

FEASIBILITY STUDY

**Weddington
Rea Road Extension
from NC 16 to NC 84
Union County
U-3467**



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

A handwritten signature in blue ink, appearing to read "Eric J. Lamb", written over a horizontal line.

Eric J. Lamb
Feasibility Studies Engineer

A handwritten signature in black ink, appearing to read "David G. Modlin, Jr.", written over a horizontal line.

David G. Modlin, Jr., Ph.D., P.E.
Head of Feasibility Studies

2/28/96
Date

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I. General Description

This feasibility study describes constructing the Rea Road Extension from NC 16 to NC 84, a distance of 1.7 miles (2.7 km). The project location is shown on Figure 1. The recommended cross-section is a four-lane divided curb and gutter facility with 12-foot (3.7-m) travel lanes, a 23-foot (7.0-m) raised grassy median and 8-foot (2.4-m) berms, matching the Rea Road cross-section to be constructed under TIP Project U-2506. The recommended right-of-way is 100 feet (30.5 m) wide with partial control of access. It is anticipated that there will be four residences and no businesses relocated due to this project. The total cost of the project, including construction and right-of-way, is estimated to be \$8,000,000.

This study 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 costs, and to identify potential problems that may require consideration in the planning and design phases.

II. Need for Project

The purpose of this project is to eliminate a potential dog-leg between the proposed Rea Road and NC 84. Construction of this project will eliminate turning movements associated with east-west traffic along these two roads. This project is supported by the Town of Weddington, the Union County Chamber of Commerce, and the Mecklenburg-Union Metropolitan Planning Organization.

The proposed Rea Road extension is designated as a major thoroughfare in the Union County Thoroughfare Plan.

There is very little development within the vicinity of the project. There are several single family residences along SR 1316 (Marvin-Weddington Rd.) and along NC 84.

TIP Project U-2506 will construct Rea Road as a four-lane divided curb and gutter facility from the proposed Charlotte Outer Loop to NC 16 at the

intersection with SR 1316. This project is currently scheduled for right-of-way acquisition in FY1996 and for construction in FY1997. TIP Project U-2510A will widen NC 16 to a four-lane divided facility. This project is currently scheduled for right-of-way acquisition in FY2002 and for post-year construction.

The projected 1996 Average Daily Traffic (ADT) along the proposed Rea Road Extension is 4,400 vehicles per day (vpd). For the design year 2020, the estimated traffic volume on this facility will be 9,000 vpd. Truck traffic is estimated to make up 3% of daily traffic. If constructed, the proposed Rea Road Extension will operate at LOS A in the current year and in the design year 2020.

III. Recommendations

It is recommended to construct the Rea Road Extension from NC 16 to NC 84, a distance of 1.7 miles (2.7 km). The project location is shown on Figure 1. The recommended cross-section is a four-lane divided curb and gutter facility with 12-foot (3.7-m) travel lanes, a 23-foot (7.0-m) raised median and 8-foot (2.4-m) berms. The recommended right-of-way is 100 feet (30.5 m) wide with partial control of access.

It is anticipated that four residences and no business will be relocated due to the project.

The total cost is as follows:

Construction.....	\$ 5,400,000
Right-of-way.....	\$ 2,600,000
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Total Cost	\$ 8,000,000

IV. Alternates

Many local officials have requested the construction of an interchange at the intersection with NC 16. Barring unforeseen development, current traffic estimates indicate the recommended at-grade intersection will function adequately in the design year 2020. The construction of an interchange would require three additional residential locations. The total cost of this project with an interchange at NC 16 is as follows:

Construction.....	\$ 10,500,000
Right-of-way.....	\$ 3,400,000
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Total Cost	\$ 13,900,000

V. Other Comments

An environmental screening was not conducted for this study. However, no impacts to historic properties or wetlands are anticipated.

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.

No special accommodation for bicycles is recommended on this project.