DEFINITION

Controlling surface and air movement of dust on construction sites, roads, and demolition sites.

PURPOSE

- To prevent surface and air movement of dust from exposed soil surfaces.

- To reduce the presence of airborne substances which may be harmful or injurious to human health, welfare, or safety, or to animals or plant life.

CONDITIONS

This practice is applicable to areas subject to surface and air movement of dust where on and off-site damage may occur without treatment.

METHODS AND MATERIALS

A. Temporary Methods

Mulches: See standard **Ds1 - Disturbed Area Stabilization (With Mulching Only)**. Synthetic resins may be used instead of asphalt to bind mulch material. Refer to standard **Tac - Tackifiers**. Resins such as Curasol or Terratack should be used according to manufacturer's recommendations.

Vvegetative Cover: See standard **Ds2 - Disturbed Area Stabilization (With Temporary Seeding)**.

Spray-on Adhesives: These are used on mineral soils (not effective on muck soils). Keep traffic off these areas. Refer to standard **Tac - Tackifiers**.

Tillage: This practice is designed to roughen and bring clods to the surface. It is an emergency measure which should be used before wind erosion starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12 inches apart, spring-toothed harrows, and similar plows are examples of equipment which may produce the desired effect.

Irrigation: This is generally done as an emergency treatment. Site is sprinkled with water until the surface is wet. Repeat as needed.

Barriers: Solid board fences, snowfences, burlap fences, crate walls, bales of hay and similar material can be used to control air currents and soil blowing. Barriers placed at right angles to prevailing currents at intervals of about 15 times their height are effective in controlling wind erosion.

Calcium Chloride: Apply at rate that will keep surface moist. May need retreatment.

B. Permanent Methods

Permanent Vegetation: See specification **Ds3 - Disturbed Area Stabilization (With Permanent Vegetation)**. Existing trees and large shrubs may afford valuable protection if left in place.

Topsoiling: This entails covering the surface with less erosive soil material. See standard **Tp - Topsoiling**.

Stone: Cover surface with crushed stone or coarse gravel. See standard **CR - Construction Road Stabilization**.

Please refer to the Manual for Erosion and sediment Control in Georgia, latest version for additional informational on Erosion Control measures indicated in these plans and additional measures that may be deemed necessary or beneficial during construction.

Du Dust Control on Disturbed Areas (not to scale)

DEFINITION

A wall constructed of one or more of the following: Concrete masonry, reinforced concrete cribbing, treated timbers, steel pilings, gabions, stone drywall, rock rip-rap, etc.

PURPOSE

To assist in the stabilization of cut or fill slopes where stable slopes are not attainable without the use of the wall.

CONDITIONS

Use in conjunction with cut or fill slopes which, because of space limitations or unstable material, do not allow the stable slope criteria listed above, e.g. cuts into steep hillsides on small lots or cuts into hillsides behind shopping centers to provide loading space.

DESIGN CRITERIA

General

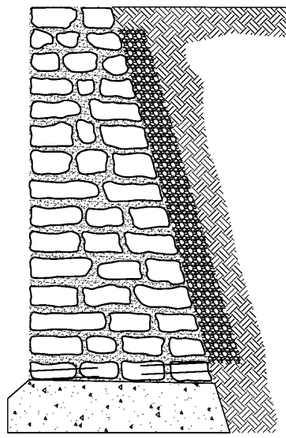
The design of a retaining wall is a complicated process. Many factors must be taken into account, such as: stresses and forces outside and within the wall, allowable height and minimum thickness. Other considerations are: foundation design with respect to loadings, bearing values of soils, footing dimensions. Additional design factors are safety hazards, subsurface and surface drainage and appearance.

Each situation requires a *specific design* which is within the capabilities of the design professional.

Consideration should be given to all of the alternative methods with regard to construction of the wall.

Some methods area:

1. Concrete masonry
2. Concrete cribbing
3. Gabions
4. Steel piling
5. Stone drywall
6. Rock riprap, etc.
7. Treated timbers
8. Geotextile wrapped-face wall
9. Geotextile reinforced steep slopes



Please refer to the Manual for Erosion and sediment Control in Georgia, latest version for additional informational on Erosion Control measures indicated in these plans and additional measures that may be deemed necessary or beneficial during construction.

Re Retaining Wall (not to scale)

DEFINITION

Sediment barriers are temporary structures made up of a porous material typically supported by steel or wood posts. Types of sediment barriers may include silt fence, brush piles, mulch berms, compost filter socks, or other filtering material.

PURPOSE

To minimize and prevent sediment carried by sheet flow from leaving the site and entering natural drainage ways or storm drainage systems by slowing storm water runoff and causing the deposition/or filtration of sediment at the structure. The barriers retain the soil on the disturbed land until the activities disturbing the land are completed and vegetation is established.

CONDITIONS

Barriers should be installed where runoff can be stored behind the barrier without damaging the submerged area behind the barrier or the structure itself. Sediment barriers shall not be installed across streams, ditches, waterways, or other concentrated flow areas.

CONSTRUCTION SPECIFICATIONS

Sensitive areas

Sediment barriers being used as Type S shall have a support spacing of no greater than 4 feet on center, with each driven into the ground a minimum of 18 inches. Type S sediment barriers shall have a P-factor no greater than 0.030.

Installation

Sediment barriers should be installed along the contour.

Temporary sediment barriers shall be installed according to the following specifications as should on the plans or as directed by the design professional.

For installation of the barriers, refer to the details included, as well as Figures 6-27.1, 6-27.2, 6-27.3, & 6-27.4, of the Manual for Erosion and sediment Control in Georgia, latest version , respectively. It is important to emember that not all sediment barriers need to be trenched into the ground but most taller sediment barriers do.

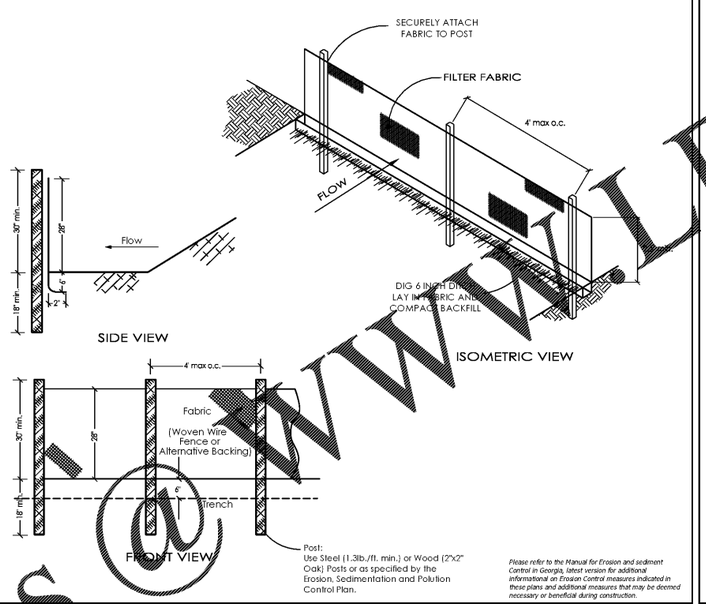
Post installation shall start at the center of a low point (if applicable) with the remaining posts spaced no greater than 4 feet. For post & fastener requirement, see tables 6-27.2 & 6-27.3of the Manual for Erosion and sediment Control in Georgia, latest version.

MAINTENANCE

Sediment shall be removed once it has accumulated to one-half the original height of the barrier. This is extremely important when selecting BMPs with a lower profile.

Sediment barriers shall be replaced whenever they have deteriorated to such an extent that the effectiveness of the product is reduced (approximately six months) or the height of the product is not maintaining 80% of its properly installed height.

Temporary sediment barriers shall remain in place until disturbed areas have been permanently stabilized. All sediment accumulated at the barrier shall be removed and properly disposed of before the barrier is removed.



Please refer to the Manual for Erosion and sediment Control in Georgia, latest version for additional informational on Erosion Control measures indicated in these plans and additional measures that may be deemed necessary or beneficial during construction.

Sd1-S Sediment Barrier - Silt Fence - Type Sensitive (not to scale)

DEFINITION

Sediment barriers are temporary structures made up of a porous material typically supported by steel or wood posts. Types of sediment barriers may include silt fence, brush piles, mulch berms, compost filter socks, or other filtering material.

PURPOSE

To minimize and prevent sediment carried by sheet flow from leaving the site and entering natural drainage ways or storm drainage systems by slowing storm water runoff and causing the deposition/or filtration of sediment at the structure. The barriers retain the soil on the disturbed land until the activities disturbing the land are completed and vegetation is established.

CONDITIONS

Barriers should be installed where runoff can be stored behind the barrier without damaging the submerged area behind the barrier or the structure itself. Sediment barriers shall not be installed across streams, ditches, waterways, or other concentrated flow areas.

CONSTRUCTION SPECIFICATIONS

Non-Sensitive areas

Sediment barriers being used as Type NS shall have a support spacing of no greater than 6 feet on center, with each being driven into the ground a minimum of 18 inches.

FILTER MEDIA SOCK SPECIFICATIONS

Compost filter media used for sediment barrier filler material shall be weed free and derived from a well decomposed source of organic matter. **Filter Media Sock is classified as a Type B, non-sensitive application.** The compost shall be produced using an aerobic composting process meeting CFR 503 regulations including time and temperature data. The compost shall be free of any refuse, contaminants or other materials toxic to plant growth. Non-composted products will not be accepted without applicable water quality test results. Test methods for the items listed should follow US Composting Council Test Methods for the Examination of Composting and Compost Guidelines for laboratory procedures.

A. pH - 5.0-8.0 in accordance with TMECC 04.11-A, "Electrometric pH Determinations for Compost".
B. Particle size - 99% passing a 2 inch (50mm) sieve and maximum of 40% passing a ⅜ inches (9.5mm) sieve, in accordance with TMECC 02.02-B, " Sample Sieving for Aggregate Size Classification". (Note: In the field, product commonly is between 3/4 inch /12.5mm and 2 inch/50mm in particle size).
C. Moisture content of less than 60% in accordance with standardized test methods for moisture determination.
D. Material shall be relatively free (<1% by dry weight) of inert or foreign manmade materials.
E. Sock containment system for compost filter media shall be a photodegradable or biodegradable knitted mesh material and should have ⅛ in. to ⅜ in. openings.

Sediment barriers should be installed along the contour.

Temporary sediment barriers shall be installed according to the following specifications as should on the plans or as directed by the design professional.

For installation of the barriers, refer to the details included as well as Figures 6-27.1, 6-27.2, 6-27.3, & 6-27.4, of the Manual for Erosion and sediment Control in Georgia, latest version , respectively. It is important to remember that not all sediment barriers need to be trenched into the ground but most taller sediment barriers do.

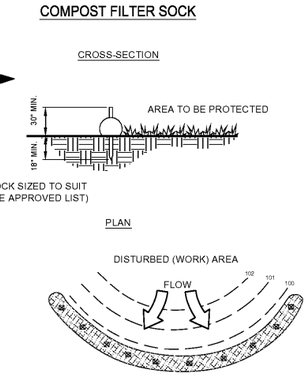
Post installation shall start at the center of a low point (if applicable) with the remaining posts spaced no greater than 4 feet. For post & fastener requirement, see tables 6-27.2 & 6-27.3of the Manual for Erosion and sediment Control in Georgia, latest version.

MAINTENANCE

Sediment shall be removed once it has accumulated to one-half the original height of the barrier. This is extremely important when selecting BMPs with a lower profile.

Sediment barriers shall be replaced whenever they have deteriorated to such an extent that the effectiveness of the product is reduced (approximately six months) or the height of the product is not maintaining 80% of its properly installed height.

Temporary sediment barriers shall remain in place until disturbed areas have been permanently stabilized. All sediment accumulated at the barrier shall be removed and properly disposed of before the barrier is removed.



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Sd1-NS Sediment Barrier - Filter Sock - Type Non-Sensitive (not to scale)

Quality Civil Designs
Planners - Engineers - Environmental
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2144 Buford Hwy
Suite 212
Buford, GA 30518
Phone: 678.626.6723
www.QualityCivilDesigns.com

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for the firm
Quality Civil Designs

Nest Feathers Gifts, LLC

3621 Mundy Mill Road

Parcel: 08025 000003

City of Oakwood
Land Lots 28 & 45,
8th District
Hall County
Georgia

Owner/Developer

Nest Feathers
3621 Mundy Mill Road
Oakwood, GA 30566

24 hour Emergency Contact
Michelle Bajjani
Phone: 678-641-0009
Email:
michelle@nestfeathercafe.com

Revisions

Rev. #	Date	Description
4	06-14-19	City & County Comments
3	04-25-19	City & County Comments
2	02-18-19	City Comments
1	02-14-19	Progress Set
0	12-21-18	Initial Submittal

Erosion Control Details

FN: 18-052

C-7.3