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FEASIBILITY STUDY

NC 49
From UNCC at Charlotte to Harrisburg
Mecklenburg and Cabarrus Counties
R-2215

Prepared by
Planning and Research Branch
Division of Highways
N. C. Department of Transportation

August, 1987

NC 49
From UNCC at Charlotte to Harrisburg
Mecklenburg and Cabarrus Counties
R-2215

The subject project is included in the 1987-1995 Transportation Improvement Program for feasibility study and/or right-of-way protection. This report provides a brief, initial analysis of possible improvements. The project is not currently funded.

I. GENERAL DESCRIPTION

The proposed project consists of widening the studied two-lane section of NC 49 to a 4-lane median divided roadway from the existing 4-lane median divided roadway to the Harrisburg Corporate Limits, and then to 5-lanes to approximately 1000 feet east of SR 1300. The estimated cost of the project is \$9,000,000.

II. EXISTING CONDITIONS

CLASSIFICATION:

Rural Principal Arterial (FAP 28-1)

CROSS SECTION:

At UNCC: Two 32-foot pavements and 10-foot shoulders, divided by a 44-foot median

From east of SR 2833 to SR 1300: 24-foot pavement with 10-foot shoulders.

At SR 1300 in Harrisburg: Approximately 1000-foot taper to 71-foot face-to-face, curb and gutter, and 1-foot berm shoulders.

CLAIMED RIGHT-OF-WAY:

At UNCC: 250 to 150 feet

From SR 2833 to SR 2827: 150 feet

From SR 2827 to SR 1300: 100 feet

ESTIMATED TRAFFIC VOLUMES:

1987 ADT = 17,800 vpd

2007 ADT = 42,900 vpd

The above traffic volumes include 4% truck-tractor semi-trailers and 3% dual tired vehicles.

ACCIDENT INVENTORY:

During the period between January 1984 and January 1987 a total of 80 accidents were reported to have taken place over the studied section

of NC 49. The resultant total accident rate is 158.86 accidents per 100 million vehicle miles of travel (acc/100 mvm) compared to the statewide average total accident rate for similar routes of 197.6 acc/100 mvm during 1986. 20.1% of the accidents were attributed to vehicles running off the road, and 37.5% were attributed rear-end collisions the majority of which occurred in the vicinity of intersections.

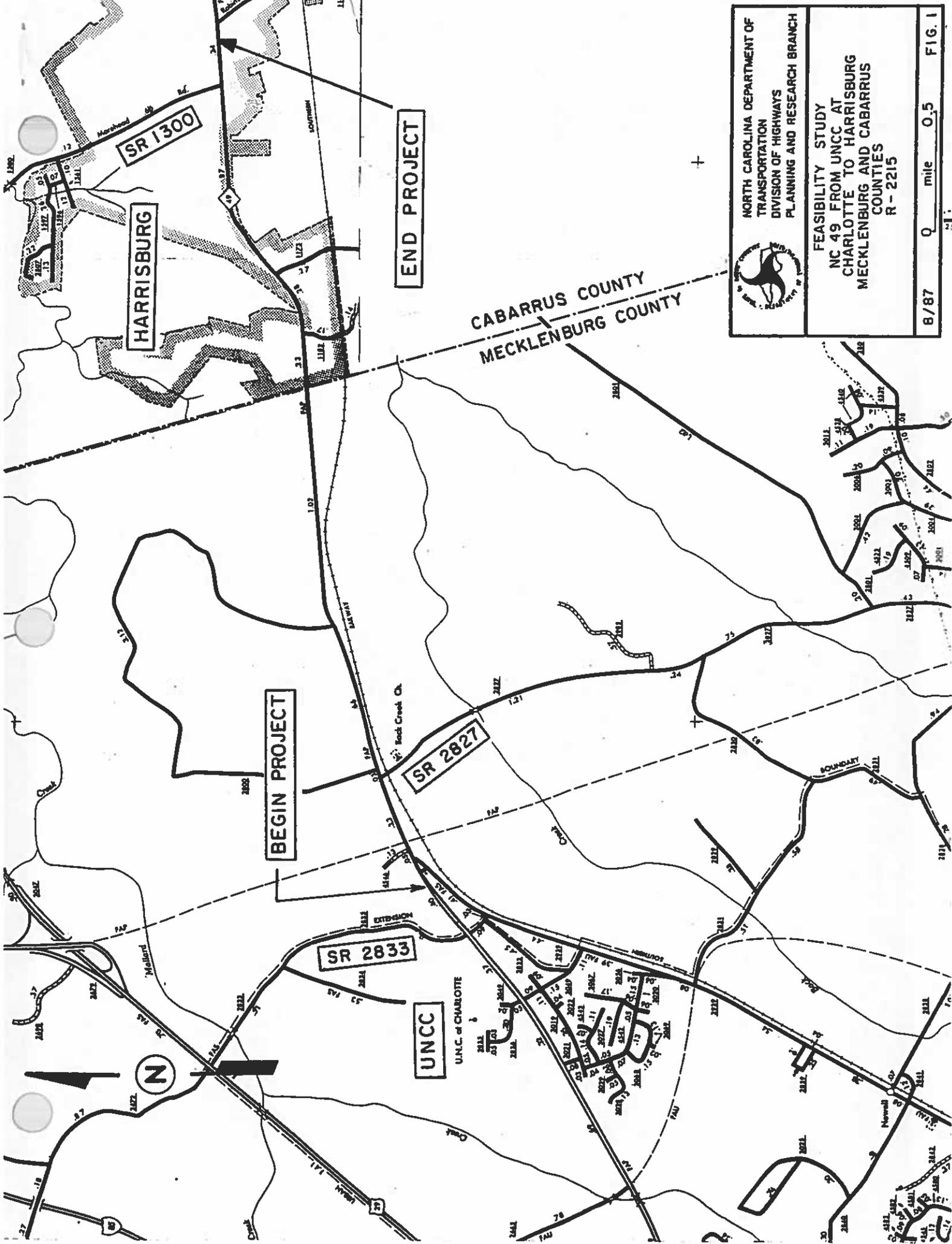
III. RECOMMENDED IMPROVEMENTS

1. From the end of the existing 4-lane section at UNCC to the Harrisburg Corporate Limits (2.6 miles): Construct two lanes with a 46-foot grassed median on the north side of the existing roadway. Approximately 100 feet of additional right of way will be required.
2. From the Harrisburg Corporate Limits to SR 1300 (1.6 mile): Widen the existing roadway to a 64-foot face-to-face curb and gutter section. No additional right-of-way will be required for this section.

IV. FUTURE ACTIVITIES

If the project is to be implemented at a future date, all feasible alternatives and their associated impacts will need to be evaluated in a planning/environmental document prior to that time, and a final decision made as to the most appropriate improvement.

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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PLANNING AND RESEARCH BRANCH

FEASIBILITY STUDY NC 49 FROM UNCC AT CHARLOTTE TO HARRISBURG MECKLENBURG AND CABARRUS COUNTIES R-2215

8/87 0 mile 0.5 FIG. 1