

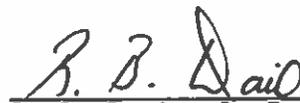
FEASIBILITY STUDY

Hickory, North Crosstown Loop,
From NC 127 to NC 16 in Conover,
Catawba County
U-2531

Prepared by
Planning and Environmental Branch
Division of Highways
N. C. Department of Transportation

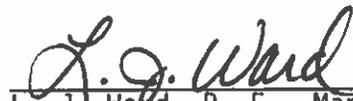


Marc Hamel
Project Planning Engineer



R. B. Davis, P. E.
Unit Head, Project Planning

11-1-90
Date



L. J. Ward, P. E., Manager
Planning and Environmental Branch

Hickory, North Crosstown Loop,
From NC 127 to NC 16 in Conover,
Catawba County
U-2531

I. DESCRIPTION

This report covers a preliminary study of the proposed North Crosstown Loop for Hickory in Catawba County. As shown on Figure 1, this study extends from NC 127 in Hickory to NC 16 in Newton. The project is approximately 7.7 miles in length, and appears in the 1990-1996 Transportation Improvement Program (T.I.P.) for feasibility study and/or right-of-way protection. It is not currently funded.

II. PURPOSE OF PROJECT

The overall purpose of this project is to provide crosstown access for the dense residential areas of northern Hickory. This would relieve traffic congestion on the sparse, existing, through-town routes. The proposed alignment generally follows the recommended thoroughfare plan (see Figure 2). This vital link on the Hickory-Newton-Conover Thoroughfare Plan appears as a proposed major thoroughfare.

Existing Route Characteristics

The recommended alignment utilizes sections of existing SR 1441 (12th Avenue Drive/Spencer Road), and SR 1413 (14th Avenue N.E.). SR 1441 has an 18 to 20-foot pavement with intermittent sections of curb and gutter, and SR 1413 has an 18-foot cross section with minimal unpaved shoulders. This proposed loop will also intersect the following major secondary routes: SR 1424, SR 1401, SR 1453, SR 1491 (Section House Road), and SR 1484 (County Home Road).

Development along the proposed alignment is primarily dense residential and woodland. An existing golf course borders the project near 5th Street N.E.

The east end of the project is to tie into the alignment recommended for T.I.P. project number U-2404 at NC 16 north of Conover. The recommended cross section for that project is a two-lane cross section on multi-lane right-of-way.

Need for Project

Justification for a North Crosstown Loop above Hickory stems from a need to provide (a) better traffic service for northern Hickory by reducing through-town movements, and (b) relief for heavily used existing east/west routes. This route is a vital link in the thoroughfare plan for the urban area, and will allow northern Hickory direct access to I-40.

III. RECOMMENDATIONS AND COSTS

The adopted Hickory-Conover-Newton Thoroughfare Plan shows a proposed alignment for the studied segment of the loop. The recommended alignment follows this thoroughfare plan alignment closely (see Figure 2). An aerial photograph showing the recommended route is on file in the Planning and Environmental Branch.

The project is divided into 3 segments for staged construction if desired:

<u>Segment</u>	<u>From</u>	<u>To</u>	<u>Length (miles)</u>
A	NC 127	SR 1453	2.7
B	SR 1453	SR 1490	3.2
C	SR 1490	NC 16	1.8

Projected traffic volumes for the studied loop range from an estimated 9500 vehicles per day (vpd) to 13,800 vpd. These volumes are indicated on Figure 2.

The recommended cross section for the entire project is a five-lane, 64-foot paved section with curb and gutter. The estimated right-of-way width used for cost estimating purposes is 150 feet.

The estimated cost for the recommended improvements are as follows:

<u>Segment</u>	<u>Construction Cost</u>	<u>Right-of-way Cost</u>	<u>Total Segment Cost</u>
A	\$5,100,000	\$8,300,000	\$13,400,000
B	\$6,000,000	\$5,100,000	\$11,100,000
C	\$4,100,000	\$3,300,000	\$ 7,400,000

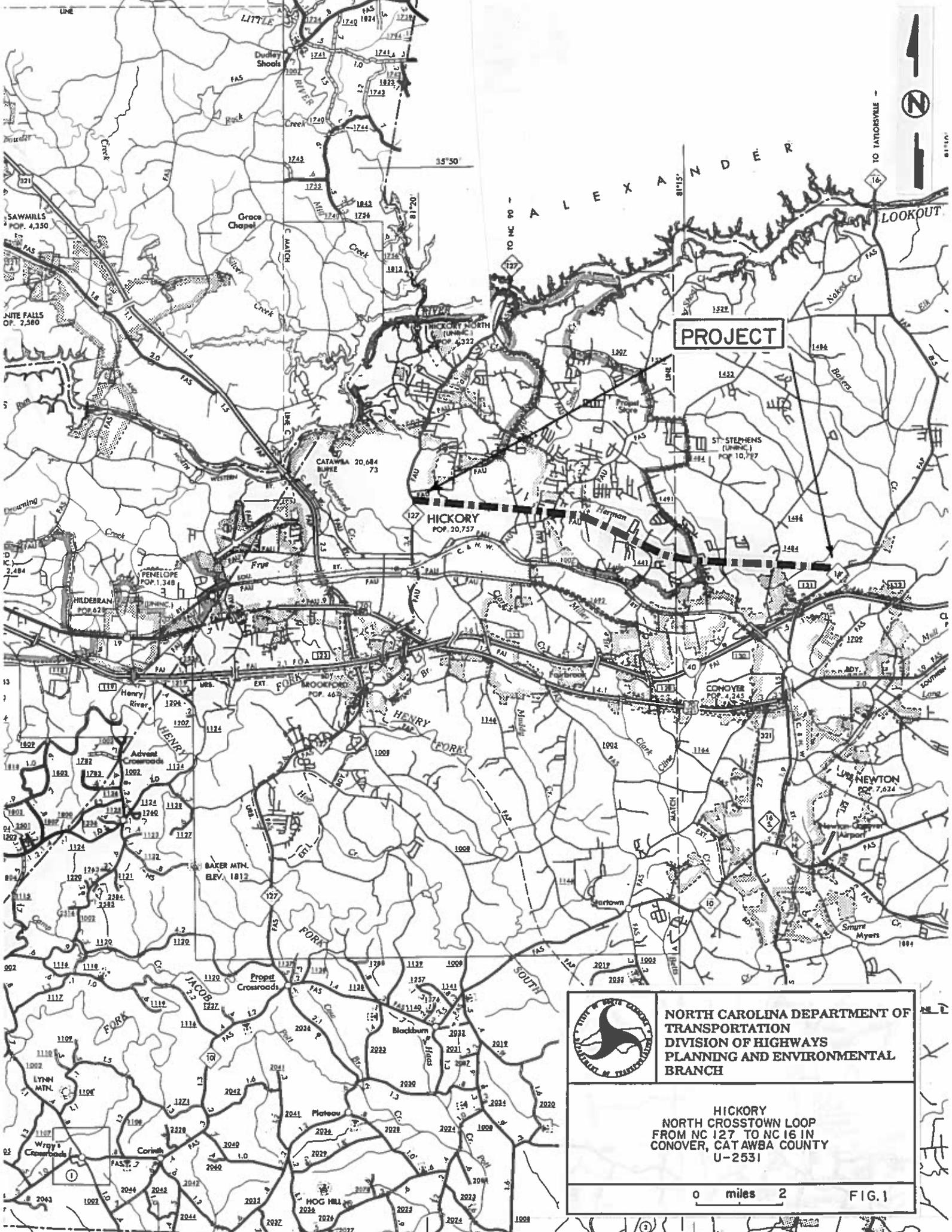
Thus, the total cost of the proposed facility is \$31,900,000, with \$15,200,000 for construction and \$16,700,000 for right-of-way. The above cost estimates were prepared by the Preliminary Estimate Engineer and the Right-of-Way Branch.

IV. OTHER COMMENTS

Possible negative environmental impacts of the recommended project are: (1) relocation of approximately 26 residences and 6 businesses; (2) increased noise levels for remaining properties; (3) loss of a small amount of woodlands and farmlands, and (4) possible loss of golf course property along its southern limit.

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

MH/plr



PROJECT



**NORTH CAROLINA DEPARTMENT OF
TRANSPORTATION
DIVISION OF HIGHWAYS
PLANNING AND ENVIRONMENTAL
BRANCH**

**HICKORY
NORTH CROSTOWN LOOP
FROM NC 127 TO NC 16 IN
CONOVER, CATAWBA COUNTY
U-2531**

0 miles 2 **FIG. 1**



	<p>NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PLANNING AND ENVIRONMENTAL BRANCH</p>
<p>HICKORY NORTH CROSSTOWN LOOP FROM NC 127 TO NC 16 IN CONOVER, CATAWBA COUNTY U-2531</p>	
<p>0 feet 2000 FIG. 2</p>	