FEASIBILITY STUDY

Waynesville

North Main Street (US 23 Business) from Walnut Street - Bridges Street to East Street Haywood County

Division 14

U-3830

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

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2/26/98
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I. General Description

This preliminary study describes recommended improvements to North Main Street (US 23 Business) in Waynesville. It is recommended that North Main Street be widened from Walnut Street-Bridges Street to East Street and that the North Main Street/Walnut Street/Bridges Street intersection be realigned. The project length is approximately 0.4 miles (0.6 km). For a location map, please see Figure 1.

The recommended cross section is a 64-foot (19.5-m) wide (face-to-face), curb-and-gutter section with two travel lanes in each direction, a center turn lane, and 10-foot (3.0-m) wide berms from approximately 300 feet east of Walnut Street to East Street. At the North Main Street/Walnut Street/Bridges Street intersection, the eastbound leg of North Main Street should be widened to include 2 lanes and the westbound leg should include a through-right-turn lane to Walnut Street and Bridges Street and a southbound lane on North Main Street. For a figure of the proposed intersection configuration, see the attached Figure 2.

The widening should retain and utilize the existing alignment to the extent possible and should be generally symmetrical to the centerline of the existing roadway. The recommended right-of-way width is 100 feet (30.5 m).

It is estimated that right-of-way for this project will result in the relocation of 14 residences and 21 businesses.

The total cost for right-of-way and construction is estimated to be $5,650,000 as follows:

Right-of-Way	$ 4,150,000
Construction	1,500,000
Total Cost	$ 5,650,000

This study is the initial step in the planning and design process for this project and is not to be considered the product of exhaustive environmental or design investigations. The purpose of the study is to describe the problem, recommend a treatment including costs, and identify potential problem areas that deserve consideration in the planning and design phases.

II. Need For Project

The purpose of this project is to improve the traffic carrying capacity of North Main Street (US 23 Business) in Waynesville. The project was requested by the Town of Waynesville.

North Main Street is designated a major thoroughfare on the Waynesville Thoroughfare Plan and it is a main corridor into the downtown Waynesville area. It is designated as a minor arterial on the North Carolina Statewide Functional Classification System.

Development on North Main Street consists of a high concentration of automotive service type businesses around the North Main Street-Walnut Street-Bridges Street intersection and a mix of office buildings and residences between the project terminals. A number of the buildings house multiple commercial tenants. At the east project terminal, the Haywood County Board of Education has facilities located on both sides of the roadway.

From Walnut Street-Bridges Street to East Street, existing North Main Street is a 3-lane, curb-and-gutter section, 40 feet (12.2 m) wide face-to-face. The intersections with Walnut Street-Bridges Street and with Woodland Drive are signalized.

At the western project terminal, westbound North Main Street includes a combination through-right turn lane to Walnut Street and Bridges Street and one lane continuing as North Main Street. There currently exists one eastbound lane.

From the east project terminal (East Street) eastward, US 23 Business is scheduled to be widened to a 5-lane curb-and-gutter section as part of project R-2210.

The 1997 Average Daily Traffic (ADT), within the project limits, was estimated to be approximately 9,750 vehicles per day (vpd). The design year (2020) estimate is 23,000 vpd.

The current estimated Level Of Service is Level E. Without the recommended improvements, it is estimated that the Level of Service will deteriorate to a Level F prior to the design year. With the recommended improvements, the Level of Service is expected to improve to a Level A and reach no worse than a Level B through the design year.

During the period from February 1, 1994, through January 31, 1997, there were 8 accidents reported on US 23 Business within the project terminals. This resulted in an accident rate of 212 accidents per 100 million vehicle miles (Acc/100MVM), compared to a statewide average of 264 Acc/100 MVM for all urban US routes during 1996. There were no fatalities reported during the period, and 6 of the accidents resulted in injuries. The most prevalent accident types were rear end (50.0%) and left turn (27.5%). The wider cross section with center turn lane will reduce the potential for these types of accidents.

III. Recommendations

It is recommended that North Main Street (US 23 Business), in Waynesville, be widened from Walnut Street-Bridges Street to East Street and that the North Main Street/Walnut Street/Bridges Street intersection be realigned. The project length is approximately 0.4 miles (0.6 km). For a location map, please see Figure 1.

The recommended cross section is a 64-foot (19.5-m) wide (face-to-face), curb-and-gutter section with two travel lanes in each direction, a center turn lane, and 10-foot (3.0-m) wide berms from approximately 300 feet east of Walnut Street to East Street. At the North Main Street/Walnut Street/Bridges Street intersection, the eastbound leg of North Main Street should be widened to include 2 lanes and the westbound leg should include a through-right-turn lane to Walnut Street and Bridges Street and a southbound lane on North Main Street. For a figure of the proposed intersection configuration, see the attached Figure 2.

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It is estimated that right-of-way for this project will result in the relocation of 14 residences and 21 businesses.

The total cost for right-of-way and construction is estimated to be $5,650,000 as follows:

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Total Cost	$ 5,650,000

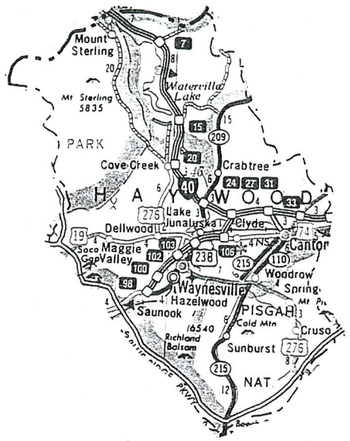
IV. Other Comments

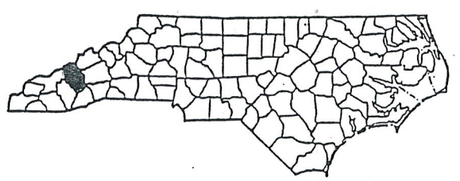
An environmental screening was not conducted for this study.

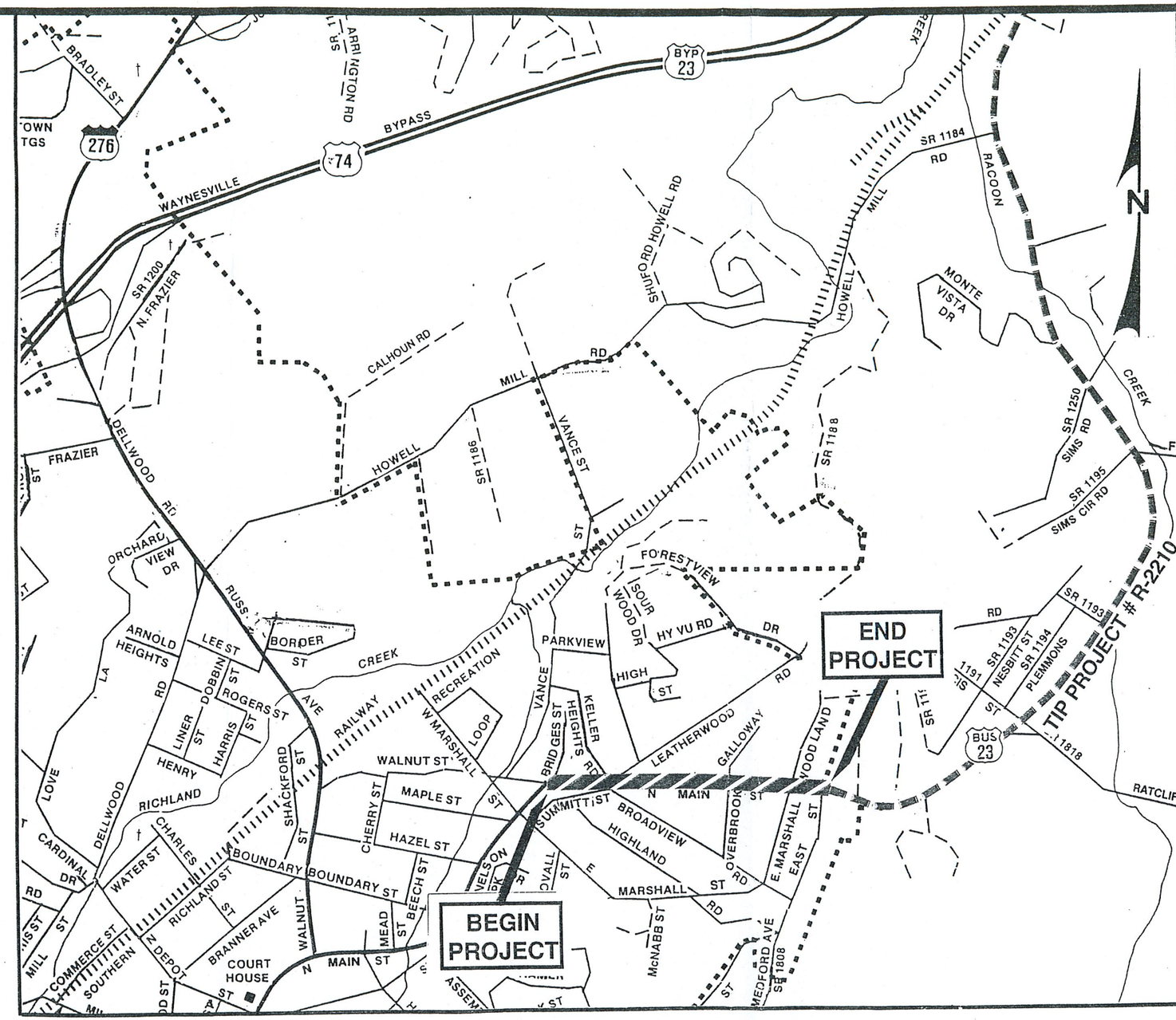
Based on maps at the Department of Environment, Health & Natural Resources - Natural Heritage Section, no threatened or endangered species were identified in the project corridor and no wetlands or historic properties are expected to be encountered.

No provisions for bicycles have been included in this report.

The right-of-way recommended in this report is 100 feet (30.5 m) wide. It is not thought that any narrower right-of-way purchase, adequate for a 5-lane section, would significantly reduce the number of relocations or the cost of the right-of-way.







North Carolina Department of Transportation
Program Development Branch

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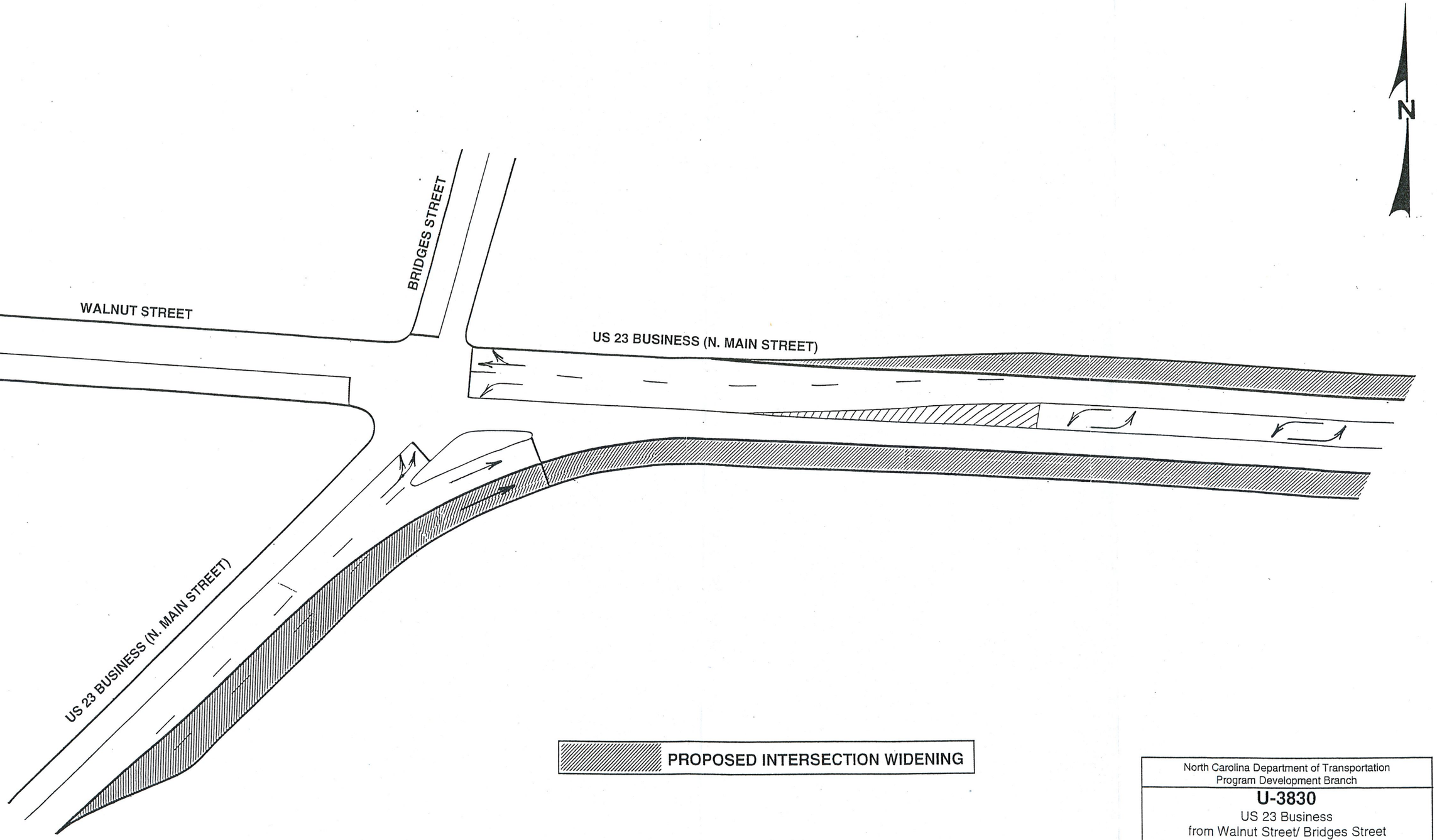
US 23 Business
from Walnut Street/ Bridges Street
to East Street

Waynesville, Haywood County

DIVISION 14 FIGURE 1



PROPOSED INTERSECTION WIDENING

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Waynesville, Haywood County

DIVISION 14 FIGURE 2