

Type I and II Ground Disturbing Categorical Exclusion Action Classification Form

STIP Project No.	B-5639
WBS Element	45594.1.1
Federal Project No.	N/A

A. Project Description:

The North Carolina Department of Transportation (NCDOT) proposes to replace Bridge No. 36 on NC 11 over Maxwell Creek in Duplin County (Figures 1 and 2, attached). The existing 2-span bridge was built in 1962. It is a 108-foot long, 2-lane structure that was constructed of a reinforced concrete deck on I-beams. The proposed replacement structure will be a 3-span bridge approximately 170 feet long providing a minimum 33 foot 10-inch clear roadway width. The new bridge will include two 12-foot lanes with minimum 4-foot 11-inch paved shoulders. The proposed approach roadway will extend approximately 780 feet from the southwest end of the new bridge and approximately 785 feet from the northwest end of the new bridge. The approaches will include two 12-foot travel lanes and 2-foot paved shoulders. Eight-foot grassed shoulders will be included and will widen to 11-feet where guardrail is located. Several utility lines currently located in the road right-of-way will need to be relocated for the bridge replacement. The roadway is a major collector. It will be designed using 2018 NCDOT Standard Specifications & Drawings design standards with a 60 mile per hour design speed.

Due to limitations with potential off-site detour routes, an on-site detour was selected for this bridge replacement. Based on terrain and wetlands, the on-site detour is proposed to the east, or downstream side of the existing bridge. A temporary easement will be necessary. The posted speed limit for the detour bridge will be 45 mph.

Acquisition of Right-of-way is scheduled for Fall 2019 and construction for August 2020.

B. Description of Need and Purpose:

NCDOT Bridge Management Unit records indicate that in 2013, Bridge No. 36 had a sufficiency rating of 28.95 out of 100, along with a substructure condition of 5 out of a possible 9 points, making the bridge structurally deficient. Maintenance was performed to improve safety and extend the life of the bridge, which increased the sufficiency rating to 75.85 out of a possible 100. Since maintenance to the bridge is considered temporary, and because the bridge is 57 years old (constructed in 1962), the bridge is in need of replacement.

The purpose of this project is to replace the current bridge with a new structure that complies with current AASHTO Greenbook guidelines.

C. Categorical Exclusion Action Classification: (Check one)

TYPE I A

D. Proposed Improvements

28. Bridge rehabilitation, reconstruction, or replacement or the construction of grade separation to replace existing at-grade railroad crossings, if the actions meet the constraints in 23 CFR 771.117(e)(1-6).

E. Special Project Information:

Cost Estimate: \$3,350,000 July 2019

Estimated Traffic:

2020 ADT	2,617
2040 ADT	3,200
TTST	2%
Dual	3%

Alternatives:

The Division reviewed potential detour routes for this bridge replacement. The proposed detour route would require extensive upgrades to handle the traffic from NC 11. The next shortest available route is over 30 miles in length. Based on these limitations, an on-site detour was selected for this bridge replacement.

Based on the terrain and location of adjacent wetlands, the on-site detour is proposed to the east of the existing bridge. A temporary easement will be necessary. Overhead powerlines currently located to the east of the existing bridge will be relocated to the west side of the road to accommodate the on-site detour. The posted speed for the detour bridge will be 45 mph.

FEMA Coordination:

Maxwell Creek is located in a FEMA Limited Detailed Study Area. Placement of fill in floodplain areas will be required as part of the bridge replacement, as well as the placement of a temporary bridge during construction. NCDOT will coordinate with the NC Floodplain Mapping Program regarding the impacts to the floodplain as stipulated in their joint Memorandum of Agreement (modified 8/12/2016).

Pedestrian and Bicycle Accommodations:

This portion of NC 11 is not a part of a designated bicycle route nor is it listed in the Transportation Improvement Program (TIP) as a bicycle project.

Bridge Demolition:

Bridge No. 36 is constructed of concrete and steel and should be possible to remove with no resulting debris in the water based on standard demolition practices.

Public Involvement:

A newsletter was sent to approximately 10 residences adjoining the project area in July 2019. The newsletter briefly explained the project, its anticipated schedule, and provided contact information for questions. There have been no public comments received to date.

Anticipated Permit or Consultation Requirements:

Construction of the new bridge will permanently impact approximately 0.45 ac. of jurisdictional wetlands. Additionally, the construction of a temporary on-site detour bridge will cause temporary impacts of approximately 0.65 ac. of jurisdictional wetlands.

Minimal stream impacts are anticipated for placement of two new piers in the channel. The bridge will be top-down construction, with the existing center pier being removed from the proposed bridge once the first span is in place.

Impacts were calculated using the project slope stake limits on the 25% design plans plus a 25-foot buffer. A Nationwide Permit will be likely be required for impacts to Waters of the U.S. The USACE holds the final discretion as to what permit will be required to authorize project construction. The corresponding 401 Water Quality Certification from the state will likely be applicable.

Other Considerations:

Voluntary Agricultural District

The parcel in the southwest quadrant is listed as a Voluntary Agriculture District (VAD). However, the portion of the VAD in the project area is either jurisdictional wetland and/or woodland. It does not appear to have active agricultural operations in the bridge impact area. According to the 25% plans, this parcel will be impacted by right-of-way acquisition and land within the VAD may be temporarily converted to non-agricultural use as part of a temporary construction easement. The NCDOT Project Planning Engineer should comply with the requirements of the county VAD during the right-of-way acquisition process.

Archaeology

A.M.E. Zion Church Cemetery is located approximately 800 feet south of the bridge on the west side of NC 11. The proposed project does not impact the cemetery but, the project limits are close to the cemetery. Ground disturbing activities outside existing ROW in the immediate vicinity of the AME Zion Church Cemetery/Elder Church Cemetery will require additional consultation with an NCDOT archaeologist.

Protected Species

As of October 4, 2018, the United States Fish and Wildlife Service (USFWS) lists two federally protected species for Duplin County (Table 1). In addition, the National Marine Fisheries Service (NMFS) lists two federally protected species. A brief description of each species' habitat requirements follows, along with the Biological Conclusion rendered based on survey results in the study area. Habitat requirements for each species are based on the current best available information from referenced literature and/or USFWS/NMFS.

Table 1 - Federally protected species listed for Duplin County.

Scientific Name	Common Name	Federal Status	Habitat Present	Biological Conclusion
<i>Alligator mississippiensis</i>	American alligator	T(S/A)	Yes	Not Required
<i>Acipenser oxyrinchus oxyrinchus</i>	Atlantic sturgeon*	E	No	No Effect
<i>Picoides borealis</i>	Red-cockaded woodpecker	E	Yes	No Effect
<i>Acipenser brevirostrum</i>	Shortnose sturgeon*	E	No	No Effect

E – Endangered

T(S/A) – Threatened due to similarity of appearance

TBD – To be determined

* – Species listed by NMFS

Red-cockaded woodpecker

The project study area was surveyed on August 12, 2016. A small stand of loblolly pine, ranging from 50 to 70 years old, was located within the project study area. However, the stand was surrounded by non-foraging habitat for over 200 feet; therefore, the habitat within the half-mile survey was considered non-contiguous. A review of the NCNHP records, updated June 2016, indicates no known occurrences within 1.0 mile of the study area. Therefore, a Biological Conclusion of No Effect was made for this species.

F. Project Impact Criteria Checklists:

<u>Type I & II - Ground Disturbing Actions</u>				
<u>FHWA APPROVAL ACTIVITIES THRESHOLD CRITERIA</u>				
If any of questions 1-7 are marked "yes" then the CE will require FHWA approval.			Yes	No
1	Does the project require formal consultation with U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2	Does the project result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act (BGPA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3	Does the project generate substantial controversy or public opposition, for any reason, following appropriate public involvement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4	Does the project cause disproportionately high and adverse impacts relative to low-income and/or minority populations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
5	Does the project involve a residential or commercial displacement, or a substantial amount of right of way acquisition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6	Does the project require an Individual Section 4(f) approval?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

7	Does the project include adverse effects that cannot be resolved with a Memorandum of Agreement (MOA) under Section 106 of the National Historic Preservation Act (NHPA) or have an adverse effect on a National Historic Landmark (NHL)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If any of questions 8 through 31 are marked "yes" then additional information will be required for those questions in Section G.			
<u>Other Considerations</u>		Yes	No
8	Does the project result in a finding of "may affect not likely to adversely affect" for listed species, or designated critical habitat under Section 7 of the Endangered Species Act (ESA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9	Is the project located in anadromous fish spawning waters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	Does the project impact waters classified as Outstanding Resource Water (ORW), High Quality Water (HQW), Water Supply Watershed Critical Areas, 303(d) listed impaired water bodies, buffer rules, or Submerged Aquatic Vegetation (SAV)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11	Does the project impact waters of the United States in any of the designated mountain trout streams?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14	Does the project include a Section 106 of the NHPA effects determination other than a no effect, including archaeological remains?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>Other Considerations (continued)</u>		Yes	No
15	Does the project involve hazardous materials and/or landfills?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16	Does the project require work encroaching and adversely affecting a regulatory floodway or work affecting the base floodplain (100-year flood) elevations of a water course or lake, pursuant to Executive Order 11988 and 23 CFR 650 subpart A?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
17	Is the project in a Coastal Area Management Act (CAMA) county and substantially affects the coastal zone and/or any Area of Environmental Concern (AEC)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18	Does the project require a U.S. Coast Guard (USCG) permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
19	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River present within the project area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
20	Does the project involve Coastal Barrier Resources Act (CBRA) resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
21	Does the project impact federal lands (e.g. U.S. Forest Service (USFS), USFWS, etc.) or Tribal Lands?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
22	Does the project involve any changes in access control?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
24	Will maintenance of traffic cause substantial disruption?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

25	Is the project inconsistent with the STIP or the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP) (where applicable)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
26	Does the project require the acquisition of lands under the protection of Section 6(f) of the Land and Water Conservation Act, the Federal Aid in Fish Restoration Act, the Federal Aid in Wildlife Restoration Act, Tennessee Valley Authority (TVA), or other unique areas or special lands that were acquired in fee or easement with public-use money and have deed restrictions or covenants on the property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
28	Does the project include a <i>de minimis</i> or programmatic Section 4(f)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
29	Is the project considered a Type I under the NCDOT's Noise Policy?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
30	Is there prime or important farmland soil impacted by this project as defined by the Farmland Protection Policy Act (FPPA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
31	Are there other issues that arose during the project development process that affected the project decision?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

G. Additional Documentation as Required from Section F

Response to Question 1:

Northern Long-eared Bat

The US Fish and Wildlife Service has developed a programmatic biological opinion (PBO) in conjunction with the Federal Highway Administration (FHWA), the US Army Corps of Engineers (USACE), and NCDOT for the northern long-eared bat (NLEB) (*Myotis septentrionalis*) in eastern North Carolina. The PBO covers the entire NCDOT program in Divisions 1-8, including all NCDOT projects and activities. The programmatic determination for NLEB for the NCDOT program is May Affect, Likely to Adversely Affect. The PBO provides incidental take coverage for NLEB and will ensure compliance with Section 7 of the Endangered Species Act for five years for all NCDOT projects with a federal nexus in Divisions 1-8, which includes Duplin County where B-5639 is located. This level of incidental take is authorized from the effective date of a final listing determination through April 30, 2020.

Response to Question 16:

Maxwell Creek is located in a FEMA Limited Detailed Study Area. Placement of fill in floodplain areas will be required as part of the bridge replacement, as well as the placement of a temporary bridge during construction. NCDOT will coordinate with the NC Floodplain Mapping Program regarding the impacts to the floodplain as stipulated in their joint Memorandum of Agreement (modified 8/12/2016).

I. Categorical Exclusion Approval


STIP Project No.	<u>B-5639</u>
WBS Element	<u>45594.1.1</u>
Federal Project No.	<u>N/A</u>

Prepared By:

10/3/2019 DocuSigned by:


 Date 1532817720FC64DC
 Martha M. Register
 Simpson Engineers & Associates

Reviewed By:

10/15/2019 DocuSigned by:


 Date 8C1642F6874A457
 Phil S. Harris III, PE
 Unit Head – NCDOT Environmental Analysis Unit



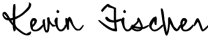
Approved

If all of the threshold questions (1 through 7) of Section F are answered “no,” NCDOT approves this Categorical Exclusion.



Certified

If any of the threshold questions (1 through 7) of Section F are answered “yes,” NCDOT certifies this Categorical Exclusion.

10/17/2019 DocuSigned by:


 Date ED19A18D98EC496
 Kevin Fischer, PE
 Assistant State Structures Engineer – Program Management and Field Operations NCDOT Structures Management Unit

FHWA Approved: For Projects Certified by NCDOT (above), FHWA signature required.

_____ N/A _____
 Date John F. Sullivan, III, PE, Division Administrator
 Federal Highway Administration

Duplin County
Replace Bridge No. 36 on NC 11 over Maxwell Creek
Federal Project No.
WBS No. 45594.1.1
TIP No. B-5639

Coordination with Duplin County Schools

Duplin County Schools will be contacted at least one month prior to road closure by NCDOT Division 3 in order to have time to adequately reroute school busses.

Phone: (910)-296-1521

Coordination with Duplin County Emergency Services

Duplin County Emergency Services will be contacted by NCDOT Division 3 at least one month prior to road closure to make the necessary temporary reassignments to primary response units.

Phone: (910) 296-2160

Voluntary Agricultural District

The parcel in the southwest quadrant is listed as a Voluntary Agriculture District (VAD) but does not appear to have active agricultural operations occurring in the bridge impact area. The NCDOT Project Planning Engineer should comply with the requirements of the county VAD during the right-of-way acquisition process.

Archaeology

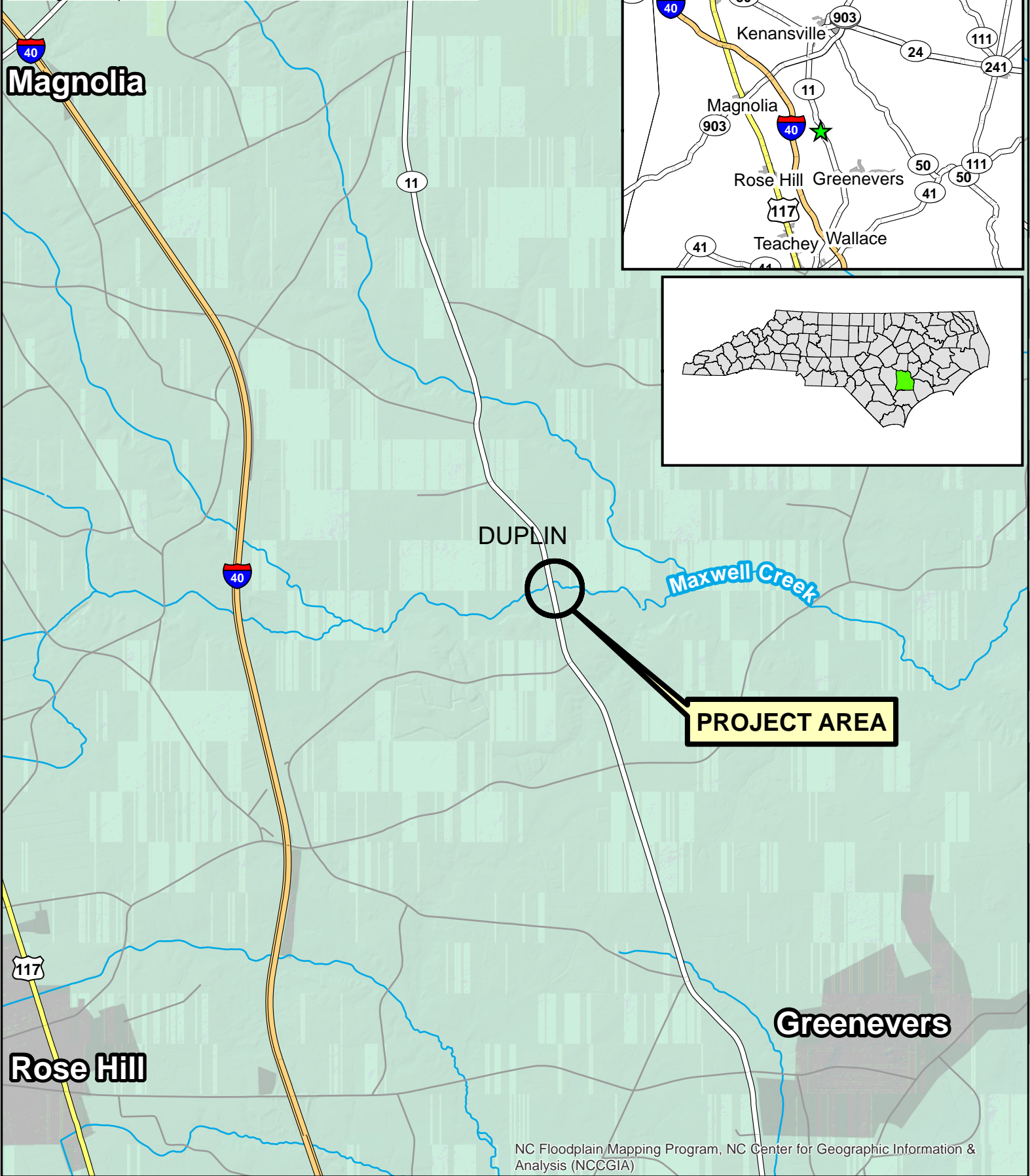
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FEMA Floodplains and Floodways (NCDOT Division 3 Construction)

This project involves construction activities on or adjacent to FEMA-regulated stream(s). Therefore, the Division shall submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction, certifying that the drainage structure(s) and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

Floodplain Mapping Coordination (NCDOT Hydraulic Design Unit)

The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP), to determine status of project with regard to applicability of NCDOT'S Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).



NC Floodplain Mapping Program, NC Center for Geographic Information & Analysis (NCCGIA)



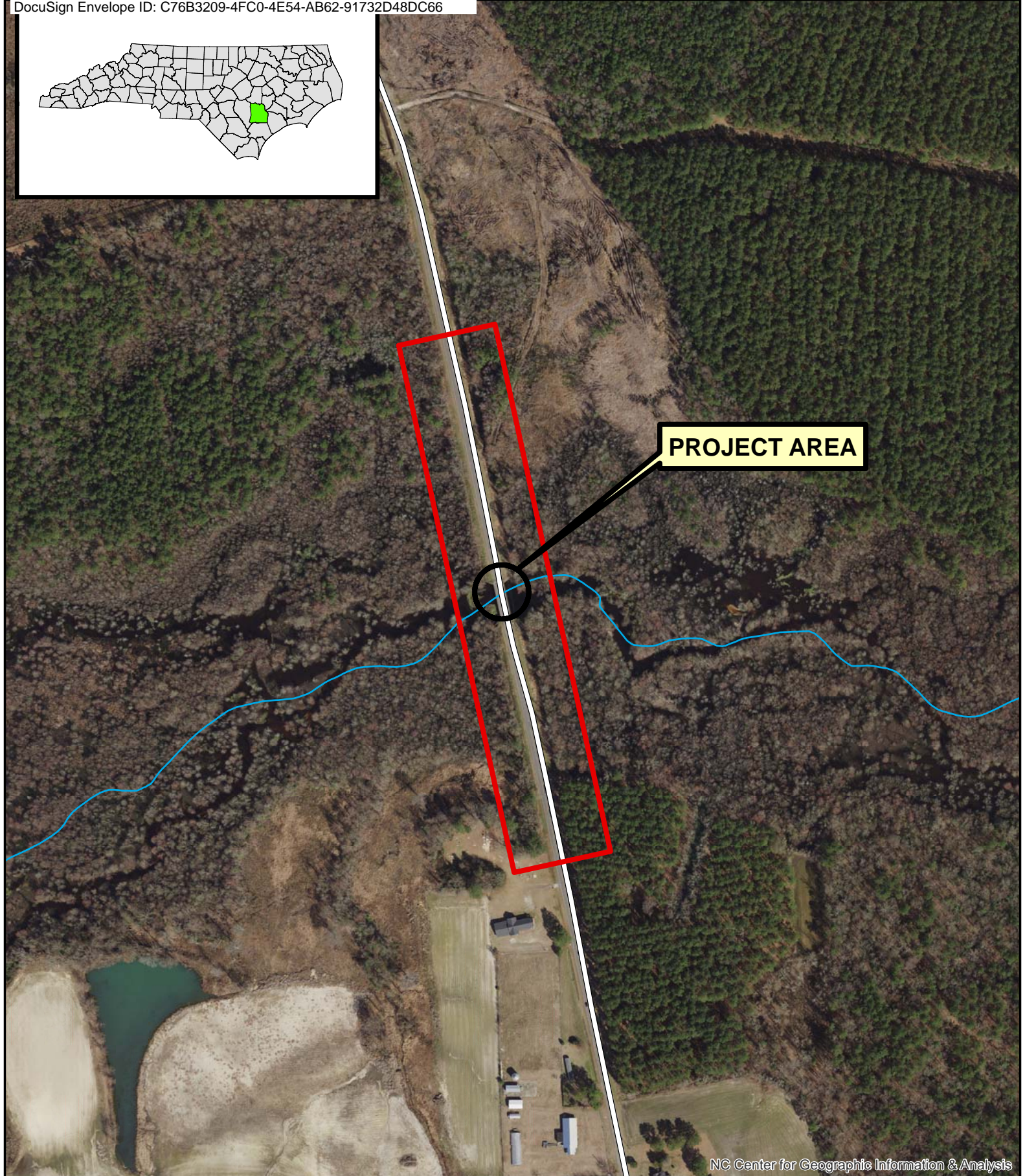
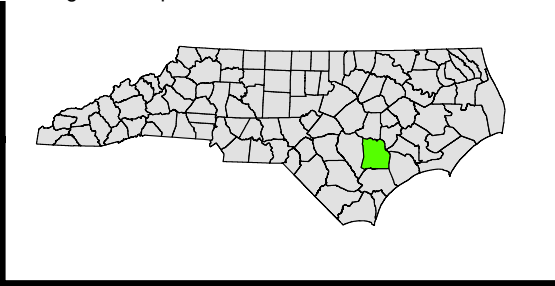
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
STRUCTURES MANAGEMENT UNIT

VICINITY MAP REPLACE BRIDGE NO. 36



County:	Duplin
Division:	3
STIP:	B-5639
Date:	April 12, 2019

Figure 1



NC Center for Geographic Information & Analysis



**NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
STRUCTURES MANAGEMENT UNIT**

**STUDY AREA
REPLACE BRIDGE NO. 36**

 Study Area



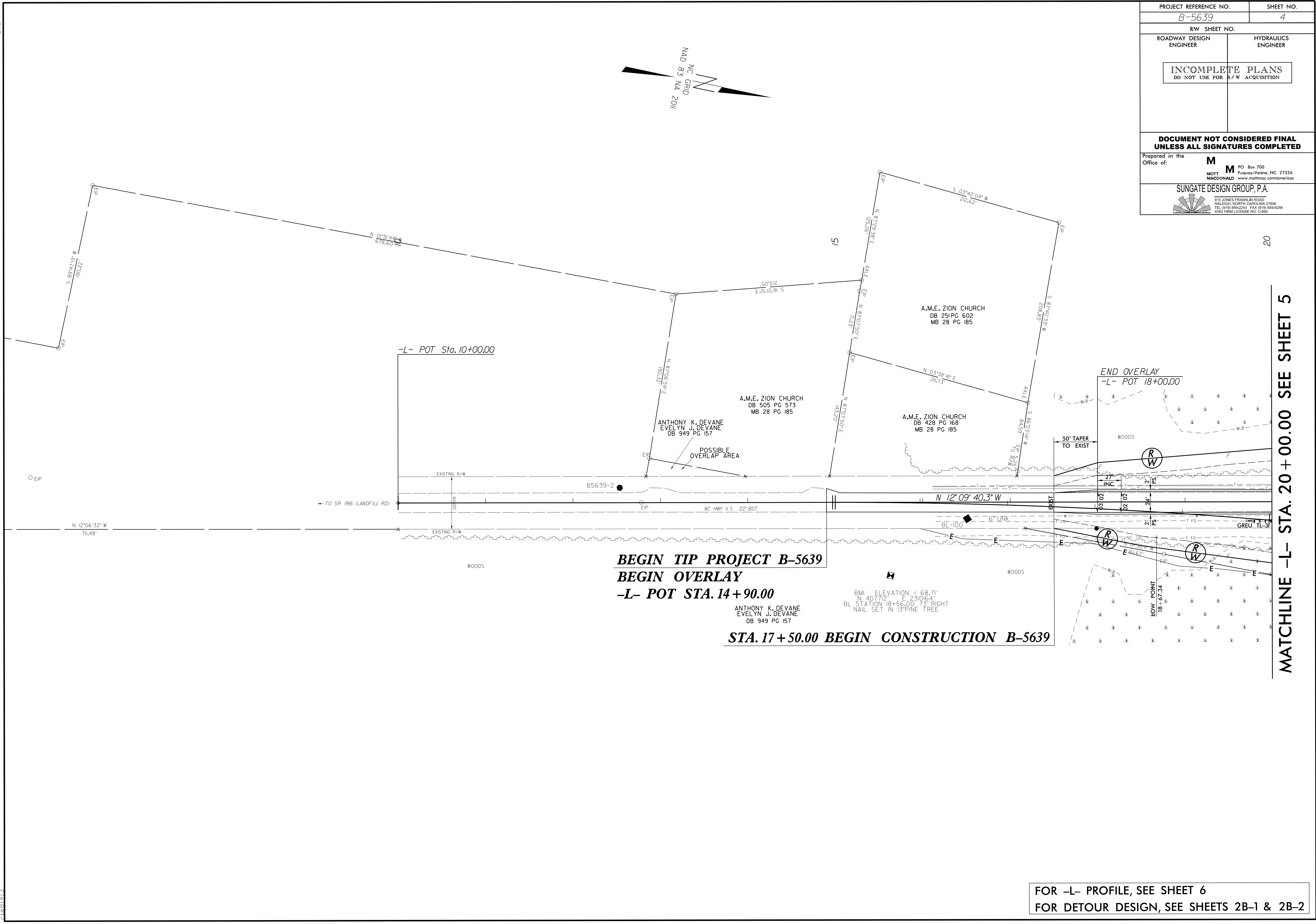
County:	Duplin
Division:	3
STIP:	B-5639
Date:	April 12, 2019

**Figure
2**

B-17/99

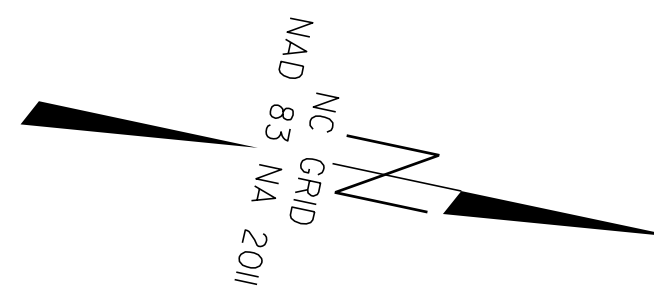
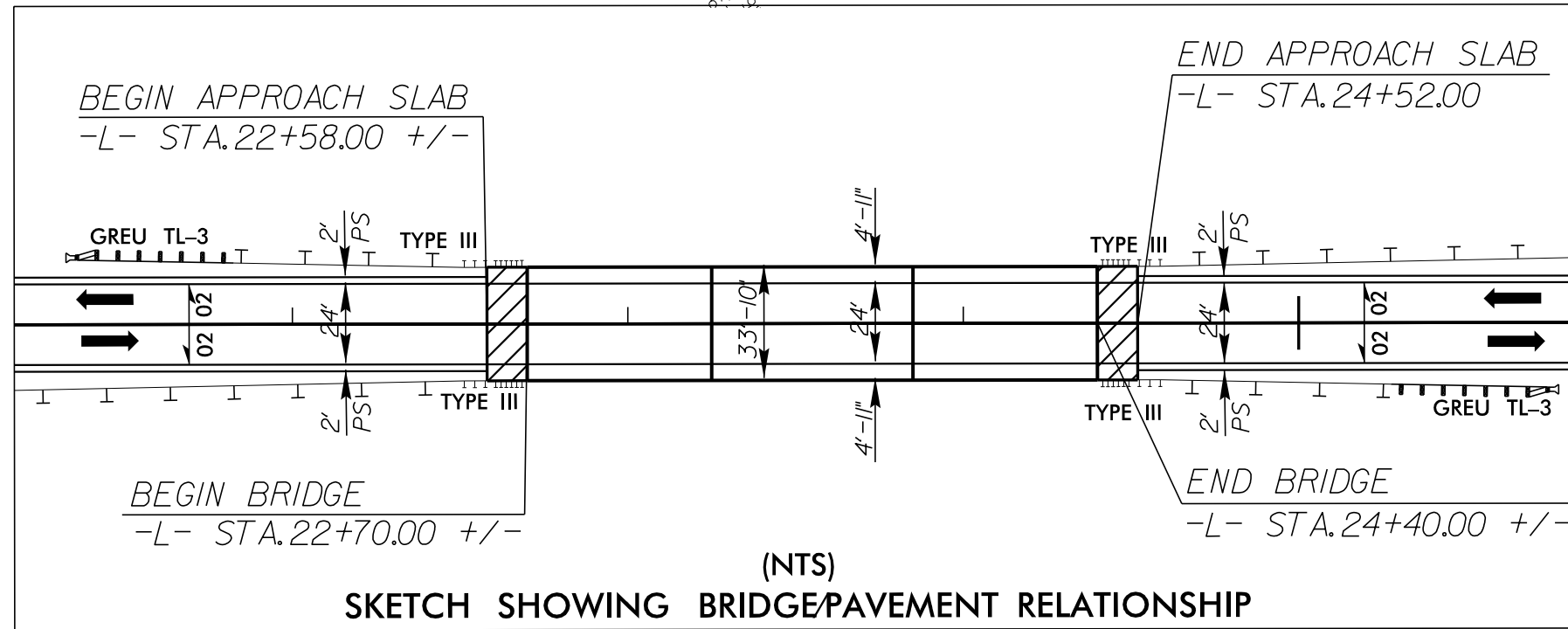
PROJECT REFERENCE NO. <i>B-5639</i>	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
Prepared in the Office of:	M MOTT MACDONALD PO Box 700 Fuquay-Varina, NC 27524 www.mottmac.com/america
SUNGATE DESIGN GROUP, P.A. 915 JONES FRANKLIN ROAD RALEIGH, NORTH CAROLINA 27608 TEL (919) 856-2245 FAX (919) 856-6258 ENG FIRM LICENSE NO. C-990	

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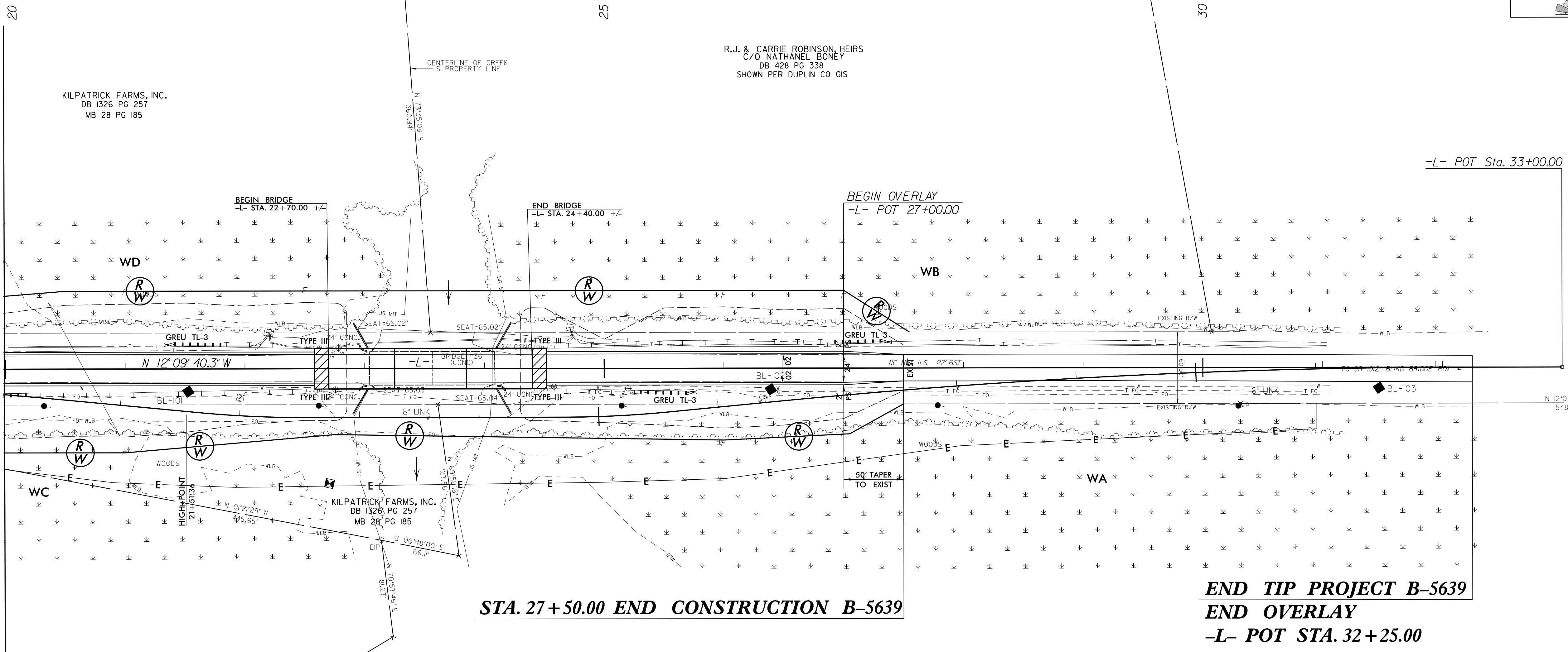


FOR -L- PROFILE, SEE SHEET 6
FOR DETOUR DESIGN, SEE SHEETS 2B-1 & 2B-2

PROJECT REFERENCE NO. <i>B-5639</i>	SHEET NO. 5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
Prepared in the Office of:	M MOTT MACDONALD PO Box 700 Fuquay-Varina, NC 27524 www.motmac.com/america
SUNGATE DESIGN GROUP, P.A. 915 JONES FRANKLIN ROAD RALEIGH, NORTH CAROLINA 27608 TEL: (919) 855-2242 FAX: (919) 859-6258 ENG FIRM LICENSE NO. C-990	



MATCHLINE -L- STA. 20 + 00.00 SEE SHEET 4



GARNETT McCALOP & LOIS CHASTEN, HEIRS
DB 828 PG 778
SHOWN PER DUPLIN CO GIS

FOR -L- PROFILE, SEE SHEET 6
FOR DETOUR DESIGN, SEE SHEETS 2B-1 & 2B-2

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16-01-0008



HISTORIC ARCHITECTURE AND LANDSCAPES NO SURVEY REQUIRED FORM

This form only pertains to Historic Architecture and Landscapes for this project. It is not valid for Archaeological Resources. You must consult separately with the Archaeology Group.

PROJECT INFORMATION

Project No:	B-5639	County:	Duplin
WBS No.:	45594.1.1	Document Type:	
Fed. Aid No:		Funding:	X State Federal
Federal Permit(s):	X Yes No	Permit Type(s):	NWP
Project Description: Replace Bridge No. 36 on NC 11 over Maxwell Creek (no off-site detour planned).			

SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

DESCRIPTION OF REVIEW ACTIVITIES, RESULTS, AND CONCLUSIONS: HPOWeb reviewed on 12 January 2016 and yielded no NR, SL, DE, SS, or LD properties in the Area of Potential Effects (APE). Duplin County current GIS mapping, aerial photography, and tax information indicated a wooded APE with some cultivated fields and several cleared parcels containing a variety of twentieth-century resources (viewed 12 January 2016). On a large parcel partly intersected by the APE (#1827 S NC 11) stands the circa-1904 Gibson Carr House (DP0209), somewhat altered and located outside the APE, approximately 1750 feet southeast of the existing Bridge No. 36, well beyond likely project impact. Approximately 885 feet south of the existing bridge and 115 feet west of the NC 11 center line, also beyond likely project impact, is the circa-1958 Elder Chapel/AME Zion Church (#1788 S NC 11). Its associated cemetery extends northward from the church building and onto an adjacent parcel (#1820 S NC 11) to within about 600 feet south of the bridge and 50 feet west of the NC 11 centerline. Neither the church nor the cemetery is an exceptional example of its type, but attention should be paid to the proximity of the cemetery to project activity. Constructed in 1962, Bridge No. 36 is not eligible for the National Register as it is not representative of any distinctive engineering or aesthetic type. Google Maps "Street View" confirmed the absence of critical architectural and landscape resources in the APE (viewed 12 January 2016).

No architectural survey is required for the project as currently defined.

WHY THE AVAILABLE INFORMATION PROVIDES A RELIABLE BASIS FOR REASONABLY PREDICTING THAT THERE ARE NO UNIDENTIFIED SIGNIFICANT HISTORIC ARCHITECTURAL OR LANDSCAPE RESOURCES IN THE PROJECT AREA: APE extends 900 feet from either end of the existing bridge (N-S) and 150 feet to either side of the NC 11 centerline (E-W) to encompass proposed construction activities. The comprehensive architectural survey of the county (1992-3) and related publication, as well as later studies recorded no resources in the APE (Jennifer F. Martin, *Along the Banks of the Old Northeast: the Historical and Architectural Development of Duplin County, North Carolina* (Rose Hill, NC: Duplin County Historical Foundation, Inc., 1999)). County GIS and other visuals illustrate the absence of significant architectural and landscape resources in the APE. No National Register-listed properties are located within the APE.

Should any aspect of the project design change, please notify NCDOT Historic Architecture as additional review may be necessary.

SUPPORT DOCUMENTATION

X Map(s) Previous Survey Info. Photos Correspondence Design Plans

FINDING BY NCDOT ARCHITECTURAL HISTORIAN

Historic Architecture and Landscapes -- NO SURVEY REQUIRED

Vanessa E. Patrick
NCDOT Architectural Historian

5 February 2016

Date

16-01-0008



ARCHAEOLOGICAL SURVEY REQUIRED FORM

This form only pertains to ARCHAEOLOGICAL RESOURCES for this project. It is not valid for Historic Architecture and Landscapes. You must consult separately with the Historic Architecture and Landscapes Group.



PROJECT INFORMATION

Project No: **B-5639** County: **Duplin**
 WBS No: **45594.1.1** Document: **CE**
 F.A. No: **na** Funding: State Federal
 Federal Permit Required? Yes No Permit Type: **NWP**

Project Description: NCDOT intends to replace Bridge No. 36 on NC 11 over Maxwell Creek east of Magnolia. The Request for Cultural Resources Review form suggested a study area measuring 300 feet (roughly 91 meters) wide and 1700 feet (just over 518 meters) long. For the purposes of the archaeological review, the proposed study area will be considered to be the area of potential effects (APE). Thus, the project APE is expected to encompass an area of approximately 11.7 acres (nearly 4.74 hectares).

SUMMARY OF ARCHAEOLOGICAL RESOURCES REVIEW: *SURVEY REQUIRED*

Brief description of review activities, results of review, and conclusions:

A review of the site maps and files archived at the North Carolina Office of State Archaeology (OSA) was conducted on January 15, 2016. No previously identified archaeological resources are recorded in the location of the proposed project, though an archaeological survey conducted approximately .7 mil (1.1 kilometers) southwest of the project area appears to have revealed the presence of archaeological sites 31Dp214** and 31Dp215. At the southern end of the current APE and falling partially within the study corridor, is the AME Zion Church Cemetery/Elder Church Cemetery. Soil maps for the project vicinity suggest that this southern portion of the project area, which exhibits Autryville loamy fine sand (AuB) may retain some potential for archaeological resources. An archaeological reconnaissance investigation followed by intensive survey, if required, is recommended.

SUPPORT DOCUMENTATION

See attached: Map(s) Previous Survey Info Photos Correspondence
 Other: <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

FINDING BY NCDOT ARCHAEOLOGIST – *SURVEY REQUIRED*

NCDOT ARCHAEOLOGIST

February 9, 2016

Date

Proposed fieldwork completion date

16-01-0008

percent slopes, frequently flooded and Autryville loamy find sand (AuB), 0 to 6 percent slopes (USDA Soil Survey 2015).

On January 26, 2017, ECA completed an intensive archaeological survey within the APE, located along Bridge No. 36 on NC 11, over Maxwell Creek. A pedestrian survey was conducted by visual inspection of exposed ground surfaces throughout the project APE in conjunction with systematic shovel testing. Ground surface visibility was less than 5% throughout the majority of the project area due to vegetative cover, standing water, and asphalt cover.

Much of the project area traversing over Maxwell Creek is located within inundated wetlands. Mapped soils within these inundated areas consist of Muckalee soils and are listed as frequently flooded. We believe these areas are unlikely to contain archaeological deposits. Therefore, ECA conducted shovel testing throughout areas mapped as Muckalee soils at 100-foot (30-meter) intervals. Southern portions of the project APE which are located in areas with mapped soils of the Autryville soil series, which have a higher potential for archaeological material, were tested at 50-foot (15-meter) intervals.

The intensive archaeological survey consisted of two transects, one each located on either side of the existing road and bridge, and offset approximately 70 feet (21 meters) from the edge of the roadway. ECA conducted shovel tests along two approximate 1,700-foot long (518-meter) transects on the eastern and western sides of NC-11 within an approximate 300-foot (91-meter) wide area between the edge of the road and the extent of the APE.

All shovel tests measured approximately 16 inches by 16 inches (41 cm by 41 cm) and were excavated into known sterile subsoils for the project area. All soils were screened through a six-millimeter wire mesh archaeology screen to isolate any cultural artifacts. All shovel tests were backfilled.

Transect A was positioned on the west side of NC-11 and traversed from the southern edge of the project area to its northern extent. The first 750 feet (229 meters) of the transect were conducted at 50 foot (15 meter) intervals while the remaining 950-foot (290-meter) portion of the transect was conducted at 100 foot (30 meter) intervals as it traverses Muckalee soils and predominantly wetland areas. During project scoping, ECA planned to excavate 25 shovel tests along Transect A. Of these, one shovel test was omitted due to the presence of standing water associated with Maxwell Creek and nine shovel turns were conducted in lieu of shovel tests as subsurface testing was limited to the artificially raised roadbed since surrounding areas were inundated. In addition, shovel test A-1 was placed along the disturbed ROW of NC-11 in order to avoid the AME Zion Church Cemetery/Elder Church Cemetery.

Transect B was positioned on the east side of NC-11 and traversed from the southern edge of the project area to its northern extent. The first 750 feet (229 meters) of the transect were conducted at 50 foot (15 meter) intervals while the remaining 950-foot (290-meter) portion of the transect was conducted at 100 foot (30 meter) intervals as it traverses Muckalee soils and predominantly wetland areas. During project scoping, ECA planned to excavate 25 shovel tests along Transect B. Of these, one shovel test was omitted due to the presence of standing water associated with Maxwell Creek and ten shovel turns were conducted in lieu of shovel tests as subsurface testing was limited to the artificially raised roadbed since surrounding areas were inundated. Shovel test B-6 produced one rhyolite flake. A site form was submitted to OSA and the artifact was attributed to the newly identified archaeological isolated find 31DP270.

16-01-0008**31DP270**

Site Number: 31DP270

Temporary Number: Field Site 1

UTM (WGS84 Zone 17): Easting 228856 Northing 3862240

Site Size: 250 square-meters

Components: Undifferentiated prehistoric isolated find

Landform: Terrace

Elevation: 59 ft amsl

Types of Disturbances: Timbering, construction of artificial pond and roadway

Extent of Disturbances: Unknown

NRHP Recommendation: Not Eligible

During the course of our investigation along Transect B, one shovel test pit (B-6) was positive during subsurface testing and included one tertiary rhyolite flake. Seven shovel tests were planned for the delineation of the isolated find. Of these, four shovel tests (475N/500E, 500N/475E, 500N/525E, and 500N/550E) were conducted, two shovel tests (550N/500E and 525N/500E) were omitted due to their location in a man-made pond filled with standing water, and one shovel turn (500N/450E) was conducted in lieu of shovel testing as it was placed in an area marked for utilities immediately adjacent to the raised NC-11 roadbed (Figure 13). No other shovel tests were positive for cultural materials. The isolated find is located in a wooded area of planted pine. Ground surface visibility was near zero percent throughout due to vegetative cover.

The nearest water source is Maxwell Creek located approximately 450 feet (137 meters) to the northeast of the site at its closest point.

One tertiary rhyolite flake was recovered from one shovel test pit (Table 1) (Figure 11). The artifact was recovered from a soil horizon characterized as 10YR 6/8 (brownish yellow) loamy sand and was encountered at a depth ranging from 6-20 inches (15-51cm). No additional artifacts or features were encountered. With only one artifact recovered, the occurrence is considered an isolated find.

In our opinion, the isolated find lacks significance and integrity due the lack of artifact density encountered during our subsurface and surface survey and possible disturbances evidenced by the adjacent raised roadbed and man-made pond. Therefore, we believe the isolated find has a low potential to yield information important to prehistory. Given this, ECA believes the isolated find is not eligible for inclusion to the NRHP and no further work is recommended.

AME Zion Church Cemetery/Elder Church Cemetery

A cemetery associated with the AME Zion Church is located along the southwestern extent of the APE. Based on ECA's site visit, the cemetery appears to be a predominantly African American cemetery with most burials within the APE being interred from the late 20th century to the present. A total of 41 burials were identified as being located within the APE with six burials being interred from 1930 to 1960 and the remaining burials being interred from 1960 to 2013

16-01-0008

(Table 3) (Figure 14). Most burials included either individual or couple's markers with some also including burial vaults and/or foot stones.

Since the portion of the cemetery located within the APE is predominantly modern, we do not believe that any historic resources would be impacted by the proposed bridge replacement. However, should the APE be shifted to include portions of the cemetery not studied by ECA or should project plans necessitate the relocation of burials, further research would be recommended.

Even if the portion of the cemetery within the proposed APE does not constitute a NRHP-eligible archaeological resource, NCGS 65 may still apply. Additionally, if the proposed project includes impacts within the boundaries of the formal cemetery, NCGS 70 may also apply. Any proposed earth-disturbing activities outside existing ROW in the immediate vicinity of the cemetery will require additional investigation.

Recommendations:

ECA believes that 31DP270 is an isolated find and lacks significance and integrity due the lack of artifact density encountered during our subsurface and surface survey and possible disturbances evidenced by the adjacent raised roadbed and man-made pond. Therefore, we believe the isolated find has a low potential to yield information important to prehistory. Given this, ECA believes the isolated find is not eligible for inclusion to the NRHP and no further work is recommended.

As noted above, proposed activities outside existing ROW in the immediate vicinity of the AME Zion Church Cemetery/Elder Church Cemetery will require additional consultation with NCDOT archaeologist, Shane Petersen, as plans are developed.

Autumn DuBois, MA, RPA Principal Investigator with ECA, recommends that no additional testing is needed to determine if the proposed improvements will impact any significant archaeological resources.

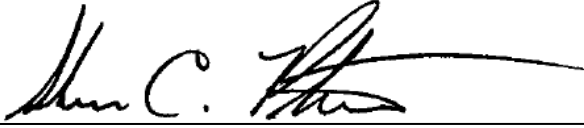
The North Carolina Department of Transportation (NCDOT) Archaeology Group reviewed the subject project and determined:

- There are no National Register listed or eligible ARCHAEOLOGICAL SITES present within the project's area of potential effects. (Attach any notes or documents as needed)
- No subsurface archaeological investigations were required for this project.
- Subsurface investigations did not reveal the presence of any archaeological resources.
- Subsurface investigations did not reveal the presence of any archaeological resources considered eligible for the National Register.
- All identified archaeological sites located within the APE have been considered and all compliance for archaeological resources with Section 106 of the National Historic Preservation Act and GS 121-12(a) has been completed for this project.

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SUPPORT DOCUMENTATION

See attached: Map(s) Previous Survey Info Photos Correspondence
Signed:



March 9, 2017

NCDOT ARCHAEOLOGIST

Date