

PLANOMETRICS

| | EXISTING | PROPOSED |
|---------------|----------|----------|
| SECTION LINE | --- | --- |
| RIGHT-OF-WAY | --- | --- |
| PARCEL LINE | --- | --- |
| EASEMENT LINE | --- | --- |
| BOUNDARY LINE | --- | --- |
| CENTER LINE | --- | --- |

CONSTRUCTION

| | EXISTING | PROPOSED |
|---------------------------|----------|----------|
| C&G | --- | --- |
| EDGE OF ASPHALT | --- | --- |
| CONCRETE | --- | --- |
| SIDE WALK | --- | --- |
| CROSS PAN | --- | --- |
| PARKING LOT STRIPING | --- | --- |
| ROADWAY STRIPING - DHASED | --- | --- |
| ROADWAY STRIPING - DOTTED | --- | --- |
| GUARDRAIL | --- | --- |
| FENCE | --- | --- |
| SOUNDWALL | --- | --- |
| DEMO | --- | --- |
| GRAVEL | --- | --- |
| RIPRAP | --- | --- |
| DIRT | --- | --- |
| TRAIL/PATH | --- | --- |
| RAIL LINE | --- | --- |

GRADING

| | EXISTING | PROPOSED |
|-----------------------|----------|----------|
| CONTOUR INTERMEDIATE | --- | --- |
| CONTOUR INDEX | --- | --- |
| TOP OF SLOPE | --- | --- |
| TOE OF SLOPE | --- | --- |
| CUT/FILL BOUNDARY | --- | --- |
| LIMITS OF GRADING | --- | --- |
| LIMITS OF DISTURBANCE | --- | --- |

UTILITIES

| | EXISTING | PROPOSED |
|---------------------------|----------|----------|
| SANITARY SEWER | --- | --- |
| SANITARY SEWER SERVICE | --- | --- |
| POTABLE WATER MAIN | --- | --- |
| POTABLE WATER SERVICE | --- | --- |
| RAW WATER MAIN | --- | --- |
| IRRIGATION MAIN | --- | --- |
| SANITARY FORCE MAIN | --- | --- |
| UNDER-DRAIN | --- | --- |
| GAS PIPE | --- | --- |
| HIGH PRESSURE GAS | --- | --- |
| OIL/PETROLEUM LINE | --- | --- |
| UNDER-GROUND | --- | --- |
| OVER-HEAD ELECTRIC | --- | --- |
| FIBER OPTIC | --- | --- |
| COMMUNICATION LINES MISC. | --- | --- |
| STORM PIPE | --- | --- |
| HGL MINOR | --- | --- |
| HGL MAJOR | --- | --- |

DRAINAGE

| | EXISTING | PROPOSED |
|----------------------------|----------|----------|
| BASE FLOOD ELEVATION | --- | --- |
| 100-YR FLOOD PLAIN | --- | --- |
| 500-YR FLOOD PLAIN | --- | --- |
| FLOODWAY | --- | --- |
| SWALE/DITCH | --- | --- |
| THALWEG (STREAM/CREEK) | --- | --- |
| LIMITS OF WETLANDS | --- | --- |
| EDGE OF WATER | --- | --- |
| SILT FENCE | --- | --- |
| CONSTRUCTION FENCE/MARKERS | --- | --- |

UTILITY SYMBOLS

| | EXISTING | PROPOSED |
|---------------------|----------|----------|
| STORM SEWER | ⊙ | ● |
| MANHOLE | ⊙ | ● |
| STORM INLET | □ | ■ |
| AREA INLET - SQUARE | □ | ■ |
| AREA INLET - ROUND | ○ | ● |
| FLARED END SECTION | ▷ | ▷ |

TRAFFIC

| | EXISTING | PROPOSED |
|-----------------------|----------|----------|
| TRAFFIC SIGNAL BOX | ⊠ | ⊠ |
| TRAFFIC SIGNAL POLE | ⊠ | ⊠ |
| SIGN | ⊠ | ⊠ |
| STREET LIGHT | ⊙ | ⊙ |
| STREET LIGHT - SINGLE | ⊙ | ⊙ |
| STREET LIGHT - DOUBLE | ⊙ | ⊙ |
| LUMINAIRE | ⊙ | ⊙ |

LANDSCAPE

| | EXISTING | PROPOSED |
|----------------------|----------|----------|
| TREE - CONIFEROUS | ⊙ | ⊙ |
| TREE - DECIDUOUS | ⊙ | ⊙ |
| SHRUB/BUSH | ⊙ | ⊙ |
| SHRUBS AND BUSHES | ⊙ | ⊙ |
| IRRIGATION BOX | ⊙ | ⊙ |
| IRRIGATION SPRINKLER | ⊙ | ⊙ |
| IRRIGATION VALVE | ⊙ | ⊙ |
| BOLLARD | ⊙ | ⊙ |
| FLAGPOLE | ⊙ | ⊙ |

UTILITY SYMBOLS

| | EXISTING | PROPOSED |
|-----------------|----------------------|----------|
| SANITARY | | |
| LINE MARKER | Mkr San ^o | |
| SERVICE MARKER | ⊙ | ● |
| CLEAN-OUT | ⊙ | ● |
| MANHOLE | ⊙ | ● |

| | EXISTING | PROPOSED |
|-----------------------------|--------------------|----------|
| WATER | | |
| LINE MARKER | Mkr W ^o | |
| SERVICE MARKER | ⊙ | ● |
| FIRE HYDRANT | ⊙ | ● |
| FIRE CONNECTION | ⊙ | ● |
| MANHOLE | ⊙ | ● |
| BEND | ⊙ | ● |
| BLOW-OFF VALVE | ⊙ | ● |
| WELL | ⊙ | ● |
| METER | ⊙ | ● |
| VALVE | ⊙ | ● |
| REDUCER | ⊙ | ● |
| THRUST BLOCK | ⊙ | ● |
| CROSS | ⊙ | ● |
| PLUG W/ THRUST BLOCK | ⊙ | ● |
| TEE | ⊙ | ● |
| REVERSE ANCHOR | ⊙ | ● |
| ANODE | ⊙ | ● |
| AIR & VACUUM VALVE ASSEMBLY | ⊙ | ● |

| | EXISTING | PROPOSED |
|----------------|--------------------|----------|
| GAS | | |
| MARKER | Mkr G ^o | |
| SERVICE MARKER | ⊙ | ● |
| METER | ⊙ | ● |

| | EXISTING | PROPOSED |
|---------------------------|---------------------|----------|
| DRY UTILITIES | | |
| CABLE TV MARKER | Mkr TV ^o | |
| CABLE TELEVISION PEDESTAL | ⊙ | ● |
| ELECTRIC MARKER | Mkr E ^o | |
| ELECTRIC SERVICE MARKER | ⊙ | ● |
| ELECTRICAL PEDESTAL | ⊙ | ● |
| ELECTRICAL METER | ⊙ | ● |
| ELECTRICAL MANHOLE | ⊙ | ● |
| FIBER-OPTIC MARKER | Mkr FO ^o | |
| IRRIGATION PEDESTAL | ⊙ | ● |
| TELEPHONE MARKER | Mkr T ^o | |
| TELEPHONE PEDESTAL | ⊙ | ● |
| TELEPHONE MANHOLE | ⊙ | ● |
| UTILITY POLE | ⊙ | ● |
| GUY ANCHOR | ⊙ | ● |
| GUY POLE | ⊙ | ● |

| | EXISTING | PROPOSED |
|------------------------|----------|----------|
| MISC. UTILITIES | | |
| VENT PIPE | ⊙ | ● |
| TEST HOLE DESIGNATOR | ⊙ | ● |



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7280 NEVADA LN
 LEGEND

REB
 NOJ
 DATE: 8/12/2024
 H-SCALE: N/A
 V-SCALE: N/A

SHEET
 2 OF 6



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

Table TS/PS-3. Seeding Dates for Annual and Perennial Grasses

| Seeding Dates | Annual Grasses (Numbers in table reference species in Table TS/PS-1) | | Perennial Grasses | |
|--------------------------|---|-----------|-------------------|------|
| | Warm | Cool | Warm | Cool |
| January 1-March 15 | | | ✓ | ✓ |
| March 16-April 30 | 4 | 1,2,3 | ✓ | ✓ |
| May 1-May 15 | 4 | | ✓ | |
| May 16-June 30 | 4,5,6,7 | | | |
| July 1-July 15 | 5,6,7 | | | |
| July 16-August 31 | | | | |
| September 1-September 30 | | 8,9,10,11 | | |
| October 1-December 31 | | | ✓ | ✓ |

Mulch

Cover seeded areas with mulch or an appropriate rolled erosion control product to promote establishment of vegetation. Anchor mulch by crimping, netting or use of a non-toxic tackifier. See the Mulching BMP Fact Sheet for additional guidance.

Maintenance and Removal

Monitor and observe seeded areas to identify areas of poor growth or areas that fail to germinate. Reseed and mulch these areas, as needed.

An area that has been permanently seeded should have a good stand of vegetation within one growing season if irrigated and within three growing seasons without irrigation in Colorado. Reseed portions of the site that fail to germinate or remain bare after the first growing season.

Seeded areas may require irrigation, particularly during extended dry periods. Targeted weed control may also be necessary.

Protect seeded areas from construction equipment and vehicle access.

TS/PS-6 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 June 2012

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. Mulching helps reduce erosion by protecting bare soil from rainfall impact, increasing infiltration, and reducing runoff. Although often applied in conjunction with temporary or permanent seeding, it can also be used for temporary stabilization of areas that cannot be reseeded due to seasonal constraints.



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. Disturbed areas should be properly mulched and tacked, or seeded, mulched and tacked promptly after final grade is reached (typically within no longer than 14 days) on portions of the site not otherwise permanently stabilized.

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

EC-4 Mulching (MU)

Clean, weed-free and seed-free cereal grain straw should be applied evenly at a rate of 2 tons per acre and must be tacked or fastened by a method suitable for the condition of the site. Straw mulch must be anchored (and not merely placed) on the surface. This can be accomplished mechanically by crimping or with the aid of tackifiers or nets. Anchoring with a crimping implement is preferred, and is the recommended method for areas flatter than 3:1. Mechanical crimpers must be capable of tucking the long mulch fibers into the soil to a depth of 3 inches without cutting them. An agricultural disk, while not an ideal substitute, may work if the disk blades are dull or blunted and set vertically; however, the frame may have to be weighted to afford proper soil penetration.

Grass hay may be used in place of straw; however, because hay is comprised of the entire plant including seed, mulching with hay may seed the site with non-native grass species which might in turn out-compete the native seed. Alternatively, native species of grass hay may be purchased, but can be difficult to find and are more expensive than straw. Purchasing and utilizing a certified weed-free straw is an easier and less costly mulching method. When using grass hay, follow the same guidelines as for straw (provided above).

On small areas sheltered from the wind and heavy runoff, spraying a tackifier on the mulch is satisfactory for holding it in place. For steep slopes and special situations where greater control is needed, erosion control blankets anchored with stakes should be used instead of mulch.

Hydraulic mulching consists of wood cellulose fibers mixed with water and a tackifying agent and should be applied at a rate of no less than 1,500 pounds per acre (1,425 lbs of fibers mixed with at least 75 lbs of tackifier) with a hydraulic mulcher. For steeper slopes, up to 2000 pounds per acre may be required for effective hydrosceding. Hydromulch typically requires up to 24 hours to dry; therefore, it should not be applied immediately prior to inclement weather. Application to roads, waterways and existing vegetation should be avoided.

Erosion control mats, blankets, or nets are recommended to help stabilize steep slopes (generally 3:1 and steeper) and waterways. Depending on the product, these may be used alone or in conjunction with grass or straw mulch. Normally, use of these products will be restricted to relatively small areas. Biodegradable mats made of straw and jute, straw-coconut, coconut fiber, or excelsior can be used instead of mulch. (See the ECM/TRM BMP for more information.)

Some tackifiers or binders may be used to anchor mulch. Check with the local jurisdiction for allowed tackifiers. Manufacturer's recommendations should be followed at all times. (See the Soil Binder BMP for more information on general types of tackifiers.)

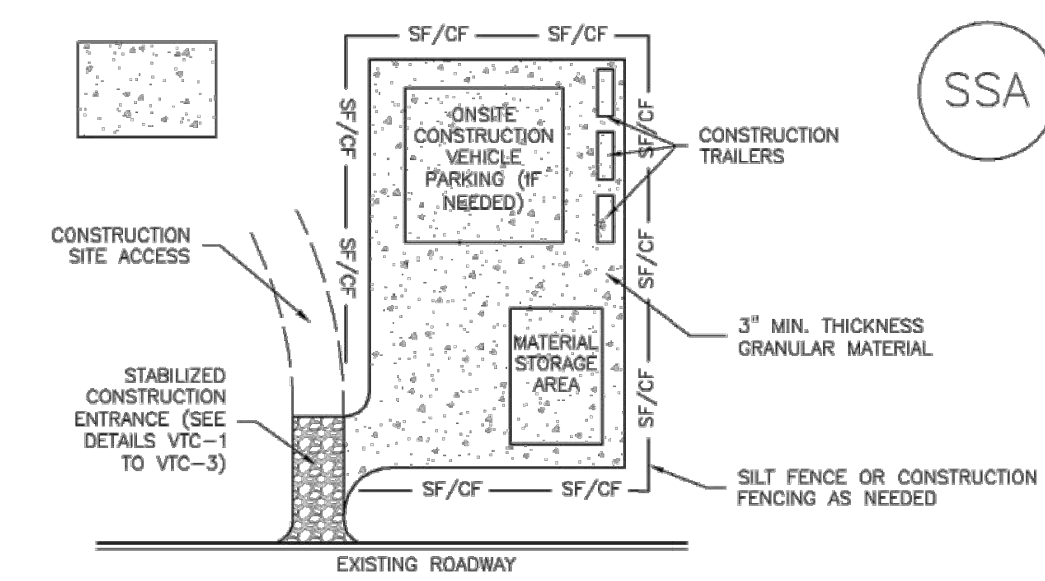
Rock can also be used as mulch. It provides protection of exposed soils to wind and water erosion and allows infiltration of precipitation. An aggregate base course can be spread on disturbed areas for temporary or permanent stabilization. The rock mulch layer should be thick enough to provide full coverage of exposed soil on the area it is applied.

Maintenance and Removal

After mulching, the bare ground surface should not be more than 10 percent exposed. Reapply mulch, as needed, to cover bare areas.

MU-2 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 June 2012

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). CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.

2. STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.

3. STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.

4. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.

5. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.

6. ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.

STABILIZED STAGING AREA MAINTENANCE NOTES

1. 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.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. 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

SM-6 Stabilized Staging Area (SSA)

STABILIZED STAGING AREA MAINTENANCE NOTES

5. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.

6. 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, SEEDS AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.

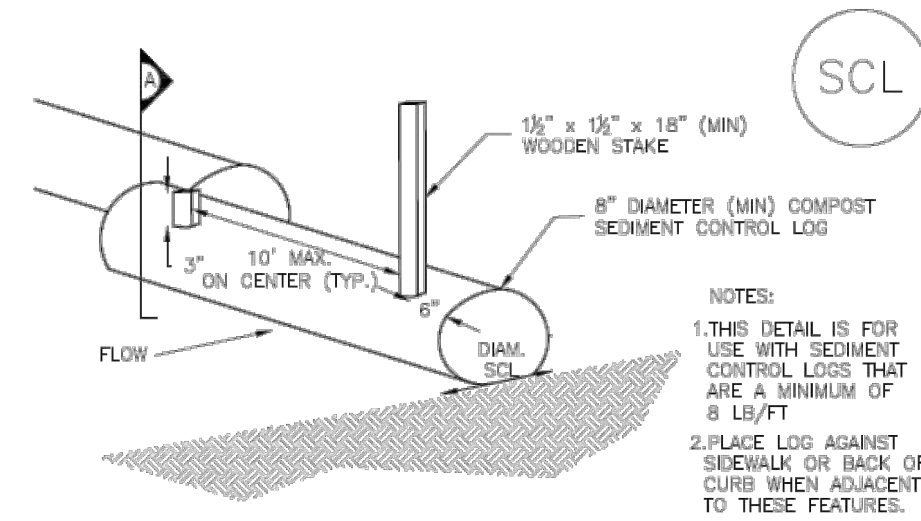
NOTE: MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE-ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.

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.

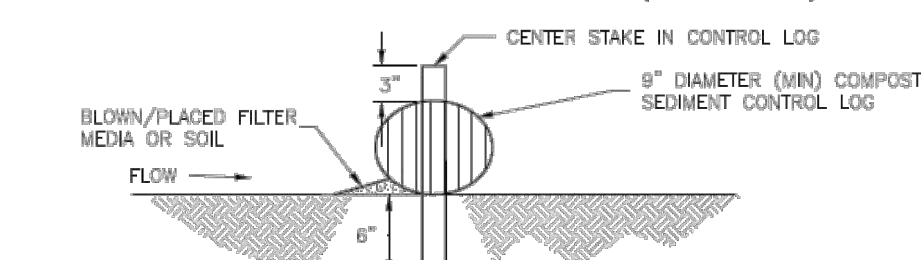
(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)

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

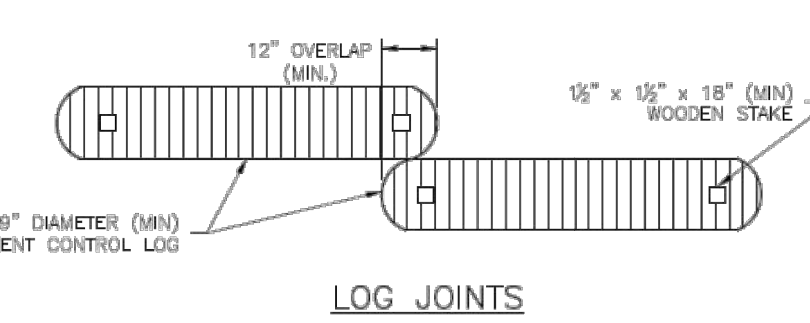
SC-2 Sediment Control Log (SCL)



COMPOST SEDIMENT CONTROL LOG (WEIGHTED)



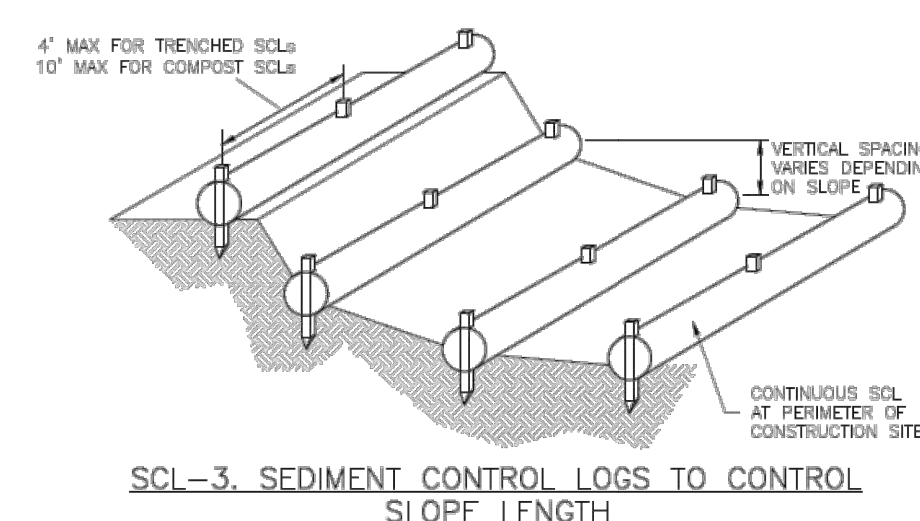
SECTION A
COMPOST SEDIMENT CONTROL LOG



LOG JOINTS
SCL-2. COMPOST SEDIMENT CONTROL LOG (WEIGHTED)

SCL-4 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 November 2015

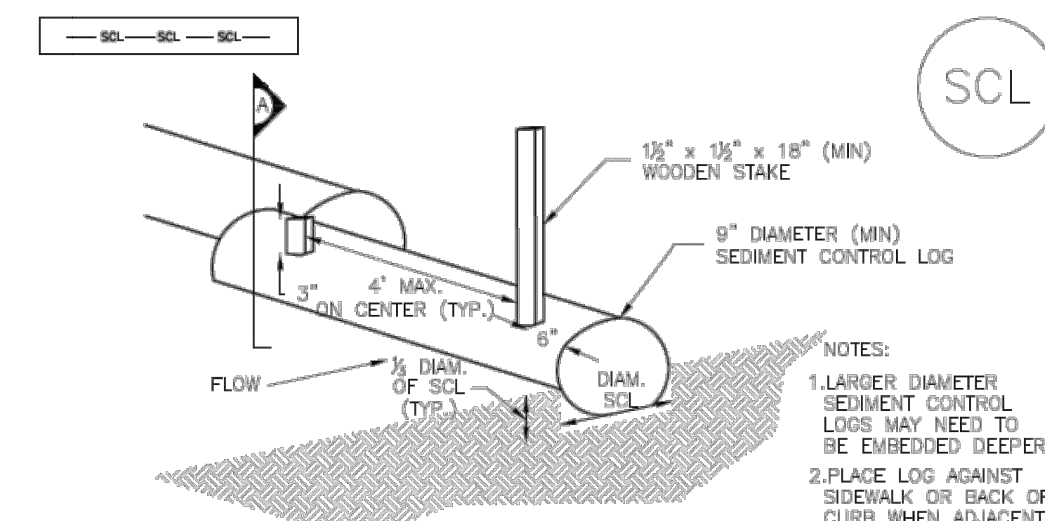
SC-2 Sediment Control Log (SCL)



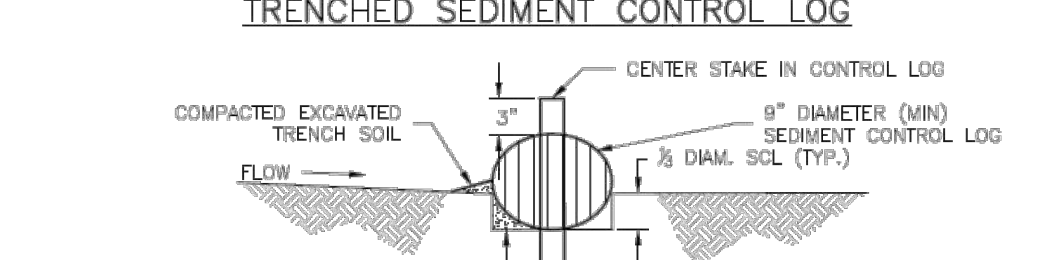
SCL-3. SEDIMENT CONTROL LOGS TO CONTROL SLOPE LENGTH

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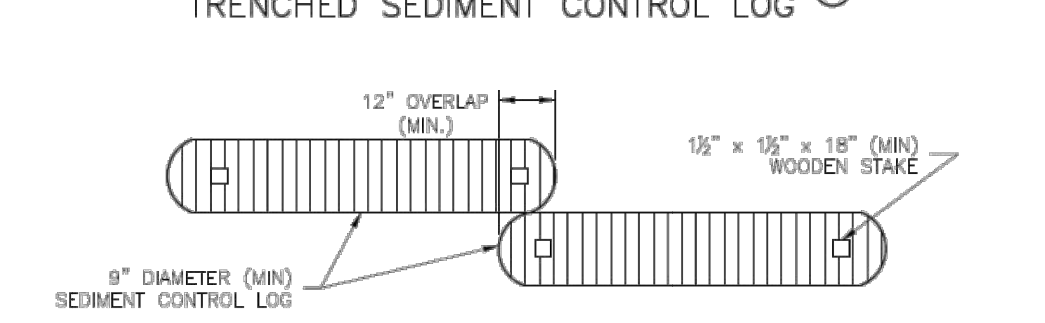
SC-2 Sediment Control Log (SCL)



TRENCHED SEDIMENT CONTROL LOG



SECTION A
TRENCHED SEDIMENT CONTROL LOG



LOG JOINTS
SCL-1. TRENCHED SEDIMENT CONTROL LOG

November 2015 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 SCL-3



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JOB NO: 24020 LOCATION: EL PASO COUNTY
7280 NEVADA LN
GEC DETAILS

DESIGN: REB
REVIEW: NOJ
DATE: 8/12/2024
H-SCALE: N/A
V-SCALE: N/A
SHEET 5 OF 6

ENGINEER'S STATEMENT
PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF ALL TERRAIN ENGINEERING
8/12/24
54412
R.E.B.
RYAN E. BURNS
COLORADO P.E. 54412
FOR AND ON BEHALF OF ALL TERRAIN ENGINEERING, LLC

