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FEASIBILITY STUDY

Monroe  
SR 2188 (Charles Street)  
SR 2181 to SR 2100  
Union County, U-2547

Prepared by  
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9/24/90  
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## I. GENERAL DESCRIPTION

This report covers a preliminary study of the proposed upgrading of SR 2188 (Charles Street) in Monroe to a three-lane facility with curb and gutter. The proposed project extends from Sunset Drive (SR 2181) to Franklin Street (SR 2100) and is approximately 0.6 mile in length (see Figure 1). It is included in the 1990-1996 Transportation Improvement Program for feasibility study and/or right-of-way protection. It is not currently funded for design, right-of-way acquisition, or construction.

## II. PURPOSE OF PROJECT

### Existing Route Characteristics

Charles Street serves the east-central area of Monroe and provides a connection between Sunset Drive (SR 2181) and Franklin Street (SR 2100). It is classified as a Minor Urban Arterial on the North Carolina Functional Classification System, and is included in the Monroe Thoroughfare Plan as a Major Thoroughfare ( see Figure 2). Since the Morgan Mill Road railroad overpass was completed in 1986, the increased traffic load into Charles Street is causing safety and congestion problems.

Charles Street is basically a two-lane facility with widths varying from a 20-foot pavement and 3 to 6-foot shoulders on the south end of the project to a 32-foot curb and gutter cross section on the north end of the project. The existing right-of-way is claimed 60 feet, from SR 2181 to Greene Street, and 40 feet from Greene Street to SR 2100. Both the horizontal and vertical alignments are good along the studied section of road. All intersections along the studied route are at grade and are all stop sign controlled with the exception of the signalized intersection at Franklin Street (SR 2100). The speed limit is 35 mph for the entire project.

There is medium density residential development along the studied route. An historic district exists on the northern end of the project. Near the southern end of the project, a National Guard Armory is located on the west side of Charles Street and a school located just off the project on Sunset Drive (SR 2181).

### Traffic Volumes, Capacity, and Accident Record

The current traffic volume of 4000 vehicles per day (vpd) is projected to increase to approximately 8200 vpd by the year 2010. With the current traffic volumes, Charles Street is approaching capacity and experiencing congestion during peak periods. Without improvements to this street, the level of traffic service will deteriorate in the future as traffic volumes continue to grow. With the proposed improvements, Charles Street should operate at Level of Service C or better throughout the planning period.

During the period from January 1, 1986 through September 30, 1989, a total of 27 accidents were reported on the subject portion of Charles Street, resulting in an accident rate of 897.01 accidents per 100 million vehicle miles (acc/100mvm). This clearly exceeds the statewide average of 379.0 acc/100mvm for all urban secondary roads over a similar period. The most common accident types were the rear-end collisions and the angle accidents. The proposed improvements to Charles Street should reduce the potential for these types of accidents.

### Need for Project

The widening of Charles Street to a three-lane section is needed to provide adequate capacity for existing and future traffic volumes. The project will improve access to Franklin Street and Sunset Drive, as well as, enhance safety along the road.

### III. RECOMMENDATIONS AND COSTS

The widening of Charles Street to a three-lane facility is immediately warranted. The recommended improvement is a three-lane curb and gutter cross section, 40 feet from face to face of curbs. Widening is recommended to be generally symmetrical about the existing centerline; however, it may need to be shifted at specific locations to avoid undue damage to one side. A 70-foot right-of-way is anticipated for the proposed roadway.

The estimated costs of this project are as follows:

Construction	\$530,000
Right-of-Way	<u>290,000</u>
TOTAL	\$820,000

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

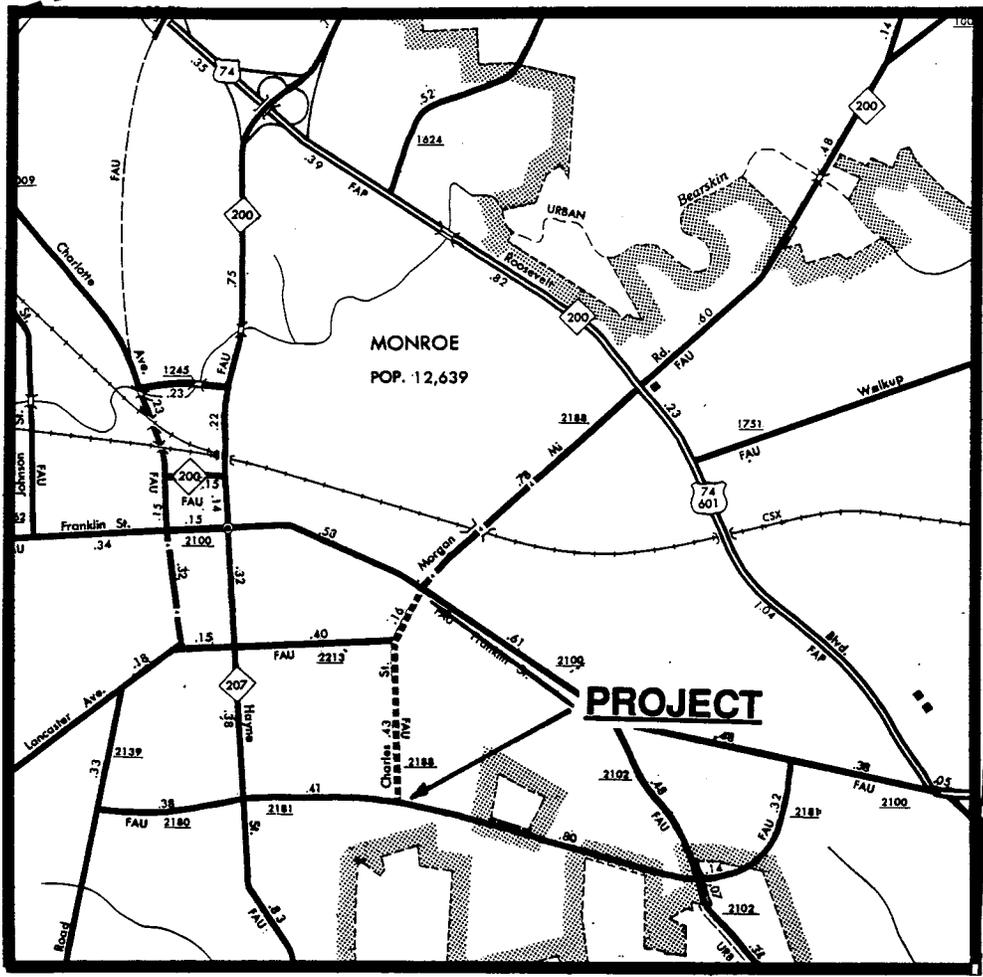
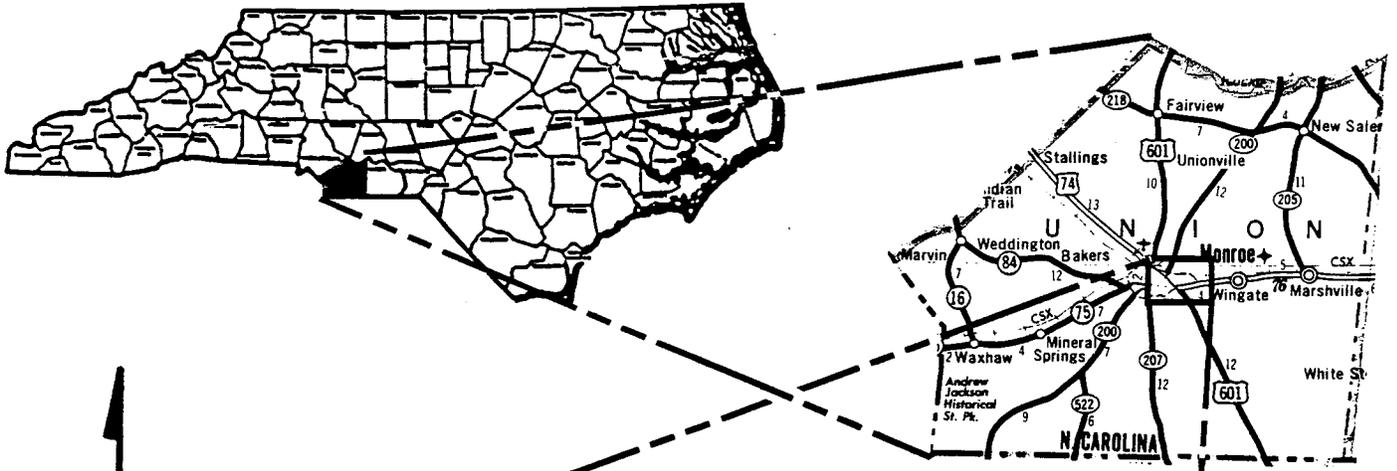
### IV. ENVIRONMENTAL EFFECTS

The implementation of the proposed project is not expected to result in any significant impact on the environment. The widening of the subject road will require the relocation of only one residence and no businesses. Close coordination with state and local historic officials will be necessary to minimize any impacts on the historic district located at the north end of the project. Other impacts will be primarily related to the actual construction of the proposed roadway. These include minor erosion and siltation, increased noise levels from construction machinery, and delay and inconvenience to motorists using the subject route.

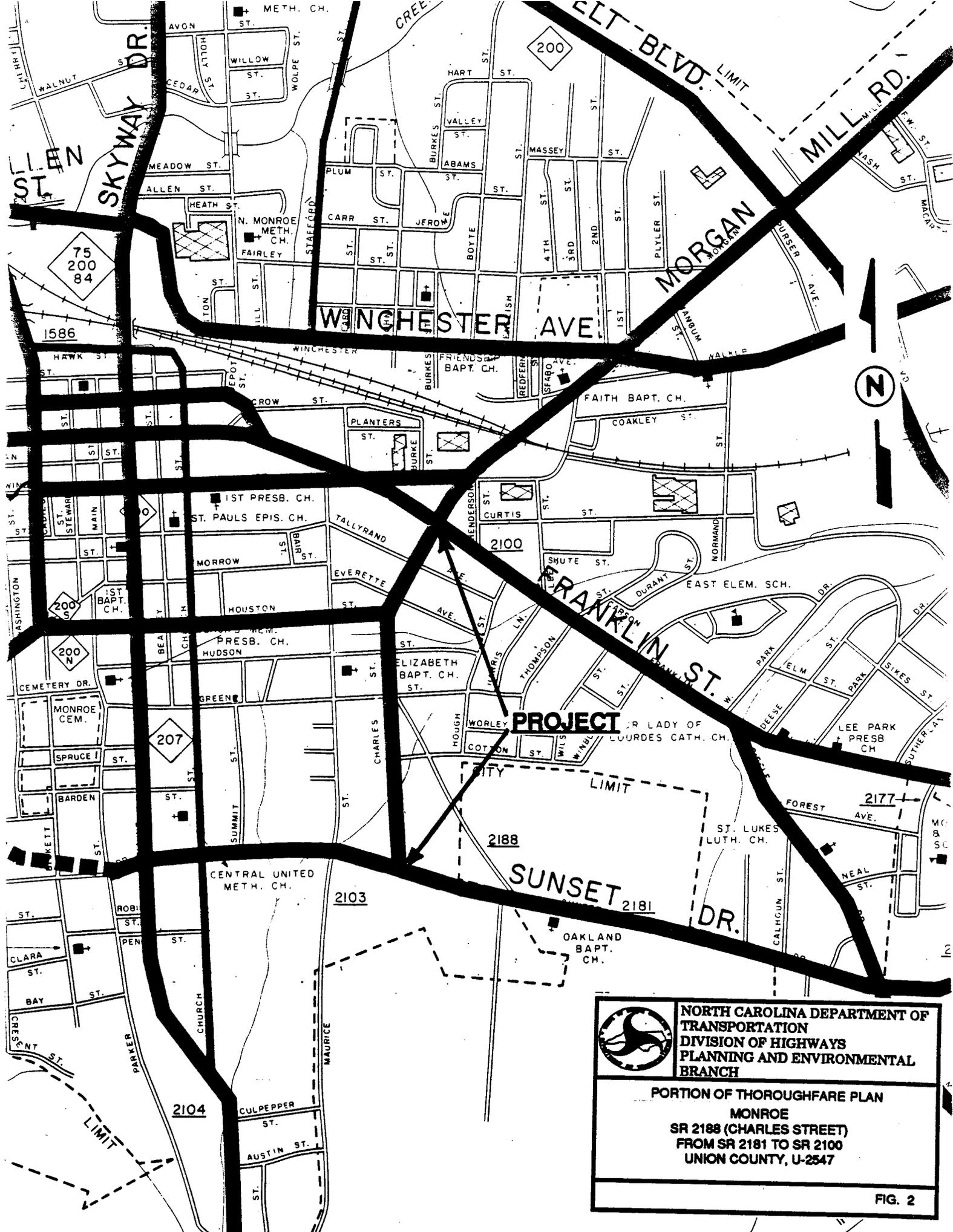
V. FUTURE ACTIVITIES

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

RBD/plr



	<p><b>NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PLANNING AND ENVIRONMENTAL BRANCH</b></p>
	<p><b>MONROE SR 2188 (CHARLES STREET) FROM SR 2181 TO SR 2100 UNION COUNTY, U-2547</b></p>
<p>0 miles 1/2 <b>FIG. 1</b></p>	




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

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**PORTION OF THOROUGHFARE PLAN**  
**MONROE**  
**SR 2188 (CHARLES STREET)**  
**FROM SR 2181 TO SR 2100**  
**UNION COUNTY, U-2547**

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**FIG. 2**