SCDOT

U.S. Department of Transportation
Federal Highway Administration

ENVIRONMENTAL ASSESSMENT

Interstate 26 (I-26) Corridor Improvements
Project MM 145-172

Orangeburg and Dorchester
Counties, South Carolina

SCDOT PROJECT NUMBERS: P041967 & P042454
FHWA PROJECT NUMBER: EAXX---XSC-1733319228

DECEMBER 2025

ENVIRONMENTAL ASSESSMENT

Interstate 26 (I-26) Corridor Improvements Project
MM 145-172

Orangeburg and Dorchester Counties, South Carolina

Submitted Pursuant to 42 USC 4332 (2)(c)
(and where applicable, 49 USC 303) by the

US Department of Transportation
Federal Highway Administration (FHWA)
and
South Carolina Department of Transportation (SCDOT)

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Dec. 5, 2025 Date of Approval Edward W. Frierson for SCDOT

Dec 17th, 2025 Date of Approval Digitally signed by AARON MICHAEL DAWSON Date: 2025.12.17 14:43:28 -05'00' for FHWA

SCDOT in coordination with FHWA proposes corridor improvements along Interstate 26 (I-26) from mile marker (MM) 145 to MM 172 in Orangeburg and Dorchester Counties. The purpose of the project is to increase capacity within the project study limits to alleviate existing and future congestion, address geometric deficiencies along I-26 and at the interchanges by bringing them up to current interstate design standards, and improve corridor safety by addressing deficiencies that contribute to the corridor's crash rate.

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Date: 12/4/2025

NEPA ENVIRONMENTAL COMMITMENTS FORM

Project ID : P041967, P042454 | County : Orangeburg/ Dorchester | District : 6 & 7 | Doc Type: EA | Total # of Commitments: 19

Project Name: I-26 Corridor Improvements Project MM 145-172

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: Alex Bennett (BennettJA@scdot.org) **PHONE #:** (803)-737-3231

ENVIRONMENTAL COMMITMENTS FOR THE PROJECT

Displacements | NEPA Doc Ref: Page: 30 Paragraph: 3 | Responsibility: SCDOT

The 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.). 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.

☐ Special Provision

Noise | NEPA Doc Ref: Page: 38 Paragraph: 3 | Responsibility: SCDOT

SCDOT will inform local planning officials of future, generalized noise levels expected to occur in the project vicinity after FHWA has made a final decision on the Environmental document.

☐ Special Provision

Cultural Resources | NEPA Doc Ref: Page: 38 Paragraph: 5 | Responsibility: CONTRACTOR

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

☒ Special Provision

Project ID : P041967, P042454	SCDOT NEPA ENVIRONMENTAL COMMITMENTS FORM	SCDOT ENVIRONMENTAL SERVICES

ENVIRONMENTAL COMMITMENTS FOR THE PROJECT

Non-Standard Commitment | NEPA Doc Ref: Page: 41 Paragraph: 2 | Responsibility: SCDOT/CONTRACTOR

Cultural Resources - Brantley Cemetery

The boundaries of the Brantley Cemetery / (SHPO Site Number 0349/Site 38OR0410 shall be clearly marked on all construction plans along with a 20-foot buffer surrounding the cemetery. No ground disturbing activities may take place within the buffered boundaries of the cemetery, and project personnel and equipment will be prohibited from entering the cemetery. A Secretary of Interior qualified archaeologist shall be required to be present during all ground disturbing activities that have potential to disturb unmarked graves in the Brantley Cemetery within the project construction limits along I-26.

☒ Special Provision

Non-Standard Commitment | NEPA Doc Ref: Page: 40 Paragraph: 5 | Responsibility: SCDOT/CONTRACTOR

Cultural Resources - White House United Methodist Church

The boundaries of the White House United Methodist Church (SHPO Site Number 0028) shall be clearly marked on all construction plans. No ground disturbing activities may take place within the Church boundaries, and project personnel and equipment will be prohibited from entering the area.

☒ Special Provision

Non-Standard Commitment | NEPA Doc Ref: Page: 40 Paragraph: 6 | Responsibility: SCDOT/CONTRACTOR

Cultural Resources - White House United Methodist Church Cemetery

The boundaries of the White House United Methodist Church Cemetery (SHPO Site Number 0028.01/Site 38OR462) shall be clearly marked on all construction plans along with a 20-foot buffer surrounding the cemetery. No ground disturbing activities may take place within the buffered boundaries of the cemetery, and project personnel and equipment will be prohibited from entering the cemetery.

☒ Special Provision

Project ID : P041967, P042454	SCDOT NEPA ENVIRONMENTAL COMMITMENTS FORM	SCDOT ENVIRONMENTAL SERVICES

ENVIRONMENTAL COMMITMENTS FOR THE PROJECT

Non-Standard Commitment | NEPA Doc Ref: Page: 41 Paragraph: 4 | Responsibility: SCDOT/CONTRACTOR

Cultural Resources - Mount Zion Baptist Church Cemetery

The boundaries of the Mount Zion Baptist Church Cemetery (SHPO Site Number 0545.01/Site 38OR0459) shall be clearly marked on all construction plans along with a 20-foot buffer surrounding the cemetery. No ground disturbing activities may take place within the buffered boundaries of the cemetery, and project personnel and equipment will be prohibited from entering the cemetery.

☒ Special Provision

Non-Standard Commitment | NEPA Doc Ref: Page: 41 Paragraph: 6 | Responsibility: SCDOT/CONTRACTOR

Cultural Resources - Lone Tree & Companion Tree

The boundaries of the Lone Tree & Companion Tree shall be clearly marked on all construction plans along with a 20-foot buffer. No ground disturbing activities may take place within the buffered boundaries of the protected trees, and project personnel and equipment will be prohibited from entering the area.

☒ Special Provision

Water Quality | NEPA Doc Ref: Page: 44 Paragraph: 7 | Responsibility: SCDOT

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

☐ Special Provision

Project ID : P041967, P042454	SCDOT NEPA ENVIRONMENTAL COMMITMENTS FORM	SCDOT ENVIRONMENTAL SERVICES

ENVIRONMENTAL COMMITMENTS FOR THE PROJECT

Non-Standard Commitment | NEPA Doc Ref: Page: 46 Paragraph: 3 | Responsibility: SCDOT/CONTRACTOR

Floodplains -

A Conditional Letter of Map Revision (CLOMR) and/or a Letter of Map Revision (LOMR) may be required. A final detailed hydraulic analysis would be conducted during final design development and would be performed in accordance with SCDOT Requirements for Hydraulic Design Studies. These final analyses and findings would also be coordinated with appropriate agencies, including SCDOT, FEMA, and the Orangeburg and Dorchester County Floodplain Managers.

☒ Special Provision

Floodplains | NEPA Doc Ref: Page: 46 Paragraph: 3 | Responsibility: SCDOT

The Engineer of Record will send a set of final plans and request for floodplain management compliance to the local County Floodplain Administrator prior to the project letting date.

☐ Special Provision

Individual Permit | NEPA Doc Ref: Page: 47 Paragraph:4 | Responsibility: SCDOT

Impacts to jurisdictional waters will be permitted under a Department of the Army Section 404 permit from the U.S. Army Corps of Engineers. Based on preliminary design, it is anticipated that the proposed project would be permitted under an Individual Army Corps of Engineers Permit (IP). SCDOT will provide the Army Corps with information regarding any proposed demolition activities during the Section 404 permitting process. The required mitigation for this project will be determined through consultation with the USACE and other resource agencies.

☐ Special Provision

Project ID : P041967, P042454	SCDOT NEPA ENVIRONMENTAL COMMITMENTS FORM	SCDOT ENVIRONMENTAL SERVICES

ENVIRONMENTAL COMMITMENTS FOR THE PROJECT

Non-Standard Commitment | NEPA Doc Ref: Page: 49 Paragraph: 6 | Responsibility: SCDOT

Endangered Species Act - Tricolored Bat

SCDOT will re-initiate Section 7 consultation upon listing of the tricolored bat.

☒ Special Provision

Non-Standard Commitment | NEPA Doc Ref: Page: 50 Paragraph: 2 | Responsibility: CONTRACTOR

Endangered Species Act - Bats

Northern long-eared bats and tricolored bats are presumed to be present within the PSA due to abundant foraging and roosting habitat, as well as observed presence of tricolored bats in culverts in the PSA. Construction activities that disturb suitable foraging and roosting habitat, primarily tree clearing activities, will be avoided during winter torpor (December 15th - February 15th) and summer occupancy (April 1st - June 15th). The USFWS may provide additional avoidance and minimization recommendations at the permitting stage of the project.

To the extent practicable, tree removal would not exceed what is required for project construction (alignments and temporary work areas).

☒ Special Provision

Non-Standard Commitment | NEPA Doc Ref: Page: 50 Paragraph: 2 | Responsibility: CONTRACTOR

Endangered Species Act - Bats

Temporary lighting during construction should be directed away from suitable habitat during the active season of northern long-eared bat and other bat species.

☒ Special Provision

Project ID : P041967, P042454	SCDOT NEPA ENVIRONMENTAL COMMITMENTS FORM	SCDOT ENVIRONMENTAL SERVICES

ENVIRONMENTAL COMMITMENTS FOR THE PROJECT

Migratory Bird Treaty Act | NEPA Doc Ref: Page: 50 Paragraph: 3 | Responsibility: CONTRACTOR

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

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

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

☐ Special Provision

Non-Standard Commitment | NEPA Doc Ref: Page: 52 Paragraph: 1 | Responsibility: SCDOT/CONTRACTOR

Air Quality

The contractor(s) will ensure particulate matter emissions will be minimized by using fugitive dust control measures such as covering or treating disturbed areas with dust suppression techniques, sprinkling, covering loaded trucks, and other dust abatement controls, as appropriate.
Construction-related Mobile Source Air Toxics (MSAT) emissions will be minimized by using low emission diesel fuel for non-road diesel construction equipment. Provisions will be included in project plans and specifications requiring contractors to make every reasonable effort to minimize construction air quality impacts through abatement measures such as limiting construction equipment idling and other emission limitation techniques, as appropriate.
The contractor(s) will ensure that all construction equipment is properly tuned and maintained. Idle time will be minimized to save fuel and reduce emissions. Water will be applied to control dust impacts off site.

☒ Special Provision

USTs/Hazardous Materials | NEPA Doc Ref: Page: 56 Paragraph: 1 | Responsibility: SCDOT/CONTRACTOR

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

☐ Special Provision

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LIST OF ACRONYMS

A

AADT	Average Annual Daily Traffic
ACE	Agency Coordination Effort
APE	Area of Potential Effect
ASTM	American Society for Testing and Materials

B

BCM	Bureau of Coastal Management
BE	Biological Evaluation
BFE	Base Flood Elevation
BG	Block Group
BGEPA	Bald and Golden Eagle Protection Act
BMP	Best Management Practice

C

CAA	Clean Air Act
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CFR	Code of Federal Regulations
CLOMR	Conditional Letter of Map Revision
COG	Council of Governments
CWA	Clean Water Act of 1972

E

EA	Environmental Assessment
EB	Eastbound
E.O.	Executive Order
ESA	Endangered Species Act of 1973, as amended

F

FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FPPA	Farmland Protection Policy Act
FIRM	Flood Insurance Rate Map

I

I-26	Interstate 26
IF	Isolated Find

L

LEP	Limited English Proficiency
LOI	Letter of Intent
LOMR	Letter of Map Revision
LOS	Level of Service
LUST	leaking underground storage tank
LWCF	Land and Water Conservation Fund

M

MBTA	Migratory Bird Treaty Act
MM	Mile Marker
mph	Miles Per Hour
MS4	Municipal Separate Storm Sewer System
MSAT	Mobile Source Air Toxics

N

NAC	Noise Abatement Criteria
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act of 1966, as amended
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NRI	Nationwide Rivers Inventory
NRTM	Natural Resource Technical Memorandum
NSA	Noise Sensitive Area

P

PIM	Public Information Meeting
PIP	Public Involvement Plan
PSA	Project Study Area

R

RCRA	Resource Conservation and Recovery Act of 1976
REC	Recognized Environmental Condition
ROW	right of way
RTIP	Rural Transportation Improvement Program

S

SARA	Superfund Amendments and Reauthorization Act of 1986
SCDES	South Carolina Department Environmental Services
SCDNR	South Carolina Department of Natural Resources
SCDOT	South Carolina Department of Transportation
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SPUI	Single Point Urban Interchange
STIP	Statewide Transportation Improvement Program

T

TMDL	Total Maximum Daily Load
TIP	Transportation Improvement Program

U

USACE	US Army Corps of Engineers
USC	US Code
USDA	US Department of Agriculture
USDOI	US Department of the Interior
USEPA	US Environmental Protection Agency
USFWS	US Fish and Wildlife Service
UST	Underground Storage Tank

V

VMT	Vehicle Miles Traveled
VPD	Vehicles Per Day

W

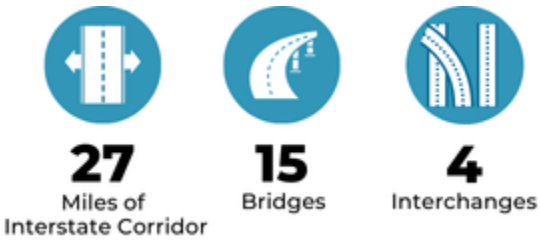
WB	Westbound
WOTUS	Waters of the United States
WRP	Wetland Reserve Program

1 PROJECT DESCRIPTION

The South Carolina Department of Transportation (SCDOT) in coordination with the Federal Highway Administration (FHWA) proposes corridor improvements along Interstate 26 (I-26) from mile marker (MM) 145 to MM 172 in Orangeburg and Dorchester Counties to improve capacity, mobility, and operations. The project includes the following elements: adding a travel lane in each direction of I-26 toward the existing median where possible, replacing overpass bridges (except S-50/Four Holes Road over I-26), addressing culverts and drainage, median clearing, barrier walls and cable guardrail installation, and improving the interchanges and ramps at Exits 149, 154, 159, and 165. The interchange between I-26 and I-95 is excluded from this project and is being improved via a separate project.

The project will be implemented in two phases:

- **Phase 1** (SCDOT Project ID P041967) includes I-26 from the eastern limits of the interchange with US 601 (Exit 145) through the interchange with US 301 (Exit 154).
- **Phase 2** (SCDOT Project ID P042454) includes I-26 from the eastern limits of the interchange with US 301 (Exit 154) to the western limits of the interchange with US 15 (Exit 172).



Where necessary to accommodate the widening of I-26, existing overpass structures outside of the interchanges will be replaced providing the required vertical clearance and meeting clear zone requirements. These overpass locations include the following roadways S-29 (Belleville Road), S-65 (Gramling Road), S-470 (Old Elloree Road), S-196 (Big Buck Boulevard), S-1303 (Log Cabin Road), S-692 (Arista Road), S-92 (Ebenezer Road), and L-337 (Weathers Farm Road). The I-26 bridges over Cow Castle Creek will also be replaced.

This Environmental Assessment (EA) has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended, and applicable FHWA regulations (23 Code of Federal Regulations (CFR) Part 771) and guidance (Technical Advisory T6640.8A).

1.1 Project Study Area

I-26 is a major east-west corridor that runs in a southeast direction through Tennessee, North Carolina, and South Carolina and terminates at US 17 in Charleston, SC. In the project study area (PSA), I-26 connects Orangeburg and Dorchester counties to the major South Carolina metropolitan centers of Greenville, Spartanburg, Columbia, and Charleston. The PSA is approximately 27 miles long, beginning just east of Exit 145 and extending to west of Exit 172 (**Figure 1**). I-26 in the PSA is a four-lane median divided freeway with a posted speed limit of 70 miles per hour (mph). I-26 is classified as an Urban-Principal Arterial-Interstate from the east end of the PSA to Exit 149 (SC 33). East of Exit 149, the corridor is classified as a Rural-Principal Arterial-Interstate.

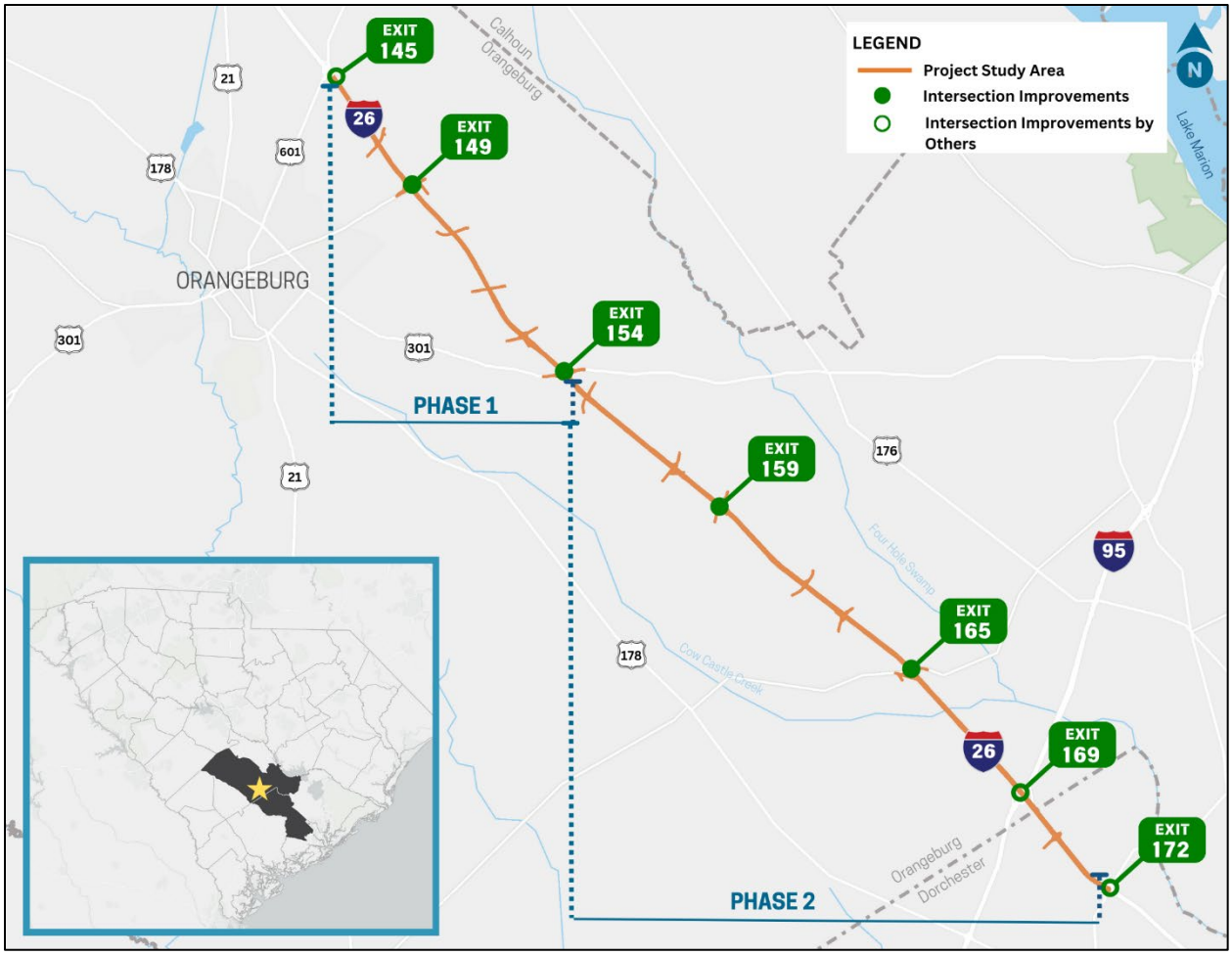


Figure 1: I-26 Corridor Improvements Project MM 145-172

In the vicinity of the PSA, several sections of I-26 have been or are currently being improved to increase capacity and meet current FHWA and SCDOT design standards for interstates and interchanges. The following projects are ongoing on I-26 adjacent to the PSA:

- **I-26 Corridor Improvements MM 137 to 145** - SCDOT, as part of Project P011967, proposes corridor improvements to I-26 between MM 137 and 145 from four lanes to six lanes and converted the US 301 interchange (Exit 145) from existing partial cloverleaf to traditional diamond configuration. These improvements are included as part of No Build and Build condition analysis of the I-26 Improvements Project MM 145-172.
- **I-26 Interchange Improvements at I-95** - SCDOT, as part of Project P038677, proposes reconstruction of existing interchange at I-26 and I-95 (Exit 169 (I-26) & Exit 86 (I-95)), including full reconstruction of current ramps and acceleration and deceleration lane tie-ins with mainlines of both I-26 and I-95. This will also include replacement of the bridge on S-38-1302 (Whetsell Pond Rd) over I-26. This project is currently under construction.

- **I-26 Corridor Improvement MM 172 to 187 -** SCDOT is proposing improvements to I-26 between MM 172 and 187, including widening and interchange improvements, with construction projected to start in spring 2027.

1.2 Logical Termini & Independent Utility

FHWA regulations outline three general principles in 23 CFR 771.111(f) that are to be used to frame a highway project:

- Connect logical termini and be of sufficient length to address environmental matters on a broad scope;
- Have independent utility or independent significance, i.e., be usable and a reasonable expenditure even if no additional transportation improvements in the area are made; and,
- Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

Logical termini are defined as (1) rational end points for transportation improvement, and (2) rational end points for a review of the environmental impacts. As noted above, SCDOT is currently implementing other projects to improve the I-26 corridor, including improvements from MM 137 to 145 and from MM 172 to 187. These projects include adding general purpose lanes to increase capacity and reduce congestion, as well as interchange modifications. The I-26 Corridor Improvement Project MM 145-172 represents the remaining segment of the I-26 corridor that would be four lanes between Columbia and Charleston. Therefore, the proposed project would complete the continuous six-lane interstate for the I-26 corridor.

Independent utility means that proposed improvements can function as stand-alone improvements without forcing other improvements which may have impacts. Proposed improvements on I-26 between MM 145 and MM 172 would have independent utility, as they would be usable and reasonable improvements, and provide measurable benefits, even if no additional transportation improvements are made beyond these project limits. This section of I-26 experiences moderate levels of congestion today, and congestion would continue to worsen through the 2050 design year if no improvements are made. Providing improved traffic flow and reduced congestion on this section of I-26 would be a worthwhile investment even if no other transportation improvements were made.

This project would not restrict the consideration of alternatives for foreseeable transportation improvements on other segments of I-26 or other proposed projects in the area in the future.

1.3 Reasonable Availability of Funding

The funding for this project is included in the SCDOT 2024-2033 State Transportation Improvement Program (STIP)[1] as projects P041967 (Orangeburg County) and P042454 (Orangeburg and Dorchester Counties):

- P041967: I-26 Corridor Improvement from Exit 145 (US 601-St Matthews Rd) to Exit 154 with funding of $320,000,000 in Fiscal Years 2024-2033
- P042454: I-26 Corridor Improvement from Exit 154 to MM172 with funding of $310,540,000 in Fiscal Years 2024-2033

[1] SCDOT. 2024-2033 State Transportation Improvement Program. https://estip.apps.scdot.org/home/main

The project is also listed in the Lower Savannah Council of Governments (COG) 2024-2033 Transportation Improvement Program (TIP).[2] P041967 notes $30,000,000 from the previous TIP and $538,071,000 in Fiscal Years 2024-2033, while P042454 includes $57,200,000 from the previous TIP and no funding indicated in Fiscal Years 2024-2033.

P042454 is also noted in the Berkeley-Charleston-Dorchester 2024-2033 Rural Transportation Improvement Program (RTIP)[3] with a total project cost of $325,540,000.

[2] Lower Savannah Council of Governments. FY2024-2033 Transportation Improvement Program. https://static1.squarespace.com/static/57e557e0bebafb38f5b22bad/t/670440889fd4a801b293433e/1738261307344/2024-2033+LSCOG+TIP.pdf

[3] Berkeley-Charleston-Dorchester Council of Governments. 2024-2033 Rural Transportation Improvement Program. https://bcdcog.com/rtip/

2 PURPOSE AND NEED

2.1 Project Purpose

The purpose of the project is to increase capacity within the project study limits to alleviate existing and future congestion, address geometric deficiencies along I-26 and at the interchanges by bringing them up to current interstate design standards, and improve corridor safety by addressing deficiencies that contribute to the corridor's crash rate (**Figure 2**).

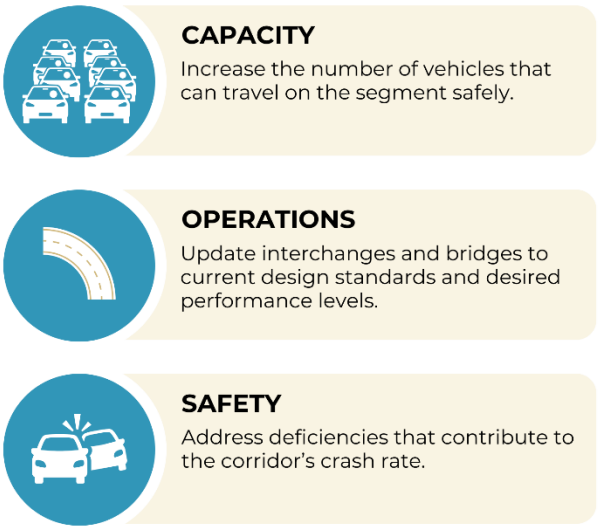


Figure 2: Project Need

2.2 Project Need

Improvements are needed to address:

- existing and future congestion due to insufficient capacity on I-26
- operational issues and safety concerns caused by geometric deficiencies that do not meet current standards at interchanges

2.2.1 Existing and Projected Traffic Volumes

Traffic volumes along I-26 and its interchanges in the PSA were evaluated for the existing (2024) and future (2050) no-build conditions. Current Annual Average Daily Traffic (AADT) on I-26, reported by SCDOT, varies within the PSA. West of I-95, AADT ranges from 56,200 vehicles per day (vpd) to 53,700 vpd, while AADT east of I-95 ranges between 45,400 vpd to 44,100 vpd. An annual growth rate of 3 percent was used to calculate projected traffic volumes in the PSA by the design year (2050). By 2050, AADT is expected to grow to 124,800 to 119,300 vpd west of I-95 and 100,800 to 98,000 vpd east of I-95.[4] Trucks comprise approximately 30 percent of total daily traffic.

[4] JMT. 2025. Volume Development Report, I-26 Widening Project MM145-172. (Appendix A-1)

2.2.2 I-26 Mainline Capacity and Performance

Traffic performance is measured by Level of Service (LOS). LOS is an industry standard measurement that is based on either time of delay (for intersections) or traffic density (for roadway segments), which is measured in passenger cars per lane per mile (pc/ln/mi) for roadway segments. Poor LOS ratings are caused by a high density of traffic on the road or excessive delay at the intersections. The LOS range is from A to F, with free flow conditions represented by LOS A, and LOS F representing congested conditions with slower speeds and severely restricted ability to change lanes (**Figure 3**).

Existing and future conditions on roadway segments along I-26 were evaluated. As shown in **Figure 4** and **Figure 5**, I-26 operates relatively well today; however, without improvements, conditions will worsen substantially in the future. Currently, all segments of I-26 between MM 145 and MM 172 operate at LOS C or better during the AM peak hour. During the PM peak hour, 16 of 49 segments operate at LOS C or better, while 32 segments operate at LOS D, and one segment is LOS E. In the future, traffic operations are anticipated to decline in both the AM and PM peak hours, with 41 of 49 segments failing with LOS F in the AM peak and 46 segments failing in the PM peak.[5]

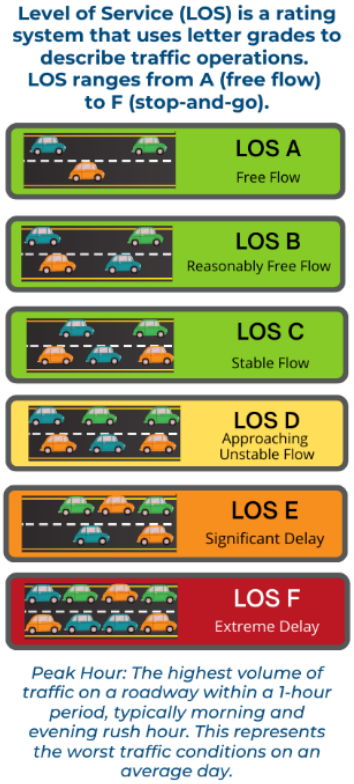


Figure 3: Level of Service Visual

[5] JMT. 2025. Traffic Analysis Report, I-26 Widening Project MM145-172. (Appendix A-2)

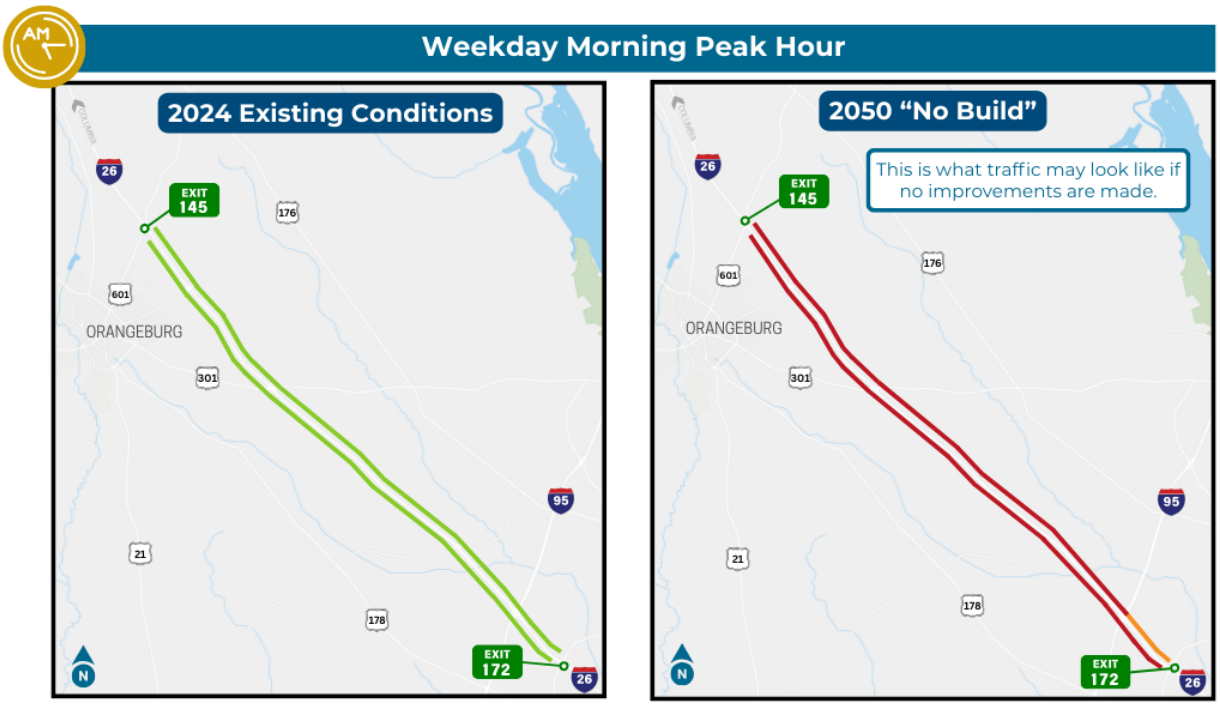


Figure 4. Existing and Future No-Build AM Peak Level of Service

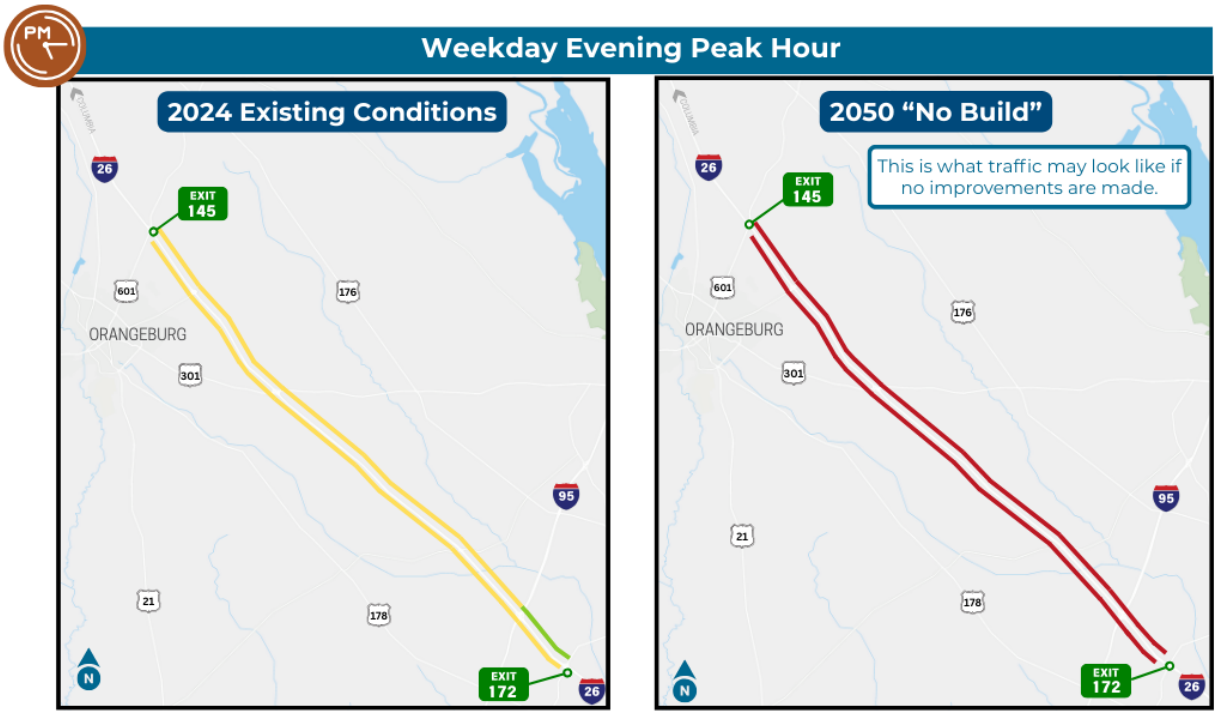
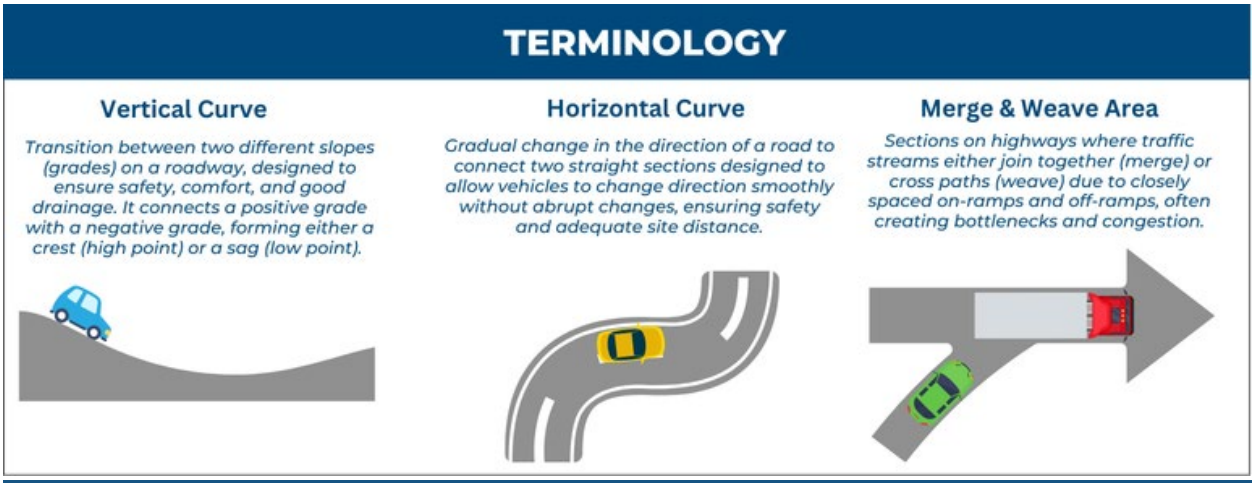


Figure 5. Existing and Future No-Build PM Peak Level of Service

2.2.3 Geometric Deficiencies

The I-26 mainline, overpasses, and four interchanges within the PSA were evaluated to identify existing geometric deficiencies that contribute to operational and safety issues.[6]



I-26 Mainline

Overall, the I-26 mainline meets current design standards; however, three vertical curves are substandard.

Overpasses

Several overpass bridges have deficient vertical alignments with grades that are too steep for the design speeds. These include:

- S-29 (Belleville Road)
- S-65 (Gramling Road)
- S-470 (Old Elloree Road)
- S-196 (Big Buck Boulevard)
- S-1303 (Log Cabin Road)
- L-337 (Weathers Farm Road)

[6] Michael Baker International. 2024. I-26 Widening from MM145-MM172 Existing Design Deficiency Memorandum. (Appendix A-3)

Exit 149 (SC 33/Cameron Road and CSX Railroad)

SC 33 is a four-lane undivided roadway classified as a major collector. It has a posted speed limit of 55 mph and carries approximately 4,800 vpd in the vicinity of the I-26 interchange. The interchange is a partial cloverleaf design. Several geometric and operational issues were identified along the SC 33 corridor and at the interchange, as shown in **Figure 6**. The spacing between the frontage roads (Monticello Road and Assembly Hall Way) and the outer ramps do not meet current SCDOT standards. In addition, the loop ramps are connected by a short auxiliary lane that functions as a weave/merge section that is too short. The horizontal curves on the ramps also do not meet the design speed.

Figure 6. Exit 149 (SC 33/Cameron Road and CSX Railroad) - Existing Conditions

Exit 154 (US 301/Five Chop Road)

US 301 is a four-lane, median-undivided roadway classified as a principal arterial, with approximately 15,500 vpd. The posted speed limit along US 301 is 45 mph. The US 301 interchange with I-26 is a full cloverleaf configuration with single-lane ramps and loops, as shown in **Figure 7**. There are multiple closely spaced driveways, particularly west of I-26, that do not meet current SCDOT standards. The loop ramps are connected by a short auxiliary lane that functions as a weave section, creating conflicts between vehicles attempting to merge to or from US 301. In addition, the ramps and loops include curves that do not meet the design speed.

Figure 7. Exit 154 (US 301/Five Chop Road) – Existing Conditions

Exit 159 (S-36/Homestead Road)

Homestead Road is a two-lane, undivided roadway classified as a rural major collector, with approximately 1,300 vpd. The posted speed limit is 45 mph. The interchange is a traditional diamond configuration with single-lane ramps and stop-controlled intersections. Several nearby intersections do not meet current SCDOT spacing requirements. Geometric deficiencies and safety issues are shown in **Figure 8**.

Figure 8. Exit 159 (S-36/Homestead Road) – Existing Conditions

Exit 165 (SC 210/Vance Road)

SC 210 is a two-lane, undivided roadway classified as a rural major collector, with a posted speed limit of 55 mph, and approximately 1,550 vpd. The interchange is a diamond configuration with single-lane ramps and stop-controlled intersections at the ramp terminals. Similar to Exit 159, numerous driveways that are too closely spaced to the ramp terminals and to other driveways. Geometric deficiencies and safety issues are shown in **Figure 9.**

Figure 9. Exit 165 (SC 210/Vance Road) – Existing Conditions

2.2.4 Crashes

Crash data from 2021 through 2023 along the I-26 mainline, interchanges, and crossroads was used to conduct a safety analysis for the PSA.[5] During the three-year period, 1,056 crashes were reported. The highest number of crashes occurred in 2021, with 380 crashes (36 percent of the total). More than half of all crashes occurred between Friday and Sunday, and most occurred during daytime hours and under dry roadway conditions.

The most common crash type (approximately 40 percent) was run-off-the-road, which occurs when vehicles lose control and exit the roadway, generally attributed to speeding or driving too fast for conditions. Rear end crashes, which are indicative of severe congestion resulting in sudden speed reduction, accounted for another 35 percent of crashes. Sideswipe and angle crashes, which typically involve lane changes and merging/weaving movements, made up about 20 percent of crashes.

Throughout the study period, 10 fatal crashes, 12 serious injury crashes, and 42 minor injury crashes occurred within the PSA. Among the interchanges within the PSA, the highest number of crashes occurred near the US 301 interchange, with 60 crashes. There were two crashes on SC 33, 11 on Homestead Road, and four on Vance Road.

3 ALTERNATIVES

This chapter describes the process used to develop and evaluate alternatives for the proposed project. The alternatives analysis included the development of conceptual designs, assessment of preliminary alternatives, and selection of the Preferred Alternative. A No-Build Alternative, which assumes that no improvements would be made, was included to provide a baseline for comparison.

The alternatives were developed using conceptual-level designs for the I-26 mainline widening, overpass roadways, and interchange modifications within the project corridor. As part of this process, proposed design criteria and typical sections were prepared, along with horizontal and vertical design layouts. Input received during the public involvement process, including input from stakeholders and agencies, were incorporated throughout the development of the alternatives.

No-Build Alternative

The No-Build Alternative represents the existing conditions and no changes to those conditions. While the No-Build Alternative would have none of the impacts associated with the construction of a build alternative, it would not meet the purpose and need of the project. The No-Build Alternative provides a baseline for comparing potential benefits and environmental impacts with the other alternatives.

3.1 I-26 Mainline Widening

All mainline widening alternatives involved widening I-26 from four to six lanes by adding one eastbound (EB) and one westbound (WB) travel lane. All typical sections include 12-foot-wide travel lanes, paved inside and outside shoulders, and either a grass median with cable barrier or a paved median with concrete median barrier (**Figure 10**).

Widening options generally include:

- widening to the inside
- widening to the inside with a median barrier
- widening to the outside

The existing median varies from 30 feet to 90 feet in width. In areas with a narrower median, widening to the inside would not allow for full shoulder widths. Therefore, widening to the inside for the length of the project is not a reasonable alternative. Widening to the outside for the length of the project would have increased impacts to natural resources, as well as require additional work at interchanges and longer overpass bridges, which would increase project cost. Therefore, this alternative is not reasonable.

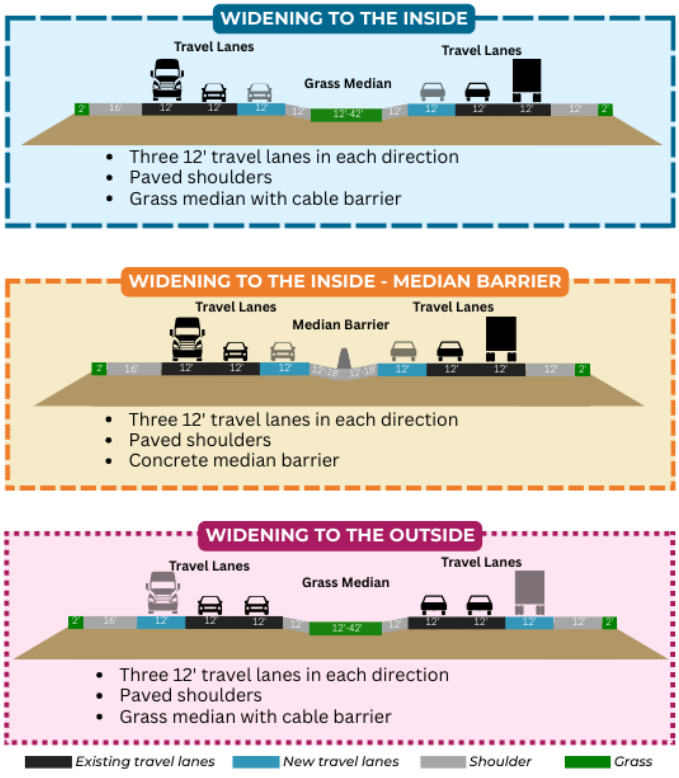


Figure 10: I-26 Mainline Typical Sections

Three combinations of widening to the inside and widening to the outside based on existing median width were initially evaluated conceptually, as described in **Table 1**. These alternatives focus on using the existing median as much as possible to take advantage of existing right-of-way (ROW) and minimize fill impacts to jurisdictional features (wetlands and streams) along the corridor.

Table 1: I-26 Mainline Widening Alternatives

Mainline Alternative	Description	Decision
Alt 1	Widens into the median where width allows; widens symmetrically from the existing centerline in areas where the median width is too narrow to accommodate widening. This alternative would be the most expensive to construct.	Eliminated due to constructability and maintenance of traffic concerns and cost
Alt 2	Widens into the median where width allows; widens symmetrically from the existing median centerline by relocating EB and WB centerlines to provide new 10-foot inside paved shoulders	Eliminated due to insufficient width to accommodate median barrier and paved inside shoulders, safety concerns, and higher construction cost
Alt 3	Widens into the median where width allows; maintains EB centerline and relocates WB centerline in areas where the median width is too narrow to accommodate widening. This matches the proposed typical section used west of MM 145.	Moved forward for additional development
Alt 4	Widens into the median where width allows; widens symmetrically from the existing median centerline by relocating EB and WB centerlines to provide new 12-foot inside paved shoulders	Eliminated due to insufficient width to accommodate median barrier and paved inside shoulders, safety concerns, and higher construction cost
Alt 5	Widens into the median where width allows; maintains WB centerline and relocates EB centerline in areas where the median width is too narrow to accommodate widening.	Eliminated due to constructability and maintenance of traffic concerns

Mainline Alternative 3 was further evaluated in the vicinity of MM 153, just east of the S-50/Four Holes Road overpass where there is a cemetery in the existing I-26 median (**Table 2**).

Table 2: I-26 Mainline Widening Alternatives – Cemetery Concepts

Mainline Alternative	Description	Decision
Alt 3	Cemetery Concept 3 maintains the existing EB and WB centerlines while widening to the existing median. This concept partially impacts the cemetery boundary as surveyed and is anticipated to include the least impacts to wetlands. No additional ROW along mainline I-26 is expected to be needed for this option.	Eliminated due to cemetery impacts

Mainline Alternative	Description	Decision
Alt 3B	Widens to the outside in the vicinity of S-50 (Four Hole Road) to avoid impacts to the cemetery. It is anticipated that new ROW will be required for this concept and there may be impacts to wetlands.	Selected as preferred Mainline Alternative concept
Alt 3C	Relocates both EB and WB centerlines removing the existing reverse curvature on I-26 in the vicinity of the cemetery and provides a uniform typical section. This alternative would require the complete relocation of the cemetery and impact median wetlands but does not require additional ROW.	Eliminated due to impacts to cemetery and wetlands

Mainline Alternative 3B was selected as the preferred concept and includes a combination of widening to the inside, widening to the inside with median barrier, and widening to the outside as determined by the existing median width. It is expected that widening to the inside with median barrier would occur from MM 145 to MM 153, from MM 154 to MM 155, and from MM 165 to MM 166; widening to the outside would occur in the vicinity of MM 153 to avoid the median cemetery; and widening to the inside would occur from MM 155 to MM 165 and from MM 166 to MM 172, as shown in **Figure 11**.

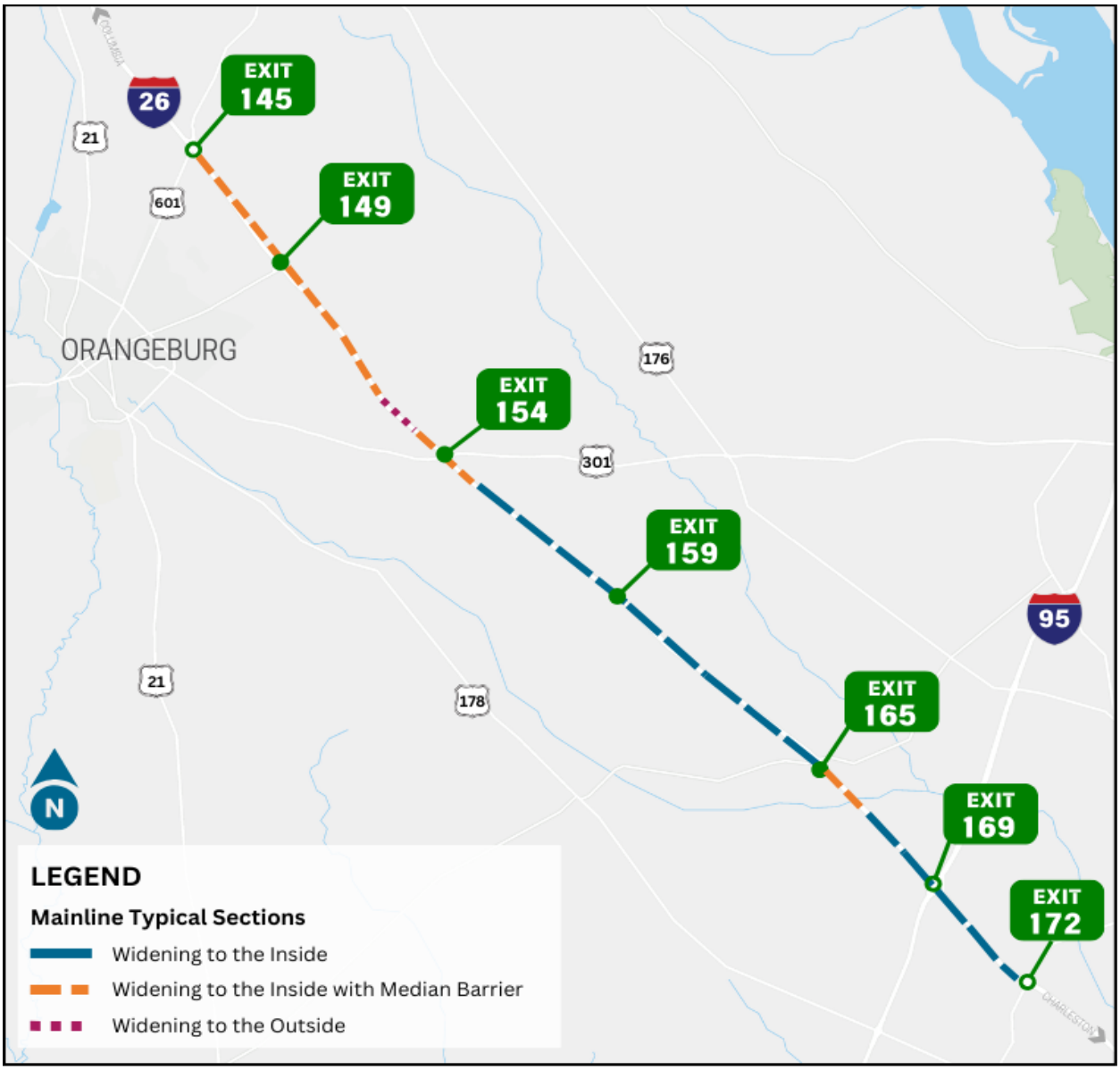


Figure 11. Mainline Widening Preferred Alternative Concept

3.2 Interchanges

As noted, all of the interchanges have geometric deficiencies and safety concerns, including horizontal and/or vertical alignments that do not meet standards, insufficient spacing between intersections and driveways, merge and weave areas that are too short, and sight distance issues. The interchanges at Exit 149, Exit 159, and Exit 165 do not currently have, nor are they expected to have, operational or LOS issues; therefore, alternative concepts focus on correcting geometric and safety issues. The Exit 154 (US 301) interchange does have operational issues that were considered in the development of alternative concepts.

Alternative concepts were developed and evaluated for each interchange. All concepts were developed to current SCDOT design standards. Each concept was evaluated qualitatively for safety and geometric improvements. The qualitative evaluation is described in detail in the *Traffic Analysis Report*[5] in **Appendix A-2**. In the case of the Exit 154 (US 301) interchange, the qualitative evaluation did not reveal a preferred option; therefore, a secondary quantitative evaluation of potential impacts and cost was completed.

3.2.1 Exit 149 (SC 33/Cameron Road and CSX Railroad)

Three alternatives were considered for this interchange, as shown in **Table 3**. This interchange is currently constrained by the railroad, which parallels SC 33 to the east; therefore, all three alternatives are modifications of the existing partial cloverleaf interchange with all movements on the west side of SC 33.

Table 3: Exit 149 Interchange Alternative Concepts

Alternative	Description	Qualitative Evaluation Pros (+) and Cons (-)
Alt 1	Modify existing ramps ▪ Modifies existing partial clover configuration to meet current design speed requirements and tie to mainline widening ▪ Adds auxiliary lanes on SC 33 ▪ Shifts Monticello Road and Assembly Hall Way intersections away from ramp terminals	+ Traffic operations at LOS B or better + Improves intersection spacing + Constructable + Maintains most free-flow movements - Requires additional ROW - Reduces loop ramp radius
Alt 2	Relocated ramps ▪ Shortens the distance between the ramp terminal intersections ▪ Shifts Assembly Hall Way and Monticello Road intersections away from ramp to meet SCDOT standards	+ Traffic operations at LOS B or better + Maintains similar interchange configuration - Intersection spacing does not meet SCDOT spacing requirements - Reduces loop ramp radius
Alt 3	Relocated ramps to frontage roads ▪ Relocates ramps to use Assembly Hall Way and Monticello Road instead of directly accessing SC 33 ▪ Adds stop control at SC 33 intersections	+ Traffic operations at LOS B or better + Improves intersection spacing + Moves ramps away from railroad + Maintains adequate loop radius - Requires more additional ROW than other alternative concepts - I-26 traffic does not access SC 33 directly - Requires upgrades to service roads

The existing CSX railroad that parallels SC 33 limits the range of alternative concept designs that could be implemented for the interchange. Based on the qualitative evaluation, Alternative Concept 1 was selected as the preferred concept (**Figure 12**). Alternative 2 was eliminated due to the failure to meet SCDOT spacing requirements, making the deciding factor between Alternatives 1 and 3 the amount of ROW required for each. This concept maintains the existing partial clover configuration but modifies it to meet current design standards for design speeds and intersection spacing.

Figure 12. Exit 149 (SC 33/Cameron Road) – Preferred Alternative Concept

3.2.2 Exit 154 (US 301/Five Chop Road)

Four alternative concepts were developed for the I-26 and US 301 interchange. To improve traffic operations and safety, none of the alternative concepts retained the full cloverleaf configuration. Two alternatives included partial cloverleaf designs, and two alternatives included diamond interchange configurations, as described in **Table 4.**

Table 4: Exit 154 Interchange Alternative Concepts

Alternative	Description	Qualitative Evaluation Pros (+) and Cons (-)
Alt 1A	Partial cloverleaf interchange ▪ Maintains existing I-26 WB off-loop to US 301 and converts other movements to new ramps ▪ Eliminates intersection of US 301 and All American Lane and cul de sacs All American Lane ▪ Includes signalized intersections at both ramp intersections ▪ Shifts Hooligan Way intersection to the north to increase spacing to I-26 WB ramps ▪ Adjusts Days Inn by Wyndham driveway to right-in/right-out ▪ Relocates US 301 to allow for stage constructed bridge over I-26	+ Traffic operations at LOS B or better + Removes weaving on I-26 + Improves intersection spacing + Improves merging on to US 301 + Eliminates some loop ramps - Requires 5-lane bridge - Challenging maintenance of traffic during construction - Creates additional at-grade intersections on US 301 which could lead to more crashes - Introduces signals and intersection delay - Closes All American Lane
Alt 1B	Partial cloverleaf interchange ▪ Maintains existing I-26 WB off-loop and I-26 EB off-loop to US 301 and converts other movements to new ramps ▪ Eliminates intersection of US 301 and All American Lane and cul de sacs All American Lane ▪ Shifts Hooligan Way intersection to the north to increase spacing to I-26 WB ramps ▪ Adjusts Days Inn by Wyndham driveway to right-in/right-out ▪ Relocates US 301 to allow for stage constructed bridge over I-26	+ Traffic operations at LOS B or better + Removes weaving on I-26 + Improves intersection spacing + Improves merging on to US 301 + Eliminates some loop ramps - Requires 5-lane bridge - Challenging maintenance of traffic during construction - Creates additional at-grade intersections on US 301 - Closes All American Lane
Alt 2	Diamond interchange with roundabouts ▪ Shifts Hooligan Way intersection to the north to increase spacing to I-26 WB ramps ▪ Includes roundabouts at ramp intersections ▪ Eliminates intersection of US 301 and All American Lane and cul de sacs All American Lane ▪ Relocates US 301 to allow for stage constructed bridge over I-26	+ Traffic operations at LOS B or better + Removes weaving on I-26 + Improves intersection spacing + Improves merging on US 301 + Improves traffic flow compared to traditional interchange + Eliminates all loop ramps - Requires 5-lane bridge (though narrower than Alternatives 1A and 1B) - Challenging maintenance of traffic during construction - Initial driver confusion - Closes All American Lane

Alternative	Description	Qualitative Evaluation Pros (+) and Cons (-)
Alt 3	Diamond interchange ▪ Shifts Hooligan Way intersection to the north to increase spacing to I-26 WB ramps ▪ Includes signalized intersections at ramp intersections ▪ Eliminates intersection of US 301 and All American Lane and cul de sacs All American Lane ▪ Relocates US 301 to allow for stage constructed bridge over I-26	+ Traffic operations at LOS C or better + Removes weaving on I-26 + Improves intersection spacing + Eliminates all loop ramps - Requires 5-lane bridge - Introduces signals and intersection delay - Closes All American Lane

All of the alternative concepts had similar traffic operations and qualitative features. Therefore, preliminary estimates of ROW impacts and cost were developed and compared. Based on this secondary evaluation, Alternative Concepts 1A and 1B would result in additional ROW impacts and up to two commercial relocations. Alternative Concept 3, the traditional diamond interchange, had higher construction cost, but lower ROW and utility impacts. It is anticipated the savings associated with reduced ROW requirements and reduced utility impacts would offset the higher construction costs. Alternative Concept 2, which includes a diamond interchange with roundabouts at the ramp intersections, would have higher impacts and cost than Alternative Concept 3. Therefore, Alternative Concept 3 was selected as the preferred concept (**Figure 13**).

Figure 13. Exit 154 (US 301) – Preferred Alternative Concept

3.2.3 Exit 159 (S-36/Homestead Road)

Three interchange concepts were developed for Exit 159, as shown in **Table 5**.

Table 5: Exit 159 Interchange Alternative Concepts

Alternative	Description	Qualitative Evaluation Pros (+) and Cons (-)
1	Modify existing diamond interchange ▪ Maintains existing diamond configuration ▪ Eliminates southernmost access to Pilot Gas station from Homestead Road ▪ Relocates frontage road south of I-26 to increase spacing between ramps and intersection	+ Traffic operations at LOS B or better + Improves intersection spacing + Constructable
2	Diamond interchange with roundabouts ▪ Maintains existing diamond configuration ▪ Includes roundabouts at ramp intersections ▪ Eliminates southernmost access to Pilot Gas station from Homestead Road ▪ Relocates frontage road south of I-26 to increase spacing between ramps and intersection	+ Traffic operations at LOS B or better + Improves intersection spacing + Constructable - Requires additional ROW
3	Single Point Urban Interchange ▪ Converts to SPUI type interchange ▪ Installs full traffic signal at SPUI ▪ Eliminates southernmost access to Pilot Gas station from Homestead Road ▪ Relocates frontage road south of I-26 to increase spacing between ramps and intersection	+ Traffic operations at LOS B or better + Improves intersection spacing - Challenging maintenance of traffic during construction - Higher cost

The selected concept is Alternative Concept 1, which maintains the existing diamond configuration with improvements to correct geometric deficiencies and intersection spacing, requires less ROW, and has a lower associated cost (**Figure 14**).

Figure 14. Exit 159 (S-36/Homestead Road) – Preferred Alternative Concept

3.2.4 Exit 165 (SC 210/Vance Road)

Two alternatives were evaluated for the I-26 and SC 201 interchange, both of which maintained the existing diamond configuration, as shown in **Table 6**.

Table 6: Exit 165 Interchange Alternative Concepts

Alternative	Description	Qualitative Evaluation Pros (+) and Cons (-)
1	Modify existing diamond interchange ▪ Maintains existing diamond configuration	+ Traffic operations at LOS B or better + Improves intersection spacing + Constructable
2	Diamond interchange with roundabouts ▪ Maintains existing diamond configuration ▪ Includes roundabouts at ramp intersections	+ Traffic operations at LOS B or better + Improves intersection spacing + Constructable - Requires additional ROW

Alternative Concept 1 was selected as the preferred concept (**Figure 15**). It maintains the existing diamond interchange configuration with improvements to alignments and intersection spacing to meet current standards, requires less ROW, and has a lower associated cost.

Figure 15. Exit 165 (SC 210/Vance Road) – Preferred Alternative Concept

3.3 Preferred Alternative

The Preferred Alternative includes the following:

- Mainline Widening Alternative 3B: Combination of widening to the inside, widening to the inside with median barrier, and widening to the outside
- Exit 149 Alternative Concept 1: Modify existing partial cloverleaf interchange
- Exit 154 Alternative Concept 3: Diamond interchange
- Exit 159 Alternative Concept 1: Modify existing diamond interchange
- Exit 165 Alternative Concept 1: Modify existing diamond interchange

Where necessary to accommodate the widening of I-26, existing overpass structures outside of the interchanges will be replaced providing the required vertical clearance and meeting clear zone requirements. These overpass locations include the following roadways S-29 (Belleville Road), S-65 (Gramling Road), S-470 (Old Elloree Road), S-196 (Big Buck Boulevard), S-1303 (Log Cabin Road), S-692 (Arista Road), S-92 (Ebenezer Road), and L-337 (Weathers Farm Road). The I-26 bridges over Cow Castle Creek will be replaced, and culverts throughout the corridor will be extended as part of the mainline widening.

The following bridge replacements will be constructed using staged construction (bridge remains open throughout construction) to maintain traffic:

- I-26 over SC 33/Cameron Road and CSX Railroad
- US 301/Five Chop Road over I-26
- S-36/Homestead Road over I-26
- SC 210/Vance Road over I-26
- I-26 over Cow Castle Creek
- L-337/Weathers Farm Road over I-26

Other overpass bridges will be closed during construction so that they can be replaced in their existing location and traffic will be routed to a detour. To maintain connectivity throughout the PSA, these bridges will be replaced in groups so that adjacent bridges are not closed at the same time. **Figure 16** shows construction phasing for bridges and overpasses.

Figure 16. Preferred Alternative

4 EXISTING CONDITIONS AND ENVIRONMENTAL IMPACTS

This Chapter describes the existing conditions of applicable environmental resources within the PSA and identifies the environmental impacts that would occur because of the No-Build Alternative or construction of the Preferred Alternative. **Figure 24 A-O**, located at the end of this chapter, shows the existing conditions and environmental impacts within and adjacent to the PSA.

On January 20, 2025, President Trump signed Executive Order (E.O.) 14148, Initial Rescissions of Harmful Executive Orders and Actions, and E.O. 14154, Unleashing American Energy. The E.O.s revoked E.O. 13990, Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis (January 20, 2021), and E.O. 14008, Tackling the Climate Crisis at Home and Abroad (January 27, 2021). Subsequently, on January 29, 2025, Secretary Duffy signed a Memorandum for Secretarial Offices and Heads of Operating Administrations, Implementation of Executive Orders Addressing Energy, Climate Change, Diversity, and Gender. On February 25, 2025, the Council on Environmental Quality (CEQ) published an Interim Final Rule removing the CEQ's NEPA implementing regulations, effective April 11, 2025 (90 Fed. Reg. 10610). As a result of these actions, the FHWA will not include greenhouse gas emissions and climate change analyses in the federal environmental review process. Any purported greenhouse gas emissions and climate change impacts will not be considered in the federal decision. Accordingly, no greenhouse gas emissions or climate change analyses are included in this EA.

On January 20, 2025, President Trump signed E.O. 14148, Initial Rescissions of Harmful Executive Orders and Actions, and E.O. 14154, Unleashing American Energy. The E.O.s revoked E.O. 14096, Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently, on January 21, 2025, President Trump signed E.O. 14173, Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This E.O. revoked E.O. 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). On February 25, 2025, the CEQ published an Interim Final Rule removing the CEQ's NEPA implementing regulations, effective April 11, 2025 (90 Fed. Reg. 10610). As a result of these actions, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, Federal Transit Administration, and Federal Railroad Administration's Joint NEPA regulations (23 CFR 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this EA. Any purported environmental justice impacts will not be considered in the federal decision. Social, economic, and community impacts will continue to be disclosed, where applicable, in accordance with 23 CFR 771.

Table 7 references the section for each resource evaluated as part of this EA and associated technical memoranda where additional details can be found. For this EA, impacts have been evaluated based on proposed ROW limits established for conceptual designs for the mainline widening, interchange improvements, and overpasses. For some resources, such as wetlands and waters of the US, impacts will decrease as designs progress and construction limits are defined within the ROW. Therefore, impacts presented in this EA represent the maximum potential impacts of the Preferred Alternative.

Table 7: Resources Considered for this Environmental Assessment

Resource	Summary of Findings/ Section Reference
Land Use	See Section 4.1
Acquisitions / Displacements	See Section 4.2 and Appendix B
Community Demographics & Socioeconomics	See Section 4.3
Noise Analysis	See Section 4.4 and Appendix C
Cultural Resources	See Section 4.5 and Appendix D
Section 4(f)	See Section 4.6.1
Section 6(f)	See Section 4.6.2
Water Quality	See Section 4.7 and Appendix E
Wild and Scenic Rivers	See Section 4.8
Floodplains	See Section 4.9 and Appendix F
Wetlands and Waters of the United States	See Section 4.10
Protected Species	See Section 4.11 and Appendix G
Air Quality / Mobile Source Air Toxics	See Section 4.12 and Appendix H
Farmlands	See Section 4.13 and Appendix I
Underground Storage Tanks / Hazardous Materials	See Section 4.14 and Appendix J

4.1 Land Use

The PSA is located in Orangeburg and Dorchester Counties in the Lowcountry region of South Carolina, approximately 4.5 miles east of downtown Orangeburg, centered along I-26. According to the Orangeburg County and Dorchester County comprehensive plans, land uses within the PSA include Agricultural, Woodland, Residential, Commercial, Industrial, and Vacant.[7,8] Residential and commercial properties are concentrated near the interstate interchanges, while agricultural and woodland areas are predominant along the I-26 corridor.

This segment of I-26 also plays a crucial role in supporting statewide commerce by providing vital connectivity to the Port of Charleston. The corridor facilitates the efficient transport of goods between inland areas of the state and the port, reinforcing its importance as a backbone for South Carolina's economic activity and infrastructure. Additionally, this stretch of I-26 serves as a vital hurricane evacuation corridor for the coastal region of the state, ensuring safe and effective passage for residents during emergencies.

[7] Orangeburg County. 2018 Comprehensive Plan. https://www.orangeburgcounty.org/DocumentCenter/View/435/Final-2018-Comprehensive-Plan-PDF

[8] Dorchester County. 2018 Comprehensive Plan. Reviewed and Updated for 2023. https://www.dorchestercountysc.gov/home/showpublisheddocument/25121/638687535052270000

4.1.1 No-Build Alternative

The No-Build Alternative would not impact land use within the PSA as there would be no improvements to the I-26 corridor. However, this alternative is not consistent with local plans intended to accommodate projected growth and anticipated future development along I-26.

4.1.2 Preferred Alternative

The Preferred Alternative would result in minimal changes to existing land uses by converting small areas of existing agricultural, woodland, commercial, and residential land to transportation ROW. These areas are scattered along the length of the corridor and in the vicinity of interchanges and overpasses. The project is not anticipated to alter the overall pattern, timing, or density of development within the area. The proposed project is consistent with the goals and policies of the Orangeburg County and Dorchester County comprehensive plans and is not in conflict with any existing land use or zoning regulations.

4.2 Acquisitions/Displacements

Land acquisition is the process of obtaining ownership of a piece of land. Displacement occurs when the acquisition of land directly impacts a home or business, requiring the person, family, or business owner to relocate.

4.2.1 No-Build Alternative

The No-Build Alternative would not involve any ROW acquisition that could result in the relocation or displacement of residents or businesses as there would be no improvements to the I-26 corridor.

4.2.2 Preferred Alternative

Most of the proposed project would be constructed within SCDOT's existing ROW, minimizing the need for additional land acquisition. Based on conceptual designs, approximately 120 acres of new ROW would be acquired, impacting portions of 144 parcels.

The Preferred Alternative would require the relocation of two residential homes located on Glenzell Road near the Gramling Road (S-38-65) overpass bridge (**Figure 23D**). These relocations are necessary because the new overpass bridge must be raised above the existing elevation, resulting in increased fill slopes that would encroach onto the properties. Both relocations are located within the Orangeburg County portion of the project at 709 Glenzell Road (parcel ID 0207-08-06-001.000) and 632 Glenzell Road (parcel ID 0207-08-05-006.000).

In addition, five business locations are proposed to have partial relocations. These include two gas stations where underground storage tanks (UST) would be impacted and three businesses that would either have storage buildings or equipment storage areas impacted:

- TEC Equipment Rental (163 Citadel Road, parcel ID 0181-08-01-001.000) – equipment storage
- RDB Communication (153 Citadel Road, parcel ID 0181-01-007.000) – storage building
- 7 Eleven Gas Station (3471 Five Chop Road, parcel ID 0236-00-05-023.000) – USTs
- BP Gas Station/Quick C Food Mart (5465 Vance Road, parcel 0276-00-05-001.000) – USTs
- Southeastern Building Supply (5448 Vance Road, parcel 0276-00-04-002.000) – storage area

Additionally, four billboards would be displaced. Billboards are treated as personal property for relocation purposes. No displacement of non-profits or farms would be required. Additional information is provided in the Relocation Impact Study[9] (**Appendix B**).

Displaced persons would be offered relocation assistance to move to areas at least as desirable as their original properties with respect to access to public utilities and commercial facilities. Rent and sale prices of replacement property offered to those displaced would be within financial means, and replacement property would be within reasonable access to displaced individuals' places of employment.

The SCDOT will acquire all new ROW and process any relocations in compliance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (42 USC 4601 et seq.). 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. In addition, SCDOT would provide relocation advisory assistance to all eligible persons without discrimination in accordance with Title VI of the Civil Rights Act of 1964 and Title VIII of the Civil Rights Act of 1968.

While this project may result in two residential displacements, it appears that comparable replacement housing could be located within the general area, zoning, and school district. It is believed that any relocations from the project would not cause long-term disruption to residents or businesses, nor would it disrupt or divide an established community.

4.3 Community Demographics & Socioeconomics

Demographic and economic conditions were examined using the 2013 and 2023 American Community Survey 5-year data from the US Census Bureau to look at trends over time while providing more recent context. Census tract block groups (BG) were used to identify populations within the PSA. A total of 10 BGs intersect the PSA, as shown in **Figure 17.** These BGs define the broader community study area, providing a more comprehensive understanding of the characteristics of the community that may be affected by the project. Data for the community study area represents the combined totals of all BGs.

[9] Michael Baker International. 2025. Relocation Study Report. (Appendix B)

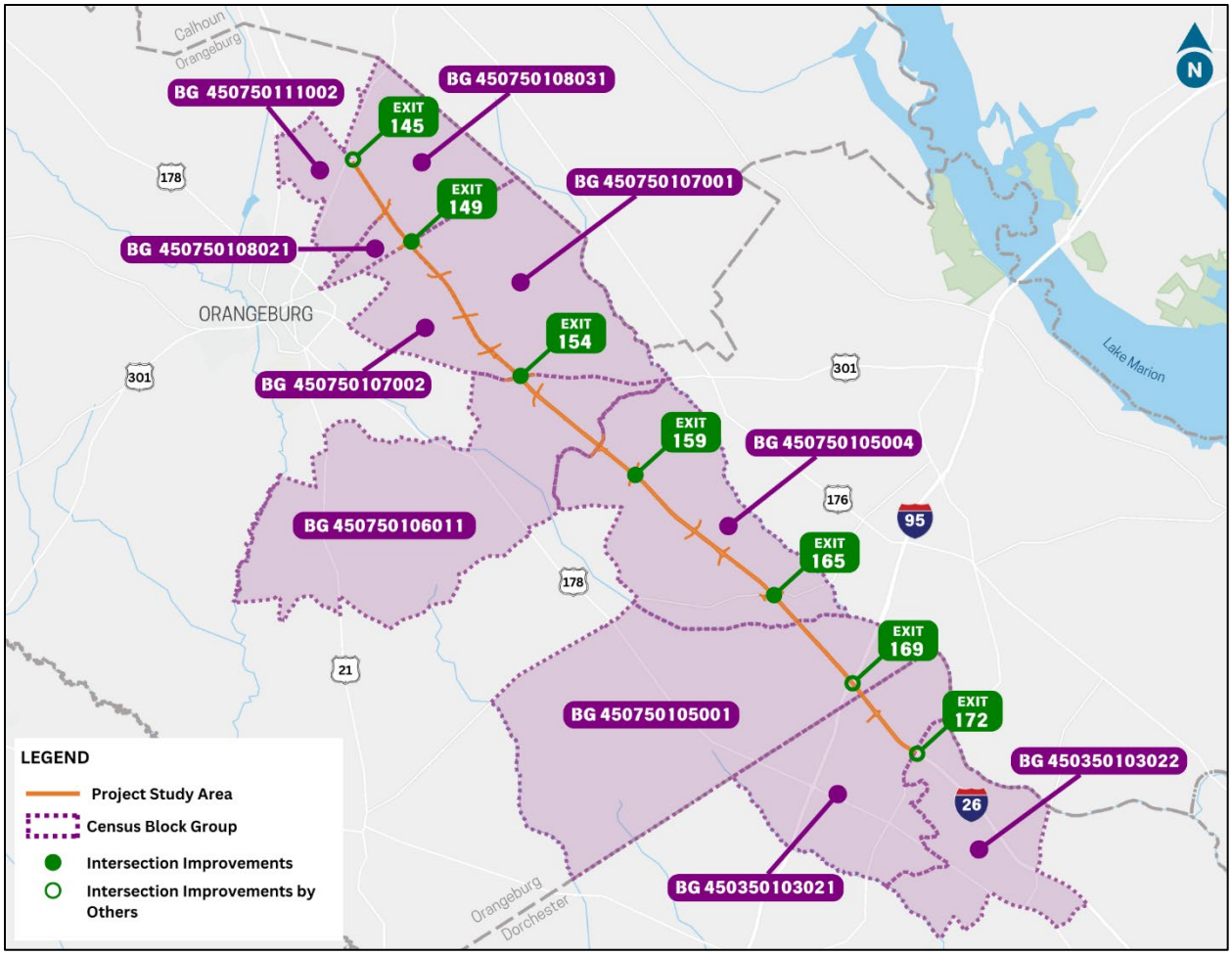


Figure 17. US Census Block Groups in the PSA

The population of Orangeburg County declined from 91,836 in 2013 to 83,531 in 2023, a 9 percent decrease over the last decade. This downward trend is expected to continue, with projections showing a further 14 percent decline by 2035.[10] In contrast, Dorchester County experienced notable growth, increasing from 139,802 residents in 2013 to 164,322 in 2023, a growth rate of about 17 percent. Growth in Dorchester County is projected to continue, with the population expected to increase by an additional 30 percent by 2035.[10]

In addition to these overall trends, more detailed demographic characteristics for the community study area and surrounding counties are presented in **Table 8.**

[10] South Carolina Revenue and Fiscal Affairs Office. South Carolina population estimates from 2000-2018 and population projections from 2019-2035: County totals: https://rfa.sc.gov/data-research/population-demographics/census-state-data-center/population-estimates-projections

Table 8: Demographic Data

Geography		Total Population	Underserved Populations	Population over 64 Years of Age	Limited English Proficiency
Orangeburg County BGs	BG 450750111002	1,655	90%	34%	0%
	BG 450750108021	1,719	99%	20%	2%
	BG 450750108031	1,278	78%	12%	0%
	BG 450750107002	1,295	83%	19%	0%
	BG 450750107001	708	25%	24%	0%
	BG 450750106011	1,123	73%	17%	1%
	BG 450750105004	636	41%	18%	0%
	BG 450750105001	1,214	24%	18%	3%
Dorchester County BGs	BG 450350103021	1,503	44%	33%	0%
	BG 450350103022	862	57%	18%	2%
Community Study Area		**11,993**	**66%**	**22%**	**1%**
Orangeburg County		83,531	67%	21%	2%
Dorchester County		164,322	38%	15%	3%
South Carolina		5,373,555	38%	19%	3%

Source: US Census Bureau, American Community Survey 5-year estimates 2019-2023

The community study area has a total population of 11,993 residents. Seven of the ten BGs have a higher percentage of underserved populations compared to their respective counties, with some BGs reporting above 90 percent. The population age 65 and older ranges from 12 to 34 percent across BGs, with the community study area average (22 percent) slightly higher than the statewide average (19 percent).

Limited English Proficiency (LEP) individuals are defined by the U.S. Department of Justice as those "who do not speak English as their primary language and who have a limited ability to read, write, speak, or understand English" (67 FR 41459). The Department of Justice's "Safe Harbor" provision is met when either 1,000 persons or 5 percent of the community study area speak a particular non-English language and report speaking English "less than very well," as documented by U.S. Census Bureau survey results. No LEP populations were identified within the community study area.

In addition to population characteristics, socioeconomic conditions provide further context for the community study area. Poverty, household income, labor force, and unemployment data for the community study area and surrounding counties are presented in **Table 9**.

Table 9: Socioeconomic Data

Geography		Total Population	Persons in Poverty	Median Household Income	Labor Force	Percent Unemployment
Orangeburg County BGs	BG 450750111002	1,655	30%	$35,705	627	1%
	BG 450750108021	1,719	24%	$82,528	681	19%
	BG 450750108031	1,278	17%	$47,727	643	0%
	BG 450750107002	1,295	28%	$45,944	618	36%
	BG 450750107001	708	18%	$105,571	314	0%
	BG 450750106011	1,123	8%	$38,065	499	2%
	BG 450750105004	636	16%	$55,405	537	12%
	BG 450750105001	1,214	6%	$53,879	507	0%
Dorchester County BGs	BG 450350103021	1,503	2%	$63,942	705	15%
	BG 450350103022	862	5%	$65,000	496	2%
Community Study Area		**11,993**	**16%**	**$59,377**	**5,627**	**10%**
Orangeburg County		83,531	23%	$43,214	35,589	9%
Dorchester County		164,322	11%	$76,896	83,797	5%
South Carolina		5,373,555	11%	$67,804	2,552,710	5%

Source: US Census Bureau, American Community Survey 5-year estimates 2019-2023

The labor force in Orangeburg County includes 35,589 people with an unemployment rate of 9 percent. In Dorchester County, the labor force totals 83,797 people, with a lower unemployment rate of 5 percent. Within the community study area, the labor force is 5,627 people, and the unemployment rate is 10 percent, which is higher than both the county and state averages. The most common employment sectors in Orangeburg and Dorchester Counties are health care and social assistance, retail trade, and manufacturing.

Poverty levels vary across the study area. Three BGs in Orangeburg County report poverty rates above the county average of 23 percent, with the highest reaching 30 percent. In contrast, BGs in Dorchester County show lower poverty levels, ranging from 2 to 5 percent, below the county average of 11 percent.

Median household incomes in Orangeburg County BGs range widely, from approximately $35,000 in lower-income areas to over $105,000 in higher-income areas. BGs in Dorchester County have median incomes around $64,000, close to the state median.

4.3.1 No-Build Alternative

The No-Build Alternative would likely result in negative impacts to the residents surrounding the PSA, as there would be no improvements to the I-26 corridor while traffic operations are projected to continue

to worsen. It is anticipated that the overall facility would be operating at LOS F during both peak periods by 2050.

4.3.2 Preferred Alternative

The majority of the Preferred Alternative would be constructed within SCDOT's existing ROW. As noted in Section 4.2, the proposed project could result in two residential relocations. These relocations are not anticipated to disrupt community cohesion or divide an established neighborhood, and comparable replacement housing is expected to be available within the same general area, zoning, and school district.

The Preferred alternative would not create new physical barriers within the PSA, as it consists of improvements to existing infrastructure. Temporary and permanent noise impacts are discussed in Section 4.4.

During construction, temporary visual changes may occur due to construction equipment, ground disturbance, and vegetation removal. Once completed, the Preferred Alternative would be visually compatible with existing transportation infrastructure in the PSA. Because the project improves existing facilities, viewers are not expected to be sensitive to visual changes. Therefore, visual impacts would be neutral.

4.4 Noise Analysis

A Traffic Noise Analysis (**Appendix C**) was conducted in accordance with 23 CFR § 772, *Procedures for Abatement of Highway Traffic Noise and Construction Noise*, and the SCDOT *Traffic Noise Abatement Policy* (2023).[11] A noise analysis is required for all Type I projects, including proposed federal-aid highway projects on new location or projects that would physically alter an existing highway or increase the number of through-traffic lanes. The Preferred Alternative would add through-traffic lanes on I-26; therefore, a traffic noise analysis was required. The typical process for evaluating noise is depicted in **Figure 18.**

[11] Michael Baker International. 2025. Noise Impact Assessment for the Proposed Corridor Improvements to I-26 from MM 145 to 172. (Appendix C)

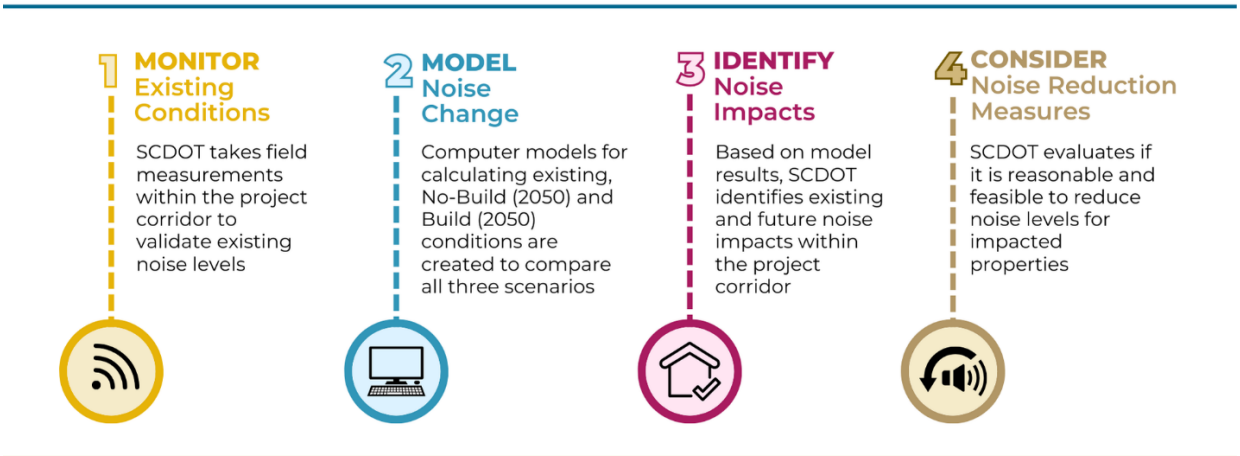


Figure 18: Noise Evaluation Process

FHWA has established Noise Abatement Criteria (NAC), listed in **Table 10**, for various land use activities. These criteria determine at what point a traffic noise impact would occur. SCDOT adopted these federal NACs as the standard in South Carolina.

Table 10: Noise Abatement Criteria

Activity Criteria	$L_{eq(h)}$	Evaluation Location	Activity Description
A	57	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose
B[1]	67	Exterior	Residential
C[1]	67	Exterior	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, daycare centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings
D	52	Interior	Auditoriums, daycare centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios
E[1]	72	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties, or activities not included in A–D or F
F	-	-	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing
G	-	-	Undeveloped lands that are not permitted

[1] Includes undeveloped lands permitted for this activity category

A receiver is a discrete or representative location of a noise-sensitive area for any of the land uses listed in **Table 10**. The receiver is considered impacted if noise levels approach (within 1 a-weighted decibel [dB(A)]) or exceed the NAC, as defined in the SCDOT *Traffic Noise Abatement Policy* (2023). SCDOT also uses a substantial increase criterion of 15 dB(A) or greater to define noise increases from the existing noise level. Traffic noise analysis was completed using FHWA computer model Traffic Noise Model Version 2.5 (TNM 2.5) to establish the existing scenario (2024), No-Build scenario (2050), and the Preferred Alternative (2050) (see **Appendix C**). Field measurements were taken at 12 locations along the corridor to ensure validation of the noise model. Noise-sensitive sites (residences, restaurants, churches, schools, sporting areas, hotels) within 500 feet of the consolidated alternatives construction limit were analyzed for noise impacts. A total of 121 receivers were analyzed in the noise models. All sites along the proposed segments are categorized as Activity Category B, C, D, or E. Single family homes made up most of the receivers along the corridor (Category B). Three hotels (Category E) and two places of worship (Categories C and D) made up the remainder of the analyzed receivers.

The 500-foot buffer study area was divided into 12 Noise Sensitive Areas (NSAs). For descriptions and a map of the NSAs, refer to Figures 2A-2P of the Noise Impact Assessment in **Appendix C**.

4.4.1 No-Build Alternative

The No-Build Alternative would not make any improvements to the I-26 MM 145-172 corridor. Noise levels are predicted to range between 37.6 to 81.6 dB(A) by 2050. The No-Build Alternative would approach or exceed the NAC at 102 receivers, with 101 representing NAC B, and 1 (Days Inn pool) representing NAC E.

4.4.2 Preferred Alternative

A total of 122 receivers were analyzed in the models. All sites along the PSA are categorized as Activity Category B, C, D, or E. Land use along the corridor includes residential, recreational, places of worship, commercial, and hotels. Based on the analysis, 104 receivers would approach or exceed the NAC (103 residential, 1 hotel pool). Impacts for the Preferred Alternative are shown in **Table 11** and **Table 12** below.

Table 11: Summary of Noise Impacts by Type for the Preferred Alternative

Impact Type	NSA 1	NSA 2	NSA 3A	NSA 3B	NSA 3C	NSA 4A	NSA 4B	NSA 5	NSA 6	NSA 7	NSA 8A	NSA 8B
Residential	19	17	15	8	23	3	5	1	2	1	3	6
Places of Worship	0	0	0	0	0	0	0	0	0	0	0	0
Hotel Pool	0	0	0	0	0	0	0	1	0	0	0	0
Total Impacts	104											

Table 12: Noise Impacts

Scenario	Approximate # Impacted Receivers Approaching or Exceeding the NAC [1,2]					Substantial Noise Level Increase [3]	Impacts Caused by Both Criteria [4]	Total Impacts per 23 CFR 772 [5]
	A	B	C	D	E			
Existing (2024)	0	80	0	0	0	0	0	80
No Build (2050)	0	98	0	0	1	0	0	99
Build (2050) NSAs 1 – 8B	0	103	0	0	1	0	0	104

1. This table represents the number of build-condition traffic noise impacts as predicted for the build-condition alternatives and no-build scenario presently under consideration. Refer to Appendix D for a detailed analysis of traffic noise impacts at each noise sensitive receiver location.
2. Predicted traffic noise level impact due to approaching or exceeding NAC.
3. Predicted "substantial increase" traffic noise level impact.
4. Predicted traffic noise level impact due to exceeding NAC and "substantial increase" in build-condition noise levels.
5. The total number of predicted impacts is not duplicated if receivers are predicted to be impacted by more than one criterion.

According to 23 CFR 772.13 and SCDOT's *Traffic Noise Abatement Policy* (2023), noise abatement measures must be considered to reduce or eliminate noise levels to impacted receivers. The following noise abatement measures were considered:

- Traffic management measures
- Alteration of horizontal and vertical alignments
- Acquisition of property rights for construction of noise barriers
- Acquisition of property rights to create a buffer zone
- Noise insulation of public use or nonprofit institutional structures
- Construction of noise barriers

Prior to the recommendation of noise abatement measures, the feasibility and reasonableness of the abatement measures must be determined per Sections 6.1 and 6.2 of the SCDOT *Traffic Noise Abatement Policy* (2023). Feasibility of noise abatement measures is based on acoustic feasibility, where a noise reduction of at least 5 dB(A) must be achieved for at least three receivers that are determined to be impacted. The noise abatement measure must have engineering feasibility where factors that include topography, safety, drainage, utilities, maintenance, access, and height of the noise abatement measure would not limit the ability to achieve noise reduction goals.

SCDOT also established three mandatory reasonable factors that must be met for a noise abatement measure to be considered reasonable. The three factors are:

- Noise abatement must reduce the noise level by at least 7 dB(A) for at least one benefitted receiver.
- Construction of a noise barrier is not reasonable if the proposed barrier area exceeds 1,500 square feet per benefitted receiver.

- Construction of a noise barrier is not reasonable if a majority (+50 percent) of residents and property owners of the benefitted receivers vote that they do not desire noise abatement.

To mitigate the estimated impacts, barriers were modeled at five locations. A total of eight barriers were modeled. No barriers met the SCDOT criteria for feasibility and reasonableness. Results for each barrier, to include modeled barrier lengths, barrier height, total square footage, benefited receptors, and benefited square footage are included in Tables 6 to 22 in the Noise Impact Assessment in **Appendix C**.

Temporary and localized construction noise impacts will likely occur in the PSA because of project construction. These temporary impacts could interfere with normal conversations for passersby, and impacts to individuals living or working near the project can be expected. Discrete construction noise abatement measures, including equipment-quieting devices, should be considered through all construction phases. SCDOT will inform local planning officials in Orangeburg and Dorchester Counties of future, generalized noise levels expected to occur in the project vicinity after FHWA has made a final decision on the environmental document.

4.5 Cultural Resources

Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (16 US Code (USC) 306108), requires federal agencies to consider the effects of any federally funded, licensed, or permitted actions on properties listed on or eligible for the National Register of Historic Places (NRHP). Historic resources include districts, buildings, sites, structures, or objects that are significant in American history, architecture, archaeology, engineering, and/or culture. Prior to undertaking a project, a federal agency must determine if any resources exist, then the federal agency consults with the State Historic Preservation Office (SHPO) to determine whether the resource is eligible for listing on the NRHP and how the proposed project would impact the resource.

A Phase I Cultural Resources Survey (**Appendix D**) was completed of the PSA between October–November 2024 and February–March 2025,[12] with additional areas were surveyed in September 2025.[13] The surveys sought to identify all potentially significant cultural resources within the PSA and Area of Potential Effect (APE) and to evaluate these resources for inclusion in the NRHP. The survey was conducted in accordance with the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation and South Carolina Standards and Guidelines for Archaeological Research*.

Archaeological Resources

The archaeological survey identified four new sites and five isolated finds (IF) within the PSA. Site 38OR0456 and all five IFs were recommended as not eligible for listing in the NRHP; therefore, no further work is recommended. Sites 38DR0550, 38OR0457, and 38OR0458 could not be fully delineated within the PSA boundary and could not be completely evaluated. However, investigations determined that the

[12] New South Associates, Inc. 2025. Phase I Cultural Resources Survey for the Proposed Widening of I-26 from MM 145 to 172. (Appendix D1)

[13] New South Associates, Inc. 2025. Addendum to Phase I Cultural Resources Survey for the Proposed Widening of I-26 from MM 145 to 172. (Appendix D2)

portions of these sites located within the PSA do not contribute to their potential eligibility; thus, no additional work is recommended.

Archaeological Site 38OR0410 (SHPO Site Number 0349) was identified in 2019 as Brantley Cemetery (c.1800s) and is located in a wooded area in the I-26 median approximately 0.25 miles southeast of the Four Holes Road Bridge over I-26 near MM 153 (**Figure 24F**). Brantley Cemetery contains at least 24 unmarked graves based on surface depressions but is heavily overgrown and is not publicly accessible. The cemetery was not recommended eligible for the NRHP. Full documentation of the archaeological investigation is provided in **Appendix D1**.

Above Ground Resources

The historic architectural survey identified 57 previously unrecorded resources and 27 new subresources and revisited six previously recorded resources and one previously recorded subresource. Three previously recorded resources are no longer extant, and one resource, the White House United Methodist Church (SHPO Site Number 0028), is listed in the NRHP (**Figure 24G** and **Figure 19**).

Three new subresources associated with previously recorded resources were documented, including the White House United Methodist Church Cemetery (SHPO Site Number 0028.01 / Site 38OR0462), which is recommended as contributing to the NRHP-listed church property (**Figure 24G** and **Figure 20**). Four additional cemeteries were evaluated, but none of these or any other revisited or newly recorded resources or subresources are recommended eligible for the NRHP.

Figure 19: White House United Methodist Church

Figure 20: White House United Methodist Church Cemetery

Three cemeteries, including the White House United Methodist Church Cemetery, Brantley Cemetery, and Mount Zion Baptist Church Cemetery, are either bisected by or located entirely within the PSA. All cemeteries are protected under several South Carolina laws, including SC Code 27-43-10, 27-43-20, 27-43-30, and 16-17-6000. As noted above, Brantley Cemetery is located within the median of I-26 approximately southeast of the Four Holes Road overpass (**Figure 24F**), and White House United Methodist Church Cemetery is located adjacent to the church on US 301/Five Chop Road northeast of I-26 (**Figure 24G**). Mount Zion Baptist Church Cemetery is associated with Mount Zion Baptist Church on Arista Road southwest of I-26. Full documentation of the architectural investigations is provided in **Appendix D**.

In addition to architectural and archaeological resources, the survey documented The Lone Tree, a bald cypress located in the interstate median between MM 160 and 161 (**Figure 24J** and **Figure 21**). While not formally protected by Section 106 or other federal or state laws, the tree appears to be several centuries old and holds cultural and aesthetic value, as evidenced by public forums, social media, and local recognition. Preservation of the Lone Tree and its nearby Companion Tree was recommended.

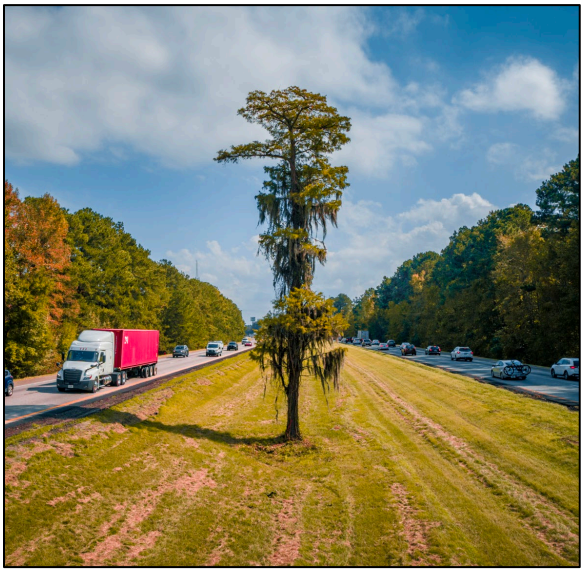


Figure 21: The Lone Tree

4.5.1 No-Build Alternative

The No-Build Alternative would not impact cultural resources as there would be no improvements to the I-26 corridor.

4.5.2 Preferred Alternative

The Preferred Alternative would not impact any NRHP-eligible resources. Although the White House United Methodist Church and cemetery fall within the PSA, they are outside of the area of construction, and effects to these resources are not anticipated. No right of way would be acquired from the church property, and no construction would occur near it (see Figure 24G). However, as a precaution the following commitments are being included in project documents:

> *The boundaries of the White House Methodist Church (SHPO Site Number 0028) shall be clearly marked on all construction plans. No ground disturbing activities may take place within the church boundaries, and project personnel and equipment will be prohibited from entering the area.*
>
> *The boundaries of the White House United Methodist Church Cemetery (SHPO Site Number 0028.01/Site 38OR0462) shall be clearly marked on all construction plans along with a 20-foot buffer surrounding the cemetery. No ground disturbing activities may take place within the buffered boundaries of the cemetery, and project personnel and equipment will be prohibited from entering the cemetery.*

The Brantley Cemetery is in the I-26 median within the PSA; however, as noted in Section 3.1 and Table 2, the preferred mainline widening concept was selected, in part, because it avoids direct impacts to

Brantley Cemetery by widening to the outside of the existing roadway in this location (see Figure 24F). To further protect the cemetery during construction the following commitment is being included in the project:

> *The boundaries of the Brantley Cemetery (SHPO Site Number 0349/Site 38OR0410) shall be clearly marked on all construction plans along with a 20-foot buffer surrounding the cemetery. No ground disturbing activities may take place within the buffered boundaries of the cemetery and project personnel and equipment will be prohibited from entering the cemetery. A Secretaty of Interior qualified archaeologist shall be required to be present during all ground disturbing activities that have potential to disturb unmarked graves in Brantley Cemetery within the project construction limits along I-26.*

The Mount Zion Baptist Church cemetery on Arista Road is partially within the PSA. Current construction plans do not impact the cemetery; however, as a precaution the following commitment is being incorporated into the project:

> *The boundaries of the Mount Zion Baptist Church cemetery (SHPO Site Number 0545.01/Site 38OR0459) shall be clearly marked on all construction plans along with a 20-foot buffer surrounding the cemetery. No ground disturbing activities may take place within the buffered boundaries of the cemetery, and project personnel and equipment will be prohibited from entering the cemetery.*

Based on the results of the background research and field investigations, SCDOT determined that **no historic properties would be affected** by the proposed project. The Cultural Resources Report and findings were submitted to SHPO, the Catawba Indian Nation, Cherokee Nation, Eastern Band of Cherokee Indians, Keetoowah Band of Cherokee Indians, and the Muscogee (Creek) Nation. Responses were received from SHPO on November 6, 2025 and from Catawba Indian Nation on December 4, 2025, who concurred with the findings of the report. The Cultural Resources Report and concurrence letter are provided in **Appendix D1**.

Although not formally protected by Section 106 or other federal or state laws, SCDOT decided based on public opinion that the Preferred Alternative would widen to the outside around the Lone Tree and its Companion Tree to avoid impacting these resources.

4.6 Protected Lands

4.6.1 Section 4(f)

Publicly owned parks, recreation areas, wildlife and waterfowl refuges, and significant historic sites are protected under Section 4(f) of the US Department of Transportation (USDOT) Act of 1966 (49 USC 303 and 23 USC 138). Section 4(f) applies to projects that receive funding from a USDOT agency. FHWA and SCDOT cannot approve the use of land from these resources unless the following conditions apply:

1. There is no prudent and feasible alternative to using that land; and
2. The program or project includes all possible planning to minimize harm to property resulting from the use.

As discussed in Section 4.5 (Cultural Resources), one NRHP-listed site (White House United Methodist Church and Cemetery) is located within the PSA. No other Section 4(f) resources were identified.

4.6.1.1 No-Build Alternative

The No-Build Alternative would not impact any Section 4(f) resources as there would be no improvements to the I-26 corridor.

4.6.1.2 Preferred Alternative

Although the White House United Methodist Church and cemetery fall within the PSA, they are outside of the area of construction, and effects to these resources are not anticipated. No right of way would be acquired from the church property, and no construction would occur near it (see **Figure 24G**). Therefore, the Preferred Alternative would not use property from any Section 4(f) resources.

4.6.2 Section 6(f)

Section 6(f) of the Land and Water Conservation Fund (LWCF) Act of 1965 (Public Law 88-578) established a grant program for States and local governments to acquire and develop public parks and other recreation areas. Section 6(f) prohibits conversion of these resources to nonrecreational use without the approval of the US Department of the Interior (USDOI) National Park Service (NPS). Direct impacts are prohibited unless there are no prudent and feasible alternatives, and the project incorporates all possible measures to minimize harm.

There are no known Section 6(f) resources within the PSA in Orangeburg or Dorchester Counties, South Carolina. The area primarily consists of transportation ROW, undeveloped lands, and rural residential properties, and does not feature public parks or recreational facilities that have received LWCF assistance.

4.6.2.1 No-Build Alternative

The No-Build Alternative would not impact any Section 6(f) resources as there would be no improvements to the I-26 corridor.

4.6.2.2 Preferred Alternative

The Preferred Alternative would not impact any Section 6(f) resources.

4.6.3 Other Protected Lands

Private properties enrolled in the Natural Resources Conservation Service (NRCS) Wetland Reserve Program (WRP) are subject to easements designed to protect, restore, and enhance wetlands. The WRP is a voluntary program that provides landowners the opportunity to protect, restore, and enhance wetlands on their property and provides technical and financial support to landowners who join the program. The goal of the WRP is to achieve the greatest wetland functions and values, along with optimum wildlife habitat, on every acre enrolled in the program.

To qualify for enrollment, landowners must control or own eligible land, comply with the adjusted gross income limitation provisions, adhere to highly erodible land and wetland conservation practices, and develop a plan of operations. Landowners must also grant NRCS (or its designee) unencumbered, unrestricted, transferable and otherwise sufficient physical and legal access from an identified Federal, State, or local public ROW to the easement area for restoration, management, maintenance, monitoring, and enforcement purposes.

One privately owned WRP easement parcel (Tax Parcel #0292-00-04-002.000) is approximately 615 acres with approximately two acres overlapping the PSA along Cow Castle Creek. For a property to be

considered subject to Section 4(f), it must have public access, be in public use, and be significant as a publicly owned park, recreation area, or wildlife and waterfowl refuge; therefore, this WRP easement does not qualify as a Section 4(f) resource.

4.6.3.1 No-Build Alternative

The No-Build Alternative would not impact any protected lands, as there would be no improvements to the I-26 corridor.

4.6.3.2 Preferred Alternative

The Preferred Alternative would not result in direct impacts to the WRP easement parcel. While a minor overlap occurs within the PSA, it lies outside the Preferred Alternative impact limits. Coordination with NRCS and the landowner, along with implementation of Best Management Practices (BMPs) during construction, would minimize potential indirect effects to wetland functions and habitat.

4.7 Water Quality

The 1972 Federal Clean Water Act (CWA) establishes the basic structure for regulating the discharges of pollutants into WotUS, and for regulating quality standards for surface waters. Pursuant to Section 303(d) of the CWA and 40 CFR § 130.7 the South Carolina Department Environmental Services (SCDES) evaluates and develops a priority list of waterbodies that do not currently meet state water quality standards. It is commonly referred to as the 303(d) List of Impaired Waters. Once a waterbody has been added to the 303(d) List, it will remain on the List until the water quality standard set by SCDES has been attained, or a Total Maximum Daily Load (TMDL) has been developed and approved by the US Environmental Protection Agency (USEPA) to attain the standard.

Section 402 (b) of the CWA and 40 CFR § 123 established the National Pollutant Discharge Elimination System (NPDES). In South Carolina, SCDES administers the NPDES. NPDES permits "allow businesses to discharge a range of waste pollutants into rivers, streams, and lakes in ways that minimize the potential for harm to fish and other aquatic life and to humans who use the water for drinking, fishing, recreation and other purposes."[14]

Cow Castle Creek, which crosses the PSA, is listed as an impaired waterbody under Section 303(d) of the CWA due to elevated levels of *Escherichia coli* bacteria. This impairment designation extends both upstream and downstream of the PSA. The nearest water quality monitoring station (E-050) is located upstream at the Wamer Road (S-170) crossing of Cow Castle Creek. Cow Castle Creek is a tributary to Upper Four Hole Swamp, which is also 303(d)-listed for *E. coli*.

The PSA spans three TMDL watersheds: Four Hole Swamp (015-06-Fecal), Upper Four Hole Swamp (010-2020-Ecoli), and the watershed encompassing Cow Castle Creek, Lower Four Hole Swamp, and Tributaries (020-2020-Ecoli). Additionally, an NPDES Discharge permit (SC0040037) associated with sewerage systems is located upstream of the PSA in Cow Castle Creek.

[14] SC Department of Environmental Services. https://gis.dhec.sc.gov/watersheds/

A US Army Corps of Engineers (USACE) Section 408 civil works project was completed in 1984 approximately 4.5 miles upstream of the I-26/Cow Castle Creek crossing. The project involved channel clearing and snagging along Cow Castle Creek and its tributary, Even Branch.[15]

Additional water quality details are provided in the Natural Resources Technical Memorandum (NRTM) in **Appendix E**.

4.7.1 No-Build Alternative

The No-Build Alternative would have no impact on water quality as there would be no improvements to the I-26 corridor.

4.7.2 Preferred Alternative

The Preferred Alternative is not expected to contribute to watershed impairment or cause long-term water quality impacts. Construction activities such as land clearing and grading could temporarily increase sediment loading in surface waters and wetlands within and downstream of the PSA.

The Preferred Alternative includes replacement of the I-26 eastbound and westbound bridges over Cow Castle Creek and multiple smaller bridge and culvert structures over Little Bull Creek, Gramling Creek, Middle Penn Creek, and Mill Creek. The proposed structures would be designed to maintain adequate conveyance of surface waters. Culverts and crossline pipes would also be replaced and/or extended as needed to maintain adequate conveyance and accommodate the proposed improvements.

The Preferred Alternative has the potential to impact local water quality through the quantity and quality of stormwater runoff by increasing the area of impervious (i.e. paved) surface, thereby increasing the amount of runoff into adjacent streams and wetlands. Current stormwater conveyance features will be improved and designed to accommodate the increased runoff associated with the increase in paved surfaces.

Potential water quality impacts from vehicle-related pollutants are expected to be similar to existing conditions because traffic volumes and vehicle mix are not anticipated to change. The project will incorporate stormwater management measures consistent with the SCDOT Stormwater Quality Design Manual and Municipal Separate Storm Sewer System (MS4) permit requirements to minimize temporary and permanent impacts. During construction, the contractor will implement BMPs such as erosion control, seeding, and sediment basins to protect water quality.

4.8 Wild and Scenic Rivers

The Wild and Scenic Rivers Act (16 USC 1271-1287) of 1968 allows for preservation of reaches of selected rivers that are recognized for scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values, be preserved in free-flowing condition, and that they and their immediate environments be protected for the benefit and enjoyment of present and future generations. Rivers may be designated by Congress or, if certain requirements are met, the Secretary of the Interior. Each river is administered by either a federal or state agency. Designated segments need not include the entire river and may include tributaries. No designated Wild and Scenic Rivers occur within the PSA.

[15] USACE. Project Maps – Charleston District. 1991. https://www.sac.usace.army.mil/Portals/43/docs/regulatory/Project%20Maps-Charleston%20District.pdf

The Nationwide Rivers Inventory (NRI) is a listing of more than 3,400 free-flowing rivers or river segments in the United States that are believed to possess one or more "outstandingly remarkable" natural or cultural value. Under a 1979 Presidential Directive, all federal agencies must seek to avoid or mitigate actions that would adversely affect one or more of the NRI segments. The closest NRI segment is Four Hole Swamp, extending from one mile upstream of the US 301 bridge to its confluence with the Edisto River. The designated outstandingly remarkable values for this segment are Cultural, Fish, Historic, Recreational, Scenic, and Wildlife. However, Four Hole Swamp lies outside the PSA.

4.8.1 No-Build Alternative

The No-Build Alternative would not result in impacts to any designated Wild and Scenic Rivers or NRI-listed river segment as there would be no improvements to the I-26 corridor.

4.8.2 Preferred Alternative

The Preferred Alternative would not impact any designated Wild and Scenic Rivers or NRI-listed river segments, as none are located within the PSA.

4.9 Floodplains

Floodplains are defined as any land area susceptible to being inundated by waters from any source (44 CFR § 59.1) and are often associated with surface waters and wetlands. Floodplains are valued for their contribution to natural flood and erosion control, biological productivity, and ecological benefits and functions. Floodplains can also be considered a hazard area because buildings, structures, and properties located in floodplains can be inundated and damaged during floods.

The Federal Emergency Management Agency (FEMA) regulates floodplains that are prone to inundation at some frequency. Floodplains are mapped on FEMA Flood Insurance Rate Map (FIRM) Panels and classified based on the level of flood risk for a given area. In general, a floodplain that has a 1-percent chance of flooding in a given year is referred to as the "100-year floodplain". These areas are designated as Zones A and AE on FIRM Panels. Federal regulations will allow development in the 100-year floodplain or the floodway if hydrologic and hydraulic analyses demonstrate that the development would meet the requirements set forth by FEMA.

The PSA spans 11 FIRM Panels in Orangeburg and Dorchester Counties (45075C0440C, 45075C0630C, 45075C0193C, 45075C0658C, 45075C0383C, 45075C0377C, 45075C0405C, 45075C0530C, 45075C0590C, 45035C0035E, 45035C0045E). Approximately 45 acres within the PSA are mapped as Zone AE (**Table 13**), intersecting Gramling Creek Swamp, Middle Pen Swamp & associated tributaries, Mill Branch, Cow Castle Creek, and Four Hole Swamp. The remaining 1,913 acres are mapped as Zone X, areas of minimal flood risk.

Table 13: Floodplains in the PSA

Flood Zone Classification	Area (Acres)	Designation	Associated Waterbodies
Zone AE	45	100-year floodplain (known base flood elevation*)	Gramling Creek Swamp, Middle Pen Swamp & associated tributaries, Mill Branch, Cow Castle Creek, Four Hole Swamp

Flood Zone Classification	Area (Acres)	Designation	Associated Waterbodies
Zone X	1,913	Area of minimal flood hazard	N/A

*Base flood elevation (BFE) is the depth of anticipated flood water based on computer modeling

4.9.1 No-Build Alternative

The No-Build Alternative would not result in impacts to floodplains as there would be no improvements to the I-26 corridor.

4.9.2 Preferred Alternative

The Preferred Alternative would impact approximately 30 acres of floodplains, primarily associated with the mainline widening (**Figure 23**). The bridge replacement at Cow Castle Creek and culvert replacements/extensions at Little Bull Creek, Gramling Creek, Middle Penn Creek, and Mill Creek have the potential to affect the 100-year BFE or floodplain width. Therefore, hydraulic analyses were completed for each location. Preliminary findings are documented in the SCDOT Bridge Replacement Scoping Trip Risk Assessment Forms and Floodplain Checklist Forms included in **Appendix F**.

A Conditional Letter of Map Revision (CLOMR) and/or Letter of Map Revision (LOMR) may be required. Final hydraulic analyses will be completed during final design in accordance with SCDOT's Requirements for Hydraulic Design Studies and coordinated with SCDOT, FEMA, and Orangeburg and Dorchester County Floodplain Managers.

The Engineer of Record will submit final plans and request for floodplain management compliance to the Orangeburg and Dorchester County Floodplain Managers.

4.10 Waters of the United States

WOTUS are defined by 33 CFR Part 328 and 40 CFR Part 120 and protected by Section 404 of the CWA (33 USC 1344), which is administered and enforced by the USACE. Wetland habitats are defined as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions". USACE utilizes specific hydrology, soil, and vegetation criteria in defining the boundary of wetlands within their jurisdiction. Wetlands generally include swamps, marshes, bogs, and similar areas. SCDES Bureau of Coastal Management (BCM) maintains jurisdiction over "critical areas" which can include certain types of wetlands, coastal waters, tidelands, and beach/dune systems, and isolated wetlands that are not regulated by USACE.

After delineations, it was determined that there are approximately 115 acres of wetlands, 9 acres of non-wetland waters (open water), 8,166 linear feet (3 acres) of non-wetland waters (streams), and 548 linear feet (< 1 acre) of non-wetland waters (ditches) within the PSA (**Figure 24A-O**). Additional information is available in **Appendix E.**

4.10.1 No-Build Alternative

The No-Build Alternative would not result in impacts to wetlands and WOTUS as there would be no improvements to the I-26 corridor.

4.10.2 Preferred Alternative

The Preferred Alternative would impact up to 59 acres of wetlands and 4,714 linear feet (2 acres) of streams (see **Table 14**). As noted, these impacts account for all features within the proposed ROW limits of the Preferred Alternative. As design plans are advanced, impacts will be reduced to the construction limits of disturbance within the proposed ROW. Final impacts to jurisdictional resources will be reported in permit applications for the project.

The proposed wetland impacts have been minimized to the greatest extent practicable while still addressing the purpose and need of the project. Widening toward the median where possible has reduced the potential impacts to WOTUS in both quantity and quality. Wetlands that would be impacted are impaired or partially impaired due to previous roadway, clearing, drainage impacts, and existing development along the corridor. These lower-quality wetlands have been fragmented and are routinely disturbed by maintenance activities.

Table 14. Preferred Alternative WOTUS Impacts by County

	Wetlands	Streams	Open Waters	Jurisdictional Ditches
Orangeburg County				
Total in PSA	111 acres	2 acres / 6,599 LF	9 acres	<1 acre / 290 LF
Impacts	58 acres	1 acre / 3,198 LF	<1 acre	<1 acre / 290 LF
Dorchester County				
Total in PSA	4 acres	1 acre / 1,567 LF	0 acre	<1 acre / 258 LF
Impacts	1 acre	<1 acre / 1,516 LF	0 acre	<1 acre / 200 LF

The wetlands affected are largely degraded or previously disturbed and do not provide vital ecological services to the surrounding landscape. Their primary functions—such as limited flood control, marginal wildlife habitat, and minimal groundwater recharge—are not critical to the overall wetland resources in the region. These systems lack biodiversity, connectivity, and hydrologic integrity, reducing their importance in terms of ecological value. Short-term impacts may include temporary disruption of hydrology and sediment transport, while long-term effects could involve a slight reduction in flood control capacity and water pollution abatement. However, given the low habitat value and limited ecological function of these wetlands, the severity of the impact is considered minimal. Fish and wildlife habitat loss is expected to be negligible due to the absence of sensitive or dependent species in the impacted areas.

Impacts to jurisdictional waters will be permitted under a USACE Section 404 permit and SCDES Section 401 Water Quality Certification. Based on preliminary impact estimates, it is anticipated that the proposed project would be permitted under an Individual USACE Permit. The Dorchester County portion of the project will also require a Coastal Zone Consistency (CZC) review by SCDES BCM. The required mitigation for this project will be determined using the USACE Guidelines for Preparing a Compensatory Mitigation Plan.

4.11 Protected Species

4.11.1 Federally Listed Species

Section 7 of the Endangered Species Act (ESA) directs all federal agencies to participate in conserving ecosystems upon which endangered and threatened species depend and provides a program for the conservation of such species. The US Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) are responsible for the enforcement of federal wildlife laws and the protection of endangered species. Listed animals are protected from "take" and being traded or sold. A "take" is defined as "harass, harm, pursue, hunt, shoot, wound, kill trap, capture, or collect, or to attempt to engage in any such conduct." Section 7 of the ESA does not provide protection for the candidate/at-risk species. However, they are listed in **Table 15** in the event their status changes prior to completion of the project. Additionally, species that are proposed for listing are not subject to Section 7 compliance until they are formally listed.

The list of federally protected species that are known to occur in Orangeburg and Dorchester Counties, South Carolina, was obtained using the USFWS IPaC tool (IPaC Project Code 2025-0137140 OR 2024-0138645) on January 23, 2025, and August 18, 2025 (**Appendix G-1**) and are presented in **Table 15**. A Biological Evaluation (BE) was prepared and submitted to USFWS to document potential effects on protected species (**Appendix G-1**).[16] USFWS issued concurrence on May 19, 2025, with the effects determinations. An addendum to document additional PSA areas was submitted to USFWS on September 18, 2025.

Table 15: Federally Protected Species in Dorchester and Orangeburg Counties

Common Name	Scientific Name	Federal Status	Habitat Present within PSA	Effects Determination
Bird Species				
Bald eagle	*Haliaeetus leucocephalus*	BGEPA; MBTA	Yes	No Effect
Red-cockaded woodpecker	*Dryobates borealis*	Threatened; MBTA	No	No Effect
Insect Species				
Monarch butterfly*	*Danaus plexippus*	Proposed Threatened	Yes	No Effect
Mammal Species				
Northern long-eared bat	*Myotis septentrionalis*	Endangered	Yes	May Affect, not likely to adversely affect
Tricolored bat**	*Perimyotis subflavus*	Proposed Endangered	Yes	May Affect
Plant Species				
Canby's dropwort	*Oxypolis canbyi*	Endangered	No	No Effect
Pondberry	*Lindera melissifolia*	Endangered	No	No Effect

**Proposed for listing as Threatened by USFWS December 12, 2024*

[16] Three Oaks Engineering, Inc. 2025.Biological Evaluation. (Appendix G1)

*** Proposed for listing as endangered by USFWS on September 14, 2022*
BGEPA = Bald and Golden Eagle Protection Act; MBTA = Migratory Bird Treaty Act

Suitable habitat for four USFWS-jurisdiction species was identified within the PSA: bald eagle, monarch butterfly, northern long-eared bat, and tricolored bat. Of these, the only protected species observed within the PSA was the tricolored bat, with 18 individuals observed within two concrete box culverts.

4.11.2 Migratory Birds

Structure surveys were conducted, and bridges within the PSA were inspected for the presence of migratory birds or their nests. Barn swallow (*Hirundo rustica*) and cliff swallow (*Petrochelidon pyrrhonota*) nests were observed sporadically on various bridge structures within the PSA. It is assumed migratory birds may be present within the PSA. Details regarding the Migratory Bird Treaty Act (MBTA) can be found in **Appendix G-1**.

4.11.3 State Listed Species

As prescribed by the State Listed Species Protection Guidance provided by the South Carolina Department of Natural Resources (SCDNR), the SCDNR's Natural Heritage Database was utilized to generate a list of state-listed species known to occur within Orangeburg and Dorchester Counties on August 18, 2025. Rafinesque's big-eared bat, Red-cockaded woodpecker, and the Carolina gopher frog are known to occur within a 2-mile radius of the PSA. A State Listed Species Memorandum documenting the evaluation, species federal protection status, required habitat types, and if the species' habitat was identified within the PSA is in **Appendix G-2**.

4.11.4 No-Build Alternative

The No-Build Alternative would not impact protected species because no construction activities would occur to disrupt habitat or migratory patterns.

4.11.5 Preferred Alternative

After completing a literature search, a field survey, and a habitat assessment, with the inclusion of the proposed effect minimization efforts, SCDOT and FHWA have determined the Preferred Alternative would have **no effect** on the red-cockaded woodpecker, monarch butterfly, Canby's dropwort, and pondberry.

The Preferred Alternative may affect species that are known to occur or that may occur within the project action area or habitat which supports foraging, breeding, or shelter for those species. The proposed project may affect the tricolored bat due to individuals of the species observed within two culverts in the corridor and the presence of suitable habitat throughout the PSA. USFWS recommended voluntary minimization and avoidance measures for tricolored bat including 1) avoiding activities affecting trees from December 15th to February 15th (winter torpor) and May 1st to July 15th (pupping season); 2) culverts/bridges be surveyed for evidence of bat use/presence prior to working on the culvert; 3) if bat evidence or bat sightings are unexpectedly made during structure maintenance or demolition, the contractor should stop work and notify USFWS; and 4) avoidance of culvert, bridge, or other structure removal or modification during winter months (December 15th - February 15th) or pup season (May 1st - July 15th), when bats may be present. SCDOT will re-initiate Section 7 consultation upon listing of the tricolored bat.

The Preferred Alternative **may affect, but is not likely to adversely affect** the northern long-eared bat due to no observed individuals during field surveys or known records within two miles of the PSA, the abundance of available habitat within or adjacent to the action area, and the ability for the species to leave or avoid the project area during construction. USFWS initially concurred with this conclusion on May 19, 2025 (see **Appendix G-1**). SCDOT will continue to consult with USFWS through the development of the project to finalize the biological conclusion and conservation measures to be incorporated into the project.

The USFWS has recently recommended avoidance of construction activities that disturb suitable foraging and roosting habitat, primarily tree clearing activities, during winter torpor (December 15th – February 15th) and summer occupancy (April 1st – July 15th) in the year-round active range. In addition, overall tree removal should not exceed what is required for project construction, and temporary lighting during construction should be directed away from suitable habitat during the active season of northern long-eared bat and other bat species. The USFWS may provide additional avoidance and minimization recommendations at the permitting stage of the project.

SCDOT will comply with the MBTA on the avoidance of taking of individual migratory birds and the destruction of their active nests. The contractor will be required to coordinate with SCDOT prior to construction to determine if there are active birds using bridges or culverts for nesting. After this coordination, it will be determined when construction/demolition/maintenance can begin to avoid impacts to migratory birds.

These findings are further detailed in the BE in **Appendix G-1.**

4.12 Air Quality/Mobile Source Air Toxics

The Clean Air Act (CAA), as amended, is the comprehensive federal law that regulates air emissions. The federal government established National Ambient Air Quality Standards (NAAQS) to protect public health, safety, and welfare from known or anticipated effects of pollutants. The SCDES Bureau of Air Quality (BAQ) is responsible for regulating and ensuring compliance with the CAA in South Carolina. The criteria air pollutants with concentration standards established under NAAQS include carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter, and sulfur dioxide. Vehicles can contribute to four of the six NAAQS pollutants: ozone, carbon monoxide, particulate matter, and nitrogen dioxide. Transportation conformity with the NAAQS ensures federally funded or approved transportation plans, programs, and projects to conform to air quality objectives established in State Implementation Plans (SIPs). Orangeburg and Dorchester Counties are considered in attainment with NAAQS and thus federal actions in this area would not be subject to transportation conformity regulations (40 CFR 51, 40 CFR 93).

Controlling air toxic emissions became a national priority with the passage of the CAA amendments in 1990, whereby Congress mandated that the USEPA regulate 188 air toxics, also known as hazardous air pollutants. The USEPA has assessed this expansive list in their latest rule on the Control of Hazardous Air Pollutants from Mobile Sources and identified a group of 93 compounds emitted from mobile sources that are listed in their Integrated Risk Information System (IRIS). USEPA refers to these compounds as Mobile Source Air Toxics (MSAT). In addition, USEPA has identified nine compounds with significant contributions from mobile sources that are among the national and regional-scale cancer risk drivers. These are 1,3-butadiene, acetaldehyde, acrolein, benzene, diesel particulate matter (PM), ethylbenzene, formaldehyde, naphthalene and polycyclic organic matter. While the FHWA considers these the priority MSAT, the list is

subject to change and may be adjusted in consideration of future EPA rules. The 2007 EPA rule for MSATs requires controls that will dramatically decrease MSAT emissions through cleaner fuels and cleaner engines.

FHWA has developed updated interim guidance on addressing MSAT in the NEPA context.[17] While a discussion of potential MSAT emission impacts from the proposed project has been included in this analysis, appropriate technical tools are not available at this time to determine project-specific health impacts from MSAT associated with the project alternatives. Due to the lack of technical resources, a qualitative impact evaluation is provided, consistent with FHWA guidance.

4.12.1 No-Build Alternative

The project areas are currently designated as in attainment for all criteria pollutants. Although the No-Build Alternative would increase regional vehicle miles traveled (VMT) in the study area relative to the existing conditions, a decrease in regional air pollutant emissions associated with this activity would be expected in comparison to the existing conditions. This would be due to improvements in engine efficiency and emission standards, which would occur irrespective of the project. This would be expected to maintain Orangeburg and Dorchester Counties' attainment of the NAAQS under the No-Build Alternative.

4.12.2 Preferred Alternative

According to the Air Quality Analysis,[18] the project is expected to have low potential MSAT impacts. The amount of MSATs emitted would be proportional to the VMT, assuming that other variables such as fleet mix are the same for the No-Build and Preferred Alternative.

The VMT estimated for the Preferred Alternative is slightly less than that for the No-Build Alternative, because the changes in the roadway design increase the efficiency of the roadway thereby reducing total mileage. The Preferred Alternative may slightly increase overall MSAT concentrations in localized areas. However, it is expected that MSAT emissions in the PSA would be reduced compared to existing conditions because of increased travel speeds, reduced idle associated with the addition of a travel lane in both directions, and the USEPA's MSAT reduction programs. The magnitude and the duration of these potential increases compared to the No-Build Alternative cannot be reliably quantified due to incomplete or unavailable information in forecasting project-specific MSAT health impacts. Moreover, on a regional basis, USEPA's national control programs will cause substantial reductions over time that, in almost all cases, will cause region wide MSAT levels to be significantly lower than today.

During construction impacts to air quality may occur due to the dust and fumes from equipment, earthwork activities, and vehicles accessing the construction site. Air quality impacts may also occur from an increase of vehicle emissions from traffic delays due to construction activities. Construction activities could include staging of construction for interchange locations, delivery of equipment and materials, and longer waiting times at traffic signals.

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[17] Federal Highway Administration. January 18, 2023. Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents. https://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/msat/fhwa_nepa_msat_memorandum_2023.pdf

[18] Michael Baker International, Inc. 2025. I-26 Improvements MM145-172 Air Quality Analysis. (Appendix H)

The contractor will ensure particulate matter emissions will be minimized by using fugitive dust control measures such as covering or treating disturbed areas with dust suppression techniques, sprinkling, covering loaded trucks, and other dust abatement controls, as appropriate. Construction-related MSAT emissions will be minimized by using low emission diesel fuel for non-road diesel construction equipment. Provisions will be included in project plans and specifications requiring contractors to make every reasonable effort to minimize construction air quality impacts through abatement measures such as limiting construction equipment idling and other emission limitation techniques, as appropriate.

The contractor will ensure that all construction equipment is properly tuned and maintained. Idle time will be minimized to save fuel and reduce emissions. Water will be applied to control dust impacts off site.

For additional information on air quality, see **Appendix H**.

4.13 Farmlands

The Farmland Protection Policy Act (FPPA) of 1981 (7 USC 4201 and 7 CFR Ch. VI Part 658) requires evaluation of potential farmland conversion to nonagricultural uses. Farmland, as defined under FPPA, includes prime farmland, unique farmland, and farmland of statewide importance. According to the U.S. Department of Agriculture (USDA), prime farmland has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops. Unique farmland is land other than prime farmland that is used for the production of specific high-value food and fiber crops, such as citrus, tree nuts, olives, cranberries, and other fruits and vegetables. Farmland of statewide importance is a distinctive land category that does not meet the criteria for prime or unique farmland, with specific criteria being determined individually by each state. Within South Carolina, farmland of statewide importance generally includes areas of soils that nearly meet the requirements for prime farmland and that produce a high yield of economically viable crops.

Based on the NRCS Web Soil Survey,[19] approximately 65 percent of the PSA is classified as prime farmland, unique farmland, or farmland of statewide importance. A complete list of soils, including farmland soils, in the PSA can be found in the NRTM (**Appendix E**).

4.13.1 No-Build Alternative

The No-Build Alternative would not impact farmlands, as no improvements would be made to the I-26 corridor.

4.13.2 Preferred Alternative

The Preferred Alternative encompasses approximately 1,958 acres in Orangeburg and Dorchester Counties. Within this area, approximately 796 acres are designated as prime farmland, 453 acres are designated as farmland of statewide importance, and 361 acres are classified as not prime farmland. Soils designated as prime farmland within and adjacent to the PSA are primarily undeveloped and currently exist as woodland habitats. The Preferred Alternative could require the direct conversion of up to 80 acres of FPPA soils within the ROW of the PSA. Conversion of prime farmland has already occurred historically through roadway construction, residential development, and commercial uses in the region.

[19] Natural Resources Conservation Service's (NRCS) Web Soil Survey

In accordance with the FPPA, a Farmland Impact Conversion Rating Form for Corridor Type Projects (NRCS-CPA-106) has been completed for the Preferred Alternative (**Appendix I**). The purpose of the Farmland Impact Conversion Rating Form is to help identify and approximate the amount of farmland that would be converted by the Preferred Alternative. Two values were determined using the Farmland Impact Conversion Rating Forms, including the Relative Value and the Total Corridor Assessment value. The Relative Value is the relative value of farmland to be converted by the Preferred Alternative, on a scale of zero to 100 points. The Total Corridor Assessment value is on a scale of zero to 160 points, and pertains to the land use, the availability of farm support services, investments in existing farms, and the amount of farmland that would be converted to nonagricultural use due to the construction of the Preferred Alternative. Sites receiving highest scores, up to a maximum of 260, are considered most suitable for protection while those with lowest scores are considered least suitable. Sites receiving scores less than 160 are to be given minimal consideration for protection.

The proposed project received a Total Corridor Assessment score of 158, assuming a Relative Value of 100. Since this Total Corridor Assessment score is under the 160-point threshold described above, neither consideration of alternative sites nor additional studies for the study area are required under the FPPA. The Farmland Impact Conversion Rating Form is located in **Appendix I**.

4.14 Underground Storage Tanks/Hazardous Waste

Hazardous material and waste sites are regulated by the Resource Conservation and Recovery Act of 1976 (RCRA), as amended; the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA); and the Superfund Amendments and Reauthorization Act of 1986 (SARA). Hazardous materials may be in the form of liquids, solids, contained gases, or sludges and are characterized as reactive, toxic, infectious, flammable, explosive, corrosive, or radioactive. A hazardous material that has been used and discarded is considered hazardous waste.

A Limited Phase I Environmental Site Assessment[20] was completed in accordance with *American Society for Testing and Materials (ASTM) E1527-21, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, on April 22, 2025, to identify potential or existing environmental contamination within or near the PSA, **Appendix J**. The assessment included a search of standard environmental databases and site reconnaissance.

Based on review of this information and site reconnaissance, 14 Recognized Environmental Conditions (REC) and/or Controlled Recognized Environmental Conditions (CREC) were identified with known or potential environmental releases within the PSA. Of these, 13 were classified as RECs and one a CREC. A summary of sites is provided in **Table 16** and shown in **Figure 22**.

Table 16: Recognized Environmental Condition Sites Within or Near the PSA

REC/CREC #	Site Name	Location	Environmental Concern
REC 1	Triangle Tool Group / Cooper Tools Orangeburg - Closed	Cameron Road / Hwy 33 at I-26	UST/LUST/ FINDS/ECHO
REC 2	Loves Travel Stop 326	3205 Five Chop Rd / 3211 Five Chop Rd	UST/LUST/ERNS/HMIRS/RGA LUST/FINDS/SPILLS/EDR Hist Auto

[20] F&ME Consultants. 2025. Limited Phase I Environmental Site Assessment Report. (Appendix J)

REC/CREC #	Site Name	Location	Environmental Concern
REC 3	Corner Pantry 116	3229 Five Chop Rd	UST/LUST/RGA LUST/EDR Hist Auto/ICIS/FINDS/ECHO
REC 4	A1 Exxon / Quick Pantry 6	"I-26 & 301" / 3224 Five Chop Rd	UST/LUST/RGA LUST/FINDS/ICIS/ECHO/GWCI/UI
REC 5	QuikTrip	111 Millenium Dr	UST/HMIRS
REC 6	7 Eleven / Jimmy's Truck Stop	3457 & 3467 Five Chop Rd	UST Site
CREC 7	Midway Truck Stop	3530 & 3558 Five Chop Rd	AST/UST/LUST/RGA LUST/GWCI/EDR Hist Auto/GWT
REC 8	Orange Texaco	"301 & I 26" (i.e., possible former gas station located at 3408 Five Chop Road)	UST
REC 9	Speedway 8446 / Pilot Travel Center	2064 Homestead Rd	UST/LUST RGA LUST/EDR Hist Auto/RCR/FINDS/SPILL
REC 10	Bowman Exxon / Lions Den	2269 Homestead Rd	UST/RCR/LUST/RGA LUST/FINDS
REC 11	Bowman Exxon / Lions Den	2267 Homestead Rd	UST/FINDS
REC 12	Flying J / Bowman Texaco Food Mart / Smith JB & PA / Bowman Texaco Service Garage / Bowman Shell / Southern Building Supply	5448 & 5465 Vance Rd	UST/LUST/SHWS/RCR/AUL/VCP/SC BROWNFIELDS/ALLSITES/EDR Hist Auto/SC GWCI/FINDS
REC 13	BP Exit 165 / Macs Quick C	5463 & 5465 Vance Rd	UST/LUST/RGA LUST/FINDS

UST = Underground Storage Tank
LUST = Leaking Underground Storage Tank
SPILLS = The Spills Database
AUL = Sites with institutional controls in place
FINDS = Facility Index System
GWCI = Groundwater Contamination Inventory Cases
RGA = Recovered Government Archive
HMIRS = Hazardous Materials Incident Report System
ECHO = Integrated Enforcement and Compliance Information Database
ERNS = Emergency Response Notification System
SHWS = State Hazardous Waste Site
RCR = State Registry of Conditional Remedies
GWT = Groundwater Management Tracking
VCP = State Voluntary Cleanup Site
ICIS = Incident Compliance Information System
EDR Hist Auto = Historic Automotive Site
UIC = Underground Injection Wells

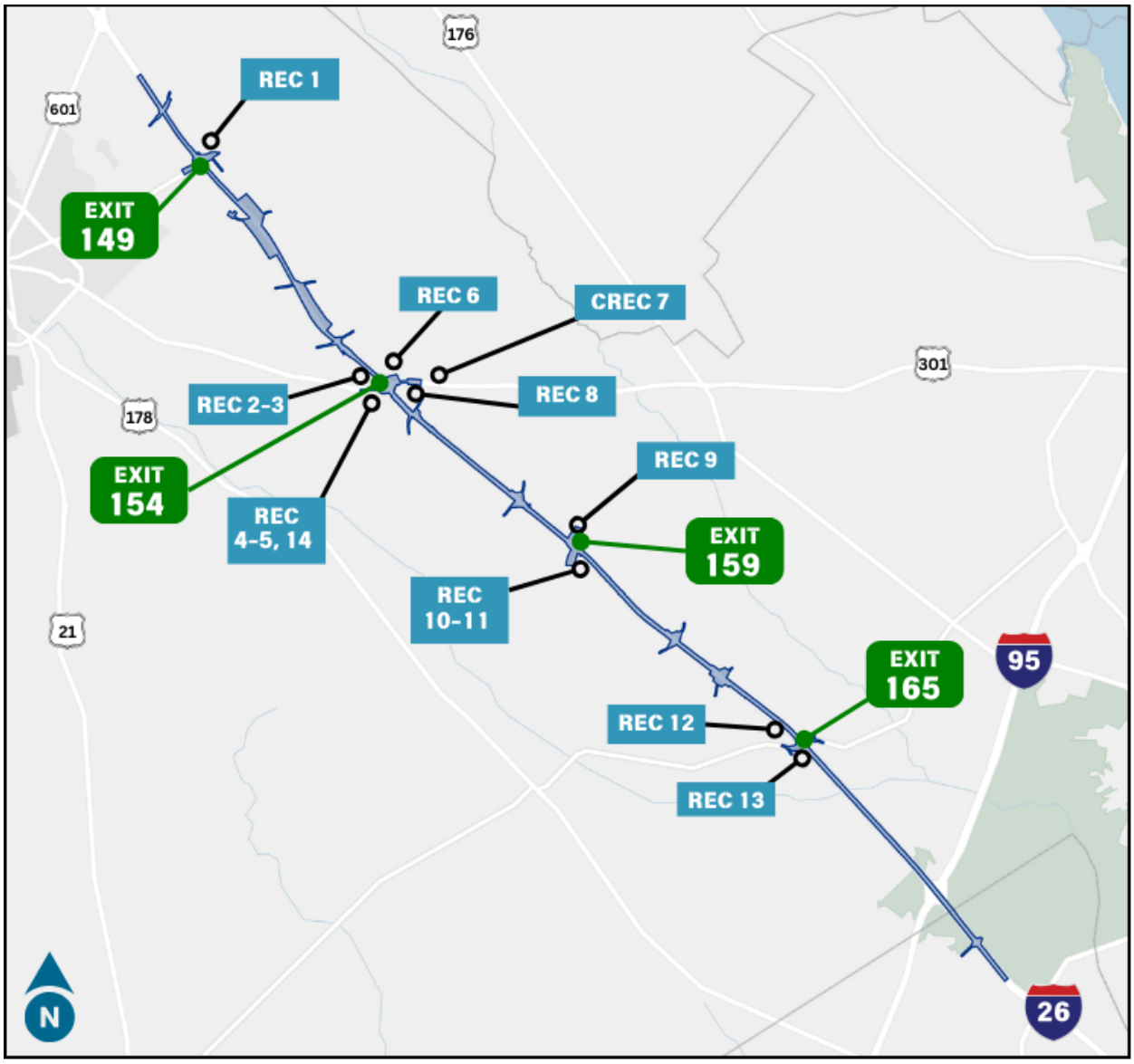

Figure 22: Recognized Environmental Condition Sites Within or Near the PSA

4.14.1 No-Build Alternative

The No-Build Alternative would not impact underground storage tanks (USTs) or hazardous materials, as no improvements would be made to the I-26 corridor.

4.14.2 Preferred Alternative

The Preferred Alternative has the potential to affect 14 REC and/or CREC sites within the PSA. A Phase II Environmental Site Assessment is recommended to evaluate whether these sites may have adversely impacted soil, groundwater, or soil vapor within the PSA. In addition, ground penetrating radar is recommended at 11 of the 14 sites where existing building structures present, to identify the locations of USTs, piping, and associated equipment below ground.

If avoidance of hazardous materials is not feasible and potentially contaminated soils are encountered during construction, SCDES will be notified. Hazardous materials will be tested and, if necessary, removed and/or treated in accordance with USEPA and SCDES requirements.

While not within the scope of the Limited Phase I Environmental Site Assessment, asbestos-containing materials and other lead-based materials could be encountered if any structures are demolished within the PSA. The Preferred Alternative includes replacement of 15 bridges, which may contain structural components with lead-based paint. Therefore, asbestos and lead assessments will be required prior to demolition.

4.15 Impacts Associated with Reasonably Foreseeable Future Actions

Other past, ongoing, or future actions may impact resources individually or collectively when considered in combination with the Preferred Alternative. This section summarizes the reasonably foreseeable impacts of the Preferred Alternative when considered in combination with the following other actions:

- **I-26 Widening from MM 137–146** – Improvements beginning just east of the Caw Caw Road (Exit 136) interchange and ending just east of the US 601 (Exit 145) interchange.
- **I-26 & I-95 Interchange Improvements** – Enhancements to improve mobility and operations at the system interchange of I-26 and I-95.
- **I-26 Widening from MM172–187** – Improvements beginning just west of the US 15 (Exit 172) interchange and ending just west of the SC 27 (Exit 187) interchange.

Resources with no reasonably foreseeable impacts are not discussed.

Land Use: Over time, changes in land use may occur as a result of development. Orangeburg and Dorchester Counties and the City of Orangeburg continue to develop comprehensive planning documents with regulatory boundaries such as zoning. Impacts on land use would be moderated by local, state, and federal regulations. Conversion of land use would occur through local planning and zoning.

Noise: Noise mitigation was determined to be neither reasonable nor feasible within the PSA. The traffic noise analysis discussed in Section 4.4 accounted for projected traffic growth through the design year 2050. Because these projections already incorporate future traffic volumes, no additional reasonably foreseeable noise impacts are anticipated.

Water Quality and Wetlands: Future conversion of undeveloped and vegetated land could impact water quality and wetlands. Increases in impervious surfaces associated with development may lead to higher stormwater runoff and greater pollutant loading in nearby waterbodies.

Protected Species: Future land conversion could remove vegetative cover that provides habitat for protected species or degrade aquatic habitats through impacts on water quality, as described above.

4.16 Impact Summary

Impacts have been evaluated based on proposed ROW limits established for conceptual designs dated November 2025 for the mainline widening, interchange improvements, and overpasses. For some resources, such as wetlands and waters of the US, impacts will decrease as designs progress and construction limits are defined within the ROW. Therefore, impacts presented in this EA represent the maximum potential impacts of the Preferred Alternative. **Figure 23** compares potential impacts of the No-Build Alternative and Preferred Alternative. **Figure 24 A-O** shows the existing conditions and environmental impacts within and adjacent to the PSA.

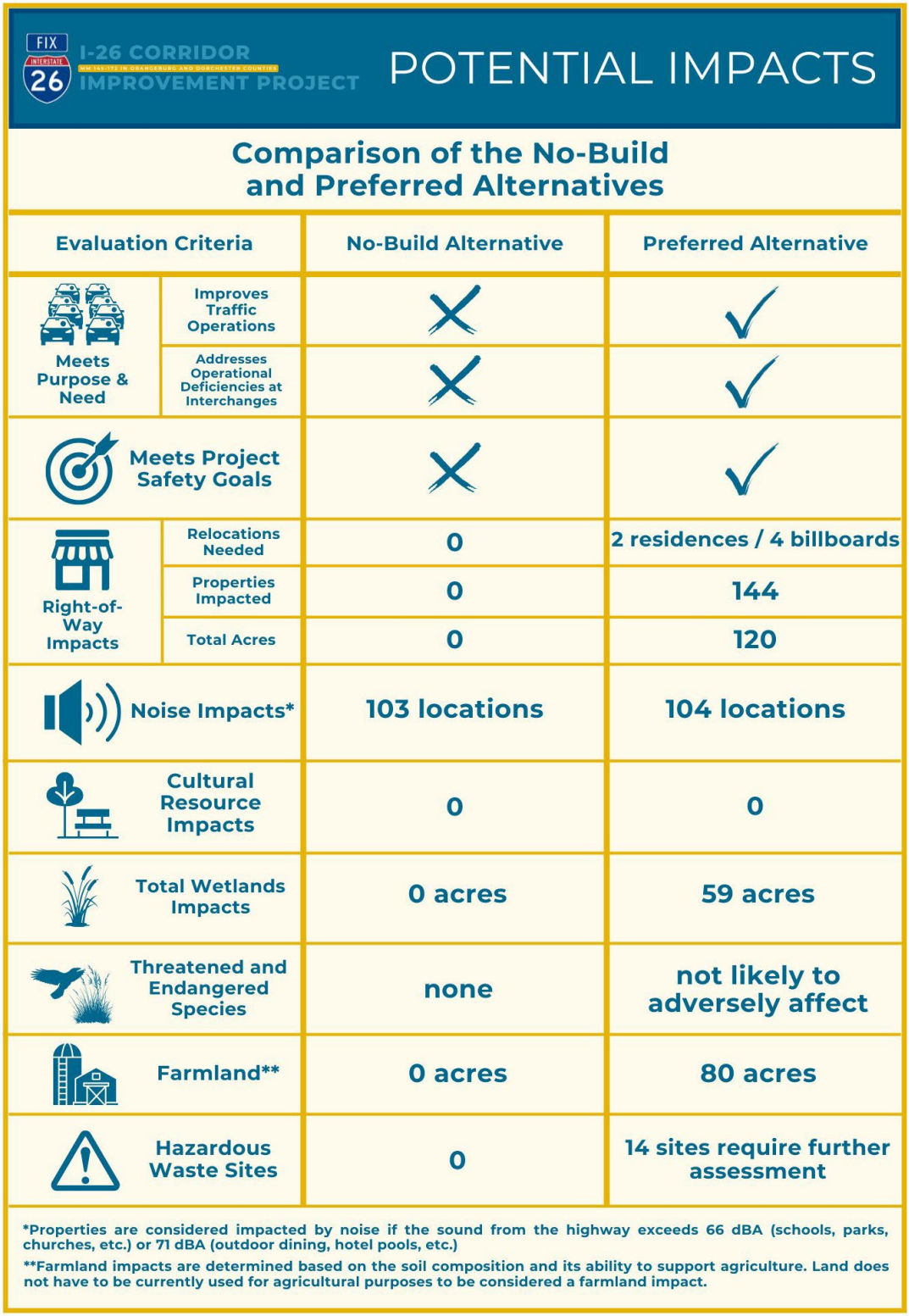

Figure 23. Potential Impacts of the No-Build and Preferred Alternatives

Figure 24A. Existing Conditions and Environmental Impacts

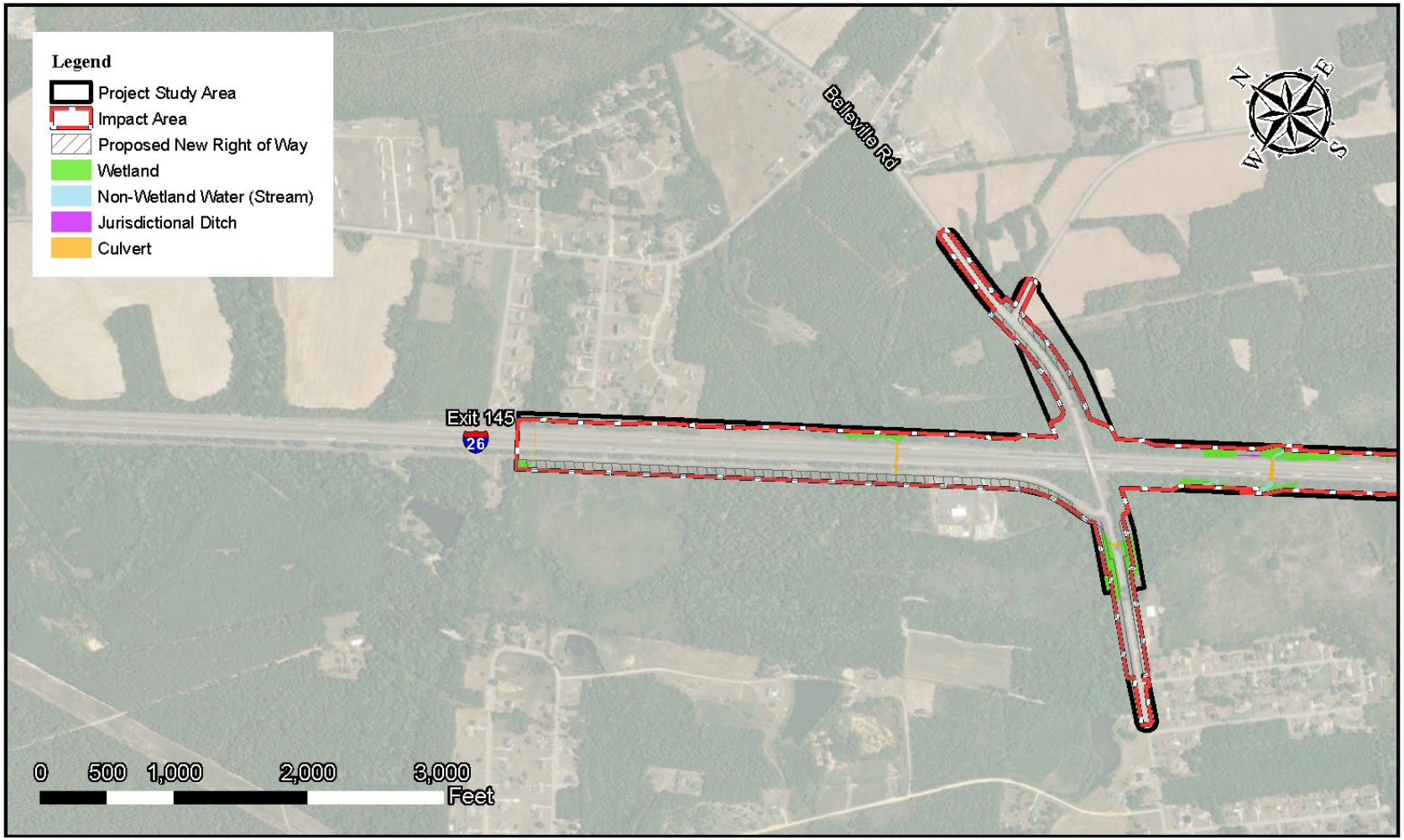

Figure 24B. Existing Conditions and Environmental Impacts

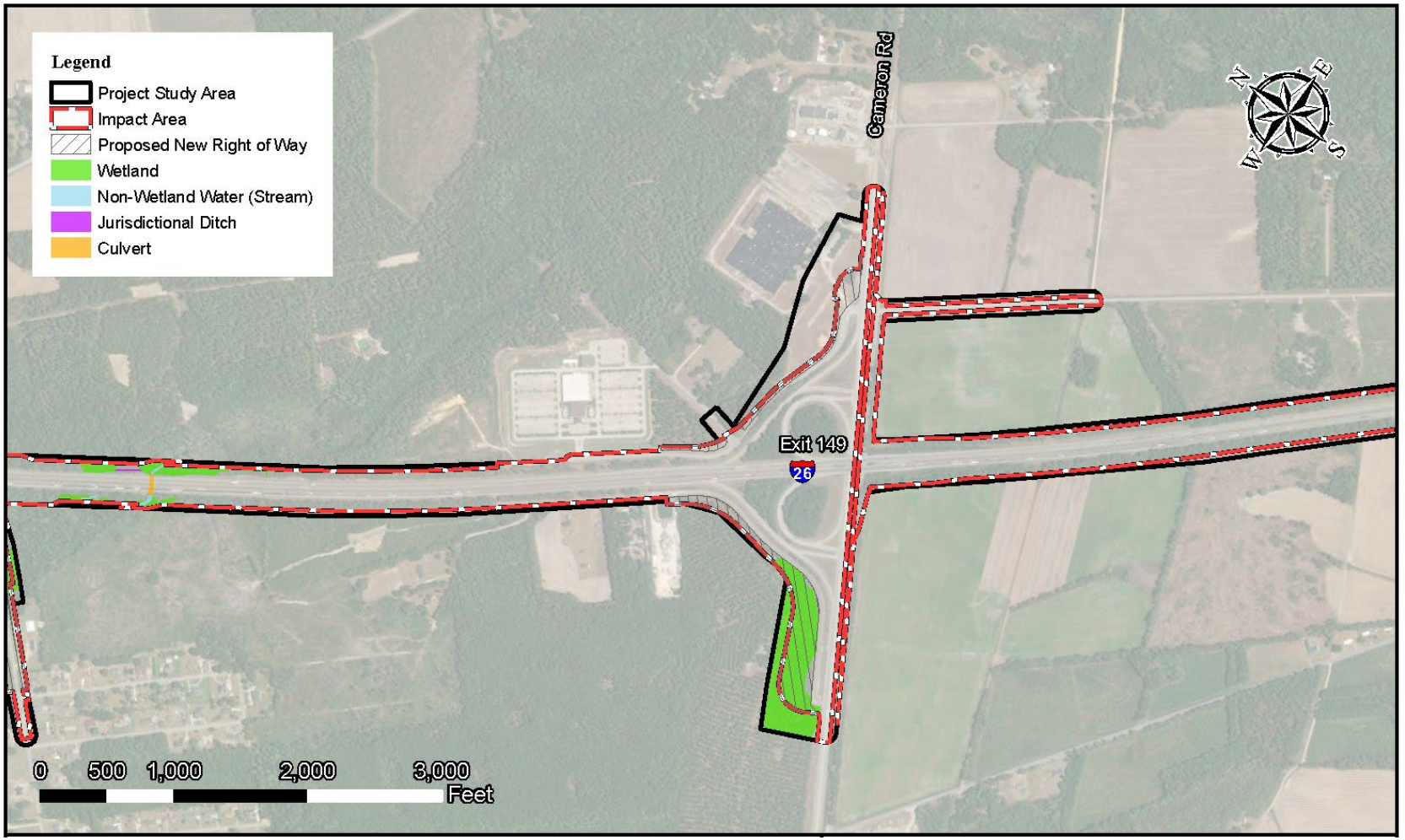

Figure 24C. Existing Conditions and Environmental Impacts

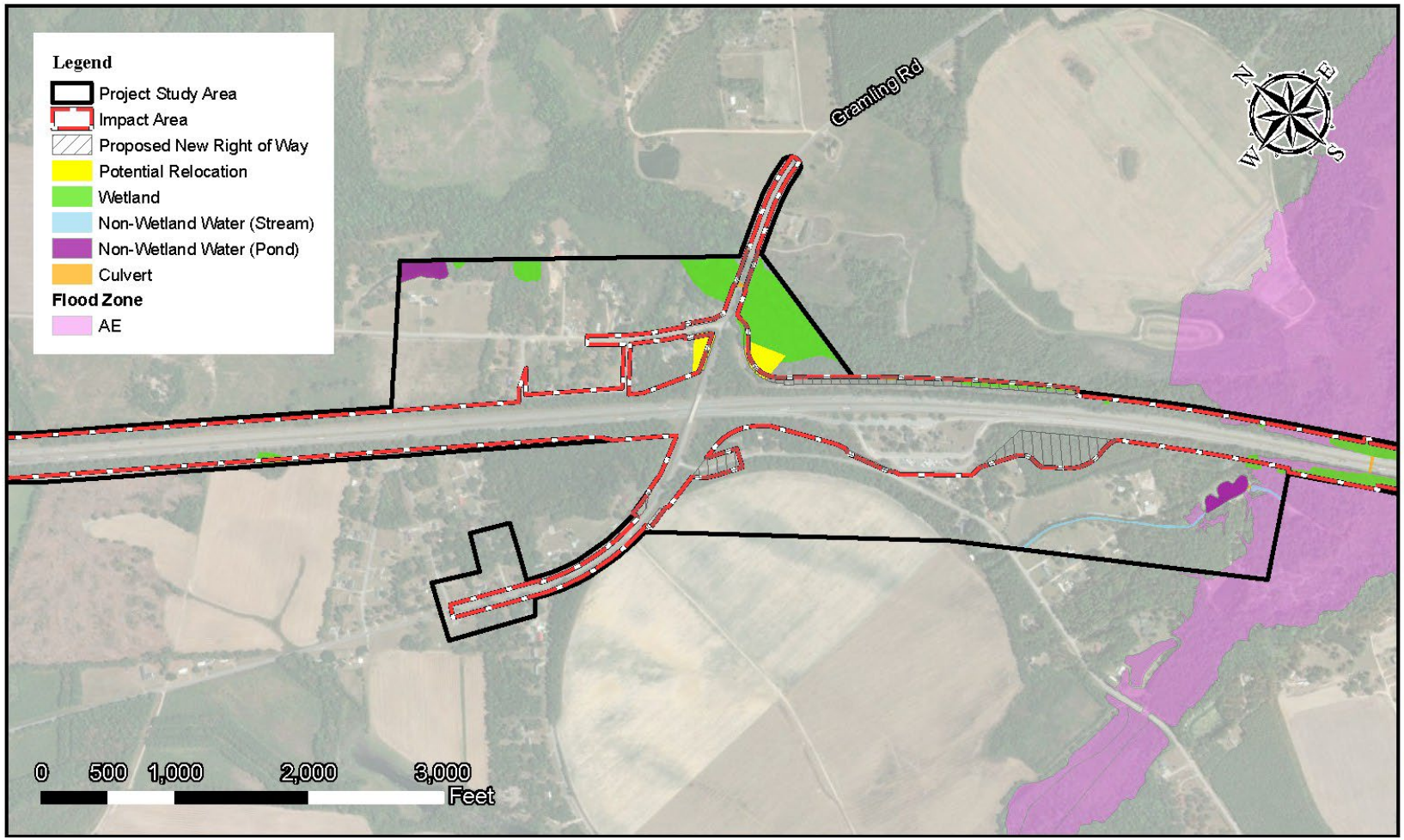

Figure 24D. Existing Conditions and Environmental Impacts

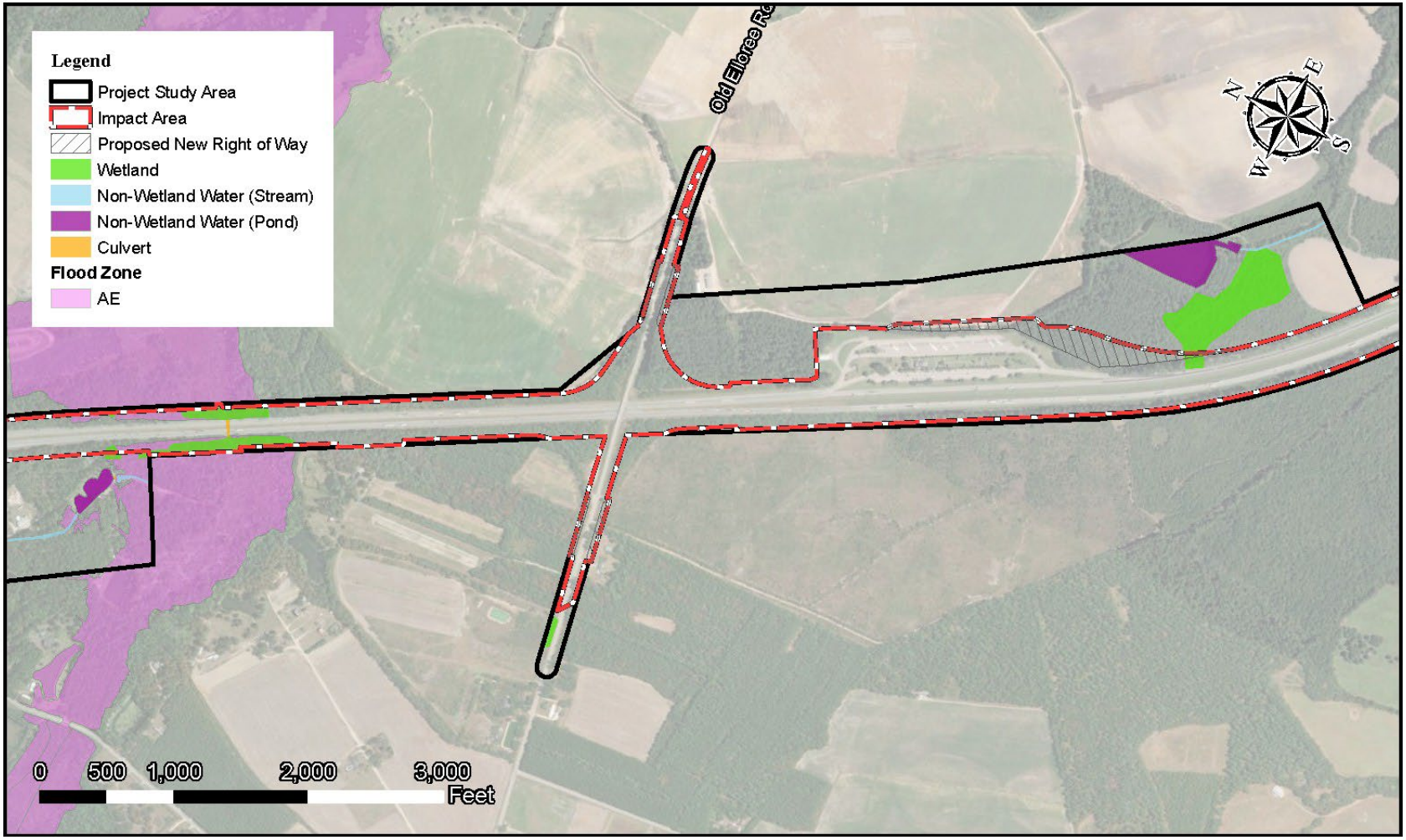

Figure 24E. Existing Conditions and Environmental Impacts

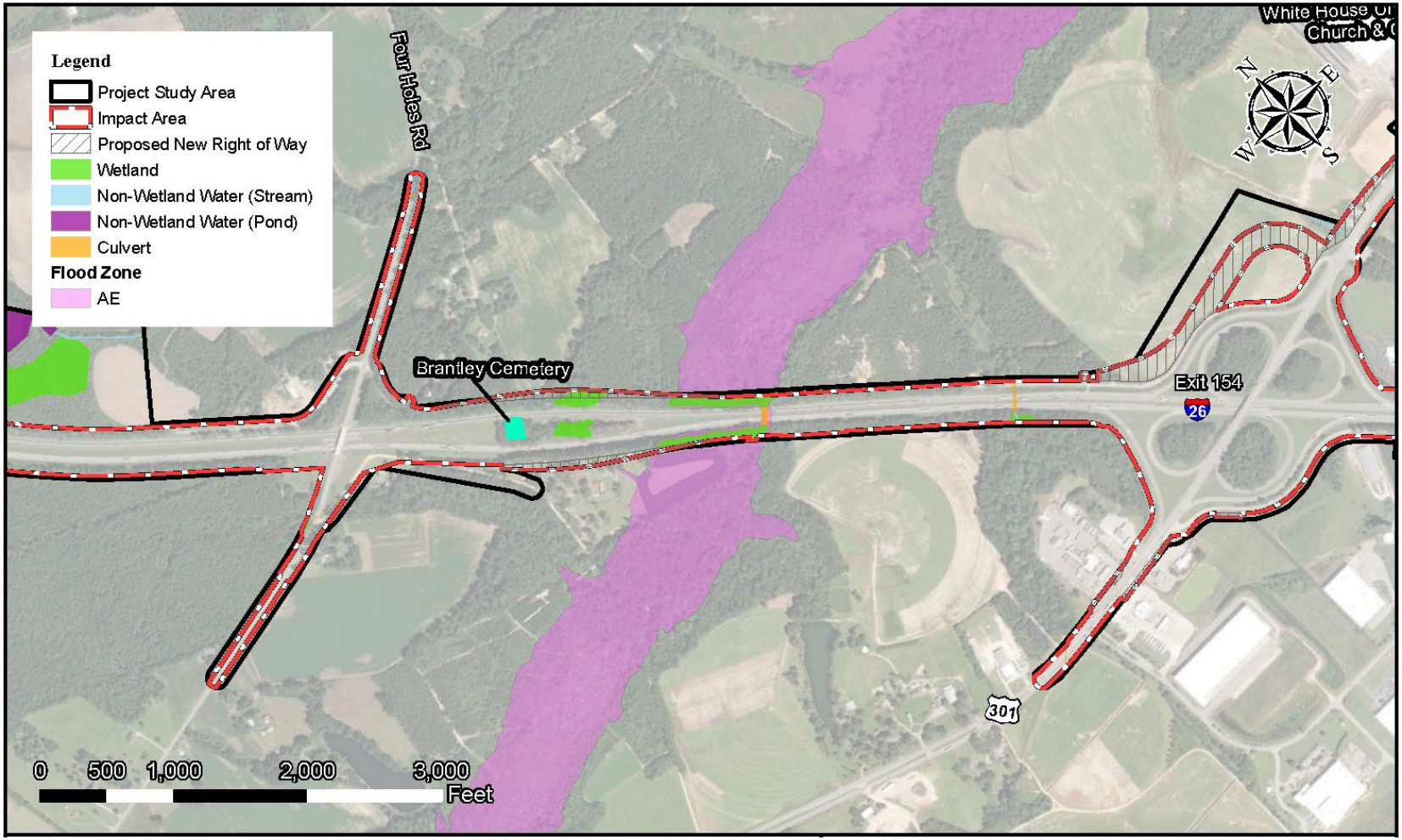

Figure 24F. Existing Conditions and Environmental Impacts

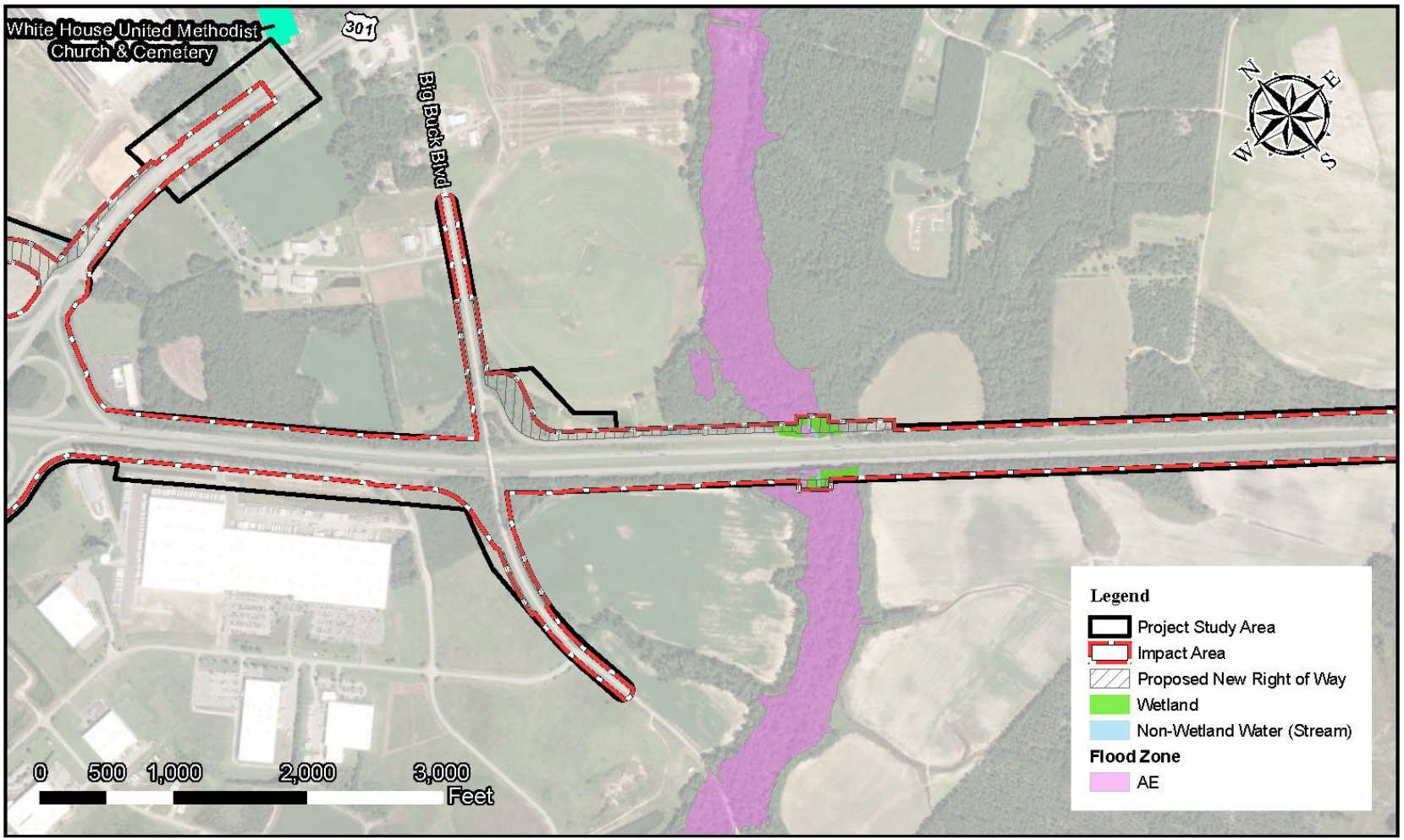

Figure 24G. Existing Conditions and Environmental Impacts

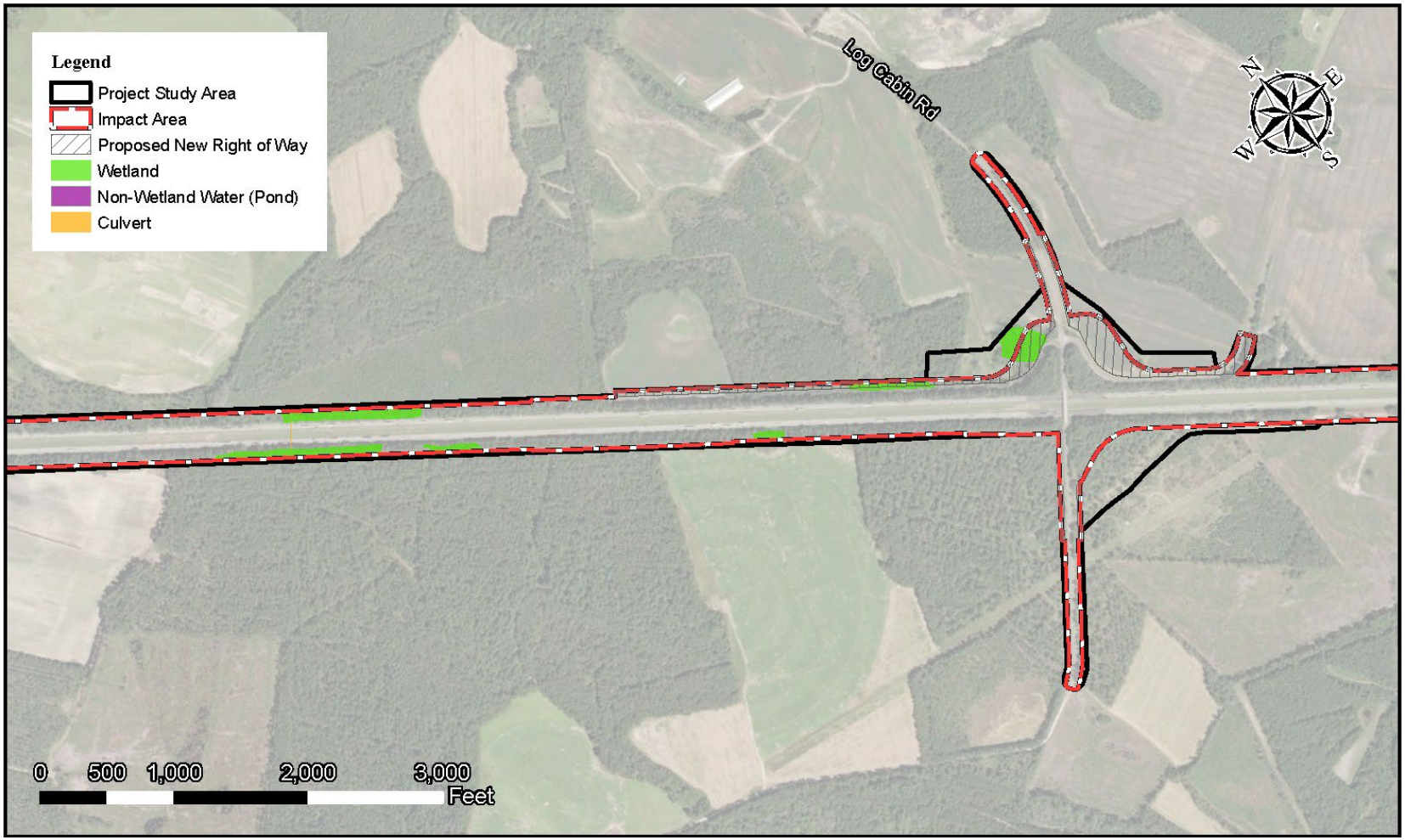

Figure 24H. Existing Conditions and Environmental Impacts

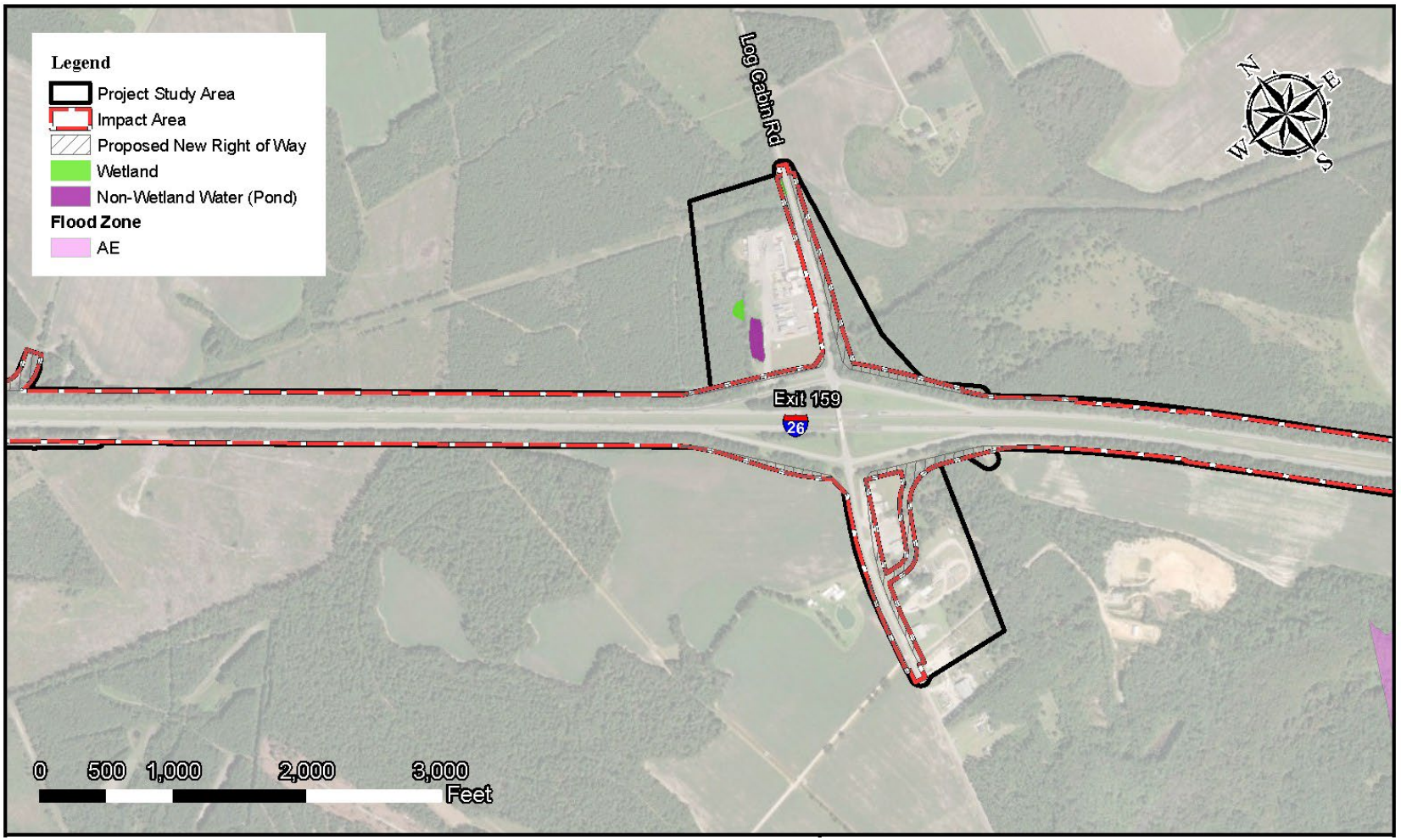

Figure 24I. Existing Conditions and Environmental Impacts

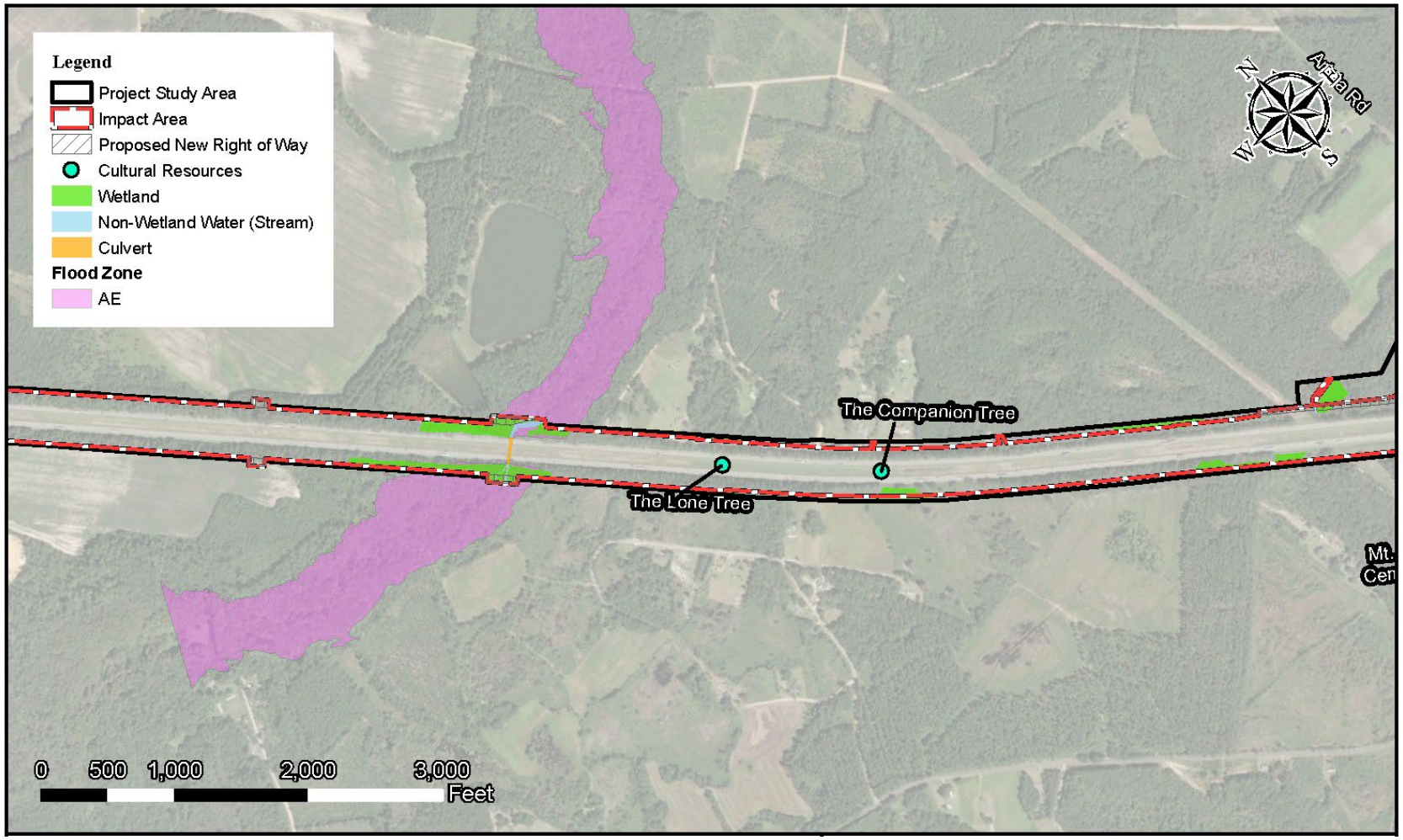

Figure 24J. Existing Conditions and Environmental Impacts

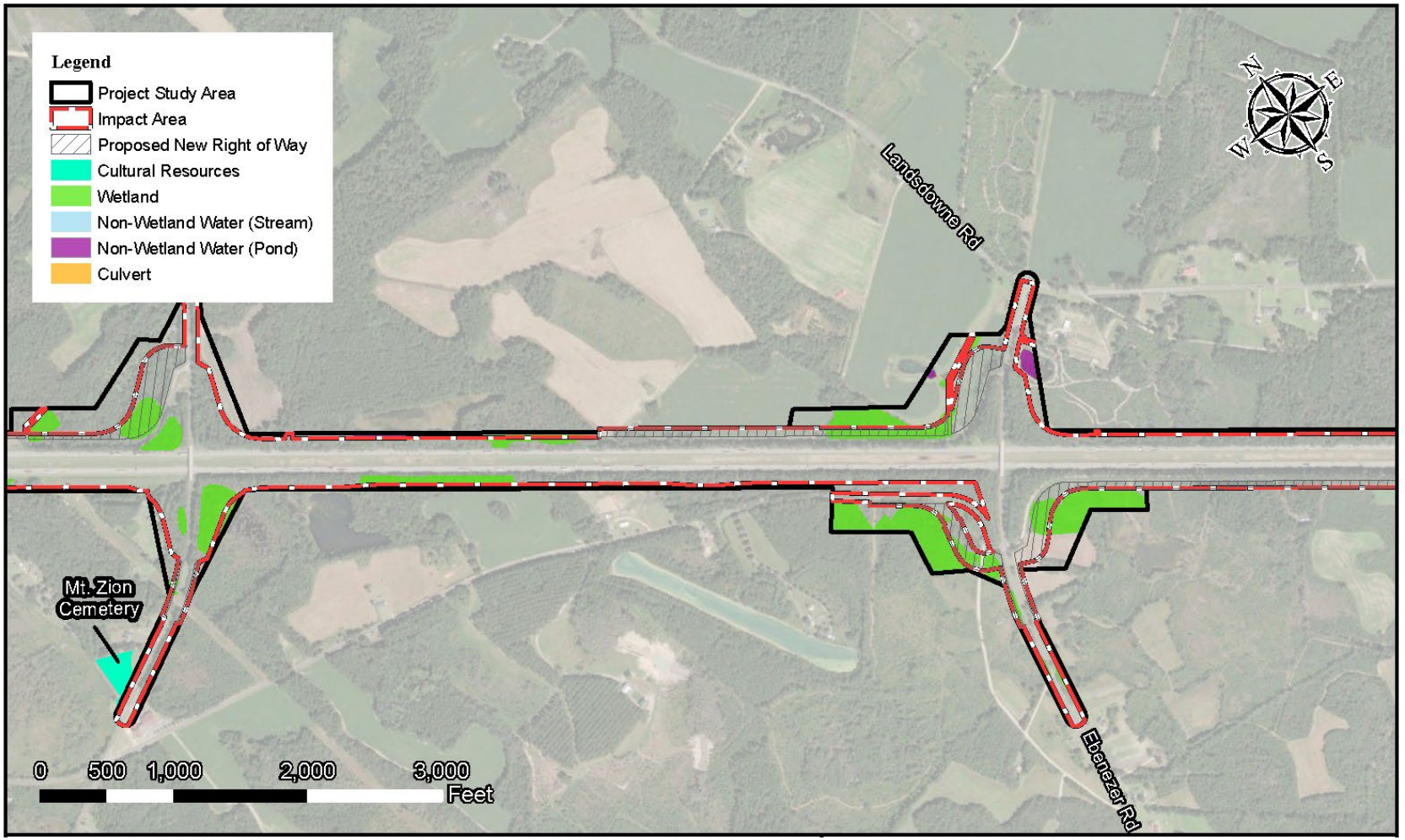

Figure 24K. Existing Conditions and Environmental Impacts

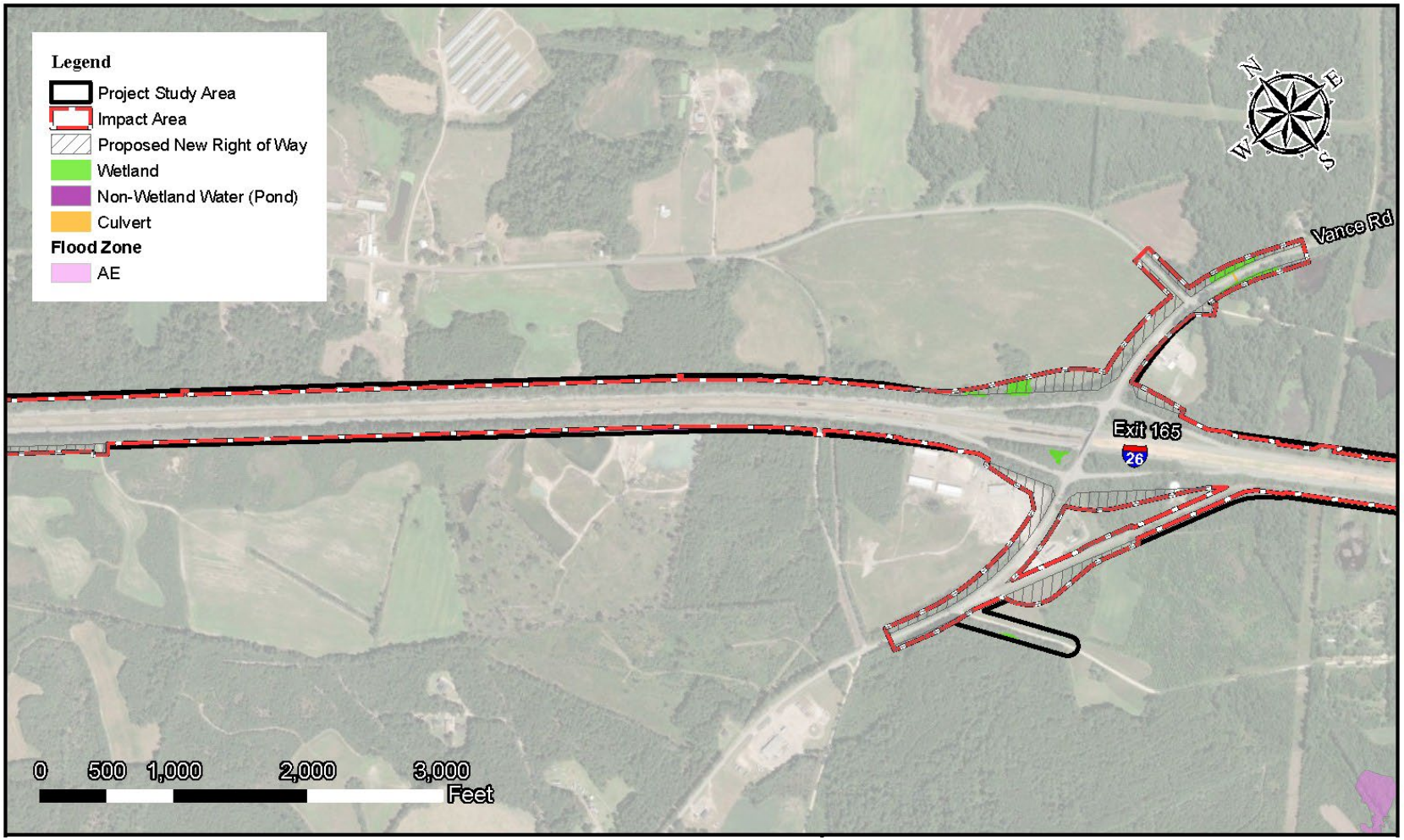

Figure 24L. Existing Conditions and Environmental Impacts

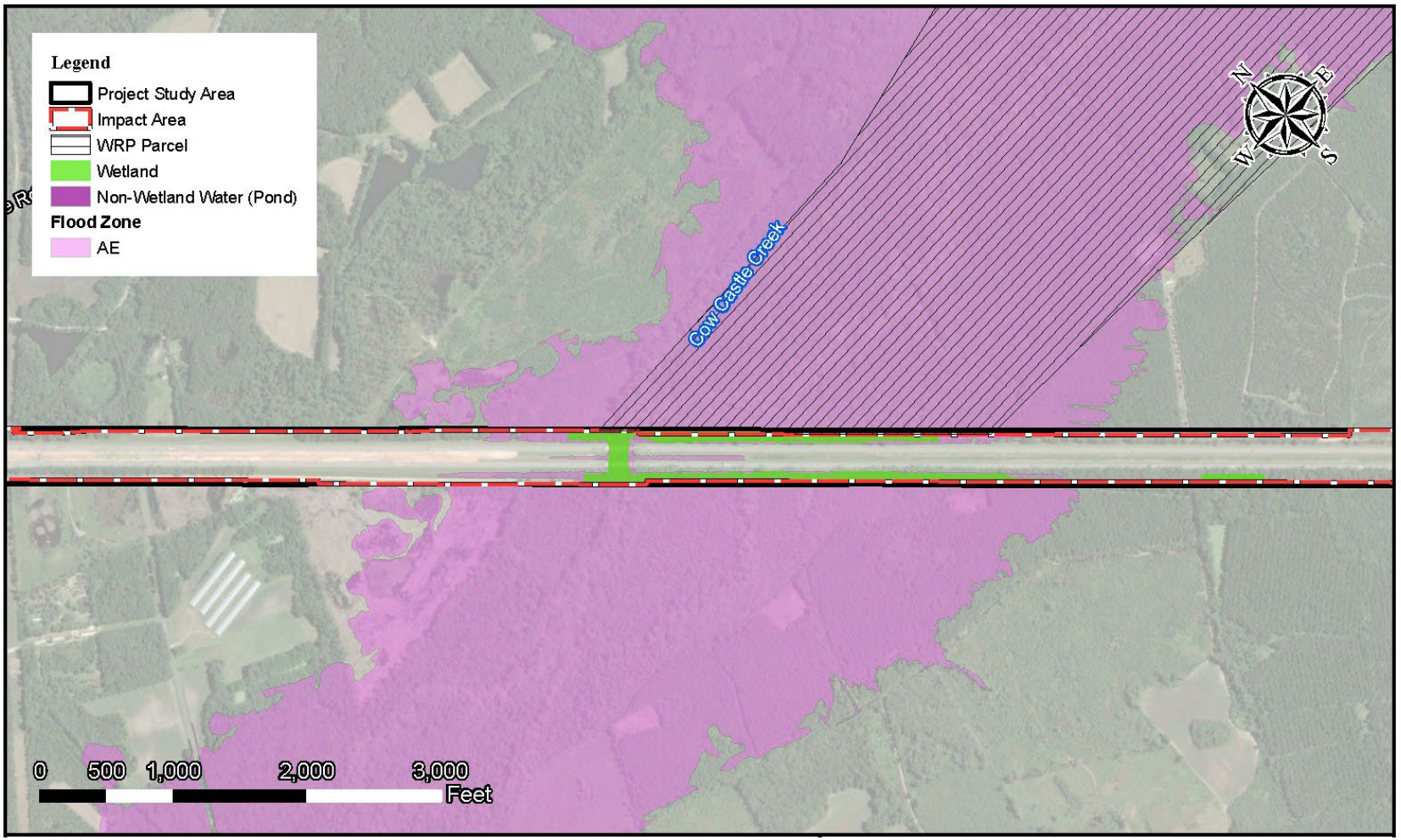

Figure 24M. Existing Conditions and Environmental Impacts

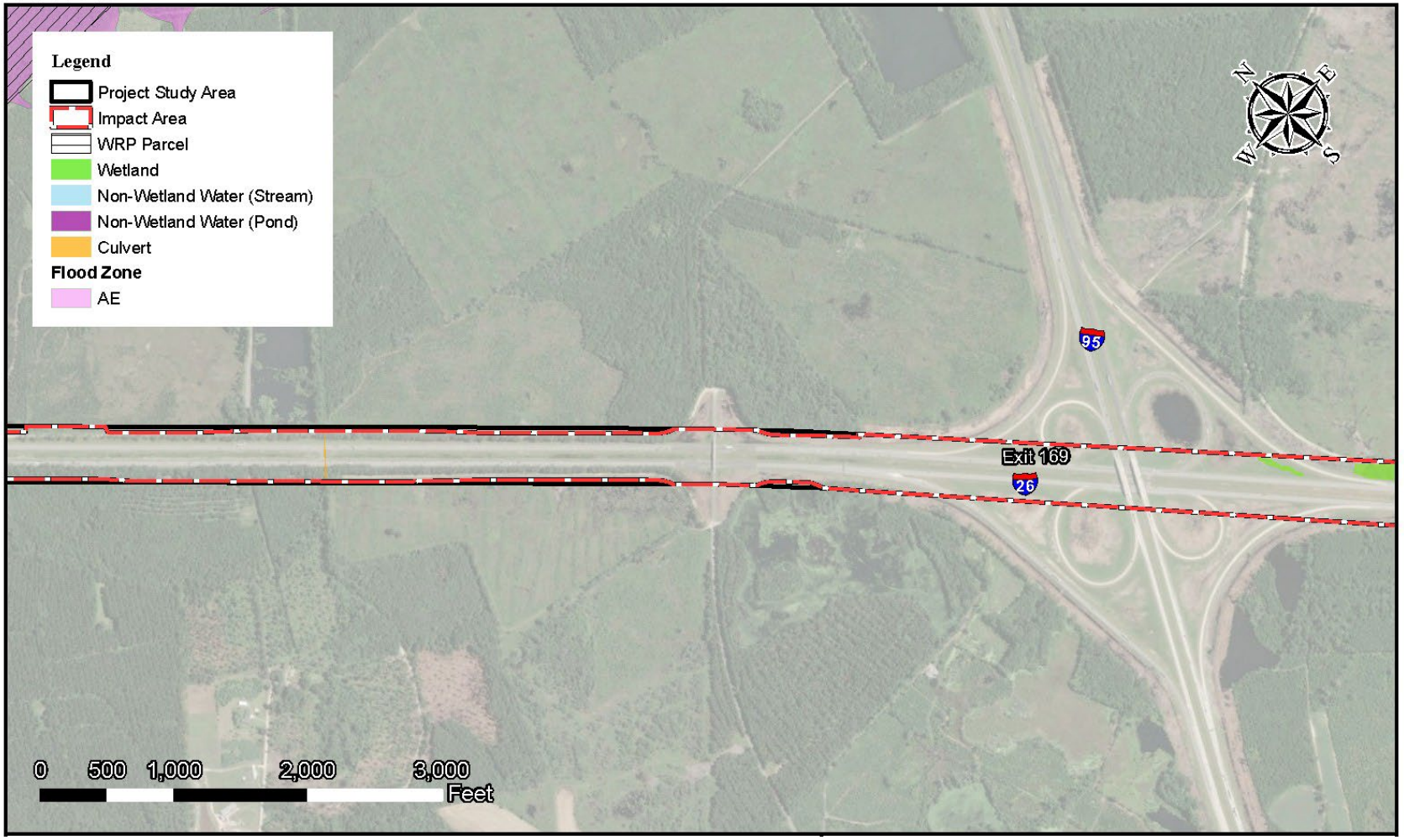

Figure 24N. Existing Conditions and Environmental Impacts

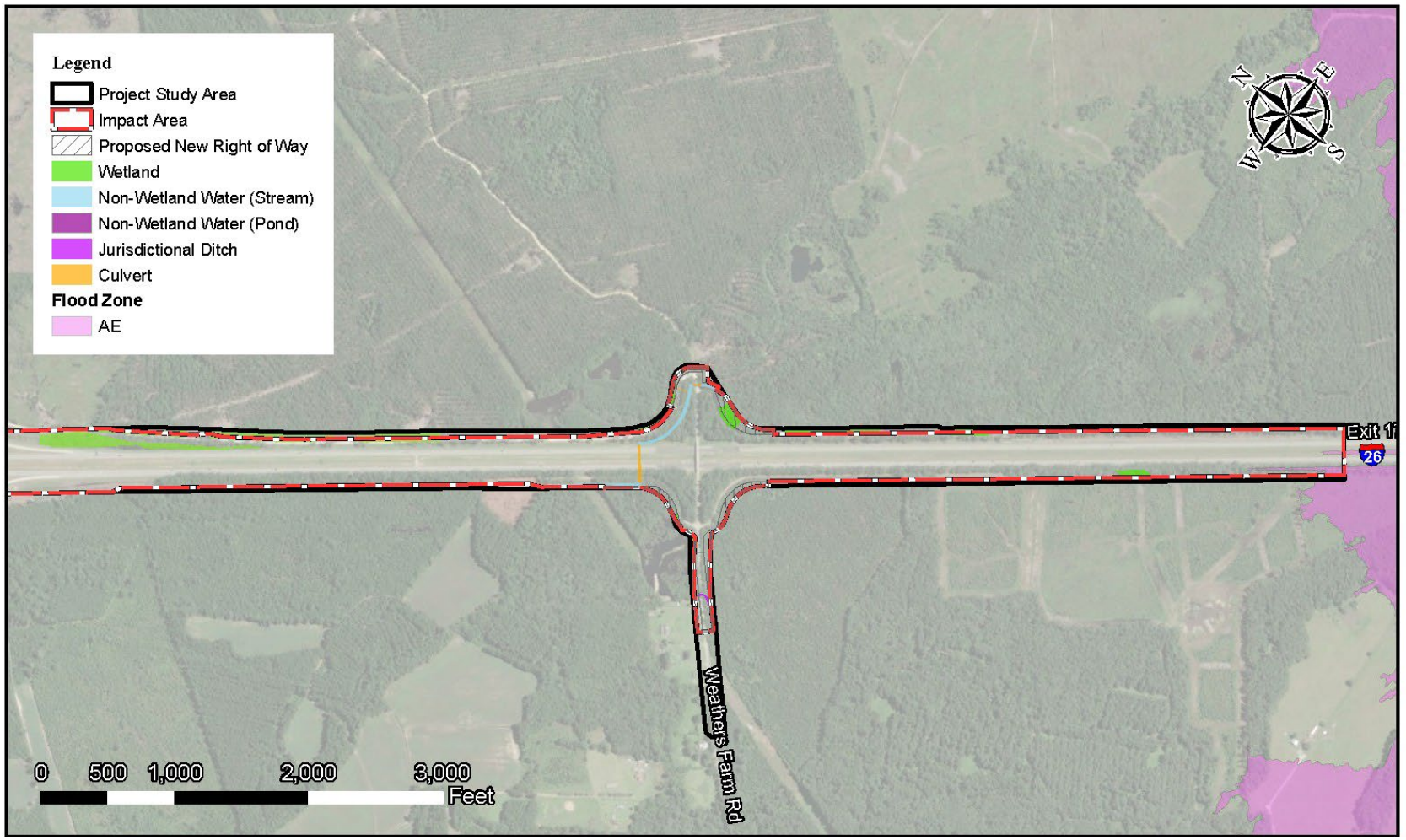

Figure 24O. Existing Conditions and Environmental Impacts

5 PUBLIC INVOLVEMENT AND AGENCY COORDINATION

5.1 Public Involvement

A Public Involvement Plan (PIP) was developed early in the project development process, in coordination with SCDOT's Public Involvement Office, to provide a structured and transparent approach for informing and engaging the public, stakeholders, and agencies throughout the NEPA process. The PIP was designed to meet public involvement requirements under NEPA in support of the EA, Title VI of the Civil Rights Act, and other federal regulations. The PIP was designed to meet public involvement requirements under NEPA in support of the EA, Title VI of the Civil Rights Act, and other federal regulations. It outlines strategies and tools to share timely, accurate information about the project; solicit meaningful input on potential impacts; and ensure that feedback is considered in project decision-making. The plan includes targeted outreach to residents and stakeholders in and around the project area, as well as early and ongoing coordination with regulatory agencies to support efficient reviews and approvals. The full PIP is included in **Appendix K-1**.

5.1.1 Public Information Meeting

An in-person Public Information Meeting (PIM) was held on July 17, 2025, at the New Vision Centre Event Venue in Orangeburg, South Carolina. In addition, a dedicated project website was hosted on SCDOT's Public Involvement Portal (www.i26improvements.com/mm145-172), allowing individuals to review materials and provide input at their convenience, thereby expanding access for those unable to attend in person.

The goals of the meeting were to educate the public and stakeholders on the project, gather feedback on project needs and potential impacts, and incorporate community input into project design and decision-making. Project materials were available on the project website, at the in-person meeting, and by mail upon request.

To advertise the PIM, SCDOT used multiple traditional and non-traditional methods, including a legal notice in the *Post & Courier*, a press release on SCDOT's website, coverage by local news stations, postcards mailed to approximately 5,750 addresses in the outreach area, letters to property owners in the PSA who may be subject to ROW impacts, roadway signs along the interstate and interchanges, and banners posted near key community facilities.

The public was invited to submit comments or questions via email, mail, or in person at the PIM. A total of 69 people attended the in-person meeting, and the project website received 869 views during the official public comment period (July 2–August 1, 2025). In total, 45 comments were submitted: 8 at the in-person meeting and 37 through the project website. The top themes of comments and concerns were Traffic Congestion (40 percent), Safety (31 percent), Property Impacts (16 percent), and Noise (11 percent).

Additional details on the PIM and public comment period are provided in **Appendix K-2**.

5.1.2 Public Hearing

SCDOT will conduct a Public Hearing to present the findings of this EA, including the identification of the Preferred Alternative. The hearing will include an in-person open-house session followed by a formal presentation and verbal comment period. Comments will be accepted online, in person, by email, and by mail. At the close of the public comment period, each individual who provided a substantive written comment will receive a response.

Multiple types of traditional and non-traditional advertisements will be used to publicize the Public Hearing. These will include a legal notice in a local newspaper, a press release on SCDOT's website, postcards, letters to property owners in the PSA who may be subject to ROW impacts, roadway signs along the interstate and interchanges, and project banners placed near key community facilities.

Public Hearing materials will include a meeting handout and displays illustrating the Preferred Alternative and potential project impacts.

5.2 Agency Coordination

SCDOT distributed a Letter of Intent (LOI) on March 26, 2025, to inform agencies and stakeholders that an EA was being prepared. The LOI was sent to the agencies listed in **Table 17** and is available in **Appendix L-1**. One response to the LOI was received from USFWS.

Table 17: Agency & Tribal LOI Coordination

Agencies
Federal
Federal Highway Administration (FHWA)
US Army Corps of Engineers (USACE)
US Fish and Wildlife Service (USFWS)
US Coast Guard (USCG)
US Environmental Protection Agency (USEPA)
State
SC Department of Environmental Services (SCDES)
SC Office of Regulatory Staff (SCORS)
SC Human Affairs Commission (SCHAC)
SC Department of Agriculture (SCDA)
SC Department of Archives and History (SCDAH)
SC Department of Archaeology and Anthropology (SCDAA)
SC Department of Natural Resources (SCDNR)
SC Parks, Recreation, and Tourism (SCRPT)
SC Department of Administration
SC Secretary of Commerce

Agencies
SC Forestry Commission (SCFC)
SC Department of Public Safety (SCDPS)
SC Wildlife Federation (SCWF)
SC Natural Heritage Corridor (SCNHC)
Tribal
Catawba Indian Nation
Cherokee Nation
Eastern Band of Cherokee Indians
Muscogee (Creek) Nation
Keetoowah Band of Cherokee Indians

An Agency Coordination Effort (ACE) Meeting was held on January 16, 2025, to discuss the project background and status, review the project timeline, and facilitate open discussion among participating agencies (**Appendix L-2**). One comment was received from SCPRT following the ACE Meeting. SCDOT will continue coordination with agencies throughout the EA process to address comments and ensure that input is considered in project design, mitigation, and decision-making.