

APPENDIX G

SECTION 4(F) *DE MINIMIS* COORDINATION



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

DATE: August 14, 2018

TO: Mr. Justin Williamson-Environmental Review Coordinator
NC State Parks
1615 Mail Service Center
Raleigh, NC 27699-1615

FROM: Derrick Weaver, Unit Head
Environmental Policy Unit

RE: STIP Project Number I-2513; I-26 Connector in Asheville, Buncombe County,
North Carolina, WBS No. 34165.1.2

Dear Mr. Williamson:

The Federal Highway Administration (FHWA) and North Carolina Department of Transportation (NCDOT) are seeking your acknowledgement of the *de minimis* use of the French Broad River Paddle Trail for the proposed I-26 Connector project in Buncombe County, NC (State Transportation Improvement Program [STIP] No. I-2513). A *de minimis* impact is one that, after taking into account avoidance, minimization, mitigation, and enhancement measures, results in no adverse effect to the resource under Section 4(f) protection.

In accordance with 23 CFR Part 774 (Sections 774.3(b) and 774.17), the FHWA and NCDOT intend to make a *de minimis* finding based on your concurrence with a No Adverse Effect to the French Broad River Paddle Trail.

The proposed I-26 Connector project in Buncombe County, NC (STIP project No. I-2513) would require placement of bridge bents in the French Broad River for construction of new location bridges for I-240 and I-26. Paddle accesses, campgrounds, and businesses along the French Broad River will be signed and/or notified by NCDOT prior to and during construction activity. NCDOT will be preparing a River User Safety Plan and River User Communication Plan in order to ensure effective public notification of the hazards, project progress, and temporary closures.

As the official with jurisdiction over the French Broad River Paddle Trail, I concur in a determination that the proposed transportation project as described in this letter would not adversely affect the activities, features, or attributes that qualify the French Broad River Paddle Trail for Section 4(f) protection. I have also been informed, based on my concurrence, the FHWA intends to make a *de minimis* finding regarding the impacts to the French Broad River Paddle Trail, thus satisfying the requirements of Section 4(f).

Date: 8-14-2018

Signature:  (NCDPE)

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL ANALYSIS UNIT
1548 MAIL SERVICE CENTER
RALEIGH, NC 27699-1548

Telephone: (919) 709-6000
Customer Service: 1-877-368-4968

Website: www.ncdot.gov

Location:
1000 BIRCH RIDGE DRIVE
RALEIGH, NC 27610



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

DATE: July 24, 2018

TO: Mr. Al Kopf
City of Asheville Parks and Recreation
PO Box 7148
Asheville, NC 28802-7148

FROM: Derrick Weaver, Unit Head
Environmental Policy Unit

RE: STIP Project Number I-2513; I-26 Connector in Asheville, Buncombe County,
North Carolina, WBS No. 34165.1.2

Dear Mr. Kopf:

The Federal Highway Administration (FHWA) and North Carolina Department of Transportation (NCDOT) are seeking your acknowledgement of the *de minimis* use of Carrier Park for the proposed I-26 Connector project in Buncombe County, NC (State Transportation Improvement Program [STIP] No. I-2513). A *de minimis* impact is one that, after taking into account avoidance, minimization, mitigation, and enhancement measures, results in no adverse effect to the resource under Section 4(f) protection.

In accordance with 23 CFR Part 774 (Sections 774.3(b) and 774.17), the FHWA and NCDOT intend to make a *de minimis* finding based on your concurrence with a No Adverse Effect to Carrier Park.

The proposed I-26 Connector project in Buncombe County, NC (STIP project No. I-2513) would require the incorporation of less than an acre of the existing Amboy Road frontage of the Carrier Park property. Almost all of the 0.94 acre would be from a wide paved shoulder that has provided parking for the site. According to Asheville city officials, future plans for the park call for the removal of this parking. No park amenities are contained in the required property.

As the official with jurisdiction over Carrier Park, I concur in a determination that the proposed transportation project as described in this letter would not adversely affect the activities, features, or attributes that qualify Carrier Park for Section 4(f) protection. I have also been informed, based on my concurrence, the FHWA intends to make a *de minimis* finding regarding the impacts to Carrier Park, thus satisfying the requirements of Section 4(f).

Date: 6/24/2019

Signature: _____

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL ANALYSIS UNIT
1548 MAIL SERVICE CENTER
RALEIGH, NC 27699-1548

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

Website: www.ncdot.gov

Location:
1000 BIRCH RIDGE DRIVE
RALEIGH, NC 27610

MEETING SUMMARY

To: Project File

From: Joanna Rocco
AECOM

Date: January 24, 2019

RE: I-2513 Impacts to Carrier Park and Section 4(f) discussion with City – January 7, 2019
NCDOT STIP Project I-2513 (I-26 Connector)

Meeting Attendees:

Ken Putnam – City of Asheville
Debbie Ivester – City of Asheville
Mark Halstead – City of Asheville
Theresa Ellerby – NCDOT PMU
Kevin Moore – NCDOT PMU

Neil Dean – AECOM
Celia Miars – AECOM
Joanna Rocco – AECOM
Eric Spalding – AECOM

A conference call was held at 1:30 PM on Monday, January 7, 2019 to discuss project impacts to Carrier Park along Amboy Road. FHWA has determined the project will not adversely affect the use of the park and, if the City of Asheville concurs, will make a *de minimis* finding per requirement of Section 4(f). The City has requested the project team provide additional detail regarding these impacts.

The City noted there are deed restricted areas within the boundaries of Carrier Park that require additional discussion. According to the 2018 public hearing maps, there is an existing walking trail that was built with NC Parks and Recreation funding that is being impacted by easements along Amboy Road. There is a stipulation with using this funding regarding the walking trail where the City would need to go through a conversion process with the state, which is a lengthy process.

The project team noted that impacts to the trail can be avoided with design revisions by tightening up the typical section of the multi-use path being proposed along Amboy Road. The City noted that according to the grant funding, the walking trail could also be replaced as part of the project. The project team noted that there are likely a few options to mitigate impacts to the walking trail, and can coordinate with the project team of the adjacent project during final design to ensure the tie-in is consistent.

The City requested the project team provide a sketch showing a design option that avoids the walking trail that they can review before signing the concurrence letter noting FHWA's determination of Section 4(f) *de minimis*. The City noted they could provide the project team a plan view showing the limits of the grant-funded land for use in preparing the design sketch.

The project team noted any concerns related to Carrier Park can also be included as a commitment so that any specific design requirements to avoid impacts to the park are achieved during final design. Once

MEETING SUMMARY

January 24, 2019

Page 2 of 2

any additional design refinements have been agreed upon, the project team should coordinate with FHWA on the use of the parking lot and potential to provide additional parking if feasible.

The project team will coordinate with the City as necessary regarding any stormwater drainage concerns.

Action Items:

- The project team to provide a sketch to the City of Asheville showing a design option that avoids the walking trail.
- City to provide the project team a plan view showing the limits of the grant-funded land for use in preparing the design sketch.

APPENDIX H
RESPONSES TO COMMENTS ON 2015 DEIS

APPENDIX H1
RESPONSE TO AGENCY COMMENTS

The following represents responses to comments received from federal, state, and local agencies during the comment period on the 2015 Draft Environmental Impact Statement (DEIS). The comments received are included in Appendix A.

FEDERAL AGENCIES

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, MARINE FISHERIES SERVICE

Comment:

Based on the information in the public notice(s), the proposed project(s) would NOT occur in the vicinity of essential fish habitat (EFH) designated by the South Atlantic Fishery Management Council or NMFS. Present staffing levels preclude further analysis of the proposed activities and no further action is planned. This position is neither supportive of nor in opposition to authorization of the proposed work. Please note these comments do not satisfy your consultation responsibilities under section 7 of the Endangered Species Act of 1973, as amended. If the activity “may effect” listed species or critical habitat that are under the purview of NMFS, consultation should be initiated with our Protected Resources Division.

Response:

Comment noted. NCDOT will continue to coordinate with the USFWS to secure consultation under section 7 of the Endangered Species Act of 1973, as amended. The project “may effect” two listed species, the gray bat and the Appalachia elktoe, which are under the jurisdiction of the U.S. Fish and Wildlife Service.

U.S. DEPARTMENT OF INTERIOR/NATIONAL PARK SERVICE

Comment:

We recommend the NCDOT and Federal Highway Administration (FHWA) continue coordination with the Department regarding required surveys as this project progresses through the Merger Process. Given the urban nature of this project, the alternatives currently displayed in the DEIS are very similar in potential impacts to federally listed species.

Response:

NCDOT will continue to coordinate with the Department of Interior regarding required surveys.

Comment:

Reducing the footprint of this project has been a goal, particularly in developing later alternatives. We agree that a smaller, more compact project reduces direct impacts, especially to the human environment. However, those benefits may be negated if increases in stormwater cannot be properly treated to reduce thermal, chemical and velocity inputs to the French Broad River and its tributaries in the project area. Given the project’s proximity to the French Broad River and the addition of impervious surface to this area, special and early attention should be paid to making sure that adequate area for stormwater detention and treatment is available. All of the alternatives should provide consideration of stormwater management.

We recommend that the NCDOT and FHWA continue coordination with the USFWS in the Merger Process. If you have questions about the above comments, please contact Marella Buncick on (828) 258-3939 ext. 237.

Response:

NCDOT will continue to coordinate with the USFWS throughout the design and construction phases.

Comment:

Since a preferred alternative has not been identified at this time and a Memorandum of Agreement has not been developed, we cannot concur that the section 4F document includes all planning to avoid, minimize and mitigate all harm to 4F resources; and that there is no other prudent or feasible alternative at this time.

The Department has no objection to the *de minimis* determination provided that a MOA is developed outlining who is responsible for each avoidance, minimization and mitigation effort and the MOA is signed with the SHPO and land owners/managers.

Response:

NCDOT will coordinate with the Department of Interior and SHPO to reach a Memorandum of Agreement (MOA) prior to publication of the Record of Decision. Section 4(f) *de minimis* letters have been sent to all property owners of Section 4(f) properties.

U.S. ENVIRONMENTAL PROTECTION AGENCY

Comment:

At potential wildlife “hotspot” areas along the corridor, the EPA encourages collaboration with the N.C Wildlife Resources Commission (NC WRC) and the U.S. Fish and Wildlife Service (USFWS) to design appropriate under and overpasses to reduce large mammal mortality and increase safety and reliability.

Response:

Designs for the preferred alternative were refined based upon an updated traffic forecast. NCDOT will continue to develop the project in collaboration with resource and permitting agencies consistent with the Merger Process.

Comment:

Outreach should include availability of the DEIS in Spanish (as well as any other printed material related to the I-26 Connector project), and Spanish-speaking staff at public meetings and workshops.

Response:

Census data do not indicate Limited English Proficiency (LEP) populations meeting the Department of Justice LEP Safe Harbor threshold, but do indicate a Spanish-, other-Euro-, and Asian-speaking population exceeding 50 persons within the Demographic Study Area that may require language assistance. Based upon coordination with NCDOT Human Environment Section, the project team provided Spanish-speaking staff at the Corridor Public Hearing in November 2015 and will continue to do so at future public meetings and workshops. Printed materials included a statement that language assistance for languages other than Spanish could be provided upon request.

Comment:

The EPA recommends that the FEIS continue to include public comments related to EJ as part of an ongoing responsiveness summary and indicate issues that remain unresolved. Secondly, there is strong concern regarding the difficulty in finding housing within financial means due to the substantial increase in housing values within Asheville. The EPA recommends that every effort should be made to continue to work with residents to ensure that appropriate replacement housing is available or to provide residents with last-resort housing (see NC General Statute 133-10.1). The EPA notes from the DEIS summary of impacts that the alternative under consideration include a range of residential relocations from 194 to 227 residences. We further recommend that the FEIS summarize or reference efforts made to avoid and minimize acquisitions and displacement impacts to EJ communities.

Response:

According to the NCDOT relocation reports, no additional housing programs would be needed, it is estimated that there would be adequate housing available during the relocation period. The relocation reports also indicate that there would not be a problem of housing within the financial means of those displaced. The project is not anticipated to permanently affect any of the 1,955 Asheville Housing Authority affordable housing units. Some temporary housing impacts are anticipated in the Hillcrest community due to the modification of Patton Avenue as part of Alternative 4B, while the Pisgah View apartments may be temporarily impacted by the modification of Amboy Road as part of Section A.

As noted in Section 4.1.1.5 of the FEIS, a consulting firm (P3) has been working with the Burton Street Neighborhood to develop a neighborhood plan which will be used by NCDOT to implement mitigation measures to the community. Hillcrest Apartments has been coordinated with on two occasions (9/20/16 and 03/21/17) to discuss the project. Benefits to the community include increased access to Patton Avenue. Pisgah View Apartments were notified of a community meeting held 6/5/17 to discuss the project design changes at Haywood Road and Amboy Road.

Comment:

The EPA encourages collaboration with the City of Asheville during final design to develop further avoidance and minimization of impacts and to locate suitable mitigation for these impacts.

Response:

NCDOT, the City of Asheville, Buncombe County, FBRMPO, other stakeholders, and the public formed a Working Group after selection of the preferred alternative. The purpose of the working group was to discuss the comments made by the City of Asheville and discuss in detail design aspects of the project. Several minimization efforts incorporated in the refined preliminary designs are a result of coordination efforts with the Working Group. NCDOT will continue to coordinate with the City of Asheville throughout the design and construction phases.

Comment:

The EPA encourages continued coordination with the City of Asheville to avoid and minimize impacts to parks and recreational facilities. In addition, the EPA also encourages NCDOT to coordinate with the City of Asheville in order to integrate the City of Asheville's Bicycle Plan (2008) into the I-26 Connector design so that bicycle access is provided along the Smokey Park Bridges, the Amboy Road extension, as well as

particular locations where bicycle facility design features would not meet the improvements included in the local plans. The EPA encourages the NCDOT to follow the Asheville Pedestrian Plan which indicates several existing pedestrian bridges crossing I-240 within the project study area. According to the Asheville Pedestrian Plan and the DEIS, Patton Avenue across the French Broad River is a corridor which particularly needs pedestrian linkage.

Response:

The refined preliminary designs for the preferred alternative has been developed with consideration of the current City of Asheville Pedestrian Plan, City of Asheville Comprehensive Bicycle Plan, City of Asheville Parks, Recreation, Cultural Arts, & Greenways Master Plan, and the Buncombe County Greenways and Trails Master Plan. Pursuant to NCDOT policies and guidelines regarding bicycle and pedestrian accommodations and complete streets, in areas where existing sidewalks are being disturbed, the designs show these sidewalks being replaced as a part of the proposed designs. In areas where the various plans propose future pedestrian accommodations, the designs have been developed to accommodate or not preclude these elements from being constructed by the various agencies. NCDOT has coordinated closely with the City of Asheville to develop a “betterments” list identifying areas of bicycle/pedestrian infrastructure to be constructed during the project under an agreement with the City of Asheville.

Comment:

The EPA encourages the design and implementation of evergreen roadside vegetation in locations that do not meet the threshold for noise barriers. The use of vegetative roadside screening ameliorates noise impact issues, visual quality impacts, as well as provides potential mitigative or downwind vehicle emissions from near-roadway air pollutants.

Response:

During final design, NCDOT will investigate the feasibility of evergreen roadside vegetation in locations that do not meet the threshold for noise barriers.

Comment:

Floodplain and floodways are vital to reducing the likelihood of localized flooding during storm events, particularly as the Asheville area continues to urbanize. The EPA supports Alternative F-1 (Section C) and Alternative 4-B (Section B) as the alternatives having the least impacts to floodplains and floodways. The EPA prefers bridges to culverts at hydraulic crossings. The EPA encourages engineering design that incorporates resiliency strategies into the I-26 Connector project to mitigate the likelihood of flooding in low-lying, flood-prone areas in addition to the identified FEMA 100-year floodplain and floodways. Such design will ensure that the project purpose and need is met with regard to a robust, reliable transportation system as well as mitigate for extreme weather events that are anticipated to increase as a result of climate change.

Response:

At Concurrence Point (CP) 2A Revisited, the Merger Team evaluated all existing multi-barrel culverts within the project limits to determine if any sites were candidates to be replaced with bridges. No sites

were identified. At CP3, the Merger Team selected the supported EPA alternatives (F-1 and 4B) as the preferred alternative.

Comment:

The FEIS should address what measures will be proposed to alleviate the No Adverse Effect of the historic properties. If no measures are proposed, documentation should include why mitigation is not possible since the majority of these buildings and historic neighborhood districts are in active, daily use by the citizens (including children) of Asheville, and represent vital community resources. The EPA encourages ongoing coordination with the State Historic Preservation Office and the Eastern Band of Cherokee Indians in identifying and mitigating any impacts to archaeological resources as the most recent survey was submitted in 2007.

Response:

Measures to minimize harm and to mitigate unavoidable “adverse effects” will be developed through coordination among FHWA, SHPO, NCDOT, and other consulting parties and documented in a MOA. Methods for minimizing harm to historic resources will continue throughout subsequent engineering and design phases of the project. After selection of the preferred alternative, NCDOT met with the historic property owners to discuss the potential impacts to the property and options for mitigation. A commitment will be included in the FEIS and ROD pertaining to the preservation of archaeological sites after right-of-way acquisition.

Comment:

The EPA supports Alternative F-1 (Section C) and Alternative 4 (Section B) as the alternatives having the least impacts to streams and wetlands based upon the DEIS summary impact tables. Further avoidance and minimization during the final design will be necessary to reduce impacts to aquatic resources, particularly those streams and wetlands that have a higher quality rating using the NC Stream Assessment Methodology (SAM) and the NC Wetland Assessment Methodology (WAM), respectively.

Response:

At CP3, the Merger Team concurred on the preferred alternative (Alternative F-1, Widening Alternative, and Alternative 4B). Minimization measures of unavoidable impacts will be developed through coordination with the environmental and regulatory resource agencies including the US Fish and Wildlife Service and the NC Wildlife Resources Commission. Designs have been refined based upon an updated traffic forecast and efforts to avoid and minimize impacts to the physical and natural environment have been included in the refined preliminary designs.

Comment:

The EPA encourages further collaboration with the U.S. Fish and Wildlife Service and the NC Wildlife Resources Commission during the final design to avoid and minimize impacts to threatened and endangered species. Two species of bats have the potential for adverse effects as a result of the project. Several recent studies have examined the use of bridges and culverts as [day and night] bat roosting habitat (see: <http://www.icoet.net/download/99paper21.pdf>). Structural design with regard to particular species should be considered during final design.

Response:

NCDOT Biological Surveys, NC WRC, USFWS, and USACE have coordinated to identify the presence of Gray bats (*myotis grisescens*) in a culvert on Hill Street within the project study area (Site 99 in the FEIS). Additional discussion regarding the coordination efforts and next steps is presented in the FEIS in Section 4.1.5.5. The biological conclusion of the Northern long-eared bat (*Myotis septentrionalis*) has been updated to “May Affect – Not Likely to Adversely Affect” due to the presence of suitable habitat within the study area. Minimization measures of unavoidable impacts will be developed through coordination with the US Fish and Wildlife Service and the NC Wildlife Resources Commission.

STATE AGENCIES

N.C. DEPARTMENT OF PUBLIC SAFETY, EMERGENCY MANAGEMENT

Comment:

All project alternatives include crossings of the Special Flood Hazard Area (SFHA). North Carolina Executive Order 123 directs NCDOT to coordinate with and follow the FHWA floodplain management requirements which are found in the Federal Executive Order 11988...Please coordinate with Mr. David Chang, NCDOT Hydraulics to determine if the proposed crossings within this project are eligible to fall within the MOA.

Response:

Comment noted. Coordination will occur prior to the Record of Decision.

Comment:

Crossings that are not eligible to fall within the MOA will require a Conditional Letter of Map Revision (CLOMR) issued by FEMA prior to construction. This should be noted in Section 4.4: Required Permits and Actions of the Environmental Impact Statement.

Response:

Language added to section 4.1.3.8 – Floodplains and Floodways. “The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program to determine the status of the project with regard to the applicability of NCDOT’s MOA with FMP, or approval of a CLOMR and subsequent LOMR.”

N.C. DEPARTMENT OF NATURAL AND CULTURAL RESOURCES, STATE HISTORIC PRESERVATION OFFICE

Comment:

We have conducted a review of the project and are aware of no historic resources which would be affected by the project. Therefore, we have no comment on the project as proposed. 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.

Response:

Comment noted. It is understood this comment is in response to USACE’s public notice released on October 28, 2015 concerning discharge of fill materials into US Waters for the I-26 Connector, SAW-2004-99868-03-PN.

Comment:

Our review of the I-2513 DEIS indicates that the studied project is reflected in the current (2015) FBRMPO Metropolitan Transportation Plan (MTP), FBRMPO 2008 Comprehensive Transportation Plan (CTP), FBRMPO's 2016-2025 Metropolitan Transportation Improvement Plan (MTIP) and the North Carolina 2016-2025 State Transportation Improvement Plan (STIP).

Response:

Comment noted.

N.C. DEPARTMENT OF NATURAL AND CULTURAL RESOURCES, N.C. NATURAL HERITAGE PROGRAM

Comment:

A search of NCNHP managed area records (2015-10 dataset) indicates that Section A of the project intersects a property feature that has a Clean Water Management Trust Fund (CWMTF) easement associated with it. The property is Carrier Park, owned by City of Asheville, which is located between Amboy Road (SR 3556) and French Broad River. Please contact Will Summer, CWMTF Stewardship Manager, as will.summer@ncdenr.gov or 919-707-9127 for more information on the specific extent of the CWMTF easement.

Response:

Will Summer with CWMTF confirmed the CWMTF easement at Carrier Park is a greenway buffer that extends 100 feet from the French Broad River. The proposed project impacts in the area are located approximately 300 feet from the edge of the French Broad River; therefore the CWMTF easement will not be encroached upon. See agency correspondence dated 5/2/2016.

Comment:

In the last sentence on page 3-79 the name of NCNHP is incorrectly stated to be “the North Carolina National Heritage Program.” We request this be corrected to read: “the North Carolina Natural Heritage Program.”

Response:

Comment incorporated.

N.C. DIVISION OF WASTE MANAGEMENT, HAZARDOUS SITES BRANCH

Comment:

The review has been completed and has seen no adverse impact on the surrounding community and likewise knows of no situations in the community, which would affect this project from a solid waste perspective.

Response:

Comment noted.

Comment:

During construction, every feasible effort should be made to minimize the generation of waste, to recycle materials for which viable markets exist, and to use recycled products and materials in the development of this project where suitable.

Response:

Comment noted.

Comment:

Any waste generated by this project that cannot be beneficially reused or recycled must be disposed of at a solid waste management facility approved to manage the respective waste type.

Response:

Comment noted.

Comment:

The Section strongly recommends that any contracts are required to provide proof of proper disposal for all waste generated as part of the project.

Response:

Comment noted.

N.C. WILDLIFE RESOURCES COMMISSION

Comment:

Recent research studied black bear in the Asheville area, including a number of bear denning within the city limits. The I-26 Connector project should provide crossing structures that allow safe passage by large and small wildlife in appropriate areas, such as stream crossings and other potential wildlife travel corridors.

NCDOT should also investigate accidents involving wildlife in the project area to determine areas of potential safety concerns for motorists and wildlife.

Response:

Designs for the preferred alternative have been refined based upon an updated traffic forecast and local input. NCDOT has evaluated ways to further modify the alternative to avoid and minimize impacts to physical, and natural environments. NCDOT has evaluated the proposed project study area for potential crossings of large and small wildlife. Along the corridor, potential crossings include replacing existing bridge structures with new structures that include under passage of sufficient height and width to allow to movement of large mammals, including black bears. Additional discussion regarding wildlife crossings is included in Section 4.1.5.2 of the FEIS.

N.C. DEPARTMENT OF ENVIRONMENTAL QUALITY

Comment:

The Sedimentation Pollution Control Act of 1973 must be properly addressed for any land disturbing activity. An erosion & sedimentation control plan will be required if one or more acres to be disturbed. Plan filed with proper Regional Office (Land Quality Section) at least 30 days before beginning activity. A

fee of \$65 for the first acre or any part of an acre. An express review option is available with additional fees.

Response:

An erosion and sedimentation control plan will be provided during the final design stage. Best management practices to minimize sedimentation and erosion impacts during construction are identified in the FEIS in Section 4.1.6.6 and 4.1.6.7.

Comment:

Sedimentation and erosion control must be addressed in accordance with NCDOT's approved program. Particular attention should be given to design and installation of appropriate perimeter sediment trapping devices as well as stable stormwater conveyances and outlets.

Response:

An erosion and sedimentation control plan will be provided during the final design stage. Best management practices to minimize sedimentation and erosion impacts during construction are identified in the FEIS in Section 4.1.6.6 and 4.1.6.7.

Comment:

401 Water Quality Certification required.

Response:

Comment noted. After publication of the Record of Decision, NCDOT will continue to coordinate with the Division of Water Resources to obtain the necessary permits for construction.

Comment:

Notification of the proper regional office is requested if "orphan" underground storage tanks (USTS) are discovered during any excavation operation.

Response:

Comment noted.

Comment:

Plans and specifications for the construction, expansion, or alteration of a public water system must be approved by the Division of Water Resources/Public Water Supply Section prior to the award of a contract or the initiation of construction as per 15A NCAC 18C.0300 et, seq. Plans and specifications should be submitted to 1634 Mail Service Center, Raleigh, North Carolina 27699-1634. All public water supply systems must comply with state and federal drinking water monitoring requirements. For more information, contact the Public Water Supply Section, (919) 707-9100.

Response:

After publication of the Record of Decision, NCDOT will continue to coordinate with the Division of Water Resources/Public Water Supply Section prior to the award of the contract and construction.

Comment:

If existing water lines will be relocated during the construction, plans for the water line relocation must be submitted to the Division of Water Resources/Public Water Supply Section at 1634 Mail Service Center, Raleigh, North Carolina 27699-1634. For more information, contact the Public Water Supply Section, (919) 707-9100.

Response:

After publication of the Record of Decision, NCDOT will continue to coordinate with the Division of Water Resources/Public Water Supply Section throughout the design and construction phases.

LOCAL AGENCIES

CITY OF ASHEVILLE – GENERAL COMMENTS

Comment:

The City of Asheville's City Council approved a resolution adopting a complete streets policy on June 26, 2012 (Resolution #12-154). NCDOT adopted a similar policy during July 2009. The City of Asheville strongly encourages the NCDOT to implement complete streets elements consistent with design guidelines published by the National Association of City Transportation Officials (NACTO) along all of the -Y- lines including the bridges that cross the -L- line throughout the entire project for all sections.

Response:

NCDOT is committed to Complete Streets improvements and has continued to coordinate efforts with the City of Asheville to incorporate these amenities into the project in compliance with design and cost-sharing guidelines. In areas where the various plans propose future pedestrian accommodations, the designs have been developed to accommodate or not preclude these elements from being constructed by the various agencies. Additional discussion of the coordination between the City of Asheville and NCDOT to incorporate these amenities can be found in Sections 4.1.2.2 and 8.2.2.3 of the FEIS.

Comment:

The City of Asheville has committed \$2,000,000 of co-funding to the I-26 Connector project in order to ensure that local needs are met.

Response:

Comment noted.

Comment:

As the -Y- lines are streets that are generally local in nature, the City of Asheville strongly encourages collaborative planning throughout the design and construction phases.

Response:

NCDOT and the City of Asheville have collaborated on a list of bicycle and pedestrian betterments that will be incorporated into the project.

Comment:

The City and County approved a joint resolution regarding the I-26 Connector on March 18, 2014 (Resolution #14-54 and #14-03-12). The resolution included the following quote, “...in preparation of the draft Environmental Impact Statement for the project, NCDOT clearly include elements that will address community needs for sound barriers and bicycle, pedestrian and neighborhood connections, including location, design, and the funding methodology of associated infrastructure elements.” The City of Asheville strongly encourages NCDOT to fully address these elements in the Final EIS document.

Response:

NCDOT has coordinated with the City of Asheville throughout the design refinements process. NCDOT also updated the various technical studies in order to further evaluate and address concerns associated with noise, bike and pedestrian accommodations, community connectivity, human and natural environmental impacts, amongst others. Additional discussion of the coordination between the City of Asheville and NCDOT to incorporate these amenities can be found in Sections 4.1.2.2 and 8.2.2.3 of the FEIS.

Comment:

Due to the City of Asheville’s limited ability to annex, the City of Asheville strongly encourages the NCDOT to make all efforts to minimize the overall footprint throughout the entire project length for all sections with the use of additional retaining walls and additional urban design strategies to make sure that all of the on/off ramps are placed as close to the -L- line as possible.

Response:

NCDOT has coordinated with the City of Asheville to incorporate design elements into the preferred alternative to avoid or minimize impacts. NCDOT has worked with the consultant the City of Asheville hired to revise the interchange at I-240 and Patton Avenue in order to open up more space in the B quadrant of the interchange. The City of Asheville would still need to coordinate with the NCDOT Right-of-Way branch regarding the right-of-way disposal process. The refined preliminary designs for the preferred alternative incorporate numerous new or expanded retaining walls in order to minimize impacts to the natural and human environments.

Comment:

Design exceptions should be considered in cases where greater land preservation would result. The City of Asheville would like to be involved in discussing these suggestions during the design phase.

Response:

Comment noted. If design exceptions are required to avoid or minimize impacts due to the project, documentation with justification will need to be provided to the Federal Highway Administration for approval of the use of the design exception, consistent with 23 CFR 625.

Comment:

The City of Asheville is very interested in assuring the best possible pedestrian and bicycle improvements and would like to be actively involved in the design phase of the project regarding the pedestrian elements after a preferred alternative has been selected. This involvement is critical in order for the City of Asheville to conduct its own transportation and financial planning.

The City of Asheville's preferred sidewalk cross-section includes a 5-foot sidewalk and a 5-foot utility strip (buffer area) with a 10-foot overall width. The City of Asheville strongly encourages this cross-section at all sidewalk locations throughout the entire project length for all sections. If the preferred sidewalk cross-section cannot be provided in specific areas, a reduced-width utility strip should be considered, and if that is not possible, then a 6-foot back of curb sidewalk should be used.

The City of Asheville strongly encourages the NCDOT to consider wider (6') minimum bicycle lane widths along roads with traffic volumes greater than 10,000 vpd and/or operating speeds greater than 35 mph to be consistent with the City of Asheville Standard Specifications and Details Manual, City of Asheville Comprehensive Bicycle Plan, and NACTO recommendations.

The City of Asheville strongly encourages the NCDOT to consider multi-use paths to measure 14-16 feet wide with an absolute minimum width of 12 feet.

Response:

NCDOT has coordinated with the City of Asheville throughout the design refinement stage and will continue to coordinate throughout final design and construction phases.

NCDOT is committed to Complete Streets improvements and has continued to coordinate efforts with the City of Asheville to incorporate these amenities into the project in compliance with design and cost-sharing guidelines. In areas where the various plans propose future pedestrian accommodations, the designs have been developed to accommodate or not preclude these elements from being constructed by the various agencies. Additional discussion of the coordination between the City of Asheville and NCDOT to incorporate these amenities can be found in Sections 4.1.2.2 and 8.2.2.3 of the FEIS.

Comment:

The City of Asheville would like to be actively involved in the Aesthetics Advisory Committee (AAC) in order to help integrate aesthetics features into the proposed design after a preferred alternative has been selected and final design begins.

Response:

The City of Asheville organized an AAC in June 2018. NCDOT will participate in the discussions of the AAC throughout the final design and construction phases.

Comment:

Retaining walls should include aesthetics standards consistent with the City of Asheville Standard Specifications and Details Manual.

Response:

The City of Asheville organized an AAC in June 2018. NCDOT will participate in the discussions of the AAC throughout the final design and construction phases.

Comment:

The City of Asheville strongly encourages reasonable mitigation strategies, including funding, for transit, pedestrian, and bicycle routing during the construction phase.

The City of Asheville strongly encourages the NCDOT to include bus stops along all of the transit routes within the project limits. These bus stops must be designed and constructed to meet ADA requirements.

Response:

City of Asheville identified potential bicycle and pedestrian accommodations (referred to as betterments) throughout the project study area. The preferred alternative refined preliminary designs include some of these betterments and/or do not preclude the facilities from being constructed during the construction of the proposed project or in the future. NCDOT is currently coordinating cost-sharing with the City of Asheville for the bicycle and pedestrian facilities.

Comment:

The City of Asheville would like for the NCDOT to consider “bus on shoulder system” to be authorized within the project limits.

Response:

Bus on shoulder systems are used when travel speed on the roadway is reduced due to travel demand exceeding capacity. The traffic analysis for the projects does not suggest a bus on shoulder system is warranted for this project.

Comment:

The City of Asheville strongly suggests that NCDOT create a collaborative working group that would meet regularly starting in early 2016 and throughout the design phase to ensure adequate consideration of the concerns listed above. This group could also examine the travel demand model, capacity analysis, and the methodology of calculating Level of Service in an effort to gain consensus.

Response:

In March 2016, NCDOT and the City of Asheville established the I-26 Connector Working Group, which initiated a series of meetings between members of the City of Asheville City Council, the Asheville Design Center, Buncombe County, FHWA, FBRMPO, NCDOT, and other stakeholders. Additional discussion regarding the Working Group is included in Section 8.2.2.3 of the FEIS.

Comment:

The City of Asheville is pleased that NCDOT will be using the new local travel demand model to re-examine travel demand and to conduct a new capacity analysis with a 6-lane alternative in Section A.

Response:

Comment noted.

Comment:

The City of Asheville would like more information about the placement and sufficiency of sound walls, and assurance that sound walls will be fully included in the Final EIS.

Response:

After identification of the preferred alternative, an updated traffic forecast was prepared and designs were further refined. Using the refined designs of the preferred alternative, a Traffic Noise Analysis update was prepared. Draft information from this report is included in Sections 3.3.1 and 4.1.3.1 of the FEIS. The Traffic Noise Analysis update will be finalized prior to the Record of Decision. Per the 2016 Traffic Noise Policy, where a noise wall was determined to be reasonable and feasible, the final decision of whether a noise wall is built is based upon the voting of property owners and tenants that may be impacted by noise.

Comment:

The City of Asheville strongly encourages NCDOT to update all of the base maps in the final EIS in order to reflect construction activities (new homes and businesses) that have occurred during the past several years.

Response:

Typically, NCDOT will update project mapping during major milestones of a project (i.e. prior to project initiation or prior to developing final designs used for right of way acquisition). In between these phases, NCDOT may update the mapping due to major changes. Even though the 2015 corridor public hearing maps were created using the slightly dated mapping, the impacts and business and residential relocations reported reflected the current conditions at the time. Following identification of the preferred alternative, the Department completed final surveys for the project. These surveys, include new development in the corridor and were completed in May 2016 and have been used during this phase of project development.

CITY OF ASHEVILLE – SECTION A COMMENTS

Comment:

The City of Asheville strongly encourages that an updated Travel Demand Model for the project be developed as quickly as possible to assess a scenario for six lanes through Section A, that the analysis in the six-lane scenarios carefully avoid assuming induced-demand levels associated with an eight-lane design, that the analysis include the resulting impact of six lanes on Section B and Section C, and that final design of the project include the fewest number of lanes and smallest footprint possible through the A, B, and C sections of the project.

Response:

NCDOT has received the travel demand model for use and has completed model runs and traffic forecast scenarios for 4, 6, 8, and 10 lanes. The results of updated traffic analyses after identification of the preferred alternative resulted in the recommendation of a six-lane typical section for basic freeway lanes on I-26/I-240, from I-40 to US 19-23-70.

Comment:

The City of Asheville strongly encourages the NCDOT to include complete streets elements consistent with NACTO guidelines on the Haywood Road bridge (-Y6-) and through the intersection and to make all efforts to make the bridge and intersections as pedestrian and bicycle friendly as possible especially since a proposed greenway (multi-use transportation path) will be located in the northeast quadrant.

These elements should include a minimum sidewalk width of 6 feet measured back of curb, bicycle lanes, reduced lane width and intersection dimensions, and reduced radii at the on/off ramps.

Response:

NCDOT is committed to Complete Streets improvements and has continued to coordinate efforts with the City of Asheville to incorporate these amenities into the project in compliance with design and cost-sharing guidelines. In areas where the various plans propose future pedestrian accommodations, the designs have been developed to accommodate or not preclude these elements from being constructed by the various agencies. Additional discussion of the coordination between the City of Asheville and NCDOT to incorporate these amenities can be found in Sections 4.1.2.2 and 8.2.2.3 of the FEIS. The preliminary design for the preferred alternative on the Haywood Road bridge includes sidewalks on both sides of the roadway, connecting to a proposed greenway located in the northeast quadrant of the interchange.

Comment:

The City of Asheville would like to explore (with the NCDOT) the possibilities of constructing buildings on the Haywood Road bridge in an effort to maintain connectivity as a business corridor through West Asheville.

Response:

This comment was discussed at the March 24, 2016 Working Group meeting. The City clarified while buildings on bridges may not be feasible, implementing a park on the bridge would be desirable. NCDOT advised the city to include this in their betterments request list for further discussion. This item was not included in the betterments request list.

Comment:

The City of Asheville strongly prefers that Amboy Road be designed as a two-lane facility, possibly with wider intersections for turn lanes, in order to reduce the footprint of the entire project and the taking of property, to make it more compatible with adjoining neighborhoods, to make Amboy Road more bicycle and pedestrian-friendly, and to reduce project cost, even if it means achieving level-of-service E for that section of Amboy Road.

The City of Asheville strongly encourages the NCDOT to redesign Amboy Road to be consistent with the City's ongoing project U-4739 with a design speed no greater than 40 mph.

The City of Asheville strongly encourages the NCDOT to design and construct the preferred sidewalk cross-section on Amboy Road between NC 191 (Brevard Road) and I-26.

Response:

The typical section for the Amboy Road Extension was re-evaluated based on updated traffic analyses. Based upon conversation with the City of Asheville and residents, the configuration was revised to eliminate the four-lane extension and replace it with a split diamond configuration with roundabouts at the Amboy Road terminals. A multi-use path is proposed adjacent to, but separated from, the eastbound ramp between Amboy Road and Brevard Road. Additional details regarding the revised configuration is included in Section 2.6.4.2 of the FEIS.

Comment:

The City of Asheville strongly encourages that the West Asheville Greenway from Haywood Road across the Jeff Bowen Bridges, as with all greenways reflected in the DEIS, should reflect the AASHTO and NACTO design standards, which would result in a greenway that is roughly 14-16 feet wide to safely accommodate bikes and would also include appropriate shy-distance from any barriers consistent with AASHTO guidelines and NACTO guidelines. Additionally the path should be marked with 2-way bicycle and pedestrian lanes.

Response:

The Greenway Design is based on AASHTO's 1999 Guide for the Development of Bicycle Facilities. All design criteria has been re-evaluated to meet the requirements of the design guidelines which are currently accepted for use by NCDOT.

Comment:

The proposed closing of Hanover Street at its intersection with Haywood Road adversely impacts a transit routes W1 and W2 regarding its service to the Pisgah View Apartments (a public housing complex).

Response:

Transit stops in the Pisgah View Apartments will not be directly affected by the proposed project. However, with the closing of Hanover Street at Haywood Road transit routes W1 and W2 will have two existing stops on Hanover Street impacted; these are at Montana Street and at Haywood Road. Roadway improvements may be required to assist the City of Asheville to improve Montana Street and/or Michigan Avenue in an effort to re-route buses. The City of Asheville may lose one stop at Hanover Street and Haywood Road, however, the existing stop at Haywood Road and Michigan Avenue is only approximately 800' from the eliminated bus stop.

After identification of the preferred alternative, NCDOT coordinated with the City of Asheville to develop options for transit service affected by the project. Per an email dated 01/18/2018 from the City of Asheville, an updated transit master plan is being prepared to explore solutions to provide relief from routes W1 and W2 and there is no longer a need for the I-26 Connector project to explore additional options.

Comment:

The City of Asheville strongly encourages the NCDOT to include bicycle/pedestrian infra-structure at the beginning/end of the Hominy Creek Greenway at Hominy Creek Road.

Response:

The NCDOT improvements would include I-240 bridging of Hominy Creek Road as well as the Hominy Creek Greenway, similar to the existing conditions. These designs do not preclude the City of Asheville from implementing bicycle/pedestrian infrastructure at the beginning/end of the Hominy Creek Greenway at Hominy Creek Road. Additional discussion of the coordination between the City of Asheville and NCDOT to incorporate bicycle and pedestrian facilities can be found in Sections 4.1.2.2 and 8.2.2.3 of the FEIS.

Comment:

The City of Asheville is concerned about the impact to the French Broad River Greenway during the construction of the proposed retaining wall.

Response:

NCDOT will coordinate with the City of Asheville regarding maintenance of traffic on the French Broad River Greenway during development of final plans for the project. At that time, NCDOT will have additional information on designs that will impact the final maintenance of traffic concepts.

Comment:

The City of Asheville would like the opportunity to collaborate with NCDOT on the design for the new interchanges at Brevard Road and Amboy Road in order to identify opportunities for urban design strategies and the possible use of roundabouts.

Response:

The typical section for the Amboy Road Extension was re-evaluated based on updated traffic analyses. Based upon conversation with the City of Asheville and residents, the configuration was revised to eliminate the four-lane extension and replace it with a split diamond configuration with roundabouts at the Amboy Road terminals. A multi-use path is proposed adjacent to, but barrier separated from, the eastbound ramp between Amboy Road and Brevard Road. Additional details regarding the revised configuration is included in Section 2.6.4.2 of the FEIS.

CITY OF ASHEVILLE – SECTION B COMMENTS

Comment:

The City of Asheville strongly encourages the NCDOT to keep the West Asheville Greenway “running” parallel to the C/A fence and the -Y7- EBL in order to avoid the 18% +/- vertical grade along Hazel Mill Road and to be routed underneath, via culvert, any street crossings in its path.

The City of Asheville strongly encourages that this greenway be extended southward to connect to the French Broad River Greenway and that it be extended eastward to connect with Clingman Avenue.

Response:

The greenway design is based on AASHTO’s 1999 Guide for the Development of Bicycle Facilities. All design criteria has been re-evaluated to meet the requirements of the design guidelines which are currently accepted for use by the NCDOT. The refined preliminary designs, updated for the preferred alternative, propose the West Asheville Greenway to be located parallel to Patton Avenue (-Y7- EBL) from Florida Avenue to Clingman Avenue. Street crossings are proposed at-grade, pedestrian crossing treatments will be determined at the final design stage.

Comment:

The City of Asheville strongly encourages the inclusion and construction of the Emma Greenway (identified as #7 on the City of Asheville Greenway Master Plan), the Montford Greenway (#14), and the Smith-Mill Creek Greenway (#17). If these greenways are not constructed, the opportunity for construction in the future might not be possible.

Response:

After identification of the preferred alternative, the City of Asheville identified potential bicycle and pedestrian accommodations (referred to as betterments) throughout the project study area. The preferred alternative refined preliminary designs include some of these betterments and/or do not preclude the facilities from being constructed during the construction of the proposed project or in the future. NCDOT is currently coordinating cost-sharing with the City of Asheville for the bicycle and pedestrian facilities. Additional discussion of the coordination between the City of Asheville and NCDOT to incorporate these amenities can be found in Sections 4.1.2.2 and 8.2.2.3 of the FEIS.

Comment:

The City of Asheville notes that there appears to be the opportunity to “daylight” Smith-Mill Creek as it runs through the project area and the City of Asheville strongly encourages NCDOT to pursue that option.

Response:

Following identification of the preferred alternative, and revising the Patton avenue interchange to a tight diamond configuration as requested by the City of Asheville, it will likely be possible to remove the culvert conveying Smith Mill Creek in the southwest quadrant of the existing interchange. The portion of the culvert that conveys Smith Mill Creek under Patton Avenue will be retained. It is estimated that 450 feet of the existing culvert will be removed at this location. The final amount of culvert removal will be determined in the final design stages of the project.

Comment:

The City of Asheville is concerned that there is no direct access to Haywood Road from I-26 eastbound under Alternatives 3 and 3C which might encourage that traffic to go to the Amboy Road interchange using NC 191 (Brevard Road) and other neighborhood city-maintained streets (Virginia Avenue and Fairfax Avenue) to access Haywood Road. The proposed access requires vehicles to travel through four signalized intersections before reaching Haywood Road.

Response:

The only alternative to provide direct access to Haywood Road from I-26 eastbound was Alternative 4B, which was identified as the preferred alternative. Direct access to Haywood Road from I-26 eastbound continues to be provided in the refined preliminary designs.

Comment:

The City of Asheville is concerned about the adverse impact that Alternatives 3 and 3C will have on the long-term viability of the Westgate Shopping Center including the impact of a new hotel currently under construction at the same location that -Y71- will terminate.

Response:

The Merger Team identified Alternative 4B as the preferred alternative. The designs have been refined since selection of the preferred alternative, and no longer impact any businesses in the shopping center.

Comment:

The City of Asheville is concerned about the adverse impacts that Alternatives 3 and 3C will have on the Burton Street Community.

Response:

The Merger Team identified Alternative 4B as the preferred alternative, which had the least adverse impact on the Burton Street Community. NCDOT has included a representative of the Burton Street Community in the Working Group meetings and presented the project multiple times at community meetings. NCDOT and a consultant have coordinated with the community to prepare a Neighborhood and Mitigation Strategies Plan. The goal of the NMS plan project is to develop a Burton Street Neighborhood plan that will be adopted by the City and that includes a list of mitigation strategies to be implemented by NCDOT. Outreach efforts are summarized in Section 4.1.1.4 and 8.2.1.2.

Comment:

The City of Asheville strongly encourages a collaborative planning process to identify opportunities to reduce the overall footprint of the project.

Response:

NCDOT will continue to identify areas for reduction in the footprint of the project. Examples of areas where the footprint of the project has been reduced includes the removal of the Amboy Road Extension, removal of the collector/distributor roads, and reduction of the number of basic freeway lanes from eight lanes to six lanes throughout Section A. The refined preliminary designs for the preferred alternative incorporate numerous new or expanded retaining walls in order to minimize impacts to the natural and human environments.

Comment:

The City of Asheville strongly encourages the NCDOT to minimize as much traffic on the Jeff Bowen Bridges as possible in order to extend the life of the two existing bridges.

Response:

The Merger Team identified Alternative 4B as the preferred alternative, which aims to remove interstate traffic from the Jeff Bowen Bridges. Therefore, should the I-26 Connector project be constructed, the lifespan of the existing bridges would not be dictated by the amount of traffic using the bridges, but would solely be determined based upon the integrity of the bridges and thus the corresponding sufficiency rating. Based on 2012 data provided by NCDOT Bridge Inspection Report, both bridges have a Sufficiency Rating in the high 50's (bridges must have a rating below 50 to be eligible for replacement). Regular maintenance can keep the sufficiency rating above 50 for the foreseeable future.

Comment:

The City of Asheville is concerned that Alternatives 3 and 3C will not completely eliminate the existing weaving maneuvers and congestion on the Jeff Bowen bridges.

Response:

The Merger Team identified Alternative 4B as the preferred alternative, which aims to remove interstate traffic from the Jeff Bowen Bridges and eliminate the weaving maneuvers.

Comment:

The City of Asheville is concerned about the adverse impacts to business and industrial sites with Alternative 3 and 3C along the French Broad River.

Response:

The Merger Team identified Alternative 4B as the preferred alternative. NCDOT will continue to coordinate with the City of Asheville throughout the design and construction phases to further avoid or minimize impacts.

Comment:

The City of Asheville is concerned that Alternatives 4 and 4B will adversely impact Hill Street, Isaac Dickson Elementary School, and Riverside Cemetery and as a result, the City of Asheville strongly encourages the NCDOT to minimize the impacts.

Response:

The Merger Team identified Alternative 4B as the preferred alternative. NCDOT has coordinated with the Hill Street community and the City of Asheville regarding impacts to Riverside Cemetery. NCDOT will continue to coordinate with the City of Asheville throughout the design and construction phases to further avoid or minimize impacts.

Comment:

The City of Asheville strongly encourages continuous sidewalks along both sides of Patton Avenue from the west side of the French Broad River to Clingman Avenue for Alternatives 4 and 4B.

Response:

Design refinements of the preferred alternative includes a multi-use path along the south side of Patton Avenue and a sidewalk along the north side of Patton Avenue. Both of these facilities begin at Florida Avenue and extend to Clingman Avenue. NCDOT will continue to coordinate with the City of Asheville with regard to including this request as appropriate in compliance with NCDOT policies on pedestrian facilities and cost sharing.

Comment:

The City of Asheville strongly encourages the NCDOT to use complete streets elements along Patton Avenue with Alternatives 4 and 4B in order to improve neighborhood connectivity and accommodate pedestrian-scale urban redevelopment.

Response:

NCDOT is committed to Complete Streets improvements and has continued to coordinate efforts with the City of Asheville to incorporate these amenities into the project in compliance with design and cost-sharing guidelines. In areas where the various plans propose future pedestrian accommodations, the designs have been developed to accommodate or not preclude these elements from being constructed by the various agencies.

Comment:

The City of Asheville strongly encourages the NCDOT to improve access to the Hillcrest Community.

Response:

Alternative 4B includes access modifications to the Hillcrest Community due to the realignment of I-240 and the reconfiguration of Patton Avenue. As a result of the preferred alternative designs, access between the Hillcrest Community and surrounding areas will be modified. Access between east and west Asheville and the Hillcrest Crest Community and surrounding areas would be improved. However, access between Riverside Drive, the Hillcrest Community, and surrounding areas would no longer have direct access to and from I-240. NCDOT coordinated with the Hillcrest Community in March 2017. Additional discussion regarding this meeting is included in Section 8.2.1.2 of the FEIS. NCDOT will continue to coordinate with the City of Asheville throughout the design and construction phases.

CITY OF ASHEVILLE – SECTION C COMMENTS

Comment:

Will project I-4759 (Proposed Liberty Road interchange) not provide much needed relief regarding traffic congestion at I-40 Exit #44, and if so, could the overall footprint of Section C be reduced?

The City of Asheville questions the C/D ramps shown along I-40 west of I-26. These ramps would take a significant number of homes and not resolve the congestion at Exit #44.

The City of Asheville suggests that the NCDOT consider an additional exit ramp from I-40 Westbound onto Smoky Park Highway eastbound at Exit #44 in order to relieve congestion at the existing ramp. The City of Asheville strongly encourages the NCDOT to minimize the overall footprint for Section C at and near Exit #44 by using retaining walls and keeping separation between the C/D ramps and the -L- line as narrow as possible.

Response:

I-4759 has specific needs for which it is being developed to address. After identification of Alternative F-1 as the preferred alternative, updated traffic analyses indicated the collector/distributor roads could be removed, thus reducing the footprint of the project.

The FEIS design refinements added the requested ramp for I-40 westbound to serve eastbound Smoky Park Highway traffic.

Comment:

Alternative F-1 appears to be the best alternative for Section C.

Response:

The Merger Team selected Alternative F-1 as the preferred alternative in Section C.

Comment:

The City of Asheville is concerned about the need to widen I-40 east of the Brevard Road interchange since there is no data to support the proposed widening and it adds significantly to the cost.

Response:

Improvements east of the Brevard Road interchange are required to safely reduce the lanes from the proposed improvements required between I-26 and Brevard Road interchanges. The lane reduction geometry is based on AASHTO's 2011 A Policy on Geometric Design of Highways and Streets.

Comment:

In general, if there is an additional \$100,000,000 to spend on this project, the COA prefers the additional investments be made in Section B rather than Section A.

Response:

Comment noted.

TOWN OF WOODFIN

Comment:

The Town of Woodfin recommends and requests that the NCDOT choose a design and begin construction of the I-26 Connector project as soon as possible.

Response:

Comment noted.

ASHEVILLE AREA CHAMBER OF COMMERCE

Comment:

The Asheville Chamber is an active partner with the other chambers in the region ... and we have formed the WNC Chambers Coalition. This group primarily works to advocate for regional issues at the North Carolina General Assembly and for the last three years the completion of the I-26 projects has been our top priority... Please, work as quickly as possible to make the improvements to this critical piece of highway.

Response:

Comment noted.

APPENDIX H2

RESPONSE TO PUBLIC COMMENTS

The following represents responses to public comments on disciplines received during the comment period of the 2015 Draft Environmental Impact Statement (DEIS).

AIR QUALITY

Comment Summary:

Twenty-one comments were received concerning air quality impacts from the project. Comments discuss concerns regarding a potential increase in air pollution due to additional traffic volumes; while other comments predict there would be a decrease in air pollution due to fewer vehicles idling in traffic for long periods of time.

Response:

One of the goals of local area plans highlighted in the DEIS and FEIS is to minimize air quality impacts. By providing free-flowing roadways, especially along the interstates, the air quality would be consistent with this goal, and would not exceed the air quality thresholds set forth under the Clean Air Act. The proposed project is located in an attainment area and is not anticipated to create any adverse effects on the air quality of this attainment area. NCDOT also acknowledges the benefits that bicycling and walking offer including cleaner air and the preferred alternative has been developed with consideration to the City of Asheville Pedestrian Plan (2005), City of Asheville Comprehensive Bicycle Plan (2008), City of Asheville North Carolina Parks, Recreation, Cultural Arts, & Greenways Master Plan (2009), and the Buncombe County Greenways and Trails Master Plan (2012). In areas where existing sidewalks are being disturbed, the designs show these sidewalks being replaced as a part of the proposed designs. In areas where the various plans propose future pedestrian accommodations, the designs have been developed to accommodate or not preclude these elements from being constructed by the various agencies. Furthermore, as discussed in Section 4.1.2.2 and 8.2.2.3, NCDOT has coordinated closely with the City of Asheville to identify potential bicycle and pedestrian accommodations throughout the project study area and discuss cost-sharing for the facilities.

ENVIRONMENTAL FEATURES: Biotic Communities, Endangered & Threatened Species, Wetlands, Water Quality, Other Environmental Considerations

Comment Summary:

Four comments discussed concerns regarding impacts to biotic communities, three comments regarding impacts to endangered and threatened species, four comments regarding wetland impacts, seven comments regarding water quality, and 27 comments regarding other environmental considerations. Comments discussing impacts to biotic communities stated concern for impacting habitats such as wetlands and bear or deer crossings; thus minimizing the appearances of species. The NCWRC and USEPA commented on endangered and threatened species. These comments included recommendations for avoiding and minimizing impacts and suggested correspondence moving forward. Comments concerning wetland impacts discussed potential impacts to the Asheville School property. Comments stated this property is one of three or four large expanses of habitat in the urban/suburban Asheville area and contains several wetlands and habitats for aquatic plants and animals. The main concern of comments discussing water quality impacts was the increase in impervious surfaces impacts. Several comments also express concern regarding impacts to the French Broad River, as this is a tourist attraction for the Asheville area. Other environmental consideration comments included discussions of the number of crossings over the French Broad River and general statements of environmental impacts.

The USEPA and the City of Asheville strongly encouraged “daylighting” Smith Mill Creek as it runs through the project area and using bridges in lieu of culverts where feasible.

Response:

Minimization measures for unavoidable impacts have been developed through coordination with the environmental regulatory and resource agencies including the United States Fish and Wildlife Service and the North Carolina Wildlife Resources Commission, among others. Following identification of the preferred alternative, designs were refined based upon an updated traffic forecast, and the NCDOT evaluated ways to further modify the alternative to avoid and minimize impacts to physical, and natural environments. Additional discussion regarding wildlife crossings is included in Section 4.1.5.2 of the FEIS.

Following identification of the preferred alternative, and revising the Patton avenue interchange to a tight diamond configuration as requested by the City of Asheville, it will likely be possible to remove the culvert conveying Smith Mill Creek in the southwest quadrant of the existing interchange. The portion of the culvert that conveys Smith Mill Creek under Patton Avenue will be retained. It is estimated that 450 feet of the existing culvert will be removed at this location. The final amount of culvert removal will be determined in the final design stages of the project.

As discussed in Section 4.1.5.5 of the FEIS, the design of the preferred alternative in Section C would avoid impacts to any wetlands related to the Asheville School property. Minimization measures of unavoidable impacts will be developed through coordination with the environmental and regulatory resource agencies including the US Fish and Wildlife Service and the NC Wildlife Resources Commission.

ENVIRONMENTAL JUSTICE

Comment Summary:

A total of 288 comments were received that expressed concerns regarding impacts to environmental justice communities, of which 60 comments were not categorized as form letters. These comments included concerns of impacts to historically known African American and/or low-income populations. Neighborhoods or areas specifically described included the Burton Street neighborhood and Hillcrest Apartments.

Response:

As part of the I-2513 Community Impact Assessment Update, an initial threshold screening and evaluation was conducted to determine the relative impact of the I-26 Connector Project on Environmental Justice populations. Through community screening, field studies, demographic research, and agency coordination and public engagement, it was concluded that no communities would experience a high burden, while only two communities would experience a moderate burden.

Based on the evaluation of burdens to communities as presented in the DEIS, and additional outreach and coordination with local officials, NCDOT committed to addressing disproportionately high and adverse effects on the Burton Street community that cannot be avoided or minimized. Therefore, unavoidable impacts on the Burton Street community are to be mitigated through additional public outreach with this community throughout the project development process, including development of a neighborhood mitigation plan. Additional information regarding coordination efforts with the Burton Street Community are included in Section 4.1.1.4 of the FEIS.

The Hillcrest Apartments Community would benefit from the proposed project due to improved vehicular, bicycle, and pedestrian connections and facilities that would be constructed as part of the proposed project. In addition to enhanced access and mobility through transportation options, the additional connectivity would provide social and psychological benefits by reducing the isolation of the

community. Some benefit may be experienced by the Hillcrest Apartments Community through decreases in emergency response times along the I-26 Corridor. As a result, the I-26 Connector Project would not have an adverse impact on the community and thus was not considered an Environmental Justice issue. In March 2017, NCDOT held a meeting with residents of the Hillcrest Apartments Community to discuss the changes in access as a result of the preferred alternative designs. NCDOT also gave an overview of the potential noise impacts to the community and the process of receiving a noise wall.

HISTORIC, ARCHAEOLOGICAL, AND ARCHITECTURAL RESOURCES, SECTION 4(F)

Comment Summary:

Twenty-nine comments were received concerning historic, archaeological, and architectural resources. Several comments discussed impacts to the Montford neighborhood area and Riverside Cemetery in the form of noise, visual, light, and relocations. The Asheville School was another common topic among this category. Concerns mainly included impacts to the 300 acres of natural habitat. A response to these comments is discussed in the environmental features specific comments and response section. In their comments on the DEIS, the USEPA recommended the FEIS should discuss what measures will be proposed to alleviate the “no adverse effect” on historic properties and demonstrate continued consultation with the State Historic Preservation Office and the Eastern Band of Cherokee Indians. There were 16 comments that expressed concerns regarding potential impacts to the Section 4(f) resources as discussed in the DEIS. These resources mainly included Carrier Park, Montford Neighborhood, and the Asheville School.

Response:

As discussed in Section 4.1.4.1 of the FEIS, the preferred alternative would require taking additional right-of-way from the Asheville School. The DEIS reported 2.79 acres of right-of-way impacts and 0.58 acre of construction easement impacts to the Asheville School. Revised designs for the preferred alternative reduced the amount of right-of-way impacts to 0.51 acre. The amount of construction easement required for this property increased from 0.58 acre to 1.48 acres. Pursuant to Section 106, the SHPO concurred with NCDOT's determination that the preferred alternative would have a “no adverse effect” with a commitment to not place service roads on the property. More information on impacts to Section 4(f) resources can be found in Chapter 5 of the FEIS.

Pursuant to Section 106, the SHPO concurred with NCDOT's determination that the preferred alternative would have an “adverse effect” on a local landmark, Riverside Cemetery, within the Montford Area Historic District. While no construction work or temporary construction easements will impact right-of-way within the district, there are two elevated bridges and a retaining wall that will create visual impacts to this resource. NCDOT is working with the newly-formed Asheville Aesthetics Advisory Committee to design appropriate landscaping measures to minimize the visual effects of the elevated roadway adjacent to the cemetery. Further coordination regarding mitigation opportunities for this resource will occur during development of the Section 106 MOA.

NOISE, LIGHT EMISSIONS, VISUAL IMPACTS

Comment Summary:

Three comments were received that discussed concerns regarding light emissions and 58 comments that discussed noise impacts. Several comments were concerned with noise and visual impacts to areas surrounding Montford, West Asheville, and Biltmore. Comments also expressed concerns about noise if a property was not shown within a Noise Study Area on the public hearing maps shown at the

November 2015 Corridor Public Hearing. Several comments discussed general noise impacts from the increased traffic volume.

The Biltmore Company commented on the proposed project stating numerous impacts to the Biltmore Estate that NCDOT failed to adequately consider when analyzing Section C alternatives, including noise pollution. It further identifies its property as Category A as defined by FHWA in the Noise Abatement Criteria Guidelines.

Comments also discussed concerns regarding increased noise levels from the flyover bridges, stating NCDOT noise study areas omitted properties that would be disrupted by noise.

Response:

Draft information from this report is included in Sections 3.3.1 and 4.1.3.1 of the FEIS. The Traffic Noise Analysis update will be finalized prior to the Record of Decision. A full list of noise levels and impacts is included in the Draft Traffic Noise Analysis. The Noise Study Areas were chosen as a way to group receivers together in order to categorize them better for potential abatement measures. Receivers that were not grouped together in an NSA were still evaluated and accounted for in the aforementioned report along with the results documented in tables. Per the 2016 Traffic Noise Policy, where a noise wall was determined to be reasonable and feasible, the final decision of whether a noise wall is built is based upon the voting of property owners and tenants that may be impacted by noise.

During the Traffic Noise Analysis for the DEIS, it was determined that the Biltmore Estate property located on either side of I-40 east of the NC 191 (Brevard Road) interchange did not contain any areas of frequent human use, and modeling of these areas was not required. Based on guidance provided by the FHWA regarding Activity Category A land uses for noise analysis, the consideration “for an Activity Category A determination occurs on a ‘site’ bases rather than considering the entire property. For example, The Tomb of the Unknowns is an Activity Category A designated land use within the Arlington National Cemetery, which is not an Activity Category A land use.” This would apply to the Biltmore Estate property, should any areas of frequent human use be designated as an Activity Category A. Since none of these areas are near the project area, consideration was not carried forward.

Regarding visual impacts, it is the policy of the NCDOT to include aesthetic features in its roadway designs. NCDOT will consider incorporating landscaping into the project design to promote visual continuity of the highway, minimize the loss of vegetation, and design noise attenuation features to be compatible with the surrounding natural features and development. The City of Asheville organized an AAC in June 2018. NCDOT will participate in the discussions of the AAC throughout the final design and construction phases.

SEPARATING PATTON AVENUE AND INTERSTATE TRAFFIC

Comment Summary:

A total of 662 comments were received that expressed separating Patton Avenue and Interstate Traffic as a concern, of which 182 comments were not categorized as form letters. Comments in this subject expressed interest or approval to convert Patton Avenue into a local boulevard, creating a “gateway” into downtown Asheville, or separating I-26 traffic and Patton Avenue traffic.

Response:

The Merger Team identified Alternative 4B as the preferred alternative for Section B, which includes re-configuring traffic patterns at the existing I-240/I-26/Patton Avenue interchange. This alternative would remove interstate traffic from Patton Avenue and the Jeff Bowen Bridges by realigning I-240 in order to separate the interstate traffic from vehicles using Patton Avenue.

MULTIMODAL

Comment Summary:

A total of 1,011 comments were received that expressed multimodal issues as a concern, of which 302 comments were not categorized as form letters. Multimodal comments included the discussion of bicycle and pedestrian accommodations, including bus or light-rail transportation as an alternative, and any other form of transportation aside from automobiles. Several comments included concerns regarding the width of bike lanes and sidewalks and the lack of accommodations shown on the 2015 Corridor Public Hearing maps.

The City of Asheville encouraged the use of complete streets elements to be consistent with NACTO guidelines, which includes a minimum sidewalk width of six feet measured back of curb, bicycle lanes, reduced lane width and intersection dimensions radii at the on/off ramps.

After identification of the preferred alternative, NCDOT coordinated with the City of Asheville to develop options for transit service affected by the project. Per an email dated 01/18/2018 from the City of Asheville, an updated transit master plan is being prepared to explore solutions to provide relief from routes W1 and W2 and there is no longer a need for the I-26 Connector project to explore additional options.

Response:

NCDOT is committed to Complete Streets improvements and will continue to coordinate efforts with the City of Asheville to incorporate these amenities into the project in compliance with design and cost-sharing guidelines. The preliminary designs for the preferred alternative have been developed with consideration to the current City of Asheville Pedestrian Plan, City of Asheville Comprehensive Bicycle Plan, City of Asheville Parks, Recreation, Cultural Arts, & Greenways Master Plan, and the Buncombe County Greenways and Trails Master Plan. Pursuant to NCDOT policies and guidelines regarding bicycle and pedestrian accommodations and complete streets, in areas where existing sidewalks are being disturbed, the designs show these sidewalks being replaced as a part of the proposed designs. In areas where the various plans propose future pedestrian accommodations, the designs have been developed to accommodate or not preclude these elements from being constructed by the various agencies. NCDOT has coordinated closely with the City of Asheville to develop a “betterments” list identifying areas of bicycle/pedestrian infrastructure to be constructed during the project under an agreement with the City of Asheville. Additional discussion of the coordination between the City of Asheville and NCDOT to incorporate these amenities can be found in Sections 4.1.2.2 and 8.2.2.3 of the FEIS.

RESIDENTIAL RELOCATIONS

Comment Summary:

A total of 785 comments were received that expressed concerns regarding residential relocations and displacements, of which 151 comments were not categorized as form letters. Residential relocation comments included concerns over the lack of land available for affordable housing, the number of residential displacements in an area due to the proposed alternative, and specific neighborhood concerns.

Several comments asked if specific properties would potentially be impacted by the proposed project.

Response:

A certain amount of private property must be acquired to provide North Carolinians with safer and more modern transportation systems. When a property is shown to be impacted, many factors have been taken into consideration and it has been determined the affected site is the best location for the transportation artery. The project designs take into consideration feasible engineering, safety, economics, public well-being, and the least amount of injury and inconvenience to the public. The refined preliminary designs for the preferred alternative incorporate numerous new or expanded retaining walls in order to minimize impacts to the natural and human environments. NCDOT will continue to further avoid and minimize residential relocations due to the project to the greatest extent practicable.

After identification of the preferred alternative, an updated traffic forecast was prepared and designs were further refined. Based on these refinements, the collector/distributor roadways along I-40 in Section C were eliminated and impacts to residences along Montgomery Street were minimized. Furthermore, the typical section for the Amboy Road Extension was re-evaluated based on updated traffic analyses. Based upon conversation with the City of Asheville and residents, the configuration was revised to eliminate the four-lane extension and replace it with a split diamond configuration with roundabouts at the Amboy Road terminals. A multi-use path is proposed adjacent to, but separated from, the eastbound ramp between Amboy Road and Brevard Road. The design refinement at this location reduced impacts to single family and multi-family residences. Additional details regarding the revised configuration is included in Section 2.6.4.2 of the FEIS.

Section 4.1.2.3 of the DEIS references the Consolidated Strategic Housing and Community Development Plan, which emphasizes the need for affordable housing, as well as the need for improvements that will aid in community development. The plan notes the lack of housing supply is prevalent across the entire region (Buncombe, Henderson, Madison, and Transylvania counties) and across all income levels. The trend indicating the need for affordable housing seems to be driven by social and community influences including neighborhood redevelopment and gentrification and is likely to continue regardless of the I-26 Connector Project.

BUSINESS RELOCATIONS

Comment Summary:

A total of 279 comments were received that expressed concerns regarding business relocations and displacements, of which 56 comments were not categorized as form letters. The number of businesses potentially to be taken due to the proposed alternatives is the main concern of this category.

Comments received inquired whether or not specific business properties would be impacted by the proposed project.

Response:

The Department is committed to limiting the number of business relocations due to the proposed project. The preliminary designs for the preferred alternative have been refined to further take into consideration feasible engineering, safety, economics, public well-being, and the least amount of injury

and inconvenience to the public. NCDOT will continue to further avoid and minimize relocations due to the project to the greatest extent practicable.

After identification of the preferred alternative, an updated traffic forecast was prepared and designs were further refined. Based on these refinements, the collector/distributor roadways along I-40 in Section C were eliminated and impacts to six businesses on Smokey Park Highway were eliminated.

6 VERSUS 8 LANES

Comment Summary:

There were a total of 651 comments received that expressed concern over 6 versus 8 lanes of traffic through I-240 in Section A, of which 199 comments were not categorized as form letters. Comments in this subject expressed approval or disapproval of the additional lanes in Section A. Several comments stated approval of fewer lanes due to the reduction of impacts to residential areas and environmental resources.

The City of Asheville commented on the use of an updated Travel Demand Model for the project to assess a scenario for six lanes through Section A and that these scenarios avoid assuming induced-demand levels associated with an eight-lane design.

Response:

NCDOT has received the travel demand model for use and has completed model runs and traffic forecast scenarios for 4, 6, 8, and 10 lanes. The results of updated traffic analyses after selection of the preferred alternative resulted in the recommendation of a six-lane typical section for basic freeway lanes on I-26/I-240, from I-40 to US 19-23-70.

WESTGATE ACCESS

Comment Summary

Twenty-one comments were received that expressed concern regarding access to the Westgate Shopping area. Comments concerning Westgate access were made in regards to Alternatives 3 and 3-C and accessing the area from the south and from Haywood Road.

Response:

The Merger Team identified Alternative 4B as the preferred alternative. The designs have been refined since identification of the preferred alternative, and no longer impact any businesses in the shopping center.

OTHER ACCESSIBILITY

Comment Summary:

A total of 238 comments were received that expressed concern regarding other accessibility issues as a result of the project, of which 19 comments were not categorized as form letters. Comments concerning other accessibility issues included reduced access to residences or businesses, accessing Hanover Street and/or Haywood Road.

Several comments discussed impacts to Fairfax Avenue. The City of Asheville expressed concerns that there is no direct access to Haywood Road from I-26 Eastbound under Alternatives 3 and 3-C, which may encourage traffic to use neighborhood streets (Virginia Avenue and Fairfax Avenue) to gain access to

Haywood Road. A petition circulated regarding the potential impacts to Fairfax Avenue stating the need for traffic control measures to counter the potential increase in traffic and speed as a result of the Amboy Road extension and expansion.

Response:

The typical section for the Amboy Road Extension was re-evaluated based on updated traffic analyses and conversations with the City of Asheville and residents. The configuration was revised to eliminate the four-lane extension and replace it with a split diamond configuration with roundabouts at the Amboy Road terminals. A multi-use path is proposed adjacent to, but separated from, the eastbound ramp between Amboy Road and Brevard Road. Additional details regarding the revised configuration is included in Section 2.6.4.2 of the FEIS.

NCDOT recognizes that there will be substantial access changes to local neighborhoods and businesses within the study area due to the project. The Department is committed to minimizing adverse effects due to these necessary changes. Currently, in order for I-26W traffic to access Haywood Road, it must exit onto Hanover Street, a narrow city street lined with residences. As proposed in I-2513A, this access would be modified by constructing a tight diamond interchange with all ramps terminating on Haywood Road. The new interchange will eliminate access from Hanover Street to Haywood Road, but since the surrounding neighborhood is laid out in a grid pattern, Hanover Road access will be maintained by using Richmond and Pennsylvania Avenues. Additionally, this interchange reconfiguration will improve the safety of the traveling public by reducing the risk of wrong way traffic entering I-26W from Montana Avenue.

After identification of the preferred alternative, NCDOT coordinated with the City of Asheville to develop options for transit service affected by the project. Per an email dated 01/18/2018 from the City of Asheville, an updated transit master plan is being prepared to explore solutions to provide relief from routes W1 and W2 and there is no longer a need for the I-26 Connector project to explore additional options.

GENERAL DESIGN COMMENTS

Comment Summary:

A total of 483 comments were received that expressed general design related concerns. These comments included concerns regarding design related issues that were not categorized by other subjects. Common remarks included the proposed widening of Amboy Road, the number of flyovers, interchange designs, the number of lanes on the Bowen Bridges, and coordinating designs with local plans.

An individual commented the ramps for the Haywood Road exit are too large for the road which would encourage drivers to speed after they exit onto Haywood Road. The comment also stated opposition towards widening Shelburne Road to four lanes, stating congestion seldom occurs on the facility except during morning rush hour due to congestion at the intersection of Brevard Road/Amboy Road. It was also noted the width of the median in Section A, stating 50-feet is too excessive and requires more house destruction. It was also noted in Section C, Alternative F-1 there is no need for a flyover for Westbound traffic on I-240 to enter I-40. The comment states the current signage on the highway for exit 1B is for I-40 East traffic is inadequate and suggests additional signing.

Several comments concerning congestion at Exit 44 were received. The City of Asheville commented on this subject, encouraging the minimization of the project footprint near Exit 44 through the use of retaining walls and an additional exit ramp from I-40 Westbound onto Smokey Park Highway Eastbound to relieve congestion. The City also asked if STIP project I-4759 will provide relief at Exit 44. The Asheville Design Center commented on Exit 44 stating the new collector-distributor (C-D) road along I-40 from I-26 to Exit 44 will have major residential impacts.

Comments were received concerning impacts to Carrier Park due to the proposed widening of Amboy Road.

Comments were received regarding the current I-26/I-40 interchange currently only provides a short distance for merging traffic. It was suggested changing the point at which the lanes connect or extend the merge land so there is adequate time to merge as opposed to completely reconfiguring the interchange as proposed.

Response:

The typical section for the Amboy Road Extension was re-evaluated based on updated traffic analyses and conversations with the City of Asheville and residents. The configuration was revised to eliminate the four-lane extension and replace it with a split diamond configuration with roundabouts at the Amboy Road terminals. A multi-use path is proposed adjacent to, but separated from, the eastbound ramp between Amboy Road and Brevard Road. Additional details regarding the revised configuration is included in Section 2.6.4.2 of the FEIS.

There were several requests for improvements outside of the scope of this project, including requests for stop signs, speed bumps, other traffic control devices, police enforcement, signal pre-emption for transit and emergency vehicles, and improvements to Park and Ride Facilities. These issues are local responsibilities and would require agreements addressing the construction and maintenance of these facilities in order to include in this project.

The design elements of the Haywood Road ramps were developed based on AASHTO's A Policy on Geometric Design of Roads and Streets (2011) to allow for safe and efficient operation of vehicles entering or exiting I-26. The radii at these ramps are not designed to encourage high speed movements. The size of the radius is determined based upon the minimum pavement required for a truck to make the associated turning movements without encroaching into oncoming traffic. Following identification of the preferred alternative, the designs were re-evaluated and minimized based on comments received on the 2015 DEIS, comments received from the public, and a new travel demand model produced by the FBRMPO. An updated lane configuration at the Brevard Road/Shelburne Road/Amboy Road intersection was developed based on the new travel demand model and the subsequent 2016 Base Year Traffic Forecast. Additionally, with the re-design of the NC 191/Amboy Road interchange system, the number of lanes needed to provide for a satisfactory Level of Service at this intersection was revised in the updated design. The comment states that a 50' median in Section A is excessive. Both the DEIS and the design refinements utilized a 35 foot median in this section of the project. In Section C, Alternative F-1, the I-26 Eastbound to I-40 Eastbound movement is missing from the existing interchange; this missing movement is considered to be a roadway deficiency. Therefore, including this movement in the proposed interchange addresses one of the state needs of the project, as discussed in Section 1.2 of the FEIS. The refined preliminary designs for the preferred alternative incorporate numerous new or expanded retaining walls in order to minimize impacts to the natural and human environments.

In response to comments concerning Exit 44, I-4759 has specific needs for which it is being developed to address. The updated designs, based on the preferred alternative have added the requested ramp in the northeast quadrant of the interchange.

Based on design refinements of the preferred alternative, impacts to Carrier Park have been reduced from 0.94 acre of right-of-way impacts to 0.22 acre of right-of-way impacts. Specific design refinements and impacts to Carrier Park are discussed in Section 4.1.1.1 of the FEIS. Design refinements have also eliminated impacts to the French Broad River Greenway.

Chapter 1 of the FEIS discusses that the existing interchange at I-26/I-40 has multiple deficiencies and cannot accommodate projected traffic volumes without reconfiguration. The preferred alternative has been developed to address these issues by upgrading the interchange to a modern facility, merging lanes lengths based on currently accepted design criteria, and improved roadside safety of the facility.

OTHER ALTERNATIVES

Comment Summary:

There were 339 comments received that expressed interest in creating another alternative as opposed to the alternatives presented, of which 87 comments were not categorized as form letters. Several comments expressed interest in an alternative that traversed outside the project study area and bypassed Asheville. Comments also stated interest in the Asheville Design Center alternative featuring the double decker-bridge or signature bridge across the French Broad River. Several comments discussed implementing congestion pricing tolls to accommodate peak traffic which involved convincing employers to shift start times to discourage rush hour congestion.

Response:

The evaluation of a bypass alternative was evaluated in the Phase I Environmental Analysis and is included in Section 2.5.3.1 of the DEIS. It was determined that a bypass alternative would not meet the purpose and need for the proposed project and was eliminated from further study. Bridge structure design elements will be considered after identification of a preferred alternative. Rail options do not serve the purpose and need of this project as defined in other section of the DEIS. Furthermore, rail typically does not serve the same purposes as the freeway system and the surface transportation network. Due to the original funding mechanisms of the project, Federal Law does not allow for NCDOT to completely transform this into a toll road. Constructing High Occupancy T... (HOT) lanes may be feasible; however this action would likely increase the project footprint due to the need to still accommodate “free” lanes of traffic. Improvements to Park and Ride facilities are outside of the scope of this project.

The double decker bridge was considered as part of the original ADC alternative. In order for geometries to work for the various interchanges, and to be designed to the same standards of the other Detailed Study Alternatives, the double decker bridge alternative was modified to what is now Alternative 4-B.

While improving capacity and reducing delays are a part of the project purpose, upgrading the I-26 Interstate corridor to meet design standards for the interstate system and providing a link in the transportation system connecting a direct, multi-lane freeway facility from the Port of Charleston to I-81 near Kingsport, Tennessee are also part of the purpose of the project. While it may be possible to add toll lanes to I-26, tolling the entire existing freeway is not possible due to the funding of the project.

Furthermore, the improvements required to add toll lanes would be similar to those presented in the DEIS due to the need to also address deficiencies in the existing facilities. In regards to behavior modification to discourage traffic during the rush hour, the DEIS considered Transportation Demand Management (TDM) Alternatives that were eliminated from further consideration due to their inability to wholly provide reduce peak hour traffic and provide adequate relief of congestion along the project facilities. Additionally, the TDM alternative would not provide the system linkage along the I-26 Corridor included in the project purposes, therefore it is not considered reasonable and feasible for this project.

The feasibility of a subsurface passage of the French Broad River by I-26 and the I-240 connection ramps in Section B was evaluated. Several major challenges were found with this option and it was determined not to be feasible. Challenges and concerns include:

- The alignment would require curves within the tunnel and greater shoulder widths to provide adequate sight distance, thus increasing the bank to bank river crossing from 400 feet to 700 feet.
- Relocation of Smith Mill Creek.
- Impractical ramp ties at Patton Avenue and additional weaving movements.
- Increased impacts to the C.F. Worely House and Montford Hills Historic District.
- I-240 westbound ramp and I-26 would remain aerial.
- Substantially increased construction and maintenance costs

QUALITY OF LIFE, OVERALL PROJECT FOOTPRINT SIZE, INDUCED SOCIOECONOMIC IMPACTS

Comment Summary:

Thirty-six comments were received discussing impacts to the quality of life in Asheville. Opponents of the project state that all aspects of the proposed project will negatively impact the quality of life for residents in Asheville; specifically in West Asheville and Burton Street. Some proponents of the project commented constructing the I-26 Connector in a timely manner will increase the quality of life in Asheville by reducing traffic congestion. There were 747 comments received that expressed concern regarding the overall project footprint, of which 256 comments were not categorized as form letters. The comments' main concern regarding this topic was that the project did not fit with the overall size of the Asheville area and that it was too overbuilt. There were 423 comments received that expressed concern regarding induced socioeconomic impacts, of which 85 comments were not categorized as form letters. Form letters included this topic by discussing the importance of choosing an alternative (Alternative 4 or 4-B) that creates infill development opportunities for the City of Asheville. Several comments not categorized as form letters also expressed this concern. Proponents of the project stated completion of the connector project would assist in the economic success of the region.

Response:

The project is being designed to address projected future traffic capacity needs which include both local and regional growth in traffic, as well as the other identified needs in the purpose and need section of the FEIS. The scale of the project is appropriate to meet future traffic needs and to maintain adequate traffic operations. The Merger Team identified Alternative 4B as the preferred alternative, which had the least adverse impact on the Burton Street Community. NCDOT has included a representative of the Burton Street Community in the Working Group meetings and presented the project multiple times at community meetings. NCDOT and a consultant have coordinated with the community to prepare a Neighborhood and Mitigation Strategies Plan. The goal of the NMS plan project is to develop a Burton Street Neighborhood plan that will be adopted by the City and that includes a list of mitigation strategies to be implemented by NCDOT. Outreach efforts are summarized in Section 4.1.1.4 and 8.2.1.2. NCDOT

has worked with the consultant hired by the City of Asheville to revise the interchange at I-240 and Patton Avenue in order to open up more space in the B quadrant of the interchange. The City of Asheville would still need to coordinate with the NCDOT Right-of-Way branch regarding the right-of-way disposal process. NCDOT will continue to further avoid and minimize impacts due to the project to the greatest extent practicable during final design and construction. The refined preliminary designs for the preferred alternative incorporate numerous new or expanded retaining walls in order to minimize impacts to the natural and human environments.

COST CONSIDERATIONS

Comment Summary:

There were 59 comments concerning costs of the project. Proponents of the project urged the project to be completed before incurring additional costs. Opponents of the project discussed concerns over the project costing too much to tax payers.

Response:

The right-of-way, construction, and utility relocation costs presented in the FEIS are based on the preliminary design plans. The project has been included in the FBRMPO's Metropolitan Transportation Plan for several years as a fiscally constrained project.

SAFETY

Comment Summary:

There were 153 comments received expressing concern regarding safety. Several comments discussed concerns regarding neighborhood safety along Fairfax Avenue due to increased traffic that would result from widening Amboy Road. Comments also discussed concerns regarding pedestrian safety decreasing as a result of widening of Amboy Road. Several comments discussed ensuring sidewalks and multi-use paths would be constructed wider than standards for safety reasons. Proponents of the project commented the project should be constructed in a timely manner due to existing safety issues such as daily crashes on the Jeff Bowen Bridge, and lack of pedestrian safety of the Jeff Bowen Bridge.

Response:

The design of the preferred alternative is in accordance with AASHTO's "A Policy on Design Standards – Interstate System" which states that "The highways of this system (Interstate System) must be designed to ensure safety, permanence, utility, and flexibility to provide for predicted traffic growth." A goal for this project is to provide a safe facility that accommodates projected traffic. In the view of NCDOT and FHWA the design criteria for the proposed project is appropriate and any design revisions would need to adhere to these criteria.

TRAFFIC

Comment Summary:

There were 309 comments received discussing traffic concerns not related to separating Patton Avenue traffic from interstate traffic, of which 91 were not categorized as form letters. Comments from opponents of the project state additional lanes will increase traffic volumes in the Asheville area, ultimately causing more problems. Proponents of the project discuss the need for additional lanes in order to reduce existing traffic volumes.

Response:

The Travel Demand Model uses a finite number of vehicles and trips for every scenario in the future year. Adding capacity along a roadway does not increase the overall number of trips within the travel

demand model network. NCDOT has prepared an updated traffic forecast for the I-26 Connector project. This updated forecast utilized the FBRMPO's updated travel demand model and includes four lanes, six lanes, eight lanes, and ten lanes scenarios.

MISCELLANEOUS COMMENTS

TIMING OF MITIGATION EFFORTS:

Comment Summary:

A comment said that the timing of potential mitigation efforts does not follow the NEPA process. The comment refers to statements in the DEIS that discuss mitigation efforts will be assessed after the identification of a preferred alternative.

Response:

Mitigation commitments are documented in the Green Sheets at the front of the Final Environmental Impact Statement (FEIS) and are consistent with Federal Highway Administration's (FHWA)'s mitigation policy per 23 CFR 771.105(d), which states the following:

Measures necessary to mitigate adverse impacts will be incorporated into the action and are eligible for federal funding when the Administration determines that

1. The impacts for which the mitigation is proposed actually result from the Administration action;
2. The proposed mitigation represents a reasonable public expenditure after considering the impacts of the action and the benefits of the proposed mitigation measures. In making this determination, the Administration will consider, among other factors, the extent to which the proposed measures would assist in complying with a Federal statute, Executive Order, or Administration regulation or policy.

The Merger Team concurred on Concurrence Point 4A – Avoidance and Minimization Measures for the proposed project on July 18, 2018. The concurrence form is included in Appendix A.

USE OF THE WORD "SPRAWL"

Comment Summary:

Several comments expressed concern over the use of the word "sprawl" within the DEIS and the associated inefficiency and economic and environmental impacts it can cause.

Response:

In response to the comments regarding the use of the word "sprawl" to describe a pattern of planned infill development in the vicinity of the project, NCDOT provides further clarification that the intent of the DEIS text was to indicate that the proposed improvement does have the potential to accelerate planned infill, redevelopment, and development to the edges of established growth boundaries in the vicinity of the project; however, it is not expected to result in unanticipated impacts on environmental resources.

LOCAL PLAN CONSISTENCY

Comment Summary:

Comments stated the DEIS failed to recognize local land use plans and portions of the designs contradict land use plans discussed in the DEIS. Comments further discussed inconsistencies between the land use plans and the designs for the project.

Response:

The DEIS assessed each alternative's level of consistency with over 20 state and local plans. In order to make information more relevant to decision-makers with regard to how well the project matched each individual plan's consistency, a qualitative ranking of the degree of consistency with land use and transportation plans was completed for each alternative following the methodology documented in the Community Impact Assessment (CIA). As stated on page xi of the DEIS Executive Summary, the purpose of the project does not require that project alternatives be consistent with state and local plans, but the degree to which an alternative promotes consistency with such plans would be a consideration of decision-makers. The FEIS reassessed the preferred alternative's level of consistency with the plans identified in the DEIS. Additional information regarding the projects compatibility with state and local plans is included in Section 4.1.2.

HEALTH IMPACT ASSESSMENTS

Comment Summary:

Mr. Don Kostelec commented on the health impacts that could potentially stem from the I-26 Connector project. Mr. Kostelec cites a Health Impact Assessment (HIA) he presented and was originally conducted for the Buncombe County Greenways and Trails Master Plan. He expressed concern that the HIA was not included in the health evaluation components of the DEIS or in the CIA.

Response:

NCDOT typically considers health-related effects of transportation during its long-range planning efforts. Health may be considered during project design as well as during the NEPA review process. Several public health considerations, including access to goods and public services, noise, air quality, and safety, have been addressed in the DEIS and the FEIS and are important considerations that would continue to guide project development.

The enhancement of health and well-being is a part of NCDOT's mission. It is implemented through planning efforts that include statewide modal planning for bicycles and pedestrian users, and assistance to metropolitan planning organizations (MPO) and rural planning organizations (RPO) to consider incorporating health aspects in their plan. The Buncombe County Greenways and Rails Master Plan (September, 2013) acknowledges NCDOT's role in constructing and maintaining infrastructure that affords Buncombe County some of its opportunities for building a regional greenway system. This plan acknowledges past planning efforts and lists nine plans that provided a foundation for the plan, but does not specifically mention a Health Impact Assessment. The Buncombe County Greenways and Rails Master Plan states that its intent is to "utilize the lens of public health as a contributor towards design and prioritization of the greenway system and to help illustrate how the network can potentially impact health measures of Buncombe residents". In areas where the various plans propose future pedestrian accommodations, the designs have been developed to accommodate or not preclude these elements from being constructed by the various agencies. Furthermore, as discussed in Section 4.1.2.2 and 8.2.2.3, NCDOT has coordinated closely with the City of Asheville to identify potential bicycle and pedestrian accommodations throughout the project study area and discuss cost-sharing for the facilities.

A 2014 FHWA report, *Statewide Transportation for Healthy Communities*, acknowledges NCDOT's leadership in integrating health and transportation into their transportation planning and decision-making.

ADA REQUIREMENTS

Comment Summary:

Comments were received regarding how the project would meet Americans with Disabilities Act (ADA) requirements and state, in general, NCDOT does not adhere to requirements of the ADA with regard to the design and construction of facilities.

Response:

NCDOT has issued the 2015 ADA Self-Assessment & Transition Plan which has updated and completed work from 2009-2011 and added current information including the completion of a curb cut/ramp inventory (conducted between April and May 2015). This assessment allows for appropriate planning to address ADA requirements. The plan further indicates that “the Department would provide direct access to programs, services, and activities offered by NCDOT”. Included among the list of these facilities are sidewalks, curb-cuts, curb ramps, and signalized intersections with sidewalks on the state system.

NCDOT has a dedicated staff member that would, as part of the I-26 Connector Project, oversee ADA adherence to accommodating accessibility for all who have a disability, as defined by ADA.

In addition to NCDOT policies in addressing ADA compliance, according to section 1.2.1.11 of the Consistency with Local Plans Assessment, the City of Asheville Complete Streets Policy outlines the general projects that would incorporate the Complete Streets principles. NCDOT is committed to Complete Streets improvements and will coordinate efforts with the City of Asheville to incorporate these amenities into the project in compliance with design and cost-sharing guidelines. In areas where the various plans propose future pedestrian accommodations, the designs have been developed to accommodate or not preclude these elements from being constructed by the various agencies.

Finally, according to the Asheville Regional Transit (ART) website, all ART bus stop improvements include ADA design requirements. Bus stops added or replaced as part of the I-26 Connector Project would adhere to this requirement.

AUTONOMOUS CARS

Comment Summary:

There were several comments discussing the potential trend towards autonomous vehicles, which would reduce congestion on major highways, ultimately eliminating or reducing the need to add lanes due to this project.

Response:

While studies have been done that show autonomous vehicles may reduce roadway in certain conditions, many variables exist when attempting to determine the actual impacts automated vehicles will have on traffic conditions. These variables include, but are not limited to:

- Reliability and safety of automated vehicles
- Percentage, or ratio, of overall vehicles using the roadway that are automated at a specific point in time
- Maximum flow rate of roadways based on the ratio of automated vehicles using the roadways
- Induced demand on roadways based on the willingness of drivers to make trips in automated vehicles they would have been otherwise unwilling to make
- Suitability of current roadway design characteristics to effectively increase the capacity of roadways for automated vehicles

- Implementation timeframe and implementation rate of automated vehicles into the roadway network

With all of these variables in play, it is extremely difficult to predict the impact of automated vehicles to the current roadway network. Thus NCDOT evaluated the number of lanes needed based on the best available information.

DEMOGRAPHIC TRENDS ASSESSMENT

Comment Summary:

Comments stated the DEIS failed to incorporate reasonable designs for infill development as promoted in the local plans along Patton Avenue. The comment also suggests the methodologies for evaluating population changes and trends in the area are inadequate.

Response:

NCDOT has coordinated with the City of Asheville to incorporate design elements into the preferred alternative to avoid or minimize impacts. NCDOT has worked with the consultant hired by the City of Asheville to revise the interchange at I-240 and Patton Avenue to a tight urban diamond configuration in order to open up more space in the B quadrant of the interchange. The City of Asheville would still need to coordinate with the NCDOT Right-of-Way branch regarding the right-of-way disposal process.

NCDOT conducted a community trends analysis as part of the I-2513 Community Impact Assessment Update. An analysis of social/economic demographic information within the project-specific direct community impact area (DCIA) is one of numerous components of supplemental data intended to facilitate a better understanding of the relationship between the proposed transportation project and the potentially affected communities. This data is also used to pinpoint communities that would be affected by the proposed improvements. As stated in Section 3.1 of the FEIS, demographic data was gathered from the 2010 US Census as well as the 2011-2015 American Community Survey. In addition to the utilization of current census data, interviews with both city and county planning organizations were conducted to bear out assumptions made stemming from demographic data and site visit observations. Methodology of assessing demographic trends was based on Federal Council on Environmental Quality (CEQ) regulations and FHWA and NCDOT guidance on conducting community impact assessments.

APPENDIX H3

RESPONSE TO SOUTHERN ENVIRONMENTAL LAW CENTER COMMENTS

Comment #1 (page 3) – NCDOT is determined to build a continuous six-to-eight lane interstate from south of Hendersonville to north of Weaverville. This overbuilt highway expansion proposal through the entire Asheville metropolitan area will spoil scenery, alter development patterns, and impact aquatic resources throughout the corridor.

Response – FHWA and NCDOT disagree with the comment. FHWA and NCDOT respond later to more specific comments, which the commenter offers in support of this conclusory comment.

Comment #2 (page 3) – Yet rather than fully and fairly disclosing the consequences of its desired corridor, NCDOT is proceeding piecemeal, analyzing only small segments of the project it plans to build. Such segmentation hides the corridor’s full environmental impacts and evades what NCDOT’S own traffic data shows: that these segments are so interrelated that expanding one segment forces expansions and limits options in adjacent segments, and it is unreasonable to consider these segments under the fiction that they will occur in isolation. NCDOT’s approach also violates NEPA—flouting a federal ruling on segmentation in this very corridor—and deprives the public of the information it is entitled to under the law.

Response – FHWA and NCDOT disagree with this comment. The project segmentation referred to is in regards to three projects along I-26 and Future I-26 in western North Carolina:

- NCDOT STIP Project I-4400/I-4700: Additional lanes on I-26 south of Asheville
- NCDOT STIP Project I-2513: I-26 Connector
- NCDOT STIP Project A-0010A: Upgrade US 19/23 to Interstate Standards

FHWA and NCDOT have closely coordinated project decisions with the local, state, and federal resource agencies and continue to do so as each project progresses. While these projects are closely related, the project limits were established so that each has logical termini and independent utility. System-to-system (or interstate-to-interstate) interchanges are often used to identify project limits, or logical termini, which is the case for these projects. Given major decisions for these projects are coordinated, they are represented separately and analyzed as such due to their different purposes and needs, which allow for a more detailed look to be taken along each segment.

The three projects also contain unique environmental characteristics and context, and providing separate projects allows them to be considered separately in order to provide an account of the impacts each project location will incur, and to potentially offer location-specific minimization and mitigation goals. Combining the entire corridor into one long project would be a disservice to the careful environmental process being followed for each individual project, as each has its own purposes, needs, and independent utilities.

A regional cumulative impact study was developed to encompass the area for projects included in the 2012-2020 State Transportation Improvement Plan, the fiscally-constrained 2008 French Broad River Metropolitan Planning Organization (FBRMPO) Metropolitan Transportation Plan (MTP) and the prioritized NCDOT Draft 5 year work plan and includes portions of Madison, Buncombe, Henderson, and

Haywood counties. The study included projects I-4400/I-4700, I-2513, and A-0010A. Indirect and cumulative impacts were determined to be insignificant.

Comment #3 (page 4); Comment #4 (Page 5-6) – Beyond their physical and thematic connection, a closer look reveals that these projects are inseparable and interdependent. First, as the DEIS acknowledges, a widened Connector is needed, in part, to accommodate traffic from the planned expansion north of the Connector, as that project will increase “traffic demands along 1-240 west of Asheville.” I—26 Connector Draft Environmental Impact Statement [hereinafter “DEIS”], at 1-3.1 Thus, planned widening in a “separate” project is constraining alternatives in this project. Similarly, expanding the Connector will force implementation of the proposed northern and southern expansions, or require those expansions to occur first, violating both CEQ’s and FHWA’s segmentation regulations.

The maps and traffic capacity tables provided with the DEIS demonstrate the interdependent nature of these “separate” projects. If the Connector is built as planned, then the I-26 westbound lanes at the northern end of the project, which carry the traffic leaving Asheville for points north, will rapidly drop from five lanes to the existing two-lane footprint. Creating such a bottleneck in the very lanes that will be carrying northbound traffic out of Asheville during afternoon rush-hour is untenable and will force additional widening projects. A comparable bottleneck is designed into the southern end of the project in the I-26 eastbound lanes: commuters traveling to destinations south of Asheville will have to navigate rush hour traffic as the roadway suddenly drops from five to two lanes. These bottlenecks are designed into all alternatives under consideration. Because much of the afternoon commuter traffic out of Asheville heads to points north and south, these bottlenecks inherent to the project will cause intolerable dysfunction in the corridor if the Connector project proceeds alone.

NCDOT’s traffic capacity analyses bear this out. The following tables show the level of service (“LOS”) predicted by NCDOT for these northern and southern highway segments in 2033. These segments were analyzed under two scenarios: the long-range plan (“LRP”), which assumes these segments will be expanded to six lanes, and the additional improvements scenario (“AIS”), which analyzes these segments as an eight-lane highway.² Under the LRP, assuming the Connector is built, there will be LOS failures during afternoon rush hour north and south of the Connector in all proposed alternatives. Drivers heading south will experience LOS F; drivers heading north will experience LOS E. This is true under all alternatives being considered for the Connector. To reach levels of service deemed acceptable by NCDOT, I-26 will need to be expanded to eight lanes (the AIS) to the north and south if the Connector is built as proposed. NCDOT has not provided a capacity analysis that assumes the existing four-lane footprint to the north and south of the Connector, but given the failures with six lanes, it is safe to assume those segments would perform even worse without any expansion.

Table 1: Year 2033 Section C Level of Service Analysis¹

Freeway Segments	2033 PM Peak Hour LOS
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¹ This table contains data from the capacity analysis for Alternative C-2 in Section C. Data from only one alternative is shown because the LOS results are the same for all Section C alternatives in these segments.

I-26 WB – South of I-40	D (LRP) C (AIS)
I-26 EB – South of I-40	F (LRP) D (AIS)

Traffic Capacity Analysis Memorandum, Vol. 1, at 54, table 13 (URS 2010)²; *see also* DEIS at 2-93, Fig. 2-23.

Table 2: Year 2033 Section B Level of Service Analysis³

Freeway Segments	2033 PM Peak Hour LOS
I-26 WB – North of Broadway	E (LRP) D (AIS)
I-26 EB – North of Broadway	D (LRP) C (AIS)

Traffic Capacity Analysis Memorandum, Vol. 1, at 63, table 17; *see also* DEIS at 2-98, Fig. 2-27.

These failures, and any additional projects needed to correct them, will be caused by construction of the Connector. NCDOT also forecasted the capacity of those segments in the design year, assuming the Connector is not built. Under the six-lane LRP footprint, the segments to the north and south perform at acceptable levels of service, even during afternoon rush hour. Thus the same sections that fail if the Connector is built perform fine if it is not built. As these tables demonstrate, NCDOT knows and expects that the Connector will force expansions to the north and south.

Table 3: Year 2033 No-Build Level of Service Analysis

Freeway Segments	2033 PM Peak Hour LOS
I-26 WB – South of I-40	D (LRP) C (AIS)
I-26 EB – South of I-40	F (LRP) D (AIS)
US 19-23-17 NB – North of Broadway	D (LRP) C (AIS)
US 19-23-17 SB – North of Broadway	C (LRP) B (AIS)

Traffic Capacity Analysis Memorandum, Vol. 1, at 48, table 11; *see also* DEIS at 2-89 – 2-90, Fig. 2-20, 2-21.

Response – FHWA and NCDOT disagree with this comment. The travel demand modeling, traffic forecasting, and traffic capacity analysis have been prepared to consider all fiscally-constrained programmed projects from the local MPOs. Based on the FBRMPO MTP at the time, and based on coordination with project officials for the projects to the north and south of the I-26 Connector project along I-26, it was determined that I-26 and Future I-26 should be modeled as a six lane facility at the I-26 Connector project termini.

² This document is the source for NCDOT's capacity analysis for the Connector. *See, e.g.*, DEIS at 2-9 (citing the Traffic Capacity Analysis Memorandum in Tables 2-2 and 2-3).

³ This table contains data from the capacity analysis for Alternative 3 in Section B. Data from only one alternative is shown because the LOS results are the same for all Section B alternatives in these segments.

According to the traffic volumes from the I-26 Connector project traffic forecast with the I-26 Connector project assumed in place, higher traffic volumes at the northern and southern termini of the project are projected when compared to the future year no build scenario. Travel demand models generate trips based on an MPO's officially adopted socioeconomic data projections, not the roadway network capacity; therefore, the trips generated in the travel demand model will be redistributed throughout the roadway network based upon the available capacity and travel times to and from the individual trip origin and destination. The higher traffic volumes at the northern and southern termini for the I-26 Connector project build alternatives is attributed to the increase in capacity which allows for the shorter travel times to result with the same origin and destination. Essentially, traffic will reroute from a congested facility, such as US 25, US 25A, and NC 191, to the I-26 Connector which will result with a shorter travel time.

As previously noted all three projects have individual purposes and are being developed to address their own specific needs. Furthermore, none of these projects are being developed due to the outcome of their adjacent projects, and therefore, each have independent utility and can be constructed individually, regardless if an adjacent project loses funding or if a No-Build Alternative is chosen. In efforts to plan for the adjacent projects, the designs prepared for the I-26 Connector project have been developed to accommodate the anticipated lane configuration required for project A-0010A and I-4400/I-4700. Similarly, the designs have also been developed to allow the lane configurations be reduced with paint-striping to tie into the existing lane configurations on the northern and southern termini of the project should one of the adjacent projects schedules fall behind, be reprioritized, or are determined to not be necessary. FHWA and NCDOT have and will continue to closely coordinate project decisions with the local, state, and federal resource agencies.

Comment #5 (Page 6-7) – Based on the above data, NCDOT's plans for the Connector preclude anything less than an eight—lane footprint to the north and south. Thus, not only does the Connector foreclose a no-build alternative for those segments, which NEPA requires agencies to consider throughout EIS process, it forecloses six—lane alternatives as well.

Worse still, the Connector in fact depends on an eight-lane expansion to the south to ensure that this project meets NCDOT's LOS D requirement within the Connector itself. The DEIS indicates that, for all Section C alternatives, the ramp from I-40 to I-26 eastbound will perform at LOS F during the afternoon peak hour under the LRP, but will perform adequately under the AIS. See DEIS at 2-91 — 2-92. This ramp junction is within I—2513's project area. Therefore, if I-26 eastbound south of I-40 is not doubled to four lanes, then Section C will fail the very LOS D requirement NCDOT wields to force massive expansions in Sections A and B And again, 'given that this junction fails to meet NCDOT'S requirement if the southern segment is expanded to three lanes, one can easily imagine even more traffic flow failures within the Connector if this southern segment is not expanded at all, as the bottleneck created by the overbuilt Connector would be even worse.

Under CEQ's regulations, these facts show wrongful segmentation because the Connector “[a]utomatically trigger[s]” under NCDOT's own standards for traffic operation the northern and southern highway expansions and because the Connector “[c]annot or will not proceed unless” those

expansions “are taken previously or simultaneously.” 40 C.F.R. § 1508.25(a).

Response – FHWA and NCDOT disagree with this comment. The travel demand modeling, traffic forecasting, and traffic capacity analysis have been prepared to consider all fiscally-constrained programmed projects from the local MPOs. Based on the FBRMPO MTP at the time, and based on coordination with project officials for the projects to the north and south of the I-26 Connector project along I-26, it was determined that I-26 and Future I-26 should be modeled as a six lane facility at the I-26 Connector project termini. FHWA and NCDOT considered various alternatives as discussed within Chapter 2 of the 2015 DEIS; thus, fulfilling the NEPA requirement to consider a reasonable range of alternatives. Various upgrade existing and new location alternatives were evaluated in the Phase I Environmental Analysis-Asheville Urban Area (NCDOT 1995). In order to determine whether the alternatives developed in a previous study should be carried forward for additional study the alternatives must meet the purpose and need of the proposed project and be considered “reasonable” (USDOT/FHWA 1987). Upon reevaluation of the Phase I study alternatives, the following were carried forward for further evaluation within the 2015 DEIS: No-Build and Build Alternatives; more specifically, No-Build, Transportation System Management, Transportation Demand Management, Mass Transit, and Build Alternatives. Upon further evaluation, as documented within the 2015 DEIS, all alternatives were eliminated from further consideration except the No Build and Build Alternatives. The development of the Build Alternatives resulted with the project being split into three sections: Section B, Section A, and Section C.

Update: An updated traffic forecast based on the most recent FBRMPO travel demand model has been completed, and a six-lane typical section along Section A of the project will meet the FHWA criteria of LOS D or better.

Comment #6 (Page 8) – NEPA requires agencies to “[r]igorously explore and objectively evaluate all reasonable alternatives.” N.C. Wildlife Fed’n v. NC. Dep’t of Transp., 677 F.3d 596, 602 (4th Cir. 2012) (citing 40 C.F.R. § 1502.14(a)). The alternatives analysis is supposed to be the “heart” of the impact statement. § 1502.14. Despite this mandate, the 2015 DEIS offers only one alternative for Section A: four travel lanes in each direction with auxiliary lanes for most of the section. This eight-to-ten lane footprint will more than double the existing roadway, disrupting West Asheville’s renaissance with a freeway fit for Los Angeles. Yet, less damaging reasonable alternatives exist: six travel lanes or six travel lanes with auxiliary lanes are feasible alternatives that will cause less damage throughout the project and will adequately meet future demand. Similarly, in Section B, NCDOT has refused to consider less than a six-lane footprint on the future I—26 bridge over the French Broad River, even though four lanes would adequately meet future demand.

Response – FHWA and NCDOT disagree with the comment. As presented in Chapter 2 (Sections 2.5.2, 2.5.3, 2.5.4) of the 2015 DEIS, other alternatives beyond four travel lanes in each direction were considered, which were found not to meet the purpose and need of the project based on the travel forecast information available at that time. NCDOT later responds to more specific comments, which the comment offers in support of this conclusory comment.

An updated traffic forecast based on the most recent FBRMPO travel demand model has been completed, and based on this new information a six-lane typical section along Section A of the project will meet the FHWA criteria of LOS D or better and thus meets the purpose and need of the project..

Comment #7 (Page 8) – NCDOT justifies its refusal to consider fewer lanes by citing an arbitrary requirement to meet LOS D in these freeway segments. As explained in more detail below, no such requirement exists. But even accepting this arbitrary requirement, fewer lanes in Sections A and B will provide more than enough capacity to meet LOS D; NCDOT’s conclusions to the contrary are based on poorly calibrated models, overinflated traffic demand forecasts, and underestimated lane capacity analyses. This failure to consider reasonable alternatives violates NCDOT’s core duties under NEPA.

Response – *FHWA and NCDOT disagree with the comment. FHWA and NCDOT respond later to more specific comments, which the commenter offers in support of this conclusory comment.*

Comment #8 (Page 8) – Despite NCDOT’s contrary assertions, no legal requirement to achieve LOS D exists. NCDOT’s only justification for an eight—to—ten lane highway through West Asheville and a six lane bridge is that it is required by regulation to design the highway to achieve LOS D during the peak hour in the design year. No such legal requirement exists.

Response - *While there is not a specific regulatory requirement to achieve a LOS D, our selection of this target for the project is supported by federal law and design standards adopted by FHWA in regulation. The project includes upgrading the interchange between I-240, US 19-23 and Patton Avenue to interstate standards so that it can become part of the Interstate System. Congress established the following standards for the Interstate System.*

The geometric and construction standards to be adopted for the Interstate System shall be those approved by the Secretary in cooperation with the State transportation departments. Such standards, as applied to each actual construction project, shall be adequate to enable such project to accommodate the types and volumes of traffic anticipated for such project for the twenty-year period commencing on the date of approval by the Secretary, under section 106 of this title, of the plans, specifications, and estimates for actual construction of such project. Such standards shall in all cases provide for at four lanes of traffic. The right-of-way width of the Interstate System shall be adequate to permit construction of projects on the Interstate System to such standards.

The project will include an upgrade to the I-26, I-40, and I-240 freeway to freeway interchange at the eastern end of the project. Additionally, the interchanges at NC 191, Amboy Avenue and Hanover Street/Haywood Street will also be modified. These interchange modifications will be evaluated for approval by FHWA’s Executive Director according to FHWA policy, which states that it is in the national interest to preserve and enhance the Interstate System to meet the needs of the 21st Century by assuring that it provides the highest level of service in terms of safety and mobility. (Federal Register, Volume 74, Issue 165, August 27, 2009). Of particular interest is the upgrade of the existing interchange

at I-240, US 19-23 and Patton so that it can be added to the Interstate System.

How does one describe or define “highest level of service for safety and mobility” or determine whether a project is adequate to accommodate the types and volumes of traffic for the twenty-year period after approval of the plans, specifications and estimates for its construction? As was explained in the 2015 DEIS, LOS D was selected as the target for this project based on the AASHTO A Policy of Geometric Design of Highways and Streets 2011 Edition (Green Book), which is a design standard referenced in 23 C.F.R. § 625.4 for the NHS including Interstates. The Green Book Table 2-5 provides guidance on LOS criteria based on functional classification for specified combinations of area and terrain type. While the table recommends LOS C for freeways in urban areas, it does suggest that an LOS of D may be used in heavily developed sections of metropolitan areas (but that it should be used sparingly). Therefore, the use of LOS D as a target is based on AASHTO standards which are referred by FHWA’s regulations and is not arbitrary and capricious for the purposes of evaluating alternatives in the DEIS.

An updated traffic forecast based on the most recent FBRMPO travel demand model has been completed, and a six-lane typical section along Section A of the project will meet the FHWA criteria of LOS D or better.

Comment # 9 (Page 9-10) – Lacking a clear legal requirement to meet LOS D, the 2015 DEIS relies on a July 2004 letter from FHWA. See DEIS at 1-23. The letter states that the Connector project should be designed to meet LOS D. The credibility of this letter is completely undermined by an NCDOT official’s notes, which were drafted in May 2004, shortly before FHWA’s letter appeared. The notes, which were obtained in a public records request, provide as follows:

*→Look for letter from FHWA on LOS E.
Only let us design for LOS D or
better. We will draft for them.*

“We will draft for them.” (emphasis added). Ordinarily, a letter from one official to another would be weak evidence of a legal requirement. But here, where it appears that NCDOT drafted the letter to itself to justify its own action, citing such a letter is unpersuasive and a post hoc justification of a decision already made, which violates NEPA.

Response – FHWA and NCDOT disagree with the comment. The note referenced shows that NCDOT will prepare a draft letter citing the various federal guidelines/policies/laws which provide input and guidance regarding selection of design LOS criteria for interstate projects. The letter was to be drafted for FHWA independent evaluation, in order to document the design LOS for the I-26 Connector project and the basis for the decision. FHWA is the lead sponsoring agency for the project, and NCDOT is preparing the environmental impact statement and corresponding studies on behalf of FHWA. Based upon this relationship, NCDOT routinely coordinates with FHWA regarding their opinion or approval of approach/methodologies, as well as prepares and submits draft studies, reports, and memorandums for FHWA’s review for accuracy and compliance with federal guidelines/policies/laws prior to use and/or distribution.

An updated traffic forecast based on the most recent FBRMPO travel demand model has been completed, and a six-lane typical section along Section A of the project will meet the FHWA criteria of LOS D or better.

Comment # 10 (Page 11); Comment # 11 (Page 11-12) – NCDOT’s forecasts of traffic demand for the Connector are based on a model programmed with the self-fulfilling assumption that the Connector will have eight travel lanes in Section A and six lanes in Section B. See Martin/Alexiou/Bryson, *French Broad River Metropolitan Planning Organization Travel Demand Model Final Report* [hereinafter “FBRMPO Travel Demand Report”], at 9-8, EX. 5A (Nov. 2007). In turn, this critical assumption underlies the projected traffic demand and induces more traffic than a smaller future footprint. See Martin/Alexiou/Bryson, *Traffic Forecasts for NCDOT State TIP Project No. I- 25I3, I-26 Connector*, at 26 (2010) (“The introduction of the connector, flyover, and (8-lane) widening in the Build Alternatives cause more trips than the No-Build Alternative along 1-240 and I-26 because of reduced delay and increased capacity associated with building a new facility”). NCDOT then takes the output of that forecast and conducts a capacity analysis, asking how many lanes are needed to meet this inflated demand. Unsurprisingly, the analysis concludes that, as to Section A, only eight lanes of capacity can satisfy eight lanes of demand assumed by the model; six lanes or six lanes with auxiliary lanes cannot.¹ Similarly, in Section B, the DEIS concludes that only a six-lane bridge provides enough capacity for traffic demand on the six-lane footprint modeled by the forecasters; a four-lane bridge does not. Community members have objected to this circular and self-fulfilling prophecy for years, but NCDOT repeats it again in the 2015 DEIS. See DEIS § 2.5.2.2 (applying eight-lane demand volumes to six lanes of capacity in Section A). Such flawed analysis is arbitrary and capricious.

This error is made more egregious by the fact that travel demand models already skew towards highways, generally overestimating demand for highways relative to other network roads.¹⁵ This bias in the models is well known to NCDOT’s forecasting team, but the DEIS does not acknowledge or correct for it. Instead, the DEIS holds the projected highway demand generated by the model up to an arbitrary LOS standard and concludes that otherwise viable alternatives must be eliminated from consideration.

Past modeling of the Connector reveals that this error of circular reasoning in the current model is not harmless. In 2002, the prior demand model in use at that time projected traffic volumes for a wider range of road footprints including four—lane and six—lane Connector footprints. Those projections were substantially lower than the 143,000 cars per day projected for an eight-lane Connector at that time. Comparable traffic projections from the current model for a four—lane and six—lane Section A have not been provided to the public this time around, but there is no reason to doubt that projections under the new model for a smaller Section A would be, as they were under the prior model, substantially less than the current forecast for an assumed eight-lane footprint. Because, as presently analyzed by NCDOT, a six-lane footprint in Section A fails by only a slim margin, any reduction in demand that results from more candid model assumptions may reveal that smaller lane footprints can adequately meet future demand. The same is likely true for Section B. NCDOT is required to provide these smaller lane projections to the public and use the Connector EIS fully to consider them and the lane alternatives they represent.

Response – *A new Travel Demand Model was developed for the MPO's 2040 MTP. The NCDOT provided an overview of the Travel Demand Model to the MPO Citizen Advisory Committee in January 2016. This presentation provided information on various inputs and outputs of the model and show the independence of socio-economic projections from the Travel Demand Model (TDM).*

NCDOT updated its traffic forecast based on the 2015 FBRMPO travel demand model. Based on updated traffic forecasts, a six-lane typical section along Section A of the project will meet the FHWA criterion of LOS D or better. The 2015 FBRMPO TDM was tested for sensitivity in raw model travel demand outputs based on six lanes versus eight lanes on the project. The difference between model demand between six lanes and eight lanes was small (within 3 percent) (See January 14, 2016 presentation to Asheville City Council).

Comment # 12 (Page 12) - NCDOT must also disclose the extent to which future lane assumptions further inflate demand. 'While it is not clear, it appears that the large lane assumptions are also built into the underlying socioeconomic and land use forecasts. If so, these assumptions create a higher total number of trips in the corridor than would be seen if the socioeconomic and land use forecasts assumed smaller lane footprints. As a result, two layers of assumptions work against smaller lane footprints: first, when predicting the total trips for the corridor, the model likely assumed eight lanes through West Asheville and a six lane bridge; second, when predicting the distribution of those trips through the corridor, the model assumed the same large lane configuration. NCDOT thus artificially increased the number of trips and the attractiveness of the road to those trips, all but ensuring that the assumed large lane configuration would be necessary. NCDOT must clarify whether this error exists, and if so, correct it to allow for a fair analysis of smaller alternatives.

Response – *The traffic forecast prepared for the traffic capacity analysis portion of the DEIS included locally-driven socioeconomic data, and included FBRMPO-guided assumptions for roadway characteristics which were then used in the Travel Demand Model. While these assumptions do have an effect on the routing of vehicles through the travel demand model, it does not necessarily dictate the recommended laneage. For instance, the updated traffic forecast used for the capacity analysis in preparation of the FEIS has been prepared under two scenarios: a six-lane Section A and an eight-lane Section A. Both forecasts were evaluated, and it was decided that the forecast assuming Section A with eight lanes would be used. Nevertheless, six lanes in Section A adequately meets FHWA operations criteria, even though the eight-lane Section A traffic forecast was used.*

Comment # 13 (Page 12) – As discussed in the segmentation analysis above, NCDOT's 2033 traffic capacity analysis assumed that I-26 will be expanded to six lanes north and south of the Connector. This assumption is also programmed into NCDOT's traffic demand forecasts. See FBRMPO Travel Demand Report, at 9-7, Ex. 5A. As a result, the traffic forecasted for the Connector includes the demand induced by having at least six travel lanes all the way from south of Hendersonville to north of Weaverville. The DEIS acknowledges that such expansions increase demand for the Connector. See DEIS at 1-3 ("The completion of portions of NCDOT STIP Project A-10 will further increased [sic] traffic demands along 1—240 west of Asheville."). Therefore, NCDOT is rejecting smaller alternatives based on future demand

that is inflated by planned expansions adjacent to the project as well as a forced assumption of eight lanes of demand in Section A and six lanes of demand in Section B of the project.

Response – FHWA and NCDOT disagree with the comment. The project level traffic forecast was prepared with all fiscally-constrained projects programmed in the MPO. As such, for the I-26 Connector project, future year no-build and build scenario forecasts were developed with all fiscally-constrained projects assumed to be funded and in place. Furthermore, since the preferred alternative is six lanes, this issue is moot.

NCDOT assists municipalities, MPOs, and RPOs with the preparation of travel demand models for their locality; however, NCDOT does not prepare socio-economic data, land use, density or other long range planning data used for developing a travel demand model. Much of the data input required for creation of a travel demand model is prepared by the locality, which forms the basis for creation of future year trip tables. The generation of vehicle trips directly correlates to regionally adopted socioeconomic data (jobs and households) located in the region.

Travel demand models are developed for regions for approximating daily traffic and traffic patterns, and price attractiveness in terms of time, not distance. Land use/density and other data input into the creation of a travel demand model can impact capacity and free flow speeds. Travel demand model volumes are never used directly in the forecast. The rates, total growth, and patterns obtained from a travel demand model are applied to existing data and statistics to draw conclusions about most likely future traffic volumes and patterns. Travel demand models can be used to determine relationships amongst multiple scenarios, which may include: growth rates, volume shifts, volume differences, ratio of travel demand model volumes to field collected data/statistics.

The travel demand model uses a finite number of vehicles and trips for every scenario in the future year, and adding capacity along a roadway does not increase the overall number of trips within the travel demand model network. By incorporating a potential project being considered by the locality, the project information is input into the travel demand model, including capacities, speeds, access points, amongst other information, and the model is rerun, essentially allowing the known daily traffic trips in the model with the potential for redistribution in efforts of finding the route with the shortest duration available within the travel demand model, while maintaining the same start and end points.

An updated traffic forecast based on the most recent FBRMPO travel demand model has been completed, and a six-lane typical section along Section A of the project will meet the FHWA criteria of LOS D or better.

Comment # 14 (Page 13) – In addition to overestimating demand, NCDOT underestimated lane capacity in the 2015 DEIS. Table 2-2 in the DEIS shows the estimated capacity for various numbers of lanes for different levels of service. NCDOT estimated these capacities using procedures from the Highway Capacity Manual (HCM). However, some of the assumptions used in the analysis, listed at the bottom of Table 2-2, are flawed.

Response – *The comment overall suggests that NCDOT should have used different default values for the adjustment for heavy vehicles, adjustment for driver population and the adjustment for peak hour. The comment offered two references, which the commenter believes suggests more appropriate values. One reference was Appendix N to the FHWA’s Highway Performance Monitoring System (HPMS) Field Manual. However, the Appendix N to HPMS Field Manual clearly articulates “the capacity calculations are based on service flow rates for LOS E and are for the peak direction. The capacity coded in HPMS is used for system planning analysis, not project level analysis.”⁴ So, the commenter took the guidance contained in the HPMS Field Manual Appendix N out of the context of the scope of the HPMS tool. The second reference that the comment suggests offers better default values is the National Cooperative Highway Research Program (NCHRP) Report 599, Default Values for Highway Capacity and Level of Service Analyses, 2008. However, if NCDOT used the default values recommended by NCHRP Report 599, conclusions in Table 2-3 included in the 2015 DEIS would not be substantially different. The NCHRP Report 599 offers recommended default values as follows:*

- *% heavy vehicles — 12%^{5, 6}*
- *Peak hour factor (urban) — 0.94⁷*
- *Driver Population Factor — 1.0⁸*

If NCDOT used the default values shown above in the Highway Capacity Manual (HCM) 2010, NCDOT would calculate a maximum 4,770 vehicles per hour for LOS D on a six lane freeway, instead of 4,570 vehicles shown in Table 2-2 included within the 2015 DEIS. This change would not substantially alter the minimum number of lanes shown in Table 2-3 included within the DEIS.

Comment # 15 (Page 13) – First, NCDOT assumed a default truck percentage of 8%, and a truck equivalence factor of 2.5. This yields an adjustment factor of 0.893 that was applied to the theoretical lane capacity. However, the actual truck percentage is 5.2% (NCDOT SPOT worksheet). The HCM (Table 23- 9) specifies a truck equivalence factor of 1.5 for the conditions in Section A, and FHWA’s Appendix N (Procedures for Estimating Highway Capacity) also cites 1.5 as the appropriate factor. Using these figures would result in an adjustment factor of 0.975, which in turn would increase the calculated capacity by 9.2%.

Response - *The comment suggests that the NCDOT inappropriately calculated the adjustment for heavy vehicles because the NCDOT Strategic Prioritization of Transportation (SPOT) worksheet contained a different truck percentage of 5.2 percent. The comment also offers that other guidance suggests using a*

⁴ Federal Highway Administration Office of Highway Policy Information, Highway Performance Monitoring System Field Manual, Appendix N, p. N-1, February 2002 (The Field Manual has been updated and the latest publication is March 2014. Appendix N is no longer part of the HPMS Field Manual)

⁵ NCH RP Report 599, p 4.

⁶ NCHRP Report 599, p 37.

⁷ NCHRP Report 599, p 43.

⁸ NCHRP Report 599, p 7.

passenger car equivalent factor of 1.5 for level terrain. However, the commenter does not offer why the corridor should be considered “level terrain.”

The HCM defines a heavy vehicle as “any vehicle with more than four wheels on the ground during normal operations.” Such vehicles are generally characterized as trucks, buses, or recreational vehicles. Trucks cover a wide variety of vehicles, from single-unit trucks with double rear tires to triple-unit tractor-trailer combinations. Small panel or pickup trucks with only four wheels are, however, classified as passenger cars. Buses include intercity buses, public transit buses, and school buses. Because buses are in many ways similar to single-unit trucks, both types of vehicles are considered in one category.”

⁹So, the heavy vehicle factor considers the proportion of trucks and buses in the traffic stream. This proportion is different than the “truck percent” in SPOT.

The comment also suggests that the terrain along Section A should be considered “level terrain.” However, the comment did not provide any grades or information that would suggest that I-240 would be considered “level terrain.” The HCM defines level terrain “as any combination of grades and horizontal or vertical alignment that permits heavy vehicles to maintain the same speed as passenger cars. This type of terrain typically contains short grades of no more than 2 percent.”¹⁰ The HCM defines rolling terrain “is any combination of grades and horizontal and vertical alignment that cause heavy vehicles to reduce their speed substantially below those of passenger cars but that does not cause heavy vehicles to operate at crawl speeds for any significant length of time or at frequent intervals.”¹¹ I-240, through segment A, has grades that vary throughout the corridor. The grades, 4 percent to 6 percent, in segments where trucks slow down below the speed limit. Thus, the selection of the passenger car equivalent of 2.5 is appropriate.

The commenter also suggests that FHWA Appendix N (Procedures for Estimating Highway Capacity) recommends use of a 1.5 passenger-car equivalent. However, as NCDOT previously discussed, the guidance in the HPMS Field Manual Appendix N was not intended for use in project level analysis. While the comment suggested use of the default values recommended by the NCHRP Report 599 for the driver population adjustment and the peak hour factor (PHF), the comment was silent on the use of the NCHRP Report 599 recommended default value for proportion of heavy vehicles for this project. The NCHRP Report 599 report recommends use of 12% heavy vehicles for a metropolitan area the size of Asheville. If NCDOT had used the NCHRP Report 599 recommended default value for the adjustment for heavy vehicles, it would have been determined the heavy vehicle adjustment to be 0.847, instead of 0.893. This would have reduced the six lane LOS D Capacity shown in Table 2-2 included within the 2015 DEIS.

Comment # 16 (Page 13) - Second, NCDOT used a driver population adjustment of 0.95. The HCM (23.12), Appendix N, and NCHRP Report 599 all recommend using a factor of 1.0. This would yield an additional capacity increase of 5.3%.

⁹ Transportation Research Board, Highway Capacity Manual (HCM) 2010, Volume 2, p. 11-13, December 2010.

¹⁰ Transportation Research Board, Highway Capacity Manual (HCM) 2010, Volume 2, p. 11-14, December 2010.

¹¹ Transportation Research Board, Highway Capacity Manual (HCM) 2010, Volume 2, pp. 11—14—11—15, December 2010.

Response - *The HCM does generally suggest use of a default value of 1.0, unless there is sufficient evidence that a lower value should be used.*

NCDOT used a driver population factor of 0.95 because of the tourist traffic in the area that is unfamiliar with the traffic patterns along the major corridors in the Asheville area. The official North Carolina visitors website, www.visitnc.com, lists “Asheville and the Foothills” as one of the three main tourist destinations in the state. Asheville is routinely listed as a top destination for tourists during all times of the year, and serves as a base location for tourists visiting other areas in the North Carolina Mountains. Asheville’s roadway network, while familiar to locals that have learned to navigate non-standard roadway and traffic flow elements, can be very confusing to drivers who are unfamiliar with the area due to the number of lane changes required and short ramp spacing. Because of the complex roadway network, it does not take a substantial number of unfamiliar drivers to affect the traffic capacity on the interstate. Therefore, a population factor of 0.95 has been chosen as the driver population factor for this analysis.

However, if NCDOT used a driver population factor of 1.0, NCDOT would have calculated the LOS D on a six lane freeway to be 4,810 vehicles per hour instead of 4,570 vehicles. This change would not substantially alter the minimum number of lanes required as shown in Table 2-3 included within the 2015 DEIS.

Comment # 17 (Page 13) - Third, NCDOT used a peak hour factor (“PHF”) of 0.90. This factor is intended to accommodate higher traffic flows during the peak 15 minutes. The NCHRP Report 599 recommends a default value of 0.94.

Response - *The HCM 2010 states that the PHF represents the variation in traffic flow within an hour. It further states that on freeways, typical PHFs range from 0.85 to 0.98. Lower values within that range are typical of lower-volume conditions. Higher values within that range are typical of urban and suburban peak-hour conditions.”¹² The NCHRP Report 599 offers a recommended default value based on limited counts from California, Florida, Idaho, Ohio and Wisconsin.*

NCDOT’s Congestion Management Guidelines mandate that a PHF of 0.90 should be used for all projected conditions (future conditions). This is an average of a PHF of 0.88 for rural areas¹³ and 0.92 for urban areas¹⁴. While these PHF values may not necessarily align with the values mentioned in HCM 2010 Chapters 10-13, they do represent conditions as they generally are over an entire roadway network. Based on several locations within the study area where traffic data was recently collected, the PHF is generally around 0.90, which supports the value used in the capacity analysis. The prescribed PHF in NCDOT’s Congestion Management Guidelines is applicable to all roadway elements; different elements are not given a different PHF based on different values suggested in the various chapters of the HCM 2010. While the actual current PHF may vary depending on the locations being analyzed, the values

¹² Transportation Research Board, Highway Capacity Manual (HCM) 2010, Volume 2, p. 11-13, December 2010.

¹³ Transportation Research Board, Highway Capacity Manual (HCM) 2010, Volume 2, p. 15-9, December 2010.

¹⁴ Transportation Research Board, Highway Capacity Manual (HCM) 2010, Volume 2, p. 16-26, December 2010.

selected as the basis for future year analysis have been chosen for the future year peak hour traffic conditions based on research provided in the HCM 2010.

However, if NCDOT used a PHF of 0.94, that would have calculated the LOS D on a six lane freeway to be 4,770 vehicles per hour instead of 4,570 vehicles. This change would not substantially alter the minimum number of lanes required as shown in Table 2-3 included within the 2015 DEIS.

Comment # 18 (Page 13) - If the three factors are revised as discussed above, then the combined adjustment factor would be 0.916 with PHF of 0.94. This would increase the assumed lane capacity in Section A by over 20%. Starting with a theoretical lane capacity for LOS D of 2,040 (HCM Fig. 23-3), the directional peak-hour capacity for a six-lane freeway would increase from 4,570 in Table 2-2 to 5,610. Comparing this to the forecast volumes in Table 2-3, DEIS at 2-9, six lanes would be sufficient at all but two locations (Brevard Road to Amboy Road and Haywood Road to Patton Avenue); auxiliary lanes could be built for these segments. If the travel demand forecasts are adjusted downward to account for the base year over—estimates discussed below, then six lanes would suffice everywhere in Section A even if LOS D is an inflexible minimum at all times.

Response - FHWA and NCDOT do not agree with the comment's suggested theoretical LOS D lane capacity of 2040 (assumed to mean 2033, based on the future year analyzed in the Traffic Capacity Analysis). NCDOT used a LOS D Basic Freeway Segment flow rate of 2,010 passenger-cars/hour/lane based on 60 mile per hour free-flow speed.¹⁵ Further, as previously explained, NCDOT does not agree with the comment's suggested values for adjustment for heavy vehicles. However, if NCDOT used the NCHRP Report 599 recommended default values for PHF (0.94) and adjustment for driver population (1.0), as suggested by the comment, with the theoretical flow rate; NCDOT would have calculated a six lane freeway LOS D (Table 2-2 of the 2015 DEIS) of 5,020 vehicles per hour instead of 4,570 vehicles. This change would not substantially alter the minimum number of lanes shown in Table 2-3 included within the 2015 DEIS.

As previously discussed, if NCDOT used the NCHRP recommended default value for the adjustment for heavy vehicles in combination with the recommended default values for PHF and adjustment for driver population, NCDOT would have calculated a six lane freeway LOS D of 4,770 vehicles per hour instead of 4,570 vehicles. Again, use of the NCHRP Report 599 recommended default values for the three factors would not substantially change the minimum number of lanes shown in Table 2-3 included within the 2015 DEIS. Since the preferred alternative is six lanes, many of the issues raised in the comments are moot.

Comment # 19 (Page 13-14) – A similar analysis produces the same results for Section B. The peak directional volume on the new I-26 bridge in Section B is estimated to be 3,262 in 2033. NCDOT provides that to maintain LOS D, the capacity of a four-lane road is 3,050 vehicles per hour—a mere 7% below NCDOT's 2033 estimate for the I-26 bridge. But, for the same reasons explained above as to Section A,

¹⁵ Transportation Research Board, Highway Capacity Manual (HCM) 2010, Volume 2, p. Exhibit 11-17, p. 11-23, December 2010.

this capacity number is inappropriately underestimated. Using more appropriate factors would result in capacity 20% higher than NCDOT's estimate, or 3,660 vehicles per hour at LOS D. This means that four lanes would be sufficient for I-26 north of I-240, which would significantly reduce the costs and impacts of all Section B alternatives. If the base-year overestimates discussed below are corrected, then a four-lane bridge would more than suffice.

Response - FHWA and NCDOT disagree with the comment. Please see the responses provided for Comments 15 thru 17.

Comment # 20 (Page 14) – When capacity is calculated correctly, six lanes or six lanes with auxiliary lanes provide sufficient capacity to meet future demand in Section A, and four lanes provides enough capacity for the I—26 bridge in Section B. Notably, this assumes the validity of NCDOT's overinflated traffic forecasts. If a proper traffic forecast were done to correct the errors described above, then these smaller footprints would likely provide more than enough capacity to maintain LOS D in the design year and beyond.

Response - The comment's conclusion is not consistent with the information provided in the HCM 2010. First, the HCM 2010 defines the capacity of a freeway facility as follows. "Freeway facility capacity is the capacity of the critical segment among those segments composing the defined facility. This capacity must, for analysis purposes, be compared with the demand flow rate on the critical segment." The critical segment is defined as the segment that will break down first, given that all traffic, roadway, and control conditions do not change.¹⁶

Second, auxiliary lanes are not considered as part of the HCM Freeway Basic Segment analysis in the HCM 2010, which is much of the topic of the comment's discussion. Auxiliary lanes are lanes that connect an entrance ramp on to the freeway to an exit ramp off of a freeway. Such lanes are considered as part of the HCM Freeway Weave Segment analysis.

Thus, the critical segment for the I-240, based on the Basic Freeway Segment analysis would still require eight lanes, even with the calculations (5,610 vehicles per hour) based on the assumptions and use of the default values suggested by the comment. Since the preferred alternative is six lanes, many of the issues raised in the comments are moot.

Comment # 21 (Page 14) - Moreover, the record suggests that NCDOT does not always rigidly accept the outcomes of its capacity tables. In a meeting in August 2014, NCDOT and its consultants discussed an LOS E outcome in the project area. See Meeting Summary, August 13, 2014, attached to *Post-DEIS Traffic Operations Technical Memorandum*, Vol. 1. This outcome meant that expansions would be required, but the required configuration was deemed unfeasible, and so the team devised and discussed a more elaborate design. Id. During these discussions, "[i]t was also mentioned that the Highway Capacity Manual may suggest an 'over—built' design, and may not provide the same analysis that the simulation can provide." Id. (emphasis added). This is precisely what the Asheville community has been

¹⁶ Transportation Research Board, Highway Capacity Manual (HCM) 2010, Volume 2, p. 10-6, December 2010.

suggesting for years regarding the rigid application of LOS requirements, and we urge NCDOT to take the same flexible approach to our design concerns that it appears to take to its concerns.

Response - *Since the preferred alternative is six lanes, many of the issues raised in the comments are moot.*

Comment # 22 (Page 14-15) – The 2010 traffic model that is used in the 2015 DEIS was calibrated for a base year of 2007. The calibration process is intended to ensure that the model correctly replicates actual current traffic behavior. The DEIS includes the model estimates for 2007 traffic along the I—26 corridor. These estimates exceed the actual traffic counts, indicating that the model was not properly calibrated. NCDOT’s traffic counts are performed in even-numbered years, so the counts for 2006 and 2008 can be averaged to produce a fair estimated count for 2007. For the Bowen Bridges, the ‘model estimate is 103,500, which is 7.8% higher than the count of 96,000. For I-240 south of Haywood Road, the model estimate of 54,900 exceeds the count by 7.6%. For US 19/23 north, of I-240, the model estimate of 58,000 is 5.5% higher than the count. While it is impossible for a model to match every location exactly, over-estimating all of the locations along the most important corridor in the region by comparable factors indicates a systematic flaw in the model. These calibration errors mean that future forecasts will very likely overestimate I-26 traffic by a comparable percentage.

Response - *First, it should be noted that the 2005 travel demand model, not the 2010 travel demand model, was used in this traffic forecast due to its release being before the 2010 model was released, and the traffic model used in the 2015 DEIS was calibrated for the base year of 2005, not 2007. Models are calibrated/validated to an acceptable Root Mean Square Error (RMSE) FHWA standard that are based on regional vehicle miles traveled (VMT) by facility type, volume vs. counts by facility type, and strategic screenline count comparisons.*

$$\%RMSE = [SQRT [\sum (Ve-Vo)^2 / (N-1)] * N] * 100 / \sum Vo$$

Where Vo = Observed volume for link n

Ve = Estimated volume for link n

N = Number of observations or links

$\sum Vo$ = Sum of Vo over all N

The FHWA target RMSE for Interstate facilities is 25 percent but it is even more stringent at 21 percent for facilities with a daily volume in excess of 50,000. The 2005 FBRMPO travel demand model was calibrated to meet those federal requirements.

Secondly, models are not calibrated specifically for traffic forecasts. A comparison of the base year volumes versus the base year traffic counts in the project’s study area is shown in the traffic forecast report. However, the foundation of all traffic forecasts is observed data. The travel demand model is a planning tool used to determine traffic growth percentages and diversion percentages, is never used as a forecast, and should not be used to make project level design decisions. The base year traffic forecast is

solely based on observed counts. The travel demand model is then used to determine Compound Annual Growth Percentages (CAGR) at each forecast volume location between the base year no-build and future year no-build model assignments. These CAGRs are then applied to the base year no-build traffic forecast volumes to develop the future year no-build traffic forecast volumes. Volumes are adjusted where necessary due to model growth percentage outliers, diversion percentage outliers, and volume balancing adjustments. The travel demand model is then run with the project in place. Diversion percentages between the future year no-build and build model runs are then applied to the future year no-build traffic forecast volumes as a starting point for future year build traffic forecast volumes. Volumes are again adjusted if determined necessary. The process listed above never relies on actual model volumes compared to actual traffic counts. That is taken care of as part of the overall travel demand model calibration and validation efforts.

Thirdly, it is incorrectly stated that NCDOT only collects traffic counts on even years in Buncombe County. Traffic counts are collected annually on Interstate facilities throughout the state. These Annual Average Daily Traffic (AADT) counts are found at the following website maintained by NCDOT:

<http://www.ncdot.gov/travel/statemapping/trafficvolumemaps/default.html>

While AADT's play a substantial role in the development of base year traffic forecast volumes, other factors, such as seasonal adjustment factors and project-initiated field-collected traffic data, are involved in finalizing the daily volumes.

An updated traffic forecast based on the most recent FBRMPO travel demand model has been completed, and a six-lane typical section along Section A of the project will meet the FHWA criteria of LOS D or better.

Comment # 23 (Page 15) - Reliance on up-to-date data is imperative for the NEPA process. A long line of federal courts have held that agency reliance on data that is stale or inaccurate invalidates environmental review. See, e.g., *N. Plains Res. Council, Inc. v. Surface Transp. Bd.*, 668 F.3d 1067, 1085-86 (9th Cir. 2011) (ten-year old survey data for wildlife “too stale” thus reliance on it in EIS was arbitrary and capricious); *Lands Council v. Powell*, 395 F.3d 1019, 1031 (9th Cir. 2005) (six year-old survey data for cutthroat trout was “too outdated to carry the weight assigned to it” and reliance on that data violated NEPA), *Seattle Audubon Soc. v. Espy*, 998 F.2d 699, 704-05 (9th Cir. 1993) (reliance on “stale scientific evidence” regarding owl population data without adequate discussion of scientific uncertainty violated NEPA). Courts have been clear that the quality of data must be proportional to the weight the agency assigns to it in its analysis. Here, the accuracy of the traffic forecast data underlies both the purpose and need for the project and the entire analysis of alternatives.

Population and economic growth are key factors in traffic forecasting. Accordingly, changes or slumps in projected growth can significantly impact projected traffic demand. Although the DEIS was published in October 2015, the traffic demand model is over a decade old, from 2005, and the data on which it relies is from even earlier. As such, the traffic forecasts did not and could not have accounted for the multi-year recession and suppressed growth that began in 2008. Reliance on such stale and overly-optimistic

data further inflates demand, and is a glaring oversight that violates NEPA. *Cf. 1000 Friends of Wise, Inc., 2015 WL 245271*, at *9.

Response - The traffic forecast has been updated in preparation of the FEIS, which used the most up-to-date socioeconomic data provided by FBRMPO as well as the recent TDM used by the FBRMPO to update its MTP. Since the preferred alternative is six lanes, many of the issues raised in the comments are moot.

Comment # 24 (Page 15-17) – In general, traffic forecasts are highly inaccurate and tend to overestimate demand. Substantial literature supports this point. See generally David T. Hartgen, *Hubris or humility? Accuracy Issues for the Next 50 Years of Travel Demand Modeling*, Transportation (2013). One global study of transportation projects found that for road projects, on average, the difference between actual and forecasted traffic was more than +/-20%, and for 25% of projects the difference was more than +/-40%. Bent Flyvbjerg, et al., *Inaccuracy in Traffic Forecasts*, Transport Reviews, Vol. 26, No. 1, at 1-24 (2006). Surveys of traffic forecasters confirm these dismal results. One survey found that forecasters expected 20-year forecasts to only be within +/-32.5% of actual traffic on an existing road, and +/-42.5% on a new road. See Robert Bain, *The Reasonableness of Traffic Forecasts: Findings from a Small Survey* (April 2011). Another found slightly more optimism, with forecasters estimating that 20-year traffic forecasts would be within 24% of actual traffic for a new road, and 23% of actual traffic for a road widening project. See David T. Hartgen, *Travel Forecasting: Science, Craft, or Astrology*, Presentation at the Transportation Research Board Annual Meeting, January 2015, available at <http://www.trb.org>.

The poor predictive power of traffic forecasts can be seen in this case. Because NCDOT has been pushing for eight lanes since 1995, its then-25 year forecast to 2020 is rapidly approaching. The following table shows just how far NCDOT's 1995 forecasts for 2020 diverge from reality. The first column identifies segments of Section A. The second column provides the estimated ADT volume for those segments as reported in NCDOT's 1995 traffic forecast. The third column presents NCDOT'S actual 2014 AADT volumes for those segments. The final column shows the 2020 volumes NCDOT predicted for those segments in 1995.

Table 4: Overestimation in NCDOT's 1995 Forecasts

Segments of I-240 in Section A	1995 ADT Volumes	2014 AADT Volumes	2020 Build Scenario Estimates (from 1995 forecast)
Between I-40 and NC 191	49,700	60,000 21% increase from 1995 1.1% per year	88,200 47% increase from 2014 7.8% per year
Between NC 191 and Amboy Rd.	55,400	69,000 25% increase from 1995 1.3% per year	99,100 47% increase from 2014 7.3% per year
Between Amboy Rd. and Haywood Rd.	48,600	59,000 21% increase from 1995 1.1% per year	84,200 43% increase from 2014 7.2% per year

Between Haywood Rd. and Patton Ave.	53,200	63,000 18% increase from 1995 0.9% per year	89,100 41% increase from 2014 6.8% per year
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NCDOT has provided no basis to conclude that its current forecasts are any more accurate than its 1995 forecasts or traffic forecasts generally. Indeed, as discussed above, several bases exist to conclude that NCDOT's traffic forecasts are especially overinflated in this case. And despite the vast literature showing traffic forecasting to be a rough and moldable science, NCDOT presents its results as absolutes; the DEIS fails to describe or even acknowledge the inadequacies and margins of error in traffic forecasting. Combining the poor predictive power of traffic forecasts generally with the specific forecasting and capacity issues outlined above, it becomes apparent that NCDOT has no rational basis to seek the massive highway footprint it seeks here. It most certainly cannot dismiss the reasonable smaller lane alternatives without violating NEPA.

Response - The comment sites three studies questioning the accuracy of traffic forecast volumes. These studies all compared forecasts completed over twenty years ago to the counts observed at the times of the respective studies. The number of tools available and the accuracy to which they perform have increased immensely during this time. It is unclear if the forecasts studied and referenced in the comment were in urban or rural areas, areas with or without a travel demand model, or even what part of the world the forecasts were located. The comment also assumes that the forecasts were always overestimated while the studies all clearly have both overestimations and underestimations beside all the percentage differences. A project could very well be underestimated by those same percentages. It should be remembered that the traffic forecasts are estimating the travel demand expected on the corridor. Traffic counts estimate the amount of demand that the roadway network serves. If capacity limits demand, travel diverts to other roads.

Travel demand models are developed and calibrated to a single point in time, typically the model base year. The travel demand model developed in 1995, would not anticipate the economic downturn and corresponding adjustments in travel and economic development activity between 2007-2010, nor the rebound in travel to previous levels of travel. It should also be noted that projections of this nature are not products of a travel demand model, which is reliant on the generation of vehicle trips directly correlated to regionally adopted socioeconomic data in the travel demand model.

*The comment also provides a comparison from a 21 year old forecast produced by NCDOT in 1995 as an example of traffic forecast overestimation. 2014 AADTs are compared to the 2020 **BUILD** traffic forecast. This is not a fair comparison, since only a comparison of the differences between 2014 AADTs to the 2020 **No-Build** traffic forecast would provide any reasonable data. The comment is comparing current roadway volumes to those with the project in place, which is stated multiple times will attract more traffic than the No-Build scenario.*

An updated traffic forecast based on the most recent FBRMPO travel demand model has been completed, and a six-lane typical section along Section A of the project will meet the FHWA criteria of LOS D or better.

Even though forecasting is not exact, transportation agencies must use it as a tool for designing projects. NCDOT used the best available data and accepted industry standards. Based on updated data, the preferred alternative has been reduced to six lanes, which makes many of the issues raised in the comments moot.

Comment # 25 (Page 17) – The Fourth Circuit has stressed that NEPA compliance must be measured by the totality of the circumstances in each specific case. *Nat ’l Audubon Soc ’y v. Dep ’t of the Navy*, 422 F. 3d 174, 186 (4th Cir. 2005). Each of the circumstances outlined above demonstrates that, to this point, NCDOT has arbitrarily engaged in predetermined decision-making in violation of NEPA. See 40 C.F.R. § 15.02.2(g) (“Environmental impact statements shall serve as the means of assessing the environmental impact of proposed agency actions, rather than justifying decisions already made”); *Forest Guardians v. US. Fish & Wildlife Serv.*, 611 F.3d 692, 714 (10th Cir. 2010) (“[P]redetermination occurs only when an agency irreversibly and irretrievably commits itself to a plan of action that is dependent upon the NEPA environmental analyses producing a certain outcome”).

Response – As discussed previously, FHWA and NCDOT considered various alternatives as discussed within Chapter 2 of the 2015 DEIS; thus, fulfilling the NEPA requirement to consider a reasonable range of alternatives.

The traffic forecast prepared for the traffic capacity analysis portion of the DEIS included locally-driven socioeconomic data, and included FBRMPO-guided assumptions for roadway characteristics. While these assumptions do have an effect on the routing of vehicles through the travel demand model, it does not necessarily dictate the recommended laneage. For instance, the updated traffic forecast used for the capacity analysis in preparation of the FEIS has been prepared under two scenarios: a six-lane Section A and an eight-lane Section A. Both forecasts were evaluated, and it was decided that the forecast assuming Section A with eight lanes would be used. Nevertheless, six lanes in Section A adequately meets FHWA operations criteria, even though the eight-lane Section A traffic forecast was used. Our work with the travel demand model shows the number of lanes in the model did not significantly alter output and did not change growth rates. Further, our impact analysis shows there are only minor right of way differences between six and eight lane alternatives.

Comment # 26 (Page 17) - But the above circumstances are not the only signs of predetermined decision-making. Many others exist in the corridor as well. For example, the DEIS indicates that, if built, this project will cut one-half mile off the existing trip from the southern end of the project area to the northern end. See, e.g., DEIS at 4-65, Table 4-9. The mile markers on I-26 were recently re-done, and it appears that during that process NCDOT committed to this project being built: a trip through the existing corridor is a half—mile longer than the mile markers suggest. This discrepancy is confirmed by the change in mile marker signs from whole numbers in the north (e. g., 23, 24) to half-mile numbers in the south (e.g., 31.5, 32.5). In another example, one of the reference reports associated with the project provides as follows: “It was discussed that the I-26 Bridge over Pond Road is being designed with the assumption that I-26 WB will have four lanes and I-26 EB will have five lanes at the crossing.” Meeting Summary, August 13, 2014, attached to *Post-DEIS Traffic Operations Technical Memorandum*, Vol. 1. Thus in another purportedly separate project, NCDOT is committing to a massive expansion in this

project. The totality of these circumstances indicates that NCDOT is and has been engaging in a post-hoc rationalization of decisions already made, rather than the “objective, good faith inquiry” that NEPA requires. *Forest Guardians*, 611 F.3d at 714.

Response – FHWA and NCDOT disagree with the comment. *The new connection across the French Broad River will cut approximately one-half mile off the existing trip between I-240 in West Asheville to US 19-23-70 north of Asheville. In terms of the bridge over Pond Road, conservative capacity needs are generally used in bridge design; bridge design does not dictate the capacity needs. This is to minimize the chances that the bridge will need to be widened later, which is much more costly than constructing the bridge wide enough in the first place. The conservative design is based on locally-driven socioeconomic data, which guides the projected traffic data.*

Comment # 27 (Page 17- 18) - NCDOT is currently updating its traffic forecast for the project. The completion, analysis, and application of an updated traffic forecast based on a new traffic model is a highly significant evaluation that should have occurred before the publication of the DEIS.” NCDOT recognizes such an analysis is necessary, noting that “a new traffic forecast will eventually be needed for the project before a Final Environmental Impact Statement (FEIS) can be completed.” See *Post-DEIS Traffic Operations Technical Memorandum*, at 35. As the history of this project and its traffic forecasts have shown, these forecasts can vary dramatically. Moreover, these forecasts have a substantial bearing on the very significant issue of the size of this project and the number lanes, especially in Sections A and B of the project. Lastly, slight downward changes from the existing traffic forecast would make the alternative of six travel lanes in Section A and a four—lane bridge in Section B even more feasible, even applying the DOT’s own erroneous requirement of meeting LOS D at all segments and intersections at all times of the day. Accordingly, disclosure and analysis of the revised traffic forecast is necessary in a supplemental DEIS.

Response – *Several iterations of traffic forecasts were prepared for this project, which has been ongoing since the 1990’s. At each alternatives evaluation stage, an updated traffic forecast was prepared based on the most recent travel demand model. An exception to this was for the most recent version of the DEIS. Prior to the traffic capacity analysis in preparation of the DEIS, a traffic forecast re-evaluation was performed, in 2012, to determine if traffic differences in an updated forecast would be substantial enough to warrant a completely new forecast. The determination from this re-evaluation was that an updated forecast would not have substantially different results, and the current (at the time) traffic forecast could be utilized in preparation of the DEIS, with the understanding that the forecast would be updated before the FEIS.*

FHWA and NCDOT reevaluated the traffic analysis based on new travel demand model and traffic forecasts. A six-lane typical section will work based on the updated analysis. However, there are only minor differences in environmental impacts. Therefore, a supplemental DEIS is not required. Based on the updated traffic forecast prepared for the FEIS, Section A will operate adequately with six lanes. However, the bridge over the French Broad River still requires six lanes to meet LOS D.

Comment # 28 (Page 18) - This error is compounded by NCDOT's recent assertions that it is not resolving the number of lanes in Section A until it gets the latest data. NCDOT has made related assertions that the DEIS does not call for a particular number of lanes in Section A, only a best-fit widening. These efforts to extract one of the most controversial aspects of the project from the public review process violate NEPA, and the claim that the DEIS does not call for a particular number of lanes is absurd in light of the numerous statements and maps describing an eight-lane Section A. The public has no choice but to comment on the DEIS as written. To the extent NCDOT intends to rely on new data to resolve this critical issue, it must supplement the DEIS and allow for public comment on the new data and conclusions.

Response – *NCDOT coordinated with representatives of the City of Asheville and Mountain True on traffic forecasts and analysis. As a six-lane typical section is currently proposed for Section A, a supplemental DEIS is not required as there were only minor differences in environmental impacts when compared to eight lanes. The updated traffic forecast used for the capacity analysis in preparation of the FEIS has been prepared under two scenarios: a six-lane Section A and an eight-lane Section A. Both forecasts were evaluated, and it was decided that the forecast assuming Section A with eight lanes would be used. Nevertheless, six lanes in Section A adequately meets FHWA operations criteria, even though the eight-lane Section A traffic forecast was used.*

Comment # 29 (Page 18) - Just as the DEIS wrongly skews towards large lane footprints, it wrongly skews towards Alternatives 3 and 3C and against Alternatives 4 and 4B in Section B. And it does again through a largely two—pronged attack: it underestimates the burdens and overestimates the benefits of Alternatives 3 and 3C, and overestimates the burdens and underestimates the benefits of Alternatives 4 and 4B. The result is a variety of arbitrary and inconsistent comparisons, a neutral analysis that is not neutral at all, and another violation of NEPA's mandate to "objectively evaluate" all reasonable alternatives. *N.C. Wildlife Fed 'n*, 677 F.3d at 602.

Response – *FHWA and NCDOT disagree with this comment. Alternative 4B has been identified as the preferred alternative for Section B.*

Comment # 30 (Page 18) - In a glaring omission, NCDOT has completely omitted any analysis of the impacts of the project on Westgate Shopping Center. This analysis should have been in Section 4.1.1.1, "Community Facilities and Services," under the subheading "Commercial Corridors and Nodes," but only the Haywood Road, Patton Avenue, and Riverside Drive Commercial Corridors are addressed.²² Indeed, the word "Westgate" does not appear a single time in the analysis of Direct Impacts on the Human Environment.

Response – *In the DEIS, the Westgate Shopping Center is considered part of the Patton Avenue Commercial Corridor and was analyzed as such.*

Comment # 31 (Page 19) - The Community Impact Assessment ("CIA") on which the DEIS is based in part does provide some cursory analysis of Westgate Shopping Center, but it is inadequate and incorrect. The most extensive statement is:

Access to Westgate and Crowne Plaza will be slightly modified with any of the Section B alternatives currently under consideration. These modifications should provide more direct access to these businesses.

NCDOT, *Community Impact Assessment: 1—26 Asheville Connector* [hereinafter “CIA”], at 10, 52 (April 2015). The CIA also states that “[t]he proposed alignment [of Alternatives 3 and 3C] would cross the edge of the Crowne Plaza Resort golf course and would not affect the Westgate Shopping Center.” *Id.* At 17. Anything more than the most casual look at the proposed project reveals these statements to be false.

Response – *Alternative 4B has been identified as the preferred alternative for Section B. Should Alternatives 3 and 3C, or elements of these alternatives, be pursued further, these comments will be considered. The current designs for Alternative 4B show impacts to multiple holes of the Crowne Plaza and Resort’s golf course. Additionally, the intersection of Patton Avenue and Resort Drive, the Crowne Plaza’s access road, will be relocated approximately 750’ west of its current location. This modification is required to move the Resort Drive intersection outside of the functional limits of the interchange.*

The Westgate Shopping Center currently has 3 access points; one from the south, which crosses under Patton Avenue, and two additional entrances directly from westbound Patton Avenue. The Patton Avenue entrance located at Cliff Street would be closed due to safety and functionality concerns related to its proximity to the proposed on ramps.

Comment # 32 (Page 19) - The most blatant example of a significant change in the means of accessing Westgate is for a driver coming to Westgate from westbound I-26 on Alternative 3 or 3C. Today, a driver on I-240/I-26 at the Haywood Road bridge continues on past Exit 3A and takes the unnumbered Westgate/Resort Dr. exit. The driver then bears right at a fork and onto Westgate Parkway, crosses under the Jeff Bowen Bridges, and arrives at the shopping center. The entire trip is approximately 1.3 miles and involves no signalized intersections and no stop signs before the shopping center entrance. If Alternative 3 or 3C is built, the same trip will require the driver to do the following:

- Travel on I-26 westbound under I-240, then exit onto a loop ramp;
- Merge onto I-240 westbound;
- Cross over I-26 and travel to a signalized intersection at Patton Avenue and a new street identified on maps as “Y71”;
- Turn right on Y71, then continue through three more signalized intersections;
- Cross over I-26 again;
- Navigate a roundabout; and finally
- Enter Westgate Shopping Center.

This trip is roughly 2.1 miles long (measured by tape on NCDOT project maps) and requires going through four traffic lights and a roundabout. Access to Westgate by Alternate 3 or 3C is plainly neither “slightly modified” nor “more direct.”

Response – *Alternative 4B has been identified as the preferred alternative for Section B. Should Alternatives 3 and 3C, or elements of these alternatives, be pursued further, these comments will be considered.*

Comment # 33 (Page 19-20) - Similarly, access to Westgate Shopping Center from Patton Avenue in West Asheville is currently via a ramp to Westgate Parkway, then under the Jeff Bowen Bridges. If Alternative 3 or 3C is built, access will require either taking a new ramp (Y7EBL on maps), turning right onto a new road (Y7M), turning left to continue on Y7M, turning left on Hazel Mill Road, and finally joining the current Westgate Parkway and crossing under the Jeff Bowen Bridges; or turning left at the new signalized intersection onto Y71, passing through three more signals and a roundabout. For the return trip, the ramp option is unavailable, so the driver must use the Y71 route. Although these routes may not be significantly longer in mileage than the current route, they are clearly less direct and less convenient. In contrast, Alternatives 4 and 4B generally appear to improve access to Westgate, with the possible exception of access from eastbound I-26.

Response – *Alternative 4B has been identified as the preferred alternative for Section B. Should Alternatives 3 and 3C, or elements of these alternatives, be pursued further, these comments will be considered.*

Comment # 34 (Page 20) - Moreover, access to Westgate on the Y7 route is shown going straight through a new hotel currently being built just south of the main building. (This hotel is not referenced on the project maps.) Construction of Alternative 3 or 3C therefore would require either a complete redesign or condemnation of the newly-built hotel. Although the written materials do not provide sufficient information to determine whether this cost was included in the cost estimates for these alternatives, given the complete lack of analysis, it seems unlikely that it was. The apparent cost advantages of Alternatives 3 and 3C are therefore much less than presented.

Response – *Alternative 4B has been identified as the preferred alternative for Section B and damages described to the newly constructed hotel are no longer being pursued as part of the project. Should Alternatives 3 and 3C, or elements of these alternatives, be pursued further, these comments will be considered.*

Comment # 35 (Page 20) - Section 4.1.1.4 of the DEIS purports to assess the impacts of the project on various communities or neighborhoods and assign a ranking from “High Benefit,” through “Neutral,” and to “High Burden.” This analysis contains numerous flaws that, individually and collectively, render the analysis arbitrary and capricious.

Response – *FHWA and NCDOT disagree with the comment. FHWA and NCDOT respond later to more specific comments, which the commenter offers in support of this conclusory comment.*

Comment # 36 (Page 20-21) - The DEIS analysis is inconsistent with the CIA. The CIA contains a “Community Impacts and Burdens Summary” that states in part:

Section A

- Burton Street, Kentucky/Hanover/Pisgah View, Fairfax/Virginia, and Westwood Place would experience impacts primarily due to increased noise levels, physical intrusion from the roadway, reduced community cohesion & neighborhood stability, and temporary construction effects.
- These four neighborhood/communities have been impacted by previous transportation—related projects and have the potential to experience recurring impacts. These impacts would be considered high and adverse.

Section B

- Burton Street and Westwood Place would experience impacts primarily attributed to increased noise levels, physical intrusion, and temporary construction impacts.
- Both Burton Street and Westwood Place have been impacted by previous transportation related projects and have the potential to experience recurring impacts. These impacts would be considered high and adverse.
- Montford would experience impacts primarily due to increase noise levels and potential [sic] visual or aesthetic effects related to proposed new bridges over the French Broad River, as well as temporary construction impacts. These impacts would be considered high and adverse.

CIA at 7. Despite these unequivocal statements that these neighborhoods will suffer “high and adverse” impacts, the DEIS assigns a “low burden” rating to most of them, and a “moderate burden” to only a few. None receives a “high burden” rating. Without additional explanation, this discrepancy is arbitrary and capricious.

Response – FHWA and NCDOT disagree with this comment. The DEIS evaluated a broad range of effects on neighborhoods, including effects to community cohesion, barrier effects, and other elements. The designs for the project avoid and minimize neighborhoods to the greatest extent possible, with the majority of impacts impacting the edge of the property boundary and limiting relocations. Therefore, the FHWA guidance was used to determine how to balance the benefits and burdens to communities. In order to offset burdens to the neighborhoods, NCDOT conducted additional public outreach to determine how the project could best fit within the context of the community.

Comment # 37 (Page 21) - The relative rankings of neighborhoods are inconsistent, arbitrary, and capricious. One example of the arbitrary and capricious assignment of impacts to neighborhoods can be seen by a comparison of the treatment of Burton Street Community under Alternatives 3 and 3C, and Houston/Courtland Community under Alternatives 4 and 4B. See DEIS at 4-12, 4-15, 4— 16. Burdens imposed by Alternatives 3 and 3C on the Burton Street Community include

[R]ecurring impacts to community cohesion, the physical aspects of the project, potential difficulties associated with finding replacement housing within financial means, inconsistencies with local goals and land use plans, as well as anticipated effects to the visual environment within the community. In addition, Alternatives 3 and 3-C are anticipated to displace housing units in the Burton Street Community.

Id. According to the 2010 report used in the CIA (which has not been updated to reflect current realities), there are 8 residential displacements in Burton Street Community in this alternative. CIA at 48.

Response - FHWA and NCDOT disagree with this comment. Using the FHWA publication entitled Community Impact Assessment: A Quick Reference for Transportation (USDOT/FHWA 1996) as a guide, the DEIS evaluated a broad range of effects on neighborhoods, including effects to community cohesion, barrier effects, and changes in access. The assessment of impacts to these communities is iterative, and full consideration for the positive and negative effects on the community was made by public outreach to these communities. This outreach informed decisions concerning design and implementation of alternatives and identification of the preferred alternative.

Comment # 38 (Page 21) - In comparison, the analyses for Houston/Courtland Community under Alternatives 4 and 4B indicate similar recurring impacts on community cohesion, alteration of the visual environment (oddly missing from the Burton Street Community discussion), and temporary impacts to a bus stop. The DEIS also refers to anticipated displacement of housing units, but the CIA states that there will be none. CIA at 49.

Response – Information in the Alternative 4 and 4B Burton Street discussion regarding the visual environment is included on page 4-12 of the DEIS and indicates there would be anticipated effects to the visual environment due to these alternatives. The 2015 CIA update indicates there are no relocations in the Burton Street community because at the time, the only relocation reports available were the 2010 reports. The updated relocation reports were received after this publication and were used in the DEIS, hence the difference in reported relocations.

Comment # 39 (Page 21) - The stated benefit of each of these alternatives—improved emergency response times—is the same. Despite the plainly significantly higher impacts of Alternatives 3 and 3C on Burton Street Community, it receives the same ranking, a Moderate Burden, as does Houston/Courtland Community under Alternatives 4 and 4B. This failure to accurately assign benefits and burdens is improper, and is wrongly skewed in favor of Alternatives 3 and 3C.

Response – The burdens from Alternatives 3 and 3C to Burton Street and Alternatives 4 and 4B include recurring impacts, visual impacts, housing displacements, and difficulty finding replacement housing; therefore, the burdens and benefits stated for each of these alternatives is similar, which is the reason they were both assigned the same ranking of Moderate Burden.

Alternative 4B was identified as the preferred alternative for Section B after consideration of the impacts to the human and natural environment summarized in the DEIS, comments received from the public, and coordination with local officials.

Comment # 40 (Page 21-22) - In addition to improper comparison of neighborhoods, the comparison of alternatives on the same neighborhood is often incorrect. The Clairmont Crest and Willow Lake Mobile Home Parks are adjacent communities off Sand Hill road and just northwest of the I-40/I-26/I-240 interchange. In addressing the impacts of Section C on these communities, the DEIS provides identical analysis and concludes that Alternatives A-2, C-2, and F-1 would create a “low burden” and Alternative

D-1 would be “neutral.” DEIS at 4-10 4 4-11. The only difference cited between the alternatives is that the three “low burden” alternatives would have noise impacts but, according to the DEIS, Alternative D—1 would not. However, the alternatives, viewed from a noise perspective, have effectively equivalent alignments and configurations in this location. There is no basis to conclude that the insignificant differences in distance from the communities to the nearest project facilities (on the order of 30 feet between the closest and farthest alternatives) would make any difference. Therefore, the conclusion that Alternative D-1 would have less noise impact is arbitrary and capricious.

Response - FHWA and NCDOT disagree with this comment. These two neighborhoods consist of one-hundred (100) residential homes within the noise study area in the northwest quadrant of the I-26/I-40/I-240 interchange. If the project is not built, forty-eight (48) of these residents will experience noise levels that approach or exceed the Noise Abatement Criteria noise level for residents of 67 dB(A), based on the traffic forecast. With alternatives A2, C2, D1, and F1, noise impacts will be experienced at thirty-nine (39), fifty-six (56), thirty-two (32), and ninety-five (95) of these residents, respectively. Therefore, Alternatives A-2 and D-1 would reduce the number of residents experiencing noise levels approaching or exceeding 67 dB(A), alternative C-2 would slightly increase this number, and Alternative F-1 would more substantially increase this number. It should be noted that “approaching” means within 1 dB(A).

Comment # 41 (Page 22) - The DEIS states that Alternatives 3 and 3C will create a low burden on Murphy Hill Community, while Alternatives 4 and 4B will have a moderate burden. DEIS at 4—13 — 4-14. This relative ranking is both contradicted on its face within the analysis and also contrary to the facts.

The burdens created by Alternatives 3 and 3C are described as:

[A] slightly altered visual environment and slight increase in noise for residents in close proximity to the project corridor *when compared with Alternatives 4 and 4b*, as well as a potential decrease in property values. In addition, the proposed alternatives may contribute to the isolated nature of the Murphy Hill Community, and residents would experience inconvenience due to access limitation during construction of the project.

Id. (emphasis added). The burdens described for Alternatives 4 and 4B are identical to those for Alternatives 3 and 3C except for the emphasized phrase. (The stated benefits are repeated verbatim.) Thus, the only difference the DEIS identifies between alternatives is that Alternatives 3 and 3C will create greater noise problems, yet they are somehow assigned a lower burden. This is not merely arbitrary and capricious, it is nonsensical.

Response - FHWA and NCDOT disagree with this comment. The phrase “when compared with Alternatives 4 and 4B” is used to indicate the burdens described for Alternatives 4 and 4B are higher than those for Alternatives 3 and 3C regarding visual environment and noise impacts, hence why Alternatives 4 and 4B were assigned a moderate burden to the Murphy Hill community, and Alternatives 3 and 3C were assigned a low burden.

Comment # 42 (Page 22) - In addition, the assigned burdens are inconsistent with actual conditions. The only access to the Murphy Hill Community is through Westgate Shopping Center, and, as described above, Alternatives 3 and 3C make access to Westgate much more difficult relative to current conditions and to Alternatives 4 and 4B; they therefore also make access to Murphy Hill more difficult. Moreover, given that Alternatives 3C and 4B come much closer to Murphy Hill on the north side than Alternatives 3 and 4, treating 3 and 3C as identical and 4 and 4B as identical for the impacts analysis is inappropriate.

Response –The Westgate Shopping Center currently has 3 access points; one from the south, which crosses under Patton Avenue, and two additional entrances directly from westbound Patton Avenue; therefore, it is unclear how the grouping of Alternatives 4 and 4B and Alternatives 3 and 3C based on proximity to the shopping center is unclear, when these differences in location are from the areas north of the area where there is no access.

Alternative 4B was identified as the preferred alternative for Section B partly due to the consideration of improved access to the Westgate Shopping Center.

Comment # 43 (Page 22-23) – Emma Road/Bingham Road Community. The DEIS states that “All Alternatives” will create a low burden. *Id.* at 4–13. Given that Alternatives 3C and 4B cross the river south of this community, while Alternatives 3 and 4 stay west of the river much further north, the failure to differentiate among alternatives is arbitrary and capricious.

Response – *FHWA and NCDOT disagree with this comment. The low burden assessment to the Emma Road/Bingham Road Community is meant to encompass overall effects of the proposed project to these communities. The DEIS evaluated a broad range of effects on neighborhoods, including effects to community cohesion, barrier effects, and changes in access. Full consideration for the positive and negative effects on the community was made by public outreach to these communities.*

Comment # 44 (Page 23) – Westwood Place. The DEIS assigns the same “low burden” ranking to all alternatives for this community. *Id.* at 4–13. A simple comparison of the descriptions, however, shows that this is inappropriate. For Alternatives 3 and 3C, the only benefit identified is a decrease in emergency response times. Alternatives 4 and 4B would have the same benefit, plus improved pedestrian/bicycle connectivity and safety. On the other side of the equation, the burdens from Alternatives 4 and 4B are loss of mature vegetation and housing units, and physical intrusions. Alternatives 3 and 3C would create the same burdens, but in addition would affect community cohesion and would reduce vehicular access. Thus, Alternatives 3 and 3C would have greater burdens and fewer benefits and must have a greater net burden. The DEIS’s failure to differentiate is arbitrary and capricious.

Response – *FHWA and NCDOT disagree with this comment. The burdens assessed for this community is meant to encompass overall effects of the proposed project. The DEIS evaluated a broad range of effects on neighborhoods, including effects to community cohesion, barrier effects, and changes in access. Full consideration for the positive and negative effects on the community was made by public outreach to these communities.*

Comment # 45 (Page 23) - The oversights and inconsistencies in NCDOT’s direct community impacts analysis may be innocent mistakes. If so, the time to correct these mistakes is now. NCDOT should not carry these flaws forward in the final EIS. Otherwise, these flaws will no longer seem innocent or accidental; rather, they will appear as yet another attempt to skew the EIS toward NCDOT’s seemingly predetermined outcome, in violation of NEPA.

Response – FHWA and NCDOT disagree with the comment. FHWA and NCDOT responded to more specific comments, which the commenter offers in support of this conclusory comment.

Comment # 46 (Page 23-24) - In Section 4.1.3.2, the 2015 DEIS addresses the project’s likely air quality impacts. Remarkably, the Mobile Source Air Toxics (“MSAT”) analysis concludes that the build alternatives would reduce MSAT emissions relative to the no—build scenario. It does so based on the following table:

Alternative Considered	Approximate Length (miles)	2033 Design Year Average Daily Traffic (vehicles/day) ^a	2033 Design Year Vehicle Miles Travelled (VMT)
No-Build Alternative			
Sections A, B & C	7.5	110,000	825,000
Build Alternative			
Sections A, B & C	7.0	110,000	770,000

DEIS at 4-65, Table 4-9.

This table represents simple multiplication. Because the length of the Connector is estimated to decrease one-half mile in the build scenarios, and because the table estimates the same ADT in the build and no-build scenarios (110,000 vehicles), the VMT estimate is lower under the build scenarios than the no-build scenario. With less VMT, MSAT emissions will decrease. Thus, the DEIS concludes, building the project will improve air quality as to MSAT emissions.

Key to this anomalous result, however, is the assumption that average daily traffic (“ADT”) will be the same under the build and no-build scenarios. This assumption contradicts the remainder of the DEIS and defies the well-established phenomenon that more lanes attract more traffic. For example, Chapter 2 of the DEIS presents traffic forecast estimates under the build and no—build scenarios. For the portion of 1-240 between Amboy Road and Haywood Road, the no—build ADT estimate for 2033 is 68,000 vehicles. See DEIS at Fig. 2-18. Later in Chapter 2, the DEIS forecasts much higher ADT volumes for this same portion under the build scenarios—approximately 60% greater than the no—build forecast. See Figure 2-26 (estimating that on I-240 between Amboy Road and Haywood Road the ADT will be 111,400 in Alternative 3 and 109,400 in Alternatives 4 and 4B). Similar comparisons reveal similar disparities throughout the corridor.

It is not clear where NCDOT’s 2033 no-build ADT estimate comes from—the DEIS and the air quality reports referenced in the DEIS do not explain this figure. One of the air quality reports includes traffic volumes, but those volumes stem from build scenarios, not the no-build scenario. See NCDOT, Air Quality Analysis Update Technical Memorandum for the I—26 Connector Project, TIP No. [-2513, App’x

A (Feb. 2010). NCDOT's use of this figure may have been a mistake or oversight, but whatever the origin, NCDOT must correct this flaw and provide a complete and accurate MSAT analysis. Every other figure suggests that this project will increase traffic and thus worsen air quality. NCDOT must acknowledge and account for this negative impact in the final EIS.

Response – The table shown above has been updated in the FEIS to indicate the correct VMT along the corridors affected by the project. However, it should be noted that traffic will also be reduced along other facilities, many of them capacity constrained.

Comment # 47 (Page 24) - The DEIS also fails to adequately address the project's indirect and cumulative effects. NEPA requires that an EIS discuss indirect effects, including "growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth, and related effects on air and water and other natural systems, including ecosystems." 40 C.F.R. §1508.8(b). See also *id.* § 1502.16(b); *N.C. Alliance for Transp. Reform v. US. Dep't of Transp.*, 151 F. Supp. 2d 661, 695 (M.D.N.C. 2001). Here again, mere say-so is not enough; agency claims that a highway project will not induce growth must be supported by "definitive evidence." *N.C. Alliance for Transp. Reform*, 151 F. Supp. 2d at 696-97.

Response – *This project, proposed improvements to an existing roadway, does not provide new access to the highly developed Asheville area. Thus, it will not induce significant growth in the project area. In general, the project is located within a developed area and would not be providing additional access to areas that are currently not developed. The project does have the potential to somewhat accelerate planned infill, redevelopment, and development in the vicinity of the project; however, it is not expected to result in a noticeable impact to natural resources or downstream water quality. Overall, the proposed project, while affecting some neighborhoods through relocations, improving traffic flow in the general vicinity, and combining with other development activity in the area, imparts low to moderate cumulative effects in the Asheville area.*

Comment # 48 (Page 24-25) - NEPA also requires that an EIS disclose the cumulative impacts of the project when considered in conjunction with other "past, present, and reasonably foreseeable future actions regardless of what agency . . . or person undertakes such other actions." 40 C.F.R. § 1508.25(a)(2). Cumulative impacts may result from "individually minor but collectively significant actions taking place over a period of time." *Id.* § 1508.7. In determining whether a project will have a "significant" impact on the environment, an agency must consider "[w]hether the action is related to other actions with individually insignificant but cumulatively significant impacts." *Id.* § 1508.27(b)(7). "The purpose of the cumulative impact analysis is to provide readers with a complete understanding of the environmental effects a proposed action will cause." *N.C. Alliance for Transp. Reform*, 151 F. Supp. 2d at 698. As to both indirect and cumulative effects, the Fourth Circuit has held that "[c]onclusory statements that the . . . effects will be minimal or that such effects inevitable are insufficient under NEPA." *N. C. Wildlife Fed'n*, 677 F.3d at 602.

It is well-established that highway projects tend to induce growth. Numerous authorities support this proposition:

- “Transportation is often considered the single greatest force shaping land use . . . the expansion or widening of highway and road systems shapes the patterns of new development.” Institute of Transportation Engineers, *Smart Growth Transportation Guidelines, An ITE Recommended Practice*, at 16-17 (2003).
- “No single force has had a greater impact on the pattern of land development in American cities in this century than highways . . . Highway transportation improvements abetted other market forces that encouraged increasing numbers of households and firms to pick suburban locations.” Terry Moore and Paul Thorsnes, *The Transportation/Land Use Connection*, Planning Association Report No. 448/449, at 2 (1994).
- “Although there are other factors that play a role [in urban sprawl], reliance on the automobile has been most significant . . .” John Edwards, *Transportation and Traffic Engineering Handbook*, Institute of Transportation Engineers/Prentice Hall (1982).

Contrary to these authorities, the indirect and cumulative effects analysis is replete with conclusory statements and suggestions that this project will have minimal or no effects on growth. Many of these statements do not survive more than a passing glance. For example, the DEIS provides that land use changes are expected to be minimal in the seven “probable development areas” identified. DEIS at 4-140. To support this conclusion, it then provides that the project may somewhat accelerate the pace of redevelopment and infill in these areas, but generally growth and redevelopment are “already occurring in many of these areas and [are] expected to continue with or without the project.” *Id.* In a similar vein, when discussing the project’s cumulative effects, the DEIS notes that “population is expected to increase, independent of any transportation improvements.” DEIS at 4-146. These statements evade the question they purport to answer, which is what effects this project will have on growth in the region. Stating that growth will occur and population will increase independent of the project does no more than confirm the obvious fact that the Asheville region is not stagnating or declining. Such an approach is inadequate, and similar language in an EIS has been found to violate NEPA. See *N.C. Alliance for Transp. Reform*, 151 F. Supp. 2d at 696-97. To the extent NCDOT is attempting to claim that the project will have no effect on development and growth rates, it must provide definitive evidence to support that conclusion, which the current DEIS lacks. *Id.*

Response – As explained in the *Regional Cumulative Effects Study and the Indirect Land Use Screening Assessment*, there are a number of key projects, recommendations, and developments that support the conclusion that the I-26 Connector Project would have minimal effect on development in the area.

As noted in the regional cumulative effects study, cumulative effects are possible; however, there are a number of factors that could influence the project’s effect. They include the alternatives selected as part of the infrastructure projects, their relative ranking and funding as part of the NCDOT Prioritization Process, changes in local policies, and the general economic and market forces within the municipalities and counties.

NCDOT provides further clarification that the intent of the DEIS text was to indicate that the proposed improvement does have the potential to accelerate planned infill, redevelopment, and development to

the edges of established growth boundaries in the vicinity of the project; however, it is not expected to result in unanticipated impacts on environmental resources.

Comment # 49 (Page 25-26) - NCDOT must also reconcile its claims that this project and the other projects planned in the corridor will have minimal or no effects on growth with the projects' purported benefits. The DEIS provides that "collectively the projects may benefit the region's community resources by *increasing regional mobility and generally relieving congestion.*" DEIS at 4-149 (emphasis added). The DEIS then goes on to describe how increased mobility and decreased congestion may lead to more visitors to the national forests in the region, less traffic (and associated noise and pollution) around other community resources, and greater access to markets in and outside the region for the region's agricultural industry. While these benefits are all plausible, it is not clear why the region would experience the benefits of increased mobility and decreased congestion, but not the burdens, including more urban sprawl and associated air pollution from longer-distance commutes. This tension defies common sense and is another example of the DEIS running afoul of federal NEPA precedents in North Carolina. See *N. C. Alliance for Tramp. Reform*, 151 F. Supp. 2d at 696-97 (highlighting contradiction between claim that project would not affect future growth and purported economic benefits of project).

Response – *As noted in the Regional Cumulative Effects Study, cumulative effects are possible; however, there are a number of factors that could influence the project's effect. They include the alternatives selected as part of the infrastructure projects, their relative ranking and funding as part of the NCDOT Prioritization Process, changes in local policies, and the general economic and market forces within the municipalities and counties. Any changes noted in the regional cumulative effects study do not result in significant environmental impacts that were not evaluated in the DEIS.*

Comment # 50 (Page 26) - In sum, the final EIS must acknowledge and specify the growth-inducing effects of this project and the other projects planned for the region, including the negative environmental effects. Conclusory statements that the growth-related effects will be minimal or non-existent violate NEPA, and they are particularly untenable when paired with statements touting the benefits of increased mobility and decreased congestion. As written, the DEIS offers no basis, let alone definitive evidence, to conclude that this project and the projects in the region will provide the benefits of a highway expansion without the growth-related burdens. These flaws must be remedied in the final EIS.

Response – *A project-specific indirect and cumulative effects analysis as well as a regional cumulative effects study was prepared, noting that cumulative effects are possible; however, there is clear discussion and analysis in the DEIS that supports the proposed project is not expected to substantially influence regional population growth. As stated previously, there are a number of factors that could influence the project's effect. They include the alternatives selected as part of the infrastructure projects, their relative ranking and funding as part of the NCDOT Prioritization Process, changes in local policies, and the general economic and market forces within the municipalities and counties. Any changes noted in the regional cumulative effects study do not result in significant environmental impacts that were not evaluated in the DEIS.*

Comment # 51 (Page 26) - MountainTrue and its predecessor, the Western North Carolina Alliance, as well other community groups and members, have worked for years to convey the message that this project and the related expansions planned in the corridor must fit the scale and character of the Asheville region. The booming tourism industry and retiree population paint a clear picture: Asheville is a destination, not a through-point. Unfortunately, the latest DEIS suggests that NCDOT does not yet hear our message and see this picture. Every possible project configuration considered in the DEIS would result in a road that is too big, too costly, and too insensitive to local needs, while also forcing massive highway expansions to the north and the south.

Response – *NCDOT has worked closely with local officials and area neighborhoods and organizations throughout the project development process. Most recently, NCDOT and the City of Asheville established the I-26 Connector Working Group in March 2016, which initiated a series of meetings between members of the City of Asheville City Council, the Asheville Design Center, Buncombe County, FHWA, FBRMPO, NCDOT, and other stakeholders. The purpose of these working group meetings was to discuss methodologies for various technical aspects of the project, discuss FHWA and NCDOT policies that factor into designs of the various project alternatives, receive feedback from local officials and public citizens on various aspects of the project, and discuss bicycle and pedestrian accommodations, among other topics. The I-26 Connector Working Group will continue to coordinate with NCDOT throughout development of the project and into final design.*

Additionally, NCDOT has been participating in periodic meetings with the City of Asheville, local organizations, adjacent neighborhoods, and historic property owners in order to better understand concerns and to obtain input on how the project could be refined to better fit within the context of Asheville, while meeting local and regional needs. NCDOT has sought, considered, and responded to public comments. This coordination has resulted in various design refinements that has avoided and minimized impacts.

Comment # 52 (Page 26) - Although, as outlined above, the DEIS contains serious flaws, MountainTrue remains committed to working with NCDOT to designing a project that meets local needs while also ensuring a safe and functional future road network. To that end, we offer the following additional suggestions:

Minimize the Project's Footprint: With a fairer, accurate, and up-to-date travel demand forecast, a better-calibrated model, and a capacity analysis that reflects actual conditions and fully utilizes the 2010 HCM, the entire project could likely have a smaller footprint and adequately meet future demand. This is important not only to minimize relocations and ensure a road that fits Asheville, but also to increase design flexibility to ensure the final project disturbs as few homes, businesses, non-profits, and neighborhoods as possible. Once the absolute minimum lane footprint is identified, we urge NCDOT to use all tools at its disposal to minimize the project's burdens and maximize its benefits.

Response - *Following the publication of the DEIS and identification of the preferred alternative, the FBRMPO revised their Travel Demand Model. This revised model was used to revise the traffic forecast and capacity analysis, and allowed the design team to incorporate several refinements into the project to*

reduce impacts of the preferred alternative. Additional refinements occurred based on feedback received from the I-26 Connector Working Group, local officials, community associations, and other stakeholders.

The results of updated traffic analyses after identification of the preferred alternative resulted in the recommendation of a six-lane typical section for basic freeway lanes on I-26/I-240, from I-40 to US 19-23-70.

In March 2017, the project team met with the Fairfax/Virginia Avenue Community to discuss the 2015 DEIS designs and its impact to area residents. Residents expressed concern that allowing right-in/right-out movements from Amboy Road to the neighborhood would cause a significant amount of cut-through traffic. Community members also expressed concerns about the lack of greenway access and connectivity shown on the 2015 DEIS designs. Based on this community input, the interchanges at NC 191 and Amboy road were reconfigured into a split diamond interchange, which allowed one single interchange to fully serve both roads. This type of interchange provides one entrance/exit ramp pair at each crossing roadway (NC 191 and Amboy Road); NC 191 and Amboy Road are then connected with service roads to complete the interior of the diamond. As part of this reconfiguration, roundabouts were added to the ramp pair on Amboy Road, and the orientation of I-26 and Amboy Road was revised so that Amboy road now crosses under I-26.

This reconfiguration in the preferred alternative preliminary designs, when compared to the DEIS designs, functions better from a traffic operations perspective, provides superior multi-modal connectivity, and has less impact on existing traffic patterns. The removal of the Amboy Extension eliminates 11 total takes of single family houses and 4 total takes of multi-unit apartment buildings (estimated to be 12 total units) and reduces the project footprint approximately 8.4 acres on the west side of I-26 between Amboy and Patton Roads.

The revised traffic studies used to refine the preferred alternative designs showed traffic volumes were reduced within the project limits along I-40. As a result, the project team was able to eliminate approximately 20,000 feet of C/D roads in Section C of the project. This reduced impacts adjacent to both eastbound and westbound I-40 west of the I-26 interchange.

Removal of the C/D road along I-40 WB reduced impacts to the Asheville School property, eliminated approximately 10 relocations to residential properties along Montgomery Street, and eliminated impacts to two businesses in the northwest quadrant of US 19/23/70 (Smokey Park Highway). Additionally, by removing the westbound C/D road, the refined designs eliminated longitudinal impacts to Upper Hominy Creek and Ragsdale Creek. For the refined designs and due to elimination of this C/D, the ramp from I-26EB to I-40WB has been relocated approximately 65' closer to the mainline alignments. This relocation took the alignment away its previous location which closely followed the banks of these water bodies and occasionally ran along their flowlines. The figure below gives a graphical representation of the minimizations provided by this refinement.

Removal of the C/D road along I-40 EB eliminated impacts to at least four businesses in the southwest quadrant of the I-40/Smokey Park Highway interchange, eliminated the extension of an existing RCBC in

the southwest quadrant of the I-40/Smokey Park Highway interchange, and reduced residential right of way impacts south of I-40E, eliminating approximately 10 relocations.

The detailed study alternative designs showed the West Asheville Greenway following or using Hazel Mill Road in the southeast quadrant of the I-26/Patton Avenue interchange. The refined designs for the preferred alternative realign the greenway to follow the proposed ramp in the southeast quadrant, which will eliminate right of way impacts, eliminate conflicts between vehicular and greenway traffic, and provide better connectivity of the proposed West Asheville Greenway to Patton Avenue.

Comment # 53 (Page 26-27) - Convert Patton Avenue into a Pedestrian Boulevard: In Section B, alternatives 4 and 4B offer the best path forward for Asheville, but as presently designed both alternatives impose too many burdens. Asheville will benefit most from an alternative that separates the highways from local Patton Avenue traffic, as the potential for smart urban growth and infill is enormous. Alternatives 4 and 4B offer this benefit, but their large lane footprints impose many costs on established neighborhoods. These alternatives are thus a starting point, not an endpoint. We urge NCDOT to improve these designs by reducing the number of lanes, taking advantage of the flexibility a smaller footprint creates to minimize harm, and designing Patton Avenue as a true multi-modal, pedestrian-scale urban boulevard rather than a high-speed throughway.

Response – *NCDOT has been participating in periodic meetings with the City of Asheville, local organizations, adjacent neighborhoods, and historic property owners in order to better understand concerns and to obtain input on how the project could be refined to better fit within the context of Asheville, while meeting local and regional needs. This coordination has resulted in various design refinements that has avoided and minimized impacts, minimized the project footprint, and incorporated bicycle and pedestrian accommodations throughout the project and along Patton Avenue.*

Comment # 54 (Page 27) - Maximize Environmental Justice: As presently designed, this project will impose enormous burdens on low-income and minority communities. Indeed, it will punish neighborhoods that these same roadways have divided and burdened before. In the DEIS, NCDOT commits to conducting additional outreach to the Burton Street and Houston/Courtland communities to investigate environmental justice issues, but this is not enough. Indeed, NCDOT’S Community Impact Analysis recommends much more, providing that NCDOT should conduct environmental justice—related outreach to “[a]t a minimum ... the following neighborhoods and communities: Fairfax/Virginia, Kentucky/Hanover/Pisgah View Apartments, Burton Street, Westwood Place, Emma Road/Bingham Road, and Montford.” CIA at 11. NCDOT should also seek opportunities to redress the damage of previous transportation projects on these communities rather than just impose more.

Response – *NCDOT began development of Burton Street Neighborhood Plan and mitigation strategies outreach program for the recurring impacts to the Burton Street neighborhood.*

Based on the evaluation of burdens to communities as presented in the DEIS, and additional public outreach and coordination with local officials, NCDOT committed to addressing disproportionately high and adverse effects on the Burton Street community that cannot be avoided or minimized. Therefore, unavoidable impacts on the Burton Street community are to be mitigated through additional public

outreach with this community throughout the project development process, including development of a neighborhood mitigation plan.

A series of I-26 Working Group meetings were held with various stakeholders beginning in March 2016. After the first meeting to determine the scope and purpose of the group, a participant from the Burton Street Community Association was added to the working group to ensure perspectives from this community were represented.

NCDOT met with the Burton Street Community Association in October 2016 and February 2017 to provide the Burton Street Community with an update on the project, review the designs under development, and review corresponding potential impacts to the community. NCDOT noted that, in addition to input provided by the community as to how the project team might further refine the designs to lessen the impacts to the community, NCDOT was also interested in receiving input from the community as to what additional transportation improvements might be made in the community to offset or lessen the burden of the overall project impacts.

In October 2017, NCDOT hired Public Participation Partners, LLC (P3), a subconsultant with expertise in Environmental Justice issues and mitigation, to work with the Burton Street Community Association and the City of Asheville Planning and Neighborhood Services Department to develop a community-driven Neighborhood and Mitigation Strategies Plan for the Burton Street neighborhood. The goal of the collaboration is to develop a revision to the 2010 Burton Street Community Plan that will be adopted by the City of Asheville. The plan would include a list of strategies that can be implemented by NCDOT to mitigate impacts from the proposed project.

To develop the plan, stakeholder group meetings were conducted to obtain input from businesses, community organizations, and religious institutions within the community outreach area. Community meetings were also conducted to obtain input from Burton Street residents. The plan is currently in draft form and is anticipated to be finalized in late 2018. Once finalized, NCDOT and FHWA will continue to coordinate with the community to determine which mitigation strategies are feasible as part of the proposed project, and which may be implemented by the City of Asheville.

The Hillcrest Apartments Community would benefit from the proposed project due to improved vehicular, bicycle, and pedestrian connections and facilities that would be constructed as part of the proposed project. In addition to enhanced access and mobility through transportation options, the additional connectivity would provide social and psychological benefits by reducing the isolation of the community. Some benefit may be experienced by the Hillcrest Apartments Community through decreases in emergency response times along the I-26 Corridor.

In March 2017, NCDOT held a meeting with residents of the Hillcrest Apartments Community to discuss the changes in access as a result of the preferred alternative designs and address any concerns. NCDOT also gave an overview of the potential noise impacts to the community and the process of receiving a noise wall.

Comment # 55 (Page 27) - Prioritize Pedestrian, Bicycle, and Transit Access: The best way to reduce vehicle congestion is to encourage and facilitate alternative modes of transportation. Unfortunately, the overbuilt designs in the DEIS largely discourage these modes. Lane expansions throughout the project will create harrowing and hostile crossings for pedestrians and bicyclists, and circuitous access to areas like Westgate discourage all non-private vehicle modes. Although the DEIS integrates with some of Asheville's greenway plans, it disrupts and ignores many more. As to transit, the project will disrupt routes and interfere with several stops. In particular, the DEIS acknowledges that bus routes that "utilize Hanover Street . . . will need to be modified due to the closing of the intersection at Hanover Street and Haywood Road," but offers no solutions. DEIS at 4-2. The street grid in this area is quite constrained, and it is not clear how the same level of transit service will be provided in light of this closure. This one example reflects a greater need for the final project design to go much further toward the goal of getting cars off the road by making the region more pedestrian, bicycle, and transit-friendly.

Response - *NCDOT is committed to Complete Streets improvements and will continue to coordinate efforts with the City of Asheville to incorporate these amenities into the project in compliance with design and cost-sharing guidelines. The preliminary designs for the preferred alternative have been developed with consideration to the current City of Asheville Pedestrian Plan, City of Asheville Comprehensive Bicycle Plan, City of Asheville Parks, Recreation, Cultural Arts, & Greenways Master Plan, and the Buncombe County Greenways and Trails Master Plan. Pursuant to NCDOT policies and guidelines regarding bicycle and pedestrian accommodations and complete streets, in areas where existing sidewalks are being disturbed, the designs show these sidewalks being replaced as a part of the proposed designs. In areas where the various plans propose future pedestrian accommodations, the designs have been developed to accommodate or not preclude these elements from being constructed by the various agencies. NCDOT has coordinated closely with the City of Asheville to develop a "betterments" list identifying areas of bicycle/pedestrian infrastructure to be constructed during the project under an agreement with the City of Asheville.*

As part of the design of the project, NCDOT is including a portion of the West Asheville Greenway from Haywood Road to east of the French Broad River to Clingman Avenue.

After identification of the preferred alternative, NCDOT coordinated with the City of Asheville to develop options for transit service affected by the project. Per the City of Asheville, an updated transit master plan is being prepared to explore solutions to provide relief from impacted routes.

APPENDIX I

REEVALUATION OF 2015 DRAFT ENVIRONMENTAL IMPACT STATEMENT

2015 DEIS REEVALUATION

I-26 Asheville Connector
Buncombe County, North Carolina
Federal Aid Project No. NHF-26-1(53)
WBS Element 34165.1.2
STIP I-2513

**U.S. Department of Transportation
Federal Highway Administration
and
North Carolina Department of Transportation**

1/9/2020
Date of Approval


Derrick Weaver, P.E.
Environmental Policy Unit -Unit Head
North Carolina Department of Transportation

1/9/2020
Date of Approval


John F. Sullivan, III, P.E.
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The documented needs for the transportation project in Buncombe County are presented in the report. The existing conditions of the study area are described and the alternatives are assessed in terms of environmental impacts, compatibility with local planning goals, relative cost-effectiveness and public opinion.

2015 DEIS REEVALUATION

I-26 Asheville Connector
Buncombe County, North Carolina
Federal Aid Project No. NHF-26-1(53)
WBS Element 34165.1.2
STIP I-2513

**U.S. Department of Transportation
Federal Highway Administration
and
North Carolina Department of Transportation**

Prepared by:

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Jan 08, 2020		
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Jan 08, 2020		
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For the:

North Carolina Department of Transportation

January 9, 2020	
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1.0 PURPOSE OF THE REEVALUATION

Pursuant to 23 CFR 771.129(a) and according to the Federal Highway Administration (FHWA) Technical Advisory T 6640.8A, if an acceptable Final Environmental Impact Statement (FEIS) is not submitted to FHWA within 3 years from the date of the Draft Environmental Impact Statement (DEIS) circulation, then a written evaluation (Reevaluation) is required to determine whether there have been changes in the project or its surroundings or new information which would require a supplement to the DEIS. The purpose of this Reevaluation is to identify and assess changes that have occurred since publication of the DEIS in October 2015. FHWA and NCDOT's evaluation of impacts resulting from changes since publication of the DEIS have been assessed to determine whether a Supplemental Draft Environmental Impact Statement (SDEIS) or new DEIS is required.

Overall, the effects of changes associated with the project do not result in significant impacts since publication of the DEIS. This Reevaluation summarizes the changes and resulting impacts that support this determination.

2.0 UPDATES SINCE PUBLICATION OF THE 2015 DEIS

Transportation plans approved after submittal of the 2015 DEIS are discussed in Chapter 3.2.2.1 and Chapter 4.1.2.2 of the FEIS. The 2040 Metropolitan Transportation Plan (MTP) was approved in October 2015 by the French Broad River Metropolitan Planning Organization (FBRMPO). This 2040 MTP supersedes the FBRMPO's 2035 Long Range Transportation Plan (2010).

Following publication of the DEIS, the FBRMPO revised its travel demand model (TDM). This revised model, and associated revisions to the traffic forecast and capacity analysis, as discussed below and in more detail in Chapter 2.6.3, allowed the design team to incorporate several refinements into the project to reduce impacts of the preferred alternative.

Overall, the effect of the proposed project has not changed significantly since publication of the 2015 DEIS. The establishment of the I-26 Connector Working Group initiated a series of meetings between members of the City of Asheville City Council, the Asheville Design Center, Buncombe County, FHWA, FBRMPO, NCDOT, and other stakeholders. Additional public involvement has occurred with communities directly impacted in order to best determine how the project fits into the context of the community. Notable correspondence with neighborhoods and the I-26 Working Group is described in Section 8.2 of the FEIS.

2.1 UPDATED TRAFFIC STUDIES

Since the publication of the *Traffic Operations Technical Memorandum* (URS 2015i), which presented traffic operations information used in the DEIS, updated traffic studies have been prepared to re-evaluate traffic conditions for refinement of the preferred alternative and are based on the updated TDM provided by the FBRMPO. The following sections are based on the 2018 *Traffic Operations Technical Memorandum* (AECOM 2018g) and present traffic volumes

and operational analyses for the existing (year 2015) and the traffic volumes for the projected design year (year 2040) for the study area roadway network.

Existing Roadway Characteristics

The existing roadway network that was analyzed for the proposed project has not been altered since publication of the 2015 DEIS.

Existing 2015 Traffic Conditions

The traffic forecasts used for the traffic operations analyses were obtained from the *Traffic Forecast Report for TIP Project No. I-2513, I-26 Connector* (AECOM 2016). The traffic forecasts provided peak hour and annual average daily traffic (AADT) volumes for the transportation network within the project study area for the Existing No-Build Conditions (year 2015) and the Future No-Build Scenario (year 2040).

Year 2040 No-Build Traffic Projections

The traffic forecasts used for the traffic operations analyses were obtained from the *Traffic Forecast Report for TIP Project No. I-2513, I-26 Connector* (AECOM 2016). The traffic forecasts were used to develop peak hour volumes for AM and PM peak periods for the transportation network within the project study area for the Future No-Build Scenario (year 2040). The 2040 No-Build peak hour and ADT volumes were determined through the use of the 2015 Asheville Travel Model Version 2.

Year 2040 No-Build Capacity Analysis

The No-Build Alternative assumes the local transportation system would evolve as currently planned, but without implementation of the proposed project. With the exception of routine maintenance, no change would take place along the existing corridors within the project study area.

The planned improvements, within the study area of the proposed project, were identified by reviewing the 2040 MTP.

The methods developed in the 2010 Highway Capacity Manual were used to determine the future LOS for the freeway segments and signalized intersections at ramp terminals for the No-Build Alternative.

Year 2040 Build Traffic Projections

The traffic forecasts used for the traffic operations analyses were obtained from the *Traffic Forecast Report for TIP Project No. I-2513, I-26 Connector* (AECOM 2016). The traffic forecasts were used to develop peak hour volumes for AM and PM peak periods for the transportation network within the project study area for the Future Build Scenario (year 2040) for the preferred alternative. The 2040 build peak hour and ADT volumes were determined through the use of the 2015 Asheville Travel Model Version 2.

Year 2040 Build Traffic Capacity Analysis

The methods developed in the 2010 Highway Capacity Manual were used to determine the future LOS for the freeway segments and signalized intersections at ramp terminals for the build alternatives. The analysis of the build alternatives assumes that the local transportation system would evolve as currently planned, including the implementation of the proposed project. Assumptions regarding how the transportation system adjacent to the project study area will be developed include analysis of the improvements presented in the 2040 MTP.

Based upon the updated traffic studies prepared to re-evaluate traffic conditions for refinement of the preferred alternative, it has been determined these updated studies have not introduced alternatives that would result in significant environmental impacts that were not evaluated in the DEIS. As discussed in subsequent sections, the updated traffic studies lessen the effects of the project noted in the 2015 DEIS.

2.2 DESIGN REFINEMENTS

Design refinements to the preferred alternative have been developed based on the updated traffic studies discussed in the previous section as well as coordination with environmental and regulatory resource agencies, local officials, and affected communities. The following sections summarize portions of the design refinements that demonstrate the most changes since the alternatives described in the 2015 DEIS.

Number of Lanes in Section A

Traffic studies used to analyze detailed study alternatives in the DEIS showed the minimum number of lanes required to accommodate the projected traffic volumes would include eight through travel lanes (four in each direction) for the section from I-40 to Patton Avenue (where it is combined with I-240) and six through travel lanes (three in each direction) from Patton Avenue to Broadway.

The results of updated traffic analyses after selection of the preferred alternative resulted in the recommendation of a six-lane typical section for basic freeway lanes on I-26/I-240, from I-40 to US 19-23-70. This resulted in a slightly less impactful design, as discussed in the FEIS.

I-26 Configuration between Amboy Road and Brevard Road

As described in Section 2.6.4 of the FEIS, the project team met with the community and local officials to evaluate various options for this interchange. It was decided to eliminate the Amboy Road extension and the connections to Fairfax and Virginia avenues, and redesign this section of the project to provide a split diamond interchange on I-26 between Amboy Road and Brevard Road. This reduced impacts to the adjacent community and they are in support of this design revision.

Amboy Road

The detailed study alternative designs showed Amboy Road extending over I-26 and intersecting with Brevard Road. When the Brevard Road/Amboy Road interchange was revised

to a split diamond configuration, the project team performed a study to determine whether Amboy Road should be positioned above or below I-26. This study determined that, with the split diamond configuration, positioning Amboy Road under I-26 would cause the least impacts to the Fairfax/Virginia Avenue Community as well as Carrier Park, a Section 4(f) resource.

I-40 Collector/Distributor Roads

The revised traffic studies used to refine the preferred alternative designs showed traffic volumes were reduced within the project limits along I-40. As a result, the project team was able to eliminate approximately 20,000 feet of C/D roads in Section C. This reduced impacts adjacent to both eastbound and westbound I-40 west of the I-26 interchange.

Exit 44 Ramp over Railroad

The project team determined that due to the elimination of the westbound C/D road along I-40 in Section C, it was acceptable geometrically to add a new ramp connecting westbound I-40 to northbound Smoky Park Highway at Exit 44 and revise the existing loop to serve only westbound I-40 to southbound Smoky Park Highway traffic. This revision reduced impacts resulting from this interchange.

Left-over on Patton Avenue in Section B

The designs used to analyze the detailed study alternatives in the DEIS included a left-over turn lane for eastbound Patton Avenue traffic to access the Westgate Shopping Center. Since eastbound traffic can use Hazel Mill Road and Westgate Parkway to access the shopping center, it was determined acceptable to eliminate this redundant access for eastbound traffic for the preferred alternative.

I-26/I-240/Patton Avenue Interchange

The designs for this interchange used to analyze the detailed study alternatives in the DEIS included a modified partial cloverleaf interchange. The modification, an extra loop in the northwest quadrant, was added to accommodate the large volume of outbound Patton Avenue traffic accessing I-26/I-240 eastbound. In April 2018, NCDOT began coordinating with the City of Asheville's consultant Sam Schwartz on various design recommendations from the City of Asheville. One of these recommendations included revising this interchange to an urban diamond type configuration. Alternative 4-B was revised to include a diamond interchange at the I-26/I-240/Patton Avenue, which required the addition of approximately 8.5 acres of right of way; however, no additional residential relocations were necessary, and one business relocation was eliminated. The full analysis of Alternative 4-B by the City of Asheville and their design recommendations for Section B was finalized in September 2018 and is included in Appendix B.

West Asheville Greenway

The detailed study alternative designs showed the West Asheville Greenway following or using Hazel Mill Road in the southeast quadrant of the I-26/Patton Avenue interchange. As a result of coordination with the City of Asheville and the I-26 Connector Working Group, the refined

designs for the preferred alternative realign the greenway to follow the proposed ramp in the southeast quadrant. This design change will eliminate right-of-way impacts, eliminate conflicts between vehicular and greenway traffic, and provide better connectivity of the proposed West Asheville Greenway to Patton Avenue.

Riverside Drive Widening

Since publication of the 2015 DEIS, the Riverside Drive Widening project, formerly STIP U-5868 has been included in Section B. The improvements along Riverside Drive include the addition of a center turning lane and a 10-foot multi-use path to the west of the roadway, from Hill Street to Broadway.

2.3 HUMAN ENVIRONMENT

Since publication of the 2015 DEIS, studies updated with regard to the human environment have not introduced significant changes to the conditions in the study area and have lessened the effects of the project as noted in the following sections.

Socioeconomic Conditions

The socioeconomic conditions in the project study area have not changed substantially since publication of the 2015 DEIS. In the 2015 DEIS, community-based demographic data were gathered from the 2010 US Census as well as the 2007-2011 American Community Survey (ACS). Using the same direct community impact area and demographic study area (DSA boundary, updates were obtained using the demographic information from the 2010 US Census and the 2011-2015 ACS. Updated socioeconomic data are included in Section 3.1 of the FEIS.

Land Use

A comparison of existing development in the region revealed very few changes to development or land use in the vicinity of the project as reported in the 2015 DEIS. Once the preferred alternative was selected, land use impacts were calculated for the refined designs. A summary of the land use impacts for the preferred alternative is included in Table 4-3 in Chapter 4.1.3.1 of the FEIS.

Parks and Recreational Facilities

The 2015 DEIS reported that the preferred alternative was expected to require the reconstruction of a portion of the French Broad River Greenway at the western end of the Carrier Park property to allow the reconnection of Old Amboy Road and provide access to several properties west of Carrier Park along the banks of the French Broad River. Since publication of the DEIS and design refinement of the preferred alternative, the configuration at Amboy Road was realigned and avoided any required reconstruction of the greenway.

The preferred alternative design also lessens impact to the Amboy Road frontage of Carrier Park for additional right-of-way and construction easements since what was reported in the DEIS.

The preferred alternative in Section B would require placement of bridge bents in the French Broad River, which is designated by the state as a paddle trail, during construction of bridges over the French Broad River.

Impacts to Carrier Park and the French Broad River Trail qualify for Section 4(f) protection, and have been determined a *de minimis* impact, as described further in Chapter 5 of the FEIS.

Historic Resources

The 2015 DEIS reported permanent incorporation of right-of-way to five historic resources. Based on the refined designs of the preferred alternative, the project would require permanent incorporation of right-of-way from only three of these resources. The preferred alternative no longer requires the underground easement at the Montford Hill Historic District as noted in the 2015 DEIS and right-of-way impacts to the Montford Hills Historic District were eliminated. Right-of-way impacts to the Asheville School, West Asheville/Aycock School Historic District, and the William Worley House properties were reduced by the preferred alternative revised designs as described in Section 4.1.5 of the FEIS and shown in the table below.

Property	Section C		Section A		Section B	
	DEIS	FEIS	DEIS	FEIS	DEIS	FEIS
Asheville School	2.79/0.58	0.51/1.48	N/A	N/A	N/A	N/A
West Asheville/Aycock School Historic District and Boundary Increase	N/A	N/A	0.35/0.25	0.12/0.42	N/A	N/A
William Worley House	N/A	N/A	N/A	N/A	0.1/0.22	0.05/0.26
Montford Hills Historic District	N/A	N/A	N/A	N/A	0/0.03	0/0

2.4 NATURAL ENVIRONMENT

Since publication of the 2015 DEIS, studies updated with regard to the natural environment have not introduced significant changes to the conditions in the study area and have lessened the effects of the project as noted in the following sections.

Stream and Wetland Impacts

Since publication of the 2015 DEIS, the refined designs of the preferred alternative have reduced the overall impacts to terrestrial communities, streams, and wetlands. These impact reductions are further described in Section 4.1.6 of the FEIS and summarized in the table below.

	Section C		Section A		Section B	
	DEIS	FEIS	DEIS	FEIS	DEIS	FEIS
Stream Impacts (linear feet)	1,984	1,376	798	597	2,128	1,810
Wetland Impacts (acres)	1.86	1.29	0.01	0.01	0.1	0.04

Biological Assessments

Since publication of the 2015 DEIS, the rusty patched bumble bee (*Bombus affinis*), was listed as an endangered species for Buncombe County under the ESA of 1973, as amended (16 U.S.C. 1531 et seq.), but does not require a Section 7 survey or biological conclusion due its "historic" record status.

The 2015 DEIS presented the biological conclusion of “may affect-not likely to adversely affect” for the Tan riffleshell (*Epioblasma florentina walkeri*). Based on survey results (January 2018), the updated biological conclusion of the tan riffleshell is “no effect.”

Since publication of the 2015 DEIS, biological conclusions for two species, the gray bat (*Myotis grisescens*) and Appalachian elktoe (*Alasmidonta raveneliana*), have been changed due to the result of updated species surveys. The gray bat biological conclusion has been changed from “unresolved” to “may affect – likely to adversely affect” due to the presence of gray bats within the study area. The biological conclusion of “may affect-not likely to adversely affect” for the Appalachian elktoe has been revised to “may affect – likely to adversely affect” due to results of updated surveys of the French Broad River and surrounding tributaries. The results of the surveys are further described in Section 4.1.6.5 of the FEIS.

While two species biological conclusions have changed to “may affect – likely to adversely affect”, this does not necessitate supplementation of the 2015 DEIS, as NCDOT is currently coordinating with the USFWS regarding avoidance and minimization for both species per Section 7 of the ESA of 1973, as amended (16 U.S.C. 1531 et seq.). Section 7 compliance will be sought and secured prior to signing the ROD.

3.0 CONCLUSION

None of the changes noted in this reevaluation of the 2015 DEIS would cause a need for a supplement to the DEIS or a need for a new DEIS.

A review of the existing conditions compared with those documented in 2015 DEIS indicates there has been little change in the human, physical, and natural environments in the project area. Though some changes have occurred, they do not result in any new significant impacts not previously identified, nor do they alter the need for and purpose of the project. Based on updated technical analyses, and coordination with the public, the I-26 Connector Working Group, and environmental and regulatory resource agencies, the preferred alternative designs have lessened the human and natural environmental effects; therefore, it has been determined the 2015 DEIS would not require supplementation.

A summary of project impacts by section is listed in Table 4-19 in the FEIS.