



# Environmental Re-evaluation #6



U.S. Department  
of Transportation  
**Federal Highway  
Administration**

**South Carolina**

October 15, 2024

1835 Assembly Street, Suite 1270  
Columbia, South Carolina 29201  
803-765-5411

Mr. Chad Long  
Director Environmental Services Office  
South Carolina Department of Transportation (SCDOT)  
955 Park Street, P.O. Box 191  
Columbia, South Carolina 29202

Dear Mr. Long:

The Federal Highway Administration (FHWA) has received your request for approval of reevaluation six for the I-26/126/20 (Carolina Crossroads) Environmental Impact Statement (Federal Project ID P0P027662). Project modifications analyzed within the reevaluation include,

1. Rephasing of construction phases to reduce risks related to utility relocations and geotechnical considerations.
2. Design changes to be incorporated into the project: Berryhill Road at Woodland Hill Road realignment, I-126 WB to I-26 EB semi-directional ramp, Willow Creek flood mitigation area, I-20/Bush River Road interchange.
3. Right of way updates, where acquired parcels extend beyond the previous project study area (PSA).

Based on the information provided within the reevaluation, FHWA finds that the proposed modifications to the project will not introduce any new significant impacts, therefore, a Supplemental EIS is not required. We also find the Alternative Technical Concept (ATC) revisions to the I-20/Bush River Road Interchange and the ATC revision to the I-126 WB to I-26 EB movement adequate and approved. The modifications will provide for improved constructability and provide for reduced impacts for businesses in the area. The level of service (LOS) for operational movements remains the same or improves from the original design concepts and there would be no increased impacts at these locations.

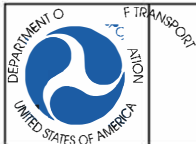
Please ensure that the project commitments made during the NEPA process remain included in the project construction contract and ultimately carried out. Please address any questions to Mr. J. Shane Belcher at [jeffrey.belcher@dot.gov](mailto:jeffrey.belcher@dot.gov)/803-253-3187 or Mr. Tad Kitowicz at [thaddeus.kitowicz@dot.gov](mailto:thaddeus.kitowicz@dot.gov)/803-253-3882.

Sincerely,

Emily O. Lawton  
Division Administrator

Enclosure

cc: Will McGoldrick, SCDOT Design Build NEPA Coordinator  
Brian Klauk, SCDOT Program Manager



# ENVIRONMENTAL RE-EVALUATION FORM

FHWA South Carolina

State File #  Fed Project #  Project ID  Route  County

## Project Name/Description

The FHWA and SCDOT propose to upgrade the I-20/26/126 corridor and reconstruct associated interchanges in Richland and Lexington Counties, South Carolina. The primary purpose of the proposed Carolina Crossroads project is to implement a transportation solution(s) that would improve mobility and enhance traffic operations by reducing existing traffic congestion within the I-20/26/126 corridor while accommodating future traffic needs.

**1. DOCUMENT TYPE:** ☒ EIS ☐ EA ☐ CE (non Programmatic) ☐ PCE (No FHWA Approval Required)

### A. Other Actions Associated with the Project:

- ☐ Section 4(f) Evaluation  
☒ Section 106 Compliance  
☒ Wetland Finding/Section 404 Compliance  
☒ T & E Species Biological Assessment  
☐ None

## 2. DOCUMENT APPROVAL DATE:

## 3. DATE(S) OF PRIOR RE-EVALUATIONS:

## 4. PROJECT DEVELOPMENT STAGE:

- ☐ Final Design  
☒ ROW  
☒ Construction  
☐ Other, Specify

## 5. HAS DESIGN OR ROW CHANGED SINCE THE LAST APPROVAL?:

(if "NO" then Go To Item 7)

☒ YES ☐ NO

## 6. DESCRIPTION OF CURRENT PROJECT/DESIGN CHANGES:

Project changes include: 1. the rephasing of construction phases to reduce risks related to utility relocations and geotechnical considerations; 2. Design changes to be incorporated into the project: Berryhill Road at Woodland Hill Road realignment, I-126 WB to I-26 EB semi-directional ramp, Willow Creek flood mitigation area, I-20/Bush River Road interchange; 3. Right of way updates, where acquired parcels extend beyond the previous project study area (PSA).



**7. HAVE THERE BEEN SIGNIFICANT CHANGES IN THE AFFECTED ENVIRONMENT OR HAVE THE ENVIRONMENTAL STUDIES BEEN UPDATED SINCE THE LAST PROJECT APPROVAL?: (If "NO" to both Items 5 and 7, Go To Item 10)**

☒ YES☐ NO

**8. APPROVED DOCUMENT(S) RE-EVALUATION:**

**A. REVIEW OF EFFECTS:** (Complete this section if "YES" to either Item 5 or Item 7)

**SOCIAL ENVIRONMENT**

**CHANGE**

**REMARKS**

- |                          |                              |  |
|--------------------------|------------------------------|--|
| 1. Land Use              | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |
| 2. Community             | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |
| 3. Relocations           | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |
| 4. Churches/Institutions | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |
| 5. Title VI/E.O. 12898   | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |
| 6. Economic              | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |
| 7. Controversy           | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |
| 8. Other; Specify        | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |

See attached documentation

**NATURAL ENVIRONMENT**

**CHANGE**

**REMARKS**

- |                       |   |  |
|-----------------------|---|--|
| 1. Wetlands           | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            |
| 2. Water Quality      | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |
| 3. Wild/Scenic Rivers | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |
| 4. Farmland           | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |
| 5. T & E Species      | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |
| 6. Floodplains        | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |
| 7. Other; Specify     | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |

See attached documentation
See attached documentation

**PHYSICAL ENVIRONMENT**

**CHANGE**

**REMARKS**

- |                             |   |  |
|-----------------------------|---|--|
| 1. Noise                    | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            |
| 2. Air Quality              | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |
| 3. Energy/Mineral Resources | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |
| 4. Construction/Utilities   | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |
| 5. UST's                    | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |
| 6. Hazardous Waste Sites    | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |
| 7. Other; Specify           | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |

See attached documentation



CULTURAL ENVIRONMENT	CHANGE	REMARKS
1. Historic Sites	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
2. Archaeological Resources	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	See attached documentation
7. Other; Specify	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	

PERMITS	CHANGE	REMARKS
1. U.S. Coast Guard	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
2. Forest Service/USACE/USFWS Land	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
3. Section 404	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
4. Other; Specify	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	

**Have the required permits been obtained?** ☒ YES ☐ NO

**If "YES" what is the expiration date?**

**\*If permits have expired, permits will need updated and attached to re-evaluation.**

**9. NEED FOR PUBLIC INVOLVMENT:**

☒ A public hearing/public information meeting was held for the project on:

☒ There have been no changes in project design or environmental effects which would require a public hearing [or additional public hearing if one has already been held] or public information meeting.

☐ The change(s) in project design and/or effects require(s) an additional public hearing/public information meeting. The meeting is scheduled for:

**10. FINDINGS/CONCLUSIONS:**

Based on the analysis contained in this re-evaluation, it has been determined that the change in project design and/or

☒ environmental effects would not significantly alter the conclusions reached in the approved environmental document and/or previous re-evaluation(s).

There have been no changes in the design/ROW of this project nor have there been changes in project effects or the affected

☐ environment. Therefore, the conclusions reached in the approved environmental document and/or previous re-evaluation(s) remain valid.

Prepared By:  Digitally signed by Will McGoldrick  
Date: 2024.10.03 08:25:03 -04'00'

Date:

**For Non Programmatic CEs:**

Concurred (FHWA):  Digitally signed by EMILY OLDHAM LAWTON  
Date: 2024.10.15 13:32:09 -04'00'

Date:

EC ID	Description	Category	Status	Phase 1 Updates	Phase 2 Updates
EC-01	SCDOT will work with the Central Midlands Rural Transit Authority / COMET (CMRTA/COMET) and the Central Midlands Council of Governments (CMCOG) to develop two park-and-ride lots to improve mobility during construction and mitigate congestion resulting from the project. SCDOT would construct the two sites and maintain them during construction of the project. Engineering feasibility, timing and continued maintenance of the sites would be determined in coordination with CMRTA and the CMCOG prior to the start of construction. In the event a permanent site cannot be developed, SCDOT would work with CMRTA and CMCOG to identify and provide funding for existing parking lots that could be leased for park-and-ride use during construction.	Programmatic	SCDOT has completed an evaluation to identify park and ride facilities. In coordination with FHWA a leasing option has been identified as the path forward. SCDOT is in the process of discussing the potential of leasing property from two state agencies. SCDOT met with Lexington County on Thursday, July 13 to discuss a potential leasing opportunity. Lexington County was receptive to the opportunity and requested	N/A	N/A
EC-02	SCDOT will implement a congestion management tool/commuter services application to improve mobility during construction and mitigate congestion by informing commuters of available options such as carpooling, ridesharing, vanpools and other transit oriented options.	Programmatic	SCDOT has met with the CMCOG who is in the process of developing a mobile application. SCDOT to follow up and determine when the application will be available.	N/A	N/A
EC-03	SCDOT will assist COMET/CMRTA ongoing efforts through such measures as accommodating transit (bus) stops at interchange locations, which may include bus turnout. In addition, SCDOT will work with CMRTA to monitor bus operations and capacity during construction and in the event that capacity is reached, SCDOT will provide support in determining funding for enhanced bus service during construction based upon a framework to be agreed upon with CMRTA.	Programmatic	SCDOT has met with the CMCOG and discussions are ongoing.	N/A	N/A
EC-04	Prior to final design, SCDOT will coordinate with the City of Columbia and CMCOG to ensure that existing and planned bicycle and pedestrian facilities identified in the local and regional plans and existing and proposed connections to such facilities are accommodated where located within the limits of the Carolina Crossroads project at crossing routes and interchanges where feasible.	Design	Status update to be phase specific.	Phase 1 Final design complete.	Phase 2 Final design plans are Released for Construction.
EC-05	During final construction, SCDOT will accommodate bicycle/pedestrian access. SCDOT will coordinate with the local municipalities and/ or trail groups to post information on temporary sidewalk or bicycle facility closures or detours. Sidewalk and/or bicycle lane/path closures will be communicated to the agency with jurisdiction at least 48 hours in advance and appropriate signage will be placed.	Construction	Status update to be phase specific.	Coordination is on-going.	Coordination is on-going.
EC-06	SCDOT will acquire all new right-of-way and process any relocations in compliance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (42 U.S.C. 4601 et seq.) and the SCDOT ROW Manual. The purpose of these regulations is to ensure that owners of real property to be acquired for federal and federally-assisted projects are treated fairly and consistently, to encourage and expedite acquisition by agreements with such owner, to minimize litigation and relieve congestion in the courts, and to promote public confidence in federal and federally-assisted land acquisition programs.  Temporary construction easements may be needed for some properties. SCDOT will temporarily use these properties during construction and would provide compensation to the landowner for the temporary use. The property will be fully returned to the owner when the use of the property is no longer required, typically when construction is complete.	Programmatic	Phases 1 & 2 right-of-way acquisition is essentially complete with a few outstanding tracts to be acquired and Phase 3 is underway.	N/A	N/A

EC ID	Description	Category	Status	Phase 1 Updates	Phase 2 Updates
EC-07	Changes in access for school bus routes will be discussed with the school system in advance of when they will actually take place, so that the school systems can adjust routes in a timely manner. Coordination with local school districts will also occur during construction. SCDOT and the CONTRACTOR will coordinate with the school system during development of the community outreach program.	Construction	Status update to be phase specific.	Contractor will coordinate with local school districts as necessary.	Contractor will coordinate with local school districts as necessary.
EC-08	Written translations of public involvement documents will be provided for Spanish language speaking populations, as well as other measures determined by SCDOT to ensure meaningful access to project information during construction. Efforts will be made to ensure meaningful opportunities for public participation during construction. Additional meetings will be held when warranted to address community concerns.	Construction	Status update to be phase specific.	SCDOT has implemented a translation tool on the project website for Spanish language speaking populations.	SCDOT has implemented a translation tool on the project website for Spanish language speaking populations.
EC-09	The CONTRACTOR(s), through a community outreach program, will let the community know what types of closures to expect (i.e. temporary, long-term), when to expect them and who to contact, if needed.  SCDOT and the CONTRACTOR(s) will coordinate with emergency service providers such as police, fire protection and ambulance services before construction to ensure that access for emergency vehicles will be maintained.	Programmatic	Community and public relations support plan has been approved and is being implemented.	N/A	N/A
EC-10	Based on the studies thus far accomplished, SCDOT intends to install highway traffic noise abatement measures in the form of a barrier at Noise Sensitive Area (NSA) O, R and S. These preliminary indications of likely abatement measures are based upon preliminary design for a barrier cost of \$35.00 per square foot that will reduce the noise level by at least 5 dB(A) for residences. A final decision of the installation of the abatement measure(s) will be made upon completion of the project's design. Since there are residences located on the opposite side of the interstate adjacent to Barriers O, the use of sound absorption materials will be assessed during final design to minimize noise reflectivity of the barriers towards receptors on the other side of the interstate. If changes are proposed to the noise wall configuration during design, the CONTRACTOR shall be responsible for revising the environmental documents (re-evaluation), updating traffic noise analysis, public involvement and construction of noise wall(s).	Design	Status update to be phase specific.	Barriers are not located within this phase.	Barriers R and S are finalized in RFC Plans.
EC-11	In order to help local officials and developers consider highway traffic noise in the vicinity of a proposed Type I project, SCDOT will inform them of the predicted future noise levels and the required distance from the roadways needed to ensure that noise levels remain below the NAC for each type of land use per 23 CFR 772.J 7. The information will be provided within three months of the Record of Decision (ROD) publication.	Programmatic	SCDOT has complied.	N/A	N/A



EC ID	Description	Category	Status	Phase 1 Updates	Phase 2 Updates
EC-12	During construction, powered construction equipment will not be operated during the traditional evening and/or sleeping hours within 150 feet of a noise-sensitive site, to be decided either by local ordinances and/or agreement with SCDOT.	Construction	Status update to be phase specific.	Discussion will occur in pre-activity meeting with the Contractor and documented accordingly.	Discussion will occur in pre-activity meeting with the Contractor and documented accordingly.
EC-13	The CONTRACTOR(s) will be required to minimize possible water quality impacts through implementation of BMPs, reflecting policies contained in 23 CFR 650B and SCDOT'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.	Construction	Status update to be phase specific.	Environmental compliance inspections are on-going. Phase 1 Final design plans have been completed.	Environmental compliance inspections are on-going. Phase 2 Final design plans have been completed.
EC-14	Stormwater modeling will be completed for the final design of the Project. Stormwater runoff would be mitigated by discharging stormwater into appropriately designed BMP's before being released into receiving waters. During construction, the CONTRACTOR(s) will identify and avoid all point sources of fecal coliform as identified in Chapter 3, Section 3.6 of the FFIS.	Construction	Status update to be phase specific.	NOI approved by DHEC	NOI approved by DHEC.
EC-15	A Section 401 State Water Quality Certification will be required for the overall project. SCDOT is responsible for obtaining the certification as part of the Joint 404/401 permit application process.	Programmatic	Initial 401 water quality certification has been obtained.	N/A	N/A
EC-16	The CONTRACTOR(s) is responsible for development of a project specific SWPPP and for obtaining a Section 402 NPDES permit for the project prior to initiating land disturbing activities.	Construction	Status update to be phase specific.	Compliance inspection have been initiated and are ongoing. NOI nearing DHEC approval.	Contractor shall comply. NOI approved by DHEC.
EC-17	A State Navigable Waters permit will be required for construction over any navigable waterways (i.e., the Saluda River). The CONTRACTOR will be responsible for obtaining this permit.	Construction	Status update to be phase specific.	Permit has been obtained.	Permit has been obtained.
EC-18	Impacts to jurisdictional waters will be permitted under a Department of the Army Section 404 permit from the U.S. Army Corps of Engineers (USACE). Based on preliminary design, it is anticipated that the proposed project will be permitted under an Individual USACE Permit (IP). SCDOT will provide the USACE with information regarding any proposed activities during the Section 404 permitting process. One permit would be obtained for the overall project. The required mitigation for this project will be provided through a Permittee Responsible Mitigation (PRM) site, developed in consultation with the USACE and other resource agencies.	Construction	Status update to be phase specific.	Permit mods for Ph 1 approved.	Permit mod for Ph 2 approved.
EC-19	Detailed hydraulic and hydrologic studies for each bridge crossing will be performed to determine the correct sizing of bridges and culverts. The project will be designed to be consistent with local floodplain development plans. Prior to construction activity in the area, coordination with Dominion Energy and Federal Energy Regulatory Commission (FERC) will be required for the Lower Saluda River floodway crossings due to its function as part of a hydroelectric facility.	Design	Status update to be phase specific.	Phase 1 Final design complete.	Phase 2 Final design plans are Released for Construction.
EC-20	The project will be designed in an effort to meet "No-Rise" requirements. In the event a "No-Rise" condition cannot be achieved, coordination with FEMA will require the preparation of a CLOMR (Conditional Letter of Map Revision) / LOMR (Letter of Map Revision) package for the encroachment. Where regulatory floodplains are defined, hydraulic structures will be designed to accommodate a 100 year (1% annual chance) flood. Where no regulatory floodplains are defined, culverts and bridges will be designed to accommodate a 50-year or greater magnitude flood event. Ongoing design efforts to minimize floodplain impacts will be coordinated with resource and regulatory agencies during the final design process.	Design	Status update to be phase specific.	Phase 1 Final design complete.	Phase 2 Final design plans are Released for Construction.
EC-21	Prior to construction, the selected CONTRACTOR(s) will send a set of final plans and request for floodplain management compliance to the local County Floodplain Administrator.	Design	Status update to be phase specific.	Phase 1 Final design complete.	Phase 2 Final design plans are Released for Construction.
EC-22	No substantial impacts to floodplain values are anticipated from the proposed project. If conditions change based on final design, additional measures will be evaluated to restore lost floodplain values.	Design	Status update to be phase specific.	Phase 1 Final design complete.	Phase 2 Final design plans are Released for Construction.

EC ID	Description	Category	Status	Phase 1 Updates	Phase 2 Updates
EC-23	<p>To mitigate for natural upland forested habitats, lost as a result of the project, SCDOT will plant trees (native species), as defined by the final design plans, within the rights-of-way adjacent to new or improved interchanges and roadways outside of required clear safety zones.</p> <p>Impacts to areas providing significant wildlife habitat, such as river floodplains and other large riparian buffers, will be minimized to the extent practicable through avoidance and minimization design measures such as the use of appropriate BMP's.</p> <p>Construction activities will be conducted within the disturbed footprint of the existing roadway and utility right-of-way to the maximum extent practicable.</p>	Programmatic	(blank)	N/A	N/A
EC-24	To mitigate the temporary impacts to the Saluda Riverwalk Extension, SCDOT will notify the City of Columbia Parks and Recreation Department at least 48 hours in advance as to when the trail will be temporarily closed. SCDOT will also work closely with the Parks and Recreation Department to communicate the closing to trail users during construction. When construction is complete, the condition of the trail will be equal to existing conditions.	Construction	Status update to be phase specific.	Coordination is on-going with the City of Columbia as needed relative to the Saluda Riverwalk.	N/A for Phase 2.
EC-25	Prior to construction, the project CONTRACTOR will perform Phase II ESAs on the properties identified within the footprint, including the subject properties, and/or on the adjoining properties or the ROW. Ultimately, the Phase II ESAs will include environmental sample collection (e.g. soil, soil gas, and groundwater), specifically, in areas where a potential for disturbance of soil and/or groundwater exists. Asbestos Containing Material (ACM) and/or Lead Based Paint (LBP) testing will be assessed separately. Materials containing asbestos and lead-based paints will be managed and disposed of properly at an appropriate permitted facility to minimize impacts during the construction and cleanup. Activities will be monitored by a professional that is certified in the removal, handling and disposal of lead-based paint and/or asbestos-containing materials.	Programmatic	SCDOT has completed some of the identified Phase II ESAs.	N/A	N/A
EC-26	A spill prevention, control, and countermeasures (SPCC) plan will be prepared in accordance with 40 CFR 112, for the handling of oils or oil-based products during construction to prevent a discharge of oil into navigable waters.	Design	Status update to be phase specific.	SPCC is currently being implemented and it will be monitored during construction.	Contractor has submitted the SPCC and it will be monitored during construction.
EC-27	<p>A hazardous waste management plan will be prepared for the handling of hazardous materials during construction, and an on-site health and safety plan will be developed for construction activities to protect human health (i.e. workers, residents, recreation and trespassers) and the environment within/proximate to the site.</p> <p>The hazardous waste management plan will also state that disposal of waste materials will be disposed of in approved landfills.</p>	Construction	Status update to be phase specific.	Contractor has submitted a project specific hazardous waste management plan which is currently in place.	Contractor has submitted a project specific hazardous waste management plan which is currently in place.

EC ID	Description	Category	Status	Phase 1 Updates	Phase 2 Updates
EC-28	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 immediately. 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. SCDHEC Hazardous Waste Treatment, Storage, and Disposal compliance staff can be contacted at 803-898-0290.	Construction	Status update to be phase specific.	When encountered during construction, hazardous materials will be tested and removed and/or treated in accordance with the United States Environmental Protection Agency and the SCDHEC	Should hazardous materials be encountered the will be properly disposed of according to the site specific hazardous waste management plan and this commitment.
EC-29	During the construction phase of the project, 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. If any such remains are encountered, the Construction Manager for Mega Projects would be immediately notified and all work in the vicinity of the discovered materials and site work shall cease until the SCDOT Chief Archaeologist directs otherwise. SCDOT Chief Archaeologist, Tracy Martin, can be contacted at 803-737-6371.	Construction	Status update to be phase specific.	Discussion will occur in pre-activity meeting with the Contractor and documented accordingly. Minor clearing has been conducted.	Contractor and subcontractors shall comply.
EC-30	An archaeological professional will be present during any ground disturbing activities related to Site 38LX212 and 38RD59. Additionally, sites 38RD140, 38RD1175, and 38RD1176 will be protected from indirect effects, including borrow sites and equipment staging. Sites will be clearly marked in the field using orange construction fencing prior to beginning construction activities in the vicinity of the resources.	Construction	Status update to be phase specific.	A reminder was sent to archaeologies about ground disturbance activities near Saluda Canal (site 38RD59)	N/A for Phase 2
EC-31	<p>The Saluda Canal (Site 38RD59) would be clearly plotted on all construction plans. SCDOT has reduced ROW widths in the vicinity of the canal to avoid impacts to the canal during construction &amp; any future maintenance activities along the ROW. A 25-foot buffer will be maintained around the canal for the majority of the resource. This zone would be clearly marked in the field using orange fencing during construction, and all ground disturbance and construction staging activities would be conducted outside of this buffer in order to avoid all possible impacts to the resource. SCDOT proposes to revise the commitment of a 25-foot buffer for a distance of approximately 700 feet along the proposed ramp to allow room for temporary construction access &amp; equipment near I-26 Ramp C. To protect the boundary of the canal at this location, the following will be added to the contract as commitments:</p> <ul style="list-style-type: none"> <li>•Prior to construction activities orange protective fencing will be installed along the edge of boundary of the Saluda Canal Historic District in areas that will maintain the original buffer as well as those areas where the buffer has been requested to be reduced between the two drainages and for a length to the south of the southernmost drainage.</li> <li>•Prior to construction activities silt fencing will be installed along the edge of SCDOT right of way to prevent runoff.</li> <li>•For areas along the identified Saluda Canal located along the I-26 Ramp C beginning Station 5412+50 and ending Station 5419+50 clearing will be allowable to the right of way but grubbing will be limited to within a distance of 5-feet inside of the right of way. Grubbing activities within the 5-foot buffer will require approval from SCDOT prior to occurring.</li> <li>•During land clearing activities prior to construction, an archaeologist will be present at all times to ensure that these activities undertaken close to the fencing do not damage the canal.</li> <li>•During construction, an archaeologist will visit the construction site twice a week to ensure that no activities have crossed over the protective fencing. Any observations during these visits will be recorded in an inspection log that will be made available to the SHPO.</li> <li>•As soon as an inadvertent impact is discovered, such as a previously unidentified cultural resource, archaeological feature, or artifact, construction in that area will stop immediately until an onsite consultation with SCDOT archaeologists and SHPO can determine the best strategies for avoiding, minimizing, or mitigating adverse effects upon the resource.</li> </ul>	Construction	Status update to be phase specific.	Canal plotted on plans and orange fencing has been installed.	N/A for Phase 2



EC ID	Description	Category	Status	Phase 1 Updates	Phase 2 Updates
EC-32	The CONTRACTOR(s) will ensure that all construction equipment is properly tuned and maintained. Idling time will be minimized to save fuel and emissions.	Construction	Status update to be phase specific.	Discussion will occur in pre-activity meeting with the Contractor and documented accordingly.	Discussion will occur in pre-activity meeting with the Contractor and documented accordingly.
EC-33	Water will be applied to control dust as needed to prevent dust impacts off site. There will be no open burning of removed vegetation. Vegetation will be chipped or delivered to waste energy facilities.	Construction	Status update to be phase specific.	Water will be applied as necessary to control dust.	Water will be applied as necessary to control dust.
EC-34	<p>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.</p> <p>The CONTRACTOR will notify the Construction Manager for Mega Projects at least four (4) weeks prior to construction/demolition/maintenance of bridges and box culverts. The Construction Manager for Mega Projects will coordinate with SCDOT Environmental Services Office (ESO), Compliance Division, to determine if there are any active birds using the structure. SCDOT will be responsible for the removal/management of any active bird nests.</p>	Construction	Status update to be phase specific.	Surveys were conducted on Ramps C and D prior to maintenance/rehab activities.	Prior to construction activities on bridges and culverts, ESO is notified.
EC-35	Potential borrow areas to be used for fill dirt for the project will be field reviewed and assessed for the presence of any jurisdictional features, and BMPs will be applied prior to disturbance to avoid and/or minimize erosion and runoff of sediments.	Construction	Status update to be phase specific.	Contractor shall comply.	Contractor shall comply.
EC-36	Construction operations will be scheduled for off-peak traffic hours when reasonable/feasible.	Construction	Status update to be phase specific.	Project specific traffic management plan has been submitted and is being monitored.	Project specific traffic management plan has been submitted.
EC-37	A traffic maintenance plan will be developed prior to construction initiation to minimize interference to traffic flow from construction equipment and activities.	Design	Status update to be phase specific.	Contractor has submitted a conceptual traffic maintenance plan and it is being monitored during construction.	Contractor has submitted a conceptual traffic maintenance plan and it is being monitored during construction.
EC-38	After SCDOT acquisition, wetland delineations will be performed on Parcels 270, 187 and 316; archaeological investigations will be conducted on Parcels 187 and 316.	Programmatic	SCDOT has complied.	N/A	N/A



**Carolina Crossroads**

**NEPA RE-EVALUATION 6**

**Supporting Documentation**

**August 28, 2024**



## Contents

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## Introduction

The Federal Highway Administration (FHWA) and South Carolina Department of Transportation (SCDOT) propose to implement various strategies that will improve the mobility and enhance traffic operations within the I-20/26/126 corridors in Richland and Lexington Counties, South Carolina. The proposed project, Carolina Crossroads (CCR), will ultimately increase roadway capacity throughout the corridor and improve operations by reconstructing or improving the following interchanges: the I-20 and I-26 system to system interchange, I-26 at Broad River Road (Exit 101), I-26 at Lake Murray Boulevard (Exit 102), I-26 at Harbison Boulevard (Exit 103), I-25 at Piney Grove Road (Exit 104), I-26 at St. Andrews Road (Exit 106), I-26 at Bush River Road, I-26 at I-126, I-126 at Colonial Life Boulevard, I-20 at Broad River Road (Exit 65) and I-20 at Bush River Road (Exit 63).

FHWA approved a Final Environmental Impact Statement (FEIS) and Record of Decisions (ROD) for the Carolina Crossroads Project on May 2, 2019. Since that time, the project has progressed to construction of Phases 1 and 2 through the design-build process. Five re-evaluations have been approved for the project since the FEIS/ROD which have included design changes as design has progressed, design revisions based on the design-build process (Phases 1 and 2), and changes to right of way and parcel acquisitions based on right of way negotiations.

SCDOT is continuing to administer the project through multiple phases. The phases of construction are proposed to overlap or be performed consecutively with little or no time between phases.

This re-evaluation will address three types of project updates for the CCR project:

1. Re-phasing of the project construction
2. Design changes to be incorporated into the project
3. Right of way updates

These changes have led SCDOT to re-evaluate the environmental impacts documented in the FEIS/ROD and subsequent re-evaluations.

None of the proposed changes to project execution/construction and/or design changes would affect the ability of the CCR project to meet the purpose and need of the project as documented in the FEIS/ROD.

In addition to these updates, in re-evaluation #5, the contractor's proposed final design for Noise Barriers R and S reflected configuration changes from the originally proposed walls (refer to Table 3, Noise Barrier R Design Changes and Table 4: Noise Barrier S Design Changes in Re-eval 5 Noise Addendum dated June 16, 2022). In the Record of Decision, the use of absorptive material was originally recommended on Barriers O & S due to the potential reflections from the noise walls to unshielded receptors located on the other side of the highway. In the case of Barrier S, the original study did not recommend Barrier R, so those receptors would have been unshielded. Noise modeling was not completed to demonstrate the need for absorption; however, absorptive material was originally included as a precaution since there were unshielded receptors located across the highway. Per commitments, both walls were modeled based on the final proposed roadway design and documented in a traffic noise analysis. Portions of proposed Noise Barriers R and S run on opposing sides of the interstate where the ratio of the distance between the barriers and the height of the barrier panels is less than 10:1 (refer to Table 6: Parallel Barrier Analysis

Locations in Re-eval 5 Noise Addendum dated June 16, 2022). A parallel barrier analysis was completed at 10 receivers across the entire length of Noise Barriers R and S. The parallel barrier analysis indicated that sound levels behind Noise Barrier R may increase due to the sound reflecting between the parallel noise barrier panels. The increase in sound levels could be up to 2.0 dBA above the sound levels with the proposed barriers in place. Per guidance in the *FHWA Noise Barrier Design Handbook*, because the increase is less than 3.0 dBA this degradation is barely perceptible to the human ear. Therefore, sound absorptive material is not required to be added or included as part of Noise Barriers R and S.

These proposed changes to the barrier design resulted in additional benefited receptors and both barriers remained reasonable and feasible. Therefore, this updated design was approved as part of re-eval 5, signed November 14, 2022.

To provide additional clarification regarding the barrier designs proposed in the conclusion of the final noise analysis, SCDOT proposes the following revision to the environmental commitment EC 10:

SCDOT will install highway traffic noise abatement measures in the form of noise barriers at Noise Sensitive Areas (NSA) O, R and S. Since there are residences located on the opposite side of the interstate adjacent to Barrier O, the use of sound absorption materials will be assessed and analyzed during final design to minimize noise reflectivity of the barriers towards receptors on the other side of the interstate. If changes are proposed to the noise wall configuration during design, the CONTRACTOR shall be responsible for revising the environmental documents (re-evaluation), updating traffic noise analysis, public involvement and construction of noise wall(s).

## 1. Re-phasing of project construction

SCDOT has developed additional phases of work to continue the development and construction of the CCR project. The new phasing plan was developed to reduce project risk related primarily to complex utility relocations and geotechnical conditions discovered during the construction of Phases 1 and 2. The original Phase 3, which included the I-20 / I-26 system to system interchange has been divided into additional phases so that construction can continue as risks are minimized.

New phasing details and schedule are reflected in Figure 1, which includes:

- Phase 3A – Utility and Frontage Road Relocation
- Phase 3B – Clearing and Grubbing
- Phase 3C – I-20 Widening
- Phase 3D – I-26/ I-126 Improvements
- Phase 3E – I-20/I-26 System to System Interchange

## Phased Construction Map 2024



Figure 1. CCR Updated Project Phasing



## 2. Design changes to be incorporated into the project

During detailed design and constructability reviews, the development of right of way plans, and right of way acquisition for construction of Phases 1 and 2 of the Carolina Crossroads Project, several design changes have been proposed to the Refined Recommended Preferred Alternative (RRPA) described in the FEIS/ROD. These changes are described below.

As a result of these changes, SCDOT has re-evaluated the social, environmental and economic impacts documented in the FEIS/ROD.

### A. I-20 / Bush River Road Interchange

The RRPA originally proposed a diverging diamond design at the I-20 / Bush River Road interchange with an overpass across I-20 connecting Berryhill Road to Rockland Road. In efforts to improve constructability and minimize impacts to surrounding businesses, an alternative design was considered. The revised design would maintain the existing partial cloverleaf (parclo) configuration (No-build alternative in the EIS), and make improvements to ramps, intersections, and turn-lane storage thereby improving traffic operations and efficiency (Figure 2).

The revised design is within the previous project study area (PSA) and right-of-way has already been acquired. As a result of these design changes, there would be no change in impacts at this location. No other studies documented in the FEIS/ROD required updating as a result of this design change.

Traffic analyses for this design changes through a design year of 2040 were conducted during the Design-Build procurement phase; the study was reviewed by FHWA for SO&E (Safety, Operations and Engineering) approval, which was issued by FHWA Executive Director.

For this interchange, the level of service (LOS) for operational movements remains the same or improves from the original RPA concept. See LOS comparison at the I-20 / Bush River Road interchange summarized in the table below:

Table 1: Bush River Road Interchange at I-20 LOS Comparison				
	RPA Design		Parclo design	
	AM Peak LOS	PM Peak LOS	AM Peak LOS	PM Peak LOS
I-20/Bush River Rd Merge LOS	B	F	B	D
I-20/Bush River Rd Diverge LOS	A	A	A	A

Please see Appendix C: FHWA SO&E Approvals for I-20 / Bush River for copies of FHWA approval and Appendix D: MSA Traffic Technical Report.

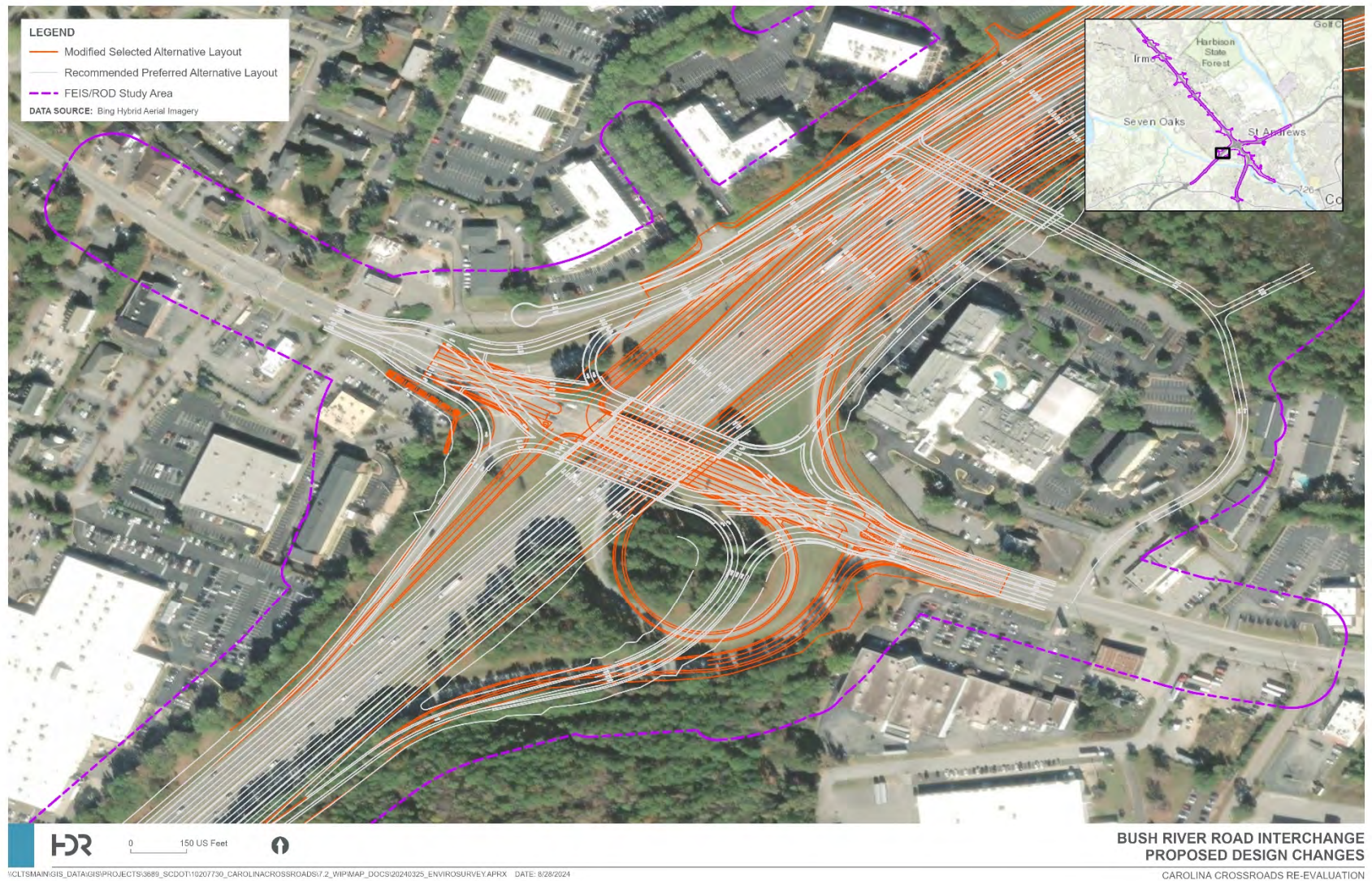


Figure 2. I-20 / Bush River Road Interchange



## B. Berryhill Road Realignment

The RRPA did not make any adjustments to the alignment of Berryhill Road. An alternative design was developed which realigned Berryhill Road for approximately 750 feet through vacant parcels to its intersection with Woodland Hill Road. The realignment would relocate the existing intersection 350 feet further away from the Woodland Hill Road and St. Andrews Road intersection thereby increasing the intersection spacing by simplifying movements at the two intersections which also improves safety. In addition, the relocated Stoops Creek crossing will accommodate a bridge crossing and provide more room for utility relocations. (Figure 3).

All areas within the FEIS/ROD study have been surveyed and impacts have been assessed in the ROD and/or previous re-evaluations. Relocations in the vicinity of Berryhill Road, including the Red Roof Inn, were previously documented and this proposed realignment would not cause any additional relocations.

The re-alignment of Berryhill Rd would impact three parcels outside of the FEIS/ROD PSA including Parcels 632, 633 and 634 (see Figure 3). The alignment crosses the southernmost boundary of Parcel 632 across a paved, parking lot behind the restaurant building. The alignment also crosses the northernmost boundary of Parcel 633 across a previously excavated, wooded area. Curb and drainage improvements along Woodland Hills Road could impact a minor amount of Parcel 634 along its western boundary; final amount of impacts would be dependent on the design proposed under Phase 3A.

Since these improvements/changes extend outside of the FEIS/ROD PSA, SCDOT has re-evaluated the social, environmental and economic impacts documented in the FEIS/ROD. Areas outside of the PSA (Parcels 632, 633 and 634) were surveyed for cultural resources, jurisdictional features (streams and wetlands) and threatened and endangered species (T&E) habitat. Field surveys identified no cultural resources, jurisdictional features or T&E habitat in the area of these proposed design changes.

In addition, the realignment of Berryhill Road from the FEIS alignment reduces the distance of the roadway to nearby residential receptors within noise sensitive areas (NSA) K to less than half of its original distance, so noise levels at those receptors were reanalyzed in TNM.

In the detailed noise analysis for the FEIS, the primary source of noise in the area was I-26 and therefore, traffic was not modeled on Berryhill Road. For the updated noise analysis, traffic was included along Berryhill Road to address the realignment of the road closer to the receptors. Despite modeling traffic on Berryhill Road in TNM and its realignment closer to the receptors, sound levels remained essentially the same, with a maximum increase of 0.1 dBA and a maximum decrease of 0.3 dBA. This is because of increased shielding of noise from the mainline by the profile of the realignment. This effect is generally greater than the noise from the added traffic, resulting in an overall decrease in noise levels. See attached Noise memo in Appendix A.

No new noise impacts are predicted as part of this change; therefore, no mitigation analysis is required.

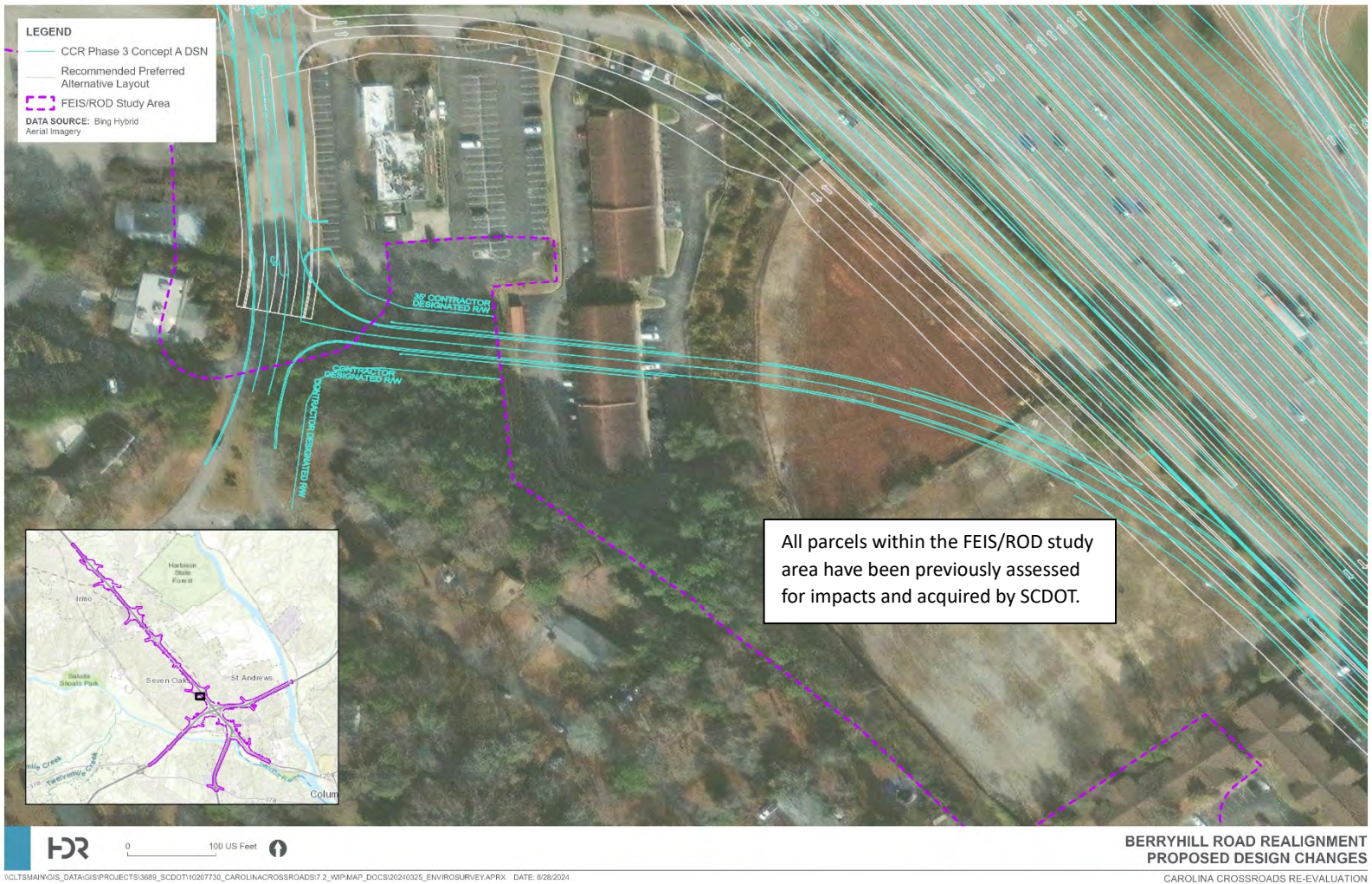


Figure 3. Berryhill Road Realignment



## **Parcel 632**

The area outside of the PSA is located in a parking lot associated with the Tokyo Buffet restaurant along Woodland Hills Road, approximately 260 feet south of the intersection of Woodland Hills Road and Berryhill Road. The portion of the parcel observed during the field visit is approximately 0.43 acres and consists of an asphalt parking lot. The proposed right of way for the alignment would cross the southernmost portion of the parking lot. No shovel tests were excavated at Parcel 632, and no further survey is recommended at this location. No wetlands or streams were observed within this parcel. Figure 4 presents a street view of Parcel 632. Figure 5 presents a plan of Parcels 632, 633, and 634, which are contiguous but distinct.



**Figure 4. Parcel 632, facing east (from Google Earth, April 10, 2024)**

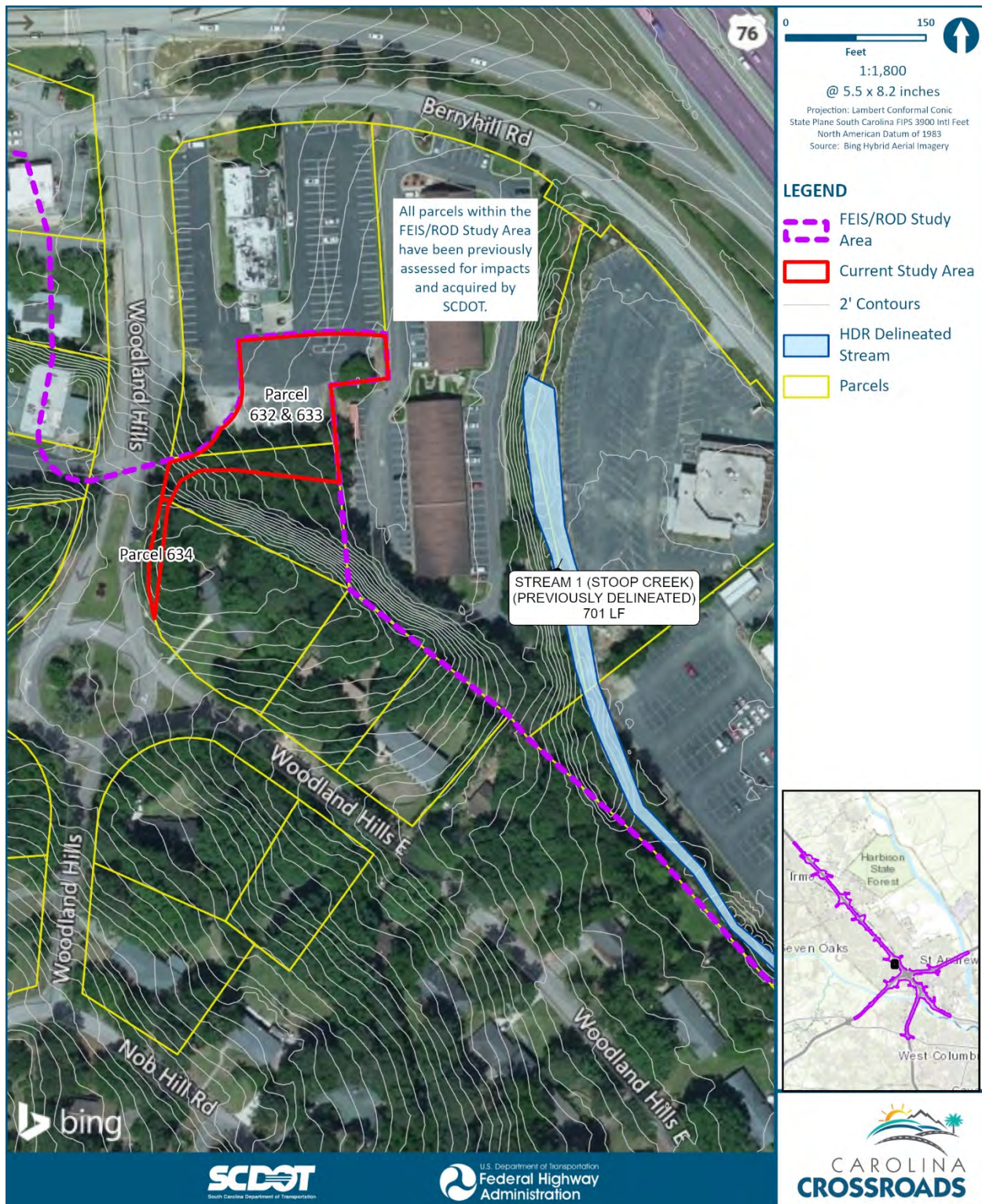


Figure 5. Parcels 632, 633, and 634

Parcel 633



The area outside of the PSA is in a wooded area along Woodland Hills Road, approximately 370 feet south of the intersection of Woodland Hills Road and Berryhill Road (refer to Figure 5). The area is approximately 0.42 acres and consists of a wooded pine and mixed hardwood forest. The area appears to have been excavated/leveled to allow for commercial development of the area. The right of way for the proposed alignment would cross the northern most portion of this parcel. No shovel tests were excavated at Parcel 633, and no further survey is recommended at this location. No wetlands or streams were observed within this parcel. Figure 6 presents a view of Parcel 633.



**Figure 6. View of Parcel 633, facing southeast**



### **Parcel 634**

The area investigated is located at the intersection of Woodland Hills Road and Woodland Hills Road East (refer to Figure 5). The area is approximately 0.06 acres and consists of a landscaped yard of a single-family residence. Curb and drainage improvements could affect the western most portion of this parcel; however, final impacts at this location will be determined when design is completed for Phase 3A. No shovel tests were excavated at Parcel 634, and no further survey is recommended at this location. No wetlands or streams were observed within this parcel. Figure 7 presents a view of Parcel 634.



**Figure 7. View of Parcel 634, facing south**

### C. I-126/I-26 System to System Interchange: Semi-Directional Ramp

The RRPA proposed a new flyover ramp to connect I-126 Westbound (WB) to I-26 Eastbound (EB). An alternative design, a semi-directional ramp was developed at this location, which shortens the length of the bridge by approximately 1,500 feet. In addition, the semi-directional ramp eliminates a heavily skewed span over the CSX railroad and eliminates a bridge over the Saluda River (Figure 8).

Although this design change is within the previously defined PSA and proposed right of way assessed in the FEIS/ROD, the new ramp alignment will shift the I-126 WB to I-26 EB alignment towards the Lexington Green Condominiums within NSA V. Noise modeling was performed to reflect these changes in the design. The proposed design reduced the number of impacted receptors from 21 to 11. An updated barrier analysis was conducted to evaluate the need for a noise barrier for these impacts, but the barrier was found to be not feasible as it could not achieve a minimum 5 dBA reduction for 75% of the impacted receptors. This is consistent with the NSA V barrier analysis for the original RRPA design, which was also found to be not feasible. See Noise Summary in Appendix B.

No other studies documented in the FEIS/ROD required updating as a result of this design change. No change of impacts presented in the FEIS/ROD are anticipated at this location.

Traffic analyses for this design change through a design year of 2040 were conducted during the Design-Build procurement phase; the study was reviewed by FHWA for SO&E (Safety, Operations and Engineering) approval, which was issued by FHWA Executive Director.

Ramp level of service (LOS) anticipated for the proposed design is the same in the original RPA concept. See LOS comparison at the I-126 / I-26 EB interchange summarized in the table below:

<b>Table 2: I-126 WB to I-26 EB Ramp LOS Comparison</b>				
	<b>RPA Design</b>		<b>Proposed Semi-directional design</b>	
	AM Peak LOS	PM Peak LOS	AM Peak LOS	PM Peak LOS
I-126 WB Exit to I-26 EB	B	C	A	C

Please see Appendix C: FHWA SO&E Approvals for the I-126 / I-26 ramp for copies of FHWA approval.





Figure 8: I-126 Semi-directional Ramp



#### **D. Willow Creek flood improvement**

This 20-acre property is the site of a demolished apartment complex (Parcels 150 and 153) is anticipated to be a new right of way acquisition. SCDOT will explore the use of the property to provide floodplain storage capacity along Stoop Creek to minimize potential changes in flow conditions and water elevations as the result of the proposed project. SCDOT is performing a detailed hydraulic analysis of Stoop Creek and evaluating alternatives to retain the existing culvert structures at I-26 and I-20 reducing construction costs and traffic impacts during construction.

This proposed improvement would extend outside of the FEIS/ROD PSA and SCDOT has re-evaluated the social, environmental, and economic impacts documented in the FEIS/ROD. Areas outside of the PSA were surveyed for cultural resources, jurisdictional features (streams and wetlands) and T&E habitat.

#### **Parcels 150 & 153**

The areas outside of the PSA are located within a former multifamily housing development that was demolished and now lies barren, covered in asphalt and concrete with only small patches of trees along its edges, to the east of the former AirTime Climate Control, LLC along Fernandina Road, approximately 415 feet northwest of the intersection of St Andrews Road and Fernandina Road (see Figure 9). The area outside of the PSA is approximately 19.7 acres (Parcel 150 ~ 10.28 acres and Parcel 153 ~ 9.44 acres). The unpaved portion consists of graded uplands. No shovel tests were excavated at Parcels 150 and 153, and no further survey is recommended at these locations. Figures 10 and 11 present views of Parcels 150 and 153.

One stream (Stream 1, Stoop Creek) transects both Parcel 150 and Parcel 153 (approximately 1,259 linear feet) and flows north to south. Stoop Creek is a perennial stream with a bank height of between 8 and 10 feet and a bank full width of approximately 20 feet.

An additional perennial stream, Stream 2, was observed on the northern portion of Parcel 150 (approximately 92.6 linear feet) and flows from west to east. The stream was identified as a perennial stream with a bank height of between 3 and 8 feet and a bank full width of approximately 16 to 20 feet.

One ephemeral channel (Stream 3) was observed in the central portion of Parcel 153 (approximately 24.7 linear feet). The ephemeral channel was observed to be hydrologically connected to Stream 1 (Stoop Creek). The stream was identified as an ephemeral channel with a bank height of between 6 inches and 1 foot and a bank full width of approximately 1 foot. This ephemeral channel was observed conveying stormwater runoff during large rain events.

Marginal wetland areas have started emerging within the former paved parking areas and other impervious areas in portions of Parcels 150 and 153 due to stormwater runoff, resulting in pooling and the growth of vegetation typically found in wetland environments. These areas were observed after a large rain event. Although these areas exhibit wetland vegetation and hydric soil indicators, upon observation, they do not meet the hydrology standards set by the US Army Corps of Engineers (USACE) to classify them as potentially jurisdictional waters.

As currently proposed, the project would not impact wetlands or streams on this parcel; however, if an alternate design is proposed that did impact wetlands or streams at this location, those impacts would be documented in a re-evaluation and USACE IP modification.

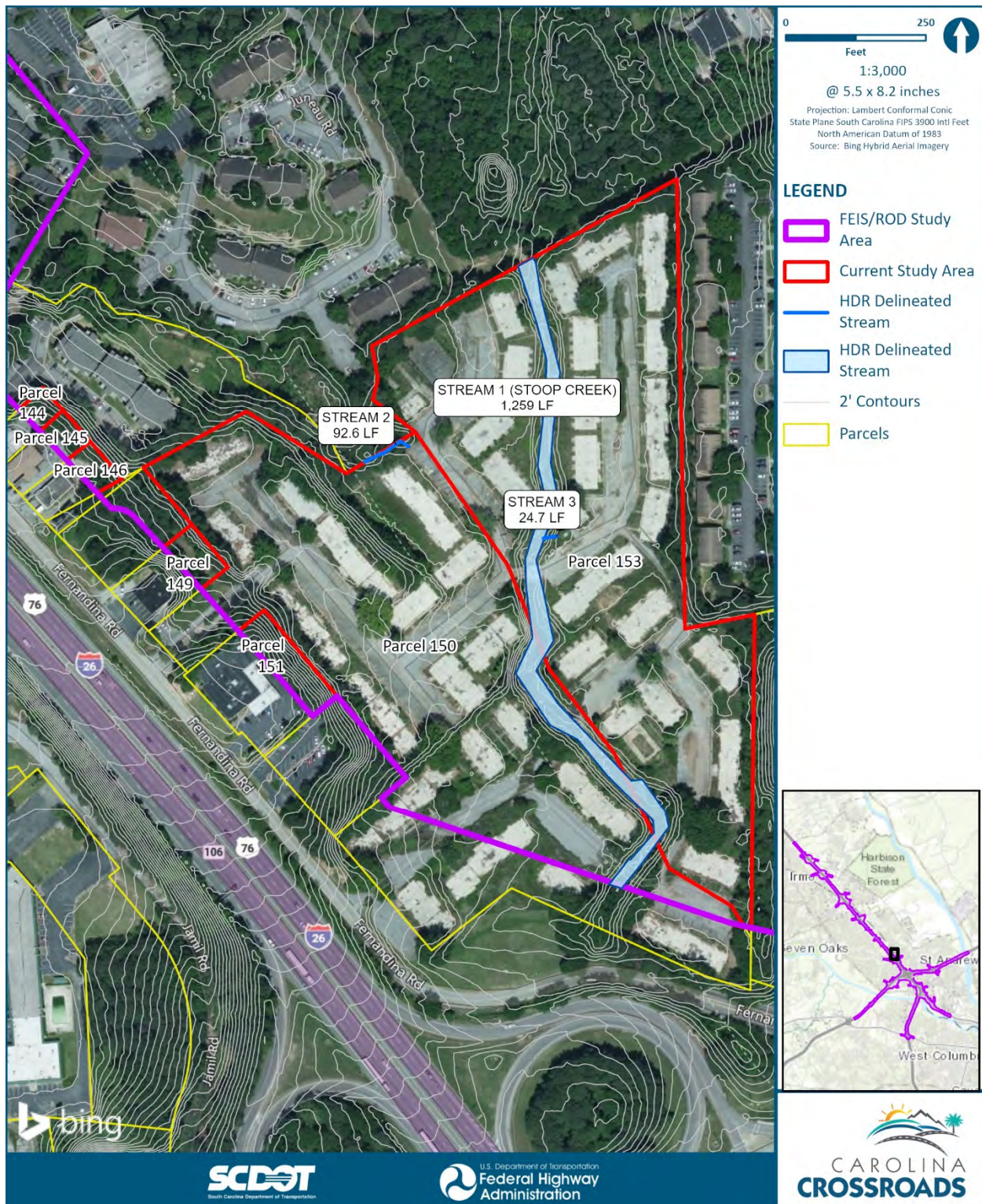


Figure 9. Parcels 144, 145, 146, 149, 150, 151, and 153





**Figure 10. View of Parcel 150, facing northwest**



**Figure 11. View of Parcel 153, facing southwest**

### 3. Right of way updates

As the right of way acquisition process for the CCR project continues, it has been determined that some acquired tracts included portions of the parcel(s) that extended beyond the FEIS/ROD PSA boundary. Thirteen (13) parcels had additional right-of-way extending beyond the PSA. These parcels are listed in Table 1. In Figures 5, 9, 18, 23, 25, and 27, the purple line shows the original FEIS PSA, and the red line is the updated Study Area limits that were not previously covered in the FEIS. These study area limits are generally the parcel boundary. On March 27-29, 2024, field investigations were conducted for cultural resources, jurisdictional features (streams and wetlands) and T&E habitat on all parcels that extended beyond the FEIS PSA. The investigations are summarized below.

Table 3 Summary of Parcels Extending Beyond the FEIS PSA		
General Parcel Location		
Fernandina Road	Jamil Road	Giles Parkway
151	660	698
149	661	699
146	681	
145	662	
144		
137		
109		

#### Parcel 151

The area outside of the PSA is located in a vacant lot along Fernandina Road, approximately 1,300 feet northwest of the intersection of Fernandina Road and St. Andrews Road (refer to Figure 9). The portion of the parcel observed during the field visit is approximately 0.33 acres and consists of a steep, wooded embankment, and paved lot. No shovel tests were excavated at Parcel 151, and no further survey is recommended at this location. No wetlands, streams, or T&E habitat were observed within this parcel. Figure 13 presents a view of Parcel 151.





**Figure 13. View of Parcel 151, facing southeast**



### **Parcel 149**

The area outside of the PSA is in a vacant lot along Fernandina Road, approximately 1,650 feet northwest of the intersection of Fernandina Road and St. Andrews Road (refer to Figure 9). The portion of the parcel is approximately 0.2 acres and consists of a steep, wooded embankment, and a paved lot. No shovel tests were excavated at Parcel 149, and no further survey is recommended at this location. No wetlands, streams or T&E habitat were observed within this parcel. Figure 14 presents a view of Parcel 149.



**Figure 14. View of Parcel 149, facing north**



### **Parcels 144, 145, and 146**

The area outside of the PSA is located in a vacant lot along Fernandina Road, approximately 900 feet southeast of the intersection of Fernandina Road and Evelyn Drive (refer to Figure 9). The portion of the parcels is approximately 0.27 acres (Parcel 144 ~0.07 acres, Parcel 145 ~ 0.10 acres, and Parcel 146 ~0.10 acres) and consists of a steep, wooded embankment, and a paved lot. No shovel tests were excavated at Parcels 144, 145, and 146, and no further survey is recommended at these locations. No wetlands, streams or T&E habitat were observed within these parcels. Figures 15-17 present views of Parcels 144, 145, and 146.



**Figure 15. View of Parcel 144, facing north**





**Figure 16. View of Parcel 145, facing east**



**Figure 17. View of Parcel 146, facing northeast**



## Parcels 660 and 661

The area outside of the PSA is occupied by a CubeSmart Self Storage facility and Parcel 661 is occupied by a vacant lot along Jamil Road, approximately 620 feet northwest of the intersection of Jamil Road and Paisley Lane (Figure 18). The western portions of Parcels 660 and 661 are wooded in a mix of pines and hardwoods. The portion of the parcels surveyed is approximately 3.78 acres (Parcel 660 ~2.94 acres and Parcel 661 ~0.84 acres). Portions of both parcels are covered in asphalt and concrete with only small patches of herbaceous vegetation growing in the margins between the impervious areas. Figures 19 and 20 present views of Parcels 660 and 661.

Two shovel tests were excavated at Parcel 660. The shovel tests generally exposed a 10YR4/3 brown loam from 0-25 centimeters below surface (cm bs) over a compact 10YR6/8 brownish yellow clay subsoil from 25-45+ cm bs. The fill from the shovel tests was sifted through ¼-inch mesh hardware cloth. No cultural materials were recovered from the investigations at Parcel 660. No shovel tests were excavated at Parcel 661. Therefore, no further archaeological survey is recommended at these locations.

One stream (Stream 4) transects Parcels 660 and 661 (approximately 336 linear feet) and flows from west to east. The stream was identified as intermittent with a bank height of between three to eight feet and a bank full width of approximately six feet.

One ephemeral stream (Stream 5) is located on the western border of Parcel 660 (approximately 480 linear feet) and flows from south to north. The stream was observed during the field reconnaissance to be potentially ephemeral with a bank height of between one to ten feet and a bank full width of approximately three to four feet. This ephemeral feature is hydrologically connected to intermittent stream (Stream 4).

One wetland was observed on the western edge of Parcel 660. This area exhibited indicators such as wetland vegetation, wetland hydrology, and hydric soils. This wetland feature is hydrologically connected to an ephemeral channel which drains into Stream 4.

Marginal wetland areas have started emerging within the former paved parking areas and other impervious areas in portions of Parcels 660 and 661 due to stormwater runoff, resulting in pooling and the growth of vegetation typically found in wetland environments. These areas were observed to be heavily disturbed and were examined after a large rain event. Although these areas exhibit wetland vegetation and hydric soil indicators upon observation, they do not meet the hydrology standards set by the USACE to classify them as potentially jurisdictional waters.

As currently proposed, the project would not impact wetlands or streams on this parcel; however, if an alternate design is proposed that did impact wetlands at this location, those impacts would be documented in a re-evaluation and USACE IP modification. No T&E habitat was observed on these parcels.

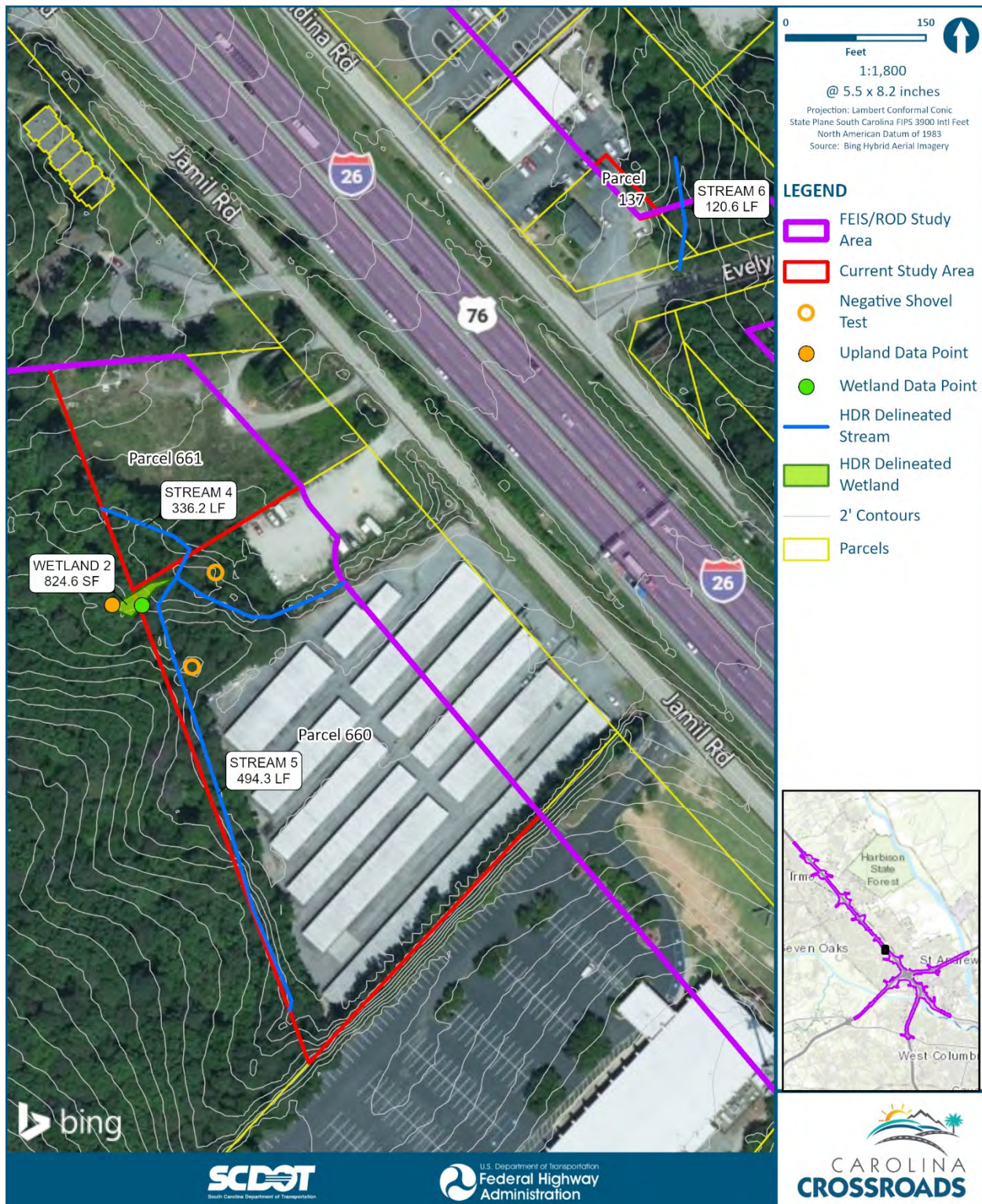


Figure 18. Parcels 660, 661, and 137





**Figure 19. View of Stream 4 in Parcel 661, facing west**



**Figure 20. View of Parcel 661, facing southeast towards Parcel 660**



### **Parcel 137**

The area outside of the PSA is located in a parking lot of the “We the People Services” commercial building along Fernandina Road, approximately 130 feet north of the intersection of Fernandina Road and Evelyn Drive (refer to Figure 18). The portion of the parcel outside the current PSA is approximately 0.06 acres and consists of a paved parking area with sparse vegetation along the parcel boundary. No shovel tests were excavated at Parcel 137, and no further survey is recommended at this location. No wetlands, streams, or T&E habitat were observed within this parcel. Figure 21 presents a view of Parcel 137.



**Figure 21. View of Parcel 137, facing north**

## Parcel 662

Parcel 662 is occupied by the Lakewood Village Condominium Complex on Jamil Road, just southeast of the intersection of Jamil Road and King George Way. The portions of the parcel outside of the PSA is temporary right of way that will be held by SCDOT until the end of project construction; however, this area is likely to be cleared during construction. The area is occupied by the foundations of condominiums and garages that were acquired for the project and subsequently demolished. Three small portions of the parcel total approximately 0.23 acres. All portions of the parcels are covered in asphalt and concrete with only small patches of herbaceous vegetation growing in the margins between the impervious areas. These areas were previously maintained as residential lawns prior to demolition. Figure 22 presents a view of Parcel 662. Figure 23 presents a plan view of Parcel 662.

No shovel tests were excavated at Parcel 662, and no further survey is recommended at this location. No wetlands, streams or T&E habitat were observed within this parcel.



**Figure 22. View of Parcel 662, facing north**



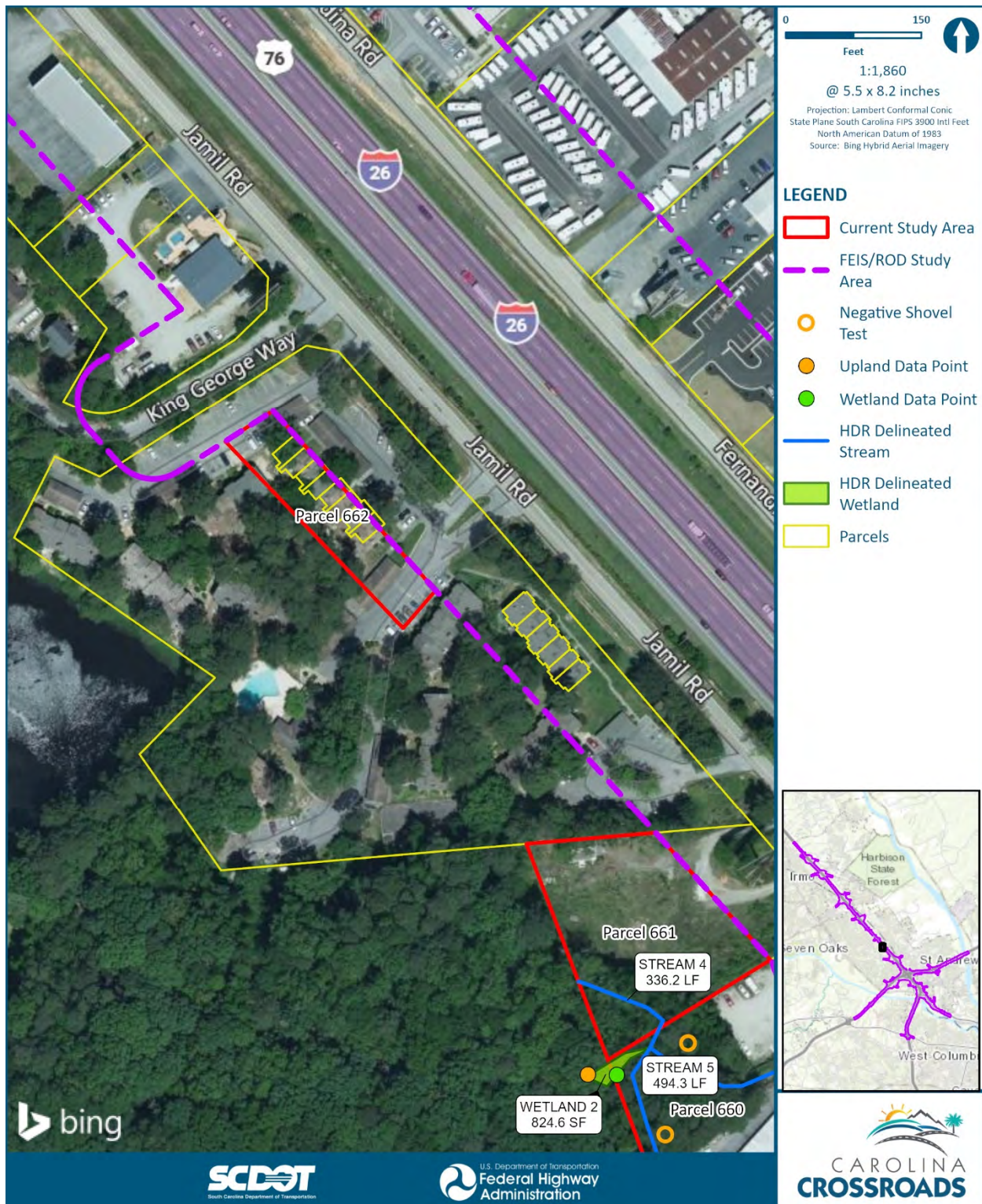


Figure 23. Parcel 662



### **Parcel 109**

The outside of the PSA is located in a wooded area along Steward Drive, approximately 175 feet east of the intersection of Fernandina Road and Steward Drive. The portion of the parcel outside the PSA is approximately 0.02 acres located adjacent to a fenced-in tower and consists of a wooded pine and mixed hardwood forest along the parcel boundary. No shovel tests were excavated at Parcel 109, and no further survey is recommended at this location. No wetlands, streams or T&E habitat were observed within this parcel. Figure 24 presents a view of Parcel 109. Figure 25 presents a plan view of Parcel 109.



**Figure 24. View of Parcel 109, facing southeast**



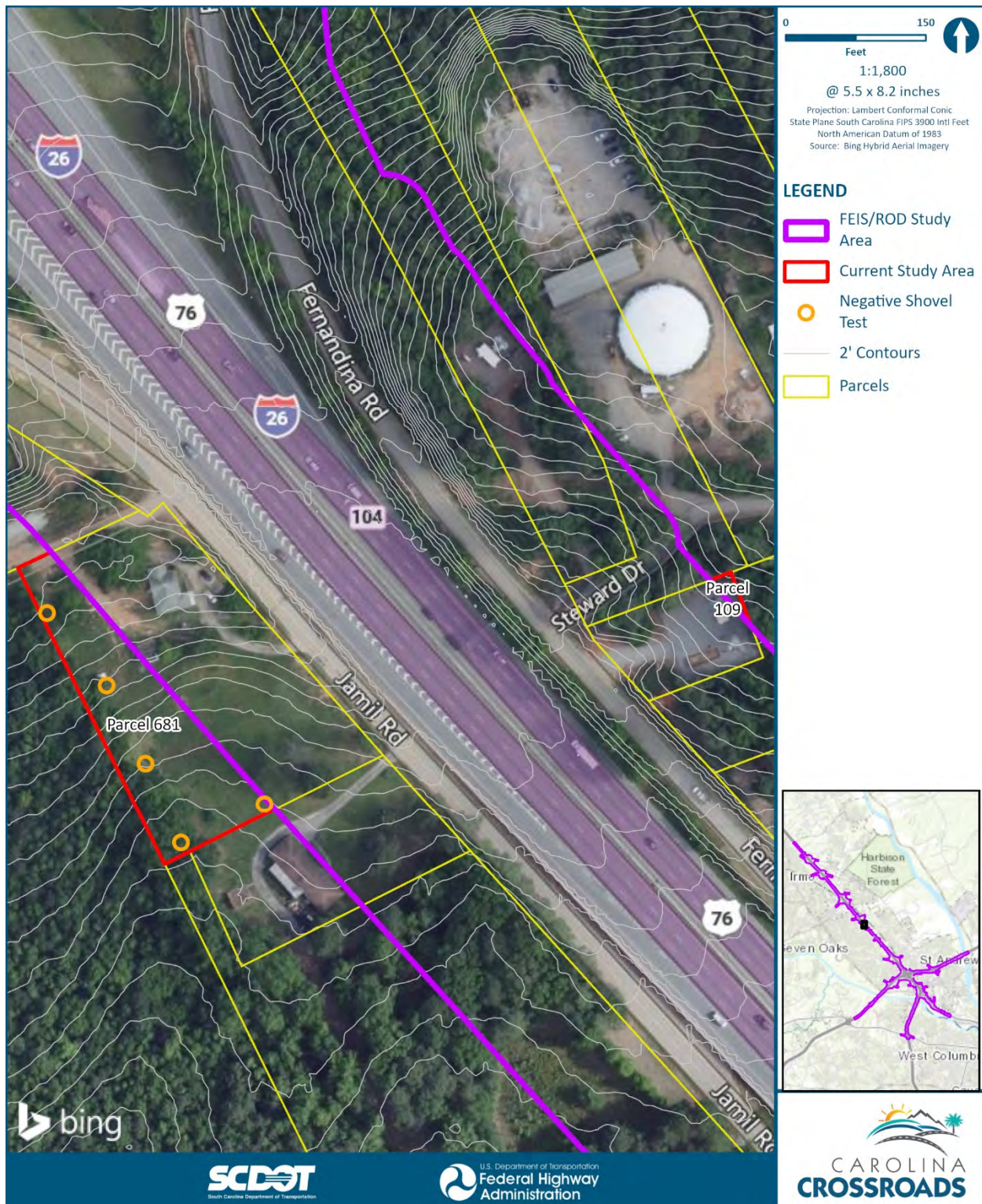


Figure 25. Parcels 109 and 681



### **Parcel 681**

The area outside of the PSA is located in a lightly wooded area to the south of the intersection of Jamil Road and Paris Road (refer to Figure 25). A transmission line corridor borders the parcel to the north. The area is approximately 0.77 acres and consists of mixed evergreen and hardwoods with a moderate understory of small trees and vines.

Investigators excavated five shovel tests in the currently investigated western portion of the parcel. The shovel tests generally exposed a 10R3/4 dusky red clay loam from 0-10 cm bs over a compact 10R4/8 red clay subsoil from 10-30+ cm bs. The fill from the shovel tests was sifted through ¼-inch mesh hardware cloth. No cultural materials were recovered from the investigations at Parcel 681. No further archaeological survey is recommended at this location. No wetlands, streams or T&E habitat were observed within this parcel. Figure 26 presents a view of Parcel 681.



**Figure 26. View of Parcel 681, facing southeast**

**Parcels 698 and 699**

The area outside of the PSA is located along Giles Court, approximately 250 feet northwest of the intersection of Piney Grove Road and US Highway 26 (Figure 27). The portion of the parcels outside the PSA are approximately 0.71 acres combined and consist of a wooded pine and mixed shrub and vine species along the parcel boundaries. No shovel tests were excavated at Parcels 698 or 699, and no further survey is recommended at this location. No wetlands, streams or T&E habitat were observed within this parcel. Figures 28 and 29 present views of Parcels 698 and 699.



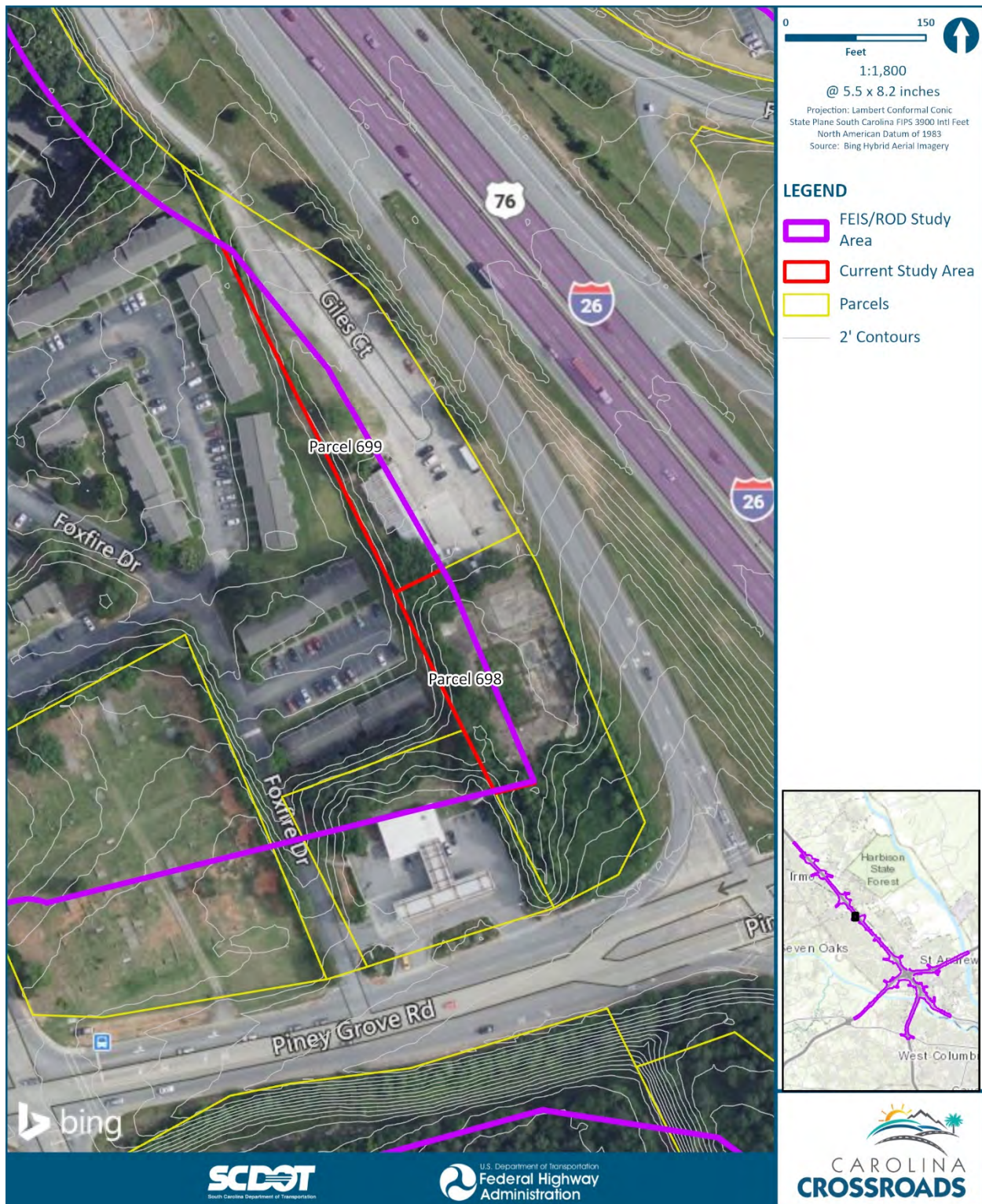


Figure 27. Parcels 698 and 699





**Figure 28. View of Parcel 698, facing south**



**Figure 29. View of Parcel 699, facing south**



#### 4. Summary

Based on the surveys conducted for the proposed design changes, described in Section 2, no new significant impacts have been identified, therefore the previous NEPA decision remains valid. Based on surveys conducted for the right of way updates, new jurisdictional features identified are outside of the footprint of the proposed design and would not be impacted by the project; therefore, no impacts are anticipated. See impact matrix below.

If future design-build updates would require impacts to any newly documented WOTUS features, the contractor would be required to submit jurisdictional determinations and a Section 404 permit modification to the USACE.

See SHPO concurrence letter in Appendix E.

<b>Table 4 Project Changes – Summary of Impact Changes from Previous NEPA decisions</b>						
	<b>Wetlands/ Streams (acres)</b>	<b>Cultural Resources (sites/findings)</b>	<b>Relocations</b>	<b>Environmental Justice</b>	<b>T&amp;E Habitat (presence)</b>	<b>Noise (Impacted receivers)</b>
I-20/Bush River Rd Interchange	No new impacts	None found	No new impacts	No change in impacts	No	No new impacts
Berryhill Rd Realignment	No new impacts	None found	No new impacts	No change in impacts	No	No new impacts
I-126 to I-26 Semi-directional ramp	No new impacts	None found	No new impacts	No change in impacts	No	No new impacts
Willow Creek flood improvement	No new impacts	None found	No new impacts	No change in impacts	No	No new impacts
Right of way updates	No new impacts	None found	No new impacts	No change in impacts	No	No new impacts