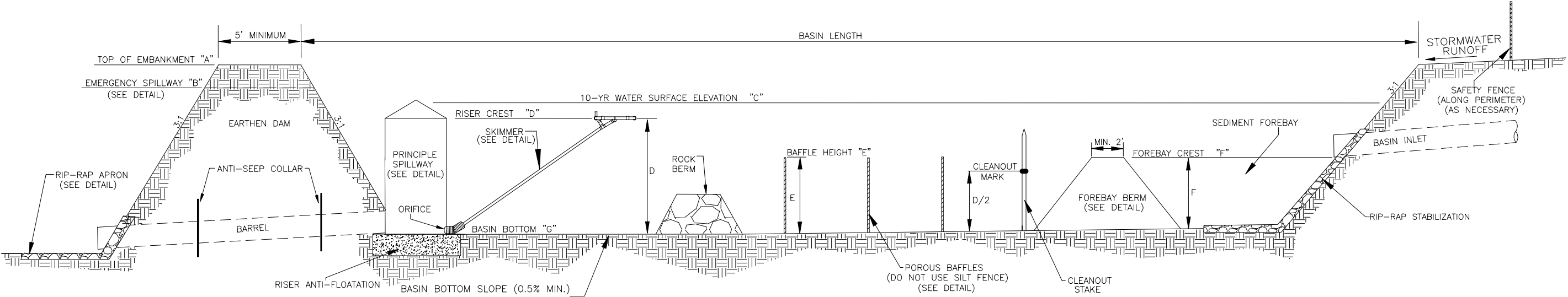

APPENDIX H

SEDIMENT CONTROL STANDARD DETAILS

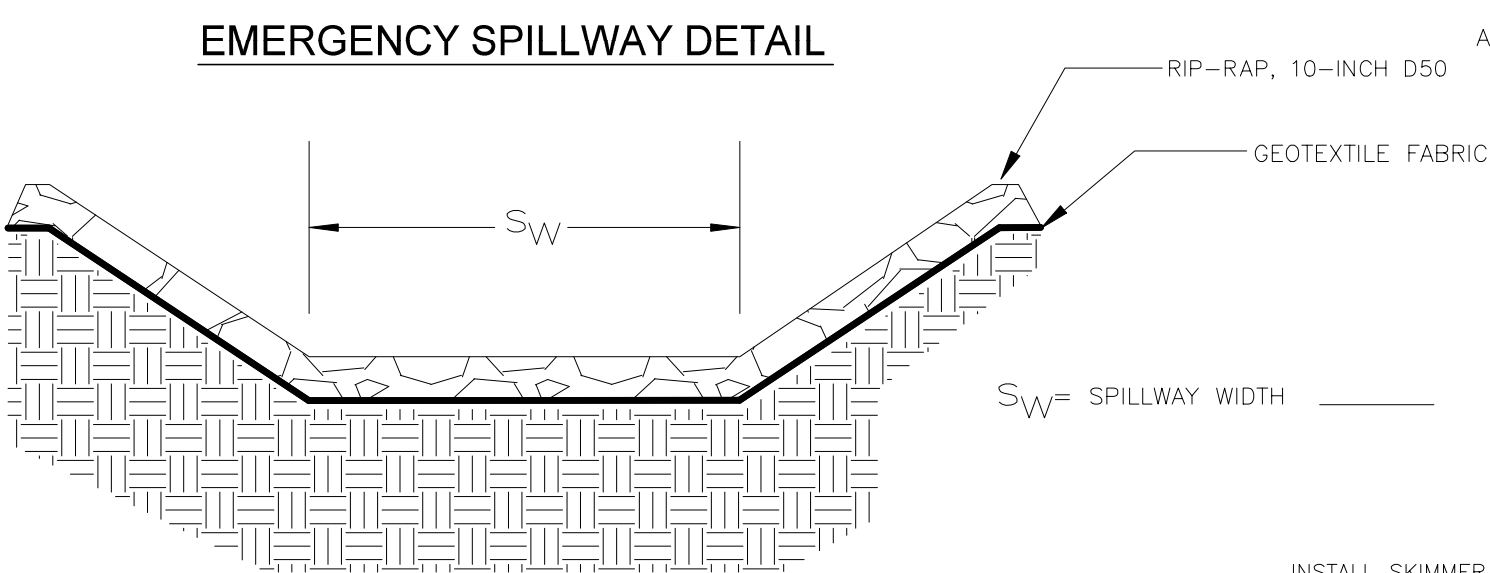
Standard Details

| <u>No.</u> | <u>Description</u> |
|------------|---|
| SC-01 | Dry Sediment Basin (3 Pages) |
| SC-01A | Wet Sediment Basin (3 Pages) |
| SC-02 | Sediment Trap (2 Pages) |
| SC-03 | Silt Fence (2 Pages) |
| SC-04 | Rock Ditch Check (2 Pages) |
| SC-05 | Sediment Tube (2 Pages) |
| SC-06 | Stabilized Construction Entrance (2 Pages) |
| SC-06A | Individual Residential Lot Stabilized Construction Entrance (2 Pages) |
| SC-07 | Type A – Filter Fabric Inlet Protection (2 Pages) |
| SC-07A | Type A – Sediment Tube Inlet Protection (2 Pages) |
| SC-08 | Type B – Wire Mesh and Stone Inlet Protection (2 Pages) |
| SC-09 | Type C – Block and Gravel Drop Inlet Protection (2 Pages) |
| SC-10 | Type E – Surface Course Curb Inlet Filters (2 Pages) |
| SC-11 | Type F – Inlet Tubes (2 Pages) |
| SC-12 | Rock Sediment Dike (2 Pages) |
| SC-13 | Porous Baffles (2 Pages) |
| SC-14 | Silt Fence Rock Outlet |
| SC-15 | Temporary Stockpile Area |

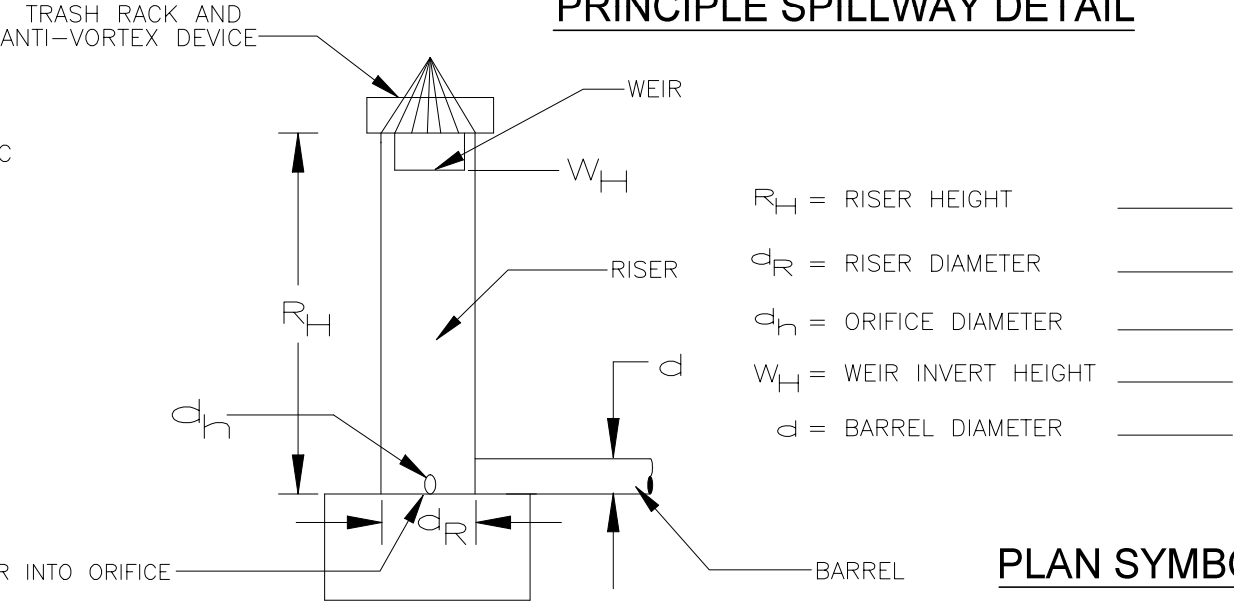
DRY SEDIMENT BASIN SECTIONAL VIEW



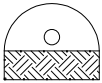
EMERGENCY SPILLWAY DETAIL



PRINCIPLE SPILLWAY DETAIL



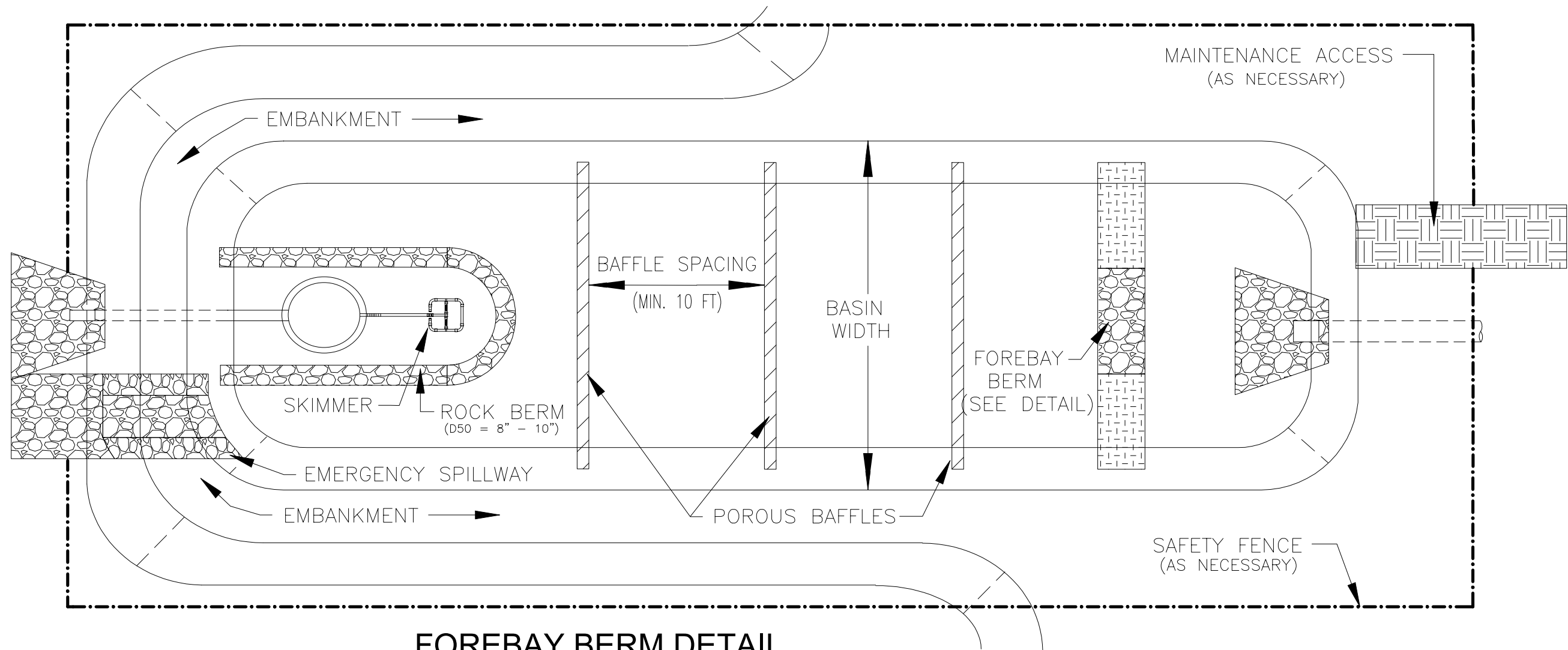
PLAN SYMBOL



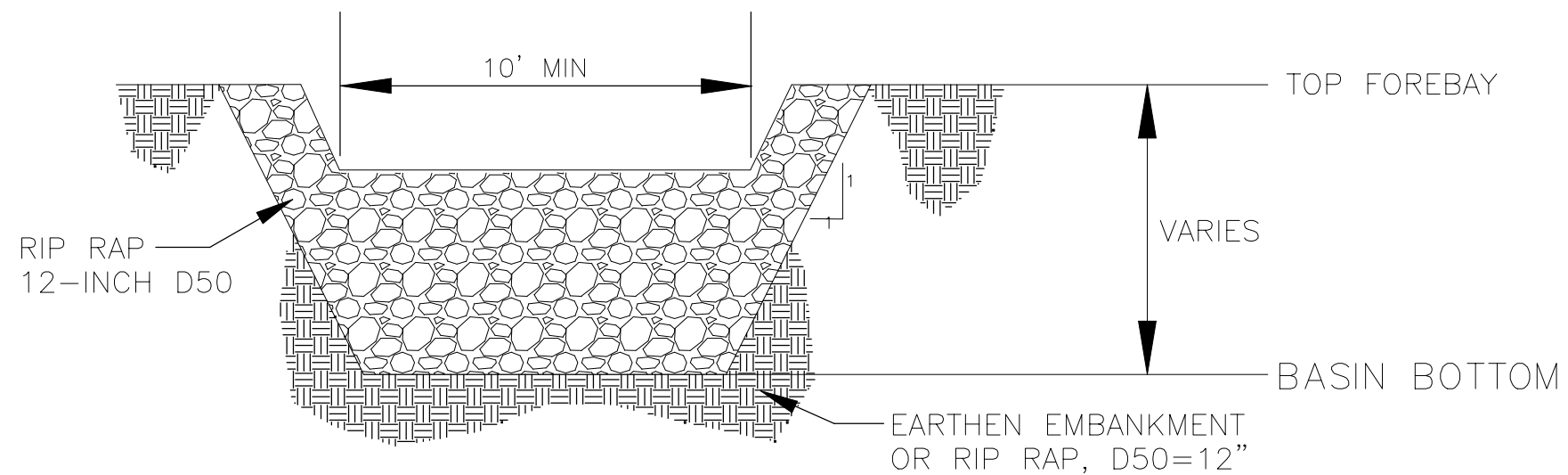
SEDIMENT BASIN DESIGN TABLE

| Sediment Basin Number/Name | "A" | "B" | "C" | "D" | "E" | "F" | "G" | Skimmer Size (in.) | Skimmer Orifice (in.) | Skimmer Daily Discharge Capacity (FT ³ /DAY) | Skimmer Average Discharge Rate (CFS) | Dewatering Time (Days) | No. of Skimmers |
|----------------------------|-----|-----|-----|-----|-----|-----|-----|--------------------|-----------------------|---|--------------------------------------|------------------------|-----------------|
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DRY SEDIMENT BASIN PLAN VIEW



FOREBAY BERM DETAIL



South Carolina Department of
Health and Environmental Control

DRY SEDIMENT BASIN

STANDARD DRAWING NO. SC-01 Page 2 of 3

NOT TO SCALE FEBRUARY 2014
DATE

DRY SEDIMENT BASIN – GENERAL NOTES

1. Sediment basins should not be placed in Waters of the State or USGS blue–line streams (unless approved by Federal Authorities).
2. Sediment basin’s side slopes shall be seeded and, when necessary, stabilized with vegetative or synthetic matting to prevent the formation of rills and gullies.
3. Install three (3) rows of porous baffles with a minimum spacing of 10 feet. Baffles should ultimately be placed to maximize the space between each row of baffles and the basin’s inlets/outlets. Only two (2) rows of baffles are necessary for basins that are less than 50 feet in length.
4. Porous Baffles should be composed of coir–based materials or TRMs with a light penetration (open spaces) between 10–35%. These materials should not have loose straw. Silt Fence may not be used as Porous Baffles.
5. Each porous baffles shall be installed across the entire width of the basin and along the basin’s side slope until the height of the baffle intersects the slope.
6. Install skimmer and coupling (as necessary) to riser structure at orifice along bottom of the principle spillway’s riser structure. (Refer to skimmer manufacturer for installation procedures and skimmer specifications.)
7. Skimmer should be equipped with a mechanism, such as a rope, to allow easy access to skimmer to unclogged orifice or perform other necessary maintenance.
8. Stormwater runoff entering the basin must be directed into proper BMPs to prevent erosion along side slopes and to prevent scour at the basin’s inlets.
9. The forebay berm should consist of riprap, gabion, or an earthen berm with a rock filled outlet that is constructed across the bottom of the basin’s width.
10. An additional cleanout stake for the forebay area is recommended and should be marked for cleanout at 50% of provided sediment storage.
11. The elevation of the emergency spillway should be at least 1 foot below the top of the embankment. The emergency spillway should not be located on fill material, when possible. Riprap and geotextile liner should be placed on all spillways that must be located on fill material.

DRY SEDIMENT BASIN – INSPECTION AND MAINTENANCE

1. The key to a functional sediment basin is weekly inspections, routine maintenance, and regular sediment removal.
2. Attention to sediment accumulations within the basin is extremely important. Accumulated sediment deposition should be continually checked and removed when necessary.
3. Remove accumulated sediment when it reaches 50% of the design sediment storage volume or 1/2 the height of the riser structure, whichever is reached first.
4. Removed sediment from the basin shall be placed in stockpile storage areas or spread thinly across the disturbed area. Stabilize the removed sediment after it is relocated.
5. Inspections of sediment basins should be conducted once every calendar week and, as recommended, within 24–hours of each rainfall event that produces ½–inch or more of precipitation.
6. All temporary sediment basins, which are not to be converted to a detention basin post–construction, should be removed within 30 days after final site stabilization is achieved.
7. Disturbed areas resulting from the removal of the sediment basin should be permanently stabilized and additional BMPs, such as silt fence, should be utilized to accept stormwater runoff from this disturbed area until final stabilization is reached.

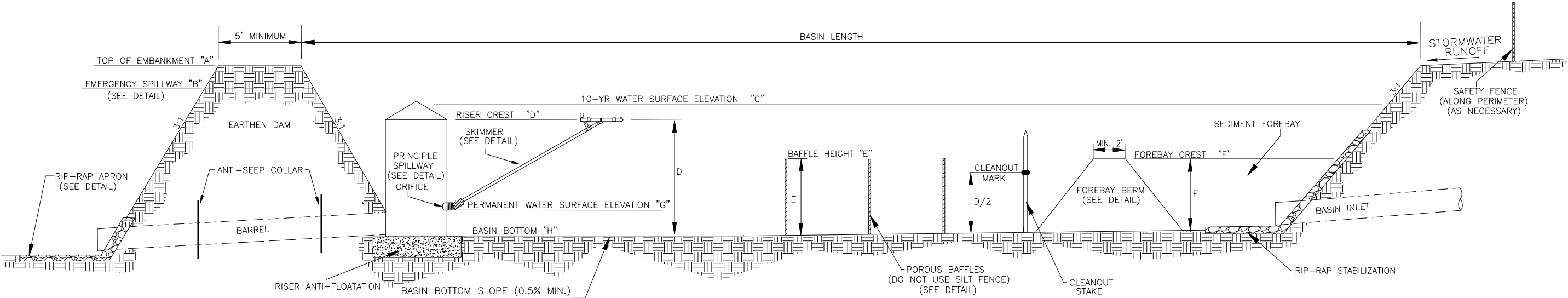
South Carolina Department of
Health and Environmental Control

DRY SEDIMENT BASIN

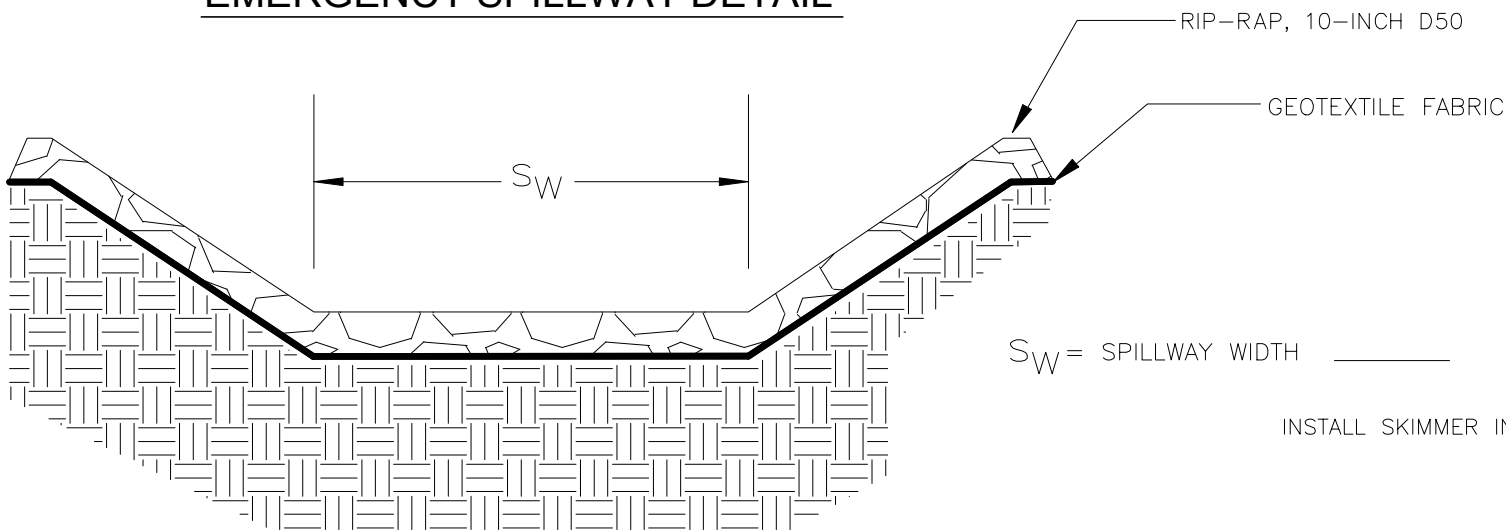
STANDARD DRAWING NO. SC-01 Page 3 of 3

GENERAL NOTES FEBRUARY 2014
DATE

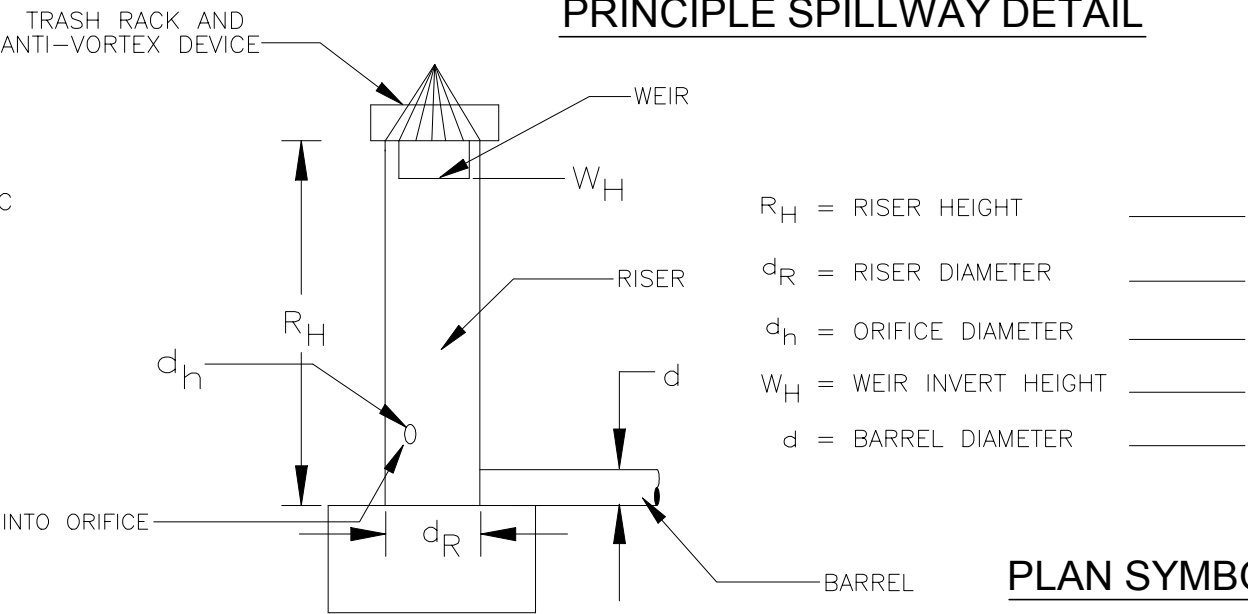
WET SEDIMENT BASIN SECTIONAL VIEW



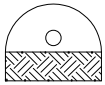
EMERGENCY SPILLWAY DETAIL



PRINCIPLE SPILLWAY DETAIL



PLAN SYMBOL



SEDIMENT BASIN DESIGN TABLE

| Sediment Basin Name/Number | "A" | "B" | "C" | "D" | "E" | "F" | "G" | "H" | Skimmer Size (in.) | Skimmer Orifice (in.) | Skimmer Daily Discharge Capacity (FT ³ /DAY) | Skimmer Average Discharge Rate (CFS) | Dewatering Time (Days) | No. of Skimmers |
|----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|--------------------|-----------------------|---|--------------------------------------|------------------------|-----------------|
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South Carolina Department of Health and Environmental Control

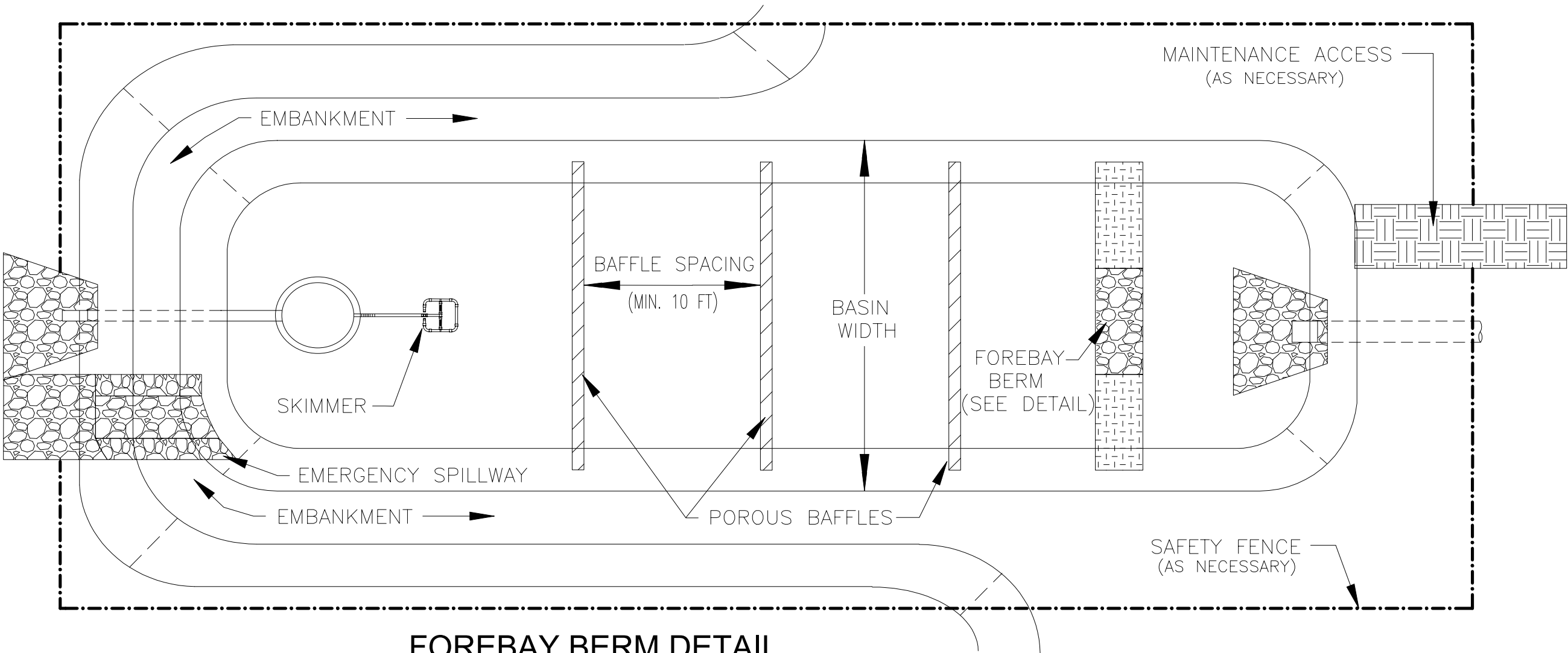
WET SEDIMENT BASIN

STANDARD DRAWING NO. SC-01A Page 1 of 3

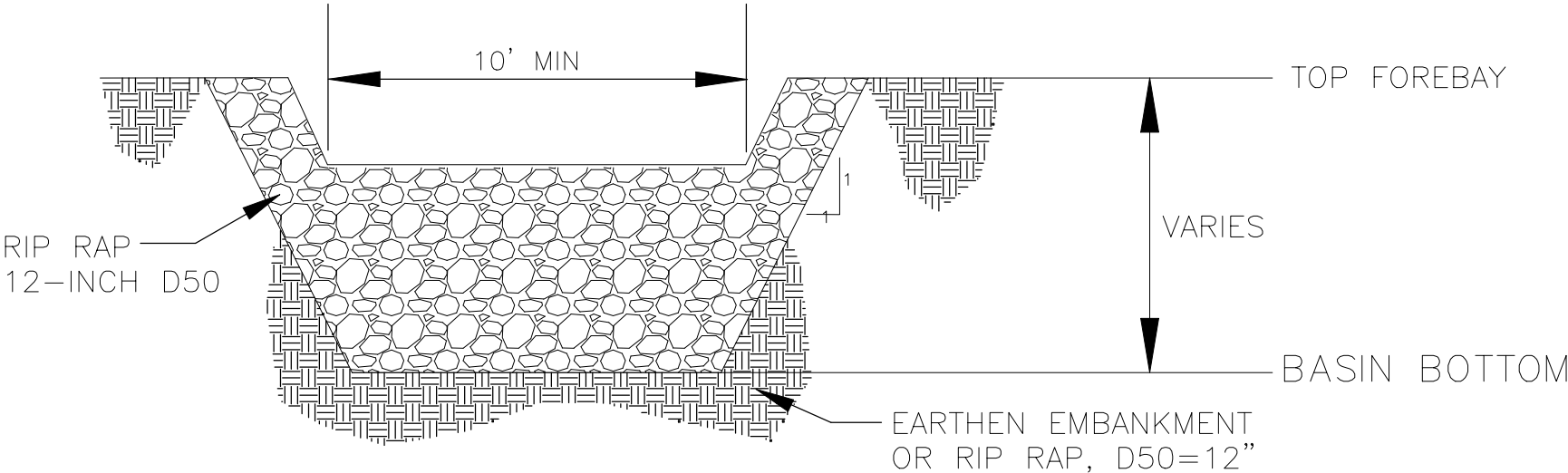
NOT TO SCALE

FEBRUARY 2014
DATE

WET SEDIMENT BASIN PLAN VIEW



FOREBAY BERM DETAIL



South Carolina Department of
Health and Environmental Control

WET SEDIMENT BASIN

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DATE

WET SEDIMENT BASIN – GENERAL NOTES

- 1. Sediment basins should not be placed in Waters of the State or USGS blue–line streams (unless approved by Federal Authorities).
- 2. Sediment basin’s side slopes shall be seeded and, when necessary, stabilized with vegetative or synthetic matting to prevent the formation of rills and gullies.
- 3. Install three (3) rows of porous baffles with a minimum spacing of 10 feet. Baffles should ultimately be placed to maximize the space between each row of baffles and the basin’s inlets/outlets. Only two (2) rows of baffles are necessary for basins that are less than 50 feet in length.
- 4. Porous Baffles should be composed of coir–based materials or TRMs with a light penetration (open spaces) between 10–35%. These materials should not have loose straw. Silt Fence may not be used as Porous Baffles.
- 5. Each porous baffles shall be installed across the entire width of the basin and along the basin’s side slope until the height of the baffle intersects the slope.
- 6. Install skimmer and coupling (as necessary) to riser structure at orifice along bottom of the principle spillway’s riser structure. (Refer to skimmer manufacturer for installation procedures and skimmer specifications.)
- 7. Skimmer should be equipped with a mechanism, such as a rope, to allow easy access to skimmer to unclogged orifice or perform other necessary maintenance.
- 8. Stormwater runoff entering the basin must be directed into proper BMPs to prevent erosion along side slopes and to prevent scour at the basin’s inlets.
- 9. The forebay berm should consist of riprap, gabion, or an earthen berm with a rock filled outlet that is constructed across the bottom of the basin’s width.
- 10. An additional cleanout stake for the forebay area is recommended and should be marked for cleanout at 50% of provided sediment storage.
- 11. The elevation of the emergency spillway should be at least 1 foot below the top of the embankment. The emergency spillway should not be located on fill material, when possible. Riprap and geotextile liner should be placed on all spillways that must be located on fill material.

WET SEDIMENT BASIN – INSPECTION AND MAINTENANCE

- 1. The key to a functional sediment basin is weekly inspections, routine maintenance, and regular sediment removal.
- 2. Attention to sediment accumulations within the basin is extremely important. Accumulated sediment deposition should be continually checked and removed when necessary.
- 3. Remove accumulated sediment when it reaches 50% of the design sediment storage volume or 1/2 the height of the riser structure, whichever is reached first.
- 4. Removed sediment from the basin shall be placed in stockpile storage areas or spread thinly across the disturbed area. Stabilize the removed sediment after it is relocated.
- 5. Inspections of sediment basins should be conducted once every calendar week and, as recommended, within 24–hours of each rainfall event that produces ½–inch or more of precipitation.
- 6. All temporary sediment basins, which are not to be converted to a detention basin post–construction, should be removed within 30 days after final site stabilization is achieved.
- 7. Disturbed areas resulting from the removal of the sediment basin should be permanently stabilized and additional BMPs, such as silt fence, should be utilized to accept stormwater runoff from this disturbed area until final stabilization is reached.

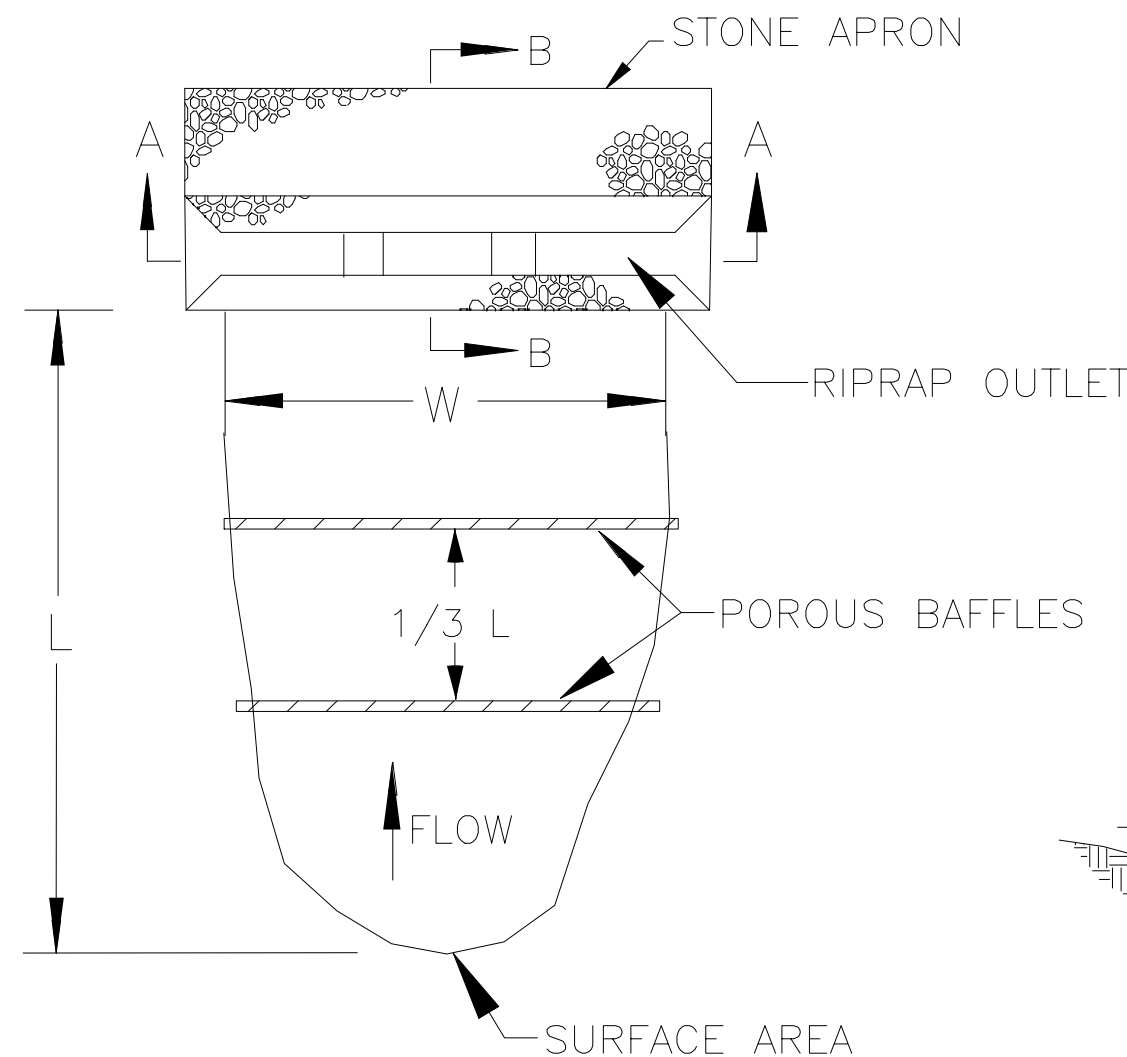
South Carolina Department of
Health and Environmental Control

WET SEDIMENT BASIN

STANDARD DRAWING NO. SC–01A Page 3 of 3

GENERAL NOTES FEBRUARY 2014
DATE

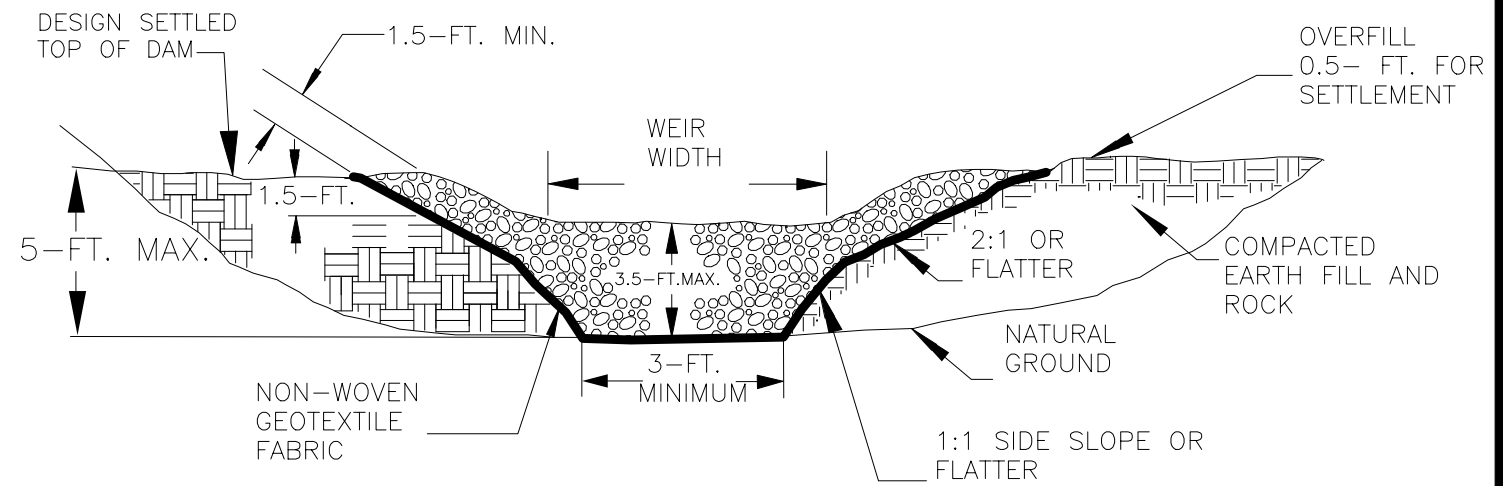
SEDIMENT TRAP PLAN VIEW



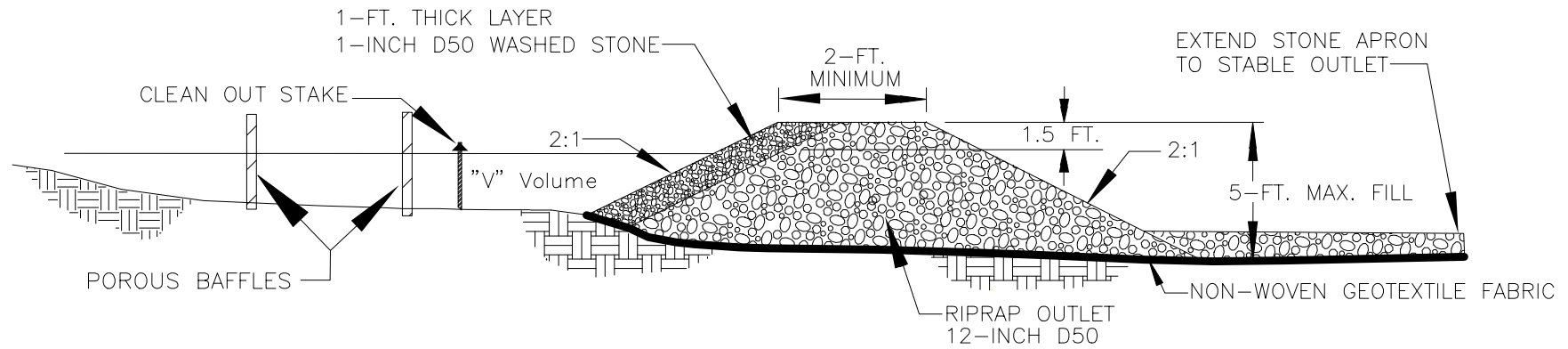
SECTION A - A DIMENSIONS

| Trap # | Riprap Outlet Height | Riprap Bottom Width | Riprap Top Width | Side Slopes | Embankment Height |
|--------|----------------------|---------------------|------------------|-------------|-------------------|
| | | | | | |
| | | | | | |
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SECTION A - A



SECTION B - B



SECTION B - B DIMENSIONS

| Trap # | Riprap Bottom Length | Riprap Top Length | Side Slopes | Stone Apron Length | "V" Volume |
|--------|----------------------|-------------------|-------------|--------------------|------------|
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PLAN SYMBOL



South Carolina Department of
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SEDIMENT TRAP

STANDARD DRAWING NO. SC-02 Page 1 of 2

NOT TO SCALE

FEBRUARY 2014
DATE

SEDIMENT TRAP – GENERAL NOTES

- 1. Sediment traps should not be placed in Waters of the State or USGS blue–line streams (unless approved by Federal Authorities).
- 2. The rock outlet structure shall consist of 12–inch D50 riprap. The upstream face of this outlet shall consist of a 1–foot thick layer of 1–inch D50 washed stone. The maximum steepness of the rock outlet structure shall be 2:1.
- 3. Both the rock outlet and the stone apron shall have an underlying layer of non–woven geotextile filter fabric.
- 4. All internal side slopes of the sediment trap should be 3:1 or flatter.
- 5. A sediment cleanout stake should be installed and marked to remove sediment at 50% of the sediment storage volume.
- 6. At least two (2) porous baffles shall be installed within the sediment trap. There should be at least 10 linear feet between each baffle and between any row of baffles and any of the sediment trap’s inlets/outlets.
- 7. After construction of each sediment trap, the area disturbed to construct the trap should be promptly stabilized, including all side slopes.
- 8. The following sediment trap requirements shall be maintained:
 - Maximum embankment height shall be 5–feet.
 - Maximum riprap outlet height shall be 3.5–feet.
 - Minimum width at bottom of riprap outlet shall be 3–feet.
 - Minimum flow length at top of riprap outlet shall be 2–feet.

SEDIMENT TRAP – INSPECTION AND MAINTENANCE

- 1. The key to a functional sediment trap is weekly inspections, routine maintenance and regular sediment removal.
- 2. Attention to sediment accumulations within the trap is extremely important. Accumulated sediment deposition should be continually monitored in the trap and removed when necessary.
- 3. Remove accumulated sediment when it reaches 50% of the designed sediment storage volume as marked by the cleanout stake.
- 4. Removed sediment from the trap shall be placed in stockpile storage areas or spread thinly across the disturbed area. Stabilize the removed sediment after it is relocated.
- 5. Regular inspections of sediment traps should be conducted once every calendar week and, as recommended, within 24–hours after each rainfall event that produces ½–inch or more of precipitation.
- 6. Disturbed areas resulting from the removal of the sediment trap should be permanently stabilized and additional BMPs, such as silt fence, should be utilized to handle stormwater runoff from this disturbed area until final stabilization is reached.

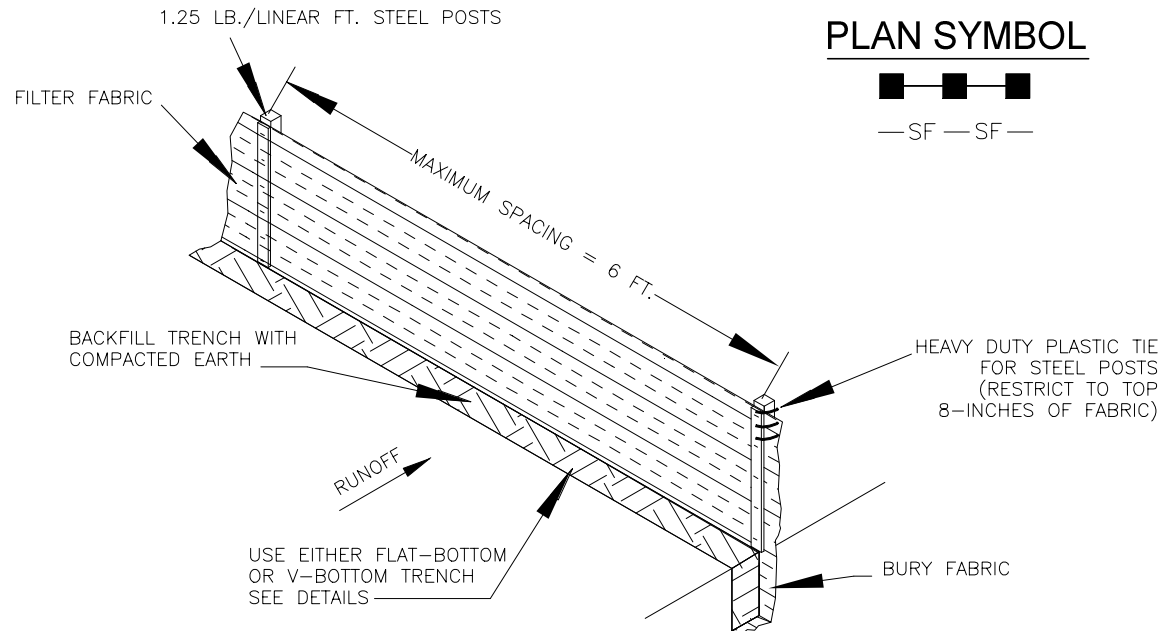
South Carolina Department of
Health and Environmental Control

SEDIMENT TRAP

STANDARD DRAWING NO. SC–02 Page 2 of 2

GENERAL NOTES FEBRUARY 2014
DATE

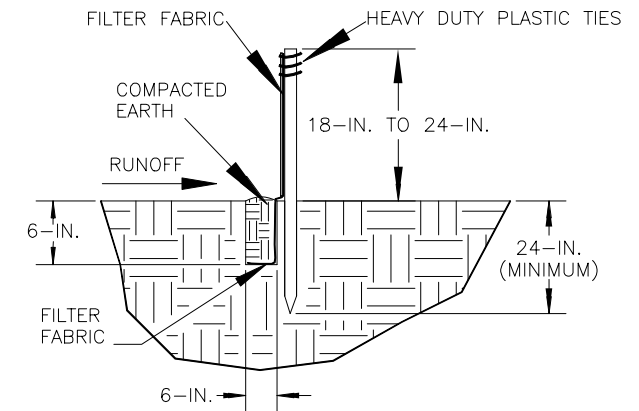
SILT FENCE INSTALLATION



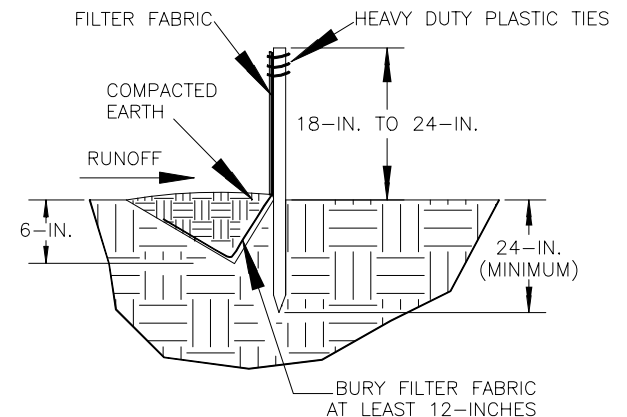
SILT FENCE — GENERAL NOTES

1. Do not place silt fence across channels or in other areas subject to concentrated flows. Silt fence should not be used as a velocity control BMP. Concentrated flows are any flows greater than 0.5 cfs.
2. Maximum sheet or overland flow path length to the silt fence shall be 100-feet.
3. Maximum slope steepness (normal [perpendicular] to the fence line) shall be 2:1.
4. Silt fence joints, when necessary, shall be completed by one of the following options:
 - Wrap each fabric together at a support post with both ends fastened to the post, with a 1-foot minimum overlap;
 - Overlap silt fence by installing 3-feet passed the support post to which the new silt fence roll is attached. Attach old roll to new roll with heavy-duty plastic ties; or,
 - Overlap entire width of each silt fence roll from one support post to the next support post.
5. Attach filter fabric to the steel posts using heavy-duty plastic ties that are evenly spaced within the top 8-inches of the fabric.
6. Install the silt fence perpendicular to the direction of the stormwater flow and place the silt fence the proper distance from the toe of steep slopes to provide sediment storage and access for maintenance and cleanout.
7. Install Silt Fence Checks (Tie-Backs) every 50–100 feet, dependent on slope, along silt fence that is installed with slope and where concentrated flows are expected or are documented along the proposed/installed silt fence.

FLAT-BOTTOM TRENCH DETAIL



V-SHAPED TRENCH DETAIL



South Carolina Department of
Health and Environmental Control

SILT FENCE

STANDARD DRAWING NO. SC-03 Page 1 of 2

NOT TO SCALE

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SILT FENCE — POST REQUIREMENTS

1. Silt Fence posts must be 48-inch long steel posts that meet, at a minimum, the following physical characteristics.
 - Composed of a high strength steel with a minimum yield strength of 50,000 psi.
 - Include a standard "T" section with a nominal face width of 1.38-inches and a nominal "T" length of 1.48-inches.
 - Weigh 1.25 pounds per foot (\pm 8%)
2. Posts shall be equipped with projections to aid in fastening of filter fabric.
3. Steel posts may need to have a metal soil stabilization plate welded near the bottom when installed along steep slopes or installed in loose soils. The plate should have a minimum cross section of 17-square inches and be composed of 15 gauge steel, at a minimum. The metal soil stabilization plate should be completely buried.
4. Install posts to a minimum of 24-inches. A minimum height of 1- to 2-inches above the fabric shall be maintained, and a maximum height of 3 feet shall be maintained above the ground.
5. Post spacing shall be at a maximum of 6-feet on center.

SILT FENCE — FABRIC REQUIREMENTS

1. Silt fence must be composed of woven geotextile filter fabric that consists of the following requirements:
 - Composed of fibers consisting of long chain synthetic polymers of at least 85% by weight of polyolefins, polyesters, or polyamides that are formed into a network such that the filaments or yarns retain dimensional stability relative to each other;
 - Free of any treatment or coating which might adversely alter its physical properties after installation;
 - Free of any defects or flaws that significantly affect its physical and/or filtering properties; and,
 - Have a minimum width of 36-inches.
2. Use only fabric appearing on SC DOT's Qualified Products Listing (QPL), Approval Sheet #34, meeting the requirements of the most current edition of the SC DOT Standard Specifications for Highway Construction.
3. 12-inches of the fabric should be placed within excavated trench and toed in when the trench is backfilled.
4. Filter Fabric shall be purchased in continuous rolls and cut to the length of the barrier to avoid joints.
5. Filter Fabric shall be installed at a minimum of 24-inches above the ground.

SILT FENCE — INSPECTION & MAINTENANCE

1. The key to functional silt fence is weekly inspections, routine maintenance, and regular sediment removal.
2. Regular inspections of silt fence shall be conducted once every calendar week and, as recommended, within 24-hours after each rainfall even that produces 1/2-inch or more of precipitation.
3. Attention to sediment accumulations along the silt fence is extremely important. Accumulated sediment should be continually monitored and removed when necessary.
4. Remove accumulated sediment when it reaches 1/3 the height of the silt fence.
5. Removed sediment shall be placed in stockpile storage areas or spread thinly across disturbed area. Stabilize the removed sediment after it is relocated.
6. Check for areas where stormwater runoff has eroded a channel beneath the silt fence, or where the fence has sagged or collapsed due to runoff overtopping the silt fence. Install checks/tie-backs and/or reinstall silt fence, as necessary.
7. Check for tears within the silt fence, areas where silt fence has begun to decompose, and for any other circumstance that may render the silt fence ineffective. Removed damaged silt fence and reinstall new silt fence immediately.
8. Silt fence should be removed within 30 days after final stabilization is achieved and once it is removed, the resulting disturbed area shall be permanently stabilized.

South Carolina Department of Health and Environmental Control

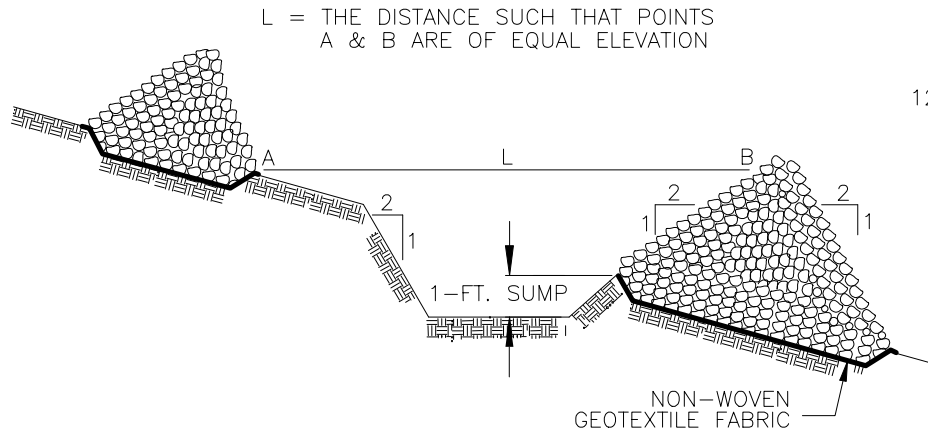
SILT FENCE

STANDARD DRAWING NO. SC-03 PAGE 2 of 2

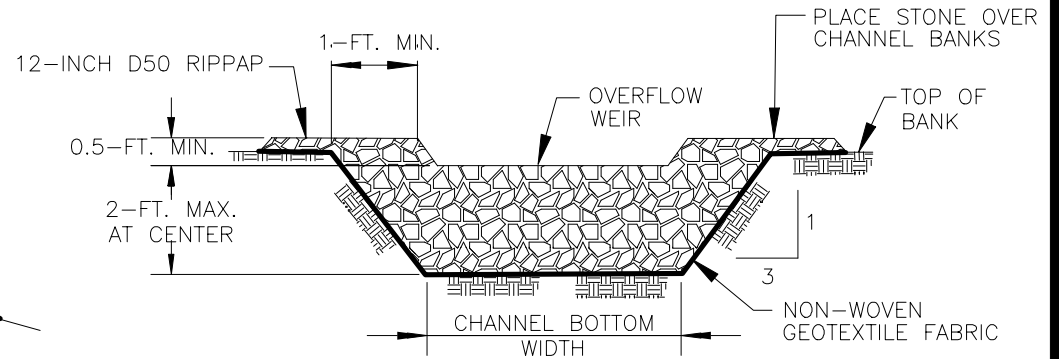
GENERAL NOTES

FEBRUARY 2014
DATE

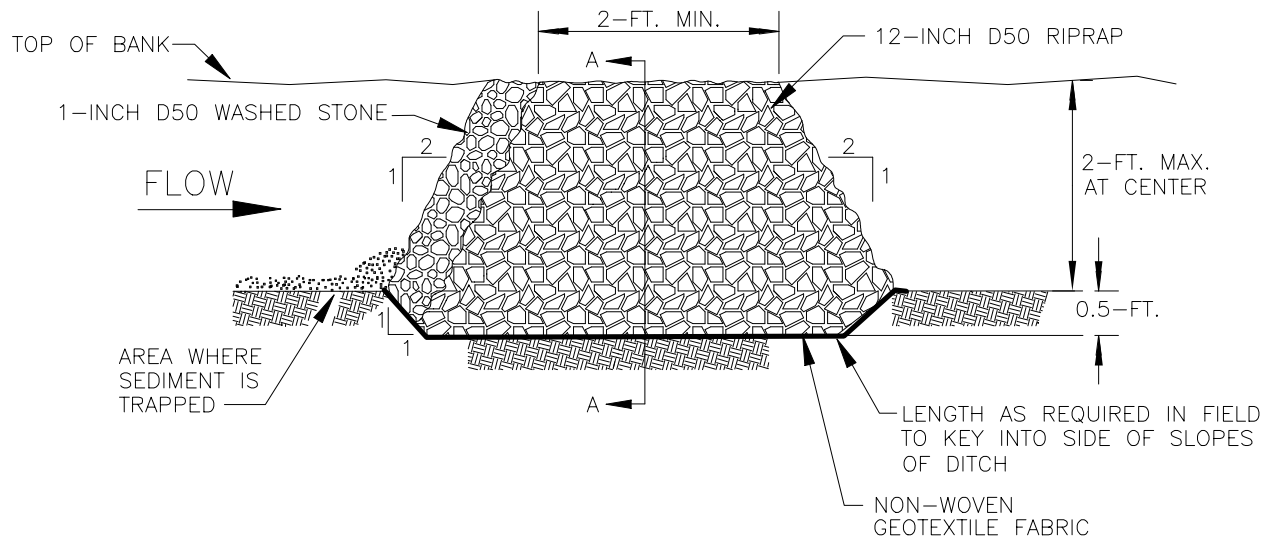
SPACING BETWEEN DITCH CHECK



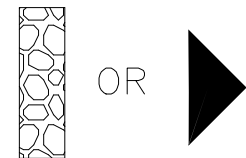
CROSS SECTION A-A THRU STONE DITCH CHECK



TYPICAL DITCH CHECK SECTION



PLAN SYMBOL



South Carolina Department of
Health and Environmental Control

ROCK DITCH CHECK

STANDARD DRAWING NO. SC-04 PAGE 1 of 2

NOT TO SCALE

FEBRUARY 2014
DATE

ROCK DITCH CHECK — GENERAL NOTES

1. Rock Ditch Checks should not be placed in Waters of the State or USGS blue-line streams (unless approved by Federal Authorities).
2. Rock Ditch Checks should be installed in steeply sloped channels where adequate vegetation cannot be established. This BMP measure should only be used in small open channels.
3. A non-woven geotextile fabric shall be installed over the soil surface where the rock ditch check is to be placed.
4. The body of the rock ditch check shall be composed of 12-inch D50 Riprap. The upstream face may be composed of 1-inch D50 washed stone.
5. Rock Ditch Checks should not exceed a height of 2-feet at the centerline of the channel.
6. Rock Ditch Checks should have a minimum top flow length of 2-feet.
7. Riprap should be placed over channel banks to prevent water from cutting around the ditch check.
8. The riprap should be placed by hand or mechanical placement (no dumping of rock to form dam) to achieve complete coverage of the channel. Doing so will also ensure that the center of the check is lower than the edges.
9. The maximum spacing between the dams should be such that the toe of the upstream check is at the same elevation as the top of the downstream check.

ROCK DITCH CHECK — INSPECTION & MAINTENANCE

1. The key to functional rock ditch check is weekly inspections, routine maintenance, and regular sediment removal.
2. Regular inspections of rock ditch checks shall be conducted once every calendar week and, as recommended, within 24-hours after each rainfall even that produces 1/2-inch or more of precipitation.
3. Attention to sediment accumulations in front of the rock ditch check is extremely important. Accumulated sediment should be continually monitored and removed when necessary.
4. Remove accumulated sediment when it reaches 1/3 the height of the rock ditch check.
5. Removed sediment shall be placed in stockpile storage areas or spread thinly across disturbed area. Stabilize the removed sediment after it is relocated.
6. Inspect Rock Ditch Checks' edges for erosion and evidence of runoff bypassing the installed check. If evident repair promptly as necessary to prevent erosion and bypassing.
7. In the case of grass-lined ditches, channels, and swales, rock ditch checks should be removed when the grass has matured sufficiently to protect the ditch or swale unless the slope of the swale is greater than 4%.
8. After construction is completed and final stabilization is reached, the entirety of the rock ditch check should be removed if vegetation will be used for permanent erosion control measures. The area beneath the removed rock ditch check must be addressed with permanent stabilization measures.

**South Carolina Department of
Health and Environmental Control**

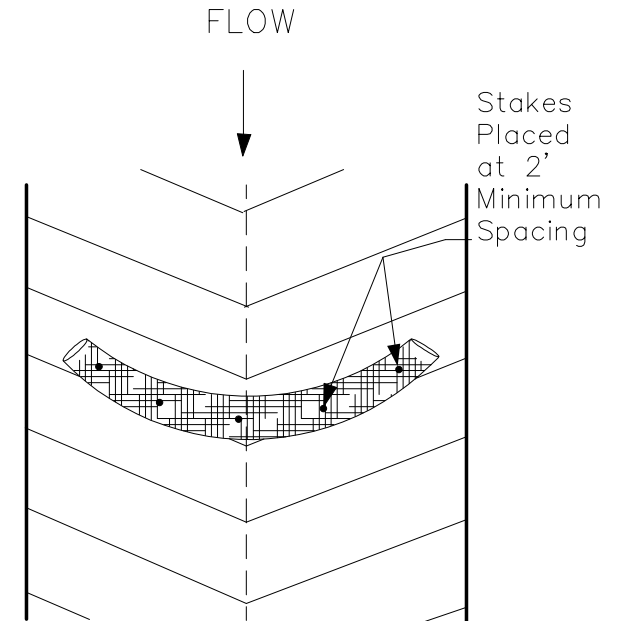
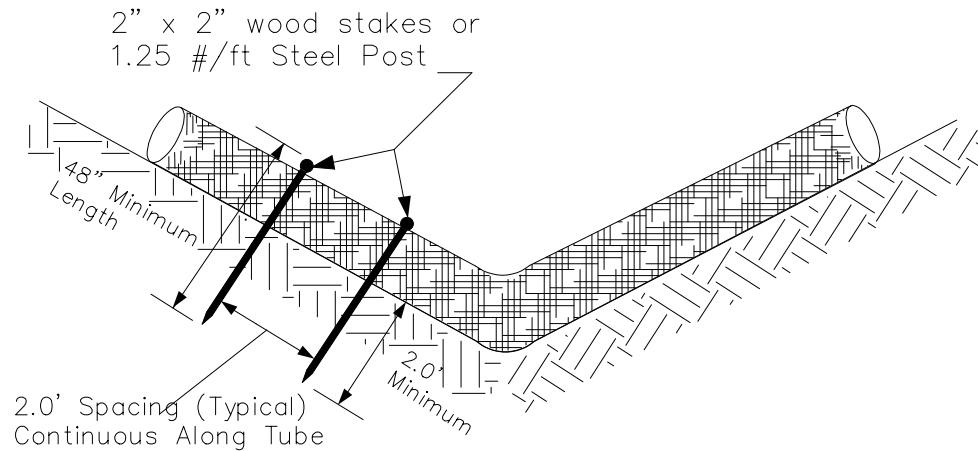
ROCK DITCH CHECK

STANDARD DRAWING NO. SC-04 PAGE 2 of 2

GENERAL NOTES

FEBRUARY 2014
DATE

SEDIMENT TUBE INSTALLATION



SEDIMENT TUBE SPACING

| SLOPE | MAX. SEDIMENT TUBE SPACING |
|-----------------|----------------------------|
| LESS THAN 2% | 150- FEET |
| 2% | 100- FEET |
| 3% | 75- FEET |
| 4% | 50- FEET |
| 5% | 40- FEET |
| 6% | 30- FEET |
| GREATER THAN 6% | 25- FEET |

PLAN SYMBOL



South Carolina Department of
Health and Environmental Control

SEDIMENT TUBES

STANDARD DRAWING NO. SC-05 PAGE 1 of 2

NOT TO SCALE

FEBRUARY 2014
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SEDIMENT TUBES — GENERAL NOTES

1. Sediment tubes may be installed along contours, in drainage conveyance channels, and around inlets to help prevent off-site discharge of sediment-laden stormwater runoff.
2. Sediment tubes are elongated tubes of compacted geotextiles, curled excelsior wood, natural coconut fiber, or hardwood mulch. Straw, pine needle, and leaf mulch-filled sediment tubes are not permitted.
3. The outer netting of the sediment tube should consist of seamless, high-density polyethylene photodegradable materials treated with ultraviolet stabilizers or a seamless, high-density polyethylene non-degradable material.
4. Sediment tubes, when used as checks within channels, should range between 18-inches and 24-inches depending on channel dimensions. Diameters outside this range may be allowed where necessary when approved.
5. Curled excelsior wood, or natural coconut products that are rolled up to create a sediment tube are not allowed.
6. Sediment tubes should be staked using wooden stakes (2-inch X 2-inch) or steel posts (standard "U" or "T" sections with a minimum weight of 1.25 pounds per foot) at a minimum of 48-inches in length placed on 2-foot centers.
7. Install all sediment tubes to ensure that no gaps exist between the soil and the bottom of the tube. Manufacturer's recommendations should always be consulted before installation.
8. The ends of adjacent sediment tubes should be overlapped 6-inches to prevent flow and sediment from passing through the field joint.
9. Sediment tubes should not be stacked on top of one another, unless recommended by manufacturer.
10. Each sediment tube should be installed in a trench with a depth equal to $\frac{1}{5}$ the diameter of the sediment tube.
11. Sediment tubes should continue up the side slopes a minimum of 1-foot above the design flow depth of the channel.
12. Install stakes at a diagonal facing incoming runoff.

SEDIMENT TUBES — INSPECTION & MAINTENANCE

1. The key to functional sediment tubes is weekly inspections, routine maintenance, and regular sediment removal.
2. Regular inspections of sediment tubes shall be conducted once every calendar week and, as recommended, within 24-hours after each rainfall even that produces $\frac{1}{2}$ -inch or more of precipitation.
3. Attention to sediment accumulations in front of the sediment tube is extremely important. Accumulated sediment should be continually monitored and removed when necessary.
4. Remove accumulated sediment when it reaches $\frac{1}{3}$ the height of the sediment tube.
5. Removed sediment shall be placed in stockpile storage areas or spread thinly across disturbed area. Stabilize the removed sediment after it is relocated.
6. Large debris, trash, and leaves should be removed from in front of tubes when found.
7. If erosion causes the edges to fall to a height equal to or below the height of the sediment tube, repairs should be made immediately to prevent runoff from bypassing tube.
8. Sediment tubes should be removed after the contributing drainage area has been completely stabilized. Permanent vegetation should replace areas from which sediment tubes have been removed.

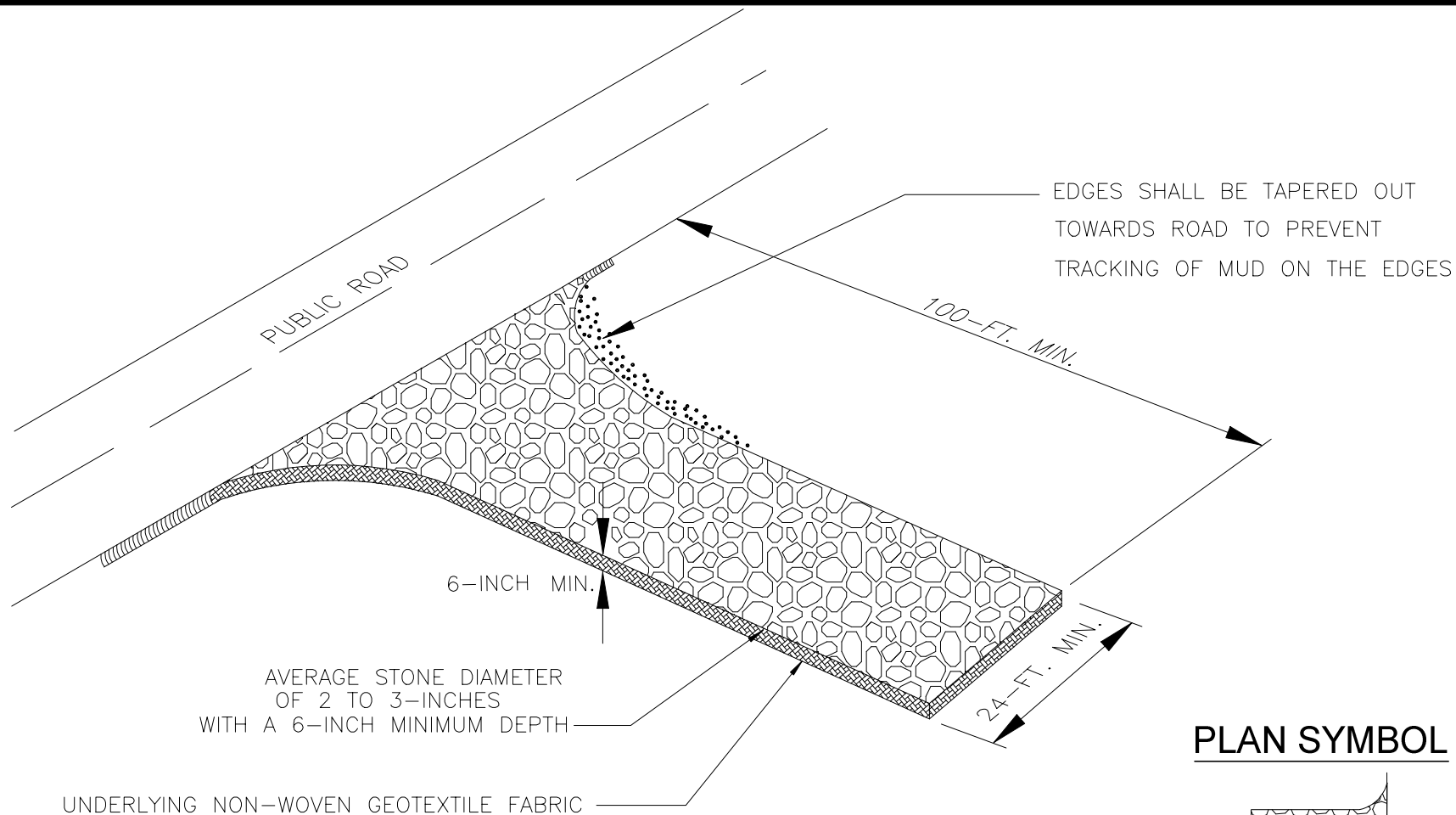
South Carolina Department of Health and Environmental Control

SEDIMENT TUBES

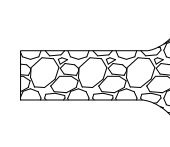
STANDARD DRAWING NO. SC-05 PAGE 2 of 2

GENERAL NOTES

FEBRUARY 2014
DATE



PLAN SYMBOL



| SPECIFICATION | SIZE |
|---------------------|----------------|
| ROCK PAD THICKNESS | 6 INCHES |
| ROCK PAD WIDTH | 24 FEET |
| ROCK PAD LENGTH | 100 FEET |
| ROCK PAD STONE SIZE | D = 2-3 INCHES |

**South Carolina Department of
Health and Environmental Control**

CONSTRUCTION ENTRANCE

STANDARD DRAWING NO. SC-06 PAGE 1 of 2

NOT TO SCALE

FEBRUARY 2014
DATE

CONSTRUCTION ENTRANCE — GENERAL NOTES

1. Stabilized construction entrances should be used at all points where traffic will egress/ingress a construction site onto a public road or any impervious surfaces, such as parking lots.
2. Install a non-woven geotextile fabric prior to placing any stone.
3. Install a culvert pipe across the entrance when needed to provide positive drainage.
4. The entrance shall consist of 2-inch to 3-inch D50 stone placed at a minimum depth of 6-inches.
5. Minimum dimensions of the entrance shall be 24-feet wide by 100-feet long, and may be modified as necessary to accommodate site constraints.
6. The edges of the entrance shall be tapered out towards the road to prevent tracking at the edge of the entrance.
7. Divert all surface runoff and drainage from the stone pad to a sediment trap or basin or other sediment trapping structure.
8. Limestone may not be used for the stone pad.

CONSTR. ENTRANCE — INSPECTION & MAINTENANCE

1. The key to functional construction entrances is weekly inspections, routine maintenance, and regular sediment removal.
2. Regular inspections of construction entrances shall be conducted once every calendar week and, as recommended, within 24-hours after each rainfall even that produces 1/2-inch or more of precipitation.
3. During regular inspections, check for mud and sediment buildup and pad integrity. Inspection frequencies may need to be more frequent during long periods of wet weather.
4. Reshape the stone pad as necessary for drainage and runoff control.
5. Wash or replace stones as needed and as directed by site inspector. The stone in the entrance should be washed or replaced whenever the entrance fails to reduce the amount of mud being carried off-site by vehicles. Frequent washing will extend the useful life of stone pad.
6. Immediately remove mud and sediment tracked or washed onto adjacent impervious surfaces by brushing or sweeping. Flushing should only be used when the water can be discharged to a sediment trap or basin.
7. During maintenance activities, any broken pavement should be repaired immediately.
8. Construction entrances should be removed after the site has reached final stabilization. Permanent vegetation should replace areas from which construction entrances have been removed, unless area will be converted to an impervious surface to serve post-construction.

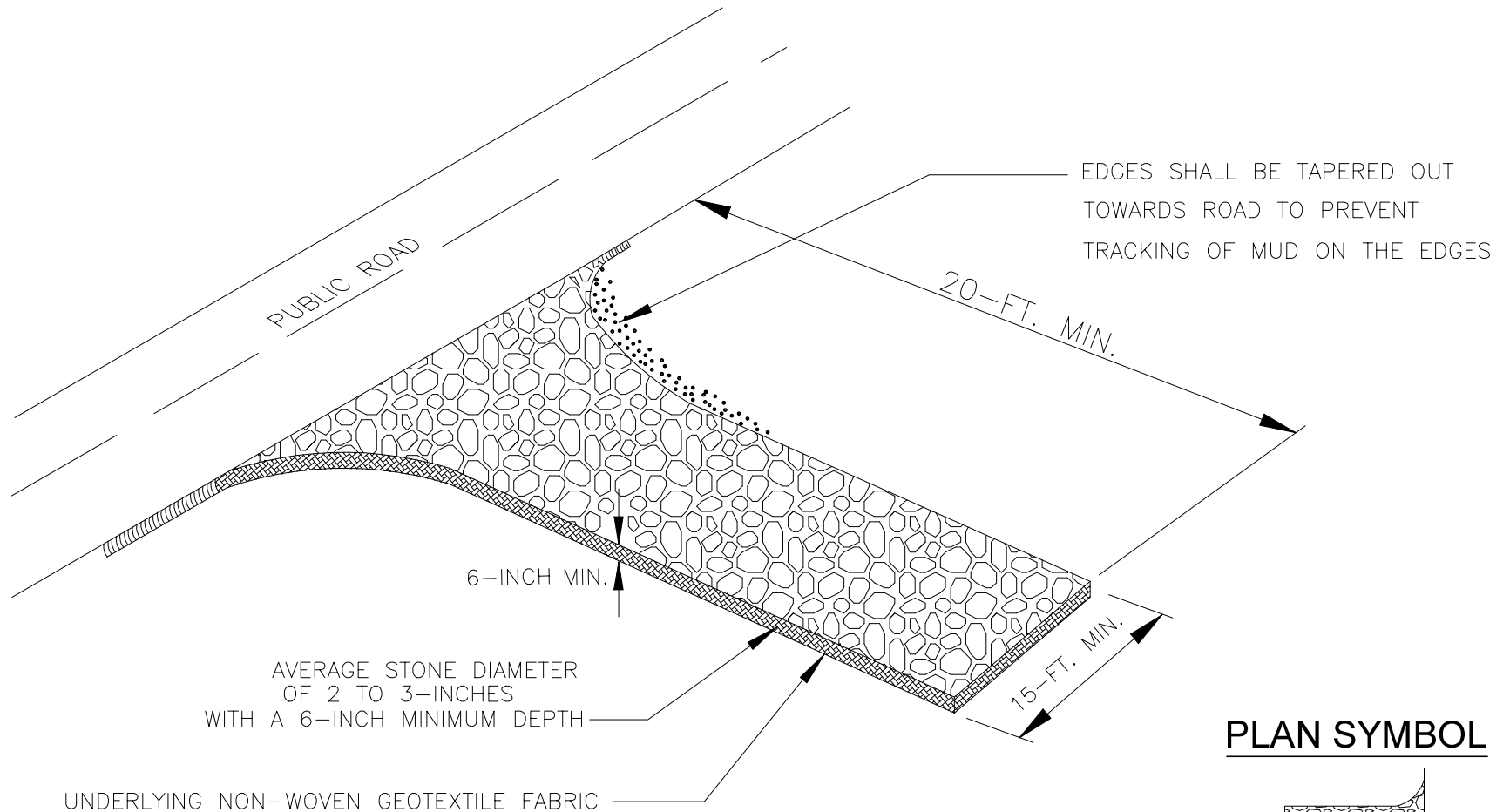
**South Carolina Department of
Health and Environmental Control**

CONSTRUCTION ENTRANCE

STANDARD DRAWING NO. SC-06 PAGE 2 of 2

GENERAL NOTES

FEBRUARY 2014
DATE



| SPECIFICATION | SIZE |
|---------------------|------------------|
| ROCK PAD THICKNESS | 6 INCHES |
| ROCK PAD WIDTH | 15 FEET |
| ROCK PAD LENGTH | 20 FEET |
| ROCK PAD STONE SIZE | D50 = 2-3 INCHES |

**South Carolina Department of
Health and Environmental Control**

RESIDENTIAL LOT
CONSTRUCTION ENTRANCE

STANDARD DRAWING NO. SC-06A PAGE 1 of 2

NOT TO SCALE

FEBRUARY 2014
DATE

CONSTRUCTION ENTRANCE — GENERAL NOTES

1. Stabilized construction entrances should be used at all points where traffic will egress/ingress a construction site onto a public road or any impervious surfaces, such as parking lots.
2. Install a non-woven geotextile fabric prior to placing any stone.
3. Install a culvert pipe across the entrance when needed to provide positive drainage.
4. The entrance shall consist of 2-inch to 3-inch D50 stone placed at a minimum depth of 6-inches.
5. Minimum dimensions of the entrance shall be 15-feet wide by 20-feet long, and may be modified as necessary to accommodate site constraints.
6. The edges of the entrance shall be tapered out towards the road to prevent tracking at the edge of the entrance.
7. Divert all surface runoff and drainage from the stone pad to a sediment trap or basin or other sediment trapping structure.
8. Limestone may not be used for the stone pad.

CONSTR. ENTRANCE — INSPECTION & MAINTENANCE

1. The key to functional construction entrances is weekly inspections, routine maintenance, and regular sediment removal.
2. Regular inspections of construction entrances shall be conducted once every calendar week and, as recommended, within 24-hours after each rainfall even that produces 1/2-inch or more of precipitation.
3. During regular inspections, check for mud and sediment buildup and pad integrity. Inspection frequencies may need to be more frequent during long periods of wet weather.
4. Reshape the stone pad as necessary for drainage and runoff control.
5. Wash or replace stones as needed and as directed by site inspector. The stone in the entrance should be washed or replaced whenever the entrance fails to reduce the amount of mud being carried off-site by vehicles. Frequent washing will extend the useful life of stone pad.
6. Immediately remove mud and sediment tracked or washed onto adjacent impervious surfaces by brushing or sweeping. Flushing should only be used when the water can be discharged to a sediment trap or basin.
7. During maintenance activities, any broken pavement should be repaired immediately.
8. Construction entrances should be removed after the site has reached final stabilization. Permanent vegetation should replace areas from which construction entrances have been removed, unless area will be converted to an impervious surface to serve post-construction.

South Carolina Department of Health and Environmental Control

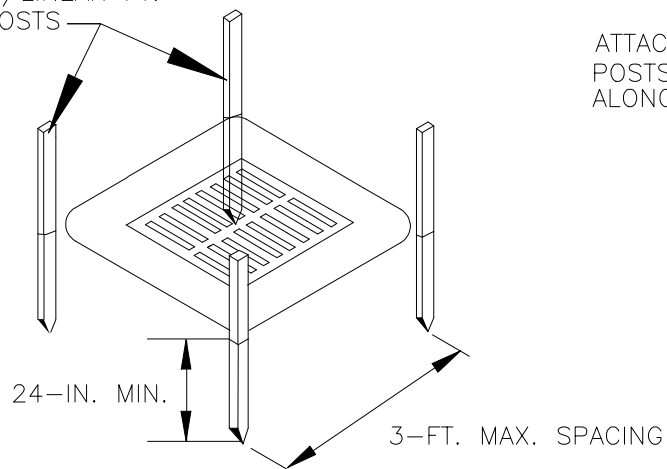
RESIDENTIAL LOT
CONSTRUCTION ENTRANCE

STANDARD DRAWING NO. SC-06A PAGE 2 of 2

GENERAL NOTES

FEBRUARY 2014
DATE

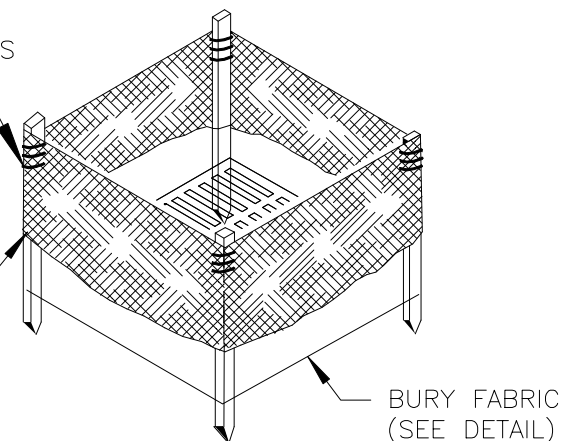
1.25 LB./LINEAR FT.
STEEL POSTS



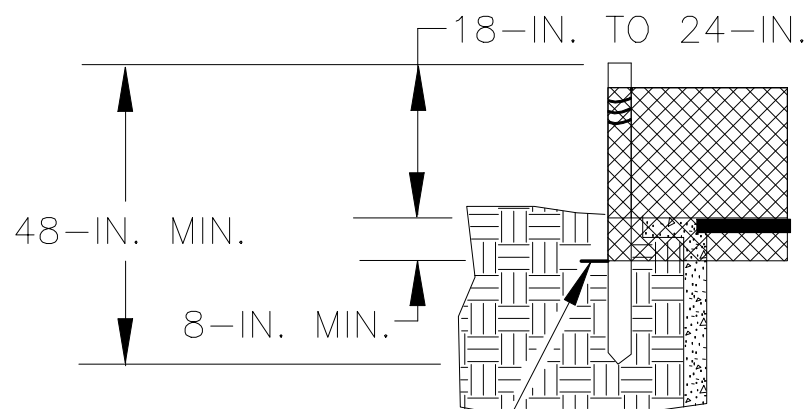
POST INSTALLATION DETAIL

ATTACH FILTER FABRIC TO
POSTS WITH HEAVY DUTY PLASTIC TIES
ALONG TOP 8-INCHES OF FABRIC.

FOLD FABRIC TO OVERLAP
1 FOOT AND SECURE
TO POSTS WITH HEAVY DUTY
PLASTIC TIES



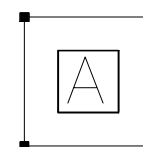
**FILTER FABRIC INSTALLATION
DETAIL**



BURY & TRENCH MINIMUM
OF 12-INCHES OF FILTER FABRIC

FILTER FABRIC BURIAL DETAIL

PLAN SYMBOL



**South Carolina Department of
Health and Environmental Control**

Type A
FILTER FABRIC INLET PROTECTION

STANDARD DRAWING NO. SC-07 PAGE 1 of 2

NOT TO SCALE

FEBRUARY 2014
DATE

TYPE A — FILTER FABRIC REQUIREMENTS

1. Silt fence must be composed of woven geotextile filter fabric that consists of the following requirements:
 - Composed of fibers consisting of long chain synthetic polymers of at least 85% by weight of polyolefins, polyesters, or polyamides that are formed into a network such that the filaments or yarns retain dimensional stability relative to each other;
 - Free of any treatment or coating which might adversely alter its physical properties after installation;
 - Free of any defects or flaws that significantly affect its physical and/or filtering properties; and,
 - Have a minimum width of 36-inches.
2. Use only fabric appearing on SC DOT's Qualified Products Listing (QPL), Approval Sheet #34, meeting the requirements of the most current edition of the SC DOT Standard Specifications for Highway Construction.
3. 12-inches of the fabric should be placed within excavated trench and toed in when the trench is backfilled.
4. Filter Fabric shall be purchased in continuous rolls and cut to the length of the barrier to avoid joints.
5. Filter Fabric shall be installed at a minimum of 24-inches above the ground.

TYPE A — POST REQUIREMENTS

1. Silt Fence posts must be 48-inch long steel posts that meet, at a minimum, the following physical characteristics.
 - Composed of a high strength steel with a minimum yield strength of 50,000 psi.
 - Include a standard "T" section with a nominal face width of 1.38-inches and a nominal "T" length of 1.48-inches.
 - Weigh 1.25 pounds per foot ($\pm 8\%$)
2. Posts shall be equipped with projections to aid in fastening of filter fabric.
3. Install posts to a minimum of 24-inches. A minimum height of 1—to 2-inches above the fabric shall be maintained, and a maximum height of 3 feet shall be maintained above the ground.
4. Post spacing shall be at a maximum of 3-feet on center.

TYPE A — INSPECTION & MAINTENANCE

1. The key to functional inlet protection is weekly inspections, routine maintenance, and regular sediment removal.
2. Regular inspections of inlet protection shall be conducted once every calendar week and, as recommended, within 24-hours after each rainfall even that produces 1/2-inch or more of precipitation.
3. Attention to sediment accumulations along the filter fabric is extremely important. Accumulated sediment should be continually monitored and removed when necessary.
4. Remove accumulated sediment when it reaches 1/3 the height of the filter fabric. When a sump is installed in front of the fabric, sediment should be removed when it fills approximately 1/3 the depth of the sump.
5. Removed sediment shall be placed in stockpile storage areas or spread thinly across disturbed area. Stabilize the removed sediment after it is relocated.
6. Check for areas where stormwater runoff has eroded a channel beneath the filter fabric, or where the fabric has sagged or collapsed due to runoff overtopping the inlet protection.
7. Check for tears within the filter fabric, areas where fabric has begun to decompose, and for any other circumstance that may render the inlet protection ineffective. Removed damaged fabric and reinstall new filter fabric immediately.
8. Inlet protection structures should be removed after all the disturbed areas are permanently stabilized. Remove all construction material and sediment, and dispose of them properly. Grade the disturbed area to the elevation of the drop inlet structure crest. Stabilize all bare areas immediately.

South Carolina Department of Health and Environmental Control

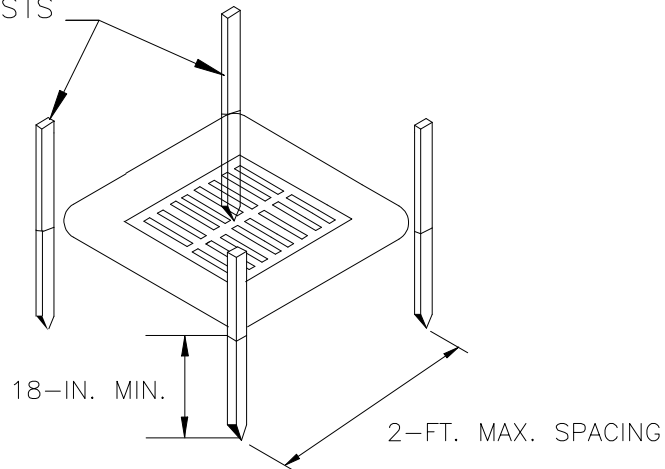
Type A FILTER FABRIC INLET PROTECTION

STANDARD DRAWING NO. SC-07 PAGE 2 of 2

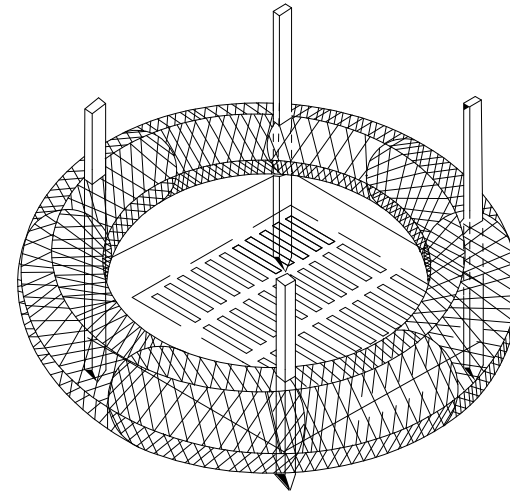
GENERAL NOTES

FEBRUARY 2014
DATE

2" x 2" WOOD STAKES
or 1.25 #/FT
STEEL POSTS

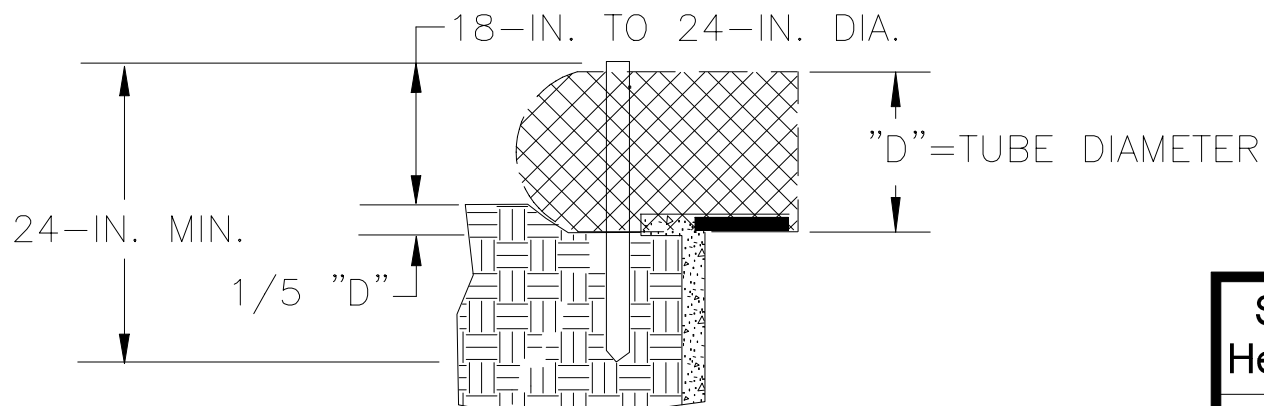
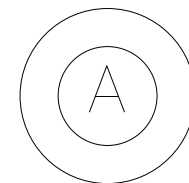


POST INSTALLATION DETAIL



SEDIMENT TUBE INSTALLATION
DETAIL

PLAN SYMBOL



SEDIMENT TUBE BURIAL DETAIL

South Carolina Department of
Health and Environmental Control

Type A
SEDIMENT TUBE INLET PROTECTION

STANDARD DRAWING NO. SC-07A PAGE 1 of 2

NOT TO SCALE

FEBRUARY 2014
DATE

TYPE A – SEDIMENT TUBE INLET PROTECTION

GENERAL NOTES

1. Sediment tubes are elongated tubes of compacted geotextiles, curled excelsior wood, natural coconut fiber, or hardwood mulch. Straw, pine needle, and leaf mulch-filled sediment tubes are not permitted.
2. The outer netting of the sediment tube should consist of seamless, high-density polyethylene photodegradable materials treated with ultraviolet stabilizers or a seamless, high-density polyethylene non-degradable material.
3. Sediment tube diameters shall range from 18-inches to 24-inches. Sediment tubes with smaller diameters are prohibited when used as inlet protection.
4. Curled excelsior wood, or natural coconut products that are rolled up to create a sediment tube are not allowed.
5. Sediment tubes should be staked using wooden oak stakes (2-inch X 2-inch) or steel posts (standard "U" or "T" sections with a minimum weight of 1.25 pounds per foot) at a minimum of 48-inches in length placed on 2-foot centers.
6. Install all sediment tubes to ensure that no gaps exist between the soil and the bottom of the tube. Manufacturer's recommendations should always be consulted before installation.
7. The ends of adjacent sediment tubes should be overlapped 6-inches to prevent flow and sediment from passing through the field joint.
8. Sediment tubes should not be stacked on top of one another.
9. Each sediment tube should be installed in a trench with a depth equal to $1/5$ the diameter of the sediment tube.
10. Install stakes at a diagonal facing incoming runoff.

INSPECTION & MAINTENANCE

1. The key to functional inlet protection is weekly inspections, routine maintenance, and regular sediment removal.
2. Regular inspections of sediment tube inlet protection shall be conducted once every calendar week and, as recommended, within 24-hours after each rainfall even that produces $1/2$ -inch or more of precipitation.
3. Attention to sediment accumulations in front of the sediment tube is extremely important. Accumulated sediment should be continually monitored and removed when necessary.
4. Remove accumulated sediment when it reaches $1/3$ the height of the sediment tube. When a sump is installed in front of the inlet protection, sediment shall be removed when it fills approximately $1/3$ the depth of the sump.
5. Removed sediment shall be placed in stockpile storage areas or spread thinly across disturbed area. Stabilize the removed sediment after it is relocated.
6. Large debris, trash, and leaves should be removed from in front of tubes when found.
7. Inlet protection structures should be removed after the disturbed areas are permanently stabilized. Remove all construction material and sediment, and dispose of them properly. Grade the disturbed area to the elevation of the drop inlet structure crest. Stabilize all bare areas immediately.

South Carolina Department of Health and Environmental Control

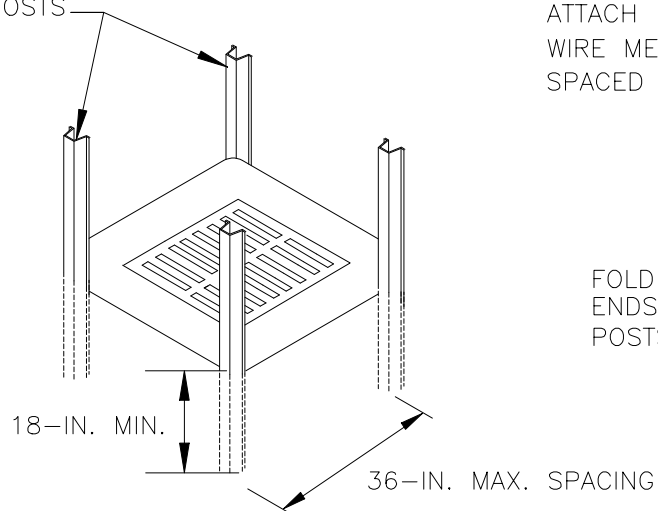
Type A
SEDIMENT TUBE INLET PROTECTION

STANDARD DRAWING NO. SC-07A PAGE 2 of 2

NOT TO SCALE

FEBRUARY 2014
DATE

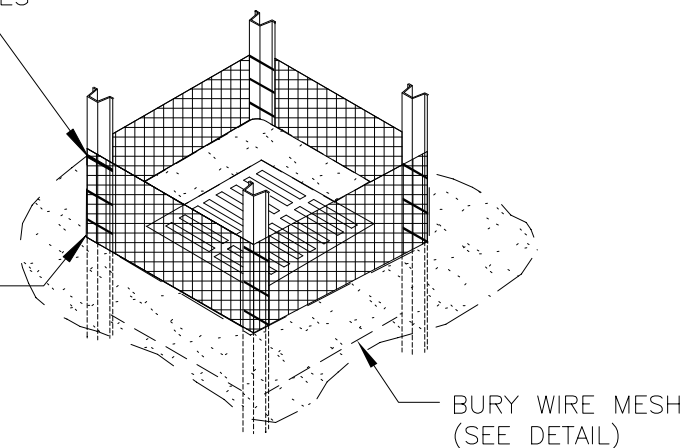
1.25 LB./LINEAR FT.
STEEL POSTS



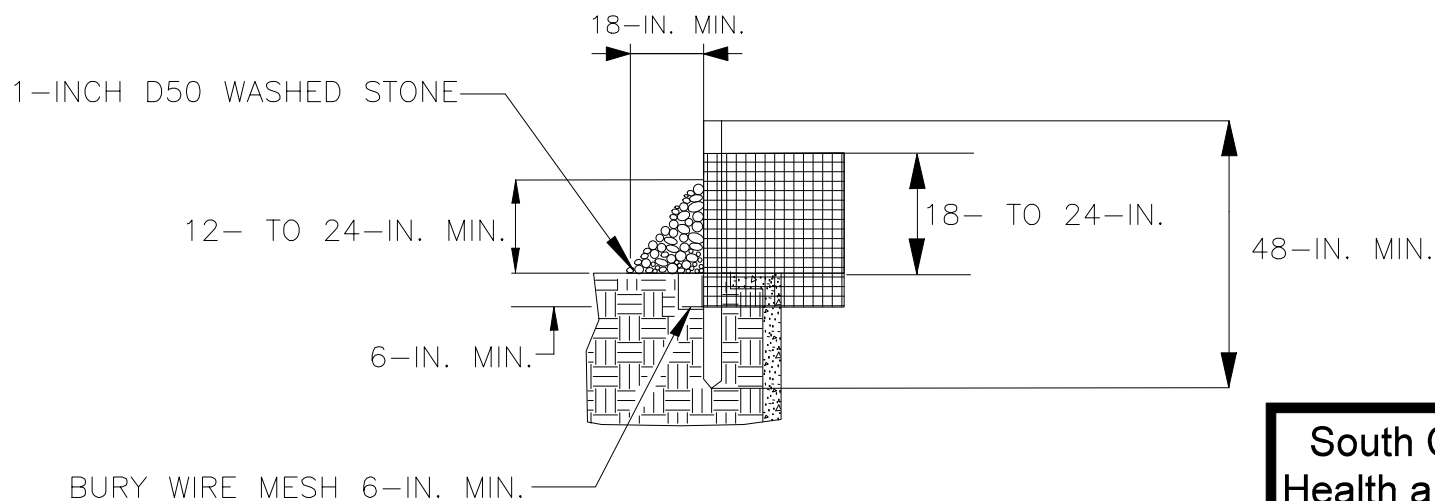
POST INSTALLATION DETAIL

ATTACH 1/2 x 1/2 IN. MAX. OPENING
WIRE MESH TO POSTS WITH WIRE TIES
SPACED A MAX. OF 6-IN. APART

FOLD WIRE MESH TO OVERLAP
ENDS AND SECURE TO
POSTS WITH WIRE TIES

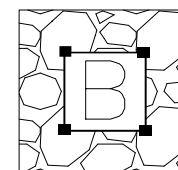


**WIRE MESH
INSTALLATION DETAIL**



**STONE AND WIRE MESH
INSTALLATION DETAIL**

PLAN SYMBOL



**South Carolina Department of
Health and Environmental Control**

Type B
WIRE MESH & STONE INLET PROTECTION

STANDARD DRAWING NO. SC-08 PAGE 1 of 2

NOT TO SCALE

FEBRUARY 2014
DATE

WIRE MESH & STONE INLET PROTECTION

GENERAL NOTES

1. Use hardware fabric or comparable wire mesh with maximum openings of 0.5-inches x 0.5-inches as the supporting material.
2. Use steel posts that meet the following physical requirements:
 - Be composed of high strength steel with a minimum yield of 50,000 psi.
 - Have a standard "T" section with a nominal face width of 1.38 inches and a nominal "T" width of 1.48-inches.
 - Weigh 1.25 pounds per foot ($\pm 8\%$)
3. Use heavy-duty wire ties to attach the wire mesh material to the steel posts.
4. Space the steel posts a maximum of 3-feet apart around the perimeter of the inlet and drive them into the ground a minimum of 18-inches.
5. Excavate a trench 6-inches deep around the outside perimeter of the inlet to install wire mesh. Backfill the trench with soil or crushed stone and compact over the wire mesh.
6. Place Aggregate No. 5 washed stone (or 1-inch D50 stone) to a minimum height of 12-inches, and a maximum of 24-inches against the wire mesh on all sides.

INSPECTION & MAINTENANCE

1. The key to functional inlet protection is weekly inspections, routine maintenance, and regular sediment removal.
2. Regular inspections of wire mesh and stone inlet protection shall be conducted once every calendar week and, as recommended, within 24-hours after each rainfall even that produces 1/2-inch or more of precipitation.
3. Attention to sediment accumulations in front of the inlet protection is extremely important. Accumulated sediment should be continually monitored and removed when necessary.
4. Remove accumulated sediment when the sediment reaches 1/3 height of the stone fill or when stone becomes clogged. When a sump is installed in front of inlet protection, sediment should be removed when it fills approximately 1/3 the depth of the sump.
5. Removed sediment shall be placed in stockpile storage areas or spread thinly across disturbed area. Stabilize the removed sediment after it is relocated.
6. Large debris, trash, and leaves should be removed from in front of the inlet protection when found.
7. After accumulated sediment is removed, pull stones from around wire mesh to wash or to replace with fresh stones as necessary.
8. Inlet protection structures should be removed after the disturbed areas are permanently stabilized. Remove all construction material and sediment, and dispose of them properly. Grade the disturbed area to the elevation of the drop inlet crest. Stabilize all bare areas immediately.

South Carolina Department of Health and Environmental Control

Type B

WIRE MESH & STONE INLET PROTECTION

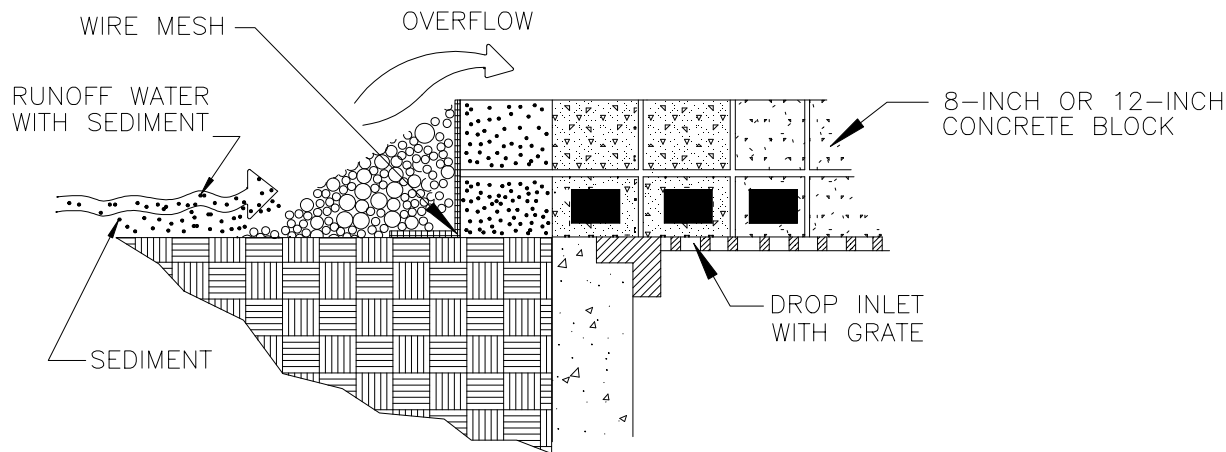
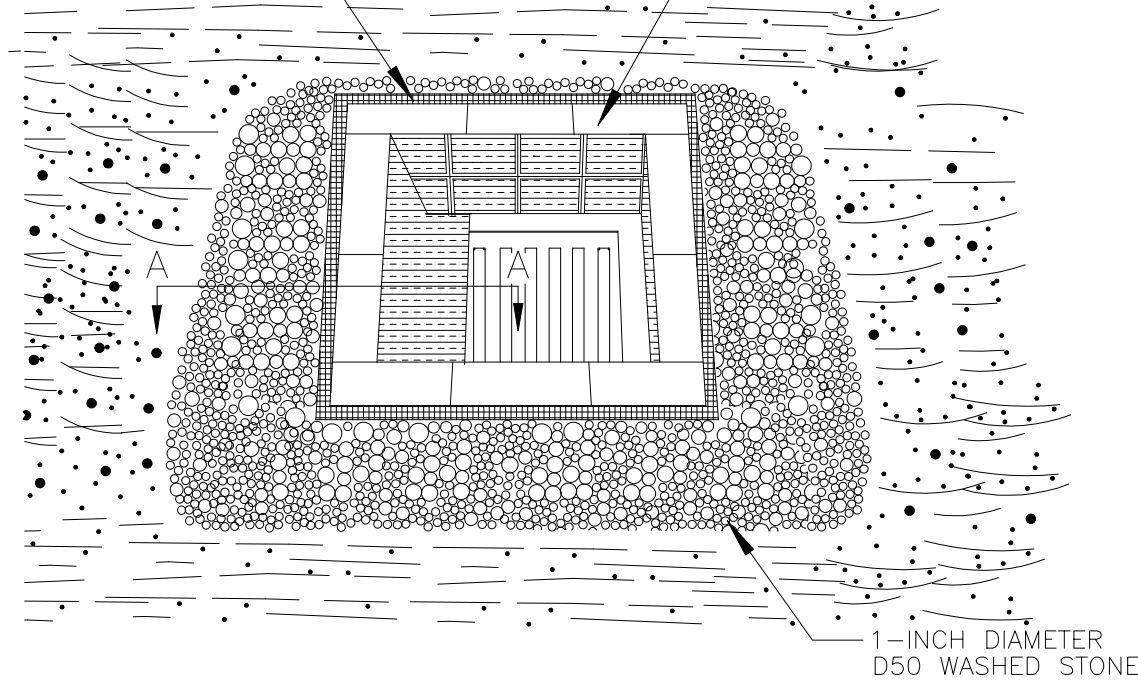
STANDARD DRAWING NO. SC-08 PAGE 2 of 2

GENERAL NOTES

FEBRUARY 2014
DATE

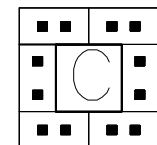
1/2-INCH x 1/2-INCH WIRE MESH

CONCRETE BLOCK
WITH BOTTOM ROW
OPENINGS FACING OUTWARD



CROSS SECTION A-A

PLAN SYMBOL



South Carolina Department of
Health and Environmental Control

Type C

BLOCK & GRAVEL INLET PROTECTION

STANDARD DRAWING NO. SC-09 PAGE 1 of 2

NOT TO SCALE

FEBRUARY 2014
DATE

BLOCK AND GRAVEL DROP INLET PROTECTION

GENERAL NOTES

1. Block and gravel filters can be used where heavy flows and higher velocities are expected and where an overflow capacity is necessary to prevent excessive ponding around the structure.
2. Gravel shall consist of 1-inch D50 Washed Stone and should extend to height equal to the elevation of the top of the blocks.
3. Place the bottom row of the concrete blocks lengthwise on their side so that the open end faces outward, not upward.
4. The height of the barrier can be varied, depending upon design needs by stacking a combination of blocks that are 8- to 12-inches wide.
5. Wire mesh should be placed over the outside vertical face of the concrete blocks to prevent stones from being washed through the holes in the blocks. Hardware cloth or comparable wire mesh with $\frac{1}{2}$ -inch x $\frac{1}{2}$ -inch openings should be used.

INSPECTION AND MAINTENANCE

1. The key to functional inlet protection is weekly inspections, routine maintenance, and regular sediment removal.
2. Regular inspections of all inlet protection shall be conducted once every calendar week and, as recommended, within 24-hours after each rainfall event that produces $\frac{1}{2}$ -inch or more of precipitation.
3. Attention to sediment accumulations in front of the inlet protection is extremely important. Accumulated sediment should be continually monitored and removed when necessary.
4. Remove accumulated sediment when it reaches $\frac{1}{3}$ the height of the blocks. If a sump is used, sediment should be removed when it fills approximately $\frac{1}{3}$ the depth of the hole.
5. Removed sediment shall be placed in stockpile storage areas or spread thinly across disturbed area. Stabilize the removed sediment after it is relocated.
6. Large debris, trash, and leaves should be removed from in front of tubes when found.
7. If the stone filter becomes clogged with sediment, the stones must be pulled away from the inlet and cleaned or replaced with fresh stone.
8. Inlet protection structures should be removed after the disturbed areas are permanently stabilized. Remove all construction material and sediment, and dispose of them properly. Grade the disturbed area to the elevation of the drop inlet structure crest. Stabilize all bare areas immediately.

South Carolina Department of Health and Environmental Control

Type C

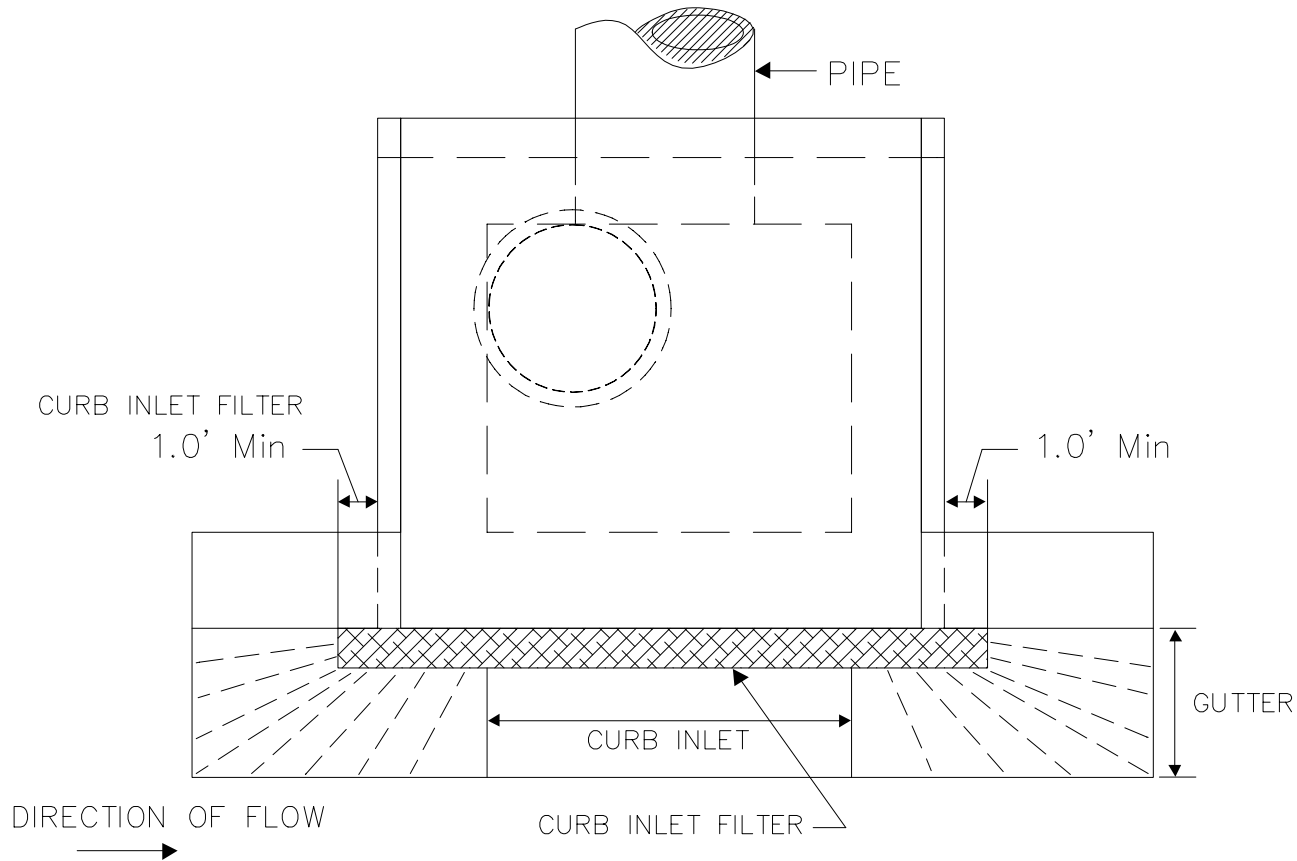
BLOCK & GRAVEL INLET PROTECTION

STANDARD DRAWING NO. SC-09 PAGE 2 of 2

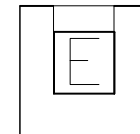
GENERAL NOTES

FEBRUARY 2014
DATE

TOP VIEW



PLAN SYMBOL



South Carolina Department of
Health and Environmental Control

Type E

SURFACE COURSE CURB INLET FILTERS

STANDARD DRAWING NO. SC-10 PAGE 1 of 2

NOT TO SCALE

FEBRUARY 2014
DATE

SURFACE COURSE CURB INLET PROTECTION

GENERAL NOTES

1. Only use surface curb inlet filters that have a minimum height or diameter of 9-inches and have a minimum length that is 2-feet longer than the length of the curb opening.
2. Surface course inlet filters that are designed to completely block the inlet opening are prohibited. Acceptable inlet filters should allow for overflows to enter the catch basin.
3. Surface course inlet filters should be constructed with a synthetic material that will allow stormwater to freely flow through while trapping sediment and debris.
4. Straw, straw fiber, straw bales, pine needles and leaf mulch are not permissible filter materials.
5. Each filter should have aggregate compartments for stone, sand, and other weighted materials or mechanisms to hold the unit in place. Fill aggregate compartments to a level (at least 1/2 full) to hold the filter in place and create a seal between the filter and the road surface.
6. Use only Type E inlet filters appearing on SC DOT's Qualified Products Listing (QPL), Approval Sheet #58, or filters meeting the most current edition of the SC DOT Standard Specifications for Highway Construction.

INSPECTION AND MAINTENANCE

1. The key to functional inlet protection is weekly inspections, routine maintenance, and regular sediment removal.
2. Regular inspections of all inlet protection shall be conducted once every calendar week and, as recommended, within 24-hours after each rainfall event that produces 1/2-inch or more of precipitation.
3. Attention to sediment accumulations in front of the inlet protection is extremely important. Accumulated sediment should be continually monitored and removed when necessary.
4. Remove accumulated sediment when silt and/or debris has built up around the filter preventing stormwater to flow through the filter.
5. Removed sediment shall be placed in stockpile storage areas or spread thinly across disturbed area. Stabilize the removed sediment after it is relocated.
6. Inlet protection structures should be removed after the disturbed areas are permanently stabilized. Remove all construction material and sediment, and dispose of them properly. Grade the disturbed area to the elevation of the drop inlet structure crest. Stabilize all bare areas immediately.

South Carolina Department of Health and Environmental Control

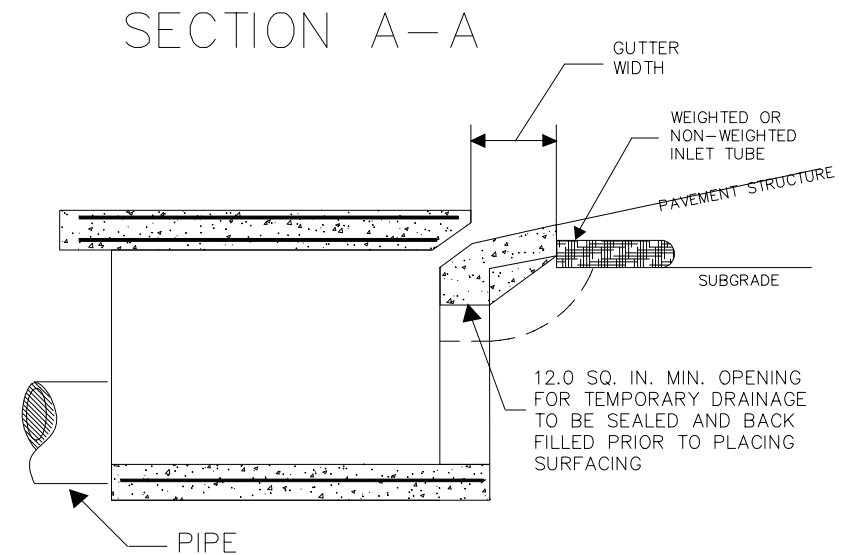
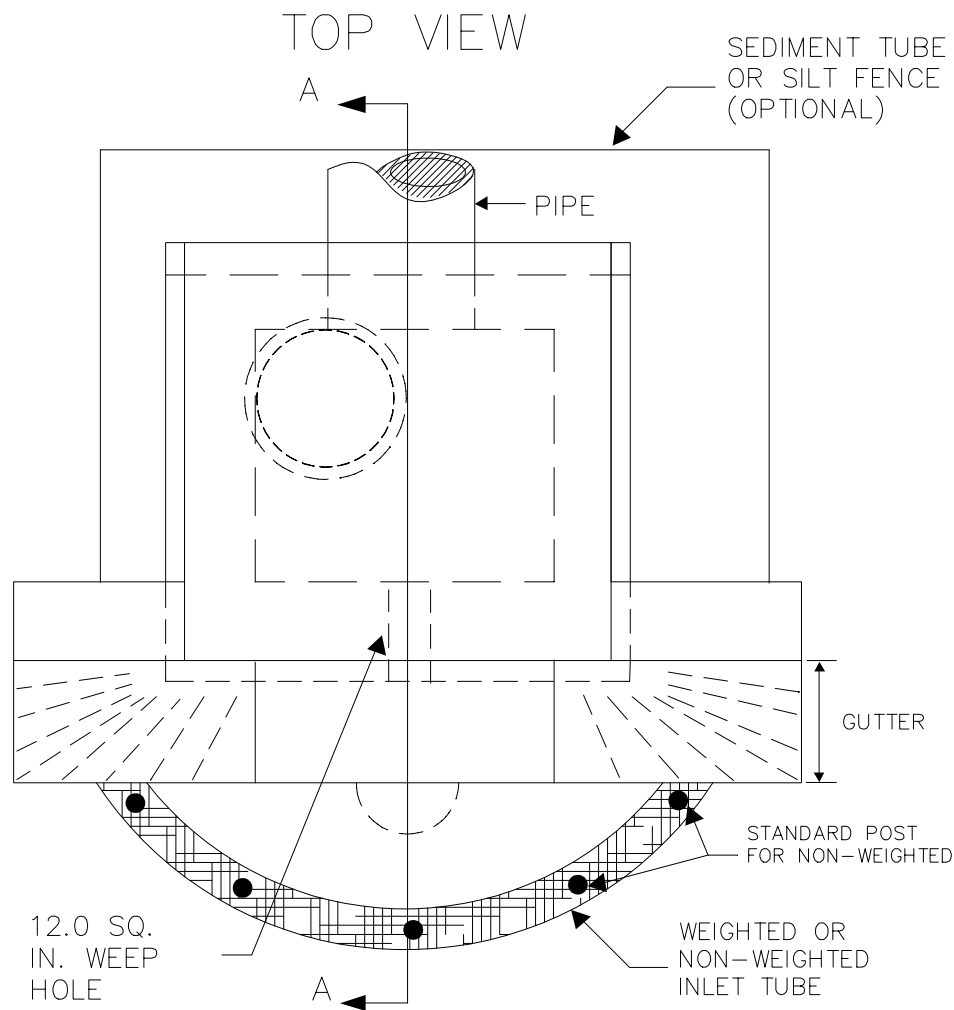
Type E

SURFACE COURSE CURB INLET FILTERS

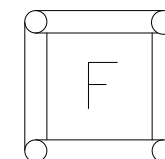
STANDARD DRAWING NO. SC-10 PAGE 2 of 2

GENERAL NOTES

FEBRUARY 2014
DATE



PLAN SYMBOL



South Carolina Department of
Health and Environmental Control

Type F
INLET TUBES

STANDARD DRAWING NO. SC-11 PAGE 1 of 2

NOT TO SCALE

FEBRUARY 2014
DATE

TYPE F – INLET TUBES INLET PROTECTION

GENERAL NOTES

1. Inlets tubes should be composed of compacted geotextiles, curled excelsior wood, natural coconut fibers, a hardwood mulch, or a mix of these materials enclosed by a flexible netting material.
2. Inlets tubes should utilize an outer netting that consists of seamless, high-density polyethylene photodegradable materials treated with ultraviolet stabilizers or a seamless, high-density polyethylene non-degradable material. Curled wood excelsior fiber, or natural coconut fiber rolled erosion control products rolled up to create an inlet tube device are not allowed.
3. Do not use straw, straw fiber, straw bales, pine needles, or leaf mulch as fill material within inlet tubes.
4. Weighted inlet tubes must be capable of staying in place without external stabilization measures and may have a weighted inner core or other weighted mechanism to keep them in place.
5. Install weighted tubes lying flat on the ground, with no gaps between the underlying surface and the inlet tube. Do not stack inlet tubes. Do not completely block inlet with tube.
6. Non-weighted inlet tubes require staking or other stabilization methods to keep them safely in place.
7. Overflow or overtopping of inlet tubes must be allowed to flow into inlet unobstructed.
8. To avoid possible flooding, two or three concrete cinder blocks may be placed between the tube and the inlet.

INSPECTION AND MAINTENANCE

1. The key to functional inlet protection is weekly inspection, routine maintenance, and regular sediment removal.
2. Regular inspections of all inlet protection shall be conducted once every calendar week and, as recommended, within 24-hours after each rainfall event that produces 1/2-inch or more of precipitation.
3. Attention to sediment accumulations in front of the inlet protection is extremely important. Accumulated sediment should be continually monitored and removed when necessary.
4. Remove accumulated sediment when it reaches 1/3 the height of the blocks. If a sump is used, sediment should be removed when it fills approximately 1/3 the depth of the hole.
5. Removed sediment shall be placed in stockpile storage areas or spread thinly across disturbed area. Stabilize the removed sediment after it is relocated.
6. Large debris, trash, and leaves should be removed from in front of tubes when found.
7. Replace inlet tube when damaged or as recommended by manufacturer's specifications.
8. Inlet protection structures should be removed after the disturbed areas are permanently stabilized. Remove all construction material and sediment, and dispose of them properly. Grade the disturbed area to the elevation of the drop inlet structure crest. Stabilize all bare areas immediately.

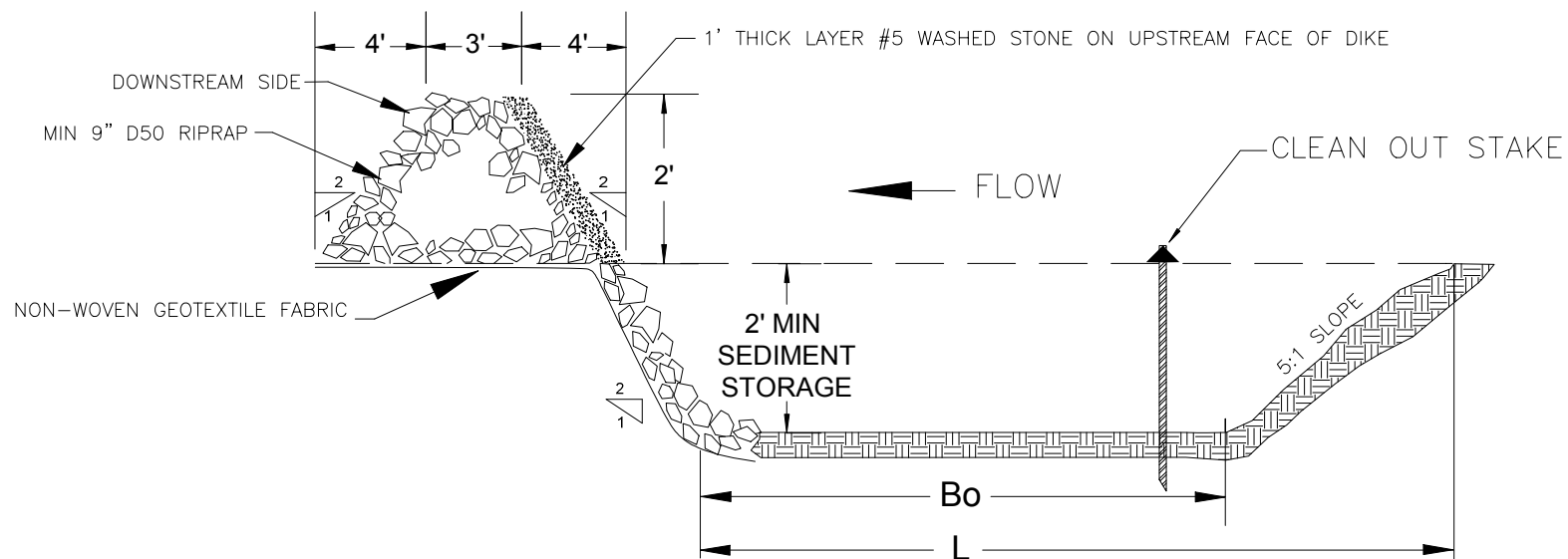
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Type F INLET TUBES

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GENERAL NOTES

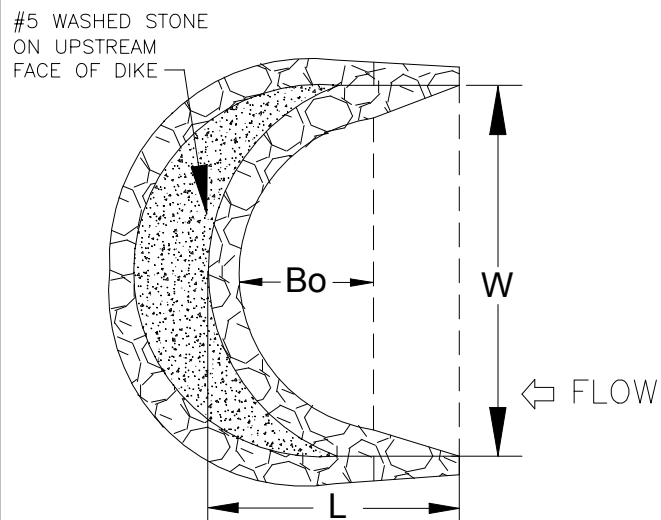
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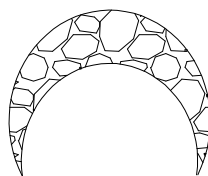
TYPICAL ROCK DIKE DIMENSIONS

| W | L | Bo | MAX. DRAINAGE (ACRES) | TOTAL STORAGE VOL. (CU. FT.) | SEDIMENT STORAGE VOLUME (CU. FT.) |
|-----|-------|-------|-----------------------|------------------------------|-----------------------------------|
| 15' | 17.5' | 3.5' | 0.5 | 1259 | 283 |
| 20' | 20.0' | 6.0' | 1.0 | 1946 | 529 |
| 25' | 22.5' | 8.5' | 1.5 | 2790 | 855 |
| 30' | 25.0' | 11.0' | 2.0 | 3790 | 1257 |

MAXIMUM 2-ACRE DRAINAGE AREA TO DIKE



PLAN SYMBOL



South Carolina Department of
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ROCK SEDIMENT DIKE

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ROCK SEDIMENT DIKE – GENERAL NOTES

1. Rock sediment dikes should not be placed in Waters of the State or USGS blue-line streams (unless approved by Federal Authorities).
2. A non-woven geotextile fabric shall be installed over the soil surface where the rock sediment dike is to be placed.
3. The body of a rock sediment dike shall be composed of 9-inch D50 riprap at a minimum.
4. The upstream face of the rock sediment dike shall be composed of a 1-foot thick layer of 3/4-inch to 1-inch D50 washed stone placed at a slope of 2H:1V.
5. Rock sediment dikes shall have a minimum top flow length of 3-feet (2-foot flow length through the riprap and 1-foot flow length through the washed stone).
6. The rock must be placed by hand or mechanical placement (no dumping of rock to form the sediment dike) to achieve proper dimensions.
7. A sediment sump shall be located on the upstream side of the structure to provide sediment storage. The upstream side of the sump shall have a slope of 5H:1V to inhibit erosion of the sediment storage area. The minimum depth of the sump shall be 2-feet.
8. Mark the sediment clean-out level of the sediment dike with a stake in the field.
9. Seed and mulch all disturbed areas.

ROCK SEDIMENT DIKE – INSPECTION AND MAINTENANCE

1. The key to a functional rock sediment dike is weekly inspection, routine maintenance and regular sediment removal.
2. Attention to sediment accumulations within the rock sediment dike is extremely important. Accumulated sediment deposition should be continually monitored in the trap and removed when necessary.
3. Remove accumulated sediment when it reaches 50% of the designed sediment storage volume as marked by the clean-out stake.
4. Removed sediment from the rock sediment dike shall be placed in stockpile storage areas or spread thinly across the disturbed area. Stabilize the removed sediment after it is relocated.
5. Regular inspections of rock sediment dikes should be conducted once every calendar week and, as recommended, within 24-hours after each rainfall event that produces 1/2-inch or more of precipitation.
6. All rock sediment dikes should be removed within 30 days after final stabilization is achieved. Dispose of all construction materials appropriately. Disturbed area resulting from removal shall be permanently stabilized.

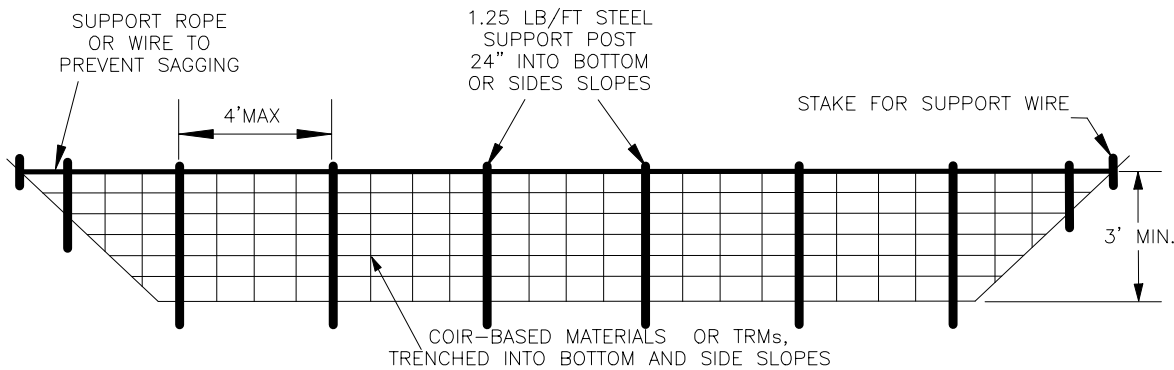
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ROCK SEDIMENT DIKE

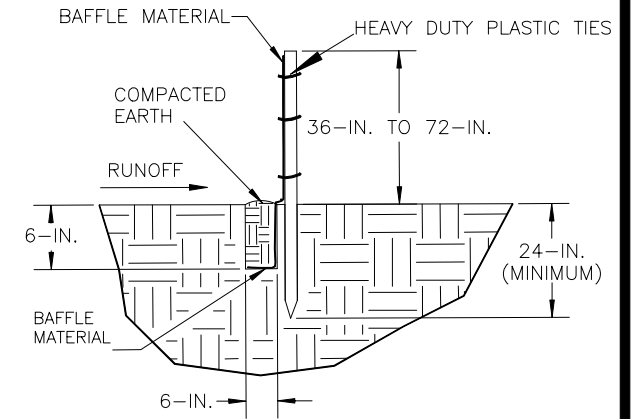
STANDARD DRAWING NO. SC-12 PAGE 2 of 2

GENERAL NOTES

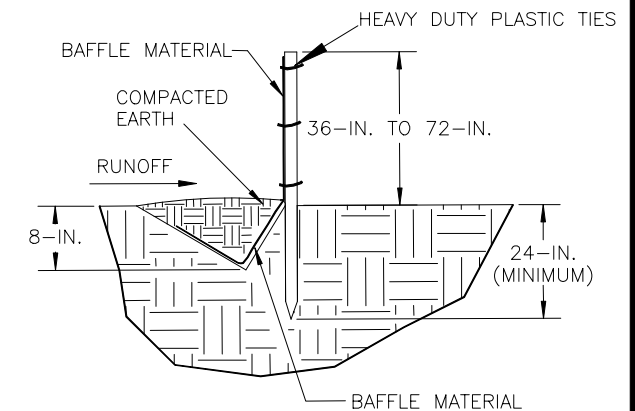
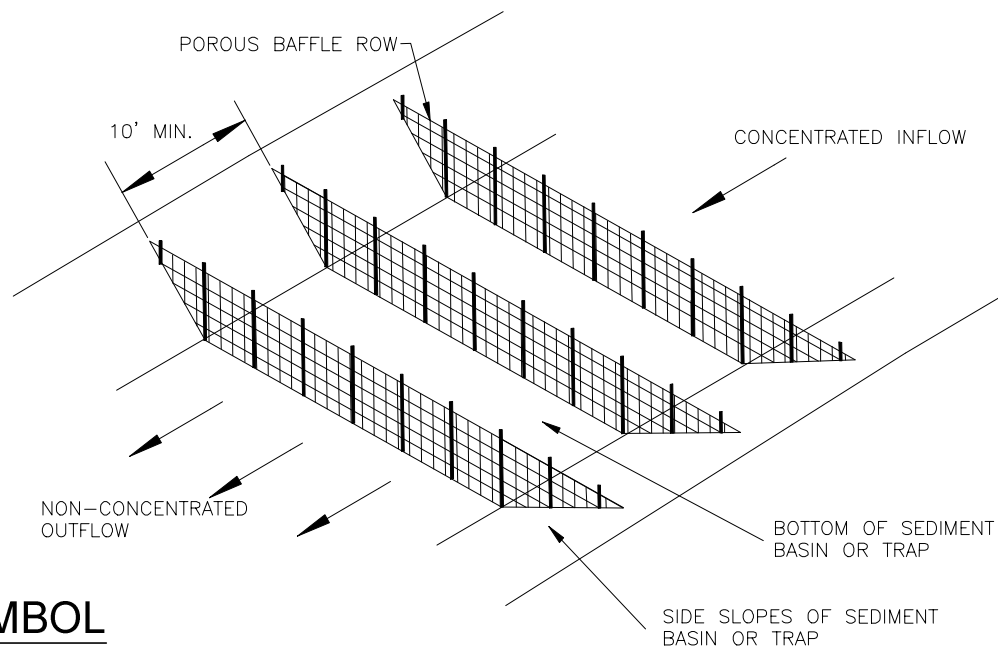
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CROSS SECTION VIEW

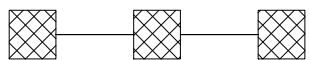


FLAT-BOTTOM TRENCH DETAIL



V-SHAPED TRENCH DETAIL

PLAN SYMBOL



—PB—PB—

PERSPECTIVE VIEW

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POROUS BAFFLES

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BAFFLES — POST REQUIREMENTS

1. Porous baffle posts must be 60–inch to 96–inch long steel posts that meet, at a minimum, the following physical characteristics.
 - Composed of a high strength steel with a minimum yield strength of 50,000 psi.
 - Include a standard "T" section with a nominal face width of 1.38–inches and a nominal "T" length of 1.48–inches.
 - Weigh 1.25 pounds per foot (\pm 8%)
2. Posts shall be equipped with projections to aid in fastening of baffle material.
3. Install posts to a minimum of 24–inches. A minimum height of 1– to 2–inches above the fabric shall be maintained, and a maximum height of 3 feet shall be maintained above the ground.
4. Post spacing shall be at a maximum of 4–feet on center.

BAFFLES — MATERIAL REQUIREMENTS

1. Baffle material must be composed of coir–based materials or Turf Reinforcement Matting (TRM) that consists of the following requirements:
 - Have a light penetration (% openings) between 10–35%;
 - Free of loose straw material;
 - Have a minimum tensile strength of 145 lb/ft; and,
 - Have a minimum width of 48–inches.
2. 12–inches of the fabric should be placed within excavated trench and toed in when the trench is backfilled or baffle material may be stapled into ground by using 12–inch staples with a maximum spacing of 12–inches.
3. Baffle material shall be purchased in continuous rolls and cut to the width of the sediment basin or trap to avoid joints.

BAFFLES — GENERAL NOTES

1. Attach baffle to the steel posts using heavy–duty plastic ties that are evenly spaced along the above ground portion of each post.
2. Install the baffle rows perpendicular to the direction of the stormwater flow and place each baffle the proper distance from inlet and outlets to allow access for maintenance and clean–out.

BAFFLES — INSPECTION & MAINTENANCE

1. The key to functional porous baffles is weekly inspection, routine maintenance, and regular sediment removal.
2. Regular inspections of porous baffles shall be conducted once every calendar week and, as recommended, within 24–hours after each rainfall even that produces 1/2–inch or more of precipitation.
3. Attention to sediment accumulations along each row of baffles is extremely important. Accumulated sediment should be continually monitored and removed when necessary.
4. Remove accumulated sediment when it reaches 1/3 the height of the baffle row or when it reaches the clean–out height of the sediment basin or trap, whichever is reached first.
5. Removed sediment shall be placed in stockpile storage areas or spread thinly across disturbed area. Stabilize the removed sediment after it is relocated.
6. Check for areas where stormwater runoff has eroded a channel beneath each row of baffles, or where the baffle has sagged or collapsed due to runoff overtopping the baffle.
7. Check for tears/rips within the baffles, areas where the baffle has begun to decompose, and for any other circumstance that may render the baffle ineffective. Removed damaged baffles and reinstall new baffles immediately.
8. Porous baffles should be removed within 30 days after final stabilization is achieved and once it is removed, the resulting disturbed area shall be permanently stabilized.

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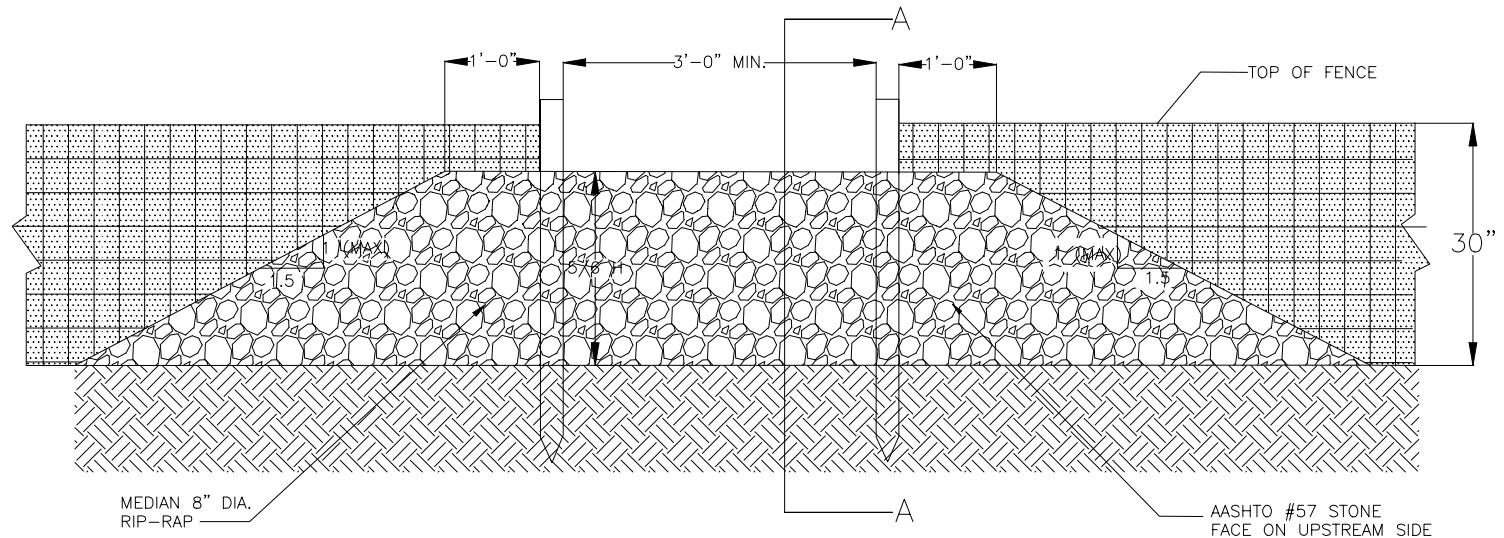
POROUS BAFFLES

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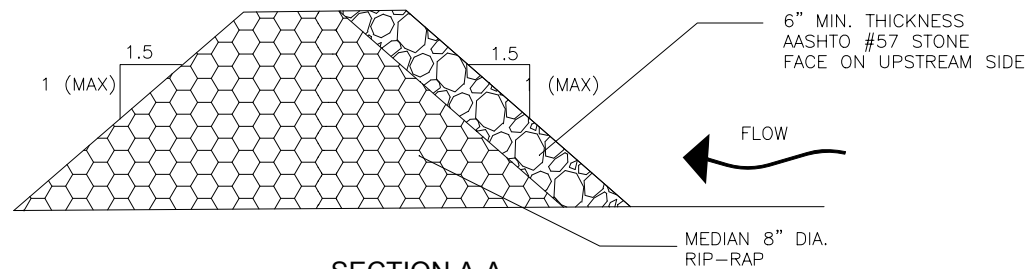
GENERAL NOTES

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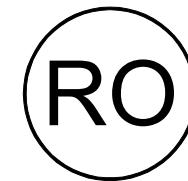
SILT FENCE ROCK OUTLET



ELEVATION - UP-SLOPE FACE



SECTION A-A



PLAN SYMBOL

NOTES:

1. WASHED STONE (#57) TO BE REMOVED AND REPLACED ONCE IT BECOMES CLOGGED WITH SEDIMENT.
2. SEDIMENT TO BE REMOVED WHEN ACCUMULATIONS REACH 1/3 HEIGHT OF SILT FENCE
3. THE KEY TO FUNCTIONAL ROCK OUTLETS IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR SEDIMENT REMOVAL.

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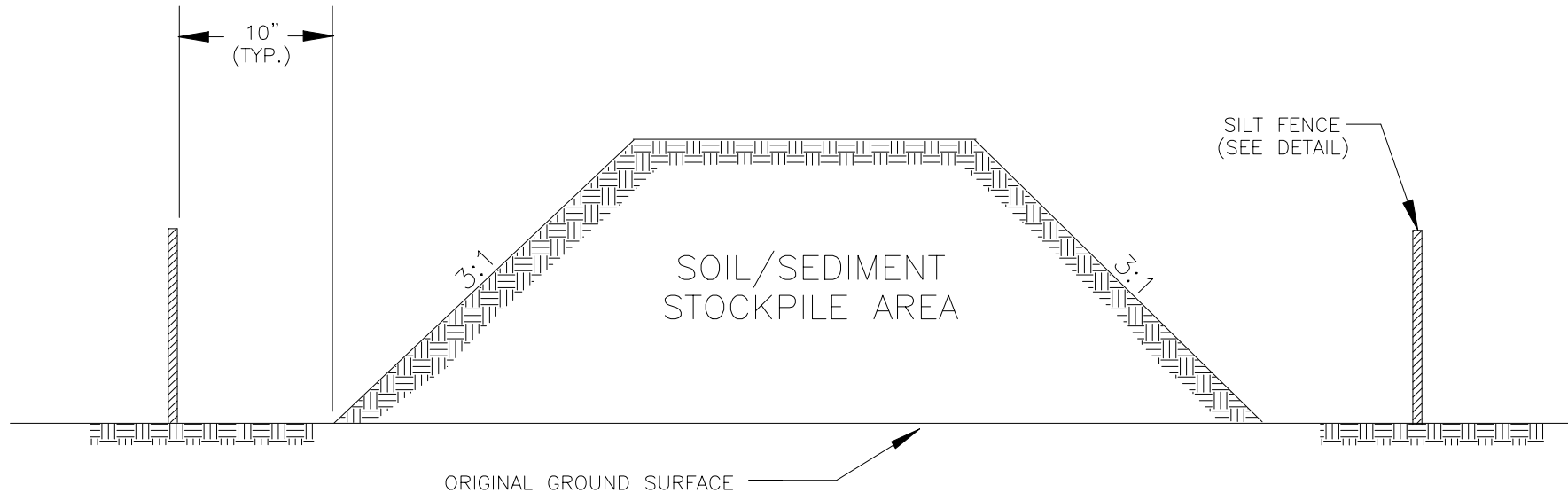
SILT FENCE ROCK OUTLET

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TEMPORARY STOCKPILE AREA



NOTES:

1. SILT FENCE TO EXTEND AROUND ENTIRE PERIMETER OF STOCKPILE, OR IF STOCKPILE AREA IS LOCATED ON/NEAR A SLOPE THE SILT FENCE IS TO EXTEND ALONG CONTOURS OF THE DOWN-GRADIENT AREA.
2. IF STOCKPILE IS TO REMAIN FOR MORE THAN 14 DAYS, TEMPORARY STABILIZATION MEASURES MUST BE IMPLEMENTED.
3. SILT FENCE SHALL BE MAINTAINED UNTIL STOCKPILE AREA HAS EITHER BEEN REMOVED OR PERMANENTLY STABILIZED.
4. THE KEY TO FUNCTIONAL TEMPORARY STOCKPILE AREAS IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR SEDIMENT REMOVAL.

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TEMPORARY STOCKPILE

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