

CATEGORICAL EXCLUSION ACTION CLASSIFICATION FORM

STIP Project No.	<u>B-5397</u>
W.B.S. No.	<u>46112.1.1</u>
Federal Project No.	<u>BRZ-2213(2)</u>

**A. PROJECT DESCRIPTION:**

The purpose of this project is to replace Rutherford County Bridge No. 51 on SR 2213 (Bethany Church Road) over Floyds Creek. Bridge No. 51 is 76 feet long. The replacement structure will replace the existing in-place and will be a bridge approximately 100 feet long, providing a minimum 30 feet clear deck width. The bridge will include two 11-foot lanes and 4-foot minimum offsets. The bridge length is based on preliminary design information and is set by hydraulic requirements. The roadway grade of the proposed structure will be approximately 5 feet above the existing structure.

The approach roadway will extend approximately 310 feet from the north end of the new bridge and 250 feet from the south end of the new bridge. The approaches will be widened to include a 22-foot pavement width providing two 11-foot lanes. Four-foot paved shoulders, total shoulder width of six-foot, will be provided on each side (9-foot shoulders where guardrail is included). The roadway is classified as a Rural Local Route and will be designed using Sub Regional Tier Guidelines with a 40 mile per hour design speed.

Traffic will be detoured off-site during construction (see Figure 1).

**B. PURPOSE AND NEED:**

NCDOT Bridge Management Unit records indicate Bridge No. 51 has a sufficiency rating of 7 out of a possible 100 for a new structure.

Bridge No. 51 is a 3 span timber and steel structure, built in 1974, which is considered structurally deficient due to a substructure condition rating of 4 out of 9 according to Federal Highway Administration (FHWA) standards. The bridge also meets the criteria for functionally obsolete due to structural evaluation of 3 out of 9 and a deck geometry appraisal of 2 out of 9.

The superstructure and substructure of Bridge No. 51 have timber elements that are 41 years old. Timber components have a typical life expectancy of 40 to 50 years due to the natural deterioration rate of wood. Rehabilitation of a timber structure is generally practical only when a few elements are damaged or prematurely deteriorated. However, past a certain degree of deterioration, most timber elements become impractical to maintain and upon eligibility are programmed for replacement. Timber components of Bridge No. 51 are experiencing an increasing degree of deterioration that can no longer be addressed by reasonable maintenance activities, therefore the bridge has reached the end of its useful life.

**C. PROPOSED IMPROVEMENTS:**

Circle one or more of the following Type II improvements which apply to the project:

1. Modernization of a highway by resurfacing, restoration, rehabilitation, reconstruction, adding shoulders, or adding auxiliary lanes (e.g., parking, weaving, turning, climbing).
  - a. Restoring, Resurfacing, Rehabilitating, and Reconstructing pavement (3R and 4R improvements)
  - b. Widening roadway and shoulders without adding through lanes
  - c. Modernizing gore treatments
  - d. Constructing lane improvements (merge, auxiliary, and turn lanes)
  - e. Adding shoulder drains
  - f. Replacing and rehabilitating culverts, inlets, and drainage pipes, including safety treatments
  - g. Providing driveway pipes
  - h. Performing minor bridge widening (less than one through lane)
  - i. Slide Stabilization
  - j. Structural BMP's for water quality improvement
2. Highway safety or traffic operations improvement projects including the installation of ramp metering control devices and lighting.
  - a. Installing ramp metering devices
  - b. Installing lights
  - c. Adding or upgrading guardrail
  - d. Installing safety barriers including Jersey type barriers and pier protection
  - e. Installing or replacing impact attenuators
  - f. Upgrading medians including adding or upgrading median barriers
  - g. Improving intersections including relocation and/or realignment
  - h. Making minor roadway realignment
  - i. Channelizing traffic
  - j. Performing clear zone safety improvements including removing hazards and flattening slopes
  - k. Implementing traffic aid systems, signals, and motorist aid
  - l. Installing bridge safety hardware including bridge rail retrofit
3. Bridge rehabilitation, reconstruction, or replacement or the construction of grade separation to replace existing at-grade railroad crossings.
  - a. Rehabilitating, reconstructing, or replacing bridge approach slabs
  - b. Rehabilitating or replacing bridge decks
  - c. Rehabilitating bridges including painting (no red lead paint), scour repair, fender systems, and minor structural improvements
  - d. Replacing a bridge (structure and/or fill)
4. Transportation corridor fringe parking facilities.
5. Construction of new truck weigh stations or rest areas.

6. Approvals for disposal of excess right-of-way or for joint or limited use of right-of-way, where the proposed use does not have significant adverse impacts.
7. Approvals for changes in access control.
8. Construction of new bus storage and maintenance facilities in areas used predominantly for industrial or transportation purposes where such construction is not inconsistent with existing zoning and located on or near a street with adequate capacity to handle anticipated bus and support vehicle traffic.
9. Rehabilitation or reconstruction of existing rail and bus buildings and ancillary facilities where only minor amounts of additional land are required and there is not a substantial increase in the number of users.
10. Construction of bus transfer facilities (an open area consisting of passenger shelters, boarding areas, kiosks and related street improvements) when located in a commercial area or other high activity center in which there is adequate street capacity for projected bus traffic.
11. Construction of rail storage and maintenance facilities in areas used predominantly for industrial or transportation purposes where such construction is not inconsistent with existing zoning and where there is no significant noise impact on the surrounding community.
12. Acquisition of land for hardship or protective purposes, advance land acquisition loans under section 3(b) of the UMT Act. Hardship and protective buying will be permitted only for a particular parcel or a limited number of parcels. These types of land acquisition qualify for a CE only where the acquisition will not limit the evaluation of alternatives, including shifts in alignment for planned construction projects, which may be required in the NEPA process. No project development on such land may proceed until the NEPA process has been completed.
13. Acquisition and construction of wetland, stream and endangered species mitigation sites.
14. Remedial activities involving the removal, treatment or monitoring of soil or groundwater contamination pursuant to state or federal remediation guidelines.

**D. SPECIAL PROJECT INFORMATION:**

The estimated costs, based on 2015 prices, are as follows:

Structure	\$ 310,000
Roadway Approaches	\$ 283,000
Structure Removal	\$ 39,000
Misc. & Mob.	\$ 174,000
Eng. & Contingencies	\$ 94,000
<b>Total Construction Cost</b>	<b>\$ 900,000</b>
Right-of-way Costs	\$ 74,000
Right-of-way Utility Costs	\$1,997,000
<b>Total Project Cost</b>	<b>\$ 2,971,000</b>

**Estimated Traffic:**

Current	-	4,950 vpd
Year 2040	-	5,400 vpd
TTST	-	1%
Dual	-	5%

**Accidents:** Traffic Engineering evaluated a period between December 2008 and December 2011 and found no accidents occurring in the vicinity of the project.

**Design Exceptions:** There are no anticipated design exceptions for this project.

**Pedestrian and Bicycle Accommodations:** This portion of SR 2213 is designated as Southern Highlands Bicycle Route NC 8, and bicycle accommodations will be provided which include 4-foot paved shoulders on approaches and 4-foot minimum offsets on the bridge.

**Bridge Demolition:** Bridge No. 51 is constructed entirely of timber and steel and should be possible to remove with no resulting debris in the water based on standard demolition practices.

**Alternatives Discussion:**

**No Build** – The no build alternative would result in eventually closing the road.

**Rehabilitation** – The bridge was constructed in 1974 and the timber materials within the bridge are reaching the end of their useful life. Rehabilitation would require replacing the timber components which would constitute effectively replacing the bridge.

**Offsite Detour** – Bridge No. 51 will be replaced on the existing alignment. Traffic will be detoured offsite (see Figure 1) during the construction period. NCDOT Guidelines for Evaluation of Offsite Detours for Bridge Replacement Projects considers multiple project variables beginning with the additional time traveled by the average road user resulting from the offsite detour. The offsite detour for this project would include SR 2159 (Doggett

Road), SR 2164 (Tanners Grove Road), and SR 2168 (Countryside Drive). The majority of the traffic on the road is local. The detour for the average road user would result in 4 minutes additional travel time (2 miles additional travel). A 9-month duration for use of the detour is anticipated on this project.

Based on the Guidelines, the criteria above indicate that on the basis of delay alone, the detour is acceptable. NCDOT Division 13 recommends posting the speed limit at 35 mph on Countryside Drive (SR 2168) during the detour use and has indicated the condition of all other roads, bridges and intersections on the offsite detour are acceptable without improvement.

**Onsite Detour** – An onsite detour was not evaluated due to the presence of an acceptable offsite detour.

**Staged Construction** – Staged construction was not considered because of the availability of an acceptable offsite detour.

**New Alignment** – Given that the alignment for SR 2213 is acceptable, a new alignment was not considered.

**Other Agency Comments:**

The **N.C. Wildlife Resource Commission (NCWRC)** and **U.S. Fish & Wildlife Service** in standardized letters provided a request that they prefer any replacement structure to be a spanning structure.

**Response:** NCDOT will be replacing the existing bridge with a new bridge.

**Rutherford County**, the **N.C. Division of Water Quality**, and the **U.S. Army Corps of Engineers** had no special concerns for this project.

**Public Involvement:**

A letter was sent by the NCDOT to all property owners affected directly by this project. Property owners were invited to comment. No comments have been received to date.

**E. THRESHOLD CRITERIA**

The following evaluation of threshold criteria must be completed for Type II actions

<b><u>ECOLOGICAL</u></b>		<b><u>YES</u></b>	<b><u>NO</u></b>
(1)	Will the project have a substantial impact on any unique or important natural resource?		X
(2)	Does the project involve habitat where federally-listed endangered or threatened species may occur?	X	
(3)	Will the project affect anadromous fish?		X
(4)	If the project involves wetlands, is the amount of permanent and/or temporary wetland taking less than one-tenth (1/10) of an acre and have all practicable measures to avoid and minimize wetland takings been evaluated?	X	
(5)	Will the project require the use of U. S. Forest Service lands?		X
(6)	Will the quality of adjacent water resources be adversely impacted by proposed construction activities?		X
(7)	Does the project involve waters classified as Outstanding Resources Waters (ORW) and/or High Quality Waters (HQW)?		X
(8)	Will the project require fill in waters of the United States in any of the designated mountain trout counties?		X
(9)	Does the project involve any known underground storage tanks (UST's) or hazardous materials sites?		X

<b><u>PERMITS AND COORDINATION</u></b>		<b><u>YES</u></b>	<b><u>NO</u></b>
(10)	If the project is located within a CAMA county, will the project significantly affect the coastal zone and/or any "Area of Environmental Concern" (AEC)?		X
(11)	Does the project involve Coastal Barrier Resources Act resources?		X
(12)	Will a U. S. Coast Guard permit be required?		X
(13)	Could the project result in the modification of any existing regulatory floodway?		X
(14)	Will the project require any stream relocations or channel changes?		X

**SOCIAL, ECONOMIC, AND CULTURAL RESOURCES**

	<b><u>YES</u></b>	<b><u>NO</u></b>
(15) Will the project induce substantial impacts to planned growth or land use for the area?	<input type="checkbox"/>	<b>X</b>
(16) Will the project require the relocation of any family or business?	<input type="checkbox"/>	<b>X</b>
(17) Will the project have a disproportionately high and adverse human health and environmental effect on any minority or low-income population?	<input type="checkbox"/>	<b>X</b>
(18) If the project involves the acquisition of right of way, is the amount of right of way acquisition considered minor?	<b>X</b>	<input type="checkbox"/>
(19) Will the project involve any changes in access control?	<input type="checkbox"/>	<b>X</b>
(20) Will the project substantially alter the usefulness and/or land use of adjacent property?	<input type="checkbox"/>	<b>X</b>
(21) Will the project have an adverse effect on permanent local traffic patterns or community cohesiveness?	<input type="checkbox"/>	<b>X</b>
(22) Is the project included in an approved thoroughfare plan and/or Transportation Improvement Program (and is, therefore, in conformance with the Clean Air Act of 1990)?	<b>X</b>	<input type="checkbox"/>
(23) Is the project anticipated to cause an increase in traffic volumes?	<input type="checkbox"/>	<b>X</b>
(24) Will traffic be maintained during construction using existing roads, staged construction, or on-site detours?	<b>X</b>	<input type="checkbox"/>
(25) If the project is a bridge replacement project, will the bridge be replaced at its existing location (along the existing facility) and will all construction proposed in association with the bridge replacement project be contained on the existing facility?	<b>X</b>	<input type="checkbox"/>
(26) Is there substantial controversy on social, economic, or environmental grounds concerning the project?	<input type="checkbox"/>	<b>X</b>
(27) Is the project consistent with all Federal, State, and local laws relating to the environmental aspects of the project?	<b>X</b>	<input type="checkbox"/>
(28) Will the project have an "effect" on structures/properties eligible for or listed on the National Register of Historic Places?	<input type="checkbox"/>	<b>X</b>
(29) Will the project affect any archaeological remains which are important to history or pre-history?	<input type="checkbox"/>	<b>X</b>
(30) Will the project require the use of Section 4(f) resources (public parks, recreation lands, wildlife and waterfowl refuges, historic sites, or historic bridges, as defined in Section 4(f) of the U. S. Department of Transportation Act of 1966)?	<input type="checkbox"/>	<b>X</b>

- |      |                                                                                                                                                                                                            |                          |          |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|----------|
| (31) | Will the project result in any conversion of assisted public recreation sites or facilities to non-recreation uses, as defined by Section 6(f) of the Land and Water Conservation Act of 1965, as amended? | <input type="checkbox"/> | <b>X</b> |
| (32) | Will the project involve construction in, across, or adjacent to a river designated as a component of or proposed for inclusion in the National System of Wild and Scenic Rivers?                          | <input type="checkbox"/> | <b>X</b> |

**F. ADDITIONAL DOCUMENTATION REQUIRED FOR UNFAVORABLE RESPONSES IN PART E**

**Response to Question 2:** As of April 2, 2015, the United States Fish and Wildlife Service (USFWS) lists six federally-protected species for Rutherford County. The Biological Conclusion for four of these species is No Effect.

Scientific Name	Common Name	Federal Status	Habitat Present	Biological Conclusion
<i>Hexastylis naniflora</i>	Dwarf-flowered heartleaf	T	Yes	MANLAA
<i>Myotis sodalis</i>	Indiana bat	E	No	No Effect
<i>Myotis septentrionalis</i>	Northern long-eared bat	T*	Unknown	Unresolved
<i>Gymnoderma lineare</i>	Rock gnome lichen	E	No	No Effect
<i>Isotria medeoloides</i>	Small whorled pogonia	T	Yes	No Effect
<i>Sisyrrinchium dichotomum</i>	White irisette	E	No	No Effect

E – Endangered; T – Threatened

\*Listing effective May 4, 2015

The Biological Conclusion for Dwarf-flowered heartleaf (DFH) is “May Affect- Not Likely to Adversely Affect.” DFH is endemic to the western Piedmont and foothills of North and South Carolina. During fieldwork at the site on April 9-10, 2012, a *Hexastylis* population was observed. Analysis of four representative flowers revealed that the calyx openings were 4.5 mm, 5.0 mm, 5.0 mm, and 5.5 mm, resulting in a determination that all four flowers are *Hexastylis naniflora*. Although the DFH is present within the study area, it is not located in the immediate vicinity of the proposed bridge replacement over Floyds Creek.

The NCDOT PDEA-Biological Surveys Group will be responsible for habitat assessment and, if needed, surveys for the Northern long-eared bat (NLEB).

**G. CE APPROVAL**

STIP Project No.	<u>B-5397</u>
W.B.S. No.	<u>46112.1.1</u>
Federal Project No.	<u>BRZ-2213(2)</u>

**Project Description:**

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Traffic will be detoured off-site during construction (see Figure 1).

**Categorical Exclusion Action Classification:**

<u>      </u>	TYPE II(A)
<u>  X  </u>	TYPE II(B)

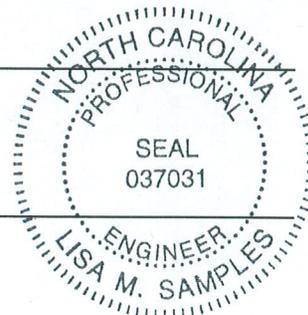
**Approved:**

8/20/15 [Signature]  
Date Project Development Section Head  
Project Development & Environmental Analysis Unit

8/20/15 [Signature]  
Date Project Manager  
Project Development & Environmental Analysis Unit

8.19.15 [Signature]  
Date Project Planning Engineer  
Planning Communities, LLC

8/19/2015 [Signature]  
Date Consultant Project Manager  
ms consultants, inc.



For Type II(B) projects only:

8-20-15 [Signature]  
Date John F. Sullivan, III, PE, Division Administrator  
for Federal Highway Administration

**PROJECT COMMITMENTS:**

**Rutherford County  
Bridge No. 51 on SR 2213  
Over Floyds Creek  
Federal Aid Project No. BRZ-2213(2)  
W.B.S. No. 46112.1.1  
S.T.I.P. No. B-5397**

**PDEA – Section 7 Consultation**

One population of dwarf-flowered heartleaf was identified in the southwestern portion of the study area. The biological conclusion is “May Affect – Not Likely to Adversely Affect.”

The biological conclusion for the Northern long-eared bat (NLEB) is “Unresolved”. The Biological Surveys Group will assess the area for habitat and, if needed, conduct surveys to resolve the biological conclusion.

Construction will not be authorized prior to completion of Section 7 Consultation.

**Division 13 Construction, Resident Engineer’s Office – Offsite Detour**

Rutherford County Schools will be contacted at least one month prior to road closure.

Rutherford County Emergency Services will be contacted at least one month prior to road closure.

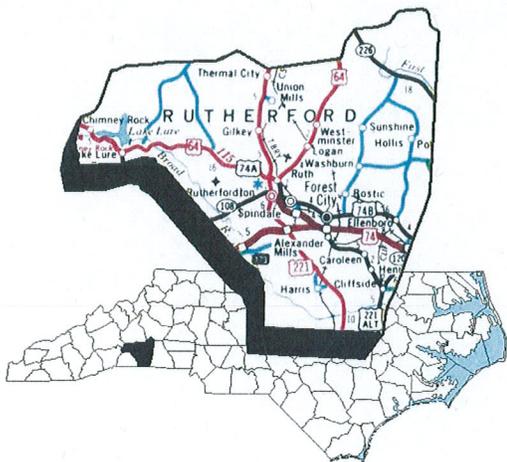
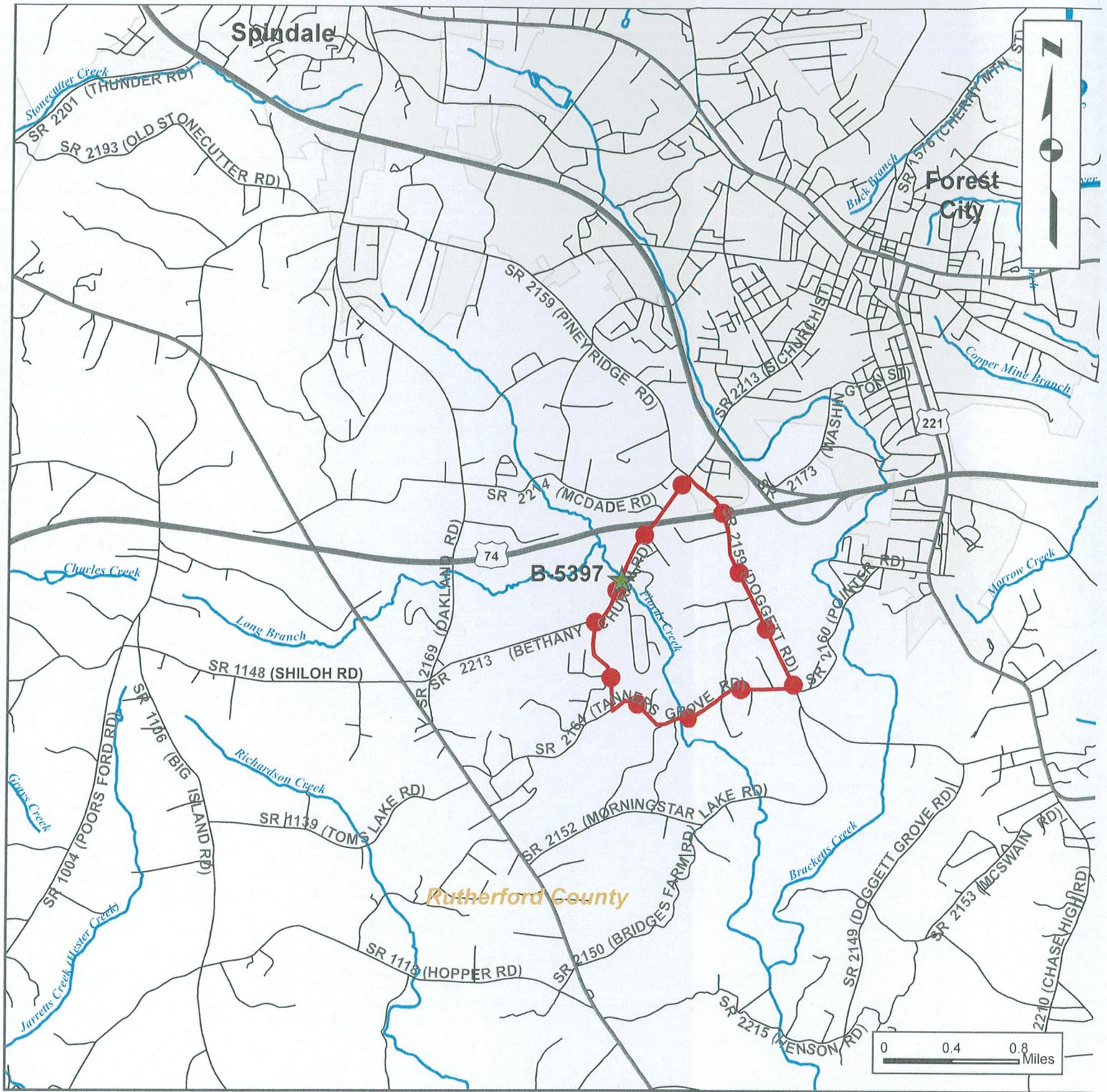
The Division will post the speed limit at 35mph on Countryside Drive (SR 2168) during the detour use.

**Hydraulic Unit – FEMA Coordination**

The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP), to determine status of project with regard to applicability of NCDOT’S Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

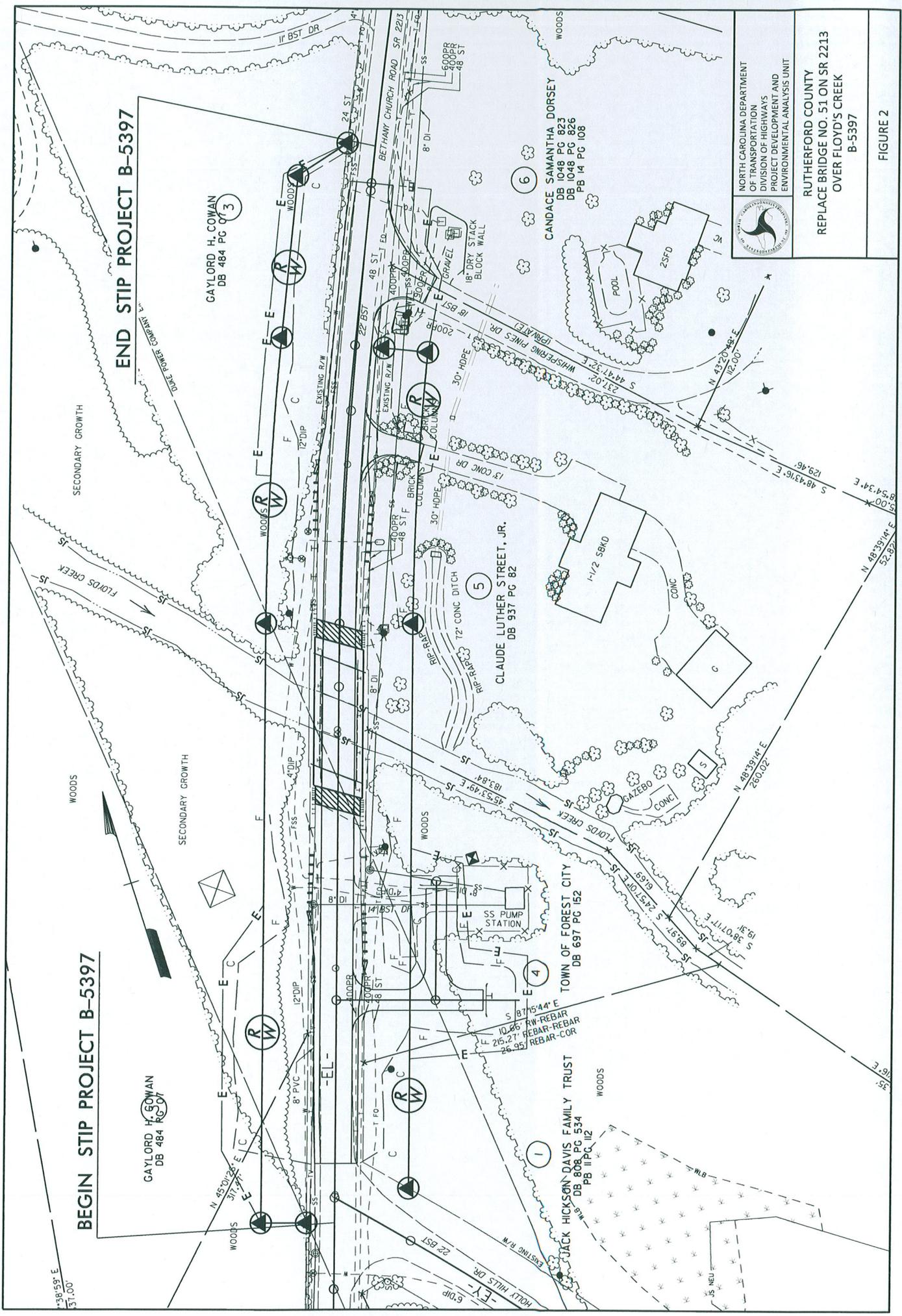
**Division 13 Construction-FEMA**

The Division shall submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction, certifying that the drainage structure(s) and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.



 **Detour Route**

	<p>NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PROJECT DEVELOPMENT &amp; ENVIRONMENTAL ANALYSIS UNIT</p>
<p><b>RUTHERFORD COUNTY REPLACE BRIDGE NO. 51 ON SR 2213 OVER FLOYDS CREEK STIP PROJECT B-5397</b></p>	
<p><b>FIGURE 1 - VICINITY MAP</b></p>	



**BEGIN STIP PROJECT B-5397**

**END STIP PROJECT B-5397**

	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS UNIT
	RUTHERFORD COUNTY REPLACE BRIDGE NO. 51 ON SR 2213 OVER FLOYD'S CREEK B-5397

FIGURE 2