

ANNUAL REPORT FOR 2011



**Pig Basket Creek Mitigation Site
Nash County
TIP No. B-3876**



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July 2011

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SUMMARY

The Pig Basket Creek Mitigation Site is located in Nash County. The site was planted in December 2008 and was designed as mitigation for wetland impacts associated with bridge project B-3876.

The mitigation encompasses approximately 0.52 acres of wetland restoration, including 0.22 acres at Site 4 and 0.30 acres at Site 5. The roadway project will impact 0.13 acres of unavoidable wetlands, leaving approximately 0.39 acres of wetland restoration assets onsite. The restoration will involve removing causeway fill from the existing approaches to Bridge No. 34 to match the adjacent wetland elevation. NCDOT will also perform enhancement along 90 feet of stream channel at Site 3 on the UT to Pig Basket Creek by removing existing fill as described above along its right bank and restricting agricultural activities along its left bank. NCDOT shall monitor vegetation success by visual observation and photo documentation and will submit an annual report. NCDOT shall monitor the site for a minimum of three years or until the site is deemed successful.

Due to multiple site encroachments the monitoring period will be restarted in 2011. After the first year of monitoring, the Pig Basket Creek Site shows by visual observation that the planted species are surviving. The entire site was replanted in January 2011 due to ongoing encroachments at the site.

NCDOT proposes to continue vegetation monitoring at the Pig Basket Creek Mitigation Site.

1.0 INTRODUCTION

1.1 Project Description

The Pig Basket Creek Mitigation Site is located at Bridge No. 34 on SR 1004 over Pig Basket Creek in Nash County (Figure 1). The site consists of approximately 0.52 acres of mitigation for wetland impacts and 90 feet of stream enhancement associated with project B-3876.

1.2 Purpose

In order for a mitigation site to be considered successful, a site must meet vegetation success criteria. This report details the vegetation monitoring in 2010 at the Pig Basket Creek Mitigation Site. Hydrologic monitoring was not required for the site.

1.3 Project History

December 2008	Reforestation Completed
February 2009	Installed signs identifying site
July 2009	Vegetation Monitoring (Year 1)
Summer 2009	Site 4 was mowed
February 2010	Replanted Site 4 Wetland Restoration Area
June 2010	Vegetation Monitoring (Year 2)
September 2010	Installed additional signs along Ag field
January 2011	Additional encroachments noted
January 2011	Replanted entire site
July 2011	Vegetation Monitoring (Year 1 – Restart)

1.4 Debit Ledger

Site name	Site TIP	HUC	River Basin	Division	County	Mitigation Type	Notes	As Built Quantity	Available	Debit
Pig Basket Creek	B-3876	3020101	Tar-Pamlico	4	Nash					B-3876
						Riverine Wetland Restoration		0.52	0.39	0.13
						Stream Enhancement		90	0	90

Note: Debit ledger information up to date as of August 4, 2011.

2.0 VEGETATION: PIG BASKET CREEK MITIGATION SITE (YEAR 1 MONITORING - RESTART)

2.1 Success Criteria

Success Criteria states that NCDOT shall monitor the mitigation site by visual observation and photo points for survival and aerial cover of vegetation. NCDOT shall monitor the site for a minimum of three years or until the site is deemed successful. Monitoring will be initiated upon completion of the site planting.

2.2 Description of Species

The following wetland species were planted in the Wetland Restoration Area:

Liriodendron tulipifera, Tulip Poplar
Platanus occidentalis, Sycamore
Fraxinus pennsylvanica, Green Ash
Quercus nigra, Water Oak
Quercus phellos, Willow Oak
Nyssa aquatica, Water Tupelo

The following wetland species were planted in the Stream Enhancement Area:

Salix nigra, Black Willow

2.3 Results of Vegetation Monitoring

The impacted area where the old bridge and causeway was removed is re-attaining wetland jurisdictional status and the planted species are surviving. Planted species noted surviving included sycamore, water oak, tulip poplar, green ash, and willow oak. Other species noted within the planted area included river birch, sedge, fennel, sweetgum, baccharis, soft rush, and various grasses.

The entire site was replanted in January 2011 due to multiple encroachments (vehicular trespass, mowing, and spraying) during the monitoring period. The perimeter of the site has been signed to prevent further encroachments.

Vegetation noted within the stream enhancement area included black willow, red maple, black berry, pokeweed, tag alder, and various herbaceous species.

2.4 Conclusions

There were approximately 0.52 acres of wetland restoration and 90 feet of stream enhancement planted on site. There were no plots established on the site. By visual observation, the Pig Basket Creek Mitigation Site shows that the planted species are surviving and the impacted area is re-attaining wetland jurisdictional status.

3.0 OVERALL CONCLUSIONS AND RECOMMENDATIONS

NCDOT proposes to continue vegetation monitoring at the Pig Basket Creek Mitigation Site in 2012.

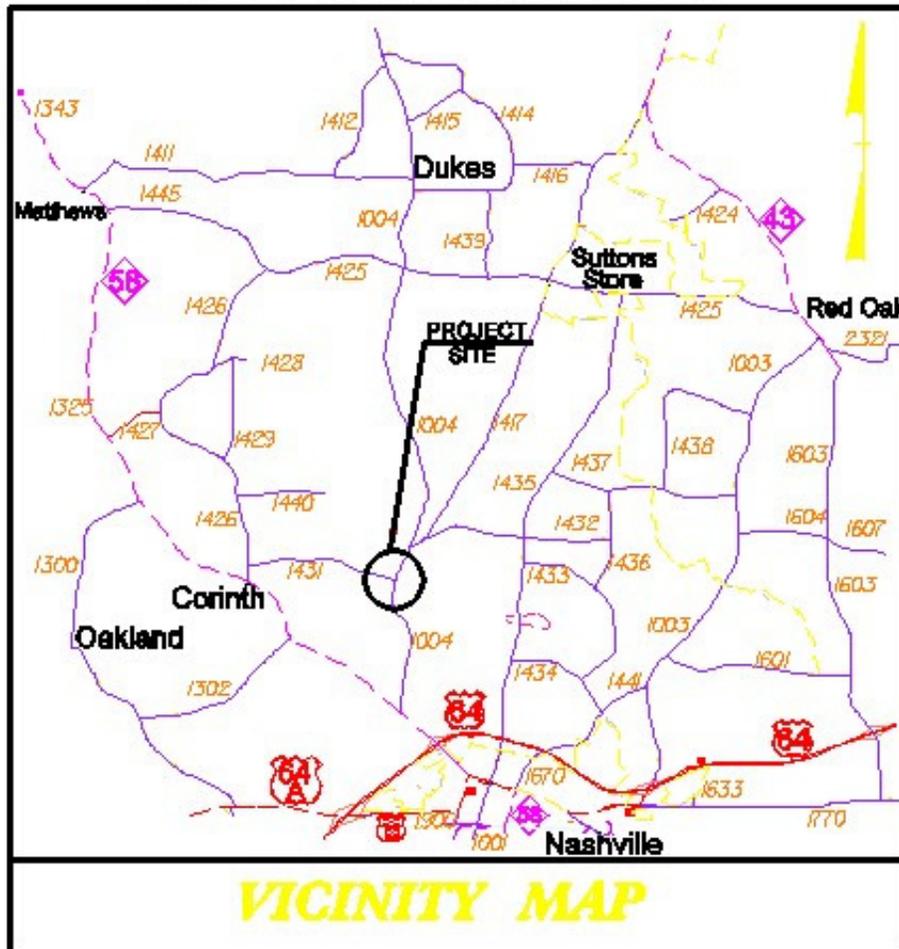


Figure 1. Site Location Map

APPENDIX A

SITE PHOTOS

Pig Basket Creek



Photo 1 (Wetland Restoration-Site 4)



Photo 2 (Wetland Restoration-Site 5)



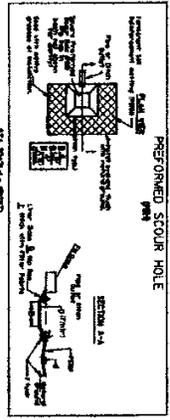
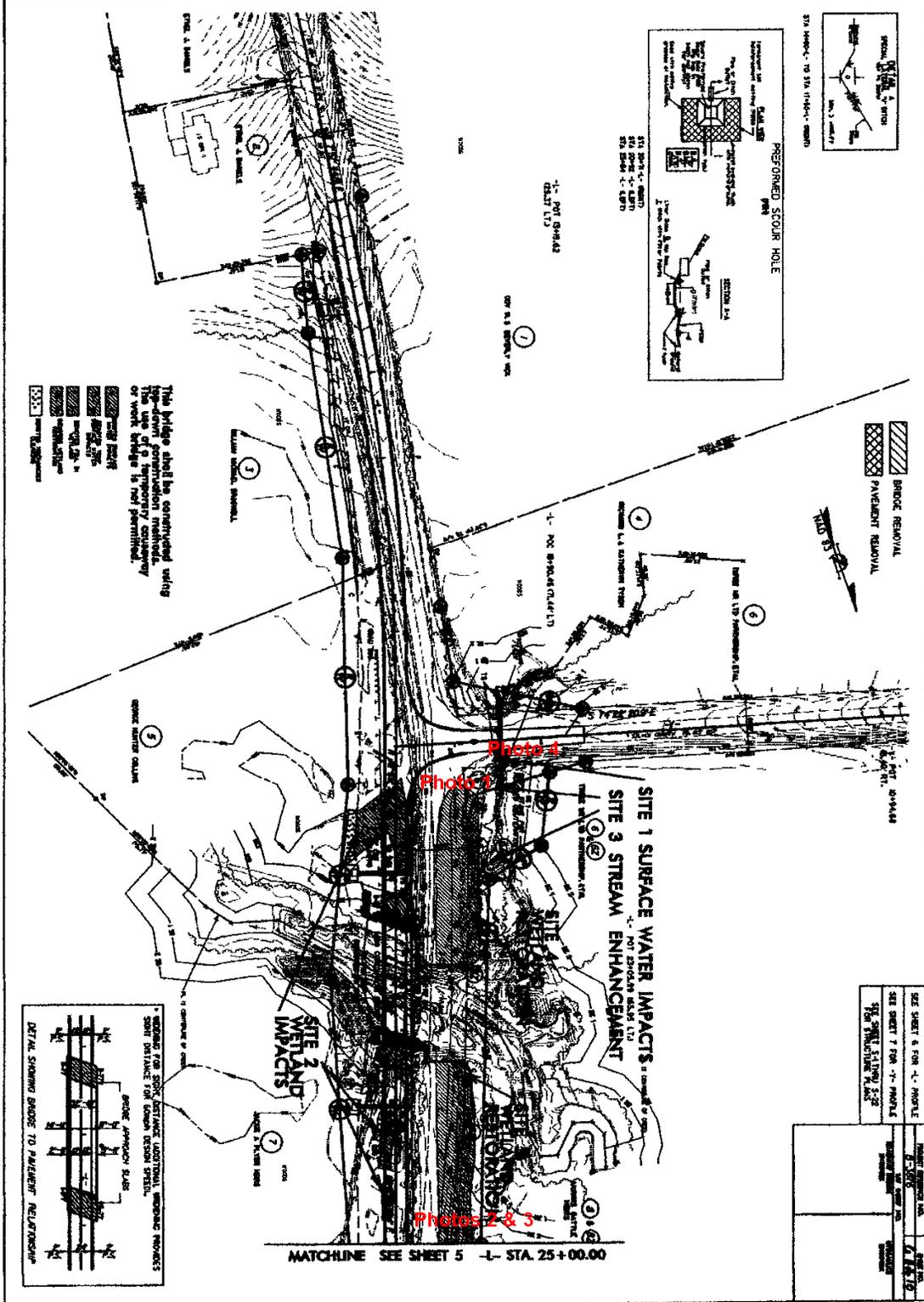
Photo 3 (Wetland Restoration-Site 5)



Photo 4 (Stream Enhancement-Site 3)

July 2011

05-00 2007 165
 76.hpl.psh.2@harsco.de



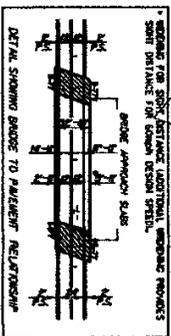
This bridge shall be constructed using the design construction methods. The use of temporary cofferdams or work bridges is not permitted.

- BRIDGE DECK
- BRIDGE PAVEMENT
- BRIDGE CURB
- BRIDGE APPROACH SLAB
- BRIDGE APPROACH
- BRIDGE PIER
- BRIDGE ABUTMENT
- BRIDGE SCOUR HOLE

- BRIDGE REMOVAL
- PAVEMENT REMOVAL

Photo 1
 Photo 2

Photo 2 & 3



MATCHLINE SEE SHEET 5 -L- STA. 25+00.00

SEE SHEET 6 FOR 'L' PROFILE
 SEE SHEET 7 FOR 'P' PROFILE
 SEE SHEET 8 FOR 'S' PROFILE
 SEE SHEET 9 FOR 'T' PROFILE
 SEE SHEET 10 FOR 'U' PROFILE
 SEE SHEET 11 FOR 'V' PROFILE
 SEE SHEET 12 FOR 'W' PROFILE
 SEE SHEET 13 FOR 'X' PROFILE
 SEE SHEET 14 FOR 'Y' PROFILE
 SEE SHEET 15 FOR 'Z' PROFILE

PROJECT NO.	100-100-100
DATE	10/10/07
SCALE	AS SHOWN
DESIGNED BY	...
CHECKED BY	...
APPROVED BY	...

10-428-2007 0825
10-428-2007 0825
10-428-2007 0825

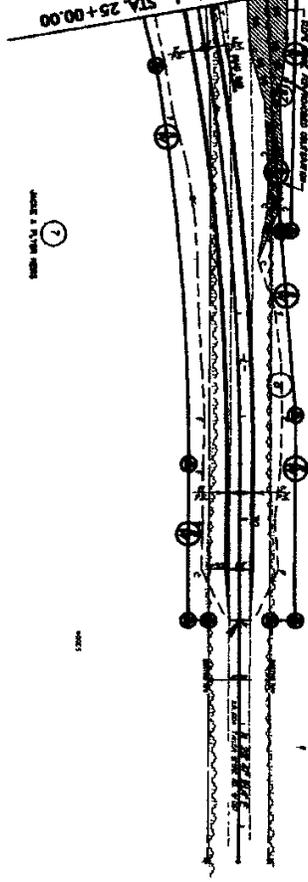
0.10.7

MATCHLINE SEE SHEET A-L STA. 25+00.00

SITE 5 WETLAND RESTORATION

1
DATE: 1/1/08

2
DATE: 1/1/08



THOMAS L. WILSON, INC.

DATE	1/1/08
SCALE	AS SHOWN
DRAWN BY	...
CHECKED BY	...
APPROVED BY	...
PROJECT NO.	...
SHEET NO.	...
TOTAL SHEETS	...