



**South Carolina Department of Transportation**  
On Behalf of the Federal Highway Administration - South Carolina Division Office



PROCESSING FORM FOR PROGRAMMATIC CATEGORICAL EXCLUSIONS  
NON MAJOR FEDERAL ACTIONS

State ID

Fed Project #

Route

County

**Part 1 - Project Description**

Include the Project Name/Description

This project proposes to replace the SC 4 bridge over the South Forth Edisto river. The bridge is currently closed due to structural failures. The existing bridge is approximately 600 feet long and 28 feet wide. The new bridge will be approximately 620 feet long and 44 feet wide meeting current design standards. The project will be constructed on alignment and utilize a close and detour route. Minimal fills to the existing roadway embankment will occur in order to comply current bridge design standards.

**Part 2 - PCE Type**

Select the appropriate Categorical Exclusion from 23 CFR Part 771.117 that best fits the entire project from the drop-down menu. **Reference Appendix A of the PCE Agreement for a more detailed description of each CE contained in 23 CFR 771.117.**

23 CFR 771.117(c)

23 CFR 771.117(d)

**Part 3 - Thresholds**

To be processed as a Programmatic Categorical Exclusion (PCE) the following conditions must be met in addition to the General Criteria (as outlined in the PCE Agreement between FHWA-SC and SCDOT). Place a "X" in the appropriate box below. If the answer is "Yes" to any of the below criteria, SCDOT will consult with FHWA-SC to determine the appropriate level of NEPA documentation required and forward to FHWA-SC for approval. **\*Reference Part 4 of the Processing form or Section IV of the PCE Agreement for more details and definitions regarding each threshold.**

1.	Involves any unusual circumstances as described in *23 CFR Part 771.117(b)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
2.	The acquisition of more than *minor amounts of temporary or permanent strips of right-of-way	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

## Part 3 - Thresholds Continued

3.	Involves acquisitions that result in residential or non-residential displacements	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
4.	Results in capacity expansion of a roadway by adding through lanes	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5.	Involves construction that would result in <u>*major traffic disruptions</u>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
6.	Involves <u>*changes in access control</u> requiring FHWA approval	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
7.	An adverse effect determination under Section 106 of the National Historic Preservation Act.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
8.	Use of Section 4(f) property that cannot be documented with a FHWA <i>de minimis</i> determination or a programmatic Section 4(f) other than the programmatic evaluation for the use of historic bridges	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
9.	Any use of a Section 6(f) property	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
10.	Requires an Individual USACE 404 Permit	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
11.	Requires an Individual U.S. Coast Guard Permit.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
12.	Work encroaching in a regulatory floodway, adversely affecting the base floodplain (100 yr.) pursuant to E.O. 11988 and 23 CFR Part 650 Subpart A	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
13.	Construction in, across, or adjacent to a river designated as a National Wild and Scenic River	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
14.	Involves an increase of 15 dBA or greater on any noise receptor or abatement measures are found to be feasible and reasonable due to noise impacts	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
15.	May affect and is likely to adversely affect a Federally listed species or designated critical habitat or projects with impacts subject to the BGEPA	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
16.	Involves acquisition of land for hardship, protective purposes, or early acquisition	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
17.	Does not meet the latest Conformity Determination for air quality non-attainment areas (if applicable).	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
18.	Any known or potential <u>major</u> hazardous waste sites within the right-of-way.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
19.	Is not included in or is inconsistent with the STIP and/or TIP	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

**Part 3 Continued - Additional criteria to be completed for disposal of excess right-of-way PCE**

1. Is the parcel part of a SCDOT environmental mitigation effort or could it be used for environmental mitigation?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
2. Is there a formal plan to use this parcel for a future transportation project (is it part of an approved LRTP)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

**Part 4 - Threshold Definitions**

**Unusual Circumstances (23 CFR Part 771.117)** - Unusual circumstances are defined as:

- a. Significant environmental impacts;
- b. Substantial controversy on environmental grounds;
- c. Significant impact on properties protected by Section 4(f) of the DOT ACT or Section 106 of the National Historic Preservation Act; or
- d. Inconsistencies with any Federal, State, or local law, requirement, or administrative determination relating to the environmental aspects of the action.

**Minor Amount of Right-of-Way (ROW):**

A minor amount of ROW is defined as less than 3 acres per linear mile for linear projects or less than 10 acres of impacts for non-linear projects (eg: intersections, bridges), and no removal of major property improvements. Examples of major improvements include residential and business structures, or the removal of other features which would change the functional utility of the property. Removal of minor improvements, such as fencing, landscaping, sprinkler systems, and mailboxes would be allowed.

**Major Traffic Disruptions:**

A major traffic disruption is defined as an action that would result in: a) adverse effects to through-traffic businesses or schools, b) substantial change in environmental impacts, or c) public controversy associated with the use of the temporary road, detour, or ramp closure.

**Changes in Access Control:**

Requires approval from FHWA for changes in access control on the Interstate system (eg: Interchange Modification Reports or Interchange Justification Reports).

**Additional Comments if Needed:**

The river at this location has been deemed critical habitat for sturgeon by NMFS. SCDOT has coordinated with NMFS and is utilizing the Programmatic Biological Evaluation (NLAA) as agreed upon by FHWA and NMFS dated September 2018 to satisfy coordination efforts regarding sturgeon critical habitat. Documentation is attached.

Relevant field studies and environmental reviews have been completed to determine that the project meets the criteria set forth in the Programmatic Categorical Exclusion Agreement signed by FHWA-SC and SCDOT. It is understood that any additions/deletions to the project may void environmentally processing the project as presently classified; consequently, any engineering changes must be brought to the attention of SCDOT Environmental Services Office immediately. A copy of this form is included in the project file and one (1) copy has been provided to FHWA.

Prepared By: Will McGoldrick Digitally signed by Will McGoldrick  
Date: 2021.01.26 11:36:54 -05'00' Date Jan 26, 2021

Primavera:  Yes  No      P2S Date: Jan 13, 2021      Does the project contain commitments?: (if Yes attach to form)  Yes  No

Date: 01/26/2021



Project ID: P040306 County: Aiken District: District 7 Doc Type: PCE Total # of Commitments: 9

Project Name: SC 4 Bridge Replacement over the South Fork Edisto River

The Environmental Commitment **Contractor Responsible** measures listed below **are to be included in the contract and must be implemented**. It is the responsibility of the Program Manager to make sure the Environmental Commitment **SCDOT Responsible** measures are adhered to. If there are questions regarding the commitments listed please contact:

**CONTACT NAME:** Brad Reynolds

**PHONE #:** 8037371440

**ENVIRONMENTAL COMMITMENTS FOR THE PROJECT**

**USTs/Hazardous Materials**

NEPA Doc Ref:

Responsibility:

CONTRACTOR

If avoidance of hazardous materials is not a viable alternative and soils that appear to be contaminated are encountered during construction, the South Carolina Department of Health and Environmental Control (SCDHEC) will be informed. Hazardous materials will be tested and removed and/or treated in accordance with the United States Environmental Protection Agency and the SCDHEC requirements, if necessary.

Special Provision

**Water Quality**

NEPA Doc Ref:

Responsibility:

CONTRACTOR

The contractor will be required to minimize possible water quality impacts through implementation of BMPs, reflecting policies contained in 23 CFR 650B and the Department's Supplemental Specification on Erosion Control Measures (latest edition) and Supplemental Technical Specifications on Seeding (latest edition). Other measures including seeding, silt fences, sediment basins, etc. as appropriate will be implemented during construction to minimize impacts to water quality.

Special Provision

**Migratory Bird Treaty Act**

NEPA Doc Ref:

Responsibility:

CONTRACTOR

The federal Migratory Bird Treaty Act, 16 USC § 703-711, states that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. The South Carolina Department of Transportation (SCDOT) will comply with the Migratory Bird Treaty Act of 1918 in regard to the avoidance of taking of individual migratory birds and the destruction of their active nests.

The contractor shall notify the Resident Construction Engineer (RCE) at least four (4) weeks prior to construction/demolition/maintenance of bridges and box culverts. The RCE will coordinate with SCDOT Environmental Services Office (ESO), Compliance Division, to determine if there are any active birds using the structure. After this coordination, it will be determined when construction/demolition/maintenance can begin. If a nest is observed that was not discovered after construction/demolition/maintenance has begun, the contractor will cease work and immediately notify the RCE, who will notify the ESO Compliance Division. The ESO Compliance Division will determine the next course of action.

The use of any deterrents by the contractor designed to prevent birds from nesting, shall be approved by the RCE with coordination from the ESO Compliance Division. The cost for any contractor provided deterrents will be provided at no additional cost to SCDOT.

Special Provision

Project ID: P040306

SCDOT  
NEPA ENVIRONMENTAL COMMITMENTS  
FORM



**ENVIRONMENTAL COMMITMENTS FOR THE PROJECT**

**Stormwater**

NEPA Doc Ref:

Responsibility:

CONTRACTOR

Stormwater control measures, both during construction and post-construction, are required for SCDOT projects with land disturbance and/or constructed in the vicinity of 303(d), TMDL, ORW, tidal, and other sensitive waters in accordance with the SCDOT's MS4 Permit. The selected contractor would be required to minimize potential stormwater impacts through implementation of construction best management practices, reflecting policies contained in 23 CFR 650 B and SCDOT's Supplemental Specifications on Seed and Erosion Control Measures (latest edition).

Special Provision

**Cultural Resources**

NEPA Doc Ref:

Responsibility:

CONTRACTOR

The contractor and subcontractors must notify their workers to watch for the presence of any prehistoric or historic remains, including but not limited to arrowheads, pottery, ceramics, flakes, bones, graves, gravestones, or brick concentrations during the construction phase of the project, if any such remains are encountered, the Resident Construction Engineer (RCE) will be immediately notified and all work in the vicinity of the discovered materials and site work shall cease until the SCDOT Archaeologist directs otherwise.

Special Provision

**Lead-Based Paint**

NEPA Doc Ref:

Responsibility:

CONTRACTOR

The existing structures shall be removed and disposed of by the Contractor in accordance with Subsection 202.4.2 of the Standard Specifications. The Contractor's attention is called to the fact that this project may require removal and disposal of structural components containing lead-based paints. Removal and disposal of structural components containing lead-based paints shall comply with all applicable Federal, State, and Local requirements for lead as waste, lead in air, lead in water, lead in soil, and worker health and safety.

Special Provision

Project ID: P040306

SCDOT  
NEPA ENVIRONMENTAL COMMITMENTS  
FORM



**ENVIRONMENTAL COMMITMENTS FOR THE PROJECT**

**Non-Standard Commitment**

NEPA Doc Ref:

Responsibility:

SCDOT

Permitting

SCDOT will obtain the necessary permits for completion of the project including the US Army Corps of Engineers 404 (USACE) and SC Department of Health and Environmental Control (SCDHEC) Navigable Waters permits. It is anticipated impacts will be covered by the USACE approved SCDOT General Permit.

Special Provision

**Non-Standard Commitment**

NEPA Doc Ref:

Responsibility:

CONTRACTOR

Floodplains

The project will be designed in an effort to meet "No-Rise" requirements. Final design efforts to minimize floodplain impacts will be coordinated with the local county NFIP representative and appropriate regulatory agencies as necessary.

Special Provision

**Non-Standard Commitment**

NEPA Doc Ref:

Responsibility:

CONTRACTOR

FHWA-NMFS Biological Evaluation Programmatic Agreement Conditions

The South Fork Edisto River is designated by NOAA-National Marine Fisheries (NMFS) as critical habitat for Atlantic Sturgeon. The FHWA-NMFS Programmatic Agreement (PA) outlines Project Design Criteria (PDC) that must be met to achieve a "may affect, not likely to adversely affect Section 7 determination. SCDOT and/or the CONTRACTOR shall comply with all PDCs during construction of the project and implement necessary best management practices (BMPs) as prescribed in the PA.

Special Provision

## Species Coordination

## Bridge Replacement on SC Route 4 over the South Fork of Edisto River in Aiken County, South Carolina

Prepared by Biologist: Edward W. Frierson

Pursuant to Section 7 of the Endangered Species Act a field survey was conducted on the proposed project corridor. The Bald eagle is protected by the Bald and Golden Eagle Protection Act (BGEPA). The following list of endangered (E) and threatened (T) species was obtained from the U. S. Fish and Wildlife Service (USFWS):

### ANIMALS

American wood stork – *Mycteria americana* – (T)  
Bald eagle – *Haliaeetus leucocephalus* – (BGEPA)  
Red-cockaded woodpecker – *Picoides borealis* – (E)  
Atlantic sturgeon – *Acipenser oxyrinchus* – (E)  
Shortnose sturgeon – *Acipenser brevirostrum* – (E)

### PLANTS

Harperella – *Ptilimnium nodosum* – (E)  
Relict trillium – *Trillium reliquum* – (E)  
Smooth coneflower – *Echinacea laevigata* – (E)

### METHODS

The project area was examined utilizing reconnaissance methods on January 6, 2021. In addition, GIS was utilized for any past sightings that may have occurred in the area. Habitats surveyed were determined by each species ecological requirements.

### RESULTS

The improvements will require both upland forested areas and palustrine forested wetlands. The south fork of the Edisto River which is a riverine unconsolidated bottom wetland is traversed by the bridge. The upland forested areas are characterized by loblolly pine (*Pinus taeda*), common sweetleaf (*Symplocos tinctoria*), and yellow ragwort (*Packera anomyma*). The palustrine forested wetlands are characterized by bald cypress (*Taxodium distichum*), willow oak (*Quercus phellos*), and common reed (*Phragmites australis*).

Even though there is a relatively large body of water present, no habitat for either the Bald eagle or wood stork was located. Bald eagles prefer more open habitat and wood stork prefers shallower and more open waters. No habitat for the red cockaded

woodpecker is in the project area. Potential habitat for relict trillium was located but no specimens were observed. No habitat for the coneflower or Harperella was located in the project corridor. The south fork of the Edisto River has been listed as critical habitat for the Atlantic sturgeon and is also habitat for the short nose sturgeon though not critical. Therefore, the project may affect but not adversely affect the Atlantic and shortnose sturgeon. Coordination with the National Marine Fisheries Service is presently being conducted to get concurrence with this finding. Therefore, except for the two sturgeon species, the proposed action will have no effect on any protected species currently listed by the USFWS for Aiken County.

**From:** [Robert Hoffman - NOAA Federal](#)  
**To:** [Belcher, Jeffery - FHWA](#)  
**Cc:** [McGoldrick, Will](#)  
**Subject:** Re: FHWA-SC: SC 4 Bridge over the South Edisto; NOAA/FHWA ESA Regional PA  
**Date:** Thursday, January 14, 2021 12:48:21 PM

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\*\*\* This is an EXTERNAL email. Please do not click on a link or open any attachments unless you are confident it is from a trusted source. \*\*\*

Based on the information you sent, I believe this qualifies for use of the Programmatic Consultation.

On Thu, Jan 14, 2021 at 8:46 AM Belcher, Jeffrey (FHWA) <[Jeffrey.Belcher@dot.gov](mailto:Jeffrey.Belcher@dot.gov)> wrote:

Robert,

FHWA and SCDOT submits the subject project to be processed under the FHWA and NOAA ESA Regional Agreement. The project consists of replacing the current SC 4 Bridge over the South Edisto River in Aiken County South Carolina. The proposed project is located within critical habitat for the Atlantic sturgeon. The bridge is currently closed to traffic due to structural issues. SCDOT proposes to replace the bridge through FHWA's Emergency Relief Program. The replacement bridge, as proposed, will span the South Edisto and no piles/columns will be placed in the river. Attached is the required spreadsheet along with a list of all Project Design Criteria (PDC) that would be applicable to the project under the Regional ESA Agreement that will be complied with during construction. Also attached is a plan sheet and photos of the existing bridge. The proposed project will be constructed through a design-build contract, so no set of plans is available for the new bridge. The contractor however, would be required to design the bridge to span the river.

For consultation on this project, I will be the contact for FHWA (my contact info is below) and Mr. Will McGoldrick ([McGoldriWR@scdot.org](mailto:McGoldriWR@scdot.org)) will be the primary contact for SCDOT. Since this is the first use of the PA for South Carolina, we would be glad to discuss any details regarding the project or any of the information we have provided.

Much thanks,

*J. Shane Belcher*

*Lead Environmental Specialist*

*Federal Highway Administration*

*1835 Assembly Street, Suite 1270*

*Columbia, SC 29201*

*Phone: 803-253-3187*

*The content of this email is confidential and intended for the recipient specified in message only.*

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Bob Hoffman  
Sea Turtle and Fisheries Branch Chief

**All Activities/Projects**  
**SCDOT SC 4 Bridge Replacement (P040306) over South Fork Edisto River FHWA-NMFS Programmatic Agreement Application Form**

<b>Title</b>	<b>Format</b>	<b>Description</b>
Date Sent to NMFS	1/14/2021	This is the date the email with the project review information was sent to NMFS
FHWA PM/POC Last Name	Belcher	Provide your last name only
Permit Used	USACE General Permit. Coordination occurring through NEPA phase.	The permit instrument used to authorize the activity
Any other component of project issued under different permit instrument?	No	Was any activity authorized under a different programmatic or separate Section 7 consultation?
Identify any other permit instrument used.	NA	If the answer to previous question was "Yes," then describe the permit type used to authorize the other project component.
Permit Tracking Number	Permit not yet issued.	This is the permit number assigned by USACE to the project.
Project Address	3522 Wagener Rd, Aiken, SC 29805	Address of the project site
County	Aiken	County the project site is located
Latitude	33.576710	This shall be formatted in decimal degrees to 5 places.
Longitude	-81.603363	This shall be formatted in decimal degrees to 5 places. Please provide a negative symbol before the longitude to denote the Western Hemisphere.
Waterbody	South Fork Edisto	Provide easily identifiable name/names of waterbody where project will take place.
Seagrass(es) in project footprint?	No	Type "Yes" if seagrasses are located within the project footprint.
Impacts to seagrass(es)?	NA	Calculate the square feet of impacts to seagrasses.
Located in Atlantic Sturgeon Critical Habitat Unit?	82 FR 39160	Provide the critical habitat unit that the project occurs within the boundaries of critical habitat even if it does not impact the essential features or select "N/A" if not located in geographic area of any critical habitat under NMFS PRD purview.
Atlantic Sturgeon CH Impacts to Physical and Biological Features.	0 sq ft [channel will be spanned by new bridge. no new piles in river.]	Calculate the square feet of impacts to essential features. Review the document for the definition of essential features.

Section/Reference	Criteria
<b>4.1.1 General Project Design Criteria (PDC) Applicable to All Projects</b>	
	<p>Wetland avoidance/minimization/compensation</p> <p>Clearly delineating vegetative clearing limits; maintaining riparian buffers/minimizing impacts to riparian buffers.</p> <p>Compliance with State water quality standards through Storm Water Pollution Prevention Plans (SWPPP), which include erosion and sediment control, spill control, runoff detention, and treatment (further described in AP4.)</p> <p>AP1. All projects will adhere to the sea turtle measures in the most current version of NMFS’s Sea Turtle and Smalltooth Sawfish Construction Conditions, when a project is located in areas where sea turtles occur. These conditions will also apply to projects located in areas where Atlantic and shortnose sturgeon occur (the Conditions include protections for listed species in general). This includes the requirement that construction stops temporarily if an ESA-listed species is sighted within 50 feet of mechanical construction equipment.</p> <p>AP2. Vessel Traffic and Construction Equipment: All vessel operators will watch for and avoid collision with species protected under the ESA. Vessel operators will avoid potential interactions with protected species and operate in accordance with the following protective measures:</p>
Construction Equipment:	<p>AP2.1. All vessels associated with the construction project will operate at “Idle Speed/No Wake” at all times while operating in water depths where the draft of the vessel provides less than a 4-foot (ft) clearance from the bottom, and after a protected species has been observed in and has departed the area.</p> <p>AP2.2. All vessels will follow marked channels and/or routes using the maximum water depth whenever possible.</p> <p>AP2.3. Operation of any mechanical construction equipment, including vessels, will cease immediately if a listed species is observed within a 50-ft radius of construction equipment and cannot resume until the species has departed the area of its own volition.</p>
Turbidity	<p>AP3. Turbidity Control Measures during Construction: Turbidity must be monitored and controlled. Prior to initiating any of the work covered under this programmatic consultation, <b>the Permittee will install turbidity barriers (including fencing and curtains) as described below.</b> In some instances, the use of turbidity curtains may be waived if the project is deemed too minimal to generate turbidity or if the current is too strong for the curtains to stay in place or if the water is too shallow for a curtain. Turbidity barrier specifications:</p>

	<p>AP3.1. Use turbidity barriers throughout construction to control erosion and siltation and ensure that turbidity levels within the project area do not exceed background conditions (i.e., the normal water quality levels from natural turbidity).</p>
	<p>AP3.2. Position turbidity barriers in a way that does not block species' entry to or exit from designated critical habitat.</p>
	<p>AP3.3. Install floating turbidity curtains with weighted skirts around all work areas that are in, or adjacent to, surface waters. All turbidity curtains should extend to 1 ft. or less from the bottom (acceptable to lay on the bottom, especially at low tides).</p>
	<p>AP3.4 Monitor and maintain turbidity barriers in place until the authorized work has been completed and the water quality in the project area has returned to background conditions.</p>
<p>Contaminates</p>	<p>AP4. Petroleum products, chemicals, live (uncured) concrete, or water contaminated by these will not be allowed to enter flowing waters.</p>
	<p>AP4.1 To the maximum extent practicable, refueling of machinery will be done at least 250 feet from any water body and be outside of active stream channels, outside of any tidal areas, and away from ditches or channels that enter flowing waters; designated refueling sites in upland areas at least 250 feet away from receiving waters are preferred. Refueling of boats and heavy machinery such as cranes positioned atop temporary work platforms over the water will take all relevant precautions to avoid spills into waterbodies.</p>
	<p>AP4.2 To the maximum extent practicable, concrete washout pits/pans/pools will be located at least 500 feet from any water body and be outside of active stream channels, outside of any tidal areas, and away from ditches or channels that enter flowing waters. Designated sites in upland areas at least 500 feet away from receiving waters are preferred.</p>
	<p>AP4.3 A Spill Plan will be created, and the plan and all materials necessary to implement the plan shall be accessible on site.</p>
	<p>AP5. Construction personnel will ensure all materials placed in the water, including sheet piles, concrete piles, and erosion control materials, will be free of sediments and/or contaminants.</p>
	<p>AP6. Reporting of interactions with protected species:</p>
	<p>AP6.1. Any collisions(s) and/or injuries to any sea turtle or sturgeon occurring during the construction of a project, will be reported immediately to NMFS's Protected Resources Division (PRD) at (1-727-824-5312) or by email to <a href="mailto:takereport.nmfsser@noaa.gov">takereport.nmfsser@noaa.gov</a>. Sea turtle stranding/rescue organizations' contact information is available by region at <a href="http://www.nmfs.noaa.gov/pr/health/networks/htm">http://www.nmfs.noaa.gov/pr/health/networks/htm</a>.</p>

AP6.2. Dead sturgeon must be reported to 1-844-788-7491 or email nmfs.ser.sturgeonnetwork@noaa.gov

AP7 Entanglement: All turbidity curtains and other in-water equipment will be properly secured with materials that reduce the risk of entanglement of marine species (described below). Turbidity curtains likewise will be made of materials that reduce the risk of entanglement of marine species.

AP7.1. In-water lines (rope, chain, and cable, including the lines to secure turbidity curtains) will be stiff, taut, and non-looping. Examples of such lines are heavy metal chains or heavy cables that do not readily loop and tangle. Flexible in-water lines, such as nylon rope or any lines that could loop or tangle, will be enclosed in a plastic or rubber sleeve/tube to add rigidity and prevent the line from looping and tangling. In all instances, no excess line will be allowed in the water.

AP7.2. Turbidity curtains and other in-water equipment will be placed in a manner that does not entrap species within the construction area or block access for them to navigate around the construction area.

AP8. All projects will follow the PDCs defined in Section 5.2 (“Noise”) and Appendix A. .

AP8.1. Projects will not result in noise in excess of the established thresholds for physical injury or behavioral modification (single strike and cumulative exposure) for ESA-listed sea turtles and sturgeon. FHWA/State DOTs will ensure all pile installation activities not exceed these thresholds, but may accomplish this using relevant best management practices and other methods to avoid and minimize hydroacoustic impacts. A series of pile types, sizes, and hammer types have been analyzed in **Section 5.2 and Appendix A**, for use as reference/models. Projects that adhere to these previously analyzed scenarios will not need further review. However, projects that do not conform to these previously analyzed scenarios must conduct project-specific hydroacoustic analyses and submit these analyses to NMFS as part of the programmatic submission document(s). This hydroacoustic information should be clearly marked in a separate section of submittal materials for ease of review.

AP8.2 From January to May and/or August to November, **installation of piles and sheet piles** in rivers where sturgeon are known to use for migration and spawning are limited to drilled-shafts or those activities labeled “A” in section 5.2 (“Noise”). Appropriate/specific timeframes for individual sturgeon migration and spawning rivers are found in Appendix H of the FHWA/NMFS-SERO BMP Manual.

AP10. All in-water work activities will be performed during daylight hours.

AP12. All over-water structures will incorporate measures to maximize ambient light transmission and minimize shading. Such measures include, but are not limited to, maximizing the height of the structure and minimizing the width of the structure, minimizing the number of instream pilings/piers, and using grated decking material. The optimal height-width (HW) ratio of newly constructed (new or replacement) bridges, piers, multi-use paths, or docks is 0.7 or greater. This ratio is also recommended for temporary work structures such as trestle systems/work bridges. (See P2.3.4)

AP14. All construction personnel are responsible for observing water-related activities to detect the presence of these species and avoid them.

4.1.2 Activities Common to Several Project Types

Activity #1 – Installation, Maintenance, and Removal of Temporary Erosion, Turbidity, and Sediment Control Devices

- A1.1 Temporary erosion, turbidity, and sediment control devices are required to be installed prior to any clearing and grubbing activities, to the maximum extent practicable. In areas where clearing and grubbing is necessary to provide access and area for the installation of temporary erosion, turbidity, and sediment control devices, those devices should be installed immediately following the minimal amount of clearing and grubbing that is necessary.
- A1.2 Temporary erosion, turbidity, and sediment control devices are required on all project-related areas, including off-site use areas, staging areas, and in/around temporary access roads and other areas.
- A1.3 All devices will be regularly inspected for effectiveness and promptly repaired or replaced if they have been damaged or are ineffective.
- A1.4 All temporary devices designed to control erosion, turbidity, and sedimentation throughout the construction process will be removed immediately following project completion.
- A1.5 Installation of silt/turbidity curtains will be shore-parallel (anchored on the shore at both ends) and may not exceed 550 feet in length; curtains must be securely anchored and will not impede or obstruct movement of listed species.
- A1.6 Silt/turbidity curtains will not extend more than 10-feet waterward from the shoreline. In waterways 40-feet wide or less, silt/turbidity curtains will not encroach more than 25% from the Mean High Water Line (MHWL) in intertidal areas or Ordinary High Water Mark (OHWM) in rivers/streams.
- A1.8 Siltation control fence or other stationary measures will be placed parallel to the shoreline and may not be placed waterward of the MHWL or OHWM; measures will not impede or obstruct movement of listed species.

Critical Habitat-specific PDCs:

	<p>A1.9 Installation of erosion, turbidity, and sediment control devices will not occur in Atlantic Sturgeon critical habitat, where the following PBF is present:</p> <ul style="list-style-type: none"> <li>• Suitable hard bottom substrate (e.g., rock, cobble, gravel, limestone, boulder, etc.) in low salinity waters (i.e., 0.0-0.5 parts per thousand range [ppt]) for settlement of fertilized eggs and refuge, growth, and development of early life stages.</li> </ul> <p>A1.10 Silt/turbidity curtains will only extend waterward into depths no greater than 1.1 meters (3.6 ft) in main river channels; curtains will not impede/obstruct movement of sturgeon.</p>
<p>Activity #2 - Staging Areas</p> <p>Activity-specific PDCs for staging areas:</p> <p>Critical Habitat-specific PDCs:</p>	<p>A2.1 Staging areas will be located in upland areas and have appropriate temporary erosion, turbidity, and sediment controls, including, but not limited to stabilized construction exists/entrances and sediment control fence.</p> <p>A2.2 Staging areas will not be located in active channels (e.g., streams, tidal creek creeks, or rivers) or open water areas and will not be located in tidal areas (e.g., all staging areas will be located above MHWL); staging areas shall be setback a minimum of 15 feet from the OHWM and MHWL.</p> <p>A2.3 Staging area activities will not impede or obstruct movement of listed species.</p> <p>A2.4 Staging areas will not be located in Atlantic Sturgeon critical habitat, where the PBFs are present.</p> <p>A2.5 Staging areas will be setback a minimum of 75 feet from the active channel (bankfull width) and MHWL in intertidal areas.</p>
<p>Activity #3 - Site Preparation</p> <p>Activity-specific PDCs for site preparation activities:</p>	<p>A3.1 To the maximum extent practicable, site preparation (e.g., earthwork, obstruction removal, etc.) will begin following installation of temporary erosion, turbidity, and sedimentation control measures, including perimeter sediment control fence.</p> <p>A3.2 Riparian and shoreline clearing, grading, and preparing that occurs in areas where ESA-listed species are present will be completed by hand or with construction machinery (e.g., mini- excavator or bobcat/skid-steer); whichever method best avoids and minimizes erosion, sedimentation, and turbidity. All appropriate precautions will be taken to avoid and minimize erosion, sedimentation, and turbidity.</p> <p>A3.3 Construction machinery will not be located in an active channel or below the OHWM or MHWL for site preparation purposes; machinery may reach (e.g., mini-excavator arm with bucket) approximately 5 ft waterward and 5 ft below the OHWM or MHWL for site preparation purposes. Machinery may be placed atop work structures, such as work trestles, mats, or barges.</p>

<p>Critical Habitat-specific PDCs:</p>	<p>A3.4 In areas where ESA-listed species are present, riparian and shoreline vegetation will not be cleared, trimmed, or otherwise altered if the area is not essential for project construction or facilitation of construction.</p>
	<p>A3.5 Site preparation will not impede or obstruct movement of listed species.</p>
	<p>A3.6 Clearing will take place by hand or with construction machinery – whichever method best avoid and minimizes erosion, sedimentation, and turbidity - in Atlantic sturgeon critical habitat areas, where the PBFs are present. waterward and 2 ft below the OHWM or MHWL for site preparation purposes. Machinery may be placed atop work structures, such as work trestles, mats, or barges.</p>
	<p>A3.7 Construction machinery will not be located in an active channel or below the OHWM or MHWL in Atlantic sturgeon critical habitat, where the PBFs are present, for site preparation purposes; machinery may reach (e.g., mini-excavator arm with bucket) approximately 2 ft</p>
<p>Activity #4 - Geotechnical Drilling and Hazardous Waste Sampling</p>	
<p>Activity-specific PDCs for geotechnical drilling and hazardous waste sampling activities:</p>	<p>A4.1 Bore holes for geotechnical drilling and hazardous waste sampling are limited to 13.54 inches in diameter (144 inches<sup>2</sup>; 1 ft<sup>2</sup>) and only the minimum amount of vegetation clearing required for access will occur.</p>
	<p>A4.2 Drilling in aquatic, intertidal, or wetland areas will occur from existing structures (e.g., bridges, temporary work trestles), barges, vessels, or low ground bearing pressure tracked rigs.</p>
	<p>A4.4 All areas will be restored to pre-drilling/pre-sampling conditions and elevations.</p>
	<p>A4.5 Drilling and sampling will be timed to avoid the presence of sturgeon and sea turtles, to the extent practicable; drilling and sampling will not impede or obstruct movement of listed species.</p>
<p>Critical Habitat-specific PDCs:</p>	
	<p>A4.6 Geotechnical drilling and hazardous waste sampling will not occur in Atlantic sturgeon critical habitat, where the following PBF is present:</p>
	<ul style="list-style-type: none"> <li>• Suitable hard bottom substrate (e.g., rock, cobble, gravel, limestone, boulder, etc.) in low salinity waters (i.e., 0.0-0.5 parts per thousand range [ppt]) for settlement of fertilized eggs and refuge, growth, and development of early life stages.</li> </ul>
	<p>A4.7 Tracked rigs will not be used in critical habitat, where the PBFs are present, unless they are operating atop mats, barges, or other temporary work structures..</p>

<p>Activity #6 - Temporary Platforms, Access Fills (including rock/rip rap jetties), and Cofferdams</p>	<p><i>[Activities covered in #6 are for in water work structures]</i></p>
<p>Activity-specific PDCs for temporary platforms, access fills, and cofferdam activities:</p>	<p>A6.1 All [water dependent] activities will be limited to a total of 120 days or less (“temporary” is defined as 120 days or less), except temporary work platforms/work trestles. Temporary work platforms/work trestles are limited to 24 months or less.</p>
	<p>A6.2 Temporary platforms/work trestles will be installed/constructed following the PDCs outlined in Section 5.2 (“Noise”) below and Appendix A.</p>
	<p>A6.3 The combined temporary impacts from temporary platforms/access fills/cofferdams are limited to a total of 0.5 acres or less in waters of the U.S. (e.g., below OHWM or MHWL) for a single, complete project. Of the total 0.5 acres of temporary impacts, individual activity breakdowns are as follows:</p>
	<p>A6.3.1 Temporary platforms are limited to those with substrate impacts (e.g., footprint of pilings equaling less than 500 ft<sup>2</sup> (0.011 acres).</p>
	<p>A6.3.2 Temporary access fills are limited to 0.5 ac of clean fill (e.g., riprap free of debris) in waters of the U.S. (e.g., below OHWM or MHWL) at any given time.</p>
	<p>A6.3.3 Individual temporary cofferdams are limited to:</p>
	<p>A. 500 ft<sup>2</sup> (0.011 ac) or less in size and a maximum of 2 cofferdams (regardless of size) may be installed/in place at any given time; a maximum of 8 cofferdams (regardless of size) may be installed for a single, complete project.</p>
	<p>or</p>
	<p>B. 1000 ft<sup>2</sup> (0.023 ac) or less in size and a maximum of 1 cofferdam (regardless of size) may be installed/in place at any given time; a maximum of 4 cofferdams (regardless of size) may be installed for a single, complete project.</p>
	<p>A6.4 Placement of geotextile barriers is required prior to placement of the platform/access fills to ensure that the fill will be removed completely at the end of construction.</p>
	<p>A6.5 Temporary fill materials will be placed in a manner that will not be eroded by high water flows. Temporary fills will be removed in their entirety and the affected areas returned to pre- construction conditions/elevations.</p>
	<p>A6.6 The navigability of the waterway will remain uninterrupted and freely open for species movement in/out of the area.</p>
	<p>A6.6.1 Cofferdams and fills will be limited to no more than 50% of the width of a waterbody. In tidal areas (e.g., tidal creeks), the width of the water body should be considered/measured at mean low water (MLW).</p>

Critical Habitat-specific PDCs:

A6.7 Projects will not appreciably impact surface water flow into or out of any waters of the U.S.

A6.8 Appropriate measures will be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of the construction sites.

A6.9 Temporary steel sheet pile cofferdams will be installed/removed by vibratory hammers only.

A6.10 For temporary inflatable cofferdams, the footprints of the walls will be included into the overall impacts area.

A6.12 Activities are not authorized at the mouths of rivers where sturgeon are known to migrate for spawning purposes.

A6.13 Temporary platforms/work trestles in Atlantic sturgeon critical habitat, where the following PBF is present, are limited to 24 months or less and those with total substrate impacts (e.g., footprint of pilings) of 250 ft<sup>2</sup> (0.005 acres) or less, do not impede or obstruct sturgeon movement, and will be installed outside of the spawning/migration season.

- Suitable hard bottom substrate (e.g., rock, cobble, gravel, limestone, boulder, etc.) in low salinity waters (i.e., 0.0-0.5 parts per thousand range [ppt]) for settlement of fertilized eggs and refuge, growth, and development of early life stages.

A6.14 Temporary access fills in Atlantic sturgeon critical habitat, where the following PBF is present, are limited to 0.25 acre of total temporary impacts or less, and will be installed and removed outside of the spawning/migration (moratoria) season(s):

- Suitable hard bottom substrate (e.g., rock, cobble, gravel, limestone, boulder, etc.) in low salinity waters (i.e., 0.0-0.5 parts per thousand range [ppt]) for settlement of fertilized eggs and refuge, growth, and development of early life stages.

A6.15 Temporary cofferdams in Atlantic sturgeon critical habitat, where the following PBF is present, are limited to 2000 ft<sup>2</sup> (0.04 acres) of total temporary impacts or less (must adhere to the same individual size restrictions as A6.3.3), and will be installed and removed outside of the spawning/migration (moratoria) season(s):

- Suitable hard bottom substrate (e.g., rock, cobble, gravel, limestone, boulder, etc.) in low salinity waters (i.e., 0.0-0.5 parts per thousand range [ppt]) for settlement of fertilized eggs and refuge, growth, and development of early life stages.

Activity #7 - Pile Installation and Removal

Activity-specific PDCs for pile installation and removal activities:	A7.7 Vibratory hammers will be used to remove piles. Piles that cannot be removed with vibratory hammers will be cut off at or below the mud line.
	A7.8 All holes left by removed piles will be filled with clean, native sediments.
Activity #10 - Equipment Activity-specific PDCs for equipment:	
	A10.1 Equipment will only be used for its primary/intended purpose.
	A10.2 All equipment will be checked daily for leaks; all projects will have, at a minimum, 1 spill kit readily available at all times.
	A10.3 Equipment will not be used until leaks, or other maintenance issues, are repaired or new equipment is brought in for replacement.
	A10.4 To the maximum extent practicable, all equipment maintenance and other work that may release pollutants/toxicants will occur in contained maintenance areas at least 500 feet (preferred) from any water body and be outside of active stream channels, outside of any tidal areas, and away from ditches or channels that enter flowing waters.
	A10.5 Heavy equipment such as excavators, cranes, and bulldozers will not be located in the water to conduct work; buckets or extensions may reach into the water from atop the bank/platform/trestle to conduct work.
	A10.6 Drilling equipment, such as low ground bearing pressure tracked rigs, may be used in-water, but not in the main channel of streams, creeks, or rivers, and must be in-water for the least amount of time necessary to complete work.
	A10.7 Vessels shall operate at "no wake/idle" speeds.
	A10.8 The maximum speed equipment and items can be lowered into the water will be no great than 60 feet/minute at times of the year when sturgeon or sea turtles may be present.
	A10.8.1 Extreme care will be taken to avoid striking individuals when lowering equipment below the water line (and into/onto the bottom). Equipment and materials include, but are not limited to: excavator buckets, piles, spuds, casings, etc.
	A10.9 Spudding will occur, provided all other PDCs are adhered to.
Critical Habitat-specific PDCs:	
	A10.10 Heavy equipment or drilling equipment is not authorized in (below the water line) Atlantic Sturgeon critical habitat, where the PBFs are present. Equipment shall only be positioned on barges, temporary fill (rip rap pads), temporary work trestles, existing bridges, or in other upland areas.

A10.11 To the maximum extent practicable, barge grounding will be avoided in all Atlantic Sturgeon critical habitat areas and will be limited to 30 days for a given location. Barge grounding is not authorized in Atlantic Sturgeon critical habitat, where the following PBFs are present:

- Suitable hard bottom substrate (e.g., rock, cobble, gravel, limestone, boulder, etc.) in low salinity waters (i.e., 0.0-0.5 parts per thousand range [ppt]) for settlement of fertilized eggs and refuge, growth, and development of early life stages.

4.1.2 Specific Transportation Project Types

Project Type #2 - New Bridge, Bridge Replacement, and Bridge Widening; New Piers and

P2.3 Bridge Replacements  
Project-specific PDCs for new bridges and piers, replacement/relocation piers, replacement bridges, and bridge widening projects:

P2.3.1 Bridge replacements on existing or parallel alignments are authorized, provided the original/existing structure is completely removed and the projects follow the PDCs outlined in Section 5.2 (“Noise”) below and Appendix A, and all other relevant PDCs, including P2.1.2.

P2.3.1 Bridge replacements on existing or parallel alignments that span the waterbody and remove all old/existing structures from the waterway are authorized.

P2.3.3 Replacement bridges will not allow fishing in areas where swimming sea turtles are known to occur (i.e. the salt/freshwater interface); “no fishing,” “fishing prohibited,” or “It is illegal to fish here” signs will be used.

P2.3.4 Replacement bridges will generally be the same size/shape as the original/existing bridges.

P2.3.4.1 Increases in length and height from original/existing bridges are authorized; decreases in height are not authorized.

P2.3.4.2 Increases of up to 100% of the original width is authorized. For example, if the original bridge is 28 feet wide, the replacement bridge could be up to 56 feet wide.

P2.5 Bottom substrate/habitat impacts

P2.5.1 Impacts from piles/columns/footings and other substructure components of bridges and piers in the bottom substrate/habitat will be limited to 200 ft<sup>2</sup> (0.004 acre) or less for any bridge or pier project. This is the total impact of newly installed, constructed or cast-in-place structures, not measured as the NET impact area (e.g., area of new structures minus the area of old structures that will be removed).

Critical Habitat-specific PDCs:

P2.7 Bridge/pier replacements within the same footprint of the original/existing structure are authorized. Increases in impact area of piles/columns/footings from the originally authorized structures are not authorized. [see 2.5.1]

## Cultural Resources



# Cultural Resources Project Screening Form

File Number:  PIN:  Route:  County:

Project Name:

Type 1: Resurfacing, installation of fencing, signs, pavement markings, traffic signals, passenger shelters, railroad warning devices, installation of rumble strips, and landscaping

Project Type

Type 2: Bridge replacements on alignment, construction of bicycle/pedestrian facilities, and intersection improvements

Type 3: Projects that do not fall into Type 1 and Type 2 categories (e.g. road widening)

## Comments

This project will replace the bridge carrying SC 4 over the South Fork Edisto River. The area of direct effects (ADE) for archaeological resources includes a corridor of 1000 feet from either end of the bridge and 100 feet from centerline on either side of SC 4. The area of potential effect for architectural resources (APE) extends 300 feet from the ADE. Background review indicated that the southern side of SC 4 was previously surveyed in 2005 by New South Associates. No previously recorded cultural resources are located in the project area. However, the current bridge carrying SC 4 over the South Fork Edisto River (Asset Number 2639) was noted in the SCDOT Historic Bridge Survey. The majority of soils within the ADE are mapped as poorly or very poorly drained, with more well drained soils located at either end of the ADE. A cultural resources survey of the project area was conducted on January 7, 2021 to investigate the northern side of SC 4. The survey consisted of pedestrian reconnaissance of the entire study area augmented by the excavation of shovel test pits (STPs). STPs were not excavated in area of evident ground disturbance or areas inundated with water. At the time of investigation, much of the ADE was flooded. A total of 22 STP locations were investigated, 11 of which were not excavated due to inundation or ground disturbance. One resource was identified. SHPO Site No. #3544 is the current bridge carrying SC-4 over the river. The bridge is a 24-span steel girder/beam structure with a concrete cast-in-place deck that was built in 1958. It is recommended as not eligible for the National Register of Historic Places. No historic properties will be affected. No additional cultural resources investigations are recommended.

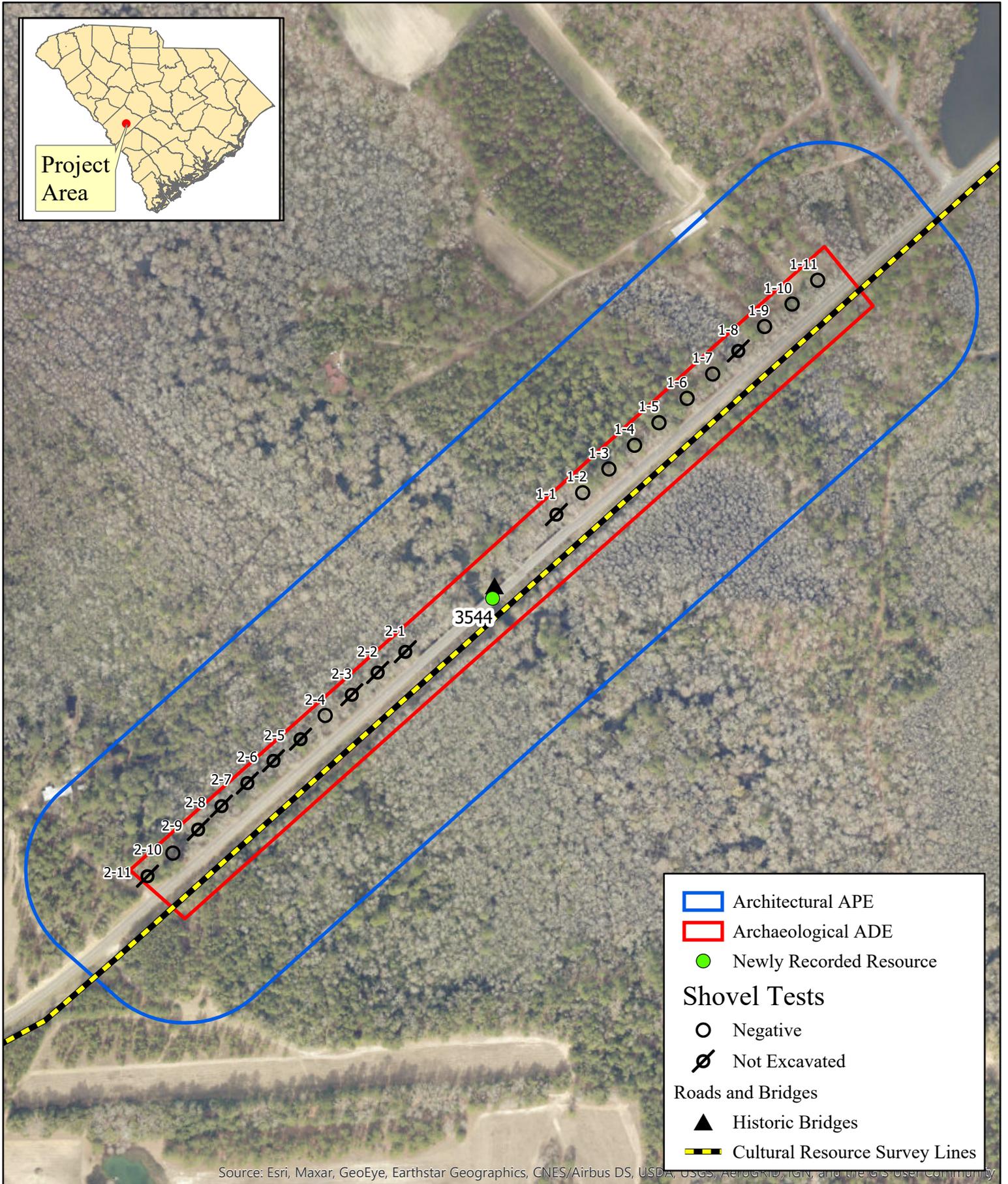
Effect Determination:

\*SHPO consultation is required for all Type 3 projects and any project with a No Adverse or Adverse Effect Determination.

This screening form was developed to satisfy documentation requirements for Type I and Type II projects under a Programmatic Agreement between the Federal Highway Administration, the South Carolina State Historic Preservation Office, the US Army Corps of Engineers, and the South Carolina Department of Transportation. For Type I and Type II projects that have no effect on historic properties, the completion of this screening form with supporting documentation (e.g. ArchSite Map) provides evidence of FHWA and SCDOT's compliance with Section 106 of the National Historic Preservation Act.

Prepared by:

Review Date:



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS user community

- Architectural APE
- Archaeological ADE
- Newly Recorded Resource

**Shovel Tests**

- Negative
- /
 Not Excavated

**Roads and Bridges**

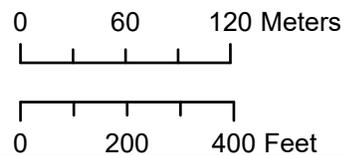
- Historic Bridges
- Cultural Resource Survey Lines



SC 4 (Wagener Rd) Over the South Fork Edisto River Bridge Replacement

PIN: 40306 County: Aiken

Date: 01/011/2021



ARCHAEOLOGICAL FIELD REPORT  
NEW SOUTH ASSOCIATES, INC.

TITLE: Cultural Resources Survey of S.C. 4/302 Bridge Approaches over the South Fork Edisto, Aiken County, South Carolina

DATE OF RESEARCH: January 19-20, 2005

ARCHAEOLOGIST: Heather Mauldin

HISTORIAN: Terri Gillett

COUNTY: Aiken  
South Edisto River

PROJECT: S.C. 4/302 Bridge Approaches over

F. A. No.: BRT-BR02(009)

File No.: 02.127B

PINS: 26432 and 31552

DESCRIPTION: The Department proposes to replace two bridges located on S.C. 4/302. The project corridor is located 1.5 miles south of SC302. The first bridge, ID number SN 024000400200, is situated over the South Fork Edisto River and is located approximately 10 miles east of the city of Aiken. The existing 601-foot x 28-foot bridge was constructed in 1958, and is a steel continuous stringer type structure. The replacement bridge will be a reinforced concrete flat slab and prestressed concrete Type III beam bridge 600 feet in length and having a 44-foot clear roadway width. The new bridge is to be constructed approximately 45 feet downstream of the existing bridge. The second bridge to be replaced is ID number SN 024000400300, situated over Cedar Creek just east of bridge SN 024000400200. Currently the bridge over Cedar Creek is a concrete tee beam type, originally built in 1932. This replacement bridge will also be constructed approximately 45 feet downstream of the existing overpass. The new bridge will be a modern reinforced concrete flat slab and prestressed concrete Type III bridge with a 44-foot clear roadway width and a length of 120 feet. Both bridges will be supported on cast in place reinforced concrete bent caps with prestressed concrete piles. The improvement also includes a 24-foot approach roadway section in order to accommodate 2 feet of paved shoulder, 8 feet of grassed shoulder, guardrail placement, approach slabs, and surfacing work in order to tie the new construction to the existing roadway. The survey corridor is 1.449 miles in length.

LOCATION: The project corridor is located 10 miles east of the city of Aiken.

USGS QUADRANGLE: Oakwood

DATE: 1999

SCALE: 7.5'

UTM ZONE: 17

EASTING: 452248

NORTHING: 3715490

ENVIRONMENTAL SETTING: The project area is mostly mixed forest, wetlands, and sparse residential and agricultural areas. Vegetation also includes shrubs, grasses, and roadside weeds. Several former mill ponds were identified north of the survey corridor.

NEAREST RIVER/STREAM AND DISTANCE: The nearest rivers/streams are Cedar Creek and the South Fork Edisto River. The project corridor directly crosses each waterway.

SOIL TYPE: The project area falls within two major soil formation areas. These are the Troup-Lakeland-Fuquay and Vacluse-Ailey-Troup formations. Both formations are described as well-drained, sandy soils that have loamy subsoil and may include a dense brittle layer in the subsoil. Specific soil types encountered within the project area are as follows:

- Troup Sand, 6 to 10 percent slope.
- Troup Sand, 0 to 6 percent slope.
- Vacluse-Ailey complex, 6 to 15 percent slopes.
- Fuquay sand, 2 to 6 percent slopes.
- Dasher Mucky Peat.
- Johnson Mucky Loam.
- Ogeechee Sandy Loam.
- Orangeburg Loamy Sand, 2 to 6 percent slope.

REFERENCE FOR SOILS INFORMATION:

Rodgers, Vergil A/1983/Soil Survey of Aiken County, South Carolina. USDA, Soil Conservation Service, Washington, D. C.

GROUND SURFACE VISIBILITY: 0%  1-25%  26-50%  51-75%  76-100%

CURRENT VEGETATION: The vegetation in the corridor consists of mixed forest, bushes, briars, and grasses, and wetland plants. Several landscaped areas also comprise the corridor.

INVESTIGATION:

On December 20, 2004 research was conducted at the State Site Files at the South Carolina Institute of Archaeology and Anthropology. No previously recorded archaeological sites were located within a two-mile radius of the project area. Also on December 20, 2004, the National Register of Historic Places (NRHP) files of the South Carolina Department of Archives and History were searched for previously identified sites using the Arcview program. Eight historic sites were located within a two-mile radius of the project area.

An intensive archaeological survey was conducted on January 20, 2005. One transect was walked at approximately 50 feet south of the existing centerline for the length of the survey corridor. As the bridges and connecting roadway were to be relocated south of the existing roadway, a second transect was deemed unnecessary, as it would have been located beneath the current paved road. A total of 86 shovel tests were excavated in the project corridor, each at 30-meter (100-foot) intervals when conditions warranted. These tests showed that the local subsoil was either a tan occasionally mottled loamy sand, a red occasionally mottled loamy sand or sandy clay, or brown clay.

Eight tests contained dark grey loamy sand to around 15 centimeters above reddish yellow loamy sand; six of these also contained a yellow grey sandy loam layer above the subsoil. Eight additional shovel tests were found to contain tan colored sandy loam as subsoil. Of these seven had a grey loamy sand layer above the subsoil to between 10 and 20 centimeters. The tan subsoil layer occasionally was found to be mottled or contain ferrous concretions. One test produced grey loamy sand to about 5 centimeters, above 15 centimeters of brown loamy sand, 10 additional centimeters of yellow-red loamy sand, and dark red subsoil. Fifteen centimeters of dark grey loamy sand, followed by about 25 additional centimeters of a yellow brown layer

above a brown clay subsoil was found to occur in one shovel test pit. Eleven shovel tests illustrated brown loamy sand above a red to mottled reddish-yellow sandy clay subsoil. The soils in 6 test locations were found disturbed by utilities or road building activities. Forty-two test locations were in wetland areas and were not dug. The remaining 9 tests were conducted at areas in which the ground surface was visible; in these areas the ground was scanned for cultural resources and no subsurface sample was made.

Table 1 . Archaeological and historic sites previously identified in the vicinity of the project area.

SITE NO.	DATE	SITE TYPE	ELIGIBILITY	REFERENCE
368-0749	Ca. 1930	Kneece Farm Clubhouse	Not eligible	Preservation Consultants 1988
368-0748	Ca 1935	Kneece Farm Manager's House	Not eligible	Preservation Consultants 1988
368-0274	Ca. 1890	House	Not eligible	Preservation Consultants 1988
368-0725	Ca. 1910	Rock Hill Baptist Church	Not eligible	Preservation Consultants 1988
368-0750	Ca. 1920	Kneece's Mill	Eligible	Preservation Consultants 1988
368-0765	Ca. 1880	House	Not eligible	Preservation Consultants 1988
368-0766	Ca. 1884	Goss Cemetery	Not eligible	Preservation Consultants 1988
466-0384	Ca. 1910	House	Not eligible	Preservation Consultants 1988

The corridor was also surveyed for the presence of historic homes within 400 feet of the road. 35 mm color film photographs were taken of the corridor and any sites or structures that were discovered. GPS coordinates of the corridor were collected. A sketch map showing the location of shovel testing and pedestrian reconnaissance was made to illustrate research of the project corridor.

**Bridge number SN 024000400300- Resource ID 2756**

The bridge on S.C. 4/302 over Cedar Creek, also known as SN 024000400300, was built originally in 1932. The UTM coordinates for the bridge in Zone 17 are as follows: Easting 452572 Northing 3715792. An architectural survey was undertaken on February 1, 2005, upon which the bridge was identified and photographed using black and white 35 mm film. A South Carolina *Statewide Survey of Historic Properties* form (Site # 2756) was completed.

Bridge 024000400300 is a two-lane, reinforced concrete T-Beam vehicular bridge that provides passage over Cedar Creek on S.C. Rte. 4/302. Constructed in 1932, the bridge is 61 feet in length with a deck width of 30 feet. The substructure consists of a single span of reinforced concrete strengthened by four longitudinal beams. The bridge is supported on both banks of Cedar Creek by an embedded concrete abutment that features retaining wing walls. No

additional supports exist. The deck is concrete overlain with asphalt and includes one centrally located drain hole. Solid concrete balustrades, approximately 3 feet high, run the full length of the bridge and are topped with a simple ornamental cap. Galvanized guardrails extend from both ends of the south balustrade and from the northeast end of the north balustrade. A driveway on the southwest end of the north balustrade prevents a guardrail in this location.

It was the only bridge designed for Aiken County between October 1931 and September 1932 according to the South Carolina State Highway Department's Annual Report (December 31, 1929 to June 30, 1938). The Cedar Creek Bridge is a good representative example of a small reinforced concrete T-Beam bridge. However, SN 024000400300 has been determined not eligible for listing on the NRHP due to the considerable number of similar resources of this kind in the state.

### **Kneece's Mill**

In 1988 Preservation Consultants conducted a county-wide survey of historic structures and sites located in Aiken county. As part of this survey, Kneece's mill was identified as eligible for listing on the NRHP and is recorded as ID number 368-0750. This mill reportedly dates to ca. 1930. No standing architecture or surface evidence of the structure's exact placement was identified by our investigations, however a series of three probable mill related ponds exists west of Cedar Creek and north of S.C. 72. This area seems to be the former mill location, and was photographed (see attached). No shovel testing was conducted at the area, due to the wetland situation. As the replacement bridge is to be built 45 feet south of the current road location, construction activities should be able to successfully avoid the site location.

### **Kneece Farm Manager's House**

An additional previously documented historic structure near the project corridor is the former Kneece farm manager's house. This structure was also documented by the Preservation Consultants 1988 survey of Aiken County. The house reportedly dates to ca. 1935, and was given the ID number 368-0748. The structure is recommended ineligible for listing on the NRHP. The structure's distance from the road should prohibit any impact from the new right of way.

### **REMARKS AND RECOMMENDATIONS.**

No previously unrecorded archaeological sites were identified along the project corridor. Two previously recorded historic structures were listed as along the project corridor, one of which as recommended eligible for listing on the NRHP. The Cedar Creek bridge (SN 024000400300) although built in 1932 does not warrant consideration of listing on the NRHP, as it is not an exceptional example of its type. Both previously recorded historic sites (368-0750 and 368-0748) should not be directly impacted by proposed improvements. As such, no further cultural resource study of the corridor is recommended.

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

#### REFERENCES CITED

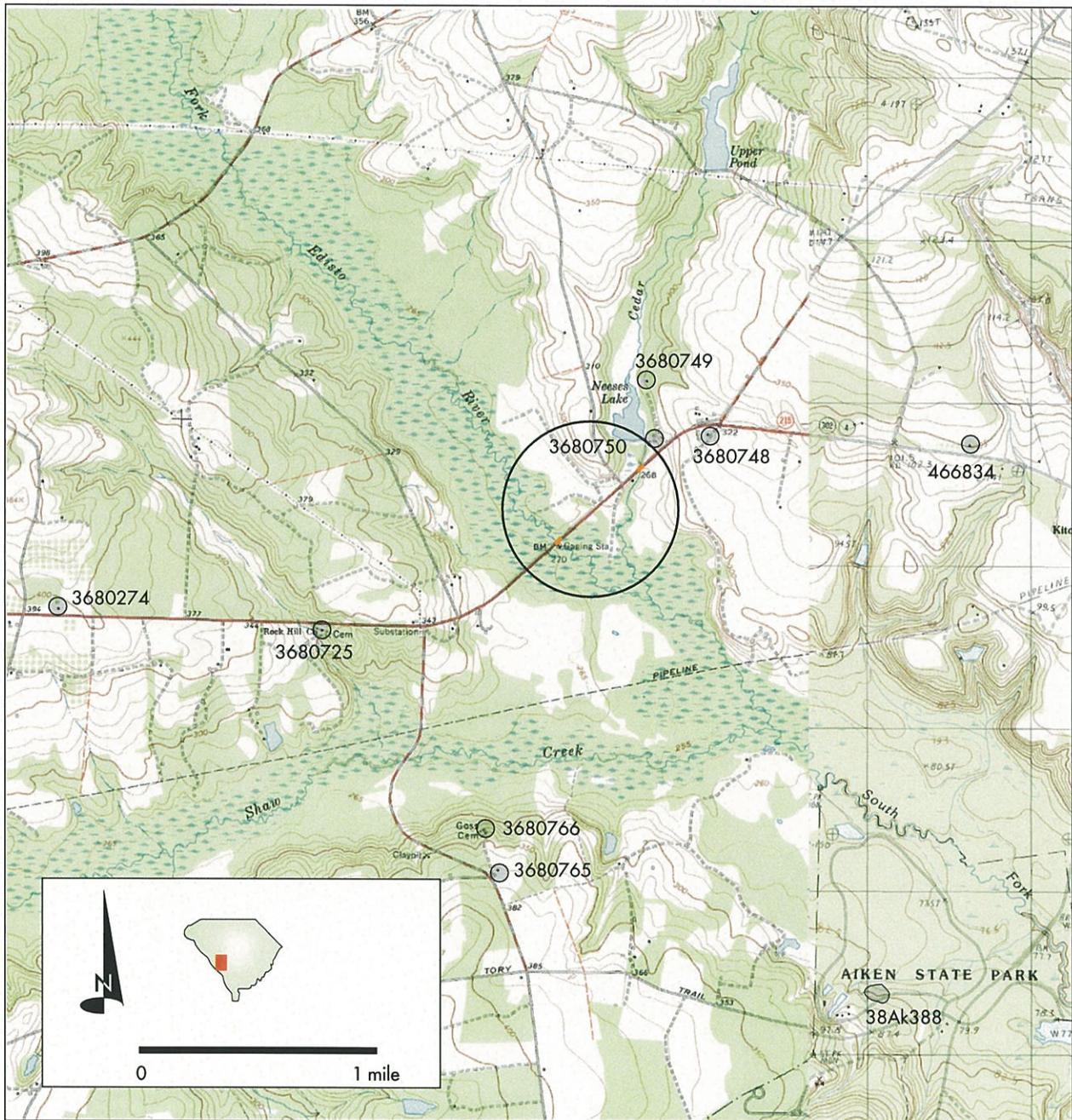
Rodgers, Vergil A

1983 Survey of Aiken County, South Carolina. USDA, Soil Conservation Service,  
Washington, D. C.

Preservation Consultants

1988 Architectural Survey of Aiken County, South Carolina.

Figure 1  
Project Location and Previously Recorded Sites



Source: USGS 7.5' Quadrangles, Oakwood and Kitchens Mill



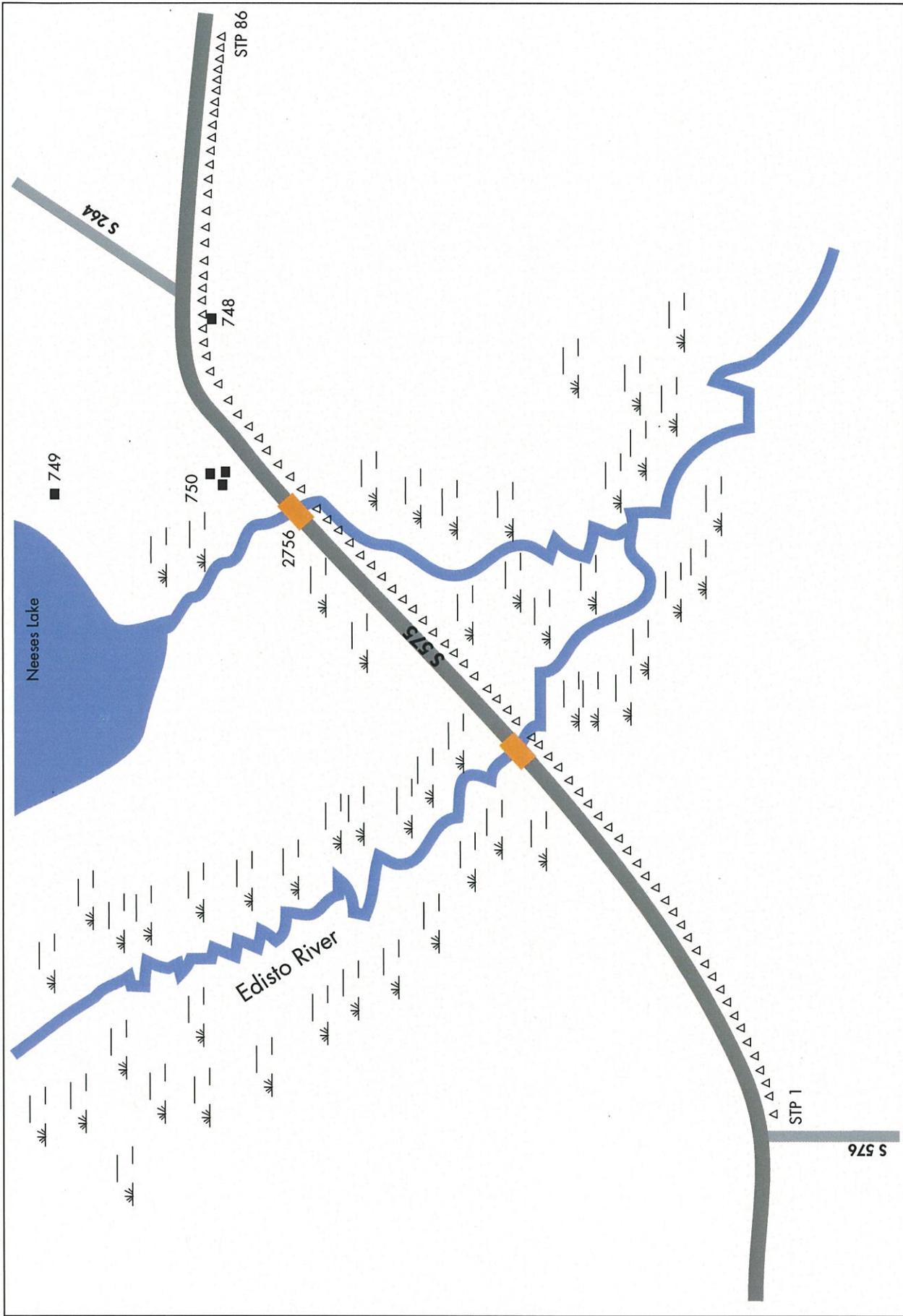


Figure 3  
Plan View of Project and STP Locations and Previously Recorded Sites

## Wetlands/Water Quality/Floodplains



# Watershed and Water Quality Information

General Information

**Applicant Name:** SCDOT **Permit Type:** MS4  
**Address:** 107 FLOWING WELL RD, **Latitude/Longitude:** 33.576940 / -81.516087  
 WAGENER, SC, 29164  
**MS4 Designation:** Not in designated area **Monitoring Station:** E-585  
**Within Coastal Critical Area:** No **Water Classification (Provisional):** FW  
**Waterbody Name:** SOUTH FORK EDISTO RIVER **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
E-585	X	X	X	X	N	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
E-114	F	F	F	F	A	F	F	F	F	F	F	WnTN	X	X	X	X	X	X	X	X
RS-14209	A	A	A	A	A	A	A	A	A	A	A	A	X	X	X	X	X	X	X	X
E-600	A	A	A	A	A	A	A	A	A	A	A	A	X	X	X	X	X	X	X	X

F = Standards full supported    A = Assessed at upstream station    WnTN = Within TMDL, parameter not supported    WnTF = Within TMDL, parameter full supported  
 N = Standards not supported    X = Parameter not assessed at station    InTN = In TMDL, parameter not supported    InTF = In TMDL, parameter full supported

Parameters to be addressed (those not supporting standards)

**HG - Mercury**                      **ECOLI - Escherichia coli (Freshwaters)**

Fish Consumption Advisory

Waters of Concern (WOC)

TMDL Information - TMDL Parameters to be addressed

**In TMDL Watershed:** Yes **TMDL Site:** E-114  
**TMDL Report No:** 9D21-11 **TMDL Parameter:** Fecal  
**TMDL Document Link:** [https://www.scdhec.gov/sites/default/files/docs/HomeAndEnvironment/Docs/tmdl\\_mlEdisto.pdf](https://www.scdhec.gov/sites/default/files/docs/HomeAndEnvironment/Docs/tmdl_mlEdisto.pdf)

Report Date: December 23, 2020

Date: 12/22/20

### PERMIT DETERMINATION

FROM Will McGoldrick COMPANY SCDOT

CONTACT INFO (phone and/or email) 803-737-1326; mcgoldriwr@scdot.org

SCDOT PROJECT ENGINEER Brad Reynolds

TO Will McGoldrick - Design Build Coordinator

Project Description SC 4 Emergency Bridge Replacement

Route or Road No. SC 4 County Aiken

CONST. PIN P040306 OTHER PINS or STRUCTURE # \_\_\_\_\_

RESPONSE:

It has been determined that no permits are required because:

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 \* HG (WQMS E-585)

TMDL developed  no  yes, for \* Fecal (WQMS E-114)

\*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.

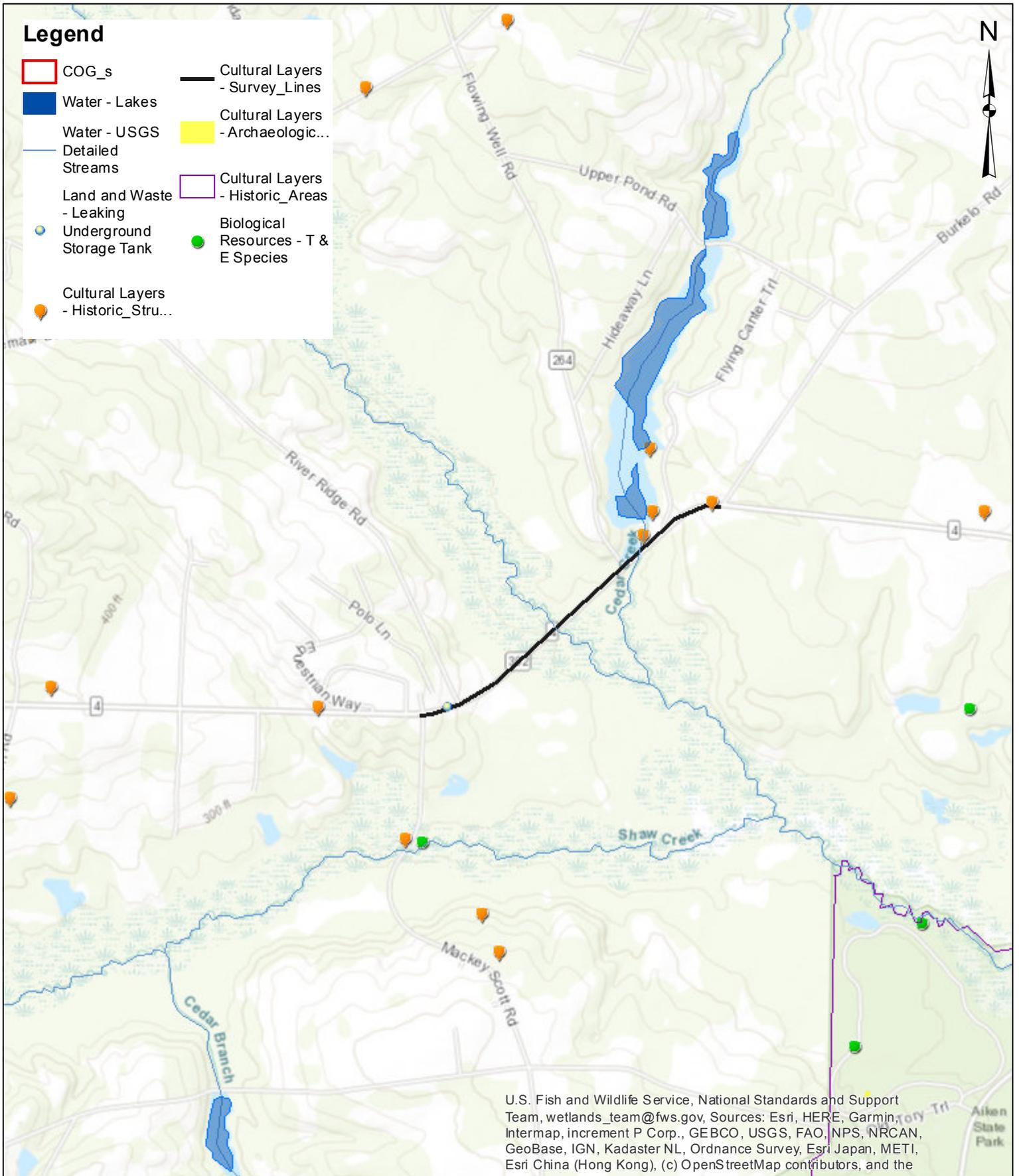
**Will McGoldrick** Digitally signed by Will McGoldrick  
Date: 2021.01.08 08:12:14 -05'00'

\_\_\_\_\_  
Biologist, SCDOT/Consultant

\_\_\_\_\_  
Date

# Legend

- COG\_s
- Water - Lakes
- Water - USGS Detailed Streams
- Land and Waste - Leaking
- Underground Storage Tank
- Cultural Layers - Historic\_Stru...
- Cultural Layers - Survey\_Lines
- Cultural Layers - Archaeologic...
- Cultural Layers - Historic\_Areas
- Biological Resources - T & E Species

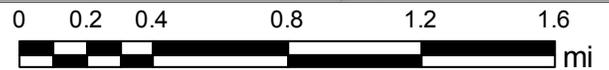


U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands\_team@fws.gov, Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the

## SC 4 over South Fork Edisto

Project name:  
 County:  
 State:  
 Extra:  
 Author: Author

Date: 12/17/2020



South Carolina Department of Transportation

**quad SC4 and 302**

EB over S Edisto

**Legend**

- Untitled Polygon



# National Flood Hazard Layer FIRMMette



81°31'18"W 33°34'44"N



## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

**SPECIAL FLOOD HAZARD AREAS**

- Without Base Flood Elevation (BFE)  
Zone A, V, A99
- With BFE or Depth Zone AE, AO, AH, VE, AR
- Regulatory Floodway

**OTHER AREAS OF FLOOD HAZARD**

- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due to Levee. See Notes. Zone X
- Area with Flood Risk due to Levee Zone D

**OTHER AREAS**

- NO SCREEN Area of Minimal Flood Hazard Zone X
- Effective LOMRs
- Area of Undetermined Flood Hazard Zone D

**GENERAL STRUCTURES**

- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

**OTHER FEATURES**

- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

**MAP PANELS**

- Digital Data Available
- No Digital Data Available
- Unmapped

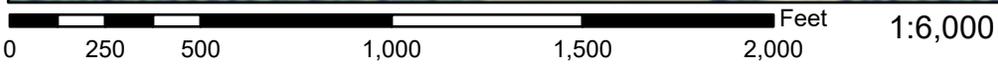


The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 12/17/2020 at 9:00 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



USGS The National Map: Orthoimagery, Data refreshed October, 2020

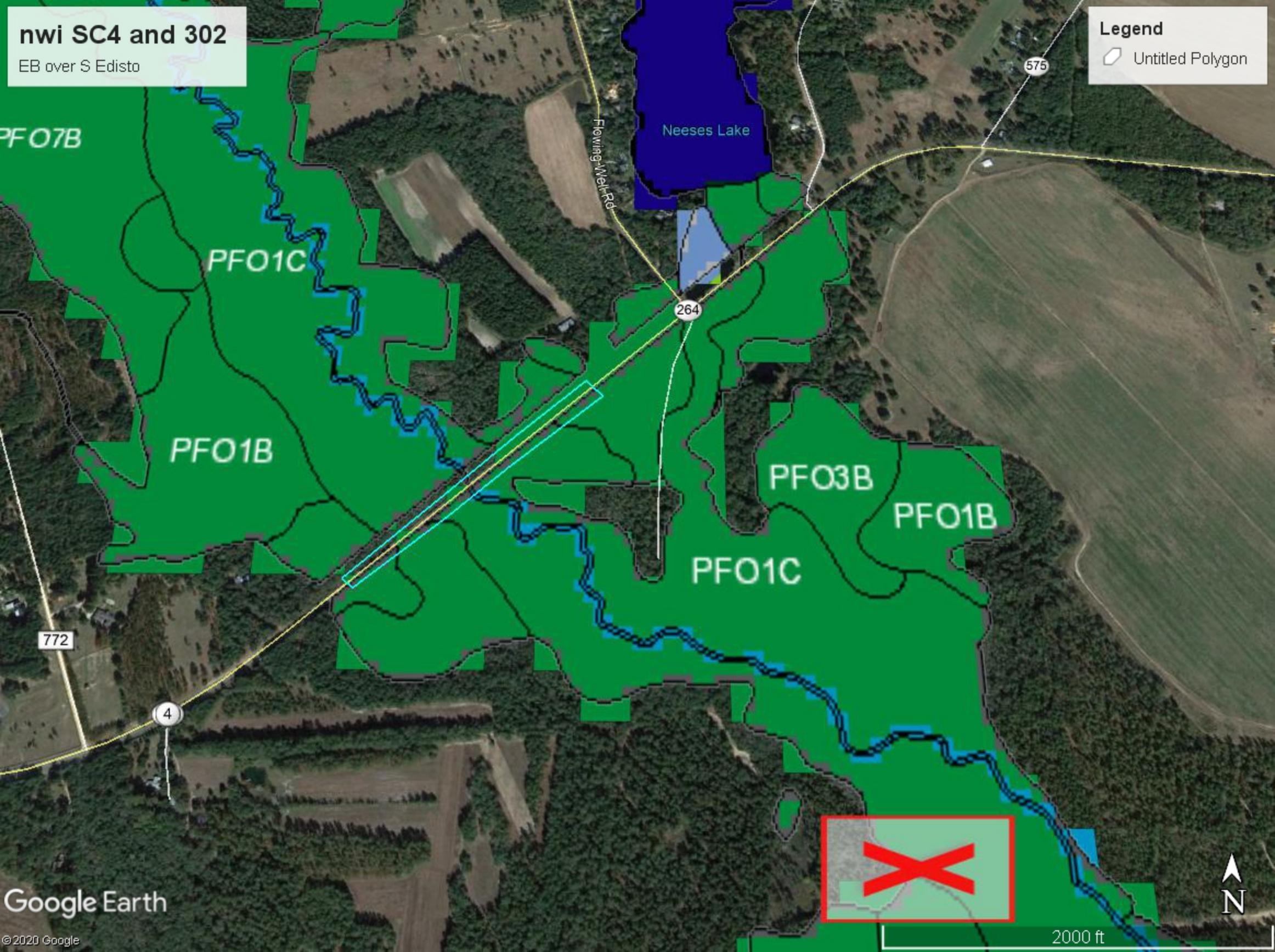
81°30'40"W 33°34'14"N

nwi SC4 and 302

EB over S Edisto

**Legend**

- Untitled Polygon



**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 project consists of replacing a structurally deficient bridge over the South Forth Edisto River in Aiken county. The bridge will be replaced on alignment with a close and detour route implemented.

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:

Recent bridge inspections determined that the steel bridge girders had become detached from the deteriorated timber bent caps and that the bridge was unsafe for public travel. The bridge was closed near the beginning of December 2020 to all traffic. The bridge is located in Aiken County on SC 4. Due to the poor substructure condition, the bridge was determined to be an emergency replacement and assigned to Design-Build for delivery.

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?

Yes. The grade will be raised approximately 2-4 feet to account for difference in superstructure depth, while maintaining or slightly increasing the existing low chord elevation.

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

Lengthening the bridge to span the entire floodplain would significantly increase the downstream floodplain and result in a conditional letter of map revision (cLMR). Off-alignment alternatives were considered but ruled out due to significant increases in wetland impacts, as well the need to avoid impact to an existing pond and overflow bridge structure to the east of the project.

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?

Little to none in the overall system. The proposed bridge will not significantly alter backwater conditions and design high-water elevations. The minimal amount of added fill will be an insignificant percentage of the overall available floodplain available for storage.

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

Little to none. Impacts to the overall available floodplain will be near or at zero.

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

Bridge spans will be lengthened thereby reducing the amount of piles to be located in the floodplain which will allow more area for surface flows to flow unimpeded. This will also reduce debris accumulation. Replacing on-alignment restricts the fill impacts to a minimal amount on either side of the existing approach embankments.

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

Yes, reduced bents in the floodplain through longer spans. Spanning the river channel. Slightly increasing the bridge length. Maintaining or slightly increasing the existing freeboard and vertical clearance.

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

There are no significant encroachments and the project will not support or encourage further development in the floodplain. Existing roadway geometry is not conducive to off-alignment replacement.

- 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.

Not at this time. Once a final design is developed by the Design-Builder, they will be required to coordinate with the local NFIP personnel to ensure compliance with local and federal regulations.

*Maria Ott*

SCDOT Hydraulic Engineer

01/06/2021

Date

## US Coast Guard Coordination

**From:** [Overton, Randall D CIV](#)  
**To:** [Belcher, Jeffery - FHWA](#)  
**Cc:** [McGoldrick, Will](#); [D07-DG-DISTRICTSTAFF-DPB](#)  
**Subject:** RE: [Non-DoD Source] FHWA-South Carolina: USCG Bridge Permit Exemption SC 4 over S. Fork of Edisto River Emergency Bridge Replacement  
**Date:** Friday, January 8, 2021 8:06:44 AM  
**Attachments:** [SC4 USCG Exemption Request\\_printed.pdf](#)

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**\*\*\* This is an EXTERNAL email. Please do not click on a link or open any attachments unless you are confident it is from a trusted source. \*\*\***

Shane,

I (the Coast Guard) concurs with your determination that the SC 4 Bridge across the South Fork of the Edisto River is exempt from Coast Guard bridge permitting requirements; a Coast Guard bridge permit will not be required for the replacement of the subject bridge.

Thank you – v/r,  
Randy

**Randall Overton, M.P.A**  
Director, District Bridge Program  
Coast Guard Seventh District  
909 SE 1st Ave Suite 432  
Miami, FL 33131  
(305) 205-0795 Cell  
(305) 415-6736 Office

---

**From:** Belcher, Jeffrey (FHWA) <Jeffrey.Belcher@dot.gov>  
**Sent:** Tuesday, January 5, 2021 4:22 PM  
**To:** Overton, Randall D CIV <Randall.D.Overton@uscg.mil>  
**Cc:** McGoldrick, Will <McGoldriWR@scdot.org>  
**Subject:** [Non-DoD Source] FHWA-South Carolina: USCG Bridge Permit Exemption SC 4 over S. Fork of Edisto River Emergency Bridge Replacement

Randall,

Attached is a permit exemption form for your review/concurrence. FHWA feels an exemption for the subject project is appropriate. The bridge is currently closed to traffic and is proposed for emergency replacement due to structural deficiencies. Boat traffic is limited to small craft (canoes, kayaks, john boats). Any questions or concerns, please let me know.

Much thanks,

*J. Shane Belcher*

*Lead Environmental Specialist  
Federal Highway Administration  
1835 Assembly Street, Suite 1270  
Columbia, SC 29201  
Phone: 803-253-3187*

*The content of this email is confidential and intended for the recipient specified in message only.*



**FHWA South Carolina Division**  
U.S. Coast Guard Permit Exclusion Request Checklist

State File #	P040306	Fed Project #		PIN		Date	12/22/20	County	Aiken
--------------	---------	---------------	--	-----	--	------	----------	--------	-------

Project Description	SC 4 Emergency Bridge Replacement
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Tidal or Non-Tidal	Non-Tidal	Contact Person	Will McGoldrick	Phone Number	803-737-1326
--------------------	-----------	----------------	-----------------	--------------	--------------

**Form Purpose:** The FHWA has the responsibility under 23 U.S.C. 144(h) to determine that a USCG permit is not required for bridge construction. This determination shall be made at an early stage of project development so that any necessary coordination can be accomplished during environmental processing (23 CFR Part 650.805).

**Form Instructions:** This checklist should be completed when requesting a Title 23 Coast Guard Permit Exclusion. The exclusion request should be submitted prior to completion of the NEPA process. When an exclusion is requested SCDOT should send a letter to FHWA, addressed to the Division Administrator requesting such, with the appropriate information listed below. If the FHWA Structural Engineer agrees that an exclusion is appropriate, a letter will be sent to the U.S. Coast Guard indicating that a permit is not required. The letter will allow 30 days for a U.S. Coast Guard rebuttal.

**I. For Non-Tidal Waterways:**

The following condition must be met to obtain a Title 23 Coast Guard Permit Exclusion. A "no" response will result in the need for a USCG Permit.

1. If the non-tidal waterway is navigable, is not currently utilized by commercial or recreational vessels greater than 21 feet in length, and will not be used as such, once improvements (increased vertical and/or horizontal clearance) have been constructed, a USCG permit is not required.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Information required by FHWA for <b>non-tidal</b> waterways to issue a Title 23 Permit Exclusion. This data will need to be provided with exclusion request.	Included with request	
1. Location Map	<input checked="" type="checkbox"/>	
2. Photo of existing bridge/location from the waterway	<input checked="" type="checkbox"/>	
3. Bridge profile at crossing	<input checked="" type="checkbox"/>	
4. Depth of water at normal pool	<input checked="" type="checkbox"/>	
5. Vertical clearance at normal pool	<input checked="" type="checkbox"/>	
6. Horizontal clearance at normal pool	<input checked="" type="checkbox"/>	
7. Type of vessel traffic (commercial or recreational) and whether there are vessels > 21 feet utilizing the waterway.	<input checked="" type="checkbox"/>	

## II. For Tidal Waterways:

The following condition must be met to obtain a Title 23 Coast Guard Permit Exclusion. A "no" response will result in the need for a USCG Permit.

1. If the tidal waterway is navigable, is not currently utilized by commercial or recreational vessels greater than 21 feet in length, and will not be used as such, once improvements (increased vertical and/or horizontal clearance) have been constructed, a USCG permit is not required.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Information required by FHWA for <b>tidal</b> waterways to issue a Title 23 Permit Exclusion. This data will need to be provided with exclusion request.	Included with request	
1. Location Map	<input type="checkbox"/>	
2. Photo of existing bridge/location from the waterway	<input type="checkbox"/>	
3. Bridge profile at crossing	<input type="checkbox"/>	
4. Depth of water at high and low tides	<input type="checkbox"/>	
5. Vertical clearance at high and low tides	<input type="checkbox"/>	
6. Horizontal clearance at high and low tides	<input type="checkbox"/>	
7. Type of vessel traffic (commercial or recreational) and whether there are vessels > 21 feet utilizing the waterway.	<input type="checkbox"/>	

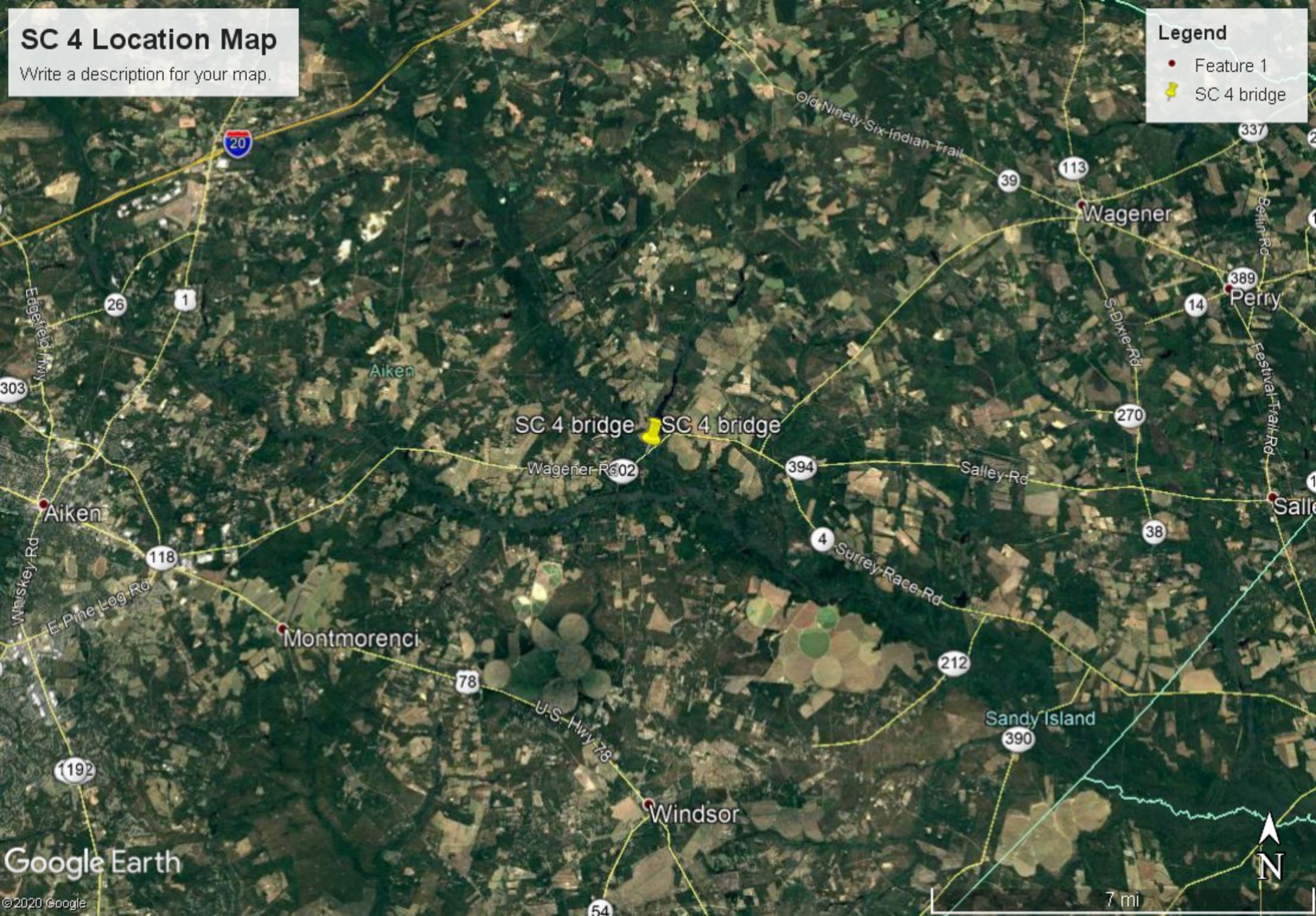
Vessel traffic in this location of the South Fork Edisto River is recreational and is less than 21' in length. Most vessels are for fishing or site seeing and consists of canoes, kayaks, or john boats.

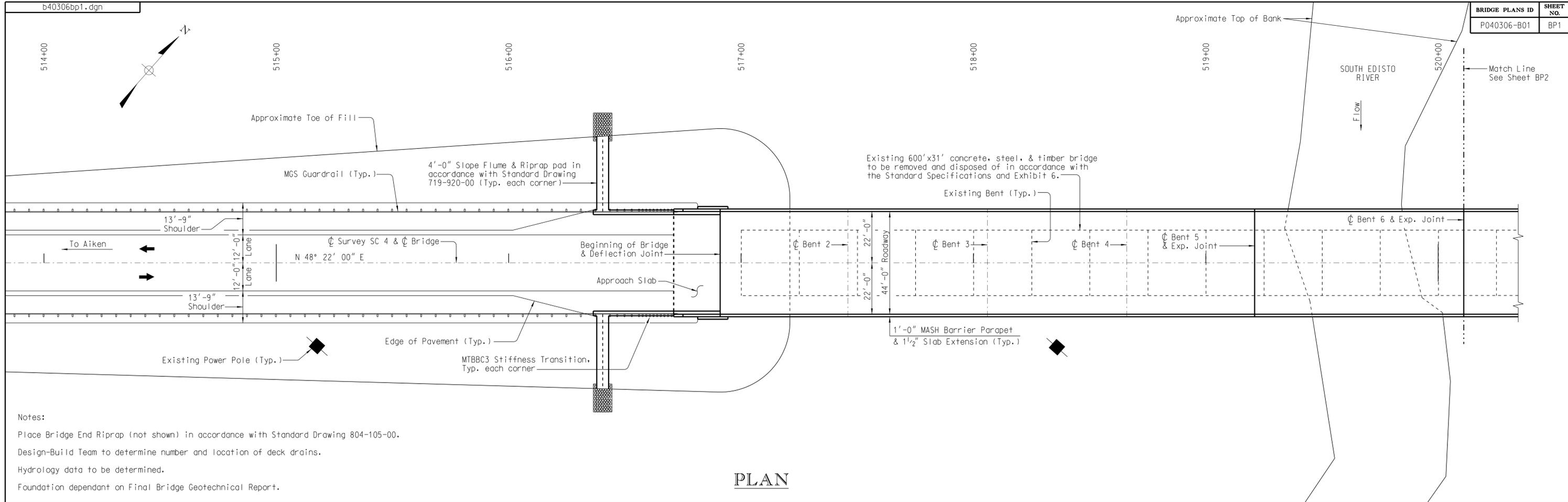
# SC 4 Location Map

Write a description for your map.

## Legend

- Feature 1
- 📍 SC 4 bridge





Notes:

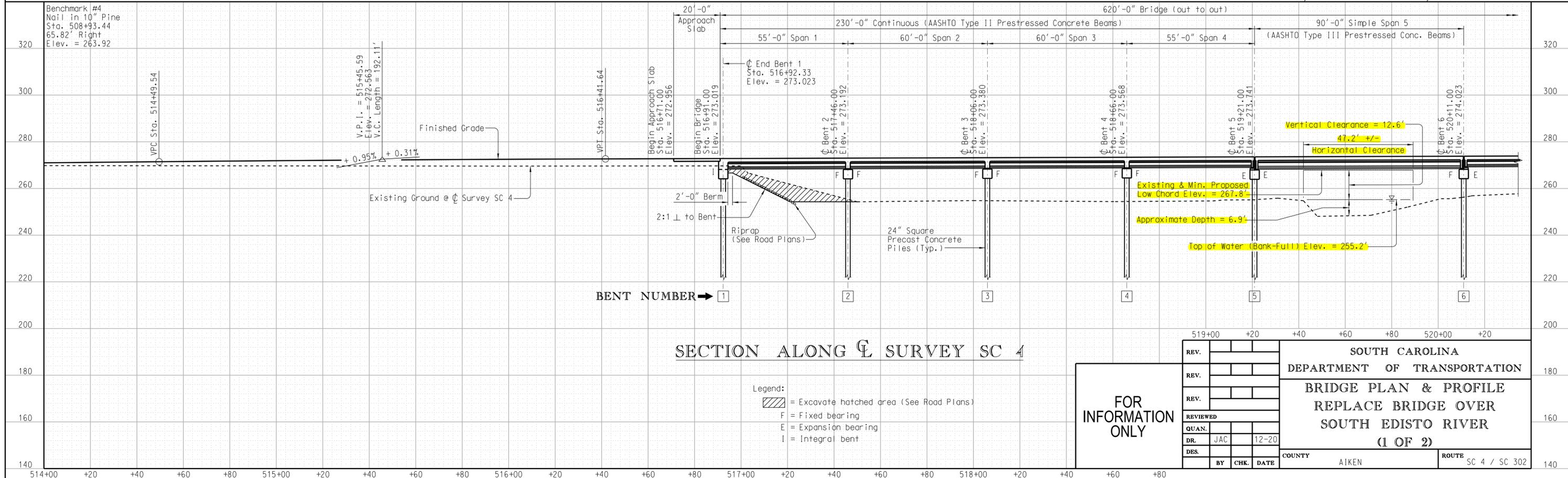
Place Bridge End Riprap (not shown) in accordance with Standard Drawing 804-105-00.

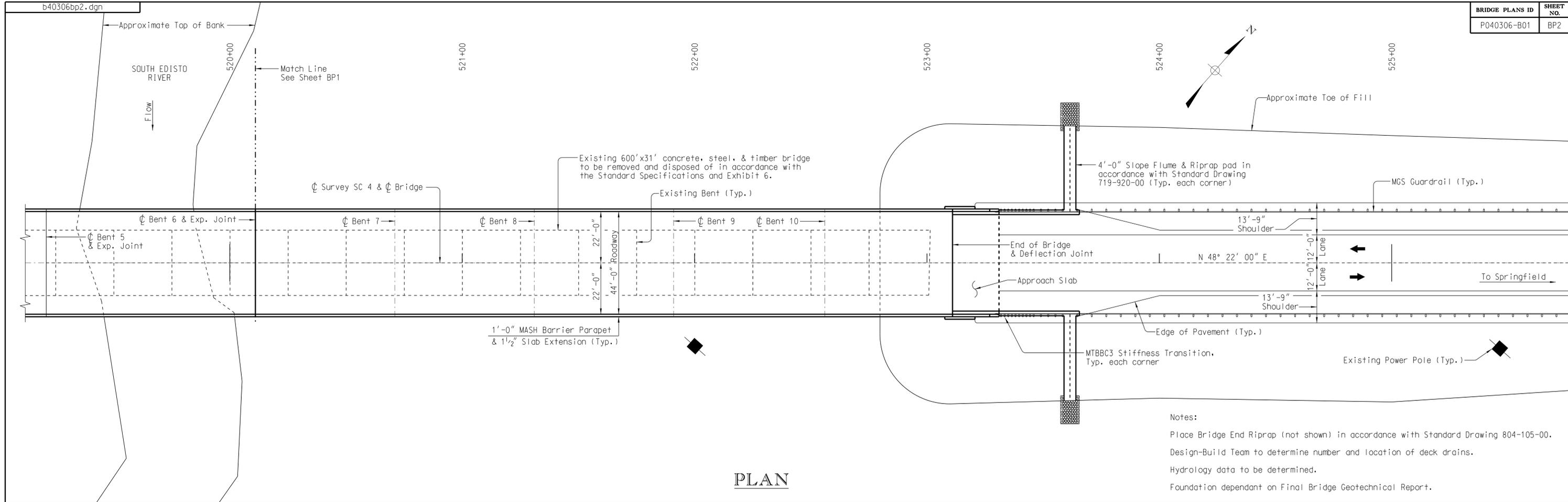
Design-Build Team to determine number and location of deck drains.

Hydrology data to be determined.

Foundation dependant on Final Bridge Geotechnical Report.

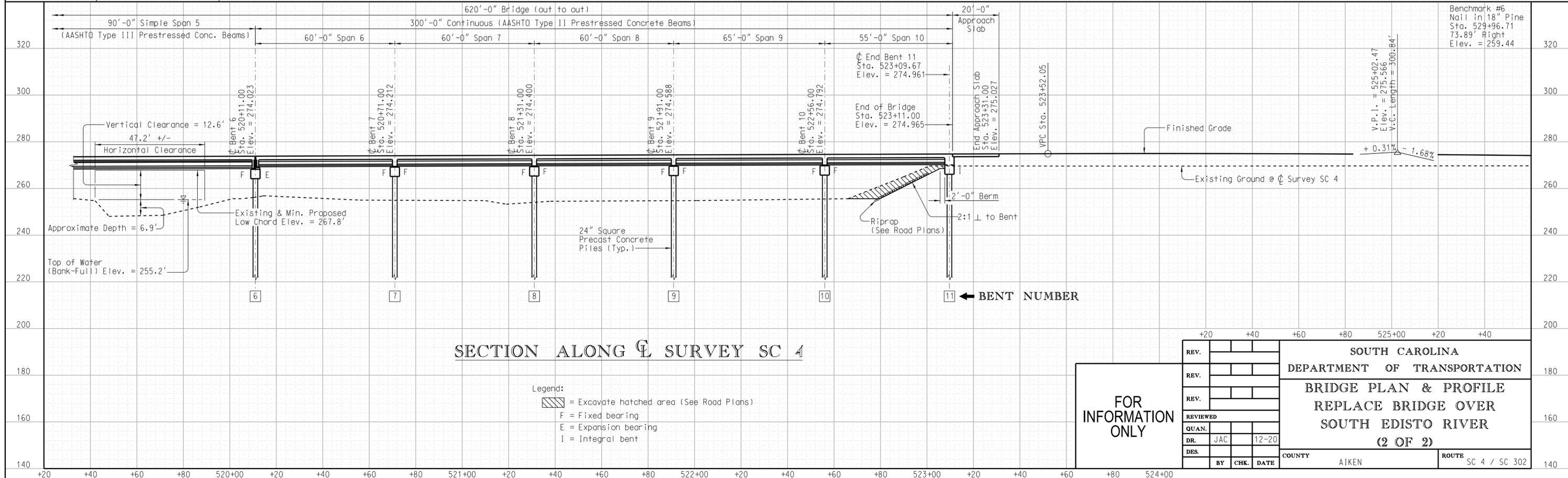
### PLAN





PLAN

Notes:  
 Place Bridge End Riprap (not shown) in accordance with Standard Drawing 804-105-00.  
 Design-Build Team to determine number and location of deck drains.  
 Hydrology data to be determined.  
 Foundation dependant on Final Bridge Geotechnical Report.



SECTION ALONG CL SURVEY SC 4

Legend:  
 [Hatched Area] = Excavate hatched area (See Road Plans)  
 F = Fixed bearing  
 E = Expansion bearing  
 I = Integral bent

FOR INFORMATION ONLY

REV.				SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION <b>BRIDGE PLAN &amp; PROFILE</b> <b>REPLACE BRIDGE OVER</b> <b>SOUTH EDISTO RIVER</b> <b>(2 OF 2)</b>			
REV.							
REV.							
REVIEWED							
QUAN.				COUNTY		ROUTE	
DR.	JAC		12-20	AIKEN		SC 4 / SC 302	
DES.							
BY	CHK.		DATE				







## Bridge Inspection Reports and Information

## SCDOT BRIDGE INSPECTION FORM

(008) BRIDGE ID: 0240000400200	(005) ROUTE: AIKEN SC-4
(420) ASSET NO: 2639	(006) CROSSING: S. EDISTO RIVER
(419) RAMP NO:	(009) LOCATION: 10 MI E OF AIKEN
(026) FUNCTIONAL CLASS: 3	(016) LAT: 33d 34m 36.39s (017) LON: 81d 30m 59.47s

### GENERAL BRIDGE DATA

	EXISTING	REVISED		EXISTING	REVISED
(027) Year Built	1932		(042) Type Serv; On(A) Und(B)	1	5
(106) Year Recon	1958		(028) Lanes; On(A) Und(B)	2	0
(031) Design Load	2		(107) Deck Struct	1	
(36A) Railings	0		(108) Wear Surf/Membrane/Prot	6	8
(36B) Transitions	0			MAT-SUP-SUB	MAT-SUP-SUB
(36C) Appr Guard	1		(043) Main Original (A)	4	2
(36D) Appr Guard End	1		Main Reconst (B)	4	02
(037) History	5		(044) Appr Orginal (A)	0	00
(319) Last Paint Date			Appr Reconst (B)		0

### GEOMETRIC DATA

	EXISTING	REVISED		EXISTING	REVISED
				FT	IN
(032) Appr Rdway	28		(053) Vert Clr Above Deck	99	99
(033) Bridge Median	0		(54A) Vert Clear Ref	N	
(034) Skew	0		(54B) Vert Clear Right	0	0
(035) Flared	0		(54C) Vert Clear Left	0	0
(045) # Main Spans	24		(10A) Great Min Clr Over/Und	99	99
(046) # Appr Spans	0		(10B) Great Min Right	99	99
(048) Max Span Lgth	25		(10C) Great Min Left	99	99
(308) Appr Span Lgth	0				
(049) Struct Length	601		(55A) Lat Clear Ref	N	
(47A) Horz Clear Right	28		(55B) Lat Clear Right	0	
(47B) Horz Clear Left	0		(056) Lat Clear Left	0	
(47UA) Horz Clear Right	0	0			
(47UB) Horz Clear Left	0	0	(038) Navigation Cont	0	
(50B) Sidewalk Right	0		(039) Nav Vert Clear	0	
(50A) Sidewalk Left	0		(040) Nav Horz Clear	0	
(051) Curb to Curb	28		(111) Nav Pier Port		
(052) Deck Out-Out	31				

### RATINGS DATA

	EXISTING	REVISED		EXISTING	REVISED
(58) Deck	5		(041) Traffic Status	P	
(59) Super Str	3		(063) Rating Method	2	
(60) Sub Str	3		(064) Operating Method	45	
(061) Channel	7		(065) Rating Method	2	
(062) Culv Ret	N		(066) Inventory Rating	30.60	
(071) Water Adeq	7		(411) Date Rated	06/1988	
(072) Appr Rdway	8		(418) Conditions During Rating	5	4
(113) Scour Critical	5			Freq	Mth/Year
(067) Structure	3		(091, 090) Routine Insp	12	02/2020
(068) Deck Geom	4		(92A, 93A) Fracture Critical	N	
(069) Underclear	N		(92B, 93B) Underwater Insp	N	
(070) Bridge Post	5		(92C, 93C) Special Insp	Y12	08/2019

Inspection Leader: VARTENISIAN, DREW	Reviewed By: BONNETTE, GERALD
Date:	Date: 9/8/2020

## **Bridge Element Group Textual Data**

Bridge ID: 02-4-00004-0-02-00

08 Sep 2020

### **Abutments and/or Headwalls:**

N/A

### **Bents and/or Piers:**

O.C. (043A) HAS 4 TIMBER PILES W/ ~12" SQUARE TIMBER CAPS/ R.C. (043B) WIDENED ON BOTH SIDES W/ 1 TIMBER PILE AND TIMBER CAPS W/ SPLICING BOARDS, ALL W/ TIMBER SWAY BRACING/ CAPS:

- TIMBER CAPS HAVE MINOR DETER. THRU-OUT, W/ SEVERAL CAPS HAVE MINOR CRUSHING, AND MOD. TO MAJ. DETER., W/ WORSE ON CAP ENDS AND WIDENED SECTIONS; (~770'-LF)
- CAP#2= MINOR FIRE DAMAGE OVER P5+6 (5'-LF);
- CAP#23(LT-SIDE)= SEVERE DECAY W/ SECTION LOSS ALLOWING SETTLEMENT (UP TO 1/4") ON BM#1 SP#23 (I.E. BEARING PLATE IS BENDING DOWN ~1/4");
- CAP#23(RT-SIDE)= CRUSHING + ROTATION UNDER BEAMS #5-6;
- CAP#24= 6' SPLIT @ C/L, ARRESTED W/ BOLTS;
- HEAVY SATURATION THROUGH OUT SUBSTRUCTURE ELEMENTS;

#### PILES:

- 137-ORIGINAL INTERIOR BT PILES + 12 ON END BENTS (149 TOTAL); (BT11 P5 WAS REPLACED W/ 2 HELPER PILE W/ H-PILE SUPPORT CAP IN ITS PLACE);
- 30 HELPER PILES ARE TYP. DRIVEN AT/NEAR SEVERELY DETERIORATED PILES;
- 4 PILES SPLICED W/ METAL COLLARS;
- MINOR TO SOME AREAS OF MOD. DECAY THRU-OUT PILES W/ NUMEROUS AREAS OF SEVERELY CORRODED AND FAILED CONNECTIONS;
- MOST HELPER PILES SHIMS HAVE HEAVY RUST W/ PACT RUST AND SECTION LOSS;

\*08-28-20 SPECIAL INSPECTION NOTES\*

-SEE MISC SECTION FOR DETAILS;

\*\*SEE SKETCH SHEETS FOR FURTHER DETAILS\*\*

### **Bearings:**

108-FIXED AND 108 MOVABLE STEEL PLATES/

- MOVABLE PLATES (UNDER OPEN JOINTS) ARE FROZEN WITH TYPICAL HEAVY RUST ON MOST, WITH MANY HAVING SOME LEVEL OF SECTION LOSS;
- MINOR RUST TYPICALLY ON FIXED PLATES;

\*SEE SKETCH SHEETS FOR FURTHER DETAILS ON CAPS AND PILES\*

### **Girders/Floor Beams/Stringers and/or Beams:**

6-18" STEEL "I" BEAM ON A 2 SPAN CONTINUOUS BEAM DESIGN ( I.E. 72 INDIVIDUAL BEAMS AND 144 BEAM ENDS ON ODD # OF BENTS); ACCORDING TO BRIDGE PLANS IT APPEARS THAT THE BEAMS AND DECK ARE ONLY COMPOSITE AT BEAM ENDS/  
-DIAPHRAGMS HAVE HAIRLINE CRACKS W/ SMALL TO LARGE SPALLS THROUGHOUT;  
-SEVERE RUST WITH COMPACTION AND MAJOR TO COMPLETE SECTION LOSS ON NUMEROUS BEAM ENDS;  
-EVERY BEAM END HAS SOME LEVEL OF DETERIORATION;  
-BEAMS AT MID-SPAN AND OVER FIXED BENTS (EVEN # BENTS) TYPICALLY HAVE MINOR RUST ON FLANGES THRU-OUT BEAMS;  
-BEAMS #2-5 (O.C.) HAVE HEAVY RUST WITH CREVICE COMPACTION B/W BEAM AND DECK WHICH IS CAUSING SEPARATION (1/8" IS TYPICAL)

\*08-28-20 SPECIAL INSPECTION NOTES\*  
-SEE MISC SECTION FOR DETAILS;

\*\*SEE SKETCH SHEETS FOR FURTHER DETAILS\*\*

**Truss Members:**

N/A

**Expansion Joints:**

13-O.C. POURABLE EXPANSION JOINTS (JOINTS ON ODD # BENT), UNABLE TO INSPECT TOP SIDE DUE TO ASPHALT OVERLAY/  
-VISIBLE EVIDENCE OF LEAKAGE FROM JOINTS, COMPLETELY FAILED  
-NO JOINT MATERIAL ON CURB SECTIONS WHICH IS ALLOWING WATER TO GET TO FASCIA BEAM ENDS AND CAPS, AND CAUSING HEAVY SATURATION IN THESE ELEMENTS;  
  
-NO OTHER NOTICEABLE CHANGE

**Decks and/or Slabs:**

7-11/16" (VARIES) CAST IN PLACE CONCRETE DECK ON OC AND RC WITH APPROX 4" OF ASPHALT OVERLAY, 24 SPANS AT 25'/  
SOFFIT:  
-HAIRLINE AND UP TO ~1/16" TRANSVERSE CRACKS (MOST PROMINENT) UNDER ON DECK SOFFIT, WITH CONNECTING LONGITUDINAL (I.E. MAP CRACKING) THRU-OUT, SPACED @ 6"-1', WITH SOME HAVING LIGHT TO MINOR EFFLORESCENCE(UP TO ~5% IN CS2);  
-22 CUT-OUTS (FULL DEPTH PATCHING) FOR HELPER PILE INSTALLATIONS (22-3' X 3'(AVG)= 198'-SF IN CS3)  
-DUE TO COMPACTION RUST BETWEEN BEAMS AND DECK IT MAY BE A POSSIBILITY OF DECK DISTORTION FROM ~5' FROM EACH OPEN JOINT (2015'-SF IN CS3)  
  
WEARING SURFACE: 4" OF ASPHALT OVERLAY (28' X 601')= WIDE CRACKING OVER ODD BENT JOINTS (364'-SF IN CS3);

\*SEE SKETCH SHEETS FOR FURTHER DETAILS\*

**Curbs:**

CONCRETE SAFETY CURB ON BOTH SIDES ACROSS BRIDGE/  
-LIGHT ABRASION ON CURB TOPS AND MINOR AT CURB AND GUTTER CORNERS;  
-CURB REVEAL:  
BEG LT - 11.25"  
BEG RT - 11"  
END LT - 11"  
END RT - 11.25"

**Bridge Railing/Parapets and/or Median Barriers:**

36A: CONCRETE RAILING ACROSS BRIDGE;  
36B: W-BEAM RAILING WITH TIMBER POSTS ON TRANSITIONS;  
36C: W-BEAM GUARDRAIL WITH TIMBER POSTS ON APPROACHES;  
36D: FLARED BACK BULL NOSE ON ALL END TREATMENTS;

\*08-28-20 SPECIAL INSPECTION NOTES\*

-SEE MISC SECTION FOR DETAILS;

\*\*SEE SKETCH SHEETS FOR FURTHER DETAILS\*\*

**Paint Systems:**

- COMPLETE FAILURE AT BEAM ENDS (APPROX 3' FROM ENDS=12% OR 1944'-SF);
- COMPLETE FAILURE ON BEARINGS;
- SOME AREAS ON BEAMS THAT HAVE "LIMITED" TO "NO LONGER EFFECTIVE" AT 4' FROM BEAM ENDS AND OUTSIDE 2 BEAMS (1297'-SF);
- MOSTLY EFFECTIVE ON MID SPANS (APPROX 80% or 12962'-SF);

**Waterway and Scour:**

-RIPRAP AT BOTH ENDS OF BRIDGE AND SIDE SLOPES;  
-GOOD ALIGNMENT WITH FLOOD PLAIN;  
-WELL VEGETATED SLOPES AND BANKS BEYOND BRIDGE BUT NO PROTECTION ON CHANNEL BANKS UNDER BRIDGE;  
--~4'WIDE X 2'DEEP SINK HOLE FORMING @ BENT#7 FROM ACTIVE ARTESIAN WELL;

**Fender System:**

N/A

**Roadway Alignment:**

STRAIGHT ALIGNMENT AND NO SPEED REDUCTION NECESSARY;

**Traffic Signs:**

-BRIDGE END PANELS ON ALL CORNER;  
-"SOUTH EDISTO RIVER";  
-LOCATION ID;  
-ASSET ID;  
-AT BRIDGE POSTED SIGNS AND ADVANCED WARNING SIGNS (ALSO WITH ADVANCED TRUCK DETOUR SIGNS ALSO IN PLACE);

**Encroachments:**

-ONE 4" FIBERGLASS UTILITY ON RIGHT AND ONE 4" FIBERGLASS ON LEFT RUNNING ALONG BEAM FASCIA;

## Miscellaneous Notes:

-WEATHER: ~90 AND CLEAR;  
-WORK REQUEST: DEC-2019 B-FLAG (BEAM SUPPORTS)

\*08-28-20 SPECIAL INSPECTION FOR BENT #23 SETTLEMENT NOTES\*

-THIS SPECIAL INSPECTION IS PRIMARILY FOR THE MONITORING OF SETTLEMENT/DETER. ON BENT #23 AND SURROUNDING ELEMENTS. DURING INSPECTION, A SQUEAK WAS NOTICED AT BM4 OF SP22 AT BT23 AND BM2 SP24 AT BT25, WHICH HAD PROGRESSIVE DETER. AND NOTICEABLE DEFLECTION

\_\_BENT #23 RT-SIDE SETTLEMENT MEASUREMENTS\_\_

-ON RAILING:

8-30-18= JUST LESS THAN 26/32";

2-15-19= 27/32"

8-20-19= 26/32"

2-14-20= 27/32" (51\*D)

8-28-20= 7/8" (90\*D)

-ON CURB:

2-14-20= (~+)1.40" (51\*D)

8-28-20= (~-)1.25" (90\*D), \*ACCOUNTING FOR THERMAL EXP, THIS MEASUREMENT WOULD BE CLOSE TO 1.43"

-SWAY BRACING OUTSIDE CORNER TO TOP OF BEARING PLATE ON CAP BEGINNING:

8-28-20= 17\_7/16"

\*WORK REQUEST: DEC-2019 B-FLAG, DUE TO RAIN FALL, WATER LEVEL AND HIGH WATER TABLE, COVID-19 WORK HAS BEEN SLOWLY PROGRESSING; (E.G. FOOTING DUG BUT FILLED WITH WATER AND FOOTER FORMS AT BRIDGE SITE);

## Bridge Element Level Data

08 Sep 2020

<u>Element No</u>	<u>Element Name/Description</u>	<u>Units</u>	<u>Env</u>	<u>Defect</u>	<u>Quantity in Each Condition State</u>				<u>Total Qty</u>
					<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	
107	Steel Open Girder/Beam	feet	3	Yes					
107	Corrosion	feet	3	1000	0	2886	0	720	3606
107	Steel Open Girder/Beam	feet	3	Yes	0	2886	0	720	3606
12	Reinforced Concrete Deck	sq feet	3	Yes					
12	Delamination/Spall/Patched Area	sq feet	3	1080	0	0	198	0	198
12	Exposed Rebar	sq feet	3	1090	0	0	3	0	3
12	Efflorescence/Rust Staining	sq feet	3	1120	0	965	0	0	965
12	Cracking (RC and Other)	sq feet	3	1130	0	15448	25	0	15473
12	Distortion	sq feet	3	1900	0	0	2015	0	2015
12	Reinforced Concrete Deck	sq feet	3	Yes	0	16415	2241	0	18656
228	Timber Pile	each	4	Yes					
228	Connection	each	4	1020	0	0	28	0	28
228	Decay/Section Loss	each	4	1140	0	0	126	27	153
228	Timber Pile	each	4	Yes	0	0	154	27	181
235	Timber Pier Cap	feet	4	Yes					
235	Decay/Section Loss	feet	4	1140	0	736	20	0	756
235	Split/Delamination (Timber)	feet	4	1170	0	0	6	0	6
235	Settlement	feet	4	4000	0	0	3	5	8
235	Damage	feet	4	7000	0	0	5	0	5
235	Timber Pier Cap	feet	4	Yes	0	736	34	5	775
301	Pourable Joint Seal	feet	4	Yes					
301	Leakage	feet	4	2310	0	0	0	39	39
301	Seal Adhesion	feet	4	2320	0	0	0	364	364
301	Pourable Joint Seal	feet	4	Yes	0	0	0	403	403
311	Movable Bearing	each	4	Yes					
311	Corrosion	each	4	1000	0	0	0	108	108
311	Movable Bearing	each	4	Yes	0	0	0	108	108
313	Fixed Bearing	each	4	Yes					
313	Corrosion	each	4	1000	0	72	0	0	72
313	Fixed Bearing	each	4	Yes	0	108	0	0	108
331	Reinforced Concrete Bridge Railing	feet	2	No	1202	0	0	0	1202

510	Wearing Surfaces	sq feet	4	Yes					
510	Crack (Wearing Surface)	sq feet	4	3220	0	0	308	0	308
510	Wearing Surfaces	sq feet	4	Yes	16520	0	308	0	16828
515	Steel Protective Coating	sq feet	4	Yes					
515	Effectiveness (Steel Protective Coatings)	sq feet	4	3440	12962	0	1297	1944	16203
515	Steel Protective Coating	sq feet	4	Yes	12962	0	1297	1944	16203



# PHOTOGRAPH FORM

ASSET ID #: 2639

INSPECTION DATE: 8-28-2020



PHOTO #1 BT23 RT-SIDE OVERVIEW



PHOTO #2 RAILING OVER BM6 SP22  
BT23= 0.875" (FEB-20 WAS 0.843")



PHOTO #3 CURB GAP OVER BM AT BT23=  
1.21" (FEB-20 WAS 1.40" at 51 deg)

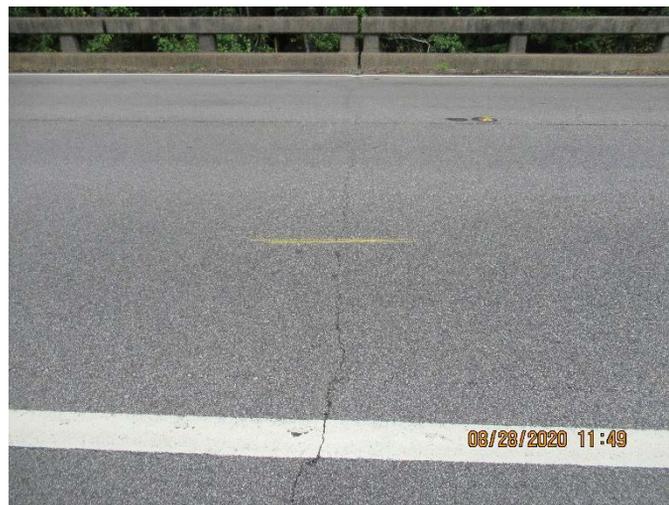


PHOTO #4 WEARING SURFACE OVER  
BT23

ASSET ID #: 2639

INSPECTION DATE: 8-28-2020



PHOTO #5 BM6 (RT-SIDE) AT BT23  
OVERVIEW



PHOTO #6 SPAN 22 BEAM ENDS AT  
BT23

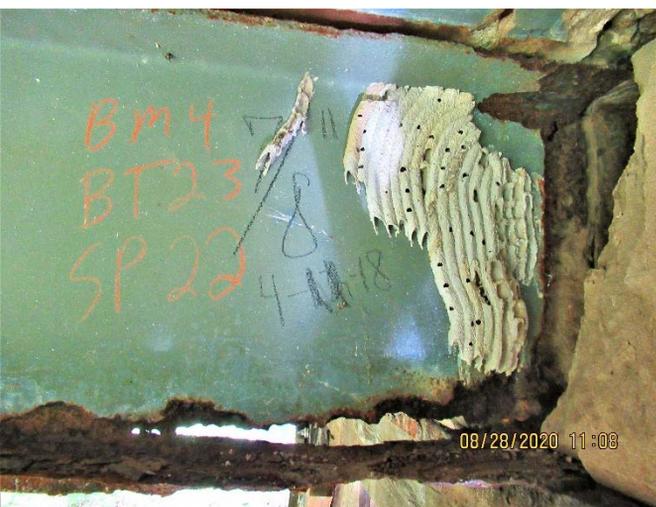


PHOTO #7 BM4 OF SP22 AT BT23=  
0.1875 DEFL+ SQUEAK UNDER LOAD



PHOTO #8 BM4 OF SP22 AT BT23= 0.1875  
DEFL+ SQUEAK UNDER LOAD (bot view)

ASSET ID #: 2639

INSPECTION DATE: 8-28-2020



PHOTO #8 SWAY BRACING CORNER TO CAP TOP MEASUREMENT OVERVIEW= 17' 7]16"



PHOTO #9 SWAY BRACING CORNER TO CAP TOP MEASUREMENT CLOSEUP= 17' 7]16"



PHOTO #10 BM6 OF SP22 AT BT23= BEARING GAP



PHOTO #11 BM6 OF SP23 AT BT23= BEARING GAP

# PHOTOGRAPH FORM

ASSET ID #: 2639

INSPECTION DATE: 8-28-2020



PHOTO #12 WIDENING TYP (BT23 SHOWN)



PHOTO #13 BT23 RT-SIDE CAP= ROTATION



PHOTO #14 BT23 RT-SIDE CAP= 3" DECAY



PHOTO #15 BT23 RT-SIDE= 2" HOLE AT BEG END

ASSET ID #: 2639

INSPECTION DATE: 8-28-2020



PHOTO #16 BT23 HELPER PILE 5A=  
SEVERE PACT RUST IN SHIMS



PHOTO #17 BENT TYP (23 SHOWN)



PHOTO #18 END BENT TYP



PHOTO #19 BM2 OF SP24 ON  
BT25(END)= 0.125 DEFL + SQUECK



# PHOTOGRAPH FORM

ASSET ID #: 2639

INSPECTION DATE: 8-28-2020



PHOTO #20 BT25 CAP OVER P4= 0.5" OF CRUSHING



# Site Assessment Form

SECTION 1: GENERAL BRIDGE DATA				
(8) Asset ID: 2639	(2) District: 7	(3) County: AIKEN	(9) Bridge Location: 10 MI E OF AIKEN	Site Assessment Date: 2019-10-01
Bridge Coordinates: (16) Latitude: 33 degrees 34 minutes 36.39 seconds   (17) Longitude: -81 degrees 30 minutes 59.47 seconds				
(7) Facility Carried: SC 4/SC302	(6) Feature Crossed: S. EDISTO RIVER		(43, 44) Bridge Description: STEEL CONTINUOUS, MULTI-BEAM	
(45) Number of Main Spans: 24	(46) Number of Approach Spans: 0		(49) Structure Length: 601	(52) Structure Width (out-to-out) 31

## SECTION 2: FIELD NOTES

In this section, include information on items that affect the load rating, such as SIP forms, utilities, attached signs, overlays, etc. Include notes about deterioration of members to be rated. Do not include information that does not affect the load rating, such as minor deck cracking and spalling. Only include site assessment findings which impact the load rating; however, all critical findings should be reported in the attachment "Critical Deficiencies Form" in Bridge Inspection Guidance Document.

### Section Loss:

- Span 24 beam 1 at end bent 25, rust scale with section loss (2ft x full width) (1/4in avg rem) on bottom flange, and (2ft x up to full height) (1/8in avg rem) on web, corrosion hole (6in x up to 4in) on web
- Span 24 beam 5 at end bent 25, rust scale with section loss (1ft x full width) (3/16in avg rem) on bottom flange, and (1ft x up to full height) (1/8in avg rem) on web, corrosion hole (10in x up to 4in) on web
- Span 22 beam 2 at bent 23, rust scale with section loss (1ft x full width) (7/16in avg rem) on bottom flange, and (1ft x 3in) (1/8in avg rem) on web, corrosion hole (3in x 2in) on web
- Span 22 beam 3 at bent 23, rust scale with section loss (18in x full width) (3/8in avg rem) on bottom flange, and (18in x up to full height) (1/8in avg rem) on web, corrosion hole (12in x 4in) on web
- Span 22 beam 4 at bent 23, rust scale with section loss (30in x full width x down to knife edge) (3/16in avg rem) on bottom flange, and (30in x up to full height) (1/8in avg rem) on web, corrosion hole (18in x up to full height) on web
- Span 22 beam 5 at bent 23, rust scale with section loss (18in x full width) (7/16in avg rem) on bottom flange, and (1ft x 4in) (1/8in avg rem) on web, corrosion hole (2in x 2in) on web
- Span 21 beam 4 at bent 21, rust scale with section loss (2ft x full width) (7/16in avg rem) on bottom flange, and (2ft x 6in) (1/4in avg rem) on web, no hole on web
- Span 20 beam 4 at bent 21, rust scale with section loss (1ft x full width) (3/8in avg rem) on bottom flange, and (1ft x 3in) (1/8in avg rem) on web, corrosion hole (3in x 1.5in) on web
- Span 20 beam 1 at bent 21, rust scale with section loss (18in x full width x down to knife edge) (3/8in avg rem) on bottom flange, and (1ft x up to full height) (3/16in avg rem) on web, no hole on web
- Span 18 beam 3 at bent 19, rust scale with section loss (18in x full width x down to knife edge) (3/16in avg rem) on bottom flange, and (18in x up to full height) (1/8in avg rem) on web, corrosion hole (18in x 3in) on web
- Span 18 beam 4 at 1ft from bent 19, rust scale with section loss (1ft x full width) (1/4in avg rem) on bottom flange, and (1ft x 2in) (1/8in avg rem) on web, corrosion hole (12in x 2in) on web
- Span 18 beam 5 at bent 19, rust scale with section loss (5ft x full width) (3/8in avg rem) on bottom flange, and (5ft x 3in) (1/8in avg rem) on web, corrosion hole (8in x 2in) on web at 3ft from bent 19
- Span 18 beam 6 at bent 19, rust scale with section loss (18in x full width) (1/4in avg rem) on bottom flange, and (18in x 4in) (1/8in avg rem) on web, corrosion hole (1in x 1.5in) on web
- Span 16 beam 1 at bent 17, rust scale with section loss (1ft x full width) (1/4in avg rem) on bottom flange, and (1ft x 2in) (5/16in avg rem) on web, no hole on web
- Span 16 beam 4 at bent 17, rust scale with section loss (1ft x full width) (1/4in avg rem) on bottom flange, and (1ft x 2in) (5/16in avg rem) on web, no hole on web
- Span 14 beam 2 at bent 15, rust scale with section loss (1ft x full width) (1/4in avg rem) on bottom flange, and (1ft x up to full height) (1/4in avg rem) on web, corrosion hole (0.5in diameter) on web
- Span 14 beam 5 at bent 15, rust scale with section loss (1ft x full width) (1/4in avg rem) on bottom flange, and (1ft x up to full height) (5/16in avg rem) on web, no hole on web
- Span 13 beam 3 at bent 13, rust scale with section loss (2ft x full width) (5/16in avg rem) on bottom flange, and (2ft x 3in) (5/16in avg rem) on web, corrosion hole (1in diameter) on web
- Span 13 beam 1 at bent 13, rust scale with section loss (2ft x full width) (5/16in avg rem) on bottom flange, and (1ft x 6in) (5/16in avg rem) on web, no hole on web
- Span 10 beam 3 at bent 11, rust scale with section loss (1ft x full width) (7/16in avg rem) on bottom flange, and (1ft x 3in) (1/8in avg rem) on web, corrosion hole (3in x 2in) on web
- Span 6 beam 3 at bent 7, rust scale with section loss (2ft x full width) (1/4in avg rem) on bottom flange, and (2ft x up to 6in) (1/8in avg rem) on web, corrosion hole (2in x 4in) on web
- Span 6 beam 4 at bent 7, rust scale with section loss (18in x full width) (1/4in avg rem) on bottom flange, and (1ft x up to full height) (1/8in avg rem) on web, corrosion hole (1ft x up to full height) on web
- Span 4 beam 3 at bent 5, rust scale with section loss (2ft x full width) (7/16in avg rem) on bottom flange, and (1ft x 4in) (1/8in avg rem) on web, corrosion hole (4in x up to 4in) on web
- Span 4 beam 4 at bent 5, rust scale with section loss (18in x full width) (1/4in avg rem) on bottom flange, and (1ft x up to full height) (1/8in avg rem) on web, corrosion hole (12in x up to 6in) on web
- Span 3 beam 4 at bent 3, rust scale with section loss (2ft x full width) (1/4in avg rem) on bottom flange, and (2ft x 2in) (1/8in avg rem) on web, corrosion hole (4in x 2in) on web
- Span 3 beam 1 at bent 3, rust scale with section loss (5ft x full width x down to knife edge) (1/4in avg rem) on bottom flange, and (5ft x 4in) (1/4in avg rem) on web, no hole on web
- Span 2 beam 4 at bent 3, rust scale with section loss (18in x full width) (1/4in avg rem) on bottom flange, and (18in x 3in) (1/8in avg rem) on web, corrosion hole (2in x 1in) on web
- Span 2 beam 2 at bent 3, rust scale with section loss (1ft x full width) (1/2in avg rem) on bottom flange, and (1ft x 1in) (5/16in avg rem) on web, no hole on web
- Span 1 beam 1 at end bent 1, rust scale with section loss (1ft x full width x down to knife edge) (3/8in avg rem) on bottom flange, and (4in x 6in) (1/8in avg rem) on web, corrosion hole (2in diameter) on web

NOTE: All beams ends of every (2-span continuous) have rust scale with (up to 1/8in loss) on bottom flanges and (up to 1/16in loss) on web. These locations were not as severe as the areas listed above.



# Site Assessment Form

(8) Asset ID: 2639	District: 7	(3) County: AIKEN	(9) Bridge Location: 10 MI E OF AIKEN	Site Assessment Date: 2019-10-01
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### SECTION 3: ADDITIONAL NOTES

In this section, include information (if necessary) such as field measurements of deteriorated members to be rated that were not recorded during initial site visit, load testing recommendations, etc. Include information on specialized equipment, traffic control, or other needs to perform secondary Site Assessment.

#### Temporary Repair Plates on beam ends

- Span 12 beam 3 at bent 13
- Span 15 beam 3 at bent 15
- Span 16 beam 3 at bent 17
- Span 17 beam 3 at bent 17
- Span 18 beam 4 at bent 19
- Span 21 beam 3 at bent 21
- Span 23 beam 3 at bent 23
- Span 23 beam 4 at bent 23
- Span 10 beam 4 at bent 11
- Span 9 beam 3 at bent 9
- Span 9 beam 4 at bent 9
- Span 7 beam 3 at bent 7
- Span 7 beam 4 at bent 7
- Span 2 beam 3 at bent 3

#### Timber Caps:

Bent 23 cap rotation under beams 5 and 6 with gap (1/2in) between beams and top of cap

#### Utilities:

3.5" steel pipe attached to beam 1

(8) Asset ID: 2639	District: 7	(3) County: AIKEN	(9) Bridge Location: 10 MI E OF AIKEN	Site Assessment Date: 2019-10-01
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### SECTION 4: FIELD SKETCHES

In this section, include information such as field measurements, not provided in as-let plans or as-built plans needed to complete load rating. Attach additional sheets, if necessary. Schematic Drawings for bridges without plans shall be a separate document.

**Bridge Inspection Field Sketch**

28.25' (1r. Rdwy)

Rail to Rail = 31.5'  
Out to Out = 55.75'  
Overhangs = 3.75'  
Deck = 7'

Concrete Diaphragms (8y 1 + 5)  
(17" tall, 8" wide)  
(5.5' spacing) (5' from end)

(1+6) Exterior (Extension)  
W18x50  
7.5" wide  
17 9/16" high

(2+5) Exterior (original)  
W18x50  
7 1/4" wide  
15 5/16" high

(3+4) Interior  
W18x50  
7.5" wide  
17.5" high

Rail  
13.5" height  
7 1/4" base

(7) posts per cont. span

3 1/2" steel pipe

6" 18" 10.5" 20"

AW's

4' 6' 6' 6' 4'

File Name: \_\_\_\_\_  
Date: \_\_\_\_\_  
Description: DATA WORKSHEET  
Drawn By: \_\_\_\_\_  
Title: BR2639  
Bridge No: \_\_\_\_\_



(8) Asset ID: 2639	District: 7	(3) County: AIKEN	(9) Bridge Location: 10 MI E OF AIKEN	Site Assessment Date: 2019-10-01
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### SECTION 5: PHOTOGRAPHS

Include photos of information to assist with the load rating only. Also include photos of postings for weight or other restrictions, e.g. signs showing "1-Lane Bridge". Do not include photos of defects such as minor deck cracking and spalling. Do not include general photos of the bridge that are in typical inspection reports.



Typical section loss with holes on web. See table condition for more details

Typical section loss with holes on web. See table condition for more details



Typical section loss with holes on web. See table condition for more details

Typical section loss with holes on web. See table condition for more details



Temporary repair plates throughout. See table for locations

Bent 13 pile 3 south face at base, decay (10in x 5ft x 3in) (sister pile attached)

(8) Asset ID: 2639	District: 7	(3) County: AIKEN	(9) Bridge Location: 10 MI E OF AIKEN	Site Assessment Date: 2019-10-01
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### SECTION 5: PHOTOGRAPHS

Include photos of information to assist with the load rating only. Also include photos of postings for weight or other restrictions, e.g. signs showing "1-Lane Bridge". Do not include photos of defects such as minor deck cracking and spalling. Do not include general photos of the bridge that are in typical inspection reports.



Rotation on bent 23 cap under beams 5 and 6



Gap between beams and cap at bent 23



Posting sign



3.5" steel pipe attached to beam 1

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(8) Asset ID: 2639	District: 7	(3) County: AIKEN	(9) Bridge Location: 10 MI E OF AIKEN	Site Assessment Date: 2019-10-01
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## SUPPLEMENTAL PHOTOS



West approach looking east



South profile looking north



End bent 1



Typical interior bents



Girders continuous over every other bent. 12 (2) span continuous.