

FEASIBILITY STUDY

Towns of Jefferson and West Jefferson

**NC 194 Bypass
From US 221 Business/SR 1149 (Mt. Jefferson Road)
To NC 88**

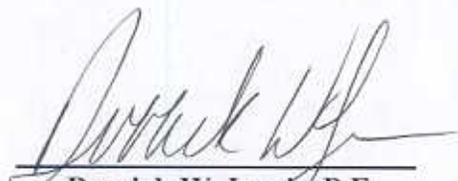
Ashe County

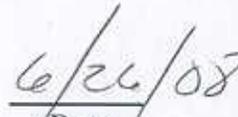
Division 11

FS-0111B



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


Derrick W. Lewis, P.E.
Feasibility Studies Unit Head


Date

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I. General Description

This feasibility study describes a proposed NC 194 Bypass on new location from the US 221 Business / SR 1149 (Mt. Jefferson Road) intersection to NC 88. This facility is a proposed two lane shoulder section on variable right of way and is approximately 0.75 miles long (See Figure 1).

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

I. Background

The purpose of this project is to improve the traffic safety and operations in West Jefferson and Jefferson by providing an alternative route between US 221 and NC 88.

US 221 is designated as a rural minor arterial in the North Carolina Statewide Functional Classification System and as a major thoroughfare in the 2002 Jefferson-West Jefferson Thoroughfare Plan. Both US 221 Business and NC 88 are designated rural major collectors in the North Carolina Statewide Functional Classification System and as major thoroughfares in the 2002 Jefferson-West Jefferson Thoroughfare Plan. The proposed NC 194 Bypass is a potential rural minor collector and is designated as a proposed major thoroughfare in the 2002 Jefferson-West Jefferson Thoroughfare Plan.

TIP Project U-3812 proposes to widen NC 88 from NC 194 to US 221 Business in Jefferson, Ashe County, and this potential new connector intersects NC 88 near Ashley Farm Trail.

II. Traffic and Safety

The existing traffic signal at US 221 Business and SR 1149 (Mt. Jefferson Road) will need to be modified to accommodate the proposed improvements. The average daily traffic (ADT) volumes on this proposed new connector are projected to be 3800 vehicles per day (vpd) in the 2030 design year. Truck traffic along this proposed new connector is estimated to make up approximately 3 percent of the daily traffic. The proposed two lane section is anticipated to function at a LOS D or better through the 2030 design year.

III. Description of Improvements

It is proposed to construct a two lane shoulder section on new location from US 221 Business to NC 88, a distance of approximately 0.75 miles.

Cross-section: Two-lane shoulder section, 24' of pavement with 12' lanes and 8 foot soil shoulders on a variable right-of-way to accommodate the cut and fills along the proposed facility.

With this proposed option, it is anticipated that there will be ten (10) residences and one (1) business relocated due to this project. The total cost of this alternative, including construction and right-of-way, is estimated to be \$10,700,000.

Right-of-way.....	\$3,000,000
Construction.....	\$7,400,000
<u>Utility Relocation.....</u>	<u>\$ 300,000</u>
Total Cost	\$10,700,000

IV. Other Concerns

A detailed community impact investigation was not conducted for this feasibility study; however there are no anticipated impacts to parks, recreation areas, or other community facilities with this project. A screening of the National Register of Historic Places (NRHP) and state study lists within the proposed project study area indicated that no properties within the project study area were found to be a potential historic property. A preliminary screening of the Geographic Information System (GIS) database identified no potential environmental issues including streams, wetlands, and endangered species within the project study area.

FS-0111B Location Map

Figure 1

