

FEASIBILITY STUDY

HILLSBOROUGH  
WESTERN BYPASS  
FROM US 70 BYPASS TO NC 57  
ORANGE COUNTY

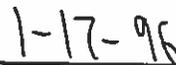
R-3438

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



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Date

Hillsborough  
Proposed Western Bypass  
From NC 57 to US 70 Bypass  
Orange County  
R-3438

**I. General Description**

This feasibility study describes the proposed Western Bypass around Hillsborough, Orange County. The project involves constructing a two-lane facility on new location around the northwest side of Hillsborough, that will connect NC 57, NC 86, and the US 70 Bypass, a distance of approximately 2.9 miles (4.7 km). The proposed cross-section is two-lanes with 2-foot (0.6 m) paved shoulders. This facility is not identified in the Hillsborough Transportation Plan for pedestrian or bicycle facilities. It is anticipated that there will be 1 residence and no businesses relocated due to this project. The total cost of the project including construction and right-of-way is estimated to be \$ 5,300,000.

This study is the initial step in the planning and design process for the project and is not the product of exhaustive environmental or design investigations. The purpose of this study is to describe the proposed project, including costs, and identify potential problems that may require consideration in the planning and design phases.

**II. Need for Project**

The purpose of this project is to provide an alternate route for through-traffic that is traveling between NC 86, NC 57 and I-40/I-85. It will allow traffic to bypass the intersection of US 70 Bypass with NC 86 and will remove a small amount of traffic from the congested downtown of Hillsborough, particularly Churton Street. If designated as a truck route, the bypass will provide trucks with an alternate route to downtown by carrying them directly from I-40/85 to NC 86 and NC 57.

The proposed Western Bypass is designated as a major thoroughfare on the Hillsborough Thoroughfare Plan.

The Western Bypass is projected to carry approximately 3,800 vehicles per day (vpd) in the design year (2020). Also in the design year, it will remove approximately 2,400 vpd from the intersection of NC 86 and US 70 Bypass, and 600 vpd from Churton Street. If the Western Bypass is designated as a truck route in conjunction with the new Efland Interchange (I-304), it has the potential to remove approximately 800 heavy trucks (TTST) per day (2020) from Churton Street. It should be noted, however, that most of these trucks would be removed by ordinance and not by introduction of a preferred travel pattern. This truck route would increase travel distance and cost for trucks making the north-east and east-north movements.

The project corridor is located through primarily undeveloped land. There is low density residential development and one industry (Major Business Forms) along Coleman Loop Road (SR 1332) near NC 86. Low density residential development also exists along Faucette Mill Road (SR 1328). The sparse level of existing development, in the vicinity of the proposed corridor, and the relatively low right-of-way cost estimate are due to the topography, watershed restrictions, and absence of Town water and sewer services. Due to these same factors, little development growth is expected along the proposed corridor.

### **III. Other Relevant Projects**

Some sentiment has been expressed at the local level that the Western Bypass could substitute for the proposed Elizabeth Brady Road Extension as a means to remove traffic from Churton Street through the historic downtown. From a traffic relief standpoint, the Elizabeth Brady Road Extension is the highest priority project on the Hillsborough Thoroughfare Plan. In the design year it is projected to carry 14,500 vpd, and remove 3,700 vpd from Churton Street.

Although the Western Bypass can be used to remove heavy trucks (through designation as a truck route) and a small portion of the projected passenger car traffic from Churton Street, it is still not a substitute for the proposed Elizabeth Brady Road Extension.

Both the northern and southern termini of the proposed Western Bypass alignment (see figure 1) are located so that connections with two other proposed projects from the Hillsborough Thoroughfare Plan can be completed. The northern terminus is compatible with the proposed Northside Drive. The southern terminus connects with proposed King Edward Road Extension. If all of these projects are implemented, they will form a loop system around the north and west sides of Hillsborough.

### **IV. Environmental Screening**

A cursory environmental screening was conducted for this study. The environmental screening involved evaluating the potential environmental impacts of the proposed corridor based on known data available in a Geographic Information System (GIS).

The potential impacts of this project can be characterized as relatively minor. At one stream crossing, there is less than one-third of an acre impact to critical habitat and wetlands. This impact results from the crossing which is unavoidable (It should be noted that estimated impact is greater than actual impact because it is based on a corridor width rather than a final design). Approximately 1.2 miles of the project are also located in a protected watershed. Based on the available information there are no other impacts.

**V. Recommendations**

Because the Western Bypass provides relatively minor traffic relief to congested downtown Hillsborough, it should not be considered as a substitute project for the travel relief that the proposed Elizabeth Brady Road Extension would provide for the downtown area.

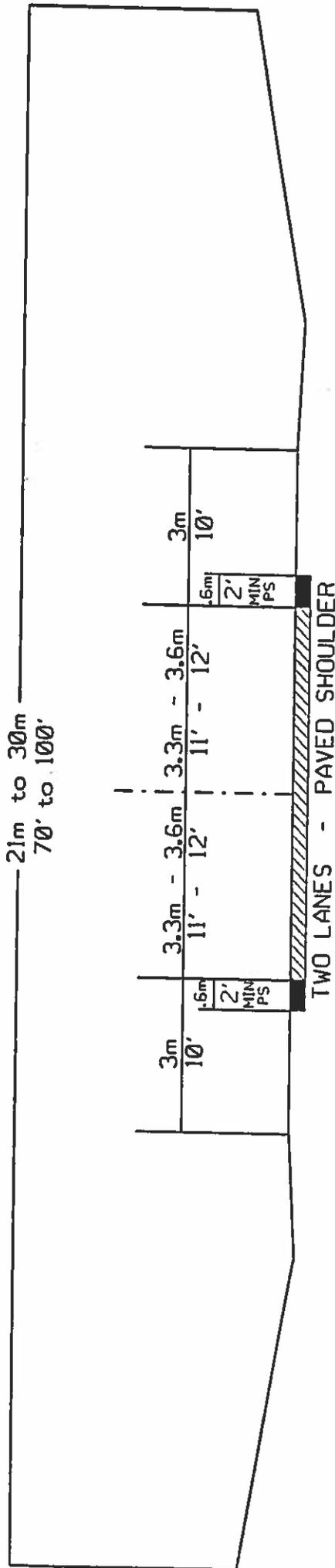
If this project is implemented, it is recommended to construct the Western Bypass on new-location connecting NC 57, NC 86, and US 70 Bypass, a distance of approximately 2.9 miles (4.7 km). The recommended cross section is a two-lane shoulder section with 2-foot paved shoulders and a right-of-way width of 120 feet with no control of access.

The total cost\* of this project is as follows:

Construction .....	\$ 5,100,000
Right-of-Way .....	\$ 200,000
Total Cost .....	\$ 5,300,000

\* Construction cost estimated by the Design Services Unit.  
Right-of-way cost estimated by the Statewide Planning Branch.





STATEWIDE PLANNING BRANCH	
R-3438	
HILLSBOROUGH WESTERN BYPASS	
TYPICAL CROSS SECTION	
DIVISION 7	FIGURE 2
NOT TO SCALE	