	Seed is applied to disturbed areas in an effort to establish vegetation. TS is used to stabilize disturbed areas that will be inactive for an extended period. PM is used to stabilize areas at final grade that will not be otherwise stabilized. Effective seeding includes preparation of a seedbed, selection of an appropriate seed mixture, proper planting techniques, and protection of the seeded area with mulch, geotextile, or other appropriate measures. Mulching helps to protect the bare soil and must be secured by crimping, tackifiers, netting or other measures.		
When: Installation	TS/PS shall be performed on temporary inactive surfaces and following the completion of final grading.		

Where: Location	TS/PS shall be completed in the locations identified on the SWMP to stabilize areas at final grade that will not otherwise be stabilized.
How: Maintenance & Inspection	TS/PS and secured mulching shall be installed per seed mix specifications and detail (Appendix 4). Continuously inspect and maintain TS/PS and secured mulch throughout construction. Prepare the seedbed, select an appropriate seed mixture, use proper planting techniques, and protect the seeded area with secured mulch.

Wind Erosion/Dust Control (DC)

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 the formation of 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 (Appendix 4). 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.

2.3 Materials Management Control Measures

Concrete Washout Areas (CWA)

Permanent **Temporary**

What: Description	A CWA is a specific area of the construction site designated and managed for concrete washing activities. Options available: excavation of a pit in the ground, use of an above ground storage area or use of prefabricated haul-away concrete washout containers.
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. 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, it must be lined.

How: Maintenance & Inspection	CWA shall be installed per detail (Appendix 4). 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.
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Stockpile Management (SP)

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 at a construction site.
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 drainage ways, gutters, and storm sewer inlets. SP locations shall be noted on the SWMP.
How: Maintenance & Inspection	SP shall be installed per detail (Appendix 4). 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 sandbags.

Street Sweeping (SS)

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 (Appendix 4). Use standard SS equipment to adequately remove sediment from roadways adjacent to the construction site.

2.4 Site Management Control Measures

Limits of Construction (LOC)	
<input type="checkbox"/> Permanent <input checked="" type="checkbox"/> Temporary	
What: Description	LOC is used 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 <u>outside</u> 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.
Vehicle Tracking Control (VTC)	
<input type="checkbox"/> Permanent <input checked="" type="checkbox"/> 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 (Appendix 4). All VTC must have non-woven geotextile fabric between the soil and rock pad. <u>Recycled concrete aggregate is not allowed because concrete dust elevates pH in stormwater.</u> 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.
Stabilized Staging Area (SSA)	
<input type="checkbox"/> Permanent <input checked="" type="checkbox"/> 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.

<i>When: Installation</i>	SSA shall be installed prior to any land disturbing activities.
<i>Where: Location</i>	SSA shall be installed at the location identified on the SWMP.
<i>How: Maintenance & Inspection</i>	SSA shall be installed per detail (Appendix 4). 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.

2.5 Narrative Description of BMP Control Measures

Installations of BMPs are staged in order to minimize the potential for pollutants in the stormwater discharge. Specifically, the proposed project will use silt fence, sediment control log / rock sock, erosion control blanket, a vehicle tracking control pad, stabilized staging area, concrete washout area, inlet protection, mulching, and reseeded to mitigate the potential for erosion across the site.

SECTION 3: CONSTRUCTION SITE PHASING & ESC PLAN

3.1 Construction Site Phasing Summary

Construction of Pumphouse 6 will occur in three phases, being the initial, interim, and final phases.

The initial phase will consist of site grading and the construction of the new pumphouse, and any other construction activities associated with the construction of the new pumphouse. Initial control measures shall be installed prior to the beginning of construction activities. Initial control measures will include silt fence, sediment control log, inlet protection, vehicle tracking control, and a stabilized staging area. Any downstream, offsite storm inlets susceptible to storm water flow from the Site construction area are to be protected by inlet protection. A concrete washout area will be installed prior to concrete being delivered to the Site.

Final stabilization will occur after all concrete and site work has been completed. Final stabilization is achieved when all ground disturbing activities are complete and all disturbed areas either have a uniform vegetative cover with individual plan density of 70 percent of pre-disturbance levels established or equivalent permanent alternative stabilization method is implemented. All temporary sediment and erosion control measures shall be removed upon final stabilization and before permit closure. Erosion control blanket will be installed on all slope's steeper than 3:1.

Vehicle tracking of soils and construction debris off-site shall be minimized. Materials tracked offsite shall be cleaned up and properly disposed of immediately. Construction activity is to be finalized upon El Paso County inspection for approval of final stabilized conditions.

3.2 Standard Notes For El Paso County Grading And Erosion Control Plans

1. Stormwater discharges from construction sites shall not cause or threaten to cause pollution, contamination, or degradation of State Waters. All work and earth disturbance shall be done in a manner that minimizes pollution of any on-site or off- site waters, including wetlands.
2. Notwithstanding anything depicted in these plans in words or graphic representation, all design and construction related to roads, storm drainage and erosion control shall conform to the standards and requirements of the most recent version of the relevant adopted El Paso County standards, including the Land Development Code, the Engineering Criteria Manual, the Drainage Criteria Manual, and the Drainage Criteria Manual Volume 2. Any deviations to regulations and standards must be requested, and approved, in writing.
3. A separate Stormwater Management Plan (SMWP) for this project shall be completed and an Erosion and Stormwater Quality Control Permit (ESQCP) issued prior to commencing construction. During construction the SWMP is the responsibility of the designated Qualified Stormwater Manager or Certified Erosion Control Inspector and shall be located on site at all times during construction and shall be kept up to date with work progress and changes in the field.
4. Once the ESQCP is approved and a "Notice to Proceed" has been issued, the contractor may

install the initial stage erosion and sediment control measures as indicated on the approved GEC. A Preconstruction Meeting between the contractor, engineer, and El Paso County will be held prior to any construction. It is the responsibility of the applicant to coordinate the meeting time and place with County staff.

5. Control measures must be installed prior to commencement of activities that may contribute pollutants to stormwater. Temporary sediment and erosion control measures for all slopes, channels, ditches, or any disturbed land area shall be completed immediately upon completion of the disturbance.
6. All temporary sediment and erosion control measures shall be maintained and remain in effective operating condition until permanent soil erosion control measures are implemented and final stabilization is established. All persons engaged in land disturbance activities shall assess the adequacy of control measures at the site and identify if changes to those control measures is needed to ensure the continued effective performance of the control measures. All changes to temporary sediment and erosion control measures must be incorporated into the Stormwater Management Plan prior to implementation.
7. Temporary stabilization shall be implemented on disturbed areas and stockpiles where ground disturbing construction activity has permanently ceased or temporarily ceased for longer than 14 days. An area that is going to remain in an interim state for more than 60 days shall also be stabilized.
8. Final stabilization must be implemented at all applicable construction sites. Final stabilization is achieved when all ground disturbing activities are complete and all disturbed areas either have a uniform vegetative cover with individual plant density of 70 percent of pre-disturbance levels established or equivalent permanent alternative stabilization method is implemented. All temporary sediment and erosion control measures shall be removed upon final stabilization and before permit closure.
9. All permanent stormwater management facilities shall be installed as defined in the approved plans. Any proposed changes that affect the hydrology or hydraulics of a permanent stormwater management structures must be approved by the ECM Administrator prior to implementation.
10. Any earth disturbance shall be conducted in such a manner so as to effectively minimize accelerated soil erosion and resulting sedimentation. All disturbances shall be designed, constructed, and completed so that the exposed area of any disturbed land shall be limited to the shortest practical period of time. Pre-existing vegetation shall be protected and maintained within 50 horizontal feet of the waters of the state, unless infeasible.
11. Compaction of soil must be prevented in areas designated for infiltration control measures or where final stabilization will be achieved by vegetative cover. Areas designated for infiltration control shall also be protected from sedimentation during construction until final stabilization is achieved.
12. Any temporary or permanent facility designed and constructed for the conveyance of stormwater around, through, or from the earth disturbance area shall be a stabilized conveyance designed to minimize erosion and the discharge of sediment off site.
13. Concrete wash water shall be contained and disposed of in accordance with the SWMP. No

wash water shall be discharged to or allowed to runoff to State Waters, including any surface or subsurface storm drainage system or facilities. Concrete washout shall not be located in an area where shallow groundwater may be present, or within 50 feet of a surface water body.

14. Dewatering operations: uncontaminated ground water may be discharged on site but may not leave the site in the form of surface runoff.
15. Erosion control blanketing is to be used on slopes steeper than 3:1.
16. Building, construction, excavation, or other waste materials shall not be temporarily placed or stored in the street, alley, or other public way, unless in accordance with an approved Traffic Control Plan. BMP's may be required by El Paso County Engineering if deemed necessary, based on specific conditions and circumstances.
17. Vehicle tracking of soils and construction debris off-site shall be minimized. Materials tracked offsite shall be cleaned up and properly disposed of immediately.
18. Contractor shall be responsible for the removal of all wastes from the construction site for disposal in accordance with local and State regulatory requirements. No construction debris, tree slash, building material wastes or unused building materials shall be buried, dumped, or discharged at the site.
19. The owner, site developer, contractor, and/or their authorized agents shall be responsible for the removal of all construction debris, dirt, trash, rock, sediment, and sand that may accumulate in the storm sewer or other drainage conveyance system and stormwater appurtenances as a result of site development.
20. The quantity of materials stored on the project site shall be limited, as much as practical, to that quantity required to perform the work in an orderly sequence. All materials stored on-site shall be stored in a neat, orderly manner, in their original containers, with the original manufacturer's labels.
21. No chemicals are to be used by the contractor, which have the potential to be released in stormwater unless permission for the use of a specific chemical is granted in writing by the ECM Administrator. In granting the use of such chemicals, special conditions and monitoring may be required.
22. Bulk storage of petroleum products or other liquid chemicals in excess of 55 gallons shall have adequate secondary containment protection to contain all spills and prevent any spilled material from entering State Waters, including any surface or subsurface storm drainage system or facilities.
23. No person shall cause the impediment of stormwater flow in the flow line of the curb and gutter or in the ditch flow line.
24. Individuals shall comply with the "Colorado Water Quality Control Act" (Title 25, Article 8, CRS), and the "Clean Water Act" (33 USC 1344), in addition to the requirements included in the DCM Volume II and the ECM **Appendix I**. All appropriate permits must be obtained by the contractor prior to construction (NPDES, Floodplain, 404, fugitive dust, etc.). In the event of conflicts between these requirements and laws, rules, or regulations of other Federal, State, or County agencies, the more restrictive laws, rules, or

regulations shall apply.

25. All construction traffic must enter/exit the site at approved construction access points.
26. Prior to actual construction the permittee shall verify the location of existing utilities.
27. A water source shall be available on-site during earthwork operations and utilized as required to minimize dust from earthwork equipment and wind.
28. The soils information for this site is based upon United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) for El Paso County, Colorado.
29. At least ten (10) days prior to the anticipated start of construction, for projects that will disturb 1 acre or more, the owner or operator of construction activity shall submit a permit application for stormwater discharge to the Colorado Department of Public Health and Environment, Water Quality Division. The application contains certification of completion of a stormwater management plan (SWMP), of which this grading and erosion control plan may be a part. For information or application materials contact:

Colorado Department of Public Health and Environment Water Quality Control Division
WQCD – Permits
4300 Cherry Creek Drive South Denver,
CO 80246-1530
Attn: Permits Unit

SECTION 4: WASTE MANAGEMENT PLAN

4.1 Covering Outdoor Storage and Handling Areas

Covering Outdoor Storage and Handling Areas

Permanent

Temporary

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 leaks 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

Spill Prevention & Response Plan

Permanent

Temporary

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.
- 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.

- 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 them properly. Never dispose of it 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 (parking lots)

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 secondary 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):

Company Name: (TBD after the project is awarded for construction)

Contact Name: _____

Office #: _____ Cell #: _____ Email: _____

Notification Procedures: Some spills may need to be reported to the State of Colorado, Water Quality Control Division and Adams County 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. <https://www.colorado.gov/pacific/cdphe/wq-environmental-spills>.
Tri-County Health Department: 303-220-9200.

4.3 Good Housekeeping

Good Housekeeping Practices

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 Safety Data Sheets (SDSs).
- 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 Safety Data Sheets (SDS) 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 SDS.
- 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 number 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

Vehicle Maintenance, Fueling and Storage

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 by 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 solvents 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. Secondary 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 when 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

Street Sweeping (SS)

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 construction 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

Storm Sewer System Cleaning

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 increased 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:** training 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

1. *Qualified Stormwater Management Inspection Personnel:*

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

Name: _____
Title: _____
Address: _____
Office #: _____ Cell #: _____ Email: _____

Qualifications:

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

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(s), 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 5.2 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. 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. 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.

Responsible staff or company for making corrections: (TBD)

Company/Organization: _____

Name: _____

Contact Information: _____

5. Inspection Form:

Use the form¹ in **Appendix 6** for all Capital Improvement Projects. Place completed inspections or refer to where the inspections are kept electronically in **Appendix 7**. At a minimum the form should document:

¹ An equivalent form may be used for all projects except Capital Improvement Projects.

- 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 Inspection Sequence

1. Plan your stormwater inspection

- Use the inspection form (or equivalent) under **Appendix 6**.
- 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 to 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 $\frac{1}{3}$ 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.

SECTION 6: RECORDKEEPING

6.1 Recordkeeping

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

- ✓ An updated SWMP, reflecting current conditions and CMs.
- ✓ Location of SWMP records to be determined at Preconstruction Meeting.
- ✓ Keep record of SWMP/EC Plan changes made including the date and identification of the changes (*).
- ✓ Completed inspection reports, can be placed, or electronically stored and the location referenced in **Appendix 7**
- ✓ Inspection Logs shall include signatures of inspectors.
- ✓ Any document or plan incorporated by reference to the SWMP.

(*) 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 after the CDPHE permit is terminated.

SECTION 7: FINAL STABILIZATION

7.1 Final Stabilization Requirement

Final Stabilization is reached when all ground 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 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 Final Stabilization Measures

Final stabilization measures shall be installed per Erosion Control Details (**Appendix 4**).

7.3 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.

7.4 Stormwater Permits Close-out

Submit the CDPS Stormwater Discharge Permit Inactivation Form to CDPHE.

7.5 Long Term Stormwater Management

The existing pond footprint remains unchanged and is to remain with its current ownership and is to follow the latest O&M Manuel.

SWMP APPENDICES

<i>Appendix 1 - Project Vicinity Map</i>	<i>(Section 1.1)</i>
<i>Appendix 3 - Pre-disturbance Photos</i>	<i>(Section 1.4)</i>
<i>Appendix 4 - Erosion and Sediment BMPs/CMs Details</i>	<i>(Section 1.10)</i>
<i>Appendix 5 - Erosion and Sediment Control Plan (ESC Plan) - Site Map</i>	<i>(Section 2.10)</i>
<i>Appendix 6 - Stormwater Inspection Form</i>	<i>(Section 5.1)</i>
<i>Appendix 7 - Completed Stormwater Inspection Logs</i>	<i>(Sections 5.3 & 5.5)</i>

APPENDIX 1: Project Vicinity Map

PROJECT LOCATION



VICINITY MAP

1" = 2000 FEET

APPENDIX 3: Pre-Disturbance Photos







APPENDIX 4: Erosion & Sediment CMs/BMPs Details

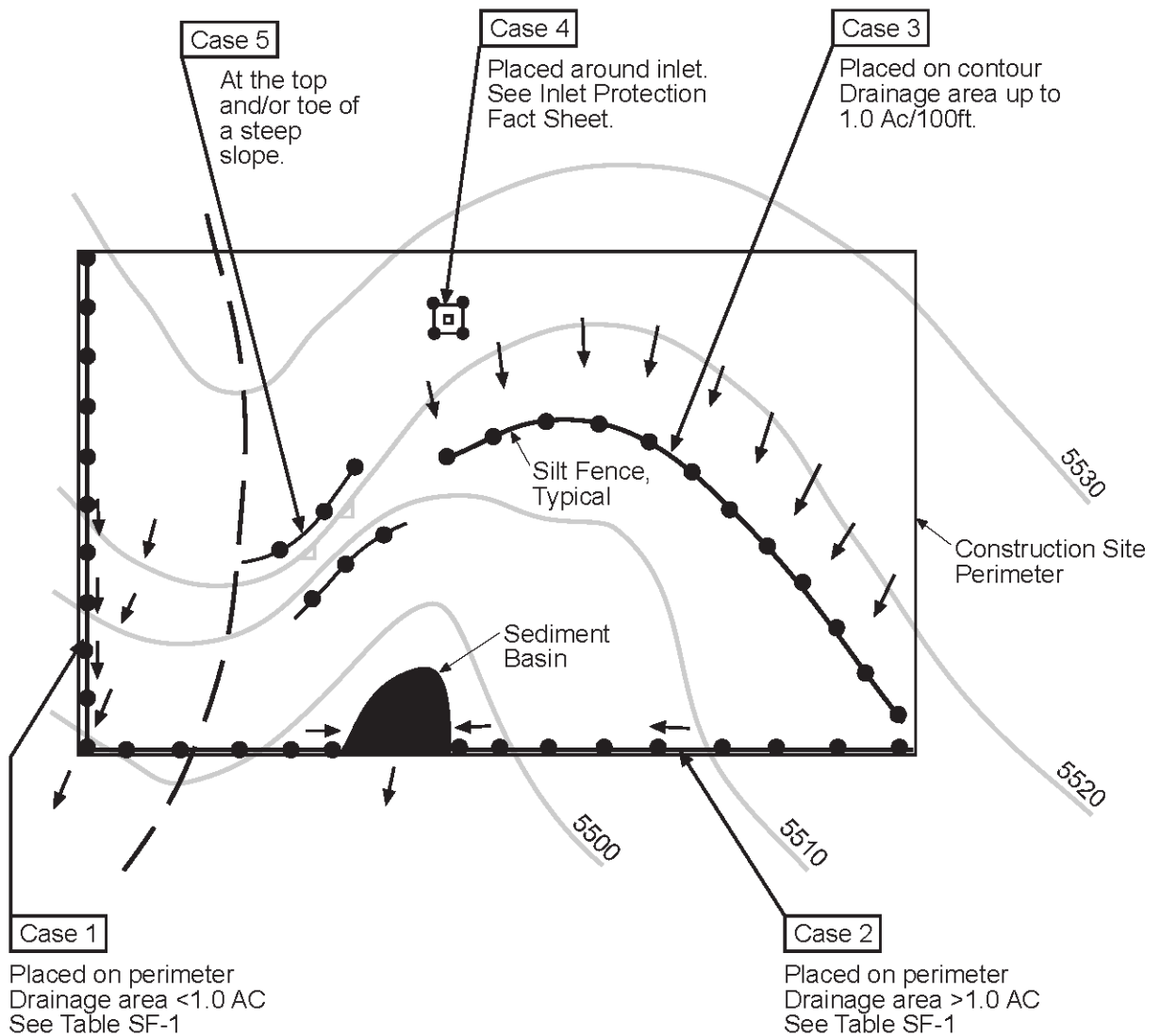


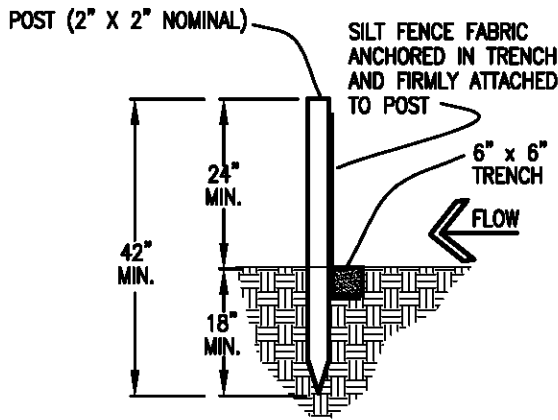
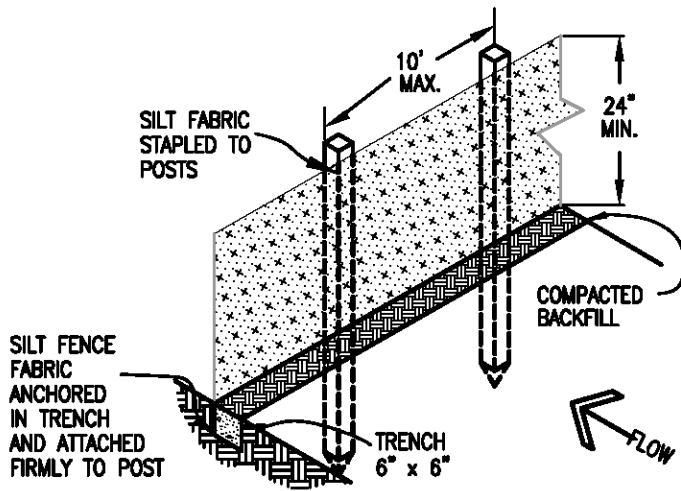
Table SF-1

Silt Fence Used as Perimeter Control	Case 1		Case 2 DA > 1.0 AC
	DA < 0.25 AC	0.25 < DA < 1 AC	
Continuous Grade	OK ⁽¹⁾	OK ⁽¹⁾	OK ⁽¹⁾
Area of Concentrated Flow	OK	NO ⁽²⁾	NO ⁽³⁾

(1) Temporary Swale or Straw Bale Barrier may be used as alternative to a Silt Fence.

(2) Check Dam may also be used as alternative to Silt Fence at low point.

(3) Sediment Basin is required for concentrated flow from drainage areas > 1.0 AC.



SILT FENCE

SILT FENCE NOTES

INSTALLATION REQUIREMENTS

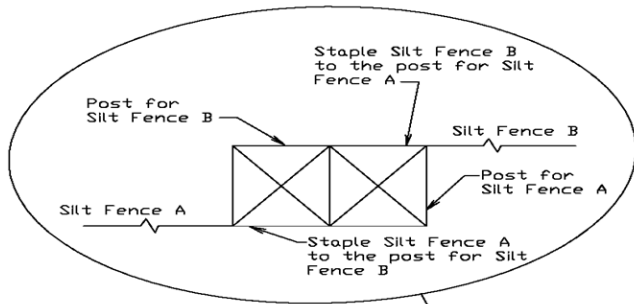
1. SILT FENCES SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
2. WHEN JOINTS ARE NECESSARY, SILT FENCE GEOTEXTILE SHALL BE SPLICED TOGETHER ONLY AT SUPPORT POST AND SECURELY SEALED.
3. METAL POSTS SHALL BE "STUDDED TEE" OR "U" TYPE WITH MINIMUM WEIGHT OF 1.33 POUNDS PER LINEAR FOOT. WOOD POSTS SHALL HAVE A MINIMUM DIAMETER OR CROSS SECTION DIMENSION OF 2 INCHES.
4. THE FILTER MATERIAL SHALL BE FASTENED SECURELY TO METAL OR WOOD POSTS USING WIRE TIES, OR TO WOOD POSTS WITH 3/4" LONG #9 HEAVY-DUTY STAPLES. THE SILT FENCE GEOTEXTILE SHALL NOT BE STAPLED TO EXISTING TREES.
5. WHILE NOT REQUIRED, WIRE MESH FENCE MAY BE USED TO SUPPORT THE GEOTEXTILE. WIRE FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY-DUTY WIRE STAPLES AT LEAST 3/4" LONG, TIE WIRES OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 6" AND SHALL NOT EXTEND MORE THAN 3' ABOVE THE ORIGINAL GROUND SURFACE.

6. ALONG THE TOE OF FILLS, INSTALL THE SILT FENCE ALONG A LEVEL CONTOUR AND PROVIDE AN AREA BEHIND THE FENCE FOR RUNOFF TO POND AND SEDIMENT TO SETTLE. A MINIMUM DISTANCE OF 5 FEET FROM THE TOE OF THE FILL IS RECOMMENDED.
7. THE HEIGHT OF THE SILT FENCE FROM THE GROUND SURFACE SHALL BE MINIMUM OF 24 INCHES AND SHALL NOT EXCEED 36 INCHES; HIGHER FENCES MAY INPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE.

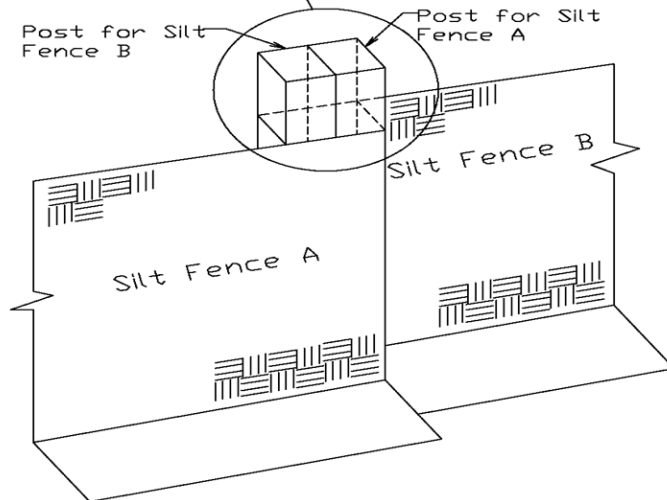
MAINTENANCE REQUIREMENTS

1. CONTRACTOR SHALL INSPECT SILT FENCES IMMEDIATELY AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS OF NO RAINFALL. DAMAGED, COLLAPSED, UNENTRENCHED OR INEFFECTIVE SILT FENCES SHALL BE PROMPTLY REPAIRED OR REPLACED.
2. SEDIMENT SHALL BE REMOVED FROM BEHIND SILT FENCE WHEN IT ACCUMULATES TO HALF THE EXPOSED GEOTEXTILE HEIGHT.
3. SILT FENCES SHALL BE REMOVED WHEN ADEQUATE VEGETATIVE COVER IS ATTAINED AS APPROVED BY THE CITY.

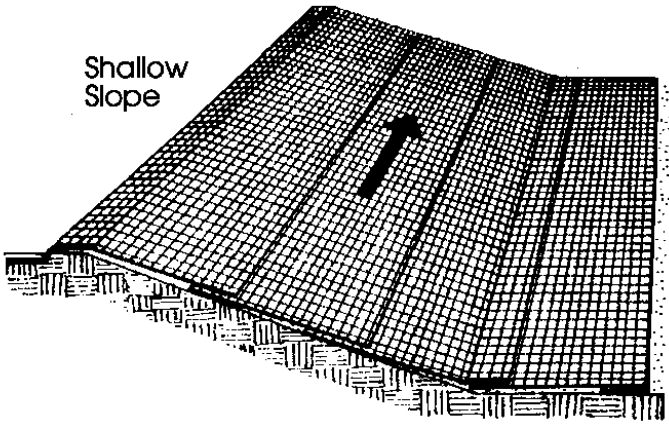
Top View of Silt Fence Posts Detail



Refer to "Top View of Silt Fence Posts Detail"



Shallow Slope

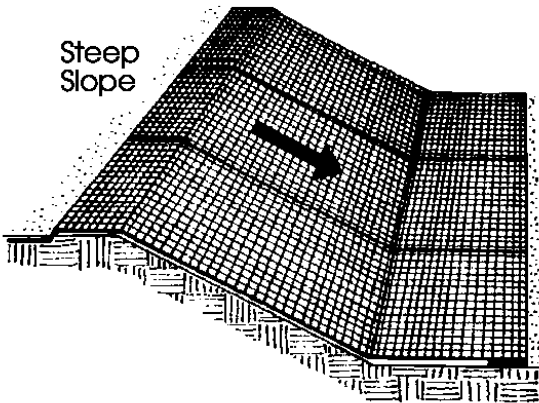


On shallow slopes, strips of netting may be applied across the slope.

Where there is a berm at the top of the slope, bring the netting over the berm and anchor it behind the berm.

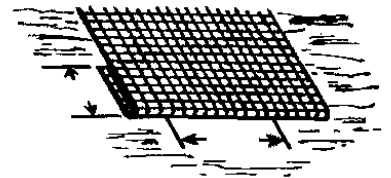


Steep Slope

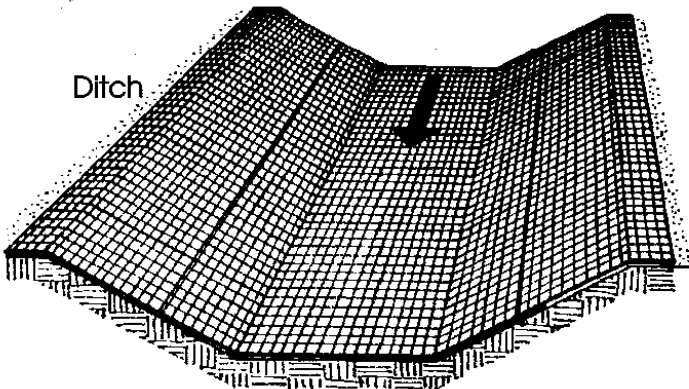


On steep slopes, apply strips of netting parallel to the direction of flow and anchor securely.

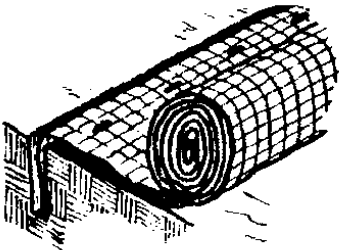
Bring netting down to a level area before terminating the installation. Turn the end under 6" and staple at 12" intervals.



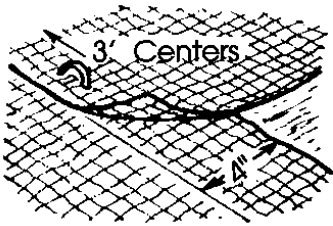
Ditch



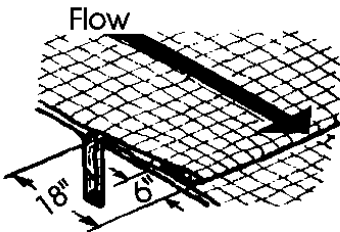
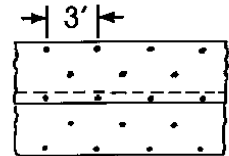
In ditches, apply netting parallel to the direction of flow. Use check slots every 15 feet. Do not join strips in the center of the ditch.



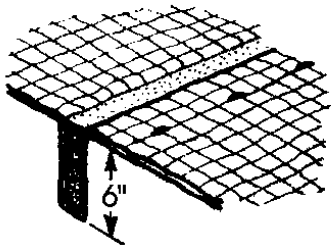
Anchor Slot: Bury the up-channel end of the net in a 6" deep trench. Tamp the soil firmly. Staple at 12" intervals across the net.



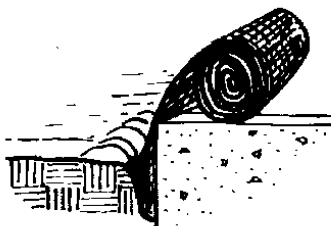
Overlap: Overlap edges of the strips at least 4". Staple every 3 feet down the center of the strip.



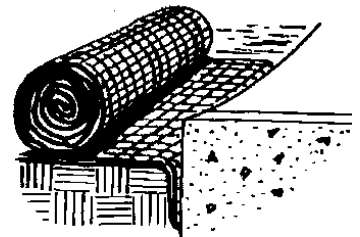
Joining Strips: Insert the new roll of net in a trench, as with the Anchor Slot. Overlap the up-channel end of the previous roll 18" and turn the end under 6". Staple the end of the previous roll just below the anchor slot and at the end at 12" intervals.

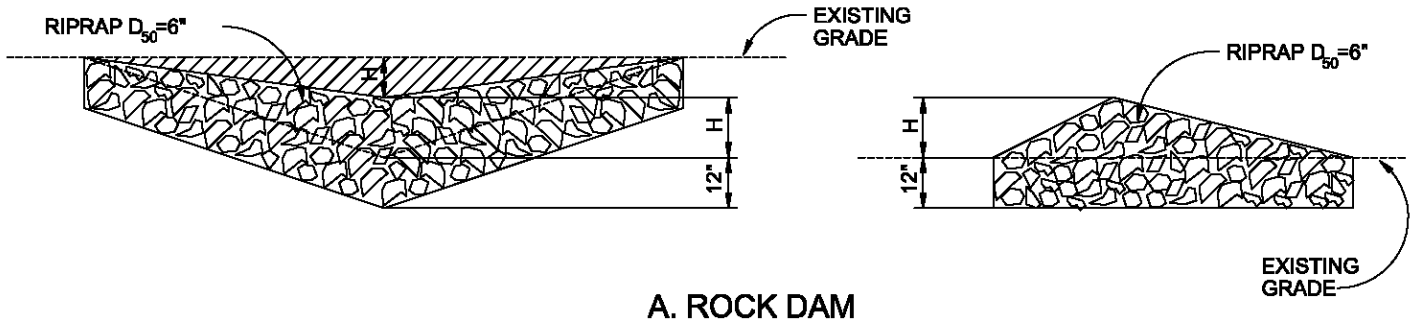


Check Slots: On erodible soils or steep slopes, check slots should be made every 15 feet. Insert a fold of the net into a 6" trench and tamp firmly. Staple at 12" intervals across the net. Lay the net smoothly on the surface of the soil - do not stretch the net, and do not allow wrinkles.

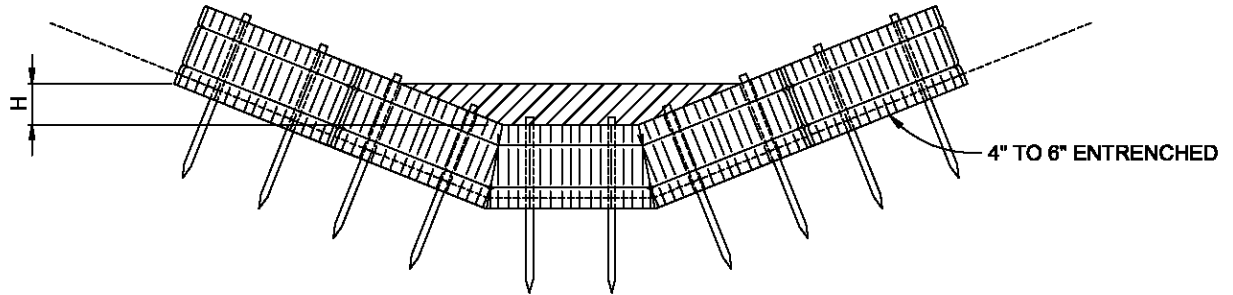


Anchoring Ends At Structures: Place the end of the net in a 6" slot on the up-channel side of the structure. Fill the trench and tamp firmly. Roll the net up the channel. Place staples at 12" intervals along the anchor end of the net.

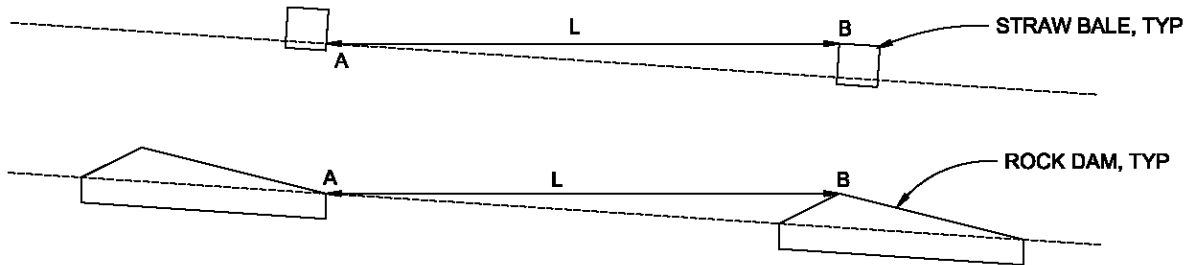




A. ROCK DAM



B. STRAW BALE CHECK DAM
(SEE STRAW BALE BARRIER INSTALATION)



L= THE DISTANCE SUCH THAT POINTS A AND B ARE AT THE SAME ELEVATION.

C. SPACING CHECK DAMS

CHECK DAM

NTS

CHECK DAM NOTES

INSTALLATION REQUIREMENTS

1. STRAW BALES USED AS CHECK DAMS ARE TO MEET THE REQUIREMENTS STATED IN FIGURE SBB-2.
2. THE "H" DIMENSION SHALL BE SELECTED TO PROVIDE WEIR FLOW CONVEYANCE FOR 2-YEAR FLOW OR GREATER.

MAINTENANCE REQUIREMENTS

1. REGULAR INSPECTIONS ARE TO BE MADE OF ALL CHECK DAMS, ESPECIALLY AFTER STORM EVENTS.
2. REPLACE STONE AS NECESSARY TO MAINTAIN THE CORRECT HEIGHT OF THE DAM.
3. ACCUMULATED SEDIMENT AND DEBRIS IS TO BE REMOVED FROM BEHIND THE DAMS AFTER EACH STORM OR WHEN 1/2 OF THE ORIGINAL HEIGHT OF THE DAM IS REACHED.
3. CHECK DAMS ARE TO REMAIN IN PLACE AND OPERATIONAL UNTIL THE DRAINAGE AREA AND CHANNEL ARE PERMANENTLY STABILIZED.
4. WHEN CHECK DAMS ARE REMOVED THE CHANNEL LINING OR VEGETATION IS TO BE RESTORED.

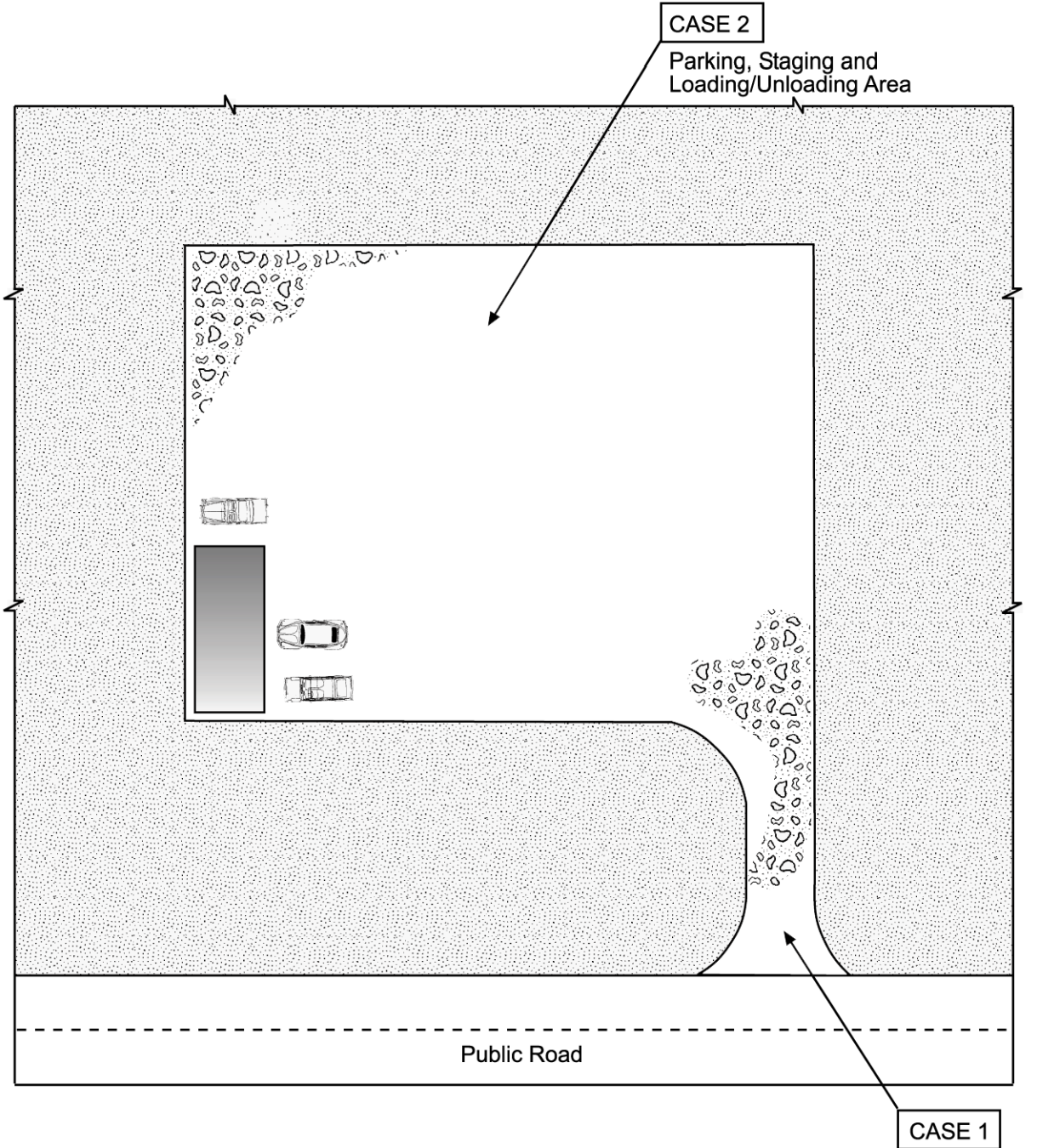
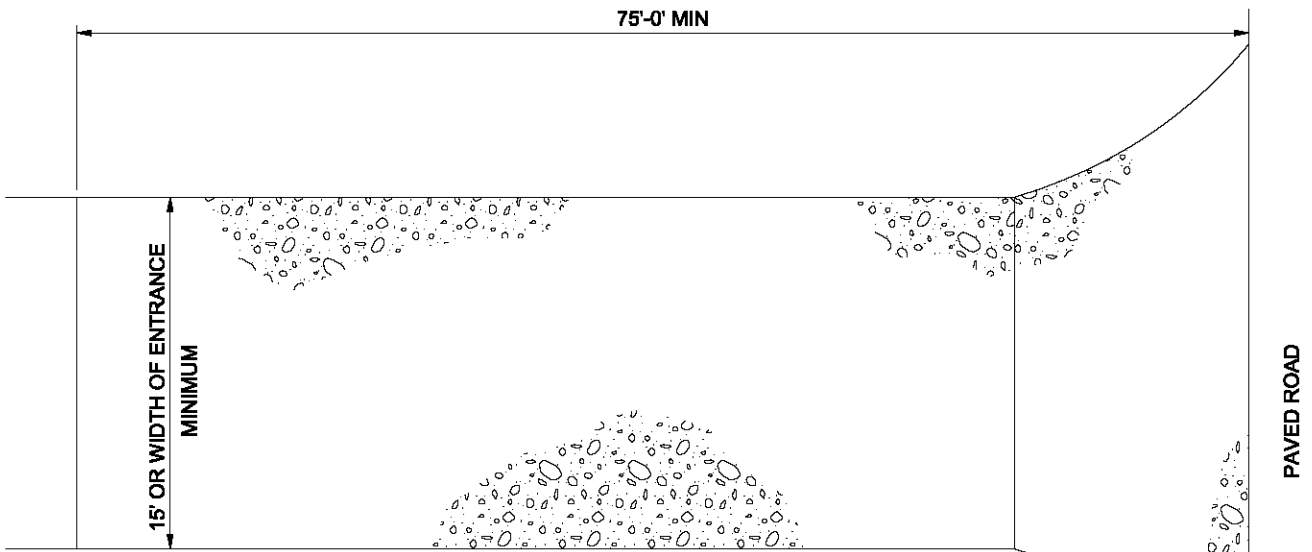


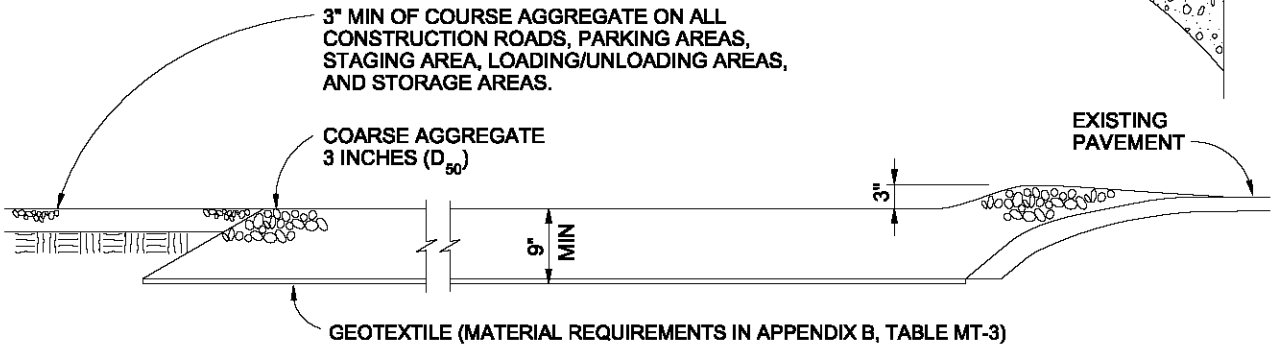
Table VT-1

	Case 1	Case 2
Gravel Thickness	9"	3"
Filter Fabric	YES	NO

CASE 1
Construction Entrance



PLAN



SECTION

VEHICLE TRACKING

NTS

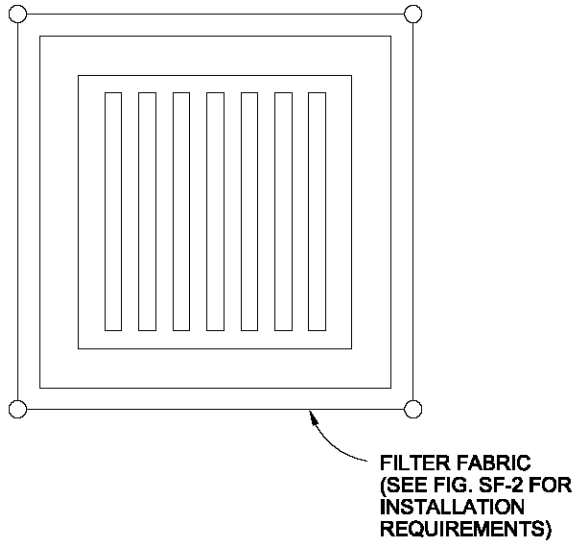
VEHICLE TRACKING NOTES

INSTALLATION REQUIREMENTS

1. ALL ENTRANCES TO THE CONSTRUCTION SITE ARE TO BE STABILIZED PRIOR TO CONSTRUCTION BEGINNING.
2. CONSTRUCTION ENTRANCES ARE TO BE BUILT WITH AN APRON TO ALLOW FOR TURNING TRAFFIC, BUT SHOULD NOT BE BUILT OVER EXISTING PAVEMENT EXCEPT FOR A SLIGHT OVERLAP.
3. AREAS TO BE STABILIZED ARE TO BE PROPERLY GRADED AND COMPACTED PRIOR TO LAYING DOWN GEOTEXTILE AND STONE.
4. CONSTRUCTION ROADS, PARKING AREAS, LOADING/UNLOADING ZONES, STORAGE AREAS, AND STAGING AREAS ARE TO BE STABILIZED.
5. CONSTRUCTION ROADS ARE TO BE BUILT TO CONFORM TO SITE GRADES, BUT SHOULD NOT HAVE SIDE SLOPES OR ROAD GRADES THAT ARE EXCESSIVELY STEEP.

MAINTENANCE REQUIREMENTS

1. REGULAR INSPECTIONS ARE TO BE MADE OF ALL STABILIZED AREAS, ESPECIALLY AFTER STORM EVENTS.
2. STONES ARE TO BE REAPPLIED PERIODICALLY AND WHEN REPAIR IS NECESSARY.
3. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED DAILY BY SHOVELING OR SWEEPING. SEDIMENT IS NOT TO BE WASHED DOWN STORM SEWER DRAINS.
4. STORM SEWER INLET PROTECTION IS TO BE IN PLACE, INSPECTED, AND CLEANED IF NECESSARY.
5. OTHER ASSOCIATED SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED TO ENSURE GOOD WORKING CONDITION.



FILTER FABRIC INLET PROTECTION

NTS

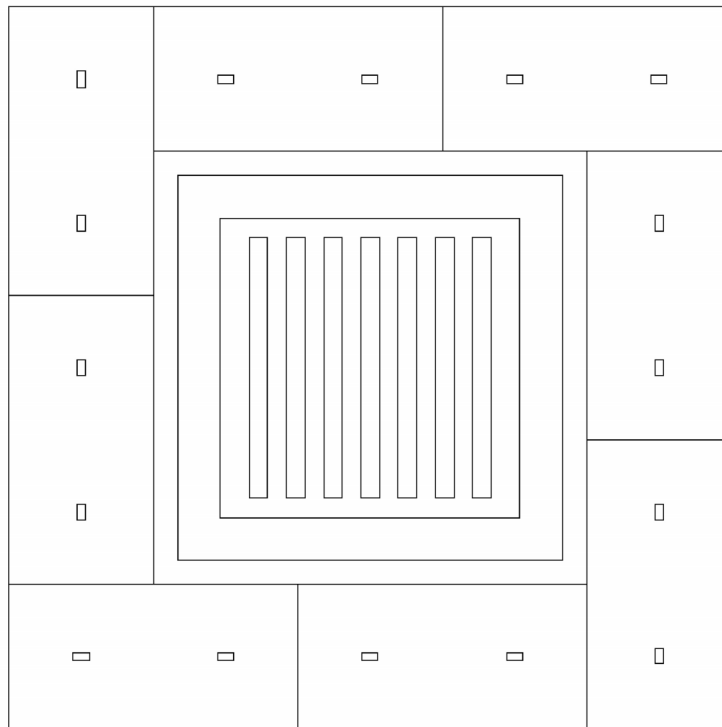
FILTER FABRIC INLET PROTECTION NOTES

INSTALLATION REQUIREMENTS

1. INLET PROTECTION SHALL BE INSTALLED IMMEDIATELY AFTER CONSTRUCTION OF INLET.
2. SEE SILT FENCE FIGURE SF-2 FOR INSTALLATION REQUIREMENTS.
3. POSTS ARE TO BE PLACED AT EACH CORNER OF THE INLET AND AROUND THE EDGES AT A MAXIMUM SPACING OF 3 FEET.

MAINTENANCE REQUIREMENTS

1. CONTRACTOR SHALL INSPECT INLET PROTECTION IMMEDIATELY AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS NO RAINFALL.
2. DAMAGED, COLLAPSED, UNENTRENCHED OR INEFFECTIVE INLET PROTECTION SHALL BE PROMPTLY REPAIRED OR REPLACED.
3. SEDIMENT SHALL BE REMOVED FROM BEHIND FILTER FABRIC WHEN IT ACCUMULATES TO HALF THE EXPOSED GEOTEXTILE HEIGHT.
4. FILTER FABRIC PROTECTION SHALL BE REMOVED WHEN ADEQUATE VEGETATIVE COVER IS ATTAINED IN THE DRAINAGE AREA AS APPROVED BY THE CITY.



STRAW BALE
(SEE FIG. SBB-2
FOR INSTALLATION
REQUIREMENTS)

STRAW BALE INLET PROTECTION

NTS

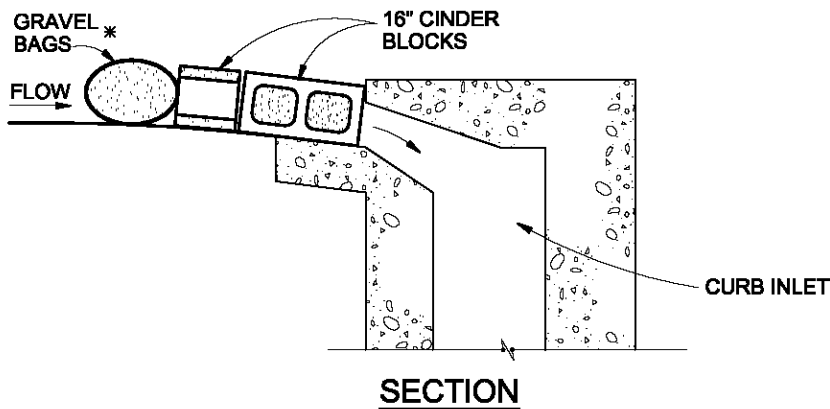
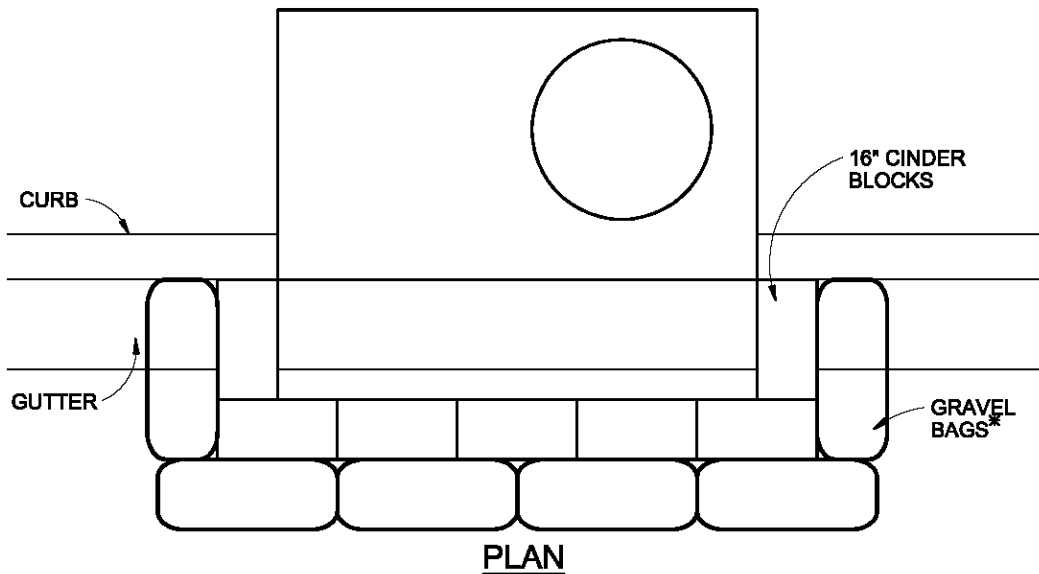
STRAW BALE INLET PROTECTION NOTES

INSTALLATION REQUIREMENTS

1. INLET PROTECTION SHALL BE INSTALLED IMMEDIATELY AFTER CONSTRUCTION OF INLET.
2. BALES ARE TO BE PLACED IN A SINGLE ROW AROUND THE INLET WITH THE END OF THE BALES TIGHTLY ABUTTING ONE ANOTHER.
3. SEE STRAW BALE BARRIER FIGURE SBB-2 FOR INSTALLATION REQUIREMENTS.

MAINTENANCE REQUIREMENTS

1. CONTRACTOR SHALL INSPECT STRAW BALE INLET PROTECTION IMMEDIATELY AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS NO RAINFALL.
2. DAMAGED OR INEFFECTIVE INLET PROTECTION SHALL PROMPTLY BE REPAIRED, REPLACING BALES IF NECESSARY, AND UNENTRENCHED BALES NEED TO BE REPAIRED WITH COMPACTED BACKFILL MATERIAL.
3. SEDIMENT SHALL BE REMOVED FROM BEHIND STRAW BALES WHEN IT ACCUMULATES TO APPROXIMATELY 1/3 THE HEIGHT OF THE BARRIER.
4. INLET PROTECTION SHALL BE REMOVED WHEN ADEQUATE VEGETATIVE COVER IS ATTAINED WITHIN THE DRAINAGE AREA AS APPROVED BY THE CITY.



BLOCK AND GRAVEL BAG* CURB INLET PROTECTION

NTS

BLOCK AND GRAVEL BAG* CURB INLET PROTECTION NOTES

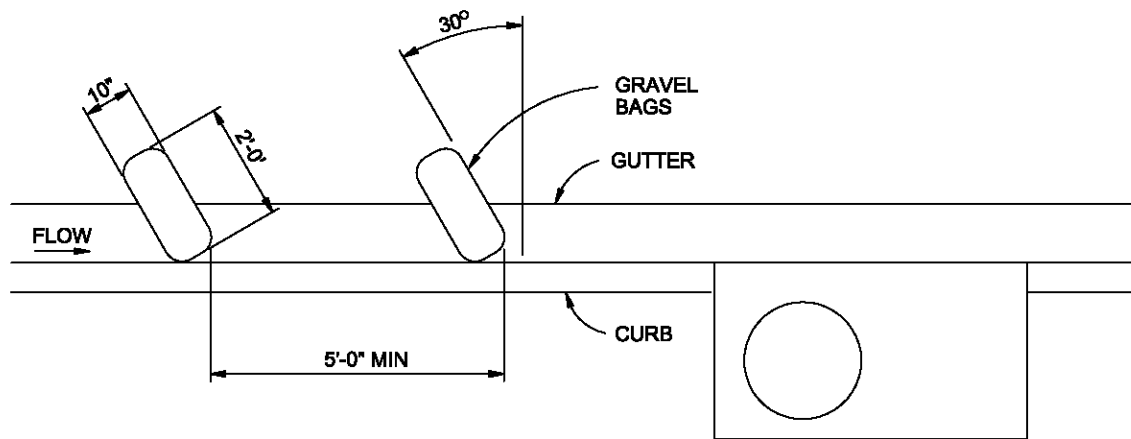
INSTALLATION REQUIREMENTS

1. INLET PROTECTION SHALL BE INSTALLED IMMEDIATELY AFTER CONSTRUCTION OF INLET.
2. CONCRETE BLOCKS ARE TO BE LAID AROUND THE INLET IN A SINGLE ROW ON THEIR SIDES, ABUTTING ONE ANOTHER WITH THE OPEN ENDS OF THE BLOCK FACING OUTWARD.
3. GRAVEL BAGS ARE TO BE PLACED AROUND THE CONCRETE BLOCKS CLOSELY ABUTTING ONE ANOTHER SO THERE ARE NO GAPS.
4. GRAVEL BAGS ARE TO CONTAIN WASHED SAND OR GRAVEL APPROXIMATELY 3/4 INCH IN DIAMETER.
5. BAGS ARE TO BE MADE OF 1/4" INCH WIRE MESH (USED WITH GRAVEL ONLY) OR GEOTEXTILE.

MAINTENANCE REQUIREMENTS

1. CONTRACTOR SHALL INSPECT INLET PROTECTION IMMEDIATELY AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS NO RAINFALL.
2. DAMAGED OR INEFFECTIVE INLET PROTECTION SHALL PROMPTLY BE REPAIRED OR REPLACED.
3. SEDIMENT SHALL BE REMOVED WHEN SEDIMENT HAS ACCUMULATED TO APPROXIMATELY 1/2 THE DESIGN DEPTH OF THE TRAP.
4. INLET PROTECTION SHALL BE REMOVED WHEN ADEQUATE VEGETATIVE COVER IS ATTAINED WITHIN THE DRAINAGE AREA AS APPROVED BY THE CITY.

* AN ALTERNATE 3/4" TO 1" GRAVEL FILTER OVER A WIRE SCREEN MAY BE USED IN PLACE OF GRAVEL BAGS. THE WIRE MESH SHALL EXTEND ABOVE THE TOP OF THE CONCRETE BLOCKS AND THE GRAVEL PLACED OVER THE WIRE SCREEN TO THE TOP OF THE CONCRETE BLOCKS.



CURB SOCK INLET PROTECTION

NTS

CURB SOCK INLET PROTECTION NOTES

INSTALLATION REQUIREMENTS

1. INLET PROTECTION SHALL BE INSTALLED IMMEDIATELY AFTER CONSTRUCTION OF INLET.
2. SOCK IS TO BE MADE OF 1/4 INCH WIRE MESH (USED WITH GRAVEL ONLY) OR GEOTEXTILE.
3. WASHED SAND OR GRAVEL 3/4 INCH TO 4 INCHES IN DIAMETER IS PLACED INSIDE THE SOCK.
4. PLACEMENT OF THE SOCK IS TO BE 30 DEGREES FROM PERPENDICULAR IN THE OPPOSITE DIRECTION OF FLOW.
5. SOCKS ARE TO BE FLUSH WITH THE CURB AND SPACED AT A MINIMUM 5 FEET APART.
6. AT LEAST 2 CURB SOCKS IN SERIES IS REQUIRED.

MAINTENANCE REQUIREMENTS

1. CONTRACTOR SHALL INSPECT INLET PROTECTION IMMEDIATELY AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL AND WEEKLY DURING PERIODS NO RAINFALL.
2. DAMAGED OR INEFFECTIVE INLET PROTECTION SHALL PROMPTLY BE REPAIRED OR REPLACED.
3. SEDIMENT SHALL BE REMOVED FROM BEHIND THE SOCK WHEN GUTTER WIDTH IS FILLED.
4. INLET PROTECTION SHALL BE REMOVED WHEN ADEQUATE VEGETATIVE COVER IS ATTAINED WITHIN THE DRAINAGE AREA AS APPROVED BY THE CITY.

RECOMMENDED ANNUAL GRASSES

SPECIES (COMMON NAME)	GROWTH SEASON	SEEDING DATE	POUNDS OF PURE LIVE SEED (PLS) (PLS/ACRE)	PLANTING DEPTH (INCHES)
1. OATS	COOL	MARCH 16 - APRIL 30	35-50	1-2
2. SPRING WHEAT	COOL	MARCH 16 - APRIL 30	25-35	1-2
3. SPRING BARLEY	COOL	MARCH 16 - APRIL 30	25-35	1-2
4. ANNUAL RYEGRASS	COOL	MARCH 16 - JUNE 30	10-15	1/2
5. MILLET	WARM	MAY 16 - JULY 15	3-15	1/2-3/4
6. SUDANGRASS	WARM	MAY 16 - JULY 15	5-10	1/2-3/4
7. SORGHUM	WARM	MAY 16 - JULY 15	5-10	1/2-3/4
8. WINTER WHEAT	COOL	SEPTEMBER 1 - 30	20-35	1-2
9. WINTER BARLEY	COOL	SEPTEMBER 1 - 30	20-35	1-2
10. WINTER RYE	COOL	SEPTEMBER 1 - 30	20-35	1-2
11. TRITICALE	COOL	SEPTEMBER 1 - 30	25-40	1-2

THIS TABLE WAS TAKEN FROM UDFCD FOR RECOMMENDED ANNUAL GRASSES FOR THE DENVER METROPOLITAN AREA. THIS TABLE MAY BE USED UNLESS A SITE-SPECIFIC SEED MIX IS REQUESTED AND APPROVED.

TABLE TS-1

TEMPORARY SEEDING NOTES

INSTALLATION REQUIREMENTS

MAINTENANCE REQUIREMENTS

1. DISTURBED AREAS ARE TO BE SEEDED WITHIN 21 DAYS AFTER CONSTRUCTION ACTIVITY OR GRADING ENDS IF SEASON ALLOWS.
2. IF NECESSARY, SOIL IS TO BE CONDITIONED FOR PLANT GROWTH BY APPLYING TOPSOIL, FERTILIZER, OR LIME.
3. SOIL IS TO BE TILLED IMMEDIATELY PRIOR TO APPLYING SEEDS. COMPACT SOILS ESPECIALLY NEED TO BE LOOSENED.
4. SEEDBED DEPTH IS TO BE 4 INCHES FOR SLOPES FLATTER THAN 2:1, AND 1 INCH FOR SLOPES STEEPER THAN 2:1.
5. ANNUAL GRASSES LISTED IN TABLE TS-1 ARE TO BE USED FOR TEMPORARY SEEDING. SEED MIXES ARE NOT TO CONTAIN ANY NOXIOUS WEED SEEDS INCLUDING RUSSIAN OR CANADIAN THISTLE, KNAPWEED, PURPLE LOOSESTRIPE, EUROPEAN BINDWEED, JOHNSON GRASS, AND LEAFY SPURGE.
6. TABLE TS-1 ALSO PROVIDES REQUIREMENTS FOR SEEDING RATES, SEEDING DATES, AND PLANTING DEPTHS FOR THE APPROVED TYPES OF ANNUAL GRASSES.
7. SEEDING IS TO BE APPLIED USING MECHANICAL TYPE DRILLS EXCEPT WHERE SLOPES ARE STEEP OR ACCESS IS LIMITED THEN HYDRAULIC SEEDING MAY BE USED.
8. ALL SEEDED AREAS ARE TO BE MULCHED (SEE FACTSHEET ON MULCHING).
9. IF HYDRAULIC SEEDING IS USED THEN HYDRAULIC MULCHING SHALL BE DONE SEPARATELY TO AVOID SEEDS BECOMING ENCAPSULATED IN THE MULCH.

1. REGULAR INSPECTIONS ARE TO BE MADE OF ALL SEEDED AREAS TO ENSURE GROWTH.
2. AREAS WHERE GROWTH IS NOT OCCURRING QUICKLY OR THE MULCH HAS BEEN REMOVED SHALL BE RE-SEEDED AS SOON AS POSSIBLE AND RE-MULCHED IF NEEDED.
3. SEEDED AREAS ARE NOT TO BE DRIVEN OVER WITH CONSTRUCTION EQUIPMENT OR VEHICLES.

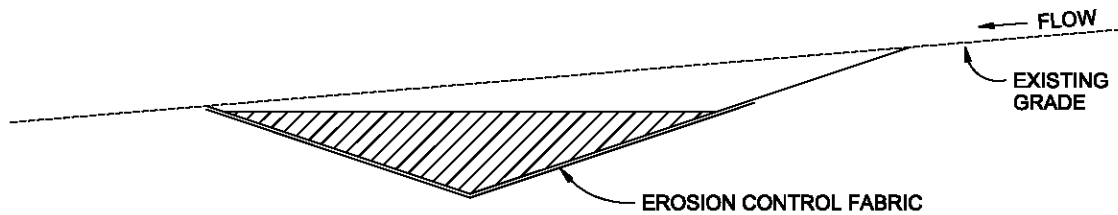
MULCHING NOTES

INSTALLATION REQUIREMENTS

1. ALL DISTURBED AREAS MUST BE MULCHED WITHIN 21 DAYS AFTER FINAL GRADE AND SEEDED AREAS ARE TO BE MULCHED WITHIN 24 HOURS AFTER SEEDING.
2. MATERIAL USED FOR MULCH CAN BE CERTIFIED CLEAN, WEED- AND SEED-FREE LONG STEMMED FIELD OR MARSH HAY, OR STRAW OF OATS, BARLEY, WHEAT, RYE, OR TRITICALE CERTIFIED BY THE COLORADO DEPARTMENT OF AGRICULTURE WEED FREE FORAGE CERTIFICATION PROGRAM.
3. HYDRAULIC MULCHING MATERIAL SHALL CONSIST OF VIRGIN WOOD FIBER MANUFACTURED FROM CLEAN WHOLE WOOD CHIPS. WOOD CHIPS CANNOT CONTAIN ANY GROWTH OR GERMINATION INHIBITORS OR BE PRODUCED FROM RECYCLED MATERIAL. GRAVEL CAN ALSO BE USED.
4. MULCH IS TO BE APPLIED EVENLY AT A RATE OF 2 TONS PER ACRE.
5. MULCH IS TO BE ANCHORED EITHER BY CRIMPING (TUCKING MULCH FIBERS 4 INCHES INTO THE SOIL), USING NETTING (USED ON SMALL AREAS WITH STEEP SLOPES), OR WITH A TACKIFIER.
6. HYDRAULIC MULCHING AND TACKIFIERS ARE NOT TO BE USED IN THE PRESENCE OF FREE SURFACE WATER.

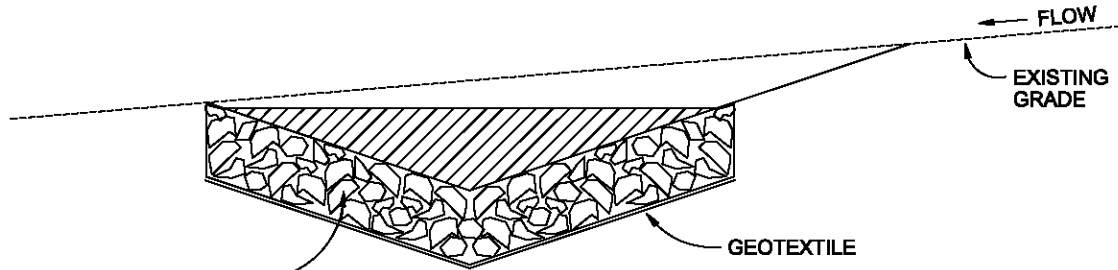
MAINTENANCE REQUIREMENTS

1. REGULAR INSPECTIONS ARE TO BE MADE OF ALL MULCHED AREAS.
2. MULCH IS TO BE REPLACED IMMEDIATELY IN THOSE AREAS IT HAS BEEN REMOVED, AND IF NECESSARY THE AREA SHOULD BE RESEDED.



A. EROSION CONTROL FABRIC

2% < SLOPE < 5% AND VELOCITY < 8 FPS



12" THICK RIPRAP TYPE "VL"

B. RIPRAP

SLOPE > 5% OR VELOCITY > 8 FPS

SWALE LINING

NTS

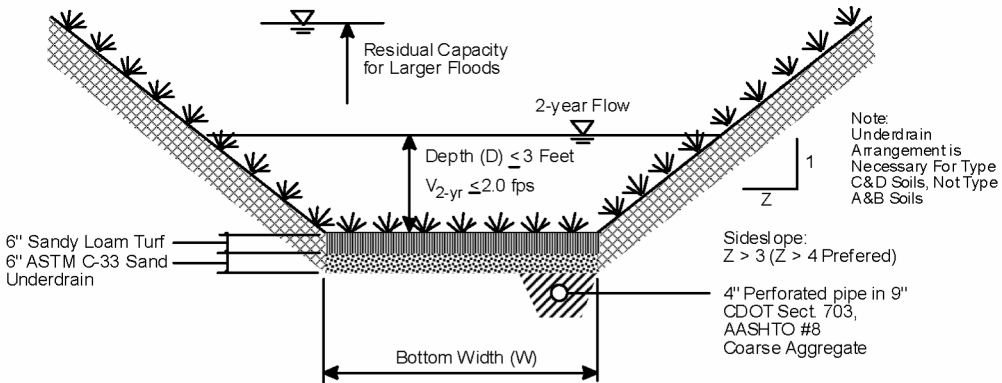
SWALE LINING NOTES

INSTALLATION REQUIREMENTS

1. REFER TO THE EROSION CONTROL BLANKETS FACTSHEET FOR PROPER INSTALLATION OF EROSION CONTROL FABRIC LINING.
2. SWALES WITH EASILY EROSIIVE SOILS AND SLOPES LESS THAN 2%, SHALL BE LINED WITH EROSION CONTROL FABRIC.
3. VELOCITIES FOR EROSION CONTROL FABRICS SHALL NOT EXCEED 8 FPS. SWALES WITH VELOCITIES GREATER THAN 8 FPS SHALL BE LINED WITH RIP RAP.

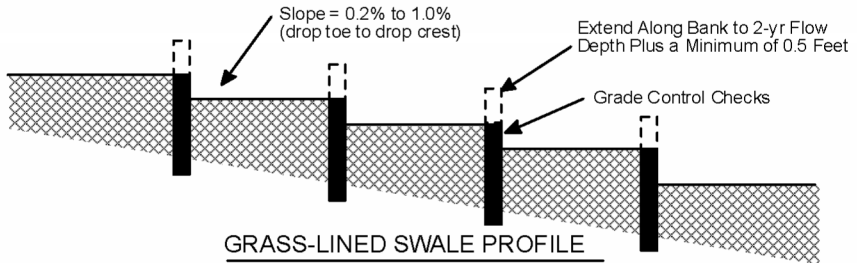
MAINTENANCE REQUIREMENTS

1. CONTRACTOR SHALL INSPECT SWALE LININGS AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL AND WEEKLY DURING PERIODS OF NO RAINFALL.
2. DAMAGED LININGS SHALL IMMEDIATELY BE REPAIRED.
3. REFER TO THE EROSION CONTROL BLANKETS FACTSHEET FOR PROPER MAINTENANCE.
4. DISPLACED RIPRAP OR COARSE AGGREGATE IS TO BE REPLACED AS SOON AS POSSIBLE.
5. SWALE LININGS ARE TO REMAIN IN PLACE AND BE PROPERLY MAINTAINED UNTIL THE TEMPORARY SWALE IS REMOVED.



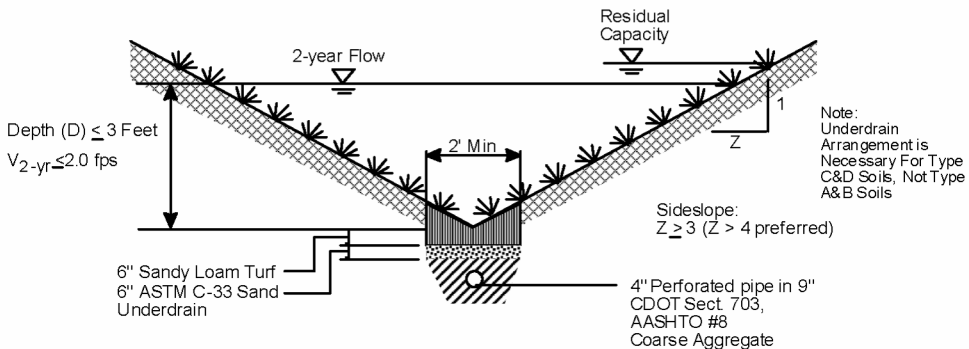
TRAPEZOIDAL GRASS-LINED SWALE SECTION

NOT TO SCALE



GRASS-LINED SWALE PROFILE

NOT TO SCALE



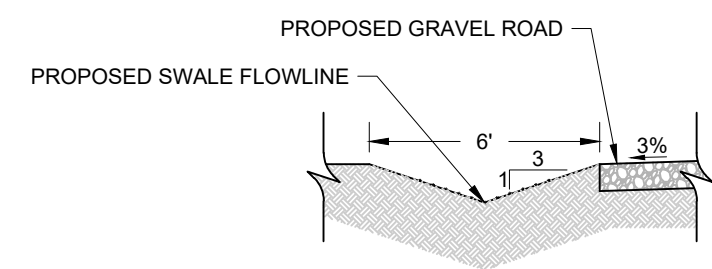
TRIANGULAR GRASS-LINED SWALE SECTION

NOT TO SCALE

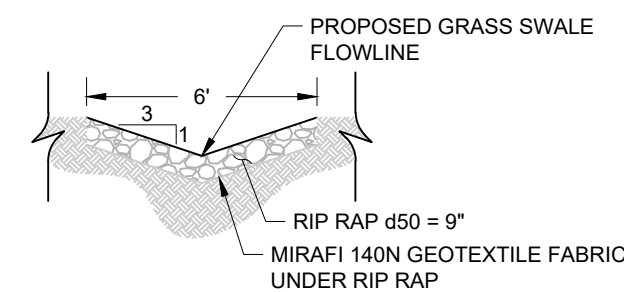
APPENDIX 5: Erosion & Sediment Control Plan (ESC Plan) – Site Map

ESC Plan includes, at a minimum, the following:

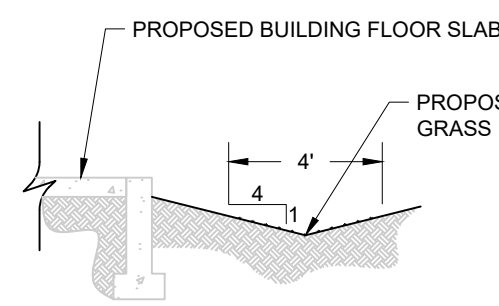
1. Construction site boundaries;
2. Flow arrows that depict stormwater flow directions on-site and runoff direction;
3. Areas of ground disturbance including areas of borrow and fill;
4. Areas used for storage of soil;
5. Locations of all waste accumulation areas, including areas for liquid, concrete, masonry, and asphalt;
6. Locations of dedicated asphalt, concrete batch plants and masonry mixing stations;
7. Locations of all structural control measures;
8. Locations of all non-structural control measures;
9. Locations 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. Locations of all stream crossings located within the construction site boundary.



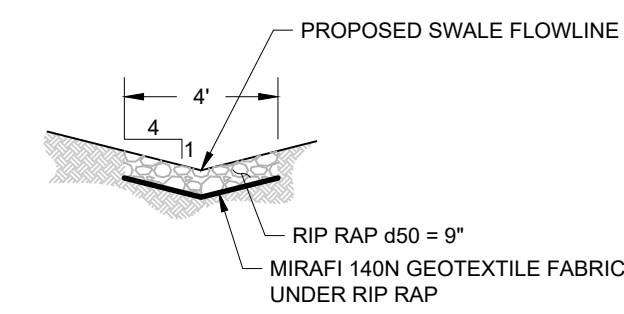
1 SECTION VIEW - GRAVEL DRIVE SWALE
NOT TO SCALE



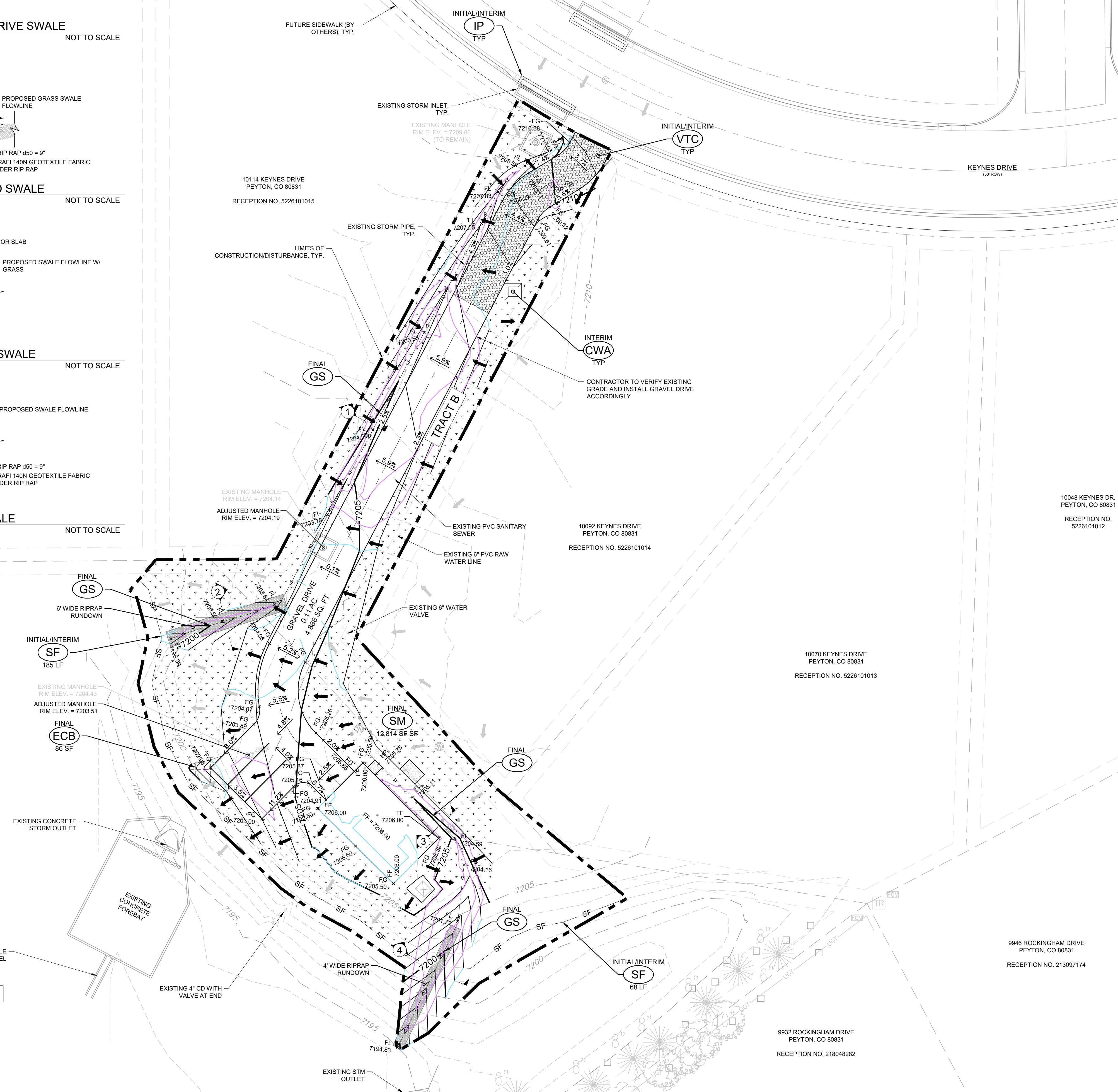
2 SECTION VIEW - SIDE ROAD SWALE
NOT TO SCALE



3 SECTION VIEW - BUILDING SWALE
NOT TO SCALE



4 SECTION VIEW - POND SWALE
NOT TO SCALE



LEGEND

	EXISTING PROPERTY LINE
	EXISTING WATER LINE
	EXISTING SANITARY SEWER LINE
	EXISTING SANITARY SEWER MANHOLE
	EXISTING STORM SEWER MANHOLE
	EXISTING WATER WELL
	EXISTING STORM PIPE
	EXISTING WATER VALVE
	EXISTING ELECTRIC MH
	EXISTING ELECTRIC MKR
	EXISTING ELECTRIC TRANSFORMER
	EXISTING ELECTRIC UNDERGROUND
	EXISTING FIBER OPTIC UNDERGROUND
	EXISTING CABLE TV UNDERGROUND
	EXISTING GAS LINE UNDERGROUND
	EXISTING CONT-MJR
	EXISTING CONT-MNR
	EXISTING SURFACE FLOW DIRECTION ARROW
	PROPOSED SURFACE FLOW DIRECTION ARROW
	PROPOSED SPOT ELEVATION
	PROPOSED CONT-MJR
	PROPOSED CONT-MNR
	PROPOSED PUMP HOUSE FOOTPRINT
	PROPOSED GRAVEL DRIVE
	PROPOSED RIP RAP
	PROPOSED CUT LINE
	PROPOSED FILL LINE
	PROPOSED SILT FENCE
	PROPOSED VEHICLE TRACKING CONTROL
	PROPOSED CONCRETE WASHOUT
	PROPOSED INLET PROTECTION
	PROPOSED SWALE
	PROPOSED EROSION CONTROL BLANKET
	PROPOSED SEEDING AND MULCHING
	PROPOSED STABILIZED STAGING AREA

ABBREVIATIONS

FL	FLOW LINE
FF	FINISHED FLOOR
FG	FINISHED GRADE
HP	HIGH POINT

AREAS OF CUT/FILL

CUT	= 371.4 CY
FILL	= 31.91 CY
NET	= (CUT) 339.5 CY

- NOTES:
- EXISTING SITE HAS NO NOTABLE VEGETATION OTHER THAN FIELD GRASS AND WEEDS. APPROXIMATELY 70% OF THE EXISTING SITE IS COVERED IN GRASSES AND WEEDS.
 - SITE IS NOT LOCATED WITHIN THE FEMA 100-YEAR FLOODPLAIN.
 - CONTRACTOR TO INSTALL EROSION CONTROL BLANKET (ECB) ON SLOPES OF 3:1 OR GREATER.
 - LOCATION OF STABILIZED STAGING AREA (SSA) TO BE DETERMINED AT THE PRE-CONSTRUCTION MEETING.
 - AREAS OUTSIDE OF THE CONSTRUCTION SITE BOUNDARY SHALL BE PROTECTED WITH CONSTRUCTION FENCING OR OTHER METHODS AS APPROPRIATE.
 - THERE ARE NO DEDICATED ASPHALT/CONCRETE BATCH PLANTS ON SITE.

<p>48 HOURS BEFORE YOU ARE TO CALL UTILITY NOTIFICATION CENTER OF COLORADO (UNCCO)</p> <p>811</p> <p>GAS, ELECTRIC, TELEPHONE, CABLE, AND PLYMOUTH EASTERN PIPELINE LOCATIONS</p> <p>SCALE VERIFICATION</p> <p>BAR IS ONE INCH ON ORIGINAL DRAWING</p> <p>IF NOT ONE INCH ON THIS SHEET SCALE ACCORDINGLY</p>			
NO.	DESCRIPTION	DATE	BY
1	EL PASO COUNTY SDF SUBMITTAL	5/3/23	JCS
2	EPC SUBMITTAL #2	8/14/23	JRS
3	EPC SUBMITTAL #3	9/12/23	JRS

RG AND ASSOCIATES, LLC
4885 Ward Road, Suite 100 • Wheat Ridge, CO 80033
Del Norte • Wheat Ridge
303-293-8107 • www.rgengineers.com

PUMP HOUSE SIX UTILITY BUILDING

GRADING AND EROSION CONTROL PLAN

PAINT BRUSH HILLS METROPOLITAN DISTRICT
9885 TOWNER AVENUE
PEYTON, CO 80831

DRAWN BY:	DESIGNED BY:
JRS	JRS/RG
JOB NUMBER:	1070.0026
DATE:	9/12/23
SCALE:	1" = 20'
DRAWING DESCRIPTION:	GEC PLAN
SHEET NO.:	3 of 5

Saved: 9/12/2023 By: JSCHNEIDER Pktd: 9/12/2023 11:54 AM
 Filename: S:\1070 - PAINT BRUSH HILLS METROPOLITAN DISTRICT\1070.0014 - WELL #1\2\SITE DEVELOPMENT PLAN\DWG\GEC GRADING AND EROSION CONTROL PLAN.DWG

APPENDIX 6: 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.

Contractor Construction Stormwater Site Inspection

General Information

Project Name: Project Name. **Project No.:** Project No. **CDPS Cert. No.:** COR-000000
Location: Location. **Date of Inspection:** Date of Inspection. **Start and End Time:** Start Time. / End Time.
Weather Conditions: Clear Cloudy Rain Sleet Fog Snow High Winds Other: Other. **Temperature:** Temp.
Present Phase of Construction: Phase. **Estimated Area of Disturbance (ac):** Est. Acreage.

Inspection Information

Type of Inspection: Choose an item. If Post-Storm Inspection, provide the storm information below:
 Type: Choose an item. **Date:** Date. **Time:** Time. **Duration (hrs):** Duration. **Approximate Amount of Precipitation (in):** Precipitation.
Has there been any deviations from the minimum inspection schedule? Yes No **If "Yes, describe:** Deviation.
Inspector's Name: Inspector's Name. **Inspector's Title:** Inspector's Title.
Is the above inspector a qualified stormwater manager? Yes No
Is there evidence of, or the potential for, pollutants leaving the construction site boundaries, entering the stormwater drainage system or discharging to state waters at the following locations? Yes No **If "Yes", select all that apply below:**
 Construction site perimeter; All disturbed areas; Designated haul routes; Material and waste storage areas exposed to precipitation;
 Locations where stormwater has the potential to discharge offsite; Locations where vehicles exit the site; Other: Other.

Noncompliance Reporting to CDPHE

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

- a. Endangerment to Health or the Environment
Circumstances leading to any noncompliance which may endanger health or the environment regardless of the cause of the incident (See Part II.L.6.a of the Permit)
- b. Numeric Effluent Limit Violations
 - o Circumstances leading to any unanticipated bypass which exceeds any effluent limitations (See Part II.L.6.b of the Permit)
 - o Circumstances leading to any upset which causes an exceedance of any effluent limitation (See Part II.L.6.c of the Permit)
 - o Daily maximum violations (See Part II.L.6.d of the Permit)

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

Has there been an incident of noncompliance requiring 24-hour notification? Yes No **If "Yes" please document below**

Date and Time of Incident	Location and Description of Noncompliance	Description of Corrective Action	Date and Time of 24 Hour Oral Notification	Date of 5 Day Written Notification ²
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² Attach copy of 5 day written notification to report. Indicate if written notification was waived, including the name of the division personnel who granted waiver.

* If winter conditions exclusions is selected as type of inspection, please attach a copy of the required documentation from Part I.D.4.c of the Permit.

Date.	Time.	Noncompliance.	Noncompliance.	Date.	Time.	Date.
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Sediment Control Measures					
Type	Maintenance Needed?	Inadequate Control Measure?	Additional Control Measure Needed?	Location and description of Maintenance or Corrective Action.	Date Corrected
Choose an item.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.	Date.

Erosion Control Measures					
Type	Maintenance Needed?	Inadequate Control Measure?	Additional Control Measure Needed?	Location and description of Maintenance or Corrective Action.	Date Corrected
Choose an item.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.	Date.

Materials Management Control Measures					
Type	Maintenance Needed?	Inadequate Control Measure?	Additional Control Measure Needed?	Location and description of Maintenance or Corrective Action.	Date Corrected

Choose an item.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.	Date.
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Site Management Control Measures					
Type	Maintenance Needed?	Inadequate Control Measure?	Additional Control Measure Needed?	Location and description of Maintenance or Corrective Action.	Date Corrected
Choose an item.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.	Date.

Field Notes
Click or tap here to enter text.

Certification Statement	
<p>After adequate corrective action(s) and maintenance have been taken, or where a report does not identify any incidents requiring corrective action or maintenance, the individual(s) designated as the Qualified Stormwater Manager, shall sign and certify the below statement:</p> <p>“I verify that, to the best of my knowledge and belief, all corrective action and maintenance items identified during the inspection are complete, and the site is currently in compliance with the permit.”</p>	
<p>Name of Qualified Stormwater Manager.</p> <hr/> <p>Name of Qualified Stormwater Manager</p>	<p>Title of Qualified Stormwater Manager.</p> <hr/> <p>Title of Qualified Stormwater Manager</p>
<p>Signature of Qualified Stormwater Manager</p> <hr/>	<p>Date.</p> <hr/> <p>Date</p>

APPENDIX 7: Completed Stormwater Inspection Logs

(File completed inspection forms or reference electronic location of inspections here)