

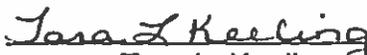
FEASIBILITY STUDY

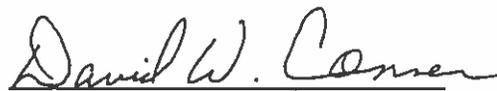
Salisbury
NC 150
from SR 1514
to west of Grant's Creek
Rowan County

Division 9

U-3623

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


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U-3623

Salisbury
NC 150
from SR 1514
to west of Grant's Creek
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I. General Description

This feasibility study describes recommended improvements to NC 150 (Lincolnton Road) on the west side of Salisbury. It is recommended that NC 150 be widened from SR 1514 (Airport Road) to west of Grant's Creek, a distance of 3.0 miles (4.8 km). The project location is shown on Figure 1.

The recommended cross-section is a 5-lane, curb-and-gutter section, 64 feet (19.5 m) wide with 10-foot (3.0-m) wide berms, on a 100-foot (30.5-m) wide right-of-way.

It is anticipated that there will not be any residences or businesses relocated as a result of this project.

The total cost of the project, including construction and right-of-way, is estimated to be \$7,700,000 as follows:

| | |
|--------------|-------------|
| Right-of-way | \$ 900,000 |
| Construction | 6,800,000 |
| ----- | ----- |
| Total | \$7,700,000 |

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 improve the traffic carrying capacity and accident experience of NC 150. The project was requested by the Rowan County Board of Commissioners.

NC 150 is designated as a major thoroughfare in the Salisbury Thoroughfare Plan and as a minor arterial in the North Carolina Statewide Functional Classification System.

The project route is generally developed with residences and development is moderate. There are seven churches and 1 fire station located within the project boundaries.

Existing NC 150 is currently a 2-lane, two-way roadway with a pavement width of 18 feet (5.5 m) and soil shoulders 5 feet (1.5 m) wide.

At the eastern project terminus, existing NC 150 is a 5-lane, curb-and-gutter section from Grant's Creek into Salisbury.

The 1995 Average Daily Traffic (ADT) along NC 150 is estimated to range from approximately 4,500 vehicles per day (vpd), near the western project terminus to approximately 11,300 vpd, near the eastern terminus. The design year (2020) volumes are estimated to range from approximately 10,400 vpd to 20,300 vpd, respectively. Truck traffic is estimated to make up 9 percent of daily traffic.

It is estimated that NC 150 is currently operating at Level of Service D, near the western project terminus and a Level E near the eastern terminus. If no improvements are made, it is projected that the roadway will operate at Levels E and F in the design year. If NC 150 is widened to a 5-lane curb-and-gutter section, the Level of Service should improve to a Level A with some sections reaching a Level B by the design year.

During the three-year period from April 1993 through March 1996, there were 66 accidents reported on NC 150 within the project limits. One fatality occurred as a result of these accidents and 29 other accidents resulted in injuries. The accident rate along NC 150 within the project limits is 138.3 accidents per 100 million vehicle miles (acc/100mvm). This compares with the 1994 statewide rate of 207.3 acc/100mvm for all rural NC routes in North Carolina. The most prevalent accident types were rear-end (33.3%), ran-off-road (21.2%), and angle (12.1%).

III. Recommendations Description of Project

It is recommended that NC 150 be widened from SR 1514 (Airport Road) to west of Grant's Creek, a distance of 3.0 miles (4.8 km). The project location is shown on Figure 1.

The recommended cross-section is a 5-lane, curb-and-gutter section, 64 feet (19.5 m) wide with 10-foot (3.0-m) wide berms, on a 100-foot (30.5-m) wide right-of-way.

The existing traffic signal at SR 1526 (Sherrill Ford Road/Rowan Mill Road) should be upgraded and new signals should be installed at SR 1514 (Airport Road) and SR 1600 (Quail Drive).

At SR 1514, westbound NC 150 should include a left-turn lane onto SR 1514 and two through lanes. Immediately west of SR 1514, the double westbound lanes should taper to meet the existing single westbound lane. Eastward from SR 1514, eastbound lanes should include a through lane from existing NC 150 and a lane receiving right-turn traffic from SR 1514. A sketch of the proposed intersection improvements is included on Figure 1.

At the eastern project terminus, the widened roadway should connect to the existing 5-lane section on the west side of Grant's Creek.

It is anticipated that there will not be any residences or businesses relocated as a result of this project.

The total cost of the project, including construction and right-of-way, is estimated to be \$7,700,000 as follows:

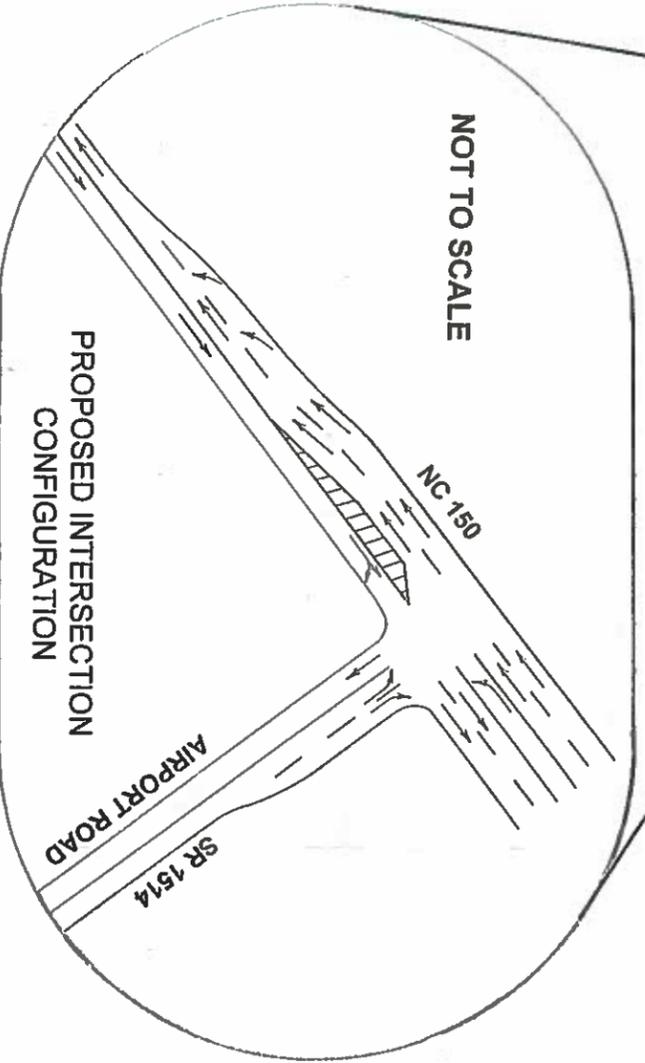
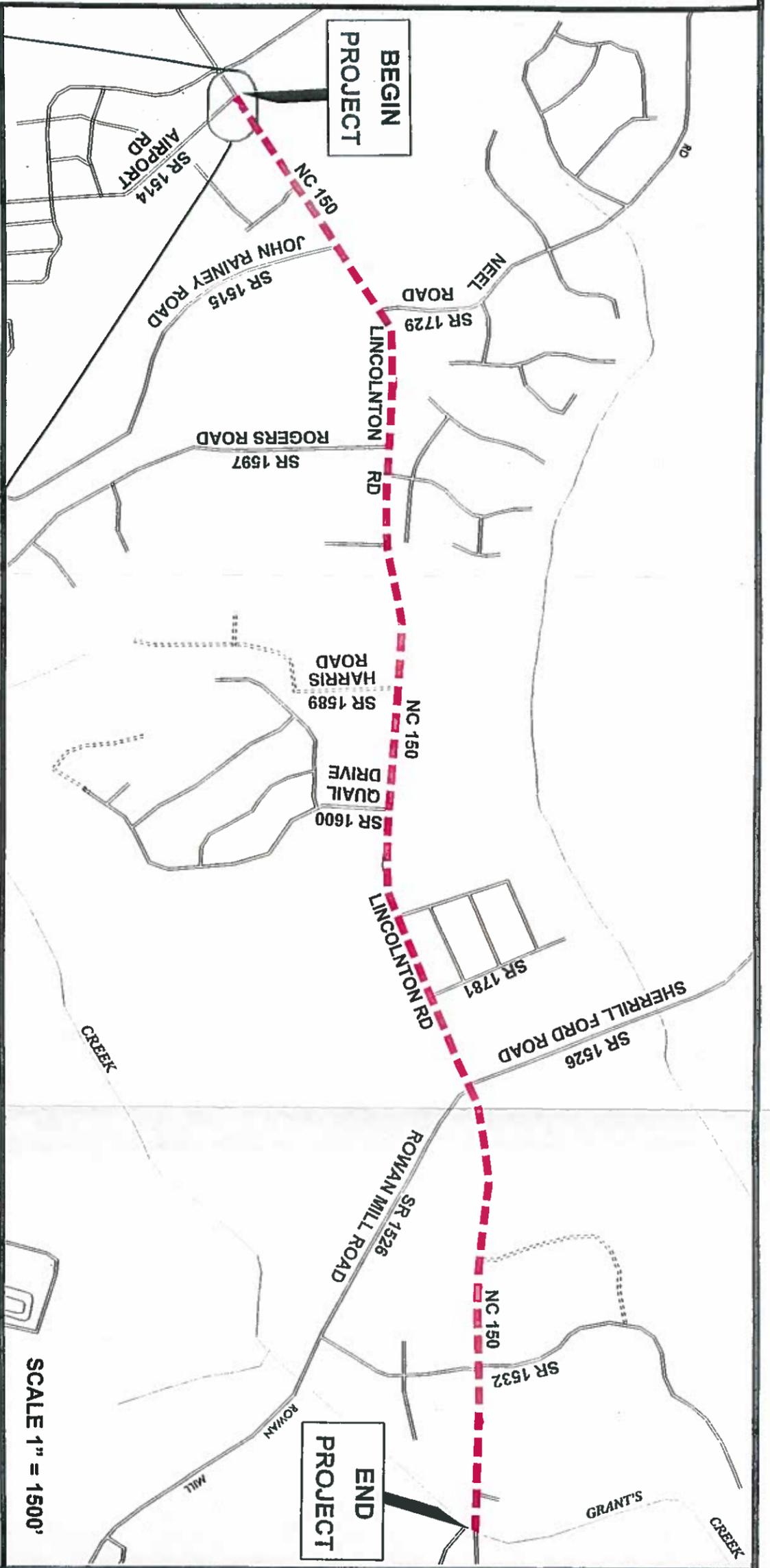
| | |
|--------------|-------------|
| Right-of-way | \$ 900,000 |
| Construction | 6,800,000 |
| ----- | ----- |
| Total | \$7,700,000 |

IV. Other Comments

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

Based on maps available from the Department of Environment, Health & Natural Resources - Natural Heritage Section, no threatened or endangered species were identified in the project corridor.

The NCDOT Bicycle Program has identified NC 150 as a roadway which does not have need for special accommodations for bicycles.



SCALE 1" = 1500'

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|--|
| North Carolina Department of Transportation Program Development Branch |
| U-3623 |
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FIGURE 1