

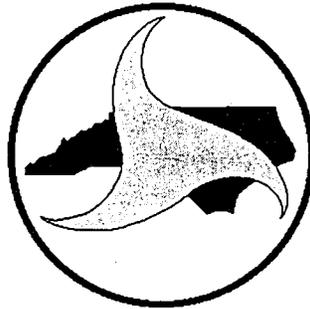
**FEASIBILITY STUDY**

**Hickory**

**Northside Connector  
from US 321 to NC 127 (N. Center St.)  
Caldwell & Catawba Counties**

**Divisions 11 & 12**

**U-3614**



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

A handwritten signature in black ink, appearing to read "Eric J. Lamb".

Eric J. Lamb  
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3/11/97

Date

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## **I. General Description**

This feasibility study describes constructing the Hickory Northside Connector using existing roadways from US 321 to NC 127 (N. Center St.), a distance of 3.7 miles (6.0 km). The project location is shown on Figure 1. The proposed cross-section is a five-lane curb and gutter section, 64 feet (19.5 m) wide with 10-foot (3.0-m) berms, on 100 feet (30.5 m) of right-of-way with no access control. It is anticipated that twenty-two residences and one business will be relocated due to this project. The total cost of the project, including construction and right-of-way, is estimated to be \$25,800,000.

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 create a major east-west radial between US 321 and NC 127 on the north side of Hickory. This project is supported by the Hickory-Newton-Conover Metropolitan Planning Organization, Caldwell County, the Caldwell County Chamber of Commerce, the City of Hickory, the City of Conover and the Town of Sawmills.

The proposed Northside Connector is designated as a proposed major thoroughfare in the Hickory-Newton-Conover Thoroughfare Plan.

Development throughout the project limits is primarily single-family residential. There is a major industrial site currently under construction on the former SR 1751 (Poovey's Grove Rd.).

The proposed Northside Connector will utilize two existing roadways, SR 1751 / SR 1758 (Grace Chapel Rd.) in Caldwell County and SR 1318 (29th Avenue Dr. NW) in Catawba County (see Figure 1). Grace Chapel Road is currently a two-lane roadway with a pavement width of 18 feet (5.5 m) and soil shoulders on approximately 60 feet (18.3 m) of right-of-way. It currently

intersects US 321 at a signalized T-intersection. SR 1318 is currently a two-lane roadway with a pavement width of 20 feet (6.1 m) and soil shoulders on approximately 40 feet (12.2 m) of right-of-way. It currently ties into an existing four-leg signalized intersection on NC 127.

The projected 1996 Average Daily Traffic (ADT) along the Northside Connector would vary from 4,400 to 6,600 vehicles per day (vpd) if this project was constructed today. For the design year 2020, the estimated traffic volumes on the Northside Connector would range between 8,900 and 14,600 vpd. Truck traffic is estimated to make up 5% of daily traffic.

Since the traffic volumes vary so much within the project limits, the Levels of Service (LOS) for a two-lane section and a five-lane section are shown in the table below:

Segment	Levels of Service			
	Two-lane facility		Five-lane facility	
	1996	2020	1996	2020
From US 321 to SR 1751	C	E	A	A
From SR 1751 to NC 127	C	D	A	A

### III. Description of Project

It is proposed to construct the Hickory Northside Connector using existing roadways from US 321 to NC 127 (N. Center St.), a distance of 3.7 miles (6.0 km). The project location is shown on Figure 1. The proposed cross-section is a five-lane curb and gutter section, 64 feet (19.5 m) wide with 10-foot (3.0-m) berms, on 100 feet (30.5 m) of right-of-way with no access control.

It is proposed to utilize the existing alignments of SR 1751 / SR 1758 (Grace Chapel Rd.) and SR 1318 (29th Ave. Dr. NW) for the project. Approximately 1.6 miles (2.6 km) of new location would also be required, which would include the construction of a new structure over the Catawba River. This structure would be approximately 1800 feet (550 m) long and have a clear deck width of 52 feet (15.8 m) with 5-foot (1.5 m) sidewalks.

It is anticipated that twenty-two residences and one business will be relocated due to this project.

The total cost of constructing this project as a five-lane roadway is as follows:

Construction.....	\$ 19,700,000
Right-of-way.....	\$ 6,100,000
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Total Cost .....	\$ 25,800,000

#### IV. Alternates

A two lane alternate was also considered for this project. This would construct a 24-foot (7.3-m) roadway with 4-foot (1.2-m) paved shoulders on 100 feet (30.5 m) of right-of-way on the same alignment as the five-lane alternate. This would also require the construction of a new structure over the Catawba River. This structure would also be 1800 feet (550 m) long and would be 40 feet (12.2 m) wide.

The total cost of constructing this project as a two-lane roadway is as follows:

Construction.....	\$ 12,600,000
Right-of-way.....	\$ 6,100,000
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Total Cost .....	\$ 18,700,000

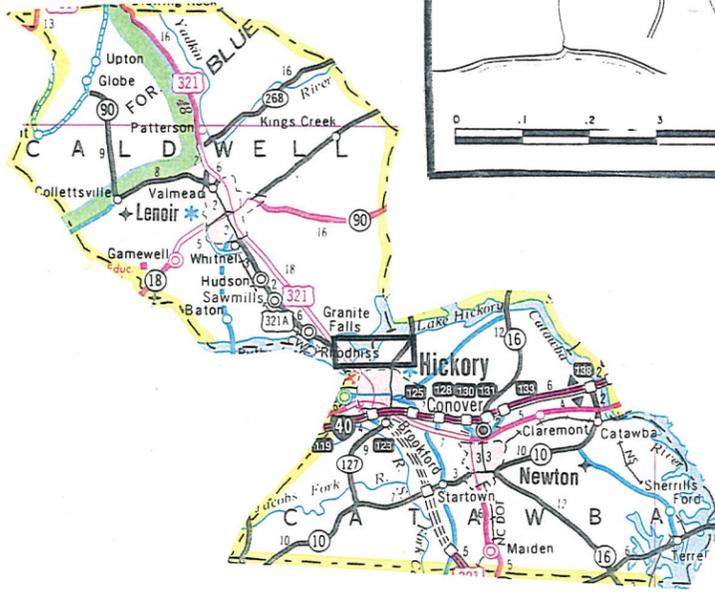
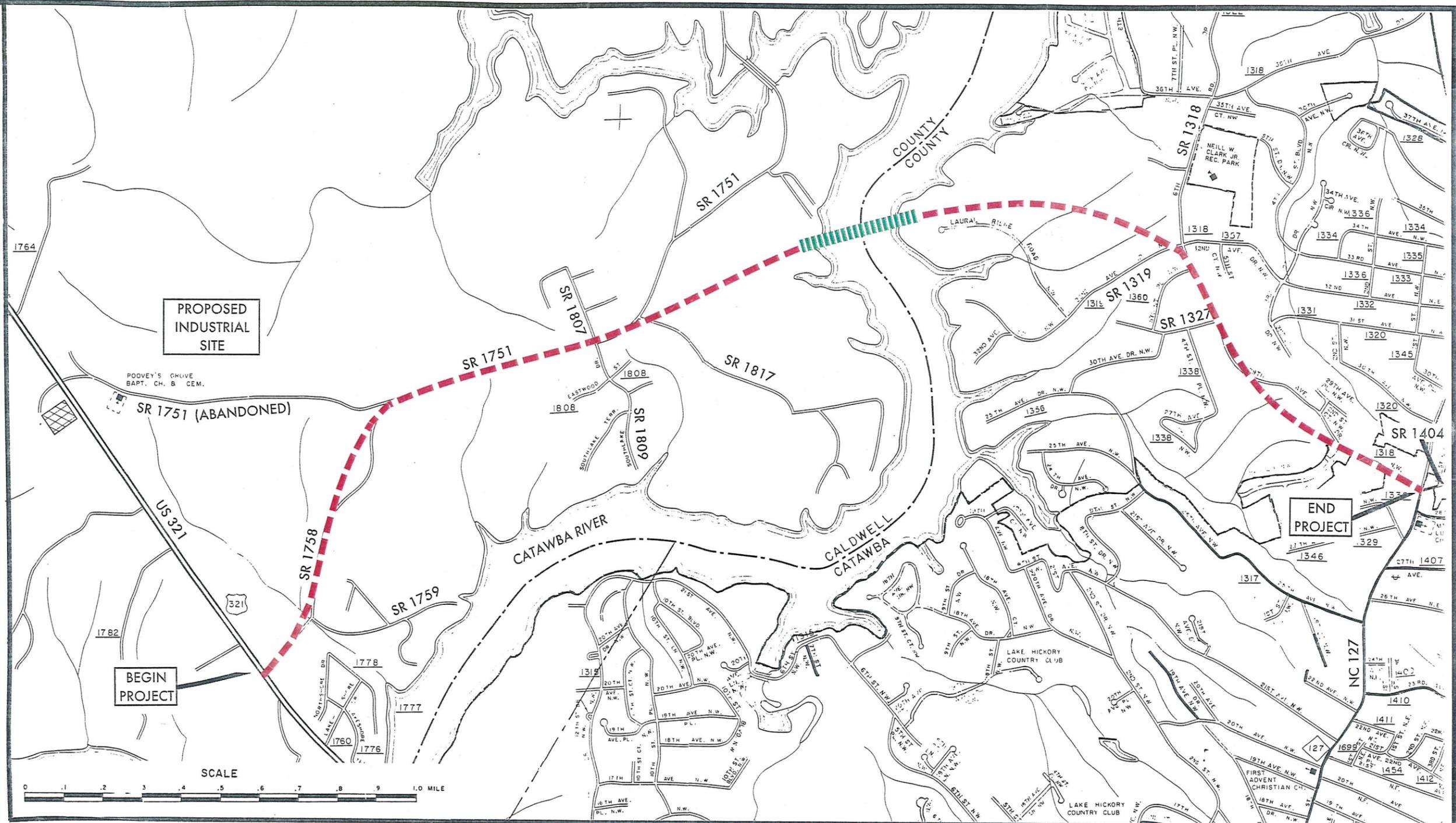
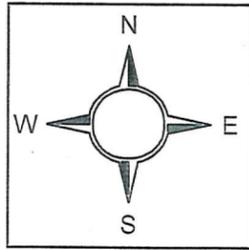
#### V. Other Comments

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.

This section of the Catawba River within the project corridor is classified as a protected water supply and as a critical area with primary recreational usage (WS-IV B CA).

No special accommodation for bicycles is recommended on this project.



**LEGEND**

PROPOSED FIVE-LANE SECTION  
 PROPOSED STRUCTURE

**NC DEPARTMENT OF TRANSPORTATION**  
**FEASIBILITY STUDIES UNIT**

**U-3614**  
**HICKORY NORTHSIDE CONNECTOR**  
**FROM US 321 TO NC 127**  
**HICKORY**

<b>DIVISIONS</b> <b>11 &amp; 12</b>	<b>CALDWELL &amp; CATAWBA</b> <b>COUNTIES</b>	<b>FIGURE 1</b>
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