

EXECUTIVE SUMMARY

E.1 Project Description and Objectives

The City of Winston-Salem Department of Transportation (WS DOT), through an inter-municipal agreement with the North Carolina Department of Transportation (NCDOT), retained RS&H Architects-Engineers-Planners Inc. (RS&H) to develop a land use and transportation plan for the US 52 Corridor in Winston-Salem, North Carolina.

The major purpose of the US 52 Corridor Land Use and Transportation Plan (hereinafter referred to as the Corridor Plan) is to develop an integrated economic development, land use and transportation system which is economically efficient, environmentally sound and moves people and goods in an energy efficient manner. The Corridor Plan was developed in accordance with all applicable WS DOT and NCDOT procedures, standards, policies, and guidelines.

The preparation of the US 52 Corridor Plan conforms to the Federal Highway Administration (FHWA) requirements for preparing a corridor plan pursuant to the National Corridor Planning and Development Program (NCPD). The Corridor Plan is consistent with, and supports implementation of, the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), and the Transportation Equity Act for the 21st Century of 1998 (TEA-21). The US 52 facility was included in both ISTEA and TEA-21 legislation as part of Interstate 74 in Winston-Salem. The Interstate 74 Corridor, designated High Priority Corridor Number 5, extends from Detroit, Michigan to Charleston, South Carolina.

The US 52 project study corridor, shown in **Figure S-1, Project Location** is defined as:

- US 52 in Winston Salem, North Carolina from Interstate 40 to the proposed location for the Northern Beltway, a total of approximately 12 miles.

US 52 is critical to the transportation system serving Winston-Salem and the greater Piedmont Triad region. The highway supports the economic viability of Winston-Salem by providing access to residential communities and employment centers along its route. It is also an important link in an extensive network of limited-access highways that includes US 311, Interstate 40, and Business Interstate 40.

Beyond the study area, the highway serves as an important link in the nation's surface transportation network. Until the proposed Interstate 74 (I-74) is completed, US 52 forms the "missing link" between three interstate highways: Interstate 77 to the north and Interstates 40 and 85 to the south. After the proposed interstate is completed, US 52 will continue to function as the urban interstate connector between I-77/I-74 and I-40 and I-85. In this context, the route must be maintained as a facility capable of carrying interstate traffic safely and efficiently to and through downtown Winston-Salem.

Several studies have been completed or are underway which provide a background for the US 52 Corridor Plan. These include studies that have focused on US 52 itself and the primary roadways in the vicinity of US 52 or with important connections to US 52. Several studies have developed transportation and land use objectives for the City of Winston-Salem; others are specific to communities affected by US 52. A summary description of the relevant studies are included in Section 1.0 Introduction and Section 8.0 Tier 3 Analysis of this report.

The objectives of the study are to address the short-term and long-term safety, mobility and productivity needs of the US 52 Corridor through Winston-Salem while limiting the negative impacts on the human and natural environment. Specifically, the Corridor Plan was developed to:

- 1) Evaluate **travel projections** and **traffic operations** used as the basis for the highway improvement plan.
- 2) Analyze the **mainline geometry** and number of freeway lanes needed to serve the downtown area and the remainder of the US 52 Corridor.

- 3) Perform a detailed **interchange capacity analysis** and evaluate the effect of the selected freeway and interchange configuration on **local street circulation** and at nearby intersections including changes in access on the local roadway network.
- 4) Develop a **land use and economic development strategy** for the Corridor that will maximize the positive community development influences that the highway enhancement project will have on the City of Winston-Salem.
- 5) Identify the **potential physical, environmental, social and economic impacts** of the highway improvement project.
- 6) Improve the **visual appearance** of the Corridor through creative landscape design processes including "hardscape" elements such as bridges, "caps", and retaining and noise wall treatments.
- 7) Actively involve **citizens and other stakeholders** in the land use and highway planning process.

E.2 Existing Conditions and Need for Project

US 52 in Forsyth County is currently a limited access, four-lane divided freeway with two 12-foot lanes in each direction. The US 52 Corridor within Winston-Salem has a controlled access right-of-way and 19 interchanges within the 12-mile study area. Built in the 1950's and 1960's, the freeway was not constructed to interstate highway design standards. The facility suffers from a variety of geometric design deficiencies including inadequate spacing of interchanges and ramp terminals, the creation of partial interchanges (ramps only provided in one direction), poor connectivity to the adjoining surface street system, narrow shoulders and breakdown lanes, and short acceleration and deceleration lanes.

Although it is not built to interstate highway standards, US 52 currently carries interstate traffic travelling between the recently-completed I-74 near Mt. Airy, North Carolina, and I-40 in Winston-Salem. Commercial vehicles using this new highway segment and US 52 can reduce their travel time between I-77 and I-40 east of Winston-Salem by up to 55 minutes.

US 52 in Winston-Salem currently carries a very high traffic volume of approximately 79,000 vehicles per day (including particularly high volumes of commercial vehicle traffic) which is significantly over its designed capacity. The freeway is one of the most congested in the Piedmont Triad region resulting in traffic flowing at a very poor level of service, particularly during the morning and evening peak travel times. The poor roadway geometrics, coupled with the high traffic volumes, results in long delays in travel times, a high rate of traffic accidents, excessive noise levels, and poor air quality conditions.

Need for Transportation Improvements

The substandard freeway design and high traffic volumes on US 52, along with closely spaced interchanges, short acceleration/ deceleration lanes, and short weaving sections, all contribute to capacity deficiencies and unsafe travel conditions for most of the US 52 Corridor. The physical deficiencies of the US 52 study corridor are illustrated in the **Figure Series S-2, Existing Conditions** and summarized below.



- Two horizontal curves do not meet freeway design standards; one additional curve does not meet interstate design standards.
- Nine vertical curves do not meet freeway or interstate design standards.
- Curb and gutter extending from south of I-40 to the Patterson Avenue interchange does not meet standards for routes posted for speeds greater than 45 mph.
- Acceleration and deceleration lanes do not meet minimum design standards for freeways or interstates;
- Six weaving sections are too short to meet traffic demand.
- Ramp tapers are too short for either freeway or interstate design standards.
- The 19 interchanges in the twelve-mile corridor are too closely spaced for interstate standards.

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Existing Conditions
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Figure Series S-2
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- Nine interchanges provide only partial access.
- Accident rates in the Corridor range from twice the statewide average in the vicinity of downtown Winston-Salem to approximately one-third higher than the statewide average for the section of US 52 located between Vargrave Street/ Diggs Boulevard to Northwest Boulevard.
- Peak hour traffic demand exceeds the route's capacity between I-40 and 25th/28th Streets.

Need for Land Use Planning and Economic Development

The US 52 Corridor Land Use and Transportation Plan was undertaken to provide a balanced evaluation of:

- The long-term transportation needs and potential of the US 52 Corridor; and
- The long-term creation of associated positive land use, community enhancement and economic development opportunities in the study area as defined by the US 52 Corridor.

The primary *transportation objectives* of the US 52 Corridor project is the reconstruction of the highway to meet current highway design standards and to relieve traffic congestion and to improve safety in the Corridor. The primary *land use and economic development objectives* of this project is the creation of conditions that will support positive land uses and redevelopment opportunities within the study corridor as well as community enhancements associated with the reconstruction of the highway.

As the City's economic base shifts from heavy industrial and manufacturing businesses to the service and technology business sectors, community leaders and local residents continue to seek opportunities to revitalize the properties along the Corridor. US 52 has been perceived by some in the community as a barrier between the eastern and western parts of the City. The Corridor bisects many of the older areas of the City where private and public investment have declined over the past two decades resulting in under-utilized industrial areas, a deteriorating eastern side of downtown, and blighted neighborhood housing and commercial areas. Winston-Salem is seeking to re-knit the community fabric that was torn when US 52 was originally constructed by removing the barriers to the economic and social integration of communities on both sides of the Corridor.

The reconstruction and improvements of US 52 is intended to play an important role in the redevelopment of US 52 and to provide support to a new reinvestment cycle within the communities in the study area. In addition, the new "interstate address" of the upgraded US 52 facility is expected to create an expanded market for a new highly competitive, targeted industrial corridor within the city limits. The results of these economic spin-offs could result in an expanded market for housing and an expanded tax base for the City.

E.3 Community Involvement

Improvements to the US 52 Corridor should benefit to the maximum extent possible the communities that are affected by the roadway and its points of access. Therefore, the involvement of these communities was vital to the overall success of the project. In order to involve community leaders and representatives, the Project Team set out to develop a forum that would both keep the public informed and would gain input from the public at every step of the study.

To ensure that this Plan addressed local issues, neighborhood input and community involvement were included throughout the planning process. The US 52 Project Team was proactive in reaching out to the community to gain input by interviewing over 50 community leaders, organizing focus groups comprised of key business and community activists, and conducting general public meetings at key milestones in the planning process.



Public Meeting



Community Involvement

In an effort to respond to the concerns of the communities within the study area, the Project Team conducted one-on-one interviews with dozens of local representatives to gain an understanding of local issues and ensure coordination of the proposed project with community plans. These representatives included elected and appointed officials, local business leaders, educational and religious leaders, neighborhood association coordinators, and other citizens with important roles in their communities.

The Project Team also conducted a series of meetings and workshops to present the alternative transportation and land use plans to the community and to gain feedback on the viability of the plans. After the alternative plans for improving US 52 were prepared, the Project Team presented the plans in a series of workshops and presentations to community groups.



Steering Committee Meeting

Regular meetings were held with the US 52 Steering Committee and the Winston-Salem/Forsyth County Metropolitan Planning Organization (MPO) to present project information at decision-making points of the study process. The MPO approved the selection of the locally preferred alternative of the US 52 Corridor Land Use and Transportation Plan in May 2003.

E.4 Tier 1 and Tier 2 Analyses

As part of the US 52 study process, a series of alternative plans for the improvement of US 52 were analyzed as to their effectiveness in meeting the project goals of:

- Maximizing traffic capacity and safety improvements;
- Enhancing land use and economic development opportunities; and
- Minimizing right-of-way and environmental impacts, and relocation and construction costs.

The US 52 Corridor planning methodology used a three-level "tier analysis" approach to evaluate a wide range of mainline alternative packages and proceeding through increasingly refined screenings to determine the most viable alternative that meets the goals of the project. In the Tier 1 Analysis, a variety of conceptual alternatives were developed which were screened as to their effectiveness in meeting the general needs of the project. This screening process used a wide range of evaluation measures to analyze the physical and social impacts, traffic capacity and safety improvements, and environmental and costs considerations associated with each alternative. The Tier 2 Analysis further developed the alternatives found to be most suitable from the Tier 1 process and involved the refinement of the mainline alignments and interchanges, and the most workable land use solutions for the Corridor.

The four conceptual alternatives identified in the Tier 1 Analysis were further refined and evaluated in the Tier 2 Analysis and are summarized below:

No-Build Alternative: The No-Build alternative assumed Year 2025 travel conditions with no improvement to the existing transportation systems beyond the 2002 transportation network. US 52 would remain a four-lane facility with closely-spaced interchanges, many with only partial access. No changes to the land uses along the Corridor were projected because no improvements to the existing highway were assumed to occur.

The Minimum Design Alternative: This alternative included the minimum improvements necessary to upgrade US 52 to current freeway standards, as well as meeting capacity and safety requirements. This plan did not include any land use component because it was anticipated that only minimal improvements to the current roadway would be made. Under the Minimum Design Alternative, US 52 would be widened to a six-lane freeway with auxiliary lanes between Business 40 and Martin Luther King, Jr. Drive, and a northbound collector-distributor road and a southbound auxiliary lane between University Parkway and Hanes Mill Road. All widening would be symmetrical along the centerline and occur along the outside edge.

Interstate Alternative 1: Interstate Alternative 1 proposed to improve the US 52 Corridor to meet the design criteria for an interstate highway for the entire length of the Corridor.

Transportation Improvements

This plan proposed widening US 52 to eight lanes between Business 40 and Martin Luther King, Jr. Drive and to six lanes throughout the remainder of the Corridor. Generally, the proposed alignment followed the existing US 52 highway except at three locations:

- Between Sprague Street and Mock Street, the roadway was realigned to the west of the existing roadway to improve the horizontal geometry to meet interstate standards. Some businesses and homes were to be acquired in this alternative.
- Between Business 40 and Martin Luther King, Jr. Drive, the highway was widened to eight lanes and shifted to the west, taking businesses between US 52 and Linden Street;
- Between 19th Street and the airport, US 52 was realigned near the existing roadway and Liberty Street is relocated farther west of the improved interchange at 27th/28th Streets. Businesses along Liberty Street are taken.

To meet interstate requirements, interchange access was consolidated at eleven interchanges approximately one mile apart. At several locations interchange spacing was slightly less than the required interstate minimum of one mile and variances would be required from FHWA.

Land Use and Economic Development Opportunities

Higher density re-urbanization offered by this alternative encouraged continuous economic expansion and increased mobility within the study area including the following opportunities:

- Industrial Distribution Airport Business Park development;
- Technical Research Park development at diversified economic downtown core;
- Mixed-use community retail through Hope VI redevelopment activity;
- Identifiable gateways at Waughtown and Sprague Streets underpass and other entry nodes;
- Enhancement of traditional neighborhood development east and west of US 52 with residential infill development;
- Entertainment/retail district at Akron Drive;
- Open space enhancement of corridor with greenway linkages and landscaping;
- Retail center development at Oak Summit Road and Patterson Avenue;
- Industrial/business park corridor development with Patterson Avenue address;

- Residential mixed-use communities at major east-west gateways;
- Large-scale commercial/office development at University Parkway/Hanes Mill Road area; and

Interstate Alternative 2: Interstate Alternative 2 proposed a highway design that would meet interstate standards for the entire length of the route.

Transportation Improvements

This plan proposed widening US 52 to eight lanes between Business 40 and Martin Luther King, Jr. Drive and to six lanes throughout the remainder of the Corridor. The one design exception was that the spacing of the interchanges would be slightly less than one mile apart at several locations. Variances would be required from FHWA at these locations. Generally, the proposed alignment followed the existing highway except at three locations:

- Between Sprague Street and Mock Street, the roadway was realigned to the east of the existing roadway, improving horizontal geometry to meet interstate standards. Several businesses, including Carolina Steel Fabricating Plant, are taken in this plan;
- Between Business 40 and Martin Luther King, Jr. Drive, the roadway was widened to eight lanes and shifted to the west, taking businesses between US 52 and Linden Street; and
- Between 19th Street and the airport, US 52 was realigned to the west of the existing roadway and Liberty Street is relocated to the east of US 52, creating for Liberty Street a continuous route east of US 52 from 12th Street to the airport. An improved interchange at 27th/28th Streets provides excellent access to the Liberty Street corridor. Businesses along Liberty Street are taken.

To meet interstate requirements, interchange access was consolidated at ten interchanges approximately one mile apart. At several locations interchange spacing was slightly less than the required interstate minimum of one mile and variances would be required from FHWA.

Land Use and Economic Development Opportunities

Mobility and accessibility are among the most important land-use/transportation issues to be considered in the location of residential, commercial, and industrial development. This alternative reestablished Liberty Street as a continuous linear thoroughfare supporting “store-front” business development. It also encouraged land-use similar to Interstate Alternative 1 including the following opportunities:

- Industrial Distribution Airport Business Park development;
- Technical Research Park development diversified at economic downtown core;
- Mixed-use community retail through Hope VI redevelopment activity;
- Identifiable gateways at Waughtown and Sprague Streets underpass and other entry nodes;
- Enhancement of traditional neighborhood development with residential infill development;
- Entertainment/retail district at Akron Drive;
- Open space enhancement of corridor with greenway linkages and landscaping;
- Retail center development at Oak Summit Road and Patterson Avenue;
- Industrial/business park corridor development with Patterson Avenue address;
- Residential mixed-use communities at major east-west gateways;
- Large-scale commercial/office development at University Parkway/Hanes Mill Road interchange area; and
- Revitalization and enhancement of traditional neighborhood development with streetscape/connectivity improvements.

E.5 Tier 3 Analysis – Locally Preferred Alternative

The Tier 3 Analysis presented a detailed description of the transportation and land use alternative selected in the Tier 2 Analysis for final development as the **Locally Preferred Alternative**. This alternative meets the needs and objectives of the US 52 Corridor project and will create positive land use and economic revitalization opportunities in the study area. The Locally Preferred Alternative is designed to meet current freeway standards for the entire length of the study corridor. In addition, by upgrading the design standards of the highway, the Locally Preferred Alternative for the US 52 Corridor meets the requirements for future designation as an interstate highway.

Transportation Improvements

The transportation improvements proposed for the US 52 Corridor are shown on **Figure Series S-3, Transportation Improvements** and summarized below.

- The Plan calls for the widening of US 52 to a continuous six-lane freeway along the entire 12-mile corridor with additional lanes provided along sections of the corridor that are expected to have higher traffic volumes.
- Generally, the Locally Preferred Alternative follows the existing US 52 highway alignment except at three locations: 1) between I-40 and Mock Street, the highway is realigned to the west of the existing highway to eliminate sharp curves; 2) between Business 40 and Martin Luther King, Jr. Drive, the highway is realigned to the west of the existing highway to accommodate four additional lanes; 3) between New Hope Road and the airport, US 52 is realigned to the west of the existing highway to eliminate a sharp curve. Within this area, Liberty Street is relocated to the east of US 52 and becomes a continuous route east of US 52 from 12th Street to the airport. An improved interchange at 27th/28th streets will provide excellent access to the Liberty Street corridor.
- Northbound and southbound auxiliary lanes will be added along US 52 at locations of higher traffic volumes between I-40 and Waughtown Street, (future) Salem Creek Parkway and Business 40, and Business 40 and Martin Luther King, Jr. Drive. At the University Parkway and Hanes Mill Road interchanges, a northbound collector-distributor road and a southbound auxiliary lane are provided between the two interchanges because of their close proximity. These types of improvements will help to reduce weaving conflicts for traffic entering and exiting the freeway.
- To meet interstate highway requirements, interchange access is consolidated at 12 interchanges over an approximate 12-mile corridor. Full interchanges will remain at I-40, Business 40, Martin Luther King, Jr., Drive, 27th/28th Streets, Akron Drive, Germanton Road, University Parkway and Hanes Mill Road. The Waughtown Street interchange will be upgraded to a full interchange and the 3rd Street interchange will remain a partial interchange. New interchanges are proposed along US 52 at (the future) Salem Creek Parkway and Motor Road.
- The overall traffic capacity along US 52 will be increased to meet the forecasted travel demand for the year 2025; this will reduce congestion, particularly at peak travel periods and improve safety of travel along the corridor.

The estimated construction costs for the Locally Preferred Alternative is approximately \$425 million and the estimated right-of-way acquisition costs is approximately \$35 million (all 2002 dollars). The estimated right-of-way costs do not include costs associated with relocation of displaced properties. The right-of-way impacts are expected to affect approximately 90 buildings and approximately 442 parcels through either partial or full acquisitions for the proposed US 52 Corridor project.

Land Use And Economic Development

A significant part of the US 52 Corridor Plan is the consideration of the land use and economic development impacts associated with the reconstruction of the highway and the redevelopment and revitalization opportunities that will be created with the

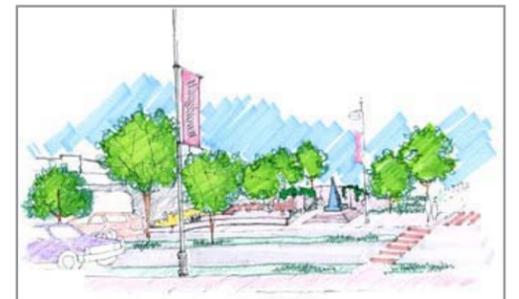
upgrading of this corridor to an urban interstate facility. The proposed upgrading of US 52 to interstate highway standards - including the reconfiguration of interchanges and associated linkages to local roadways - and the overall opportunities of regional economic growth will result in enhanced land use development and redevelopment within the Corridor.

The Locally Preferred Alternative transportation improvements have been coordinated with land use planning and economic development initiatives which will improve accessibility to key areas of the city, open up new markets and help to direct new employment to the corridor. Mobility and accessibility are among the most important land use and transportation-related issues to be considered in locating industrial, office and commercial developments, as well as for residential development. Improvements in the highway's configuration and potential interstate highway designation will likely attract new land uses throughout the US 52 Corridor which may include development of industrial/business parks, retail and other commercial businesses, residential communities, and highway-oriented lodging and eating establishments.

The US 52 Corridor Plan evaluated the long-term community and economic development needs of the study area and the potential of the Corridor highway improvement plans to facilitate economic growth and community interaction along this major artery. The US 52 Corridor land use plan has a strong, over-arching concept which expresses the role it will play in enhancing the future development of the Winston-Salem metropolitan area. **Currently, the Corridor is a continuous linear element that separates inner city neighborhoods rather than being part of them. US 52 provides a strong sense of continuity and accessibility to the downtown core. At the same time, the residential communities located east and west of the Corridor are separated. The US 52 land use concept proposes to provide stronger connections to these neighborhoods through the development of pedestrian and vehicular linkages across US 52 and neighborhood gateways at east/west thresholds with a mixed-use land development pattern.** It also proposes land use planning and economic development strategies for an area approximately 2000 feet on each side of US 52.

The land use and development concepts envisioned for the US 52 Corridor are shown on **Figure S-4, Land Use Summary** and some examples of potential revitalization opportunities associated with the Locally Preferred Alternative are listed below.

- Support Piedmont Triad Research Park within diversified economic downtown core.
- Target Piedmont Triad Research Park supported land use development activities within East Winston.
- Reestablish Liberty Street as a continuous linear thoroughfare east of US 52, supporting mixed use development opportunities and urban in-fill housing.
- Promote neighborhood activity center at Martin Luther King Jr., Drive and Waughtown Street.
- Promote higher density mixed-use residential within economic downtown core.
- Continue revitalization/enhancement of traditional neighborhoods with residential and commercial in-fill.
- Create entertainment district at Akron Drive interchange.
- Provide industrial business park development with gateway entry at North Patterson Avenue corridor.
- Encourage open space greenway connections east and west of US 52 Corridor.
- Promote mixed-use residential/commercial development in North Hills Park area.
- Encourage highway commercial east of Germanton Road and Patterson Avenue intersection.
- Continue business park development at University Parkway and Hanes Mill Road area.



Neighborhood Gateway Destination Opportunities Exists with Bridge Structure Design

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Figure S-4 Land Use Summary

- Encourage greenway linkages along Mill Creek under US 52.
- Support industrial distribution uses of Airport Business Park.

Market Assessments

The economic development program concepts created for the US 52 Corridor have a primary emphasis on industrial development, however, the program also suggests the development of residential areas, various types of retail businesses, and lodging facilities and eating and drinking establishments within certain areas along the Corridor. Opportunities for office space development are anticipated for the Piedmont Triad Research Park area and some minor support services. A separate technical report entitled "Economic Development Market Assessment" was conducted for the US 52 Corridor Plan which recommended an economic development approach that focuses on the following elements:

- A mixed-use development strategy for the US 52 Corridor that includes industrial, commercial, residential, and lodging/restaurant types of land uses.
- The industrial development initiative should be a mix of business parks and warehouse and distribution facilities. There will be strong opportunities for industrial development based upon state employment projections and the strategic location of Winston-Salem in the region and the country. Industrial development opportunities should be targeted as a part of the initiative to balance the economy of the City and County as it transitions from a dependence on tobacco and textiles to a more diverse economy.
- In addition to warehouse and distribution, several new business parks should be developed targeting growth markets such as fabricated metals, transportation equipment, paper products, printing, chemicals, rubber and plastics, trucking, and wholesale trade.
- Where possible, the US 52 Corridor Plan should act as stimulus for neighborhood revitalization through the utilization of land resources for additional housing and retail businesses and other types of commercial development such as hotels and restaurants. While the market is basically in equilibrium at this time, over the next 15 to 18 years, given population and household growth assumptions, substantial additional retail demand will be generated. There will also be a need for replacement facilities driving demand.
- The US 52 Corridor Plan should, to the maximum extent possible, incorporate publicly supported preexisting development initiatives undertaken by the City, such as the Downtown Plan, the Piedmont Triad Research Park Plan, the Goler Heights Plan, and the Southside Retail Center.

E.6 Implementation and Funding

With a price tag of some \$460 million, upgrading the US 52 Corridor will have to be carefully planned and programmed.

The US 52 Corridor can be readily divided into the following four segments for construction:

- I-40 to Business 40 (\$75.2 million);
- Business 40 to Northwest Boulevard (\$155.7 million);
- Northwest Boulevard to Glenn Avenue (\$80.9 million); and
- Glenn Avenue to Hanes Mill Road (\$149.3 million).

Of the four segments, the highest priority is for the downtown segment between Business 40 and Northwest Boulevard. This segment of the route has the greatest need for improvement today with the highest traffic demand and accident rate. In addition, the recent announcement of the development of the Piedmont Triad Research Park adjacent to the western right-of-way will create additional need for the improvement. The segment of US 52 between I-40 and Business 40 is assigned second

priority because this segment also has a high traffic demand and accident rate. However, the realigning of US 52 to the west could be difficult. Third priority falls to US 52 between Northwest Boulevard and Glenn Avenue (\$80.9 million) because right-of-way requirements for the realignment of US 52 in the vicinity of 27th/28th Street interchange could cause delays. Also, if the US 52 bridges over Liberty Street are replaced before this project is funded (as is likely) then this segment may be delayed to maintain use of the replacement bridges for as long as possible. Finally, the segment of US 52 between Glenn Avenue and Hanes Mill Road (\$149.3 million) has the lowest priority because the roadway geometry meets current freeway and interstate design standards; it is relatively safe; and traffic demand does not exceed its capacity.

There are two issues related to the ultimate funding of US 52 that need to be addressed: its place in the Transportation Improvement Program, and its place with respect to other projects competing for funding dollars in the area. First, the upgrading of US 52 currently appears as an unfunded project in the 2002-2008 Transportation Improvement Program. Project number U-2826 calls for the widening and upgrading of US 52 from I-40 Bypass to the Western Beltway interchange at the northern city limits and estimates the costs at \$387.25 million.

The Winston-Salem/Forsyth County Metropolitan Planning Organization should identify US 52 as a high-priority project in its Metropolitan Transportation Improvement Program (MTIP) and request funding to begin the Environmental Review process. By requesting project planning funds as soon as possible, the project can continue to move forward.

Finding the funding for a project of this magnitude will be difficult. Under current legislation, the route would be eligible as a Federal Aid Construction project using Bridge Funds as part of the National Highway System, for congestion mitigation or as part of the Surface Transportation Program. Presently, improvements on US 52 are not eligible for Highway Trust Funds, although revisions in the Trust Fund legislation may change its eligibility status in the future. The US 52 corridor would be a likely candidate for Trust Fund eligibility if the legislation were broadened in the future because US 52 could apply for Interstate designation and the route is part of a strategic north-south intrastate corridor.

Competing for funds in Division 9 is the Northern Beltway around Winston-Salem. R-2247 (the western portion of the loop) is funded for \$284.5 million and is scheduled to begin construction as soon as the project receives environmental approval. U-2579 (the eastern portion of the loop) has another \$225.6 million allocated for funding (although some \$193.8 million is slated for post 2008 funding) and has been linked to the scheduling of the Western Beltway through the environmental review process. Thus, approximately \$510 million has been allocated to Highway Trust Fund projects in Winston-Salem and Forsyth County, probably over the next decade. It is likely that funding of US 52 will have to wait for the completion of the Northern Beltway. However, the planning and environmental review process on US 52 should continue since it can be a lengthy process (as the Beltway projects have shown). In this manner, US 52 will have all necessary permits and approvals and will be ready for construction when the funds become available.