

**PURPOSE AND NEED  
AND  
ALTERNATIVES CONSIDERED FOR I-26 IMPROVEMENTS**

From US 25 in Hendersonville in Henderson County to  
I-40/I-240 in Buncombe County

Henderson and Buncombe Counties

STIP Project I-4400/I-4700

North Carolina Department of Transportation



**MERGER CONCURRENCE POINTS 1 AND 2**

**June 20, 2013**

[REVISED PER MERGER TEAM COMMENTS]



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## 1. INTRODUCTION

The North Carolina Department of Transportation (NCDOT), in cooperation with the Federal Highway Administration (FHWA), proposes transportation improvements to a segment of the I-26 corridor from US 25 in Henderson County, north to I-40 in Buncombe County. In September 2012, a Merger Screening Meeting was held. The consensus at that meeting was that the project should follow the Merger 01 process but could be removed from the process in the future, if appropriate. As such, this document is intended to include the information necessary for Merger Team members to make a determination for Concurrence Point Number 1: Project Purpose and Need as well as Concurrence Point Number 2: Preliminary Alternatives to be Studied in Detail.

This document includes the following sections: 1) Introduction, 2) Merger Concurrence Point 1 – Purpose and Need, 3) Merger Concurrence Point 2 – Alternatives Considered, 4) Project Schedule, and 5) Merger Project Team Agreement Signature Forms.

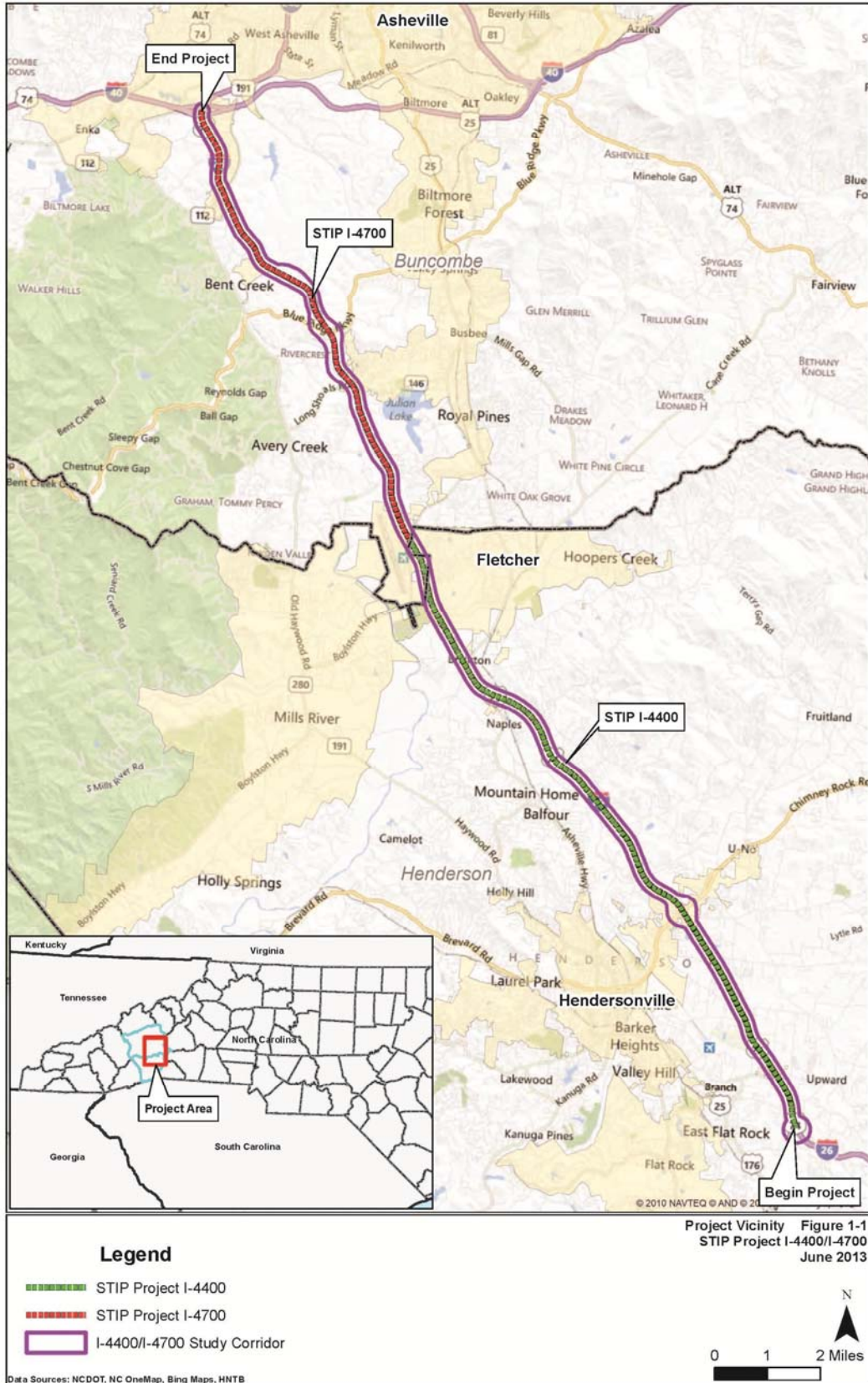
### 1.1 PROJECT BACKGROUND

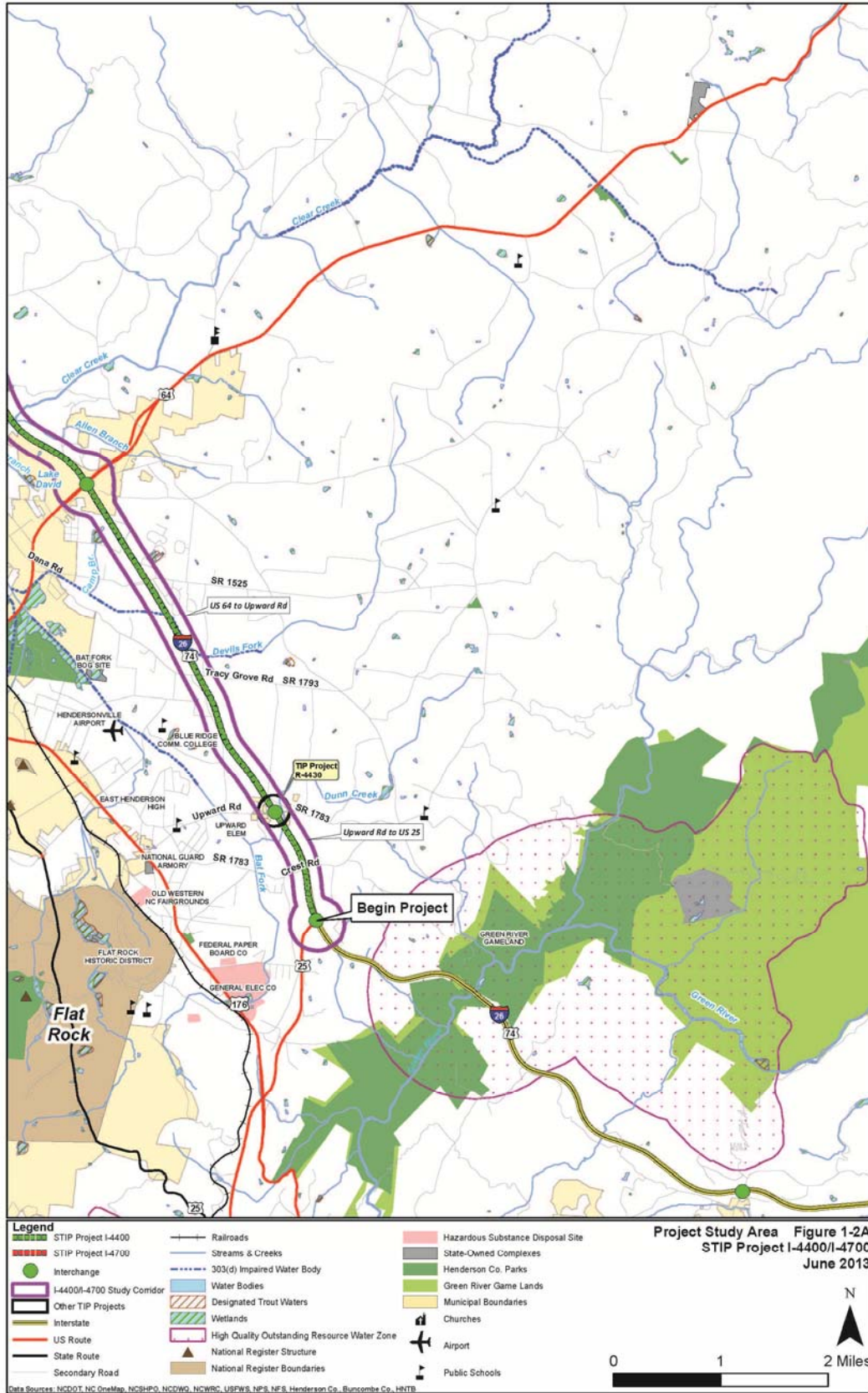
#### 1.1.1 Project Setting

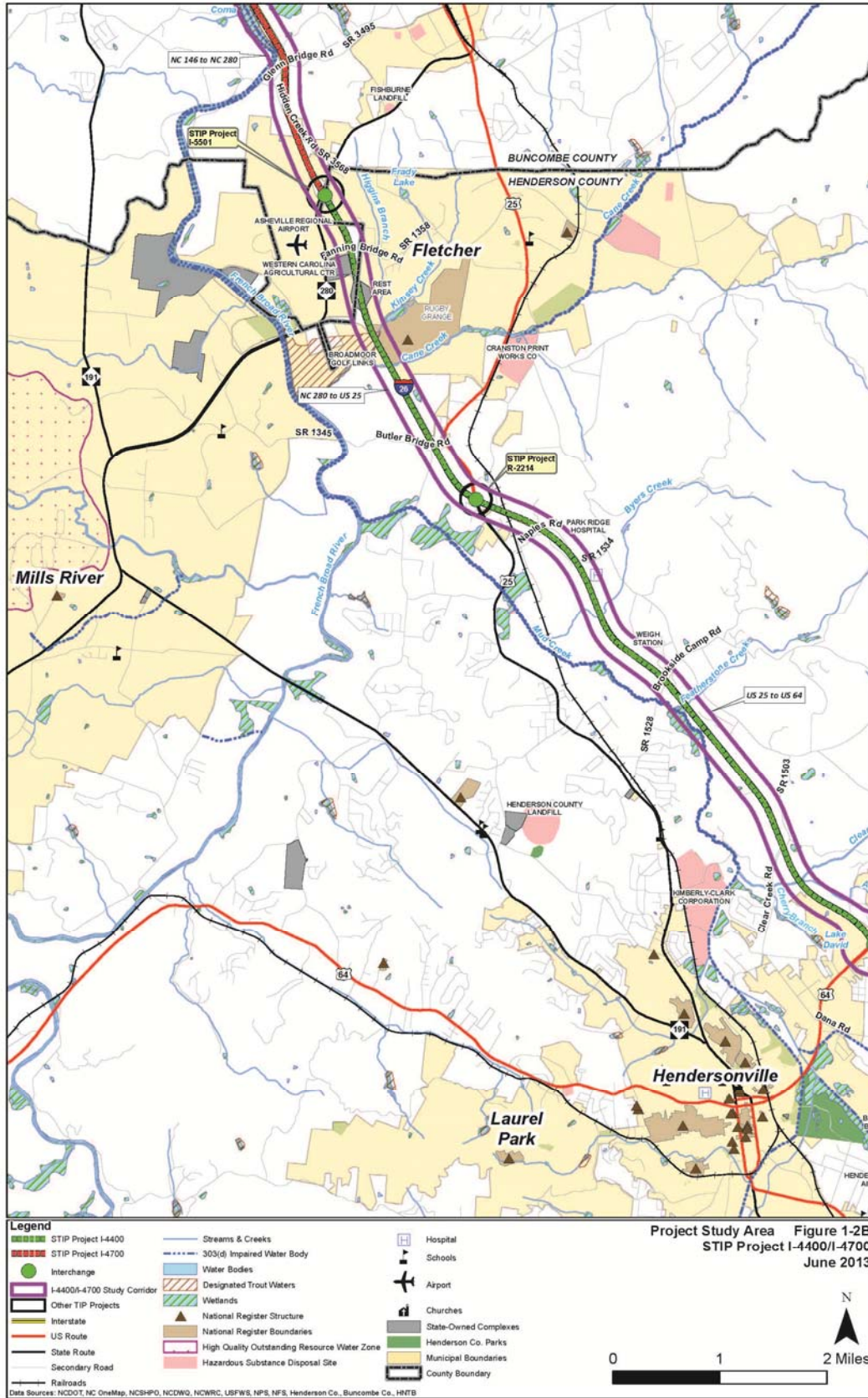
The project is located in northern Henderson County, just south of Hendersonville, and southern Buncombe County, just south of Asheville. **Figure 1-1** shows the general project vicinity. The Town of Fletcher is also in the nearby vicinity. The project study area boundaries consist of a generally 1,400ft wide corridor that follows existing I-26 along its footprint from US 25 in Henderson County, north to I-40 in Buncombe County. Expanded study areas have been included around interchanges incorporated into the I-26 project study as well as expanded study area around the Blue Ridge Parkway bridge, which has also been included in the project study. **Figures 1-2A, 1-2B, and 1-2C** illustrate the project study area.

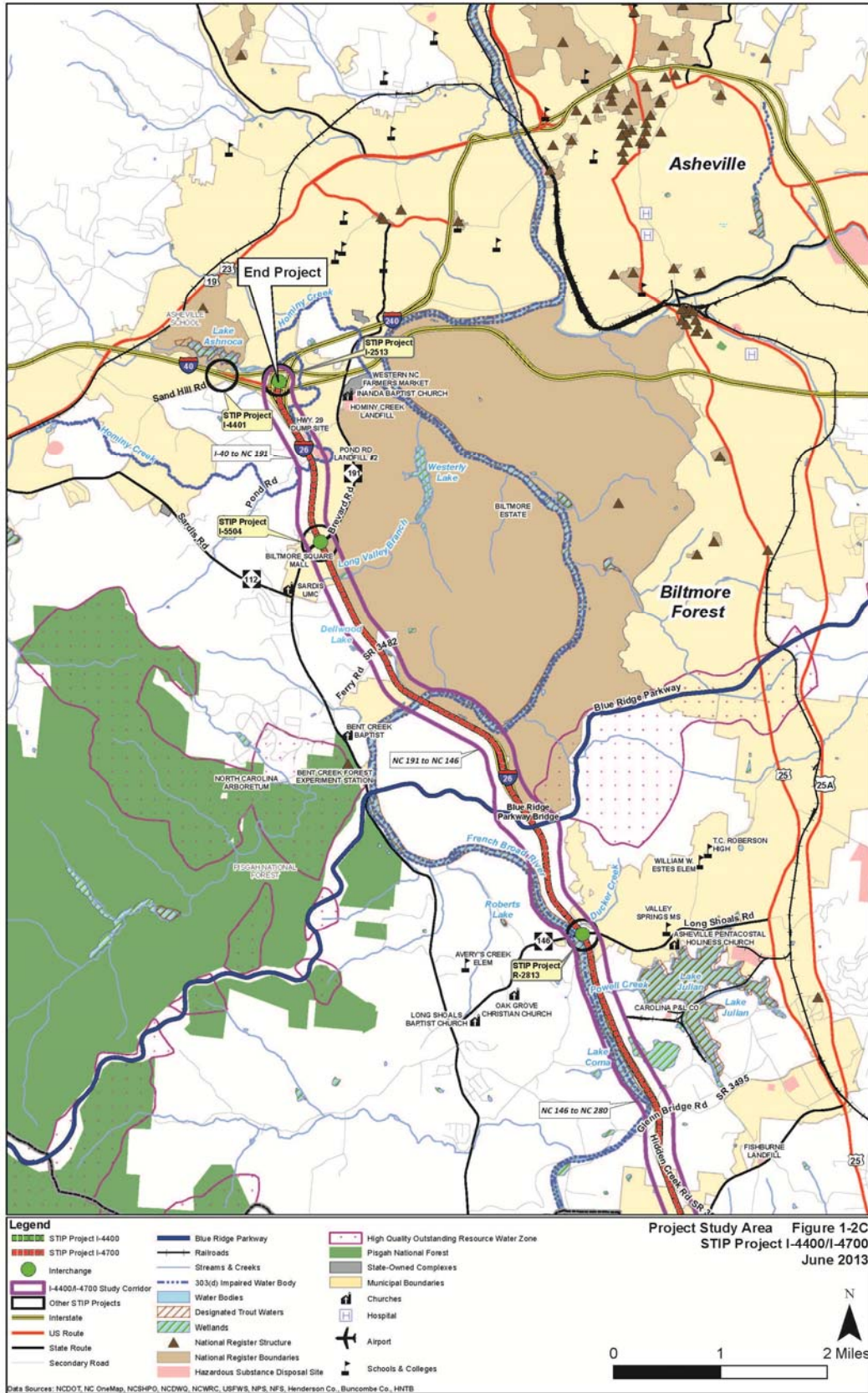
#### 1.1.2 Project History

An Environmental Assessment was completed for STIP I-4400 (the 13.6 mile segment between US 25 and NC 280) in May 2001. A Finding of No Significant Impact was completed in January 2002 and, subsequently, the project was advertised as a Design-Build project by NCDOT. A lawsuit and resulting judgment in 2003 found that NCDOT should conduct a broader analysis of the cumulative impacts and logical termini, or project limits, of the overall expansion of the I-26 corridor. The project was subsequently placed on hold due to financial constraints. However, the growing need for improvements to the I-26 corridor was recognized and the project was reinitiated and included in the Draft NCDOT 2013-2023 STIP. In order to address the 2003 judgment, the NCDOT concluded to combine the analysis of STIP I-4400 with STIP I-4700 (the 8.6-mile segment between NC 280 and I-40) into one comprehensive Environmental Impact Statement (EIS). The EIS will address logical termini and cumulative effects in accordance with NEPA.











### **1.1.3 Public Involvement**

The project was reinitiated in late 2012. Public comment was solicited at the first Citizens Informational Workshop held in January 2013. The consensus of the comments was in favor and support of the project and the expectation that the improvements and widening of I-26 in the project study area would facilitate improved traffic flow in the area. An additional Citizens Informational Workshop to gather further public input on detailed study alternatives is anticipated, as well as a Public Hearing after preparation of the Draft EIS.

## **2. MERGER CONCURRENCE POINT 1 – PURPOSE AND NEED**

### **2.1 PROPOSED ACTION**

The proposed action includes improvements to the approximate 22.2-mile segment of the I-26 corridor from US 25 in Henderson County, north to I-40 in Buncombe County. The proposed action is included in the Draft NCDOT *2013-2023 State Transportation Improvement Plan (STIP)* as project number I-4400/I-4700. The proposed action has also been identified in the French Broad River Metropolitan Planning Organization (FBR MPO) *Metropolitan Transportation Improvement Program (TIP) for FY 2011-2020*.

### **2.2 SUMMARY OF NEED**

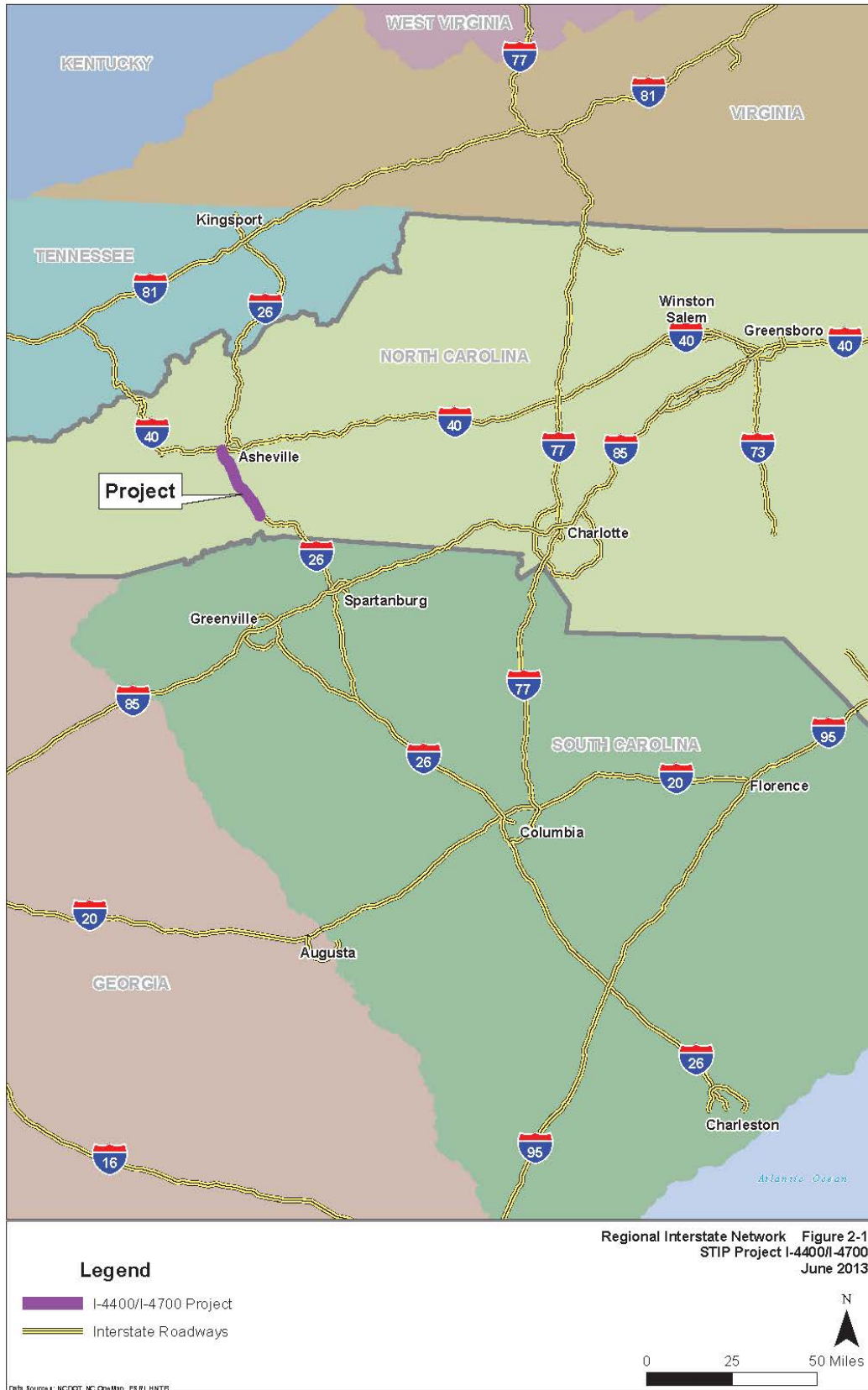
Interstate-26 is a major provider of travel for western North Carolina and the southeastern United States for the movement of both people and goods. **Figure 2-1** shows the I-26 corridor in relation to the regional interstate network. In a local function it serves as the main south-north facility for residents and business as well as providing direct access to the region's airport, Asheville Regional Airport. At the northern end of the project corridor, I-26 provides a connection to I-40, which is the major east-west corridor for the region as well as North Carolina. As a freight corridor, I-26 originates in the nation's fourth busiest container port of Charleston, South Carolina and connects the southeastern United States with the northeast via the connection with I-81 near Kingsport, Tennessee. With its current traffic demand, I-26 is approaching capacity and is anticipated to operate over capacity by design year 2040. The following sections summarize the needs for the proposed action.

#### **2.2.1 Existing and Projected Roadway Capacity Deficiencies**

Currently, I-26 in the study area is a four-lane facility with eleven existing grade-separated crossings and eight existing interchanges. Congestion is high, with sections of I-26 in the project study area currently operating at an unacceptable Level of Service (LOS) F. As projected traffic volumes increase, more sections of I-26 within the project study area are projected to degrade to LOS F.

#### **2.2.2 Inability to Serve High-Speed Regional Travel Consistent with the Designations and Goals of State and Local Transportation Plans**

The FBR MPO's 2035 Long Range Transportation Plan (LRTP) has identified improvements to the I-26 corridor in the project study area and considers them high-priority projects. Because of its statewide and regional importance, I-26 has been designated as a Strategic Highway Corridor (SHC) by NCDOT and is part of the North Carolina Intrastate System. Both designations call for this corridor to



serve high-speed regional travel. The existing study area corridor of I-26 is designated as part of the National Highway System's (NHS) Strategic Highway Network (STRAHNET). Existing and projected poor LOS along the I-26 project study corridor diminish the roadway's ability to function as part of the STRAHNET.

### **2.2.3 Existing Road Surface Conditions**

The existing section of I-26 along the study corridor in Henderson County from US 25 north to approximately mile marker 50.3 is asphalt, while the remaining portion north to the Buncombe County line is concrete. The project section of I-26 in Buncombe County from the county line north to NC 146 is concrete, while the remaining section north to I-40 is concrete overlaid with asphalt. The existing surface has undergone major rehabilitation twice, including diamond grinding the concrete, with the latest being in 2011. In addition, during past rehabilitation efforts Divisions 13 and 14 replaced slabs and repaired joints. With the current load and volume of traffic, the facility is again showing signs of deterioration. Additional rehabilitation will not suffice for providing a quality facility because of the lack of depth of remaining concrete. Reconstruction of I-26 in the project study area will provide full depth pavement and the quality needed for high-speed, safe, and efficient travel.

## **2.3 SUMMARY OF PURPOSE**

The purpose of the proposed improvements to I-26, from US 25 in Henderson County north to I-40 in Buncombe County, is to reduce congestion, with a goal of achieving an overall LOS D in the design year (2040), and improve the pavement structure.

## **2.4 EXISTING ROADWAY CONDITIONS**

### **2.4.1 Existing Roadway Characteristics**

Interstate-26 is listed as a freeway on the NCDOT 2004 Strategic Highway Corridor Vision Plan, revised July 2008. The studied portion of I-26 measures a distance of 22.2 miles and runs south-north through Henderson and Buncombe Counties as a four-lane, median-divided, full control-of-access facility between US 25 (Exit 54) in Henderson County and I-26/I-40/I-240 (Exit 31) in Buncombe County. This section of I-26 also carries the US 74 designation. The project area includes eleven existing grade-separated crossings and eight existing interchanges. In Henderson County, I-26 has interchanges with US 25, Upward Road (SR 1722), US 64, US 25 (Asheville Highway), and NC 280 (Airport Road). In Buncombe County, I-26 has interchanges with NC 280 (Airport Road), NC 146 (Long Shoals Road), NC 191 (Brevard Road), I-40, and I-240. The Blue Ridge Parkway has a grade separated crossing but no direct access. The speed limit of I-26 varies from 65 miles per hour (mph) in southern Henderson County to 60 mph in northern Henderson County, into Buncombe County, and up to I-40.

### **2.4.2 Existing Roadway Conditions**

With limited alternative south-north routes, automobile and truck-freight through traffic utilizing I-26 are forced to share the facility with local traffic, creating several areas of congestion during peak travel periods on I-26. The I-26 corridor in the study area experiences a seasonal increase in traffic volume during the summer and fall months as tourists visit the region for recreational activities and fall foliage viewing. **Table 1** lists the 2011 annual average daily traffic (AADT) along the project section of I-26.

Accompanying this 2011 data are the existing capacities, in vehicles per day (vpd), of I-26 freeway sections based upon existing roadway characteristics. The freeway capacities vary minimally through the corridor due to the changes in the free flow speed and truck percentages. The impact of freight movement along I-26 contributes greatly to capacity issues as well as congestion.

### 2.4.3 Projected Conditions

Daily traffic forecast volumes for the year 2040 are based on the French Broad River Travel Demand Model (FBR TDM), adopted March 25, 2010, that takes into account the region’s socio-economic data for employment and household projections, along with historical growth rates. **Table 1** lists current daily service volumes, 2011 AADT in vpd, 2011 LOS, 2011 V/C, projected year 2040 AADT in vpd, projected year 2040 LOS, and projected year 2040 V/C. The majority of the facility currently operates at LOS D or worse, with the entire facility operating at LOS F in the future (2040).

**Table 1: Existing and Projected Traffic Volumes on I-26**

I-26 Section	Current Daily Service Volume (vpd) <sup>1</sup>	2011 AADT (vpd) <sup>2</sup>	2011 LOS <sup>3</sup>	2011 V/C <sup>4</sup>	Projected 2040 AADT (vpd) <sup>2</sup>	2040 LOS <sup>3</sup>	2040 V/C <sup>4</sup>
I-40 to NC 191	62,000	80,000	F	1.29	89,200	F	1.44
NC 191 to NC 146	63,600	74,000	F	1.16	90,500	F	1.42
NC 146 to NC 280	63,600	70,000	F	1.10	81,700	F	1.28
NC 280 to US 25	62,800	55,600	D	0.89	79,300	F	1.26
US 25 to US 64	64,100	51,000	D	0.80	71,800	F	1.12
US 64 to Upward Rd	63,300	47,400	D	0.75	70,100	F	1.11
Upward Rd to US 25	63,300	43,600	C	0.69	73,600	F	1.16

Source: NCDOT TPB, 2/14/2012.

Notes: 1 – Based on Daily Service Volume for level of service E to F threshold from Highway Capacity Manual 2010, Equation 10-5, p. 10-12.

2 – 2011/2040 No-Build AADT, Project Level Traffic Forecast Report TIP Projects I-4400 / I-4700 / B-5178 / I-5501. 3 – LOS – Level of Service.

4 – V/C – Volume to Capacity ratio.

## 2.5 CRASH DATA

With I-26 currently carrying a substantial traffic volume, and projected to carry higher traffic volumes in the future, safety is an important consideration for the project. Without improvements, the number of crashes in this area is expected to grow. Traffic crashes are often the result of deficiencies in the capacity of a transportation facility. Crash data was collected for the project area and consisted of a 30.6-mile section of I-26 from I-40 in Buncombe County through Henderson County to SR 1142 (Holbert Cove Road) in Polk County, which constitutes the approximate project area. The additional area of I-26 from US 25 to Holbert Cove Road was included for the following reasons: 1) to match the I-4400/I-4700 traffic forecast limits, 2) to assess crash rates south of the US 25 interchange, within the immediate interchange influence area, and further south along I-26, 3) to include for potential US 25 Interchange Access Request that would require a safety review to the next adjacent interchange (Holbert Cove Road). The safety review of the I-26 section from US 25 to Holbert Cove Rd is generally consistent with the rest of the I-26 corridor and does not unduly influence crash rates along the corridor. For the reasons presented, the safety review limits are appropriate while differing from the defined project limits. For crash rate purposes this location is classified as an Interstate. There were 1,006 reported

crashes along this segment from July 1, 2009 to June 31, 2012. Of those crashes, 386 involved rear-end collisions. This type of crash is expected to occur where a combination of high traffic volumes and a large number of slowing, stopping, and/or turning movements cause interruptions to the traffic flow. There is a noticeable increase in crashes along the I-26 corridor in the project area during the months of June, July, and October, a result of the additional seasonal traffic utilizing I-26. **Table 2** shows the comparison of the crash rates for the analyzed section of I-26 versus the 2008-2010 statewide rate and the calculated critical rates with a 95 percent level of confidence for a comparable route type and configuration. Current crash rates exceed the statewide crash rates in the fatal category only and do not exceed the critical crash rates in any categories.

**Table 2: Crash Data for I-26**

Rate	Crashes	Crashes per 100MVM	Statewide Rate <sup>1</sup>	Critical Rate <sup>2</sup>
Total	1,006	52.13	78.21	81.55
Fatal	9	0.47	0.43	0.70
Non-Fatal Injury	265	13.73	21.69	23.46
Night	248	12.85	22.26	24.05
Wet	201	10.41	20.08	21.78

Source: Safety Review for TIP I-4400/I-4700, I-26 from I-40 in Buncombe County through Henderson County to SR 1142 (Holbert Cove Road) in Polk County (NCDOT, 8/31/2012).

Notes: 1 - 2008-2010 statewide crash rate for all Interstates. 2 - Based on the statewide crash rate (95 percent level of confidence)

## 2.6 SYSTEM LINKAGE

### 2.6.1 Existing Road Networks

Interstate-26 interchanges with I-85 in Spartanburg, South Carolina, as it continues on to the port of Charleston, South Carolina, and with I-40 in Asheville, North Carolina, on its way to I-81 near Kingsport, Tennessee. I-26 interchanges with US 25, which serves the region as a north-south connection between Asheville, North Carolina, and Greenville, South Carolina and US 64, which serves the region as an east-west connection between I-77 in Statesville, North Carolina, and I-75 near Chattanooga, Tennessee. The intersecting of I-26 and I-40 in Buncombe County form the center of the region's transportation system. These two important freeways interconnect the region and carry the highest percentage of trips passing through the area, while their locations in proximity to populated areas, commercial areas, and the Asheville Regional Airport also serve a significant portion of the local travel demands.

With the region's topography, national forests, and the Biltmore Estate property forcing the transportation system to follow river valley basins south of Asheville, constraints are placed on the regional transportation system that limit its expansion as well as making parallel alternate routes or grid patterns difficult to nearly impossible to develop. Other roads located away from the river valley floor are often very steep with sharp curves, have little to no shoulders, and have limited sight distances. The result is that travel of all types is funneled onto the major roadways, creating areas of congestion during peak travel periods.

These limited roadway connections support the region's agricultural service and tourism industry with connections to major metropolitan centers such as Greensboro and Raleigh, North Carolina; Greenville, South Carolina; Atlanta, Georgia; and ports of call in Wilmington, North Carolina; and Charleston, South Carolina. The National Park Service's 469-mile Blue Ridge Parkway, which connects the Shenandoah

National Park in Virginia to the Great Smoky Mountains National Park in North Carolina with its crossing over of I-26 in Buncombe County, experiences local commuter traffic on some of its sections on a daily basis.

## **2.6.2 Transportation Plans**

In conjunction with the FBR MPO, the NCDOT developed and adopted the MPO's Comprehensive Transportation Plan (CTP) in 2008. The recommendations in the CTP are based on forecasts of growth and development expected to occur in and around the planning area over the next 25 years. The CTP listed the I-26 corridor from US 25 in Henderson County to I-40 in Buncombe County as a High Priority project for the area. The CTP indicated that *"given the importance of this facility in serving south-north traffic demands, the lack of suitable alternative routes, the large percentage of trucks, and the seasonal peaking of recreational travel, maintaining a high level of service in this corridor is critical both to the safety and comfort of the traveling public, and to the regional economy."*

Prior to the CTP development, a transportation study of the area in and around Hendersonville known as Phase I was developed and approved with the local support by the Henderson County Transportation Advisory Committee. The Phase I plan contained recommended projects in the area of I-26 that could benefit this corridor, including a new facility known as the Balfour Parkway and a multi-lane widening of SR 1006 (Howard Gap Road) that would serve as a local, north-south alternative to I-26. The recently adopted Long Range Transportation Plan (LRTP) for the FBR MPO anticipates the I-26 corridor south of I-40 in Buncombe and Henderson Counties to have significant capacity deficiencies in the year 2030. The FBR MPO is evaluating alternatives to single-occupancy vehicle travel, including \$12 million identified in the LRTP to establish regional express bus-type service in combination with the I-26 corridor.

## **2.6.3 Modal Relationships**

The study area accommodates several integrated modes of transportation. Aside from the freight movement component, these modes utilize facilities that connect to I-26. These connecting facilities link with I-26 via grade-separated interchanges that add to the regional significance of the I-26 corridor.

*Public Transportation* - Asheville Redefines Transit (ART) is the only Buncombe County fixed-route public transportation provider with service within Asheville and, through a connection with Mountain Mobility, to the Town of Black Mountain. Mountain Mobility, Buncombe County's community transportation system, is a rural community transportation program, as it does not operate a fixed route service. As a demand-responsive transportation provider, Mountain Mobility works with ART to coordinate a feeder service to ART's fixed-route service that serves Asheville and Black Mountain, as well as paratransit service to the Swannanoa and Weaverville communities.

Apple Country Transit provides a limited fixed-route and deviated fixed-route service, as well as subscription and dial-a-ride transportation services for citizens of Henderson County. Greyhound Lines, Inc. also provides passenger bus and package express service to the areas of Asheville and Hendersonville.

*Air Service* - The Asheville Regional Airport (AVL) is located nine miles south of Asheville at the I-26 and NC 280 (Airport Road) interchange. Asheville Regional is a class C-3 airport that contains a single 8,000-

foot runway with a full parallel taxiway and 163 acres reserved for terminal use. In 2010, AVL served over 725,000 commercial passengers with a significant amount of general aviation passengers. Currently, the airport is updating its master plan to add retail and commercial land uses to its property.

Route 6 of the Asheville Transit System serves the Asheville Regional Airport seven times a day. Route 6 serves as a connection or transfer between the Asheville Transit System and the Fletcher (Blue Route) Link of Apple Country Transit from Henderson County. The Fletcher route, known as 'The Link', of Apple Country Transit provides service between Hendersonville and the Asheville Regional Airport. The I-26 and NC 280 interchange area allows the two fixed-route transit services in the planning area to link Asheville, Weaverville, Black Mountain, Fletcher, the Airport, and Hendersonville.

*Rail Service* - The Norfolk Southern Corporation controls three major rail corridors that pass through the region to Tennessee, South Carolina, and eastern North Carolina with several short lines of connecting track. Two tracks of Norfolk Southern's 21,300-mile network intersect in Asheville. Passenger rail service is available through AMTRAK in Greenville, South Carolina. NCDOT has adopted a phased plan, with no specified time frame, to extend passenger rail service from Salisbury, North Carolina along the Norfolk Southern track to Old Fort and on to Black Mountain and Asheville.

*Motor Freight Service* - The movement of goods is essential to fueling regional and domestic economic economies. According to information contained in the FBR MPO 2035 LRTP, trucks are the primary freight mode represented in the region. The LRTP notes that the FBR MPO planning area exhibits a unique challenge in regards to freight due to geographical constraints that limit the number of routes available for the transport of truck freight traffic. The LRTP also cites a Traffic Survey report conducted by NCDOT in 2009 that reported Buncombe, Haywood, and Henderson County Interstate Freight Traffic Volume in the region. According to the report, estimated daily truck traffic accounted for up to 17.5 percent of the volume of the I-26 corridor in the project study area within Henderson County and 13.5 percent of the volume of the I-26 corridor in the project study area within Buncombe County. The presence of these trucks in the traffic mix greatly increases congestion and travel times along the I-26 corridor within the study area.

## **2.7 SOCIAL AND ECONOMIC CONDITIONS**

### **2.7.1 Population and Employment**

Population data from the US Census Bureau indicate that both Henderson and Buncombe Counties have experienced moderate growth from 2000 to 2010. The population in Buncombe County and Henderson County grew by 15.5 and 19.7 percent between 2000 and 2010, respectively, compared to 18.5 percent in North Carolina. According to population projections provided by the North Carolina Office of State Budget and Management, the population in both Buncombe and Henderson Counties grew at an annual rate of 1.7 percent between 2002 and 2012, which was similar to the State (1.6 percent) during the same time period. The annual population growth rate in Buncombe and Henderson Counties is expected to slightly decrease over the next 20 years, but will continue to grow between 2012 and 2032 (1.3 percent in Buncombe County and 1.4 percent in Henderson County) at a higher annual rate than the State (0.96 percent).

Data from the North Carolina Department of Commerce – Division of Employment and Security (DES) indicates that Buncombe County gained jobs at an annual rate of 0.5 percent between 2001 and 2011, while Henderson County lost jobs at an annual rate of 0.4 percent during the same time frame. The DES also produces labor projections for the Workforce Development Boards (WDB) in North Carolina. The DES predicts a 0.9 percent annual increase in jobs between 2008 and 2018 in the four-county Mountain Area WDB (Buncombe County, Henderson County, Madison County, and Transylvania County). Job projections beyond the year 2018 were not available at the time of this assessment. The services-providing sector employs the largest number of people in the Mountain Area WDB, accounting for 40.9 percent of total employment. The education and health services sector is the next largest employment sector, accounting for 12.1 percent of total employment. Most jobs are located in either Asheville or Hendersonville, and the I-26 corridor in the area provides the main link for commuting patterns.

### **2.7.2 Commuting Patterns**

Most jobs are located in either Asheville or Hendersonville, and the I-26 corridor in the area provides the main link for commuting patterns. Commuting data available from the US Census Bureau for Buncombe County show that approximately 110,365 of workers 16 years and older commute to work. Of those workers, it is estimated that 98,673 utilized roadway facilities by driving alone or carpooling by car, truck, or van.

Commuting data available from the US Census Bureau for Henderson County show that approximately 44,124 of workers 16 years and older commute to work. Of those workers, it is estimated that 40,993 utilized roadway facilities by driving alone or carpooling by car, truck, or van.

### **2.7.3 Growth and Development Patterns**

According to information contained in the FBR MPO 2035 LRTP, growth and development patterns within the area generally reflect growth in both residential areas and service businesses to support this growth. The plan notes that the region is a popular tourist destination and a major destination for retirees and others drawn to the region's high quality of life and natural and cultural amenities.

In Buncombe County, most employment is concentrated in Asheville with some additional development along the I-26 corridor just south of I-40. Many of the land-development changes in Buncombe County have involved residential development, with some additional employment-related development. The LRTP anticipates continued residential and commercial growth in Asheville and along the I-26 corridor south of Asheville.

In Henderson County, most employment is concentrated in Hendersonville with some additional employment in the Town of Fletcher and along the I-26 and US 64 corridors. Many of the land-development changes in Henderson County have involved residential development, with some additional employment-related development. The LRTP anticipates continued residential and commercial growth along the I-26 corridor adjacent to and north of Hendersonville north to Fletcher.



## **2.8 LAND DEVELOPMENT PLAN**

The region has experienced a unique economic transition over the past several decades as its traditional focus on the service and tourism industry has been accompanied by a focus on niche businesses in the region as well as a growing influx of retirees.

On a daily basis, tourists use I-26 to access points of interests such as the Biltmore Estate, Pisgah National Forest, Blue Ridge Parkway, the North Carolina Arboretum as well as connecting to I-40 for other destinations such as the Great Smoky Mountains National Park. Local jurisdictions attempt to regulate their land development while noting these interests and their associated traffic demand.

Buncombe County's land use plan was adopted in March of 1999. The plan was updated in June 2006 and takes into consideration the future widening of the I-26 corridor. It is intended as a guide for future commercial, residential, and industrial development. The plan notes that residential development in Buncombe County has experienced substantial growth. Marketed as a place for active retirees, Buncombe County has experienced a dramatic increase within the housing market for these retiring citizens. This residential growth has triggered a demand for services and has created development pressure that is affecting a number of conditions, including infrastructure. With a variety of mixed land uses along its corridor and concentrations of retail and commercial land uses at interchange locations that are anticipated to increase in density, I-26 serves as a critical connector for these adjacent retail and commercial land uses.

In 2004, Henderson County adopted the 2020 Comprehensive Plan and established an objective to achieve a balance between development and preservation. One of its objectives is to guide public officials in the development and management of growth and infrastructure. The plan notes that transportation is an important topic greatly affecting Henderson County residents and businesses. It also states that Henderson County must take an active role in ensuring that the transportation network adequately serves to enhance the economic vitality and quality of life of Henderson County. According to the plan, commercial land uses exist at I-26 interchanges with US 64 and NC 280 with a significant portion of the adjacent land between these interchanges as residential or undeveloped, but expected to become more developed in the future. Tourism has experienced significant growth in Henderson County over the last twenty years and is expected to maintain this high level, causing additional need for service oriented jobs and placing added demand on infrastructure.

## **3. MERGER CONCURRENCE POINT 2 – ALTERNATIVES CONSIDERED**

### **3.1 SUMMARY OF ALTERNATIVES TO BE CONSIDERED**

The identification, consideration, and analysis of alternatives are key to the NEPA process and the goal of objective decision-making. Consideration of alternatives leads to a solution that satisfies the transportation need and avoids and minimizes adverse impacts to environmental and community resources. This identification and consideration includes a No-Build Alternative, a review of Alternative Modes of Transportation in the project area, Transportation Systems Management and Transportation Demand Management alternatives, and an analysis of a reasonable range of Build Alternatives.

### **3.1.1 No-Build Alternative**

The No-Build Alternative is the baseline comparative alternative for the design year (2040). The No-Build Alternative would not provide any substantial improvements to the I-26 corridor in the study area. Only typical maintenance activities would be provided along this section of I-26. The No-Build Alternative would incur neither right-of-way nor construction costs. There would be no short-term disruptions along existing roadways during construction. There would be no disruption to usage of the Blue Ridge Parkway during construction. There would be no impacts to streams, wetlands, or other natural and cultural resources, nor any residential or business relocation. However, the No-Build Alternative would not meet the purposes of and needs identified for the proposed project. It would not increase capacity nor reduce congestion. Although the No-Build Alternative would not reduce congestion, and thereby would not meet the project's purpose and need, the No-Build Alternative is recommended to be retained for additional screening so as to provide a basis for comparing the adverse impacts and benefits of the detailed study alternatives.

### **3.1.2 Mass Transit Alternative**

The City of Asheville's ART provides bus service throughout Asheville and connects with Mountain Mobility to reach Black Mountain. Apple Country Transit provides limited fixed-route and deviated fixed-route service. Buncombe and Henderson Counties provide van transportation service for residents in need of transportation. Passenger rail service is not readily available in the project area. Expanded bus service and new rail alignments would not meet the project's purpose and need and would not be financially feasible within the time horizon under consideration. Therefore, the Mass Transit Alternative is not recommended as a detailed study alternative.

### **3.1.3 Transportation System Management Alternative**

Transportation System Management (TSM) Alternative improvements typically involve low-cost, minor transportation improvements to increase the capacity of an existing facility, and do not include reconstructing or adding additional through lanes to the existing highway. TSM improvements on I-26 in the study area, such as ramp termini modifications, acceleration/deceleration lane lengths, and signing upgrades, would not noticeably reduce congestion. Therefore, the TSM Alternative would not meet the project's purpose and need and is not recommended as a detailed study alternative.

### **3.1.4 Transportation Demand Management Alternative**

Transportation Demand Management (TDM) Alternatives typically include strategies that result in more efficient use of transportation resources by changing traveler behavior. Typically, TDM improvements do not involve major capital improvements. Such improvements can include staggered work hours, flex-time (employer focused), and ride-sharing. While ride-sharing strategies, including carpools and vanpools, can provide a flexible option to transit for some travelers, the ability of these voluntary programs to substantially reduce traffic volumes on particular roadways is minimal. Although TDM measures would help optimize the efficiency of traffic flow on I-26 in the study area, the highway would remain congested due to the projected high volumes of traffic. As such, the TDM Alternative would not meet the purpose and need of the project and is not recommended as a detailed study alternative.

### 3.1.5 Build Alternatives

*Build Alternative 1: “Best Fit” 6-Lane Widening Alternative* - Alternative 1 would widen I-26 along the full project corridor to a 6-lane facility asymmetrically at locations that “best fit” the current roadway location and surrounding land uses. “Best Fit” locations would be evaluated and selected to improve the existing highway alignment, minimize impacts, and accommodate maintenance of traffic during construction. The additional traffic lanes would increase capacity and reduce congestion. The Build Alternative 1 – “Best Fit” 6-Lane Widening Alternative would meet the purpose and need of the project and is recommended as a detailed study alternative.

*Build Alternative 2 – “Best Fit” 8-Lane Widening Alternative* - Alternative 2 would widen I-26 along the full project corridor to an 8-lane facility asymmetrically at locations that “best fit” the current roadway location and surrounding land uses. “Best Fit” locations would be evaluated and selected to improve the existing highway alignment, minimize impacts, and accommodate maintenance of traffic during construction. The additional traffic lanes would increase capacity and reduce congestion. The Build Alternative 2 – “Best Fit” 8-Lane Widening Alternative would meet the purpose and need of the project and is recommended as a detailed study alternative.

*Build Alternative 3 – “Best Fit” Traffic Report Recommendations Widening Alternative* - Alternative 3 would widen I-26 as a hybrid of 6- or 8-lane segments at different locations along the project corridor. Widening to 6- or 8-lanes would be asymmetrical at locations that “best fit” the current roadway location and surrounding land uses and as outlined in the traffic report recommendations in specific areas. “Best Fit” locations would be evaluated and selected to improve the existing highway alignment, minimize impacts, and accommodate maintenance of traffic during construction. The additional traffic lanes would increase capacity and reduce congestion. The Build Alternative 3– “Best Fit” Traffic Report Recommendations Widening Alternative would meet the purpose and need of the project and is recommended as a detailed study alternative.

## 4. PROJECT SCHEDULE

The following bullets outline the tentative project schedule. These major milestone target dates are preliminary and subject to change.

- Project Technical Reports 2013 – 2015
- Draft Environmental Impact Statement Late 2015
- Public Hearing 2016
- Final Environmental Impact Statement Late 2016
- Record of Decision 2017
- Begin Right-of-Way Acquisition 2018
- Begin Construction 2020

## 5. MERGER PROJECT TEAM MEETING AGREEMENT SIGNATURE FORMS

### 5.1 Concurrence Point Number 1: Project Purpose and Need

#### Merger Project Team Meeting Agreement

Concurrence Point Number 1: Project Purpose and Need

Project Name/Description: I-26, Widen from US 25 in Hendersonville in Henderson County to I-40/I-240 in Buncombe County (study area boundary shown on Figures 1-2a, b, c)

TIP Project: I-4400/I-4700

The needs to be addressed by this project include:

- Improve existing and projected roadway capacity deficiencies.
- Improve insufficient pavement structure and deteriorating existing road surface conditions.

The purpose of the proposed improvements to I-26, from US 25 in Henderson County north to I-40 in Buncombe County, is to reduce congestion, with a goal of achieving an overall LOS D in the design year (2040), and improve the pavement structure.

The Project Team has concurred on this date of **June 20, 2013**, on the above mentioned project purpose and need for TIP Project I-4400/I-4700.

USACE <u><i>April A. Beckwith</i></u>	NCDOT <u><i>Andrea Major</i></u>
USERA <u><i>[Signature]</i></u>	USFWS <u><i>Walter L. Justice</i></u>
WRC <u><i>Maisha Chambers</i></u>	FHWA <u><i>Michael J. Gentry</i></u>
DWQ <u><i>[Signature]</i></u>	SHPO <u><i>Renee Medkiff-Easley</i></u>
TVA <u><i>Ashley K. Faulless</i></u>	FBRMPO <u><i>[Signature]</i></u>
EBCI <u><i>[Signature]</i></u>	NPS _____

## 5.2 Concurrence Point Number 2: Detailed Study Alternatives Carried Forward

### Merger Project Team Meeting Agreement

Concurrence Point Number 2: Preliminary Alternatives to be Studied in Detail

Project Name/Description: I-26, Widen from US 25 in Hendersonville in Henderson County to I-40/I-240 in Buncombe County

TIP Project: I-4400/I-4700

Build Alternative 1 – “Best Fit” 6-Lane Widening Alternative: Alternative 1 would widen I-26 along the full project corridor to a 6-lane facility asymmetrically at locations that “best fit” the current roadway location and surrounding land uses. “Best Fit” locations will be evaluated and selected to improve the existing highway alignment, minimize impacts, and accommodate maintenance of traffic during construction.

Build Alternative 2 – “Best Fit” 8-Lane Widening Alternative: Alternative 2 would widen I-26 along the full project corridor to an 8-lane facility asymmetrically at locations that “best fit” the current roadway location and surrounding land uses. “Best Fit” locations will be evaluated and selected to improve the existing highway alignment, minimize impacts, and accommodate maintenance of traffic during construction.

Build Alternative 3 – “Best Fit” Traffic Report Recommendations Widening Alternative: Alternative 3 would widen I-26 as a hybrid of 6- or 8-lane segments at different locations along the project corridor. Widening to 6- or 8-lanes will be asymmetrical at locations that “best fit” the current roadway location and surrounding land uses and as outlined in the traffic report recommendations in specific areas. “Best Fit” locations will be evaluated and selected to improve the existing highway alignment, minimize impacts, and accommodate maintenance of traffic during construction.

The Project Team has concurred on this date of **June 20, 2013**, on the above mentioned preliminary alternatives to be studied in detail for TIP Project I-4400/I-4700.

USACE *Shelley A. Beckwith* NCDOT *Andrew Meyer*

USERA *[Signature]* USFWS *Matthew C. Zornick*

WRC *Maria Chambers* FHWA *Michael J. Gentry*

DWQ *[Signature]* SHPO *Renee Heckhill-Easley*

TVA *Ashley Faulstich* FBRMPO *[Signature]*

EBCI *[Signature]* NPS *[Signature]*