

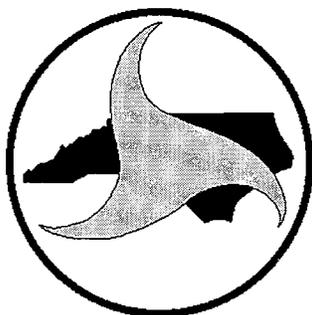
FEASIBILITY STUDY

Liberty

NC 49
Eastern Liberty Bypass
Randolph County

Division 8

R-3803



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

Brian P. Smith

Brian P. Smith
Engineering Co-op

Eric J. Lamb

Eric J. Lamb, P.E.
Feasibility Studies Engineer

David G. Modlin, Jr.

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

2/26/98

Date

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I. General Description

This feasibility study describes the construction of the Eastern Liberty Bypass, from NC 49 (Fayetteville St.) south of Liberty to NC 49 (Swannanoa St.) east of Liberty, a distance of 2.0 miles (3.2 km). It is recommended to utilize a combination of construction on new location and widening of existing local roads for this project. The project location is shown on Figure 1. The recommended cross-section is a two-lane shoulder section, 24 feet (7.3 m) wide with 2-foot (0.6-m) paved shoulders on 100 feet (30.5 m) of right-of-way with no access control. It is anticipated that there will be one 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 \$4,300,000.

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 remove truck traffic from the central business district of Liberty and to provide traffic on NC 49 with a more convenient route around the town. This project is supported by the Town of Liberty.

The Eastern Liberty Bypass is a proposed major thoroughfare in the Liberty Thoroughfare Plan.

Development along SR 2427 (Kinro Rd.) is primarily residential, with two small industries located in the vicinity of the Norfolk Southern Railway crossing. SR 2427 is currently a 21-foot (6.4-m) wide shoulder section on approximately 40 feet (12.2 m) of right-of-way. Development along SR 2426 (Hinshaw Country Rd.) is a combination of residential and agricultural properties. SR 2426 is currently an 18-foot (5.5-m) wide shoulder section on approximately 40 feet (12.2 m) of right-of way.

Issac Road, Teague Avenue, Kime Avenue, Raleigh Avenue, and Graham Avenue are unimproved gravel roadways in the vicinity of the project.

Norfolk Southern Railway crosses the project at SR 2427 (Kinro Rd.). This railway carries two trains per day at an average speed of 30 mph (48.3 kph), and currently has an exposure index of 5,200.

The projected 1997 Average Daily Traffic (ADT) along the Eastern Liberty Bypass is 1,300 vehicles per day (vpd). For the design year 2020, the estimated traffic volumes along the bypass will be 2,600 vpd. Truck traffic is estimated to make up to seventeen percent of daily traffic.

If this project was constructed today, the Eastern Liberty Bypass would operate at Level of Service (LOS) A. It is projected that the roadway will operate at LOS B in the design year 2020.

III. Recommendations

It is recommended to construct the Eastern Liberty Bypass, from NC 49 (Fayetteville St.) south of Liberty to NC 49 (Swannona St.) east of Liberty, a distance of 2.0 miles (3.2 km). The project location is shown on Figure 1. The recommended cross-section is a two-lane shoulder section, 24 feet (7.3 m) wide with 2-foot (0.6-m) paved shoulders on 100 feet of right-of-way with no access control.

It is recommended to utilize SR 2427 (Kinro Rd.) from NC 49 (Fayetteville St.) to SR 1006 (Greensboro St.), and SR 2426 (Hinshaw Country Rd.) from north of Issac Road to SR 2424 (Dameron Ave.), for the alignment of this Bypass. The remainder of this project is to be constructed on new location as shown on Figure 1.

Issac Road should be realigned with the segment of SR 2426 (Hinshaw Country Rd.) that is not included in the Bypass in order to maintain access to existing residences along Issac Road. It is also recommended to realign Raleigh Street northward away from its existing intersection with SR 2424 (Dameron Ave.) in order to avoid potential traffic conflicts.

It is anticipated that one residence and no businesses will be relocated due to the project. The total cost of the project is as follows:

| | |
|-------------------|--------------|
| Construction..... | \$ 3,400,000 |
| Right-of-way..... | \$ 900,000 |
| <hr/> | |
| Total Cost | \$ 4,300,000 |

IV. Additional Comments

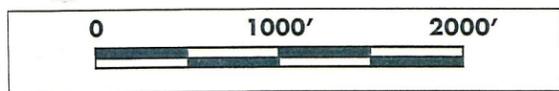
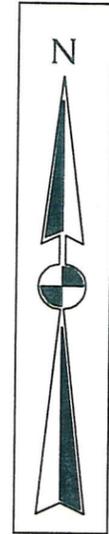
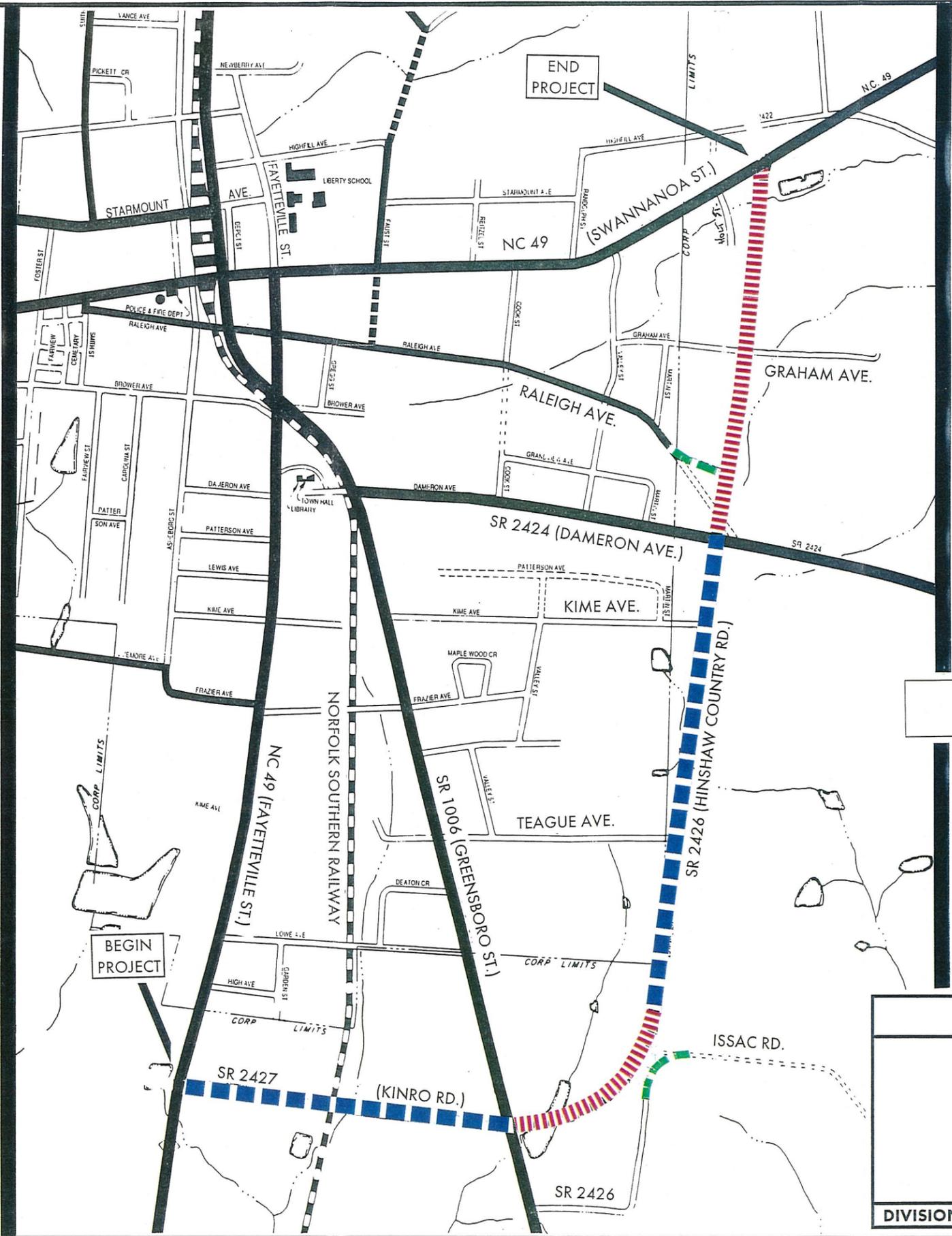
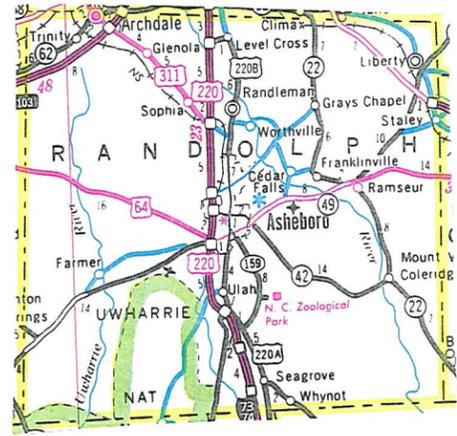
Although it is anticipated that this project will serve low volumes of traffic in the design year, the construction of this alternate route will significantly reduce the amount of heavy truck traffic currently traveling through Liberty's central business district.

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.

There is a manmade pond east of the intersection with SR 1006 (Greensboro St.) that will require draining and filling in order to accommodate this project.

No special accommodation for bicycles is recommended on this project.



| LEGEND | |
|--------|-----------------------------|
| | PROPOSED WIDENING |
| | PROPOSED NEW ALIGNMENT |
| | PROPOSED Y-LINE REALIGNMENT |

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
PROGRAM DEVELOPMENT BRANCH

R-3803
EASTERN LIBERTY BYPASS
FROM NC 49 (FAYETTEVILLE ST.)
TO NC 49 (SWANNANOVA ST.)
LIBERTY

DIVISION 8 | RANDOLPH COUNTY | FIGURE 1