

Scotland County
Bridge No. 17 on US 15-401 (Dr. Martin Luther King Hwy)
over Gum Swamp Creek
Federal Aid Project No. BRSTP-15(18)
W.B.S. No. 38449.1.1
T.I.P. No. B-4639

CATEGORICAL EXCLUSION

UNITED STATES DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION

AND

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

8/13/12
DATE

For William F. Thorpe
Gregory J. Thorpe, PhD,
Manager, Project Development & Environmental Analysis Unit

8/13/12
DATE

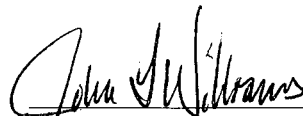
For Felix D. Sullivan, III
John F. Sullivan, III, Division Administrator
Federal Highway Administration

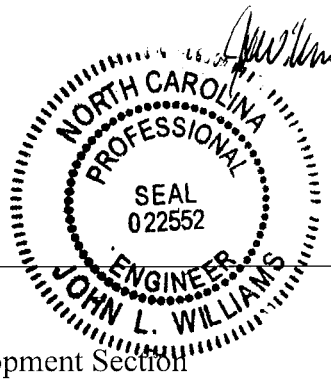
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Documentation Prepared in
Project Development and Environmental Analysis Unit By:

13-Aug 2012
DATE


John L. Williams, PE
Project Engineer
Bridge Project Development Section



PROJECT COMMITMENTS:

**Scotland County
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Hydraulic Unit – FEMA Coordination

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).

Division Construction-FEMA

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.

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INTRODUCTION: Scotland County Bridge No. 17 is included in the latest approved North Carolina Department of Transportation (NCDOT) Transportation Improvement Program and is eligible for the Federal-Aid Highway Bridge Program. The location is shown in Figure 1. No substantial environmental impacts are anticipated. The project is classified as a Federal “Categorical Exclusion”.

I. PURPOSE AND NEED STATEMENT

NCDOT Bridge Management Unit records indicate Bridge No. 17 has a sufficiency rating of 36.4 out of a possible 100 for a new structure. At the time the bridge was programmed it was rated as structurally deficient according to Federal Highway Administration (FHWA) standards and therefore eligible for FHWA’s Highway Bridge Program. Continued deterioration has required temporary measures to keep the bridge in operation.

Originally built in 1938 Bridge No. 17 has seventy-four year old timber substructure with a typical life expectancy between 40 to 50 years due to the natural deterioration rate of wood. Rehabilitation of a timber structure is generally practical only when a few members are damaged or prematurely deteriorated. However, past a certain degree of deterioration, timber structures become impractical to maintain and upon eligibility are programmed for replacement. Carrying 9,600 vehicles per day Bridge No. 17 is approaching the end of its useful life.

II. EXISTING CONDITIONS

The project is located at the southern limit of the City of Laurinburg on US 15-401 (see Figure 1). Development in the area is transitioning from small businesses in the city limits to rural residences and undeveloped tracts of land.

US 15-401 is classified as an urban minor arterial in the Statewide Functional Classification System and it is not a National Highway System Route.

In the vicinity of the bridge, US 15-401 has a 24-foot pavement width with 4-foot grass shoulders. The roadway grade is flat through the project area. The existing bridge is on a tangent. The roadway is situated approximately 16.0 feet above the creek bed.

Bridge No. 17 is an eight-span structure that consists of timber caps and piles supporting I-beams and a reinforced concrete deck with an asphalt wearing surface. The existing bridge (see Figure 3) was constructed in 1938. The overall length of the structure is 162 feet. The clear roadway width is 34.0 feet. There is no posted weight limit on this bridge currently.

There are no utilities attached to the existing structure, but there are overhead utilities along both the east and west side of the project. There is a 12” waterline along the east side of the roadway and a pump station 550 feet north of the bridge. There is a high tension power line crossing 550 feet south of the bridge. Utility impacts are anticipated to be moderate.

The current traffic volume of 9,600 vehicles per day (VPD) is expected to increase to 17,000 VPD by the year 2035. The projected volume includes two percent truck-tractor semi-trailer (TTST) and four percent dual-tired vehicles (DT). The posted speed limit is 55 miles per hour in the project area.

There were nine accidents reported in the vicinity of Bridge No. 17 during a recent three-year period. Most were associated with the nearby intersection between US 15-401 and Academy Road. The intersection is not within the footprint of the proposed project.

This section of US 15-401 is not part of a designated bicycle route nor is it listed in the T.I.P. as needing bicycle accommodations. Sidewalks do not exist on the existing bridge and there is no indication of pedestrian usage on or near the bridge. While the bridge is at the boundary of the City of Laurinburg there is no indication that sidewalks or bicycle facilities are needed. Therefore, neither permanent nor temporary bicycle nor pedestrian accommodations are being included in this project.

III. ALTERNATIVES

A. Project Description

The replacement structure will consist of a bridge approximately 184-foot long. The bridge length is based on preliminary design information and is set by hydraulic requirements. The bridge will be of sufficient width to provide for two 12-foot lanes with 4-foot offsets on each side. The roadway grade of the new structure will be approximately the same as the existing grade.

Approach work to the bridge will extend approximately 300 feet from the south end of the new bridge and 200 feet from the north end of the new bridge. The approaches will include a 24-foot pavement width providing two 12-foot lanes. Eight-foot shoulders will be provided on each side; four feet of which will be paved in accordance with the current NCDOT Design Policy (The shoulder will include three additional feet where guardrail is required) . The roadway will be designed as a Minor Arterial using AASHTO Guidelines with a 60 mile per hour design speed. There are no design exceptions anticipated on this project.

B. Reasonable and Feasible Alternatives

Both alternatives for replacing Bridge No. 17 replace the structure on the existing location and differ only in the manner of handling traffic during construction

Alternate 1 – Offsite Detour - Traffic would be detoured onto secondary roads (see Figure 1) during the 12-month construction period.

NCDOT Guidelines for Evaluation of Offsite Detours for Bridge Replacement Projects considers multiple project variables beginning with the additional time traveled by the average road user resulting from the offsite detour. The offsite detour for this project would include

SR 1271 and SR 1614. The majority of traffic on the road is through traffic. The detour for the average road user would result in 6-10 minutes additional travel time (0.6 miles additional travel).

While the additional distance of the detour is not much more than normal, the secondary roads of the detour are narrower and the intersection with SR 1614 and US 15-401 is very sharply skewed. Because of both lower cost and reduced wetland impacts this alternative was considered at length but several concerns arose.

- 1) High truck traffic through residential areas and narrow roads
- 2) Signalization of the intersections would be required
- 3) Higher traffic counts (not included in this assessment) resulting from beach traffic during summer
- 4) A badly skewed intersection between US 15-401 and SR 1614

Other route variations of detour route were evaluated and resulted in similar issues.

Alternate 2 – Onsite Detour (Preferred) - A temporary detour alignment would be constructed along the west side of the existing roadway. The temporary roadway would be 1100 feet long with a 160-foot long temporary bridge. Traffic would be shifted onto the temporary roadway while the existing bridge would be removed and replaced along the existing alignment. Upon completion of the new bridge the temporary roadway fill and bridge would be removed and the original topography restored.

C. Alternatives Eliminated From Further Consideration

The “do-nothing” alternative will eventually necessitate closure of the bridge. This is not acceptable due to the traffic service provided by US 15-401.

Bridge No. 17 has timber piles more than 74 years old that have been repaired with temporary concrete encasement to sustain the bridge until replacement could occur. Rehabilitation of the old bridge is not practical due to its age and deteriorated condition.

A temporary onsite detour to the east side was not studied in detail because the sinuosity of the stream on the east side would require a temporary bridge several hundred feet longer than the west side. Wetland impacts on the east side would be similar to the impacts of Alternate 2.

Staged Construction is generally more costly than a temporary onsite detour alignment and is usually only considered prudent when trying to avoid a costly impact to environment or property. That is not the case in this project. Stage Construction also requires narrowing to one lane of traffic which is undesirable considering the volume of traffic using this road.

D. Preferred Alternative

Comparatively, Alternate 1 has only 0.04 acres of permanent wetland impacts and costs \$707,000 less than Alternate 2 which has 0.04 acres of permanent wetland impacts and 0.43 acres of temporary wetland impacts. Although the costs and impacts of Alternative 2 are

higher concerns regarding public safety as described in Section B above warrant the maintenance of traffic onsite.

Therefore the bridge will be replaced on the existing location while traffic is maintained on an onsite detour to the west. NCDOT Division 8 concurs that this is the preferred alternative.

IV. ESTIMATED COSTS

The estimated costs, based on 2010 prices, are as follows:

Table 1. Cost Comparisons

	Alternative 1	Alternative 2 Preferred
Structure	\$ 635,000	\$ 635,000
Roadway Approaches	\$ 225,000	\$ 225,000
Detour Structure and Approaches	- 0 -	\$ 700,000
Structure Removal	\$ 80,000	\$ 80,000
Misc. & Mob.	\$ 208,000	\$ 208,000
Eng. & Contingencies	\$ 202,000	\$ 202,000
Total Construction Cost	\$ 1,350,000	\$ 2,050,000
Right-of-way Costs	\$ 28,000	\$ 35,000
Right-of-way Utility Costs	\$ 95,000	\$ 95,000
Total Project Cost	\$ 1,473,000	\$ 2,180,000

V. NATURAL ENVIRONMENT

Water Resources

No High Quality Waters (HQW), Water Supplies (WS-I or WS-II), or Outstanding Resource Waters (ORW) occur within 1.0 mile of the project study area. Additionally, none of the streams located within the project study area support trout or anadromous fish and no Primary Nursing Areas are present within the study area boundaries. Neither Gum Swamp Creek nor any other surface waters within 1.0 mile of the study area are listed on the 2010 Final 303(d) List of Impaired Waters for North Carolina.

Water resources in the study area are part of the Lumber River Basin [U.S. Geological Survey (USGS) Hydrologic Unit 03040204]. Two jurisdictional streams were identified within the study area (Table 2). The locations of these water resources are shown in Figure 2. The physical characteristics of these streams are provided in Table 3.

Table 2. Water resources in the study area

Stream Name	Map ID	DWQ Index Number	Best Usage Classification
Gum Swamp Creek	SA	14-32-(12)	B Sw
Unnamed Tributary (UT of Gum Swamp Creek)	SB	14-32-(12)	B Sw

Table 3. Physical characteristics of water resources in the study area

Map ID	Bank Height (ft)	Channel Width (ft)	Water Depth (in)	Channel Substrate	Flow	Clarity
SA	0-3	30-40	24-60	Sand, silt, muck	Moderate to Fast	Clear-Tannic
SB	2-5	1-5	0.5-3	Sand, silt	Slow	Slightly Turbid

Streams

Two jurisdictional streams, Gum Swamp Creek (SA) and an unnamed tributary (UT) of Gum Swamp Creek (SB), were identified within the project study area (see Figure 2). Stream SB received a 24.75 on the NCDWQ form and a 42 on the USACE form. Both streams have been designated as warm water streams for the purposes of stream mitigation. The Unnamed Tributary is unaffected by either alternative. Impacts to Gum Swamp Creek should be minimal in that it will be bridged by both the permanent and temporary alignments.

Wetlands

A total of two jurisdictional wetlands (WA and WB) were identified within the project study area (Figure 2). These wetlands are within the Lumber River Basin (USGS Hydrologic Unit 03040204). These wetlands are part of the same wetland complex (Gum Swamp Creek), but were delineated separately based on their location within the project study area. Wetland classification, quality rating data and impacts are presented in the table below for Alternate 2.

Table 4. Jurisdiction characteristics and impacts to wetlands in the study area.

Map ID	Classification	NCWAM* Designation	DWQ Wetland Rating	Acreage Present in Study Area	Temporary Acreage Impacted	Permanent Acreage Impacted
WA	Riparian	RSF**	72	0.90	0.43	0.04
WB	Riparian	RSF/BHF*** /NTFM [§]	72(RSF/BHF), 51 (NTFM)	1.24	0	0.04

*NCWAM – North Carolina Wetland Assessment Method

RSF – Riverine Swamp Forest *BHF-Bottomland Hardwood Forest [§]NTFM – Non Tidal Freshwater Marsh

Coastal Area Management Act Areas of Environmental Concern

No Coastal Area Management Act (CAMA) Areas of Environmental Concern are located within the project study area.

Construction Moratoria

No waters within the project study area have been identified by the North Carolina Wildlife Resource Commission (NCWRC) as trout waters or habitat for anadromous fish. Additionally, neither the Cape Fear shiner nor any federally listed mussel species are listed for Scotland County. Furthermore, in a letter from the NCWRC dated May 29, 2009, no moratoria were requested. Therefore, no moratoria are anticipated for this project.

North Carolina River Basin Buffer Rules

This project is located in the Lumber River Basin and is, therefore, not subject to any basin-specific (Neuse, Tar-Pamlico, Catawba), NCDWQ-regulated riparian buffer rules. Additionally, it is not located within either the Randleman Lake Water Supply Watershed or the Jordan Lake Water Supply Watershed, which are also subject to NCDWQ enforced buffer rules.

Rivers and Harbors Act Section 10 Navigable Waters

No surface waters within the project study area have been designated as Navigable Waters under Section 10 of the Rivers and Harbors Act.

Endangered Species Act Protected Species

As of June 28, 2012, the U.S. Fish and Wildlife Service (USFWS) lists six federally protected species for Scotland County listed in the Table 5 below.

Table 5. Federally protected species listed for Scotland County

Common Name	Scientific Name	Federal Status	Habitat Present	Biological Conclusion
American Alligator	<i>Alligator mississippiensis</i>	T(S/A)*	Yes	Not Required
Red-cockaded woodpecker	<i>Picoides borealis</i>	E**	Yes	No Effect
American chaffseed	<i>Schwalbea americana</i>	E	No	No Effect
Canby's dropwort	<i>Oxypolis canbyi</i>	E	No	No Effect
Michaux's sumac	<i>Rhus michauxii</i>	E	Yes	No Effect
Rough-leaved loostrife	<i>Lysimachia asperulifolia</i>	E	Yes (Marginal)	No Effect

*T(S/A) – Threatened due to similarity in appearance.

** E – Endangered.

For the species for which habitat was present a brief description of the steps taken to reach the Biological Conclusion follows:

Red-cockaded woodpecker - Based on observations made during an initial habitat assessment performed on June 2, 2009, it was determined that no nesting habitat was present within the project study area. However, potential foraging habitat was present, specifically within the pine forest community in the northeast quadrant of the project study area. Therefore, an RCW survey and habitat assessment within 0.5 miles of the project study area was performed on August 18, 2009. No individuals were observed or heard; however, good foraging habitat and marginal nesting habitat was identified along a ridge above a UT of Gum

Swamp Creek, approximately 0.3 miles east of the project study area. The habitat was comprised of a longleaf/loblolly pine-dominant canopy, with a sub-canopy/shrub layer of blackjack oak, turkey oak, sourwood, horse sugar, post oak, and pignut hickory. No nests, candling, or other evidence of nesting activity were observed. Although marginal nesting habitat was identified within the survey area, the longleaf pines were no older than 60 years old and no flat-top pines were observed. In addition to the field survey, a review of the NCNHP database (search performed January 5, 2010) revealed one known RCW occurrence (Element Occurrence [EO] No. 304) approximately 0.97 miles east of the project study area. However, this EO, comprised of three relict (inactive) cavity trees, is listed as historical and was last observed in 1988. Additionally, this EO is approximately 10.0 miles from the next nearest RCW occurrence in North Carolina. Since no individuals were observed, no nesting habitat is present within the study area, and the closest EO is listed as historic, a biological conclusion of ‘**No Effect**’ has been rendered for this species. No re-surveys will be required for this species.

Michaux’s sumac - A plant-by-plant survey for this species was performed on June 6, 2012. Potential habitat was present within the project study area in the form of forest edges and upland portions of power line ROWs; however, no individuals were observed. Multiple winged sumac plants were noted during the survey. In addition to the survey, a review of the NCNHP database revealed no known populations of this species within 1.0 mile of the project study area. Since no individuals are present and no known occurrences were identified within 1.0 mile of the project study area, a biological conclusion of ‘**No Effect**’ has been rendered for this species.

Rough-leaved loosestrife - A plant-by-plant survey for this species was performed on June 6, 2012. No individuals were observed, but potential habitat was present within the project study area in the disturbed portion of Wetland WB. However, the habitat was marginal at best because the ROW is currently too thick with vegetation to be considered ideal habitat. Additionally, no signs of periodic burning or fires were observed. Furthermore, transitional areas between upland and wetland were abrupt and sharp, with no real ecotonal areas. In addition to the survey, a review of the NCNHP database revealed no known populations of this species within 1.0 mile of the project study area. Since no individuals are present and no known occurrences were identified within 1.0 mile of the project study area, a biological conclusion of ‘**No Effect**’ has been rendered for this species.

Bald and Golden Eagle Protection Act

Habitat for the bald eagle primarily consists of mature forest in proximity to large bodies of open water for foraging. Large, dominant trees are utilized for nesting sites, typically within 1.0 mile of open water. A desktop-GIS assessment of the project study area, as well as the area within a 1.13-mile radius (1.0 mile plus 660 feet) of the project limits, was performed on November 3, 2008 using 2000 black and white aerials and 1998 color infrared (color IR) aerials. No water bodies large enough or sufficiently open to be considered potential feeding sources were identified. Since there was no foraging habitat within the review area, a survey of the project study area and the area within 660 feet of the project limits was not conducted. Additionally, a review of the NCNHP database on January 5, 2010 revealed no known occurrences of this species within 1.0 mile of the project study area. Due to the lack of habitat,

known occurrences, and minimal impact anticipated for this project, it has been determined that this project will not affect this species.

Endangered Species Act Candidate Species

As of June 29, 2012 the USFWS lists no Candidate species for Scotland County.

Essential Fish Habitat

No jurisdictional waters within the project study area have been designated as Essential Fish Habitat by The National Marine Fisheries Service (NMFS).

VI. HUMAN ENVIRONMENT

Section 106 Compliance Guidelines

This project is subject to compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, and implemented by the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106, codified at Title 36 CFR Part 800. Section 106 requires Federal agencies to take into account the effect of their undertakings (federally funded, licensed, or permitted) on properties included in or eligible for inclusion in the National Register of Historic Places and afford the Advisory Council a reasonable opportunity to comment on such undertakings.

Historic Architecture

NCDOT – Human Environment Unit, under the provisions of a Programmatic Agreement with FHWA, NCDOT, HPO, OSA and the Advisory Council on Historic Preservation (effective July 1, 2009), reviewed the proposed project and determined that no surveys are required (see attached form dated 2/19/10).

Archaeology

NCDOT – Human Environment Unit, under the provisions of a Programmatic Agreement with FHWA, NCDOT, HPO, OSA and the Advisory Council on Historic Preservation (effective July 1, 2009), reviewed the proposed project and determined that no surveys are required (see attached form dated 2/10/10).

Community Impacts

No adverse impact on families or communities is anticipated. Right-of-way acquisition will be limited. No relocatees are expected with implementation of the proposed alternative.

No adverse effect on public facilities or services is expected. The project is not expected to adversely affect social, economic, or religious opportunities in the area.

The project is not in conflict with any plan, existing land use, or zoning regulation. No change in land use is expected to result from the construction of the project.

The Farmland Protection Policy Act requires all federal agencies or their representatives to consider the potential impact to prime farmland of all land acquisition and construction projects. All construction will take place along existing alignment. There are no soils classified as prime, unique, or having state or local importance in the vicinity of the project.

The project will not have a disproportionately high and adverse human health and environmental effect on any minority or low-income population.

Noise & Air Quality

The project is located in Scotland County, which has been determined to comply with the National Air Quality Standards. The proposed project is located in an attainment area; therefore, 40 CFR Parts 51 and 93 are not applicable. This project is not anticipated to create any adverse effects on the air quality of this attainment area.

This project will not result in any meaningful changes in traffic volume, vehicle mix, location of the existing facility, or any other factor that would cause an increase in emissions impacts relative to the no-build alternative. As such FHWA has determined that this project will generate minimal air quality impacts for Clean Air Act criteria pollutants and has not been linked with any special MSAT concerns. Consequently this effort is exempt from analysis for MSAT's.

Noise levels may increase during project construction; however, these impacts are not expected to be substantial considering the relatively short-term nature of construction noise and the limitation of construction to daytime hours. The transmission loss characteristics of nearby natural elements and man-made structures are believed to be sufficient to moderate the effects of intrusive construction noise.

VII. GENERAL ENVIRONMENTAL EFFECTS

The project is expected to have an overall positive impact. Replacement of an inadequate bridge will result in safer traffic operations.

The bridge replacement will not have an adverse effect on the quality of the human or natural environment with the use of the current North Carolina Department of Transportation standards and specifications.

The proposed project will not require right-of-way acquisition or easement from any land protected under Section 4(f) of the Department of Transportation Act of 1966.

An examination of records at the North Carolina Department of Environment and Natural Resources, Division of Environmental Management, Groundwater Section and the North Carolina Department of Human Resources, Solid Waste Management Section revealed no underground storage tanks or hazardous waste sites in the project area.

Scotland County is a participant in the National Flood Insurance Program. There are no practical alternatives to crossing the floodplain area. Any shift in alignment will result in an

impact area of about the same magnitude. The proposed project is not anticipated to increase the level or extent of upstream flood potential.

VIII. COORDINATION & AGENCY COMMENTS

NCDOT has sought input from the following agencies as a part of the project development: U.S. Army Corps of Engineers (USACE), NC Department of Natural Resources (NCDENR), U.S. Fish & Wildlife Service (USFWS), N.C Wildlife Resource Commission (NCWRC), N.C. Division of Parks & Recreation, Scotland County Planning Department, and the City of Laurinburg.

The USACE, NCDENR, NCWRC and USFWS all had standard comments on this project.

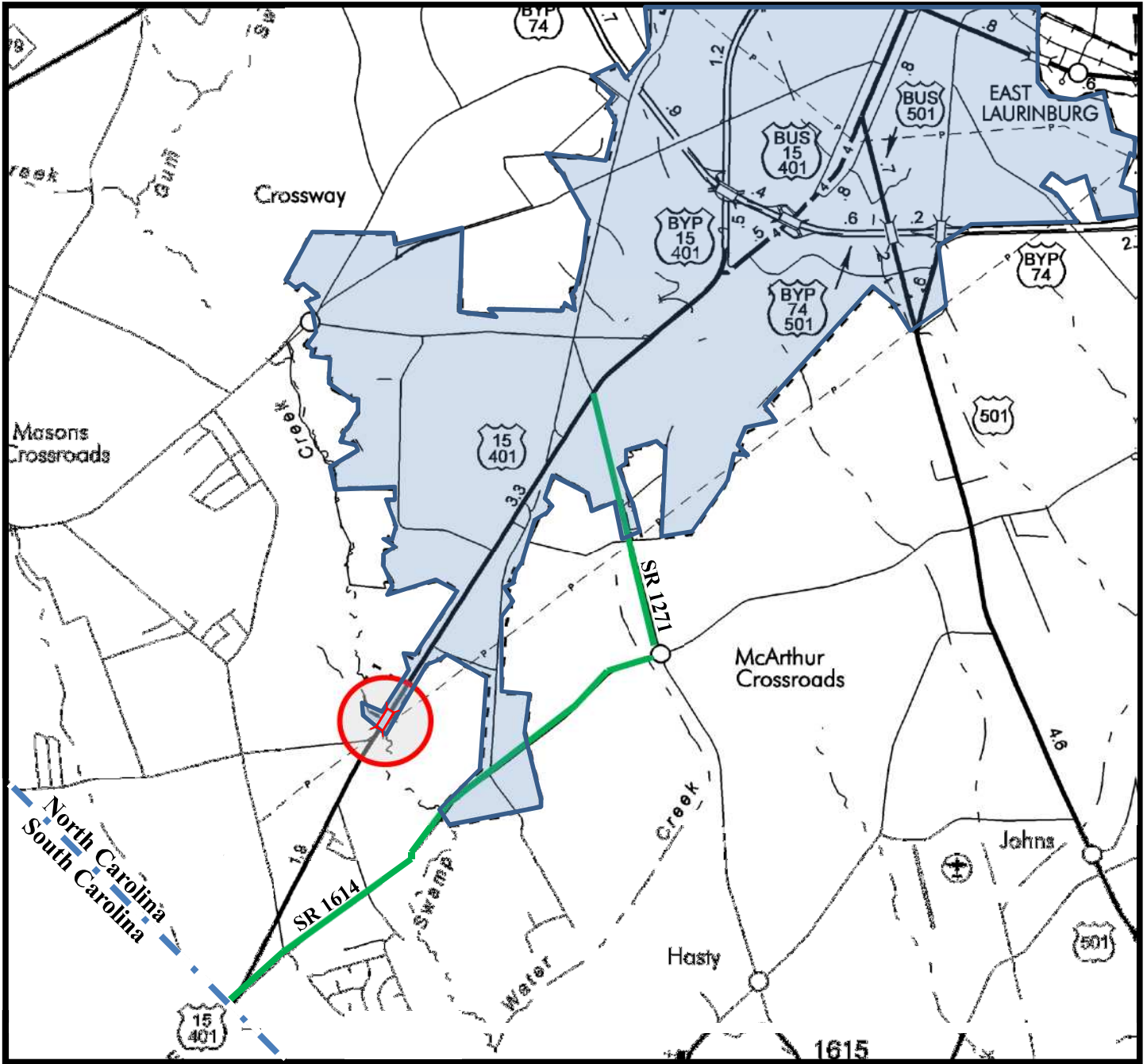
The City of Laurinburg's only concern was that we be aware of a 12" waterline running along the west side of the project.

IX. PUBLIC INVOLVEMENT

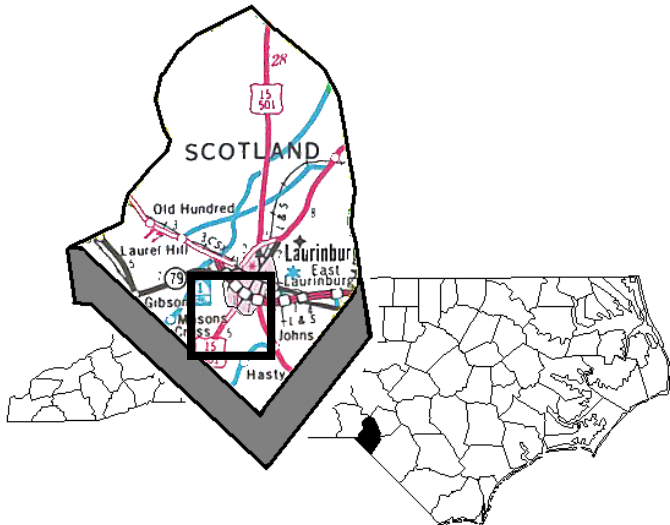
A newsletter has been sent to all property holders along the triangle formed by US 15-401 and the studied detour of SR 1271 and SR 1614 shown in Figure 1. Based on no responses received, a Citizen's Informational Workshop was determined unnecessary. There is not substantial controversy on social, economic, or environmental grounds concerning the project.

X. CONCLUSION

On the basis of the above discussion, it is concluded that no substantial adverse environmental impacts will result from implementation of the project. The project is therefore considered to be a federal "Categorical Exclusion" due to its limited scope and lack of substantial environmental consequences.



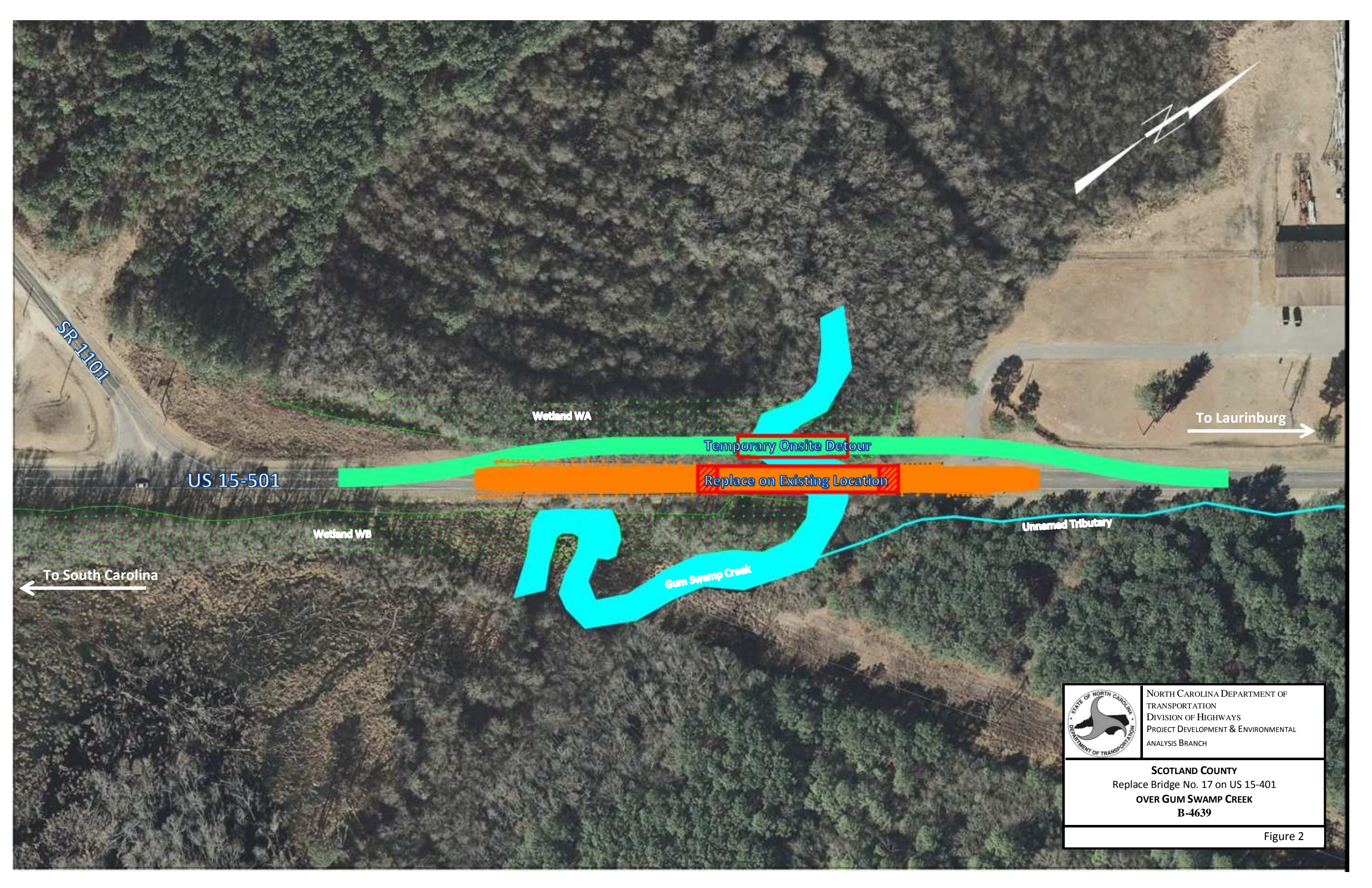
Studied Detour Route



NORTH CAROLINA DEPARTMENT OF
TRANSPORTATION
DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT &
ENVIRONMENTAL ANALYSIS BRANCH

**SCOTLAND COUNTY
REPLACE BRIDGE NO. 17 ON US 15-401
OVER GUM SWAMP CREEK
B-4639**

Figure 1



SR 1101

US 15-501

Wetland WA

Wetland WB

Temporary Onsite Detour

Replace on Existing Location

Gum Swamp Creek

Unnamed Tributary

To Laurinburg

To South Carolina



NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT & ENVIRONMENTAL ANALYSIS BRANCH

SCOTLAND COUNTY
Replace Bridge No. 17 on US 15-401
OVER GUM SWAMP CREEK
B-4639

Figure 2




**East
Face of
Bridge**

**Looking
South**



Looking North



	<p>NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PROJECT DEVELOPMENT & ENVIRONMENTAL ANALYSIS BRANCH</p>
<p>SCOTLAND COUNTY Replace Bridge No. 17 on US 15-401 OVER GUM SWAMP CREEK B-4639</p>	
<p>Figure 3</p>	

10-01-0009

NO SURVEY REQUIRED FORM**PROJECT INFORMATION**

Project No: B-4639 *County:* Scotland
WBS No: 38449.1.1 *Document:* CE
F.A. No: BRSTP-15(18) *Funding:* State Federal

Federal (USACE) Permit Required? Yes No *Permit Type:*

Project Description:

Replace Bridge No. 17 on US 15/401 over Gum Swamp.

SUMMARY OF CULTURAL RESOURCES REVIEW*Brief description of review activities, results of review, and conclusions:*

Review of HPO quad maps, relevant background reports, historic designations roster, and indexes was undertaken on. Based on this review, there were no existing NR, SL, LD, SS, or DE properties in the Area of Potential Effects. Aerial photography and Scotland County tax information revealed no structures exist within the APE which are fifty years or older. Google maps "street view" confirmed that no properties eligible for National Register Listing were identified historic structures/landscapes in the APE.

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

There are no historic structures within the APE of this bridge replacement project. The Scotland County Tax Parcel Data is considered valid for the purposes of determining the likelihood of historic resources being present.

SUPPORT DOCUMENTATION

See attached: Map and Aerial Photograph

FINDING BY NCDOT CULTURAL RESOURCES PROFESSIONAL**NO SURVEY REQUIRED**


 NCDOT Cultural Resources Specialist

2/19/2010
 Date

10-01-0009

NO SURVEY REQUIRED FORM**PROJECT INFORMATION**

Project No: B-4639 County: Scotland
 WBS No: 38449.1.1 Document:
 F.A. No: BRSTP-15(18) Funding: State Federal

Federal (USACE) Permit Required? Yes No Permit Type:

Project Description: Replace Bridge No. 17 over Gum Swamp on US 15/401.

SUMMARY OF CULTURAL RESOURCES REVIEW

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

Site and map files of the Office of State Archaeology failed to yield any recorded sites in the vicinity of the project. Scotland County Soil survey characterized the APE as swamp. No further work is necessary.

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

Swamp extends for more than 60 meters in either direction of the existing bridge. Construction of a new bridge outside of the existing ROW would not encounter cultural material.

SUPPORT DOCUMENTATION

See attached: Map(s) Previous Survey Info Photos Correspondence
 Photocopy of County Survey Notes

FINDING BY NCDOT CULTURAL RESOURCES PROFESSIONALNO SURVEY REQUIRED


 NCDOT Cultural Resources Specialist

2/10/10
 Date