

NC 24-27  
From NC 740 in Albemarle  
To the Proposed Troy Bypass (R-623), west of Troy  
Stanly and Montgomery Counties  
Federal-Aid Project BRSTP-0024(33) – B-4974  
WBS Elements 34446.1.6, 39922.1.1, & 35572.1.1  
**TIP Projects R-2530B, B-4974, and R-2527**

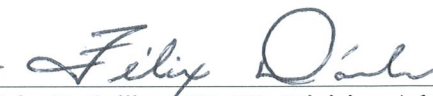


Administrative Action  
**ENVIRONMENTAL ASSESSMENT**

U. S. Department of Transportation  
Federal Highway Administration  
And  
N. C. Department of Transportation  
submitted pursuant to 42 U.S.C. 4332(2) (c)  
and 49 U. S. C. 303

APPROVED:

12/23/11   
Date Gregory J. Thorpe, Ph.D., Unit Manager  
FOR Project Development and Environmental Analysis Unit

12/23/11   
Date FOR John F. Sullivan III, PE, Division Administrator  
Federal Highway Administration

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December 2011

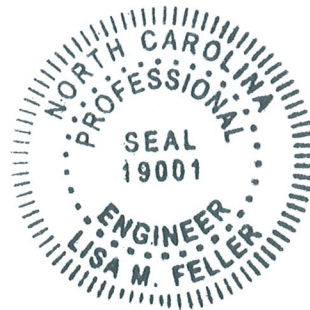
Documentation Prepared in the Project Development and Environmental Analysis Unit  
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 12/23/11

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# PROJECT COMMITMENTS

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## **Project Development & Environmental Analysis Unit**

NCDOT will coordinate with Progress Energy regarding any requirements of the Federal Energy Regulatory Commission (FERC) regarding approvals. Requirements from the FERC regarding approvals will be met prior to right of way acquisition.

## **Project Development & Environmental Analysis Unit, Roadway Design Unit, Rail Division**

In the R-2527 project limits, the Norfolk Southern Railroad bridge crosses NC 24-27 within the Uwharrie National Forest which is under the US Forest Service's jurisdiction. NCDOT will ensure that the US Forest Service is part of the project's railroad design coordination process.

## **Geotechnical Unit**

Preliminary site assessments will be conducted for twenty-three potentially contaminated sites within the proposed right of way prior to right of way acquisition.

## **Divisions 8 and 10 Construction Units**

This project involves construction activities on or adjacent to the Federal Emergency Management Agency (FEMA) regulated stream. Therefore, the Division shall submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction, certifying that the drainage structures and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

R-2530B, B-4974 and R-2527 Environmental Assessment  
December 2011

Green Sheet  
Sheet 1 of 3



### **Hydraulics Unit**

The Hydraulics Unit will coordinate with the Floodplain Mapping Program (FMP), the delegated state agency for administering FEMA's National Flood Insurance Program, to determine the status of the project with regard to applicability of NCDOT'S Memorandum of Agreement with FMP, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

### **Division of Bicycle and Pedestrian Transportation, Project Development & Environmental Analysis Unit, Roadway Design Unit**

Fourteen foot outside travel lanes will be utilized for bicycle accommodations from NC 740 in Albemarle to SR 1731, Sweet Home Church Road. Four foot paved shoulders will be utilized for bicycle accommodations from SR 1731, Sweet Home Church Road to the proposed Troy Bypass, west of Troy.

Bicycle and pedestrian accommodations will be further coordinated with the City of Albemarle prior to final project design. In accordance with the NCDOT Pedestrian Policy, NCDOT will bear the full cost to replace any existing sidewalks to be relocated by the project along existing streets. The City of Albemarle will participate in the cost of new sidewalks in areas where sidewalks do not currently exist. A municipal agreement will be prepared prior to project construction.

### **Project Development & Environmental Analysis Unit – Natural Environment Section**

Due to the presence of Schweinitz's sunflower within the project area as well as within 1-mile of the project area, a biological conclusion of "May affect, likely to adversely affect" has been given. Additional surveys will be required prior to project construction, and this biological conclusion will necessitate further coordination and consultation with the US Fish and Wildlife Service. A Biological Assessment and a Biological Opinion will be completed prior to the completion of the final environmental document.



The proposed projects will have no effect on the smooth coneflower. However, due to the presence of potential habitat within the project area, additional surveys will be required prior to construction.

Additional bald eagle surveys may be required within Montgomery County and Stanly County prior to project construction as specified by the Bald and Golden Eagle Protection Act. However, these surveys will be restricted to 660 feet from the edge of the project boundaries.

#### **Project Development & Environmental Analysis Unit, Roadway Design Unit**

The proposed project will have “no adverse effect” on Bridge No. 51 if a responsible party agrees to take ownership of Bridge No. 51 and preserves it in place. A Section 4(f) evaluation and a Memorandum of Agreement (MOA) will be required for B-4974, Alternative 1 if a responsible party does not agree to take ownership of Bridge No. 51 and for B-4974, Alternative 4 since Bridge No. 51 will be removed.

#### **Project Development & Environmental Analysis Unit–Human Environment Section**

Multilingual public outreach measures will be taken on an “as needed” basis.





## SUMMARY

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**TIP Projects R-2530B, B-4974, and R-2527**

### **1. Type of Action**

This is a Federal Highway Administration (FHWA) Action, Environmental Assessment.

### **2. Project Purpose/Description of Action**

The purpose of these projects is to improve traffic flow and level of service (LOS) on the section of NC 24-27 between NC 740 in Albemarle to the proposed Troy Bypass, west of Troy, and to maintain a bridge across the Pee Dee River that addresses the needs of highway users.

State Transportation Improvement Program (STIP) project R-2530B involves widening existing NC 24-27 from west of NC 740 to the Pee Dee River in Stanly County from a two-lane to three-lane facility to a four-lane divided facility with a 23-foot raised median from NC 740 to SR 1731 (Sweet Home Church Road) and transitioning to a 46-foot depressed median from east of SR 1731 to the Pee Dee River in Stanly County. TIP project B-4974 involves replacing existing Bridge No. 51 over the Pee Dee River on the Stanly / Montgomery County line. TIP project R-2527 involves widening existing NC 24-27 from a two-lane facility to a four-lane divided facility with a 46-foot depressed median from the Pee Dee River to the proposed Troy Bypass, west of Troy in Montgomery County. The total length of the proposed projects is approximately 14.6 miles long (See Vicinity Map, **Figure 1** and Typical Sections, **Figure 2**).

It is anticipated approximately 150 to 250 feet of right of way plus easements will be required to accommodate the proposed facility. Partial control of access is proposed for the projects. All intersecting roadways will cross the highway at-grade; no grade separations or interchanges are proposed.



### 3. Needs Addressed by the Projects

The proposed projects will address the following needs:

- Transportation deficiencies exist along NC 24-27 in the project study areas which are projected to increase substantially by the year 2035.
- Bridge No. 51 over the Pee Dee River is considered structurally deficient and is eligible for the Federal-Aid Highway Bridge Program.
- Maintain and improve the mobility and connectivity functions of the NC 24-27 corridor as part of the Strategic Highway Corridor Vision and the North Carolina Intrastate System.

### 4. Alternatives Considered

Preliminary alternatives examined for the proposed projects included the “No Build” alternative, alternate modes of transportation, Transportation Systems Management (TSM) alternative, and widening NC 24-27 from NC 740 in Albemarle to the proposed Troy Bypass (TIP project R-623), west of Troy to include constructing a new bridge over the Pee Dee River. Of these preliminary alternatives, only widening NC 24-27 would serve the project purpose of improving traffic flow and level of service on the section of NC 24-27 between NC 740 in Albemarle to the proposed Troy Bypass and to maintain a bridge across the Pee Dee River that addresses the needs of highway users.

Three widening alternatives were considered for TIP project R-2530B. These included north side widening, south side widening and a “Best-Fit” alignment alternative. The “Best-Fit” alternative will widen the existing road at locations that best fit the current location and surrounding land uses. Four bridge replacement alternatives were considered for TIP project B-4974. Alternate 1 included south side widening and replacing Bridge No. 51, Alternate 2 included south side widening and replacing Bridge No. 51 and No. 50, Alternate 3 included north side widening and replacing Bridge No. 51 and No. 50, and Alternate 4 included replacing Bridge No. 51 in place. A “Best-Fit” alignment alternative was the only alternative considered for TIP project R-2527. Study corridors 500 feet wide were examined for each project.

Currently, a “Best-Fit” alternative is under consideration for projects R-2530B and R-2527. Two alternatives, Alternatives 1 and 4 are under consideration for project B-4974. All of the alternatives selected for detailed study are presented in **Table S1**.

### 5. Summary of Environmental Effects

Anticipated environmental effects of the alternatives currently under consideration are summarized below in **Table S1**.

**TABLE S1: SUMMARY OF ENVIRONMENTAL EFFECTS**

| Impact Category                                          | Project Study Alternative |           |           |            | Total Impacts |             |
|----------------------------------------------------------|---------------------------|-----------|-----------|------------|---------------|-------------|
|                                                          | A                         | B-1       | B-4       | C          |               |             |
|                                                          | R-2530B                   | B-4974,   | B-4974,   | R-2527     | A+B1+C        | A+B4+C      |
|                                                          |                           | Alt. 1    | Alt. 4    |            |               |             |
| Natural Resources Impacts                                |                           |           |           |            |               |             |
| Federal Listed Species Habitat                           | Yes                       | Yes       | Yes       | Yes        | Yes           | Yes         |
| 100-Year Flood Plain and Floodway Impacts                | No                        | Yes       | Yes       | Yes        | Yes           | Yes         |
| Wetlands (number of crossings/acres)                     | 4 / 0.58                  | 2 / 0.08  | 1 / 0.02  | 23 / 1.71  | 29 / 2.37     | 28 / 2.31   |
| Stream Crossings (number/linear feet)                    | 23 / 7,122                | 7 / 1,667 | 8 / 1,958 | 29 / 6,438 | 59 / 15,227   | 60 / 15,518 |
| Water Supply Critical Areas                              | Yes                       | Yes       | Yes       | Yes        | Yes           | Yes         |
| Rare Plants *                                            | Yes                       | No        | No        | Yes        | Yes           | Yes         |
| USFS Forest Land (acres)                                 | 0                         | 9         | 9         | 111        | 120           | 120         |
| Human Environment Impacts                                |                           |           |           |            |               |             |
| Residential Relocations (number)                         | See B-4974                | 18        | 16        | 7          | 25            | 23          |
| Business Relocations (number)                            | See B-4974                | 24        | 19        | 3          | 27            | 22          |
| Low Income/Minority Population                           | No                        | No        | No        | No         | No            | No          |
| Cemeteries/Gravesites (number of graves impacted)        | Yes / 0                   | No        | No        | No         | Yes / 0       | Yes / 0     |
| Historic Structures                                      | 0                         | 0         | 1         | 0          | 0             | 1           |
| Archaeological Sites                                     | 3                         | 0         | 0         | 3          | 6             | 6           |
| Section 4(f) Impacts                                     | No                        | Yes       | Yes       | No         | Yes           | Yes         |
| Traffic Noise Impacts (receptors) /Noise Sensitive Areas | 19                        | ***       | ***       | 11         | 30            | 30          |
| Air Quality                                              | Within an Attainment area |           |           |            |               |             |
| Physical Environment Impacts                             |                           |           |           |            |               |             |
| Railroad Crossings (number)                              | 0                         | 0         | 0         | 1          | 1             | 1           |
| Farmland                                                 | No                        | No        | No        | No         | No            | No          |
| Potentially Hazardous Materials Sites (number)           | 17                        | ***       | ***       | 6          | 23            | 23          |

**NOTES:**

- All impacts, but the USFS Forest Land acreage, are based on preliminary design slope stake limits plus 25 feet. The USFS Forest Land acreage is based on preliminary proposed right of way limits.
- \* Rare plants include Schweinitz's Sunflower, Georgia Aster, Large Witch Alder and Smooth Sunflower.
- \*\* The Swift Island Ferry / James B. Garrison Bridge (Existing Bridge 51) is eligible for the National Register of Historic Places.
- \*\*\* Impacts for B-4974 are included with R-2530B or R-2527.



## **6. Permits Required**

In accordance with provisions of Section 404 of the Clean Water Act (33 U.S.C. 1344), a permit will be required from the US Army Corps of Engineers for the discharge of dredged or fill material into “Waters of the United States.”

Due to the expected impacts on wetlands and jurisdictional streams resulting from these projects, an individual Section 404 permit will likely be required. The US Army Corps of Engineers will determine final permit requirements.

A NC Division of Water Quality Section 401 Individual Water Quality Certification will be required prior to issuance of the Section 404 permit. This certification is issued for any activity which may result in a discharge into waters for which a federal permit is required. Coordination with the NC Division of Water Quality (DWQ) will also be required to determine if a State Stormwater Permit will be required since waters classified as High Quality Waters (HQP) are within the project limits.

Since projects B-4974 and R-2527 cross National Forest Service lands, a special use permit from the US Forest Service will be required to provide land for the proposed projects.

## **7. Coordination**

The following federal, state and local officials were consulted regarding this project. Agencies participating on the NEPA/404 merger team for the project are listed in *italics*:

*US Department of the Army - Corps of Engineers*

*US Environmental Protection Agency*

*US Fish and Wildlife Service*

*US Forest Service*

*Federal Energy Regulatory Commission*

*US Geological Survey*

*NC Department of Administration - State Clearinghouse*

*NC Department of Cultural Resources-State Historic Preservation Office*

*NC Department of Environment and Natural Resources-DENR:*

*DENR-NC Division of Water Quality*

*DENR-NC Wildlife Resources Commission*

*DENR-NC Division of Forest Resources*

*DENR-NC Natural Heritage Program*

*DENR-NC Division of Soil and Water Conservation*

*DENR-NC Division of Environmental Health*

*NC Division of Parks and Recreation*

*NC Department of Crime Control and Public Safety – Div. of Emergency Management*

NC Department of Public Instruction  
Centralina Council of Governments  
Rocky River Rural Planning Organization  
Stanly County  
City of Albemarle  
Piedmont Triad Council of Governments  
Montgomery County  
Town of Troy

## **8. Additional Information**

The following persons may be contacted for additional information concerning this proposal and statement:

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**I. DESCRIPTION OF PROPOSED ACTION**

**A. General Description**

The proposed projects involve widening NC 24-27 from NC 740 in Albemarle in Stanly County to the Proposed Troy Bypass (R-623), west of Troy in Montgomery County. TIP project R-2530B involves widening existing NC 24-27 from west of NC 740 to the Pee Dee River in Stanly County from a two-lane to three-lane facility to a four-lane divided facility with a 23-foot raised median from NC 740 to SR 1731 (Sweet Home Church Road) and transitioning to a 46-foot depressed median from east of SR 1731 to the Pee Dee River in Stanly County. TIP project B-4974 involves replacing existing Bridge No. 51 over the Pee Dee River on the Stanly / Montgomery County line. TIP project R-2527 involves widening existing NC 24-27 from a two-lane facility to a four-lane divided facility with a 46-foot depressed median from the Pee Dee River to the proposed Troy Bypass, west of Troy in Montgomery County. The total length of the proposed projects is approximately 14.6 miles long. See **Figure 1** for the vicinity map.

It is anticipated approximately 150 to 250 feet of right of way plus easements will be required to accommodate these facilities. Partial control of access is proposed for the projects. All intersecting roadways will cross the highway at-grade; no grade separations or interchanges are proposed.

**B. Historical Resume and Project Status**

A NEPA 404 Concurrence Point 1 Meeting for TIP Project R-2527 was held on February 23, 2006. The merger team did not concur with the purpose and need statement and study corridor because of logical termini issues. Logical termini for project development are defined as rational end points for a transportation improvement, and rational end points for a review of environmental impacts. Based on recommendations made by the US Army Corps of Engineers, a Federal Environmental Assessment (EA) will be completed that will include the three TIP projects. Project R-2527 was combined with projects R-2530B and B-4974. The projects start at NC 24-27-740 and tie to the proposed Troy Bypass project (R-623), two major traffic generators.

The proposed projects are included in the North Carolina Department of Transportation (NCDOT) 2012-2020 State Transportation Improvement Program (2012-2020 STIP). Right of way acquisition and construction for R-2530B and B-4974 are scheduled for state and federal



fiscal years 2014 and 2016, respectively. Right of way acquisition and construction for R-2527 is scheduled for state fiscal years 2016 and 2018, respectively.

### C. Cost Estimates

The cost estimates included in the 2012-2020 STIP are listed in **Table 1** below, and the latest cost estimates for the projects are listed in **Table 2** below.

**TABLE 1: PROJECT COST ESTIMATES FROM THE 2012-2020 STIP**

| Project Number | Right of Way Cost | Construction Cost | Mitigation Cost | Prior Years Cost | Total Project Cost |
|----------------|-------------------|-------------------|-----------------|------------------|--------------------|
| R-2530B        | \$5,750,000       | \$22,300,000      | \$0             | \$841,500        | \$28,891,500       |
| B-4974         | \$1,800,000       | \$18,200,000      | \$0             | \$0              | \$20,000,000       |
| R-2527         | \$4,100,000       | \$32,299,000      | \$4,058,000     | \$2,574,000      | \$43,031,000       |

**TABLE 2: LATEST PROJECT COST ESTIMATES**

| Project Number       | Right of Way Cost | Construction Cost | Project Cost |
|----------------------|-------------------|-------------------|--------------|
| R-2530B:             |                   |                   |              |
| Tie to Alternative 1 | \$10,620,830      | \$26,100,000      | \$36,720,830 |
| Tie to Alternative 4 | \$9,482,460       | \$26,100,000      | \$35,582,460 |
| B-4974:              |                   |                   |              |
| - Alternative 1      | \$1,665,000       | \$14,700,000      | \$16,365,000 |
| - Alternative 4      | \$1,588,150       | \$12,100,000      | \$13,688,150 |
|                      |                   |                   |              |
| R-2527               | \$3,089,790       | \$34,600,000      | \$37,689,790 |

## II. PURPOSE AND NEED FOR THE PROJECTS

### A. Purpose of the Projects

The purpose of these projects is to improve traffic flow and level of service (LOS) on the section of NC 24-27 between NC 740 in Albemarle to the proposed Troy Bypass, west of Troy, and to maintain a bridge across the Pee Dee River that addresses the needs of highway users.

### B. Needs for the Projects

The proposed projects will address the following needs:

- Transportation deficiencies exist along NC 24-27 in the project study areas which are projected to increase substantially by the year 2035.

- Bridge No. 51 over the Pee Dee River is considered structurally deficient and is eligible for the Federal-Aid Highway Bridge Program.
- Maintain and improve the mobility and connectivity functions of the NC 24-27 corridor as part of the Strategic Highway Corridor Vision and the North Carolina Intrastate System.

## **1. Description of Existing Conditions**

NC 24-27 is a significant intrastate corridor connecting the eastern and western parts of North Carolina. NC 24-27 is a two-lane to three-lane facility within the Albemarle city limits (R-2530B). NC 24-27 is a two-lane facility throughout the rest of the project area except at the Pee Dee River crossing where there are two travel lanes in the eastbound direction and one travel lane in the westbound direction (R-2530B, B-4974 and R-2527).

### **a) Functional Classification**

Using the North Carolina functional classification system, NC 24-27 within the Albemarle city limits (R-2530B) is classified as an urban principal arterial. Through the remainder of the project area (R-2530B, B-4974 and R-2527), NC 24-27 is classified as a rural minor arterial.

### **b) Physical Description of Existing Facility**

#### **1) Roadway Cross-section**

Between NC 740 and SR 1537 (Anderson Grove Church Road), existing NC 24-27 is a 30-foot wide, three-lane roadway with curb and gutter or grass shoulders (R-2530B). Between SR 1537 (Anderson Grove Church Road) and just west of SR 1803 (Lake Tillery Road), existing NC 24-27 is a 24-foot wide, two-lane roadway with grass shoulders (R-2530B). From west of SR 1803 (Lake Tillery Road) to east of NC 73 through the Pee Dee River crossing, existing NC 24-27 has two 12-foot travel lanes in the eastbound direction and one 16-foot travel lane in the westbound direction (B-4974). From east of NC 73 to west of SR 1138 (Dairy Road), existing NC 24-27 is a 24-foot wide, two-lane roadway with grass shoulders (R-2527).

#### **2) Right of Way and Access Control**

The existing right of way on NC 24-27 is approximately 60 to 150 feet throughout the project area. No control of access exists along NC 24-27.

### **3) Speed Limit**

The existing speed limit along NC 24-27 ranges between 45 and 55 miles per hour (mph) within the proposed project area.

### **4) Intersections**

All intersections along existing NC 24-27 are at-grade. The NC 24-27 / NC 740 intersection is signalized. The remaining intersections in the project area are stop sign controlled.

### **5) Railroad Crossings**

A rail line crosses over existing NC 24-27 on a bridge just west of NC 109 within the project limits of R-2527. The track is owned by Norfolk Southern Railway (NS) and is leased to Aberdeen Carolina and Western Railway (ACWR).

### **6) Bicycle and Pedestrian Facilities / Scenic Byways**

A portion of existing NC 24-27 between SR 1720 (Valley Drive) and SR 1150 (River Road) is part of the Stanly County Bike Route 2 and the Piedmont Spur NC Bike Route 6. Also, NC 73 is part of the Sandhills Sector Bike Route which starts at the NC 24-27 / NC 73 intersection and continues south along NC 73 to SR 1111, Lilly's Bridge Road south of the project study area. No special bicycle accommodations exist along NC 24-27 in the project area.

Short sections of sidewalk have been constructed in front of several new businesses along existing NC 24-27 in the Albemarle city limits within the R-2530B project limits. No other sidewalk exists within the project area.

The 46-mile Sandhills Scenic Drive is a NCDOT Scenic Byway that follows NC 24-27 through the project study area. It originates in Albemarle in Stanly County and passes through Montgomery County on its way to Carthage in Moore County.

### **7) Utilities**

Utilities along NC 24-27 include telephone, power, gas, cable television, water, and sewer.



## 8) Bridges and Drainage Structures

There are three existing bridge structures along NC 24-27. Bridge Nos. 50 and 51 carry NC 24-27 over the Pee Dee River. Bridge No. 50, adjacent to Bridge No. 51, carries two lanes of traffic east toward Troy. Bridge No. 50 will not be replaced as part of the proposed projects.

The James B. Garrison Bridge, Bridge No. 51, is a four-span, open spandrel arch, concrete bridge built in 1927. The bridge is one of five bridges of its type remaining in North Carolina, and it is eligible for the National Register of Historic Places. Bridge No. 51 carries only one lane of traffic west toward Albemarle because of its narrow bridge width and deterioration issues. Components of the concrete structure have experienced an increasing degree of deterioration that cannot be easily addressed by maintenance activities. The deck is cracking, spalling, and there is exposed rebar. The bridge is approaching the end of its useful life. This bridge will be replaced as part of TIP project B-4974.

Bridge No. 14 carries a rail line owned by Norfolk Southern Railway over NC 24-27. This bridge will be replaced as part of TIP project R-2527.

Details concerning these existing structures are discussed below in **Table 3**:

**TABLE 3: EXISTING BRIDGES**

| Project/<br>Bridge No. | Carries /<br>Crosses        | Clear Roadway Width or Min.<br>Horizontal Clearance Under | Vertical<br>Clearance | Length | Year<br>Built | Sufficiency<br>Rating * |
|------------------------|-----------------------------|-----------------------------------------------------------|-----------------------|--------|---------------|-------------------------|
| <b>B-4974 / 50</b>     | NC 24-27 /<br>Pee Dee River | 40' (Clear Roadway Width)                                 | N/A                   | 1140'  | 1979          | 87.6                    |
| <b>B-4974 / 51</b>     | NC 24-27 /<br>Pee Dee River | 20' (Clear Roadway Width)                                 | N/A                   | 1060'  | 1927          | 47                      |
| <b>R-2527 / 14</b>     | NS Railroad /<br>NC 24-27   | 43.4' (Horizontal. Clearance<br>Under)                    | 15' 3"                | 145'   | 1957          | N/A                     |

\*Sufficiency Rating (out of a possible 100 rating points).

There are twelve existing drainage structures at major stream crossings along NC 24-27 discussed below in **Table 4**.

**TABLE 4: EXISTING DRAINAGE STRUCTURES (MAJOR STREAM CROSSINGS)**

| Stream Name            | Location                              | Drainage Structure             | Drainage Area (Sq. Miles) | Stream Classification | DWQ Score |
|------------------------|---------------------------------------|--------------------------------|---------------------------|-----------------------|-----------|
| <b><u>R-2530B:</u></b> |                                       |                                |                           |                       |           |
| UT Mountain Creek      | 0.3 miles SE of the NC 740 junction   | 1 @ 87.5" X 68" (87"X63") CMPA | 0.20 (131 Ac.)            | -                     | -         |
| UT Mountain Creek      | 0.3 miles NW of the SR 1537 junction  | 1 @ 6' X 6' RCBC               | 0.38 (243 Ac.)            | Perennial             | 30.5      |
| UT Mountain Creek      | 0.05 miles SE of the SR 1731 junction | 1 @ 6' X 6' RCBC               | 0.27 (171 Ac.)            | Perennial             | 32        |
| <b><u>B-4974:</u></b>  |                                       |                                |                           |                       |           |
| UT Pee Dee River       | 0.2 miles SE of the SR 1778 junction  | 1 @ 7' X 7' Bottomless RCBC    | 0.43 (275 Ac.)            | Perennial             | 29        |
| <b><u>R-2527:</u></b>  |                                       |                                |                           |                       |           |
| Rocky Creek            | 0.4 miles W of the SR 1150 junction   | 2 @ 10 X 7 RCBC                | 3.5                       | Perennial             | 42.5      |
| Rocky Creek            | 0.08 miles W of the SR 1150 junction  | 2 @ 9 X 7 RCBC                 | 2.9                       | Perennial             | 40        |
| Clarks Creek           | 0.8 miles SW of the SR 1134 junction  | 2 @ 10 X 7 RCBC                | 2.6                       | Perennial             | 41.5      |
| UT Lick Fork Creek     | 0.5 miles NE of the SR 1134 junction  | 2 @ 7 X 7 RCBC                 | 1.2                       | Perennial             | 44.5      |
| UT Rocky Creek         | 0.2 miles W of the SR 1137 junction   | 1 @ 7 X 5 RCBC                 | 0.83 (530 Ac.)            | Perennial             | 40.5      |
| UT Rocky Creek         | 0.1 miles E of the SR 1137 junction   | 1 @ 7 X 5 RCBC                 | 1.0 (664 Ac.)             | Perennial             | 40.5      |
| Rocky Creek            | 0.3 miles E of the SR 1137 junction   | 3 @ 9 X 9 RCBC                 | 9.0                       | Perennial             | 48.5      |
| Smith Branch Creek     | 0.4 miles NE of the NC 109 junction   | 1 @ 8 X 8 RCBC                 | 1.3                       | Perennial             | 43        |

- RCBC – Reinforced Concrete Box Culvert, CMPA – Corrugated Metal Pipe Arch
- Yadkin-Pee Dee Watershed
- Table indicates all drainage structures 72 inch and above.

### c. School Bus Usage

In Stanly County, approximately 14 school buses use NC 24-27 twice daily from NC 740 to the Stanly County / Montgomery County line at the Pee Dee River. In Montgomery County, approximately 3 school buses use NC 24-27 twice daily from the Stanly County / Montgomery County line at the Pee Dee River to NC 109. Approximately 13 buses use NC 24-27 twice daily between NC 109 and SR 1138, Dairy Road / SR 1550, Saunders Road. West Middle School and West High School are both located on NC 109, and NC 24-27 is the main route for buses operating north and east of this area traveling to and from these schools.

#### **d. Traffic Carrying Capacity**

##### **1) Existing and Future Traffic Volumes**

Traffic projections were prepared for the subject sections of NC 24-27 for the years 2010 and 2035. In the year 2010, average daily traffic along NC 24-27 will likely range between 7,200 and 14,100 vehicles per day. By the year 2035, traffic in the project areas is predicted to range between 10,500 and 20,500 vehicles per day, respectively. Existing and future projected annual average daily traffic volumes are shown in greater detail on **Figures 3A – 3D**.

##### **2) Existing and Future Level of Service**

Level of Service (LOS) is a qualitative measure that characterizes the operational conditions within a traffic stream and the perception of traffic service by motorists and passengers. The Transportation Research Board's Highway Capacity Manual generally describes these conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. Six levels are used, ranging from A to F. For roadways, LOS A indicates no congestion while LOS F represents more traffic demand than road capacity and extreme delays. A mainline capacity analysis was performed for NC 24-27 within the project study limits. In 2010 and in 2035, the No Build analysis indicates that NC 24-27 is expected to operate at LOS E without the proposed improvements. An intersection capacity analysis was performed for the existing signalized intersection at NC 24-27 and NC 740 (R-2530B). This analysis was performed for the years 2010 and 2035. In 2010, the existing intersection operates at Level of Service (LOS) E. Without the project improvements ("no build"), this intersection will operate at LOS F in 2035.

Capacity analyses were performed at signalized and unsignalized intersections within the limits of the proposed projects. See **Tables 7 and 8** in **Section IV.F.** for LOS and maximum queuing results. In the 2010 No Build Analysis, most intersections are operating at an acceptable level of service (LOS) with acceptable queuing except for the currently signalized NC 24-27-73/NC 740 intersection and the NC 24-27/NC 109 intersection. In the 2035 No Build Analysis, minor geometric improvements and signalization are required for some intersections to achieve an acceptable level of service (LOS) with acceptable queuing without the proposed project improvements. The intersections below would require future signalization without the proposed widening and Superstreet design configuration:

- NC 24-27-73 and Anderson Road
- NC 24-27-73 and SR 1537(Anderson Grove Church Rd.)/SR 1734(Anderson Rd.)
- NC 24-27-73 and SR 1720(Valley Drive) / SR 1720(Stony Gap Road)
- NC 24-27-73 and SR 1739(McNeil Road)
- NC 24-27-73 and NC 73
- NC 24-27-109 and NC 109

**e. Accident Data**

An accident study was conducted along NC 24-27 in the project study areas for the time period from August 1, 2008 through July 31, 2011. During this study period, 203 crashes were reported along the subject sections of NC 24-27. Three fatal crashes occurred, and 76 crashes resulted in injuries. The total crash rate for this section of NC 24-27 is 131.36 accidents per 100 million vehicle miles (acc/100 mvm). Compared to the statewide rate of 177.26 acc/100mvm for rural two-lane, undivided NC routes, NC 24-27 total crash rates are below the statewide rate. The fatal crash rate of 1.94 acc/100mvm is also below the statewide rate of 2.12 acc/100mvm for rural two-lane, undivided NC routes. The greatest percentage of crashes (24.1%) involved collisions with animals. The next greatest percentage of crashes (17.7%) was rear-end type collisions due to vehicles slowing or stopping.

**f. Airports**

There are no airports or other aviation facilities in the vicinity of the proposed project.

**g. Other Highway Projects in the Area**

One project included in the 2012-2020 STIP is located near the project area. TIP Project R-0623, the proposed Troy Bypass from SR 1138 to east of Little River, involves widening existing NC 24-27 and constructing a four-lane facility on new location. R-2527 ties to this project at R-2527's eastern terminus. Right of way acquisition is currently scheduled for FY 2013, and construction is scheduled for FY 2015.

**2. Transportation and Land Use Plans and Other Transportation Documents**

TIP Project R-2530B is located inside and outside of Albemarle's city limits in Stanly County. TIP Project B-4974 is located in Stanly and Montgomery Counties. TIP Project R-2527 is located within Montgomery County and not inside of any other municipal limits. These projects are addressed in several existing plans and documents as noted below.

**a. Transportation Plans**

**1. Stanly County**

TIP Project R-2530B is included as a recommendation in the 2003 Stanly County Thoroughfare Plan. Stanly County is currently developing the Stanly County Comprehensive Transportation Plan (CTP).



## **2. City of Albemarle**

TIP Project R-2530B is included as a recommendation in the 2002 City of Albemarle Thoroughfare Plan. The City of Albemarle has joined with several other towns in the area to create a plan; the Albemarle, Badin and New London Comprehensive Transportation Plan which is currently being developed.

## **3. Montgomery County**

Montgomery County is currently developing a comprehensive transportation plan. Formal draft recommendations have been released for the Montgomery County CTP. Montgomery County and its municipalities adopted the plan on December 20, 2011. The Piedmont Triad Rural Planning Organization (RPO) is scheduled to endorse the plan in February 2012, and the NCDOT Board of Transportation is scheduled to adopt the plan in March 2012. Project R-2527 is included as a recommendation in this plan.

### **b. Land Use Plans**

#### **1. Stanly County Land Use Plan (2002)**

This land use plan provides direction for long-term growth and development throughout Stanly County. The plan indicates that the majority of growth in Stanly County is occurring in the western portion of the County and near the Pee Dee River, Badin Lake, and Lake Tillery in the eastern portion of the County.

#### **2. Montgomery County Land Use Plan (2010)**

This land use plan provides direction for long-term growth and development throughout Montgomery County. The plan indicates growth should occur along key highway corridors such as NC 24-27, specifically around the Lake areas and National Forest properties.

### **c. Other Transportation Documents**

The approved 2012-2020 NCDOT State Transportation Improvement Program (STIP) provides funding for right of way acquisition and construction for TIP Projects R-2530B, B-4974 and R-2527.

The Rocky River RPO provides long-range transportation planning services and related information to citizens in three rural counties: Anson, Stanly and Union. TIP Project R-2530B is ranked 3<sup>rd</sup> on the Rocky River RPO Priority List for the 2012-2020 STIP.

The Piedmont Triad RPO provides long-range transportation planning services and related information to citizens in five rural counties: Caswell, Davidson, Montgomery, Randolph, and Rockingham. TIP Project R-2527 is ranked 18<sup>th</sup> on the Piedmont Triad RPO Priority List for the 2012-2020 STIP.

### **C. Benefits of the Projects**

#### **1. Safety**

As reported in **Section II-B-e**, the largest number of accidents was collisions involving animals, and the second largest number was rear-end type collisions due to slowing or stopping. The additional through lanes and turn lanes proposed along NC 24-27 should allow traffic to shift out of through lanes for left turns, and the additional through lanes will provide an opportunity for movement when cars are stopped or slowed for right turns in the absence of exclusive right turn lanes. Also, the replacement of Bridge No. 51 which is considered structurally deficient will result in safer and more efficient traffic operations by providing two westbound travel lanes across the Pee Dee River.

#### **2. Mobility and Connectivity Functions**

The proposed projects will improve mobility and connectivity functions within central North Carolina. In the project area, existing NC 24-27 is part of the North Carolina Intrastate System. In 1989, the North Carolina legislature established the Intrastate System “to provide high-speed, safe travel service throughout the State. It connects major population centers both inside and outside the State and provides safe, convenient through-travel for motorists. It is designed to support statewide growth and development objectives and to connect to major highways of adjoining states.”

NC 24-27 is also designated as a strategic highway corridor. This highway provides a connection between multiple interstate facilities: I-485, I-73/74, and I-295. Also, NC 24-27 is a major statewide and regional facility connecting the activity centers of Charlotte and Fayetteville. The strategic highway corridor vision for NC24-27 in the project area is that NC 24-27 be improved to an expressway.

## **III. ALTERNATIVES TO THE PROPOSED ACTION**

### **A. Alternate Modes of Transportation**

The project study area is not currently served by mass transit. Stanly and Montgomery Counties provide van service for residents in need of transportation. Rail and bus service in the project area would not serve the purpose and need for the proposed projects. Given the

predominantly rural nature of the project area, transit is unlikely to result in substantial reductions in the amount of traffic along US NC 24-27 in the project area.

Staggering work hours, car-pooling and van pooling are possible ways to generally reduce highway congestion; however these congestion management measures are not controlled by NCDOT. These alternatives would do nothing to address the needs that will be improved by the “Build” alternative.

## **B. Transportation Systems Management (TSM) Alternative**

Transportation Systems Management (TSM) improvements involve increasing the available capacity of the roadway within the existing right-of-way with minimum capital expenditures and without reconstructing or adding additional through lanes to the existing road. Addition of turn lanes, striping, signing, signalization, and minor realignments are examples of TSM physical improvements. Examples of TSM operational improvements include traffic law enforcement, speed restrictions, access control, and signal timing changes. TSM improvements alone will not increase capacity or improve levels of service enough to prevent failing traffic conditions in the future design year.

## **C. "No-Build" Alternative**

The No Build alternative is not recommended. The No-Build Alternative would not provide any substantial improvements to the NC 24-27 study corridor and would not meet the purposes and needs identified for the proposed projects. It would not improve traffic flow, and level of service (LOS) on the section of NC 24-27 through the project study area. The structural deficiencies of the James B. Garrison Bridge would not be addressed.

## **D. Alignment Alternatives**

The projects were divided into seven sections in order to evaluate alignment alternatives. The NEPA/404 merger team discussed and agreed on preparing a detailed study of a “Best Fit” Build alignment for R-2527, Sections 6 and 7 at the NEPA/404 Merger Concurrence Point 2 meeting. This alternative will widen NC 24-27 at locations that “best fit” the current road location and surrounding land uses. “Best fit” locations were evaluated and selected to improve the existing road alignment, minimize impacts, and permit maintenance of traffic during construction.

Both north and south side widening were considered for R-2530B until the merger team agreed to a detailed study of a “Best Fit” Build alignment for R-2530B, Sections 1, 2, 3, and 4 at the NEPA/404 Merger Concurrence Point 2A meeting. North or south side widening was eliminated because of the similarity in impacts. The merger team agreed that a “Best-Fit” alternative would allow the design engineers an opportunity to minimize the impacts by shifting

the alignment as necessary to accommodate the proposed improvements. “Best fit” locations were evaluated and selected to improve the existing road alignment, minimize impacts, and permit maintenance of traffic during construction.

Four alternatives were considered for B-4974, Section 5. Alternative 1 consists of replacing Bridge No. 51 with a new bridge south of the existing bridges. Alternative 2 consists of replacing Bridge Nos. 50 and 51 with new bridges south of the existing bridges. Alternative 3 consists of replacing Bridge Nos. 50 and 51 with new bridges north of the existing bridges. Alternative 4 consists of removing Bridge No. 51 and replacing it with a new bridge along the existing roadway alignment. Alternative 4 will impact the National Register-Eligible Bridge No. 51. Alternatives 1, 2 and 3 do not directly impact Bridge No. 51 and may provide a potential preservation opportunity for an interested individual, group or municipality. Stanly County has expressed an interest in taking over the maintenance of historic Bridge No. 51 to provide a trail connection between Morrow Mountain State Park and the Uwharrie National Forest.

The merger team agreed to a detailed study of two alternatives, Alternative 1 and Alternative 4, and eliminated Alternatives 2 and 3 after the Concurrence Point 2A meeting. Alternatives 2 and 3 were eliminated based on higher natural environmental impacts and the NCDOT Bridge Management Unit’s recommendation to not replace Bridge No. 50 at this time. Alternatives 1 and 4 will be carried forward for detailed study.

The alternatives currently under consideration for the projects will be presented at a public hearing for citizen comment. The least environmentally damaging practicable alternative (LEDPA) for each project will be selected following the public hearing and the NEPA/404 Merger Concurrence Point 3 meeting.

The project study area for all sections of R-2530B, B-4974 and R-2527 are shown in **Figures 4A to 4M**. **Table 5** presents various impacts for the original alignment scenarios. **Table 6** presents the environmental impacts for the alternatives currently under consideration.

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**TABLE 5: SUMMARY OF IMPACTS IN THE PROJECT STUDY AREA**

| Project / Section | From / To                        | Section Length (mi.) | Alternative   | Streams (ft.) | Wetlands (ac.) | Rare Plants* | Homes | Businesses | Churches | Cemeteries | Arch. Sites & Historic Structures | USFS Forest Land (ac.) |
|-------------------|----------------------------------|----------------------|---------------|---------------|----------------|--------------|-------|------------|----------|------------|-----------------------------------|------------------------|
| R-2530B<br>1      | NC 740 to SR 1731                | 1.2                  | North         | 311           | 0              | No           | 14    | 8          | 0        | 3          | 0                                 | 0                      |
|                   |                                  |                      | South         | 283           | 0              | No           | 15    | 9          | 1        | 3          | 0                                 | 0                      |
|                   |                                  |                      |               |               |                |              |       |            |          |            |                                   |                        |
| R-2530B<br>2      | SR 1731 to SR 1720               | 1.2                  | North         | 3,813         | 0.19           | No           | 1     | 3          | 0        | 0          | 1                                 | 0                      |
|                   |                                  |                      | South         | 3,177         | 0.82           | Yes          | 4     | 2          | 0        | 0          | 1                                 | 0                      |
|                   |                                  |                      |               |               |                |              |       |            |          |            |                                   |                        |
| R-2530B<br>3      | SR 1720 to SR 1818               | 1.5                  | North         | 1,921         | 0.03           | No           | 7     | 2          | 0        | 0          | 0                                 | 0                      |
|                   |                                  |                      | South         | 1,983         | 0              | Yes          | 5     | 1          | 0        | 0          | 0                                 | 0                      |
|                   |                                  |                      |               |               |                |              |       |            |          |            |                                   |                        |
| R-2530B<br>4      | SR 1818 to west of SR 1778       | 0.8                  | North         | 1,506         | 0.03           | No           | 2     | 1          | 0        | 0          | 0                                 | 0                      |
|                   |                                  |                      | South         | 1,472         | 0              | No           | 3     | 5          | 0        | 0          | 0                                 | 0                      |
|                   |                                  |                      |               |               |                |              |       |            |          |            |                                   |                        |
| B-4974<br>5       | West of SR 1778 to east of NC 73 | 1.8                  | Alternative 1 | 1,430         | 0.08           | No           | 4     | 3          | 0        | 0          | 0                                 | 9                      |
|                   |                                  |                      | Alternative 2 | 1,942         | 0.31           | No           | 4     | 3          | 0        | 0          | 0                                 | 10                     |
|                   |                                  |                      | Alternative 3 | 1,639         | 0              | No           | 5     | 4          | 0        | 0          | 0                                 | 15                     |
|                   |                                  |                      | Alternative 4 | 1,529         | 0.02           | No           | 2     | 4          | 0        | 0          | 1 **                              | 9                      |
| R-2527<br>6       | East of NC 73 to SR 1134         | 4.3                  | Best Fit      | 3,324         | 1.23           | Yes          | 3     | 4          | 0        | 0          | 2                                 | 54                     |
| R-2527<br>7       | SR 1134 to SR 1550               | 4.2                  | Best Fit      | 3,033         | 0.45           | Yes          | 2     | 1          | 0        | 0          | 1                                 | 57                     |

**NOTES:**

- All impacts, but the USFS Forest Land acreage, are based on preliminary design slope stake limits plus 25 feet. The USFS Forest Land acreage is based on preliminary proposed right of way limits.
- \* Rare plants include Schweinitz's Sunflower, Georgia Aster, Large Witch Alder and Smooth Sunflower.
- \*\* The Swift Island Ferry / James B. Garrison Bridge (Existing Bridge 51) is eligible for the National Register of Historic Places



**TABLE 6: SUMMARY OF ENVIRONMENTAL EFFECTS**

| IMPACT CATEGORY                                          | PROJECT STUDY ALTERNATIVE |           |           |            | TOTAL IMPACTS |             |
|----------------------------------------------------------|---------------------------|-----------|-----------|------------|---------------|-------------|
|                                                          | A                         | B-1       | B-4       | C          |               |             |
|                                                          | R-2530B                   | B-4974,   | B-4974,   | R-2527     | A+B1+C        | A+B4+C      |
|                                                          |                           | Alt. 1    | Alt. 4    |            |               |             |
| Natural Resources Impacts                                |                           |           |           |            |               |             |
| Federal Listed Species Habitat                           | Yes                       | Yes       | Yes       | Yes        | Yes           | Yes         |
| 100-Year Flood Plain and Floodway Impacts                | No                        | Yes       | Yes       | Yes        | Yes           | Yes         |
| Wetlands (number of crossings/acres)                     | 4 / 0.58                  | 2 / 0.08  | 1 / 0.02  | 23 / 1.71  | 29 / 2.37     | 28 / 2.31   |
| Stream Crossings (number/linear feet)                    | 23 / 7,122                | 7 / 1,667 | 8 / 1,958 | 29 / 6,438 | 59 / 15,227   | 60 / 15,518 |
| Water Supply Critical Areas                              | Yes                       | Yes       | Yes       | Yes        | Yes           | Yes         |
| Rare Plants *                                            | Yes                       | No        | No        | Yes        | Yes           | Yes         |
| USFS Forest Land (acres)                                 | 0                         | 9         | 9         | 111        | 120           | 120         |
| Human Environment Impacts                                |                           |           |           |            |               |             |
| Residential Relocations (number)                         | See B-4974                | 18        | 16        | 7          | 25            | 23          |
| Business Relocations (number)                            | See B-4974                | 24        | 19        | 3          | 27            | 22          |
| Low Income/Minority Population                           | No                        | No        | No        | No         | No            | No          |
| Cemeteries/Gravesites (number of graves impacted)        | Yes / 0                   | No        | No        | No         | Yes / 0       | Yes / 0     |
| Historic Structures                                      | 0                         | 0         | 1         | 0          | 0             | 1           |
| Archaeological Sites                                     | 3                         | 0         | 0         | 3          | 6             | 6           |
| Section 4(f) Impacts                                     | No                        | Yes       | Yes       | No         | Yes           | Yes         |
| Traffic Noise Impacts (receptors) /Noise Sensitive Areas | 19                        | ***       | ***       | 11         | 30            | 30          |
| Air Quality                                              | Within an Attainment area |           |           |            |               |             |
| Physical Environment Impacts                             |                           |           |           |            |               |             |
| Railroad Crossings (number)                              | 0                         | 0         | 0         | 1          | 1             | 1           |
| Farmland                                                 | No                        | No        | No        | No         | No            | No          |
| Potentially Hazardous Materials Sites (number)           | 17                        | ***       | ***       | 6          | 23            | 23          |

**NOTES:**

- All impacts, but the USFS Forest Land acreage, are based on preliminary design slope stake limits plus 25 feet. The USFS Forest Land acreage is based on preliminary proposed right of way limits.
- \* Rare plants include Schweinitz's Sunflower, Georgia Aster, Large Witch Alder and Smooth Sunflower.
- \*\* The Swift Island Ferry / James B. Garrison Bridge (Existing Bridge 51) is eligible for the National Register of Historic Places.
- \*\*\* Impacts for B-4974 are included with R-2530B or R-2527.

## **IV. PROPOSED IMPROVEMENTS**

### **A. Roadway Cross Section and Alignment**

For project R-2530B, the proposed roadway cross section is a four-lane median divided facility with a 23-foot raised median, 12-foot inside travel lanes, 14-foot outside travel lanes, curb and gutter and potential sidewalks on one or both sides from NC 740 to SR 1731 (Sweet Home Church Road). From SR 1731 to the Pee Dee River, the proposed roadway cross section is a four-lane divided facility with a 46-foot depressed grass median, 12-foot travel lanes, 6-foot inside grass shoulders (2 feet (paved)), and 10-foot outside grass shoulders (4 feet (paved)). For project R-2527, the proposed roadway cross section is a four-lane divided facility with a 46-foot depressed median, 12-foot travel lanes, 6-foot inside grass shoulders (2 feet (paved)), and 10-foot outside grass shoulders (4 feet (paved)) from the Pee Dee River to the proposed Troy Bypass (R-623). See **Figure 2** for typical sections.

### **B. Right of Way and Access Control**

A total right of way width of 150 to 250 feet plus easements is proposed to accommodate the improvements. Partial control of access will be obtained. Parcels with less than 2,000 feet of road frontage, will be provided with one access point. For larger parcels with more than 2,000 feet of road frontage, an additional access may be considered. Parcels with access by means of another road may not be provided direct access. All intersecting roadways will cross the highway at-grade; no grade separations or interchanges are proposed. A control of access fence is placed along the entire length of the facility, except at intersections and driveways.

### **C. Speed Limit/Design Speed**

The posted speed limit along NC 24-27 will likely be 45 mph from NC 740 to SR 1731 (Sweet Home Church Road) with a recommended 50 mph design speed. From SR 1731 to the proposed Troy Bypass, the posted speed limit along NC 24-27 will likely be 55 mph with a recommended 60 mph design speed.

### **D. Anticipated Design Exceptions**

It is anticipated that design exceptions will be required for the projects in the vicinity of the Pee Dee River. TIP project B-4974 will utilize existing Bridge No. 50. A design exception to tie into the existing vertical alignment will be necessary.

## **E. Intersections**

All of the existing at-grade intersections along NC 24-27 within the project limits will remain at-grade. Currently, there is one signalized intersection within the proposed project limits at the intersection of NC 24-27 and NC 740. Based on the traffic operations analyses discussed in **Section IV. E.**, directional crossovers (no lefts onto NC 24-27 or through movements across NC 24-27 from minor roads) or right in/right out (no median opening) are proposed at all other intersections along the project. Proposed median openings will accommodate u-turns. Due to concerns voiced by the public, the plans currently show full movement intersections at the NC 24-27 / Barnard Street / Anderson Road intersection and the NC 24-27 / Anderson Grove Church Road / Anderson Road intersection within the Albemarle city limits. The final decision concerning whether these full movement intersections will be revised will be made after the public hearing.

## **F. Traffic Operations**

A mainline capacity analysis was performed for the 2035 Build scenario. The results of this analysis show that NC 24-27 will operate at a LOS B within the R-2530B and B-4974 project limits and at a LOS A within the R-2527 project limits. With the 2035 Build scenario, directional crossovers with offset left turns are recommended for major intersections, also known as a Superstreet configuration. Directional crossovers are generally used for high speed rural median divided facilities, corridors with partial or limited control of access, and in congested areas where it is desirable to minimize the use of traffic signals. The directional crossover eliminates full movement median openings. The through and left turning traffic from the side street approach is directed to turn right, proceed to the nearby U-turn and then return to its original course. Turning movements are separated; therefore, the need for signalized intersections would be reduced. While the 2035 No Build scenario requires additional signalization in the future, no additional signalization will be required within the limits of the proposed projects by constructing additional through lanes and utilizing a Superstreet configuration. Due to concerns voiced by the public, the plans currently show full movement intersections at the NC 24-27 / Barnard Street / Anderson Road intersection and the NC 24-27 / Anderson Grove Church Road / Anderson Road intersection within the Albemarle city limits. The final decision concerning whether these full movement intersections will be revised will be made after the public hearing.

**Tables 7 and 8** show the LOS and maximum queuing results for the intersections within the R-2530B, B-4974 and R-2527 project limits for the 2010 No Build, 2035 No Build and 2035 Build alternatives.

**TABLE 7: R-2530B - 2010 and 2035 LOS and QUEUING**

| Table: 2010 and 2035 No build and 2035 Build LOS & Queuing                                      |                                                                                               |                                                              | TIP # R-2530B |     | 2010<br>No Build |        | 2035<br>No Build<br>with added<br>signals as needed |     | 2035<br>Build<br>With Superstreet<br>(All Unsignalized<br>Except Int 1) |  |
|-------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------|---------------|-----|------------------|--------|-----------------------------------------------------|-----|-------------------------------------------------------------------------|--|
| Intersections                                                                                   |                                                                                               |                                                              |               |     |                  |        |                                                     |     |                                                                         |  |
| LOS shown during the peak hour                                                                  |                                                                                               |                                                              |               |     |                  |        |                                                     |     |                                                                         |  |
| Red (■) indicates poor LOS                                                                      |                                                                                               |                                                              |               |     |                  |        |                                                     |     |                                                                         |  |
| Maximum Queuing indicated is max. anticipated queuing in excess of 100' rounded to nearest 25'. |                                                                                               |                                                              |               |     |                  |        |                                                     |     |                                                                         |  |
| @ indicates excessive queuing and/or spillback more than 800'                                   |                                                                                               |                                                              |               |     |                  |        |                                                     |     |                                                                         |  |
| Int                                                                                             | Eastbound and Westbound                                                                       | Northbound and Southbound                                    |               | LOS | Max. Queuing     | LOS    | Max. Queuing                                        | LOS | Max. Queuing                                                            |  |
| 1                                                                                               | SR 1625 (E. Main Street) / NC 24/27/73 (Signalized Intersection) (2010, 2035 No-Build, Build) | NC 24/27/73 / NC 740                                         | INT           | E   |                  | F      |                                                     | D   |                                                                         |  |
|                                                                                                 |                                                                                               |                                                              | EB            | D   | 525'             | F      | @                                                   | D   | 300'                                                                    |  |
|                                                                                                 |                                                                                               |                                                              | WB            | D   | 425'             | F      | @                                                   | D   | 325'                                                                    |  |
|                                                                                                 |                                                                                               |                                                              | NB            | E   | 425'             | F      | @                                                   | C   | 350'                                                                    |  |
|                                                                                                 |                                                                                               |                                                              | SB            | E   | 325'             | F      | @                                                   | D   | 250'                                                                    |  |
| 2                                                                                               | NC 24/27/73 (E. Main St.) (Unsignalized Intersection) (2035 No-Build, Signal)                 | Anderson Road                                                |               | E   |                  | A* (D) | 375' †                                              | D   | 125'                                                                    |  |
| 2E                                                                                              | NC 24/27/73 (E. Main St.) (Unsignalized Intersection)                                         | U-Turn Point east of Anderson Road                           |               |     |                  |        |                                                     | C   | 125'                                                                    |  |
| 3W                                                                                              | NC 24/27/73 (E. Main St.) (Unsignalized Intersection)                                         | U-Turn Point west of Charter Street                          |               |     |                  |        |                                                     | B   |                                                                         |  |
| 3                                                                                               | NC 24/27/73 (E. Main St.) (Unsignalized Intersection)                                         | Charter Street                                               |               | C   |                  | E      | †                                                   | C   |                                                                         |  |
| 4                                                                                               | NC 24/27/73 (E. Main St.) (Unsignalized Intersection) (2035 No-Build, Signal)                 | SR 1537 (Anderson Grove Church Rd.)/ SR 1734 (Anderson Road) |               | E   |                  | A* (D) | 325' †                                              | D   | 125'                                                                    |  |
| 4E                                                                                              | NC 24/27/73 (E. Main St.) (Unsignalized Intersection)                                         | U-Turn Point east of Anderson Grove Ch. Rd.                  |               |     |                  |        |                                                     | B   |                                                                         |  |
| 5W                                                                                              | NC 24/27/73 (E. Main St.) (Unsignalized Intersection)                                         | U-Turn Point west of Sweet Home Church Road                  |               |     |                  |        |                                                     | B   |                                                                         |  |
| 5                                                                                               | NC 24/27/73 (E. Main St.) (Unsignalized Intersection)                                         | SR 1731 (Sweet Home Church Road)                             |               | C   | 225'             | D      | †                                                   | C   |                                                                         |  |
| 6W                                                                                              | NC 24/27/73 (E. Main St.) (Unsignalized Intersection)                                         | U-Turn Point west of Valley Drive                            |               |     |                  |        |                                                     | B   |                                                                         |  |
| 6                                                                                               | NC 24/27/73 (Unsignalized Intersection) (2035 No-Build, Signal)                               | SR 1720 (Valley Drive)/ SR 1720 (Stony Gap Road)             |               | D   | 125'             | A* (D) | 500'                                                | C   |                                                                         |  |
| 6E                                                                                              | NC 24/27/73 (Unsignalized Intersection)                                                       | U-Turn Point east of Stony Gap Road                          |               |     |                  |        |                                                     | B   |                                                                         |  |
| 7W                                                                                              | NC 24/27/73 (Unsignalized Intersection)                                                       | U-Turn Point west of Dunlap Road                             |               |     |                  |        |                                                     | B   |                                                                         |  |
| 7                                                                                               | NC 24/27/73 (Unsignalized Intersection)                                                       | SR 1736 (Dunlap Road)                                        |               | C   |                  | E      | 125'                                                | C   |                                                                         |  |
| 8                                                                                               | NC 24/27/73 (Unsignalized Intersection) (2035 No-Build, Signal)                               | SR 1739 (McNeil Road)                                        |               | C   | 200'             | A* (D) | 325'                                                | C   |                                                                         |  |
| 8E                                                                                              | NC 24/27/73 (Unsignalized Intersection)                                                       | U-Turn Point East of McNeil Road                             |               |     |                  |        |                                                     | B   | 150'                                                                    |  |
| 9W                                                                                              | NC 24/27/73 (Unsignalized Intersection)                                                       | U-Turn Point west of Stony Mtn. Road                         |               |     |                  |        |                                                     | B   |                                                                         |  |
| 9                                                                                               | NC 24/27/73 (Unsignalized Intersection)                                                       | SR 1818 (Stony Mtn. Rd.)                                     |               | B   |                  | D      | 125'                                                | C   |                                                                         |  |
| 10                                                                                              | NC 24/27/73 (Unsignalized Intersection)                                                       | SR 1740 (Indian Mound Rd.)                                   |               | C   |                  | D      | 150'                                                | C   |                                                                         |  |
| 10E                                                                                             | NC 24/27/73 (Unsignalized Intersection)                                                       | U-Turn Point East of Indian Mound Road                       |               |     |                  |        |                                                     | B   |                                                                         |  |
| 11W                                                                                             | NC 24/27/73 (Unsignalized Intersection)                                                       | U-Turn Point west of River Haven Drive                       |               |     |                  |        |                                                     | B   |                                                                         |  |
| 11                                                                                              | NC 24/27/73 (Unsignalized Intersection)                                                       | SR 1778 (River Haven Drive)                                  |               | B   |                  | C      |                                                     | C   |                                                                         |  |
| 12W                                                                                             | NC 24/27/73 (Unsignalized Intersection)                                                       | U-Turn Point west of Strand Drive                            |               |     |                  |        |                                                     | B   |                                                                         |  |
| 12                                                                                              | NC 24/27/73 (Unsignalized Intersection)                                                       | SR 1738 (Strand Drive)                                       |               | B   |                  | C      |                                                     | C   |                                                                         |  |
| 13                                                                                              | NC 24/27/73 (Unsignalized Intersection)                                                       | SR 1774 (Tar Heel Drive) / SR 1803 (Lake Tillery Road)       |               | C   |                  | F      |                                                     | C   |                                                                         |  |
| 13E                                                                                             | NC 24/27/73 (Unsignalized Intersection)                                                       | U-Turn Point east of Lake Tillery Road                       |               |     |                  |        |                                                     | B   |                                                                         |  |

NOTE: Unsignalized LOS is the worst movement LOS and maximum movement queuing.

\* : 2035 No-Build analysis assumes signalization at these locations. Signalized intersection LOS is overall intersection LOS with the worst approach LOS indicated in parentheses ( ). Maximum queuing value shown is for the worst movement.

†: 2035 No-Build analysis indicates significant spillback on WB NC 24/27/73 from the NC 740 Intersection is possible through this intersection. The maximum queue value shown for this intersection is based on isolated volumes at this intersection only.



**TABLE 8: R-2527 - 2010 and 2035 LOS and QUEUING**

| Table: 2010 and 2035 No build and 2035 Build LOS & Queuing                                      |                                                                  |                                                   | TIP # R-2527  |              |     |              | 2035 No Build With added signals as needed |              | 2035 Build With Superstreet (All Unsignalized) |  |
|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------|---------------------------------------------------|---------------|--------------|-----|--------------|--------------------------------------------|--------------|------------------------------------------------|--|
| Intersections                                                                                   |                                                                  |                                                   | 2010 No Build |              |     |              |                                            |              |                                                |  |
| LOS shown during the peak hour                                                                  |                                                                  |                                                   |               |              |     |              |                                            |              |                                                |  |
| Red (■) indicates poor LOS                                                                      |                                                                  |                                                   |               |              |     |              |                                            |              |                                                |  |
| Maximum Queuing indicated is max. anticipated queuing in excess of 100' rounded to nearest 25'. |                                                                  |                                                   |               |              |     |              |                                            |              |                                                |  |
| @ indicates excessive queuing and/or spillback                                                  |                                                                  |                                                   |               |              |     |              |                                            |              |                                                |  |
| Int                                                                                             | Eastbound and Westbound                                          | Northbound and Southbound                         | LOS           | Max. Queuing | LOS | Max. Queuing | LOS                                        | Max. Queuing |                                                |  |
| 1                                                                                               | NC 24/27/73 (Unsignalized Intersection) (2035 No-Build, Signal)  | NC 73                                             | D             | 150'         | A*  | 225'         | B                                          | 250'         |                                                |  |
| 1E                                                                                              | NC 24/27 (Unsignalized Intersection)                             | U-Turn Point east of NC 73                        |               |              |     |              | B                                          |              |                                                |  |
| 2W                                                                                              | NC 24/27 (Unsignalized Intersection)                             | U-Turn Point west of River Road                   |               |              |     |              | B                                          |              |                                                |  |
| 2                                                                                               | NC 24/27 (Unsignalized Intersection)                             | SR 1150 (River Road)                              | C             |              | F   | 150'         | C                                          | 150'         |                                                |  |
| 2E                                                                                              | NC 24/27 (Unsignalized Intersection)                             | U-Turn point east of River Road                   |               |              |     |              | B                                          |              |                                                |  |
| 3W                                                                                              | NC 24/27 (Unsignalized Intersection)                             | U-Turn Point west of Wadeville Road               |               |              |     |              | B                                          |              |                                                |  |
| 3                                                                                               | NC 24/27 (Unsignalized Intersection)                             | SR 1134 (Liberty Hill Church Road/Wadeville Road) | C             |              | C   |              | B                                          |              |                                                |  |
| 3E                                                                                              | NC 24/27 (Unsignalized Intersection)                             | U-Turn Point east of Wadeville Road               |               |              |     |              | B                                          |              |                                                |  |
| 4                                                                                               | NC 24/27 (Unsignalized Intersection)                             | SR 1136 (Bruton Carpenter Road)                   | B             |              | C   | 275'         | B                                          |              |                                                |  |
| 4E                                                                                              | NC 24/27 (Unsignalized Intersection)                             | U-Turn Point east of Bruton Carpenter Road        |               |              |     |              | B                                          |              |                                                |  |
| 5W                                                                                              | NC 24/27 (Unsignalized Intersection)                             | U-Turn Point west of Landfill Road                |               |              |     |              | B                                          |              |                                                |  |
| 5                                                                                               | NC 24/27 (Unsignalized Intersection)                             | SR 1137 (Landfill Road)                           | B             | 125'         | C   | 200'         | C                                          |              |                                                |  |
| 6                                                                                               | NC 24/27/109 (Unsignalized Intersection) (2035 No-Build, Signal) | NC 109                                            | F             | 500'         | C*  | 400'         | D                                          | 225'         |                                                |  |
| 6E                                                                                              | NC 24/27/109 (Unsignalized Intersection)                         | U-Turn Point East of NC 109                       |               |              |     |              | B                                          |              |                                                |  |
| 7W                                                                                              | NC 24/27/109 (Unsignalized Intersection)                         | U-Turn Point west of Dairy Road                   |               |              |     |              | B                                          |              |                                                |  |
| 7                                                                                               | NC 24/27/109 (Unsignalized Intersection)                         | SR 1138 (Dairy Road)/ SR 1550 (Saunders Road)     | D             |              | F   |              | C                                          |              |                                                |  |
| 7E                                                                                              | NC 24/27/109 (Unsignalized Intersection)                         | U-Turn Point east of Saunders Road                |               |              |     |              | B                                          |              |                                                |  |

NOTE: Unsignalized LOS is the worst movement LOS and maximum queuing.

\* : 2035 No-Build analysis assumes signalization at these locations. Signalized intersection LOS is overall intersection LOS and maximum queuing is for the worst movement.



## **G. Railroad Crossings**

The existing railroad bridge crossing NC 24-27 owned by Norfolk Southern Railway (NS) and leased to Aberdeen Carolina and Western Railway (ACWR) will be replaced as part of project R-2527.

## **H. Pedestrian and Bicycle Accommodations**

City of Albemarle officials expressed interest in sidewalks at the citizens' informational workshop and verbally requested cost information for providing sidewalks along one side and both sides of NC 24-27 from NC 740 to the Albemarle city limits. In accordance with NCDOT Pedestrian policy, NCDOT will bear the full cost to replace any existing sidewalks to be relocated by the project. The City of Albemarle will participate in the cost of new sidewalks in areas where sidewalks do not currently exist. A municipal agreement will be prepared regarding the provision of sidewalks prior to project construction.

Based on recommendations from NCDOT's Bicycle and Pedestrian Division, wider outside lanes are proposed for project R-2530B from NC 740 to SR 1731 (Sweet Home Church Road) to accommodate bicycles. Also, the proposed four-foot paved outside shoulders from SR 1731 (Sweet Home Church Road) on project R-2530B to the eastern project terminus of project R-2527 will accommodate bicyclists.

## **I. Utilities**

The projects are expected to have a medium level of utility impacts. Utilities along the project will be relocated prior to construction. Care will be taken to prevent damage to water lines and fiber optic cables in the project area.

## **J. Bridges and Drainage Structures**

**Table 9** below presents the proposed bridges and drainage structures at major stream crossings for the alternatives under consideration within the R-2530B, B-4974 and R-2527 project limits. The locations of the proposed structures are shown on **Figure 5**.

**TABLE 9: Proposed Bridges and Drainage Structures (Major Stream Crossings)**

| Site No.        | Stream under or Railroad over NC 24-27                | Location on NC 24-27                  | Recommended Structure                                                                                     | Flood Zone Status            |
|-----------------|-------------------------------------------------------|---------------------------------------|-----------------------------------------------------------------------------------------------------------|------------------------------|
| <b>R-2530B:</b> |                                                       |                                       |                                                                                                           |                              |
| 1               | UT Mountain Creek                                     | 0.3 miles SE of the NC 740 junction   | Retain and Extend 1 @ 87.5" X 68" (87"X63") CMPA                                                          | N/A                          |
| 2               | UT Mountain Creek                                     | 0.3 miles NW of the SR 1537 junction  | Retain and Extend 1 @ 6' X 6' RCBC                                                                        | N/A                          |
| 3               | UT Mountain Creek                                     | 0.05 miles SE of the SR 1731 junction | Retain and Extend 1 @ 6' X 6' RCBC                                                                        | N/A                          |
| <b>B-4974:</b>  |                                                       |                                       |                                                                                                           |                              |
| 4               | UT Pee Dee River                                      | 0.2 miles SE of the SR 1778 junction  | Retain and Extend 1 @ 7' X 7' Bottomless RCBC                                                             | N/A                          |
| 5               | Pee Dee River Alternative 1                           | 0.1 miles W of the NC 73 Junction     | Build a new 1135' bridge south of the existing bridges. Existing Bridge No. 51 can remain in place.       | Designated Flood Hazard Zone |
| 5               | Pee Dee River Alternative 4                           | 0.1 miles W of the NC 73 Junction     | Remove Bridge No. 51 and replace it with a new 1170' bridge. Existing Bridge No. 50 will remain in place. | Designated Flood Hazard Zone |
| <b>R-2527:</b>  |                                                       |                                       |                                                                                                           |                              |
| 6               | Rocky Creek                                           | 0.4 miles W of the SR 1150 junction   | Retain and Extend 2 @ 10 X 7 RCBC                                                                         | Designated Flood Hazard Zone |
| 7               | Rocky Creek                                           | 0.08 miles W of the SR 1150 junction  | Retain and Extend 2 @ 9 X 7 RCBC                                                                          | Designated Flood Hazard Zone |
| 8               | Clarks Creek                                          | 0.8 miles SW of the SR 1134 junction  | Retain and Extend 2 @ 10 X 7 RCBC                                                                         | Designated Flood Hazard Zone |
| 9               | UT Lick Fork Creek                                    | 0.5 miles NE of the SR 1134 junction  | Retain and Extend 2 @ 7 X 7 RCBC                                                                          | Designated Flood Hazard Zone |
| 10              | UT Rocky Creek                                        | 0.2 miles W of the SR 1137 junction   | Retain and Extend 1 @ 7 X 5 RCBC                                                                          | N/A                          |
| 11              | UT Rocky Creek                                        | 0.1 miles E of the SR 1137 junction   | Retain and Extend 1 @ 7 X 5 RCBC                                                                          | N/A                          |
| 12              | Rocky Creek                                           | 0.3 miles E of the SR 1137 junction   | Retain and Extend 3 @ 9 X 9 RCBC                                                                          | Designated Flood Hazard Zone |
| Near 12         | Norfolk Southern/ Aberdeen Carolina & Western Railway | 0.1 miles W of the NC 109 junction    | Build a new 210' bridge and railroad track west of the existing bridge. Remove Bridge No. 14              | N/A                          |
| 13              | Smith Branch Creek                                    | 0.4 miles NE of the NC 109 junction   | Retain and Extend 1 @ 8 X 8 RCBC                                                                          | N/A                          |

Notes:

UT – Unnamed Tributary

RCBC – Reinforced Concrete Box Culvert

CMPA – Corrugated Metal Pipe Arch

## **K. Landscaping**

In accordance with the NCDOT Highway Landscape Planting policy, funding for landscaping is typically included in all TIP highway improvement projects. Details of specific landscaping for this project will not be known until final construction plans have been approved. The project will also include standard landscaping as needed for erosion control purposes. No special landscaping is proposed as a part of the projects.

## **L. Noise Barriers**

No noise barriers are proposed within the limits of the proposed projects.

# **V. ENVIRONMENTAL EFFECTS OF PROPOSED ACTION**

## **A. Natural Resources**

### **1. Biotic Resources**

#### **a. Terrestrial Communities**

Within the R-2530B, B-4974 and R-2527 project study area, there are various types of terrestrial communities. For project R-2530B, there are three distinct types of terrestrial communities located in the project study area - basic oak-hickory forest, cropland/pasture, and residential/commercial. For project R-2527, there are eight distinct types of terrestrial communities located in the project study area - mixed pine and hardwood forest, hardwood forest, pine plantation, timbered scrub-shrub, pine dominated forest, Uwharrie boggy streamhead, commercial/residential, low density development, and maintained or disturbed areas. Descriptions of these areas are discussed below.

### **R-2530B – Stanly County**

#### **Basic Oak-Hickory Forest**

The forest community described here appears to be a remnant fragment of a Basic Oak-Hickory Forest community. The community has been highly modified by anthropogenic activities and is encompassed in a much larger agricultural/residential community matrix. The understory is composed of weedy, invasive species while the canopy composition has been reduced to a few

species. Common species observed include loblolly pine, northern red oak, red maple, white oak, pignut hickory, mockernut hickory, poison ivy, blackberry and Japanese honeysuckle. While the Basic Oak-Hickory Forest is the dominant forest community in the project study area, there are several small patches of other forest community types, including Chestnut Oak Forest, Mesic Hardwood forest, and Piedmont/Low Mountain Alluvial Forest. However, because each of these areas comprise minute amounts of acreage (<1 acre) within the project study area, a Basic Oak-Hickory Forest classification was assigned to all forested areas.

### Cropland/Pasture

Cropland and pasture areas used for the cultivation of crops are generally evenly aged, human dominated, and have little, if any, species diversity. Agricultural lands are harvested on a particular rotation and provide limited habitat diversity for wildlife. The vegetative communities of the cropland/pasture found within the project study area included areas of fallow fields, active pasture, and inactive pasture. Common pasture grasses in North Carolina include fescue and brome with perennial legumes interspersed throughout.

### Residential/Commercial

This community comprises the homes, yards, driveways, office buildings, parking lots, and other areas used for human habitation. Most of the yards have a monoculture of grass interspersed with ornamental trees and shrubs. The grounds of office buildings and businesses and their associated parking lots are primarily planted with a mixture of grasses and ornamental species of trees, shrubs and herbs, both native and exotic.

## **R-2527 – Montgomery County**

### Mixed Pine and Hardwood Forest

The majority of the natural communities adjacent to NC 24-27 and located within the study area are identified as mixed pine and hardwood forests. Much of this community is located within National Forest land and shows evidence of historical disturbance.

Dominant canopy species within these communities are as follows: Virginia pine, short-leaf pine, black cherry, northern red oak, sweetgum, red maple, white oak, post oak, sycamore, and black oak. The subcanopy is commonly comprised of flowering dogwood, red maple, red cedar, sweetgum, American holly, and white oak. The shrub layer contains black cherry, winged elm, rose, blackberry, privet, blueberry, and American holly. Dominant vines found in these communities include: yellow jessamine, Japanese honeysuckle, catbrier, poison ivy, muscadine, and crossvine. Ferns present are Christmas fern, ebony spleenwort, and cinnamon fern. Numerous herbs were identified in the project study area associated with the mixed pine-

hardwood communities. The following were most common in the areas examined during the field reconnaissance: leopard's bane, mayapple, trout lily, bellwort, elephant's foot, woodrush, sage, alumroot, wintergreen, and crane-fly orchid.

Within the community found along NC 73, River Road, Liberty Hill Church Road, Bruton Carpenter Road, the railroad, and Dairy Road, dominant canopy and subcanopy species included loblolly pine, Virginia pine, sweetgum, red maple, and sugar maple. Dominant shrubs included canopy species saplings, flowering dogwood, black cherry, winged elm, Chinese privet, and blackberry. Dominant vines included catbrier, honeysuckle, Virginia creeper, grape, and poison ivy. Herbaceous plants were limited due to the extensive canopy coverage and thick layer of leaf litter. Dominant species observed included Christmas fern, wild ginger, and wintergreen. The portion of the community located along the west side of NC 73 is similar to the Dry Mesic Oak Hickory Forest described by Schafale and Weakley. In addition to the species listed above, other dominant canopy species observed in this area included short-leaf pine, northern red oak, southern red oak, white oak, mockernut hickory, and pignut hickory. Buckeye and river birch were observed within the understory. The portion of this community located on the western side of River Road north of NC 24-27 is similar to the Piedmont/Low Mountain Alluvial Forest described by Schafale and Weakley. In addition to the previously described species, other dominant species observed in this area include: tulip poplar and sycamore in the canopy, and American holly, tag alder, black willow, and elderberry in the shrub layer. The portion of this community located along Liberty Hill Church Road has been clear cut within the last ten years and consists primarily of young red maple, sweet gum, tulip poplar, and loblolly pine.

### Hardwood Forest

There are nine areas adjacent to NC 24-27 and located within the project study area identified as hardwood forests. Dominant species in the canopy stratum include tulip poplar, sweetgum, red maple, pignut hickory, post oak, and southern red oak. Dominant species in the subcanopy are red maple, flowering dogwood, American holly, ironwood, sourwood, and sugar maple. Due to the extensive canopy coverage, the shrub layer is sparse in the majority of the hardwood communities. Dominant species identified during the field reconnaissance include black haw, strawberry bush, cucumbertree, rose, and blueberry. Vines present are Japanese honeysuckle, crossvine, and yellow jessamine. Herbs present are violet, alumroot, bedstraw, and cranesbill. Ferns present are Christmas fern, ebony spleenwort and grapefern. Herbs are wild ginger, wintergreen, and crane-fly orchid.

Within the community found along Dairy Road, Bruton Carpenter Road, Liberty Hill Church Road, Wadeville Road, and Saunders Road, dominant species observed in the canopy and subcanopy included tulip poplar, red maple, sugar maple, sweet gum, pignut hickory, mockernut hickory, white oak, southern red oak, northern red oak, black oak, post oak, and sourwood. Dominant shrub species observed included canopy species saplings, highbush blueberry, possumhaw, American holly, and blackberry. Dominant herbs observed included cinnamon fern, royal fern, christmas fern, wild ginger, and wintergreen. Dominant vines observed include grape, honeysuckle, catbrier, and Virginia creeper.



### Pine Plantation

Two natural communities adjacent to NC 24-27 and located within the study area are identified as pine plantations. Dominant canopy species include loblolly and Virginia pine. The subcanopy is comprised of red maple, red cedar, tulip poplar, sourwood, flowering dogwood, sweetgum, and American holly. Japanese honeysuckle was also observed in these communities. Herbs include plume grass, broomstraw, crane-fly orchid, wintergreen, small wood sunflower, and running pine. Also present is lichen and reindeer moss.

The community found along Diary Road consists of young loblolly pine approximately 10 to 15 years of age. Other species found within the understory and shrub layer were red maple, sweet gum, tulip poplar, and sourwood. Dominant vines that are found within this community include poison ivy, honeysuckle, and catbrier. Herbaceous species included winter green, broomstraw, and poison ivy.

### Timbered Scrub Shrub

Three communities adjacent to NC 24-27 and located within the study area are identified as Timbered Scrub Shrub. Dominant trees include white oak, red maple, tulip poplar, and post oak. Subcanopy species include American holly, loblolly pine, sweetgum, tulip poplar, and flowering dogwood. The shrub layer is sparse due to the intensive shading of the dense canopy. Yellow jessamine was the only vine identified in the Timbered Scrub Shrub communities. Herbs present are running pine, ebony spleenwort and cinnamon fern.

### Pine Dominated Forest

This community is found along the railroad. The portion of this community found north of NC 24-27 is dominated by long-leaf pine in the canopy and understory with some loblolly and Virginia pine. However the portion south of NC 24-27 is predominately loblolly and Virginia pine. Other common canopy understory species include red maple, tulip poplar, white oak, southern red oak, and sweetgum. A large portion of this area had been recently burned, therefore the vine, shrub, and herbaceous layer was open. Dominant species within the shrub layer includes canopy and understory species saplings, highbush blueberry and American holly. Dominant vines found within this community include, grape and catbrier. Dominant herbs observed include goldenrod and sedges.

### Uwharrie Boggy Streamhead

The Uwharrie Boggy Streamhead community type occurs in flat, braided drainages with a canopy of red maple, sweetgum, tulip poplar, black gum, willow oak and an occasional loblolly

and shortleaf pine. Often, in the adjacent upland area is white oak, post oak and a stronger presence of pines. The subcanopy includes sweetbay, witch-alder, alder, southern wild raisin, mountain laurel, Virginia willow, titi, fetterbush, and mountain pepperbush. Herbs include cinnamon fern, royal fern, netted chain fern and sphagnum.

#### Commercial/Residential Low Density Development

Low-density development areas are minimal and include residential and light commercial development within the study area. Common canopy species include red maple, tulip poplar, sweetgum, green ash, southern red oak, white oak, and shortleaf pine. Subcanopy trees include tag alder, ironwood, American holly, flowering dogwood and red cedar. The herb layer contains mallow and rose. Vines include crossvine.

#### Maintained/Disturbed areas

The Maintained/Disturbed areas consist of maintained residential lawns, regularly mowed roadsides, and clear-cut areas located on the northwest side of River Road. The regularly mowed roadsides were consisted of mainly herbaceous vegetation. Dominant herbaceous species include goldenrod, black-eyed Susan, fescue, ox-eye daisy, sneeze-weed, lespedeza, and asters. In locations where the roadside community began to transition to forested communities, some tree saplings and shrubs were also common. Dominant species consisted of Chinese privet, winged sumac, sweet gum, and red maple. The clear-cut area located on the northwest side of River Road consisted of young saplings, shrubs and herbs. Dominant saplings and shrubs observed included river birch, sweet gum, red maple, green ash, American holly, elderberry, and black cherry. Dominant herbs observed consisted of Christmas fern, honeysuckle, wild garlic, and microstegium.

#### **b. Terrestrial Wildlife**

Within R-2530B, B-4974 and R-2527's various terrestrial communities, there is a large variety of wildlife. The maintained roadside and pasture areas provide habitat for foraging, while the forested communities provide foraging and cover. Mammalian species that were identified in the field are white-tailed deer, raccoon, gray squirrel, and opossum. Wildlife species likely to occur within this community also include eastern mole, red bat, eastern cottontail, red fox, shrews, striped skunk and wild turkey. Common birds expected to utilize the project study area habitat include blue jay and bluebird. Birds heard or observed in the field include the American robin, American crow, turkey vulture, sharpshinned hawk, red shouldered hawk, ruby throated hummingbird, brown headed cowbird, red-eyed vireo, black-and-white warbler, yellow-throated warbler, eastern towhee, red-bellied woodpecker, red-tailed hawk, tufted titmouse, eastern meadowlark, wood thrush, northern mockingbird, northern cardinal, and American redstart. Common reptiles and amphibians likely to be found in the project study area include the five-lined skink, various toads, black racer, bullfrog, and the gray treefrog. Reptiles and amphibians

observed in the field include the eastern box turtle, and the black rat snake. Due to the large expanses of forested area present throughout the study area in the Uwharrie National Forest, occurrence of wildlife along the roadway is likely to be frequent.

**c. Aquatic Communities**

The streams within the project study area provide aquatic habitat. The physical characteristics (size and water quality) of the stream, as well as the adjacent terrestrial communities, directly influence faunal composition of this aquatic community. Woody debris located throughout the stream provides habitat, shade, and concealment pockets for several aquatic species. Aquatic invertebrates are a major component of aquatic ecosystems, as primary and secondary consumers, as well as prey items for organisms higher in the food chain.

Insects expected to utilize this community include mayflies, stoneflies, caddisflies, dragonflies, aquatic beetles, mosquito larvae, and midges, caddisfly larval casings, small minnow mayfly larvae, water striders, and aquatic worms. Caddisfly, mayfly, and dragonfly larvae, as well as aquatic beetles were observed in some streams.

NCDWQ collected fishery data for Clarks Creek in June 2004 and Rocky Creek in May 2006. Fish species collected within the project vicinity include redbreasted sunfish, highfin shiner, bluehead chub, tessellated darter, and bluegill.

Other fish observed within the study area include green sunfish, rosyside dace, creek chubsucker, and the creek chub. Other aquatic fauna observed throughout the study area include various frogs and toads. Crayfish mounds were abundant throughout wetlands and stream banks. Northern dusky salamanders were observed in the project study area. Other species that may be found include water snakes, snapping turtle, beaver, marbled salamander, three-lined salamander, American toad, green frog, and whitefin shiner.

**d. Summary of Anticipated Effects**

Construction of the proposed project will have various impacts on biotic resources. Impacts to plant communities associated with construction activities include the removal of vegetation, soil compaction, damaging and/or exposing root systems, as well as potential impacts associated with petroleum spills.

Permanent impacts to wildlife will be minimal due to this project being a widening of the existing roadway, with no new alignment. Impacts to the aquatic communities are likely to result from the physical disturbance of aquatic habitats (e.g., substrate and water quality) and watersheds. These impacts are likely to be greatest at stream crossings. Impacts to aquatic communities will be minimized by strict adherence to the NCDOT Best Management Practices (BMPs) for Construction and Maintenance Activities. Based on NCWRC databases, there are no construction moratoria for the project study area.

## 2. Water Resources

Water resources within the study area are located in the Yadkin-Pee Dee River Basin (USGS Hydrologic Unit 03040104, NCDWQ Subbasins 03-07-08, 03-07-10, and 03-07-15). All streams identified within the R-2530B project study area are unnamed tributaries to one of three named systems: Mountain Creek, Jacobs Creek, and the Pee Dee River. Water resources present in the R-2527 project study area include Lake Tillery/Pee Dee River, Rocky Creek (Lake Tillery tributary), Dumas Creek, Clarks Creek, Lick Fork Creek, Rocky Creek (Little River tributary), Smith Branch, Cattail Creek and Wood Run. It should be noted that there are two streams named Rocky Creek within the R-2527 project study area. The Pee Dee River at this location is dammed downstream to form Lake Tillery. Upstream, the Uwharrie River and Yadkin River converge to form the Pee Dee River. The lake does not exhibit riverine conditions due to the dam, and is typical of manmade reservoirs throughout the state. See **Table 10** for water resource subbasin locations and best usage classifications, and see **Figures 4A to 4M** for water resource locations.

**TABLE 10: WATER RESOURCES DATA**

| Project         | Water Resource                       | DWQ Stream Index No. | Subbasin | Best Usage Classification |
|-----------------|--------------------------------------|----------------------|----------|---------------------------|
| R-2530B         | Mountain Creek                       | 13-5-(0.7)           | 03-07-08 | WS-IV, CA                 |
| R-2530B         | Jacobs Creek                         | 13-9-(0.5)           | 03-07-08 | WS-IV, CA                 |
| R-2530B         | Pee Dee River                        | 13-(1)               | 03-07-08 | WS-IV, B, CA              |
| B-4974 & R-2527 | Lake Tillery/Pee Dee River           | 13-(1)               | 03-07-08 | WS-IV, B, CA              |
| R-2527          | Rocky Creek (Lake Tillery tributary) | 13-8-(2)             | 03-07-08 | WS-IV, CA                 |
| R-2527          | Dumas Creek                          | 13-16-1              | 03-07-08 | C                         |
| R-2527          | Clarks Creek                         | 13-16                | 03-07-10 | C                         |
| R-2527          | Lick Fork Creek                      | 13-16-4              | 03-07-10 | C                         |
| R-2527          | Rocky Creek (Little River tributary) | 13-25-30-(0.5)       | 03-07-15 | C, HQW                    |
| R-2527          | Smith Branch                         | 13-25-30-1           | 03-07-15 | C                         |
| R-2527          | Cattail Creek                        | 13-8-1               | 03-07-08 | WS-IV                     |
| R-2527          | Wood Run                             | 13-7-(1)             | 03-07-08 | WS-IV                     |

NCDWQ classifies surface waters of the state based on their intended best uses. UTs that have not been classified carry the same classification as that assigned to the stream segment to which it flows. Class “WS IV” waters are protected as water supplies that are generally in moderately to highly developed watersheds and are also suitable for aquatic life propagation and

survival, fishing, wildlife, secondary recreation, and agriculture. Class “B” waters are waters suitable for primary recreation. The supplemental “CA” classification indicates that the land surrounding this resource is part of a critical area. Critical area is the land adjacent to a water supply intake where risk associated with pollution is greater than from remaining portions of the watershed. Class C waters are suitable for aquatic life propagation and survival, fishing, wildlife, secondary recreation, and agriculture. The supplemental classification of HQW indicates that this is a High Quality Water.

Neither Water Supplies (WS-I: undeveloped watersheds or WS-II: predominantly undeveloped watersheds) or Outstanding Resource Waters (ORW) occur within 1.0 mile of the project study areas. A portion of Rocky Creek (Little River Tributary) is classified as High Quality Waters (HQW). However, since some crossings within the project limits are within a water supply watershed protected area with waters classified as WS-IV and are within one mile of the critical area "CA", hazardous spill basins may be required.

Stanly and Montgomery Counties are not one of the 25 mountain counties designated by the North Carolina Wildlife Resource Commission (NCWRC) as containing Mountain Trout Waters (MTWs). The streams within the project study area do not support trout or anadromous fish and are not designated as essential fish habitat.

Section 303(d) of the Clean Water Act (CWA) requires states to develop a list of waters not meeting water quality standards or which have impaired uses. None of the streams within the study area are included on the Final 2010 303(d) list for North Carolina nor do they drain into any 303(d) waters within 1-mile of the project study area.

The Ambient Monitoring System (AMS) is a network of stream, lake, and estuarine water quality monitoring stations strategically located for the collection of physical and chemical water data. The waterbody’s classification and corresponding water quality standards determine the type of water quality data or parameters collected. There is not an AMS station within one mile of the project study areas.

One of the DWQ monitoring programs for the Yadkin-Pee Dee River Basin includes benthic macroinvertebrate sampling at fixed monitoring sites throughout the state. Many benthic macroinvertebrates have stages in their life cycle that can last from six months to a year. Therefore, the adverse effects of a toxic spill will not be overcome until the next generation. Different taxa of macroinvertebrates have different tolerances to pollution; thus, long term changes in water quality conditions can be identified by population shifts from pollution sensitive to pollution tolerant organisms (and vice versa). Overall, the species present, the population diversity and the biomass are reflections of long term water quality conditions. There is one benthic macroinvertebrate monitoring site in the project study area where Rocky Creek (Little River tributary) crosses NC 24-27 in Montgomery County. This site was last sampled in 1996 and received a rating of ‘Good-Fair’.

Fish communities are also sampled by DWQ as part of the basinwide assessment using methods developed for the application of the North Carolina Index of Biotic Integrity (NCIBI)



(NCDEHNR 2000). There are no Fish Community Assessment stations located within 1-mile of the study area. However, there is a fish community sampling station for Rocky Creek, located approximately 6-miles from the project study area. Data was collected from this station in 2006 and received a rating of “Excellent.”

Point source dischargers are permitted through the National Pollutant Discharge Elimination System (NPDES) program and are required to register for a permit. Based upon NCDWQ’s database (DWQ 2007) and NCDOT GIS data, there are no NPDES permitted dischargers within one mile of the project study areas.

Wetlands are identified based on the presence of hydric soils, hydrophytic vegetation, and saturated or flooded conditions during all or part of the growing season. Areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions are considered “wetlands” under 33 CFR §328.3(b). Wetlands generally include swamps, marshes, bogs, and similar areas. See **Tables 14, 15 and 16** for wetland data, and see **Figures 4A to 4M** for locations.

#### **a. Clean Water Act / Waters of the U.S.**

Surface waters and jurisdictional wetlands and streams fall under the broad category of “Waters of the United States,” as defined in Section 33 of the Code of Federal Regulations (CFR) Part 328.3. Any action that proposes to place fill material into these areas falls under the jurisdiction of the US Army Corps of Engineers (COE) under Section 404 of the Clean Water Act (CWA) (33 USC.1344).

Twenty-three jurisdictional streams are impacted in the R-2530B project study area (See **Figures 4A to 4D**). Stream classifications and other data are included in **Table 11**. Eight jurisdictional streams are impacted in the B-4974 project study area (See **Figures 4D to 4G**). Stream classifications and other data are included in **Table 12**. Thirty jurisdictional streams are impacted in the R-2527 project study area (See **Figures 4G to 4M**). Stream classifications and other data are included in **Table 13**.

Four wetlands are impacted in the R-2530B project study area (See **Figures 4A to 4D**). Wetland types and other data are included in **Table 14**. Two wetlands are impacted in the B-4974 project study area (See **Figures 4D to 4G**). Wetland types and other data are included in **Table 15**. Twenty-three wetlands are impacted in the R-2527 project study area (See **Figures 4G to 4M**). Wetland types and other data are included in **Table 16**.

#### **b. Clean Water Act Permits**

An Individual Permit from the USACE is anticipated to satisfy Section 404 of the Clean Water Act. The USACE holds the final discretion as to what permit will be required to authorize project construction.

In addition to the 404 permit, other required authorizations include the corresponding Section 401 Water Quality Certification (WQC) from the DWQ. A DWQ Section 401 Water Quality General certification may be required prior to the issuance of a Section 404 Permit.

**c. Construction Moratoria**

No construction moratorium is anticipated.

**d. N.C. River Basin Buffer Rules**

There are currently no basin-wide buffer rules for streams in the Yadkin-Pee-Dee Basin.

**e. Summary of Anticipated Effects**

For project R-2530B, there are 7,122 linear feet of stream impacts and 0.58 acres of wetland impacts. See **Table 11** for stream impacts and **Tables 14** for wetland impacts within the R-2530B project study area. For project B-4974, Alternative 1, there are 1,667 linear feet of stream impacts and 0.08 acres of wetland impacts. For project B-4974, Alternative 4, there are 1,958 linear feet of stream impacts and 0.02 acres of wetland impacts. See **Table 12** for stream impacts and **Table 15** for wetland impacts within the B-4974 project study area. For project R-2527, there are 6,438 linear feet of stream impacts and 1.71 acres of wetland impacts. See **Table 13** for stream impacts and **Table 16** for wetland impacts within the R-2527 project study area.

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**TABLE 11: STREAM IMPACTS IN THE R-2530B PROJECT STUDY AREA**

| STREAM ID                               | STREAM NAME        | NCDENR STATUS CLASSIFICATION | DWQ SCORE | STREAM LENGTH IN STUDY AREA (FEET) | PRELIMINARY DESIGN STREAM IMPACTS (FEET) ALTERNATIVE: BEST FIT |
|-----------------------------------------|--------------------|------------------------------|-----------|------------------------------------|----------------------------------------------------------------|
| DITCH                                   | UT, Mountain Creek | -                            | -         | 290                                | 12                                                             |
| St-AN 02                                | UT, Mountain Creek | Perennial                    | 30.5      | 788                                | 237                                                            |
| St-AA                                   | UT, Pee Dee River  | Intermittent                 | 13        | 223                                | 188                                                            |
| St-B                                    | UT, Mountain Creek | Perennial                    | 32        | 475                                | 208                                                            |
| St-C                                    | UT, Mountain Creek | Intermittent                 | 26.5      | 255                                | 57                                                             |
| St-CC                                   | UT, Mountain Creek | Perennial                    | 33        | 515                                | 28                                                             |
| St-DD                                   | UT, Mountain Creek | Intermittent                 | --        | 151                                | 34                                                             |
| St-E                                    | UT, Mountain Creek | Perennial                    | 32        | 396                                | 69                                                             |
| St-EE                                   | UT, Mountain Creek | Perennial                    | 30.5      | 527                                | 113                                                            |
| St-F                                    | UT, Mountain Creek | Perennial                    | --        | 1264                               | 657                                                            |
| St-FF                                   | UT, Mountain Creek | Intermittent                 | 24.5      | 392                                | 130                                                            |
| St-G                                    | UT, Mountain Creek | Intermittent                 | 20.5      | 210                                | 38                                                             |
| St-GG                                   | UT, Mountain Creek | Perennial                    | 35.5      | 310                                | 267                                                            |
| St-HH                                   | UT, Mountain Creek | Perennial                    | 30.5      | 619                                | 150                                                            |
| St-I                                    | UT, Mountain Creek | Intermittent                 | 28        | 2416                               | 2060                                                           |
| St-J                                    | UT, Mountain Creek | Perennial                    | 29.5      | 175                                | 36                                                             |
| St-L                                    | UT, Mountain Creek | Intermittent                 | 16.5      | 248                                | 248                                                            |
| St-M                                    | UT, Jacobs Creek   | Perennial                    | 36.5      | 3730                               | 994                                                            |
| St-N                                    | UT, Jacobs Creek   | Perennial                    | 40        | 676                                | 381                                                            |
| St-P                                    | UT, Jacobs Creek   | Intermittent                 | 23        | 789                                | 612                                                            |
| St-Q                                    | UT, Jacobs Creek   | Perennial                    | 34.5      | 662                                | 178                                                            |
| St-R                                    | UT, Pee Dee River  | Perennial                    | 31.5      | 884                                | 410                                                            |
| ?                                       | -L- Sta. 95+00     | ?                            | ?         | ?                                  | 15                                                             |
| <b>TOTAL STREAM IMPACTS FOR R-2530B</b> |                    |                              |           |                                    | <b>7,122</b>                                                   |

**NOTES:**

- Impacts are based on preliminary design slope stake limits plus 25 feet.
- Information is unavailable for items marked with a "?".

**TABLE 12: STREAM IMPACTS IN THE B-4974 PROJECT STUDY AREA**

| STREAM ID                              | STREAM NAME       | NCDENR STATUS CLASSIFICATION | DWQ SCORE | STREAM LENGTH IN STUDY AREA (FEET) | PRELIMINARY DESIGN STREAM IMPACTS (FEET) ALTERNATIVES: 1 4 |              |
|----------------------------------------|-------------------|------------------------------|-----------|------------------------------------|------------------------------------------------------------|--------------|
| St-T                                   | UT, Pee Dee River | Perennial                    | 29        | 821                                | 62                                                         | 158          |
| St-U                                   | UT, Pee Dee River | Perennial                    | 33        | 1445                               | 158                                                        | 408          |
| St-V                                   | UT, Pee Dee River | Perennial                    | 34.5      | 1255                               | 695                                                        | 382          |
| St-W                                   | UT, Pee Dee River | Intermittent                 | 25        | 116                                | 353                                                        | 491          |
| St-Z                                   | UT, Pee Dee River | Ephemeral                    | 4         | 271                                | 0                                                          | 147          |
| SG                                     | UT, Pee Dee River | Intermittent                 | 26        | 242                                | 129                                                        | 112          |
| SH                                     | UT, Pee Dee River | Perennial *                  | 32.5 *    | 386                                | 149                                                        | 150          |
| ?                                      | -L- Sta. 103+00   | ?                            | ?         | ?                                  | 121                                                        | 110          |
| <b>TOTAL STREAM IMPACTS FOR B-4974</b> |                   |                              |           |                                    | <b>1,667</b>                                               | <b>1,958</b> |

**NOTES:**

- \* Information updated after 3/26/08 site visit with NCDWQ.
- Impacts are based on preliminary design slope stake limits plus 25 feet
- Information is unavailable for items marked with a "?".

**TABLE 13: STREAM IMPACTS IN THE R-2527 PROJECT STUDY AREA**

| STREAM ID                              | STREAM NAME            | NCDENR STATUS CLASSIFICATION | DWQ SCORE | STREAM LENGTH IN STUDY AREA (FEET) | PRELIMINARY DESIGN STREAM IMPACTS (FEET) ALTERNATIVE: BEST FIT |
|----------------------------------------|------------------------|------------------------------|-----------|------------------------------------|----------------------------------------------------------------|
| SA                                     | Rocky Creek            | Perennial                    | 42.5      | 1,123                              | 186                                                            |
| SB-1                                   | Rocky Creek            | Perennial                    | 40        | 903                                | 117                                                            |
| SB-2                                   | UT, Rocky Creek        | Perennial                    | 32.5      | 643                                | 151                                                            |
| SC                                     | Dumas Creek            | Perennial                    | 43        | 521                                | 109                                                            |
| SC-1                                   | UT, Dumas Creek        | Intermittent / Perennial     | 26        | 1,807                              | 1372                                                           |
| SD                                     | Clarks Creek           | Perennial                    | 41.5      | 531                                | 145                                                            |
| SE                                     | UT, Lick Fork Creek    | Perennial                    | 44.5      | 530                                | 127                                                            |
| SF-A                                   | Lick Fork Creek        | Perennial                    | 40.5      | 524                                | 135                                                            |
| SF-A1                                  | UT, Lick Fork Creek    | Perennial                    | 30        | 397                                | 265                                                            |
| SF-B                                   | Rocky Creek            | Perennial                    | 48.5      | 517                                | 155                                                            |
| SH-1                                   | UT, Pee Dee River      | Intermittent *               | >19 *     | 81                                 | 81                                                             |
| SJ                                     | UT, Wood Run           | Intermittent                 | 20        | 210                                | 109                                                            |
| SK                                     | UT, Cattail Creek      | Intermittent                 | 28.5      | 673                                | 140                                                            |
| SL-A                                   | UT, Cattail Creek      | Perennial                    | 33.5      | 627                                | 114                                                            |
| SM-1                                   | UT, Rocky Creek        | Intermittent                 | 24        | 523                                | 190                                                            |
| SM-2                                   | UT, Rocky Creek        | Perennial                    | 35        | 689                                | 180                                                            |
| SN                                     | UT, Dumas Creek        | Perennial                    | 39.5      | 753                                | 281                                                            |
| SO                                     | UT, Dumas Creek        | Perennial                    | 37        | 747                                | 122                                                            |
| SP                                     | UT, Clarks Creek       | Perennial                    | 40        | 521                                | 108                                                            |
| SR                                     | UT, Lick Fork Creek    | Intermittent                 | 24.5      | 507                                | 171                                                            |
| SU                                     | UT, Lick Fork Creek    | Perennial                    | 39        | 343                                | 267                                                            |
| SW-B                                   | UT, Lick Fork Creek    | Intermittent                 | 29        | 672                                | 147                                                            |
| SW-C1                                  | UT, Rocky Creek        | Intermittent                 | 27.5      | 664                                | 202                                                            |
| SX                                     | UT, Lick Fork Creek    | Perennial                    | 37.5      | 1,567                              | 339                                                            |
| SY-A                                   | UT, Rocky Creek        | Perennial                    | 40.5      | 2,335                              | 729                                                            |
| SY-B                                   | Smith Branch Creek     | Perennial                    | 43        | 902                                | 196                                                            |
| SZ                                     | UT, Smith Branch Creek | Intermittent                 | 27.75     | 858                                | 119                                                            |
| NC73-1                                 | UT, Pee Dee River      | Intermittent                 | -         | 195                                | N/A per USACE                                                  |
| NWS1**                                 | UT, Rocky Creek        | Intermittent                 | No Form   | 284                                | 96                                                             |
| SES1**                                 | UT, Rocky Creek        | Intermittent                 | No Form   | 85                                 | 85                                                             |
| <b>TOTAL STREAM IMPACTS FOR R-2527</b> |                        |                              |           |                                    | <b>6,438</b>                                                   |

**NOTES:**

- \* Information updated after 3/26/08 site visit with NCDWQ.
- \*\* These streams were verified by the USACE and NCDWQ on 05-31-06
- Impacts are based on preliminary design slope stake limits plus 25 feet.
- Information is unavailable for items marked with "No Form".

**TABLE 14: WETLAND IMPACTS IN THE R-2530B PROJECT STUDY AREA**

| WETLAND ID                               | WETLAND TYPE | WETLAND RATING | WETLAND AREA IN STUDY AREA (Acres) | PRELIMINARY DESIGN WETLAND IMPACTS (ACRES) ALTERNATIVES: BEST FIT |
|------------------------------------------|--------------|----------------|------------------------------------|-------------------------------------------------------------------|
| 8                                        | Riverine     | No Form        | 1.20                               | 0.43                                                              |
| 10                                       | Riverine     | No Form        | 0.24                               | 0.09                                                              |
| 19                                       | Riverine     | No Form        | 0.09                               | 0.03                                                              |
| 22                                       | Riverine     | No Form        | 0.03                               | 0.03                                                              |
| <b>TOTAL WETLAND IMPACTS FOR R-2530B</b> |              |                |                                    | <b>0.58</b>                                                       |

**NOTES:**

- Impacts are based on preliminary design slope stake limits plus 25 feet.
- Information is unavailable for items marked with "No Form".

**TABLE 15: WETLAND IMPACTS IN THE B-4974 PROJECT STUDY AREA**

| WETLAND ID                              | WETLAND TYPE | WETLAND RATING | WETLAND AREA IN STUDY AREA (Acres) | PRELIMINARY DESIGN WETLAND IMPACTS (ACRES) ALTERNATIVES: |             |
|-----------------------------------------|--------------|----------------|------------------------------------|----------------------------------------------------------|-------------|
|                                         |              |                |                                    | 1                                                        | 4           |
| 17                                      | Riverine     | No Form        | 0.11                               | 0.06                                                     | 0           |
| WB                                      | Riverine     | 32             | 0.020                              | 0.02                                                     | 0.02        |
| <b>TOTAL WETLAND IMPACTS FOR B-4974</b> |              |                |                                    | <b>0.08</b>                                              | <b>0.02</b> |

**NOTES:**

- Impacts are based on preliminary design slope stake limits plus 25 feet.
- Information is unavailable for items marked with "No Form".

**TABLE 16: WETLAND IMPACTS IN THE R-2527 PROJECT STUDY AREA**

| WETLAND ID                              | WETLAND TYPE | WETLAND RATING | WETLAND AREA IN STUDY AREA (Acres) | PRELIMINARY DESIGN WETLAND IMPACTS (ACRES) ALTERNATIVE: BEST FIT |
|-----------------------------------------|--------------|----------------|------------------------------------|------------------------------------------------------------------|
| WBB                                     | Riverine     | 20             | 0.110                              | 0.11                                                             |
| WCC                                     | Riverine     | 22             | 0.037                              | 0.01                                                             |
| WE                                      | Riverine     | 19             | 0.011                              | 0.01                                                             |
| WEE                                     | Non-Riverine | 18             | 0.308                              | 0.04                                                             |
| WF                                      | Riverine     | 25             | 0.101                              | 0.03                                                             |
| WFF                                     | Riverine     | 31             | 0.601                              | 0.04                                                             |
| WGG                                     | Non-Riverine | 22             | 0.251                              | 0.05                                                             |
| WH                                      | Riverine     | 18             | 0.007                              | 0.01                                                             |
| WHH                                     | Riverine     | 31             | 0.019                              | 0.02                                                             |
| WJ                                      | Riverine     | 18             | 0.003                              | <0.01                                                            |
| WJJ                                     | Riverine     | 29             | 0.035                              | 0.02                                                             |
| WM                                      | Riverine     | 30             | 0.012                              | 0.01                                                             |
| WN                                      | Riverine     | 30             | 0.017                              | 0.01                                                             |
| WNN                                     | Riverine     | 16             | 0.493                              | 0.14                                                             |
| WP                                      | Non-Riverine | 30             | 0.092                              | 0.87                                                             |
| WPP                                     | Non-Riverine | 18             | 0.057                              | <0.01                                                            |
| WR                                      | Non-Riverine | 30             | 0.099                              | 0.03                                                             |
| WS                                      | Riverine     | 19             | 0.054                              | 0.02                                                             |
| WT                                      | Non-Riverine | 16             | 0.166                              | 0.11                                                             |
| WU-1                                    | Riverine     | 19             | 0.018                              | 0.02                                                             |
| WU-2                                    | Riverine     | 39             | 0.123                              | 0.11                                                             |
| WZ                                      | Riverine     | 18             | 0.076                              | 0.02                                                             |
| WZZ                                     | Non-Riverine | 19             | 0.037                              | <0.01                                                            |
| <b>TOTAL WETLAND IMPACTS FOR R-2527</b> |              |                |                                    | <b>1.71</b>                                                      |

**NOTES:** Impacts are based on preliminary design slope stake limits plus 25 feet.



## **f. Avoidance, Minimization, and Mitigation**

The USACE has adopted, through the Council on Environmental Quality (CEQ), a mitigation policy which embraces the concepts of “no net loss of wetlands” and project sequencing. The purpose of this policy is to restore and maintain the chemical, biological, and physical integrity of “Waters of the United States,” specifically wetlands. Mitigation of wetland impacts has been defined by the CEQ to include: avoidance of impacts (to wetlands), minimizing impacts, rectifying impacts, reducing impacts over time, and compensating for impacts (40 CFR 1508.20). Each of these aspects (avoidance, minimization, and compensatory mitigation) must be considered in sequential order.

### **1) Avoidance and Minimization of Impacts**

Given the number of streams and wetlands in the project area, total avoidance of surface waters and wetlands by these projects is not feasible. Alignments within the project study corridor have been developed to minimize impacts to wetlands and streams within the corridors. The NEPA/404 merger team has concurred on which areas should be bridged by the alternatives. Impacts on wetlands and streams will be considered in the selection of the least environmentally damaging practicable alternative (LEDPA) for the projects. Additional minimization measures will be considered as the projects progress. At the NEPA/404 Concurrence Point 2A meeting, avoidance, minimization, and mitigation were discussed for several major stream crossings. **Figure 5** shows the projects’ major stream crossing sites. For Site 4, Stream St-V, efforts will be made to minimize and avoid impacts during future stages of the design process. For Site 9, Stream SU, mitigation will most likely be required. The potential for stream relocation will be further evaluated during future stages of the design process. For Site 10, Stream SY-A, topography should allow Stream SY-A to be relocated. The use of natural stream design will be further evaluated during the actual drainage design. For Site 12, Stream SY-A, topography should allow Stream SY-A to be relocated. The use of natural stream design will be further evaluated during the actual drainage design.

### **2) Compensatory Mitigation of Impacts**

As the projects progress, NCDOT will investigate potential on-site stream and wetland mitigation opportunities. Final decisions regarding wetland and stream mitigation requirements will be made by the US Army Corps of Engineers and the NC Division of Water Quality. If on-site mitigation is not feasible, mitigation will be provided by North Carolina Department of Environment and Natural Resources Ecosystem Enhancement Program (EEP). In accordance with the “Memorandum of Agreement among the North Carolina Department of Transportation, and the U.S. Army Corps of Engineers, Wilmington District” (MOA), July 22, 2003, the EEP, will be requested to provide off-site mitigation to satisfy the federal Clean Water Act compensatory mitigation requirements for this project.

### **g. Bridge Demolition**

Depending on the selection of the least environmentally damaging practicable alternative (LEDPA) for project B-2527, bridge demolition may be required. Demolition will proceed according to Section 402-2 of NCDOT's Standard Specifications for Roads and Structures, the chapter titled "Removal of Existing Structures" outlines restrictions and Best Management Practices for Bridge Demolition and Removal.

### **h. Anticipated Permit Requirements**

In accordance with provisions of Section 404 of the Clean Water Act (33 U.S.C. 1344), a permit will be required from the US Army Corps of Engineers for the discharge of dredged or fill material into "Waters of the United States."

Due to each project's expected impacts on wetlands and jurisdictional streams, an individual Section 404 permit will likely be required. The US Army Corps of Engineers will determine final permit requirements.

A NC Division of Water Quality Section 401 Individual Water Quality Certification will be required prior to issuance of the Section 404 permit. This certification is issued for any activity which may result in a discharge into waters for which a federal permit is required. Coordination with the NC Division of Water Quality (DWQ) will also be required to determine if a State Stormwater Permit will be required since waters classified as High Quality Waters (HQW) are within the project limits.

Since projects B-4974 and R-2527 cross National Forest Service lands, a special use permit from the US Forest Service will be required to provide land for the proposed projects.

## **3. Rare and Protected Species**

The Endangered Species Act of 1973, as amended, requires any action likely to adversely affect species classified as endangered or threatened be subject to review by the US Fish and Wildlife Service (FWS). Other species may receive additional protection under separate state laws.

### **a. Endangered Species Act Protected Species**

As of September 22, 2010 (Stanly County) and March 21, 2011 (Montgomery County), the US Fish and Wildlife Service (USFWS) lists the following federally protected species for Montgomery and Stanly Counties (see **Table 17**). A brief description of each species' characteristics and habitat follows, along with the Biological Conclusion rendered based on

survey results in the study area. Habitat requirements for each species are based on the current best available information from referenced literature and/or the USFWS.

**TABLE 17 - FEDERALLY PROTECTED SPECIES LISTED FOR STANLY AND MONTGOMERY COUNTIES**

| <b>Project &amp; County</b>            | <b>Common Name</b>      | <b>Federal Status</b> | <b>Habitat Present?</b> | <b>Biological Conclusion</b>           |
|----------------------------------------|-------------------------|-----------------------|-------------------------|----------------------------------------|
| R-2530B & R-2527 - Stanly / Montgomery | Schweinitz's Sunflower  | E                     | Yes                     | May Affect, Likely to Adversely Affect |
| R-2527 - Montgomery                    | Smooth Coneflower       | E                     | Yes                     | No Effect                              |
| R-2527 - Montgomery                    | Red-cockaded Woodpecker | E                     | No                      | No Effect                              |

E - Endangered

### **Schweinitz's Sunflower**

Schweinitz's sunflower is a perennial herb that grows from 1 to 2 m tall from a cluster of tuberous roots. The stems are usually solitary, branching only at or above mid-stem. The stem is usually pubescent and is often purple. Schweinitz's sunflower begins flowering in late August or early September and continues flowering until the first frost. Current habitats include roadsides, power line clearings, old pastures, woodland openings and other sunny or semi-sunny situations.

### **Biological Conclusion: May Affect, Likely to Adversely Affect**

Sunflower surveys were conducted in October 2011 within the project study areas. Sunflower habitat is extensive along NC 24-27, especially in Montgomery County. Several species of sunflowers were found, including smooth sunflower, which is state listed as Significantly Rare.

For project R-2530B, a population of Schweinitz's sunflowers was discovered on the southwest side of NC 24-27 under a utility line. Fifty-five stems were observed in addition to a few seedlings. Most of the plants were in flower. The sunflowers were about 4/10 mile southeast of Schweinitz's sunflower population EO 14, which was thought to be extirpated (NC Natural Heritage Database updated 10/2011). See **Figure 4B**.

For project R-2527, the only location in which Schweinitz's sunflowers were found in the study corridor was a previously known population (Element Occurrence (EO) 28) along the railroad tracks south of NC 24-27. Two clumps of sunflowers totaling about 23 stems were found on the east side of the tracks, across from the beaver pond. These sunflowers may not be visible every year due to herbicide spraying from the rail company. The population may not be viable in the long-term for this reason. See **Figure 4L**.

Due to the presence of Schweinitz's sunflower within the project area as well as within 1-mile of the project area, a biological conclusion of "May affect, likely to adversely affect" has been given. Additional surveys will be required prior to project construction, and this biological conclusion will necessitate further coordination and consultation with the US Fish and Wildlife Service. A Biological Assessment and a Biological Opinion will be completed prior to the completion of the final environmental document.

### **Smooth Coneflower**

Smooth coneflower is a perennial herb in the Aster family that grows up to 1.5 meters tall from a vertical root stock. Flower heads are usually solitary. The rays of the flowers (petal-like structures) are light pink to purplish in color. Flowering occurs from late May through mid-July and fruits develop from late June to September. The fruiting structures often persist through the fall. Smooth coneflower is typically found in open woods, cedar barrens, roadsides, clearcuts, dry limestone bluffs, and power line rights-of-way.

### **Biological Conclusion: No Effect**

Habitat for the smooth coneflower is located within the project area within the disturbed areas along the railroad tracks and roadside. Smooth coneflower surveys were conducted in 2006. No smooth coneflower specimens were observed.

The NCNHP database has no records of smooth coneflower occurring within 1-mile of the project study area. The proposed project will have no effect on the smooth coneflower. However, due to the presence of potential habitat within the project area, additional surveys will be required prior to construction.

### **Red-cockaded Woodpecker**

The adult red-cockaded woodpecker (RCW) is a small black and white bird with small red streaks on the sides of the nape in the male. The back of the RCW is black and white with horizontal stripes. The breast and underside of this woodpecker are white with streaked flanks. The RCW has a large white cheek patch surrounded by the black cap, nape, and throat.

The RCW is endemic to mature fire maintained forests where it uses open, old growth stands of southern pines, particularly longleaf pine, for foraging and nesting habitat. These birds nest exclusively in trees that are greater than 60 years old and are contiguous with pine stands at least 30 years of age. These woodpeckers nest and roost in cavities excavated in living pine trees that are infected with the fungus that causes red-heart disease. Cavities are located in clusters from 12 to 100 feet above the ground and average 30 to 50 feet high. Cavity trees can be identified by a large incrustation of running sap that surrounds the tree. The RCW lays its eggs in April, May, and June; the eggs hatch approximately 10 to 12 days later.

### **Biological Conclusion: No Effect**

The project area does contain a few large areas of pine dominated forests, most of which are within the Uwharrie National Forest. Most stands within the project area are young (between 20 and 30 years old) and fragmented between moderate to large clear cut areas. Therefore, these stands would not provide suitable nesting habitat; however, they would provide potential foraging habitat.

Protocol requires that surveys be conducted within 0.5 mile of the project area if potential foraging habitat is present within the project area. Surveys were conducted in 2007 by NCDOT biologists. The surveyed areas within 0.5 mile of the project did contain pine-dominated forests. The pines within the surveyed areas were composed of young pines (between 20 to 30 years old) that would not provide suitable nesting habitat. Two areas contained older long-leaf pines (between 30 to 60 years old). The first area, located approximately 1.0 mile west of the railroad and 0.4 mile north NC 24-27, is small with scattered mature pines. An inactive cavity tree was observed within this stand. The second area is located approximately 0.3 mile north of the project study area associated with the railroad. This area provides the best potential nesting habitat, however, the older trees are scattered throughout the stand which are dominated by younger pines between 20 to 30 years old. The area within 0.5 mile of these stands is fragmented due to clear cutting.

The NCNHP database does indicate a RCW occurrence approximately 2.4 miles south of the study corridor. This record dates back to 1994 and was a cavity tree sighting, however no RCWs were observed. No RCWs were observed during the 2007 surveys. Based on the minimal amount of suitable nesting habitat within the study area and within 0.5 mile of the project area, the proposed project will have no effect on the RCW.

#### **b. Bald and Golden Eagle Protection Act**

Habitat for the bald eagle primarily consists of mature forest in proximity to large bodies of open water for foraging. Large dominant trees are utilized for nesting sites, typically within 1.0 mile of open water. Suitable bald eagle nesting habitat exists in the project study area in the forested areas around Lake Tillery (Pee Dee River).

#### **Biological Conclusion: Not Required**

The most recent surveys for bald eagle in the Montgomery County portion of the project study area occurred in 2007. Based on previous bald eagle surveys performed by the NC Wildlife Resources Commission and the known bald eagle nest (approximately 7000 ft. southwest of R-2527's western terminus), the USFWS agreed to survey limits from 1500 ft. north and south of NC 24-27 to an area 1500 ft. inland from the farthest inland tributary of Lake Tillery / Pee Dee River located near the NC 73 boat ramp. No bald eagle or eagle nests were observed during this survey and it was determined that this area did not have enough large trees to provide suitable eagle nesting habitat. The USFWS did not require bald eagle surveys for the

Stanly County portion of the study area at the same time due to the proximity of the known eagle nest.

The bald eagle was delisted on June 28, 2007. Additional surveys may be required within Montgomery and Stanly Counties prior to project construction. However, these surveys will be restricted to 660 feet from the edge of the project boundaries.

**c. Endangered Species Act Candidate Species**

As of September 22, 2010 (Stanly County) and March 21, 2011 (Montgomery County), the US Fish and Wildlife Service lists Georgia Aster and Yadkin River Goldenrod as Candidate species for Montgomery and Stanly Counties. During an October 2011 environmental survey, a population of Georgia asters was found along NC 24-27 in Stanly County. See **Figure 4B** for the location.

Current state and federal laws do not require protection of candidate species. These species were designated within the project study area in case the status is upgraded in the future.

**d. Federal Species of Concern**

As of September 22, 2010, the US Fish and Wildlife Service lists the following federally species of concern (FSC) for Stanly County: American Eel, Carolina Darter, Carolina Redhorse, Brook Floater, Carolina Creekshell, Butternut, Dwarf Aster, Prairie Birdsfoot-Trefoil, Riparian Vervain, and Virginia Quillwort.

As of March 21, 2011, the US Fish and Wildlife Service lists the following federally species of concern (FSC) for Montgomery County: American Eel, Carolina Darter, Carolina Redhorse, Northern Pinesnake, Pinewoods Darter, Sandhills Chub, Atlantic Pigtoe, Brook Floater, Carolina Creekshell, Savannah Lilliput, Yellow Lampmussel Bog Oatgrass, Bog Spicebush, Dwarf Aster, and Ravine Sedge.

Current state and federal laws do not require protection of FSC. These FSCs were designated within the project study area in case the status is upgraded in the future.

**e. US Forest Service Proposed, Endangered, Threatened, and Sensitive (PETS) Species**

In addition to plant and animal species receiving protection under the Endangered Species Act, the U.S. Forest Service (USFS) maintains their own list of Proposed, Endangered, Threatened, and Sensitive (PETS) species for the Uwharrie National Forest and considers these

species when determining impacts to National Forest System (NFS) lands. Since projects B-4974 and R-2527 cross NFS lands, a special use permit from the USFS will be required to provide land for the proposed projects. Prior to approving a special use permit for the project, the USFS requires that the project study area be evaluated for PETS species. PETS surveys were conducted in 2007 by NCDOT staff, and populations of three PETS species were found as follows: one population of Schweinitz's sunflower, two populations of large witch alder, and several populations of smooth sunflower. Findings of these surveys were sent in a report to the US Forest Service for review in June 2009. NCDOT will conduct additional surveys of PETS species in the project area, and the PETS survey report will be updated based on comments received from the USFS prior to the selection of the preferred alternative. Further coordination between the USFS and NCDOT will occur in accordance with the National Environmental Policy Act (NEPA) process.

#### **4. Soils**

Soil associations are classified as a group of defined and named taxonomic soil units occurring together in an individual and characteristic pattern over a general region. The soils within an association generally vary in depth, slope, stoniness, drainage, and other characteristics. According to the general soil map for Stanly County (US Department of Agriculture (USDA), 1989), the dominant soil series found within the project study area are Badin channery silt loam, Enon loam, Goldston silt loam, Kirksey silt loam, Misenheimer channery silt loam, Oakboro silt loam, Tatum channery silt loam, Udorthents, loamy, and Urban land. Based on Natural Resources Conservation Service (NRCS) provisional soil mapping data for Montgomery County (USDA, 2003a), the project study area is composed of Chenneby silt loam, Callison Secrest Complex, Herndon silt loam, Georgeville silt loam, Badin-Tarrus complex, Peawick loam, and Urban land.

The NRCS defines a hydric soil as one that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part of the soil. Such soils usually support hydrophytic vegetation. One of the soils listed in R-2530B's project study area, Oakboro silt loam, is considered hydric since it may contain hydric inclusions. Two soils within R-2527's project study area are classified as hydric; Chenneby silt loam and Peawick loam.

#### **B. Cultural Resources**

This project is subject to compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, and implemented by the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106, codified at 36 CFR Part 800. Section 106 requires federal agencies to take into account the effect of their undertakings (federally-funded, licensed, or permitted) on properties included in or eligible for inclusion in the



National Register of Historic Places and to afford the Advisory Council a reasonable opportunity to comment on such undertakings.

## **1. Historic Architectural Resources**

### **a. Historic Properties**

A Historical Architectural Survey Report was completed in 2000 for the R-2527 Area of Potential Effects (APE) in Montgomery County. This report recommended that there are no National Register-listed properties within the APE and that the properties over 50 years old in the APE are not considered eligible for the National Register of Historic Places.

A Historical Architectural Survey Report was completed in February 2005 for the R-2530B and B-4974 APE in Stanly County. This report recommended that the James B. Garrison Bridge (Swift Island Ferry Bridge) over the Pee Dee River, Bridge No. 51, is individually eligible for the National Register of Historic Places under Criterion C, design. See **Figures 4E and 4G**.

The James B. Garrison Bridge (Swift Island Ferry Bridge) over the Pee Dee River is an open spandrel arch bridge and was built in 1927-28 by Carolina Power and Light (CP&L) in cooperation with the Highway Commission to replace a bridge flooded by the raising of the Tillery Reservoir for a hydroelectric plant. CP&L paid most of the costs, but the bridge's design was supervised by the commission, thus the bridge mimicked its predecessor: an open spandrel arch built in 1922. Prior to 1922 a ferry served as the river crossing, but since it was such an important East-West route, an open spandrel arch was constructed in 1922. This type of design was used by the Highway Commission on a handful of bridges at prominent locations across the state because it offered aesthetics as well as structural strength and economy of materials. Only five open spandrel concrete arches remain in the state.

While, the design of the bridge is certainly striking and uncommon in this state, the story behind the demolition of the previous bridge makes this crossing even more interesting. Instead of simply dismantling the bridge, CP&L turned the structure over to the military for artillery and aerial bombing practice. The subsequent testing, conducted near Christmas 1927 became known as "The Battle of Swift Island Bridge" and was captured for newsreel by cameramen from Metro-Goldwyn Picture Company. The bridge withstood assaults from numerous groups including: engineers placing 350 tons on the deck, Air Force dive bombers with sand bombs and live loads, and Army artillery blasting the supports. Much to the chagrin of the War Department (and smugness of the engineers), it took 2,000 pounds of TNT placed at the piers to finally bring the bridge down.

The North Carolina Department of Cultural Resources, State Historic Preservation Office (HPO) concurred with the recommendations discussed in the 2000 report for project R-2527. The July 7, 2000 concurrence form for properties not eligible for the National Register is included in **Appendix A**. HPO concurred with the recommendations discussed in the February

2005 report for projects R-2530B and B-4974 in their March 23, 2005 memorandum (see **Appendix A**).

**b. Potential Project Effects**

Project effects on historic properties were discussed with HPO on August 30, 2006 and again on February 10, 2011. The concurrence forms for assessment of effects are included in **Appendix A**. The project effects on Bridge No. 51 are shown in **Table 18**:

**TABLE 18: B-4974 PROJECT EFFECTS**

| ALTERNATIVE / SCENARIO                                                 | EFFECT FINDING    |
|------------------------------------------------------------------------|-------------------|
| Alt. 1, 2 & 3 - new owner agrees to take ownership of Bridge No. 51    | No Adverse Effect |
| Alt. 1, 2 & 3 – no new owner agrees to take ownership of Bridge No. 51 | Adverse Effect    |
| Alternative 4                                                          | Adverse Effect    |

Alternatives 1, 2 and 3 received a “no adverse effect” call because these alternatives do not require the removal of Bridge No. 51. There is no adverse effect if a responsible party agrees to take ownership of the bridge because it will be preserved in place. Demolition funds will be made available to the new owners for future maintenance costs.

Alternatives 1, 2 and 3 received an “adverse effect” call because these alternatives do not require the removal of Bridge No. 51; but, the bridge will be removed if no responsible party agrees to take ownership of it. A Section 4(f) evaluation and a Memorandum of Agreement (MOA) will be required if a responsible party does not agree to take ownership of Bridge No. 51 since the bridge will be removed.

An “adverse effect” call was made for Alternative 4 because the alternative requires the removal of Bridge No. 51 in order to erect a new structure adjacent to Bridge No. 50. A Section 4(f) evaluation and a Memorandum of Agreement (MOA) will be required since Bridge No. 51 will be removed.

Alternatives 2 and 3 were eliminated after the project effects were assessed based on the NCDOT Bridge Management Unit’s recommendation to not replace Bridge No. 50 at this time, the SHPO effects determinations, and Stanly County’s interest in taking over the maintenance of historic Bridge No. 51 to provide a trail connection between Morrow Mountain State Park and the Uwharrie National Forest. Alternatives 1 and 4 will be presented at the public hearing for citizen comments. The least environmentally damaging practicable alternative (LEDPA) will be selected following the public hearing and the NEPA/404 Merger Concurrence Point 3 meeting.

## **2. Archaeological Resources**

An Intensive Archaeological Survey and Evaluation (Phase I and II) report was completed in August 2006 for the R-2530B project study area in Stanly County. This investigation recommended that only one site (31ST195) was individually eligible for listing in the National Register of Historic Places (NRHP) under criterion [d] of 36 CFR 60.4, and three sites (31ST195, 31ST196 and 31ST204/204\*\*) were eligible for listing in the NRHP as an archaeological district under criterion [a] and [d] of 36 CFR 60.4 (sites 31ST196 and 31ST204/204\*\* are not considered to be individually eligible for the NRHP). Two historic cemeteries were also documented during the course of field investigations but are not recommended as eligible for the NRHP as individual archaeological resources. Avoidance is recommended for both of the cemeteries and all of the site components to the proposed archaeological district.

Site 31ST195 was recommended for listing based on the recovery of a high quantity and variety of artifacts including diagnostic projectile points and ceramics, the recovery of numerous artifacts in undisturbed contexts, and the likelihood that this site can be placed into a broader regional context of lithic procurement and reduction that is rather unique to the Uwharrie Mountain region.

Site 31ST196 represents a prehistoric lithic quarry where raw material was first obtained. Immediately adjacent to this quarry are two reduction sites (31ST195 and 31ST204/204\*\*) that represent lithic workshops which are intensive reduction/production sites. Together these three adjacent sites represent the full spectrum of lithic reduction activities from initial extraction (31ST196) through raw material caching and limited reduction activities (31ST204/204\*\*) to intensive reduction and tool replacement activities (31ST195). Diagnostic artifacts were recovered from sites 31ST195 and 31ST204/204\*\*, but not from 31ST196. Avoidance is recommended for all of the site components to the proposed archaeological district. If avoidance is not possible, data recovery excavations are recommended for site 31ST195, and additional laboratory analyses (e.g. lithic sourcing studies) be conducted on the already recovered materials from 31ST196 and 31ST204/204\*\* prior to the construction of project R-2530B.

The Stanly Gardens of Memory cemetery and a portion of the Anderson Grove Church cemetery are within the R-2530B project study area. Neither of these cemeteries is recommended as eligible for the NRHP as an individual archaeological resource. Avoidance and preservation are recommended for these cemeteries. If avoidance is not possible, NCDOT will comply with North Carolina laws governing the treatment of cemeteries (NC General Statutes, Chapter 65, Article 5).

The North Carolina Department of Cultural Resources, State Historic Preservation Office (HPO) concurred with the recommendations discussed in the August 2006 report in their March 29, 2007 memorandum (see **Appendix A**). This memorandum also recommended that if avoidance is not possible, then data recovery excavations be conducted at 31ST195 and additional laboratory analyses be undertaken with archaeological materials recovered from sites 31ST196 and 31ST204/204\*\*.

An Intensive Archaeological Survey and Evaluation (Phase I and II) report was completed in March 2008 for the R-2527 project study area in Montgomery County. This investigation recommended that three sites (31MG321, 31MG1629 and 31MG1806) were eligible for listing in the National Register of Historic Places (NRHP) under criterion [d] of 36 CFR 60.4. Avoidance is recommended for these three sites. If avoidance is not possible, then mitigation of effects (including data recovery excavations) will be required at these sites prior to ground disturbing activities.

While site 31MG321 was not originally recommended as NRHP-eligible in 1978 (when it was identified), the site was reassessed as “potentially” eligible for the National Register following testing by the United States Forest Service in 1983. This site appears to represent intensive occupation of the location, largely during the Early Archaic period. Testing undertaken on behalf of NCDOT revealed a degree of integrity to the archaeological deposits that may produce extremely valuable information about ecological adaptation and technological organization during the Early Archaic period.

Site 31MG1806 was identified in 2008 as a relatively large lithic site dating to the Late Woodland period, with a fair degree of vertical integrity to the archaeological deposits south of NC24/27. This site was recommended as eligible for inclusion on the NRHP under criterion [d] of 36 CFR 60.4 based on the site’s ability to convey significant information about technological organization and lithic economies during the Late Woodland period.

Originally identified by the United States Forest Service in 2000 and determined to be “potentially” eligible for the National Register, site 31MG1629 was relocated adjacent the Roberdo Bog within the Uwharrie National Forest. Recent investigations identified a number of components within the archaeological deposits dating to Late Paleoindian, Middle Archaic, and Middle Woodland periods. These deposits appear to retain integrity and clarity, allowing for the preservation of significant information regarding ecological behaviors associated with all of these periods. The presence of Roberdo Bog in such close proximity, allows for the possibility of further ecological information being retained in palynological contexts in the bog.

The North Carolina Department of Cultural Resources, State Historic Preservation Office (HPO) has concurred with the recommendations discussed in the March 2008 report in their April 8, 2008 memorandum (see **Appendix A**).

All of the archaeological resources identified through the course of investigations for the R-2530B and R-2527 projects (as outlined above) are deemed significant through the information contained in the archaeological deposits themselves. It is understood that this information can be retained through data recovery efforts or through creative mitigation strategies such as more intensive laboratory analysis of recovered materials. None of these sites should be considered 4(f) resources, requiring preservation in place.

If archaeological artifacts are discovered during the construction of projects R-2530B, B-4974 and R-2527, construction should cease in the affected area, and the Project Development and Environmental Analysis Unit, Human Environment Section should be contacted.

### **C. Section 4(f) / 6(f) Resources**

Section 4(f) of the US Department of Transportation Act of 1966 specifies that publicly owned land from a public park, recreation area, wildlife and waterfowl refuge, and all historic sites of national, state, and local significance may be used for federal projects only if there is no feasible and prudent alternative to the use of such land and the project includes all possible planning to minimize impacts to 4(f) land resulting from such use.

Three Section 4(f) resources are located in the project study areas, as noted below:

- James B. Garrison Bridge (Swift Island Ferry Bridge), Bridge No. 51 (B-4974)
- Wildlife Resources Commission's Swift Island public boat access (B-4974) – (potential)
- Uwharrie National Recreational Trail (R-2527)

The James B. Garrison Bridge (Swift Island Ferry Bridge), Bridge No. 51, crosses the Pee Dee River within the B-4974 project area (see **Figures 4E and 4G**). Bridge No. 51 is considered structurally deficient and is eligible for the Federal-Aid Highway Bridge Program. The James B. Garrison Bridge (Swift Island Ferry Bridge), Bridge No. 51, is a Section 4(f) resource; however, two alternatives for replacing this bridge are still under consideration. Alternative 1 received a Section 106 “no adverse effect” finding (under the National Historic Preservation Act), if a responsible party agrees to take ownership of the historic bridge because it will be preserved in place and not removed. Under this scenario, Stanly County will be taking over the maintenance and ownership of the historic bridge and there is “No Section 4(f) Use”. If no responsible party agrees to take ownership of the bridge, a Section 106 finding of “adverse effect” will be applicable and the bridge will be removed. Under this scenario, a “Programmatic Section 4(f) Evaluation and Approval for FHWA Projects that Necessitate the Use of Historic Bridges” will be included in the final environmental document. The Programmatic Section 4(f) Evaluation and Approval documents that there was no feasible and prudent alternative to the Section 4(f) use; the historic bridge will be recorded as described in a Memorandum of Agreement (MOA) to be developed through consultation with the State Historic Preservation Office. In addition, coordination with the Advisory Council on Historic Preservation (ACHP) may be necessary depending on the applicable Section 106 effect finding. Alternatives 1 and 4 will be presented at the public hearing for citizen comments. The least environmentally damaging practicable alternative (LEDPA) will be selected following the public hearing and the NEPA/404 Merger Concurrence Point 3 meeting. A decision regarding Section 4(f) impacts will be made after the LEDPA is selected.

The Wildlife Resources Commission's Swift Island public boat access is located within the B-4974 project area on the south side of NC 24-27 just east of the NC 24-27 / NC 73

intersection (see **Figures 4E and 4G**). The public can launch their boats for travel on both Lake Tillery and the Pee Dee River. B-4974, Alternatives 1 and 4, will require the use of land from this resource. There is no feasible alternative that will avoid this resource. The parking lot to the boat access will be impacted, but the boat launch area will not be impacted. NCDOT will provide uninterrupted access to the parking lot. Further coordination with the Wildlife Resources Commission and input from the public during the public hearing process is needed to determine the effects of the impact and the applicability of Section 4(f).

The Uwharrie National Recreational Trail is located within the R-2527 project area on the north side of NC 24-27 between SR 1150, River Road, and SR 1134, Liberty Church Road / Wadeville Road, in the Uwharrie National Forest (see **Figure 4H**). Hikers can access the 20-mile Uwharrie National Recreational Trail and the 8-mile Dutchman's Creek Trail from the unpaved, trailhead parking lot. The Uwharrie National Recreational Trail is a Section 4(f) resource; however, there is not a Section 4(f) use because the trail will not be impacted, and NCDOT will provide uninterrupted access to the trail head parking lot.

The Land and Water Conservation Fund Act (LWCFA) of 1965, as amended, allows state and local governments to obtain grants for acquiring or improving parks and recreation areas. Section 6(f) of this Act prohibits the conversion of property acquired or developed with these grants to a non-recreational purpose without the approval of the Department of the Interior's (DOI) National Park Service. No Section 6(f) funds or grants were used.

#### **D. Farmland**

The Farmland Protection Policy Act requires all federal agencies or their representatives to consider the impact of land acquisition and construction projects on prime and important farmland soils. North Carolina Executive Order Number 96 requires all state agencies to consider the impact of land acquisition and construction projects on prime farmland soils, as designated by the US Natural Resources Conservation Service (NRCS). Land planned or zoned for urban development is not subject to the same level of preservation afforded other rural, agricultural areas.

As is required by the Farmland Protection Policy Act, the Form NRCS-CPA-106 has been completed (see **Appendix D**) according to FHWA guidelines. Projects B-4974 and R-2527 are mainly in wooded areas; therefore, these projects will not have a significant impact to farmland. Within the R-2530B project study area, the Northern Widening Alternative received a total point value of 44, and the Southern Widening Alternative received a total point value of 49 for Parts III and VI of the form. Since the Best Fit Alternative is a combination of the Southern and Northern Widening Alternatives, the total point value for this alternative will have similar values. Point totals below 60 points for these sections do not require submission to NRCS for further evaluation; therefore, these corridors will not be evaluated further for farmland impacts. Project R-2530B will not have a significant impact to farmland.

## **E. Social Effects**

### **1. Neighborhoods/Communities**

In the R-2530B project study area, there is a mix of residential, commercial, and agricultural land uses. Residential subdivisions, rural residences, vacation homes, mobile home parks, and farm homes typify residential development in this part of Stanly County. Commercial development is concentrated within the City of Albemarle, primarily along NC 24-27 and NC 740, including the intersection of these two roads. The Albemarle Mall and Eastgate Shopping Plaza are located at R-2530B's western terminus.

In the R-2527 project study area, there is low-density development, little agriculture, and the occasional single-family lot or small business near major roads and intersections. Residential areas are generally found down intersecting roads in neighborhoods away from the project corridor. Local communities in the demographic study area are Wadeville, Windemere Pointe, and Woodrun. The Samthong Village subdivision of the Wadeville locality, contains a Laotian community of about 30 homes. The community is located off of NC 109 near West Montgomery High School. The project is located outside the town limits of Troy. There are various businesses along NC 24-27 in the project study area.

### **2. Relocation of Residences and Businesses**

The proposed projects will require the relocation of homes and businesses. All relocations will be carried out in accordance with Federal and State laws and regulations. NCDOT's Relocation Assistance Program will be utilized to assist in finding replacement housing for residents relocated by the projects. **Table 19** below presents the anticipated number of homes and businesses which would be relocated by each project alternative. **Appendix C** includes information on NCDOT's relocation assistance program, as well as the relocation reports for each preliminary design alternative. There are no relocation reports specifically for the R-2530B "Best Fit" Build alignment because the information is contained in the Northern and Southern Widening alternative reports. However, no impacts to neighborhood cohesion are anticipated as a result of the widening project regardless of the alternative.

**TABLE 19. HOMES/BUSINESSES TO BE RELOCATED BY THE PROJECTS**

| <b>PROJECT<br/>ALTERNATIVE</b> | <b>A+B1<br/>R-2530B /<br/>B-4974, Alt. 1</b> | <b>A+B4<br/>R-2530B /<br/>B-4974, Alt. 4</b> | <b>C<br/>R-2527</b> | <b>TOTAL<br/>IMPACTS<br/>A+B1+C</b> | <b>TOTAL<br/>IMPACTS<br/>A+B4+C</b> |
|--------------------------------|----------------------------------------------|----------------------------------------------|---------------------|-------------------------------------|-------------------------------------|
| <b>Homes</b>                   | 18                                           | 16                                           | 7                   | 25                                  | 23                                  |
| <b>Businesses</b>              | 24                                           | 19                                           | 3                   | 27                                  | 22                                  |



### **3. Environmental Justice**

Title VI of the Civil Rights Act of 1964 protects individuals from discrimination on the grounds of race, age, color, religion, disability, sex, and national origin. In accordance with Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority and Low-Income Populations" federal agencies are mandated to identify and address any disproportionately high and adverse effects on minority and/or low-income populations. The Order also directs federal agencies to provide minority and low income communities access to public information and meaningful public participation. The three environmental justice principles are:

- 1) to ensure the full and fair participation of all potentially affected communities in the transportation decision-making process;
- 2) to avoid, minimize or mitigate disproportionately high and adverse human health or environmental effects, including social and economic effects, on minority or low income populations; and
- 3) to fully evaluate the benefits and burdens of transportation programs, policies, and activities, upon low-income and minority populations.

A disproportionately high and adverse effect on minority and low-income populations means an adverse effect that:

- 1) Is predominately borne by a minority population and/or a low-income population; or
- 2) Will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the nonminority population and/or non-low income population.

Pockets of minority and potentially low-income populations are present within the R-2530B project area, although there are no large cohesive environmental justice communities in the Direct Community Impact Area. Local planners that were interviewed did not think that the proposed project would adversely or disproportionately impact minority or low-income populations, nor did they indicate that these special populations would be impacted more by widening to the north as opposed to widening to the south.

A Hmong – Lao minority population is located within project R-2527's Demographic Study Area and qualifies as an Environmental Justice community. The community can be reached from SR 1136 (Bruton-Carpenter Road) or NC 109 South. It is not adjacent to the project study corridor, and will not be directly impacted. However, in this ethnic community most of the adults and the elderly do not read or write in any language, including their own.

The R-2530B community impact assessment and final environmental justice technical memorandum and the R-2527 community impact assessment did not find any evidence or indication of discrimination on the basis of race, color, national origin, age, sex, or disability. These assessments did not find any evidence or indication that these projects will result in disproportionately high and adverse impacts on minority or low-income populations.

#### **4. Limited English Proficiency (LEP)**

There are no language groups within the Demographic Study Area in which more than 5% of the adult population or 1,000 persons speak English less than “Very Well”. Therefore, demographic assessment does not indicate the presence of LEP language groups that exceed the Department of Justice’s Safe Harbor threshold requiring written translation of vital documents. However, the Department will include notice of Right of Language Access and may provide Spanish and Hmong interpreters for future meetings for this project, and may include other measures deemed necessary to ensure meaningful participation. Thus, the requirements of Executive Order 13166 appear to be satisfied.

For project R-2530B, enhanced outreach measures, such as, multilingual notices publicizing upcoming workshops and meeting activities will be considered and posted at locations, such as, the Sweet Home Child Development Center and the Greater Victory Temple Ministries, the Church of Our Lord Jesus, Resurrection Church, St. Delight Church, Union Chapel, the Tienda Mexicana Guerrero Market, the Me Kong Oriental Market, the Harvey Morris Mobile Home Park and the Shady Oaks Mobile Home Park.

For project R-2527, enhanced outreach measures and oral interpretation at public meetings will be considered to ensure that the minority population is aware of the project and any detours required during construction. Specifically, the Hmong and Lao Assistance Association will be contacted as part of public outreach activities.

#### **5. Bicycle and Pedestrian Facilities and Scenic Byways**

There are two designated bicycle routes along NC 24-27 and several intersecting roadways including NC 740, SR 1720 (Valley Drive), SR 1739 (McNeil Road), NC 73 and SR 1150 (River Road). The Piedmont Spur NC Bike Route 6 follows SR 1720, Valley Drive, before following NC 24-27 eastward across the Pee Dee River then turning north on SR 1150, River Road. The Stanly County Bike Route 2 follows NC 24-27 from SR 1720, Valley Drive, eastward (concurrently with Bike Route 6) before turning south on SR 1739, McNeil Road. The Sandhills Sector Bike Route starts at the NC 24-27 / NC 73 intersection and continues south and east for 125 miles to the Cape Fear River. Local officials in Stanly County indicated that they would prefer the inclusion of bicycle facilities along the entire R-2530B project study area to increase bicycle safety and improve the bicycle network through the Albemarle area. Montgomery County officials have indicated that they are supportive of bicycle facilities along the existing bike routes in the R-2527 project study area.

Short sections of sidewalk have been constructed in front of several new businesses along existing NC 24-27 in the Albemarle city limits within the R-2530B project limits. No other sidewalk exists within the project area. According to local officials, no trails or greenways exist

within the R-2530B, B-4974 or R-2527 project study areas or are planned in these areas. They have suggested that existing Bridge No. 51 over the Pee Dee River could be utilized as a pedestrian bridge for any potential future greenway or trail system. In September 2011, the Stanly County commissioners voted unanimously to move forward with taking over the maintenance and preservation efforts of the historic bridge. A written agreement between NCDOT and Stanly County should occur prior to the selection of the least environmentally damaging practicable alternative (LEDPA) so the NEPA 404 merger team can make a fully informed decision between alternatives.

The 46-mile Sandhills Scenic Drive is a NCDOT Scenic Byway. It passes through Montgomery County on NC-24-27 from Albemarle in Stanly County to Carthage in Moore County.

Mountain bike trails in the Uwharrie National Forest have been established by the Uwharrie Mountain Bike Association (UMBA). The Wood Run Mountain Bike Trail System starts at the trailhead parking lot on NC-24-27 and continues north throughout the Forest. The bike trail system can also be accessed from SR 1150, River Road.

## **6. Recreational Facilities**

There are no local parks within the proposed R-2527 and R-2530B project study areas. However, Stanly and Montgomery Counties have many recreational options. There are access points for boating, bike and nature trails along the project. The Uwharrie National Forest, Lake Tillery and Badin Lake all provide recreational opportunities for locals and visitors, such as camping, fishing, hunting, and hiking. Hikers can access the 20-mile Uwharrie National Recreational Trail and the 8-mile Dutchman's Creek Trail from the unpaved, trailhead parking lot adjacent to project R-2527. Public gamelands cross the project corridor at points between the NC 24-27 / SR 1150 (River Road) intersection and the NC 24-27 / NC 109 junction. These United States Forest Service gamelands are within the Uwharrie National Forest habitat.

## **7. Public Facilities**

Sweet Home Baptist Church, Anderson Grove Baptist Church and cemetery, Victory Deliverance Church and the Stanly Gardens cemetery are located within the R-2530B project study area. The Eastside Volunteer Fire Department Station #2 is the only emergency services facility within R-2530B's Direct Community Impact Area (DCIA) and is located along NC 24-27 west of SR 1739, McNeil Road. The City of Albemarle Police/Fire Department East Station located along Main Street just west of the DCIA are also in close proximity. West Middle School (grades 6-8) is located at the NC-24-27 / NC-109 junction in the R-2527 project study area. Three fire departments serve the R-2527 project study area. The Lake Tillery Fire Department on NC 73 near the Pee Dee River covers the lake communities. The Troy Fire Department covers an area from SR 1137, Landfill Road eastward. The Wadeville

Fire Department district takes in West Middle and West Montgomery High schools and the communities of Wadeville and Liberty Hill.

## **F. Economic Effects**

There may be some economic benefit during construction of the projects due to increased local employment and increased revenue for businesses providing services to construction crews. According to local officials, upon completion of the projects, commercial development could take place at several key intersections (including Indian Mound Road and Stony Gap Road/Valley Drive) or continue along the Albemarle portion of the project corridor. As commercial development takes place, local governments may experience revenue gains resulting from property value and property tax increases. On the other hand, businesses in the vicinity of the corridor could temporarily experience decreases in revenue resulting from construction traffic or decreased access caused by construction activities. Additionally, some businesses and/or community facilities will need to be relocated due to the widening of the roadway. The new road will manage access to adjacent properties through right-ins and right-outs. Excluding construction-related delays, the project should not alter business operations, and the upgraded facility should improve the flow of goods.

## **G. Land Use**

### **1. Existing Land Use and Zoning**

The R-2530B project corridor includes a mix of residential, commercial, and agricultural land uses. Generally speaking, land use plans call for a concentration of development within previously urbanized areas while maintaining the undeveloped nature of existing rural areas. Residential subdivisions, rural residences, vacation homes, manufactured home parks, and farm homes typify residential development throughout the DCIA. Since the majority of the project corridor is relatively rural, most residential development consists of older, rural residences fronting the road and farm houses with access to the corridor. Low density residential subdivisions, single family homes, and vacation homes exist along Strand Drive and Lake Tillery Road in the eastern portion of the DCIA. These homes are a mixture of older one and two story brick and wood frame structures with relatively wooded lots in close proximity to the lake or on lakefront property. Other residential development within the DCIA includes low density or rural houses along arterial streets intersecting the NC 24-27 corridor. Many of these residences are older single story ranch-style structures.

Commercial development throughout project R-2530's DCIA is concentrated within the City of Albemarle, primarily along NC 24-27 and NC 740 (including the intersection of these two roads). Commercial development in these areas includes big-box retailers, highway oriented commercial, and strip commercial development. The Eastgate Plaza is a typical strip commercial development located west of the intersection at NC 740 and NC 24-27. Lowes Home

Improvement is located south of that intersection and a new Wal-Mart is located just west of the DCIA along NC 740. Numerous other commercial developments including gas stations, restaurants, and other retail stores are located along both corridors within the Albemarle portion of the DCIA.

The Brookwood Industrial Park is located along NC 24-27 within project R-2530's DCIA (west of the intersection with Anderson Church Road). This industrial park contains a mixture of office and light industry, with vacant lots remaining for development. Additionally, several other businesses exist within the DCIA along the NC 24-27 corridor east of Albemarle, primarily at key intersections and in close proximity to Lake Tillery.

The R-2527 project corridor has low-density development, little agriculture, and the occasional single-family lot or small business near major roads and intersections. Current land use along R-2527 is zoned residential with clusters of light industrial and commercial uses. The project is located outside the town limits of Troy. No notable development is occurring along the project, and forest covers most of the land along the project. Montgomery County is 80% forested, more than any other county in the North Carolina Piedmont, and the project crosses through Uwharrie National Forest territory. Most of the homes are modest single-family stick built brick or wood houses.

The businesses within project R-2527's study area, some boat shops and gun stores, appeal to the outdoorsman, while capitalizing on the regional connection to nature. Many others are real estate agencies. There is an active commercial site at the River Road intersection where a gas station and local restaurant are located. The Uwharrie Environmental Landfill and Recycling Center is located off of SR 1137, Landfill Road. McRae Industries and Troy Ready Mix are located on NC 24-27 between the NC 109 junction and SR 1138, Dairy Road. McRae Industries makes military combat boots and bar code reading and printing devices. Troy Ready Mix is a sand, cement, and concrete company in the construction industry. The Troy Industrial/Business Park is located at SR 1138, Dairy Road.

## **2. Future Land Use**

Based upon the fact that TIP Project R-2530B and R-2527 are widening projects on existing location, it was determined that the potential for growth impacts would be within a 2-mile radius of the project alignment. This 2-mile radius, referred to as the Future Land Use Study Area (FLUSA), is the area within which the project has the potential to induce land use change, and will determine the data collection and analysis area, but will not necessarily be the extent of the growth impact that is expected to occur. Most of the growth on the east side of the river is occurring due to the proximity of the river and Lake Tillery, and would likely occur with or without TIP Project R-2530B. This low rate of population growth would suggest that residential and commercial development within the County will also grow at a slow rate. A lack of development pressure, lack of public utilities throughout much of the FLUSA, and large amount of developable land, likely indicate that there is a greater than 20-year supply of land available for development within the FLUSA of TIP Project R-2530B.

Growth Impact Study Areas are specific sites or areas within the Future Land Use Study Area where land use changes could be probable, as a result of the project. For project R-2527, the Growth Impact Study Areas are at the Montgomery side of the Lake Tillery shoreline, and where the future Troy Bypass will link up with the project corridor at Dairy and Saunders roads. Privately owned tracts of land within the fragmented Uwharrie Forest and existent residential lots along the project corridor, are also areas of potential development or land use changes.

### **3. Project Compatibility with Local Plans**

NC 24-27 is listed as a minor arterial in the *Stanly County Thoroughfare Plan*, while the *City of Albemarle Thoroughfare Plan* lists the road as a major thoroughfare. Both of these plans recommend widening NC 24-27 to a four-lane facility. The plans also include a recommendation to consult the NCDOT Division of Bicycle and Pedestrian Transportation when widening roadway facilities in Stanly County. These plans are consistent with the improvements proposed by NCDOT for project R-2530B.

NC 24-27 is listed as an expressway in the *Draft Montgomery County Comprehensive Transportation Plan*. This plan recommends widening NC 24-27 to a four-lane facility. These plans are consistent with the improvements proposed by NCDOT for project R-2530B.

### **H. Indirect and Cumulative Effects**

Typically when a road is widened on existing location to a multi-lane, divided roadway, land around the upgraded facility will sometimes become more attractive for development. This is especially true at intersections or interchanges next to multi-access facilities. Collectively, the upgrades to NC-24-27 as part of projects R-2530B, B-4974 and R-2527 could possibly result in some growth along the corridor and in the towns of Troy and Albemarle. However, the R-2527 leg of the NC-24-27 upgrades alone has a low likelihood of influencing intra-regional location decisions throughout the Future Land Use Study Area because it passes through federally regulated lands that have lower private development potential.

Existing land planning regulations, including zoning and water supply watershed development regulations are in place, and the construction of these projects should not alter land use patterns considerably. For these reasons, indirect and cumulative effects to existing resources, including downstream water quality within the FLUSA, should be minimal. Further analysis of indirect and cumulative effects does not appear to be warranted.

### **I. Flood Hazard Evaluation**

The Pee Dee River, at this location, is the boundary between Stanly and Montgomery Counties. Both counties are participants in the National Flood Insurance Regular Program, which

is administered by the Federal Emergency Management Agency (FEMA). Based on the most current information available from the NC Floodplain Mapping Program (FMP), five of the eight stream crossings on Project R-2527 and the river crossing on Project B-4974 are in designated flood hazard zones which will require coordination with FEMA.

The proposed culvert extensions and bridge replacement will provide equivalent or greater conveyance than that of the existing culverts and bridge. **Figures 6A-6D** depict the Flood Insurance Rate Maps (FIRM) in the vicinity of these crossings, the limits of the 100-year floodplain and floodway in the vicinity of projects B-4974 and R-2527.

The NCDOT Hydraulics Unit will coordinate with the FMP, the delegated state agency for administering FEMA's National Flood Insurance Program, to determine the status of the project with regard to applicability of NCDOT'S Memorandum of Agreement with FMP, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR). It is anticipated the proposed projects will not have a significant adverse effect on the existing floodplain or on the associated flood hazards.

This project involves construction activities on or adjacent to a FEMA regulated stream. Therefore, the Division shall submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction, certifying that the drainage structures and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

## **J. Highway Traffic Noise**

In accordance with Title 23 Code of Federal Regulations Part 772, Procedures for Abatement of Highway Traffic Noise and Construction Noise (Title 23 CFR 772) and the July 13, 2011 North Carolina Department of Transportation Traffic Noise Abatement Policy, each Type I highway project must be analyzed for predicted traffic noise impacts. In general, Type I projects are proposed Federal or Federal-aid highway projects for construction of a highway or interchange on new location, improvements of an existing highway that significantly changes the horizontal or vertical alignment or increases the vehicle capacity, or projects that involve new construction or substantial alteration of transportation facilities such as weigh stations, rest stops, ride-share lots or toll plazas.

Traffic noise impacts are determined through implementing the current Traffic Noise Model (TNM®) approved by the Federal Highway Administration and by following procedures detailed in Title 23 CFR 772 and the NCDOT Traffic Noise Analysis and Abatement Manual. When traffic noise impacts are predicted, examination and evaluation of alternative noise abatement measures must be considered for reducing or eliminating these impacts. Temporary and localized noise impacts will likely occur as a result of project construction activities. Construction noise control measures will be incorporated into the project plans and specifications.

A copy of the unabridged version of the full technical report entitled *Revised Traffic Noise Analysis*, dated December 5, 2011, can be viewed in the Project Development & Environmental Analysis Unit, Century Center Building A, 1010 Birch Ridge Drive, Raleigh.

## 1. Traffic Noise Impacts and Noise Contours

The maximum number of receptors in each project alternative predicted to become impacted by future traffic noise is shown in the **Table 20** below. The table includes those receptors expected to experience traffic noise impacts by either approaching or exceeding the FHWA Noise Abatement Criteria or by a substantial increase in exterior noise levels as defined in the NCDOT Traffic Noise Abatement Policy.

The maximum extents of the 72- and 67- dB(A) noise level contours measured from the center of the proposed roadway are 94 feet and 160 feet, respectively, for Project R-2530B, and 96 feet and 159 feet, respectively, for Project R-2527.

**TABLE 20 - PREDICTED TRAFFIC NOISE IMPACTS BY ALTERNATIVE\***

| Alternative          | Predicted Traffic Noise Impacts |                                       |       |
|----------------------|---------------------------------|---------------------------------------|-------|
|                      | Residential<br>(NAC B)          | Churches/Schools, etc.<br>(NAC C & E) | Total |
| <b>R-2530B</b>       |                                 |                                       |       |
| Symmetrical Widening | 29                              | 1                                     | 30    |
| North Side Widening  | 16                              | 1                                     | 17    |
| South Side Widening  | 19                              | 0                                     | 19    |
| <b>R-2527</b>        |                                 |                                       |       |
| Symmetrical Widening | 9                               | 0                                     | 9     |
| North Side Widening  | 11                              | 0                                     | 11    |
| South Side Widening  | 7                               | 0                                     | 7     |

\*Per TNM<sup>®</sup> 2.5 and in accordance with 23 CFR Part 772



## **2. No-Build Alternative**

The Traffic Noise Analysis also considered traffic noise impacts for the “no-build” alternative. If the proposed project does not occur, 5 receptors on Project R-2527 and 7 receptors on Project R-2530B are predicted to experience Design Year traffic noise impacts and the future traffic noise levels will increase by approximately 4 dB(A). Based upon research, humans barely detect noise level changes of 2-3 dBA. A 5-dBA change is more readily noticeable. Therefore, most people working and living near the roadway will notice this predicted increase.

## **3. Traffic Noise Abatement Measures**

Measures for reducing or eliminating the traffic noise impacts were considered for all impacted receptors in each alternative. The primary noise abatement measures evaluated for highway projects include highway alignment changes, traffic system management measures, establishment of buffer zones, noise barriers and noise insulation (NAC D only). For each of these measures, benefits versus allowable abatement measure quantity (reasonableness), engineering feasibility, effectiveness and practicability and other factors were included in the noise abatement considerations.

Substantially changing the highway alignment to minimize noise impacts is not considered to be a viable option for this project due to engineering and/or environmental factors. Traffic system management measures are not considered viable for noise abatement due to the negative impact they would have on the capacity and level of service of the proposed roadway. Costs to acquire buffer zones for impacted receptors will exceed the NCDOT base quantity value of \$37,500 per benefited receptor, causing this abatement measure to be unreasonable.

## **4. Noise Barriers**

Noise barriers include two basic types: earthen berms and noise walls. These structures act to diffract, absorb and reflect highway traffic noise. For this project, earthen berms are not found to be a viable abatement measure because the additional right of way, materials and construction costs are estimated to exceed the NCDOT maximum allowable quantity of 7,000 cubic yards of earthen berms per benefited receptor, as defined in the NCDOT Traffic Noise Abatement Policy.

This project will maintain uncontrolled or partial access, meaning that most commercial establishments and residences will have direct access connections to the proposed project, and all intersections will adjoin the project at grade. Businesses, churches and other related establishments require accessibility and high visibility. Noise barriers do not allow uncontrolled or partial access, easy accessibility or high visibility, and would therefore not be acceptable abatement measures for this project. The project Traffic Noise Analysis identified no areas where potential traffic noise abatement measures are feasible and reasonable, as defined in the NCDOT Traffic Noise Abatement Policy.

## **5. Summary**

Based on this preliminary study, traffic noise abatement is not recommended and no noise abatement measures are proposed. This evaluation completes the highway traffic noise requirements of Title 23 CFR Part 772. No additional noise analysis will be performed for this project unless warranted by a significant change in the project scope, vehicle capacity or alignment.

In accordance with NCDOT Traffic Noise Abatement Policy, the Federal/State governments are not responsible for providing noise abatement measures for new development for which building permits are issued after the Date of Public Knowledge. The Date of Public Knowledge of the proposed highway project will be the approval date of the Finding of No Significant Impact (FONSI). For development occurring after this date, local governing bodies are responsible to insure that noise compatible designs are utilized along the proposed facility.

## **K. Air Quality**

Air pollution originates from various sources. Emissions from industry and internal combustion engines are the most prevalent sources. The impact resulting from highway construction ranges from intensifying existing air pollution problems to improving the ambient air quality. Changing traffic patterns are a primary concern when determining the impact of a new highway facility or the improvement of an existing highway facility.

The project is located in Montgomery and Stanly Counties, which have been determined to comply with the National Ambient Air Quality Standards. The proposed project is located in an attainment area; therefore, 40 CFR Parts 51 and 93 are not applicable. This project is not anticipated to create any adverse effects on the air quality of this attainment area.

### **1. Mobile Source Air Toxics (MSATs)**

Recently, concerns for air toxics impacts are more frequent on transportation projects during the NEPA process. Transportation agencies are increasingly expected by the public and other agencies to address MSAT impacts in their environmental documents as the science emerges. Mobile Source Air Toxics (MSATs) analysis is a continuing area of research where, while much work has been done to assess the overall health risk of air toxics, many questions remain unanswered. In particular, the tools and techniques for assessing project-specific health impacts from MSATs are limited. These limitations impede FHWA's ability to evaluate how mobile source health risks should factor into project-level decision-making under the National Environmental Policy Act (NEPA).

Nonetheless, air toxics concerns continue to be raised on highway projects during the NEPA process. Even as the science emerges, we are duly expected by the public and other agencies to address MSAT impacts in our environmental documents. The FHWA, EPA, the Health Effects Institute, and others have funded and conducted research studies to try to more clearly define potential risks from MSAT emissions associated with highway projects. The FHWA will continue to monitor the developing research in this emerging field.

Also, EPA has not established regulatory concentration targets for the six relevant MSAT pollutants appropriate for use in the project development process. FHWA has several research projects underway to more clearly define potential risks from MSAT emissions associated with transportation projects. While this research is ongoing, FHWA requires each NEPA document to qualitatively address MSATs and their relationship to the specific highway project through a tiered approach (US DOT, Federal Highway Administration memorandum, "Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA Documents", September 30, 2009).

What we know about mobile source air toxics is still evolving. As the science progresses FHWA will continue to revise and update this guidance. To that end we expect that a number of significant improvements in model forecasting and air pollution analysis guidance are forthcoming in the EPA's release of the final MOVES model and the issuance of the PM 2.5 Hot Spot Modeling Guidance.

A qualitative analysis of MSATs for this project appears in its entirety in the project *Revised Air Quality Analysis* dated December 5, 2011. A copy of this report may be viewed in the Project Development & Environmental Analysis Unit office, Century Center Building B, 1000 Birch Ridge Drive, Raleigh.

During construction of the proposed project, all materials resulting from clearing and grubbing, demolition or other operations will be removed from the project, burned or otherwise disposed of by the Contractor. Any burning done will be done in accordance with applicable local laws and ordinances and regulations of the North Carolina SIP for air quality in compliance with 15 NCAC 2D.0520. Care will be taken to insure burning will be done at the greatest distance practical from dwellings and not when atmospheric conditions are such as to create a hazard to the public. Burning will be performed under constant surveillance. Also during construction, measures will be taken to reduce the dust generated by construction when the control of dust is necessary for the protection and comfort of motorists or area residents. This evaluation completes the assessment requirements for air quality of the 1990 Clean Air Act Amendments and the NEPA process, and no additional reports are necessary.

## **2. Summary**

Vehicles are a major contributor to decreased air quality because they emit a variety of pollutants into the air. Changing traffic patterns are a primary concern when determining the impact of a new highway facility or the improvement of an existing highway facility. New highways or the widening of existing highways increase localized levels of vehicle emissions, but

these increases could be offset due to increases in speeds from reductions in congestion and because vehicle emissions will decrease in areas where traffic shifts to the new roadway. Significant progress has been made in reducing criteria pollutant emissions from motor vehicles and improving air quality, even as vehicle travel has increased rapidly.

#### **L. Hazardous Materials**

Based on a field reconnaissance survey and database review of the project area, twenty one (21) possible UST facilities, one (1) junk yard and one (1) tire dump were identified within the proposed project corridor. No Hazardous Waste Sites and no apparent landfills were identified within the project limits. Preliminary site assessments will be conducted for all potentially contaminated sites within the proposed right of way prior to right of way acquisition. Please note that discovery of additional sites not recorded by regulatory agencies and not reasonably discernable during the project reconnaissance may occur. The GeoEnvironmental Section should be notified immediately after discovery of such sites so their potential impact(s) may be assessed. Potentially contaminated properties within the project study areas are presented in **Table 21** and **Figures 7A and 7B**.

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**TABLE 21 - POTENTIALLY HAZARDOUS MATERIALS SITES**

| <b>Site No.</b> | <b>Site Name</b>     | <b>Facility ID No.</b>    | <b>Location</b>                                                |
|-----------------|----------------------|---------------------------|----------------------------------------------------------------|
| 1               | Rite Aid             | <b>0-008321</b>           | NW quadrant, E Main Street / NC 740 intersection               |
| 2               | Walgreen's           | <b>0-002057</b>           | SE quadrant, E Main Street / NC 740 intersection               |
| 3               | Vacant lot           | <b>None</b>               | South side of E Main Street, 1100' east of NC 740              |
| 4               | Shell                | <b>0-036518</b>           | NW quadrant, Barnard Street / E Main Street intersection       |
| 5               | Lee & Co.            | <b>None</b>               | South side of E Main Street, 275' west of Anderson Rd.         |
| 6               | Vacant Dwelling      | <b>0-026106</b>           | North side of E Main Street, 275' east of Staley Street        |
| 7               | Flagstone Realty     | <b>None</b>               | South side of E Main Street, 500' west of Anderson Rd.         |
| 8               | Sinclair             | <b>None</b>               | South side of E Main Street, 350' west of Anderson Rd.         |
| 9               | Deeck Mechanical     | <b>None</b>               | South side of E Main Street, 350' west of Anderson Rd.         |
| 10              | Midway Salvage       | <b>0-008715</b>           | SE quadrant, E Main Street/ Anderson Road intersection         |
| 11              | Custom Accessories   | <b>None</b>               | North side of E Main Street, 190' east of Anderson Rd.         |
| 12              | Stanly Salvage       | <b>None</b>               | North side of NC 24-27, 1500' east of Sweet Home Church Rd.    |
| 13              | Min O Pon            | <b>0-209440, 0-009440</b> | North side of NC 24-27, 2300' east of Sweet Home Church Rd.    |
| 14              | Castaways            | <b>None</b>               | North side of NC 24-27, 575' east of McNeil Road               |
| 15              | Tillery Sportsman BP | <b>0-008319</b>           | SW quadrant, Indian Mound Road Ext. / NC 24-27 intersection    |
| 16              | Tillery Realty       | <b>None</b>               | SE quadrant, Indian Mound Road Ext. / NC 24-27 intersection    |
| 17              | Vacant Garage        | <b>None</b>               | SW quadrant, Indian Mound Road/ NC 24-27 intersection          |
| 18              | Norman Residence     | <b>None</b>               | North side of NC 24-27, 550' east of Bridge No. 51             |
| 19              | Remax Properties     | <b>0-020889</b>           | East side of NC 73, 640' south of NC 24-27                     |
| 20              | Uwharrie Sportsman   | <b>0-021230</b>           | SW quadrant, River Road / NC 24-27 intersection                |
| 21              | Swift Island BP      | <b>0-036545</b>           | NE quadrant, River Road / NC 24-27 intersection                |
| 22              | Greene's Guns & Ammo | <b>None</b>               | North side of NC 24-27, 1000' west of Liberty Hill Church Road |
| 23              | Undeveloped          | <b>None</b>               | West side of NC 109, 1800' south of NC 24-27                   |

## **VI. COMMENTS AND COORDINATION**

### **A. Citizens Informational Workshop**

A Citizens informational workshop for projects R-2530B, B-4974 and R-2527 was held on November 18, 2010 at the Stanly County Commons building in Albemarle to obtain comments and suggestions about the projects from the public. Approximately 80 people attended the meeting. The meeting was advertised through local newspapers, and flyers were sent to property owners and citizens in the project area. See **Appendix E** for

the Citizens Informational Workshop handout and the meeting announcement flyer. Many of the comments heard at the meeting concerned likely project effects on individual properties. Property owners discussed problems entering traffic at the NC 24-27 / SR 1720 (Valley Drive) intersection due to sight distance issues. The proposed project will eliminate conflict points at the intersection by utilizing a Superstreet design. The through and left turning traffic from the side street approach is directed to turn right, proceed to the nearby U-turn and then return to its original course, and an additional through lane will be provided on NC 24-27 to more evenly distribute through traffic spacing and movement. Also, concerns were expressed regarding the raised median through the Albemarle city limits and accessibility to businesses in this area if a continuous turn lane was not constructed. The proposed project plans currently show a raised median through the Albemarle city limits area, and the plans currently show full movement intersections at the NC 24-27 / Barnard Street / Anderson Road intersection and the NC 24-27 / Anderson Grove Church Road / Anderson Road intersection. The final decision concerning whether these full movement intersections will be revised will be made after the public hearing.

## **B. Public Hearing**

A public hearing for the projects will be held following approval of this document. The alternatives still under consideration for the project will be presented to the public for their comments at the hearing. The recommended alternative for the projects will be selected following the hearing. Citizen comments will be taken into consideration in the selection of a recommended alternative, and comments received at the hearing will be reviewed by the NCDOT and will be incorporated into the project, as feasible and practicable.

## **C. NEPA/404 Merger Process**

This project has followed the NEPA/404 merger process. The merger process is an interagency procedure integrating the regulatory requirements of Section 404 of the Clean Water Act into the National Environmental Policy Act decision making process.

Representatives of the Federal Highway Administration, the US Army Corps of Engineers and NCDOT served as co-chairs for the merger team. The following agencies also participated on the NEPA/404 merger team for this project:

- US Fish and Wildlife Service
- US Environmental Protection Agency
- US Forest Service
- NC Department of Cultural Resources
- NC Division of Water Quality
- NC Wildlife Resources Commission

The merger team has concurred on the purpose and need, alternatives to be studied in detail and wetlands/streams to be bridged. The merger team will select the least environmentally damaging preferred alternative for the projects following the public hearing. The team will also concur on further avoidance and minimization measures for the project following selection of the preferred corridor. See **Appendix B** for the NEPA 404 Merger team concurrence forms.

#### **D. Other Agency Coordination**

NCDOT has coordinated with appropriate federal, state and local agencies throughout the project development study. Comments on the projects have been requested from the agencies listed below. Asterisks indicate a response was received. Copies of the comments received are included in **Appendix A**.

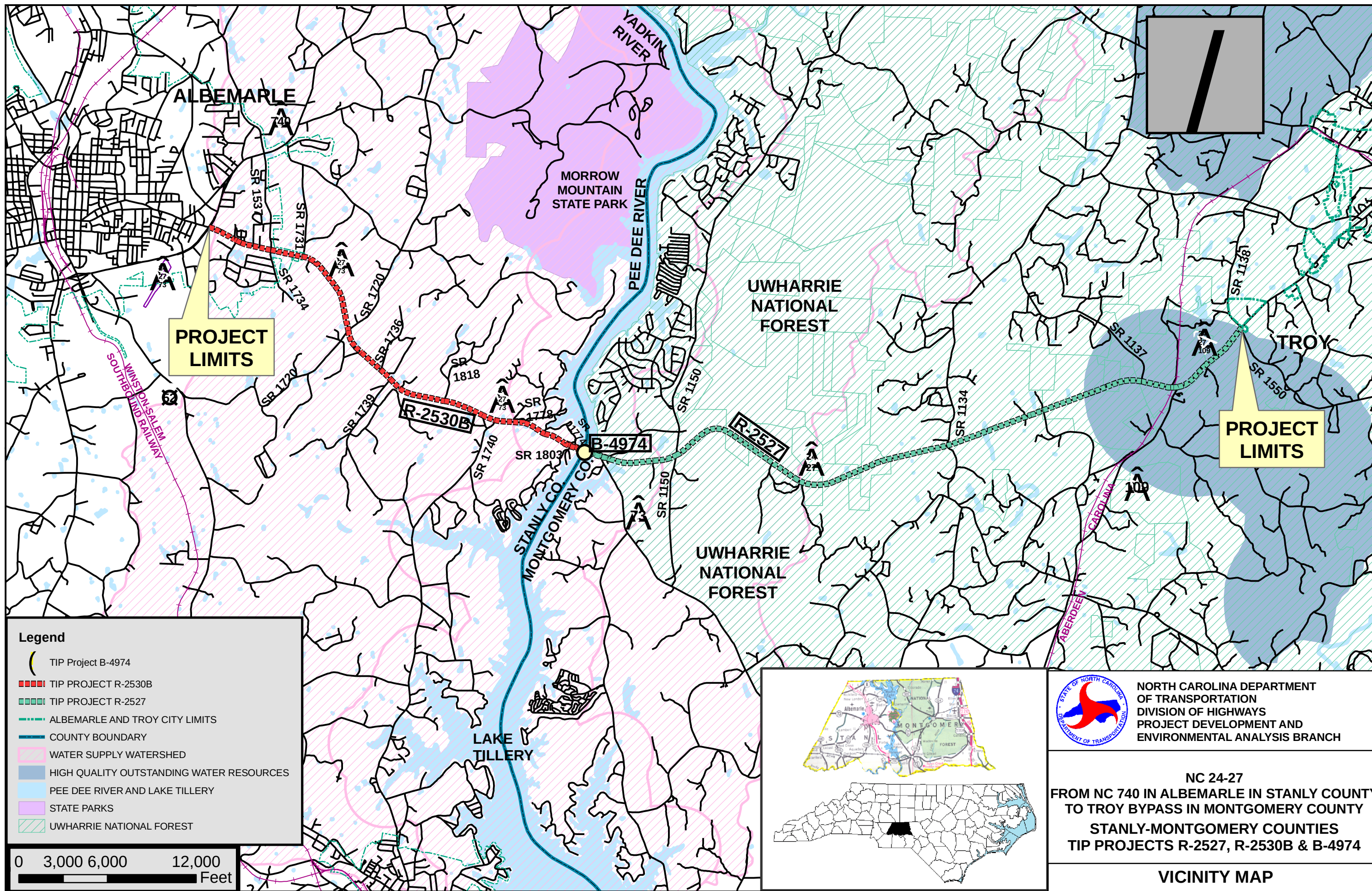
- US Department of the Army - Corps of Engineers
- US Environmental Protection Agency
- \*US Fish and Wildlife Service
- US Forest Service
- Federal Energy Regulatory Commission (FERC)
- US Geological Survey
- \*NC Department of Administration - State Clearinghouse
- \*NC Department of Cultural Resources-State Historic Preservation Office
- NC Department of Environment and Natural Resources-DENR
- \*DENR-NC Division of Water Quality
- \*DENR-NC Wildlife Resources Commission
- \*DENR-NC Division of Forest Resources
- \*DENR-NC Natural Heritage Program
- \*DENR-NC Division of Soil and Water Conservation
- \*DENR-NC Division of Environmental Health
- NC Division of Parks and Recreation
- \*NC Department of Crime Control and Public Safety - Division of  
Emergency Management
- NC Department of Public Instruction
- \*Centralina Council of Governments
- Rocky River Rural Planning Organization
- Stanley County
- \*City of Albemarle
- Piedmont Triad Council of Governments
- Montgomery County
- Town of Troy

#### **E. FERC Coordination**

Coordination with Progress Energy for potential requirements of the Federal Energy Regulatory Commission (FERC) regarding approvals has been initiated. Preliminary design plans will be forwarded to the appropriate contact. This coordination will continue through the permitting phase of the projects. (See **Project Commitments**.)



# FIGURES

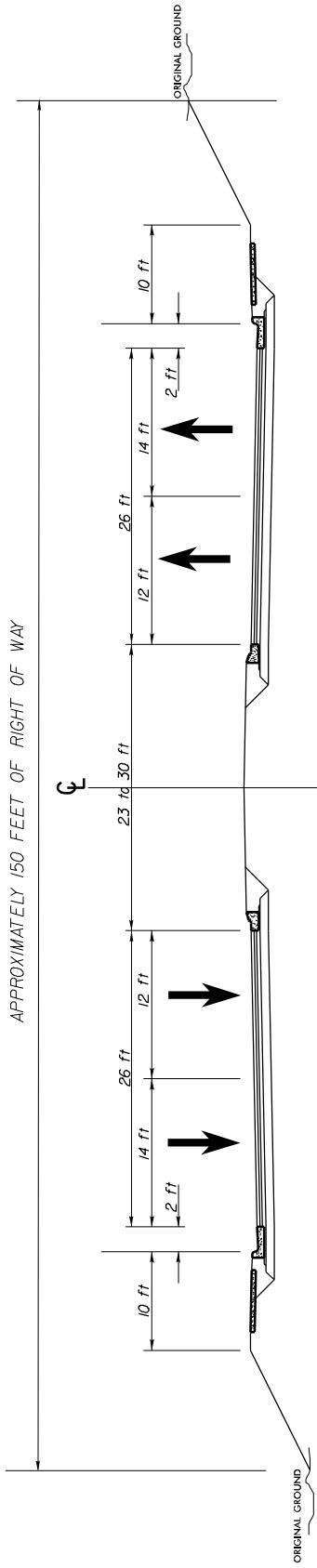




**NORTH CAROLINA DEPARTMENT  
OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
PROJECT DEVELOPMENT AND  
ENVIRONMENTAL ANALYSIS BRANCH**

**NC 24-27  
FROM NC 740 IN ALBEMARLE IN STANLY COUNTY  
TO TROY BYPASS IN MONTGOMERY COUNTY  
STANLY-MONTGOMERY COUNTIES  
TIP PROJECTS R-2527, R-2530B & B-4974**

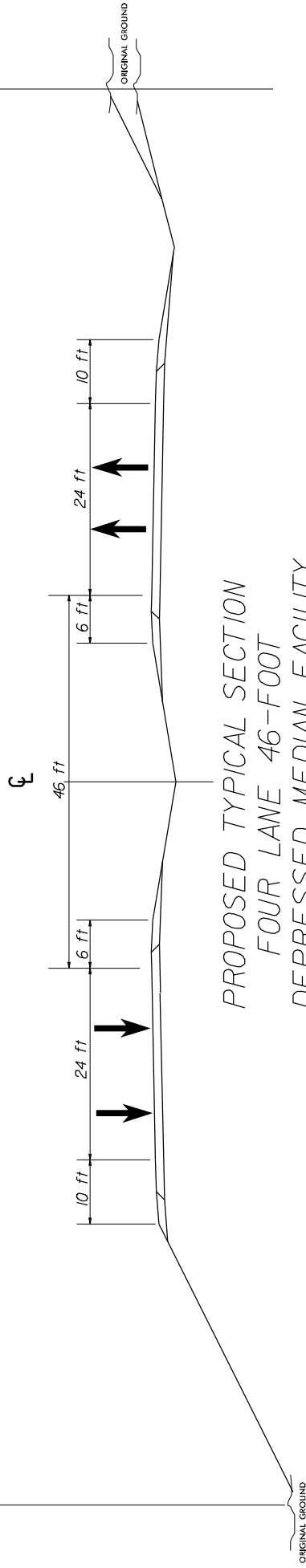
**VICINITY MAP**



PROPOSED TYPICAL SECTION  
FOUR LANE 23 to 30-FOOT  
RAISED MEDIAN FACILITY

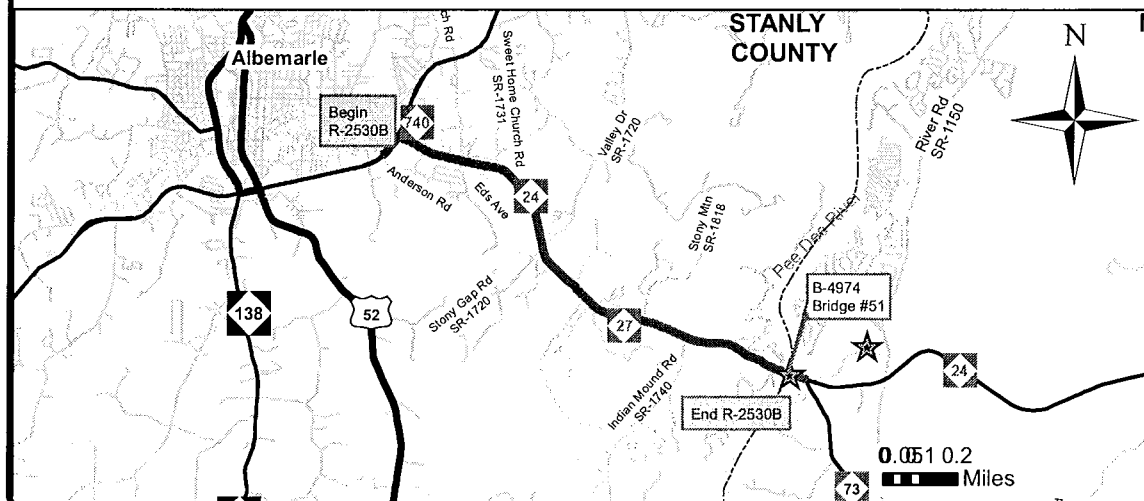
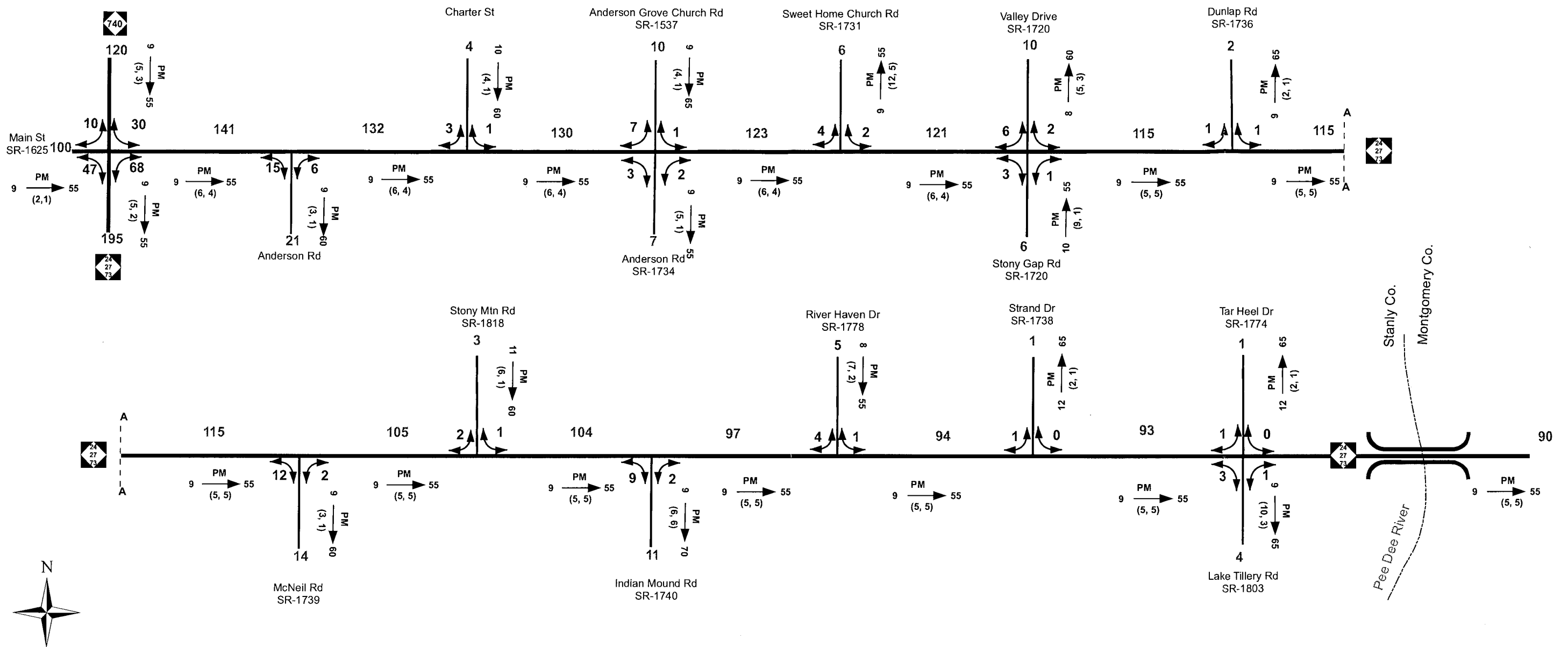
From NC 740 to (SR 1731) Sweet Home Church Road - R-2530B

APPROXIMATELY 250 FEET OF RIGHT OF WAY



PROPOSED TYPICAL SECTION  
FOUR LANE 46-FOOT  
DEPRESSED MEDIAN FACILITY

From (SR 1731) Sweet Home Church Road to the Proposed Troy Bypass (R-623)



## 2010 ANNUAL AVERAGE DAILY TRAFFIC

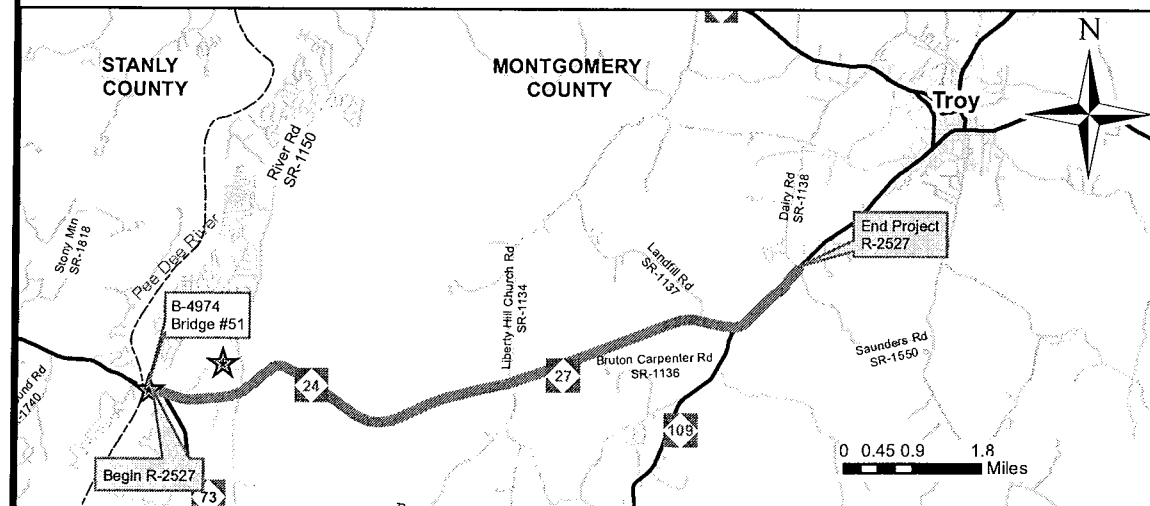
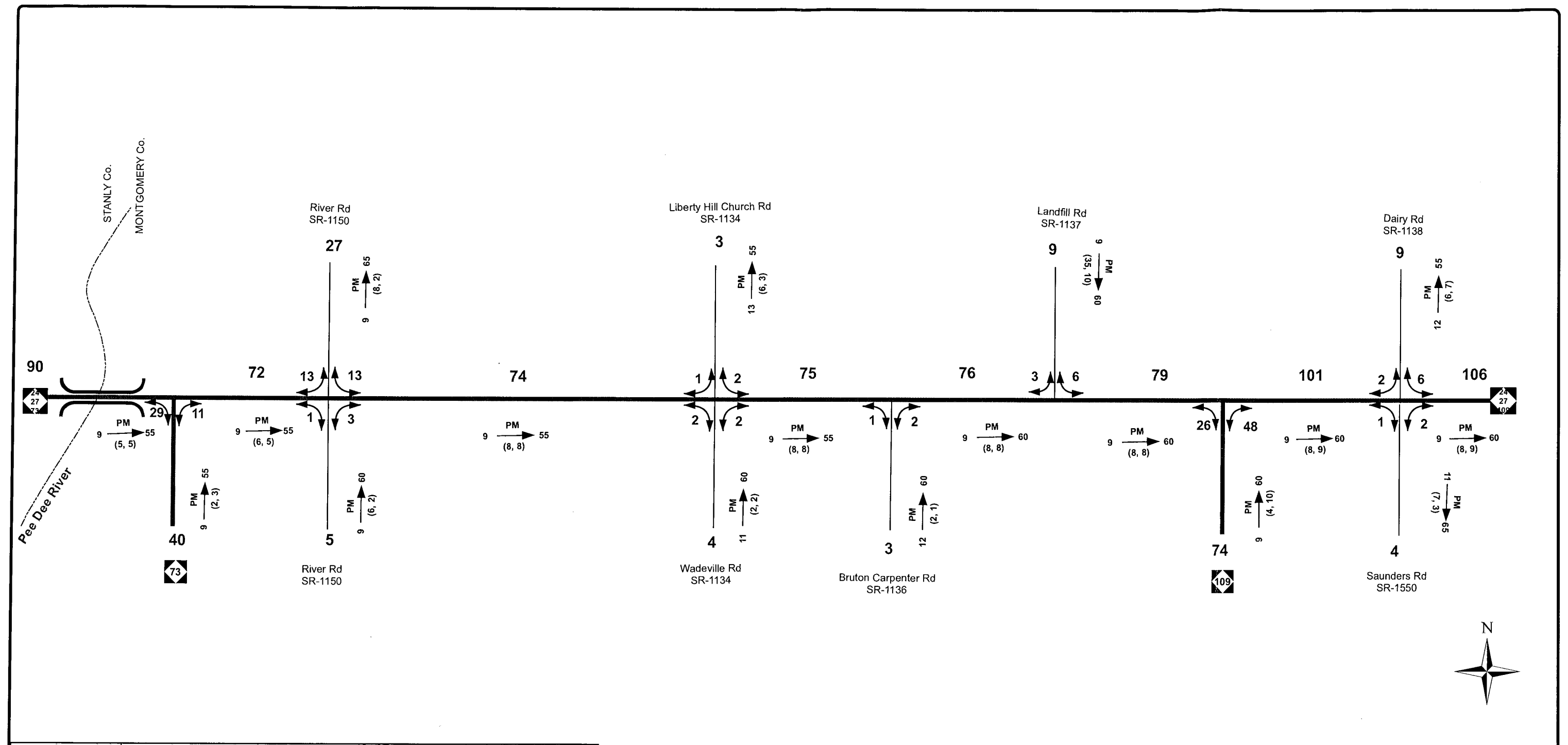
NO BUILD

FIGURE 3A

### LEGEND

- ### No. of Vehicles Per Day (VPD) in 100s
- 1- Less than 50 VPD
- x Movement Prohibited
- ..... Proposed Roadway
- K Design Hour Factor (%)
- PM PM Peak Period
- D Peak Hour Directional Split
- Indicates Direction of D
- (d, t) Duals, TT-STs (%)

|                                                          |                |
|----------------------------------------------------------|----------------|
| TIP: R-2530B                                             | WBS: 35572.1.1 |
| COUNTY: Stanly                                           | DIVISION: 10   |
| DATE: 11-09-2010                                         |                |
| PREPARED BY: Atefe M. Northcutt                          |                |
| LOCATION: NC 24-27 Widening from NC 740 to Pee Dee River |                |
| PROJECT: NC 24-27 Improvements                           |                |



## 2010 ANNUAL AVERAGE DAILY TRAFFIC

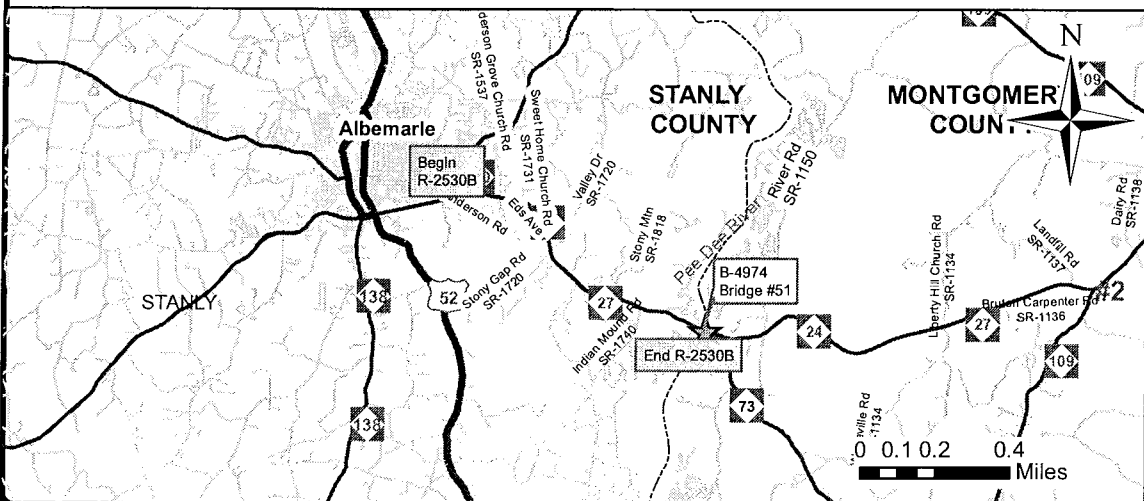
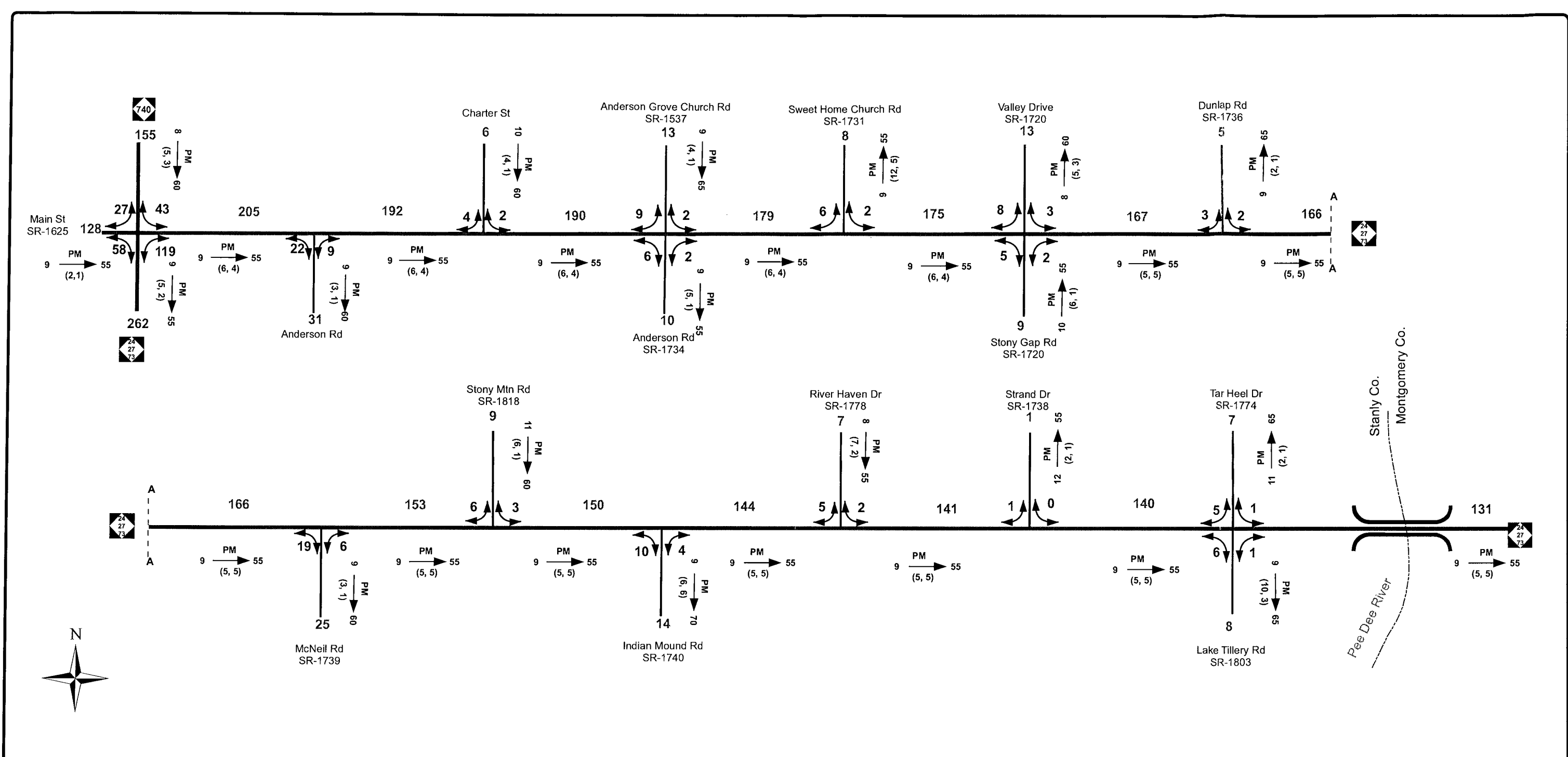
NO BUILD

FIGURE 3B |

### LEGEND

|       |                                       |        |                             |
|-------|---------------------------------------|--------|-----------------------------|
| ###   | No. of Vehicles Per Day (VPD) in 100s | K      | Design Hour Factor (%)      |
| 1-    | Less than 50 VPD                      | PM     | PM Peak Period              |
| X     | Movement Prohibited                   | D      | Peak Hour Directional Split |
| ----- | Proposed Roadway                      | →      | Indicates Direction of D    |
|       |                                       | (d, t) | Duals, TT-STs (%)           |

|                                                           |                |
|-----------------------------------------------------------|----------------|
| TIP: R-2527, B-4974                                       | WBS: 35572.1.1 |
| COUNTY: Montgomery                                        | DIVISION: 8    |
| DATE: 11-09-2010                                          |                |
| PREPARED BY: Atefe M. Northcutt                           |                |
| LOCATION: NC 24-27 Widening from SR 1138 to Pee Dee River |                |
| PROJECT: NC 24-27 Improvements                            |                |



## 2035 ANNUAL AVERAGE DAILY TRAFFIC

BUILD / NO BUILD

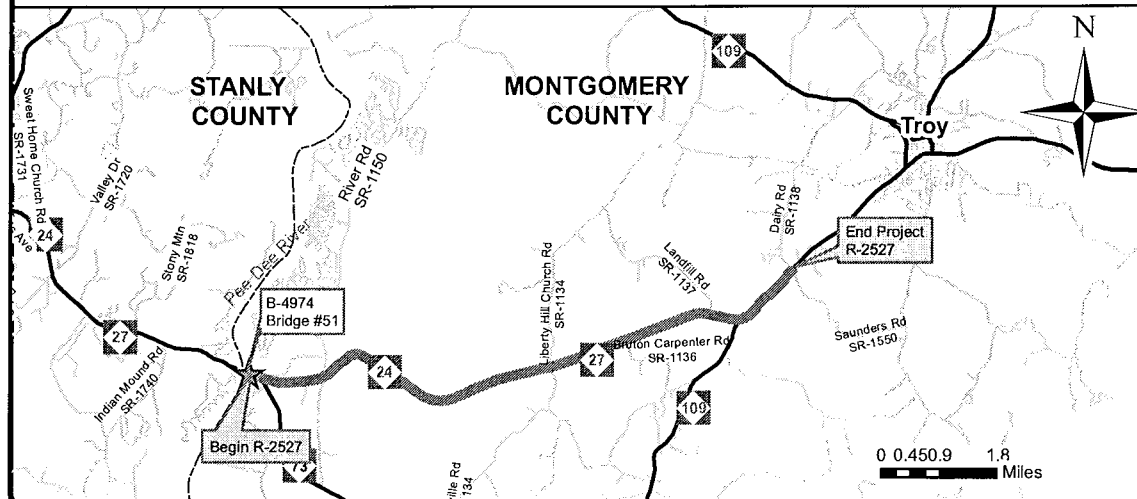
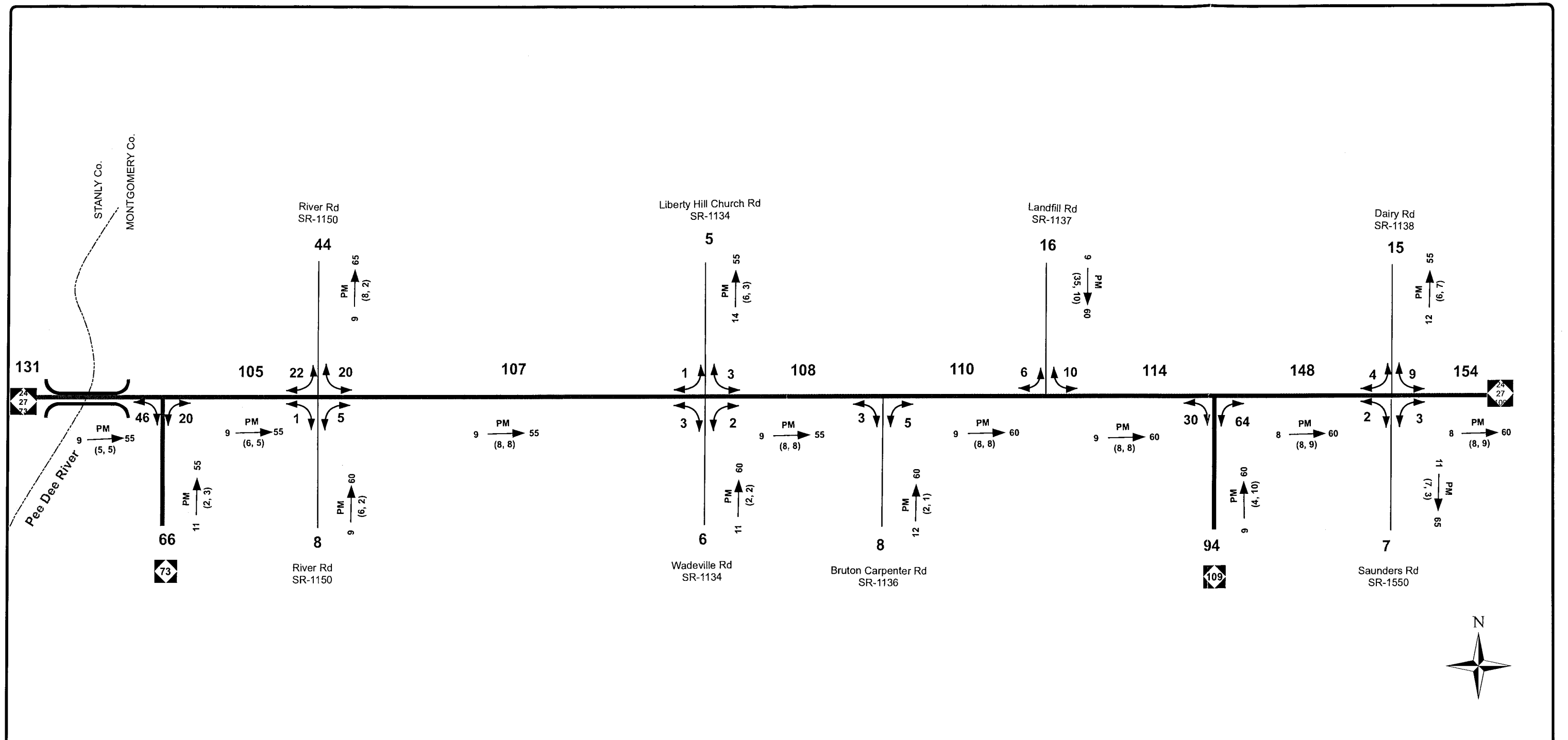
FIGURE 3C

### LEGEND

|       |                                       |        |                             |
|-------|---------------------------------------|--------|-----------------------------|
| ###   | No. of Vehicles Per Day (VPD) in 100s | K      | Design Hour Factor (%)      |
| 1-    | Less than 50 VPD                      | PM     | PM Peak Period              |
| x     | Movement Prohibited                   | D      | Peak Hour Directional Split |
| ----- | Proposed Roadway                      | →      | Indicates Direction of D    |
|       |                                       | (d, t) | Duals, TT-STs (%)           |

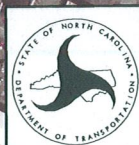
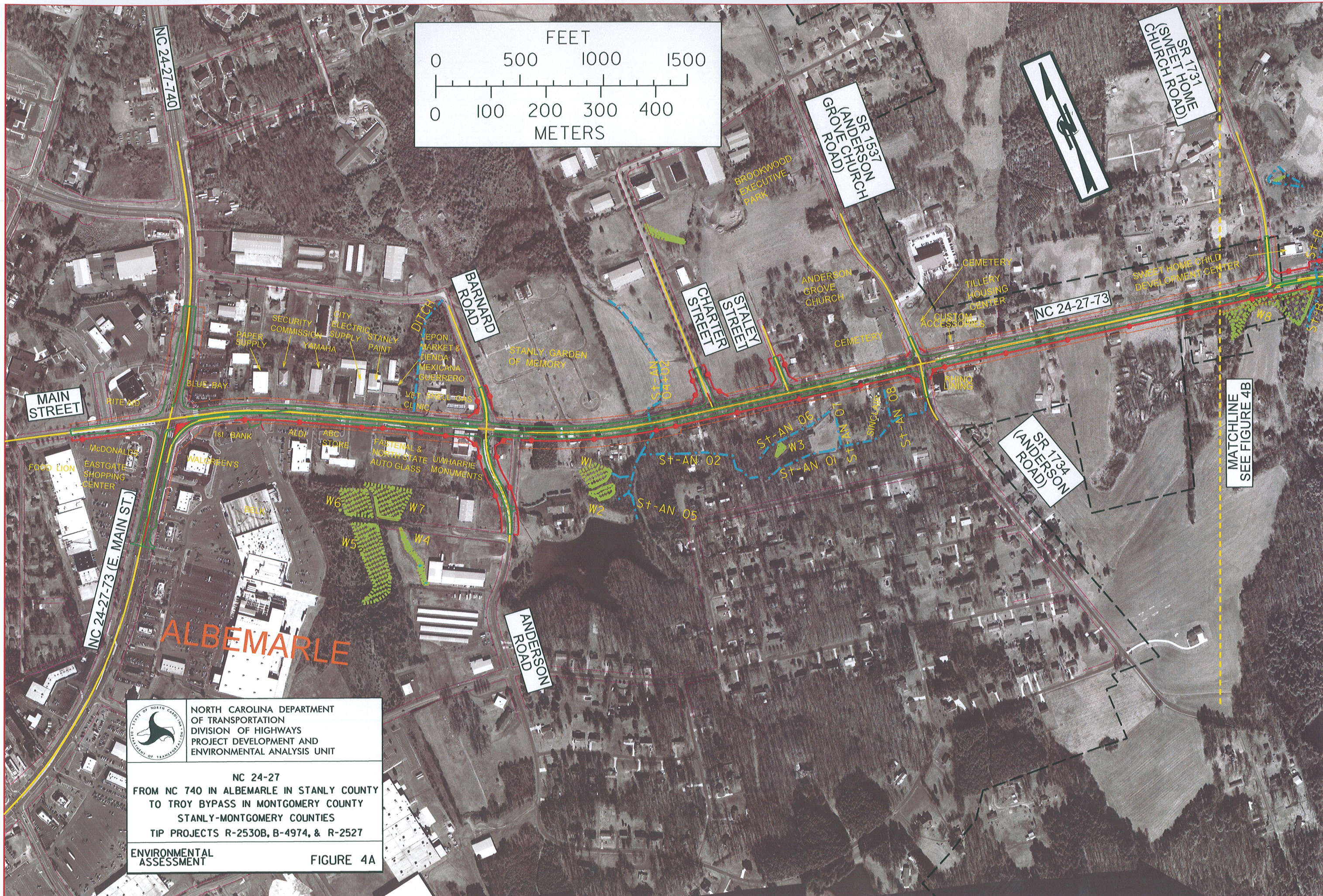
|                                                          |                |
|----------------------------------------------------------|----------------|
| TIP: R-2530B                                             | WBS: 35572.1.1 |
| COUNTY: Stanly                                           | DIVISION: 10   |
| DATE: 11-09-2010                                         |                |
| PREPARED BY: Atefe M. Northcutt                          |                |
| LOCATION: NC 24-27 Widening from NC 740 to Pee Dee River |                |
| PROJECT: NC 24-27 Improvements                           |                |





| 2035 ANNUAL AVERAGE DAILY TRAFFIC                                                                                                                                                                                                                                                   |  | BUILD / NO BUILD                                          | FIGURE 3D      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------|----------------|
| <b>LEGEND</b><br>### No. of Vehicles Per Day (VPD) in 100s<br>1- Less than 50 VPD<br>X Movement Prohibited<br>----- Proposed Roadway<br>K Design Hour Factor (%)<br>PM PM Peak Period<br>D Peak Hour Directional Split<br>————— Indicates Direction of D<br>(d,t) Duals, TT-STs (%) |  | TIP: R-2527, B-4974                                       | WBS: 35572.1.1 |
|                                                                                                                                                                                                                                                                                     |  | COUNTY: Montgomery                                        | DIVISION: 8    |
|                                                                                                                                                                                                                                                                                     |  | DATE: 11-09-2010                                          |                |
|                                                                                                                                                                                                                                                                                     |  | PREPARED BY: Atefe M. Northcutt                           |                |
|                                                                                                                                                                                                                                                                                     |  | LOCATION: NC 24-27 Widening from SR 1138 to Pee Dee River |                |
|                                                                                                                                                                                                                                                                                     |  | PROJECT: NC 24-27 Improvements                            |                |





NORTH CAROLINA DEPARTMENT  
OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
PROJECT DEVELOPMENT AND  
ENVIRONMENTAL ANALYSIS UNIT

NC 24-27  
FROM NC 740 IN ALBEMARLE IN STANLY COUNTY  
TO TROY BYPASS IN MONTGOMERY COUNTY  
STANLY-MONTGOMERY COUNTIES  
TIP PROJECTS R-2530B, B-4974, & R-2527

ENVIRONMENTAL  
ASSESSMENT

FIGURE 4A



SR 1731  
(SWEET HOME  
CHURCH ROAD)

SWEET HOME  
CHILD  
DEVELOPMENT  
CENTER

WET  
SEEP  
St-HH

STANLY SALVAGE

VICTORY  
DELIVERANCE  
UNITED

NC 24-27-73

SCHWEINITZ'S  
SUNFLOWER

WHITLEY WELL  
DRILLING

SR 1720  
(VALLEY DRIVE)

MATCHLINE  
SEE FIGURE 4C

MATCHLINE  
SEE FIGURE 4A



NORTH CAROLINA DEPARTMENT  
OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
PROJECT DEVELOPMENT AND  
ENVIRONMENTAL ANALYSIS UNIT

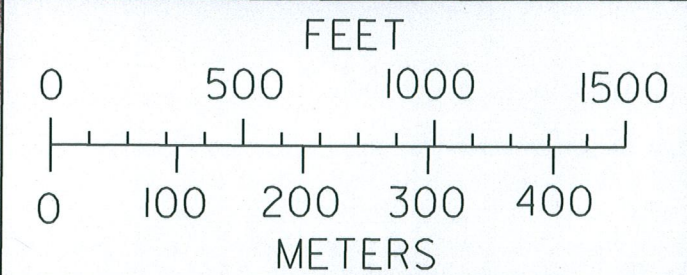
NC 24-27  
FROM NC 740 IN ALBEMARLE IN STANLY COUNTY  
TO TROY BYPASS IN MONTGOMERY COUNTY  
STANLY-MONTGOMERY COUNTIES  
TIP PROJECTS R-2530B, B-4974, & R-2527

ENVIRONMENTAL  
ASSESSMENT

FIGURE 4B

LEGEND

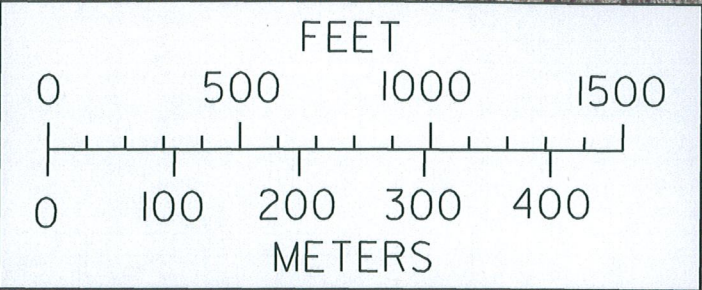
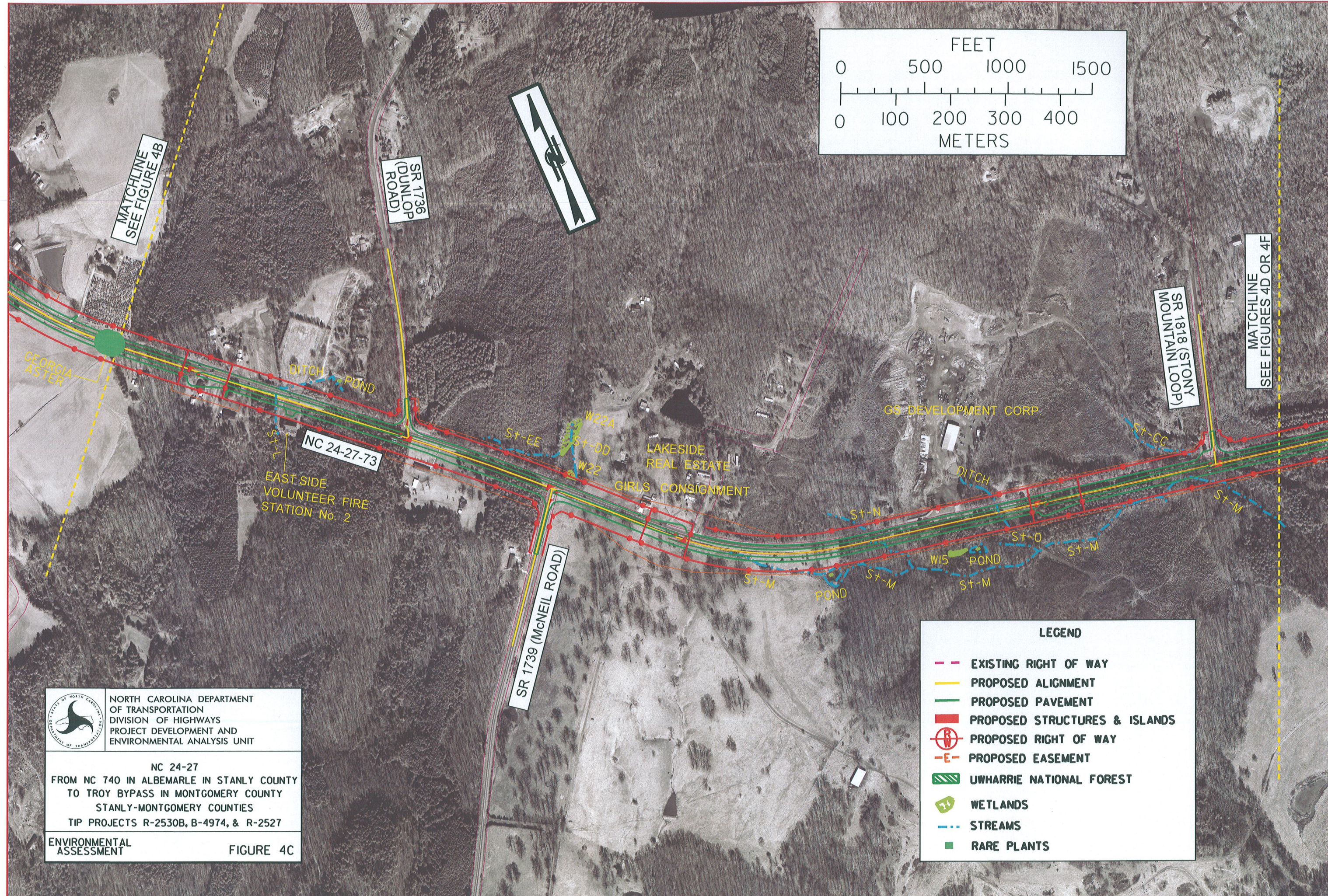
- EXISTING RIGHT OF WAY
- PROPOSED ALIGNMENT
- PROPOSED PAVEMENT
- PROPOSED STRUCTURES & ISLANDS
- PROPOSED RIGHT OF WAY
- PROPOSED EASEMENT
- UWHARRIE NATIONAL FOREST
- WETLANDS
- STREAMS
- RARE PLANTS



GEORGIA  
ASTER

SR 1720  
(STONEY  
GAP ROAD)





**LEGEND**

- EXISTING RIGHT OF WAY
- PROPOSED ALIGNMENT
- PROPOSED PAVEMENT
- PROPOSED STRUCTURES & ISLANDS
- PROPOSED RIGHT OF WAY
- PROPOSED EASEMENT
- UWHARRIE NATIONAL FOREST
- WETLANDS
- STREAMS
- RARE PLANTS



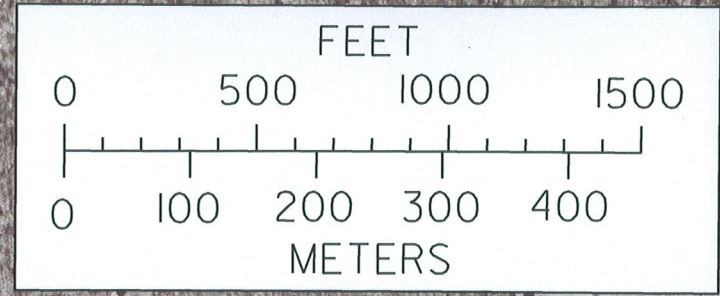
NORTH CAROLINA DEPARTMENT  
OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
PROJECT DEVELOPMENT AND  
ENVIRONMENTAL ANALYSIS UNIT

NC 24-27  
FROM NC 740 IN ALBEMARLE IN STANLY COUNTY  
TO TROY BYPASS IN MONTGOMERY COUNTY  
STANLY-MONTGOMERY COUNTIES  
TIP PROJECTS R-2530B, B-4974, & R-2527



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**B-4974, ALTERNATIVE 1**

MATCHLINE  
SEE FIGURE 4C

BEGIN PROJECT R-2530B/  
B-4974, ALTERNATIVE 1 TIE

BEGIN PROJECT B-4974  
END PROJECT R-2530B/  
B-4974, ALTERNATIVE 1 TIE

SR 1778 (RIVER  
HAVEN ROAD)

SR 1738  
STRAND ROAD

PROJECT  
R-2530B

PROJECT  
B-4974

NC 24-27-73

W21  
St-P

W20  
St-R

W19  
St-A

W17  
St-V

W16  
St-W

St-Z

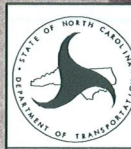
HAMMER RACING

TILLERY  
REALTY

SR 1837  
(INDIAN  
MOUND  
ROAD)

SR 1740 (INDIAN  
MOUND ROAD)

RUSSELL  
AUTOMOTIVE



NORTH CAROLINA DEPARTMENT  
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ENVIRONMENTAL ANALYSIS UNIT

NC 24-27  
FROM NC 740 IN ALBEMARLE IN STANLY COUNTY  
TO TROY BYPASS IN MONTGOMERY COUNTY  
STANLY-MONTGOMERY COUNTIES  
TIP PROJECTS R-2530B, B-4974, & R-2527

ENVIRONMENTAL  
ASSESSMENT

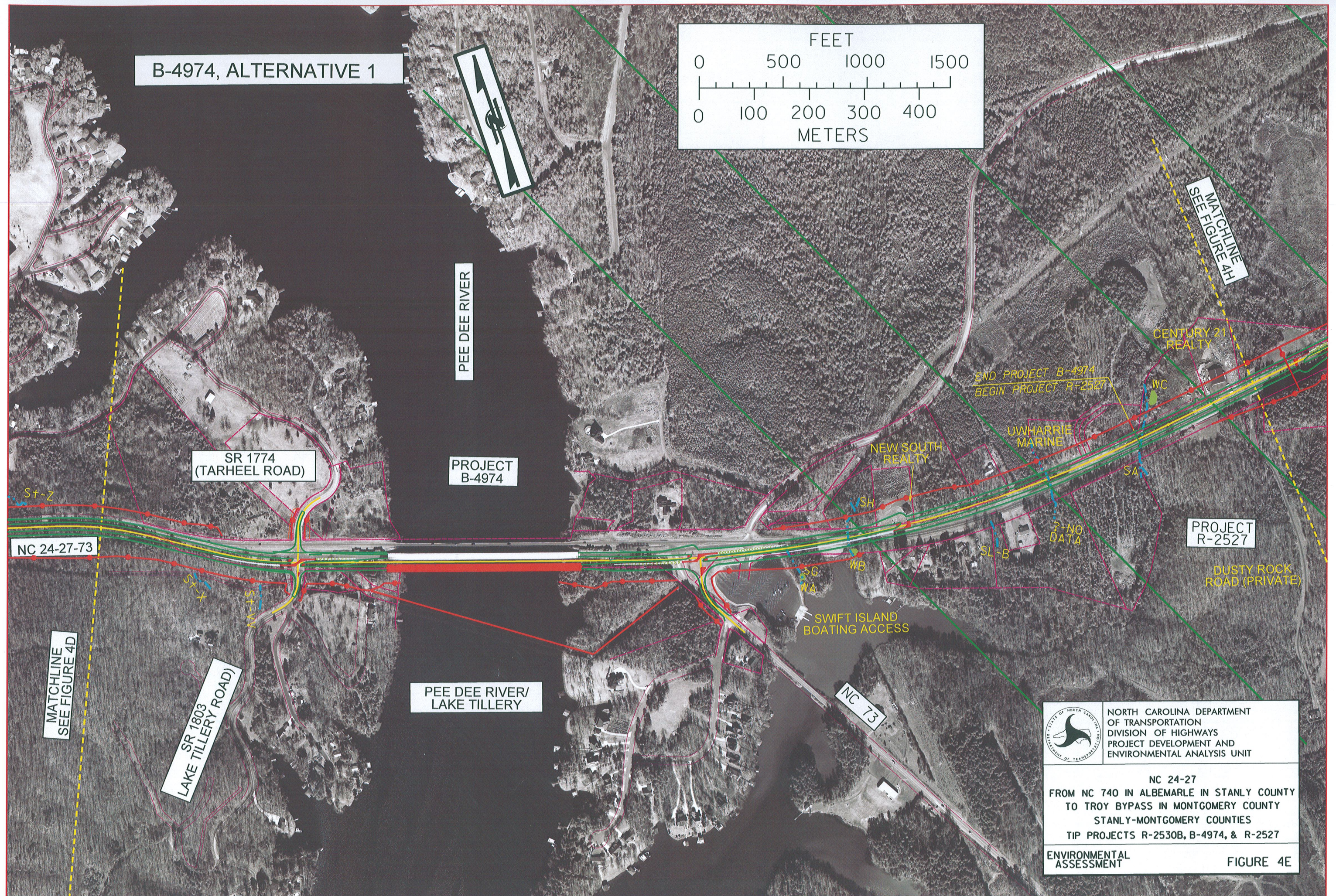
FIGURE 4D

**LEGEND**

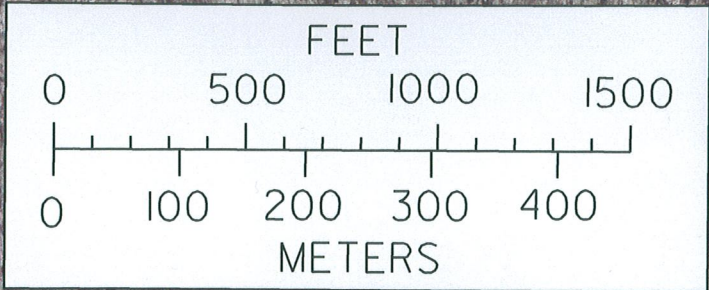
- EXISTING RIGHT OF WAY
- PROPOSED ALIGNMENT
- PROPOSED PAVEMENT
- PROPOSED STRUCTURES & ISLANDS
- PROPOSED RIGHT OF WAY
- PROPOSED EASEMENT
- UWHARRIE NATIONAL FOREST
- WETLANDS
- STREAMS
- RARE PLANTS

MATCHLINE  
SEE FIGURE 4E









**B-4974, ALTERNATIVE 4**

SR 1778 (RIVER HAVEN ROAD)

SR 1738 (STRAND ROAD)

PROJECT R-2530B

PROJECT B-4974

NC 24-27-73

MATCHLINE  
SEE FIGURE 4C

MATCHLINE  
SEE FIGURE 4G

BEGIN PROJECT R-2530B/  
B-4974, ALTERNATIVE 4 TIE

BEGIN PROJECT B-4974  
END PROJECT R-2530B/  
B-4974, ALTERNATIVE 4 TIE

**LEGEND**

- EXISTING RIGHT OF WAY
- PROPOSED ALIGNMENT
- PROPOSED PAVEMENT
- PROPOSED STRUCTURES & ISLANDS
- PROPOSED RIGHT OF WAY
- PROPOSED EASEMENT
- UWHARRIE NATIONAL FOREST
- WETLANDS
- STREAMS
- RARE PLANTS



NORTH CAROLINA DEPARTMENT  
OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
PROJECT DEVELOPMENT AND  
ENVIRONMENTAL ANALYSIS UNIT

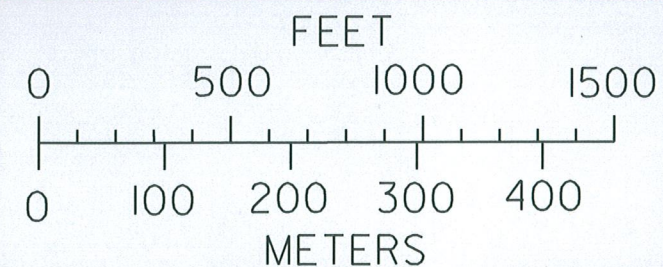
NC 24-27  
FROM NC 740 IN ALBEMARLE IN STANLY COUNTY  
TO TROY BYPASS IN MONTGOMERY COUNTY  
STANLY-MONTGOMERY COUNTIES  
TIP PROJECTS R-2530B, B-4974, & R-2527

ENVIRONMENTAL  
ASSESSMENT

FIGURE 4F



B-4974, ALTERNATIVE 4



PEE DEE RIVER

PROJECT  
B-4974

SR 1774  
(TARHEEL ROAD)

NC 24-27-73

MATCHLINE  
SEE FIGURE 4F

SR 1803  
LAKE TILLERY ROAD

PEE DEE RIVER/  
LAKE TILLERY

NC 73

MATCHLINE  
SEE FIGURE 4H

CENTURY 21  
REALTY

END PROJECT B-4974  
BEGIN PROJECT R-2527

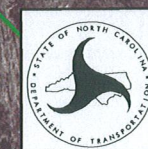
UWHARRIE  
MARINE

NEW SOUTH  
REALTY

PROJECT  
R-2527

DUSTY ROCK  
ROAD (PRIVATE)

SWIFT ISLAND  
BOATING ACCESS



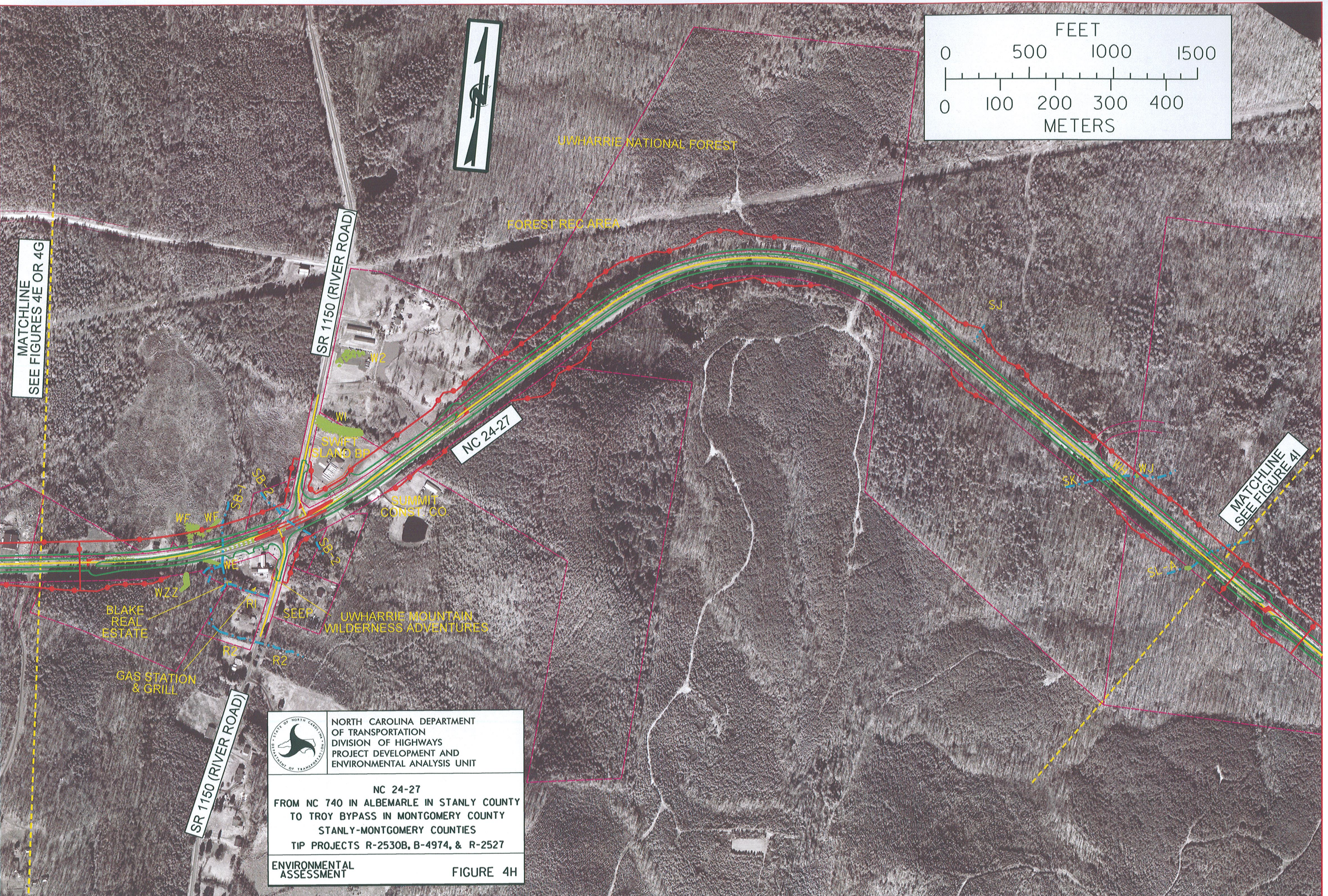
NORTH CAROLINA DEPARTMENT  
OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
PROJECT DEVELOPMENT AND  
ENVIRONMENTAL ANALYSIS UNIT

NC 24-27  
FROM NC 740 IN ALBEMARLE IN STANLY COUNTY  
TO TROY BYPASS IN MONTGOMERY COUNTY  
STANLY-MONTGOMERY COUNTIES  
TIP PROJECTS R-2530B, B-4974, & R-2527

ENVIRONMENTAL  
ASSESSMENT

FIGURE 4G





MATCHLINE  
SEE FIGURES 4E OR 4G

SR 1150 (RIVER ROAD)

NC 24-27

MATCHLINE  
SEE FIGURE 4I

BLAKE  
REAL  
ESTATE

GAS STATION  
& GRILL



NORTH CAROLINA DEPARTMENT  
OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
PROJECT DEVELOPMENT AND  
ENVIRONMENTAL ANALYSIS UNIT

NC 24-27  
FROM NC 740 IN ALBEMARLE IN STANLY COUNTY  
TO TROY BYPASS IN MONTGOMERY COUNTY  
STANLY-MONTGOMERY COUNTIES  
TIP PROJECTS R-2530B, B-4974, & R-2527

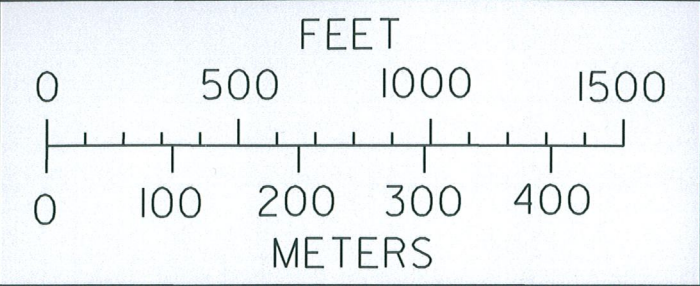
ENVIRONMENTAL  
ASSESSMENT

FIGURE 4H









SR 1134 (LIBERTY  
HILL CHURCH ROAD)

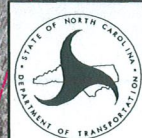
GREENE'S  
AMMO & GUNS

NC 24-27

MATCHLINE  
SEE FIGURE 4K

SR 1134 (WADESVILLE ROAD)

MATCHLINE  
SEE FIGURE 4I

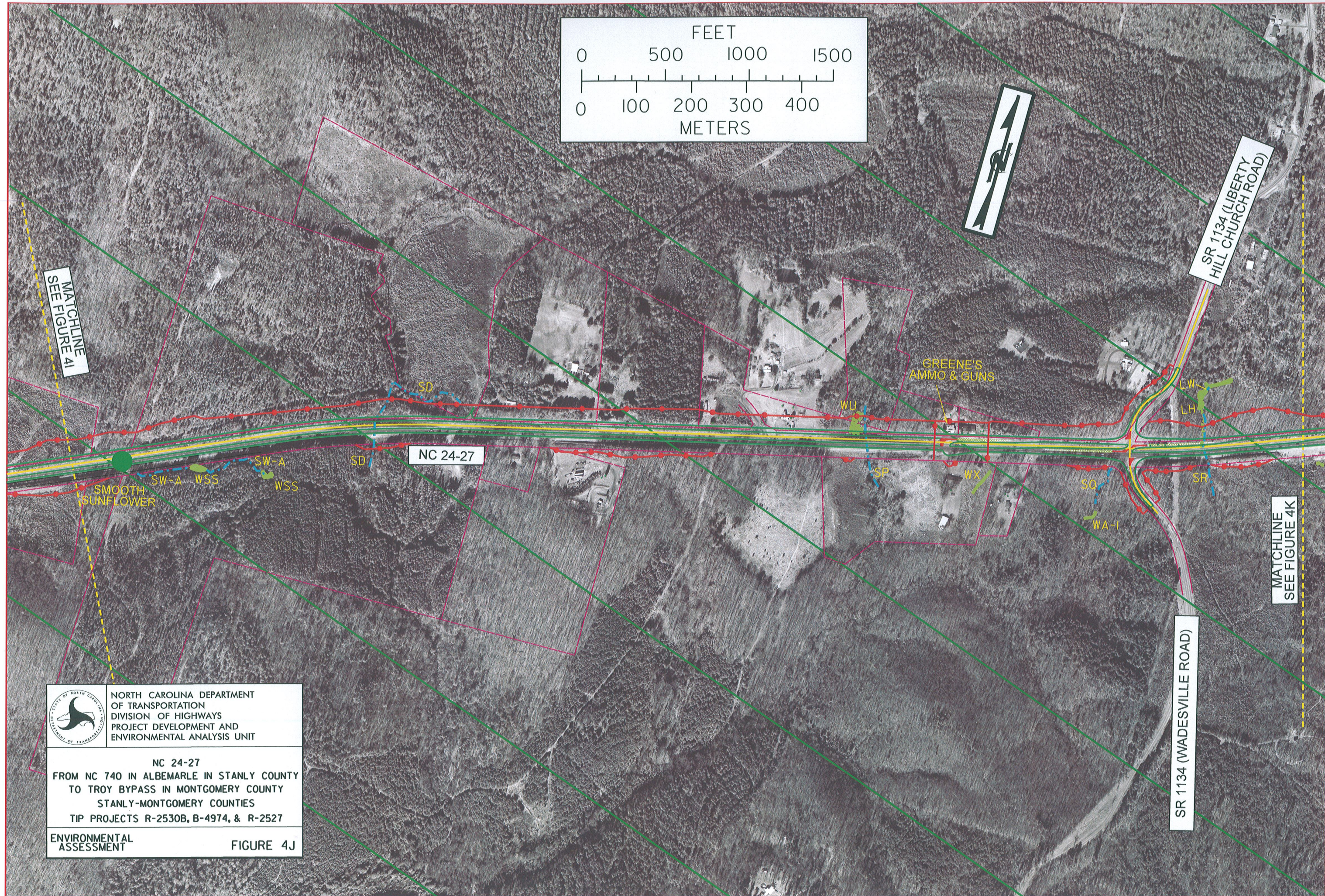


NORTH CAROLINA DEPARTMENT  
OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
PROJECT DEVELOPMENT AND  
ENVIRONMENTAL ANALYSIS UNIT

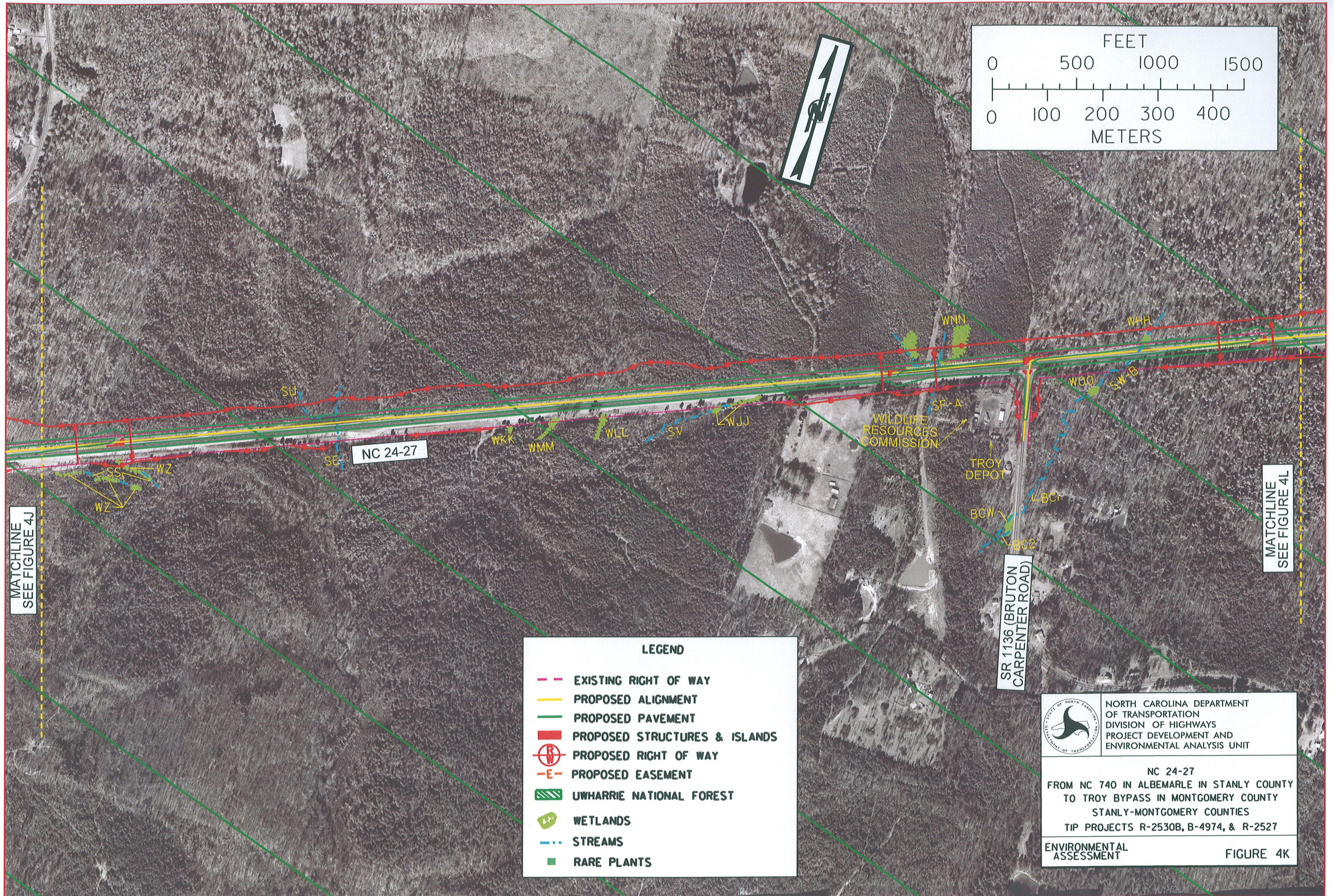
NC 24-27  
FROM NC 740 IN ALBEMARLE IN STANLY COUNTY  
TO TROY BYPASS IN MONTGOMERY COUNTY  
STANLY-MONTGOMERY COUNTIES  
TIP PROJECTS R-2530B, B-4974, & R-2527

ENVIRONMENTAL  
ASSESSMENT

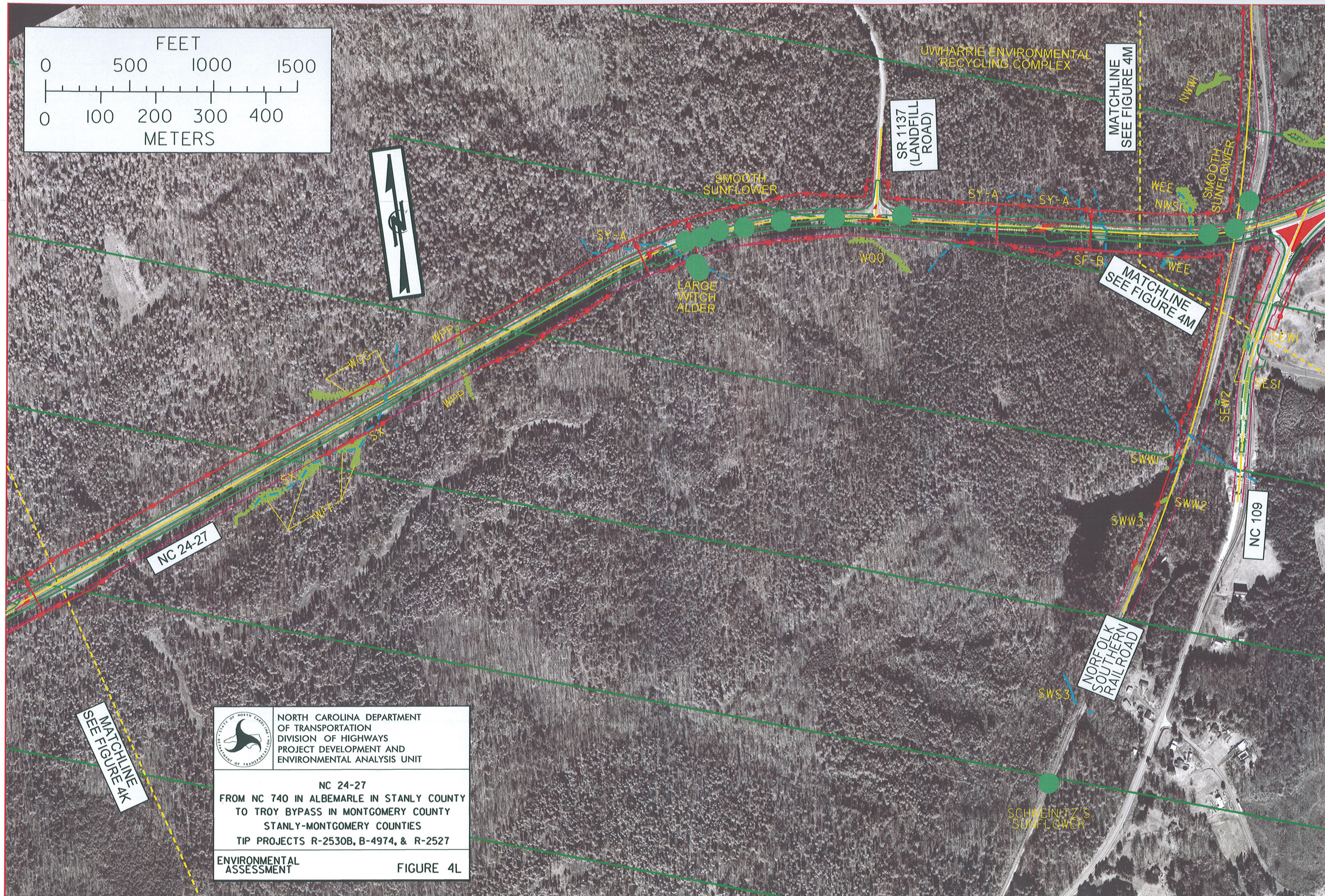
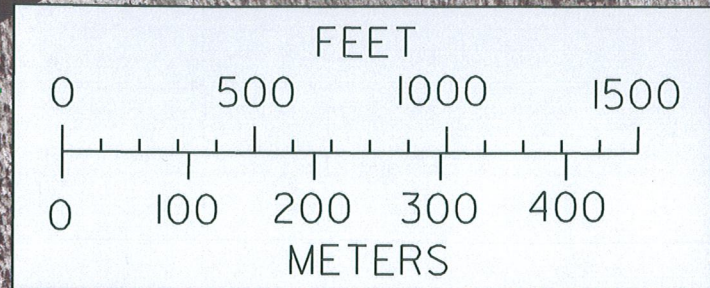
FIGURE 4J













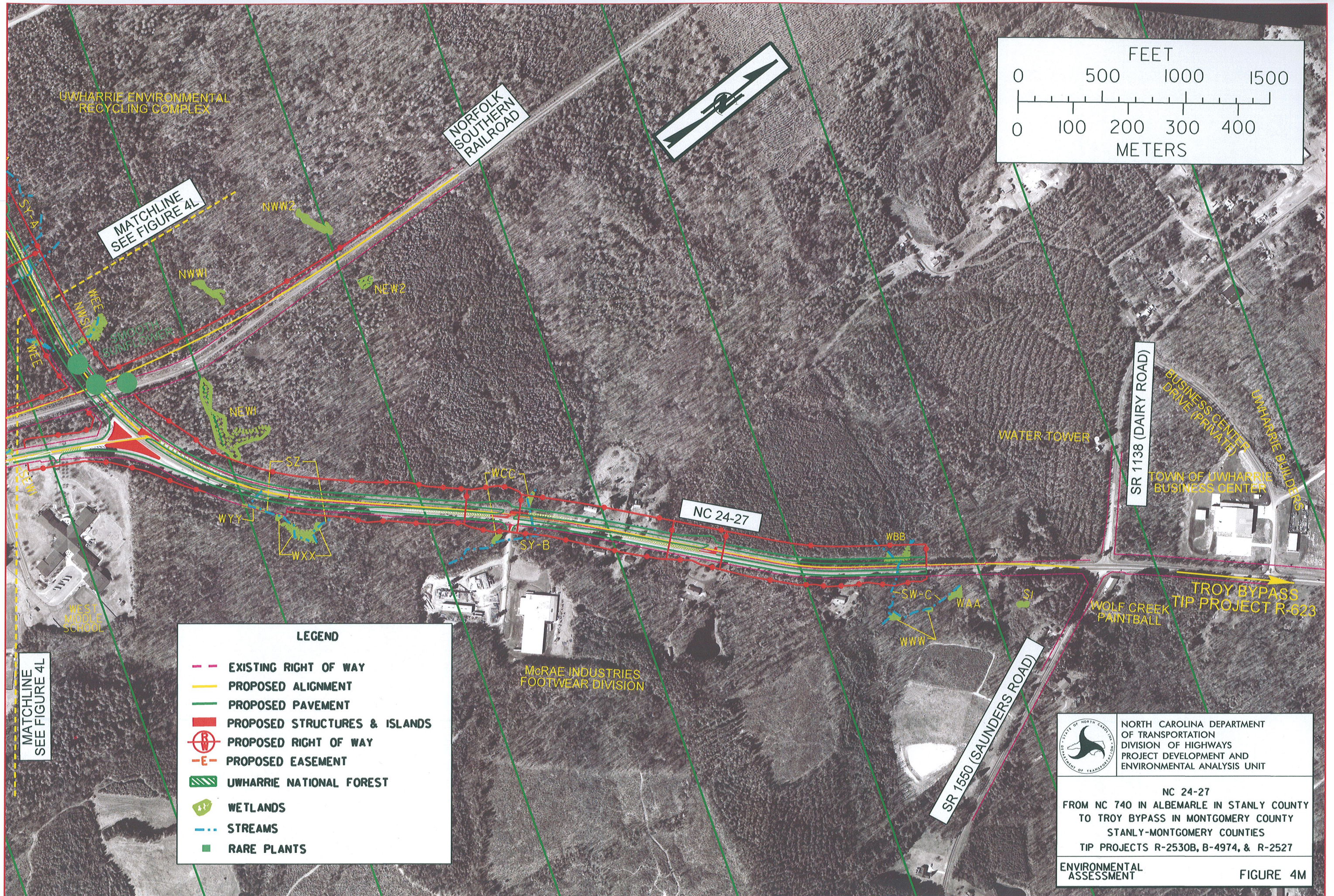
NORTH CAROLINA DEPARTMENT  
OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
PROJECT DEVELOPMENT AND  
ENVIRONMENTAL ANALYSIS UNIT

NC 24-27  
FROM NC 740 IN ALBEMARLE IN STANLY COUNTY  
TO TROY BYPASS IN MONTGOMERY COUNTY  
STANLY-MONTGOMERY COUNTIES  
TIP PROJECTS R-2530B, B-4974, & R-2527

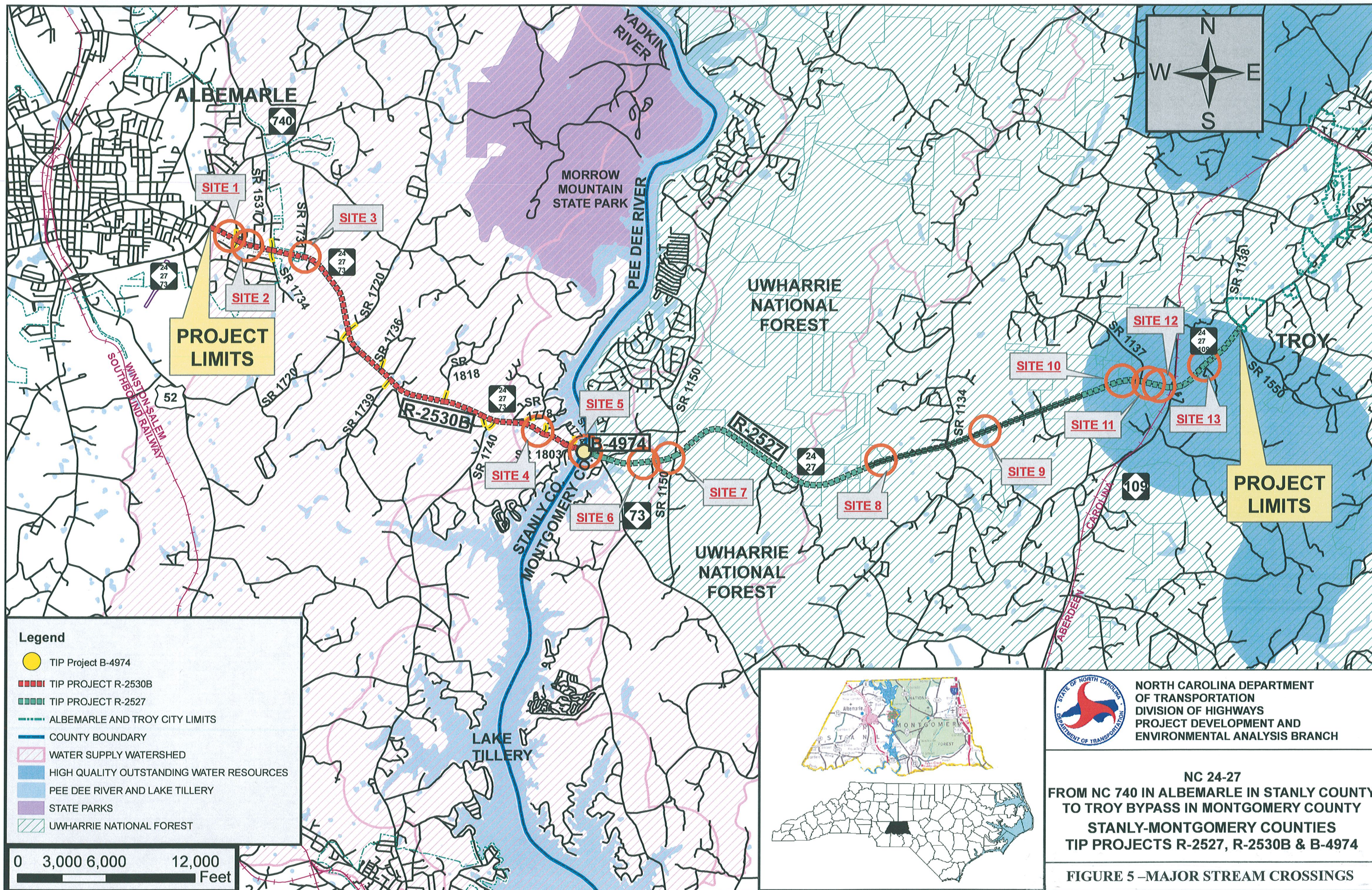
ENVIRONMENTAL  
ASSESSMENT

FIGURE 4L









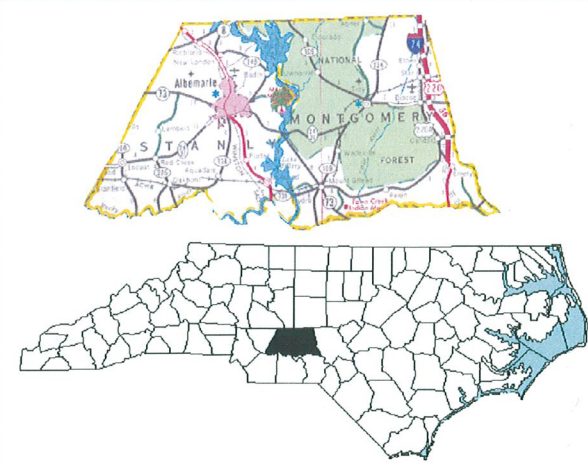
**Legend**

- TIP Project B-4974
- TIP PROJECT R-2530B
- TIP PROJECT R-2527
- ALBEMARLE AND TROY CITY LIMITS
- COUNTY BOUNDARY
- WATER SUPPLY WATERSHED
- HIGH QUALITY OUTSTANDING WATER RESOURCES
- PEE DEE RIVER AND LAKE TILLERY
- STATE PARKS
- UWHARRIE NATIONAL FOREST

0 3,000 6,000 12,000  
Feet



NORTH CAROLINA DEPARTMENT  
OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
PROJECT DEVELOPMENT AND  
ENVIRONMENTAL ANALYSIS BRANCH



NC 24-27  
FROM NC 740 IN ALBEMARLE IN STANLY COUNTY  
TO TROY BYPASS IN MONTGOMERY COUNTY  
STANLY-MONTGOMERY COUNTIES  
TIP PROJECTS R-2527, R-2530B & B-4974

FIGURE 5 -MAJOR STREAM CROSSINGS



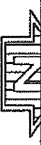


80°05'00"

1 677 500 FEET

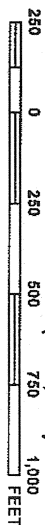
584,000 M

80°04'30"



GRID NORTH

MAP SCALE 1" = 500' (1 : 6,000)



PANEL 6576K

# FIRM

## FLOOD INSURANCE RATE MAP

### NORTH CAROLINA

PANEL 6576

(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

| COMMUNITY         | CID No. | PANEL | SUFFIX |
|-------------------|---------|-------|--------|
| MONTGOMERY COUNTY | 370396  | 6576  | K      |
| STANLY COUNTY     | 370361  | 6576  | K      |

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP REVISED  
SEPTEMBER 3, 2008  
MAP NUMBER  
3710657600K

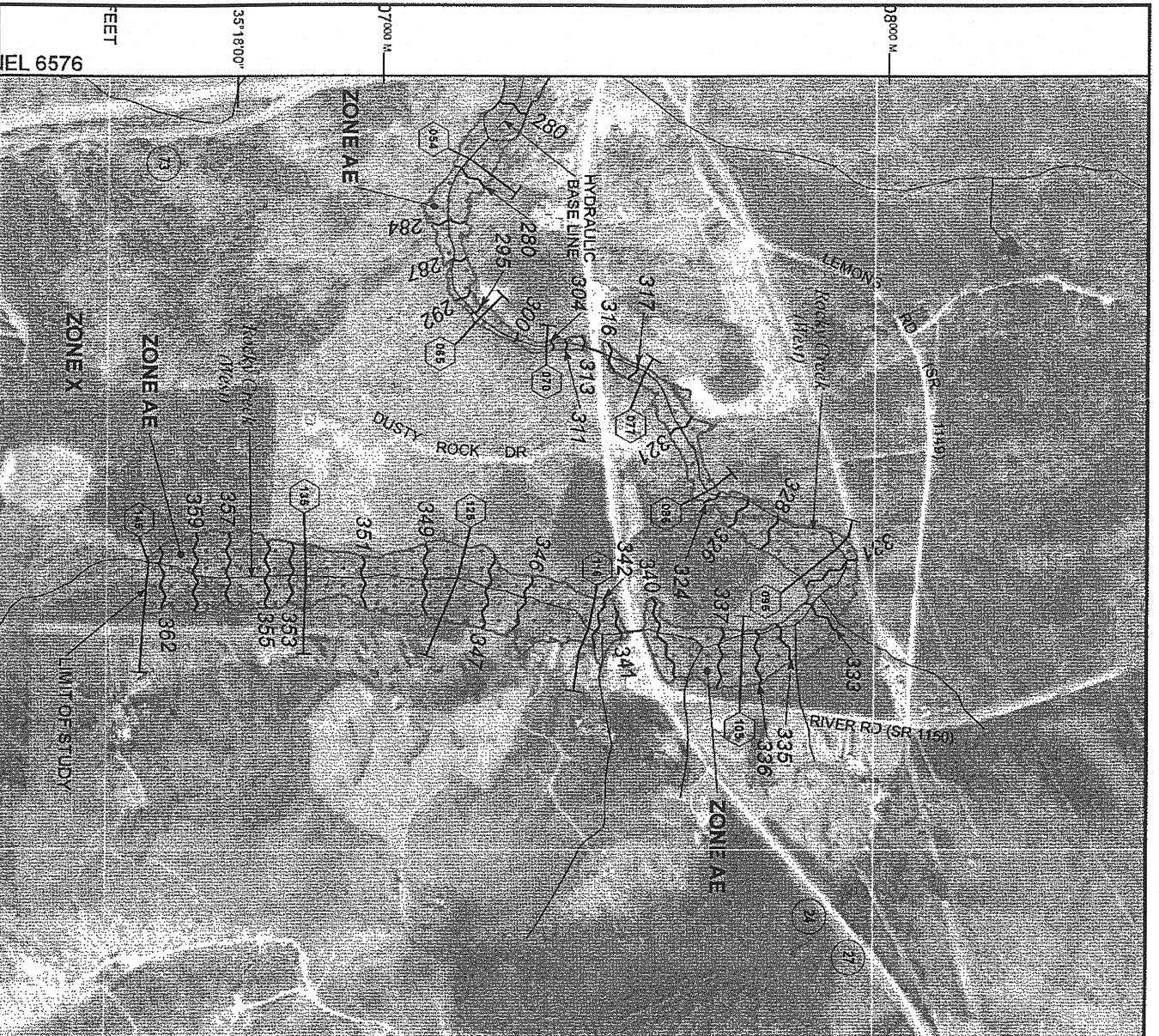


State of North Carolina  
Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

FIGURE 6A - B-4974, SITE 5





GRID NORTH

SCALE 1" = 1,000' (1 : 12,000)

500 1,000 1,500 2,000 FEET

METERS

PANEL 6586K

# FIRM

## FLOOD INSURANCE RATE MAP

### NORTH CAROLINA

PANEL 6586

(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

| COMMUNITY         | CID No. | PANEL | SUFFIX |
|-------------------|---------|-------|--------|
| MONTGOMERY COUNTY | 370336  | 6586  | K      |
| STANLY COUNTY     | 370351  | 6588  | K      |

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP REVISED MAP NUMBER  
SEPTEMBER 3, 2008 3710658600K

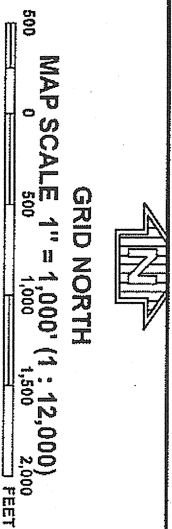
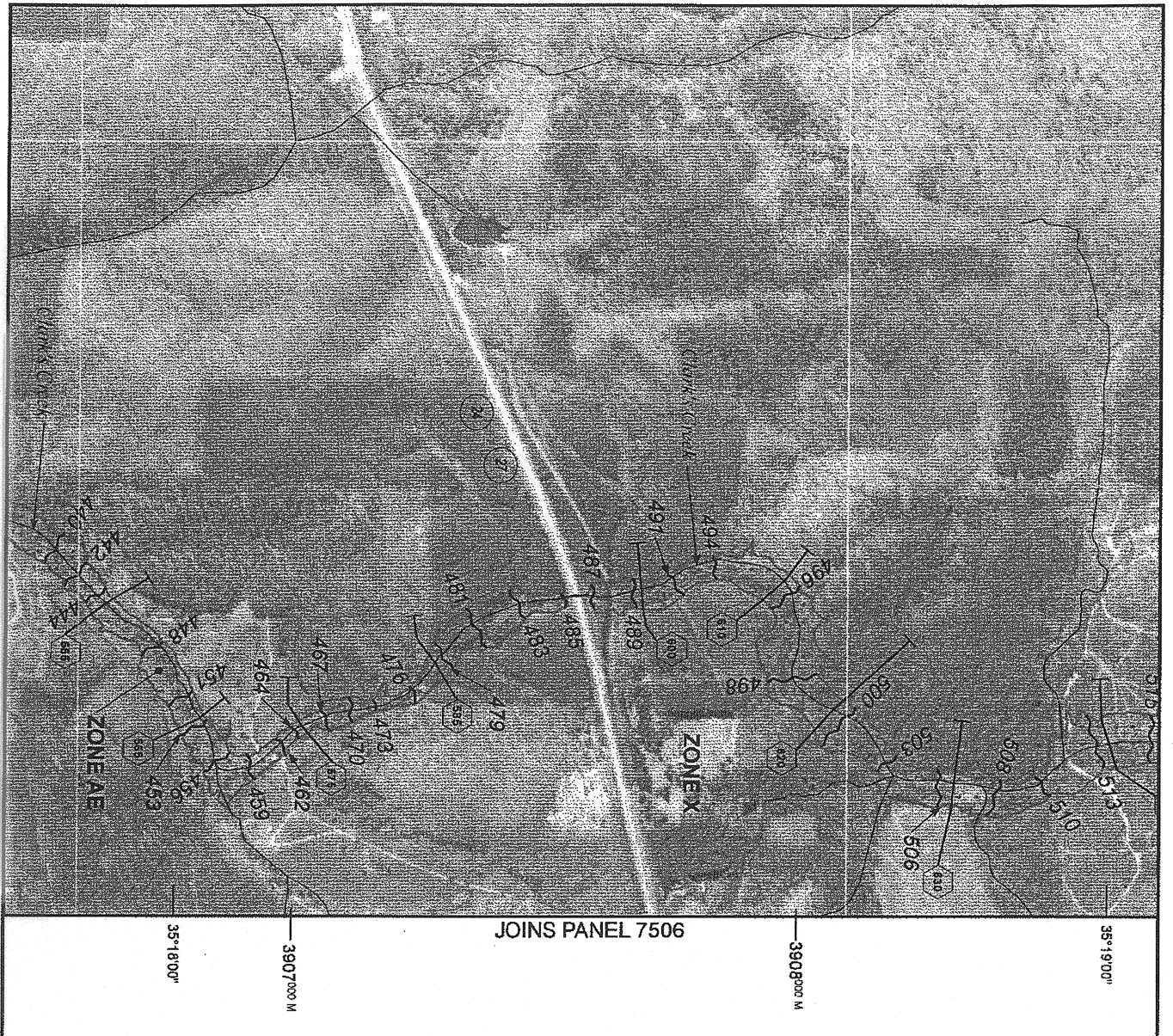


State of North Carolina  
Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

FIGURE 6B - R-2527, SITES 6 & 7





PANEL 6586K

# FIRM

## FLOOD INSURANCE RATE MAP

### NORTH CAROLINA

PANEL 6586

(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

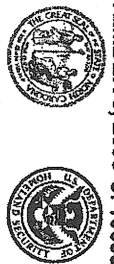
CONTAINS:

| COMMUNITY         | CID No. | PANEL | SUFFIX |
|-------------------|---------|-------|--------|
| MONTGOMERY COUNTY | 370338  | 6586  | K      |
| STANLY COUNTY     | 370381  | 6586  | K      |

Notice to User: The Map Number shown below should be used when placing map orders. The Community Number shown above should be used on insurance applications for the subject community.

MAP REVISED  
SEPTEMBER 3, 2008 3710658600K

MAP NUMBER  
3710658600K



State of North Carolina  
Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

FIGURE 6C - R-2527, SITE 8





GRID NORTH  
MAP SCALE 1" = 1,000' (1 : 12,000)  
0 500 1,000 1,500 2,000  
FE

PANEL 7506J

# **FIRM** FLOOD INSURANCE RATE MAP NORTH CAROLINA

**PANEL 7506**  
(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL  
LAYOUT)  
**CONTAINS:**  
**COMMUNITY** CID NO. **PANEL** SUFFIX  
MONTGOMERY COUNTY 370336 7506 J

Notes to User: The Map Number above should be used  
when citing map sheets. The Community Number should  
be used on insurance applications for the subject  
community.  
**EFFECTIVE DATE** **MAP NUMBER**  
**JANUARY 2, 2008** **3710750600J**

State of North Carolina  
Federal Emergency Management Agency

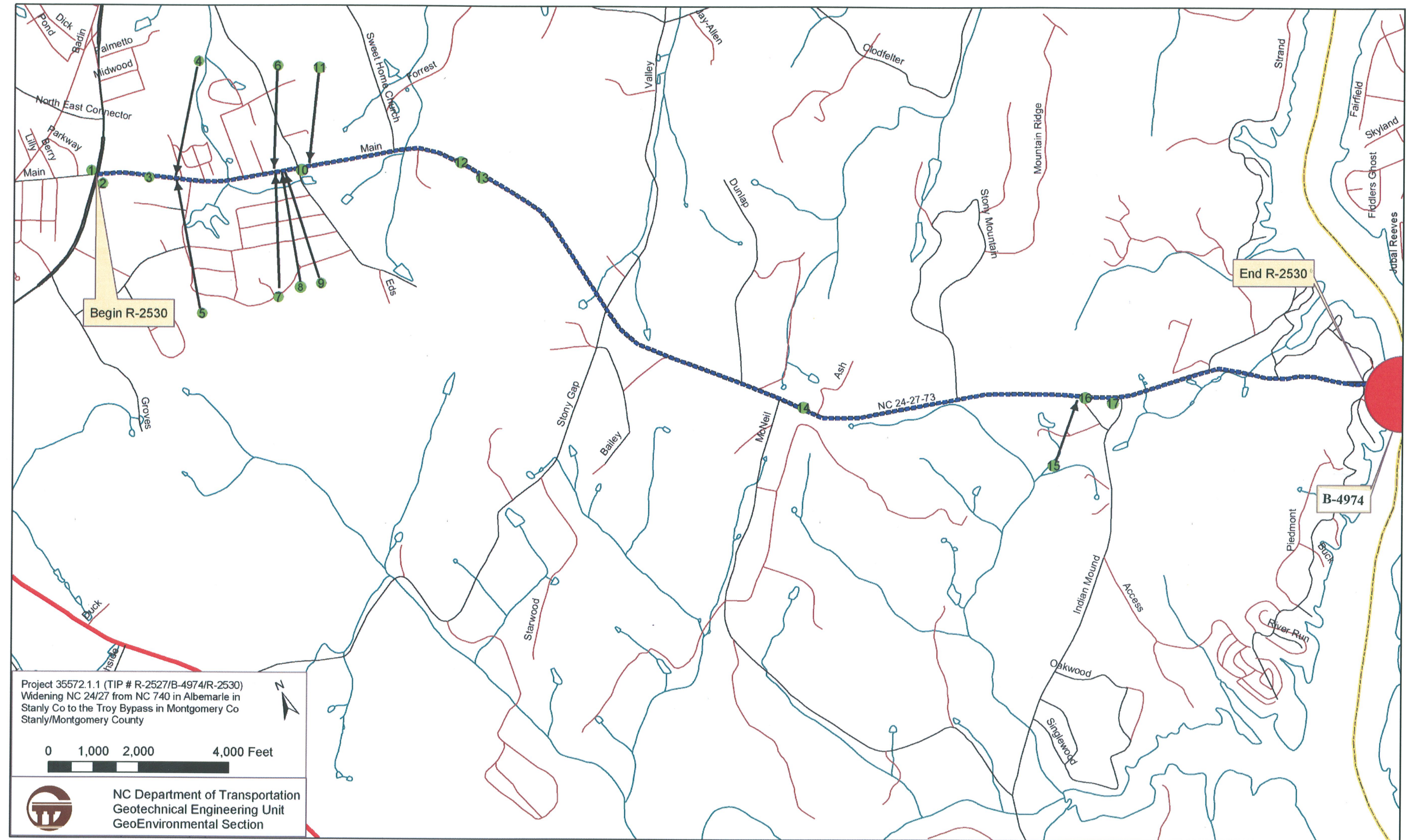
This is an official copy of a portion of the above referenced flood map. It  
is not to be used for any other purpose. The map is not to be altered or  
amended in any way. The map is not to be used for any other purpose  
than the one for which it was prepared. For the latest product information about National Flood Insurance  
Program flood maps, check the FEMA Flood Map Store at [www.fema.gov](http://www.fema.gov).

FIGURE 6D - R-2527, SITES 9 & 12



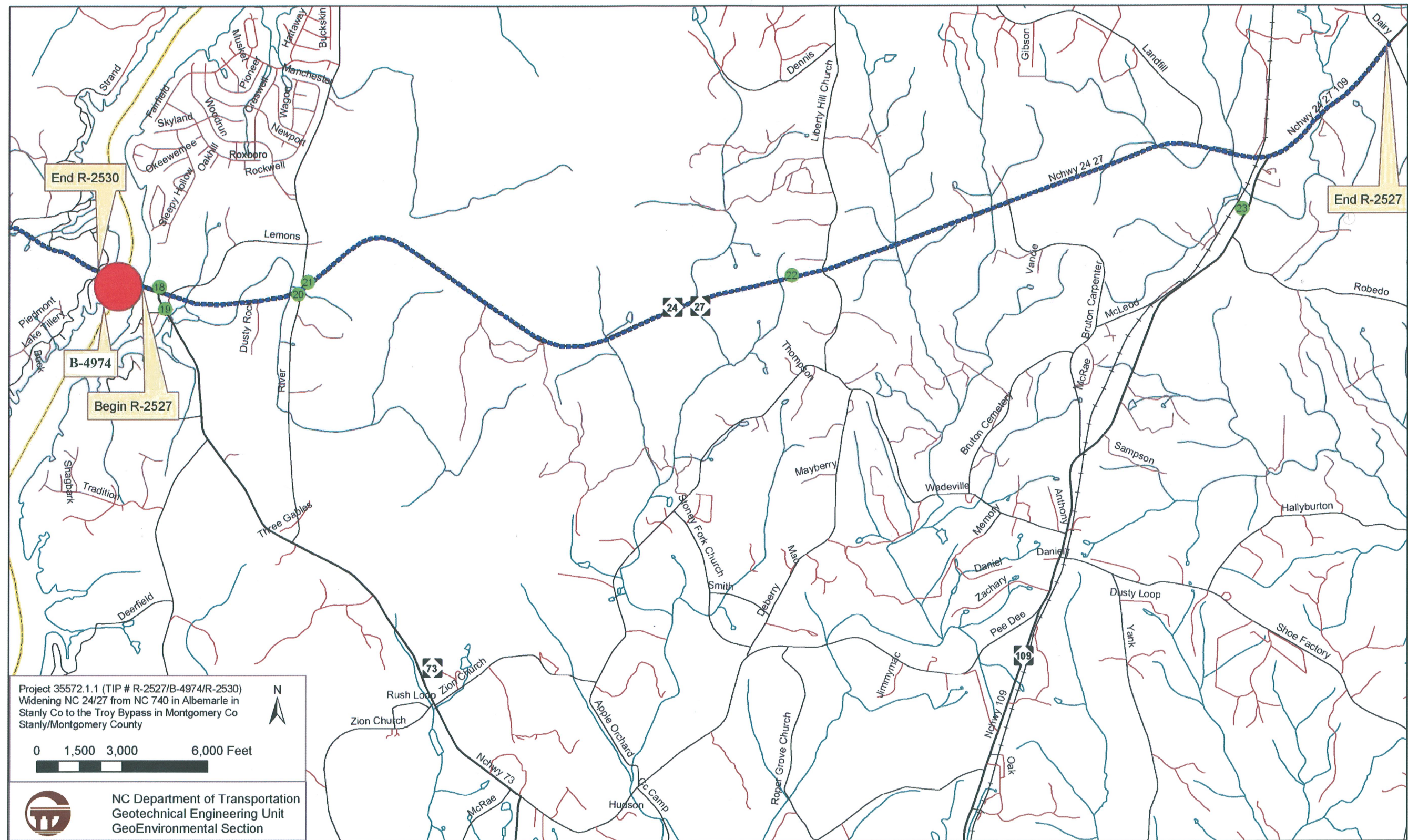
FIGURE 7A

Locations of USTs, Landfills, & Other Potentially Contaminated Sites





**FIGURE 7B**





# **APPENDIX A**

**COMMENTS RECEIVED FROM FEDERAL,  
STATE AND LOCAL AGENCIES**









United States  
Department of  
Agriculture

Forest  
Service

National Forests in North Carolina  
Supervisor's Office

160 ZILLICOA ST STE A  
ASHEVILLE NC 28801-1082  
828-257-4200

File Code: 2730

Date: December 22, 2011

Ms. Beverly Robinson  
Project Development Group Supervisor  
North Carolina Department of Transportation  
1548 Mail Service Center  
Raleigh, NC 27699-1548

Dear Ms. Robinson:

In reference to North Carolina Department of Transportation T.I.P. Project No. R-2527 and at your request, the National Forests in North Carolina examined the question whether the designation of "game lands" on the Uwharrie National Forest qualifies these areas for protection or special consideration under Section 4(f) of the United States Department of Transportation Act of 1966 and as amended (49 U.S.C. 138 and 23 U.S.C. 303). My staff has determined that in this case the "game land" designation does not qualify these areas for consideration under Section 4(f). Section 4(f) does not apply because these "game lands" are not managed primarily for wildlife and are instead managed as multiple-use public land holdings.

We used the Federal Highway Administration (FHWA) Section 4(f) Policy Paper dated March 1, 2005; the Land and Resource Management Plan for the Croatan and Uwharrie National Forests dated June 1986; and the Proposed Land and Resource Management Plan for the Uwharrie National Forest dated June 2011 to make this determination. Please contact our NCDOT Liaison, Karen Compton, at 828-257-4230 if you have any questions concerning this determination.

Sincerely,

MARISUE HILLIARD  
Forest Supervisor

cc: Lisa Feller, NCDOT Project Manager  
Deborah Walker, Uwharrie District Ranger  
Felix Davila, FHWA



Caring for the Land and Serving People

Printed on Recycled Paper







**County of Stanly**  
1000 North First Street  
Suite 10  
ALBEMARLE, NORTH CAROLINA 28001

September 14, 2011

Ms. Lisa Feller  
Project Development Engineer  
North Carolina Department of Transportation  
1501 Mail Service Center  
Raleigh, NC 27699-1501

Dear Ms. Feller:

Over the past several months, the Stanly County Board of Commissioners have received numerous presentations and engaged in several discussions regarding the potential preservation of the Swift Island Ferry Bridge over the Pee Dee River. On September 12, 2011 the Stanly County Commissioners unanimously voted to move forward with the preservation efforts of the Swift Island Ferry Bridge.

The County Commissioners reviewed cost estimates for demolition, retrofit, maintenance and insurance. The Commissioners understand legally binding documents must be negotiated and will not be fully executed until 2013. During this interim period, the Commissioners have directed staff to work with the NCDOT to bring forward any new information and/or legal documents for consideration.

The Stanly County Commissioners consider the bridge preservation project as a unique opportunity to connect Morrow Mountain State Park and the Uwharrie National Forest. It is envisioned this project will increase recreational opportunities to promote tourism and enhance the current amenity based economic development efforts. Thank you for your assistance with this project.

Sincerely,

A handwritten signature in blue ink, appearing to read "Andrew M. Lucas", is written over the word "Sincerely,".

Andrew M. Lucas  
Stanly County Manager

Cc: Mrs. Dana Stoogenke, Rocky River RPO  
File



**RESOLUTION**  
**ENDORSING BICYCLE ACCOMODATIONS ON HWY 24-27 (R-2530)**

---

**WHEREAS**, Hwy 24-27 is currently planned for improvement by the North Carolina Department of Transportation (NCDOT) as project R-2530 to a four lane facility; and

**WHEREAS**, Hwy 24-27 is a part of the North Carolina's Piedmont Spur Bicycle Route Number 6; and

**WHEREAS**, Bicycle accommodations should be included on Hwy 24-27 in the projects design from the Pee Dee River to NC 73; and

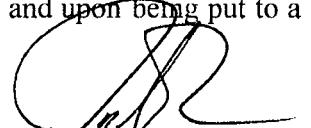
**WHEREAS**, Bicycle accommodations should also be included on the new bridge over the Pee Dee River, if the Historic Swift Island Ferry Bridge is not preserved; and

**WHEREAS**, The Montgomery County Board of Commissioners requests a 14 foot outside lane, and four foot paved shoulders, or the provision of a striped bicycle lane for the facility; and

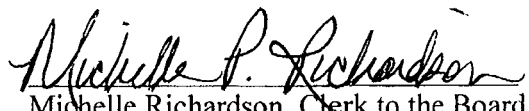
**WHEREAS**, The Montgomery County Board of Commissioners hereby advises and requests adjacent jurisdictions to make similar requests to NCDOT or provide connecting bicycle facilities on Town and City streets.

**NOW, THEREFORE BE IT RESOLVED** that the Montgomery County Board of Commissioners hereby endorses the provision of bicycle accommodations along Hwy 24-27 and the new bridge over the Pee Dee River.

A motion was properly made and seconded for the adoption of the above resolution, and upon being put to a vote, was adopted, on this, the 20<sup>th</sup> day of September, 2011.

  
\_\_\_\_\_  
Jackie Morris, Chairman

ATTEST:

  
\_\_\_\_\_  
Michelle Richardson, Clerk to the Board

(seal)





**STANLY COUNTY  
BOARD OF COMMISSIONERS**

1000 NORTH FIRST STREET, SUITE 10  
ALBEMARLE, NORTH CAROLINA  
28001

Josh Morton, Chairman  
Jann Lowder, V/Chairman  
Tony M. Dennis  
Lindsey Dunevant  
Gene McIntyre

**RESOLUTION ENDORSING BICYCLE ACCOMODATIONS ON HWY 24-27 (R-2530) AND THE BRIDGE ACROSS THE PEE DEE RIVER, IF THE HISTORIC SWIFT ISLAND BRIDGE IS NOT PRESERVED**

WHEREAS, Hwy 24-27 is currently being improved by North Carolina Department of Transportation (NCDOT) as project R-2530 to a four lane facility; and

WHEREAS, Hwy 24-27 is apart of the North Carolina's Piedmont Spur Bicycle Route; and

WHEREAS, bicycle accommodations should be included on Hwy 24-27 in the projects design from Valley Drive to the Pee Dee River; and

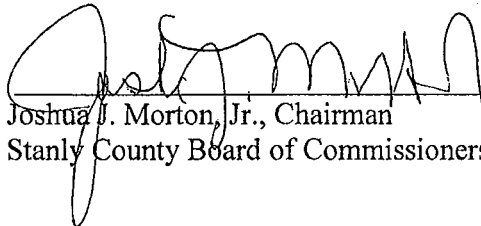
WHEREAS, bicycle accommodations should also be included on the new bridge over the Pee Dee River, if the Historic Swift Island Bridge is not preserved; and

WHEREAS, The Stanly County Commissioners would like to recommend at least a 14 ft outside lane and 4 ft paved shoulders, but with hopes of a striped bicycle lane for the facility; and

WHEREAS, The Stanly County Commissioners would like to advise adjacent jurisdictions to make similar requests to NCDOT or provide connecting bicycle facilities on City streets;

NOW, THEREFORE, be it resolved that the Stanly County Commissioners endorses bicycle accommodations along Hwy 24-27 and the new bridge over the Pee Dee River.

A motion was made by Commissioner Dunevant and seconded by Commissioner McIntyre for the adoption of the above resolution, and upon being put to a vote, was duly adopted, on this, the 15<sup>th</sup> day of August, 2011.

  
Joshua J. Morton, Jr., Chairman  
Stanly County Board of Commissioners



FA #: BRSTP-0024(33)

TIP#: B-4974

County: Stanly/Montgomery

### CONCURRENCE FORM FOR ASSESSMENT OF EFFECTS

*Project Description:* Replace Bridge No.51 on NC 24/27 over the Pee Dee River (part of the larger road projects R-2530B and R-2527)

On February 10, 2011, representatives of the

- ☒ North Carolina Department of Transportation (NCDOT)
- ☐ Federal Highway Administration (FHWA)
- ☒ North Carolina State Historic Preservation Office (HPO)
- ☐ Other

Reviewed the subject project and agreed on the effects findings listed within the table on the reverse of this signature page.

Signed:

Mary Pope 2/10/2011  
Representative, NCDOT Date

[Signature] 2/14/11  
FHWA, for the Division Administrator, or other Federal Agency Date

\_\_\_\_\_  
Representative, HPO Date

Renee Sheddill-Early 2-10-11  
f State Historic Preservation Officer Date

FA #: BRSTP-0024(33)

TIP#: B-4974

County: Stanly/Montgomery

| Property and Status | Effect Finding    | Alternative                                  | Reasons                                                                                                                                                                                                                                                                                                                                                       |
|---------------------|-------------------|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bridge No. 51 (DE)  | No adverse effect | Alts 1,2,&3 if new owner found for bridge    | Alts. 1,2,& 3 do not require the removal of Bridge No. 51. No adverse effect if a responsible party agrees to take ownership of the bridge because it will be preserved in place. <i>Demolition funds made available for future maintenance.</i>                                                                                                              |
| Bridge No. 51 (DE)  | Adverse Effect    | Alts 1,2,&3 if no new owner found for bridge | Alts. 1,2,& 3 do not require the removal of Bridge No. 51, however there will be an adverse effect if no responsible party agrees to take ownership of the bridge because it will be removed. This will occur when Bridge No. 51 is beyond rehabilitation for a transportation use or an alternative use or when a permitting authority requires its removal. |
| Bridge No. 51 (DE)  | Adverse Effect    | Alt. 4                                       | Alt. 4 requires the removal of Bridge No. 51 in order to erect a new structure adjacent to Bridge No. 50.                                                                                                                                                                                                                                                     |
|                     |                   |                                              |                                                                                                                                                                                                                                                                                                                                                               |
|                     |                   |                                              |                                                                                                                                                                                                                                                                                                                                                               |
|                     |                   |                                              |                                                                                                                                                                                                                                                                                                                                                               |

Initialed:

NCDOT MPHFHWA FDHPO Pye

☐ FHWA intends to use HPO's call of "No Adverse Effect" as the basis of a "de minimis" finding for the following properties, pursuant to Section 4(f): FHWA initials \_\_\_\_\_





**North Carolina Department of Cultural Resources  
State Historic Preservation Office**

Peter B. Sandbeck, Administrator

Michael F. Easley, Governor  
Lisbeth C. Evans, Secretary  
Jeffrey J. Crow, Deputy Secretary

Office of Archives and History  
Division of Historical Resources  
David Brook, Director

April 8, 2008

**MEMORANDUM**

**TO:** Matt Wilkerson  
Office of Human Environment  
NCDOT Division of Highways

**FROM:** Peter Sandbeck *PSE for Peter Sandbeck*

**SUBJECT:** Intensive Archaeological Survey and Evaluation (Phase I and Phase II) for Widening of  
NC 24-27 From West of the Pee Dee River Bridge to West of Troy, Montgomery County,  
ER 02-7546 R-2527

Thank you for your letter of March 11, 2008, transmitting the above final report.

For purposes of compliance with Section 106 of the National Historic Preservation Act, we concur that the following archaeological properties 31MG321, 31MG1629, and 31MG1806 are eligible for listing in the National Register of Historic Places under criterion D: These sites have the potential to provide important data relevant to the prehistory of the region.

The report author further states that the following archaeological properties are not eligible for listing in the National Register of Historic Places: 31MG280, 31MG372, 31MG382, 31MG482, 31MG1581, 31MG1646, 31MG1656, 31MG1671, 31MG1673, 31MG1790-31MG1805, 31MG1807-31MG1833. These properties do not retain the level of integrity nor do they possess the potential to yield significant new information pertaining to either the prehistory or history of North Carolina. We concur with these recommendations.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and considerations. If you have any questions concerning the above comment, please contact Renee Gledhill-Earley, environmental review coordinator, at 919.807.6579. In all future communication concerning this project, please cite the above referenced tracking number.



North Carolina Department of Cultural Resources  
State Historic Preservation Office

Peter B. Sandbeck - Administrator

Matthew L. Jordan, Governor  
Fahshtia C. Adams, Secretary  
Jerrisa J. Cross, Deputy Secretary

Office of Archives and Records  
Division of Historical Research  
David Brooks, Director

March 29, 2007

TO: Matt Wilkerson  
NCDOT - Office of Human Environment

FROM: Peter Sandbeck *Letter for Peter Sandbeck*

SUBJECT: Intensive Archaeological Survey and Evaluation (Phase I and Phase II) for Widening of NC  
24/27/73 From NC 740 in Abernle to West of the Pee Dee River Bridge, Stanly County,  
ER 04-0086

Thank you for your letter of August 25, 2006, transmitting the archaeological survey and evaluation report for the above project.

The report authors noted that 42 previously unknown archaeological sites were recorded during the archaeological investigations. Of these 42 archaeological properties, 39 (31ST196- 31ST194\*\*, 31SR197- 31ST203, and 31ST205- 31SR231) do not retain the level of integrity nor do they possess the potential to yield significant new information pertaining to either the prehistory or history of North Carolina. We concur with this recommendation.

For purposes of compliance with Section 106 of the National Historic Preservation Act, we concur that the following three (3) archaeological properties (31ST195, 31ST196, and 31ST204&204\*\*) when examined in total, comprise an archaeological district that is eligible for inclusion in the National Register of Historic Places under criterion D. These sites have the potential to provide important data relevant to local and regional prehistory and history. We also concur with the recommendations noting that these archaeological properties be avoided and not subjected to any soil disturbance associated with roadway construction. However, if avoidance is not possible, we agree that data recovery excavations be conducted at 31ST195 and additional laboratory analyses be undertaken with archaeological materials recovered from sites 31ST196 and 31ST204&204\*\*. If the data recovery option is chosen we look forward to reviewing and commenting on the archaeological data recovery and laboratory analysis plan.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and considerations. If you have any questions concerning the above comment, please contact Renee Cleshill Hurley, environmental review coordinator, at 919-733-4763. In all future communication concerning this project, please cite the above referenced tracking number.

ADMINISTRATION  
RESTORATION  
SURVEY & PLANNING

Location  
217 N. Elm Street Raleigh, NC  
215 N. Elm Street Raleigh, NC  
215 N. Elm Street Raleigh, NC

Mailing Address  
217 N. Elm Street Raleigh, NC 27601-1001  
215 N. Elm Street Raleigh, NC 27601-1001  
215 N. Elm Street Raleigh, NC 27601-1001

Telephone/Fax  
919-733-4763 / 919-733-4763  
919-733-4763 / 919-733-4763  
919-733-4763 / 919-733-4763



Federal Aid #

TIP# R-2527

County: Montgomery/Stanly

**CONCURRENCE FORM FOR PROPERTIES NOT ELIGIBLE FOR  
THE NATIONAL REGISTER OF HISTORIC PLACES**

*Project Description:* **Widen NC 24/27 from NC 740 in Albemarle, Stanly County to the Troy Bypass, west of Troy, Montgomery County**

On **30 August 2006** representatives of the

- ☒ North Carolina Department of Transportation (NCDOT)  
☐ Federal Highway Administration (FHWA)  
☒ North Carolina State Historic Preservation Office (HPO)  
☐ Other

Reviewed the subject project at

- ☐ Scoping meeting  
☒ Historic architectural resources photograph review session/consultation  
☐ Other

All parties present agreed

- ☐ There are no properties over fifty years old within the project's area of potential effects.
- ☐ There are no properties less than fifty years old which are considered to meet Criteria Consideration G within the project's area of potential effects.
- ☒ There are properties over fifty years old within the project's Area of Potential Effects (APE), but based on the historical information available and the photographs of each property, the properties identified as 1-24; 28-40 are considered not eligible for the National Register and no further evaluation of them is necessary.
- ☐ There are no National Register-listed or Study Listed properties within the project's area of potential effects.
- ☐ All properties greater than 50 years of age located in the APE have been considered at this consultation, and based upon the above concurrence, all compliance for historic architecture with Section 106 of the National Historic Preservation Act and GS 121-12(a) has been completed for this project.
- ☐ There are no historic properties affected by this project. (*Attach any notes or documents as needed*)

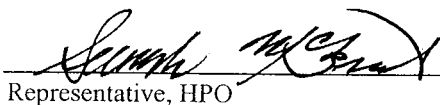
Signed:

  
Representative, NCDOT

30 August 2006  
Date

FHWA, for the Division Administrator, or other Federal Agency

Date

  
Representative, HPO

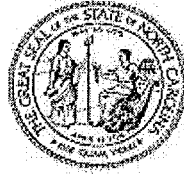
8/30/06  
Date

  
State Historic Preservation Officer

8/30/06  
Date

If a survey report is prepared, a final copy of this form and the attached list will be included.

THE SWIFT ISLAND FERRY BRIDGE IS INDIVIDUALLY ELIGIBLE AND IS NOT PART  
OF THE TILLERY HYDRO ELECTRIC DISTRICT



## North Carolina Department of Cultural Resources

### State Historic Preservation Office

Peter H. Sandbeck, Administrator

Michael F. Easley, Governor  
Josheth C. Evans, Secretary  
Jeffrey J. Crow, Deputy Secretary

Office of Archives and History  
Division of Historical Resources  
David Brink, Director

March 29, 2007

TO: Matt Wilkerson  
NCDOT - Office of Human Environment

FROM: Peter Sandbeck *RSR for Peter Sandbeck*

SUBJECT: Intensive Archaeological Survey and Evaluation (Phase I and Phase II) for Widening of NC 24/27/73 From NC 740 in Albemarle to West of the Pee Dee River Bridge, Stanly County, ER 04-0086

Thank you for your letter of August 25, 2006, transmitting the archaeological survey and evaluation report for the above project.

The report authors noted that 42 previously unknown archaeological sites were recorded during the archaeological investigations. Of these 42 archaeological properties, 39 (31ST190- 31ST194\*\*, 31SR197- 31ST203, and 31ST205- 31SR231) do not retain the level of integrity nor do they possess the potential to yield significant new information pertaining to either the prehistory or history of North Carolina. We concur with this recommendation.

For purposes of compliance with Section 106 of the National Historic Preservation Act, we concur that the following three (3) archaeological properties (31ST195, 31ST196, and 31ST204&204\*\*) when examined in total, comprise an archaeological district that is eligible for inclusion in the National Register of Historic Places under criterion D. These sites have the potential to provide important data relevant to local and regional prehistory and history. We also concur with the recommendations noting that these archaeological properties be avoided and not subjected to any soil disturbance associated with roadway construction. However, if avoidance is not possible, we agree that data recovery excavations be conducted at 31ST195 and additional laboratory analyses be undertaken with archaeological materials recovered from sites 31ST196 and 31ST204&204\*\*. If the data recovery option is chosen, we look forward to reviewing and commenting on the archaeological data recovery and laboratory analysis plan.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and considerations. If you have any questions concerning the above comment, please contact Renee Gledhill-Earley, environmental review coordinator, at 919-733-4763. In all future communication concerning this project, please cite the above referenced tracking number.

|                   | Location                          | Mailing Address                                  | Telephone/Fax         |
|-------------------|-----------------------------------|--------------------------------------------------|-----------------------|
| ADMINISTRATION    | 507 N. Blount Street, Raleigh, NC | 4617 Mail Service Center, Raleigh, NC 27699-4617 | 919/733-4763/283-8653 |
| RESTORATION       | 515 N. Blount Street, Raleigh, NC | 4617 Mail Service Center, Raleigh, NC 27699-4617 | 919/733-4547/735-4801 |
| SURVEY & PLANNING | 515 N. Blount Street, Raleigh, NC | 4617 Mail Service Center, Raleigh, NC 27699-4617 | 919/733-6915/735-4801 |





## North Carolina Department of Administration

Michael F. Easley, Governor

Britt Cobb, Secretary

January 29, 2007

Mr. Gregory Thorpe  
NC Department of Transportation  
Project Development and Environ. Anal.  
1548 Mail Service Center  
Raleigh NC 27699-1548

Dear Mr. Thorpe:

Subject: Scoping - Proposal to widen NC 24-27 from NC 740 in Albemarle in Stanly County to the Troy Bypass, west of Troy, in Montgomery County. TIP Nos. R-2530B, B-4974, R-2527

The N. C. State Clearinghouse has received the above project for intergovernmental review. This project has been assigned State Application Number 07-E-4220-0255. Please use this number with all inquiries or correspondence with this office.

Review of this project should be completed on or before 03/01/2007. Should you have any questions, please call (919)807-2425.

Sincerely,

A handwritten signature in cursive script that reads "Chrys Baggett".

Ms. Chrys Baggett  
Environmental Policy Act Coordinator

cc: Lisa Feller, Project Engineer

**Mailing Address:**

1301 Mail Service Center  
Raleigh, NC 27699-1301

**Telephone: (919)807-2425**

Fax (919)733-9571  
State Courier #51-01-00  
e-mail: Chrys.Baggett@ncmail.net

**Location Address:**

116 West Jones Street  
Raleigh, North Carolina



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Raleigh Field Office  
Post Office Box 33726  
Raleigh, North Carolina 27636-3726

January 24, 2007



Gregory J. Thorpe, Ph.D.  
North Carolina Department of Transportation  
Project Development and Environmental Analysis  
1548 Mail Service Center  
Raleigh, North Carolina 27699-1548

Dear Dr. Thorpe:

This letter is in response to your request for comments from the U.S. Fish and Wildlife Service (Service) on the potential environmental effects of the proposed widening of NC 24-27 from NC 740 in Albemarle in Stanly County to the Troy Bypass, west of Troy in Montgomery County, North Carolina (TIP Nos. R-2527, B-4974 and R-2530B). Since R-2530B in Stanly County falls within the Asheville Field Office work area, R-2530B will be addressed under separate cover from the Asheville Office. The following comments will be limited to B-4974 and R-2527. These comments provide information in accordance with provisions of the Fish and Wildlife Coordination Act (16 U.S.C. 661-667d) and section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531-1543).

Mr. Gary Jordan of my staff attended the February 23, 2006 Merger Team meeting for R-2527 and provided comments. In addition, Mr. Jordan has met with North Carolina Department of Transportation (NCDOT) Natural Environment Unit staff to discuss potential effects to federally listed species for R-2527. In summary, we are most concerned with the great potential for the federally endangered Schweinitz's sunflower (*Helianthus schweinitzii*) to occur within the project study area for both R-2527 and B-4974. We understand that R-2527 is currently planned as a state-funded project. However, there may still be a federal nexus on U.S. Forest Service lands or a federal nexus with the Section 404 permit, thus potentially requiring section 7 consultation for this species.

Originally we expressed some concern with the potential for the bald eagle (*Haliaeetus leucocephalus*) to occur within the project areas. While we still have some minimal concern for this species, we anticipate the bald eagle to be delisted sometime in February 2007. If the species is delisted, no section 7 consultation will be required. However, the bald eagle will still be protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. The Georgia aster (*Symphyotrichum georgianum*), a federal candidate for listing, also has the potential to occur within the project study areas.

Since a significant portion of R-2527 falls within the boundaries of the Uwharrie National Forest, the Service is concerned about potential effects to these protected lands. Many forest species would likely be affected through the direct loss of forest habitat and through increased



forest fragmentation. The effects of forest habitat fragmentation usually extend well beyond the project footprint and can lead to local extirpation of forest interior species and wildlife species which require large home ranges or that travel extensive distances for all or part of their life. Roads often act as physical barriers to wildlife movement and/or cause significant wildlife mortality in the form of road killed animals. Widening and increasing the posted speed further increase the incidence of road killed animals, which translates to increased danger to the traveling public. Forest fragmentation can lead to increased predation of some species and increased brown-headed cowbird (*Molothrus ater*) parasitism of the nests of neotropical migrant birds. Habitat fragmentation also often facilitates invasive and/or nonnative species colonization of fragmented lands.

In addition to the concerns listed above, the Service recommends the following general conservation measures to avoid or minimize environmental impacts to fish and wildlife resources:

1. Wetland and forest impacts should be avoided and minimized to the maximal extent practical. Areas exhibiting high biodiversity or ecological value important to the watershed or region should be avoided. Proposed highway projects should be aligned along or adjacent to existing roadways, utility corridors or other previously disturbed areas in order to minimize habitat loss and fragmentation. Highway shoulder and median widths should be reduced through wetland areas;
2. Crossings of streams and associated wetland systems should use existing crossings and/or occur on a bridge structure wherever feasible. Bridges should be long enough to allow for sufficient wildlife passage along stream corridors. Where bridging is not feasible, culvert structures that maintain natural water flow and hydraulic regimes without scouring or impeding fish and wildlife passage should be employed;
3. Bridges and approaches should be designed to avoid any fill that will result in damming or constriction of the channel or flood plain. To the extent possible, piers and bents should be placed outside the bank-full width of the stream. If spanning the flood plain is not feasible, culverts should be installed in the flood plain portion of the approach to restore some of the hydrological functions of the flood plain and reduce high velocities of flood waters within the affected area;
4. Bridge designs should include provisions for roadbed and deck drainage to flow through a vegetated buffer prior to reaching the affected stream. This buffer should be large enough to alleviate any potential effects from run-off of storm water and pollutants;
5. Off-site detours should be used rather than construction of temporary, on-site bridges. For projects requiring an on-site detour in wetlands or open water, such detours should be aligned along the side of the existing structure which has the least and/or least quality of fish and wildlife habitat. At the completion of construction, the detour area should be entirely removed and the impacted areas be planted with appropriate vegetation, including trees if necessary;
6. If unavoidable wetland or stream impacts are proposed, a plan for compensatory mitigation to offset unavoidable impacts should be provided early in the planning

process. Opportunities to protect mitigation areas in perpetuity via conservation easements, land trusts or by other means should be explored at the outset;

7. Wherever appropriate, construction in sensitive areas should occur outside fish spawning and migratory bird nesting seasons. In waterways that may serve as travel corridors for fish, in-water work should be avoided during moratorium periods associated with migration, spawning and sensitive pre-adult life stages. The general moratorium period for anadromous fish is February 15 - June 30;
8. Best Management Practices (BMP) for Construction and Maintenance Activities should be implemented; and

Section 7(a)(2) of the Endangered Species Act requires that all federal action agencies (or their designated non-federal representatives), in consultation with the Service, insure that any action federally authorized, funded, or carried out by such agencies is not likely to jeopardize the continued existence of any federally-listed threatened or endangered species. A biological assessment/evaluation may be prepared to fulfill the section 7(a)(2) requirement and will expedite the consultation process. To assist you, a county-by-county list of federally protected species known to occur in North Carolina and information on their life histories and habitats can be found on our web page at <http://nc-es.fws.gov/es/countyfr.html> . If suitable habitat occurs within the project vicinities for any listed species, surveys should be conducted to determine presence or absence of the species.

If you determine that the proposed actions may affect (i.e., likely to adversely affect or not likely to adversely affect) a listed species, you should notify this office with your determination, the results of your surveys, survey methodologies, and an analysis of the effects of the action on listed species, including consideration of direct, indirect, and cumulative effects, before conducting any activities that might affect the species. If you determine that the proposed actions will have no effect (i.e., no beneficial or adverse, direct or indirect effect) on listed species, then you are not required to contact our office for concurrence.

We reserve the right to review any federal permits that may be required for these projects, at the public notice stage. Therefore, it is important that resource agency coordination occur early in the planning process in order to resolve any conflicts that may arise and minimize delays in project implementation. In addition to the above guidance, we recommend that the environmental documentation for these projects include the following in sufficient detail to facilitate a thorough review of the actions:

1. A clearly defined and detailed purpose and need for the proposed projects, supported by tabular data, if available, and including a discussion of the project's independent utility;
2. A description of the proposed action with an analysis of all alternatives being considered;
3. A description of the fish and wildlife resources, and their habitats, within the project impact areas that may be directly or indirectly affected;
4. The extent and acreage of waters of the U.S., including wetlands, that are to be impacted by filling, dredging, clearing, ditching, or draining. Acres of wetland impact should be

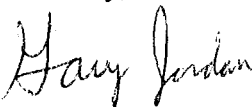


differentiated by habitat type based on the wetland classification scheme of the National Wetlands Inventory (NWI). Wetland boundaries should be determined by using the 1987 Corps of Engineers Wetlands Delineation Manual and verified by the U.S. Army Corps of Engineers;

5. The anticipated environmental impacts, both temporary and permanent, that would be likely to occur as a direct result of the proposed projects. The assessment should also include the extent to which the proposed projects would result in indirect and cumulative effects to natural resources;
6. Design features and construction techniques which would be employed to avoid or minimize impacts to fish and wildlife resources, both direct and indirect, and including fragmentation and direct loss of habitat;
7. Design features, construction techniques, or any other mitigation measures which would be employed at wetland crossings and stream channel relocations to avoid or minimize impacts to waters of the US; and,
8. If unavoidable wetland or stream impacts are proposed, project planning should include a compensatory mitigation plan for offsetting the unavoidable impacts.

The Service appreciates the opportunity to comment on these projects. Please continue to advise us during the progression of the planning process, including your official determination of the impacts of these projects. If you have any questions regarding our response, please contact Mr. Gary Jordan at (919) 856-4520, ext. 32.

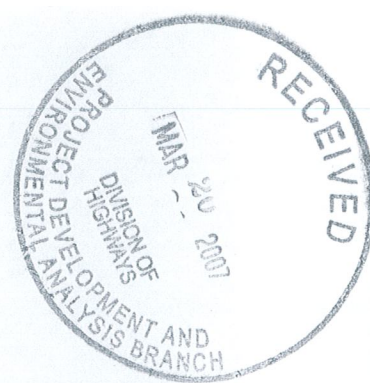
Sincerely,

  
for Pete Benjamin  
Field Supervisor

cc: Richard Spencer, USACE, Wilmington, NC  
Polly Lespinasse, NCDWQ, Mooresville, NC  
Travis Wilson, NCWRC, Creedmoor, NC  
Chris Militscher, USEPA, Raleigh, NC  
John Sullivan, FHWA, Raleigh, NC



## North Carolina Department of Administration



Michael F. Easley, Governor

Britt Cobb, Secretary

March 16, 2007

Mr. Gregory Thorpe  
NC Department of Transportation  
Project Development and Environ. Anal.  
1548 Mail Service Center  
Raleigh, NC 27699-1548

Dear Mr. Thorpe:

Re: SCH File # 07-E-4220-0255; Scoping; Proposal to widen NC 24-27 from NC 740 in Albemarle in Stanly County to the Troy Bypass, west of Troy, in Montgomery County. TIP Nos. R-2530B, B-4974, R-2527

The above referenced environmental impact information has been submitted to the State Clearinghouse under the provisions of the National Environmental Policy Act. According to G.S. 113A-10, when a state agency is required to prepare an environmental document under the provisions of federal law, the environmental document meets the provisions of the State Environmental Policy Act. Attached to this letter for your consideration are **additional** comments made by agencies in the course of this review.

If any further environmental review documents are prepared for this project, they should be forwarded to this office for intergovernmental review.

Should you have any questions, please do not hesitate to call.

Sincerely,

Ms. Chrys Baggett  
Environmental Policy Act Coordinator

### Attachments

cc: Region F  
Region G

**Mailing Address:**  
1301 Mail Service Center  
Raleigh, NC 27699-1301

**Telephone:** (919)807-2425  
Fax (919)733-9571  
State Courier #51-01-00  
e-mail [Chrys.Baggett@ncmail.net](mailto:Chrys.Baggett@ncmail.net)

**Location Address:**  
116 West Jones Street  
Raleigh, North Carolina



NORTH CAROLINA STATE CLEARINGHOUSE  
DEPARTMENT OF ADMINISTRATION  
INTERGOVERNMENTAL REVIEW

STATE NUMBER: 07-E-4220-0255

F02

DATE RECEIVED: 01/29/2007

AGENCY RESPONSE: 02/26/2007

REVIEW CLOSED: 03/01/2007

MR PHIL LETSINGER  
CLEARINGHOUSE COORD  
CC&PS - DEM, NFIP  
MSC # 4716  
RALEIGH NC

REVIEW DISTRIBUTION  
CC&PS - DEM, NFIP  
CENTRALINA COG  
DENR LEGISLATIVE AFFAIRS  
DEPT OF AGRICULTURE  
DEPT OF CUL RESOURCES  
DEPT OF TRANSPORTATION  
PIEDMONT TRIAD COG



PROJECT INFORMATION

APPLICANT: NC Department of Transportation

TYPE: National Environmental Policy Act

ERD: Scoping

DESC: Proposal to widen NC 24-27 from NC 740 in Albemarle in Stanly County to the Troy Bypass, west of Troy, in Montgomery County. TIP Nos. R-2530B, B-4974, R-2527

The attached project has been submitted to the N. C. State Clearinghouse for intergovernmental review. Please review and submit your response by the above indicated date to 1301 Mail Service Center, Raleigh NC 27699-1301.

If additional review time is needed, please contact this office at (919)807-2425.

---

AS A RESULT OF THIS REVIEW THE FOLLOWING IS SUBMITTED:

☐

NO COMMENT

☒

COMMENTS ATTACHED

SIGNED BY:

Shirley C. Coker

DATE:

3/12/07



North Carolina Department of Crime Control and Public Safety  
Division of Emergency Management  
Office of Geospatial & Technology Management

Michael F. Easley  
Governor

Bryan E. Beatty  
Secretary

March 12, 2007

Division of Emergency Management  
National Flood Insurance Program

STATE NUMBER: 07-E-4220-0255

APPLICANT: North Carolina Department of Transportation



DESC: Proposal to widen NC 24-27 from NC 740 in Albemarle in Stanly County to the Troy Bypass in Montgomery County

The Environmental Assessment for the proposed project should address floodplain management requirements (floodplain development permits and no-impact studies and/or CLOMRs and LOMRs) where the proposed road improvements encroach on floodplains shown on effective Flood Insurance Rate Maps. A new preliminary FIRM has been issued for Montgomery County that provide Base Flood Elevations and either regulatory floodways or non-encroachment areas on streams and rivers previously identified as Approximate A Zone floodplain areas. A preliminary FIRM for Stanly County will be release during Summer 2007 with similar information. This information is considered Best Available Data that counties and municipalities are required to enforce during the interim period before the new FIRMs become effective. The Environmental Assessment should take this information into account where available.

Please let me know if you have any questions about this.

Edward M. Curtis, P.E., CFM  
Division of Emergency Management – NFIP  
919-715-8000 extension 369  
ecurtis@ncem.org

**MAILING ADDRESS:**

4713 Mail Service Center  
Raleigh, NC 27699-4713

Fax: (919) 715-5408



[www.ncem.org](http://www.ncem.org)

**OFFICE LOCATION:**

Disaster Recovery Operations Center  
1830-B Tillery Place  
Raleigh, NC 27604  
Telephone: (919)715-8000





## North Carolina Department of Environment and Natural Resources

Michael F. Easley, Governor

William G. Ross Jr., Secretary

January 25, 2007

Dr. Gregory J. Thorpe, Director  
Project Development and Analysis Branch  
N.C. Department of Transportation  
1548 MSC  
Raleigh, NC 27699-1548

Subject: Revised start of study for the proposed widening of NC 24-27 from NC 740 in Albemarle in Stanly County to the Troy Bypass, west of Troy in Montgomery County; WBS No. 34446.1.6, TIP no. R-2530B; WBS No. 39922.1.1, TIP No. B-4974; and WBS No. 35572.1.1, TIP No. R-2527

Dear Dr. Thorpe:

The Natural Heritage Program database contains records for several rare species of plants and animals, and two Significant Natural Heritage Areas from the vicinity of the proposed project.

River Haven Ridge, a Natural Heritage Area of State Significance occurs on the south side of NC 24-27 approximately 0.4 miles west of Lake Tillery. This site supports an example of the very rare Basic Rocky Variant of Xeric Hardpan Forest, a unique plant community.

Roberdo Bog and Longleaf Pine Forest, a Natural Heritage Area of National Significance occurs along both sides of NC 24/27, about 1.1 mile west from its junction with NC 109. The site includes one of the best examples of an Upland Pool community and includes the most extensive restorable example of Piedmont Longleaf Pine Forest remaining, with important occurrences of Schweinitz's sunflower and smooth sunflower growing in natural habitat.

### Plants:

Piedmont Indigo-Bush (*Amorpha schwerinii*) - NC: Significantly Rare (historically known from project area but not seen in recent years)

Smooth Sunflower (*Helianthus laevigatus*) - NC: Significantly Rare (known from 3 locations within the project area)

Schweinitz's Sunflower (*Helianthus schweinitzii*) - US: Endangered, NC: Endangered

Georgia Aster (*Symphyotrichum georgianum*) - US: Federal Species of Concern, NC: Threatened (known from two locations within project area)

1601 Mail Service Center, Raleigh, North Carolina 27699-1601  
Phone: 919-715-8700 \ FAX: 919-715-3085 \ Internet [www.ncnhp.org](http://www.ncnhp.org)



Animals:

Mole Salamander (*Ambystoma talpoideum*) - NC: Special Concern

Four-toed Salamander (*Hemidactylium scutatum*) - NC: Special Concern

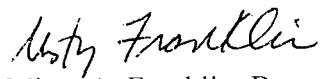
Loggerhead Shrike (*Lanius ludovicianus*) - NC: Special Concern (known from undisclosed locations within Stanly and Montgomery Counties)

Given the potential presence of the rare plants and animals within the project area, we strongly recommend that a thorough survey be conducted along the entire project study corridor. If populations are found, the US Fish and Wildlife Service, NC Plant Conservation Program, and NC Wildlife Resources Commission must be consulted with regard to avoidance, minimization, or other forms of mitigation of potential impacts. If rare species or Significant Natural Heritage areas are found within the project area, we request that a project alignment be selected that minimizes the impacts to this species, and that reports of these occurrences be submitted to the NC Natural Heritage Program

The use of Natural Heritage Program data should not be substituted for actual field surveys, particularly if the project area contains suitable habitat for rare species, significant natural communities, or priority natural areas.

Please do not hesitate to contact me at 919-715-8700 if you have questions or need further information.

Sincerely,



Misty A. Franklin, Botanist  
NC Natural Heritage Program





RECEIVED  
Division of Highways

APR 27 2007

Preconstruction  
Project Development and  
Environmental Analysis Branch

North Carolina Department of Cultural Resources  
State Historic Preservation Office

Peter B. Sandbeck, Administrator

Michael F. Easley, Governor  
Lisbeth C. Evans, Secretary  
Jeffrey J. Crow, Deputy Secretary

Office of Archives and History  
Division of Historical Resources  
David Brook, Director

April 20, 2007

MEMORANDUM

TO: Gregory Thorpe, Ph.D., Director  
Project Development and Environmental Analysis Branch  
NCDOT Division of Highways

FROM: Peter Sandbeck *PSS for Peter Sandbeck*

SUBJECT: Revised Start of Study for the Proposed Widening of NC 24-27 from NC 740 in Albemarle, Stanly County to the Troy Bypass, West of Troy, Montgomery County, Project Tip Nos. R-2530B (ER04-0086), B-4974 (CH07-0295), and R-2527 (ER02-7546)

Thank you for your letter of January 8, 2007, concerning the above project.

Based on the topographic and hydrological situation that exists within the proposed project area, we have determined that there is a very high probability that archaeological sites exist in the project area. We therefore recommend that if any earth moving activities are scheduled to take place, that a comprehensive archaeological survey be conducted by an experienced archaeologist to identify and evaluate the significance of any archaeological remains that may be damaged or destroyed by the proposed project. Please note that our office now requests consultation with the Office of State Archaeology to discuss appropriate field methodology prior to the archaeological field investigation.

If an archaeological field investigation is conducted, two copies of the resulting archaeological survey report, as well as one copy of the appropriate site forms, should be forwarded to us for review and comment as soon as they are available and well in advance of any earth moving activities.

We have recently concurred on the National Register Eligibility for the following historic properties located within the Area of Potential Effects for this project with the understanding that Alternative A through Troy has been eliminated:

(MG 74) Wooley-Saunders House, west side of SR 1005 at junction with SR 1519, 0.2 mile unpaved lane, Troy vicinity.

(MG 72) Neal Clark House, east side of SR 1005, 0.2 mile north of junction with SR 1919, Troy vicinity.

ADMINISTRATION  
RESTORATION  
SURVEY & PLANNING

Location  
507 N. Blount Street, Raleigh NC  
515 N. Blount Street, Raleigh NC  
515 N. Blount Street, Raleigh, NC

Mailing Address  
4617 Mail Service Center, Raleigh NC 27699-4617  
4617 Mail Service Center, Raleigh NC 27699-4617  
4617 Mail Service Center, Raleigh NC 27699-4617

Telephone/Fax  
(919)733-4763/733-8653  
(919)733-6547/715-4801  
(919)733-6545/715-4801

(ST 688) James B. Garrison Bridge (Swift Island Ferry Bridge), (Bridge No. 830051), NC 24-27-73 over the Pee Dee River.

Should the Study Area for the project change from the earlier submissions for R-2530B, B-4974, and R-2527, we will request an additional survey. We look forward to receiving the Environmental Assessment (EA) for this project.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919/733-4763 ext. 246. In all future communication concerning this project, please cite the above referenced tracking number.

cc: State Clearinghouse  
Mary Pope Furr  
Matt Wilkerson





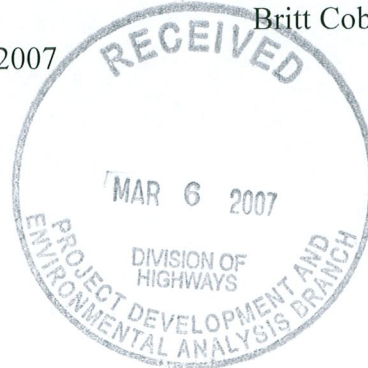
## North Carolina Department of Administration

Michael F. Easley, Governor

Britt Cobb, Secretary

March 2, 2007

Mr. Gregory Thorpe  
NC Department of Transportation  
Project Development and Environ. Anal.  
1548 Mail Service Center  
Raleigh, NC 27699-1548



Dear Mr. Thorpe:

Re: SCH File # 07-E-4220-0255; Scoping; Proposal to widen NC 24-27 from NC 740 in Albemarle in Stanly County to the Troy Bypass, west of Troy, in Montgomery County. TIP Nos. R-2530B, B-4974, R-2527

The above referenced environmental impact information has been submitted to the State Clearinghouse under the provisions of the National Environmental Policy Act. According to G.S. 113A-10, when a state agency is required to prepare an environmental document under the provisions of federal law, the environmental document meets the provisions of the State Environmental Policy Act. Attached to this letter for your consideration are the comments made by agencies in the course of this review.

If any further environmental review documents are prepared for this project, they should be forwarded to this office for intergovernmental review.

Should you have any questions, please do not hesitate to call.

Sincerely,

Ms. Chrys Baggett  
Environmental Policy Act Coordinator

Attachments

cc: Region F  
Region G

*Mailing Address:*  
1301 Mail Service Center  
Raleigh, NC 27699-1301

*Telephone: (919)807-2425*  
Fax (919)733-9571  
State Courier #51-01-00  
*e-mail Chrys.Baggett@ncmail.net*

*Location Address:*  
116 West Jones Street  
Raleigh, North Carolina



North Carolina Department of Environment and Natural Resources

Michael F. Easley, Governor

William G. Ross Jr., Secretary

MEMORANDUM

TO: Chrys Baggett  
State Clearinghouse

FROM: Melba McGee *✓*  
Project Review Coordinator

RE: 07-0255 Scoping, Proposed Widening of NC 24-27 from NC 740 in  
Albemarle Stanly to the Troy Bypass, Montgomery County

DATE: February 27, 2007

The Department of Environment and Natural Resources has reviewed the proposed project. The attached comments are a result of this review. More specific comments will be provided during the environmental review process.

Thank you for the opportunity to respond. If during the preparation of the environmental document, additional information is needed, the applicant is encouraged to notify our respective divisions.

Attachments

1601 Mail Service Center, Raleigh, North Carolina 27699-1601  
Phone: 919-733-4984 \ FAX: 919-715-3060 \ Internet: [www.enr.state.nc.us/ENR/](http://www.enr.state.nc.us/ENR/)

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Michael F. Easley, Governor  
William G. Ross Jr., Secretary  
North Carolina Department of Environment and Natural Resources  
Alan W. Klimmek, P.E. Director  
Division of Water Quality

January 29, 2007

## MEMORANDUM

**To:** Gregory J. Thorpe, Ph.D., North Carolina Department of Transportation, Manager

**From:** Polly Lespinasse, NC Division of Water Quality, Mooresville Regional Office

**Subject:** Scoping Comments for the Proposed Widening of NC 24-27 from NC 740 in Albemarle, Stanly County to the Troy Bypass, West of Troy, Montgomery County, TIPs R-2530B, B-4974, and R-2527, WBS Numbers 34446.1.6, 39922.1.1, and 35572.1.1, DENR Project No. 07-0255, Due Date 02/26/07

Please reference your correspondence dated January 8, 2007 in which comments were requested for the above referenced project. Preliminary analysis of the project reveals the potential for multiple impacts to jurisdictional streams and wetlands in the project area. More specifically, impacts to:

| Stream Name    | River Basin | Stream Classification(s) | Stream Index Number     |
|----------------|-------------|--------------------------|-------------------------|
| Mountain Creek | Yadkin      | WS-IV                    | 13-5-(0.7)              |
| Pee Dee River  | Yadkin      | WS-IV, B, CA             | 13-(1)                  |
| Rocky Creek    | Yadkin      | WS-IV, CA                | 13-8-(0.5) and 13-8-(2) |
| Dumas Creek    | Yadkin      | C                        | 13-16-1                 |
| Clarks Creek   | Yadkin      | C                        | 13-16                   |
| Lick Fork      | Yadkin      | C                        | 13-16-4                 |
| Smith Branch   | Yadkin      | C                        | 13-25-30-1              |

Further investigations at a higher resolution should be undertaken to verify the presence of other streams and/or jurisdictional wetlands in the area. In the event that any jurisdictional areas are identified, the Division of Water Quality requests that the NCDOT consider the following environmental issues for the proposed project:

### Specific Project Comments:

1. Review of the project reveals the presence of surface waters classified as Water Supply Critical Area in the project study area. Given the potential for impacts to these resources during the project implementation, the DWQ requests that DOT strictly adhere to North Carolina regulations entitled "Design Standards in Sensitive Watersheds" (15A NCAC 04B .0124) throughout design and construction of the project. This would apply for any area that drains to streams having WS CA (Water Supply Critical Area) classifications. For bridge projects located within the Critical Area of a Water Supply, the NCDOT will be required to design, construct, and maintain hazardous spill catch basins in the project area. The number of catch basins installed should be determined by the design of the bridge, so that runoff would enter said basin(s) rather than flowing directly into the stream, and in consultation with the DWQ.

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North Carolina Division of Water Quality  
Internet: n2o.enr.state.nc.us

610 East Center Avenue, Suite 301  
Mooresville, NC 28115

Phone (704) 663-1699  
Fax (704) 663-6040

**General Project Comments:**

2. The environmental document should provide a detailed and itemized presentation of the proposed impacts to wetlands and streams with corresponding mapping. If mitigation is necessary as required by 15A NCAC 2H.0506(h), it is preferable to present a conceptual (if not finalized) mitigation plan with the environmental documentation. Appropriate mitigation plans will be required prior to issuance of a 401 Water Quality Certification.
3. Environmental assessment alternatives should consider design criteria that reduce the impacts to streams and wetlands from storm water runoff. These alternatives should include road designs that allow for treatment of the storm water runoff through best management practices as detailed in the most recent version of NC DWQ *Stormwater Best Management Practices*, such as grassed swales, buffer areas, preformed scour holes, retention basins, etc.
4. After the selection of the preferred alternative and prior to an issuance of the 401 Water Quality Certification, the NCDOT is respectfully reminded that they will need to demonstrate the avoidance and minimization of impacts to wetlands (and streams) to the maximum extent practical. In accordance with the Environmental Management Commission's Rules {15A NCAC 2H.0506(h)}, mitigation will be required for impacts of greater than 1 acre to wetlands. In the event that mitigation is required, the mitigation plan should be designed to replace appropriate lost functions and values. The NC Ecosystem Enhancement Program may be available for use as wetland mitigation.
5. In accordance with the Environmental Management Commission's Rules {15A NCAC 2H.0506(h)}, mitigation will be required for impacts of greater than 150 linear feet to any single perennial stream. In the event that mitigation is required, the mitigation plan should be designed to replace appropriate lost functions and values. The NC Ecosystem Enhancement Program may be available for use as stream mitigation.
6. DWQ is very concerned with sediment and erosion impacts that could result from this project. NCDOT should address these concerns by describing the potential impacts that may occur to the aquatic environments and any mitigating factors that would reduce the impacts.
7. If a bridge is being replaced with a hydraulic conveyance other than another bridge, DWQ believes the use of a Nationwide Permit may be required. Please contact the US Army Corp of Engineers to determine the required permit(s).
8. If the old bridge is removed, no discharge of bridge material into surface waters is allowed unless otherwise authorized by the US ACOE. Strict adherence to the Corps of Engineers guidelines for bridge demolition will be a condition of the 401 Water Quality Certification.
9. Bridge supports (bents) should not be placed in the stream when possible.
10. Whenever possible, the DWQ prefers spanning structures. Spanning structures usually do not require work within the stream or grubbing of the streambanks and do not require stream channel realignment. The horizontal and vertical clearances provided by bridges allow for human and wildlife passage beneath the structure, do not block fish passage and do not block navigation by canoeists and boaters.
11. Bridge deck drains should not discharge directly into the stream. Stormwater should be directed across the bridge and pre-treated through site-appropriate means (grassed swales, pre-formed scour holes, vegetated buffers, etc.) before entering the stream. Please refer to the most current version of NC DWQ *Stormwater Best Management Practices*.



12. If concrete is used during construction, a dry work area should be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete should not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills.
13. If temporary access roads or detours are constructed, the site shall be graded to its preconstruction contours and elevations. Disturbed areas should be seeded or mulched to stabilize the soil and appropriate native woody species should be planted. When using temporary structures the area should be cleared but not grubbed. Clearing the area with chain saws, mowers, bush-hogs, or other mechanized equipment and leaving the stumps and root mat intact allows the area to re-vegetate naturally and minimizes soil disturbance.
14. Placement of culverts and other structures in waters, streams, and wetlands shall be below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in disequilibrium of wetlands or streambeds or banks, adjacent to or upstream and down stream of the above structures. The applicant is required to provide evidence that the equilibrium is being maintained if requested in writing by DWQ. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact DWQ for guidance on how to proceed and to determine whether or not a permit modification will be required.
15. If multiple pipes or barrels are required, they should be designed to mimic natural stream cross section as closely as possible including pipes or barrels at flood plain elevation and/or sills where appropriate. Widening the stream channel should be avoided. Stream channel widening at the inlet or outlet end of structures typically decreases water velocity causing sediment deposition that requires increased maintenance and disrupts aquatic life passage.
16. If foundation test borings are necessary; it should be noted in the document. Geotechnical work is approved under General 401 Certification Number 3494/Nationwide Permit No. 6 for Survey Activities.
17. Sediment and erosion control measures sufficient to protect water resources must be implemented and maintained in accordance with the most recent version of North Carolina Sediment and Erosion Control Planning and Design Manual and the most recent version of NCS000250.
18. All work in or adjacent to stream waters should be conducted in a dry work area unless otherwise approved by NC DWQ. Approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual such as sandbags, rock berms, cofferdams and other diversion structures should be used to prevent excavation in flowing water.
19. Sediment and erosion control measures should not be placed in wetlands and streams.
20. Borrow/waste areas should avoid wetlands to the maximum extent practical. Impacts to wetlands in borrow/waste areas could precipitate compensatory mitigation.
21. While the use of National Wetland Inventory (NWI) maps and soil survey maps are useful tools, their inherent inaccuracies require that qualified personnel perform onsite wetland delineations prior to permit approval.
22. Heavy equipment should be operated from the bank rather than in stream channels in order to minimize sedimentation and reduce the likelihood of introducing other pollutants into streams. This equipment should be inspected daily and maintained to prevent contamination of surface waters from leaking fuels, lubricants, hydraulic fluids, or other toxic materials.

23. In most cases, the DWQ prefers the replacement of the existing structure at the same location with road closure. If road closure is not feasible, a temporary detour should be designed and located to avoid wetland impacts, minimize the need for clearing and to avoid destabilizing stream banks. If the structure will be on a new alignment, the old structure should be removed and the approach fills removed from the 100-year floodplain. Approach fills should be removed and restored to the natural ground elevation. The area should be stabilized with grass and planted with native tree species. Tall fescue should not be used in riparian areas.
24. Riprap should not be placed in the active thalweg channel or placed in the streambed in a manner that precludes aquatic life passage. Bioengineering boulders or structures should be properly designed, sized and installed.

Thank you for requesting our input at this time. The NCDOT is reminded that issuance of a 401 Water Quality Certification requires that appropriate measures be instituted to ensure that water quality standards are met and designated uses are not degraded or lost. If you have any questions or require additional information, please contact Polly Lespinasse at (704) 663-1699.

cc: Steve Lund, US Army Corps of Engineers, Asheville Field Office  
Ron Lucas, Federal Highway Administration  
Chris Militscher, Environmental Protection Agency  
Marla Chambers, NC Wildlife Resources Commission  
Marella Buncick, US Fish and Wildlife Service  
Sonia Gregory, DWQ Central Office  
File Copy



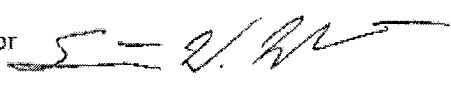


## North Carolina Wildlife Resources Commission

Richard B. Hamilton, Executive Director

### MEMORANDUM

TO: Melba McGee  
Office of Legislative and Intergovernmental Affairs, DENR

FROM: Travis Wilson, Highway Project Coordinator   
Habitat Conservation Program

DATE: February 26, 2007

SUBJECT: Response to the start of study notification from the N. C. Department of Transportation (NCDOT) regarding fish and wildlife concerns for the proposed widening of NC 24-27 from NC 740 in Albemarle in Stanly County to the Troy Bypass west of Troy, Stanly and Montgomery Counties, North Carolina. TIP No. R-2530b, B-4974, and R-2527, SCH Project No. 07-0255.

This memorandum responds to a request from Gregory J. Thorpe of the NCDOT for our concerns regarding impacts on fish and wildlife resources resulting from the subject project. Biologists on the staff of the N. C. Wildlife Resources Commission (NCWRC) have reviewed the proposed improvements. Our comments are provided in accordance with certain provisions of the National Environmental Policy Act (42 U.S.C. 4332(2)(c)) and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661-667d).

The NCDOT proposes to widen NC 24-27 to four lanes from NC 740 to the Troy Bypass west of Troy, including a bridge replacement over Lake Tillery. The project will impact drainages of the Pee Dee River (Lake Tillery), including Mountain Creek and Jacobs Creek, both classified as WS-IV. The Pee Dee River is classified WS-IV and B CA. The Carolina creekshell (*Villosa vaughaniana*), Federal Species of Concern and state Endangered, and notched rainbow (*V. constricta*), state Special Concern, occurs in the Mountain Creek and Lick Fork drainages. The eastern lampmussel (*Lampsilis radiata*), state Threatened, occurs in Jacobs Creek and other tributaries of Lake Tillery. Mussel surveys should be conducted in any directly impacted perennial streams. If state or federally listed species are found, NCDOT should consult with the appropriate resource agencies. Strict sedimentation and erosion control measures will be important for this project. Impacts to the Uwharrie National Forest should be avoided and

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minimized where feasible, also a NCWRC public boating access facility is located near the southeast quadrant of the Lake Tillery Bridge. NCDOT should coordinate with NCWRC Division of Engineering Services during design and construction to avoid and minimize permanent and temporary impacts to this facility. Furthermore, to help facilitate document preparation and the review process, our general informational needs are outlined below:

1. Description of fishery and wildlife resources within the project area, including a listing of federally or state designated threatened, endangered, or special concern species. Potential borrow areas to be used for project construction should be included in the inventories. A listing of designated plant species can be developed through consultation with:

The Natural Heritage Program  
N. C. Division of Parks and Recreation  
1615 Mail Service Center  
Raleigh, N. C. 27699-1615  
(919) 733-7795  
[WWW.ncsparks.net/nhp](http://WWW.ncsparks.net/nhp)

and,

NCDA Plant Conservation Program  
P. O. Box 27647  
Raleigh, N. C. 27611  
(919) 733-3610

2. Description of any streams or wetlands affected by the project. The need for channelizing or relocating portions of streams crossed and the extent of such activities.
3. Cover type maps showing wetland acreages impacted by the project. Wetland acreages should include all project-related areas that may undergo hydrologic change as a result of ditching, other drainage, or filling for project construction. Wetland identification may be accomplished through coordination with the U. S. Army Corps of Engineers (COE). If the COE is not consulted, the person delineating wetlands should be identified and criteria listed.
4. Cover type maps showing acreages of upland wildlife habitat impacted by the proposed project. Potential borrow sites should be included.
5. The extent to which the project will result in loss, degradation, or fragmentation of wildlife habitat (wetlands or uplands).
6. Mitigation for avoiding, minimizing or compensating for direct and indirect degradation in habitat quality as well as quantitative losses.
7. A cumulative impact assessment section which analyzes the environmental effects of highway construction and quantifies the contribution of this individual project to environmental degradation.
8. A discussion of the probable impacts on natural resources which will result from secondary development facilitated by the improved road access.



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9. If construction of this facility is to be coordinated with other state, municipal, or private development projects, a description of these projects should be included in the environmental document, and all project sponsors should be identified.

Thank you for the opportunity to provide input in the early planning stages for this project. If we can further assist your office, please contact me at (919) 528-9886.



### INTERGOVERNMENTAL REVIEW - PROJECT COMMENTS

After review of this project it has been determined that the DENR permit(s) and/or approvals indicated may need to be obtained in order for this project to comply with North Carolina Law. Questions regarding these permits should be addressed to the Regional Office indicated on the reverse of this form. All applications, information and guidelines relative to these plans and permits are available from the same Regional Office.

| PERMITS                                                                                                                                                                                                                                                                                                                                                                                                 | SPECIAL APPLICATION PROCEDURES or REQUIREMENTS                                                                                                                                                                                                                                      | Normal Process Time (Statutory Time Limit) |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| <input type="checkbox"/> Permit to construct & operate wastewater treatment facilities, sewer system extensions & sewer systems not discharging into state surface waters.                                                                                                                                                                                                                              | Application 90 days before begin construction or award of construction contracts. On-site inspection. Post-application technical conference usual.                                                                                                                                  | 30 days (90 days)                          |
| <input type="checkbox"/> NPDES-permit to discharge into surface water and/or permit to operate and construct wastewater facilities discharging into state surface waters.                                                                                                                                                                                                                               | Application 180 days before begin activity. On-site inspection preapplication conference usual. Additionally, obtain permit to construct wastewater treatment facility-granted after NPDES. Reply time, 30 days after receipt of plans or issue of NPDES permit-whichever is later. | 90 - 120 days (N/A)                        |
| <input type="checkbox"/> Water Use Permit                                                                                                                                                                                                                                                                                                                                                               | Preapplication technical conference usually necessary                                                                                                                                                                                                                               | 30 days (N/A)                              |
| <input type="checkbox"/> Well Construction Permit                                                                                                                                                                                                                                                                                                                                                       | Complete application must be received and permit issued prior to the installation of a well.                                                                                                                                                                                        | 7 days (15 days)                           |
| <input type="checkbox"/> Dredge and Fill Permit                                                                                                                                                                                                                                                                                                                                                         | Application copy must be served on each adjacent riparian property owner. On-site inspection. Preapplication conference usual. Filling may require Easement to Fill from N.C. Department of Administration and Federal Dredge and Fill Permit.                                      | 55 days (90 days)                          |
| <input type="checkbox"/> Permit to construct & operate Air Pollution Abatement facilities and/or Emission Sources as per 15 A NCAC (2Q.0100, 2Q.0300, 2H.0600)                                                                                                                                                                                                                                          | N/A                                                                                                                                                                                                                                                                                 | 60 days                                    |
| <input type="checkbox"/> Any open burning associated with subject proposal must be in compliance with 15 A NCAC 2D.1900                                                                                                                                                                                                                                                                                 | N/A                                                                                                                                                                                                                                                                                 | 60 days (90 days)                          |
| <input type="checkbox"/> Demolition or renovations of structures containing asbestos material must be in compliance with 15 A NCAC 2D.1110 (a) (1) which requires notification and removal prior to demolition. Contact Asbestos Control Group 919-733-0820.                                                                                                                                            |                                                                                                                                                                                                                                                                                     |                                            |
| <input type="checkbox"/> Complex Source Permit required under 15 A NCAC 2D.0800                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                     |                                            |
| <input type="checkbox"/> The Sedimentation Pollution Control Act of 1973 must be properly addressed for any land disturbing activity. An erosion & sedimentation control plan will be required if one or more acres to be disturbed. Plan filed with proper Regional Office (Land Quality Section) at least 30 days before beginning activity. A fee of \$50 for the first acre or any part of an acre. |                                                                                                                                                                                                                                                                                     | 20 days (30 days)                          |
| <input checked="" type="checkbox"/> The Sedimentation Pollution Control Act of 1973 must be addressed with respect to the referenced Local Ordinance                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                     | 30 days                                    |
| <input type="checkbox"/> Sedimentation and erosion control must be addressed in accordance with NCDOT's approved program. Particular attention should be given to design and installation of appropriate perimeter sediment trapping devices as well as stable stormwater conveyances and outlets.                                                                                                      |                                                                                                                                                                                                                                                                                     |                                            |
| <input type="checkbox"/> Mining Permit                                                                                                                                                                                                                                                                                                                                                                  | On-site inspection usual. Surety bond filed with DENR. Bond amount varies with type mine and number of acres of affected land. Any are mined greater than one acre must be permitted. The appropriate bond must be received before the permit can be issued.                        | 30 days (60 days)                          |
| <input type="checkbox"/> North Carolina Burning permit                                                                                                                                                                                                                                                                                                                                                  | On-site inspection by N.C. Division of Forest Resources if permit exceeds 4 days                                                                                                                                                                                                    | 1 day (N/A)                                |
| <input type="checkbox"/> Special Ground Clearance Burning Permit-22 counties in coastal N.C. with organic soils.                                                                                                                                                                                                                                                                                        | On-site inspection by N.C. Division of Forest Resources required "if more than five acres of ground clearing activities are involved. Inspections should be requested at least ten days before actual burn is planned."                                                             | 1 day (N/A)                                |
| <input type="checkbox"/> Oil Refining Facilities                                                                                                                                                                                                                                                                                                                                                        | N/A                                                                                                                                                                                                                                                                                 | 90 - 120 days (N/A)                        |



| PERMITS                                                              | SPECIAL APPLICATION PROCEDURES or REQUIREMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Normal Process Time<br>(Statutory Time Limit) |
|----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Dam Safety Permit                           | If permit required, application 60 days before begin construction. Applicant must hire N.C. qualified engineer to: prepare plans, inspect construction, certify construction is according to DENR approved plans. May also require permit under mosquito control program, and a 404 permit from Corps of Engineers. An inspection of site is necessary to verify Hazard Classification. A minimum fee of \$200.00 must accompany the application. An additional processing fee based on a percentage of the total project cost will be required upon completion. | 30 days<br>(60 days)                          |
| <input type="checkbox"/> Permit to drill exploratory oil or gas well | File surety bond of \$5,000 with DENR running to State of N.C. conditional that any well opened by drill operator shall, upon abandonment, be plugged according to DENR rules and regulations.                                                                                                                                                                                                                                                                                                                                                                   | 10 days<br>(N/A)                              |
| <input type="checkbox"/> Geophysical Exploration Permit              | Application filed with DENR at least 10 days prior to issue of permit. Application by letter. No standard application form.                                                                                                                                                                                                                                                                                                                                                                                                                                      | 10 days<br>(N/A)                              |
| <input type="checkbox"/> State Lakes Construction Permit             | Application fees based on structure size is charged. Must include descriptions & drawings of structure & proof of ownership of riparian property.                                                                                                                                                                                                                                                                                                                                                                                                                | 15 - 20 days<br>(N/A)                         |
| <input checked="" type="checkbox"/> 401 Water Quality Certification  | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 55 days<br>(130 days)                         |
| <input type="checkbox"/> CAMA Permit for MAJOR development           | \$250.00 fee must accompany application                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 60 days<br>(130 days)                         |
| <input type="checkbox"/> CAMA Permit for MINOR development           | \$50.00 fee must accompany application                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 22 days<br>(25 days)                          |
| <input type="checkbox"/>                                             | Several geodetic monuments are located in or near the project area. If any monument needs to be moved or destroyed, please notify:<br>N.C. Geodetic Survey, Box 27687 Raleigh, N.C. 27611                                                                                                                                                                                                                                                                                                                                                                        |                                               |
| <input type="checkbox"/>                                             | Abandonment of any wells, if required must be in accordance with Title 15A, Subchapter 2C.0100.                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                               |
| <input type="checkbox"/>                                             | Notification of the proper regional office is requested if "orphan" underground storage tanks (USTs) are discovered during any excavation operation.                                                                                                                                                                                                                                                                                                                                                                                                             |                                               |
| <input type="checkbox"/>                                             | Compliance with 15A NCAC 2H 1000 (Coastal Stormwater Rules) is required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 45 days<br>(N/A)                              |
| * <input type="checkbox"/>                                           | Other comments (attach additional pages as necessary, being certain to cite comment authority)                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                               |

### REGIONAL OFFICES

Questions regarding these permits should be addressed to the Regional Office marked below.

☐ **Asheville Regional Office**  
59 Woodfin Place  
Asheville, N.C. 28801  
(828) 251-6208

☐ **Mooresville Regional Office**  
919 North Main Street  
Mooresville, N.C. 28115  
(704) 663-1699

☐ **Wilmington Regional Office**  
127 Cardinal Drive Extension  
Wilmington, N.C. 28405  
(910) 395-3900

☒ **Fayetteville Regional Office**  
225 Green Street, Suite 714  
Fayetteville, N.C. 28301  
(910) 486-1541

☐ **Raleigh Regional Office**  
3800 Barrett Drive, P.O. Box 27687  
Raleigh, N.C. 27611  
(919) 571-4700

☐ **Winston-Salem Regional Office**  
585 Woughtown Street  
Winston-Salem, N.C. 27107  
(336) 771-4600

☐ **Washington Regional Office**  
943 Washington Square Mall  
Washington, N.C. 27889  
(252) 946-6481



North Carolina  
Department of Environment and  
Natural Resources

Michael F. Easley, Governor  
William G. Ross Jr., Secretary



North Carolina  
Division of Forest Resources

Wib L. Owen, Director

February 26, 2007

**MEMORANDUM**

TO: Melba McGee, Office of Legislative Affairs

FROM: Michael Mann, NC Division of Forest Resources

SUBJECT: Scoping document for the proposed widening of NC 24-27 from NC740 in Albemarle in Stanly County to the Troy Bypass, West of Troy in Montgomery County.

PROJECT #: 07-0255

The North Carolina Division of Forest Resources has reviewed the referenced document and offers the following comments that should be addressed in the EA concerning impacts to woodlands.

1. In order to evaluate construction impact, list, by timber type, the total forest land acreage that is removed or taken out of forest production as a result of the project. Fragmentation of woodlots into small sections can make forest management difficult and should be avoided where possible. If no impacts will occur please state so in the document.
2. Efforts should be made to avoid or minimize impact to forest resources. Areas to avoid include unique or unusual ecosystems, highly productive managed woodlands and wetlands. Additionally, efforts should be made to align corridors to minimize impacts to woodlands in the following order of priority:
  - Managed, high site index woodland
  - Productive forested woodlands
  - Managed, lower site index woodlands
  - Unique forest ecosystems
  - Unmanaged, fully stocked woodlands
  - Unmanaged, cutover woodlands
  - Urban woodlands



3. The EA should include a summary of the potential productivity of the forest stands affected by the proposed project. Potential productivity is quantified by the soil series, and is found in the USDA Soil Survey for the county involved.
4. The provisions the contractor will take to utilize the merchantable timber removed during construction. Emphasis should be on selling all wood products. However, if the wood products cannot be sold then efforts should be made to haul off the material or turn it into mulch with a tub grinder. This practice will minimize the need for debris burning, and the risk of escaped fires and smoke management problems to residences, highways, schools, and towns.
5. If woodland burning is needed, the contractor must comply with the laws and regulations of open burning as covered under G.S. 113-60.21 through G.S. 113-60.31. Stanly and Montgomery Counties are classified as a non-high hazard counties, and G.S. 113-60.24 requiring a regular burning permit applies.
6. The provisions that the contractor will take to prevent erosion and damage to forestland. Trees, particularly the root system, can be permanently damaged by heavy equipment. Efforts should be to avoid skinning of the tree trunk, compacting the soil, adding layers of fill, exposing the root system, or spilling petroleum or other substances.

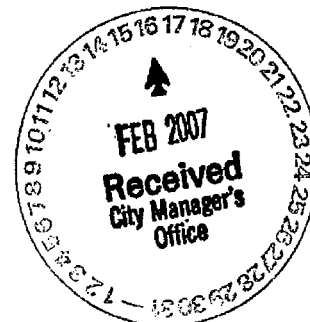
We appreciate the opportunity to comment on the proposed project, and encourage the impact on our forestland be considered during the planning process.

cc: Barry New



# Centralina

## Council of Governments



TO: Albemarle City Manager  
Stanly County Manager

### NC Intergovernmental Review Process

#### Review and Comment Form

This office has received the attached information about a proposal which could affect your jurisdiction.

If you need more information, contact the applicant directly. If you need an extension of time for review, contact Cynthia Winfield immediately.

If you wish to comment on this proposal action, complete this form with comments and return to this office by February 22, 2007.

If no comment is received by the above date, it will be assumed you have no comments regarding this proposal.

State Application Identifier Number 07-0255

Commenter's Name Raymond Allen Title City Manager

Representing City of Albemarle  
(Jurisdiction)

Address P.O. Box 190, Albemarle, N.C. 28002

Phone 704.984.9408

Date 2.20.07



City of Albemarle  
North Carolina



PO Box 190  
Albemarle, NC 28002-0190  
www.ci.albemarle.nc.us

Raymond I. Allen  
City Manager  
Phone - 704-984-9408  
Fax - 704-984-9406  
rallen@ci.albemarle.nc.us

February 20, 2007

Ms. Cynthia Winfield  
Centralina Council of Governments  
P.O. Box 35008  
Charlotte, North Carolina 28235

Re: N.C. Intergovernmental Review 07-0255

Dear Ms. Winfield:

At its meeting on February 19, 2007 the Albemarle City Council reviewed this Intergovernmental Review request, which is to combine the project development, environmental and engineering studies for the proposed widening of NC 24-27 from NC 740 in Albemarle to the Troy Bypass. The City Council voted unanimously to support this proposal. The City believes that these projects should be considered as a whole for the planning process since they are interdependent. The Pee Dee River is not a logical terminus for either of the two roadway projects, but instead the logical termini for these projects are Albemarle and Troy.

NC 24-27 is a strategic highway corridor and the widening of NC 24-27 from Albemarle to Troy is one of the most important highway improvement projects in the southern Piedmont. NC 24-27 is already above capacity, and it is important that the planning process for this important transportation corridor proceed as quickly as possible.

Thank you for your attention in this matter. If you have any questions or need additional information, please do not hesitate to contact me.

Sincerely,

Handwritten signature of Raymond I. Allen in cursive script.  
Raymond I. Allen  
City Manager

Enclosure

Cc: Mayor and City Council



February 9, 2007

Ms. Lisa Fuller, P.E.  
Project Development and Environmental Analysis Branch  
North Carolina Department of Transportation  
1548 Mail Service Center  
Raleigh, NC 27699-1548

RE: Revised Start of Study for the Proposed Widening of NC 24-27 From NC 740 in Albemarle in Stanly County to the Troy Bypass, West of Troy in Montgomery County; TIP No. R-2530B; TIP No. B-4974; and TIP No. R-2527.

Dear Ms. Feller:

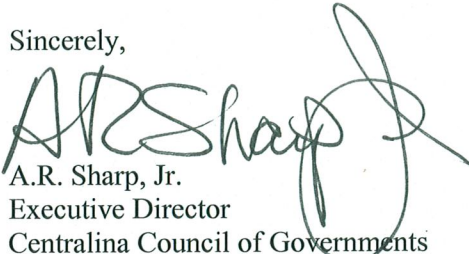
I appreciate the opportunity to comment on the above study. Centralina Council of Governments exists to address growth and quality of life issues in the region, and providing adequate transportation facilities certainly qualifies as a key determinant in an areas quality of life. I have sent a copy of the project packet to the Centralina Chairman, Joe Carpenter, for his attention. We will send you any comments he may have on this study. In the interim, Centralina does have one comment on this project:

1. According to the Metrolina Model 2030 outputs, the section of NC 24-27 between Albemarle and the Pee Dee River is projected to carry between 19,000 and 24,000 vehicles per day, which is different than the 19,000-30,000 vehicles per day listed in the Scoping Information Sheet. The model was coded to include a multi-laned section of NC 24-27.

Centralina strongly supports the NCDOT's Strategic Highway Corridor program, which includes the NC 24-27 corridor from Charlotte east through Montgomery County. Implementing this corridor consistent with the Strategic Highway Corridor vision will improve access and safety for the region's traveling public.

Once again, I appreciate the opportunity to provide comments on this project.

Sincerely,

  
A.R. Sharp, Jr.  
Executive Director  
Centralina Council of Governments

cc: Joe Carpenter, Centralina Board Chairman  
Dana Stoogenke, Rocky River RPO Secretary  
Bjorn Hansen, Centralina Transportation Program Coordinator

*Midtown Plaza Building - 1300 Baxter Street, Suite 450  
PO Box 35008, Charlotte, North Carolina 28235  
Phone: 704-372-2416 Fax: 704-347-4710  
www.centralina.org*



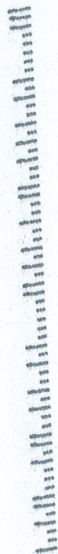
**Centralina Council of Governments**

P.O. Box 35008  
Charlotte, N.C. 28235-5008



Ms. Lisa Fuller, P.E.  
Project Development and Environment  
Analysis Branch  
North Carolina Department of Transportation  
1548 Mail Service Center  
Raleigh, NC 27699-1548

27699-1548





# North Carolina Department of Administration

Michael F. Easley, Governor

Gwynn T. Swinson, Secretary

June 10, 2004

Ms. Beverly Robinson  
NC Department of Transportation  
Project Development and Environmental An  
1548 Mail Service Center  
Raleigh, NC 27699-1548

Dear Ms. Robinson:

Re: SCH File # 04-E-4220-0285; Scoping; Proposed improvements to NC 24-27 from NC 740 to multi-lanes west of the Pee Dee River, Stanly County, WBS Element 34446.1.6, TIP #R-2530B.

The above referenced environmental impact information has been submitted to the State Clearinghouse under the provisions of the National Environmental Policy Act. According to G.S. 113A-10, when a state agency is required to prepare an environmental document under the provisions of federal law, the environmental document meets the provisions of the State Environmental Policy Act. Attached to this letter for your consideration are the **additional** comments made by agencies in the course of this review.

If any further environmental review documents are prepared for this project, they should be forwarded to this office for intergovernmental review.

Should you have any questions, please do not hesitate to call.

Sincerely,

A handwritten signature in black ink, appearing to read "Chrys Baggett".

Ms. Chrys Baggett  
Environmental Policy Act Coordinator

Attachments

cc: Region F

*Mailing Address:*  
1301 Mail Service Center  
Raleigh, NC 27699-1301

*Telephone: (919)807-2425*  
*Fax (919)733-9571*  
*State Courier #51-01-00*  
*e-mail Chrys.Baggett@ncmail.net*

*Location Address:*  
116 West Jones Street  
Raleigh, North Carolina



NORTH CAROLINA STATE CLEARINGHOUSE  
DEPARTMENT OF ADMINISTRATION  
INTERGOVERNMENTAL REVIEW

West

STATE NUMBER: 04-E-4220-0285

F02

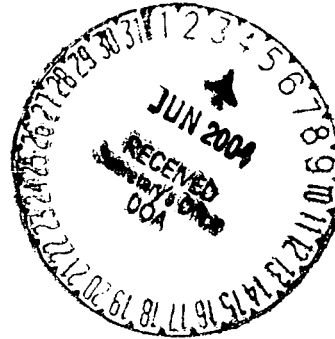
DATE RECEIVED: 04/13/2004

AGENCY RESPONSE: 06/02/2004

REVIEW CLOSED: 06/07/2004

MR PHIL LETSINGER  
CLEARINGHOUSE COORD  
CC&PS - DEM, NFIP  
MSC # 4716  
RALEIGH NC

REVIEW DISTRIBUTION  
CC&PS - DEM, NFIP  
CENTRALINA COG  
DENR LEGISLATIVE AFFAIRS  
DEPT OF AGRICULTURE  
DEPT OF CUL RESOURCES  
DEPT OF TRANSPORTATION



PROJECT INFORMATION

APPLICANT: NC Department of Transportation

TYPE: State Environmental Policy Act

ERD: Scoping

DESC: Proposed improvements to NC 24-27 from NC 740 to multi-lanes west of the Pee Dee River, Stanly County, WBS Element 34446.1.6, TIP #R-2530B.

The attached project has been submitted to the N. C. State Clearinghouse for intergovernmental review. Please review and submit your response by the above indicated date to 1301 Mail Service Center, Raleigh NC 27699-1301.

If additional review time is needed, please contact this office at (919)807-2425.

AS A RESULT OF THIS REVIEW THE FOLLOWING IS SUBMITTED:

☐ NO COMMENT

☒ COMMENTS ATTACHED →

SIGNED BY:

DATE:

6/3/04

*Be sent to check 78.4A  
flood map for impacts on  
flood plain & floodway*



## North Carolina Department of Administration

Michael F. Easley, Governor

Gwynn T. Swinson, Secretary

June 8, 2004

Ms. Beverly Robinson  
NC Department of Transportation  
Project Development and Environmental An  
1548 Mail Service Center  
Raleigh, NC 27699-1548

Dear Ms. Robinson:

Re: SCH File # 04-E-4220-0285; Scoping; Proposed improvements to NC 24-27 from NC 740 to multi-lanes west of the Pee Dee River, Stanly County, WBS Element 34446.1.6, TIP #R-2530B.

The above referenced environmental impact information has been submitted to the State Clearinghouse under the provisions of the National Environmental Policy Act. According to G.S. 113A-10, when a state agency is required to prepare an environmental document under the provisions of federal law, the environmental document meets the provisions of the State Environmental Policy Act. Attached to this letter for your consideration are the comments made by agencies in the course of this review.

If any further environmental review documents are prepared for this project, they should be forwarded to this office for intergovernmental review.

Should you have any questions, please do not hesitate to call.

Sincerely,

A handwritten signature in black ink that reads "Chrys Baggett".

Ms. Chrys Baggett  
Environmental Policy Act Coordinator

Attachments

cc: Region F

**Mailing Address:**  
1301 Mail Service Center  
Raleigh, NC 27699-1301

**Telephone:** (919)807-2425  
Fax (919)733-9571  
State Courier #51-01-00  
e-mail [Chrys.Baggett@ncmail.net](mailto:Chrys.Baggett@ncmail.net)

**Location Address:**  
116 West Jones Street  
Raleigh, North Carolina





North Carolina Department of Environment and Natural Resources

Michael F. Easley, Governor

William G. Ross Jr., Secretary

MEMORANDUM



TO: Chrys Baggett  
State Clearinghouse

FROM: Melba McGee *PM*  
Project Review Coordinator

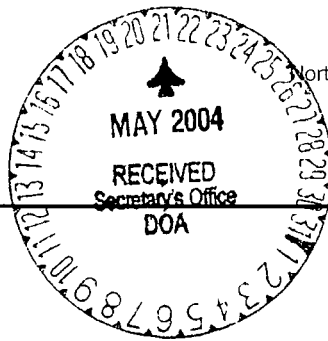
RE: 04-0285 Scoping, Widening from NC 740 to West of the Pee Dee  
River in Stanly County

DATE: May 20, 2004

The Department of Environment and Natural Resources has reviewed the proposed project. The attached comments are a result of this review. More specific comments will be provided during the environmental review process.

Thank you for the opportunity to respond. If during the preparation of the environmental document, additional information is needed, the applicant is encouraged to notify our respective divisions.

Attachments



Michael F. Easley, Governor  
William G. Ross Jr., Secretary  
North Carolina Department of Environment and Natural Resources  
Alan W. Klimek, P.E. Director  
Division of Water Quality

April 27, 2004

**MEMORANDUM**

TO: Melba McGee, Environmental Coordinator  
NCDENR Office of Legislative and Intergovernmental Affairs

FROM: Cynthia F. Van Der Wiele, NC Division of Water Quality *cu dw*

SUBJECT: Review of Scoping Sheets for NC 24-27 Widening from NC 740 to west of the Pee Dee River, Stanly County, TIP No. R-2530B. State Clearinghouse Project No. 04-0285.

In reply to your correspondence dated April 16, 2004 (received April 19, 2004) in which you requested comments for the referenced project, preliminary analysis of the project indicates that the following water resources in Hydrologic Unit 030708 will be impacted:

Stream (Index)

- UT's to Mountain Creek (13-5)
- UT's to Jacobs Creek (13-9)
- Lake Tillery/Pee Dee River and UT's (13-(1))

Water Quality Classification

WS-IV  
WS-IV  
WS-IV & B Critical Area

NC 24-27 is described as a major rural collector. The purpose of the project is to improve safety and traffic carrying capacity. NC Division of Water Quality understands that the project proposes to widen to a 4-lane median divided facility. Inside the Albemarle city limits, the median will be 23 feet, while outside the city limits, the median will be 46 feet. DWQ has the following comments:

Environmental Documentation

- The environmental document should provide a detailed and itemized presentation of the proposed impacts to wetlands and streams with corresponding mapping. There should be a discussion on mitigation plans for unavoidable impacts. If mitigation is required, it is preferable to present a conceptual (if not finalized) mitigation plan with the environmental documentation. While the NCDWQ realizes that this may not always be practical, it should be noted that for projects requiring mitigation, appropriate mitigation plans will be required prior to issuance of a 401 Water Quality Certification.

Planning and Access Control Issues

- From 2000 to 2020, the estimated population increase for Stanly is 21 percent. Growth management within the next five years will be imperative, especially along highway corridors, in order to protect or improve water quality in this sub-basin. Growth management can be defined as the application of strategies and practices that help achieve sustainable development in harmony with the conservation of environmental qualities and features of an area. On a local level, growth management often involves planning and development review requirements that are designed to maintain or improve water quality.
- A *qualitative analysis* of cumulative and secondary impacts anticipated as a result of this project may be required.

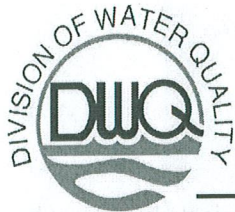


Design & Construction Issues

- If this project is widened along the existing facility, DWQ believes that this project should *not* be included in the Merger/Concurrence process.
- Hazardous spill catch basins will be required in the vicinity of the Pee Dee River due to the project's proximity to the water supply critical area. More information will be required on project truck volume, avoidance options, etc. during the merger process and hydraulic design review.
- Within the Yadkin-Pee Dee Basin, sedimentation and storm water runoff are major water quality concerns. In order to reduce sedimentation in receiving waters, same day seeding and mulching is strongly encouraged. Storm water runoff from the project should be designed to be directed to grassed swales, buffer areas, preformed scour holes, retention basins or other site-appropriate means of receiving pre-treatment, rather than routed directly into streams.
- Sediment and erosion control measures should not be placed in wetlands. Sediment should be removed from any water pumped from behind a cofferdam before the water is returned to the stream.
- Borrow/waste areas should not be located in wetlands. It is likely that compensatory mitigation will be required if wetlands are impacted by waste or borrow as well as utility relocations.
- Stream verifications (intermittent/perennial) by DWQ and wetland delineation shall be performed prior to application for §401 Certification.
- Wetland and stream impacts should be avoided to the maximum extent practical, particularly parallel impacts. If this is not possible, alternatives that minimize wetland impacts should be chosen. In accordance with the NCDWQ Wetlands Rules { 15A NCAC 2H.0506(b)(6) }, mitigation will be required for impacts of greater than 150 linear feet to any single perennial stream. In the event that mitigation becomes required, the mitigation plan should be designed to replace appropriate lost functions and values. Onsite mitigation is preferable, however, NC Ecological Enhancement Program (EEP) is available for use as compensatory mitigation.
- The Mountain Creek watershed, including Little Mountain Creek, is one of 55 watersheds in the Yadkin-Pee Dee River basin that has been identified by the NCWRP as an area with the greatest need and opportunity for stream and wetland restoration efforts. This watershed will be given higher priority than a non-targeted watershed for the implementation of NCWRP restoration projects. Please contact NCWRP or the NC Division of Ecological Enhancement for more information if this project requires mitigation.
- DWQ prefers that existing bridges be extended with bridges rather than replaced with culverts.

Thank you for requesting our input at this time. The DOT is reminded that issuance of a 401 Water Quality Certification requires that appropriate measures be instituted to ensure that water quality standards are met and designated uses are not degraded or lost. If you have any questions or require additional information, please contact John Hennessy at (919) 733.5694.

pc: File Copy



April 13, 2004

**MEMORANDUM**

TO: Beverly Robinson, Project Development Engineer  
NCDOT Project Development & Environmental Analysis Branch

FROM: Cynthia F. Van Der Wiele, NC Division of Water Quality *cvdew*

SUBJECT: Review of Scoping Sheets for NC 24-27 Widening from NC 740 to west of the Pee Dee River, Stanly County, TIP No. R-2530B.

In reply to your correspondence dated April 1, 2004 (received April 7, 2004) in which you requested comments for the referenced project, preliminary analysis of the project indicates that the following water resources in Hydrologic Unit 030708 will be impacted:

Stream (Index)

- UT's to Mountain Creek (13-5)
- UT's to Jacobs Creek (13-9)
- Lake Tillery/Pee Dee River and UT's (13-1)

Water Quality Classification

WS-IV  
WS-IV  
WS-IV & B Critical Area

NC 24-27 is described as a major rural collector. The purpose of the project is to improve safety and traffic carrying capacity. NC Division of Water Quality understands that the project proposes to widen to a 4-lane median divided facility. Inside the Albemarle city limits, the median will be 23 feet, while outside the city limits, the median will be 46 feet. DWQ has the following comments:

Environmental Documentation

- The environmental document should provide a detailed and itemized presentation of the proposed impacts to wetlands and streams with corresponding mapping. There should be a discussion on mitigation plans for unavoidable impacts. If mitigation is required, it is preferable to present a conceptual (if not finalized) mitigation plan with the environmental documentation. While the NCDWQ realizes that this may not always be practical, it should be noted that for projects requiring mitigation, appropriate mitigation plans will be required prior to issuance of a 401 Water Quality Certification.

Planning and Access Control Issues

- From 2000 to 2020, the estimated population increase for Stanly is 21 percent. Growth management within the next five years will be imperative, especially along highway corridors, in order to protect or improve water quality in this sub-basin. Growth management can be defined as the application of strategies and practices that help achieve sustainable development in harmony with the conservation of environmental qualities and features of an area. On a local level, growth management often involves planning and development review requirements that are designed to maintain or improve water quality.
- A *qualitative analysis* of cumulative and secondary impacts anticipated as a result of this project may be required.

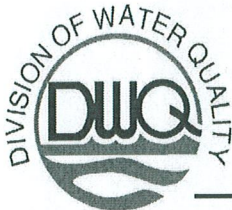


Design & Construction Issues

- If this project is widened along the existing facility, DWQ believes that this project should *not* be included in the Merger/Concurrence process.
- Hazardous spill catch basins will be required in the vicinity of the Pee Dee River due to the project's proximity to the water supply critical area. More information will be required on project truck volume, avoidance options, etc. during the merger process and hydraulic design review.
- Within the Yadkin-Pee Dee Basin, sedimentation and storm water runoff are major water quality concerns. In order to reduce sedimentation in receiving waters, same day seeding and mulching is strongly encouraged. Storm water runoff from the project should be designed to be directed to grassed swales, buffer areas, preformed scour holes, retention basins or other site-appropriate means of receiving pre-treatment, rather than routed directly into streams.
- Sediment and erosion control measures should not be placed in wetlands. Sediment should be removed from any water pumped from behind a cofferdam before the water is returned to the stream.
- Borrow/waste areas should not be located in wetlands. It is likely that compensatory mitigation will be required if wetlands are impacted by waste or borrow as well as utility relocations.
- Stream verifications (intermittent/perennial) by DWQ and wetland delineation shall be performed prior to application for §401 Certification.
- Wetland and stream impacts should be avoided to the maximum extent practical, particularly parallel impacts. If this is not possible, alternatives that minimize wetland impacts should be chosen. In accordance with the NCDWQ Wetlands Rules { 15A NCAC 2H.0506(b)(6)}, mitigation will be required for impacts of greater than 150 linear feet to any single perennial stream. In the event that mitigation becomes required, the mitigation plan should be designed to replace appropriate lost functions and values. Onsite mitigation is preferable, however, NC Ecological Enhancement Program (EEP) is available for use as compensatory mitigation.
- The Mountain Creek watershed, including Little Mountain Creek, is one of 55 watersheds in the Yadkin-Pee Dee River basin that has been identified by the NCWRP as an area with the greatest need and opportunity for stream and wetland restoration efforts. This watershed will be given higher priority than a non-targeted watershed for the implementation of NCWRP restoration projects. Please contact NCWRP or the NC Division of Ecological Enhancement for more information if this project requires mitigation.
- DWQ prefers that existing bridges be extended with bridges rather than replaced with culverts.

Thank you for requesting our input at this time. The DOT is reminded that issuance of a 401 Water Quality Certification requires that appropriate measures be instituted to ensure that water quality standards are met and designated uses are not degraded or lost. If you have any questions or require additional information, please contact John Hennessy at (919) 733.5694.

pc: Chris Militscher, USEPA  
Marella Buncick, USFWS  
Marla Chambers, NCWRC  
File Copy



January 13, 2004

**MEMORANDUM**

TO: Beverly Robinson, Project Development Engineer  
NCDOT Project Development & Environmental Analysis Branch

FROM: Cynthia F. Van Der Wiele, NCDOT Coordinator *cvdw*

SUBJECT: Review of Scoping Sheets for NC 24-27 Widening from NC 740 to west of the Pee Dee River, Stanly County, TIP No. R-2530B.

In reply to your correspondence dated January 5, 2004 (received January 7, 2004) in which you requested comments for the referenced project, preliminary analysis of the project indicates that the following water resources in Hydrologic Unit 030708 will be impacted:

Stream (Index)

- UT's to Mountain Creek (13-5)
- UT's to Jacobs Creek (13-9)
- Lake Tillery/Pee Dee River and UT's (13-1)

Water Quality Classification

WS-IV  
WS-IV  
WS-IV & B Critical Area

NC 24-27 is described as a major rural collector. The purpose of the project is to improve safety and traffic carrying capacity. NC Division of Water Quality has the following comments:

Environmental Documentation

- The environmental document should provide a detailed and itemized presentation of the proposed impacts to wetlands and streams with corresponding mapping. There should be a discussion on mitigation plans for unavoidable impacts. If mitigation is required, it is preferable to present a conceptual (if not finalized) mitigation plan with the environmental documentation. While the NCDWQ realizes that this may not always be practical, it should be noted that for projects requiring mitigation, appropriate mitigation plans will be required prior to issuance of a 401 Water Quality Certification.

Planning and Access Control Issues

- From 2000 to 2020, the estimated population increase for Stanly is 21 percent. Growth management within the next five years will be imperative, especially along highway corridors, in order to protect or improve water quality in this sub-basin. Growth management can be defined as the application of strategies and practices that help achieve sustainable development in harmony with the conservation of environmental qualities and features of an area. On a local level, growth management often involves planning and development review requirements that are designed to maintain or improve water quality.
- The scoping letter was not specific as to the extent of the improvements to NC 24-27 being contemplated (number of lanes, typical sections, etc.). A *qualitative analysis* of cumulative and secondary impacts anticipated as a result of this project may be required.



Design & Construction Issues

- The DWQ requests that this project follow the Merger/Concurrence process.
- Hazardous spill catch basins may be required in the vicinity of the Pee Dee River due to the project's proximity to the water supply critical area. More information will be required on project truck volume, avoidance options, etc. during the merger process and hydraulic design review.
- Within the Yadkin-Pee Dee Basin, sedimentation and storm water runoff are major water quality concerns. In order to reduce sedimentation in receiving waters, same day seeding and mulching is strongly encouraged. Storm water runoff from the project should be designed to be directed to grassed swales, buffer areas, preformed scour holes, retention basins or other site-appropriate means of receiving pre-treatment, rather than routed directly into streams.
- Sediment and erosion control measures should not be placed in wetlands. Sediment should be removed from any water pumped from behind a cofferdam before the water is returned to the stream.
- Borrow/waste areas should not be located in wetlands. It is likely that compensatory mitigation will be required if wetlands are impacted by waste or borrow as well as utility relocations.
- Onsite wetland delineation shall be performed prior to application for §401 Certification.
- Wetland and stream impacts should be avoided to the maximum extent practical. If this is not possible, alternatives that minimize wetland impacts should be chosen. In accordance with the NCDWQ Wetlands Rules {15A NCAC 2H.0506(b)(6)}, mitigation will be required for impacts of greater than 150 linear feet to any single perennial stream. In the event that mitigation becomes required, the mitigation plan should be designed to replace appropriate lost functions and values. In accordance with the NCDWQ Wetlands Rules {15A NCAC 2H.0506 (h)(3)}, the NC Wetland Restoration Program (NCWRP) may be available for use as stream mitigation.
- The Mountain Creek watershed, including Little Mountain Creek, is one of 55 watersheds in the Yadkin-Pee Dee River basin that has been identified by the NCWRP as an area with the greatest need and opportunity for stream and wetland restoration efforts. This watershed will be given higher priority than a non-targeted watershed for the implementation of NCWRP restoration projects. Please contact NCWRP or the NC Division of Ecological Enhancement for more information if this project requires mitigation.
- DWQ prefers replacement of bridges with bridges. When practical, the DWQ requests that bridges be replaced on the existing location with road closure.

Thank you for requesting our input at this time. The DOT is reminded that issuance of a 401 Water Quality Certification requires that appropriate measures be instituted to ensure that water quality standards are met and designated uses are not degraded or lost. If you have any questions or require additional information, please contact Cynthia Van Der Wiele at (919) 733.5715.

pc: Steve Lund, USACE Asheville Field Office  
Chris Militscher, USEPA  
Marella Buncick, USFWS  
Marla Chambers, NCWRC  
File Copy



North Carolina  
Department of Environment and  
Natural Resources

Michael F. Easley, Governor  
William G. Ross Jr., Secretary



North Carolina  
Division of Forest Resources

Stanford M. Adams, Director

2411 Old US 70 West  
Clayton, NC 27520  
May 18, 2004



**MEMORANDUM**

TO: Melba McGee, Office of Legislative Affairs

FROM: Bill Pickens, NC Division Forest Resources 

SUBJECT: DOT Scoping for Widening NC 24/27 from NC 740 to the Pee Dee River, Stanley County

PROJECT #: 04-0285 and TIP # R-2530B

The North Carolina Division of Forest Resources has reviewed the referenced scoping document and offers the following comments that should be addressed in the EA concerning impacts to woodlands.

1. The widening of an existing roadway usually has fewer impacts to forest resources than a new location project. So that we can evaluate construction impact, list, by timber type, the total forest land acreage that is removed or taken out of forest production as a result of the project. If no impacts will occur please state so in the document.
2. Additionally, efforts should be made to align corridors to minimize impacts to woodlands in the following order of priority:
  - Managed, high site index woodland
  - Productive forested woodlands
  - Managed, lower site index woodlands
  - Unique forest ecosystems
  - Unmanaged, fully stocked woodlands
  - Unmanaged, cutover woodlands
  - Urban woodlands
3. The EA should include a summary of the potential productivity of the forest stands affected by the proposed project. Potential productivity is quantified by the soil series, and is found in the USDA Soil Survey for the county involved.
4. The provisions the contractor will take to utilize the merchantable timber removed during construction. Emphasis should be on selling all wood products. However, if the wood products cannot be sold then efforts should be made to haul off the material or turn it into mulch with a tub grinder. This practice will minimize the need for debris burning, and the risk of escaped fires and smoke management problems to residences, highways, schools, and towns.



5. If woodland burning is needed, the contractor must comply with the laws and regulations of open burning as covered under G.S. 113-60.21 through G.S. 113-60.31. Stanley County is a non-high hazard county, and G.S. 113-60.24 requiring a regular burning permit would apply.
6. The provisions that the contractor will take to prevent erosion and damage to forestland outside the right-of-way. Trees, particularly the root system, can be permanently damaged by heavy equipment. Efforts should be to avoid skinning of the tree trunk, compacting the soil, adding layers of fill, exposing the root system, or spilling petroleum or other substances.
7. The impact upon any existing greenways in the proposed project area should be addressed.

We appreciate the opportunity to comment on the proposed project, and encourage the impact on our forestland be considered during the planning process.

cc: Barry New

North Carolina Department of Environment and Natural Resources  
Division of Soil and Water Conservation

Michael F. Easley, Governor  
William G. Ross Jr., Secretary  
David S. Vogel, Director



**MEMORANDUM:**

April 19, 2004

**TO:** Melba McGee

**FROM:** David Harrison *DH*

**SUBJECT:** NC 24 – 27 Improvements. Widening from NC 740 to multi-lanes west of the Pee Dee River. Stanly County. Project # 04-0285.

The NC Department of Transportation is studying proposed improvements to NC 24 - 27 in Stanly County.

If construction is restricted to existing right-of-ways, there should be no impact to Prime or Statewide Important Farmland. Any acquisition of additional right-of-ways for increase size, capacity or changes in approach could affect Prime or Statewide Important Farmland. In that case, the environmental assessment should include information on adverse impacts.

The definition of Prime or Statewide Important Farmland is based on the soil series and not on its current land use. Areas that are developed or are within municipal boundaries are exempt from consideration as Prime or Important Farmland.

For additional information, contact the soils specialists with the Natural Resources Conservation Service, USDA, Raleigh, NC at (919) 873-2141.





## INTERGOVERNMENTAL REVIEW - PROJECT COMMENTS

After review of this project it has been determined that the DENR permit(s) and/or approvals indicated may need to be obtained in order for this project to comply with North Carolina Law. Questions regarding these permits should be addressed to the Regional Office indicated on the reverse of this form. All applications, information and guidelines relative to these plans and permits are available from the same Regional Office.

|                          | PERMITS                                                                                                                                                                                                                                                                                                                                                                        | SPECIAL APPLICATION PROCEDURES or REQUIREMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Normal Process Time<br>(Statutory Time Limit) |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> | Permit to construct & operate wastewater treatment facilities, sewer system extensions & sewer systems not discharging into state surface waters.                                                                                                                                                                                                                              | Application 90 days before begin construction or award of construction contracts. On-site inspection. Post-application technical conference usual.                                                                                                                                                                                                                                                                                                                                                                                                               | 30 days<br>(90 days)                          |
| <input type="checkbox"/> | NPDES-permit to discharge into surface water and/or permit to operate and construct wastewater facilities discharging into state surface waters.                                                                                                                                                                                                                               | Application 180 days before begin activity. On-site inspection preapplication conference usual. Additionally, obtain permit to construct wastewater treatment facility-granted after NPDES. Reply time, 30 days after receipt of plans or issue of NPDES permit-whichever is later.                                                                                                                                                                                                                                                                              | 90 - 120 days<br>(N/A)                        |
| <input type="checkbox"/> | Water Use Permit                                                                                                                                                                                                                                                                                                                                                               | Preapplication technical conference usually necessary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 30 days<br>(N/A)                              |
| <input type="checkbox"/> | Well Construction Permit                                                                                                                                                                                                                                                                                                                                                       | Complete application must be received and permit issued prior to the installation of a well.                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 7 days<br>(15 days)                           |
| <input type="checkbox"/> | Dredge and Fill Permit                                                                                                                                                                                                                                                                                                                                                         | Application copy must be served on each adjacent riparian property owner. On-site inspection. Preapplication conference usual. Filling may require Easement to Fill from N.C. Department of Administration and Federal Dredge and Fill Permit.                                                                                                                                                                                                                                                                                                                   | 55 days<br>(90 days)                          |
| <input type="checkbox"/> | Permit to construct & operate Air Pollution Abatement facilities and/or Emission Sources as per 15 A NCAC (20.0100, 20.0300, 24.0600)                                                                                                                                                                                                                                          | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 60 days                                       |
| <input type="checkbox"/> | Any open burning associated with subject proposal must be in compliance with 15 A NCAC 2D.1900                                                                                                                                                                                                                                                                                 | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 60 days<br>(90 days)                          |
| <input type="checkbox"/> | Demolition or renovations of structures containing asbestos material must be in compliance with 15 A NCAC 2D.1110 (a) (1) which requires notification and removal prior to demolition. Contact Asbestos Control Group 919-753-0820.                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                               |
| <input type="checkbox"/> | Complex Source Permit required under 15 A NCAC 2D.0800                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                               |
| <input type="checkbox"/> | The Sedimentation Pollution Control Act of 1973 must be properly addressed for any land disturbing activity. An erosion & sedimentation control plan will be required if one or more acres to be disturbed. Plan filed with proper Regional Office (Land Quality Section) at least 30 days before beginning activity. A fee of \$40 for the first acre or any part of an acre. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 20 days<br>(30 days)                          |
| <input type="checkbox"/> | The Sedimentation Pollution Control Act of 1973 must be addressed with respect to the referenced Local Ordinance.                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 30 days                                       |
| <input type="checkbox"/> | Mining Permit                                                                                                                                                                                                                                                                                                                                                                  | On-site inspection usual. Surety bond filed with DENR. Bond amount varies with type mine and number of acres of affected land. Any are mined greater than one acre must be permitted. The appropriate bond must be received before the permit can be issued.                                                                                                                                                                                                                                                                                                     | 30 days<br>(60 days)                          |
| <input type="checkbox"/> | North Carolina Burning permit                                                                                                                                                                                                                                                                                                                                                  | On-site inspection by N.C. Division of Forest Resources if permit exceeds 4 days                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1 day<br>(N/A)                                |
| <input type="checkbox"/> | Special Ground Clearance Burning Permit-22 counties in coastal N.C. with organic soils.                                                                                                                                                                                                                                                                                        | On-site inspection by N.C. Division of Forest Resources required "if more than five acres of ground clearing activities are involved. Inspections should be requested at least ten days before actual burn is planned."                                                                                                                                                                                                                                                                                                                                          | 1 day<br>(N/A)                                |
| <input type="checkbox"/> | Oil Refining Facilities                                                                                                                                                                                                                                                                                                                                                        | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 90 - 120 days<br>(N/A)                        |
| <input type="checkbox"/> | Dam Safety Permit                                                                                                                                                                                                                                                                                                                                                              | If permit required, application 60 days before begin construction. Applicant must hire N.C. qualified engineer to: prepare plans, inspect construction, certify construction is according to DENR approved plans. May also require permit under mosquito control program, and a 404 permit from Corps of Engineers. An inspection of site is necessary to verify Hazard Classification. A minimum fee of \$200.00 must accompany the application. An additional processing fee based on a percentage of the total project cost will be required upon completion. | 30 days<br>(60 days)                          |

| PERMITS                  |                                                                                                                                                                                                                                                                                   | SPECIAL APPLICATION PROCEDURES or REQUIREMENTS                                                                                                                                                 | Normal Process Time<br>(Statutory Time Limit) |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> | Permit to drill exploratory oil or gas well                                                                                                                                                                                                                                       | File surety bond of \$5,000 with DENR running to State of N.C. conditional that any well opened by drill operator shall, upon abandonment, be plugged according to DENR rules and regulations. | 10 days<br>(N/A)                              |
| <input type="checkbox"/> | Geophysical Exploration Permit                                                                                                                                                                                                                                                    | Application filed with DENR at least 10 days prior to issue of permit. Application by letter. No standard application form.                                                                    | 10 days<br>(N/A)                              |
| <input type="checkbox"/> | State Lakes Construction Permit                                                                                                                                                                                                                                                   | Application fees based on structure size is charged. Must include descriptions & drawings of structure & proof of ownership of riparian property.                                              | 15 - 20 days<br>(N/A)                         |
| <input type="checkbox"/> | 401 Water Quality Certification                                                                                                                                                                                                                                                   | N/A                                                                                                                                                                                            | 55 days<br>(130 days)                         |
| <input type="checkbox"/> | CAMA Permit for MAJOR development                                                                                                                                                                                                                                                 | \$250.00 fee must accompany application                                                                                                                                                        | 60 days<br>(130 days)                         |
| <input type="checkbox"/> | CAMA Permit for MINOR development                                                                                                                                                                                                                                                 | \$50.00 fee must accompany application                                                                                                                                                         | 22 days<br>(25 days)                          |
| <input type="checkbox"/> | Several geodetic monuments are located in or near the project area. If any monument needs to be moved or destroyed, please notify:<br>N.C. Geodetic Survey, Box 27687 Raleigh, N.C. 27611                                                                                         |                                                                                                                                                                                                |                                               |
| <input type="checkbox"/> | Abandonment of any wells, if required must be in accordance with Title 15A, Subchapter 2C.0100.                                                                                                                                                                                   |                                                                                                                                                                                                |                                               |
| <input type="checkbox"/> | Notification of the proper regional office is requested if "orphan" underground storage tanks (USTS) are discovered during any excavation operation.                                                                                                                              |                                                                                                                                                                                                |                                               |
| <input type="checkbox"/> | Compliance with 15A NCAC 2H 1000 (Coastal Stormwater Rules) is required.                                                                                                                                                                                                          |                                                                                                                                                                                                | 45 days<br>(N/A)                              |
| #                        | Other comments (attach additional pages as necessary, being certain to cite comment authority)<br>AQ - Open burning of land clearing debris must be done in compliance with<br>20.1900 on 4-19-04<br>GW - Abandonment PER 2C RULES<br>WC - No comment. DRC<br>LA - No comment. BR |                                                                                                                                                                                                |                                               |

### REGIONAL OFFICES

Questions regarding these permits should be addressed to the Regional Office marked below.

☐ **Asheville Regional Office**  
 59 Woodfin Place  
 Asheville, N.C. 28801  
 (828) 251-6208

☒ **Mooreville Regional Office**  
 919 North Main Street  
 Mooresville, N.C. 28115  
 (704) 663-1699

☐ **Wilmington Regional Office**  
 127 Cardinal Drive Extension  
 Wilmington, N.C. 28405  
 (910) 395-3900

☐ **Fayetteville Regional Office**  
 225 Green Street, Suite 714  
 Fayetteville, N.C. 28301  
 (910) 486-1541

☐ **Raleigh Regional Office**  
 3800 Barrett Drive, P.O. Box 27687  
 Raleigh, N.C. 27611  
 (919) 571-4700

☐ **Winston-Salem Regional Office**  
 585 Woughtown Street  
 Winston-Salem, N.C. 27107  
 (336) 771-4600

☐ **Washington Regional Office**  
 943 Washington Square Mall  
 Washington, N.C. 27889  
 (252) 946-6481



DEPARTMENT OF ENVIRONMENT AND  
NATURAL RESOURCES  
DIVISION OF ENVIRONMENTAL HEALTH

|                                  |
|----------------------------------|
| Project Number<br><u>04-0285</u> |
| County<br><u>STANLY</u>          |

Inter-Agency Project Review Response

Project Name NC 24-27 Widening Project Type of Project Seeping

- ☒ The applicant should be advised that plans and specifications for all water system improvements must be approved by the Division of Environmental Health prior to the award of a contract or the initiation of construction (as required by 15A NCAC 18C .0300et. seq.). For information, contact the Public Water Supply Section, (919) 733-2321.
- ☐ This project will be classified as a non-community public water supply and must comply with state and federal drinking water monitoring requirements. For more information the applicant should contact the Public Water Supply Section, (919) 733-2321.
- ☐ If this project is constructed as proposed, we will recommend closure of \_\_\_\_\_ feet of adjacent waters to the harvest of shellfish. For information regarding the shellfish sanitation program, the applicant should contact the Shellfish Sanitation Section at (252) 726-6827.
- ☐ The soil disposal area(s) proposed for this project may produce a mosquito breeding problem. For information concerning appropriate mosquito control measures, the applicant should contact the Public Health Pest Management Section at (252) 726-8970.
- ☐ The applicant should be advised that prior to the removal or demolition of dilapidated structures, a extensive rodent control program may be necessary in order to prevent the migration of the rodents to adjacent areas. For information concerning rodent control, contact the local health department or the Public Health Pest Management Section at (919) 733-6407.
- ☐ The applicant should be advised to contact the local health department regarding their requirements for septic tank installations (as required under 15A NCAC 18A. 1900 et. seq.). For information concerning septic tank and other on-site waste disposal methods, contact the On-Site Wastewater Section at (919) 733-2895.
- ☐ The applicant should be advised to contact the local health department regarding the sanitary facilities required for this project.
- ☒ If existing water lines will be relocated during the construction, plans for the water line relocation must be submitted to the Division of Environmental Health, Public Water Supply Section, Technical Services Branch, 1634 Mail Service Center, Raleigh, North Carolina 27699-1634, (919) 733-2321.
- ☐ For Regional and Central Office comments, see the reverse side of this form.

BRITT SETZER  
Reviewer

PWSS  
Section/Branch

4/29/04  
Date

APR 20 2004

APR 20 2004

DEPARTMENT OF ENVIRONMENT AND  
NATURAL RESOURCES  
DIVISION OF ENVIRONMENTAL HEALTH

Project Number

04-0285

County

Stanly

Inter-Agency Project Review Response

Project Name NC29-87 Widening from 740 to multilanes West of the Pee Dee River, Stanly County NC Type of Project Scoping

Comments provided by:

- ☐ Regional Program Person  
☒ Regional Engineer for Public Water Supply Section  
☐ Central Office program person

Name: BRITT SETZER

Date: 4/21/04

Telephone number: 704 663 1699

Program within Division of Environmental Health:

- ☐ Public Water Supply  
☐ Other, Name of Program: \_\_\_\_\_

Response (check all applicable):

- ☐ No objection to project as proposed  
☐ No comment  
☐ Insufficient information to complete review  
☒ Comments attached (SEE BACK)  
☐ See comments below



Return to:

Public Water Supply Section  
Environmental Review Coordinator  
for the  
Division of Environmental Health





## ☐ North Carolina Wildlife Resources Commission ☐

Charles R. Fullwood, Executive Director

TO: Melba McGee, Environmental Coordinator  
Office of Legislative and Intergovernmental Affairs, DENR

FROM: Marla Chambers, Highway Projects Coordinator *Marla Chambers*  
Habitat Conservation Program, NCWRC

DATE: May 12, 2004

SUBJECT: Review of NCDOT scoping sheets for NC 24-27 widening from NC 740 to west of the Pee Dee River, Stanly County. TIP No. R-2530B.

North Carolina Department of Transportation (NCDOT) is requesting comments from the North Carolina Wildlife Resources Commission (NCWRC) regarding impacts to fish and wildlife resources resulting from the subject project. Staff biologists have reviewed the information provided on the scoping sheets and have the following preliminary comments. These comments are provided in accordance with the provisions of the National Environmental Policy Act (42 U.S.C. 4332(2)(c)) and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661-667d).

The NCDOT proposes to widen NC 24-27 to four lanes from NC 740 to west of the Pee Dee River. It appears the project will impact drainages of the Pee Dee River (Lake Tillery), including Mountain Creek and Jacobs Creek, both classified as WS-IV. The Pee Dee River is classified WS-IV and B CA. The Carolina creekshell (*Villosa vaghaniana*), Federal Species of Concern and state Endangered, and notched rainbow (*V. constricta*), state Special Concern, occurs in the Mountain Creek drainage. The eastern lampmussel (*Lampsilis radiata*), state Threatened, occurs in Jacobs Creek and other tributaries of Lake Tillery. Mussel surveys should be conducted in any directly impacted perennial streams. If state or federally listed species are found, NCDOT should consult with the appropriate resource agencies. Strict sedimentation and erosion control measures will be important for this project.

In addition, to help facilitate document preparation and the review process, our general information needs are outlined below:

1. Description of fishery and wildlife resources within the project area, including a listing of federally or state designated threatened, endangered, or special concern species. Potential borrow areas to be used for project construction should be included in the inventories. A listing of designated plant species can be developed through consultation with the following programs:

The Natural Heritage Program  
N. C. Division of Parks and Recreation  
1615 Mail Service Center  
Raleigh, N. C. 27699-1615  
(919) 733-7795

and,

NCDA Plant Conservation Program  
P. O. Box 27647  
Raleigh, N. C. 27611  
(919) 733-3610

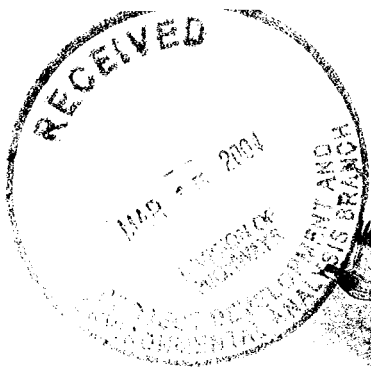
2. Description of any streams or wetlands affected by the project. If applicable, include the linear feet of stream that will be channelized or relocated.
3. Cover type maps showing wetland acreage impacted by the project. Wetland acreage should include all project-related areas that may undergo hydrologic change as a result of ditching, other drainage, or filling for project construction. Wetland identification may be accomplished through coordination with the U. S. Army Corps of Engineers (USACE). If the USACE is not consulted, the person delineating wetlands should be identified and criteria listed.
4. Cover type maps showing acreage of upland wildlife habitat impacted by the proposed project. Potential borrow sites and waste areas should be included.
5. Show the extent to which the project will result in loss, degradation, or fragmentation of wildlife habitat (wetlands or uplands).
6. Include the mitigation plan for avoiding, minimizing or compensating for direct and indirect degradation in habitat quality as well as quantitative losses.
7. Address the overall environmental effects of the project construction and quantify the contribution of this individual project to environmental degradation.
8. Provide a discussion of the probable impacts on natural resources, which will result from secondary development, facilitated by the improved road access.
9. If construction of this facility is to be coordinated with other state, municipal, or private development projects, a description of these projects should be included in the environmental document, and all project sponsors should be identified.



May 12, 2004

Thank you for the opportunity to provide input in the early planning stages of this project. If you have any questions regarding these comments, please contact me at (704) 485-2384.

cc: Marella Buncick, USFWS  
Cynthia Van Der Wiele, NCDWQ  
Sarah McRae, NCNHP



## ☒ North Carolina Wildlife Resources Commission ☒

Charles R. Fullwood, Executive Director

TO: Gregory J. Thorpe, Ph.D., Director  
Project Development and Environmental Analysis Branch, NCDOT

FROM: Marla Chambers, Highway Projects Coordinator *Marla Chambers*  
Habitat Conservation Program, NCWRC

DATE: March 11, 2004

SUBJECT: Review of NCDOT scoping sheets for NC 24-27 widening from NC 740 to west of the Pee Dee River, Stanly County. TIP No. R-2530B.

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P. O. Box 27647  
Raleigh, N. C. 27611  
(919) 733-3610

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NC 24-27, NC 740 to West of Pee Dee R.  
Mountain & Jacobs Creeks, Stanly Co.

3

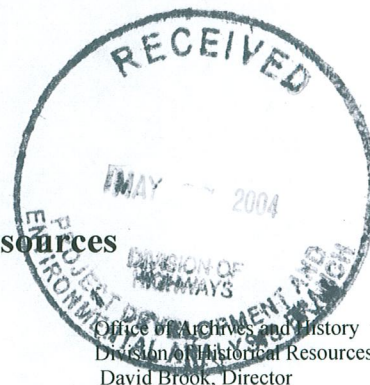
March 11, 2004

Thank you for the opportunity to provide input in the early planning stages of this project.  
If you have any questions regarding these comments, please contact me at (704) 485-2384.

cc: Marella Buncick, USFWS  
Cynthia Van Der Wiele, NCDWQ  
Sarah McRae, NCNHP



Beverly Robinson  
(McInnis)  
Bx 6



**North Carolina Department of Cultural Resources  
State Historic Preservation Office**

Michael F. Easley, Governor  
Lisbeth C. Evans, Secretary  
Jeffrey J. Crow, Deputy Secretary

Office of Archives and History  
Division of Historical Resources  
David Brook, Director

May 24, 2004

**MEMORANDUM**

**TO:** Greg Thorpe, Manager  
Project Development and Environmental Analysis Branch  
Division of Highways  
Department of Transportation

**FROM:** David Brook

*for David Brook*

**Re:** NC 24-27 Widening from NC 740 to multi-lanes west of the Pee Dee River,  
R-2530B, Stanly County, ER 04-0086

Thank you for your letter of April 1, 2004, requesting information from our files and our recommendations. In the future, plotting projects on 7.5' USGS quadrangles will facilitate our review.

For new location areas we recommend archaeological survey. This is especially important for drainage crossings. Much of this region is archaeologically sensitive and eligible archaeological sites exist. Based upon nearby National Register listed sites and archaeological sites in this region, we recommend that an archaeological survey be conducted. We recommend that a comprehensive survey be conducted by an experienced archaeologist to identify and evaluate the significance of archaeological remains that may be damaged or destroyed by the proposed project. Potential effects on unknown resources must be assessed prior to the initiation of construction activities. We recommend no archaeological survey where the project is to be constructed within or crossing an existing ROW and in developed or disturbed areas.

Two copies of the resulting archaeological survey report, as well as one copy of the appropriate site forms, should be forwarded to us for review and comment as soon as they are available and well in advance of any construction activities.

A list of archaeological consultants who have conducted or expressed an interest in contract work in North Carolina is available at [www.arch.dcr.state.nc.us/consults](http://www.arch.dcr.state.nc.us/consults). The archaeologists listed, or any other experienced archaeologist, may be contacted to conduct the recommended survey.

On January 14, 2004, Sarah McBride our preservation specialist for transportation projects met with North Carolina Department of Transportation (NCDOT) staff for a meeting of the minds concerning the above project.

**ADMINISTRATION  
RESTORATION  
SURVEY & PLANNING**

**Location**  
507 N. Blount Street, Raleigh NC  
515 N. Blount Street, Raleigh NC  
515 N. Blount Street, Raleigh, NC

**Mailing Address**  
4617 Mail Service Center, Raleigh NC 27699-4617  
4617 Mail Service Center, Raleigh NC 27699-4613  
4617 Mail Service Center, Raleigh NC 27699-4618

**Telephone/Fax**  
(919)733-4763/733-8653  
(919)733-6547/715-4801  
(919)733-6545/715-4801

Based on our review of the information discussed at the meeting and our search of our maps and files, we have located the following structures of historical or architectural importance within the general area of this project:

(ST 294) Green Top, s side NC 24/27 at the junction with SR 1740.

(ST302) Melton Homeplace, n side NC 24/27 .3 mi E of junction with SR 1720.

(ST 698) Smith Dairy Farm, e side NC 24/27 .4 mi N of SR 1720.

(ST 685) Dennis-Barringer Homestead, n side NC 24/27 .3 mi W of junction with SR 1731.

Bridge No. 51, James B. Garrison/Swift Island Ferry Bridge, NC 24/27/73 over the Pee Dee River.

We recommend that a Department of Transportation architectural historian identify and evaluate any structures over fifty years of age within the project area, and report the findings to us.

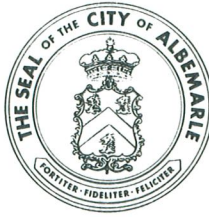
The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, please contact Renee Gledhill-Earley, environmental review coordinator, at 919/733-4763. In all future communication concerning this project, please cite the above-referenced tracking number.

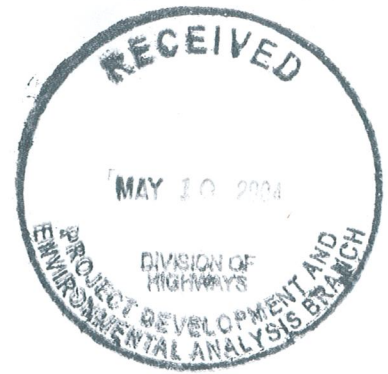
cc: SCH  
Mary Pope Furr  
Matt Wilkerson



Beverly Robinson



City of Albemarle  
North Carolina



Office of the  
Mayor and City Council

May 3, 2004

P.O. Box 190  
28002-0190

Dr. Gregory J. Thorpe  
Environmental Management Director  
Project Development and Environmental Analysis Branch  
N. C. Department of Transportation  
1458 Mail Service Center  
Raleigh, North Carolina 27699-1548

Re: TIP Project R-2530B

Dear Dr. Thorpe:

We are writing in regards to the proposed design standards for the widening of NC 24-27 from NC 740 to west of the Pee Dee River. These standards were presented at the Public Officials and Citizens Informational Workshops that were held on March 29 in Albemarle. We are concerned that the proposed standards for this project inside the Albemarle City limits would utilize a four-lane raised median rather than an unrestricted center turn lane, which is the design for the existing three-lane road. There are a number of existing businesses along this portion of the project, particularly between NC 740 and Anderson Grove Church Road. The City has received several complaints from property owners along this section of NC 24-27, who are concerned that the proposed design would adversely affect their businesses.

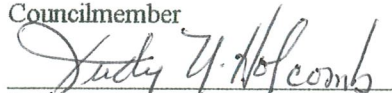
Accordingly, we would like to request a meeting with the appropriate Department of Transportation officials to discuss these concerns in more detail and explore potential design alternatives, such as a five-lane urban section. We would also request that this meeting be held as soon as convenient in order to resolve these concerns before design begins for this project.

Please contact our City Manager, Raymond Allen at (704) 984-9408 regarding arrangements for this meeting. We look forward to having the opportunity to discuss these concerns.

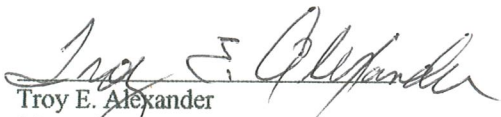
Sincerely,

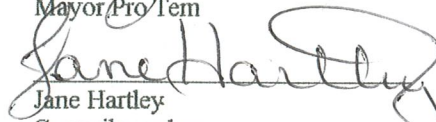
  
Roger E. Snyder  
Mayor

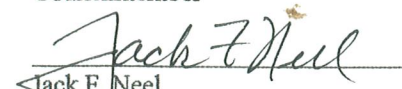
  
Martha Sue Hall  
Councilmember

  
Judy U. Holcomb  
Councilmember

  
T. Ed Underwood  
Councilmember

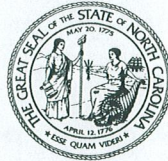
  
Troy E. Alexander  
Mayor Pro Tem

  
Jane Hartley  
Councilmember

  
Jack F. Neel  
Councilmember

  
T. E. White  
Councilmember

Cc: Larry Helms, N.C. Board of Transportation  
Benton Payne, 10<sup>th</sup> Division Engineer



U. Major

**North Carolina Department of Cultural Resources  
State Historic Preservation Office**

David L. S. Brook, Administrator

Michael F. Easley, Governor  
Lisbeth C. Evans, Secretary

Division of Archives and History  
Jeffrey J. Crow, Director

December 28, 2001

**MEMORANDUM**

**TO:** William D. Gilmore, Manager  
Project Development and Environmental Analysis Branch  
Division of Highways  
Department of Transportation

**FROM:** David Brook *for David Brook*

**SUBJECT:** Improvements to NC 24-27 from the East end of the Pee Dee River Bridge to the Troy Bypass, State Project No. 6.559003 T, TIP No. R-2527, Montgomery County, ER 02-7546

Thank you for your letter of August 24, 2001, concerning the above project.

This is an area rich in archaeological resources, some of which are listed on and eligible for the National Register. Two archaeological sites requiring additional work are 31Mg482 and 31Mg1629 located within the proposed project area. Both sites were bisected by construction of the existing highway. They are located on the Uwharrie Forest. This work will require coordination with the USFS.

In addition, we have conducted a search of our files and are aware of no structures of historical or architectural importance located within the planning area. However, since a comprehensive historical architectural inventory of has never been conducted, there may be structures of which we are unaware located within the planning area. We, therefore, recommend an architectural survey of the undertaking's area of potential effect.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919/733-4763. In all future communication concerning this project, please cite the above-referenced tracking number.

**cc:** Mary Pope Furr, NCDOT  
Matt Wilkerson, NCDOT

|                   | Location                      | Mailing Address                              | Telephone/Fax             |
|-------------------|-------------------------------|----------------------------------------------|---------------------------|
| Administration    | 507 N. Blount St, Raleigh, NC | 4617 Mail Service Center, Raleigh 27699-4617 | (919) 733-4763 • 733-8653 |
| Restoration       | 515 N. Blount St, Raleigh, NC | 4613 Mail Service Center, Raleigh 27699-4613 | (919) 733-6547 • 715-4801 |
| Survey & Planning | 515 N. Blount St, Raleigh, NC | 4618 Mail Service Center, Raleigh 27699-4618 | (919) 733-4763 • 715-4801 |



TIP # R-2527

Federal Aid # \_\_\_\_\_

County Montgomery

CONCURRENCE FORM  
FOR  
PROPERTIES NOT ELIGIBLE FOR THE NATIONAL REGISTER OF HISTORIC PLACES

## Brief Project Description

Widen + improve NC 24/27 from the Pee Dee River Bridge  
to the Troy Bypass. Troy, Montgomery County.

On 7 July 2000, representatives of the

☒ North Carolina Department of Transportation (NCDOT)  
☒ Federal Highway Administration (FHWA)  
☒ North Carolina State Historic Preservation Office (SHPO)  
☐ Other \_\_\_\_\_

reviewed the subject project at:

☒ A scoping meeting  
☒ Historic architectural resources photograph review session/consultation  
☐ Other \_\_\_\_\_

All parties present agreed

☐ there are no properties over fifty years old within the project's area of potential effect.  
☒ there are no properties less than fifty years old which are considered to meet Criterion Consideration G within the project's area of potential effect.  
☒ there are properties over fifty years old (list attached) within the project's area of potential effect, but based on the historical information available and the photographs of each property, properties identified as 1-4 are considered not eligible for the National Register and no further evaluation of them is necessary.  
☒ there are no National Register-listed properties within the project's area of potential effect.

Signed:

Sarah W. LeCount  
Representative, NCDOT

7/7/00  
Date

\_\_\_\_\_  
FHWA, for the Division Administrator, or other Federal Agency

Date

April Montgomery  
Representative, SHPO

7/7/00  
Date

David Brook  
State Historic Preservation Officer

7/13/00  
Date

If a survey report is prepared, a final copy of this form and the attached list will be included.

# **APPENDIX B**

## **NEPA 404 MERGER TEAM CONCURRENCE FORMS**





## Merger Project Team Meeting Agreement

Concurrence Point No. 1: Project Purpose and Need

Project Name/Description: NC 24-27, Widen to multi-lanes from NC 740 in Albemarle in Stanly County to the Troy Bypass, west of Troy, in Montgomery County

TIP Projects: R-2530B, B-4974 and R-2527

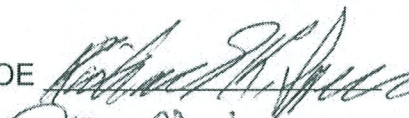
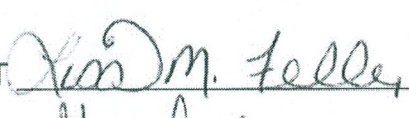
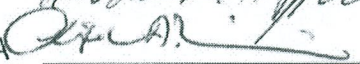
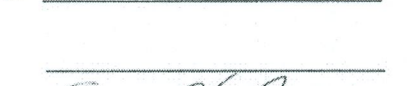
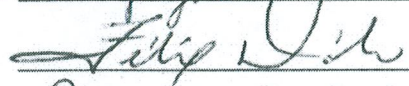
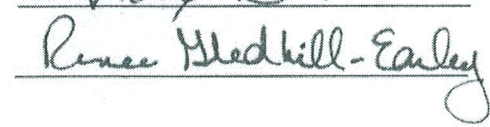
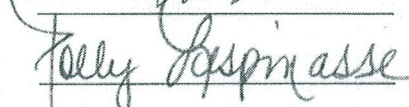
WBS Nos.: 34446.1.6, 39922.1.1 & 35572.1.1

The purpose of these projects is to improve traffic flow and level of service (LOS) on the section of NC 24-27 through the project study areas and to maintain a bridge across the Pee Dee River that addresses the needs of highway users.

The needs to be addressed by these projects include:

- Transportation deficiencies exist along NC 24-27 in the project study areas which are projected to increase substantially by the year 2030.
- Bridge No. 51 over the Pee Dee River is considered structurally deficient and is eligible for the Federal-Aid Highway Bridge Program.
- Maintain and improve the mobility and connectivity functions of the NC 24-27 corridor as part of the Strategic Highway Corridor Vision and the North Carolina Intrastate System.

The Project Team has concurred on this date of August 12, 2008, on the above mentioned project purpose and need and attached study corridor maps for TIP Projects R- 2530B, B-4974, and R-2527.

|        |                                                                                     |       |                                                                                      |
|--------|-------------------------------------------------------------------------------------|-------|--------------------------------------------------------------------------------------|
| USACOE |  | NCDOT |  |
| USEPA  |  | USFWS |  |
| USFS   |  | FHWA  |  |
| WRC    |  | SHPO  |  |
| DWQ    |  |       |                                                                                      |



## Merger Project Team Meeting Agreement

Concurrence Point No. 2: Preliminary Alternatives to be studied in detail

Project Name/Description: NC 24-27, Widen to multi-lanes from NC 740 in Albemarle in Stanly County to the Troy Bypass, west of Troy, in Montgomery County

TIP Projects: R-2530B, B-4974 and R-2527

WBS Nos.: 34446.1.6, 39922.1.1 & 35572.1.1

### ☐ Widening Scenarios

- Section 1 – NC 740 to SR 1731 (Figures 6A to 6C and Map 1)

- ☒ Asymmetrical Widening to the North – 23' Raised Median
- ☒ Asymmetrical Widening to the South – 23' Raised Median
- ☐ ~~Symmetrical Widening – 23' Raised Median~~

- Section 2 – SR 1731 to SR 1720 (Figures 6C to 6E and Map 1)

- ☒ Asymmetrical Widening to the North – 46' Median
- ☒ Asymmetrical Widening to the South – 46' Median
- ☐ ~~Symmetrical and Asymmetrical Widening to the North – 46' Median~~

- Section 3 – SR 1720 to SR 1818 (Figures 6E to 6G and Maps 1 & 2)

- ☒ Asymmetrical Widening to the North – 46' Median
- ☒ Asymmetrical Widening to the South – 46' Median

- Section 4 – SR 1818 to SR 1774 (Figures 6G to 6I and Maps 1 & 2)

- ☒ Asymmetrical Widening to the North – 46' Median
- ☒ Asymmetrical Widening to the South / Bridge Avoidance – 46' Median

- Section 5 – SR 1774 to NC 73 (Figures 6I to 6J and Map 3)

- ☒ Asymmetrical Widening to the North – 46' Median
- ☒ Asymmetrical Widening to the South / Bridge Avoidance – 46' Median

- Section 6 – NC 73 to SR 1134 (Figures 6J to 6P and Maps 3, 4, & 5)

☐ Asymmetrical Widening to the North – 46' Median

☐ Asymmetrical Widening to the South – 46' Median

- Section 7 – SR 1134 to SR 1550 (Figures 6P to 6U and Maps 5 & 6)

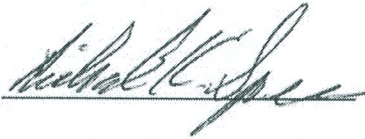
☐ Asymmetrical Widening to the North – 46' Median

☐ Asymmetrical Widening to the South – 46' Median

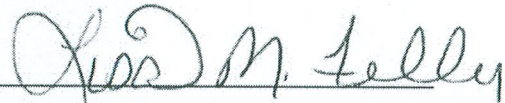
☐ No Build Alternative

The Project Team has concurred on this date of August 12, 2008, on the above mentioned preliminary alternatives to be studied in detail for TIP Projects R-2530B, B-4974, and R-2527.

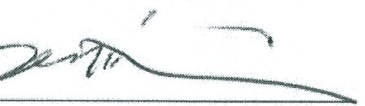
USACOE



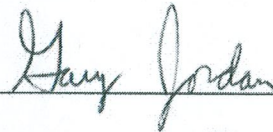
NCDOT



USEPA



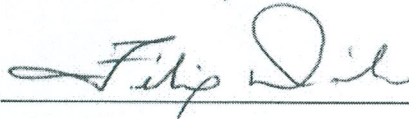
USFWS



USFS



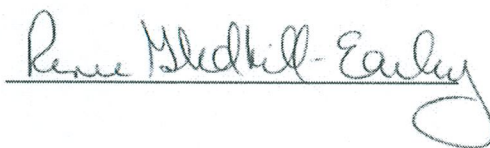
FHWA



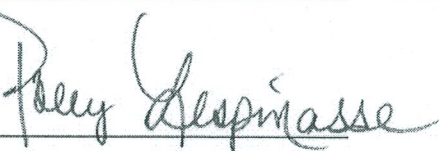
WRC



SHPO



DWQ





## Merger Project Team Meeting Agreement

Concurrence Point No. 2: Preliminary Alternatives to be studied in detail

Project Name/Description: NC 24-27, Widen to multi-lanes from NC 740 in Albemarle in Stanly County to the Troy Bypass, west of Troy, in Montgomery County

TIP Projects: R-2530B, B-4974 and R-2527

WBS Nos.: 34446.1.6, 39922.1.1 & 35572.1.1

☐ Widening Scenarios

- Section 6 – NC 73 to SR 1134 (Figures 6J to 6P, Maps 3, 4 & 5)

- ☒ Asymmetrical Widening to the North – 46' Median / Best Fit
- ☐ Asymmetrical Widening to the South – 46' Median

- Section 7 – SR 1134 to SR 1550 (Figures 6P to 6U, Maps 5 & 6)

- ☒ Asymmetrical Widening to the North – 46' Median / Best Fit
- ☐ Asymmetrical Widening to the South – 46' Median

☐ No Build Alternative

The Project Team has concurred on this date of December 11, 2008, on the above mentioned preliminary alternatives to be studied in detail for TIP Projects R-2530B, B-4974, and R-2527.

USACOE [Signature] NCDOT [Signature]

USEPA [Signature] USFWS [Signature]

USFS BY LETTER 11/6/09 FHWA [Signature]

WRC [Signature] SHPO [Signature]

DWQ [Signature]

Concurrence Point No. 2 Merger Project Team Meeting Agreement



United States  
Department of  
Agriculture

Forest  
Service

National Forests in North Carolina  
Supervisor's Office

160 ZILLICOA ST STE A  
ASHEVILLE NC 28801-1082  
828-257-4200

File Code: 2730-2

Date: January 6, 2009

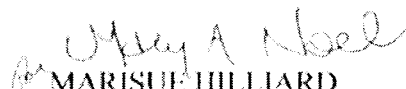
Ms. Lisa Feller  
Project Planning Engineer  
North Carolina Department of Transportation  
1548 Mail Service Center  
Raleigh, NC 27699-1548

Dear Ms. Feller:

This letter is in response to your request regarding our concurrence with Concurrence Point 2 (Detailed Study Alternatives Carried Forward) for the improvement of NC 24-27, from NC 740 in Albemarle in Stanly County to the Troy Bypass in Montgomery County (T.I.P. Project R-2527). The United States Forest Service concurs that the North Side widening alternative should be carried forward for detailed study for the entire length of the project including the portions of the project that would impact the Uwharrie National Forest.

We look forward to continuing to participate in the merger process for NC 24-27. If you have any questions regarding this, please contact Karen Compton at (828) 257-4230.

Sincerely,

  
MARISUE HILLIARD  
Forest Supervisor



Caring for the Land and Serving People

Printed on Recycled Paper





## Merger Project Team Meeting Agreement

REV.  
Concurrence Point No. 2A: Alternatives to carry forward

Project Name/Description: NC 24-27, Widen to multi-lanes from NC 740 in Albemarle in Stanly County to the Troy Bypass, west of Troy, in Montgomery County

TIP Projects: R-2530B, B-4974, and R-2527

WBS Nos.: 34446.1.6, 39922.1.1, and 35572.1.1

**Alternatives and Alignment Review:** The Project Team has concurred that the following checked alternatives be carried forward:

R-2530B, Section 1 – NC 740 to SR 1731

- ☐ Asymmetrical Widening to the North – 23' Raised Median  
☐ Asymmetrical Widening to the South – 23' Raised Median

X "Best Fit"  
Comments:

R-2530B, Section 2 – SR 1731 to SR 1720

- ☐ Asymmetrical Widening to the North – 46' Median  
☐ Asymmetrical Widening to the South – 46' Median

X "Best Fit"  
Comments:

R-2530B, Section 3 – SR 1720 to SR 1818

- ☐ Asymmetrical Widening to the North – 46' Median  
☐ Asymmetrical Widening to the South – 46' Median

X "Best Fit"  
Comments:

R-2530B, Section 4 – SR 1818 to west of SR 1778

- ☐ Asymmetrical Widening to the North – 46' Median  
☐ Asymmetrical Widening to the South – 46' Median

X "Best Fit"  
Comments:

B-4974, Section 5 – west of SR 1778 to east of NC 73

- ☐ Alternative 1 - South side widening, replace Bridge No. 51
- ☐ Alternative 2 - South side widening, replace Bridge No. 51 and No. 50
- ☐ Alternative 3 - North side widening, replace Bridge No. 51 and No. 50
- ☐ Alternative 4 - Replace in place, replace Bridge No. 51

Comments: No Concurrence 2/2/2011

R-2527, Section 6 – east of NC 73 to SR 1134

- ☒ Asymmetrical Widening to the North – 46' Median / "Best Fit"

Comments: Concurrence was reached on December 11, 2008.

R-2527, Section 7 – SR 1134 to SR 1550

- ☒ Asymmetrical Widening to the North – 46' Median / "Best Fit"

Comments: Concurrence was reached on December 11, 2008.

The Project Team has concurred on this date of February 2, 2011, on the above mentioned alternatives to carry forward for TIP Projects R-2530B, B-4974, and R-2527.

USACE [Signature] 2-2-11

NCDOT [Signature] 2/2/11

USEPA [Signature] 2-2-11

USFWS [Signature]

USFS BY LETTER 5/2/11

FHWA [Signature]

WRC [Signature] 2-2-11

DWQ [Signature] 2/3/11

DCR \_\_\_\_\_

REV.





United States  
Department of  
Agriculture

Forest  
Service

National Forests in North Carolina  
Supervisor's Office

160 ZILLICOA ST STE A  
ASHEVILLE NC 28801-1082  
828-257-4200

File Code: 2730

Date: May 2, 2011

Ms. Lisa Feller  
Project Planning Engineer  
North Carolina Department of Transportation  
1548 Mail Service Center  
Raleigh, NC 27699-1548

Dear Ms. Feller:

This letter is in response to your request regarding our concurrence with Revised Concurrence Point 2A (Detailed Study Alternatives to Carry Forward.) for the improvement of NC 24/27 located in Montgomery County, North Carolina (T.I.P. Project R-2527). The United States Forest Service concurs with the detailed study alternatives to carry forward as presented, discussed, and agreed upon by the team at the field merger team meeting on February 2, 2011. We look forward to continuing to participate in the merger process for NC 24/27. If you have any questions regarding this, please contact Karen Compton at (828) 257-4230.

Sincerely,

  
MARISUE HILLIARD  
Forest Supervisor



## Merger Project Team Meeting Agreement

### Concurrence Point No. 2A: Bridging Decisions

**Project Name/Description:** NC 24-27, Widen to multi-lanes from NC 740 in Albemarle in Stanly County to the Troy Bypass, west of Troy, in Montgomery County

**TIP Projects:** R-2530B, B-4974, and R-2527

**WBS Nos.:** 34446.1.6, 39922.1.1, and 35572.1.1

**Bridging Decisions Review:** The Project Team has concurred that the following locations utilize the specified bridge and culvert requirements:

| SITE /<br>STREAM ID                         | PROPOSED<br>HYDRAULIC STRUCTURE<br>REQUIREMENTS                                                                    | COMMENTS              |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------|-----------------------|
| <b>R-2530B:</b>                             |                                                                                                                    |                       |
| 1 / DITCH                                   | Retain & Extend 1 @ 87.5" X 68"<br>(87"X63") CMPA                                                                  |                       |
| 2 / St-AN04+02                              | Retain & Extend 1 @ 6' X 6' RCBC                                                                                   |                       |
| 3 / St-B                                    | Retain & Extend 1 @ 6' X 6' RCBC                                                                                   |                       |
| <b>B-4974:</b>                              |                                                                                                                    |                       |
| 4 / St-T                                    | Retain & Extend 1 @ 7' X 7'<br>Bottomless RCBC                                                                     |                       |
| SITE 5,<br>Alternative 1 /<br>Pee Dee River | Build a new 1135' bridge south of the<br>existing bridges. Existing Bridge 51<br>can remain in place.              |                       |
| SITE 5,<br>Alternative 2 /<br>Pee Dee River | Build two new 1155' bridges south of<br>the existing bridges. Existing Bridge 51<br>can remain in place.           |                       |
| SITE 5,<br>Alternative 3 /<br>Pee Dee River | Build two new 1255' and 1315' bridges<br>north of the existing bridges. Existing<br>Bridge 51 can remain in place. |                       |
| SITE 5,<br>Alternative 4 /<br>Pee Dee River | Remove Bridge 51 and replace it with<br>a new 1170' bridge. Existing Bridge 50<br>will remain in place.            |                       |
| <b>R-2527:</b>                              |                                                                                                                    |                       |
| 6 / SA                                      | Retain & Extend 2 @ 10 X 7 RCBC                                                                                    |                       |
| 7 / SB-1                                    | Retain & Extend 2 @ 9 X 7 RCBC                                                                                     |                       |
| 8 / SD                                      | Retain & Extend 2 @ 10 X 7 RCBC                                                                                    |                       |
| 9 / SE                                      | Retain & Extend 2 @ 7 X 7 RCBC                                                                                     | Stream relocation TBD |
| 10 / SY-A                                   | Retain & Extend 1 @ 7 X 5 RCBC                                                                                     | Relocate Stream SY-A  |
| 11 / SY-A                                   | Retain & Extend 1 @ 7 X 5 RCBC                                                                                     |                       |
| 12 / SF-B                                   | Retain & Extend 3 @ 9 X 9 RCBC                                                                                     | Relocate stream SY-A  |
| 13 / SY-B                                   | Retain & Extend 1 @ 8 X 8 RCBC                                                                                     |                       |



The Project Team has concurred on this date of February 2, 2011, on the above mentioned bridge and culvert requirements for TIP Projects R-2530B, B-4974, and R-2527.

USACE [Signature] 2/2/11

NCDOT [Signature] 2/2/2011

USEPA [Signature] 2/3/11

USFWS [Signature] 2/2/2011

USFS \_\_\_\_\_

FHWA [Signature] 2/2/2011

WRC [Signature] 2-2-11

DWQ [Signature] 2/2/11

DCR \_\_\_\_\_

### Merger Project Team Meeting Agreement

Concurrence Point No. 2 REV: Alternatives to carry forward

Project Name/Description: NC 24-27, Widen to multi-lanes from NC 740 in Albemarle in Stanly County to the Troy Bypass, west of Troy, in Montgomery County

TIP Projects: R-2530B, B-4974, and R-2527

WBS Nos.: 34446.1.6, 39922.1.1, and 35572.1.1

Alternatives and Alignment Review: The Project Team has concurred that the following checked alternatives be carried forward:

B-4974, Section 5 - west of SR 1778 to east of NC 73

- ☐ Alternative 1 - South side widening, replace Bridge No. 51
- ☐ Alternative 2 - South side widening, replace Bridge No. 51 and No. 59
- ☐ Alternative 3 - North side widening, replace Bridge No. 51 and No. 60
- ☐ Alternative 4 - Replace in place, replace Bridge No. 51

Comments:

The Project Team has concurred on this date of August 16, 2011, on the above mentioned alternatives to carry forward for TIP Projects R-2530B, B-4974, and R-2527.

USACE [Signature] 8/17/11 NCDOT [Signature] 8/16/11

USEPA [Signature] 8/18/11 USFWS [Signature] 8/18/2011

USFS \_\_\_\_\_ FHWA [Signature]

WRO [Signature] DWQ [Signature] 9/18/11

DCR Renee Medkiff Early 9-19-11



# **APPENDIX C**

**NCDOT RELOCATION ASSISTANCE PROGRAM / RELOCATION REPORTS**





## **DIVISION OF HIGHWAYS RELOCATION PROGRAMS**

It is the policy of NCDOT to ensure comparable replacement housing will be available prior to construction of state and federally-assisted projects. Furthermore, the North Carolina Board of Transportation has the following three programs to minimize the inconvenience of relocation:

- Relocation Assistance
- Relocation Moving Payments
- Relocation Replacement Housing Payments or Rent Supplement

As part of the Relocation Assistance Program, experienced NCDOT staff will be available to assist displacees with information such as availability and prices of homes, apartments, or businesses for sale or rent and financing or other housing programs. The Relocation Moving Payments Program, in general, provides for payment of actual moving expenses encountered in relocation. Where displacement will force an owner or tenant to purchase or rent property of higher cost or to lose a favorable financing arrangement (in case of ownership), the Relocation Replacement Housing Payments or Rent Supplement Program will compensate up to \$22,500 to owners who are eligible and qualify and up to \$5,250 to tenants who are eligible and qualify.

The relocation program for the proposed action will be conducted in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646), and/or the North Carolina Relocation Assistance Act (GS-133-5 through 133-18). The program is designed to provide assistance to displaced persons in relocating to a replacement site in which to live or do business. At least one relocation officer is assigned to each highway project for this purpose.

The relocation officer will determine the needs of displaced families, individuals, businesses, non-profit organizations, and farm operations for relocation assistance advisory services without regard to race, color, religion, sex, or national origin. The NCDOT will schedule its work to allow ample time, prior to displacement, for negotiations and possession of replacement housing which meets decent, safe, and sanitary standards. The displacees are given at least a 90-day written notice after NCDOT purchases the property. Residential owner-occupants or residential tenants will have a minimum of 90 days written notice to vacate from the date a comparable replacement dwelling has been located by the Right of Way Agent, and an offer of relocation benefits has been made. Business owners or business tenants will have a minimum of 90 days written notice to vacate from the date the offer is made to the owner of the property. The displacee will have a minimum of 30 days written notice to vacate from the date that the right-of-way claim is closed or from the time the property is condemned. Relocation of displaced persons will be offered in areas not generally less desirable in regard to public utilities and commercial facilities. Rent and sale prices of replacement property will be within the

financial means of the families and individuals displaced and will be reasonably accessible to their places of employment. The relocation officer will also assist owners of displaced businesses, non-profit organizations, and farm operations in searching for and moving to replacement property.

All tenant and owner residential occupants who may be displaced will receive an explanation regarding all available options, such as (1) purchase of replacement housing, (2) rental of replacement housing, either private or public, or (3) moving existing owner-occupant housing to another site (if possible). The relocation officer will also supply information concerning other state and federal programs offering assistance to displaced persons and will provide other advisory services as needed in order to minimize hardships to displaced persons in adjusting to a new location.

The Moving Expense Payments Program is designed to compensate the displacee for the costs of moving personal property from homes, businesses, non-profit organizations, and farm operations acquired for a highway project. Under the Replacement Program for Owners, NCDOT will participate in reasonable incidental purchase payments for replacement dwellings such as attorney's fees, surveys, appraisals, and other closing costs and, if applicable, make a payment for any increased interest expenses for replacement dwellings. Reimbursement to owner-occupants for replacement housing payments, increased interest payments, and incidental purchase expenses may not exceed \$22,500 (combined total), except under the Last Resort Housing provision.

A displaced tenant may be eligible to receive a payment, not to exceed \$5,250, to rent a replacement dwelling or to make a down payment, including incidental expenses, on the purchase of a replacement dwelling. The down payment is based upon what the state determines is required when the rent supplement exceeds \$5,250.

It is a policy of the state that no person will be displaced by the NCDOT's state of federally-assisted construction projects unless and until comparable replacement housing has been offered or provided for each displacee within a reasonable period of time prior to displacement. No relocation payment received will be considered as income for the purposes of the Internal Revenue Code of 1954 or for the purposes of determining eligibility or the extent of eligibility of any person for assistance under the Social Security Act or any other federal law.

Last Resort Housing is a program used when comparable replacement housing is not available, or when it is unavailable within the displacee's financial means, and the replacement payment exceeds the federal/state legal limitation. The purpose of the program is to allow broad latitudes in methods of implementation by the state so that decent, safe, and sanitary replacement housing can be provided. It is not felt that this program will be necessary on the project, since there appear to be adequate opportunities for relocation within the area.



## EIS RELOCATION REPORT

**North Carolina Department of Transportation  
RELOCATION ASSISTANCE PROGRAM**

X E.I.S.

☐ CORRIDOR

DESIGN

|                         |                                                   |              |                                |                            |
|-------------------------|---------------------------------------------------|--------------|--------------------------------|----------------------------|
| WBS:                    | 34446.1.6                                         | COUNTY       | Stanly                         | Alternate 1 of 4 Alternate |
| I.D. NO.:               | R-2530 B                                          | F.A. PROJECT | SECTION 1 – NORTHERN ALTERNATE |                            |
| DESCRIPTION OF PROJECT: | West of NC 740 to SR 1731 (Sweet Home Church Rd.) |              |                                |                            |
|                         |                                                   |              |                                |                            |

| ESTIMATED DISPLACEES |        |         |       |            | INCOME LEVEL      |   |          |   |                        |   |          |   |       |  |
|----------------------|--------|---------|-------|------------|-------------------|---|----------|---|------------------------|---|----------|---|-------|--|
| Type of Displacees   | Owners | Tenants | Total | Minorities | 0-15M             |   | 15-25M   |   | 25-35M                 |   | 35-50M   |   | 50 UP |  |
| Residential          | 9      | 4       | 13    | 1          | 0                 |   | 2        |   | 4                      |   | 4        |   | 3     |  |
| Businesses           | 4      | 3       | 7     | 0          | VALUE OF DWELLING |   |          |   | DSS DWELLING AVAILABLE |   |          |   |       |  |
| Farms                | 0      | 0       | 0     | 0          | Owners            |   | Tenants  |   | For Sale               |   | For Rent |   |       |  |
| Non-Profit           | 0      | 1       | 1     | 0          | 0-20M             | 0 | \$ 0-150 | 0 | 0-20M                  | 0 | \$ 0-150 | 0 |       |  |

| ANSWER ALL QUESTIONS |    |                            |                                                                                                             |  |  |  |  |  |  |
|----------------------|----|----------------------------|-------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|
| Yes                  | No | Explain all "YES" answers. |                                                                                                             |  |  |  |  |  |  |
| X                    |    | 1.                         | Will special relocation services be necessary?                                                              |  |  |  |  |  |  |
| X*                   |    | 2.                         | Will schools or churches be affected by displacement?                                                       |  |  |  |  |  |  |
| X                    |    | 3.                         | Will business services still be available after project?                                                    |  |  |  |  |  |  |
| X                    |    | 4.                         | Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc. |  |  |  |  |  |  |
|                      | X  | 5.                         | Will relocation cause a housing shortage?                                                                   |  |  |  |  |  |  |
|                      | X  | 7.                         | Will additional housing programs be needed?                                                                 |  |  |  |  |  |  |
| X                    |    | 8.                         | Should Last Resort Housing be considered?                                                                   |  |  |  |  |  |  |
|                      | X  | 9.                         | Are there large, disabled, elderly, etc. families?                                                          |  |  |  |  |  |  |
|                      | X  | 10.                        | Will public housing be needed for project?                                                                  |  |  |  |  |  |  |
| X                    |    | 11.                        | Is public housing available?                                                                                |  |  |  |  |  |  |
| X                    |    | 12.                        | Is it felt there will be adequate DSS housing available during relocation period?                           |  |  |  |  |  |  |
|                      | X  | 13.                        | Will there be a problem of housing within financial means?                                                  |  |  |  |  |  |  |
| X                    |    | 14.                        | Are suitable business sites available (list source).                                                        |  |  |  |  |  |  |
|                      |    | 15.                        | Number months estimated to complete                                                                         |  |  |  |  |  |  |

| 20-40M  | 0 | 150-250 | 4 | 20-40M  | 10 | 150-250 | 0  |
|---------|---|---------|---|---------|----|---------|----|
| 40-70M  | 1 | 250-400 | 0 | 40-70M  | 20 | 250-400 | 10 |
| 70-100M | 2 | 400-600 | 0 | 70-100M | 18 | 400-600 | 12 |
| 100 UP  | 6 | 600 UP  | 0 | 100 UP  | 10 | 600 UP  | 12 |
| TOTAL   | 9 |         | 4 |         | 58 |         | 34 |

**REMARKS (Respond by Number)**

**3. Business services will still be available.**

4. Yamaha Suzuki 6300 s/f- 4 employees- \$300,000  
Superior Insurance – 3000 s/f – 4 employees-\$200,000  
City Electric Supply- 60,000 s/f-4 employees- \$400,000  
International House of Prayer Church-3 employees-(Connected to City Electric Supply)  
Fairview Vet. Clinic-1500 s/f-4 employees-\$150,000  
Custom Accessories-2000 s/f-2 employees-\$50,000  
Visual Signs – 1500 s/f – 2 employees - \$80,000

**MISC. in Acquisition areas:**  
1 Story brick & metal bus.(Vacant)- \$300,000- 2500 s/f  
Aprox. 100,000 gallon water tank is in acquisition area - \$300,000

\*Anderson Grove Cemetary – 110 Graves\*  
\*Stanly Memorial Gardens Cemetary- 110 Graves \*

6. MLS, Newspaper, Realtor and Publication  
8. Will be administered according to state law  
11. Public Housing available in Stanly Co.  
12. If current trends continue & given adequate lead time, housing should be available.  
14. MLS, Newspaper, Realtor & Publication

# EIS RELOCATION REPORT

**North Carolina Department of Transportation  
RELOCATION ASSISTANCE PROGRAM**

☒ E.I.S.      ☐ CORRIDOR      ☐ DESIGN

|                         |           |                                                   |                                |  |           |   |    |   |           |
|-------------------------|-----------|---------------------------------------------------|--------------------------------|--|-----------|---|----|---|-----------|
| WBS:                    | 34446.1.6 | COUNTY                                            | Stanly                         |  | Alternate | 1 | of | 4 | Alternate |
| I.D. NO.:               | R-2530 B  | F.A. PROJECT                                      | SECTION 1 – SOUTHERN ALTERNATE |  |           |   |    |   |           |
| DESCRIPTION OF PROJECT: |           | West of NC 740 to SR 1731 (Sweet Home Church Rd.) |                                |  |           |   |    |   |           |

| ESTIMATED DISPLACED |        |         |       |            | INCOME LEVEL |        |        |        |       |
|---------------------|--------|---------|-------|------------|--------------|--------|--------|--------|-------|
| Type of Displacees  | Owners | Tenants | Total | Minorities | 0-15M        | 15-25M | 25-35M | 35-50M | 50 UP |
| Residential         | 10     | 4       | 14    | 1          | 0            | 6      | 2      | 0      | 6     |
| Businesses          | 8      | 8       | 16    | 0          |              |        |        |        |       |
| Farms               | 0      | 0       | 0     | 0          |              |        |        |        |       |
| Non-Profit          | 0      | 1       | 1     | 0          |              |        |        |        |       |

| ANSWER ALL QUESTIONS |    |                                                                                                                |           |  |  |  |  |  |  |
|----------------------|----|----------------------------------------------------------------------------------------------------------------|-----------|--|--|--|--|--|--|
| Yes                  | No | Explain all "YES" answers.                                                                                     |           |  |  |  |  |  |  |
|                      | X  | 1. Will special relocation services be necessary?                                                              |           |  |  |  |  |  |  |
| X*                   |    | 2. Will schools or churches be affected by displacement?                                                       |           |  |  |  |  |  |  |
| X                    |    | 3. Will business services still be available after project?                                                    |           |  |  |  |  |  |  |
| X                    |    | 4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc. |           |  |  |  |  |  |  |
|                      | X  | 5. Will relocation cause a housing shortage?                                                                   |           |  |  |  |  |  |  |
|                      |    | 6. Source for available housing (list).                                                                        |           |  |  |  |  |  |  |
|                      | X  | 7. Will additional housing programs be needed?                                                                 |           |  |  |  |  |  |  |
| X                    |    | 8. Should Last Resort Housing be considered?                                                                   |           |  |  |  |  |  |  |
|                      | X  | 9. Are there large, disabled, elderly, etc. families?                                                          |           |  |  |  |  |  |  |
|                      | X  | 10. Will public housing be needed for project?                                                                 |           |  |  |  |  |  |  |
| X                    |    | 11. Is public housing available?                                                                               |           |  |  |  |  |  |  |
| X                    |    | 12. Is it felt there will be adequate DSS housing available during relocation period?                          |           |  |  |  |  |  |  |
|                      | X  | 13. Will there be a problem of housing within financial means?                                                 |           |  |  |  |  |  |  |
| X                    |    | 14. Are suitable business sites available (list source).                                                       |           |  |  |  |  |  |  |
|                      |    | 15. Number months estimated to complete RELOCATION?                                                            | <b>12</b> |  |  |  |  |  |  |

| VALUE OF DWELLING |           |          |          |          |           |          |           |  |  | DSS DWELLING AVAILABLE |  |  |  |
|-------------------|-----------|----------|----------|----------|-----------|----------|-----------|--|--|------------------------|--|--|--|
| Owners            |           | Tenants  |          | For Sale |           | For Rent |           |  |  |                        |  |  |  |
| 0-20M             | 0         | \$ 0-150 | 0        | 0-20M    | 0         | \$ 0-150 | 0         |  |  |                        |  |  |  |
| 20-40M            | 0         | 150-250  | 4        | 20-40M   | 10        | 150-250  | 0         |  |  |                        |  |  |  |
| 40-70M            | 2         | 250-400  | 0        | 40-70M   | 20        | 250-400  | 10        |  |  |                        |  |  |  |
| 70-100M           | 6         | 400-600  | 0        | 70-100M  | 18        | 400-600  | 12        |  |  |                        |  |  |  |
| 100 UP            | 2         | 600 UP   | 0        | 100 UP   | 10        | 600 UP   | 12        |  |  |                        |  |  |  |
| <b>TOTAL</b>      | <b>10</b> |          | <b>4</b> |          | <b>58</b> |          | <b>34</b> |  |  |                        |  |  |  |

| REMARKS (Respond by Number)                                                                     |  |
|-------------------------------------------------------------------------------------------------|--|
| 3. Business services will still be available.                                                   |  |
| 4.                                                                                              |  |
| 1. B&G TRANSPORTATION- 700 S/F-3 EMPLOYEES                                                      |  |
| 2. ACTION – 700 S/F – 1 EMPLOYEE                                                                |  |
| 3. SIGNATURE HAIR – 500 S/F – 2 EMPLOYEES                                                       |  |
| 4. NAIL SALON – 500 S/F – 2 EMPLOYEES – BOTH MINORITIES                                         |  |
| 5. PRIDE PLUMBING – 3 EMPLOYEES – 800 S/F                                                       |  |
| 6. NEW VINE BAPTIST – 3 EMPLOYEES – 1000 S/F                                                    |  |
| 7. GRANITE MONUMENTS – 2 EMPLOYEES – 1000 S/F                                                   |  |
| 8. LEE AND LO MECHANICS – 4 EMPLOYEES -2000 S/F-ORIENTAL                                        |  |
| 9. VISUAL SIGNS – 1500 S/F- 2 EMPLOYEES-\$80,000                                                |  |
| 10. LINDA'S MOTEL-(2UNITS)-800 S/F EACH-4 EMPLOYEES-1 MINORITY-\$90,000                         |  |
| 11. FAST TAX-1000 S/F-2 EMPLOYEES-(TENANT)                                                      |  |
| 12. EXTREME CLEAN-1000 S/F-2 EMPLOYEES-(TENANT)                                                 |  |
| 13. DEEK MECHANICAL- 1500 S/F – 3 EMPLOYEES                                                     |  |
| 14. MIDWAY SALVAGE- 2000 S/F – 3 EMPLOYEES – (TENANT)                                           |  |
| 15. CUSTOM ACCESSORIES – 2000 S/F-2 EMP-\$50,000(OWNER)                                         |  |
| 16. FIRST BANK-6 EMPLOYEES-1800 S/F-\$300,000-(TENANT)                                          |  |
| *15 GRAVES* are in the acquisition areas.                                                       |  |
| <b>\$1,000,000 GALLON WATER TANK – CITY OF ALBEMARLE - \$300,000 is in the acquisition area</b> |  |
| 6. MLS, Newspaper, Realtor and Publication                                                      |  |
| 8. Will be administered according to state law                                                  |  |
| 11. Public Housing available in Stanly Co                                                       |  |
| 12. If current trends continue & given adequate lead time, housing should be available          |  |
| 14. MLS, Newspaper, Realtor & Publication                                                       |  |
| Relocation Coordinator                                                                          |  |



# EIS RELOCATION REPORT

North Carolina Department of Transportation  
RELOCATION ASSISTANCE PROGRAM

X E.I.S.

☐ CORRIDOR

☐ DESIGN

|                         |           |                                                                                                           |                                |           |   |    |   |           |
|-------------------------|-----------|-----------------------------------------------------------------------------------------------------------|--------------------------------|-----------|---|----|---|-----------|
| WBS:                    | 34446.1.6 | COUNTY                                                                                                    | Stanly                         | Alternate | 2 | of | 4 | Alternate |
| I.D. NO.:               | R-2530 B  | F.A. PROJECT                                                                                              | SECTION 2 – NORTHERN ALTERNATE |           |   |    |   |           |
| DESCRIPTION OF PROJECT: |           | NC 24/27, widening to multi-lanes from NC 740 in Albemarle, in Stanly County to west of the Pee Dee River |                                |           |   |    |   |           |

| ESTIMATED DISPLACED |        |         |       |            | INCOME LEVEL |        |        |        |       |
|---------------------|--------|---------|-------|------------|--------------|--------|--------|--------|-------|
| Type of Displacees  | Owners | Tenants | Total | Minorities | 0-15M        | 15-25M | 25-35M | 35-50M | 50 UP |
| Residential         | 1      | 0       | 1     | 0          | 0            | 0      | 1      | 0      | 0     |
| Businesses          | 2      | 0       | 2     | 0          |              |        |        |        |       |
| Farms               | 0      | 0       | 0     | 0          |              |        |        |        |       |
| Non-Profit          | 0      | 0       | 0     | 0          |              |        |        |        |       |

| ANSWER ALL QUESTIONS |    |                                                                                                                |  |  |  |  |  |  |  |
|----------------------|----|----------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|
| Yes                  | No | Explain all "YES" answers.                                                                                     |  |  |  |  |  |  |  |
| X                    |    | 1. Will special relocation services be necessary?                                                              |  |  |  |  |  |  |  |
|                      | X  | 2. Will schools or churches be affected by displacement?                                                       |  |  |  |  |  |  |  |
| X                    |    | 3. Will business services still be available after project?                                                    |  |  |  |  |  |  |  |
| X                    |    | 4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc. |  |  |  |  |  |  |  |
|                      | X  | 5. Will relocation cause a housing shortage?                                                                   |  |  |  |  |  |  |  |
|                      | X  | 6. Source for available housing (list).                                                                        |  |  |  |  |  |  |  |
| X                    |    | 7. Will additional housing programs be needed?                                                                 |  |  |  |  |  |  |  |
|                      | X  | 8. Should Last Resort Housing be considered?                                                                   |  |  |  |  |  |  |  |
|                      | X  | 9. Are there large, disabled, elderly, etc. families?                                                          |  |  |  |  |  |  |  |
|                      | X  | 10. Will public housing be needed for project?                                                                 |  |  |  |  |  |  |  |
| X                    |    | 11. Is public housing available?                                                                               |  |  |  |  |  |  |  |
| X                    |    | 12. Is it felt there will be adequate DSS housing available during relocation period?                          |  |  |  |  |  |  |  |
|                      | X  | 13. Will there be a problem of housing within financial means?                                                 |  |  |  |  |  |  |  |
| X                    |    | 14. Are suitable business sites available (list source).                                                       |  |  |  |  |  |  |  |
|                      |    | 15. Number months estimated to complete RELOCATION? <span style="float: right;">12</span>                      |  |  |  |  |  |  |  |

## REMARKS (Respond by Number)

3. Business services will still be available.
4. Min o pond 2 S F Bus - \$100,000 – 3 employees  
Stanly Salvage – 1 S Blk Bus – w/shed - \$80,000 – 2 employees
6. MLS, Newspaper, Realtor, and Publication
8. As mandated by law
11. Available in Stanly County
12. Plenty of houses on the market at this time.
14. MLS, Newspaper, Realtor, and Publications.

\*\*City of Albemarle Pump Station (\$9,500) will need to be relocated.

 5/2/11

Date 4-29-11

Relocation Coordinator

Date

*Neil Bunkleson*

Division Right of Way Agent

# 2IS RELOCATION REPORT

North Carolina Department of Transportation  
RELOCATION ASSISTANCE PROGRAM

X E.I.S.

☐ CORRIDOR

☐ DESIGN

|                         |           |                                                                                                           |                                |           |   |    |   |           |
|-------------------------|-----------|-----------------------------------------------------------------------------------------------------------|--------------------------------|-----------|---|----|---|-----------|
| WBS:                    | 34446.1.6 | COUNTY                                                                                                    | Stanly                         | Alternate | 2 | of | 4 | Alternate |
| I.D. NO.:               | R-2530 B  | F.A. PROJECT                                                                                              | SECTION 2 – SOUTHERN ALTERNATE |           |   |    |   |           |
| DESCRIPTION OF PROJECT: |           | NC 24/27, widening to multi-lanes from NC 740 in Albemarle, in Stanly County to west of the Pee Dee River |                                |           |   |    |   |           |

| ESTIMATED DISPLACEES |        |         |       |            | INCOME LEVEL      |        |                        |        |          |
|----------------------|--------|---------|-------|------------|-------------------|--------|------------------------|--------|----------|
| Type of Displacees   | Owners | Tenants | Total | Minorities | 0-15M             | 15-25M | 25-35M                 | 35-50M | 50 UP    |
| Residential          | 4      | 0       | 4     | 0          | 0                 | 0      | 4                      | 0      | 0        |
| Businesses           | 2      | 0       | 2     | 0          | VALUE OF DWELLING |        | DSS DWELLING AVAILABLE |        |          |
| Farms                | 0      | 0       | 0     | 0          | Owners            |        | Tenants                |        | For Sale |
| Non-Profit           | 0      | 0       | 0     | 0          | 0-20M             |        | \$ 0-150               |        | For Rent |

| ANSWER ALL QUESTIONS |    |                            |                                                                                                             |  |  |  |  |  |  |
|----------------------|----|----------------------------|-------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|
| Yes                  | No | Explain all "YES" answers. |                                                                                                             |  |  |  |  |  |  |
| X                    |    | 1.                         | Will special relocation services be necessary?                                                              |  |  |  |  |  |  |
| X                    |    | 2.                         | Will schools or churches be affected by displacement?                                                       |  |  |  |  |  |  |
| X                    |    | 3.                         | Will business services still be available after project?                                                    |  |  |  |  |  |  |
| X                    |    | 4.                         | Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc. |  |  |  |  |  |  |
|                      | X  | 5.                         | Will relocation cause a housing shortage?                                                                   |  |  |  |  |  |  |
|                      | X  | 6.                         | Source for available housing (list).                                                                        |  |  |  |  |  |  |
|                      | X  | 7.                         | Will additional housing programs be needed?                                                                 |  |  |  |  |  |  |
| X                    |    | 8.                         | Should Last Resort Housing be considered?                                                                   |  |  |  |  |  |  |
|                      | X  | 9.                         | Are there large, disabled, elderly, etc. families?                                                          |  |  |  |  |  |  |
|                      | X  | 10.                        | Will public housing be needed for project?                                                                  |  |  |  |  |  |  |
| X                    |    | 11.                        | Is public housing available?                                                                                |  |  |  |  |  |  |
| X                    |    | 12.                        | Is it felt there will be adequate DSS housing housing available during relocation period?                   |  |  |  |  |  |  |
|                      | X  | 13.                        | Will there be a problem of housing within financial means?                                                  |  |  |  |  |  |  |
| X                    |    | 14.                        | Are suitable business sites available (list source).                                                        |  |  |  |  |  |  |
|                      |    | 15.                        | Number months estimated to complete                                                                         |  |  |  |  |  |  |

## REMARKS (Respond by Number)

3. Business services will still be available.

4. Midway Salvage – 1 S Blk Bus 0 \$80,000 – 2 employees  
2 S F Bus – Min O Pond - \$100,000 – 3 employees

City of Albemarle Pump Station (\$9,500) is also in acquisition area.

6. MLS, Realtor, Newspaper, Publications

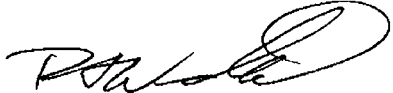
8. As mandated by law.

11. Public Housing is available in Stanly County.

12. Per current trends, there should be plenty of housing.

14. MLS, Realtor, Newspaper, Publications

|             |    |                        |      |
|-------------|----|------------------------|------|
| RELOCATION? | 12 | Relocation Coordinator | Date |
|-------------|----|------------------------|------|

|                                               |                 |                                                                                                                |                |
|-----------------------------------------------|-----------------|----------------------------------------------------------------------------------------------------------------|----------------|
| Neil Bunkleson<br>Division Right of Way Agent | Date<br>4-29-11 | Relocation Coordinator<br> | Date<br>5/2/11 |
|-----------------------------------------------|-----------------|----------------------------------------------------------------------------------------------------------------|----------------|



# EIS RELOCATION REPORT

North Carolina Department of Transportation  
RELOCATION ASSISTANCE PROGRAM

X E.I.S.      ☐ CORRIDOR      ☐ DESIGN

|                         |           |                                                   |                               |           |   |    |   |           |
|-------------------------|-----------|---------------------------------------------------|-------------------------------|-----------|---|----|---|-----------|
| WBS:                    | 34446.1.6 | COUNTY                                            | Stanly                        | Alternate | 3 | of | 4 | Alternate |
| I.D. NO.:               | R-2530 B  | F.A. PROJECT                                      | SECTION 3 – NOTHERN ALTERNATE |           |   |    |   |           |
| DESCRIPTION OF PROJECT: |           | West of NC 740 to SR 1731 (Sweet Home Church Rd.) |                               |           |   |    |   |           |

| ESTIMATED DISPLACEES |        |         |       |            | INCOME LEVEL      |        |          |                        |          |
|----------------------|--------|---------|-------|------------|-------------------|--------|----------|------------------------|----------|
| Type of Displacees   | Owners | Tenants | Total | Minorities | 0-15M             | 15-25M | 25-35M   | 35-50M                 | 50 UP    |
| Residential          | 8      | 0       | 8     | 0          | 0                 | 1      | 4        | 3                      | 0        |
| Businesses           | 1      | 0       | 0     | 0          | VALUE OF DWELLING |        |          | DSS DWELLING AVAILABLE |          |
| Farms                | 0      | 0       | 0     | 0          | Owners            |        | Tenants  |                        | For Sale |
| Non-Profit           | 0      | 0       | 0     | 0          | 0-20M             | 0      | \$ 0-150 | 0                      | 0-20M    |

| ANSWER ALL QUESTIONS |    |                                                                                                                |  |  |  |  |  |  |  |
|----------------------|----|----------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|
| Yes                  | No | Explain all "YES" answers.                                                                                     |  |  |  |  |  |  |  |
|                      | X  | 1. Will special relocation services be necessary?                                                              |  |  |  |  |  |  |  |
|                      | X  | 2. Will schools or churches be affected by displacement?                                                       |  |  |  |  |  |  |  |
| X                    |    | 3. Will business services still be available after project?                                                    |  |  |  |  |  |  |  |
| X                    |    | 4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc. |  |  |  |  |  |  |  |
|                      | X  | 5. Will relocation cause a housing shortage?                                                                   |  |  |  |  |  |  |  |
|                      | X  | 6. Source for available housing (list).                                                                        |  |  |  |  |  |  |  |
| X                    |    | 7. Will additional housing programs be needed?                                                                 |  |  |  |  |  |  |  |
|                      | X  | 8. Should Last Resort Housing be considered?                                                                   |  |  |  |  |  |  |  |
|                      | X  | 9. Are there large, disabled, elderly, etc. families?                                                          |  |  |  |  |  |  |  |
|                      | X  | 10. Will public housing be needed for project?                                                                 |  |  |  |  |  |  |  |
| X                    |    | 11. Is public housing available?                                                                               |  |  |  |  |  |  |  |
| X                    |    | 12. Is it felt there will be adequate DSS housing housing available during relocation period?                  |  |  |  |  |  |  |  |
|                      | X  | 13. Will there be a problem of housing within financial means?                                                 |  |  |  |  |  |  |  |
| X                    |    | 14. Are suitable business sites available (list source).                                                       |  |  |  |  |  |  |  |
|                      |    | 15. Number months estimated to complete                                                                        |  |  |  |  |  |  |  |

## REMARKS (Respond by Number)

**3. Business services will still be available.**

4. 1 S Blk Bus – Castaways Consignment-Owner- 2 Employees-\$70,000  
 6. MLS, Newspaper, Realtor, & Publication  
 8. Will be administered according to State Law  
 11. Public Housing available in Stanly County  
 12. If current trend continues and given adequate lead time, housing should be available.  
 14. MLS, Newspaper, Realtor, & Publication

Relocation Coordinator

*Paul D* 5/2/11

RELOCATION? **12**

Date

*Neil Burleson*

Division Right of Way Agent

# EIS RELOCATION REPORT

North Carolina Department of Transportation  
RELOCATION ASSISTANCE PROGRAM

X E.I.S.      ☐ CORRIDOR      ☐ DESIGN

|                         |           |                                                   |                                |           |   |    |   |           |
|-------------------------|-----------|---------------------------------------------------|--------------------------------|-----------|---|----|---|-----------|
| WBS:                    | 34446.1.6 | COUNTY                                            | Stanly                         | Alternate | 3 | of | 4 | Alternate |
| I.D. NO.:               | R-2530 B  | F.A. PROJECT                                      | SECTION 3 – SOUTHERN ALTERNATE |           |   |    |   |           |
| DESCRIPTION OF PROJECT: |           | West of NC 740 to SR 1731 (Sweet Home Church Rd.) |                                |           |   |    |   |           |

| ESTIMATED DISPLACEES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                     |                                                                                                                |              |            | INCOME LEVEL                        |                                     |                                                             |                          |                                     |                                                   |                          |                                     |                                                          |                                     |                          |                                                             |                          |                                     |                                                                                                                |                          |                                     |                                              |                          |                                     |                                         |                          |                                     |                                                |                                     |                          |                                              |                          |                                     |                                                       |                          |                                     |                                                |                                     |                          |                                  |                                     |                          |                                                                                       |                          |                                     |                                                                |                                     |                          |                                                          |  |  |                                         |        |   |         |   |        |    |         |   |
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| Type of Displacees                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Owners                              | Tenants                                                                                                        | Total        | Minorities | 0-15M                               | 15-25M                              | 25-35M                                                      | 35-50M                   | 50 UP                               |                                                   |                          |                                     |                                                          |                                     |                          |                                                             |                          |                                     |                                                                                                                |                          |                                     |                                              |                          |                                     |                                         |                          |                                     |                                                |                                     |                          |                                              |                          |                                     |                                                       |                          |                                     |                                                |                                     |                          |                                  |                                     |                          |                                                                                       |                          |                                     |                                                                |                                     |                          |                                                          |  |  |                                         |        |   |         |   |        |    |         |   |
| Residential                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 5                                   | 0                                                                                                              | 5            | 0          | 1                                   | 0                                   | 2                                                           | 0                        | 2                                   |                                                   |                          |                                     |                                                          |                                     |                          |                                                             |                          |                                     |                                                                                                                |                          |                                     |                                              |                          |                                     |                                         |                          |                                     |                                                |                                     |                          |                                              |                          |                                     |                                                       |                          |                                     |                                                |                                     |                          |                                  |                                     |                          |                                                                                       |                          |                                     |                                                                |                                     |                          |                                                          |  |  |                                         |        |   |         |   |        |    |         |   |
| Businesses                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0                                   | 0                                                                                                              | 0            | 0          | VALUE OF DWELLING                   |                                     |                                                             |                          | DSS DWELLING AVAILABLE              |                                                   |                          |                                     |                                                          |                                     |                          |                                                             |                          |                                     |                                                                                                                |                          |                                     |                                              |                          |                                     |                                         |                          |                                     |                                                |                                     |                          |                                              |                          |                                     |                                                       |                          |                                     |                                                |                                     |                          |                                  |                                     |                          |                                                                                       |                          |                                     |                                                                |                                     |                          |                                                          |  |  |                                         |        |   |         |   |        |    |         |   |
| Farms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0                                   | 0                                                                                                              | 0            | 0          | Owners                              |                                     | Tenants                                                     |                          | For Sale                            |                                                   | For Rent                 |                                     |                                                          |                                     |                          |                                                             |                          |                                     |                                                                                                                |                          |                                     |                                              |                          |                                     |                                         |                          |                                     |                                                |                                     |                          |                                              |                          |                                     |                                                       |                          |                                     |                                                |                                     |                          |                                  |                                     |                          |                                                                                       |                          |                                     |                                                                |                                     |                          |                                                          |  |  |                                         |        |   |         |   |        |    |         |   |
| Non-Profit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0                                   | 0                                                                                                              | 0            | 0          | 0-20M                               | 0                                   | \$ 0-150                                                    | 0                        | 0-20M                               | 0                                                 | \$ 0-150                 | 0                                   |                                                          |                                     |                          |                                                             |                          |                                     |                                                                                                                |                          |                                     |                                              |                          |                                     |                                         |                          |                                     |                                                |                                     |                          |                                              |                          |                                     |                                                       |                          |                                     |                                                |                                     |                          |                                  |                                     |                          |                                                                                       |                          |                                     |                                                                |                                     |                          |                                                          |  |  |                                         |        |   |         |   |        |    |         |   |
| <b>ANSWER ALL QUESTIONS</b><br><table style="width: 100%;"> <tr> <th>Yes</th> <th>No</th> <th>Explain all "YES" answers.</th> </tr> <tr> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td>1. Will special relocation services be necessary?</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td>2. Will schools or churches be affected by displacement?</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td>3. Will business services still be available after project?</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td>4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td>5. Will relocation cause a housing shortage?</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td>6. Source for available housing (list).</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td>7. Will additional housing programs be needed?</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td>8. Should Last Resort Housing be considered?</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td>9. Are there large, disabled, elderly, etc. families?</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td>10. Will public housing be needed for project?</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td>11. Is public housing available?</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td>12. Is it felt there will be adequate DSS housing available during relocation period?</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td>13. Will there be a problem of housing within financial means?</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td>14. Are suitable business sites available (list source).</td> </tr> <tr> <td></td> <td></td> <td>15. Number months estimated to complete</td> </tr> </table> |                                     |                                                                                                                |              |            | Yes                                 | No                                  | Explain all "YES" answers.                                  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 1. Will special relocation services be necessary? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 2. Will schools or churches be affected by displacement? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. Will business services still be available after project? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 5. Will relocation cause a housing shortage? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 6. Source for available housing (list). | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 7. Will additional housing programs be needed? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 8. Should Last Resort Housing be considered? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 9. Are there large, disabled, elderly, etc. families? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 10. Will public housing be needed for project? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 11. Is public housing available? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 12. Is it felt there will be adequate DSS housing available during relocation period? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 13. Will there be a problem of housing within financial means? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 14. Are suitable business sites available (list source). |  |  | 15. Number months estimated to complete | 20-40M | 1 | 150-250 | 0 | 20-40M | 10 | 150-250 | 0 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                |              |            | Yes                                 | No                                  | Explain all "YES" answers.                                  |                          |                                     |                                                   |                          |                                     |                                                          |                                     |                          |                                                             |                          |                                     |                                                                                                                |                          |                                     |                                              |                          |                                     |                                         |                          |                                     |                                                |                                     |                          |                                              |                          |                                     |                                                       |                          |                                     |                                                |                                     |                          |                                  |                                     |                          |                                                                                       |                          |                                     |                                                                |                                     |                          |                                                          |  |  |                                         |        |   |         |   |        |    |         |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                |              |            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 1. Will special relocation services be necessary?           |                          |                                     |                                                   |                          |                                     |                                                          |                                     |                          |                                                             |                          |                                     |                                                                                                                |                          |                                     |                                              |                          |                                     |                                         |                          |                                     |                                                |                                     |                          |                                              |                          |                                     |                                                       |                          |                                     |                                                |                                     |                          |                                  |                                     |                          |                                                                                       |                          |                                     |                                                                |                                     |                          |                                                          |  |  |                                         |        |   |         |   |        |    |         |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                |              |            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 2. Will schools or churches be affected by displacement?    |                          |                                     |                                                   |                          |                                     |                                                          |                                     |                          |                                                             |                          |                                     |                                                                                                                |                          |                                     |                                              |                          |                                     |                                         |                          |                                     |                                                |                                     |                          |                                              |                          |                                     |                                                       |                          |                                     |                                                |                                     |                          |                                  |                                     |                          |                                                                                       |                          |                                     |                                                                |                                     |                          |                                                          |  |  |                                         |        |   |         |   |        |    |         |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                |              |            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 3. Will business services still be available after project? |                          |                                     |                                                   |                          |                                     |                                                          |                                     |                          |                                                             |                          |                                     |                                                                                                                |                          |                                     |                                              |                          |                                     |                                         |                          |                                     |                                                |                                     |                          |                                              |                          |                                     |                                                       |                          |                                     |                                                |                                     |                          |                                  |                                     |                          |                                                                                       |                          |                                     |                                                                |                                     |                          |                                                          |  |  |                                         |        |   |         |   |        |    |         |   |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <input checked="" type="checkbox"/> | 4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc. |              |            |                                     |                                     |                                                             |                          |                                     |                                                   |                          |                                     |                                                          |                                     |                          |                                                             |                          |                                     |                                                                                                                |                          |                                     |                                              |                          |                                     |                                         |                          |                                     |                                                |                                     |                          |                                              |                          |                                     |                                                       |                          |                                     |                                                |                                     |                          |                                  |                                     |                          |                                                                                       |                          |                                     |                                                                |                                     |                          |                                                          |  |  |                                         |        |   |         |   |        |    |         |   |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <input checked="" type="checkbox"/> | 5. Will relocation cause a housing shortage?                                                                   |              |            |                                     |                                     |                                                             |                          |                                     |                                                   |                          |                                     |                                                          |                                     |                          |                                                             |                          |                                     |                                                                                                                |                          |                                     |                                              |                          |                                     |                                         |                          |                                     |                                                |                                     |                          |                                              |                          |                                     |                                                       |                          |                                     |                                                |                                     |                          |                                  |                                     |                          |                                                                                       |                          |                                     |                                                                |                                     |                          |                                                          |  |  |                                         |        |   |         |   |        |    |         |   |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <input checked="" type="checkbox"/> | 6. Source for available housing (list).                                                                        |              |            |                                     |                                     |                                                             |                          |                                     |                                                   |                          |                                     |                                                          |                                     |                          |                                                             |                          |                                     |                                                                                                                |                          |                                     |                                              |                          |                                     |                                         |                          |                                     |                                                |                                     |                          |                                              |                          |                                     |                                                       |                          |                                     |                                                |                                     |                          |                                  |                                     |                          |                                                                                       |                          |                                     |                                                                |                                     |                          |                                                          |  |  |                                         |        |   |         |   |        |    |         |   |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <input checked="" type="checkbox"/> | 7. Will additional housing programs be needed?                                                                 |              |            |                                     |                                     |                                                             |                          |                                     |                                                   |                          |                                     |                                                          |                                     |                          |                                                             |                          |                                     |                                                                                                                |                          |                                     |                                              |                          |                                     |                                         |                          |                                     |                                                |                                     |                          |                                              |                          |                                     |                                                       |                          |                                     |                                                |                                     |                          |                                  |                                     |                          |                                                                                       |                          |                                     |                                                                |                                     |                          |                                                          |  |  |                                         |        |   |         |   |        |    |         |   |
| <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <input type="checkbox"/>            | 8. Should Last Resort Housing be considered?                                                                   |              |            |                                     |                                     |                                                             |                          |                                     |                                                   |                          |                                     |                                                          |                                     |                          |                                                             |                          |                                     |                                                                                                                |                          |                                     |                                              |                          |                                     |                                         |                          |                                     |                                                |                                     |                          |                                              |                          |                                     |                                                       |                          |                                     |                                                |                                     |                          |                                  |                                     |                          |                                                                                       |                          |                                     |                                                                |                                     |                          |                                                          |  |  |                                         |        |   |         |   |        |    |         |   |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <input checked="" type="checkbox"/> | 9. Are there large, disabled, elderly, etc. families?                                                          |              |            |                                     |                                     |                                                             |                          |                                     |                                                   |                          |                                     |                                                          |                                     |                          |                                                             |                          |                                     |                                                                                                                |                          |                                     |                                              |                          |                                     |                                         |                          |                                     |                                                |                                     |                          |                                              |                          |                                     |                                                       |                          |                                     |                                                |                                     |                          |                                  |                                     |                          |                                                                                       |                          |                                     |                                                                |                                     |                          |                                                          |  |  |                                         |        |   |         |   |        |    |         |   |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <input checked="" type="checkbox"/> | 10. Will public housing be needed for project?                                                                 |              |            |                                     |                                     |                                                             |                          |                                     |                                                   |                          |                                     |                                                          |                                     |                          |                                                             |                          |                                     |                                                                                                                |                          |                                     |                                              |                          |                                     |                                         |                          |                                     |                                                |                                     |                          |                                              |                          |                                     |                                                       |                          |                                     |                                                |                                     |                          |                                  |                                     |                          |                                                                                       |                          |                                     |                                                                |                                     |                          |                                                          |  |  |                                         |        |   |         |   |        |    |         |   |
| <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <input type="checkbox"/>            | 11. Is public housing available?                                                                               |              |            |                                     |                                     |                                                             |                          |                                     |                                                   |                          |                                     |                                                          |                                     |                          |                                                             |                          |                                     |                                                                                                                |                          |                                     |                                              |                          |                                     |                                         |                          |                                     |                                                |                                     |                          |                                              |                          |                                     |                                                       |                          |                                     |                                                |                                     |                          |                                  |                                     |                          |                                                                                       |                          |                                     |                                                                |                                     |                          |                                                          |  |  |                                         |        |   |         |   |        |    |         |   |
| <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <input type="checkbox"/>            | 12. Is it felt there will be adequate DSS housing available during relocation period?                          |              |            |                                     |                                     |                                                             |                          |                                     |                                                   |                          |                                     |                                                          |                                     |                          |                                                             |                          |                                     |                                                                                                                |                          |                                     |                                              |                          |                                     |                                         |                          |                                     |                                                |                                     |                          |                                              |                          |                                     |                                                       |                          |                                     |                                                |                                     |                          |                                  |                                     |                          |                                                                                       |                          |                                     |                                                                |                                     |                          |                                                          |  |  |                                         |        |   |         |   |        |    |         |   |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <input checked="" type="checkbox"/> | 13. Will there be a problem of housing within financial means?                                                 |              |            |                                     |                                     |                                                             |                          |                                     |                                                   |                          |                                     |                                                          |                                     |                          |                                                             |                          |                                     |                                                                                                                |                          |                                     |                                              |                          |                                     |                                         |                          |                                     |                                                |                                     |                          |                                              |                          |                                     |                                                       |                          |                                     |                                                |                                     |                          |                                  |                                     |                          |                                                                                       |                          |                                     |                                                                |                                     |                          |                                                          |  |  |                                         |        |   |         |   |        |    |         |   |
| <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <input type="checkbox"/>            | 14. Are suitable business sites available (list source).                                                       |              |            |                                     |                                     |                                                             |                          |                                     |                                                   |                          |                                     |                                                          |                                     |                          |                                                             |                          |                                     |                                                                                                                |                          |                                     |                                              |                          |                                     |                                         |                          |                                     |                                                |                                     |                          |                                              |                          |                                     |                                                       |                          |                                     |                                                |                                     |                          |                                  |                                     |                          |                                                                                       |                          |                                     |                                                                |                                     |                          |                                                          |  |  |                                         |        |   |         |   |        |    |         |   |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                | 40-70M       | 2          | 250-400                             | 0                                   | 40-70M                                                      | 20                       | 250-400                             | 10                                                |                          |                                     |                                                          |                                     |                          |                                                             |                          |                                     |                                                                                                                |                          |                                     |                                              |                          |                                     |                                         |                          |                                     |                                                |                                     |                          |                                              |                          |                                     |                                                       |                          |                                     |                                                |                                     |                          |                                  |                                     |                          |                                                                                       |                          |                                     |                                                                |                                     |                          |                                                          |  |  |                                         |        |   |         |   |        |    |         |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                | 70-100M      | 1          | 400-600                             | 0                                   | 70-100M                                                     | 18                       | 400-600                             | 12                                                |                          |                                     |                                                          |                                     |                          |                                                             |                          |                                     |                                                                                                                |                          |                                     |                                              |                          |                                     |                                         |                          |                                     |                                                |                                     |                          |                                              |                          |                                     |                                                       |                          |                                     |                                                |                                     |                          |                                  |                                     |                          |                                                                                       |                          |                                     |                                                                |                                     |                          |                                                          |  |  |                                         |        |   |         |   |        |    |         |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                | 100 UP       | 1          | 600 UP                              | 0                                   | 100 UP                                                      | 10                       | 600 UP                              | 12                                                |                          |                                     |                                                          |                                     |                          |                                                             |                          |                                     |                                                                                                                |                          |                                     |                                              |                          |                                     |                                         |                          |                                     |                                                |                                     |                          |                                              |                          |                                     |                                                       |                          |                                     |                                                |                                     |                          |                                  |                                     |                          |                                                                                       |                          |                                     |                                                                |                                     |                          |                                                          |  |  |                                         |        |   |         |   |        |    |         |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                | <b>TOTAL</b> | <b>5</b>   |                                     | <b>0</b>                            |                                                             | <b>58</b>                |                                     | <b>34</b>                                         |                          |                                     |                                                          |                                     |                          |                                                             |                          |                                     |                                                                                                                |                          |                                     |                                              |                          |                                     |                                         |                          |                                     |                                                |                                     |                          |                                              |                          |                                     |                                                       |                          |                                     |                                                |                                     |                          |                                  |                                     |                          |                                                                                       |                          |                                     |                                                                |                                     |                          |                                                          |  |  |                                         |        |   |         |   |        |    |         |   |

**REMARKS (Respond by Number)**

3. Business Services will still be available.  
6. MLS, Newspaper, Realtor, & Publication  
8. Will be administrated according to State Law  
11. Public Hearing available in Stanly County  
12. If current trend continues and given adequate lead time, housing Should be available.  
14. MLS, Newspaper, Realtor, & Publication

Relocation Coordinator

*Neil Bunkleson* 5/2/11

RELOCATION? **12**

Date

*Neil Bunkleson*

Division Right of Way Agent



# EIS RELOCATION REPORT

North Carolina Department of Transportation  
RELOCATION ASSISTANCE PROGRAM

X E.I.S.      ☐ CORRIDOR      ☐ DESIGN

|                         |           |                                                   |                               |           |   |    |   |           |
|-------------------------|-----------|---------------------------------------------------|-------------------------------|-----------|---|----|---|-----------|
| WBS:                    | 34446.1.6 | COUNTY                                            | Stanly                        | Alternate | 4 | of | 4 | Alternate |
| I.D. NO.:               | R-2530 B  | F.A. PROJECT                                      | SECTION 4 – NOTHERN ALTERNATE |           |   |    |   |           |
| DESCRIPTION OF PROJECT: |           | West of NC 740 to SR 1731 (Sweet Home Church Rd.) |                               |           |   |    |   |           |

| ESTIMATED DISPLACEES |        |         |       |            | INCOME LEVEL |        |        |        |       |
|----------------------|--------|---------|-------|------------|--------------|--------|--------|--------|-------|
| Type of Displacees   | Owners | Tenants | Total | Minorities | 0-15M        | 15-25M | 25-35M | 35-50M | 50 UP |
| Residential          | 1      | 0       | 1     | 0          | 0            | 0      | 0      | 1      | 0     |
| Businesses           | 1      | 0       | 1     | 0          |              |        |        |        |       |
| Farms                | 0      | 0       | 0     | 0          |              |        |        |        |       |
| Non-Profit           | 0      | 0       | 0     | 0          |              |        |        |        |       |

| ANSWER ALL QUESTIONS |    |                                                                                                                |
|----------------------|----|----------------------------------------------------------------------------------------------------------------|
| Yes                  | No | Explain all "YES" answers.                                                                                     |
|                      | X  | 1. Will special relocation services be necessary?                                                              |
|                      | X  | 2. Will schools or churches be affected by displacement?                                                       |
| X                    |    | 3. Will business services still be available after project?                                                    |
| X                    |    | 4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc. |
|                      | X  | 5. Will relocation cause a housing shortage?                                                                   |
|                      | X  | 6. Source for available housing (list).                                                                        |
|                      | X  | 7. Will additional housing programs be needed?                                                                 |
| X                    |    | 8. Should Last Resort Housing be considered?                                                                   |
|                      | X  | 9. Are there large, disabled, elderly, etc. families?                                                          |
|                      | X  | 10. Will public housing be needed for project?                                                                 |
| X                    |    | 11. Is public housing available?                                                                               |
| X                    |    | 12. Is it felt there will be adequate DSS housing housing available during relocation period?                  |
|                      | X  | 13. Will there be a problem of housing within financial means?                                                 |
| X                    |    | 14. Are suitable business sites available (list source).                                                       |
|                      |    | 15. Number months estimated to complete                                                                        |

| VALUE OF DWELLING |          |          |          | DSS DWELLING AVAILABLE |           |          |           |
|-------------------|----------|----------|----------|------------------------|-----------|----------|-----------|
| Owners            |          | Tenants  |          | For Sale               |           | For Rent |           |
| 0-20M             | 0        | \$ 0-150 | 0        | 0-20M                  | 0         | \$ 0-150 | 0         |
| 20-40M            | 0        | 150-250  | 0        | 20-40M                 | 10        | 150-250  | 0         |
| 40-70M            | 0        | 250-400  | 0        | 40-70M                 | 20        | 250-400  | 10        |
| 70-100M           | 1        | 400-600  | 0        | 70-100M                | 18        | 400-600  | 12        |
| 100 UP            | 0        | 600 UP   | 0        | 100 UP                 | 10        | 600 UP   | 12        |
| <b>TOTAL</b>      | <b>1</b> |          | <b>0</b> |                        | <b>58</b> |          | <b>34</b> |

| REMARKS (Respond by Number)                                                               |  |
|-------------------------------------------------------------------------------------------|--|
| 3. Business services will still be available.                                             |  |
| 4. 2- SF Business – Tillery Realty-\$60,000- 2 employees                                  |  |
| 6. MLS, Newspaper, Realtor, & Publication                                                 |  |
| 8. Will be administered according to State Law                                            |  |
| 11. Public Housing available in Stanly County                                             |  |
| 12. If current trend continues and given adequate lead time, housing should be available. |  |
| 14. MLS, Newspaper, Realtor, & Publication                                                |  |

*Paul D* 5/2/11

|                                                                                                                                                                                       |         |                                                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----------------------------------------------------------------------------------------------------------------------------|
| <div style="text-align: right; margin-bottom: 5px;">Date</div> <div style="text-align: right;">Neil Bunkleson</div> <div style="text-align: right;">Division Right of Way Agent</div> | 4-29-11 | <div style="text-align: right; margin-bottom: 5px;">Relocation Coordinator</div> <div style="text-align: right;">Date</div> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----------------------------------------------------------------------------------------------------------------------------|

# EIS RELOCATION REPORT

North Carolina Department of Transportation  
RELOCATION ASSISTANCE PROGRAM

X E.I.S.      ☐ CORRIDOR      ☐ DESIGN

|                         |           |                                                   |                                |           |   |    |   |           |
|-------------------------|-----------|---------------------------------------------------|--------------------------------|-----------|---|----|---|-----------|
| WBS:                    | 34446.1.6 | COUNTY                                            | Stanly                         | Alternate | 4 | of | 4 | Alternate |
| I.D. NO.:               | R-2530 B  | F.A. PROJECT                                      | SECTION 4 – SOUTHERN ALTERNATE |           |   |    |   |           |
| DESCRIPTION OF PROJECT: |           | West of NC 740 to SR 1731 (Sweet Home Church Rd.) |                                |           |   |    |   |           |

| ESTIMATED DISPLACEES |        |         |       |            | INCOME LEVEL |        |        |        |       |
|----------------------|--------|---------|-------|------------|--------------|--------|--------|--------|-------|
| Type of Displacees   | Owners | Tenants | Total | Minorities | 0-15M        | 15-25M | 25-35M | 35-50M | 50 UP |
| Residential          | 3      | 0       | 3     | 0          | 0            | 0      | 2      | 1      | 0     |
| Businesses           | 4      | 1       | 5     | 0          |              |        |        |        |       |
| Farms                | 0      | 0       | 0     | 0          |              |        |        |        |       |
| Non-Profit           | 0      | 0       | 0     | 0          |              |        |        |        |       |

| ANSWER ALL QUESTIONS |    |                                                                                                                |  |  |  |  |  |  |  |
|----------------------|----|----------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|
| Yes                  | No | Explain all "YES" answers.                                                                                     |  |  |  |  |  |  |  |
|                      | X  | 1. Will special relocation services be necessary?                                                              |  |  |  |  |  |  |  |
|                      | X  | 2. Will schools or churches be affected by displacement?                                                       |  |  |  |  |  |  |  |
| X                    |    | 3. Will business services still be available after project?                                                    |  |  |  |  |  |  |  |
| X                    |    | 4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc. |  |  |  |  |  |  |  |
|                      | X  | 5. Will relocation cause a housing shortage?                                                                   |  |  |  |  |  |  |  |
|                      | X  | 6. Source for available housing (list).                                                                        |  |  |  |  |  |  |  |
|                      | X  | 7. Will additional housing programs be needed?                                                                 |  |  |  |  |  |  |  |
| X                    |    | 8. Should Last Resort Housing be considered?                                                                   |  |  |  |  |  |  |  |
|                      | X  | 9. Are there large, disabled, elderly, etc. families?                                                          |  |  |  |  |  |  |  |
|                      | X  | 10. Will public housing be needed for project?                                                                 |  |  |  |  |  |  |  |
| X                    |    | 11. Is public housing available?                                                                               |  |  |  |  |  |  |  |
| X                    |    | 12. Is it felt there will be adequate DSS housing housing available during relocation period?                  |  |  |  |  |  |  |  |
|                      | X  | 13. Will there be a problem of housing within financial means?                                                 |  |  |  |  |  |  |  |
| X                    |    | 14. Are suitable business sites available (list source).                                                       |  |  |  |  |  |  |  |
|                      |    | 15. Number months estimated to complete RELOCATION? <b>12</b>                                                  |  |  |  |  |  |  |  |

| VALUE OF DWELLING |          |          |          | DSS DWELLING AVAILABLE |           |          |           |
|-------------------|----------|----------|----------|------------------------|-----------|----------|-----------|
| Owners            |          | Tenants  |          | For Sale               |           | For Rent |           |
| 0-20M             | 0        | \$ 0-150 | 0        | 0-20M                  | 0         | \$ 0-150 | 0         |
| 20-40M            | 0        | 150-250  | 0        | 20-40M                 | 10        | 150-250  | 0         |
| 40-70M            | 2        | 250-400  | 0        | 40-70M                 | 20        | 250-400  | 10        |
| 70-100M           | 1        | 400-600  | 0        | 70-100M                | 18        | 400-600  | 12        |
| 100 UP            | 0        | 600 UP   | 0        | 100 UP                 | 10        | 600 UP   | 12        |
| <b>TOTAL</b>      | <b>3</b> |          | <b>0</b> |                        | <b>58</b> |          | <b>34</b> |

**REMARKS (Respond by Number)**

3. Business services will still be available.

4. 1 SBK Business-Tillery Sportsman-\$100,000-2 employees  
2 SF Business-Tillery Realty-\$60,000-(out of business)  
1 SBK-Business-\$70,000-(vacant)-trailers for sale  
1 SF Business-Headquarters-\$30,000-1 employee  
1 M&L Business-Hammer Racings-\$60,000-2 employees

6. MLS, Newspaper, Realtor, & Publication

8. Will be administrated according to State Law

11. Public Hearing available in Stanly County

12. If current trend continues and given adequate lead time, housing Should be available.

14. MLS, Newspaper, Realtor, & Publication

 5/2/11  
 Relocation Coordinator \_\_\_\_\_ Date \_\_\_\_\_

 Date **4-29-11**  
 Division Right of Way Agent



# EIS RELOCATION REPORT

North Carolina Department of Transportation  
RELOCATION ASSISTANCE PROGRAM

X E.I.S.

☐ CORRIDOR

☐ DESIGN

|                         |           |                                                                              |                   |           |   |    |   |           |
|-------------------------|-----------|------------------------------------------------------------------------------|-------------------|-----------|---|----|---|-----------|
| WBS:                    | 39922.1.1 | COUNTY                                                                       | Stanly/Montgomery | Alternate | 1 | of | 4 | Alternate |
| I.D. NO.:               | B-4974    | F.A. PROJECT                                                                 |                   |           |   |    |   |           |
| DESCRIPTION OF PROJECT: |           | NC24/27 widen to multi-lanes from SR 1778 (River Haven Rd.) to east of NC 73 |                   |           |   |    |   |           |

| ESTIMATED DISPLACED |        |         |       |            | INCOME LEVEL |        |        |        |       |
|---------------------|--------|---------|-------|------------|--------------|--------|--------|--------|-------|
| Type of Displacees  | Owners | Tenants | Total | Minorities | 0-15M        | 15-25M | 25-35M | 35-50M | 50 UP |
| Residential         | 3      | 0       | 3     | 0          | 0            | 1      | 0      | 2      | 0     |
| Businesses          | 2      | 0       | 2     | 0          |              |        |        |        |       |
| Farms               | 0      | 0       | 0     | 0          |              |        |        |        |       |
| Non-Profit          | 0      | 0       | 0     | 0          |              |        |        |        |       |

| ANSWER ALL QUESTIONS |    |                                                                                                                |  |  |  |  |  |  |  |
|----------------------|----|----------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|
| Yes                  | No | Explain all "YES" answers.                                                                                     |  |  |  |  |  |  |  |
|                      | X  | 1. Will special relocation services be necessary?                                                              |  |  |  |  |  |  |  |
|                      | X  | 2. Will schools or churches be affected by displacement?                                                       |  |  |  |  |  |  |  |
| X                    |    | 3. Will business services still be available after project?                                                    |  |  |  |  |  |  |  |
| X                    |    | 4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc. |  |  |  |  |  |  |  |
|                      | X  | 5. Will relocation cause a housing shortage?                                                                   |  |  |  |  |  |  |  |
|                      | X  | 6. Source for available housing (list).                                                                        |  |  |  |  |  |  |  |
|                      | X  | 7. Will additional housing programs be needed?                                                                 |  |  |  |  |  |  |  |
| X                    |    | 8. Should Last Resort Housing be considered?                                                                   |  |  |  |  |  |  |  |
|                      | X  | 9. Are there large, disabled, elderly, etc. families?                                                          |  |  |  |  |  |  |  |
| X                    |    | 10. Will public housing be needed for project?                                                                 |  |  |  |  |  |  |  |
| X                    |    | 11. Is public housing available?                                                                               |  |  |  |  |  |  |  |
| X                    |    | 12. Is it felt there will be adequate DSS housing available during relocation period?                          |  |  |  |  |  |  |  |
|                      | X  | 13. Will there be a problem of housing within financial means?                                                 |  |  |  |  |  |  |  |
| X                    |    | 14. Are suitable business sites available (list source).                                                       |  |  |  |  |  |  |  |
|                      |    | 15. Number months estimated to complete                                                                        |  |  |  |  |  |  |  |

| REMARKS (Respond by Number) |  |  |  |  |  |  |  |  |  |
|-----------------------------|--|--|--|--|--|--|--|--|--|
|-----------------------------|--|--|--|--|--|--|--|--|--|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |  |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|
| <p>3. Business Services will still be available.</p> <p>4. 1 SF Business-Sun Realty- \$50,000-2 employees<br/>1 S Stucco Business-New South Realty-\$125,000-4 employees</p> <p>6. MLS, Newspaper, Realtor and Publication</p> <p>8. Will be administered according to state law</p> <p>11. Public Housing available in Stanly Co.</p> <p>12. If current trends continue &amp; given adequate lead time, housing should be available.</p> <p>14. MLS, Newspaper, Realtor &amp; Publication</p> |  |  |  |  |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|

|                                                                                                                                                                                  |                                                                                                                                                                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: right;">Date</p> <p style="text-align: right;">4-29-11</p> <p style="text-align: right;">Relocation Coordinator</p> <p style="text-align: right;">Date</p> | <p style="text-align: right;">Date</p> <p style="text-align: right;">5/2/11</p> <p style="text-align: right;">Relocation Coordinator</p> <p style="text-align: right;">Date</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

# EIS RELOCATION REPORT

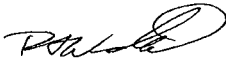
North Carolina Department of Transportation  
RELOCATION ASSISTANCE PROGRAM

X E.I.S.      ☐ CORRIDOR      ☐ DESIGN

|                         |           |                                                                              |                   |           |   |    |   |           |
|-------------------------|-----------|------------------------------------------------------------------------------|-------------------|-----------|---|----|---|-----------|
| WBS:                    | 39922.1.1 | COUNTY                                                                       | Stanly/Montgomery | Alternate | 2 | of | 4 | Alternate |
| I.D. NO.:               | B-4974    | F.A. PROJECT                                                                 |                   |           |   |    |   |           |
| DESCRIPTION OF PROJECT: |           | NC24/27 widen to multi-lanes from SR 1778 (River Haven Rd.) to east of NC 73 |                   |           |   |    |   |           |

| ESTIMATED DISPLACEES |        |         |       |            | INCOME LEVEL      |   |          |   |        |                        |          |   |          |  |
|----------------------|--------|---------|-------|------------|-------------------|---|----------|---|--------|------------------------|----------|---|----------|--|
| Type of Displacees   | Owners | Tenants | Total | Minorities | 0-15M             |   | 15-25M   |   | 25-35M |                        | 35-50M   |   | 50 UP    |  |
| Residential          | 4      | 0       | 4     | 0          | 0                 |   | 1        |   | 0      |                        | 0        |   | 3        |  |
| Businesses           | 2      | 0       | 2     | 0          | VALUE OF DWELLING |   |          |   |        | DSS DWELLING AVAILABLE |          |   |          |  |
| Farms                | 0      | 0       | 0     | 0          | Owners            |   | Tenants  |   |        | For Sale               |          |   | For Rent |  |
| Non-Profit           | 0      | 0       | 0     | 0          | 0-20M             | 0 | \$ 0-150 | 0 | 0-20M  | 0                      | \$ 0-150 | 0 |          |  |

| ANSWER ALL QUESTIONS |    |                                                                                                                |
|----------------------|----|----------------------------------------------------------------------------------------------------------------|
| Yes                  | No | Explain all "YES" answers.                                                                                     |
|                      | X  | 1. Will special relocation services be necessary?                                                              |
|                      | X  | 2. Will schools or churches be affected by displacement?                                                       |
| X                    |    | 3. Will business services still be available after project?                                                    |
| X                    |    | 4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc. |
|                      | X  | 5. Will relocation cause a housing shortage?                                                                   |
|                      | X  | 6. Source for available housing (list).                                                                        |
|                      | X  | 7. Will additional housing programs be needed?                                                                 |
| X                    |    | 8. Should Last Resort Housing be considered?                                                                   |
|                      | X  | 9. Are there large, disabled, elderly, etc. families?                                                          |
|                      | X  | 10. Will public housing be needed for project?                                                                 |
| X                    |    | 11. Is public housing available?                                                                               |
| X                    |    | 12. Is it felt there will be adequate DSS housing housing available during relocation period?                  |
|                      | X  | 13. Will there be a problem of housing within financial means?                                                 |
| X                    |    | 14. Are suitable business sites available (list source).                                                       |
|                      |    | 15. Number months estimated to complete                                                                        |

| REMARKS (Respond by Number)                                                                                         |  |
|---------------------------------------------------------------------------------------------------------------------|--|
| 3. Businesses will still be available                                                                               |  |
| 4. 1 S Stucco – Business-New South Realty-\$125,000-4 employees<br>1 SF- Business – Sun Realty-\$50,000-2 employees |  |
| 6. MLS, Newspaper, Realtor and Publication                                                                          |  |
| 8. Will be administered according to state law                                                                      |  |
| 11. Public Housing available in Stanly Co.                                                                          |  |
| 12. If current trends continue & given adequate lead time, housing should be available.                             |  |
| 14. MLS, Newspaper, Realtor & Publication                                                                           |  |
| <br>5/2/11                      |  |

|                                                                                                                                                                                                             |                 |                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------------------------------------------------------------------------------------------------|
| <div style="text-align: right;"> <br/>           Neil Bunleson<br/>           Division Right of Way Agent         </div> | Date<br>4-29-11 | <div style="text-align: right;">           Relocation Coordinator<br/>           Date         </div> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------------------------------------------------------------------------------------------------|



# EIS RELOCATION REPORT

North Carolina Department of Transportation  
RELOCATION ASSISTANCE PROGRAM

X E.I.S.      ☐ CORRIDOR      ☐ DESIGN

|                         |           |                                                                              |                   |           |   |    |   |           |
|-------------------------|-----------|------------------------------------------------------------------------------|-------------------|-----------|---|----|---|-----------|
| WBS:                    | 39922.1.1 | COUNTY                                                                       | Stanly/Montgomery | Alternate | 3 | of | 4 | Alternate |
| I.D. NO.:               | B-4974    | F.A. PROJECT                                                                 |                   |           |   |    |   |           |
| DESCRIPTION OF PROJECT: |           | NC24/27 widen to multi-lanes from SR 1778 (River Haven Rd.) to east of NC 73 |                   |           |   |    |   |           |

| ESTIMATED DISPLACEES |        |         |       |            | INCOME LEVEL      |        |          |        |                        |        |          |       |  |
|----------------------|--------|---------|-------|------------|-------------------|--------|----------|--------|------------------------|--------|----------|-------|--|
| Type of Displacees   | Owners | Tenants | Total | Minorities | 0-15M             | 15-25M |          | 25-35M |                        | 35-50M |          | 50 UP |  |
| Residential          | 4      | 0       | 4     | 0          | 0                 | 1      |          | 0      |                        | 1      |          | 2     |  |
| Businesses           | 2      | 0       | 2     | 0          | VALUE OF DWELLING |        |          |        | DSS DWELLING AVAILABLE |        |          |       |  |
| Farms                | 0      | 0       | 0     | 0          | Owners            |        | Tenants  |        | For Sale               |        | For Rent |       |  |
| Non-Profit           | 0      | 0       | 0     | 0          | 0-20M             | 0      | \$ 0-150 | 0      | 0-20M                  | 0      | \$ 0-150 | 0     |  |

| ANSWER ALL QUESTIONS |    |                                                                                                                |
|----------------------|----|----------------------------------------------------------------------------------------------------------------|
| Yes                  | No | Explain all "YES" answers.                                                                                     |
|                      | X  | 1. Will special relocation services be necessary?                                                              |
|                      | X  | 2. Will schools or churches be affected by displacement?                                                       |
| X                    |    | 3. Will business services still be available after project?                                                    |
| X                    |    | 4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc. |
|                      | X  | 5. Will relocation cause a housing shortage?                                                                   |
|                      |    | 6. Source for available housing (list).                                                                        |
|                      | X  | 7. Will additional housing programs be needed?                                                                 |
| X                    |    | 8. Should Last Resort Housing be considered?                                                                   |
|                      | X  | 9. Are there large, disabled, elderly, etc. families?                                                          |
|                      | X  | 10. Will public housing be needed for project?                                                                 |
| X                    |    | 11. Is public housing available?                                                                               |
| X                    |    | 12. Is it felt there will be adequate DSS housing housing available during relocation period?                  |
|                      | X  | 13. Will there be a problem of housing within financial means?                                                 |
| X                    |    | 14. Are suitable business sites available (list source).                                                       |
|                      |    | 15. Number months estimated to complete RELOCATION? <b>12</b>                                                  |

| REMARKS (Respond by Number)                                                                                                                                                                                                                                                                                                                                                                                                               |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>3. Business services will still be available.</b>                                                                                                                                                                                                                                                                                                                                                                                      |  |
| <p>4. 1 S Stucco- Business-New South Realty-\$125,000-4 employees<br/>1 SF-Business-Sun Realty-\$50,000-3 employees</p> <p>6. MLS, Newspaper, Realtor and Publication</p> <p>8. Will be administered according to state law</p> <p>11. Public Housing available in Stanly Co.</p> <p>12. If current trends continue &amp; given adequate lead time, housing should be available.</p> <p>14. MLS, Newspaper, Realtor &amp; Publication</p> |  |

|                                                                                              |      |         |                                                                      |      |  |
|----------------------------------------------------------------------------------------------|------|---------|----------------------------------------------------------------------|------|--|
| <div style="text-align: right;"> <br/> Neil Burleson<br/> Division Right of Way Agent </div> | Date | 4-29-11 | <div style="text-align: right;"> <br/> Relocation Coordinator </div> | Date |  |
|----------------------------------------------------------------------------------------------|------|---------|----------------------------------------------------------------------|------|--|

# EIS RELOCATION REPORT

North Carolina Department of Transportation  
RELOCATION ASSISTANCE PROGRAM

X E.I.S.      ☐ CORRIDOR      ☐ DESIGN

|                         |           |                                                                              |                   |  |  |           |   |    |   |           |
|-------------------------|-----------|------------------------------------------------------------------------------|-------------------|--|--|-----------|---|----|---|-----------|
| WBS:                    | 39922.1.1 | COUNTY                                                                       | Stanly/Montgomery |  |  | Alternate | 4 | of | 4 | Alternate |
| I.D. NO.:               | B-4974    | F.A. PROJECT                                                                 |                   |  |  |           |   |    |   |           |
| DESCRIPTION OF PROJECT: |           | NC24/27 widen to multi-lanes from SR 1778 (River Haven Rd.) to east of NC 73 |                   |  |  |           |   |    |   |           |

| ESTIMATED DISPLACEES |        |         |       |            | INCOME LEVEL      |        |          |                        |          |   |          |   |
|----------------------|--------|---------|-------|------------|-------------------|--------|----------|------------------------|----------|---|----------|---|
| Type of Displacees   | Owners | Tenants | Total | Minorities | 0-15M             | 15-25M | 25-35M   | 35-50M                 | 50 UP    |   |          |   |
| Residential          | 2      | 0       | 2     | 0          | 0                 | 1      | 0        | 1                      | 0        |   |          |   |
| Businesses           | 2      | 0       | 2     | 0          | VALUE OF DWELLING |        |          | DSS DWELLING AVAILABLE |          |   |          |   |
| Farms                | 0      | 0       | 0     | 0          | Owners            |        | Tenants  |                        | For Sale |   | For Rent |   |
| Non-Profit           | 0      | 0       | 0     | 0          | 0-20M             | 0      | \$ 0-150 | 0                      | 0-20M    | 0 | \$ 0-150 | 0 |

| ANSWER ALL QUESTIONS |    |                                                                                                                |
|----------------------|----|----------------------------------------------------------------------------------------------------------------|
| Yes                  | No | Explain all "YES" answers.                                                                                     |
|                      | X  | 1. Will special relocation services be necessary?                                                              |
|                      | X  | 2. Will schools or churches be affected by displacement?                                                       |
| X                    |    | 3. Will business services still be available after project?                                                    |
| X                    |    | 4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc. |
|                      | X  | 5. Will relocation cause a housing shortage?                                                                   |
|                      | X  | 6. Source for available housing (list).                                                                        |
| X                    |    | 7. Will additional housing programs be needed?                                                                 |
|                      | X  | 8. Should Last Resort Housing be considered?                                                                   |
|                      | X  | 9. Are there large, disabled, elderly, etc. families?                                                          |
|                      | X  | 10. Will public housing be needed for project?                                                                 |
| X                    |    | 11. Is public housing available?                                                                               |
| X                    |    | 12. Is it felt there will be adequate DSS housing available during relocation period?                          |
|                      | X  | 13. Will there be a problem of housing within financial means?                                                 |
| X                    |    | 14. Are suitable business sites available (list source).                                                       |
|                      |    | 15. Number months estimated to complete                                                                        |
| RELOCATION?          |    | <b>12</b>                                                                                                      |

| REMARKS (Respond by Number)                                                                                          |  |
|----------------------------------------------------------------------------------------------------------------------|--|
| <b>3. Business services will still be available.</b>                                                                 |  |
| 4. 1S Stucco-Business-New South Realty-\$125,000-4 employees<br>1 SFD- Business - Sun Realty - \$50,000 -3 employees |  |
| 6. MLS, Newspaper, Realtor and Publication                                                                           |  |
| 8. Will be administered according to state law                                                                       |  |
| 11. Public Housing available in Stanly Co.                                                                           |  |
| 12. If current trends continue & given adequate lead time, housing should be available.                              |  |
| 14. MLS, Newspaper, Realtor & Publication                                                                            |  |
| Relocation Coordinator                                                                                               |  |

|                                                  |      |         |                            |      |        |
|--------------------------------------------------|------|---------|----------------------------|------|--------|
| <br>Neil Bunleson<br>Division Right of Way Agent | Date | 4-29-11 | <br>Relocation Coordinator | Date | 5/2/11 |
|--------------------------------------------------|------|---------|----------------------------|------|--------|



# EIS RELOCATION REPORT

North Carolina Department of Transportation  
RELOCATION ASSISTANCE PROGRAM

X E.I.S.

☐ CORRIDOR

☐ DESIGN

|                         |           |                                                                                                     |            |           |   |    |   |           |
|-------------------------|-----------|-----------------------------------------------------------------------------------------------------|------------|-----------|---|----|---|-----------|
| WBS:                    | 35572.1.1 | COUNTY                                                                                              | Montgomery | Alternate | 1 | of | 3 | Alternate |
| I.D. NO.:               | R-2527    | F.A. PROJECT                                                                                        |            |           |   |    |   |           |
| DESCRIPTION OF PROJECT: |           | NC 24/27 Widen to multi-lanes from East of NC 73 to East of NC 109(Hwy) to the proposed Troy Bypass |            |           |   |    |   |           |

| ESTIMATED DISPLACED |        |         |       |            | INCOME LEVEL |        |        |        |       |
|---------------------|--------|---------|-------|------------|--------------|--------|--------|--------|-------|
| Type of Displacees  | Owners | Tenants | Total | Minorities | 0-15M        | 15-25M | 25-35M | 35-50M | 50 UP |
| Residential         | 1      | 0       | 1     | 0          | 0            | 0      | 1      | 0      | 0     |
| Businesses          | 1      | 0       | 1     | 0          |              |        |        |        |       |
| Farms               | 0      | 0       | 0     | 0          |              |        |        |        |       |
| Non-Profit          | 1      | 0       | 1     | 0          |              |        |        |        |       |

| ANSWER ALL QUESTIONS |    |                                                                                                                |  |  |  |  |  |  |  |
|----------------------|----|----------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|
| Yes                  | No | Explain all "YES" answers.                                                                                     |  |  |  |  |  |  |  |
|                      | X  | 1. Will special relocation services be necessary?                                                              |  |  |  |  |  |  |  |
| X                    |    | 2. Will schools or churches be affected by displacement?                                                       |  |  |  |  |  |  |  |
| X                    |    | 3. Will business services still be available after project?                                                    |  |  |  |  |  |  |  |
| X                    |    | 4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc. |  |  |  |  |  |  |  |
|                      | X  | 5. Will relocation cause a housing shortage?                                                                   |  |  |  |  |  |  |  |
|                      | X  | 6. Source for available housing (list).                                                                        |  |  |  |  |  |  |  |
| X                    |    | 7. Will additional housing programs be needed?                                                                 |  |  |  |  |  |  |  |
|                      | X  | 8. Should Last Resort Housing be considered?                                                                   |  |  |  |  |  |  |  |
|                      | X  | 9. Are there large, disabled, elderly, etc. families?                                                          |  |  |  |  |  |  |  |
|                      | X  | 10. Will public housing be needed for project?                                                                 |  |  |  |  |  |  |  |
| X                    |    | 11. Is public housing available?                                                                               |  |  |  |  |  |  |  |
| X                    |    | 12. Is it felt there will be adequate DSS housing available during relocation period?                          |  |  |  |  |  |  |  |
|                      | X  | 13. Will there be a problem of housing within financial means?                                                 |  |  |  |  |  |  |  |
| X                    |    | 14. Are suitable business sites available (list source).                                                       |  |  |  |  |  |  |  |
|                      |    | 15. Number months estimated to complete RELOCATION? <b>12</b>                                                  |  |  |  |  |  |  |  |

| VALUE OF DWELLING |          |          |          | DSS DWELLING AVAILABLE |           |          |           |
|-------------------|----------|----------|----------|------------------------|-----------|----------|-----------|
| Owners            |          | Tenants  |          | For Sale               |           | For Rent |           |
| 0-20M             | 0        | \$ 0-150 | 0        | 0-20M                  | 0         | \$ 0-150 | 0         |
| 20-40M            | 1        | 150-250  | 0        | 20-40M                 | 5         | 150-250  | 10        |
| 40-70M            | 0        | 250-400  | 0        | 40-70M                 | 10        | 250-400  | 12        |
| 70-100M           | 0        | 400-600  | 0        | 70-100M                | 12        | 400-600  | 10        |
| 100 UP            | 0        | 600 UP   | 0        | 100 UP                 | 40        | 600 UP   | 0         |
| <b>TOTAL</b>      | <b>1</b> |          | <b>0</b> |                        | <b>67</b> |          | <b>32</b> |

**REMARKS (Respond by Number)**

3. Business Services will still be available.

2. 1 SF Church – Lake Tillery Presbyterian Church of America - \$125,000 – 4 employees

4. 1 SF Metal Business-Uwharrie Marine Sales-\$125,000-4 employees

6. MLS, Newspaper, Realtor and Publication

8. Will be administered according to state law

11. Public Housing available in Stanly Co.

12. If current trends continue & given adequate lead time, housing should be available.

14. MLS, Newspaper, Realtor, Websites & Publication

|                                                                                            |      |         |                                                                      |      |        |
|--------------------------------------------------------------------------------------------|------|---------|----------------------------------------------------------------------|------|--------|
| <div style="text-align: right;"> <br/> Neil Bunsen<br/> Division Right of Way Agent </div> | Date | 4-29-11 | <div style="text-align: right;"> <br/> Relocation Coordinator </div> | Date | 5/2/11 |
|--------------------------------------------------------------------------------------------|------|---------|----------------------------------------------------------------------|------|--------|

# EIS RELOCATION REPORT

North Carolina Department of Transportation  
RELOCATION ASSISTANCE PROGRAM

X E.I.S.

☐ CORRIDOR

☐ DESIGN

|                         |           |                                                                                                     |            |           |   |    |   |           |
|-------------------------|-----------|-----------------------------------------------------------------------------------------------------|------------|-----------|---|----|---|-----------|
| WBS:                    | 35572.1.1 | COUNTY                                                                                              | Montgomery | Alternate | 2 | of | 3 | Alternate |
| I.D. NO.:               | R-2527    | F.A. PROJECT                                                                                        |            |           |   |    |   |           |
| DESCRIPTION OF PROJECT: |           | NC 24/27 Widen to multi-lanes from East of NC 73 to East of NC 109(Hwy) to the proposed Troy Bypass |            |           |   |    |   |           |

| ESTIMATED DISPLACEDS |        |         |       |            | INCOME LEVEL      |  |        |         |          |  |                        |  |       |          |   |  |          |  |   |  |
|----------------------|--------|---------|-------|------------|-------------------|--|--------|---------|----------|--|------------------------|--|-------|----------|---|--|----------|--|---|--|
| Type of Displaceds   | Owners | Tenants | Total | Minorities | 0-15M             |  | 15-25M |         | 25-35M   |  | 35-50M                 |  | 50 UP |          |   |  |          |  |   |  |
| Residential          | 4      | 1       | 5     | 0          | 0                 |  | 1      |         | 2        |  | 2                      |  | 0     |          |   |  |          |  |   |  |
| Businesses           | 1      | 0       | 1     | 0          | VALUE OF DWELLING |  |        |         |          |  | DSS DWELLING AVAILABLE |  |       |          |   |  |          |  |   |  |
| Farms                | 0      | 0       | 0     | 0          | Owners            |  |        | Tenants |          |  | For Sale               |  |       | For Rent |   |  |          |  |   |  |
| Non-Profit           | 0      | 0       | 0     | 0          | 0-20M             |  | 0      |         | \$ 0-150 |  | 1                      |  | 0-20M |          | 0 |  | \$ 0-150 |  | 0 |  |

| ANSWER ALL QUESTIONS |    |                                                                                                                |
|----------------------|----|----------------------------------------------------------------------------------------------------------------|
| Yes                  | No | Explain all "YES" answers.                                                                                     |
|                      | X  | 1. Will special relocation services be necessary?                                                              |
|                      | X  | 2. Will schools or churches be affected by displacement?                                                       |
| X                    |    | 3. Will business services still be available after project?                                                    |
|                      | X  | 4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc. |
|                      | X  | 5. Will relocation cause a housing shortage?                                                                   |
|                      |    | 6. Source for available housing (list).                                                                        |
|                      | X  | 7. Will additional housing programs be needed?                                                                 |
| X                    |    | 8. Should Last Resort Housing be considered?                                                                   |
|                      | X  | 9. Are there large, disabled, elderly, etc. families?                                                          |
|                      | X  | 10. Will public housing be needed for project?                                                                 |
| X                    |    | 11. Is public housing available?                                                                               |
| X                    |    | 12. Is it felt there will be adequate DSS housing available during relocation period?                          |
|                      | X  | 13. Will there be a problem of housing within financial means?                                                 |
| X                    |    | 14. Are suitable business sites available (list source).                                                       |
|                      |    | 15. Number months estimated to complete                                                                        |

| REMARKS (Respond by Number) |                                                                                     |
|-----------------------------|-------------------------------------------------------------------------------------|
| 3.                          | Business Services will still be available.                                          |
| 4.                          | 1 S Bulk Business-Green's Variety Army Surplus-Owner-\$90,000                       |
| 6.                          | MLS, Newspaper, Realtor and Publication                                             |
| 8.                          | Will be administered according to state law                                         |
| 11.                         | Public Housing available in Stanly Co.                                              |
| 12.                         | If current trends continue & given adequate lead time, housing should be available. |
| 14.                         | MLS, Newspaper, Realtor, Websites & Publication                                     |

|                        |  |
|------------------------|--|
| Relocation Coordinator |  |
|------------------------|--|

|                                                                                               |      |         |                        |      |        |
|-----------------------------------------------------------------------------------------------|------|---------|------------------------|------|--------|
| <div style="text-align: right;"> <br/> Neil Bunkleson<br/> Division Right of Way Agent </div> | Date | 4-29-11 | Relocation Coordinator | Date | 5/2/11 |
|-----------------------------------------------------------------------------------------------|------|---------|------------------------|------|--------|



# EIS RELOCATION REPORT

North Carolina Department of Transportation  
RELOCATION ASSISTANCE PROGRAM

X E.I.S.      ☐ CORRIDOR      ☐ DESIGN

|                         |           |                                                                                                     |            |           |   |    |   |           |
|-------------------------|-----------|-----------------------------------------------------------------------------------------------------|------------|-----------|---|----|---|-----------|
| WBS:                    | 35572.1.1 | COUNTY                                                                                              | Montgomery | Alternate | 3 | of | 3 | Alternate |
| I.D. NO.:               | R-2527    | F.A. PROJECT                                                                                        |            |           |   |    |   |           |
| DESCRIPTION OF PROJECT: |           | NC 24/27 Widen to multi-lanes from East of NC 73 to East of NC 109(Hwy) to the proposed Troy Bypass |            |           |   |    |   |           |

| ESTIMATED DISPLACEES |        |         |       |            | INCOME LEVEL      |   |          |   |          |                        |          |   |       |  |
|----------------------|--------|---------|-------|------------|-------------------|---|----------|---|----------|------------------------|----------|---|-------|--|
| Type of Displacees   | Owners | Tenants | Total | Minorities | 0-15M             |   | 15-25M   |   | 25-35M   |                        | 35-50M   |   | 50 UP |  |
| Residential          | 2      | 0       | 2     | 2          | 0                 |   | 1        |   | 1        |                        | 0        |   | 0     |  |
| Businesses           | 0      | 0       | 0     | 0          | VALUE OF DWELLING |   |          |   |          | DSS DWELLING AVAILABLE |          |   |       |  |
| Farms                | 0      | 0       | 0     | 0          | Owners            |   | Tenants  |   | For Sale |                        | For Rent |   |       |  |
| Non-Profit           | 0      | 0       | 0     | 0          | 0-20M             | 0 | \$ 0-150 | 0 | 0-20M    | 0                      | \$ 0-150 | 0 |       |  |

| ANSWER ALL QUESTIONS |    |                                                                                                                |
|----------------------|----|----------------------------------------------------------------------------------------------------------------|
| Yes                  | No | Explain all "YES" answers.                                                                                     |
|                      | X  | 1. Will special relocation services be necessary?                                                              |
|                      | X  | 2. Will schools or churches be affected by displacement?                                                       |
| X                    |    | 3. Will business services still be available after project?                                                    |
|                      | X  | 4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc. |
|                      | X  | 5. Will relocation cause a housing shortage?                                                                   |
|                      |    | 6. Source for available housing (list).                                                                        |
|                      | X  | 7. Will additional housing programs be needed?                                                                 |
| X                    |    | 8. Should Last Resort Housing be considered?                                                                   |
|                      | X  | 9. Are there large, disabled, elderly, etc. families?                                                          |
|                      | X  | 10. Will public housing be needed for project?                                                                 |
| X                    |    | 11. Is public housing available?                                                                               |
| X                    |    | 12. Is it felt there will be adequate DSS housing housing available during relocation period?                  |
|                      | X  | 13. Will there be a problem of housing within financial means?                                                 |
| X                    |    | 14. Are suitable business sites available (list source).                                                       |
|                      |    | 15. Number months estimated to complete                                                                        |

|                                                                                                                                                                                             |                 |                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------------------|
| RELOCATION?    12                                                                                                                                                                           | Date    4-29-11 | Relocation Coordinator |
| <div style="display: flex; justify-content: space-between;"> <div> <br/> Neil Burleson<br/> Division Right of Way Agent </div> <div> <br/> Relocation Coordinator<br/> 5/2/11 </div> </div> | Date            |                        |

# **APPENDIX D**

## **FARMLAND CONVERSION IMPACT RATINGS**





**FARMLAND CONVERSION IMPACT RATING  
FOR CORRIDOR TYPE PROJECTS**

|                                                                                                                                                                                                                                 |                                                         |                                                                     |                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------------------|---------------------------|
| <b>PART I (To be completed by Federal Agency)</b>                                                                                                                                                                               |                                                         | 3. Date of Land Evaluation Request <b>2/16/09</b>                   | 4. Sheet 1 of <b>1</b>    |
| 1. Name of Project <b>STIP Project R-2530B</b>                                                                                                                                                                                  |                                                         | 5. Federal Agency Involved<br><b>Federal Highway Administration</b> |                           |
| 2. Type of Project <b>Highway Widening</b>                                                                                                                                                                                      |                                                         | 6. County and State <b>Albemarle, Stanly County, North Carolina</b> |                           |
| <b>PART II (To be completed by NRCS)</b>                                                                                                                                                                                        |                                                         | 1. Date Request Received by NRCS                                    | 2. Person Completing Form |
| 3. Does the corridor contain prime, unique statewide or local important farmland?<br>(If no, the FPPA does not apply - Do not complete additional parts of this form). YES <input type="checkbox"/> NO <input type="checkbox"/> |                                                         | 4. Acres Irrigated   Average Farm Size                              |                           |
| 5. Major Crop(s)                                                                                                                                                                                                                | 6. Farmable Land in Government Jurisdiction<br>Acres: % | 7. Amount of Farmland As Defined in FPPA<br>Acres: %                |                           |
| 8. Name Of Land Evaluation System Used                                                                                                                                                                                          | 9. Name of Local Site Assessment System                 | 10. Date Land Evaluation Returned by NRCS                           |                           |

| <b>PART III (To be completed by Federal Agency)</b>               | Alternative Corridor For Segment |            |            |            |
|-------------------------------------------------------------------|----------------------------------|------------|------------|------------|
|                                                                   | Corridor A                       | Corridor B | Corridor C | Corridor D |
| A. Total Acres To Be Converted Directly                           | 192                              | 192        |            |            |
| B. Total Acres To Be Converted Indirectly, Or To Receive Services |                                  |            |            |            |
| C. Total Acres In Corridor                                        | 192                              | 192        | 0          | 0          |

|                                                                                    |  |  |  |  |
|------------------------------------------------------------------------------------|--|--|--|--|
| <b>PART IV (To be completed by NRCS) Land Evaluation Information</b>               |  |  |  |  |
| A. Total Acres Prime And Unique Farmland                                           |  |  |  |  |
| B. Total Acres Statewide And Local Important Farmland                              |  |  |  |  |
| C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted            |  |  |  |  |
| D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value |  |  |  |  |

|                                                                                                                                                                |  |  |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| <b>PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)</b> |  |  |  |  |
|                                                                                                                                                                |  |  |  |  |

|                                                                                                                                  |                |           |           |          |          |
|----------------------------------------------------------------------------------------------------------------------------------|----------------|-----------|-----------|----------|----------|
| <b>PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))</b> | Maximum Points |           |           |          |          |
| 1. Area in Nonurban Use                                                                                                          | 15             | 12        | 12        |          |          |
| 2. Perimeter in Nonurban Use                                                                                                     | 10             | 8         | 8         |          |          |
| 3. Percent Of Corridor Being Farmed                                                                                              | 20             | 16        | 16        |          |          |
| 4. Protection Provided By State And Local Government                                                                             | 20             | 0         | 0         |          |          |
| 5. Size of Present Farm Unit Compared To Average                                                                                 | 10             | 0         | 7         |          |          |
| 6. Creation Of Nonfarmable Farmland                                                                                              | 25             | 0         | 0         |          |          |
| 7. Availability Of Farm Support Services                                                                                         | 5              | 4         | 4         |          |          |
| 8. On-Farm Investments                                                                                                           | 20             | 2         | 0         |          |          |
| 9. Effects Of Conversion On Farm Support Services                                                                                | 25             | 0         | 0         |          |          |
| 10. Compatibility With Existing Agricultural Use                                                                                 | 10             | 2         | 2         |          |          |
| <b>TOTAL CORRIDOR ASSESSMENT POINTS</b>                                                                                          | <b>160</b>     | <b>44</b> | <b>49</b> | <b>0</b> | <b>0</b> |

|                                                                           |            |           |           |          |          |
|---------------------------------------------------------------------------|------------|-----------|-----------|----------|----------|
| <b>PART VII (To be completed by Federal Agency)</b>                       |            |           |           |          |          |
| Relative Value Of Farmland (From Part V)                                  | 100        |           |           |          |          |
| Total Corridor Assessment (From Part VI above or a local site assessment) | 160        | 44        | 49        | 0        | 0        |
| <b>TOTAL POINTS (Total of above 2 lines)</b>                              | <b>260</b> | <b>44</b> | <b>49</b> | <b>0</b> | <b>0</b> |

|                       |                                                         |                       |                                                                                                             |
|-----------------------|---------------------------------------------------------|-----------------------|-------------------------------------------------------------------------------------------------------------|
| 1. Corridor Selected: | 2. Total Acres of Farmlands to be Converted by Project: | 3. Date Of Selection: | 4. Was A Local Site Assessment Used?<br>YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> |
|-----------------------|---------------------------------------------------------|-----------------------|-------------------------------------------------------------------------------------------------------------|

5. Reason For Selection:

*Kimberly Phillips*  
Signature of Person Completing this Part:  
**Kimberly Phillips**

DATE  
**2/16/09**

**NOTE: Complete a form for each segment with more than one Alternate Corridor**



**Farmland Conversion Form  
Widening to the north  
STIP Project R-2530B**

| <b>Stanly County</b>               |                                                |                                  |                         |                      |
|------------------------------------|------------------------------------------------|----------------------------------|-------------------------|----------------------|
| <b>MUSYM</b>                       | <b>DESCRIPTION</b>                             | <b>FARMLAND CLASSIFICATION</b>   | <b>Prime FL Acreage</b> | <b>Other Acreage</b> |
| BaB                                | Badin channery silt loam, 2-8% slope           | Farmland of statewide importance | 32.05                   |                      |
| BaD                                | Badin channery silt loam, 8-15% slope          | Farmland of statewide importance | 22.83                   |                      |
| BaF                                | Badin channery silt loam, 15-45% slope         | Not prime farmland               |                         | 1.63                 |
| BbB                                | Badin-Urban land complex, 2-8% slope           | Not prime farmland               |                         | 25.78                |
| EcB                                | Enon cobbly loam, 2-8% slope                   | Farmland of statewide importance | 5.78                    |                      |
| EcD                                | Enon cobbly loam, 8-15% slope                  | Farmland of statewide importance | 4.94                    |                      |
| EnC                                | Enon very stony loam, 4-15% slope              | Not prime farmland               |                         | 4.13                 |
| EnE                                | Enon very stone loam, 15-25% slope             | Not prime farmland               |                         | 10.83                |
| GoC                                | Goldston very channery silt loam, 4-15% slope  | Not prime farmland               |                         | 0.87                 |
| GoF                                | Goldston very channery silt loam, 15-45% slope | Not prime farmland               |                         | 13.05                |
| HeD                                | Hiwassee gravelly loam, 8-15% slope            | Farmland of statewide importance | 0.07                    |                      |
| KkB                                | Kirksey silt loam, 0-6% slope                  | All areas are prime farmland     | 10.92                   |                      |
| MhB                                | Misenheimer channery silt loam, 0-4% slope     | Not prime farmland               |                         | 2.60                 |
| Oa                                 | Oakboro silt loam, frequently flooded          | Prime farmland if drained        | 3.76                    |                      |
| TaF                                | Tatum gravelly loam, 15-35% slope              | Not prime farmland               |                         | 0.91                 |
| TbB                                | Tatum channery silt loam, 2-8% slope           | All areas are prime farmland     | 4.52                    |                      |
| TbD                                | Tatum channery silt loam, 8-15% slope          | Farmland of statewide importance | 5.72                    |                      |
| TcB2                               | Tatum channery silty clay loam, 2-8% slope     | All areas are prime farmland     | 18.57                   |                      |
| Ud                                 | Udorthents, loamy                              | Not prime farmland               |                         | 2.41                 |
| Ur                                 | Urban land                                     | Not prime farmland               |                         | 2.08                 |
| W                                  | Water                                          | Not prime farmland               |                         | 0.32                 |
| <b>Stanly County Total Acreage</b> |                                                |                                  | <b>109.17</b>           | <b>64.62</b>         |
|                                    |                                                |                                  | <b>173.79</b>           |                      |

**Farmland Conversion Form**  
**Widening to the south**  
**STIP Project R-2530B**

| Stanly County               |                                                  |                                  |                  |               |
|-----------------------------|--------------------------------------------------|----------------------------------|------------------|---------------|
| MUSYM                       | DESCRIPTION                                      | FARMLAND CLASSIFICATION          | Prime FL Acreage | Other Acreage |
| BaB                         | Badin channery silt loam, 2-8% slope             | Farmland of statewide importance | 40.31            |               |
| BaD                         | Badin channery silt loam, 8-15% slope            | Farmland of statewide importance | 21.76            |               |
| BaF                         | Badin channery silt loam, 15-45% slope           | Not prime farmland               |                  | 3.23          |
| BbB                         | Badin-Urban land complex, 2-8% slope             | Not prime farmland               |                  | 19.60         |
| EcB                         | Enon cobbly loam, 2-8% slope                     | Farmland of statewide importance | 5.70             |               |
| EcD                         | Enon cobbly loam, 8-15% slope                    | Farmland of statewide importance | 2.06             |               |
| EnC                         | Enon very stony loam, 4-15% slope                | Not prime farmland               |                  | 3.73          |
| EnE                         | Enon very stone loam, 15-25% slope               | Not prime farmland               |                  | 15.09         |
| GoF                         | Goldston very channery silt loam, 15-45% slope   | Not prime farmland               |                  | 8.37          |
| KkB                         | Kirksey silt loam, 0-6% slope                    | All areas are prime farmland     | 14.29            |               |
| MhB                         | Misenheimer channery silt loam, 0-4% slope       | Not prime farmland               |                  | 1.02          |
| Oa                          | Oakboro silt loam, frequently flooded            | Prime farmland if drained        | 9.30             |               |
| TaF                         | Tatum gravelly loam, 15-35% slope                | Not prime farmland               |                  | 3.48          |
| TbB                         | Tatum channery silt loam, 2-8% slope             | All areas are prime farmland     | 1.03             |               |
| TbD                         | Tatum channery silt loam, 8-15% slope            | Farmland of statewide importance | 1.80             |               |
| TcB2                        | Tatum channery silty clay loam, 2-8% slope       | All areas are prime farmland     | 19.75            |               |
| Ud                          | Udorthents, loamy                                | Not prime farmland               |                  | 0.03          |
| Ur                          | Urban land                                       | Not prime farmland               |                  | 3.35          |
| UwF                         | Uwharrie stony loam, 15-45% slope, very bouldery | Not prime farmland               |                  | 0.02          |
| W                           | Water                                            | Not prime farmland               |                  | 0.02          |
| Stanly County Total Acreage |                                                  |                                  | 116.00           | 57.95         |
|                             |                                                  |                                  | 173.95           |               |

# **ALIGNMENT TO THE NORTH**

| SOILS IN CORRIDOR (325 FT) |         | SOILS IN EXISTING ROW |        | TOTAL SOILS (CORRIDOR - EXISTING ROW) |          |
|----------------------------|---------|-----------------------|--------|---------------------------------------|----------|
| SOIL TYPE                  | ACRES   | SOIL TYPE             | ACRES  | SOIL TYPE                             | ACRES    |
| BaB                        | 41.6569 | BaB                   | 9.6022 | BaB                                   | 32.0547  |
| BaD                        | 30.2748 | BaD                   | 7.4399 | BaD                                   | 22.8349  |
| BaF                        | 2.1552  | BaF                   | 0.5215 | BaF                                   | 1.6337   |
| BbB                        | 33.5876 | BbB                   | 7.8055 | BbB                                   | 25.7821  |
| EcB                        | 7.7924  | EcB                   | 2.0144 | EcB                                   | 5.7780   |
| EcD                        | 6.2189  | EcD                   | 1.2839 | EcD                                   | 4.9350   |
| EnC                        | 4.8170  | EnC                   | 0.6857 | EnC                                   | 4.1313   |
| EnE                        | 16.5876 | EnE                   | 5.7571 | EnE                                   | 10.8305  |
| GoC                        | 0.8670  | GoF                   | 2.6175 | GoC                                   | 0.8670   |
| GoF                        | 15.6711 | KkB                   | 3.8141 | GoF                                   | 13.0536  |
| HeD                        | 0.0716  | MhB                   | 0.8105 | HeD                                   | 0.0716   |
| KkB                        | 14.7374 | Oa                    | 1.7185 | KkB                                   | 10.9233  |
| MhB                        | 3.4092  | TaF                   | 0.6627 | MhB                                   | 2.5987   |
| Oa                         | 5.4756  | TbB                   | 1.2087 | Oa                                    | 3.7571   |
| TaF                        | 1.5770  | TbD                   | 0.5733 | TaF                                   | 0.9143   |
| TbB                        | 5.7263  | TcB2                  | 4.8238 | TbB                                   | 4.5176   |
| TbD                        | 6.2978  | Ur                    | 2.5589 | TbD                                   | 5.7245   |
| TcB2                       | 23.3974 |                       |        | TcB2                                  | 18.5736  |
| Ud                         | 2.4106  |                       |        | Ud                                    | 2.4106   |
| Ur                         | 4.6389  |                       |        | Ur                                    | 2.0800   |
| W                          | 0.3178  |                       |        | W                                     | 0.3178   |
|                            |         |                       |        | TOTAL                                 | 173.7899 |

# **ALIGNMENT TO THE SOUTH**

| SOILS IN CORRIDOR (325 FT) |         | SOILS IN EXISTING ROW |        | TOTAL SOILS (CORRIDOR - EXISTING ROW) |          |
|----------------------------|---------|-----------------------|--------|---------------------------------------|----------|
| SOIL TYPE                  | ACRES   | SOIL TYPE             | ACRES  | SOIL TYPE                             | ACRES    |
| BaB                        | 49.9167 | BaB                   | 9.6022 | BaB                                   | 40.3145  |
| BaD                        | 29.2007 | BaD                   | 7.4399 | BaD                                   | 21.7608  |
| BaF                        | 3.7509  | BaF                   | 0.5215 | BaF                                   | 3.2294   |
| BbB                        | 27.4041 | BbB                   | 7.8055 | BbB                                   | 19.5986  |
| EcB                        | 7.7114  | EcB                   | 2.0144 | EcB                                   | 5.6970   |
| EcD                        | 3.3445  | EcD                   | 1.2839 | EcD                                   | 2.0606   |
| EnC                        | 4.4168  | EnC                   | 0.6857 | EnC                                   | 3.7311   |
| EnE                        | 20.8518 | EnE                   | 5.7571 | EnE                                   | 15.0947  |
| GoF                        | 10.9878 | GoF                   | 2.6175 | GoF                                   | 8.3703   |
| KkB                        | 18.1083 | KkB                   | 3.8141 | KkB                                   | 14.2942  |
| MhB                        | 1.8352  | MhB                   | 0.8105 | MhB                                   | 1.0247   |
| Oa                         | 11.0209 | Oa                    | 1.7185 | Oa                                    | 9.3024   |
| TaF                        | 4.1473  | TaF                   | 0.6627 | TaF                                   | 3.4846   |
| TbB                        | 2.2347  | TbB                   | 1.2087 | TbB                                   | 1.0260   |
| TbD                        | 2.3691  | TbD                   | 0.5733 | TbD                                   | 1.7958   |
| TcB2                       | 24.5723 | TcB2                  | 4.8238 | TcB2                                  | 19.7485  |
| Ud                         | 0.0271  | Ur                    | 2.5589 | Ud                                    | 0.0271   |
| Ur                         | 5.9040  |                       |        | Ur                                    | 3.3451   |
| UwF                        | 0.0217  |                       |        | UwF                                   | 0.0217   |
| W                          | 0.0236  |                       |        | W                                     | 0.0236   |
|                            |         |                       |        | TOTAL                                 | 173.9507 |



# **APPENDIX E**

## **CITIZENS INFORMATIONAL WORKSHOP INFORMATION**



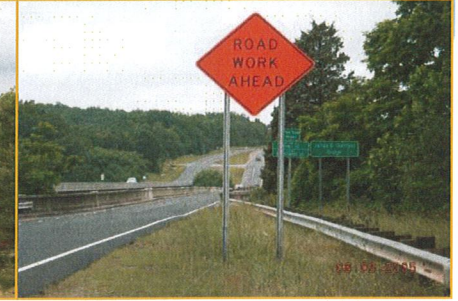
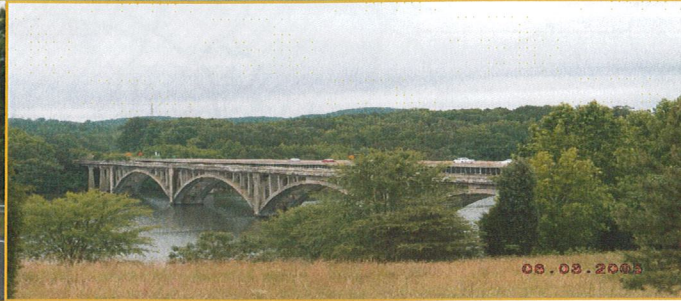


NOVEMBER 2010

# Workshop for N.C. 24-27 Widening

State Transportation Improvement Program (STIP) Project  
Nos. R-2530B, B-4974 and R-2527

NEWSLETTER # 1



## Meeting Information

**What?** - Citizens Informational Workshop (Informal drop-in)

**When?** - 4:00PM to 7:00PM

Thursday, November 18

**Where?** - Stanly County Commons (Commissioners Room)

1001 N. First Street  
Albemarle, N.C.

## Project Schedules

| Project | R/W  | Const. |
|---------|------|--------|
| R-2530B | 2014 | 2016   |
| B-4974  | 2014 | 2016   |
| R-2527  | 2016 | 2018   |

## Project Assistance

For questions about these projects, please contact the Project Development Engineer:

**Lisa Feller, P.E.**

**Phone:**

(919) 733-7844 ext. 262

**Email:**

lfeller@ncdot.gov

## Please Join Us - Your Input is Essential

Please come join us for an update on the proposed improvements to NC 24-27 from NC 740 in Albemarle to the proposed Troy Bypass (STIP Project No. R-623) that will begin at the intersection of NC 24-27 and Saunders Road (SR 1550)/Dairy Road (SR 1138). You last heard of these projects at Citizens Informational Workshops held in 2004. NCDOT is actively planning improvements along NC 24-27 and wants to provide an additional opportunity to get your input on the projects and wants to share updated information on the status of the projects.

## Overview of the Projects

The North Carolina Department of Transportation (NCDOT) proposes to widen NC 24-27 from NC 740 in Albemarle to the Troy Bypass and construct a new bridge over the Pee Dee River. The proposed project will add two additional lanes and a grass median.

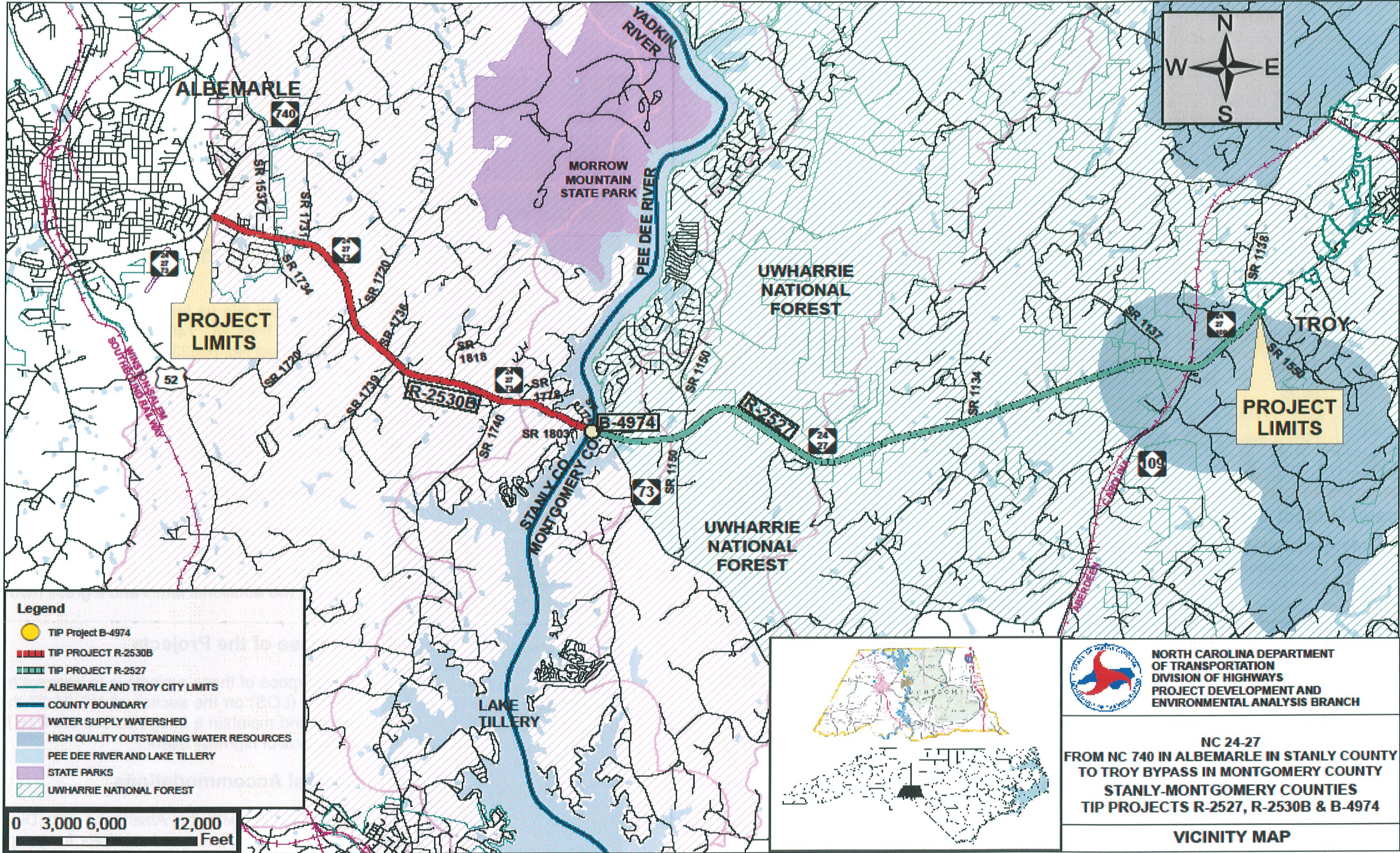
## Purpose of the Projects

The purpose of these projects is to improve traffic flow and the level of service (LOS) on the section of NC 24-27 through the projects' study areas and maintain a bridge across the Pee Dee River that addresses the needs of highway users.

## Special Accommodations

In compliance with the Americans with Disabilities Act, NCDOT will provide auxiliary aids and services for people with special needs or disabilities that wish to participate. Please contact Lisa Feller for any









## NC 24-27 Widening

North Carolina Department of Transportation  
Project Development & Environmental Analysis Branch  
1548 Mail Service Center  
Raleigh, North Carolina 27699-1548  
Attn: Lisa Feller, P.E.

PRE-SORTED  
FIRST CLASS



ncpost

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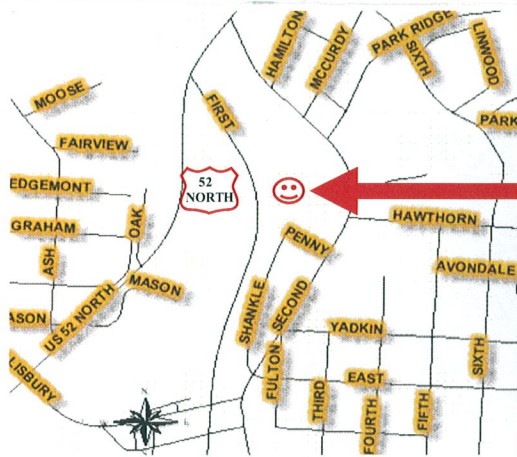
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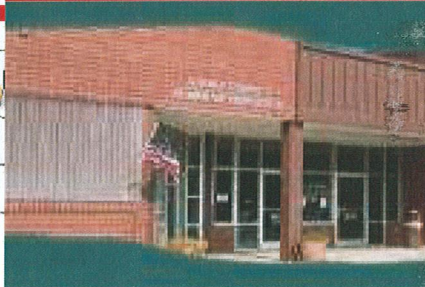
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**Stanly County Commons  
Commissioners Room  
1001 N. First Street  
Albemarle, N.C.**



Join us on Thursday,  
November 18th, from  
4:00 PM until 7:00 PM

We will be there to  
hear your comments.

There will **not** be a  
formal presentation at  
this meeting.

### Proposed Project Schedule

#### Citizens Informational Workshop (We are here)

Environmental Assessment (2012) and FONSI (2013)

Public Hearing (2012)

Land acquisition (Stanly Co. - 2014, Montgomery Co. - 2016)

Construction (Stanly Co. - 2016, Montgomery Co. - 2018)

*Schedules are based on the Draft State Transportation Improvement Program (STIP)  
and are subject to change.*

**Contact Us:** Comments and questions are always welcomed.

**By Mail:** North Carolina Department of Transportation  
Project Development and Environmental Analysis Branch  
1548 Mail Service Center  
Raleigh, North Carolina 27699-1548  
Attn: Lisa Feller, P.E.

**By Phone:** Lisa Feller's number is (919) 733-7844 ext. 262

**By Email:** Lisa Feller's email address is [lfeller@ncdot.gov](mailto:lfeller@ncdot.gov)

# North Carolina Department of Transportation

Project Development and Environmental Analysis Branch



**NC 24-27 WIDENING**

**STANLY/MONTGOMERY COUNTIES**

**TIP PROJECTS R-2530B, B-4974 AND R-2527**

**CITIZENS INFORMATIONAL WORKSHOP**

**NOVEMBER 18, 2010**



# CITIZENS INFORMATIONAL WORKSHOP

NC 24-27 Widening  
From NC 740 in Albemarle to the Troy Bypass  
Stanly and Montgomery Counties  
TIP Projects R-2530B, B-4974 and R-2527

## PURPOSE OF THE CITIZENS INFORMATIONAL WORKSHOP

The purpose of this workshop is to involve the public in the project development process for the NC 24-27 widening projects. If you have comments or suggestions about the proposed improvements described in this handout, please inform a representative of the North Carolina Department of Transportation (NCDOT). Please use the enclosed comment sheet to express your concerns or suggestions.

NCDOT realizes individuals living close to a proposed project want to be informed of the possible effects of the project on their homes and businesses. However, exact information is not available at this stage of the project development process. For example, design work is necessary before the actual right of way limits can be established. This type of detailed information will be available at a later date. The purpose of this workshop is to receive your comments and suggestions *before* final design decisions are made.

Written comments on this project may be left with NCDOT representatives at the workshop or mailed to NCDOT. If additional information is needed or you would like to submit comments after the workshop, please address requests and comments to:

**Write:** Gregory Thorpe, Ph.D., Manager  
ATTN: Lisa Feller, PE, Project Development Engineer  
NCDOT - PDEA  
1548 Mail Service Center  
Raleigh, North Carolina 27699-1548

**Call:** Lisa Feller, PE, Project Development Engineer  
(919) 733-7844 ext. 262

**Email:** Lisa Feller, PE, Project Development Engineer  
[lfeller@ncdot.gov](mailto:lfeller@ncdot.gov)

## PROJECT DESCRIPTION

### Proposed Improvements

The North Carolina Department of Transportation (NCDOT) proposes to widen NC 24-27 from NC 740 in Albemarle to the proposed Troy Bypass (Draft State Transportation Improvement Program (STIP) Project No. R-623) that will begin at the intersection of NC 24-27 and Saunders Road (SR 1550) / Dairy Road (SR 1138). The proposed improvements include the construction of a new bridge over the Pee Dee River. The proposed projects will add two additional lanes and a grass median. The project limits are listed below:

- R-2530B – NC 24-27 from NC 740 in Albemarle to the Pee Dee River,
- B-4974 – Bridge No. 51 bridge replacement over the Pee Dee River,
- R-2527 – NC 24-27 from the Pee Dee River to the proposed Troy Bypass.

The purpose of these projects is to improve traffic flow and the level of service (LOS) on the section of NC 24-27 through the projects' study areas and to maintain a bridge across the Pee Dee River that addresses the needs of highway users.

### Anticipated Right of Way Impacts

The existing right of way on NC 24-27 is approximately 60 feet. Approximately 150 to 200 feet of right of way will be required to accommodate the proposed improvements. The maps at this meeting show the proposed study area width. NCDOT will develop a best fit alignment which is safe, cost effective, and which minimizes impacts to existing development and historic and natural resources.

## PROJECT SCHEDULE AND COSTS

Currently, NCDOT is scheduled to complete an Environmental Assessment in 2011. A public hearing is anticipated four to six months after the completion of this document. More detailed designs will be presented at this public hearing. At this public hearing, the public will have an opportunity to review a map showing the proposed designs. Factors which may affect the designs of these projects include engineering criteria and environmental factors such as relocation of homes or businesses, wetlands, historic sites, etc. A form is available from NCDOT representatives if you feel you have or know of a structure which has historical significance. If no major issues are discovered, the final environmental document is scheduled for completion by 2012.

These proposed projects are funded for right of way (R/W) acquisition and construction in the Draft State Transportation Improvement Program (STIP). Their current schedules and estimated costs are as follows:

| Project Number | R/W Acquisition Begins | Construction Begins | Right of Way Cost | Construction Cost | Mitigation Cost | Prior Years Cost | Total Project Cost |
|----------------|------------------------|---------------------|-------------------|-------------------|-----------------|------------------|--------------------|
| R-2530B        | 2014                   | 2016                | \$5,750,000       | \$22,300,000      | \$0             | \$26,597,000     | \$54,647,000       |
| B-4974         | 2014                   | 2016                | \$1,800,000       | \$18,200,000      | \$0             | \$0              | \$20,000,000       |
| R-2527         | 2016                   | 2018                | \$4,100,000       | \$32,300,000      | \$4,057,000     | \$2,574,000      | \$43,031,000       |

No final decisions have been made regarding these projects. Therefore, the costs and schedules shown are preliminary and subject to change. As planning for the projects continue, we will include all comments and suggestions to the extent possible.

## THE PROJECT DEVELOPMENT PROCESS

Project development and environmental studies for federally-funded highway projects are conducted in order to comply with the National Environmental Policy Act (NEPA). NCDOT is preparing an Environmental Assessment (EA) for this project.

The Environmental Assessment will discuss the purpose and need for the proposed improvements, evaluate alternatives, and analyze the project's impact on both the human and natural environment.

The document will address the many areas of concern including, but not limited to, the following:

|                                    |                                |
|------------------------------------|--------------------------------|
| Efficiency and safety of travel    | Wildlife and plant communities |
| Neighborhoods and communities      | Water quality                  |
| Relocation of homes and businesses | Floodplains and streams        |
| Economy of project area            | Farmland                       |
| Land use plans                     | Archaeological sites           |
| Historic properties                | Hazardous materials            |
| Wetlands                           | Traffic noise                  |
| Endangered species                 | Air quality                    |

Over the next few months, you can expect to see different project team members visit the area. Team members may take photographs, make notes, take measurements or mark important locations. However, these markers are only surveying and documentation guides and they do not necessarily indicate that your property will be impacted by the project.

As representatives of the State of North Carolina, we strive to treat you and your land, home or business with respect and courtesy. NCDOT kindly asks that you allow our staff on your property to conduct the necessary studies. If the highest standards of customer service are not observed, or if you have questions, please contact Lisa Feller.

## OPPORTUNITIES FOR PUBLIC INVOLVEMENT / AWARENESS

**SCOPING LETTER** - Published in the NC Environmental Bulletin. This letter notifies agencies and groups on the State Clearinghouse mailing list that a project study has been initiated and solicits comments from them.

**SMALL GROUP MEETING(S)** – Presentations/meetings are held at the request of neighborhood associations or other interest groups.

**NEWSLETTERS** – On some projects, newsletters are sent to area residents and interest groups. Newsletters describe the project, discuss the project's status, and outline the alternatives being studied.



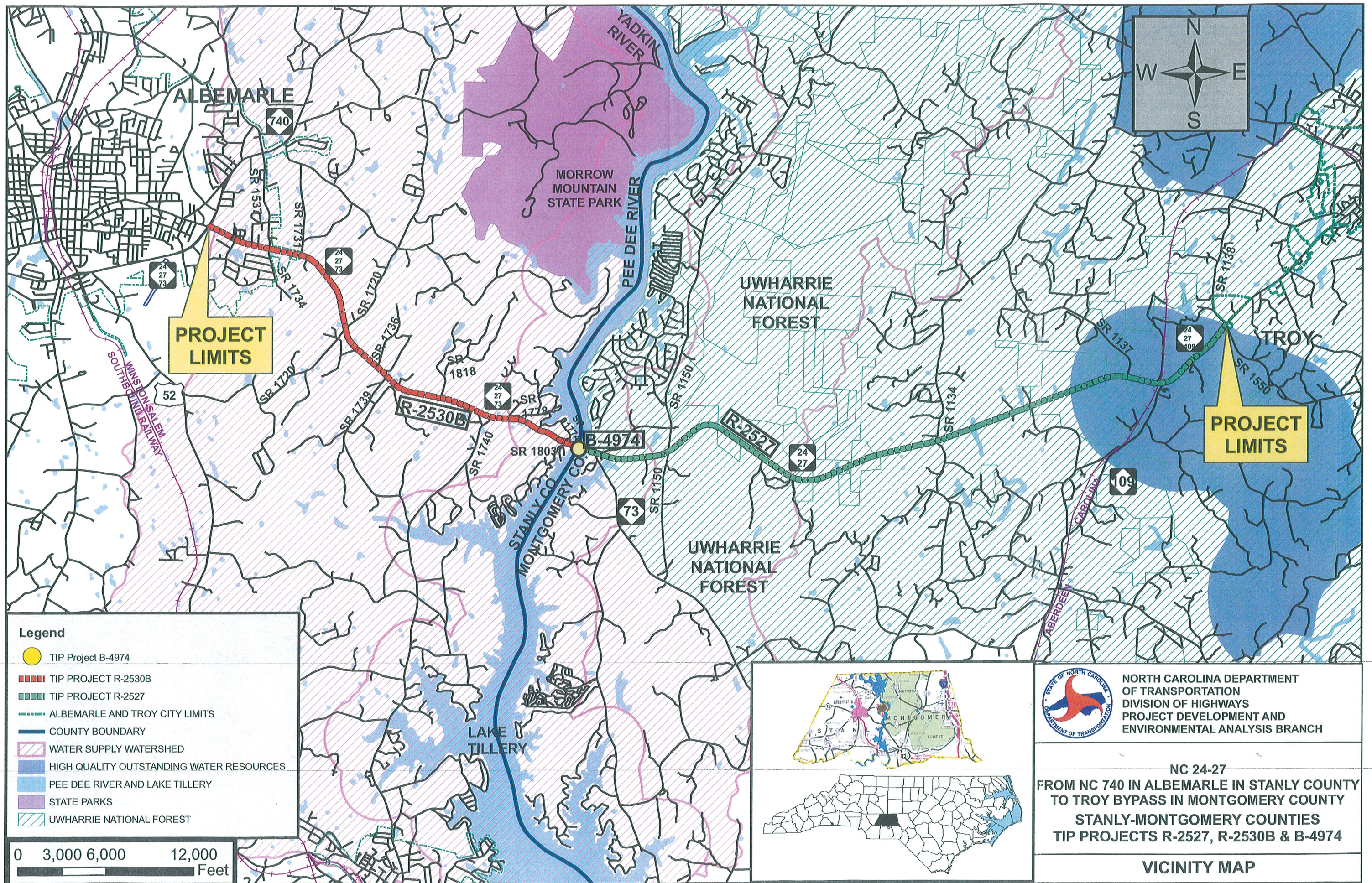
**CITIZENS INFORMATIONAL WORKSHOP(S)** – Informal meeting(s) with the public. NCDOT staff conducts these workshops to speak one-on-one with citizens about projects. Comment sheets are provided for citizens to write down their questions, comments, and concerns. The number of workshops scheduled for a project depends on the scope and anticipated impact of the project.

**DOCUMENT DISTRIBUTION** – Copies of environmental documents are submitted to the State Clearinghouse for distribution and a notice is published in the NC Environmental Bulletin. Upon request, NCDOT will provide copies of the document to the public. Copies are available for public viewing at NCDOT Raleigh and Division offices, the State Clearinghouse office, local government offices, including the local council of government office, and local public libraries.

**PUBLIC HEARING** – One or more formal public hearings are held and public comments are recorded. Format typically involves a short presentation followed by an opportunity for citizens to comment.

**CITIZEN LETTER** – Citizens are encouraged to write NCDOT, provide information and express concerns regarding proposed improvements at anytime during the process. Correspondence from citizens and interest groups is considered during the course of planning study and is included in the project file.







**Citizens Informational Workshop  
Comment Sheet  
TIP Nos. R-2530B, B-4974 and R-2527**

**November 18, 2010**

Please take a few minutes to share your thoughts about the information discussed at today's meeting.  
Please complete the comment sheet and return it to the comment table.

NAME: \_\_\_\_\_  
(Please print)

ADDRESS: \_\_\_\_\_  
(Please print)

Neighborhood: \_\_\_\_\_

Phone/Email address: \_\_\_\_\_

COMMENTS \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Please send comments to:  
Gregory Thorpe, Ph.D., Manager  
ATTN: Lisa Feller, PE, Project Development Engineer  
NCDOT - PDEA  
North Carolina Department of Transportation  
1548 Mail Service Center  
Raleigh, North Carolina 27699-1548

**THANK YOU FOR ATTENDING THE WORKSHOP.  
YOUR COMMENTS ARE VERY IMPORTANT IN THE PROJECT DEVELOPMENT PROCESS.**