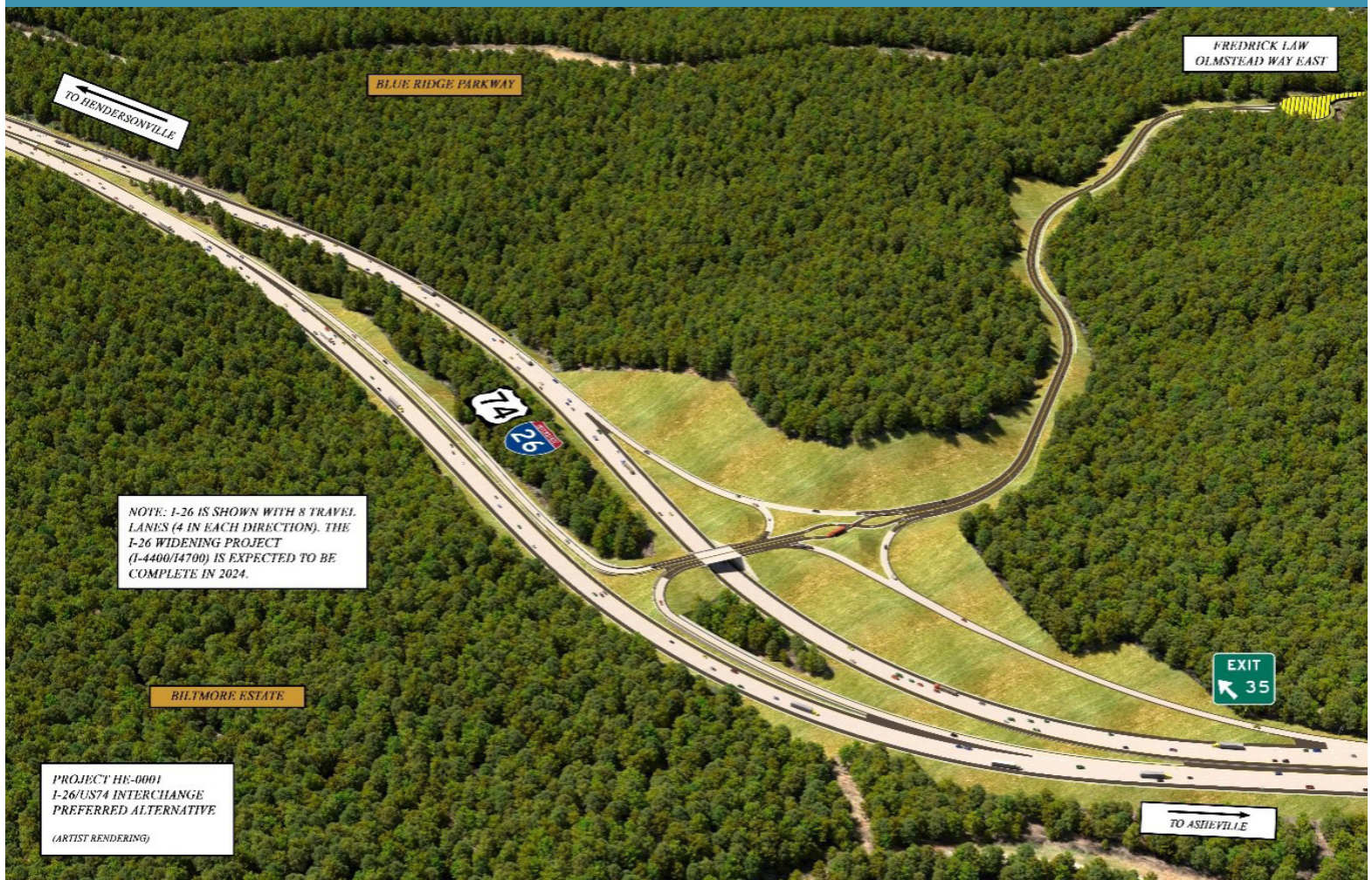


# GROUND TO SKY PROJECT



## *Categorical Exclusion (CE) and Related Documents*

**MPDG FFY 2023 and 2024  
GRANT APPLICATION  
AUGUST 2023**



## Type III Categorical Exclusion Action Classification Form

STIP Project No.	HE-0001
WBS Element	49742.1.2
Federal Project No.	

### A. Project Description:

The North Carolina Department of Transportation (NCDOT) proposes to construct a new interchange on I-26 in the project study area (PSA), approximately 6 miles south of Asheville, north of the Blue Ridge Parkway and south of the French Broad River bridge (**Figure 1**).

The proposed interchange would be constructed primarily within the existing right-of-way of I-26, which is currently under construction to be widened from 2 lanes in each direction to 4 lanes in each direction as part of STIP project I-4700. The proposed interchange and new roadway would ultimately connect to NC 191 via a road (East Frederick Law Olmsted Way, or East FLOW) that is currently under construction by a private developer (Biltmore Farms, LLC) (**Figure 2**). The private developer constructing East FLOW has graded the corridor to accommodate a 4-lane roadway, but it will be paved as a 2-lane facility upon completion. This road is anticipated to open to traffic in 2022 and would become a State-maintained road upon meeting NCDOT standards and acceptance. NCDOT's proposed roadway connection would be graded for a 2-lane roadway with auxiliary lanes at intersection approaches to meet operational needs (e.g., turn lanes).

Land use in the project vicinity is mixed and includes manufacturing/distribution facilities, single- and multi-family residential neighborhoods, open space, and commercial and recreational uses. North of the intersection of Clayton Road (SR 3501) and NC 191, the corridor is characterized by preserved open space in proximity to the French Broad River, Pisgah National Forest, and the Blue Ridge Parkway. The Blue Ridge Parkway crosses over NC 191 on a bridge and is accessible via an access road at the signalized intersection with NC 191 at the west end of the East FLOW corridor.

NCDOT has utilized the Section 404/NEPA Merger Process to formally coordinate with, and garner concurrence from, applicable regulatory and resource agencies. The Merger documentation is available in NCDOT's files and has been provided to all agencies involved.

### B. Description of Need and Purpose:

**Need:** The proposed project is needed to address the lack of network connectivity between NC 191 and I-26 in southern Buncombe County to accommodate current and planned growth.

**Purpose:** The purpose of the project is to provide access to I-26 and improve east-west connectivity within the project vicinity to accommodate current and planned growth.

Other desirable outcomes of the proposed project include:

- improved traffic safety due to greater separation of local traffic from interstate traffic;
- improved emergency response times to the area including Pratt & Whitney Manufacturing Center, Biltmore Park West property, and sections of NC 191 and I-26;



- consistency with local and regional economic development initiatives in the project vicinity;
- improved access to current and anticipated regional employment opportunities and improved access to tourist destinations.

C. Categorical Exclusion Action Classification: Type III

D. Proposed Improvements:

The NCDOT evaluated three Build Alternatives for the proposed project. These Detailed Study Alternatives (DSA's) are summarized in **Table 1** and detailed in multiple Merger Concurrence Meetings.

**Table 1. Detailed Study Alternative (DSA) Description**

DSA	Description
1	<ul style="list-style-type: none"> <li>• left exit/entrance ramp</li> <li>• center of the I-26 bifurcated section</li> </ul>
2	<ul style="list-style-type: none"> <li>• right-exit/entrance ramp</li> <li>• center of the I-26 bifurcated section</li> </ul>
3	<ul style="list-style-type: none"> <li>• left exit/entrance ramp</li> <li>• North end of the I-26 bifurcated section</li> </ul>

Preferred Alternative/LEDPA:

The Merger Team concurred that DSA 3 is the Least Environmentally Damaging Practicable Alternative (LEDPA)/Preferred Alternative on February 9, 2022. (See **Figure 3.**)

The Preferred Alternative is anticipated to have the lowest overall impacts to potential jurisdictional aquatic resources. The Preferred Alternative would construct the least amount of impervious surface within the French Broad River watershed and would result in the least amount of tree clearing associated with the proposed project. No impacts to FEMA floodplains are anticipated. The Preferred Alternative would have No Effect to the adjacent Biltmore Estate National Historic Landmark (NHL), No Effect to the National Register (NR)-eligible archaeology site (31BN1119), and No Adverse Effect (with conditions) to the NR-eligible Blue Ridge Parkway (NHL pending).

E. Special Project Information:

Project Study Area (PSA) Development

The PSA development is detailed in a Study Area memo dated March 30, 2022. The PSA generally includes approximately 210 acres along and west of I-26, south of the French Broad River and north of the Blue Ridge Parkway. The PSA avoids impacts to the bridge infrastructure associated with the French Broad River (to the north) and the Blue Ridge Parkway (to the south) and accounts for ramp length requirements. The PSA was also initially developed to incorporate all of East FLOW and its intersection with NC 191 in order to consider any future traffic needs along that corridor.

When considering the lack of network connectivity between NC 191 and I-26 in southern Buncombe County, NCDOT reviewed environmental and engineering constraints and opportunities for potential interstate access locations between Exit 33 (NC 191) and Exit 37 (NC 146/Long Shoals Road).

The following opportunities and benefits were identified for the PSA:

- The PSA covers the area of optimal interchange spacing (approximately 2 miles) between exits 35 and 37, respectively, meeting FHWA and NCDOT interchange spacing guidance for interstate access.
- The I-26 bifurcated section allows NCDOT to evaluate left exit/entrance interchange alternatives that avoid impacts to the Biltmore Estate NHL.
- The construction of East FLOW allows NCDOT to evaluate alternatives to connect to a modern roadway facility currently under construction by a private developer. The construction project also includes capacity and operational upgrades at an existing signalized intersection with NC 191, maximizing investment and improving east-west connectivity.
- Utilizing a connection to East FLOW would also provide direct access to current and planned development, consistent with local population and employment growth goals.
- The undeveloped property west of I-26 will not require any displacements or relocations of homes or businesses.

#### Relationship to Adjacent STIP Projects

STIP project HE-0001 overlaps three other STIP projects (**Table 2**).

**Table 2. Adjacent STIP Projects**

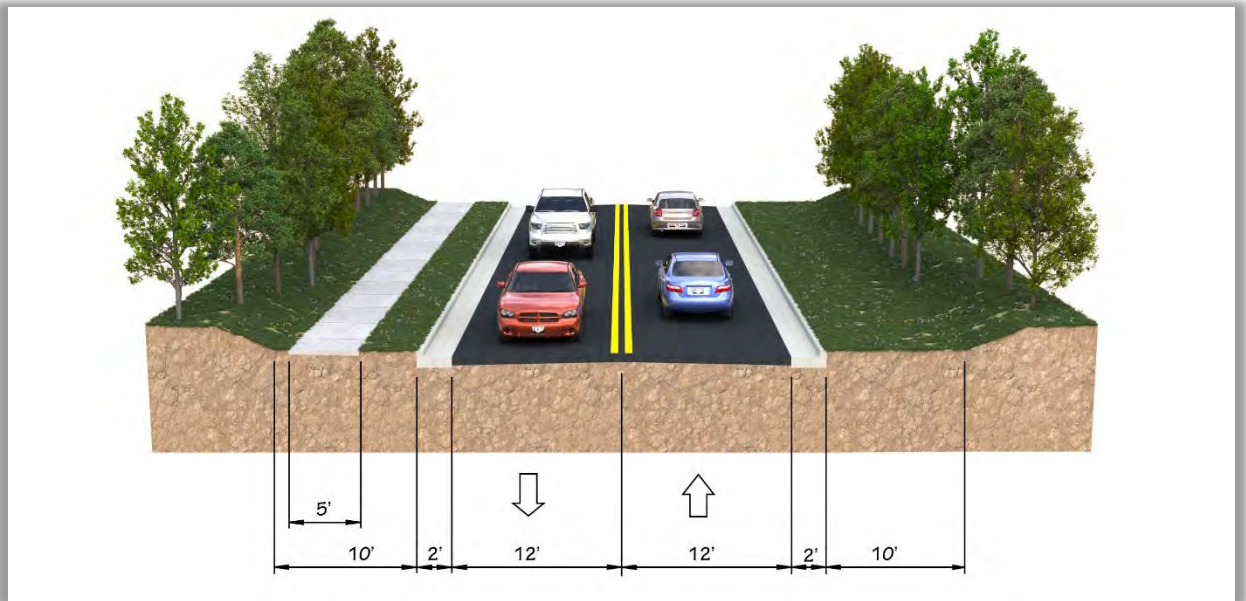
<b>STIP Project No.</b>	<b>Description</b>	<b>Schedule (Fiscal Year)</b>
I-4700	I-26. NC280 (Exit 40) to I-40 at Asheville. Add additional lanes.	<i>Under Construction</i>
U-3403B	NC 191 (Brevard Road-Old Haywood Road). SR 3498 (Ledbetter Road) to North of Blue Parkway. Widen roadway	R/W 2029 Const. Post Year
HO-0002A	I-40 in Asheville to I-77 at I-485 (South) in Charlotte. Install Broadband.	<i>Under Construction</i>
Source: NCDOT, 2020-2029 Current State Transportation Improvement Program (May 2022)		

To minimize temporal impacts and avoid duplication, Division 13 plans to let STIP project HE-0001 for construction while STIP project I-4700 is under construction.

#### Roadway Cross-section and Alignment

Based on the Traffic Forecast for HE-0001, NCDOT determined that a 2-lane curb and gutter typical section for the roadway connection from the I-26 interchange to East FLOW will accommodate projected traffic volumes (19,500 AADT in 2045 Build) (**Exhibit 1**). The proposed roadway alignment will efficiently connect the proposed new interchange with East FLOW while minimizing impacts to the natural environment.





**Exhibit 1. East Frederick Law Olmsted Way Extension Proposed Typical Section**

#### Right-of-Way and Access Control

Access along I-26 will remain fully controlled. The proposed interchange, including free-flow on- and off-ramps, will likewise be full access control. The proposed interchange will be constructed mostly within existing right of way. New right of way will be required for the I-26 eastbound ramps.

The proposed roadway connection will be constructed primarily within new right of way between the proposed interchange and East FLOW, the road currently under construction by the private developer which is expected to later become a State maintained road upon acceptance. NCDOT will acquire right of way to accommodate an ultimate 4-lane boulevard typical section but will construct the 2-lane typical section in **Exhibit 1**. Based on a Section 106 agency commitment, the proposed roadway connection will be full access control for 1,000 feet west of the I-26 eastbound ramp terminal.

#### Speed Limit

There would be no changes to posted speed limits on I-26 (60 mph) as part of this project. The proposed 2-lane roadway extension connection will be posted at 35 mph.

#### Design Speed

There would be no changes to design speed on I-26 (70 mph) as part of this project. The design speed for the proposed 2-lane roadway connection is 40 mph.

#### Anticipated Design Exceptions

There are no design exceptions anticipated at this stage of planning and design.

#### Service Roads

There are no existing or planned service roads in the PSA.





### Noise Barriers

See Section G, Item 27 below.

### Work Zone, Traffic Control and Construction

It is anticipated that construction of HE-0001 will occur at the same time as the on-going I-26 widening construction. Work Zone, Traffic Control, and Construction of HE-0001 will be coordinated with the on-going I-4700 project activities.

### Cost Estimate

Cost estimates (as of December 28, 2021) for the Preferred Alternative are provided below in **Table 3**.

**Table 3. Cost Estimate for the LEDPA/Preferred Alternative**

	<b>Cost Estimate</b>
Project Development & Design	\$3,127,200
Property Acquisition	\$100,000
Construction Cost	\$25,200,000
<b>Total Cost</b>	<b>\$28,427,200</b>

### Public Involvement

September 3, 2021 - NCDOT hosted a one-hour virtual Local Officials' Informational Meeting. Invitations to the Informational Meeting were sent on August 20, 2021, via email to representatives with the following organizations: North Carolina Congress (Senate and House), City of Asheville, Buncombe County, and French Broad River Metropolitan Planning Organization (FBRMPO). Representatives from the NC House of Representatives, City of Asheville, FBRMPO, and Buncombe County attended the virtual meeting.

September 2–October 4, 2021 - Public comments were solicited by the USACE Public Notice (Merger Application) issued September 2, 2021 (SAW-2021-01535-PN), and by NCDOT-Division 13 and NCDOT-Public Involvement outreach efforts. The USACE received written comments from NOAA's National Marine Fisheries Service (NMFS), the Catawba Tribe, the Cherokee Nation, the North Carolina Wildlife Resources Commission (NCWRC), and the NC Historic Preservation Office (NC HPO). NCDOT received 259 comments by phone, email and through the project website ([www.publicinput.com/I26-exit35-buncombe](http://www.publicinput.com/I26-exit35-buncombe)) during the comment period. NCDOT prepared a comment-response memorandum to address substantive questions and comments about the proposed project and reviewed the comments with relevant regulatory agencies in preparation for the CP3 Merger meeting.

February 23, 2022 - NCDOT announced the selection of the Preferred Alternative and directed the public to review updated information, mapping, and the comment-response memorandum available on the project website.

### Section 404/NEPA Merger and Interagency Coordination

HE-0001 is utilizing NCDOT's Section 404/NEPA Merger Process. Merger Meetings and interagency coordination and consultation is summarized below. Signed Concurrence Forms are attached.

July 15, 2021 - The Merger Team concurred with the Project Need and Purpose and Study Area and the Detailed Study Alternatives (DSAs) Carried Forward at the combined Concurrence Point (CP) 1 and CP 2 Merger Meeting.

September 16, 2021 - The Merger Team concurred with the Bridging Decisions and Alignment Review at the CP 2A Merger Meeting. NCDOT also presented a CP 2 Update at this meeting by summarizing the Traffic Forecast and the decision to proceed with a 2-lane typical section for the connecting roadway, noting the anticipated need for auxiliary lanes at proposed intersections to accommodate traffic operations. The CP 2 Update also revisited potential impacts reported at the combined CP 1 and CP 2 Merger Meeting to include field verified jurisdictional resources in place of the GIS data sets.

October 18, 2021 - NCDOT and FHWA hosted a CP 3 Pre-meeting with USFWS.

October 19, 2021 - NCDOT and FHWA hosted a CP 3 Pre-meeting with NCWRC.

October 20, 2021 - NCDOT and FHWA hosted a CP 3 Pre-meeting with USEPA.

October 27, 2021 - NCDOT and FHWA hosted a CP 3 Pre-meeting with USACE and NCDWR.

October 27, 2021 - NCDOT and FHWA hosted a CP 3 Pre-meeting with FBRMPO.

February 9, 2022 - The Merger Team concurred with the LEDPA/Preferred Alternative Selection at the CP 3 Merger Meeting.

#### Section 4(f) of the US Department of Transportation Act

NCDOT and FHWA considered the potential use of Section 4(f) properties by STIP project HE-0001. Section 4(f) properties in and adjacent to the PSA include the historic sites discussed in Section G Item 13, and recreational resources (i.e., Mountains-to Sea Trail). The Blue Ridge Parkway is a historic site and a public park adjacent to the PSA. No right of way acquisition is required from Section 4(f) properties; thus, a permanent incorporation or permanent easement use is not applicable. No temporary easement will be required from Section 4(f) properties; thus, a temporary occupancy use is not applicable.

Constructive use involves an indirect impact to a Section 4(f) property of such magnitude as to effectively act as a permanent incorporation. In such a scenario, a project does not physically incorporate the property but is close enough to it to severely impact important features, activities or attributes associated with it, and to substantially impair it. Proximity effects to the Blue Ridge Parkway were considered through Section 106 Consultation (see Section G, Item 13). However, it was determined that visual effects do not severely impact important features, activities or attributes associated with the Parkway, nor will visual impacts substantially impair the property. NCDOT evaluated future potential noise impacts to the Parkway as well (see Section G, Checklist Item 27). This project would not substantially alter future sound levels along the studied portion of the Blue Ridge Parkway adjacent to the proposed project. The traffic analyses concluded that construction of HE-0001 would not attract additional trips to the Parkway. As a result, no Section 4(f) constructive uses result from STIP project HE-0001.

#### Avoidance and Minimization Measures

NCDOT evaluated and presented the following avoidance and minimization measures to the Merger Team at the CP 4A Merger Meeting for the Preferred Alternative (**Table 4**).



Additional avoidance and minimization measures may be evaluated as the project design progresses through coordination with the Merger Team.

**Table 4. HE-0001, Avoidance and Minimization Measures**

<b>Location (if applicable)</b>	<b>Avoidance and Minimization Measure</b>
<b>Implemented in Preliminary Design Development</b>	
Concept Development	Eliminated concepts from consideration during the scoping phase of the project for a variety of factors and feasibility concerns, including avoiding and minimizing potential impacts to the French Broad River floodplain/wetland complex, residential and commercial developments north of the French Broad River, and the Biltmore Estate NHL property.
Project Study Area	Reduce PSA to avoid and minimize potential impacts to the French Broad River floodplain and known potential jurisdictional resources.
Detailed Study Alternatives	<ul style="list-style-type: none"> <li>• Did not consider alternatives with the potential to have direct effects to the Blue Ridge Parkway.</li> <li>• Considered and eliminated alternatives with the potential to have direct effects to the Biltmore Estate NHL.</li> </ul>
Two-lane -Y-Line Typical Section	Two-lane roadway with curb and gutter typical section (opposed to 4-lane divided with grassed shoulder typical section) to accommodate future traffic volumes, noting auxiliary lanes will likely be required at intersection approaches. This results in less right of way requirements and will minimize impacts at proposed stream crossings and reduce tree clearing requirements.
-Y-Line Alignment	<p>Shift the roadway alignment to the southeast to minimize potential impacts to Stream SA.</p> <p>Following CP 3, per NCDWR request, NCDOT shifted -y-line alignment to:</p> <ul style="list-style-type: none"> <li>• improve Stream SA crossing skew, reducing potential impacts by approx. 100 ft,</li> <li>• avoid 0.03 ac impact to Wetland WD, and</li> <li>• avoid 0.01 ac impact to Wetland WH.</li> </ul>
Ramp -C- and Ramp -D- Retaining Walls	<ul style="list-style-type: none"> <li>• Prior to CP 3, incorporate approx. 1,400 feet of retaining walls to avoid and minimize approx. 1,100 feet of potential impacts to Stream SDX and approx. &lt;0.1 ac of wetlands in the I-26 bifurcated section.</li> <li>• Following CP 3, retaining walls were refined in conjunction with the DDI design and Ramp-C- Alignment shift (described below) in the same general locations.</li> </ul>
Ramp -C- Alignment	<p>Following CP 3, shift ramp alignment between &lt;1 ft to about 18 ft to the east to:</p> <ul style="list-style-type: none"> <li>• improve constructability of the proposed retaining walls,</li> <li>• avoid approx. 120 ft of impacts to Stream SDY and Stream SDZ,</li> <li>• avoid approx. &lt;0.1 ac impacts to Wetland WCR,</li> <li>• minimize impact to Stream SDX by approx. 175 ft, and</li> <li>• minimize impacts to Wetlands WCS and WCN by approx. &lt;0.1 ac.</li> </ul>
<b>Reviewed in Preliminary Design Development, Not Implemented</b>	
Ramp -C- Alignment	NCDOT reviewed a revised Ramp -C- alignment because of challenges associated with bridging Stream SDX (discussed at CP 2A). An approx. 325-ft bridge was reviewed in the I-26 bifurcated section to avoid and minimize potential impacts to Stream SDX and Wetland WCN. The bridge clearance was 6 feet and would not provide the environmental benefit for the wetland feature.

## Preliminary Impacts

The following impacts are anticipated because of the project (Table 5).

**Table 5. Impact Matrix for the Preferred Alternative**

Resource	Impact
Relocations (Business, Residential, Non-profit)	0
Minority /Low Income Populations (Disproportionate Impacts)	0
Historic Properties (Adverse Effects)	0
Community Facilities Impacted	0
Section 4(f) Impacts	0
Noise Receptor Impacts	4
Prime Farmland (acres)	0.8
FEMA Floodplain (acres)	0
Tree Clearing <sup>1</sup> (acres)	23.6
Streams <sup>2, 3, 4</sup> (In ft)	980
Wetlands (acres)	0.1
<i>Federally Protected Species<sup>5</sup></i>	
Appalachian elktoe / <i>Alasmodonta raveneliana</i>	MANLAA <sup>6</sup>
Gray bat / <i>Myotis grisescens</i>	MANLAA <sup>6</sup>
Northern long-eared bat / <i>Myotis septentrionalis</i>	4(d) rule exemption <sup>7</sup>
<sup>1</sup> Calculated with preliminary design slope stakes plus 10 feet; I-4700 tree clearing was removed from this calculation. <sup>2</sup> Potential Waters of the US (WOTUS) impacts calculated with preliminary design slope stakes plus 10 feet. <sup>3</sup> The potential WOTUS impacts exclude I-4700 permitted permanent impacts. <sup>4</sup> The HE-0001 PJD delineated to active I-4700 construction limits or control of access (C/A) fence resulting in some overlap with the I-4700 PJD. In these cases, the HE-0001 (i.e., more recent) delineation was used and the I-4700 PJD feature removed from potential impact calculations. This overlap did not affect the I-4700 PJD in the I-26 bifurcated section. <sup>5</sup> IPaC data checked on August 10, 2022. <sup>6</sup> MANLAA = May Affect Not Likely to Adversely Affect <sup>7</sup> On March 23, 2022, the Service published a proposal to reclassify the NLEB as endangered under the ESA; a new final listing determination for the NLEB is expected by November 2022. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB and the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed.	



F. Project Impact Criteria Checklists:

<b>F3. Type III Actions</b>			
<p>Proposed improvement(s) that fit Type III Actions (NCDOT-FHWA CE Programmatic Agreement, Appendix C) answer questions below.</p> <ul style="list-style-type: none"> <li>• <i>NCDOT will certify the Categorical Exclusion for FHWA approval.</i></li> <li>• <i>If any questions are marked "Yes" then additional information will be required for those questions in Section G.</i></li> </ul>			
		Yes	No
1	Does the project involve potential effects to Threatened or Endangered species listed by the US Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (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 (BGEPA)?	<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 type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>
8	Does the project impact anadromous fish spawning waters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9	Does the project impact waters classified as Outstanding Resource Waters (ORW), High Quality Waters (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"/>
10	Does the project impact Waters of the United States in any of the designated mountain trout streams?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11	Does the project require a US Army Corps of Engineers (USACE) Individual Section 404 Permit?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13	Does the project include Section 106 of the National Historic Preservation Act (NHPA) effects determination other than a No Effect, including archaeological remains?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
14	Does the project involve GeoEnvironmental Sites of Concerns such as gas stations, dry cleaners, landfills, etc.?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15	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 type="checkbox"/>	<input checked="" type="checkbox"/>
16	Is the project in a Coastal Area Management Act (CAMA) county and substantially affects the coastal zone and/or any Areas of Environmental Concern (AEC)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<u>Type III Actions (continued)</u>		Yes	No
17	Does the project require a US Coast Guard (USCG) permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18	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"/>
19	Does the project involve Coastal Barrier Resource Act (CBRA) resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
20	Does the project impact federal lands (e.g., US Forest Service (USFS), US Fish and Wildlife Service (USFWS), etc.) or Tribal (Trust) Lands?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
21	Does the project involve any changes in access control or the modification or construction of an interchange on an interstate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
22	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
23	Will maintenance of traffic cause substantial disruption?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
24	Is the project inconsistent with the STIP, and where applicable, the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
25	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, 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"/>
26	Does the project involve Federal Emergency Management Act (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
27	Is the project considered a Type I under the NCDOT's Noise Policy?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
28	Is there prime or important farmland soil impacted by this project as defined by the Farmland Protection Policy Act (FPPA)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
29	Is the project in an Air Quality non-attainment or maintenance area for a National Ambient Air Quality Standard (NAAQS)?	<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 (ONLY for questions marked 'Yes'):

**Checklist Item 1: Federally Protected Species**

The United States Fish and Wildlife Service (USFWS) list the following federally protected species within the PSA, under the Endangered Species Act (ESA) (**Table 6**).

**Table 6. ESA federally protected species listed<sup>1</sup> for Buncombe County**

Scientific Name	Common Name	Federal Status	Habitat Present	Biological Conclusion
<i>Alasmidonta raveneliana</i>	Appalachian elktoe	E	No	MANLAA**
<i>Solidago spithamea</i>	Blue Ridge goldenrod	T	No	NE
<i>Glyptemys muhlenbergii</i>	bog turtle	T(S/A)	No	Not Required
<i>Glaucomys sabrinus coloratus</i>	Carolina Northern flying squirrel	E	No	NE
<i>Myotis grisescens</i>	Gray bat	E	Yes	MANLAA**
<i>Sarracenia rubra ssp. jonesii</i>	Mountain sweet pitcher plant	E	No	NE
<i>Myotis septentrionalis</i>	Northern long-eared bat	T	Yes	4(d) rule exemption***
<i>Gymnoderma lineare</i>	Rock gnome lichen	E	No	NE
<i>Hedyotis purpurea var. montana</i>	Roan Mountain bluet	E	No	NE
<i>Geum radiatum</i>	Spreading avens	E	No	NE
<i>Microhexura montivaga</i>	Spruce-fir moss spider	E	No	NE
<i>Spiraea virginiana</i>	Virginia spiraea	T*	No	Not Required

<sup>1</sup> USFWS County List dated June 17, 2021, IPaC countywide data checked on July 28, 2021

E - Endangered; T - Threatened; T(S/A) - Threatened due to similarity of appearance; MANLAA - May Affect–Not Likely to Adversely Affect; NE - No Effect

\* Historical record (the species was last observed in the county more than 50 years ago) per previous USFWS County list dated July 17, 2020.

\*\* Biological Conclusion includes NCDOT commitment implementation of Conservation Measures outlined in a Revised Informal Consultation USFWS letter dated July 22, 2022.

\*\*\* On March 23, 2022, the Service published a proposal to reclassify the NLEB as endangered under the ESA; a new final listing determination for the NLEB is expected by November 2022. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB and the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed.

**Appalachian elktoe**

USFWS Recommended Survey Window: March 1–November 1 (optimal)

Biological Conclusion: May Affect Not Likely to Adversely Affect

A review of NHP records on July 28, 2021, indicates one known occurrence within 1.0 mile of the study area (EO ID 21150, last observed September 29, 2019). The Biological Conclusion includes NCDOT commitment implementation of Conservation Measures outlined in a Revised Informal Consultation USFWS letter dated July 22, 2022.

**Gray bat**

USFWS Recommended Survey Window: Structure Checks: May 15-August 15. Mist netting and/or acoustic bat surveys are dependent on results of bat structure checks or USFWS requirements. Mist Netting Surveys: June 1-August 15, Acoustic Surveys: May 15-August 15.

Biological Conclusion: May Affect Not Likely to Adversely Affect

A review of NHP records on July 28, 2021, indicates two known occurrences within 1.0 mile of the study area. EO ID 39015 was last observed July 18, 2018, and EO 40722 was last observed in 2019. EO 40722 falls within the boundaries of the National Park Service, Blue Ridge Parkway. The Biological Conclusion includes NCDOT commitment implementation of Conservation Measures outlined in a Revised Informal Consultation USFWS letter dated July 22, 2022.

#### **Northern long-eared bat**

USFWS Recommended Survey Window: Structure Checks: May 15-August 15. Mist netting and/or acoustic bat surveys are dependent on results of bat structure checks or USFWS requirements. Mist Netting Surveys: June 1-August 15, Acoustic Surveys: May 15-August 15.

Biological Conclusion: 4(d) Rule Exemption

A review of NHP records on July 28, 2021, indicates no known occurrences within 1.0 mile of the study area. A 4(d) rule exemption concurrence was included in a Revised Informal Consultation USFWS letter dated July 22, 2022. On March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The US District Court for the District of Columbia has ordered the USFWS to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome, a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022).

#### **Checklist Items 7: Direct, Indirect, or Cumulative Effects**

The proposed project may impact travel patterns, reduce travel time, affect access to properties in the area, or open areas for development or redevelopment. Due to the potential transportation impact-causing activities, this project may influence nearby land uses or stimulate growth. For these reasons, an Indirect and Cumulative Effects (ICE) and Land Use Scenario Assessment (LUSA) was completed according to NCDOT procedure.

The LUSA Matrix concluded that the rankings for the various development categories are similar for the future (2045) No-Build and Build scenarios. This does not imply that additional development is not anticipated to occur within the Probable Development Areas (PDAs), but that effects of additional development are not quantifiably different between the future No-Build and Build scenarios (i.e., with or without HE-0001). Based on the results from the LUSA Matrix a Cumulative Effects Assessment is not required.

#### **Checklist Items 11: Waters and Corps 404 Permit**

The project will require a permit from the US Army Corps of Engineers for Section 404 wetland and stream impacts, but it is yet to be determined whether the permit would be an Individual Permit or a Nationwide or General Permit.

<b>Checklist Items 13: Section 106 of the National Historic Preservation Act (NHPA)</b>
---

#### *Historic Architecture and Landscape Resources*

The NCDOT architectural historian identified the following National Register (NR) -eligible or -listed properties in the project area of potential effects (APE):

- Biltmore Estate (BN1835) – National Historic Landmark (NHL)
- Blue Ridge Parkway (NC0001) – Determined NR eligible, NHL pending
- French Broad River Gaging Station (BN6468) – Determined NR eligible
- Bent Creek Campus (BN0898) – Determined NR eligible

NCDOT recommended an effects assessment for the above-listed historic properties in the Effects Required Form dated June 15, 2021 (attached).

#### *Archaeological Resources*

The NCDOT archaeologist determined an archaeological resource survey was required for the project APE on May 20, 2021. An intensive archaeological survey and evaluation was conducted for the APE from August to October 2021. Of the 13 resources identified or revisited by the survey, one precontact site (31BN1119) was recommended eligible. NCDOT submitted the Archaeological Effects Required Form to NC Historic Preservation Office (HPO) and tribes (see tribal coordination below) on December 10, 2021. On January 18, 2022, NC HPO concurred with NCDOT's Determination of Eligibility and recommendation for data recovery investigations to mitigate adverse effects to the site that cannot be avoided by the proposed project. (See attachments.)

#### *Effects Assessment*

In accordance with Section 106 of the NHPA, NCDOT and FHWA consulted with appropriate parties in the determination of effects to the four above-ground historic architectural properties and one archaeological property at a series of meetings:

October 7, 2021 - NCDOT and FHWA hosted a Pre-effects Meeting with the NC HPO and the National Park Service-Blue Ridge Parkway (NPS). The Blue Ridge Parkway was the topic of discussion.

February 4, 2022 - NCDOT and FHWA hosted an Effects Meeting with NC HPO, NC Office of State Archaeology (OSA), NPS, and Biltmore Estate. All historic properties were reviewed for potential effects. Concurrence was reached on all historic properties except the Blue Ridge Parkway (see **Table 7**).

- Following the selection of the Least Environmentally Damaging Practicable Alternative (LEDPA)/Preferred Alternative at Concurrence Point 3 on February 9, 2022, NCDOT submitted the No National Register of Historic Places Eligible or Listed Archaeological Sites Form to NC HPO on March 10, 2022. NC HPO concurred by letter dated June 20, 2022, that HE-0001 will have no adverse effect on eligible archaeological resources, including site 31BN1119. (See attachments.)

March 18, 2022 - NCDOT and FHWA hosted a follow-up Effects Meeting for the Blue Ridge Parkway with NC HPO, NPS, Buncombe County, and Biltmore Farms, LLC (landowner).

May 11, 2022 - NCDOT and FHWA hosted a second follow-up Effects Meeting for the Blue Ridge Parkway with NC HPO, NPS, Buncombe County, and Biltmore Farms, LLC.

June 29, 2022 - NCDOT and FHWA hosted a final Effects Meeting for the Blue Ridge Parkway with NC HPO, NPS, Buncombe County, and Biltmore Farms, LLC. A No Adverse Effect, with conditions



determination was concurred to for the Blue Ridge Parkway. These conditions are included in the HE-0001 project commitments (green sheet).

The following effects determinations were made for the Preferred Alternative (also see attached Effects Form):

**Table 7. Effects to Historic Properties**

<b>Historic Property (State ID)</b>	<b>Status</b>	<b>Effect</b>
Biltmore Estate (BN1835)	NHL	No Effect
Blue Ridge Parkway (NC0001)	NR eligible; NHL pending	No Adverse Effect, with conditions
French Broad River Gaging Station (BN6468)	NR eligible	No Effect
Bent Creek Campus (BN0898)	NR eligible	No Effect
Archaeological site (31BN1119)	NR eligible	No Adverse Effect

#### *Tribal Coordination*

NCDOT initiated contact with the following tribal governments consistent with the current NCDOT protocol on September 9, 2021:

- Eastern Band of Cherokee Indians (EBCI)
- United Keetoowah Band of Cherokee Indians
- Cherokee Nation\*
- Catawba Indian Nation\*
- Muscogee (Creek) Nation

\*NCDOT received a response from these tribes.

NCDOT transmitted the Archaeological Effects Form and details regarding the results of the archaeological survey investigations to the above-listed tribal governments and NC HPO on December 10, 2021. The Catawba Indian Nation replied by letter dated January 31, 2022.

Following selection of the LEDPA/ Preferred Alternative on February 9, 2022, NCDOT transmitted updated information based on the No National Register of Historic Places Eligible or Listed Archaeological Sites Affected Form to the above-listed tribal governments on March 10, 2022. NCDOT and FHWA met with Eastern Band of Cherokee Indians on March 21, 2022, and provided additional information. (See attachments.)

#### **Checklist Item 21: Interstate Interchange Construction and/or Modification or changes in Access Control**

FHWA reviewed the Interstate Access Report (IAR) for this project and deemed the proposed interchange acceptable based on safety, operations, and engineering considerations. Final approval of this new interchange may be given by the FHWA-NC Division Administrator provided that the scope and design of the selected alternative in the approved environmental document is consistent with the IAR, dated October 18, 2021.

Access along I-26 will remain fully controlled. The proposed project will introduce a new interchange near mile marker 35 that will access only the west side of I-26; no access will be provided east of I-26 on the Biltmore Estate property. The proposed roadway connection will be controlled access for 1,000 feet west of the I-26 eastbound on- and off-ramp terminals.

### Checklist Item 27: NCDOT Noise Policy Type 1 Project

The source of this traffic noise information is “Traffic Noise Report, I-26 Interchange (Exit 35), STIP Project HE-0001, Buncombe County, NC”, Gannett Fleming, April 2022.

For the purposes of the traffic noise study, NCDOT evaluated two alternatives: Right Exit and Left Exit (Preferred Alternative) alternatives. The Right Exit is the closest alternative to the Biltmore Estate and Blue Ridge Parkway while the Left Exit alternative is the furthest alternative from both the Biltmore Estate and Blue Ridge Parkway. The analyses of these two alternatives adequately assess the potential traffic noise impacts associated with all three DSAs.

#### Blue Ridge Parkway

NCDOT analyzed traffic noise impacts to the Blue Ridge Parkway for purposes of consultation under Section 106 of the National Historic Preservation Act (NHPA). While noise analysis of the Blue Ridge Parkway is not required by 23 CFR 772 or the 2021 NCDOT Traffic Noise Policy, NCDOT recognizes that the setting and feeling of the Blue Ridge Parkway are characteristics that contribute to the property’s NR eligibility (NHL is pending). This project would not substantially alter future sound levels along the studied portion of the Blue Ridge Parkway adjacent to the proposed project.

#### Traffic Noise Impacts

The maximum number of receptors in the Preferred Alternative predicted to be impacted by future traffic noise is shown in **Table 8**. The table includes those receptors expected to experience traffic noise impacts by either approaching or exceeding the FHWA Noise Abatement Criteria or by a substantial increase in exterior noise levels as defined in the NCDOT Traffic Noise Policy.

**Table 8. Predicted Traffic Noise Impacts\***

Alternative	Residential (NAC B)	Places of Worship/Schools, Parks, etc. (NAC C & D)	Businesses (NAC E)	Total
Preferred Alternative	0	4	0	4
*Per TNM®2.5 and in accordance with 23 CFR Part 772				

#### Traffic Noise Abatement Measures

Measures for reducing or eliminating the traffic noise impacts, including noise barriers, were considered for all impacted receptors in each alternative. Noise barriers include two basic types: earthen berms and noise walls. These structures act to diffract, absorb, and reflect highway traffic noise.

One impact was identified within each of the project’s four noise study areas (NSA). In accordance with the NCDOT noise policy feasibility requirements, a minimum of two impacted receptors must benefit from a noise abatement measure; therefore, noise abatement is not feasible for this project.

Based on this preliminary study, traffic noise abatement is not recommended, and no noise abatement measures are proposed. This evaluation completes the highway traffic noise requirements of Title 23 CFR Part 772. No additional noise analysis will be performed for this project unless warranted by a substantial change in the project’s design concept or scope.

In accordance with NCDOT Traffic Noise Policy, the Federal/State governments are not responsible for providing noise abatement measures for new development for which building permits are issued after the Date of Public Knowledge. The Date of Public Knowledge of the proposed highway project will be the approval date of the Categorical Exclusion. NCDOT strongly advocates the planning, design and construction of noise-compatible development and encourages its practice among planners, building officials, developers and others.

<b>Checklist Item 28: Farmland Protection Policy Act (FPPA)</b>
---

A preliminary screening of farmland conversion impacts in the PSA has been completed (NRCS Form AD-1006 for point projects, Part VI only) and a total score of 37 out of 160 points was calculated for the project site. Since the total site assessment score does not exceed the 60-point threshold established by Natural Resources Conservation Service (NRCS), farmland conversion impacts may be anticipated, but are not considered notable.

H. Project Commitments (attach as Green Sheet to CE Form):

## **NCDOT PROJECT COMMITMENTS**

STIP Project No. **HE-0001**

I-26 Interchange (Future Exit 35)

Buncombe County

Federal Aid Project No. Federal Aid Number

WBS Element 49742.1.2

# PROJECT COMMITMENTS

I-26 Exit 35, Construct New Interchange

T.I.P Number: HE-0001

Buncombe

Federal Aid Number:

WBS: 49742.1.2

## COMMITMENTS FROM PROJECT DEVELOPMENT AND DESIGN

### Division Office - Tree clearing - Preconstruction

As the proposed action will impact suitable habitat for Gray bat throughout the action area, all tree clearing will occur between November 15– March 15, which is outside of the bat active season for Gray bat in the French Broad River (FBR) Basin. There will be one exception to this moratorium, the minimal tree clearing associated with geotechnical field investigations that will occur starting in August 2022. This exception will allow equipment access for geotechnical borings planned on the -y- line (i.e., connector road) and the bifurcated section. The equipment will work around trees to the greatest extent practical.

NCDOT will modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal in excess of what is required to implement the project safely.

### Division Environmental Staff - Agency coordination and review - Preconstruction

Based on Section 7 coordination, NCDOT will invite representatives from the FWS, U.S. Army Corps of Engineers (COE), NC Division of Water Resources, NC Division of Land Quality, and the North Carolina Wildlife Resources Commission (WRC) to the preconstruction meeting for the proposed project, as well as to all subsequent field inspections prior to construction, to ensure compliance with all special project commitments.

NCDOT shall provide the FWS with the SECP and allow 30 calendar days for review.

### Division Office - Blue Ridge Parkway - Blue Ridge Parkway Overlay District

a. Buncombe County is an interested party in the HE-0001 project, as referenced by its current overlay district and zoning powers that protect the BRP corridor. NCDOT will coordinate with Buncombe County and request the County to notify and request comments from NPS and NC HPO regarding any future proposed changes to the Blue Ridge Parkway Overlay District (Section 78-643).

### Division Office - Blue Ridge Parkway - Future capacity improvements

NCDOT will coordinate review of any future capacity improvements to HE-0001 (including widening, pedestrian, or safety modifications) with the NPS and NC HPO prior to the approval of any federal or state action (i.e., NEPA document, permit). This condition is not applicable to NCDOT capacity improvements that are considered an exempt activity under the current NCDOT Section 106 Programmatic Agreement.

### Division Office - Blue Ridge Parkway - Future intersecting road(s)

NCDOT will not construct or maintain any new road or access points that intersect or cross the HE-0001 portion of East Frederick Law Olmsted Way, from the roundabout to I-26.

If NCDOT assumes maintenance of East Frederick Law Olmsted Way from NC 191 to the roundabout, NCDOT will review driveway access permits to East Frederick Law Olmsted Way according to current NCDOT procedure and in consultation with NPS and NC HPO. This condition may be revisited through consultation with NPS and NC HPO associated with future state transportation projects.

### Division Office - Blue Ridge Parkway - Lighting

NCDOT will not install roadway lighting along the access roadway portion of HE-0001 (i.e., East Frederick Law Olmsted Way); lighting will be required for the interchange. Interchange lighting will be designed and installed in accordance with the conservation measures included in the US Fish and Wildlife Informal Consultation letter dated March 16, 2022 and revised July 22, 2022. If NCDOT allows roadway/pedestrian lighting of East Frederick Law Olmsted Way through an encroachment agreement with a separate/private entity, NCDOT will require implementation of NPS Sustainable Outdoor Lighting Principles for any roadway/pedestrian lighting.

1. NPS Sustainable Outdoor Lighting Principles
  - a. Light only IF you need it
  - b. Light only WHEN you need (use timers, sensors, and other controls)
  - c. Light only WHAT/WHERE you need it (shield light sources and direct downward, minimize height of light sources)
  - d. Use appropriate color spectra (no white/blue light), use amber or yellow
  - e. Use minimum number of lumens necessary (500 lumens or less per fixture if possible)
  - f. Choose energy efficient lamps and fixtures (minimum possible)

### EAU – Cultural Resources, Division Office - Blue Ridge Parkway - Vegetative Screening

NCDOT will design, install, and maintain approximately 900 feet of vegetative screening along the southside of the HE-0001 portion of East Frederick Law Olmsted Way closest to the Blue Ridge Parkway.

NCDOT will commit to produce a vegetative screening plan with the 65% roadway design plan (late summer/fall 2022) submittal and provide to NPS and NC HPO for review and comment.

### Division Office - Design Standards in Sensitive Watersheds - Preconstruction

NCDOT will utilize Design Standards in Sensitive Watersheds (DSSW, 15A NCAC 04B .0124) for stormwater discharge under the National Pollutant Discharge Elimination System (NPDES).

### Division Office - Lighting (Bats) - Preconstruction

Based on Section 7 coordination for bats, permanent lighting will be confined to the interchange portion of this project along I-26 and will meet safety requirements for fully controlled access roadways. The roadway connection to Frederick Law Olmstead Way East will remain a dark forested corridor. NCDOT will use the shortest light pole that meets highway requirements and safety parameters and limits light in suitable bat



habitat. NCDOT will use light emitting diode (LED) fixtures with a Type II distribution pattern. This pattern projects light from the fixture further along the road and less across the road. In all cases, the BUG (Backlight, Uplight, and Glare) rating will not exceed 3-0-3.

NCDOT will meet the AASHTO minimum requirements of 0.6 fc at 4:1 uniformity, which represents a 25% reduction in the average light on the pavement surface (compared with using the 0.8 fc standard) and should reduce the amount of light reaching suitable bat habitat. NCDOT will eliminate all high mast light poles within the action area.

#### **Division Environmental Staff, Hydraulics - Stormwater control measures (A. elktoe) - Preconstruction**

Based on Section 7 coordination, NCDOT has developed stormwater commitment guidance which will apply to any portion of the NCDOT stormwater conveyance system draining to an outfall discharging to the French Broad River within the NCDOT right of way. NCDOT will prepare a stormwater management plan (SMP) that implements structural and non-structural post-construction stormwater best management practices (BMPs) to the maximum extent practical, which is consistent with NPDES Post-Construction Stormwater Program. NCDOT will use a hierarchical BMP selection process, which is optimized to treat silt, nutrients, and heavy metals.

NCDOT will evaluate the use of emerging BMP technologies that NCDOT has yet to publish in its BMP Toolbox. These emerging BMP technologies include bioswales, bioembankments, biofiltration conveyances, and soil improvements that maximize infiltration.

#### **Hydraulics - Sediment and erosion control plan (SECP) - Preconstruction**

Based on Section 7 coordination, the sedimentation and erosion control plan (SECP) will be in place prior to any ground disturbance for all pipe replacements and construction. When needed, combinations of SEC measures (such as silt bags in conjunction with a stilling basin) will be used to ensure that the most protective measures are implemented. The SECP shall adhere to the DSSW for portions of the project draining directly or indirectly to the FBR. Consideration will be given to any on the ground practical application which is most protective of the resource. For example, there may be some areas where NCDOT would not extend a measure of the DSSW (e.g., cut trees to construct a basin) which would have greater impact to sensitive resources.

#### **Division Office, Construction Office - Blue Ridge Parkway - Control of Access**

NCDOT will include 1,000-foot control of access (C/A) fencing along the HE-0001 portion of East Frederick Law Olmsted Way west of the eastbound I-26 on- and off-ramp intersection that would prohibit the construction of driveways or access points.

#### **Construction Office - Blue Ridge Parkway - Tree clearing**

NCDOT will minimize tree clearing consistent with Section 7 conservation measures. NCDOT is committed to avoid tree removal beyond what is required to implement the project safely. NCDOT will ensure that tree removal is limited to that specified in the project plans.

#### **Construction Office - Lighting (Bats) - Construction**

Based on Section 7 coordination for bats, lighting used for construction will be limited to what is necessary to maintain safety standards and will only be directed toward active work areas, not into adjacent wooded areas or inactive work sites.

#### **Division Environmental Staff - Sediment and erosion control monitoring effectiveness - Construction**

Based on Section 7 coordination, one Construction Project Inspector will monitor SEC devices for the life of the project. Inspections of erosion control devices will be done on the standard inspection schedule (weekly, or after a rainfall event of one inch or greater). NCDOT will self-report to the FWS any SEC device failures or sediment loss resulting from exceeding the capacity of the measures. The NCDOT inspector will report any failures or sediment loss to the Division Environmental Officer, who will contact the agency within 24 hours. If there are any failures or sediment loss, NCDOT will meet with resource agencies and work to adaptively manage SEC devices for further storm events while construction continues.

#### **Division Environmental Staff - Tree Clearing (Bats) - Construction**

Based on Section 7 coordination regarding bat habitat, NCDOT will ensure tree removal is limited to that specified in project plans and ensure that clearing limits are clearly marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits).

## **COMMITMENTS FROM PERMITTING**

No commitments developed during project permitting.

**\*\*\*\*\*END OF PROJECT COMMITMENTS\*\*\*\*\***

**I-26 Exit 35, construct new interchange**

I. Categorical Exclusion Approval:

STIP Project No.	<b>HE-0001</b>
WBS Element	49742.1.2
Federal Project No.	Federal Aid Number

**Prepared By:**

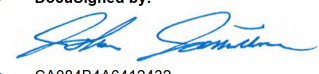
8/11/2022  
Date

  
Adam Archual, Senior Environmental Planner  
Gannett Fleming

**Prepared For:** North Carolina Department of Transportation Division 13

**Reviewed By:**

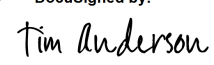
08/12/2022  
Date

DocuSigned by:  
  
CA084B4A6412432...  
John Jamison, EPU Western Regional Team Lead  
North Carolina Department of Transportation

☐ **Approved**

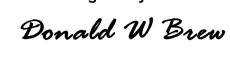
☒ **Certified** • If classified as Type III Categorical Exclusion.

08/12/2022  
Date

DocuSigned by:  
  
CD10D468D13A4B3...  
Tim Anderson, PE, Division Engineer, Division 13  
North Carolina Department of Transportation

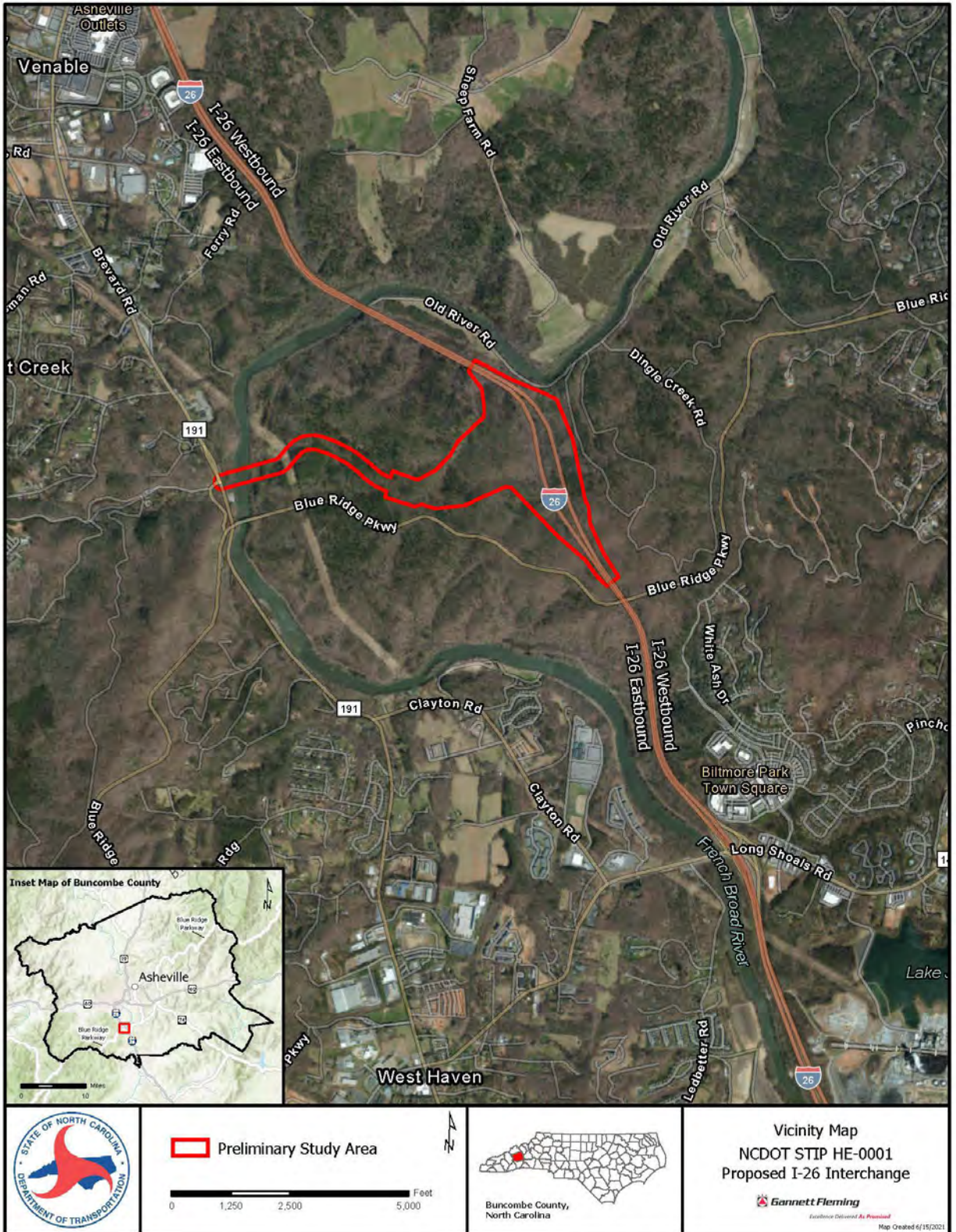
FHWA Approved: For Projects Certified by NCDOT (above), FHWA signature required.

08/12/2022  
Date

DocuSigned by:  
  
B96E8B70991E42C...  
for John F. Sullivan, III, PE, Division Administrator  
Federal Highway Administration

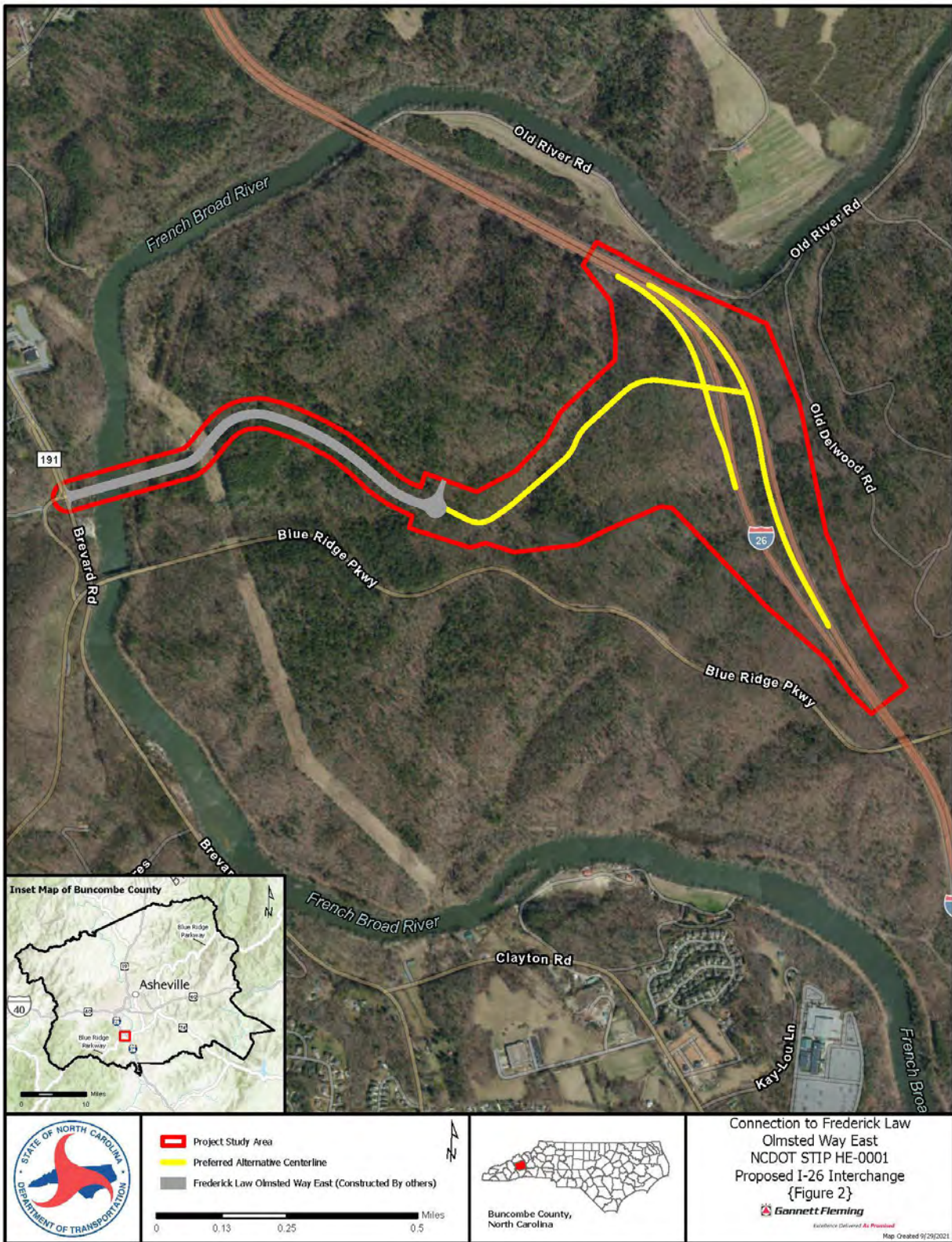
*Note: Prior to ROW or Construction authorization, a consultation may be required (please see Section VII of the NCDOT-FHWA CE Programmatic Agreement for more details).*

**FIGURE 1. PROJECT VICINITY MAP**





**FIGURE 2. PREFERRED ALTERNATIVE (DSA 3) AND EAST FREDERICK LAW OLMSTED WAY (FLOW) (UNDER CONSTRUCTION BY A PRIVATE DEVELOPER)**





**FIGURE 3. LEDPA/PREFERRED ALTERNATIVE (DSA 3)**

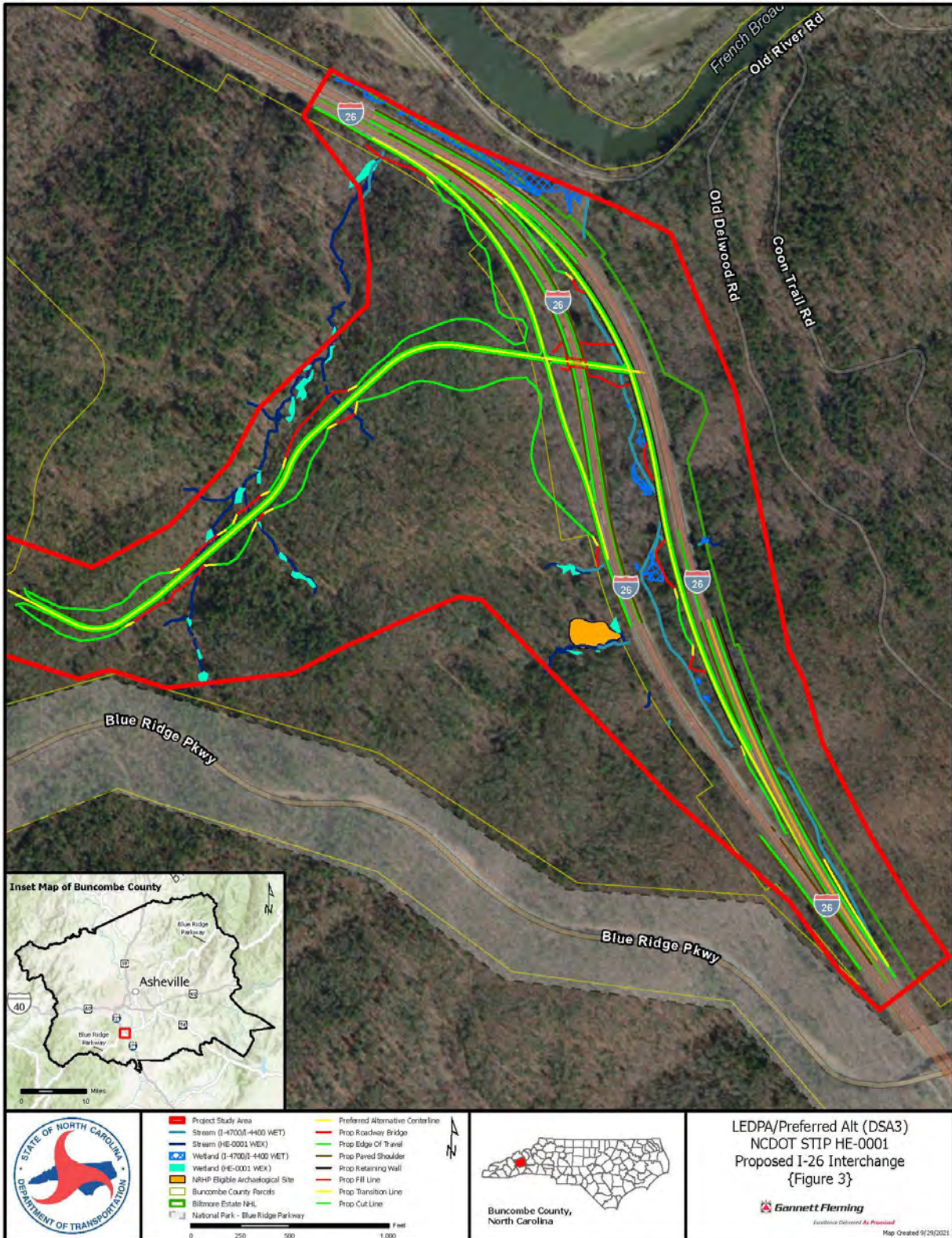




FIGURE 4. ENVIRONMENTAL FEATURES MAP







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

Ramona M. Bartos, Administrator

Governor Roy Cooper  
Secretary D. Reid Wilson

Office of Archives and History  
Deputy Secretary, Darin J. Waters, Ph.D.

June 20, 2022

**MEMORANDUM**

**TO:** Matt Wilkerson [mtwilkerson@ncdot.gov](mailto:mtwilkerson@ncdot.gov)  
Environmental Analysis Unit  
NCDOT Division of Highways

**FROM:** Ramona M. Bartos, Deputy State Historic Preservation Officer *Re: for Ramona M. Bartos*

**SUBJECT:** TIP HE-0001, WBS No. 49473, Transportation Programmatic Agreement Project  
21 05-0002, Buncombe County, ER 21-1559

Thank you for your submission of March 10, 2021, for the above-referenced project. We have reviewed the information provided and offer the following comments:

The **No National Register of Historic Places Eligible or Listed Archaeological Sites Affected Form** submitted for the area of potential effects (APE) for the proposed TIP HE-0001 (PA Project 21-05-0002) project reports that impacts to all 18 archaeological sites (31BN1046, 31BN1052, 31BN1090, 31BN1093, 31BN1094, 31BN1091, 31BN1092, 31BN1118, and 31BN1119-31BN1128) identified or revisited in the 2021 survey will be avoided. In our memo of January 14, 2022, we concurred that recently identified sites 31BN1091, 31BN1092, 31BN1118, and 31BN1120-31BN1128 were not eligible for listing in the National Register of Historic Places (NRHP), and no additional archaeological investigations were required ahead of construction.

Site 31BN1119 was determined to be NRHP eligible, and at the TIP HE-0001 Effects Meeting held of February 4, 2022, three detailed study alternatives were presented and discussed (DSA1, DSA2, and DSA3). In the subsequent Concurrence Point 3 (CP3) meeting held on February 9, 2022, DSA3 was selected as the Least Environmentally Damaging Practicable Alternative (LEDPA)/Preferred Alternative because it avoids impacts to any portion of site 31BN1119.

Given that DSA3 has been selected as the LEDPA, we concur that HE-0001 will have no adverse effect on eligible archaeological resources, including site 31BN1119, and no further archaeological work is necessary.

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 919-814-6579 or [environmental.review@ncdcr.gov](mailto:environmental.review@ncdcr.gov). In all future communication concerning this project, please cite the above referenced tracking number.

cc:	Damon Jones, NC DOT	<a href="mailto:cdjones2@ncdot.gov">cdjones2@ncdot.gov</a>
	Donnie Brew, FHWA	<a href="mailto:donnie.brew@dot.gov">donnie.brew@dot.gov</a>
	Lori Beckwith, USACE	<a href="mailto:loretta.a.beckwith@usace.army.mil">loretta.a.beckwith@usace.army.mil</a>
	Andrew Triplett, NPS	<a href="mailto:andrew_triplett@nps.gov">andrew_triplett@nps.gov</a>
	Scott Shumate, Biltmore Estate	<a href="mailto:sshumate@biltmore.com">sshumate@biltmore.com</a>
	Wenonah Haire, Catawba Nation	<a href="mailto:wenonahh@ccppcrafts.com">wenonahh@ccppcrafts.com</a>
	Russell Townsend, ECBI THPO	<a href="mailto:russtown@nc-chokeee.com">russtown@nc-chokeee.com</a>
	Stephen Yerka, ECBI THPO	<a href="mailto:syerka@ebci-nsn.gov">syerka@ebci-nsn.gov</a>
	Elizabeth Toombs, CN THPO	<a href="mailto:elizabeth-toombs@chokeee.org">elizabeth-toombs@chokeee.org</a>
	Acee Watt, UKB THPO	<a href="mailto:awatt@ukb-nsn.gov">awatt@ukb-nsn.gov</a>
	LeeAnne Wendt, MCN THPO	<a href="mailto:lwendt@mcn-nsn.gov">lwendt@mcn-nsn.gov</a>
	Roger Bryan, NCDOT Division 13	<a href="mailto:rdbryan@ncdot.gov">rdbryan@ncdot.gov</a>
	McCray Coates, NCDOT Division 13	<a href="mailto:hmcoates@ncdot.gov">hmcoates@ncdot.gov</a>
	Mark Gibbs, NCDOT Division 13	<a href="mailto:mgibbs@ncdot.gov">mgibbs@ncdot.gov</a>
	Adam Archual, Gannett Fleming, Inc.	<a href="mailto:aarchual@gfnet.com">aarchual@gfnet.com</a>
	Rick Tipton, Gannett Fleming, Inc.	<a href="mailto:rtipton@gfnet.com">rtipton@gfnet.com</a>

**From:** [Stephen Yerka](#)  
**To:** [Brew, Donnie \(FHWA\)](#); [Damon Jones](#)  
**Cc:** [Bryan, Roger D](#); [Coates, McCray](#); [Wilkerson, Matt T](#); [Archual, Adam J.](#)  
**Subject:** RE: HE-0001 EBCI THPO consultation  
**Date:** Monday, March 21, 2022 2:59:48 PM  
**Attachments:** [image001.png](#)

---

**[EXTERNAL EMAIL]:** This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Thank you Donnie,  
(and thank you, Damon, for sending the GIS files also)  
We really appreciate you all being available to respond to the EBCI THPO's questions about the project status.  
I will review the materials a little more, and the EBCI THPO is glad to hear the eligible site (119) is being avoided with Alt 3.

Thank you,  
Stephen

Stephen J. Yerka  
Historic Preservation Specialist, THPO  
Eastern Band of Cherokee Indians (<https://ebci.com/>)  
[syerka@ebci-nsn.gov](mailto:syerka@ebci-nsn.gov)  
(828) 359-6852



---

**From:** Brew, Donnie (FHWA) <Donnie.Brew@dot.gov>  
**Sent:** Monday, March 21, 2022 2:06 PM  
**To:** Stephen Yerka <[syerka@ebci-nsn.gov](mailto:syerka@ebci-nsn.gov)>; Stephen Yerka <[syerka@ebci-nsn.gov](mailto:syerka@ebci-nsn.gov)>; Damon Jones <[cdjones2@ncdot.gov](mailto:cdjones2@ncdot.gov)>  
**Cc:** Bryan, Roger D <[rdbryan@ncdot.gov](mailto:rdbryan@ncdot.gov)>; Coates, McCray <[hmcoates@ncdot.gov](mailto:hmcoates@ncdot.gov)>; Wilkerson, Matt T <[mtwilkerson@ncdot.gov](mailto:mtwilkerson@ncdot.gov)>; Archual, Adam J. <[aarchual@GFNET.com](mailto:aarchual@GFNET.com)>  
**Subject:** RE: HE-0001 EBCI THPO consultation

Good afternoon Stephen,

It was good catching up with you this afternoon.

I've attached a visual for HE-0001 that is pretty helpful. It shows the HE-0001 project area including the 3 detailed study alternatives. The alternatives and eligible historic resources are labeled on the visual. We are planning to move forward with the green alternative



(Alternative 3).

There is a footnote in the map key that describes the activities that are part of Project Ranger.

Have a great afternoon and let us know if we can help answer any other questions that may come up.

Talk to you soon,

Donnie

**Donnie Brew**  
***Preconstruction & Environment Engineer***  
**Federal Highway Administration**  
**310 New Bern Ave, Suite 410**  
**Raleigh, NC 27601**  
**[donnie.brew@dot.gov](mailto:donnie.brew@dot.gov)**  
**919-747-7017**

\*\*\*Please consider the environment before printing this email.\*\*\*

-----Original Appointment-----

**From:** Stephen Yerka <[syerka@ebci-nsn.gov](mailto:syerka@ebci-nsn.gov)>

**Sent:** Monday, March 14, 2022 2:08 PM

**To:** Stephen Yerka; Damon Jones

**Cc:** Brew, Donnie (FHWA); Bryan, Roger D; Coates, McCray; Wilkerson, Matt T; Archual, Adam J.

**Subject:** HE-0001 EBCI THPO consultation

**When:** Monday, March 21, 2022 1:00 PM-3:00 PM (UTC-05:00) Eastern Time (US & Canada).

**Where:** Microsoft Teams Meeting

**CAUTION:** This email originated from outside of the Department of Transportation (DOT). Do not click on links or open attachments unless you recognize the sender and know the content is safe.

---

## Microsoft Teams meeting

Join on your computer or mobile app

[Click here to join the meeting](#)

**From:** [Jones, Damon](#)  
**To:** [Stephen Yerka](#)  
**Cc:** [Brew, Donnie \(FHWA\)](#); [Wilkerson, Matt T](#); [Bryan, Roger D](#); [Coates, McCray](#); [Archual, Adam J.](#)  
**Subject:** HE-0001 GIS files  
**Date:** Monday, March 21, 2022 2:42:41 PM  
**Attachments:** [image001.png](#)  
[HE-0001 Archaeological APE.zip](#)  
[HE-0001 & Project Ranger Sites.zip](#)  
[HE-0001 Alternative #3.zip](#)  
[Project Ranger Archaeological Survey Area.zip](#)

---

**[EXTERNAL EMAIL]:** This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Steven,

Nice talking with you today.

Attached are the GIS files you requested

- HE-0001 Archaeological APE/Study Area
- Sites including those from both HE-0001 and Project Ranger
- Micro Station files for the Preferred Alternative Alt 3
- The Project Ranger APE/Survey Area

They should be projected in NAD 83 NC Stateplane (Feet).

Let me know if have any questions about the files.

Have a great day.

Damon Jones

Archaeologist

Environmental Analysis Unit

N.C. Department of Transportation

**901 340 7921 mobile/home**

919 707 6076 office

919 250 4224 fax

[cdjones2@ncdot.gov](mailto:cdjones2@ncdot.gov)

1020 Birch Ridge Drive

1598 Mail Service Center

Raleigh, NC 27699-1598



*Email correspondence to and from this address is subject to the North Carolina Public Records Law and may be disclosed to third parties.*

---



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

ROY COOPER  
GOVERNOR

J. ERIC BOYETTE  
SECRETARY

March 10, 2022

Ms. Ramona Bartos, Deputy State Historic Preservation Officer  
North Carolina State Historic Preservation Office  
4617 Mail Service Center  
Raleigh, North Carolina 27699-4617

Dear Ms. Bartos

Subject: TIP HE-0001, WBS No. 49473, Transportation Programmatic Agreement Project 21-05-0002, Buncombe County, ER 21-1559

Enclosed please find a copy of the *No National Register of Historic Places Eligible or Listed Archaeological Sites Affected Form* for the subject project documenting the 2021 investigations for TIP HE-0001 (PA Project 21-05-0002) and archaeological site 31BN1119, which is recommended eligible for the National Register of Historic Places (NRHP) under Criterion D. TIP HE-0001 in Buncombe County is subject to the terms and conditions of the Programmatic Agreement (PA) among the Federal Highway Administration, United States Army Corps of Engineers (Wilmington District), North Carolina Department of Transportation, Advisory Council on Historic Preservation, and North Carolina State Historic Preservation Officer for the Transportation Program in North Carolina (PA) as executed on December 7, 2020. FHWA is the lead federal agency in relation to Section 106 of the NHPA. This documentation is being provided as per stipulation V.C.1.a.1 of the PA.

Although the results of the initial investigation and site evaluation for 31BN1119 remain unchanged from the *Archaeological Effects Required Form* submitted to your office dated December 10, 2021; a finding of no effects for 31BN1119 is being submitted due to avoidance of the site. Construction activities for HR-0001 will not impact site 31BN1119. Please contact Mr. C. Damon Jones at 919-707-6076 or [cdjones@ncdot.gov](mailto:cdjones@ncdot.gov) or me at 919-707-6089 or [mtwilkerson@ncdot.gov](mailto:mtwilkerson@ncdot.gov) should you have any questions regarding this project.

Sincerely,

Matthew Wilkerson  
Archaeology Team Leader  
Environmental Analysis Unit

Enclosures (PA form)

Mailing Address:  
NC DEPARTMENT OF TRANSPORTATION  
ENVIRONMENTAL ANALYSIS UNIT  
159 MAIL SERVICE CENTER  
RALEIGH, NC 27699-1598

Telephone: (919) 707-6000  
Fax: (919) 212-5785  
Customer Service: 1-877-368-4968  
Website: [www.ncdot.gov](http://www.ncdot.gov)

Location:  
1000 BIRCH RIDGE DRIVE  
RALEIGH, NC 27610

Cc     Donnie Brew, FHWA  
Lori Beckwith, USACE  
Andrew Triplett, NPS  
Scott Shumate, Biltmore Estate  
Wenonah Haire, Catawba Nation  
Russell Townsend, ECBI THPO  
Stephen Yerka, ECBI THPO  
Elizabeth Toombs, CN THPO  
Acee Watt, UKB THPO  
LeeAnne Wendt, MCN THPO  
Roger Bryan, NCDOT Division 13  
McCray Coates, NCDOT Division 13  
Mark Gibbs, NCDOT Division 13  
Adam Archual, Gannett Fleming, Inc.  
Rick Tipton, Gannett Fleming, Inc.

**From:** [Jones, Damon](#)  
**To:** [Wenonah Haire](#); [Stephen Yerka](#); [elizabeth-toombs@cherokee.org](#); [Acee Watt](#); [ukbthpo@ukb-nsn.gov](#); [LeeAnne Wendt](#); [sshumate@biltmore.com](#); [andrew\\_triplett@nps.gov](#)  
**Cc:** [Brew, Donnie](#) (FHWA); [Bryan, Roger D](#); [Coates, McCray](#); [Wilkerson, Matt T](#); [Archual, Adam J](#); [Tipton, Rick A](#).  
**Subject:** NCDOT; TIP HE-0001 (Buncombe County, NC); Archaeology No NRHP Sites Affected  
**Date:** Thursday, March 10, 2022 3:22:28 PM  
**Attachments:** [image001.png](#)  
[HE-0001\\_HPO\\_No\\_Effects\\_Transmittal\\_Letter.pdf](#)  
[AR21-05-0002noeffects.pdf](#)

---

**[EXTERNAL EMAIL]:** This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good Afternoon,

Please find the attached **No NRHP Eligible or Listed Archaeological Sites Affected** PA form and the HPO Transmittal Letter for the HE-0001 Project (construction of Exit 35 on I-26) in Buncombe County, North Carolina (PA Project 21-05-0002).

NCDOT is providing this information to your office on behalf of the Federal Highway Administration (FHWA), the designated lead federal agency for this undertaking, so that you may have the opportunity to offer any comments. In addition to the SHPO, copies of the survey report are being provided to the National Park Service, the US Army Corps of Engineers, The Catawba Nation, The Eastern Band of Cherokee Indians, the Cherokee Nation, The Muscogee (Creek) Nation, the Keetoowah Band of Cherokee Indians, and the Biltmore Estate.

The Archaeological Survey Report and Effect Required form for HE-0001 were provided to you in an email dated December 10, 2021, from me.

During the last Merger Meeting on Feb 9, 2022, Alternative 3 (DSA3) was selected as the Least Environmentally Damaging Practicable Alternative (LEDPA)/Preferred Alternative. This alternative is being carried forward and will have no effect to eligible site 31BN1119 as it will be avoided by the project.

If you have any questions, please let me know  
Thank you.

Damon Jones  
Archaeologist  
Environmental Analysis Unit  
N.C. Department of Transportation  
**901 340 7921 mobile/home**  
919 707 6076 office  
919 250 4224 fax  
[cdjones2@ncdot.gov](mailto:cdjones2@ncdot.gov)

1020 Birch Ridge Drive  
1598 Mail Service Center

Raleigh, NC 27699-1598



*Email correspondence to and from this address is subject to the  
North Carolina Public Records Law and may be disclosed to third parties.*

---

---

Email correspondence to and from this sender is subject to the N.C. Public Records Law and may be disclosed to third parties.





## NO NATIONAL REGISTER OF HISTORIC PLACES ELIGIBLE OR LISTED ARCHAEOLOGICAL SITES AFFECTED FORM

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



### PROJECT INFORMATION

**Project No:** HE-0001      **County:** Buncombe  
**WBS No:** 49473      **Document:** Federal CE  
**F.A. No:** na      **Funding:** ☐ State ☒ Federal  
**Federal Permit Required?** ☒ Yes ☐ No      **Permit Type:** FHWA & USACE

### Project Description:

The project calls for the construction of new interchange on I-26 connecting with an internal road network under construction on the Biltmore Farms property in Buncombe County. The archaeological Area of Potential Effects (APE) of the project encompasses approximately 211 acres. It is bounded by the French Broad River to the north and the Blue Ridge Parkway property to the south. The APE along its maximum extent measures approximately 5,400 feet from the northwest to the southeast and 4,100 feet from the northeast to the southwest. The APE also extends to the west along an internal roadway crossing the French Broad River on a new bridge and intersection with NC 191. A portion of the APE was previously surveyed during Project Ranger (Webb and Nelson 2019a, 2019b, 2020, 2021) and was excluded from the current survey. However, its results are still valid.

This project is federally funded. As a result, this archaeological review was conducted in accordance with Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance (36 CFR Part 800).

### SUMMARY OF ARCHAEOLOGICAL FINDINGS

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

- ☐ There are no National Register listed ARCHAEOLOGICAL SITES within the project's area of potential effects. (Attach any notes or documents as needed)
- ☒ There are National Register listed ARCHAEOLOGICAL SITES within the project's area of potential effects. (Attach any notes or documents as needed).
- ☐ Subsurface investigations did not reveal the presence of any archaeological resources.
- ☐ Subsurface investigations did not reveal the presence of any archaeological resources considered eligible for the National Register.
- ☒ All identified archaeological sites located within the APE have been considered and all compliance for archaeological resources with Section 106 of the National Historic Preservation Act and GS 121-12(a) has been completed for this project.

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

An intensive archaeological survey and evaluation for the proposed construction of a new interchange on I-26 in Buncombe County (TIP HE-0001) was conducted by TRC from August to October 2021 (Figures 1–3). The survey report and "Archaeological Effect Required" form were completed on December 7, 2021, with copies submitted to the North Carolina State Historic Preservation Office (SHPO), the Tribal Historic Preservation Offices (THPO), the National Park Service (NPS), Biltmore Estate, and other concerned parties on December 10, 2021.

In summary, seven archaeological sites (31BN1046, 31BN1052, and 31BN1090–31BN1094) were identified within the project limits prior to the current investigations. The current HE-0001 survey by TRC revisited and expanded two of those sites (31BN1091 and 31BN1092) and recorded 11 new resources (31BN1118–31BN1128); no additional survey or evaluation was necessary at the other five previously identified sites (31BN1046, 31BN1052, 31BN1090, 31BN1093, and 31BN1094) as they were covered under Project Ranger (Webb and Nelson 2019a, 2019b, 2020, 2021) (see Figures 2 and 3).

Of the 13 resources identified or revisited by the current project, one precontact site (31BN1119) is recommended eligible for the NRHP under Criterion D, but lack the characteristics needed for eligibility under Criteria A–C. This site appears to have the potential to contain intact cultural features and deposits associated with multiple Archaic to Woodland period occupations. Site 31BN1119 is recommended for avoidance; however, preservation in place is not warranted. If adverse effects to this site cannot be avoided, data recovery excavations are required to mitigate those adverse effects prior to construction.

The other 12 sites (31BN1091, 31BN1092, 31BN1118, and 31BN1120–31BN1128) identified or revisited during the HE-0001 survey are recommended not eligible for NRHP under all four criteria, and no further archaeological work is required at these sites. However, additional investigations will be necessary at 31BN1092, 31BN1123, and 31BN1125 if the APE expands at these resources since the three sites may extend outside of the current project limits.

Of the five sites that were not revisited, one (31BN1046) has been determined eligible for the NRHP under Criterion D and has been the subject of recent data recovery excavations (Idol and Webb 2020). No additional consideration of that site within the APE is required as part of HE-0001. The other four sites (31BN1052, 31BN1090, 31BN1093, and 31BN1094) were previously determined not eligible for the NRHP under all four criteria, and no additional archaeological work was needed under HE-0001 (Webb and Nelson 2019a, 2019b, 2020, 2021). If the APE boundaries are expanded, additional survey and site delineation might be necessary to further investigate sites 31BN1052 and 31BN1090, and/or additional data recovery excavations might be necessary at 31BN1046, since these resources extend outside of the current project limits.

The TIP HE-0001 Effects Meeting was held on February 4, 2022. Three proposed detailed study alternatives (DSA1, DSA2, and DSA3) were presented. An adverse effect to site 31BN1119 was determined for DSA1 and DSA2 with SHPO and FHWA concurring. At least 100 percent of the site would be impacted with DSA1 (Figure 4), while DSA2 would impact at least 21 percent (Figure 5). DSA3 would have no effect on site 31BN1119 as it would be avoided (Figure 6). SHPO and FHWA both concurred. No additional archaeological investigations are required at any other sites as the project will not exceed the surveyed APE.

Concurrence Point 3 (CP3) was subsequential held on February 9, 2022. DSA3 was selected the Least Environmentally Damaging Practicable Alternative (LEDPA)/Preferred Alternative (see Figure 6). DSA3 would avoid impacts to site 31BN1119. As a result, HE-0001 will have no effect on the eligible archaeological resource, and no further archaeological work is necessary.

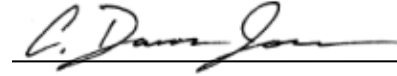
This project falls within a North Carolina County in which the Catawba Nation, the Eastern Band of Cherokee Indians, the Cherokee Nation, the United Keetoowah Band of Cherokee Indians, and Muscogee (Creek) Nation have expressed an interest. We recommend that you ensure that this documentation is forwarded to these tribes using the process described in the current NCDOT Tribal Protocol and PA Procedures Manual.

**SUPPORT DOCUMENTATION**

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

Other:

Signed:



March 10, 2022

---

**C. Damon Jones**  
**NCDOT ARCHAEOLOGIST**

**Date**

**REFERENCES CITED**

Idol, Bruce, and Paul Webb

- 2020        *Management Summary: Archaeological Data Recovery Excavations at Site 31BN1046, Buncombe County, North Carolina.* TRC Environmental Corporation, Asheville, North Carolina. Submitted to Biltmore Farms, LLC, Asheville.

United States Geological Survey (USGS)

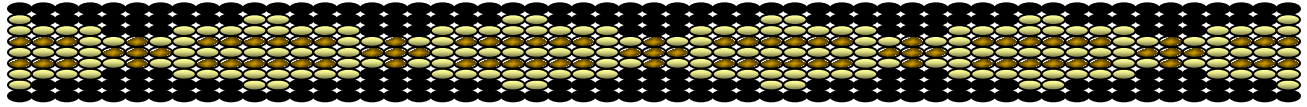
- 2016        Asheville, North Carolina 7.5 minute quadrangle map.  
2016        Skyland, North Carolina 7.5 minute quadrangle map.

Webb, Paul, and Michael Nelson

- 2019a        Background Study and Field Reconnaissance of the Northern Parcel of the Biltmore Park West Tract, Buncombe County, North Carolina. TRC Environmental Corporation, Asheville, North Carolina. Submitted to Biltmore Farms, LLC, Asheville.  
2019b        *Archaeological Survey and Site Evaluation for Project Ranger, Buncombe County, North Carolina.* TRC Environmental Corporation, Asheville, North Carolina. Submitted to Biltmore Farms, LLC, Asheville.  
2020        *Archaeological Survey and Site Evaluation for Project Ranger, Buncombe County, North Carolina: Addendum 1.* TRC Environmental Corporation, Asheville, North Carolina. Submitted to Biltmore Farms, LLC, Asheville.  
2021        *Archaeological Survey and Site Evaluation for Project Ranger, Buncombe County, North Carolina: Addendum 2.* TRC Environmental Corporation, Asheville, North Carolina. Submitted to ARCADIS.

Catawba Indian Nation  
Tribal Historic Preservation Office  
1536 Tom Steven Road  
Rock Hill, South Carolina 29730

Office 803-328-2427  
Fax 803-328-5791



January 31, 2022

Attention: Matthew Wilkerson  
NC Department of Transportation  
159 Mail Service Center  
Raleigh, NC 27699

Re. THPO #	TCNS #	Project Description
2020-193-53		TIP HE-0001, WBS No. 49473, Transportation Programmatic Agreement Project 21-05-0002, Buncombe Co.

Dear Mr. Wilkerson,

The Catawba have no immediate concerns with regard to traditional cultural properties, sacred sites or Native American archaeological sites within the boundaries of the proposed project areas. **However, the Catawba are to be notified if Native American artifacts and / or human remains are located during the ground disturbance phase of this project.**

If you have questions please contact Caitlin Rogers at 803-328-2427 ext. 226, or e-mail [Caitlin.Rogers@catawba.com](mailto:Caitlin.Rogers@catawba.com).

Sincerely,

Wenonah G. Haire  
Tribal Historic Preservation Officer



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

Ramona M. Bartos, Administrator

Governor Roy Cooper  
Secretary D. Reid Wilson

Office of Archives and History  
Deputy Secretary, Darin J. Waters, Ph.D.

January 18, 2022

**MEMORANDUM**

**TO:** Matt Wilkerson  
Office of Human Environment  
NCDOT Division of Highways

**FROM:** Ramona M. Bartos, Deputy State Historic Preservation Officer *RMB for Ramona M. Bartos*

**SUBJECT:** HE-0001, WBS No. 49473, PA 05-0002, Buncombe County, ER 21-1559

Thank you for your submission of December 10, 2021, concerning the above-referenced undertaking. We have reviewed the information provided and offer the following comments:

The Archaeological Effects Required Form submitted for the archaeological survey conducted within the area of potential effects (APE) for the proposed project reports that thirteen (13) archaeological sites were identified and evaluated for National Register of Historic Places (NRHP). Of these, twelve (12) archaeological sites (31BN1091, 31BN1092, 31BN1118, and 31BN1120-31BN1128) are recommended not eligible for inclusion in the NRHP. Sites 31BN1092, 31BN1123, and 31BN1125 extend outside the APE and may require additional investigation and assessment for eligibility, should the project's APE expand to include the portions of these sites that were not tested.

Archaeological site 31BN1119 is a multicomponent precontact site that is recommended eligible for the NRHP under Criterion D. If adverse effects to this site cannot be avoided by the proposed undertaking, NCDOT recommends data recovery investigations. We concur with the Determination of Eligibility and recommendation.

Additionally, five (5) archaeological sites, investigated as part of a previous survey for Project Ranger (ER 19-4972), intersect with the current APE (31BN1046, 31BN1052, 31BN1090, 31BN1093, and 31BN1094). All these sites were previously investigated and determined not eligible or were subject to data recovery, and no further work is recommended ahead of the currently proposed undertaking. In the case of 31BN1052 and 31BN1090, NCDOT has concluded that additional investigation may be necessary, if the current APE expands to encompass portions of these sites. We concur with these recommendations and appreciate the continued effort to minimize adverse effects to significant cultural resources in the vicinity.



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 919-814-6579 or [environmental.review@ncdcr.gov](mailto:environmental.review@ncdcr.gov). In all future communication concerning this project, please cite the above referenced tracking number.

cc:     Damon Jones, NCDOT  
          Donnie Brew, FHWA  
          Lori Beckwith, USAGE  
          Andrew Triplett, NPS  
          Scott Shumate, Biltmore Estate  
          Wenonah Haire, Catawba Nation  
          Russell Townsend, ECBI THPO  
          Stephen Yerka, ECBI THPO  
          Elizabeth Toombs, CN THPO  
          Acee Watt, UKB THPO  
          LeeAnne Wendt, MCN THPO  
          Roger Bryan, NCDOT Division 13  
          McCray Coates, NCDOT Division 13  
          Mark Gibbs, NCDOT Division 13  
          Adam Archual, Gannett Fleming, Inc.

[cdjones2@ncdot.gov](mailto:cdjones2@ncdot.gov)  
[donnie.brew@dot.gov](mailto:donnie.brew@dot.gov)  
[loretta.a.beckwith@usace.army.mil](mailto:loretta.a.beckwith@usace.army.mil)  
[andrew\\_triplett@nps.gov](mailto:andrew_triplett@nps.gov)  
[sshumate@biltmore.com](mailto:sshumate@biltmore.com)  
[wenonahh@ccppcrafts.com](mailto:wenonahh@ccppcrafts.com)  
[rustown@nc-chokeee.com](mailto:rustown@nc-chokeee.com)  
[syerka@ebci-nsn.gov](mailto:syerka@ebci-nsn.gov)  
[elizabethtoombs@chokeee.org](mailto:elizabethtoombs@chokeee.org)  
[awatt@ukb-nsn.gov](mailto:awatt@ukb-nsn.gov)  
[lwendt@mcn-nsn.gov](mailto:lwendt@mcn-nsn.gov)  
[rdubryan@ncdot.gov](mailto:rdubryan@ncdot.gov)  
[hmcoates@ncdot.gov](mailto:hmcoates@ncdot.gov)  
[mgibbs@ncdot.gov](mailto:mgibbs@ncdot.gov)  
[aarchual@GFNET.com](mailto:aarchual@GFNET.com)

**From:** [Jones, Damon](#)  
**To:** [Beckwith, Loretta A SAW](#); [andrew\\_triplett@nps.gov](mailto:andrew_triplett@nps.gov); [sshumate@biltmore.com](mailto:sshumate@biltmore.com); [Wenonah Haire](#); [Caitlin Rogers](#); [Elizabeth Toombs](#); [russtown@nc-chokeee.com](mailto:russtown@nc-chokeee.com); [Stephen Yerka](#); [ukbthpo@ukb-nsn.gov](mailto:ukbthpo@ukb-nsn.gov); [lwendt@mcn-nsn.gov](mailto:lwendt@mcn-nsn.gov)  
**Cc:** [Donnie Brew \(Donnie.Brew@dot.gov\)](mailto:Donnie.Brew@dot.gov); [Bryan, Roger D](#); [Coates, McCray](#); [Gibbs, Mark T](#); [Wilkerson, Matt T](#); [Archual, Adam J](#); [Tipton, Rick A](#)  
**Subject:** NCDOT; TIP HE-0001 (Buncombe County, NC); Archaeological Survey Report  
**Date:** Friday, December 10, 2021 11:29:34 AM  
**Attachments:** [image001.png](#)  
[HE-0001\\_HPO\\_Effects\\_Transmittal\\_Letter.pdf](#)

---

**[EXTERNAL EMAIL]:** This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Greetings,

Please find attached North Carolina DOT's transmittal letter dated December 10, 2021 to the North Carolina State Historic Preservation Office (SHPO) transmitting the **Archaeological Effects Required Form** detailing the results of the archaeological survey investigations within the HE-0001 (PA Project 21-05-0002) Area of Potential Effects (APE) in Buncombe County, North Carolina.

NCDOT is providing this information to your office on behalf of the Federal Highway Administration (FHWA), the designated lead federal agency for this undertaking, so that you may have the opportunity to offer any comments. In addition to the SHPO, copies of the survey report are being provided to the National Park Service, the US Army Corps of Engineers, The Catawba Nation, The Eastern Band of Cherokee Indians, the Cherokee Nation, The Muscogee (Creek) Nation, the Keetoowah Band of Cherokee Indians, and the Biltmore Estate. An electronic version of the report and site forms are available at the following link: <https://gfnet.sharefile.com/d-sf5b9dcbf067743c2b04d4bf371662253>

Hard copies are being sent to the Catawba Nation and can be provided to others upon request. Please let me know at [cdjones2@ncdot.gov](mailto:cdjones2@ncdot.gov).

Please forward all questions and comments to Roger Bryan with NCDOT Division 13 at [rdbryan@ncdot.gov](mailto:rdbryan@ncdot.gov) by Monday, January 10, 2022.

Thank you,

Damon Jones  
Archaeologist  
Environmental Analysis Unit  
N.C. Department of Transportation  
**901 340 7921 mobile/home**  
919 707 6076 office  
919 250 4224 fax  
[cdjones2@ncdot.gov](mailto:cdjones2@ncdot.gov)

1020 Birch Ridge Drive  
1598 Mail Service Center



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

ROY COOPER  
GOVERNOR

J. ERIC BOYETTE  
SECRETARY

December 10, 2021

Dr. Wenonah Haire  
Tribal Historic Preservation Office  
Catawba Indian Nation  
1536 Tom Steven Road  
Rock Hill, South Carolina 29730

Dear Dr. Haire

Subject: TIP HE-0001, WBS No. 49473, Transportation Programmatic Agreement Project 21-05-0002, Buncombe County.

Enclosed please find a copy of the *Archaeological Effects Required Form* detailing the results of the archaeological survey investigations within the HE-0001 (PA Project 21-05-0002) Area of Potential Effects (APE). We are providing this information to your office on behalf of the Federal Highway Administration (FHWA), the designated lead federal agency for this undertaking, so that you may have the opportunity to offer any comments. Copies of the survey report are also being provided to the North Carolina State Historic Preservation Office, National Park Service, the US Army Corps of Engineers, The Eastern Band of Cherokee Indians, the Cherokee Nation, The Muscogee (Creek) Nation, the Keetoowah Band of Cherokee Indians, and the Biltmore Estate. An electronic version of the report will be emailed the week of October 13, 2021, to all interested parties. Please forward all questions and comments to Roger Bryan with NCDOT Division 13 at [rdbryan@ncdot.gov](mailto:rdbryan@ncdot.gov) by Monday, January 10, 2022.

Sincerely,

A handwritten signature in blue ink, appearing to read "Matthew Wilkerson", with a long horizontal flourish extending to the right.

Matthew Wilkerson  
Archaeology Team Leader  
Environmental Analysis Unit

Enclosures (Archaeological Report)

Cc Donnie Brew, FHWA  
Roger Bryan, NCDOT Division 13  
McCray Coates, NCDOT Division 13  
Mark Gibbs, NCDOT Division 13  
Adam Archual, Gannett Fleming, Inc.  
Rick Tipton, Gannett Fleming, Inc.

Mailing Address:  
NC DEPARTMENT OF TRANSPORTATION  
ENVIRONMENTAL ANALYSIS UNIT  
159 MAIL SERVICE CENTER  
RALEIGH, NC 27699-1598

Telephone: (919) 707-6000  
Fax: (919) 212-5785  
Customer Service: 1-877-368-4968

Website: [www.ncdot.gov](http://www.ncdot.gov)

Location:  
1000 BIRCH RIDGE DRIVE  
RALEIGH, NC 27610



**ARCHAEOLOGICAL EFFECTS REQUIRED**  
 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 Team.



## PROJECT INFORMATION

Project No: **HE-0001** County: Buncombe  
 WBS No: 49473 Document: Federal CE  
 F.A. No: na Funding: ☐ State ☒ Federal  
 Federal Permit Required? ☒ Yes ☐ No Permit Type: FHWA & USACE

### Project Description:

*The project calls for the construction of new interchange on I-26 connecting with an internal road network under construction on the Biltmore Farms property in Buncombe County. The archaeological Area of Potential Effects (APE) of the project encompasses approximately 211 acres. It is bounded by the French Broad River to the north and the Blue Ridge Parkway property to the south. The APE along its maximum extent measures approximately 5,400 feet from the northwest to the southeast and 4,100 feet from the northeast to the southwest. The APE also extends to the west along an internal roadway crossing the French Broad River on a new bridge and intersection with NC 191. A portion of the APE was previously surveyed during Project Ranger (Webb and Nelson 2019a, 2019b, 2020, 2021) and was excluded from the current survey. However, its results are still valid.*

*This project is federally funded. As a result, this archaeological review was conducted in accordance with Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance (36 CFR Part 800).*

## SUMMARY OF ARCHAEOLOGICAL FINDINGS, RESULTS AND CONCLUSIONS

An intensive archaeological survey and evaluation for the proposed construction of a new interchange on I-26 in Buncombe County (TIP HE-0001) was conducted by TRC from August to October 2021. The results of archaeological investigations and their recommendations are included in the attached report.

Seven archaeological sites (31BN1046, 31BN1052, and 31BN1090–31BN1094) were identified within the project limits prior to the current investigations. The current HE-0001 survey by TRC revisited and expanded two of those sites (31BN1091 and 31BN1092) and recorded 11 new resources (31BN1118–31BN1128); no additional survey or evaluation was necessary at the other five previously identified sites (31BN1046, 31BN1052, 31BN1090, 31BN1093, and 31BN1094) as they were covered under Project Ranger (Webb and Nelson 2019a, 2019b, 2020, 2021).

Of the 13 resources identified or revisited by the current project, one precontact site (31BN1119) is recommended eligible for the NRHP under Criterion D, but lack the characteristics needed for eligibility under Criteria A–C. This site appears to have the potential to contain intact cultural features and deposits associated with multiple Archaic to Woodland period occupations. Site 31BN1119 is recommended for avoidance; however, preservation in place is not warranted. If adverse effects to this site cannot be avoided, data recovery excavations are required to mitigate those adverse effects prior to construction.

The other 12 sites (31BN1091, 31BN1092, 31BN1118, and 31BN1120–31BN1128) identified or revisited during the HE-0001 survey are recommended not eligible for NRHP under all four criteria, and no further archaeological work is required at these sites. However, additional investigations will be necessary at 31BN1092, 31BN1123, and 31BN1125 if the APE expands at these resources since these three sites may extend outside of the current project limits.



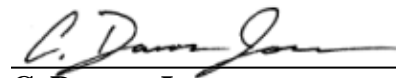
Of the five sites that were not revisited, one (31BN1046) has been determined eligible for the NRHP under Criterion D and has been the subject of recent data recovery excavations (Idol and Webb 2020). No additional consideration of that site within the APE is required as part of HE-0001. The other four sites (31BN1052, 31BN1090, 31BN1093, and 31BN1094) were previously determined not eligible for the NRHP under all four criteria, and no additional archaeological work was needed under HE-0001 (Webb and Nelson 2019a, 2019b, 2020, 2021). If the APE boundaries are expanded, additional survey and site delineation might be necessary to further investigate sites 31BN1052 and 31BN1090, and/or additional data recovery excavations might be necessary at 31BN1046 since these resources extend outside of the current project limits.

This project falls within a North Carolina County in which the Catawba Nation, the Eastern Band of Cherokee Indians, the Cherokee Nation, the United Keetoowah Band of Cherokee Indians, and Muscogee (Creek) Nation have expressed an interest. We recommend that you ensure that this documentation is forwarded to these tribes using the process described in the current NCDOT Tribal Protocol and PA Procedures Manual.

### SUPPORT DOCUMENTATION

See attached: ☐ Map(s) ☐ Previous Survey Info ☐ Photos ☐ Correspondence  
Other: **HE-0001 Archaeological Report**

### SIGNED:



**C. Damon Jones**  
**NCDOT ARCHAEOLOGIST**

December 7, 2021

**Date**

**REFERENCES CITED**

Idol, Bruce, and Paul Webb

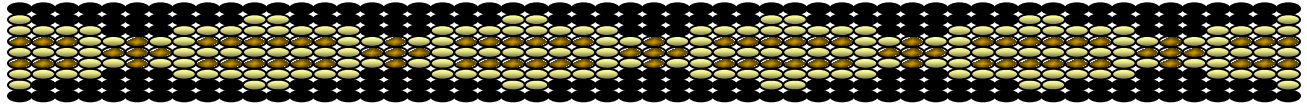
- 2020        *Management Summary: Archaeological Data Recovery Excavations at Site 31BN1046, Buncombe County, North Carolina.* TRC Environmental Corporation, Asheville, North Carolina. Submitted to Biltmore Farms, LLC, Asheville.

Webb, Paul, and Michael Nelson

- 2019a        Background Study and Field Reconnaissance of the Northern Parcel of the Biltmore Park West Tract, Buncombe County, North Carolina. TRC Environmental Corporation, Asheville, North Carolina. Submitted to Biltmore Farms, LLC, Asheville.
- 2019b        *Archaeological Survey and Site Evaluation for Project Ranger, Buncombe County, North Carolina.* TRC Environmental Corporation, Asheville, North Carolina. Submitted to Biltmore Farms, LLC, Asheville.
- 2020        *Archaeological Survey and Site Evaluation for Project Ranger, Buncombe County, North Carolina: Addendum 1.* TRC Environmental Corporation, Asheville, North Carolina. Submitted to Biltmore Farms, LLC, Asheville.
- 2021        *Archaeological Survey and Site Evaluation for Project Ranger, Buncombe County, North Carolina: Addendum 2.* TRC Environmental Corporation, Asheville, North Carolina. Submitted to ARCADIS.

Catawba Indian Nation  
Tribal Historic Preservation Office  
1536 Tom Steven Road  
Rock Hill, South Carolina 29730

Office 803-328-2427  
Fax 803-328-5791



October 14, 2021

Attention: Roger Bryan  
NC Department of Transportation  
55 Orange Street  
Asheville, NC 28801

Re. THPO #	TCNS #	Project Description
2021-193-178		Construction of a new interchange with Interstate 26 and a roadway extension to connect with a future state road in Buncombe Co., NC HE-0001

Dear Mr. Bryan,

The Catawba have no immediate concerns with regard to traditional cultural properties, sacred sites or Native American archaeological sites within the boundaries of the proposed project areas. **However, the Catawba are to be notified if Native American artifacts and / or human remains are located during the ground disturbance phase of this project.**

If you have questions please contact Caitlin Rogers at 803-328-2427 ext. 226, or e-mail [Caitlin.Rogers@catawba.com](mailto:Caitlin.Rogers@catawba.com).

Sincerely,

Wenonah G. Haire  
Tribal Historic Preservation Officer



ᎠᏍᎦᏰ ᎠᏍᎦ  
**CHEROKEE NATION®**  
P.O. Box 948 • Tahlequah, OK 74465-0948  
918-453-5000 • [www.cherokee.org](http://www.cherokee.org)

**Chuck Hoskin Jr.**  
*Principal Chief*  
ᎠᏍᎦ ᎠᏍᎦ ᎠᏍᎦ  
ᎠᏍᎦ ᎠᏍᎦ

**Bryan Warner**  
*Deputy Principal Chief*  
ᎠᏍᎦ ᎠᏍᎦ  
ᎠᏍᎦ ᎠᏍᎦ ᎠᏍᎦ

October 8, 2021

Roger Bryan  
North Carolina Department of Transportation  
55 Orange Street  
Asheville, NC 28801

Re: HE-0001, I-26 Interchange and Roadway Extension

Mr. Roger Bryan:

The Cherokee Nation (Nation) is in receipt of your correspondence about **HE-0001**, and appreciates the opportunity to provide comment upon this project. Please allow this letter to serve as the Nation's interest in acting as a consulting party to this proposed project.

The Nation 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 is within close proximity to such resources. Thus, the Nation recommends that a cultural resources survey is conducted for this project, and requests a copy of the related report with comments from the State Historic Preservation Officer. The Nation requires that cultural resources survey personnel and reports meet the Secretary of Interior's standards and guidelines.

However, the Nation requests that the North Carolina Department of Transportation (NCDOT) halt all survey activities immediately and re-contact our Offices for further consultation if items of cultural significance are discovered during the course of this survey. Additionally, the Nation requests that NCDOT conduct appropriate inquiries with other pertinent Tribal and Historic Preservation Offices regarding historic and prehistoric resources not included in the Nation's 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](mailto:elizabeth-toombs@cherokee.org)  
918.453.5389





STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

ROY COOPER  
GOVERNOR

J. ERIC BOYETTE  
SECRETARY

September 9, 2021

Russell Townsend  
Tribal Historic Preservation Officer  
Eastern Band of Cherokee Indians (EBCI)  
2077 Governors Island Road  
Bryson City, NC 28713

Whitney Warrior  
Tribal Historic Preservation Officer  
United Keetoowah Band of  
Cherokee Indians  
PO Box 1245  
Tahlequah, OK 74465

Elizabeth Toombs  
Tribal Historic Preservation Officer  
Cherokee Nation  
PO Box 948  
Tahlequah, OK 74465

Dr. Wenonah Haire (via mail)  
Catawba Indian Nation  
Tribal Historic Preservation Office  
1536 Tom Steven Road  
Rock Hill, SC 29730

LeeAnne Wendt  
Muscogee (Creek) Nation  
P.O. Box 580  
Okmulgee, OK 74447

Dear Sir/Madam:

The North Carolina Department of Transportation is starting the project development, environmental, and engineering studies for construction of a new interchange with Interstate 26 (I-26) and a roadway extension to connect with a future state road in Buncombe County, NC as project HE-0001. The Federal Highway Administration (FHWA) is the lead federal agency for compliance with the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA) and a Permit is anticipated under the Section 404 Process with the USACE. The coordinates of this project are approximately 35.504013, -82.571906.

*Mailing Address:*  
NC DEPARTMENT OF TRANSPORTATION  
DIVISION THIRTEEN  
55 ORANGE STREET  
ASHEVILLE, NC 28801-2340

*Telephone:* (828) 250-3000  
*Fax:* (828) 251-6394  
*Customer Service:* 1-877-368-4968  
*Website:* [www.ncdot.gov](http://www.ncdot.gov)

*Location:*  
55 ORANGE STREET  
ASHEVILLE, NC 28801-2340

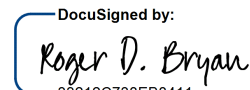
The project vicinity and NCDOT Survey Required Form are attached. Archaeological field investigations are underway and expected to conclude in winter 2021. The results of these investigations can be shared with you upon request.

We would appreciate any information you might have that would be helpful in evaluating potential environmental impacts of the project including recommendation of alternates to be studied. Your comments may be used in the preparation of a NEPA/ State Environmental Policy Act (SEPA) Environmental Document.

In accordance with Section 106 of the NHPA, we also request that you inform us of any historic properties of traditional religious or cultural importance that you are aware of that may be affected by the proposed project. Be assured that, in accordance with confidentiality and disclosure stipulations in Section 304 of the NHPA, we will maintain strict confidentiality about certain types of information regarding historic properties.

Please respond by October 9<sup>th</sup> so that your comments can be used in the scoping of this project. If you have any questions concerning this project, or would like any additional information, please contact me at [rdbryan@ncdot.gov](mailto:rdbryan@ncdot.gov) or 828-250-3005.

Thank you,

DocuSigned by:  
  
33212C738EB8411...  
Roger D. Bryan  
NCDOT Division 13 Environmental Supervisor

cc: Matt Wilkerson, NCDOT Archaeology Team Leader  
Donnie Brew, Federal Highway Administration  
Lori Beckwith, US Army Corps of Engineers



**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 Team.



## PROJECT INFORMATION

Project No: **HE-0001** County: Buncombe  
 WBS No: 49473 Document: Federal CE  
 F.A. No: na Funding: ☐ State ☒ Federal  
 Federal Permit Required? ☒ Yes ☐ No Permit Type: FHWA & USACE

### **Project Description:**

*The project calls for the construction of new interchange on I-26 connecting with an internal road network under construction on the Biltmore Farms property in Buncombe County. The archaeological Area of Potential Effects (APE) of the project encompasses approximately 288 acres. It is bounded by the French Broad River to the north and the Blue Ridge Parkway property to the south. The APE along its maximum extent measures approximately 5,900 feet from the northwest to the southeast and 4,100 feet from the northeast to the southwest. The APE also extends to the west along an internal roadway crossing the French Broad River on a new bridge and intersection with NC 191. A portion of the APE has already been previously surveyed, and this section will be excluded. The APE could also be reduced upon agreement of the stakeholders at a later date.*

*This project is federally funded. As a result, this archaeological review was conducted in accordance with Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance (36 CFR Part 800).*

## SUMMARY OF ARCHAEOLOGICAL RESOURCES REVIEW: **SURVEY REQUIRED**

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

The I-26 interchange project is located just south of Asheville in Buncombe County, North Carolina. The project area is plotted at the southern end of the Asheville USGS 7.5' topographic quadrangle (Figure 1).

A site file search was conducted using data from the Office of State Archaeology (OSA) on May 10, 2021. Eight known archaeological sites (31BN1046, 31BN1052, 31BN1084, and 31BN1090–31BN1094) are reported within the proposed project area. These were recorded during archaeological surveys and field reconnaissance for PSNC Energy T-072 natural gas pipeline (Nagle 2018), the proposed NC 191 realignment project (TIP U-3403B), and Project Ranger (also referred to Biltmore Park West project) (Webb and Nelson 2019a, 2019b, 2020, and 2021). According to the North Carolina State Historic Preservation Office online data base (HPOWEB 2021), there are no known National Registered, listed, or determined eligible historic architectural resources within the APE. However, three ineligible architectural resources are within the project area: The American ENKA Water Intake (BN6469), Riverside Dairy (BN6470), and Campsite (BN6471). The Riverside Dairy, also referred to as Johnson Farm, corresponds to archaeological site 31BN1052. Topographic maps, USDA soil survey maps, aerial photographs (NC One Map), historic maps (North Carolina maps website), and Google Street View application were further 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 APE consists mostly of steep hillside slopes, but fairly level landforms are found along the ridges, the French Broad floodplain, and the stream terraces and/or benches associated with tributaries of the French

Broad River (Figure 2). The property is forested except for a few small open areas; however, large scale clearing is ongoing for urban development by Biltmore Farms. These recently disturbed areas have been previously surveyed and are located primary outside of the project area (Webb and Nelson 2019a, 2019b, 2020, and 2021). Other modern disturbances include an electrical transmission line and a sewage pipeline at the western extension near the French Broad River. Several dirt roads and trail cross the property as well. Otherwise, ground disturbance is limited to past farming activities and soil erosion.

The USDA soil survey shows the APE composed of ten soil types (USDA NRCS 2021). The floodplain is made up of Biltmore loamy sand (BeA), Iotla loam (IoA), and Rosman fine sandy loam (RsA). These soils have a slope of 3 percent or less and are subject to occasional flooding. They are also considered well drained except for the Iotla series, which is somewhat poorly drained. The stream terraces and benches consist of Clifton clay loam (CkC2), Clifton sandy loam (CsB; CsC), the Evard-Cowee complex (EwC), and Unison loam (UnC). These soils generally have a slope of 8 to 15 percent with the CsB variant being 2 to 8 percent. All are well drained, and erosion is moderate on CkC2 variant. The hillsides and ridges are composed of the Braddock clay loam (BkD2), Clifton clay loam (CkD2), Clifton sandy loam (CsD), the Evard-Cowee complex (Evd2; EvE2; EwD; EwE), and Tate loam (TaD; TkD). Slope is 15 percent or more and all are well drained. Erosion is moderate on the BkD2, CkD2, Evd2, and EvE2 variants. Lastly, soils adjacent to I-26 are the Udorthents-Urban land complex (UhE). These are disturbed soils in which the natural characteristics have been altered. Soils with potentially evidence for early settlement activities should be well drained with no heavy disturbance on a landform with slope of 15 percent or less. These soils within the APE will require subsurface testing.

The site file review shows that TRC previously carried out a background study and field reconnaissance of the Biltmore Park West Tract property between the Blue Ridge Parkway, I-26, and the French Broad River as part of Project Ranger (Webb and Nelson 2019a). This investigation includes the current APE for the proposed I-26 interchange. Results confirmed the potential of significant archaeological sites and recommended an intensive survey. The archaeological survey for Project Ranger was conducted by TRC in 2019, 2020, and 2021 but covered only a smaller section of the overall property (Webb and Nelson 2019b, 2020, and 2021) (Figure 3). The current APE's western extent towards the French Broad was included in this survey. These field surveys along with testing for the PSNC Energy T-072 natural gas pipeline (Nagle 2018) and the proposed NC 191 realignment project (TIP U-3403B) resulted in the identification of eight archaeological sites (31BN1046, 31BN1052, 31BN1084, and 31BN1090–31BN1094). All except for 31BN1046 have been determined not eligible for the National Register within the limits of Project Ranger. Site 31BN1046 on the other hand was determined eligible for the National Register, and data recovery was carried out (report forthcoming). No further work is needed at these sites within the Project Ranger limits, but further work maybe necessary if the current I-26 APE expands past the Project Ranger limits. The background study also identified the potential of one other historic site (PS-3) within the current APE. PS-3 is a pair of structures that appear on Biltmore Estate maps from 1891 through 1896. No intensive effort to locate these structures were made during the field reconnaissance, but they are very likely related to the historic architectural resource known as Campsite (BN6471).

The current PA review concurs with TRC's field reconnaissance and background study. An archaeological survey is recommended for the proposed I-26 interchange project (HE-0001) in Buncombe County. However, testing is not needed in area previously surveyed for Project Ranger. Known sites evaluated during Project Ranger required no further work unless the I-26 APE extends past the Project Ranger limits. Subsurface testing in the form of shovel tests in well drained and level areas is needed to identify and evaluate any significant archaeological resources that may be impacted by the I-26 project.

This project falls within a North Carolina County in which the Catawba Nation, the Eastern Band of Cherokee Indians, the Cherokee Nation, the United Keetoowah Band of Cherokee Indians, and Muscogee (Creek) Nation have expressed an interest. We recommend that you ensure that this documentation is forwarded to these tribes using the process described in the current NCDOT Tribal Protocol and PA Procedures Manual.



**SUPPORT DOCUMENTATION**

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

**FINDING BY NCDOT ARCHAEOLOGIST – *SURVEY REQUIRED***



5/20/21

**C. Damon Jones**  
**NCDOT ARCHAEOLOGIST**

**Date**

TBD

---

Proposed fieldwork completion date

**REFERENCES CITED****HPOWEB**

- 2021 North Carolina State Historic Preservation Office GIS Web Service.  
<https://nc.maps.arcgis.com/apps/webappviewer/index.html?id=79ea671ebdcc45639f0860257d5f5ed7>. Accessed May 10, 2021.

**Nagle, Kimberly**

- 2018 Letter to NCSHPO Additional Information – Blue Ridge Parkway T-072 Pipeline Project. S&ME, Columbia, South Carolina. Submitted to North Carolina State Historic Preservation Office, Raleigh.

**United States Department of Agriculture Natural Resources Conservation Services (USDA NRCS)**

- 2021 Buncombe County Soil Survey. Available online at  
<http://webosilsurvey.nrcs.usda.gov/app/>. Accessed May 19, 2021.

**United States Geological Survey (USGS)**

- 2016 Asheville, North Carolina 7.5 minute quadrangle map.  
 2016 Skyland, North Carolina 7.5 minute quadrangle map.

**Webb, Paul, and Michael Nelson**

- 2019a Background Study and Field Reconnaissance of the Northern Parcel of the Biltmore Park West Tract, Buncombe County, North Carolina. TRC Environmental Corporation, Asheville, North Carolina. Submitted to Biltmore Farms, LLC, Asheville.  
 2019b *Archaeological Survey and Site Evaluation for the Project Ranger, Buncombe County, North Carolina*. TRC Environmental Corporation, Asheville, North Carolina. Submitted to Biltmore Farms, LLC, Asheville.  
 2020 *Archaeological Survey and Site Evaluation for the Project Ranger, Buncombe County, North Carolina, Addendum 1*. TRC Environmental Corporation, Asheville, North Carolina. Submitted to Biltmore Farms, LLC, Asheville.  
 2021 *Archaeological Survey and Site Evaluation for the Project Ranger, Buncombe County, North Carolina, Addendum 2*. TRC Environmental Corporation, Asheville, North Carolina. Submitted to Biltmore Farms, LLC, Asheville.

21-05-0002



## HISTORIC ARCHITECTURE AND LANDSCAPES ASSESSMENT OF EFFECTS 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

<b>Project No:</b>	HE-0001	<b>County:</b>	Buncombe
<b>WBS No.:</b>	49473	<b>Document Type:</b>	CE
<b>Fed. Aid No:</b>		<b>Funding:</b>	<input type="checkbox"/> State <input checked="" type="checkbox"/> Federal
<b>Federal Permit(s):</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>Permit Type(s):</b>	USACE

#### **Project Description:**

The North Carolina Department of Transportation (NCDOT) proposes to construct a new interchange on I-26 in the project study area (PSA). The proposed project is located approximately 6 miles south of Asheville along I-26, north of the Blue Ridge Parkway and south of the French Broad River bridge. The proposed interchange would be constructed primarily within the existing right-of-way of I-26, which currently is under construction to be widened from 2 lanes in each direction to 4 lanes in each direction as part of STIP project I-4700. The proposed interchange and new roadway would ultimately connect to NC 191 via a road (East Frederick Law Olmsted Way, or East FLOW) that is currently under construction by a private developer (Biltmore Farms, LLC). The private developer constructing East FLOW has graded the corridor to accommodate a 4-lane roadway. That actual roadway will be paved as a 2-lane facility upon completion. This road is anticipated to open to traffic in 2022 and would become a State-maintained road upon meeting NCDOT standards and acceptance. NCDOT's proposed roadway connection would be graded for a 2-lane roadway with auxiliary lanes at intersection approaches to meet operational needs (e.g., turn lanes).

The purpose of the project is to provide access to I-26 and improve east-west connectivity within the project vicinity to accommodate current and planned growth. Three alternatives were considered at the February 4, 2022 meeting and the preferred alternative was selected on February 9, 2022.

### SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

#### **Description of review activities, results, and conclusions:**

NCDOT architectural historian reviewed HPOWeb in June 2021 and reviewed the previous historic architecture surveys for NCDOT TIP #U-3403B (Improvements to NC 191), NCDOT TIP# I-4400 (Improvements to I-26), and the Pratt & Whitney Manufacturing Center (Project Ranger). As a result, the NCDOT architectural historian recommended an effects assessment for the following National Register-eligible or listed properties within or adjacent to the project study area: BN 1835 Biltmore Estate (NHL), NC 0001 Blue Ridge Parkway (DE, NHL pending), BN 6468 French Broad River Gaging Station (DE), and BN 0898 Bent Creek Campus (NR). **Effects assessments for the Biltmore Estate, the French Broad River Gauging**

**Station, and the Bent Creek Campus were made during a meeting between NCDOT, FHWA, and HPO on February 4, 2022. Consultation with the National Park Service with regard to the effects on the Blue Ridge Parkway continued with the parties through June 29, 2022.**

#### ASSESSMENT OF EFFECTS

<b>Property Name:</b>	Bent Creek Campus	<b>Status:</b>	NR, Criteria A&C
<b>Survey Site No.:</b>	BN0898	<b>PIN:</b>	960456690300000
<b>Effects</b> <input checked="" type="checkbox"/> No Effect <input type="checkbox"/> No Adverse Effect <input type="checkbox"/> Adverse Effect			
<b><u>Explanation of Effects Determination:</u></b> None of the three alternatives will have direct impacts to the Bent Creek Campus. USFS manages the campus and agrees that the project will incur no effects on their property.			
<b><u>List of Environmental Commitments:</u></b> none			

<b>Property Name:</b>	French Broad River Gauging Station	<b>Status:</b>	DE, Criteria A&C
<b>Survey Site No.:</b>	BN6468	<b>PIN:</b>	963507722200000
<b>Effects</b> <input checked="" type="checkbox"/> No Effect <input type="checkbox"/> No Adverse Effect <input type="checkbox"/> Adverse Effect			
<b><u>Explanation of Effects Determination:</u></b> None of the three alternatives will have direct impacts to the French Broad River Gauging Station			
<b><u>List of Environmental Commitments:</u></b> none			

<b>Property Name:</b>	Biltmore Estate	<b>Status:</b>	NR and NHL, Criteria A,B,&C
<b>Survey Site No.:</b>	BN1835	<b>PIN:</b>	963598538600000
<b>Effects</b>			

<input type="checkbox"/> No Effect	<input checked="" type="checkbox"/> No Adverse Effect	<input type="checkbox"/> Adverse Effect
<p><b><u>Explanation of Effects Determination:</u></b>          Alternatives 1 and 3 will have no direct impacts to the Biltmore Estate. Alternative 2 will require approximately 4.3 acres of tree removal and ROW along the exiting interstate. Retaining walls will be placed within the existing ROW on the opposite side of the interstate but will be faced with a faux ashlar stone. Therefore Alternative 1 &amp; 3 will have no effect, while Alternative 2 would result in no adverse effects. Representatives from the Biltmore Estate agree with this assesment</p>		
<p><b><u>List of Environmental Commitments:</u></b>          none</p>		

<b>Property Name:</b>	Blue Ridge Parkway	<b>Status:</b>	DE and NHL(pending), Criteria A,B,&C
<b>Survey Site No.:</b>	NC0001	<b>PIN:</b>	none
<p><b>Effects</b></p> <div style="display: flex; justify-content: space-around;"> <span><input type="checkbox"/> No Effect</span> <span><input checked="" type="checkbox"/> No Adverse Effect</span> <span><input type="checkbox"/> Adverse Effect</span> </div>			
<p><b><u>Explanation of Effects Determination:</u></b>          None of the alternatives will have direct impacts to the Blue Ridge Parkway (BRP). Several discussions with the staff of the BRP resulted in the following environmental commitments for a finding of no adverse effect. NCDOT, FHWA, NC HPO, and the Superintendent of the BRP have agreed to the following minimization measures to avoid an adverse effect to the historic property:</p>			
<p>List of Environmental Commitments:</p> <ul style="list-style-type: none"> <li>(1) Control of Access (C/A)             <ul style="list-style-type: none"> <li>• NCDOT will include 1,000-foot control of access (C/A) fencing along the HE-0001 portion of East Frederick Law Olmsted Way west of the eastbound I-26 on- and off-ramp intersection that will prohibit the construction of driveways or access points. This design element will limit access to adjacent land from the proposed road within 1,000 feet of the interchange.</li> </ul> </li> <li>(2) Vegetative screening             <ul style="list-style-type: none"> <li>• NCDOT will design, install, and maintain approximately 900 feet of vegetative screening along the southside of the HE-0001 portion of East Frederick Law Olmsted Way closest to the BRP. The vegetative screening will be within the NCDOT right of way and will screen the proposed project from the BRP.</li> <li>• NCDOT will commit to produce a vegetative screening plan with the 65% roadway design plan (late summer/fall 2022) submittal and provide to NPS and NC HPO for review and comment.</li> </ul> </li> <li>(3) Tree clearing</li> </ul>			



- NCDOT will minimize tree clearing consistent with conservation measures for the Gray bat. NCDOT is committed to avoid tree removal beyond what is required to implement the project safely. NCDOT will ensure that tree removal is limited to that specified in the project plans. This will limit lines-of-sight between the BRP and the proposed project.

(4) Future intersecting road(s)

- NCDOT will not construct or maintain any new road or access points that intersect or cross the HE-0001 portion of East Frederick Law Olmsted Way, from the roundabout to I-26.
- If NCDOT assumes maintenance of East Frederick Law Olmsted Way from NC 191 to the roundabout, NCDOT will review driveway access permits to East Frederick Law Olmsted Way according to current NCDOT procedure and in consultation with NPS and NC HPO. This condition may be revisited through consultation with NPS and NC HPO associated with future state transportation projects.

(5) Lighting

- NCDOT will not install roadway lighting along the access roadway portion of HE-0001 (i.e., East Frederick Law Olmsted Way); lighting will be required for the interchange.
  - Interchange lighting will be designed and installed in accordance with the conservation measures included in the US Fish and Wildlife Informal Consultation letter dated March 16, 2022.
  - If NCDOT allows roadway/pedestrian lighting of East Frederick Law Olmsted Way through an encroachment agreement with a separate/private entity, NCDOT will require implementation of NPS Sustainable Outdoor Lighting Principles for any roadway/pedestrian lighting.
    - NPS Sustainable Outdoor Lighting Principles
      - Light only IF you need it
      - Light only WHEN you need (use timers, sensors, and other controls)
      - Light only WHAT/WHERE you need it (shield light sources and direct downward, minimize height of light sources)
      - Use appropriate color spectra (no white/blue light), use amber or yellow
      - Use minimum number of lumens necessary (500 lumens or less per fixture if possible)
      - Choose energy efficient lamps and fixtures (minimum possible)

(6) Future capacity improvements

- NCDOT will coordinate review of any future capacity improvements to HE-0001 (including widening, pedestrian, or safety modifications) with the NPS and NC HPO prior to the approval of any federal or state action (i.e., NEPA document, permit).

(7) Blue Ridge Parkway Overlay District (Buncombe County)

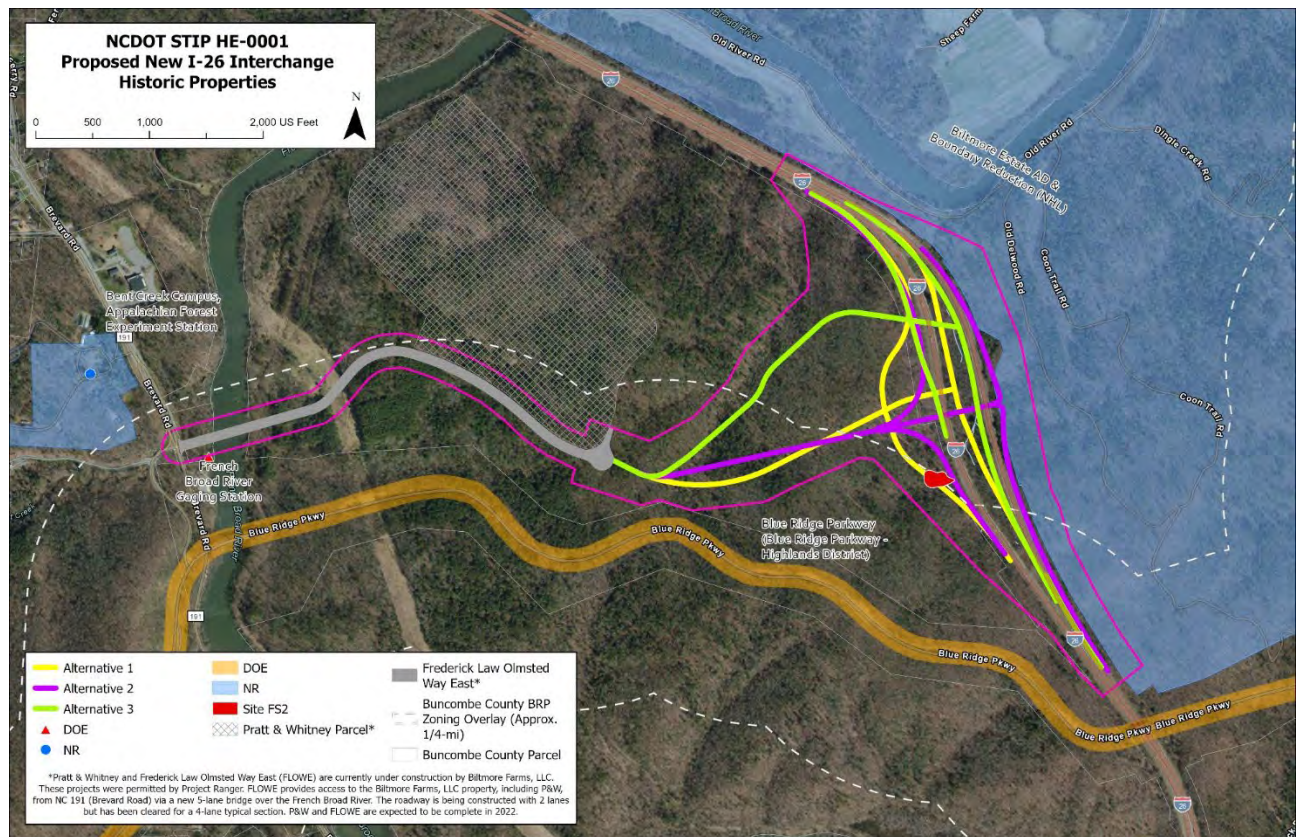
- Buncombe County is an interested party in the HE-0001 project, as referenced by its current overlay district and zoning powers that protect the BRP corridor. NCDOT will coordinate with Buncombe County and request the County to notify and request

comments from NPS and NC HPO regarding any future proposed changes to the Blue Ridge Parkway Overlay District (Section 78-643).
---

**FHWA Intends to use the State Historic Preservation Office's concurrence as a basis for a "de minimis" finding for the following properties, pursuant to Section 4(f):**

## Biltmore Estate- Alternative 2

## SUPPORT DOCUMENTATION

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

## FINDING BY NCDOT AND STATE HISTORIC PRESERVATION OFFICE

### Historic Architecture and Landscapes – ASSESSMENT OF EFFECTS

DocuSigned by: <i>Mary Pope Furr</i> ED3110443890489...	07/14/2022
NCDOT Architectural Historian	Date
DocuSigned by: <i>Renee Gledhill-Earley</i> C26A1556A275464...	07/14/2022
State Historic Preservation Office Representative	Date
DocuSigned by: <b>Donald W. Brew</b> B96E8B70991E42C...	07/14/2022
FHWA Representative	Date



# United States Department of the Interior

NATIONAL PARK SERVICE  
Blue Ridge Parkway  
199 Hemphill Knob Road  
Asheville, North Carolina 28803



IN REPLY REFER

## 1.A.1 Resource Management

June 17, 2022

McCray Coates, PE  
Division Project Manager  
Division 13  
N. C. Department of Transportation  
55 Orange Street  
Asheville, NC 28802

Subject: NCDOT STIP Project HE-0001

Dear Mr. Coates,

This letter is in response to the North Carolina Department of Transportation (NCDOT) / Federal Highway Administration (FHWA) letter of April 05, 2022 regarding National Park Service (NPS) comments on HE-0001, a proposed new interchange along Interstate 26 in Buncombe County, NC on lands adjacent to the Blue Ridge Parkway, a unit of the National Park System.

The NPS comment letter dated February 02, 2022, outlined the NPS position that cumulative effects of HE-0001, including changes to traffic levels, circulation patterns, associated development, and overall reduction in vegetative screening, should be considered and assessed in accordance with the National Historic Preservation Act. Specifically, the NPS maintains that the HE-0001 project in combination with the eight planned or ongoing STIP projects and associated private development within three miles of HE-0001 should be considered cumulatively, rather than as individual projects, when analyzing impacts.

The FHWA is considered the responsible federal agency under the National Historic Preservation Act for this undertaking, and the NPS is not a consulting party for individual undertakings subject to review under the 2020 *Programmatic Agreement Among the Federal Highway Administration, United States Army Corps of Engineers, Wilmington District, North Carolina Department of Transportation, Advisory Council on Historic Preservation and North Carolina State Historic Preservation Officer for the Transportation Program in North Carolina*. The FHWA and NCDOT response of April 05, 2022, stated the transportation agencies' position that each STIP project is a fully independent undertaking, and therefore, the agencies would not consider cumulative effects with nearby, similar and connected, fully independent undertakings. Based on this assessment, the transportation agencies concluded that the only foreseeable potential effects to the Blue Ridge

Parkway attributable to HE-0001 are those potential visual, audible, and traffic effects directly caused by the undertaking, and that consideration of cumulative effects is not warranted.

The NPS does not support this conclusion; however, in order to advance the overall project, the NPS endorses adoption of the project conditions outlined below.

- NCDOT has previously agreed to maintain Frederick Law Olmsted Way East from NC 191 to the intersection with HE-0001. Frederick Law Olmsted Way East will remain as currently designed with no further access, and NCDOT will not construct or maintain any new road or access points that intersect or cross the HE-0001 portion of Frederick Law Olmsted Way East.
- NCDOT will not install roadway lighting along the access roadway portion of HE-0001 (i.e., Frederick Law Olmsted Way East); lighting will be required for the interchange only. Interchange lighting will be designed and installed in accordance with the conservation measures included in the US Fish and Wildlife Informal Consultation letter dated November 18, 2021.
- If NCDOT allows roadway lighting of Frederick Law Olmsted Way East through an encroachment agreement with a separate/private entity, NCDOT will require implementation of NPS Sustainable Outdoor Lighting Principles for any pedestrian lighting.
  - Light only IF you need it
  - Light only WHEN you need (use timers, sensors, and other controls),
  - Light only WHAT/WHERE you need it (shield light sources and direct downward, minimize height of light sources)
  - Use appropriate color spectra (no white/blue light), use amber or yellow
  - Use minimum number of lumens necessary (500 lumens or less per fixture if possible)
  - Choose energy efficient lamps and fixtures (minimum possible)
- NCDOT will coordinate review of any future capacity improvements within the existing project limits of HE-0001 (including widening, pedestrian, or safety modifications) with the NPS and NC SHPO prior to the approval of any federal or state action (i.e., NEPA document, permit). This condition is not applicable to NCDOT capacity improvements that are considered an exempt activity under the current NCDOT Section 106 Programmatic Agreement.
- Buncombe County is an interested party in the HE-0001 project, as referenced by its current overlay district and zoning powers that protect the Blue Ridge Parkway corridor. NCDOT will coordinate with Buncombe County and request the County to notify and request comments from the NPS and NC SHPO regarding any future proposed changes to the Blue Ridge Parkway Overlay District (Section 78-643).
- NCDOT will commit to produce a vegetative screening plan with the 65% roadway design plan (late summer/fall 2022) submittal and provide to the NPS and NC SHPO for



review and comment.

The conditions listed above are in addition to the mitigations previously committed to by NCDOT:

- 1,000-foot Control of Access (C/A);
- Tree Clearing Minimization; and
- 900-foot Vegetative Screening (NCDOT to maintain 75% survival rate of planted specimens).

With these conditions and mitigations in place, and pending review of updated visual simulations of the diamond divided interchange and of planned interchange lighting, the NPS will not further oppose the FHWA's finding of "No Adverse Effect" to the Blue Ridge Parkway.

The NPS continues to support sustainable growth and maintains that with coordinated planning well-designed development can be achieved while protecting the Blue Ridge Parkway's historic character and setting. To facilitate sustainable planning moving forward, please include the NPS on any NCDOT Merger Teams for projects that may affect Blue Ridge Parkway natural and cultural resources and values, even if no direct, physical encroachment is anticipated on NPS lands. If you have any questions regarding this letter, please contact David Sheehan, Resident Landscape Architect at [david\\_sheehan@nps.gov](mailto:david_sheehan@nps.gov) or (828) 348-3435.

Sincerely,

Tracy Swartout  
Superintendent

cc: Renee Gledhill-Earley, Environmental Review Coordinator  
North Carolina State Historic Preservation Office



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

ROY COOPER  
GOVERNOR

J. ERIC BOYETTE  
SECRETARY

June 15, 2022

Tracy Swartout  
Superintendent  
National Park Service  
Blue Ridge Parkway  
199 Hemphill Knob Road  
Asheville, NC 28803

Subject: Request for Resolution of Effects Consultation, Blue Ridge Parkway (NC0001)  
NCDOT STIP Project HE-0001  
NPS Reference 1.A.1 Resource Management

Dear Ms. Swartout,

This letter is in follow up to the previous Section 106 effects consultation held between NCDOT, FHWA, NC HPO and NPS-Blue Ridge Parkway staff on May 11, 2022.

Per FHWA's April 5, 2022 letter to you, and supported by materials provided and information presented at three previous effects consultations between February 4 and May 11, 2022, FHWA and NCDOT ("transportation agencies") are recommending a No Adverse Effect, with conditions finding for the Blue Ridge Parkway (NC0001) for NCDOT STIP Project HE-0001 in Buncombe County. The transportation agencies will request NC HPO's concurrence in this No Adverse Effect, with conditions finding at the June 29, 2022 Effects Meeting #4.

The transportation agencies are formally requesting that NPS personnel with decision-making authority attend the June 29, 2022 Effects Meeting #4. It is the transportation agencies intent to resolve the Section 106 consultation process pursuant to the National Historic Preservation Act, as amended, and implementing regulations at 36 CFR 800 and in accordance with the 2020 *Programmatic Agreement Among the Federal Highway Administration, United States Army Corps of Engineers, Wilmington District, North Carolina Department of Transportation, Advisory Council on Historic Preservation and North Carolina State Historic Preservation Officer for the Transportation Program in North Carolina (PA)*.

In addition to the materials submitted and presented in association with previous effects consultations (see attached Blue Ridge Parkway Effects Consultation Timeline), the following materials are provided for your review prior to the Effects Meeting #4:

- Updated visualizations with diverging diamond interchange (DDI) design as viewed from the Blue Ridge Parkway bridge over I-26 in daytime and nighttime. Additionally, an updated birdseye view rendering is provided with the DDI design.

Mailing Address:  
NC DEPARTMENT OF TRANSPORTATION  
HIGHWAY DIVISION 13  
55 ORANGE STREET  
ASHEVILLE, NC 28801

Telephone: (828) 250-3000  
Fax: (828) 251-6394  
Customer Service: 1-877-368-4968

Website: [www.ncdot.gov](http://www.ncdot.gov)

Location:  
55 ORANGE STREET  
ASHEVILLE, NC 28801

- Memorandum addressing NPS's request for comparative details regarding capacity of a diamond interchange versus a DDI.
- List of conditions NCDOT will commit to implement as part of NCDOT STIP Project HE-0001 to avoid an adverse effect to the Blue Ridge Parkway.

The transportation agencies respectfully request that any questions, concerns, or proposed modifications regarding the information contained herein be provided to the NCDOT Project Manager, McCray Coates ([hmcates@ncdot.gov](mailto:hmcates@ncdot.gov), 828-658-7030) at least five days before the Effects Meeting #4 (by Friday June 24<sup>th</sup>) so that the transportation team may prepare a response.

Sincerely,

DocuSigned by:

*T. W. Anderson P.E.*

CD10D468D13A4B3...

Tim Anderson, P.E.

Division Engineer, NCDOT Division 13

#### Attachments

cc: David Clarke, Federal Preservation Officer, FHWA  
Mandy Ranslow, FHWA Liaison, ACHP  
Donnie Brew, Preconstruction and Environment Engineer, FHWA  
Renee Gledhill-Earley, Environmental Review Coordinator, NC Historic Preservation Office  
David Sheehan, Landscape Architect, Blue Ridge Parkway, NPS  
Alexa Viets, Chief of Staff, Blue Ridge Parkway, NPS  
Andrew Triplett, Cultural Resources Specialist, Blue Ridge Parkway, NPS  
Dawn Leonard, Community Planner, Blue Ridge Parkway, NPS  
Lori Beckwith, Project Manager, USACE  
H. McCray Coates, P.E., Resident Engineer, Project Manager  
Mark Gibbs, P.E., Western Deputy Chief Engineer, NCDOT  
Roger D. Bryan, Environmental Program Supervisor, NCDOT Division 13  
Brendan Merithew, P.E., Division Project Team Lead, NCDOT Division 13  
Nathan Moneyham, P.E., Division Construction Engineer, NCDOT Division 13  
Jamie Lancaster, Cultural Resources Group Leader, NCDOT Environmental Analysis Unit  
Mary Pope Furr, Historic Architecture Team Lead, NCDOT Environmental Analysis Unit



U.S. Department  
of Transportation  
**Federal Highway Administration**

**North Carolina Division**

April 5, 2022

310 New Bern Avenue, Suite 410  
Raleigh, North Carolina 27601  
(919) 856-4346  
[www.fhwa.dot.gov/ncdiv](http://www.fhwa.dot.gov/ncdiv)

Tracy Swartout  
Superintendent  
National Park Service  
Blue Ridge Parkway  
199 Hemphill Knob Road  
Asheville, NC 28803

Subject: NCDOT STIP Project HE-0001 (NPS Reference 1.A.1 Resource Management)

Dear Ms. Swartout,

In accordance with Section 106 of the National Historic Preservation Act, as amended, and implementing regulations (36 CFR Part 800), the Federal Highway Administration (FHWA) and North Carolina Department of Transportation (NCDOT) (collectively referred to as the transportation agencies) have assessed the potential effects caused by HE-0001 that may alter, diminish, or damage the characteristics and features that contribute to the National Register of Historic Places (NRHP) eligibility of the Blue Ridge Parkway (NC0001) –noting a National Historic Landmark (NHL) designation is pending.

In accordance with 36 CFR Part 800.5 (a)(1) *Criteria of adverse effect*, adverse effects may include reasonably foreseeable effects caused by the undertaking (in this case HE-0001) that may occur later in time, be farther removed in distance or be cumulative. Based on the transportation agencies' assessment of indirect and cumulative effects, within the area of potential effect, there are no reasonably foreseeable effects to the Blue Ridge Parkway caused by HE-0001. This conclusion is supported by information provided during consultation and summarized in the attachment. Based on the attached considerations, following all appropriate measures to minimize harm, and including conditions to avoid adverse effects, FHWA has determined HE-0001 will have no adverse effect to the Blue Ridge Parkway.

FHWA and NCDOT respectfully request your concurrence in this finding, pursuant to Section 106 of the National Historic Preservation Act, as amended. NCDOT will schedule a follow-up meeting in the next two weeks to discuss these items and determine the appropriate path forward.

Respectfully,

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

Attachment

cc: David Clarke, Federal Preservation Officer, FHWA  
Mandy Ranslow, FHWA Liaison, ACHP  
Donnie Brew, Preconstruction and Environment Engineer, FHWA  
Renee Gledhill-Earley, Environmental Review Coordinator, NC Historic Preservation Office  
David Sheehan, Landscape Architect, NPS  
Lori Beckwith, Project Manager, USACE  
Mark Gibbs, Division Engineer, NCDOT Division 13  
McCray Coates, Division Project Manager, NCDOT Division 13  
Roger D. Bryan, Environmental Program Supervisor, NCDOT Division 13  
Brendan Merithew, Division Project Team Lead, NCDOT Division 13  
Jamie Lancaster, Cultural Resources Group Leader, NCDOT Environmental Analysis Unit  
Mary Pope Furr, Historic Architecture Team Lead, NCDOT Environmental Analysis Unit





# United States Department of the Interior

NATIONAL PARK SERVICE  
Blue Ridge Parkway  
199 Hemphill Knob Road  
Asheville, North Carolina 28803



IN REPLY REFER

## 1.A.1 Resource Management

February 2, 2022

McCray Coates, PE  
Division Project Manager  
Division 13  
N. C. Department of Transportation  
55 Orange Street  
Asheville, NC 28802

Subject: NCDOT STIP Project HE-0001

Dear Mr. Coates,

This letter is in response to the North Carolina Department of Transportation (NCDOT) State Transportation Improvement Program Project (STIP) HE-0001, a proposed new interchange along Interstate 26 (I-26) in Buncombe County, NC, on lands adjacent to the Blue Ridge Parkway (Parkway), a unit of the National Park Service (NPS). This project also includes a proposed two-lane roadway (Frederick Law Olmsted Way East) that would connect the proposed interchange to a road that is currently under construction by Biltmore Farms. The NPS has reviewed the proposed interchange designs and considered the cumulative effects of this project in addition to other public and private adjacent projects as outlined below and concludes that the proposed interchange is likely to have an adverse effect on the Parkway under the National Historic Preservation Act (NHPA) and mitigations should be evaluated.

The NHPA requires any Federally-funded undertaking to assess effects to historic properties from proposed activities. Per 36 CFR part 800, potential effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative. Potential effects may also include actions that change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance, or that introduce visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features.

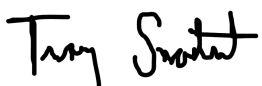
Since its inception in the early 1930s, the Parkway has retained an exceptionally high degree of integrity to its original design which provided for a continuous leisurely driving experience through a range of idyllic mountain, rural, and pastoral landscapes. Recreation areas, the designed landscape, and scenic, experiential integrity are fundamental to the Parkway's character, setting, and value as both a treasured unit of the NPS and a driver for the local economy. Without mitigation, this set of planned projects is likely to have a cumulative impact that is unacceptable to the historic character and unique experience of the Parkway under NHPA.

The proposed interchange will likely increase traffic between the NC-191 and I-26 corridors, including to and from the Pratt and Whitney Advanced Manufacturing Center site via connected roadway and new five-lane bridge over the French Broad River, and may increase traffic to and from the Parkway. In addition, the project, associated development and increased cross traffic at River Road and Halfway Road may be visible from the Parkway, adversely affecting the natural, rural view from the Parkway and its overlooks. Within three miles of this project there are eight other NCDOT projects planned or under construction, as well as private development including over 1200 proposed dwelling units, a 120-room hotel, and hundreds of thousands of square feet of proposed industrial space. Combined impacts from these projects, including changes to traffic levels, circulation patterns, associated development, and an overall reduction in vegetative screening will be cumulative with HE-0001. Further evaluation is needed to assess impacts of this project on the Parkway, including an evaluation of impacts to Parkway congestion as well as visual and auditory impacts.

When completed, the combined projects have the potential to permanently change the character and visitor experience of the Blue Ridge Parkway between the French Broad Overlook and I-26. Rather than the fully forested woodland experienced by visitors to the Parkway in this two-mile section now, the set of projects will likely convert this landscape into a densely developed residential, commercial, and industrial area. This change would represent a compromise of the experience of natural beauty and degrade the leisurely driving experience that was envisioned for the Parkway when it was created. In addition, the view of forested hillside from the Parkway's French Broad Overlook, which is a contributing feature for the Parkway's *National Historic Landmark* (NHL) nomination, may change significantly with these combined projects, thereby jeopardizing the Parkway's overall eligibility for *NHL* designation.

Impacts on NPS lands should be fully evaluated and mitigations included for all projects that may affect the Parkway's historic character, visitor experiences, and setting, even if no physical encroachment is anticipated. Our team looks forward to working with NCDOT on these mitigations moving forward. If you have any questions regarding this or any other any NCDOT projects that may affect the Parkway, please contact David Sheehan, Resident Landscape Architect, at david\_sheehan@nps.gov or (828) 348-3435.

Sincerely,

A handwritten signature in black ink, appearing to read "Tracy Swartout". The signature is fluid and cursive, with the first name "Tracy" and last name "Swartout" clearly distinguishable.

Tracy Swartout  
Superintendent

cc: Renee Gledhill – Earley, Environmental Review Coordinator  
North Carolina State Historic Preservation Office

21-05-0002



## HISTORIC ARCHITECTURE AND LANDSCAPES

### \*\*EFFECTS 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

<b>Project No:</b>	HE-0001	<b>County:</b>	Buncombe
<b>WBS No.:</b>	49473	<b>Document Type:</b>	CE
<b>Fed. Aid No:</b>	unknown	<b>Funding:</b>	<input type="checkbox"/> State <input checked="" type="checkbox"/> Federal
<b>Federal Permit(s):</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>Permit Type(s):</b>	USACE

#### Project Description:

Construct new interchange (Future Exit 35) on I-26 north of the Blue Ridge Parkway for the Pratt & Whitney Manufacturing Center that is under construction. The proposed project includes construction of a 0.5 to 1 mile, two-lane roadway tie which would connect to the private developer's two-lane roadway which includes a new bridge over the French Broad River and intersects with NC 191 (Brevard Road).

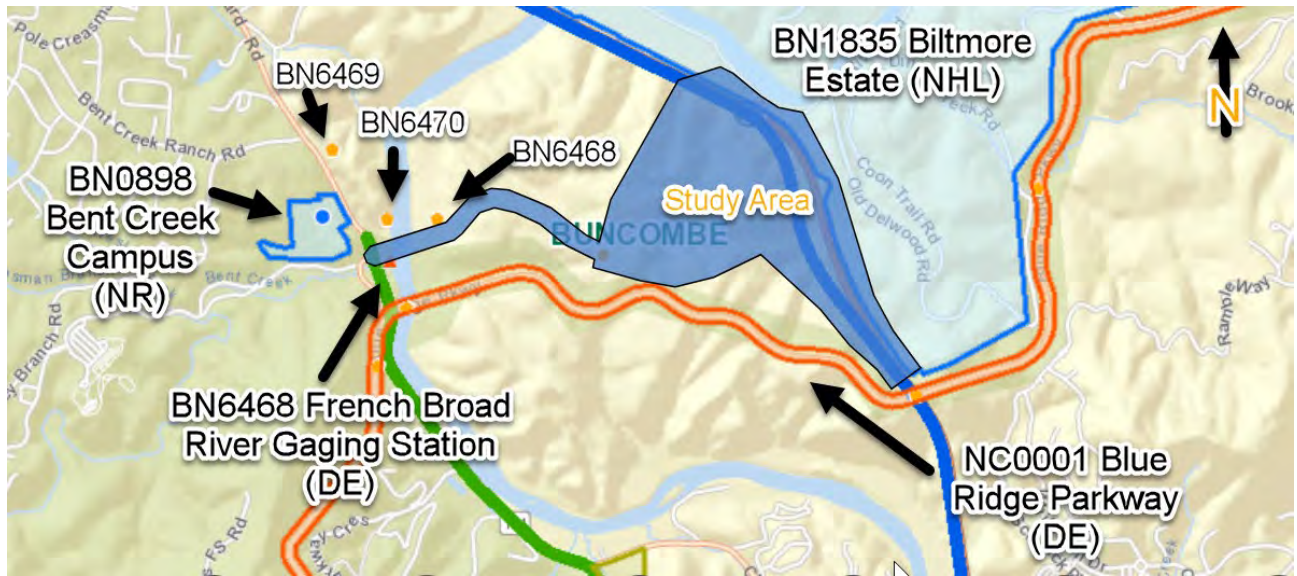
### SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

#### Description of review activities, results, and conclusions:

NCDOT architectural historian reviewed HPOWeb in June 2021 and reviewed the previous historic architecture surveys for NCDOT TIP #U-3403B (Improvements to NC 191), NCDOT TIP# I-4400 (Improvements to I-26), and the Pratt & Whitney Manufacturing Center (Project Ranger). All three reports were reviewed by the NC-HPO and determinations of eligibility confirmed. Due to the comprehensive surveys conducted for these three recent projects, there is no need for additional survey to identify unknown historic structures or landscapes. As such, the NCDOT architectural historian recommends an effects assessment for the following National Register-eligible or listed properties within or adjacent to the project study area: BN 1835 Biltmore Estate (NHL), NC 0001 Blue Ridge Parkway (DE, NHL pending), BN 6468 French Broad River Gaging Station (DE), and BN 0898 Bent Creek Campus (NR). Please provide design plans that show the proposed alignment(s) along with the boundaries of the four historic properties to the NCDOT architectural historian so that an effects assessment meeting can be scheduled.

### SUPPORT DOCUMENTATION

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



Base map from HPOWeb (June 2021)

## FINDING BY NCDOT ARCHITECTURAL HISTORIAN

Historic Architecture and Landscapes -- **\*\*EFFECTS REQUIRED\*\***

Mary Pope Furr

June 15, 2021

NCDOT Architectural Historian

Date

**Section 404/NEPA Merger Project Team Meeting Agreement****Concurrence Point 3****Least Environmentally Damaging Practicable Alternative (LEDPA)/Preferred Alternative Selection**

Project Name/Description: I-26, New Interchange (Future Exit 35), Buncombe County

STIP Project: HE-0001

**Project Need:** The proposed project is needed to address the lack of network connectivity between NC 191 and I-26 in southern Buncombe County to accommodate current and planned growth.

**Project Purpose:** The purpose of the project is to provide access to I-26 and improve east-west connectivity within the project vicinity to accommodate current and planned growth.

The Merger Project Team has concurred on this date, **February 9, 2022**, that the checked alternative is the **Least Environmentally Damaging Practicable Alternative** for **STIP Project HE-0001**.

	<b>DSA 1</b>	<ul style="list-style-type: none"> <li>• left exit/entrance ramp</li> <li>• Diamond configuration</li> <li>• center of the I-26 bifurcated section</li> </ul>
	<b>DSA 2</b>	<ul style="list-style-type: none"> <li>• right-exit/entrance ramp</li> <li>• Diverging diamond (DDI) configuration</li> <li>• center of the I-26 bifurcated section</li> </ul>
<b>X</b>	<b>DSA 3</b>	<ul style="list-style-type: none"> <li>• left exit/entrance ramp</li> <li>• Diamond configuration</li> <li>• North end of the I-26 bifurcated section</li> </ul>

FHWA (lead federal agency)	DocuSigned by: <i>Donnie Brew</i>	2/24/2022
USACE	DocuSigned by: <i>Lori Beckwith</i>	2/24/2022
NCDOT	DocuSigned by: <i>McCray Coates</i>	2/24/2022
USEPA	DocuSigned by: <i>Amarretta Somerville</i>	2/24/2022
USFWS	DocuSigned by: <i>Lauren B. Wilson</i>	2/24/2022
NCWRC	DocuSigned by: <i>Dave McHenry</i>	2/24/2022
NCDWR	DocuSigned by: <i>Kevin Mitchell</i>	2/24/2022
SHPO (abstained)	DocuSigned by: <i>Renee Gledhill-Earley</i>	2/23/2022
FBRMPO	DocuSigned by: <i>Tristan Winkler</i>	2/23/2022



**Section 404/NEPA Merger Project Team Meeting Agreement**  
**Concurrence Point 2A**  
**Bridging Decisions and Alignment Review**

Project Name/Description: I-26, New Interchange (Future Exit 35), Buncombe County

STIP Project: HE-0001

**Project Need:** The proposed project is needed to address the lack of network connectivity between NC 191 and I-26 in southern Buncombe County to accommodate current and planned growth.

**Project Purpose:** The purpose of the project is to provide access to I-26 and improve east-west connectivity within the project vicinity to accommodate current and planned growth.

As agreed at the July 15, 2021, CP 1-2 Merger Meeting, NCDOT provided the Merger Team with a **CP 2 Update**. This update summarized the results of the Traffic Forecast for HE-0001 and NCDOT's decision to proceed with a 2-lane with shoulder typical section proposed roadway, noting the anticipated need for auxiliary lanes at proposed intersections to accommodate traffic operations. The CP 2 Update also revisited potential impacts reported at CP 1-2 to include verified jurisdictional resources in place of the GIS data sets.

The Project Team has concurred on this date, **September 16, 2021**, that there are no proposed hydraulic structures or major crossings requiring bridging decisions for STIP Project HE-0001. (However, NCDOT would likely bridge stream "SDX" [I-4700 PJD] in Alternative 2 due to proximity of the stream to the I-26 travel lanes.)

FHWA (lead federal agency)	DocuSigned by: <b>Donald W Brew</b>	10/13/2021
USACE	B96E8B70991E420... DocuSigned by: <i>Lori Beckwith</i>	10/13/2021
NCDOT	DocuSigned by: <i>McCray Coates</i>	10/14/2021
USEPA	0C47CF5B9506450... DocuSigned by: <i>Amanetta Somerville</i>	10/14/2021
USFWS	DocuSigned by: <i>L S H</i>	10/19/2021
NCWRC	6B574C520CDE430... DocuSigned by: <i>Marla Chambers</i>	10/14/2021
NCDWR	DocuSigned by: <i>Kevin Mitchell</i>	10/14/2021
SHPO (Abstaining)	D9ACAD48D566456... DocuSigned by: <i>Renee Gledhill-Earley</i>	10/26/2021
FBRMPO	DocuSigned by: <i>Tristan Winkler</i>	10/27/2021
	E58F96DB10AB42E...	

**Section 404/NEPA Merger Project Team Meeting Agreement****Concurrence Point 2****Detailed Study Alternatives Carried Forward**

Project Name/Description: I-26, New Interchange (Future Exit 35), Buncombe County

STIP Project: HE-0001

**Project Need:** The proposed project is needed to address the lack of network connectivity between NC 191 and I-26 in southern Buncombe County to accommodate current and planned growth.

**Project Purpose:** The purpose of the project is to provide access to I-26 and improve east-west connectivity within the project vicinity to accommodate current and planned growth.

The Project Team has concurred on this date, **July 15, 2021**, that all checked alternatives will be carried forward to be studied in detail for STIP Project HE-0001.

If the traffic forecast shows that only two lanes are required for the roadway tie, Concurrence Point 2 will be revisited.

DSA	Carried Forward (Y/N)	Description	Figures
<b>No Build</b>	Y	The No-Build Alternative does not meet the project's need and purpose but will be retained to provide a basis for comparing adverse impacts and benefits of the detailed study alternatives.	NA
<b>Build Alt. 1</b>	Y	Modified diamond interchange configuration located in the center of the I-26 bifurcated section and includes a left exit/entrance ramp.	3 & 4
<b>Build Alt. 2</b>	Y	Diverging diamond interchange (DDI) configuration located in the center of the I-26 bifurcated section and includes a right exit/entrance ramp.	5 & 6
<b>Build Alt. 3</b>	Y	Tight diamond interchange configuration located at north end of the I-26 bifurcated section and includes a left exit/entrance ramp.	7 & 8

FHWA (lead federal agency)	DocuSigned by: <i>Donald W Brew</i> B96E8B70991E42C...	
USACE		DocuSigned by: <i>Lori Beckwith</i> BE7189E4BA384E3...
NCDOT	DocuSigned by: <i>McCray Coates</i> 0C47CF5B950645D...	
USEPA		DocuSigned by: <i>Amanetta Somerville</i> 4A37089ED457408...
USFWS	DocuSigned by: <i>L. A. W.</i> 6B574C520CDE43C...	
NCWRC (Abstaining)		DocuSigned by: <i>Marla Chambers</i> B1D3DCA076AD4C9...
NCDWR	DocuSigned by: <i>Kevin Mitchell</i> D9ACAD48D566453...	
SHPO		DocuSigned by: <i>Renee Gledhill-Earley</i> C26A1556A275464...
FBRMPO	DocuSigned by: <i>Tristan Winkler</i> E58F96DB10AB42E...	

## Section 404/NEPA Merger Project Team Meeting Agreement

## Concurrence Point 1

## Study Area Defined and Project Need and Purpose

Project Name/Description: I-26, New Interchange (Future Exit 35), Buncombe County

STIP Project: HE-0001

**Project Need:** The proposed project is needed to address the lack of network connectivity between NC 191 and I-26 in southern Buncombe County to accommodate current and planned growth.

**Project Purpose:** The purpose of the project is to provide access to I-26 and improve east-west connectivity within the project vicinity to accommodate current and planned growth.

The Project Team has concurred on this date, **July 15, 2021**, on the above project need and purpose and the study area defined (**Figure 2**) for STIP Project HE-0001.

FHWA (lead federal agency)	DocuSigned by: <i>Donald W Brew</i> B96E8B70991E42C...	
USACE		DocuSigned by: <i>Lori Beckwith</i> BE7189E4BA384E3...
NCDOT	DocuSigned by: <i>McCray Coates</i> 0C47CF5B950645D...	
USEPA		DocuSigned by: <i>Amanetta Somerville</i> 4A37089ED457408...
USFWS	DocuSigned by: <i>[Signature]</i> 6B574C520CDE43C...	
NCWRC (Abstaining)		DocuSigned by: <i>Marla Chambers</i> B1D3DCA076AD4C9...
NCDWR	DocuSigned by: <i>Kevin Mitchell</i> D9ACAD48D566453...	
SHPO		DocuSigned by: <i>Renee Gledhill-Earley</i> C26A1556A275464...
FBRMPO	DocuSigned by: <i>Tristan Winkler</i> E58F96DB10AB42E...	

## **Section 7 Consultation**



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Asheville Field Office  
160 Zillicoa Street Suite B  
Asheville, North Carolina 28801



July 22, 2022

Marissa Cox  
Biological Surveys Group  
North Carolina Department of Transportation  
1000 Birch Ridge Drive  
Raleigh, North Carolina 27610

Subject: Revised Informal Consultation for the New I-26 Interchange at Exit 35 and Roadway Connection to Fredrick Law Olmstead Way East, Asheville, Buncombe County, North Carolina (TIP No. HE-0001)

Dear Marissa Cox:

This responds to your request for a revised concurrence letter on the subject proposed action. On June 16, 2021, we attended an external scoping meeting with regulatory partners where the North Carolina Department of Transportation (NCDOT) introduced the HE-0001 project and indicated its placement in the Merger Process. On June 24, 2021, we received (via e-mail) NCDOT's request for informal consultation and section 7 concurrence on effects the subject project may have on federally listed species. On June 29, 2021, we met with you and your staff to discuss the informal consultation request and initial comments. We then submitted written comments to NCDOT on July 7, 2021. On September 16, 2021, we received (via e-mail) an updated request for informal consultation and section 7 concurrence. We attended additional meetings with NCDOT staff to discuss issues and concerns. We sent you an informal concurrence letter dated November 18, 2021. Members of your staff provided additional information on January 18 and 31, 2022. We reviewed the CP3 Merger Packet provided on January 26, 2022, sent additional comments and questions to you on February 4, 2022, and received NCDOT's responses on February 14, 2022, which included a request for a revised concurrence letter. This letter also includes a revision to Conservation Measure TREE 1 per information provided during a July 20, 2022, CP4A Merger Meeting and associated emails. The following is provided in accordance with the provisions of the National Environmental Policy Act (42 U.S.C. § 4321 et seq.); the Fish and Wildlife Coordination Act, as amended (16 U.S.C. 661 - 667e); and section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 - 1543) (Act). This revised informal concurrence letter supersedes our previous letters dated November 18, 2021 and March 16, 2022.

### **Project Description**

A full project description is included in the original concurrence letter signed November 18, 2022. NCDOT is not able to implement all the lighting conservation measures requested by the U.S. Fish and Wildlife Service (Service) and provided additional information on nighttime lighting, stormwater, and inclusion of development as an indirect effect. Most agencies concurred with the use of Detailed Study Alternative 3 (Figure 2) at the CP3 Merger Meeting on February 9, 2022. The North Carolina State Historic Preservation Office abstained. The study area (Figure 1) remains the same though the action area is likely to narrow in the future when final designs are completed.

For HE-0001, NCDOT will analyze the project using the Stochastic Empirical Loading and Dilution Model (SELDM) Catalog for North Carolina (NC-SELDM) to determine recommendations for



stormwater treatment goals. The model returns one of three recommendations for stormwater treatment 1) a direct discharge is acceptable; 2) minimization measures are sufficient; or 3) implement toolbox best management practices. Based on the analysis from the NC-SELDM Catalog, NCDOT will implement stormwater controls as needed to guard against erosion and to protect water quality. Stormwater design information is limited at this stage of project development.

NCDOT provided additional information on construction sediment and erosion control (SEC) measures. NCDOT follows design requirements based on peak flow and designs devices to handle the 25-year or 10-year peak flow storm event. Runoff velocities must be controlled so that the peak runoff from the 10-year frequency storm occurring during or after construction will not damage the receiving stream channel at the discharge point. The velocity must not exceed the greater of the maximum non-erosive velocity of the existing channel, based on soil texture or peak velocity in the channel prior to disturbance. If neither condition can be met, then protective measures must be applied to the receiving channel. As stated in the BE, NCDOT will default to the most-restrictive SEC measure requirements.

NCDOT has committed to the following conservation measures in their BE dated September 15, 2021, in emails dated January 18 and 31, 2022, or did not object to their inclusion in the November 18, 2021 concurrence letter. Conservation measures have been modified for clarity as needed, numbered consecutively, and named based on the type of measure.

#### **Conservation Measures for Gray Bat**

TREE 1: As the proposed action will impact suitable habitat for gray bat throughout the action area, all tree clearing will occur between November 15 – March 15, which is outside of the bat active season for gray bat in the French Broad River (FBR) Basin. There will be one exception to this moratorium, the minimal tree clearing associated with geotechnical field investigations that will occur starting in August 2022. This exception will allow equipment access for geotechnical borings planned on the -y-line (i.e., connector road) and the bifurcated section. The equipment will work around trees to the greatest extent practical.

TREE 2: Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal in excess of what is required to implement the project safely.

TREE 3: Ensure tree removal is limited to that specified in project plans and ensure that clearing limits are clearly marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits).

LIGHT 1: Permanent lighting will be confined to the interchange portion of this project along I-26 and will meet safety requirements for fully controlled access roadways. The roadway connection to Frederick Law Olmstead Way East will remain a dark forested corridor.

LIGHT 2: Lighting used for construction will be limited to what is necessary to maintain safety standards and will only be directed toward active work areas, not into adjacent wooded areas or inactive work sites.

LIGHT 3: NCDOT will use the shortest light pole that meets highway requirements and safety parameters and limits light in suitable bat habitat.

LIGHT 4: NCDOT will use light emitting diode (LED) fixtures with a Type II distribution pattern. This pattern projects light from the fixture further along the road and less across the road.

LIGHT 5: In all cases, the BUG (Backlight, Uplight, and Glare) rating will not exceed 3-0-3.

LIGHT 6: NCDOT will meet the AASHTO minimum requirements of 0.6 fc at 4:1 uniformity, which represents a 25% reduction in the average light on the pavement surface (compared with using the 0.8 fc standard) and should reduce the amount of light reaching suitable bat habitat.

LIGHT 7: NCDOT will eliminate all high mast light poles within the action area.

SEC 1: NCDOT will implement Design Standards for Sensitive Watersheds to minimize impacts to surface waters and wetlands which support aquatic macroinvertebrates, a food source for gray bats.

### **Conservation Measures for Appalachian Elktoe**

#### *Sediment and Erosion Control (SEC)*

SEC 2: A combination of Design Standards in Sensitive Watersheds (DSSW, 15A NCAC 04B .0124), Environmentally Sensitive Areas, and the NC Division of Water Quality (NCDWQ) Construction General Permit (NCG01) terms and conditions that allow for stormwater discharge under the National Pollutant Discharge Elimination System (NPDES) apply and NCDOT will default to the most-restrictive SEC measure requirements.

SEC 3: The sedimentation and erosion control plan (SECP) will be in place prior to any ground disturbance for all pipe replacements and construction. When needed, combinations of SEC measures (such as silt bags in conjunction with a stilling basin) will be used to ensure that the most protective measures are implemented.

SEC 4: The SECP shall adhere to the DSSW for portions of the project draining directly or indirectly to the FBR. Consideration will be given to any on the ground practical application which is most protective of the resource. For example, there may be some areas where NCDOT would not extend a measure of the DSSW (e.g., cut trees to construct a basin) which would have greater impact to sensitive resources.

SEC 5: Environmentally Sensitive Areas will be demarcated within the action area and will be defined by a 50-foot buffer zone on both sides of jurisdictional streams measured from top of streambank, in which the following shall apply:

- The contractor may perform clearing operations, but not grubbing operations until immediately prior to beginning grading operations.
- Once grading operations begin, work shall progress in a continuous manner until complete.
- Erosion control devices shall be installed immediately following the clearing operation.
- Seeding and mulching shall be performed on the areas disturbed by construction immediately following final grade establishment.
- Seeding and mulching shall be done in stages on cut and fill slopes that are greater than 20 feet in height measured along the slope, or greater than 2 acres in area, whichever is less.
- All SEC measures, throughout the project limits, must be cleaned out when half full of sediment, when applicable, to ensure proper function.

#### *Monitoring Effectiveness of SEC Devices*

SEC 6: One Construction Project Inspector will monitor SEC devices for the life of the project.

SEC 7: Inspections of erosion control devices will be done on the standard inspection schedule (weekly, or after a rainfall event of one inch or greater).

SEC 8: NCDOT will self-report to the Service any SEC device failures or sediment loss resulting from exceeding the capacity of the measures. The NCDOT inspector will report any failures or sediment loss to the Division Environmental Officer, who will contact the agency within 24 hours. If there are any failures or sediment loss, NCDOT will meet with resource agencies and work to adaptively manage SEC devices for further storm events while construction continues.

#### *Agency Coordination (AC)*

AC 1: NCDOT will invite representatives from the Service, U.S. Army Corp of Engineers, and the North Carolina Wildlife Resources Commission to the preconstruction meeting for the proposed project, as well as to all subsequent field inspections prior to construction, to ensure compliance with all special project commitments.

AC 2: NCDOT shall provide the Service with the SECP and allow 30 calendar days for review.

*Stormwater Control Measures (SCM):*

SCM 1: NCDOT has developed stormwater commitment guidance, which will apply to any portion of the NCDOT stormwater conveyance system draining to an outfall discharging to the FBR within the NCDOT right of way.

SCM 2: NCDOT will prepare a stormwater management plan (SMP) that implements structural and non-structural post-construction stormwater best management practices (BMPs) to the maximum extent practical, which is consistent with NPDES Post-Construction Stormwater Program.

SCM 3: NCDOT will use a hierarchical BMP selection process, which is optimized to treat silt, nutrients, and heavy metals.

SCM 4: NCDOT will evaluate the use of emerging BMP technologies that NCDOT has yet to publish in its BMP Toolbox. These emerging BMP technologies include bioswales, bioembankments, biofiltration conveyances, and soil improvements that maximize infiltration.

**Federally Listed Species**

*Appalachian elktoe (Alasmidonta raveneliana)*

Appalachian elktoe occur in the FBR upstream and downstream of the project. While the project may not directly impact the FBR, the project will impact jurisdictional streams SA and SDX that flow into the FBR. The jurisdictional streams themselves do not provide suitable habitat for Appalachian elktoe, but they do affect the water quality of the FBR. Tree clearing, land clearing, and stormwater management may all result in effects to the FBR, as discussed in the BE.

The BE states that due to the implementation of conservation measures related to sediment and erosion control and stormwater, any sedimentation or water quality impacts associated with construction of HE-0001 will be insignificant or discountable as it is not expected to reach the main stem of the FBR.

Based on the conservation measures outlined above, we concur with NCDOT's determination that the project may affect, but is not likely to adversely affect Appalachian elktoe.

*Gray bat (Myotis grisescens)*

While many gray bats forage and commute over water, some choose to fly over land including heavily wooded areas in the FBR basin and near the project study area (Weber et al., 2020, Figure 3).

Additionally, several studies indicate that bad weather in spring and fall can cause gray bats to leave primary feeding locations along water bodies for forest canopies (LaVal et al. 1977, Stevenson and Tuttle 1981). Based on this information and the facts that follow, we believe gray bats forage and commute throughout the action area:

- 1) a primary gray bat roost occurs within 0.65 miles of the action area boundary,
- 2) the action area is located within a bend of the FBR that is a well-documented foraging and commuting corridor for gray bats, which creates opportunity for the action area to serve as an overland bypass for gray bats traveling north or south along the river, and
- 3) the action area is within a small undeveloped forested corridor – connecting the U.S. Forest Service's Bent Creek Experimental Forest with the undeveloped portions of Biltmore properties – that we believe may serve as an important commuting and foraging overland flyway.

Because gray bats are expected to be foraging, commuting, and potentially roosting within the action area, artificial lighting and tree removal may cause avoidance behavior in gray bats during construction and operation of the proposed project. Studies (e.g., Rydell 1992; Blake et al. 1994; Stone et al. 2009, 2012) have shown that road lighting deters many bat species, notably slow-flying, woodland-adapted species such as members of the genus *Myotis*, from approaching the road. Deforestation at foraging sites and along commuting routes is likely to have negative effects due to the removal of prey abundance and

reduced cover from natural predators (Tuttle 1979). Recently-volant young are especially susceptible to the effects of deforestation, as they require the protection of forest cover while becoming proficient fliers.

Based on the best available science, information above, and the information provided, we believe that tree removal and new artificial lighting may have short and long-term effects on the gray bat. Conservation measures for this project aim to address these concerns and ensure effects are insignificant. Winter tree clearing and other tree-related measures should reduce any impacts to gray bats including impacts to bats that may temporarily roost in trees during migration (Samoray et al. 2020). Lighting measures aim to address and reduce the amount of light leaving paved surfaces.

Based on the information provided in the BE, including the conservation measures listed above, we concur with NCDOT that the project may affect, but is not likely to adversely affect the gray bat.

#### *Northern long-eared bat (Myotis septentrionalis, NLEB)*

Suitable habitat for NLEB is present within the action area. Based on the information provided, the project is consistent with the final section 4(d) rule, codified at 50 C.F.R. § 17.40(o) and effective February 16, 2016 for NLEB. This rule exempts take of this species for any tree cutting activity that occurs more than 0.25 miles from a known hibernation site or more than 150 feet from a known maternity roost during the pup rearing season (June 1 - July 31). Because this project meets the “exempt” criteria, any take associated with the project has already been addressed in the Biological Opinion for the 4(d) rule, and no further action under section 7 of the Act is required for this species at this time.

The Service is currently reevaluating the listing status of NLEB, and a final listing decision is expected in 2022. Consultations that use the 4(d) rule for NLEB may need to be reinitiated if the 4(d) rule is rescinded or the listing status of the species changes during the life of the project.

#### *Other Species*

While the following species occur in the region, the action area is outside the current range and/or area of influence for blue ridge goldenrod (*Solidago spithamea*), Carolina northern flying squirrel (*Glaucomys sabrinus coloratus*), roan mountain bluet (*Hedyotis purpurea* var. *montana*), spreading avens (*Geum radiatum*), and spruce-fir moss spider (*Microhexura montivaga*). While the action area is within the current range and/or area of influence for mountain sweet pitcherplant (*Sarracenia rubra* ssp. *jonesii*) and rock gnome lichen (*Gymnoderma lineare*), no suitable habitat is present within the action area for either species. Therefore, no further section 7 review for these species is required.

Little brown bat (*Myotis lucifugus*) and tricolored bat (*Perimyotis subflavus*) are at-risk species (ARS). ARS are not legally protected under the Act and are not subject to any of its provisions, including section 7, unless they are formally proposed or listed as endangered or threatened. The Service is expected to make listing determinations on these species in the near future. While lead federal agencies are not prohibited from jeopardizing the continued existence of an ARS or proposed species unless the species becomes listed, the prohibition against jeopardy and taking a listed species under section 9 of the Act applies as soon as a listing becomes effective, regardless of the stage of completion of the proposed action. We include this notification to make you aware of their current status and potential occurrence within the action area and to request your assistance in protecting them. Depending on the timeline of the subject project and final listing determinations, reinitiation may be required.

#### *Conservation Recommendations*

Section 7(a)(1) of the ESA directs federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of

a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

- Consider timing clearing and grading operations (not including tree cutting) such that follow-up seeding and mulching activities avoid the coldest winter months of January and February when growth of winter rye is slow and may not perform well as a protective BMP for sediment and erosion control. This measure may be most effective when applied to Environmentally Sensitive Areas.
- Use only low-pressure sodium (LPS), high-pressure sodium (HPS), or LED light sources that emit “warm” light. “Warm” light sources are those that contain low amounts of blue light in their spectrum. Choosing light sources with a color temperature of no more than 3,000 Kelvins will minimize the effects of blue light exposure. For additional information and actions that can be taken to reduce outdoor light pollution, visit: <https://www.darksky.org/our-work/lighting/lighting-for-citizens/lighting-basics/>.
- Consider the conservation needs of the Appalachian elktoe when designing SEC and SCM plans for HE-0001. Include SCMs that provide control of water quantity to prevent downstream flooding and erosion of Streams SA and SDX. We encourage the use of wet detention basins which maintain a permanent pool of water and attenuates peak stormwater flows (NCDOT BMP Toolbox Chapter 12, 2014). Wet detention basins will benefit gray bats as they have been shown to use them in Weaverville and will improve the aesthetics of the roadway for users and the Blue Ridge Parkway viewshed.
- Develop a study to monitor the new roadway’s impacts to Stream SA. We are concerned about the long-term implications of increased impervious surfaces within the watersheds of Appalachian elktoe, and this situation presents an opportunity to observe and learn, on a small scale, what happens to stable streams when well-designed roadway projects that include SCMs are introduced on the landscape. We are ultimately interested in creating adaptive feedback loops that can inform freshwater mussel recovery in a landscape that is under constant development pressure.

For the Service to be kept informed of actions benefitting listed species or their habitats, we request written notification of the implementation of any conservation recommendations along with the results of any monitoring.

### **Reinitiation Notice**

We believe the requirements under section 7 of the Act are fulfilled for the federally listed species discussed above. However, obligations under section 7 must be reconsidered if: (1) new information reveals impacts of this proposed action that may affect listed species or critical habitat in a manner not previously considered, (2) this proposed 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 proposed action.

We appreciate the opportunity to provide these comments. Please contact Ms. Lauren B. Wilson of our staff at [lauren\\_wilson@fws.gov](mailto:lauren_wilson@fws.gov) if you have any questions. In any future correspondence concerning this project, please reference our Log Number 21-330.

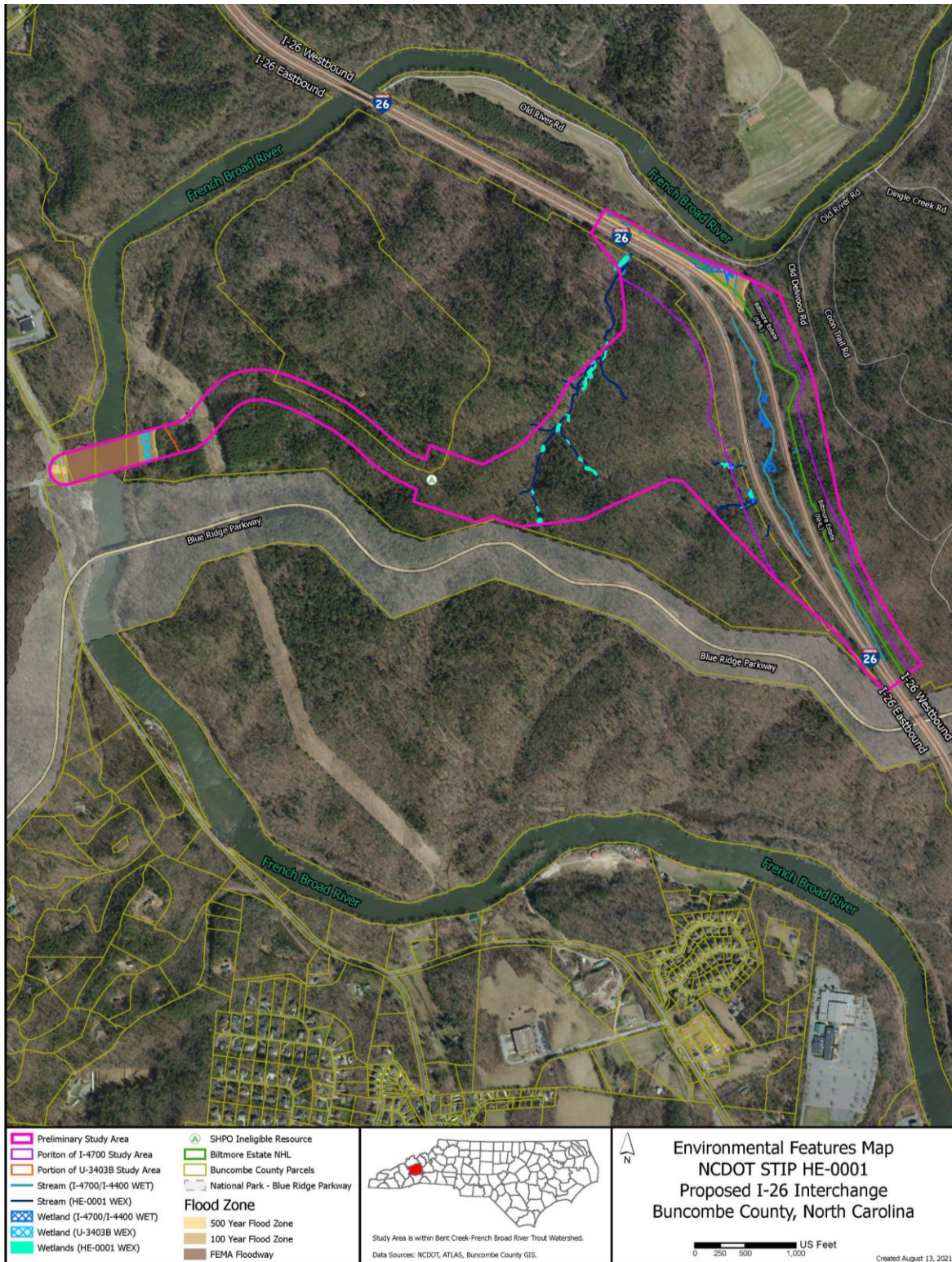
Sincerely,

- - *original signed* - -

Janet Mizzi  
Field Supervisor

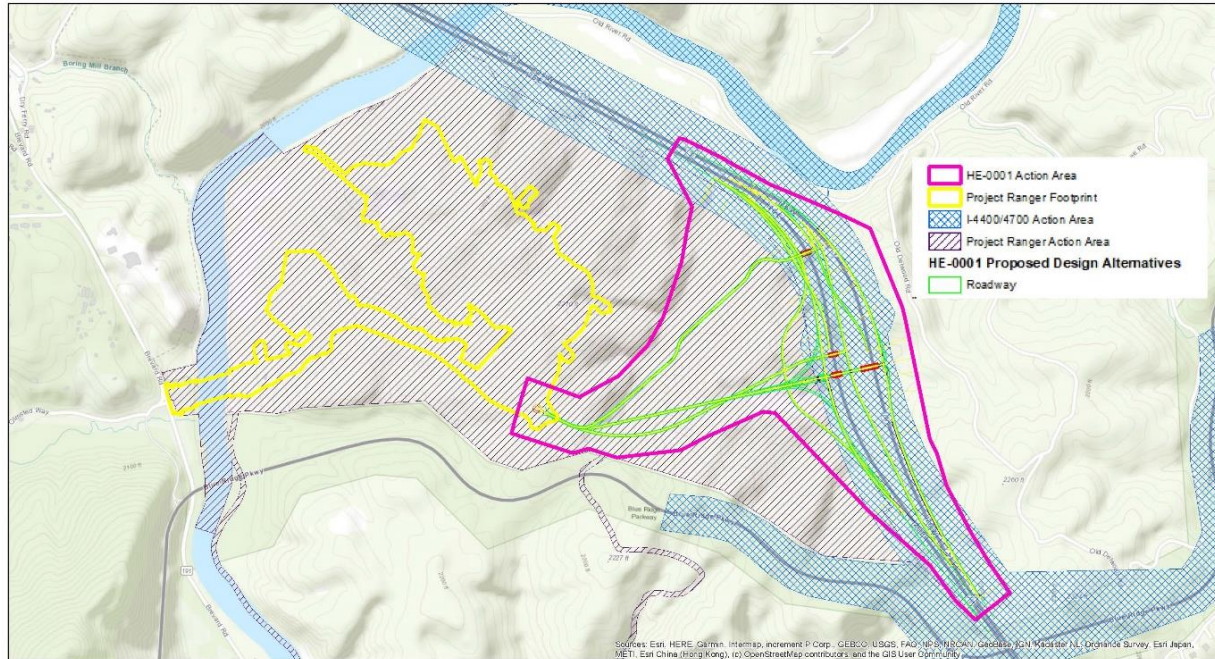
Enclosures: maps



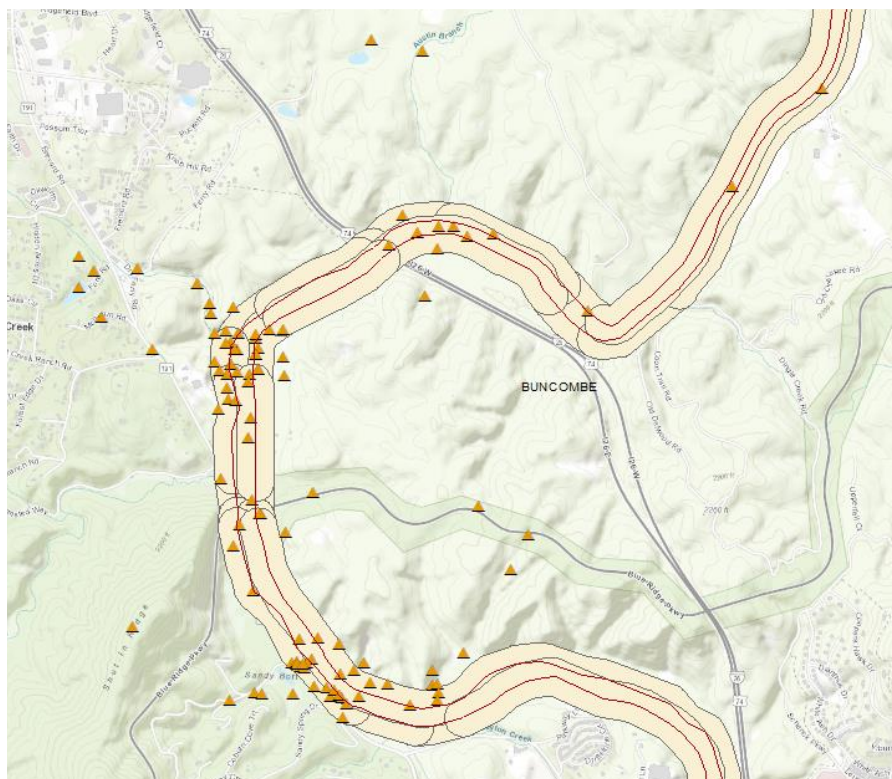


**Figure 1. Stream SA and SDX in the Action Area.** Map shows results of the jurisdictional determination for streams and wetlands within the action area.





**Figure 2. HE-0001 Detailed Study Alternatives and Consultation History in Project Vicinity.** Includes action areas for Project Ranger (FWS Log No. 19-328) and I-26 Widening Project (I-4400/I-4700). Merger agencies choose Detailed Study Alternative 3, the northern most green road, as the least environmentally damaging practicable alternative.



**Figure 3. Gray Bat Locations Near the Action Area.** Known gray bat foraging locations (orange triangles) from Weber et al. (2020) in the vicinity of the action area. The map shows the French Broad River (cream colored polygon with red outline) and a 100 m buffer (cream polygon with a gray outline).



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Asheville Field Office  
160 Zillicoa Street Suite B  
Asheville, North Carolina 28801



March 16, 2022

Marissa Cox  
Biological Surveys Group  
North Carolina Department of Transportation  
1000 Birch Ridge Drive  
Raleigh, North Carolina 27610

Subject: Revised Informal Consultation for the New I-26 Interchange at Exit 35 and Roadway Connection to Fredrick Law Olmstead Way East, Asheville, Buncombe County, North Carolina (TIP No. HE-0001)

Dear Marissa Cox:

This responds to your request for a revised concurrence letter on the subject proposed action. On June 16, 2021, we attended an external scoping meeting with regulatory partners where the North Carolina Department of Transportation (NCDOT) introduced the HE-0001 project and indicated its placement in the Merger Process. On June 24, 2021, we received (via e-mail) NCDOT's request for informal consultation and section 7 concurrence on effects the subject project may have on federally listed species. On June 29, 2021, we met with you and your staff to discuss the informal consultation request and initial comments. We then submitted written comments to NCDOT on July 7, 2021. On September 16, 2021, we received (via e-mail) an updated request for informal consultation and section 7 concurrence. We attended additional meetings with NCDOT staff to discuss issues and concerns. We sent you an informal concurrence letter dated November 18, 2021. Members of your staff provided additional information on January 18 and 31, 2022. We reviewed the CP3 Merger Packet provided on January 26, 2022, sent additional comments and questions to you on February 4, 2022, and received NCDOT's responses on February 14, 2022, which included a request for a revised concurrence letter. The following is provided in accordance with the provisions of the National Environmental Policy Act (42 U.S.C. § 4321 et seq.); the Fish and Wildlife Coordination Act, as amended (16 U.S.C. 661 - 667e); and section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 - 1543) (Act). This revised informal concurrence letter supersedes our previous letter dated November 18, 2021.

### **Project Description**

A full project description is included in the original concurrence letter signed November 18, 2022. NCDOT is not able to implement all the lighting conservation measures requested by the U.S. Fish and Wildlife Service (Service) and provided additional information on nighttime lighting, stormwater, and inclusion of development as an indirect effect. Most agencies concurred with the use of Detailed Study Alternative 3 (Figure 2) at the CP3 Merger Meeting on February 9, 2022. The North Carolina State Historic Preservation Office abstained. The study area (Figure 1) remains the same though the action area is likely to narrow in the future when final designs are completed.

For HE-0001, NCDOT will analyze the project using the Stochastic Empirical Loading and Dilution Model (SELDM) Catalog for North Carolina (NC-SELDM) to determine recommendations for stormwater treatment goals. The model returns one of three recommendations for stormwater treatment 1) a direct discharge is acceptable; 2) minimization measures are sufficient; or 3) implement toolbox best

management practices. Based on the analysis from the NC-SELDM Catalog, NCDOT will implement stormwater controls as needed to guard against erosion and to protect water quality. Stormwater design information is limited at this stage of project development.

NCDOT provided additional information on construction sediment and erosion control (SEC) measures. NCDOT follows design requirements based on peak flow and designs devices to handle the 25-year or 10-year peak flow storm event. Runoff velocities must be controlled so that the peak runoff from the 10-year frequency storm occurring during or after construction will not damage the receiving stream channel at the discharge point. The velocity must not exceed the greater of the maximum non-erosive velocity of the existing channel, based on soil texture or peak velocity in the channel prior to disturbance. If neither condition can be met, then protective measures must be applied to the receiving channel. As stated in the BE, NCDOT will default to the most-restrictive SEC measure requirements.

NCDOT has committed to the following conservation measures in their BE dated September 15, 2021, in emails dated January 18 and 31, 2022, or did not object to their inclusion in the November 18, 2021 concurrence letter. Conservation measures have been modified for clarity as needed, numbered consecutively, and named based on the type of measure.

### **Conservation Measures for Gray Bat**

TREE 1: As the proposed action will impact suitable habitat for gray bat throughout the action area, all tree clearing will occur between November 15 – March 15, which is outside of the bat active season for gray bat in the French Broad River (FBR) Basin.

TREE 2: Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal in excess of what is required to implement the project safely.

TREE 3: Ensure tree removal is limited to that specified in project plans and ensure that clearing limits are clearly marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits).

LIGHT 1: Permanent lighting will be confined to the interchange portion of this project along I-26 and will meet safety requirements for fully controlled access roadways. The roadway connection to Frederick Law Olmstead Way East will remain a dark forested corridor.

LIGHT 2: Lighting used for construction will be limited to what is necessary to maintain safety standards and will only be directed toward active work areas, not into adjacent wooded areas or inactive work sites.

LIGHT 3: NCDOT will use the shortest light pole that meets highway requirements and safety parameters and limits light in suitable bat habitat.

LIGHT 4: NCDOT will use light emitting diode (LED) fixtures with a Type II distribution pattern. This pattern projects light from the fixture further along the road and less across the road.

LIGHT 5: In all cases, the BUG (Backlight, Uplight, and Glare) rating will not exceed 3-0-3.

LIGHT 6: NCDOT will meet the AASHTO minimum requirements of 0.6 fc at 4:1 uniformity, which represents a 25% reduction in the average light on the pavement surface (compared with using the 0.8 fc standard) and should reduce the amount of light reaching suitable bat habitat.

LIGHT 7: NCDOT will eliminate all high mast light poles within the action area.

SEC 1: NCDOT will implement Design Standards for Sensitive Watersheds to minimize impacts to surface waters and wetlands which support aquatic macroinvertebrates, a food source for gray bats.

### **Conservation Measures for Appalachian Elktoe**

#### *Sediment and Erosion Control (SEC)*

SEC 2: A combination of Design Standards in Sensitive Watersheds (DSSW, 15A NCAC 04B .0124), Environmentally Sensitive Areas, and the NC Division of Water Quality (NCDWQ) Construction

General Permit (NCG01) terms and conditions that allow for stormwater discharge under the National Pollutant Discharge Elimination System (NPDES) apply and NCDOT will default to the most-restrictive SEC measure requirements.

SEC 3: The sedimentation and erosion control plan (SECP) will be in place prior to any ground disturbance for all pipe replacements and construction. When needed, combinations of SEC measures (such as silt bags in conjunction with a stilling basin) will be used to ensure that the most protective measures are implemented.

SEC 4: The SECP shall adhere to the DSSW for portions of the project draining directly or indirectly to the FBR. Consideration will be given to any on the ground practical application which is most protective of the resource. For example, there may be some areas where NCDOT would not extend a measure of the DSSW (e.g., cut trees to construct a basin) which would have greater impact to sensitive resources.

SEC 5: Environmentally Sensitive Areas will be demarcated within the action area and will be defined by a 50-foot buffer zone on both sides of jurisdictional streams measured from top of streambank, in which the following shall apply:

- The contractor may perform clearing operations, but not grubbing operations until immediately prior to beginning grading operations.
- Once grading operations begin, work shall progress in a continuous manner until complete.
- Erosion control devices shall be installed immediately following the clearing operation.
- Seeding and mulching shall be performed on the areas disturbed by construction immediately following final grade establishment.
- Seeding and mulching shall be done in stages on cut and fill slopes that are greater than 20 feet in height measured along the slope, or greater than 2 acres in area, whichever is less.
- All SEC measures, throughout the project limits, must be cleaned out when half full of sediment, when applicable, to ensure proper function.

#### *Monitoring Effectiveness of SEC Devices*

SEC 6: One Construction Project Inspector will monitor SEC devices for the life of the project.

SEC 7: Inspections of erosion control devices will be done on the standard inspection schedule (weekly, or after a rainfall event of one inch or greater).

SEC 8: NCDOT will self-report to the Service any SEC device failures or sediment loss resulting from exceeding the capacity of the measures. The NCDOT inspector will report any failures or sediment loss to the Division Environmental Officer, who will contact the agency within 24 hours. If there are any failures or sediment loss, NCDOT will meet with resource agencies and work to adaptively manage SEC devices for further storm events while construction continues.

#### *Agency Coordination (AC)*

AC 1: NCDOT will invite representatives from the Service, U.S. Army Corp of Engineers, and the North Carolina Wildlife Resources Commission to the preconstruction meeting for the proposed project, as well as to all subsequent field inspections prior to construction, to ensure compliance with all special project commitments.

AC 2: NCDOT shall provide the Service with the SECP and allow 30 calendar days for review.

#### *Stormwater Control Measures (SCM):*

SCM 1: NCDOT has developed stormwater commitment guidance, which will apply to any portion of the NCDOT stormwater conveyance system draining to an outfall discharging to the FBR within the NCDOT right of way.

SCM 2: NCDOT will prepare a stormwater management plan (SMP) that implements structural and non-structural post-construction stormwater best management practices (BMPs) to the maximum extent practical, which is consistent with NPDES Post-Construction Stormwater Program.



SCM 3: NCDOT will use a hierarchical BMP selection process, which is optimized to treat silt, nutrients, and heavy metals.

SCM 4: NCDOT will evaluate the use of emerging BMP technologies that NCDOT has yet to publish in its BMP Toolbox. These emerging BMP technologies include bioswales, bioembankments, biofiltration conveyances, and soil improvements that maximize infiltration.

### **Federally Listed Species**

#### *Appalachian elktoe (Alasmidonta raveneliana)*

Appalachian elktoe occur in the FBR upstream and downstream of the project. While the project may not directly impact the FBR, the project will impact jurisdictional streams SA and SDX that flow into the FBR. The jurisdictional streams themselves do not provide suitable habitat for Appalachian elktoe, but they do affect the water quality of the FBR. Tree clearing, land clearing, and stormwater management may all result in effects to the FBR, as discussed in the BE.

The BE states that due to the implementation of conservation measures related to sediment and erosion control and stormwater, any sedimentation or water quality impacts associated with construction of HE-0001 will be insignificant or discountable as it is not expected to reach the main stem of the FBR.

Based on the conservation measures outlined above, we concur with NCDOT's determination that the project may affect, but is not likely to adversely affect Appalachian elktoe.

#### *Gray bat (Myotis grisescens)*

While many gray bats forage and commute over water, some choose to fly over land including heavily wooded areas in the FBR basin and near the project study area (Weber et al., 2020, Figure 3).

Additionally, several studies indicate that bad weather in spring and fall can cause gray bats to leave primary feeding locations along water bodies for forest canopies (LaVal et al. 1977, Stevenson and Tuttle 1981). Based on this information and the facts that follow, we believe gray bats forage and commute throughout the action area:

- 1) a primary gray bat roost occurs within 0.65 miles of the action area boundary,
- 2) the action area is located within a bend of the FBR that is a well-documented foraging and commuting corridor for gray bats, which creates opportunity for the action area to serve as an overland bypass for gray bats traveling north or south along the river, and
- 3) the action area is within a small undeveloped forested corridor – connecting the U.S. Forest Service's Bent Creek Experimental Forest with the undeveloped portions of Biltmore properties – that we believe may serve as an important commuting and foraging overland flyway.

Because gray bats are expected to be foraging, commuting, and potentially roosting within the action area, artificial lighting and tree removal may cause avoidance behavior in gray bats during construction and operation of the proposed project. Studies (e.g., Rydell 1992; Blake et al. 1994; Stone et al. 2009, 2012) have shown that road lighting deters many bat species, notably slow-flying, woodland-adapted species such as members of the genus *Myotis*, from approaching the road. Deforestation at foraging sites and along commuting routes is likely to have negative effects due to the removal of prey abundance and reduced cover from natural predators (Tuttle 1979). Recently-volant young are especially susceptible to the effects of deforestation, as they require the protection of forest cover while becoming proficient fliers.

Based on the best available science, information above, and the information provided, we believe that tree removal and new artificial lighting may have short and long-term effects on the gray bat. Conservation measures for this project aim to address these concerns and ensure effects are insignificant. Winter tree clearing and other tree-related measures should reduce any impacts to gray bats including impacts to bats



that may temporarily roost in trees during migration (Samoray et al. 2020). Lighting measures aim to address and reduce the amount of light leaving paved surfaces.

Based on the information provided in the BE, including the conservation measures listed above, we concur with NCDOT that the project may affect, but is not likely to adversely affect the gray bat.

#### *Northern long-eared bat (Myotis septentrionalis, NLEB)*

Suitable habitat for NLEB is present within the action area. Based on the information provided, the project is consistent with the final section 4(d) rule, codified at 50 C.F.R. § 17.40(o) and effective February 16, 2016 for NLEB. This rule exempts take of this species for any tree cutting activity that occurs more than 0.25 miles from a known hibernation site or more than 150 feet from a known maternity roost during the pup rearing season (June 1 - July 31). Because this project meets the “exempt” criteria, any take associated with the project has already been addressed in the Biological Opinion for the 4(d) rule, and no further action under section 7 of the Act is required for this species at this time.

The Service is currently reevaluating the listing status of NLEB, and a final listing decision is expected in 2022. Consultations that use the 4(d) rule for NLEB may need to be reinitiated if the 4(d) rule is rescinded or the listing status of the species changes during the life of the project.

#### *Other Species*

While the following species occur in the region, the action area is outside the current range and/or area of influence for blue ridge goldenrod (*Solidago spithamea*), Carolina northern flying squirrel (*Glaucomys sabrinus coloratus*), roan mountain bluet (*Hedyotis purpurea* var. *montana*), spreading avens (*Geum radiatum*), and spruce-fir moss spider (*Microhexura montivaga*). While the action area is within the current range and/or area of influence for mountain sweet pitcherplant (*Sarracenia rubra* ssp. *jonesii*) and rock gnome lichen (*Gymnoderma lineare*), no suitable habitat is present within the action area for either species. Therefore, no further section 7 review for these species is required.

Little brown bat (*Myotis lucifugus*) and tricolored bat (*Perimyotis subflavus*) are at-risk species (ARS). ARS are not legally protected under the Act and are not subject to any of its provisions, including section 7, unless they are formally proposed or listed as endangered or threatened. The Service is expected to make listing determinations on these species in the near future. While lead federal agencies are not prohibited from jeopardizing the continued existence of an ARS or proposed species unless the species becomes listed, the prohibition against jeopardy and taking a listed species under section 9 of the Act applies as soon as a listing becomes effective, regardless of the stage of completion of the proposed action. We include this notification to make you aware of their current status and potential occurrence within the action area and to request your assistance in protecting them. Depending on the timeline of the subject project and final listing determinations, reinitiation may be required.

#### *Conservation Recommendations*

Section 7(a)(1) of the ESA directs federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

- Consider timing clearing and grading operations (not including tree cutting) such that follow-up seeding and mulching activities avoid the coldest winter months of January and February when growth of winter rye is slow and may not perform well as a protective BMP for sediment and erosion control. This measure may be most effective when applied to Environmentally Sensitive Areas.

- Use only low-pressure sodium (LPS), high-pressure sodium (HPS), or LED light sources that emit “warm” light. “Warm” light sources are those that contain low amounts of blue light in their spectrum. Choosing light sources with a color temperature of no more than 3,000 Kelvins will minimize the effects of blue light exposure. For additional information and actions that can be taken to reduce outdoor light pollution, visit: <https://www.darksky.org/our-work/lighting/lighting-for-citizens/lighting-basics/>.
- Consider the conservation needs of the Appalachian elktoe when designing SEC and SCM plans for HE-0001. Include SCMs that provide control of water quantity to prevent downstream flooding and erosion of Streams SA and SDX. We encourage the use of wet detention basins which maintain a permanent pool of water and attenuates peak stormwater flows (NCDOT BMP Toolbox Chapter 12, 2014). Wet detention basins will benefit gray bats as they have been shown to use them in Weaverville and will improve the aesthetics of the roadway for users and the Blue Ridge Parkway viewshed.
- Develop a study to monitor the new roadway’s impacts to Stream SA. We are concerned about the long-term implications of increased impervious surfaces within the watersheds of Appalachian elktoe, and this situation presents an opportunity to observe and learn, on a small scale, what happens to stable streams when well-designed roadway projects that include SCMs are introduced on the landscape. We are ultimately interested in creating adaptive feedback loops that can inform freshwater mussel recovery in a landscape that is under constant development pressure.

For the Service to be kept informed of actions benefitting listed species or their habitats, we request written notification of the implementation of any conservation recommendations along with the results of any monitoring.

#### **Reinitiation Notice**

We believe the requirements under section 7 of the Act are fulfilled for the federally listed species discussed above. However, obligations under section 7 must be reconsidered if: (1) new information reveals impacts of this proposed action that may affect listed species or critical habitat in a manner not previously considered, (2) this proposed 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 proposed action.

We appreciate the opportunity to provide these comments. Please contact Ms. Lauren B. Wilson of our staff at [lauren\\_wilson@fws.gov](mailto:lauren_wilson@fws.gov) if you have any questions. In any future correspondence concerning this project, please reference our Log Number 21-330.

Sincerely,

Janet Mizzi  
Field Supervisor

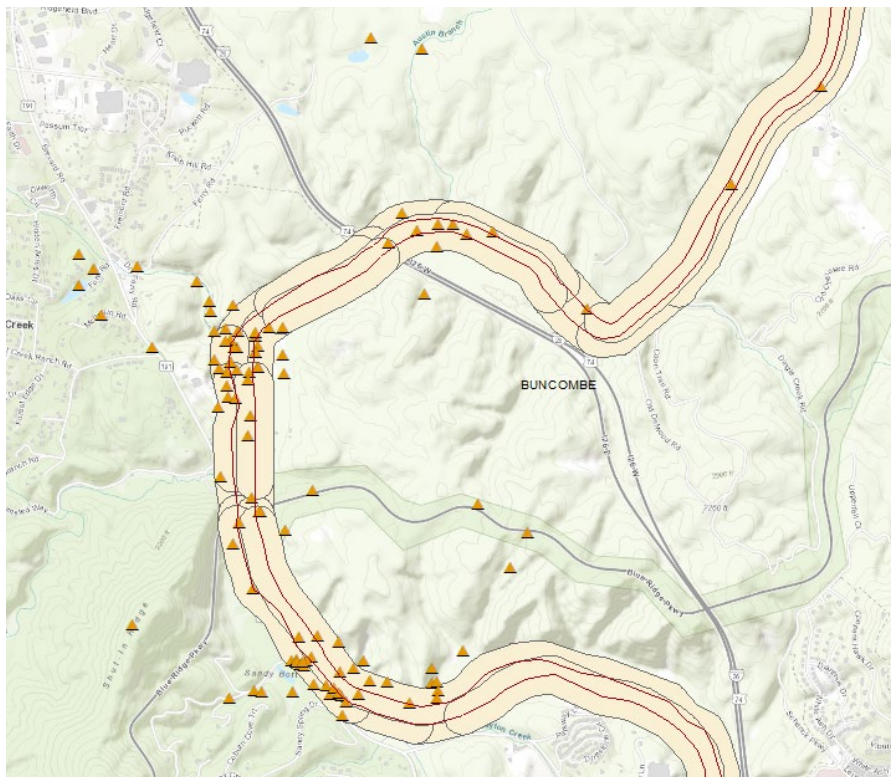
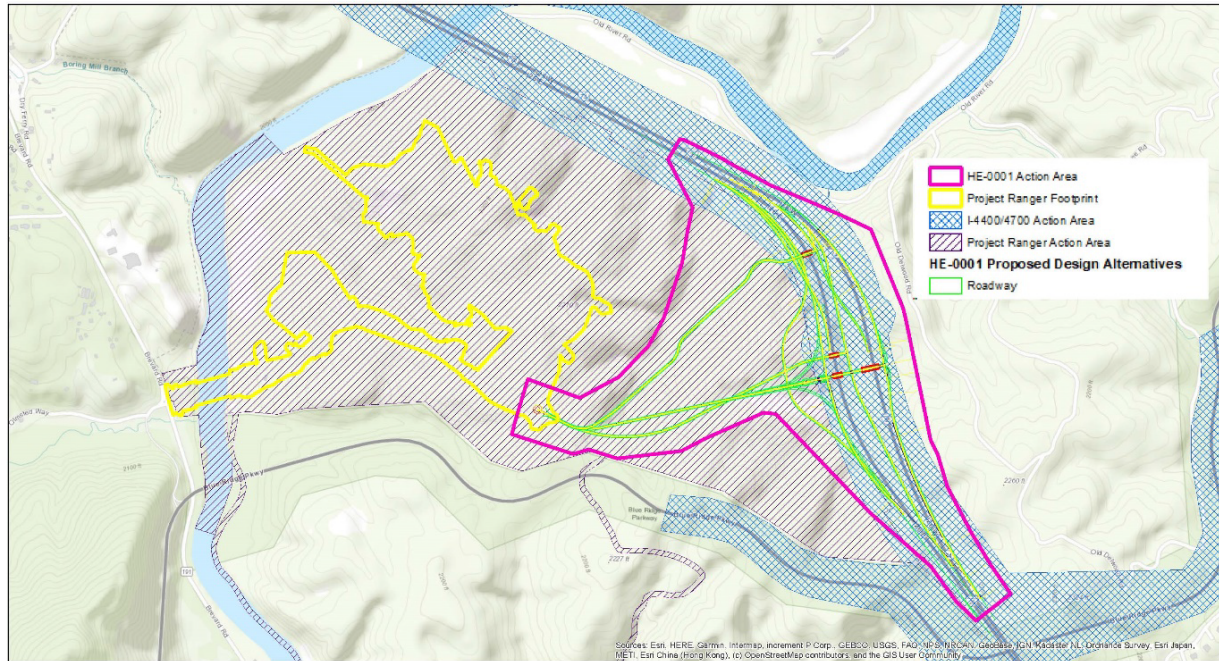
Enclosures: maps





**Figure 1. Stream SA and SDX in the Action Area.** Map shows results of the jurisdictional determination for streams and wetlands within the action area.





## **Public Meeting Comment-Response Memo**



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

ROY COOPER  
GOVERNOR

J. ERIC BOYETTE  
SECRETARY

MEMO TO: McCray Coates, PE  
Division Project Manager  
NCDOT Highway Division 13

FROM: Adam Archual  
Sr. Environmental Planner  
Gannett Fleming, Inc.

DATE: March 18, 2022

SUBJECT: STIP Project No. HE-0001 – Public Input comment summary for proposed new I-26 Interchange and Access Road Near Mile Marker 35 Connecting to Frederick Law Olmsted Way East, Buncombe County.

NCDOT collected public input on the HE-0001 Project from Sept. 2, 2021, to Oct. 4, 2021. The purpose of the public comment period was to inform the public about the project, present the three proposed interchange concepts and their potential impacts, and to collect feedback about the project and alternative interchange concepts.

One thousand (1,000) postcards were mailed out to residents and businesses within about 1 mile of the project to increase awareness of the project and direct people to the PublicInput.com website ([www.publicinput.com/I26-exit35-buncombe](http://www.publicinput.com/I26-exit35-buncombe)). NCDOT issued a news release to the Division 13 Media Distribution List, which includes 129 emails (e.g., media contacts, MPO/RPO staff, local and elected officials, etc.). NCDOT also distributed messaging via social media accounts (i.e., Twitter). In addition to providing the website link, mailings and announcements included an email address and telephone number at which the public could submit comments.

OVERVIEW OF COMMENTS:

In total, 259 comments were received by phone, email and through the PublicInput.com website during the comment period. One-hundred and thirty comments provided only a concept preference (discussed on following page). The remaining 129 comments were reviewed and assigned one or more subjects, noting that several comments addressed more than one subject:

- Design (66)
- Environmental (20)
- Project Funding (11)
- Safety (36)
- Bicycle and pedestrian (3)
- Other (22)
- Traffic (28)
- Project Need (3)

Mailing Address:  
NC DEPARTMENT OF TRANSPORTATION  
HIGHWAY DIVISION 13  
55 ORANGE STREET  
ASHEVILLE, NC 28801

Telephone: (828) 250-3000  
Fax: (828) 251-6394  
Customer Service: 1-877-368-4968

Location:  
55 ORANGE STREET  
ASHEVILLE, NC 27610

Website: [www.ncdot.gov](http://www.ncdot.gov)

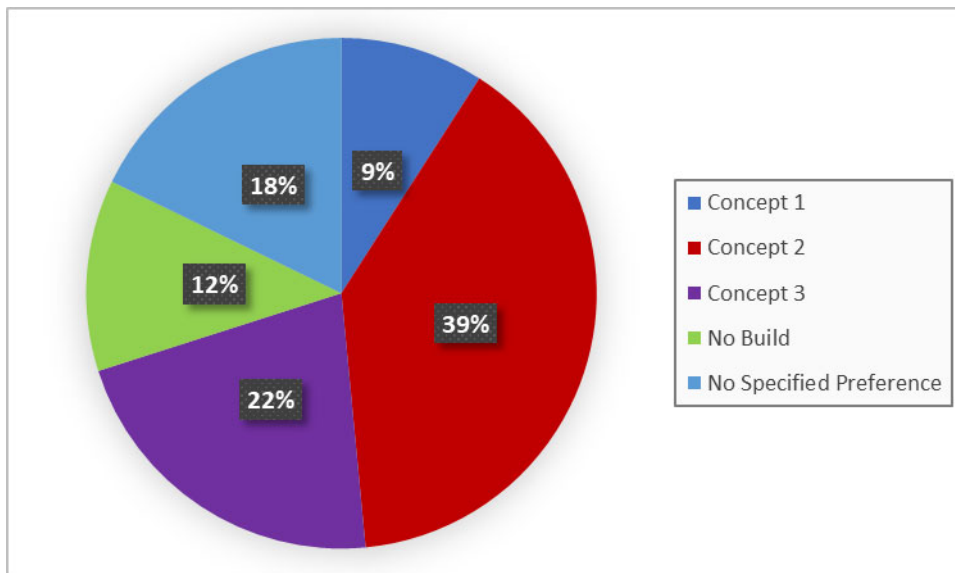


### CONCEPT PREFERENCE:

The PublicInput.com website provided commenters an option to choose their preferred interchange concept (including a No Build option) and provide additional comments for each. Individuals could identify more than one concept preference, resulting in 264 concept preferences recorded. If a respondent on the website did not fill in the preferred concept dropdown, but did explicitly state their preference in writing, that response was counted for the stated concept. Further, if a comment was received via email or phone that explicitly stated a preferred concept that preference was also enumerated. (See Exhibit 1.)

- Concept 1 includes a left exit/entrance interchange, a traditional diamond configuration, and is located at the center of the I-26 divided section.
- Concept 2 includes a right exit/entrance interchange, a diverging diamond interchange (DDI) configuration, and is located at the center of the I-26 divided section.
- Concept 3 includes a left exit/entrance interchange, a traditional diamond configuration, and is located at the north end of the I-26 divided section.

*Exhibit 1. Concept Preferences*



Based on comments received, Concept 2 is the most preferred concept with 104 responses (39%) in favor. Favorable responses for Concept 2 focused on topics of safety and congestion applied to a right exit/entrance interchange. Several comments about the diverging diamond interchange (DDI) configuration were also received. Some favored the “non-traditional” interchange form while others opposed; both sides reference other diverging diamond interchanges (DDIs) including I-26 Exit 40 (NC 280/Airport Road) to support their position. Several respondents indicated favor for Concept 2 as the only “traditional” right exit/entrance interchange, noting specific concerns for trucks navigating the steep grades in the project area and using a left exit/entrance (in Concepts 1 or 3).

Concept 3 was the second most preferred with 57 respondents (22%) selecting it. Respondents expressed a preference for Concept 3 because of lower potential environmental impacts, including to the Biltmore Estate and streams and wetlands, and lower cost estimates. However, concerns regarding ramp and merge lane lengths were also raised regarding Concept 3.

The No Build option was preferred by 32 responses (12%) and 24 responses (9%) preferred Concept 1. Forty-seven (47) responses (18%) did not explicitly state a preferred concept.

#### GENERAL PROJECT OPINIONS:

Though not asked specifically, several respondents indicated a position of support or opposition for the proposed project in general. Sixteen (16) respondents (6%) explicitly stated opposition and twelve (12) respondents (5%) expressed explicit support for the proposed project. Generally, the responses that opposed the proposed project expressed concerns including increased congestion on N.C. 191, public funding of a transportation project that appears, in the commenter's opinion, to benefit private interests, and environmental impacts in this area.

#### PREFERRED ALTERNATIVE SELECTION:

NCDOT and the Federal Highway Administration (FHWA) selected Concept 3 as the Preferred Alternative for HE-0001. In conjunction with federal and state environmental agency partners, Concept 3 was also determined the Least Environmentally Damaging Practicable Alternative (LEDPA) on February 9, 2022.

Public comments are one consideration among many that NCDOT considers when deciding on the Preferred Alternative. In addition to public comments, NCDOT must weigh impacts to the natural and human environments, safety and traffic operations, and cost. The selection of the Preferred Alternative was not based on any one single comment and does not reflect popular or majority preference.

#### GENERAL RESPONSE TO COMMENTS:

NCDOT and the design team reviewed each public comment and is providing general responses. Comments are summarized below by subject. Where multiple topics were raised within a single subject, these topics are bulleted. NCDOT's response is *italicized* following the summary of the comment subject or topic.

#### **Design**

Sixty-six comments were received relating to the design of the interchange concepts.

- Several comments about interchange design standards and best practices related to the left exit/entrance interchange concepts were received. (Note: These comments typically raised concerns for safety. These concerns are addressed in more detail under **Safety** below).

*NCDOT developed the left exit/entrance interchange option through coordination with FHWA to avoid potential impacts to the Biltmore Estate (National Historic Landmark)*

*and water resources, including Federal Emergency Management Administration (FEMA) -regulated floodplains adjacent to the French Broad River.*

*NCDOT is coordinating closely with the FHWA on the proposed new interchange access. FHWA is charged with administering the design and construction of the Interstate System. In this role, FHWA is responsible for protecting the structural and operational integrity of the Interstate System.*

*NCDOT prepared an Interstate Access Report (IAR) for this project that provides the information required to comply with FHWA's Policy on Access to the Interstate System. The left exit/entrance interchange option was evaluated for safety and operational acceptance. FHWA reviewed the IAR and determined the left exit/entrance interchange meets the FHWA's criteria for safety and operations.*

*Each project should be evaluated based on the unique qualities and characteristics that make up the site. FHWA and NCDOT standards do not dictate which side of the interstate traffic must exit/enter but do define minimum safety and design requirements. The Preferred Alternative will be designed to meet or exceed all current applicable safety and design standards.*

- Additional comments were received about the length of the on- and off-ramps included in the Concept 3 design.

*Design refinements for Concept 3 (Preferred Alternative) have resulted in lengthening the on- and off-ramps. All designs must meet or exceed current design and safety standards as defined by the American Association of State Highway and Transportation Officials (AASHTO) Greenbook, including but not limited to minimum interstate acceleration and deceleration lane lengths.*

- As noted in the Concept Preference Section (above), several comments were received regarding the diverging diamond interchange (DDI) design, both in favor and opposed. A few of those comments questioned the suitability of the diverging diamond interchange (DDI) for this location. (Note: Some of these comments raised concerns about the safety of a diverging diamond interchange (DDI). These concerns are addressed in more detail under **Safety** below).

*NCDOT considered the diverging diamond interchange (DDI) design, included in Concept 2, as a feasible and practical design solution for HE-0001. However, based on the review of impacts to the natural and human environments, safety and traffic operations, probable cost, and public comments, NCDOT did not select Concept 2 as the Preferred Alternative.*

*As design progresses for the Preferred Alternative, NCDOT will continue to evaluate operational and safety enhancements. The diverging diamond interchange (DDI) design is among the options available to NCDOT to maximize operational and safety benefits applied to the Preferred Alternative. In addition to the safety benefits described in the following section, the diverging diamond interchange (DDI) configuration appears to*

*have operational benefits including allowing westbound, or Asheville-bound, traffic to continuously flow through the interchange to a single traffic signal on the west side of the interstate. No other intersection control (e.g., stop sign, traffic signal) would be required on the interchange.*

### **Safety**

Thirty-six comments were generally about the safety aspects of the project, specifically the safety of the left exit/entrance interchange concepts.

*NCDOT prepared an Interstate Access Report (IAR) for this project that provides the information required to comply with FHWA's Policy on Access to the Interstate System. The left exit/entrance interchange option was evaluated for safety and operational acceptance. FHWA has reviewed the IAR and, based on this analysis, the Preferred Alternative meets the FHWA's criteria for safety and operations.*

*There are several left exit/entrance interchanges across the state with a few in the Asheville area. Among the safety and design standards applied to left exit/entrance interchanges are requirements for sight distance as defined by the AASHTO Greenbook. The Preferred Alternative will be designed to meet or exceed sight distance requirements along with other FHWA design requirements. Additionally, adequate advance signage will be provided to alert travelers that the next exit will be a left exit/entrance. The roughly two-mile distance between this project and adjacent interchanges at Exit 33 and Exit 37 is considered optimal interchange spacing and will permit adequate advance signage.*

- As noted in the Concept Preference Section (above), several comments were received regarding the diverging diamond interchange (DDI) design, both in favor and opposed. Multiple comments that expressed opposition to the diverging diamond interchange (DDI) noted safety concerns associated with the design.

*NCDOT considered the diverging diamond interchange (DDI) design, included in Concept 2, as a feasible, practical, and safe design solution for HE-0001. However, based on the review of impacts to the natural and human environments, safety and traffic operations, probable cost, and public comments, NCDOT did not select Concept 2 as the Preferred Alternative. The diverging diamond interchange (DDI) design may be further considered for inclusion in the Preferred Alternative.*

*Some benefits of the diverging diamond interchange (DDI) may include free-flowing turns when entering and exiting an interstate, eliminating the left turn against oncoming traffic, and limiting the number of traffic signal phases. In a national study, the design reduced crashes by an average of 37 percent after it was constructed at 26 interchanges across the United States. The design also reduced injury and fatal crashes by an average of 54 percent. (Source: 2019 article published in the Transportation Research Record, the journal for the Transportation Research Board). NCDOT has constructed 13 diverging diamond interchanges (DDIs) across the state, including one in Asheville at I-26 Exit 40 (N.C. 280/Airport Road), and continues to evaluate the diverging diamond*

*interchange (DDI) for applicability for all new interchange and interchange modification or improvement projects.*

## **Traffic**

Twenty-eight comments were received about potential future traffic conditions. Most of these traffic-related comments were general in nature and are addressed in the first bullet. Other, more specific traffic-related comments and responses follow.

- Several general comments were received about future projected traffic volumes associated with this proposed interchange and how this project may affect traffic conditions on other area transportation facilities.

*NCDOT completed a traffic forecast for this project to understand the current travel patterns and traffic volumes and to estimate future travel patterns and traffic volumes for the area roughly stretching from Exit 33 (N.C. 191/Brevard Road) to Exit 37 (N.C. 146/Long Shoals Road) on I-26, and on N.C. 191 (Brevard Road). By adding a new interchange at this location, drivers will have an alternate access between N.C. 191 and I-26. Based on traffic analysis conducted for this project, a new interchange at this location will relieve future projected traffic congestion at Exits 33 and 37 and along portions of N.C. 191, notably south of the Blue Ridge Parkway.*

*Future traffic projections include assumptions for population and employment growth in the area consistent with the local travel demand model developed and maintained by the French Broad River Metropolitan Planning Organization (FBRMPO). Future traffic projections also account for the planned development of the Biltmore Farms, LLC property west of I-26 and bounded on the north, west, and south sides by the French Broad River. The private development is currently underway and is planned to continue with or without this project.*

*Based on the traffic forecast, the proposed interchange would process 19,500 vehicles per day (vpd) on average in the future year, defined as 2045 for traffic projections. Without the proposed interchange, future projected traffic would rely on N.C. 191 for greater distances and contribute to traffic congestion on N.C. 191 and at Exits 33 and 37 on I-26. A new interchange will provide an alternate access between N.C. 191 and I-26 and redistribute trips, allowing local drivers to remain on I-26 longer (which is currently being widened to four lanes in each direction of travel as part of STIP project I-4700), as opposed to using Exits 33 and 37 to access N.C. 191 in this area.*

- Multiple comments were received related to right-lane truck restrictions on I-26 and how they may influence the use of a left exit/entrance interchange.

*Truck traffic is currently restricted to the right lane through this section of I-26. However, truck restrictions are being evaluated and will be coordinated with the Preferred Alternative. Any modifications to truck restrictions would take place once the I-26 Widening Project (STIP projects I-4400/I-4700) is completed, currently scheduled for the end of 2024. This project is proposed to open in coordination with the I-26 Widening Project.*



- Several comments expressed concerns for the potential traffic impacts to N.C. 191 (Brevard Road), including a couple of comments specifically noting existing conditions (e.g., congestion, safety, etc.) at the Clayton Road intersection.

*Without the proposed interchange, future projected traffic would rely on N.C. 191 for greater distances and contribute to traffic congestion on N.C. 191 and at Exits 33 and 37 on I-26. A new interchange will provide an alternate access between N.C. 191 and I-26 and redistribute trips, allowing local drivers to remain on I-26 longer (which is currently being widened to four lanes in each direction of travel as part of STIP project I-4700), as opposed to using Exits 33 and 37 to access N.C. 191 in this area.*

*The NCDOT State Transportation Improvement Program (STIP) includes a proposed project to widen N.C. 191 from Leadbetter Road (SR 3498) to north of the Blue Ridge Parkway Access Road (STIP Project No. U-3403B). The current STIP schedule includes right of way acquisition beginning in 2029 and construction beginning after 2030. There are currently no planned improvements to N.C. 191 north of the U-3403B project.*

*NCDOT-Division 13 has identified construction funding for improvements to the Clayton Road intersection with N.C. 191 and plans to complete construction in Spring 2022. NCDOT-Division 13 is planning to add a southbound left turn lane on N.C. 191 and a signal at this location.*

- Several comments mentioned the presence of tourist traffic in the area; one comment specifically asked whether tourist traffic (a.k.a. “recreational trips”) are accounted for in traffic analyses for this project.

*The FBRMPO Travel Demand Model (TDM) accounts for all types of trips and roadway users, including tourist (recreational) trips. A dedicated submodel does this by locating lodging accommodations (e.g., hotels, motels, cabins, etc.) and major tourist attractions (e.g., Biltmore Estate, Blue Ridge Parkway, NC Arboretum, etc.). It is calibrated with visitation numbers provided by those organizations. The TDM also provides for other types of trips tourist make, such as shopping and dining. Another submodel strictly accounts for RV Camp residents. The TDM is calibrated around a spring day to best match other data sources like the census.*

- A few commentors asked whether traffic justified consideration of a diverging diamond interchange (DDI).

*The diverging diamond interchange (DDI) is one way to accommodate traffic safely and efficiently at an interchange. There is not a vehicle threshold that must be met to justify the diverging diamond interchange (DDI) interchange. As design progresses for the Preferred Alternative, NCDOT will continue to evaluate operational and safety enhancements. The diverging diamond interchange (DDI) design is among the options available to NCDOT to maximize operational and safety benefits applied to the Preferred Alternative.*

- A few commenters asked whether the proposed design would accommodate future traffic volumes. Specifically, these questions related to the proposed interstate bridge (i.e., overpass) and the proposed two-lane connector road.

*Based on the traffic forecast for this project, NCDOT has determined that the two-lane typical section for the roadway connection will meet future year (2045) projected traffic volumes. Further, the two-lane typical section is consistent with the roadway currently under construction by a private developer between N.C. 191 (Brevard Road) and this proposed project.*

*The proposed interstate bridge will be constructed to accommodate future projected traffic in 2045. The proposed bridge will be constructed in a manner that it could be expanded if needed at some point in the future.*

- Similarly, a handful of comments asked whether the proposed intersection design(s) would accommodate future traffic volumes.

*The intersections that will serve the proposed interchange exit and entrance ramps are currently shown as signalized intersections. However, the exact intersection treatments at these locations have not been finalized. NCDOT will continue to evaluate alternative intersection configurations, e.g., roundabouts, as more detailed traffic operations are finalized.*

*NCDOT is in the process of finalizing detailed traffic capacity and operational analyses. These analyses will take into consideration AM and PM peak hour travel. NCDOT will make final design decisions – like the number and length of turn lanes – based on these detailed traffic analyses along with operational considerations, among other factors. NCDOT will design intersections to adequately accommodate the future projected traffic in 2045.*

## **Environmental**

Twenty comments mentioned the natural or human (e.g., Biltmore Estate, Blue Ridge Parkway) environment.

- These comments were generally about the potential impacts to the environment by the proposed project.

*NCDOT works with federal and state environmental agencies at multiple steps throughout the project development and environmental permitting process and continuously works to avoid and minimize impacts to the natural and human environments.*

*Minimization measures for unavoidable impacts are being developed through coordination with federal and state environmental regulatory and resource agencies including the United States Fish and Wildlife Service, the North Carolina Wildlife Resources Commission, U.S. Army Corps of Engineers, the North Carolina Historic Preservation Office and Office of State Archaeology, and the N.C. Division of Water*

*Resources, among others. The Preferred Alternative design will be refined based upon more detailed traffic analyses. NCDOT will continue to evaluate ways to modify the design to further avoid and minimize impacts to physical and natural environments, including but not limited to water resources and tree clearing. Impacts to wetlands and streams that cannot be avoided or further minimized will be compensated with mitigation agreed to by the permitting agencies.*

*Water quality impacts will be avoided and/or mitigated through compliance with state and federal regulations covering watershed protection, floodplain protection, stream and river buffers, and stormwater management.*

*NCDOT will continue to avoid and minimize impacts caused by the project to the greatest extent practicable during final design and construction.*

- One comment specifically asked about the provision for wildlife crossings.

*Avoidance and minimization to wildlife can be accomplished in many different project/situation-specific methods. NCDOT and state and federal agency partners responsible for wildlife protection will examine what is most appropriate for the project. There are currently no plans to incorporate wildlife crossings as part of the proposed project.*

### **Bicycle and Pedestrian**

Three general comments were received about the provision for sidewalks and/or bicycle facilities (e.g., bicycle lanes) as part of the proposed project.

*Through coordination with Buncombe County and the French Broad River Metropolitan Planning Organization (FBRMPO), in accordance with the NCDOT Complete Streets Policy, NCDOT will construct a separated sidewalk along one side of the proposed roadway. No designated bicycle accommodations are proposed. This is consistent with the roadway under construction by a private developer which will include pedestrian accommodations east of N.C. 191. It is anticipated that this road segment constructed by others will be accepted into the state roadway system upon its completion and inspection.*

*Because the proposed roadway will terminate into I-26, and there are no plans for the proposed interchange to provide access east of I-26 to the Biltmore Estate property, no through bicycle or pedestrian traffic will be permitted along the controlled access section. This means the separated sidewalk will end 1,000 feet from the I-26 eastbound (Hendersonville-bound) ramp intersection.*

### **Project Need**

Three comments were received regarding the proposed project's need.

*NCDOT is responding to a transportation need: to address the lack of network connectivity between N.C. 191 and I-26 in southern Buncombe County to accommodate current and planned growth.*

*The purpose of the project is to provide access to I-26 and improve east-west connectivity within the project vicinity to accommodate current and planned growth.*

### **Project Funding**

Eleven comments were received regarding availability of funding for this proposed project. Some commenters questioned whether this proposed project would change local transportation funding priorities.

*This project is currently funded for preliminary engineering and planning studies through state funds. State funds in the amount of \$30 million has been appropriated for the project. NCDOT is currently pursuing other funding options to construct the proposed project, including but not limited to federal grants. The N.C. State Budget Bill (SL 2024-180) includes funds directly allocated to this project. Based on the current projected cost for the project, NCDOT would not need to reallocate funds currently available in the State Transportation Improvement Program (STIP) to pay for this project. At this time, NCDOT does not anticipate that this project will affect the prioritization of other local transportation projects included in the STIP.*

*Lastly, NCDOT will continue to refine the Preferred Alternative based on several considerations, including cost-saving measures.*

### **Other**

Twenty-two comments were categorized as “other”. These comments tended to be specific in nature and are addressed below.

- One comment was received about the cost estimate associated with the diverging diamond interchange (DDI) (Concept 2), noting that the NCDOT website lists cost-effectiveness as a benefit of the diverging diamond interchange (DDI); however, Concept 2 is the most expensive option.

*The information regarding cost effectiveness included on the NCDOT "Diverging Diamond Interchanges" Website<sup>1</sup> is relative to improvement projects and not new location interchanges: "For improvement projects, a diverging diamond interchange often uses the existing bridge structure and the existing right of way, eliminating the cost of building new structures and purchasing additional right of way. Because many existing interchange features remain intact, the diverging diamond interchange is often built in less time than it would take to build a new interchange and with significantly less impact to motorists."*

*In the case of Concept 2, higher cost estimates compared to Concepts 1 and 3 appear to be attributable to the inclusion of two interstate bridges (as opposed to one interstate bridge in Concepts 1 and 3); right-of-way cost estimates associated with the Biltmore Estate property; and more grading (or earthwork) associated with construction.*

---

<sup>1</sup> [www.ncdot.gov/initiatives-policies/Transportation/safety-mobility/diverging-diamond-interchanges/Pages/default.aspx](http://www.ncdot.gov/initiatives-policies/Transportation/safety-mobility/diverging-diamond-interchanges/Pages/default.aspx)

*As design progresses for the Preferred Alternative, NCDOT will continue to evaluate operational and safety enhancements. The diverging diamond interchange (DDI) design is among the options available to NCDOT to maximize operational and safety benefits applied to the Preferred Alternative.*

- One comment was received that indicated that this proposed project would connect directly to Biltmore Park to alleviate congestion at the N.C. 146 (Long Shoals Road) interchange with I-26.

*This project will not make improvements to the I-26 interchange with Long Shoals Road (Exit 37) or include a direct connection to Biltmore Park (Schenck Parkway). The proposed project will introduce a new interchange between Exit 37 and Exit 33 (N.C. 191/Brevard Road) and connect to Frederick Law Olmsted Way East, a roadway that is being constructed by a private developer with access to N.C. 191. By adding a new interchange at this location, drivers will have an alternate access between N.C. 191 and I-26. Based on traffic analysis conducted for this project, a new interchange at this location will relieve future projected traffic volumes at Exits 33 and 37 and along portions of N.C. 191, notably south of the Blue Ridge Parkway.*

- One comment asked for more details about the turning movement counts provided on the Public Meeting Maps.

*The turning movement counts provided on the project's Public Meeting Maps are from the traffic forecast for this project and are average daily total counts. NCDOT is finalizing detailed traffic capacity and operational analyses currently which will detail the turning movements for AM and PM peak hour movements. These figures will be used to determine design details (e.g., number of turn lanes, turn lane lengths) according to NCDOT standards and incorporated in the final design of the Preferred Alternative.*

- A couple of other comments specifically asked about the planned Bent Creek Greenway and access to the French Broad River.

*NCDOT is aware of Buncombe County's Greenway Master Plan (2012) and the Bent Creek Greenway. NCDOT will continue to coordinate with the County and FBRMPO to determine how this project may interact with the future planned greenway extension. The current plan shows the Bent Creek Greenway following the west side of the French Broad River through this section.*

*NCDOT's project does not cross the French Broad River. The roadway constructed by others crosses the river to the west of NCDOT's proposed transportation improvements.*

- A couple of comments were received specifically about the status of NCDOT's I-40/Liberty Road Interchange Project (STIP No. I-4759).

*NCDOT continues to advance the Liberty Road interchange with I-40 (STIP Project No. I-4759). Right of way acquisition and utility relocation is currently in progress. The current NCDOT State Transportation Improvement Program (STIP) includes funding for*

*construction of the interchange beginning in 2025. Construction is expected to last four years, ending in 2029.*

- A couple of comments expressed a concern that travelers would not be able to turn around by using the diverging diamond interchange (DDI) (Concept 2), e.g., if a traveler accidentally exited I-26 in the diverging diamond interchange (DDI) design.

*Though NCDOT did not select Concept 2, which included the diverging diamond interchange (DDI) design, as the Preferred Alternative, the diverging diamond interchange (DDI) design may be further evaluated in conjunction with the Preferred Alternative. In a diverging diamond interchange (DDI) scenario at this location, travelers who may need to turn around (i.e., change direction of I-26 travel) could use the roundabout, currently under construction by a private developer, approximately 3/4-mile west of the proposed interchange.*



## **Indirect and Cumulative Effects Report**



# STIP HE-0001 Buncombe County

## SHORT FORM INDIRECT AND CUMULATIVE EFFECTS REPORT

### Executive Summary

<b>Planner, firm:</b>	Scott Duncanson, AICP, Gannett Fleming	<b>Division:</b> 13	<b>Existing No. of Lanes:</b> N/A	<b>Existing Median:</b> Yes
<b>NCDOT/Local Project Manager:</b>	McCray Coates, PE	<b>WBS:</b> 49742	<b>Proposed No. of Lanes:</b> N/A	<b>Addition of Median(s):</b> No
<b>Document Type:</b> <input checked="" type="checkbox"/> NEPA <input type="checkbox"/> SEPA	<b>Project Administration:</b> <input checked="" type="checkbox"/> Division <input type="checkbox"/> Central <input type="checkbox"/> Locally Administered Program Project (LAPP)	<b>Existing control of access:</b> <input type="checkbox"/> No Control <input type="checkbox"/> Partial Control <input type="checkbox"/> Limited Control <input checked="" type="checkbox"/> Full Control	<b>Proposed control of access:</b> <input checked="" type="checkbox"/> No Control (2-lane roadway extension) <input type="checkbox"/> Partial Control <input type="checkbox"/> Limited Control <input checked="" type="checkbox"/> Full Control (I 26 interchange)	
<b>Project Type</b> <input type="checkbox"/> Interchange Modification <input checked="" type="checkbox"/> Creation of Interchange <input type="checkbox"/> Roadway Widening <input checked="" type="checkbox"/> Roadway on New Location		<b>Project Scale</b> <i>Length</i> <input checked="" type="checkbox"/> Interchange Project <input checked="" type="checkbox"/> Roadway Project 0 – 2 miles <input type="checkbox"/> Roadway Project 2 – 4 miles <input type="checkbox"/> Roadway Project > 4 miles <i>Right-of-Way</i> <input type="checkbox"/> Project within existing ROW <input checked="" type="checkbox"/> Project requires additional ROW		
<b>CS Project Reviewer (if applicable):</b>	Herman Huang	<b>Project Description from STIP:</b> Construct new interchange near I 26-mile marker 35 in Buncombe County, NC.		

The North Carolina Department of Transportation (NCDOT) Division 13 has begun the planning and environmental studies for STIP Project HE-0001 (the project), a proposed new interchange along Interstate 26 (I 26) in Buncombe County, NC. The proposed project is located approximately 6 miles south of Asheville near I 26-mile marker 35, north of the Blue Ridge Parkway (BRP) and south of the French Broad River (FBR) bridge.

The proposed project is needed to address the lack of network connectivity between NC 191 and I 26 in southern Buncombe County to accommodate current and planned growth.

The purpose of the project is to provide access to I 26 and improve east-west connectivity within the project vicinity to accommodate current and planned growth.

To address the lack of network connectivity between NC 191 and I 26 in southern Buncombe County, and to accommodate current and planned growth, NCDOT proposes to construct a new interchange on I 26 and a two-lane roadway to connect the proposed interchange to a road (Frederick Law Olmsted Way East) that is currently being constructed by Biltmore Farms, LLC (a private developer) (Figure 1). This new interchange would connect to NC 191 via the proposed roadway connection and Frederick Law Olmsted Way East. Frederick Law Olmsted Way East is being paved as two lanes but has been graded to allow for a future four-lane cross-section. Biltmore Farms, LLC is also constructing a new bridge over the FBR, to connect Frederick Law Olmsted Way East to the existing BRP Access Road/Frederick Law Olmsted Way intersection and enable access via NC 191. NCDOT anticipates accepting Frederick Law Olmsted Way East and the new bridge (which are not part of HE-0001) into the State highway system within a few months following completion, which is anticipated in 2022.

The new bridge and roadway will provide access to the Biltmore Farms, LLC property (aka Biltmore Park West) (see Figure 5, in Appendix A). The Pratt & Whitney (P&W) Advanced Manufacturing Center, currently under construction, is the first development in Biltmore Park West. It consists of a 1 million-square-foot advanced manufacturing center which is planned to begin manufacturing operations by the end of 2022.

The project is anticipated to improve traffic operations along roadways and intersections throughout the study area by introducing a new access to the interstate, thus improving mobility and connectivity to meet future travel demand projected as a result of Buncombe County population and employment growth. Improved access would provide for the efficient and reliable movement of people and goods into and out of the Biltmore Farms property as well as to and from the NC 191 corridor, including but not limited to the NC Arboretum and Blue Ridge Parkway.

This report analyzes growth trends and potential development between 2021 and 2045. The planning horizons provided in adopted local planning studies and from local planning stakeholders consulted ranged from 2030 - 2045. Projected future traffic volumes are available for 2045. Therefore, a future planning horizon of 2045 was selected as it encompasses the range of planning horizons available and traffic projections are readily available.

The purpose of the project is to accommodate current and planned growth in the project vicinity. The proposed project is consistent with local goals. In December 2020, the Buncombe County Board of Commissioners (BOC) executed an incentive agreement with P&W. In exchange for County incentives of \$27 million, P&W will build a 1 million square foot advanced manufacturing center on 100 acres in Biltmore Park West and will commit to create 750 full-time jobs associated with the Advanced Manufacturing Center by the end of 2029.

Future planned actions include the continued development of Biltmore Park West, which would include mixed uses consisting of industrial, institutional, commercial, and residential land uses. It is assumed additional interior roadways and utility infrastructure would be associated with the planned future build-out of the property. The following proposed land-uses and quantities were provided by the private developer in May 2020:

- 1,218 Residential dwelling units (Townhouses and Apartments)
- 178,000 square feet of Retail/Office
- 120-room Hotel
- 60,000 square feet of Public Service/Institutional
- 460,000 square feet of Industrial (note this is above and beyond the 1 million-square-foot P&W Advanced Manufacturing Center currently under construction)

NCDOT is currently constructing the I 26 widening project (STIP Project I-4400/I-4700) to widen I 26 from 4 lanes to 8 lanes (4 lanes in each direction of travel) through the project area to address capacity deficiencies on the interstate. The widening project also includes the replacement of the Blue Ridge Parkway Bridge over I 26 on new alignment to accommodate the interstate widening within the FLUSA. STIP Project I-4400/I-4700 is anticipated to be complete in 2024.

NCDOT STIP Project U-3403B is proposed to widen NC 191 (Brevard Road) to four lanes approximately one mile west of the proposed project and running south of Fredrick Law Olmsted Way East. This project is currently programmed in the STIP for ROW and utilities in fiscal year 2029, with additional ROW, utilities, and construction unfunded (future years, post 2029). Planning and development of this project was placed on hold in 2019 and has not yet been reinitiated by NCDOT. Analyses for the STIP Project U-3403B would have to be updated to account for a future transportation network scenario that includes STIP Project HE-0001.

Buncombe County Recreation Services is in collaboration with other municipalities to develop a regional greenway system that would link existing and proposed greenways together to create a cohesive network over the next 10-20 years. The system would provide safe, equitable access to parks, schools and communities. Bent Creek Corridor was identified as a priority location which travels along the French Broad River on the west side of the FLUSA (Buncombe County Greenways & Trails Master Plan).

**Table 1: Notable State and Private Projects**

<b>County</b>	<b>Owner</b>	<b>Description</b>	<b>Status</b>
Buncombe	NCDOT	STIP Project I-4700: widening of I 26 to eight-lanes including the widening/replacement of the I 26 bridge over the FBR from NC 280 (Airport Road/exit 40) to the I-40/I-240 interchange	<i>Underway</i>
Buncombe	NCDOT	STIP Project U-3403B: widening of NC 191 south of Fredrick Law Olmsted Way East	<i>Planned</i>
Buncombe	Private Developer	Pratt & Whitney Advanced Manufacturing Center: 1-million square foot manufacturing facility	<i>Underway</i>
Buncombe	Private Developer	Biltmore Park West: mixed use	<i>Planned</i>
Buncombe	County	Regional greenway system to provide safe, equitable access to parks, schools and communities.	<i>Planned</i>

NCDOT is preparing a Type III Categorical Exclusion which will evaluate the potential effects of the proposed project on the human and natural environment. Notable environmental features include the Biltmore Estate; the Blue Ridge Parkway, and a National Park Service unit; the Mountains-to-Sea Trail; jurisdictional waters; and suitable habitat for federally protected species including the Northern long-eared bat (threatened) and gray bat (endangered)<sup>1</sup>. Direct natural environmental impacts by NCDOT projects would be addressed by avoidance, minimization, or mitigation, consistent with programmatic agreements with the natural resource agencies during the Section 404/NEPA Merger and Permitting processes.

NCDOT is anticipating the potential need for a Section 404 individual permit (IP) to authorize impacts to jurisdictional waters. In consideration of the permitting needs and the presence of conflicting resources the proposed project is following the Section 404/NEPA Merger Process. Further, in consideration of the potential IP, NCDOT is conducting public involvement activities for the proposed project.

NCDOT hosted a combined Concurrence Point 1 and 2 Merger Meeting on July 15, 2021. The Merger Team agreed to the project need and purpose and project study area (Concurrence Point 1) and the detailed study alternatives (DSAs) to be carried forward (Concurrence Point 2) at that meeting<sup>2</sup>. Three DSAs are being carried forward for detailed study (Table 2).

<sup>1</sup> While suitable habitat for the Appalachian elktoe (endangered) is not included in the project study area, the FLUSA includes a section of the French Broad River which is suitable habitat for this protected aquatic species. Jurisdictional waters in the project study area drain directly to the French Broad River and direct impacts to these waters will be evaluated for appropriate water quality management techniques.

<sup>2</sup> All regulatory and resource agencies concurred except NCWRC, who abstained from concurrence.

<b>Table 2. Build Alternative Description</b>	
<b>Build Alternative</b>	<b>Description</b>
Alternative 1	<ul style="list-style-type: none"> <li>• left exit/entrance ramp</li> <li>• Diamond configuration</li> <li>• center of the I 26 bifurcated section</li> </ul>
Alternative 2	<ul style="list-style-type: none"> <li>• right-exit/entrance ramp</li> <li>• Diverging diamond (DDI) configuration</li> <li>• center of the I 26 bifurcated section</li> </ul>
Alternative 3	<ul style="list-style-type: none"> <li>• left exit/entrance ramp</li> <li>• Diamond configuration</li> <li>• North end of the I 26 bifurcated section</li> </ul>

### **Future Land Use Study Area**

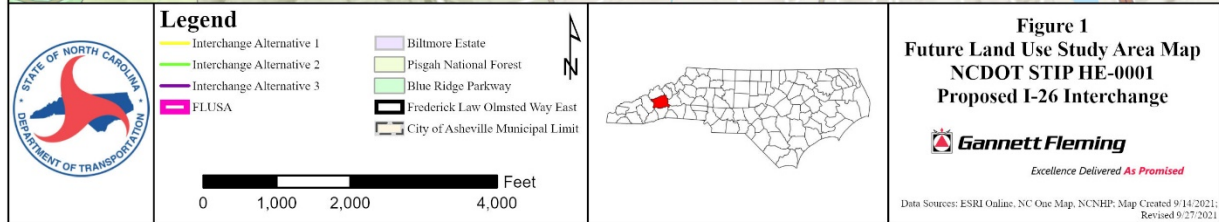
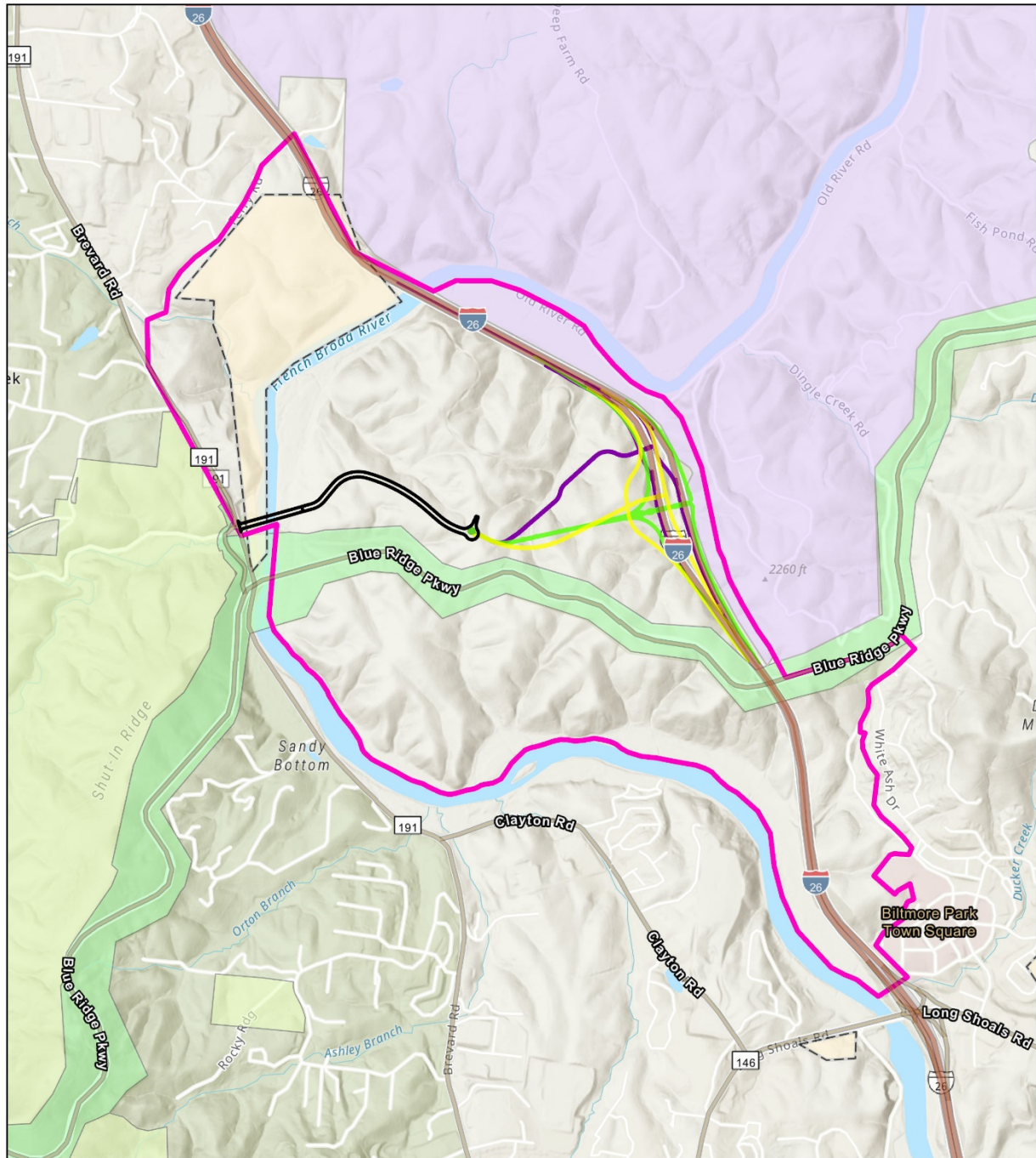
The Future Land Use Study Area (FLUSA) is the area surrounding a planned project that could potentially be indirectly affected as a result of the completion of a project and associated projects. The FLUSA encompasses the area examined for potential increases in development pressure as a result of project construction.

The proposed FLUSA is generally bounded by:

- Ferry Road to the north;
- I 26 corridor, French Broad River and Buncombe County parcel boundaries to the east;
- Buncombe County parcel boundaries to the south;
- French Broad River and Brevard Road (NC 191) to the west.

The FLUSA encompasses all of the areas examined for potential increases in development pressure as a result of the new interchange and other foreseeable projects in the area. The FLUSA is shown in Figure 1.

## FLUSA





### Indirect Effects Matrix and Methodology

The categories listed on the Indirect Effects Matrix have been shown to influence land development decisions in numerous areas statewide and nationally. The measures used to rate the impacts from a high concern for indirect effects potential to less concern for indirect effects potential are supported by documentation sections. Each characteristic is assessed individually, and the results of the table are looked at comprehensively to determine the indirect effects potential of the proposed project. The scope of the project and change in accessibility categories are given extra weight to determine if future growth in the area is related to the project modifications.

The ratings for the categories in the matrix are the same for each of the three DSAs.

Indirect Effects Matrix - TIP HE-0001- New I 26 Interchange										
Rating	Scope of Project	Travel Time Savings	Forecasted Population Growth	Forecasted Employment Growth	Available Land	Water/Sewer Availability	Market for Development	Public Policy	Notable Natural Environmental Features	Result
More Concern	High	> 10-minute travel time savings	> 3% annualized population growth	> 3% annualized employment growth	40% or greater of available land	Services available (80 - 100% of FLUSA served)	Development Activity Abundant	Less stringent; no growth management	Notable Feature(s): Abundant / More Sensitive	
High						x	x		x	Land Use Scenario Assessment Warranted
Medium-High	x	x								
Medium					x					
Medium-Low			x	x				x		
Low										
Less Concern	Low	No travel time savings	No population growth or decline	No employment growth or decline	0 - 9% of available land	Limited or no service available now or in future (0 - 20% of FLUSA served)	No Development Activity	More stringent; growth management	Notable Feature(s): Minimal / Less Sensitive	

## **Summary Report**

**Scope of Project** – To address the lack of network connectivity between NC 191 and I 26 in southern Buncombe County, and to accommodate current and planned growth, NCDOT proposes to construct a new interchange on I 26 and a two-lane roadway to connect the proposed interchange to a road (Frederick Law Olmsted Way East) that is currently being constructed by Biltmore Farms, LLC. Because this project is a new location interchange and increases access, this category was given a Medium-High rating.

**Travel Time Savings** – A qualitative method, utilizing Google Maps, PM Peak Hour (5:30 PM) conditions and proposed project design, was applied for travel time savings estimates. For purposes of this high-level connectivity review, the following assumptions were made about the proposed new alignment roadway:

- 35 mph travel speed;
- distance between Biltmore Park West roundabout and NC 191 estimated to be 0.6 mi (resulting in 1:02 mins travel time); and
- distance between Biltmore Park West roundabout and I 26 estimated at 0.7 mile (resulting in 1:12 mins travel time).

Currently motorists accessing the area within the FLUSA from I 26 use Exit 33 (NC 191/Brevard Road) and Exit 37 (NC 146/Long Shoals Road) which contributes to congestion at these interchanges and connecting roadways. It is estimated that there is currently a 9- to 14-minute travel time between the adjacent interchanges and the project area. These travel times would be expected to increase in the future No Build scenario because of increased traffic volumes and traffic congestion on NC 191 and other local roads.

Under the Build scenario, the proposed interchange would create a direct access point to the area within the FLUSA. Travel time savings between the adjacent interchanges and the project area are anticipated to be between 7 and 12 minutes. These travel time savings would not differ by detailed study alternative (DSA). The proposed project would provide an alternate route for drivers to choose. While the approved Traffic Forecast for the project indicates that the proposed project would divert some traffic from the existing interchanges (exits 33 and 37), some drivers will continue to use those existing routes depending on their origin, destination and other considerations. Therefore, this category was rated Medium-High.

**Forecasted Population Growth** – According to North Carolina's Office of State Budget and Management (NCOSBM), the population in Buncombe County has grown steadily over the past two decades. The population of Buncombe County grew by 36.68% (1.57% annually) from 1990 to 2010. In comparison the State grew by 43.77% (1.83% annually) from 1990-2010. From 2010-2019 the population of Buncombe County grew by 10.21% (1.09% annually) while the State's population grew by 9.98% (1.06% annually).

Additionally, according to NCOSBM the population in Buncombe County is anticipated to increase at slower rate of 0.68% annually from 2020 to 2045, while the State's population is expected to increase 0.95% annually from 2020 to 2045.

Discussions with local planners concluded that because a majority of the land within the FLUSA is vacant, any new development would contribute to a higher population growth rate within the FLUSA than the surrounding area.

This category was rated Medium-Low.

**Forecasted Employment Growth** – According to NC Department of Commerce-Labor and Economic Analysis, the 2018-2028 (latest projection year available) annualized employment growth rate for the Asheville Region is 0.6%, which falls in the greater than 0% to 1% medium-low rating. Within the FLUSA, P&W Advanced Manufacturing Center has committed to 750 jobs by 2029.

Discussions with local planners concluded that because a majority of the land within the FLUSA is vacant, any new development would contribute to a higher employment growth rate within the FLUSA than the surrounding area.

**Available Land** – There are approximately 1,592 acres of land within the FLUSA. After subtracting right-of-way, stream buffers, floodplains, slopes greater than 30% and previously developed land (e.g., Pratt & Whitney Advanced Manufacturing Center, houses, Bent Creek Baptist Church), approximately 495 acres of land (31%) remains available for development. The ratio of available parcels (n=76) to owners (n=58) is 1.3-to-1 so the weighting factor would be 0.75. Thus, 23% of the land remains available for development after the ratio of available parcels to owners is factored into the calculations. Because the available land is between 20%-29% this criterion has assigned a Medium rating.

Coordination with a representative from Biltmore Farms, LLC., confirmed that though the land is available for development, it is committed land for future development. Because this land is not currently under construction, it does not affect the matrix score. As noted, the Pratt & Whitney Advanced Manufacturing Center is currently under construction, so that site is considered to be developed and therefore not available.

**Water/Sewer Availability** – Within the FLUSA, water service is provided by the City of Asheville and sanitary sewer service is provided by the Metropolitan Sewerage District. All major utilities needed for industrial development are available within the FLUSA. Existing sewer lines are primarily along the French Broad River. Water lines are present along NC 191, Ferry Road, and Schenck Parkway. A new water line connection will be established as part of the P&W Advanced Manufacturing Center development providing water access to the interior of the parcel. According to the North Carolina Department of Environmental Quality Division of Water Resources Local Water Supply Plans, Asheville had a total available supply of 41,200,000 gallons per day and a daily water usage of 20,760,500 gallons (50% of capacity) per day in 2020. It is anticipated by the year 2030, the total demand would increase to 25,458,000 gallons (62% of capacity) per day. Based on the existing and planned availability of water and sewer infrastructure within the FLUSA, this category was given a high rating.

**Market for Development** – The proposed interchange would provide network connectivity between NC 191 and I 26 to accommodate current and planned growth. The P&W Advanced Manufacturing Center is currently being developed and is planned to begin manufacturing operations by the end of 2022. The P&W Advanced Manufacturing Center is the first development within the broader planned, mixed-use Biltmore Park West, owned by Biltmore Farms LLC. Biltmore Park West will consist of industrial, institutional, commercial, and residential land uses. Additionally, a feasibility study is in development for the land owned by Buncombe County within the City of Asheville jurisdictional boundary south of Ferry Road, north of the French Broad River. The new connection would provide improved access and movement of people and goods in and out of the FLUSA. Based on the existing and planned development within the FLUSA, this category was given a high rating.

**Public Policy** – The land within the FLUSA is primarily a combination of forest and undeveloped property with some residential properties at the northern limits. Zoning within the FLUSA includes residential, commercial, employment district, and neighborhood service district. Future land use within the FLUSA was designated by Buncombe County as rural/agricultural in the 2006 Proposed Land Use Map (Buncombe County Comprehensive Land Use Plan Update). Within the City of Asheville's jurisdiction, the Asheville Comprehensive Plan adopted in 2018 identified Traditional Neighborhood (mix of residential types with densities of 4-8 units per acre) as the future land use category within the FLUSA with parks/open space bordering the French Broad River.

Buncombe County Chapter 78 Zoning Section 78-79 requires a minimum 100-foot vegetative buffer for all new development activities that exceed low density; otherwise, a minimum 30-foot vegetative buffer for development activities is required along all perennial waters. Additionally, Chapter 78 Zoning Section 78-643 requires the following provisions to all properties within 1,320 feet of the centerline of the Blue Ridge Parkway: principal buildings must set back a minimum of 50 feet and accessory buildings must set back a minimum of 30 feet from the parcel boundary; no buildings within 1,000 feet of the centerline of the Blue Ridge Parkway can exceed 40 feet in height; if buildings are visible from the parkway, screening standards will be required. Based on existing restrictive policies and regulations this category was given a medium-low rating.

**Notable Environmental Features** – There are approximately 1.91 linear miles of known streams within the FLUSA. The French Broad River (28-79-30-1) is classified as a Class B (waters protected for secondary recreation in addition to primary recreation) resource and accounts for approximately 0.87 linear miles. The proposed project falls within the French Broad River Basin, which is not subject to NC Division of Water Resources (NCDWR) riparian buffer rules. The entire FLUSA is within a U.S. Army Corps of Engineers (USACE) Trout Regulated watershed.

U.S. Fish and Wildlife Service (USFWS) lists 12 federally protected species, under the Endangered Species Act (ESA) for Buncombe County: Appalachian elktoe, Blue Ridge Goldenrod, Bog Turtle, Carolina Northern flying squirrel, Gray bat, Mountain Sweet pitcher plant, Northern Long-eared bat, Rock Gnome lichen, Roan Mountain bluet, Spreading avens, Spruce-fir moss spider, and Virginia Spiraea. Of the 12 species, 2 were identified to have habitat present within the FLUSA: Gray bat and Northern Long-eared bat and 1 was known to occur within a 1-mile radius of the FLUSA: Appalachian elktoe.

Due to the presence of potential habitat areas within the FLUSA, this category was given a high rating.

### **Indirect Effects Conclusion**

**Indirect Summary Statement** – Analysis suggests that indirect effects are possible from the construction of this proposed project and need to be further investigated. This proposed project would provide increased access within the FLUSA, therefore supporting current and planned development of the area. Currently, the P&W Advanced Manufacturing Center is being developed and is anticipated to begin manufacturing operations by the end of 2022. Conceptual plans for the Biltmore Park West development, consisting of the P&W Advanced Manufacturing Center and adjacent land, have been prepared by Biltmore Farms, LLC (private developer). The large tract of undeveloped land north of the French Broad River and south of Ferry Road is zoned as residential and is currently undergoing a feasibility study to determine the best use of the land. Natural environmental features are a concern in this area due to the presence of potential habitat areas for federally protected species.

These primary factors influenced the Indirect Effects Screening Matrix finding that a Land Use Scenario Assessment (LUSA) is warranted.

**Cumulative Effects Summary** – NCDOT is currently constructing the I 26 widening project (STIP Project I-4400/I-4700) to widen I 26 from 4 lanes to 8 lanes (4 lanes in each direction of travel) through the project area. The widening project also includes the replacement of the Blue Ridge Parkway Bridge over I 26 on new alignment to accommodate the interstate widening. STIP Project I-4400/I-4700 is anticipated to be complete in 2024.

Current development within the FLUSA includes the construction of the P&W Advanced Manufacturing Center along with a new 2-lane road (Frederick Law Olmsted Way East) and 5-lane bridge over the French Board River connecting P&W to NC 191. These construction activities are being undertaken by a private developer.

The entire FLUSA is within a USACE Trout Regulated watershed and, as noted, the water resources within the FLUSA drain to the French Broad River which is suitable habitat for the Appalachian elktoe, a federally endangered aquatic species. Forested areas within the FLUSA are potential habitat areas for the federally protected gray bat and Northern long-eared bat. The potential for the degradation of water quality exists through erosion and stream sedimentation as a result of the above noted projects. Direct natural environment impacts to aquatic and terrestrial resources by STIP Project I-4400/I-4700 were addressed by avoidance, minimization, and mitigation consistent with programmatic agreements with the natural resource agencies and through the Section 404/NEPA Merger and Permitting processes. The USFWS issued a Biological Opinion (BO) for STIP Project I-4400/I-4700 in February 2019 which included conservation measures for these protected species. These conservation measures are attached to the STIP Project I-4400/I-4700 USACE Section 404 permit. The USFWS issued a BO for the Biltmore Park West construction (aka Project Ranger, consisting of the P&W Advanced Manufacturing Center, a new French Broad River bridge, and a 2-lane roadway) in July 2020 which likewise contained conservation measures for the noted protected species. Likewise, these conservation measures are attached to the Project Ranger USACE Section 404 permit.

STIP Project HE-0001 proposes to add a new interchange along I 26 near mile marker 35 in Buncombe County. This new interchange would connect to NC 191 via a road that is currently under construction by Biltmore Farms, LLC but will later become a State road (i.e., Frederick Law Olmsted Way East). This roadway is expected to be completed in 2022.

Future planned actions include the continued development of Biltmore Park West, which would include mixed uses consisting of industrial, institutional, commercial, and residential land uses. It is anticipated additional interior roadways and utility infrastructure would be associated with the planned future build-out of the property.

NCDOT STIP Project U-3403B would widen NC 191 (Brevard Road) to four lanes approximately one mile west of the proposed project and running south of Fredrick Law Olmsted Way East. The U-3403B project is currently programmed in the STIP for ROW and Utilities in fiscal year 2029, with ROW, utilities, and construction unfunded (future years, post 2029). The scope of the U-3403B project will have to be reassessed to account for a future transportation network scenario that includes STIP Project HE-0001.

Buncombe County Recreation Services is in collaboration with other municipalities to develop a regional greenway system that would link existing and proposed greenways together to create a cohesive network over the next 10-20 years. The system would provide safe, equitable access to parks, schools and communities. Bent Creek Corridor was identified as a priority location which travels along the French Broad River on the west side of the FLUSA (Buncombe County Greenways & Trails Master Plan).

None of the DSAs will notably contribute to the cumulative impacts to these resources. Preliminary analysis of potential direct impacts to the natural environment varies between the 3 DSAs. Potential direct impacts to jurisdictional waters varies from approximately 1,400 to 2,300 feet; potential impacts to jurisdictional wetlands varies from approximately 0.1 to 0.3 acres; potential tree clearing impacts range from approximately 18 to 25 acres. Direct natural environmental impacts by NCDOT projects would be addressed by avoidance, minimization, or mitigation, consistent with programmatic agreements with the natural resource agencies during the Merger and Permitting processes. The potential for the degradation of water quality also exists through erosion and stream sedimentation. Any direct natural environmental impacts by NCDOT projects would be addressed by avoidance, minimization, and mitigation consistent with programmatic agreements with the natural resource agencies during the Section 404/NEPA Merger and Permitting processes.

## **Sources**

Buncombe County. *Bent Creek- Lake Julian Greenway Feasibility Study*. July 2015.

Buncombe County. Code of Ordinances. Chapter 78 Zoning. Accessed September 2021.

[https://library.municode.com/nc/buncombe\\_county/codes/code\\_of\\_ordinances?nodeId=COOR\\_CH78ZO\\_ARTIIWAPR\\_DIV4DERE](https://library.municode.com/nc/buncombe_county/codes/code_of_ordinances?nodeId=COOR_CH78ZO_ARTIIWAPR_DIV4DERE)

Buncombe County. *Comprehensive Land Use Plan*. September 17, 2013

Buncombe County. Trails Master Plan. Accessed September 2021.

<https://www.buncombecounty.org/governing/depts/parks/greenways.aspx>

Buncombe County. *The Zoning Ordinance of Buncombe County, North Carolina, April 2, 2019*. Accessed September 2021.

<https://www.buncombecounty.org/common/planning/zoning-ordinance.pdf>

Carr, Matt, City of Asheville Planning and Urban Development, Staff. Personal Interview (Phone). August 19, 2021.

City of Asheville. *Living Asheville, a Comprehensive Plan for Our Future*. June 19, 2018.

City of Asheville. Steep Slope Calculator. Accessed September 2021.

<https://www.mapwnc.org/>

Department of Commerce. Employment Projections. Accessed September 2021.

[https://nccareers.org/employmentprojections/industry\\_employment\\_projections.html](https://nccareers.org/employmentprojections/industry_employment_projections.html)

Federal Emergency Management. Flood Hazard Mapper. Accessed September 2021.

<https://www.fema.gov/flood-maps/national-flood-hazard-layer>

French Broad River Metropolitan Planning Organization. Metropolitan Transportation Plan (MTP). September 24, 2020. <http://frenchbroadrivermpo.org/mtp/>

High, William, Buncombe County Planning and Development, Transportation Planner. Personal Interview (Phone). September 8, 2021.

North Carolina State Demographer. County/State Population Projections. Accessed April 2019.

<http://www.osbm.nc.gov/facts-figures/demographics>

North Carolina Department of Environmental Quality (DEQ). Classifications. Accessed September 2021.

<https://deq.nc.gov/about/divisions/water-resources/planning/classification-standards/classifications#DWRPrimaryClassification>

North Carolina DEQ. NC Riparian Buffer Areas GIS Mapper. Accessed September 2021.

<https://ncdenr.maps.arcgis.com/apps/webappviewer/index.html?id=5c3265f774284547a22cbd8f9ff681b4>

North Carolina DEQ. Local Water Supply Planning. Accessed September 2021.

<https://www.ncwater.org/WUDC/app/LWSP/report.php?psid=01-11-010&year=2020>



North Carolina DEQ. Riparian Buffer Protection Programs. Accessed April 2019.

<https://deq.nc.gov/about/divisions/water-resources/water-quality-permitting/401-buffer-authorization/riparian-buffer>

North Carolina Department of Transportation (NCDOT). Annualized Growth Calculator. Accessed September 2021.

[https://connect.ncdot.gov/resources/Environmental/PDEA\\_Consultants/Annualized Growth Calculator.xls](https://connect.ncdot.gov/resources/Environmental/PDEA_Consultants/Annualized_Growth_Calculator.xls)

North Carolina Department of Transportation (NCDOT). *Comprehensive Transportation Plan for French Broad River MPO and Rural Areas of Buncombe and Haywood Counties*. January 18, 2008.

North Carolina Department of Transportation (NCDOT). 2020-2029 Current State Transportation Improvement Program (STIP), August 2021. Accessed September 2021.

<https://connect.ncdot.gov/projects/planning/STIPDocuments1/NCDOT%20Current%20STIP.pdf>

North Carolina State Historic Preservation Office. GIS Web Service. Accessed September 2021.

<https://nc.maps.arcgis.com/apps/webappviewer/index.html?id=79ea671ebd45639f0860257d5f5ed7>

Pennington, Nathan, Buncombe County Planning and Development, Director. Comprehensive Interview Form for HE-0001 LUSA (Email) and Follow-up Discussion (Phone). September 8, 2021 and September 24, 2021.

Phillips, Gillian, Buncombe County Planning and Development, Planner. Personal Interview (Phone). August 19, 2021.

Satvika, Vaidila, City of Asheville Planning and Urban Development, Long Range Planning, Urban Planner II. Comprehensive Interview Form for HE-0001 LUSA (Email). September 10, 2021.

Thomas, Lee, Biltmore Farms, LLC, VP Commercial & Residential Development. Personal Interview (Email). May 5, 2021.

Tuch, Shannon, City of Asheville Planning and Urban Development, Development Review, Principal Planner. Personal Interview (Phone). August 20, 2021.

United States Army Corps of Engineers. Trout Resources in Western NC. Accessed September 2021.

<https://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Agency-Coordination/Trout/>

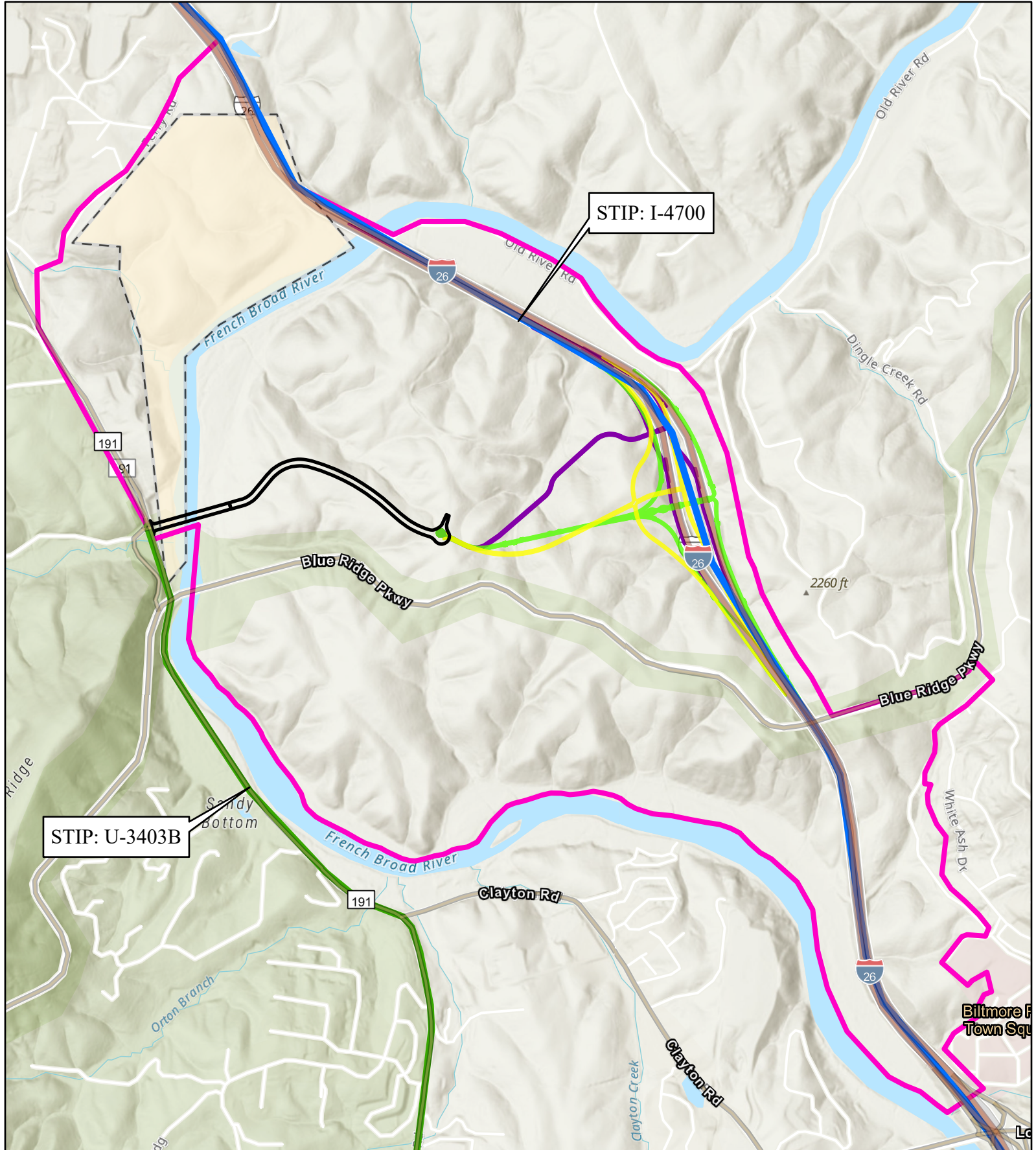
Winkler, Tristan, French Broad Metropolitan Planning Organization, Director. Comprehensive Interview Form for HE-0001 LUSA (Email). September 8, 2021.

---

## APPENDIX A

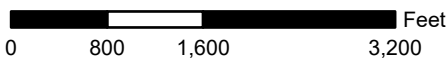
## MAP FIGURES

---



### Legend

- FLUSA
- Interchange Alternative 1
- Interchange Alternative 2
- Interchange Alternative 3
- Fredrick Law Olmsted Way East
- Regional Highway
- Statewide Highway
- City of Asheville Municipal Limit



**Figure 2**  
**Project Area Transportation Projects**  
**NCDOT STIP HE-0001**  
**Proposed I-26 Interchange**

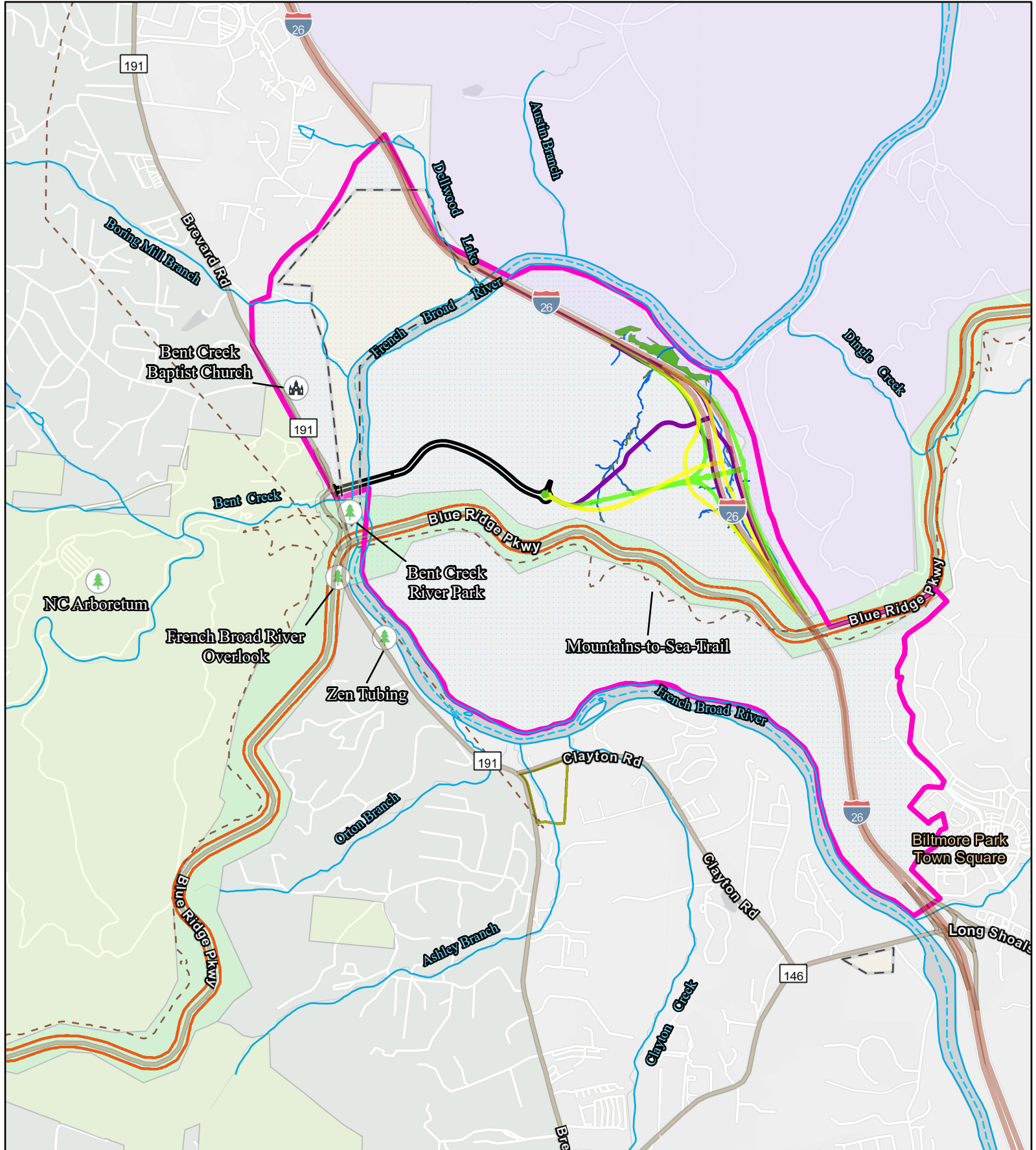


**Gannett Fleming**

*Excellence Delivered **As Promised***

Data Sources: ESRI Online, NCDOT, NCNHP; Map Created 9/1/2021;  
 Revised 9/27/2021





### Legend

- |                                   |                        |                                  |
|-----------------------------------|------------------------|----------------------------------|
| Interchange Alternative 1         | Pisgah National Forest | French Broad River Trail         |
| Interchange Alternative 2         | Blue Ridge Parkway     | Regional Trails                  |
| Interchange Alternative 3         | Biltmore Estate        | Determined Eligible Boundary     |
| FLUSA                             | Delineated Streams     | Both DOE and Study List Boundary |
| Frederick Law Olmstead Way East   | Streams                | Church/Cemetery                  |
| City of Asheville Municipal Limit | Delineated Wetlands    |                                  |
| Recreation                        | USACE Trout Watersheds |                                  |

0 1,100 2,200 4,400 Feet



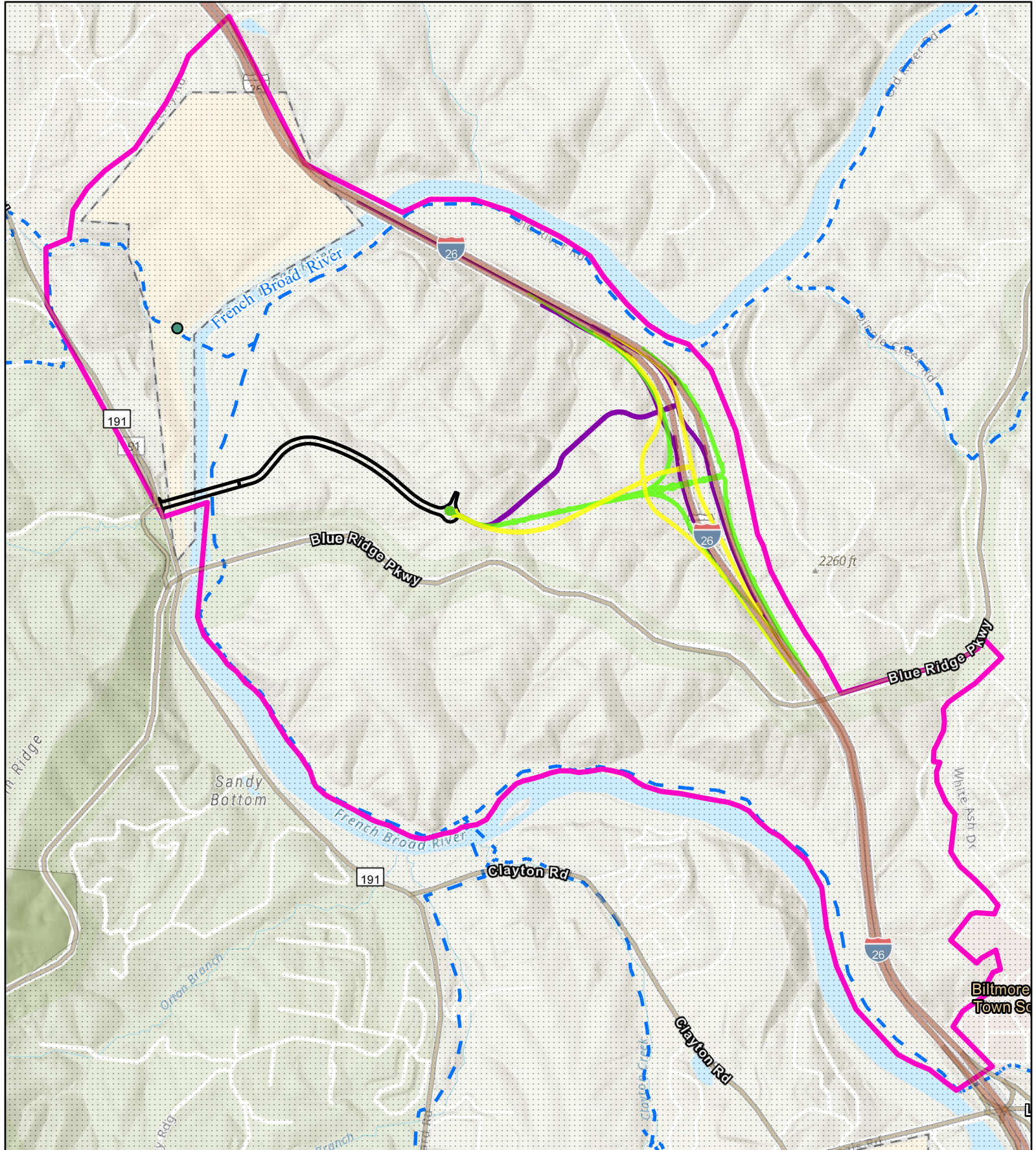
**Figure 3**  
**Notable Human, Natural and**  
**Environmental Features**  
**NCDOT STIP HE-0001**  
**Proposed I-26 Interchange**

**Gannett Fleming**

Excellence Delivered *As Promised*

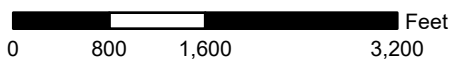
Data Sources: ESRI Online, NCDOT, NCNHP, Atlas Download;  
 Map Created 9/14/2021; Revised 9/27/2021





### Legend

- Interchange Alternative 1
- Interchange Alternative 2
- Interchange Alternative 3
- FLUSA
- Frederick Law Olmsted Way East
- Sewer Pipes
- Sewer Pumping Stations
- Public Water and Sewer Supply Area
- City of Asheville Municipal Limit



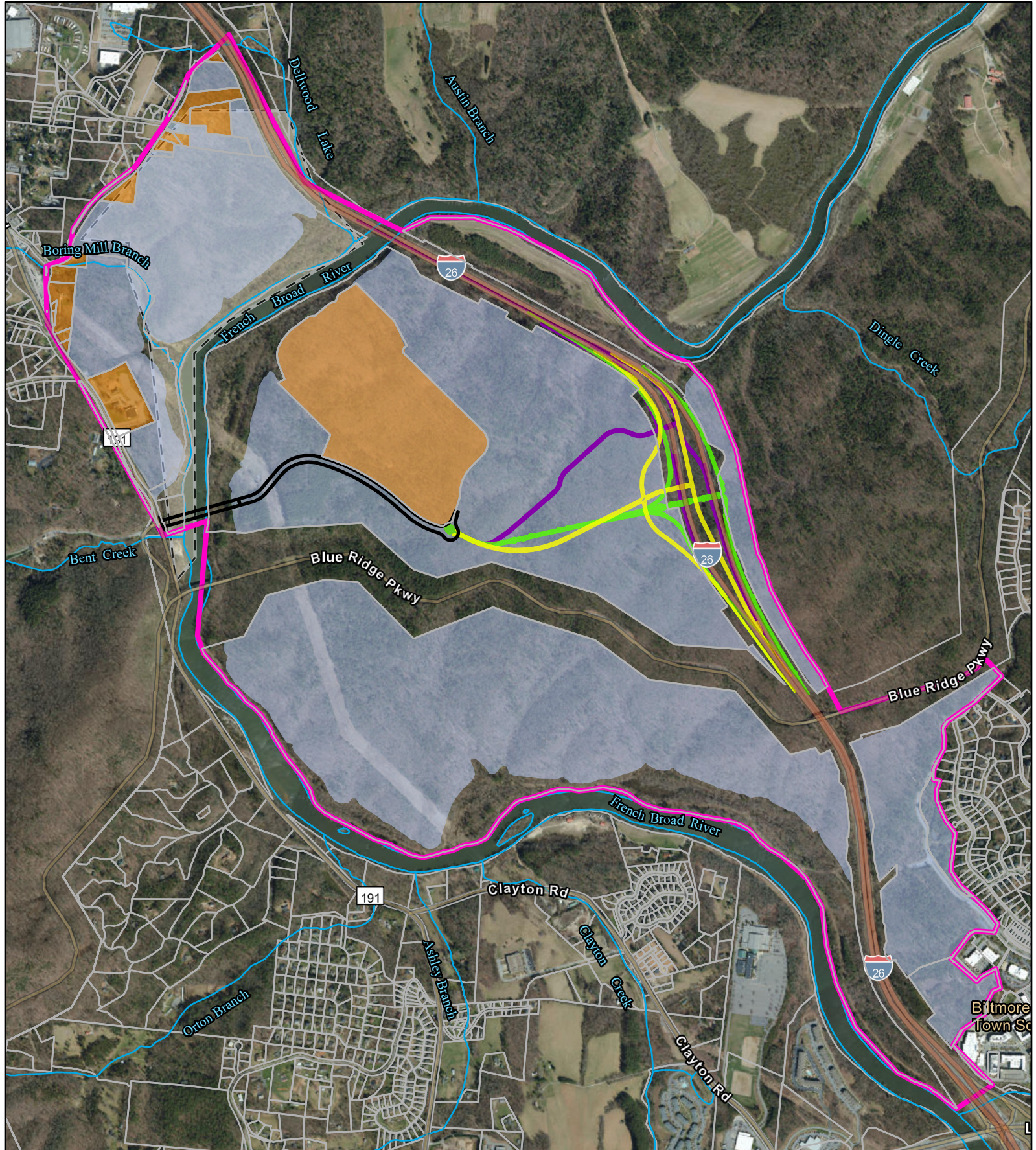
**Figure 4**  
**Water and Sewer Map**  
**NCDOT STIP HE-0001**  
**Proposed I-26 Interchange**

**Gannett Fleming**

*Excellence Delivered As Promised*

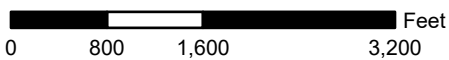
Data Sources: ESRI Online, NCDOT; Map Created 9/14/2021;  
 Revised 9/27/2021





### Legend

- Interchange Alternative 1
- Interchange Alternative 2
- Interchange Alternative 3
- FLUSA
- Frederick Law Olmsted Way East
- Developed Land
- Undeveloped Land
- Parcels
- Streams
- City of Asheville Municipal Limit



**Figure 5**  
**Available Land**  
**NCDOT STIP HE-0001**  
**Proposed I-26 Interchange**



**Gannett Fleming**

*Excellence Delivered **As Promised***

Data Sources: ESRI Online, NCDOT, NCNHP, Atlas Download;  
 Map Created 9/7/2021; Revised 9/27/2021



---

## APPENDIX B

## INTERVIEWS

---

**NCDOT I-26 Interchange HE 0001 Project  
Initial Discussions with Buncombe County  
Date: 8/19/2021  
Buncombe County: Gillian Phillips  
Gannett Fleming (GF): Claire Woleslagle**

A phone call was made to the County on 8/19 to briefly discuss the region of influence as a result of the new I-26 interchange. County staff identified current development trends noting that if there is undeveloped land that has an established connection to public utilities it will likely be developed. Outside of the city and near interstates residential development is exploding and is likely to continue for the near future. Some large residential parcels are being bought out and subdivided to provide more housing opportunity. Buncombe county allows residential development to occur on industrial zoned parcels which provides more opportunity for development expansion. It is likely that development will occur due to the current trends whether a new interchange is added or not.

**NCDOT I-26 Interchange HE 0001 Project  
Initial Discussions with City of Asheville  
Date: 8/19/2021  
Buncombe County: Matt Carr  
Gannett Fleming (GF): Claire Woleslagle**

A phone call was made to the City on 8/19 to briefly discuss the region of influence as a result of the new I-26 interchange. The City Staff identified the only tract of land that was in the Cities jurisdiction, close to the new I-26 interchange, is the large parcel located south of Ferry Road and north of the French Broad River. No additional information was given at the time of the call.

**NCDOT I-26 Interchange HE 0001 Project  
Initial Discussions with City of Asheville  
Date: 8/20/2021  
Buncombe County: Shannon Tuch  
Gannett Fleming (GF): Claire Woleslagle**

A follow up phone call to the City on 8/20 confirmed that the tract of land is within the Cities Jurisdiction and is in the process of a feasibility study not in the development phase.



**NCDOT Community Studies Group, Human Environment Section**  
**Comprehensive Interview Form for**  
**STIP Project HE-0001 LAND USE SCENARIO ASSESSMENT**

**Contact Information**

Interviewee Name:	Tristan Winkler	Date:	09/08/21
Title/Position:	MPO Director	Phone Number:	828.251.7454
Organization/Agency:	French Broad River MPO		
Email:	tristan@landofsky.org		Completed via: <input type="checkbox"/> Email <input type="checkbox"/> Phone

**Interview Information/Instructions**

Using the project information and map below, please respond to the following questions by typing your answers in the space provided. Then save (using the **Save As** command) this file with a new file name for your records and e-mail the **new** file back to the original sender.

**Project Information**

The North Carolina Department of Transportation (NCDOT) Division 13 has begun the planning and environmental studies for Project HE-0001, a proposed new interchange along Interstate 26 (I-26) in Buncombe County, NC. The proposed project is located approximately 6 miles south of Asheville near I-26-mile marker 35, north of the Blue Ridge Parkway (BRP) and south of the French Broad River (FBR) bridge.

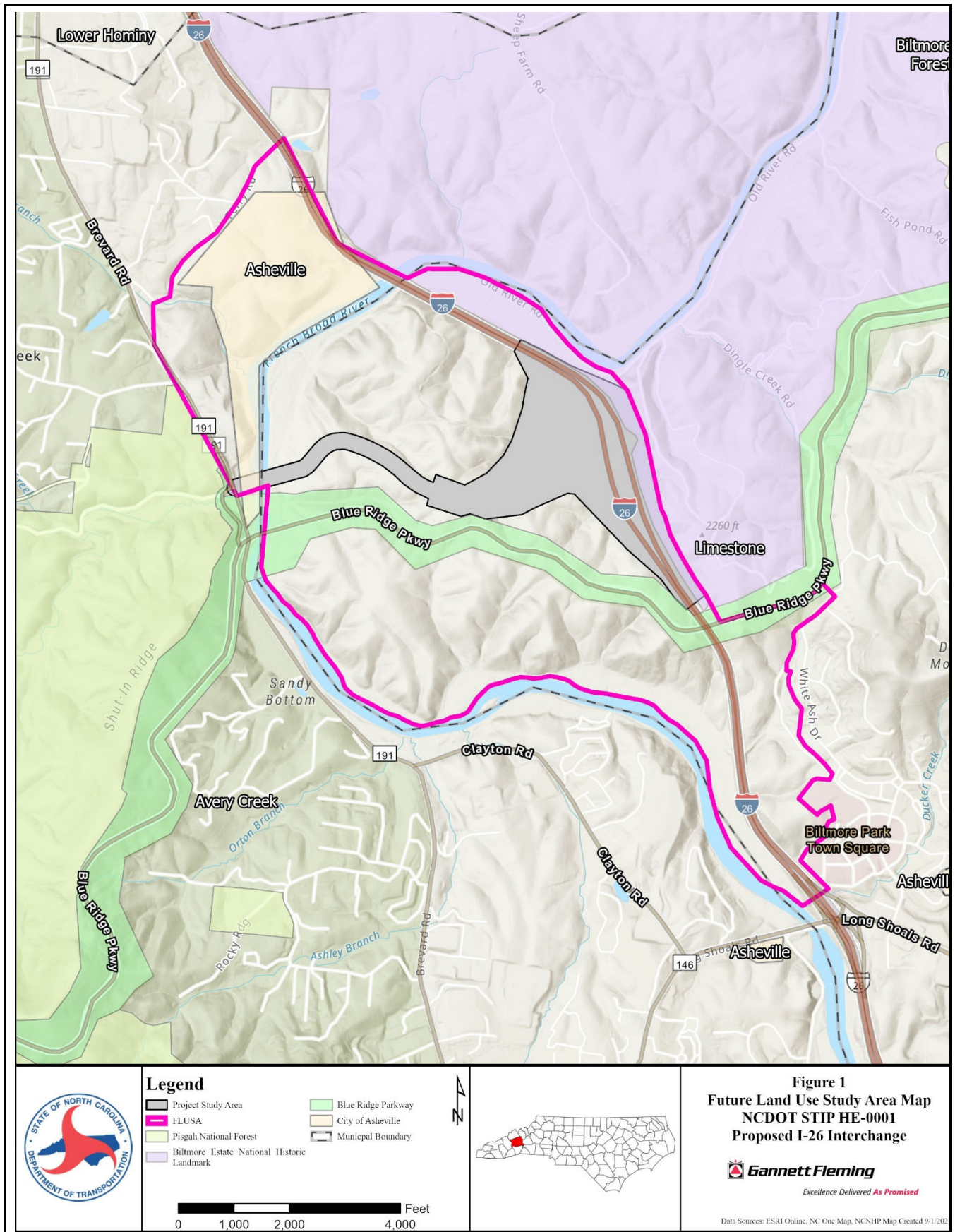
To address the lack of network connectivity between NC 191 and I-26 in southern Buncombe County, and to accommodate current and planned growth, NCDOT proposes to construct a new interchange on I-26 in the project study area (PSA) (Figure 1). This new interchange would connect to NC 191 via a road that is currently under construction by a private developer but will later become a State road (i.e., Frederick Law Olmsted Way East) (see Figure 2). The Biltmore Farms, LLC property (aka Biltmore Park West [BPW]) (see Figure 3) will be accessed via NC 191 at a new fourth leg to the Blue Ridge Parkway Access Road/Frederick Law Olmstead Way intersection. The private developer is currently constructing a new bridge over the FBR and a 2-lane road (Frederick Law Olmstead Way East) to connect to the Pratt & Whitney (P&W) Advanced Manufacturing Center, also currently under construction. The new one million square-foot advanced manufacturing center is planned to begin manufacturing operations by the end of 2022.

The private developer is constructing the bridge to accommodate up to 5 lanes of traffic and has graded the approach roadway to allow for a future 4-lane cross section but is currently paving 2-lanes. As with many private development projects where NCDOT anticipates accepting ownership, NCDOT has reviewed and approved all preliminary plans for the FBR bridge and roadway and has an inspector on-site to confirm the privately-built transportation infrastructure is constructed to NCDOT standards. The Department anticipates accepting the bridge and roadway currently under construction (not part of HE-0001) into the State highway system within a few months following completion.

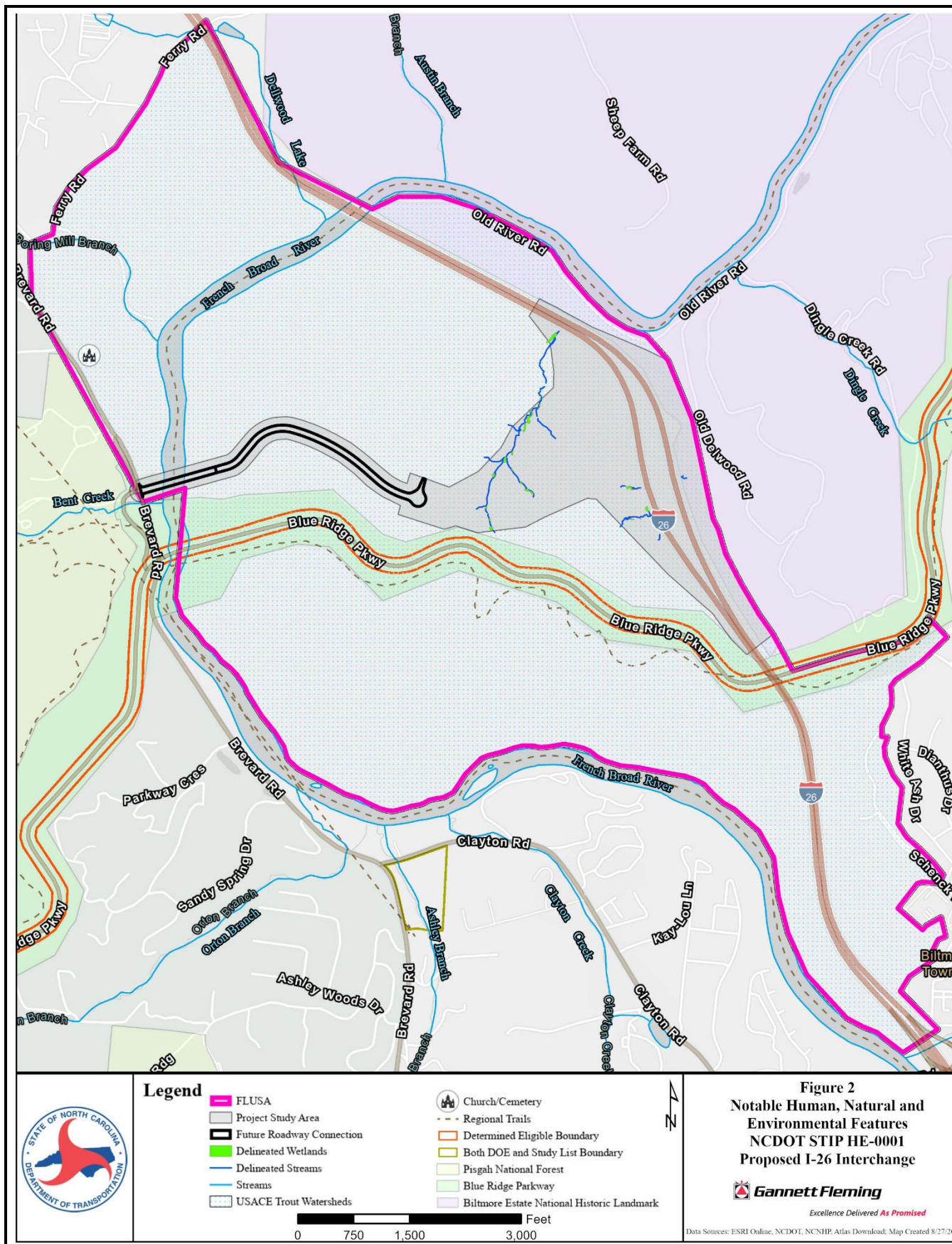
The proposed project is needed to address the lack of network connectivity between NC 191 and I-26 in southern Buncombe County to accommodate current and planned growth.

The purpose of the project is to provide access to I-26 and improve east-west connectivity within the project vicinity to accommodate current and planned growth.

The proposed project is anticipated to improve traffic operations throughout the study area roadways and intersections by introducing a new access to the interstate, thus improving mobility and connectivity to meet future travel demand projected as a result of Buncombe County population and employment growth. Improved access would provide for the efficient and reliable movement of people and goods into and out of the Biltmore Farms property as well as to and from the NC 191 corridor, including but not limited to the NC Arboretum and Blue Ridge Parkway.







Verify and Update Information from the ICE Report	
Please provide a detailed response in the field provided or check the box if the question is not applicable.	
Check if item is <u>not</u> applicable:	
<b>Future Land Use Study Area (FLUSA) Characteristics</b>	
1. Does the Preliminary ICE Study Time Horizon of 2030 seem appropriate for this project particularly in terms of consistency with the planning horizons of local transportation and land use plans? If not, please indicate what the year should be.  <b>2045</b>	Required Question
2. Are there notable public or private transportation, infrastructure, or development projects underway or foreseeable in the FLUSA? Please describe the current status of these projects, noting if they are permitted or planned.  <b>NC 191 (U-3403B), I-26 (I-4700, ongoing), potential for Bent Creek Greenway in the future.</b>	<input type="checkbox"/> N/A
3. How do population and employment trends within the FLUSA compare to the county or multi-county area trends? Are there areas of the FLUSA that are growing or declining more so than other areas?  <b>The project area is anticipated to be a high-growth area.</b>	<input type="checkbox"/> N/A
4. Please verify the accuracy and completeness of the Human Environmental Features Map provided above. Are there additional features that should be included?  <b>NC Arboretum</b>	<input type="checkbox"/> N/A
5. Please verify the accuracy and completeness of the Natural Environmental Features Map provided above. Are there additional features that should be included?	<input type="checkbox"/> N/A
Additional comments or information regarding FLUSA Characteristics:	

<b>Growth and Development</b>	
6. Is the FLUSA currently served by water and sewer service? If not, are there plans and funding to extend service? -	<input type="checkbox"/> N/A
7. Please identify land/parcels within the FLUSA that are likely to be developed or sold. -	<input type="checkbox"/> N/A
8. Describe the type and location of any public or private development that is currently occurring within the FLUSA.	<input type="checkbox"/> N/A

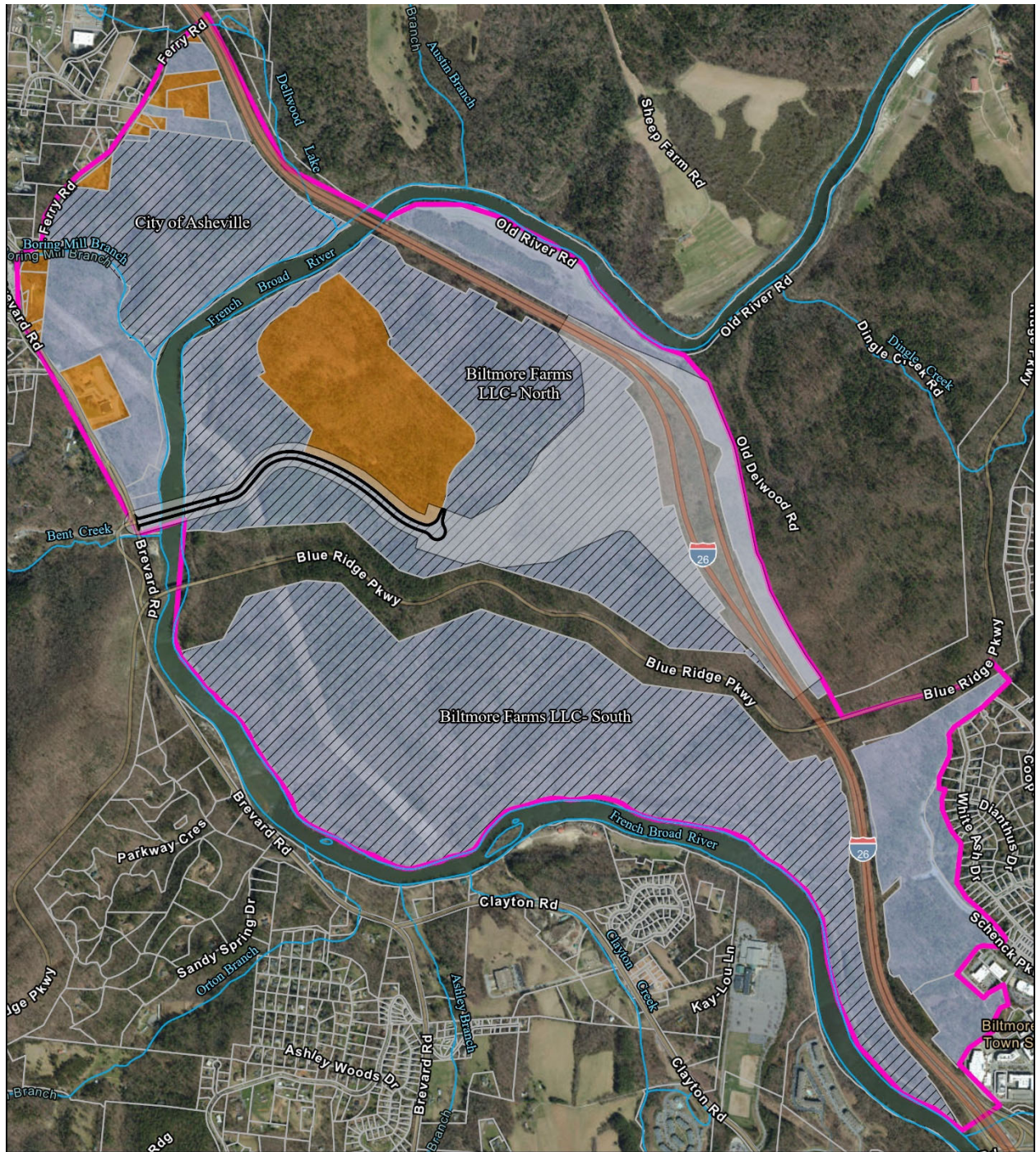
9. Are there any known plans for public or private development in the FLUSA? If so, has this development been permitted and/or initiated yet?	<input type="checkbox"/> N/A
10. How would development patterns likely be different if a) the project is built or b) the project is not built? <b>More constraints on NC 191 and developments along the corridor.</b>	<input type="checkbox"/> N/A
Additional comments or information regarding Growth and Development: <b>More than would fit in a questionnaire.</b>	

<b>Public Policy</b>	
11. What are the local plans, policies, or regulations that pertain to development and growth within the FLUSA? <b>Buncombe County Comprehensive Plan and Zoning Maps</b>	<input type="checkbox"/> N/A
12. Describe the effectiveness of these plans, policies, and regulations at balancing development and natural resource protection within the FLUSA. -	<input type="checkbox"/> N/A
Additional comments or information regarding Public Policy: -	

<b>Next Steps</b>	
13. Should others be consulted regarding this Indirect and Cumulative Effects analysis? (e.g. municipal utilities, county planners, etc.) <b>County planners, environmental agencies, esp. water resources stakeholders.</b>	<input type="checkbox"/> N/A
Additional comments or information regarding this Indirect and Cumulative Effects analysis: <b>There has been discussion about the cumulative effects of I-4400, I-4700, I-2513, A-0010, but this project should likely be added to the mix. Considerable amounts of impermeable surface is being added near the French Broad River. Not necessarily something that is dire, but proper mitigation should be considered.</b>	



# Land Use Scenario Assessment



## Legend

- FLUSA
- Project Study Area
- Future Roadway Connection
- Parcels
- Probable Development Area
- Developed Land
- Undeveloped Land
- Streams

0 750 1,500 3,000 Feet



**Figure 3**  
**Probable Development Area Map**  
**NCDOT STIP HE-0001**  
**Proposed I-26 Interchange**

**Gannett Fleming**

*Excellence Delivered As Promised*

Data Sources: ESRI Online, NCDOT, NCNHP Map Created 8/27/2021

<b>PDA Name:</b>	<b>City of Ashville</b>	
General Description:	This parcel of land is owned by the City of Ashville. It is currently undeveloped and heavily forested. It is bounded by Ferry Road to the north, I-26 to the east, French Broad River to the south and Boring Mill Branch to the west. A feasibility study is underway for the potential development of the parcel.	
<b>Land Availability</b>	<b>Acres</b>	<b>Percent</b>
Land Available for Development: <i>Undeveloped (vacant) and underutilized</i>	122	100%
Developed Land	0	0%
Total:	122	100%

<b>PDA Name:</b>	<b>Biltmore Farms LLC- North</b>	
General Description:	This parcel is owned by Biltmore Farms. It is currently undeveloped and heavily forested. It is bounded by French Broad River to the north and west, I-26 to the east, and the Blue Ridge Parkway to the south. The new Pratt & Whitney Advanced Manufacturing Center, currently in development, is located in the center of this tract of land. Conceptual development plans are currently in design. The parcel will be accessed by a new FBR bridge and two-lane road that connects to NC 191.	
<b>Land Availability</b>	<b>Acres</b>	<b>Percent</b>
Land Available for Development: <i>Undeveloped (vacant) and underutilized</i>	346	88%
Developed Land	100	22%
Total:	446	100%

<b>PDA Name:</b>	<b>Biltmore Farms LLC- South</b>	
General Description:	This parcel is owned by Biltmore Farms. It is currently undeveloped and heavily forested. It is bounded by the Blue Ridge Parkway to the north, I-26 to the east, and the French Broad River to the west and south. Conceptual development plans are currently in design. The parcel is connected to Schenck Parkway via a gravel road that includes an underpass under I-26, north of Long Shoals Road and south of the Blue Ridge Parkway.	
<b>Land Availability</b>	<b>Acres</b>	<b>Percent</b>
Land Available for Development: <i>Undeveloped (vacant) and underutilized</i>	419	0%
Developed Land	0	0%
Total:	419	100%



### ***Land Use Development Scenarios***

1. Describe any public or private development that would be likely to occur in the near-term (next five years) within the Probable Development Areas (PDAs).

**Housing likely along Ferry Road, considerable development on Biltmore Farms property.**

2. How would each of the PDAs likely develop if the proposed project is not constructed? Take into account the current zoning regulations and land use / comprehensive plan, if applicable.

**Similarly, but with more reliance on NC 191 for traffic flow.**

3. How would each of the PDAs likely develop if the proposed project is constructed? Take into account the current zoning regulations and land use / comprehensive plan, if applicable.

**Similarly but with potentially more highway commercial and industrial due to direct interstate access.**

4. Would building the project influence the type (e.g. residential vs. commercial) and/or density of development within the PDAs?

**Potentially but that would be determined by County land use planners and the developer as well.**

5. How does future population and employment growth within the PDAs compare to the surrounding area? For example, is future growth anticipated to be greater within the PDAs compared to the region?

**The rate of growth would likely be higher than the rest of the region due to the amount of developable land that is not currently developed, population growth, employment growth, and need for more housing in the region.**

Additional comments or information regarding Land Use Development Scenarios:



**NCDOT Community Studies Group, Human Environment Section**  
**Comprehensive Interview Form for**  
**STIP Project HE-0001 LAND USE SCENARIO ASSESSMENT**

**Contact Information**

Interviewee Name: William High / Nathan Pennington  
Title/Position: Planner II / Planning Director  
Organization/Agency: Buncombe County Planning & Development Dept  
Date: 9/8/2021  
Phone Number: 828 -250-4830  
Email: [William.high@buncombecounty.org](mailto:William.high@buncombecounty.org);  
[Nathan.pennington@buncombecounty.org](mailto:Nathan.pennington@buncombecounty.org)  
Completed via: ☒ Email ☐ Phone

**Interview Information/Instructions**

Using the project information and map below, please respond to the following questions by typing your answers in the space provided. Then save (using the **Save As** command) this file with a new file name for your records and e-mail the **new** file back to the original sender.

**Project Information**

The North Carolina Department of Transportation (NCDOT) Division 13 has begun the planning and environmental studies for Project HE-0001, a proposed new interchange along Interstate 26 (I-26) in Buncombe County, NC. The proposed project is located approximately 6 miles south of Asheville near I-26-mile marker 35, north of the Blue Ridge Parkway (BRP) and south of the French Broad River (FBR) bridge.

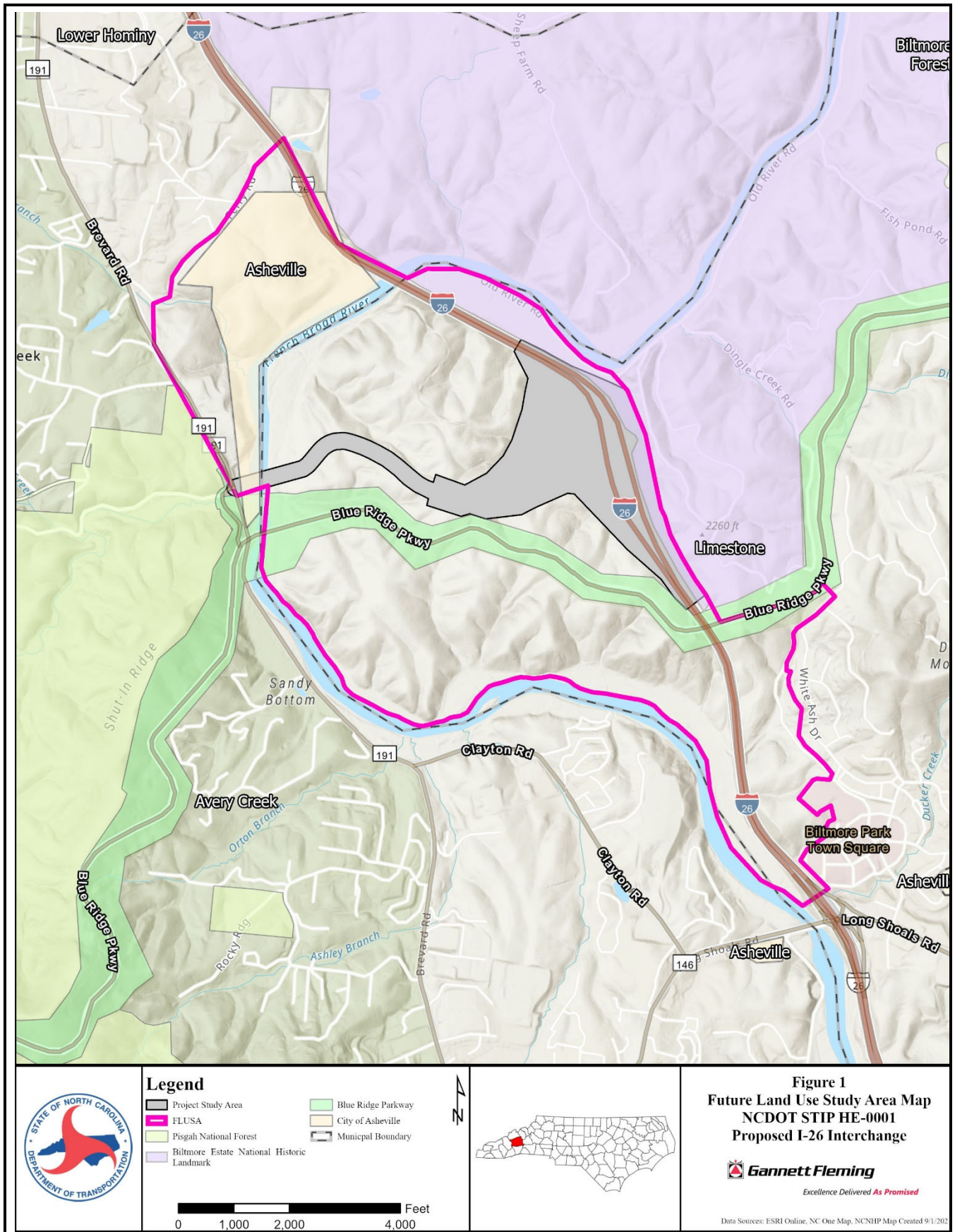
To address the lack of network connectivity between NC 191 and I-26 in southern Buncombe County, and to accommodate current and planned growth, NCDOT proposes to construct a new interchange on I-26 in the project study area (PSA) (Figure 1). This new interchange would connect to NC 191 via a road that is currently under construction by a private developer but will later become a State road (i.e., Frederick Law Olmsted Way East) (see Figure 2). The Biltmore Farms, LLC property (aka Biltmore Park West [BPW]) (see Figure 3) will be accessed via NC 191 at a new fourth leg to the Blue Ridge Parkway Access Road/Frederick Law Olmstead Way intersection. The private developer is currently constructing a new bridge over the FBR and a 2-lane road (Frederick Law Olmstead Way East) to connect to the Pratt & Whitney (P&W) Advanced Manufacturing Center, also currently under construction. The new one million square-foot advanced manufacturing center is planned to begin manufacturing operations by the end of 2022.

The private developer is constructing the bridge to accommodate up to 5 lanes of traffic and has graded the approach roadway to allow for a future 4-lane cross section but is currently paving 2-lanes. As with many private development projects where NCDOT anticipates accepting ownership, NCDOT has reviewed and approved all preliminary plans for the FBR bridge and roadway and has an inspector on-site to confirm the privately-built transportation infrastructure is constructed to NCDOT standards. The Department anticipates accepting the bridge and roadway currently under construction (not part of HE-0001) into the State highway system within a few months following completion.

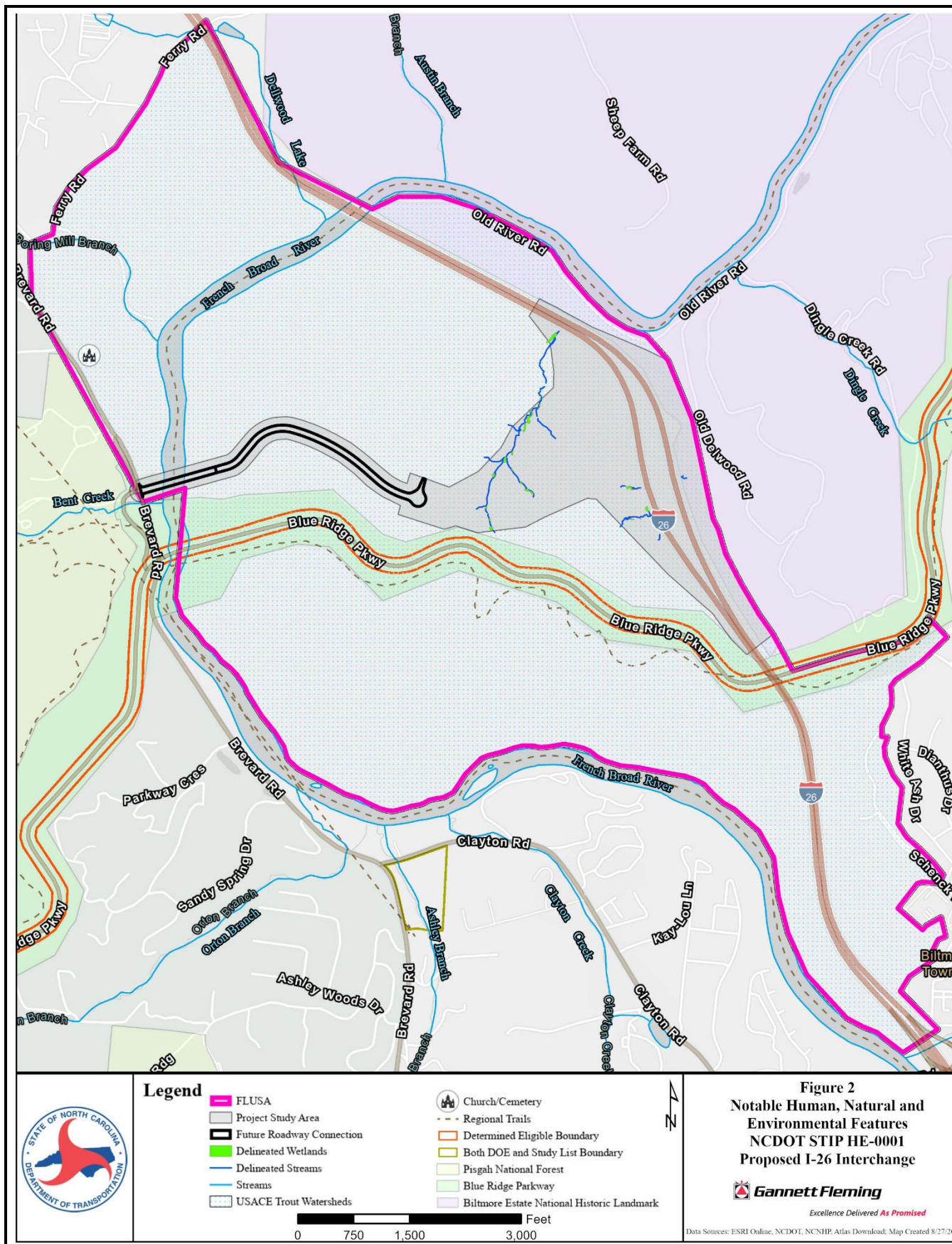
The proposed project is needed to address the lack of network connectivity between NC 191 and I-26 in southern Buncombe County to accommodate current and planned growth.

The purpose of the project is to provide access to I-26 and improve east-west connectivity within the project vicinity to accommodate current and planned growth.

The proposed project is anticipated to improve traffic operations throughout the study area roadways and intersections by introducing a new access to the interstate, thus improving mobility and connectivity to meet future travel demand projected as a result of Buncombe County population and employment growth. Improved access would provide for the efficient and reliable movement of people and goods into and out of the Biltmore Farms property as well as to and from the NC 191 corridor, including but not limited to the NC Arboretum and Blue Ridge Parkway.









Verify and Update Information from the ICE Report	
Please provide a detailed response in the field provided or check the box if the question is not applicable.	
Check if item is <u>not</u> applicable:	
<b>Future Land Use Study Area (FLUSA) Characteristics</b>	
1. Does the Preliminary ICE Study Time Horizon of 2030 seem appropriate for this project particularly in terms of consistency with the planning horizons of local transportation and land use plans? If not, please indicate what the year should be.  <b>Yes</b>	Required Question
2. Are there notable public or private transportation, infrastructure, or development projects underway or foreseeable in the FLUSA? Please describe the current status of these projects, noting if they are permitted or planned.  <b>None separate from I-26 expansion, and 191 widening, please contact Biltmore Farms as to the future use of their vacant property in the vicinity of Pratt and Whitney.</b>	<input type="checkbox"/> N/A
3. How do population and employment trends within the FLUSA compare to the county or multi-county area trends? Are there areas of the FLUSA that are growing or declining more so than other areas?  <b>All population and employment trends are driven by this and associated projects. Currently there are no residents or jobs in the area.</b>	<input type="checkbox"/> N/A
4. Please verify the accuracy and completeness of the Human Environmental Features Map provided above. Are there additional features that should be included?  <b>No</b>	<input type="checkbox"/> N/A
5. Please verify the accuracy and completeness of the Natural Environmental Features Map provided above. Are there additional features that should be included?  <b>No</b>	<input type="checkbox"/> N/A
Additional comments or information regarding FLUSA Characteristics:	

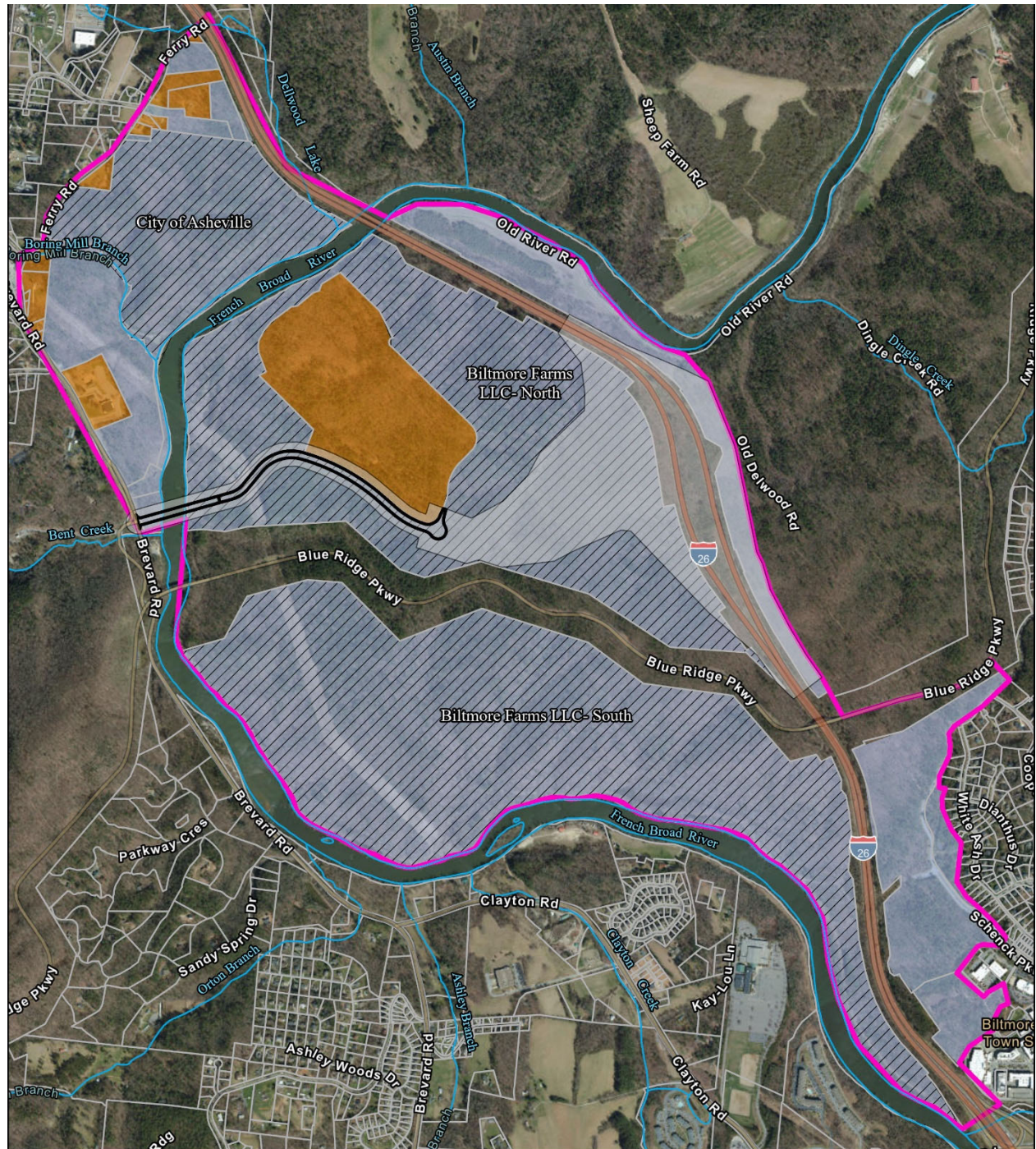
Growth and Development	
6. Is the FLUSA currently served by water and sewer service? If not, are there plans and funding to extend service?  <b>Currently it is not.</b>	<input type="checkbox"/> N/A
7. Please identify land/parcels within the FLUSA that are likely to be developed or sold.  <b>Portions of the south east FLUSA will likely to be developed. All parts of the FLUSA have the potential for development with the creation of these roads.</b>	<input type="checkbox"/> N/A

8. Describe the type and location of any public or private development that is currently occurring within the FLUSA. <b>None</b>	<input type="checkbox"/> N/A
9. Are there any known plans for public or private development in the FLUSA? If so, has this development been permitted and/or initiated yet? <b>None other than the projects described.</b>	<input type="checkbox"/> N/A
10. How would development patterns likely be different if a) the project is built or b) the project is not built? <b>If the project is not built, there will be considerably less development.</b>	<input type="checkbox"/> N/A
Additional comments or information regarding Growth and Development:	

<b>Public Policy</b>	
11. What are the local plans, policies, or regulations that pertain to development and growth within the FLUSA? <b>Buncombe County Comprehensive Land Use Plan – 2013 Update, Strategic Plan, the new BC Comprehensive Planning process has just been initiated.</b>	<input type="checkbox"/> N/A
12. Describe the effectiveness of these plans, policies, and regulations at balancing development and natural resource protection within the FLUSA. <b>Existing zoning largely controls these aspects, the Blue Ridge Parkway has an intact overlay that regulates height and screening in this area. The new Comprehensive Plan will address numerous issues including but not limited to growth, development, environmental concerns and economic development.</b>	<input type="checkbox"/> N/A
Additional comments or information regarding Public Policy:	

<b>Next Steps</b>	
13. Should others be consulted regarding this Indirect and Cumulative Effects analysis? (e.g. municipal utilities, county planners, etc.) <b>Land of Sky Regional Council, NCDEQ, City of Asheville given that a portion of the study area includes properties in their jurisdiction, MSD</b>	<input type="checkbox"/> N/A
Additional comments or information regarding this Indirect and Cumulative Effects analysis:	

# Land Use Scenario Assessment



## Legend

- FLUSA
- Project Study Area
- Future Roadway Connection
- Undeveloped Land
- Parcels
- Probable Development Area
- Developed Land
- Streams

0 750 1,500 3,000 Feet



**Figure 3**  
Probable Development Area Map  
NCDOT STIP HE-0001  
Proposed I-26 Interchange

**Gannett Fleming**

*Excellence Delivered As Promised*

Data Sources: ESRI Online, NCDOT, NCNHP Map Created 8/27/2021



<b>PDA Name:</b>	<b>City of Ashville</b>	
General Description:	This parcel of land is owned by the City of Ashville. It is currently undeveloped and heavily forested. It is bounded by Ferry Road to the north, I-26 to the east, French Broad River to the south and Boring Mill Branch to the west. A feasibility study is underway for the potential development of the parcel.	
<b>Land Availability</b>	<b>Acres</b>	<b>Percent</b>
Land Available for Development: <i>Undeveloped (vacant) and underutilized</i>	122	100%
Developed Land	0	0%
Total:	122	100%

<b>PDA Name:</b>	<b>Biltmore Farms LLC- North</b>	
General Description:	This parcel is owned by Biltmore Farms. It is currently undeveloped and heavily forested. It is bounded by French Broad River to the north and west, I-26 to the east, and the Blue Ridge Parkway to the south. The new Pratt & Whitney Advanced Manufacturing Center, currently in development, is located in the center of this tract of land. Conceptual development plans are currently in design. The parcel will be accessed by a new FBR bridge and two-lane road that connects to NC 191.	
<b>Land Availability</b>	<b>Acres</b>	<b>Percent</b>
Land Available for Development: <i>Undeveloped (vacant) and underutilized</i>	346	88%
Developed Land	100	22%
Total:	446	100%

<b>PDA Name:</b>	<b>Biltmore Farms LLC- South</b>	
General Description:	This parcel is owned by Biltmore Farms. It is currently undeveloped and heavily forested. It is bounded by the Blue Ridge Parkway to the north, I-26 to the east, and the French Broad River to the west and south. Conceptual development plans are currently in design. The parcel is connected to Schenck Parkway via a gravel road that includes an underpass under I-26, north of Long Shoals Road and south of the Blue Ridge Parkway.	
<b>Land Availability</b>	<b>Acres</b>	<b>Percent</b>
Land Available for Development: <i>Undeveloped (vacant) and underutilized</i>	419	0%
Developed Land	0	0%
Total:	419	100%

<b>Land Use Development Scenarios</b>
<p>1. Describe any public or private development that would be likely to occur in the near-term (next five years) within the Probable Development Areas (PDAs).</p> <p><b>None other than by Biltmore Farms</b></p>
<p>2. How would each of the PDAs likely develop if the proposed project is <u>not</u> constructed? Take into account the current zoning regulations and land use / comprehensive plan, if applicable.</p> <p><b>Very unlikely</b></p>
<p>3. How would each of the PDAs likely develop if the proposed project is constructed? Take into account the current zoning regulations and land use / comprehensive plan, if applicable.</p> <p><b>Likely for Biltmore Farms. Unclear for COA.</b></p>
<p>4. Would building the project influence the type (e.g. residential vs. commercial) and/or density of development within the PDAs?</p> <p><b>Potentially, but this will take time to evaluate as part of the comprehensive plan.</b></p>
<p>5. How does future population and employment growth within the PDAs compare to the surrounding area? For example, is future growth anticipated to be greater within the PDAs compared to the region?</p> <p><b>Given no jobs or residents current reside in the PDAs, percentage growth will be considerable higher than surrounding areas</b></p>
<p>Additional comments or information regarding Land Use Development Scenarios:</p>



**NCDOT I-26 Interchange HE 0001 Project**  
**LUSA Questionnaire Follow-up with Buncombe County**  
**Date: 9/24/2021**  
**Time: 10 AM**  
**Buncombe County: Nathan Pennington**  
**Gannett Fleming (GF): Scott Duncanson and Adam Archual**

As follow-up to the LUSA questionnaire filled out by Buncombe County for the project (dated 9/8/2021), a brief discussion was held to gather additional information and/or clarify answers provided by Buncombe County to several questions on the questionnaire.

Comprehensive Interview Form, Page 5. Question 1: Does the Preliminary ICE Study Time Horizon of 2030 seem appropriate?

Initial Buncombe County Response (9/8): "Yes".

Follow-up Discussion: GF shared that the City of Asheville answered that closer to 2040 would be more appropriate and the French Broad River MPO answered 2045 would be a more appropriate time horizon. Given the responses from the City of Asheville and the French Broad River MPO, Mr. Pennington still felt that 2030 was the appropriate time horizon, however, if he had to choose between the other two responses, he would lean toward 2040.

Comprehensive Interview Form, Page 5. Question 6: Is the FLUSA currently served by water and sewer service?

Initial Buncombe County Response (9/8): "Currently is not".

Follow-up Discussion: GF noted that the City of Asheville, French Broad River MPO, the Metropolitan Sewage District and previous discussion with Buncombe County staff indicated that the FLUSA is served by water and sewer and asked for clarification on the County's response to this question. Mr. Pennington acknowledged that while water and sewer is available to the FLUSA the service lines would need to be extended into the interior of the FLUSA to support potential development and that is why the question was answered as it was.

Comprehensive Interview Form, Page 6. Question 10: How would development patterns likely be different if a) the project is built or b) the project is not built?

Initial Buncombe County Response (9/8): "If the project is not built, there will be considerably less development."

Follow-up Discussion: GF asked for clarification on this answer. Mr. Pennington acknowledged that the Pratt and Whitney (P&W) development will happen regardless of whether the proposed project is built or not. Mr. Pennington then acknowledged that the Biltmore Farms development [aka Biltmore Park West] will also likely happen regardless of if the proposed project is built or not, however the type of land use developed may not be the same quality as if the proposed project were built. Mr.

Pennington noted that if the proposed project is built the potential for more desired land uses like specialized manufacturing would be more likely to come to fruition than perhaps other less attractive land uses. Further, if the project were not constructed, traffic would rely on NC 191 and Mr. Pennington did not think that the desirable land uses would be as interested in locating within the Biltmore Farms development.

Comprehensive Interview Form, Page 6. Question 12: Describe the effectiveness of these plans, policies, and regulations at balancing development and natural resource protection within the FLUSA.

Initial Buncombe County Response (9/8): "Existing zoning largely controls these aspects, the Blue Ridge Parkway has an intact overlay that regulates height and screening in this area. The new Comprehensive Plan will address numerous issues including but not limited to growth, development, environmental concerns and economic development."

Follow-up Discussion: In your answer you noted that existing zoning largely controls development, with that in mind can you tell us about the zoning for the County owned parcel off of Ferry Road. Mr. Pennington noted that while this parcel is owned by the County, it is within the City of Asheville limits and would need to follow City of Asheville zoning and development ordinances.

Comprehensive Interview Form, Page 9. Question 2: How would each of the PDAs likely develop if the proposed project is not constructed? Take into account the current zoning regulations and land use / comprehensive plan, if applicable.

Initial Buncombe County Response (9/8): "Very unlikely".

Follow-up Discussion: Can you provide some insight into why you think development would be unlikely if project was not built? As noted above in his response to Page 6, Question 10, Mr. Pennington feels that the Biltmore Farms North and South PDAs will develop but with less attractive land uses. With regard to the COA parcel (PDA 1) Mr. Pennington is less confident in the future development of this parcel based on past plans for this parcel that have not come to fruition.

Comprehensive Interview Form, Page 9. Question 3: How would each of the PDAs likely develop if the proposed project is constructed?

Initial Buncombe County Response (9/8): "Likely for Biltmore Farms. Unclear for COA."

Follow-up Discussion: Mr. Pennington noted that the response of unclear for COA (PDA 1), related to past unsuccessful plans to develop this parcel that never came to fruition. Even if PDA 1 does develop Mr. Pennington felt that the development intensity would be lesser than PDAs 1 and 2 and that it would not generate near as much future traffic as PDAs 2 and 3. Mr. Pennington feels that the construction of the proposed project would not influence the development of PDA 1.

What if the ICE Time Horizon was moved back to 2045? Mr. Pennington noted that regardless of if the project is constructed, he feels that the COA PDA is unlikely to develop.

GF asked if a copy of Equinox's Feasibility Study for the Buncombe County property was available? Mr. Pennington noted that a copy should be available on the County website.



**NCDOT Community Studies Group, Human Environment Section**  
**Comprehensive Interview Form for**  
**STIP Project HE-0001 LAND USE SCENARIO ASSESSMENT**

**Contact Information**

Interviewee Name: Vaidila Satvika

Date: September 10, 2021

Title/Position: Urban Planner II

Phone Number: 828-713-0546

Organization/Agency: City of Asheville, Dept of Planning & Urban Design

Email: vsatvika@ashevillenc.gov

Completed via: ☒ Email ☐ Phone

**Interview Information/Instructions**

Using the project information and map below, please respond to the following questions by typing your answers in the space provided. Then save (using the **Save As** command) this file with a new file name for your records and e-mail the **new** file back to the original sender.

**Project Information**

The North Carolina Department of Transportation (NCDOT) Division 13 has begun the planning and environmental studies for Project HE-0001, a proposed new interchange along Interstate 26 (I-26) in Buncombe County, NC. The proposed project is located approximately 6 miles south of Asheville near I-26-mile marker 35, north of the Blue Ridge Parkway (BRP) and south of the French Broad River (FBR) bridge.

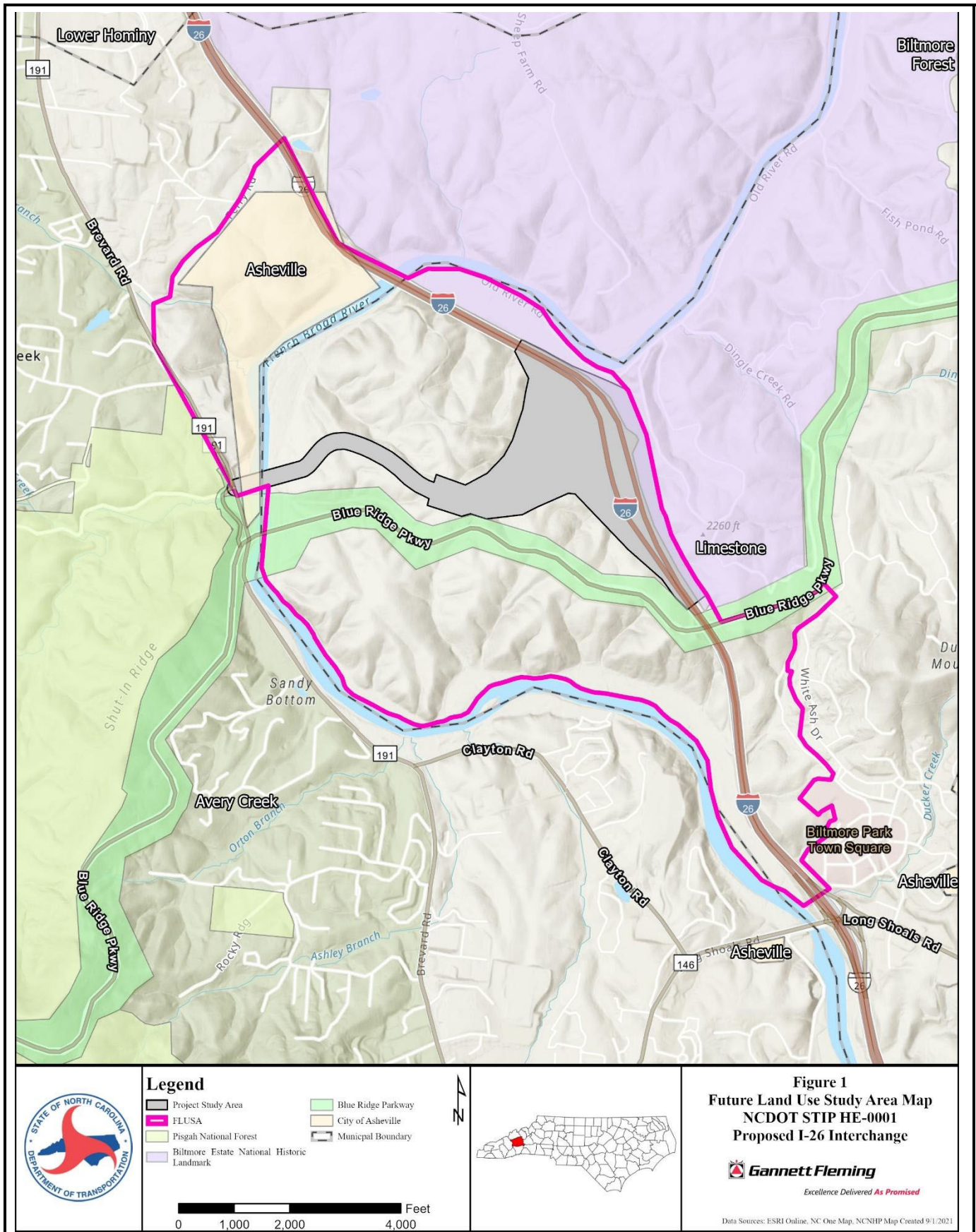
To address the lack of network connectivity between NC 191 and I-26 in southern Buncombe County, and to accommodate current and planned growth, NCDOT proposes to construct a new interchange on I-26 in the project study area (PSA) (Figure 1). This new interchange would connect to NC 191 via a road that is currently under construction by a private developer but will later become a State road (i.e., Frederick Law Olmsted Way East) (see Figure 2). The Biltmore Farms, LLC property (aka Biltmore Park West [BPW]) (see Figure 3) will be accessed via NC 191 at a new fourth leg to the Blue Ridge Parkway Access Road/Frederick Law Olmstead Way intersection. The private developer is currently constructing a new bridge over the FBR and a 2-lane road (Frederick Law Olmstead Way East) to connect to the Pratt & Whitney (P&W) Advanced Manufacturing Center, also currently under construction. The new one million square-foot advanced manufacturing center is planned to begin manufacturing operations by the end of 2022.

The private developer is constructing the bridge to accommodate up to 5 lanes of traffic and has graded the approach roadway to allow for a future 4-lane cross section but is currently paving 2-lanes. As with many private development projects where NCDOT anticipates accepting ownership, NCDOT has reviewed and approved all preliminary plans for the FBR bridge and roadway and has an inspector on-site to confirm the privately-built transportation infrastructure is constructed to NCDOT standards. The Department anticipates accepting the bridge and roadway currently under construction (not part of HE-0001) into the State highway system within a few months following completion.

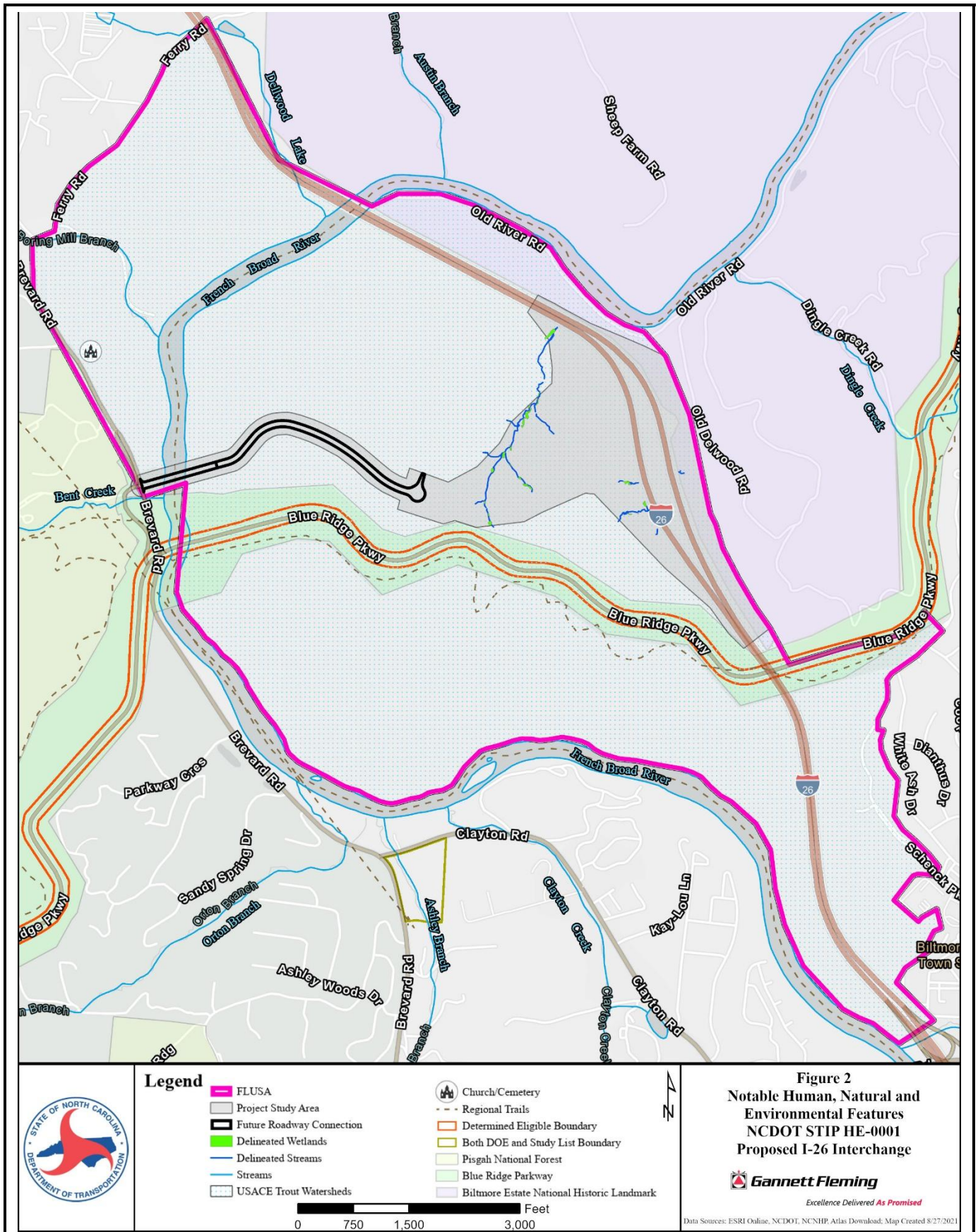
The proposed project is needed to address the lack of network connectivity between NC 191 and I-26 in southern Buncombe County to accommodate current and planned growth.

The purpose of the project is to provide access to I-26 and improve east-west connectivity within the project vicinity to accommodate current and planned growth.

The proposed project is anticipated to improve traffic operations throughout the study area roadways and intersections by introducing a new access to the interstate, thus improving mobility and connectivity to meet future travel demand projected as a result of Buncombe County population and employment growth. Improved access would provide for the efficient and reliable movement of people and goods into and out of the Biltmore Farms property as well as to and from the NC 191 corridor, including but not limited to the NC Arboretum and Blue Ridge Parkway.







## Verify and Update Information from the ICE Report

Please provide a detailed response in the field provided or check the box if the question is not applicable.

Check if  
item is not  
applicable  
:

### Future Land Use Study Area (FLUSA) Characteristics

Does the Preliminary ICE Study Time Horizon of 2030 seem appropriate for this project particularly in terms of consistency with the planning horizons of local transportation and land use plans? If not, please indicate what the year should be.

**The City's comprehensive plan (link: <https://online.flippingbook.com/view/106269/>) has a time horizon that continues through almost 2040 so that may be a better alignment for the ICE study time horizon.**

Required  
Question

Are there notable public or private transportation, infrastructure, or development projects underway or foreseeable in the FLUSA? Please describe the current status of these projects, noting if they are permitted or planned.

**The 137 acre parcel within the FLUSA (north side of the river) off Ferry Road is incorrectly labeled as the City of Asheville. I believe this is now the property of Buncombe County. Although the property was approved by the City to become a large subdivision, that project may have been delayed or retracted. Whatever happens on that parcel may have a significant impact on this study area.**

☐ N/A

How do population and employment trends within the FLUSA compare to the county or multi-county area trends? Are there areas of the FLUSA that are growing or declining more so than other areas?

**At the edge of the city, this area is experiencing strong residential and commercial growth.**

☐ N/A

Please verify the accuracy and completeness of the Human Environmental Features Map provided above. Are there additional features that should be included?

**Add the French Broad Overlook, Zen Tubing, Bent Creek River Park.**

☐ N/A

Please verify the accuracy and completeness of the Natural Environmental Features Map provided above. Are there additional features that should be included?

x N/A

Additional comments or information regarding FLUSA Characteristics:

### Growth and Development

1. Is the FLUSA currently served by water and sewer service? If not, are there plans and funding to extend service?	<input type="checkbox"/> N/A
2. Please identify land/parcels within the FLUSA that are likely to be developed or sold.	<input type="checkbox"/> N/A
3. Describe the type and location of any public or private development that is currently occurring within the FLUSA.	<input type="checkbox"/> N/A
4. Are there any known plans for public or private development in the FLUSA? If so, has this development been permitted and/or initiated yet?	<input type="checkbox"/> N/A
5. How would development patterns likely be different if a) the project is built or b) the project is not built? <b>If the project is not built it will put more traffic on the other highway offramps, making access to the project a greater challenge and possibly leading to a greater number of crashes from higher volumes of city traffic along Brevard.</b>	<input type="checkbox"/> N/A
Additional comments or information regarding Growth and Development:	

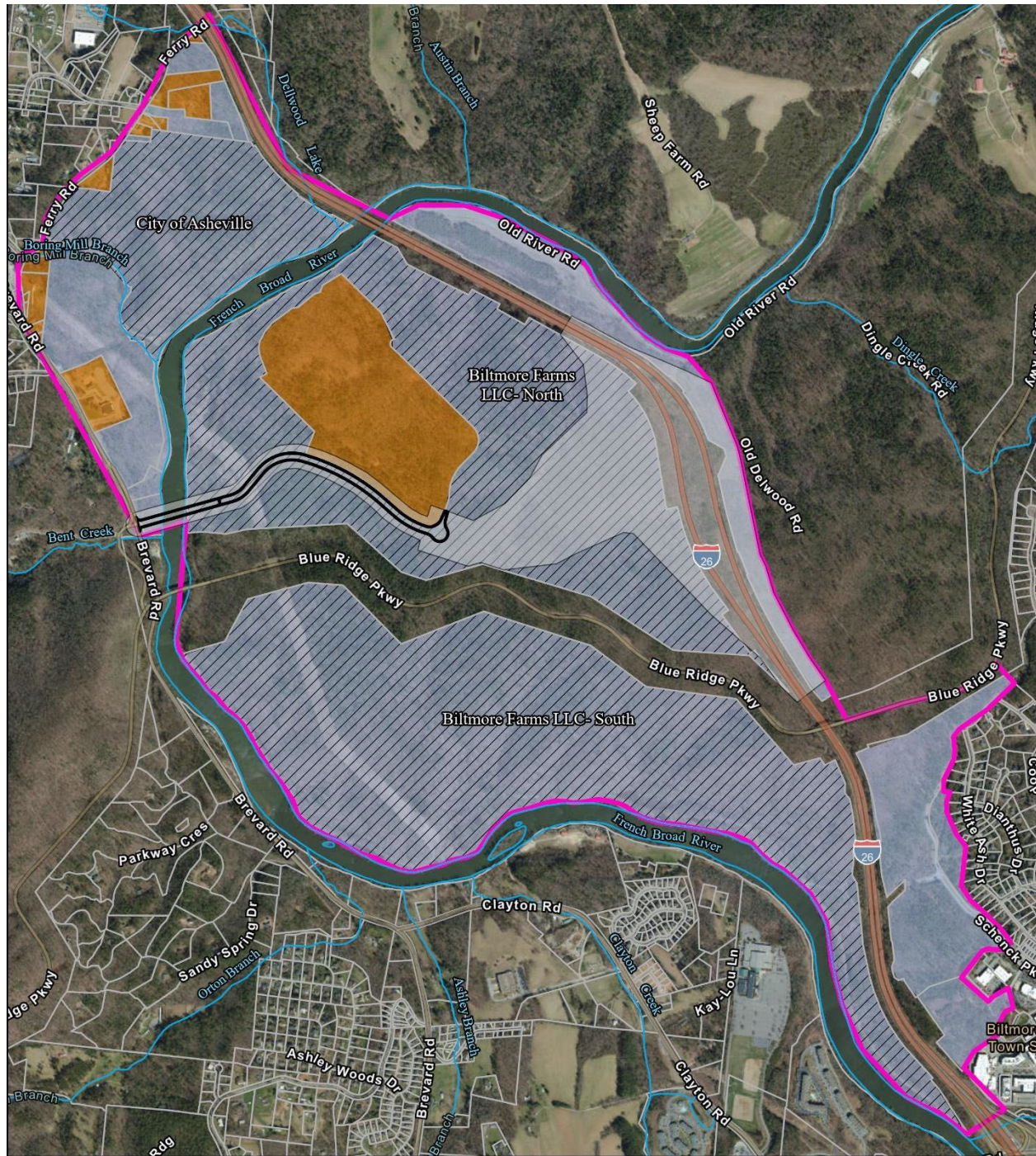
<b>Public Policy</b>	
6. What are the local plans, policies, or regulations that pertain to development and growth within the FLUSA? <b>The city has goals to grow in a more urban pattern. Any new transportation infrastructure needs to provide robust bicycle and pedestrian infrastructure that connects to trails, paths, etc.</b>	<input type="checkbox"/> N/A
7. Describe the effectiveness of these plans, policies, and regulations at balancing development and natural resource protection within the FLUSA. <b>The more that NCDOT supports bicycle &amp; pedestrian infrastructure, the more effective city and state goals will be achieved. Please highlight that NCDOT's number one goal is to "Make transportation safer." How is this highway connection leading to increased safety? What elements will support fewer crashes and less debilitating/severe injuries? How is the design speed ensuring slow speeds that are correlated with fewer injuries?</b>	<input type="checkbox"/> N/A
Additional comments or information regarding Public Policy:	

<b>Next Steps</b>
-------------------

8. Should others be consulted regarding this Indirect and Cumulative Effects analysis? (e.g. municipal utilities, county planners, etc.) <b>Yes, please contact Tristan Winkler with the MPO.</b>	<input type="checkbox"/> N/A
Additional comments or information regarding this Indirect and Cumulative Effects analysis:	



# Land Use Scenario Assessment



## Legend

- FLUSA
- Project Study Area
- Developed Land
- Undeveloped Land
- Future Roadway Connection
- Parcels
- Streams
- Probable Development Area

0 750 1,500 3,000 Feet



**Figure 3**  
Probable Development Area Map  
NCDOT STIP HE-0001  
Proposed I-26 Interchange

**Gannett Fleming**

*Excellence Delivered As Promised*

Data Sources: ESRI Online, NCDOT, NCNIP Map Created 8/27/2021



<b>PDA Name:</b>	<b>City of Ashville</b>	
General Description:	This parcel of land is owned by the City of Ashville. It is currently undeveloped and heavily forested. It is bounded by Ferry Road to the north, I-26 to the east, French Broad River to the south and Boring Mill Branch to the west. A feasibility study is underway for the potential development of the parcel.	
<b>Land Availability</b>	<b>Acres</b>	<b>Percent</b>
Land Available for Development: <i>Undeveloped (vacant) and underutilized</i>	122	100%
Developed Land	0	0%
Total:	122	100%

<b>PDA Name:</b>	<b>Biltmore Farms LLC- North</b>	
General Description:	This parcel is owned by Biltmore Farms. It is currently undeveloped and heavily forested. It is bounded by French Broad River to the north and west, I-26 to the east, and the Blue Ridge Parkway to the south. The new Pratt & Whitney Advanced Manufacturing Center, currently in development, is located in the center of this tract of land. Conceptual development plans are currently in design. The parcel will be accessed by a new FBR bridge and two-lane road that connects to NC 191.	
<b>Land Availability</b>	<b>Acres</b>	<b>Percent</b>
Land Available for Development: <i>Undeveloped (vacant) and underutilized</i>	346	88%
Developed Land	100	22%
Total:	446	100%

<b>PDA Name:</b>	<b>Biltmore Farms LLC- South</b>	
General Description:	This parcel is owned by Biltmore Farms. It is currently undeveloped and heavily forested. It is bounded by the Blue Ridge Parkway to the north, I-26 to the east, and the French Broad River to the west and south. Conceptual development plans are currently in design. The parcel is connected to Schenck Parkway via a gravel road that includes an underpass under I-26, north of Long Shoals Road and south of the Blue Ridge Parkway.	
<b>Land Availability</b>	<b>Acres</b>	<b>Percent</b>
Land Available for Development: <i>Undeveloped (vacant) and underutilized</i>	419	0%
Developed Land	0	0%
Total:	419	100%

***Land Use Development Scenarios***

1. Describe any public or private development that would be likely to occur in the near-term (next five years) within the Probable Development Areas (PDAs).

How would each of the PDAs likely develop if the proposed project is not constructed? Take into account the current zoning regulations and land use / comprehensive plan, if applicable.

How would each of the PDAs likely develop if the proposed project is constructed? Take into account the current zoning regulations and land use / comprehensive plan, if applicable.

Would building the project influence the type (e.g. residential vs. commercial) and/or density of development within the PDAs?

How does future population and employment growth within the PDAs compare to the surrounding area? For example, is future growth anticipated to be greater within the PDAs compared to the region?

Additional comments or information regarding Land Use Development Scenarios:

# **Land Use Scenario Assessment**

**STIP # HE-0001 Buncombe County**



**NCDOT**  
**Land Use Scenario**  
**Assessment**  
**Report**

SEPTEMBER 2021

## Table of Contents

<b>Executive Summary .....</b>	<b>1</b>
Indirect Effects Matrix.....	3
Land Use Scenario Assessment Matrix .....	4
<b>1.0 Project Initiation.....</b>	<b>5</b>
1.1 Summary of Time Horizon .....	5
1.2 Notable Features.....	5
1.3 Summary of Growth Trends.....	6
1.4 Pertinent Land Use and Transportation Plans .....	6
1.5 Development Regulations.....	7
1.6 Project Stakeholders .....	9
1.7 Future Land Use Study Area.....	10
<b>2.0 Probable Development Areas .....</b>	<b>12</b>
2.1 Existing Conditions.....	14
2.1.1 Existing Transportation Network .....	15
2.2 No-Build Scenario.....	17
2.2.1 No-Build Transportation Network .....	17
2.3 Build Scenario .....	18
2.3.1 Build Scenario Transportation Network.....	18
<b>3.0 Evaluation of Scenarios.....</b>	<b>21</b>
3.1 Scope of Development.....	21
3.2 Development Intensity.....	22
3.3 Future Shift of Regional Population Growth.....	22
3.4 Future Shift of Regional Employment Growth.....	23
3.5 Pressure for Land Development Outside Regulated Areas.....	23
3.6 Planned/Managed Land Use and Impacts .....	23
<b>4.0 Land Use Scenario Assessment Matrix .....</b>	<b>24</b>
<b>Sources .....</b>	<b>26</b>

## Tables

Table 1: Project Characteristics .....	2
Table 2: Summary of Pertinent Land Use and Transportation Plans.....	7
Table 3: Project Stakeholders .....	9
Table 4: Land Use Summary – PDA 1 .....	14
Table 5: Land Use Summary – PDA 2 .....	14
Table 6: Land Use Summary – PDA 3 .....	15

## Figures

Figure 1: Indirect Effects Matrix.....	3
Figure 2: Future Land Use Study Area .....	11
Figure 3: Probable Development Areas .....	13



Figure 4: Existing Conditions.....	16
Figure 5: No-Build vs. Build Scenarios.....	20
Figure 6: Land Use Scenario Assessment Matrix .....	25

## Appendices

Appendix A: Photographs

## Executive Summary

The North Carolina Department of Transportation (NCDOT) Division 13 has begun planning and environmental studies for STIP Project HE-0001 (the project), a proposed new interchange along Interstate 26 (I-26) and connecting roadway in Buncombe County, NC. The proposed project is located approximately 6 miles south of Asheville near I-26 mile marker 35, north of the Blue Ridge Parkway (BRP) and south of the French Broad River (FBR) bridge.

The proposed project is needed to address the lack of network connectivity between NC 191 and I-26 in southern Buncombe County to accommodate current and planned growth.

The purpose of the project is to provide access to I-26 and improve east-west connectivity within the project vicinity to accommodate current and planned growth.

To address the lack of network connectivity between NC 191 and I-26 in southern Buncombe County, and to accommodate current and planned growth, NCDOT proposes to construct a new interchange on I-26 and a two-lane roadway to connect the proposed interchange to a road (Frederick Law Olmsted Way East) that is currently being constructed by Biltmore Farms, LLC (a private developer) (Figure 1). This new interchange would connect to NC 191 via the proposed roadway connection and Frederick Law Olmsted Way East. Frederick Law Olmsted Way East is being paved as two lanes but has been graded to allow for a future four-lane cross-section. Biltmore Farms, LLC is also constructing a new bridge over the FBR, to connect Frederick Law Olmsted Way East to the existing BRP Access Road/Frederick Law Olmsted Way intersection and enable access via NC 191. NCDOT anticipates accepting Frederick Law Olmsted Way East and the new bridge (which are not part of HE-0001) into the State highway system within a few months following completion, which is anticipated in 2022.

The new bridge and roadway will provide access to the Biltmore Farms, LLC property (aka Biltmore Park West) (see Figure 5, in Appendix A). The Pratt & Whitney (P&W) Advanced Manufacturing Center, currently under construction, is the first development in Biltmore Park West. It consists of a 1 million-square-foot advanced manufacturing center which is planned to begin manufacturing operations by the end of 2022.

The project is anticipated to improve traffic operations throughout the study area roadways and intersections by introducing a new access to the interstate, thus improving mobility and connectivity to meet future travel demand projected as a result of Buncombe County population and employment growth. Improved access would provide for the efficient and reliable movement of people and goods into and out of the Biltmore Farms, LLC property as well as to and from the NC 191 corridor, including but not limited to the NC Arboretum and the BRP.

This report analyzes growth trends and potential development between now and 2045. The planning horizons provided in adopted local planning studies and from local planning stakeholders consulted ranged from 2030 - 2045. Projected future traffic volumes are available for 2045. Therefore, a future planning horizon of 2045 was selected as it encompasses the variety of planning horizons available and traffic projections were readily available.

The purpose of the project is to accommodate current and planned growth in the project vicinity and is consistent with local goals. In December 2020, the Buncombe County Board of Commissioners (BOC)

executed an incentive agreement with P&W. In exchange for County incentives of \$27 million, P&W will build a 1 million square foot advanced manufacturing center on 100 acres in Biltmore Park West and will commit to create 750 full-time jobs associated with the Advanced Manufacturing Center by the end of 2029.

**Table 1: Project Characteristics**

<b>STIP Number:</b>	HE-0001		
<b>Project Location:</b>	Buncombe County		
<b>Project Type</b> <input type="checkbox"/> Interchange Modification <input checked="" type="checkbox"/> Creation of Interchange <input type="checkbox"/> Roadway Widening <input checked="" type="checkbox"/> Roadway on New Location	<b>Project Scale</b> <i>Length</i> <input checked="" type="checkbox"/> Interchange Project <input checked="" type="checkbox"/> Roadway Project 0 – 2 miles <input type="checkbox"/> Roadway Project 2 – 4 miles <input type="checkbox"/> Roadway Project > 4 miles  <i>Right-of-Way</i> <input type="checkbox"/> Project within existing ROW <input checked="" type="checkbox"/> Project requires additional ROW		
<b>Existing control of access:</b> <input type="checkbox"/> No Control <input type="checkbox"/> Partial Control <input type="checkbox"/> Limited Control <input checked="" type="checkbox"/> Full Control	<b>Proposed control of access:</b> <input checked="" type="checkbox"/> No Control (2-lane roadway extension) <input type="checkbox"/> Partial Control <input type="checkbox"/> Limited Control <input checked="" type="checkbox"/> Full Control (I-26 interchange)		
<b>Existing Number of Lanes:</b>	N/A	<b>Existing Median:</b>	Yes (I-26)
<b>Proposed Number of Lanes:</b>	2 (roadway extension)	<b>Additional of Median(s):</b>	No

## Indirect Effects Matrix

The ICE Report for the project is being prepared simultaneously with the LUSA and is incorporated here by reference. The Indirect Effects Matrix is shown in Figure 1.

**Figure 1: Indirect Effects Matrix**

Indirect Effects Matrix - TIP HE-0001- New I-26 Interchange										
Rating	Scope of Project	Travel Time Savings	Forecasted Population Growth	Forecasted Employment Growth	Available Land	Water/Sewer Availability	Market for Development	Public Policy	Notable Natural Environmental Features	Result
More Concern	High	> 10 minute travel time savings	> 3% annualized population growth	> 3% annualized employment growth	40% or greater of available land	Services available (80 - 100% of FLUSA served)	Development Activity Abundant	Less stringent; no growth management	Notable Feature(s): Abundant / More Sensitive	
High						X	X		X	Land Use Scenario Assessment Warranted
Medium-High	X	X								
Medium					X					
Medium-Low			X	X				X		
Low										
Less Concern	Low	No travel time savings	No population growth or decline	No employment growth or decline	0 - 9% of available land	Limited or no service available now or in future (0 - 20% of FLUSA served)	No Development Activity	More stringent; growth management	Notable Feature(s): Minimal / Less Sensitive	

\*Refer to ICE Guidance Document for rating descriptions

Analysis suggests that indirect effects are possible from the construction of this proposed project and need to be further investigated. This project would provide increased access within the Future Land Use Study Area (FLUSA), therefore supporting current and planned development of the area. Currently, the P&W Advanced Manufacturing Center is being developed and is anticipated to begin manufacturing operations by the end of 2022. Conceptual land use plans for the Biltmore Park West development, consisting of the P&W Advanced Manufacturing Center and adjacent land, have been prepared by Biltmore Farms, LLC (private developer). The large tract of undeveloped land north of the FBR and south of Ferry Road is zoned as residential and is currently undergoing a feasibility study under the direction of Buncombe County to determine the best use of the land. Natural environmental features are a concern in this area due to the presence of potential habitat areas for federally protected species.

These primary factors influenced the Indirect Effects Screening Matrix finding that a Land Use Scenario Assessment (LUSA) is warranted.

### Indirect Effects Matrix Result

Land Use Scenario Assessment  
Warranted

**LUSA Warranted**

☒ Yes ☐ No

## Land Use Scenario Assessment Matrix

The results of the Land Use Scenario Assessment Matrix are that the rankings for the various categories are similar for both the No-Build and Build scenarios. The rankings and key reasons for the results are presented in Chapter 3.0. Based on the results from the Land Use Assessment Matrix, a Cumulative Effects Assessment is not required.

### LUSA Matrix Result

Indirect Land Use Impacts Not  
Likely

**Cumulative Effects  
Assessment Required**

☐ Yes ☒ No



## 1.0 Project Initiation

Chapter 1 provides summaries of the time horizon, notable features, and growth trends. It discusses the land use and transportation plans pertinent to the project and summarizes development regulations. It identifies project stakeholders and presents the Future Land Use Study Area (FLUSA).

### 1.1 Summary of Time Horizon

This report analyses growth trends and potential development between now and 2045. The planning horizons provided in adopted local planning studies and from local planning stakeholders consulted ranged from 2030-2045. Projected future traffic volumes are available for 2045. Therefore, a future planning horizon of 2045 was selected as it encompasses the variety of planning horizons available and traffic projections were readily available.

### 1.2 Notable Features

Site visits, interviews with local officials, Buncombe GIS Data, NC OneMap and NCDOT ATLAS GIS data were used to inventory community facilities within the FLUSA. Following is a list of the notable natural and human environmental features within the FLUSA in relation to the project.

- The FLUSA is located within the FBR Basin. Approximately 1 mile of the FBR travels through the FLUSA. The river continues to run adjacent to the northern and western edge of the FLUSA for approximately 3.7 miles. Additionally, several tributaries to the FBR are located within the FLUSA including Bent Creek, Boring Mill Branch and Dellwood Lake. Bent Creek and the FBR are classified by North Carolina Department of Environmental Quality (NC DEQ) as Class B waters (waters protected for secondary recreation in addition to primary recreation). Portions of Bent Creek that are located within Pisgah National Forest (and outside the FLUSA) are classified as Wild Trout Waters by the North Carolina Wildlife Resource Commission (NCWRC). Boring Mill Branch and Dellwood Lake are classified by NC DEQ as Class C waters (waters protected for secondary recreation).
- Potential Endangered & Threatened Species habitat for the Gray bat and Northern long-eared bat exists within the FLUSA. (Note: While suitable habitat for the Appalachian elktoe [endangered] is not included in the project study area, the FLUSA includes a section of the FBR which is suitable habitat for this protected aquatic species. Jurisdictional waters in the project study area drain directly to the FBR and direct impacts to these waters will be evaluated for appropriate water quality management techniques.)
- The French Broad River State Trail is a 117-mile blueway that travels from Rosman, NC to the Tennessee border.
- The FLUSA is located in a USACE Trout Watershed. Special regulations apply to discharging dredged or fill materials into waters to protect water quality.
- The BRP is a vehicular and bicyclist byway that travels west to east through the FLUSA for approximately 1.7 miles. The Parkway is National Park Service resource .
- Mountains-to-Sea Trail is a hiking/backpacking trail that is located south of the BRP and travels west to east through the FLUSA. The trail continues on outside of the FLUSA and spans across the State of North Carolina from the mountains to the coast and is a part of the State park system.

- A portion of the Biltmore Estate falls within the FLUSA, adjacent to the east side of I-26.
- Bent Creek River Park (1610 Brevard Road), just north of the BRP adjacent to the FLUSA. This Park is owned and maintained by Buncombe County. It provides access to the FBR, picnic areas, trails and parking.
- Pisgah National Forest is located adjacent to the west of FLUSA. The Pisgah National Forest is comprised of over 500,00-acres and is primarily a hardwood forest with whitewater rivers, waterfalls and hundreds of mile of trails.
- Bent Creek Experimental Forest–Southern Research Center (1577 Brevard Road, Asheville) is located adjacent to the west of FLUSA. This US Forest Service (USFS) property encompasses nearly 6,000 acres within the Pisgah National Forest.
- NC Arboretum is located at 100 Frederick Law Olmsted Way, adjacent to the west of the FLUSA located in the Pisgah National Forest. The Arboretum is a well sought out destination that cultivates the connection between people and plants.

### 1.3 Summary of Growth Trends

According to North Carolina’s Office of State Budget and Management (NCOSBM), the population in Buncombe County has grown steadily over the past two decades. The population of Buncombe County grew by 36.68% (1.57% annually) from 1990 to 2010. By comparison, the State grew by 43.77% (1.83 annually) from 1990-2010. From 2010-2019 the population of Buncombe County grew by 10.21% (1.09% annually) while the State’s population grew by 9.98% (1.06% annually).

Additionally, according to NCOSBM, the population in Buncombe County is anticipated to increase at a slower rate of 0.68% annually from 2020 to 2045, while the State’s population is expected to increase 0.95% annually from 2020 to 2045.

Discussions with local planners concluded that because a majority of the land within the FLUSA is vacant, any new development would contribute to a higher population growth rate within the FLUSA than the surrounding area (see HE-0001 ICE Short Form Appendix A for interview forms).

According to NC Department of Commerce-Labor and Economic Analysis, the 2018-2028 (latest projection year available) annualized employment growth rate for the Asheville Region is 0.6%. Job growth rates are anticipated to increase within the FLUSA with or without the new interchange as a result of the P&W Advanced Manufacturing Center, which is currently in development. P&W Advanced Manufacturing Center has committed to 750 new jobs by 2029.

Land in the FLUSA is zoned for a variety of uses, including residential, employment district, and commercial service district. Discussions with local planners and stakeholders confirmed the FLUSA is located within a high-growth area. Due to the amount of available land and proximity to the highway, growth rates within the FLUSA would likely be higher than the rest of the region. Development activity is anticipated to occur within the FLUSA with or without the new interchange.

### 1.4 Pertinent Land Use and Transportation Plans

Living Asheville: A Comprehensive Plan for Our Future, was adopted in June 2018 as the City of Asheville’s comprehensive planning document. The Future Land Use Map included in this document identified land within the FLUSA that is within the City of Asheville’s jurisdiction as primarily Traditional Neighborhood with a strip of Parks/Open Space along the FBR. The Traditional Neighborhood designation calls for single

family with accessory dwelling units, duplexes, townhomes and multifamily apartments with densities of 4-8 units per acre. The land within the FLUSA within the City of Asheville's jurisdiction was not mapped as being within a designated growth area.

The majority of the FLUSA is under the jurisdiction of Buncombe County. This portion of the FLUSA was designated by Buncombe County as rural/agricultural on the 2006 Proposed Land Use Map (Buncombe County Comprehensive Land Use Plan Update). Buncombe County prepared an update to the comprehensive plan in 2013 but did not update the future land use map. Buncombe County is in the early stages of updating their comprehensive plan.

The Comprehensive Transportation Plan for French Broad River MPO and Rural Areas of Buncombe and Haywood Counties was adopted in 2007 and finalized in 2008. In the vicinity of the FLUSA this plan called for the widening of I-26 from 4 to 6 lanes. The Metropolitan Transportation Plan (MTP, previously known as LRTP) is a fiscally constrained and required planning document that reflects planned transportation investments over the next twenty-five years. It forecasts changes in the region and seeks to identify transportation improvements needed to keep travelers and goods moving smoothly and how to fund those improvements. The plan is multi-modal and identifies investments in roadway, public transportation, bicycle and pedestrian, rail and aviation projects. The current MTP 2045 was adopted by the MPO on September 24, 2020 (FBRMPO).

**Table 2: Summary of Pertinent Land Use and Transportation Plans**

Plan Title	Horizon Year	Planning Boundary
Living Asheville: A Comprehensive Plan for Our Future	2038	City of Asheville
Buncombe County, Comprehensive Land Use Plan, 2013 Update	None noted	Buncombe County
Comprehensive Transportation Plan for French Broad River MPO and Rural Areas of Buncombe and Haywood Counties	2030	All of Henderson and portions of Haywood and Buncombe counties
Metropolitan Transportation Plan	2045	Asheville Urbanized Area (All of Buncombe and Henderson Counties and portions of Haywood, Madison Counties)

## 1.5 Development Regulations

The City of Asheville Zoning Ordinance is found within Chapter 7 of the Code of Ordinances. Within the FLUSA two zoning districts area noted on the Asheville Zoning Map.

- **RS-4 Residential Single-Family Medium Density District.** The RS-4 Residential Single-Family Medium Density District provides for medium density single-family dwellings. Non-single-family development normally required to provide the basic elements of a balanced and attractive residential area is also permitted.
- **RES EXP Residential Expansion.** The intent of the Residential Expansion District (RES EXP) is to permit a full range of high density single and multi-family housing for developments that meet

the definition of a Level III development. It is intended that proposals in this district include a broad range of housing types and be located near employment centers, shopping facilities, roads and other urban infrastructure capable of handling the demand generated by higher density residential development. The Residential Expansion District is a conditional district that is applied for through a rezoning application.

Buncombe County adopted its zoning ordinance in 2009 and it was amended in 2019. Twelve zoning districts are identified in the zoning ordinance as amended in 2019. Within the FLUSA six zoning districts are noted on the Buncombe County Zoning Map.

- Low-Density Residential District (R-LD). The R-LD Low-Density Residential District is primarily intended to provide locations for low-density residential and related-type development in areas where topographic or other constraints preclude intense urban development.
- Residential District (R-1). The R-1 Residential District is primarily intended to provide locations for single-family and two-family residential development and supporting recreational, community service, and educational uses in areas where public water and sewer services are available or will likely be provided in the future.
- Residential District (R-3). The R-3 Residential District is primarily intended to provide locations for a variety of residential development depending upon the availability of public water and sewer services. Some areas within the R-3 Residential District will have no public water and sewer services available and will thus be suitable primarily for single-family residential units on individual lots and mobile homes on individual lots. Other areas within the district will have public water and/or sewer service available and will thus be suitable for higher density uses such as multifamily residential units, planned unit developments, and mobile home parks. The R-3 district also provides for various recreational, community service and educational uses that will complement the residential development.
- Neighborhood Service District (NS). The NS Neighborhood Service District is primarily intended to provide suitable locations for limited, neighborhood-oriented, commercial, business, and service activities in close proximity to major residential neighborhoods. The NS Neighborhood Service District is designed to allow for a mix of residential, commercial, business and service uses in limited areas along major traffic arteries and at key intersections leading to residential neighborhoods in order to provide such service to the residents of that particular neighborhood.
- Commercial Service District (CS). The CS Commercial Service District is primarily intended to provide suitable locations for clustered commercial development to encourage the concentration of commercial activity in those specified areas with access to major traffic arteries, to discourage strip commercial development, and to allow for suitable noncommercial land uses. Such locations should currently have water and sewer services or be expected to have such services available in the future. This CS Commercial Service District may be applied to suitable areas adjacent to existing commercial concentration to allow for their expansion.
- Employment District (EMP). The EMP Employment District is primarily intended to provide appropriately located sites for employment concentrations primarily for office uses, industrial uses, storage and warehousing, and wholesale trade. Such locations should currently have public water and sewer services available or be expected to have these services in the future. Only those manufacturing uses will be allowed which meet all local, state and federal environmental standards, and do not involve obnoxious noise, vibrations, smoke, gas, fumes, odor, dust, fire

hazards, or other objectionable conditions which would be detrimental to the health, safety, and general welfare of the community. These areas will also include sites suitable for supportive activities such as community service, commercial service, and residential uses.

Buncombe County Chapter 78 Zoning Section 78-79 requires a minimum 100-foot vegetative buffer for all new development activities that exceed low density; otherwise, a minimum 30-foot vegetative buffer for development activities is required along all perennial waters. Additionally, Chapter 78 Zoning Section 78-643 requires the following provisions to all properties within 1,320 feet of the centerline of the BRP; principal buildings must set back a minimum of 50 feet and accessory buildings must setback a minimum of 30 feet from the parcel boundary; no buildings within 1,000 feet of the centerline of the BRP can exceed 40 feet in height; and if buildings are visible from the parkway, screening standards will be required.

## 1.6 Project Stakeholders

Local municipal, county and city government staff, the Metropolitan Planning Organization (MPO) and adjacent property owners were identified by NCDOT.

**Table 3: Project Stakeholders**

Affiliation	Name	Email	Phone	Response (Y/N)
Buncombe County	William High / Nathan Pennington	William.High@buncombecounty.org / Nathan.pennington@buncombercounty.org	828-250-4844 / 828-250-4856	Y
City of Asheville	Vaidila Satvika	vsatvika@ashevillenc.gov	828-251-4036	Y
FBRMPO	Tristan Winkler	tristan@landofsky.org	828-251-7454	Y
Biltmore Farms, LLC <sup>1</sup>	Lee Thomason	lthomason@biltmorefarms.com	828-209-2000	Y

<sup>1</sup> Previous coordination with Lee Thomason occurred earlier in project development; therefore, an interview form was not sent to Mr. Thomason.



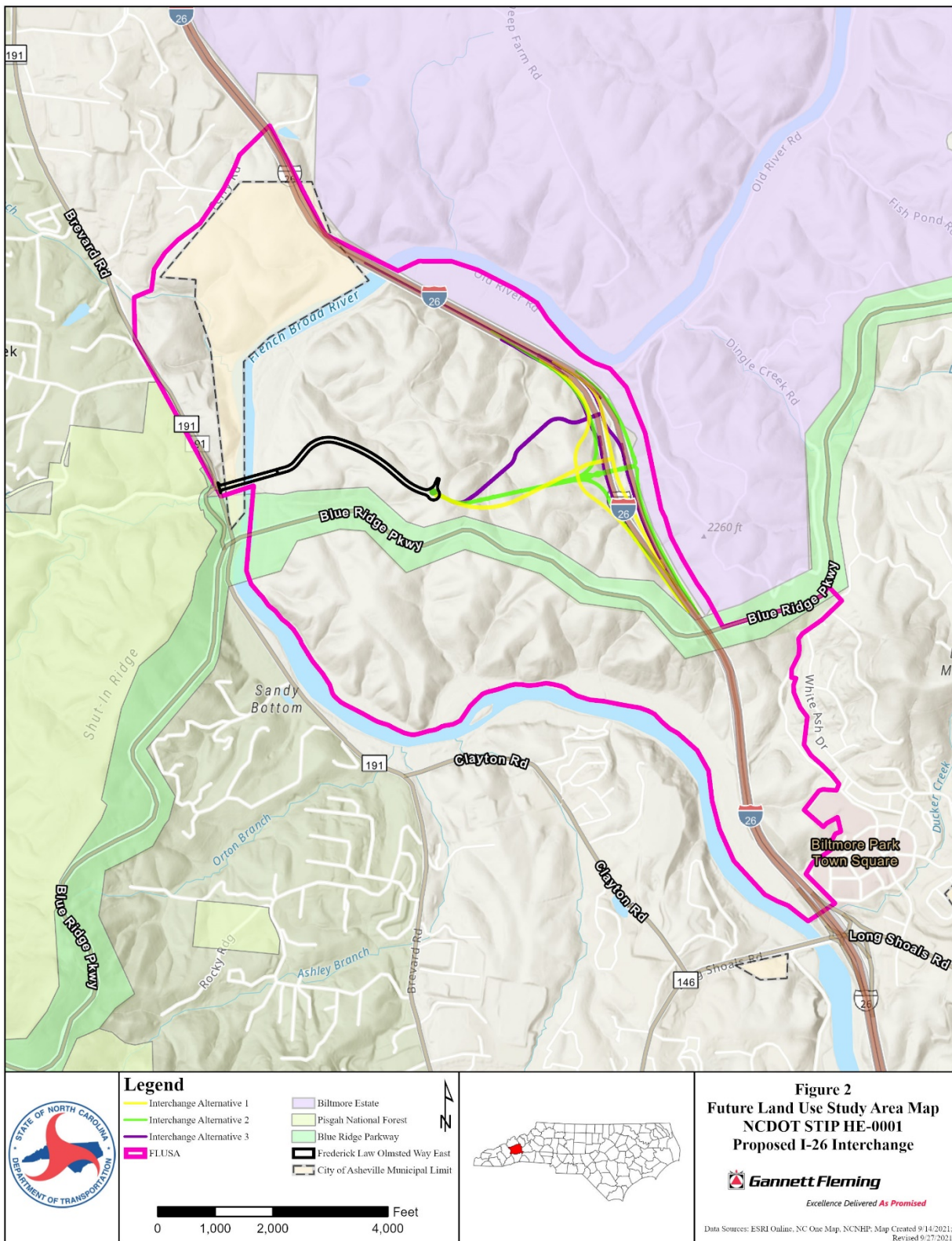
## 1.7 Future Land Use Study Area

The FLUSA is the area surrounding a construction project that could possibly be indirectly affected by the actions of others as a result of the completion of the project. The proposed FLUSA is generally bounded by;

- Ferry Road to the north;
- I-26 corridor, the FBR and Buncombe County Parcel boundaries to the east;
- Buncombe county parcel boundaries to the south;
- The FBR and Brevard Road (NC 191) to the west.

The FLUSA encompasses all of the areas examined for potential increases in development pressure as a result of the new interchange and other foreseeable projects in the area. The FLUSA is shown in Figure 2.

Figure 2: Future Land Use Study Area



## 2.0 Probable Development Areas

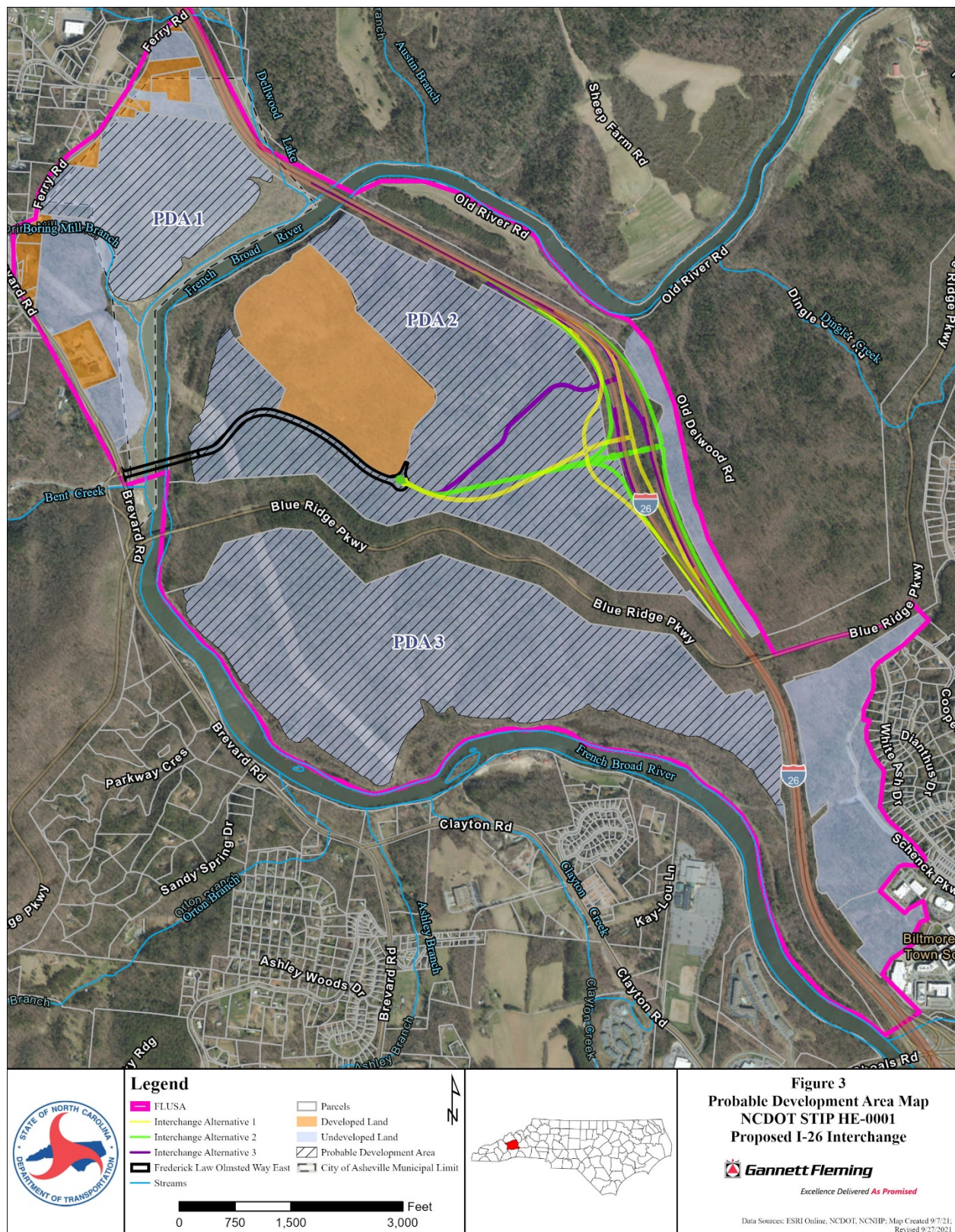
Chapter 2 provides an overview of the Probable Development Areas (PDAs) and predicts how each PDA would develop under the No-Build and Build Scenarios. These predictions are related to the local land use policies, adopted zoning regulations, the current development trends in the area, as well as development trends in and around similar nodes.

Probable Development Areas (PDAs) are sub-areas identified in the FLUSA that have the potential to be developed in the Build and No-Build Scenarios. For this study, PDA boundaries follow parcel boundary lines and flood zone areas along the FBR (Figure 3).

Three PDAs were identified within the FLUSA. All three areas are currently forested and undeveloped. PDA 1 is owned by Buncombe County and falls within the City of Asheville jurisdiction boundary. It is located in the northernmost part of the FLUSA bounded by Ferry Road to the north and the FBR to the south. The second two PDAs are owned by Biltmore Farms, LLC. PDA 2 is located in the center of the FLUSA bounded by the FBR to the north and west, I-26 to the east, and the BRP to the south. The proposed project is located in PDA 2. PDA 3 is located in the southern part of the FLUSA bounded by the FBR to the south and west, I-26 to the east, and the BRP to the north.



Figure 3: Probable Development Areas



## 2.1 Existing Conditions

PDA 1 is owned by Buncombe County and falls within the City of Asheville jurisdiction boundary. It is in the northernmost extent of the FLUSA, bounded by Ferry Rd to the north, I-26 to the east, the FBR to the south and Boring Mill Branch to the west. PDA 1 consists of 101 acres of forested undeveloped land, of which 50 acres are considered developable. The property is zoned as a Residential Expansion Area and is currently undergoing a feasibility study under the direction of Buncombe County. The County Board of Commissioners (BOC) recently reviewed land-use concepts for the property that included a mix of recreational, housing, and commercial uses and will vote to authorize funding for community engagement later in September 2021. Members of the BOC responded positively to the development concepts' inclusion of "missing middle" housing, which would include small-scale multifamily options like duplexes and fourplexes instead of large apartment buildings. However, it was noted that several proposals have been forwarded for the site over the past twenty years but none have been carried forward (Walton, 2021). Water lines are present to the north along Ferry Road and sewer lines are present along Boring Mill Branch to the west of the property. PDA 1 is located within a USACE Trout Watershed and adjacent to Boring Mill Branch, Dellwood Lake and the FBR. Portions of PDA 1 fall within the regulated 100-year floodplain of the FBR.

**Table 4: Land Use Summary – PDA 1**

Area	Acres	Percent of PDA
PDA	101	100%
Developed Land	0	0%
Land Available for Development: Undeveloped (vacant) and underutilized	50	50%

PDA 2 is owned by the Biltmore Farms LLC. It is located in the center of the FLUSA, bounded by the FBR to the north and west, I-26 to the east, and the BRP to the south. PDA 2 consists of 306 acres of forested undeveloped land, of which 202 acres are considered developable. The property is zoned as residential (R-3), employment district (EMP), and commercial service district (CS). Sewer lines are present along the FBR to the north and west. A new water line is being established in the interior of PDA 2 as part of the development of the P&W Advanced Manufacturing Center. PDA 2 is located within a USACE Trout Watershed, includes delineated streams and wetlands and is located adjacent to the FBR and the BRP. Portions of PDA 2 fall within the regulated 100-year floodplain of the FBR.

**Table 5: Land Use Summary – PDA 2**

Area	Acres	Percent of PDA
PDA	306	100%
Developed Land	0	0%
Land Available for Development: Undeveloped (vacant) and underutilized	202	66%

PDA 3 is owned by the Biltmore Farms LLC. It is located in the southern portion of the FLUSA, bounded by the BRP to the north, I-26 to the east, and the FBR to the west and south. PDA 3 consists of 321 acres of forested undeveloped land, of which 199 acres are considered developable. The property is zoned as residential (R-3/R-LD), and neighborhood service district (NS). Sewer lines are present along the FBR to



the south and west. A Schenck Parkway stub has available water sources to service PDA 3. PDA 3 is located within a USACE Trout Watershed and is adjacent to the BRP, Mountains-to-Sea Trail and the FBR. Portions of PDA 3 fall within the regulated 100-year floodplain of the FBR.

**Table 6: Land Use Summary – PDA 3**

Area	Acres	Percent of PDA
PDA	321	100%
Developed Land	0	0%
Land Available for Development: Undeveloped (vacant) and underutilized	199	62%

### 2.1.1 Existing Transportation Network

Currently vehicular access to the FLUSA is primarily from NC 191 (Brevard Road). Through the FLUSA, NC 191 is a primary State route and minor arterial that parallels I-26 to the west. North of the BRP, NC 191 is four to five lanes; south of the BRP, NC 191 is a two-lane roadway. I-26 serves as the major north-south interstate through southern Buncombe County and traverses the east side of the FLUSA. I-26 is being widened to eight lanes (four lanes in each direction) through the FLUSA as part of the STIP I-4400/I-4700 project. The interstate widening project is expected to be complete in 2024.

NC 191 intersects I-26 approximately two miles north of the FLUSA at Exit 33. The NC 191 interchange is being improved under STIP I-5504 (expected completion 2022). Traffic accessing the FLUSA may also use I-26 Exit 37 (NC 146/Long Shoals Road) approximately three miles to the south to connect to NC 191.

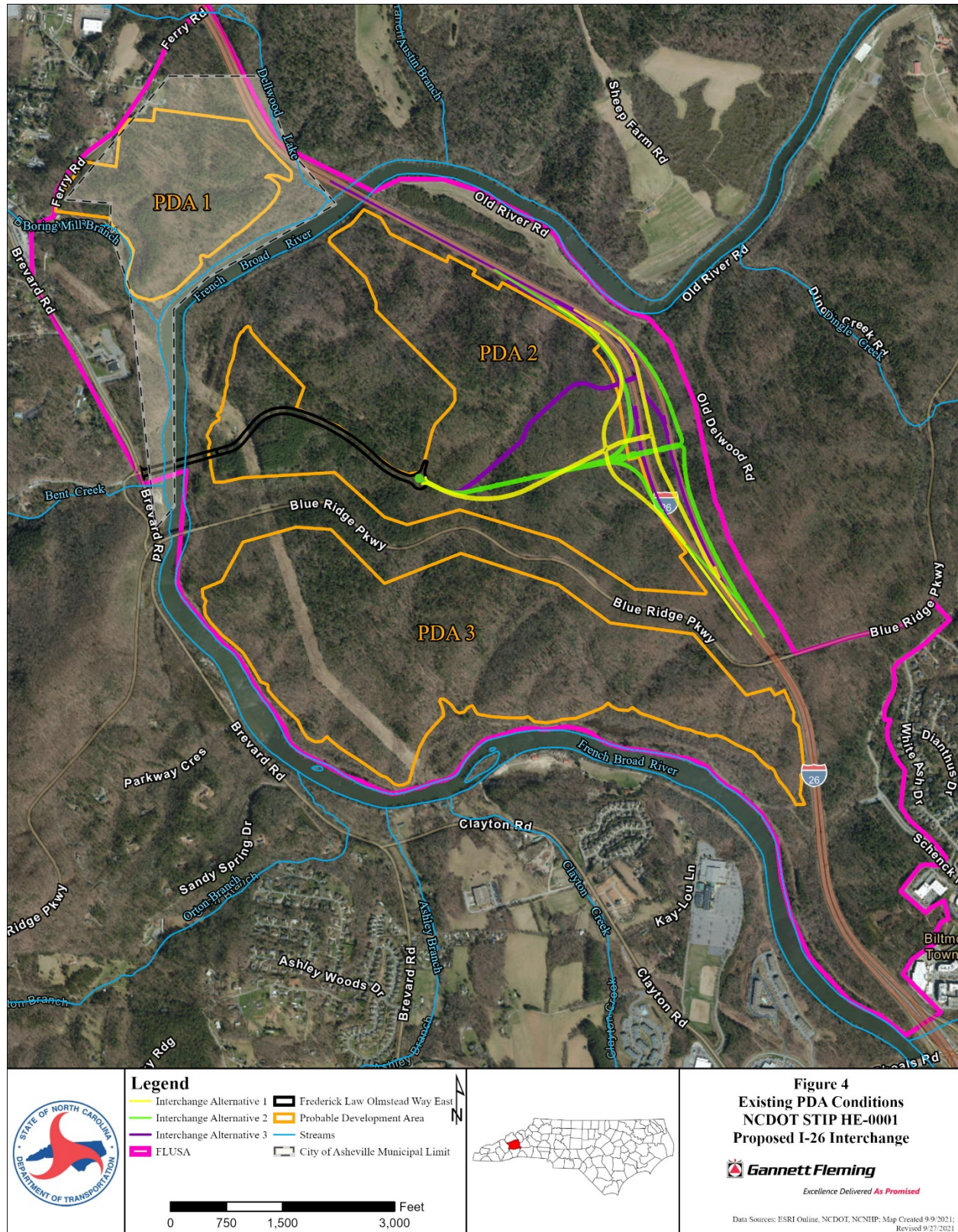
The BRP intersects with NC 191 via a connector road west of the FLUSA. The BRP is a commuter route through this section and some travelers may use the BRP as an east-west connection to access destinations along NC 191.

PDA 1 is accessible via NC 191 only. Dry Ferry Road is a two-lane roadway with no shoulders and has two highly-skewed intersections with NC 191. The southern leg of Dry Ferry Road crosses Boring Mill Branch on a bridge. Ferry Road intersects Dry Ferry Road north of the Boring Mill Branch crossing and continues to the northeast along the north side of PDA 1. Ferry Road is a two-lane roadway with no shoulder that currently accesses several residences and serves as the only connection to two mobile home parks north of the FLUSA. The asphalt ends on Ferry Road about 1,000 feet west of I-26 at which point the road is posted “private drive”; based on aerial imagery, the gravel roadway continues under I-26 to access several additional residences. There is no outlet.

As discussed, the private developer is constructing a new five-lane bridge over the FBR and two-lane roadway (Frederick Law Olmsted Way East) to access the P&W Advanced Manufacturing Center and PDA 2. Biltmore Farms, LLC is paving two-lanes but has graded for a four-lane roadway to accommodate future widening (at an unknown date). This roadway is currently under construction and is expected to be open to traffic by 2022 at which time it will provide access to PDA 2 via NC 191.

A roadway stub connects PDA 3 to Schenck Parkway. The roadway stub intersects Schenck Parkway north of Biltmore Park; a gravel road continues under I-26 and connects to an old gravel road the traverses the east side of the FBR within PDA 3. This roadway is not open to the public but is currently being used for construction access by Biltmore Farms, LLC. Schenck Parkway is accessible via I-26 Exit 37 (NC 146).

Figure 4: Existing Conditions





## 2.2 No-Build Scenario

If the proposed project is not built, development within the PDAs is likely to proceed anyway. Current growth trends in Buncombe County show the increase in demand for new residential properties on undeveloped/ underutilized land zoned residentially, especially in areas near Asheville and convenient to the interstate and/or State highways. Residential zoning is present in all three PDAs. Based on input from local planners, this area is experiencing strong residential and commercial growth.

As noted above, PDA 1 has been subjected to multiple development proposals over the past twenty years but remains undeveloped. As described above, Ferry Road is a two-lane (rural) roadway with no shoulder; intersections with NC 191 are highly-skewed; and Buncombe Bridge 100704 is functionally obsolete. No improvements to Dry Ferry Road or Ferry Road are programmed or planned. Therefore, potential for development in PDA 1 would appear to remain low, noting the current feasibility study indicates a renewed interest from Buncombe County to identify suitable land use options for the property..

PDAs 2 and 3 will likely develop. In the No-Build Scenario, PDA 2 will be accessed by Frederick Law Olmsted Way East from NC 191. The P&W Advanced Manufacturing Center will be fully operational and, according to current estimates, employing at least 750 full time employees. Water and sewer service will be available on the interior of PDA 2 and current zoning supports the conceptual land use plans for Biltmore Park West which includes green space, apartments, townhomes, retail/office space, a hotel, commercial and industrial buildings. Similarly, PDA 3 is favorably located and zoned based on current growth and development trends. Access from Schenck Parkway or Frederick Law Olmsted Way East could be developed to PDA 3, opening this area up and bringing water and sewer service from either direction.

### 2.2.1 No-Build Transportation Network

In the No-Build Scenario, future projected traffic would depend on the existing transportation network – plus those transportation projects currently under construction and programmed – to access PDAs 1, 2, and 3. In the No-Build Scenario, the I-26 widening and Exit 33 improvement projects would be completed as would the Frederick Law Olmsted Way East to provide access to the P&W Advanced Manufacturing Center. The future No-Build transportation network (2045) also assumes that NC 191 would be widened south of Frederick Law Olmsted Way East (STIP Project U-3403B). Input from the City of Asheville Department of Planning and Urban Design noted that more traffic would rely on adjacent interchanges (Exit 33 and Exit 37) in the No-Build Scenario, making access to the FLUSA a greater challenge and possibly leading to a greater number of crashes from higher volumes of local traffic along NC 191. Similarly, Buncombe County Planning and Development noted that in the No Build Scenario, traffic would rely on NC 191 for access and this may influence the type of development to locate specifically in PDA 2.

The *Traffic Forecast for HE-0001*, projects that I-26 would carry between 125,400 and 131,800 vehicles per day (vpd) from south of Exit 37 to north of Exit 33 in the 2045 No-Build Scenario; NC 191 would carry between 28,000 south of the BRP and 46,600 vpd west of the I-26 interchange at Exit 33. The 2045 No-Build Scenario assumes Frederick Law Olmsted Way East would carry 13,800 vpd between NC 191 and the roadways eastern terminus adjacent to the P&W Advanced Manufacturing Center.

In the No-Build Scenario, access to PDA 2 would be limited to NC 191 via Frederick Law Olmsted Way East. There are no known plans to extend the roadway stub from Schenck Parkway into PDA 3; however, the connection is or would remain available with access to I-26 via Schenck Parkway and NC 146 at Exit 37. Similarly, the private developer may provide new access to PDA 3 via a new intersection with Frederick Law Olmsted Way East, extending a roadway to the south under the BRP per conceptual land use plans. However, there are no known or imminent plans for such a connection to PDA 3.

## 2.3 Build Scenario

If the proposed project were constructed, development within the PDAs is likely to proceed. Current growth trends in Buncombe County show the increase in demand for new residential properties on undeveloped/ underutilized land zoned residentially, especially in areas near Asheville and convenient to the interstate and/or state highways. Residential zoning is present in all three PDAs. Based on input from local planners, this area is experiencing strong residential and commercial growth.

The potential for development in PDA 1 is similar to that described for the No-Build Scenario. The proposed project would not directly influence or improve the noted roadway deficiencies on Dry Ferry Road or Ferry Road and no other improvements are programmed or planned for these roadways. Therefore, the potential for development in PDA 1 would appear to remain low, noting the current feasibility study indicates a renewed interest from Buncombe County to identify suitable land use options for the property.

In the Build Scenario, PDAs 2 and 3 will likely develop. As in the No-Build Scenario, PDA 2 will be accessed by Frederick Law Olmsted Way East from NC 191. The Build Scenario would add an interchange that would connect to Frederick Law Olmsted Way East and improve connectivity and access. Local planners thought that development in the Build Scenario would be similar, but potentially include more highway commercial and industrial due to direct interstate access (specifically for PDA 2) when compared to the No-Build Scenario. The P&W Advanced Manufacturing Center will be fully operational and, according to current estimates, employing at least 750 full time employees. Water and sewer service will be available on the interior of PDA 2 and current zoning supports the conceptual land use plans for Biltmore Park West which would include green space, apartments, townhomes, retail/office space, a hotel, commercial and industrial buildings. Similarly, PDA 3 is favorably located and zoned based on current growth and development trends. Access from Schenck Parkway or Frederick Law Olmsted Way East could be developed to access PDA 3, opening this area up and bringing water and sewer service from either direction.

### 2.3.1 Build Scenario Transportation Network

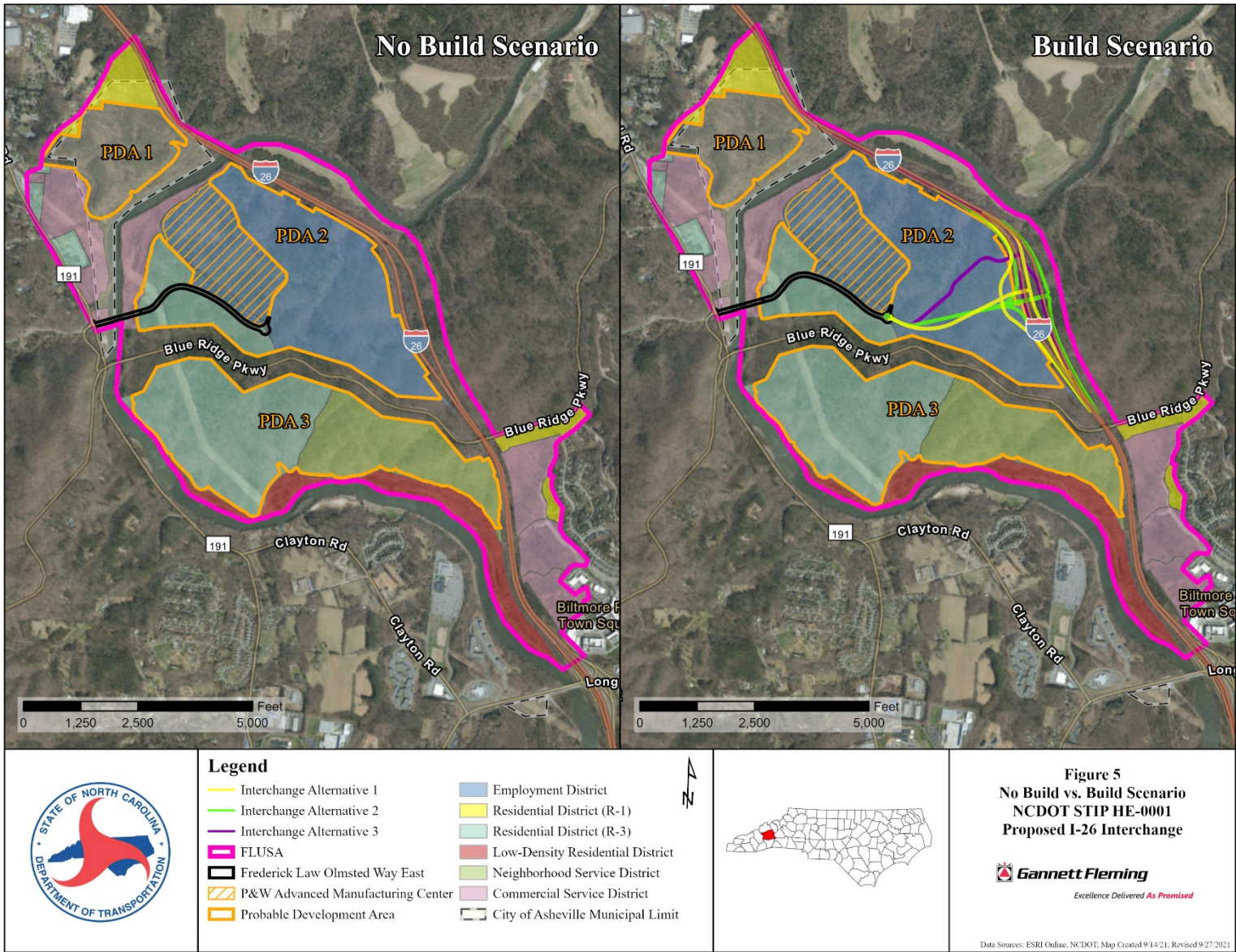
In the Build Scenario, future projected traffic (2045) would benefit from an alternate interstate access (STIP Project HE-0001, future Exit 35), in addition to those transportation projects currently under construction and programmed, to access PDA 1, 2, and 3. In the Build Scenario, the I-26 widening and Exit 33 improvement projects would be completed. The project would provide a connection from I-26 to Frederick Law Olmsted Way East, assumed to be completed to the P&W Advanced Manufacturing Center in the No-Build Scenario, and thus connect NC 191 directly to I-26 at the new interchange. This connection would provide travelers with an alternate option to access the area and redistribute traffic throughout the transportation network. The Build Scenario also assumes that NC 191 would be widened south of Frederick Law Olmsted Way East (STIP Project U-3403B).

STIP Project U-3403B would have to be updated and reevaluated to include STIP Project HE-0001 as part of the future transportation network since analysis of the widening project was completed before planning for this project was initiated. The *Traffic Forecast for HE-0001* indicates that the Build Scenario would reduce traffic volumes on NC 191 by between approximately 15% and 27% compared to the No-Build Scenario. The Build Scenario provides the option for local travelers to utilize I-26 for greater distances instead of relying on NC 191 for access to current and planned development in the FLUSA. The projected reduction in AADT on NC 191 in 2045 needs to be evaluated to determine the scope of STIP Project U-3403B.

If the proposed new interchange was built, it would provide improved access to all three of the PDAs. The Build Scenario is expected to reduce congestion on NC 191 adjacent to the FLUSA and improve travel times to all PDAs. Based on a draft conceptual land use plan for Biltmore Park West developed in May 2021, the anticipated new development encompassed by PDAs 2 and 3 is envisioned to include green space, apartments, townhomes, retail/office space, a hotel, commercial and industrial buildings. There are no approved plans at this time. Timing of development may be accelerated with the addition of the new interchange.



Figure 5: No-Build vs. Build Scenarios



### 3.0 Evaluation of Scenarios

Chapter 3 evaluates the differences between the No-Build and Build scenarios for each project alternative in the following areas: scope of development, development intensity, regional population and employment growth, pressure for land development, and planned/managed uses and impacts. For the purpose of this study, the Build Scenario refers to any of the three detailed study alternatives (DSAs) due to the minimal differences between DSAs (Table 7).

<b>Table 7. Detailed Study Alternative Description</b>		
<b>Detailed Study Alternative (DSA)</b>	<b>Description</b>	
DSA 1	<ul style="list-style-type: none"> <li>• left exit/entrance ramp</li> <li>• Diamond configuration</li> <li>• center of the I-26 bifurcated section</li> </ul>	
DSA 2	<ul style="list-style-type: none"> <li>• right-exit/entrance ramp</li> <li>• Diverging diamond (DDI) configuration</li> <li>• center of the I-26 bifurcated section</li> </ul>	
DSA 3	<ul style="list-style-type: none"> <li>• left exit/entrance ramp</li> <li>• Diamond configuration</li> <li>• North end of the I-26 bifurcated section</li> </ul>	

#### 3.1 Scope of Development

**No-Build Scenario: Medium**

**Build Scenario: Medium**

All three PDAs currently have access to I-26 via NC 191 (Exit 33) and NC 146 (Exit 37). The P&W Advanced Manufacturing Center is currently under construction in PDA 2 and is expected to begin operations by 2022. Frederick Law Olmsted Way East will provide new access directly to PDA 2 in 2022. Draft conceptual land use plans for Biltmore Park West were developed in May 2021 for additional development in PDAs 2 and 3 which includes green space, apartments, townhomes, retail/office space, a hotel, commercial and industrial buildings.

Based on this review and local planner inputs, the potential for development in PDA 1 would be the same in the Build Scenario as the No-Build Scenario. As discussed, the project will not make any improvements to Dry Ferry Road or Ferry Road and access to PDA 1 from NC 191 would not change. As a result, the type and intensity of development at PDA 1 does not appear to be influenced by the proposed project. However, the proposed project has the potential to improve travel times to PDA 1.

An increase of 20% or greater in developed land within the collective PDAs is anticipated under both the Build Scenario and the No Build Scenario, whether or not PDA 1 is developed or not, giving this category a Medium rating for both scenarios.

### 3.2 Development Intensity

**No-Build Scenario: Medium-High**

**Build Scenario: Medium-High**

The FLUSA includes large tracts of available and currently vacant land. Future land uses throughout the FLUSA have a mix of designations, consisting of residential areas, community services districts, and employment districts. Residential neighborhoods are located adjacent to the FLUSA along NC 191, with more commercial businesses concentrated near the existing I-26 interchanges.

PDA 1 is undeveloped and zoned for Residential Expansion. It has the ability to tap into existing water and sewer lines along Ferry Road and Boring Mill Branch and is in close proximity to NC 191. Based on follow-up discussion with the County Planner, the desirability to develop PDA 1 appears to be independent from this proposed transportation project.

PDA 2 is zoned residential, employment district, and commercial service district. It has access to water and sewer and has direct access to NC 191. Based on draft conceptual land use plans for Biltmore Park West, future development will include townhomes, apartments, retail, open space, industrial and community services.

PDA 3 is zoned as residential and neighborhood service district. It has access to water and sewer and has direct access to NC 191. Based on draft conceptual land use plans for Biltmore Park West, future development will include townhomes, apartments, retail and green space.

Based on discussions with local planners and draft conceptual land use plans for Biltmore Park West, higher development intensities are planned or anticipated for portions of the PDAs for both the Build and No-Build Scenarios. While acknowledging that higher development intensities are planned or anticipated, local planner input noted that the types of development within PDAs 2 and 3 may differ between the Build and No-Build scenarios.

This category was given a rating of Medium-High for both the Build and No-Build scenarios as development intensity types range from residential and open space categories in PDA 1 that have Low to Medium ratings to multi-family residential, commercial, retail and industrial development that have Medium to High ratings.

### 3.3 Future Shift of Regional Population Growth

**No-Build Scenario: Medium**

**Build Scenario: Medium**

The FLUSA is currently largely undeveloped and forested with limited population/residents. Future development plans for the PDAs within the FLUSA include residential development as a component of the overall developments; population growth is therefore anticipated. According to local planners, undeveloped land in close proximity to Asheville, with access to the interstates and established public utilities, is currently attracting residential development. The PDAs within the FLUSA meet these criteria. Further, local planners indicate that this trend for residential development is expected to continue into the near future with or without the proposed interchange. Because the PDAs make up the majority of the

FLUSA, population growth in the PDAs will be similar to the FLUSA. Therefore, this category was given a Medium rating for both Build and No-Build Scenarios.

### 3.4 Future Shift of Regional Employment Growth

**No-Build Scenario: Medium**

**Build Scenario: Medium**

Based on the draft conceptual land use plans for Biltmore Park West (future development will include retail, industrial, and community services), employment growth is anticipated in PDAs 2 and 3 with the Build and No-Build scenario. Because the PDAs make up the majority of the FLUSA, employment growth in the PDAs will be similar to the FLUSA. Therefore, this category was given a Medium rating for both Build and No-Build scenarios.

### 3.5 Pressure for Land Development Outside Regulated Areas

**No-Build Scenario: Medium-High**

**Build Scenario: Medium-High**

Small portions of all three PDAs fall within the regulated 100-year floodplain. The majority of the PDAs fall outside of a regulated area and proposed development activity/pressure for land development will be similar for the Build and No-Build scenarios; therefore, this category was given a rating of Medium-High for both Build and No-Build Scenarios.

### 3.6 Planned/Managed Land Use and Impacts

**No-Build Scenario: Medium-Low**

**Build Scenario: Medium-Low**

The City of Asheville and Buncombe County have stormwater plans/regulations in place, as well as stream buffer regulations and Blue Ridge Parkway Overlay District that would regulate or restrict development patterns to some degree. These regulations would apply to both the No-Build and Build scenarios within the PDAs within the FLUSA. Accordingly, a Medium-Low rating was applied for both the Build and No-Build scenarios.

## 4.0 Land Use Scenario Assessment Matrix

Chapter 4 summarizes the results of the Land Use Scenario Assessment Matrix and identifies whether a Cumulative Effects Assessment is required.

The results of the Land Use Scenario Assessment Matrix are that the rankings for the various categories are the same in both the No-Build and Build scenarios. The rankings and key reasons for the results were presented in Chapter 3.0. Based on the results from the Land Use Assessment Matrix (“Indirect Land Use Impacts Not Likely”), a Cumulative Effects Assessment is not required.

### LUSA Matrix Result

Indirect Land Use Impacts Not  
Likely

**Cumulative Effects  
Assessment Required**

☐ Yes ☒ No



Figure 6: Land Use Scenario Assessment Matrix

Land Use Scenario Assessment Matrix - TIP HE-0001- New I-26 Interchange							
Rating	Scope of Development	Development Intensity	Future Shift of Regional Population Growth	Future Shift of Regional Employment Growth	Pressure for Land Development Outside Regulated Areas	Planned / Managed Land Use and Impacts	Result
More Concern	40% or Greater Change in Developed Land within the PDAs	Higher Development Intensities Anticipated	Strong Attraction of Development in the PDAs	Strong Attraction of Development in this Area	All PDAs are Outside a Regulated Area	Land Development and Stormwater Management Goals Not Set	
High							
Medium-High		No-Build and Build Scenarios			No-Build and Build Scenarios		
Medium	No-Build and Build Scenarios		No-Build and Build Scenarios	No-Build and Build Scenarios			
Medium-Low						No-Build and Build Scenarios	Indirect Land Use Impacts Not Likely
Low							
Less Concern	0-9% Change in Developed Land within the PDAs	No Current or Proposed Development Anticipated	No Population Shift Likely	No Employment Shift Likely	All PDAs are Inside a Regulated Area	Land Development, Stormwater Management Goals, and Growth Management Provisions in Place	

## Sources

Buncombe County. *Bent Creek- Lake Julian Greenway Feasibility Study*. July 2015.

Buncombe County. Code of Ordinances. Chapter 78 Zoning. Accessed September 2021.

[https://library.municode.com/nc/buncombe\\_county/codes/code\\_of\\_ordinances?nodeId=COOR\\_CH78ZO\\_ARTIIWAPR\\_DIV4DERE](https://library.municode.com/nc/buncombe_county/codes/code_of_ordinances?nodeId=COOR_CH78ZO_ARTIIWAPR_DIV4DERE)

Buncombe County. *Comprehensive Land Use Plan*. September 17, 2013

Buncombe County. Trails Master Plan. Accessed September 2021.

<https://www.buncombecounty.org/governing/depts/parks/greenways.aspx>

Buncombe County. *The Zoning Ordinance of Buncombe County, North Carolina, April 2, 2019*. Accessed September 2021.

<https://www.buncombecounty.org/common/planning/zoning-ordinance.pdf>

Carr, Matt, City of Asheville Planning and Urban Development, Staff. Personal Interview (Phone). August 19, 2021.

City of Asheville. *Living Asheville, a Comprehensive Plan for Our Future*. June 19, 2018.

City of Asheville. Steep Slope Calculator. Accessed September 2021.

<https://www.mapwnc.org/>

Department of Commerce. Employment Projections. Accessed September

2021. [https://nccareers.org/employmentprojections/industry\\_employment\\_projections.html](https://nccareers.org/employmentprojections/industry_employment_projections.html)

Federal Emergency Management. Flood Hazard Mapper. Accessed September 2021.

<https://www.fema.gov/flood-maps/national-flood-hazard-layer>

Friends of the Mountains-to-Sea Trail, North Carolina. The Mountainsto-Sea Trail. Accessed September 2021. <https://mountaintoseatrail.org/the-trail/>

French Broad River Metropolitan Planning Organization. Metropolitan Transportation Plan (MTP). September 24, 2020. <http://frenchbroadrivermpo.org/mtp/>

High, William, Buncombe County Planning and Development, Transportation Planner. Personal Interview (Phone). September 8, 2021.

National Park Service. Blue Ridge Parkway. Accessed September 2021.

<https://www.nps.gov/blri/index.htm>

North Carolina Arboretum. About Us. Accessed September 2021.

<https://www.ncarboretum.org/>

- North Carolina State Demographer. County/State Population Projections. Accessed April 2019. <http://www.osbm.nc.gov/facts-figures/demographics>
- North Carolina Department of Environmental Quality (DEQ). Classifications. Accessed September 2021. <https://deq.nc.gov/about/divisions/water-resources/planning/classification-standards/classifications#DWRPrimaryClassification>
- North Carolina Department of Environmental Quality (DEQ). NC Riparian Buffer Areas GIS Mapper. Accessed September 2021. <https://ncdenr.maps.arcgis.com/apps/webappviewer/index.html?id=5c3265f774284547a22cbd8f9ff681b4>
- North Carolina Department of Environmental Quality (DEQ). Local Water Supply Planning. Accessed September 2021. <https://www.ncwater.org/WUDC/app/LWSP/report.php?pwsid=01-11-010&year=2020>
- North Carolina DEQ. Riparian Buffer Protection Programs. Accessed April 2019. <https://deq.nc.gov/about/divisions/water-resources/water-quality-permitting/401-buffer-authorization/riparian-buffer>
- North Carolina Department of Environmental Quality. Water Resources, Classifications. Accessed September 2021. <https://deq.nc.gov/about/divisions/water-resources/planning/classification-standards/classifications>
- North Carolina Department of Transportation (NCDOT). Annualized Growth Calculator. Accessed September 2021. <https://connect.ncdot.gov/resources/Environmental/PDEAConsultants/AnnualizedGrowthCalculator.xls>
- North Carolina Department of Transportation (NCDOT). *Comprehensive Transportation Plan for French Broad River MPO and Rural Areas of Buncombe and Haywood Counties*. January 18, 2008.
- North Carolina Department of Transportation (NCDOT). Traffic Forecast for HE-0001. June 2021. Accessed September 2021. <https://connect.ncdot.gov/projects/planning/Traffic%20Forecasts/HE-0001%20Buncombe%20TF/HE-0001%20Buncombe%202021%20TF.pdf>
- North Carolina Department of Transportation (NCDOT). 2020-2029 Current State Transportation Improvement Program (STIP), August 2021. Accessed September 2021. <https://connect.ncdot.gov/projects/planning/STIPDocuments1/NCDOT%20Current%20STIP.pdf>
- North Carolina State Historic Preservation Office. GIS Web Service. Accessed September 2021. <https://nc.maps.arcgis.com/apps/webappviewer/index.html?id=79ea671ebdcc45639f0860257d5f5ed7>

Pennington, Nathan, Buncombe County Planning and Development, Director. Comprehensive Interview Form for HE-0001 LUSA (Email) and Follow-up Discussion (Phone). September 8, 2021 and September 24, 2021.

Phillips, Gillian, Buncombe County Planning and Development, Planner. Personal Interview (Phone). August 19, 2021.

Satvika, Vaidila, City of Asheville Planning and Urban Development, Long Range Planning, Urban Planner II. Comprehensive Interview Form for HE-0001 LUSA (Email). September 10, 2021.

Thomas, Lee, Biltmore Farms, LLC, VP Commercial & Residential Development. Personal Interview (Email). May 5, 2021.

Tuch, Shannon, City of Asheville Planning and Urban Development, Development Review, Principal Planner. Personal Interview (Phone). August 20, 2021.

United States Army Corps of Engineers. Trout Resources in Western NC. Accessed September 2021. <https://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Agency-Coordination/Trout/>

Walton, Daniel. *Mixed-use Development could come to Ferry Road*. September 8, 2021. <https://mountainx.com/news/mixed-use-development-could-come-to-ferry-road/>

Winkler, Tristan, French Broad Metropolitan Planning Organization, Director. Comprehensive Interview Form for HE-0001 LUSA (Email). September 8, 2021.

## Appendix A: Photographs

**Photo 1:** Schenck Parkway facing south; the roadway stub (private developer construction entrance) is visible in background



**Photo 2:** Bent Creek Baptist Church facing south along the NC 191 frontage





**Photo 3:** Dry Ferry Road (north) intersection with NC 191 facing south



**Photo 4:** Dry Ferry Road facing north, across Boring Mill Branch Bridge; Ferry Road continue to the right (east)





**Photo 5:** Mountains-to-Sea Trail with I-26 Construction in the back



**Photo 6:** Bent Creek River Park with the BRP Bridge over the FBR in the background



**Photo 7:** New FBR Bridge under construction by private developer facing eastbound at NC 191 intersection with the BRP Access Road/Frederick Law Olmsted Way



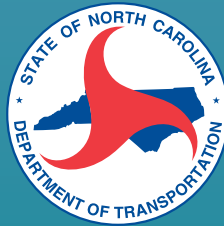


**Photo 8:** Roundabout and roadway (Frederick Law Olmsted Way East) under construction by a private developer



**MPDG FFY 2023 and 2024  
GRANT APPLICATION  
AUGUST 2023**

# GROUND TO SKY PROJECT



**N.C. Department of Transportation**  
1 South Wilmington Street  
Raleigh, NC 27601

**[ncdot.gov](http://ncdot.gov)**

**STAY CONNECTED**



[/ncdot](https://www.facebook.com/ncdot)



[@ncdotcom](https://www.instagram.com/ncdotcom)



[@ncdot](https://twitter.com/ncdot)



[NCDOcommunications](https://www.youtube.com/NCDOcommunications)