

FEASIBILITY STUDY

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Jacksonville, SR 1308 (Bell Fork Road)
From NC 24 to US 17
Onslow County
U-2540

Prepared by
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6/29/90
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I. DESCRIPTION

This report covers a preliminary study of the proposed widening of SR 1308 to a 5-lane facility from NC 24 to US 17 in Jacksonville (see Figure 1). This project is included in the 1990-1996 Transportation Improvement Program for feasibility study and/or right-of-way protection, and is not currently funded.

II. PURPOSE OF PROJECT

SR 1308 is classified as a major thoroughfare on the Jacksonville Thoroughfare Plan adopted in 1985, and as an urban principal arterial on the County Functional Classification Plan. It is basically a 4-lane, 48-foot face to face of curbs section throughout the 2.1 mile project length. The road widens to a 5-lane curb and gutter section to provide left turn lanes at NC 24, SR 1403, and at US 17. Signals are located at NC 24, SR 1492, SR 1403, and at US 17.

The existing right-of-way is variable 30 to 35 feet on each side of the center line throughout the project length. The posted speed limit is 35 mph. Development is dense and predominantly residential at the midsection and commercial on the north and south ends of the project.

Traffic Volumes, Capacity, and Accident Record

The volume of traffic that utilizes this route is approximately 20,000 vehicles per day (vpd), increasing to an estimated 37,300 vpd by the year 2010.

The capacity of the existing road at level of service C is approximately 15,000 vpd. The actual volumes presently using the facility (20,000 vpd) indicate that the facility is operating well over capacity as a result of the absence of a center turn lane.

Traffic capacity is significantly reduced at a signalized intersection and sections of road without left turn lanes. The major problem with a four-lane facility is that no center lane exists for traffic to get off of the through lanes and turn without interfering with traffic flow.

Accident data for a recent 3-year period shows a total of 302 accidents on the studied section. This yields an accident rate of 565 accidents per hundred million vehicle miles, which is considerably higher than the state wide average of 373 accidents per hundred million vehicle miles for comparable 4-lane urban secondary routes. Rear-end slow or stop (38%) and left turns, same road and crossing traffic (22%) were predominant accident types. Most accidents occurred in areas of dense development.

Need for Project

The improvement of SR 1308 is needed to provide increased capacity and safety for existing and future traffic volumes. The inadequacy of the 4-lane section will become even more apparent with the continued over-loading of the road with future traffic volumes if no improvements are made.

III. RECOMMENDATIONS AND COSTS

The recommended cross section for SR 1308 is 5 lanes, 64-foot face to face of curbs throughout the project length on an estimated 90 feet of right-of-way. This cross section would provide a continuous center lane for left turns into concentrated development along the project area. Generally, widening should be accomplished asymmetrically, taking the side that would involve the least impact.

Although a 7-lane section would be desirable to accommodate the traffic this facility is projected to carry in the future, it is not economically feasible due to extensive roadside development that would be impacted at exorbitant costs. The addition of a fifth lane would solve the immediate capacity and accident problems along the entire project length.

The traffic volumes are expected to stabilize in the future with construction of the US 117 Bypass of Jacksonville (U-2107) scheduled for construction in late 1993, and the Western Boulevard extension (U-1253H) presently under construction (see Figure 2).

The estimated costs of the recommended improvements are as follows:

<u>Construction Cost</u>	<u>Right-of-Way Cost</u>	<u>Total Cost</u>
\$ 1,400,000	\$ 3,210,000	\$ 4,610,000

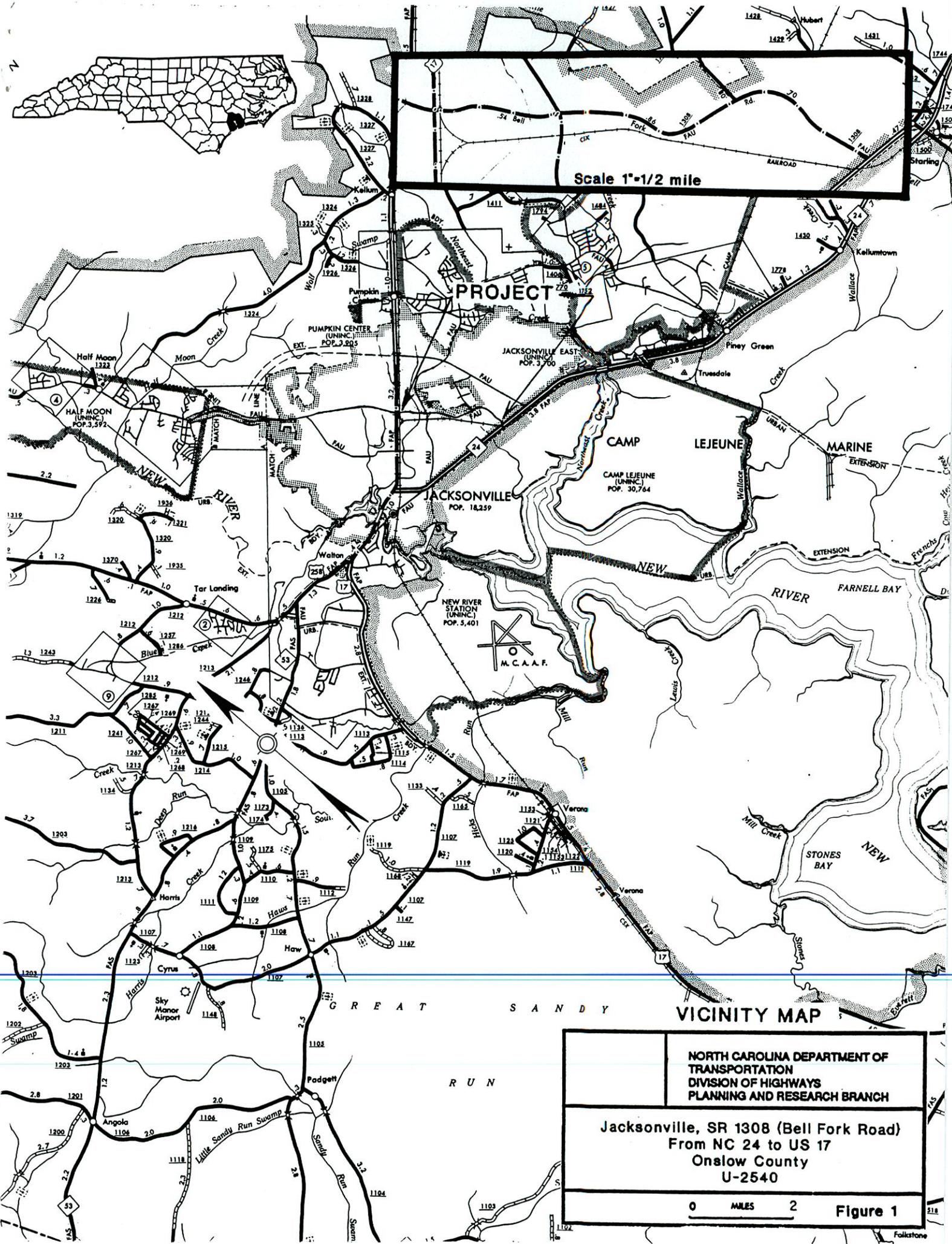
The unusually high right-of-way cost is due to the close proximity and high density of commercial development along the project. Cost estimates were prepared by the Preliminary Estimate Engineer and the Right-of-Way Branch.

IV. OTHER COMMENTS

Noticeable negative environmental impacts of the proposed widening of SR 1308 include: (1) the relocation of 6 residences and 3 businesses; (2) land damage; and (3) increased noise levels for remaining businesses and residences.

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

AS/plr



Scale 1"=1/2 mile

PROJECT

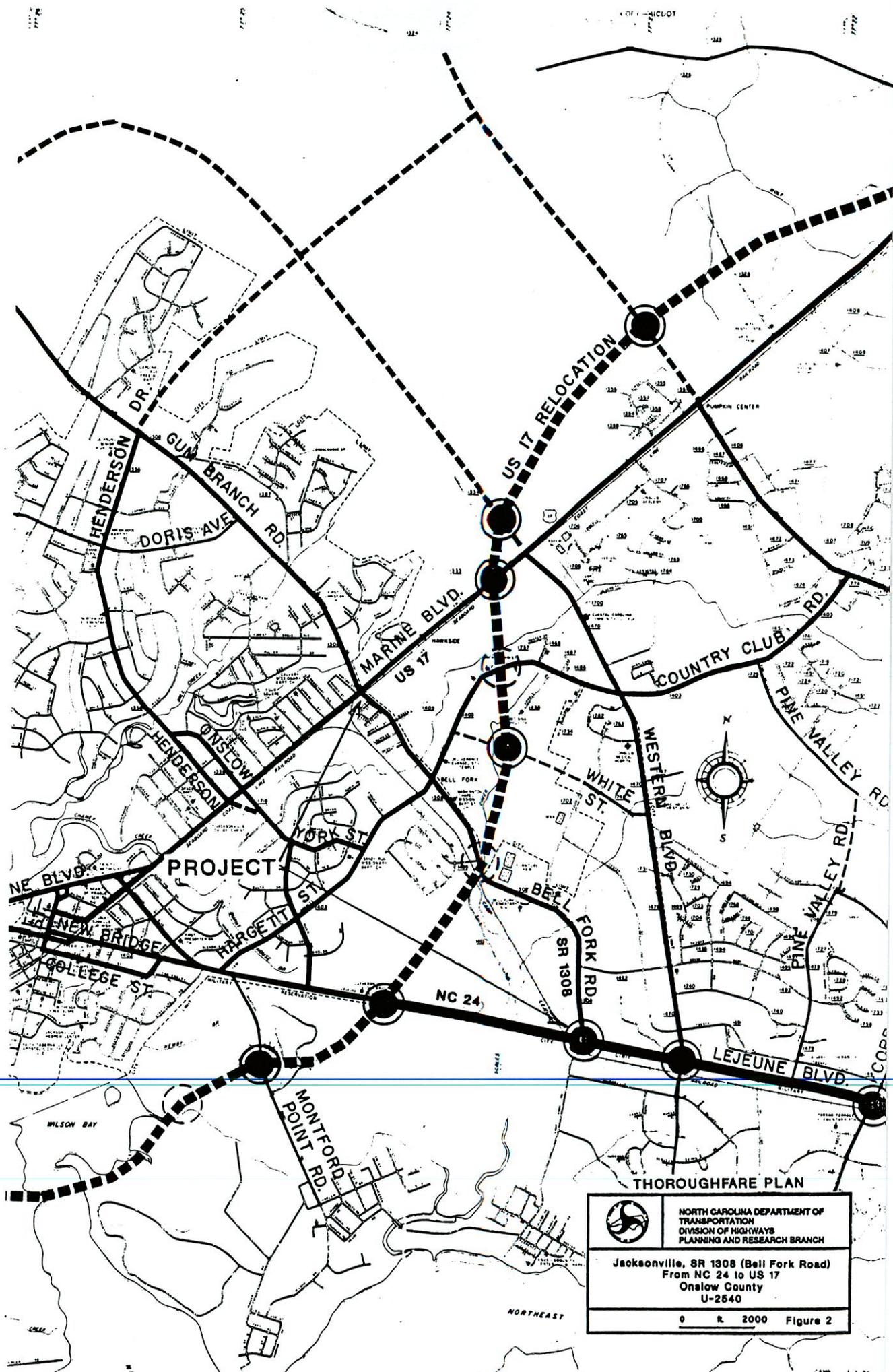
VICINITY MAP

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

Jacksonville, SR 1308 (Bell Fork Road)
From NC 24 to US 17
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0 MILES 2

Figure 1



PROJECT

US 17 RELOCATION

THOROUGHFARE PLAN

	<p>NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PLANNING AND RESEARCH BRANCH</p>
	<p>Jacksonville, SR 1308 (Bell Fork Road) From NC 24 to US 17 Onslow County U-2640</p>
<p>0 1/2 1 2000 Figure 2</p>	

NORTHEAST

