

**Yancey County
Bridge No. 3 on SR 1128 (Possum Trot Road)
over Possumtrot Creek
Federal Aid Project No. BRZ -1128(7)
W.B.S. No. 38618.1.1
T.I.P. No. B-4848**

CATEGORICAL EXCLUSION

OCTOBER 2016

UNITED STATES DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION

AND

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

10/9/16

DATE

Beverly G. Robinson

Beverly G. Robinson, Western Group Leader
Project Development and Environmental Analysis Unit

10/17/16

DATE

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

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10/7/16
DATE

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For the North Carolina Department of Transportation

10/7/2016
DATE

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PROJECT COMMITMENTS:

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All Design Groups/Division 13 Resident Construction Engineer

The NCWRC has identified Possumtrot Creek in the study area as trout waters. Based on the NCWRC's designation as trout waters, a mandatory trout moratorium on all water work will be present from October 15 to April 15 of any given year, for Possumtrot Creek along with all other tributaries in the project study area.

NCDOT will implement *Guidelines for Construction of Highway Improvements Adjacent to or Crossing Trout Waters in North Carolina* in the design and construction of this project.

Additionally, NCDOT's *Best Management Practices for Protection of Surface Waters* (March 1997) will be followed throughout the design and construction of the project.

All Design Groups/Division Resident Construction Engineer

NCDWRC has designated this stream as trout waters and therefore *Design Standards in Sensitive Watersheds* will be incorporated.

Project Development and Environmental Analysis Unit/Project Development and Environmental Analysis Unit – Natural Environment Section/Division 13/FHWA

The proposed project involves the replacement of a bridge over Possum Trot Creek which flows into Bald Creek before discharging into the Cane River. Designated critical habitat for Appalachian elktoe is found 3.45 miles downstream of the project area. No freshwater bivalves were found during surveys, and impacts are unlikely to occur, but cannot be completely discounted. NCDOT will request concurrence from USFWS on a **May Affect, Not Likely to Adversely Affect** biological conclusion, once final designs are available. However, due to projected limited impacts from the construction of this project, a non-jeopardy biological opinion is anticipated. Strict adherence to erosion control standards should minimize the potential for any adverse impacts to occur. Construction authorization will not be requested until consultation with USFWS is completed.

Hydraulics Unit

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

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.

Structure Design

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

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INTRODUCTION: The proposed project will replace Yancey County Bridge No. 3 on SR 1128 (Possum Trot Road) over Possumtrot Creek. The project is included in the current 2016 - 2025 North Carolina State Transportation Improvement Program (STIP) as B-4848. The location of the project is shown on **Figure 1** (Vicinity Map). No substantial environmental impacts are anticipated with this project. The project is classified as a Federal Categorical Exclusion (CE).

I. PURPOSE AND NEED STATEMENT

NCDOT Bridge Management Unit records indicate Bridge No. 3 has a sufficiency rating of 77.6 out of a possible 100 for a new structure.

Bridge No. 3 was built in 1951 and reconstructed in 1978 and is considered functionally obsolete due to a Deck Geometry appraisal of 2 out of 9, which indicates a below standard clear deck width for current traffic volumes, according to Federal Highway Administration (FHWA) standards.

Bridge No. 3 has a thirty-eight year old young masonry abutment substructure and a superstructure consisting of timber floor on steel I-beams with asphalt overlay. Components of both the masonry substructure and the timber on steel superstructure have experienced an increasing degree of deterioration. Bridge No. 3 does not have a posted weight limit, but does have an advisory speed limit posted at 10 miles per hour (mph) due to its poor horizontal alignment and narrow geometry (19.4 foot clearance for two lanes). Bridge No. 3 is approaching the end of its useful life. Replacement of the bridge will also result in safer traffic operations.

Bridge No. 3 currently (2016) carries 1,244 vehicles per day and traffic volume is expected to increase to 1,600 vehicles per day by the year 2040. A major portion of this traffic includes heavy vehicles entering and exiting the Summit Building Supply Company yard at the end of an S-curve on Possum Trot Road (see Figure 2). Replacing the bridge on new location will involve straightening the curve and thus improving safety for vehicles on this stretch of roadway.

II. EXISTING CONDITIONS

The project is located along Possum Trot Road near its intersection with US 19 in Yancey County, approximately 6 miles west of the Town of Burnsville and 14 miles northeast of the town of Mars Hill. The location of the bridge is shown on **Figure 1**.

The area in the bridge vicinity is comprised of crops and livestock agricultural operations, woods, several single family residences and Summit Building Supply Company.

Possum Trot Road is classified as a Local Road in the Statewide Functional Classification System and it is not a National Highway System Route.

In the vicinity of the bridge, Possum Trot Road has an 18-foot pavement width with 3-foot grass shoulders. The existing bridge crosses Possumtrot Creek at an approximate skew of 30 degrees. The roadway is situated approximately 9 feet above the creek bed.

Bridge No. 3 was originally constructed in 1951 and rehabilitated in 1978 as a single-span structure that consists of steel I girders and wood deck with an asphalt-wearing surface. The bridge substructure consists of yout masonry vertical abutments.- The bridge has wooden guardrails and wheel guards. The overall length of the structure is 27 feet. The clear roadway width is 19.5 feet.

No utilities are attached to the existing structure, but French Broad Electric Coop has aerial power lines running east-west along US 19 that cross over Possum Trot Road in the vicinity of the south approach to Bridge No. 3. Frontier Telephone has aerial telephone lines utilizing the same poles the power lines use. Pioneer Cable uses the same poles and runs its cables below the telephone lines.

The current (2016) traffic volume of 1,244 vehicles per day (VPD) is expected to increase to 1,600 VPD by the year 2040. The projected volume includes one percent truck-tractor semi-trailers (TT-STs) and nine percent dual axel trucks (Duals). There is no posted speed limit in the project area so a statutory speed limit of 55 miles per hour applies. Bridge No. 3 does have an advisory speed limit posted at 10 miles per hour. There are two school buses that cross the bridge daily on their morning and afternoon routes.

There were three accidents reported in the vicinity of Bridge No. 3 during the last 10 years. One of the crashes struck the bridge railing and two struck the embankment. The type of accidents could be associated with the geometry and alignment of the roadway and bridge approach.

This section of Possum Trot Road is not part of a designated bicycle route nor is it listed in the STIP as needing incidental bicycle accommodations. Sidewalks do not exist on the existing bridge and there is no indication of pedestrian usage on or near the bridge. Bicycle and pedestrian accommodations are not required for this project.

III. ALTERNATIVES

A. Preferred Alternative

Build Alternative 1

Build Alternative 1 was studied in detail for replacing Bridge No. 3 and involves replacing the structure on new alignment, to the southeast side of the existing bridge, with a double barrel 13-foot x 5-foot reinforced concrete box culvert (2@13'x 5' RCBC). The roadway grade will be similar to the existing grade. The total project length of the new alignment will be approximately 875 feet. The new roadway will be realigned to straighten out existing S-curves just east of the bridge and provide an access point with better radii for large trucks entering and exiting the Summit Building Supply Company (see **Figure 2**).

The typical roadway cross-section within the project limits will include a minimum 24-foot pavement width, providing two 10-foot lanes and 2-foot paved shoulders. Paved shoulder width will vary in areas with guardrail. Improvements to the approach roadway will extend approximately 224 feet from the west end of the culvert and 608 feet from the east end of the culvert.

During construction, traffic will be maintained on the existing structure and roadway. Upon completion of the new alignment construction, the existing bridge and old roadway will be removed (see **Figure 2** [Removal of Existing Pavement]).

B. Alternatives Eliminated from Further Consideration

No Build

The no build alternative would eventually necessitate closure of the bridge and Possum Trot Road. This is unacceptable given the volume of traffic served by NC 226 and the limited connectivity to other major routes in the vicinity.

Rehabilitation

Bridge No. 3 was built in 1951 and was reconstructed once in 1978. Rehabilitation is not feasible due to poor deck geometry (Functionally Obsolete). Additionally, rehabilitation of the bridge would not improve its poor horizontal alignment.

Off-site Detour

An off-site detour alternative is not feasible given the limited connectivity to other major routes in the project vicinity. Summit Building Supply, a high traffic generating node, expressed concerns regarding a high impact to the business if the bridge was closed and an on-site detour was not provided, due to concerns with access needs for its customers with large trucks. An off-site detour would also increase emergency response time, and none of the possible detour routes are suitable for the volume of truck traffic anticipated. Additionally, due to the

topographic characteristics of the area, most routes in the vicinity are not acceptable detours due to tight curves.

IV. ESTIMATED COSTS (PREFERRED ALTERNATIVE)

Table 1: The estimated costs (Date of Estimate 10/20/15)

Cost Estimates	Alternative 1 (Preferred)
Structure (RCBC Double Barrel)	\$ 238,000
Roadway Approaches	339,566
Detour Structure and Approaches	-0-
Structure Removal	17,250
Misc. & Mob. (Structures)	25, 184
Misc. & Mob. (Roadway)	119,000
Total Contract Cost	\$ 739,000
Eng. & Contingencies	111,000
Total Construction Cost	\$ 850,000
Residential Relocation	\$ 40,000
Land, Improvements, and Damages	210,000
Acquisition	25,000
Total Right of Way Cost	\$ 275,000
Total Utility Relocation Cost	\$ 76,306
Total Project Cost	\$ 1,201,306

V. NATURAL ENVIRONMENT

Natural Resources in the project area were reviewed in the field in March 2013 and documented in a Natural Resources Technical Report (NRTR) (June 2013), incorporated by reference. This section includes a summary of the existing conditions, as well as the potential environmental impacts of the alternatives. A full version of the NRTR can be viewed at the Project Development & Environmental Analysis Unit located at Century Center Bldg. A, 1000 Birch Ridge Drive, Raleigh, NC.

A. Physical Characteristics

The study area lies in the mountain physiographic region of North Carolina. Topography in the project vicinity is comprised of steep ridges, deep valleys and limited areas of relatively level topography. Elevations in the study area range from 2,500 to 2,600 feet above sea level. Forested areas are located along the steep slopes in the southern portion of the study area.

Soils

The Yancey County Soil Survey identifies six soil types within the study area (see **Table 2**).

Table 2: Soils in the study area

Soil Series	Mapping Unit	Drainage Class	Hydraulic Status
Bandana sandy loam	BdA	Somewhat poorly drained	Hydric*
Chandler-Michaville complex	CeE	Somewhat excessively drained	Nonhydric
Clifton clay loam	CnE2	Well drained	Nonhydric
Dillard clay loam	DrB	Moderately well drained	Nonhydric
Saunook-Thunder complex	SdD	Well drained	Nonhydric
Udorthents, loamy, stony	Ud	Not Applicable	Hydric*

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

Water Resources

Water resources in the area are part of the French Broad River drainage basin [U.S. Geological Survey (USGS) Hydrologic Unit 06010108]. The entire river basin is located within the southern Appalachian Mountain Region of western North Carolina. Two Streams were identified in the study area (see **Table 3**). The location of each water resource is shown in **Figure 2**. The physical characteristics of these streams are provided in **Table 4**.

Table 3: Water Resources in the study area

Stream Name	NCDWR Index Number	Best Usage Classification
Bald Creek	7-3-22	C
Possumtrot Creek	7-3-22-7	C;Tr

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

Stream Name	Bank Height (ft)	Bankful Width (ft)	Water Depth (in)	Chanel Substrate	Velocity	Clarity
Bald Creek	4	20	24	Silt, Sand, Gravel, Cobble	Fast	Slightly Turbid
Possumtrot Creek	3	12	12	Silt, Sand, Gravel, Cobble	Fast	Slightly Turbid

The North Carolina Division of Water Resources (NCDWR) has identified Possumtrot Creek as trout water stream. There are no designated anadromous fish waters or Primary Nursery Areas (PNA) present in the study area. 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. There are no waters within 1.0 mile downstream listed on the North Carolina 2014 Final 303(d) list of impaired waters due to sediment and /or turbidity.

Benthic samples have been taken within the study area at Possumtrot Creek and Possum Trot Road and given a rating of “Excellent” on May 24, 2004. Fish surveys were conducted within the study area at Possumtrot Creek and Possum Trot Road on November 13, 2003 and were not rated. Fish surveys have also been conducted 0.75 miles downstream of the study area on Bald Creek at US 19W and given a rating of “Good” on November 13, 2003 (NCIBI=50).

Biotic Resources

Two terrestrial communities were identified in the study area: maintained/disturbed and chestnut oak forest (herbaceous subtype). Total coverage and potential impacts to each community type within the study area are provided in **Table 5**.

Maintained/disturbed areas are located in places where the vegetation is periodically mowed, such as roadside shoulders, agricultural fields and maintained lawns. The vegetation in this community is comprised of low growing grasses, shrubs and herbs including blackberry, multiflora rose, broom sedge, fescue and Japanese grass. Vines observed included Japanese honeysuckle and kudzu.

Chestnut/Oak Forest (Herbacous Subtype) community exists in the southern quadrant of the study area, along the steep slopes. Dominant species in this community include American beech, eastern hemlock, red oak, and tulip poplar in the overstory, and Chinese privet and Christmas fern in the shrub and ground layers.

Table 5: Coverage and impacts to terrestrial communities in the project study area

Community	Coverage (ac.)
Maintained-Disturbed/Agriculture	4.5
Chestnut/Oak Forest (Herbacous Subtype)	1.0
Total	5.5

B. Jurisdictional Topics

The following sections provide an inventory of resource areas and species and an assessment of possible impacts to waters of the United States and rare and protected species. Waters of the United States and rare and protected species are of particular significance when assessing impacts because of federal and state mandates that regulate their protection. The following section addresses those measures that will be required in order to comply with regulatory permit conditions prior to project construction. Jurisdictional areas identified in the study area are perennial streams and will not need verification by the U.S. Army Corps of Engineers (USACE) or the NCDWR.

Clean Water Act Waters of the U.S.

Two jurisdictional streams were identified in the study area (**Table 6**). The physical characteristics and water quality designations of each jurisdictional stream are detailed in the NRTR. All jurisdictional streams within the study area have been designated as cool water streams for the purposes of stream mitigation.

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

Map ID	Length (ft.)	Estimated Impacts (ft)	Classification	Compensatory Mitigation Required	River Basin Buffer
Bald Creek	183	0	Perennial	Yes	Not Subject
Possumtrot Creek	642	186.5	Perennial	Yes	Not Subject
Total	825	186.5			

No wetlands are located within the project study area.

Permits

The proposed project has been designated as a Categorical Exclusion (CE) for the purposes of National Environmental Policy Act (NEPA) documentation. As a result a Nationwide Permit (NWP) 23 will likely be applicable. A NWP 33 may also apply for temporary construction activities such a stream dewatering, work bridges or temporary causeways that often used during bridge construction or rehabilitation.

The USACE holds the final discretion as to what permit will be required to authorize project construction. If a Section 404 permit is required then a Section 401 Water Quality Certification (WQC) from NCDWR will be needed.

Construction Moratoria

Possumtrot Creek is an NCWRC - designated trout stream within the study area. No in water construction activities are permitted from October 15 to April 15 of any given year.

NCDOT will implement *Guidelines for Construction of Highway Improvements Adjacent to or Crossing Trout Waters in North Carolina* in the design and construction of this project.

Wetland and Stream Mitigation

The NCDOT will attempt to avoid and minimize impacts to streams to the greatest extent practicable in choosing a preferred alternative and during project design. If on-site mitigation is not feasible, mitigation will be provided by the North Carolina Division of Mitigation Services (DMS).

Federally Protected Species

As of July 24, 2015, the United States Fish and Wildlife Service (USFWS) lists nine federally protected species for Yancey 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.

Table 7: Federally protected species listed for Yancey County

Common Name	Scientific Name	Federal Status	Habitat Present	Biological Conclusion
Bog Turtle	<i>Clemmys muhlenbergii</i>	T(S/A)	No	Not Required
Carolina northern flying squirrel	<i>Glaucomys sabrinus coloratus</i>	E	No	No Effect
Northern long-eared bat	<i>Myotis septentrionalis</i>	T	Yes	*
Appalachian elktoe	<i>Alasmidonta raveneliana</i>	E	Yes	May Affect Not Likely To Adversely Affect
Spruce-fir moss spider	<i>Microhexura montivaga</i>	E	No	No Effect
Roan Mountain bluet	<i>Hedyotis purpurea</i> var. <i>montana</i>	E	No	No Effect
Spreading avens	<i>Geum radiatum</i>	E	No	No Effect
Virginia spiraea	<i>Spiraea virginiana</i>	T	Yes	No Effect
Rock gnome lichen	<i>Gymnoderma lineare</i>	E	No	No Effect

E – Endangered

T – Threatened

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

*- May Affect – NLEB is exempt due to consistency with the 4(d) rule

Bog Turtle

Habitat Description: Bog turtle habitat consists of open, groundwater supplied (springfed), graminoid dominated wetlands along riparian corridors or on seepage slopes. These habitats are designated as mountain bogs by the NCNHP, but they are technically poor, moderate, or rich fens that may be associated with wet pastures and old drainage ditches that have saturated muddy substrates with open canopies. Plants found in bog turtle habitat include sedges, rushes, marsh ferns, herbs, shrubs (tag alder, hardhack, blueberry, etc.), and wetland tree species (red maple and silky willow). These habitats often support sphagnum moss and may contain carnivorous plants (sundews and pitcherplants) and rare orchids. Potential habitats may be found in western Piedmont and Mountain counties from 700 to 4500 feet elevation in North Carolina. Soil types (poorly drained silt loams) from which bog turtle habitats have been found include Arkaqua, Chewacla, Dellwood, Codorus complex, Hatboro, Nikwasi, Potomac – Iotla complex, Reddies, Rosman, Tate – Cullowhee complex, Toxaway, Tuckasegee – Cullasaja complex, Tusquitee, Watauga, and Wehadkee.

Biological Conclusion: Not Required.

Species listed as threatened due to similarity of appearance do not require Section 7 consultation with the USFWS. This project is not expected to affect the bog turtle because no suitable habitat is present within the study area. No wetlands are present within the study area. A review of the North Carolina Natural Heritage Program (NCNHP) records, updated June 2016, indicates no known bog turtle occurrence within 1.0 mile of the study area.

Carolina northern flying squirrel

Habitat Description: There are several isolated populations of the Carolina Northern flying squirrel in the mountains of North Carolina. This nocturnal squirrel prefers the ecotone between coniferous (red spruce, Fraser fir, or hemlock) and mature northern hardwood forest (beech, yellow birch, maple, hemlock, red oak, and buckeye), typically at elevations above 4,500 feet. In some instances the squirrels may be found on narrow, north-facing valleys above 4,000 feet. Both forest types are used to search for food and the hardwood forest is used for nesting sites. Mature forests with a thick evergreen understory and numerous snags are most preferable. In winter, squirrels inhabit tree cavities in older hardwoods, particularly yellow birch.

Biological Conclusion: No Effect.

Suitable habitat for the Carolina northern flying squirrel does not exist within the study area. According to the NCNHP records, updated June 2016, the nearest known occurrence of Carolina northern flying squirrels is over seven miles away from the project area.

Northern long-eared bat

Habitat Description: The Northern long-eared bat is found across much of the eastern and north central US and all Canadian provinces. Northern long-eared bats spend winter hibernating in caves and mines, called hibernacula. They typically use large caves or mines with large passages and entrances; constant temperatures; and high humidity with no air currents. Specific areas where they hibernate have very high humidity, so much so that droplets of water are often seen on their fur. Within hibernacula, surveyors find them in small crevices or cracks, often with only the nose and ears visible. Summer roosting occurs singly or in colonies underneath bark, in cavities, or in crevices of both live and dead trees. It has also been found, rarely, roosting in human-made structures such as buildings, barns, behind window shutters, on utility poles and in bat houses. This species is a medium-sized bat with females tending to be slightly larger than males. Average body length ranges from 3 to 4 inches with a wingspan ranging from 9 to 10 inches. This species is distinguished by its relatively long ears that extend beyond the nose when laid forward.

Biological Conclusion: May Affect.

According to the North Carolina Natural Heritage Program (NHP) Biotics Database, most recently updated January 2016, the nearest NLEB hibernacula record is 4.7 miles southeast and no known NLEB roost trees occur within 150 feet of the project area. NCDOT has also reviewed the USFWS Asheville office website for consistency with NHP records. This project is located entirely outside of the red highlighted areas (12-digit HUC) that the USFWS Asheville Field Office has determined to be representative of an area that may require consultation. See referenced Memo attached.

NCDOT has determined that the proposed action does not require separate consultation on the grounds that the proposed action is consistent with the final Section

4(d) rule, codified at 50 C.F.R. § 17.40(o) and effective February 16, 2016. NCDOT may presume its determination is informed by best available information and consider Section 7 responsibilities fulfilled for NLEB.

Appalachian elktoe

Habitat Description: The Appalachian elktoe is known from the French Broad River watershed in North Carolina. It has been observed in moderate- to fast- flowing water, in gravelly substrates often mixed with cobble and boulders, in cracks of bedrock and in relatively silt-free, coarse, sandy substrates. Apparently, stability of the substrate is critical to this species, as it is seldom found in stream reaches with accumulations of silt or shifting sand, gravel, or cobble.

Biological Conclusion: **May Affect Not Likely To Adversely Affect.**

Surveys for the Appalachian elktoe were conducted on July 24, 2013. While appropriate habitat for the Appalachian elktoe is present in the surveyed reach, no freshwater bivalves were found during these efforts. However, the target species is known from the Cane River, approximately one river mile downstream of the project area. Given the distance (approximately 1 mile to NCNHP records and 3.45 miles to designated critical habitat) of the project area to known occupied habitat, impacts are unlikely to occur, but cannot be completely discounted. Strict adherence to erosion control standards should minimize the potential for any adverse impacts to occur.

NCDOT will request concurrence from USFWS on a **May Affect, Not Likely to Adversely Affect** biological conclusion, once final designs are available. Construction authorization will not be requested until consultation with USFWS is completed.

Roan mountain bluet

Habitat Description: Roan Mountain bluet occurs on thin, gravelly talus slopes of grassy balds, cliff ledges, shallow soils in crevices of rock outcrops, and steep slopes with full sun at the summits of high elevation peaks of the southern Blue Ridge Mountains. The plant is found at elevations of 4,200- 6,300 feet, and often has a north, northwest, south, or southwest aspect. Known occurrences typically grow in grave-filled, acidic, and metamorphic-derived soil pockets between underlying mafic rock. Fraser fir and red spruce dominate the forests adjacent to known populations. Blue Ridge goldenrod, Heller's blazing star, and spreading avens are a few of its known associate species.

Biological Conclusion: **No Effect.**

Suitable habitat for the Roan Mountain bluet does not exist within the study area. There are no grassy balds and steep slopes that receive full sun at or above 4,200 feet above mean sea level in the study area. Elevations in the study area do not exceed 2,600 feet above mean sea level. A review of the NCNHP records, updated June 2016, indicates no known Roan Mountain bluet occurrence within 1.0 mile of the study area.

Spruce-fir moss spider

Habitat Description: This species is known only from spruce-fir forests in the Appalachian mountains of North Carolina and Tennessee. The spruce-fir moss spider occurs in well-drained moss and liverwort mats growing on rocks or boulders. These mats are found in well-shaded areas in mature, high elevation (5,000 ft) Fraser fir and red spruce forests. The spruce-fir moss spider is very sensitive to desiccation and requires environments of high and constant humidity. The need for humidity relates to the moss mats, which cannot become too parched or else the mats become dry and loose. Likewise, the moss mats cannot be too wet because large drops of water can also pose a threat to the spider. The spider constructs its tube-shaped webs in the interface between the moss mat and the rock surface. Some webs have been found to extend into the interior of the moss mat.

Biological Conclusion: No Effect.

Suitable habitat for the Spruce-fir moss spider does not exist within the study area. According to the NCNHP data layer, the nearest known occurrence of this spider is over nine miles away at higher elevations.

Virginia spiraea

Habitat Description: Virginia Spiraea occurs in flood-scoured, high-gradient sections of rocky river banks of second and third order streams. This perennial shrub also occurs on meander scrolls and point bars, natural levees, and other braided features of lower stream reaches, gorges, and canyons. The plant grows in sunny areas on moist, acidic soils, primarily over sandstone, and tends to be found in often-disturbed early successional areas. The shrub often grows in thickets, although overtopping by arboreal species or fast-growing herbaceous vegetation eventually eliminates it. Scoured, riverine habitat sites are found where deposition occurs after high water flows, such as on floodplains and overwash islands, rather than along areas of maximum erosion. Many populations are either established among riparian debris piles where eroded vegetative modules or portions of a plant deposited during flood events, or can occur between boulders and in fine alluvial sand and other alluvial deposits.

Biological Conclusion: No Effect.

Suitable habitat for Virginia spiraea exists in both streams in the study area in the form of flood scoured, high gradient sections on second and third order streams. Surveys for Virginia spiraea were conducted on May 17, 2015. No individuals were found. A review of the NCNHP records, updated June 2016, indicates no known Virginia spiraea occurrence within 1.0 mile of the study area.

Spreading Avens

Habitat Description: Spreading avens occurs in areas exposed to full sun on high-elevation cliffs, outcrops, and bases of steep talus slopes. This perennial herb also occurs in thin, gravelly soils of grassy balds near summit outcrops. The species prefers a northwest

aspect, but can be found on west-southwest through north-northeast aspects. Forests surrounding known occurrences are generally dominated by either red spruce-Fraser fir, northern hardwoods with scattered spruce, or high-elevation red oaks. Spreading avens typically occurs in shallow, acidic soil (such as the Burton series) in cracks and crevices of igneous, metamorphic, or metasedimentary rocks. Soils may be well drained but almost continuously wet, with soils at some known populations subject to drying out in summer due to exposure to sun and shallow depths. Known populations occur at elevations ranging from 4,296 to 6,268 feet above mean sea level. Blue Ridge goldenrod, Heller's blazing star, and Roan Mountain bluet are a few of its common associate species.

Biological Conclusion: No Effect

Suitable habitat for spreading avens does not exist within the study area. There are no areas exposed to full sunlight at or above 4,200 feet above mean sea level within the study area. Elevations in the study area do not exceed 2,600 feet above mean sea level. A review of the NCNHP records, updated June 2016, indicates no known spreading avens occurrence within 1.0 mile of the study area.

Rock gnome lichen

Habitat Description: Rock gnome lichen occurs in high elevation coniferous forests (particularly those dominated by red spruce and Fraser fir) usually on rocky outcrop or cliff habitats. This squamulose lichen only grows in areas with a great deal of humidity, such as high elevations above 5,000 feet where there is often fog, or on boulders and large outcrops in deep river gorges at lower elevations. Habitat is primarily limited to vertical rock faces where seepage water from forest soils above flows only at very wet times. The species requires a moderate amount of sunlight, but cannot tolerate high-intensity solar radiation. Rock gnome lichen occurs in high elevation coniferous forests (particularly those dominated by red spruce and Fraser fir) usually on rocky outcrop or cliff habitats. The lichen does well on moist, generally open sites with northern exposures, but requires at least partial canopy coverage on southern or western aspects because of its intolerance to high solar radiation. The rock mosses *Andreaea* and *Grimmia* are common associate species in the vertical intermittent seeps.

Biological Conclusion: No Effect

Suitable habitat for the rock gnome lichen does not exist within the study area. There are no rocky outcrops or cliff habitats with a great deal of humidity and seepage that flows only during wet periods. Elevations in the study area do not exceed 2,600 feet above mean sea level. A review of the NCNHP records, updated June 2016, indicates no known rock gnome lichen occurrence within 1.0 mile of the study area.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act prohibits take of bald eagles and provides a statutory definition of "take" that includes "disturb". Habitat for bald eagle primarily consists of mature forests 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 is no habitat present in the study area for the bald eagle.

A desktop-GIS assessment of the study area, as well as the study area within 1.13 miles radius of the project limits was performed on February 22, 2013. One water body large enough to be considered feeding source was identified, the Cane River. A survey of the study area was conducted on March 6, 2013. No bald eagles or their nests were observed. Additionally, a review of the NCNHP records updated June 2016, revealed no known occurrences of this species within 1.0 mile of the study area. Due to the lack of known occurrences, and minimal impact anticipated for this project, it has been determined that this project will not affect this species.

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 Historic Architecture and Landscapes No Survey Required Form dated March 21, 2013 in Appendix A)

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 No Archeological Survey Required form dated July 19, 2013 in Appendix A).

Community Impacts

No adverse impact on families or communities is anticipated. Right-of-way acquisition will be relatively minor, given the needed realignment. A residential relocation is anticipated at the southern end of the project due to a residential septic system being in close proximity to Possum Trot Road.

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 the existing alignment. There are soils classified as prime, unique, or having state or local importance in the vicinity of the project. Farmland Protection Policy Act eligible soils are located in the northeast and southeast quadrants of the Direct Bridge Impact Area. Therefore, the project will involve the direct conversion of farmland acreage within these classifications.

As is required by the Farmland Protection Policy Act, Form NRCS-AD-1006 has been completed according to FHWA guidelines. A preliminary screening with the AD 1006 form resulted in a score of 52 points out of 160. Since this project received a total point value of less than 160 points, this site falls below the NRCS minimal criteria and will not be evaluated further for farmland impacts. No other alternatives than those discussed in this document will be considered without a re-evaluation of the project's potential impacts upon farmland. The project will not have a significant impact to farmland.

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 Yancey 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.

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

As is required by the Farmland Protection Policy Act, Form NRCS-AD-1006 has been completed according to FHWA guidelines. A preliminary screening with the AD 1006 form resulted in a score of 52 points out of 160. Since this project does not exceed the NRCS threshold of 60 points, this site falls below the NRCS minimal criteria and will not be evaluated further for farmland impacts. No other alternatives than those discussed in this document will be considered without a re-evaluation of the project's potential impacts upon farmland. The project will not have a significant impact to farmland.

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.

Yancey County is a participant in the National Flood Insurance Program, administered by FEMA. The effective FEMA floodplain mapping indicates that this crossing of Possumtrot Creek is located within a flood hazard zone. Possumtrot Creek itself does not have a flood study, but due to its proximity to the mapped flooding source (Bald Creek), FEMA coordination is likely.

VIII. COORDINATION & AGENCY COMMENTS

NCDOT has sought input from the following agencies as a part of the project development: U.S. Fish & Wildlife Service and N.C. Wildlife Resource Commission, U.S. Forest Service, Environmental Protection Agency, Tennessee Valley Authority, U.S. Army Corps of Engineers, N.C. Division of Water Resources, N.C. Historic Preservation Office, the Eastern Band of Cherokee Indians, and the Yancey County Planning Department.

The U.S. Fish & Wildlife Service (USFWS) and N.C. Wildlife Resource Commission (NCWRC) in standardized letters provided a request that they prefer any replacement structure to be a spanning structure.

Response: The current structure is a bridge built in 1951 and has a drainage area of 2.9 square miles. The reason for building a bridge was not because a culvert would not work but because the design, materials and labor were not practical in the time when this structure was built. Based on the drainage area and design discharges, a double barrel 13'x5' culvert (2@13'x5' RCBC) was determined to be adequate from a hydraulics standpoint. Because culverts generally cost less, require less maintenance throughout their service life and last longer than bridges, a culvert is the preferred structure type.

The USFWS in a standardized letter had one project-specific comment relating to TIP project B-4848.

Comment: We request that the replacement structure be a bridge with sufficient capacity to promote bank stability downstream of the structure.

Response: The current structure is a bridge built in 1951 and has a drainage area of 2.9 square miles. The original reason for building a bridge was not because a culvert would not work but because the design, materials and labor were not practical in the time when this structure was built. Based on the drainage area and design discharges, a double barrel 13'x 5' culvert (2@13'x5' RCBC) was determined to be adequate from a hydraulics standpoint. Because culverts generally cost less, require less maintenance throughout their service life and last longer than bridges, a culvert is the preferred structure type.

The NCWRC in a standardized letter had one project specific comment relating to TIP project B-4848.

Comment: A moratorium prohibiting in-stream work and land disturbance within the 25-foot trout buffer is recommended from October 15th to April 15th to protect the egg and fry stages of trout. Sediment and erosion control measures should adhere to the Design Standards in Sensitive Watersheds.

Response: NCWRC has designated this stream as trout waters and therefore *Design Standards in Sensitive Watersheds* will be incorporated throughout design and construction of the project. Based on the NCWRC's designation as trout waters, a mandatory trout moratorium will be present from October 15 to April 15 of any given year, for Possumtrot Creek along with all other tributaries in the project study area.

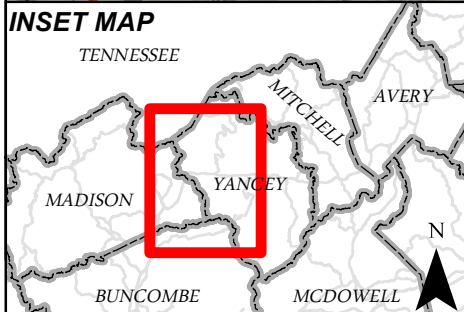
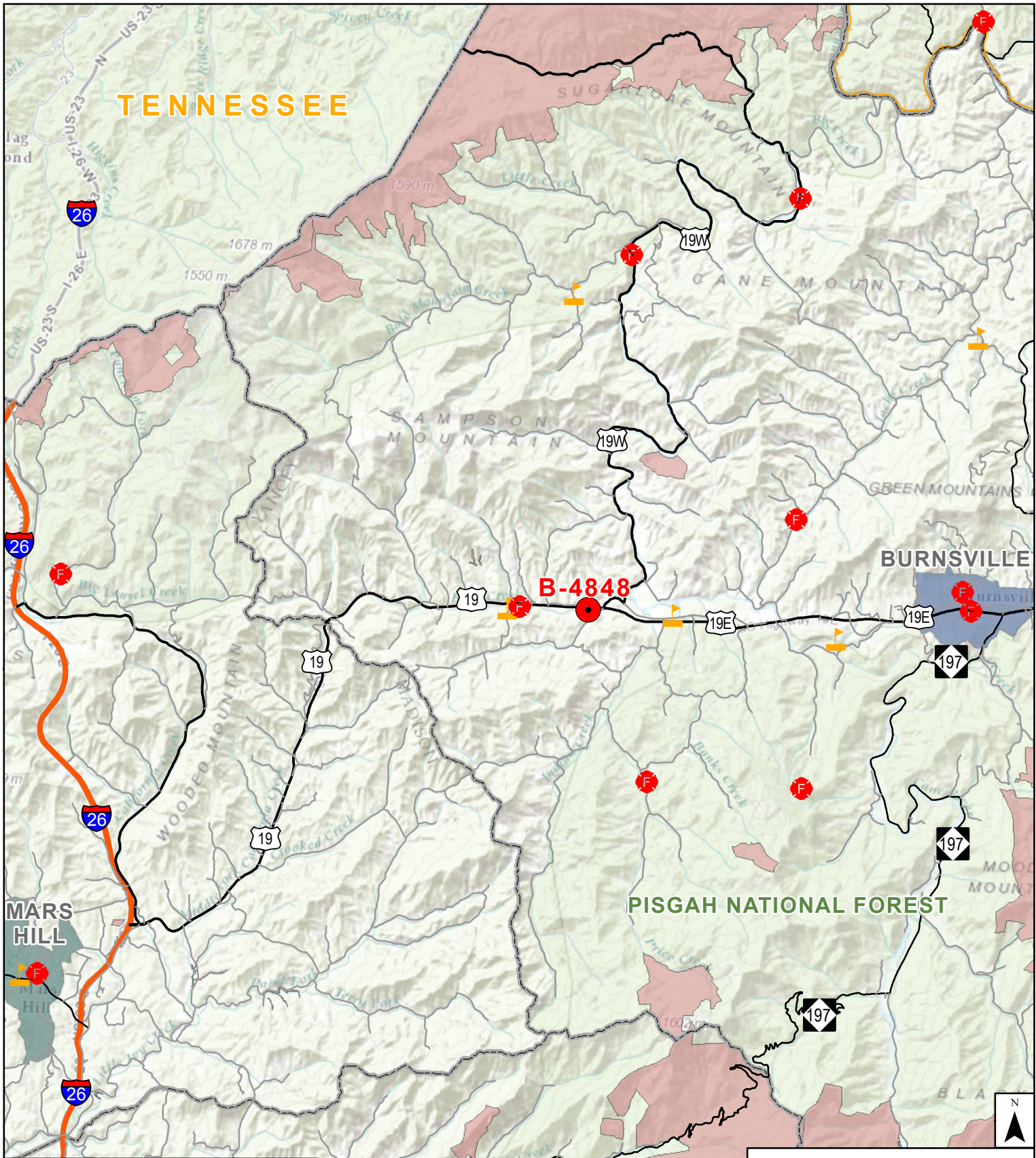
IX. PUBLIC INVOLVEMENT

A Landowner Notification letter was sent out to all property owners affected directly by this project. Property owners were invited to comment. No comments have been received to date.










There is not substantial controversy on social, economic, or environmental grounds concerning the project.

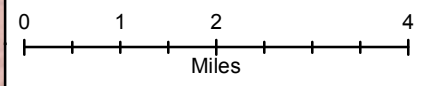
X. CONCLUSION

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.



LEGEND

-  Fire Station
-  B-4848
-  School
-  Interstate
-  US Highway
-  NC Highway
-  State Road
-  Local Route
-  Streams



Vicinity Map

Replace Bridge No. 3 on SR 1128
(Possum Trot Road) over Possumtrot Creek
Yancey County, North Carolina

TIP Project B-4848

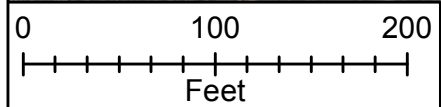
June 2016

FIGURE 1



Legend

- Project Study Area
- Proposed Alignment
- Final Roadway
- Paved Shoulder
- New Culvert
- Removal of Existing Pavement
- - - Cut Slope
- - - Fill Slope
- - - Transition Slope
- - - Temporary Construction Easement
- R W Proposed Right of Way Lines
- - - Delineated Streams
- Parcels



Proposed Design	
B-4848 Replace Bridge No. 3 on SR 1128 (Possum Trot Road) over Possumtrot Creek Yancey County, North Carolina	
North Carolina Department of Transportation, Project Development & Environmental Analysis Unit	June 2016 FIGURE 2

Appendix A

Forms

13-03-0036



HISTORIC ARCHITECTURE AND LANDSCAPES NO SURVEY REQUIRED FORM

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

PROJECT INFORMATION

Project No:	B-4848	County:	Yancey
WBS No.:	38618.1.1	Document Type:	PCE or CE
Fed. Aid No:	BRZ-1128(7)	Funding:	<input type="checkbox"/> State <input checked="" type="checkbox"/> Federal
Federal Permit(s):	<input type="checkbox"/> Yes <input type="checkbox"/> No	Permit Type(s):	
<u>Project Description:</u> Replace Bridge No. 3 on SR 1128 (Possum Trot Rd) over Possumtrot Creek in Yancey County. Project length is approximately 1,000 feet. The existing right-of-way is assumed to be 60 feet and the proposed right-of-way is 100 feet from the centerline in each direction.			

SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

<p><u>Description of review activities, results, and conclusions:</u> Review of HPO quad maps, HPOweb GIS mapping, historic designations roster, and indexes was conducted on 3/19/13. Based on this review, there are no existing NR, SL, LD, DE, or SS properties in the Area of Potential Effects (APE). Built in 1951, Bridge No. 3 is not eligible for listing to the National Register of Historic Places (NRHP) according to the NCDOT Historic Bridge Inventory. The CRS also reviewed Yancey County GIS and tax records which revealed two properties over the age of fifty years within the project APE, however, they do not possess enough integrity or architectural significance to be considered for eligibility to the NRHP according to photos on the property cards. The APE runs directly south of US HWY 19E and consists of part of an industrial complex and heavily wooded tracts dotted with residences. Thus, a survey is not required for this project.</p>
<p><u>Why the available information provides a reliable basis for reasonably predicting that there are no unidentified significant historic architectural or landscape resources in the project area:</u> HPO quad maps, HPOweb GIS mapping, Google maps and Yancey County property records are considered valid tools for the purposes of determining the likelihood of historic resources being present. A survey is not required for this project.</p>

SUPPORT DOCUMENTATION

Historic Architecture and Landscapes NO SURVEY REQUIRED form for Minor Transportation Projects as Qualified in the 2007 Programmatic Agreement.

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

FINDING BY NCDOT ARCHITECTURAL HISTORIAN

Historic Architecture and Landscapes -- NO SURVEY REQUIRED

Mega Brinett

3/21/13

NCDOT Architectural Historian

Date



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-4848** County: **Yancey**
 WBS No: **38618.1.1** Document: **PCE OR CE**
 F.A. No: **BRZ-1128(7)** Funding: State Federal

Federal Permit Required? Yes No Permit Type:

Project Description: Replace Bridge 3 on SR 1128 over Possum Creek. Area of Potential Effects (A.P.E.) is approximately 305 meters (1,000 ft.) long and 60 meters (200 ft.) wide. Federal funding; unknown permit requirements; unknown easement requirement. No design plans provided.

SUMMARY OF CULTURAL RESOURCES REVIEW

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

The review included an examination of a topographic map, the Yancey County soil survey, an aerial photograph, and listings of previously recorded sites, previous archaeological surveys, and previous environmental reviews at the Office of State Archaeology (OSA). A visual reconnaissance of the A.P.E. was conducted on 4/16/2013. The bridge is oriented approximately 220° and is considered north/south for this project.

The topographic map (Bald Creek, N.C.-Tenn.) shows the A.P.E. is located in a wide creek valley near the confluence of Possum Creek and Bald Creek. The landform in the southeast, southwest, and northwest quadrants appears to be level floodplain. The landform in the northeast quadrant is the base of a ridge toe. Level, well-drained floodplains have a moderate to high potential for archaeological sites.

The Yancey County soil survey describes the soils as Bandana sandy loam (0-3% slopes) around the bridge, Dillard loam (2-8% slopes) at the south end of the A.P.E., and Udorthents at the north and west end of the A.P.E. Bandana sandy loam is an occasionally flooded, somewhat poorly drained soil on floodplains. Dillard loam is a rarely flooded, moderately well drained soil on low stream terraces and colluvial fans. Udorthents is found in cut and fill areas where the soil has been removed and placed on an adjacent site.

The aerial photograph shows that part of the southwest and all of the northwest quadrants are disturbed. The south end of the southwest quadrant looks like a residential yard. The southeast quadrant is a narrow strip of land between Possum Creek and SR 1128. The northeast quadrant looks like a residential yard.

A review of information at the O.S.A. shows several previously recorded archaeological sites a short distance to the west and east of the A.P.E. Sites 31YC46, 31YC47, 31YC48, and 31YC49 were recorded during the survey for the relocation of a segment of US 19 by Drucker (1981). All nine sites recorded by that survey were recommended ineligible for the National Register of Historic Places (NRHP). The survey found that most of the level ground in the Bald Creek valley has little potential for intact deposits because it has been heavily cultivated, and floods have scoured the area. The A.P.E. for this project may have been included in Drucker's (1981) survey area, but this could not be confirmed because the report

does not describe the specific limits of the survey areas. The A.P.E. is not located in any areas that have been previously reviewed by the State Historic Preservation Office (HPO).

The visual examination of the A.P.E. was conducted on 4/16/2013. The bridge is oriented approximately 220° and is considered north/south for this project. The bridge is located approximately 30 meters (100 ft.) south of the confluence of Possum Creek and Bald Creek. US 19 is located along the north side of Bald Creek, and it is not clear how much the construction of the modern highway has altered the natural stream characteristics. Bald Creek flows under US 19 approximately 60 meters (200 ft.) northeast of Bridge 3.

The examination found that there were few parts of the A.P.E. with the potential for archaeological sites. The northeast quadrant is a narrow, flat area at the base of a hill. There's a driveway up to a house, and then the area looks landscaped. The soil survey depicts the soil in this area as Udorthents (fill). It might have been leveled as part of the US 19 relocation, perhaps the soil was borrowed to build the road.

The southeast quadrant is a narrow strip of land between SR Possum Creek and SR 1128.

The southwest quadrant is a small area of flat floodplain, then a driveway to Summit Supply Depot, then another area of floodplain, and then a residence. The driveway to Summit is approximately 10 meters (33 ft.) south of the creek, and the flat area between them looks floodprone. The soil survey depicts the soil in this area as somewhat poorly-drained Bandana sandy loam. Also, there's a large sand storage structure and some discarded machinery located in that part. The area south of Summit driveway is flat floodplain (residential yard) south for 60 meters (200 ft.) to a driveway and residence. The soil survey depicts moderately well-drained Dillard loam in this part of the A.P.E. It appeared to be a landform with moderate to high potential for archaeological sites, but investigation of the ground surface indicated there has been some disturbance in this area. There's road gravel covering most of the ground surface, and the grass grows in patches. The soil is uneven and looks disturbed.

The northwest quadrant is a narrow strip of land between SR 1128 and Possum Creek/Bald Creek for approximately 30 meters (100 ft.), then a wide strip of land between SR 1128 and US 19. Possum Creek joins Bald Creek approximately 30 meters (100 ft.) north of the bridge. Approximately 60 meters (200 ft.) northeast of the confluence, Bald Creek flows under US 19 and runs along the north side of the highway. After crossing Possum Creek at a 220° bearing, SR 1128 turns east and runs along the south side of US 19. The A.P.E. along the north/west side of the SR 1128 looks like a filled and graded parking area for equipment and trucks.

References Cited

Drucker, Lesley M.

1981 An Archaeological Survey of the Proposed US 19 Realignment from Cane River Bridge to the Madison County Line, Yancey County, North Carolina. NCDOT TIP R-59. Prepared for the North Carolina Department of Transportation, Raleigh, North Carolina. Carolina ARchaeological Services, Columbia, South Carolina.

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

While the topographic map suggested that some landforms within the A.P.E. might have potential for archaeological sites, the visual examination indicates the area has little potential. The landforms within the A.P.E. have been disturbed by construction of US 19 and a driveway to Summit Supply Depot. There are no previously recorded sites located within the A.P.E. Several sites located in the vicinity have been evaluated as ineligible for the NRHP.

SUPPORT DOCUMENTATION

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

Photos Correspondence
Other: **aerial photograph**

FINDING BY NCDOT ARCHAEOLOGIST

NO ARCHAEOLOGY SURVEY REQUIRED

Caleb Smith

7/19/2013

NCDOT ARCHAEOLOGIST II

Date




PAT McCRORY
Governor

NICHOLAS J. TENNYSON
Secretary

June 15, 2016

TO: Bill Barrett, Environmental Senior Specialist
Environmental Coordination & Permitting Group Western, NES - PDEA

CC: Lisa Feller, Project Development Engineer
Project Development Group - Western Region, PDEA

FROM: Cheryl Gregory, Environmental Program Consultant 
Biological Surveys Group, NES - PDEA

SUBJECT: *Streamline Section 7 Consultation for the Northern Long-Eared Bat* associated with the replacement of Bridge No. 3 over Possum Trot Creek on SR 1128 in Yancey County, **TIP No. B-4848.**

The North Carolina Department of Transportation (NCDOT, Division 13) proposes to replace Bridge No. 3 over Possum Trot Creek on SR 1128 in Yancey County, TIP No. B-4848. The existing bridge is a single span structure with a timber floor on steel I-beams and concrete abutments. The guardrail is also constructed of wood. The overall length of the structure is 27 feet.

The project to replace Bridge No. 3 has been reviewed for effects on the northern long-eared bat (NLEB). As of May 4, 2015, NLEB is listed by the U.S. Fish and Wildlife Service (USFWS) as "Threatened" under the Endangered Species Act of 1973. As of March 31, 2016, NLEB is listed by USFWS (http://www.fws.gov/raleigh/species/cntylist/nc_counties.html) as "current" in Yancey County. USFWS also established a final rule under the authority of section 4(d) of the Endangered Species Act that provides measures for the conservation of NLEB. The USFWS has tailored the final 4(d) rule to prohibit the take of NLEB from certain activities within areas where they are in decline. This incidental take protection applies only to known NLEB occupied maternity roost trees and known NLEB hibernacula. Effective February 16, 2016, incidental take resulting from tree removal is prohibited if it 1) occurs within a ¼ mile radius of known NLEB hibernacula; or 2) cuts or destroys known occupied maternity roost trees, or any other trees within a 150-foot radius from the known maternity tree during the pup season (June 1-July 31).

According to the North Carolina Natural Heritage Program (NHP) Biotics Database, most recently updated January 2016, **the nearest NLEB hibernacula record is 4.7 miles south east (EO ID 34327) and no known NLEB roost trees occur within 150 feet of the project area.** EO 34327 represents Cooper's site with observations from 1992 and 2014.



NCDOT has also reviewed the USFWS Asheville Field office website (http://www.fws.gov/asheville/htmls/project_review/NLEB_in_WNC.html) for consistency with NHP records. This project is located entirely outside of the red highlighted areas (12-digit HUC) that the USFWS Asheville Field Office has determined to be representative of an area that may require consultation.

For the proposed action, NCDOT has committed to the conservation measures listed below:

- 1) No alterations of a known hibernaculum's entrance or interior environment if it impairs an essential behavioral pattern, including sheltering northern long-eared bats (January 1 through December 31);
- 2) No tree removal within a 0.25 mile radius of a known hibernacula (January 1 through December 31); and
- 3) No cutting or destroying a known, occupied maternity roost tree, or any other trees within a 150-foot radius from the known, occupied maternity tree during the period from June 1 through and including July 31.

NCDOT has determined that the proposed action does not require separate consultation on the grounds that the proposed action is consistent with the final Section 4(d) rule, codified at 50 C.F.R. § 17.40(o) and effective February 16, 2016. NCDOT may presume its determination is informed by best available information and consider Section 7 responsibilities fulfilled for NLEB.

If you need any additional information, please contact Cheryl Gregory at 919-707-6142.