

FEASIBILITY STUDY

Fayetteville  
US 401 Bypass  
From NC 24 (Bragg Blvd.) to US 401 Business (Raeford Road)  
Cumberland County  
U-2207

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

July, 1987

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Cumberland County  
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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. This project is not currently funded.

### I. General Description

The proposed project consists of widening US 401 Bypass from NC 24 (Bragg Blvd.) to US 401 Business (Raeford Road), a distance of approximately 3.5 miles (see Figures 1 and 2). Provision of a seven-lane, 88-foot face to face of curbs, curb and gutter cross section appears to be feasible.

### II. Purpose of Project

US 401 Bypass is designated a major thoroughfare in the Fayetteville - Hope Mills - Spring Lake Thoroughfare Plan. Current traffic volumes range from 25,400 vehicles per day (vpd) to 30,300 vpd. In the design year (2007) these volumes are expected to increase to 45,700 vpd and 53,600 vpd (see Figure 3).

Throughout the studied project area the existing cross section width is 68 feet (face to face of curbs) and the existing right-of-way width varies from 80 to 100 feet. The Cape Fear Railroad line runs parallel to the existing pavement on the eastern side from Bragg Boulevard to Cliffdale Road (SR 1400). The railroad right-of-way width in this area is 20 feet.

The speed limit in the studied area is 45 miles per hour. Traffic signals exist at Raeford Road, Cliffdale Road, SR 1534, SR 1413, Morganton Road, SR 3196, All American Freeway, Yadkin Road, McPherson Church Road and Bragg Boulevard. Development along the project is heavily commercial with several shopping centers existing or under construction.

### III. Alternatives

The widening location from Bragg Boulevard to Cliffdale Road is dependent on whether Cape Fear Railroad will abandon its line adjacent to the existing roadway. If the track is abandoned widening should be done on the western side of the existing pavement. Construction is estimated to cost approximately \$4.1 million including widening the existing bridge over All American Freeway. Right-of-way is expected to cost approximately \$2.7 million.

If the railroad is not abandoned, widening could be done on the eastern side of existing US 401 Bypass with construction still costing approximately \$4.1 million and right-of-way \$3.3 million. An alternative to widening on the eastern side would be to widen on the western side and relocate a portion of the Cape Fear Railroad line. If this alternative is taken, a new railroad bridge over All American Freeway would be necessary and the existing railroad bridge removed. The cost for construction of this alternative is approximately \$5.8 million and the right-of-way cost approximately \$3.95 million. Intersection and signal improvements were not included in this study.

From Cliffdale Road to US 401 Business widening can be done symmetrically about the existing centerline.

#### IV. Recommended Improvements

Widening US 401 Bypass to a multi-lane facility is highly desirable. Provision of a seven-lane, 88-foot face-to-face of curbs, curb and gutter cross section is recommended. A total width of 120 feet of right-of-way will be necessary to contain construction. No change in access control is proposed at this time. Also, widening of the bridge over All American Freeway (SR 1007) will be needed.

According to the Division Engineer, there is a strong possibility that the Cape Fear Railroad line will be abandoned. However, officials at Fort Bragg must agree with the abandonment.

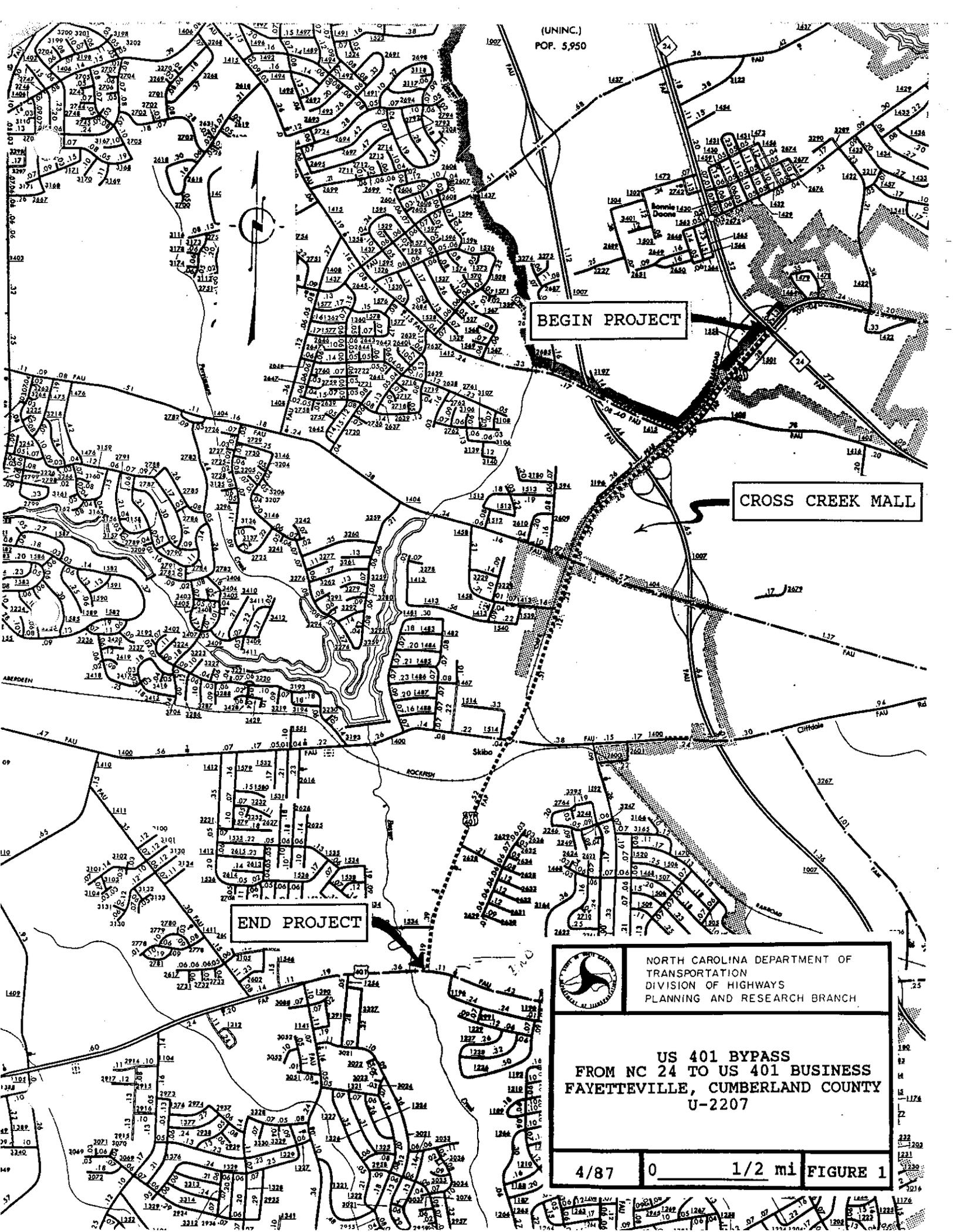
A variable width, raised concrete median extends throughout most of the project area. It is desirable to replace this median after widening is done in order to maintain traffic flow. The cost of removing the median and replacing it in the center lane of the proposed widening is approximately \$300,000. This cost is included in the construction cost of the alternatives.

#### V. Possible Environmental Impacts

There is strong local support for the proposed widening of US 401 Bypass in Fayetteville. The Division Engineer also supports the proposed project. If the project is constructed, further environmental studies, planning studies, and cost estimates would be needed. No significant environmental impacts are anticipated.

LSH/sdt

(UNINC.)  
POP. 5,950



BEGIN PROJECT

CROSS CREEK MALL

END PROJECT



NORTH CAROLINA DEPARTMENT OF  
TRANSPORTATION  
DIVISION OF HIGHWAYS  
PLANNING AND RESEARCH BRANCH

US 401 BYPASS  
FROM NC 24 TO US 401 BUSINESS  
FAYETTEVILLE, CUMBERLAND COUNTY  
U-2207

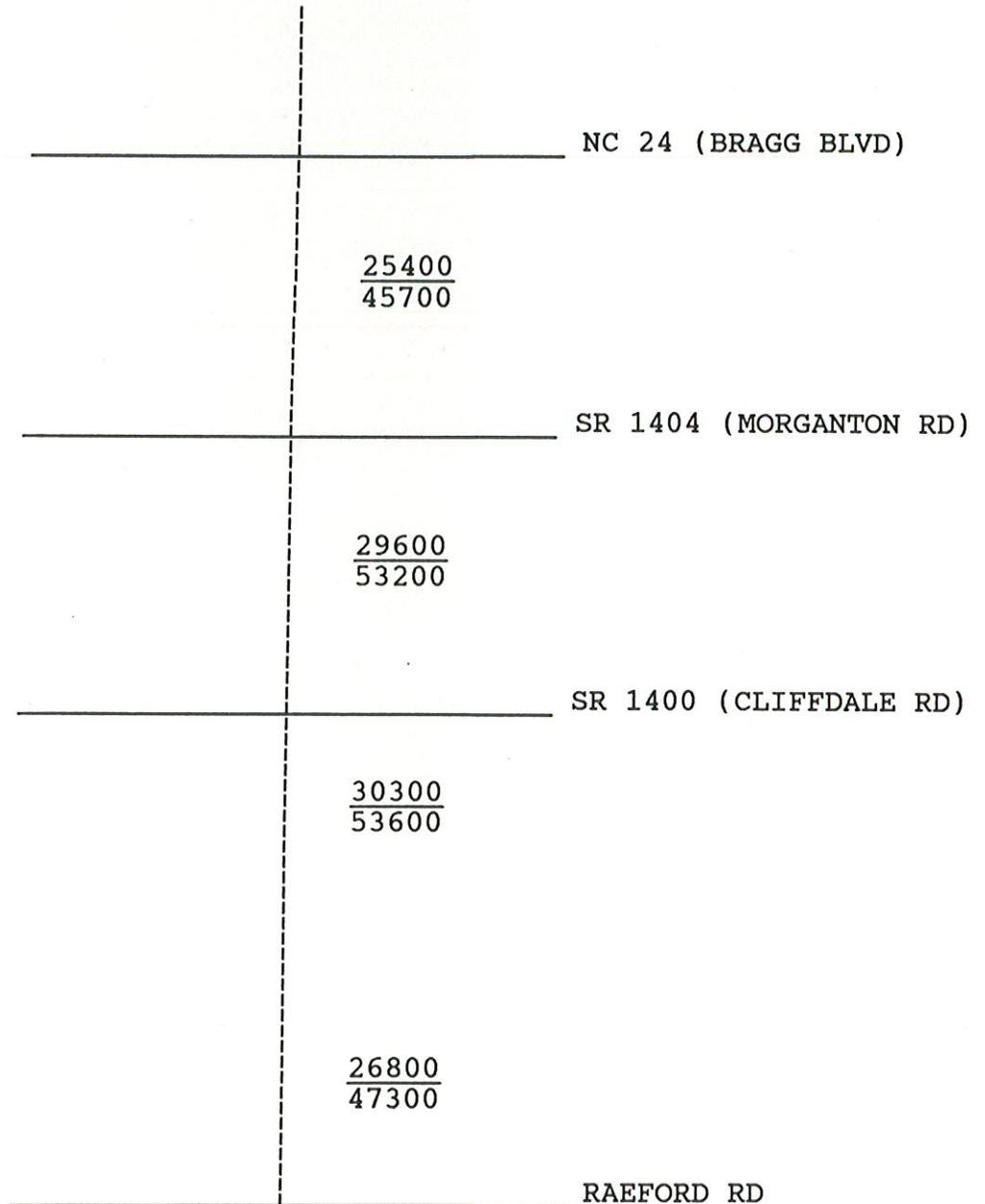
4/87 0 1/2 mi FIGURE 1



 NORTH CAROLINA DEPARTMENT OF  
TRANSPORTATION  
DIVISION OF HIGHWAYS  
PLANNING AND RESEARCH BRANCH

US 401 BYPASS  
FROM NC 24 TO US 401 BUSINESS  
FAYETTEVILLE, CUMBERLAND COUNTY  
U - 2207

FAYETTEVILLE  
 US 401 BYPASS  
 U-2207, CUMBERLAND COUNTY  
 ESTIMATED 1987/2007 ADT



DUAL - 3%  
 TTST - 1%  
 TWIN TRLRS - 0%  
 DHV - 10%

**FIGURE 3**  
 NOT TO SCALE