

### **Attachments**

**Attachment A- Cultural Resources Field Report**

**Attachment B- Natural Resources Technical Memorandum**

**Attachment C- Bridge Replacement Scoping Risk Assessment Form**

**Attachment D- Floodplain Checklist**

**Attachment E- Public Involvement**

## **Attachment A- Cultural Resources Field Report**



South Carolina  
Department of Transportation

August 22, 2023

Ms. Elizabeth Johnson  
Director, Historical Services, D-SHPO  
State Historic Preservation Office  
SC Department of Archives & History  
8301 Parklane Road  
Columbia, SC 29223

***RE: Phase I Cultural Resources Survey of Proposed Improvements to the S-998 Bridge  
over Wildcat Creek, York County, South Carolina***

***SCDOT Project #: P041172***

Dear Ms. Johnson:

Please find attached a copy of the above referenced report that describes cultural resources investigations conducted for the proposed replacement of the S-998 Bridge over Wildcat Creek in York County, South Carolina

The South Carolina Department of Transportation (SCDOT) in coordination with the Federal Highway Administration (FHWA) proposes to replace the S-998 (Robertson Road) bridge over Wildcat Creek, located southwest of the city of Rock Hill. The study area extends approximately 1,500 feet from either end of the bridge along S-998. The archaeological area of potential effect is 75 feet from the road centerline and 1,500 feet from either end of the bridge. The architectural survey examined all above ground resources with sightlines to the bridge.

The cultural resources survey identified one resource, the Nazareth Baptist Church Cemetery, which was recorded as both an archaeological (38YK657) and architectural resource (SHPO Site No. 5000 and 5000.01). The Nazareth Baptist Church Cemetery is a discontinuous resource with an older section (SHPO Site No. 5000.01) located to the west of the intersection of West Robertson Road and the Southern Railroad and newer section (SHPO Site No. 5000) located adjacent to the Nazareth Baptist Church. The newer section of the cemetery contains at least 329 marked burials with the earliest dating to the 1960s. The older section, established circa 1902, contains less than 100 marked burials, but the likelihood for unmarked burials in this location is high. The cemetery was assessed as **not eligible** for the National Register of Historic Places (NRHP).

Although not eligible for the NRHP, the cemetery is protected by South Carolina state law. The older portion of the cemetery does not fall within the construction zone of the project. Construction will be occurring adjacent to the newer portion of the cemetery, but efforts to protect and prevent damage to this resource will be taken into account during the project design and construction process. This portion of the cemetery is separated from the existing roadway by a drainage ditch and road berm. A 10-foot buffer will be established around the known cemetery boundary and temporary barrier fencing will be installed along this buffer prior to construction. No construction, ground disturbing activities, or heavy equipment will be permitted within the 10-foot



buffer. Coordination with the owner of the cemetery, the Nazareth Baptist Church of Rock Hill, will be required as part of this project's public involvement plan.

Based on the results of the background research and field investigations, the SCDOT has determined that there will be **no historic properties affected** by the proposed undertaking.

Per the terms of the Section 106 Programmatic Agreement executed on October 6, 2017, the Department is providing this information on behalf of the Federal Highway Administration. It is requested that you review the enclosed material, and, if appropriate, indicate your concurrence in the Department's findings. Please respond within 30 days if you have any objections or if you have need of additional information.

Sincerely,



Rebecca Shepherd  
Chief Archaeologist

RES:res

Enclosures: Cultural resources survey report

I (~~do not~~) concur in the above determination.

Signed:



Date:

8/23/2023

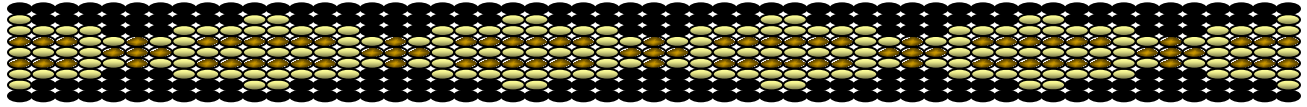
ec: Shane Belcher, FHWA  
Russell Townsend, Eastern Band of Cherokee Indians  
Stephen J. Yerka, Eastern Band of Cherokee Indians  
Elizabeth Toombs, Cherokee Nation  
Acee Watt, United Keetoowah  
Whitney Warrior, United Keetoowah

cc: Wenonah G. Haire, Catawba Nation  
Keith Derting, SCIAA



Catawba Indian Nation  
Tribal Historic Preservation Office  
1536 Tom Steven Road  
Rock Hill, South Carolina 29730

Office 803-328-2427  
Fax 803-328-5791



August 21, 2023

Attention: Rebecca Shepherd  
SCDOT  
P.O. Box 191  
Columbia, SC 29202

Re. THPO #	TCNS #	Project Description
2023-66-22		Phase I Cultural Resources Survey of Proposed Improvements to the S-998 Bridge over Wildcat Creek, York Co., SC

Dear Ms. Shepherd,

The Catawba have no immediate concerns with regard to traditional cultural properties, sacred sites or Native American archaeological sites within the boundaries of the proposed project areas. **However, the Catawba are to be notified if Native American artifacts and / or human remains are located during the ground disturbance phase of this project.**

If you have questions please contact Caitlin Rogers at 803-328-7369, or e-mail [Caitlin.Rogers@catawba.com](mailto:Caitlin.Rogers@catawba.com).

Sincerely,

Wenonah G. Haire  
Tribal Historic Preservation Officer

**CULTURAL RESOURCE FIELD REPORT  
SCDOT ENVIRONMENTAL SECTION**



**TITLE:** Phase I Cultural Resources Survey of Proposed Improvements to the S-998 Bridge over Wildcat Creek

**DATE OF RESEARCH:** 5/18/23

**ARCHAEOLOGIST:** Kelly Higgins, MA, RPA

**ARCHITECTURAL HISTORIAN:** Sean Stucker, MHP and Katie Dykens Quinn, MSHP

**COUNTY:** York

**PROJECT:** Closed and Load Restricted Bridge Replacements- Package 20

**F. A. No.:**

**File No.**

**PIN:** PO41172

**DESCRIPTION:**

The South Carolina Department of Transportation (SCDOT) proposes to replace various closed or load restricted bridges including the S-998 (Robertson Road) bridge over Wildcat Creek in York County, South Carolina. The project area is defined as that area within 75 feet of either side of the proposed roadway centerline and extending 1500 feet from the bridge. The archaeological survey covered the entire project area, while the architectural survey examined all above ground resources with sightlines to the bridges. This cultural resource survey was performed under contract with HNTB.

**LOCATION:**

The project is located approximately 3.5 miles southwest of the city of Rock Hill in southern York County, South Carolina (Figure 1).

**USGS QUADRANGLE:** Rock Hill West, SC

**DATE:** 1984    **SCALE:** 1:24000

**UTM:** NAD83    **ZONE:** 17N

**EASTING:** 493674

**NORTHING:** 3860785

**ENVIRONMENTAL SETTING:**

The project area is situated in the Piedmont physiographic region, which is characterized by rolling hills formed from extensive weathering of ancient mountain ranges. The topography in the project area ranges from 600 feet above mean sea level (amsl) at the southeastern terminus to 520 feet amsl in the vicinity of Wildcat Creek. The surrounding landscape is mostly rural, though modern manufacturing buildings and a church, constructed in 1976, and accompanying historic cemetery (Resources 5000 and 5000.01), are present along the northwestern portion of the project area. Vegetation in the southeastern portion consists of mixed pines and hardwoods with a moderately dense understory.

**NEAREST RIVER/STREAM AND DISTANCE:**

Wildcat Creek bisects the project area, joining Fishing Creek approximately 0.5-mile southwest of the project. Fishing Creek is a tributary of the Catawba River and joins the river near the town of Great Falls, South Carolina, approximately 20 miles southeast of the project area.

**SOIL TYPE:**

Soils in the project area were formed from alluvium or residuum weathered from granite, gneiss, and/or diorite. The majority of the soils are well drained, with seven percent identified as somewhat poorly drained. By the early twentieth century, continuous row cropping destroyed soil nutrients and large tracts of farmland were rendered unsuitable for

cultivation/ The Natural Resource Conservation Service maps six soil types in the project area, of which 93 percent are moderately or severely eroded (Table 1).

*Table 1. Soils Mapped in the Project Area*

Map Unit	Map Name	Drainage Class	Notes	Acres in Project Area	Percent of Project Area
CeB2	Cecil sandy clay loam	Well Drained	2–6% slopes, moderately eroded	1.3	11.6
CfC3	Cecil clay loam	Well Drained	6–10% slopes, severely eroded	3.6	32.7
ChA	Chewacla loam	Somewhat Poorly Drained	0–2% slopes	0.8	7
MeB2	Mecklenburg-Wynott complex	Well Drained	2–6% slopes, moderately eroded	1.2	10.9
MkB3	Mecklenburg-Wynott complex	Well Drained	2–10% slopes, severely eroded	3.0	27.5
MkC3	Mecklenburg-Wynott complex	Well Drained	6–10% slopes, severely eroded	1.1	10.3
Total				10.9	100

#### **REFERENCE FOR SOILS INFORMATION:**

USDA-NCRS Soil Survey Division, Custom Soil Resource Report ([websoilsurvey.sc.egov.usda.gov](http://websoilsurvey.sc.egov.usda.gov))

**GROUND SURFACE VISIBILITY:** 0% \_\_\_ 1-25% X 26-50% \_\_\_ 51-75% \_\_\_ 76-100% \_\_\_

#### **CURRENT VEGETATION:**

The vegetation in the project area primarily consists of mixed pines and hardwoods with a moderately dense understory. This understory becomes very dense along the south side of the bridge. Many of the stands of trees are contained in the southeastern portion of the project area, as the northwestern portion primarily contains manicured lawn in front of the manufacturing buildings and on the church grounds. Additionally, exposed subsoil is present along a transmission line at the southeastern terminus of the project area (Figures 2–4).

#### **INVESTIGATION:**

##### **BACKGROUND RESEARCH**

New South Associates, Inc. (NSA) conducted background research prior to fieldwork using the ArchSite GIS database maintained by the South Carolina Institute of Archaeology and Anthropology (SCIAA) and the South Carolina Department of Archives and History (SCDAH). The background research identified two previously recorded cultural resources surveys and two archaeological sites within the 0.5-mile search radius (Figure 5). None of these resources are in the project area itself.

The first survey was conducted in 2003 by Chicora Foundation. This reconnaissance survey identified areas within the 90-acre tract with the highest probability of containing archaeological sites. As a result, one archaeological site, 38YK422, was recorded. This site is located within the search radius of the current project and consists of a lithic scatter with a twentieth century component. A total of 65 artifacts were recovered from the surface of the site; however, no subsurface artifacts were identified, and the site has been heavily impacted by cultivation and construction. Site 38YK422 is unlikely to contain significant information and was recommended not eligible for the National Register of Historic Places (NRHP).

Archaeological site 38YK578 was recorded in 2012 to the north of the current project area during a survey for a proposed bridge replacement. This site, recorded by the SCDOT, was identified in five shovel tests and recovered 12 artifacts. Additional artifacts were noted on the surface and the site may extend beyond the survey bounds. The assemblage includes quartz flakes and brick, and the site has been heavily eroded. Site 38YK578 was recommended not eligible for the NRHP. The second survey was conducted in 2014 by the Natural Resource Group. This survey, located to the north of the current project area in the vicinity of 38YK578, was a reconnaissance for a proposed sewer line replacement. No cultural resources were recorded during the survey.

## **SURVEY RESULTS**

The cultural resources survey did not identify any new or previously recorded archaeological sites or isolated finds within the project area. The results of the archaeological survey are discussed below. The architectural survey recorded one new resource with one sub-resource, Nazareth Cemetery (#5000 and 5000.01). An archaeological site number (38YK657) was also obtained for the cemetery as per guidance in Appendix F of the State Survey Manual. However, it is discussed in detail in the architectural survey results section. The cemetery is currently in two discontinuous sections and is depicted on Figure 8.

## **ARCHAEOLOGY**

The Phase I Archaeology Survey was conducted on May 18, 2023. Kelly Higgins, MA, RPA, served as Field Director and was assisted in the field by Archaeological Technicians John Tomko and Derrick Westfall. The archaeological investigation included a pedestrian walkover of the entire project area and the excavation of shovel tests at 30-meter (100-foot) intervals within the project area. Shovel tests were placed along a single transect parallel to either side of Robertson Road. Soil profiles were recorded for all excavated shovel tests, and location data was recorded for all investigated shovel tests using handheld GPS instruments.

Sixty-four shovel test locations were investigated across the project area, of which 33 were negative for cultural material. The remaining 31 shovel tests were not excavated due to slopes greater than 15 degrees, paved or gravel surfaces, dense vegetation, restricted access areas, and a cemetery (Figure 6). One general soil profile was noted, consisting of approximately 15 centimeters of brown (7.5YR 5/3) sandy loam Ap horizon overlying a yellowish red (5YR 4/6) sandy clay subsoil (Figure 7). No new or previously recorded archaeological sites were identified in the project area, although Nazareth Baptist Church cemetery was given a state archaeological site number. It is discussed in detail below.

## **ARCHITECTURAL SURVEY**

The architectural survey was conducted on May 18, 2023, by Architectural Historian Sean Stucker, MHP. One individual resource with a discontinuous sub-resource was recorded. Both were documented with South Carolina State Survey forms and photography and assessed for NRHP eligibility in accordance with the *South Carolina State Historic Preservation Office (SHPO) Survey Manual: South Carolina Statewide Survey of Historic Places*. The bridge itself, constructed in 1969, was not evaluated per the FHWA's Post-1945 Bridges Program Comment (U.S. Department of Transportation, Federal Highway Administration 2012). This bridge (ID 05643) is of a common type, with flat concrete stringers and wood piers with concrete caps and footings (Figure 8). Newly identified resources are shown in Figure 9 and discussed in detail below.

*Table 2. Newly Recorded Architectural Resources*

Site No.	Address	Style/Type	Build Date	NRHP Recommendation
5000	Nazareth Baptist Church Cemetery 128 East Robertson Road	Cemetery	Circa 1960	Not Eligible
5000.01	Nazareth Baptist Church Cemetery – Old Section West Robertson Road and Southern Railroad	Cemetery	Circa 1902	Not Eligible

#### RESOURCES 5000 and 5000.01 – Nazareth Baptist Church Cemetery (38YK657)

The Nazareth Baptist Church Cemetery is discontinuous, with an older section (Resource 5000.01) located to the west of the intersection of East Robertson Road and the Southern Railroad and a newer section (Resource 5000) adjacent to the Nazareth Baptist Church, constructed in 1976. According to Find A Grave, the cemetery as a whole holds at least 329 marked and identified burials (Find A Grave 2005). The new section of the Nazareth Baptist Church Cemetery (Resource 5000) is located directly to the east of the Nazareth Baptist Church (Figure 10). This is the larger section of the two and holds over 200 marked burials. The earliest burials in this section date to the 1960s and most of the headstones are modern. Markers are almost exclusively stone, although there are several handmade concrete markers dating to the 1960s. Most markers are granite, often with etched details, and there are both single and double stones. Edging materials such as bricks are used in some instances and there are numerous grave goods and offerings, including artificial flowers, some in urns. The bulk of this section is organized in rows that run north/south and gravestones face towards the east. The landscape consists of grass with mature trees.

The older section of the cemetery (Resource 5000.01) is bordered by East Robertson Road on the south and the Southern Railroad on the east (Figure 11). This section contains less than 100 marked burials, although according to Find A Grave there are likely many unmarked burials as well (Find A Grave 2005). The older stones in this section are mostly individual and include both professionally made gravestones and informal markers such as fieldstones. Headstone design is varied and ranges from simple tablets to higher style obelisks and scrolled headstones. The burials in this section are not as clearly organized as those in the newer section but face east. There is extensive use of edging material in this section, including rusticated stone and concrete blocks. The topography is varied and a portion of the section is located on higher ground while another is in a low-lying wooded area. The positioning of many of the stones suggests significant ground disturbance.

According to Find A Grave, the Nazareth Baptist Church has been in operation at this location since land was donated for its use in 1903 (Find A Grave 2005). The deed record for the roughly eight-acre property indicates that it was donated by W.L. Roddy in 1902. At one point the property was owned by the Rock Hill School District, and a school was operated on the premises as well (York County Register of Deeds, 7381:70). A 1939 County Highway Map indicates that the Nazareth Baptist School served an African American population (South Carolina State Highway Department 1939). According to a plaque on the building, the church itself was organized in 1860, although the current building was not constructed until 1976. While the congregation worshiped elsewhere until 1902, some of the earliest burials are of African Americans, indicating that the congregation has consistently been African American since its inception. Within the old section of the cemetery, the Reverend Thomas Samuel Gilmore was buried in 1938. Gilmore was a relatively prominent figure in the local African American Baptist establishment, having founded the First Baptist, Colored, Church (later the Mount Prospect Baptist Church) in 1885. Gilmore also helped establish the Friendship School, one of the first schools for African American students in Rock Hill. He was the pastor at Mount Prospect from 1885 through 1935 (Gettys 1990).

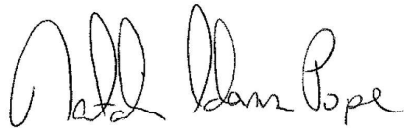
The arrangement of the cemetery is unusual. The Southern Railroad, which runs between the older section and the church, was originally constructed as the Charlotte, Columbia, and Augusta Railroad between 1869 and 1882 (Lewis 2021). Given that the current parcel was donated to the church in 1902, it seems that either the railroad always separated the church from the cemetery or a new church building was intentionally constructed across the railroad tracks from the old section of the cemetery. The earliest topographic map of the Rock Hill Quadrangle that could be located, from 1949, has the church in its current location (Figure 12) (U.S. Geological Survey 1949). The 1939 County Highway Map erroneously places the church, school, and cemetery roughly one block to the northwest. The school is shown adjacent to the church on both maps.

The Nazareth Baptist Church may have been significant under Criterion A for its association with local African American history, particularly given the development of a school for African American students at this location. However, neither the historic church building nor the school building are extant. The larger portion of the cemetery, which is adjacent to the church, dates to the 1960s and is not associated with this potential early twentieth century period of significance. The older section does retain this association but does not rise to a level of importance that would warrant inclusion in the NRHP for it. It appears as a remnant of a larger complex with significance rather than conveying the significance of the early twentieth century Nazareth Baptist Church on its own. The cemetery is also associated with the Reverend Thomas Samuel Gilmore and was considered under Criterion B. However, Gilmore, were he to rise to this level of importance, is more appropriately represented by the NRHP-listed Mount Prospect Baptist Church, where he preached for 50 years. The cemetery was considered under Criterion C but lacks the architectural distinction necessary. Most stones are modern in appearance, there are few unique or high style examples, and the cemetery as a whole lacks cohesion or a noteworthy landscape design. The Nazareth Baptist Cemetery is recommended not eligible under Criteria A, B, or C. The cemetery was also assessed under Criterion D as an archaeological site. The cemetery was created sometime after 1903 when the land was donated to the church. The newer portion of the cemetery was begun in the 1960s and the cemetery remains active and maintained. As an active cemetery it is recommended as not eligible under Criterion D. However, cemeteries are protected by several state codes of law (South Carolina Code 27-43-10, Removal of Abandoned Cemeteries; 27-43-20, Removal to Plot Agreeable to Governing Body and Relatives; 27-43-30, Supervision of Removal Work; and 16-17-600, Destruction of Graves and Graveyards).

**REMARKS AND RECOMMENDATIONS:**

The Nazareth Baptist Church cemetery was the only resources recorded during this survey. It is recommended as not eligible for the NRHP under all four criteria. However, the cemetery is protected by state law. There is potential for unmarked graves, particularly in the old portion of the cemetery. If there are improvements that extend outside of the existing ROW, remote sensing is recommended.

**SIGNATURE:**

A handwritten signature in black ink, appearing to read "Matt Ham Pope". The signature is fluid and cursive, with the first name "Matt" and last name "Pope" being more distinct than the middle name "Ham".

**DATE:** May 30, 2023

**BIBLIOGRAPHY:**

County of Lancaster

1988 Deed of Distribution - In the Matter of William L. Phillips, Deceased. Book T-7, Page 87. Lancaster County Register of Deeds.

Find A Grave

2005 Nazareth Baptist Church Cemetery. *Find A Grave*.  
<https://www.findagrave.com/cemetery/2154025/nazareth-baptist-church-cemetery> .

Gettys, Paul M.

1990 National Register of Historic Places Registration Form, Mount Prospect Baptist Church. National Park Service. SCDAH, National Register of Historic Places.

Lewis, J.D.

2021 South Carolina - Railroads. *Carolana*. <https://www.carolana.com/SC/Transportation/railroads/>, accessed May 26, 2023.

South Carolina State Highway Department

1939 York County General Highway and Transportation Map. South Caroliniana Library Map Collection. University of South Carolina Digital Collections.

U.S. Department of Transportation, Federal Highway Administration

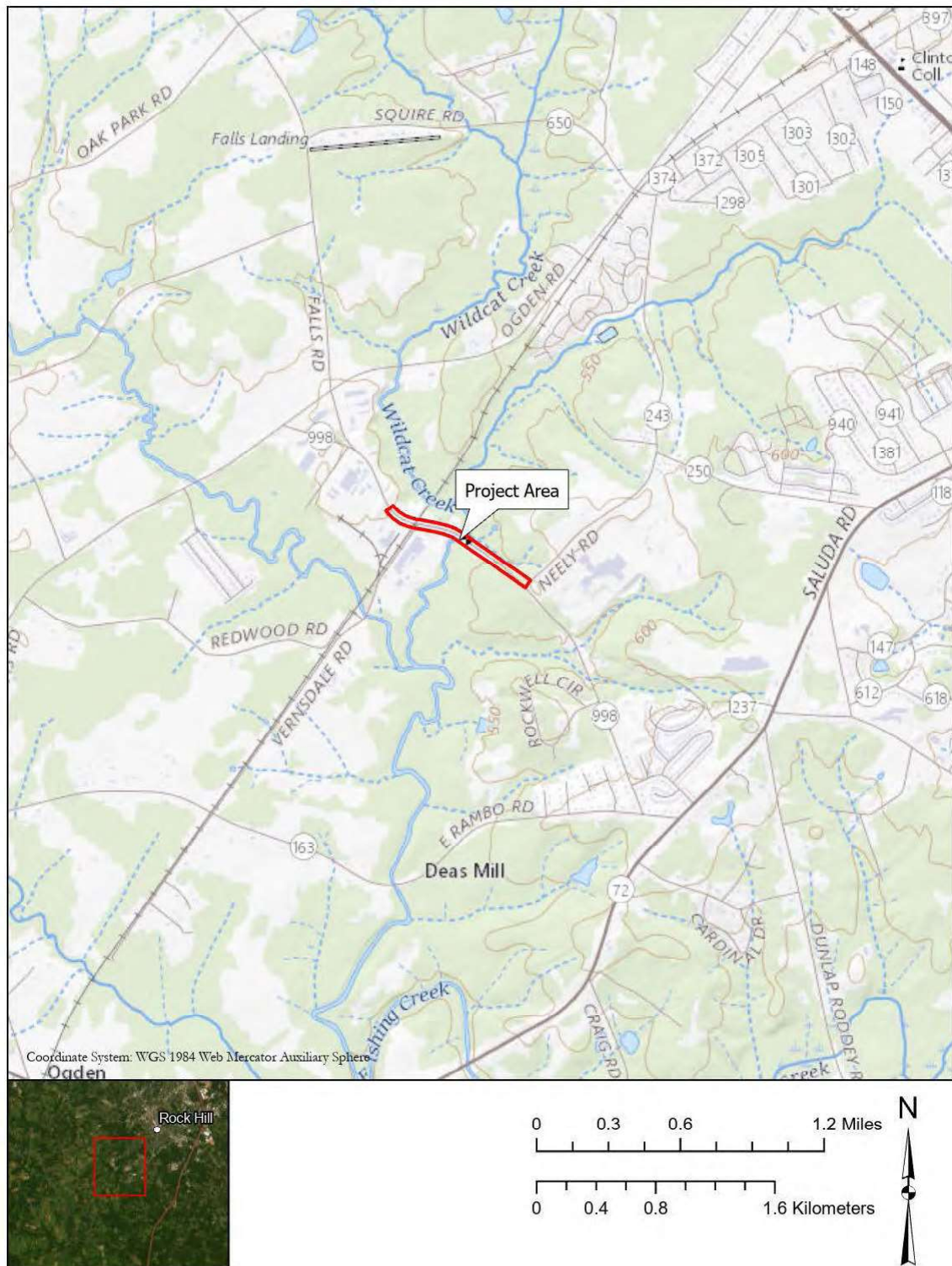
2012 Program Comment for Actions Affecting Post-1945 Concrete and Steel Bridges. Advisory Council on Historic Preservation, Washington, D.C.

U.S. Geological Survey

1949 Rock Hill Quadrangle. U.S. Geological Survey, Washington D.C.



Figure 1.  
Project Location Map



Basemap: United States Geological Survey Topo



Figure 2.  
Typical Vegetation in the Project Area, Facing North





Figure 3.  
Exposed Subsoil and Transmission Line at the Southeastern Terminus, Facing North

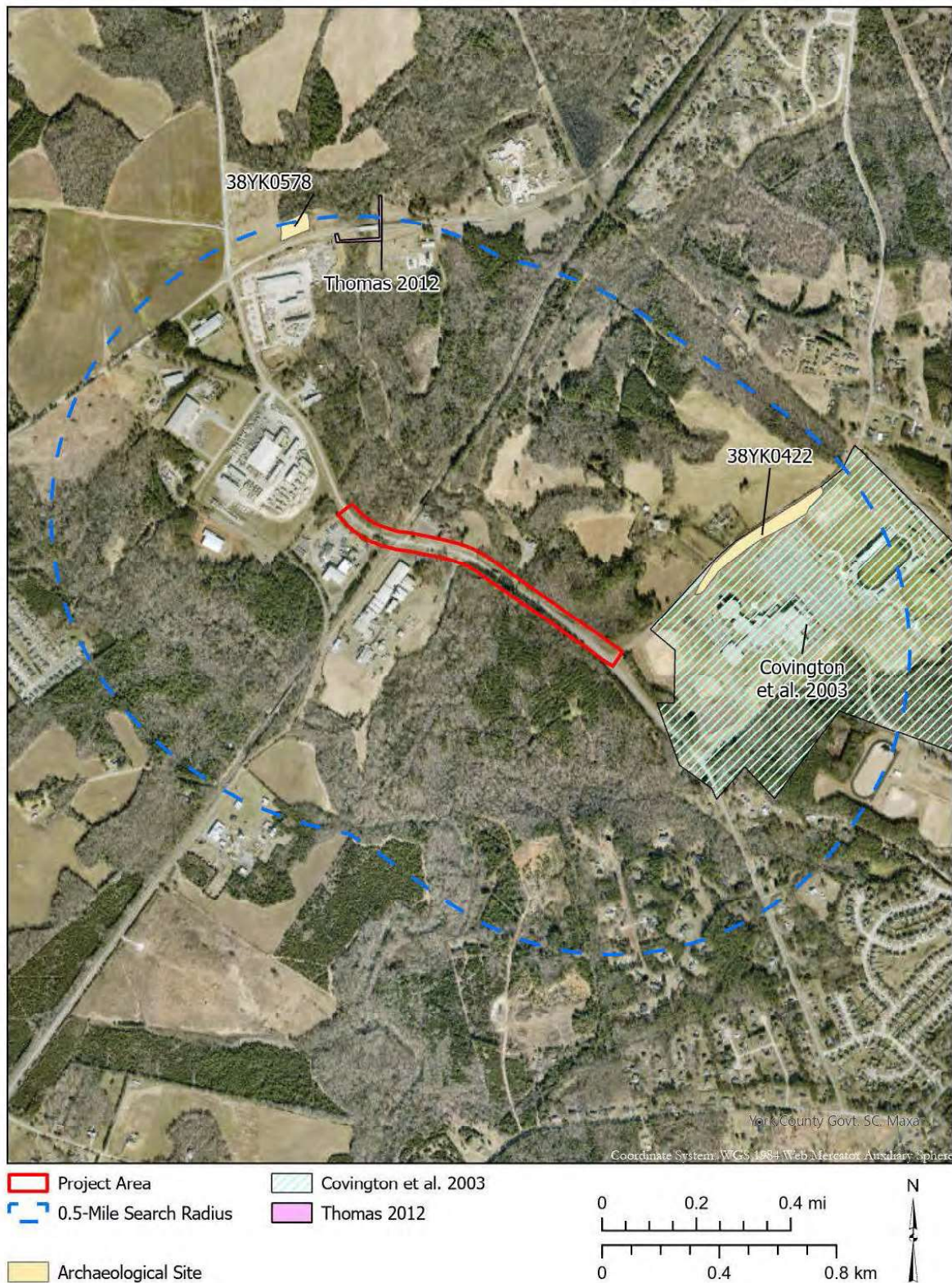


Figure 4.  
Nazareth Cemetery and Restricted Load Bridge, Facing South





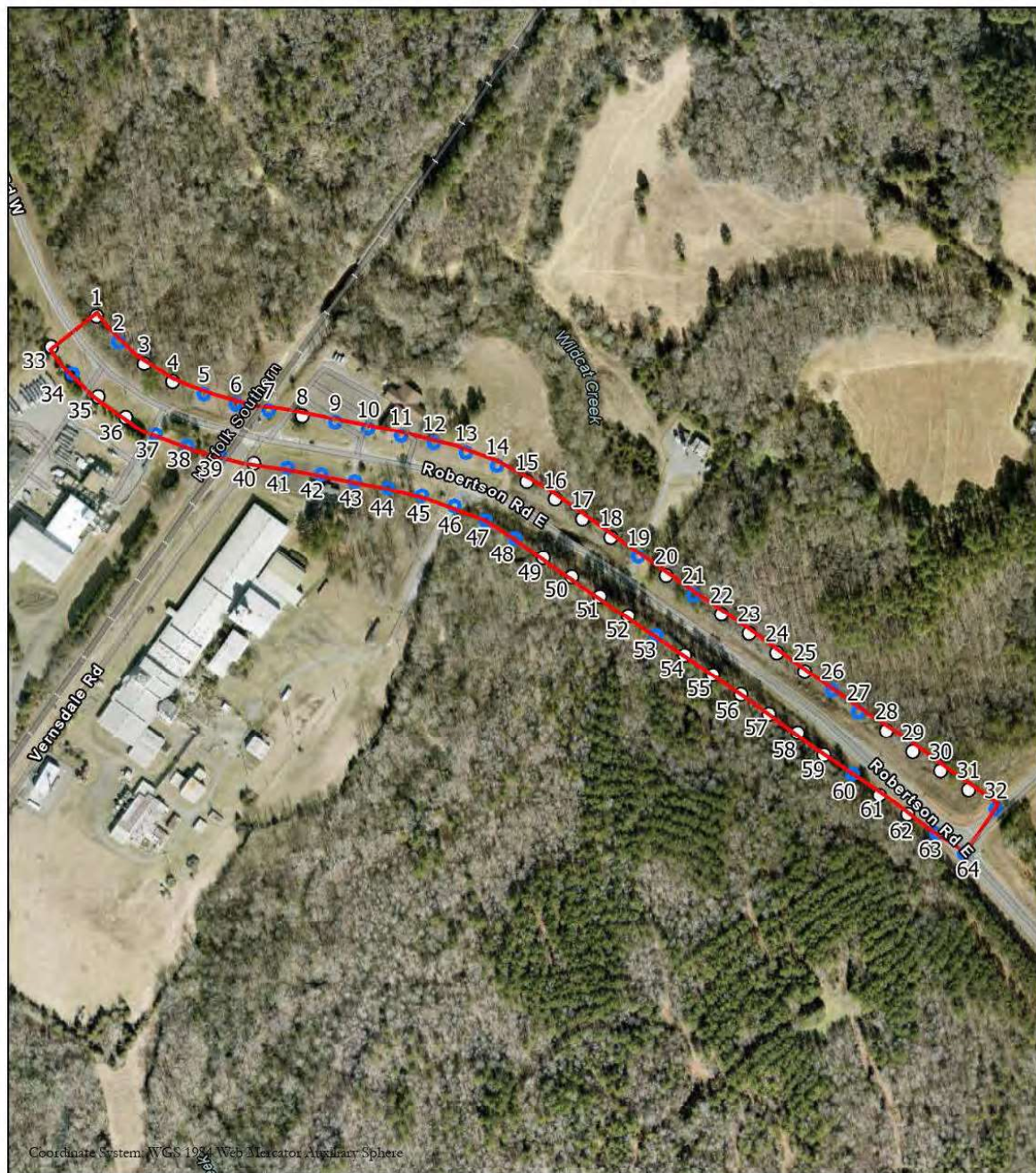
Figure 5.  
Previously Recorded Cultural Resources within a 0.5-mile Radius of the Project Area



Basemap: ESRI Resource Data



Figure 6.  
Shovel Test Map



### Shovel Test Results

- Negative
  - Not Excavated
- 
- ▭ Project\_Area

Basemap: ESRI Resource Data

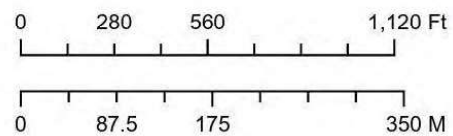




Figure 7.  
Typical Shovel Test Profile





Figure 8.  
Bridge Carrying S-998 over Wildcat Creek



A. Contextual



B. Superstructure and Decking



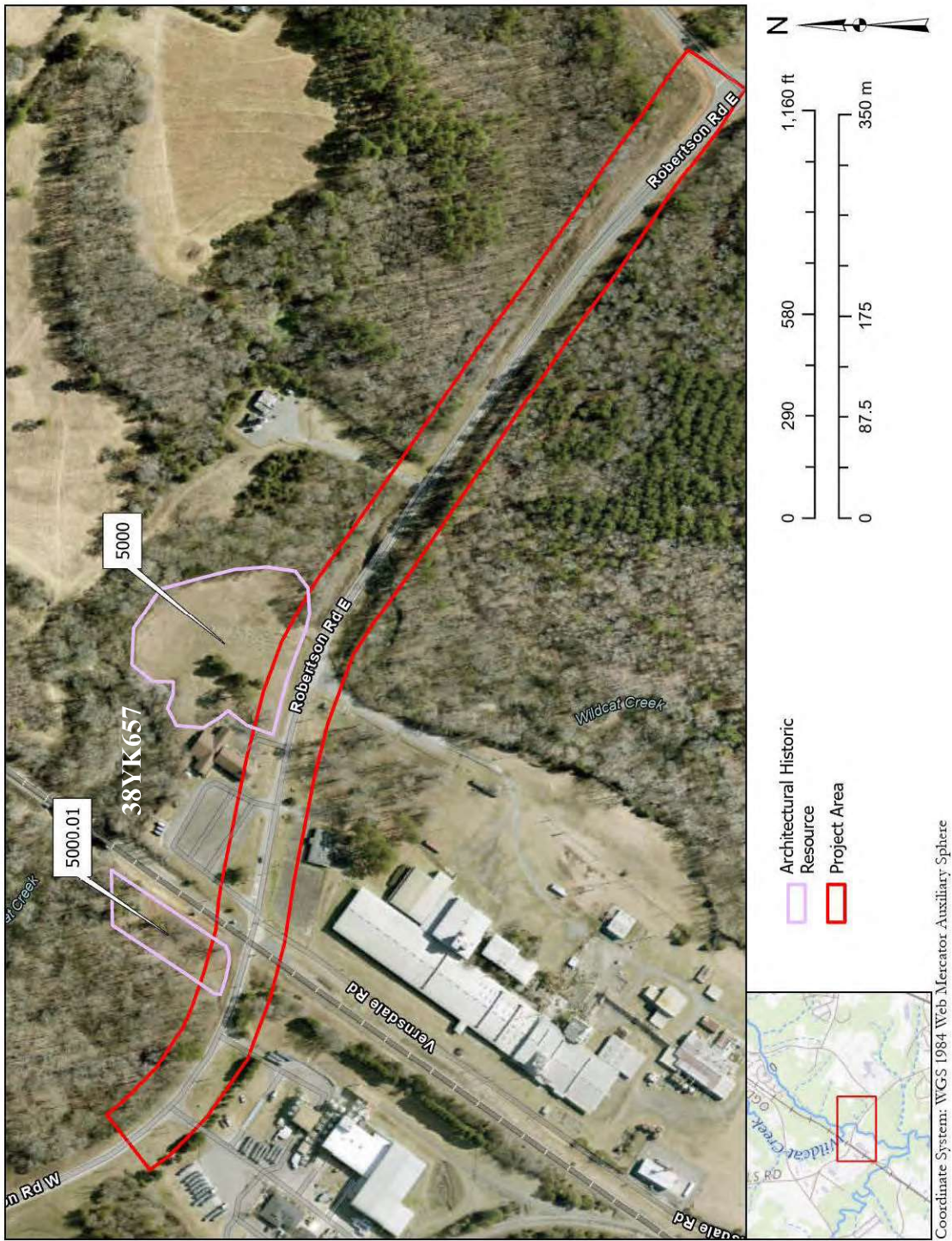


Figure 9.  
Newly Identified Cultural Resources within the Project Area Viewshed

Basemap: ESRI Resource Data



Figure 10.

Resource 5000 (Nazareth Baptist Church Cemetery - New Section - 128 East Robertson Street)

A. Facing West



B. Facing West



C. Facing Northwest





Figure 11.

Resource 5000.01 (Nazareth Baptist Church Cemetery - Old Section - West Robertson Street)

A. Facing West



B. Facing East

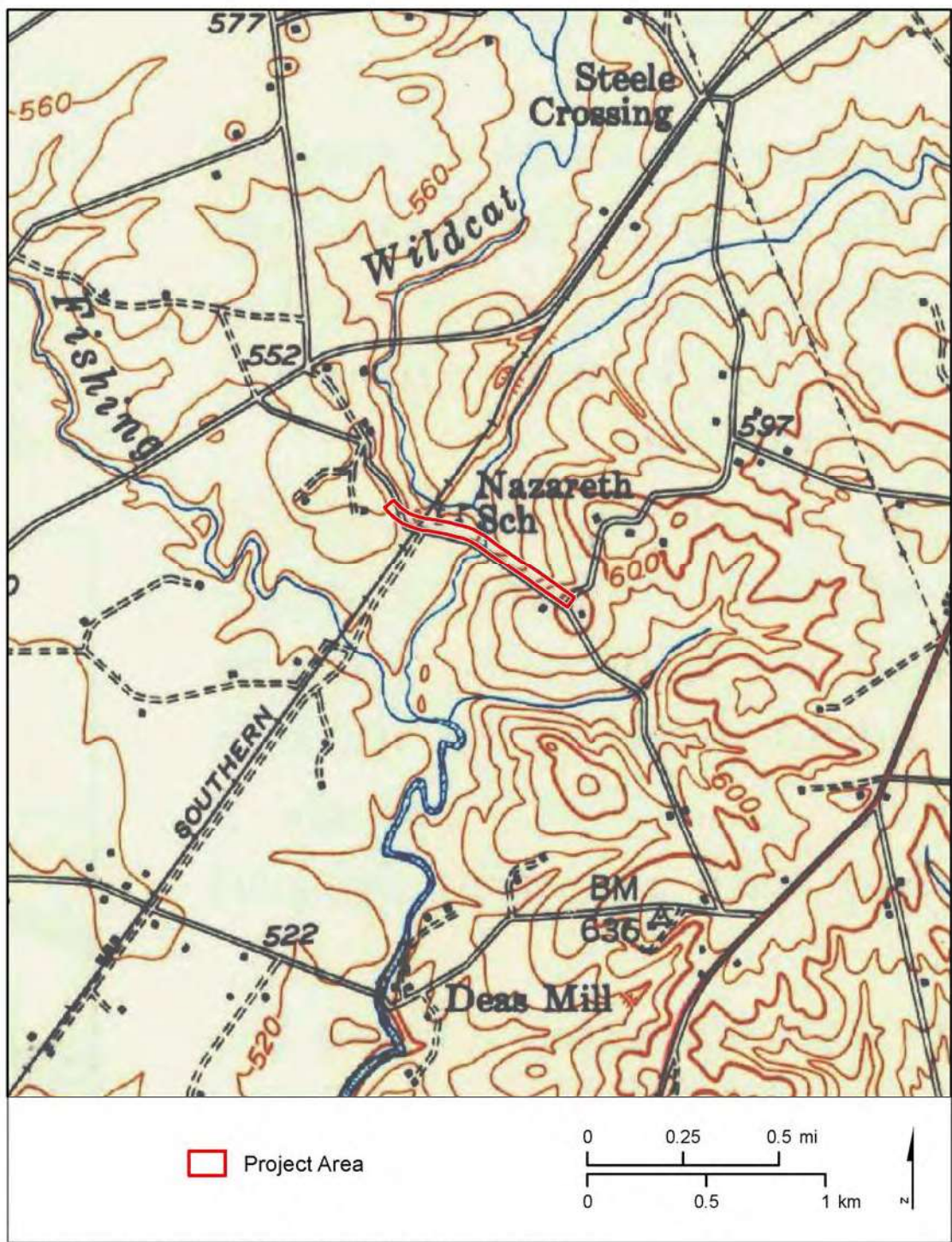


C. Facing Northeast





Figure 12.  
Project Area on 1949 Rock Hill Quadrangle USGS Topographic Map



Basemap: USGS 15-minute Rock Hill (1949), SC Topographic Quadrangle

## **Attachment B- Natural Resources Technical Memorandum**





# Natural Resources Technical Memorandum

S-998 (Robertson Road) Bridge Replacement over Wildcat Creek

SCDOT Project ID: P041172

July 5, 2023



**ROBBINS  
& DEWITT**

## Introduction

The South Carolina Department of Transportation (SCDOT) proposes to replace the S-998 (Robertson Road) bridge over Wildcat Creek in York County, South Carolina. Specifically, the project is located approximately 3.47 miles southwest of the City of Rock Hill. The project is located in the Lower Catawba Watershed (03050103 8-digit Hydrologic Unit Code) and the Southern Outer Piedmont (45b) Level IV Ecoregion. Please see Attachment A, Figure 1 for a Site Location Map.

A Project Study Area (PSA) has been established, based on preliminary design, to encompass all potential impacts of the project. The PSA encompasses an area approximately 13.77 acres in size and approximately 3,000 feet (0.55 mile) in total length, generally centered on Wildcat Creek in either direction. Furthermore, the PSA is 165 feet in total width, generally centered on the centerline of Robertson Road.

Robbins & DeWitt conducted a desktop analysis, scientific literature review, and field surveys for natural resources associated with the proposed bridge replacement. This technical memorandum provides a summary of methods and findings related to natural resources and potential project related impacts. Attached to this memorandum are supporting figures, a SCDOT Permit Determination Form and South Carolina Department of Health and Environmental Control (SCDHEC) Watershed and Water Quality Information Report, and a biological evaluation for federally protected species.

## Desktop Analysis Methods

A desktop analysis was completed as part of an initial evaluation of the PSA to identify key environmental resources to be considered for permitting and/or avoidance and minimization by the design team. The potential resources identified in the desktop evaluation were field verified by Robbins & DeWitt to ensure that critical regulatory items would not be adversely impacted by the project. The following resources were consulted during the desktop analysis:

- Federal Emergency Management Agency (FEMA) Map Service Center (<https://msc.fema.gov/portal>)
- SCDHEC Watershed Atlas (<https://gis.dhec.sc.gov/watersheds>)
- South Carolina Department of Natural Resources (SCDNR) and South Carolina Natural Heritage Program (SCNHP) (<https://schtportal.dnr.sc.gov/portal/apps/sites/#/natural-heritage-program>)
- SCDNR Digital Elevation Mapping (DEM) and Light Detection and Ranging (LiDAR) (<https://www.dnr.sc.gov/GIS/lidar.html>)
- SCDNR Open Source Geospatial Data (<https://data-scdnr.opendata.arcgis.com/>)
- U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (<https://websoilsurvey.nrcs.usda.gov/app/>)
- U.S. Fish and Wildlife Services (USFWS) Environmental Conservation Online System (ECOS) (<https://ecos.fws.gov/ecp/>)
- USFWS Information for Planning and Consultation (IPaC) (<https://ecos.fws.gov/ipac/>)
- USFWS National Wetland Inventory (NWI) (<http://www.fws.gov/wetlands>)
- U.S. Geological Survey (USGS) National Hydrography Dataset (NHD) (<http://nhd.usgs.gov/>)
- USGS Topographic Quadrangle Maps (1:24,000-scale) – Rock Hill West, SC Quadrangle

## Jurisdictional Waters of the U.S.

After completing the desktop analysis, Robbins & DeWitt performed field reviews to determine the boundaries of jurisdictional waters of the U.S., including wetlands, in the PSA. Field reviews were conducted on May 2<sup>nd</sup> and 3<sup>rd</sup>, 2023. A summary of jurisdictional features identified in the PSA is provided in Table 1.

*Table 1 - Summary of Delineated Streams and Non-Wetland Waters in the Project Study Area*

Stream	Latitude	Longitude	Centerline Length (feet)	Area (acre)
Stream A	34.889314	-81.069253	251	0.17
Stream B	34.88925	-81.068506	424	0.03
<b>Total</b>			<b>675 feet</b>	<b>0.20 acres</b>

## Permitting Considerations

Based on the conceptual bridge design, impacts to jurisdictional waters may occur during construction but are expected to remain below the SCDOT U.S. Army Corps of Engineers General Permit impact thresholds. A completed SCDOT Permit Determination Form and SCDHEC Watershed and Water Quality Information Report are provided in Attachment B.

## Federally Protected Species

Environmental scientists performed literature and field reviews to determine the likelihood of protected species within the PSA and the potential for project-related impacts. Field reviews were conducted on May 2<sup>nd</sup> and 3<sup>rd</sup>, 2023. The SCDNR South Carolina Natural Heritage Species Viewer was also reviewed to determine the presence of known populations of protected species within the vicinity of the project. Based on the literature and field reviews it is determined that the proposed project will have a biological conclusion of ‘no effect’ on northern long-eared bat, Carolina heelsplitter, dwarf-flowered heartleaf, and little amphianthus (pool sprite). The project effect for Schweinitz’s sunflower is ‘undetermined’. SCDOT will conduct surveys for the Schweinitz’s sunflower during the 2023 survey window to confirm absence or presence of the species in the PSA and finalize the effect determination. A Biological Evaluation is provided in Attachment C.

## Migratory Birds

Certain bird species are protected under the Migratory Bird Treaty Act of 1918. The USFWS IPaC online database was reviewed for information pertaining to migratory bird species. Migratory birds were observed nesting on the existing bridge.

## Vegetation

Land use in the PSA includes urban development, forested uplands, and bottomland hardwoods. Natural communities observed within the PSA consist of oak-hickory forest and small stream forest. Refer to the Biotic Communities section in Attachment C for a detailed description of vegetation observed in the PSA.



## Soils

According to the (USDA-NRCS) Soil Survey Geographic (SSURGO) data, six Soil Map Units (SMU) are mapped within the PSA. Each SMU is included in Table 3 below.

*Table 2 - Soil Map Units (SMU) in the Project Study Area*

SMU	SMU Name	Area (acres)	Percentage of PSA
CeB2	Cecil sandy clay loam, 2 to 6 percent slopes, moderately eroded	1.4	10.4%
CfC3	Cecil clay loam, 6 to 10 percent slopes, severely eroded	4.7	33.9%
ChA	Chewacla loam, 0 to 2 percent slopes, frequently flooded	1.0	7.1%
MeB2	Mecklenburg-Wynott complex, 2 to 6 percent slopes, moderately eroded	1.2	8.8%
MkB3	Mecklenburg-Wynott complex, 2 to 6 percent slopes, severely eroded	3.9	28.0%
MkC3	Mecklenburg-Wynott complex, 6 to 10 percent slopes, severely eroded	1.6	11.8%

If you have any questions, or if Robbins & DeWitt can be of additional assistance, please feel free to contact Matt DeWitt at (864) 201-8446 or [matt.dewitt@robbins-dewitt.com](mailto:matt.dewitt@robbins-dewitt.com).

Respectfully Submitted



Matt DeWitt, AICP  
Robbins & DeWitt, LLC



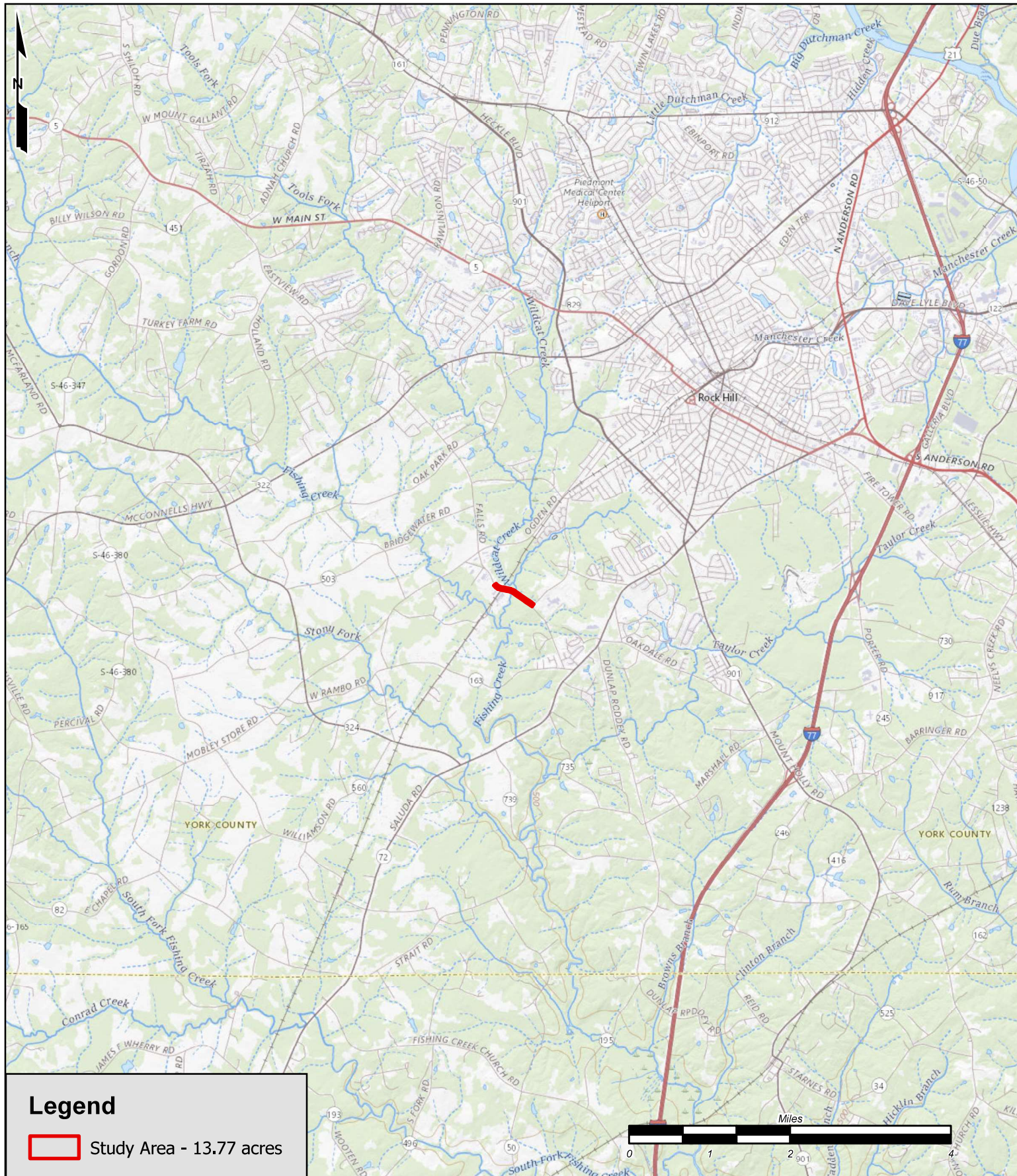
# Attachment A

## Figures



ROBBINS  
& DEWITT





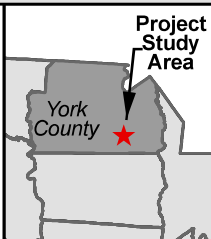
## Legend

Study Area - 13.77 acres



**ROBBINS  
& DEWITT**

www.Robbins-DeWitt.com



Project  
Study Area

## S-998 BRIDGE REPLACEMENT OVER WILDCAT CREEK PROJECT ID: P041172

**YORK COUNTY, SOUTH CAROLINA**

Source: USGS National Map (2023); USGS Rock Hill West Quadrangle (2020)



South Carolina Department of Transportation

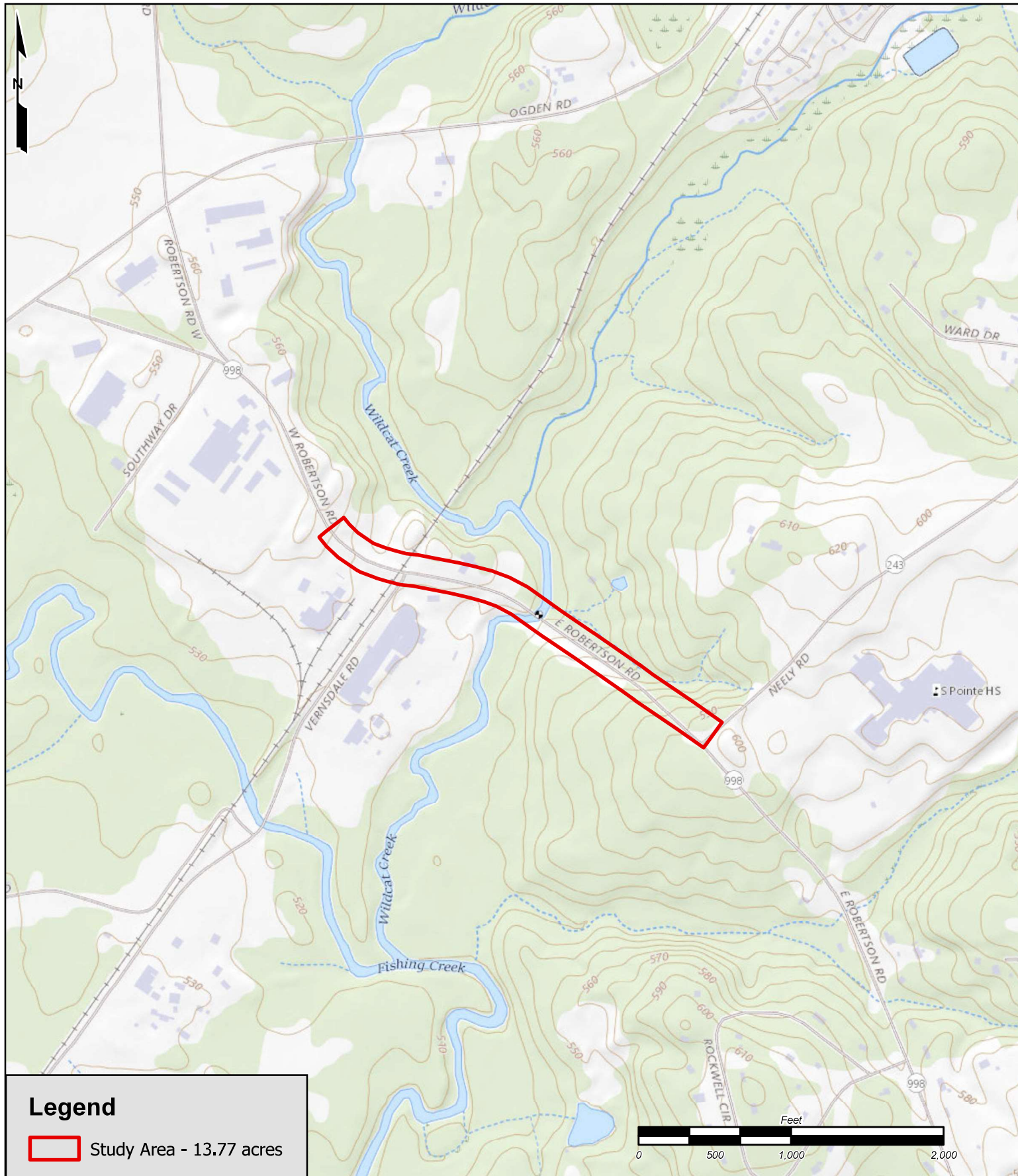
DRAWN BY: TRC

DATE: 06/05/2023

**PROJECT VICINITY**

**FIGURE 1**





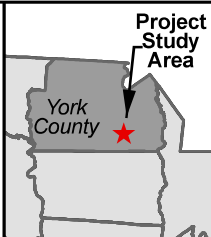
## Legend

Study Area - 13.77 acres



**ROBBINS  
& DEWITT**

www.Robbins-DeWitt.com



Project  
Study  
Area

York  
County

## S-998 BRIDGE REPLACEMENT OVER WILDCAT CREEK PROJECT ID: P041172

**YORK COUNTY, SOUTH CAROLINA**

Source: USGS National Map (2023); USGS Rock Hill West Quadrangle (2020)



South Carolina Department of Transportation

DRAWN BY: TRC

DATE: 06/05/2023

**USGS TOPOGRAPHIC MAPPING**

**FIGURE 2**





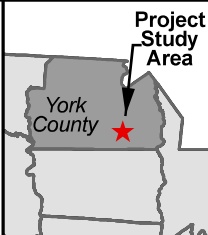
## Legend

- Study Area - 13.77 acres
- ⚡ Bridge
- NHD Flowline



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& DEWITT**

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## S-998 BRIDGE REPLACEMENT OVER WILDCAT CREEK PROJECT ID: P041172

**YORK COUNTY, SOUTH CAROLINA**

Source: USGS NHD Flowlines (2018); SC Geodetic High Resolution 6-inch, RGB Aerial Imagery [Statewide, South Carolina (2020)]



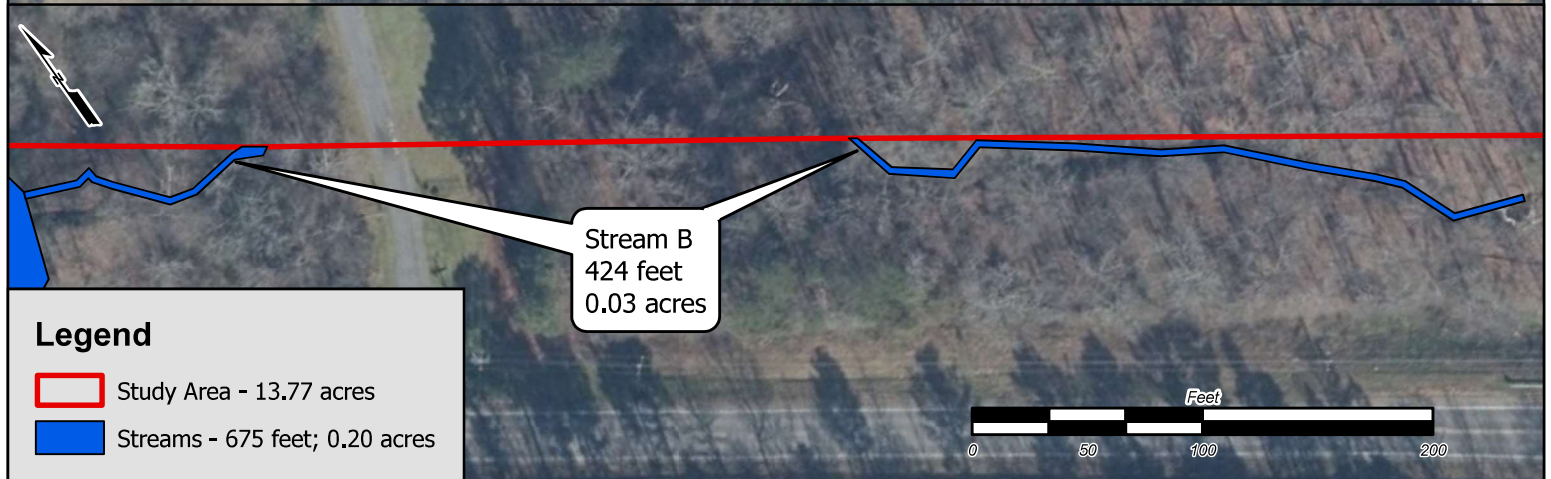
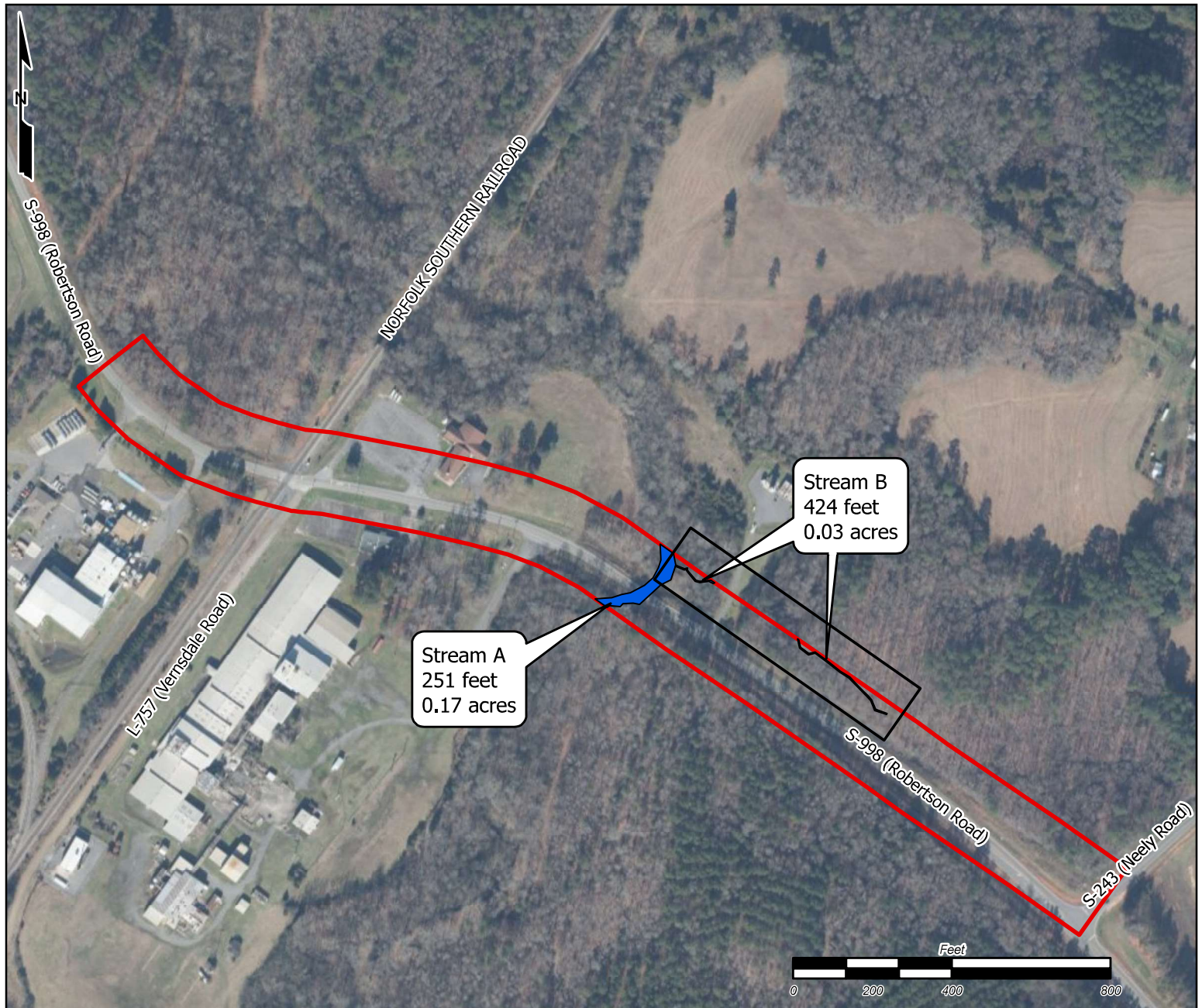
DRAWN BY: TRC

DATE: 06/05/2023

**AERIAL IMAGERY**

**FIGURE 3**





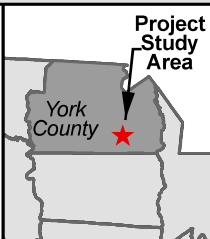
### Legend

- Study Area - 13.77 acres
- Streams - 675 feet; 0.20 acres



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**S-998 BRIDGE REPLACEMENT  
OVER WILDCAT CREEK  
PROJECT ID: P041172**

**YORK COUNTY, SOUTH CAROLINA**

Source: Approximate boundaries of WOTUS were delineated on May 2 and 3, 2023; SC Geodetic High Resolution 6-inch, RGB Aerial Imagery [Statewide, South Carolina (2020)]



South Carolina Department of Transportation

DRAWN BY: TRC

DATE: 06/05/2023

**APPROXIMATE BOUNDARY OF WOTUS**

**FIGURE 4**

## **Attachment B**

# **SCDOT Permit Determination Form & Water Quality Information Report**



**ROBBINS  
& DEWITT**

Date: 06/21/23

## PERMIT DETERMINATION

FROM Russell Chandler COMPANY Robbins and DeWitt

CONTACT INFO (phone and/or email) russell.chandler@robbins-dewitt.com

SCDOT PROJECT ENGINEER Michael Pitts

TO Will McGoldrick - Design Build Coordinator

Project Description S-998 over Wildcat Creek

Route or Road No. S-998 County York

CONST. PIN P041172 OTHER PINS or STRUCTURE # \_\_\_\_\_

RESPONSE:

☒ It has been determined that no permits are required because:

Preliminary design avoids impacts to WOTUS

☐ The following permit(s) is/are necessary:

(Please check which type(s) of permit the project will need)

USACE Permit ☐ GP ☐ IP ☐ 401 ☐ JD

OCRM Permit ☐ CAP ☐ CZC

Navigable ☐ SCDHEC NAVGP — if checked a USCG and/or USACE navigable permit may also be required, but will be determined during the NEPA and Permitting stages.

Other \_\_\_\_\_

Water Classification: FW

*Print and attach the SCDHEC water quality report*

303(d) listed ☐ no ☒ yes, for \* TURBIDITY, BIO

TMDL developed ☐ no ☒ yes, for \* ECOLI

\*List all that apply using the SCDHEC abbreviations

Comments: \_\_\_\_\_

The determination above was based on the most recently available information at the time. This is a preliminary determination and is subject to change if the design of the project is modified.

*T Russell Chandler*  
Biologist, SCDOT/Consultant

06/21/2023  
Date





# Watershed and Water Quality Information

## General Information

**Applicant Name:** SCDOT

**Permit Type:** Construction

**Address:** 193 ROBERTSON RD E, ROCK HILL, SC, 29730

**Latitude/Longitude:** 34.889567 / -81.069333

**MS4 Designation:** Small MS4

**Monitoring Station:** CW-096

**Within Coastal Critical Area:** No

**Water Classification (Provisional):** FW

**Waterbody Name:** WILDCAT CREEK

**Entered Waterbody Name:**

## Parameter Description

NH3N	Ammonia	CD	Cadmium	CR	Chromium
CU	Copper	HG	Mercury	NI	Nickel
PB	Lead	ZN	Zinc	DO	Dissolved Oxygen
PH	pH	TURBIDITY	Turbidity	ECOLI	Escherichia coli (Freshwaters)
FC	Fecal Coliform (Shellfish)	BIO	Macroinvertebrates (Bio)	TP	(Lakes) Phosphorus
TN	(Lakes) Nitrogen	CHLA	(Lakes) Chlorophyll a	ENTERO	Enterococcus (Coastal Waters)
HGF	Mercury (Fish Tissue)	PCB	PCB (Fish)		

## Impaired Status (downstream sites)

Station	NH3N	CD	CR	CU	HG	NI	PB	ZN	DO	PH	TURBIDITY	ECOLI	FC	BIO	TP	TN	CHLA	ENTERO	HGF	PCB
CW-096	X	F	F	F	F	F	F	F	F	F	N	InTN	X	X	X	X	X	X	X	X
CW-654	X	A	A	A	A	A	A	A	A	A	A	A	X	N	X	X	X	X	X	X

F = Standards full supported  
N = Standards not supported

A = Assessed at upstream station  
X = Parameter not assessed at station

WnTN = Within TMDL, parameter not supported  
InTN = In TMDL, parameter not supported

WnTF = Within TMDL, parameter full supported  
InTF = In TMDL, parameter full supported

## Parameters to be addressed (those not supporting standards)

**TURBIDITY** - Turbidity

**ECOLI** - Escherichia coli (Freshwaters)

**BIO** - Macroinvertebrates (Bio)

## Fish Consumption Advisory

## Waters of Concern (WOC)

## TMDL Information - TMDL Parameters to be addressed

**In TMDL Watershed:** Yes

**TMDL Site:** CW-096

**TMDL Report No:** 004-02

**TMDL Parameter:** Fecal

**TMDL Document Link:** <https://www.scdhec.gov/sites/default/files/docs/HomeAndEnvironment/Docs/tmdlfish.pdf>

Report Date: May 30, 2023



# **Attachment C**

## **Biological Evaluation - Section 7 of the Endangered Species Act**



**ROBBINS  
& DEWITT**



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

South Carolina Ecological Services Field Office  
176 Croghan Spur Road, Suite 200  
Charleston, South Carolina 29407



July 17, 2023

Mr. Will McGoldrick  
Environmental Services Office  
SCDOT  
955 Park St Rm 506  
Columbia SC 29202-0191

Re: S-998 (Robertson Road) Bridge Replacement over Wildcat Creek,  
York County, South Carolina  
FWS Project Code: 2023-0100365

Dear Mr. McGoldrick:

The U.S. Fish and Wildlife Service (Service) has reviewed the above referenced project pursuant to section 7 of the Endangered Species Act of 1973, as amended, 16 U.S.C. 1531 *et seq.* (ESA). The following comments do not address all Service concerns for fish and wildlife resources and do not preclude separate review and comments by the Service as afforded by other applicable environmental legislation.

SCDOT has determined that the proposed project will have *no effect* on northern long-eared bat (*Myotis septentrionalis*), Carolina heelsplitter (*Lasmigona decorata*), dwarf-flowered heartleaf (*Hexastylis naniflora*), and little amphianthus (*Amphianthus pusillus*). There is no requirement to request concurrence with a *no effect* determination; however, the Service acknowledges this determination and has no additional comments or concerns regarding these species. SCDOT has also not been able to make a determination for Schweinitz's sunflower (*Helianthus schweinitzii*) for this project because the site assessment was before the survey window for the species.

SCDOT has committed to a final survey during the appropriate survey window and based on those findings make an appropriate effects determination for the species. Therefore, the Service finds that SCDOT is in compliance with Section 7 and once the survey for Schweinitz's sunflower a updated Biological Evaluation should be submitted to our office and we can conclude consultation at that time.

Please note that obligations under section 7 of the ESA must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered; (2) this action is subsequently modified in a manner, which was not considered in this assessment; or (3) a new species is listed or critical habitat is determined that may be affected by the identified action.

The Service recommends that you contact the South Carolina Department of Natural Resources regarding potential impacts to State protected species. If you need further assistance, please contact: Melanie Olds via email at [melanie\\_old@fws.gov](mailto:melanie_old@fws.gov).

Sincerely,

**WILLIAM**  
**PEARSON**

Digitally signed by  
WILLIAM PEARSON  
Date: 2023.07.17  
15:26:47 -05'00'

William J. Pearson  
Acting Field Supervisor  
South Carolina Ecological Services Field Office

## Introduction

The proposed project consists of replacing the S-998 (Robertson Road) bridge over Wildcat Creek, and associated road work, in York County, South Carolina. See Attachment A for project figures.

Pursuant to Section 7 of the Endangered Species Act (ESA), a field survey was conducted within the Project Study Area (PSA) for the project. A review of the USFWS South Carolina List of At-Risk, Candidate, Endangered, and Threatened Species, dated March 29, 2022, identifies six (6) federally protected species known to occur or to have formerly occurred in York County (see Attachment D). A Resource List was also requested from the USFWS Information for Planning and Consultation (IPaC) in June 2023, to detail protected species under USFWS jurisdiction that are known or expected to be on or near the project area (see Attachment D). Table 1 below includes the species that appear on at least one of these resources.

## Federally Protected Species

Species with the federal classification of Endangered (E) or Threatened (T) or Threatened due to Similarity of Appearance (T [S/A]) are protected under the ESA of 1973, as amended (16 U.S.C. 1531 et seq.). Although Section 7 of the ESA does not provide protections for Candidate species, they are listed in Table 1 in the event of a status changes prior to completion of the project. Additionally, species that are proposed for listing are not subject to Section 7 compliance until the time they are formally listed. The bald eagle is protected by the Bald and Golden Eagle Protection Act (BGEPA) and is included in this evaluation.

*Table 1: Threatened and Endangered Species*

Category	Common Name	Scientific Name	Protection Status
Bird	Bald eagle	<i>Haliaeetus leucocephalus</i>	BGEPA
Insect	Monarch butterfly	<i>Danaus plexippus</i>	Candidate
Mammal	Northern long-eared bat	<i>Myotis septentrionalis</i>	Endangered
Mammal	Tri-colored bat	<i>Perimyotis subflavus</i>	Proposed Endangered
Mollusk	Carolina heelsplitter	<i>Lasmigona decorata</i>	Endangered, Critical Habitat
Plant	Dwarf-flowered Heartleaf	<i>Hexastylis naniflora</i>	Threatened
Plant	Little amphianthus	<i>Amphianthus pusillus</i>	Threatened
Plant	Schweinitz's sunflower	<i>Helianthus schweinitzii</i>	Endangered

## Methodology

Environmental scientists performed literature and field reviews to determine the likelihood of protected species within the PSA and the potential for project-related impacts. Field reviews were conducted on May 2<sup>nd</sup> and 3<sup>rd</sup>, 2023. The SCDNR South Carolina Natural Heritage Species Viewer was also reviewed to determine the presence of known populations of protected species within the vicinity of the project.

## Biotic Communities

Land use in the PSA includes urban development, forested uplands, and bottomland hardwoods. Natural communities observed within the PSA consist of oak-hickory forest and small stream forest.

The oak-hickory forest community is found on upland slopes in the piedmont and dominated by a diverse assemblage of hardwoods and pines. Many hardwoods are present, with oaks and hickories as the dominant species. Typical canopy and subcanopy species are white oak (*Quercus alba*), black oak (*Q. velutina*), northern red oak (*Q. rubra*), blackjack oak (*Q. marilandica*), post oak (*Q. stellata*), scarlet oak (*Q. coccinea*), chestnut oak (*Q. prinus*), mockernut hickory (*Carya tomentosa*), pignut hickory (*C. glabra*), shagbark hickory (*C. ovata*), red maple (*Acer rubrum*), sweetgum (*Liquidambar styraciflua*), flowering dogwood (*Cornus florida*), tulip poplar (*Liriodendron tulipifera*), loblolly pine (*Pinus taeda*), shortleaf pine (*P. echinata*), black locust (*Robinia pseudo-acacia*), and sourwood (*Oxydendron arboretum*). A high predominance of pines and sweetgum generally indicates past disturbance. The understory includes black locust and flowering dogwood. Shrubby species include strawberry bush (*Euonymus americana*), Carolina allspice (*Calycanthus floridus*), *Viburnum spp.*, and horse-sugar (*Symplocos tinctoria*). The herbaceous layer varies considerably throughout the PSA, but includes, spotted wintergreen (*Chimaphila maculate*), pencil flower (*Stylosanthes biflora*) and other species.

The small stream forest consists of an open to dense understory or shrub layer and a sparse to dense herb layer. The canopy has a mixture of bottomland and mesophytic trees including river birch (*Betula nigra*), sycamore (*Platanus occidentalis*), sweetgum, tulip poplar, American elm (*Ulmus americana*), hackberry (*Celtis laevigata*), green ash (*Fraxinus pennsylvanica*), and red maple. Vine species are typically common and can include poison ivy (*Toxicodendron radicans*), summer grape (*Vitis aestivalis*), and crossvine (*Bignonia capreolata*). The subcanopy consists of young canopy species and many tall shrubs including pawpaw (*Asimina triloba*) and blackhaw (*V. prunifolium*). The herb layer contains cardinal flower (*Lobelia cardinalis*), longleaf lobelia (*L. elongata*), Nepalese browntop (*Microstegium vimineum*), netted chainfern (*Woodwardia areolata*), royal fern (*Osmunda regalis*), and eastern marsh fern (*Thelypteris palustris*).

## Results

The SCDNR South Carolina Natural Heritage Species Viewer does not identify any protected species within the PSA or within a one-mile radius of the PSA.

Field reviews of the PSA found no suitable habitat for bald eagle and little amphianthus.

While Northern long-eared bat is included on the list of protected species for York County, the USFWS has recently removed York County from the range map for the species.

Suitable habitat for tri-colored bat exists in the PSA. Roosting habitat exists under the existing Wildcat Creek bridge and in cavities and crevices of trees within the PSA. A structure survey of the existing Wildcat Creek bridge found no evidence of bat roosting. Additionally, a visual inspection and borescope review of cavities and crevices in trees within the PSA did not indicate the presence of any bat species. A Structures Survey Data Sheet and Habitat Assessment Data Sheet are included in Attachment D.

SCDOT completed mussel surveys in Spring 2022 and determined no suitable habitat was present in the PSA. See email from SCDOT biologist in Attachment D.



Marginally suitable habitat exists for dwarf-flowered heartleaf in the PSA but no individuals of the species or the *Hexastylis* genus were observed within the anticipated limits of construction during field reviews.

Suitable habitat for Schweinitz's sunflower exists in the PSA. The existing, maintained right-of-way of Robertson Road and a maintained overhead powerline represent the most suitable habitat for the species. The natural community near Wildcat Creek consists of small stream forest with damp soils and a dense overstory. Based on the conceptual design for the project, the bridge would be replaced on a shifted alignment and roadway approach work would be contained within approximately 500 feet of the existing bridge. The proposed construction limits include suitable habitat for the species.

## Conclusions

Based on the literature and field reviews, it is determined that the proposed project will have a biological conclusion of 'no effect' on northern long-eared bat, Carolina heelsplitter, dwarf-flowered heartleaf, and little amphianthus.

Due to the accelerated schedule for the project, surveys for Schweinitz's sunflower were completed outside of the USFWS-recommended survey window; therefore, the project's effect on the species is 'undetermined'. The SCDOT will conduct surveys for Schweinitz's sunflower during the 2023 survey window to confirm absence or presence of the species. An updated Biological Evaluation will be provided to USFWS with the findings of the survey and a final effect determination. If the species is observed within the anticipated limits of construction, the updated Biological Evaluation will include appropriate avoidance and minimization measures and/or a plan to address how the species would be protected if impacts could not be avoided (e.g. a relocation plan).

The project team will re-evaluate the project's effect on tri-colored bats at the time the species is formally listed under the ESA, and, if necessary, initiate consultation at that time.

If you have any questions, or if Robbins & DeWitt can be of additional assistance, please feel free to contact Matt DeWitt at (864) 201-8446 or [matt.dewitt@robbins-dewitt.com](mailto:matt.dewitt@robbins-dewitt.com).

Respectfully Submitted



Matt DeWitt, AICP  
Robbins & DeWitt, LLC

# **Attachment D**

## **Biological Evaluation Attachments**



**ROBBINS  
& DEWITT**

## YORK COUNTY

CATEGORY	COMMON NAME/STATUS	SCIENTIFIC NAME	SURVEY WINDOW/ TIME PERIOD	COMMENTS
Bird	Bald eagle (BGEPA)	<i>Haliaeetus leucocephalus</i>	October 1-May 15	Nesting season
Crustacean	Broad River spiny crayfish (ARS)	<i>Cambarus spicatus</i>	November-April	
Insect	Monarch butterfly (C)	<i>Danaus plexippus</i>	August-December	Overwinter population departs; March-April
Mammal	Northern long-eared bat (T)	<i>Myotis septentrionalis</i>	Year round	Winter surveys not as successful
Mammal	Tri-colored bat (ARS)	<i>Perimyotis subflavus</i>	Year round	Found in mines and caves in the winter
Mollusk	Carolina heelsplitter (E, CH)	<i>Lasmigona decorata</i>	March 1-September 30	Optimal survey window
Plant	Georgia aster (ARS*)	<i>Symphotrichum georgianum</i>	Early October-mid November	
Plant	Little amphianthus or Pool sprite (T)	<i>Amphianthus pusillus</i>	Late March-April	
Plant	Schweinitz's sunflower (E)	<i>Helianthus schweinitzii</i>	Late August-October	
Plant	Wire-leaved dropseed (ARS)	<i>Sporobolus teretifolius</i>	August-September	Following fire

**Note: There are no federally protected species found in this county in the amphibian, fish, and reptile family categories.**



## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

South Carolina Ecological Services  
176 Croghan Spur Road, Suite 200  
Charleston, SC 29407-7558  
Phone: (843) 727-4707 Fax: (843) 727-4218



In Reply Refer To:

July 03, 2023

Project Code: 2023-0100365

Project Name: S-998 (Robertson Road) Bridge Replacement over Wildcat Creek

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

#### To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

**Migratory Birds:** In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/birds/policies-and-regulations.php>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

---



Attachment(s):

- Official Species List
  - USFWS National Wildlife Refuges and Fish Hatcheries
  - Migratory Birds
  - Wetlands
-

## OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**South Carolina Ecological Services**

176 Croghan Spur Road, Suite 200

Charleston, SC 29407-7558

(843) 727-4707

---



## PROJECT SUMMARY

Project Code: 2023-0100365

Project Name: S-998 (Robertson Road) Bridge Replacement over Wildcat Creek

Project Type: Bridge - Replacement

Project Description: The South Carolina Department of Transportation (SCDOT) proposes to replace the S-998 (Robertson Road) bridge over Wildcat Creek in York County, South Carolina.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@34.889255199999994,-81.06866558025926,14z>



Counties: York County, South Carolina

---

## ENDANGERED SPECIES ACT SPECIES

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## MAMMALS

NAME	STATUS
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/10515">https://ecos.fws.gov/ecp/species/10515</a>	Proposed Endangered

## CLAMS

NAME	STATUS
Carolina Heelsplitter <i>Lasmigona decorata</i> There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/3534">https://ecos.fws.gov/ecp/species/3534</a>	Endangered

## INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Candidate

---

## FLOWERING PLANTS

NAME	STATUS
Dwarf-flowered Heartleaf <i>Hexastylis naniflora</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/2458">https://ecos.fws.gov/ecp/species/2458</a>	Threatened
Schweinitz's Sunflower <i>Helianthus schweinitzii</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/3849">https://ecos.fws.gov/ecp/species/3849</a>	Endangered

## CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

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## **USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES**

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

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# MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

- 
1. The [Migratory Birds Treaty Act](#) of 1918.
  2. The [Bald and Golden Eagle Protection Act](#) of 1940.
  3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

**The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location.** To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
<b>Bald Eagle <i>Haliaeetus leucocephalus</i></b> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Sep 1 to Jul 31
<b>Chimney Swift <i>Chaetura pelagica</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
<b>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10

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NAME	BREEDING SEASON
<b>Rusty Blackbird</b> <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
<b>Wood Thrush</b> <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

## PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is  $0.25/0.25 = 1$ ; at week 20 it is  $0.05/0.25 = 0.2$ .
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

### Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.



### Survey Effort (|)

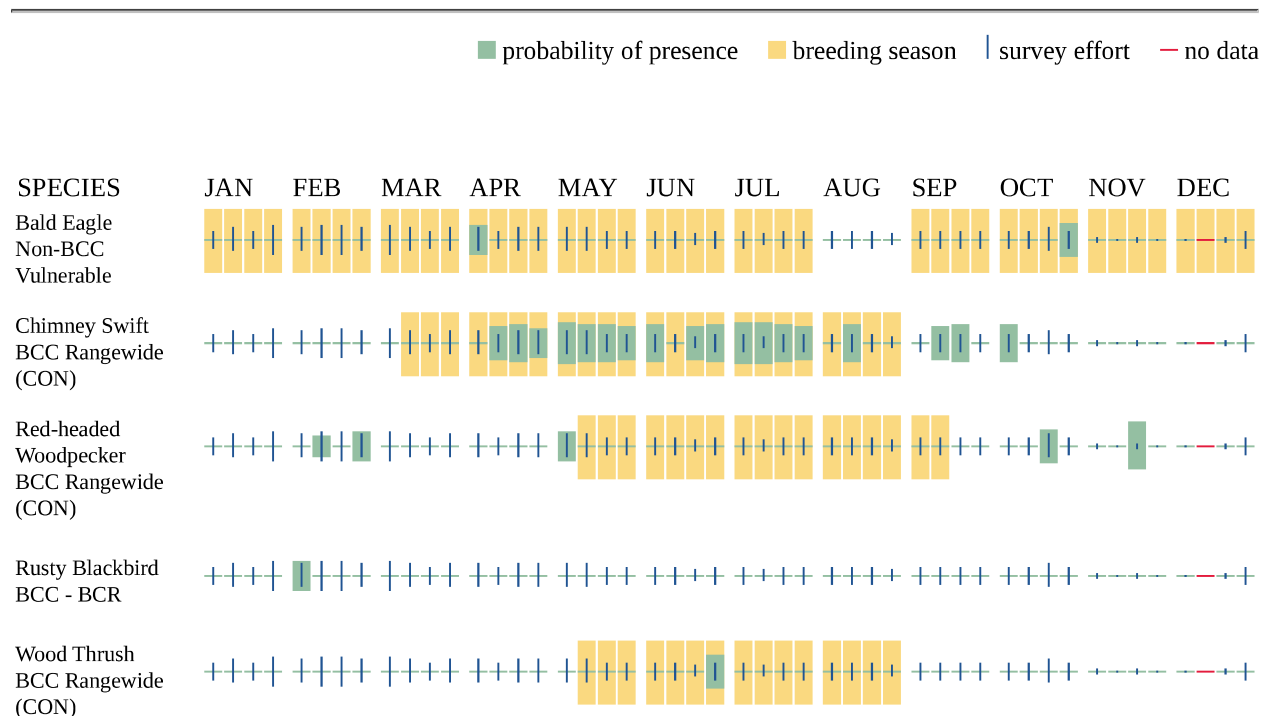
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

### No Data (—)

A week is marked as having no data if there were no survey events for that week.

### Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

## MIGRATORY BIRDS FAQ

**Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

### **What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?**

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

### **What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

### **How do I know if a bird is breeding, wintering or migrating in my area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

### **What are the levels of concern for migratory birds?**

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Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

### **Details about birds that are potentially affected by offshore projects**

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

### **What if I have eagles on my list?**

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

### **Proper Interpretation and Use of Your Migratory Bird Report**

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of

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certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

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## WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

### RIVERINE

- [R2UBH](#)
  - [R4SBC](#)
-

**IPAC USER CONTACT INFORMATION**

Agency: South Carolina Department of Transportation  
Name: Russell Chandler  
Address: 321 HOWELL RD  
City: Blythewood  
State: SC  
Zip: 29016  
Email: russell.chandler@robbins-dewitt.com  
Phone: 8033605197

**LEAD AGENCY CONTACT INFORMATION**

Lead Agency: Federal Highway Administration  
Name: Will McGoldrick  
Email: McGoldriWR@scdot.org  
Phone: 8037371326

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# STRUCTURES SURVEY DATA SHEET

Investigator Names(s): A. CHANDLER, M. DEWITT

Date: 5/24/2023





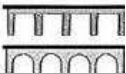

County: YORK

Lat Long/w3w: 34.889515, -81.069299

Project Name: S-998 OVER WILDCAT CREEK

SCDOT Structure ID: 05643

SCDOT Project No.: P041172

Structure Type:			Underdeck Material:	
<input type="checkbox"/> Parallel Box Beam		<input type="checkbox"/> Steel I-Beam		<input checked="" type="checkbox"/> Concrete
<input type="checkbox"/> Pre-Stressed Girder		<input checked="" type="checkbox"/> Flat Slab / Box		<input type="checkbox"/> Corrugated Steel
<input type="checkbox"/> Cast in Place		<input type="checkbox"/> Trapezoidal Box		<input type="checkbox"/> Other:
Note:				
<input type="checkbox"/> Culvert – Box				
<input type="checkbox"/> Culvert – Pipe/Round				

Road Type:			
<input type="checkbox"/> Interstate	<input type="checkbox"/> US Highway	<input checked="" type="checkbox"/> State Road	<input type="checkbox"/> County Road
		S-998	

Surrounding Habitat (check all that apply):				
<input type="checkbox"/> Residential	<input type="checkbox"/> Agricultural	<input checked="" type="checkbox"/> Commercial	<input checked="" type="checkbox"/> Pine Forest	<input type="checkbox"/> Grassland
<input checked="" type="checkbox"/> Riparian	<input checked="" type="checkbox"/> Wetland	<input checked="" type="checkbox"/> Mixed Forest	<input checked="" type="checkbox"/> Bottomland Hardwood	
<input type="checkbox"/> Other:				

Conditions Under Bridge (check all that apply):			
<input checked="" type="checkbox"/> Bare Ground/Sediment	<input type="checkbox"/> Concrete	<input checked="" type="checkbox"/> Rip Rap	<input checked="" type="checkbox"/> Flowing Water
<input type="checkbox"/> Standing Water	<input checked="" type="checkbox"/> Open Vegetation (not obstructing flight path)	<input type="checkbox"/> Closed Vegetation (may obstruct flight path)	<input type="checkbox"/> Two Lanes
<input type="checkbox"/> Four (+) Lanes	<input type="checkbox"/> Unpaved Road	<input type="checkbox"/> Railroad	<input type="checkbox"/> Other:

Bats Present:	
<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO

Bat Indicators (check all that apply):				
<input type="checkbox"/> Visual	<input type="checkbox"/> Smell	<input type="checkbox"/> Sound	<input type="checkbox"/> Staining	<input type="checkbox"/> Guano

Species Present:	
<input type="checkbox"/> Big brown ( <i>Eptesicus fuscus</i> )	<input type="checkbox"/> Northern long-eared ( <i>Myotis septentrionalis</i> )
<input type="checkbox"/> Brazilian free-tailed ( <i>Tadarida brasiliensis</i> )	<input type="checkbox"/> Northern yellow ( <i>Lasiurus intermedius</i> )
<input type="checkbox"/> Eastern red ( <i>Lasiurus borealis</i> )	<input type="checkbox"/> Rafinesque's big-eared ( <i>Corynorhinus rafinesquii</i> )
<input type="checkbox"/> Eastern small-footed ( <i>Myotis leibii</i> )	<input type="checkbox"/> Silver-haired ( <i>Lasionycteris noctivagans</i> )
<input type="checkbox"/> Evening ( <i>Nycticeius humeralis</i> )	<input type="checkbox"/> Southeastern ( <i>Myotis austroriparius</i> )
<input type="checkbox"/> Hoary ( <i>Lasiurus cinereus</i> )	<input type="checkbox"/> Seminole ( <i>Lasiurus seminolus</i> )
<input type="checkbox"/> Little brown ( <i>Myotis lucifugus</i> )	<input type="checkbox"/> Tri-colored ( <i>Perimyotis subflavus</i> )
	<input type="checkbox"/> UNKNOWN

Roost Description (if known, check all that apply):			
<input type="checkbox"/> Day Roost	<input type="checkbox"/> Nursery Roost	<input type="checkbox"/> Night Roost	<input type="checkbox"/> UNKNOWN
Number of Roosts:			

Roost Design (check all that apply):			
<input type="checkbox"/> Crack/Crevice/Expansion Joint: Under Bridge		<input type="checkbox"/> Crack/Crevice/Expansion Joint: Top of Bridge	
<input type="checkbox"/> Plugged Drain	<input type="checkbox"/> Under/Along Main Bridge Structure	<input type="checkbox"/> Rail	<input type="checkbox"/> Other:

Human Disturbance or Traffic Under Bridge or at Structure?		
<input type="checkbox"/> High	<input checked="" type="checkbox"/> Low	<input type="checkbox"/> None

Areas Inspected (check all that apply):			
<input type="checkbox"/> Vertical Surfaces on I-Beams	<input checked="" type="checkbox"/> Vertical Surfaces between Concrete End Walls and Bridge Deck		
<input checked="" type="checkbox"/> Expansion Joints	<input checked="" type="checkbox"/> Rough Surfaces	<input checked="" type="checkbox"/> Guardrails	<input checked="" type="checkbox"/> Services
<input type="checkbox"/> Other:			
Areas NOT Inspected because of Safety or Inaccessibility:			

Evidence of Migratory Birds Using the Structure?	
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO

- ACTIVE NEST

Additional Information:

## BAT HABITAT ASSESSMENT DATA SHEET

Project Name: S-998 (ROBERTSON ROAD) OVER WILDCAT CREEK

Date: 5/24/2023

Township/Range/Section: YORK COUNTY, SC

Lat Long: 34.889515, -81.069299

Surveyor: A. CHANDLER

### Brief Project Description

Replacing the S-998 bridge over Wildcat Creek and associated roadway approach work.

### Project Area

	Total Acres	Forest Acres	Open Acres
Project	13.77 acres	4.19 acres	9.58 acres
Proposed Tree Removal	Completely Cleared	Partially Cleared (Will Leave Trees)	Preserve Acres – No Clearing
	< 0.4 acre (anticipated)	None	> 3.7 acres (anticipated)

### Vegetation Cover Types

Pre-Project	Post-Project
Bottomland Hardwood Forest Developed areas with maintained yards and driveways Maintained right-of-way, Overhead powerlines	Bottomland Hardwood Forest Developed areas with maintained yards and driveways Maintained right-of-way, Overhead powerlines

### Landscape within 5-mile Radius

#### Flight corridors to other forested areas?

S-998 Roadway and powerline easement, Wildcat Creek, Driveways off S-998, Norfolk Southern Railroad

#### Describe Adjacent Properties (e.g., forested, grassland, commercial or residential development, water sources)

Forested, Commercial and Residential Development (Church, Manufacturing Facilities, School), Wildcat Creek

### Proximity to Public Land

What is the distance from the project area to forested public lands (e.g., national or state forests, national or state parks, conservation areas, wildlife management areas)?

Rock Hill Blackjacks Heritage Preserve/WMA ~2.5 miles east

### Sample Site Description

Sample Site No. (s): Project Study Area (13.77 acres)

Water Resources at Sample Site			
Stream Type (# and length)	Ephemeral	Intermittent	Perennial
		Stream B – 424 lf	Stream A – 251 lf

Pools/Ponds (# and size)	N/A	Open and accessible to bats?

Wetland (approx. acres)	Permanent	Seasonal
	N/A	

Describe existing condition of water sources: Perennial streams

Forest Resources at Sample Site			
Closure/Density	Canopy (> 50')	Midstory (20-50')	Understory (< 20')
	5 (61-80%)	3 (21-40%)	4 (41-60%)

Dominant Species of Mature Trees	Oak spp., Hickory spp., Pine spp.
-------------------------------------	-----------------------------------

Exfoliating Bark (%)	5%
----------------------	----

Size Composition of Live Trees (%)	Small (3-8 in)	Med (9-15 in)	Large (> 15 in)
	3 (21-40%)	3 (21-40%)	1 (1-10%)

No. of Suitable Snags	5%
-----------------------	----

Standing dead trees with exfoliating bark, cracks, crevices, or hollows. Snags without these characteristics are not considered suitable.

1 = 1-10%, 2 = 11-20%, 3 = 21-40%, 4 = 41-60%, 5 = 61-80%, 6 = 81-100%

IS THE HABITAT SUITABLE FOR NORTHERN LONG-EARED BATS?

YES

IS THE HABITAT SUITABLE FOR TRI-COLORED BATS?

YES

Additional Comments:
See Attachment A, Figure 3 for an Aerial Photography Map, and Attachment C for description of forested habitat.

Attach aerial photo of project site with all forested areas labeled and a general description of the habitat.

Photographic Documentation: habitat shots at edge and interior from multiple locations; understory/midstory/canopy; examples of potential suitable snags and live trees; water sources





Photograph 1

Date: 5/24/2023

Taken by: M. DeWitt

From Wildcat Creek,  
facing S-998



Photograph 2

Date: 5/24/2023

Taken by: M. DeWitt

Wildcat Creek, facing  
north



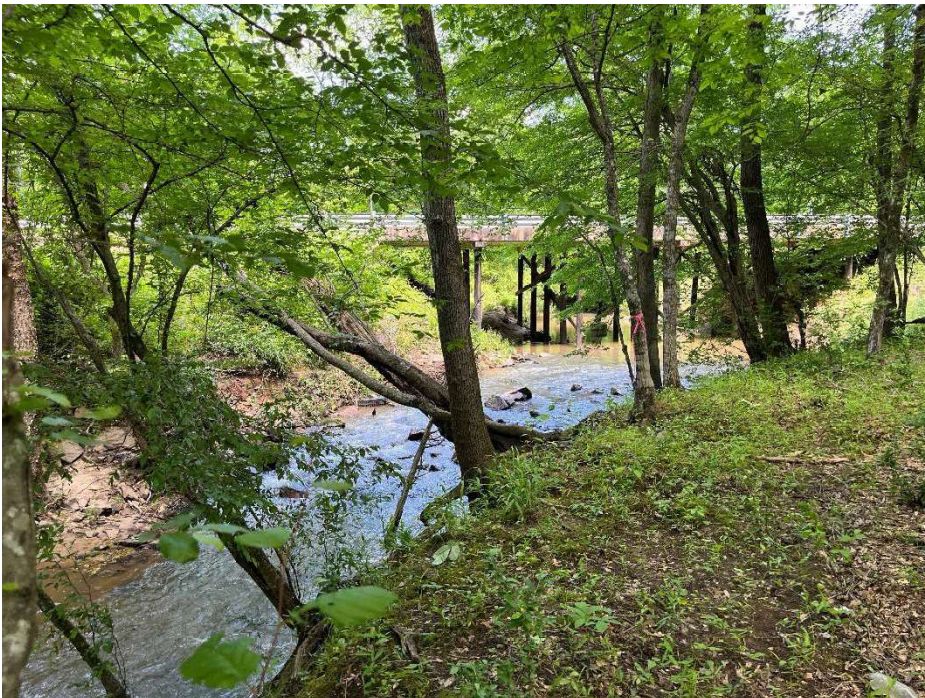


Photograph 3

Date: 5/24/2023

Taken by: M. DeWitt

**Stream B and forest**



Photograph 4

Date: 5/24/2023

Taken by: M. DeWitt

**North of bridge on west  
bank of Wildcat Creek,  
facing south**

**From:** [Altman, Ann-Marie](#)  
**To:** [McGoldrick, Will](#)  
**Subject:** the rest of your NLEBs packages 18-20  
**Date:** Thursday, April 7, 2022 2:08:47 PM  
**Attachments:** [S-197 NLEB.pdf](#)  
[S-31 NLEB.pdf](#)  
[S-51 NLEB.pdf](#)  
[S-133 NLEB.pdf](#)  
[S-160 NLEB.pdf](#)  
[S-32 NLEB.pdf](#)  
[S-195 NLEB.pdf](#)  
[S-998 NLEB.pdf](#)  
[S-1086 NLEB.pdf](#)

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The two bridges that needed mussel surveys had no mussels and did not have good habitat.

**Attachment C- Bridge Replacement Scoping Risk Assessment Form**



## BRIDGE REPLACEMENT SCOPING TRIP RISK ASSESSMENT FORM

COUNTY: York

DATE: 06/21/2023

ROAD #: S-998

STREAM CROSSING: Wildcat Creek

### Purpose & Need for the Project:

The purpose of the project is to correct the load restriction placed on the bridge and restore all components to good condition. The existing bridge is posted for load restrictions and has one or more components in poor condition.

### I. FEMA Acknowledgement

Is this project located in a regulated FEMA Floodway? ☐ Yes ☒ No

Panel Number: 45091C0314F Effective Date: 05/16/2017 (See Attached)

### II. FEMA Floodmap Investigation

FEMA Flood Profile Sheet Number N/A illustrates the existing 100 year flood:

- ☐ Passes under the existing low chord elevation.
- ☐ Is in contact with the existing low chord elevation.
- ☒ Overtops the existing bridge finished grade elevation.

### III. No Rise/CLOMR Preliminary Determination

- ☒ Preliminary assessment indicates this project may be constructed to meet the "No-Rise" requirements. A detailed hydraulic analysis will be performed to verify this assessment.

Justification: Bridge is located in FEMA Zone A without a floodway established. Preliminary analysis indicates the proposed bridge will satisfy all SCDOT criteria for determine a finding of "No Impact".

- ☐ Preliminary assessmnet indicates this project may require a CLOMR/LOMR. Impacts will be determined by a detailed hydraulic analysis.

Justification:

## BRIDGE REPLACEMENT SCOPING TRIP RISK ASSESSMENT FORM

### IV. Preliminary Bridge Assessment

#### A. Locate Existing Plans

a. Bridge Plans ☒ Yes File No. 46.536.1 Sheet No. 9 (See Attached)  
☐ No

b. Road Plans ☒ Yes File No. 46.536 Sheet No. 9 (See Attached)  
☐ No

#### B. Historical Highwater Data

a. USGS Gage ☐ Yes Gage No. \_\_\_\_\_ Results: \_\_\_\_\_  
☒ No

b. SCDOT/USGS Documented Highwater Elevations  
☐ Yes Results: \_\_\_\_\_  
☒ No

c. Existing Plans ☒ Yes See Above  
☐ No

### V. Field Review

#### A. Existing Bridge

Length: 90 ft. Width: 27.6 ft. Max. span Length: 15 ft.

Alignment: ☒ Tangent ☐ Curved

Bridge Skewed: ☐ Yes ☒ No Angle: \_\_\_\_\_

End Abutment Type: Spill Through

Riprap on End Fills: ☒ Yes ☐ No Condition: \_\_\_\_\_

Superstructure Type: Concrete Deck

Substructure Type: RC Caps with Timber Piles

Utilities Present: ☒ Yes ☐ No

Describe: OH electrical/telecom, natural gas, sanitary sewer, water meter station

Debris Accumulation on Bridge: Percent Blocked Horizontally: <5 %  
Percent Blocked Vertically: <5 %

Hydraulic Problems: ☐ Yes ☒ No  
Describe: \_\_\_\_\_

## BRIDGE REPLACEMENT SCOPING TRIP RISK ASSESSMENT FORM

### V. Field Review (cont.)

#### B. Hydraulic Features

a. Scour Present: ☒ Yes ☐ No Location: Light scour of both fills

b. Distance from F.G. to Normal Water Elevation: 17.2 ft.

c. Distance from Low Steel to Normal Water Elev.: 15.4 ft.

d. Distance from F.G. to High Water Elevation: 2.8 ft.

e. Distance from Low Steel to High Water Elev.: 1.0 ft.

f. Channel Banks Stable: ☒ Yes ☐ No

Describe: Generally in good condition with minor scour/erosion.

g. Soil Type: Sand / Gravel

h. Exposed Rock: ☐ Yes ☒ No Location: \_\_\_\_\_

i. Give Description and Location of any structures or other property that could be damaged due to additional backwater.

Wildcat Creek pump station and a church upstream of the structure. The majority of the adjacent land is undeveloped or pasture.

#### C. Existing Roadway Geometry

a. Can the existing roadway be closed for an On-Alignment Bridge Replacement

☒ Yes ☐ No

Describe:

An adequate detour route is available.

If "yes", does the existing vertical and horizontal curves meet the proposed design speed criteria?

Yes

If "No", will the proposed bridge be:

☐ Staged Constructed

☐ Replaced on New Alignment

## BRIDGE REPLACEMENT SCOPING TRIP RISK ASSESSMENT FORM

### VI. Field Review (cont.)

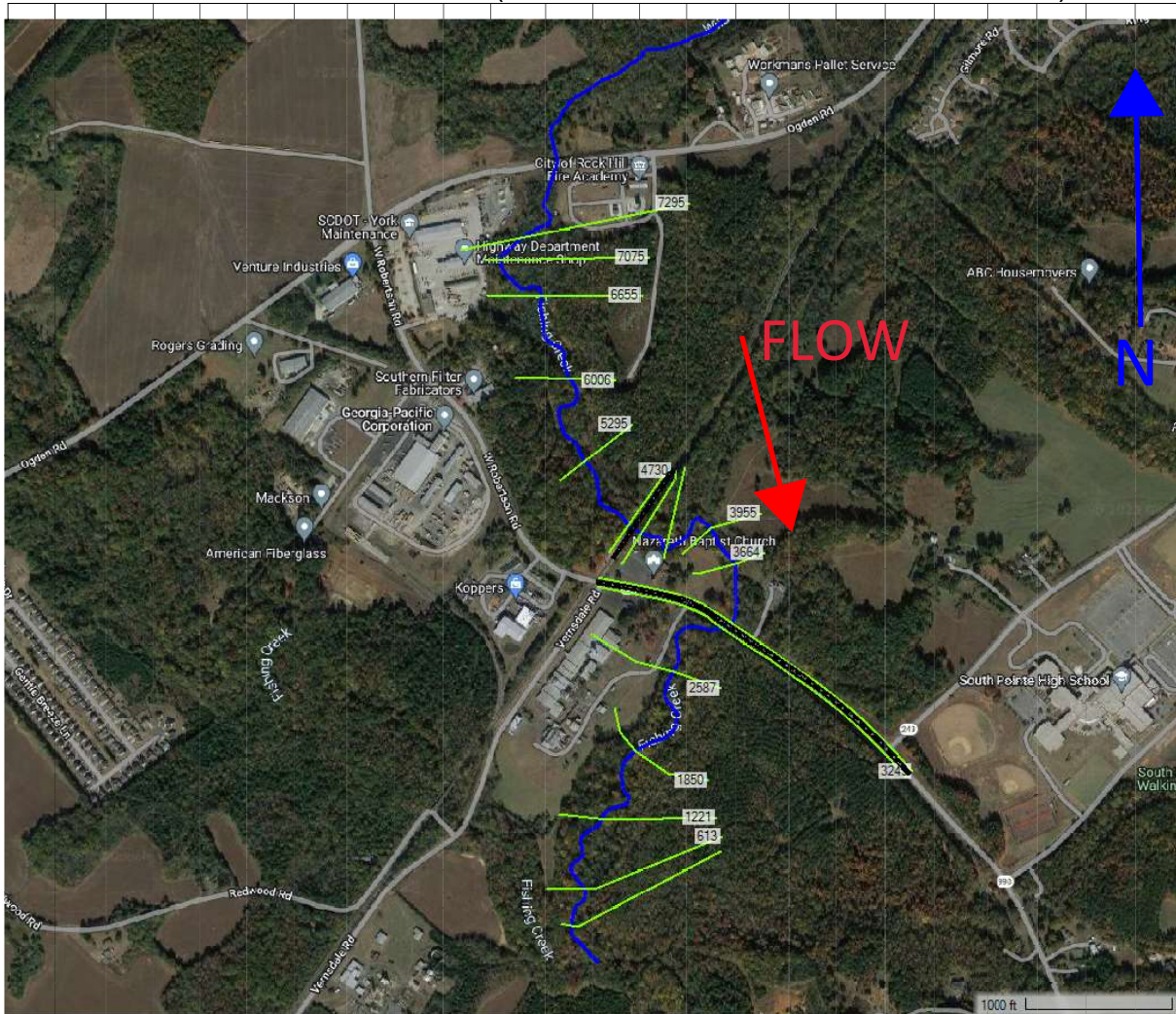
#### A. Proposed Bridge Recommendation:

Length: 80 ft. Width: 42 ft. Elevation: 523.80 ft.

Span Arrangement: Single span

Notes: Proposed minimum low chord elevation is 523.80'. Proposed minimum profile/deck elevation is 527.05'. Proposed 39" deep box beam superstructure with asphalt surface course.

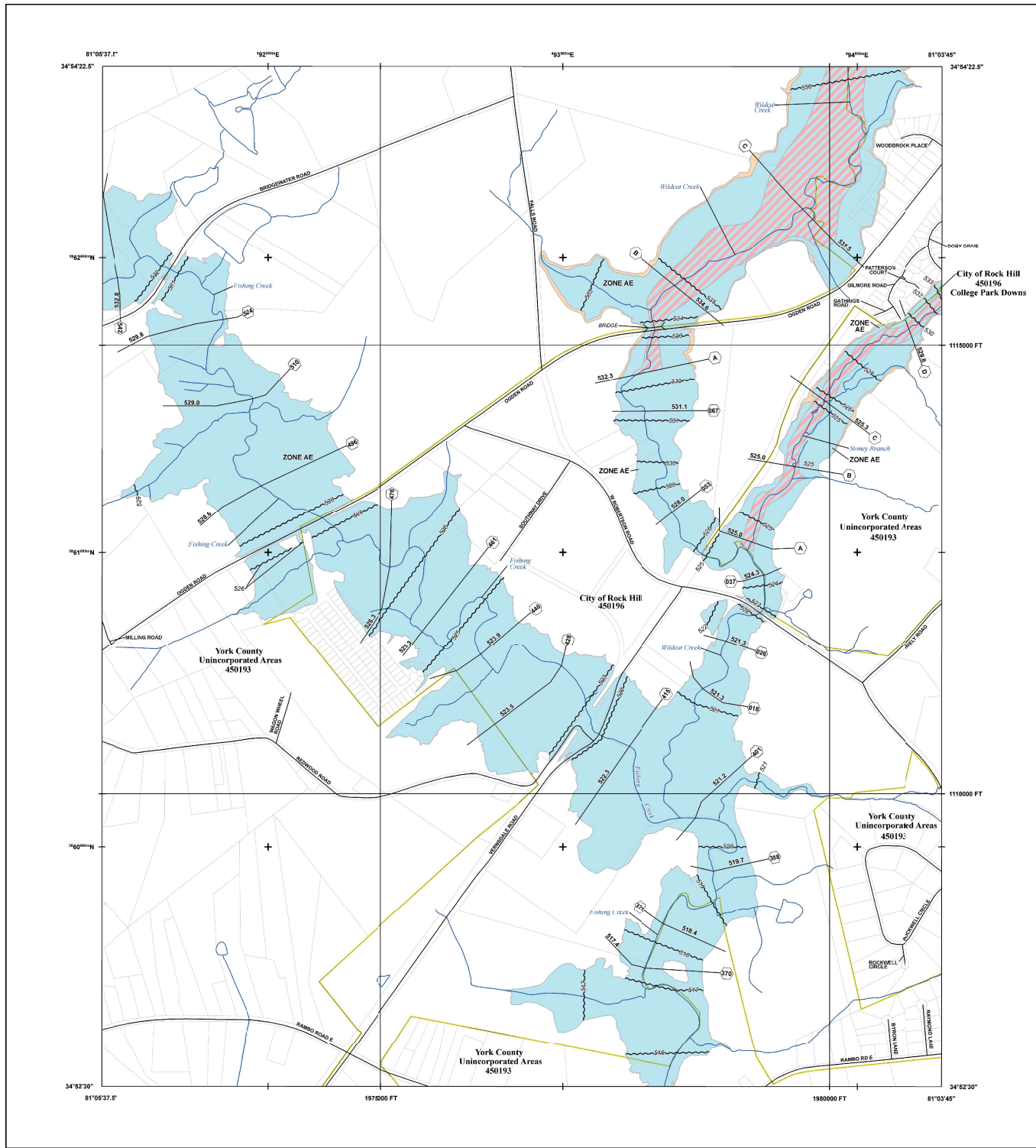
#### BRIDGE SITE DIAGRAM: (Show North Arrow and Direction of Flow)



Performed By: Sharon Jones

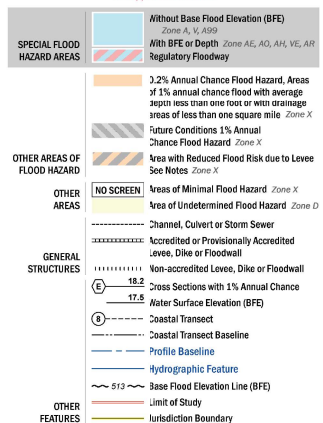
Title: Project Manager





## FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT  
THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING  
DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT  
[HTTP://FISMA.FEMA.GOV](http://fisma.fema.gov)



## NOTES TO USERS

For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products or the National Flood Insurance Program in general, please call the FEMA Map Information Exchange at 1-877-FEMA-MAP (1-877-325-3627) or visit the FEMA Map Service Center website at <http://mfc.fema.gov>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website. Users may determine the current map date for each FIRM panel by visiting the FEMA Map Service Center website or by calling the FEMA Map Information Exchange.

Communities receiving land on separate FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM index. These may be ordered directly from the Map Service Center at the number listed above.

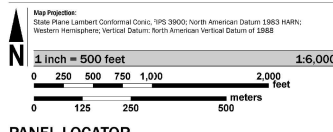
To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6632.

Base map information shown on this FIRM was provided in digital format by York County, South Carolina and Catawba Regional Council of Governments, dated 10/08.

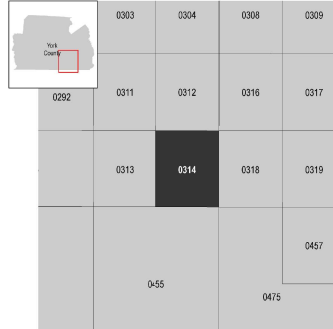
The digital Flood Insurance Rate Map (FIRM) was produced through a unique cooperative partnership between the State of South Carolina and the Federal Emergency Management Agency (FEMA). The State of South Carolina has implemented a long-term approach to floodplain management to decrease the costs associated with flooding. This is demonstrated by the State's commitment to map floodplain areas at the local level. As a part of this effort, the state of South Carolina has joined in a Cooperative Technical State agreement with FEMA to produce and maintain this digital FIRM. <http://dhr.state.sc.us>



## SCALE



## PANEL LOCATOR



**National Flood Insurance Program**

**NATIONAL FLOOD INSURANCE PROGRAM**  
FLOOD INSURANCE RATE MAP

**YORK COUNTY, SOUTH CAROLINA**  
and Incorporated Areas

PANEL 314 OF 505

Panel Contains:  
COMMUNITY  
0303 CITY OF  
0304 CITY OF

NUMBER PANEL SUFFIX  
450196 0314 F

Notice: This map was released on 9/6/2017 to make a correction. This version replaces any previous versions. See the Notice-to-User Letter that accompanied this correction for details.

VERSION NUMBER  
2.3.2.1  
MAP NUMBER  
45091C0314F  
MAP REVISED  
MAY 16, 2017

## **Attachment D- Floodplain Checklist**

**South Carolina Department of Transportation**  
**Location and Hydraulic Design of Encroachments on Floodplains Checklist**

23 CFR 650, this regulation shall apply to all encroachments and to all actions which affect base floodplains, except for repairs made with emergency funds. Note: These studies shall be summarized in the environmental review documents prepared pursuant to 23 CFR 771.

**I. PROJECT DESCRIPTION**

The purpose of the project is to correct the load restriction placed on the bridge and restore all components to good condition. The existing bridge is posted for load restrictions and has one or more components in poor condition.

**A. Narrative Describing Purpose and Need for Project**

- a. Relevant Project History:
- b. General Project Description and Nature of Work (attach Location and Project Map):
- c. Major Issues and Concerns:

The purpose of the project is to correct the load restriction placed on the bridge and restore all components to good condition. Roadway improvements are limited to those associated with accommodating the new structure. The project crosses Wildcat Creek which is shown on the Flood Insurance Rate Map (FIRM) Panel 45091C0314F. Wildcat Creek is within a designated as a Special Flood Hazard Area Zone A in the vicinity of the Project. The project is not expected to be a significant or longitudinal encroachment as defined under 23 CFR 650A, nor is it expected to have an appreciable environmental impact on the base flood elevation. In addition, the project would be developed to comply with all appropriate floodplain regulations and guidelines.

**B. Are there any floodplain(s) regulated by FEMA located in the project area?**

Yes ☒

No ☐

**C. Will the placing of fill occur within a 100-year floodplain?**

Yes ☒

No ☐

**D. Will the existing profile grade be raised within the floodplain?**

The roadway grade will be raised to accommodate the larger bridge structure.

- E. If applicable, please discuss the practicability of alternatives to any longitudinal encroachments.

Minor longitudinal encroachments are expected based on the revised roadway profile. The bridge will be constructed on existing alignment to reduce longitudinal impacts.

- F. Please include a discussion of the following: commensurate with the significance of the risk or environmental impact for all alternatives containing encroachments and those actions which would support base floodplain development:

- a. What are the risks associated with implementation of the action?

Risks are minimal; the project will replace the existing bridge with larger bridge opening. The increased opening will have a minimal impact on the BFE's along the floodplain.

- b. What are the impacts on the natural and beneficial floodplain values?

The project is not expected to impact the floodplain values, as the hydraulics will be retained/improved.

- c. What measures were used to minimize floodplain impacts associated with the action?

A similar bridge size will be used and constructed on the existing alignment.

- d. Were any measures used to restore and preserve the natural and beneficial floodplain values impacted by the action?

Not Applicable

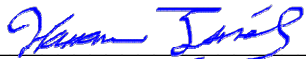


- G. Please discuss the practicability of alternatives to any significant encroachments or any support of incompatible floodplain development.

The impacts are not considered significant encroachments and would not support incompatible floodplain development. The proposed project will have no significant impact to base flood elevations along the stream and will not impact the potential for development within the floodplain

- H. Were local, state, and federal water resources and floodplain management agencies consulted to determine if the proposed highway action is consistent with existing watershed and floodplain management programs and to obtain current information on development and proposed actions in the affected? Please include agency documentation.

All analysis for the project was performed in accordance with SCDOT, FEMA, and local regulations.  
As the project progresses to final construction plans, the hydraulic modeling will be updated based on the final bridge layout



SCDOT Hydraulic Engineer

21 June 2023

Date

**Attachment E – Public Involvement**

## Meeting Summary:

<b>Project:</b>	SCDOT Closed and Load Restricted Bridge Projects- Package 20
<b>Subject:</b>	Public Information Meeting
<b>Date:</b>	Thursday, July 20, 2023 6:00 p.m. – 8:00 p.m. (S-292) Thursday, July 27, 2023 5:00 p.m. – 7:00 p.m. (S-998)
<b>Location:</b>	Springdale Recreation Center (S-292) Legion Collegiate Academy (S-998)

## Package 20 Overview:

The South Carolina Department of Transportation (SCDOT) proposes to replace seven bridges in Package 20. The projects include replacing the existing bridge structures and constructing the roadway to meet current design and safety standards. The proposed facilities are comprised of two and four lane roadways with 12-foot travel lanes and paved shoulders. The seven proposed bridges are shown below (bridges with in-person public meetings are bolded):

<b>S-46-998 (Robertson Road)</b>	<b>WILDCAT CREEK</b>
<b>S-29-292 (Plantation Road)</b>	<b>BEAR CREEK</b>
S-46-1086 (Dacusville Rd)	BEAVERDAM CREEK
S-130 (Rudolph Sikes Road)	THOMPSON CREEK
S-20 (Camp Welfare Road)	HOGFORK BRANCH/BIG WATEREE CREEK
S-296 (Old Creek Road)	BLACKWELL MILL STREAM
S-531 (Henry Funderburk Road)	IRIS HILLS CREEK

The purpose of these projects is to replace the bridges to correct the load restriction placed on them as well as restore all bridge components to good condition. The proposed work involves replacing the current bridges with a new bridge on existing or shifted alignments.

## Public Information Meeting Overview:

On July 20, 2023, SCDOT held a public information meeting regarding proposed improvements to the S-292 (Plantation Road) bridge over Bear Creek. The meeting was held from 6:00 PM until 8:00 PM at Springdale Recreation Center, located at 260 S. Plantation Rd., Lancaster, SC 29720 in Lancaster County.

On July 27, 2023 SCDOT held a public information meeting regarding proposed improvements to the S-998 (Robertson Rd) bridge over Wildcat Creek from 5:00 PM until 7:00 PM. The meeting was held from at Legion Collegiate Academy located at 3090 Long Meadow Road Rock Hill, SC 29730 in York County.

The meetings were open to the public and provided an opportunity for the public to submit formal comments and ask project-related questions to SCDOT and consultants.

The comment period for the projects began July 5 and ended on August 11, 2023. Information about the projects, including meeting displays, was available on the website throughout the duration of the comment period. A comment form was also available. The project website can be accessed at:

[https://scdotgis.online/CLRB\\_2022\\_Package20](https://scdotgis.online/CLRB_2022_Package20).

## Meeting Outreach:

Leading up to the two public meetings and comment periods for all 7 bridges, the project team executed several outreach strategies to maximize public participation. The outreach activities completed are listed in the table below.

Bridge Project	Outreach Type	Number of Recipients	Type of Recipients	Date Sent
All Package 20 Bridges	Postcard	581	General Public Mailed via Every Door Direct Mail (EDDM) Service Sent to all postal routes surrounding the project areas.	July 1, 2023
S-998 over Wildcat Creek	Road Signs		General Traveling Public; Posted on both entrances of each bridge and adjacent intersections to alert regular bridge users of the public meeting and comment period.	Early July Placement

### Public Information Meeting Results: S-998 Wildcat Creek

Total Attendees	In person attendance: 4
Comments Received	Website Comments: 0; In-person Comments: 0 Demographic Forms: 0
Total Comments Received	0

Sign in sheets for each meeting can be found in Appendix A. Comment forms for each meeting, as well as a table of online comments, can be found in Appendix B.

## Meeting Content

The meeting was comprised of four meeting display boards (welcome board, project overview, a project plan view, and a map of the proposed detour) and a project information handout. Meeting outreach included sending the surrounding community postcards via EDDM and placing yard sign on either end of the bridge and nearby intersections in early July. A comment station was available for in-person project comments and demographic forms. Information about the bridge was made available on the project website for the entire comment period. Comments could be submitted via the in-person comment form, website comment form, email, mail, or phone. Display board content can be found in Appendix C. Meeting photos can be found in Appendix D.



# Bridge Replacement Package 20

## Design-Build Projects

Counties: Chesterfield, Fairfield, Lancaster and York

## Share Your Feedback

### Project Description

SCDOT proposes to replace seven existing bridge structures in Chesterfield, Fairfield, Lancaster and York counties. This card is to let you know about the bridge replacement near your residence or business. Public meeting information can be found on the reverse side of this card. Please visit the website for more details about the project and other sites.



Scan QR code to visit  
project web page.

### Estimated Project Schedule

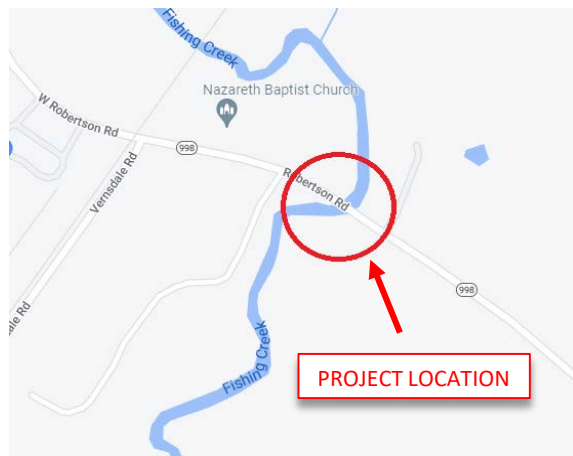
- Construction start: Early 2024
- Construction duration: ~24 Months

### Project Manager

Michael Pitts, PE  
Phone: 803-737-2566  
Email: [pittsME@scdot.org](mailto:pittsME@scdot.org)

Comments for S-998 proposed bridge replacement will be accepted until **Aug. 11, 2023.**

### S-998 Wildcat Creek Project Area





South Carolina Department of Transportation



SCDOT is hosting an **in-person public meeting** for the Design-Build bridge replacement projects (Package 20).


### Attend a Public Meeting for S-998 over Wildcat Creek

Location: Legion Collegiate Academy (3090 Long Meadow Rd)

Date: 7/27/23 5-7 PM

Comment Period: 7/5/23 - 8/11/23

### Contact Us!

 803-737-2566

 [PittsME@scdot.org](mailto:PittsME@scdot.org)

 [www.scdotgis.online/CLRB\\_2022\\_Package20](http://www.scdotgis.online/CLRB_2022_Package20)

PLACE  
STAMP  
HERE

### SCDOT Environmental Services Offices

PO Box 191

Columbia, SC 29202



S-998 Wildcat Creek Sign-In Sheets

 South Carolina Department of Transportation	
SCDOT Public Meeting Bridge Replacement Project	
York County • 07/27/2023 • Legion Collegiate Academy, 3090 Long Meadow Rd., Rock Hill, SC 29730	
Sign In Form	
Name (please print)	Address (please print)
Melissa Bely	205 W. Robertson Rd
Jessica Willford	203 W. Robertson Rd
Bert Patterson	11680 QUAIL TRAIL DRIVE RHSC
Loe Lechry-Koppers	103 Robertson Rd, Rte

## Join Us For a SCDOT Public Meeting!

### S-46-998 Bridge Replacement over Wildcat Creek

Project ID: P041172 | York County



[www.scdotgis.online/CLRB\\_2022\\_Package20](http://www.scdotgis.online/CLRB_2022_Package20)

»»» **Thursday, July 27, 2023**  
**5-7 PM**  
**Legion Collegiate Academy**  
3090 Long Meadow Rd  
Rock Hill, SC 29730





## Design-Build Project – Public Meeting



# Welcome!

Public meeting for **S-46-998 (Robertson Road)  
Bridge Replacement over Wildcat Creek** in York  
County.

**Thursday, July 27, 2023 | 5-7 PM**  
**Legion Collegiate Academy**  
3090 Long Meadow Rd  
Rock Hill, SC 29730

We encourage you to **PLEASE SIGN-IN** before  
viewing project displays.

Interested in learning more? Scan the QR code.

*Published: Q3 2023*  
*Project information is subject to change.*

**Project Name:** S-46-998 (Robertson Rd) Bridge over Wildcat Creek  
**Project ID:** P041172



## Proposed Project Overview

- The existing bridge was built in 1969 and currently has posted load restrictions.
- SCDOT proposes to replace the existing bridge structure so that it meets current design and safety standards.
- Proposed improvements will restore the functional and structural components to good condition, as well as correct the load restriction.
- An off-site detour may be utilized during construction.



Bridge when facing Northwest



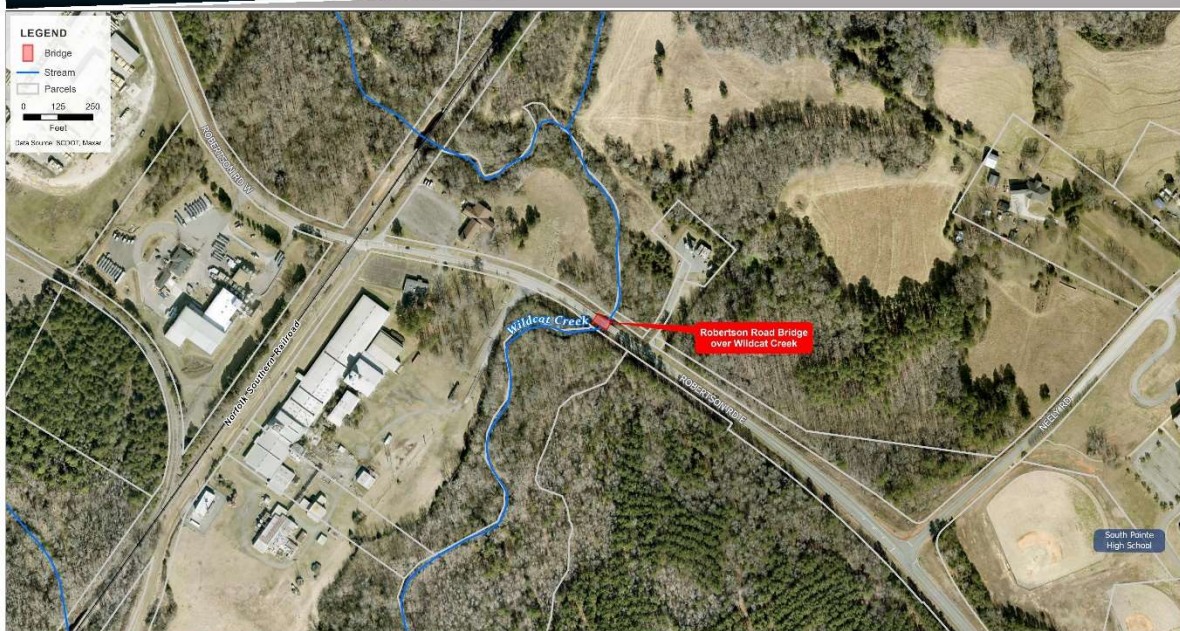
Bridge substructure

*Published: Q3 2023*  
*Project information is subject to change.*

**Project Name:** S-46-998 (Robertson Rd) Bridge over Wildcat Creek  
**Project ID:** P041172



## Proposed Improvement Plan View



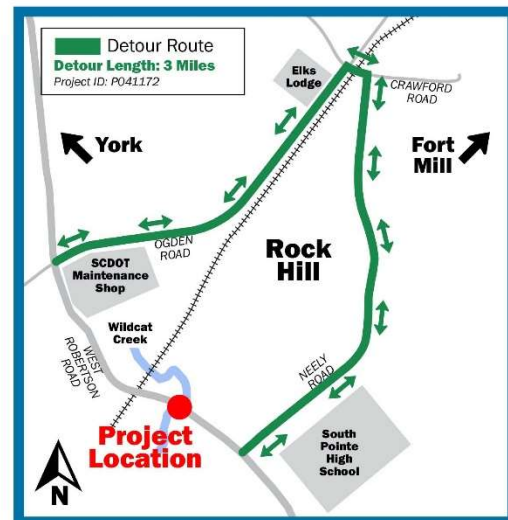
Published: Q3 2023  
Project information is subject to change.

Project Name: Bridge Replacement over Wildcat Creek  
Project ID: S-29-998



## Proposed Detour Route

- During project construction of the S-46-998 (Robertson Road) Bridge over Wildcat Creek, the bridge would be temporarily closed to traffic for reconstruction.
- SCDOT proposes to utilize Neely Road, Crawford Road, and Ogden Road as the potential detour.
- Proposed detour length: 3 miles
- Advance notice will be given to stakeholders and the public before closures occur.



Published: Q3 2023  
Project information is subject to change.

Project Name: S-46-998 (Robertson Rd) Bridge over Wildcat Creek  
Project ID: P041172





## S-998 Wildcat Creek Meeting Handout

# Bridge Replacement over Wildcat Creek

Project ID: P041172 | York County

Part of the Design-Build Bridge Replacement Projects Package 20

## PROJECT DESCRIPTION

SCDOT proposes to replace the S-46-998 (Robertson Rd) Bridge over Wildcat Creek in York County. The existing bridge was built in 1969 and currently has posted load restrictions. The project will replace the existing bridge structure so that it meets current design and safety standards.

This project will be delivered as a Design-Build project and packaged as a bundle (Bridge Replacement Projects Package 20) for final design and construction. The bundle includes seven bridge replacements located in Chesterfield, Fairfield, Lancaster, and York counties.

## PURPOSE AND NEED

The purpose of this project is to address the functional and structural components of the existing bridge. The proposed bridge replacement will correct the load restriction as well as restore all bridge components to good condition.

## CONTACT US!

Michael Pitts, PE | SCDOT Project Manager

Phone: 803-737-2566

Email: [PittsME@scdot.org](mailto:PittsME@scdot.org)

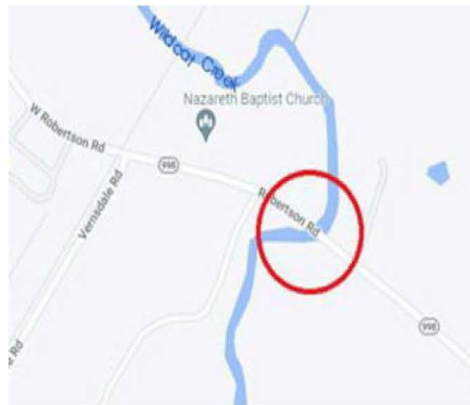
Website:

[www.scdotgis.online/CLRB\\_2022\\_Package20](http://www.scdotgis.online/CLRB_2022_Package20)

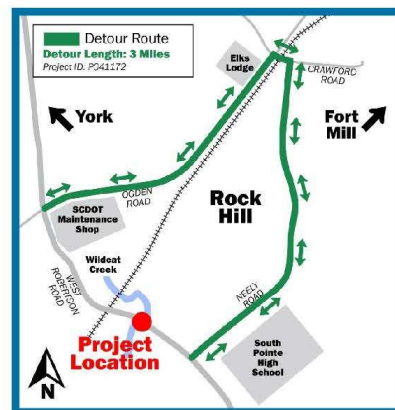


Scan QR code to visit  
project web page.

## PROJECT AREA



## POTENTIAL DETOUR ROUTE



An off-site detour may be utilized during construction. The bridge is currently open to traffic.



# Bridge Replacement over Wildcat Creek

Project ID: P041172 | York County

Part of the Design-Build Bridge Replacement Projects Package 20

## PROJECT SCHEDULE



Construction start for  
Bridge Bundle 20: Early 2024



Construction duration for  
Bridge Bundle 20 contract: ~24 months



Anticipated construction duration for  
S-46-998 bridge: 3-6 months

*This bridge bundle includes seven bridge replacement projects that are being delivered using Design-Build construction. The anticipated contract duration for construction is ~24 months. Construction duration for each bridge will vary.*

## SHARE YOUR FEEDBACK

Comments for S-46-998 proposed bridge replacement will be accepted in a variety of formats.

Comments due by August 11, 2023.



Complete a Comment Form  
before you leave



Submit a comment online on the  
project website



Email a comment to  
PittsME@scdot.org



Give us a call at 803-737-2566



Mail comments to SCDOT  
Environmental Services Offices  
PO Box 191  
Columbia, SC 29202

## EXISTING CONDITIONS



Substructure



Bridge when facing Northwest



## S-998 Wildcat Creek Meeting Photos





