



NON-PROGRAMMATIC
CATEGORICAL EXCLUSION

Project ID No. P030487
County: Richland

Date: August 1, 2017

To: Federal Highway Administration

From: Environmental Manager

Description: SC-277 Bridge Replacement over I-77 in Richland County

(SEE ATTACHED SHEET)

The Department's environmental assessment has determined the effects of this project are as described in the "Programmatic Agreement Between the Federal Highway Administration, South Carolina Division and the South Carolina Department of Transportation Regarding Approval of Actions Classified as Categorical Exclusions for Federal-Aid Highway Projects" dated May 23, 2016, and is in compliance with the required findings reflected below. The project has been assessed for possible effects on the human and natural environment with a determination that no significant environmental impact will occur. The class of action and impact determination documented by this statement would qualify this project as a categorical exclusion under 23 CFR 771, Section 115(b).

A determination has been made that the project will have no effect on any listed endangered or threatened species, nor destroy or adversely modify critical habitat. Therefore, no further investigation under Section 7 of the Endangered Species Act is necessary.

A determination has been made that the project will require a permit from the United States Army Corps of Engineers. The Department will obtain the appropriate permits, as applicable, and will adhere to any conditions set forth therein.

In accordance with the August 19, 2014 Programmatic Agreement between the State Historic Preservation Office and FHWA, the Department has determined that no historic properties will be affected by the proposed undertaking in accordance with 36 CFR 800.

8-2-17
Date

Date


NEPA Coordinator

MICHELLE L
HERRELL

Federal Highway Administration

Digitally signed by MICHELLE L HERRELL
DN: c=US, o=U.S. Government, ou=FHWA
FHWA/ColumbiaSC, ou=DOT
FHWA/ColumbiaSC, cn=MICHELLE L HERRELL
Date: 2017.08.16 08:46:57 -0400

Date: 10/06/2017



Project ID: PC30487 County: Richland District: District 1 Doc Type: Non-PCE Total # of Commitments: 7

Project Name: SC-277 NB over I-77

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: Tyke Redfearn

PHONE #: (803)737-1730

ENVIRONMENTAL COMMITMENTS FOR THE PROJECT

Non-Standard Commitment

NEPA Doc Ref: Page: 03 Paragraph: 06

Responsibility: CONTRACTOR

General Permit

Impacts to jurisdictional waters will be permitted under a Department of the Army Section 404 Permit from the U.S. Army Corps of Engineers. The final design will stay within the impact limits designated in the SCDOT general permit dated July 21, 2016. Permanent and/or temporary impacts cannot exceed 3.0 acres of freshwater wetlands and 300 linear feet of streams for bridge replacement projects. The requires mitigation for this project will be determined through consultation with the USACE and other resource agencies.

Non-Standard Commitment

NEPA Doc Ref: Page: 02 Paragraph: 06

Responsibility: CONTRACTOR

Design Change - Noise

If the design-build contractor shifts the roadway that halves the distance between the traffic noise source and the closest noise receptor from the existing condition to the future build condition, then a traffic noise study would need to be conducted per 23 CFR §772.5, and a NEPA re-evaluation would need to be completed. The design-builder would be responsible for any noise mitigation that would be needed per SCDOT's Traffic Noise Abatement Policy (dated August 2014).

USTs/Hazardous Materials

NEPA Doc Ref: Page: 05 Paragraph: 03

Responsibility: SCDOT

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.

Project ID: PC30487

SCDOT
NEPA ENVIRONMENTAL COMMITMENTS
FORM



ENVIRONMENTAL COMMITMENTS FOR THE PROJECT

Non-Standard Commitment

NEPA Doc Ref: Page: 02 Paragraph: 07

Responsibility: CONTRACTOR

Noise

SCDOT's "2007 Standard Specifications for Highway Construction" includes various references to construction noise, including Sections 107.6-paragraph 3, 606.3.1.6.3-paragraph 1, 607.3.1.6.3-paragraph 1, 607.3.2.6.3-paragraph 1, and 702.4.15-paragraph 3. The SCDOT specifications cited above are generalized for nuisance noise avoidance but would be adhered to during construction.

Water Quality

NEPA Doc Ref: Page: 04 Paragraph: 01

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.

Cultural Resources

NEPA Doc Ref: Page: 04 Paragraph: 05

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.

Project ID:

SCDOT
NEPA ENVIRONMENTAL COMMITMENTS
FORM



ENVIRONMENTAL COMMITMENTS FOR THE PROJECT

Migratory Bird Treaty Act

NEPA Doc Ref:

Responsibility:

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.

NEPA Doc Ref:

Responsibility:

NEPA Doc Ref:

Responsibility:

C.E. PROJECT ASSESSMENT FORM

Project ID.: P030487

Road/Route Number: SC-277 NB I-77

County: Richland

Project Description: The South Carolina Department of Transportation (SCDOT) proposes to replace a structurally deficient bridge over Interstate 77 (I-77) on SC-277 northbound in Richland County (see location map and aerial map in Appendix A). The project will encompass a total distance of approximately 0.77 mile that includes the proposed roadway, bridge, and approaches over I-77.

According to the Department's National Bridge Inventory Structure Inventory and Appraisal Report, the existing 44' x 624' concrete box girder bridge has a sufficiency rating of 66.3 and the super structure has been determined to be in poor condition (see report in Appendix B). The typical section for the existing bridge consists of two 12' travel lanes with 5'-6" left shoulder and 11'-6" right shoulder with the parapet walls.

No new right-of-way would be needed for the proposed project. Traffic within the project study area would remain open and not detoured during construction. Current traffic volume (2016) on SC-277 over Interstate 77 is approximately 55,900 vehicles per day (VPD). Traffic volumes are expected to increase to approximately 69,316 VPD by 2035. Total project cost is estimated to be approximately \$ 36,384,000 and is listed in the latest Statewide Transportation Improvement Program (STIP).

Purpose and Need: The purpose of the project is to 1) correct structural deficiencies of the SC-277 Bridge over I-77 and 2) bring the existing bridge and its roadway approaches up to current design and safety standards. The existing 44' x 624' concrete box girder bridge has a sufficiency rating of 66.3 and the super structure has been determined to be in poor condition.

Evaluation of Alternatives: The Department intends on using the design build contracting method to replace the bridge. In an effort to provide the design build contractor with flexibility in design, the environment analysis conducted for this project included an assessment of alignment shifts to the east and west of the existing bridge. The eastern and western alignment shift alternatives were analyzed and determined to have no appreciable difference in wetland/stream impacts (i.e. less than 300' feet of stream impact). Since the environmental impacts would be approximately the same under the alignment shift alternatives, the design build contractor would be able to proceed with either a bridge design that shifts the alignment to the east or west of the existing bridge while maintaining horizontal and vertical clearance requirements.

Noise: Noise impacts were evaluated in accordance with the latest SCDOT noise policy (August 25, 2014). A noise analysis was not conducted because the proposed project does not halve the distance between the traffic noise source and the closest receptor. The closest noise receptor is approximately 275ft from the proposed new edge of pavement on the western alignment and the closest noise receptor on the eastern alignment is approximately 245ft to the proposed new edge of pavement (See Receptor Location Map in Appendix C).

Construction noise should not hinder or annoy normal community functions as the contractor would be required to comply with OSHA (Occupational Safety and Health Administration) regulations concerning noise attenuation devices on construction equipment.

Air: This project would be consistent with the South Carolina State Air Quality Implementation Plan (SIP) regarding the attainment of the National Ambient Air Quality Standards. Presently, Richland County is in attainment for these automobile related pollutants. SCDHEC has determined that transportation control measures (TCMs) are not required to maintain the area's air quality.

The purpose of this project is to 1) correct structural deficiencies of the SC-277 Bridge over I-77 and 2) bring the existing bridge and its roadway approaches up to current design and safety standards. This project has been determined to generate minimal air quality impacts for CAAA criteria pollutants and has not been linked with any special MSAT concerns. As such, this project will not result in changes in traffic volumes, vehicle mix, basic project location, or any other factor that would cause an increase in MSAT impacts of the project from that of the no-build alternative.

Moreover, EPA regulations for vehicle engines and fuels will cause overall MSAT emissions to decline significantly over the next several decades. Based on regulations now in effect, an analysis of national trends with EPA's MOVES2014 model forecasts a combined reduction of over 90 percent in the total annual emissions rate for the priority MSAT from 2010 to 2050 while vehicle-miles of travel are projected to increase by over 45 percent (Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents, Federal Highway Administration, October 12, 2016). This will both reduce the background level of MSAT as well as the possibility of even minor MSAT emissions from this project

(http://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/msat/page01.cfm accessed 12-7-16).

Displacements: The project corridor will stay within existing right-of-way area; therefore, no relocations or displacements are expected with construction of this project.

Water/Wetlands: Constructing a new bridge on a shifted alignment (either to the west or east of the existing alignment) would impact less than 300 ft. of an unnamed tributary to Little Jackson Creek in Richland County. As such, the project would qualify for authorization under the Department's General Permit with the United States of Army Corps of Engineers. The contractor would be required to acquire the General Permit and develop a mitigation plan for all impacts to jurisdictional wetlands and streams. The mitigation plan would be submitted in accordance to the 2008 mitigation rule. Mitigation would be purchased from an approved mitigation bank or permit-responsible mitigation through on-site or in-kind mitigation. Mitigation Banks currently covering the project area include the Congaree Creek Mitigation Bank and Mill Creek Mitigation bank. A Jurisdictional Determination (JD) was previously approved for the I-77 Widening and Rehabilitation in Richland County (For JD See Appendix F in CE for I-77 Widening and Rehabilitation in Richland Co, Federal Project Number P027002. Approval date, June 2, 2015).

Water Quality

Little Jackson Creek is classified by the South Carolina Department of Health and Environmental Control (DHEC) as a Freshwater creek (see attached Permit Determination and Environmental Feature Map in Appendix D). As such, the waters of this creek are suitable for primary and secondary contact recreation and as a source for a drinking water supply after conventional treatment in accordance with DHEC requirements. The waters are also suitable for fishing, the survival and propagation of a

balanced indigenous aquatic community of fauna and flora, and for industrial and agricultural uses.

In addition, this creek is listed as impaired on DHEC's TMDL list for Dissolved Oxygen and fecal coliform. SCDOT will utilize storm water control measures both during construction and post-construction in accordance with Department's MS4 Permit to minimize impacts.

During construction activities, temporary siltation may occur in the creek bed and erosion will be of a greater degree than presently occurring on existing terrain. The contractor will be required to minimize possible water quality impacts through implementation of construction BMPs, reflecting policies contained in 23 CFR 650B and the Department's Supplemental Specifications on Seeding and Erosion Control Measures (January 01, 2015). Other measures including seeding, silt fences, sediment basins, etc. as appropriate will be implemented during construction to minimize impacts to Water Quality.

Floodplains: No FEMA regulated floodplains or regulatory floodways would be impacted by the proposed project.

Archaeological/Historical: No archaeological or architectural sites would be impacted by the proposed project (see attached email from the SCDOT Chief Archaeologist in Appendix E).

Section 4(f) Properties: No section 4(f) properties were identified within the project boundaries.

Endangered Species: No endangered or threatened species listed for Richland County by the USFWS would be affected by this project (see attached biological survey email from SCDOT biologist in Appendix F).

Land Use: The proposed project is located in unincorporated areas of Richland County, South Carolina. Land use in the surrounding areas consists of commercial and residential development including a school and churches. In addition, wooded areas are located immediately adjacent to the roadway. The proposed project is not expected to modify existing land use or change the timing or density of development in the area. The project is not in conflict with any plan, existing land use, or zoning regulation.

Migratory Bird: The Department 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. Prior to construction/demolition of the bridges the district personnel/contractor will coordinate with SCDOT Environmental Services Office to determine if there are any active nests on the bridge. After this coordination, it will be determined whether construction/demolition can begin. After construction/demolition has begun, measures can be taken to prevent birds from nesting, such as netting, noise producers, and etc. If during construction or demolition a nest is observed on the bridge that was not discovered during the biological surveys, the contractor will cease work and immediately notify the SCDOT Environmental Services Office. SCDOT biologists will determine whether the nest is active and the species utilizing the nest. After this coordination, it will be determined whether construction/demolition can resume or whether a temporary moratorium will be put into effect.

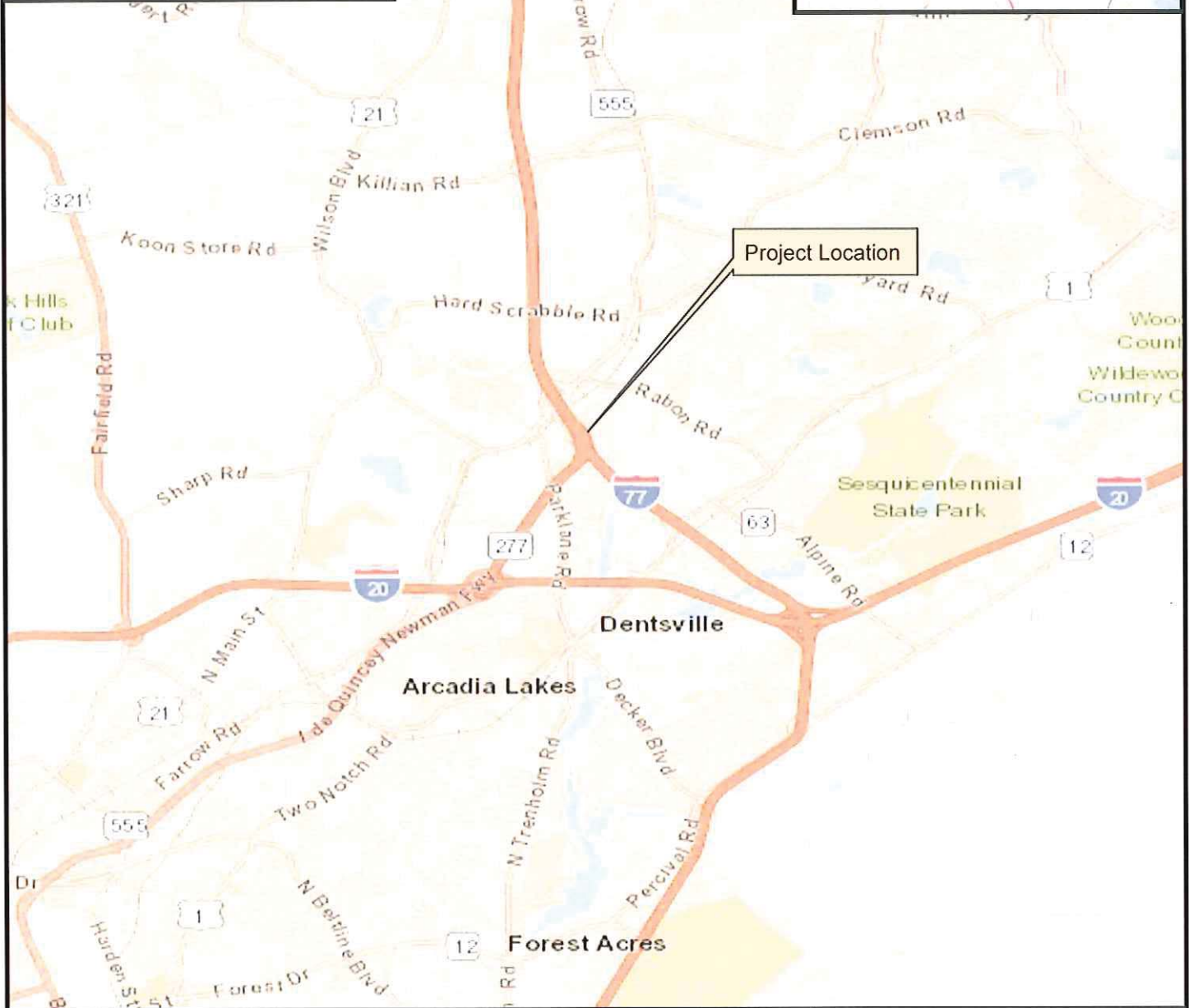
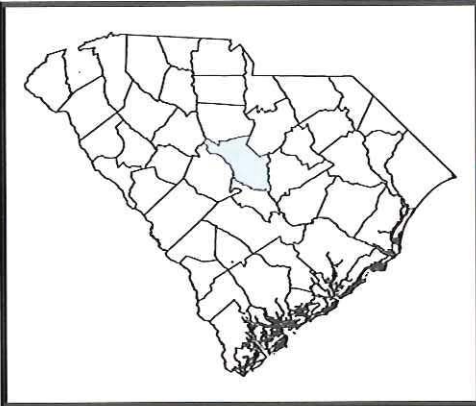
Farmlands: The entire project would be constructed within existing right-of-way, which is dedicated for transportation use. No conversion of protected farmlands would take place as a result of this project.

UST's/Hazardous Waste: Since no new right-of-way is being acquired no impacts to underground storage tank (UST'S) or Hazardous Waste sites is expected. However, if any sites are later located during construction, it is the Department's practice to avoid the acquisition of sites containing UST's and hazardous waste materials, if at all possible. If avoidance is not a viable alternative, tanks and other hazardous materials will be tested and removed and/or treated in accordance with EPA and DHEC (Department of Health and Environmental Control) requirements. Cost necessary for clean-up will be taken into consideration during the right of way appraisal acquisition process.

Date 8-2-17

Prepared by Jackie Salley

Appendix A



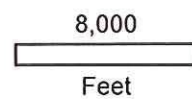
Date:
December 7, 2016



South Carolina Department of Transportation

PROJECT LOCATION MAP

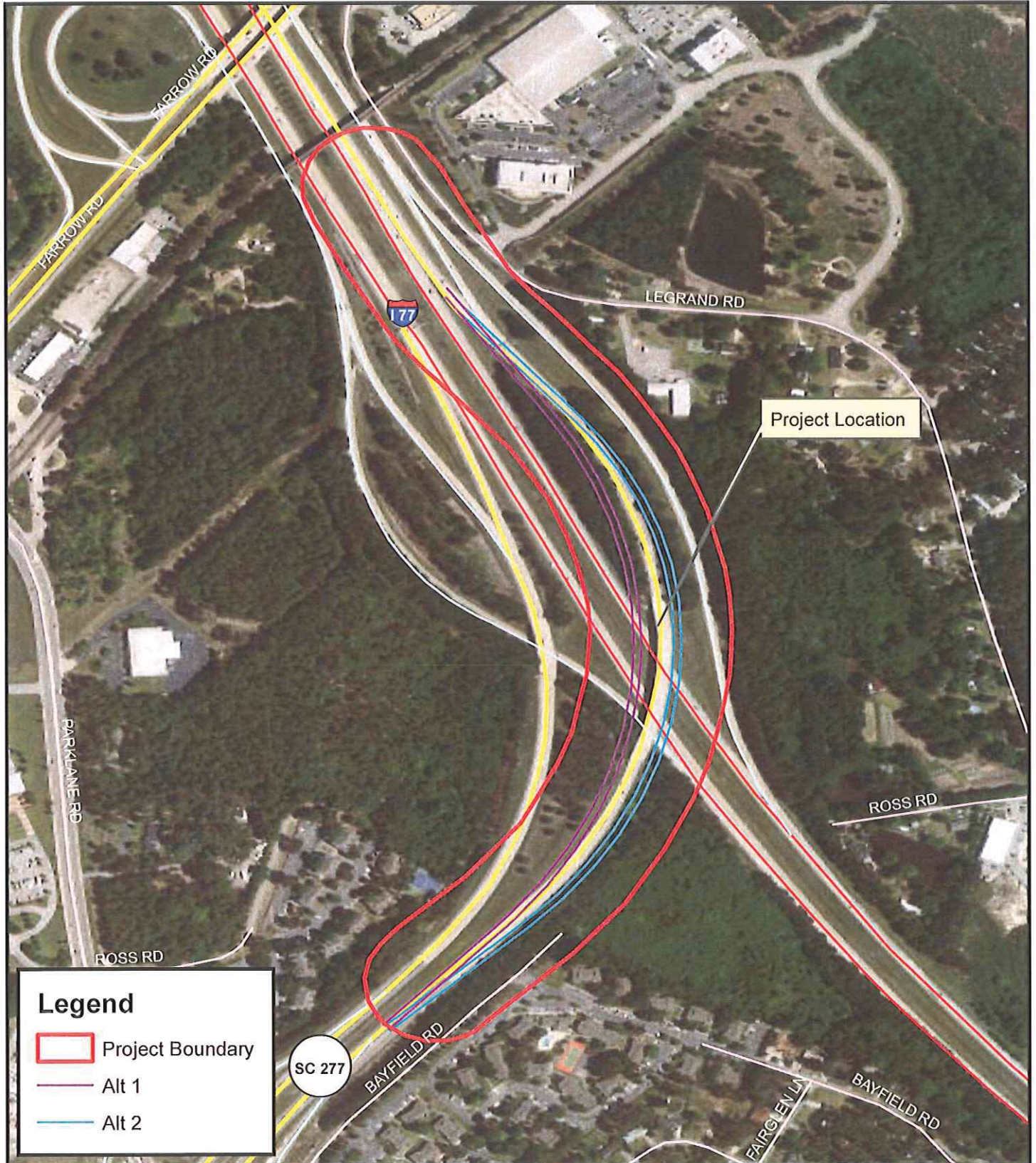
Location Map
SC-277 / I-77
Bridge Replacement
Richland County



1:101,556




Project Pin 30487



Legend

- Project Boundary
- Alt 1
- Alt 2

Date:
December 7, 2016




South Carolina Department of Transportation

AERIAL MAP

**SC-277 / I-77
Bridge Replacement
Richland County**

500
Feet
1:6,250

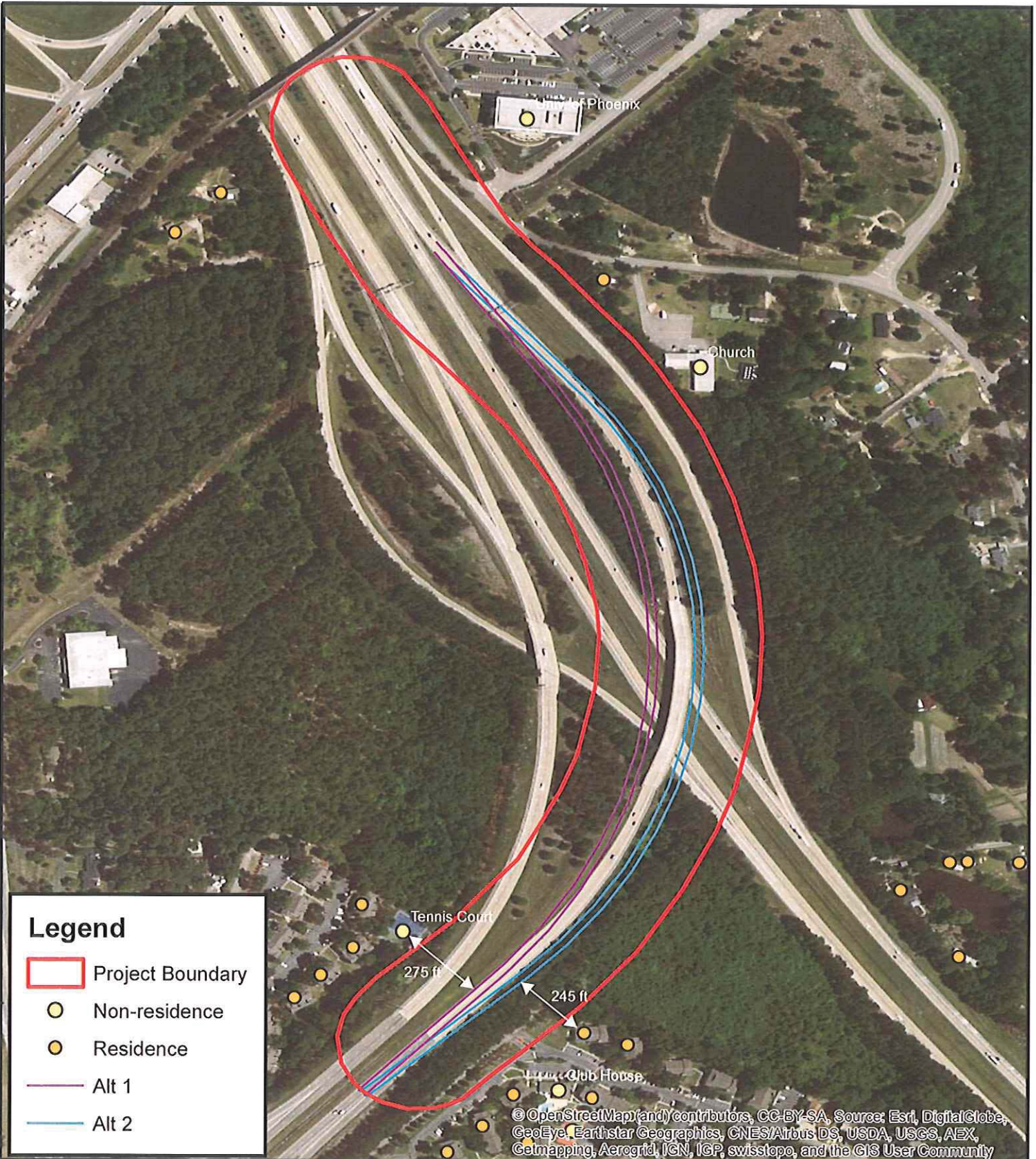
Project Pin 30487



Appendix B

IDENTIFICATION			
(1) State Name - SOUTH CAROLINA	Code 454	Sufficiency Rating = 66.3	
(8) Structure Number	# 0004040027710600	Functionally Obsolete = NO	
(5) Inventory Route (On/Under)	On - 141002771	Structurally Deficient = YES	
(2) State Highway Department District	1		
(3) County Code 79	(4) Place Code	CLASSIFICATION	
(6) Features Intersected I-77		(112) NBIS Bridge Length -	YES
(7) Facility Carried SC 277 NB		(104) Highway System - NHS	1
(9) Location 7 MI N OF COLA		(26) Functional Class - URBAN-PRIN ART-OTH FREE/E	12
(11) Milepoint 7.710		(100) Strahnet Highway - NOT STRAH HWY	0
(12) Base Highway Network -PART OF NET	Code 1	(101) Parallel Structure - NONE EXIST	N
(13) LRS Inventory Route & Subroute	00SC00277000	(102) Direction of Traffic - 1-WAY TRAFFIC	1
(16) Latitude 34 Degrees 5 Minutes 37.00 Seconds		(103) Temporary Structure -	
(17) Longitude 80 Degrees 57 Minutes 16.00 Seconds		(105) Federal Lands Highways -N/A	0
(98) Border Bridge State Code	% SHARE %	(110) Designated National Network -YES	1
(99) Border Bridge Structure No. #		(20) Toll - ON FREE ROAD	3
STRUCTURE TYPE AND MATERIAL			
(43) Structure Type Main: MATERIAL -CONCRETE CONT	Code 205	(21) Maintain - SCDOT	1
Type - 5		(22) Owner - SCDOT	1
(44) Structure Type Appr: MATERIAL -OTHER OR N/A	Code 000	(37) Historical Significance -NOT ELIGIBLE	5
Type - OTHER OR N/A		CONDITION	
(45) Number of Spans in Main Unit	4	(58) Deck - FAIR	5
(46) Number of Approach Spans	0	(59) Superstructure - POOR	4
(107) Deck Structure Type -CONCRETE CAST-IN-PLC	Code 1	(60) Substructure - GOOD	7
(108) Wearing Surface / Protective System:		(61) Channel and Channel Protection-N/A	N
A) Type of Wearing Surface - MONO CONCRETE	Code 1	(62) Culverts - NOT APPLICABLE	N
B) Type of Membrane - UNKNOWN	Code 8	LOAD RATING AND POSTING	
C) Type of Deck Protection - UNKNOWN	Code 8	(31) Design Load - HS 20	5
AGE AND SERVICE			
(27) Year Built	1977	(64) Operating Rating - AS	50
(106) Year Reconstructed		(66) Inventory Rating - AS	36
(42) Type of Service On -HIGHWAY		(70) Bridge Posting - EQUAL/ABOVE LEGAL LOADS	5
Under - HIGHWAY, WITH OR WITHOUT PEDE	Code 1	(41) Structure Open, Posted or Closed -	A
(28) Lanes: On Structure = 2	Under Structure = 5	Description -OPEN, NO RESTRICT	
(29) Average Daily Traffic	50900	APPRAISAL	
(30) Year of ADT 2015	(109) Truck ADT 08 %	(67) Structure Evaluation - MEETS MIN TOLER LIMITS	4
(19) Bypass, Detour Length	1 MI	(68) Deck Geometry	9
GEOMETRIC DATA			
(48) Length of Maximum Span	209 FT	(69) Underclearances, Vertical and Horizontal	6
(49) Structure Length	418 FT	(71) Waterway Adequacy	N
(50) Curb or Sidewalk: Left 0.0 FT Right 0.0 FT		(72) Approach Roadway Alignment	8
(51) Bridge Roadway Width Curb to Curb	41.4 FT	(36) Traffic Safety Features	1111
(52) Deck Width Out to Out	44.2 FT	(113) Scour Critical Bridges - NOT OVER WATERWAY	N
(32) Approach Roadway Width (W/Shoulders)	41 FT	PROPOSED IMPROVEMENTS	
(33) Bridge Median -NONE	Code 0	(75) Type of Work - REHAB/DETERIORATION	Code 351
(34) Skew 0 Deg (35) Structure Flared	NO	(76) Length of Structure Improvement	448.1 FT
(10) Inventory Route Min Vert Clear	99 FT 99 IN	(94) Bridge Improvement Cost	\$754,000
(47) Inventory Route Total Horz Clear	41.4 FT	(95) Roadway Improvement Costs	\$38,000
(53) Min Vert Clear Over Bridge Roadway	99 FT 99 IN	(96) Total Project Cost	\$829,000
(54) Min Vert Underclear Ref - HWY BENEATH	18 FT 8 IN	(97) Year of Improvement Cost Estimate	2016
(55) Min Lat Underclear Right Ref -HWY BENEATH	26.0 FT	(114) Future ADT	119615
(56) Min Lat Underclear Left	10.0 FT	(115) Year of Future ADT	2035
NAVIGATION DATA			
(38) Navigation Control -N/A - NO WATERWAY	Code N	INSPECTIONS	
(111) Pier Protection -	Code	(90) Inspection Date 02/2016	(91) Frequency 24 Mo
(39) Navigation Vertical Clearance	FT	(92) Critical Feature Inspection:	(93) CFI Date
(116) Vert-Lift Bridge Nav Min Vert Clear	FT	A) Fracture Crit Detail	NO Mo A)
(40) Navigation Horizontal Clearance	FT	B) Underwater Insp	NO Mo B)
		C) Other Special Insp	NO Mo C)

Appendix C



Legend

- Project Boundary
- Non-residence
- Residence
- Alt 1
- Alt 2

© OpenStreetMap and contributors, CC-BY-SA, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Date:
October 18, 2016



South Carolina Department of Transportation


RECEPTOR LOCATION MAP

SC-277 / I-77 Noise Analysis
Richland County

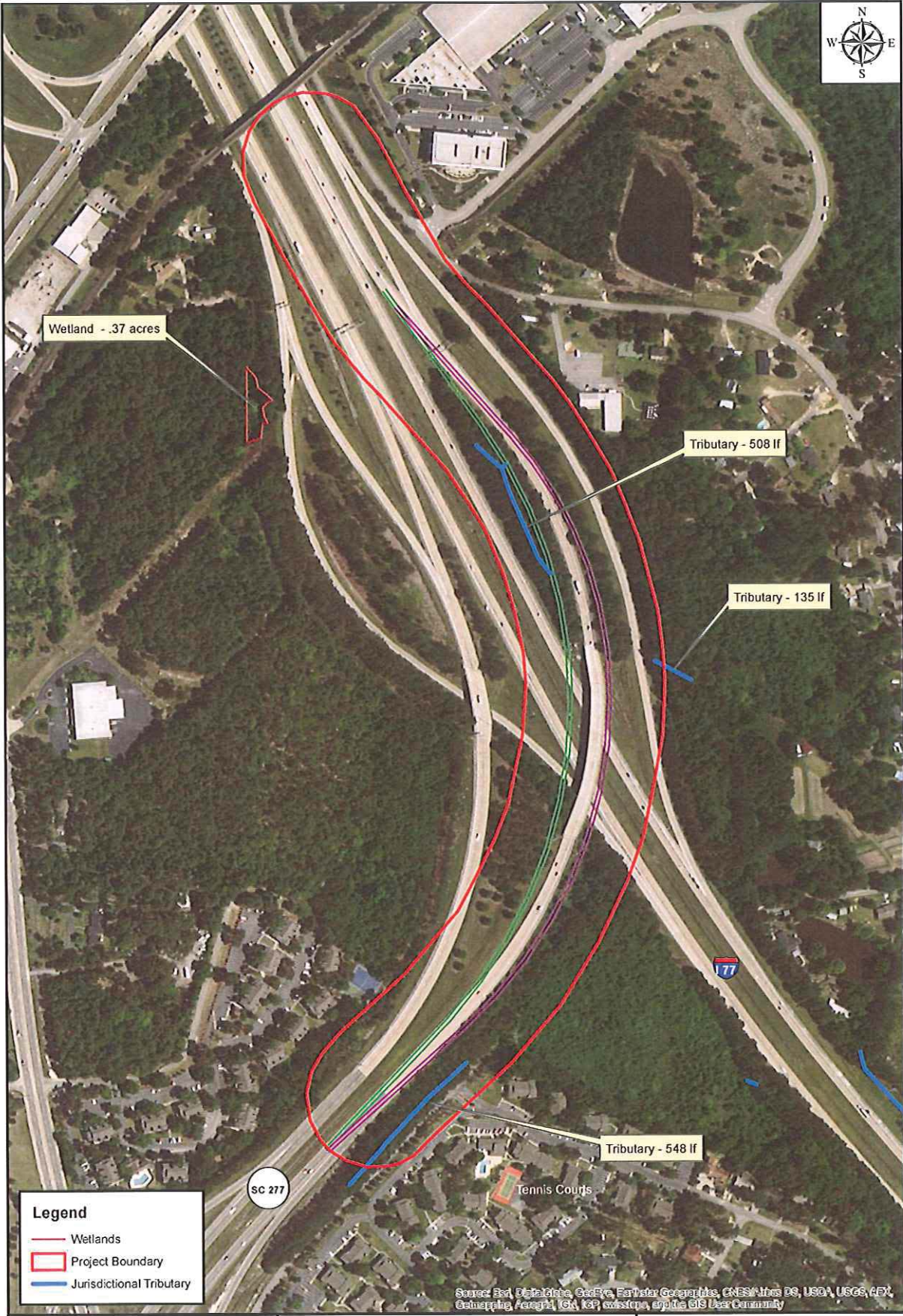
410
Feet

1:5,223

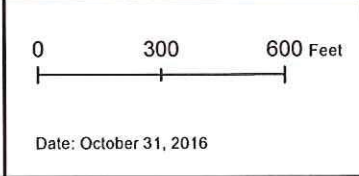
Project Pin 30487



Appendix D



PIN 30487
SC-277 / I-77
Environmental Feature Map
Richland County



Date: Dec. 8, 2016

PERMIT DETERMINATION

FROM Ed Frierson COMPANY SCDOT

CONTACT INFO (phone and/or email) 7-1861

SCDOT PROJECT ENGINEER Tyke Redfern

TO Siobhan Gordon - RPG 3 Permits Coordinator

Project Description Interchange Improvements and Bridge Replacement

Route or Road No. SC 277/I-77 County Richland

CONST. PIN P030487 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 * _____

TMDL developed no yes, for * DO, Fecal

*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.

Edward W. Frierson
Digitally signed by Edward W. Frierson
DN: c=US, e=FriersonEW@scdot.org,
ou=SCDOT, ou=Environmental Services
Office, CN=Edward W. Frierson
Date: 2016.12.08.15:27:44-0500

Biologist, SCDOT/Consultant

12-8-16

Date

Appendix E

Galloway, Jackie A

From: Jurgelski, Bill M.
Sent: Thursday, October 13, 2016 3:04 PM
To: Galloway, Jackie A
Subject: Cultural Resources Review - P030487 (SC 277 NB over I-77)
Attachments: P030487 ArchSite Capture.jpg

Follow Up Flag: Follow up
Flag Status: Completed

Hi Jackie,

I have reviewed this project location in ArchSite (location indicated by red arrow on attached Archsite clip). The P030487 project area has been previously surveyed for cultural resources (*Cultural Resources Survey of I-77 Widening Project, Richland County, South Carolina, Brockington and Associates, 2014*). This survey did not result in the location of any architectural or archaeological resources within the P030487 project limits as represented by the polygon provided. Four historic buildings (Resources # 6383, 6383.01, 6384, and 6385) were recorded by Brockington and Associates just to the east of the P030487 project limits but none of these structures is considered eligible for the National Register of Historic Places. In addition, the project area encompasses land that is already heavily disturbed by existing roadway construction, making it very unlikely that previously overlooked or unrecorded historic resources might be present. Based on this review it does not appear that there are any Cultural Resources concerns for this project. No historic properties will be affected. No additional cultural resources investigations are recommended.

If you have any questions please let me know.

-Bill

Bill Jurgelski
SCDOT Staff Archaeologist
955 Park Street
Columbia, SC 29202
803.737.1448

Appendix F

**Biological Assessment for SC 277/I-77 Interchange Improvements and Bridge
Replacement in Richland County, South Carolina**

Prepared by: Ed Jenson, SCDOT Biologist

Pursuant to Section 7 of the Endangered Species Act a field survey was conducted on the proposed new right of way. The following list of endangered (E) and threatened (T) species was obtained from the U. S. Fish and Wildlife Service:

ANIMALS

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

PLANTS

Canby's dropwort – *Oxypolis canbyi* – (E)
Rough leaved loosestrife – *Lysimachia asperulaefolia* – (E)
Smooth coneflower – *Echinacea laevigata* – (E)
Michaux's sumac – *Rhus michauxii* – (E)

METHODS

The project area was examined by reconnaissance methods on October 25, 2016 and remote sensing data on December 8, 2016. Habitats surveyed were determined by each species' ecological requirements.

RESULTS

The improvements will require primarily grassy and landscaped areas. Some areas of upland forest would be impacted. These areas are characterized by loblolly pine (*Pinus taeda*), red maple (*Acer rubrum*), and various sapling *Quercus*, spp. A small riverine unconsolidated wetland is also present in the corridor. The stream is unnamed.

The bald eagle is protected under the Bald and Golden Eagle Protection Act. No habitat for bald eagle, Canby's dropwort, Rough leaved loosestrife, Atlantic sturgeon, shortnose sturgeon, or Michaux's sumac (see attached report by biologist Jeffrey West) was located in the proposed project corridor. Potential foraging habitat for red-cockaded woodpecker was located, however a half-mile remote sensing analysis for nesting habitat determined that none was present.

Based on the lack of suitable habitat and no observations of the listed species during the field survey, the proposed action will not affect any threatened or endangered species or critical habitats currently listed by the USFWS for Richland County.

Biological Survey of Michaux's Sumac for the I-77
Widening from Percival Road (MM 15) to Killian Road (MM 22) and
Rehabilitation of I-77 Southbound Lanes from MM 22-27 in
Richland County, S.C.
P027002
October 25, 2016

Pursuant to Section 7 of the Endangered Species Act a field survey was conducted for Michaux's sumac (*Rhus michauxii*) on the proposed project.

Methods

The project area was examined by GIS and reconnaissance methods on October 24, 2016. Habitats analyzed were determined by Michaux's sumac's ecological requirements.

Results

The project consists of widening I-77 from Percival Road (MM 15) to Killian Road (MM 22) and rehabilitating the I-77 southbound lanes from MM 22-27 in Richland County, S.C. The project corridor consists of urban commercial and residential development with scattered forest. The project right of way consists predominately of mowed grass, along with species such as loblolly pine (*Pinus taeda*), sweetgum (*Liquidambar styraciflua*), groundsel-tree (*Baccharis halimifolia*), smooth sumac (*Rhus glabra*), winged sumac (*R. copallinum*), grape (*Vitis* sp.), and goldenrod (*Solidago* sp.).

According to the Heritage Trust database of endangered, threatened and rare species, Michaux's sumac has not been found in the vicinity of the project. Michaux's sumac lives in sandy or rocky open woods, possibly associated with basic soils. The project corridor is poor habitat for Michaux's sumac. Although smooth sumac (*Rhus glabra*) and winged sumac (*R. copallinum*) were found, no specimens of Michaux's sumac were observed.

Based on lack of suitable habitat, no historical occurrences in the area, and no observations of Michaux's sumac during the field survey, results of the threatened and endangered species study indicate that the proposed action will not affect Michaux's sumac.

Jeffrey West

October 25, 2016

The proposed work in the project area should not affect the Northern long eared bat. On August 1, 2017, an email was sent to the USFWS requesting evaluation of the 4(d) consultation form. The USFWS agreed that this project will not affect the NLEB, and the coordination is documented in the attach email.

Galloway, Jackie A

From: Altman, Ann-Marie
Sent: Tuesday, August 01, 2017 11:23 AM
To: Galloway, Jackie A
Subject: FW: NLEB submittal

*Ann-Marie Altman
Permits Manager-RPG 4 (Upstate)/Biologist
SCDOT Environmental Services
803-737-0946 (office)*



From: Caldwell, Mark [mailto:mark_caldwell@fws.gov]
Sent: Tuesday, August 01, 2017 11:16 AM
To: Altman, Ann-Marie
Subject: Re: NLEB submittal

*** 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. ***

Ann-Marie,

No objections.

Mark

Mark Caldwell
Deputy Field Supervisor
US Fish and Wildlife Service
176 Croghan Spur Road, Suite 200
Charleston, SC 29407
(843) 727-4707 ext. 215
(843) 727-4218 (facsimile)

This email correspondence and any attachments to and from this sender is subject to the Freedom of Information Act and may be disclosed to third parties.

On Tue, Aug 1, 2017 at 9:11 AM, Altman, Ann-Marie <AltmanAM@scdot.org> wrote:

Good morning,

Please see attached 4(d) form and additional information regarding SCDOT's proposed bridge replacement of I-77 in Richland County.

Any other questions or information needed let me know.

Thanks!

Ann-Marie

Ann-Marie Altman

Permits Manager-RPG 4 (Upstate)/Biologist

SCDOT Environmental Services

803-737-0946 (office)



Northern Long-Eared Bat 4(d) Rule Streamlined Consultation Form

Federal agencies should use this form for the optional streamlined consultation framework for the northern long-eared bat (NLEB). This framework allows federal agencies to rely upon the U.S. Fish and Wildlife Service's (USFWS) January 5, 2016, intra-Service Programmatic Biological Opinion (BO) on the final 4(d) rule for the NLEB for section 7(a)(2) compliance by: (1) notifying the USFWS that an action agency will use the streamlined framework; (2) describing the project with sufficient detail to support the required determination; and (3) enabling the USFWS to track effects and determine if reinitiation of consultation is required per 50 CFR 402.16.

This form is not necessary if an agency determines that a proposed action will have no effect to the NLEB or if the USFWS has concurred in writing with an agency's determination that a proposed action may affect, but is not likely to adversely affect the NLEB (i.e., the standard informal consultation process). Actions that may cause prohibited incidental take require separate formal consultation. Providing this information does not address section 7(a)(2) compliance for any other listed species.

Information to Determine 4(d) Rule Compliance:	YES	NO
1. Does the project occur wholly outside of the WNS Zone ¹ ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Have you contacted the appropriate agency ² to determine if your project is near known hibernacula or maternity roost trees?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Could the project disturb hibernating NLEBs in a known hibernaculum?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Could the project alter the entrance or interior environment of a known hibernaculum?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Does the project remove any trees within 0.25 miles of a known hibernaculum at any time of year?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Would the project cut or destroy known occupied maternity roost trees, or any other trees within a 150-foot radius from the maternity roost tree from June 1 through July 31.	<input type="checkbox"/>	<input checked="" type="checkbox"/>

You are eligible to use this form if you have answered yes to question #1 or yes to question #2 and no to questions 3, 4, 5 and 6. The remainder of the form will be used by the USFWS to track our assumptions in the BO.

Lead Federal Agency: FHWA

Applicant³ (Name, Email, Phone No.): Ann-Marie Altman, AltmanAM@scdot.org, 803-737-0946

Project PIN/Project Number: P030487

Project County: Richland

Project Name: SC 277 bridge replacement over I-77

Project Location (include coordinates if known): see maps

Basic Project Description (provide narrative below or attach additional information):

Replace structurally deficient bridge over Interstate 77 on SC 277 northbound in Richland County.

¹ <http://www.fws.gov/midwest/endangered/mammals/nleb/pdf/WNSZone.pdf>

² See <http://www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html>

³ If applicable - only needed for federal actions with applicants (e.g., for a permit, etc.) who are party to the consultation.

General Project Information	YES	NO
Does the project occur within 0.25-mile of a known hibernaculum?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the project occur within 150 feet of a known maternity roost tree?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the project include forest conversion ⁴ ? (if yes, report acreage below)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Estimated total acres of forest conversion		
If known, estimated acres ⁵ of forest conversion from April 1 to October 31		
If known, estimated acres of forest conversion from June 1 to July 31 ⁶		
Does the project include timber harvest? (if yes, report acreage below)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Estimated total acres of timber harvest	N/A	
If known, estimated acres of timber harvest from April 1 to October 31		
If known, estimated acres of timber harvest from June 1 to July 31		
Does the project include prescribed fire? (if yes, report acreage below)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Estimated total acres of prescribed fire	N/A	
If known, estimated acres of prescribed fire from April 1 to October 31		
If known, estimated acres of prescribed fire from June 1 to July 31		
Does the project install new wind turbines? (if yes, report capacity in MW below)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Estimated wind capacity (MW)	N/A	

Agency Determination:

By signing this form, the action agency determines that this project may affect the NLEB, but that any resulting incidental take of the NLEB is not prohibited by the final 4(d) rule.

If the USFWS does not respond within 30 days from submittal of this form, the action agency may presume that its determination is informed by the best available information and that its project responsibilities under 7(a)(2) with respect to the NLEB are fulfilled through the USFWS January 5, 2016, Programmatic BO. The action agency will update this determination annually for multi-year activities.

The action agency understands that the USFWS presumes that all activities are implemented as described herein. The action agency will promptly report any departures from the described activities to the appropriate USFWS Field Office. The action agency will provide the appropriate USFWS Field Office with the results of any surveys conducted for the NLEB. Involved parties will promptly notify the appropriate USFWS Field Office upon finding a dead, injured, or sick NLEB.

Signature: Ann-Marie Altman

Digitally signed by Ann-Marie Altman
DN: cn=Ann-Marie Altman, o, ou,
email=altmanam@scdot.org, c=US
Date: 2017.07.28 09:48:13 -04'00'

Date Submitted: 8/1/2017

⁴ Any activity that temporarily or permanently removes suitable forested habitat, including, but not limited to, tree removal from development, energy production and transmission, mining, agriculture, etc. (see page 48 of the BO).

⁵ If the project removes less than 10 trees and the acreage is unknown, report the acreage as less than 0.1 acre.

⁶ If the activity includes tree clearing in June and July, also include those acreage in April to October.