Transylvania County
Bridge No. 13 on SR 1119 (Sugar Loaf Road)
over Nicholson Creek
Federal Aid Project No. BRZ-1119(4)
W.B.S. No. 38592.1.1
T.I.P. No. B-4822

CATEGORICAL EXCLUSION

UNITED STATES DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION

AND

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

6/2/14
DATE

For William T. Hancock
Richard W. Hancock, PE,
Manager, Project Development & Environmental Analysis Unit

6-3-14
DATE

Michael J. Sullivan
John F. Sullivan, III, Division Administrator
Federal Highway Administration

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CATEGORICAL EXCLUSION

Documentation Prepared in
Project Development and Environmental Analysis Unit By:

6-02-14
DATE

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

PROJECT COMMITMENTS:

Transylvania County
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N**ES, Roadside Environmental, Division – Trout Designation – DSSW**
DWR has designated this stream as trout and therefore Design Standards for Sensitive Watersheds will be incorporated.

NES, Division – Trout Issues – NO MORATORIUM
While DWR has designated this a trout stream, the NC Wildlife Resources Commission has indicated that a moratorium is not required.

Structure Design – TVA Permit
The proposed project is located in the Tennessee Valley Authority's (TVA) Land Management District. The project will require approval under Section 26a of the TVA Act.

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

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

INTRODUCTION: Bridge No. 13 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. 13 has a sufficiency rating of 6 out of a possible 100 for a new structure. The bridge is considered structurally deficient with a Structural Evaluation of 3 out of 9 according to Federal Highway Administration (FHWA) standards.

Bridge No. 13 has a fifty-eight year old timber substructure. The typical life expectancy of a timber bridge is between 40 to 50 years due to the natural deterioration rate of wood. Rehabilitation of a timber structure is generally practical only when a few members are damaged or prematurely deteriorated. However, past a certain degree of deterioration timber structures become impractical to maintain and upon eligibility are programmed for replacement. With a sufficiency rating of only 6 and a posted weight limit of 22 tons for single vehicles and 26 tons for truck-tractor semi-trailers, Bridge No. 13 is approaching the end of its useful life.

II. EXISTING CONDITIONS

The project is located within the urban limits of the City of Brevard in Transylvania County on SR 1119 (Sugar Loaf Road) over Nicholson Creek (see Figure 1). Just north of the bridge the area is suburban in nature. The land immediately around the bridge and to the south of this location is farmland with scattered residential development.

There is a private use airport approximately 1000 feet north and west of the bridge. The project is not in the glide path of the airstrip. According to NCDOT Division of Aviation and the Federal Aviation Administration requires no special compliance measures for this situation.

SR 1119 is classified as a local route in the Statewide Functional Classification System and it is not a National Highway System Route.

In the vicinity of the bridge, SR 1119 has a 20-foot pavement width with 2-foot grass shoulders (see Figures 3 and 4). The bridge is in a floodplain and the roadway grade is relatively flat from north across the bridge. The grade begins to climb up out of the floodplain on the north side of the bridge. The existing bridge is on a short tangent. The roadway is situated approximately 9.0 feet above the creek bed.

Bridge No. 13 is a 31-foot long one-span structure. The superstructure consists of steel beams carrying a timber deck with an asphalt-wearing surface. The substructure consists of timber bulkheads for end bents. The existing bridge (see Figure 3) was constructed in 1956. The clear roadway width is 17.0 feet with an out to out width of 18 feet.

Underground telephone and cable television lines run along the east side of SR 1119 from the north going aerial across the stream and continuing aerial to the south. Utility impacts are anticipated to be light.

The current traffic volume of 200 vehicles per day (VPD) is expected to increase to 300 VPD by the year 2035. The projected volume includes two percent truck-tractor semi-trailer (TTST) and four percent dual-tired vehicles (DT). The posted speed limit is 35 miles per hour in the project area. Only one accident was reported in the vicinity of Bridge No. 13 during a recent three-year period.

The City of Brevard Comprehensive Transportation Plan (March 2005) shows an on-road bike route that needs improvement along the project area. Sidewalks do not exist on the existing bridge and there is no indication of pedestrian usage on or near the bridge. The city has not requested sidewalks at this location. Neither temporary bicycle nor pedestrian accommodations are required for this project.

III. ALTERNATIVES

A. Project Description

All alternatives evaluated will include the following criteria.

The replacement structure will consist of a bridge approximately 80 feet long. The bridge length is based on preliminary design information and is set by hydraulic requirements. The bridge will be of sufficient width to provide for two 10-foot lanes with 4-foot offsets on each side. The bridge will include bicycle safe rails. The roadway grade of the new structure will be approximately the same as the existing grade.

The existing roadway will be widened to provide two 10-foot lanes and four-foot paved shoulders to accommodate bicycles. Beyond the paved shoulders an additional 2-foot grass shoulder will be included on each side (4-foot grass shoulders where guardrail is included). This roadway will be designed as a local route using Sub Regional Design Guidelines with a 60 mph design speed (55 mph Statutory).

B. Reasonable and Feasible Alternatives

The two alternatives studied for replacing Bridge No. 13 are detailed below.

Alternate 1

Replace the existing structure with a new bridge along the existing roadway alignment. Improvements to the approach roadways will be required for a distance of approximately 280 feet to the north and 175 feet to the south of the new structure.

A temporary alignment approximately 1090 feet long would be constructed to the west to maintain traffic during construction. The alignment would include two 10-foot lanes with 4

foot paved shoulders. Three- 90" pipes would be utilized to carry the creek during construction.

Alternate 2 (Preferred)

Replace the existing structure with a new bridge on new alignment to the west. The new alignment would be approximately 861 feet long. Traffic would be maintained on the existing bridge during construction.

C. Alternatives Eliminated From Further Consideration

The "do-nothing" alternative will eventually necessitate closure of the bridge. This is not acceptable due to the traffic service provided by SR 1119.

"Rehabilitation" of the old bridge is not practical due to its age and deteriorated condition.

An offsite detour does not exist because SR 1119 is a dead end road.

D. Preferred Alternative

Bridge No. 13 will be replaced on new alignment to the west as shown by Alternative 2 in Figure 2 because environmental impacts are similar to and costs are lower than Alternate 1.

NCDOT Division 14 concurs with the selection of Alternative 2 as the preferred alternative.

IV. ESTIMATED COSTS

The estimated costs, based on 2014 prices, are as follows:

Table 1

	Alternative 1	Alternative 2 Preferred
Detour Structure	$ 45,000	N/A
Structure	249,000	$ 249,000
Structure Removal	16,000	16,000
Detour & Roadway Approaches	317,000	203,000
Misc. & Mob.	189,000	131,000
Eng. & Contingencies	122,000	101,000
Total Construction Cost	$ 871,000	$ 700,000
Right-of-way Costs	34,000	34,000
Right-of-way Utility Costs	6,000	6,000
Total Project Cost	$938,000	$ 715,000

V. NATURAL ENVIRONMENT

PHYSICAL RESOURCES

The study area lies in the southern mountains physiographic region of North Carolina (Figure 1). Topography in the project vicinity is comprised of moderately rolling hills surrounded by low, forested peaks with level floodplains along streams. Elevations in study area range from 2,105 to 2,198 ft. above sea level. Land use in the project vicinity consists primarily of agriculture and developed residential land with forested areas on the surrounding higher elevations.

Soils

The Transylvania County Soil Survey identifies five soil types within the study area (Table 2).

Table 2. Soils in the study area.

Soil Series	Mapping Unit	Drainage Class	Hydric Status
Ashe-Chestnut complex	AhG	Well to Somewhat Excessively Drained	Nonhydric
Evard loam	ChF	Well Drained	Nonhydric
Rosman fine sandy loam	Ro	Well Drained	Hydric*
Tate fine sandy loam	TeD	Well Drained	Nonhydric
Toxaway loam	Tn	Very Poorly Drained	Hydric

* Soils which are primarily nonhydric, but which may contain hydric inclusions

Water Resources

Water resources in the study area are part of the French Broad River Basin (U.S. Geological Survey [USGS] Hydrologic Unit 06010105). One stream was identified in the study area (Table 3). The location of this water resource (Nicholson Creek) is shown in Figure 2. The physical characteristics of this stream are provided in Table 4.

Table 3. Water resources in the study area.

Stream Name	Map ID	NCDWQ Index Number	Best Usage Classification
Nicholson Creek	Nicholson Creek	6-28	C; Tr

Table 4. Physical characteristics of water resources in the study area.

Map ID	Bank Height (ft)	Bankful Width (ft)	Water Depth (in)	Channel Substrate	Velocity	Clarity
Nicholson Creek	7.5	18	1	Gravel, Sand	Moderate	Clear

The NC DWR has identified Nicholson Creek as trout waters. North Carolina Wildlife Resources Commission (NCWRC) has identified Nicholson Creek as undesignated trout waters. There are no designated High Quality Waters (HQW), Outstanding Resource Waters (ORW) or water supply watersheds (WS-I or WS-II) within 1.0 mile downstream of the study area. No streams within 1.0 mile and downstream of the study area are included on the 2012 Final 303(d) list of impaired waters. However, as of 2012, the French Broad River is listed as a 303(d) for turbidity from its headwaters to the nearby confluence with Nicholson Creek.

The portion of Nicholson Creek on the west side of SR 1119 was marked with a data logging rain gauge and a sign indicating that stream restoration (through NCDENR, USEPA and the Clean Water Management Trust Fund) had been performed on this reach of the creek including planting and stabilization of the banks.

No recent fish or benthic surveys have been conducted within 1.0 mile of the study area.

BIOTIC RESOURCES

Terrestrial Communities

Two terrestrial communities were identified in the study area: maintained/disturbed and acidic cove forest. A brief description of each community type follows.

Maintained/Disturbed

Most of the study area consists of maintained/disturbed areas, primarily in the form of agricultural land and the maintained areas adjacent to the roadway. The vegetation in this community is comprised of low growing grasses and herbs, including fescue, multiflora rose, plantain, dandelion, blue-eyed grass, black locust, eastern red cedar and eastern hemlock. Also included within the community is a narrow riparian buffer which runs along Nicholson Creek. This riparian area is comprised of Chinese privet, multiflora rose, poison ivy, Virginia creeper, silver maple, American sycamore and tag alder.

Acidic Cove Forest

The acidic cove forest occurs in the southwest quadrant of the study area. The canopy and shrub-layer in this community is dominated by rhododendron, mountain laurel, white pine, tulip-poplar, red maple, black walnut, white oak and black locust. Herbaceous species include doghobble, rattlesnake plantain, Christmas fern, false Solomon's seal, bloodroot, wintergreen, mayapple, cinnamon fern, trillium, multiflora rose and Virginia creeper.

Terrestrial Community Impacts

Terrestrial communities in the study area may be impacted by project construction as a result of grading and paving of portions of the study area. At this time, decisions regarding the final location and design of the proposed bridge replacement have not been made. Therefore, community data are presented in the context of total coverage

of each type within the study area (Table 5). Once a final alignment and preliminary design have been determined, probable impacts to each community type will be calculated.

Table 5. Coverage of terrestrial communities in the study area.

Community	Coverage (ac.)
Maintained/ Disturbed	8.9
Acidic Cove Forest	1.0
Total	9.9

Terrestrial Wildlife

Terrestrial communities in the study area are comprised of both natural and disturbed habitats that may support a diversity of wildlife species (those species actually observed are indicated with *). Mammal species that commonly exploit forested habitats and stream corridors found within the study area include species such as eastern cottontail, raccoon, Virginia opossum, and white-tailed deer. Birds that commonly use forest edge and disturbed habitats include the indigo bunting*, American crow, gray catbird, northern cardinal*, common yellowthroat*, eastern towhee*, Carolina wren*, blue jay* and eastern meadowlark. Reptile and amphibian species that may use terrestrial communities located in the study area include the black rat snake*, eastern garter snake and leopard frog.

Aquatic Communities

Aquatic communities in the study area consist of one perennial stream, Nicholson Creek. Nicholson Creek could support animals such as central stoneroller, rosyside dace, greenside darter, silver shiner, brown trout, rainbow trout, green sunfish, northern water snake and dusky salamander.

Invasive Species

Two species from the NCDOT Invasive Exotic Plant List for North Carolina were found to occur in the study area. The species identified were multiflora rose (Threat) and Chinese privet (Threat). NCDOT will manage invasive plant species on the Department's ROW as appropriate.

JURISDICTIONAL ISSUES

Clean Water Act Waters of the U.S.

One jurisdictional stream was identified in the study area (Table 6). The location of this stream is shown on Figure 2. The physical characteristics and water quality designations of this jurisdictional stream are detailed earlier. Nicholson Creek has been designated as a cold water stream for the purposes of stream mitigation.

Table 6. Jurisdictional characteristics of water resources in the study area.

Map ID	Length (ft.)	Classification	Compensatory Mitigation Required	River Basin Buffer
Nicholson Creek	394	Perennial	Yes	Not Subject

No jurisdictional wetlands were identified within the study area.

Clean Water Act Permits

The proposed project has been designated as a Categorical Exclusion (CE) for the purposes of NEPA documentation. As a result, a Nationwide Permit 23 will likely be applicable. Other permits that may apply include a NWP No. 33 for temporary construction activities such as stream dewatering, work bridges, or temporary causeways that are often used during bridge construction or rehabilitation. The USACE holds the final discretion as to what permit will be required to authorize project construction.

In addition to the 404 permit, other required authorizations include the corresponding Section 401 Water Quality Certification (WQC) from the NCDWR. A NCDWR Section 401 Water Quality General certification for a Categorical Exclusion may be required prior to the issuance of a Section 404 Permit. Other required 401 certifications may include a GC 3688 for temporary construction access and dewatering.

Construction Moratoria

The NCWRC has not designated Nicholson Creek as a trout water. However, it flows into the French Broad River a short distance downstream of the project. The French Broad River is a Hatchery Supported Designated Public Mountain Trout Water. Per their letter dated February 26, 2010, the NCWRC is not requiring a trout moratorium for this project. However, the NCWRC commented that sediment and erosion control will be important for this project.

N.C. River Basin Buffer Rules

Nicholson Creek is not located within any of the NCDWR buffered river systems.

Rivers and Harbors Act Section 10 Navigable Waters

Nicholson Creek is not considered Navigable Waters under Section 10 of the Rivers and Harbors Act, per communication with the USACE Asheville Regional Office.

Wetland and Stream Mitigation

Avoidance and Minimization of Impacts

The NCDOT will attempt to avoid and minimize impacts to streams and wetlands to the greatest extent practicable in choosing a preferred alternative and during project

design. At this time, no final decisions have been made with regard to the location or design of the preferred alternative.

Compensatory Mitigation of Impacts

The NCDOT will investigate potential on-site stream and wetland mitigation opportunities once a final decision has been rendered on the location of the preferred alternative. If on-site mitigation is not feasible, mitigation will be provided by North Carolina Department of Environment and Natural Resources Ecosystem Enhancement Program (EEP). In accordance with the "Memorandum of Agreement among the North Carolina Department of Transportation, and the U.S. Army Corps of Engineers, Wilmington District" (MOA), July 22, 2003, the EEP, will be requested to provide off-site mitigation to satisfy the federal Clean Water Act compensatory mitigation requirements for this project.

Endangered Species Act Protected Species

As of January 14, 2014 the USFWS lists nine federally protected species for Transylvania County (Table 7). A brief description of each species' habitat requirements follows, along with the Biological Conclusion rendered based on survey results in the study area. Habitat requirements for each species are based on the current best available information as per referenced literature and USFWS correspondence.

Table 7. Federally protected species listed for Transylvania County.

Scientific Name	Common Name	Federal Status	Habitat Present	Biological Conclusion
Glyptemys muhlenbergii	Bog turtle	T(S/A)	No	Not Required
Glaucomys sabrinus coloratus	Carolina northern flying squirrel	E	No	No Effect
Alasmidonta raveneliana	Appalachian elktoe	E	No	No Effect
Sarracenia rubra ssp. *jonesii*	Mountain sweet pitcherplant	E	No	No Effect
Isotria medeoloides	Small whorled pogonia	T	Yes	No Effect
Geum radiatum	Spreading avens	E	No	No Effect
Myotis setentrionalis	Northern Long-eared bat	E	Unknown	Unknown
Helonias bullata	Swamp pink	T	No	No Effect
Spiraea virginiana	Virginia spiraea	T	Yes - Marginal	No Effect
Gymnoderma lineare	Rock gnome lichen	E	No	No Effect

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

Small whorled pogonia

The acidic cove forest community in the southwest quadrant of the study area provides suitable habitat for small whorled pogonia. A walking visual survey of this area was

conducted on May 14, 2009 and June 6, 2011 by NCDOT biologists. No small whorled pogonia plants were found during this survey. A check of the NHP database on February 8, 2010 showed no known occurrences of small whorled pogonia within 1.0 mile of the study area. **Biological Conclusion: No Effect**

Virginia spiraea -The portion of Nicholson Creek within the study area has a very narrow, densely vegetated riparian buffer. There is **limited habitat available** for Virginia spiraea due to competition from other species and fairly steep banks. A walking/wading visual survey of all vegetated riparian areas from within the stream and from the top of bank was conducted on June 24, 2009, June 6, 2011, and June 27, 2013 by NCDOT biologists. No Virginia spiraea plants were found during this survey. A check of the NHP database on May 12, 2014 showed no known occurrences of Virginia spiraea within 1.0 mile of the study area. **Biological Conclusion: No Effect**

Northern Long Eared Bat – A U.S. Fish and Wildlife Service proposal for listing the Northern Long-eared Bat (Myotis septentrionalis) as an Endangered Species was published in the Federal Register in October 2013. The listing may become effective as soon as October 2014. Furthermore, this species is included in USFWS's current list of protected species for Transylvania County. NCDOT is working closely with the USFWS to understand how this proposed listing may impact NCDOT projects. NCDOT will continue to coordinate appropriately with USFWS to determine if this project will incur potential effects to the Northern long-eared bat, and how to address these potential effects, if necessary.

Bald Eagle 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. There are no large bodies of open water within 1.0 mile of the project study area. Suitable habitat for bald eagle does not exist within the project study area.

Endangered Species Act Candidate Species

As of January 1, 2008 the USFWS lists no Candidate species for Transylvania County.

VI. HUMAN ENVIRONMENT

Section 106 Compliance Guidelines

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

Historic Architecture
NCDOT – Human Environment Unit, under the provisions of a Programmatic Agreement with FHWA, NCDOT, HPO, OSA and the Advisory Council on Historic Preservation (effective July 1, 2009), reviewed the proposed project and determined that no surveys are required (see form dated April 14, 2010).

Archaeology
NCDOT – Human Environment Unit, under the provisions of a Programmatic Agreement with FHWA, NCDOT, HPO, OSA and the Advisory Council on Historic Preservation (effective July 1, 2009), reviewed the proposed project and determined that no surveys are required (see form dated 4/22/2014).

Community Impacts

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

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

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

The Farmland Protection Policy Act requires all federal agencies or their representatives to consider the potential impact to prime farmland of all land acquisition and construction projects. All construction will take place along existing alignment. There are soils classified as prime, unique, or having state or local importance in the vicinity of the project. Therefore, the project will involve the direct conversion of farmland acreage within these classifications. A preliminary screening with the AD 1006 form resulted in a score of 52 points out of 160. A preliminary score of less than 60 cannot result in a notable impact on protected farmland soils.

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

Noise & Air Quality

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

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

linked with any special MSAT concerns. Consequently this effort is exempt from analysis for MSAT's.

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

VII. GENERAL ENVIRONMENTAL EFFECTS

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

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

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

An examination of 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.

Transylvania County is a participant in the National Flood Insurance Program. There are no practical alternatives to crossing the floodplain area. Any shift in alignment will result in an impact area of about the same magnitude. The proposed project is not anticipated to increase the level or extent of upstream flood potential.

The Federal Highways Administration has determined that a U.S. Coast Guard Permit is not required for this project.

VIII. COORDINATION & AGENCY COMMENTS

NCDOT has received input from the following agencies as a part of the project development:

The N.C. Wildlife Resource Commission and U.S. Fish & Wildlife Service in standardized letters provided a request that they prefer any replacement structure to be a spanning structure. Response: NCDOT will be replacing the existing structure with a new bridge.

The City of Brevard has indicated their primary concerns are with bicycle accommodations. Response: NCDOT will be including bicycle accommodations for the subject project.

The N.C. Division of Water Quality, the Army Corps of Engineers, had no special concerns for this project.

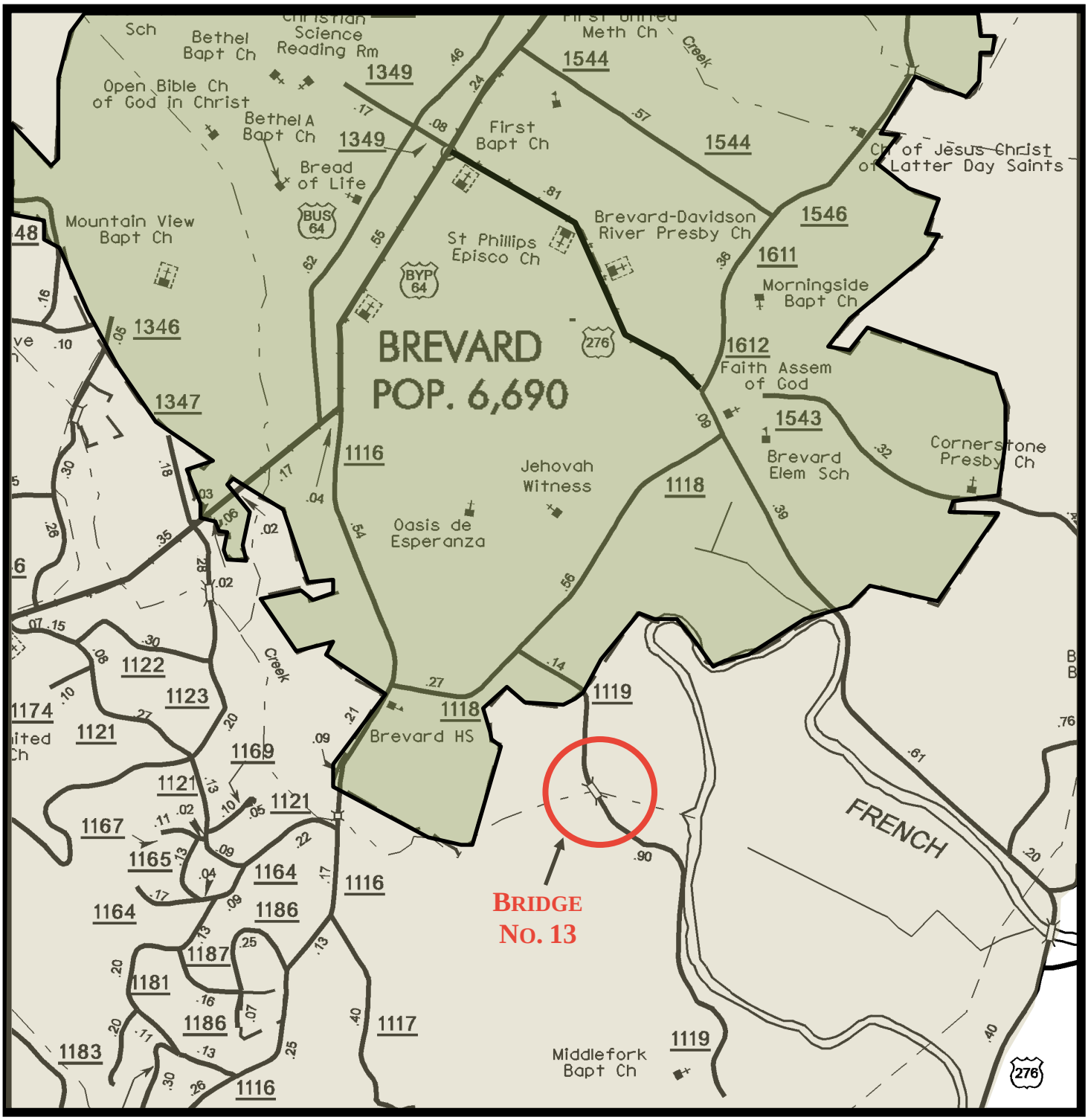
In addition, NCDOT sought information from Transylvania County Planning Department, State Historic Preservation Office and U.S. Coast Guard whose input is summarized in other portions of this document. N.C. Division of Parks & Recreation has not provided comments to date.

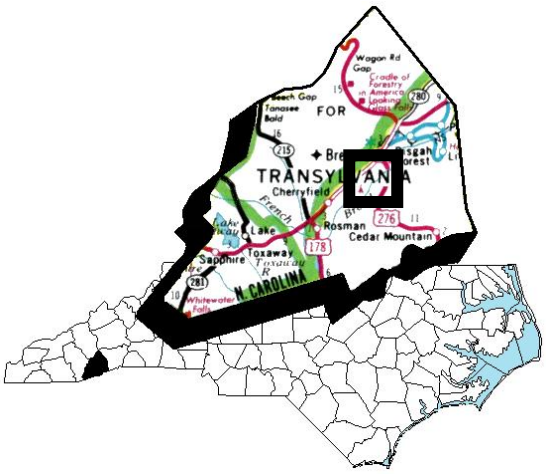
PUBLIC INVOLVEMENT

A letter was sent by the Location & Surveys Unit to all property owners affected directly by this project. Property owners were invited to comment. No comments have been received to date. Based on no responses a Public Meeting was determined unnecessary.

IX. 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.





ETJ
City Limits

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

TRANSYLVANIA COUNTY
REPLACE BRIDGE NO. 13 ON SR 1119
OVER BRUSHY (NICHOLSON) CREEK
B-4822

Figure 1

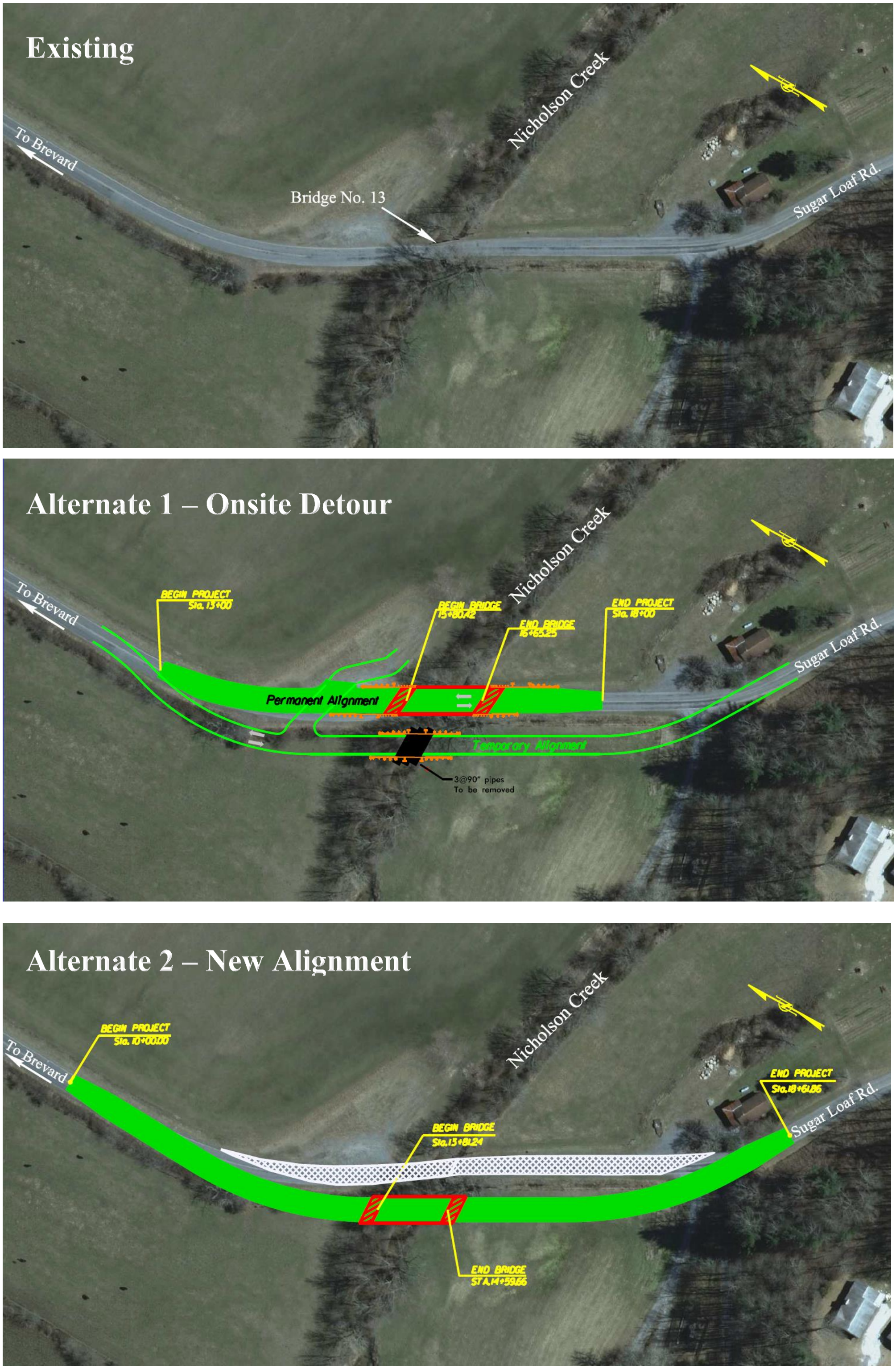

Existing
Nicholson Creek
To Brevard
Bridge No. 13
Sugar Loaf Rd.
Alternate 1 – Onsite Detour
Nicholson Creek
To Brevard
BEGIN PROJECT
Sta. 13+00
BEGIN BRIDGE
15+80.42
END BRIDGE
16+63.25
END PROJECT
Sta. 18+00
Sugar Loaf Rd.
Permanent Alignment
Temporary Alignment
3@90" pipes
To be removed
Alternate 2 – New Alignment
Nicholson Creek
To Brevard
BEGIN PROJECT
Sta. 10+00.00
END PROJECT
Sta. 18+61.86
Sugar Loaf Rd.
BEGIN BRIDGE
Sta. 13+81.24
END BRIDGE
STA. 14+59.66

Figure 2

Project Tracking No. (Internal Use)

09-11-0026

NO PREHISTORIC OR HISTORIC PROPERTIES PRESENT/AFFECTED FORM

PROJECT INFORMATION

Project No:	B-4822	*County:*	Transylvania
WBS No:	38592	*Document:*	CE/PCE
F.A. No:	BRZ-1119(4)	*Funding:*	☐ State ☒ Federal

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

Project Description: Replace Bridge No. 13 over Tucker Creek on SR 1119 (Sugar Loaf 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 11 January 2010. Based on this review, there were no existing NR, SL, LD, DE, or SS properties in the Area of Potential Effects. Bridge No. 13 is a steel stringer bridge built in 1956 and was determined not eligible for the National Register by the NCDOT Historic Bridge Survey. The CRS also reviewed Transylvania County GIS tax information and aerial photographs and noted properties over fifty years of age in the project area. The CRS recommended a site visit.

During the site visit the CRS noted one property in the APE that was over 50 years of age. The property is a 1920s bungalow that has been altered over time with replacement windows and siding. As an altered form of a common house type, this property is not eligible for National Register listing and no further evaluation is needed.

Signed:

Courtney Tolen — 14 APRIL 2010

Cultural Resources Specialist, NCDOT — Date

Project Tracking No.:

09-11-0026
Resubmit

NO ARCHAEOLOGICAL SURVEY REQUIRED FORM

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

PROJECT INFORMATION

Project No:	**B-4822**	*County:*	**Transylvania**
WBS No:	**38592.1.1**	*Document:*	**MCS**
F.A. No:	**BRZ-1119(4)**	*Funding:*	☐ **State** ☒ **Federal**

Federal Permit Required? ☒ **Yes** ☐ **No** *Permit Type:* ***unknown***

Project Description: ***This project proposes to replace Bridge No. 13, which carries SR1119 (Sugarloaf Road) over Nicholson Creek in Transylvania County, North Carolina. According to the environmental input request, the undertaking involves two altenrative options. The first would replace the structure along the existing alignment, with an on-site detour situated along the western side of the SR1119 roadway. The second alternative option would replace the bridge structure on new location to the west of the existing alignment. In both scenarios, potential construction impacts will be consolidated mostly to the western side of Sugarloaf Road. The archaeological Area of Potential Effects (APE) is centered upon Bridge 13 and measures 600ft in length (300ft from each bridge end-point) and 175ft in width (50ft laterally from the center-line to the eastern side of SR1119 & 125ft laterally from the center-line to the western side of SR1119).***

SUMMARY OF CULTURAL RESOURCES REVIEW

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

The project area is located in the central portion of Transylvania, wedged immediately south of Brevard and north of Sugar Loaf Mountain. Nicholson Creek, included within the French Broad River Drainage Basin, constitutes a first order stream flowing west to east through the project area. It empties into the French Broad River a few hundred feet east of the Bridge No. 13 structure. This section of Transylvania is characterized by excellent drainage and large, level floodplain expanses surrounded by hilly terrain. The APE primarily consists of agricultural farm land underlain by very poorly drained land surfaces.

First, permitting and funding information was reviewed for determining the level of archaeological input required by state and federal laws. Next, construction design and other data was examined (when applicable) to define the character and extent of potential impacts to the ground surfaces embracing the SR1119 roadway. Once an APE was outlined, a map review and site file search was conducted at the Office of State Archaeology (OSA). No previously documented archaeological sites are located within or directly adjacent to the project corridor. The background work established the location of numerous sites of prehistoric occupation some distance east/southeast of the project location within the ample French Broad floodplain. This data suggests a heightened site documentation potential for the currently defined APE.

Historic structure locations often harbor archaeological deposits and features related to the occupation of a property. An inspection 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 evidenced an absence of these historic resources within the project area. Historic maps of Transylvania County were also appraised for former/past structure locations, land use patterns, or other confirmation of historic occupation in the project vicinity and archaeological/historical reference materials were inspected as well. In general, the cultural portion of the review confirmed that no existing NRHP listed properties or pre-existing, unassessed archaeological sites will be impacted by the proposed bridge replacement project; little potential exists for the recovery of meaningful, undisturbed prehistoric or historic deposits in the existing right-of-way/APE.

Further, topographic, geologic, and NRCS soil survey maps (Tn, Ro) were referenced to evaluate pedeological, geomorphological, hydrological, and other environmental determinants that may have resulted in past occupation at this location. Aerial and on-ground photographs (NCDOT Spatial Data Viewer) and the Google Street View map application (when amenable) were also examined/utilized for additional assessment of disturbances, both natural and human induced, which compromise the integrity of archaeological sites.

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

The project APE contains no NRHP listed historic properties, previously documented archaeological sites, or cemeteries. An in-field reconnaissance investigation of the bridge location was conducted in association with the original 2009 submittal of the project. The northeastern quadrant, containing the only well-drained soils in the APE (NRCS), was distinguished entirely by a disturbed fill section (see attached photo) extending from the bridge to a point roughly 200ft northward. The remaining project quadrants were in pasture (western) or were being utilized as a garden plot (southeast). The deeply incised ditch-lines along SR1119 likely aid in drainage of the poorly drained ground surfaces which characterize the lands west of Sugarloaf Road. While some very minor potential exists for prehistoric artifact recovery in this general vicinity, the documentation of intact, NRHP eligible cultural deposits within the APE is remote. No further archaeological input or work will be necessary for this rural, small-scale, NCDOT Division 14 bridge replacement project.

SUPPORT DOCUMENTATION

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

FINDING BY NCDOT ARCHAEOLOGIST

NO ARCHAEOLOGY SURVEY REQUIRED

Matt Eaker 4/22/2014