

Bridge No.	72
Crosses	Anderson Creek
Year Built	1977
Clear Roadway Width	28 feet
Length	106 feet
Sufficiency Rating	53.73
Functionally Obsolete?	No
Structurally Deficient?	No
Posted Weight Limit	22 tons SV 29 tons TTST

C. Categorical Exclusion Action Classification: (Check one)

TYPE I

D. Proposed Improvements

28. Bridge rehabilitation, reconstruction, or replacement or the construction of grade separation to replace existing at-grade railroad crossings, if the actions meet the constraints in 23 CFR 771.117(e) (1-6).

E. Special Project Information:

A vicinity map showing the location of the bridge and the detour route is included in Appendix A as Figure 1. Photographs of the bridges are included in Appendix A as Figures 2 and 3.

NCDOT has sought input from the following agencies as a part of the project development: US Army Corps of Engineers, NC Department of Natural Resources, US Fish & Wildlife Service, NC Wildlife Resources Commission, NC Division of Water Resources, and the Environmental Protection Agency. No special concerns were expressed by any of the agencies contacted.

Estimated Costs:

The estimated costs, based on 2017 prices, are as follows:

R/W: \$ 160,000
 Const: \$ 950,000
 Total: \$1,110,000

Estimated Traffic:

Year 2015 1700 vehicles per day (vpd)
Year 2040 2800 vpd

Accidents: Three crashes occurred in the vicinity of the project during a recent five-year period. Of the three crashes, none were attributed to bridge geometry or approach roadways.

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

Pedestrian and Bicycle Accommodations: SR 2045 is not a designated bicycle route, nor does it have any pedestrian accommodations and no special bicycle or pedestrian accommodations are recommended.

Offsite Detour: Bridge No. 72 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 1120 (Overhills Road), NC 210, and SR 2048 (Bethel Baptist Road). The majority of traffic on the road is through traffic. The detour for the average road user would result in 10 minutes additional travel time (8.5 miles additional travel). Up to a 12-month construction duration is expected for this project.

Public Involvement: A landowner notification letter and a newsletter were sent to all property owners affected directly by this project. Property owners were invited to comment. No comments have been received to date.

Anticipated Permits: The proposed project will affect approximately 0.13 acres of wetlands. A Nationwide permit (NWP) 23 (33 CFR 330.5(a) 23)) will likely be required for impacts to "Waters of the United States" resulting from this project. Other permits that may apply include a NWP 33 for temporary construction activities such as stream dewatering, work bridges, or temporary causeways that may be required during bridge construction.

In addition, a Section 404 permit will likely be applicable. An NCDWR Section 401 Water Quality General Certification may be required prior to the issuance of a Section 404 Permit. Other required 401 certifications may include a GC 3366 for temporary construction access and dewatering. The US Army Corps of Engineers holds the final discretion as to what permit will be required to authorize project construction.

Due to the presence of a flood zone, a FEMA permit will be required.

F. Project Impact Criteria Checklists:

<u>Type I & II - Ground Disturbing Actions</u>			
<u>FHWA APPROVAL ACTIVITIES THRESHOLD CRITERIA</u>			
If any of questions 1-7 are marked "yes" then the CE will require FHWA approval.		Yes	No
1	Does the project require formal consultation with U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Does the project result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act (BGPA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Does the project generate substantial controversy or public opposition, for any reason, following appropriate public involvement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	Does the project cause disproportionately high and adverse impacts relative to low-income and/or minority populations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5	Does the project involve a residential or commercial displacement, or a substantial amount of right of way acquisition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	Does the project require an Individual Section 4(f) approval?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	Does the project include adverse effects that cannot be resolved with a Memorandum of Agreement (MOA) under Section 106 of the National Historic Preservation Act (NHPA) or have an adverse effect on a National Historic Landmark (NHL)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If any of questions 8 through 31 are marked "yes" then additional information will be required for those questions in Section G.			
<u>Other Considerations</u>		Yes	No
8	Does the project result in a finding of "may affect not likely to adversely affect" for listed species, or designated critical habitat under Section 7 of the Endangered Species Act (ESA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9	Is the project located in anadromous fish spawning waters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	Does the project impact waters classified as Outstanding Resource Water (ORW), High Quality Water (HQW), Water Supply Watershed Critical Areas, 303(d) listed impaired water bodies, buffer rules, or Submerged Aquatic Vegetation (SAV)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11	Does the project impact waters of the United States in any of the designated mountain trout streams?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14	Does the project include a Section 106 of the NHPA effects determination other than a no effect, including archaeological remains?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<u>Other Considerations (continued)</u>		Yes	No
15	Does the project involve hazardous materials and/or landfills?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16	Does the project require work encroaching and adversely affecting a regulatory floodway or work affecting the base floodplain (100-year flood) elevations of a water course or lake, pursuant to Executive Order 11988 and 23 CFR 650 subpart A?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
17	Is the project in a Coastal Area Management Act (CAMA) county and substantially affects the coastal zone and/or any Area of Environmental Concern (AEC)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18	Does the project require a U.S. Coast Guard (USCG) permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
19	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River present within the project area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
20	Does the project involve Coastal Barrier Resources Act (CBRA) resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
21	Does the project impact federal lands (e.g. U.S. Forest Service (USFS), USFWS, etc.) or Tribal Lands?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
22	Does the project involve any changes in access control?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
24	Will maintenance of traffic cause substantial disruption?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
25	Is the project inconsistent with the STIP or the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP) (where applicable)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
26	Does the project require the acquisition of lands under the protection of Section 6(f) of the Land and Water Conservation Act, the Federal Aid in Fish Restoration Act, the Federal Aid in Wildlife Restoration Act, Tennessee Valley Authority (TVA), or other unique areas or special lands that were acquired in fee or easement with public-use money and have deed restrictions or covenants on the property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
28	Does the project include a <i>de minimis</i> or programmatic Section 4(f)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
29	Is the project considered a Type I under the NCDOT's Noise Policy?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
30	Is there prime or important farmland soil impacted by this project as defined by the Farmland Protection Policy Act (FPPA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
31	Are there other issues that arose during the project development process that affected the project decision?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

G. Additional Documentation as Required from Section F

Response to Question 8:

Northern long-eared bat (NLEB): The US Fish and Wildlife Service has developed a programmatic biological opinion (PBO) in conjunction with the Federal Highway Administration, the US Army Corps of Engineers and NCDOT, for the northern long-eared bat in eastern North Carolina. The PBO covers the entire NCDOT program in Divisions 1-8, including all NCDOT

projects and activities. The programmatic determination for northern long-eared bat for the NCDOT program in Divisions 1-8 is "May Affect, Likely to Adversely Affect." The PBO will provide incidental take coverage for northern long-eared bat and will ensure compliance with Section 7 of the Endangered Species Act for five years for all NCDOT projects with a federal nexus in Divisions 1-8, which includes Harnett County.

Response to Question 16:

Harnett County is a participant in the National Flood Insurance Program, administered by the Federal Emergency Management Agency (FEMA). Based on the most current information available from the NC Floodplain Mapping Program (FMP), these stream crossings are in a designated flood hazard zone.

The proposed bridge replacement will provide equivalent or greater conveyance than that of the existing bridge. The Hydraulics Unit will coordinate with the FMP, the delegated state agency 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).

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 the drainage structures and roadway embankment located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

H. Project Commitments

**Harnett County
Project Name
WBS No. 17BP.6.R.96
TIP No. B-5513**

Division Six Construction, Resident Engineer's Office

Harnett County Emergency Services will be contacted at (910) 893-7563 at least one month prior to road closure to make the necessary temporary reassignments to primary response units.

Harnett County Schools will be contacted at (910) 893-8151 at least one month prior to road closure to allow temporary rerouting of school buses.

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 the drainage structures and roadway embankment located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

Hydraulics Unit

The Hydraulics Unit will coordinate with the Floodplain Mapping Program, the delegated state agency 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).

I. Categorical Exclusion Approval

STIP Project No. B-5513
WBS Element 17BP.6.R.96
Federal Project No. _____

Prepared By:

6/9/2017

Date

DocuSigned by:

Stephen C. Greene

Stephen C. Greene, P.E., Vice President
Ramey Kemp & Associates, Inc.

Prepared For:

Project Development and Environmental Analysis Unit
North Carolina Department of Transportation

Reviewed By:

6/9/2017

Date

DocuSigned by:

Joseph Miller

Joseph H. Miller, PE, Project Planning Engineer
Project Development and Environmental Analysis Unit
North Carolina Department of Transportation



Approved

If all of the threshold questions (1 through 7) of Section F are answered "no," NCDOT approves this Categorical Exclusion.



Certified

If any of the threshold questions (1 through 7) of Section F are answered "yes," NCDOT certifies this Categorical Exclusion.

6/9/2017

Date

DocuSigned by:

James McInnis, Jr.

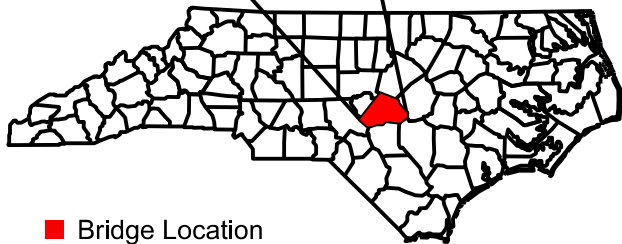
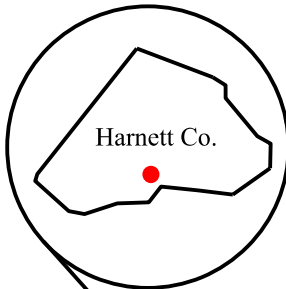
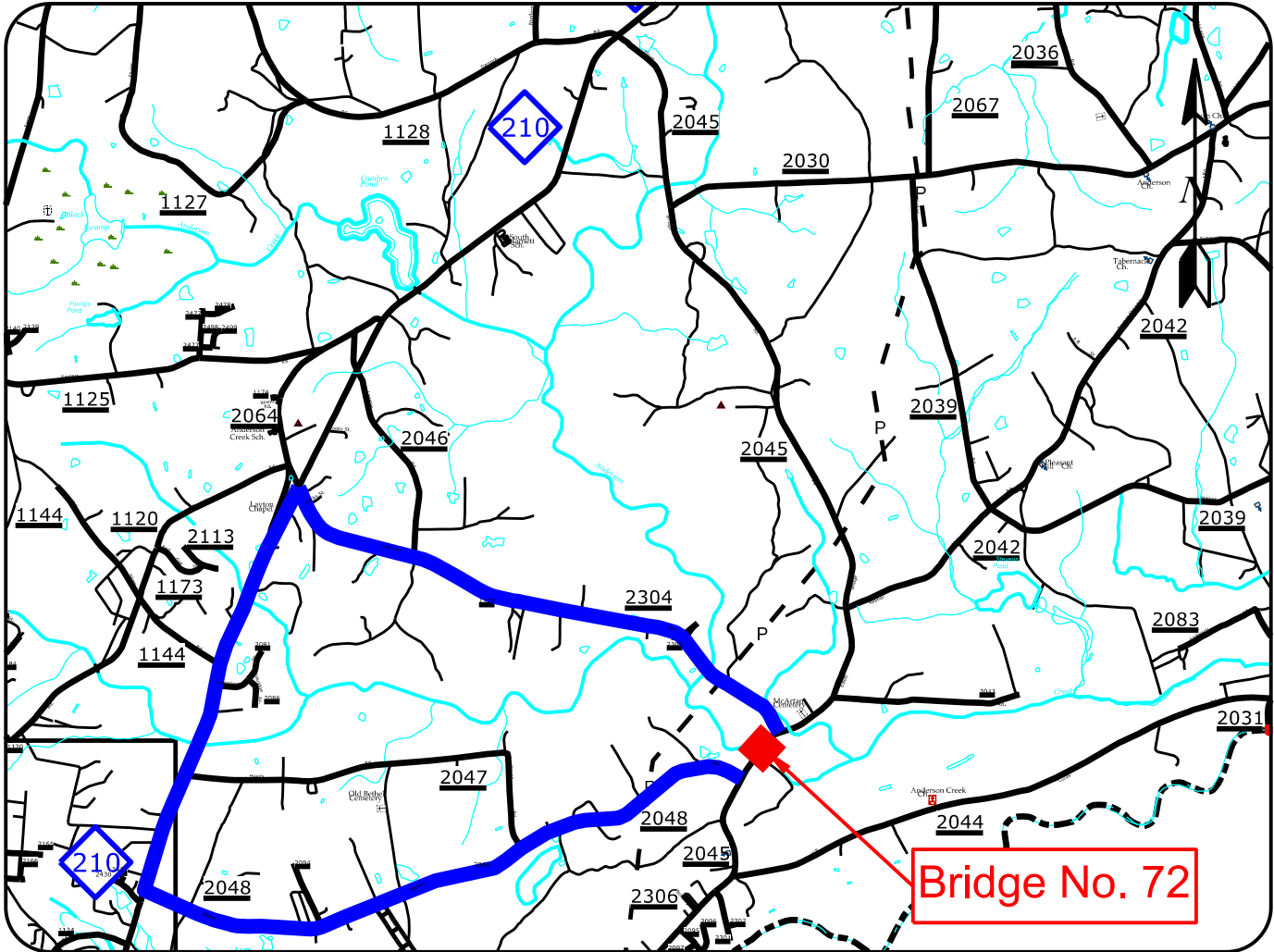
James McInnis, Jr., PE, Project Engineer
Project Development and Environmental Analysis Unit
North Carolina Department of Transportation

FHWA Approved: For Projects Certified by NCDOT (above), FHWA signature required.

Date

N/A
John F. Sullivan, III, PE, Division Administrator
Federal Highway Administration

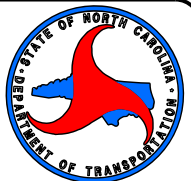
APPENDIX A



■ Bridge Location

— Detour Route

**TIP NO. B-5513
PROJECT
LOCATION MAP**



**Bridge No. 72
on SR 2045 (Elliott Bridge Road)
over Anderson Creek
Harnett County**

Not to Scale

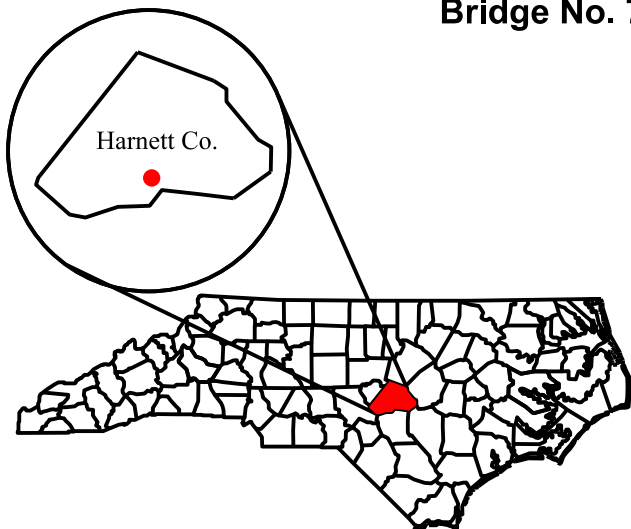
FIGURE 1



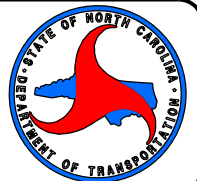
Bridge No. 72 looking South



Bridge No. 72 looking North



**TIP NO. B-5513
Pictures of
Existing Conditions**



**Bridge No. 72
on SR 2045 (Elliott Bridge Road)
over Anderson Creek
Harnett County**

Not to Scale

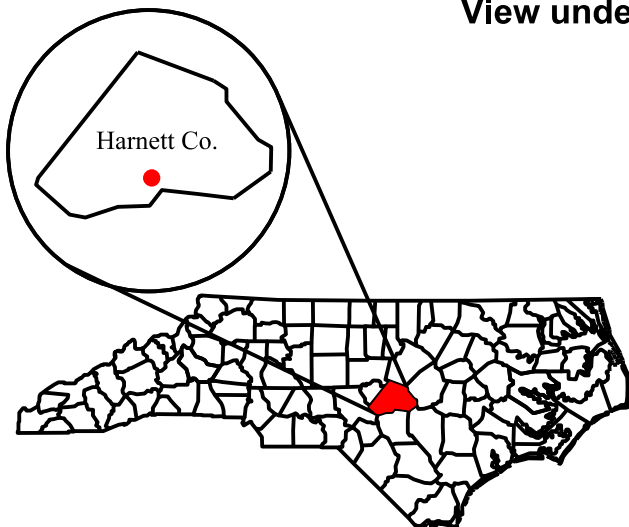
FIGURE 2



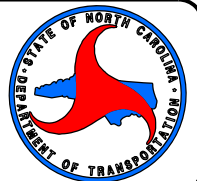
View from Bridge No. 72 Looking West



View under Bridge No. 72



TIP NO. B-5513
Pictures of
Existing Conditions



Bridge No. 72
on SR 2045 (Elliott Bridge Road)
over Anderson Creek
Harnett County

Not to Scale

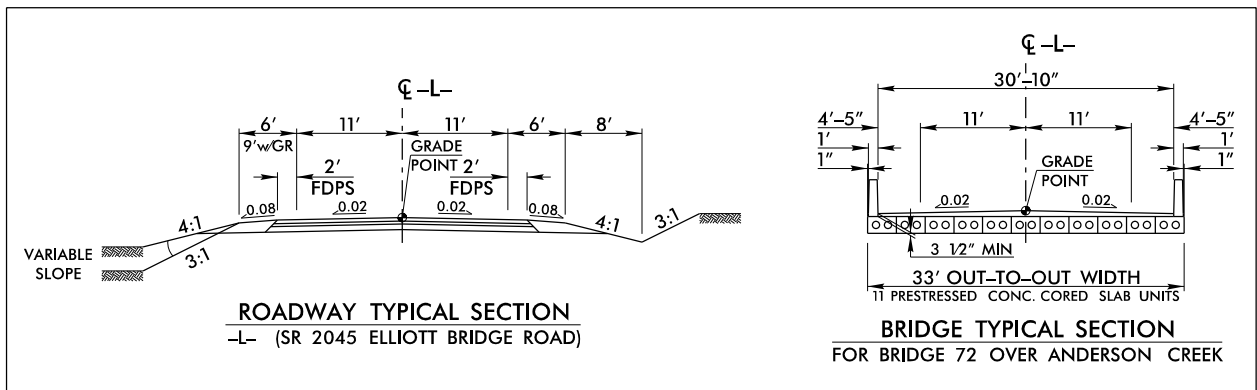
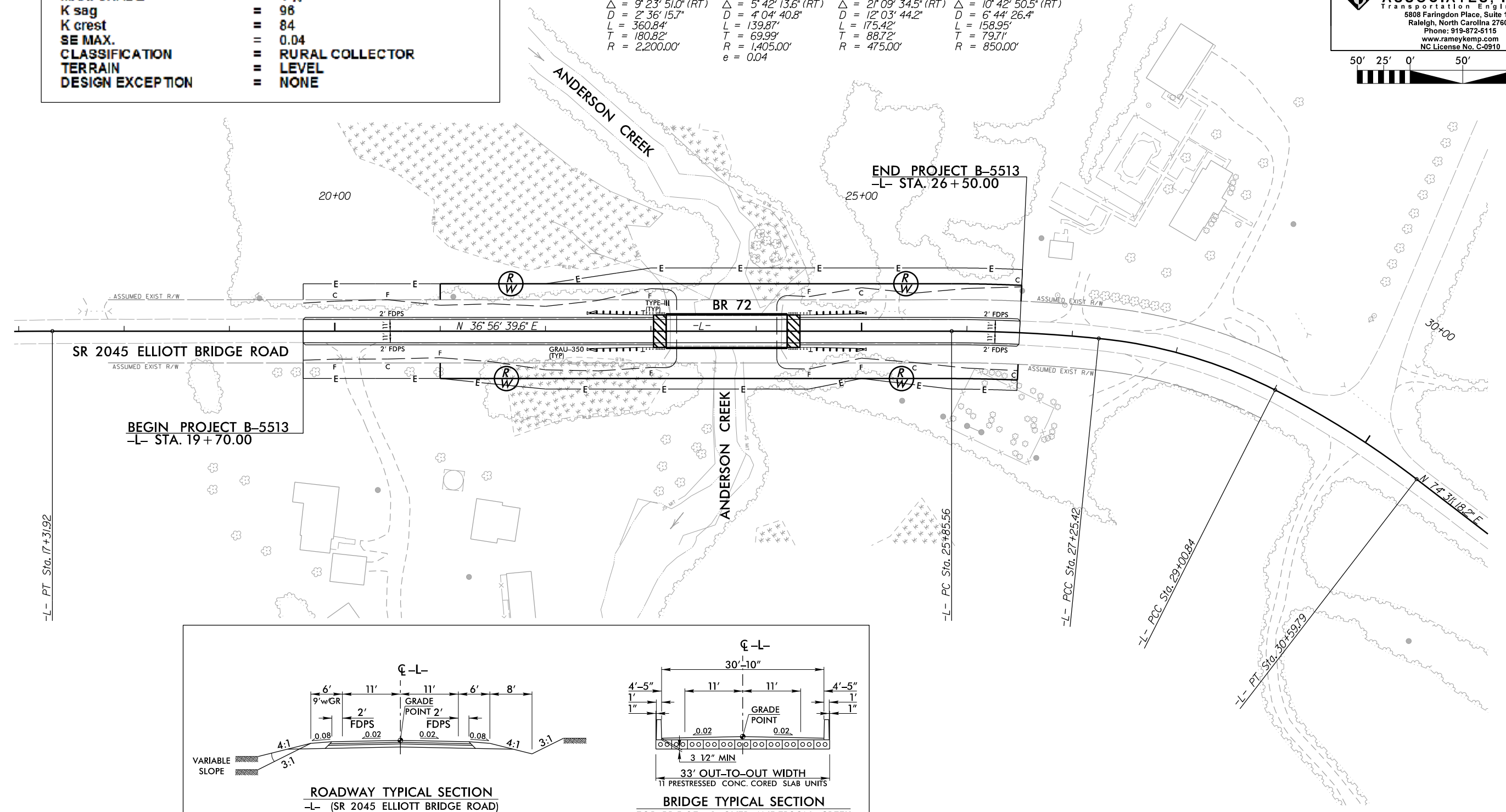
FIGURE 3

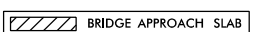


ANTICIPATED DESIGN DATA	
DESIGN STANDARDS	= SUBREGIONAL TIER
DESIGN SPEED	= 50 MPH
ADT 2014	= 2,100
ADT 2035	= < 4000
DHV	=
D	=
DUAL	=
TTST	=
MIN. RADIUS	= 926'
MAX. GRADE	= 4 %
K sag	= 96
K crest	= 84
SE MAX.	= 0.04
CLASSIFICATION	= RURAL COLLECTOR
TERRAIN	= LEVEL
DESIGN EXCEPTION	= NONE

HARNETT COUNTY B-5513 REPLACE IN PLACE WITH OFFSITE DETOUR

-L-			
PI Sta 15+51.91	PI Sta 26+55.55	PI Sta 28+14.15	PI Sta 29+80.55
$\Delta = 9^{\circ} 23' 51.0" (RT)$	$\Delta = 5^{\circ} 42' 13.6" (RT)$	$\Delta = 2^{\circ} 09' 34.5" (RT)$	$\Delta = 10^{\circ} 42' 50.5" (RT)$
$D = 2^{\circ} 36' 15.7"$	$D = 4^{\circ} 04' 40.8"$	$D = 12^{\circ} 03' 44.2"$	$D = 6^{\circ} 44' 26.4"$
$L = 360.84'$	$L = 139.87'$	$L = 175.42'$	$L = 158.95'$
$T = 180.82'$	$T = 69.99'$	$T = 88.72'$	$T = 79.71'$
$R = 2,200.00'$	$R = 1,405.00'$	$R = 475.00'$	$R = 850.00'$
	$e = 0.04$		



 BRIDGE APPROACH SLAB
FOR -L- PROFILE, SEE SHEET NO. 5

REVISIONS