



## **NEW CONSTRUCTION AND MAINTENANCE EROSION CONTROL ON OVER 22,000 CENTER LANE MILES**





# PROGRAM OVERVIEW

## NEW CONSTRUCTION AND MAINTENANCE EROSION CONTROL







## OFFICE OF LANDSCAPE MAINTENANCE

**Richard Littleton**  
*State Agronomist Manager*  
Architecture Unit  
404.519.9284 office  
[rlittleton@dot.ga.gov](mailto:rlittleton@dot.ga.gov)





**WHY SPEND THE MONEY ON  
EROSION CONTROL?**

**WHY PLACE THE EMPHASIS ON  
EROSION CONTROL AND  
PREVENTION?**





# Here's Why!

- Protect the natural resource of Georgia
- Provide safe and supporting highways for traveling public
- Manage expenses by avoiding costly fines and repetitive work
- To be a good steward while managing a dynamic highway system



## **WHO WE ARE MONITORED BY:**

1. Army Corps of Engineers
2. EPA/EPD
3. US Fish and Wildlife
4. Georgia Conservancy
5. Sierra Club
6. River Keepers
7. Concerned Citizens Like You
8. Ourselves

# New Construction





























# BMP INSTALLATION

# INSTALLATION OF SILT FENCE













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# GRASSING

# GRASSING

- IS APPLYING A VEGETATIVE GROUND COVER
- CAN BE TEMPORARY OR PERMANENT
- TEMPORARY GRASSING USES FASTEST GROWING SEEDING FOR AREAS THAT MUST BE PROTECTED FOR MORE THAN 60 DAYS
- PERMANENT GRASSING IS A VEGETATIVE GROUND COVER PLANTED AFTER ALL LAND DISTURBING ACTIVITIES ARE COMPLETE IN ANY AREAS
- THE MOST EFFECTIVE AND LEAST COSTLY BMP AVAILABLE
- IT IS EXTREMELY IMPORTANT TO OBTAIN A GROUND COVER, EITHER MULCH OR GRASS
- IT REDUCES RUNOFF EROSION AND SEDIMENTATION
- IMPROVES STABILITY OF SLOPES AND IMPROVES AESTHETICS



# TEMPORARY GRASSING







**Temporary Grass & Mulch**  
Area to be Protected for Longer  
Than 60 days







# PERMANENT GRASSING



















# Erosion Control Mats

## Description

- Protective covering (blanket) or soil stabilization mat used to establish permanent vegetation on slopes, and channels.

## Purpose

- Reinforce turf
- Promote plant growth
- Reduce erosion





# MULCH

# MULCH

- WHAT IS MULCH? A protective ground cover applied to soils in an area that has been disturbed by construction. Straw, hay, compost, etc.
- WHEN IS MULCH APPLIED? At a minimum of weekly and may be used for 60 calendar days or less.
- WHY DOES GDOT REQUIRE MULCH? It prevents the initial movement of soil to lessen impact from rain drops until vegetation is established.
- HOW IS MULCH APPLIED? Applied by hand or mechanical methods.
- MULCH INSPECTION GUIDE















# MULCH INSPECTION GUIDE

## Installation

- Install all other BMPs first
- Apply disturbed areas weekly
- Apply at the rate of 2 to 4 inches loose
- Imbed the mulch with a tracked vehicle
- Add mulch as needed to maintain depth









Mulch—Crimped in





# GRASSING INSTALLATION GUIDE

- ✓ ENSURE APPROPRIATE GRASS PLANTED IN THE PROPER SEASON
- ✓ COLLECT THE INVOICES AND GRASS SEED TICKETS TO DOCUMENT THE SEED
- ✓ ENSURE THE CORRECT NUMBER OF POUNDS OF SEED ARE USED











**INSPECTOR**

# MAINTENANCE EROSION CONTROL SUPERVISOR (MECS)

- PERSON WITH OPERATIONAL CONTROL OF A MAINTENANCE SITE
- HAS PROPER TRAINING FOR INSTALLATION, MAINTENANCE & **REPORTING** OF BMP'S
- HAS THE AUTHORITY TO PERFORM THE DUTIES OF THE POSITION
- ABLE TO RECOGNIZE AREAS OF POTENTIAL EROSION AND TAKES INITIATIVE TO ADDRESS BEFORE BECOMING A PROBLEM
- THE SUPERVISOR OF THE SITE FOR EROSION & SEDIMENT CONTROL MEASURES AT ITEMS OPTIMUM LEVELS
- A PERSON THAT THINKS AHEAD AND PLANS AHEAD



# MECS DUTIES

- INSTALLATION
- MAINTENANCE
- PERFORMING REQUIRED INSPECTIONS
- BMP'S REPORTING
- SUBMISSION OF REPORTS
- SELF-REPORT WHEN REQUIRED

## **WHY DOES GDOT REQUIRE A MECS ?**

- A GDOT DECISION TO IMPROVE ENFORCEMENT AND COMPLIANCE OF EROSION & SEDIMENTATION LAWS, RULES AND REGULATIONS
- IN ORDER TO PERFORM LAND DISTURBING ACTIVITIES (LDA) GDOT MUST COMPLY WITH APPLICABLE LAWS & PERMITS - i.e.- INSPECTIONS, RAINFALL DATA, WATER QUALITY MONITORING



# INSPECTIONS

# What is an Inspection?

The Review or Comparisons of BMP's against the  
Established Standards and Details





# Where are Inspections Performed?

Inspections are performed on the Project





# When to Perform Inspections?

Inspections are to Conducted at the following Frequencies:

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DAILY

WEEKLY

AFTER RAINFALL  $\geq$  1 Inch

MONTHLY



# DAILY INSPECTIONS

- All locations where vehicles Enter & Exit the Site
  - Locations where Petroleum products are stored, used, and handled.
- \*See General Notes in ESPCP and NPDES Permit for Proper On-Site Containment\*
- Record Rainfall at the Active Phase of the Site.







# WEEKLY & AFTER RAINFALL

- Disturbed Areas not Permanently Stabilized
- Material Storage Areas
- All Structural Controls - BMP's
- Water Quality Monitoring Locations & Equipment



# MONTHLY INSPECTIONS

- All areas that have undergone final stabilization
- All permanent Erosion Control BMP's







# VIOLATIONS

































# **SITE CONDITIONS CHANGE FOR 2 REASONS**

1. RESULT OF THE WORK
2. RESULT OF THE WEATHER

**WE CONTROL ONE REASON AND  
SHOULD ALWAYS BE PREPARED FOR  
THE OTHER**



# Erosion & Sedimentation















# EROSION FACTORS

1. Soil Type
  - Sand
  - Silt
  - Clay
2. Topography
3. *Vegetative cover*
4. Climate

Which do we have control over?









## LOCATION

I-285 Southbound @ Powers Ferry Rd

Fulton Co.

### EXHIBIT A

Significant amount of debris/tree logs accumulated from the flood of 2009.

It extends over 200 yards underneath both the I-285 and Powers Ferry bridges.





## LOCATION

I-285 Southbound @ Powers Ferry Rd

Fulton Co.

EXHIBIT A

Continued



## LOCATION

I-285 @ Powers Island

Fulton Co.



Aftermath of Cleanup Activities



## LOCATION

Underneath

I-285 Bridge @ Riverview Rd

Cobb Co.

### EXHIBIT B

Significant washout as a result of the flood of 2009.

It extends over 200 yards underneath the I-285 by Riverview Road.

It has already established a natural water path connecting the main river and the over flow.

The bridge structure/footing is already being compromised.



## LOCATION

I-285 @ Riverview Rd

Cobb Co.



Aftermath of Cleanup Activities



## ISSUE

### Damaged Sewer Line @ OEM - EXHIBIT C



BEFORE PICTURES SHOWING TEMPORARY REPAIRS



## ISSUE

### Damaged Sewer Line @ OEM



AFTER PICTURES SHOWING PERMANENT REPAIRS



## LOCATION

I-85 SB @ Metropolitan Pkwy Exit Ramp

Fulton Co.

Tree Removal from S. River



Concrete debris Removal from S. River





## LOCATION

I-85 SB @ Metropolitan Pkwy Exit Ramp

Fulton Co.

### AFTER COMPLETION









21 9 2004















































