Channel Mitigation Monitoring Sheets I, II, III, AND IV

Monitoring Data Record

Project Title: U-2524AB (Site 7 and 17) COE Action ID: 200321137
Stream Name: UT to Hickory Creek DWQ Number: 030909
City, County and other Location Information: Greensboro Western Loop, Guilford Co.
Site 7 (Sta. 11+60 to Sta. 11+67 –40SB REV-) and Site 17 (Sta. 11+00 to Sta. 13+00 -40SB REV-)
Date Construction Completed: Water was turned into the stream on June 2005 and planted in February 2006. Monitoring Year: (5) of 5
Ecoregion: 8 digit HUC unit 03030002
USGS Quad Name and Coordinates:
Rosgen Classification: Proposed reach is a B4/5c stream type
Length of Project: 952' Urban or Rural: Urban Watershed Size:
Monitoring DATA collected by: J. Young & R. Brim Date: 9/1/10
Applicant Information:
Name: NCDOT Roadside Environmental Unit
Address: 1425 Rock Quarry Road Raleigh, NC 27610
Telephone Number: (919) 861-3772 Email address: mlgreen@ncdot.gov
Consultant Information:
Name:
Address:
Telephone Number: Email address:
Project Status: Complete

Monitoring Level required by COE and DWQ (404 permit/ 401 Cert.): Level (**1**) ~~2~~ ~~3~~
Monitoring Level 1 requires completion of *Section 1, Section 2 and Section 3*

Permit States: NCDOT shall perform the following components of Level I monitoring twice each year for the 5 year monitoring period (summer and winter): Reference photos, plant survival, and visual inspection of channel stability. If less than two bankfull events occur during the first 5 years, NCDOT shall continue monitoring until the second bankfull event is documented. The bankfull events must occur during separate monitoring years. In the event that the required bankfull events do not occur during the 5 year monitoring period, the USACE, in consultation with resource agencies, may determine that further monitoring is not required.

Section 1. PHOTO REFERENCE SITES
(Monitoring at all levels must complete this section)

Total number of reference photo locations at this site: 6 photo points, 2 photos at each
Dates reference photos have been taken at this site: 7/26/06, 2/16/07, 7/19/07, 1/16/08, 7/15/08, 2/9/09, 7/29/09, 2/17/10, 9/1/10

Individual from whom additional photos can be obtained (name, address, phone):

Other Information relative to site photo reference: A site map is included with this report showing the photo point locations.

If required to complete Level 3 monitoring only stop here; otherwise, complete section 2.

Section 2. PLANT SURVIVAL
Attach plan sheet indicating reference photos.

Identify specific problem areas (missing, stressed, damaged or dead plantings):

Estimated causes, and proposed/required remedial action:

ADDITIONAL COMMENTS: Planted hardwood vegetation noted onsite includes: black willow, silky dogwood, green ash, and sycamore. Other vegetation onsite included: *Juncus* sp., lespedeza, fennel, *Sagittaria* sp., cattail, goldenrod, sweetgum, mimosa, jewelweed, clover, sedge, fescue, and various grasses. Planted vegetation is surviving. NCDOT proposes to discontinue plant survival monitoring.

If required to complete Level 1 and Level 2 monitoring only stop here; otherwise, complete section 3.

Section 3. CHANNEL STABILITY

Visual Inspection: The entire stream project as well as each in-stream structure and bank stabilization/revetment structure must be evaluated and problems addressed.

Report on the visual inspection of channel stability. Physical measurements of channel stability/morphology will not be required. Include a discussion of any deviations from as-built and an evaluation of the significance of these deviations and whether they are indicative of a stabilizing or destabilizing situation.

This is Year 5 Summer evaluation and the channel is stable throughout the entire onsite stream relocation project. Sediment and debris has collected in the breached beaver dam downstream of Photo Point #3 causing some water to back up in this area. During the 5-year monitoring period we have visually noted 3 bankfull events onsite which were documented during the July 2006, July 2007, and July 2008 evaluations. NCDOT proposes to discontinue channel stability monitoring.

9/1/10	Station Number	Station Number	Station Number	Station Number	Station Number
Structure Type					
Is water piping through or around structure?					
Head cut or down cut present?					
Bank or scour erosion present?					

Section 4. DEBIT LEDGER

The entire UT to Hickory Creek (Sites 7 & 17) stream relocation site was used for the U-2524AB project to compensate for unavoidable stream impacts.

UT Hickory Creek

Site 7 and 17

Photo Point #1 (Upstream)

Photo Point #1 (Downstream)

Photo Point #2 (Upstream)

Photo Point #2 (Downstream)

Photo Point #3 (Upstream)

Photo Point #3 (Downstream)

UT Hickory Creek

Site 7 and 17

Photo Point #4 (Upstream)

Photo Point #4 (Downstream)

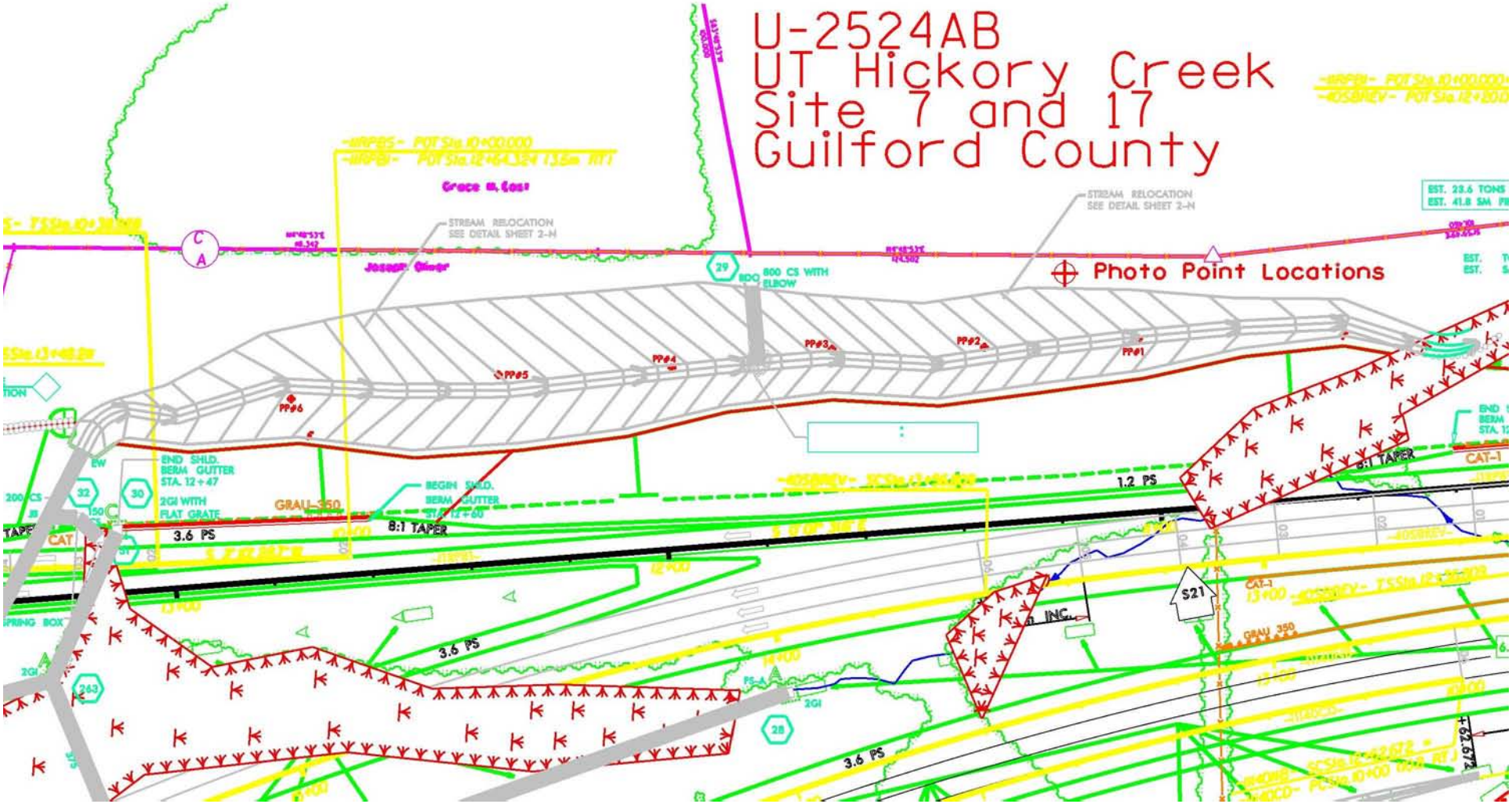
Photo Point #5 (Upstream)

Photo Point #5 (Downstream)

Photo Point #6 (Upstream)

Photo Point #6 (Downstream)

Year 5 Summer – September 2010


U-2524AB
UT Hickory Creek
Site 7 and 17
Guilford County
Photo Point Locations
STREAM RELOCATION
SEE DETAIL SHEET 2-N
PP#1
PP#2
PP#3
PP#4
PP#5
PP#6
END SHLD.
BERM GUTTER
STA. 12+47
BEGIN SHLD.
BERM GUTTER
STA. 12+60
2GI WITH
FLAT GRATE
GRAU-350
3.6 PS
8:1 TAPER
1.2 PS
INC.
S21
CAT-1
800 CS WITH
ELBOW