

**STORMWATER MANAGEMENT PLAN  
FOR  
GATEWAY TRUCKING**

**Prepared For:**

**Gateway Trucking, LLC**  
11260 West Lane  
Colorado Springs, CO 80929  
(719) 492-7658  
Contact: Perry Hastings

**Contractor Information**

: \_\_\_\_\_

**Qualified Stormwater Manager**

: \_\_\_\_\_

**Prepared By:**

**JR Engineering, LLC**  
5475 Tech Center Drive, Suite 235  
Colorado Springs, Colorado 80919  
(303) 267-6240  
Contact: Mike Bramlett

**JR Project No. 25215.00**

**November 3, 2021**

## TABLE OF CONTENTS

1.	Applicant / Contact Information .....	1
2.	Site Description and Location.....	1
3.	Proposed Sequence of Major Activities.....	3
4.	BMPs for Stormwater Pollution Prevention .....	3
5.	Final Stabilization and Long-Term Stormwater Management .....	6
6.	Inspection and Maintenance .....	7

### **Appendices**

- A. Vicinity Map
- B. Soils Map
- C. GEC Plans and Details
- D. SWMP Checklist

**1. Applicant / Contact Information**

**Owner/Developer:** Gateway Trucking, LLC  
Attn: Perry Hastings  
11260 West Lane  
Colorado Springs, CO 80929  
(719) 492-7658

**Engineer:** JR Engineering, LLC  
5475 Tech Center Drive, Suite 235  
Colorado Springs, CO 80919  
Attn: Mike Bramlett (303) 267-6240  
[mbramlett@jrengineering.com](mailto:mbramlett@jrengineering.com)

**SWMP Administrator:** Contractor

**Contractor:** To Be Determined

**2. Site Description and Location**

The Gateway Trucking site is located to the east of S. Franceville Coal Mine Road in the NW1/4, NW1/4 of Section 20, and that portion of the NE1/4, NE1/4 Section 19 T.14S., R.64W. of the 6<sup>th</sup> P.M. in El Paso County. The site consists of a portion of parcel 44000-00-531 totaling approximately 11.09 acres all bounded by fencing. The site is bounded to the west by S. Franceville Coal Mine Road, to the south by the remaining area of parcel 44000-00-531, to the east by the same parcel 44000-00-531, and to the north by parcel 44000-00-539 (same owner-Perry Hastings). A vicinity map is presented in Appendix A.

The subject site is currently being used as a parking area for commercial trucks with a surrounding undeveloped area consisting of sparse native vegetation coverage. In general, the site slopes from the southeast to the northwest at slopes ranging from ~0-9% towards the existing low point and existing 30" CMP (corrugated metal pipe). That stormwater pipe is the only existing stormwater component located on the site. The ultimate outfall of this drainageway is Jimmy Camp Creek.

The project site is approximately 11.09 acres and is located to the east of S. Franceville Coal Mine Road about a mile south of Highway 94 within the unincorporated area of El Paso County in Colorado Springs, Colorado. A paved driveway proceeds east from S. Franceville Coal Mine Road and is the access for the trucking site. There is currently an existing flat "parking" area where commercial trucks and associated equipment are stored by the owner. In the developed condition, the flat parking area will become gravel and will drain storm runoff to both the north and south. Swales and berms will then direct the runoff from east to west to a proposed extended detention basin (EDB).

Site details:

- a. Estimated area to undergo disturbance: 6.99 acres (Total Area = 11.09 acres)
- b. Per a NRCS web soil survey, the site is made up of Type B soils. Type B soils have a moderate infiltration when thoroughly wet. A NRCS soil survey map has been presented in Appendix B. BMPs will be installed and maintained to mitigate adverse impacts due to soil erosion.
- c. Existing vegetation: An aerial survey was used to determine percent cover of native meadow grasses (approximately 9% coverage).
- d. There are no streams that cross the project area.
- e. Location and description of potential pollution sources: Potential sources of pollution include:
  - Vehicle, equipment maintenance, and fueling – all designated fueling and maintenance areas shall be located a minimum of 100 feet from any drainage course whenever possible. If the fueling area is located on a pervious surface, the area shall be covered with a non-pervious lining so as to prevent soil contamination by way of infiltration. Any spillage shall be cleaned up immediately.
  - All exposed and stored soils – all exposed soils will be seeded and mulched upon completion of construction within the vicinity. Silt fence will be utilized to contain sediment deposited by runoff until seeding can take. Silt fence or a similar barrier should be installed as needed around long-term stockpiles (30 days+). Vehicle Tracking Control should be installed at access points to minimize sediment deposition from vehicles exiting the site.
  - Vehicle tracking of sediments – if sediment is tracked onto the street, a reasonable attempt shall be made to clean up sediment and mud deposits as soon as possible. A street sweeper may be used as necessary. Vehicle Tracking Control shall be installed at all vehicular access points to the site.
  - Management of contaminated soils – appropriate measures will be taken to clean up the cause of the contaminated soil. All contaminated soils must be disposed of offsite in an appropriate manner.
  - Vehicle, equipment maintenance, and fueling – all designated fueling and maintenance areas shall be located a minimum of 100 feet from any drainage course whenever possible. If the fueling area is located on a pervious surface, the area shall be covered with a non-pervious lining so as to prevent soil contamination by way of infiltration. Any spillage shall be cleaned up immediately.
  - On-site waste management practices (waste piles, liquid wastes, dumpsters, etc.) – dumpsters will be utilized as needed to remove trash from the site. Any waste material found on-site or generated by construction activities will be disposed of in a manner that prevents polluting of storm water discharges. In the event that waste is to be stored on-site, it shall be in an area located a minimum of 100 feet from any drainage course whenever possible. Whenever waste is not stored in a

non-porous container, it shall be in an area enclosed by a 12-inch high compacted earthen ridge. If the enclosed waste area is located on porous soil, the area shall be covered with a non-porous lining to prevent soil contamination. Whenever precipitation is predicted, the waste shall be covered with a non-porous cover, anchored on all sides to prevent its removal by wind, in order to prevent precipitation from leaching out potential pollutants from the waste.

- Non-industrial waste sources such as worker trash and portable toilets – all portable toilets should be kept a minimum of 10ft from stormwater inlets and 50 feet 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.

The locations of these sources are shown in the GEC plans in Appendix C or will be determined by the contractor.

- f. Spill prevention and pollution controls for dedicated batch plants: Not applicable for this site since there will be no dedicated batch plants.
- g. Location and description of anticipated non-stormwater components of discharge: A potential source of non-stormwater discharge could be the irrigation of permanent seeding (PS). Irrigation will be kept at a rate so as to not create runoff.
- h. Ultimate receiving waters: Jimmy Camp Creek

### **3. Proposed Sequence of Major Activities**

The project will follow standard construction sequences for construction, ie., grading, utility installation, street paving, and landscaping. The contractor will be responsible for implementing and maintaining the erosion and sediment control measures described in this document and the accompanying design drawings. The contractor may designate these tasks to certain subcontractors as they see fit, but the ultimate responsibility for implementing these controls and their proposed function at each phase of the project remains with the contractor. The order of major activities (with estimated completion dates) will be as follows:

1. Install VTC and other perimeter soil erosion control measures (Spring 2022).
2. Install/grade temporary sediment basin (Spring 2022).
3. Clear and rough grade for improvements (Spring 2022).
4. Fine grading and placement of gravel parking area and paving (Spring 2022).
5. Install landscaping/vegetated surface treatments (Spring 2022).
6. Clean up and final stabilization (Spring 2022).
7. Remove BMPs once final stabilization is achieved (Spring 2023)

*\*\*Total construction timeframe < 1 month, with the exception of establishing vegetation. Site does not require a phasing plan.*

#### **4. BMPs for Stormwater Pollution Prevention**

See GEC plans in Appendix C for BMP locations and detail sheets.

##### a. Erosion and Sediment Controls

###### i. Structural BMPs:

1. Temporary sediment basins and permanent detention pond (SBs) to collect runoff before it enters receiving waters
2. Silt fence (SF) along downstream limits of disturbed areas to filter sediment from runoff
3. Construction marker (CM) to identify limits of construction (LOC)
4. Vehicle tracking control (VTC) at site entrance to prevent sediment from leaving the site via vehicle tires
5. Erosion control blanket (ECB) placed on any slopes of 3:1 or greater, including the sides of sediment basins
6. Inlet protection (IP) around culvert entrances
7. Outlet protection (OP) at culvert outlets
8. Check Dam (CD) to counteract erosion by reducing energy
9. Site grading around entire stockpile area, all road slope toward detention pond. No developed storm water offsite.
10. Temporary stock pile and permanent stock pile (TSP) to consolidate materials such as topsoil in a controlled area bounded by silt fence
11. Stabilized staging area (SSA) near site entrance to consolidate construction equipment in a stabilized location
12. Concrete washout area (CWA) to allow a controlled area for concrete trucks to be washed

###### ii. Non-structural BMPs:

1. Permanent seeding (PS) to stabilize disturbed areas

##### b. Materials Handling and Spill Prevention

###### i. General Materials Handling Practices:

1. Potential pollutants shall be stored and used in a manner consistent with the manufacturer's instructions in a secure location. To the extent practical, material storage areas should not be located near storm drain inlets and should be equipped with covers, roofs, or secondary containment as required to prevent storm water from contacting stored materials. Chemicals that are not compatible shall be stored in segregated areas so that spilled materials cannot combine and react.
2. Disposal of materials shall be in accordance with the manufacturer's instructions and applicable local, state, and federal regulations.
3. Materials no longer required for construction shall be removed from the site as soon as possible.
4. Adequate garbage, construction waste, and sanitary waste handling and disposal facilities shall be provided as necessary to keep the site clear of obstruction and BMPs clear and functional.

###### ii. Specific Materials Handling Practices

1. All pollutants, including waste materials and demolition debris, that occur onsite during construction shall be handled in a way that does not contaminate storm water.
2. All chemicals including liquid products, petroleum products, water treatment chemicals, and wastes stored onsite shall be covered and protected from vandalism.
3. Maintenance, fueling, and repair of all equipment and vehicles involving oil changes, hydraulic system drain down, degreasing operations, fuel tank drain down and removal, and other activities which may result in the accidental release of contaminants, shall be conducted under cover during wet weather and on an impervious surface to prevent release of contaminants onto the ground. Materials spilled during maintenance operations shall be cleaned up immediately and properly disposed of. There will be no batch plants onsite.
4. Wheel wash water shall be settled and discharged onsite by infiltration.
5. Application of agricultural chemicals, including fertilizers and pesticides, shall be conducted in a manner and at application rates that will not result in loss of chemical to storm water runoff. Follow manufacturer's recommendations for application rates and procedures.
6. pH-modifying sources shall be managed to prevent contamination of runoff and storm water collected onsite. The most common sources of pH-modifying materials are bulk cement, cement kiln dust (CKD), fly ash, new concrete washing and curing waters, waste streams generated from concrete grinding and sawing, exposed aggregate processes, and concrete pumping and mixer washout waters.

iii. Spill Prevention and Response Procedures

1. The primary objective in responding to a spill is to quickly contain the material(s) and prevent or minimize their migration into storm water runoff and conveyance systems. If the release has impacted onsite storm water, it is critical to contain the released materials onsite and prevent their release into receiving waters.
2. Spill Response Procedures:
  - a. Notify site superintendent immediately when a spill, or the threat of a spill, is observed. The superintendent shall assess the situation and determine the appropriate response.
  - b. If spills represent an imminent threat of escaping onsite facilities and entering the receiving waters, site personnel shall respond immediately to contain the release and notify the superintendent after the situation has stabilized.
  - c. The site superintendent, or his/her designee, shall be responsible for completing a spill reporting form and for reporting the spill to the appropriate agency.

- d. Spill response equipment shall be inspected and maintained as necessary to replace any materials used in spill response activities.
- 3. Spill kits shall be on-hand at all fueling sites. Spill kit location(s) shall be reported to the SWMP administrator.
- 4. Absorbent materials shall be on-hand at all fueling areas for use in containing inadvertent spills. Containers shall be on-hand at all fueling sites for disposal of used absorbents.
- 5. Recommended components of spill kits include the following:
  - a. Oil absorbent pads (one bale)
  - b. Oil absorbent booms (40 feet)
  - c. 55-gallon drums (2)
  - d. 9-mil plastic bags (10)
  - e. Personal protective equipment including gloves and goggles
- 6. Concrete wash water: unless confined in a pre-defined, bermed containment area, the cleaning of concrete truck delivery chutes is prohibited at the job site.
- 7. Notification procedures:
  - a. In the event of an accident or spill, the SWMP administrator shall be notified.
  - b. Depending on the nature of the spill material involved, the Colorado Department of Public Health and Environment (24-hour spill reporting line: 887-518-5608), downstream water users, or other agencies may also need to be notified.
  - c. Any spill of oil which 1) violates water quality standards, 2) produces a “sheen” on a surface water, or 3) causes a sludge or emulsion, or any hazardous substance release, or hazardous waste release which exceeds the reportable quantity, must be reported immediately by telephone to the National Response Center Hotline at (800) 424-8802.

## **5. Final Stabilization and Long-Term Stormwater Management**

- a. This site does not rely on control measures owned or operated by another entity.
- b. Permanent seeding will be provided to achieve long-term stabilization of the site.
- c. Seed Mix: “Foothills” or approved equal.
- d. Seeding Application Rate: Drill seed 0.25” to 0.5” into the soil. In small areas not accessible to a drill, hand broadcast at double the rate and rake 0.25” to 0.5” into the soil. Apply seed at the following rates:
  - i. Dryland: 20-25 lbs/acre
  - ii. Irrigated: 40 lbs/acre
- e. Soil stabilization Practices:
  - i. Mulching Application: Apply 1-1/2 tons of certified weed free hay per acre mechanically crimped into the soil in combination with an organic mulch tackifier. On slopes and ditches requiring a blanket, the blanket shall be placed in lieu of much and mulch tackifier.

- f. Soil Conditioning and Fertilization Requirements:
  - i. Soil conditioner, organic amendment shall be applied to all seeded areas at 3 CY / 1000 SF.
  - ii. Fertilizer shall consist of 90% fungal biomass (mycelium) and 10% potassium-magnesia with a grade of 6-1-3 or approved equal. Fertilizer shall be applied as recommended by seed supplier.
- g. A full spectrum extended basin detention pond will provided long-term stormwater management of the site. This pond will provide better control of the of the runoff rates over an extended period of time (up to 72 hours). A trickle channel will be place within the pond/basin to improve the water quality and aesthetic value.
- h. Final stabilization is reached when all soil-disturbing activities at the site have been completed, and uniform vegetative cover has been established with an individual plan density of at least 70 percent of pre-disturbance levels, or equivalent permanent, physical erosion reduction methods have been employed.
- i. The contractor will be responsible for any re-excavation of sediment and debris that collects in the basin depression required to ensure that the basin meets the design grades following construction. The storm lines shall also be cleaned and free of sediment once the site becomes stabilized.
- j. The QSM will be sufficiently qualified for the required duties per the ECM appendix I.5.2.A.

## **6. Inspection and Maintenance**

- a. Inspection Schedules:
  - i. The contractor shall inspect BMPs once every 14 days at a minimum, and immediately (within 24 hours) after any precipitation or snowmelt event that causes surface erosion (i.e. that results in storm water running across the ground), to ensure that BMPs are maintained in effective operating condition.
- b. Inspection Procedures:
  - i. Site Inspection / Observation Items:
    1. Construction site perimeter and discharge points
    2. All disturbed areas
    3. Areas used for material / waste storage that are exposed to precipitation
    4. Other areas having a significant potential for storm water pollution, such as demolition areas or concrete washout areas, or locations where vehicles enter or leave the site
    5. Erosion and sediment control measures identified in the SWMP
    6. Any other structural BMPs that may require maintenance, such as secondary containment around fuel tanks, or the conditions of spill response kits.
  - ii. Inspection Requirements:
    1. Determine if there is any evidence of, or potential for, pollutants

- entering the receiving waters.
  2. Review BMPs to determine if they still meet design and operational criteria in the SWMP, and if they continue to adequately control pollutants at the site.
  3. Upgrade and/or revise any BMPs not operating in accordance with the SWMP and update the SWMP to reflect any revisions.
- iii. BMP Maintenance / Replacement and Failed BMPs:
1. The contractor shall remove sediment that has been collected by perimeter controls, such as silt fence and inlet protection, on a regular basis to prevent failure of BMPs, and remove potential of sediment from being discharged from the site in the event of BMP failure.
  2. Removed sediment must be moved to an appropriate location where it will not become an additional pollutant source, and should never be placed in ditches or streams.
  3. The contractor shall update the GEC as required with any new BMPs added during the construction period.
  4. The contractor shall address BMPs that have failed or have the potential to fail without maintenance or modifications, as soon as possible, immediately in most cases, to prevent discharge of pollutants.
- iv. Record Keeping and Documenting Inspections:
1. The contractor shall maintain records of all inspection reports, including signed inspection logs, at the project site.
  2. The permittee shall document inspection results and maintain a record of the results for a period of 3 years following expiration or inactivation of permit coverage.
  3. Site inspection records shall include the following:
    - a. Inspection date
    - b. Name and title of personnel making the inspection
    - c. Location of discharges of sediment or other pollutants from the site
    - d. Location(s) of BMPs in need of maintenance
    - e. Location(s) of BMPs that failed to operate as designed or proved inadequate for a particular location
    - f. Location(s) where additional BMPs are needed that were not in place at the time of inspection
    - g. Deviations from the minimum inspection schedule
- v. The SWMP should be viewed as a “living document” that is continuously being reviewed and modified as a part of the overall process of evaluating and managing stormwater quality issues at the site. The QSM shall amend the SWMP when there is a change in design, construction, O&M of the site which would require the implementation of the new or revised BMPs or if the SWMP proves to be ineffective in achieving the general objectives of controlling pollutants in stormwater discharges associated with construction activity or when BMPs are no longer necessary and are

removed.

## APPENDIX A – VICINITY MAP

---

CORRAL VALLEY ROAD

HIGHWAY 94

N. BLANEY ROAD

N. FRANCEVILLE  
COAL MINE ROAD

S. BLANEY ROAD

UPPER TRIBUTARY-  
TO CHICO CREEK

KIRK DRIVE

**SITE**

HANDLE ROAD

ISAAC WALTON  
RANGE

FRANCEVILLE TRIBUTARY-  
JIMMY CAMP CREEK

MINES SUB-TRIBUTARY  
TO CORRAL TRIBUTARY

S. FRANCEVILLE  
COAL MINE ROAD



VICINITY MAP  
GATEWAY TRUCKING, LLC  
JOB NO. 25215.00  
04/05/21  
SHEET 1 OF 1

2000 1000 0 2000



ORIGINAL SCALE: 1" = 2000'



**J·R ENGINEERING**

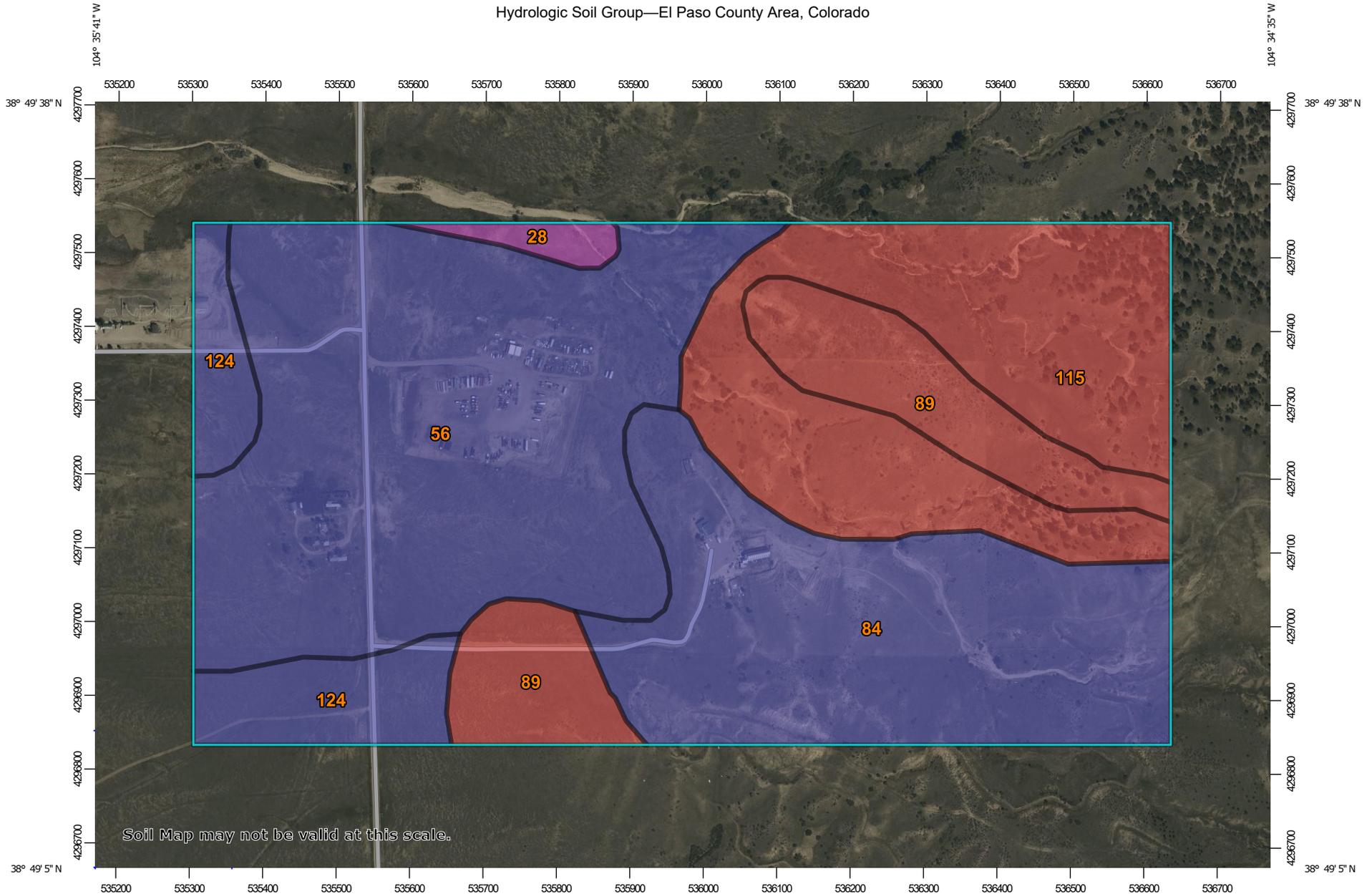
A Westrian Company

Centennial 303-740-9393 • Colorado Springs 719-593-2593  
Fort Collins 970-491-9888 • [www.jrengineering.com](http://www.jrengineering.com)

## APPENDIX B – SOILS MAP

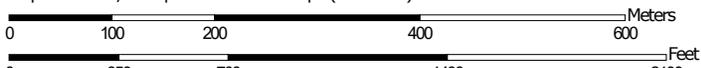
---

Hydrologic Soil Group—El Paso County Area, Colorado



Soil Map may not be valid at this scale.

Map Scale: 1:7,320 if printed on A landscape (11" x 8.5") sheet.



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



### MAP LEGEND

- Area of Interest (AOI)**
  -  Area of Interest (AOI)
- Soils**
  - Soil Rating Polygons**
    -  A
    -  A/D
    -  B
    -  B/D
    -  C
    -  C/D
    -  D
    -  Not rated or not available
  - Soil Rating Lines**
    -  A
    -  A/D
    -  B
    -  B/D
    -  C
    -  C/D
    -  D
    -  Not rated or not available
  - Soil Rating Points**
    -  A
    -  A/D
    -  B
    -  B/D
-  C
-  C/D
-  D
-  Not rated or not available
- Water Features**
  -  Streams and Canals
- Transportation**
  -  Rails
  -  Interstate Highways
  -  US Routes
  -  Major Roads
  -  Local Roads
- Background**
  -  Aerial Photography

### MAP INFORMATION

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

**Warning:** Soil Map may not be valid at this scale.  
 Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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

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

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

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

Soil Survey Area: El Paso County Area, Colorado  
 Survey Area Data: Version 18, Jun 5, 2020

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

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

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
28	Ellicott loamy coarse sand, 0 to 5 percent slopes	A	2.5	1.1%
56	Nelson-Tassel fine sandy loams, 3 to 18 percent slopes	B	83.3	35.6%
84	Stapleton sandy loam, 8 to 15 percent slopes	B	55.9	23.9%
89	Tassel fine sandy loam, 3 to 18 percent slopes	D	25.1	10.7%
115	Lithic Haplustepts-Rock outcrop complex	D	50.8	21.8%
124	Olneest sandy loam, 0 to 3 percent slopes	B	16.1	6.9%
<b>Totals for Area of Interest</b>			<b>233.8</b>	<b>100.0%</b>

## Description

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

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

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

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

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

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

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

## Rating Options

*Aggregation Method:* Dominant Condition

*Component Percent Cutoff:* None Specified

*Tie-break Rule:* Higher

## APPENDIX C – GEC PLANS AND DETAILS

---





PARCEL NUMBER 44000-00-459  
 OWNER:  
 PIKES PEAK CHAPTER -  
 IZAAK WALTON LEAGUE  
 450 SOUTH FRANCEVILLE  
 COAL MINE ROAD  
 COLORADO SPRINGS, CO 80929  
 ZONE: A-5  
 USE: GUN CLUB /  
 SHOOTING RANGE

PARCEL NUMBER 44000-00-529  
 OWNER:  
 PERRY HASTINGS  
 11260 WEST LAKE  
 COLORADO SPRINGS, CO 80929  
 ZONE: A-5, RR-5  
 USE: VACANT

EXISTING PROPERTY LINE (TYP.)

EXISTING PROPERTY LINE (TYP.)

PROPOSED TYPE L SOIL RIPRAP  
 W1=6.0', W2=3.5', L=±12.5', MIN. DEPTH=18"

APPARENT  
 60.00'  
 PUBLIC R.O.W.

PROPOSED TRICKLE CHANNEL  
 6" CONCRETE W/ 0.5' DEPTH  
 TYP. SECTION ON SHEET 4

RIPRAP RUNDOWN INTO LOW TAILWATER BASIN  
 TYPE L SOIL RIPRAP (MIN. 18" DEPTH)  
 SEE TYP. SECTION ON SHEET 4  
 AND DETAIL ON SHEET 5

TEMPORARY SEDIMENT BASIN  
 LOCATION SIZED FOR A 12 AC  
 DRAINAGE AREA  
 SEE GEC DETAIL SHEET 8

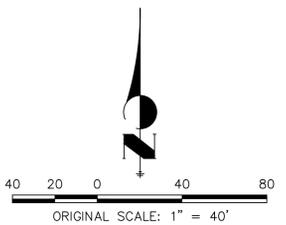
PARCEL NUMBER 44000-00-530  
 OWNER:  
 SHIRLEY BOUCHER LIVING TRUST  
 2440 PALMER PARK BLVD., APT 105  
 COLORADO SPRINGS, CO 80909  
 ZONE: RR-5  
 USE: RESIDENTIAL

PARCEL NUMBER 44000-00-531  
 OWNER:  
 PERRY HASTINGS  
 11260 WEST LAKE  
 COLORADO SPRINGS, CO 80929  
 ZONE: RR-5  
 USE: STORAGE / PARKING

LEGEND	
SILT FENCE	(SF) — SF
STABILIZED STAGING AREA	(SSA) [Pattern]
VEHICLE TRACKING CONTROL	(VTC) [Pattern]
CONCRETE WASHOUT AREA	(CWA) [Pattern]
OUTLET PROTECTION	(OP) [Symbol]
CHECK DAM	(CD) [Symbol]
PROPOSED FLOW PATH	→
EXISTING FLOW PATH	⇨
LIMITS OF CONSTRUCTION / DISTURBANCE	(LOD) [Dashed Line]
PERMANENT SEEDING AND MULCHING	(SM) [Pattern]
TEMPORARY SEDIMENT BASIN	(TSB) [Symbol]
TEMPORARY SLOPE DRAIN	(TSD) [Symbol]

**GEC NOTES:**

1. THE EXISTING VEGETATION ON THE SITE IS LIMITED DUE TO THE LOCATION'S ARID CLIMATE. ADDITIONALLY, THE SITE AND DRIVE HAVE BEEN STABILIZED W/ ASPHALT AND GRAVEL FOR USE.
2. THE INITIAL BMPs INCLUDE: SF, VTC, SSA, CWA, CD, TSD, AND TSB. THE INTERIM BMPs INCLUDE: OP. THE FINAL PHASE BMPs INCLUDE: SM AND REMOVAL OF TEMPORARY BMPs ONCE FINAL STABILIZATION IS COMPLETED.



UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, OR ENGINEERING APPROVES THEIR USE, THESE DRAWINGS ARE DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR  
**GATEWAY TRUCKING, LLC**  
 235 S. FRANCEVILLE COAL MINE RD  
 COLORADO SPRINGS, CO 80929  
 ATTN: PERRY HASTINGS  
 602-558-0846  
 HASTINGSCONTRACTING@GMAIL.COM

**J.R. ENGINEERING**  
 A Westman Company  
  
 Central 303-740-9383 • Colorado Springs 719-583-2593  
 Fort Collins 970-491-9888 • www.jrengineering.com

No.	REVISION	BY	DATE

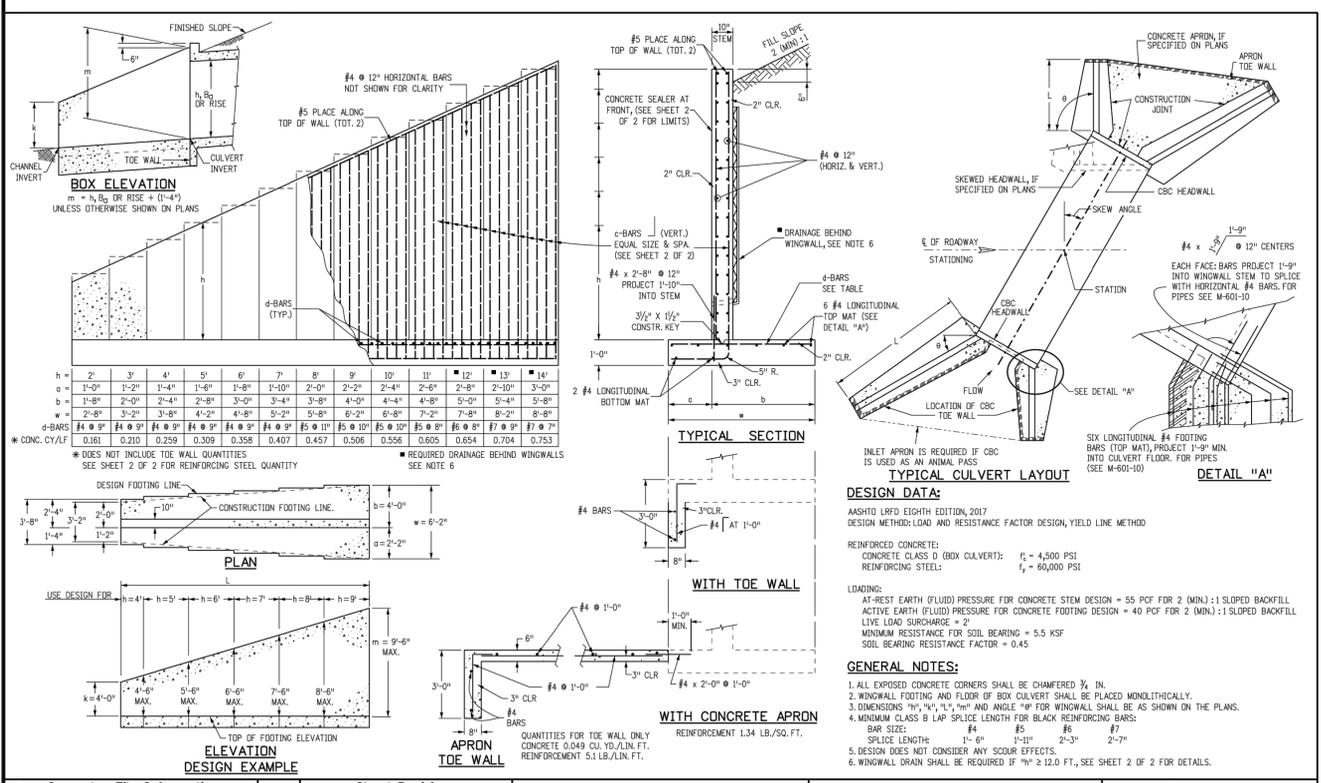
H-SCALE	V-SCALE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY
1"=40'	N/A	11/03/21	GAG	GAG	

**GATEWAY TRUCKING SITE  
 DEVELOPMENT PLAN  
 GRADING AND EROSION  
 CONTROL PLAN**









**Computer File Information**

Creation Date: 07/31/19
Designer Initials: JBK
Last Modification Date: 07/31/19
Detailer Initials: LTA
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English

**Sheet Revisions**

Date:	Comments:

Colorado Department of Transportation  
 2829 West Howard Place  
 CDDT HQ, 3rd Floor  
 Denver, CO 80204  
 Phone: 303-757-6021 FAX: 303-757-9868  
 Project Development Branch JBK

**WINGWALLS FOR PIPE OR BOX CULVERTS**  
 STANDARD PLAN NO. M-601-20  
 Standard Sheet No. 1 of 2  
 Issued by the Project Development Branch: July 31, 2019  
 Project Sheet Number:

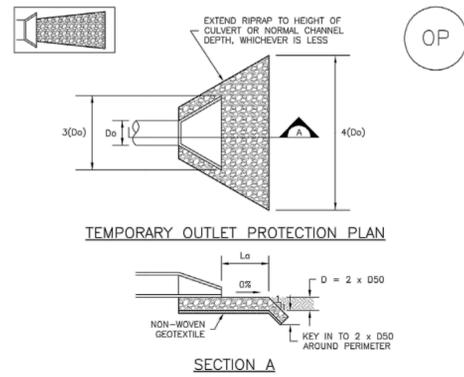
**c-BARS AND REINFORCING STEEL QUANTITY (EXCLUDE TOE WALL)**

\* REINFORCING STEEL QUANTITY INCLUDES STEM AND FOOTING QUANTITIES, BUT DOES NOT INCLUDE TOE WALL QUANTITIES.

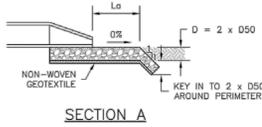
L (MULTIPLE OF m)	k (FT)	≤ (0.5 x m)		≤ (0.75 x m)		≤ (1.0 x m)		≤ (1.25 x m)		≤ (1.5 x m)		≤ (1.75 x m)		≤ (2.0 x m)		≤ (2.25 x m)		≤ (2.5 x m)		≤ (2.75 x m)		≤ (3.0 x m)		≤ (3.25 x m)		≤ (3.5 x m)			
		*REINFB. LB./L.F.	*REINF. LB./L.F.	*REINFB. LB./L.F.	*REINF. LB./L.F.	*REINFB. LB./L.F.	*REINF. LB./L.F.	*REINFB. LB./L.F.																					
14	4	#4 @ 10"	53.60	#5 @ 10"	57.95	#5 @ 10"	57.10	#5 @ 8"	60.22	#5 @ 7"	62.43	#5 @ 7"	62.09	#5 @ 6"	63.38	#5 @ 6"	65.15	#6 @ 8"	67.10	#6 @ 8"	66.94	#6 @ 7"	70.66	#6 @ 7"	70.00	#6 @ 6"	73.90	#6 @ 6"	73.90
14	5	#4 @ 10"	55.86	#5 @ 10"	60.46	#5 @ 10"	59.60	#5 @ 8"	62.72	#5 @ 7"	65.23	#5 @ 7"	64.88	#5 @ 6"	66.34	#5 @ 6"	68.11	#6 @ 8"	70.17	#6 @ 8"	70.00	#6 @ 7"	73.90	#6 @ 7"	73.90	#6 @ 6"	77.84	#6 @ 6"	77.84
14	6	#4 @ 10"	64.43	#5 @ 10"	70.60	#5 @ 10"	69.69	#5 @ 8"	74.83	#5 @ 8"	74.45	#5 @ 7"	76.30	#5 @ 6"	78.64	#5 @ 6"	83.40	#6 @ 8"	83.22	#6 @ 8"	83.05	#6 @ 7"	89.64	#6 @ 7"	89.64	#6 @ 6"	95.47	#6 @ 6"	95.47
14	7	#4 @ 10"	67.29	#5 @ 10"	73.76	#5 @ 10"	72.83	#5 @ 8"	78.32	#5 @ 8"	77.84	#5 @ 7"	81.87	#5 @ 6"	84.45	#5 @ 6"	87.21	#6 @ 8"	87.02	#6 @ 8"	86.86	#6 @ 7"	93.73	#6 @ 7"	93.73	#6 @ 6"	100.35	#6 @ 6"	100.35
14	8	#4 @ 10"	74.71	#5 @ 10"	83.46	#5 @ 10"	82.09	#5 @ 8"	87.54	#5 @ 8"	87.07	#5 @ 7"	91.08	#5 @ 6"	93.11	#5 @ 6"	96.86	#6 @ 8"	96.66	#6 @ 8"	96.49	#6 @ 7"	103.66	#6 @ 7"	103.66	#6 @ 6"	111.13	#6 @ 6"	111.13
14	9	#4 @ 10"	81.10	#5 @ 10"	89.23	#5 @ 10"	87.63	#5 @ 8"	93.67	#5 @ 8"	93.10	#5 @ 7"	97.11	#5 @ 6"	99.14	#5 @ 6"	102.89	#6 @ 8"	102.68	#6 @ 8"	102.51	#6 @ 7"	109.68	#6 @ 7"	109.68	#6 @ 6"	117.15	#6 @ 6"	117.15
14	10	#4 @ 10"	87.50	#5 @ 10"	95.89	#5 @ 10"	94.18	#5 @ 8"	100.00	#5 @ 8"	99.43	#5 @ 7"	103.44	#5 @ 6"	105.47	#5 @ 6"	109.22	#6 @ 8"	109.01	#6 @ 8"	108.84	#6 @ 7"	115.91	#6 @ 7"	115.91	#6 @ 6"	123.38	#6 @ 6"	123.38
13	5	#4 @ 10"	52.66	#5 @ 10"	51.37	#5 @ 10"	56.09	#5 @ 10"	55.46	#5 @ 10"	54.99	#5 @ 9"	56.29	#5 @ 8"	58.08	#5 @ 7"	60.51	#5 @ 7"	60.33	#5 @ 7"	62.17	#5 @ 6"	63.97	#5 @ 6"	63.79	#5 @ 6"	65.63	#5 @ 6"	65.63
13	6	#4 @ 10"	54.92	#5 @ 10"	59.48	#5 @ 9"	60.31	#5 @ 9"	67.56	#5 @ 9"	67.08	#5 @ 8"	66.70	#5 @ 8"	69.53	#5 @ 8"	69.28	#5 @ 7"	73.12	#5 @ 7"	72.95	#5 @ 7"	72.81	#5 @ 6"	74.65	#5 @ 6"	74.65	#5 @ 6"	76.50
13	7	#4 @ 10"	57.36	#5 @ 10"	62.16	#5 @ 9"	63.05	#5 @ 9"	70.66	#5 @ 9"	70.16	#5 @ 8"	69.78	#5 @ 8"	72.75	#5 @ 8"	72.50	#5 @ 7"	76.52	#5 @ 7"	76.35	#5 @ 7"	76.20	#5 @ 6"	78.04	#5 @ 6"	78.04	#5 @ 6"	80.24
13	8	#4 @ 10"	66.39	#5 @ 10"	72.82	#5 @ 8"	77.97	#5 @ 8"	81.66	#5 @ 8"	81.19	#5 @ 7"	86.67	#5 @ 7"	86.37	#5 @ 7"	89.18	#5 @ 7"	89.97	#5 @ 7"	92.80	#5 @ 7"	92.64	#5 @ 6"	94.48	#5 @ 6"	94.48	#5 @ 6"	96.84
13	9	#4 @ 10"	69.37	#5 @ 10"	76.10	#5 @ 8"	81.49	#5 @ 8"	85.37	#5 @ 8"	84.87	#5 @ 7"	90.59	#5 @ 7"	90.29	#5 @ 7"	93.10	#5 @ 7"	93.88	#5 @ 7"	96.70	#5 @ 7"	96.54	#5 @ 6"	98.38	#5 @ 6"	98.38	#5 @ 6"	100.84
12	2	#4 @ 10"	43.91	#4 @ 10"	42.65	#4 @ 10"	41.82	#4 @ 10"	41.22	#4 @ 10"	40.78	#4 @ 9"	41.29	#4 @ 10"	44.61	#4 @ 10"	44.37	#4 @ 10"	44.18	#4 @ 10"	44.01	#4 @ 10"	43.87	#4 @ 10"	43.87	#4 @ 10"	43.74	#4 @ 10"	43.74
12	3	#4 @ 10"	44.82	#4 @ 10"	44.51	#4 @ 10"	43.71	#4 @ 10"	43.11	#4 @ 10"	42.66	#4 @ 9"	43.22	#4 @ 10"	46.75	#4 @ 10"	46.51	#4 @ 10"	46.32	#4 @ 10"	46.15	#4 @ 10"	46.01	#4 @ 10"	45.87	#4 @ 10"	45.74	#4 @ 10"	45.74
12	4	#4 @ 10"	47.80	#4 @ 10"	46.51	#4 @ 10"	45.65	#4 @ 10"	45.06	#4 @ 10"	44.59	#4 @ 9"	45.23	#4 @ 10"	48.94	#4 @ 10"	48.69	#4 @ 10"	48.50	#4 @ 10"	48.33	#4 @ 10"	48.19	#4 @ 10"	48.04	#4 @ 10"	47.91	#4 @ 10"	47.91
12	5	#4 @ 10"	49.84	#4 @ 10"	48.53	#4 @ 10"	47.66	#4 @ 10"	47.07	#4 @ 10"	46.58	#4 @ 9"	47.24	#4 @ 10"	51.00	#4 @ 10"	50.74	#4 @ 10"	50.55	#4 @ 10"	50.38	#4 @ 10"	50.24	#4 @ 10"	50.09	#4 @ 10"	49.95	#4 @ 10"	49.95
12	6	#4 @ 10"	51.90	#4 @ 10"	50.65	#4 @ 10"	49.76	#4 @ 10"	49.17	#4 @ 10"	48.67	#4 @ 9"	49.34	#4 @ 10"	53.10	#4 @ 10"	52.83	#4 @ 10"	52.64	#4 @ 10"	52.47	#4 @ 10"	52.33	#4 @ 10"	52.18	#4 @ 10"	52.04	#4 @ 10"	52.04
12	7	#4 @ 10"	54.30	#4 @ 10"	53.05	#4 @ 10"	52.17	#4 @ 10"	51.58	#4 @ 10"	51.08	#4 @ 9"	51.75	#4 @ 10"	55.50	#4 @ 10"	55.23	#4 @ 10"	55.04	#4 @ 10"	54.87	#4 @ 10"	54.73	#4 @ 10"	54.58	#4 @ 10"	54.44	#4 @ 10"	54.44
12	8	#4 @ 10"	62.91	#5 @ 10"	61.45	#5 @ 7"	67.46	#5 @ 6"	70.68	#5 @ 6"	70.20	#5 @ 5"	76.44	#5 @ 7"	76.13	#5 @ 7"	78.97	#5 @ 7"	78.70	#5 @ 7"	81.54	#5 @ 7"	81.30	#5 @ 6"	83.14	#5 @ 6"	83.14	#5 @ 6"	85.00
12	9	#4 @ 10"	65.64	#5 @ 10"	64.15	#5 @ 7"	70.44	#5 @ 6"	73.82	#5 @ 6"	73.33	#5 @ 5"	79.86	#5 @ 7"	79.54	#5 @ 7"	82.38	#5 @ 7"	82.11	#5 @ 7"	84.95	#5 @ 7"	84.71	#5 @ 6"	86.56	#5 @ 6"	86.56	#5 @ 6"	88.42
11	2	#4 @ 10"	41.70	#4 @ 10"	40.42	#4 @ 10"	39.57	#4 @ 10"	38.96	#4 @ 10"	38.50	#4 @ 9"	39.07	#4 @ 10"	37.87	#4 @ 10"	37.63	#4 @ 10"	37.45	#4 @ 10"	37.27	#4 @ 10"	37.10	#4 @ 10"	36.93	#4 @ 10"	36.76	#4 @ 10"	36.76
11	3	#4 @ 10"	43.57	#4 @ 10"	42.27	#4 @ 10"	41.40	#4 @ 10"	40.79	#4 @ 10"	40.33	#4 @ 9"	39.97	#4 @ 10"	39.69	#4 @ 10"	39.45	#4 @ 10"	39.27	#4 @ 10"	39.10	#4 @ 10"	38.93	#4 @ 10"	38.76	#4 @ 10"	38.59	#4 @ 10"	38.59
11	4	#4 @ 10"	45.48	#4 @ 10"	44.16	#4 @ 10"	43.28	#4 @ 10"	42.66	#4 @ 9"	42.09	#4 @ 9"	42.57	#4 @ 10"	42.27	#4 @ 10"	42.02	#4 @ 10"	41.84	#4 @ 10"	41.67	#4 @ 10"	41.50	#4 @ 10"	41.33	#4 @ 10"	41.16	#4 @ 10"	41.16
11	5	#4 @ 10"	47.46	#4 @ 10"	46.10	#4 @ 10"	45.21	#4 @ 10"	44.58	#4 @ 9"	44.01	#4 @ 9"	44.47	#4 @ 10"	44.14	#4 @ 10"	43.89	#4 @ 10"	43.71	#4 @ 10"	43.54	#4 @ 10"	43.37	#4 @ 10"	43.20	#4 @ 10"	43.03	#4 @ 10"	43.03
11	6	#4 @ 10"	49.52	#4 @ 10"	48.14	#4 @ 10"	47.23	#4 @ 10"	46.60	#4 @ 9"	46.03	#4 @ 9"	46.49	#4 @ 10"	46.16	#4 @ 10"	45.91	#4 @ 10"	45.73	#4 @ 10"	45.56	#4 @ 10"	45.39	#4 @ 10"	45.22	#4 @ 10"	45.05	#4 @ 10"	45.05
11	7	#4 @ 10"	51.73	#4 @ 10"	50.31	#4 @ 9"	50.43	#5 @ 10"	54.29	#5 @ 10"	53.78	#5 @ 9"	55.04	#5 @ 9"	54.73	#5 @ 8"	56.55	#5 @ 8"	56.35	#5 @ 8"	56.16	#5 @ 8"	56.00	#5 @ 7"	57.81	#5 @ 7"	57.81	#5 @ 7"	59.62
11	8	#4 @ 10"	54.00	#5 @ 10"	52.44	#5 @ 10"	52.45	#5 @ 8"	56.64	#5 @ 8"	56.13	#5 @ 7"	62.92	#5 @ 8"	62.54	#5 @ 8"	65.39	#5 @ 8"	65.19	#5 @ 8"	65.00	#5 @ 7"	66.75	#5 @ 7"	66.75	#5 @ 7"	68.50	#5 @ 7"	68.50
11	9	#4 @ 10"	56.20	#5 @ 10"	54.67	#5 @ 10"	54.65	#5 @ 8"	59.09	#5 @ 8"	58.57	#5 @ 7"	65.60	#5 @ 8"	65.21	#5 @ 8"	68.06	#5 @ 8"	67.86	#5 @ 8"	67.67	#5 @ 7"	69.42	#5 @ 7"	69.42	#5 @ 7"	71.17	#5 @ 7"	71.17
10	2	#4 @ 10"	39.84	#4 @ 10"	38.53	#4 @ 10"	37.65	#4 @ 10"	37.03	#4 @ 10"	36.57	#4 @ 10"	36.20	#4 @ 10"	35.90	#4 @ 10"	35.67	#4 @ 10"	35.48	#4 @ 10"	35.31	#4 @ 10"	35.14	#4 @ 10"	34.97	#4 @ 10"	34.80	#4 @ 10"	34.80
10	3	#4 @ 10"	41.88	#4 @ 10"	40.35	#4 @ 10"	39.47	#4 @ 10"	38.84	#4 @ 10"	38.36	#4 @ 10"	38.00	#4 @ 10"	37.71	#4 @ 10"	37.46	#4 @ 10"	37.27	#4 @ 10"	37.10	#4 @ 10"	36.93	#4 @ 10"	36.76	#4 @ 10"	36.59	#4 @ 10"	36.59
10	4	#4 @ 10"	43.58	#4 @ 10"	42.22	#4 @ 10"	41.31	#4 @ 10"	40.67	#4 @ 10"	40.19	#4 @ 10"	39.82	#4 @ 10"	39.53	#4 @ 10"	39.28	#4 @ 10"	39.08	#4 @ 10"	38.91	#4 @ 10"	38.74	#4 @ 10"	38.57	#4 @ 10"	38.40	#4 @ 10"	38.40
10	5	#4 @ 10"	45.53	#4 @ 10"	44.14	#4 @ 10"	43.21	#4 @ 10"	42.56	#4 @ 10"	42.07	#4 @ 10"	41.70	#4 @ 10"	41.41	#4 @ 10"	41.15	#4 @ 10"	40.95	#4 @ 10"	40.78	#4 @ 10"	40.61	#4 @ 10"	40.44	#4 @ 10"	40.27	#4 @ 10"	40.27
10	6	#4 @ 10"	47.58	#4 @ 10"	46.14	#4 @ 10"	45.20	#4 @ 10"	44.53	#4 @ 10"	44.03	#4 @ 9"	43.67	#4 @ 10"	43.35	#4 @ 10"	43.08	#4 @ 10"	42.88	#4 @ 10"	42.71	#4 @ 10"	42.54	#4 @ 10"	42.37	#4 @ 10"	42.20	#4 @ 10"	42.20
10	7	#4 @ 10"	49.79	#4 @ 10"	48.31	#4 @ 10"	47.34	#4 @ 10"	46.65	#4 @ 10"	46.15	#4 @ 9"	45.79	#4 @ 10"	45.45	#4 @ 10"	45.17	#4 @ 10"	44.97	#4 @ 10"	44.80	#4 @ 10"	44.63	#4 @ 10"	44.46	#4 @ 10"	44.29	#4 @ 10"	44.29
10	8	#4 @ 10"	52.06	#4 @ 10"	50.54	#4 @ 10"	49.54	#4 @ 10"	48.83	#4 @ 10"	48.33	#4 @ 9"	47.97	#4 @ 10"	47.63	#4 @ 10"	47.34	#4 @ 10"	47.14	#4 @ 10"	46.97	#4 @ 10"	46.80	#4 @ 10"	46.63	#4 @ 10"	46.		



**EC-8 Temporary Outlet Protection (TOP)**



TEMPORARY OUTLET PROTECTION PLAN



PIPE DIAMETER, D <sub>o</sub> (INCHES)	DISCHARGE, Q (CFS)	APRON LENGTH, L <sub>o</sub> (FT)	RIPRAP D50 MIN (INCHES)
8	2.5	5	4
	5	10	6
12	10	13	6
	20	16	9
	30	23	12
	40	26	16
18	10	10	6
	20	16	9
	30	23	12
	40	26	16
24	30	16	9
	50	26	12
	60	30	16

OP-1. TEMPORARY OUTLET PROTECTION

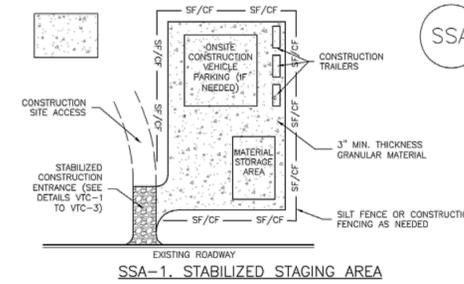
TOP-2 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 November 2010

**Temporary Outlet Protection (TOP) EC-8**

- TEMPORARY OUTLET PROTECTION INSTALLATION NOTES**
- SEE PLAN VIEW FOR:
    - LOCATION OF OUTLET PROTECTION.
    - DIMENSIONS OF OUTLET PROTECTION.
  - DETAIL IS INTENDED FOR PIPES WITH SLOPE  $\leq$  10%. ADDITIONAL EVALUATION OF RIPRAP SIZING AND OUTLET PROTECTION DIMENSIONS REQUIRED FOR STEEPER SLOPES.
  - TEMPORARY OUTLET PROTECTION INFORMATION IS FOR OUTLETS INTENDED TO BE UTILIZED LESS THAN 2 YEARS.
- TEMPORARY OUTLET PROTECTION INSPECTION AND MAINTENANCE NOTES**
- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
  - FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
  - WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- NOTE:** MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.
- (DETAILS ADAPTED FROM AURORA, COLORADO AND PREVIOUS VERSION OF VOLUME 3, NOT AVAILABLE IN AUTOCAD)

November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 TOP-3

**Stabilized Staging Area (SSA) SM-6**



SSA-1. STABILIZED STAGING AREA

- STABILIZED STAGING AREA INSTALLATION NOTES**
- SEE PLAN VIEW FOR:
    - LOCATION OF STAGING AREA(S).
    - CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.
  - STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.
  - STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.
  - THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.
  - UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.
  - ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.
- STABILIZED STAGING AREA MAINTENANCE NOTES**
- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
  - FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
  - WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
  - ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

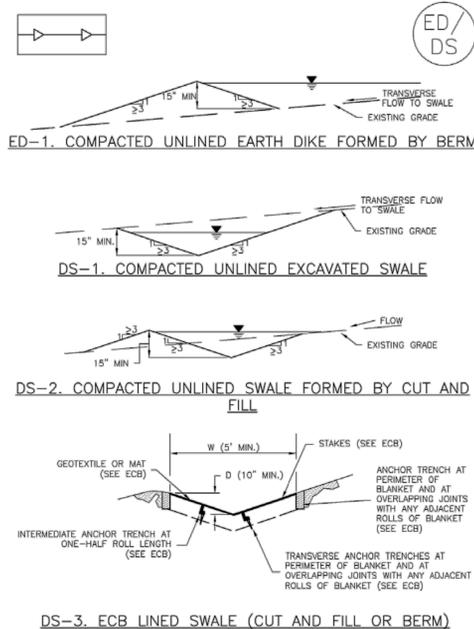
November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 SSA-3

**Stabilized Staging Area (SSA) SM-6**

- STABILIZED STAGING AREA MAINTENANCE NOTES**
- STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.
  - THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.
- NOTE:** MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE-ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.
- NOTE:** MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.
- (DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)

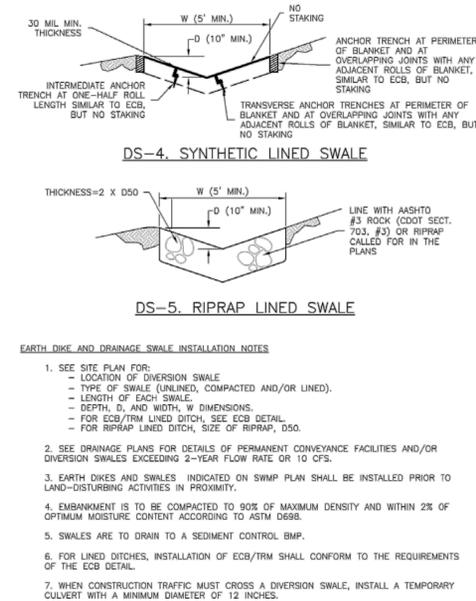
SSA-4 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 November 2010

**Earth Dikes and Drainage Swales (ED/DS) EC-10**



November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 ED/DS-3

**Earth Dikes and Drainage Swales (ED/DS) EC-10**



- EARTH DIKE AND DRAINAGE SWALE INSTALLATION NOTES**
- SEE SITE PLAN FOR:
    - LOCATION OF DIVERSION SWALE
    - TYPE OF SWALE (UNLINED, COMPACTED AND/OR LINED).
    - LENGTH OF EACH SWALE.
    - DEPTH, D, AND WIDTH, W DIMENSIONS.
    - FOR ECB/TRM LINED DITCH, SEE ECB DETAIL.
    - FOR RIPRAP LINED DITCH, SIZE OF RIPRAP, D50.
  - SEE DRAINAGE PLANS FOR DETAILS OF PERMANENT CONVEYANCE FACILITIES AND/OR DIVERSION SWALES EXCEEDING 2-YEAR FLOW RATE OR 10 CFS.
  - EARTH DIKES AND SWALES INDICATED ON SWMP PLAN SHALL BE INSTALLED PRIOR TO LAND-DISTURBING ACTIVITIES IN PROXIMITY.
  - EMBANKMENT IS TO BE COMPACTED TO 90% OF MAXIMUM DENSITY AND WITHIN 2% OF OPTIMUM MOISTURE CONTENT ACCORDING TO ASTM D698.
  - SWALES ARE TO DRAIN TO A SEDIMENT CONTROL BMP.
  - FOR LINED DITCHES, INSTALLATION OF ECB/TRM SHALL CONFORM TO THE REQUIREMENTS OF THE ECB DETAIL.
  - WHEN CONSTRUCTION TRAFFIC MUST CROSS A DIVERSION SWALE, INSTALL A TEMPORARY CULVERT WITH A MINIMUM DIAMETER OF 12 INCHES.

ED/DS-4 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 November 2010

**Earth Dikes and Drainage Swales (ED/DS) EC-10**

- EARTH DIKE AND DRAINAGE SWALE MAINTENANCE NOTES**
- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
  - FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
  - WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
  - SWALES SHALL REMAIN IN PLACE UNTIL THE END OF CONSTRUCTION; IF APPROVED BY LOCAL JURISDICTION, SWALES MAY BE LEFT IN PLACE.
  - WHEN A SWALE IS REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.
- NOTE:** MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.
- (DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF COLORADO SPRINGS, COLORADO, NOT AVAILABLE IN AUTOCAD)

November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 ED/DS-5

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, OR ENGINEERING APPROVES THEIR USE, THESE DRAWINGS ARE DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR  
**GATEWAY TRUCKING, LLC**  
 235 S. FRANCISVILLE COAL MINE RD  
 COLORADO SPRINGS, CO 80929  
 ATTN: PERRY HASTINGS  
 602-558-0846  
 HASTINGSCONTRACTING@GMAIL.COM

**J.R. ENGINEERING**  
 A Westman Company  
 Central 303-740-9383 • Colorado Springs 719-583-2583  
 Fort Collins 970-491-9888 • www.jrengineering.com

BY	DATE	No.	REVISION	H-SCALE	N/A	V-SCALE	N/A	DATE	DESIGNED BY	DRAWN BY	CHECKED BY
								11/03/21	GAG	GAG	

GATEWAY TRUCKING SITE DEVELOPMENT PLAN  
 GEC DETAILS

SHEET 9 OF 9  
 JOB NO. 25215.00



X:\25215\000\all\25215000\Drawings\Sheet\Gec\GEC25215000T01.dwg, GEC-D02, 11/9/2021, 11:59:44 AM, CS

## APPENDIX D – SWMP CHECKLIST

---



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

## EL PASO COUNTY STORMWATER MANAGEMENT PLAN CHECKLIST

EPC Project Number:

Revised: July 2019

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



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

## EL PASO COUNTY STORMWATER MANAGEMENT PLAN CHECKLIST

EPC Project Number:

Revised: July 2019

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

