Type I and II Ground Disturbing Categorical Exclusion Action Classification Form

STIP Project No.	B-5523
WBS Element	55023.1.FD1
Federal Project No.	BRZ-1725(5)

A. Project Description:

STIP Project B-5523 involves replacing Bridge No. 168 on SR 1725 (Cane Creek Church Road) over Cane Creek, southeast of McGrady in Wilkes County. The proposed project is included in the 2016-2025 North Carolina State Transportation Improvement Program (STIP). Right of way acquisition and construction are scheduled for fiscal years 2019 and 2020, respectively, in the draft 2017-2027 STIP.

Bridge No. 168 will be replaced with a new bridge approximately 50 feet long providing a minimum 24-foot ten-inch clear roadway width. The bridge will include two nine-foot lanes and three-foot five-inch offsets (due to the bridge being in a curve this could vary). The bridge length is based on preliminary design information and is set by hydraulic requirements. The roadway grade of the new structure will be approximately the same as the existing structure.

Project construction will extend approximately 150 feet from the southwest end of the new bridge and approximately 180 feet from the northeast end of the new bridge. The approaches will be widened to 18 feet of pavement providing two nine-foot lanes. Two-foot grass shoulders will be provided on each side (seven-foot shoulders where guardrail is included). The roadway will be designed as a Rural Local Route using Sub Regional Tier guidelines with a 30-mile per hour design speed.

Traffic will be detoured off-site during construction. Vicinity map and alternatives are attached.

B. <u>Description of Need and Purpose:</u>

The purpose of the proposed project is to replace a deficient bridge.

NCDOT Bridge Management Unit records indicate Bridge No. 168 has a sufficiency rating of 21.85 out of a possible 100 for a new structure.

The bridge is considered functionally obsolete due to structural appraisal of 3 out of 9 and a deck geometry appraisal of 3 out of 9.

Bridge No. 168 was built in 1959. The bridge is 23 feet long with a 19-foot clear roadway width.

The superstructure and substructure of Bridge No. 168 have timber elements that are fifty-eight years old. Timber components have a typical life expectancy of between 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. 168 are experiencing an increasing degree of deterioration that can no longer be addressed by reasonable maintenance activities, therefore the bridge is approaching the end of its useful life.

Bridge No. 168 is expected to carry 110 vehicles per day (2020) with 220 vehicles per day projected for the future (2040). The substandard deck width is becoming increasingly unacceptable and replacement of the bridge will result in safer traffic operations.

The posted weight limit on the bridge is 25 tons for single vehicles and 38 tons for truck-tractor semi-trailers.

C. Categorical Exclusion Action Classification: (Check one)

 \mathbf{X} TYPEIA

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:

Accidents: In a recent ten-year period (January 1, 2005 – December 31, 2014), two accidents occurred in the vicinity of the project. There were no Fatal Crashes; one Non-Fatal Injury Crash; and one Property Damage Only Crash. None were associated with the geometry of the bridge or its approach roadways.

Design Exceptions: The existing roadway is unpaved and the existing alignment would not meet a 30 MPH design speed in the project limits. It was determined a 30 MPH design speed is appropriate for the project. Although the proposed alignment will meet a 30 MPH design speed, providing required superelevation to meet a 30 MPH design speed is not practicable. Therefore, a design exception will be required for the superelevation.

Pedestrian and Bicycle Accommodations: This portion of SR 1725 is not a part of a designated bicycle route. No bicycle or pedestrian projects are programmed in the State Transportation Improvement Program (STIP) along SR 1725. No permanent, nor temporary bicycle or pedestrian accommodations are required for this project.

Bridge Demolition: Bridge No. 168 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 bridge as its condition continues to deteriorate.

Rehabilitation – The bridge was constructed in 1959 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. 168 will be replaced on the existing alignment. Traffic will be detoured offsite (see Figure 1) during the construction period. <u>NCDOT Guidelines for Evaluation of Offsite Detours for Bridge Replacement Projects</u> 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 1715 (Dehart Church Road, and SR 1724 (Radical Road).

The majority of traffic on the road is through traffic. The detour for the average road user would result in two minutes additional travel time (one mile additional travel). Up to a 12-month duration of construction is expected on this project.

Based on the Guidelines, the criteria above indicate that on the basis of delay alone, the detour is acceptable. Wilkes County Emergency Services along with Wilkes County Schools Transportation have also indicated that the detour is acceptable. NCDOT Division 11 has indicated the condition of all roads, bridges, and intersections on the offsite detour are acceptable without improvement and concurs with the use of the detour.

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 – Based on the low traffic volumes on the facility, the availability of an acceptable offsite detour and the potential impacts of realigning SR 1725, a new alignment was not considered as an alternative.

Structure Type – Two structure types were studied for the project. The Bridge Alternative will replace the existing bridge with a cored slab structure 50 feet long. The Culvert Alternative is a culvert 43 feet long providing a minimum 26-foot clear roadway width.

	Bridge Alternative (Selected)	Culvert Alternative
Construction Cost	\$775,000	\$850,000
Right-of-way Costs	\$5,900	\$5,900
Right-of-way Utility Costs*	\$0	\$0
Total Project Cost	\$780,900	\$855,900

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

*- No Utility Relocation is anticipated for this project

The two alternatives were reviewed for construction costs, right of way impacts, utilities and preference of agencies. The Bridge Alternative has a lower construction cost compared to the Culvert Alternative and would not impact Cane Creek. Based on the lower cost and reduced impacts, the bridge alternative was the selected alternative for the project during alternative selection in April 2017.

Other Agency Comments:

A start of study letter was sent to all agencies on January 23, 2016. The NC Wildlife Resources Commission (NCWRC) and US Fish & Wildlife Service in standardized letters (NCWRC letter dated April 10, 2015) stated they prefer any replacement structure to be a spanning structure. No other substantive comments were received regarding the project.

Public Involvement:

A landowner notification letter was sent to all property owners affected directly by this project, on December 11, 2014. Property owners were invited to comment. No comments have been received to date. A Public Meeting was determined unnecessary.

A letter was sent by the Location & Surveys Unit to all property owners affected directly by this project on March 12, 2015. Property owners were invited to comment. No comments have been received to date.

Type I &	II - Ground Disturbing Actions					
FHWA A	PPROVAL ACTIVITIES THRESHOLD CRITERIA					
If any of questions 1-7 are marked "yes" then the CE will require FHWA approval.						
1	Does the project require formal consultation with U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS)?		\boxtimes			
2	Does the project result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act (BGPA)?					
3	Does the project generate substantial controversy or public opposition, for any reason, following appropriate public involvement?					
4	Does the project cause disproportionately high and adverse impacts relative to low-income and/or minority populations?					
5	Does the project involve a residential or commercial displacement, or a substantial amount of right of way acquisition?					
6	Does the project require an Individual Section 4(f) approval?					
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)?					
	questions 8 through 31 are marked "yes" then additional information will be requir s in Section G.	ed for th	nose			
Other Co	onsiderations	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)?		\boxtimes			
9	Is the project located in anadromous fish spawning waters?		\boxtimes			
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)?		\boxtimes			
11	Does the project impact waters of the United States in any of the designated mountain trout streams?		\boxtimes			
12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit?		\boxtimes			
13	13 Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility?					
14	14 Does the project include a Section 106 of the NHPA effects determination other than a no effect, including archaeological remains?					

Other Considerations (continued)			No	
15	Does the project involve hazardous materials and/or landfills?			
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?	X		
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)?		\boxtimes	
18	Does the project require a U.S. Coast Guard (USCG) permit?		\boxtimes	
19	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River present within the project area?		X	
20	Does the project involve Coastal Barrier Resources Act (CBRA) resources?		\boxtimes	
21	Does the project impact federal lands (e.g. U.S. Forest Service (USFS), USFWS, etc.) or Tribal Lands?		X	
22	Does the project involve any changes in access control?		\boxtimes	
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness?		\mathbf{X}	
24	Will maintenance of traffic cause substantial disruption?		X	
25	Is the project inconsistent with the STIP or the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP) (where applicable)?		X	
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?		\boxtimes	
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)?		\times	
28	Does the project include a <i>de minimis</i> or programmatic Section 4(f)?		\boxtimes	
29	Is the project considered a Type I under the NCDOT's Noise Policy?		X	
30	Is there prime or important farmland soil impacted by this project as defined by the Farmland Protection Policy Act (FPPA)?	\boxtimes		
31	Are there other issues that arose during the project development process that affected the project decision?		\mathbf{X}	

G. Additional Documentation as Required from Section F

Question 16.

Wilkes County is a participant in the National Flood Insurance Regular Program. The project is within a Flood Hazard Zone, designated as Zone AE, for which the 100-year base flood elevations have been established. The project is not located within an established floodway. The Hydraulics Unit will coordinate with the Federal Emergency Management Agency (FEMA) to determine if a Conditional Letter of Map Revision (CLOMR) and a subsequent final Letter of

Map Revision (LOMR) are required for the project. If required, the Division will submit sealed asbuilt construction plans to the Hydraulics Unit upon project completion certifying the project was built as shown on construction plans.

Question 30.

Farmland soils eligible for protection under the Farmland Protection Policy Act (FPPA) are present within the project limits. These soils have a qualifier stating that the soil types are prime if drained and protected from flooding. Since this area is within the 100 year floodplain, protection would probably not be possible. The initial screening of potential farmland conversion impacts for the project was completed using Natural Resources Conservation Service (NRCS) Form AD-1006 and a total score of 75 out of 160 points was calculated. The score exceeds the 60-point threshold established by NRCS, and the project may have direct impacts on these soils. The area along the south side of SR 1725 (Cane Creek Church Road) within the project limits was recently cleared of trees and scrub growth to allow installation of new power lines, which cross SR 1725 (Cane Creek Church Road) just east of the bridge. The impacts to prime farmland are not anticipated to be substantial. Based on the preliminary design, total acreage of farmland impacts was calculated and the farmland conversion form was submitted to NRCS for review. No response was received from NRCS within 10 days, therefore no furher coordination is required.

I. **Categorical Exclusion Approval**

STIP Project No.	B-5523
WBS Element	55023.1.FD1
Federal Project No.	BRZ-1725(5)

Prepared By:

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DocuSigned by: Ançela Sanderson

Date

Angela Sanderson, Project Planning Engineer North Carolina Department of Transportation

\boxtimes	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.
7/6/2017 Date	James Mch. James Mch. North Carolin	
FHWA Ap	<u>proved:</u> For Projects required.	Certified by NCDOT (above), FHWA signature
Date		van, III, PE, Division Administrator way Administration

Wilkes County Bridge No. 168 on SR 1725 (Cane Creek Church Road) Over Cane Creek Federal Project No. BRZ-1725(5) WBS No. 55023.1.FD1 TIP Project B-5523

Division Eleven Construction

In order to have time to adequately reroute school buses, Wilkes County Schools will be contacted at (336) 667-1121 at least one month prior to road closure.

Wilkes County Emergency Services will be contacted at (336) 651-7365 at least one month prior to road closure to make the necessary temporary reassignments to primary response units.

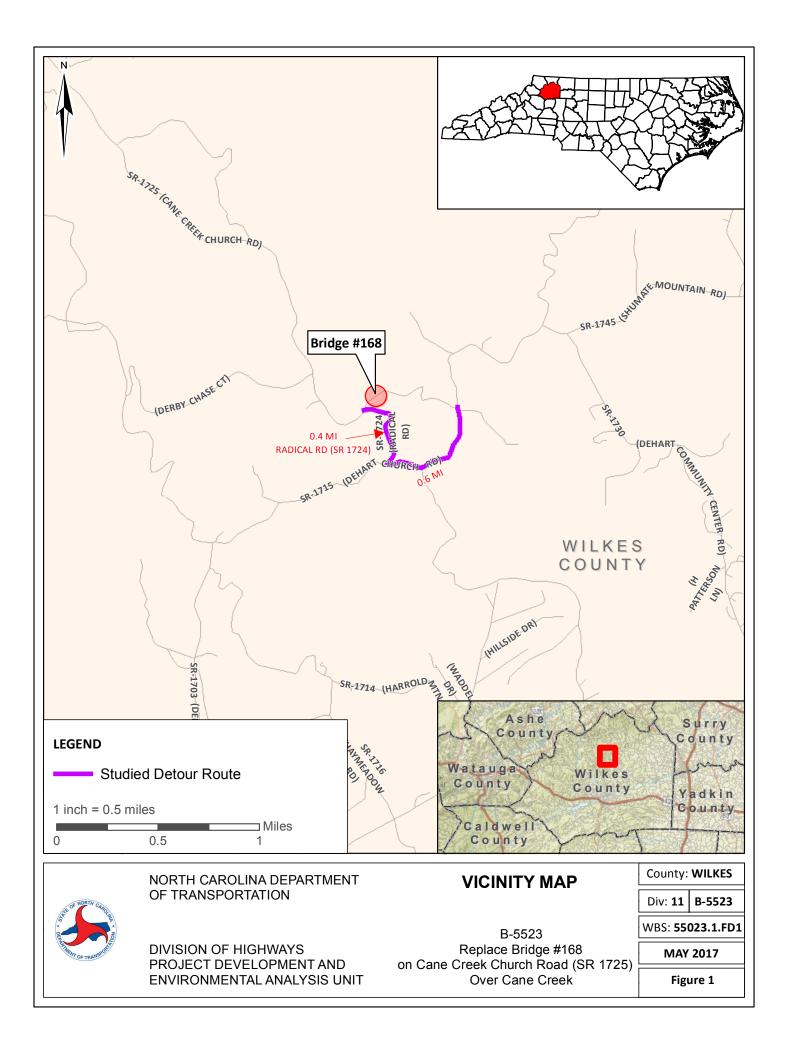
This project involves construction activities on or adjacent to FEMA-regulated stream(s). Therefore, the Division shall submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction, certifying that the drainage structure(s) and roadway embankment that are located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

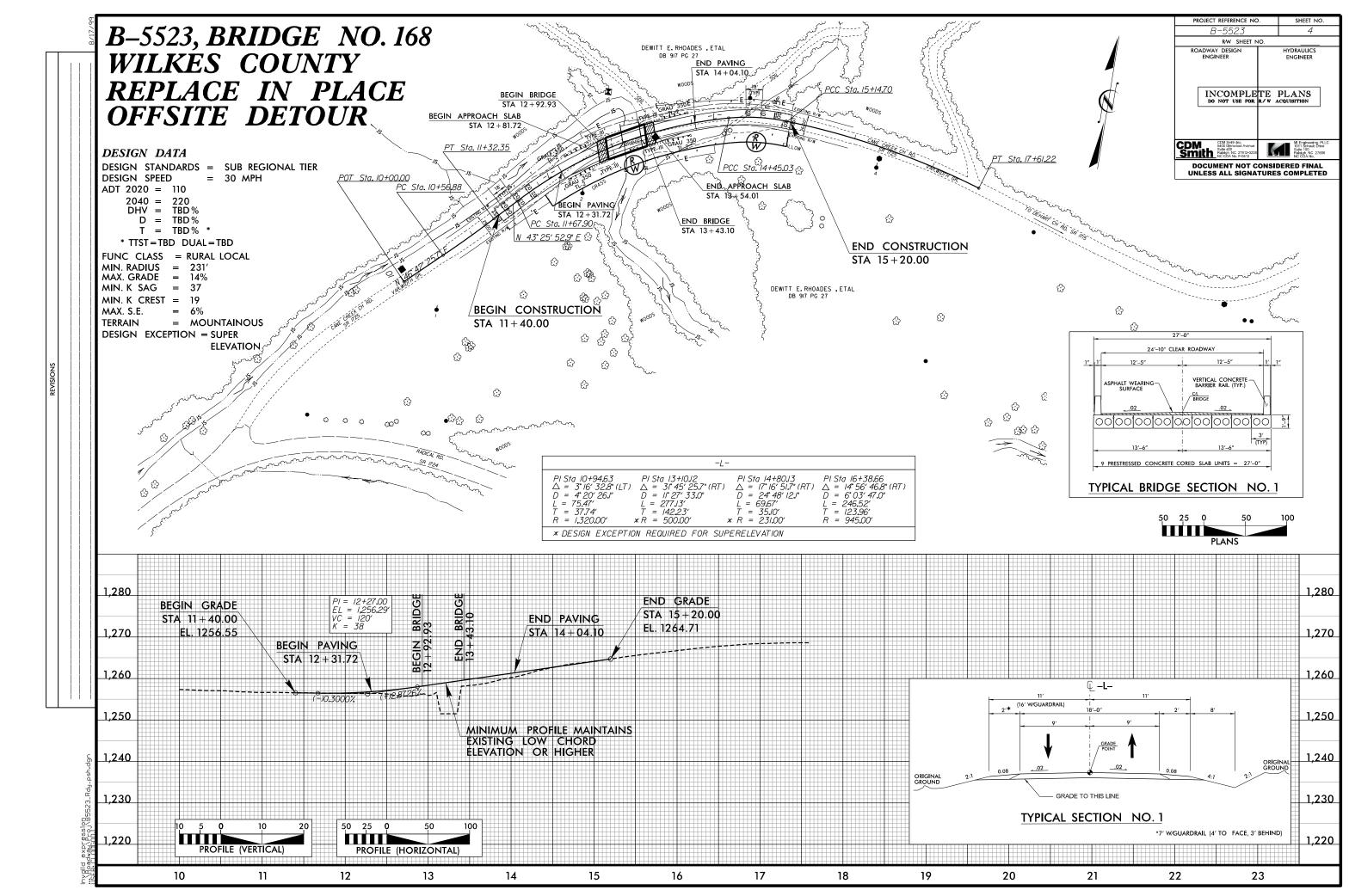
Hydraulics Unit

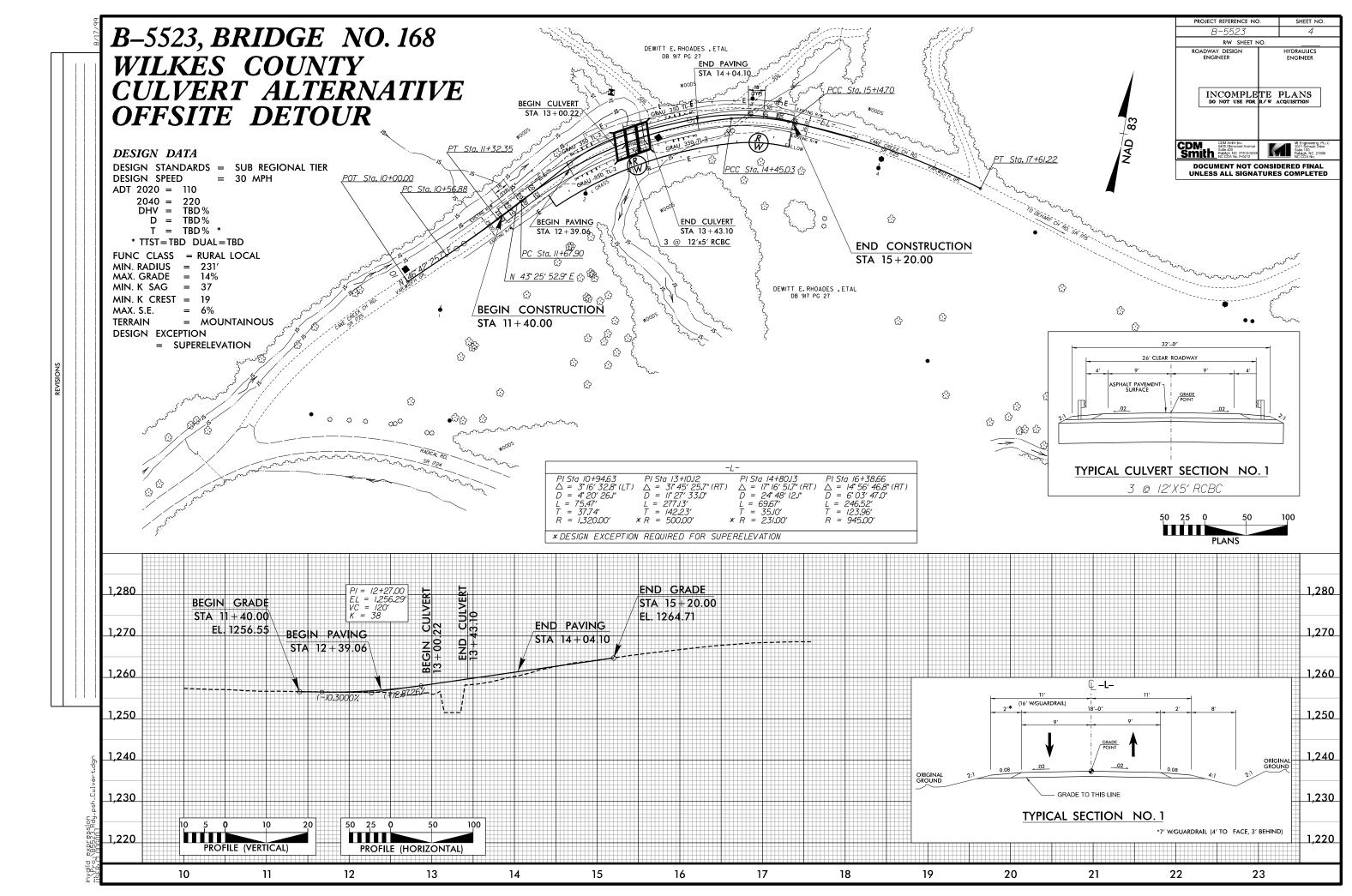
The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP), to determine status of project with regard to applicability of NCDOT'S Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

Environmental Analysis Unit

Construction activities for this project will not take place until Endangered Species Act Section 7 compliance is satisfied for the Northern long-eared bat (NLEB). The NCDOT Environmental Analysis Unit will be responsible for review of the NLEB and subsequent Biological Conclusion









F	U.S. Departme	5		ATING				
PART I (To be completed by Federal Agency)		Date Of Land Evaluation Request						
Name of Project		Federal Agency Involved						
Proposed Land Use			and State					
PART II (To be completed by NRCS)		Date R NRCS	Date Request Received By		Person Completing Form:		m:	
Does the site contain Prime, Unique, Statew (If no, the FPPA does not apply - do not con	•	?	YES NO			rrigated Average Fa		
Major Crop(s)	Farmable Land In Govt.	Farmable Land In Govt. Jurisdiction Amount of Farmland As Define			L Defined in FP	fined in FPPA		
Name of Land Evaluation System Used	Name of State or Local S	Site Asse	ssment System	Date Land Evaluation Returned by NRCS				
PART III (To be completed by Federal Age	ncy)			Site A	Alternative Site B	Site Rating	Site D	
A. Total Acres To Be Converted Directly				Site A	Site B	Site C	Site D	
B. Total Acres To Be Converted Indirectly								
C. Total Acres In Site								
PART IV (To be completed by NRCS) Lan	d Evaluation Information							
A. Total Acres Prime And Unique Farmland								
B. Total Acres Statewide Important or Local	Important Farmland							
C. Percentage Of Farmland in County Or Lo	ocal Govt. Unit To Be Converted							
D. Percentage Of Farmland in Govt. Jurisdi	ction With Same Or Higher Relati	ive Value	;					
PART V (To be completed by NRCS) Land Relative Value of Farmland To Be C		s)						
PART VI (To be completed by Federal Age (Criteria are explained in 7 CFR 658.5 b. For		CPA-106	(15) Maximum	Site A	Site B	Site C	Site D	
1. Area In Non-urban Use			(13)					
2. Perimeter In Non-urban Use			(10)					
3. Percent Of Site Being Farmed	O au carra ma ca t		(20)					
4. Protection Provided By State and Local	Government		(15)					
5. Distance From Urban Built-up Area			(15)					
6. Distance To Urban Support Services 7. Size Of Present Farm Unit Compared To			(10)					
8. Creation Of Non-farmable Farmland	Average		(10)					
9. Availability Of Farm Support Services			(5)					
10. On-Farm Investments			(20)					
11. Effects Of Conversion On Farm Suppor	t Services		(10)					
12. Compatibility With Existing Agricultural			(10)					
TOTAL SITE ASSESSMENT POINTS			160					
PART VII (To be completed by Federal A	(gency)							
Relative Value Of Farmland (From Part V)			100					
Total Site Assessment (From Part VI above or local site assessment)			160					
TOTAL POINTS (Total of above 2 lines)		260						
Site Selected:	Date Of Selection				Local Site Assessment Used? YESNO			
Reason For Selection:				l				

STEPS IN THE PROCESSING THE FARMLAND AND CONVERSION IMPACT RATING FORM

- Step 1 Federal agencies (or Federally funded projects) involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural uses, will initially complete Parts I and III of the form. For Corridor type projects, the Federal agency shall use form NRCS-CPA-106 in place of form AD-1006. The Land Evaluation and Site Assessment (LESA) process may also be accessed by visiting the FPPA website, http://fppa.nrcs.usda.gov/lesa/.
- Step 2 Originator (Federal Agency) will send one original copy of the form together with appropriate scaled maps indicating location(s) of project site(s), to the Natural Resources Conservation Service (NRCS) local Field Office or USDA Service Center and retain a copy for their files. (NRCS has offices in most counties in the U.S. The USDA Office Information Locator may be found at http://offices.usda.gov/scripts/ndISAPI.dll/oip_public/USA_map, or the offices can usually be found in the Phone Book under U.S. Government, Department of Agriculture. A list of field offices is available from the NRCS State Conservationist and State Office in each State.)
- Step 3 NRCS will, within 10 working days after receipt of the completed form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland. (When a site visit or land evaluation system design is needed, NRCS will respond within 30 working days.
- Step 4 For sites where farmland covered by the FPPA will be converted by the proposed project, NRCS will complete Parts II, IV and V of the form.
- Step 5 NRCS will return the original copy of the form to the Federal agency involved in the project, and retain a file copy for NRCS records.
- Step 6 The Federal agency involved in the proposed project will complete Parts VI and VII of the form and return the form with the final selected site to the servicing NRCS office.
- Step 7 The Federal agency providing financial or technical assistance to the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA.

INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM (For Federal Agency)

Part I: When completing the "County and State" questions, list all the local governments that are responsible for local land use controls where site(s) are to be evaluated.

Part III: When completing item B (Total Acres To Be Converted Indirectly), include the following:

- 1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them or other major change in the ability to use the land for agriculture.
- 2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities planned build out capacity) that will cause a direct conversion.
- Part VI: Do not complete Part VI using the standard format if a State or Local site assessment is used. With local and NRCS assistance, use the local Land Evaluation and Site Assessment (LESA).
- 1. Assign the maximum points for each site assessment criterion as shown in § 658.5(b) of CFR. In cases of corridor-type project such as transportation, power line and flood control, criteria #5 and #6 will not apply and will, be weighted zero, however, criterion #8 will be weighed a maximum of 25 points and criterion #11 a maximum of 25 points.
- 2. Federal agencies may assign relative weights among the 12 site assessment criteria other than those shown on the FPPA rule after submitting individual agency FPPA policy for review and comment to NRCS. In all cases where other weights are assigned, relative adjustments must be made to maintain the maximum total points at 160. For project sites where the total points equal or exceed 160, consider alternative actions, as appropriate, that could reduce adverse impacts (e.g. Alternative Sites, Modifications or Mitigation).

Part VII: In computing the "Total Site Assessment Points" where a State or local site assessment is used and the total maximum number of points is other than 160, convert the site assessment points to a base of 160. Example: if the Site Assessment maximum is 200 points, and the alternative Site "A" is rated 180 points:

 $\frac{\text{Total points assigned Site A}}{\text{Maximum points possible}} = \frac{180}{200} \times 160 = 144 \text{ points for Site A}$

For assistance in completing this form or FPPA process, contact the local NRCS Field Office or USDA Service Center.

NRCS employees, consult the FPPA Manual and/or policy for additional instructions to complete the AD-1006 form.