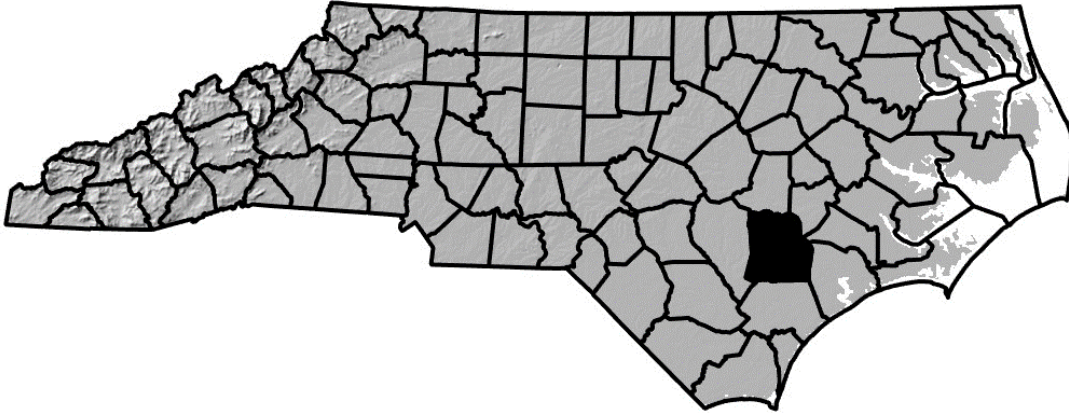


# ANNUAL REPORT FOR 2023



**Br. 36 over Maxwell Creek on NC 11 Temporary Impact Site  
Duplin County  
TIP No. B-5639  
COE Action ID: SAW-2017-00473  
DWR Project #: 20200469**



Prepared By:  
Roadside Environmental Unit and Environmental Analysis Unit  
North Carolina Department of Transportation  
November 2023

## TABLE OF CONTENTS

SUMMARY .....	1
1.0 Introduction .....	2
.1 Project Description .....	2
.2 Purpose .....	2
.3 Project History .....	2
.4 Debit Ledger .....	2
2.0 Vegetation: .....	3
.1 Success Criteria .....	3
.2 Description of Species .....	3
.3 Results of Vegetation Monitoring .....	4
.4 Conclusions. ....	4
3.0 Overall Conclusions and Recommendations .....	4

## FIGURES

Figure 1 – Vicinity Map .....	5
-------------------------------	---

## APPENDICES

Appendix A – Site Photos and Site Maps

## **SUMMARY**

Bridge #36 over Maxwell Creek on NC 11 temporary impact site is located in Duplin County and hereafter referred to as the Maxwell Creek temporary impact site. This is an annual report for temporary impacts associated with TIP No. B-5639 bridge replacement of Bridge #36 over Maxwell Creek on NC 11. Wetland reforestation was completed in December 2022.

The temporary impacts encompass approximately 0.27 acres for temporary fill and 0.10 acres for hand clearing within a wetland for the bridge project. The area that was impacted is being monitored for two years to ensure that it re-attains jurisdictional wetland status.

After the first year of monitoring, the Maxwell Creek Temporary Impact Site shows by visual observation that the temporarily impacted area is re-attaining jurisdictional wetland status. The visual inspection noted very few of the planted seedlings were surviving but the temporary impact area is revegetating with herbaceous vegetation.

Due to an overhead aerial powerline within the planted tree area, NCDOT proposed to the agencies to continue monitoring the site for two years for natural revegetation of this area but, no further wetland reforestation will take place. NCDWR and USACE concurred through email correspondence.

NCDOT proposes to continue monitoring at the Maxwell Creek temporary impact site in 2024.

## **1.0 INTRODUCTION**

### **1.1 Project Description**

The Maxwell Creek temporary impact site is located in Duplin County at Bridge #36 over Maxwell Creek on NC 11 (Figure 1). The temporary impacts encompass approximately 0.27 acres for temporary fill and 0.10 acres for hand clearing within a wetland for the bridge project. The area that was impacted is being monitored for two years to ensure that it re-attains jurisdictional wetland status.

### **1.2 Purpose**

In order for a temporary impact site to be considered successful, a site must meet the success criteria. This report details the monitoring in 2023 at the Maxwell Creek temporary impact site.

### **1.3 Project History**

December 2022	Wetland Reforestation Completed
September 2023	Vegetation Monitoring (Year 1)

### **1.4 Debit Ledger**

The restoration of the Maxwell Creek temporary impact site was used entirely to compensate for temporary impacts on the B-5639 project. There were no wetland mitigation credits generated from the restoration of the temporary impacted area.

## **2.0 VEGETATION: MAXWELL CREEK TEMPORARY IMPACT SITE (YEAR 1 MONITORING)**

### **2.1 Success Criteria**

#### **ACOE permit:**

Condition #2. Once the site has been replanted, the Department should monitor the site for a minimum of two years to demonstrate site restoration. At the conclusion of the second year an on-site meeting should be scheduled with the Corps project manager to demonstrate site restoration. If the site still shows signs of disturbance a second remediation plan will be necessary or mitigation credits for the failed restoration area.

#### **NCDWR permit:**

Condition #8. In accordance with commitments made in your application, the area for the temporary detour will be restored to pre-construction conditions and reforested per drawing described in April 20, 2020 email and additional information provided. Due to the possibility that compaction and/or other site alterations might prevent the temporary wetland impact area from re-attaining jurisdictional wetland status; the permittee shall provide an update on the wetland areas temporarily impacted at the on-site detour alignment. This update shall be conducted for two growing seasons after completion of the work at the temporary on-site detour and shall consist of photographs and a brief report on the progress of the areas in re-attaining wetland jurisdictional status. Upon submission of this update to the NCDWR, the permittee shall schedule an agency field meeting with the NCDWR and the USACE to determine if the wetland areas temporarily impacted by this project have re-attained jurisdictional wetland status.

### **2.2 Description of Species**

The following wetland species were planted in the temporary impact area:

*Quercus nigra*, Water Oak

*Quercus phellos*, Willow Oak

*Taxodium distichum*, Baldcypress

*Nyssa aquatica*, Water Tupelo

### **2.3 Results of Vegetation Monitoring**

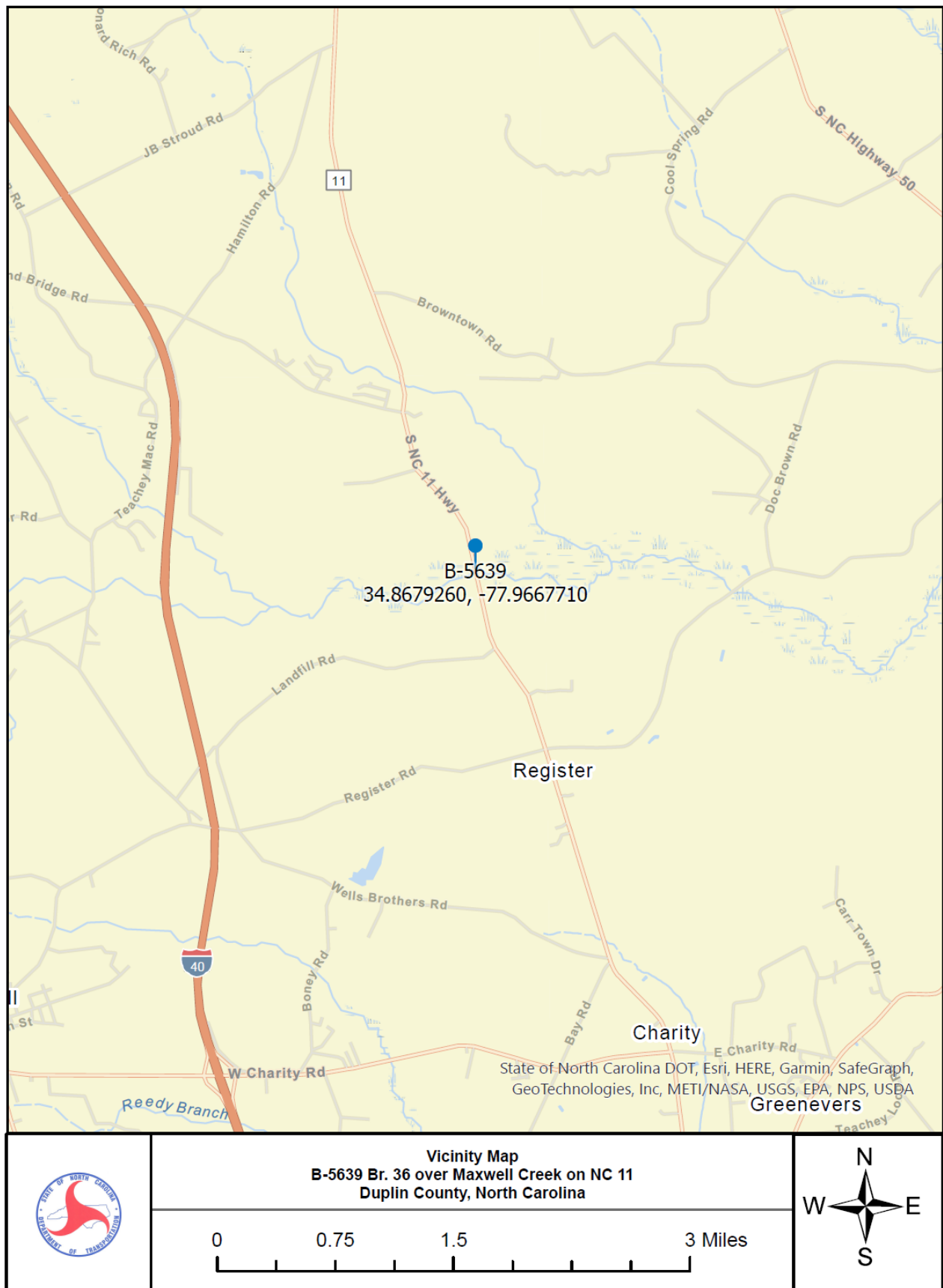
The impacted area where the temporary impacts occurred is re-attaining jurisdictional wetland status. A few water oak and baldcypress seedlings were noted surviving throughout the planted area. Other species noted within the temporary impacted area included soft rush, cattail, *Scirpus* sp., sweetgum, and various grasses. Portions of the site were inundated at the time of monitoring.

### **2.4 Conclusions**

There were approximately 0.27 acres for temporary fill and 0.10 acres for hand clearing within a wetland at the Maxwell Creek temporary impact site. There were no plots established on the site. By visual observation, the Maxwell Creek temporary impact site shows that the impacted areas are re-attaining jurisdictional wetland status.

## **3.0 OVERALL CONCLUSIONS AND RECOMMENDATIONS**

NCDOT proposes to continue monitoring at the Maxwell Creek temporary impact site in 2024.



**Figure 1. Vicinity Map**

**APPENDIX A**

**SITE PHOTOS & SITE MAPS**



# Maxwell Creek Temporary Impact Site



PP#1



PP#2

September 2023



Revised 4/20/20

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

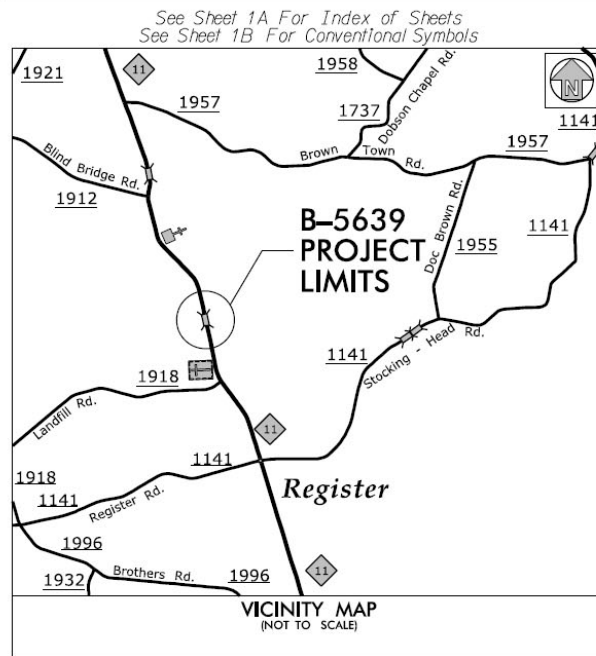
**DUPLIN COUNTY**

LOCATION: BRIDGE NO. 36 OVER MAXWELL CREEK  
ON NC 11 (CLODFELTER ROAD)

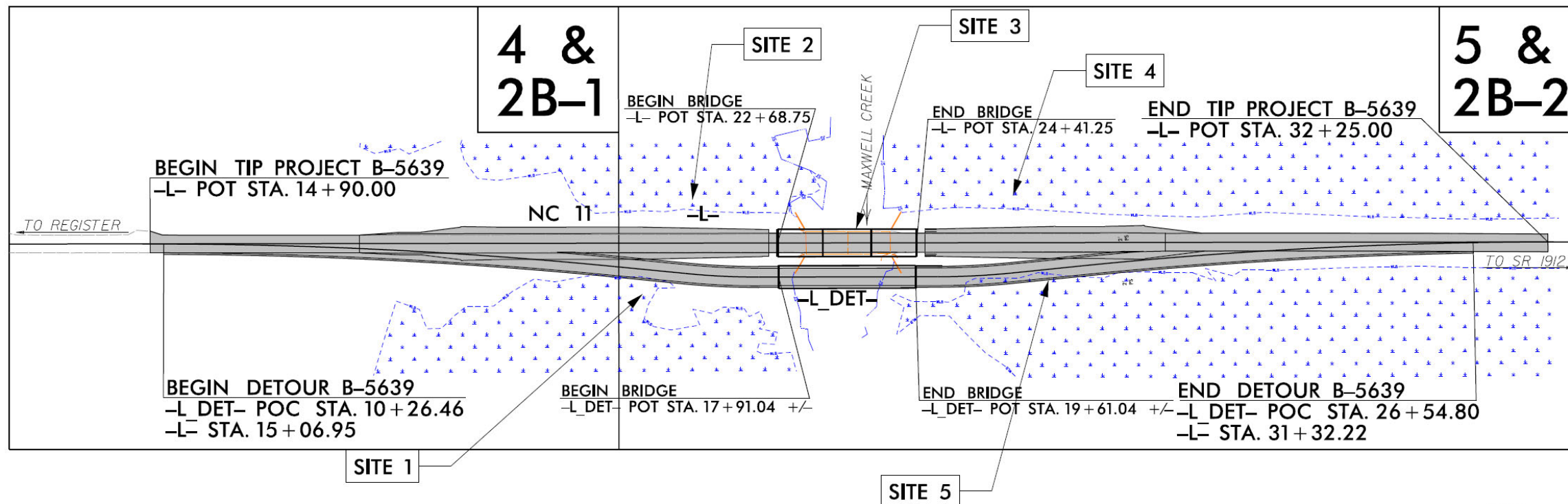
TYPE OF WORK: GRADING, PAVING, DRAINAGE AND STRUCTURE

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5639	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
45594.1.1		P.E.	
45594.2.1		RW & UTL	

PERMIT DRAWING  
SHEET 1 OF 17



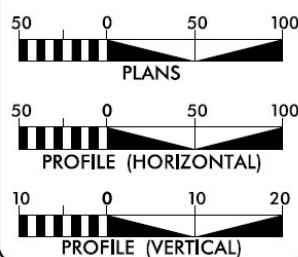
**WETLAND AND SURFACE WATER IMPACTS PERMIT**



DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

SIMPSON  
ENGINEERS  
& ASSOCIATES  
5640 Dillard Drive  
Suite 200  
Cory, NC 27518  
(919) 852-0468  
(919) 852-0598 (Fax)  
www.simpsonengr.com  
LICENSE NO. C-2521

**GRAPHIC SCALES**



**DESIGN DATA**

ADT 2020 = 2,617  
ADT 2040 = 3,200

K = 9 %  
D = 55 %  
T = 5 %\*  
V = 60 MPH

\* TTST = 2% DUAL 3%  
SUB-REGIONAL TIER  
MAJOR COLLECTOR

**PROJECT LENGTH**

LENGTH ROADWAY TIP B-5639 PROJECT = 0.296 MILES

LENGTH STRUCTURE TIP B-5639 PROJECT = 0.033 MILES

TOTAL LENGTH TIP B-5639 PROJECT = 0.329 MILES

PLANS PREPARED FOR NCDOT BY:

**M M**  
MOTT  
MCDONALD  
2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:  
NOVEMBER 27, 2019

LETTING DATE:  
JULY 21, 2020

SUNGATE DESIGN GROUP, P.A.  
PO Box 700  
Piquette-Village, NC 27526  
(919) 552-2253  
(919) 552-2254 (Fax)  
www.mottmcd.com/americas  
LICENSE NO. F-0669

**MICHAEL PEKAREK, PE**  
PROJECT ENGINEER

**JOSH DALTON, PE**  
HYDRAULIC ENGINEER

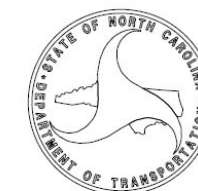
**DAVID STUTTS, PE**  
NCDOT BRIDGE PROGRAM MANAGER

**HYDRAULICS ENGINEER**

SIGNATURE: P.E.

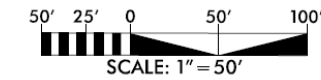
ROADWAY DESIGN  
ENGINEER




SIGNATURE: P.E.

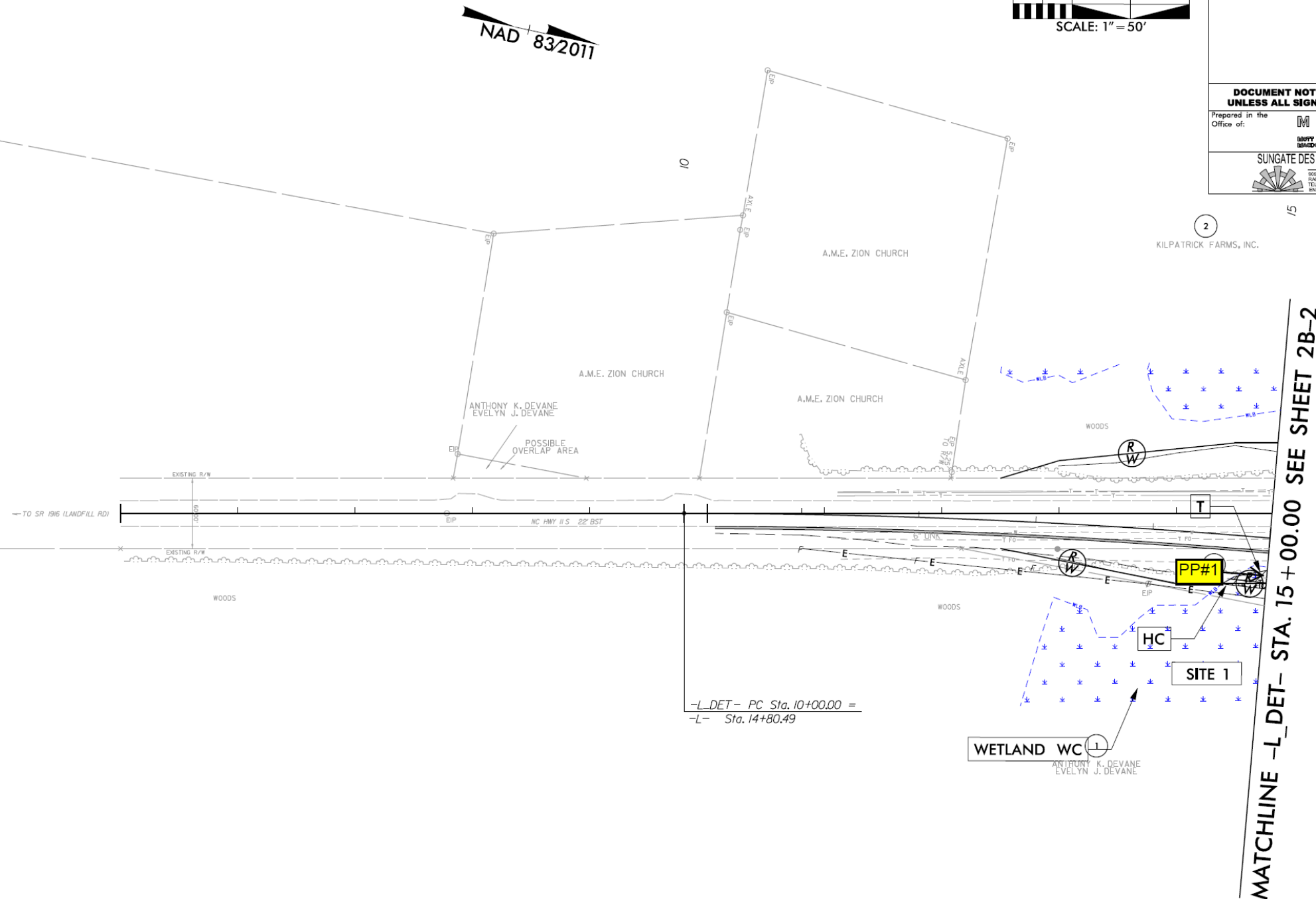



Revised 4/20/20


PERMIT DRAWING  
SHEET 2 OF 17



PROJECT REFERENCE NO.	SHEET NO.
B-5639	2B-1
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<p><b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b></p>	
Prepared in the Office of:	
 	PO Box 700 Fuquay-Varina, NC 27356 <a href="http://www.duffymac.com/dmcarries">www.duffymac.com/dmcarries</a>
 <p><b>SUNGATE DESIGN GROUP, P.A.</b></p> <p>505 JONER FRANKLIN ROAD          WALESTON, NORTH CAROLINA 27056          TEL (919) 852-2343          FAX (919) 852-9100, Cell 910</p>	



 DENOTES TEMPORARY  
FILL IN WETLAND

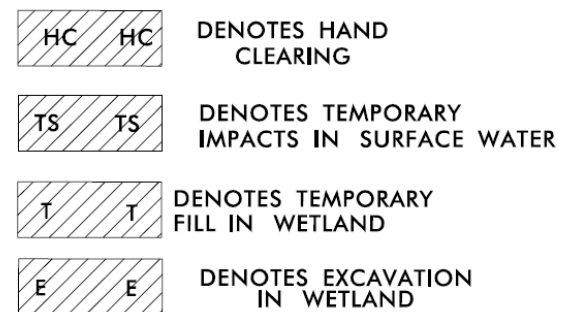
 DENOTES HAND  
CLEARING

FOR -L\_DET- PROFILE, SEE SHEET 7  
FOR -L- DESIGN, SEE SHEETS 4 & 5

8/17/99



**PERMIT DRAWING  
SHEET 4 OF 17**



FOR -L\_DET- PROFILE, SEE SHEET 7  
FOR -L- DESIGN, SEE SHEETS 4 & 5