Chapter 4 NEED FOR IMPROVEMENTS

As part of the US 64–NC 49 Corridor Study, the Study Team prepared what is referred to as a "problem statement" for the corridor. The problem statement describes how the US 64–NC 49 Corridor fits into the NCDOT Strategic Highway Corridors concept. It addresses transportation needs in the corridor on a broad scale, considering the corridor's existing and future role in meeting the state's regional transportation needs. The intent of the problem statement is to accomplish the following:

- Demonstrate how the corridor meets the criteria set forth in the NCDOT Strategic Highway Corridors concept.
- Describe the need for improvements to the US 64–NC 49 Corridor as they relate to the corridor's function as a Strategic Highway Corridor.
- Serve as a preface and supporting documentation for recommended future improvements that enter NCDOT's project development process and NCDOT's NEPA/404 Merger Process.
- Promote opportunity for early resource agency and stakeholder involvement and input on concerns regarding future improvements in the corridor.

The problem statement is distinct from project-level purpose and need statements that are prepared as part of project development activities conducted in compliance with the National Environmental Policy Act (NEPA) of 1969, as amended. It is part of a systems-level planning process and is not part of a NEPA document for a specific project. The problem statement helps establish a statewide and regional framework that can shape corridor-level recommendations for future projects and can influence individual projects' purpose and need statements and criteria for alternative evaluation. The information in the problem statement and the results of this corridor study can be incorporated into planning and environmental documents and purpose and need statements associated with future project-level improvements that may be proposed by NCDOT or other entities.

The factors and conditions that substantiate the need for an improvement vision for the US 64–NC 49 Corridor as developed for the problem statement are discussed on the following pages. The factors and conditions are organized based on the purposes of the Strategic Highway Corridors concept as well as the Strategic Highway Corridors selection criteria as developed by NCDOT and as adopted by the North Carolina State Board of Transportation.

4.1 Criterion – Mobility

Mobility is defined as the ability to move people and goods between two points. Improvements to mobility can result in faster travel, more reliable transportation, greater travel options, and reduced travel costs

Long-distance east-west mobility across the central portion of North Carolina is compromised at the present time by the limited number of available high-speed facilities. I-40 and I-85 are the only full control of access facilities traversing east-west across the central portion of the state, which is the most heavily populated and urbanized area of North Carolina. Between Greensboro and Burlington, I-40 and I-85 share a common roadway. These Interstates carry large numbers of commercial vehicles, short distance local travelers, and long-distance travelers. Extended periods of congestion are prevalent in the urbanized areas through which I-40 and I-85 pass.

The US 64–NC 49 Corridor is the most direct alternative corridor to I-40 and I-85. US 64 from Statesville to Raleigh is a part of the National Highway System. The segment of NC 49 from Charlotte to Asheboro is a designated National Scenic Byway. Both US 64 and NC 49 operate over a mix of different highway facility types within the study area including freeway; five-lane arterial; four-lane, divided highway; and two-lane, rural highways. The US 64–NC 49 Corridor serves local, regional, and long distance travel and is within a region that is heavily traveled by truckers and motorists, including commuters, business travelers, and, to a lesser extent, recreational visitors.

Origin and destination surveys conducted for this study show that truckers and travelers are making long-distance interstate and intercounty trips in and through the central portion of North Carolina, and some travelers appear to be consciously diverting to US 64 and NC 49 as an alternative to using I-40 and I-85. These current freight carriers and travelers could benefit from more efficient route options between Raleigh and Charlotte and Raleigh and Statesville.

4.2 Criterion - Connectivity

Existing major activity centers served either directly or indirectly (via US 421) by the US 64–NC 49 Corridor include Charlotte, Concord, Kannapolis, Greensboro, High Point, Winston-Salem, Burlington, Durham, Chapel Hill, Cary, and Raleigh. The Corridor also serves the major airports in Charlotte, the Triad, and the Triangle areas.

US 64 and NC 49 provide east-west connectivity between several north-south Interstate routes in the regional study area:

- US 64 between Statesville and Asheboro connects I-77, I-40, I-85, and I-73/I-74.
- NC 49 between Charlotte and Asheboro connects I-85, I-485, and I-73/I-74.
- US 64 between Asheboro and Raleigh connects I-73/I-74, the future I-540, I-440, and I-40.

Improvements to the US 64 and NC 49 would improve connectivity between the major activity centers along and in the vicinity of these routes and to the north-south oriented Interstate routes in the region.

4.3 Criterion – Interstate Reliever

Information obtained from the origin-destination travel surveys and stakeholder interviews indicate that US 64 and NC 49 are currently being used by travelers as viable alternatives to the parallel Interstate routes. This can be attributed to location and direct connection US 64 and NC 49 provide to Interstates connecting major activity centers within the region. As described above, the US 64–NC 49 Corridor provides connections to I-77, I-40, I-85, I-73/I-74, I-485, and I-440. These Interstates provide high-speed mobility, accessibility, and connections to North Carolina's major metropolitan areas, its capital city and emerging developments, as well as providing a linkage between the central portion of North Carolina and adjacent states.

Although I-40 and I-85 provide access to numerous cities and activity centers in the region, Interstate mobility from the Raleigh area west to Charlotte and Statesville is hindered by the congestion through the urban centers. Not unexpectedly, virtually all of the I-85 corridor in Mecklenburg County experiences heavy congestion throughout much of the day, with LOS E or F conditions observed during peak travel periods. Heavy congestion levels also were identified along the portion of I-40 between Winston-Salem and Greensboro and along the I-40/I-85 overlap section to the east. Similar high congestion levels are prevalent in the Raleigh/Durham area on I-40.

Travel time surveys were conducted to determine average travel times between Raleigh and Charlotte, and between Raleigh and Statesville using I-40 and I-85 compared to using US 64 and NC 49. The surveys showed essentially identical travel times between the same defined beginning and ending points along the corridor, regardless of whether the Interstate or state highway routings were used. Therefore, it appears intuitively obvious that any improvements to US 64 and NC 49 would allow these routings to offer competitive travel times to those achieved on the Interstate System. In turn, this would seem to have the potential to divert some appreciable percentage of Interstate traffic onto this defined Strategic Highway Corridor.

Travel demand forecasts prepared as part of this study for the year 2030 anticipate substantial increases in both locally generated and through travel demands on both the I-40/I-85 and US 64–NC 49 corridors. Given the location of the urbanized portions of I-40 and I-85 and the substantial amount of adjacent development that presently exists, it is unlikely that significant additional widenings beyond those identified in the current NCDOT TIP can be accomplished along these segments of I-40 and I-85. Thus, over the long term, improvements to alternative travel corridors such as US 64 and NC 49 will be needed to ensure the continuation of adequate regional and statewide mobility.

4.4 Purpose – Foster Economic Prosperity

Coordination with local stakeholders provided information on future conditions within their respective municipalities. Information obtained through these coordination efforts uncovered that many of the communities believe that transportation alternatives are vital to their prospective economic initiatives and development needs. US 64 over its entire length and the portion of NC 49 in the areas of Harrisburg and Mount Pleasant are both viewed as vital public infrastructure elements of future growth plans for the communities through which they pass. While many of the municipalities in the study area will continue to serve as "bedroom communities" for regional commuters, several stakeholders envision their county or municipality as becoming more self-supporting with a mixture of residential and commercial/service growth available to encourage a viable tax base.

The Yadkin-Pee Dee Lakes Project is a formal effort to develop the region as a major tourism/recreational and cultural/historic destination. The region already possesses many of these types of features (i.e. Badin Lake, Seagrove Pottery, Uwharrie National Forest, North Carolina Zoo, etc.), and there is a strong desire to promote the concept of the area as a distinct region in terms of its geographic and economic significance. The Yadkin-Pee Dee Lakes Project, also known as the "North Carolina Central Park Project," seeks to take advantage of the area spanning Charlotte to Raleigh/Durham. With this area lying at the junction of US 64 and NC 49, any improvements to these facilities would serve to further enhance and strengthen the development of the region.

4.5 Purpose – Protect the State's Transportation Investment

The currently adopted NCDOT TIP includes approximately 412 Interstate, rural, and urban roadway projects in the 19-county regional study area. In some instances, these are either multiple phases (planning, design, right-of-way acquisition, and construction) of a single major project or individual segments of a large corridor improvement. The total estimated cost of these projects in 2004 dollars is $18.4 billion.

Projects on I-40 and I-85 include enhancements to portions of I-85 between Charlotte and Greensboro and portions of I-40 between Winston-Salem and Raleigh. These range from major pavement rehabilitations and interchange modifications to the construction of additional through travel lanes.

There are several improvement projects along US 64 and NC 49 currently contained in the NCDOT TIP. These include the four-lane Asheboro Bypass (TIP Project R-2536), the two-lane Mocksville Bypass (TIP Project R-3111), the widening of US 64 from two to four-lanes between Mocksville and Lexington (TIP Project R-3602) and between Lexington and Asheboro (TIP Project R-2220), the widening of NC 49 from two to four-lanes between Harrisburg and the Yadkin River (TIP Project R-2533) and between the town of Farmer and

the Asheboro Bypass (TIP Project R-2535), and the six-lane widening of US 64/US 1 from the US 64/US 1 interchange to Walnut Street (TIP Project U-3101).

There are finite funds available for transportation system improvements throughout North Carolina. Prioritizing needs and having a clear vision of the ultimate function of the US 64–NC 49 Corridor will help direct funds for projects beyond the timeframe of the TIP more efficiently and could help preserve the functioning of the corridor as a major travel facility for a longer term.

4.6 Purpose – Promote Environmental Stewardship

The NCDOT Environmental Stewardship Policy (February 7, 2002) states NCDOT is "committed to planning, designing, constructing, maintaining and managing an interconnected transportation system while striving to preserve and enhance our natural and cultural resources." Environmental stewardship includes "safeguarding the public's health by conducting our business in an environmentally responsible manner, demonstrating our care for and commitment to the environment, and recognizing that our customers expect us to provide mobility and a quality of life that includes the protection of the natural resources and the cultural and social values of their community."

The US 64–NC 49 Corridor passes through or adjacent to numerous communities and several environmentally sensitive areas. The US 64–NC 49 Corridor provides a vital transportation link for the following major communities: Raleigh, Cary, Apex, Pittsboro, Ramseur, Siler City, Asheboro, Mocksville, Statesville, Richfield, Harrisburg, and Charlotte. In many of these communities, there are stretches of commercial or mixed development adjacent to US 64 or NC 49 that could be disrupted or relocated by improvements to the existing facilities.

Environmentally sensitive natural resources along the corridors include, but are not limited to, historic architectural sites, forested lands, Jordan Lake, the Haw River and its surrounding natural areas, Uwharrie National Forest, Badin Lake, and numerous streams with their associated floodplains and wetlands.

As individual transportation projects develop along US 64 and NC 49, early identification of these areas and resources as provided in this document will aid in future preparation of environmental documents required under the National Environmental Policy Act (NEPA), if federal funds are involved, or the NC State Environmental Policy Act (SEPA). NEPA and SEPA require detailed evaluation of environmental and social issues in the design and implementation of a transportation project.

Early planning and an overall vision for the entire corridor, along with the early involvement of local communities and state and federal resource agencies, can provide opportunities for long-term collaboration on preserving and enhancing natural resources in the corridor area

and for consideration of how the corridor's overall vision and the development of individual projects can help preserve the cultural and social values of communities along the corridor.

As local communities continue to grow, the information on environmental and social resources along the corridor that has been assembled as part of this corridor study can be used to aid their continuing street and infrastructure planning efforts.