

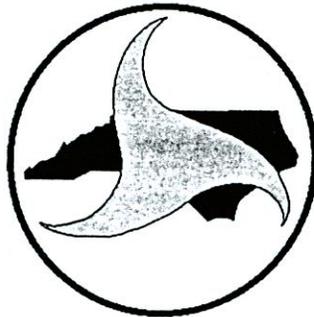
FEASIBILITY STUDY

New Connector  
From the SR 1825 / SR 1715 Intersection in Duplin County  
To the SR 1245 / SR 1209 Intersection in Onslow County

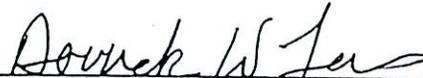
Duplin / Onslow Counties

Division 3

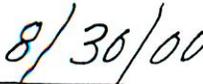
FS-0003A



Prepared by the  
Program Development Branch  
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New Connector  
From the SR 1825 / SR 1715 Intersection in Duplin County  
To SR 1245 / SR 1209 Intersection in Onslow County

Duplin / Onslow Counties

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**I. General Description**

This feasibility study describes a new connector across the Back Swamp from the SR 1825 / SR 1715 intersection in Duplin County to the SR 1245 / SR 1209 intersection in Onslow County, a distance of 1.4 miles (2.25 km). The location of this project is shown in Figure 1. The recommended cross section of this facility is two-lane shoulder section with 24 feet (7.3 m) of pavement. The recommended right of way width is 100 feet (30.0 m). It is anticipated that there will be two residences and no businesses relocated due to this project. The total cost of the project, including construction and right-of-way, is estimated to be \$3,780,000.

Construction.....	\$ 3,550,000
Right-of-way.....	\$ 230,000
Total Cost .....	\$ 3,780,000

This study is the initial step in the planning and design process for this project and is not the product of exhaustive environmental or design investigations. The purpose of this study is to describe the proposed project including costs, and to identify potential problems that may require consideration in the planning and design phases.

**II. Need for Project**

The purpose of this project is to provide a new crossing of the Back Swamp in order to improve local access in the area. The shortest route between the SR 1825 /SR 1715 and SR 1245 / SR 1209 intersections is approximately 7.0 miles (11.3 km). With the proposed connector, this distance would be reduced to only 1.4 miles (2.3 km).

SR 1825 in Duplin County is currently a two-lane shoulder section with approximately 20 feet (6.1 m) of BST pavement. SR 1245 in Onslow County is a two-lane shoulder section with 24 feet (7.3 m) of pavement. It should be noted that there is a substandard right angle curve on the existing SR 1245 alignment, which is anticipated to pose an increased accident risk with through traffic.

The current year Average Daily Traffic (ADT) along the proposed new connector is estimated to be 500 vehicles per day (vpd). For the design year 2025, the estimated traffic volumes on the proposed new connector increase to 800 vpd. Considering the traffic projections in this area, the operational capacity of this and the adjoining roadways is not an issue in this study.

### III. Recommendations / Description of Project

This feasibility study describes a new connector across the Back Swamp from the SR 1825 / SR 1715 intersection in Duplin County to the SR 1245 / SR 1209 intersection in Onslow County, a distance of 1.4 miles (2.25 km). The location of this project is shown in Figure 1. The recommended cross section of this facility is two-lane shoulder section with 24 feet (7.3 m) of pavement. The recommended right of way width is 100 feet (30.0 m). In order to improve traffic safety of this facility and minimize the wetland impacts, we recommend that most of SR 1825 and SR 1245 be relocated under this project. It is anticipated that there will be two residences and no businesses relocated due to this project. The total cost of the project, including construction and right-of-way, is estimated to be \$3,780,000.

Construction.....	\$ 3,550,000
Right-of-way.....	\$ 230,000
Total Cost .....	\$ 3,780,000

### IV. Other Alternates Considered

Given that SR 1245 currently has 24 feet of pavement, we also considered an alternate that would retain SR 1245. This alternate would provide a new connector from the SR 1825 / SR 1715 intersection in Duplin County to the end of SR 1245 in Onslow County, a distance of 1.0 miles (1.6 km). The proposed cross section of this facility is two-lane shoulder section with 24 feet (7.3 m) of pavement, on 100 feet (30.0 m) of right-of-way. It is anticipated that there will be one residence and no businesses relocated due to this project. The total cost of the project, including construction and right-of-way, is estimated to be \$2,750,000.

Construction.....	\$ 2,600,000
Right-of-way.....	\$ 130,000
Total Cost .....	\$ 2,730,000

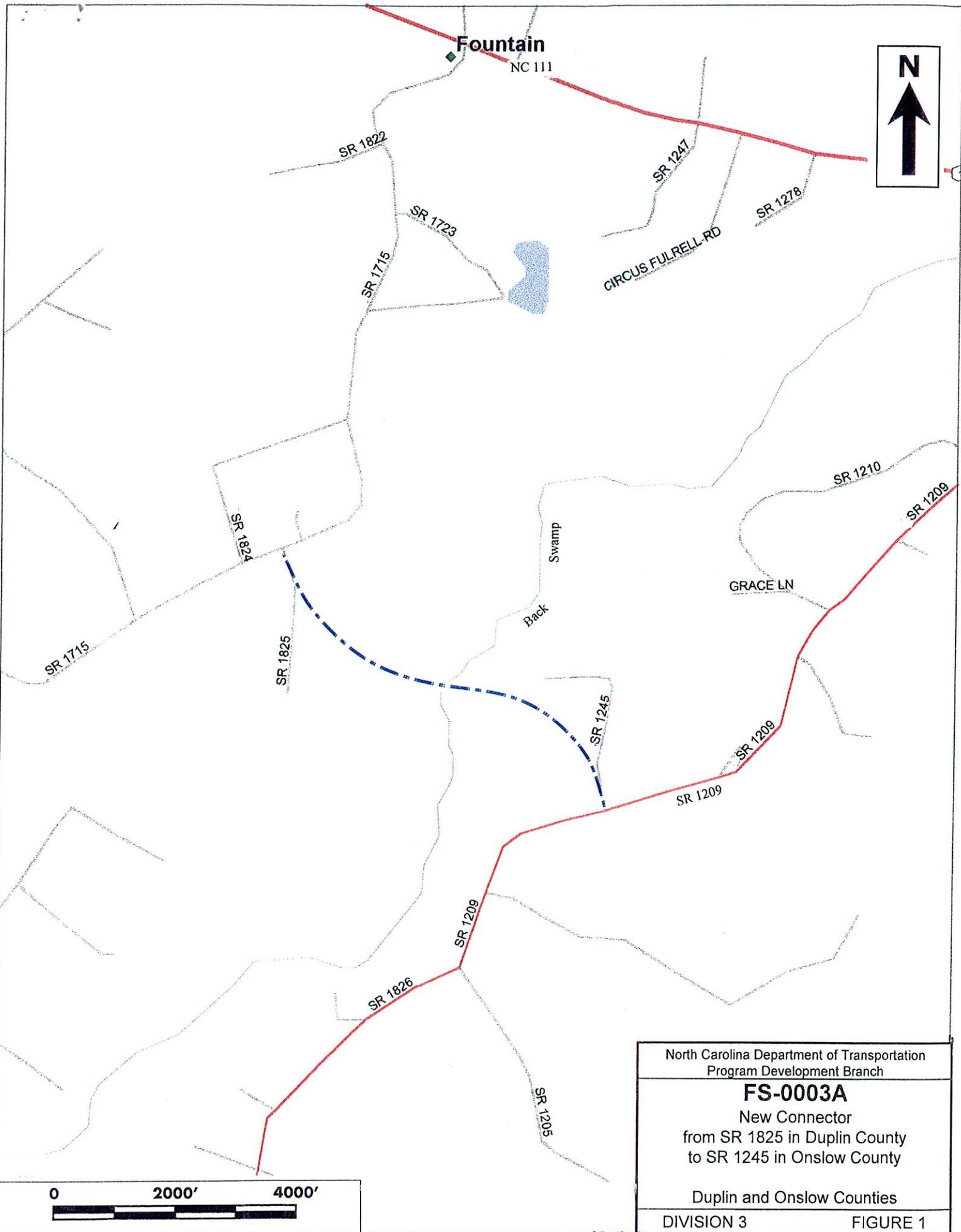
This alternate is not recommended because of an existing substandard horizontal curve on SR 1245. We are concerned that the introduction of through traffic at this curve would significantly increase the accident potential of this facility.

## V. Additional Comments

An environmental screening was not conducted for this study. Based on maps at the Department of Environment, Health & Natural Resources and Natural Heritage Section, no threatened or endangered species were identified in the project corridor and no historic properties are anticipated. However, wetland permits and mitigation are anticipated because of the impact to Back Swamp and its adjoining wetlands. This section of Back Swamp, is a Class C-Sw waterway and part of the Cape Fear River Basin. The estimates included in this study do not include any costs for wetland mitigation.

No special accommodation for bicycles is recommended on this project.

A transportation benefit analysis was not completed for this project because of insufficient information. However, we do not anticipate significant benefits from this new connector because of the low projected traffic volumes.



**Fountain**

NC 111



SR 1822

SR 1247

SR 1278

SR 1715

SR 1723

CIRCUS FULRELL RD

SR 1824

Swamp

SR 1210

GRACE LN

Back

SR 1209

SR 1715

SR 1825

SR 1245

SR 1209

SR 1209

SR 1826

SR 1205

North Carolina Department of Transportation  
Program Development Branch

**FS-0003A**

New Connector  
from SR 1825 in Duplin County  
to SR 1245 in Onslow County

Duplin and Onslow Counties

DIVISION 3

FIGURE 1

