

EROSION AND SEDIMENT CONTROL FOR HOME BUILDERS

First Edition, May 1999



Erosion is a Costly Problem

Eroding construction sites are a leading cause of water quality problems in Georgia. For every acre under construction, about a dump truck and a half of soil washes into a nearby lake or stream unless the contractor uses erosion controls. Problems caused by this sediment include:

Local taxes - Cleaning up sediment in streets, sewers and ditches adds extra costs to County budgets.

Dredging - The expense of dredging sediment from lakes, and detention ponds is a heavy burden for both the County and private property owners.

Lower property values - Neighboring property values are damaged when lake or stream fills with sediment. Shallow areas encourage weed growth.

Poor fishing - Muddy waters drives away fish that rely on sight to feed. As it settles, sediment smothers gravel beds where fish like small mouth bass find food and lay their eggs.

Nuisance growth of weeds and algae - Sediment carries fertilizers that fuel algae and weed growth.

Controlling Erosion and Sedimentation

Erosion control is important for all construction sites. The materials are easy to find and relatively inexpensive - straw bales or silt fence, stakes, rock, slope drains, grass seed, mulch or geo-textiles.

Putting these materials to use is a straightforward process. Only a few controls are needed on most sites, however all erosion controls must be maintained regularly.

- **Use of slope drains and sediment basins** on all vertical drops;
- **Use of rip rap** at the outflow end of all storm drains and sediment basins shall be installed.

Soil Piles

- Locate away from any down slope street, driveway, stream, lake, wetland, ditch or drainage way.
- Stabilize with mulch and/or vegetation. Temporary seed such as annual rye or winter wheat is recommended for topsoil piles.

Sediment Cleanup

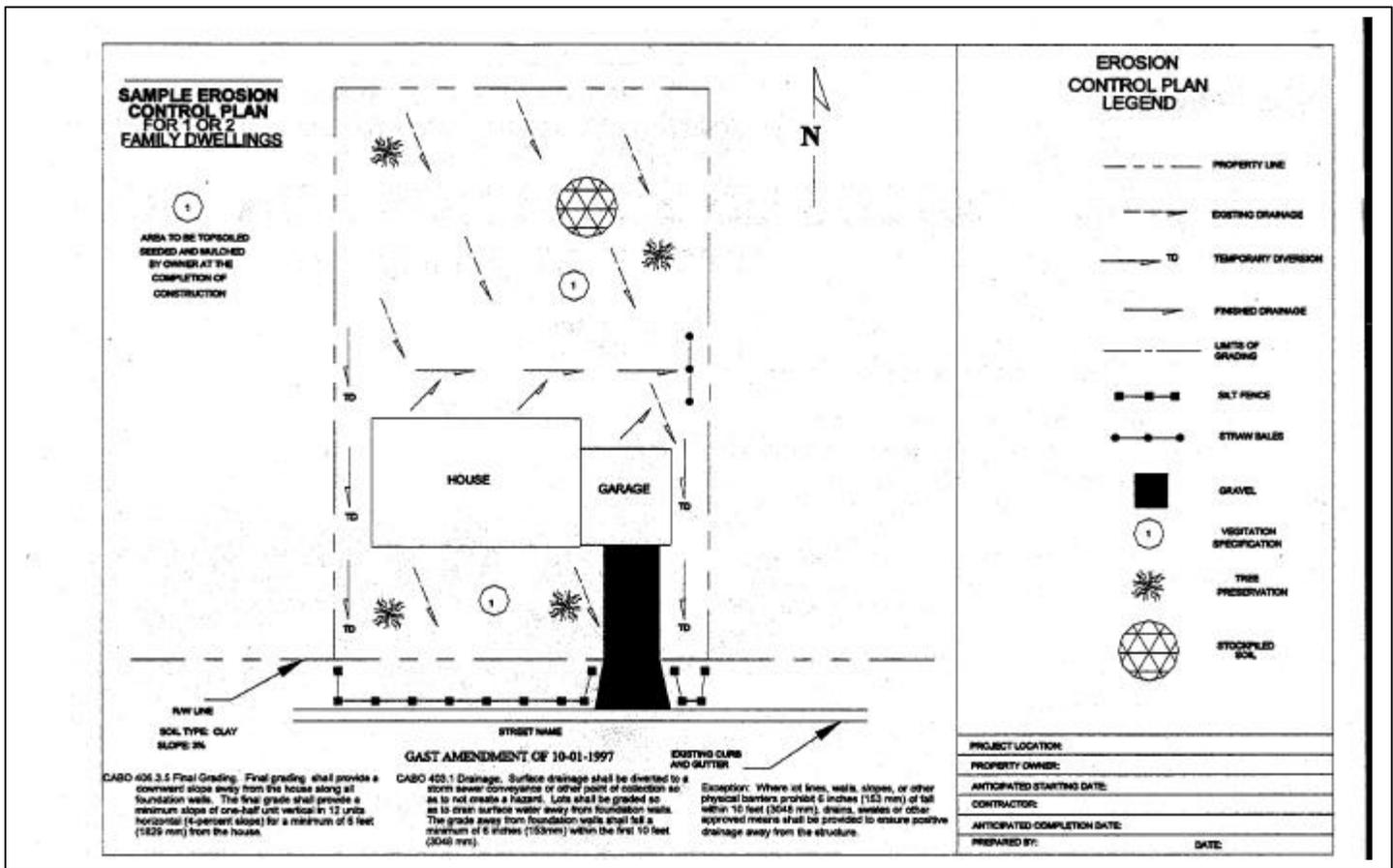
- By the end of each workday, sweep or scrape up soil tracked onto the road. Stabilize with mulch and/or vegetation on all areas at finish grade while maintaining normal erosion controls.

Preserving Existing Vegetation

- Wherever possible, preserve existing trees, shrubs and other vegetation.
- To prevent root damage, do not grade, place soil piles, or park vehicles near trees marked for preservation.
- Place plastic mesh or snow fence barriers around trees to protect that area below their branches.

Revegetation

- Seed, sod or mulch bare soil as soon as possible. Vegetation is the most effective way to control erosion.
- Exposed areas left undisturbed for greater than two weeks must be vegetated. Mulch can be used during poor growing seasons.



Silt Fence

- Install within 24 hours of land disturbance.
- Install on sown slope side parallel to contour of land.
- Extend ends up slope enough to allow water to pond behind fence.
- Bury fabric in trench 6 inches deep with a 2-inch lip.
- Leave no gaps. Overlap sections of silt fence, or twist ends of silt fence together.
- Inspect and repair regularly and after every 1/2 inch rain. Remove sediment if deposits reach half the fence height.
- Maintain until vegetation is established.
- Use 2 rows of Type "C" silt fence adjacent to state waters, lakes, springs, streams or wetlands, identifying and maintaining the State 25' buffer zone.
- Hay bales can be used for temporary erosion control in low flow areas. They should be removed within 30 days and silt fence should be installed for long term use.

Residential Home Building Construction Exit

- Install a construction exit using 2 to 3 inch aggregate.
- Lay stone 6 inches deep, at least 20 wide from the back of the curb or edge of the pavement, and a minimum 16 feet wide.
- Use to prevent tracking mud onto the road by all vehicles.
- Maintain throughout construction.

Certificate of Occupancy

- Lot must be fine graded.
- Lot must be seeded and strawed or sodded.

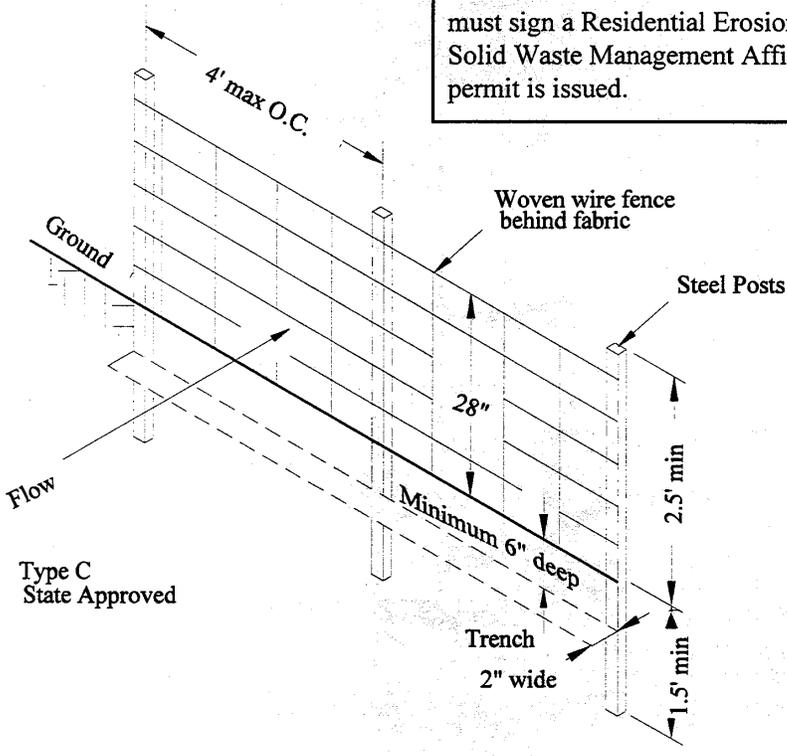
Warning! Extra measures may be needed if your site:

- Is within 300 feet of a stream or wetland;
- Is within 1,000 feet of a lake;
- Has a waterway or ditch;
- Is steep (slope of 12% or more);
- Receives runoff from 10,000 sq. ft. or more of adjacent land;
- Has zoning or construction buffers;
- Has more than an acre of disturbed ground.

For information on appropriate measures for these sites, call the Land Development Section at (770)477-3681.

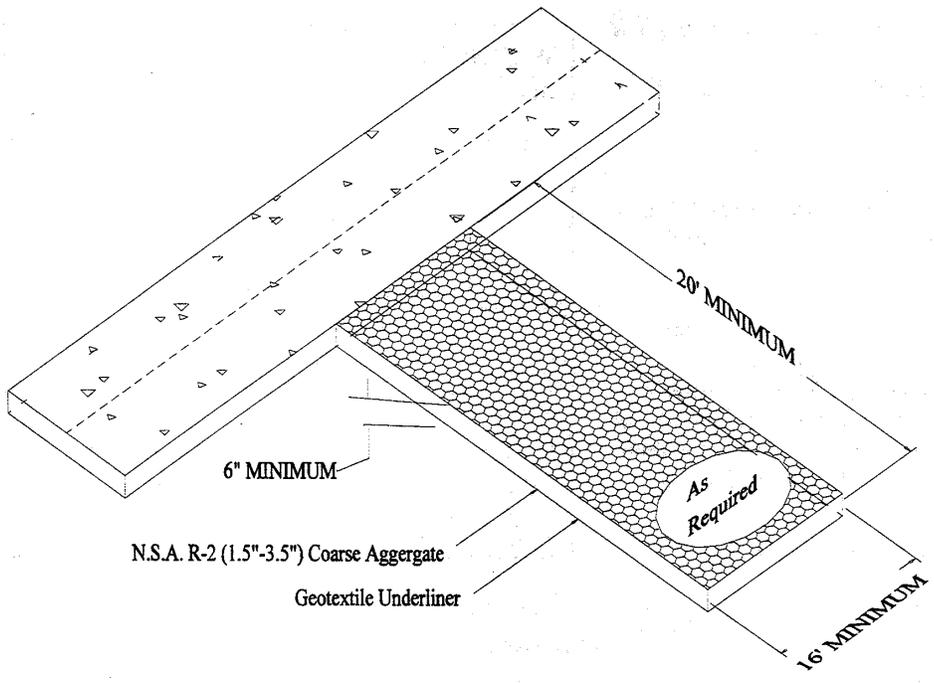
Silt Fence

All builders and home owners involved in residential construction in Gwinnett County must sign a Residential Erosion Control and Solid Waste Management Affidavit before a permit is issued.



Source: STATE SOIL & WATER CONSERVATION COMMISSION MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA

Residential Home Building Construction Exit



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