

FEASIBILITY STUDY

NC 101
From Havelock to Beaufort
Craven-Carteret Counties
R-2223

Prepared By
Planning and Research Branch
Division of Highways
N. C. Department of Transportation

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The subject project is included in the 1987-1995 Transportation Improvement Program for feasibility study and/or right-of-way protection. This report provides a brief, initial analysis of possible improvements. The project is not currently funded.

I. GENERAL DESCRIPTION

The proposed project consists of widening NC 101 from SR 1735 in Havelock to US 70 east of Beaufort (see Figure 1). Provision of a 28-foot pavement, with adequate shoulders, is recommended. In addition, a four-lane urban curbed roadway should be provided for a distance of 0.6 mile within Havelock.

II. PURPOSE OF PROJECT

The purpose of the project is to upgrade NC 101 to current design standards. The recommended additional pavement width will improve traffic flow and safety.

III. EXISTING CONDITIONS

NC 101 is designated a major collector route in the statewide highway system. The studied 22.5 mile segment traverses Carteret and Craven Counties (see Figure 1). NC 101 is a two-lane facility throughout this area and connects Havelock with Beaufort.

The studied route has a 20-foot pavement with 8 to 10-foot shoulders along generally good alignment. Development is rural in nature, although suburban development exists near Havelock and Beaufort. Speed limit is 55 MPH except 45 MPH within Havelock and Beaufort. The west terminal of the proposed project adjoins a 44-foot curbed roadway within Havelock.

A total of 215 accidents were reported in a recent 3-year period. This resulted in an accident rate of 267 accidents per 100 million vehicle miles, which is somewhat higher than the statewide average of 236 accidents per 100 million vehicle miles for two-lane NC routes.

Current traffic volumes on the rural segments of NC 101 range from 2,000 VPD (low) to 4,300 VPD (high) (see Figure 1). By the year 2007, these volumes are expected to increase to 3,600 VPD (low) and 7,700 VPD (high). Within Havelock, the current volume of 9,000 VPD is expected to increase to 16,200 VPD. Truck traffic includes 4% TTST and 5% dual-tired vehicles. The existing roadway (in the rural areas) operates at Level of Service A thru C. Within Havelock, the route provides Level of Service D.

Three bridges are located along the studied segment of NC 101 (see Figure 1). A replacement bridge over Russell Creek (B-1101) is currently under construction. A second bridge over Harlowe Canal (B-1099) is scheduled for replacement in fiscal year 1989. A drawbridge over the Intracoastal Waterway has been proposed for replacement by the U. S. Army Corps of Engineers.

IV. RECOMMENDED IMPROVEMENTS

The most feasible method of improving NC 101 is to widen the existing roadway. Widening to an adequate two-lane facility (28-foot pavement plus shoulders) is recommended. In addition, a four-lane urban curbed roadway should be provided within Havelock from SR 1735 to the east corporate limits, a distance of 0.6 mile.

The estimated cost of recommended improvements is \$10,700,000, including \$6,000,000 for construction and \$4,700,000 for right-of-way acquisition.

Approximately 80 feet of right-of-way will be required to contain construction.

Cost estimates were prepared by the Roadway Design Unit and the Right-of-Way Branch. Estimates were based on a county map and a field investigation.

V. ALTERNATIVES

There are no feasible alternatives to widening the existing roadway.

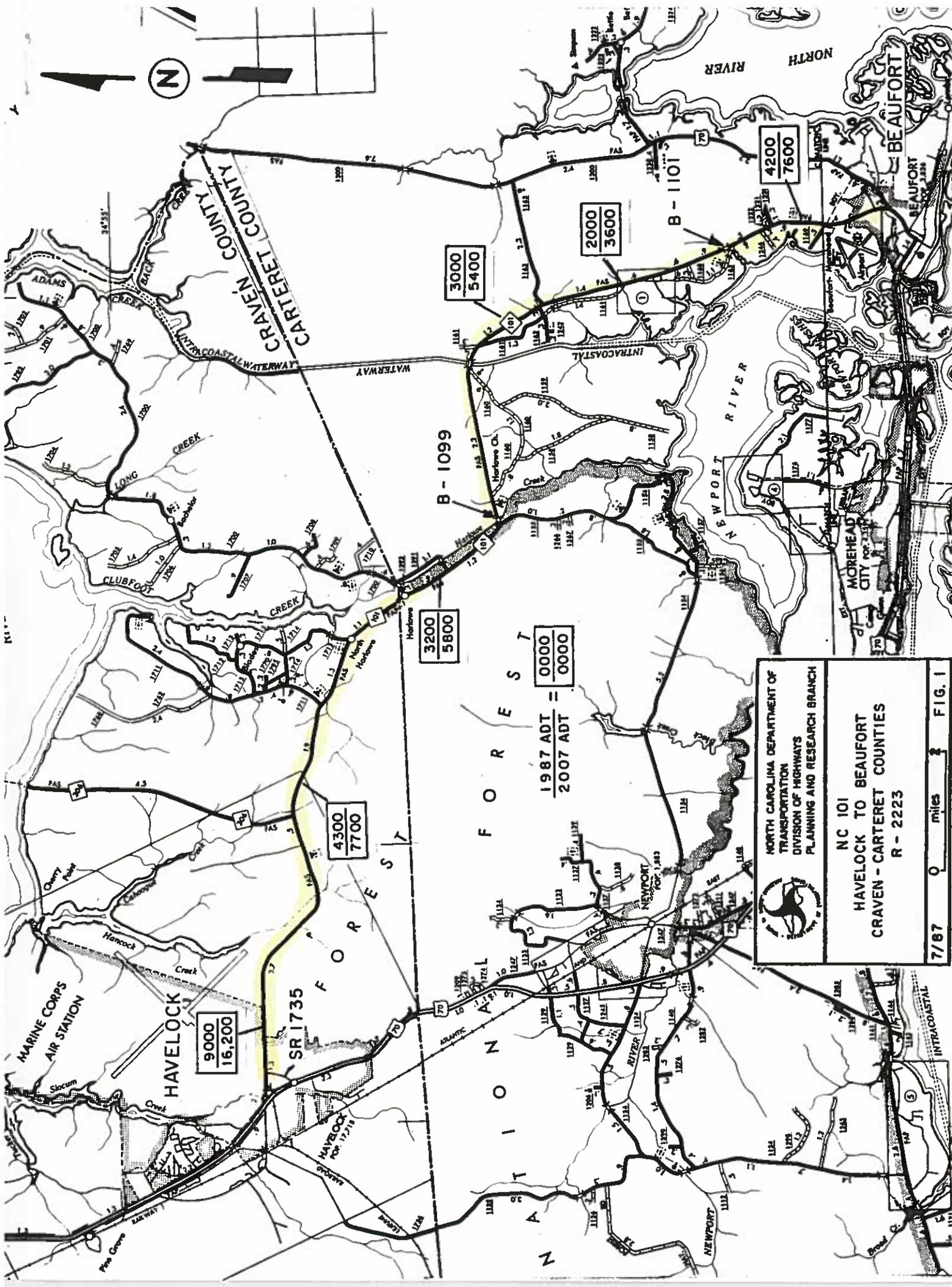
It has been assumed in this report that an 80-foot right-of-way would be required to contain construction. Utilization of lower design standards (side slopes, ditches, etc.) would probably contain improvements within a 70-foot right-of-way. This alternative would reduce the right-of-way cost from \$4,700,000 to \$3,000,000 and would reduce the total project cost from \$10,700,000 to \$9,000,000.

VI. ENVIRONMENTAL IMPACTS

The environmental consequences of the project are not expected to be significant. Possible negative impacts include some increase in noise levels and the possible loss of some wetlands at stream crossings. It does not appear that relocation of families or businesses would be necessary.

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 and environmental document prior to that time, and a final decision made as to the most appropriate improvement.

PWE/sdt



B - 1099

3200
5800

2000
3600

4200
7600

9000
16,200

4300
7700

1987 ADT = 0000
2007 ADT = 0000

 <p>NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PLANNING AND RESEARCH BRANCH</p>	<p>NC 101</p>
	<p>HAVELOCK TO BEAUFORT CRAVEN - CARTERET COUNTIES R - 2223</p>
<p>7/87 0 miles 3 FIG. 1</p>	

MARINE CORPS
AIR STATION

HAVELOCK

SR 1735

HAVELOCK
POP. 12,718

NEWPORT
POP. 1,843

MOREHEAD
CITY POP. 1,117

BEAUFORT
POP. 1,000

CARTERET COUNTY

CRAVEN COUNTY

INTRACOASTAL
WATERWAY

NEWPORT RIVER

ADAMS CREEK

LONG CREEK

CLUBFOOT CREEK

HENOCK CREEK

STOCUM CREEK

PRO GRASS

RAILWAY

ATLANTIC

NEWPORT

INTRACOASTAL

BEAUFORT

BEAUFORT

BEAUFORT

BEAUFORT