

FEASIBILITY STUDY

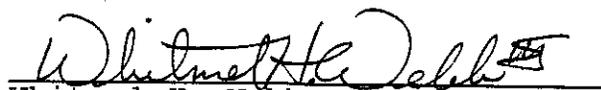
Winston Salem
SR 1672 (Hanes Mill Road)
From Landfill Access Road
To SR 4000
Forsyth County
U-2729

Prepared by
Program Development Branch
Division of Highways
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10/17/91
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I. GENERAL DESCRIPTION

This is a feasibility study to widen SR 1672 (Hanes Mill Road) to a five lane curb and gutter section from Landfill Road to SR 4000, a distance of 0.3 miles (see Figure 1). The required road width is 64 feet face to face to be widened asymmetrically to the southeast on 90 feet of right-of-way. These improvements include widening the existing bridge over US 52 to a 64 foot clear roadway width. The total estimated cost for the recommended improvements is \$1,460,000.

This is not an exhaustive environmental or design investigation but a preliminary study to define feasible project alternatives and determine estimated right-of-way and construction costs for these alternatives.

II. NEED FOR PROJECT

The purpose of this project is to increase the capacity of SR 1672 by providing two lane traffic in each direction with a center turn lane and to provide left-turn lanes on SR 1672 for US 52 on-ramp traffic. This project was requested by the Forsyth County Board of Commissioners, Winston Salem Board of Aldermen, City/County Planning Board and the Forsyth County Transportation Advisory Committee.

Hanes Mill Road (SR 1672) is classified an Urban Local route north of US 52 to SR 4000 and as an Urban Collector south of US 52 to the Landfill Road in the Statewide Functional Classification System. SR 1672 from Landfill Road to SR 4000 is classified as a Non-Federal Aid, Urban route.

SR 1672 is shown on the 1987 Thoroughfare Plan for the Winston Salem Urban Area as a minor thoroughfare. The land use is mixed residential, business/commercial and industrial with no access control except through the interchange.

Abutting this project to the southwest, Hanes Mill Road has been widened to a 5-lane curb and gutter section ending at Landfill Road. This feasibility study considers extending the 5 lane curb and gutter improvements on SR 1672 from the Landfill Road to SR 4000. SR 1672 within the project limits is a 2-lane facility with 24 feet of pavement and 6-foot grassed shoulders. The intersection of SR 1672 and SR 4000 is signalized.

The clear roadway width on Bridge #290 over US 52 is 28 feet. This bridge has a sufficiency rating of 76 percent. The vertical clearance is 15' 7" which meets the Bridge Policy for Local and Collector Roads. Since US 52 is classified as a Urban Freeway or Expressway, this project would ideally have a vertical clearance of 16' 6" or 17' 0" now required for interstates and arterials. The cost estimates made in this report are for the 15' 6" clearances.

The Average Daily Traffic (ADT) volume 3/4 mile south of the bridge is 8,600 vehicles per day based on 1990 counts. The ADT is estimated to be 17,200 vpd by the year 2010. Capacity Analysis indicates the existing facility is currently operating at Level of Service D. The proposed improvements will provide a Level of Service C in the year 2010.

Accident records from the past three years show that the number of accidents is escalating along this road. There were 3 accidents in 1988, 5 in 1989 and 11 in 1990. This resulted in an accident rate of 637.58 accidents per 100 million vehicles miles (Acc/100 MVM), compared to a statewide average of 382.5 Acc/100 MVM for all urban State Routes. The wider cross section and center left-turn lane proposed in this report should reduce the potential for these types of accidents.

III. RECOMMENDATIONS

It is recommended to widen SR 1672 asymmetrically (expanding to the southeast) with respect to the centerline of the bridge and roadway so that the present ramps of US 52 can remain unaltered and in service. A 90 foot right-of-way will be required. The recommended five-lane curb and gutter section (64 feet face to face) will match the improvements completed south of the Landfill Road and extend 0.3 miles to SR 4000. There will be no control of access except for the full control of access in the area of the interchange. Minor signal revision will be required at the SR 1672-SR 4000 intersection to accommodate widened SR 1672.

The total estimated cost is \$1,460,000 including \$260,000 for right-of-way and \$1,200,000 for construction. Utility conflicts are low. Approximately one residential and no business relocatees will be required.

IV. OTHER STUDIED ALTERNATIVES

The alternative of symmetrical widening of SR 1672 was considered. Symmetrical widening costs approximately \$170,000 more and would require modification of the ramps on the west side of the US 52 interchange.

V. COST ESTIMATES

Asymmetric widening (recommended)

R/W Cost : \$ 260,000
Construction Cost : 1,200,000

Total Cost: \$1,460,000

Symmetrical Widening

R/W Cost : \$ 230,000
Construction Cost : 1,400,000

Total Cost: \$1,630,000

VI. OTHER COMMENTS

The Bicycle Program did not have recommendations for SR 1672 at this location. No environmental screening was made. No wetlands or public parks are likely affected by this project. The Nature Science Center is located south of Museum Drive. The transition to an asymmetrical widening should take place north of the Museum Drive to avoid the park.

