FEASIBILITY STUDY

SR 1127 (Kilmer Road)

From New Tellico Plains Road
to SR 1116 (Massey Branch), east of Robbinsville
Graham County

R-2822

Prepared by
Program Development Branch
Division of Highways
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Date

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I. GENERAL DESCRIPTION

This is a feasibility study for the improvement of SR 1127 between the New Tellico Plains Road, and SR 1116 (Massey Branch) west of Robbinsville (see Figures 1 and 2). The 5.9-mile project includes 1.3 miles of construction on a new location to improve roadway alignment. The recommended typical cross-section consists of a two-lane, 24-foot pavement with 2-foot paved shoulders, and 4-foot usable shoulders. The recommended improvements also include the partial realignment of several curves. The estimated cost of this project is $12,900,000 ($700,000 for right-of-way, and $12,200,000 for construction).

This study is not a detailed planning/environmental investigation. A feasibility study presents recommended typical cross sections, general alignments, and estimated cost of the improvement. The study also attempts to provide an early identification of potential environmental, permitting, or other issues which deserve consideration in the planning and construction stages.

II. NEED FOR PROJECT

This study was requested by the Graham County Chamber of Commerce, and the Graham County Board of Commissioners. SR 1127 (Kilmer Road) is classified as a rural major collector in the statewide functional classification system. The studied section of SR 1127 consists of a two-lane, 18-foot pavement, and an average of 2-foot usable shoulders. The roadway is located in a scenic mountainous area, in rugged terrain. The alignment contains several steep grades, and hairpin curves.

The recommended improvements will enhance safety to motorists on SR 1127. In addition to local traffic and emergency vehicles, SR 1127 is expected to carry future through traffic from the New Tellico Plains Road. New Tellico Plains Road is a two-lane scenic highway, currently under construction. The road will link Tellico Plains, Tennessee and Robbinsville.

Estimated current average daily traffic (ADT) on SR 1127 varies from 1,100 vehicles per day (vpd) near SR 1115, to 500 vpd near the New Tellico Plains Road. Traffic volumes are expected to increase to 3,500 vpd, and 2,300 vpd at the two respective locations by the year 1997. By the design year, 2013, estimated traffic volumes are expected to reach 5,600 vpd near SR 1115, and 3,700 vpd near New Tellico Plains Road. These estimates include 1% truck-tractor, semi-trailors, and 3% dual axle vehicles. Due to the scenic nature of the area, a large portion of the annual daily traffic (ADT) is carried during the summer months.

Based on estimated current traffic volumes, the existing roadway is operating at level-of-service (LOS) B. The roadway is expected to operate at a LOS D by 1997. It is estimated that the recommended improvements would allow the roadway to operate at LOS C through the year 1997, and LOS D through the design year of 2013.

During the period beginning on February 1, 1989, through January 31, 1992, 11 accidents, none of which involved fatalities, were reported on the studied section of SR 1127. This resulted in a total accident rate of 125.8 accidents per 100 million vehicle miles (acc/100mvm), compared to a statewide rate for similar routes of 305.2 acc/100mvm. Of the 11 reported accidents, 6 involved vehicles running off the road. The recommended improvements are expected to reduce the number of accidents on SR 1127.

III. RECOMMENDATIONS

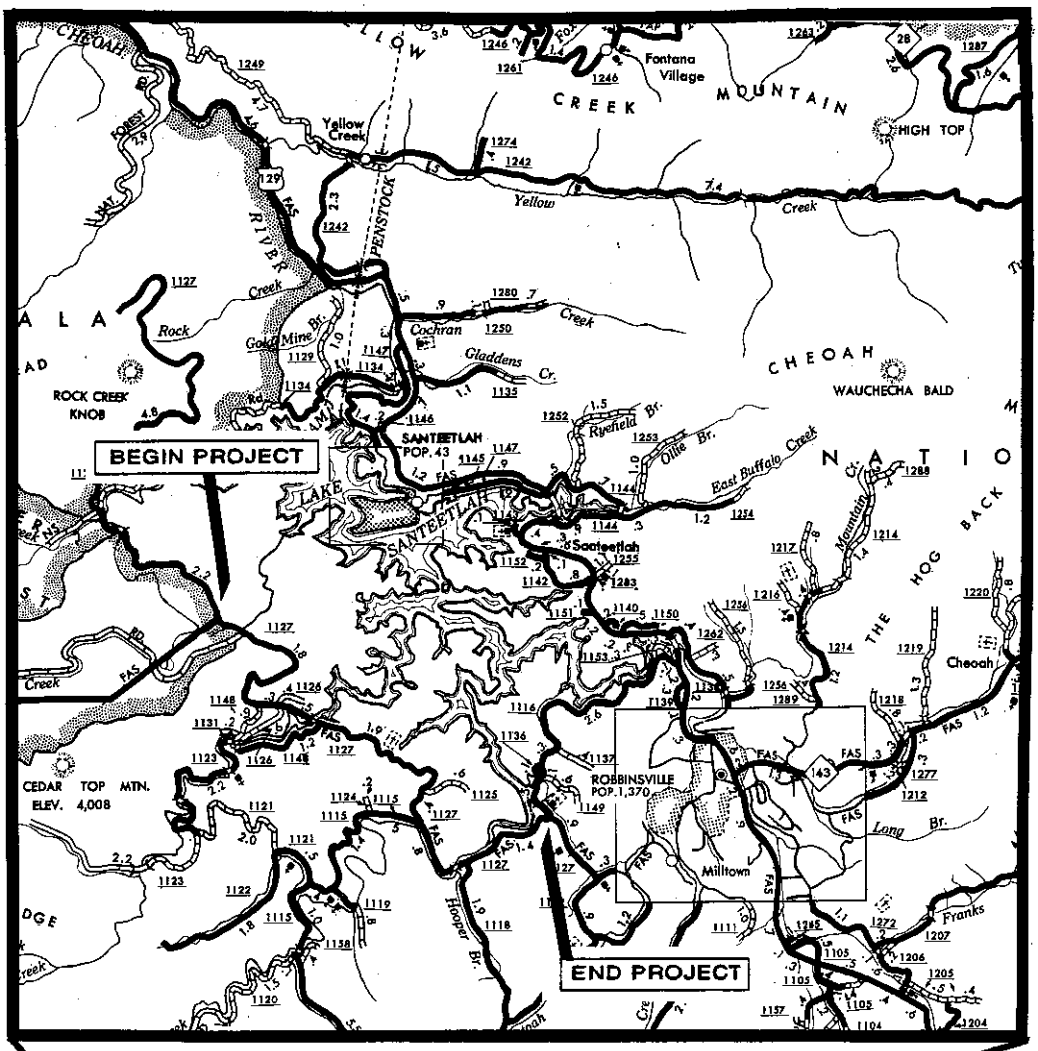
It is recommended that SR 1127 from the New Tellico Plains Road to SR 1116 west of Robbinsville (see Figures 1 and 2), be partially relocated on a new location, with the remainder realigned, and widened to a 24-foot pavement with 2-foot paved shoulders, and 4-foot usable shoulders. The 4.6-mile corridor of SR 1127, from New Tellico Plains Road to 0.2 mile north of SR 1125 (see Figure 2) is to be retained. However, it is recommended that the roadway be partially realigned to reduce the curvature of the present alignment. From 0.2 mile north of SR 1125 to SR 1116, SR 1127 is to be relocated onto a new alignment. The new alignment is 1.3-miles long, with a southeast heading to join SR 1127 just west of SR 1116. The new alignment will require a new bridge over Santeetlah Lake (see Figure 2). The proposed bridge is estimated to be 800 feet long, with a clear roadway width of 30 feet. The total project length along the new roadway would be 5.9 miles. The recommended typical cross-section is a two-lane, 24-foot pavement with 2-foot paved shoulders, and 4-foot usable shoulders. Due to the rugged terrain, right-of-way width is to vary from the existing 30 feet to 150 feet to accommodate the proposed improvements. No control of access is proposed.

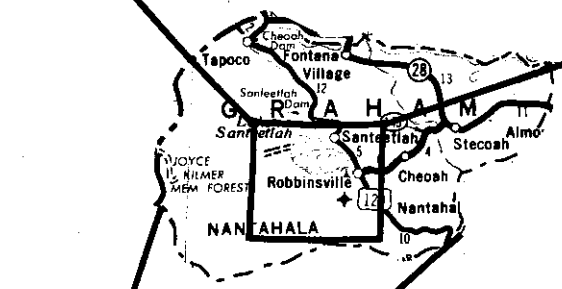
Project cost is estimated as follows:

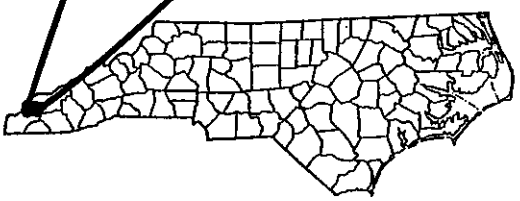
Right-of-Way	$ 700,000
Construction	$ 12,200,000
Total Project Cost	$ 12,900,000

IV. ENVIRONMENTAL CONCERNS

It is estimated that this project would require the relocation of 3 residences. An environmental screening was not conducted for this study.







SR 1127-KILMER ROAD

FROM NEW TELLICO PLAINS ROAD TO SR 1116

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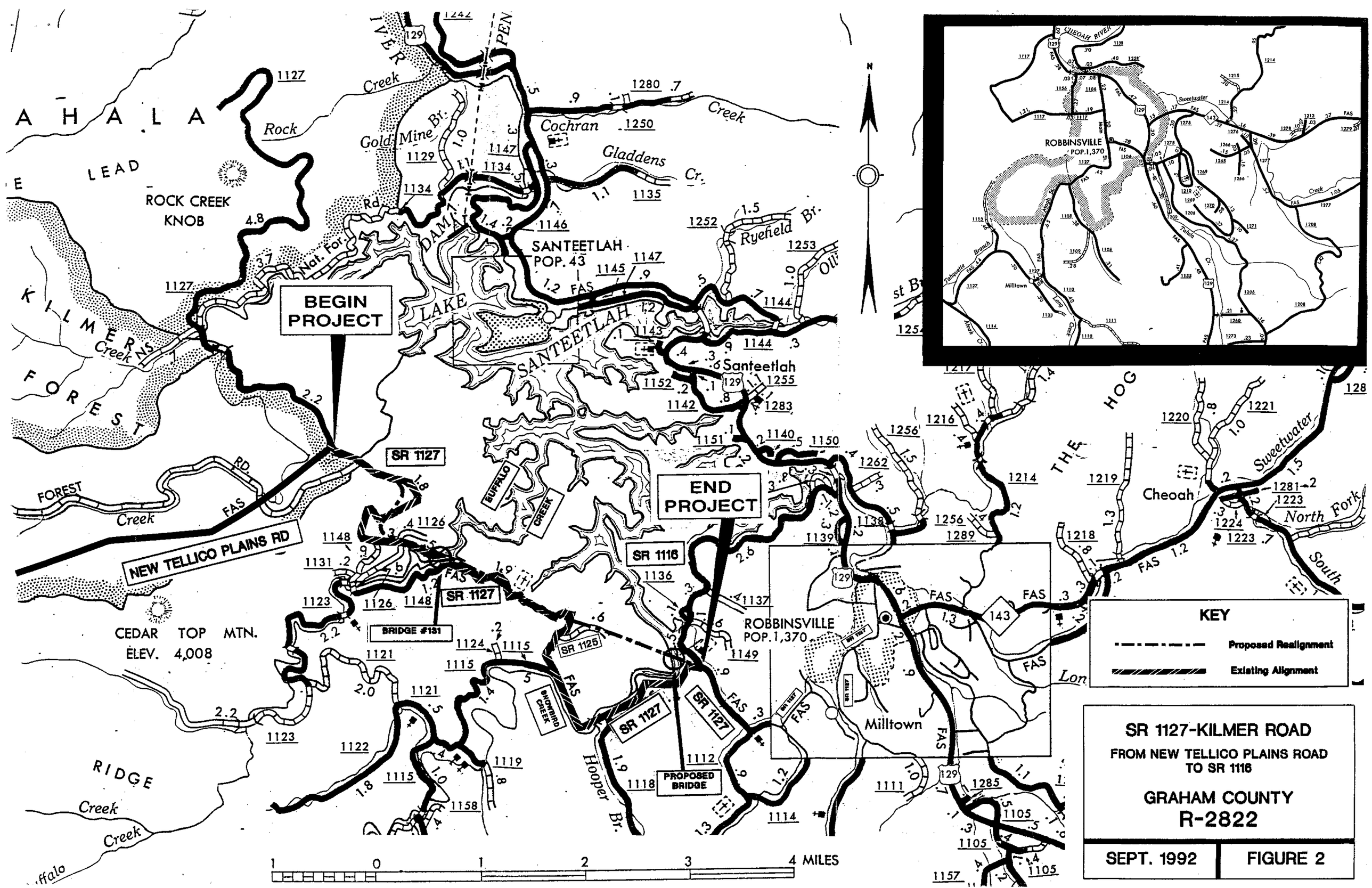
SEPT. 1992	FIGURE 1



SR 1127-KILMER ROAD

FROM NEW TELLICO PLAINS ROAD TO SR 1116

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SEPT. 1992 | FIGURE 2