

FEASIBILITY STUDY

Jacksonville

Extend SR 1876 (Hemlock Drive)
To Corbin Street

Onslow County

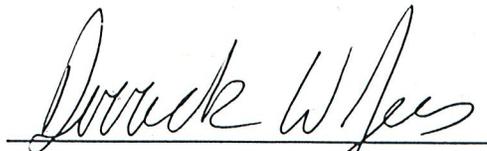
Division 3

FS-9903F
(U-4409)

Prepared by
Programming and TIP Branch
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FEASIBILITY STUDY

Extend SR 1876 (Hemlock Drive) to Corbin Street in Jacksonville

Onslow County

FS-9903F

I. GENERAL DESCRIPTION

This feasibility study describes the extension of SR 1876 (Hemlock Drive) to Corbin Street and the improvements to the existing streets. See Figure 1 for the location of the project. The project is approximately 2.0 miles (3.2 km) in length, of which 0.5 mile (0.8 km) is on new location.

The studied typical section is a three-lane, 40-foot (12.2-m) wide face-to-face, curb and gutter section with 10-foot (3.0-m) berms on 100-foot (30.5-m) wide right-of-way with no control of access. It is estimated that 14 residences and no businesses would be relocated due to this project. The estimated cost of the project is \$12,500,000 (\$5,000,000 for right-of-way and \$7,500,000 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

This project was requested by the City of Jacksonville. The connection of Hemlock Drive to Corbin Street will provide a north-south corridor between Piney Green Road (SR 1406) and NC 24, and it will alleviate the congestion on Piney Green Road.

Existing Hemlock Drive and Corbin Street are local routes which are not classified on the Statewide Functional Classification System. On the Jacksonville Thoroughfare Plan, the connection of Hemlock Drive to Corbin Street is classified as a Major Thoroughfare.

The project corridor lies in a residential area. Existing Hemlock Drive is a 32-foot (9.8-m) wide, 2-lane roadway with sidewalk on both sides. Corbin Street

is generally a 2-lane, 24-foot (7.3-m) wide roadway with 6-foot to 10-foot (1.8-m to 3.0-m) shoulders. A short section of Corbin Street from Shadowridge to the existing dead-end is a 37-foot (11.3-m) wide, curb and gutter section with sidewalk on both sides. At the signalized intersection with NC 24, Corbin Street has a left-turn lane in addition to the through lanes. Hemlock Drive is a 2-lane, 32-foot (9.8-m) wide curb and gutter section with sidewalk mostly on one side only. The posted speed limit for Corbin Street and Hemlock Drive are 25 mph (40 kph) and 35 mph (56 kph) respectively.

Estimated 2000 average daily traffic (ADT) volumes on Hemlock Drive and Corbin Street are 4,800 and 4,300 vehicles per day (vpd) respectively. With the proposed connection of Hemlock Drive to Corbin Street, the traffic volumes are estimated to be 6,600 vpd. In the design year 2025, the traffic volumes are estimated to be 11,000 vpd. This facility would operate at a level of service (LOS) C in the current year, and at LOS D in the design year 2025.

III. PROPOSED IMPROVEMENTS

It is proposed to connect Hemlock Drive to Corbin Street and improve the existing streets. See Figure 1 for the location of the project. The project is approximately 2.0 miles (3.2 km) in length, of which 0.5 mile (0.8 km) is on new location. The studied typical section is a three-lane, 40-foot (12.2-m) wide face-to-face, curb and gutter section with 10-foot (3.0-m) berms on 80-foot (24.4-m) wide right-of-way with no control of access. A 5-foot (1.5-m) wide sidewalk would be provided on both sides of the street. The improvements to the section of Corbin Street in Northeast Creek Park would be contained within the existing 60-foot (18.3-m) wide right of way.

It is estimated that 14 residences and no businesses would be relocated due to this project. The cost of the project is estimated as follows:

Right-of-Way	\$ 5, 000,000
Construction	<u>\$ 7,500,000</u>
Total Cost	\$12,500,000

A transportation benefit analysis was also completed for this project. For the period between 2000 and design year 2025, it is estimated that the total transportation benefits for the project are \$28,000,000 with an average of \$1,120,000 per year. The total benefits include accident cost savings, time cost savings, and operating cost savings.

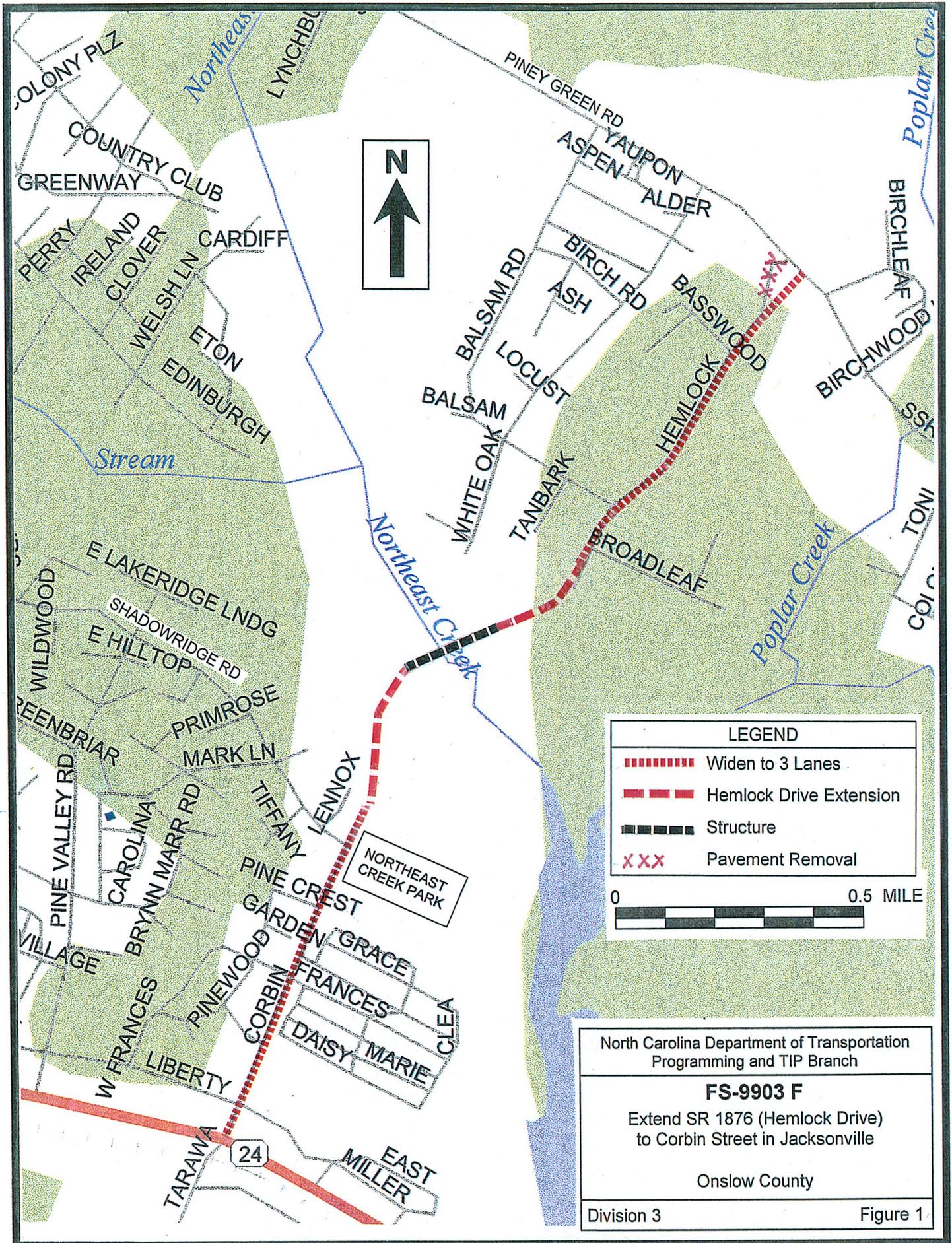
IV. OTHER COMMENTS AND CONCERNS

No historical or architecturally significant sites have been identified in the project corridor.

Based on maps available at the Department of Environment, Health, and Natural Resources - Natural Heritage Section, no threatened or endangered species were identified in the project corridor.

The project is located in the White Oak River Basin. A small quantity of wetland along Northeast Creek may be impacted by this project. It is anticipated that a permit from the U.S. Army Corps of Engineers would be required prior to the construction stage.

Neither Hemlock Drive nor Corbin Street is a designated bicycle route, and no special bicycle accommodations are recommended.



Map labels include: COLONY PLZ, COUNTRY CLUB, GREENWAY, PERRY, IRELAND, CLOVER, WELSH LN, CARDIFF, ETON, EDINBURGH, Stream, WILDWOOD, E LAKERIDGE LNDG, SHADOWRIDGE RD, E HILLTOP, GREENBRIAR, PRIMROSE, MARK LN, PINE VALLEY RD, CAROLINA, BRYNN MARR RD, TIFANY, LENNOX, PINE CREST, GARDEN GRACE, FRANCES, DAISY, MARIE, CLEA, W FRANCES, LIBERTY, PINEWOOD, CORBIN, EAST MILLER, TARAWA, 24, BALSAM RD, BIRCH RD, ASH, LOCUST, TANBARK, WHITE OAK, BROADLEAF, HEMLOCK, BASSWOOD, YAUPON, ASPEN, ALDER, PINEY GREEN RD, BIRCHLEAF, BIRCHWOOD, Poplar Creek, TONI, COLO.

