

Type I or II Categorical Exclusion Action Classification Form

TIP Project No.	B-5624
WBS Element	45579.1.1
Federal Project No.	N/A

A. Project Description:

The North Carolina Department of Transportation (NCDOT) proposes to replace Bridge No. 57 on NC 211 (Green Swamp Road) over Driving Creek in Brunswick County (see Figure 1). The replacement structure will be a bridge approximately 70 feet long and provide a minimum 40-foot clear roadway width. The bridge will include two 12-foot lanes and 8-foot shoulders. The bridge length is based on preliminary design information and is set by hydraulic requirements. Right of way acquisition and construction are scheduled for state fiscal years 2020 and 2021, respectively.

Project construction will extend approximately 670 feet from the north end of the new bridge and 670 feet from the south end of the new bridge. The approaches will provide two 12-foot lanes and 8-foot shoulders (4-foot paved). The roadway will be designed as a Major Collector with a 60-mile per hour design speed.

B. Description of Need and Purpose:

The purpose of the proposed project is to replace a structurally deficient bridge. Bridge No. 57 was built in 1954. It is 53 feet long with an approximately 23-foot clear roadway width. The bridge is a three-span structure that consists of a reinforced concrete floor on timber joists with asphalt wearing surface. It has vertical abutments and interior bent with timber piles and concrete caps.

NCDOT Bridge Management Unit records as of March 19, 2019 indicate Bridge No. 57 has a sufficiency rating of 34.9 out of a possible 100 for a new structure. Bridge No. 57 is considered structurally deficient due to a deck geometry rating of 2 out of 9.

Components of the concrete substructure and superstructure have experienced increased degree of deterioration that can no longer be addressed by maintenance activities. NC 211 at Bridge No. 57 had an Average Annual Daily Traffic (AADT) volume of 1,700 vehicles per day (vpd) in 2015 and future traffic of 3,000 AADT for the year 2040. The substandard deck width and bridge railing are becoming increasingly unacceptable and replacement of the bridge will result in safer traffic operations.

C. Categorical Exclusion Action Classification:

Type I(A) - Ground Disturbing Action

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:**

The estimated 2019 construction cost for the project is \$3,050,000.

Anticipated Permit or Consultation Requirements:

The US Army Corps of Engineers (USACE) Section 404 Nationwide Permits (NWP) 23 and 33 will likely be applicable. The USACE holds the final discretion as to which permit will be required to authorize project construction. If a Section 404 permit is required, then a Section 401 Water Quality Certification (WQC) from the NC Department of Water Resources (NCDWR) will be needed.

Design Exceptions:

There are no anticipated design exceptions for this project.

Bridge Demolition:

Bridge No. 57 should be possible to remove with no resulting debris in the water based on standard demolition practices.

Alternatives Discussion:

No Build: The no build alternative would result in eventually closing the bridge as its condition continues to deteriorate.

Rehabilitation: Rehabilitation would only provide a temporary solution to the structural deficiency of the bridge. The bridge was constructed in 1954 and is structurally deficient, which would constitute effectively replacing the bridge.

On-Site Detour (Preferred): A temporary on-site detour was chosen as the preferred alternative to replace Bridge No. 57. During construction of the new bridge in place, the roadway will be open to traffic using a two-lane temporary detour bridge just south of the existing bridge. Locating the temporary detour bridge south of the existing bridge minimized impacts to the wetlands on the north and south sides of NC 211.

Off-Site Detour: An off-site detour was deemed not to be feasible due to its length. The closest available detour is approximately 23 miles, with 3 miles being a dirt/gravel unpaved road. The length of the off-site detour would delay emergency response times. The Emergency Services Director for Brunswick County EMS noted that the project would delay accessing calls in the Green Swamp Preserve. Additionally, this detour would be problematic in the event of a hurricane since NC 211 is designated as a NCDOT hurricane evacuation route.

Other Agency Comments:

In response to the Start of Study notification sent via email on January 14, 2016, the Cape Fear Council of Governments provided the following comments for Bridge No. 57:

- See Appendix J of the Brunswick Co CTP for comments from resource agencies of general relevance.
- Funding for the section of I-74 (R-3436) through this vicinity is unlikely as the project fares poorly in NCDOT's SPOT Prioritization process and the route is unpopular among many elected officials on the Cape Fear RPO's Rural Transportation Advisory Committee. Therefore, NC 211 will most likely continue to be the only primary roadway between NC 130 and NC 87 that connects from US 74/76 in Columbus Co to US 17 and the Brunswick Co beaches.
- NC 211 is a designated hurricane evacuation route.
- The bridge is located adjacent to parcels owned by the Nature Conservancy as part of the Green Swamp Preserve.
- The replacement of Bridge 57 should be coordinated such that there are no closures between Memorial Day and Labor Day as this is a primary summertime vacation route to the Brunswick County beaches. Traffic volumes will be much heavier than normal, and drivers will be unfamiliar with the route and extremely unfamiliar with the detour routes.
- Bike or pedestrian facilities are not currently planned for the route, but that may change as the Cape Fear Regional Bike Plan, funded by NCDOT and kicking off shortly, is developed.

Public Involvement:

A landowner notification letter was mailed on February 16, 2016, to property owners within the project study area. The letter informed citizens of the initiation of planning studies for the project. No comments were received in response to the notification letter.

F. Project Impact Criteria Checklists:

F2. Ground Disturbing Actions – Type I (Appendix A) & Type II (Appendix B)				
Proposed improvement(s) that fit Type I Actions (NCDOT-FHWA CE Programmatic Agreement, Appendix A) including 2, 3, 6, 7, 9, 12, 18, 21, 22 (ground disturbing), 23, 24, 25, 26, 27, 28, &/or 30; &/or Type II Actions (NCDOT-FHWA CE Programmatic Agreement, Appendix B) answer the project impact threshold questions (below) and questions 8 – 31.				
<ul style="list-style-type: none"> If any question 1-7 is checked "Yes" then NCDOT certification for FHWA approval is required. If any question 8-31 is checked "Yes" then additional information will be required for those questions in Section G. 				
<u>PROJECT IMPACT THRESHOLDS</u> (FHWA signature required if any of the questions 1-7 are marked "Yes".)			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 (BGEPA)?	<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 question 8-31 is checked "Yes" then additional information will be required for those questions in Section G.				
<u>Other Considerations</u>			Yes	No
8	Is an Endangered Species Act (ESA) determination unresolved or is the project covered by a Programmatic Agreement under Section 7?	<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"/>	

<u>Other Considerations for Type I and II Ground Disturbing Actions (continued)</u>		Yes	No
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 National Historic Preservation Act (NHPA) effects determination other than a No Effect, including archaeological remains?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15	Does the project involve GeoEnvironmental Sites of Concerns such as gas stations, dry cleaners, landfills, etc.?	<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 type="checkbox"/>	<input checked="" 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 or the modification or construction of an interchange on an interstate?	<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, and where applicable, the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP)?	<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), Tribal Lands, 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 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 (ONLY for questions marked 'Yes'):

Section 7 Additional Information:

Northern Long Eared Bat (NLEB) - The US Fish and Wildlife Service has developed a programmatic biological opinion (PBO) in conjunction with the Federal Highway Administration (FHWA), USACE, and NCDOT for the 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 Brunswick County, where the project TIP B-5624 is located.

Red-cockaded Woodpecker (RCW) - On February 22, 2016, a query of NCNHP records using the online North Carolina Natural Heritage Data Explorer indicated two red RCW occurrences within 1-mile of the study area. The observations were made on June 28, 1991 and March 10, 2005. Both records were historical and had an accuracy of "3", or "Medium". According to the Natural Resources Technical Report, the biological conclusion for the RCW was undetermined. An RCW survey was conducted in 2016 because foraging habitat was located within the project study area requiring a half-mile survey for nesting habitat. No nesting habitat was located within the half-mile survey area. No RCW cavity trees were found. Based on these findings and no documented occurrences within 1.0 mile, this project will have No Effect on the RCW, as reported in the RCW survey report completed in November 2016.

Waccamaw Silverside - The USFWS has listed Waccamaw silverside (*Menidia extensa*) for Brunswick County since the NRTR was completed. The project will have No Effect on this fish because it is outside of the basin where the species occurs according to the USFWS IPaC system.

H. Project Commitments:

NCDOT PROJECT COMMITMENTS

TIP Project No. B-5624

The NCDOT proposes to replace Bridge No. 57 on NC 211 (Green Swamp Road) over Driving Creek.

Brunswick County

Federal Aid Project No. N/A

WBS Element 45579.1.1

NCDOT Division 3 – Community Coordination

NCDOT Division 3 will contact Brunswick County Schools at (910) 253-2880 at least one month prior to construction to coordinate construction activities with school transportation schedules.

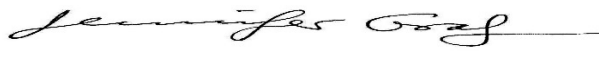
Brunswick County Emergency Services will be contacted at (910) 253-2569 at least one month prior to construction to make necessary temporary reassignments to primary response units.

NCDOT Division 3 will coordinate with adjacent land owners regarding any permanent or temporary impacts to their land or property access during construction.

Categorical Exclusion Approval:

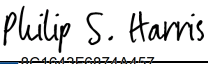
STIP Project No.	B-5624
WBS Element	45579.1.1
Federal Project No.	N/A

Prepared By:

April 6, 2020	
Date	Jennifer Graf, PMP, Senior Project Manager CDM Smith

Prepared For: Tierre R. Peterson, PE, Team Leader
North Carolina Department of Transportation

Reviewed By:

5/28/2020	<small>DocuSigned by:</small> 
Date	<small>0C1043F6874A457...</small> Philip S. Harris III, PE, CPM-Environmental Analysis Unit Head North Carolina Department of Transportation

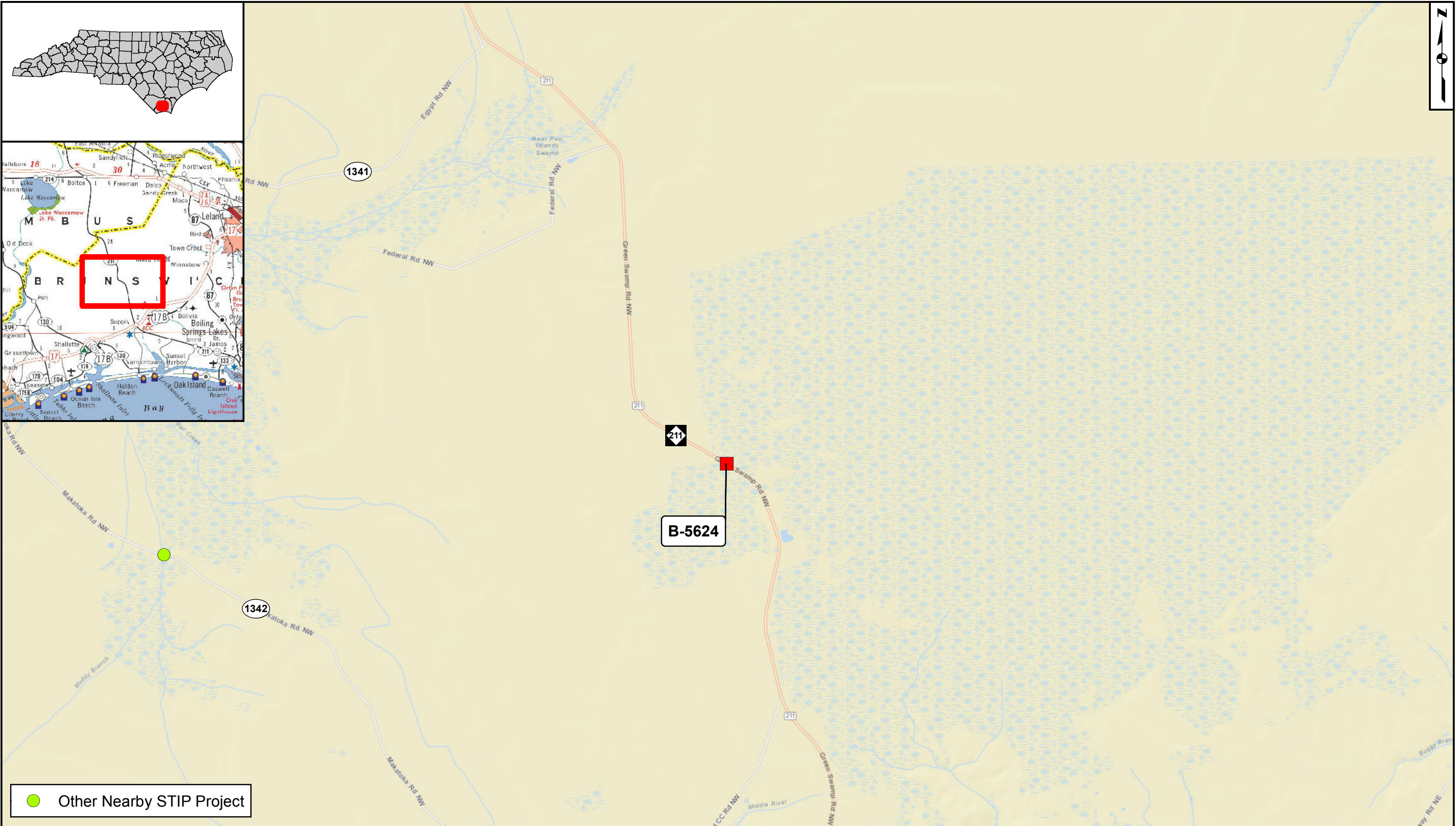
- Approved**
 - If NO grey boxes are checked in Section F (pages 2 and 3), NCDOT approves the Type I or Type II Categorical Exclusion.
- Certified**
 - If ANY grey boxes are checked in Section F (pages 2 and 3), NCDOT certifies the Type I or Type II Categorical Exclusion for FHWA approval.
 - If classified as Type III Categorical Exclusion.

5/28/2020	<small>DocuSigned by:</small> 
Date	<small>ED19A18D98EC496...</small> Kevin Fischer, PE, Structures Management Unit North Carolina Department of Transportation

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

	<u>NA</u>
Date	for John F. Sullivan, III, PE, Division Administrator Federal Highway Administration

Note: Prior to ROW or Construction authorization, a consultation may be required (please see Section VII of the NCDOT-FHWA CE Programmatic Agreement for more details).

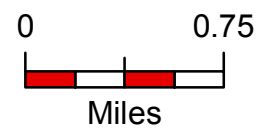


● Other Nearby STIP Project



NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS UNIT

VICINITY MAP
Replace Bridge No. 57 on NC 211
over Driving Creek in Brunswick County
TIP Project B-5624



Div: 3	TIP# B-5624
Date: DECEMBER 2015	

Figure
1

15-12-0026



NO 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-5624** County: **Brunswick**
 WBS No: **45579.1.1** Document: **SMC**
 F.A. No: **na** Funding: State Federal

Federal Permit Required? Yes No Permit Type: **NWP**

Project Description:

The project calls for the replacement of Bridge No. 57 on NC 211 (Green Swamp Road) over Driving/Juniper Creek in Brunswick County. The archaeological Area of Potential Effects (APE) for the project is defined as a 1,850-foot (563.88 m) long corridor running 925 feet (281.94 m) northwest and 925 feet southeast along NC 211 from the center of Bridge No. 57. The corridor is approximately 350 feet (106.68 m) wide extending 175 feet (53.34 m) on either side of the road from its present center.

SUMMARY OF CULTURAL RESOURCES REVIEW

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

Bridge No. 57 is located north of Supply and within the Green Swamp in the central portion of Brunswick County, North Carolina. The project area is plotted in the north half of the Supply USGS 7.5' topographic quadrangle (Figure 1).

A map review and site file search was conducted at the Office of State Archaeology (OSA) on January 19, 2016. No previously recorded archaeological sites have been identified within the APE, but three sites (31BW129, 31BW278, and 31BW231) are recorded within a mile of the bridge. According to the North Carolina State Historic Preservation Office online data base (HPOWEB 2016), there are no known historic architectural resources within the APE that may yield intact archaeological deposits. Topographic maps, USDA soil survey maps, aerial photographs (NC One Map), historic maps (North Carolina maps website), and the Google Street View application were examined for information on environmental and cultural variables that may have contributed to prehistoric or historic settlement within the project limits and to assess the level of ground disturbance.

Bridge 57 and NC 211 cross Driving Creek from the northwest to the southeast. The waterway is the former channel of Juniper Creek before the western portion of the Green Swamp was drained. These waterways are part of the Lumber drainage basin. The APE is situated entirely within the floodplain for the Green Swamp and is forested (Figure 2). Ground disturbance is minimal, but the road is raised on an earthen embankment.

According to the USDA soil survey report, the floodplain is mostly made up of Dorovan muck (Do) with the northwestern end composed of Croatan muck (Ct) (see Figure 2). These are nearly level and poorly drained soils, which are subject to flooding and/or ponding. It is very unlikely that these soils will yield significant archaeological sites due to wetness.

15-12-0026

OSA's site files show no reviews or intense investigation within the vicinity. The three nearby sites (31BW129, 31BW278, and 31BW231) were first reported by locals and latter visited by North Carolina University at Chapel Hill during the late 1970s. Information is limited as the site yielded only a surface collection of prehistoric pottery fragments and lithic material. The sites are located to the south along a high and dry landform known as Big Island, which is unlike the setting of the current project area.

A review of the historic maps illustrates that no road crossed through this section of the Green Swamp until the 20th century. Some early 20th century maps such as the 1937 soil survey map depicts the first version of NC 211 as unimproved and ending just north of Big Island before meeting Driving/Juniper Creek (Figure 3). However, this road is not shown on many maps. It is not until the highway maps from the 1960s that a completed NC 211 is shown. As a result of this review, no significant historic feature should be encountered during this project.

Brief Explanation of why the available information provides a reliable basis for reasonably predicting that there are no unidentified historic properties in the APE:

The defined archaeological APE for the proposed replacement of Bridge No. 57 in Brunswick County is unlikely to impact intact and significant archaeological deposits. This is due to poor and wet soils within the floodplain. As long as impacts to the subsurface occur within the defined APE, no further archaeological work is recommended for the proposed replacement of Bridge No. 57. If work should affect subsurface areas beyond the defined APE, further archaeological consultation might be necessary.

SUPPORT DOCUMENTATION

See attached: Map(s) Previous Survey Info Photos Correspondence
 Photocopy of County Survey Notes Other: **images of historic maps**

FINDING BY NCDOT ARCHAEOLOGIST

NO ARCHAEOLOGY SURVEY REQUIRED



C. Damon Jones
NCDOT ARCHAEOLOGIST

1/27/16

Date

15-12-0026



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-5624	County:	Brunswick
WBS No.:	45579.1.1	Document Type:	SMC
Fed. Aid No:		Funding:	<input checked="" type="checkbox"/> State <input type="checkbox"/> Federal
Federal Permit(s):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Permit Type(s):	NWP
<u>Project Description:</u> Replace Bridge No. 57 on NC 211 (Green Swamp Rd) over Juniper Creek.			

SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

Description of review activities, results, and conclusions:

Review of HPO quad maps, relevant background reports, historic designations roster, and indexes was undertaken on January 5, 2016. Based on this review there are no NR, DE, LL, SL, or SS in the Area of Potential Effects (APE). The Brunswick County tax data was utilized to check for structures greater than 50 years of age. There are no standing structures in the APE. No survey is required.

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:

Using HPO GIS website and county tax data provides reliable information regarding the structures in the APE. These combined utilities are considered valid for the purposes of determining the likelihood of historic resources being present.

SUPPORT DOCUMENTATION

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

FINDING BY NCDOT ARCHITECTURAL HISTORIAN

Historic Architecture and Landscapes -- NO SURVEY REQUIRED

Shelby Reap

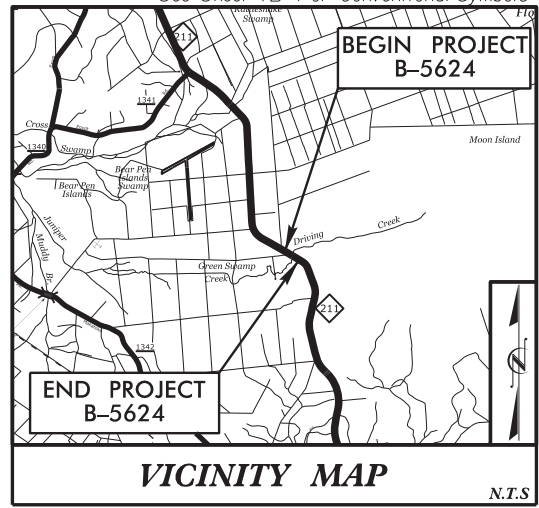
NCDOT Architectural Historian

Jan 5, 2016

Date

09.08/2019

See Sheet 1A For Index of Sheets
See Sheet 1B For Conventional Symbols



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
BRUNSWICK COUNTY

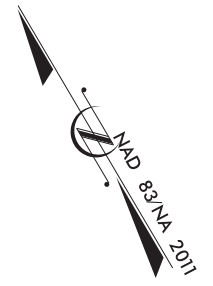
**LOCATION: REPLACE BRIDGE NO. 57 OVER DRIVING CREEK
ON NC 211 (GREEN SWAMP ROAD NW)**

TYPE OF WORK: GRADING, DRAINAGE, PAVING AND STRUCTURE

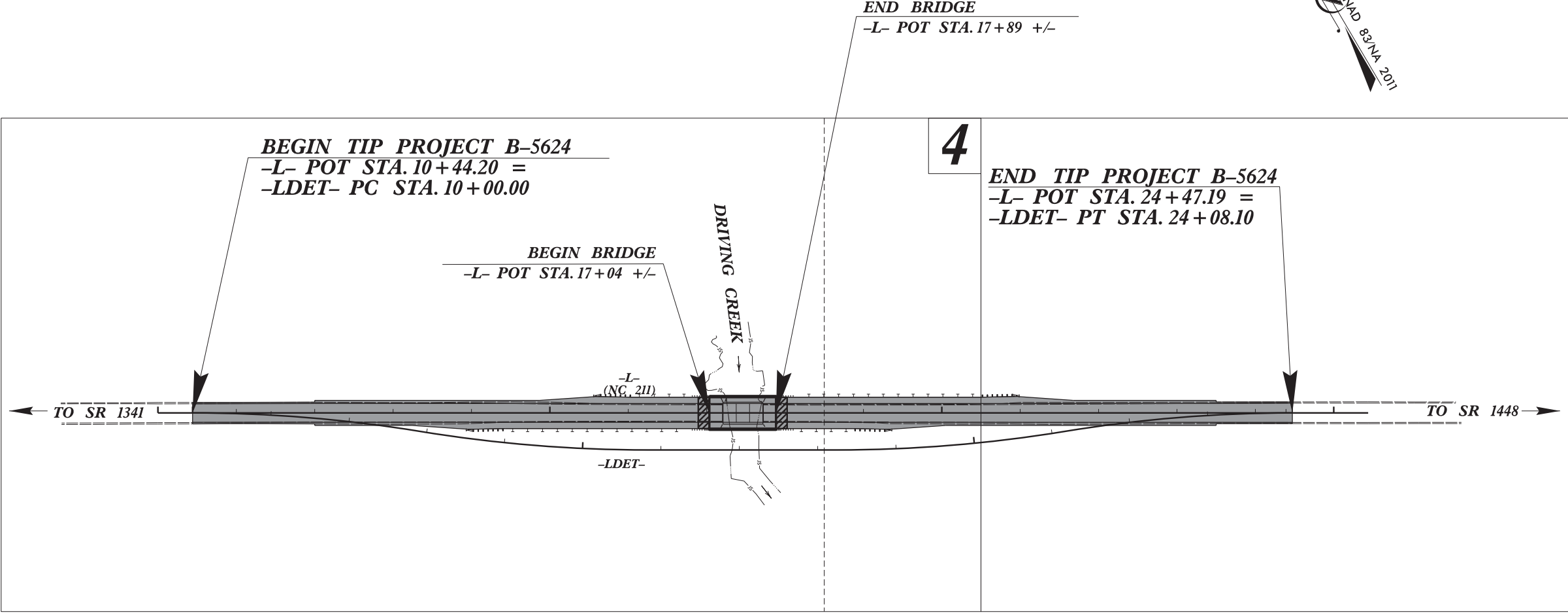
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N.C.	B-5624	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
45579.1.1	N/A	PE	

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

25% PLANS



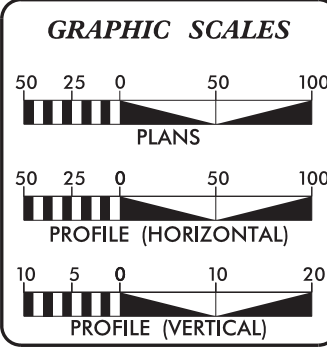
TIP PROJECT: B-5624



CLEARING AND GRUBBING ON THIS PROJECT SHALL BE TO THE LIMITS ESTABLISHED BY MODIFIED METHOD ____.

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

CONTRACT:



DESIGN DATA

ADT 2021 =	1,971
ADT 2040 =	3,000
K =	9 %
D =	55 %
T =	15 % *
V =	60 MPH
* TTST = 9% DUAL 6%	
FUNC CLASS =	
MAJOR COLLECTOR	
REGIONAL TIER	

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-5624 =	0.250 MILES
LENGTH STRUCTURE TIP PROJECT B-5624 =	0.016 MILES
TOTAL LENGTH TIP PROJECT B-5624 =	0.266 MILES

Prepared In the Office of:
CDM Smith
CDM Smith Inc.
5400 Glenwood Avenue
Suite 400
Raleigh, NC 27612-3228
NC COA No. F-1255

FOR THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JULY 24, 2020

LETTING DATE:
JULY 20, 2021

ADAM M. CONRAD, P.E.
PROJECT ENGINEER

MONIQUE N. GYANT, E.I.
PROJECT DESIGN ENGINEER

TIERRE R. PETERSON, P.E.
NCDOT CONTACT

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

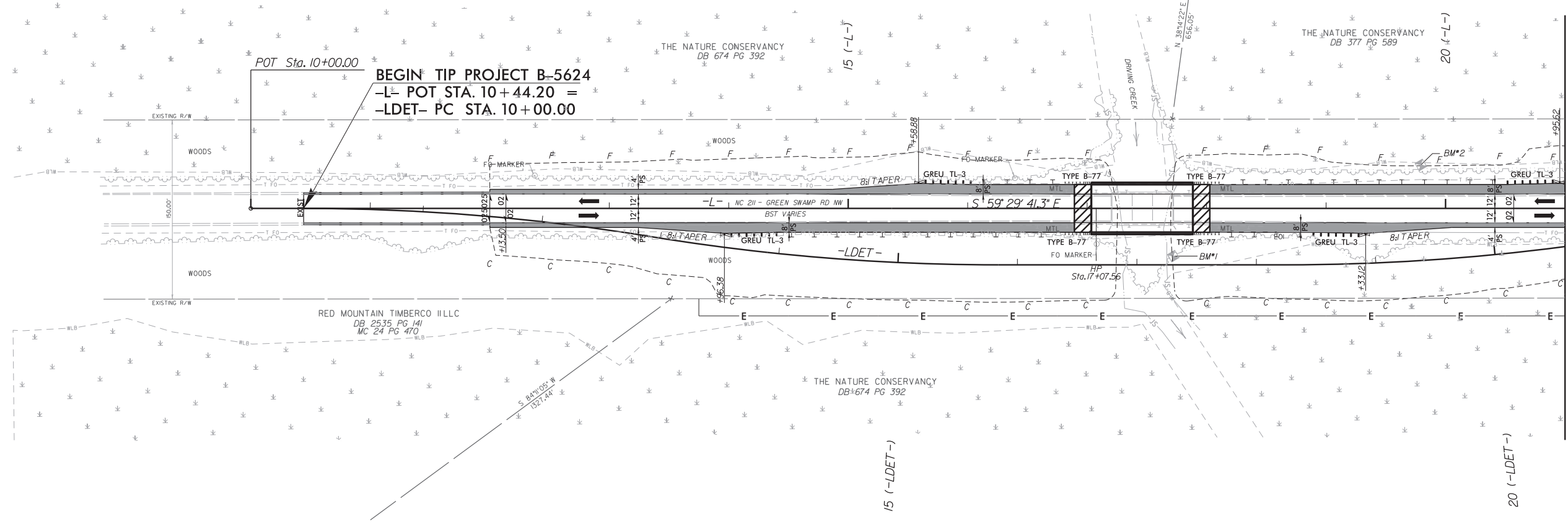
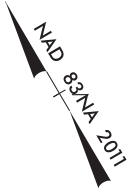
SIGNATURE: _____ P.E.



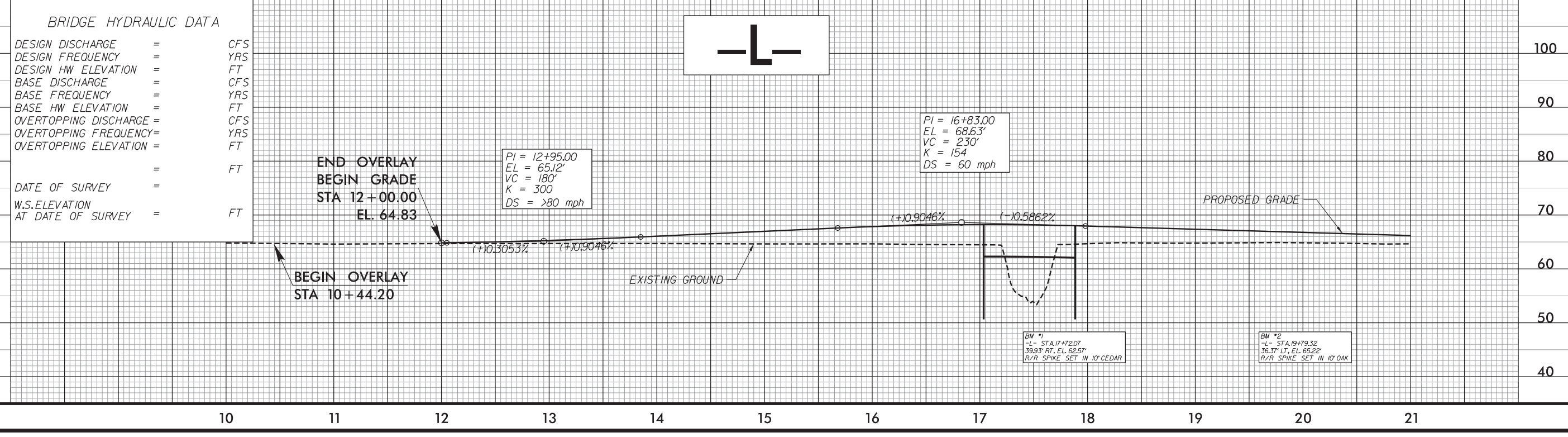
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...Roadway\Proj\B5624_Rdy...tsh.dgn
USER: GYANTM

8/17/09

PROJECT REFERENCE NO. B-5624		SHEET NO. 4	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION			
CDM Smith <small>CDM Smith Inc. 6400 Glenwood Avenue Suite 400 Raleigh, NC 27612-3228 NC CDR No. F-1285</small>		<small>SUNGATE DESIGN GROUP, P.A. 115 JONES FRANKLIN ROAD WELLS RICH SPENCER DRIVE NC CDR No. C-0809</small>	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			



BRIDGE APPROACH SLAB
FOR -LDET- SEE SHEET NO. 2B-1

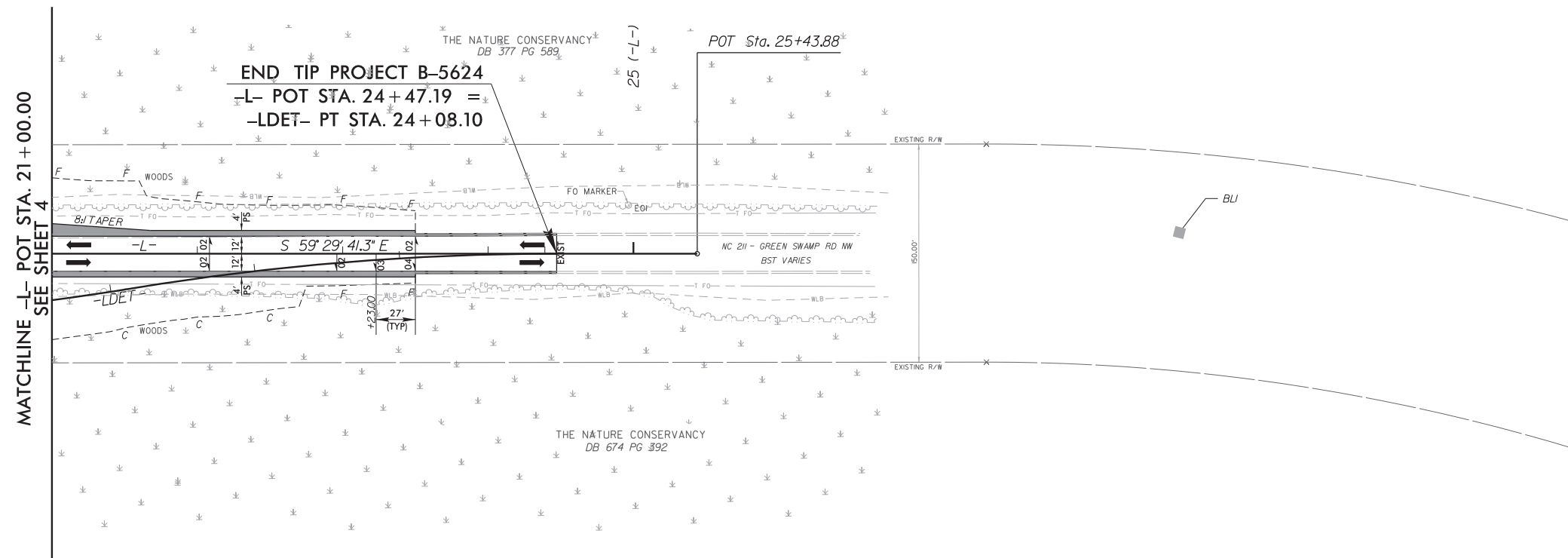
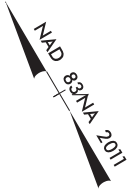


REVISIONS

-SYSTEM-
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USER: TMR/AM

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PROJECT REFERENCE NO. <i>B-5624</i>		SHEET NO. <i>5</i>	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION			
CDM Smith <small>CDM Smith Inc. 6400 Glenwood Avenue Suite 400 Raleigh, NC 27612-3228 NC CCR No. F-1285</small>		<small>SUNGATE DESIGN GROUP, P.A. 915 JONES FRANKLIN ROAD WALEY, NORTH CAROLINA 27688 NC CCR No. C-08095</small>	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			



REVISIONS

FOR -LDEET- SEE SHEET NO. 28-2



-SYSTEMTIME: 8/17/09 10:56:24 -Rdy_psh_05.dgn
USER: RYANTON