In accordance with the National Environmental Policy Act (NEPA), the North Carolina Department of Transportation (NCDOT) published a Draft Environmental Impact Statement (DEIS) for the I-26 Connector project in October 2015. The DEIS described the purpose of and need for the project, identified project alternatives, and evaluated them for potential environmental effects. Since the DEIS was published, a preferred alternative has been chosen based on feedback from the public and environmental regulatory and resource agencies. This Final Environmental Impact Statement (FEIS) is presented in the same order as the DEIS, with clarification and updates such as changes in the existing environment, updated impacts anticipated from the preferred alternative, and responses to comments received on the DEIS. Some information from the DEIS is summarized, and substantive new information is noted in italics.

CHAPTER 1. PURPOSE OF AND NEED FOR THE PROJECT

NCDOT, in cooperation with the Federal Highway Administration (FHWA), is evaluating proposed improvements to upgrade the I-240 corridor from south of the I-26/I-40/I-240 interchange through the I-240 interchange with US 19-23-74A/Patton Avenue west of the French Broad River so that I-240 can be redesignated as I-26. NCDOT is proposing to upgrade the corridor to accommodate future traffic volumes. NCDOT is also proposing to upgrade the I-240 interchange with US 19-23-74A/Patton Avenue to provide an interstate highway to interstate highway interchange for I-240 and future I-26.

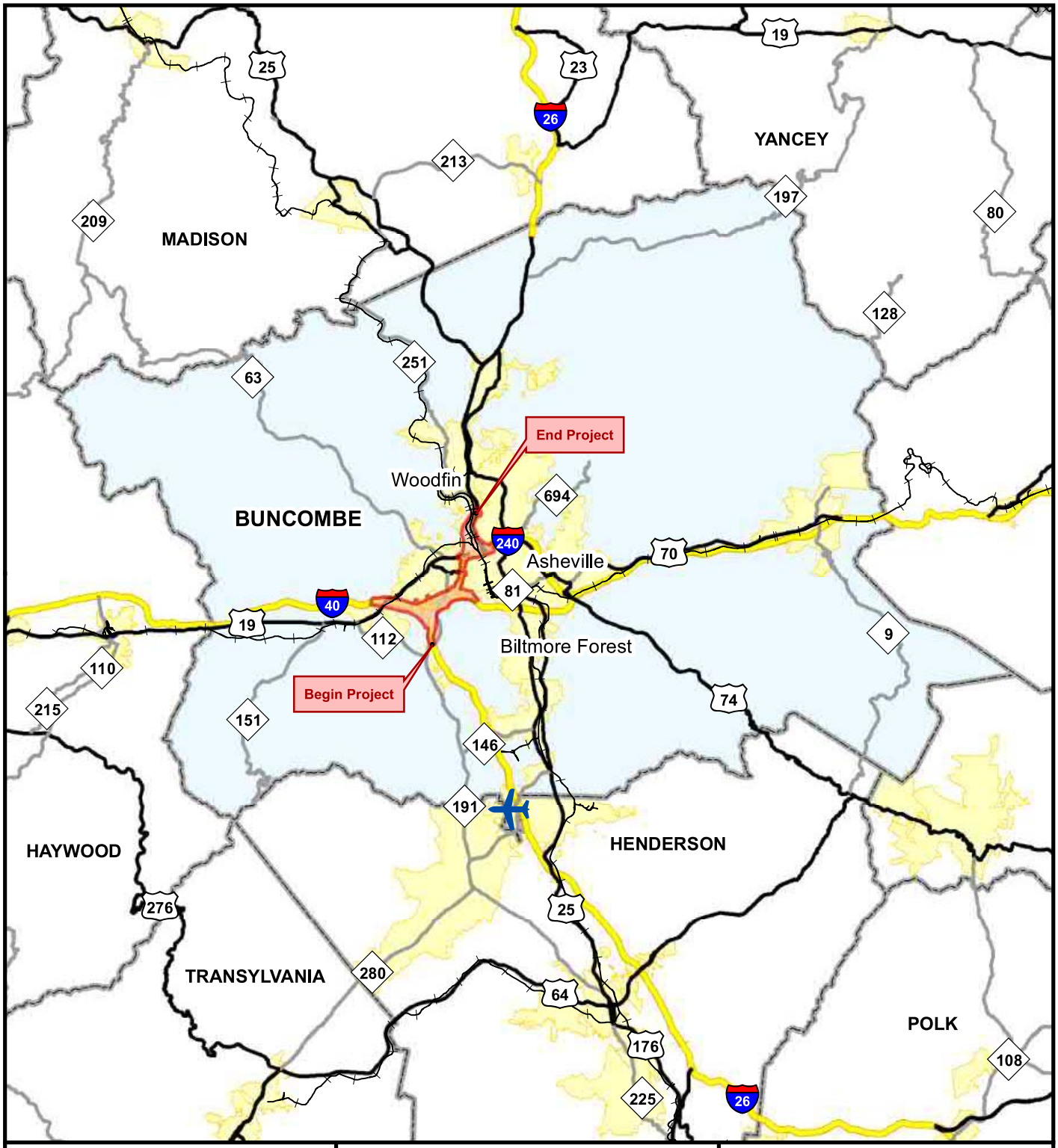
The proposed action is included in the French Broad River Metropolitan Planning Organization (FBRMPO) *2040 Metropolitan Transportation Plan* (FBRMPO 2015). The proposed action is also included in NCDOT's 2018-2027 State Transportation Improvement Program (STIP) (NCDOT 2017) and included within the NCDOT Strategic Transportation Corridor (STC) Network.

This statement of purpose and need explains why improvements to the transportation system in the project area (the proposed action) should be identified and implemented, which is detailed in the *Purpose and Need Statement* (URS 2015f).

As part of the NEPA study conducted for the I-26 Connector project, the reports listed in Chapter 9 were prepared, which are available for review at the NCDOT office in Raleigh, North Carolina, and are incorporated into this FEIS by reference.

1.1 PROJECT AREA

The proposed action (proposed project) is located in Asheville, North Carolina, within Buncombe County and is commonly referred to as the I-26 Connector. It is intended to provide a link between existing I-26 south of Asheville and US 19-23-70 north of Asheville, completing an existing gap in the I-26 Corridor within North Carolina. A project location and vicinity map is provided as Figure 1-1.



North Carolina
Department of Transportation

Legend

- Asheville Regional Airport
- Interstate
- US Highway
- NC Highway
- Railroad
- Project Study Area
- County Boundary
- Municipal Boundary

Date: May 2018

N W E S

0 3 6 Miles

I-26 Asheville Connector
Buncombe County

STIP Project No. I-2513

Figure 1-1

Project Vicinity Map

1.2 PROJECT NEEDS

The need for the proposed action is summarized by the following existing and projected conditions:

- **System Linkage**: A better transportation facility is needed to connect I-26 south of Asheville with US 19-23-70 north of Asheville. I-26 is planned to connect the Port of Charleston, South Carolina, with the mountains of North Carolina joining I-240 at the I-26/I-40/I-240 interchange southwest of Asheville. I-240 west of Asheville currently connects I-26 with US 19-23-70. The I-240 freeway, constructed in the 1960s, does not meet current interstate design standards. The existing interchange connecting US 19-23-70 from the north with I-240 contains sharply curved, single lane ramps. Freeway traffic using this interchange connecting I-240 with the US 19-23 freeway is restricted to one lane in each direction, which causes traffic to queue onto I-240. When the construction of NCDOT STIP Project A-0010 (US 19-23-70 improvements from Asheville to the Tennessee state line) is completed, it will allow motorists to travel on a fully controlled access, median-divided freeway from I-81 near Kingsport, Tennessee, to I-240 in Asheville.
- **Capacity:** I-240 needs additional capacity because increasing traffic volumes have substantially reduced the level of service on I-240 west of Asheville. Several sections of I-240 currently experience traffic delays and queuing. Traffic congestion and resulting delays will continue to worsen in the future as the traffic volumes increase due to population increases. The completion of portions of NCDOT STIP Project A-10 will further increase traffic demands along I-240 west of Asheville. The increase in traffic volumes further contributes to the congestion and delays along I-240.
- **Roadway Deficiencies**: Interstates within the project study area have roadway deficiencies and need to be upgraded to meet current design standards. Existing I-240 west of Asheville and the I-26/I-40/I-240 interchange do not meet current interstate design standards due to substandard roadway features. Multiple segments of I-240 west of Asheville currently have an accident rate that exceeds the critical crash rate for similar North Carolina facilities, demonstrating the need for these improvements along this section.

1.3 PURPOSE OF THE PROPOSED ACTION

The primary purposes of the proposed project are to:

- Upgrade the interstate corridor from I-26 south of Asheville through the US 19-23 interchange to meet design standards for the interstate system
- Provide a link in the transportation system connecting a direct, multi-lane freeway facility meeting interstate standards from the Port of Charleston, South Carolina, to I-81 near Kingsport, Tennessee
- Improve the capacity of existing I-240 west of Asheville to accommodate the existing and forecasted (2040 design year) traffic in this growing area
- Reduce traffic delays and congestion along the I-240 crossing of the French Broad River, which currently operates at capacity

- Increase the remaining useful service of the existing Captain Jeff Bowen Bridges by substantially reducing the volume of traffic on this vital crossing of the French Broad River

1.4 PROJECT DESCRIPTION

1.4.1 PROJECT SETTING AND LAND USE

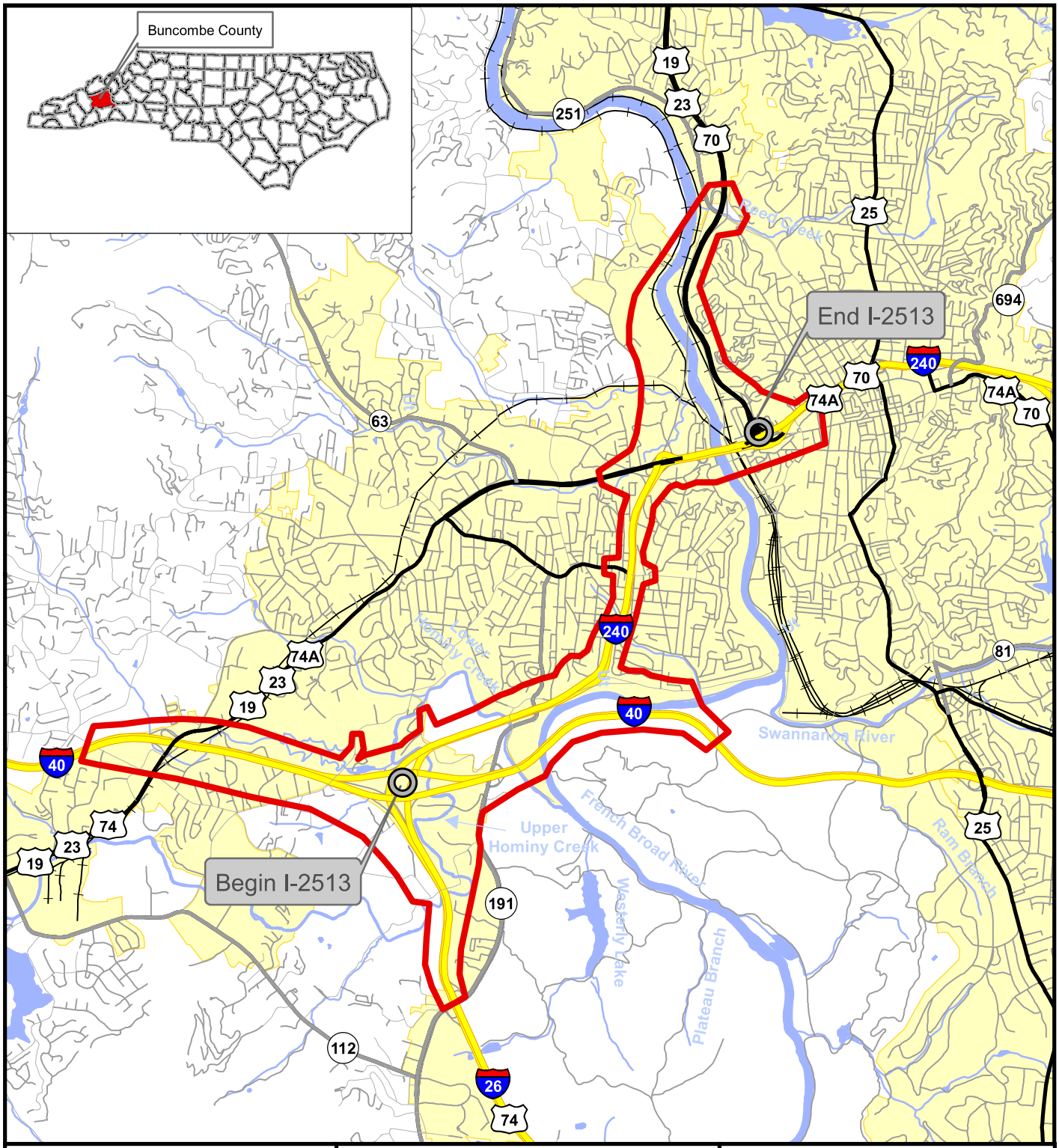
The City of Asheville is located in Buncombe County entirely within the mountainous region of North Carolina. The project study area is shown on Figure 1-2. Asheville and the surrounding area are part of the region known as Appalachia, which surrounds the Appalachian Mountains and stretches from southern New York State to northern Mississippi. Buncombe County is the seventh largest county in North Carolina, with a 2010 US Census population of 238,318. The City of Asheville is the tenth largest municipality in the state, with a population of 83,393. A large portion of the land within the project study area is developed, with residential and commercial areas located along existing I-240 and US 19-23-70. The project study area is within the transportation planning jurisdiction of the FBRMPO. This organization, formerly known as the Asheville Area Metropolitan Planning Organization (AAMPO), was expanded to include 18 local governments in 2003 as a result of the 2000 census.

1.4.2 PROJECT HISTORY

As noted in the DEIS, the I-26 Connector was first funded in 1989 by the Trust Fund Act and added to the NCDOT STIP as project number I-2513. In 1992, the Asheville Connector Advisory Committee (ACAC) was formed by the local Transportation Advisory Committee (TAC) and the Technical Coordinating Committee (TCC), to study the I-26 Connector in Asheville and to recommend a preferred corridor alignment for the facility. In 1995, NCDOT published the *Phase I Environmental Analysis–Asheville Urban Area* (Phase I Study) for the I-26 Connector (NCDOT 1995), which included data collected from consultations with federal and state environmental agencies, environmental and design studies, and public involvement, and included a preferred corridor for the I-26 Asheville Connector.

In 1995, the states of North Carolina and Tennessee executed agreements with FHWA pursuant to title 23 United States Code [USC] 139(b) [now 23 USC 103(c)(4)(B)] to designate US 23, from I-240 in Asheville northerly to I-81 in Tennessee, as a future part of the interstate system. The route number of I-26 was approved as part of the future interstate designation.

Since that time, NCDOT has held numerous meetings with community leaders, local interest groups, business groups, and affected businesses and neighborhoods to explain the proposed project.



North Carolina Department of Transportation

Legend

- Project Study Area
- Interstate
- US Highway
- State Highway
- State Route
- Local Road
- Railroad
- Streams (non-delineated)
- Water
- Municipal Boundary

Date: May 2018

N W E S

0 0.5 1 Miles

I-26 Asheville Connector
Buncombe County

STIP Project No. I-2513

Figure 1-2

Project Study Area

To bring the greater community to a consensus, a Community Coordinating Committee (CCC) was formed in 1999. With the help of NCDOT and the City of Asheville, the CCC conducted a series of public meetings in 2000 to provide interested citizens with an opportunity to suggest improvements and become involved in the project design. The CCC completed a report documenting their recommendations and their desired design-related goals for consideration as the project developed. The City of Asheville included these recommendations in the *Asheville City Development Plan 2025* (City of Asheville 2002a).

NCDOT continued to develop alternatives for the I-26/I-40/I-240 interchange and refined preliminary engineering designs for widening I-240 and the alternatives connecting I-240 to US 19-23-70. Agency coordination and public involvement activities continued and environmental studies regarding the effects of the alternatives were conducted, culminating in the preparation of a DEIS in March 2008 and public hearings in September 2008. Following the public hearings, NCDOT, in coordination with FHWA, determined that a new alternative (Section B Alternative 4-B) should be added to the suite of alternatives being considered for the project, a conceptual alignment developed by the Asheville Design Center (ADC). In conjunction with this change, one of the existing alternatives (Section B Alternative 2) was eliminated from the alternatives being considered. Due to the addition of Section B Alternative 4-B and the elimination of Section B Alternative 2, as well as the refinement of many of the technical studies supporting the DEIS, FHWA and NCDOT determined that it was necessary to completely rescind the 2008 DEIS and prepare a new DEIS to incorporate all the most current information available into a single document.

Due to a new project funding priority rating system implemented by NCDOT in 2010, the DEIS was put on hold. Project development studies for the I-26 Connector were re-initiated in spring 2012, and project alternatives in Section B (the new location portion north of Patton Avenue, across the French Broad River) were modified to avoid impacts to the Emma Road community and to identify multi-modal connectivity between west Asheville and Asheville. A new alternative, Section B Alternative 3-C, was developed to further reduce impacts to the natural and human environments. Alternative 3-C is similar to Section B Alternative 3, but with a smaller footprint connecting to US 19-23 farther south of the Alternative 3 connection. Additional improvements to all alternatives were completed to better accommodate future traffic demands while trying to further avoid or minimize impacts to the communities.

A public meeting was held in May 2014 to present Alternative 3-C and updated information regarding the alternatives and design plans. In 2015 the NEPA/Section 404 Merger Team (Merger Team) officially added Alternative 3-C as a detailed study alternative to be discussed in the DEIS. The Merger Team is made up of environmental and regulatory resource agencies to provide a forum to reach consensus on ways to facilitate meeting the regulatory requirements of Section 404 of the Clean Water Act (CWA) during the NEPA decision-making phase of transportation projects.

Based on the updated designs of the detailed study alternatives, environmental and engineering studies were revised to evaluate the direct, indirect, and cumulative effects of each alternative.

These studies were then used to prepare the 2015 DEIS, which was signed in October 2015. The public hearing for the 2015 DEIS was held on November 16, 2015. Approximately 500 citizens attended and 1,454 comments were received throughout the comment period.

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. 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, 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.

The Merger Team met on May 18, 2016, to choose a preferred alternative. Section C – Alternative F-1, Section A – Widening Alternative, and Section B – Alternative 4-B, were chosen as the least environmentally damaging practicable alternative (LEDPA).

Since the approval of the DEIS and the selection of the LEDPA, preliminary designs have been refined based on updated traffic studies and public and resource agency comments on the 2015 DEIS. 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. In 2017, the project team began preparing technical studies to determine the human and natural environmental impacts of the preferred alternatives for inclusion in the FEIS.

1.5 SYSTEM LINKAGE

Currently, I-26 connects the Port of Charleston, South Carolina, to I-40 near Asheville, North Carolina. There is a gap in I-26, which includes the existing I-240 interchange with US 19-23 and Patton Avenue to the section of I-26 near Mars Hill.

I-40

I-40 is a major east-west interstate facility with full control of access that spans the United States, with an eastern terminus in Wilmington, North Carolina, and a western terminus in Barstow, California. I-40 is the principal highway access to the Asheville area from the east and west and is located to the south of the Asheville central business district. I-40 has two existing interchanges within the project study area at the following locations: NC 191 (Brevard Road) and I-26/I-240, which is a directional interchange with partial movements. A directional interchange includes ramps that provide a connection between two roadways along a path that does not deviate greatly from the intended direction of travel. An interchange with partial movements, commonly referred to as a partial interchange, does not provide the necessary connections between roadways that serve all intended directions of travel.

I-240

I-240 is a semicircular east-west urban interstate facility with full control of access that provides a freeway loop through downtown Asheville, spanning the French Broad River, and connecting with I-40 to the east and west of town. I-240 has existing interchanges within the project study area at the following locations:

- Directional interchange with partial movements at I-26/I-40
- NC 191 (Brevard Road)
- Directional interchange with partial movements at SR 3556 (Amboy Road)
- US 19-23 Business/SR 3548 (Haywood Road)
- US 19-23-74A/Patton Avenue
- Directional interchange with partial movements at US 19-23-70/Patton Avenue

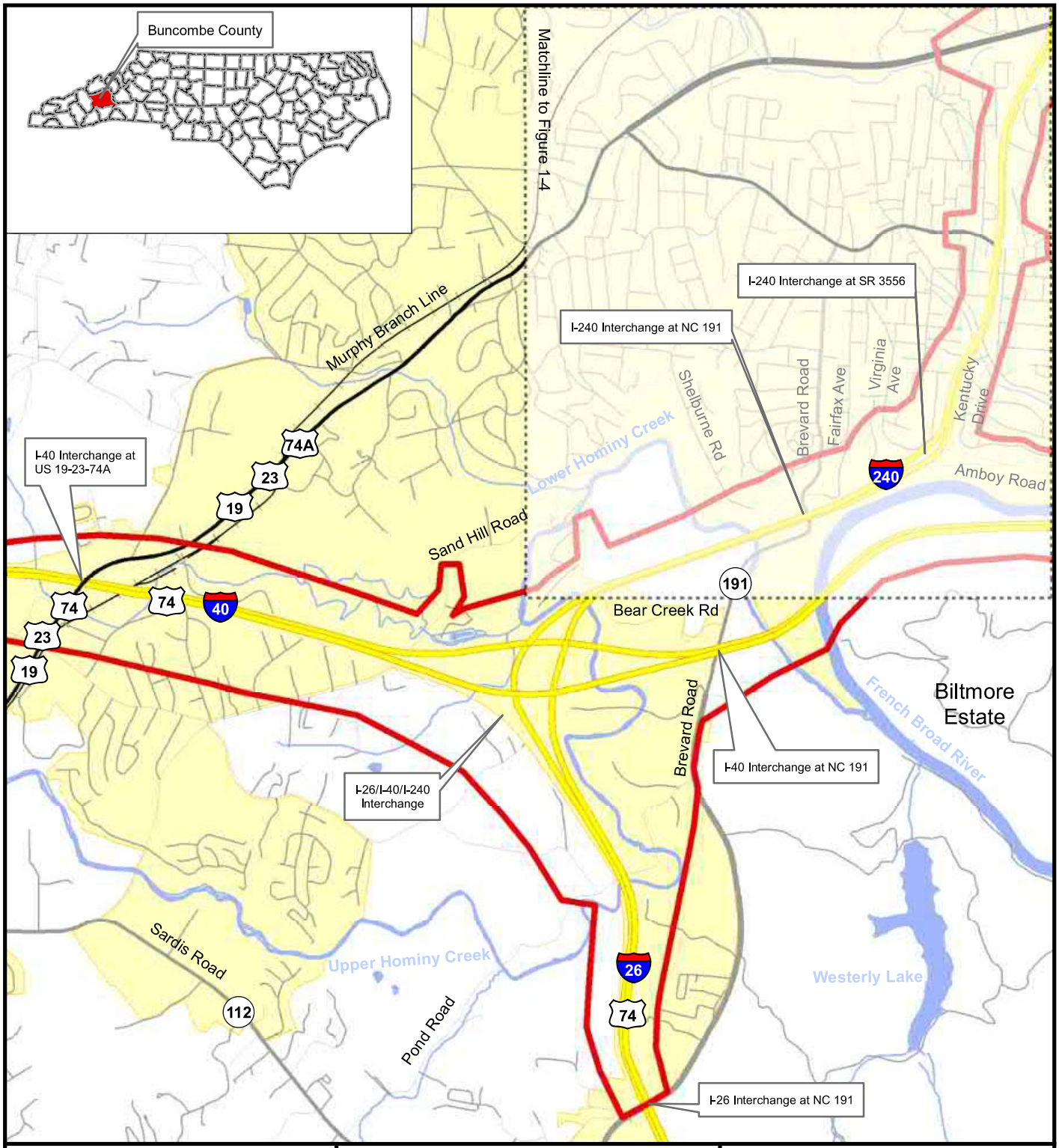
I-240, US 70, and US 74A join east of the project area. At the I-240 interchange with US 19-23 east of the French Broad River, US 70 joins US 19-23 to the north. Here, I-240 and US 74A join US 19-23 from the north and Patton Avenue from the east, where they all continue west across the river as Patton Avenue on Buncombe County Bridges 323 and 322, locally known as the Captain Jeff Bowen Bridges. US 19-23-74A (Patton Avenue) splits off from I-240 at the Patton Avenue interchange west of the French Broad River. I-240 and US 19-23 Business continue south to the US 19-23 Business/SR 3458 (Haywood Road) interchange, where US 19-23 Business exits and follows Haywood Road to the west. I-240 continues southwestward through the SR 3556 (Amboy Road) and NC 191 (Brevard Road) interchanges and terminates at I-40.

Figure 1-3, Figure 1-4, and Figure 1-5 how the existing roadway network.

1.5.1 MODAL INTERRELATIONSHIPS

1.5.1.1 Railroads

Freight rail service is provided to and from Asheville by two Norfolk Southern Railway (NS) lines and one Blue Ridge Southern Railway line. The NS S-line, including switching facilities, runs near the I-240 interchange with US 19-23-70/Patton Avenue. The railroad has a grade-separated crossing under I-240, approximately 700 feet west of the US 19-23-70/Patton Avenue interchange. Approximately 400 feet north of this crossing is a split to a track known as the NS Craggy Mountain spur line. The NS Craggy Mountain spur line continues to the north while running along the east side of the French Broad River before terminating south of Woodfin. Beyond this track split the NS S-line curves to the northwest and crosses the French Broad River. West of the French Broad River, the railroad splits again with the main line. One line continues north toward Knoxville, Tennessee, and one line, known as the Blue Ridge Southern Railway (formerly the NS T-line), continues west toward Dillsboro, North Carolina. South of the I-240 crossing, the rail line continues into downtown Asheville, where it continues to serve points south and east such as Spartanburg, South Carolina, and Morganton, North Carolina.



North Carolina Department of Transportation

Legend

- Project Study Area
- Interstate
- US Highway
- State Highway
- State Route
- Local Road
- Railroad
- Streams (non-delineated)
- Water
- Municipal Boundary

Date: May 2018

N W E S

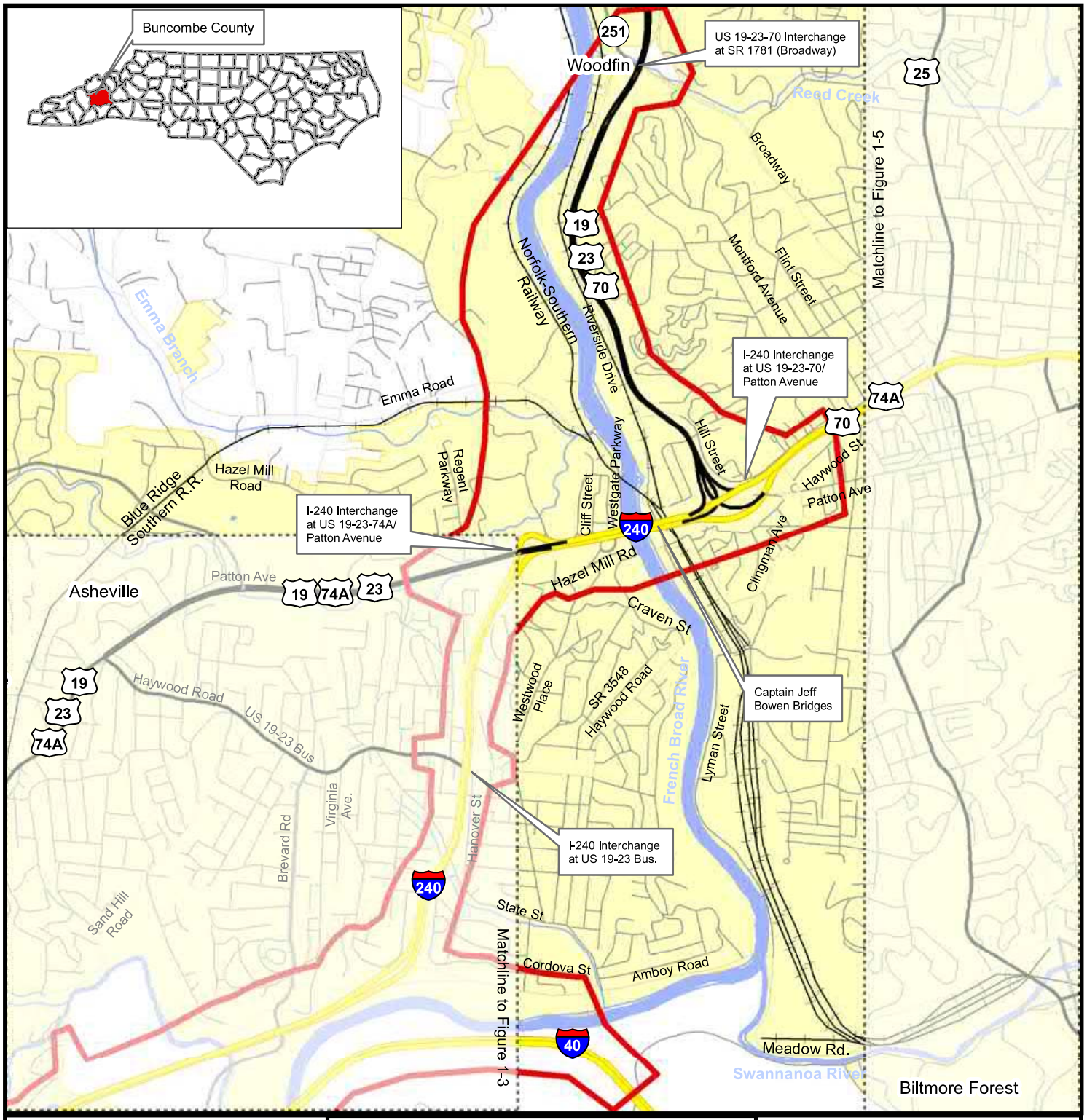
0 0.25 0.5 Miles

I-26 Asheville Connector
Buncombe County

STIP Project No. I-2513

Figure 1-3

Existing Roadway Network



North Carolina Department of Transportation

Legend

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- State Route
- Railroad
- Local Road
- Streams (non-delineated)
- Water
- Municipal Boundary

Date: May 2018

N W E S

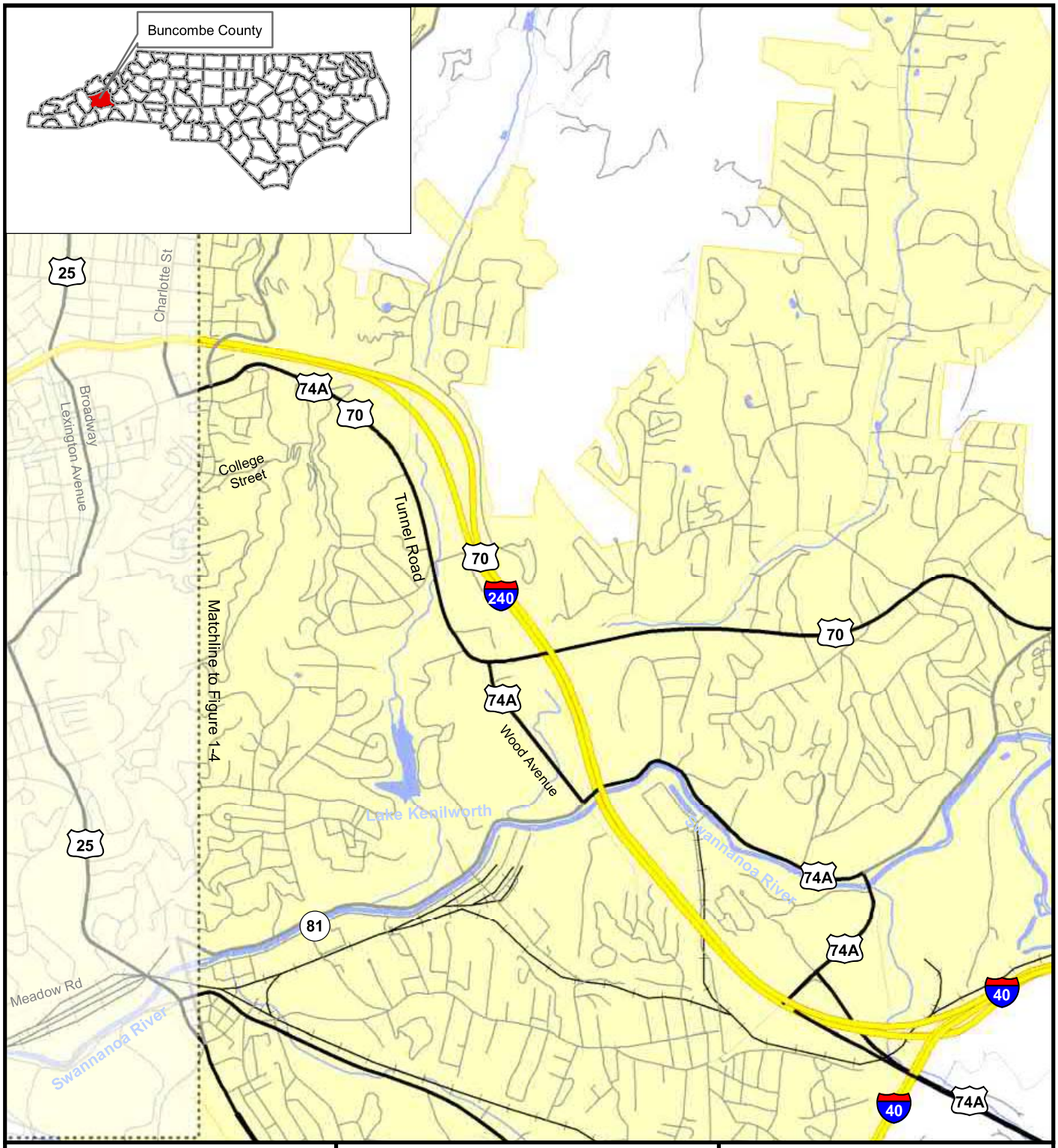
0 0.25 0.5 Miles

I-26 Asheville Connector
Buncombe County

STIP Project No. I-2513

Figure 1-4

Existing Roadway Network



North Carolina Department of Transportation

Legend

- Project Study Area
- Interstate
- US Highway
- State Highway
- State Route
- Local Road
- Railroad
- Streams (non-delineated)
- Water
- Municipal Boundary

Date: May 2018

N W E S

0 0.25 0.5 Miles

I-26 Asheville Connector
Buncombe County

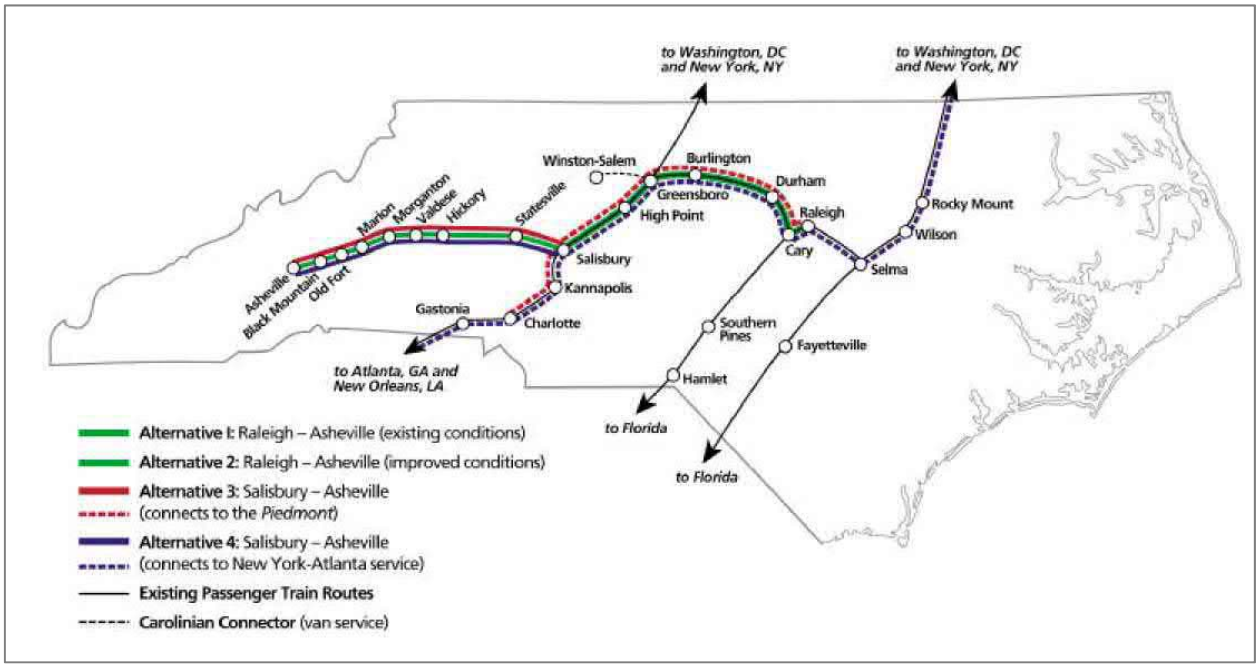
STIP Project No. I-2513

Figure 1-5

Existing Roadway Network

Currently, passenger rail does not serve the Asheville metropolitan area or western North Carolina. In 2001, the NCDOT Rail Division completed a study that evaluated the possibility of restoring passenger rail service to the Asheville area (NCDOT 2001). Four alternatives, shown on Figure 1-6, were studied for the route. It was determined, based on projected ridership, revenue, and costs, that the Salisbury to Asheville alternative, with connections to long distance trains such as the Carolinian or a proposed New York Atlanta service, would be the most effective.

Figure 1-6: Proposed Passenger Route Alternatives



Source: NCDOT 2001.

The study recommended that discussions begin with Amtrak and NS about passenger rail service. This study recommended beginning negotiations with property owners to obtain room for a new passenger train station on Decatur Street in Asheville, across from the old Biltmore Station, southeast of the project study area. In April 2002, NCDOT submitted a summary of costs to the General Assembly. Based on the state's financial status and cost of track improvements, NCDOT recommended delaying the start of passenger train service to western North Carolina (NCDOT 2007).

1.5.1.2 Airports

The Asheville Regional Airport is located south of the City of Asheville and south of the project study area. The Asheville Regional Airport can be accessed from I-26 (via NC 280, known as Airport Road). The airport is operated by the Asheville Regional Airport Authority, which provides available nonstop flights to Atlanta (ATL), Charlotte (CLT), Chicago (ORD), Detroit (DTW), Fort Lauderdale (FLL), Newark (EWR), New York (LGA), Orlando Sanford (SFB), Palm Beach (PBI), Punta Gorda/Fort Myers (PGD), and St. Petersburg/Clearwater (PIE). In addition, the airport has general aviation and air cargo flights (Asheville Regional Airport Authority 2018).

In the *2015-2019 National Plan of Integrated Airport Systems* (NPIAS), the Federal Aviation Administration (FAA) classifies this airport as a Commercial Service – Primary – Nonhub (FAA 2014). The airport has one 8,001-foot runway. A replacement runway and taxiway addition is currently under construction and is expected to be completed by the end of 2018 (Asheville Regional Airport Authority 2013).

1.5.1.3 Transit

Public transportation is provided by Asheville Redefines Transit (ART). The ART provides fixed-route bus service throughout the Asheville area, including on and around the University of North Carolina (UNC) Asheville campus, around downtown Asheville, to and from Asheville Regional Airport, to and from Black Mountain, North Carolina, and to and from Weaverville, North Carolina. A total of 18 bus routes are currently (2018) in operation.

Transit outside the City of Asheville is provided by Mountain Mobility and is administered by the Buncombe County Planning and Development's Transportation Division. In addition, paratransit transportation is provided by Mountain Mobility under contract to the Asheville Transit System (ATS). Mountain Mobility also offers "Trailblazer" routes that serve areas of north Buncombe and Black Mountain. Other regional transit connectivity is provided through a link with Apple Country Transit located in Hendersonville. Buses share a common transfer location near the Asheville Regional Airport. Ride sharing is coordinated through the City of Asheville's Transportation Demand Management Program ("Share the Ride"). An additional alternative for commuters is the Hop & Ride program operated by the ATS, which is designed to help commuters south and west of Asheville to avoid hassles associated with parking and driving downtown. Parking is free for riders and the service has targeted destinations at the Biltmore Square Mall and Goodwill Industries. Intercity bus service is provided by Greyhound Lines Incorporated, with a local station on Tunnel Road south of I-240, east of the project area.

1.6 TRANSPORTATION DEMAND

The project area is in Buncombe County and is within the planning jurisdictions of both the City of Asheville and Buncombe County. Documents and data relevant to population and employment trends, land use planning and zoning, and economic development planning for the project area are presented in this section.

1.6.1 POPULATION TRENDS

Asheville and Buncombe County are located in the heart of the Blue Ridge Mountains in western North Carolina. This area is characterized by relatively rugged topography, including rolling hills, high mountain peaks, and occasional alluvial plains. This location has helped the region become a prime destination for tourists, retirees, second-home owners, and distribution-related industries.

The 2018 addendum to the I-2513 Community Impact Assessment Update (CIA) (AECOM 2018c) used US Census tracts and block groups to delineate a study area that best illustrates the demographic characteristics of the community. This study area, called the demographic study

area (DSA), is described in further detail in Chapter 3. Between 2000 and 2010, the DSA experienced population growth of 11.6 percent (see Table 1-1). The population of Asheville grew at a rate of 21.1 percent, while Buncombe County's population increased by 15.5 percent during the same period. In comparison, the population of North Carolina grew by 18.5 percent. Population growth continued between 2010 and 2015 in the DSA, City of Asheville, Buncombe County, and North Carolina, but at a slower rate. The population grew in the DSA by 4.3 percent, in Asheville by 4.1 percent, in Buncombe County by 3.8 percent, and in North Carolina by 3.2 percent.

Table 1-1: Population Trends

Area	Population			Growth (2000-2010)		Growth (2010-2015)	
	2000	2010	2015	Difference	% Change	Difference	% Change
DSA	18,886	21,063	21,960	2,197	11.6%	897	4.3%
Asheville	68,889	83,393	86,789	14,504	21.1%	3,396	4.1%
Buncombe County	206,315	238,318	247,336	32,003	15.5%	9,018	3.8%
North Carolina	8,049,313	9,535,483	9,845,333	1,486,170	18.5%	309,850	3.2%

Source: Minnesota Population Center. National Historical Geographic Information System: Version 11.0 [Database]. Minneapolis: University of Minnesota. 2016. http://doi.org/10.18128/D050.V11.0. Census 2000/Census 2010 Time Series Tables Geographically Standardized

1.6.2 ECONOMIC DEVELOPMENT

1.6.2.1 City of Asheville

In 2004, the City of Asheville formally adopted *A Strategic Plan for the Sustainable Economic Development of the City of Asheville, North Carolina* (City of Asheville 2004). This document recognizes transportation as one of the strengths of the City from a business recruitment and investment perspective. It notes the excellent highway access provided to the area by I-26 and I-40. However, it also notes a concern about the future capacity and quality of the highway system. After mentioning several planned projects that will improve the capacity of the highway system, including the proposed project, the Strategic Plan recommends addressing future capacity improvement needs in the area's long-range transportation plan.

1.6.2.2 Land of Sky Regional Council

The Land of Sky Regional Council, a regional planning and development organization that serves Buncombe, Henderson, Madison, and Transylvania counties, developed the 2015-2019 Comprehensive Economic Development Strategy *(CEDS) (Land of Sky Regional Council 2015). The CED follows guidelines released by the US Economic Development Administration in February 2015. The Land of Sky CEDS is a strategy-driven plan developed by local representatives from private, public, and nonprofit sectors. The plan includes four sections, summary and background of economic conditions in the region; strengths, weaknesses, opportunities, and threats analysis; an action plan, and an evaluation framework. The Land of Sky CEDS aligns with NC Tomorrow, North Carolina's statewide CEDS (North Carolina*

Association of Regional Councils 2017). The 2015-2019 CEDS plan identified challenges along the I-26 corridor in Asheville that present opportunities to responsibly develop affordable housing. Transportation strategies identified in the plan include the integration of transportation with land use decision-making processes and coordinating a Transportation Demand Management (TDM) program within the region.

1.6.2.3 Asheville City Development Plan 2025 (2002)

The *Asheville City Development Plan 2025* outlines long-term growth and development goals and serves as a general guide for the future development of the city and its surrounding planning area (City of Asheville 2002a). The plan touches on key development issues such as the need for smart growth, communication and coordination between all vested parties, land use, transportation, air and water quality, economic development, and development of the downtown area.

The development plan discusses the I-26 Connector and the planning efforts the city undertook in the project development. The location of the I-26 Connector and the widening of the involved portion of I-240 are noted as subjects of considerable public debate. The project concerns noted include impacts on community character, promotion of economic development, loss of businesses and housing, public safety, construction noise and congestion, business access during construction, and further inducement of a sprawling development pattern. The document describes the broad local representation of the CCC that was formed to study these public concerns and provide recommendations for the project.

The recommendations of the CCC for the I-26 Connector were presented to the Asheville City Council and the FBRMPO, and were unanimously approved as clear indicators of community consensus. Recommendations for the project, as listed in the *Asheville City Development Plan 2025* (City of Asheville 2002a), include:

- The alternative alignment concept developed at the Design Forum should receive serious study for inclusion in the project Environmental Impact Statement.
- NCDOT, FHWA, and local citizens should work together as a Committee on Visual Design to develop ideas for bridge design, signage, overpass design, landscaping, and other aesthetic issues that reflect the community's character.
- NCDOT and FHWA should expedite the development of new and updated traffic models for use on the ultimate design of the project, including regional air quality modeling.
- NCDOT and FHWA should explore engineering and signage options to improve the north to east connection of eastbound I-26 traffic with I-40 in an easterly direction as part of this project or a simultaneous project. The specific concerns involve limiting commercial truck through-traffic on I-240 and on lesser classified roadways proximate to residential areas.
- The proposed design should reflect the CCC's general consensus that bicycle and pedestrian connectivity be restored to neighborhoods and the French Broad River while simultaneously exploring traffic calming measures to reduce the vehicular impact on residential streets.

- NCDOT and FHWA should ensure that all interchange design is community sensitive. To achieve this end, it would be helpful to provide artist's renditions of feasible design alternatives for public review.
- NCDOT and FHWA should seriously examine safety issues in project construction and design, including maintenance of traffic during construction and emergency access after construction.
- NCDOT and FHWA should release any unneeded right-of-way at the completion of the project to the City of Asheville to be zoned and used in accordance with a land use plan to be developed by the City in cooperation with NCDOT.
- NCDOT and FHWA should keep the I-26 Connector project on its current or, preferably, expedited schedule.

In 2018, the City of Asheville adopted the Asheville City Development Plan 2025 with Living Asheville, A Comprehensive Plan for Our Future *(City of Asheville 2018). The plan reiterates the themes of the 2025 plan and notes the city should continue to monitor the potential impacts of the I-26 Connector and the potential need to think strategically about development and redevelopment in the nearby vicinity.*

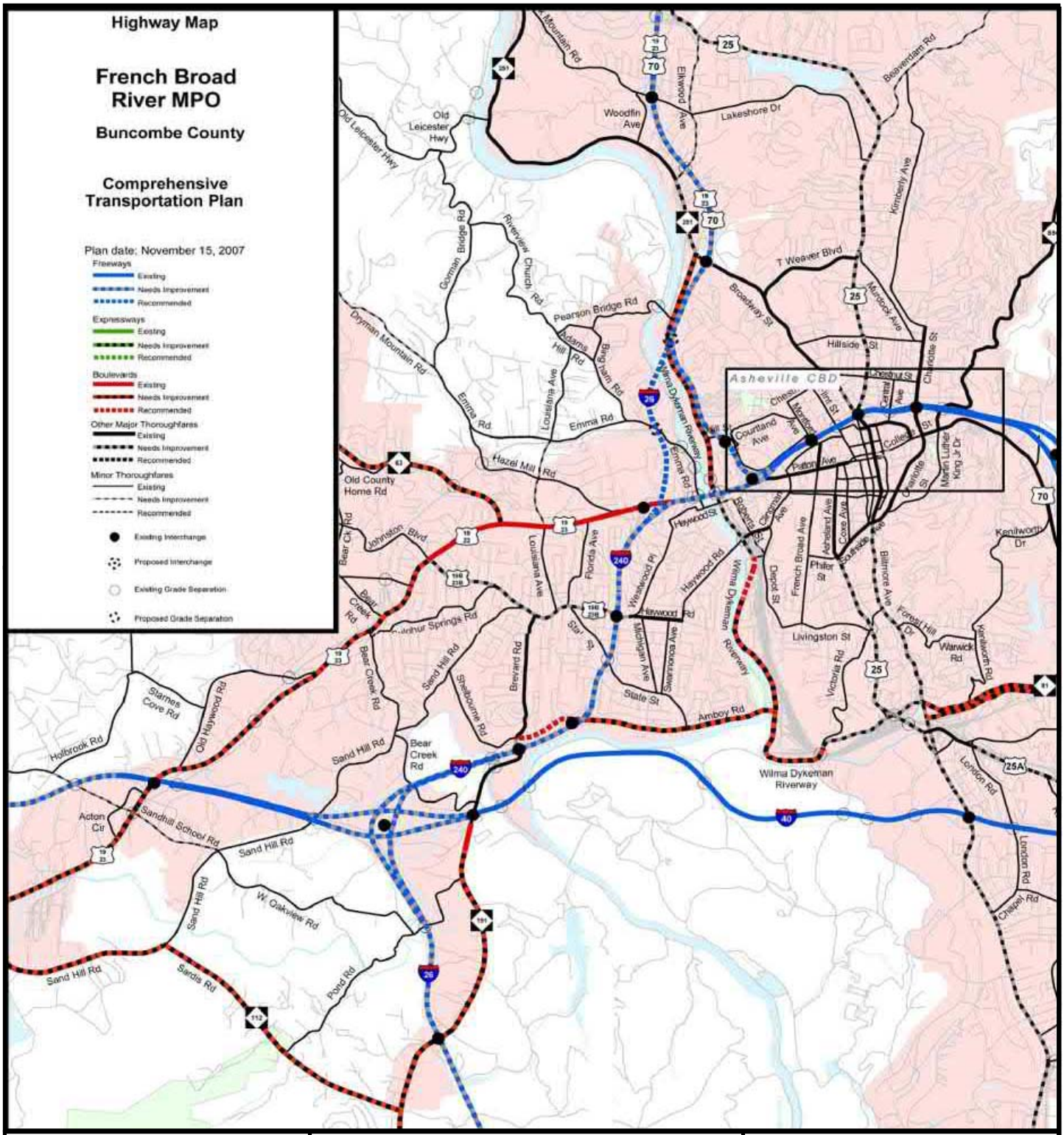
1.7 TRANSPORTATION PLANNING

Construction of the proposed project would add a critical segment to the previously committed long-range transportation system for the region. The project would be consistent with the long-range transportation goals and objectives of the NCDOT STIP, the North Carolina Highway Trust Fund Act, the North Carolina Transportation Network (NCTN), STC Policy, and the FBRMPO TIP.

1.7.1 LOCAL AND REGIONAL PLANS

1.7.1.1 Comprehensive Transportation Plan for the French Broad River MPO and Rural Areas of Buncombe and Haywood Counties (2008)

The proposed project is included in the *Comprehensive Transportation Plan for the French Broad River MPO and Rural Areas of Buncombe and Haywood Counties* completed by the NCDOT Transportation Planning Branch and adopted by the FBRMPO on November 15, 2007, and by NCDOT on January 10, 2008 (NCDOT 2008). The Comprehensive Transportation Plan supersedes the *Asheville Urban Area Thoroughfare Plan* adopted in 1994, with documentation completed in April 1996 (NCDOT 1996). The Comprehensive Transportation Plan includes the proposed project as a freeway from I-40 to Broadway that includes widening to six or eight lanes and construction of a connector on new alignment. Figure 1-7 shows the Comprehensive Transportation Plan Highway Map adopted under this plan.



North Carolina
Department of Transportation

Date: May 2018

Note: Figure Not To Scale

I-26 Asheville Connector
Buncombe County

STIP Project No. I-2513

Figure 1-7

2007 FBR MPO
Comprehensive
Transportation Plan

1.7.1.2 Asheville in Motion Mobility Plan (2016)

The Asheville in Motion: City of Asheville Mobility Plan*, adopted in 2016, is an expression of the local mobility strategy as opposed to the regional focus of the FBRMPO and the state focus of NCDOT (City of Asheville 2016). The mobility plan outlines needs exclusive to the Asheville area and aligns itself with other Asheville policies and goals from local plans. One such plan is the* Wilma Dykeman RiverWay Plan*, which recommends constructing the I-26 Connector to provide a connection between downtown and the River Arts District (RiverLink 2004).*

The goal of the Asheville in Motion: City of Asheville Mobility Plan *is to identify the multi-modal needs of Asheville and create strategies for addressing those needs. Within this plan are four plan frameworks highlighting pedestrian, bicycle, greenway, and transit issues. The recommendations that resulted include requiring multi-modal on new development, using a variety of bicycle facilities to promote connectivity, focusing transit efforts in town so that frequency is increased and more user friendly during peak hours, and connecting more residential neighborhoods to greenway facilities. Within the project study area, the Haywood Road corridor is noted as a priority corridor to increase bicycle facilities to enhance community vibrancy and increase vehicular activity.*

1.7.1.3 GroWNC Regional Plan (2017)

The GroWNC Regional Plan*, adopted in 2017, covers a five county region: Buncombe, Haywood, Henderson, Madison, and Transylvania counties. The planning processes began in 2011 after the region received a $1.6 million grant from the Department of Housing and Urban Development (HUD) through the Partnership for Sustainable Communities. The purpose of the plan is to offer recommendations for planning efforts along the lines of incorporating land use, economic development, workforce development, transportation, and other infrastructure investments through the Southern Appalachian region. The I-26 corridor is listed as a major regional corridor within the GroWNC region and notes its importance to the economy of the region for the movement of goods through the five counties (GroWNC 2017).*

1.7.1.4 French Broad River MPO Metropolitan Transportation Plan 2015-2040 (2015)

At the time of publication of the DEIS, the proposed project was included in the 2035 Long Range Transportation Plan *(2035 LRTP) adopted on September 23, 2012 (FBRMPO 2012). The updated plan, called the* 2040 Metropolitan Transportation Plan (MTP) *(2040 MTP), was adopted in September 2015 (FBRMPO 2015). The 2040 MTP is the guiding document for future investments in transportation-related activities and services—roads, transit services, aviation, bicycle and pedestrian facilities—to match anticipated growth in the western North Carolina region. It plans for the next 25 years of transportation projects, from 2015 to 2040. The main goals of this plan are to develop and maintain a safe and efficient system for transportation, and to enhance the environment and livability of the area by providing an optimum level of service, choice, mobility, convenience, and energy efficiency. Further, the plan calls for the promotion of aesthetic treatments and improvements along the I-26 Corridor through Asheville, and modeled proposed widening to eight lanes and the identification of other transportation projects with a direct*

relationship to the I-26 Corridor. The project is consistent with the long-range transportation goals and objectives of the FBRMPO (FBRMPO 2015).

1.7.1.5 Coordinated Public Transportation and Human Services Transportation Plan (2008)

The FBRMPO developed a plan to better coordinate the human services transportation activities (FBRMPO 2008). The plan evaluates the barriers to coordinated public transportation on the regional level and provides recommendations on how to overcome these barriers. The plan includes an evaluation of demographics, an inventory of public transportation and community services, a needs assessment and prioritization of needs, and detailed recommendations. The following recommendations affect the project study area for the I-26 Connector project:

- High-frequency local service along major corridors, including west of Asheville via Patton Avenue and Haywood Road
- Express bus service along I-26 to Hendersonville and points south

1.7.2 STATEWIDE PLANS

1.7.2.1 NCDOT 2040 Plan (Long-Range Transportation Plan)

The North Carolina Board of Transportation adopted an updated long-range transportation plan in August 2012 to help guide the state's future transportation investments. Called the 2040 Plan, the document provides a 30-year transportation blueprint for the state (North Carolina Board of Transportation 2012).

While not project specific, the 2040 Plan stipulates that NCDOT's highest priorities are ensuring safety, preserving existing transportation systems, and focusing on services and facilities with statewide significance. The plan further calls for the state to invest in initiatives that promote economic opportunities and allow increased flexibility at the local level.

The comprehensive two-year effort included identifying statewide transportation systems' resources and needs and working with local governments to identify local transportation needs, all to ensure that North Carolina's transportation systems remain safe and are less congested and freight keeps moving to enhance the state's economy. Estimating funding availability over the next 30 years, and potential funding sources to help meet the state's needs, were also part of the 2040 Plan.

1.7.2.2 NCDOT State Transportation Improvement Program (2018)

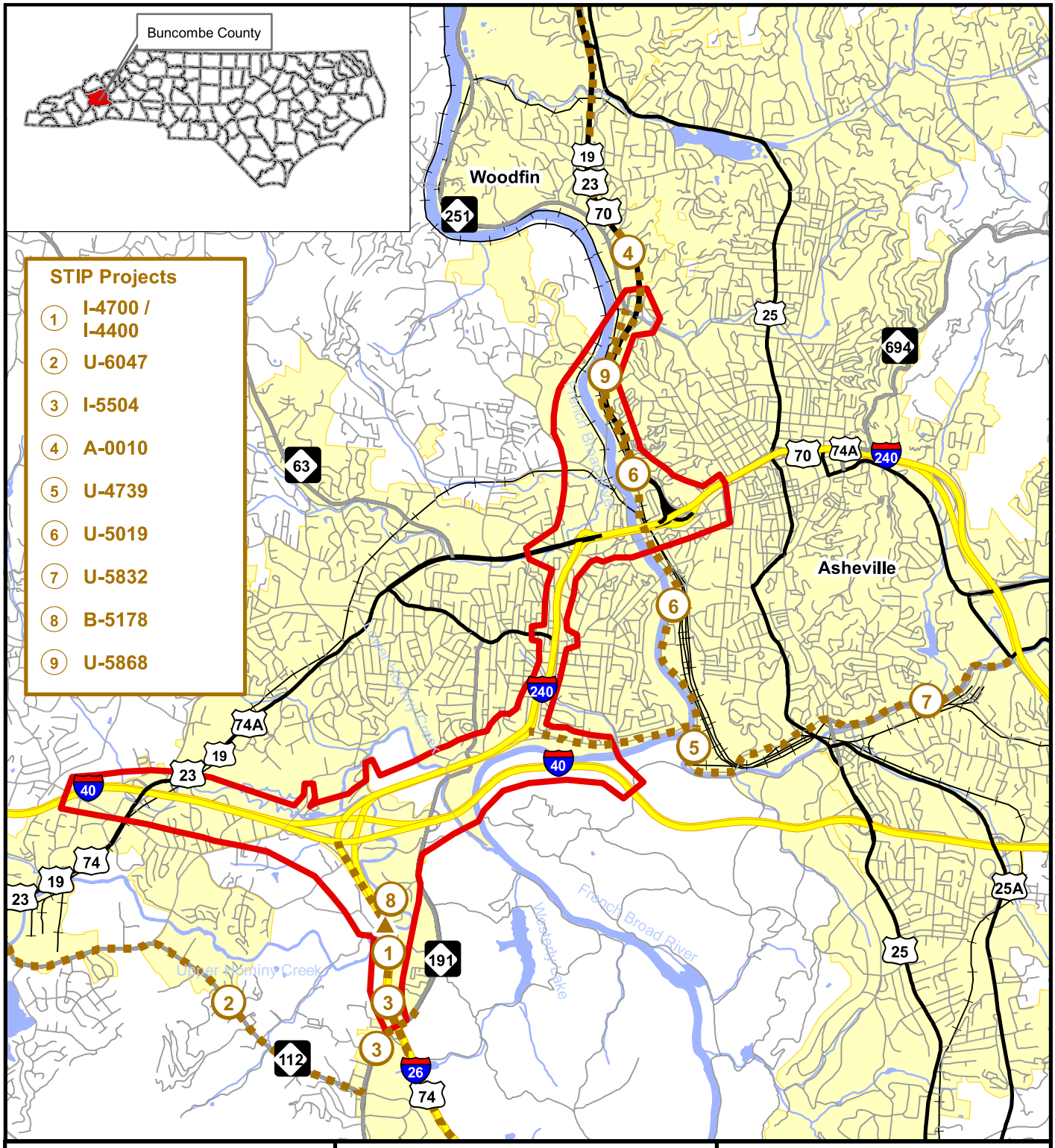
The proposed project is included in NCDOT's 2018-2027 STIP (NCDOT 2017) as project I-2513. The STIP indicates that the proposed project would be a 4.7-mile multi-lane freeway, part on new location from I-26 to US 19-23-70. Right-of-way acquisition and construction for all sections are scheduled for fiscal year 2020. STIP projects in and around the vicinity of this project are listed in Table 1-2. The general locations of the STIP projects are shown on Figure 1-8.

Table 1-2: Other STIP Projects in the Vicinity of the Project Study Area

STIP No. [a]	*Description*	*Schedule – Fiscal Year*	*Number on Figure 1-8*
I-4700	*I-26 – From NC 280 to I-40 at Asheville. Add additional lanes.*	*Right-of-way - 2018* *Construction – 2019*	*1*
I-4400	*US 25 (Exit 54) to NC 280 (Exit 40). Widen to add additional lanes.*	*Right-of-way – 2018* *Construction - 2019*	*1*
U-6047	*NC 191 (Brevard Road) to US 19/23 (Smokey Park Highway). Widen roadway*	*Right-of-way – 2022* *Construction – 2025*	*2*
I-5504	*NC 191 (Brevard Road). Upgrade interchange.*	*Under Construction*	*3*
A-0010A	*I-26 – I-240 in Asheville to Tennessee State Line at Sam's Gap. Multi-lane freeway, part on new location. Coordinate with STIP Project B-4442, B-4443, and B-4444.*	*Right-of-way (AA) – 2020* *Construction (AA) – 2020* *A-10AB & AC - unfunded* *Projects A-10B,C and D – complete*	*4*
U-4739	*I-240 to US 25 (Biltmore Avenue). Wide to multi-lanes with new bridge over the French Broad River.*	*Right-of-way – 2022* *Construction – 2025*	*5*
U-5019	*Wilma Dykeman RiverWay in Asheville.*	*Under Construction*	*6*
U-5832	*SR 3214 (Biltmore Avenue) to US 74A (South Tunnel Road). Widen existing roadway.*	*Right-of-way – 2020* *Construction – 2022*	*7*
B-5178	*Replace bridge 100235 and Bridge 100238 over SR 3431 (Pond Road) and Hominy Creek.*	*Right-of-way – 2019* *Construction – 2020*	*8*
U-5868	*Riverside Drive – NC 251 (Broadway) to I-40/SR 1231 (Hill Street) – Widen Roadway*	*Right-of-way – 2020* *Construction - 2020*	*9*
I-4759	*I-40 – I-40/SR 1228 (Liberty Road). Convert Grade Separation to an interchange and construct two lane roadway, US 19/US 23/NC 151 to SR 1224 with part on new location.*	*Right-of-way – 2018* *Construction – 2020*	*Outside map view.*

Source: NCDOT 2017.

[a] *I – Interstate Projects. A – Appalachian Projects. U – Urban Projects. E – Enhancement Projects.*



North Carolina Department of Transportation

Legend

- STIP Project Points
- STIP Projects
- Project Study Area
- Interstate
- US Highway
- State Highway
- State Route
- Local Road
- Railroad
- Streams (non-delineated)
- Water
- Municipal Boundary

Date: May 2018

N W E S

0 0.5 1 Miles

I-26 Asheville Connector
Buncombe County

STIP Project No. I-2513

Figure 1-8

STIP Projects in the Vicinity of I-2513

1.8 TRAFFIC CAPACITY

1.8.1 EXISTING TRAFFIC CAPACITY ANALYSIS

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.*

1.8.1.1 Existing Roadway Characteristics

The existing roadway network that was analyzed for the proposed project includes the major transportation facilities within the project study area as listed in Table 1-3.

Table 1-3: Existing Roadway Characteristics

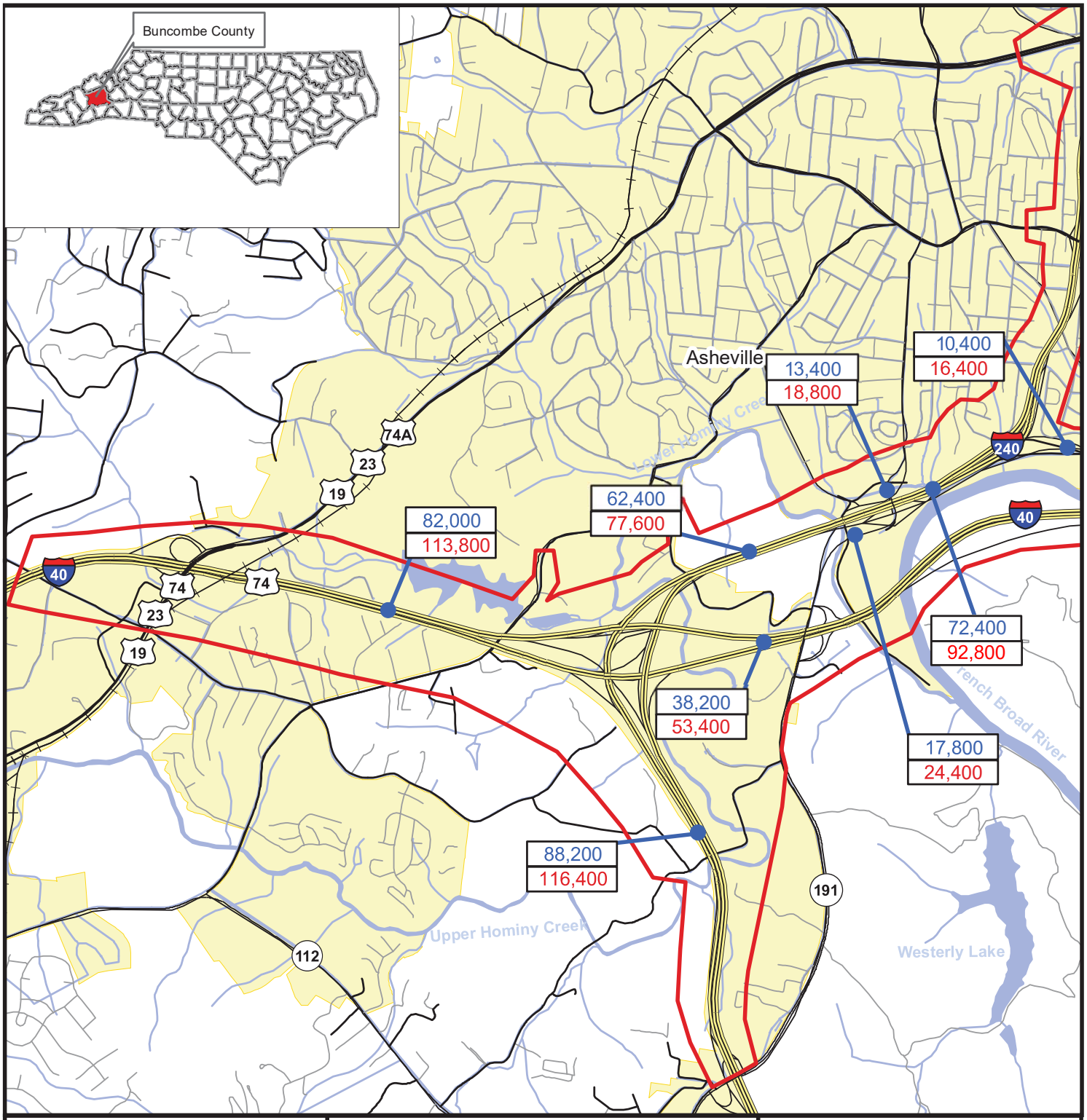
Roadway Name	Classification	Posted Speed Limit	Typical Section
I-40 – NC 191 to US 19-23-74	Freeway	60 mph	4-lane Divided
I-26 – NC 191 to I-40/I-240	Freeway	60 mph	4-lane Divided
I-240 – I-26/I-40 to Haywood Road	Freeway	55 mph	4-lane Divided
I-240 – Haywood Road to Patton Avenue	Freeway	50 mph	4-lane Divided
I-240 – Patton Avenue to US 19-23-70	Freeway	50 mph	6-lane Divided

Source: URS 2015i.

1.8.1.2 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). The ADT volumes for existing roadways within the project study area are shown on Figure 1-9 and Figure 1-10.*

Existing traffic volumes on I-240 range from 62,000 AADT to 102,800 AADT, and volumes on US 19-23-70 range from 57,600 AADT to 65,800 AADT. The existing volumes on I-40 range from 38,200 AADT to 82,000 ADT within the project study area. The existing volume on I-26 as it approaches I-40 is 88,200 AADT.



North Carolina Department of Transportation

I-26 Asheville Connector
Buncombe County

STIP Project No. I-2513

Legend

- Interstate
- US Highway
- NC Highway
- State Route
- Local Road
- Railroad
- Streams (non-delineated)
- Project Study Area
- Municipal Boundaries
- Water
- 2015 Existing Average Daily Traffic
- 2040 No-Build Average Daily Traffic

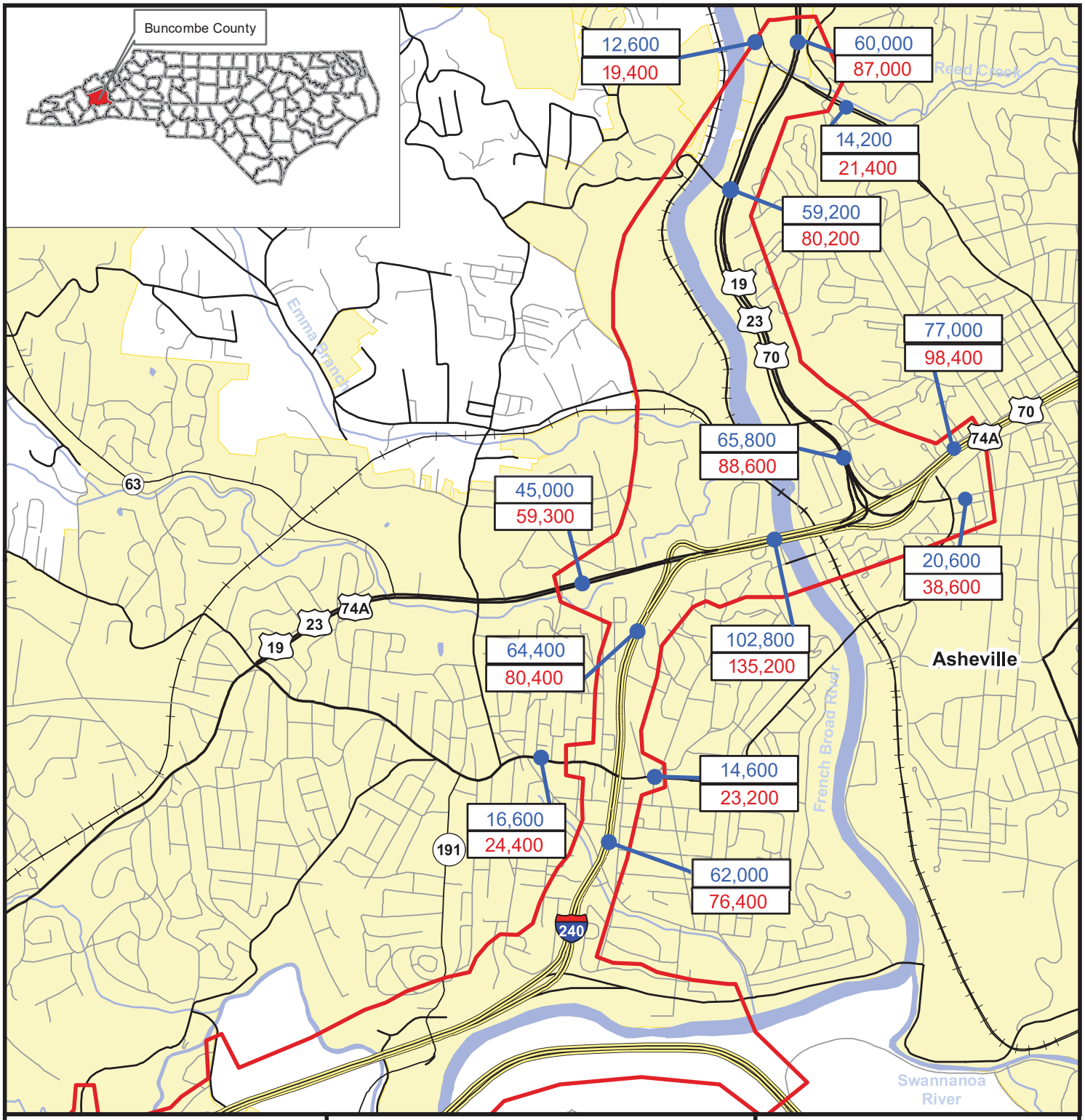
Date: July 2016

N W E S

0 0.25 0.5 Miles

Figure 1-9

2015 Existing/ 2040 No-Build Average Daily Traffic



North Carolina
Department of Transportation

Legend

- Interstate
- US Highway
- NC Highway
- State Route
- Local Road
- Railroad
- Streams (non-delineated)
- Project Study Area
- Municipal Boundaries
- Water
- 2015 / 2040 — Existing Average Daily Traffic / No-Build Average Daily Traffic

Date: July 2016

N W E S

0 0.25 0.5 Miles

I-26 Asheville Connector
Buncombe County

STIP Project No. I-2513

Figure 1-10

2015 Existing/ 2040 No-Build Average Daily Traffic

1.9 ROADWAY DEFICIENCIES

Congress, in 23 Code of Federal Regulations (CFR) Section 109, established that the geometric and construction standards to be adopted for the interstate system shall be those approved by the Secretary of the US Department of Transportation (USDOT) 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 20-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. FHWA adopted, in 23 CFR 625.4(a), the American Association of State Highway Officials (AASHTO) *A Policy on Design Standards – Interstate System* (AASHTO 2005) and AASHTO's *A Policy of Geometric Design of Highways and Streets* (AASHTO 2001) as design standards for freeways on the interstate system.

NCDOT surveyed interstates in the project area to identify existing roadway deficiencies that do not meet design standards associated with interstate freeways. Table 1-4 and Figure 1-22 show the existing roadway deficiencies identified on sections of I-40, I-26, I-240, and US 19-23-70 within the project study area that do not meet current design standards for interstate freeways.

1.10 TRAFFIC SAFETY ANALYSIS

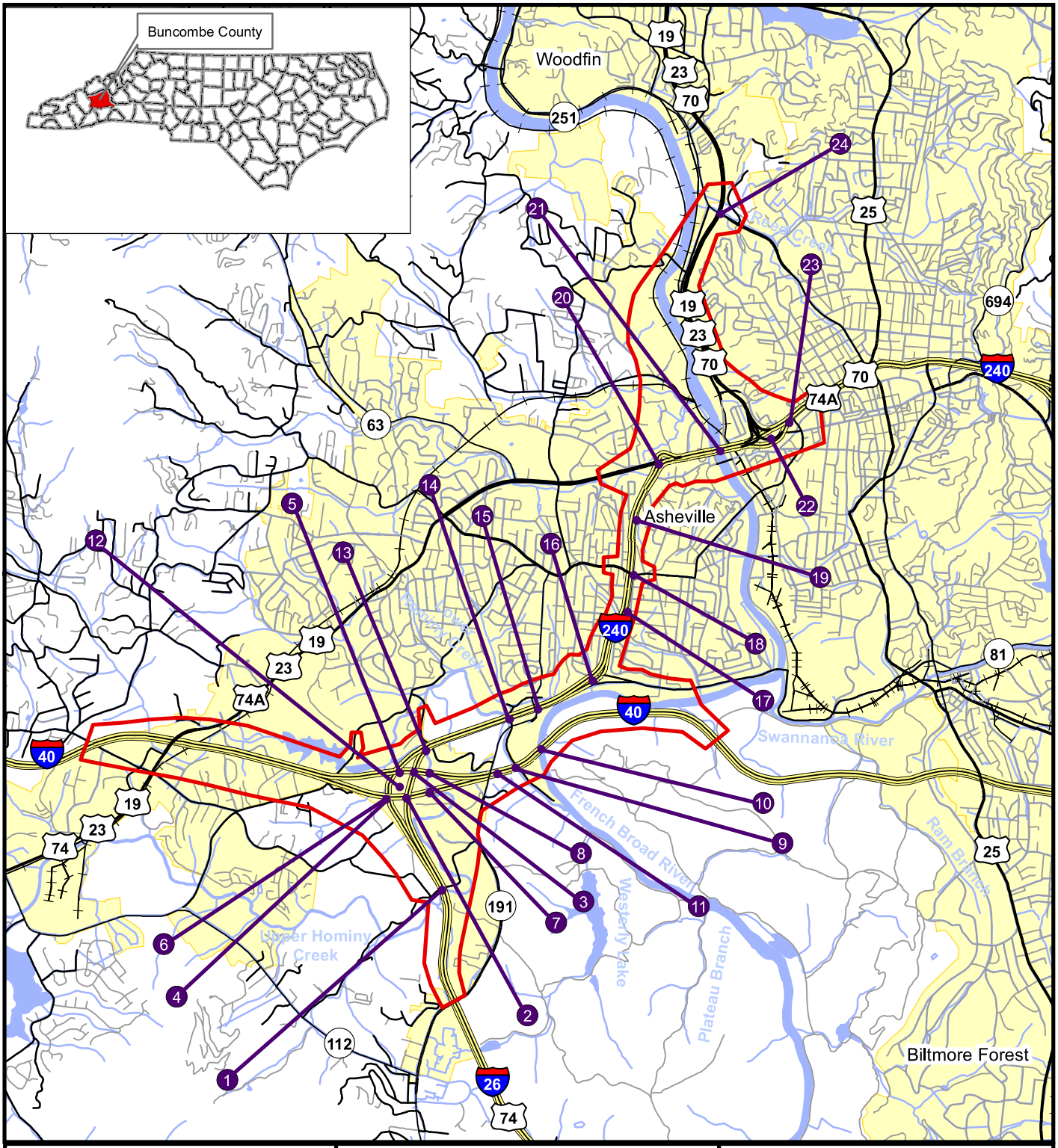
This section presents a summary of the traffic safety analysis for the proposed project (AECOM 2018d). The analysis included major roadway segments that the proposed project would potentially affect. The segments analyzed within the project study area included 2,736 crashes, of which 12 resulted in a fatality and 4 involved pedestrians or cyclists, for the period from February 1, 2013, to January 31, 2018. The accident rates for each corridor were compared to the statewide average for similar roadway types to determine whether the segment exceeded the statewide average. The simple comparison of the roadway crash rate versus the statewide average crash rate identifies more than one-half of all locations as having a potential highway safety concern. A more appropriate method is the critical crash rate method. The critical crash rate is a statistically derived number, which is greater than the average crash rate, that can be used to identify locations where crash occurrence is higher than expected for a given facility type. Safety measures could be considered for locations identified in this manner. For planning purposes the confidence level used to calculate the critical crash rate is 99.95 percent. The critical crash rate is beneficial because it accounts for exposure (vehicle miles traveled [VMTs]) and the statewide crash rate. In essence, if a segment receives more exposure than another segment, the lower the critical crash rate can be because of the added data. If a segment has an actual crash rate higher than the critical rate, the location may have a potential highway safety deficiency and should receive additional analysis.

Table 1-5 and Figure 1-12 display each corridor analyzed and identify whether it exceeds the statewide average crash rate and the critical crash rate for a similar roadway type and configuration.

Table 1-4: Roadway Deficiencies within the Existing Roadway Network

Location No.	Roadway Segment	Deficient Element(s)
1	I-26 over SR 3431 (Pond Road)	Bridge Width and Horizontal Clearance
2	I-26 WB over I-40 EB	Bridge Width and Horizontal Clearance
3	I-26 WB over I-40 WB	Bridge Width and Horizontal Clearance
4	I-26 EB over I-40 EB	Bridge Width and Horizontal Clearance
5	I-26 EB over I-40 WB	Bridge Width and Horizontal Clearance
6	I-26 WB ramp to I-40 WB	Bridge Width and Horizontal Clearance
7	I-40 EB over Upper Hominy Creek	Bridge Width and Horizontal Clearance
8	I-40 WB over Upper Hominy Creek	Bridge Width and Horizontal Clearance
9	I-40 over Lower Hominy Creek	Bridge Width and Horizontal Clearance
10	I-40 over French Broad River	Bridge Width and Horizontal Clearance
11	I-40/NC 191 (Brevard Road) Interchange	Speed Change Lanes
12	I-26/I-40/I-240 Interchange	Interchanges, Vertical Clearance and Left-hand Entrances/Exits
13	I-240 over Upper Hominy Creek	Bridge Width and Horizontal Clearance
14	I-240 over Lower Hominy Creek	Bridge Width and Horizontal Clearance
15	I-240/NC 191 (Brevard Road) Interchange	Speed Change Lanes, Vertical Alignment, Stopping Sight Distance, Vertical Alignment, Curbs, Shoulder Width and Horizontal Clearance
16	I-240/SR 3556 (Amboy Road) Interchange	Interchanges, Grade, Vertical Alignment, Curbs, Left-hand Entrances/Exits, Shoulder Width and Horizontal Clearance
17	I-240/State Street grade separation area	Vertical Alignment, Bridge Width and Horizontal Clearance
18	I-240/US 19-23 Business (Haywood Road) Interchange	Control of Access, Interchanges, Vertical Clearance, Vertical Alignment, Curbs, Shoulder Width and Horizontal Clearance
19	I-240/US 19-23 Business (Haywood Road) Interchange area	Vertical Alignment
20	I-240/US 19-23-74A/Patton Avenue Interchange	Left-hand Entrances/Exits, Horizontal Alignment, Grade, Vertical Clearance, Vertical Alignment, Horizontal Clearance, Shoulder Width, Grade, Curbs and Stopping Sight Distance
21	I-240 Captain Jeff Bowen Bridges	Bridge Width, Horizontal Clearance, Vertical Alignment and Stopping Sight Distance, Shoulder Width and Curbs
22	I-240/US 19-23-70/Patton Avenue Interchange	Interchanges, Left-hand Entrances/Exits, Speed-Change Lanes, Vertical Clearance, Grade, Curbs, Shoulder Width, Bridge Width and Horizontal Clearance
23	Pedestrian bridge over I-240	Vertical Clearance
24	US 19-23-70/SR 1781 (Broadway) Interchange	Speed-Change Lanes

Source: *Roadway Deficiencies Assessment* (URS 2015g).



North Carolina
Department of Transportation

Legend

- Interstate
- US Highway
- NC Highway
- State Route
- Local Road
- Railroad
- Streams (non-delineated)
- **Project Study Area**
- Water
- Municipal Boundary
- **Roadway Deficiency**

Date: January 2015

0 0.5 1 Miles

I-26 Asheville Connector
Buncombe County

STIP Project No. I-2513

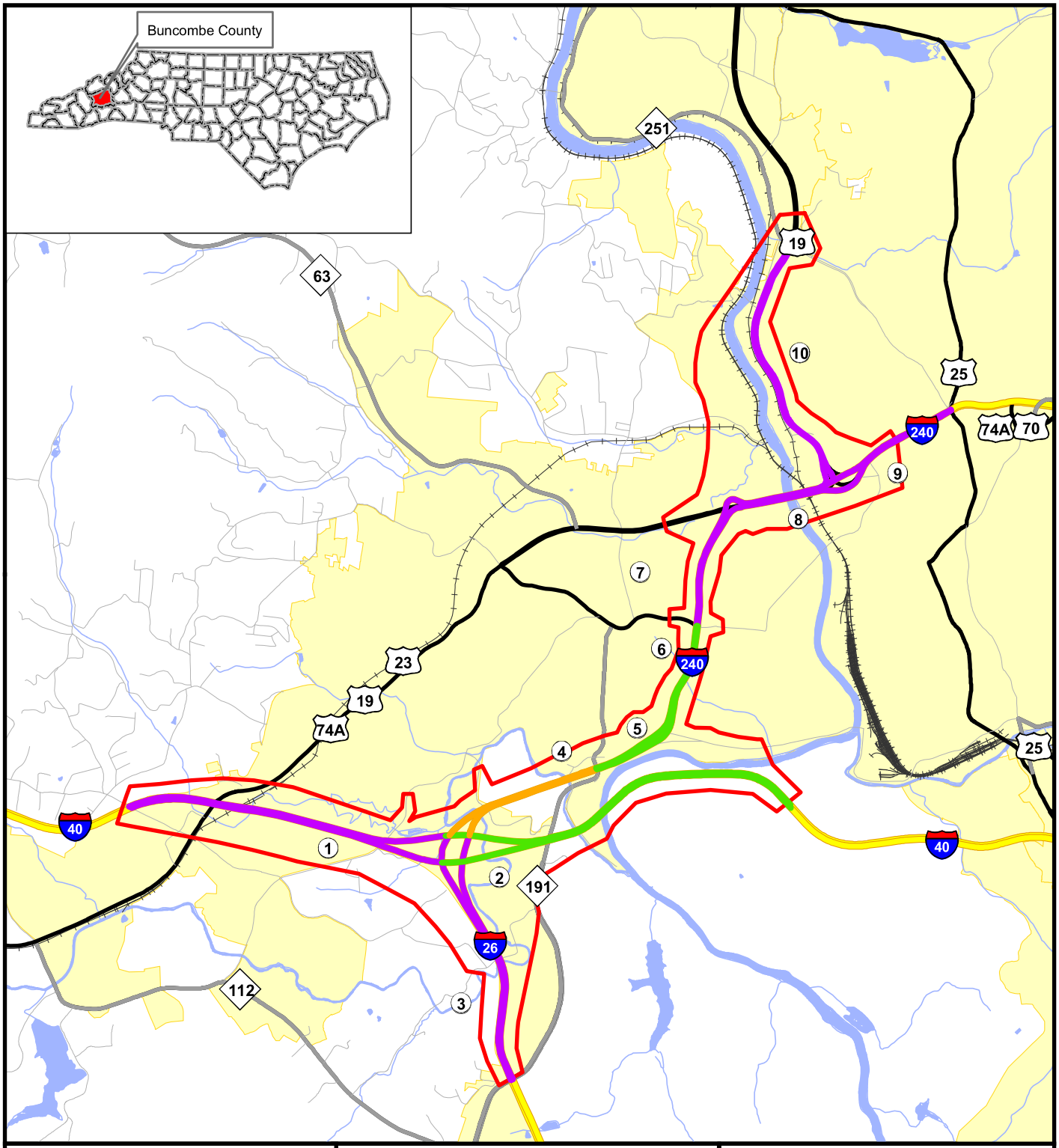
Figure 1-11

Roadway Deficiencies Summary

Table 1-5: Accident Analysis – Comparison to Statewide Average and Critical Crash Rate

Segment Number	*Roadway*	*From/To*	*2013-2018 Total Crash Rate*	*2013-2015 Statewide Crash Rate*	*Critical Crash Rate*	*Exceeds*
1	*I-40*	*SR 1224 (Monte Vista Road) to I-40/I-240*	*155.8*	*109.14*	*119.58*	*Statewide/ Critical*
2	*I-40*	*I-26/I-240 to Winery Road*	*76.33*	*109.14*	*121.45*	*None*
3	*I-26*	*I-40/I-240 to NC 191 (Brevard Road)*	*144.76*	*109.14*	*120.67*	*Statewide/ Critical*
4	*I-240*	*I-40/I-26/US 74 to NC 191 (Brevard Road)*	*120.64*	*109.14*	*126.72*	*Statewide*
5	*I-240*	*NC 191 (Brevard Road) to SR 3556 (Amboy Road)*	*87.02*	*109.14*	*131.55*	*None*
6	*I-240*	*SR 3556 (Amboy Road) to US 19 Bus./SR 3548 (Haywood Road)*	*103.17*	*109.14*	*129.30*	*None*
7	*I-240*	*US 19-23 Bus./SR 3548 (Haywood Road) to US 19-23-74A/Patton Avenue*	*245.91*	*109.14*	*126.68*	*Statewide/ Critical*
8	*I-240*	*US 19-23-74A(Patton Avenue) to US 19-23-70*	*816.97*	*109.14*	*127.8*	*Statewide/ Critical*
9	*I-240*	*US 19-23-70 to US 25 (Merrimon Avenue/Broadway)*	*215.54*	*109.14*	*123.27*	*Statewide/ Critical*
10	*US 19-23-70*	*NC 251/SR 1781 (Broadway) to I-240*	*114.11*	*83.08*	*93.82*	*Statewide/ Critical*

Source: AECOM 2018d.



North Carolina Department of Transportation

Legend

- Does Not Exceed Statewide or Critical Crash Rates
- Exceeds Statewide Crash Rates
- Exceeds Statewide and Critical Crash Rates
- Expanded Project Study Area
- # Analysis Segment
- Interstate
- US Highway
- State Highway
- State Route
- Railroad
- Streams (non-delineated)
- Water
- Municipal Boundary

Date: March 2018

N W E S

0 0.5 1 Miles

I-26 Asheville Connector
Buncombe County

STIP Project No. I-2513

Figure 1-12

Crash Analysis Locations and Total Crash Rate Results

Six of the ten segments analyzed within the project study area resulted in total crash rates exceeding both the statewide average crash rate for similar facilities and the critical crash rate. One of the ten segments analyzed within the project study area resulted in total crash rates exceeding the statewide average crash rate. The analysis completed for the 2015 DEIS using crash data from 2009 to 2012 resulted in 6 of 11 segments analyzed exceeding both the statewide average crash rate for similar facilities and the critical crash rate. NCDOT's most recent data confirms that these same three segments still exceed the statewide average crash rate and critical crash rate.

The first segment that exceeded both the statewide and critical rates was along I-40 from SR 1224 (Monte Vista Road) to I-26/I-240 (Segment #1). The segment had a total of 437 crashes, including 265 rear-end collisions due to a vehicle being stopped or slowed down (61 percent of total) and 75 crashes involving sideswipes (17 percent of total).

The second segment that exceeded both the statewide and critical rates was along I-26 from I-40/I-240 to NC 191 (Brevard Road) (Segment #3). The segment had a total of 334 crashes, including 123 rear-end collisions due to a vehicle being stopped or slowed down (37 percent of total) and 111 crashes involving sideswipes (33 percent of total).

The third segment that exceeded both the statewide and critical rates was along I-240 from just north of US 19-23 Business/SR 3548 (Haywood Road) to US 19-23-74A (Patton Avenue) (Segment #7). The segment had a total of 250 crashes, including 78 rear-end collisions due to a vehicle being stopped or slowed down (31 percent of total) and 49 crashes involving sideswipes (20 percent of total).

The fourth segment that exceeded both the statewide and critical rates was along I-240 from just north of US 19-23-74A (Patton Avenue) to US 19-23-70 (Segment #8). The crash rate for this segment is over six times the calculated critical crash rate. The segment had a total of 736 crashes, including 465 rear-end collisions due to a vehicle being stopped or slowed down (63 percent of total) and 159 crashes involving sideswipes (22 percent of total).

The fifth segment that exceeded both the statewide and critical rates was along I-240 from just north of US 19-23-70 to US 25 (Merrimon Avenue/Broadway) (Segment #9). The segment had a total of 334 crashes, including 232 rear-end collisions due to a vehicle being stopped or slowed down (70 percent of total) and 56 crashes involving sideswipes (17 percent of total).

The sixth segment that exceeded both the statewide and critical rates was along US 19-23-70 from just south of NC 251 (Broadway/Riverside Drive) to just north of I-240 (Segment #10). The segment had a total of 233 crashes, including 138 rear-end collisions due to a vehicle being stopped or slowed down (59 percent of total) and 41 crashes involving sideswipes (18 percent of total).

The presence of multiple segments within the project study area exceeding both the statewide and critical crash rates demonstrates the need to evaluate the corridor and determine whether the segments have a safety deficiency. Based on an analysis of the types of crashes for the

segments that exceed the critical crash rate, the majority of the accidents are rear-end collisions due to a vehicle being stopped or slowed. This type of collision is typically associated with transitioning from freeway to non-freeway segments, congestion and merging, and diverging and weaving traffic movements.