FS 890018

LOCATION

FEASIBILITY STUDY

US 64-74
Lake Lure and Chimney Rock
Rutherford County
FS-890018

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

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I. GENERAL DESCRIPTION

This feasibility study covers possible improvements to the US 64-74 corridor through Lake Lure and Chimney Rock. This study was prepared at the request of the Town of Lake Lure. The town has voiced concern about considerable traffic congestion on the subject road during seasonal peak periods. the location of the study area is shown on Figures 1 & 2.

II. PURPOSE OF PROJECT

Existing Route Characteristics

US 64 and US 74 are both major east-west routes through western North Carolina. In addition, US 74 presently serves as the primary link between the cities of Asheville and Charlotte. US 64-74 is included in the Rutherford County Thoroughfare Plan as a Major Thoroughfare, and is classified a Rural Minor Arterial in the North Carolina Functional Classification System.

The existing cross section on US 64-74 has a variable roadway width through the project area. In the Chimney Rock area, the cross section consists of a 24-foot paved roadway with variable width shoulders that are paved and used for parking by adjacent businesses. The pavement narrows to 22 feet with variable width unpaved shoulders near the Broad River bridge, then widens briefly to 33 feet for a left-turn lane into the Lake Lure Community Center. The road widens to 28 feet with wide paved shoulders that are utilized for parking through the Lake Lure Beach area. At the Town Hall, the pavement measures 33 feet in width with a 10-foot unpaved shoulder on the north side and a 6-foot unpaved shoulder on the south side. Leaving the commercial area of Lake Lure, the cross section narrows to an 18-foot paved roadway with 3-foot unpaved shoulders. The existing right-of-way on US 64-74 is a claimed 32-foot width. The horizontal alignment of the roadway is fair, and the vertical alignment is relatively good for this mountainous region. All intersections on the project are controlled by stop signs on the minor route. The existing speed limit through the Chimney Rock commercial district is 20 mph. The speed limit increases to 35 mph from west of the Broad River bridge to the Lake Lure Town Hall where it increases to 45 mph for the remainder of the project.

Roadside development consists of high density commercial development through the Chimney Rock and Lake Lure Beach areas. The remainder of the project area, east of the Lake Lure Town Hall, is characterized by moderate density residential development. Public facilities along the project include a fire department, the Lake Lure Community Center and Marina, the Lake Lure Town Hall, and the new post office.

The location and design of the post office driveway has resulted in a potentially hazardous site. The angle of the driveway's intersection with US 64-74 makes it difficult for drivers to turn to the west without crossing the centerline of the highway. The driveway is also located between two curves, resulting in very little sight distance in either direction, as can be seen on Figure 3.

There are two bridges on the subject portion of US 64- 74. Bridge No. 7 spans the Broad River with an open spandrel arch bridge that has an attached sidewalk on the north side, and Bridge No. 34 crosses Pool Creek with an earth filled, reinforced concrete spandrel arch bridge. Both of these bridges have decorative concrete rails. Pertinent information on the two bridges is listed below:

Bridge No.	Length	Rdwy. Width	Yr. Built	Suff. Rating
7	158'	20'	1925	54.3
34	34'	40'	1925	75.8

Traffic Volumes, Capacity, and Accident Record

The current traffic volume on US 64-70 ranges from a low of 2400 vehicles per day (vpd) at the eastern end of the project to a high of 3100 vpd at the more commercial western end of the project, on a year round basis. These volumes increase considerably during the summer vacation months and the fall leaf season, especially on weekends. A weekday traffic count taken during August, 1989 in the area of the Lake Lure Beach, found 3700 vpd using the highway. Traffic operations through the project area are hampered by the parking situation in Lake Lure and Chimney Rock. The beach and its bathhouse are served by perpendicular parking directly adjacent to the highway. Vehicles must back into the travel lanes when leaving this parking area. Parking for businesses across the road from the beach is also immediately adjacent to the highway. The parking situation in the Chimney Rock business district presents similar problems, with parking immediately adjacent to the highway on both sides. Delivery trucks sometimes block one of the travel lanes while making deliveries to the businesses, tying traffic up further. The combination traffic volumes, and the interference caused by the adjacent parking, results in the highway operating at Level of Service F during peak periods.

During the three year-period from January 1, 1986 through December 31, 1988, a total of 27 accidents were reported on the subject portion of US 64-74. This resulted in an accident rate of 342.5 accidents per 100 million vehicle miles (ACC/100 MVM) compared to a statewide average of 186.6 ACC/100 MVM for all rural United States routes over the same period. Two of the accidents resulted in fatalities and six others resulted in non-fatal injuries. The primary accident types involved vehicles running off the road and vehicles crossing the centerline hitting other vehicles. These types of accidents accounted for 59 % of the accidents. Two of the accidents involved truck trailers crossing the centerline in a tight curve while the truck tractor was staying as far to the right as possible, and two others involved vehicles backing into the highway from parking spaces immediately adjacent to the highway.

The completion of the US 74 project from Columbus to Forest City (Project R-99) should greatly improve traffic flow in the Lake Lure-Chimney Rock area. This project will complete the four-lane connection between Asheville and Charlotte, providing a freeway bypass of the study area. When this project is completed, it is anticipated US 74 will be

re-routed over this new facility and along existing I-26. Portions of this project are presently under construction, and the total project is scheduled to be completed in Fiscal Year 1996. When completed, the new route will carry the bulk of the through traffic now utilizing US 74 through the study area. This reduction in through traffic, especially large trucks, should greatly enhance traffic operations in the Lake Lure-Chimney Rock area.

Need for Project

Improvements to the US 64-74 corridor through Lake Lure and Chimney Rock are needed to improve safety and traffic flow through the area. The existing congestion during periods of peak traffic flow is a source of aggravation for motorists and it impedes the operation of emergency vehicles.

III. RECOMMENDATIONS AND COSTS

The traffic flow through Lake Lure and Chimney Rock could best be improved by the elimination of on street parking. This parking would need to be replaced by at least an equivalent amount of off street parking. The construction of parking lots to replace the on street parking cannot be done by the N. C. Department of Transportation. It would have to be the responsibility of the local government or the businesses served by the parking. Effective widening of US 64-74 through the study area would improve traffic flow, but is not recommended due to the adverse impact on adjacent development.

The existing safety problem at the driveway to the new post office could best be improved by the addition of a left-turn lane on US 64-74 along with improvements to the geometry of the intersection of the driveway with the highway. These improvements are recommended for implementation.

The estimated costs of the left-turn lane and driveway improvements are as follows:

Construction	$ 80,000
Right-of-Way	20,000
TOTAL	$100,000

The construction cost includes engineering and contingencies, and the right-of-way cost includes acquisition and utility costs.

IV. ENVIRONMENTAL EFFECTS

The implementation of the recommended improvements is not expected to result in any significant impact on the environment. Impacts will be primarily related to the actual construction of the project and will cease upon completion of the project. These include minor erosion and siltation, increased noise levels from construction machinery, and delay and inconvenience to motorists and area residents.

RBD/plr

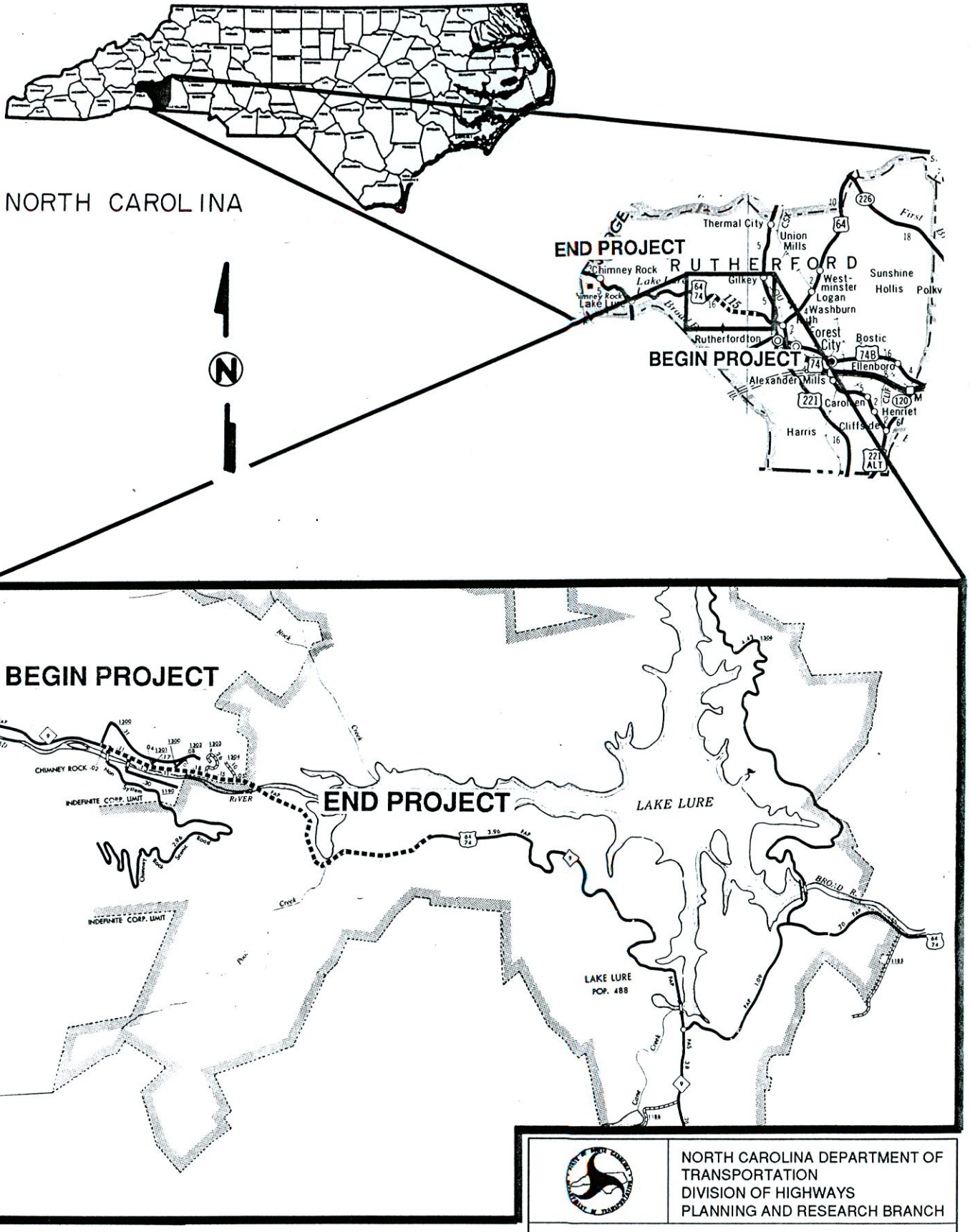

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FIG. 1

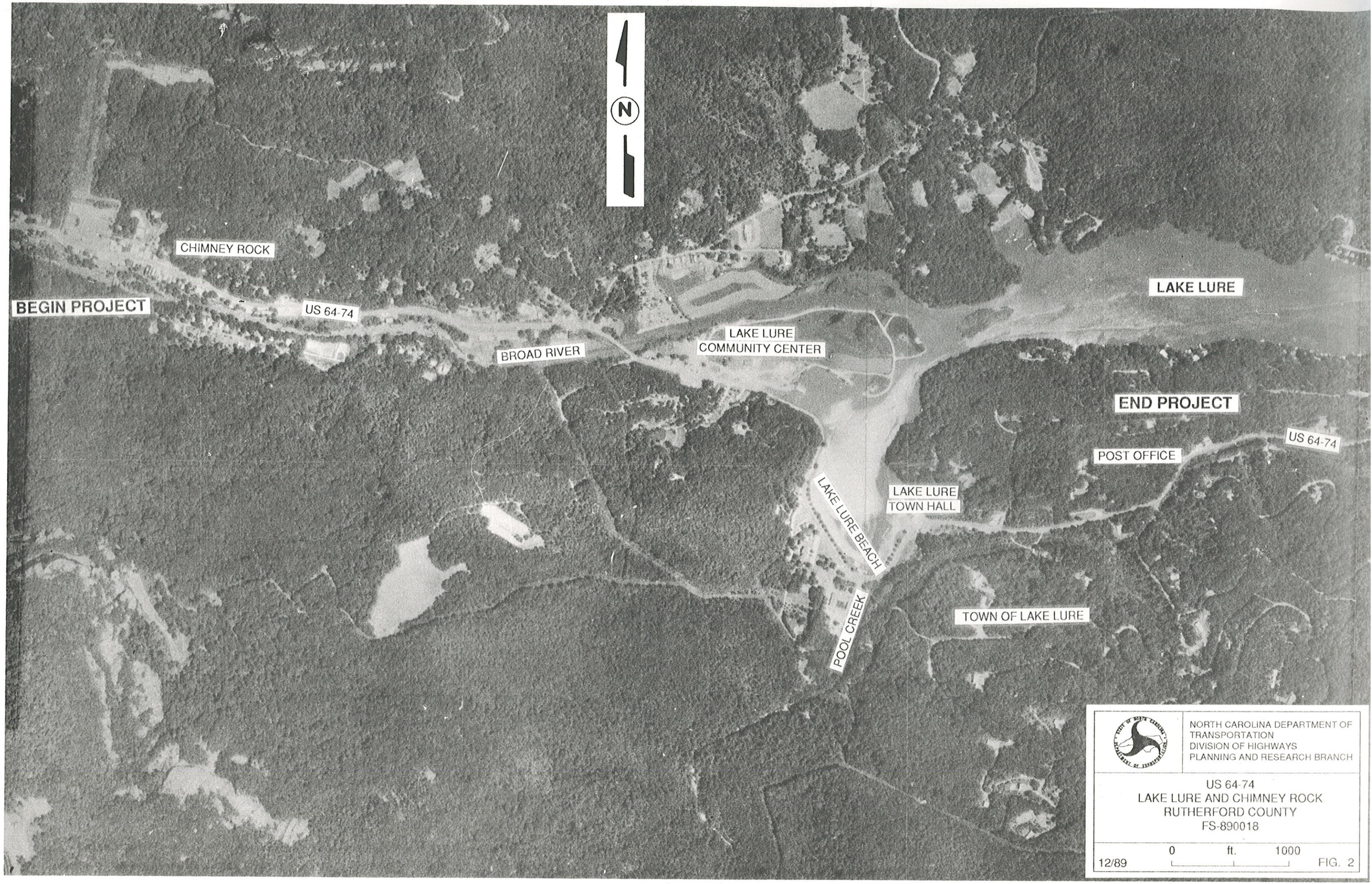

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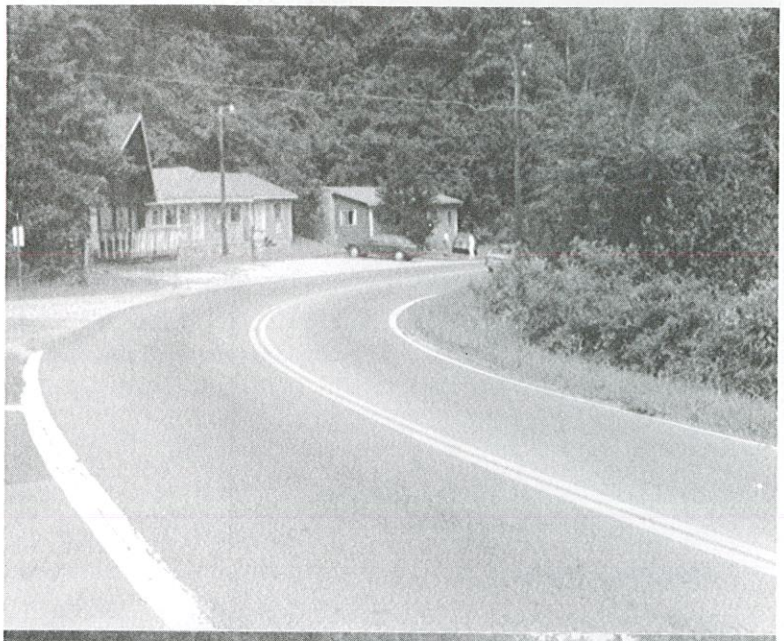
FIG. 2



LOOKING EAST FROM
POST OFFICE DRIVEWAY

LOOKING WEST FROM
POST OFFICE DRIVEWAY

CHIMNEY ROCK-NOTE
PARKING ON BOTH SIDES
AND TRUCK PARKED IN
TRAVEL LANE

FIG. 3