

CONSTRUCTION SITE STORMWATER PRACTICES



FOLLOW THE SEQUENCE OF CONSTRUCTION



- Phase construction
- Minimize disturbance
- Install sediment controls first
- Protect sensitive areas

MARK CLEARING LIMITS



ESTABLISH CONSTRUCTION ACCESS



- Use DE No. 3 stone (2-3")
- **Minimum** 50' length
- Full width of entrance/exit
- At least 6 inches thick
- Underlain by geotextile

INSTALL PERIMETER CONTROLS



- All runoff must pass through a sediment removal BMP
- Practices must be fully functional before land disturbance
- Proper installation is critical

STANDARD SILT FENCE



- Must meet specifications
- Trench into ground
- Pull tight and place ends up slope
- Wrap end stakes of adjoining sections
- Reinforced and super silt fence
- Sheet flow only

STANDARD SILT FENCE



COMPOST LOGS AS PERIMETER CONTROL

Get agency approval for the use and applications



Another application for compost logs when silt fence can not be installed

Tributary to Red Clay Creek

Trench Drain



TEMPORARY DIKE



- Earth berm that channels runoff to a stable outlet
- Drainage area of less than 10 acres
- Compact the berm
- Stabilize both the berm and the channel
- Grade channel to eliminate ponding

DIVERSIONS



- Waterway backed by a supporting ridge
- Conveys runoff to a stable outlet
- Compact and stabilize
- Typical uses
 - ✓ Reduce slopes
 - ✓ Shield slopes from overland flow
 - ✓ Divert clean water

SEDIMENT TRAPS



- Temporary containment areas to intercept runoff and contain sediment
- Volume = 3600 cubic feet per acre
- Stable outlets
- Stabilize with vegetation
- Remove sediment when $\frac{1}{2}$ full

STONE OUTLET SEDIMENT TRAP



RIPRAP OUTLET SEDIMENT TRAP



COMPOST LOG SEDIMENT TRAP



SEDIMENT BASINS



- Must meet specifications for a permanent pond
- 3600 cubic feet storage
- Stable outlet
- Vegetatively stabilize immediately
- Skimmers preferred dewatering method





GRADING TECHNIQUES TO MINIMIZE EROSION AND SEDIMENTATION

The wrong way to track



SLOPE TREATMENT PRODUCTS

- Straw Wattles
- Compost Logs
- Terra-Tubes®
- Erosion Eel



SLOPE TREATMENT PRODUCTS

- Easy and quick to install
 - No large equipment needed and minimal soil disturbance
- Easy to adjust or relocate
- Easy to discard or biodegrades in place
- Sediment control can be used in concert with rolled erosion control product

STABILIZE SOILS



- 14 day stabilization rule
- Many methods and materials
- Measures must be appropriate for
 - ✓ Time of year
 - ✓ Site conditions
 - ✓ Duration

THE STEPS FOR SUCCESSFUL STABILIZATION

- Site Preparation
- Soil Additives
- Seed Application
- Mulching and Mulch Anchoring
- Maintenance



PROTECT STORM DRAIN INLETS (TYP-1)



- All inlets must be protected from sediment
- Many methods and products
- Proper installation critical
- Reduce sediment loads
 - ✓ Divert runoff
 - ✓ Stabilize soils
 - ✓ Sweep streets



SedCage

PROTECT STORM DRAIN INLETS UNDER THE GRATE (TYP-2)



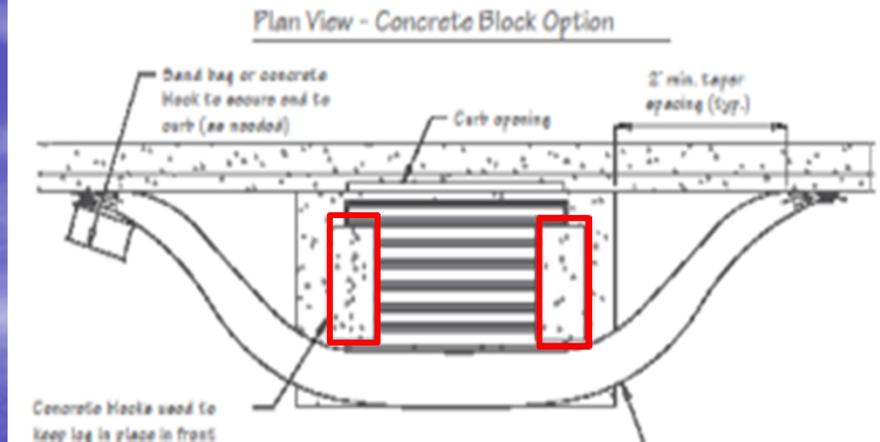
Siltsack® is a product of ACF
Environmental



PROTECT STORM DRAIN INLETS



IP-3



- Uses a compost filter log and several options to protect the curb throat
 - Concrete blocks are used to keep the compost filter log in place
 - When a grate is present, IP-2 sediment bag is also installed
 - IP-2 inlet products that have throat protection can be implemented; must meet the IP-2 Delaware spec





WATERWAY CONSTRUCTION PRACTICES



- Prevent sedimentation from construction within water bodies and approach areas
- Stream Diversions
 - Utility crossing diversion pipe
 - Cofferdam
 - Diversion channel
- Turbidity Curtain

TURBIDITY CURTAIN



Turbid Water

Turbidity curtain installed parallel to the river flow

Contained Work Area

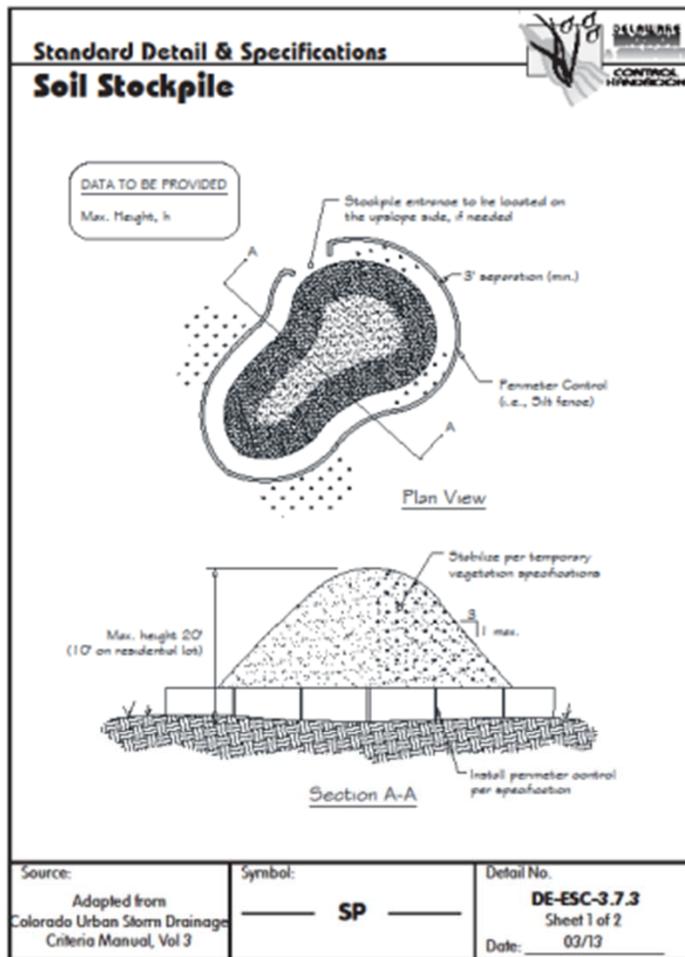
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CONTROL DEWATERING



- All sediment laden water must be filtered prior to discharge
- The cause of most violations
- Many dewatering methods
 - ✓ Sediment bags
 - ✓ Sump pits
 - ✓ Filter tanks
 - ✓ Flocculants

STOCKPILE CONTROL



- Placement of stockpiles
- Slopes of sides 3:1
- General application: the maximum height 20 feet (local restrictions)
- Residential lot maximum height 10 feet (local restrictions)

MAINTAIN BMPs



- All BMPs require maintenance
- Proper installation is only the first step
- Review on a regular basis and after every rain
- Designate a person to inspect E & S controls

VOYAGER LE

SILT HAPPENS



Managing The Project VIDEO

