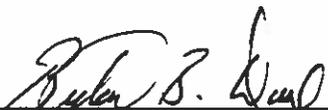
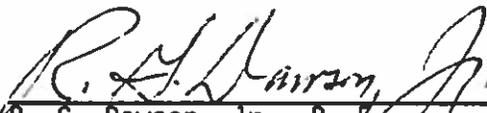


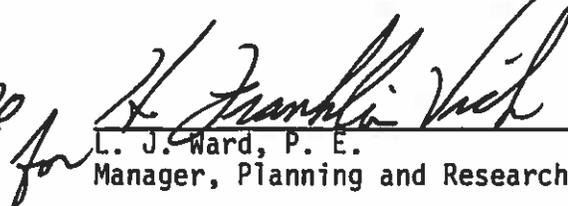
FEASIBILITY STUDY

NC 268  
From Existing Multi-lanes  
East of NC 18 to SR 1966  
Wilkes County, R-2603

Prepared by  
Planning and Research Branch  
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I. GENERAL DESCRIPTION

This report covers a preliminary study of the proposed widening of NC 268 in North Wilkesboro to a multi-lane facility. The proposed project extends from the existing multi-lane section (approximately 0.6 mile west of NC 18) to SR 1966 and is approximately 2.6 miles in length (see Figure 1). It is included in the 1990-1996 Transportation Improvement Program for feasibility study and/or right-of-way protection. It is not currently funded for design, right-of-way acquisition, or construction.

II. PURPOSE OF PROJECT

Existing Route Characteristics

NC 268 serves as a radial route into North Wilkesboro from the northeast. It is classified as a major thoroughfare on the North Wilkesboro Thoroughfare Plan which was adopted December, 1983. NC 268 is classified as an Other Urban Principal Arterial inside the North Wilkesboro Town Limits, and as a Rural Major Collector outside the town limits in the North Carolina Functional Classification System.

NC 268 is basically a two-lane facility with a 22-foot pavement and shoulders varying from 3 to 6 feet in width, which widens to a 5-lane, 55-foot curb and gutter section at the western project terminal (just west of SR 1979). The existing right-of-way is maintained 45 feet, symmetrical about the present centerline. A 100-foot right-of-way was acquired in 1940 with signed agreements, however these agreements were never recorded. Both the horizontal and vertical alignments are good along the studied section of road, with the exception of a crest vertical curve at the intersection of SR 1966 which limits sight distance at this location. All intersections along the studied route are at grade and are all stop sign controlled. The speed limit is 35 mph from the beginning of the project to a point 0.15 mile east of SR 1971, where it increases to 45 mph to the bridge over the Mulberry River, where it again increases to 55 mph for the remainder of the project.

There is one bridge on the studied roadway, where NC 268 crosses the Mulberry River. This bridge is 128 feet long with a 26-foot horizontal clearance. The bridge was built in 1938 and has a sufficiency rating of 46.8 out of a possible 100 points.

Development along the western portion of the studied route is heavy and is predominantly commercial. Moving eastward, the development becomes less dense and changes to residential, then farms and woodlands. The Knottville Volunteer Fire Department is located on the south side of NC 268 approximately 0.25 mile east of SR 1966.

### Traffic Volumes, Capacity, and Accident Record

The current traffic volumes range from a low of 8200 vehicles per day (vpd) at the east end of the project to 19,800 vpd at the west end of the project. By the year 2010, these volumes are projected to increase to approximately 12,500 vpd and 27,000 vpd, respectively. With the current traffic volumes, NC 268 is operating at Level of Service E during peak periods. This level of service is characterized by congestion and delays to motorists. Without improvements to the highway, the level of traffic service will deteriorate in the future as traffic volumes continue to grow. With the proposed improvements, NC 268 should operate at Level of Service C or better throughout the planning period.

During the period from January 1, 1986 through September 30, 1989, a total of 119 accidents were reported on the subject portion of NC 268, resulting in an accident rate of 179.4 accidents per 100 million vehicle miles (acc/100mvm). This compares to a statewide average of 277.1 acc/100mvm for all two-lane, urban North Carolina routes over a similar period. The most common accident type was the rear-end collision. The proposed improvements to NC 268 should reduce the potential for this type of accident.

### Need for Project

The widening of NC 268 to a multi-lane section is needed to provide adequate capacity for existing and future traffic volumes. The project will improve access into North Wilkesboro from the northeast and will improve access to the development along road. The project will also enhance safety along the road.

### III. RECOMMENDATIONS AND COSTS

The widening of NC 268 to a multi-lane facility is immediately warranted. The recommended improvement is a five-lane cross section. From the existing multi-lane section to the Mulberry River, a 64-foot, from face to face of curbs, curb and gutter cross section is recommended. From the river to the end of the project, a 60-foot shoulder section is recommended with 10-foot usable shoulders, including 2-foot paved shoulders. A new bridge for the river crossing is proposed. Widening is recommended to be generally symmetrical about the existing centerline; however, it may need to be shifted at specific locations to avoid undue damage to one side or to avoid wetland involvement. A 100-foot right-of-way, plus construction easements as needed, are anticipated for the proposed roadway.

The estimated costs of this project are as follows:

Construction	\$ 4,350,000
Right-of-Way	<u>3,400,000</u>
TOTAL	\$ 7,750,000

The construction cost includes engineering and contingencies and the right-of-way cost includes relocation, acquisition, and utility costs.

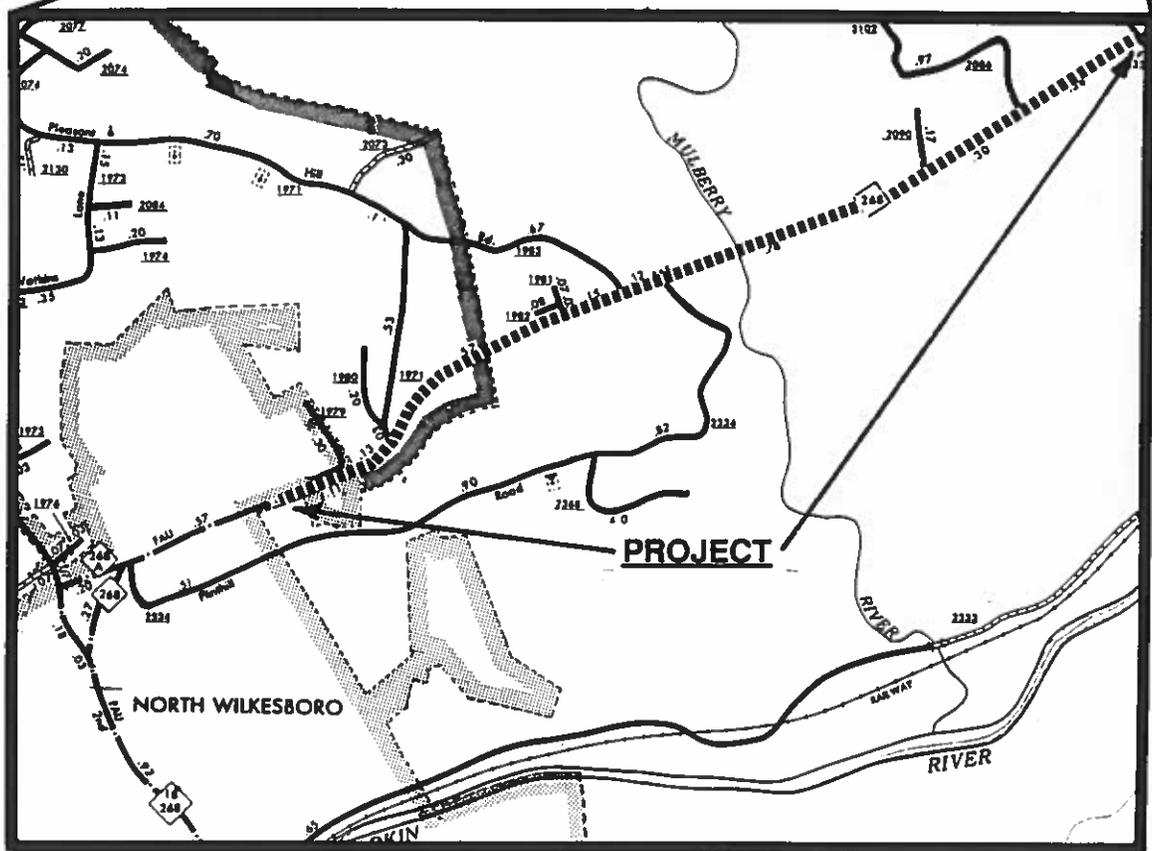
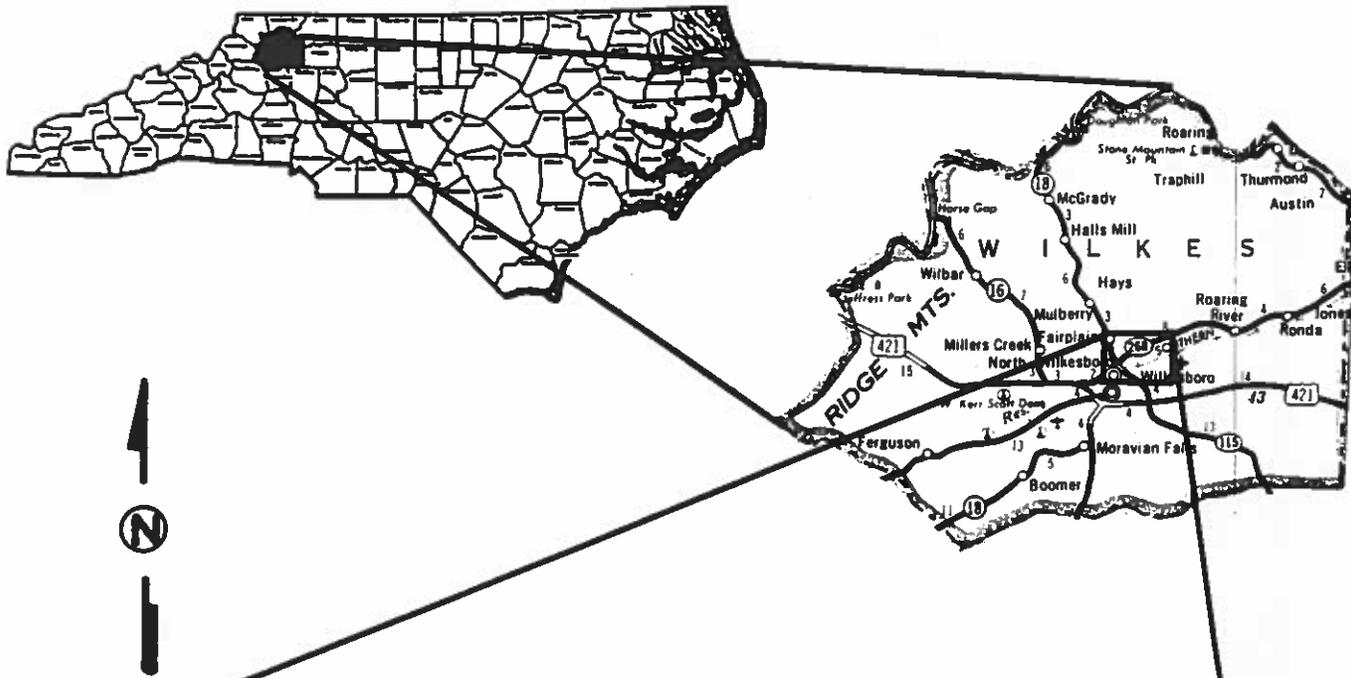
#### IV. ENVIRONMENTAL EFFECTS

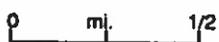
The implementation of the proposed project is not expected to result in any significant impact on the environment. The widening of the subject road will require the relocation of an estimated 3 residences and 1 business. The project will also result in increased noise levels for development adjacent to the roadway. A tributary of the Mulberry River parallels NC 268 on the south side, west of the river crossing. Care should be taken during the design and construction of the project to avoid any wetlands associated with this stream. The construction of a new bridge over the Mulberry River may involve a small amount of wetlands that cannot be avoided. Other impacts will be primarily related to the actual construction of the proposed roadway. These include minor erosion and siltation, increased noise levels from construction machinery, and delay and inconvenience to motorists using the subject route.

#### V. FUTURE ACTIVITIES

If the project is to be implemented at a future date, all feasible alternatives and their associated impacts will need to be evaluated in a planning/environmental document prior to that time, and a decision made as to the most appropriate improvement.

RBD/plr



	<b>NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PLANNING AND RESEARCH BRANCH</b>
	<p align="center"> <b>NC 268 FROM EXISTING MULTI-LANES EAST OF NC 18 TO SR 1966 WILKES COUNTY, R-2603</b> </p>
<p align="center">  <span style="float: right;">FIG. 1</span> </p>	