

**HRG RESPONSE:**  
LINEWORK AND LABELS ADDED FOR EXISTING STORMWATER FACILITIES.

GEC Checklist Item bb - clearly label the two existing permanent stormwater management facilities that are treating the project site.

Provide more contour labels so it is easier to verify elevations.

**HRG RESPONSE:**  
ADDITIONAL CONTOUR LABELS PROVIDED.

**GEC LEGEND:**

[Symbol]	SILT FENCE	PHASE:	INITIAL/INTERIM
[Symbol]	STABILIZED STAGING AREA	PHASE:	INITIAL/INTERIM
[Symbol]	STOCKPILE MANAGEMENT	PHASE:	INITIAL/INTERIM
[Symbol]	INLET PROTECTION: IP-1 TO BE USED ON ALL INLETS	PHASE:	INTERIM
[Symbol]	CULVERT INLET PROTECTION	PHASE:	INTERIM
[Symbol]	VEHICLE TRACKING CONTROL	PHASE:	INITIAL
[Symbol]	DRAINAGE SWALE	PHASE:	INTERIM
[Symbol]	LIMITS OF CONSTRUCTION	PHASE:	INITIAL/INTERIM/FINAL
[Symbol]	LIMITS OF DISTURBANCE	PHASE:	INITIAL/INTERIM/FINAL
[Symbol]	CUT CONDITION	PHASE:	
[Symbol]	FILL CONDITION	PHASE:	
[Symbol]	FLOW DIRECTION	PHASE:	
[Symbol]	EROSION CONTROL BLANKET	PHASE:	INTERIM/FINAL
[Symbol]	CHECK DAM (STRAW BALE)	PHASE:	INTERIM
[Symbol]	CONCRETE WASH OUT	PHASE:	INITIAL
[Symbol]	TEMPORARY SEDIMENT BASIN	PHASE:	INITIAL
[Symbol]	TSB TRIBUTARY AREA DELINEATION	PHASE:	INITIAL

- GRADING & EROSION CONTROL PLAN NOTES:**
- SEE SHEET 9-10 FOR EL PASO COUNTY GRADING AND EROSION CONTROL DETAILS.
  - ALL STORMWATER MANAGEMENT MEASURES SHOWN ON THIS PLAN MUST BE INSTALLED AND MAINTAINED PER THE EL PASO COUNTY STORMWATER CONSTRUCTION MANUAL; LATEST REVISIONS.
  - AREA WITHIN LIMITS OF DISTURBANCE TO BE CLEARED, GRUBBED AND STOCKPILED PRIOR TO IMPORT OF ANY FILL.
  - ALL GREATER THAN 4:1 SLOPES MUST RECEIVE SLOPE TRACKING TREATMENT AND EROSION CONTROL BLANKET.
  - STOCKPILES REQUIRED DURING ONSITE CONSTRUCTION ACTIVITIES WILL BE PLACED AT THE DISCRETION OF THE CONTRACTOR. STOCKPILING OF MATERIAL MUST NOT OCCUR OUTSIDE THE LIMITS OF DISTURBANCE SHOWN ON THIS PLAN.
  - NON-STRUCTURAL CONTROLS (I.E. STREET SWEEPING) WILL BE AT THE DISCRETION OF THE PROJECT'S CERTIFIED GEC ADMINISTRATOR THROUGHOUT THE DURATION OF LAND DISTURBING ACTIVITIES.
  - THERE ARE NO ANTICIPATED ASPHALT AND/OR CONCRETE BATCH PLANTS, OR MASONRY MIX STATIONS ASSOCIATED WITH THIS PROJECT. IF THE CONTRACTOR REQUIRES A ASPHALT/CONCRETE BATCH PLANTS OR MASONRY MIX STATIONS, THESE PLANS WILL BE AMENDED AS REQUIRED.
  - THERE ARE NO EXISTING PRESERVATION EASEMENTS LOCATED ON SITE.
  - ONSITE EXISTING VEGETATION IS NATIVE GRASSES AND WEEDS. THERE IS NO NOTABLE VEGETATION OTHERWISE.
  - THE NATURAL TERTIARY SWALE THROUGH LOTS 16 AND 17 IS PLATTED AS A PUBLIC DRAINAGE EASEMENT WITH A VARIED WIDTH. THE EASEMENT IS TO HAVE TMAX TRM INSTALLED WITH PERMANENT SEEDING. ALL OTHER NATURAL TERTIARY SWALES DO NOT REQUIRE TRM AND ARE NOT TO BE DISTURBED. AREAS REQUIRING ROLLMAX TRM (TMAX OR P300) ARE CALLED OUT ON THE PLANS AND ARE AREAS NEAR POND CONCRETE RUNDOWNS OR ROADSIDE SWALES. SEE THE PERMANENT CHANNEL LINING PROVIDED ON SHEET 2.
  - ALL ROADSIDE DITCHES ARE TO HAVE PERMANENT TRM (ROLLMAX P300 OR EQUIV.) INSTALLED.
  - ALL CULVERTS ARE TO HAVE RIP-RAP INSTALLED AT OUTLET POINTS AS SEEN IN STORM CONSTRUCTION DRAWINGS.

**PROJECT INFO:**

VOLUME:  
 BASE SURFACE: EXISTING-FULL      COMPARISON SURFACE: FILING-5-FG

CUT FACTOR: 1.00  
 FILL FACTOR: 1.15  
 CUT VOLUME(ADJUSTED): 27760.72 CUBIC YARDS  
 FILL VOLUME(ADJUSTED): 28766.77 CUBIC YARDS  
 NET VOLUME(ADJUSTED): 1006.04 (FILL) CUBIC YARDS

CUT FACTOR: 1.00  
 FILL FACTOR: 1.00  
 CUT VOLUME(UNADJUSTED): 27760.72 CUBIC YARDS  
 FILL VOLUME(UNADJUSTED): 25014.58 CUBIC YARDS  
 NET VOLUME(UNADJUSTED): 2746.14(CUT) CUBIC YARDS

LOC - LIMITS OF CONSTRUCTION (ENTIRE FILING PERIMETER CONTROL) = 115.57 AC  
 LOD - LIMITS OF DISTURBANCE (ROADWAYS, UTILITIES, GRADING) = 10.62 AC

**TABLE 1.1 - CHECK DAM SPACING**

SLOPE @ CHANNEL FLOWLINE (%)	MAX SPACING (FEET)
0.5 - 0.75	200
0.75 - 1	150
1 - 1.25	120
1.25 - 1.5	100
1.5 - 1.75	85
1.75 - 2	75

**HRG RESPONSE:**  
TEMPORARY DRAINAGE SWALE DIMENSIONED.

Provide dimensions for diversion ditch, the standard detail only provides the minimums

DRAWN BY: CMD      JOB DATE: 10/3/2024      BAR IS ONE INCH ON OFFICIAL DRAWINGS.  
 APPROVED: RDL      JOB NUMBER: 211030      0" = 10'      IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.  
 CAD DATE: 10/3/2024  
 CAD FILE: J:\2021\211030\CAD\DWG\C\Filing\_No\_5\GEC\GEC-Initial-Interim

NO.	DATE	BY	REVISION DESCRIPTION

**HRGreen**  
 HR GREEN - COLORADO SPRINGS  
 1975 RESEARCH PARKWAY SUITE 160  
 COLORADO SPRINGS, CO 80920  
 PHONE: 719.300.4140  
 FAX: 713.965.0044

**FLYING HORSE NORTH FILING NO. 5**  
**PRI #2, LLC.**  
 EL PASO COUNTY, CO

**GRADING & EROSION CONTROL PLAN**  
 INITIAL & INTERIM GEC

**SHEET GEC 3**







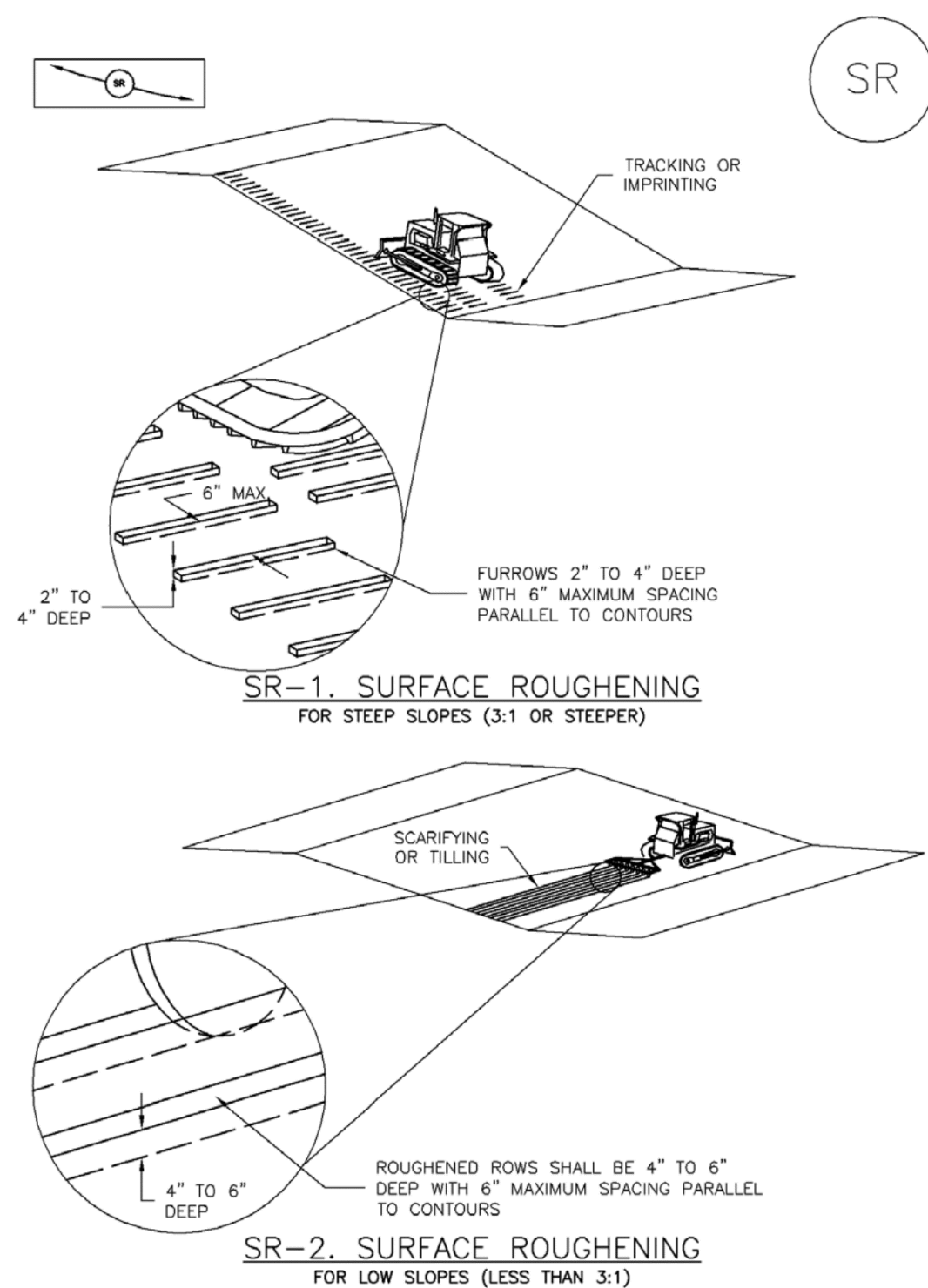






Surface Roughening (SR)

EC-1



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

Mulching (MU)

EC-4

Description

Mulching consists of evenly applying straw, hay, shredded wood mulch, rock, bark or compost to disturbed soils and securing the mulch by crimping, tackifiers, netting or other measures.



Photograph MU-1. An area that was recently seeded, mulched, and crimped.

Mulch can be applied either using standard mechanical dry application methods or using hydromulching equipment that hydraulically applies a slurry of water, wood fiber mulch, and often a tackifier.

Appropriate Uses

Use mulch in conjunction with seeding to help protect the seedbed and stabilize the soil. Mulch can also be used as a temporary cover on low to mild slopes to help temporarily stabilize disturbed areas where growing season constraints prevent effective reseeding.

Standard dry mulching is encouraged in most jurisdictions; however, hydromulching may not be allowed in certain jurisdictions or may not be allowed near waterways.

Do not apply mulch during windy conditions.

Design and Installation

Prior to mulching, surface-roughen areas by rolling with a crimping or punching type roller or by track walking. Track walking should only be used where other methods are impractical because track walking with heavy equipment typically compacts the soil.

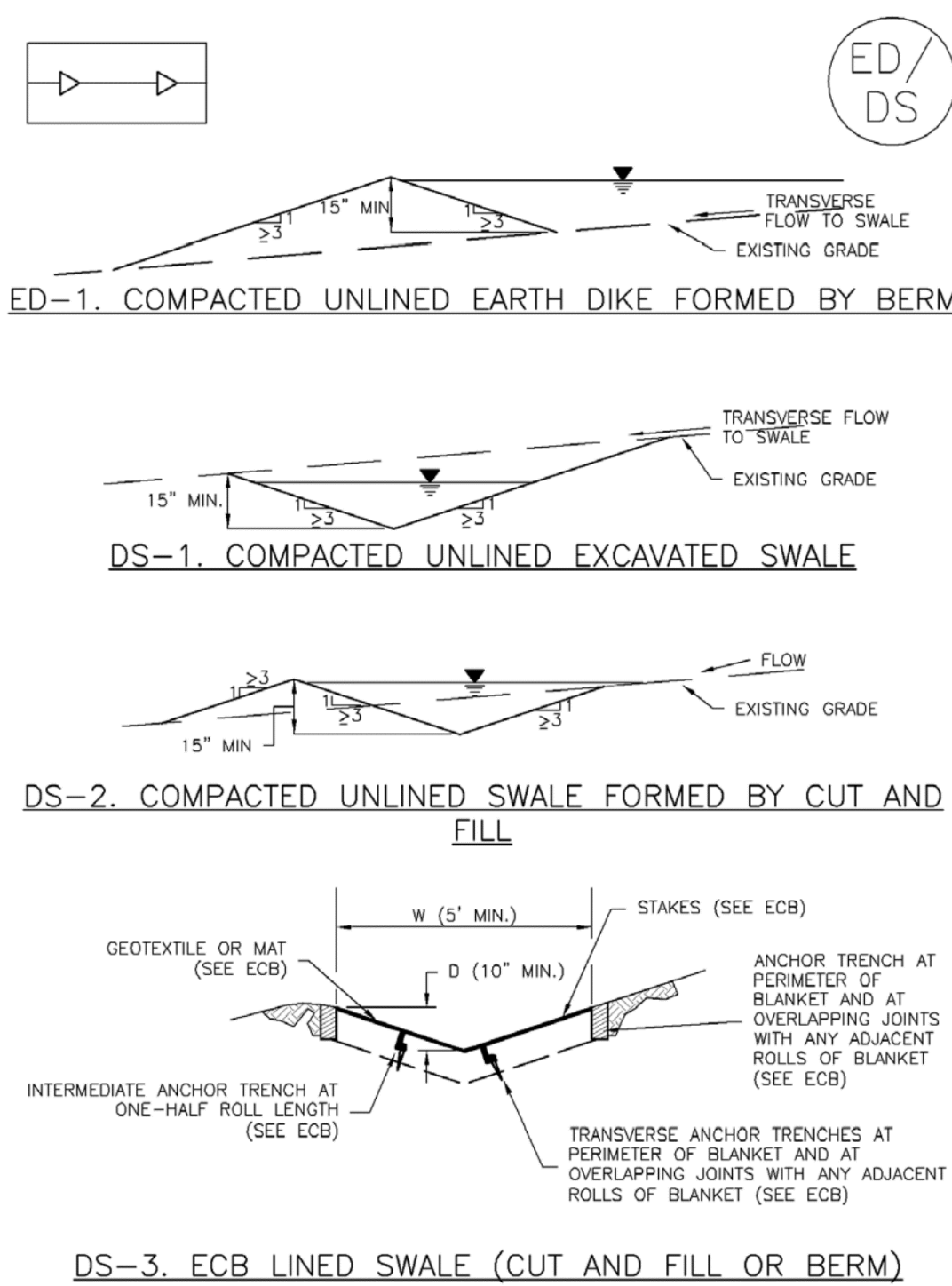
A variety of mulches can be used effectively at construction sites. Consider the following:

Mulch	
Functions	
Erosion Control	Yes
Sediment Control	Moderate
Site/Material Management	No

June 2012 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 MU-1

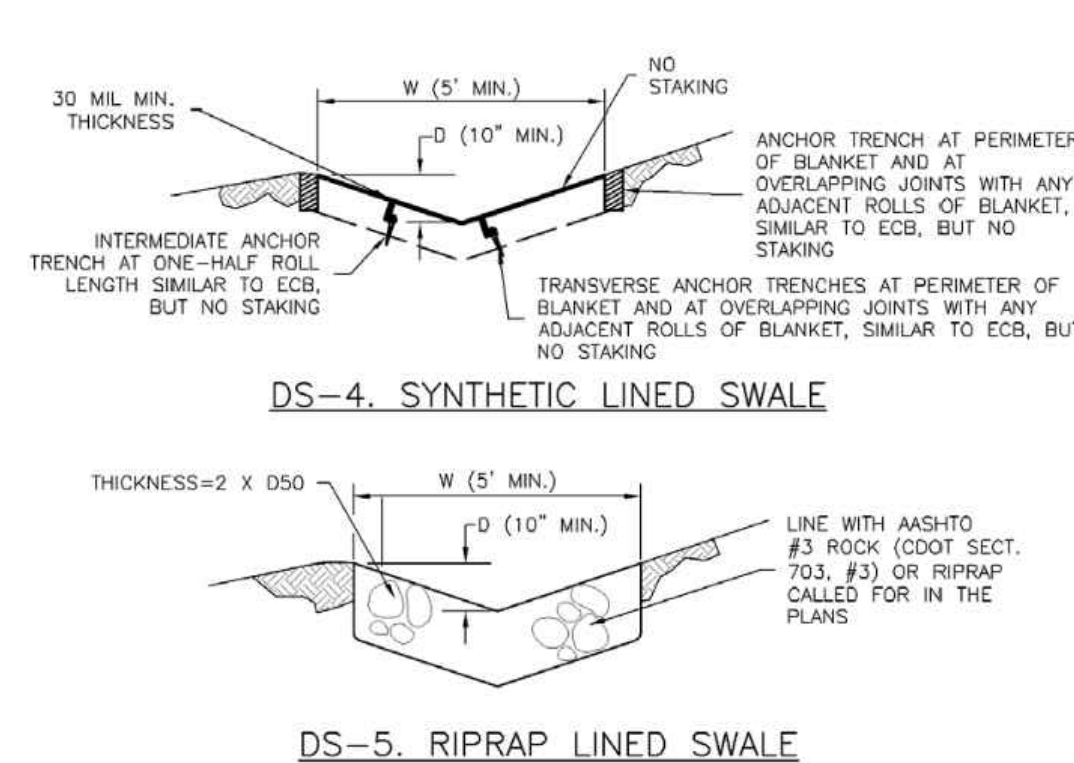
Earth Dikes and Drainage Swales (ED/DS)

EC-10



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

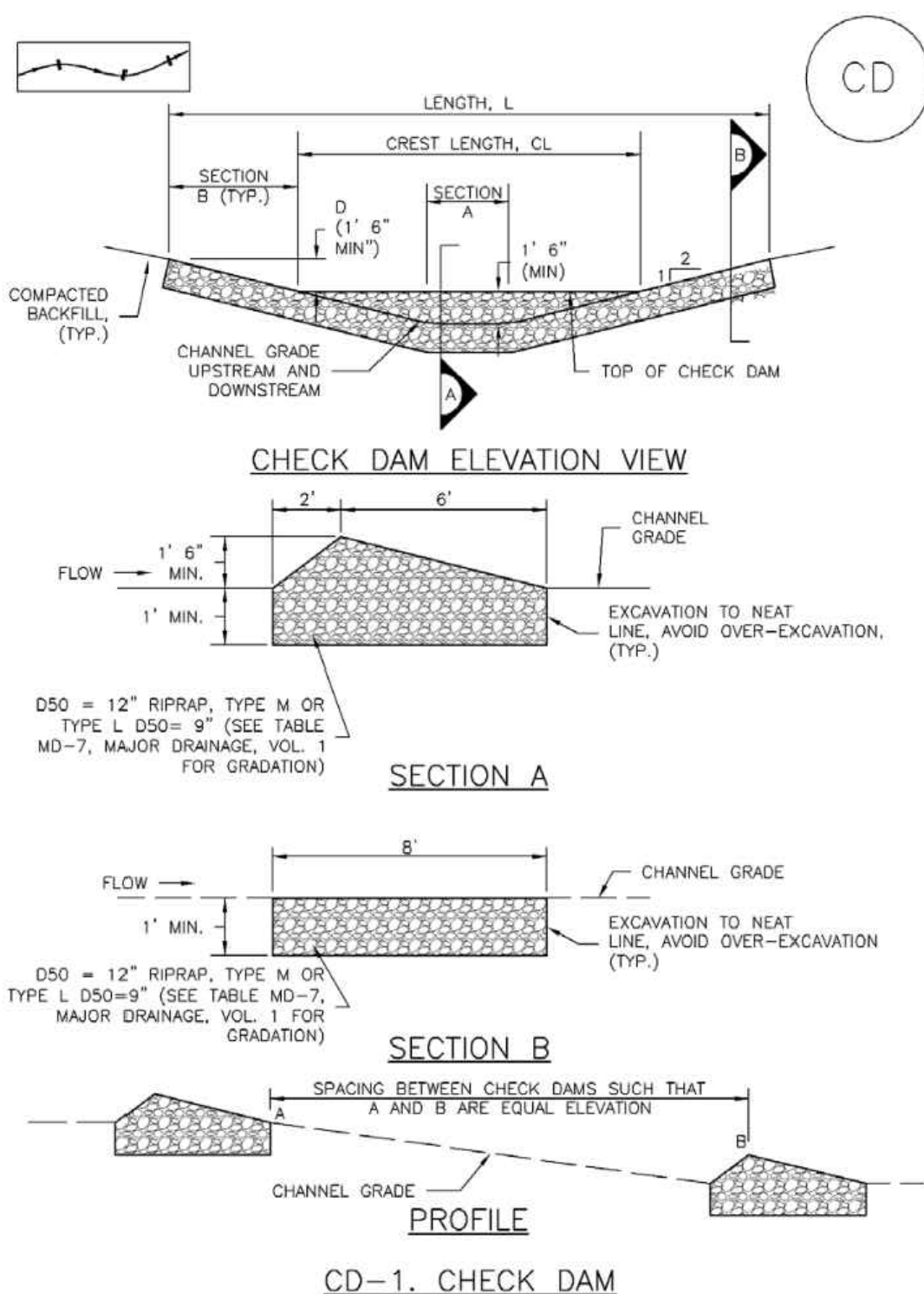
EC-10 Earth Dikes and Drainage Swales (ED/DS)



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

Check Dams (CD)

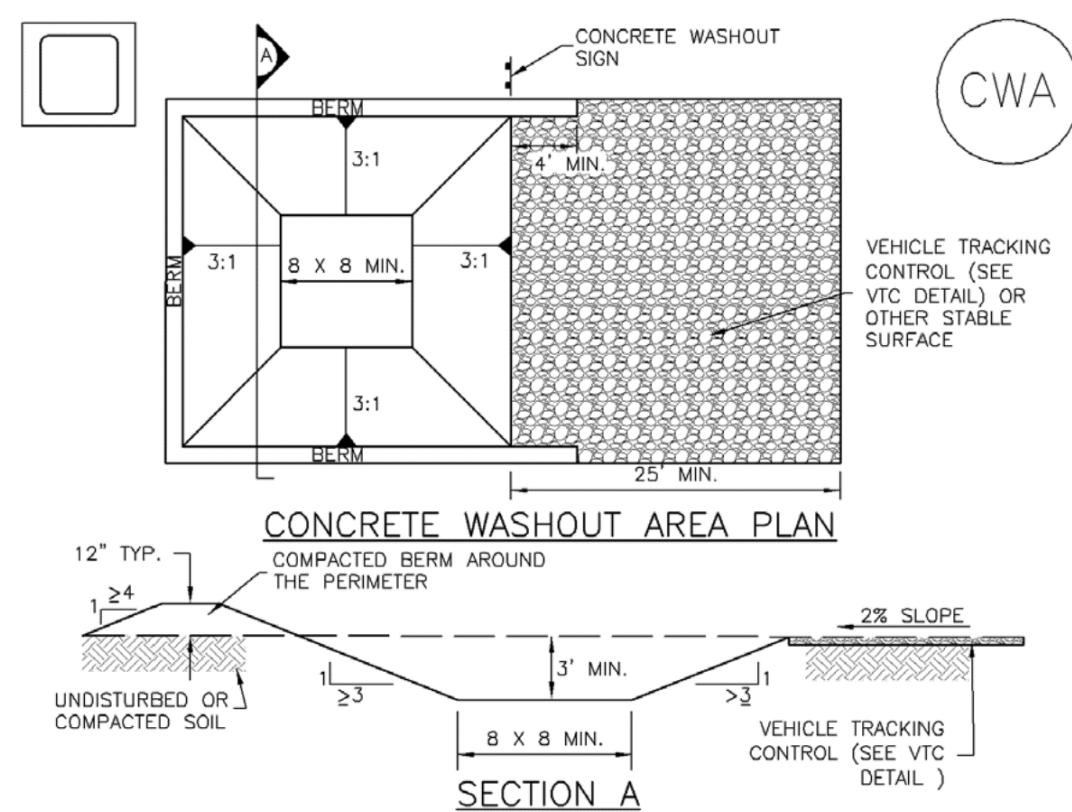
EC-12



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

Concrete Washout Area (CWA)

MM-1



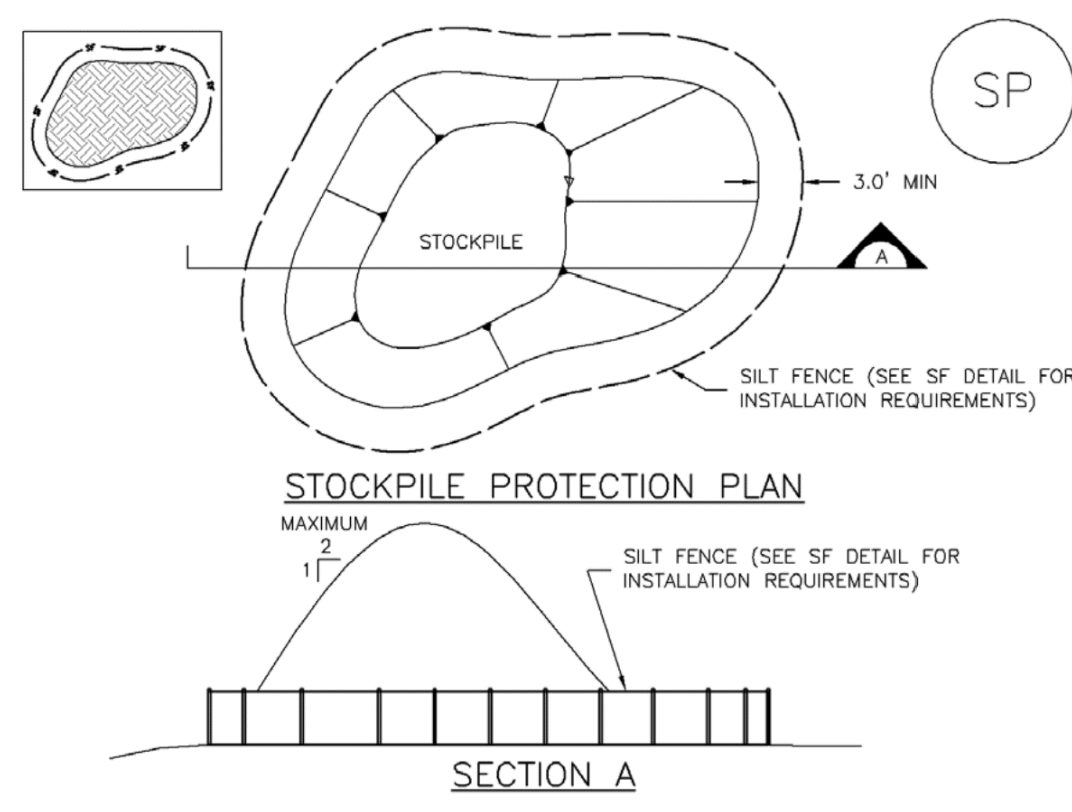
**CWA INSTALLATION NOTES**

- SEE PLAN VIEW FOR:
  - CWA INSTALLATION LOCATION
- DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (1.6 MIL. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE ARE SHOULD BE USED.
- THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
- CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.
- BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'.
- VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.
- SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP TRUCKS.
- USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

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Stockpile Management (SP)

MM-2



**STOCKPILE PROTECTION INSTALLATION NOTES**

- SEE PLAN VIEW FOR:
  - LOCATION OF STOCKPILES
  - TYPE OF STOCKPILE PROTECTION
- INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH THEIR RESPECTIVE DESIGN DETAILS. SILT FENCE IS SHOWN IN THE STOCKPILE PROTECTION DETAILS; HOWEVER, OTHER TYPES OF PERIMETER CONTROLS INCLUDING SEDIMENT CONTROL LOGS OR ROCK SOCKS MAY BE SUITABLE IN SOME CIRCUMSTANCES. CONSIDERATIONS FOR DETERMINING THE APPROPRIATE TYPE OF PERIMETER CONTROL FOR A STOCKPILE INCLUDE WHETHER THE STOCKPILE IS LOCATED ON A PERVIOUS OR IMPERVIOUS SURFACE, THE RELATIVE HEIGHTS OF THE PERIMETER CONTROL AND STOCKPILE, THE ABILITY OF THE PERIMETER CONTROL TO CONTAIN THE STOCKPILE WITHOUT FAILING IN THE EVENT THAT MATERIAL FROM THE STOCKPILE SHIFTS OR SLUMPS AGAINST THE PERIMETER, AND OTHER FACTORS.
- STABILIZE THE STOCKPILE SURFACE WITH SURFACE ROUGHENING, TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS, OR SOIL BINDERS. SOILS STOCKPILED FOR AN EXTENDED PERIOD (TYPICALLY FOR MORE THAN 60 DAYS) SHOULD BE SEEDING AND MULCHED WITH A TEMPORARY GRASS COVER ONCE THE STOCKPILE IS PLACED (TYPICALLY WITHIN 14 DAYS). USE OF MULCH ONLY OR A SOIL BINDER IS ACCEPTABLE IF THE STOCKPILE WILL BE IN PLACE FOR A MORE LIMITED TIME PERIOD (TYPICALLY 30-60 DAYS).
- FOR TEMPORARY STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRADE CONTROLS, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.

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GEC Checklist Item 2 - Provide details for inlet protection (detail IP-1 is referenced on top of CIP) and seeding specifications

HRG RESPONSE: TEMPORARY SEEDING DETAILS ADDED. PROPOSED AREA INLETS REMOVED FROM DESIGN.

DRAWN BY: AMC JOB DATE: 9/30/2024 BAR IS ONE INCH ON OFFICIAL DRAWINGS.

APPROVED: RDL JOB NUMBER: 211030 0

CAD DATE: 10/3/2024 IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

CAD FILE: J:\2021\211030\CAD\Drawings\CIP\GEC\GEC-Details

NO.	DATE	BY	REVISION DESCRIPTION

HR GREEN - COLORADO SPRINGS  
1975 RESEARCH PARKWAY SUITE 160  
COLORADO SPRINGS, CO 80920  
PHONE: 719.300.4140  
FAX: 713.965.0044

FLYING HORSE NORTH FILING NO. 5  
PRI #2, LLC.  
EL PASO COUNTY, CO

GRADING & EROSION CONTROL PLAN  
DETAILS 1

SHEET  
DT  
9

Good Housekeeping Practices (GH) MM-3

Description

Implement construction site good housekeeping practices to prevent pollution associated with solid, liquid and hazardous construction-related materials and wastes.



- Provide for waste management.
Establish proper building material staging areas.
Designate paint and concrete washout areas.
Establish proper equipment/vehicle fueling and maintenance practices.
Control equipment/vehicle washing and allowable non-stormwater discharges.
Develop a spill prevention and response plan.



Photographs GH-1 and GH-2. Proper materials storage and secondary containment for fuel tanks are important good housekeeping practices.

Acknowledgement: This Fact Sheet is based directly on EPA guidance provided in Developing Your Stormwater Pollution Prevention Plan (EPA 2007).

Appropriate Uses

Good housekeeping practices are necessary at all construction sites.

Design and Installation

The following principles and actions should be addressed in SWMPs:

- Provide for Waste Management. Implement management procedures and practices to prevent or reduce the exposure and transport of pollutants in stormwater from solid, liquid and sanitary wastes that will be generated at the site.

Solid or Construction Waste

- Designate trash and bulk waste-collection areas on-site.

Table with 2 columns: Functions, Good Housekeeping. Rows include Erosion Control, Sediment Control, and Site/Material Management.

November 2010 Urban Drainage and Flood Control District GH-1
Urban Storm Drainage Criteria Manual Volume 3

MM-3 Good Housekeeping Practices (GH)

- Recycle materials whenever possible (e.g., paper, wood, concrete, oil).
Segregate and provide proper disposal options for hazardous material wastes.
Clean up litter and debris from the construction site daily.
Locate waste-collection areas away from streets, gutters, watercourses, and storm drains.

Sanitary and Septic Waste

- Provide convenient, well-maintained, and properly located toilet facilities on-site.
Locate toilet facilities away from storm drain inlets and waterways to prevent accidental spills and contamination of stormwater.
Maintain clean restroom facilities and empty portable toilets regularly.
Where possible, provide secondary containment pans under portable toilets.
Provide tie-downs or stake-downs for portable toilets.
Educate employees, subcontractors, and suppliers on locations of facilities.
Treat or dispose of sanitary and septic waste in accordance with state or local regulations.
Inspect facilities for leaks. If found, repair or replace immediately.
Special care is necessary during maintenance (pump out) to ensure that waste and/or biocide are not spilled on the ground.

Hazardous Materials and Wastes

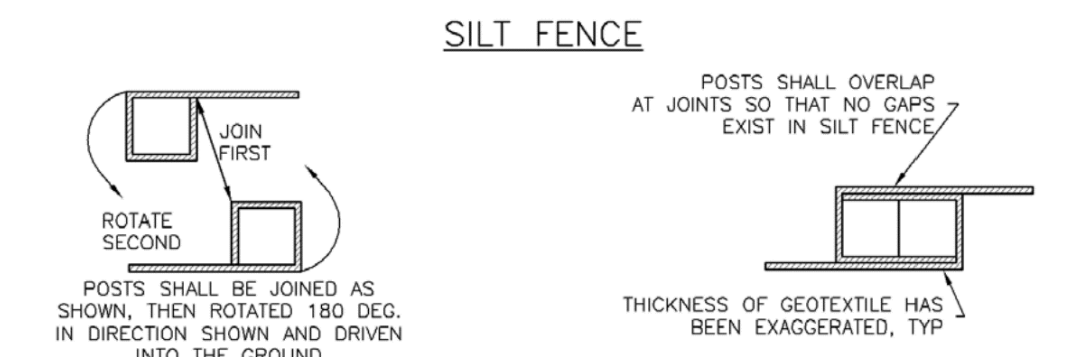
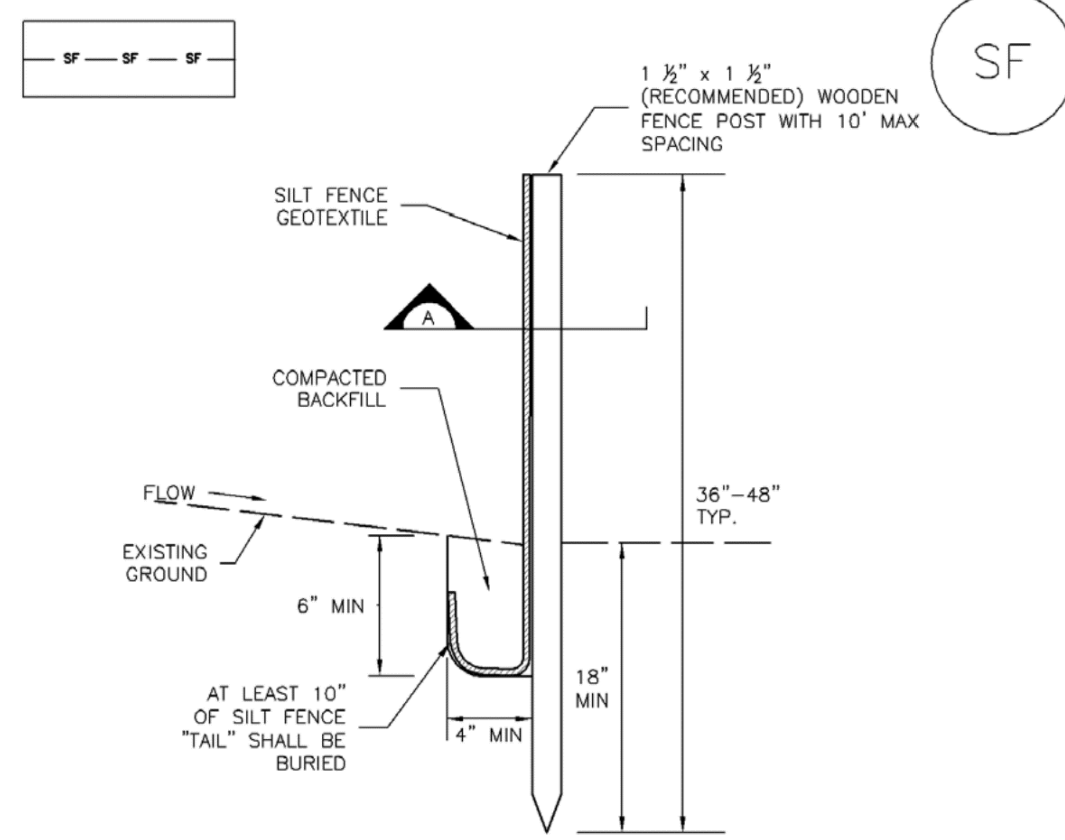
- Develop and implement employee and subcontractor education, as needed, on hazardous and toxic waste handling, storage, disposal, and cleanup.
Designate hazardous waste-collection areas on-site.
Place all hazardous and toxic material wastes in secondary containment.



Photograph GH-3. Locate portable toilet facilities on level surfaces away from waterways and storm drains. Photo courtesy of WVE.

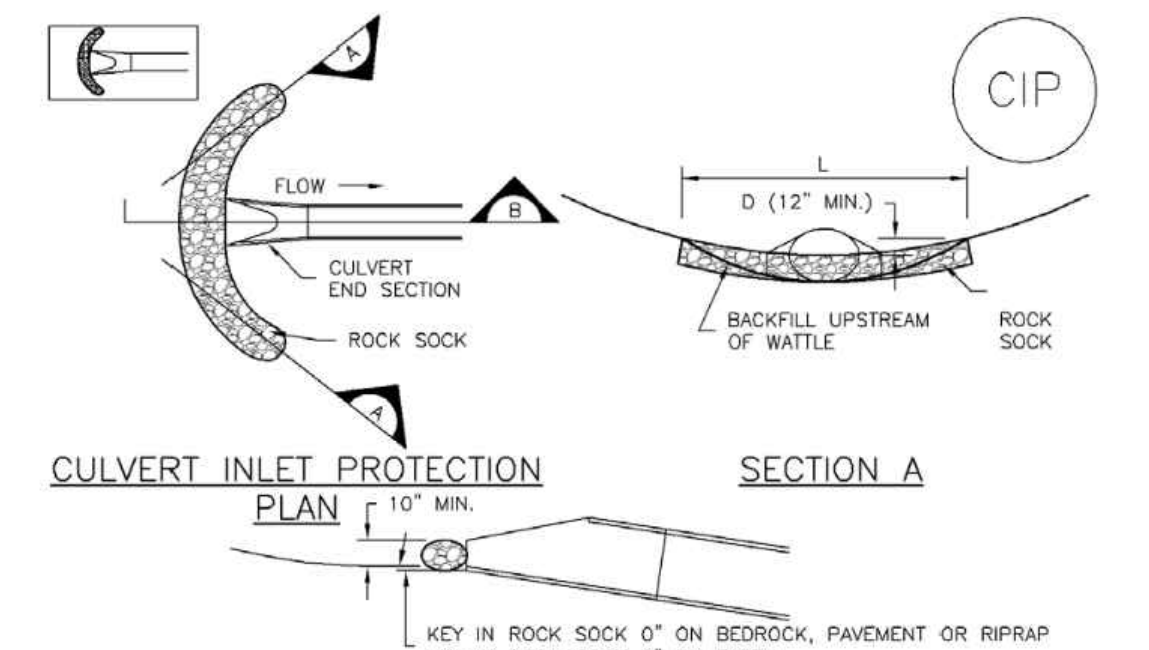
GH-2 Urban Drainage and Flood Control District November 2010
Urban Storm Drainage Criteria Manual Volume 3

Silt Fence (SF) SC-1



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

Inlet Protection (IP) SC-6

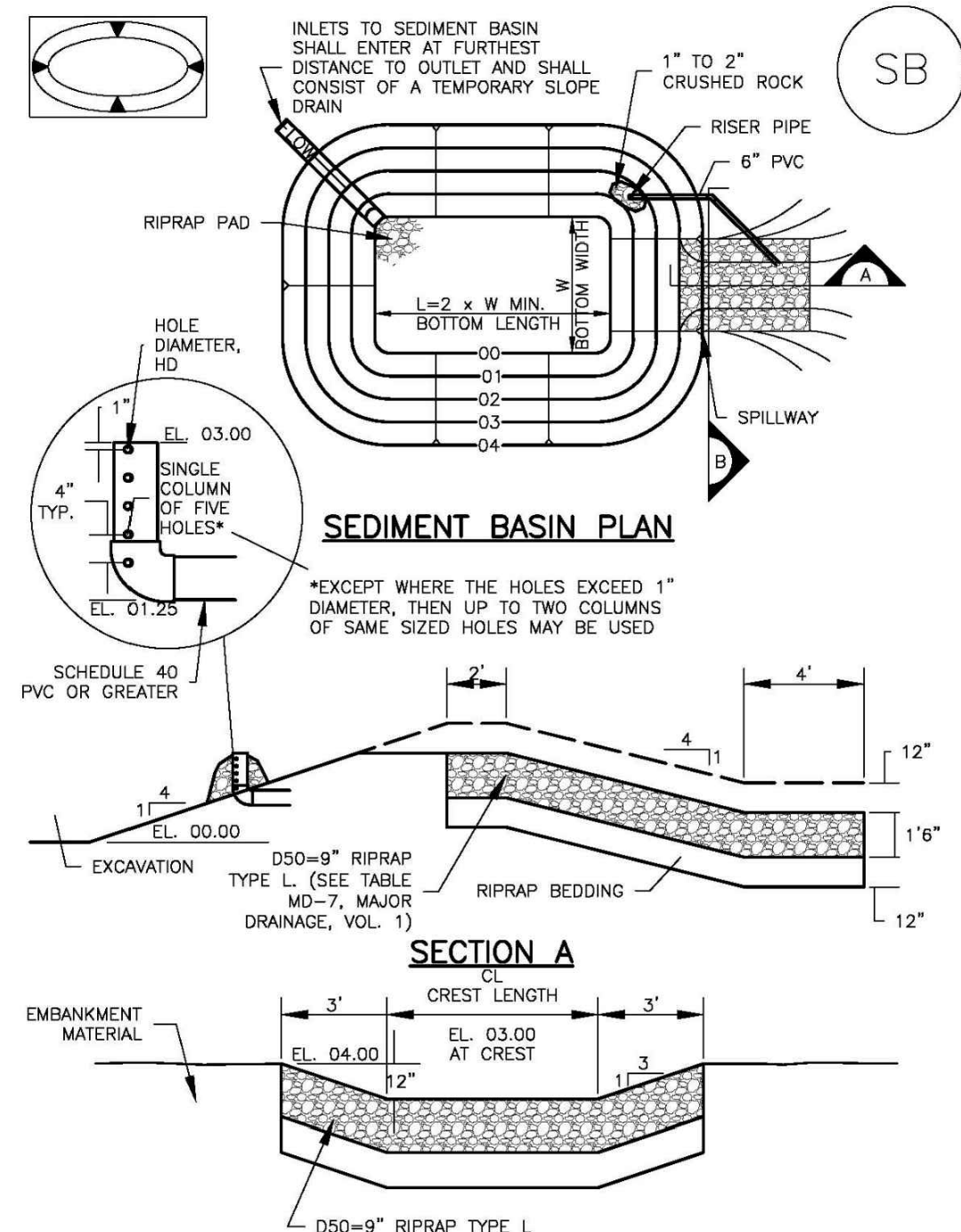


CIP-1. CULVERT INLET PROTECTION

- CULVERT INLET PROTECTION INSTALLATION NOTES
1. SEE PLAN VIEW FOR LOCATION OF CULVERT INLET PROTECTION.
2. SEE ROCK SOCK DESIGN DETAIL FOR ROCK GRADATION REQUIREMENTS AND JOINING DETAIL.
CULVERT INLET PROTECTION MAINTENANCE NOTES
1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION.

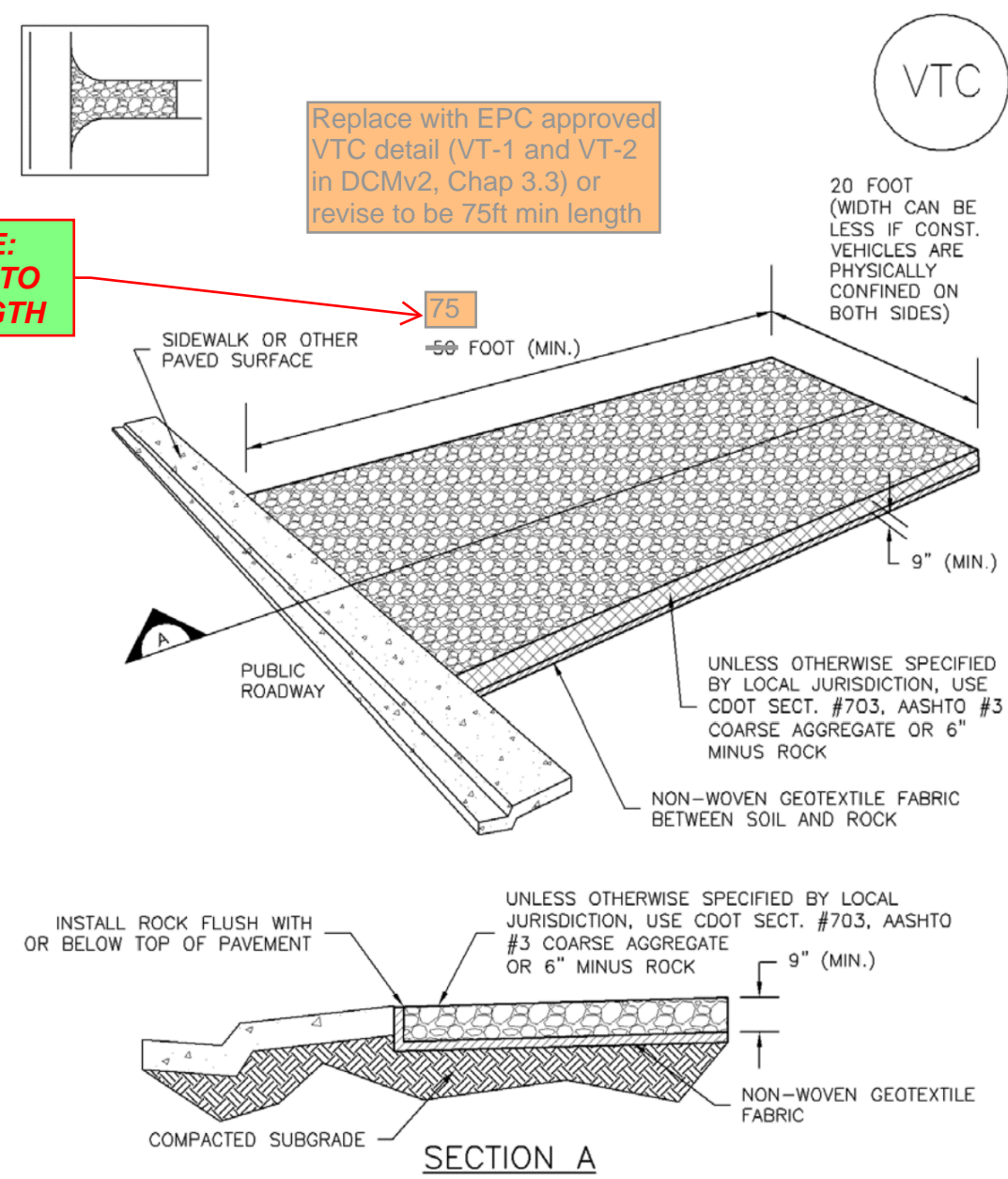
August 2013 Urban Drainage and Flood Control District IP-7
Urban Storm Drainage Criteria Manual Volume 3

Sediment Basin (SB) SC-7



August 2013 Urban Drainage and Flood Control District SB-5
Urban Storm Drainage Criteria Manual Volume 3

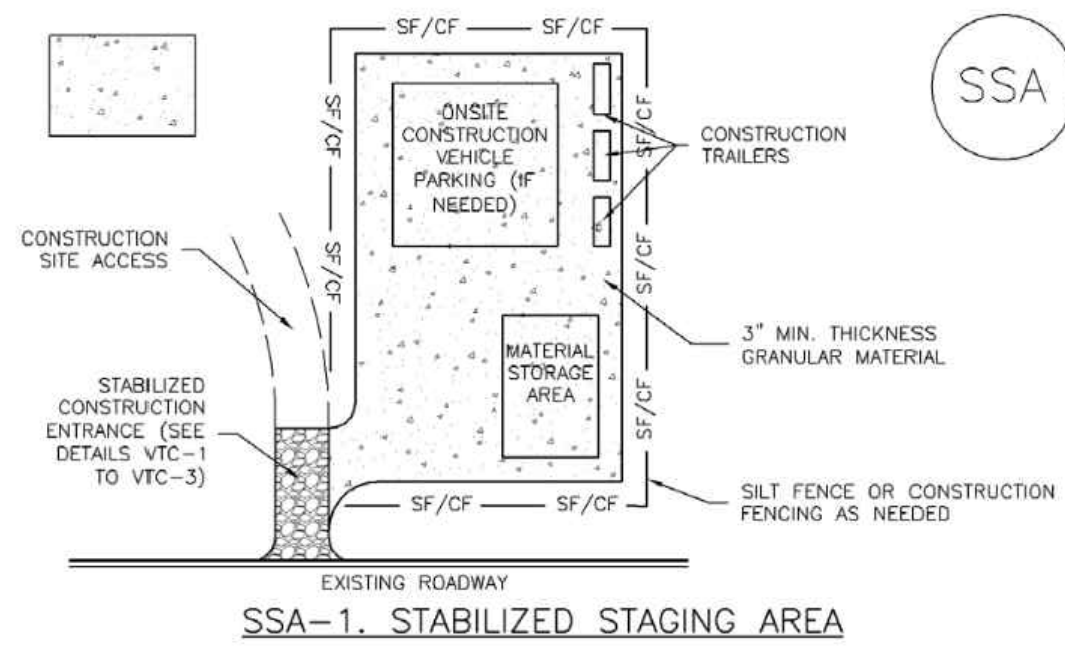
Vehicle Tracking Control (VTC) SM-4



VTC-1. AGGREGATE VEHICLE TRACKING CONTROL

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

Stabilized Staging Area (SSA) SM-6



SSA-1. STABILIZED STAGING AREA

- STABILIZED STAGING AREA INSTALLATION NOTES
1. SEE PLAN VIEW FOR LOCATION OF STAGING AREA(S).
2. STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE.
STABILIZED STAGING AREA MAINTENANCE NOTES
1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION.

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

Project information including Drawn By, Job Date, Job Number, and CAD File.

Table with 4 columns: NO., DATE, BY, REVISION DESCRIPTION.

HR Green logo and contact information for Colorado Springs.

FLYING HORSE NORTH FILING NO. 5 PRI #2, LLC. EL PASO COUNTY, CO

GRADING & EROSION CONTROL PLAN DETAILS 2

SHEET DT 10

