

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

Project Title: R-5206 COE Action ID: 2015-00451
Stream Name: UT to Blanton Branch – Permit Site 5 DWR Number: 2015-0216
City, County and other Location Information: The project is located on Cope Creek Rd, SR 1449 just off US 74 in Jackson County, NC.
Date Construction Completed: Final Planting: April 10, 2018 Monitoring Year: (3) of 3
Ecoregion: Southern Crystalline Ridges and Mountains 8 digit HUC unit 06010203
USGS Quad Name and Coordinates: Sylva North 35.390942°, -83.185654°

Rosgen Classification: B4

Length of Project: 277 linear feet
Urban or Rural: Rural Watershed Size: 0.65 sq. miles
Monitoring DATA collected by: M. Green Date: 7-11-20

Applicant Information:

Name: NCDOT Roadside Environmental Unit
Address: 1425 Rock Quarry Road Raleigh, NC 27610
Telephone Number: (919) 615-6733 Email address: mlgreen@ncdot.gov

Consultant Information:

Name: _____
Address: _____
Telephone Number: _____ Email address: _____

Project Status: Complete

Monitoring Level required by COE and DWR (404 permit/ 401 Cert.): Level

ACOE Permit states:

Condition 9. Vegetative monitoring of the onsite mitigation area will consist of visual inspection and photo documentation of the planted riparian area. In addition to photo documentation during the yearly monitoring, comments on growth and establishment of the planted riparian vegetation will be noted during each monitoring visit. Monitoring will occur for three years after planting is completed.

Condition 10. Stream monitoring of the onsite mitigation area will consist of visual inspection and photo documentation of the stream structures and banks for stability. During the yearly monitoring of the stream, comments on the stream structures and banks will be noted. Stream monitoring will occur for three years or until the stream has experienced two bankfull events in separate monitoring years. If during the monitoring period aggradation, degradation, bank erosion, or any other evidence other than minor instability occurs which is attributable to design of the relocated stream or work conducted by the permittee or the permittee's contractor(s), the permittee, upon discovery of the instability, shall contact the USACE and recommend correction action; this corrective action must be approved by the USACE prior to implementation by the permittee.

Section 1. PHOTO REFERENCE SITES

(Monitoring at all levels must complete this section)

Total number of reference photo locations at this site: A total of 6 photos were taken from 3 permanent photo point locations, 3 photos of crossvane structures and 1 overview photo of the site.

Dates reference photos have been taken at this site: 7-9-18, 9-16-19, 7-11-20

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.

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: _____

April 2018: Final planting was completed

July 2018: Year 1 Monitoring noted Sycamore, Tulip Poplar, White Oak, and Black Cherry seedlings were surviving. Black Willow and Silky Dogwood live stakes were noted surviving along the streambank as well. Other vegetation noted onsite included lespedeza, jewelweed, red maple, poke berry, soft rush, privet, fescue, and various grasses.

September 2019: Year 2 Monitoring noted Black Willow and Silky Dogwood live stakes and Sycamore, Tulip Poplar, White Oak, and Black Cherry seedlings were surviving onsite. Other vegetation noted included Chinese Privet, Japanese Knotweed, jewelweed, soft rush, lespedeza, briars, goldenrod, pokeberry, and various grasses.

October 2019: Chinese Privet, Japanese Knotweed and Honeysuckle were treated with an herbicide application along the stream relocation and adjacent to the site along US 74 shoulder.

NCDOT will continue to monitor the planted vegetation and complete further herbicide applications to control the invasive species if needed in 2020.

July 2020: Year 3 Monitoring noted Black Willow and Silky Dogwood live stakes and Sycamore, Tulip Poplar, White Oak, and Black Cherry seedlings were surviving onsite. Other vegetation noted included blackberry, elderberry, lespedeza, honeysuckle, chinese privet, soft rush, and various grasses. NCDOT will treat the invasive species noted onsite and proposes to discontinue monitoring the planted vegetation.

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.

The UT to Blanton Branch onsite stream mitigation is stable for the Year 3 evaluation. No instability was noted along the stream and all structures were functioning properly. A wrack line was noted within the floodplain during the monitoring evaluation indicating a bankfull event had occurred. NCDOT proposes to discontinue monitoring the channel stability at the UT to Blanton Branch Mitigation Site.

| Date Inspected | 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? | | | | | |
| Other problems noted? | | | | | |
| Bankfull events noted | Wrack line 9-16-19 | Wrack line 7-11-20 | | | |

Section 4. DEBIT LEDGER

The entire UT to Blanton Branch stream mitigation site was used for the R-5206 project to compensate for unavoidable stream impacts.

UT to Blanton Branch Mitigation Site



PP #1 Upstream



PP#1 Downstream



PP #2 Upstream



PP #2 Downstream



PP #3 Upstream



PP #3 Downstream

July 2020

UT to Blanton Branch Mitigation Site



Crossvane Structure



Crossvane Structure

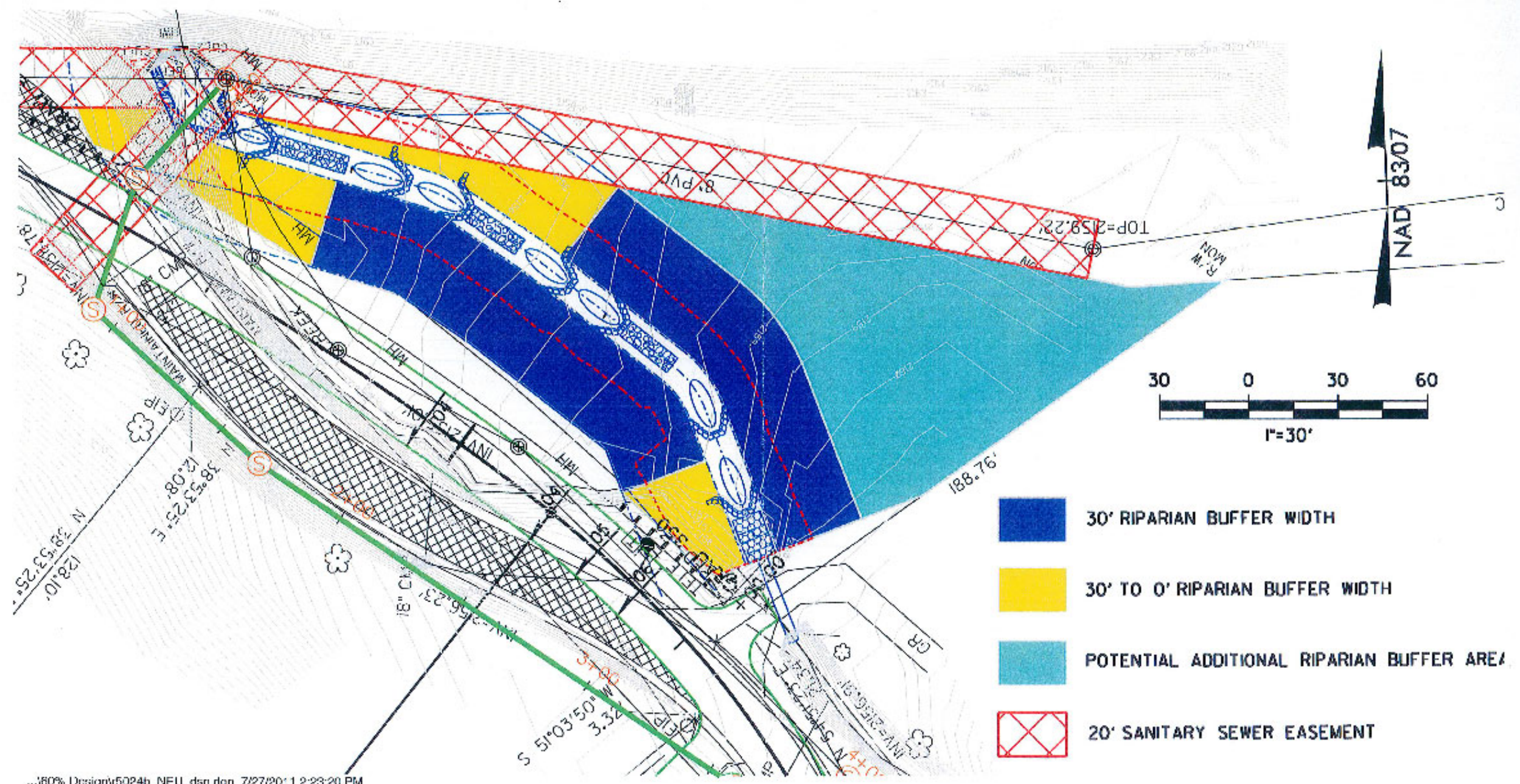


Crossvane Structure



Overview photo looking upstream

July 2020



R-5206

R-5206 UT to Blanton Branch Plan Sheet

R-5206 Site Map

UT to Blanton Branch

Legend

- Photo Point Locations



Google earth


© 2018 Google

80 ft

R-5206 Vicinity Map

UT to Blanton Branch
35390942, -83.185654

Legend

 R-5206 UT to Blanton Branch



Google earth

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700 ft