Monitoring Data Record

Project Title: R-3415 NC 67 Widening COE Action ID: 200520314
Stream Name: UT Lineberry Creek (Site 1) DWQ Number: 05-0061
City, County and other Location Information: NC 67 4.4 miles west of Boonville and just west of Raccoon Run Road (Sta. 81+00 –L- RT.); Yadkin County
Date Construction Completed: Streambank repairs completed in June 2010 and final planting completed in January 2011. Monitoring Year: (3) of 3
Ecoregion: 8 digit HUC unit 03040101
USGS Quad Name and Coordinates: N 36 14' 39", W 80 47' 7"
Rosgen Classification:
Length of Project: 325 feet Urban or Rural: Rural Watershed Size:
Monitoring DATA collected by: M. Green and J. Young Date: 8/22/13
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**

Permit states: The permittee shall visually monitor the vegetative plantings to assess and ensure complete stabilization of the mitigation stream segments. The monitoring shall be conducted annually for a minimum of 3 years after final planting. Photo documentation should be utilized to document the success of the riparian vegetation and submitted to DWQ in a final report. After 3 years a site visit shall be conducted by DWQ to "close out" the mitigation site.

Section 1. PHOTO REFERENCE SITES

(Monitoring at all levels must complete this section)

Total number of reference photo locations at this site: 4 photos were taken from 2 photo point locations along the channel and 1 overview photo was taken from the top of the fill slope.

Dates reference photos have been taken at this site: 8/16/11, 7/24/12, 8/22/13

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 vegetation noted surviving onsite included black willow, silky dogwood, tulip poplar, sycamore, and river birch. Other vegetation noted onsite included fennel, briars, goldenrod, sumac, mimosa, alder, and various grasses. A power line easement running parallel with NC 67 located between the highway and the stream relocation has recently been sprayed with an herbicide application. 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.

UT Lineberry Creek (Site 1) is stable for the Year 3 monitoring evaluation. NCDOT planted black willow and silky dogwood live stakes along the previously noted eroded right bank at Sta. 80+00 and left bank at Sta. 79+60 in January 2013 (see PP#2 downstream photo of right bank). The previously noted headcut at Sta. 80+50 has made its way up to the crossvane and the crossvane has stopped the headcut (see additional photos). All of these areas were stable at the time of monitoring. NCDOT proposes to discontinue channel stability monitoring.

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?					

Section 4. DEBIT LEDGER

The entire UT to Lineberry Creek (Site 1) stream mitigation site was used for the R-3415 project to compensate for unavoidable stream impacts.

UT LINEBERRY CREEK (SITE 1)

PP#1 Upstream

PP#1 Downstream

PP#2 Upstream

PP#2 Downstream

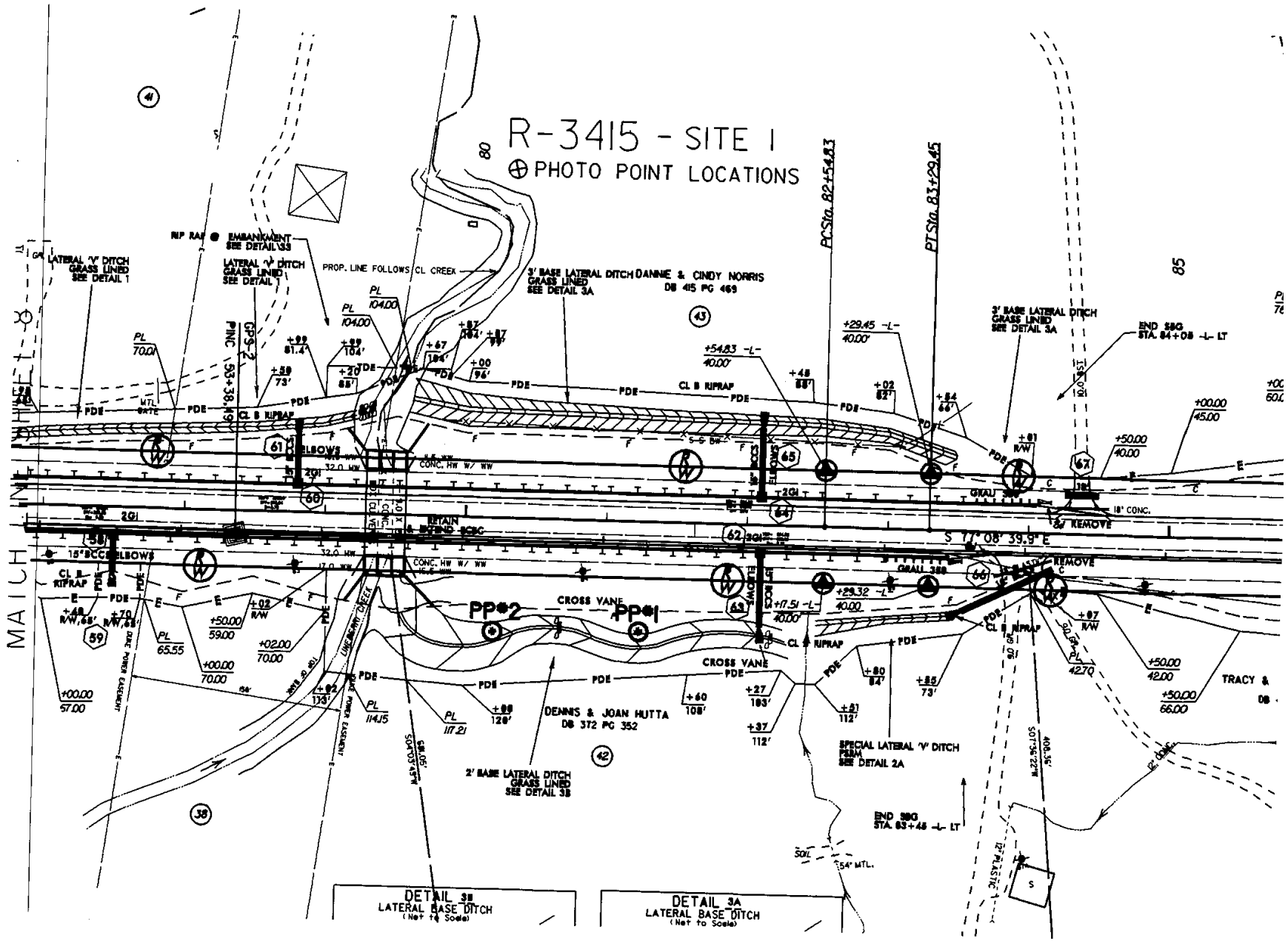
Crossvane b/t PP#1 and PP#2 where headcut stopped

Stream channel where headcut was previously noted is stable

July 2012

UT LINEBERRY CREEK (SITE 1)

Overview Photo of Site 1
July 2012


R-3415 - SITE 1
⊕ PHOTO POINT LOCATIONS
PC Sta. 82+54.83
PT Sta. 83+29.45
PP#2
PP#1
CROSS VANE
CROSS VANE
DENNIS & JOAN HUTTA
DB 372 PG 352
DANNIE & CINDY NORRIS
DB 415 PG 469
TRACY &
DB
3' BASE LATERAL DITCH GRASS LINED SEE DETAIL 3A
2' BASE LATERAL DITCH GRASS LINED SEE DETAIL 3B
SPECIAL LATERAL 'V' DITCH FOR A SEE DETAIL 2A
LATERAL 'V' DITCH GRASS LINED SEE DETAIL 1
RIP RAP EMBANKMENT SEE DETAIL 3B
PROP. LINE FOLLOWS CL CREEK
CL B RIPRAP
END SBG STA. 84+08 -L- LT
END SBG STA 83+48 -L- LT
18" CONC.
REMOVE
RETAIN & EXTEND SBG
CONC. HW W/ WW
15" RCCP ELBOWS
18" RCCP ELBOWS
DETAIL 3B
LATERAL BASE DITCH
(Not to Scale)
DETAIL 3A
LATERAL BASE DITCH
(Not to Scale)
MAICH