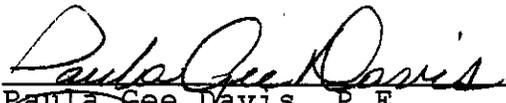


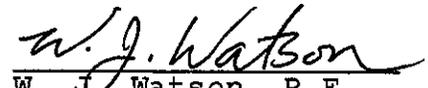
FEASIBILITY STUDY

Hayesville
US 64
From SR 1100 to NC 69
Clay County
R-2703

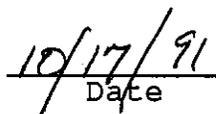
Prepared by
Program Development Branch
Division of Highways
N. C. Department of Transportation



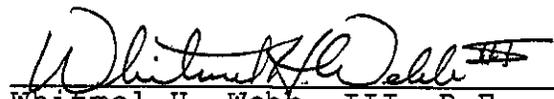
Paula Gee Davis, P.E.
Highway Planning Engineer



W. J. Watson, P.E.
Highway Planning Engineer



Date



Whitmel H. Webb, III, P.E.
Head of Feasibility Studies

Hayesville
US 64
From SR 1100 to NC 69
Clay County
R-2703

I. GENERAL DESCRIPTION

This is a feasibility study to widen US 64 at Hayesville from SR 1100 to NC 69, a distance of 0.8 miles. A 3-lane, 40-foot wide pavement on a 70 foot wide right-of-way is proposed. The total estimated cost for the recommended improvements is \$605,000. This project is located in Clay County and is shown on Figure 1.

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 provide left-turn lanes on US 64. The accident rate on US 64 between NC 69 and SR 1100 is 5 times greater than the statewide average for rural US routes. The wider cross section with center turn lane proposed for US 64 will reduce the accident potential on this facility. The frequency of rear-end and left-turn type accidents will be mitigated by the shared center lane, which will provide safer access to the numerous businesses along US 64 in the project area. At the same time, these improvements will provide better capacity on US 64 for the design year traffic. This project was requested by the Clay County Manager.

US 64 is classified as a Rural Minor Arterial in the Statewide Functional Classification System and is part of the Rural, Federal Aid Primary System. A Preliminary Thoroughfare Plan for Clay County (1972), including Hayesville, classifies US 64 as a minor arterial. Land use is primarily retail/commercial with no control of access.

US 64 is a 2-lane facility with 24 feet of pavement and 12-foot grassed shoulders. The existing right-of-way varies from 100 feet to 225 feet in width. US 64 intersections with NC 69 and US 64 Business have left turn lanes provided. The intersection of US 64 and NC 69 is signalized.

The 1990 Average Daily Traffic (ADT) volume is 5,400 vehicles per day (vpd). Traffic is estimated to be 10,800 vpd by the year 2010. Capacity analysis for the existing conditions indicates a Level of Service C. The future volume of 10,800 vpd on the existing two lane road will result in a

Level of Service D. However, providing the two way left turn lane can help to maintain through traffic capacity.

Accident records from the past three years show an accident rate of 755.21 accidents per 100 million vehicles miles (Acc/100 MVM), compared to a statewide average of 160.4 Acc/100 MVM for all rural US Routes in 1989. No fatal injuries have occurred. Of the 29 accidents occurring in the past three years, rear-end collisions accounted for 27% of the accidents, 17% were left-turn accidents, and 41% were angle accidents. The proposed left turn lane will provide storage and time for turning movements and reduce the potential for these types of accidents.

III. RECOMMENDATIONS

It is recommended to widen US 64 symmetrically with respect to the centerline of the existing roadway from SR 1100 to NC 69, a distance of 0.8 miles. A 3-lane shoulder section (40 feet pavement width) is recommended. No additional right-of-way will be required. There will be no control of access. Abutting this project to the east, US 64 is scheduled for upgrading of the existing two lane facility between NC 69 and NC 175. US 64 is a 2-lane road west of Hayesville and no improvements are being considered for this section.

The total estimated cost is \$605,000 including \$80,000 for utilities and \$525,000 for construction. Utility conflicts are medium and consist of some electrical/telephone poles and sewer lines on the south side of the road and waterlines on the north side of the road.

IV. OTHER STUDIED ALTERNATIVES

The alternative of providing a 3-lane curb and gutter section was considered. Since there is already sufficient right-of-way width to accommodate a shoulder section, a curb and gutter section offered no advantage. The curb and gutter typical section costs \$125,000 more than the shoulder section and is therefore not recommended.

V. COST ESTIMATES

3-Lane Shoulder Section (recommended)

R/W Cost (Utilities) : \$ 80,000
Construction Cost : 525,000

Total Cost: \$ 605,000

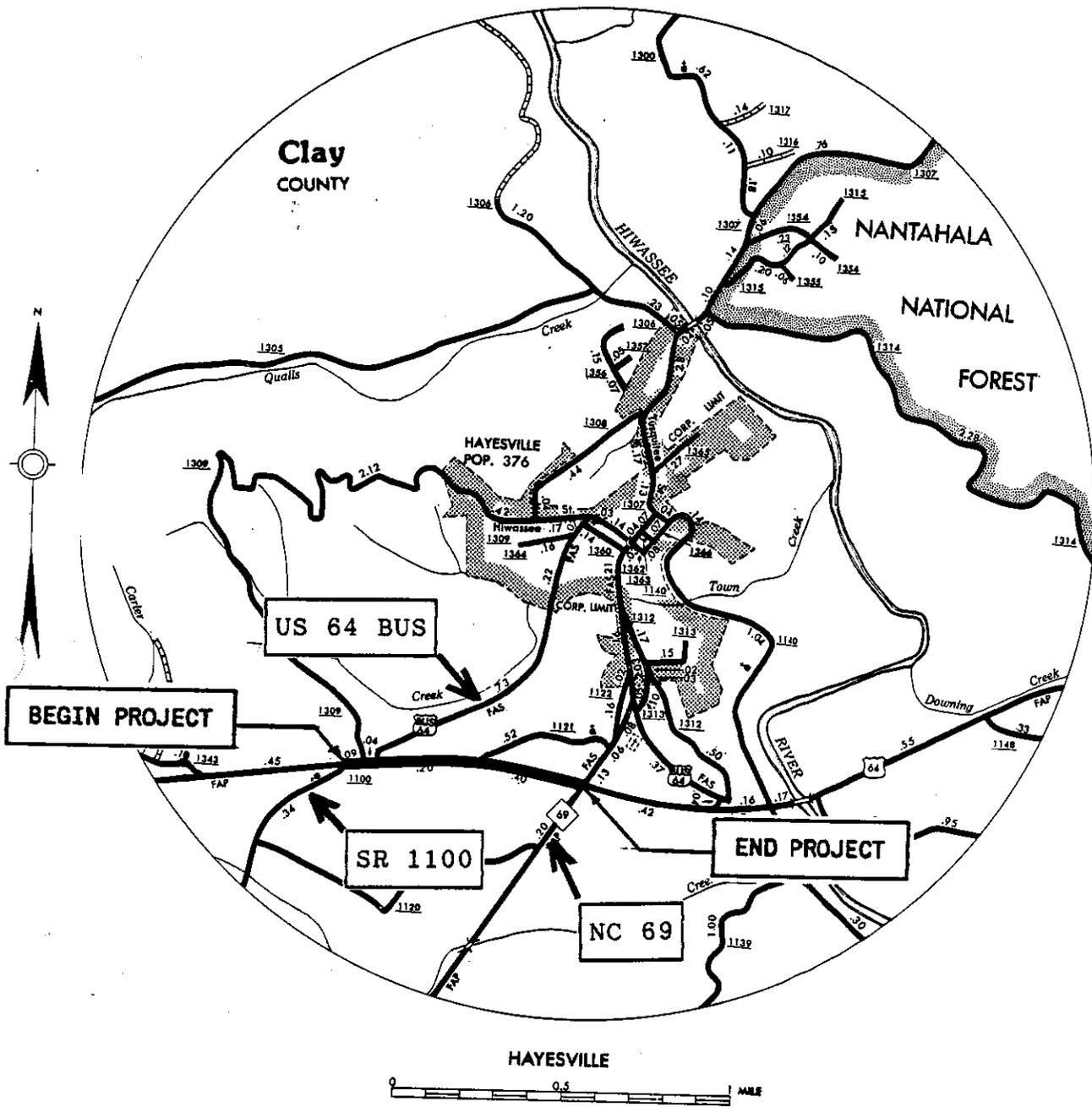
3-Lane Curb and Gutter

R/W Cost (Utilities) : \$ 80,000
Construction Cost : 650,000

Total Cost: \$ 730,000

VI. OTHER COMMENTS

The Bicycle Program did not have recommendations for US 64 at this location. No environmental screening was made. No wetlands or public parks were observed in the project area.



<p>HAYESVILLE US 64 BYPASS FROM SR 1100 TO NC 69 VICINITY MAP</p>	
<p>FEASIBILITY STUDIES UNIT</p>	
R-2703	CLAY COUNTY
<p>SCALE: 1" = 0.5 MI. DATE: JULY, 91</p>	

FIGURE 1