



# CLAREMONT BUSINESS PARK 2 FILING NO. 1

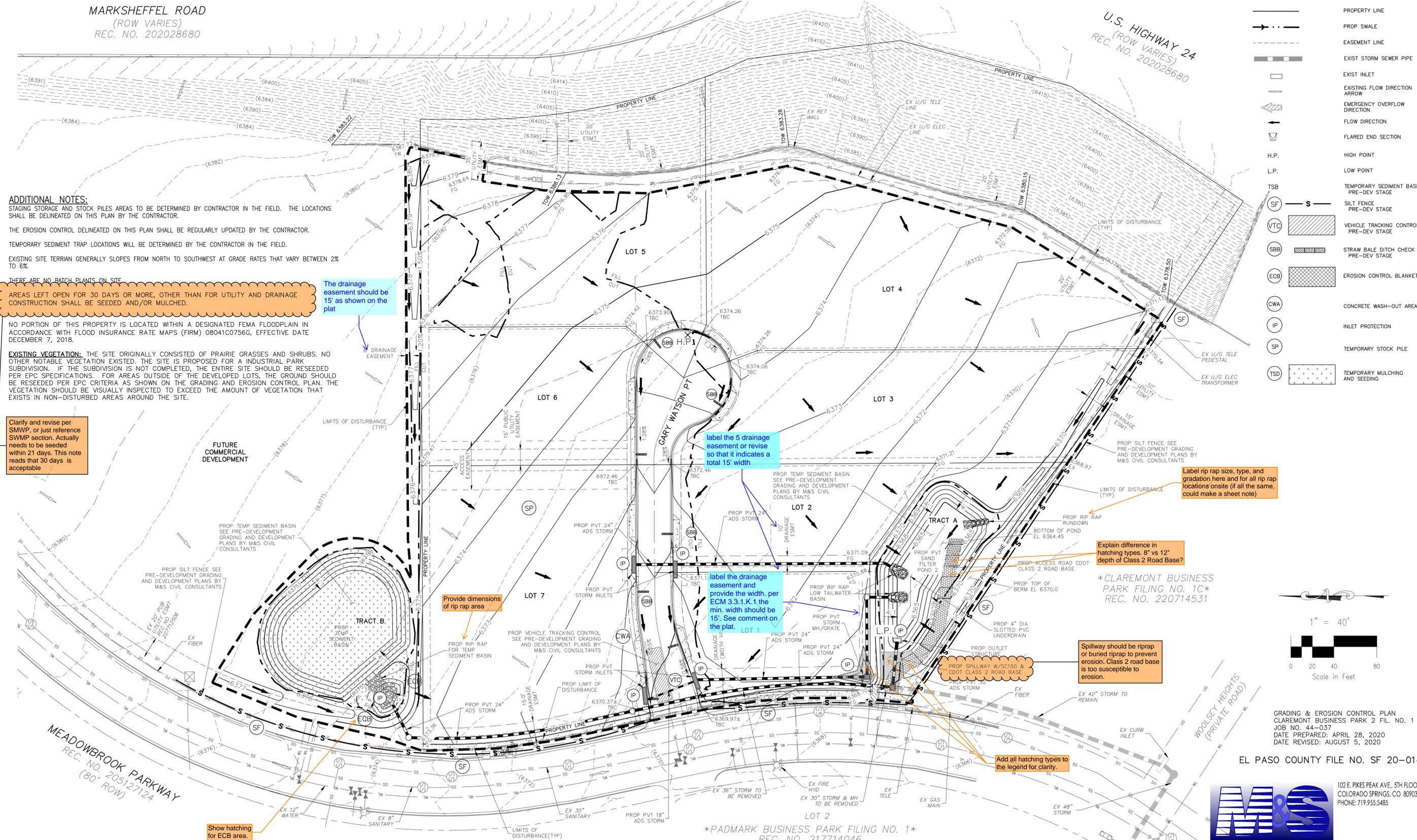
## COUNTY OF EL PASO, STATE OF COLORADO

### GRADING AND EROSION CONTROL PLAN

SWMP Checklist Item 17a - Should read "Limits of Disturbance / Construction" (if they are the same, otherwise make a separate line type for Limits of Construction).

#### LEGEND

- LIMITS OF DISTURBANCE
- CUT/FILL LINE
- EXISTING CONTOUR
- PROP CONTOUR
- PROPERTY LINE
- PROP SWALE
- EASEMENT LINE
- EXIST STORM SEWER PIPE
- EXIST INLET
- EXISTING FLOW DIRECTION ARROW
- EMERGENCY OVERFLOW DIRECTION
- FLOW DIRECTION
- FLARED END SECTION
- HIGH POINT
- LOW POINT
- TEMPORARY SEDIMENT BASIN PRE-DEV STAGE
- SILT FENCE PRE-DEV STAGE
- VEHICLE TRACKING CONTROL PRE-DEV STAGE
- STRAW BALE DITCH CHECK PRE-DEV STAGE
- EROSION CONTROL BLANKET
- CONCRETE WASH-OUT AREA
- INLET PROTECTION
- TEMPORARY STOCK PILE
- TEMPORARY MULCHING AND SEEDING



**ADDITIONAL NOTES:**  
 STAGING STORAGE AND STOCK PILES AREAS TO BE DETERMINED BY CONTRACTOR IN THE FIELD. THE LOCATIONS SHALL BE DELINEATED ON THIS PLAN BY THE CONTRACTOR.  
 THE EROSION CONTROL DELINEATED ON THIS PLAN SHALL BE REGULARLY UPDATED BY THE CONTRACTOR.  
 TEMPORARY SEDIMENT TRAP LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR IN THE FIELD.  
 EXISTING SITE TERRAIN GENERALLY SLOPES FROM NORTH TO SOUTHWEST AT GRADE RATES THAT VARY BETWEEN 2% TO 6%.

THESE ARE NO-BATCH PLANTS ON SITE.  
 AREAS LEFT OPEN FOR 30 DAYS OR MORE, OTHER THAN FOR UTILITY AND DRAINAGE CONSTRUCTION SHALL BE SEEDED AND/OR MULCHED.

NO PORTION OF THIS PROPERTY IS LOCATED WITHIN A DESIGNATED FEMA FLOODPLAIN IN ACCORDANCE WITH FLOOD INSURANCE RATE MAPS (FIRM) 08041C07566, EFFECTIVE DATE DECEMBER 7, 2018.

**EXISTING VEGETATION:** THE SITE ORIGINALLY CONSISTED OF PRAIRIE GRASSES AND SHRUBS. NO OTHER NOTABLE VEGETATION EXISTED. THE SITE IS PROPOSED FOR A INDUSTRIAL PARK SUBDIVISION. IF THE SUBDIVISION IS NOT COMPLETED, THE ENTIRE SITE SHOULD BE RESEEDED PER EPC SPECIFICATIONS. FOR AREAS OUTSIDE OF THE DEVELOPED LOTS, THE GROUND SHOULD BE RESEEDED PER EPC CRITERIA AS SHOWN ON THE GRADING AND EROSION CONTROL PLAN. THE VEGETATION SHOULD BE VISUALLY INSPECTED TO EXCEED THE AMOUNT OF VEGETATION THAT EXISTS IN NON-DISTURBED AREAS AROUND THE SITE.

Clarify and revise per SMWP, or just reference SMWP section. Actually needs to be seeded within 21 days. This note reads that 30 days is acceptable

The drainage easement should be 15' as shown on the plat

Label the 5 drainage easement or revise so that it indicates a total 15' width

Provide dimensions of rip rap area

Label the drainage easement and provide the width, per ECM 3.3.1.K.1 the min. width should be 15'. See comment on the plat.

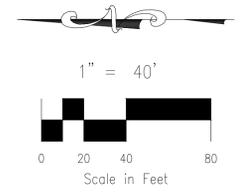
Explain difference in hatching types. 8" vs 12" depth of Class 2 Road Base?

\*CLAREMONT BUSINESS PARK FILING NO. 1C\*  
 REC. NO. 220714531

Spillway should be riprap or buried riprap to prevent erosion. Class 2 road base is too susceptible to erosion.

Add all hatching types to the legend for clarity.

Show hatching for ECB area.



GRADING & EROSION CONTROL PLAN  
 CLAREMONT BUSINESS PARK 2 FIL. NO. 1  
 JOB NO. 44-037  
 DATE PREPARED: APRIL 28, 2020  
 DATE REVISED: AUGUST 5, 2020

EL PASO COUNTY FILE NO. SF 20-014



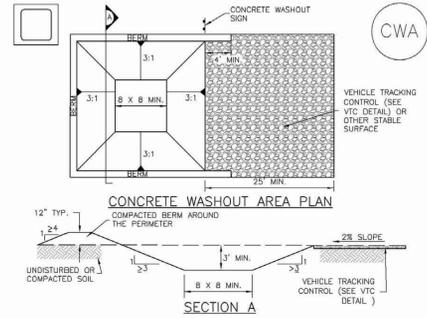
102 E. PIKES PEAK AVE., 5TH FLOOR  
 COLORADO SPRINGS, CO 80903  
 PHONE: 719.955.5485

\*PADMARK BUSINESS PARK FILING NO. 1\*  
 REC. NO. 217714046

Add details for the following BMP's using the provided ones from the DCM, MHFD, or equivalent.

BMP	DCM	MHFD
Rolled Erosion Control Products	ECB-1, ECB-2	EC-6
Stockpile Mgmt		MM-2

**Concrete Washout Area (CWA) MM-1**



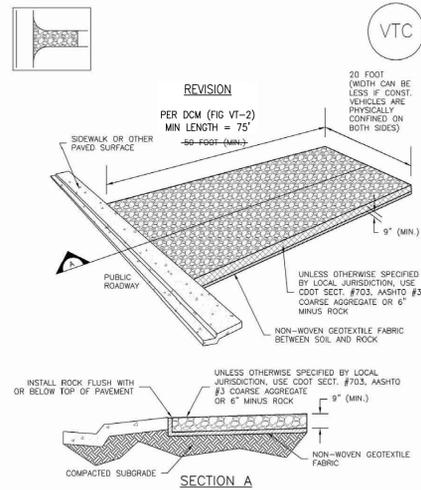
CWA-1. CONCRETE WASHOUT AREA

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 1000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFESIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (1/8 IN. MIN. 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 TRIS.
- USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

November 2010 Urban Drainage and Flood Control District CWA-3  
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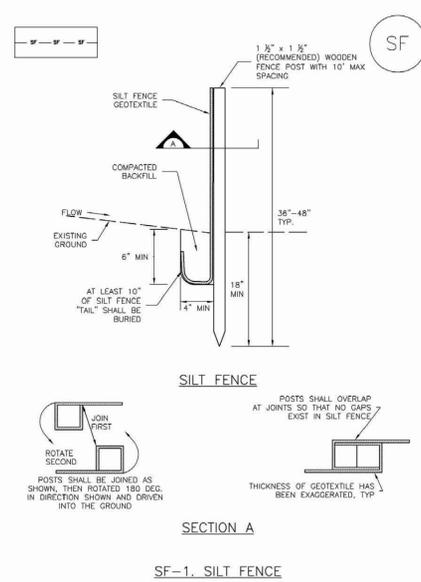
**Vehicle Tracking Control (VTC) SM-4**



VTC-1. AGGREGATE VEHICLE TRACKING CONTROL

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

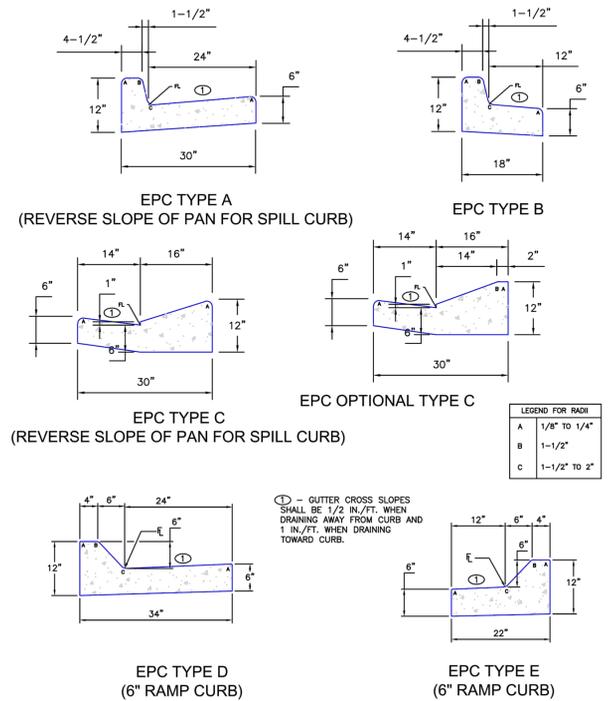
**Silt Fence (SF) SC-1**



SECTION A

SF-1. SILT FENCE

November 2010 Urban Drainage and Flood Control District SF-3  
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SCALE: NOT TO SCALE

**EC-2 Temporary and Permanent Seeding (TS/PS)**

Table TS/PS-2. Minimum Drill Seeding Rates for Perennial Grasses

Common Name	Botanical Name	Growth Season	Growth Form	Seeds/Pound	Pounds of PLS/acre
<b>Alkali Soil Seed Mix</b>					
Alkali sacaton	<i>Sporobolus airoides</i>	Cool	Bunch	1,750,000	0.25
Basin wildrye	<i>Elymus cinereus</i>	Cool	Bunch	165,000	2.5
Sodar streambank wheatgrass	<i>Agropyron spicatum Sodar</i>	Cool	Sod	170,000	2.5
Tose tall wheatgrass	<i>Agropyron elongatum Tose</i>	Cool	Bunch	79,000	7.0
Amba western wheatgrass	<i>Agropyron amthii 'ariba'</i>	Cool	Sod	110,000	5.5
<b>Total</b>					<b>17.75</b>
<b>Fertile Loam Soil Seed Mix</b>					
Ephraim crested wheatgrass	<i>Agropyron cristatum 'Ephraim'</i>	Cool	Sod	175,000	2.0
Dural hard fescue	<i>Festuca ovina 'duracuda'</i>	Cool	Bunch	565,000	1.0
Lincoln smooth brome	<i>Bromus inermis leys 'Lincoln'</i>	Cool	Sod	130,000	3.0
Sodar streambank wheatgrass	<i>Agropyron spicatum Sodar</i>	Cool	Sod	170,000	2.5
Amba western wheatgrass	<i>Agropyron amthii 'ariba'</i>	Cool	Sod	110,000	7.0
<b>Total</b>					<b>15.5</b>
<b>High Water Table Soil Seed Mix</b>					
Meadow foxtail	<i>Alopecurus pratensis</i>	Cool	Sod	900,000	0.5
Redtop	<i>Agrostis alba</i>	Warm	Open sod	5,000,000	0.25
Reed canarygrass	<i>Phalaris arundinacea</i>	Cool	Sod	68,000	0.5
Lincoln smooth brome	<i>Bromus inermis leys 'Lincoln'</i>	Cool	Sod	130,000	3.0
Pathfinder switchgrass	<i>Panicum virgatum 'Pathfinder'</i>	Warm	Sod	389,000	1.0
Albar tall wheatgrass	<i>Agropyron elongatum 'Albar'</i>	Cool	Bunch	79,000	5.5
<b>Total</b>					<b>10.75</b>
<b>Transition Turf Seed Mix</b>					
Ruebens Canadian bluegrass	<i>Poa compressa 'Ruebens'</i>	Cool	Sod	2,500,000	0.5
Dural hard fescue	<i>Festuca ovina 'duracuda'</i>	Cool	Bunch	565,000	1.0
Citation perennial ryegrass	<i>Lolium perenne 'Citation'</i>	Cool	Sod	247,000	3.0
Lincoln smooth brome	<i>Bromus inermis leys 'Lincoln'</i>	Cool	Sod	130,000	3.0
<b>Total</b>					<b>7.5</b>

TS/PS-4 Urban Drainage and Flood Control District June 2012  
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**Temporary and Permanent Seeding (TS/PS) EC-2**

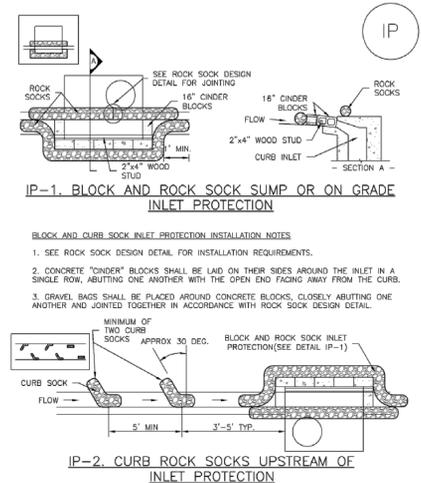
Table TS/PS-2. Minimum Drill Seeding Rates for Perennial Grasses (cont.)

Common Name	Botanical Name	Growth Season	Growth Form	Seeds/Pound	Pounds of PLS/acre
<b>Sandy Soil Seed Mix</b>					
Blue grama	<i>Bouteloua gracilis</i>	Warm	Sod-forming bunchgrass	825,000	0.5
Camper little bluestem	<i>Setozaioryum scoparium 'Camper'</i>	Warm	Bunch	240,000	1.0
Prairie sandreed	<i>Calamagrostis longifolia</i>	Warm	Open sod	274,000	1.0
Sand dropseed	<i>Sporobolus vaginatus</i>	Cool	Bunch	5,298,000	0.25
Vaughn sideoats grama	<i>Bouteloua curtipendula 'Vaughn'</i>	Warm	Sod	191,000	2.0
Amba western wheatgrass	<i>Agropyron amthii 'ariba'</i>	Cool	Sod	110,000	5.5
<b>Total</b>					<b>10.25</b>
<b>Heavy Clay, Rocky Foothill Seed Mix</b>					
Ephraim crested wheatgrass	<i>Agropyron cristatum 'Ephraim'</i>	Cool	Sod	175,000	1.5
Oahu intermediate wheatgrass	<i>Agropyron intermedium 'Oahu'</i>	Cool	Sod	115,000	5.5
Vaughn sideoats grama	<i>Bouteloua curtipendula 'Vaughn'</i>	Warm	Sod	191,000	2.0
Lincoln smooth brome	<i>Bromus inermis leys 'Lincoln'</i>	Cool	Sod	130,000	3.0
Amba western wheatgrass	<i>Agropyron amthii 'ariba'</i>	Cool	Sod	110,000	5.5
<b>Total</b>					<b>17.5</b>

\* All of the above seeding mixes and rates are based on drill seeding followed by crimped straw mulch. These rates should be doubled if seed is broadcast and should be increased by 50 percent if the seeding is done using a Drilling Drill or is applied through hydraulic seeding. Hydraulic seeding may be substituted for drilling only where slopes are steeper than 3:1. If hydraulic seeding is used, hydraulic mulching should be done as a separate operation.  
 † See Table TS/PS-3 for seeding dates.  
 ‡ If site is to be irrigated, the transition turf seed rates should be doubled.  
 § Crested wheatgrass should not be used on slopes steeper than 6H to 1V.  
 ¶ Can substitute 0.5 lbs PLS of blue grama for the 2.0 lbs PLS of Vaughn sideoats grama.

June 2012 Urban Drainage and Flood Control District TS/PS-5  
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**SC-6 Inlet Protection (IP)**



IP-1. BLOCK AND ROCK SOCK SUMP OR ON GRADE INLET PROTECTION

- BLOCK AND CURB SOCK INLET PROTECTION INSTALLATION NOTES
- SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.
  - CONCRETE "CURB" BLOCKS SHALL BE LAD ON THEIR SIDES AROUND THE INLET IN A SINGLE ROW, ABUTTING ONE ANOTHER WITH THE OPEN END FACING AWAY FROM THE CURB.
  - GRAVEL BAGS SHALL BE PLACED AROUND CONCRETE BLOCKS, CLOSELY ABUTTING ONE ANOTHER AND JOINED TOGETHER IN ACCORDANCE WITH ROCK SOCK DESIGN DETAIL.

IP-2. CURB ROCK SOCKS UPSTREAM OF INLET PROTECTION

- CURB ROCK SOCK INLET PROTECTION INSTALLATION NOTES
- SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.
  - PLACEMENT OF THE SOCK SHALL BE APPROXIMATELY 30 DEGREES FROM PERPENDICULAR IN THE OPPOSITE DIRECTION OF FLOW.
  - SOCKS ARE TO BE FLUSH WITH THE CURB AND SPACED A MINIMUM OF 5 FEET APART.
  - AT LEAST TWO CURB SOCKS IN SERIES ARE REQUIRED UPSTREAM OF ON-GRADE INLETS.

IP-4 Urban Drainage and Flood Control District August 2013  
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**EROSION CONTROL MEASURES PHASE LIST**  
 INSTALLATIONS OF BMPs ARE STAGED IN ORDER TO MINIMIZE THE POTENTIAL FOR POLLUTANTS IN THE STORMWATER DISCHARGE. THE FOLLOWING STAGES WILL BE USED: ESTABLISHMENT OF PERIMETER CONTROLS, INSTALLATION OF TEMPORARY BMPs DURING SOIL DISTURBANCE AND THEN FINALLY INSTALLATION OF PERMANENT CONTROLS. DESCRIPTIONS OF SOME OF THE AVAILABLE BMPs ARE LISTED IN BELOW STAGES:

**PRE-DEVELOPMENT EARLY GRADING**  
 ONCE UTILITIES AND STORM DRAIN INFRASTRUCTURE HAVE BEEN CONSTRUCTED, INSTALLATION OF TEMPORARY BMPs WILL COMMENCE. TEMPORARY BMPs FOR THIS SITE CONSIST OF INLET PROTECTION(S). LOCATIONS FOR A CONCRETE WASHOUT AREA AND TEMPORARY STOCKPILE LOCATION WILL ALSO BE ESTABLISHED. THESE LOCATIONS ARE LIKELY TO BE DIFFERENT THAN WHAT IS SHOWN ON THE PRE-DEVELOPMENT GRADING AND EROSION CONTROL PLAN THAT ACCOMPANIES THIS REPORT. ONCE THESE LOCATIONS HAVE BEEN ESTABLISHED, THEY SHOULD BE ADDED AND DENOTED ON THE COPY OF THE PLAN THAT WILL BE KEPT WITH THE SITE ADMINISTRATOR.

**FINAL**  
 THE FINAL STAGE IS THE INSTALLATION OF PERMANENT BMPs WHERE NO FURTHER DISTURBANCE IS ANTICIPATED. UPON COMPLETION OF THE PERMANENT BMPs AND ALL GRADING ACTIVITIES ARE COMPLETED, ALL DISTURBED AREAS NOT SODDER OR DEVELOPED WILL BE MULCHED AND RESEEDED WITH NATIVE SEED MIX AND MAY BE WATERED UNTIL VEGETATIVE COVER HAS BEEN FULLY RE-INSTATED. AT THIS POINT, THE PERSON RESPONSIBLE FOR INSPECTION AND MAINTENANCE CAN BEGIN TO ADDRESS REQUIREMENTS FOR FINAL STABILIZATION. SEE CONSTRUCTION DETAILS FOR INSTALLATION AND MAINTENANCE.

EL PASO COUNTY FILE NO. SF-20-014

GRADING & EROSION CONTROL PLAN DETAILS  
 CLAREMONT BUSINESS PARK 2 FILING NO. 1  
 JOB NO. 44-037  
 DATE PREPARED: APRIL 28, 2020  
 DATE REVISED: AUGUST 5, 2020



**Straw Bale Barrier (SBB) SC-3**

**Description**

A straw bale barrier is a linear wall of straw bales designed to intercept sheet flow and trap sediment before runoff exits a disturbed area.

**Appropriate Uses**

Appropriate uses of properly installed straw bale barriers may include:

- As a perimeter control for a site or soil stockpile.
- As a sediment control at the toe of an erodible slope.
- Along the edge of a stream or drainage pathway to reduce sediment runoff from entering the waterway.
- As part of an inlet protection design in sump conditions (See Inlet Protection BMP).

Do not use straw bale barriers in areas of concentrated flow or in areas where ponding is not desirable. Straw bales tend to degrade quickly, so they should generally not be used in areas where longer term disturbance is expected.

Due to a history of inappropriate placement, poor installation, and short effective lifespan, the use of straw bales is discouraged or prohibited by some communities.

**Design and Installation**

The maximum recommended tributary drainage area per 100 lineal feet of straw bale barrier is 0.25 acres with a disturbed slope length of up to 150 feet and a tributary slope gradient no steeper than 3:1; longer and steeper slopes require additional measures. Design details with notes are provided in Detail SBB-1. To be effective, bales must be installed in accordance with the design details with proper trenching, staking, and binding. Jute and cotton string must not be used to bind the straw bale. The bales should be certified weed-free prior to use.

**Maintenance and Removal**

Check bales for rotting and replace as necessary. Straw bales degrade, and rotting bales require replacement on a regular basis (as often as every three months) depending on environmental conditions.

Check for undercutting, bypassed flows, and displacement. Repair by properly re-installing the straw bale barrier and repairing washouts around the bales. Remove sediment accumulated behind the bale when it reaches one-quarter of the bale height. Remove and properly dispose of the straw bale once the upstream area has been stabilized. Areas of disturbance beneath the bale should be seeded and mulched when the bale is removed.



Photograph SBB-1. Straw bale barrier used for perimeter control. Photo courtesy of Tom Gore.

Straw Bale Barrier	
Functions	
Erosion Control	No
Sediment Control	Moderate
Site/Material Management	No

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SBB-1

**Sediment Basin (SB) SC-7**

**Description**

A sediment basin is a temporary pond built on a construction site to capture eroded or disturbed soil transported in storm runoff prior to discharge from the site. Sediment basins are designed to capture site runoff and slowly release it to allow time for settling of sediment prior to discharge. Sediment basins are often constructed in locations that will later be modified to serve as post-construction stormwater basins.

**Appropriate Uses**

Most large construction sites (typically greater than 2 acres) will require one or more sediment basins for effective management of construction site runoff. On linear construction projects, sediment basins may be impractical; instead, sediment traps or other combinations of BMPs may be more appropriate.

Sediment basins should not be used as stand-alone sediment controls. Erosion and other sediment controls should also be implemented upstream.

When feasible, the sediment basin should be installed in the same location where a permanent post-construction detention pond will be located.

**Design and Installation**

The design procedure for a sediment basin includes these steps:

- **Basin Storage Volume:** Provide a storage volume of at least 3,600 cubic feet per acre of drainage area. To the extent practical, undisturbed and/or off-site areas should be diverted around sediment basins to prevent "clean" runoff from mixing with runoff from disturbed areas. For undisturbed areas (both on-site and off-site) that cannot be diverted around the sediment basin, provide a minimum of 500 ft<sup>3</sup>/acre of storage for undeveloped (but stable) off-site areas in addition to the 3,600 ft<sup>3</sup>/acre for disturbed areas. For stable, developed areas that cannot be diverted around the sediment basin, storage volume requirements are summarized in Table SB-1.
- **Basin Geometry:** Design basin with a minimum length-to-width ratio of 2:1 (L:W). If this cannot be achieved because of site space constraints, baffling may be required to extend the effective distance between the inflow point(s) and the outlet to minimize short-circuiting.
- **Dam Embankment:** It is recommended that embankment slopes be 4:1 (H:V) or flatter and no steeper than 3:1 (H:V) in any location.



Photograph SB-1. Sediment basin at the toe of a slope. Photo courtesy of W.W.E.

Sediment Basins	
Functions	
Erosion Control	No
Sediment Control	Yes
Site/Material Management	No

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SB-1

**SC-7 Sediment Basin (SB)**

- **Inflow Structure:** For concentrated flow entering the basin, provide energy dissipation at the point of inflow.

Table SB-1. Additional Volume Requirements for Undisturbed and Developed Tributary Areas Draining through Sediment Basins

Imperviousness (%)	Additional Storage Volume (ft <sup>3</sup> ) Per Acre of Tributary Area
Undeveloped	500
10	800
20	1230
30	1600
40	2030
50	2470
60	2980
70	3560
80	4360
90	5300
100	6460

- **Outlet Works:** The outlet pipe shall extend through the embankment at a minimum slope of 0.5 percent. Outlet works can be designed using one of the following approaches:
  - **Riser Pipe (Simplified Detail):** Detail SB-1 provides a simplified design for basins treating no more than 15 acres.
  - **Orifice Plate or Riser Pipe:** Follow the design criteria for Full Spectrum Detention outlets in the EDB Fact Sheet provided in Chapter 4 of this manual for sizing of outlet perforations with an emptying time of approximately 72 hours. In lieu of the trash rack, pack uniformly sized 1½ - to 2-inch gravel in front of the plate or surrounding the riser pipe. This gravel will need to be cleaned out frequently during the construction period as sediment accumulates within it. The gravel pack will need to be removed and disposed of following construction to reclaim the basin for use as a permanent detention facility. If the basin will be used as a permanent extended detention basin for the site, a trash rack will need to be installed once contributing drainage areas have been stabilized and the gravel pack and accumulated sediment have been removed.
  - **Floating Skimmer:** If a floating skimmer is used, install it using manufacturer's recommendations. Illustration SB-1 provides an illustration of a Faircloth Skimmer Floating Outlet™, one of the more commonly used floating skimmer outlets. A skimmer should be designed to release the design volume in no less than 48 hours. The use of a floating skimmer outlet can increase the sediment capture efficiency of a basin significantly. A floating outlet continually decants cleanest water off the surface of the pond and releases cleaner water than would discharge from a perforated riser pipe or plate.

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**Sediment Basin (SB) SC-7**

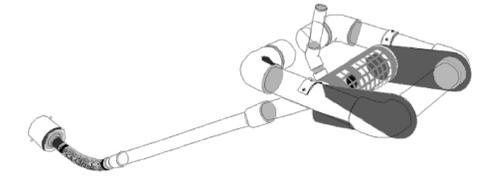


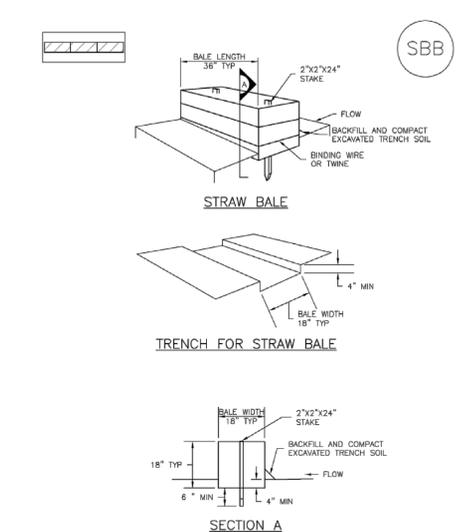
Illustration SB-1. Outlet structure for a temporary sediment basin - Faircloth Skimmer Floating Outlet. Illustration courtesy of J. W. Faircloth & Sons, Inc., FairclothSkimmer.com.

- **Outlet Protection and Spillway:** Consider all flow paths for runoff leaving the basin, including protection at the typical point of discharge as well as overtopping.
  - **Outlet Protection:** Outlet protection should be provided where the velocity of flow will exceed the maximum permissible velocity of the material of the waterway into which discharge occurs. This may require the use of a riprap apron at the outlet location and/or other measures to keep the waterway from eroding.
  - **Emergency Spillway:** Provide a stabilized emergency overflow spillway for rainstorms that exceed the capacity of the sediment basin volume and its outlet. Protect basin embankments from erosion and overtopping. If the sediment basin will be converted to a permanent detention basin, design and construct the emergency spillway(s) as required for the permanent facility. If the sediment basin will not become a permanent detention basin, it may be possible to substitute a heavy polyvinyl membrane or properly bedded rock cover to line the spillway and downstream embankment, depending on the height, slope, and width of the embankments.

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SB-3

**SC-3 Straw Bale Barrier (SBB)**



SB-2 Urban Drainage and Flood Control District  
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November 2010

**SC-7 Sediment Basin (SB)**

**Maintenance and Removal**

Maintenance activities include the following:

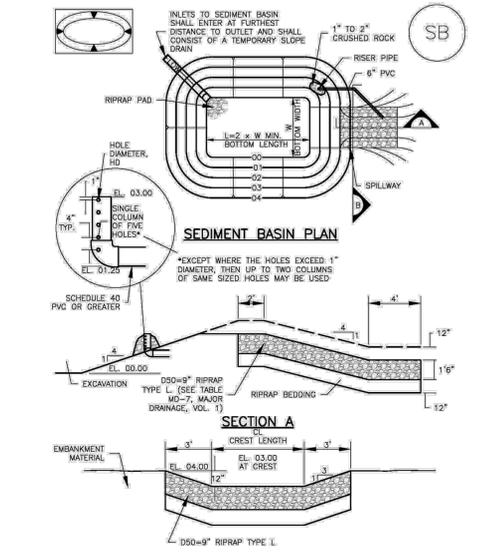
- Dredge sediment from the basin, as needed to maintain BMP effectiveness, typically when the design storage volume is no more than one-third filled with sediment.
- Inspect the sediment basin embankments for stability and seepage.
- Inspect the inlet and outlet of the basin, repair damage, and remove debris. Remove, clean and replace the gravel around the outlet on a regular basis to remove the accumulated sediment within it and keep the outlet functioning.
- Be aware that removal of a sediment basin may require dewatering and associated permit requirements.
- Do not remove a sediment basin until the upstream area has been stabilized with vegetation.

Final disposition of the sediment basin depends on whether the basin will be converted to a permanent post-construction stormwater basin or whether the basin area will be returned to grade. For basins being converted to permanent detention basins, remove accumulated sediment and reconfigure the basin and outlet to meet the requirements of the final design for the detention facility. If the sediment basin is not to be used as a permanent detention facility, fill the excavated area with soil and stabilize with vegetation.

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August 2013

**Sediment Basin (SB) SC-7**



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SB-5

**SC-7 Sediment Basin (SB)**

Upstream Drainage Area (rounded to nearest acre), (ac)	Basin Bottom Width (W), (ft)	Spillway Crest Length (CL), (ft)	Hole Diameter (HD), (in)
1	12 ½	2	¾
2	21	3	¾
3	28	5	¾
4	33 ½	6	¾
5	39 ½	8	¾
6	43	9	¾
7	47 ½	11	¾
8	51	12	¾
9	55	13	¾
10	58 ½	15	¾
11	61	16	¾
12	64	18	¾
13	67 ½	19	1 ¼
14	70 ½	21	1 ¾
15	73 ½	22	1 ¾

- SEDIMENT BASIN INSTALLATION NOTES**
1. SEE PLAN VIEW FOR:
    - LOCATION OF SEDIMENT BASIN.
    - TYPE OF BASIN (STANDARD BASIN OR NONSTANDARD BASIN).
    - FOR STANDARD BASIN, BOTTOM WIDTH W, CREST LENGTH CL, AND HOLE DIAMETER, HD.
    - FOR NONSTANDARD BASIN, SEE CONSTRUCTION DRAWINGS FOR DESIGN OF BASIN INCLUDING RISER HEIGHT H, NUMBER OF COLUMNS N, HOLE DIAMETER HD AND PIPE DIAMETER D.
  2. FOR STANDARD BASIN, BOTTOM DIMENSION MAY BE MODIFIED AS LONG AS BOTTOM AREA IS NOT REDUCED.
  3. SEDIMENT BASINS SHALL BE INSTALLED PRIOR TO ANY OTHER LAND-DISTURBING ACTIVITY THAT RELIES ON BASINS AS A STORMWATER CONTROL.
  4. EMPAKMENT MATERIAL SHALL CONSIST OF SOIL FREE OF DEBRIS, ORGANIC MATERIAL, AND ROCKS OR CONCRETE GREATER THAN 3 INCHES AND SHALL HAVE A MINIMUM OF 15 PERCENT BY WEIGHT PASSING THE NO. 200 SIEVE.
  5. EMPAKMENT MATERIAL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D698.
  6. PIPE SCH 40 OR GREATER SHALL BE USED.
  7. THE DETAILS SHOWN ON THESE SHEETS PERTAIN TO STANDARD SEDIMENT BASIN(S) FOR DRAINAGE AREAS LESS THAN 15 ACRES. SEE CONSTRUCTION DRAWINGS FOR EMPAKMENT, STORAGE VOLUME, SPILLWAY, OUTLET, AND OUTLET PROTECTION DETAILS FOR ANY SEDIMENT BASIN(S) THAT HAVE BEEN INDIVIDUALLY DESIGNED FOR DRAINAGE AREAS LARGER THAN 15 ACRES.

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