Type I and II Ground Disturbing Categorical Exclusion Action Classification Form

STIP Project No.	**B-5989**
WBS Element	**47845.1.1**
Federal Project No.	**BRZ-1395(007)**

A. Project Description:

NCDOT Project B-5989 proposes to replace Bridge No. 560071 on Walnut Creek Road (S.R.1395) over Big Laurel Creek, adjacent to the T-intersection of Walnut Creek Road and Big Laurel Road (S.R.1318) in Madison County, North Carolina (Figures 1 and 2). The project will remove the existing bridge and replace it with a new bridge in its existing location. In addition, wide outside paved shoulders are proposed along both sides of the bridge (Figure 3).

Based on a preliminary design, the replacement structure will be approximately 130 feet long providing a 30-foot clear deck width. The bridge will include two, 10-foot vehicular lanes, a 6-foot shoulder on the west side and a 4-foot shoulder on the east side. The bridge length is based on preliminary design information and is set by hydraulic requirements. The roadway grade of the new structure will be raised by one to two feet in order to provide a design that meets the project speed limit. The new grade works in conjunction with designing the sag vertical curves on both approaches that are located off of the bridge structure to ensure drainage does not pond on the bridge. The new structure provides a deeper, 2-span concrete girder structure to replace an existing 3-span steel girder structure.

Project construction will extend approximately 400 feet from the south end of the new bridge along Walnut Creek Road, approximately 270 feet from the north end of the new bridge along Big Laurel Road toward Lewis Branch Road, and approximately 200 feet from the north end of the new bridge on Big Laurel Road toward Buckner Branch Road. The approaches will be widened to provide two, 10-foot vehicular lanes and 3-foot shoulders on both sides (seven-foot shoulders where guardrail is included). The roadway will be designed as a Minor Collector using Sub-Regional Tier Guidelines with a 40 mile per hour design speed. An approximately 140-foot long retaining wall is proposed along the east side of Big Laurel Road, beginning at the northern edge of the new bridge, in order to avoid impacts to Big Laurel Baptist Church's shelter and baptismal pool as much as possible (Figure 3).

The replacement bridge will be constructed using a temporary detour bridge located west (downstream) of the existing bridge. Traffic will utilize this temporary, alternating, single lane, on-site detour bridge with signal control during the construction period.

B. Description of Need and Purpose:

The purpose of the proposed project is to replace a structurally deficient bridge. NCDOT Structures Management Unit records indicate Bridge No. 560071 currently has a sufficiency rating of 33.84 out of a possible 100 for a new structure. The bridge is considered

structurally deficient due to a substructure condition appraisal of 4 out of 9 according to Federal Highway Administration standards.

C. Categorical Exclusion Action Classification: (Check one)

☒ TYPE I A

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:

Estimated Traffic:

Current Year (2015)	700 vehicles per day (vpd)
Future Year (2040)	900 vpd
Tractor-Trailer Semi-truck (TTST)	1%
Dual Axle Trucks (Dual)	2%

Alternatives Evaluation:

Replace Bridge No. 560071 In-Place with a New Bridge using an On-site Detour (Recommended) – A temporary, single lane detour bridge with signal control will be constructed downstream (west of the existing bridge) to provide an on-site detour during the construction period. The new bridge will be constructed on existing alignment.

No Build – The no build alternative would result in eventually closing the road, which is unacceptable given the volume of traffic served by Walnut Creek Road.

Rehabilitation – The bridge was constructed in 1965 and is reaching the end of its useful life. Rehabilitation would only provide a temporary solution to the structural deficiency of the bridge.

Offsite Detour - An off-site detour was not evaluated due to the length (21 miles) of the closest available off-site detour.

Pedestrian and Bicycle Accommodations:

Although no bicycle route markers or facilities were observed within the project area, the *Madison County Comprehensive Transportation Plan* (2012) lists Big Laurel Road in their inventory of existing on-road bicycle facilities and the Land of Sky RPO *Blue Ridge Bike Plan* (2013) lists this corridor as an “Other Bicycle Corridor.” No pedestrian facilities are present within the project area.

The new bridge will accommodate cyclists on paved shoulders and shall be in compliance with the NCDOT Complete Streets Policy, as adopted August 30, 2019. The design includes two 10-foot lanes with a 4-foot paved shoulder on the east side and a 6-foot paved shoulder on the west side. Bicycle-safe, 42-inch vertical concrete barrier rails will also be included.

Natural Resources:
Three potential jurisdictional streams (Big Laurel Creek, a perennial tributary [Stream SA], and an intermittent tributary [Stream SC]) may be impacted by the project based on preliminary design (using slope stake limits plus 25 feet) (Figure 2). The proposed bridge replacement will potentially impact approximately 87 linear feet of Big Laurel Creek, as well as approximately 46 linear feet of Stream SA and 66 linear feet of Stream SC. No wetland impacts are anticipated. A Nationwide Permit (NWP) will likely be applicable for the project. The USACE holds the final discretion as to what permit may be required to authorize project construction. If a Section 404 permit is required, then a Section 401 Water Quality Certification (WQC) from the NCDWR will also be needed. Final impact determinations will be made during the permitting phase of the project.

Tribal Territory:
A start of study letter was sent to the EBCI Tribal Historic Preservation Office on August 8, 2018, providing information about the project and requesting comments. A project notification and request for comment was mailed to the Catawba Indian Nation on October 3, 2019 and was emailed to the United Keetoowah Band of Cherokee Indians and Cherokee Nation by NCDOT SMU staff on October 21, 2019. Catawba Indian Nation and Cherokee Nation responded that they have no immediate concerns, but that they should be notified if Native American artifacts and/or human remains are located during the ground disturbing phase of the project. No comments have been received to date from EBCI or United Keetoowah Band of Cherokee Indian Nation.

Estimated Costs:
The proposed project is included in the NCDOT State Bridge Program. Right of way acquisition and construction are scheduled for Fiscal Year (FY) 2020 and FY 2021, respectively. Current cost estimates, based on 2019 prices, are as follows:

Right of Way:	$	12,704
Utilities:	$	17,520
Construction	$	2,550,000
Total:	$	2,580,224

Design Exceptions: None

Public Involvement:
A landowner letter was sent to all property owners affected directly by this project. Property owners were invited to comment. No comments have been received to date. Additionally, a small group meeting was held with Big Laurel Baptist Church on June 4, 2019. This meeting was attended by Big Laurel Baptist Church staff, NCDOT's consultant project team members from Summit and Three Oaks Engineering, and NCDOT Division 13 staff. The purpose of this meeting was to review the project designs and schedule with the church and discuss project impacts to the church's property and operations. The meeting participants agreed that NCDOT Division 13 staff will coordinate with Big Laurel Baptist Church and the project's contractor prior to construction, in order to address public access restrictions to the church's property and parking lot (possibly using moveable barriers) due to the proposed location of the temporary signals. A summary of the meeting's content can be found in the Appendix.

F. Project Impact Criteria Checklists:

Type I & II - Ground Disturbing Actions			
FHWA APPROVAL ACTIVITIES THRESHOLD CRITERIA			
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)?	☐	☒
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)?	☐	☒
If any of questions 8 through 31 are marked “yes” then additional information will be required for those questions in Section G.			
Other Considerations		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)?	☒	☐
9	Is the project located in anadromous fish spawning waters?	☐	☒
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)?	☒	☐
11	Does the project impact waters of the United States in any of the designated mountain trout streams?	☒	☐
12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit?	☐	☒
13	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility?	☐	☒
14	Does the project include a Section 106 of the NHPA effects determination other than a no effect, including archaeological remains?	☐	☒

Other Considerations (continued)		Yes	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?	☒	☐
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)?	☐	☒
18	Does the project require a U.S. Coast Guard (USCG) permit?	☐	☒
19	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River present within the project area?	☐	☒
20	Does the project involve Coastal Barrier Resources Act (CBRA) resources?	☐	☒
21	Does the project impact federal lands (e.g. U.S. Forest Service (USFS), USFWS, etc.) or Tribal Lands?	☐	☒
22	Does the project involve any changes in access control?	☐	☒
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness?	☐	☒
24	Will maintenance of traffic cause substantial disruption?	☐	☒
25	Is the project inconsistent with the STIP or the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP) (where applicable)?	☐	☒
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?	☐	☒
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)?	☐	☒
28	Does the project include a *de minimis* or programmatic Section 4(f)?	☐	☒
29	Is the project considered a Type I under the NCDOT's Noise Policy?	☐	☒
30	Is there prime or important farmland soil impacted by this project as defined by the Farmland Protection Policy Act (FPPA)?	☐	☒
31	Are there other issues that arose during the project development process that affected the project decision?	☐	☒

G. Additional Documentation as Required from Section F

Response to Question 8 – Biological Conclusions Unresolved:
The project to replace Bridge No. 560071 has been reviewed by NCDOT Biological Surveys Group for effects on the northern long-eared bat (NLEB) and gray bat (MYGR).

As of May 4, 2015, NLEB is listed by the U.S. Fish and Wildlife Service (USFWS) as "Threatened" under the Endangered Species Act of 1973. As of December 12, 2018, NLEB is

listed by USFWS as “current” in Madison County. According to the North Carolina Natural Heritage Program (NHP) Biotics Database, most recently updated October 2018, the nearest NLEB hibernacula record is 17 miles east of the project (EO ID 34327) and no known NLEB roost trees occur within 150 feet of the project area. EO 34327 represents Cooper’s Site with an observation in 1992 and 2014. NCDOT has also reviewed the USFWS Asheville Field office website for consistency with NHP records. This project is located entirely outside of the red highlighted areas (12-digit HUC) that the USFWS Asheville Field Office has determined to be representative of an area that may require consultation. The closest 12 digit (060101080303) red HUC is approximately 17 miles away (Upper Cane River). NCDOT has determined that the proposed action does not require separate consultation on the grounds that the proposed action is consistent with the final Section 4(d) rule, codified at 50 C.F.R. § 17.40(o) and effective February 16, 2016. NCDOT may presume its determination is informed by best available information and consider Section 7 responsibilities fulfilled for NLEB.

The MYGR is listed by USFWS as “Endangered” under the Endangered Species Act of 1973, with known “current” occurrences in Madison County. NHP data indicate that the closest known occurrence of MYGR is approximately 7 miles south of the project site (EO ID 36755). EO 36755 represents an observation over the Hayes Run site (2017).

On June 12, 2018, NCDOT biologists assessed Bridge No. 560071 for potential northern long-eared bat and/or gray bat habitat. Shallow vertical top sealed crevices suitable for roosting were present on the structure. No caves or mines are located within the project footprint. No evidence (bats, staining, and guano) of bats was observed. However, a biological conclusion has not been reached and the determinations remain Unresolved. Final design, tree clearing and percussive activities information will be provided in the permit application, as noted in the project commitments.

Response to Question 10:
Big Laurel Creek and its tributaries within the project area are classified as an Outstanding Resource Water (ORW). In accordance with 401 Water Quality Certification general conditions, the NCDOT commits to implementing Design Standards in Sensitive Watersheds.

Table 3. Potential streams in the study area

Stream Name	Map ID	NCDWR Index Number	Best Usage Classification	Bank Height (ft)	Bankfull width (ft)	Depth (in)
Big Laurel Creek	Big Laurel Creek	6-112	C; Tr; ORW	4-6	50-70	0-36
UT to Big Laurel Creek	SA	6-112	C; Tr; ORW	3-4	4-6	0-6
UT to Big Laurel Creek	SB	6-112	C; Tr; ORW	1-3	3-6	0-6
UT to Big Laurel Creek	SC	6-112	C; Tr; ORW	1-2	3-4	0-6

Response to Question 11 – Construction Moratoria:
NCDWR identifies Big Laurel Creek as a trout water, and the North Carolina Wildlife Resources Commission (NCWRC) identifies Big Laurel Creek as a hatchery supported trout water. Therefore, an in-stream moratorium and required design practices are anticipated for this project.

Response to Question 16 - Floodplain:

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.

The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP) to determine status of the 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).

H. Project Commitments

Madison County
Replace Bridge No. 560071 on Walnut
Creek Road (S.R.1395) over Big Laurel Creek
Federal Project No. BRZ-1395(007)
WBS No. 47845.1.1
TIP No. B-5989

FEMA Floodplains and Floodways (Division 13 Construction, NCDOT SMU)

- 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.

Floodplain Mapping Coordination (NCDOT Hydraulic Design 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).

Outstanding Resource Water (NCDOT Division 13, Roadside Environmental Unit)

- Big Laurel Creek is located in a watershed designated as Outstanding Resource Waters (ORW). The NCDOT will implement Design Standards in Sensitive Watersheds.

Construction Moratoria (NCDOT Division 13 Construction)

- The North Carolina Wildlife Resources Commission (NCWRC) identifies Big Laurel Creek as hatchery supported trout waters and has requested a moratorium prohibiting in-stream work and land disturbance within the 25-foot trout buffer from January 1 to April 15.

Northern long-eared bat and Gray bat (NCDOT Division 13)

- Final design, tree clearing, and percussive activities information will be provided in the permit application, as noted in the project commitments.
- After completion of the project, the contract administrator for construction must submit the actual amount of tree clearing reported in tenths of acres. This information should be submitted to Chris Manley in the EAU Biological Surveys Group (cdmanley@ncdot.gov).

Big Laurel Baptist Church (NCDOT Division 13)

- Due to the location of the temporary signals to be used, NCDOT Division 13 staff will, prior to construction, coordinate with Big Laurel Baptist Church and the project's contractor regarding general public access restrictions (in the form of moveable barriers) to the church's property and parking lot.

I. Categorical Exclusion Approval

STIP Project No.	**B-5989**
WBS Element	**47845.1.1**
Federal Project No.	**BRZ-1395(007)**

Prepared By:

12/10/2019
Date

DocuSigned by:
0D0E2EDF27CD431...
Robby Bessette, Transportation Planner
Three Oaks Engineering

Prepared For: Structures Management Unit
North Carolina Department of Transportation

Reviewed By:

12/11/2019
Date

DocuSigned by:
Philip S. Harris, III
9C1643F6874A457...
Philip S. Harris, III, PE
Environmental Analysis Unit Head
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.

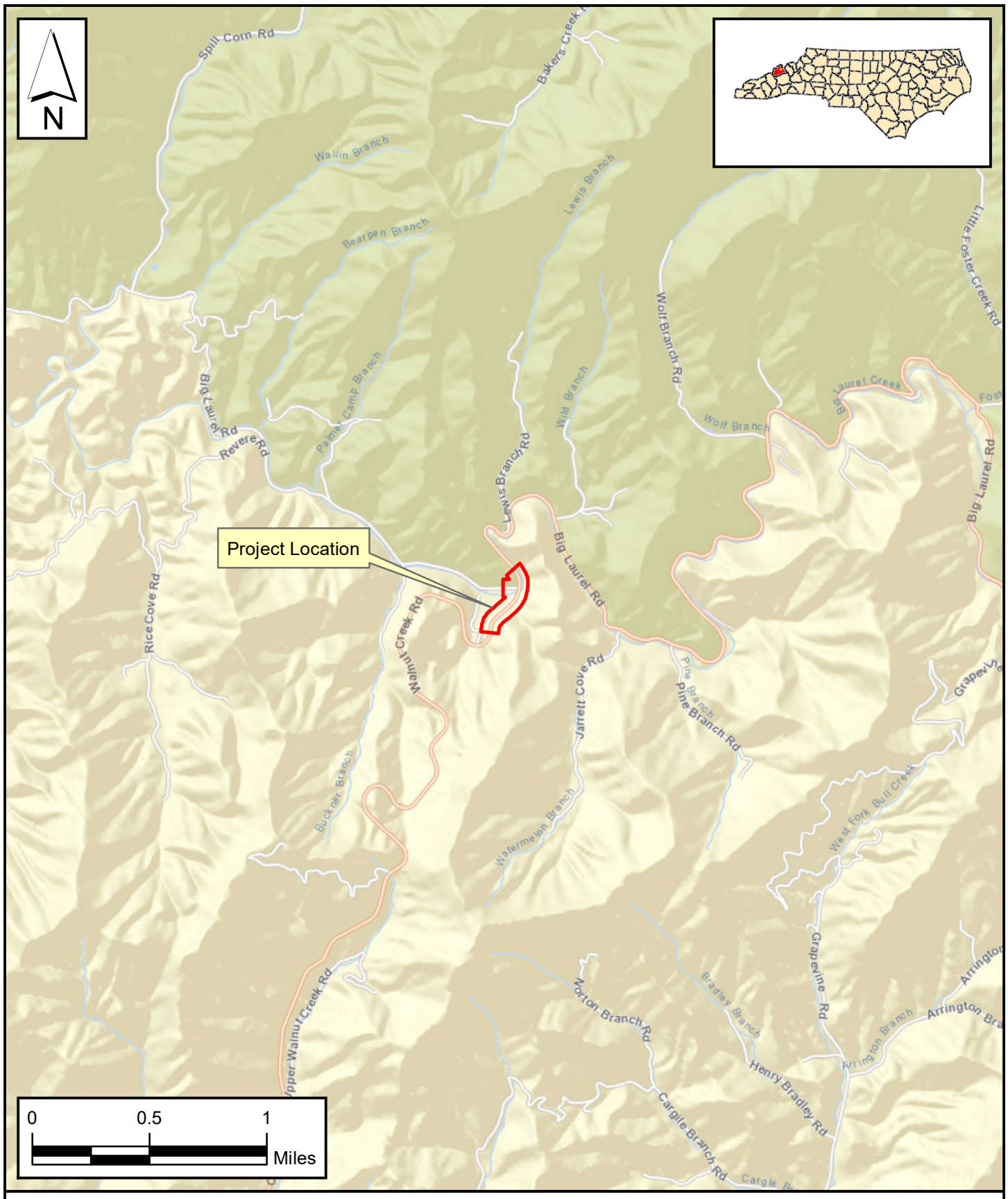
12/11/2019
Date

DocuSigned by:
Kevin Fischer
ED19A18D98EC496...
Kevin Fischer, PE, Assistant State Structures Engineer
Structures Management 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



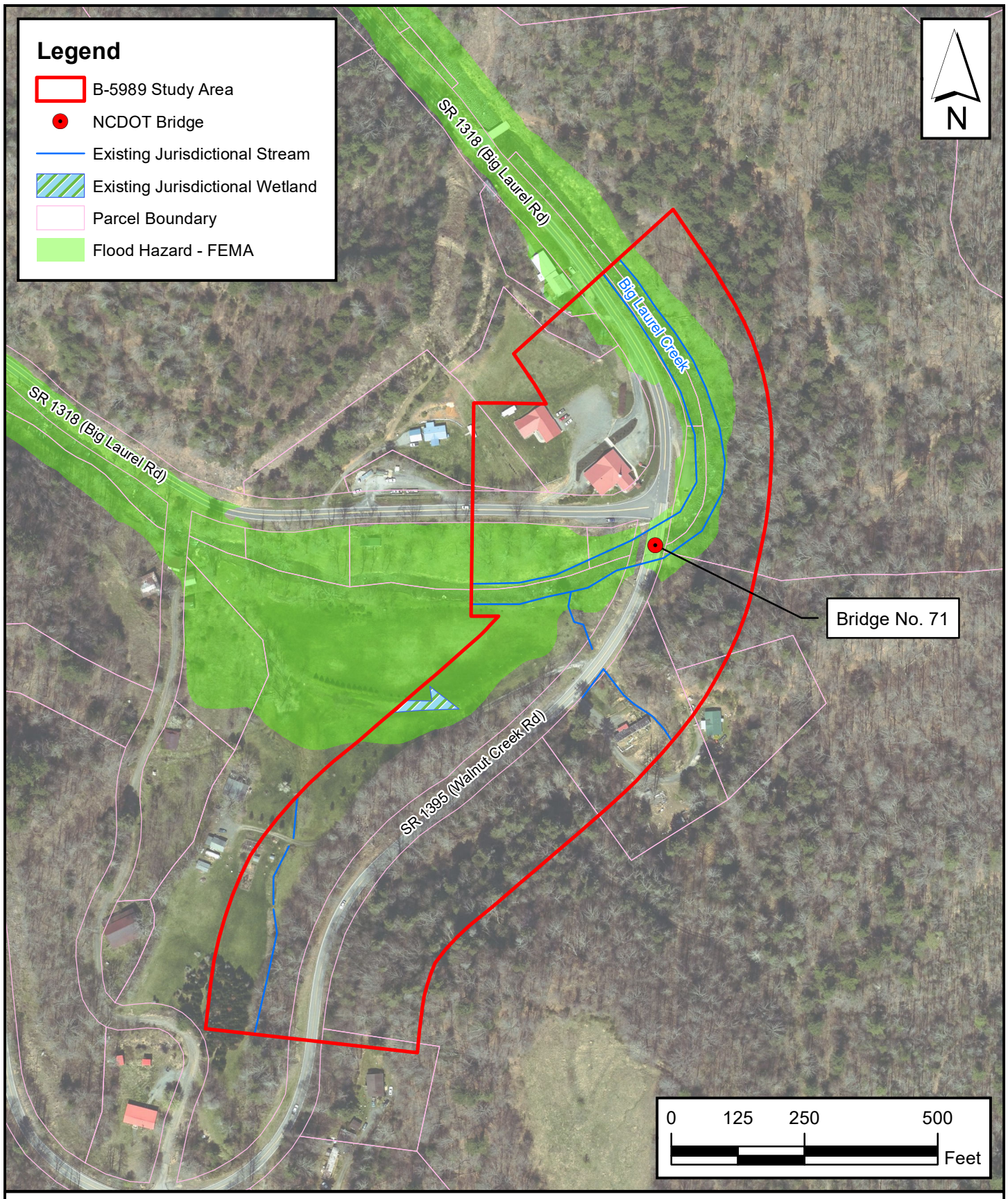
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

VICINITY MAP
REPLACE BRIDGE 71
ON SR 1395 (WALNUT CREEK RD)
OVER BIG LAUREL CREEK

MADISON COUNTY
NORTH CAROLINA

County:	MADISON
Div: 13	STIP# B-5989
WBS:	47845.1.1
Date:	NOVEMBER 2019

Figure 1



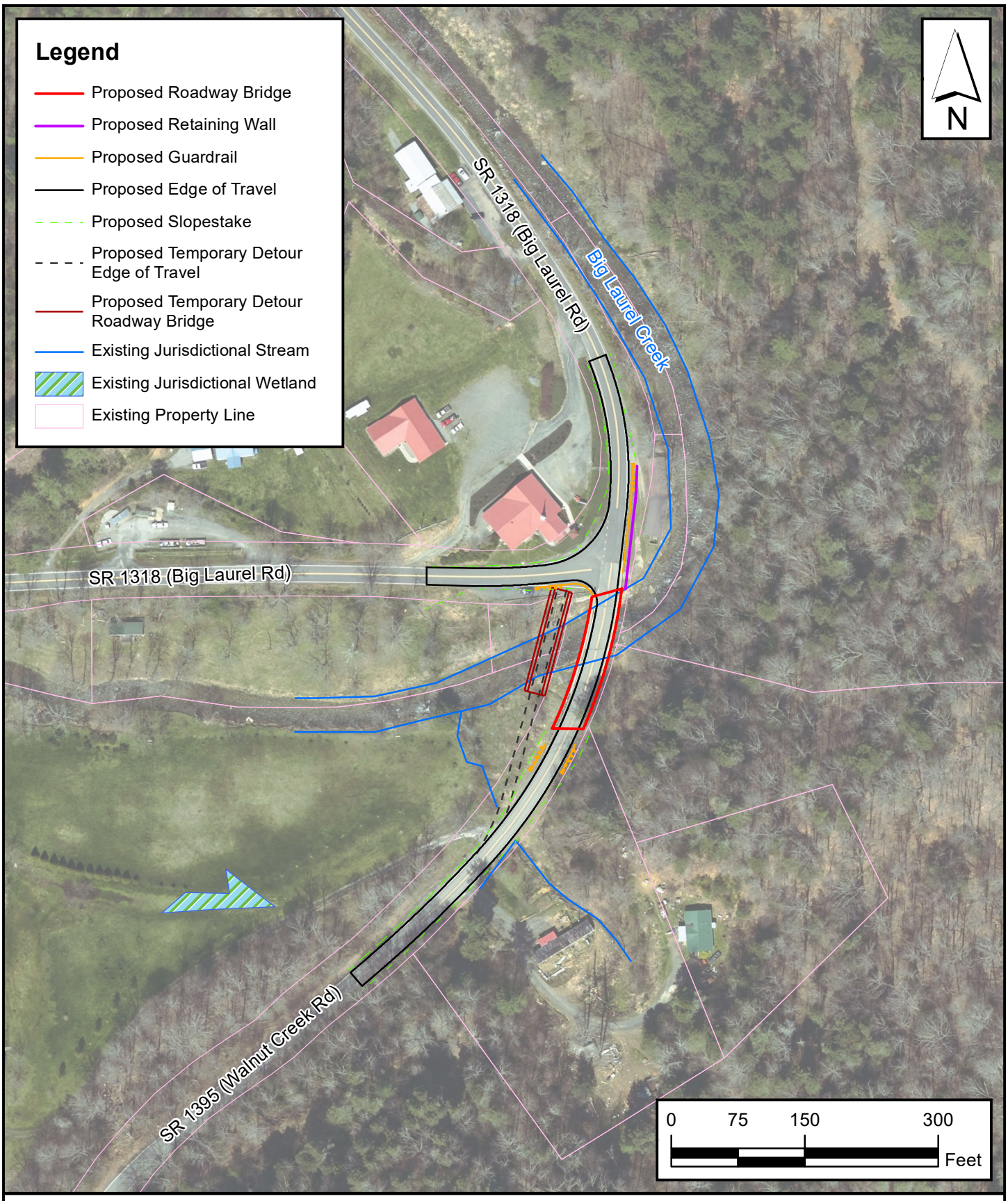
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

ENVIRONMENTAL FEATURES MAP
REPLACE BRIDGE 71
ON SR 1395 (WALNUT CREEK RD)
OVER BIG LAUREL CREEK

MADISON COUNTY
NORTH CAROLINA

County:	MADISON
Div: 13	STIP# B-5989
WBS:	47845.1.1
Date:	NOVEMBER 2019

Figure 2



NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT DESIGN MAP
REPLACE BRIDGE 71
ON SR 1395 (WALNUT CREEK RD)
OVER BIG LAUREL CREEK

MADISON COUNTY
NORTH CAROLINA

County:	MADISON
Div: 13	STIP# B-5989
WBS:	47845.1.1
Date:	NOVEMBER 2019

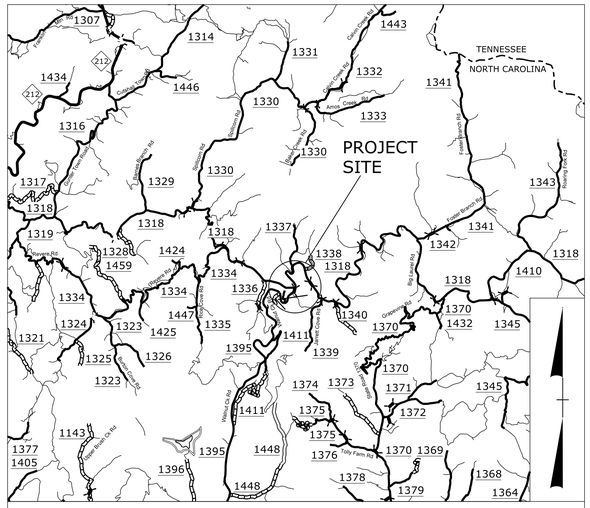
Figure 3

09/08/99

TIP PROJECT: B–5989

CONTRACT:

See Sheet 1A For Index of Sheets
See Sheet 1B For Conventional Symbols
See Sheet 1C-1 For Survey Control Sheet



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

MADISON COUNTY

LOCATION: BRIDGE NO. 71 ON SR 1395 (WALNUT CREEK RD) OVER BIG LAUREL CREEK

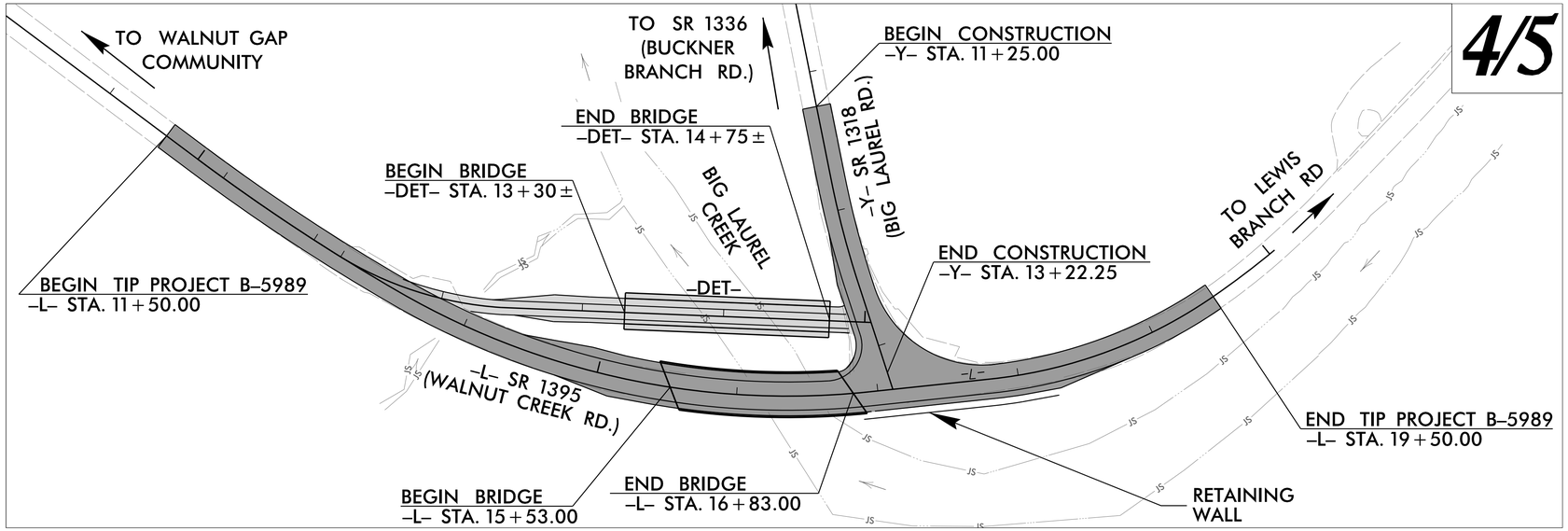
TYPE OF WORK: GRADING, DRAINAGE, PAVING, RETAINING WALL AND STRUCTURE.

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B–5989	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
47845.1.1	N/A	PE
47845.2.1	BRZ–1395(007)	ROW&UTIL

65% (CFI) PLANS

NAD 83 NC GRID NA 2011



INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD__.

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2015 = 700
ADT 2040 = 900
K = 10 %
D = 60 %
T = 3 % *
V = 40 MPH
* TTST =1% DUAL 2%

FUNC CLASS =
MINOR COLLECTOR
SUB REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY PROJECT = 0.122 MILES

LENGTH STRUCTURES PROJECT = 0.030 MILES

TOTAL LENGTH PROJECT = 0.152 MILES

NCDOT CONTACT: DAVID STUTTS, PE
PROJECT MANAGER

Prepared in the Office of:
SUMMIT
DESIGN AND ENGINEERING SERVICES
FIRM NO. P-0339
504 Meadowland Drive
Hillsborough, NC 27278-8551
Voice: (919) 732-3883
Fax: (919) 732-6776
www.summit-engineer.com

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: MARCH 20, 2020

LETTING DATE: MARCH 16, 2021

JAMES A. SPEER, PE
PROJECT ENGINEER

BRANDON W. JOHNSON, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: *P.E.*

ROADWAY DESIGN ENGINEER

SIGNATURE: *P.E.*

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

30-OCT-2019 14:02
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sarah.oukiff

8/17/99

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
B-5989	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

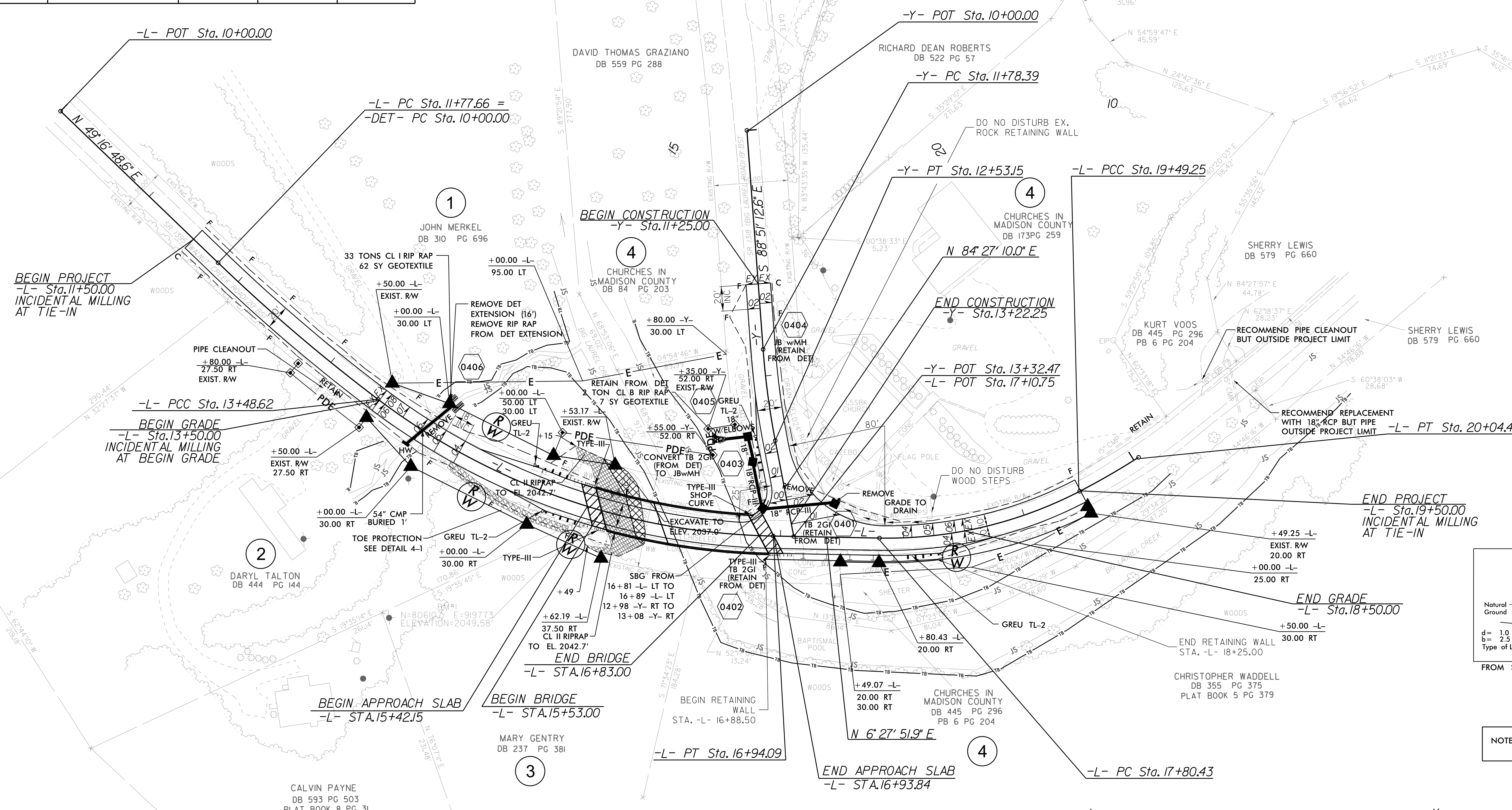
Prepared in the Office of: SUMMIT DESIGN AND ENGINEERING SERVICES
NC FIRM LICENSE No: P-0339
504 Meadowlands Drive
Hillsborough, NC 27278
(919) 732-3883
(919) 732-6676 (FAX)

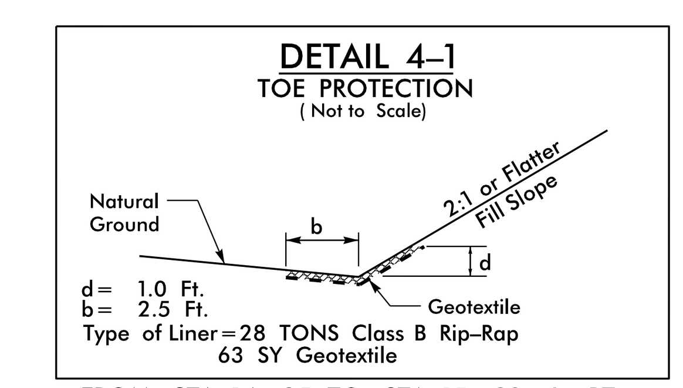
SEE SHEET 6 FOR -L- AND -Y- PROFILES

PARCEL INDEX

PARCEL NO.	OWNER	TYPE	AREA (SF)	AREA (AC)
1	JOHN MERKEL DB 310 PG 696	ROW	2515.96	0.058
1	JOHN MERKEL DB 310 PG 696	TCE	7000.50	0.161
1	JOHN MERKEL DB 310 PG 696	PDE	1782.86	0.041
2	DARYL TALTON DB 444 PG 144	ROW	1792.87	0.041
2	DARYL TALTON DB 444 PG 144	PDE	711.13	0.016
3	MARY GENTRY DB 237 PG 381	ROW	672.63	0.015
4	CHURCHES IN MADISON CO. DB 84 PG 203	ROW	1280.32	0.029
4	CHURCHES IN MADISON CO. DB 84 PG 203	TCE	6399.52	0.147
4	CHURCHES IN MADISON CO. DB 84 PG 203	PDE	2135.33	0.049

NOTE: DITCHES WERE NOT ADDED ON THE LT SIDE OF -Y- AND -L- TO AVOID IMPACTING ROCK WALL


NC GRID NAD 83 NA 2011
RICHARD DEAN ROBERTS
DB 623 PG 476
PLAT BOOK 7 PG 258
-L- POT Sta. 10+00.00
-Y- POT Sta. 10+00.00
RICHARD DEAN ROBERTS
DB 522 PG 57
DAVID THOMAS GRAZIANO
DB 559 PG 288
-Y- PC Sta. 11+78.39
-L- PC Sta. 11+77.66 =
-DET- PC Sta. 10+00.00
N 49° 16' 48.6" E
DO NO DISTURB EX. ROCK RETAINING WALL
-Y- PT Sta. 12+53.15
-L- PCC Sta. 19+49.25
BEGIN CONSTRUCTION
-Y- Sta. 11+25.00
JOHN MERKEL
DB 310 PG 696
CHURCHES IN MADISON COUNTY
DB 173PG 259
SHERRY LEWIS
DB 579 PG 660
N 84° 27' 10.0" E
BEGIN PROJECT
-L- Sta. 11+50.00
INCIDENTAL MILLING AT TIE-IN
33 TONS CL I RIP RAP
62 SY GEOTEXTILE
CHURCHES IN MADISON COUNTY
DB 84 PG 203
END CONSTRUCTION
-Y- Sta. 13+22.25
REMOVE DET EXTENSION (16')
REMOVE RIP RAP FROM DET EXTENSION
KURT VOOS
DB 445 PG 296
PB 6 PG 204
RECOMMEND PIPE CLEANOUT BUT OUTSIDE PROJECT LIMIT
SHERRY LEWIS
DB 579 PG 660
PIPE CLEANOUT
RETAIN FROM DET
2 TON CL B RIP RAP
7 SY GEOTEXTILE
-Y- POT Sta. 13+32.47
-L- POT Sta. 17+10.75
-L- PCC Sta. 13+48.62
RECOMMEND REPLACEMENT WITH 18" RCP BUT PIPE OUTSIDE PROJECT LIMIT
-L- PT Sta. 20+04.48
BEGIN GRADE
-L- Sta. 13+50.00
INCIDENTAL MILLING AT BEGIN GRADE
CONVERT TB 2GI (FROM DET) TO JBwMH
DO NOT DISTURB WOOD STEPS
REMOVE
GRADE TO DRAIN
END PROJECT
-L- Sta. 19+50.00
INCIDENTAL MILLING AT TIE-IN
CL II RIPRAP TO EL 2042.7'
EXCAVATE TO ELEV. 2037.0'
TOE PROTECTION SEE DETAIL 4-1
DARYL TALTON
DB 444 PG 144
SBG FROM
TYPE-III TB 2GI (RETAIN FROM DET)
END GRADE
-L- Sta. 18+50.00
CL II RIPRAP TO EL 2042.7'
END BRIDGE
-L- STA. 16+83.00
GREU TL-2
END RETAINING WALL
STA. -L- 18+25.00
CHRISTOPHER WADDELL
DB 355 PG 375
PLAT BOOK 5 PG 379
BEGIN RETAINING WALL
STA. -L- 16+88.50
CHURCHES IN MADISON COUNTY
DB 445 PG 296
PB 6 PG 204
BEGIN APPROACH SLAB
-L- STA. 15+42.15
BEGIN BRIDGE
-L- STA. 15+53.00
N 6° 27' 51.9" E
MARY GENTRY
DB 237 PG 381
-L- PT Sta. 16+94.09
END APPROACH SLAB
-L- STA. 16+93.84
-L- PC Sta. 17+80.43
CALVIN PAYNE
DB 593 PG 503
PLAT BOOK 8 PG 31



FROM STA. 14+25 TO STA. 15+32 -L- RT

NOTE: DO NOT DISTURB CHURCH SHELTER AND BAPTISMAL POOL.

NOTE: PIPE REMOVALS ALSO SHOWN ON PSH5

NOTE: ALL PIPES AND STRUCTURE EXCEPT 0403 IN DRAINAGE NETWORK 0401-0404 ARE BEING RETAINED FROM DETOUR CONSTRUCTION. 0403 IS BEING CONVERTED TO JBwMH

-L-

PI Sta 12+63.24	PI Sta 15+27.27	PI Sta 18+66.62	PI Sta 19+76.89
△ = 6° 49' 34.0" (LT)	△ = 35° 59' 22.8" (LT)	△ = 28° 26' 57.0" (LT)	△ = 5° 14' 49.8" (LT)
D = 3° 59' 33.9"	D = 10° 25' 02.7"	D = 16° 51' 06.1"	D = 9° 30' 00.0"
L = 170.96'	L = 345.48'	L = 168.82'	L = 55.23'
T = 85.58'	T = 178.65'	T = 86.19'	T = 27.64'
R = 1,435.00'	R = 550.00'	R = 340.00'	R = 603.11'
SE = EXIST.	SE = 04	SE = EXIST	SE = EXIST.
	RO = 72'	DS = 30mph	
	DS = 40mph		

-Y-

PI Sta 12+15.81
△ = 6° 41' 37.3" (LT)
D = 8° 57' 08.9"
L = 74.77'
T = 37.43'
R = 640.00'
SE = 04
RO = 80'

22-OCT-2019 11:14
B-5989_Rdy_psh_4.dgn

17-12-0069

NO ARCHAEOLOGICAL SURVEY REQUIRED FORM

This form only pertains to ARCHAEOLOGICAL RESOURCES for this project. It is not valid for Historic Architecture and Landscapes. You must consult separately with the Historic Architecture and Landscapes Group.

PROJECT INFORMATION

Project No:	**B-5989**	*County:*	**Madison**
WBS No:	**44593.1.1**	*Document:*	**Federal CE**
F.A. No:		*Funding:*	☒ State ☐ Federal

Federal Permit Required? ☒ Yes ☐ No *Permit Type:* **USACE**

Project Description: Replacement of Bridge No. 71 over Big Laurel Creek on SR 1395 in Madison County, North Carolina. The archaeological Area of Potential Effects (APE) is centered on the bridge structure and measures .50 in length and 500ft in width (250ft from each side of the SR 1395 center-line).

SUMMARY OF CULTURAL RESOURCES REVIEW

Brief description of review activities, results of review, and conclusions:

Permitting and funding information was reviewed for determining the level of archaeological input required by state and federal laws. Based on the submitted "request for cultural resources review" form, the project is federally-funded with federal permit interaction. As such, Section 106 of the National Historic Preservation Act will apply and the Federal Highway Administration (FHwA) will serve as the lead federal agency. Next, construction design and other data was examined (when applicable) to define the character and extent of potential impacts to the ground surfaces embracing the project locale. In this case, the APE was designed to capture any federal permit area or any areas of potential ground disturbing activity.

Once an APE was outlined, a map review and site file search was conducted at the Office of State Archaeology (OSA) on Wednesday, January 24, 2018. No previously documented archaeological sites are located in the APE or directly adjacent.

Examination of National Register of Historic Places (NRHP), State Study Listed (SL), Locally Designated (LD), Determined Eligible (DE), and Surveyed Site (SS) properties employing resources available on the NCSHPO website is crucial in establishing the location of noteworthy historic occupations related to a perspective construction impact area. A cross-check of these mapped resources concluded that no meaningful historic properties with possible contributing archaeological elements were located inward of the archaeological APE margins. In addition, historic maps of Madison County were appraised to identify former structure locations, land use patterns, or other confirmation of historic occupation in the project vicinity. Archaeological/historical reference materials were inspected as well. In general, the cultural background review established that no NRHP listed properties, previously recorded archaeological sites, or cemeteries are located within the APE.

Further, topographic, geologic, flood boundary, and NRCS soil survey maps (ArF, TsD, BnF) were referenced to evaluate pedeological, geomorphological, hydrological, and other environmental determinants that may have resulted in past occupation at this location. Aerial and on-ground photographs (NCDOT Spatial Data Viewer) and the Google Street View map application (when amenable) were also examined/utilized for additional assessment of disturbances, both natural and human induced, which compromise the integrity of archaeological sites. Environmental/impact factors do not suggest a heightened potential for archaeological resource recovery.

17-12-0069

Brief Explanation of why the available information provides a reliable basis for reasonably predicting that there are no unidentified historic properties in the APE:

No documented cultural resources are contained within the current APE limits for the SR 1395/Bridge 71 replacement project in Madison County, North Carolina. The majority of the APE is characterized as sloping with 50 to 95 percent slopes and very bouldery soil. In such contexts, intact NRHP archaeological sites are unlikely to be present or preserved. No further consultation is advocated. A finding of "no archaeological survey required" is considered appropriate.

SUPPORT DOCUMENTATION

See attached: ☒ Map(s) ☒ Previous Survey Info ☐ Photos ☐ Correspondence
☐ Photocopy of County Survey Notes Other:

FINDING BY NCDOT ARCHAEOLOGIST

NO ARCHAEOLOGY SURVEY REQUIRED

Scott Eric Halvorsen 1-30-2018

NCDOT

Project Tracking No. (Internal Use)

17-12-0069

HISTORIC ARCHICTECTURE AND LANDSCAPES NO HISTORIC PROPERTIES PRESENT OR AFFECTED FORM

This form only pertains to Historic Architecture and Landscapes for this project. It is not valid for Archaeological Resources. You must consult separately with the Archaeology Group.

PROJECT INFORMATION

Project No:	B-5989	***County***:	Madison
WBS No.:	44593.1.1	***Document Type:***	CE
Fed. Aid No:		***Funding***:	☐ State ☒ Federal
Federal Permit(s):	☒ Yes ☐ No	***Permit Type(s)***:	USACE
Project Description: Replace Bridge No 71 on SR 1395 over Big Laurel Creek.			

SUMMARY OF HISTORIC ARCHICTECTURE AND LANDSCAPES REVIEW

☐ There are no National Register-listed or Study Listed properties 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 no properties within the project's area of potential effects.

☒ There are properties over fifty years old within the area of potential effects, but they do not meet the criteria for listing on the National Register.

☒ There are no historic properties present or affected by this project. (Attach any notes or documents as needed.)

Date of field visit: n/a

Description of review activities, results, and conclusions:
Review of HPO quad maps, relevant background reports, historic designations roster, and indexes was undertaken on April 20, 2018. Based on this review the Area of Potential Effects (APE) the bridge itself is a surveyed site. This bridge was not included in the 2005 Historic Bridge Survey. Built in 1965, Madison County Bridge No. 71 does not exemplify any distinctive engineering or aesthetic type and is not eligible for the National Register of Historic Places. There are no other properties over 50 years of age but none of the rise to the level of significance that would make them eligible for National Register listing. No historic properties will be affected by the project.

SUPPORT DOCUMENTATION

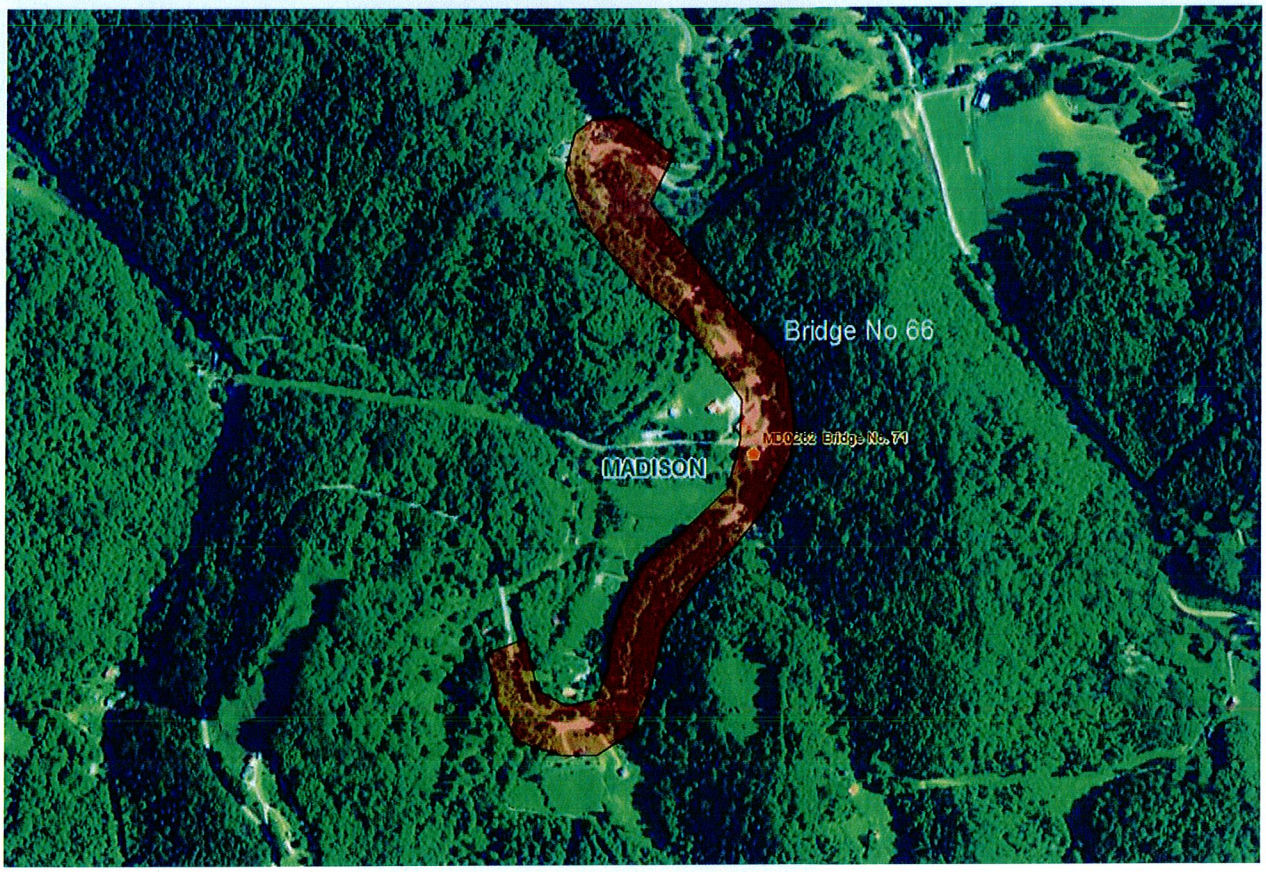
☒Map(s) ☐Previous Survey Info. ☒Photos ☐Correspondence ☐Design Plans

FINDING BY NCDOT ARCHITECTURAL HISTORIAN

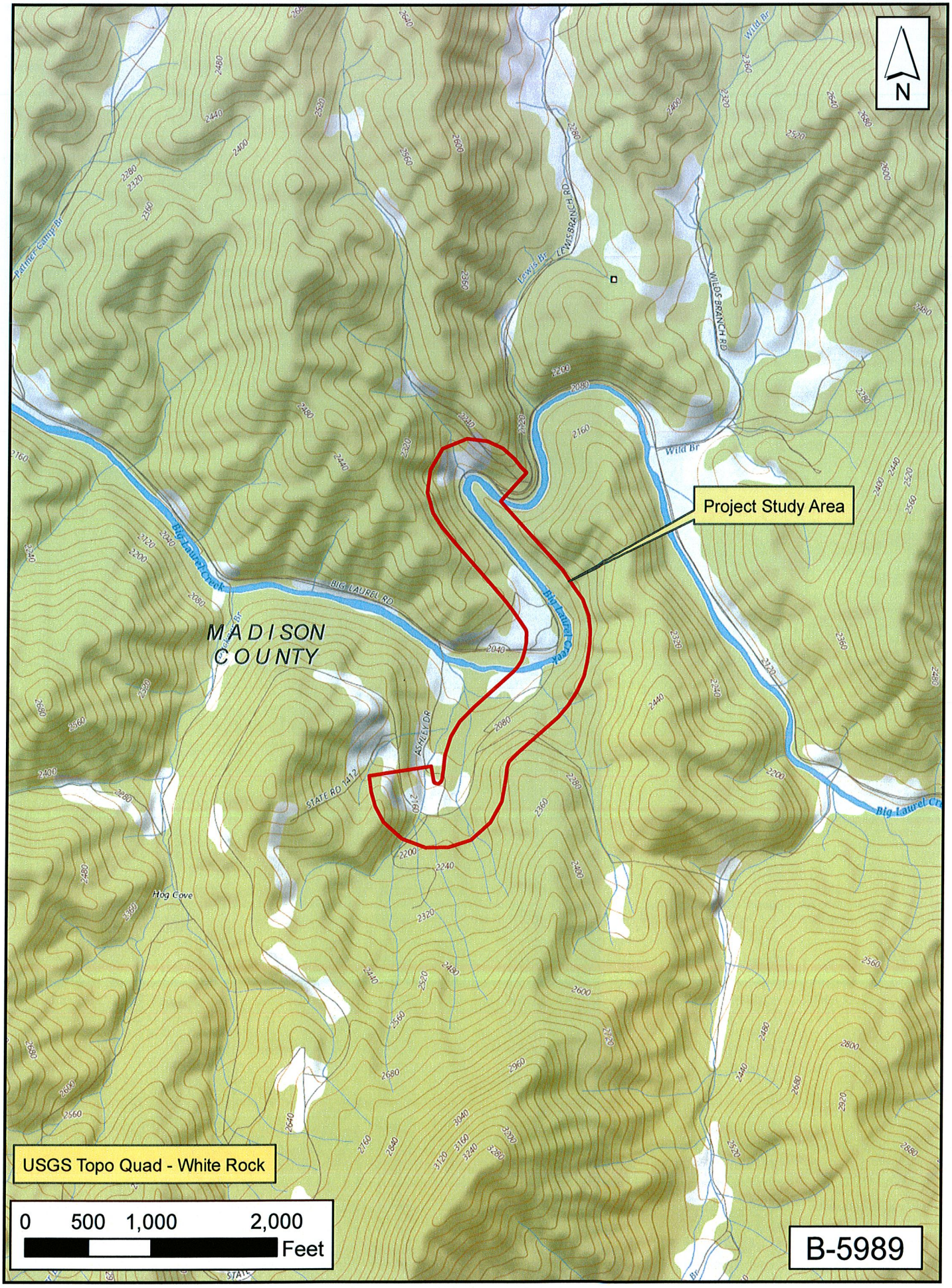
Historic Architecture and Landscapes – **NO HISTORIC PROPERTIES PRESENT OF AFFECTED**

Shelby Reap — April 20, 2018

NCDOT Architectural Historian — Date



Madison Bridge No 71



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

Meeting Summary

Replace Bridge No. 560071 on SR 1395 (Walnut Creek Road) over Big Laurel Creek, in Madison County, North Carolina, TIP No. B-5989

Date Prepared:	June 7, 2019
Meeting Date/Time/Place:	June 4, 2019; 4:00pm to 5:00pm; Big Laurel Baptist Church, 5805 Big Laurel Road, Marshall, NC 28753
Meeting Purpose:	Small group meeting with Big Laurel Baptist Church to review the project designs and schedule and discuss project impacts to the church's property and operations
Prepared By:	Robby Bessette, Three Oaks Engineering

Meeting Attendees:

Kellen Griffin	Big Laurel Baptist Church	kellen.griffin@icloud.com
Calvin Payne	Big Laurel Baptist Church	-
James Waldrouf	Big Laurel Baptist Church	rwaldrouf47@gmail.com
Mike Calloway	NCDOT Division 13	mkcalloway@ncdot.gov
Joel Davis	NCDOT Division 13	jmdavis@ncdot.gov
James Speer	Summit	james.speer@summitde.net
Brandon Johnson	Summit	brandon.johnson@summitde.net
Jason Patskoski	Summit	jason.patskoski@summitde.net
Stuart Bourne	Summit	stuart.bourne@summitde.net
Suzanne Young	Three Oaks Engineering	suzanne.young@threeoaksengineering.com
Robby Bessette	Three Oaks Engineering	robby.bessette@threeoaksengineering.com

Meeting Outline

Led primarily by James Speer (Summit), the meeting began with prayer and introductions of the project team in attendance. James reviewed the project design sheets with church representatives and described the project development process and next steps. The work zone is by nature a very tight area with many constraints including the existing terrain and a creek that crosses the road at a very large skew, the church facilities (buildings, retaining wall, septic system), and having part of the existing bridge on an intersection. He provided background information on the project, including schedule and traffic volumes, and presented the project typical (cross) sections and on-site, one-lane, signalized detour plans. He and Stuart Bourne (Summit) discussed this detour and the temporary signal options for the project. Throughout the majority of the meeting, the consultant and NCDOT Division project team fielded questions from church staff and addressed their concerns. Jason Patskoski (Summit) and

Brandon Johnson (Summit) concluded the meeting by discussing the flooding and hydraulic observations of the area by the church representatives.

Project/Design Details

- Design year: 2040
- Design year traffic volumes: 900 vehicles per day
- Design speed limit: 40 miles per hour
- Project Schedule: Right-of-Way (ROW) date of March 2020, Let date of March 2021
    - Construction contracts are typically awarded one month after the Let date with construction for this project likely starting April or May 2021
- Proposed Typical Section: two, 10-ft. travel lanes with minimum 4-ft. offset/shoulders to accommodate bicyclists
- Detour: on-site, one-lane, temporary detour bridge to be constructed just downstream (west) of the existing bridge

Concerns/Questions raised by Big Laurel Baptist Church

- Length of the construction period
    - *With construction typically beginning one month after the project let date, the most likely construction timeframe is one year. Restrictions related to a trout moratorium prohibit in-water construction activity between October 15th and April 15th.*
- Location of the temporary traffic signals
    - *The location of the three temporary signals was pointed out on the design plans. Four proposals related to these temporary signals were presented to the church staff: 1) use of solar to power the signals (they remain functional through 30 days of no sun), 2) a digital board at each signal that provides a timeframe to drivers of when their light will next turn green, 3) a camera on top of the temporary signals to detect the presence of cars which can be used to automatically provide a green light if the cameras detect that only one signal has a waiting vehicle, and 4) an emergency vehicle button that will give emergency service provides precedence over others when approaching the intersection.*
        - *Pastor Griffin was highly supportive of suggestions 2 and 3.*
- If the bridge will be replaced in the existing location or shifted
    - *The bridge will be replaced in the existing location, although the new structure will be wider, and this widening will be to the west.*
- Project impacts to the church's baptismal
    - *A retaining wall will be used to avoid disturbing the structure of the baptismal and covered shelter. Also pointed out was the note to the contractor on the project designs to not disturb the church baptismal and shelter (as well as the church's existing rock retaining wall and wood steps).*
- How congregants will access the church property during construction and how to limit access by the general public during construction (to shortcut the temporary signals)
    - Church staff expressed concern over drivers' likely tendency to ignore or avoid temporary signals. If the temporary signal is before the church's driveway, people may attempt to bypass the signal by driving through the church's parking lot. Due to the grade of the driveways and gravel surface, this may be both dangerous (potentially harmful to individuals/drivers and a liability for the church) and detrimental to the church's property.

    - *Division staff suggested that the contractor can utilize barricades at the driveways of the church during construction in order to restrict access to the church's property by the public. These barricades will be temporary and easily moveable.*
- Are any changes to the existing retaining wall in front of the church necessary?
    - Church staff described existing problems with the turning radius off of the bridge for larger trucks.
    - *The project team will verify the curvature of the roadway near the existing retaining wall is sufficient. Also pointed out was the note to the contractor on the project designs to not disturb the church's existing stone wall (as well as the church's baptismal and wood steps).*
- Will there be utility impacts to the overhead connection servicing the church's shelter and baptismal area?
    - The church plans to install a utility pole to hold this overhead utility line.
    - *Impacts to any utilities with be evaluated during final design.*

Church and Area Information (provided/mentioned to the project team by church staff outside of the concerns and questions above)

- Size of the congregation: average Sunday attendance of 60-80 people (30-50 vehicles), volumes lower for Wednesday night services
- Occasional logging truck usage of the bridge and adjacent roadways
- Notable bicycle usage of the bridge and adjacent roadways
- Perception that the heaviest volume of traffic is traveling north over the bridge and turning west onto Big Laurel Road
- Although the gravel parking area to the west of the bridge on the south side of Big Laurel Road is often used by congregants during times of church services, parking for fishing in the area is a likely use during other times.
- Flooding is frequently an issue in the low-lying field on the north side of Big Laurel Creek to the west of the bridge, but water levels have never reached the bridge itself.

Next Steps/Action Items

- Three Oaks Engineering and the project team to include a green sheet commitment in the project's Federal Categorical Exclusion (CE) about coordination between the Division and the church prior to construction regarding general public access restrictions to their property and parking lot
- The project may have temporary impacts to logging truck movements across the temporary detour bridge. The work zone area is by nature a very tight area with many constraints and logging trucks may experience difficultly maneuvering through the work zone. Access will be maintained in the work zone by using a temporary one lane detour with signal control. A temporary one lane bridge will be located downstream from the existing bridge and is part of the design for the on-site detour. The design team will make every reasonable effort in producing a plan to maintain traffic through the work zone with respect to all constraints within the project area. When the project is completed, improved mobility will be achieved with improved turning radii for larger vehicle movements.

Cc:

Meeting attendees

Project File