

FEASIBILITY STUDY

Winston-Salem

SR 1103 (Lewisville-Clemmons Road)

**from SR 1891 (Peacehaven Road)
to SR 3580 (Forest Oak Drive)**

Forsyth County

U-3340

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



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Date



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I. GENERAL DESCRIPTION

This is a feasibility study for the widening of SR 1103 (Lewisville-Clemmons Road), from SR 1891 (Peacehaven Road) to SR 3580 (Forest Oak Drive), in Forsyth County (See Figure 1). The project is approximately 1.3 miles (2.1 kilometers) in length. The recommended typical cross-section is a five-lane, 64-foot (19.5-meter) face-to-face, curb and gutter section with 8-foot (2.4-meter) berms on a 100-foot (30.5-meter) wide right-of-way with no access control. The estimated cost of the project is \$3,800,000 (\$1,800,000 for right-of-way and \$2,000,000 for construction).

This study is not a detailed planning/environmental investigation. A feasibility study presents studied cross-sections for improvements, general corridors of improvements, and estimated costs of construction and right-of-way. This study attempts to identify any potential environmental, permitting, or other observed issues that deserve consideration in the planning and construction stages.

II. NEED FOR PROJECT

The studied improvements are needed to reduce traffic congestion on SR 1103. SR 1103 is on the Federal Aid Urban System (FAU 5946), and is classified as a collector on the Statewide Functional Classification System, and a major thoroughfare on the Winston-Salem Thoroughfare Plan.

The existing SR 1103 is mainly a two-lane, 24-foot (7.3-meter) wide roadway with 2 to 8-foot (0.6 to 2.4-meter) wide shoulders. There are additional left-turn lanes at some subdivision entrances. Land use along the studied section of Lewisville-Clemmons Road is single-family and multi-family residential.

The south terminal is located approximately 450 feet (137.2 meters) north of SR 1891. South of this terminal, SR 1103 is a five-lane, 64-foot (19.5-meter) face-to-face, curb and gutter section with 8-foot (2.4-meter) berms. Land use is single-family residential in this area.

The north terminal is located at the intersection of SR 3580 and SR 1103. This is also the south terminal of TIP Project U-3119. TIP Project U-3119 recommends widening SR 1103, from SR 3580 to SR 1153, to a five-lane curb and gutter cross section. Land use is single-family residential in this area. West Forsyth High School is located approximately 0.2 miles (0.3 kilometers) north of SR 3580, on the east side of SR 1103.

Estimated 1994 average daily traffic (ADT) on SR 1103 is 11,500 vehicles per day (vpd). In the design year 2015, the traffic volume is expected to be 22,500 vpd. The existing SR 1103 is operating at a level of service (LOS) C, and is anticipated to operate at a LOS E in the design year 2015. With the recommended roadway widening, the current traffic volumes along SR 1103 would operate at a LOS A and a LOS B in the design year.

During the period from March, 1991, through February, 1994, there were 34 accidents reported along the studied section of SR 1103. This resulted in an accident rate of 190.69 accidents per 100 million vehicle miles (acc/100mvm) compared to a statewide average of 200.1 acc/100mvm for this type of facility. Rear-end collisions accounted for a majority of the accidents (68%). No fatalities were reported. The recommended improvements are expected to reduce the accident rate.

III. RECOMMENDATIONS

It is recommended that SR 1103 (Lewisville-Clemmons Road) be widened to multi-lanes, from approximately 450 feet (137.2 meters) north of SR 1891 to SR 3580, a distance of approximately 1.3 miles (2.1 kilometers). The recommended typical cross-section is a five-lane, 64-foot (19.5-meter) face-to-face, curb and gutter section with 8-foot (2.4-meter) berms on a 100-foot (30.5-meter) wide right-of-way with no access control. Intersecting streets would be stop sign-controlled. Widening would be both asymmetrical and symmetrical to the existing roadway to minimize right-of-way and construction costs.

The recommended improvements would decrease traffic congestion and improve safety. This project would also provide a logical link between the recommended five-lane section north of the study corridor (TIP No. U-3119) and the existing five-lane section south of the study corridor.

Moderate utility conflicts are expected.

Total project cost is estimated as follows:

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|--------------|-------------|
| Right-of-way | \$1,800,000 |
| Construction | \$2,000,000 |
| <hr/> | |
| Total | \$3,800,000 |

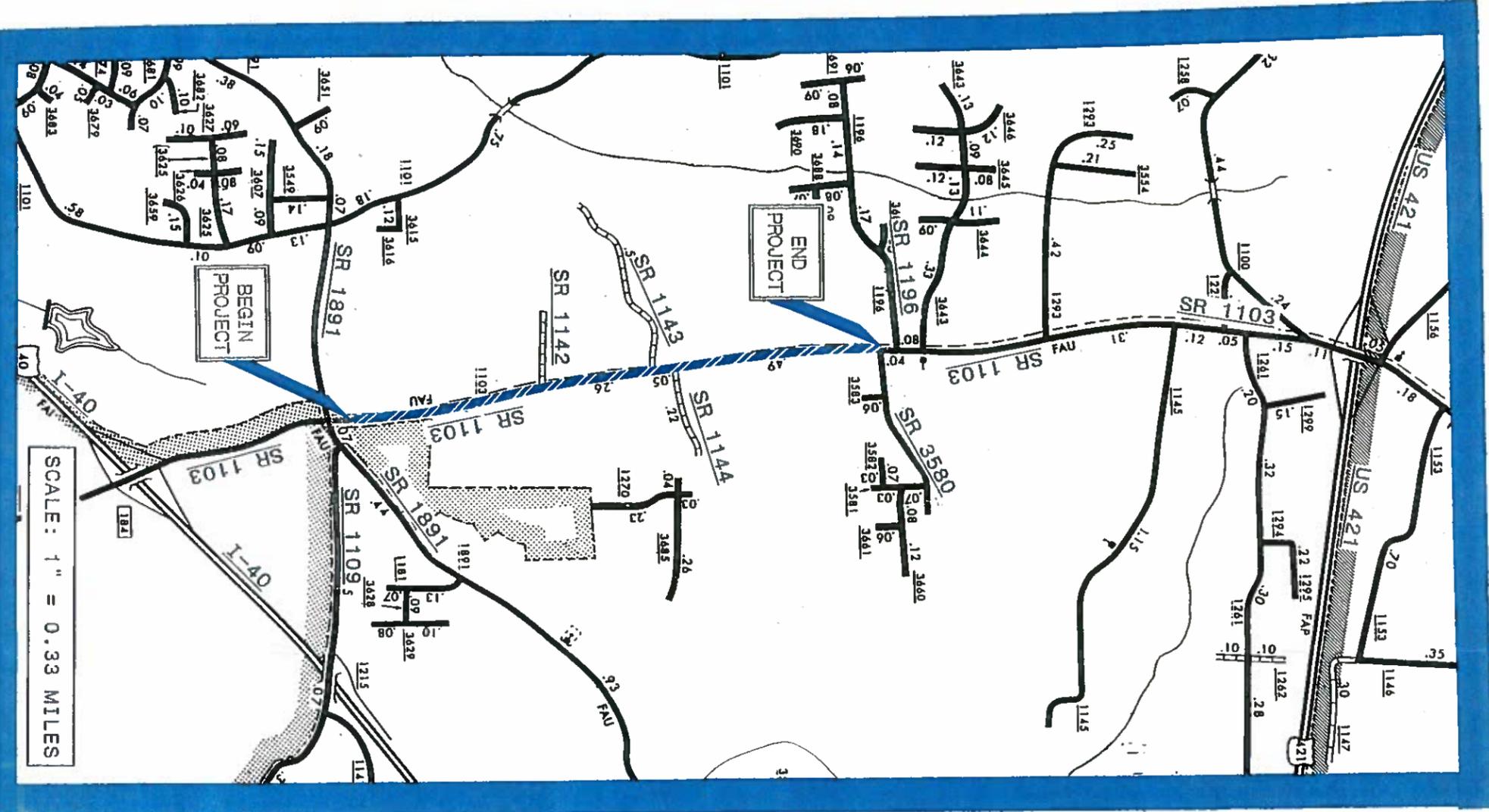
IV. OTHER COMMENTS AND CONCERNS

It is estimated that this project would require the relocation of three residences and two businesses.

No historical or architecturally significant sites are known to be impacted. It is not expected that the churches along the study corridor would be impacted.

V. OTHER ALTERNATES CONSIDERED

An alternate cross-section was studied for widening SR 1103. The studied typical cross-section was a three-lane, 36-foot (11.0-meter) roadway with 8-foot (2.4-meter) shoulders on the existing right-of-way. This alternate was rejected, because it would not provide a significant improvement in traffic capacity.



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| FEASIBILITY STUDY UNIT | |
| U-3340 | |
| WINSTON-SALEM | |
| SR 1103 (Lewisville-Clemmons Road) | |
| from SR 1891 to SR 3580 | |
| Forsyth County | |
| DIV 9 | FIGURE 1 |