CATEGORICAL EXCLUSION ACTION CLASSIFICATION FORM

STIP Project No.	**B-4729**
W.B.S. No.	**38502.1.1**
Federal Project No.	**BRZ-1303(5)**

A. Project Description:

The purpose of this project is to replace Chatham County Bridge No. 306 along SR 1303 (Ben Smith Road) over North Prong of Rocky River. Bridge No. 306 is 91 feet long. The replacement structure will be a bridge approximately 100 feet long providing a minimum 27-foot, 10-inch clear deck width. The bridge will include two 10-foot lanes and 3-foot, 11-inch offsets. The bridge length is based on preliminary design information and is set by hydraulic requirements. The proposed roadway will be constructed at a similar grade to the existing bridge.

The approach roadway will extend approximately 164 feet from the north end and approximately 231 feet from the south end of the new bridge. The approaches will be constructed to include a 20-foot pavement width providing two 10-foot lanes. Three-foot grass shoulders will be provided on each side of the roadway (6-foot shoulders where guardrail is included). The roadway will be designed as a Rural Local Road using Sub-regional Tier guidelines with a 55 mile per hour design speed.

Traffic will be detoured off-site during construction (see Figure 1). The off-site detour is approximately 14.6 miles long and utilizes SR 1301 (Silk Hope Road), SR 1300 (Staley - Snow Camp Road), SR 2376/SR 1353 (Sam Lowe Road), SR 1346 (Silk Hope - Liberty Road), SR 1004 (Siler City - Snow Camp Road, SR 1312 (Ed Clapp Road), SR 1362 (Piney Grove Church Road), SR 1300 (Staley – Snow Camp Road), and SR 1304 (Albright Road). The detour will result in approximately 16 minutes of additional travel time.

B. Purpose and Need:

NCDOT Bridge Management Unit records indicate Bridge No. 306 has a sufficiency rating of 32.4 out of a possible 100 for a new structure.

The bridge is considered functionally obsolete and deficient due to a structural evaluation rating of 2 of 9 according to Federal Highway Administration (FHWA) standards. The posted weight limit on Bridge No. 306 is 38 tons for single vehicles and 44 tons for truck-tractor semi-trailers. The superstructure and substructure of Bridge No. 306 have timber elements that are 45 years old. Timber components have 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 elements are damaged or prematurely deteriorated. However, past a certain degree of deterioration, most timber elements become impractical to maintain and upon eligibility are programmed for replacement. Timber components of Bridge No. 306 are experiencing an

increasing degree of deterioration that can no longer be addressed by reasonable maintenance activities. The bridge is approaching the end of its useful life.

Bridge No. 306 carried 100 vehicles per day in 2013. The bridge is projected to carry 200 vehicles per day in 2035. Replacement of the bridge will result in safer traffic operations.

C. Proposed Improvements:

Circle one or more of the following Type II improvements which apply to the project:

1. Modernization of a highway by resurfacing, restoration, rehabilitation, reconstruction, adding shoulders, or adding auxiliary lanes (e.g., parking, weaving, turning, climbing).

    a. Restoring, Resurfacing, Rehabilitating, and Reconstructing pavement (3R and 4R improvements)
    b. Widening roadway and shoulders without adding through lanes
    c. Modernizing gore treatments
    d. Constructing lane improvements (merge, auxiliary, and turn lanes)
    e. Adding shoulder drains
    f. Replacing and rehabilitating culverts, inlets, and drainage pipes, including safety treatments
    g. Providing driveway pipes
    h. Performing minor bridge widening (less than one through lane)
    i. Slide Stabilization
    j. Structural BMP's for water quality improvement

2. Highway safety or traffic operations improvement projects including the installation of ramp metering control devices and lighting.

    a. Installing ramp metering devices
    b. Installing lights
    c. Adding or upgrading guardrail
    d. Installing safety barriers including Jersey type barriers and pier protection
    e. Installing or replacing impact attenuators
    f. Upgrading medians including adding or upgrading median barriers
    g. Improving intersections including relocation and/or realignment
    h. Making minor roadway realignment
    i. Channelizing traffic
    j. Performing clear zone safety improvements including removing hazards and flattening slopes
    k. Implementing traffic aid systems, signals, and motorist aid
    l. Installing bridge safety hardware including bridge rail retrofit

3. Bridge rehabilitation, reconstruction, or replacement or the construction of grade separation to replace existing at-grade railroad crossings.

    a. Rehabilitating, reconstructing, or replacing bridge approach slabs
    b. Rehabilitating or replacing bridge decks

c. Rehabilitating bridges including painting (no red lead paint), scour repair, fender systems, and minor structural improvements

d. Replacing a bridge (structure and/or fill)

4. Transportation corridor fringe parking facilities.

5. Construction of new truck weighs stations or rest areas.

6. Approvals for disposal of excess right-of-way or for joint or limited use of right-of-way, where the proposed use does not have significant adverse impacts.

7. Approvals for changes in access control.

8. Construction of new bus storage and maintenance facilities in areas used predominantly for industrial or transportation purposes where such construction is not inconsistent with existing zoning and located on or near a street with adequate capacity to handle anticipated bus and support vehicle traffic.

9. Rehabilitation or reconstruction of existing rail and bus buildings and ancillary facilities where only minor amounts of additional land are required and there is not a substantial increase in the number of users.

10. Construction of bus transfer facilities (an open area consisting of passenger shelters, boarding areas, kiosks and related street improvements) when located in a commercial area or other high activity center in which there is adequate street capacity for projected bus traffic.

11. Construction of rail storage and maintenance facilities in areas used predominantly for industrial or transportation purposes where such construction is not inconsistent with existing zoning and where there is no significant noise impact on the surrounding community.

12. Acquisition of land for hardship or protective purposes, advance land acquisition loans under section 3(b) of the UMT Act. Hardship and protective buying will be permitted only for a particular parcel or a limited number of parcels. These types of land acquisition qualify for a CE only where the acquisition will not limit the evaluation of alternatives, including shifts in alignment for planned construction projects, which may be required in the NEPA process. No project development on such land may proceed until the NEPA process has been completed.

13. Acquisition and construction of wetland, stream and endangered species mitigation sites.

14. Remedial activities involving the removal, treatment or monitoring of soil or groundwater contamination pursuant to state or federal remediation guidelines.

D. Special Project Information:

The estimated costs, based on 2016 prices, are as follows:

Structure	$375,000
Roadway Approaches	$161,000
Misc. & Mob.	$129,000
Eng. & Contingencies	$109,000
Total Construction Cost	**$775,000**
Right-of-way Costs	$36,000
Right-of-way Utility Costs	$30,000
Total Project Cost	**$841,000**

Estimated Traffic:

Year (2013)	-	100 vehicles per day (vpd)
Year 2035	-	200 vpd
TTST	-	2%
Dual	-	17%

Accidents: The NCDOT Transportation Mobility and Safety Division evaluated a ten year period from March 1, 2003 to February 28, 2013 and found one crash reported in the vicinity. The crash was not fatal.

Design Exceptions: A design exception may be required for the sag vertical curve K factor.

Pedestrian and Bicycle Accommodations: This portion of SR 1303 is not a part of a designated bicycle route nor is it listed in the State Transportation Improvement Program (STIP) as a bicycle project. Neither permanent or temporary bicycle nor pedestrian accommodations are required for this project.

Bridge Demolition: Bridge No. 306 is constructed entirely of timber and steel. It should be possible to remove the structure with no resulting debris in the water based on standard demolition practices.

Alternatives Discussion:

No Build – The no-build alternative was not selected because it would have resulted in the closure of Bridge No. 306, which is unacceptable given that this section of SR 1303 carries over 100 vpd and is projected to serve over 200 vpd by the design year (2035).

Rehabilitation – Bridge No. 306 was constructed in 1971 and the timber materials within the bridge are reaching the end of their useful life. Rehabilitation would require replacing the timber components which would constitute effectively replacing the bridge.

Offsite Detour – Bridge No. 306 will be replaced on the existing alignment. Traffic will be detoured offsite (see Figure 1) during the

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. Traffic will be detoured off-site during construction (see Figure 1). The off-site detour is approximately 14.6 miles long and utilizes SR 1301 (Silk Hope Road), SR 1300 (Staley - Snow Camp Road), SR 2376/SR 1353 (Sam Lowe Road), SR 1346 (Silk Hope - Liberty Road), SR 1004 (Siler City - Snow Camp Road, SR 1312 (Ed Clapp Road), SR 1362 (Piney Grove Church Road), SR 1300 (Staley – Snow Camp Road), and SR 1304 (Albright Road). The detour will result in approximately 16 minutes of additional travel time.

The project is expected to take approximately 18 months to construct. Based on the Guidelines, the criteria above indicate that on the basis of delay alone, the detour is unacceptable. However, the proposed detour has been deemed acceptable due to the presence of bridges with weight restrictions for single-vehicles and tractor-trailer semi-trucks along other viable detour routes. NCDOT Division 8 and the Work Zone and Traffic Control Unit have indicated the condition of all roads, bridges, and intersections on the offsite detour are acceptable without improvements and concur with the use of the detour. During the development of the Community Impact Assessment, NCDOT corresponded with Chatham County Schools Transportation, Chatham County EMS, and the Chatham County Planning Director to gather input on potential detour routes. The responses/input is included in Appendix A.

In order to have time to adequately reroute school buses, Chatham County Schools Transportation Office will be contacted at (919) 542-2715 at least one month prior to road closure.

Chatham County Emergency Management will be contacted at (919) 545-8162 at least one month prior to road closure to make the necessary temporary reassignments to primary response units.

Onsite Detour – An onsite detour was not evaluated due to the presence of an acceptable offsite detour.

Staged Construction – Staged construction was not considered because of the availability of an acceptable offsite detour.

New Alignment – Construction on a new alignment was not considered because of the availability of an acceptable offsite detour.

Agency Comments:

In the letter included in Appendix A, the **North Carolina Wildlife Resources Commission (NCWRC)** recommended replacing the existing bridge with a bridge.

> **Response:** NCDOT will replace the existing bridge with a new bridge along the existing alignment.

The **U.S. Army Corps of Engineers (USACE)** noted in the email included in Appendix A that all bridges should be replaced with bridges that have hydraulic openings as large as or larger than the existing bridges. They also recommended that off-site detours be utilized for the project.

> **Response:** The Project will replace the existing bridge with a new bridge located at the current bridge location. The bridge structure will span the active channel providing adequate clearance for the passage of aquatic species and the movement of debris and stream bed material. NCDOT will utilize an off-site detour during the construction of the project.

Public Involvement:

A letter was sent by the Project Development and Environmental Analysis Unit's Natural Environment Section on February 25, 2013 to all property owners affected directly by this project. Property owners were invited to comment. No comments have been received to date.

E. Threshold Criteria

The following evaluation of threshold criteria must be completed for Type II actions

ECOLOGICAL		YES	NO
(1)	Will the project have a substantial impact on any unique or important natural resource?		X
(2)	Does the project involve habitat where federally listed endangered or threatened species may occur?	X	
(3)	Will the project affect anadramous fish?		X
(4)	If the project involves wetlands, is the amount of permanent and/or temporary wetland taking less than one-tenth (1/10) of an acre and have all practicable measures to avoid and minimize wetland takings been evaluated?	N/A	

(5)	Will the project require the use of U. S. Forest Service lands?		X
(6)	Will the quality of adjacent water resources be adversely impacted by proposed construction activities?		X
(7)	Does the project involve waters classified as Outstanding Resources Waters (ORW) and/or High Quality Waters (HQW)?		X
(8)	Will the project require fill in waters of the United States in any of the designated mountain trout counties?		X
(9)	Does the project involve any known underground storage tanks (UST's) or hazardous materials sites?		X

PERMITS AND COORDINATION		YES	NO
(10)	If the project is located within a CAMA county, will the project significantly affect the coastal zone and/or any "Area of Environmental Concern" (AEC)?		X
(11)	Does the project involve Coastal Barrier Resources Act resources?		X
(12)	Will a U. S. Coast Guard permit be required?		X
(13)	Could the project result in the modification of any existing regulatory floodway?	X	
(14)	Will the project require any stream relocations or channel changes?		X

SOCIAL, ECONOMIC, AND CULTURAL RESOURCES		YES	NO
(15)	Will the project induce substantial impacts to planned growth or land use for the area?		X
(16)	Will the project require the relocation of any family or business?		X
(17)	Will the project have a disproportionately high and adverse human health and environmental effect on any minority or low-income population?		X
(18)	If the project involves the acquisition of right of way, is the amount of right of way acquisition considered minor?	X	

(19)	Will the project involve any changes in access control?		X
(20)	Will the project substantially alter the usefulness and/or land use of adjacent property?		X
(21)	Will the project have an adverse effect on permanent local traffic patterns or community cohesiveness?		X
(22)	Is the project included in an approved thoroughfare plan and/or Transportation Improvement Program (and is, therefore, in conformance with the Clean Air Act of 1990)?	X	
(23)	Is the project anticipated to cause an increase in traffic volumes?		X
(24)	Will traffic be maintained during construction using existing roads, staged construction, or on-site detours?	X	
(25)	If the project is a bridge replacement project, will the bridge be replaced at its existing location (along the existing facility) and will all construction proposed in association with the bridge replacement project be contained on the existing facility?	X	
(26)	Is there substantial controversy on social, economic, or environmental grounds concerning the project?		X
(27)	Is the project consistent with all Federal, State, and local laws relating to the environmental aspects of the project?	X	
(28)	Will the project have an "effect" on structures/properties eligible for or listed on the National Register of Historic Places?		X
(29)	Will the project affect any archaeological remains which are important to history or pre-history?		X
(30)	Will the project require the use of Section 4(f) resources (public parks, recreation lands, wildlife and waterfowl refuges, historic sites, or historic bridges, as defined in Section 4(f) of the U. S. Department of Transportation Act of 1966)?		X
(201)	Will the project result in any conversion of assisted public recreation sites or facilities to non-recreation uses, as defined by Section 6(f) of the Land and Water Conservation Act of 1965, as amended?		X
(32)	Will the project involve construction in, across, or adjacent to a river designated as a component of or proposed for inclusion in the National System of Wild and Scenic Rivers?		X

F. Additional Documentation Required for Unfavorable Responses in Part E

Response to Question 2: The USFWS lists the following protected species for Chatham County.

Scientific Name	Common Name	Federal Status*	Habitat Present	Biological Conclusion
Notropis mekistocholas	Cape Fear shiner	E	Yes	No Effect
Picoides borealis	Red-cockaded woodpecker	E	No	No Effect
Ptilimnium nodosum	Harpella	E	No	No Effect

Endangered species surveys were conducted in February 2013. Field surveys were conducted on May 16, 2013 and no Cape Fear shiner was identified and it was noted that the North Prong Rocky River only contained marginal habitat for the species. A review of the North Carolina Natural Heritage Program (NHP) database was conducted on September 14, 2016 and indicated that there are no known occurrences of any federally-protected species within one mile of the project study area.

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 in eastern North Carolina. The PBO provides incidental take coverage for the 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 Division 1-8, which includes Chatham County, where project B-4729 is located. This level of incidental take is authorized from the effective date of a final listing determination through April 30, 2020. The programmatic determination for NLEB for the NCDOT program is "May Affect, Likely to Adversely Affect."

Response to Question 13: Chatham County is a participant in the Federal Flood Insurance Program, administered by the Federal Emergency Management Agency (FEMA). The project is within a Flood Hazard Zone, designated as Zone AE, for which the 100-year base flood elevations and corresponding regulatory floodway have been established.

The Hydraulics Unit will coordinate with FEMA to determine if a Conditional Letter of Map Revision (CLOMR) and a subsequent final Letter of Map Revision (LOMR) are required for this project. The Division will submit sealed as-built construction plans to the Hydraulics Unit upon project completion certifying the project was built as shown on the construction plans.

G. CE Approval

STIP Project No.	**B-4729**
W.B.S. No.	**38502.1.1**
Federal Project No.	**BRZ-1303(5)**

The purpose of this project is to replace Chatham County Bridge No. 306 along SR 1303 (Ben Smith Road) over North Prong Rocky River. Bridge No. 306 is 91 feet long. The replacement structure will be a bridge approximately 94 feet long providing a minimum 27-foot, 10-inch clear deck width. The bridge will include two 10-foot lanes and 3-foot, 11-inch offsets. The bridge length is based on preliminary design information and is set by hydraulic requirements. The proposed roadway will be constructed at a similar grade to the existing bridge.

The approach roadway will extend approximately 164 feet from the north end and approximately 231 feet from the south end of the new bridge. The approaches will be constructed to include a 20-foot pavement width providing two 10-foot lanes. Three-foot grass shoulders will be provided on each side of the roadway (6-foot shoulders where guardrail is included). The roadway will be designed as a Rural Local Road using Sub-regional Tier guidelines with a 55 mile per hour design speed

Traffic will be detoured off-site during construction (see Figure 1). The off-site detour is approximately 14.6 miles long and utilizes SR 1301 (Silk Hope Road), SR 1300 (Staley - Snow Camp Road), SR 2376/SR 1353 (Sam Lowe Road), SR 1346 (Silk Hope - Liberty Road), SR 1004 (Siler City - Snow Camp Road, SR 1312 (Ed Clapp Road), SR 1362 (Piney Grove Church Road), SR 1300 (Staley – Snow Camp Road), and SR 1304 (Albright Road). The detour will result in approximately 16 minutes of additional travel time.

Categorical Exclusion Action Classification:

_____ TYPE II(A)
_X_ TYPE II(B)

Approved:

10-31-16
Date

Brian Yamamoto, PE
Project Engineer
Project Development & Environmental Analysis, NCDOT

10/28/2016
Date

Undrea Major
Project Planning Engineer
Project Development & Environmental Analysis, NCDOT

10/28/2016
Date

Ryan L. White, PE
Consultant Project Manager
Stantec Consulting

NORTH CAROLINA PROFESSIONAL SEAL 33127 ENGINEER RYAN L. WHITE

For Type II(B) projects only:

10/31/16
Date

for John F. Sullivan, III, PE, Division Administrator
Federal Highway Administration

PROJECT COMMITMENTS

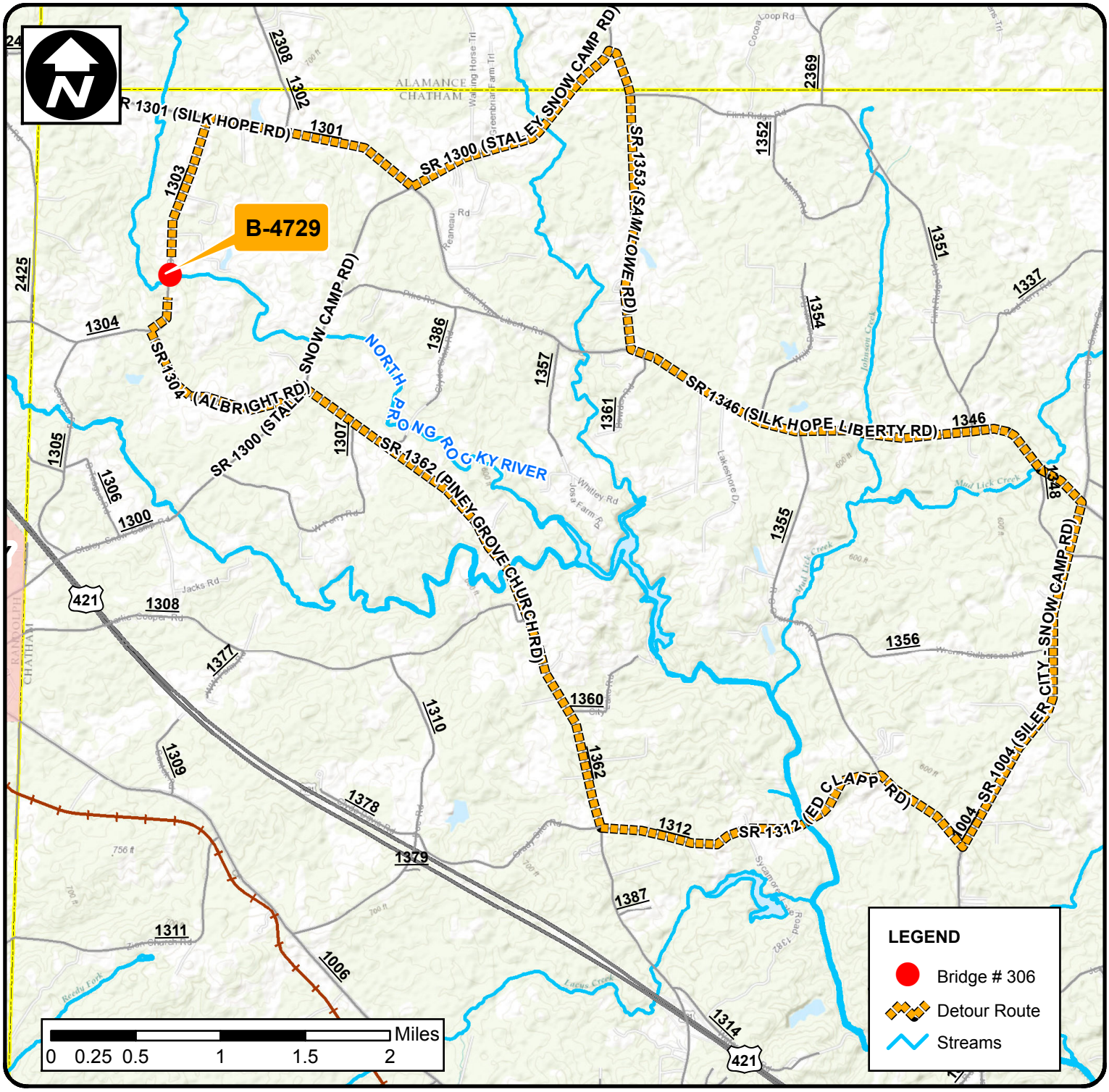
Chatham County
Bridge Number 306 along SR 1303 (Ben Smith Road)
Over North Prong Rocky River
Federal Aid Project No. BRZ-1303(5)
W.B.S. No. 38502.1.1
S.T.I.P. No. B-4729

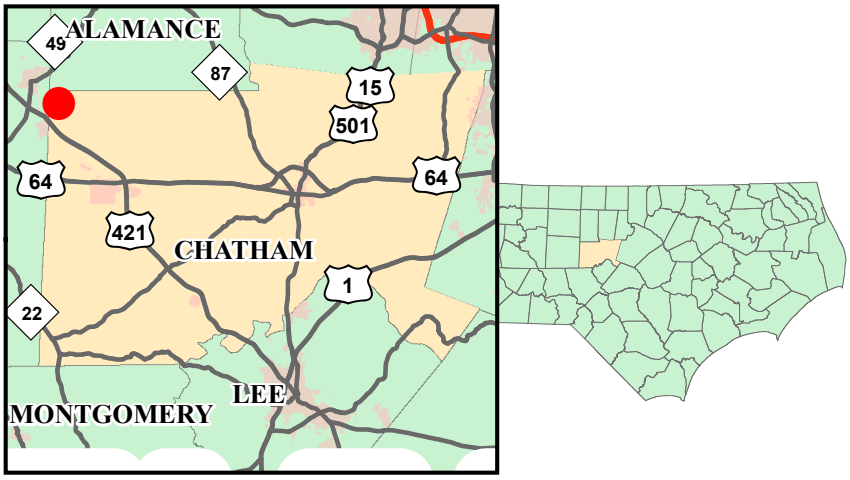
Hydraulics Unit – FEMA Coordination
NCDOT will coordinate with the NC Floodplain Mapping Program (FMP), to determine status of project with regard to applicability of NCDOT'S Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent Letter of Map Revision (LOMR).

Division 8 Construction-FEMA Coordination
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.

Division 8 Construction, Resident Engineer's Office – Offsite Detour
In order to have time to adequately reroute school buses, Chatham County Schools Transportation Office will be contacted at (919) 542-2715 at least one month prior to road closure.

Chatham County Emergency Management will be contacted at (919) 545-8162 at least one month prior to road closure to make the necessary temporary reassignments to primary response units.





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

REPLACEMENT OF BRIDGE # 306 ON SR 1303 (BEN SMITH ROAD) OVER NORTH PRONG ROCKY RIVER

CHATHAM COUNTY
TIP PROJECT B-4729

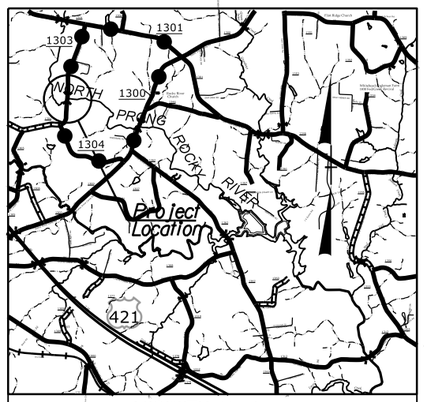
FIGURE 1: VICINITY MAP

09/09/99

TIP PROJECT: B-4729

CONTRACT:

See Sheet 1-A For Index of Sheets



VICINITY MAP

OFFSITE DETOUR

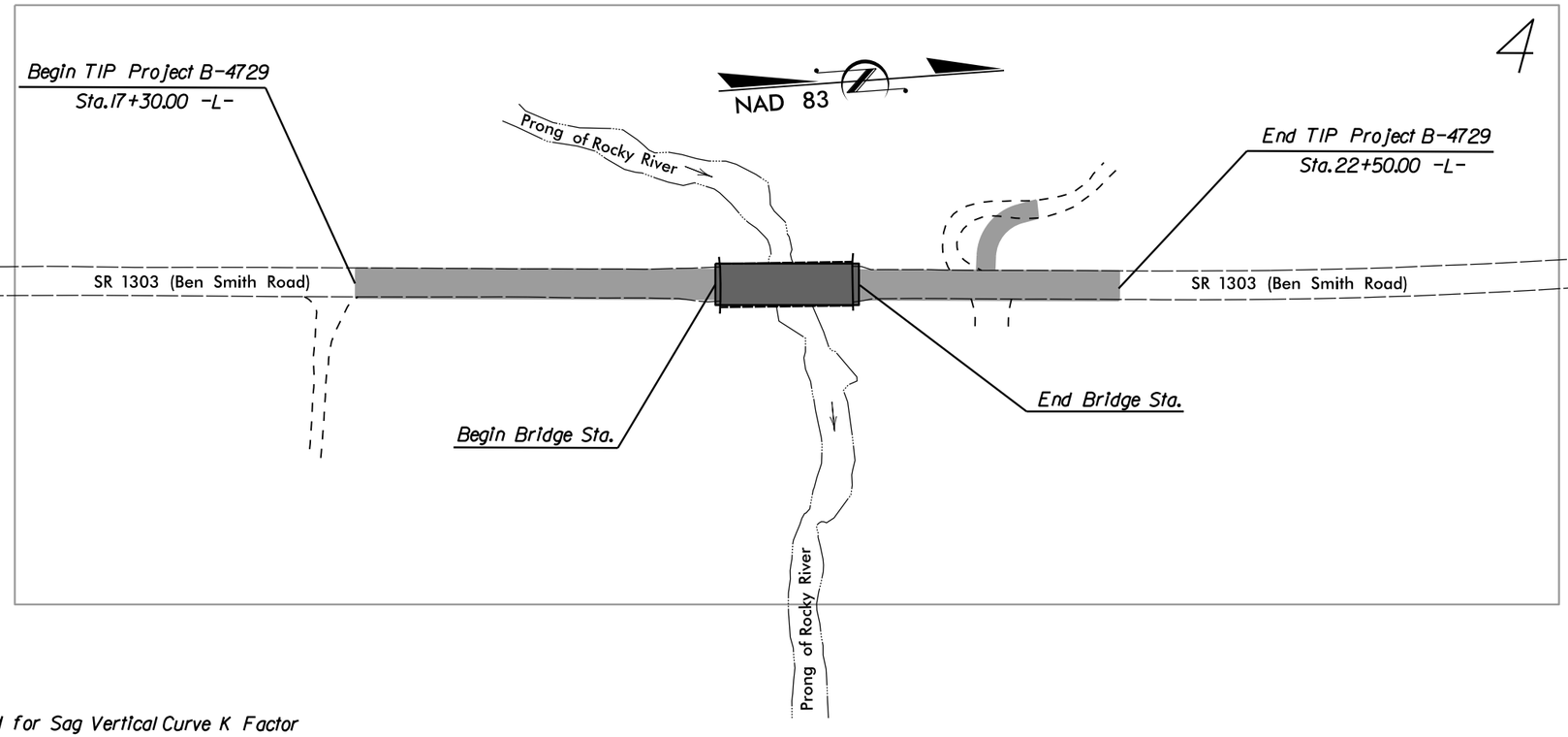
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CHATHAM COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4729	1	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
38502.1.1		P.E.	

LOCATION: *Bridge #306 over Prong of Rocky River on SR 1303 (Ben Smith Rd)*

TYPE OF WORK: *Grading, Drainage, Paving and Structure*



Design Exception Required for Sag Vertical Curve K Factor

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

0
PROFILE (VERTICAL)

DESIGN DATA

ADT 2013 = 100 vpd
ADT 2035 = 200 vpd
DHV = 10 %
D = 70 %
T = 19 % *
V = 55 MPH
* TTST = 2% DUAL 17%
FUNC CLASS =
RURAL LOCAL
SUBREGIONAL TIER

PROJECT LENGTH

Total Length TIP Project B-4729 = 0.098 Miles

Prepared In the Office of:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
FY 2017

LETTING DATE:
FY 2018

James Speer, PE
PROJECT ENGINEER

John Lansford, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

P.E.
SIGNATURE:

ROADWAY DESIGN ENGINEER

P.E.
SIGNATURE:

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

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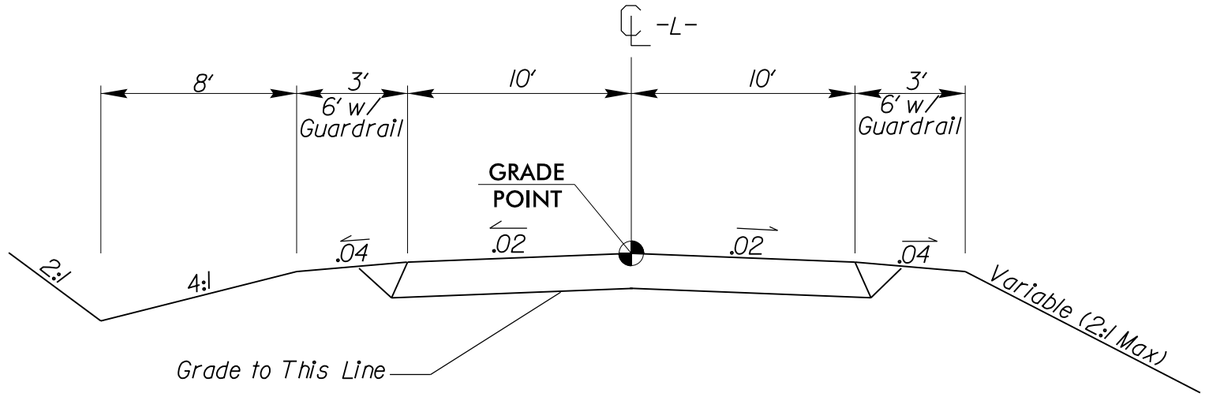
PROJECT REFERENCE NO.	SHEET NO.
B-4729	2-A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

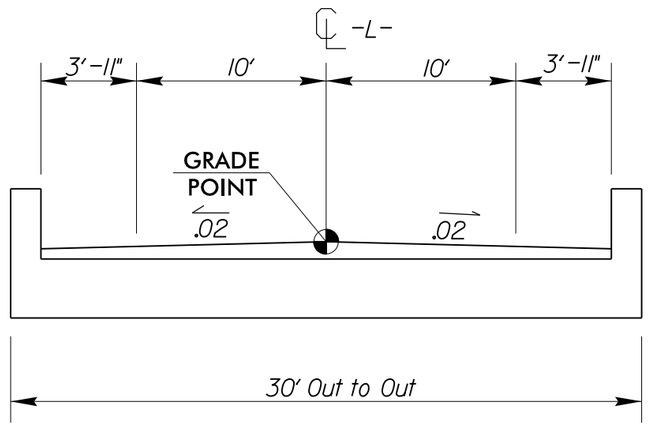
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION



TYPICAL SECTION NO.1

Use Typical Section No.1

Sta.17+30.00 to 22+50.00 -L-



5/14/99

PROJECT REFERENCE NO.	SHEET NO.
B-4729	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83

15

20

25

-L-
PI Sta 13+62.12
Δ = 3° 29' 55.8" (RT)
D = 1° 25' 56.6"
L = 244.26'
T = 122.17'
R = 4,000.00'

PC Sta. 12+39.95

PT Sta. 14+84.21

Begin TIP Project B-4729
Sta. 17+30.00 -L-

50' Taper

N 5° 52' 52.9" E

Type 350

Type 350

Type 350

Type 350

50' Taper

End TIP Project B-4729
Sta. 22+50.00 -L-

PC Sta. 22+71.77

-L-
PI Sta 25+13.85
Δ = 6° 35' 50.7" (LT)
D = 1° 21' 51.1"
L = 483.61'
T = 242.08'
R = 4,200.00'

See Sheet 5 for -L- Profile

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5/14/99

PROJECT REFERENCE NO.	SHEET NO.
B-4729	5

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Design Exception Required for Sag Vertical Curve K Factors

BEGIN GRADE STA.17+30.00 -L-
EL.645.60'

-L-
PI = 18+70.00
EL = 639.16'
VC = 190'
K = 38

-L-
PI = 21+40.00
EL = 640.19'
VC = 195'
K = 38

END GRADE STA.22+50.00 -L-
EL.646.31'

645.60

646.31

(-)4.6000%

(+)0.3815%

(+)0.3815%

(+)5.5606%

670 660 650 640 630 620

12 13 14 15 16 17 18 19 20 21 22 23

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APPENDIX A

CORRESPONDENCE

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Raleigh Field Office
Post Office Box 33726
Raleigh, North Carolina 27636-3726

December 28, 2012

Dionne C. Brown
North Carolina Department of Transportation
Project Development and Environmental Analysis
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

Dear Ms. Brown:

This letter is in response to your request for comments from the U.S. Fish and Wildlife Service (Service) on the potential environmental effects of the following proposed bridge replacement projects.

B-4550: Replace Bridge Nos. 41 & 42 on SR 1422 over Rockfish Creek in Hoke County
B-4729: Replace Bridge No. 306 on SR 1303 over North Prong of Rocky River in Chatham County
B-4794: Replace Bridge No. 18 on SR 1107 over Bettie McGees Creek in Randolph County
B-5362: Replace Bridge No. 53 on NC 73 over Drowning Creek in Montgomery County

These comments provide information in accordance with provisions of the National Environmental Policy Act (42 U.S.C. 4332(2)(c)) and Section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1543).

For bridge replacement projects, the Service recommends the following general conservation measures to avoid or minimize impacts to fish and wildlife resources:

1. Wetland, forest and designated riparian buffer impacts should be avoided and minimized to the maximum extent practical;

2. If unavoidable wetland or stream impacts are proposed, a plan for compensatory mitigation to offset unavoidable impacts should be provided early in the planning process;

3. Off-site detours should be used rather than construction of temporary, on-site bridges. For projects requiring an on-site detour in wetlands or open water, such detours should be aligned along the side of the existing structure which has the least and/or least quality of fish and wildlife habitat. At the completion of construction, the detour area should be entirely removed and the impacted areas be replanted with appropriate tree species;

4. In streams utilized by anadromous fish, the NCDOT policy entitled "Stream Crossing Guidelines for Anadromous Fish Passage" should be implemented;

5. New bridges should be long enough to allow for sufficient wildlife passage along stream corridors;

6. On each side of the stream bank underneath bridges, at least 10 feet of the bank should remain clear of riprap;

7. "Best Management Practices (BMP) for Construction and Maintenance Activities" should be implemented;

8. Bridge designs should include provisions for roadbed and deck drainage to flow through a vegetated buffer prior to reaching the affected stream. This buffer should be large enough to alleviate any potential effects from run-off of storm water and pollutants;

9. Bridge designs should not alter the natural stream and stream-bank morphology or impede fish passage. To the extent possible, piers and bents should be placed outside the bank-full width of the stream; and

10. Bridges and approaches should be designed to avoid any fill that will result in damming or constriction of the channel or flood plain. If spanning the flood plain is not feasible, culverts should be installed in the flood plain portion of the approach to restore some of the hydrological functions of the flood plain and reduce high velocities of flood waters within the affected area.

Section 7(a)(2) of the Endangered Species Act requires that all federal action agencies (or their designated non-federal representatives), in consultation with the Service, insure that any action federally authorized, funded, or carried out by such agencies is not likely to jeopardize the continued existence of any federally threatened or endangered species. To assist you, a county-by-county list of federally protected species known to occur in North Carolina and information on their life histories and habitats can be found on our web page at http://www.fws.gov/nc-es/es/countyfr.html .

Although the North Carolina Natural Heritage Program (NCNHP) database does not indicate any known occurrences of listed species near the project vicinity, use of the NCNHP data should not be substituted for actual field surveys if suitable habitat occurs near the project site. The NCNHP database only indicates the presence of known occurrences of listed species and does not necessarily mean that such species are not present. It may simply mean that the area has not been surveyed. If suitable habitat occurs within the project vicinity for any listed species, surveys should be conducted to determine presence or absence of the species.

If you determine that the proposed action may affect (i.e. likely to adversely affect or not likely to adversely affect) a listed species, you should notify this office with your determination, the results of your surveys, survey methodologies and an analysis of the effects of the action on listed species, including consideration of direct, indirect and cumulative effects, before conducting any activities that might affect the species. If you determine that the proposed action

will have no effect (i.e. no beneficial or adverse, direct or indirect effect) on listed species, then you are not required to contact our office for concurrence.

The Service appreciates the opportunity to comment on this project. If you have any questions regarding our response, please contact Mr. Gary Jordan at (919) 856-4520, ext. 32.

Sincerely,

Gary Jordan

for Pete Benjamin
Field Supervisor

North Carolina Wildlife Resources Commission

Gordon Myers, Executive Director

MEMORANDUM

TO: Rachelle Beauregard
NCDOT, PDEA-NES

FROM: Travis Wilson, Highway Project Coordinator
Habitat Conservation Program

DATE: April 10, 2013

SUBJECT: Bridge Replacements

Biologists with the N. C. Wildlife Resources Commission (NCWRC) have reviewed the information provided and have the following preliminary comments on the subject project. Our comments are provided in accordance with provisions of the National Environmental Policy Act (42 U.S.C. 4332(2)(c)) and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661-667d).

Our standard recommendations for bridge replacement projects of this scope are as follows:

1. We generally prefer spanning structures. Spanning structures usually do not require work within the stream and do not require stream channel realignment. The horizontal and vertical clearances provided by bridges allows for human and wildlife passage beneath the structure, does not block fish passage, and does not block navigation by canoeists and boaters.

2. Bridge deck drains should not discharge directly into the stream.

3. Live concrete should not be allowed to contact the water in or entering into the stream.

4. If possible, bridge supports (bents) should not be placed in the stream.

5. If temporary access roads or detours are constructed, they should be removed back to original ground elevations immediately upon the completion of the project. Disturbed areas should be seeded or mulched to stabilize the soil and native tree species should be planted with a spacing of not more than 10'x10'. If possible, when using temporary

Mailing Address: Division of Inland Fisheries • 1721 Mail Service Center • Raleigh, NC 27699-1721
Telephone: (919) 707-0220 • **Fax:** (919) 707-0028

structures the area should be cleared but not grubbed. Clearing the area with chain saws, mowers, bush-hogs, or other mechanized equipment and leaving the stumps and root mat intact, allows the area to revegetate naturally and minimizes disturbed soil.

6. A clear bank (riprap free) area of at least 10 feet should remain on each side of the steam underneath the bridge.

7. In trout waters, the N.C. Wildlife Resources Commission reviews all U.S. Army Corps of Engineers nationwide and general '404' permits. We have the option of requesting additional measures to protect trout and trout habitat and we can recommend that the project require an individual '404' permit.

8. In streams that contain threatened or endangered species, NCDOT biologist should be notified. Special measures to protect these sensitive species may be required. NCDOT should also contact the U.S. Fish and Wildlife Service for information on requirements of the Endangered Species Act as it relates to the project.

9. In streams that are used by anadromous fish, the NCDOT official policy entitled "Stream Crossing Guidelines for Anadromous Fish Passage (May 12, 1997)" should be followed.

10. Sedimentation and erosion control measures sufficient to protect aquatic resources must be implemented prior to any ground disturbing activities. Structures should be maintained regularly, especially following rainfall events.

11. Temporary or permanent herbaceous vegetation should be planted on all bare soil within 15 days of ground disturbing activities to provide long-term erosion control.

12. All work in or adjacent to stream waters should be conducted in a dry work area. Sandbags, rock berms, cofferdams, or other diversion structures should be used where possible to prevent excavation in flowing water.

13. Heavy equipment should be operated from the bank rather than in stream channels in order to minimize sedimentation and reduce the likelihood of introducing other pollutants into streams.

14. Only clean, sediment-free rock should be used as temporary fill (causeways), and should be removed without excessive disturbance of the natural stream bottom when construction is completed.

15. During subsurface investigations, equipment should be inspected daily and maintained to prevent contamination of surface waters from leaking fuels, lubricants, hydraulic fluids, or other toxic materials.

If corrugated metal pipe arches, reinforced concrete pipes, or concrete box culverts are used:

1. The culvert must be designed to allow for aquatic life and fish passage. Generally, the culvert or pipe invert should be buried at least 1 foot below the natural streambed (measured from the natural thalweg depth). If multiple barrels are required, barrels other than the base flow barrel(s) should be placed on or near stream bankfull or floodplain bench elevation (similar to Lyonsfield design). These should be

reconnected to floodplain benches as appropriate. This may be accomplished by utilizing sills on the upstream and downstream ends to restrict or divert flow to the base flow barrel(s). Silled barrels should be filled with sediment so as not to cause noxious or mosquito breeding conditions. Sufficient water depth should be provided in the base flow barrel(s) during low flows to accommodate fish movement. If culverts are longer than 40-50 linear feet, alternating or notched baffles should be installed in a manner that mimics existing stream pattern. This should enhance aquatic life passage: 1) by depositing sediments in the barrel, 2) by maintaining channel depth and flow regimes, and 3) by providing resting places for fish and other aquatic organisms. In essence, base flow barrel(s) should provide a continuum of water depth and channel width without substantial modifications of velocity.

2. If multiple pipes or cells are used, at least one pipe or box should be designed to remain dry during normal flows to allow for wildlife passage.

3. Culverts or pipes should be situated along the existing channel alignment whenever possible to avoid channel realignment. Widening the stream channel must be avoided. Stream channel widening at the inlet or outlet end of structures typically decreases water velocity causing sediment deposition that requires increased maintenance and disrupts aquatic life passage.

4. Riprap should not be placed in the active thalweg channel or placed in the streambed in a manner that precludes aquatic life passage. Bioengineering boulders or structures should be professionally designed, sized, and installed.

In most cases, we prefer the replacement of the existing structure at the same location with road closure. If road closure is not feasible, a temporary detour should be designed and located to avoid wetland impacts, minimize the need for clearing and to avoid destabilizing stream banks. If the structure will be on a new alignment, the old structure should be removed and the approach fills removed from the 100-year floodplain. Approach fills should be removed down to the natural ground elevation. The area should be stabilized with grass and planted with native tree species. If the area reclaimed was previously wetlands, NCDOT should restore the area to wetlands. If successful, the site may be utilized as mitigation for the subject project or other projects in the watershed.

Project specific comments:

B-4550, Hoke County, replace bridge No. 41 and 42 on SR 1432 over Rockfish Creek: We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-4729, Chatham County, replace bridge No. 306 on SR 1303 over North Prong Rocky River: We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-4802, Rockingham County, replace bridge No. 18 on SR 1002 over the Haw River: We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-4805, Rockingham County, replace bridge No. 9 on SR 2406 over prong of Troublesome Creek: We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-4624, Rockingham County, replace bridge No. 80 on SR 1929 over Wolf Island Creek: The potential exist for Roanoke logperch (Percina rex: state E, federal E) to be found at this site. NCDOT should coordinate with NCWRC and USFWS in conducting a survey to determine the presence or absence of this species. We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-4662, Wake County, replace bridge No. 196 on SR 2308 over Moccasin Creek: We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-4828, Vance County, replace bridge No. 56 on SR 1526 over Sandy Creek: We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-4831, Wake County, replace bridge No. 371 on SR 1152 over White Oak Creek: Harris Game Land is located within the project study area, DOT should coordinate closely during the design and construction of this project to avoid and minimize impacts to this area. We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-4794, Randolph County, replace bridge No. 18 on SR 1107 over Bettie McGees Creek: This portion of Bettie McGees Creek is designated as Significant Aquatic Habitat by the NC Natural Heritage Program. Our records also indicate the potential for listed species to be present within the project area, including: Carolina creekshell (*Villosa vaughaniana*: state E, FSC), Notched rainbow (*Villosa constricta*: state SC), and Eastern creekshell (*Villosa delumbis*: state SR). We recommend NCDOT follow the Design Standards for Sensitive Watersheds during the design and construction of this project. We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-5322, Person County, replace bridge No. 51 on SR 1343 over Richland Creek: We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-5323, Granville County, replace bridge No. 143 on SR 1442 over Johnston Creek: We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-5326, Wake County, replace bridge No. 247 on SR 2555 over White Oak Creek: We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-5328, Franklin County, replace bridge No. 129 on SR 1406 over Sandy Creek: This portion of Sandy Creek is designated as Significant Aquatic Habitat by the NC Natural Heritage Program. Our records also indicate the potential for listed species to be present within the project area, including: Carolina creekshell Notched rainbow (*Villosa constricta*: state SC), Atlantic pigtoe (*Fusconaia masoni*: state E, FSC), and Creeper (*Strophitus undulatus*: state T). We recommend NCDOT follow the Design Standards for Sensitive Watersheds during the design and construction of this project. We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-5346, Alamance County, replace bridge No. 3 on SR 1529 UT: We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-5347, Alamance County, replace bridge No. 170 on SR 1212 over prong of Alamance Creek: We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-5348, Orange County, replace bridge No. 85 on SR 1005 over Phil's Creek: We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-5349, Alamance County, replace bridge No. 173 on SR 1149 over Little Alamance Creek: We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-5350, Alamance County, replace bridge No. 44 on SR 1768 over Jordan's Creek: We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-5351, Guilford County, replace bridge No. 242 on US29/US70/I-85 Business over the Deep River: We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-5353, Guilford County, replace bridge No. 147 on US29/US 70/I-85 Business over US 311: We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-5354, Guilford County, replace bridge No. 360 on SR 4771 over US 29: We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-5362, Montgomery County, replace bridge No. 53 on NC 73 over Drowning Creek: This portion of Drowning Creek is designated as Significant Aquatic Habitat by the NC Natural Heritage Program. We recommend NCDOT follow the Design Standards for Sensitive Watersheds during the design and construction of this project. We recommend replacing this bridge with a bridge. Standard recommendations apply.

If you need further assistance or information on NCWRC concerns regarding bridge replacements, please contact me at (919) 707-0370. Thank you for the opportunity to review and comment on this project.

From:	Smith, Ronnie D SAW
To:	Brown, Dionne C
Cc:	felix.davila@fhwa.dot.gov; Chris Militscher; Gary_Jordan@fws.gov; Wilson, Travis W.; Gledhill-earley, Renee; Wainwright, David; King, Art C
Subject:	B-4550, B-4729, B-4794 and B-5362 (UNCLASSIFIED)
Date:	Wednesday, January 02, 2013 1:04:19 PM

Classification: UNCLASSIFIED
Caveats: NONE

AID #s: SAW-2012-02001, B-4550, Replacement of Bridge Numbers 41 and 42 on SR 1422 over Rockfish Creek, Hoke County

SAW-2012-02002, B-4729, Replacement of Bridge Number 306 on SR 1303 over North Prong Rocky River, Chatham County

SAW-2012-02003, B-4794, Replacement of Bridge Number 18 on SR 1107 over Bettie McGees Creek, Randolph County

SAW-2012-02004, B-5362, Replacement of Bridge Number 53 on NC 73 over Drowning Creek, Montgomery County

Ms. Brown,

Reference is made to your letter of December 12, 2012, regarding the proposed bridge replacement projects described above. The letter requested information to assist in evaluating potential environmental impacts of the project.

We have reviewed the subject documents and determined that, based upon a review of the information provided and available maps, the construction of this project may impact streams and/or wetlands within the work corridor. Please be aware that impacts associated with the discharge of fill into waters of the United States are subject to our regulatory authority pursuant to Section 404 of the Clean Water Act. Any discharge of excavated or fill material into waters of the United States and/or any adjacent wetlands would require Department of the Army (DA) permit authorization. The type of DA authorization required (i.e., general or individual permit) will be determined by the location, type, and extent of jurisdictional area impacted by the project, and by the project design and construction limits.

Until additional data is furnished which details the extent of the construction limits of the proposed project, and an onsite inspection is completed with regard to determinations of the presence of jurisdictional waters in the project area, we are unable to verify that the project will not have regulated impacts, or to provide specific comments concerning DA permit requirements. To assist you with determining permitting requirements, we recommend that you perform a detailed delineation of the streams and/or wetlands present on the project site. When this information becomes available, it should be forwarded to our office for review and comment, as well as a determination of DA permit eligibility.

The Corps has the following additional recommendations and comments concerning the proposed project:

- The Corps recommends that all bridges be replaced with bridges that have hydraulic openings as large or larger than the existing bridges.
- Off-site detours should be used for all projects.
- If any underground utility lines will have to be relocated as a result of the projects, they should be directionally drilled under all waters of the United States, including wetlands. If overhead utility lines will have to be relocated within wetland areas, the new corridors should be cleared in a way that does not disturb the root mat or result in re-deposition of soil.
- The categorical exclusion (CE) for this project should include a bridging alternative.
- At the location of project B-5362, Drowning Creek is designated as a high quality water (HQW) and the waterway is listed as a 303d water.

Should you have any further questions related to DA permits for this project, please contact me at (910) 251-

4829.

Sincerely,

Ronnie Smith
Project Manager
U.S. Army Corps of Engineers
69 Darlington Avenue
Wilmington, North Carolina 28403
Office: 910-251-4829
Fax: 910-251-4025
Website: http://www.saw.usace.army.mil/WETLANDS
The Wilmington District is committed to providing the highest level of support to the public. To help us ensure we continue to do so, please complete the Customer Satisfaction Survey located at our website at http://per2.nwp.usace.army.mil/survey.html to complete the survey online.

Classification: UNCLASSIFIED
Caveats: NONE

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT MCCRORY
GOVERNOR

ANTHONY J. TATA
SECRETARY

June 13, 2013

Memorandum To: Rachelle Beauregard, Central Region Manager,
Natural Environment Project Management Group

From: Jared Gray, Environmental Program Supervisor
Natural Environment Biological Surveys Group

Subject Survey for the Cape Fear Shiner**(***Notropis mekistocholas*)
associated with the replacement of Bridge No. 306 on
SR 1303 over North Prong Rocky River, Chatham County,
TIP No. B-4729, WBS 38502.1.1

Proposed Project B-4729

The proposed project calls for the replacement of Bridge No. 306 on SR 1303 (Ben Smith Road) over North Prong Rocky River, in Chatham County. North Prong Rocky River is located in the Cape Fear River Basin. From the project site, North Prong Rocky River flows 3.6 miles before entering the Rocky River Reservoir. A map of the project site is attached. The federally endangered Cape Fear shiner is listed by the U.S. Fish and Wildlife Service for Chatham County.

Background

The Cape Fear shiner is known only from the Cape Fear River watershed. In general, habitat occurs in streams with clean gravel, cobble, or boulder substrates. It is most often observed inhabiting slow pools, riffles, and slow runs associated with water willow (*Justicia americana*) beds, which it uses for cover. Juveniles can be found inhabiting slack water, among large rock outcrops and in flooded side channels and pools. Spawning occurs May through June, when water temperatures reach 66 degrees Fahrenheit.

Major threats to this species include dams and their associated reservoirs. These reservoirs eliminate the shiner's preferred habitats, and fragment populations. This ultimately increases the chances for local extirpations. Continued deterioration of water quality is also a major concern. Activities such as changes in stream flow, runoff from agriculture and communities, road construction, impoundments, wastewater discharge, and other development projects in the watershed have the potential to be detrimental to this species.

MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
PROJECT DEVELOPMENT & ENVIRONMENTAL ANALYSIS UNIT
1598 MAIL SERVICE CENTER
RALEIGH NC 27699-1548

TELEPHONE: 919-707-6000
FAX: 919-212-5785
WEBSITE:NCDOT.GOV

LOCATION:
CENTURY CENTER, BUILDING B
1020 BIRCH RIDGE DRIVE
RALEIGH NC 27610

The Cape Fear shiner is limited to four populations in North Carolina. The strongest populations are found in the Deep River and lower Rocky River. The Haw River and Cape Fear River populations are extant but extremely rare, as evidenced by a single specimen in each (NC Wildlife Resource Commission data for 2007).

Prior to conducting in-stream surveys, a review of the North Carolina Natural Heritage Program (NHP) database was conducted (May 15, 2013) to determine if there were any records of fish within the proposed project study area or receiving waters. **This review indicated that there are no known occurrences of the federally protected Cape Fear Shiner within the project area. The closest population of Cape Fear shiner is downstream in Rocky River, which is approximately 22.0 miles away from this project.**

303D

North Prong Rocky River flows into Rocky River Reservoir 3.2 miles downstream of the project. Rocky River Reservoir does show up on DWQ's 2012 Final Report Impaired Waters 303 d List for a standard violation and the area of interest being Chlorophyll a. Also, 3.9 miles further downstream on the Rocky River is Charles Turner Reservoir which is also on the list for a standard violation and the area of interest being low dissolved oxygen (NCDWQ, 2012).

Survey Methods and Habitat

A survey was performed by NCDOT staff members Neil Medlin (Permit No. 13-ES00030), Matt Haney, Tim Bassette and Jared Gray (Permit No. 13-ES00314) on May 16, 2013. The collection method for this survey was to hit riffles areas by using a Smith-Root model LR-24 backpack electrofishing unit shocking downstream to a stationary seine. The electrofishing unit was also used to sample the edge habitat in run and slack areas. The electrofishing unit was set to provide an output consistent with the nonlethal levels established by Holliman et. al., 2003. The sample area extended from approximately 100 meters above the road crossing to approximately 200 meters below the crossing.

Within in the project area, North Prong Rocky River is roughly 5.0 meters wide, and had some undercutting and erosion of the banks. The stream banks were 1.5 meters high. On the day of the site visit, the overall water depth was shallow; with 90% of the stream reach less than 2 feet in depth. The creek contained runs, riffles and pool areas with normal substrate compactness. The substrate above and below the bridge was generally dominated by silt, with some clay, cobble, gravel and a considerable amount of sand. The riparian buffer width was narrow. The surrounding land use was active pasture and active crop. Runoff from surrounding land use has the potential to slowly degrade any remaining habitat. NCDOT electro-shocked North Prong Rocky River for 1366 seconds with no Cape Fear shiners collected, only marginal in stream habitat existed and *Justicia americana* was not present at the site. The results are listed below in Table 1.

Results

Table 1. Fish Species Collected at North Prong Rocky River, Chatham County, on May 16, 2013.

Scientific Name	Common Name	#Individuals
Erimyzon oblongus	Creek chubsucker	15
Notropis altipinnis	Highfin shiner	2
Lepomis auritus	Redbreast sunfish	5
Aphredoderus sayanus	Pirate perch	2
Etheostoma olmstedi	Tessellated darter	20
Lepomis cyanellus	Green sunfish	1
Pimephales promelas	Fathead minnow	1
Notemigonus crysoleucas	Golden shiner	12
Catostomus commersoni	White sucker	2
Lepomis macrochirus	Bluegill	6
Lepomis gibbosus	Pumpkinseed	3

Biological Conclusion: No Effect

Given the results of the survey, the review of GIS and NHP data, it appears that the Cape Fear shiner does not exist in the project area. North Prong Rocky River has only marginal habitat for the Cape Fear shiner. The surrounding land use has the potential to slowly degrade any remaining habitat. The Rocky River Reservoir and the Charles Turner Reservoir prevent any upstream migration of Cape Fear shiner. The nearest population of Cape Fear shiner is 22.0 miles away in Rocky River. **The bridge replacement project of Bridge No. 306 on SR 1303 will have no effect on the Cape Fear shiner.**

Holliman, F.M., J.B. Reynolds, and T.J. Kwak. 2003. A predictive risk model for electroshock-induced mortality of the endangered Cape Fear shiner. North American Journal of Fisheries Management. 23:905-912.

NCDWQ. 2012. North Carolina Division of Water Quality Assessment and Impaired waters 303 (d) list final report. http://portal.ncdenr.org/c/document_library/get_file?uuid=9d45b3b4-d066-4619-82e6-ea8ea0e01930&groupId=38364. (Accessed 03/17/2010).

[USFWS] United States Fish and Wildlife Service. Cape Fear Shiner. http://www.fws.gov/nc-es/fish/CFS_Fact_Sheet1.pdf. (Accessed 04/14/09)

[USFWS] United States Fish and Wildlife Service. Cape Fear shiner **(***Notropis mekistocholas*). http://www.fws.gov/nc-es/fish/cfshiner.html. (Accessed 04/14/09)

Cc: Dionne Brown, Project Development Engineer, Bridge Group
File: B-4729

Natural and
Cultural Resources

PAT McCRORY
Governor

SUSAN KLUTTZ
Secretary

NCNHDE-2229

September 14, 2016

Ryan White
Stantec Consulting
801 Jones Franklin Road
Raleigh, NC 27606
RE: Replace Chatham County Bridge # 306 over the N. Prong Rocky River along SR 1303 (Ben Smith Road); B-4729

Dear Ryan White:

The North Carolina Natural Heritage Program (NCNHP) appreciates the opportunity to provide information about natural heritage resources for the project referenced above.

A query of the NCNHP database, based on the project area mapped with your request, indicates that there are no records for rare species, important natural communities, natural areas, or conservation/managed areas within the proposed project boundary. Please note that although there may be no documentation of natural heritage elements within the project boundary, it does not imply or confirm their absence; the area may not have been surveyed. The results of this query should not be substituted for field surveys where suitable habitat exists. In the event that rare species are found within the project area, please contact the NCNHP so that we may update our records.

The attached 'Potential Occurrences' table summarizes rare species and natural communities that have been documented within a one-mile radius of the property boundary. The proximity of these records suggests that these natural heritage elements may potentially be present in the project area if suitable habitat exists and is included for reference. Tables of natural areas and conservation/managed area within a one-mile radius of the project area, if any, are also included in this report.

Please note that natural heritage element data are maintained for the purposes of conservation planning, project review, and scientific research, and are not intended for use as the primary criteria for regulatory decisions. Information provided by the NCNHP database may not be published without prior written notification to the NCNHP, and the NCNHP must be credited as an information source in these publications. Maps of NCNHP data may not be redistributed without permission.

The NC Natural Heritage Program may follow this letter with additional correspondence if a Dedicated Nature Preserve (DNP), Registered Heritage Area (RHA), Clean Water Management Trust Fund (CWMTF) easement, or Federally-listed species are documented near the project area.

If you have questions regarding the information provided in this letter or need additional assistance, please contact Suzanne Mason at suzanne.mason@ncdcr.gov or 919.707.8637.

Sincerely,
NC Natural Heritage Program

Natural Heritage Element Occurrences, Natural Areas, and Managed Areas Within a One-mile Radius of the Project Area
Replace Chatham County Bridge # 306 over the N. Prong Rocky River along SR 1303 (Ben Smith Road)
Project No. B-4729
September 14, 2016
NCNHDE-2229

Element Occurrences Documented Within a One-mile Radius of the Project Area

Taxonomic Group	EO ID	Scientific Name	Common Name	Last Observation Date	Element Occurrence Rank	Accuracy	Federal Status	State Status	Global Rank	State Rank
Freshwater Bivalve	29485	Villosa constricta	Notched Rainbow	2010-04-06	E	3-Medium	---	Special Concern	G3	S3
Freshwater Bivalve	29620	Villosa delumbis	Eastern Creekshell	2010-04-06	E	3-Medium	---	Significantly Rare	G4	S4

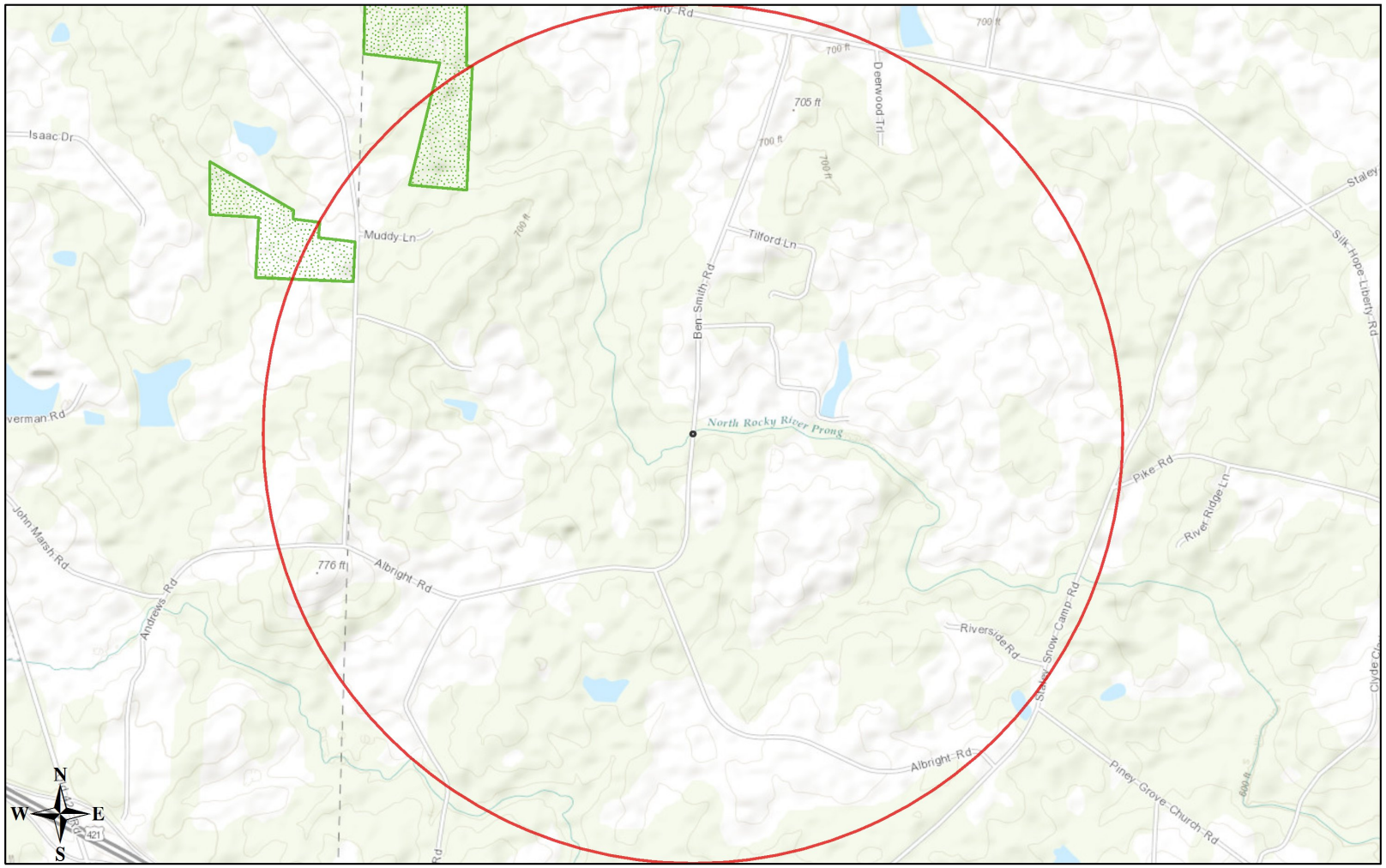
No Natural Areas are Documented Within a One-mile Radius of the Project Area

Managed Areas Documented Within a One-mile Radius of the Project Area

Managed Area Name	Owner	Owner Type
NC Agricultural Development and Farmland Preservation Trust Fund Easement	NC Department of Agriculture	State
Piedmont Land Conservancy Easement	Piedmont Land Conservancy	Private
Piedmont Land Conservancy Easement	Piedmont Land Conservancy	Private

Definitions and an explanation of status designations and codes can be found at https://ncnhde.natureserve.org/content/help. Data query generated on September 14, 2016; source: NCNHP, Q2 June 2016. Please resubmit your information request if more than one year elapses before project initiation as new information is continually added to the NCNHP database.

2229: Replace Chatham County Bridge # 306 over the N. Prong Rocky River along SR 1303 (Ben S



September 14, 2016

- Project Boundary
- Buffered Project Boundary
- Managed Area (MAREA)

1:20,377

0 0.175 0.35 0.7 mi

0 0.275 0.55 1.1 km

Triangle Area Rural Planning Organization

4307 Emperor Blvd., Suite 110, Durham, NC 27703
Mailing Address: P.O. Box 12276, Research Triangle Park, NC 27709
Phone: (919) 558-9397 Fax: (919) 549-9390
www.tarpo.org

March 5, 2013

Dionne C. Brown
Bridge Project Planning Engineer
NCDOT Project Development and Environmental Analysis
1548 Mail Service Center
Raleigh, NC 27699-1548

Subject: Comments on Project B-4729

Ms. Brown,

The staff of the Triangle Area Rural Planning Organization has reviewed project B-4729 and has the following comments:

(1) SR 1303 is not part of any signed bicycle route or any bicycle or pedestrian plan, and is therefore unlikely to require any special provisions with regard to bicycle/pedestrian access;
(2) SR 1303 currently has a very low volume of traffic (2010 AADT=130 vehicles); and
(3) the northwest corner of Chatham County, where this project is located, is very rural and is likely to remain rural for the foreseeable future. We are not aware of any planned or foreseeable development activity in this area.

If you have any questions regarding these comments, please direct them to Matt Day, TARPO Senior Planner, at mday@tjcog.org or 919-558-9397.

Sincerely,

Matthew M. Day
Senior Planner
Triangle Area Rural Planning Organization

Project Tracking No.:

13-03-0046

NO NATIONAL REGISTER OF HISTORIC PLACES ELIGIBLE OR LISTED ARCHAEOLOGICAL SITES PRESENT OR AFFECTED 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-4729**	*County:*	**Chatham**
WBS No:	**38502.1.1**	*Document:*	**MCS**
F.A. No:	**BRZ-1303(5)**	*Funding:*	☐ State ☒ Federal

Federal Permit Required? ☒ Yes ☐ No *Permit Type:* **Nationwide 3**

Project Description: **Replace Bridge No. 306 over Prong of the Rocky River on SR1303 (Ben Smith Road) in Chatham County, North Carolina. The archaeological Area of Potential Effects (APE) for the project is centered upon Bridge 306 and measures 600ft in length (300ft from each bridge end-point) by 150ft in width (75ft laterally from each side of the SR1303 center-line).**

SUMMARY OF ARCHAEOLOGICAL FINDINGS

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

☒ There are no National Register listed ARCHAEOLOGICAL SITES within the project's area of potential effects.
☒ No subsurface archaeological investigations are 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.
☒ There is no National Register Eligible or Listed ARCHAEOLOGICAL SITES present or affected by this project. (*Attach any notes or documents as needed*)

Brief description of review activities, results of review, and conclusions:
First, construction design and other available engineering data were evaluated to determine the potential impacts to the ground surfaces surrounding Bridge No. 306. This information was then used to formulate and Area of Potential Effects. Next, a map review and site file search was conducted at the Office of State Archaeology (OSA) on Thursday, March 28, 2013. This assessment served to gauge the cultural resource potential of the project area based on factors associated with local archaeological and historical site profiles. No previously documented archaeological sites were situated within the project's APE or located adjacent to the general project area. Examination of National Register of Historic Places (NRHP), State Study Listed (SL), Locally Designated (LD), Determined Eligible (DE), and Surveyed Site (SS) properties employing resources available on the NCSHPO website concluded that none of the above or any other historic properties were located within the bounds of or directly proximal to the project study area. In general, this work demonstrated that the proposed construction effort will have no impact on existing NRHP listed properties or previously documented archaeological sites.

Topographic, geologic, historic, and NRCS soil survey maps (ChA, GkD, GoC, GaC), and historical/archaeological reference materials were also inspected for the appraisal of environmental, cultural, and other determinants that may have resulted in past occupation within the project limits. In addition, aerial photographs (NCDOTSDV) were examined and the Google Street View map application was utilized for the estimation of erosive impacts and other disturbances that may have previously invalidated, dismantled, or annulled extant cultural deposits. Because of a heightened prehistoric site potential, pockets of well-drained soils, and federal permitting interaction, the cultural resource specialist recommends an expedient in-field archaeological reconnaissance survey prior to construction activities.

An on-ground investigation of the APE was conducted on Thursday, April 4, 2013. First, a walk-over of all APE ground surfaces was completed. This served to identify any above-ground archaeological or historical remains, and to determine the location and extent of subsurface investigation necessary for project compliance. The entire project study area was photographed and descriptive notes were taken at this time. The northern APE quadrant areas were distinguished by sloping and eroded ground surfaces. Several areas of high surface visibility, particularly along the hill crests situated roughly 300-400ft north of the bridge structure, were searched for the presence of cultural artifacts. No evidence of past occupation or visitation was documented however. Relatively high quality, non-cultural, local quartz was observed at this location. By and large, the ground surfaces within the APE north of the creek would not have provided an ideal settlement scenario due to limitations of slope. Cultural habitation would likely have been centered further to the north, upon the upland landforms located beyond the project area and impact zone.

Similarly, the southern project quadrants were characterized by sloping and moderately eroded agricultural lands (southeastern quadrant), or marginal, frequently flooded and somewhat poorly drained ground surfaces (southwestern quadrant). Because of these limitations, no subsurface shovel testing was conducted in these quadrants, or in association with this bridge replacement project as a whole. While the recovery of a redeposited prehistoric lithic artifact from an eroded, slope wash context is possible, documentation of significant cultural features is unlikely to non-existent.

Following inspection of the project study area, the cultural resource specialist recommends no further archaeological input or consultation for the project as currently proposed. The APE contains no NRHP listed historic properties nor any documented archaeological sites or cemeteries. A finding of "no historic properties affected" is considered appropriate for the project.

SUPPORT DOCUMENTATION

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

Other:

Signed:

Scott Holcomb 4/5/2013

NCDOT ARCHAEOLOGIST **Date**


SDV
SPATIAL DATA VIEWER
Source: USGS
Source: NASA, NGA, USGS
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community
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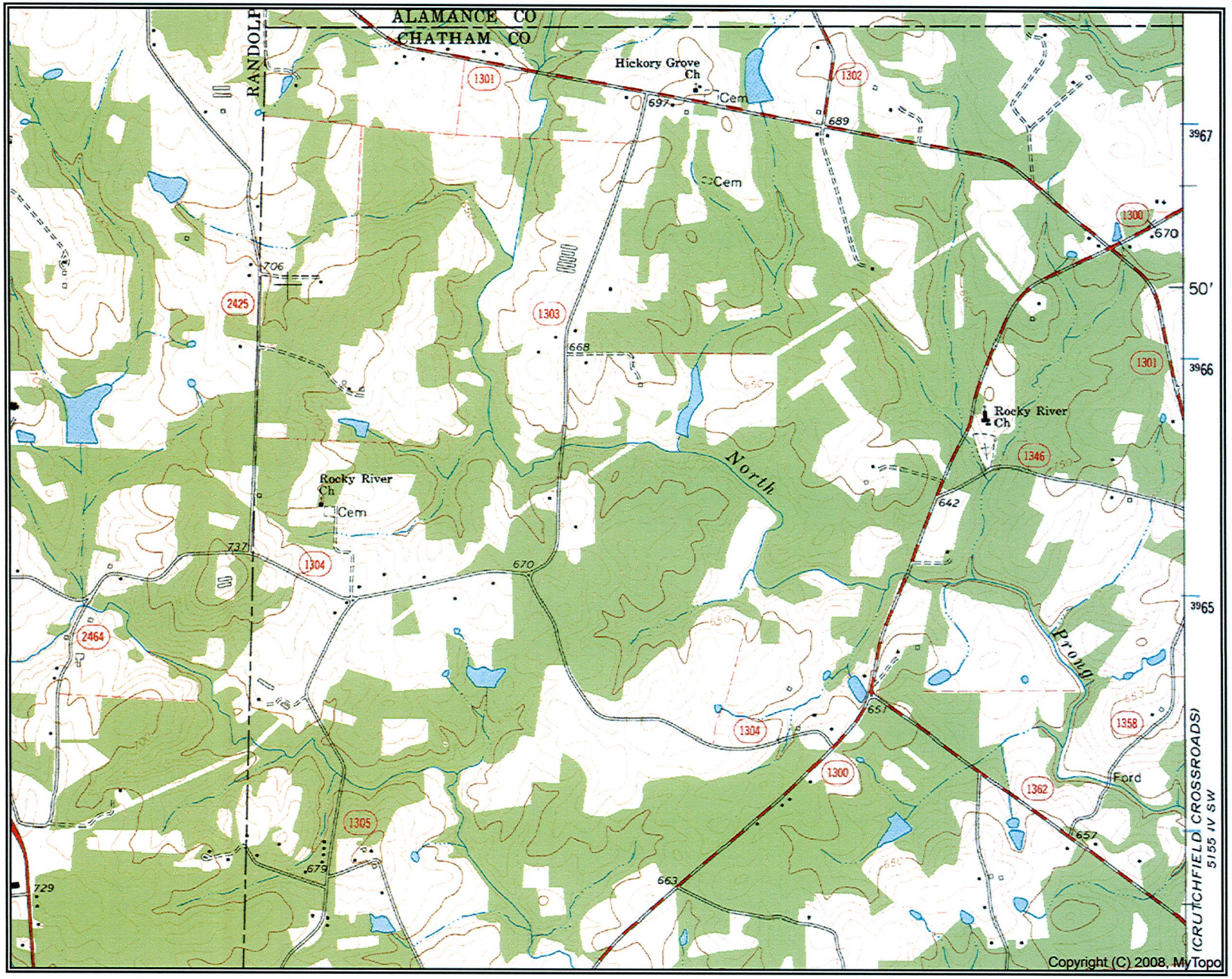
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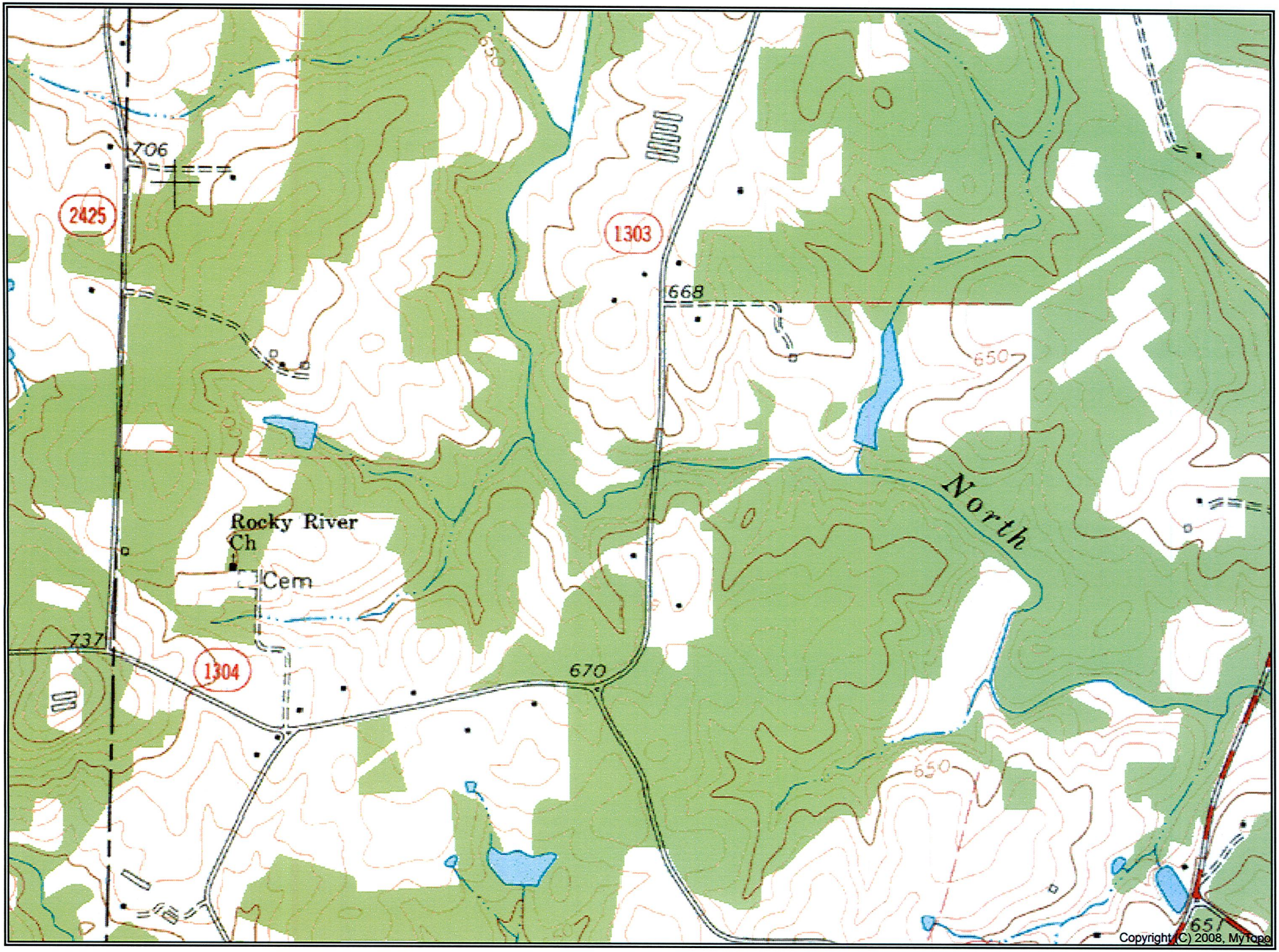
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Chatham County, North Carolina

ChA—Chewacla and Wehadkee soils, 0 to 2 percent slopes, frequently flooded

Map Unit Setting

- *Landscape:* Valleys
- *Elevation:* 200 to 1,400 feet
- *Mean annual precipitation:* 37 to 60 inches
- *Mean annual air temperature:* 59 to 66 degrees F
- *Frost-free period:* 200 to 240 days

Map Unit Composition

- *Chewacla and similar soils:* 60 percent
- *Wehadkee, undrained, and similar soils:* 31 percent
- *Wehadkee, drained, and similar soils:* 5 percent
- *Minor components:* 4 percent

Description of Chewacla

Setting

- *Landform:* Flood plains
- *Down-slope shape:* Concave
- *Across-slope shape:* Linear

- *Parent material:* Loamy alluvium derived from igneous and metamorphic rock

Properties and qualities

- *Slope:* 0 to 2 percent
- *Depth to restrictive feature:* More than 80 inches
- *Drainage class:* Somewhat poorly drained
- *Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)
- *Depth to water table:* About 6 to 24 inches
- *Frequency of flooding:* Frequent
- *Frequency of ponding:* None
- *Available water capacity:* High (about 11.5 inches)

Interpretive groups

- *Farmland classification:* Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- *Land capability (nonirrigated):* 3w
- *Hydrologic Soil Group:* B/D

Typical profile

- *0 to 4 inches:* Loam
- *4 to 26 inches:* Silty clay loam
- *26 to 38 inches:* Loam
- *38 to 60 inches:* Clay loam
- *60 to 80 inches:* Loam

Description of Wehadkee, Undrained

Setting

- *Landform:* Depressions on flood plains
- *Down-slope shape:* Concave
- *Across-slope shape:* Linear
- *Parent material:* Loamy alluvium derived from igneous and metamorphic rock

Properties and qualities

- *Slope:* 0 to 2 percent
- *Depth to restrictive feature:* More than 80 inches
- *Drainage class:* Poorly drained
- *Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)
- *Depth to water table:* About 0 to 12 inches
- *Frequency of flooding:* Frequent
- *Frequency of ponding:* None

- *Available water capacity:* High (about 9.9 inches)

Interpretive groups

- *Farmland classification:* Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- *Land capability (nonirrigated):* 6w
- *Hydrologic Soil Group:* B/D

Typical profile

- *0 to 8 inches:* Loam
- *8 to 43 inches:* Sandy clay loam
- *43 to 80 inches:* Sandy loam

Description of Wehadkee, Drained

Setting

- *Landform:* Depressions on flood plains
- *Down-slope shape:* Concave
- *Across-slope shape:* Linear
- *Parent material:* Loamy alluvium derived from igneous and metamorphic rock

Properties and qualities

- *Slope:* 0 to 2 percent
- *Depth to restrictive feature:* More than 80 inches
- *Drainage class:* Poorly drained
- *Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)
- *Depth to water table:* About 0 to 12 inches
- *Frequency of flooding:* Frequent
- *Frequency of ponding:* None
- *Available water capacity:* High (about 9.9 inches)

Interpretive groups

- *Farmland classification:* Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- *Land capability (nonirrigated):* 4w
- *Hydrologic Soil Group:* B/D

Typical profile

- *0 to 8 inches:* Loam
- *8 to 43 inches:* Sandy clay loam
- *43 to 80 inches:* Sandy loam

GoC—Goldston-Badin complex, 2 to 15 percent slopes

Map Unit Setting

- *Landscape:* Uplands
- *Elevation:* 200 to 650 feet
- *Mean annual precipitation:* 37 to 60 inches
- *Mean annual air temperature:* 59 to 66 degrees F
- *Frost-free period:* 200 to 240 days

Map Unit Composition

- *Goldston and similar soils:* 55 percent
- *Badin and similar soils:* 30 percent

Description of Goldston

Setting

- *Landform:* Hillslopes on ridges
- *Landform position (two-dimensional):* Backslope
- *Landform position (three-dimensional):* Side slope
- *Down-slope shape:* Linear
- *Across-slope shape:* Convex
- *Parent material:* Residuum weathered from metavolcanics and/or argillite

Properties and qualities

- *Slope:* 8 to 15 percent
- *Depth to restrictive feature:* 10 to 20 inches to paralithic bedrock; 20 to 40 inches to lithic bedrock
- *Drainage class:* Well drained
- *Capacity of the most limiting layer to transmit water (Ksat):* Very low to high (0.00 to 1.98 in/hr)
- *Depth to water table:* More than 80 inches
- *Frequency of flooding:* None
- *Frequency of ponding:* None
- *Available water capacity:* Very low (about 1.2 inches)

Interpretive groups

- *Farmland classification:* Not prime farmland
- *Land capability (nonirrigated):* 4s
- *Hydrologic Soil Group:* C

Typical profile

- *0 to 7 inches:* Very channery silt loam

- *7 to 11 inches:* Very channery silt loam
- *11 to 23 inches:* Weathered bedrock
- *23 to 80 inches:* Unweathered bedrock

Description of Badin

Setting

- *Landform:* Hillslopes on ridges
- *Landform position (two-dimensional):* Backslope
- *Landform position (three-dimensional):* Side slope
- *Down-slope shape:* Linear
- *Across-slope shape:* Convex
- *Parent material:* Residuum weathered from metavolcanics and/or argillite

Properties and qualities

- *Slope:* 8 to 15 percent
- *Depth to restrictive feature:* 20 to 40 inches to paralithic bedrock; 40 to 80 inches to lithic bedrock
- *Drainage class:* Well drained
- *Capacity of the most limiting layer to transmit water (Ksat):* Very low to high (0.00 to 1.98 in/hr)
- *Depth to water table:* More than 80 inches
- *Frequency of flooding:* None
- *Frequency of ponding:* None
- *Available water capacity:* Moderate (about 6.1 inches)

Interpretive groups

- *Farmland classification:* Not prime farmland
- *Land capability (nonirrigated):* 3e
- *Hydrologic Soil Group:* B

Typical profile

- *0 to 2 inches:* Channery silt loam
- *2 to 9 inches:* Channery silt loam
- *9 to 21 inches:* Channery silty clay loam
- *21 to 36 inches:* Silty clay
- *36 to 45 inches:* Weathered bedrock
- *45 to 80 inches:* Unweathered bedrock

GaC—Georgeville silt loam, 6 to 10 percent slopes

Map Unit Setting

- *Landscape:* Uplands

- *Elevation:* 200 to 750 feet
- *Mean annual precipitation:* 37 to 60 inches
- *Mean annual air temperature:* 59 to 66 degrees F
- *Frost-free period:* 200 to 240 days

Map Unit Composition

- *Georgeville and similar soils:* 90 percent
- *Minor components:* 5 percent

Description of Georgeville

Setting

- *Landform:* Hillslopes on ridges
- *Landform position (two-dimensional):* Summit, shoulder
- *Landform position (three-dimensional):* Side slope
- *Down-slope shape:* Linear
- *Across-slope shape:* Convex
- *Parent material:* Residuum weathered from metavolcanics and/or argillite

Properties and qualities

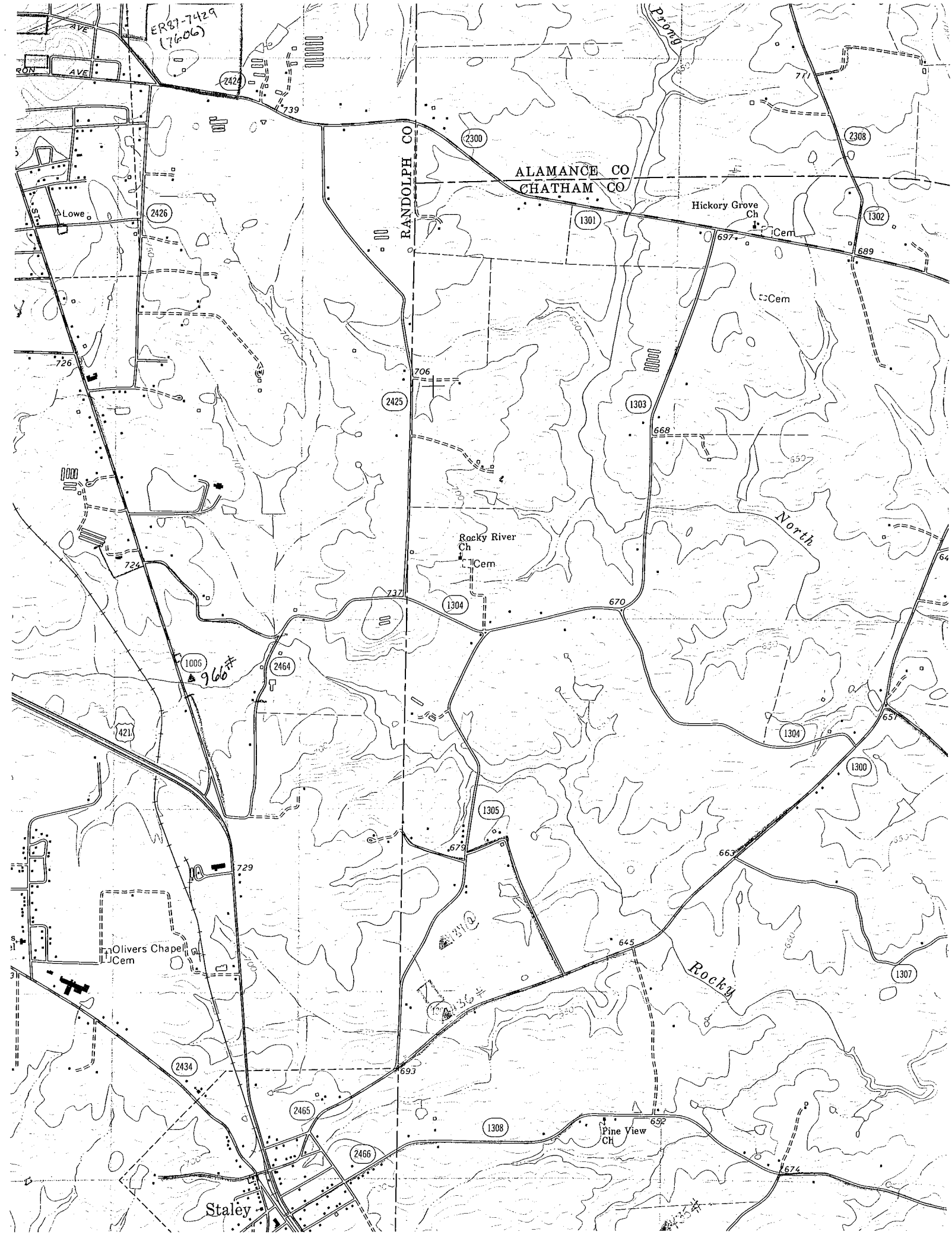
- *Slope:* 6 to 10 percent
- *Depth to restrictive feature:* More than 80 inches
- *Drainage class:* Well drained
- *Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)
- *Depth to water table:* More than 80 inches
- *Frequency of flooding:* None
- *Frequency of ponding:* None
- *Available water capacity:* High (about 9.2 inches)

Interpretive groups

- *Farmland classification:* Farmland of statewide importance
- *Land capability (nonirrigated):* 3e
- *Hydrologic Soil Group:* B

Typical profile

- *0 to 7 inches:* Silt loam
- *7 to 10 inches:* Silty clay loam
- *10 to 44 inches:* Clay
- *44 to 53 inches:* Silty clay loam
- *53 to 80 inches:* Loam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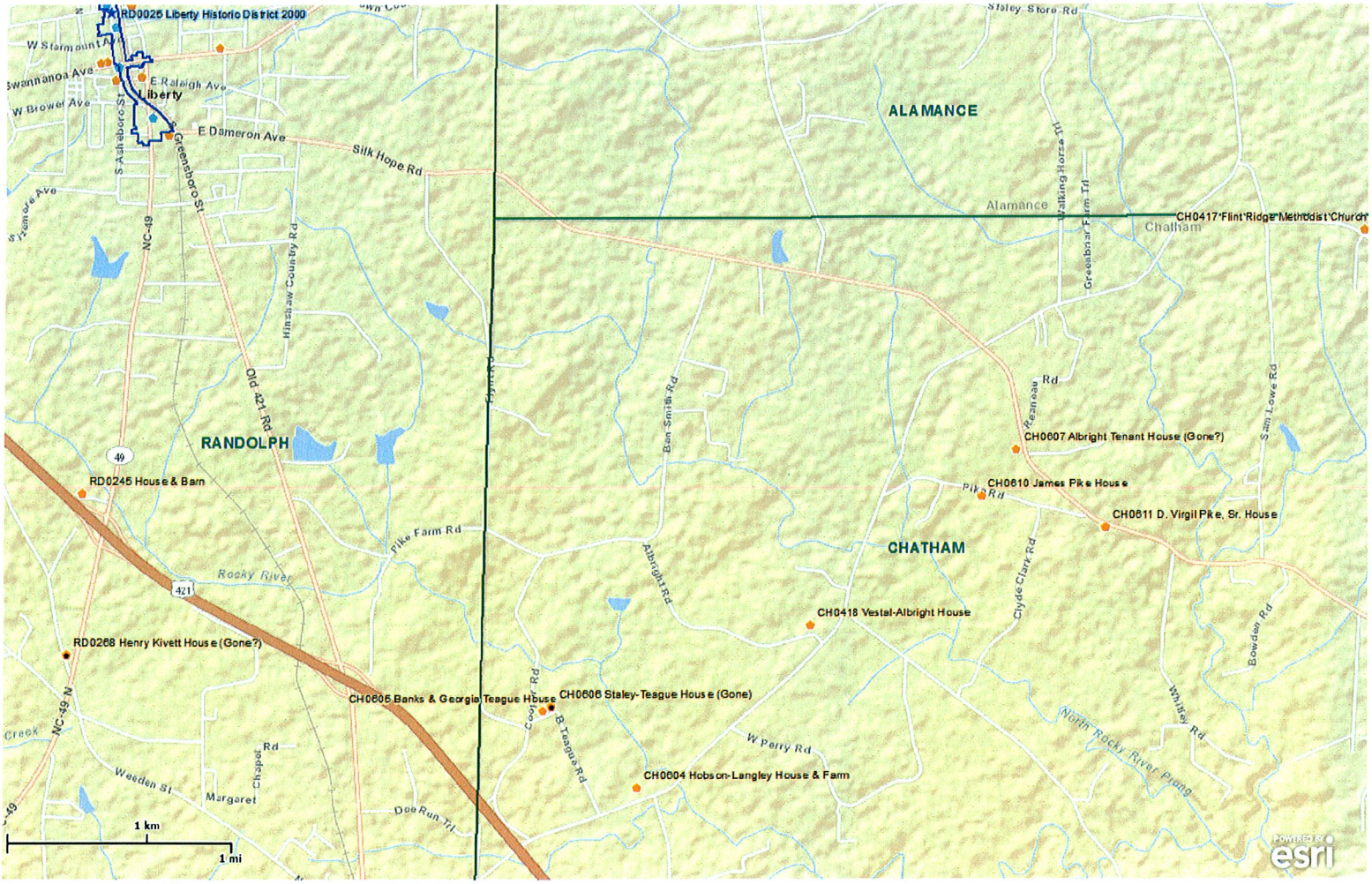
B-4729 Chatham



PROJECT TRACKING NO. (INTERNAL USE)

13-03-0046

REQUEST FOR CULTURAL RESOURCES REVIEW FORM

ENTERED MAR 14 2013

RECEIVED MAR 13 2013

MEMORANDUM TO:	Drew Joyner, Human Environment Unit 1598 Mail Service Center, Raleigh, NC 27699-1598
ATTENTION:	Matt Wilkerson, Archaeology Supervisor Mary Pope Furr, Historic Architecture Supervisor
FROM:	Dionne C. Brown Bridge Project Planning Engineer
SUBJECT:	Request for Cultural Resources Review
DATE:	January 2, 2013

PROJECT INFORMATION

Project No:	B-4729	*County:*	Chatham
WBS No:	38502.1.1	*Document:*	PCE or CE
F.A. No:	BRZ-1303(5)	*Funding:*	☐ State ☒ Federal
USGS Quad:	Liberty		

Project Description: Replacement of Bridge No. 306 on SR 1303 over Prong of Rocky River in Chatham County

Purpose & Need: Bridge is structurally deficient.

SCHEDULING AND CONTACT INFORMATION

Date Needed: February 4, 2013

Engineer: Dionne C. Brown *Tel* 707-6171 *Email* DCBROWN@NCDOT.GOV

DESIGN INFORMATION

Project Length:	Approx. 1000'		
Exist. R/W:	Assuming 60'	*Proposed R/W: 200'*	
Exist. Speed Limit:	?	*Proposed Speed Limit:*	?
Exist. X-Section:			
Detour Route:	Unknown at this time		
Structure Type:	Bridge	*Year Built:*	*1971*

HISTORIC ARCHICTECTURE 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-4729	***County***:	Chatham
WBS No.:	38502.1.1	***Document Type:***	PCE or CE
Fed. Aid No:	BRZ-1303(5)	***Funding***:	☐ State ☒ Federal
Federal Permit(s):	☐ Yes ☐ No	***Permit Type(s)***:	

Project Description:
Replace Bridge No. 306 on SR 1303 (Ben Smith Rd) over Prong of Rocky River in Chatham County. Project length is approximately 1,000 feet. The existing right-of-way is assumed to be 60 feet and the proposed right-of-way is 200 feet total, 100 feet to each end from the centerline.

SUMMARY OF HISTORIC ARCHICTECTURE AND LANDSCAPES REVIEW

Description of review activities, results, and conclusions:
Review of HPO quad maps, HPOweb GIS mapping, historic designations roster, and indexes was conducted on 3/28/13. Based on this review, there are no existing NR, SL, LD, DE, or SS properties in the Area of Potential Effects (APE). Built in 1971, Bridge No. 306 has not yet been evaluated for listing to the National Register of Historic Places (NRHP) according to the NCDOT Historic Bridge Inventory due to insufficient age. The CRS also reviewed Chatham County GIS and tax records which revealed no properties over the age of fifty years within the project APE. Since there are no properties located within the project APE, a survey will not be required for Historic Architecture. The APE lies in the upper northwest corner of Chatham County and consists of mostly cleared farmland sparsely dotted with residences and interspersed with heavily wooded tracts. Thus, a survey is not required for this project.

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:
HPO quad maps, HPOweb GIS mapping, Google maps and Chatham County property records are considered valid tools for the purposes of determining the likelihood of historic resources being present. A survey is not required for this project.

SUPPORT DOCUMENTATION

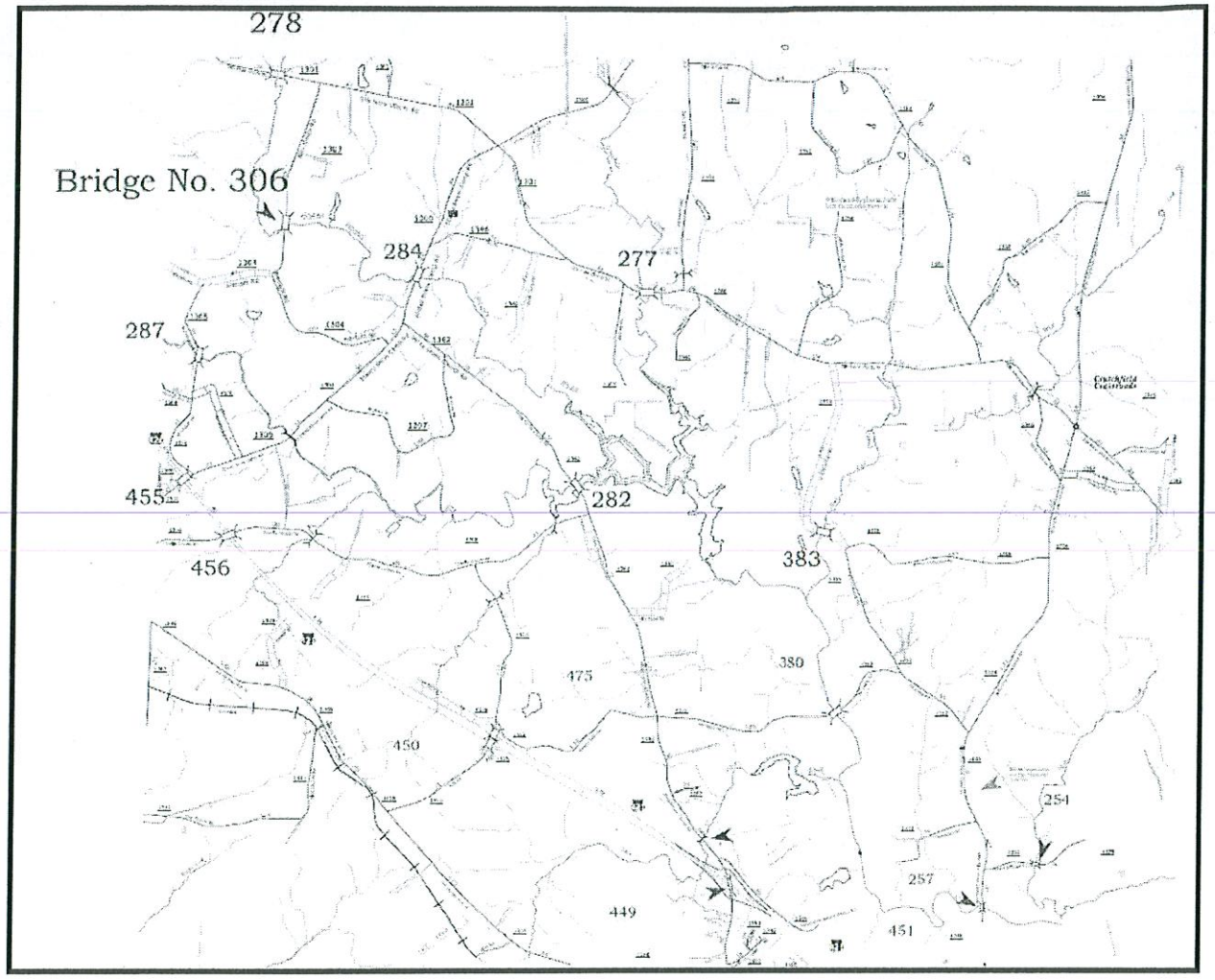
☒Map(s) ☐Previous Survey Info. ☐Photos ☐Correspondence ☐Design Plans

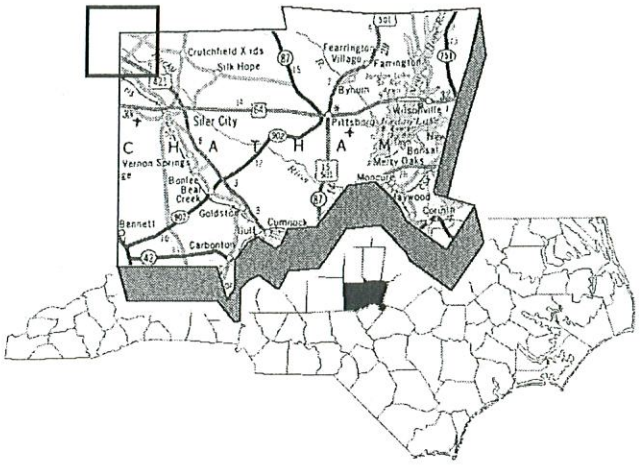
FINDING BY NCDOT ARCHITECTURAL HISTORIAN

Historic Architecture and Landscapes -- NO SURVEY REQUIRED

Megan Privett 4/1/13

NCDOT Architectural Historian Date



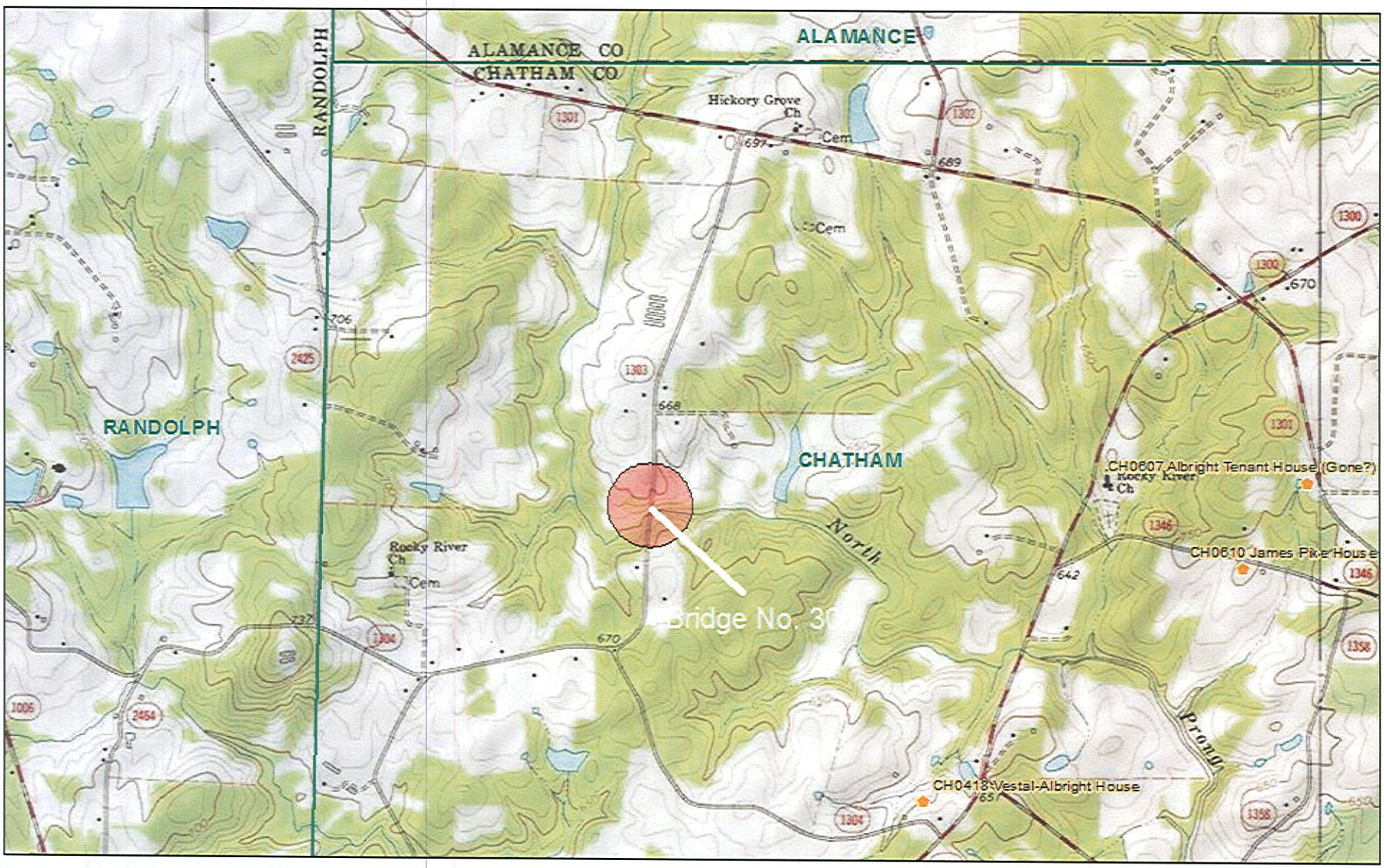


NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT & ENVIRONMENTAL ANALYSIS UNIT

CHATHAM COUNTY
Replace Bridge No. 306 on SR 1303
OVER NORTH PRONG OF ROCKY RIVER
B-4729

Figure 1

NC HPOweb, Chatham County



March 28, 2013

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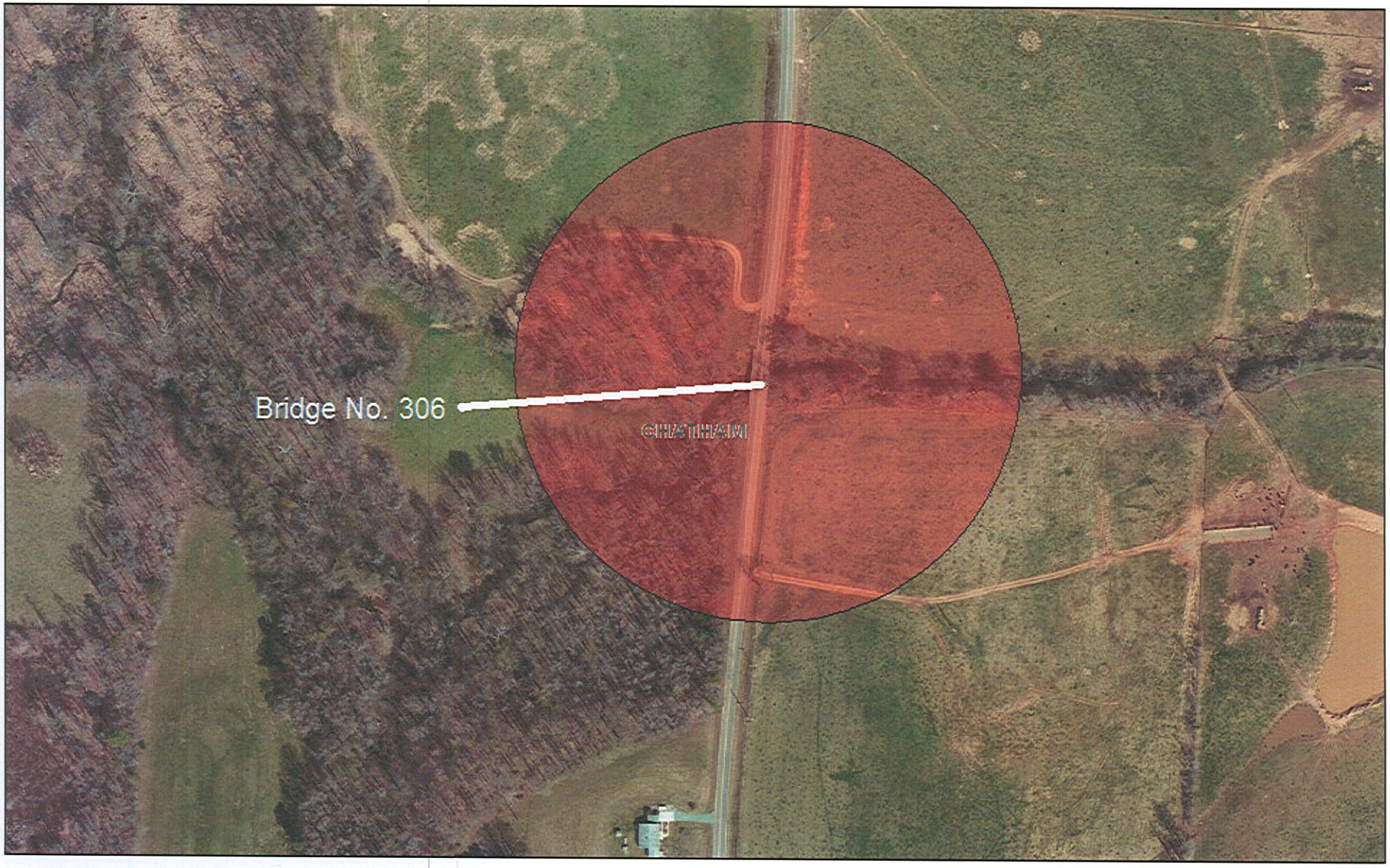
- <all other values>
- NR Individual Listing
- NR Listing, Gone

NC HPOweb, Chatham County



March 28, 2013

- <all other values>
- NR Individual Listing
- NR Listing Gone

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Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

APPENDIX C: LOCAL OFFICIAL INPUT FORMS

NC Department of Transportation Community Studies Group, Human Environment Section Local Planner Input Form for STIP Project B-4729 COMMUNITY IMPACT ASSESSMENT	
Teresa Gresham Kimley-Horn and Associates Teresa.gresham@kimley-horn.com (919) 677-2194	**Jason Sullivan** Chatham County Planning Director Jason.sullivan@chathamnc.org (919) 542-8233

Please rate the overall impact on local Planning objectives if the bridge were closed for up to a year:

- ☒ No Impact
- ☐ Low Impact
- ☐ Moderate Impact
- ☐ High Impact

Check all that apply & provide a detailed explanation of your response in the field provided.

☐	Are there any known plans for development in the vicinity of the project? No new projects or subdivisions have been approved in at least past 7 years.
☐	Based on your knowledge of the project area, do you have any concerns with the condition/capacity of potential detour routes, or the location of resources along these routes? Albright Road to Staley Snow Camp Road – not a problem.
☐	Are there any future time periods or events that you know of where bridge closure would be of particular concern? No, rural area.
☒	Are there any adopted plans for either pedestrian, greenway, bicycle, or transit facilities in the area? Please provide a description of how the plan applies to the project area, the title of the plan, its year of adoption, and the current status of its implementation. Pedestrian Plan. Bicycle plan – no routes shown on this road. An existing shared road on Staley Snow Camp Road, and a proposed shared road on Silk Hope Liberty Road east of Staley Snow Camp Road.
☒	Are there any other adopted plans for growth that could directly affect this project? Chatham-Cary Joint Land Use Plan won't apply to this area. Other plans have not been adopted by Board. Land Conservation Development Plan, Strategic Plan would apply.
☐	Are you aware of any special populations/ communities (e.g. minority, low-income, Limited English Proficiency) existing around the project? Don't know, but not many residents. Large population of Hispanic in Siler City, doesn't extend this far. Just farmland and large lots by the bridge.
☐	Are there any FEMA buyout properties in the vicinity of the project? Don't know. Dan LaMontaigne could answer, 919-542-0945.
☐	Does the project lie within a VAD or EVAD District? Most current map does not show anything in that area.
☐	To your knowledge, are there any parcels in the immediate vicinity of the bridge that contain underground storage tanks or could otherwise potentially have contaminated soil or groundwater due to commercial or industrial use, e.g., dry cleaners or gas stations? (Past or Present) Not aware of. May want to check with Fire Marshall's Office. Central Permitting, Jenny Williams, 919-542-8226.

☐	Is there anyone else you feel should be contacted regarding this project (i.e. local officials or stakeholders)? Sam Gross, County Cooperative Extension Director, 919-542-8202. If there are any impacts, they'd be on the agricultural community. Sam Gross: Biggest impact on Keith Tuttle (Keith Tuttle Livestock). He buys and sells cattle, has cattle trucks in and out almost daily. Should contact Keith from a PR perspective (before construction starts).
☐	Are there any additional comments you have for this project? Right on edge of floodplain.

NC Department of Transportation Community Studies Group, Human Environment Section
Local Schools Input Form for
STIP Project B-4729 COMMUNITY IMPACT ASSESSMENT

Teresa Gresham Kimley-Horn and Associates Teresa.gresham@kimley-horn.com (919) 677-2194	**Joel Caviness** Chatham County Schools Director of Transportation 919-542-2715

Please rate the overall impact on school transportation services if the bridge were closed for up to a year:

- ☐ No Impact
- ☒ Low Impact
- ☐ Moderate Impact
- ☐ High Impact

Check all that apply & provide a detailed explanation of your response in the field provided.

☐	How many school bus crossings over this bridge are there per day? (total # of daily buses, total # daily of trips) 2 buses that each cross it 4 times a day.
☐	Based on your knowledge of the project area, do you have any concerns with the condition/capacity of potential detour routes, or the location of resources along these routes? Albright/Staley Snow Camp/Silk Hope Liberty – buses aren't allowed on low-tonnage bridges, don't know if there are any bridges on the detour route with that restriction.
☐	Are there any future time periods or events that you know of where bridge closure would be of particular concern? During the summer would be preferred.
☐	If there any other concerns you have regarding the potential impact of this project on school transportation services, or any additional comments? Please be as specific as possible. No.

NC Department of Transportation Community Studies Group, Human Environment Section Local EMS Input Form for STIP Project B-4729 COMMUNITY IMPACT ASSESSMENT	
Teresa Gresham Kimley-Horn and Associates Teresa.gresham@kimley-horn.com (919) 677-2194	**Jim Hasbrouck** Chatham County EMS Director (919) 542-7377

Please rate the overall impact on Emergency Response services if the bridge were closed for up to a year:

- ☒ No Impact
- ☐ Low Impact
- ☐ Moderate Impact
- ☐ High Impact

Check all that apply & provide a detailed explanation of your response in the field provided.

☐	If there are concerns please specify. Be as specific as possible. (e.g. location in a high call volume area, closure could affect response to schools, weight restrictions, expected new development in the area, coordination with partner agency required to facilitate service) There are several work arounds, so not concerned about closing that road during construction.
☐	Are there any future time periods or events that you know of where bridge closure would be of particular concern? No.
☐	If there any other concerns you have regarding the potential impact of this project on EMS services, or any additional comments? Please be as specific as possible. No.