

Type III Categorical Exclusion Action

STIP Project No.	R-5600
WBS Element	45818.1.FR1
Federal Project No.	STP-0107(13)

A. Project Description

The North Carolina Department of Transportation (NCDOT), in consultation with the Federal Highway Administration (FHWA), proposes to improve NC 107 from NC 116 to US 23 Business and US 23 Business from Skyland Drive (SR 1432) to Municipal Drive in Sylva, Jackson County. Upgrades generally consist of four lanes with curb and gutter, bike lanes, and sidewalks on both sides. A median-divided facility is proposed from NC 116 to US 23 Business at Skyland Drive. An undivided facility is proposed on US 23 Business from NC 107 to Municipal Drive. The project is approximately 2.9 miles long (see **Figure 1**).

The project is designated as R-5600 in the 2018-2027 North Carolina State Transportation Improvement Program (STIP). The 2.9-mile project and surrounding area that is assessed in this Categorical Exclusion (CE) is referred to as the study corridor or project study area.

Within the project limits, NC 107 is named East Main Street from south of NC 116 to US 23 Business. US 23 Business is named Asheville Highway from NC 107 to Skyland Drive. US 23 Business is named West Main Street from NC 107 to west of its intersection with Municipal Drive and Chipper Curve Road (SR 1429).

The project is entirely within the Sylva town limits and Southwestern Rural Planning Organization (SWRPO) planning area. The area surrounding the project corridor is mountainous with level land primarily around jurisdictional streams and tributaries. There are no major parallel routes within four miles of NC 107 that could serve as an alternative for through traffic.

Upgrades to NC 107 and US 23 Business in the project area were proposed in the Jackson County Comprehensive Transportation Plan (CTP) adopted in 2010. NCDOT evaluated potential upgrades to these routes in a 2011 feasibility study. During that time, a proposed new location bypass of downtown Sylva, the NC 107 Connector (STIP Project R-4745), between NC 107 and US 23/ 74 east of Sylva, was also studied. This STIP project was an effort to address congestion along NC 107. During the planning phase, traffic studies showed the NC 107 Connector would help reduce traffic on NC 107 but would not completely solve the transportation needs. In 2012, the SWRPO completed an NC 107 Corridor Study to identify the community's goals for upgrading NC 107, and in 2013, NCDOT and the SWRPO ranked the upgrades to existing NC 107 as a funding priority in place of the NC 107 Connector. The NC 107 Connector project was subsequently removed from the Jackson County CTP and the STIP and replaced with the R-5600 project to improve NC 107 and US 23 Business.

B. Description of Purpose and Need

Purpose of Project

The purpose of the project is to relieve congestion and improve traffic operations to acceptable levels of service along this heavily traveled route. Another desirable outcome of the project is to improve safety.

Need for Project

The need for the project is demonstrated through existing and projected traffic volumes in the study corridor. NC 107 serves as an important regional route that joins the towns of Sylva, Webster, Cullowhee, Tuckasegee, and Cashiers. There is dense commercial development with many driveways and intersections within the project limits. As many as 32,400 vehicles per day (vpd) currently travel through the project corridor. This volume of traffic is expected to increase to 39,200 vpd by the year 2035. Under current peak traffic conditions, the major intersections within the project limits operate at unacceptable levels of service during the busiest hours. Congestion and traffic delays will continue to worsen if no improvements are made.

The existing 2.5-mile segments of NC 107 and US 23 Business from NC 116 to Skyland Drive mostly consist of five lanes with curb and gutter and no control of access. The 0.4 mile segment of US 23 Business from NC 107 to Municipal Drive consists of three and four lanes with curb and gutter and no control of access. Posted speed limits range from 25 to 55 miles per hour (mph). The current Annual Average Daily Traffic (AADT) of 22,000 to 32,400 vehicles is too high for this roadway to handle, constraining traffic flow. Future AADT volumes within the project study area are projected to range between 27,000 and 39,200 by 2035.

The combination of high volumes of traffic, and numerous direct driveway connections, creates congested conditions along the corridor. Vehicles must stop or slow down in the single travel lane to make their desired turn, affecting the level of service. During peak periods, turning vehicles, especially left-turning vehicles, can create queues along the corridor and substantially slow average travel speeds. These conditions are anticipated to worsen into the future.

Traffic congestion on NC 107 and US 23 Business through the project study area is a daily occurrence during peak travel periods, causing unpredictable delays and increased travel time for commuters and travelers. The corridor experiences a high percentage of rear-end collisions (stop or slow), which can be caused by congested conditions. A five year crash study (August 2011 through July 2016) noted 254 total crashes on NC 107 from NC 116 to US 23 Business, resulting in a crash rate of 234 crashes per 100 million vehicle miles (mvm) of travel. This is higher than the 2013-2015 statewide average for all NC routes (221 crashes per 100 mvm) but lower than the statewide average for four-lane NC routes with a continuous left turn lane (241 crashes per 100 mvm).

C. Categorical Exclusion Action Classification

The proposed project is classified as Type III for purposes of preparing the CE.

D. Proposed Improvements

NCDOT evaluated the No Build Alternative and four Build Alternatives for the proposed project. Two alternatives are for a superstreet design (Alternatives 1A and 1B) Two of the alternatives are for a conventional intersection design (Alternatives 2A and 2B).

The following paragraphs describe the No Build Alternative and the four Build Alternatives considered for the proposed action, and the identification of the Selected Alternative. Additionally, this section describes other alternatives that were considered, but screened out in advance of design level studies for various reasons.

No Build Alternative

A No Build Alternative is an alternative for which no physical improvements to the existing roadway or construction of a new facility is proposed. The No Build Alternative for this project does not meet the transportation goals of the NCDOT and SWRPO, fails to provide solutions to anticipated high traffic volumes in the area, and does not satisfy the purpose and need for action. For these reasons, NCDOT does not consider the No Build Alternative as the preferred alternative for this proposed project. The No Build Alternative does, however, provide a basis for comparing the benefits and adverse impacts of the Build Alternatives. Thus, the No Build Alternative is included in this CE.

Build Alternatives

Alternative 1A calls for a four-lane superstreet design with raised median that provides directional crossovers with median U-turns at selected intersections. It includes four 12-foot travel lanes divided by a 17'-6" grass median. Five-foot bike lanes curb and gutter, and five-foot sidewalks are proposed on both sides of NC 107 and US 23 Business. The minimum right of way width is 110 feet. Additional easements will also be required.

Alternative 1B calls for a four-lane superstreet design with raised median that provides directional crossovers with median U-turns at selected intersections. Wide outside lanes are proposed on both sides of NC 107 to accommodate bicyclists, and sidewalks are proposed on both sides of the roadway.

Alternative 2A calls for a four-lane design with raised median and conventional intersection treatments that allow all traffic movements to occur at major intersections on NC 107 and US 23 Business. It includes four 12-foot travel lanes divided by a 17'-6" grass median. Five-foot bike lanes curb and gutter, and five-foot sidewalks are proposed on both sides of the roadway. The minimum right of way width is 110 feet. Additional easements will also be required. This alternative has the same typical design as Alternative 1A.

Alternative 2B calls for a four-lane design with raised median and conventional intersection treatments that allow all traffic movements to occur at major intersections on NC 107 and US 23 Business. Wide outside lanes are proposed on both sides of NC 107 to accommodate bicyclists, and sidewalks are proposed on both sides of the roadway. This alternative has the same typical design as Alternative 1B.

Alternatives Eliminated from Further Consideration

NCDOT considered improving transportation in the NC 107 study corridor with alternative modes of transportation such as transportation demand management (e.g., ride sharing, vanpooling, and staggered work hours), transportation system management (i.e., traffic law

enforcement, access control, turn prohibitions, speed restrictions, traffic signal timing optimization), and mass transit/ multi-modal services. These alternatives were eliminated from further consideration because they would not alone be sufficient to accommodate the travel demand through the study corridor.

As a result of the public meeting input and collaboration with town officials the alternatives that include 14-foot outside lanes (Alternatives 1B and 2B) were eliminated from further consideration. Because of the interest in full movement intersections at major intersections, Alternative 1A, the superstreet design, was also eliminated.

Selected Alternative

Alternative 2A (conventional intersection design with dedicated bike lanes) was carried forward as the Selected Alternative (see **Figure 2**). The Selected Alternative best balances needs, impacts, and costs compared to the other alternatives studied.

E. Special Project Information for Build Alternative 2A (Selected Alternative)

The Selected Alternative includes conventional intersections with access management on NC 107 and bike lanes on both sides of NC 107 and US 23 Business. NC 107 will be widened to a four-lane facility with curb and gutter and sidewalks on both sides. The existing alignment will be utilized as much as possible; however there are two instances where realignment is the best option to ensure a safe and efficient roadway. The first proposed realignment location occurs at Bridge Number 77 on US 23 Business. Bridge No. 77, over Scott Creek, would be a replacement bridge south of the existing alignment using the existing bridge as an on-site detour. The realignment would cut out the existing roadway curve and give a better line of sight to the roadway. The second realignment occurs at the intersection of Sunrise Park Street and NC 107. The realignment here will bring the intersection into alignment with US 23 Business (Asheville Highway) on the opposite side of NC 107. This would create a more seamless intersection and allow Sunrise Park Street to have better access at a traffic light which would improve safety conditions. **Table 1** describes the proposed improvements for the Selected Alternative.

Table 1: Proposed Improvements for the Selected Alternative

Proposed Improvements	Selected Alternative (Alternative 2A)
Design Speed - miles per hour (mph)	
NC 107	Varies 40-50 mph
US 23 Business (Asheville Highway)	35 mph
US 23 Business (West Main Street)	30 mph
Typical Section	
NC 107	Four 12-foot travel lanes, 17'-6" raised grass median, 2'-6" curb and gutter, 10-foot berm, two 5-foot bike lanes, two 5-foot sidewalks
US 23 Business (Asheville Highway)	Five 12-foot lanes, 5'-6" raised median, 2'-6" curb and gutter with 10-foot berm, two 5-foot sidewalks
US 23 Business (West Main Street) from Chipper Curve Road to Asheville Highway	Four 12-foot travel lanes, 2'-6" curb and gutter with 6-foot berm, two 5-foot bike lanes, two 5-foot sidewalks
US 23 Business (West Main Street) from Mill Street to Chipper Curve Road	Two 12-foot travel lanes, 2'-6" curb and gutter with 6-foot berm, two 5-foot sidewalks
Right of Way	
NC 107	110' (minimum width)
US 23 Business (Asheville Highway)	110' (minimum width)
US 23 Business (West Main Street)	Varies from 40' to 110'
Bridges	
Bridge No. 50	97' x 55' bridge
Bridge No. 77	66' x 74' bridge
Bridge No. 197	3@12'X7' RCBC*buried 1 foot
Bridge No. 198	3@12'X7' RCBC buried 1 foot
Access Control	No control except in designated U-turn locations
Pedestrian Considerations	5-foot sidewalks on both sides of NC 107
Bicycle Considerations	5-foot dedicated bike lanes on both sides of NC 107
2035 Traffic Volumes - vehicles per day (vpd)	
NC 107	34,800-39,200 vpd
US 23 Business (Asheville Highway)	30,000 vpd
US 23 Business (West Main Street)	21,600-25,700 vpd

RCBC= Reinforced Concrete Box Culvert

Utilities

Potential utility impacts have preliminarily been identified. Utility design coordination will commence as the project moves into final design. The Tuckaseegee Water and Sewer Authority (TWSA) is developing plans, and has funding, to improve/ consolidate/ relocate two existing sewer lift stations along West Main Street. The current and proposed stations are located south of NC 107 between Chipper Curve Road and Bridge Street. Due to physical constraints along the corridor including a floodplain, the TWSA preferred site for the lift station(s) could be within the project's right of way limits. Right of way limits will be determined in final design. Right of way limits may be shifted to accommodate new/relocated sewer lift stations in the corridor.

Pedestrian and Bicycle Accommodations

Pedestrian and bicycle accommodations will be coordinated with the Town of Sylva during final design. In accordance with [NCDOT Pedestrian Policy Guidelines](#), NCDOT will bear the full cost to replace existing sidewalks to be relocated by the project along existing streets. The Town will participate in the cost of new sidewalks where they do not currently exist. A municipal agreement will be prepared prior to project construction. The type and location of

crossings will be coordinated and determined with the Town and the NCDOT Division of Bicycle and Pedestrian Transportation staff during final design.

Railroad Crossings

The Blue Ridge Southern Railroad crosses Chipper Curve Road at-grade on the north side of US 23 Business near the western end of the project. The proposed improvements tie into the Chipper Curve Road on the south side of the railroad tracks.

Structures

Six structures were identified at the major stream crossings along the corridor (see **Figure 2**). Existing and proposed structures are identified in **Table 2**. Under the Selected Alternative, Federal Emergency Management Agency (FEMA) coordination will be required for all project sites.

Table 2 also identifies potential impacts to jurisdictional resources. These preliminary impact estimates were calculated using a 25-foot buffer from the slope stake limits, per the guidelines in the *Wetland, Stream, and Riparian Buffer Impact Calculations* memorandum (NCDOT, September 2006). As shown in **Table 2**, the project has the potential to permanently impact an estimated 450 linear feet of jurisdictional streams.

Section 404 jurisdictional areas (waters of the US) within the project area include perennial mountain streams. A Regional General Permit No. 19820031 will likely be applicable. The US Army Corps of Engineers holds the final discretion as to what permit will be required to authorize project construction. A 404 permit will also require a Section 401 Water Quality Certification (WQC) from the NC Division of Water Resources.

Table 2: Stream Impacts and Proposed Structures in the Study Area

Map ID	Stream Impact (linear feet)	Temporary Impacts (lf)	Permanent Impacts (lf)	Existing Structure	Proposed Structure
Bumgarner Branch	170	95	75	1@ 8'X8' RCBC	Extend 1@8'X8' RCBC 25' on downstream end; Extend with 1@11'x8' RCBC 57' upstream with improved inlet
Cope Creek	265	205	60	(#490197) 28' x 26' bridge	3@12'X7' RCBC buried 1 foot
Cope Creek	220	160	60	(#490198) 28' x 21' bridge	3@12'X7' RCBC buried 1 foot
Cope Creek	260	135	125	(#490148) 3@6'X6' RCBC	Extend 3@6'X6' RCBC 43' with bevel
Mill Creek	110	90	20	None	None
Scott Creek	0	0	0	(#490050) 40' x 75' bridge	97' x 55' bridge
Scott Creek	0	0	0	(#49077) 40' x 55' bridge	66' x 74' bridge
SA	0	0	0	None	None
SB	0	0	0	None	None
SD	35	0	35	None	None
SF	100	25	75	None	None
TOTAL	1,160	710	450		

Note: Estimates calculated using 25-foot buffer of preliminary design slope stakes

Work Zone, Traffic Control and Construction Phasing

Specific work zone, traffic control, and construction phasing plans will be prepared during final design.

Cost Estimate

Cost estimates for the Selected Alternative are provided below in **Table 3**.

Table 3: Cost Estimate for the Selected Alternative

Right-of-Way Cost	\$47,600,000
Utility Cost	\$ 1,500,000
Construction Cost	\$21,500,000
Total Cost	\$70,600,000

Preliminary Impacts

Preliminary impacts for the Selected Alternative are shown in **Table 4**.

Table 4: Impact Matrix for the Selected Alternative (Build Alternative 2A)

Resources		Alternative 2A
Length (miles)		2.9
Relocations	Residential	5
	Business	54
	Non-profit	1
Total Relocations		60
Minority / Low Income Populations (Disproportionate Impacts)		0
Limited English Proficiency Populations		0
Historic Properties (Adverse Effects)		0
Community Facilities Impacted		0
Section 4(f) Impacts		0
Noise Receptor Impacts		0
Prime Farmland (acres)		0
Right of Way (acres)		11.5
Easements (acres)		11.1
Streams ¹ – Calculated 25' from back of slope stake (linear feet)		Permanent impacts- 450 lf Temporary impacts- 710 lf
Wetlands ¹ (acres)		0
Federally Protected Species - Indiana bat		May Affect –Not Likely to Adversely Affect
Indirect and Cumulate Effects- Land Use Scenario		0
Potential for Adverse Impacts from Hazardous Materials		1 High, 6 Moderate, 16 Low

NOTES: Impact quantities are based on construction limits plus an additional 25 feet.

Public Involvement

A Citizens Informational Workshop was held for the NC 107 Connector project on December 4, 2008 at Western Carolina University. Participants voiced their opinions about congestion on NC 107, upgrades needed on existing roads, the need for a new route, and potential negative effects of a new route on businesses, the community, and the environment. Project team members also received comments during public workshops for the Jackson County CTP on October 13, 2009 and the NC 107 Feasibility Study on November 9, 2010.

On February 23, 2017 in the Conrad Burrell Building at Southwestern Community College (447 College Drive in Sylva) a Local Official's Informational Meeting was held. Local officials attended the meeting representing the Town of Sylva, Jackson County, and the Southwestern Commission. Officials expressed comments related to bridge aesthetics,

pedestrian/bicycle accommodations, plantings, U-turn locations, emergency vehicle use, and intersection treatments.

An informal open-house Public Meeting was held later that day at the same location. A total of 152 citizens signed in at the meeting. A summary of the comments follows:

- Fifteen comments (nine from the same family) favored Alternative 2B with 14-foot outside lanes.
- Ten of the submitted comments favored Alternative 1A with bike lanes.
- The remaining alternative designs had from 1-6 comment forms in support.
- Nine comments requested that Walter Ashe Road be widened to the end of the road to accommodate future heavy traffic and tractor trailers (this comment is out of the scope of this project).
- Four comments requested that left-turning movements be allowed out of Walmart.

F. Project Impact Criteria Checklists

Table 5 is the NCDOT Project Impact Criteria Checklist, which is used to summarize impacts for Build Alternative 2A (Selected). For resource impacts identified with the checked box **Yes**, additional information is provided for those questions in Section G.

Table 5. Summary of Impacts for Build Alternative 2A (Selected)			
<u>Type III Actions</u>		Yes	No
If the proposed improvement is identified as a Type III Class of Action answer all questions.			
<ul style="list-style-type: none"> • The Categorical Exclusion will require FHWA approval. • If any questions are marked “yes” then additional information will be required for those question in Section G. 			
1	Does the project involve potential effects on species listed with the US Fish and Wildlife Service (USFWS) or National Marine Fisheries (NMFS)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Does the project result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act (BGPA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Does the project generate substantial controversy or public opposition, for any reason, following appropriate public involvement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	Does the project cause disproportionately high and adverse impacts relative to low-income and/or minority populations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5	Does the project involve substantial residential or commercial displacements or right of way acquisition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6	Does the project include a determination under Section 4(f)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	Is a project-level analysis for direct, indirect, or cumulative effects required based on the NCDOT community studies screening tool?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	Has Mobile Source Air Toxics (MSAT) been considered for this project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8a	Is the project in an Air Quality Non-attainment or Maintenance Area for a National Ambient Air Quality Standard?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9	Is the project located in anadromous fish spawning waters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	Does the project impact waters classified as Outstanding Resource Water (ORW), High Quality Water (HQW), Water Supply Watershed Critical Areas, 303(d) listed impaired water bodies, buffer rules, or Submerged Aquatic Vegetation (SAV)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

11	Does the project impact waters of the United States in any of the designated mountain trout streams?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14	Does the project include Section 106 of the National Historic Preservation Act (NHPA) effects determination other than a no effect, including archaeological remains? Are there project commitments identified?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15	Does the project involve hazardous materials and/or landfills?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
16	Does the project require work encroaching and adversely effecting a regulatory floodway or work affecting the base floodplain (100-year flood) elevations of a water course or lake, pursuant to Executive Order 11988 and 23 CFR 650 subpart A?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
17	Is the project in a Coastal Area Management Act (CAMA) county and substantially affects the coastal zone and/or any Area of Environmental Concern (AEC)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18	Does the project require a U.S. Coast Guard (USCG) permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
19	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River present within the project area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
20	Does the project involve Coastal Barrier Resources Act (CBRA) resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
21	Does the project impact federal lands (e.g. USFS, USFWS, etc.) or Tribal Lands?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
22	Does the project involve any changes in access control?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
24	Will maintenance of traffic cause substantial disruption?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
25	Is the project inconsistent with the STIP or the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP) (where applicable)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
26	Does the project require the acquisition of lands under the protection of Section 6(f) of the Land and Water Conservation Act, the Federal Aid in Fish Restoration Act, the Federal Aid in Wildlife Restoration Act, Tennessee Valley Authority (TVA), Tribal Lands, or other unique areas or special lands that were acquired in fee or easement with public-use money and have deed restrictions or covenants on the property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
28	Is the project considered a Type I under the NCDOT's Noise Policy?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
29	Is there prime or important farmland soil impacted by this project as defined by the Farmland Protection Policy Act (FPPA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
30	Are there other issues that arose during the project development process that affected the project decision?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

G. Additional Documentation as Required from Section F

Checklist Item 1: Federally Protected Species

As of May 4, 2017, the US Fish and Wildlife Service (USFWS) lists eleven federally protected species in Jackson County. **Table 6** provides the list of federally protected species in Jackson County, all of which are under the jurisdiction of USFWS. Brief descriptions of the listed species and the Biological Conclusion describing whether the proposed project would affect the species, follow **Table 6**. The Biological Conclusion is based on field observation and survey results in the study area.

Table 6. USFWS Listed Species in the Study Area

Scientific Name	Common Name	Federal Status	Habitat Present	Biological Conclusion
<i>Bombus affinis</i> *	Rusty-patched bumble	E	Yes	Not Required
<i>Glyptemys muhlenbergii</i>	Bog turtle	T (S/A)	No	Not Required
<i>Glaucomys sabrinus coloratus</i>	Carolina northern flying squirrel	E	No	No Effect
<i>Myotis grisescens</i>	Gray bat	E	Yes	No Effect
<i>Myotis sodalis</i>	Indiana bat	E	Yes	MANLAA with winter tree clearing
<i>Myotis septentrionalis</i>	Northern long-eared bat	T	Yes	Not Required
<i>Alasmidonta raveneliana</i>	Appalachian elktoe	E	No	No Effect
<i>Microhexura montivaga</i>	Spruce-fir moss spider	E	No	No Effect
<i>Isotria medeoloides</i>	Small whorled pogonia	T	Yes	No Effect
<i>Helonias bullata</i>	Swamp pink	T	No	No Effect
<i>Gymnoderma lineare</i>	Rock gnome lichen	E	No	No Effect

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

MANLAA– May Affect Not Likely to Adversely Affect

Indiana bat **Biological Conclusion: May Affect Not Likely to Adversely Affect with winter tree clearing (October 15-April 15)**

Suitable habitat for the Indiana bat is present within the study area in the form of bridges and limited forested habitat. According to a review of the April 2018 NCNHP database indicates that there are no Indiana bat occurrences within 1.0 mile of the study area. Due to the presence of forested habitat within the study area, the project will be considered MANLAA, if winter tree clearing is used.

Northern long-eared bat **Biological Conclusion: Not Required**

Suitable habitat for the northern long-eared bat is present within the study area. A review of the April 2018 NCNHP database indicates no known northern long-eared bat occurrences within 1.0 miles of the study area. The action does not require separate USFWS consultation because 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. Section 7 responsibilities are therefore considered fulfilled. A review of the USFWS Asheville Field Office website (http://www.fws.gov/asheville/htmls/project_review/NLEB_in_WNC.html) was also conducted for consistency with NCNHP records. This project is located entirely outside of the highlighted areas (12-digit HUC) that the USFWS has determined to be representative of areas that may require consultation.

Checklist Item 5: Substantial Displacements or Right of Way Acquisition

Based on the functional design, the NCDOT Appraisal Office estimates the project will relocate 5 residences, 54 businesses, and 1 non-profit. Of the 54 estimated business displacements, 44 of the businesses employ 5 or less employees. A revised relocation report is underway as the design is better refined and initial impacts appear reduced.

The February 23, 2017 Public Meeting had 152 residents/ business owners sign in. Two of the 152 participants submitted comments related to business impacts. Both of the comments received were from landlords who expressed concern about compensation for their rental units. According to the Relocation Report adequate housing is available within financial means for the residential relocations.

Beginning in 2008, a proposed new location bypass of downtown Sylva, the NC 107 Connector, between NC 107 and US 23/ 74 east of Sylva, was studied. This STIP project was an effort to address congestion along NC 107. During the planning phase, business representatives, residents, the Town of Sylva and Jackson County requested that improvements to NC 107 be considered. The community was concerned that a bypass would negatively affect business customers and not completely solve the transportation needs in the corridor. The NC 107 Connector project was subsequently removed from the Jackson County CTP and the STIP and replaced with the subject project to improve NC 107 and US 23 Business.

Since 2011, improvements to NC 107 and US 23 Business have been a top transportation priority for Sylva and Jackson County. NCDOT has continually kept officials apprised of the potential business displacements along the corridor, and will continue to work with the local community as the design progresses.

An article in the May 2, 2018 *Sylva Herald* newspaper said that town leaders are committed to working with and helping the businesses impacted by construction. The Town held a separate public meeting on August 6, 2018 to receive comments from businesses and the public. As a follow-up to the August meeting, Town planners identified numerous parcels within the Town limits that could potentially support the smaller relocated businesses. Additionally, the Town and Jackson County are looking at other ways to assist with the relocations and make parcels available, including fee waivers and variances to local development ordinances. Town officials are in support of the widening of NC 107 and US 23 Business. The project will provide an overall benefit to the community by improving traffic conditions through the central business district.

NCDOT will continue to refine the proposed design in an effort to minimize impacts to adjacent properties and reduce the number of displacements, where possible. NCDOT will use three programs to minimize the inconvenience of relocation: Relocation Assistance, Relocation Moving Payments, and Relocation Replacement Housing Payments or Rent Supplement. These programs are in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. Comparable replacement housing and business space is available in the Project area for displaced homeowners, tenants, and businesses. The landlords can choose a fixed cost method of assistance.

Checklist Item 11: Trout Waters

Four streams (Cope Creek, Scott Creek, SA, and SD) are classified as trout waters by the NC Division of Water Resources. The North Carolina Wildlife Resources Commission (NCWRC) has identified Scott Creek as a hatchery-supported trout water.

Checklist Items 15: Hazardous Material Sites

Of 43 sites investigated, there are 23 sites with the potential for hazardous materials concerns associated with the Selected Alternative. Of these 22 sites may contain petroleum underground storage tanks (USTs) and/ or contamination concerns from past tanks, and of these, one (Jackson Paper Manufacturing facility) may present a high risk for potential monetary or scheduling impacts. A former Jackson County Landfill (closed in 2007) is located approximately one mile west of the project. The former landfill presents a low risk for potential impact to the project. These sites are described in the *GeoEnvironmental Report for Planning - Improving NC 107 to a Multi-Lane, Median Divided Facility, NC 116 to US 23 Business, Sylva, Jackson County* (January 2018) available in the project files.

Checklist Item 16: Floodplains

The Preliminary Hydraulics Study identified eight streams in the study area. The main crossing waters affecting this project were narrowed down to three large streams: Scott Creek, Cope Creek, and Bumgarner Branch. The hydraulic study evaluated potential impacts to major draining structures at crossings along the project corridor to determine the preliminary sizes of major drainage structures that would be needed to adequately carry floodwaters. Six total existing locations where streams cross under NC 107, Sunrise Park Street, or Cherry Street are identified on **Figure 3**. All six project sites are within a FEMA studied stream. Two sites (Scott Creek) are located within a redelination FEMA study. The remaining sites (Cope Creek and Bumgarner Branch) are located within a limited detailed study area.

The NCDOT Hydraulics Unit will coordinate with FEMA and local authorities to ensure compliance with applicable floodplain management ordinances. This coordination will occur under the Memorandum of Agreement (MOA) between NCDOT and the NC Floodplain Mapping program (FMP), which has been delegated by FEMA to maintain current Flood Insurance Rate Maps and handle map revisions or obtain a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

Since this project involves construction activities on or adjacent to FEMA-regulated streams, the NCDOT Division 14 offices shall submit sealed as-built construction plans to the NCDOT Hydraulics Unit upon completion of project construction, certifying that the drainage structures and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

Checklist Item 22: Control of Access

The Selected Alternative includes no control of access except where full control is needed at U-turn locations. Upgrades of NC 107 from an uncontrolled four-lane roadway with a center turn lane to a four-lane median divided facility from NC 116 to Skyland Drive will prohibit the ability to make left turns except at designated locations.

H. Project Commitments

NC 107 and US 23 Business From NC 116 to US 23 Business and US 23 Business from Skyland Drive (SR 1432) to Municipal Drive Sylva, Jackson County

September 2018

WBS Element No. 45818.1.FR1
STIP Project No. R-5600
Federal Project No. STP-0107(13)

Division 14

Winter tree clearing from October 15 to April 15 will be used to avoid disturbing the Indiana bat.

Prior to and during construction, the NCDOT shall coordinate with Jackson County Public Schools, Sylva Volunteer Fire Department, Sylva Police Department, and Jackson County Department of Emergency Management and Emergency Services to notify them of the schedule for potential closures and detour routes during construction activities.

The project design should avoid physical impacts to the Fairview Memorial Gardens cemetery. If the project design does not avoid the site, grave site relocations are possible.

The NCDOT will coordinate with the Town of Sylva regarding median and berm landscaping. Municipal agreements will be prepared, as applicable, prior to project construction.

Prior to construction a soil and groundwater assessment will be provided for possible hazardous material sites in the study area. Any properties identified as potential hazardous material sites will be analyzed prior to right of way acquisition.

The Tuckasegee Water and Sewer Authority (TWSA) is developing plans, and has funding, to improve/ consolidate/ relocate two existing sewer lift stations along West Main Street south of NC 107 between Chipper Curve Road and Bridge Street. Due to physical constraints along the corridor including a floodplain, the TWSA preferred site for the lift station(s) could be within the project's right of way limits. Right of way limits may be shifted to accommodate new/relocated sewer lift stations in the corridor.

Division of Bicycle and Pedestrian Transportation, Division 14

Pedestrian and bicycle accommodations will be further coordinated with the Town during final design. The Town will participate in the cost of new sidewalks and multi-use paths where they do not currently exist. A municipal agreement will be prepared prior to project construction. The NCDOT will coordinate with the Town regarding the type and location of pedestrian/bicycle crossings at major intersections.

Hydraulics Unit, Division 14

Prior to construction, an erosion and sedimentation control plan will be developed in accordance with NCDOT standards and will incorporate best management practices for erosion and sedimentation control.

The NCDOT Hydraulics Unit will coordinate with FEMA and local authorities to ensure compliance with applicable floodplain management ordinances. Since this project involves construction on or adjacent to FEMA regulated streams, the NCDOT Division 14 shall submit sealed as-built construction plans to the NCDOT Hydraulics Unit upon completion of project construction, certifying that the drainage structures were built as shown in the construction plans, both horizontally and vertically.

Section 404 jurisdictional areas (waters of the US) within the project area include perennial mountain streams. A Regional General Permit No. 19820031 will likely be applicable. The US Army Corps of Engineers holds the final discretion as to what permit will be required to authorize project construction. A 404 permit will also require a Section 401 Water Quality Certification (WQC) from the NC Division of Water Resources.

Categorical Exclusion Approval

STIP Project No.	<u>R-5600</u>
WBS Element	<u>45818.1.FR1</u>
Federal Project No.	<u>STP-0107(13)</u>

Prepared By:

<u>9/24/2018</u>	<u><i>Mark L. Reep</i></u>
Date	Mark L. Reep, PE, Project Manager HDR Engineering, Inc. of the Carolinas

Prepared For:

Division of Highways
North Carolina Department of Transportation

Reviewed By:

<u>9/25/2018</u>	<u><i>David G. McHenry</i></u>
Date	David G. McHenry, Environmental Supervisor Division of Highways - Division 14 North Carolina Department of Transportation

NCDOT certifies that the proposed action qualifies as a Type III Categorical Exclusion.

<u>9/25/2018</u>	<u><i>J. L. Woodard</i></u>
Date	Jonathan L. Woodard, PE, Senior Project Engineer for Brian C. Burch, PE, Division Engineer Division of Highways - Division 14 North Carolina Department of Transportation

FHWA Approval:

<u>9/25/2018</u>	<u><i>George Hoops</i></u>	for
Date	John F. Sullivan, III, PE, Division Administrator Federal Highway Administration	

Additional Reports and Documentation

The technical reports listed below as well as any additional project documentation can be found at NCDOT's Division 14 office in the project file.

- Natural Resources Technical Report
- Public Involvement activities
- Community Impact Assessment
- Community Characteristics Report/ Screening of Indirect and Cumulative Effects
- No Archaeological Survey Required Form
- No Historic Properties Present or Affected Form
- Traffic Noise Memorandum
- Air Quality Analysis Report
- GeoEnvironmental Report for Planning
- Capacity Analysis Report
- Relocation Report

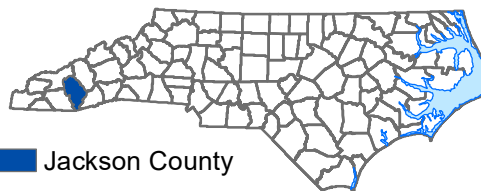
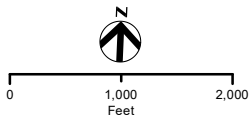
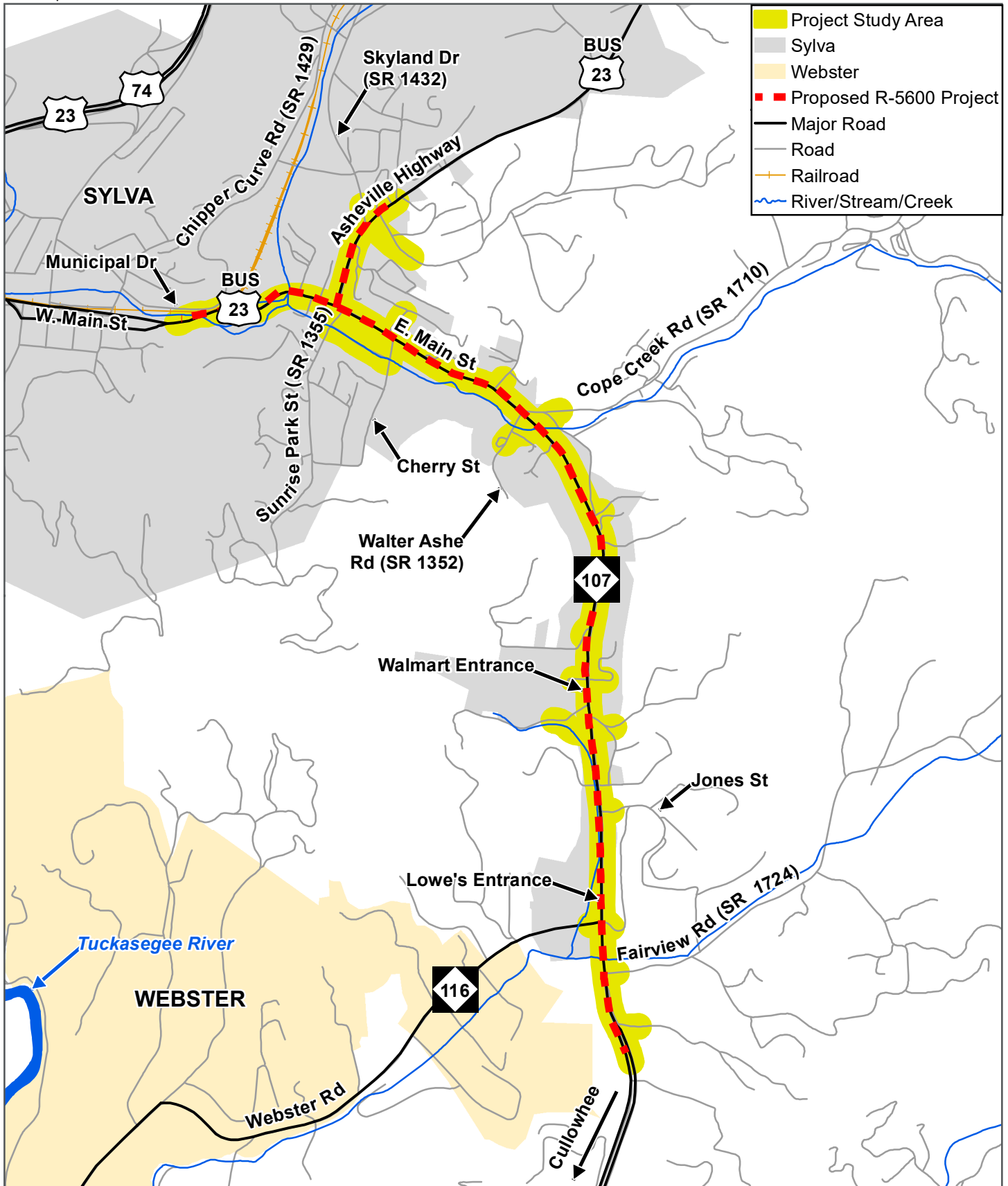


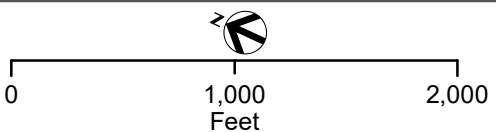
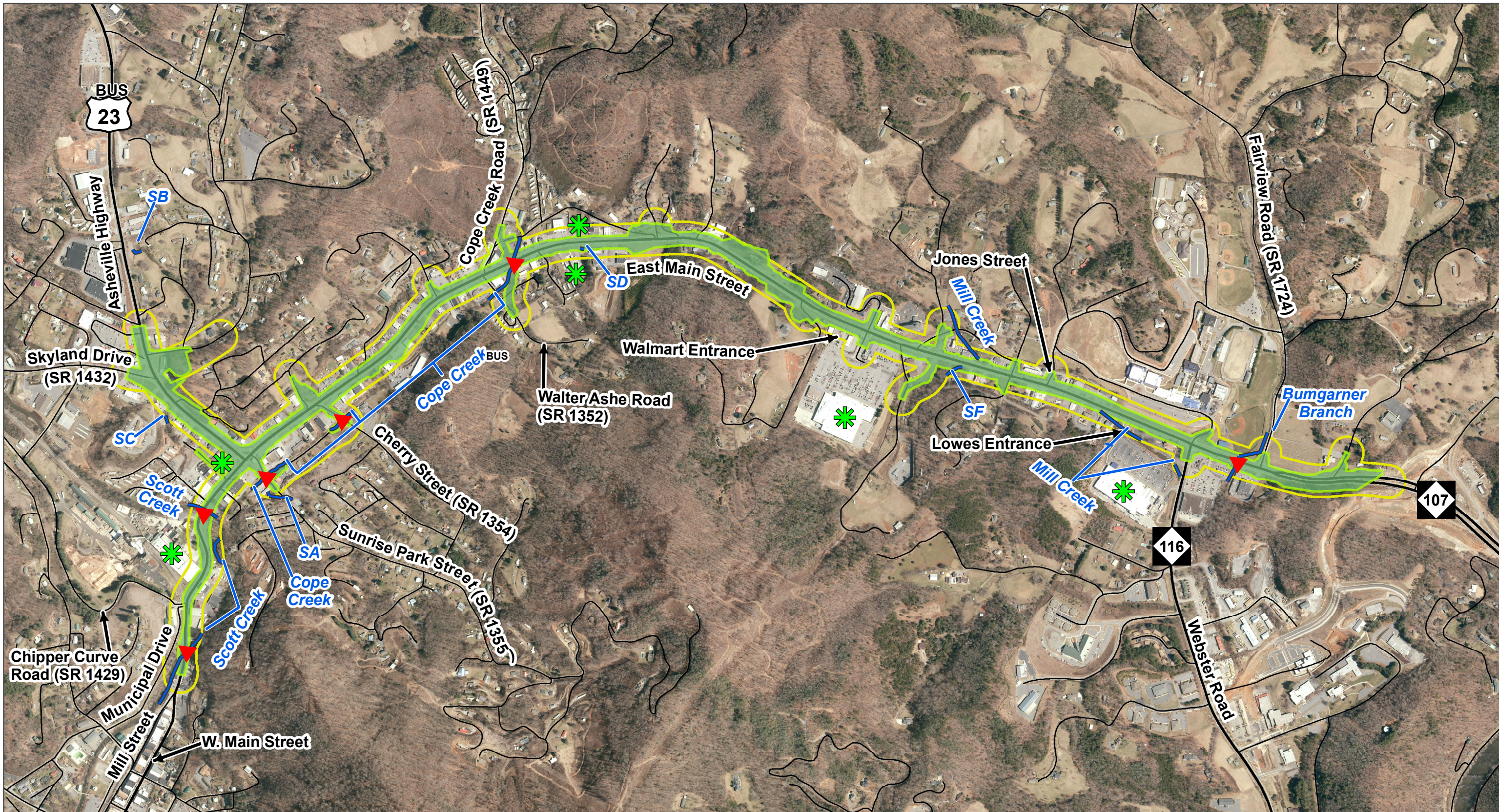
FIGURE 1. VICINITY MAP

STIP R-5600
 NC 107 AND US 23 BUSINESS
 IMPROVEMENTS
 JACKSON COUNTY



DATA SOURCES: Jackson County, NC OneMap, NCDOT GIS

JULY 2018



Jackson County

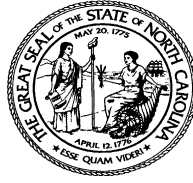
- Major Business
- Existing Bridge/Culvert
- Project Study Area
- Project Footprint
- Road
- Jurisdictional Stream

FIGURE 2
PREFERRED ALTERNATIVE
 STIP R-5600
 NC 107 AND US 23 BUSINESS
 IMPROVEMENTS
 JACKSON COUNTY

DATA SOURCES: NCDOT GIS, NC OneMap, Jackson County, USA Topo Maps, HDR|ICA

JULY 2018

Correspondence



**North Carolina Department of Natural and Cultural Resources
State Historic Preservation Office**

Ramona M. Bartos, Administrator

Governor Roy Cooper
Secretary Susi H. Hamilton

Office of Archives and History
Deputy Secretary Kevin Cherry

May 31, 2018

MEMORANDUM

TO: Kate Husband
Office of Human Environment
NCDOT Division of Highways

FROM: Renee Gledhill-Earley *Renee Gledhill-Earley*
Environmental Review Coordinator

SUBJECT: Historic Structures Survey Report, Upgrade NC 107, R-5600, PA 17-04-0026,
Jackson County, ER 18-1087

Thank you for your May 3, 2018, memorandum transmitting the above-referenced report. We have reviewed the report and concur that the following properties are not eligible for listing in the National Register of Historic Places under any criteria for the reasons stated.

- Queen House (JK0379)
- Stone Houses (JK0719)
- Parker House (JK0720)
- Gunter House (JK0721)
- Old Ensley Store (JK0722)
- C.J. Harris Tannery/Sylva Paperboard Company Complex (JK0723)

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-807-6579 or environmental.review@ncdcr.gov. In all future communication concerning this project, please cite the above referenced tracking number.

cc: Mary Pope Furr, NCDOT, mfurr@ncdot.gov



GWYŁ D3P
CHEROKEE NATION[®]
P.O. Box 948 • Tahlequah, OK 74465-0948 • 918-453-5000 • cherokee.org

Office of the Chief

Bill John Baker
Principal Chief
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S. Joe Crittenden
Deputy Principal Chief
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February 19, 2018
Cheryl Hannah
North Carolina Department of Transportation
101 N 3rd Street, Suite 201
Wilmington, NC 28401-4034

Re: STIP R-5600, NC 107 Improvements from NC 116 to US 23 Business in Sylva

Ms. Cheryl Hannah:

The Cherokee Nation (CN) is in receipt of your correspondence about **STIP R-5600, NC 107 Improvements from NC 116 to US 23 Business in Sylva**, and appreciates the opportunity to provide comment upon this project. The proposed project lies within the CN’s ancestral homelands. Please allow this letter to serve as the CN’s interest in acting as a consulting party to this project.

The CN maintains databases and records of cultural, historic, and pre-historic resources in this area. Our Historic Preservation Office reviewed this project, cross referenced the project’s legal description against our information, and found instances where this project intersects or adjoins such resources.

Thus, the CN recommends that a cultural resources survey is conducted for this proposed project, and is requesting a copy of this report. The CN requires that cultural resources survey personnel and reports follow the Secretary of Interior’s standards and guidelines.

However, the CN requests that the North Carolina Department of Transportation (NCDOT) halt all project activities immediately and re-contact our Offices for further consultation if items of cultural significance are discovered during the course of this project.

Additionally, the CN requests that NCDOT conduct appropriate inquiries with other pertinent Tribal and Historic Preservation Offices regarding historic and prehistoric resources not included in the CN databases or records.

If you require additional information or have any questions, please contact me at your convenience. Thank you for your time and attention to this matter.

Wado,

Elizabeth Toombs, Tribal Historic Preservation Officer
Cherokee Nation Tribal Historic Preservation Office
elizabeth-toombs@cherokee.org
918.453.5389

17-04-0026



HISTORIC ARCHITECTURE AND LANDSCAPES NO HISTORIC PROPERTIES PRESENT OR AFFECTED FORM

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

PROJECT INFORMATION

Project No:	R-5600	County:	Jackson
WBS No.:	45818.1.FR1	Document Type:	EA and FONSI
Fed. Aid No:		Funding:	<input type="checkbox"/> State <input checked="" type="checkbox"/> Federal
Federal Permit(s):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Permit Type(s):	404 Permi
Project Description: Upgrade NC 107 to a four-lane, median divided facility.			

SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

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

Date of field visit:

Description of review activities, results, and conclusions:

Review of HPO quad maps, HPO GIS information, historic designations roster, and indexes was undertaken on April 12, 2017. Based on this review, there is a National Register listed historic district, survey sites, and several properties over fifty years of age within the APE. An historic architecture survey was required. A reconnaissance survey performed June 2017 identified 83 properties over fifty years of age. Of those properties, it was determined 6 required in-depth evaluations of National Register eligibility. A report written March 2018 determined that all six properties are not eligible for National Register listing. The State Historic Preservation Office concurred with this finding on May 31, 2018. There are no determined eligible properties within the Study Area.

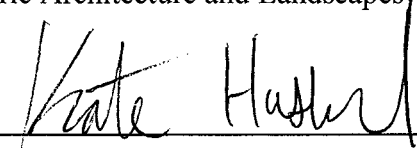
The National Register listed Downtown Sylva Historic District (JK0586) was evaluated in relation to this project. Preliminary plans dated 5/20/2018 show that there is no work/improvements within the historic district, and the district will not be affected by this project. If design plans change, additional review will be required.

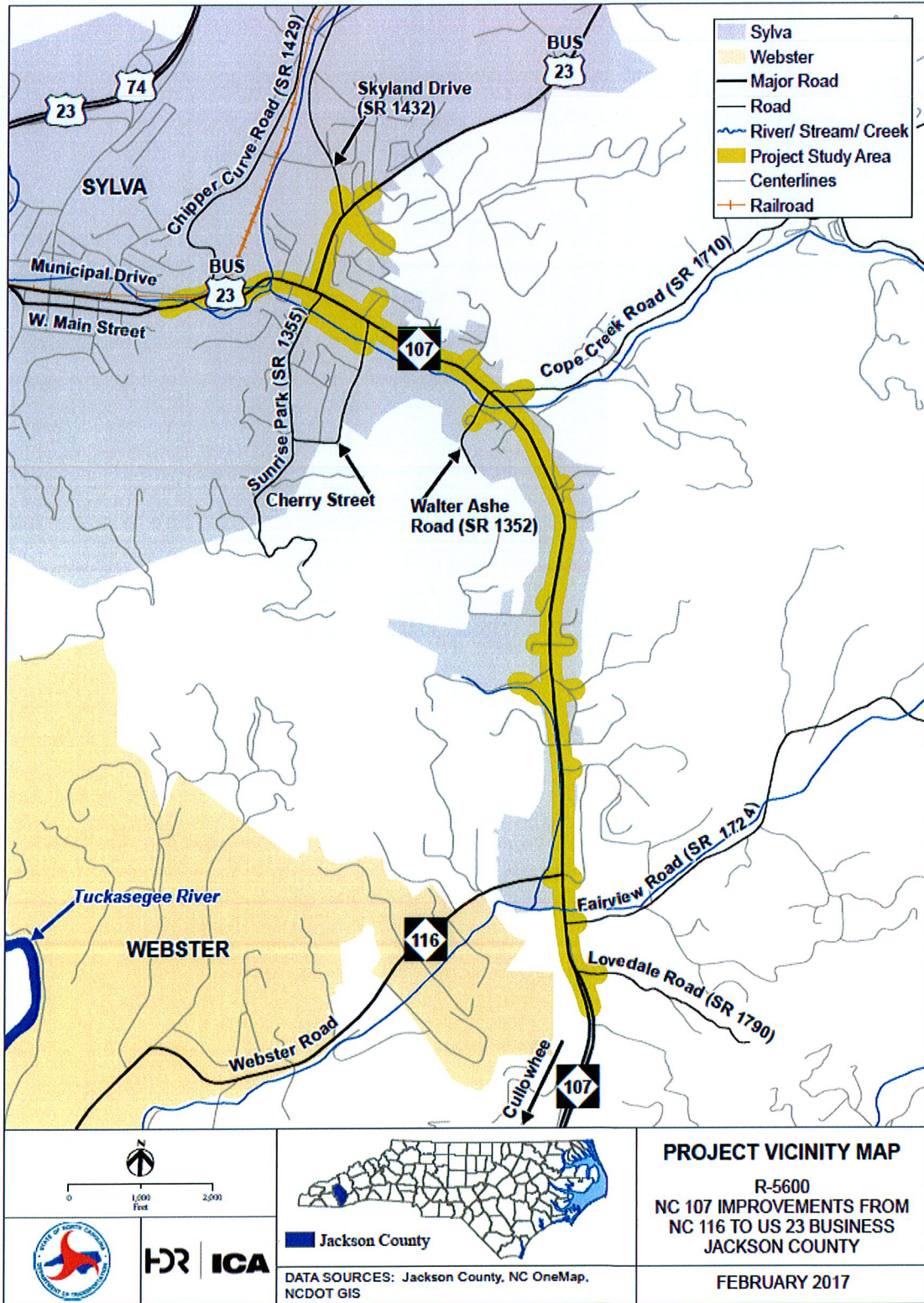
SUPPORT DOCUMENTATION

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

FINDING BY NCDOT ARCHITECTURAL HISTORIAN

Historic Architecture and Landscapes — **NO HISTORIC PROPERTIES PRESENT OR AFFECTED**


_____ 6/15/2018
NCDOT Architectural Historian Date

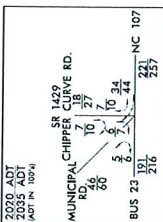




Downtown Silva Historic District Boundaries.

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

PROJECT REFERENCE NO. R-5600	SHEET NO. 4
REV. SHEET NO. R-5600	PROFESSIONAL ENGINEER BOB WALKER
INCOMPLETE PLANS <small>DO NOT USE FOR A/P ADMINISTRATION</small>	
DOCUMENT NOT CONSIDERED FINAL <small>UNLESS ALL SIGNATURES COMPLETE</small>	
HDR HDR Engineering, Inc. of the Carolinas 5557 Emeralds S. Suite 300 Raleigh, NC 27606 N.C. E.C.E.S. License Number: F-11825	



PI STA. 10+56.18	PI STA. 13+44.91	PI STA. 22+86.36
$\Delta = 2.08' 48.7" (L)$	$\Delta = 17' 14.04" (L)$	$\Delta = 48' 37.27" (L)$
$D = 112.25'$	$D = 36.06'$	$D = 15.51' (S)$
$T = 36.06'$	$T = 18.03'$	$T = 7.76'$
$R = 1200.00'$	$R = 350.00'$	$R = 346.00'$
$DS = 30$ MPH	$SE = NC$	$SE = NC$
$DS = 30$ MPH	$DS = 30$ MPH	$DS = 30$ MPH

FOR -L- PROFILE SEE PROFILE SHEET 16

17-04-0026



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: **R-5600** County: **Jackson**
 WBS No: **45818.1.FR1** Document: **EA**
 F.A. No: **STP-0107(13)** Funding: State Federal

Federal Permit Required? Yes No Permit Type: **NWP# 3 and/or 14**

Project Description:

The project calls for the widening and improvement of existing NC 107 and portions of US 23 Business (TIP R-5600) in Jackson County. The archaeological Area of Potential Effects (APE) for the project is defined as an approximate 2.7-mile (4.35 km) long corridor running along the existing alignment for NC 107 and US 23 Business from just west of SR 1429 (Chipper Curve Road) to south of SR 1790 (Lovedale Road). The APE also extends for:

- 1,580 feet (481.58 m) to the north along US 23 Business from its intersection with NC 107
- 230 feet (70.10 m) north along SR 1432 (Skyland Drive) from its intersection with US 23 Business
- 670 feet (204.22 m) southeast along the new location for SR 1438 (Dillardtown Road) from its intersection with US 23 Business
- 270 feet (82.30 m) south along SR 1355 (Sunrise Park) from its intersection with NC 107
- 265 feet (80.77 m) south along SR 1354 (Cherry Street) from its intersection with NC 107
- 890 feet (271.27 m) northwest to southeast along Caldwell Street from Sunrise Park to Cherry Street
- 330 feet (100.58 m) north along SR 1718 (East Hall Heights) from its intersection with NC 107
- 340 feet (103.63 m) northeast along the new location for SR 1449 (Cope Creek Road) from its intersection with NC 107
- 470 feet (143.26 m) southwest along SR 1352 (Walter Ashe Rod) from its intersection with NC 107
- 165 feet (50.29 m) south along SR 1351 (Connor Road) from its intersection with NC 107
- 290 feet (88.39 m) east along the new location for Plum Street from its intersection with NC 107
- 520 feet (158.50 m) west along the new location for Barnes Road from its intersection with NC 107 and
- 200 feet (60.96 m) east along Lovedale Road from its intersection with NC 107

The APE corridor is approximately 160 feet (48.77 m) wide extending 80 feet (24.38 m) from either side of the proposed center lines.

SUMMARY OF CULTURAL RESOURCES REVIEW

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

The NC 107 improvement project (R-5600) is located on the eastside of Sylva and north of the Tuckasegee River in Jackson County, North Carolina. The project area is plotted on the of the Sylva North and Sylva South USGS 7.5' topographic quadrangle (Figure 1).

A map review and site file search was conducted at the Office of State Archaeology (OSA) on April 28, 2017. No previously recorded archaeological sites have been identified within or adjacent to the APE, and only one known site (31JK556) is in close proximity. According to the North Carolina State Historic Preservation Office online data base (HPOWEB 2017), several surveyed only structures are within or adjacent to the archaeological APE. These include Hall Tire Service (JK 111), Bridge No. 50 (JK 113), Mamie Bailey House (JK 114), Sylva Paper Board Company Machine Building (JK 170) Mead Company Office (JK 171), Bob Woods House (JK 655; gone), and two unnamed Houses (JK 64 and 65; gone). Due to previous ground disturbance and impervious surfaces, it is very unlikely associated and significant intact archaeological deposits to these architectural features will be encountered. Topographic maps, USDA soil survey maps, aerial photographs (NC One Map), historic maps (North Carolina maps website), and Google Street View application were also examined for information on environmental and cultural variables that may have contributed to prehistoric or historic settlement within the project limits and to assess the level of ground disturbance.

The R-5600 project area primarily runs north to south along drainageways leading up to a ridge (Figure 2a-c). The project area is drained by Cope Creek north of the ridge and Mill Creek/Bumgarner Branch to the south. These waterways feed into the Tuckasegee River and are part of the Little Tennessee drainage basin. Nearly all of the project area consists of urban development with impervious material covering much of the ground surface. Other areas have been subjected to cut, fill, and/or grading. Cope Creek and its tributaries, which run alongside NC 107 and US 23 Business, have also been modified and their alignment altered to allow for development. Areas with few disturbances are on steep hillsides. Overall, ground disturbance is considered very high. Smoky Mountain Memorial Park (also known as Fairview Memorial Gardens) is located at the southern end of the APE on the eastside of the road. It does not appear that construction activity will affect graves within this cemetery. However if impacts are to effect graves, then work must be in compliance with G.S. 65 and G.S. 70.

According to the USDA soil survey report, the project area is composed of four soil types. These include the Braddock-Urban land complex (BrC), the Cowee-Evard-Urban land complex (CrD), Udorthents loam (Ud), and the Udorthents-Urban land complex (UfB) (see Figure 2a-c). The Udorthents-Urban series makes up most of the project area. Like the Udorthents loam, these are modified soils that have been subjected to cutting, filling, or grading to the point where the original soil characteristics no longer exists. Urban development consisting of paved lots, buried utilities, and standing structures are also present on the Udorthents-Urban series. Due to the high level of ground disturbance, it is unlikely for any significant or intact archaeological resources to be encountered on these soils. Found to a lesser extent mostly on the side streets are the Braddock-Urban series and the Cowee-Evard-Urban series. The Braddock-Urban soils are situated on high stream terraces with a slope of less than 15 percent and considered well drained. However, disturbance from urban development is wide spread on this series within the project limits and not likely to contain intact resources. The Cowee-Evard-Urban soils are located on hillsides with a slope of 15 to 30 percent. Although urban development is lower on this series, slope is too steep for early settlement activities. Subsurface testing is not recommended for any of the soil types within the APE.

The site files show few reviews or archaeological surveys in the vicinity of the current project area. This has resulted in the identification of only one known nearby site (31JK556). It was identified in 2011 for the NC 116/NC 107 connector project (R-5000). Site 31JK556 is prehistoric lithic scatter on a ridge top and was determined ineligible for the National Register. At the time of its investigation, the R-5000 project area was only minimal disturbed. Other sites are very likely in the area but are not known due to a lack of surveys. However, the current project area will not add to our knowledge of early settlement activities. Previous ground disturbance within the APE has greatly reduced the chances of a significant or intact sites being found. If the area was less developed, an archaeological survey would be recommended.

17-04-0026

The historic map review also displays no significant historic features within the project area. The earliest map with an accurate location for the road is the 1907 USGS Cowee topographic map (Figure 3). This map illustrates a road similar to NC 107 with a few changes to the alignment. Several structures are also depicted, but none could be identified as significant. The 1924 Thomas Cox *Map of Jackson County* has a less detail road alignment, but it does show a railroad running through the project area (Figure 4). The subsequent 1938 *North Carolina Highway Map for Jackson County* shows a more improved road with the addition of many structures alongside it (Figure 5). Again, none could be identified as significant. In general, the map review displays disturbance throughout the 20th century with no significant historic archaeological resources within or near the project's APE.

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

The defined archaeological APE for the proposed R-5600 project in Jackson County is unlikely to impact intact and significant archaeological deposits. This is due to previous ground disturbance caused by development and alterations to the landform. In areas with lesser disturbance, steep slope make it unsuitable for early settlement activities. As long as impacts to the subsurface occur within the defined APE, no further archaeological work is recommended for the proposed improvements to NC 107 and portions of US 23 Business. If work should affect subsurface areas beyond the defined APE, further archaeological consultation might be necessary. Also, further work will be needed if graves at Smokey Mountain Memorial Park/Fairview Memorial Gardens are impacted. This work must be done in compliance with G.S. 65 and 70.

SUPPORT DOCUMENTATION

See attached: Map(s) Previous Survey Info Photos Correspondence
 Photocopy of County Survey Notes Other: **images of historic map**

FINDING BY NCDOT ARCHAEOLOGIST

NO ARCHAEOLOGY SURVEY REQUIRED



C. Damon Jones
NCDOT ARCHAEOLOGIST

5/1/17

Date

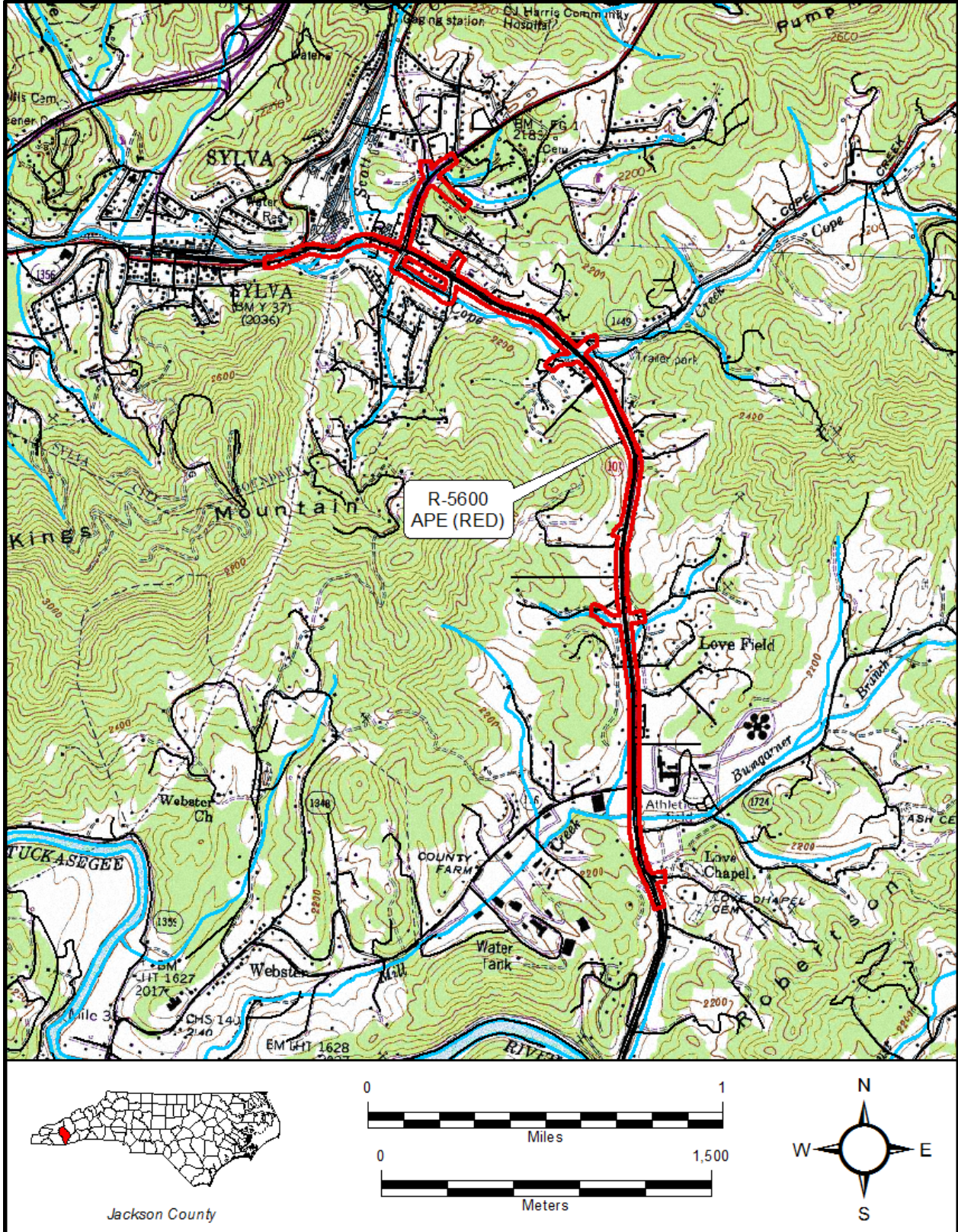


Figure 1. Topographic Setting of the Project Area, Sylva South (1946; photorevised 1990) and Sylva North (1967; photorevised 1978), NC USGS 7.5 Topographic Quadrangles.

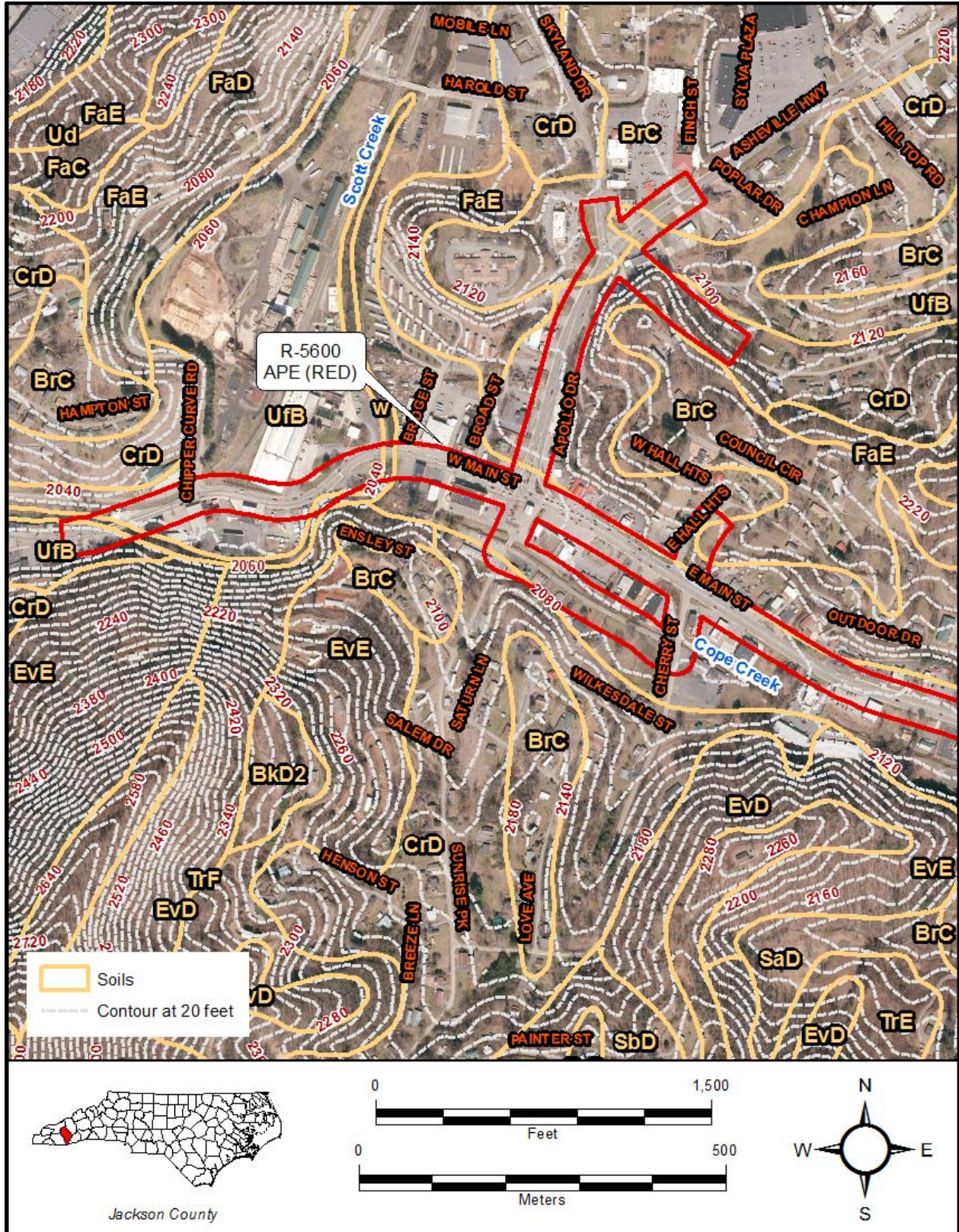


Figure 2a. Aerial photograph of the APE's northern end showing development, contours, and soils.

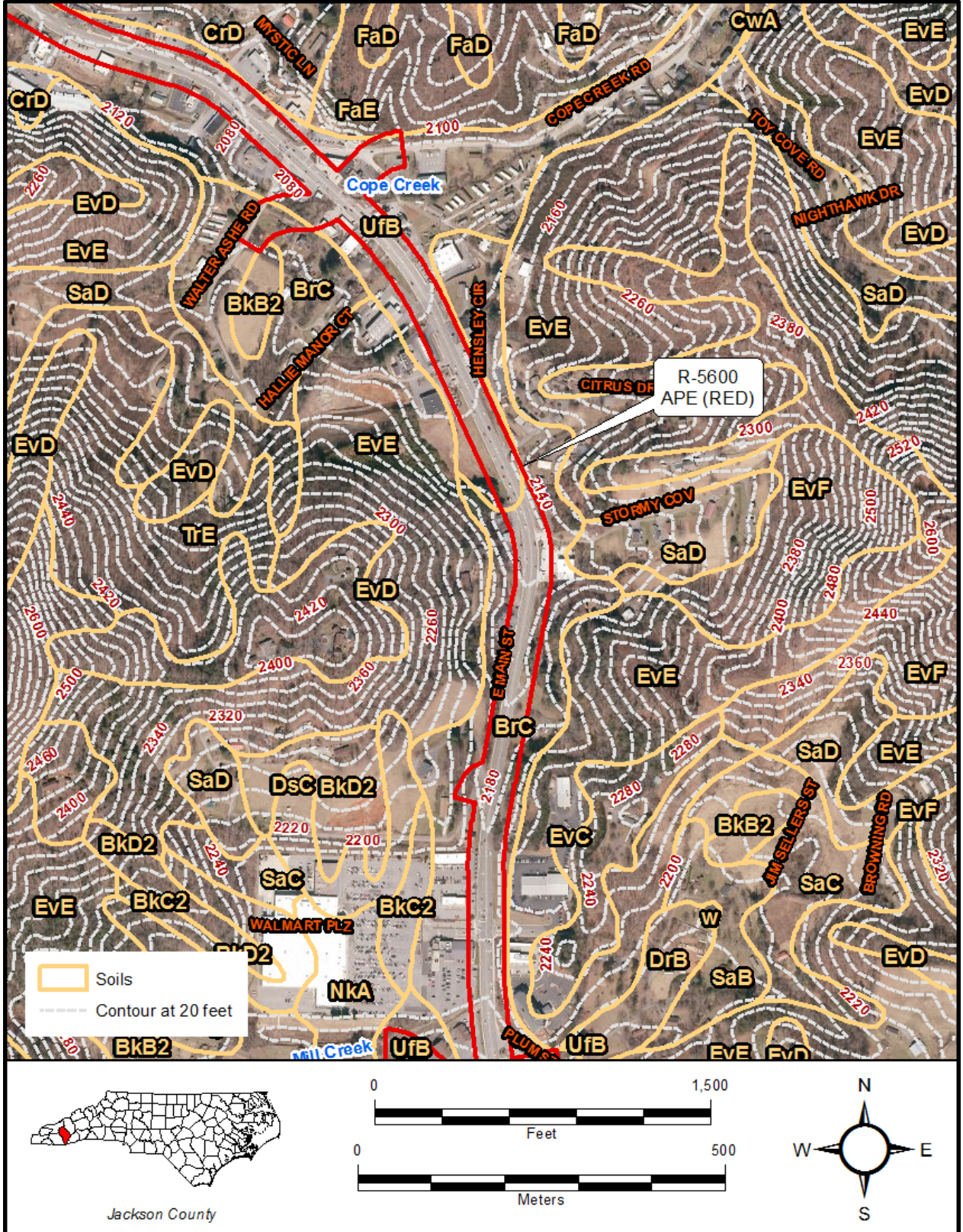


Figure 2b. Aerial photograph of the APE's center showing development, contours, and soils.

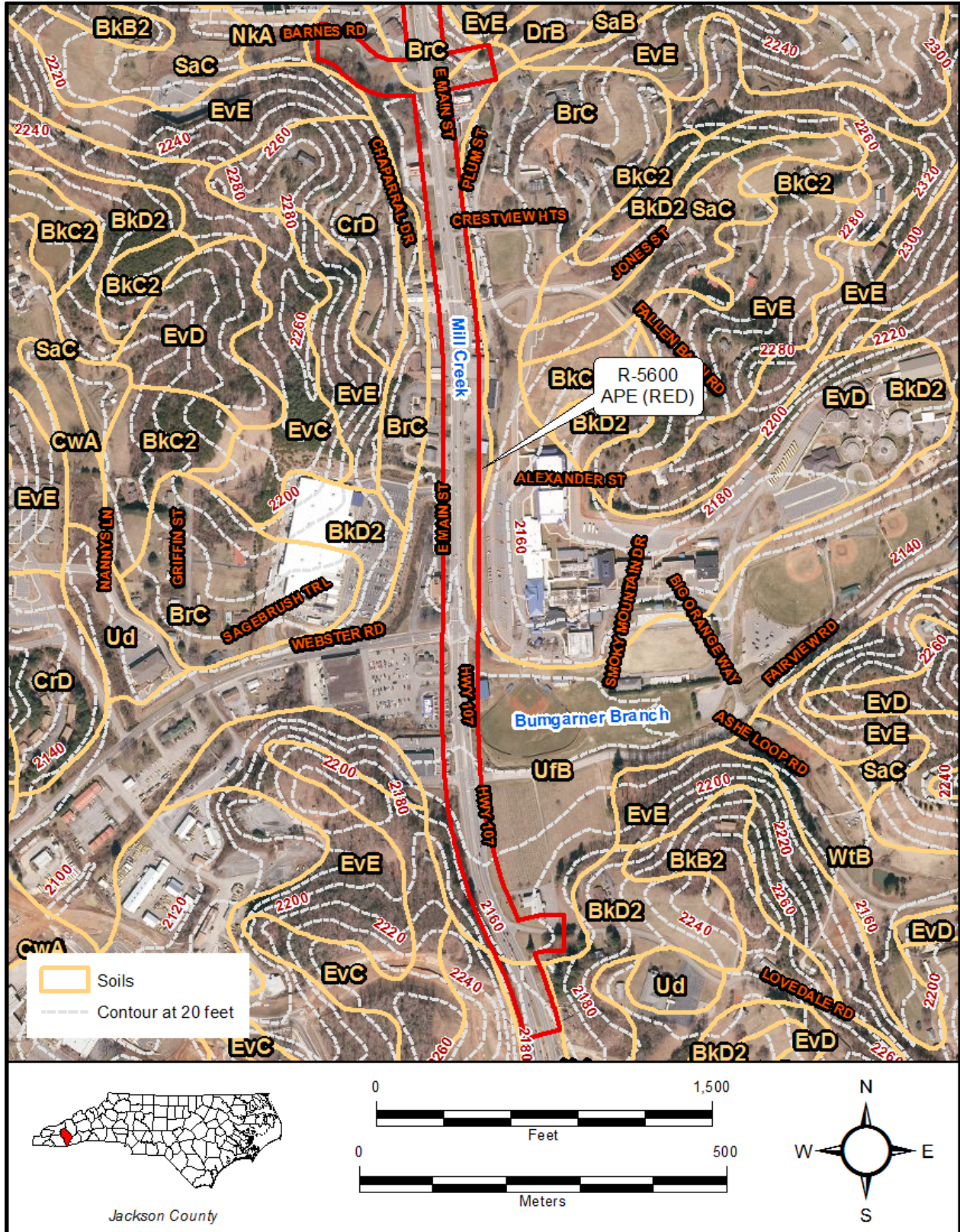


Figure 2c. Aerial photograph of the APE's southern end showing development, contours, and soils.

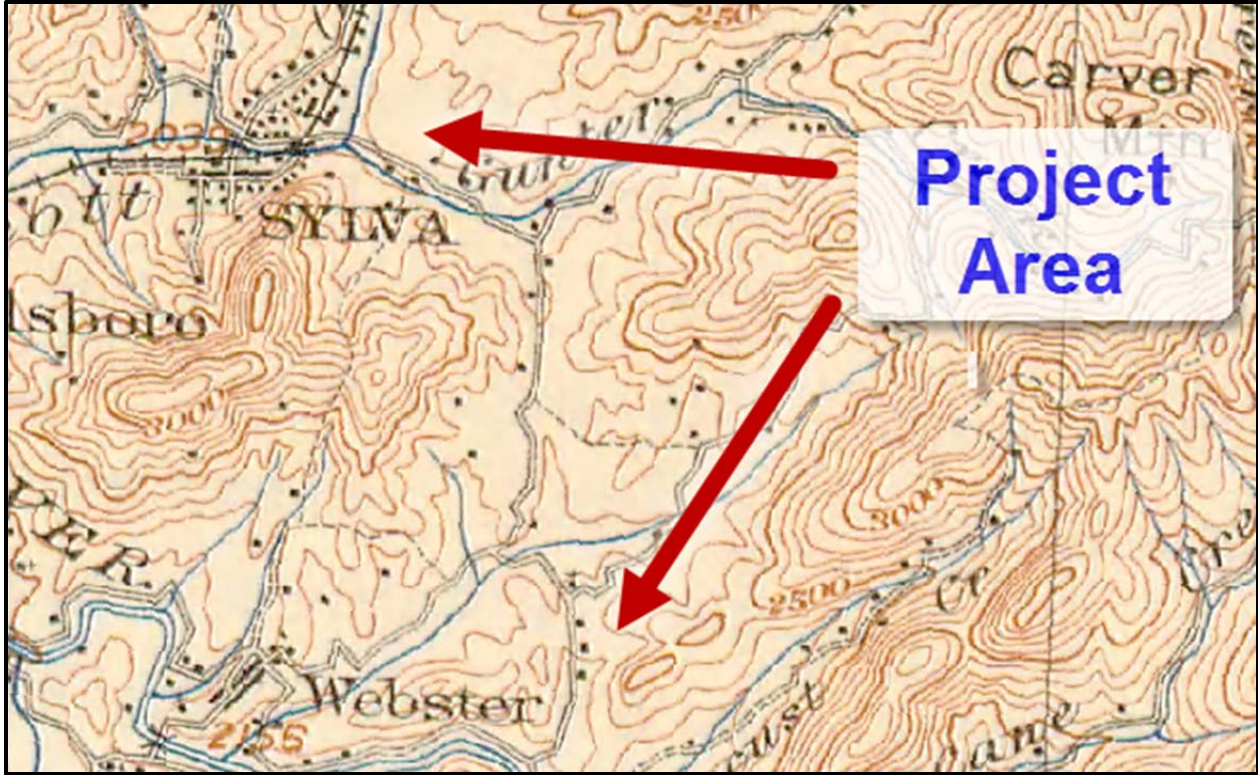


Figure 3. The 1907 USGS Cowee topographic map showing the location of the project area.



Figure 4. The 1924 Thomas Cox Map of Jackson County showing the location of the project area.



Figure 5. The 1938 *North Carolina Highway Map of Jackson County* showing the location of the project area.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Asheville Field Office
160 Zillicoa Street Suite #B
Asheville, North Carolina 28801

March 28, 2018

Mr. Dave McHenry
Division 14 Environmental Officer
North Carolina Department of Transportation
253 Webster Road
Sylva, NC 28779

Subject: Endangered Species Concurrence for the Proposed Improvements to NC 107/US23 Business in Jackson County, North Carolina, TIP No. R-5600.

Dear Mr. McHenry:

We have reviewed your concurrence request and supporting documentation regarding potential impacts to the federally endangered Indiana bat (*Myotis sodalis*) from implementation of the subject project. We provide the following comments in accordance with the provisions of section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531- 1543) (Act).

The North Carolina Department of Transportation (NCDOT) proposes to improve NC 107 from NC 116 to US 23 Business and US 23 Business from Skyland Drive to Municipal Drive in Sylva. Both roads are currently four lane and will be upgraded to include bike lanes and sidewalks. The proposed project is 2.9 miles long and will involve some limited tree clearing, extension of six culverts and replacement of two bridges over Scott's Creek. The existing bridges were inspected for evidence of bat use and none was noted. In addition, NCDOT has agreed to clear trees only from October 15th to April 15th of any year to avoid disturbance to Indiana bats.

Given the information provided and the commitment to winter tree clearing, we agree that this project is "not likely to adversely affect" Indiana bat. Therefore, the requirements under section 7(c) of the Act are fulfilled. However, obligations under section 7 of the Act must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered, (2) this action is subsequently modified in a manner that was not considered in this review, or (3) a new species is listed or critical habitat is determined that may be affected by the identified action.

If you have questions about these comments please contact Ms. Marella Buncick of our staff at 828/258-3939, Ext. 237. In any future correspondence concerning this project, please reference our Log Number 18-196.

Sincerely,
- - original signed -
Janet Mizzi
Field Supervisor