

FEASIBILITY STUDY

US 117  
From I-40 to Warsaw  
Duplin County  
R-2569

Prepared by  
Planning and Environmental Branch  
Division of Highways  
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I. DESCRIPTION

This report covers a preliminary study of the proposed improvement of a 4-mile section of US 117 from I-40 to NC 50 in Warsaw (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

Existing Route

US 117 is classified as a major collector on the Warsaw Thoroughfare Plan adopted in 1984, and as a rural major collector on the County Functional Classification Plan. It is basically a 2-lane, 24-foot paved facility with 8-foot unpaved shoulders, except within the Warsaw Town Limits where it widens to a 42-foot curb and gutter section, marked for 2-lane operation with parallel parking on both sides of the road. This 42-foot section extends through the town to NC 50, where it narrows to a 2-lane, 24-foot section. Left turn lanes are provided at NC 24.

The existing right-of-way is 100 feet outside the Town Limits and 60 feet within the Town Limits. The posted speed limit is generally 55 mph, but drops to 45 mph at the Quinn Wholesale Plant, and to 35 mph within the Town Limits (see Figure 2). Development along US 117 is predominantly small businesses between NC 24 and the Town Limits, industry south of the Town Limits to Quinn Wholesale, and rural farmland from Quinn Wholesale to I-40.

Traffic Volumes, Capacity, and Accident Record

The volume of traffic that utilizes this route presently ranges from approximately 5,700 vehicles per day (vpd) near I-40 to 8,000 vpd in Warsaw. These volumes do not reflect the anticipated reduction of existing volumes by approximately one half with the opening of I-40 (scheduled to open the end of June, 1990) and a proposed connector from I-40 to US 117 at Mount Olive (R-606) now under construction. Both projects will attract much of the traffic away from the studied project area. Estimated traffic volumes for the year 2010 are 7,000 to 11,000 vpd, respectively.

The capacity of the existing road at level of service C is approximately 8,000 to 10,000 vpd. Considering the anticipated future volumes, no major capacity problems are expected along the existing road for many years.

Accident data for a recent 3-year period shows a total of 67 accidents on the studied section of US 117. This yields an accident rate of 426 accidents per hundred million vehicle miles, which is considerably more than the state wide average of 188 accidents per hundred million vehicle miles for comparable 2-lane, rural US routes. Rear-end (28%), and left turn-same road (18%) collisions were predominant accident types. The majority of these accidents occurred within the Warsaw Town Limits.

#### Need for Project

An improvement of US 117 is desirable to provide increased safety for existing and future traffic volumes.

### III. RECOMMENDATIONS AND COSTS

The recommended improvement for US 117 is to resurface the existing facility, add left turn lanes at SR 1107, SR 1902, and the existing Quinn Wholesale entrance, and add 2-foot paved shoulders on each side of the road from I-40 to the Warsaw Town Limits. From the Town Limits to NC 50, it is recommended the existing curb and gutter facility be resurfaced and striped for 3 lanes to provide a continuous center lane for left turns at numerous intersections. This lane arrangement would require the removal of parallel parking on at least one side and preferably both sides of the road. Most of the parking lanes are infrequently used. However, public resistance may force the reservation of at least one side for parallel parking.

The estimated costs of the recommended improvements is \$ 850,000. No additional right-of-way will be required.

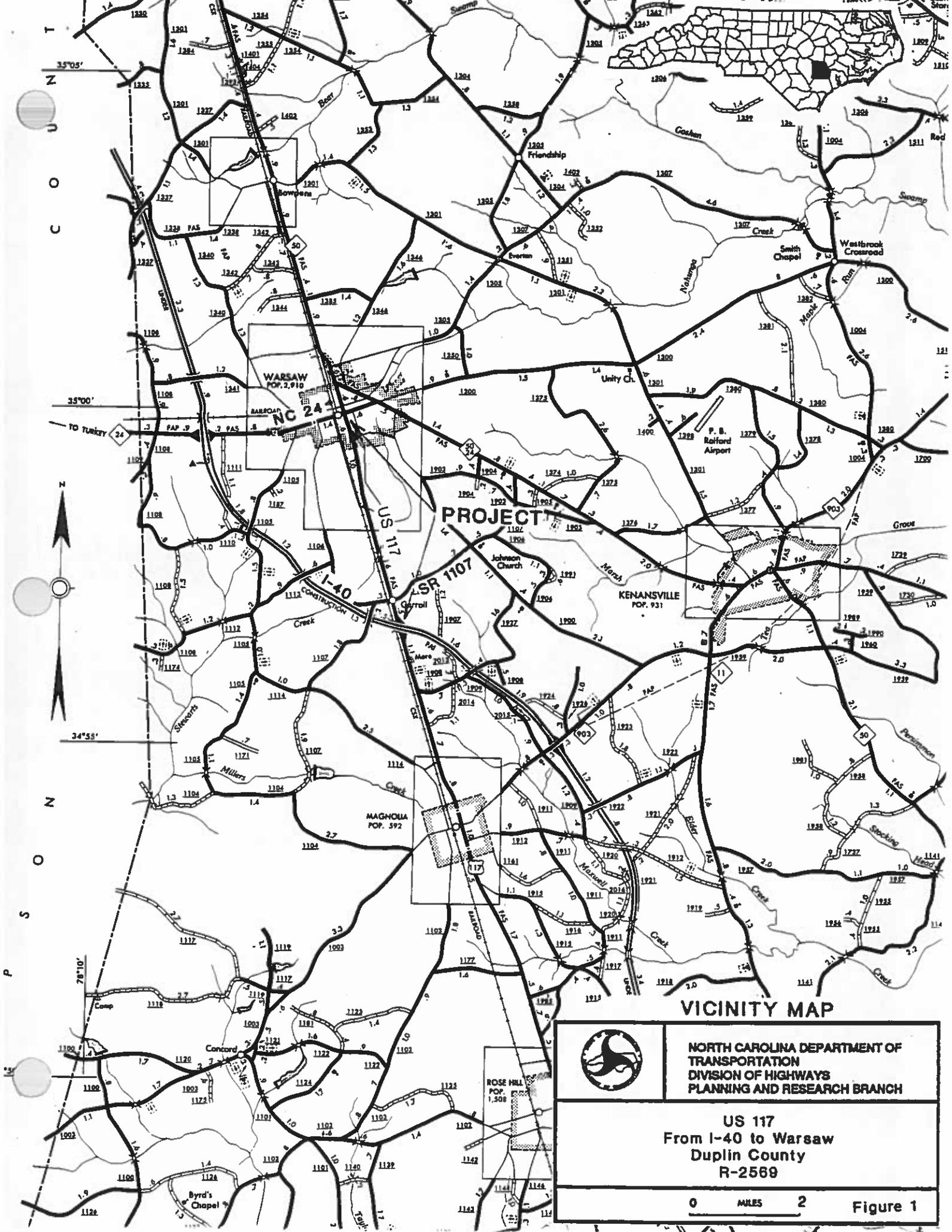
### IV. OTHER COMMENTS

No other alternative improvements were considered for this project. Widening to provide a multi-lane width along the studied section of US 117 is not warranted, since the existing road is expected to experience a significant reduction in traffic as a result of the opening of I-40 and its connector to US 117 at Mount Olive and thus should have adequate capacity for many years.

The only possible negative environmental impact of the proposed improvement of US 117 is the loss of on-street parking within the Town Limits.

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



**PROJECT**

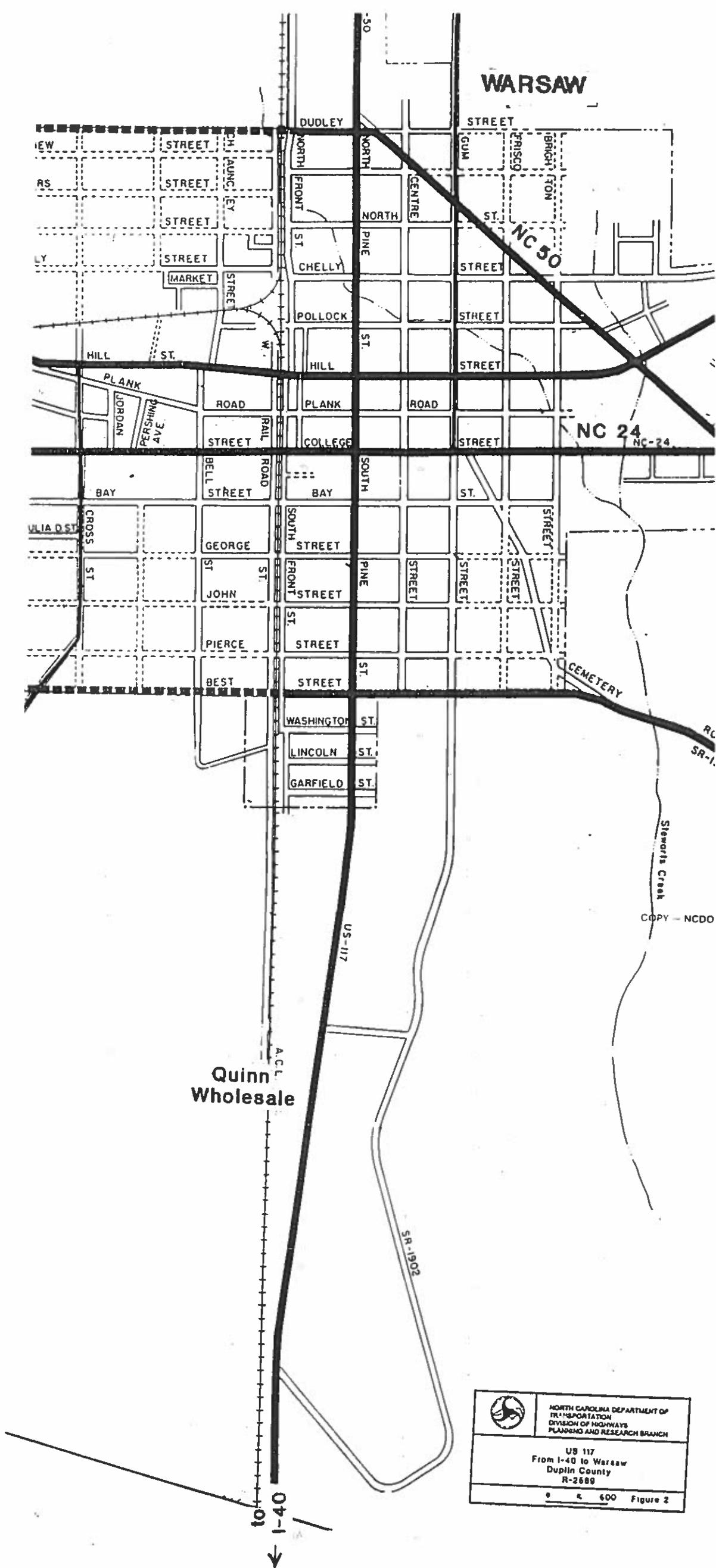
**VICINITY MAP**



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

**US 117  
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0 **MILES** 2 **Figure 1**



WARSAW

NC 50

NC 24  
NC-24

CEMETERY

COPY - NCDO

Quinn Wholesale

	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PLANNING AND RESEARCH BRANCH
	US 117 From I-40 to Warsaw Duplin County R-2689
0 4 600 Figure 2	



to I-40  
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