Forsyth County Bridge No. 95 on SR 1100 (Lasater Road) over Blanket Creek Federal Aid Project No. BRZ-1100(23) W.B.S. No. 42313.1.1 T.I.P. No. B-5152

CATEGORICAL EXCLUSION

UNITED STATES DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION

AND

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

DATE FOR Richard W. Hancock, PE FOR Manager, Project Development & Environmental Analysis Unit

John F. Sullivan, III, Division Administrator Federal Highway Administration FOLJohn

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CATEGORICAL EXCLUSION



12/9/15

December 2015

Document Prepared By: HDR Engineering, Inc. of the Carolinas 555 Fayetteville Street, Suite 900 Raleigh, North Carolina 27601

DATE

Kirk Stull, P.E. Consultant Contract Manager

For the North Carolina Department of Transportation

12/11/15 DATE

Gene Tarascio Project Development Engineer

Beverly Robinson Project Development Group Leader

PROJECT COMMITMENTS North Carolina Department of Transportation Bridge No. 95 on SR 1100 Over Blanket Creek Forsyth County Federal Aid Project No. BRZ-1100(23) WBS No. 42313.1.1 TIP No. B-5152

NCDOT Division 9 Construction, Resident Engineer's Office – Onsite Travel Delays

An offsite detour is not anticipated for this project as any detours will be accommodated onsite; however, Winston-Salem/Forsyth County Schools will be notified at least one month prior to the start of construction in case the school system would like to reroute buses due to potential delays.

In order to allow emergency services time to prepare for possible response time delays due to construction, Village of Clemmons Fire Department, Forsyth County Emergency Services, and Forsyth County Sheriff's Department will be contacted one month prior to the start of construction.

NCDOT Hydraulics Unit – FEMA Coordination

The NCDOT Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP), to determine status of the 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).

NCDOT Division 9 - FEMA

This project involves construction activities on or adjacent to Federal Emergency Management Agency regulated streams. Therefore, the NCDOT Division 9 shall submit sealed as-built construction plans to the NCDOT Hydraulics Unit upon completion of project construction, certifying that the drainage structures and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

NCDOT Project Development and Roadway Design - Sidewalk Coordination

Coordination with the Village of Clemmons will be necessary prior to construction in regards to Village plans to bring pedestrian and bicycle users of a proposed Yadkin River Greenway segment to Lasater Road at grade.

NCDOT Biosurveys Group - Northern Long-Eared Bat

NCDOT will need to determine whether suitable habitat exists within the study area for the northern long-eared bat (NLEB) and complete surveys if needed. Construction authorization will not be requested until Endangered Species Act compliance is satisfied for the NLEB.

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INTRODUCTION: Bridge No. 95 is included in the latest approved North Carolina Department of Transportation (NCDOT) Transportation Improvement 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. 95 has a sufficiency rating of 26.27 out of a possible 100 for a new structure. Classified as a fracture critical structure, the bridge would collapse with the loss of a single member. The bridge is considered structurally deficient due to a superstructure condition of 4 out of 9 and a substructure condition of 4 out of 9 according to Federal Highway Administration (FHWA) standards.

With an increase in vehicular volume, a clear roadway width of 20 feet, 2 inches and an aging structure (80 years old), the bridge is approaching the end of its useful life and is in need of replacement. Bridge No. 95 carried 1,600 vehicles per day in 2009 with 2,200 vehicles per day projected for Design Year 2035. The fracture critical bridge with substandard deck width, bridge railing, and lack of approach guardrail is becoming increasingly problematic and replacement of the bridge will result in safer traffic operations.

Components of both the steel superstructure and concrete substructure have experienced an increasing degree of deterioration that can no longer be addressed by maintenance activities. The posted weight limit on the bridge is down to 16 tons for single vehicles and 22 tons for truck-tractor semi-trailers.

II. EXISTING CONDITIONS

The project is located within the municipal limits of the Village of Clemmons in Forsyth County, near the intersection of SR 1100 (Lasater Road) and North Lakeshore Drive (see Figure 1). Development in the area is residential in nature.

SR 1100 is classified as Local in the Statewide Functional Classification System and it is not a National Highway System Route.

In the vicinity of the bridge, SR 1100 has an 18-foot pavement width with 6-foot variable grass shoulders. The roadway grade is in a sag vertical curve through the project area. The existing bridge is on a tangent with a curve immediately to the east. The roadway is situated approximately 16.0 feet above the creek bed.

Bridge No. 95 is a single span structure that consists of a reinforced concrete deck on a steel girder floorbeam system with an asphalt-wearing surface. The end bent abutment walls consist of mass concrete with no interior bents. The substructure appears to share a foundation with the adjacent house and spillway. The existing bridge was constructed in 1935. The overall length of the structure is 41 feet. The clear roadway width is 20 feet, 2 inches. The posted weight limit on this bridge is 16 tons for single vehicles and 22 tons for truck-tractor semi-trailers (TTST's).

There are no utilities attached to the existing superstructure, but overhead utility lines and a 6" ductile iron water line cross Blanket Creek just south of the bridge. The water line is supported by an I-beam that spans the creek and is supported by bridge abutments on either end. There are underground communication lines and underground power service connections throughout the project. The utilities in conflict at the existing bridge are power lines, telephone lines, fiber optic cables, water lines, sewer lines, and CATV lines.

The current traffic volume of 1,600 vehicles per day (VPD) is expected to increase to 2,200 VPD by the year 2035. The projected volume includes one percent TTST and three percent dual-tired vehicles (DT). The posted speed limit is 35 miles per hour in the project area with a Reverse Turn warning sign and 20 miles per hour advisory speed posted for the eastbound approach to the bridge. Seven school buses cross the bridge daily on their morning and afternoon routes resulting in 9 total daily trips.

There were nine accidents reported in the vicinity of Bridge No. 95 during a recent ten-year period (July 1, 2005 through June 30, 2015). Four accidents could possibly be considered associated with the alignment or geometry of the existing bridge and its approach roadways. Of the four, speeding and the suspicion of alcohol contributed to one of the accidents. The remaining three accidents occurred on roadway and/or bridge alignment that will be replaced or improved as part of the B-5152 project.

This section of SR 1100 is part of NC Bike Route 2 (Mountains to Sea), a 700-mile route that crosses the state. In addition, the Clemmons Transportation Plan adopted in 1997 designates SR 1100 as a bicycle route. Neither sidewalks nor bike lanes are present on the existing bridge; however, the Village of Clemmons noted the road is heavily used by both bicyclists and pedestrians and the grades and narrow shoulders cause safety issues.

III. ALTERNATIVES

A. Preferred Alternative (Alternative 3)

Bridge number 95 will be replaced with a bridge approximately 130 feet in length. The length is based on preliminary design information and is set by hydraulic requirements. The bridge will be of sufficient width to provide for two 11-foot travel lanes, two 5-foot bike lanes, and a 5.5-foot sidewalk on the north side. The replacement bridge will be located on a new, parallel alignment south of the existing structure. This requires roadway curvature on each end that mimics the existing curvature, but results in new roadway grades on the approaches and

bridge. This alternative provides a more favorable geometry on the new bridge and constructability. North Lakeshore Drive will be extended and tied into Lasater Road to accommodate the new roadway alignment.

Bridge No. 95 is located along the designated bicycle route, NC Bike Route 2 (Mountains to Sea) and noted by the Village of Clemmons is frequently used by pedestrians. As a result, the replacement structure will provide accommodations for both. A connector to a proposed Yadkin River Greenway segment is to terminate immediately south of the proposed bridge and the Village plans to make accommodations to bring pedestrian and bicycle users from the greenway to Lasater Road at grade.

The roadway approaches on both ends of the bridge will be constructed with a 30-foot pavement width to provide for two 11-foot travel lanes, a 4-foot paved shoulder on the south side of the road, a 4-foot paved shoulder on the north side of the road with a 2.5-foot curb and gutter. The curb and gutter extends approximately 240 feet to the west and approximately 270 feet to the east of the proposed bridge. Per NCDOT Design Policy, the shoulder width will include three additional feet where guardrail is required. A 10-foot berm is included on the north side of the approach roadways to accommodate for potential future sidewalks. A brief temporary offsite detour may be necessary due to traffic control needs near the end of construction.

Staff from NCDOT Roadway Design, Project Development, Hydraulics, Structures, Natural Environment, and Division 9 all concur this is the preferred alternative.

B. Alternatives Eliminated from Further Consideration

Alternative 1

Alternative 1 involves creating a straight connection between tie-in points west and east of the Blanket Creek crossing. This would result in a simplified roadway alignment; however, the new bridge would cross the creek at an odd angle. This skew lengthens the new bridge and eliminates the use of an economical cored slab design. In addition, this alignment does not provide the desired horizontal clearance from the existing bridge and dam embankment.

Alternative 2

Alternative 2 is a "no-build" alternative that closes the existing bridge and uses existing roadways as a permanent detour. The Lasater Road intersection with North Lakeshore Drive on the west side of the bridge would be realigned to create continuous movements. This alternative would result in lower cost, as no new replacement structure is needed. However, an important connection in the roadway network for the area would be lost. In addition, the NC Bike Route 2 (Mountains to Sea) would need to be rerouted in this Alternative. The permanent detour could be up to 5.5 miles long with approximately 13 minutes additional travel time. Drivers would likely divert onto residential streets that are not state-maintained roads and are not built for higher traffic volumes.

Do Nothing Alternative

The "do-nothing" alternative will eventually necessitate closure of the bridge and would result in a roadway network similar to Alternative 2. This is not acceptable as SR 1100 is an integral part of the existing network and serves as a segment of NC Bike Route 2 (Mountains to Sea).

Replace in Place Alternative

A "replace-in-place" alternative is not feasible due to the aforementioned deterioration of the existing substructure and inability to remove the existing structure without disturbing the adjacent house and spillway.

IV. ESTIMATED COSTS & SCHEDULE

The estimated schedule and costs, based on 2015 prices, are as follows:

	Alternative 1	Alternative 2	Alternative 3 (Preferred)		
Structure	\$474,000	\$0	\$414,750		
Roadway Approaches	487,165	246,955	483,027		
Detour Structure and Approaches	0	unknown	0		
Structure Removal	23,400	0	23,400		
Misc. & Mob.	316,435	122,220	298,163		
Eng. & Contingencies	248,000	57,000	224,000		
Total Construction Cost	\$1,549,000	\$426,175	\$1,443,340		
Right-of-way Costs	unknown	unknown	unknown		
Right-of-way Utility Costs	151,000	73,825	106,660		
Total Project Cost Estimate	\$1,700,000	\$500,000	\$1,550,000		
Right-of-Way Acquisition	Fiscal Year 2016				
Construction	Fiscal Year 2017				

V. NATURAL ENVIRONMENT

The following paragraphs summarize the natural resources findings to date.

Physical Characteristics

The study area lies in the piedmont physiographic region of North Carolina. Topography in the project vicinity is comprised of gently rolling hills with narrow, level floodplains along streams. Elevations in the study area range from 500 to 700 ft. above sea level. Land use in the project vicinity consists primarily of agriculture, interspersed with residential development along roadways and forestland along stream corridors.

Water Resources

Water resources in the project study area are part of the Yadkin-Pee Dee River basin (United States Geological Survey [USGS] Hydrologic Unit 03040101). Three streams

were identified in the project study area. Blanket Creek, the only named stream, flows out of Lasater Lake and carries a best usage classification of WS-IV (NC Division of Water Resources [NCDWR] Index Number 12-90-(2)). As tributaries to Blanket Creek, the remainder inherit its classification. Approximately 0.57 acre of Lasater Lake is also located within the project study area. The lake is an impoundment of Blanket Creek, which flows into the lake northeast of the project study area and flows out of the lake within the project study area.

There are no designated anadromous fish spawning areas or Primary Nursery Areas identified by National Marines Fisheries Service present in the project study area. Based on the North Carolina 2014 Final 303(d) list of impaired waters, there are no impaired waters located within the project study area, nor does the project study drain into any 303(d) waters within 1.0 mile downstream. No High Quality Waters, Outstanding Resource Waters, or WS-I or WS-II waters occur within one mile of the project study area.

Terrestrial Communities

Five terrestrial communities were identified in the project study area: maintained/ disturbed areas, Piedmont/Mountain bottomland forest, Piedmont/Mountain semipermanent impoundment, Piedmont/Low Mountain alluvial forest, and dry oakhickory forest. A brief description of each community type follows.

Community	Coverage (ac.)
Maintained/ Disturbed	12.2
Dry Mesic Oak-Hickory Forest	2.6
Piedmont/Mountain Bottomland Forest	0.9
Piedmont/Mountain Semipermanent Impoundment	0.1
Piedmont/Low Mountain Alluvial Forest	0.3
Total	16.1

 Table 1. Terrestrial Communities

Jurisdictional Topics

Surface Waters and Wetlands

Three jurisdictional streams and one lake were identified in the study area (Table 2). The location of these streams and lake are shown on Figure 2. The physical characteristics and water quality designations of each jurisdictional stream are detailed in the Natural Resources Technical Report (NRTR) Addendum, NCDOT's technical documentation available at NCDOT's Natural Environment Section Century Center offices in Raleigh. All jurisdictional streams in the study area have been designated as warm water streams for the purposes of stream mitigation.

Map ID	Length (ft.)	Classification	Compensatory Mitigation Required	River Basin Buffer
Blanket Creek	421	Perennial	Yes	Not Subject
SA	200	Perennial	Yes	Not Subject
SB/SC	573	Perennial	Yes	Not Subject
Total	1194			

Table 2. Stream Summary

Three jurisdictional wetlands were identified within the study area. Wetland classification and quality rating data are presented in Table 3 below. All wetlands in the study area are within the Yadkin-Pee Dee River basin (USGS Hydrologic Unit 03040101).

Map ID	NCWAM Classification	Hydrologic Classification	NCDWR Wetland Rating	Area (ac.)
WA	Headwater Forest	Riparian	43	0.06
WB	Headwater Forest	Riparian	36	0.13
WC	Bottomland Hardwood Forest	Riparian	34	0.09
			Total	0.28

Table 3. Wetlands Summary

Permits

A Nationwide Permit (NWP) 23 will be applicable for the proposed project. A NWP 33 may also apply for temporary construction activities such as stream dewatering or the construction of work bridges. If a Section 404 permit is required, then a Section 401 Water Quality Certification from NCDWR will be needed as well.

Wetland and Stream Mitigation

NCDOT will attempt to avoid and minimize impacts to streams and wetlands to the greatest extent practicable during the final design and construction of the preferred alternative. This includes constructing retaining walls or utilizing steeper slopes, where practicable to keep construction impacts out of streams. On-site stream mitigation opportunities will be investigated as designs of the preferred alternative is investigated. If on-site mitigation is not feasible, mitigation will be provided by the NC Department of Environment and Natural Resources' Division of Mitigation Services (DMS).

Federally Protected Species

As of July 24, 2015, the United States Fish and Wildlife Service (USFWS) lists three federally-protected species for Forsyth County (Table 4).

Table 4. Federally protected species listed for Forsyth County

Scientific Name Common Name		Federal Status	Habitat Present	Biological Conclusion
Glyptemys muhlenbergii	Bog turtle	T(S/A)	No	Not Required
Myotis septentrionalis	Northern long-eared bat	Т	Unknown	Unresolved
Cardamine micranthera	Small-anthered bittercress	E *	No	No Effect

E - Endangered

T - Threatened

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

* - Historic record (the species was last observed in the county more than 50 years ago)

Bog turtle (*Glyptemys muhlenbergii*)

Species listed as threatened due to similarity of appearance do not require Section 7 consultation with the USFWS. However, this project is not expected to affect the bog turtle because no suitable habitat is present within the study area. Freshwater wetlands within the study area are forested riparian systems. A review of NCNHP records, updated July 1, 2015, indicates no known bog turtle occurrence within 1.0 mile of the study area.

Northern long-eared bat (*Myotis septentrionalis*)

NCDOT has not yet determined whether suitable habitat exists within the study area for the northern long-eared bat (NLEB). The habitat assessment and, if needed, surveys for the NLEB will be the responsibility of the NCDOT – Biosurveys Group. Construction authorization will not be given and work on the Project will not start until consultation with the USFWS is complete. NCDOT will continue to survey and coordinate with the USFWS until concurrence is obtained.

Small-anthered bittercress (Cardamine micranthera)

Suitable habitat for small-anthered bittercress is not present in the study area. The species is endemic to the Dan River basin in northern Forsyth County and is not known to occur in the Yadkin River basin. Therefore, a survey was not conducted. A review of NCNHP records, updated July 1, 2015, indicates no known occurrences within 1.0 mile of the study area.

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. Suitable foraging habitat (Lasater Lake) was found within 1.0 mile of the study area. The study area was surveyed for indications of the species but none was observed. Additionally, a review of the NCNHP database on July 1, 2015 revealed no known occurrences of this species within 1.0 mile of the project study area. This project will not affect the bald eagle.

Unresolved

No Effect

Not Required

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 Section, under the provisions of a Programmatic Agreement with FHWA, NCDOT, the North Carolina State Historic Preservation Office, Office of State Archaeology and the Advisory Council on Historic Preservation (effective July 1, 2009), reviewed the proposed project and determined a survey was required for Lasater Mill (FY 0205) and environs. NCDOT surveyed the project area in 2010, culminating in a determination in August 2010 that the Lasater Mill had lost integrity and is not eligible. No other potentially-eligible properties were identified. A 2015 follow-up review was provided due to an expanded study area, which resulted in a "No Historic Properties Affected" finding (see NCDOT forms dated July 1, 2015 and August 4, 2010).

Archaeology

NCDOT – Human Environment Section, 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. NCDOT archaeologists performed a file review and pedestrian survey in 2010 and determined no historic properties would be affected. In 2015 a new survey was requested due to an enlarged study area. NCDOT archaeologists conducted a file review, followed up by a pedestrian survey and systematic shovel testing, which ultimately determined no historic properties would be affected (see NCDOT forms dated August 19, 2015 and May 13, 2010).

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. There are no soils classified as prime, unique, or having state or local importance in the vicinity of the project. Therefore, the project will not involve the direct conversion of farmland acreage within these classifications.

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

This project is an air quality neutral project in accordance with 40 CFR 93.126. It is not required to be included in the regional emissions analysis (if applicable) and project level CO or PM2.5 analyses are not required. This project will not result in any meaningful changes in traffic volumes, 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. Therefore, 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 MSATs. Any burning of vegetation shall be performed in accordance with applicable local laws and regulations of the North Carolina State Implementation Plan (SIP) for air quality compliance with 15 NCAC 2D.0520.

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.

This project has been determined to be a Type III Noise Project and therefore, no traffic noise analysis is required to meet the requirements of 23 CFR 772.

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 local, state, and federal regulatory records by the GeoEnvironmental Section revealed no sites with a Recognized Environmental Concern (REC) within the project limits. RECs are most commonly underground storage tanks, dry cleaning solvents, landfills and hazardous waste disposal areas.

Forsyth County is a participant in the National Flood Insurance Program. There are no practical alternatives to crossing the floodplain area. A shift in alignment will be required and will result in an increased impact area, but will be offset by a longer bridge span and proposed excavation of slopes along Blanket Creek. 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: N.C. Department of Environment and Natural Resources' Division of Water Resources, North Carolina Wildlife Resources Commission, and the United States Environmental Protection Agency.

The N.C. Department of Environment and Natural Resources: Division of Water Resources provided general comments regarding bridge replacement projects and project specific comments in a memorandum dated October 2, 2009. The project specific comments stated the project site is within one mile and draining to the Yadkin River. On the draft 2008 303(d) list, this section of the Yadkin are class WS-IV; 303(d) waters of the State. The Yadkin River is on the 303(d) list for impaired use for aquatic life due to turbidity. The Division of Water Resources (DWR) is very concerned with sediment and erosion impacts that could result from this project. DWR recommends that the most protective sediment and erosion control BMPs be implemented in accordance with *Design Standards in Sensitive Watersheds* to reduce the risk of nutrient runoff to Yadkin River. DWR requests that road design plans provide treatment of storm water runoff through best management practices as detailed in the most recent version of NC DWR's *Stormwater Best Management Practices*.

Response: NCDOT will provide treatment of storm water runoff per NCDOT's *Stormwater Best Management Practices Toolbox.*

Neither Blanket Creek nor the section of the Yadkin River that Blanket Creek connects to are included on the 2014 Final 303(d) list for any impairments, so the Design Standards in Sensitive Watersheds do not apply to this project. Standard Erosion and Sedimentation Control BMPs will be utilized during construction.

The **N.C. Wildlife Resources Commission** in a 2009 letter provided standard recommendations for bridge replacement projects. No special concerns were noted for the project.

Response: NCDOT will be replacing the existing bridge with a new bridge and adhere to the N.C. Wildlife Resources Commission's recommendations as applicable.

The United States Environmental Protection Agency in an email dated September 4th, 2009, provided comments for the proposed project. EPA prefers structures that span the waterbody and efforts should be made if possible to also span or avoid any wetlands or other aquatic resources in the project area. Also generally preferred is the replacement of a bridge in the same location, either with road closure and off-site detour, or staged construction. If a temporary on-site detour is required, it should be designed to avoid impacts to wetlands or other aquatic resources. Bridge supports should not be placed in the stream, if possible. Bridge deck drains should not discharge directly into the stream, and storm water should be pre-treated prior to discharge to a stream or wetland.

Response: The proposed bridge will span Blanket Creek with no supports placed in the creek. Due to roadway improvements and the potential problems caused by removing the existing bridge structure, the replacement bridge will be in a new location downstream and parallel to the existing bridge.

No other project specific agency documentation was provided to be included in this CE document.

IX. PUBLIC INVOLVEMENT

A letter was provided by NCDOT to all property owners affected directly by this project in March 2015. Property owners were invited to comment and no comments have been received to date as a result of this specific mailing.

A Public Meeting was conducted on Monday, September 14th, 2015 at Morgan Elementary School in Clemmons. Postcard announcements were mailed out in late August to residents and property owners in the project vicinity. Forty-eight total attendees were recorded with 34 citizens, 11 NCDOT representatives, and 3 NCDOT consultant staff. Citizens were invited to submit comments in advance of the meeting and for two weeks after the meeting. Three comment sheets were submitted at the meeting, three other written comments were received otherwise, and one noted verbal comment. A comment response letter has been prepared and will be provided to the respondents.

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.







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

Forsyth County Replace Bridge No. 95 on SR 1100 over blanket Creek B-5152









ALL A STATE









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-5152 (Resubm	nit)	County	v:	Fors	yth	
WBS No:	42313.1.1		Docun	ient:	CE		
F.A. No:	BRZ-1100(23)		Fundir	ıg:		tate	Federal
Federal Permit Requ	ired?	Xes Yes	🗌 No	Permit Ty	vpe:	NWP?	

Project Description: The NCDOT proposes to replace Bridge No. 95 on SR 1100 (Lasater Road) over Blanket Creek in Forsyth County. Bridge No. 95 was built in 1935, and is considered to be structurally deficient and functionally obsolete. This project was initially reviewed as part of the NCDOT's Programmatic Agreement in April/May 2010. The original Study Area has since been enlarged to accommodate a potential roadway alignment south of the existing bridge. A detour has not been determined. Based on its size and orientation, the new Study Area will encompass approximately 735,782 square feet or about 16.89 acres, inclusive of the existing roadway and the existing structure to be replaced.

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 were required for this project.
- Subsurface investigations did not reveal the presence of any archaeological resources.
- Subsurface investigations did not reveal the presence of any archaeological resources considered eligible for the National Register.
- All identified archaeological sites located within the APE have been considered and all compliance for archaeological resources with Section 106 of the National Historic Preservation Act and GS 121-12(a) has been completed for this project.
- There are 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:

A map review and site file search was conducted at the Office of State Archaeology (OSA) on Thursday, June 11, 2015. An archaeological survey at this particular bridge location has never been conducted; yet a reconnaissance of the project area was conducted on April 22, 2010 as part of the initial PA review. One (1) archaeological site (a stone dam located about 1,600 feet downstream from the existing bridge on

10-03-0174

Blanket Creek) has been recorded within one-half (1/2) mile of the proposed project. Several other archaeological sites have also been recorded near the Fair Oaks Drive/Harper Road interchange with I-40. Digital copies of HPO's maps (Clemmons Quadrangle) as well as the HPOWEB GIS Service (http://gis.ncdcr.gov/hpoweb/) were last reviewed on Monday, June 22, 2015. Although the Lasater Mill (FY0205 – a 1933 stone grist mill) is located directly within the Study Area, intact archaeological deposits associated with the mill are not anticipated within the footprint of the proposed project based on our 2010 reconnaissance. In addition, topographic maps, historic maps (NCMaps website), USDA soil survey maps, and aerial photographs were utilized and inspected to gauge environmental factors that may have contributed to historic or prehistoric settlement within the project limits, and to assess the level of modern, slope, agricultural, hydrological, and other erosive-type disturbances within and surrounding the archaeological APE.

As stated in the Survey Required Form for this project, "This is a Federally-funded project that will require a Federal permit as well as temporary and permanent easements in order for Bridge No. 95 to be replaced. All proposed project activities are to take place within the proposed Study Area, which has since been enlarged to accommodate a potential roadway alignment south of the existing bridge. Such an alignment would be considered "New Location" so there may be environmental impacts beyond what is currently owned/maintained by the NCDOT. From an environmental perspective, the Study Area falls within the Piedmont physiographic region, consists primarily of the floodplain for Blanket Creek and the rolling/undulating terrain characteristic of the region, and is composed of seven (7) soil types: Cecil sandy loam, 2-6% slopes (CcB), Pacolet fine sandy loam, 6-10% slopes (PaC), Pacolet fine sandy loam, 10-15% slopes (PaD), Altavista fine sandy loam, 1-6% slopes (AlB), Wilkes soils, 6-10% slopes (WlC), Wilkes soils, 15-45% slopes (WIF), and Chewacla loam (Ch). Much of the proposed project area consists of poorly drained soils that are frequently flooded for brief periods of time, soils that have been heavily altered by residential development, or sloping topography. However, with the expansion of the Study Area, a small section of moderately well-drained soils (AlB) typical of low stream terraces along major streams is present within the Study Area. Such soils have been an indicator of prehistoric, Native American archaeological sites along the Yadkin River. In particular, Site 31FY245 was recorded in 1978 by Wake Forest University on a low rise in the floodplain of the Yadkin on such a soil type, just over 1,800 feet from the project area (Biblio# 2462 [Lautzenheiser 1988]). Although this project was reviewed and cleared previously, plans have since changed in order to accommodate a potential new location alignment south of the existing roadway. With this change in the project, there is now the potential for intact archaeological deposits to be located within the defined Study Area for the proposed project. Based on the information provided, an archaeological survey is, therefore, recommended for the proposed project. A visual inspection of the entire Study Area should be conducted again, followed then by systematic archaeological excavations within areas of moderate to high archaeological probability, focused on the area of moderately well-drained soils west of Blanket Creek. Should the description of this project change or design plans be made available prior to construction, additional consultation regarding archaeology will be required."

Field investigations for a potential southern approach for Bridge No. 95 on SR 1100 (Lasater Road) over Blanket Creek occurred on Tuesday, August 18, 2015, and were comprised of pedestrian survey and systematic shovel testing to locate and assess potentially significant archaeological remains that could be damaged or destroyed by the proposed project as described above. The entire extent of the project's APE was visually inspected in order to determine the need for excavations. Based on current soil conditions, shovel tests were positioned strategically to investigate the low stream terrace setting on the north side of Blanket Creek. Four (4) shovel tests were positioned 30 meters apart in an area of moderately well-drained soils; the placement of radial shovel tests was not necessary since no archaeological material was recovered. Please refer to the Shovel Test Discussion for detailed descriptions (soil strata, color, and texture) of each shovel test. Landscape alterations are quite evident on the north/west side of Blanket Creek as noted by the varying soil stratigraphy in all four (4) shovel tests. Drainage ditches have been cut into the landscape to facilitate runoff. Sewer line and power line easements also cross the project area.

form for Minor Transportation Projects as Qualified in the 2007 Programmatic Agreement.



Layers of fill and sand have been brought in as well to fill in low spots (or old swales) to create a more "yard-like" feel. This small area was supposed to consist of Altavista fine sandy loam (AlB), a moderately well-drained soil located on low stream terraces. Based on the typical AlB soil profile, what was revealed in the excavated shovel tests represents the upper portion of the subsoil, i.e. a layer of friable sandy clay loam. Overlying strata of fine sandy loam/sandy loam, which would indicate undisturbed soils, were not present. The possibility of there being any intact archaeological deposits on this landform is very low.

Overall, no archaeological sites were recorded within the project's Area of Potential Effects (APE). No additional archaeological work should be required. Therefore, a finding of "no historic properties affected" is considered appropriate in association with this bridge replacement project. Should the description of this project or design plans change prior to construction, then additional consultation regarding archaeology will be required. If archaeological materials are uncovered during project activities, then such resources will be dealt with according to the procedures set forth for "unanticipated discoveries," to include notification of NCDOT's Archaeology Group.

Shovel Test Discussion:

<u>STP 1</u>: 0-19cmbs, 10YR 5/6, sandy clay loam (FILL); 19-38cmbs, 7.5YR 4/4, clay loam; 38-40cmbs, 2.5YR 4/4, sandy clay; no cultural material

<u>STP 2</u>: 0-8cmbs, 10YR 3/4, clay loam; 8-32cmbs, 5YR 4/6, baked out/hard sandy loam; no FILL layer as in STP 1, extremely compact, no cultural material

<u>STP 3</u>: 0-9cmbs, 10YR 4/4, clay loam; 9-20cmbs, 10YR 5/6, clay; no cultural material, the only STP that appeared to have natural stratigraphy

<u>STP 4</u>: 0-9cmbs, 10YR 4/4, sandy loam; 9-68cmbs, 10YR 5/6, sand; chunky quartz and mica flecks but no cultural material

SUPPORT DOCUMENTATION

See attached: \square Map(s) \square Previous Survey Info Signed:

Nohl

NCDOT ARCHAEOLOGIST

August 19, 2015

Correspondence

Date

 \boxtimes Photos







Figure 1: Clemmons, NC (USGS 1968).

Project Tracking No.:





Photo 1: Project Area, looking East from STP 1.



Photo 2: Project Area, looking East toward STP 4.



10-03-0174

NO PREHISTORIC OR HISTORIC PROPERTIES PRESENT/AFFECTED FORM

PROJECT INFORMATION

Project No:	B-5152		Count	y:	Fors	yth	
WBS No:	42313.1.1		Docum	nent:	CE/I	PCE	
F.A. No:	BRZ-1100(23)		Fundi	ng:		tate	Federal
Federal (USACE) P	ermit Required?	Xes Yes	🗌 No	Permit	Type:	Not lis	ted

Project Description: Replace Bridge No. 95 over Blanket Creek on SR 1100 (Lasater Road). Existing bridge was built in 1960 and is considered to be structurally deficient.

SUMMARY OF FINDINGS

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

Historic Architecture/Landscapes

- There are no National Register-listed or Study Listed properties within the project's area of potential effects.
- There are no properties less than fifty years old which are considered to meet Criteria Consideration G within the project's area of potential effects.
- There are no properties within the project's area of potential effects.
- There are properties over fifty years old within the area of potential effects, but they do not meet the criteria for listing on the National Register.
- All properties greater than 50 years of age located in the APE have been considered and all compliance for historic architecture with Section 106 of the National Historic Preservation Act and GS 121-12(a) has been completed for this project.
- There are no historic properties present or affected by this project. (*Attach any notes or documents as needed*)

Archaeology

- There are no National Register-listed or Study Listed properties 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 are no historic properties present or affected by this project. (*Attach any notes or documents as needed*)

SUMMARY OF CULTURAL RESOURCES REVIEW

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

The site files and maps at the Office of State Archaeology were reviewed on Friday, April 16, 2010. There are no previously recorded archaeological sites located along the SR 1100 (Lasater Road) corridor within the project vicinity. Several archaeological sites have been recorded over 4000 ft east of the project at the Fair Oaks Drive/ Harper Road interchange area with I-40, none of which were determined eligible for the National Register of Historic Places (NRHP) (Biblio #2463). In addition, a stone dam recorded as Site 31FY760 in 1988 is located about 1600 ft downstream from the bridge on Blanket Creek. No evaluation was made for Site 31FY760 at the time since it was located outside the construction limits of the project requiring survey (#2462). Finally in 2003, a survey was conducted along the entire length of SR 1100 (Lasater Road) as part of the NCDOT's Moving Ahead program. This project was to widen and repave the existing road from 18 to 22 feet. Several archaeological sites were relocated and evaluated; however, these sites were not located in the vicinity of the current B-5152 project (#5350) and no mention was made of the mill structure and bridge crossing Blanket Creek in the Moving Ahead report.

There are no design plans available for this project at this time. The ROW is currently set at 60 ft, and given that the existing ROW essentially runs along the edge of the mill structure, there is no conceivable way for the ROW to be increased in this location. The existing cross-section of the road consists of an 18-ft wide paved secondary road. Because of the existing bridge width, the portion of Lasater Road crossing Blanket Creek probably could not be widened to 22 ft as part of the Moving Ahead project. The project length is unknown at this time; however, realignment of the existing road does not seem feasible based on its current configuration and the surrounding properties.

The proposed project is centered on the location of Lasater Mill (aka Forest Hills Mill), part of the much larger Forest Hills Estate of Robert E. Lasater (1867-1954). The Lasater Mill is a State Study-Listed property, yet its integrity has been highly compromised since its inclusion. The mill structure, which is still standing, was built sometime between 1928 and 1933, with Blanket Creek being impounded to form Lasater Lake around 1930 based on historical maps. The stone dam mentioned above may, in fact, be associated with Lasater Mill, but such a determination is outside the realm of this project. Based on photographs taken in the 1930s as well as earlier mapping, some form of road and crossing has always existed at this location going back to the turn of the 20th-century. Therefore, the construction of the current bridge in 1960 simply replaced whatever structure was crossing Blanket Creek at that time. Although the foundation of the mill, mill dam, and retaining walls are all made out of locally quarried stone, both abutments underneath the existing bridge are preformed poured concrete. This would suggest that the underlying structure of the bridge is in no way associated with the construction of the mill and its dam although they are physically attached to ensure proper drainage underneath the bridge. In addition, the construction of the bridge in 1960 would have greatly disturbed the immediate area, bringing about significant modifications to the road and the crossing.

Two other resources were noted in the field: 1) the foundation remnants of a stone wall on the north side of Lasater Road extending east from the mill dam to the neighboring property, and 2) stone ramparts with an iron gate. According to the mill property manager, the stone wall that once stood along the corner of the property was put there in the 1960s/1970s and was made to match the rest of the property. As for the iron gate on the outside curve of Lasater Road heading west toward the bridge, it most likely represents an access point to the old Lasater Estate, which was located south of the mill. Evidence of a roadbed was not seen in the field; however, any path in this location would have followed the previous (i.e. early 20th-century) alignment of Lasater Road. It was not until the mid-20th century when the curved alignment that is seen today is depicted. Presumably, when Mr. Lasater passed away in 1954, portions of his lands were sold negating the need for this "gateway" to the mill and prompting a realignment of the road around the parcels that were sold.

No additional archaeological investigations should be required for this project. Once design plans have been prepared, then additional consultation with NCDOT's Archaeology Group may be required.

SUPPORT DOCUMENTATION

See attached: Maps, photos.

Signed: Paul J. Mohler

May 13, 2010

Date

Cultural Resources/Specialist, NCDOT



Clemmons, NC Quadrangle (USGS 1968 [PR1994]).



Forsyth County, North Carolina (Highway Culture Map) (North Carolian State Highway Commission 1968).



Forsyth County, North Carolina (North Carolina State Highway and Public Works Commission 1938).



Both photos were taken in the 1930s.

Right) Lasater Mill near Clemmons, N. C. Mill was located on the Forest Hills estate of Robert E. Lasater and built in 1928 (http://www.digitalforsyth.org/photos/870; accessed 12 May 2010).

Left) Lasater Mill near Clemmons, N. C. Mill was located on the Forest Hills estate of Robert E. Lasater. Woman near the waterfall in the photo was Carrie Keith Jones (http://www.digitalforsyth.org/photos/878; accessed 12 May 2010).



Map of Forsyth County, NC (Miller 1927). [Note there is no mill, dam, or impoundment present]



Rural Delivery Routes, Forsyth County, North Carolina (United States Post Office Dept. 1920?).



Soil Map, North Carolina, Forsyth County Sheet (Allen et al. 1913).



Map of Forsyth County, North Carolina (Miller 1907).



Map of Forsyth County North Carolina (1898,

http://dc.lib.unc.edu/cdm4/item_viewer.php?CISOROOT=/ncmaps&CISOPTR=777&CISOBOX=1&REC=9).



West Abutment showing Evidence of Preformed Poured Concrete (Photo taken by Courtney Foley [2010]).



Stone Foundation, showing Connection to Preformed Poured Concrete West Abutment (Photo taken by Courtney Foley [2010]). The overhang was a mid to late 20th-c. addition.



Stone Foundation of Retaining Wall, showing Connection to Preformed Poured Concrete East Abutment (Photo taken by Courtney Foley [2010]).



Remnants of Stone Wall running along Edge of Property, heading west toward bridge (Photo taken by Courtney Foley [2010]).



Stone Rampart on North Side of Iron Gate (Photo taken by Courtney Foley [2010]).



Iron Gate, which heads toward the old Lasater Estate (Photo taken by Courtney Foley [2010]).



Project Tracking No. (Internal Use)

10-03-0174 Update



original review (August 4, 2010).

HISTORIC ARCHICTECTURE AND LANDSCAPES NO HISTORIC PROPERTIES PRESENT OR AFFECTED 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.

	r KUJI	SCI INFORMATI	
Project No:	B-5152	County:	Forsyth
WBS No.:	42313.1.1	Document Type:	
Fed. Aid No:	BRZ-1100(23)	Funding:	State X Federal
Federal Permit(s):	X Yes 🗌 No	Permit Type(s):	NWP
Project Descript	tion: Replace Bridge No	. 95 on SR 1100 (Lasater Road) over Blanket
Creek near Cle	mmons (no off-site deto new roadway alignment	our planned). Exp	ansion of study area to bridge reguired update of

PROJECT INFORMATION

SUMMARY OF HISTORIC ARCHICTECTURE AND LANDSCAPES REVIEW

- There are no National Register-listed or Study Listed properties within the project's area of potential effects.
- There are no properties less than fifty years old which are considered to meet Criteria Consideration G within the project's area of potential effects.
- There are no properties within the project's area of potential effects.
- There are properties over fifty years old within the area of potential effects, but they do not meet the criteria for listing on the National Register.
- X There are no historic properties present or **affected** by this project. (Attach any notes or documents as needed.)

REVIEW ACTIVITIES, RESULTS, AND CONCLUSIONS: HPOWeb reviewed on 30 June 2015 and yielded one SL and no NR, SS, DE, or LD properties in the Area of Potential Effects (APE). Forsyth County current GIS mapping, aerial photography, and tax information indicated a partly wooded APE with residential resources dating predominantly from the 1970s to the 2000s (viewed 30 June 2015). APE contains and extends 50 feet beyond the bounds of the new study area (see attached) to encompass proposed construction.

Lasater Mill (FY0205- SL), built in 1932, and its associated buildings and structures stand immediately north, west, and east of existing Bridge No. 95 (#7951 and #7843 Lasater Road, Parcel IDs: 5883-01-0384.00, -3396.00, and 7352.00). As addressed in the August 4, 2010 review (see attached), the property has lost considerable historical integrity through extensive renovation and therefore is not considered eligible for the National Register. A circa-1960 house (#3840 North Lakeshore Drive, Parcel ID: 5873-91-8596.00), an unexceptional example of its type, stands north of the Lasater Mill property, well beyond likely project impact. Constructed in 1935, Bridge No. 95 is not eligible for the National Register according to the NCDOT historic bridge survey as it is not representative of any distinctive engineering or aesthetic type.

The comprehensive county architectural survey (1981 and 2006-2008) recorded the Lasater Mill (FY0205-SL) property in the APE. No National Register-listed properties are located within the APE. Google Maps "Street View" confirmed the presence and relative placement of architectural and landscape resources in the APE (viewed 30 June 2015). The new alignment will move the proposed construction south and further away from the noted pre-1965 resources. A finding of "no historic properties affected" will satisfy both GS 121-12(a) and Section 106 compliance requirements.

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

SUPPORT DOCUMENTATION

X Map(s) X Previous Survey Info. Photos

Correspondence

Design Plans

FINDING BY NCDOT ARCHITECTURAL HISTORIAN

Historic Architecture and Landscapes - NO HISTORIC PROPERTIES PRESENT OF AFFECTED

NCDOT Architectural Historian

2015

B-5152, Bridge No. 95 Replacement, Forsyth County WBS No. 42313.1.1 Tracking No. 10-03-0174 – Update

Historic Architecture and Landscapes NO HISTORIC PROPERTIES PRESENT OR AFFECTED form for Minor Transportation Projects as Qualified in the 2007 Programmatic Agreement.





Project Tracking No. (Internal Use)

10-03-0174

NO PREHISTORIC OR HISTORIC PROPERTIES PRESENT/AFFECTED FORM

PROJECT INFORMATION

Project No:	B-5152	Ce	ounty:	Forsyth	
WBS No:	42313.1.1	De	ocument:	CE/PCE	
F.A. No:		Fi	unding:	State	K Federal
Federal (USACI	E) Permit Required?	Yes 🗆 1	No Permi	t Type:	

Project Description: Replace Forsyth County Bridge No. 95 over Blanket Creek on SR 1100 (Lasater Road)

SUMMARY OF FINDINGS

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

Historic Architecture/Landscapes

- There are no National Register-listed or Study Listed properties within the project's area of potential effects.
- There are no properties less than fifty years old which are considered to meet Criteria Consideration G within the project's area of potential effects.
- There are no properties within the project's area of potential effects.
- There are properties over fifty years old within the area of potential effects, but they do not meet the criteria for listing on the National Register.
- All properties greater than 50 years of age located in the APE have been considered and all compliance for historic architecture with Section 106 of the National Historic Preservation Act and GS 121-12(a) has been completed for this project.
- There are no historic properties present or affected by this project. (*Attach any notes or documents as needed*)

Archaeology

- There are no National Register-listed or Study Listed properties 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 are no historic properties present or affected by this project. (*Attach any notes or documents as needed*)

SUMMARY OF CULTURAL RESOURCES REVIEW

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

Review of HPO quad maps, historic designations roster, and indexes was undertaken on 14 April 2010. Based on this review, FY 205: Lasater Mill (SL) is located at the bridge. A survey was warranted.

An architectural historian and an archaeologist from NCDOT visited the project area on 22 April 2010. Lasater Mill is a 1932 grist mill that was placed on the state study list in 1979. Lasater Mill sits in very close proximity to both Bridge No. 95 and SR 1100. Historically, the mill was part of the larger Forest Hills Estate of Robert E. Lasater (1867 – 1954). The mill structure was built in 1932, impounding Blanket Creek to form Lasater Lake in the process. The mill operated on a small scale and ground flour and corn meal, which was sold in nearby Winston-Salem (Hauser, David. "Lasater's Mill ----- A Glimpse At the Past!" *Davie County Enterprise Record* [Mocksville, NC], 11/5/1970).

Lasater Mill is a three bay, rubble stone mill with a gable roof and hipped roof dormers. The mill is currently used as a private residence. The building was remodeled in 1959, again in 1979, and was undergoing further interior and exterior renovations during the site visit in April 2010. NCDOT staff spoke with one of the property managers during the visit.

Changes to the exterior of the property include replacement windows, the addition of an observation platform at the southeast corner of the building, and the conversion of the open walkway at the rear of the property into a sunroom. An addition on the north end of the property containing bedrooms was constructed at an unknown date, but was there in the 1970s according to one of the contractors at the property. A large two-story living room area with a slanted skylight rear roof connects this addition to the original mill building. A glass sunroom projects from the second story on the north side of this addition.

The interior of the mill has been completely reworked. According to the property manager, the lower level of the mill, containing the milling machinery, was filled in with concrete after a large flood. This resulted in two windows on the south side being enclosed with the same rubble stone used on the rest of the exterior. Exposed ceiling beams remain in one room of the historic mill, but the rest of the interior retains finishes from the extensive 1979 remodel. The mill wheel and related operational machinery are nonhistoric, having been replaced about fifteen years ago according to the property manager.

The boathouse on property is located to the east of the mill along the shore of Lasater Lake. The main block is constructed of log with a rubble stone chimney. A small stone ell that projects from the west side features two nonhistoric bubble windows. The building is currently used as a staff office.

As a result of the extensive renovations and alterations, Lasater Mill has lost integrity and is not eligible for National Register listing.

Bridge No. 95 is a steel girder-floorbeam bridge that originally constructed in 1935. Bridge maintenance records indicate upgrades were made to the bridge in 1950 and 1980. The bridge is not eligible for listing in the National Register according to the NCDOT historic bridge survey.

Signed:

Cultural Resources Specialist, NCDOT

4 AUGUST 2010 Date

SUPPORT DOCUMENTATION

See attached: Project Location Map; photographs of Lasater Mill

Project Location Map USGS Clemmons Quadrangle





Looking northwest on SR 11. Bridge No. 95 in foreground.



View looking southeast towards Bridge No. 95. Residential addition in foreground; historic mill in background.



Rear elevation. Lasater Lake in foreground.



Interior room view showing exposed beams. This room is in the historic mill.



View looking northeast toward boathouse.



Lasater Mill Boathouse.



Lasater Mill mill wheel and remaining machinery.