

DEPARTMENT OF THE ARMY
CHARLESTON DISTRICT CORPS OF ENGINEERS OUT SERVED OF ENGINEERS OUT SERVED OF ENGINEERS OUT SERVED OUT SERVED

OHATA PHA TOUR

Regulatory Division

South Carolina Department of Transportation Mr. Sean Connolly P.O. Box 191, 955 Park St. Columbia, South Carolina 29202-0191

Dear Mr. Connolly:

This letter is in response to your request for a Preliminary Jurisdictional Determination (PJD) (SAC-2015-01080) received in our office on January 7, 2019, for a 1,482-acre site located in Richland and Lexington Counties. The site in question is shown in Figures 6-1 to 6-35 on the enclosed CD, entitled "Figures 6-1 to 6-35, "Delineated Waters of the U.S., Sheets 1-35 of 35, Carolina Crossroads" and dated November 15, 2018 prepared by Mead & Hunt for South Carolina Department of Transportation. A PJD is used to indicate that this office has identified the approximate location(s) and boundaries of wetlands and/or other aquatic resources that are presumed to be waters of the United States on the site pursuant to Section 404 of the Clean Water Act (CWA) (33 USC § 1344).

Based on a review of aerial photography, topographic maps, National Wetlands Inventory maps, soil survey information, and Wetland Determination Data Forms, it has been concluded that the boundaries shown on the referenced figures are a reasonable approximation of the aquatic resources found within the site that are presumed to be subject to regulatory jurisdiction of the Corps of Engineers. The site in question contains approximately 12.219 acres of federally defined wetlands and approximately 0.739 acre and 27,922 linear feet of other aquatic resources that are presumed to be waters of the United States that are subject to regulatory jurisdiction under Section 404 of the CWA.

You are cautioned that the boundaries of the delineated wetlands and/or other aquatic resources that are presumed to be subject to regulatory jurisdiction of the Corps of Engineers shown on the enclosed depiction are approximate and subject to change. Also, please be aware, that due to revisions to the project area, this PJD supersedes the former PJDs the Corps provided for the Carolina Crossroads project dated June 27, 2018 and March 9, 2016.

By providing this PJD, the Corps of Engineers is making no legally binding determination of any type regarding whether jurisdiction exists over the particular aquatic resource(s) in question. In this regard, this PJD is not a definitive determination of the presence or absence of areas within the Corps of Engineers' jurisdiction, and, therefore, it does not have an expiration date. A PJD is "preliminary" in the sense that a recipient of a PJD can later request and obtain an Approved Jurisdictional Determination (AJD) for a definitive, official determination that there are, or that there are not, jurisdictional aquatic resources on a site, including the identification of the geographic limits of the jurisdictional aquatic resources. In order for a definitive determination of jurisdiction to be provided, you must submit a request for an AJD.

You should be aware that a permit from this office may be required for certain activities in the areas identified as wetlands and/or other aquatic resources that are presumed to be subject to regulatory jurisdiction of the Corps of Engineers. A PJD may be used as the basis of a permit decision; however, for purposes of computation of impacts, compensatory mitigation requirements, and other resource protection measures, a permit decision made on the basis of a PJD will treat all aquatic resources that would be affected in any way by the permitted activity on the site as jurisdictional. If you intend to request an AJD in the future, you are advised not to commence work in these wetlands and/or other aquatic resources that are presumed to be jurisdictional prior to receiving the AJD. Enclosed is a Preliminary Jurisdictional Determination Form describing the areas in question and clarifying the option to request an AJD.

Please note that this is a PJD, and as such is not an appealable action under the Corps of Engineers' administrative appeal procedures defined at 33 CFR 331. If a permit application is forthcoming as a result of this PJD, a copy of this letter and attached figures should be submitted as part of the application. Otherwise, a delay could occur in confirming that a PJD was performed for the proposed project area.

It should also be noted that some or all of these areas may be regulated by other state or local government entities. Specifically, you are encouraged to contact the South Carolina Department of Health and Environmental Control to determine the limits of their jurisdiction.

This PJD has been conducted for the purpose of identifying the approximate location(s) of aquatic resources that are presumed to be subject to regulatory jurisdiction of the Corps of Engineers on the particular site identified in this request. This PJD may not be valid for the wetland conservation provisions of the Food Security Act of 1985. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service, prior to starting work.

Enclosed is a copy of the Preliminary Jurisdictional Determination Form signed by our office. Please sign, retain a copy for your records, and return a signed copy to this office within 30 days of receipt of this letter.

In all future correspondence concerning this matter, please refer to file number SAC-2015-01080. A copy of this letter is being forwarded to certain State and/or Federal agencies for their information. If you have any questions concerning this matter, please contact Stephen A. Brumagin, Project Manager, at (803) 253-3445.

Sincerely,

Amanda L. Heath

Enclosures:
Preliminary Jurisdictional Determination Form
Notification of Appeal Options
Self-addressed envelope
CD containing: Figures 6-1 to 6-35, entitled "Delineated Waters of the U.S., Sheets 1-35 of 35, Carolina Crossroads", dated 11/15/2018

Copies Furnished:

Ms. Siobhan Gordon (Electronic copy, w/o enclosures) SC Department of Transportation GordonSO@scdot.org

Mr. Matt DeWitt, PWS (Electronic copy, w/o enclosures)
Mead & Hunt
Matt.DeWitt@MeadHunt.com

South Carolina Department of Health and Environmental Control (Electronic copy, w/o enclosures) Bureau of Water www.wcw.euc.sc.gov



Memo

Date:	Friday, November 30, 2018
Project:	Carolina Crossroads I-20/26/126 Corridor Project
To:	Siobhan Gordon, Permits Manager, Midlands
From:	Matt DeWitt, Mead & Hunt
Subject:	Jurisdictional Determination Revisions

Jurisdictional Determination Revisions

A preliminary jurisdictional determination (PJD) request package was prepared for the Carolina Crossroads (I-20/I-26/I-126) project in August 2015 and was subsequently verified by the US Army Corps of Engineers (USACE) and issued SAC 2015-1080-DS. As the project has developed, revisions to the project study area were necessary to encompass all areas of potential impact. A revised PJD request package was prepared in January 2018 to detail the changes to the study area and associated changes to aquatic features. These changes were field verified on May 15, 2018 and the USACE subsequently issued a superseding PJD on June 27, 2018 with the same SAC ID number.

Following these revisions, it has become necessary to again revise the project study area to include extended areas along Western Lane north of the intersection of I-26 and US 176, Harbison Road on either side of its interchange with I-26, and I-20 west side of the Saluda River. The following PJD package reflects the revisions made to the Project Study Area.

The information below provides a summary of the revisions made for all jurisdictional features within the revised Project Study Area. Please also find the enclosed Jurisdictional Determination Request form and the attached Jurisdictional Determination Project Summary (Appendix A), photographs of the additional and extended features (Appendix B), mapping depicting these revisions (Appendix C, titled "Delineated Waters of the U.S." (Figures 6-1 through 6-35), dated November 15, 2018, and additional wetland and upland dataformes (Appendix D). Supplemental mapping, including topography, soils, NWI, 2-foot contours, and hydrologic connectivity is also included in Appendix C.

Tributary 2

- Extended 39-If (0.006 acre) to a total of 273-If (0.029 acre)
- See Figure 6-2
- See photos 195 and 196







Tributary 10

- Extended 100-If (0.019 acre) to a total of 186-If (0.028 acre)
- See Figure 6-7

Tributary 70

- A new tributary, approximately 7-If (0.001 acre), was delineated within the revised study area
- See Figure 6-19
- See photo 201

Tributary 71

- A new tributary, approximately 191-If (0.010 acre), was delineated within the revised study area
- See Figure 6-20
- See photos 203 and 204

Tributary 72

- A new tributary, approximately 11-lf (0.002 acre), was delineated within the revised study area
- See Figure 6-20
- See photos 205 and 206

Wetland 56

- A new wetland, approximately 0.004 acre, was delineated within the revised study area
- See Figure 6-2
- See photo 197

Wetland 57

- A new wetland, approximately 0.075 acre, was delineated within the revised study area
- See Figure 6-2
- See photo 198

Wetland 58

- A new wetland, approximately 0.043 acre, was delineated within the revised study area
- See Figure 6-7
- See photo 199

Wetland 59

- A new wetland, approximately 0.040 acre, was delineated within the revised study area
- See Figure 6-8
- See photo 200

Wetland 60

A new wetland, approximately 0.123 acre, was delineated within the revised study area







- See Figure 6-19
- See photo 202

The changes listed above are reflected in the tables and maps attached below.

If you have any questions, or if Mead & Hunt can be of additional assistance, please feel free to contact Matt DeWitt at (803) 520-2837 or (864) 201-8446.

Sincerely,

Matt DeWitt

Environmental Scientist

Attachments:

Attachment A - Revised Jurisdictional Determination Project Summary

Attachment B – Representative Photographs of Additional and Extended Features

Attachment C – Revised Jurisdictional Determination Mapping

Attachment D – Wetland and Upland Dataforms for Additional Wetlands



Attachment A

Revised Jurisdictional Determination Project Summary





U.S. Army Corps of Engineers – Charleston District - Regulatory Division REQUEST FOR CORPS JURISDICTIONAL DETERMINATION (JD) / DELINEATION

(For Jurisdictional Status and Identifying Wetlands and Other Aquatic Resources)

I. PROPERTY AND AGENT INFORMATION

Site Name: Carolina Crossroads (I-20/I-26/I-26 Interchange Improvements) City/Township/Parish: Columbia, South Carolina Latitude/Longitude: 34.108137, -81.184289; 34.001993, -81.110059; 34.048956, -81.070740 Tax Map Sequence (TMS) #(s): Multiple Property Address(es): I-20/I-26/I-26 Interchange and Surrounding Vicinity Please attach a survey/plat map and vicinity map identifying location and review area for the JD/delineation. An accurate depiction of the review area must be provided (survey, tax map, or GPS coordinates). Tax maps may or be used if the site includes the entire tax map parcel. B. Requestor of Jurisdictional Determination/Delineation (if there are multiple property owners, please attach additional pages)
Latitude/Longitude: 34.108137, -81.184289; 34.001993, -81.110059; 34.048956, -81.070740 Acreage: Approx. 1,482 acres Tax Map Sequence (TMS) #(s): Multiple Property Address(es): 1-20/l-26/l-26 Interchange and Surrounding Vicinity Please attach a survey/plat map and vicinity map identifying location and review area for the JD/delineation. An accurate depiction of the review area must be provided (survey, tax map, or GPS coordinates). Tax maps may or be used if the site includes the entire tax map parcel. B. Requestor of Jurisdictional Determination/Delineation (if there are multiple property owners, please attach
Tax Map Sequence (TMS) #(s): Multiple Property Address(es): I-20/I-26/I-26 Interchange and Surrounding Vicinity ✓ Please attach a survey/plat map and vicinity map identifying location and review area for the JD/delineation. An accurate depiction of the review area must be provided (survey, tax map, or GPS coordinates). Tax maps may or be used if the site includes the entire tax map parcel. B. Requestor of Jurisdictional Determination/Delineation (if there are multiple property owners, please attach
Property Address(es): 1-20/l-26/l-26 Interchange and Surrounding Vicinity ✓ Please attach a survey/plat map and vicinity map identifying location and review area for the JD/delineation. An accurate depiction of the review area must be provided (survey, tax map, or GPS coordinates). Tax maps may or be used if the site includes the entire tax map parcel. B. Requestor of Jurisdictional Determination/Delineation (if there are multiple property owners, please attach
Please attach a survey/plat map and vicinity map identifying location and review area for the JD/delineation. An accurate depiction of the review area must be provided (survey, tax map, or GPS coordinates). Tax maps may or be used if the site includes the entire tax map parcel. B. Requestor of Jurisdictional Determination/Delineation (if there are multiple property owners, please attach
An accurate depiction of the review area must be provided (survey, tax map, or GPS coordinates). Tax maps may or be used if the site includes the entire tax map parcel. B. Requestor of Jurisdictional Determination/Delineation (if there are multiple property owners, please attach
be used if the site includes the entire tax map parcel. B. Requestor of Jurisdictional Determination/Delineation (if there are multiple property owners, please attach
B. Requestor of Jurisdictional Determination/Delineation (if there are multiple property owners, please attach
aggitional pages)
Name: SCDOT (Attn: Siobhan Gordon)
Company Name (if applicable): South Carolina Department of Transportation
Address: P.O. Box 191, Columbia, SC 29202-0191
Phone: (803) 737-1337 Email: GordonSO@scdot.org
Check one: I currently own this property
I plan to purchase this property
✓ Other, please explain * SCDOT is conducting environmental studies under eminent domain notice/easement *
C. Agent/Environmental Consultant Acting on Behalf of the Requestor (if applicable):
Consultant/Agent Name: Matt DeWitt
Company Name: Mead & Hunt, Inc.
Address: 878 South Lake Drive, Lexington, SC 29072 Phone: (803) 520-2837
Email: Matt.DeWitt@MeadHunt.com
Littuii. Manus on the manus of the manus on the manus of the manus on the manus of the manus on
II. REASON FOR REQUEST (check all that apply)
TENERAL CONTROL CONTRO
I intend to construct/develop a project or perform activities on this site which would be designed to avoid all
aquatic resources.
I intend to construct/develop a project or perform activities on this site which would be designed to avoid all
jurisdictional aquatic resources under Corps authority.
✓ I intend to construct/develop a project or perform activities on this site which may require authorization from the
Corps, and the Jurisdictional Determination would be used to avoid and minimize impacts to jurisdictional aquati
resources and as an initial step in a future permitting process.
I intend to construct/develop a project or perform activities on this site which may require authorization from the
Corps; this request is accompanied by my permit application and the jurisdictional determination is to be used in
the permitting process.
I intend to construct/develop a project or perform activities in a navigable water of the U.S. which is subject to the
ebb and flow of the tide.
A Corps jurisdictional determination is required in order to obtain my local/state authorization.
I intend to contest jurisdiction over a particular aquatic resource and the request the Corps to confirm that
jurisdiction does/does not exist over the aquatic resource on the parcel.
croeneve macine sue may de combuseo enuceiy ocory iano
I believe that the site may be comprised entirely of dry land. Other:

*Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Program of the U.S. Army Corps of Engineers; Final Rule for 33 CFR Parts 320-332.

<u>Principal Purpose</u>: The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the project area subject to federal jurisdiction under the regulatory authorities referenced above.

Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in the approved jurisdictional determination (AJD), which will be made available to the public on the District's website and on the Headquarters USACE website. Disclosure: Submission of requested information is voluntary; however, if information is not provided, the request for an jurisdictional determination cannot be evaluated nor can a jurisdictional determination be issued.

1

III. TYPE OF REQUEST:			
Approved¹ Jurisdictional Determi	nation (AJD) Only		
V Preliminary² Jurisdictional Determ	mination (PJD) Only		
Approved Jurisdictional Determing Department of the Army permit appl		omittal of a Pre-Co	onstruction Notification or
Preliminary Jurisdictional Determ Department of the Army permit appl		ubmittal of a Pre-0	Construction Notification or
Delineation of Wetlands and/or O Consultant with submittal of a Pre- jurisdictional determination requeste	Construction Notificat	•	cted By Agent/Environmental t of the Army permit application (No
I request that the Corps delineate to property with the attached Pre-Con-			
I request that the Corps delineate to property with an AJD or PJD	the wetlands and/or o	ther aquatic resou	urces that may be present on my
"No Permit Required" (NPR) Lette	e r as I believe my pro	posed activity is n	ot regulated ³
Unclear as to which jurisdictional de information to inform my decision	etermination I would li	ke to request and	require additional
¹ <u>Approved</u> – An AJD is defined in Corps regulation office has identified the presence or absence of we as well as their jurisdictional status. AJDs are valid	tlands and/or other aquation		
² <u>Preliminary</u> – A PJD is defined in Corps regulation office has identified the approximate location(s) and to regulatory jurisdiction of the Corps of Engineers. there are not, jurisdictional aquatic resources on a	d boundaries of wetlands a Unlike an AJD, a PJD doo	nd/or other aquatic re es not represent a def	sources on a site that are presumed to be subject
³ "No Permit Required" (NPR) Letter- A NPR letter (authorization) from the Corps; this letter can only be occur. A NPR letter cannot be used to indicate the their jurisdictional status.	pe used if the proposed act	ivity is not a regulated	activity, regardless of where the activity may
IV. <u>LEGAL RIGHT OF ENTRY</u>			
By signing below, I am indicating that I have entity with such authority, to and do here access the property(ies) subject to this refilling shallow holes) and issuing a juris I possess the requisite property rights to	by grant U.S. Army C equest for the purpose dictional determination	orps of Engineers es of conducting c on. I acknowledge	s personnel right of entry to legally on-site investigations (e.g., digging and that my signature is an affirmation that
See attached SCDOT Notice of Entry to Property 0	Owners	Multiple	
Mailing Address		Property Addres	ss / TMS #(s)
GordonSO@scdot.org		(803) 737-1337	
Email Address	-	Daytime Phone	Number
		Siobhan Gordan 12	2/07/2018
*Signature:		Printed Name a	nd Date
Charleston Office: US Army Corps of Engineers Regulatory Division 69A Hagood Avenue Charleston, SC 29403 (ph) 843-329-8044	Columbia Of US Army Corps of I Regulatory O 1835 Assembly Street, Columbia, Sc 2 (ph) 803-253-	Engineers ffice Room 865 B-1 29201	Conway Office: US Army Corps of Engineers Regulatory Office 1949 Industrial Park Road, Room 140 Conway, SC 29526 (ph) 843-365-4239

*Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Program of the U.S. Army Corps of Engineers; Final Rule for 33 CFR Parts 320-332.

Principal Purpose: The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the project area

subject to federal jurisdiction under the regulatory authorities referenced above.

Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in the approved jurisdictional determination (AJD), which will be made available to the public on the District's website and on the Headquarters USACE website. Disclosure: Submission of requested information is voluntary; however, if information is not provided, the request for an jurisdictional determination cannot be evaluated nor can a jurisdictional determination be issued.

Customer

SC DOT TRAFFIC ENGINEERING,

Payor Customer

SC DOT TRAFFIC ENGINEERING,

Customer Account

306452

Payor Account

306452

Customer Address PO BOX 191

COLUMBIA 29202 URUGUAY

Payor Address

PO BOX 191

COLUMBIA 29202 URUGUAY

Customer Phone

803-7371663

Payor Phone

803-7371663

Sales Rep. jbojko@charlotteobserver.com

Order Taker jbojko@charlotteobserver.com

PO Number

Payment Method

Blind Box

Tear Sheets

<u>Proofs</u>

Affidavits

Net Amount

\$316.05

Tax Amount \$0.00

Total Amount

\$316.05

Payment Amt

\$0.00

Amount Due

\$316.05

Ad Number

0001621023-01

Ad Size

Color <NONE>

Inserts

1.0 X 63 Li

Cost

Product Information Placement/Classification

Position

Run Dates

Run Schedule Invoice Text

COL- The State:Print:COL-Full Run

0300 - Legals Classified

0301-Legals & Public Notices

3/16/2015

NOTICE TO CITIZENS OF RICHLAND AND LEXINGTON COUNTY:

COL-upsell.ST.com:Online:

7

\$15.00

1

\$301.05

0300 - Legals Classified

0301-Legals & Public Notices

3/16/2015, 3/17/2015, 3/18/2015, 3/19/2015, 3/20/2015,

3/21/2015, 3/22/2015

NOTICE TO CITIZENS OF RICHLAND AND LEXINGTON COUNTY:

3/12/2015 1:27:52PM

The State Media Company NEWSPAPER · DIGITAL · MAGAZINES · DIRECT MAIL

NOTICE TO CITIZENS OF RICHLAND AND LEXINGTON COUNTY:

Pursuant to the South Carolina Eminent Domain Procedure Act, Section 28-2-70(c), Code of Laws of South Carolina, 1976, as amended, notice is hereby given that entry by personnel of the South Carolina Department of Transportation will be made in the area of the roads described below for such purposes as topographic surveys, environmental surveys, traffic data collection and for the gathering of any other data necessary for planning potential future projects within the corridor.

The project may consist of roadway Improvement studies along 1-126 from Elmwood Avenue to 1-26, 1-26 from US 378 to US 176, 1-20 from the Saluda River to the Broad River, Bush River Road from 1-20 to US 176, US 176 from SC 27 to SC 31, Coloniat Life Boulevard from 1-126 to Bush River Road, St. Andrews Road from Bush River Rd to Broad River Road, Piney Grove Road from St. Andrews Road to Broad River Road, and Lake Murray Boulevard from St. Andrews Road to Broad River Road, and Lake Murray Boulevard from St. Andrews Road to Broad River Road, and Lake Murray Boulevard from St. Andrews Road to Broad River Road, and Lake Murray Boulevard from St. Andrews Road to Broad River Road in Richland and Lexington County, South Carolina.

More specific information about the project may be obtained by contacting SCDOT Midlands Regional Production Engineer Randy Young at (803) 737-1827 in Columbia, South Carolina.

2



Jurisdictional Determination Request Package

Carolina Crossroads

I-20/I-26/I-126 Corridor Improvements

Lexington and Richland Counties, South Carolina

Revised – November 30, 2018

Prepared for South Carolina Department of Transportation, and the Federal Highway Administration

Prepared by









1 Introduction

HDR, in cooperation with Mead & Hunt, STV, and other subconsultants (the Project Team) has been contracted by the South Carolina Department of Transportation (SCDOT) to provide environmental services necessary for the preparation of an Environmental Impact Statement (EIS), right of way plans, and final construction plans for roadways and bridges for improvements to the I-20/26/126 corridor in Richland and Lexington Counties.

The proposed project is a transportation corridor improvement located in Richland and Lexington Counties. To date, the project study area (PSA) has been defined as a mainline corridor including I-20 between US 378 and the Broad River, I-26 from US 378 to north of Broad River Road, and I-126 from Stone Ridge Drive to I-26. Furthermore, the PSA extends approximately 100-150 feet beyond the existing SCDOT right-of-way limits within the mainline corridor; please see **Attachment C, Figure 1** for a Site Location Map.

This document serves to summarize the findings of Delineated Waters of the U.S. within the approximate 1,482 acres PSA.

2 Reference Material

Prior to conducting fieldwork, Mead & Hunt reviewed reference material including:

- U.S. Geological Survey (USGS) 7.5 minute topographic quadrangles; Irmo, South Carolina (1990) and Columbia North, South Carolina (1990).
- USGS National Hydrography Dataset (NHD) Geodatabase; Subregion 0305.
- U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Soil Survey Geographic (SSURGO) Database; South Carolina, Statewide (2015).
- USDA-NRCS National List of Hydric Soils Database; South Carolina. (Accessed November 2018).
- U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) Seamless Wetlands Data for South Carolina (Last Updated October 1, 2017).
- USDA National Agriculture Imagery Program (NAIP) Aerial Photography; Lexington County, South Carolina (2015) and Richland County (2015).
- USGS High Resolution Orthoimagery; Columbia, South Carolina (2014).

3 Topography

The PSA spans extends across two USGS 7.5-minute topographic quadrangle maps, including Irmo in the northwest portion of the project, and Columbia North in the southern and eastern portions of the PSA. According to these USGS maps, the PSA is primarily comprised of developed land with some hills and linear ridges. Elevation within the PSA ranges from approximately 160 to 350 feet above mean sea level (MSL). The highest elevations within the PSA are located in the vicinity of the US 176 (Broad River Road) interchange with I-26 (Exit 101). The lowest elevations within the PSA are located in the eastern extent of the project, within the floodplain of the Broad River. Twenty-six (26) blue-line streams are depicted on USGS mapping within the PSA, including five (5) named waters and twenty-one (21) unnamed tributaries. Named waters include the Broad River, the Saluda River,







Stoop Creek, Moccasin Branch, and Senn Branch; please see **Attachment C, Figures 2-1 through 2-35** for USGS Topography Maps.

4 Soil Map Units

According to the NRCS SSURGO data, forty-nine (49) soil map units (SMUs) are mapped within the PSA. Of these, three (3) SMUs are classified as hydric, one (1) SMU is classified as predominantly hydric, and eight (8) SMUs are classified as predominantly nonhydric. The remaining thirty-nine (39) SMUs are classified as nonhydic. In total, SMUs with a hydric component comprise approximately seven (7) percent of the PSA; please see **Attachment C, Figures 3-1 through 3-35** for NRCS Soil Map Unit Maps.

5 National Wetland Inventory

The USFWS National Wetland Inventory (NWI) classification system identifies 44 wetland communities within the PSA. These communities are defined as 30 Riverine systems (R2UBH, R4SBC, and R5UBH), one (1) lake (L1UBHh), eight (8) freshwater ponds (PAB4Kx, PUBHh, PUBHx, and PUSCx), one (1) freshwater emergent wetland (PEM1Fx), and four (4) freshwater forested/shrub wetlands (PFO1A, PFO1C, and PSS1A); please see **Attachment C, Figures 4-1 through 4-35** for National Wetland Inventory Maps.

6 Light Detection and Ranging (LiDAR)

Two foot contour data, derived from SCDNR Light Detection and Ranging (LiDAR) data, identified significant crenulations throughout the PSA. These areas were evaluated for evidence of flow, an ordinary high water mark, and other characteristics of Waters of the U.S.; please see **Attachment C, Figures 5-1 through 5-35** for Two Foot Contour Maps.

7 Fieldwork Methodology

Mead & Hunt Environmental Scientist and Professional Wetland Scientist (P.W.S.) Matt DeWitt led field reviews of the PSA for the presence of wetlands and other waters of the U.S. between April 16, 2015 and November 18, 2015. Field reviews of the additional study area was conducted between July 25, 2017, September 20, 2017, and November 15 and 16, 2018. Wetlands were determined using the Routine On-Site Determination Method as defined in the Corps of Engineers Wetland Delineation Manual (Environmental Laboratory, 1987) and the appropriate Regional Supplement to the Manual. The majority of the PSA is located within the Eastern Mountains and Piedmont Region, and the southern extent of the project, in the vicinity of the US 378 (Sunset Boulevard) interchange with I-26 (Exit 110), is located within the Atlantic and Gulf Coastal Plain Region. The boundaries of delineated waters within the PSA were flagged (delineated) in the field at the time of field reviews. Wetlands were delineated with pink flagging tape, pre-printed with the words "Wetland Delineation" in black letters. Tributaries were delineated with a combination of the pink pre-printed "Wetland Delineation" flagging tape and solid blue flagging to differentiate the feature as a tributary. Furthermore, delineated waters were subsequently located using a handheld Trimble GeoXH Global Positioning System (GPS) unit capable of sub-meter accuracy; please see **Attachment C, Figures 6-1 through 6-35** for Delineated Waters of the U.S. Maps.







8 Surface Hydrology

Surface hydrology within the PSA drains to multiple receiving waterbodies, including the Broad River, the Saluda River, Kinley Creek, Stoop Creek, Double Branch, Moccasin Branch, and Senn Branch. **Attachment C, Figures 7-1 through 7-35** include the flow direction of surface hydrology within the PSA.

9 Delineation Findings

Field reviews of the PSA identified sixty (60) freshwater wetlands, totaling 12.219 acres; seventy-two (72) tributaries, totaling 27,922 linear feet (If) and 24.381 acres; and five (5) ponds/other waters, totaling 0.739 acre.

Wetland and associated upland data forms as well as representative photographs of delineated features are also included in Attachments B and D, respectively. **Attachment C, Figures 7-1 through 7-35** also include the location of the data forms provided and the location of photographs provided and their direction of view.

Coordinates of delineated features identified within the PSA are provided in Tables 1 through 3 below.

TABLE 1
FRESHWATER WETLANDS IDENTIFIED IN THE PROJECT STUDY AREA

Feature	Figure	Latitude	Longitude	Acreage
Freshwater Wetland 1	6-3	34.096320 N	-81.173066 E	0.045
Freshwater Wetland 2	6-4	34.090909 N	-81.171742 E	0.061
Freshwater Wetland 3	6-4	34.092820 N	-81.166090 E	0.014
Freshwater Wetland 4	6-9	34.074010 N	-81.148074 E	0.020
Freshwater Wetland 5	6-10	34.071566 N	-81.145617 E	0.092
Freshwater Wetland 6	6-11	34.065804 N	-81.139786 E	0.051
Freshwater Wetland 7	6-12	34.059946 N	-81.135280 E	0.134
Freshwater Wetland 8	6-13	34.055801 N	-81.130720 E	0.330
Freshwater Wetland 9	6-18	34.027409 N	-81.127256 E	0.358
Freshwater Wetland 10	6-18	34.027467 N	-81.126949 E	0.040
Freshwater Wetland 11	6-18	34.026924 N	-81.126008 E	0.800
Freshwater Wetland 12	6-18	34.026580 N	-81.127972 E	0.057
Freshwater Wetland 13	6-22	34.038591 N	-81.104649 E	0.066
Freshwater Wetland 14	6-22	34.034778 N	-81.113052 E	0.024
Freshwater Wetland 15	6-23	34.038813 N	-81.103902 E	0.091







Feature	Figure	Latitude	Longitude	Acreage
Freshwater Wetland 16	6-26	34.046865 N	-81.077540 E	0.041
Freshwater Wetland 17	6-26	34.047259 N	-81.076495 E	0.393
Freshwater Wetland 18	6-26	34.047161 N	-81.076129 E	0.251
Freshwater Wetland 19	6-26	34.047740 N	-81.075625 E	0.015
Freshwater Wetland 20	6-27	34.028767 N	-81.104110 E	0.046
Freshwater Wetland 21	6-28	34.026707 N	-81.103230 E	0.189
Freshwater Wetland 22	6-28	34.025802 N	-81.103096 E	0.579
Freshwater Wetland 23	6-28	34.025377 N	-81.101580 E	2.483
Freshwater Wetland 24	6-28	34.025711 N	-81.101606 E	0.148
Freshwater Wetland 25	6-28	34.025366 N	-81.100592 E	1.537
Freshwater Wetland 26	6-28	34.025225 N	-81.099811 E	0.200
Freshwater Wetland 27	6-28 & 6-29	34.024399 N	-81.098791 E	0.470
Freshwater Wetland 28	6-28	34.025523 N	-81.098240 E	0.181
Freshwater Wetland 29	6-29	34.021882 N	-81.096388 E	0.039
Freshwater Wetland 30	6-29	34.019935 N	-81.094701 E	0.311
Freshwater Wetland 31	6-29 & 6-30	34.019481 N	-81.093825 E	0.106
Freshwater Wetland 32	6-32	34.022004 N	-81.105387 E	0.166
Freshwater Wetland 33	6-32	34.021233 N	-81.105484 E	0.085
Freshwater Wetland 34	6-32	34.020842 N	-81.104509 E	0.026
Freshwater Wetland 35	6-33	34.016895 N	-81.107349 E	0.470
Freshwater Wetland 36	6-33	34.015562 N	-81.108226 E	0.168
Freshwater Wetland 37	6-33	34.015337 N	-81.108604 E	0.022
Freshwater Wetland 38	6-33	34.014804 N	-81.108667 E	0.474
Freshwater Wetland 39	6-2	34.100229 N	-81.179335 E	0.020
Freshwater Wetland 40	6-3	34.097296 N	-81.175482 E	0.240
Freshwater Wetland 41	6-4	34.091060 N	-81.170956 E	0.011
Freshwater Wetland 42	6-5	34.088072 N	-81.161944 E	0.262







Feature	Figure	Latitude	Longitude	Acreage
Freshwater Wetland 43	6-6	34.08779 N	-81.159624 E	0.034
Freshwater Wetland 44	6-7	34.079769 N	-81.151557 E	0.040
Freshwater Wetland 45	6-9	34.074020 N	-81.147876 E	0.018
Freshwater Wetland 46	6-10 & 6-11	34.065964 N	-81.142298 E	0.051
Freshwater Wetland 47	6-12	34.060400 N	-81.134089 E	0.070
Freshwater Wetland 48	6-19	34.021016 N	-81.132632 E	0.029
Freshwater Wetland 49	6-21	34.033208 N	-81.117964 E	0.017
Freshwater Wetland 50	6-24	34.039523 N	-81.090611 E	0.371
Freshwater Wetland 51	6-27	34.030271 N	-81.105573 E	0.017
Freshwater Wetland 52	6-29	34.023504 N	-81.098366 E	0.037
Freshwater Wetland 53	6-29	34.022652 N	-81.098024 E	0.098
Freshwater Wetland 54	6-29	34.020471 N	-81.095467 E	0.021
Freshwater Wetland 55	6-30	34.017449 N	-81.088533 E	0.015
Freshwater Wetland 56	6-2	34.102714 N	-81.177063 E	0.004
Freshwater Wetland 57	6-2	34.102227 N	-81.176955 E	0.075
Freshwater Wetland 58	6-7	34.081357 N	-81.150921 E	0.043
Freshwater Wetland 59	6-8	34.073301 N	-81.156728 E	0.040
Freshwater Wetland 60	6-19	34.020308 N	-81.135519 E	0.123
Freshwater Wetla	nd Total		12.219 acres	

TABLE 2
TRIBUTARIES IDENTIFIED IN THE PROJECT STUDY AREA

Feature	Figure	Latitude	Longitude	Delineated Area		
reature	riguie	Latitude	Longitude	Linear Feet	Acre	
Tributary 1	6-2	34.100805 N	-81.180096 E	11	0.001	
Tributary 2	6-2	34.101448 N	-81.176719 E	273	0.029	
Tributary 3	6-3	34.096040 N	-81.172771 E	440	0.046	
Tributary 4	6-4	34.090660 N	-81.171458 E	160	0.019	







	Fi		1 9 . 1 .	Delineated Area		
Feature	Figure	Latitude	Longitude	Linear Feet	Acre	
Tributary 5	6-4	34.090660 N	-81.171458 E	157	0.022	
Tributary 6	6-4	34.089468 N	-81.167239 E	22	0.003	
Tributary 7	6-5 & 6-6	34.087991 N	-81.162715 E	970	0.130	
Tributary 8	6-6	34.084707 N	-81.159478 E	571	0.070	
Tributary 9	6-6	34.081844 N	-81.156363 E	188	0.014	
Tributary 10	6-7	34.080574 N	-81.148647 E	186	0.028	
Tributary 11	6-9	34.072878 N	-81.147494 E	1,755	0.308	
Tributary 12	6-9	34.073142 N	-81.147209 E	10	0.001	
Tributary 13	6-10	34.071775 N	-81.145557 E	14	0.001	
Tributary 14	6-10	34.070221 N	-81.144383 E	195	0.035	
Tributary 15	6-10	34.066157 N	-81.142308 E	164	0.015	
Tributary 16	6-12	34.060913 N	-81.136281 E	99	0.007	
Tributary 17	6-12	34.059971 N	-81.135047 E	25	0.003	
Tributary 18	6-14	34.050479 N	-81.123828 E	485	0.084	
Tributary 19	6-14	34.050930 N	-81.123805 E	166	0.017	
Tributary 20	6-14	34.049089 N	-81.121757 E	101	0.015	
Tributary 21, aka Stoop Creek	6-15 & 6-16, 6-21, & 6-22	34.044806 N	-81.117840 E	1,281	0.594	
Tributary 22	6-16	34.041751 N	-81.114315 E	143	0.031	
Tributary 23	6-17 & 6-21	34.033991 N	-81.119682 E	1,031	0.141	
Tributary 24	6-17	34.032011 N	-81.123012 E	323	0.035	
Tributary 25	6-17	34.031487 N	-81.122957 E	94	0.011	
Tributary 26	6-17	34.031166 N	-81.123047 E	295	0.022	
Tributary 27	6-18	34.026873 N	-81.127653 E	752	0.112	
Tributary 28	6-18	34.026170 N	-81.128813 E	153	0.032	
Tributary 29	6-18	34.026067 N	-81.128988 E	56	0.007	
Tributary 30, aka Saluda River	6-18, 6-28, 6- 29, & 6-32	34.024054 N	-81.102974 E	1,345	9.956	







				Delineated Area		
Feature	Figure	Latitude	Longitude	Linear Feet	Acre	
Tributary 31	6-18	34.024643 N	-81.128479 E	76	0.008	
Tributary 32	6-21	34.034980 N	-81.115679 E	70	0.008	
Tributary 33	6-21	34.035067 N	-81.115263 E	101	0.010	
Tributary 34	6-22	34.036103 N	-81.115221 E	382	0.043	
Tributary 35	6-22	34.038172 N	-81.104822 E	522	0.052	
Tributary 36	6-22	34.037663 N	-81.104892 E	76	0.005	
Tributary 37	6-22	34.037931 N	-81.104056 E	372	0.034	
Tributary 38	6-23 & 6-24	34.039484 N	-81.096045 E	342	0.064	
Tributary 39	6-25 & 6-26	34.046068 N	-81.076604 E	3,958	0.753	
Tributary 40, aka Broad River	6-26	34.047922 N	-81.073314 E	531	9.247	
Tributary 41	6-27	34.031886 N	-81.106480 E	517	0.107	
Tributary 42	6-27	34.031900 N	-81.104388 E	874	0.071	
Tributary 43	6-27, 6-28, & 6-32	34.024206 N	-81.103830 E	2,244	1.135	
Tributary 44	6-28	34.025730 N	-81.100279 E	229	0.021	
Tributary 45	6-28 & 6-29	34.025041 N	-81.098961 E	934	0.088	
Tributary 46	6-29	34.023438 N	-81.097774 E	322	0.026	
Tributary 47	6-29	34.021424 N	-81.095980 E	1,052	0.292	
Tributary 48	6-29	34.021618 N	-81.096122 E	29	0.010	
Tributary 49	6-29	34.019802 N	-81.094272 E	298	0.024	
Tributary 50	6-32	34.021823 N	-81.104989 E	889	0.098	
Tributary 51	6-32	34.022232 N	-81.105048 E	21	0.002	
Tributary 52	6-32	34.021203 N	-81.105340 E	35	0.002	
Tributary 53, aka Senn Branch	6-33	34.015736 N	-81.107293 E	933	0.279	
Tributary 54	6-33	34.015648 N	-81.108009 E	46	0.004	
Tributary 55	6-33	34.015248 N	-81.108179 E	70	0.005	
Tributary 56	6-33	34.015233 N	-81.108155 E	20	0.001	







Feature	Figure	Latitude	Latitude Longitude -		Delineated Area	
reature	rigure	Latitude	Longitude	Linear Feet	Acre	
Tributary 57	6-33	34.015505 N	-81.106705 E	187	0.027	
Tributary 58	6-35	34.002236 N	-81.110428 E	16	0.001	
Tributary 59	6-1	34.106267 N	-81.181634 E	77	0.006	
Tributary 60	6-2	34.102672 N	-81.178750 E	195	0.030	
Tributary 61	6-18 & 6-19	34.023246 N	-81.131836 E	224	0.047	
Tributary 62	6-28	34.022260 N	-81.131595 E	46	0.005	
Tributary 63	6-28	34.024127 N	-81.099706 E	38	0.005	
Tributary 64	6-28	34.024037 N	-81.099496 E	138	0.014	
Tributary 65	6-30	34.026403 N	-81.097885 E	205	0.041	
Tributary 66	6-30	34.017618 N	-81.088899 E	60	0.004	
Tributary 67	6-31	34.017472 N	-81.088661 E	8	0.001	
Tributary 68	6-31	34.015234 N	-81.086006 E	19	0.003	
Tributary 69	6-19	34.021358 N	-81.132309 E	92	0.006	
Tributary 70	6-19	34.015510 N	-81.141300 E	7	0.001	
Tributary 71	6-20	34.015349 N	-81.141595 E	191	0.010	
Tributary 72	6-20	34.019203 N	-81.135099 E	11	0.002	
Tributary Total		27,9	22-If	24.381	l acres	

TABLE 3
PONDS / OTHER WATERS IDENTIFIED IN THE PROJECT STUDY AREA

Feature	Figure	Latitude	Longitude	Acreage
Pond 1	6-6	34.082140 N	-81.156035 E	0.035
Pond 2	6-30	34.022466 N	-81.105255 E	0.023
NPDES-Permitted Treatment Basin	6-17	34.026997 N	-81.127944 E	0.161
Pond 3	6-1	34.104592 N	-81.181326 E	0.155
Pond 4	6-8	34.077371 N	-81.148181 E	0.365
Ponds / Waters	Total		0.739 acre	







If you have any questions, or if Mead & Hunt can be of additional assistance, please feel free to contact Matt DeWitt at (803) 520-2837 or (864) 201-8446.

Respectfully Submitted

Matt DeWitt, P.W.S. Environmental Scientist





Attachment B

Representative Photographs of Additional and Extended Features









Taken By: Conor Makepeace

Photograph 195

Description:
View of the additional reach of Tributary 2 (north of Western Lane).
The photograph was taken looking at the culvert outlet, facing southeast (upstream).



Date: 11/16/2018

Taken By: Conor Makepeace

Photograph 196

Description:
View of the additional reach of Tributary 2 (north of Western Lane).
The photograph was taken from the culvert outlet, facing north (downstream).









Taken By: Conor Makepeace

Photograph 197

Description: View of Freshwater Wetland 56. The photograph was taken north of Western Lane, facing northwest.



Date: 11/16/2018

Taken By: Conor Makepeace

Photograph 198

Description: View of Freshwater Wetland 57. The photograph was taken south of Western Lane, facing northeast.









Taken By: Conor Makepeace

Photograph 199

Description:
View of Freshwater
Wetland 58. The
photograph was taken
within the wetland
northeast of Parkridge
Drive, facing north.



Date: 11/16/2018

Taken By: Conor Makepeace

Photograph 200

Description:
View of Freshwater
Wetland 59. The
photograph was taken on
the edge of the wetland
south of Harbison Road,
facing northeast.







Taken By: Conor Makepeace

Photograph 201

Description:
View of Tributary 70. The entirety of the feature within the Project Study Area is shown in the photograph. The left portion of the photograph shows the stream origination point (headcut). The photograph was taken within a utility easement, facing northeast (across gradient).



Date: 11/16/2018

Taken By: Conor Makepeace

Photograph 202

Description: View of Freshwater Wetland 60. The photograph was taken from the Project Study Area boundary, facing southeast.









Taken By: Conor Makepeace

Photograph 203

Description:
View of the stream
origination point (pipe) of
Tributary 71. The
photograph was taken
north of Riverchase Way,
facing south (upstream).



Date: 11/15/2018

Taken By: Conor Makepeace

Photograph 204

Description: View of Tributary 71. The photograph was taken from the lower reach of the tributary, facing northeast (upstream).







Taken By: Conor Makepeace

Photograph 205

View of the of Tributary 72 and the culvert under Riverchase Way. This culvert represents the stream origination point of the feature within the Project Study Area. The photograph was taken north of Riverchase Way, facing southeast (upstream).



Date: 11/15/2018

Taken By: Conor Makepeace

Photograph 206

Description: View of Tributary 72. The photograph was taken north of Riverchase Way, facing northwest (downstream).





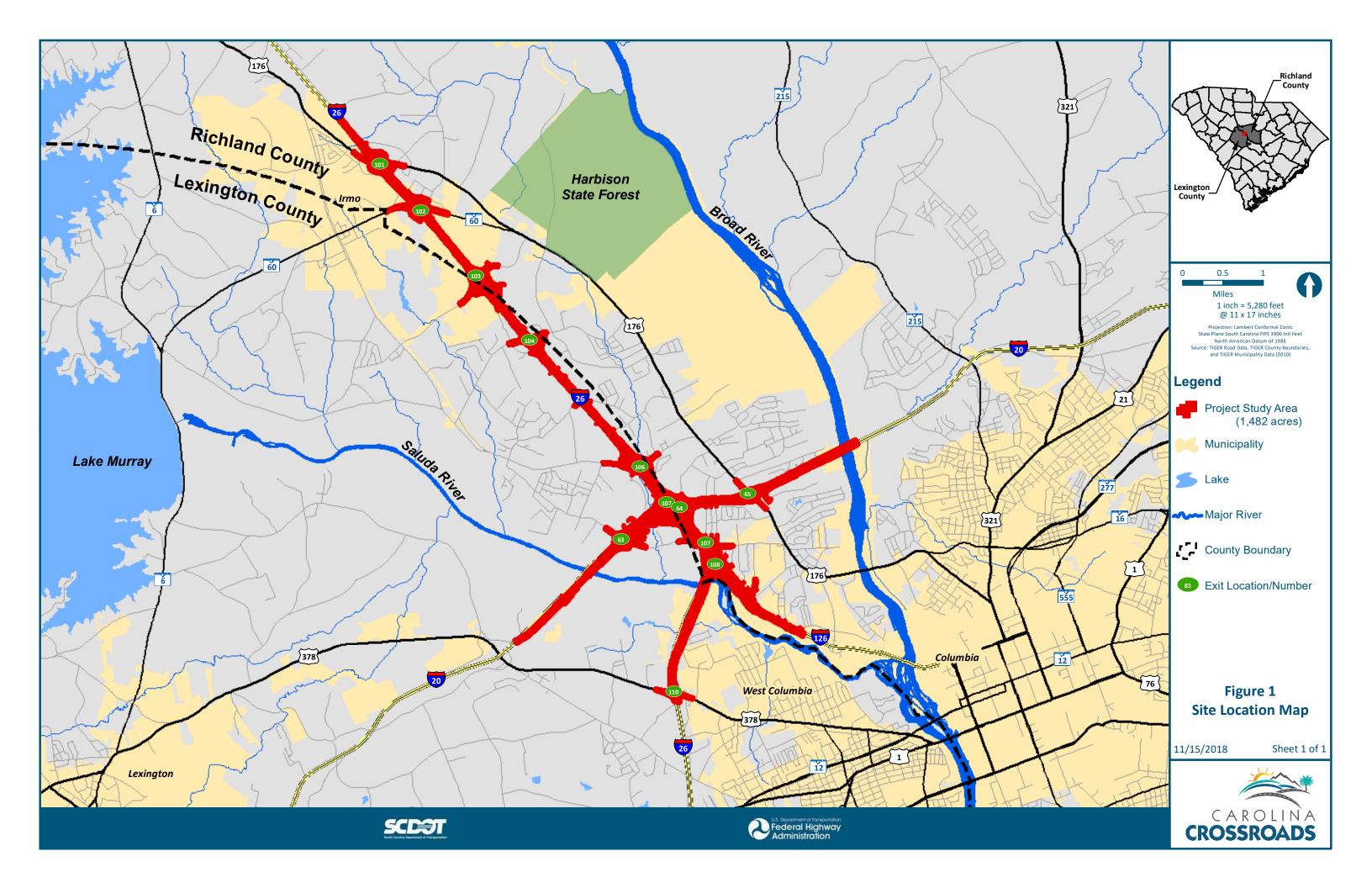


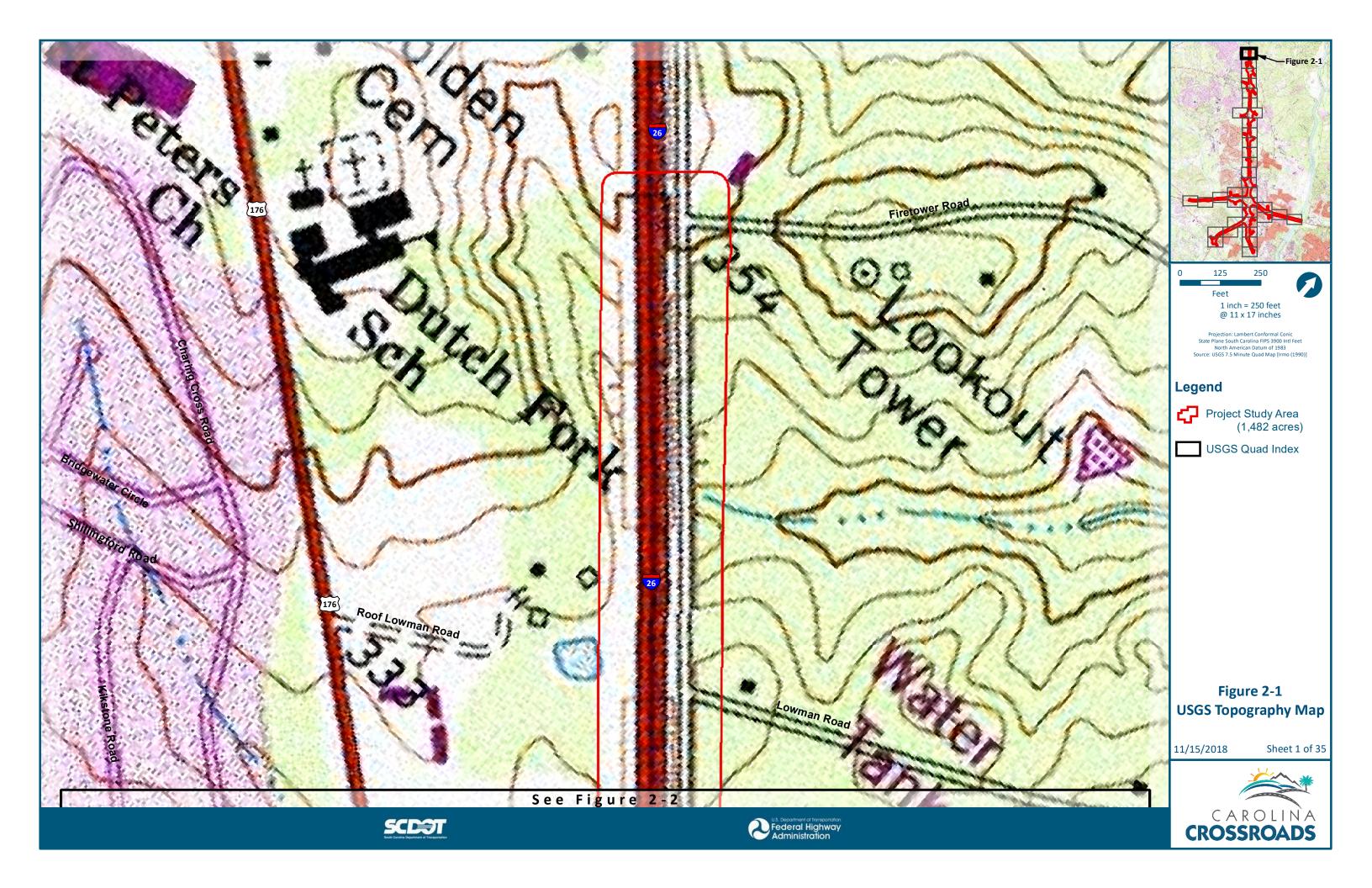
Attachment C

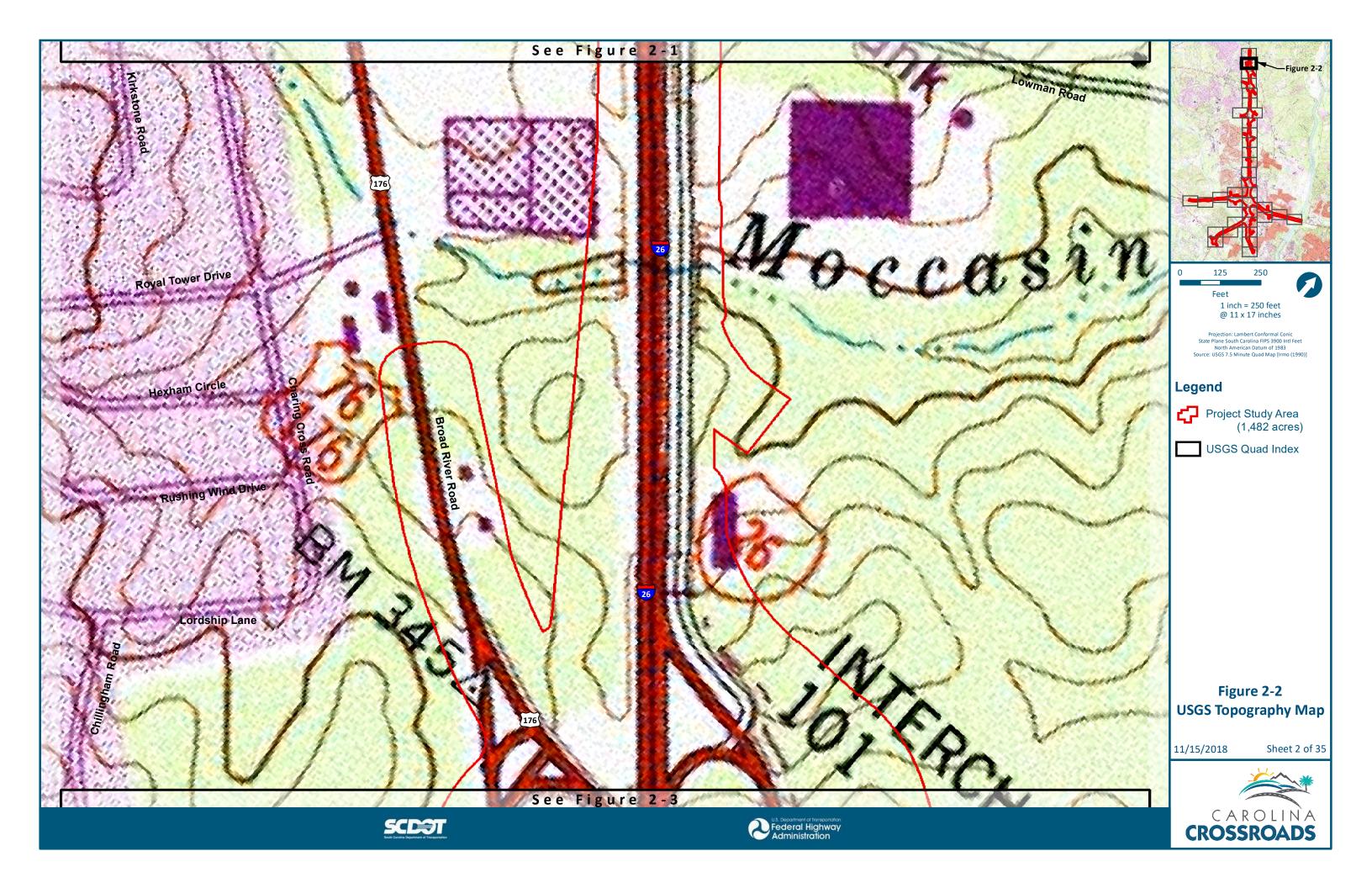
Revised Jurisdictional Determination Mapping

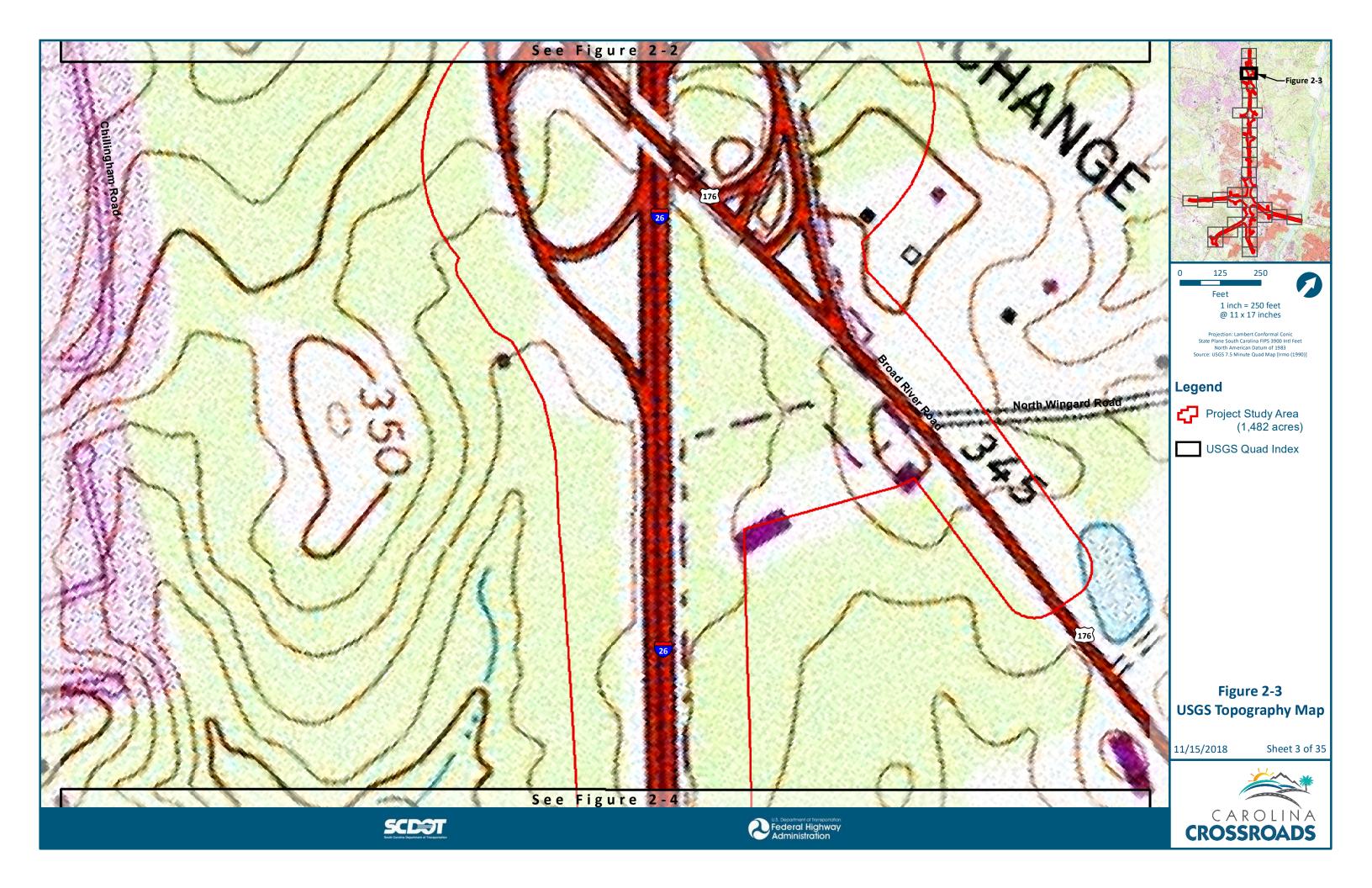


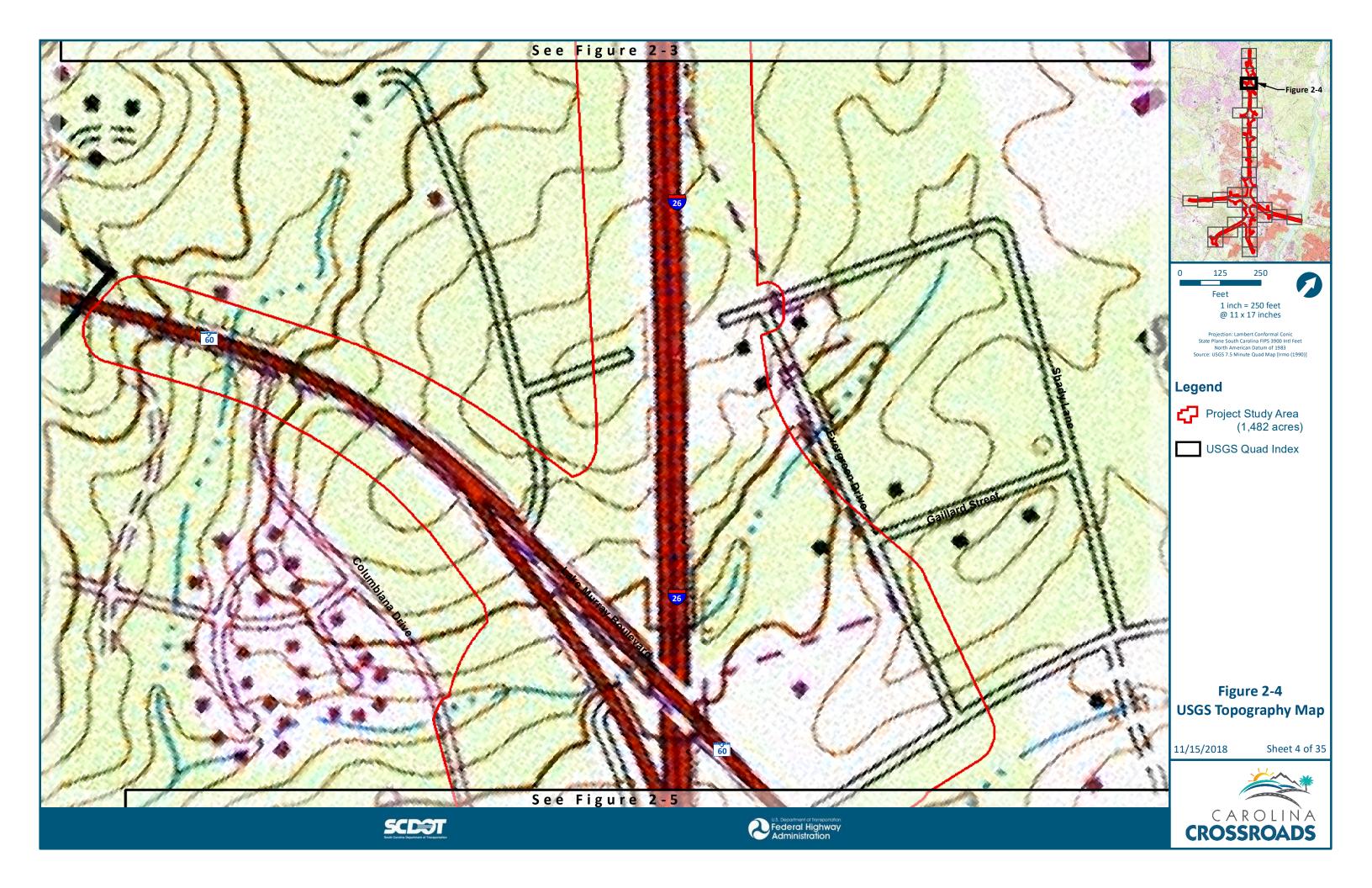


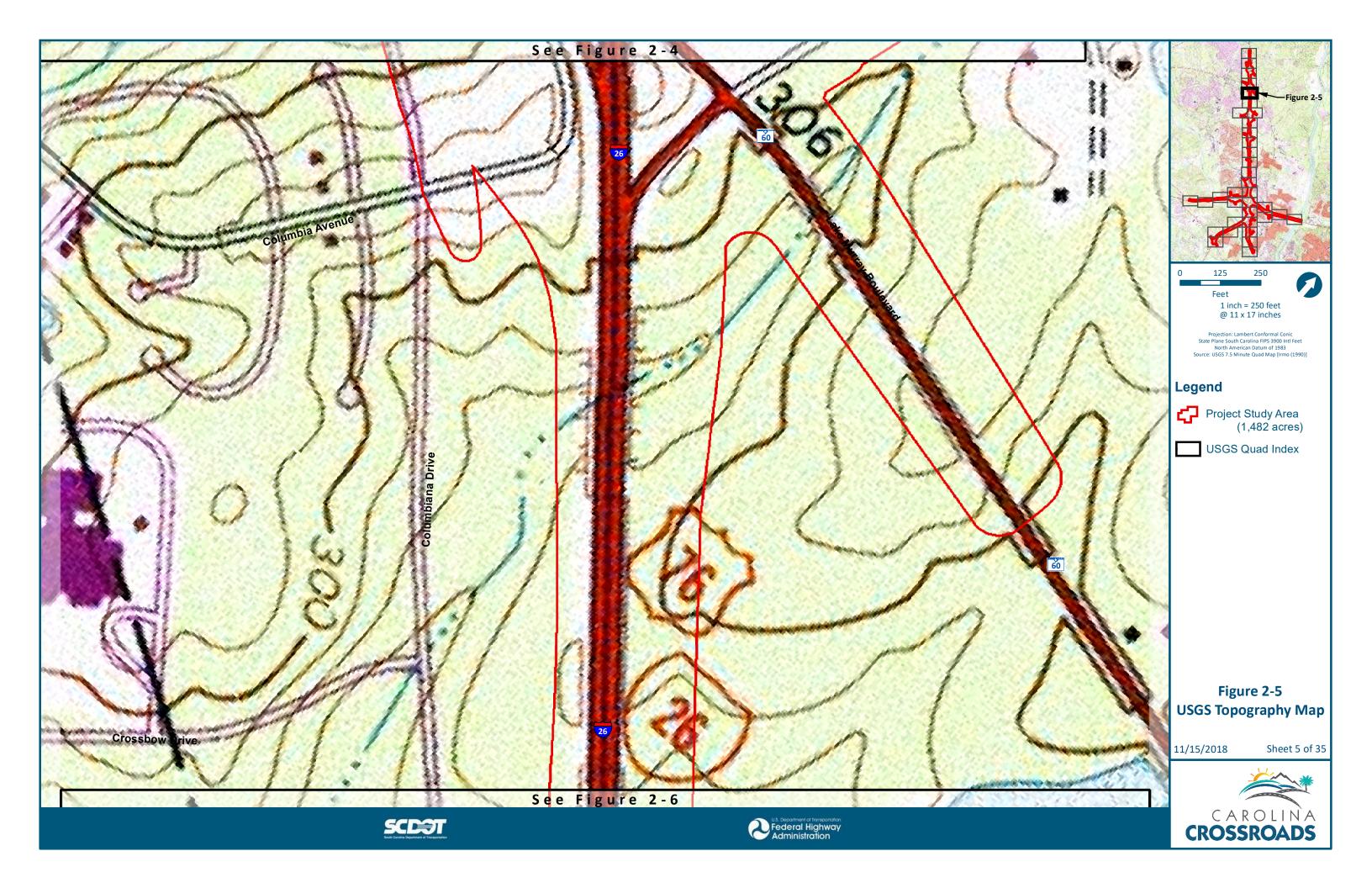


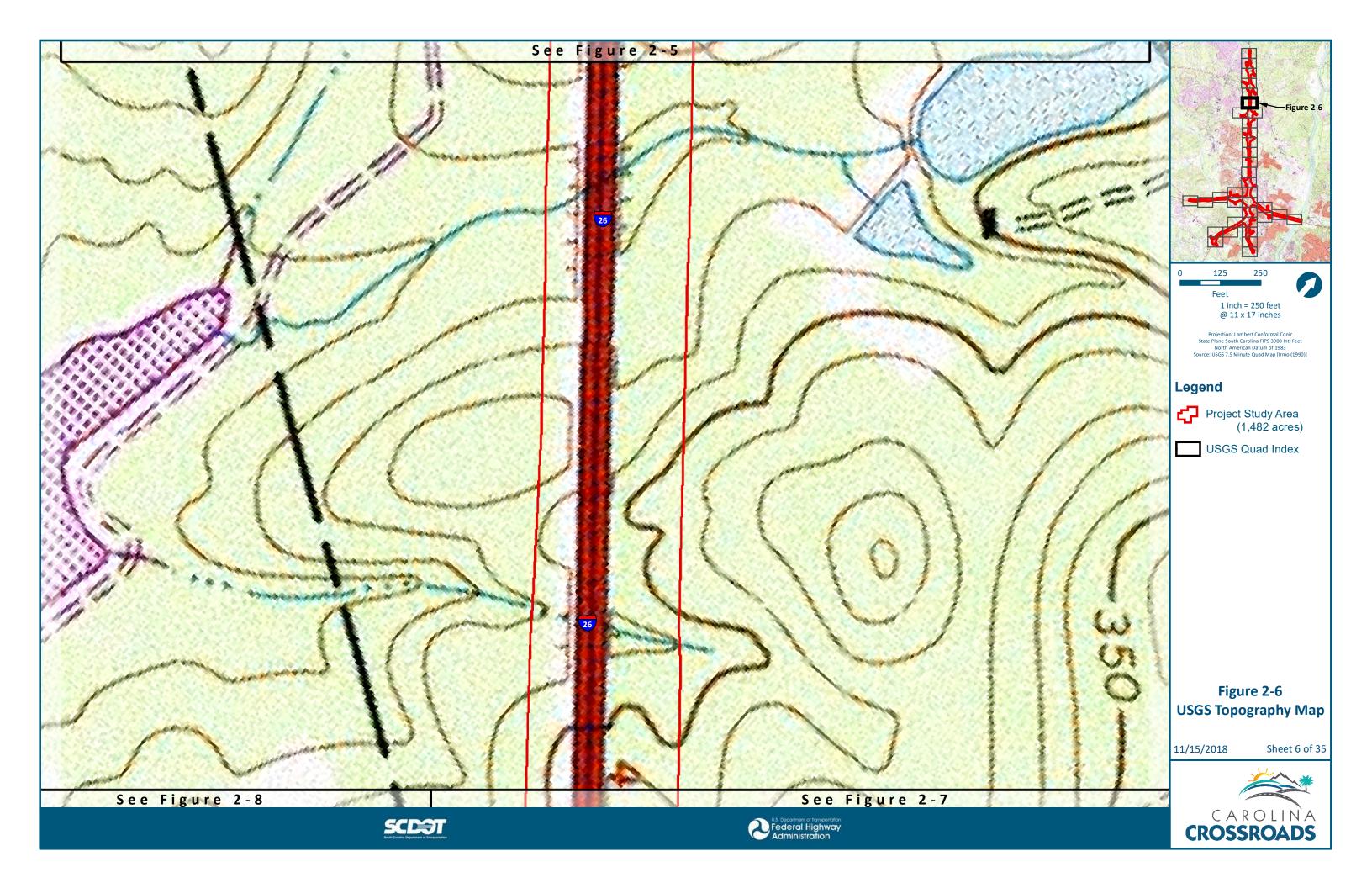


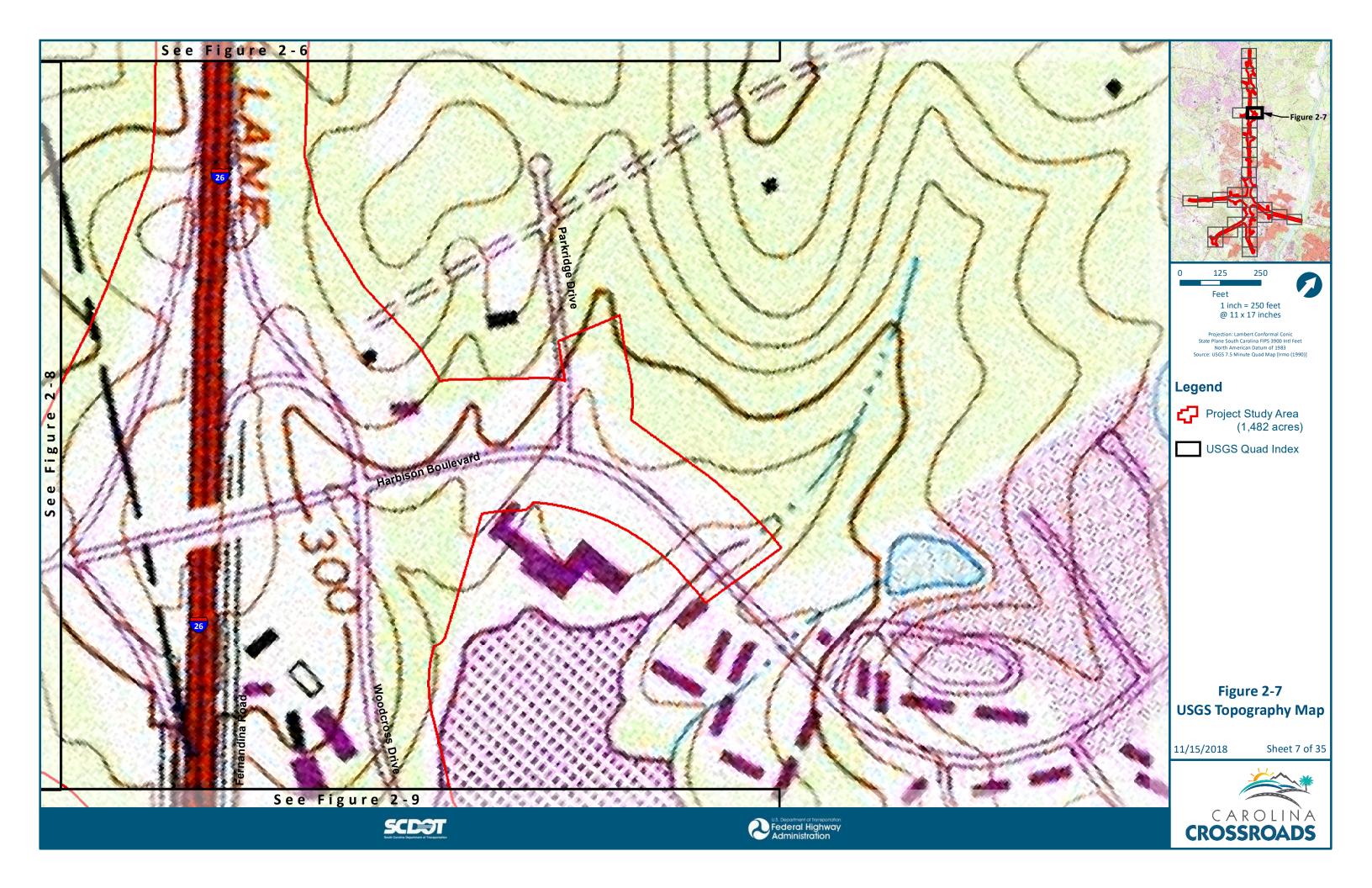


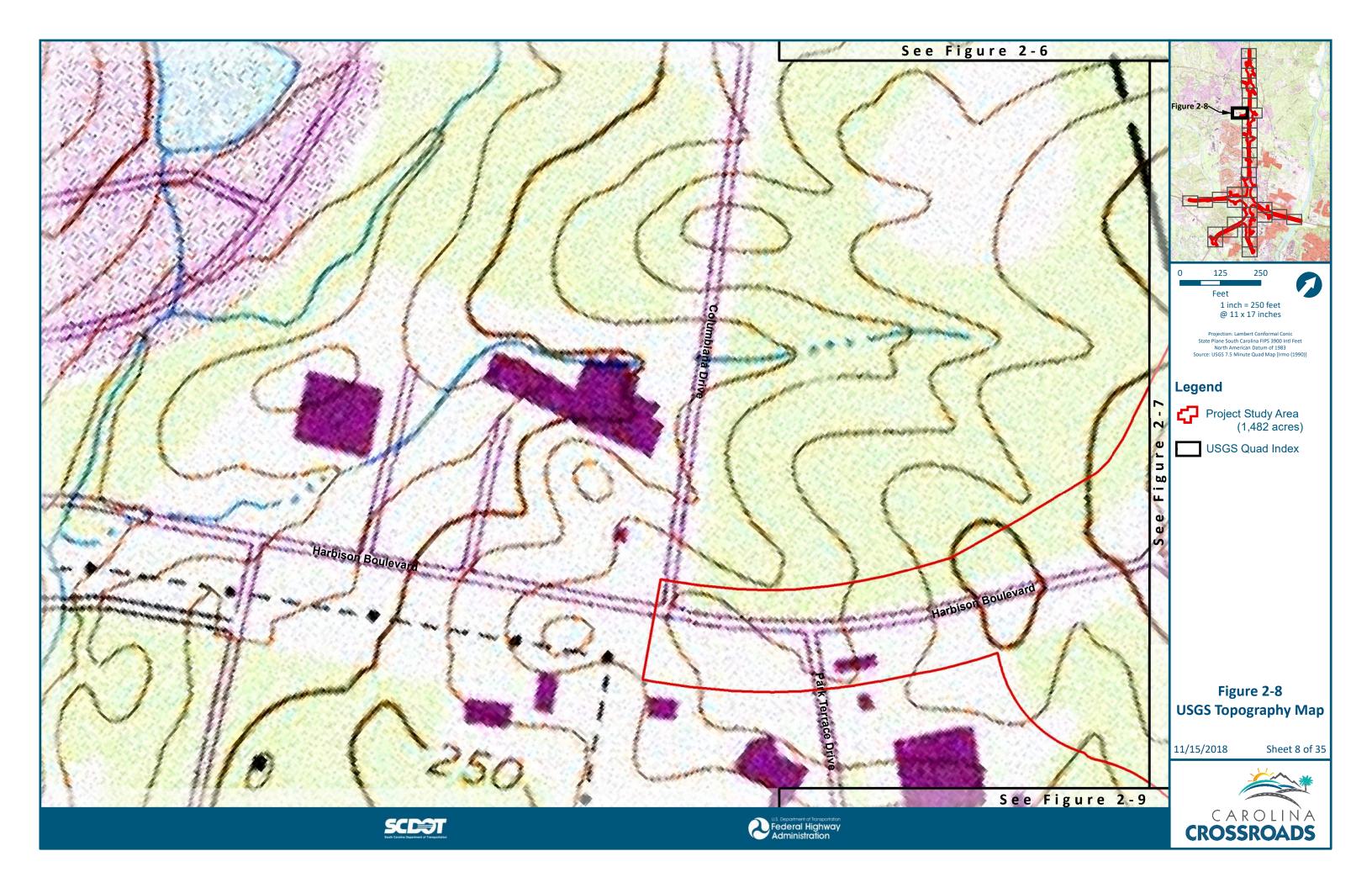


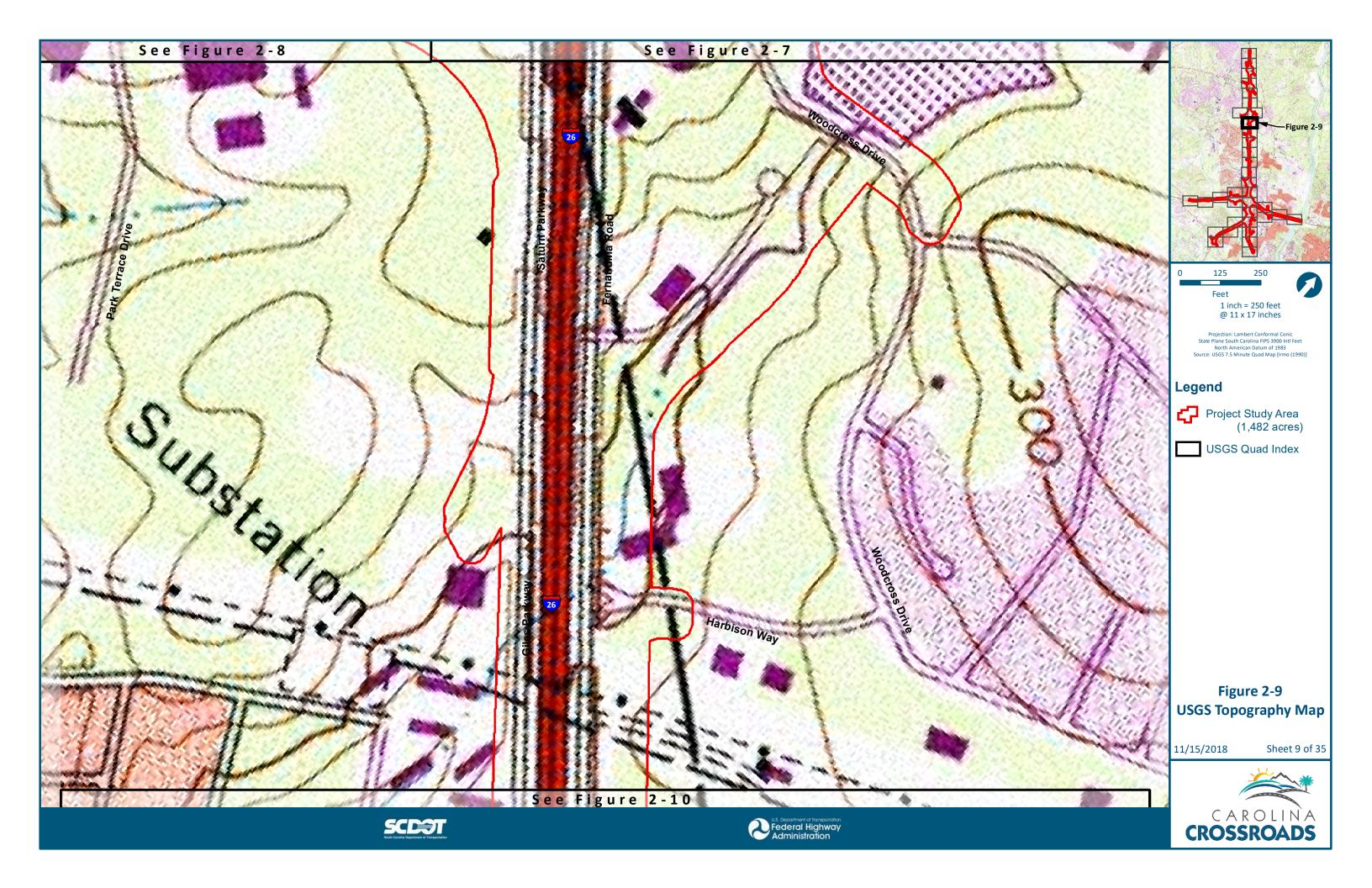


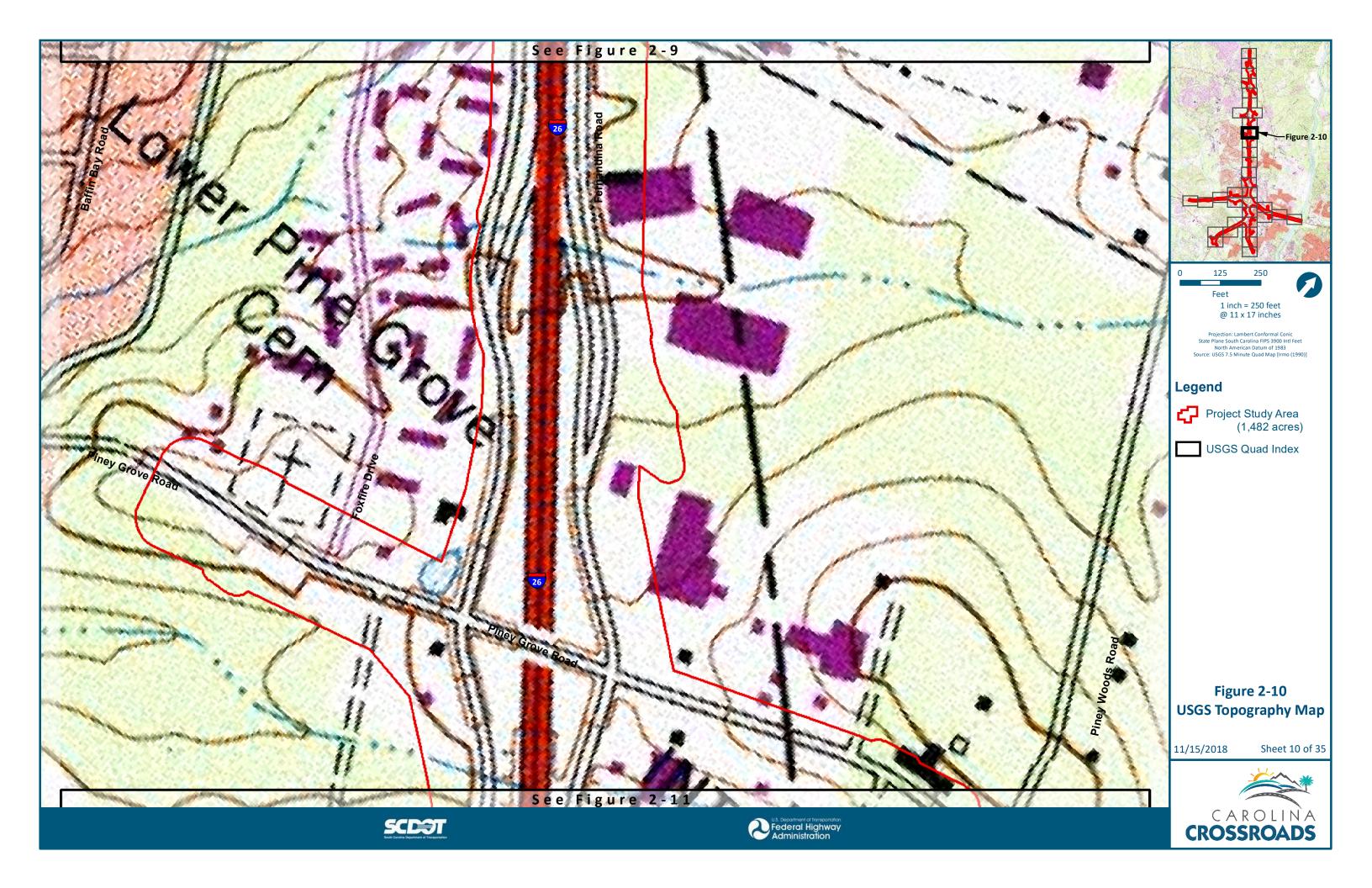


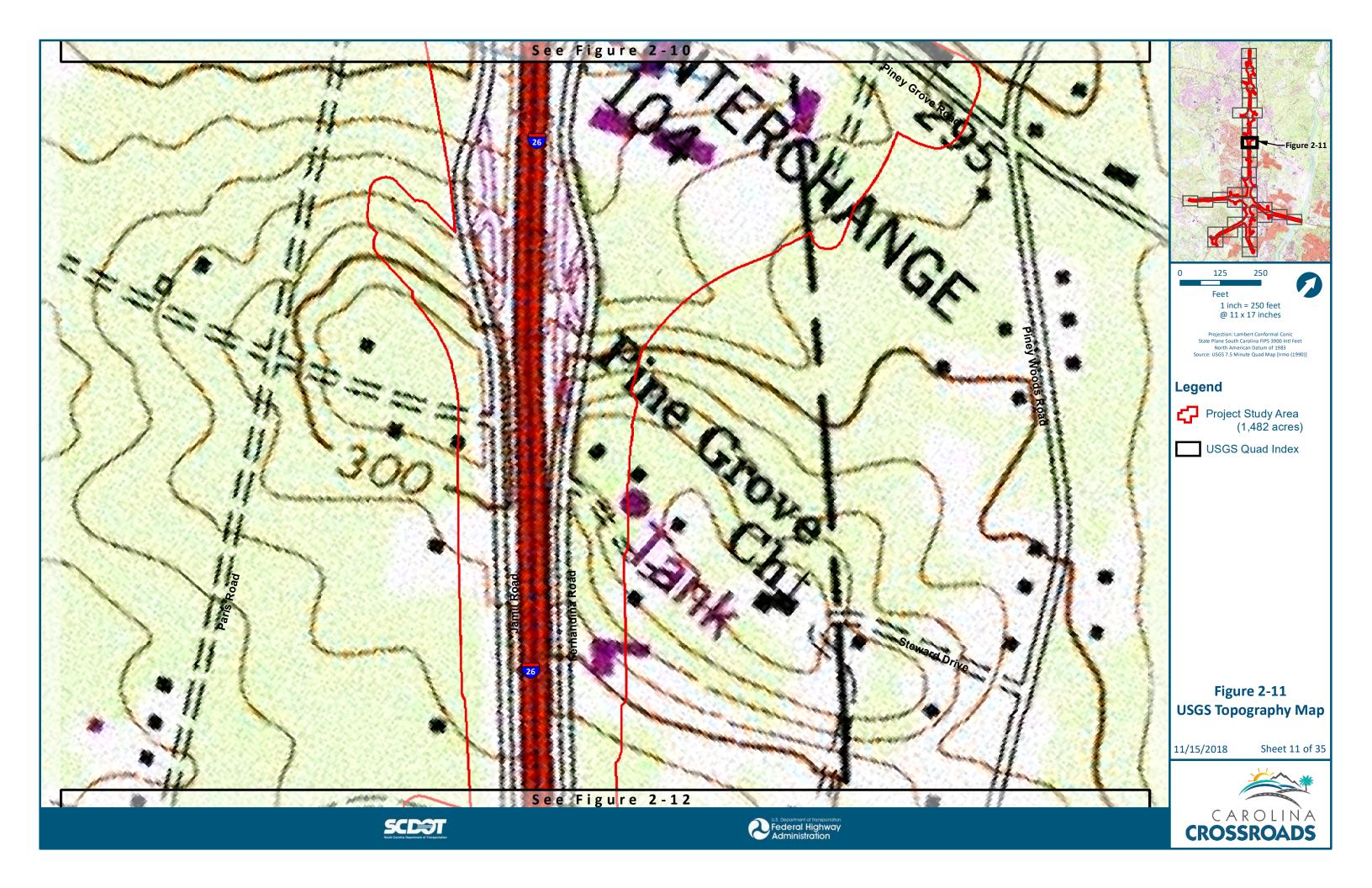




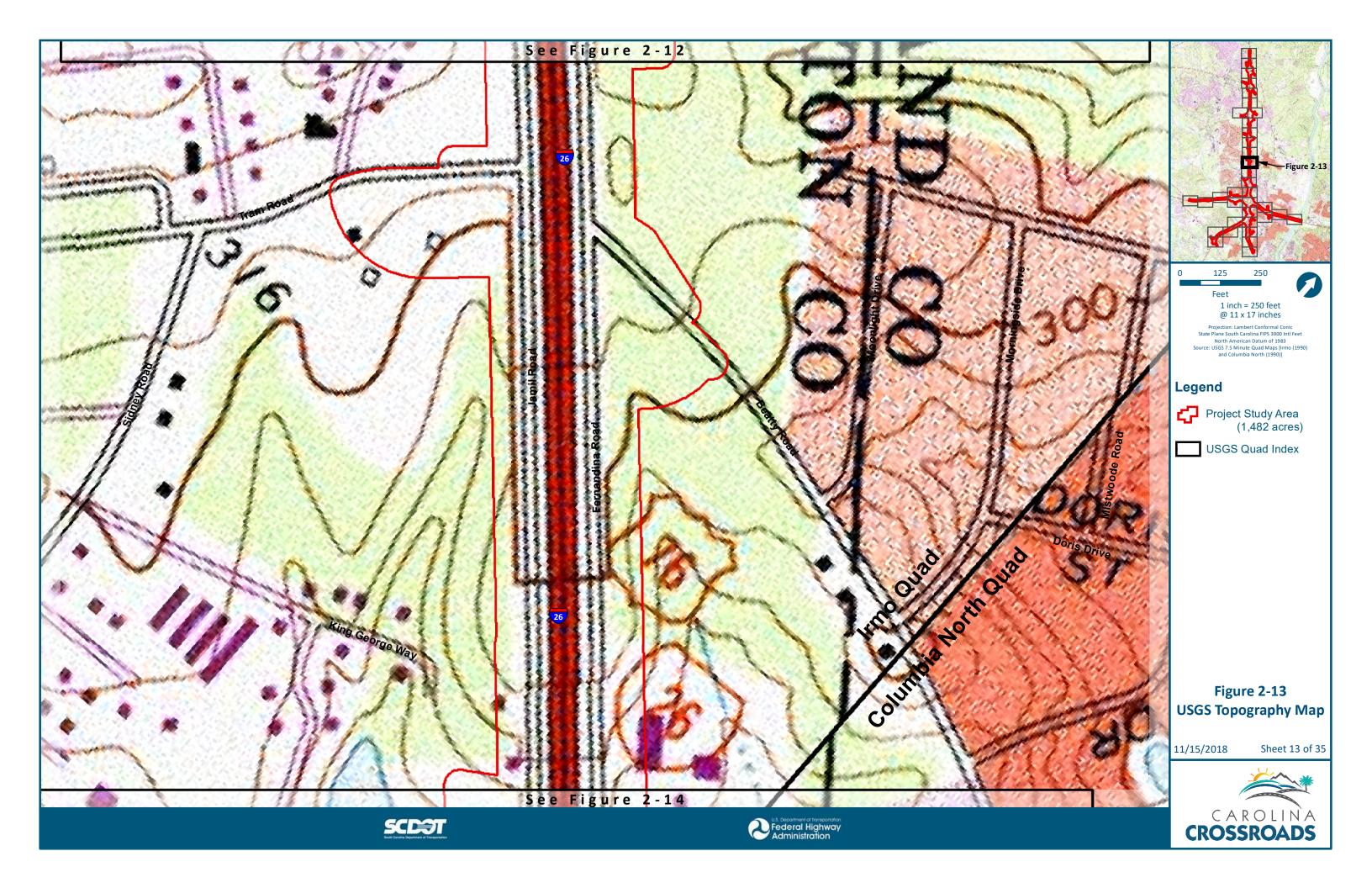


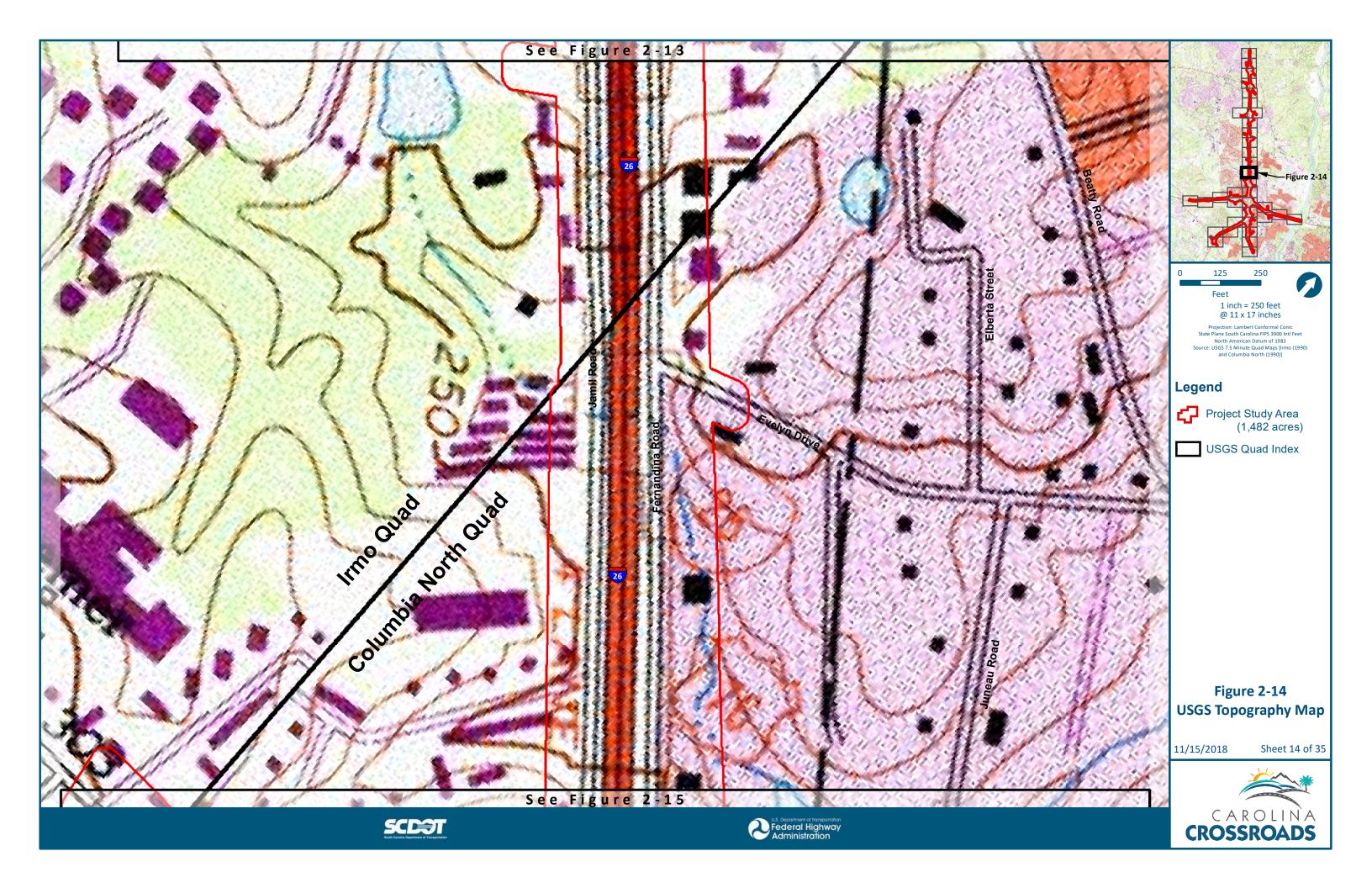


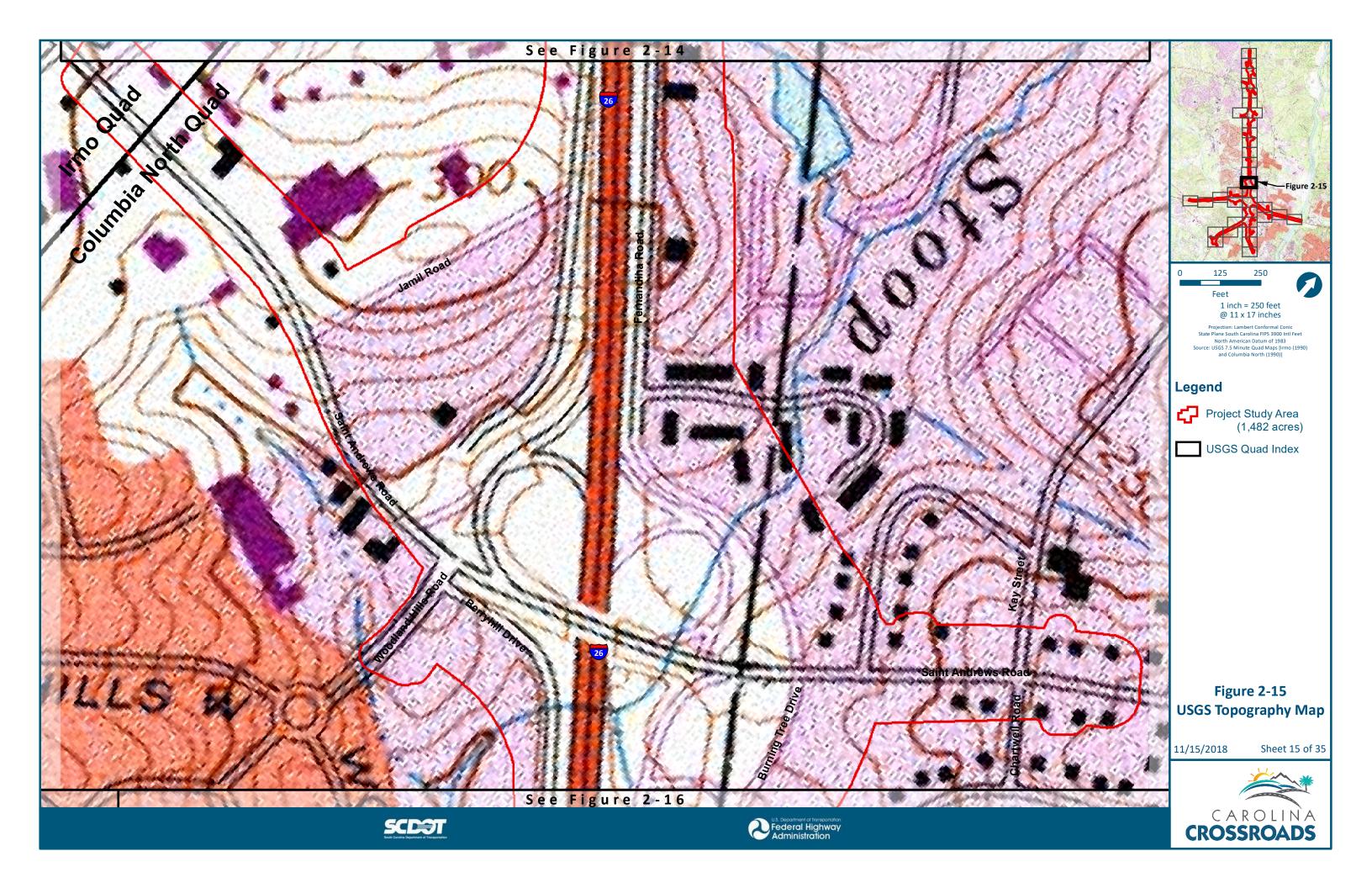


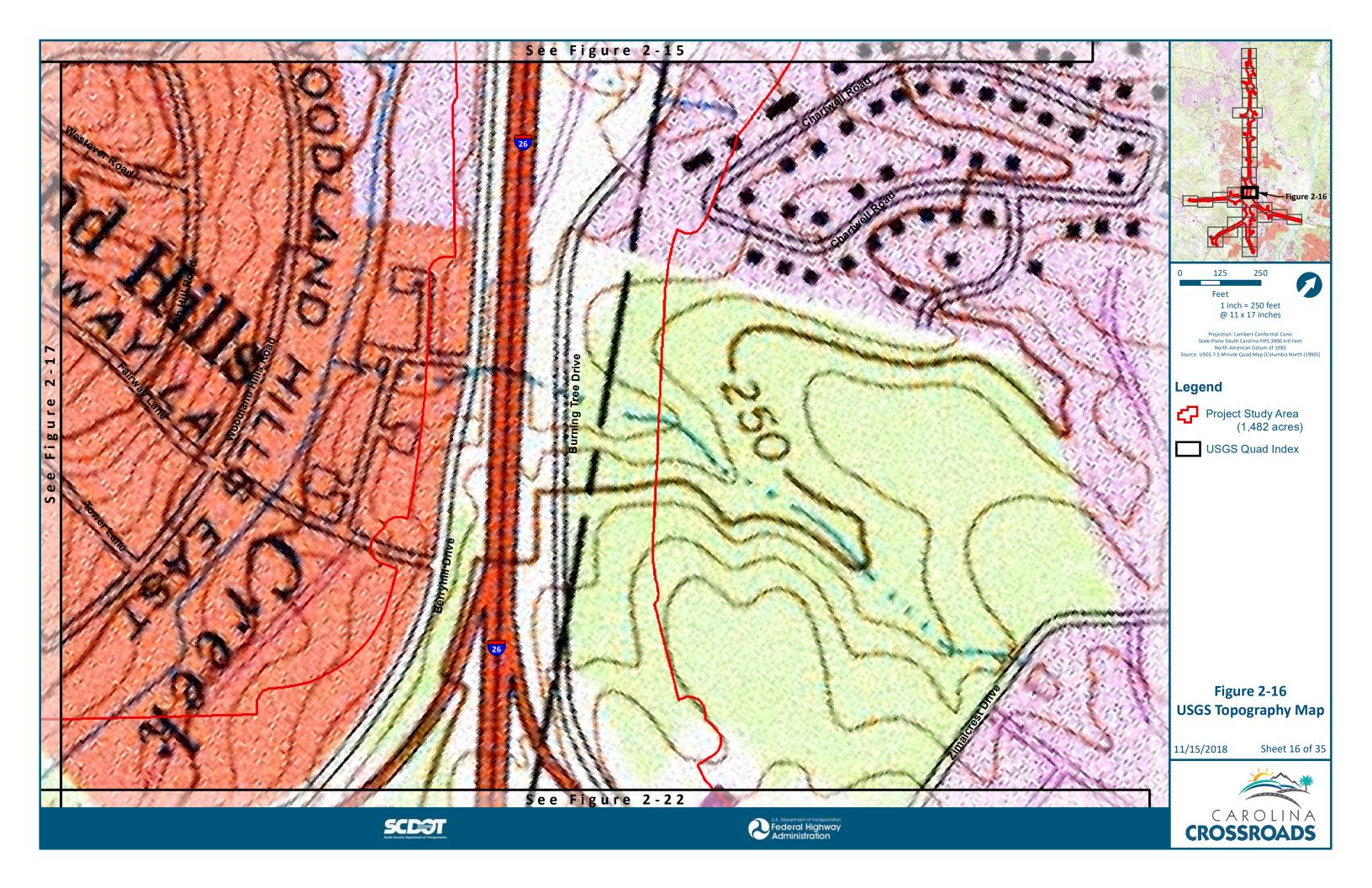


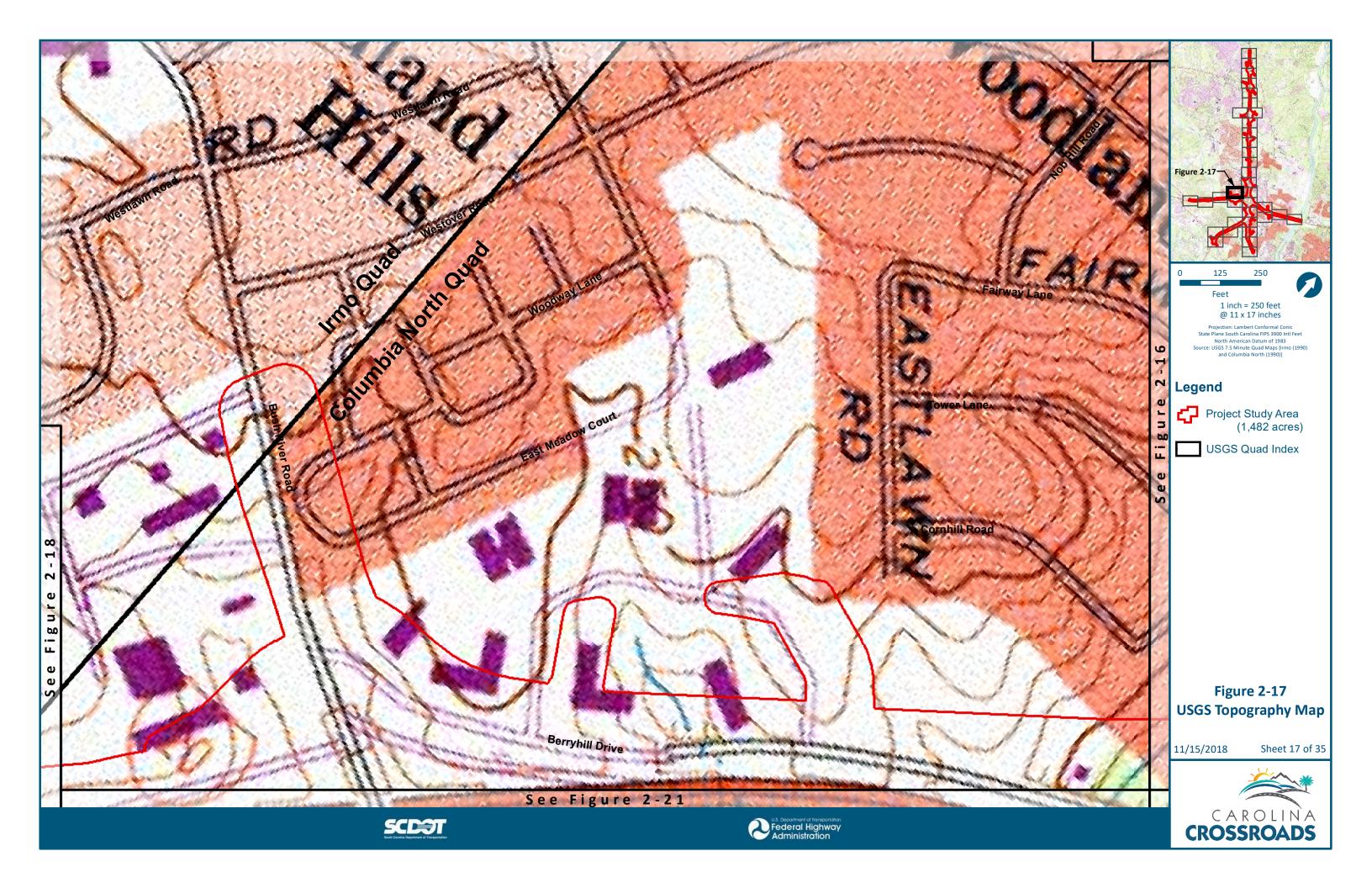


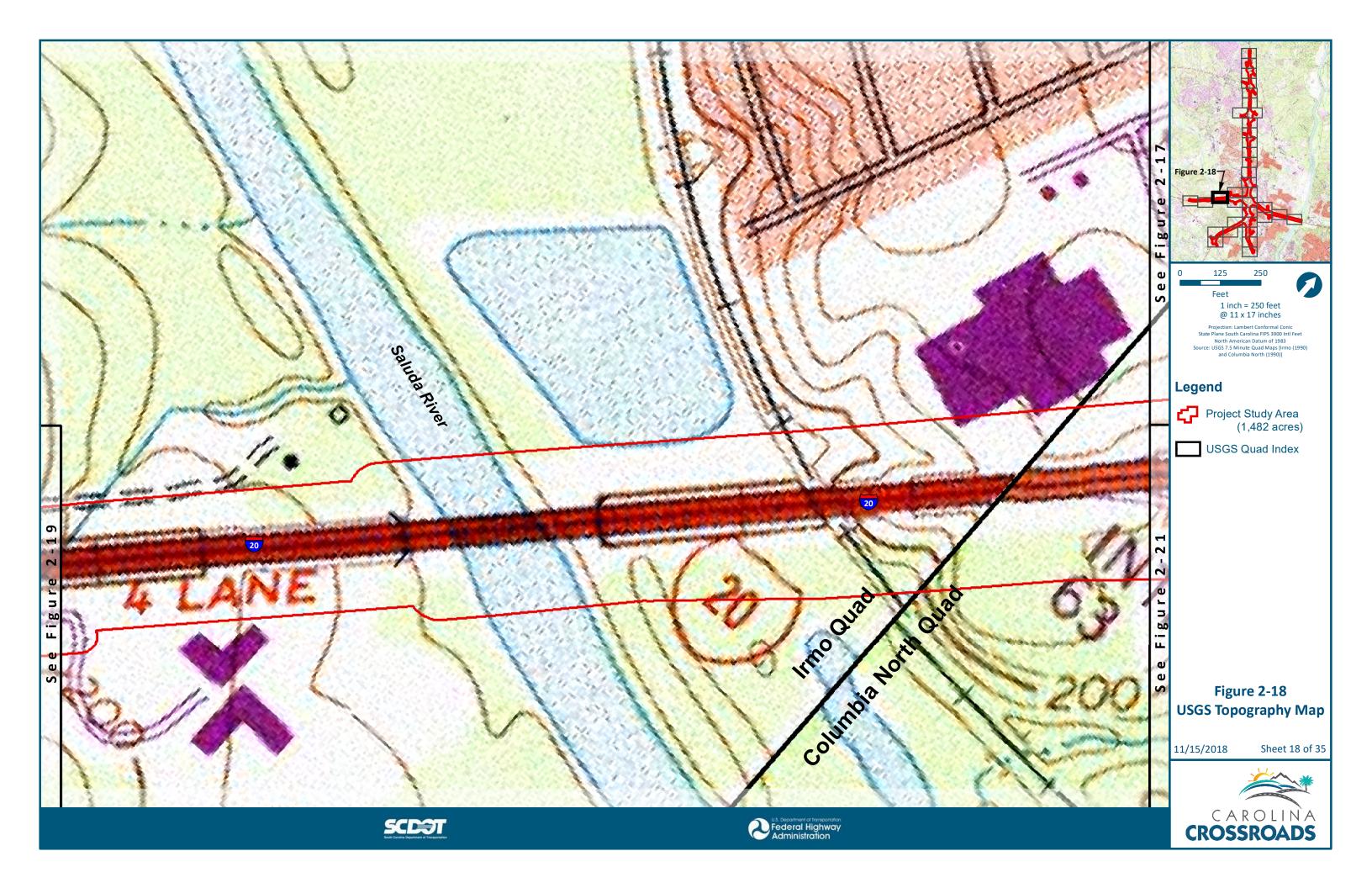


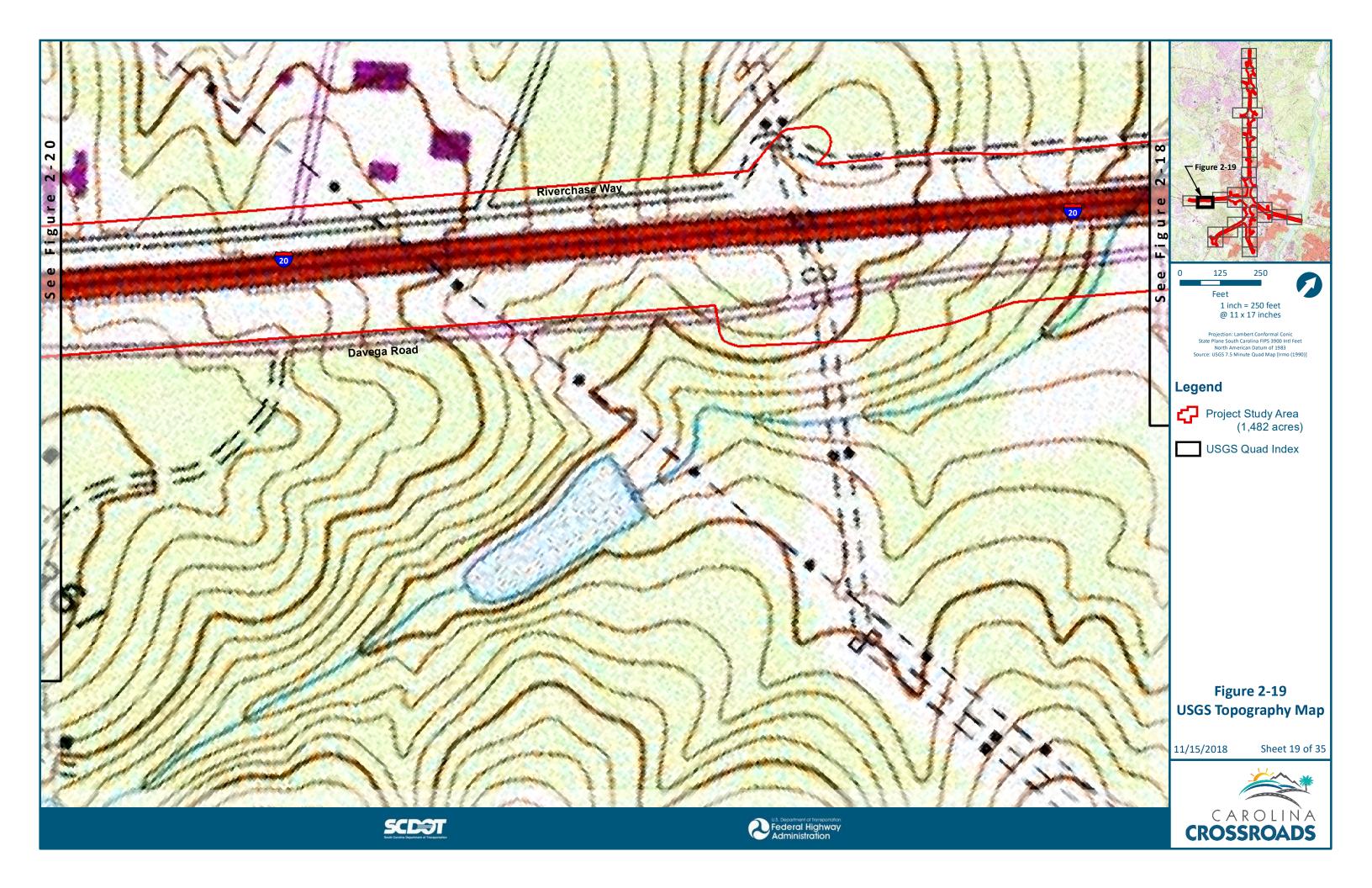


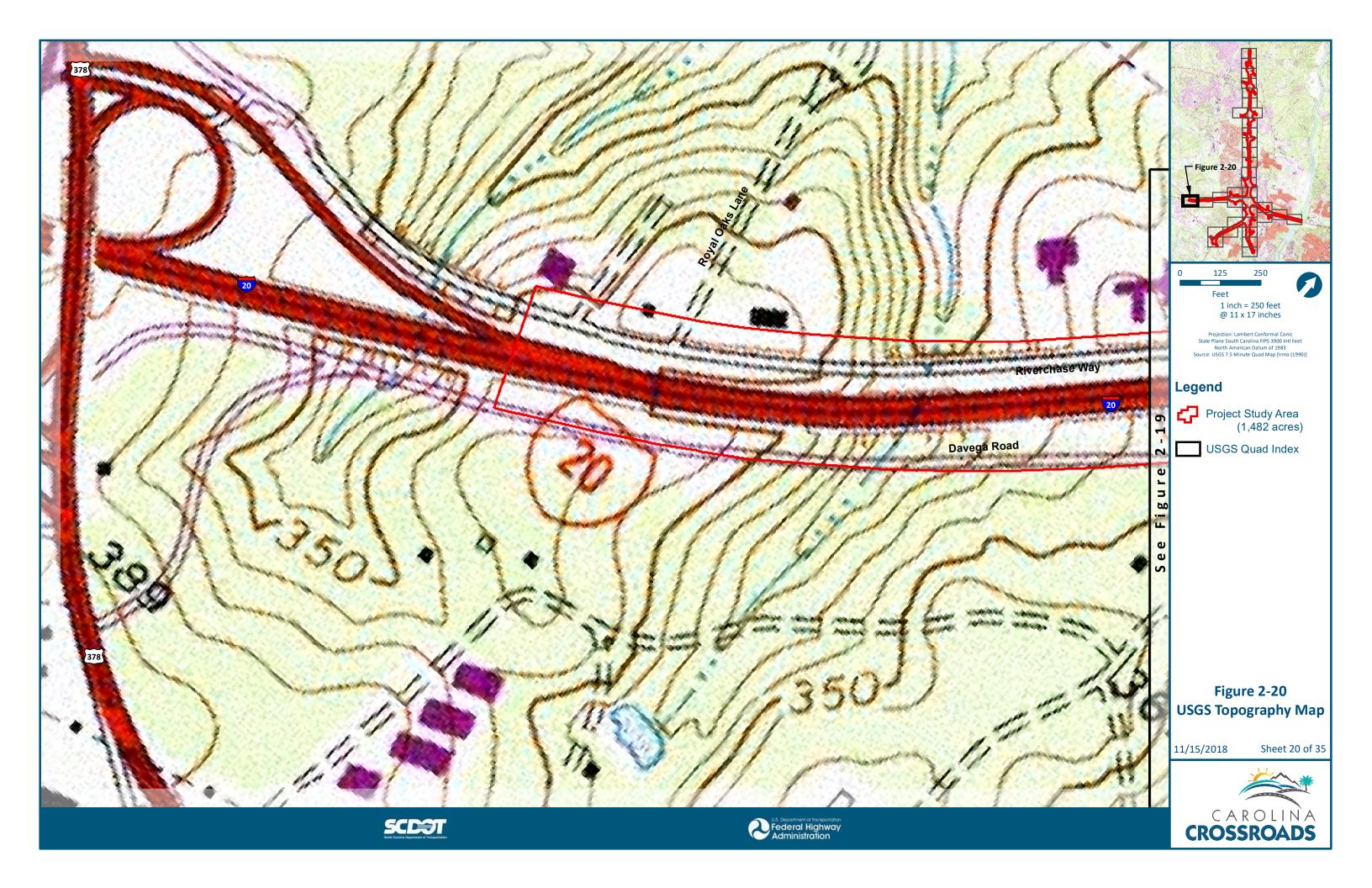






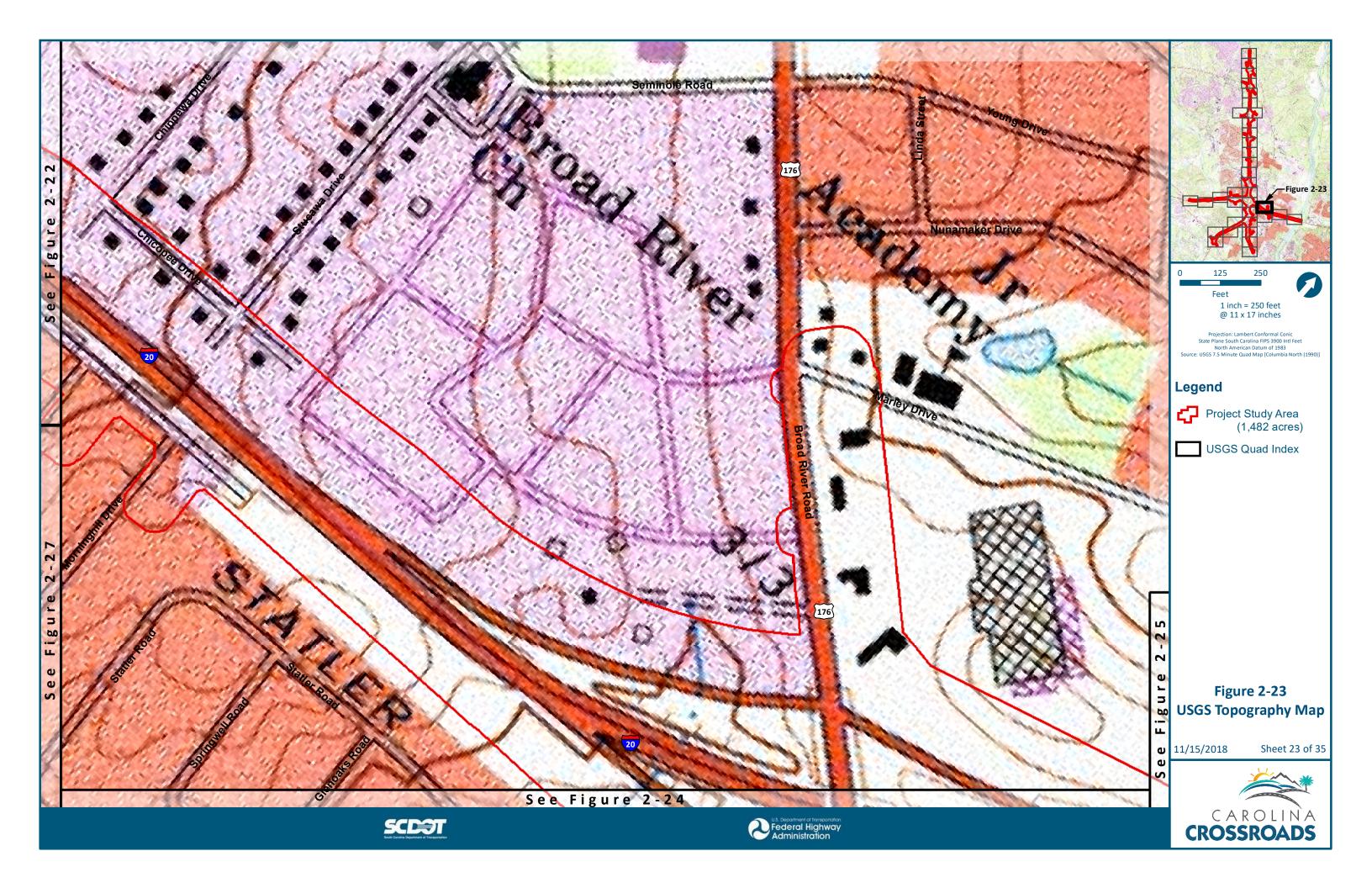


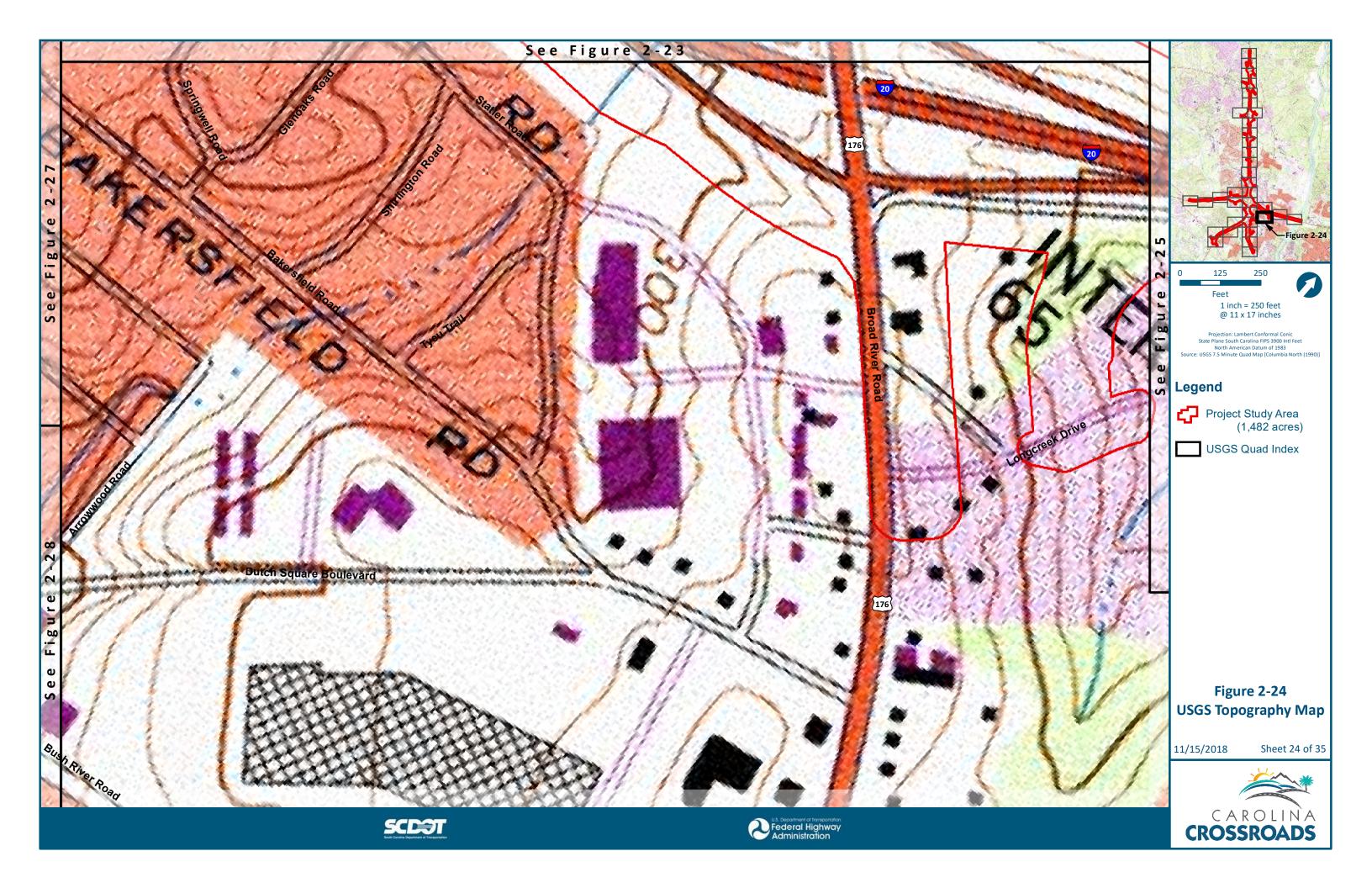


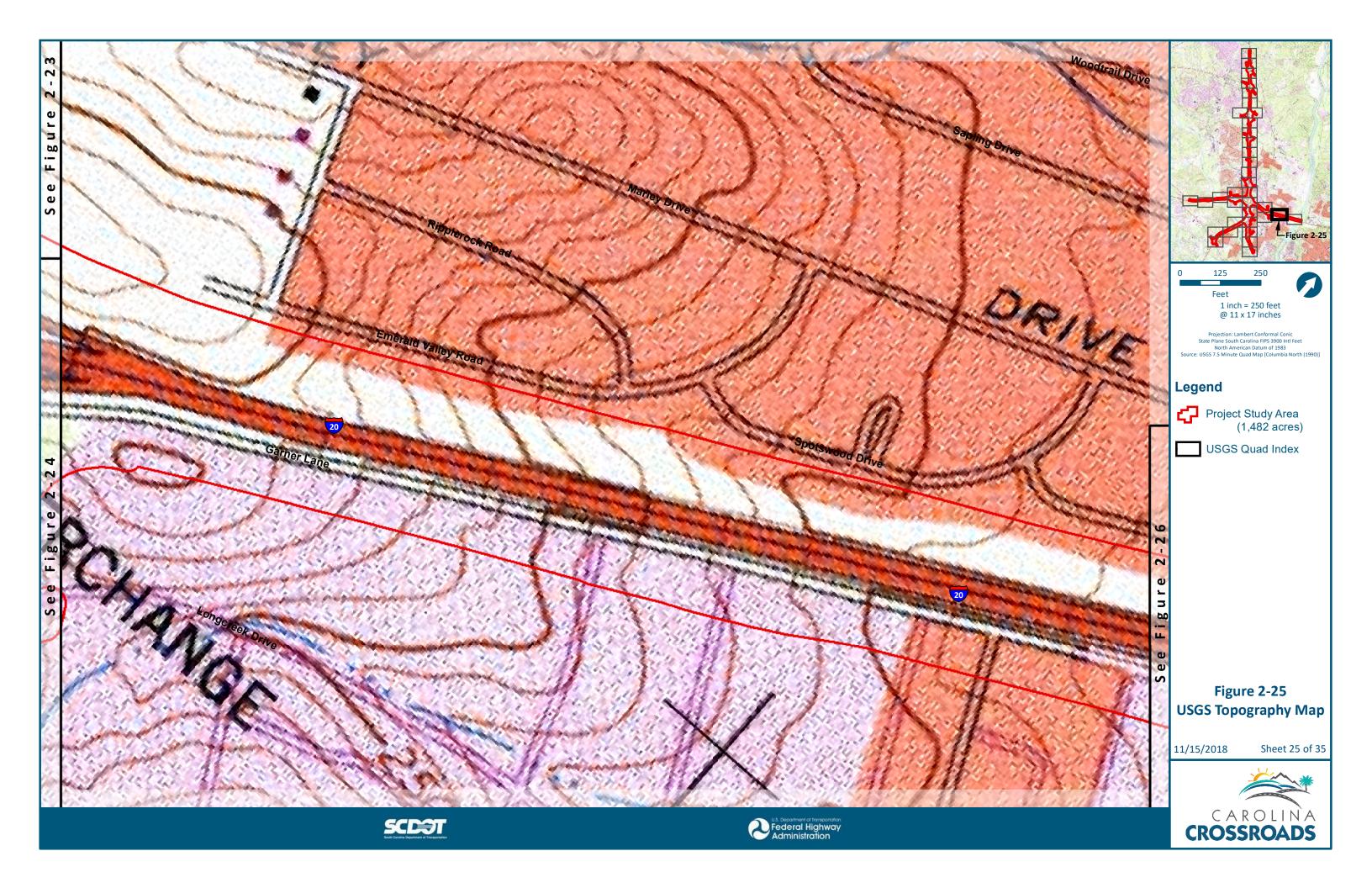


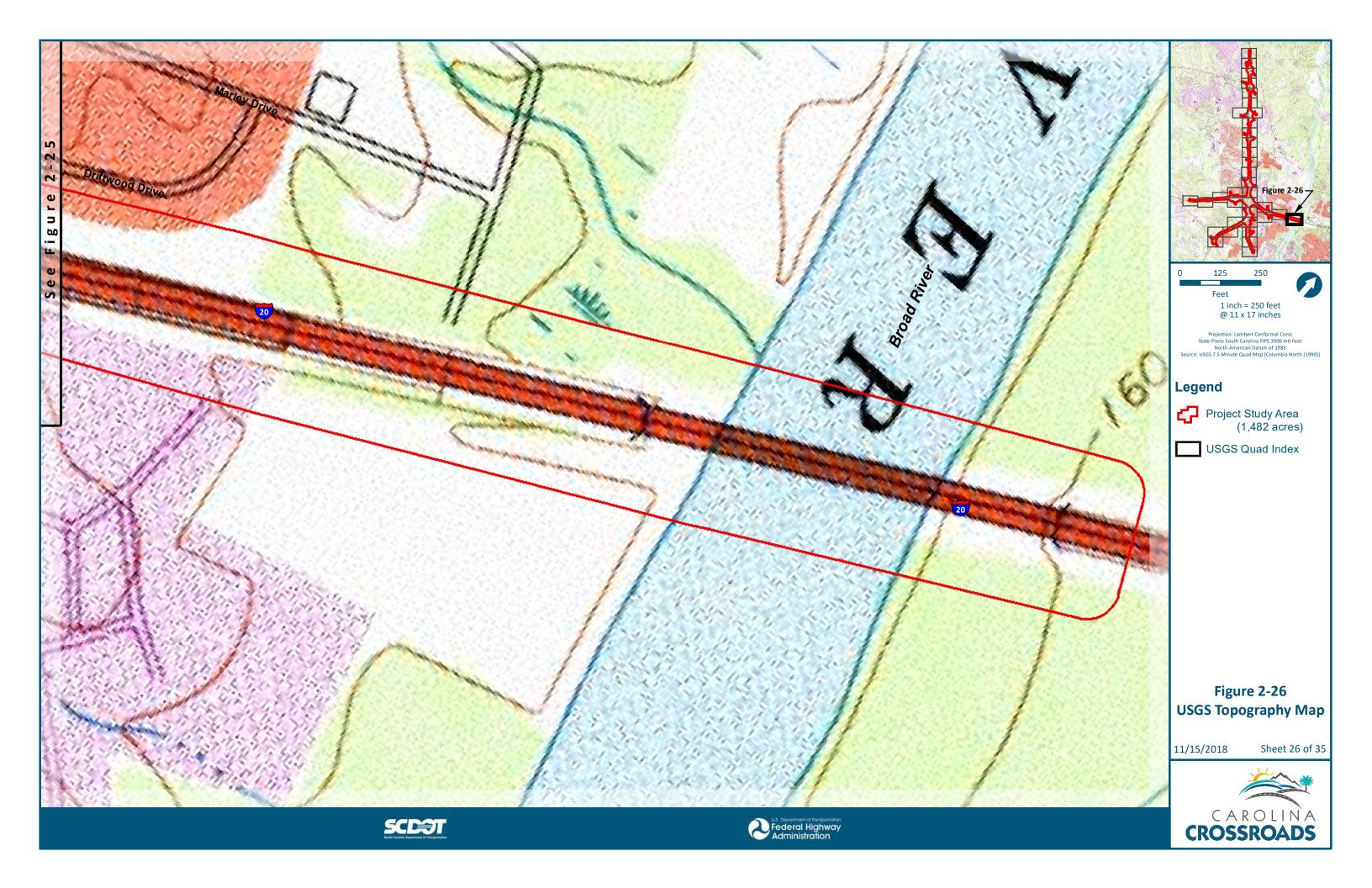


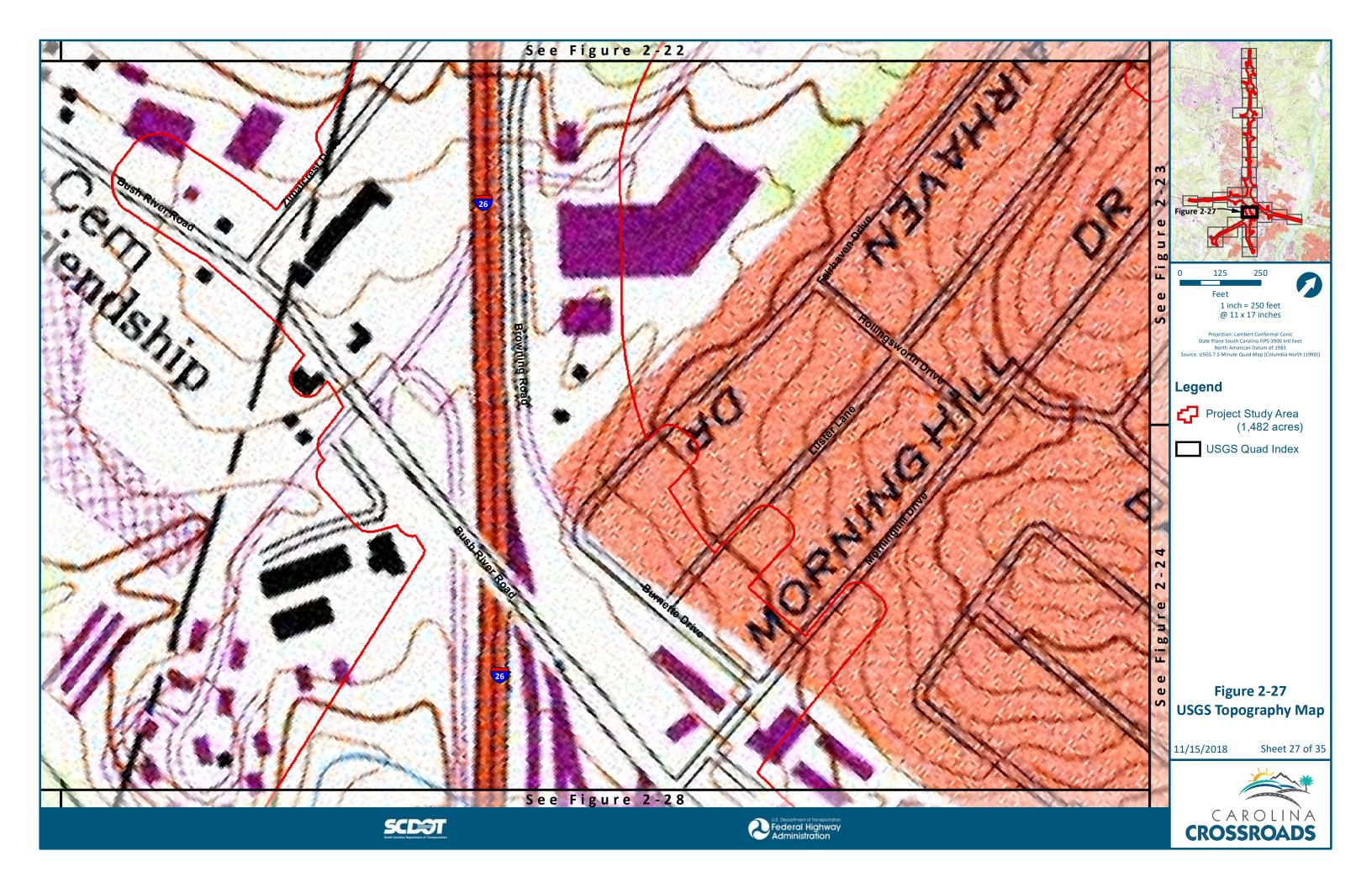


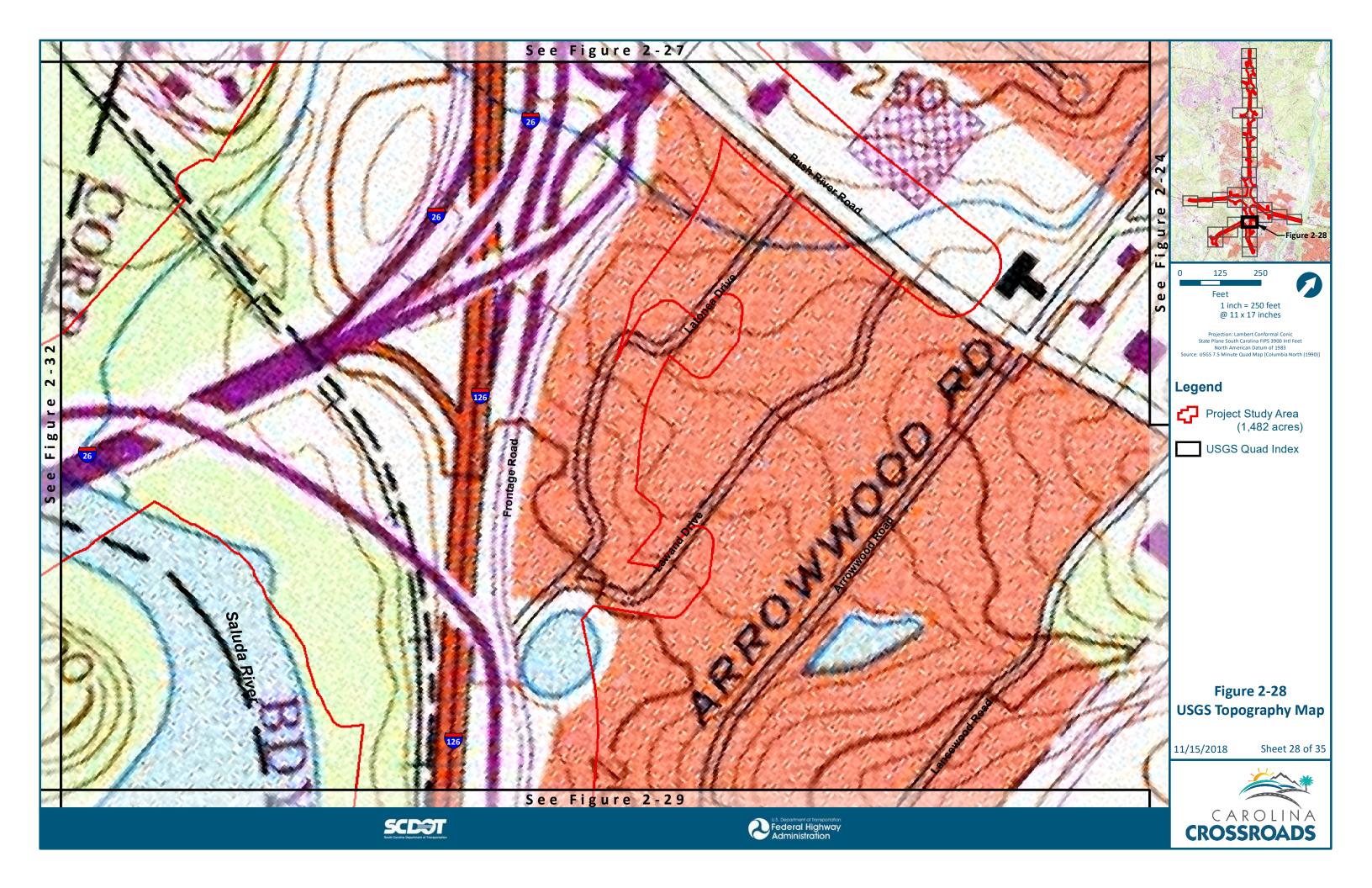


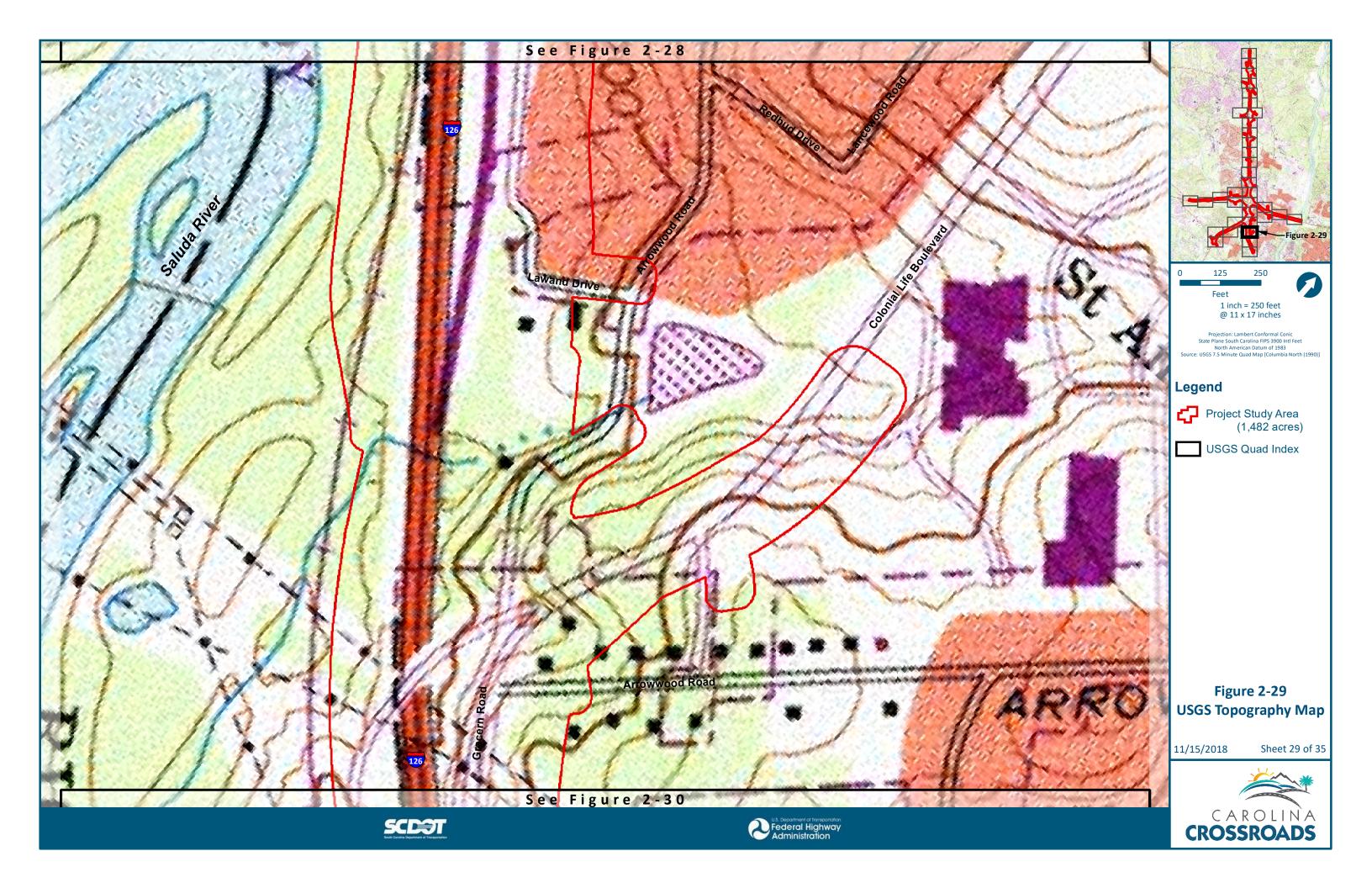


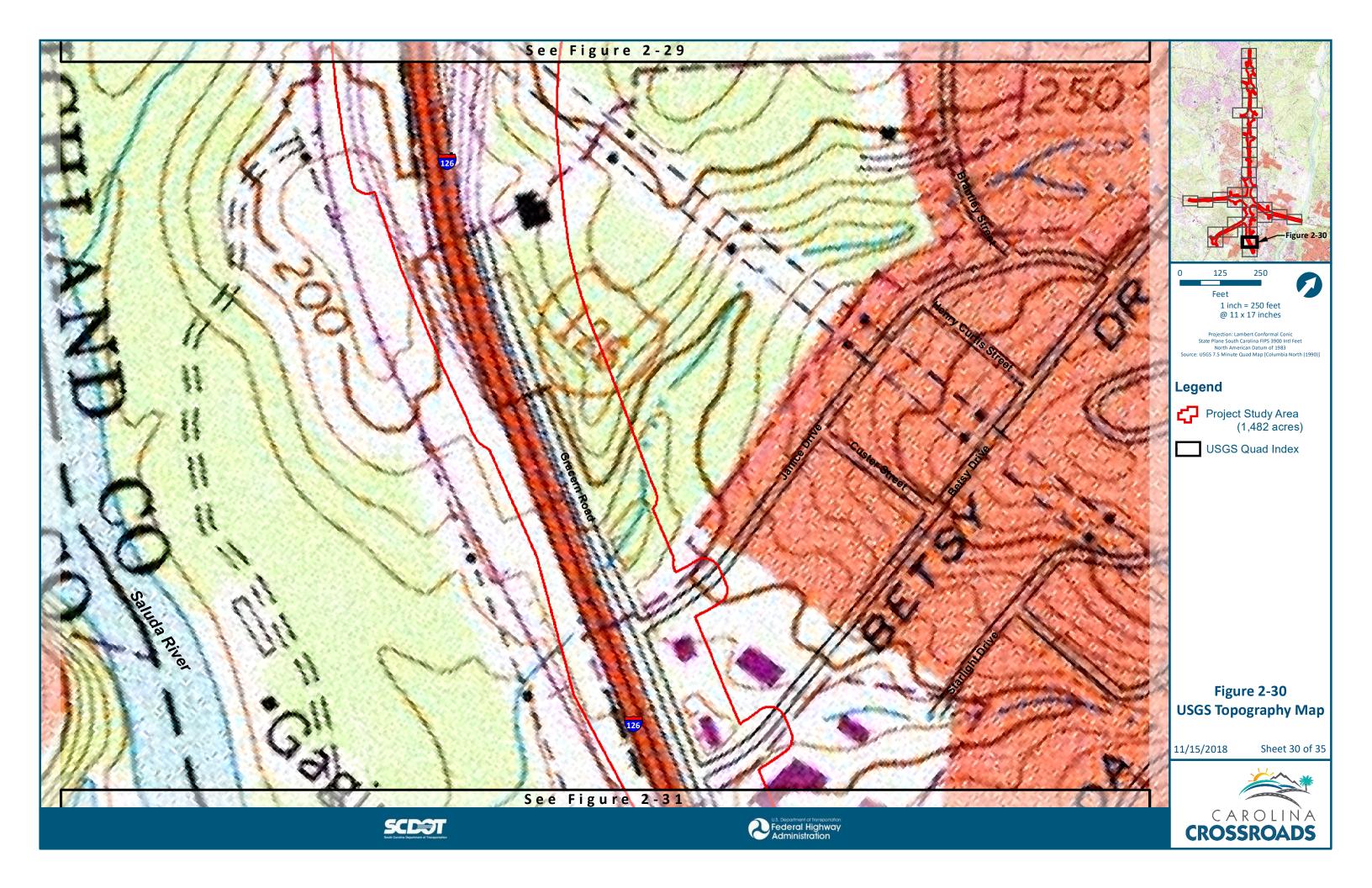


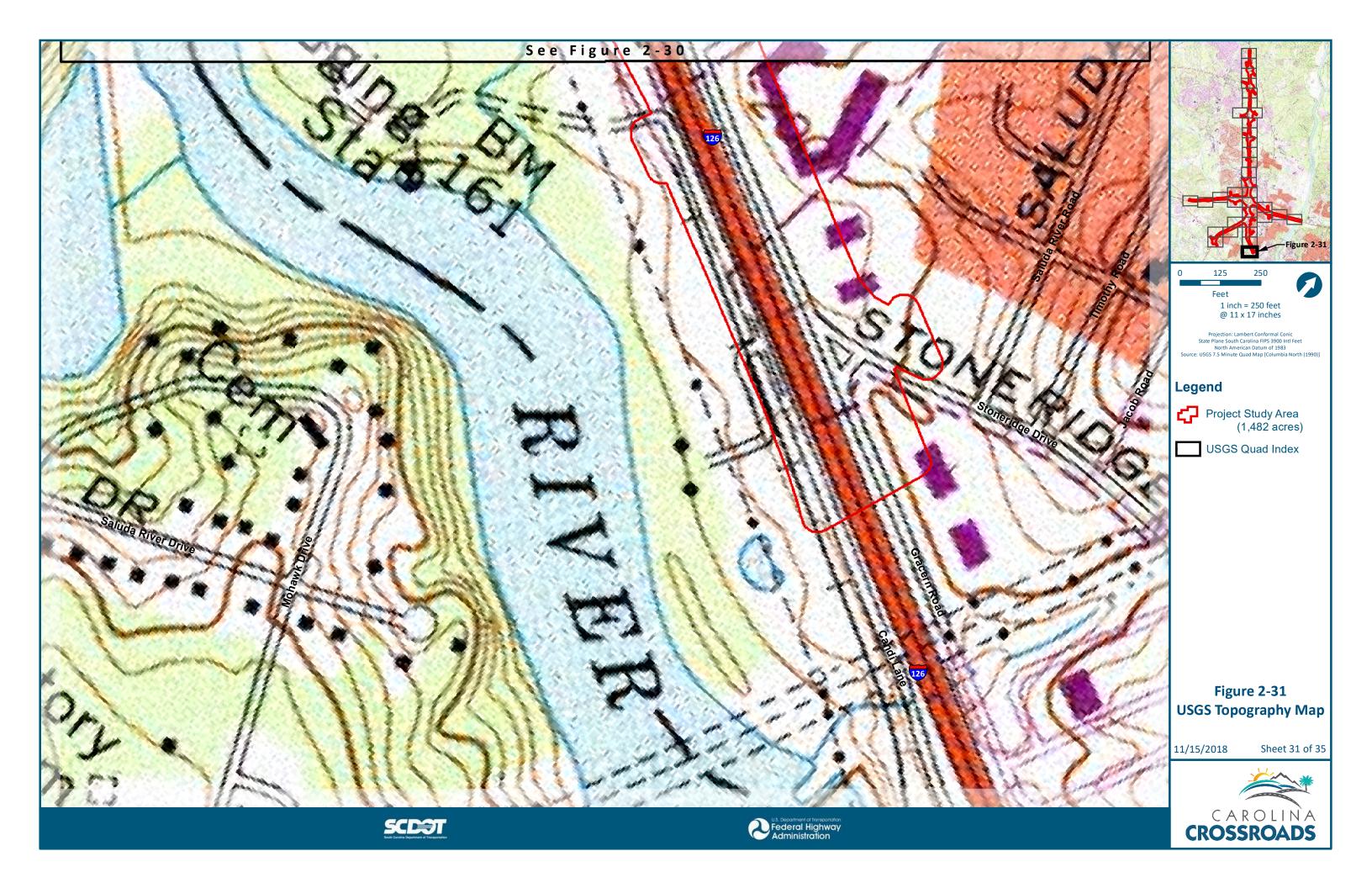


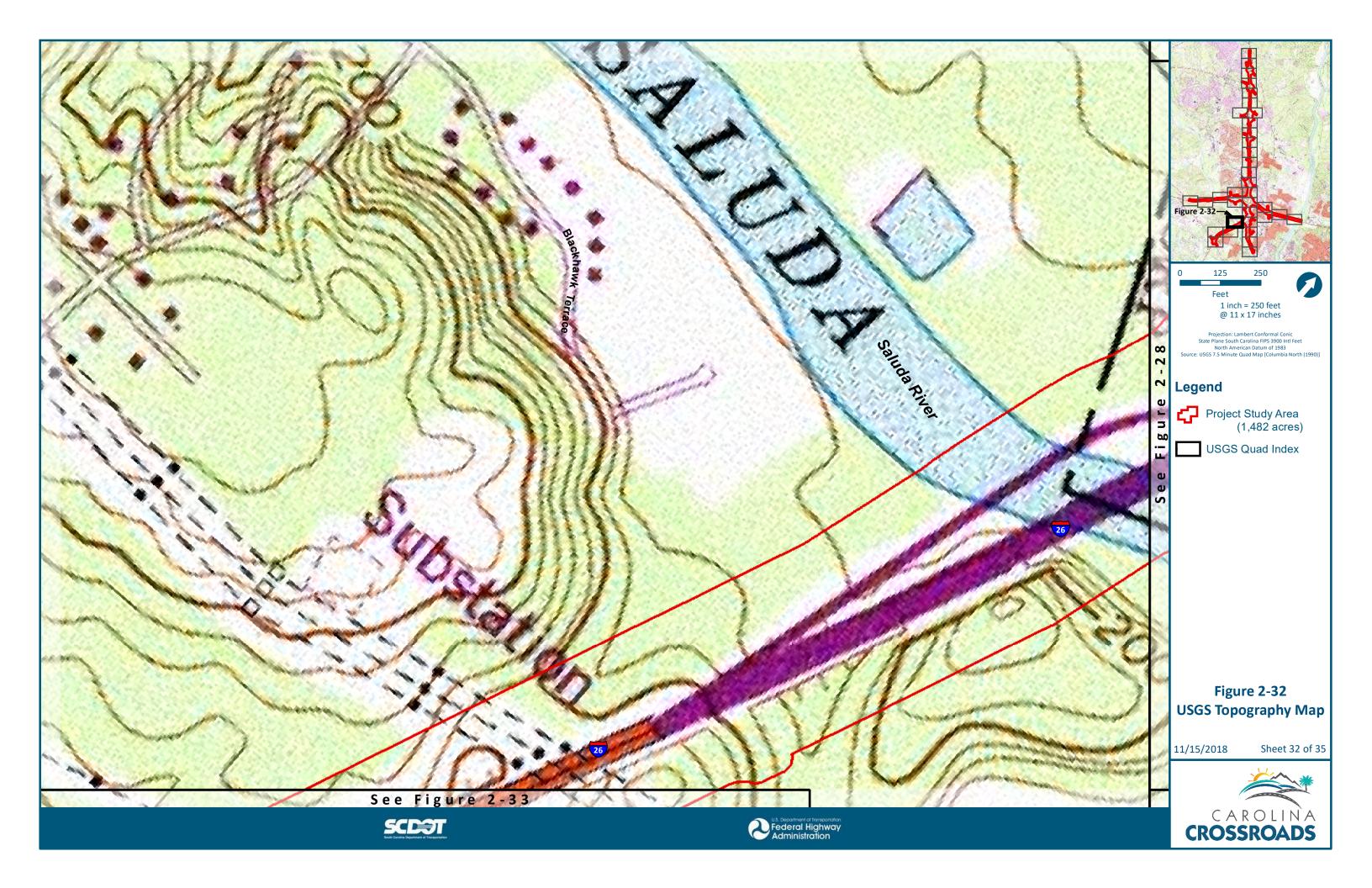


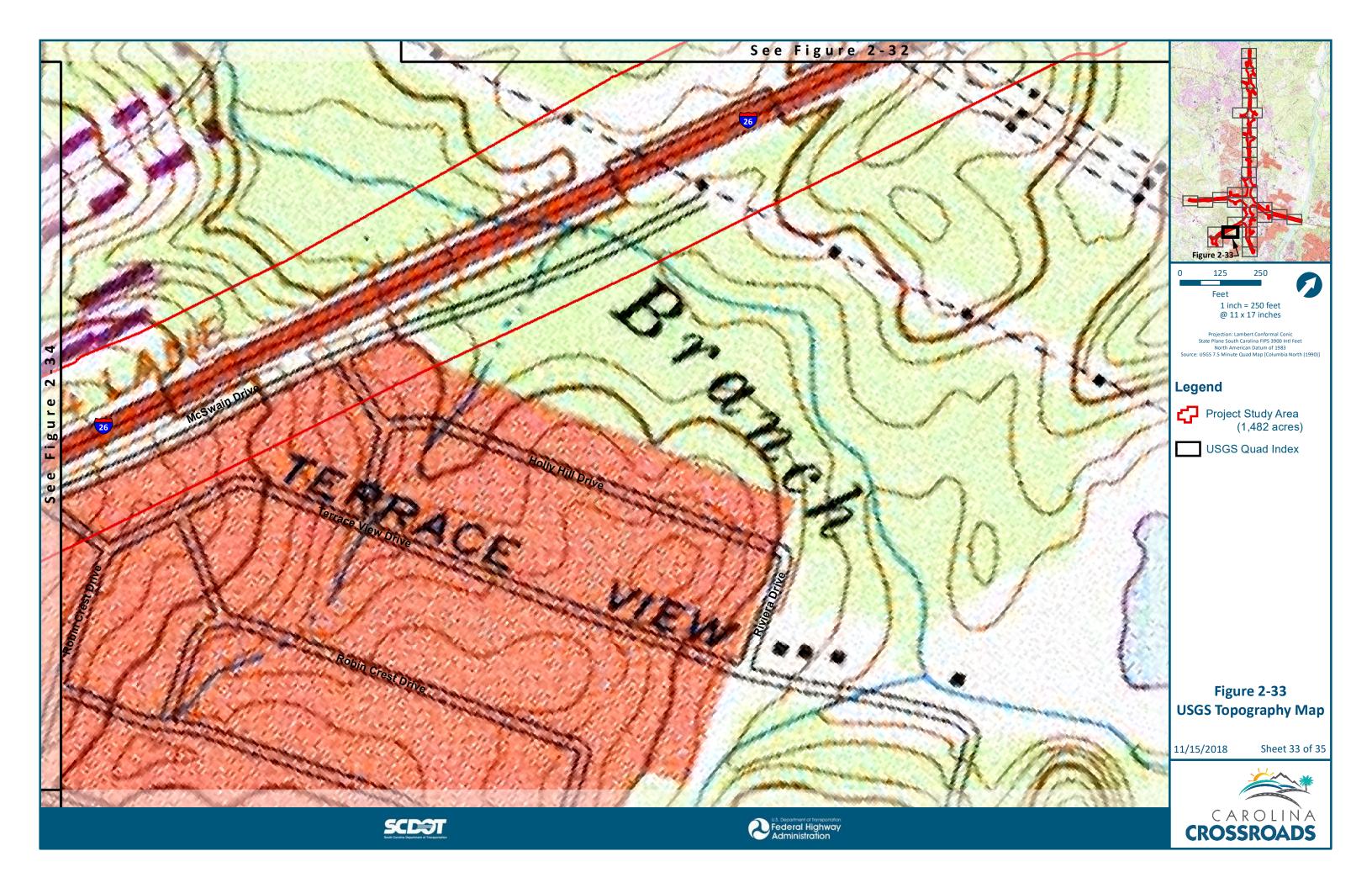


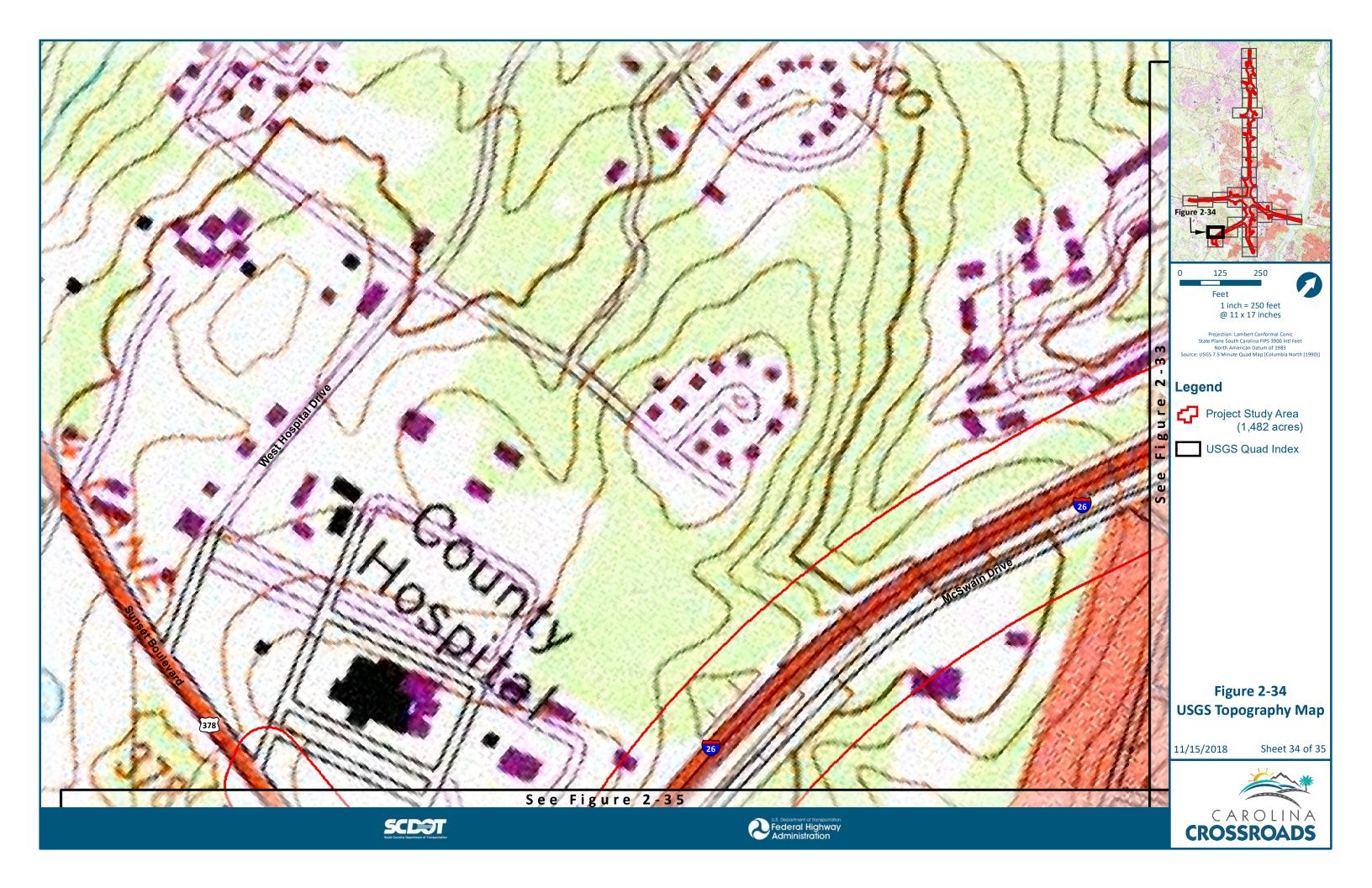


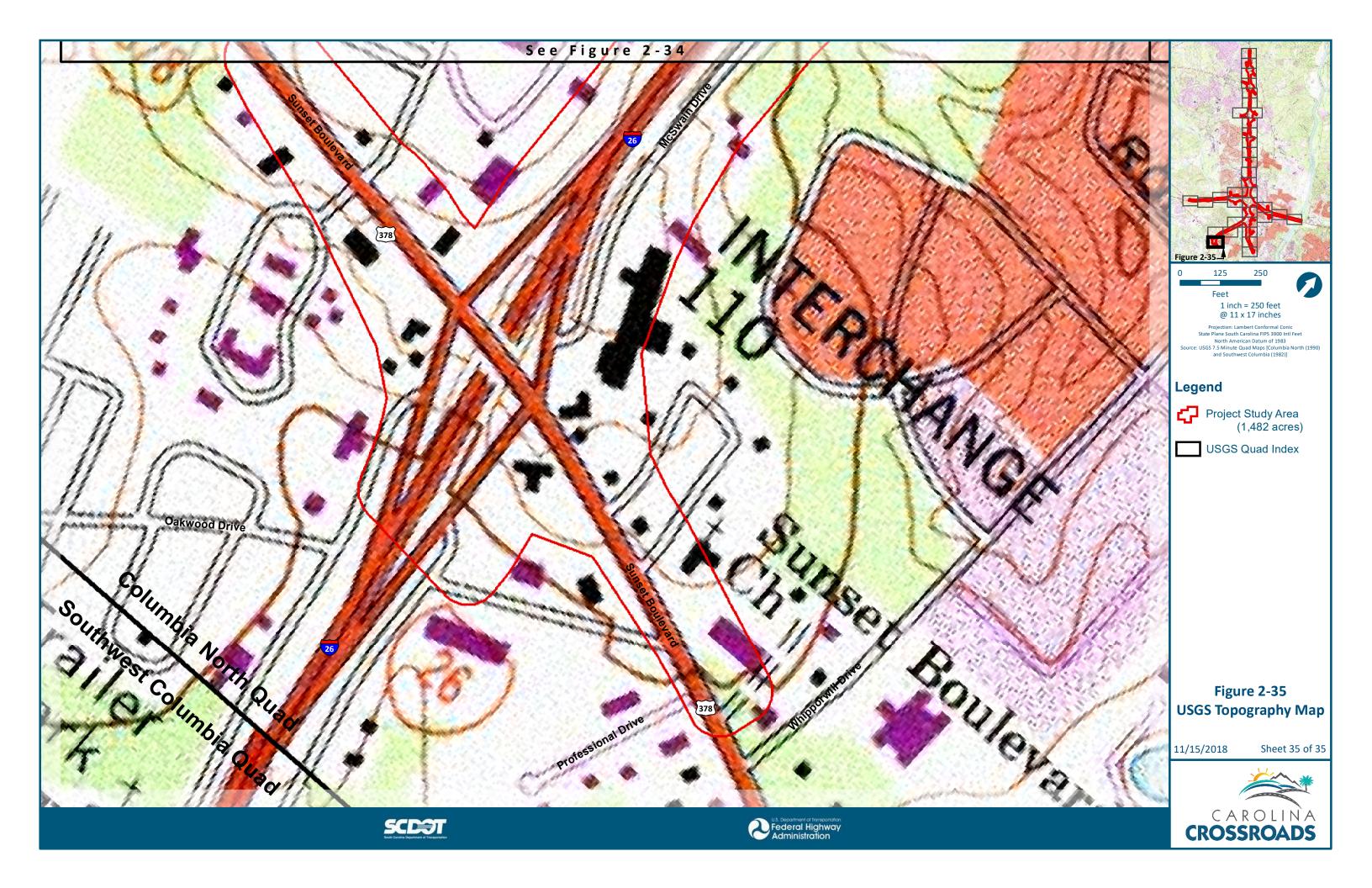


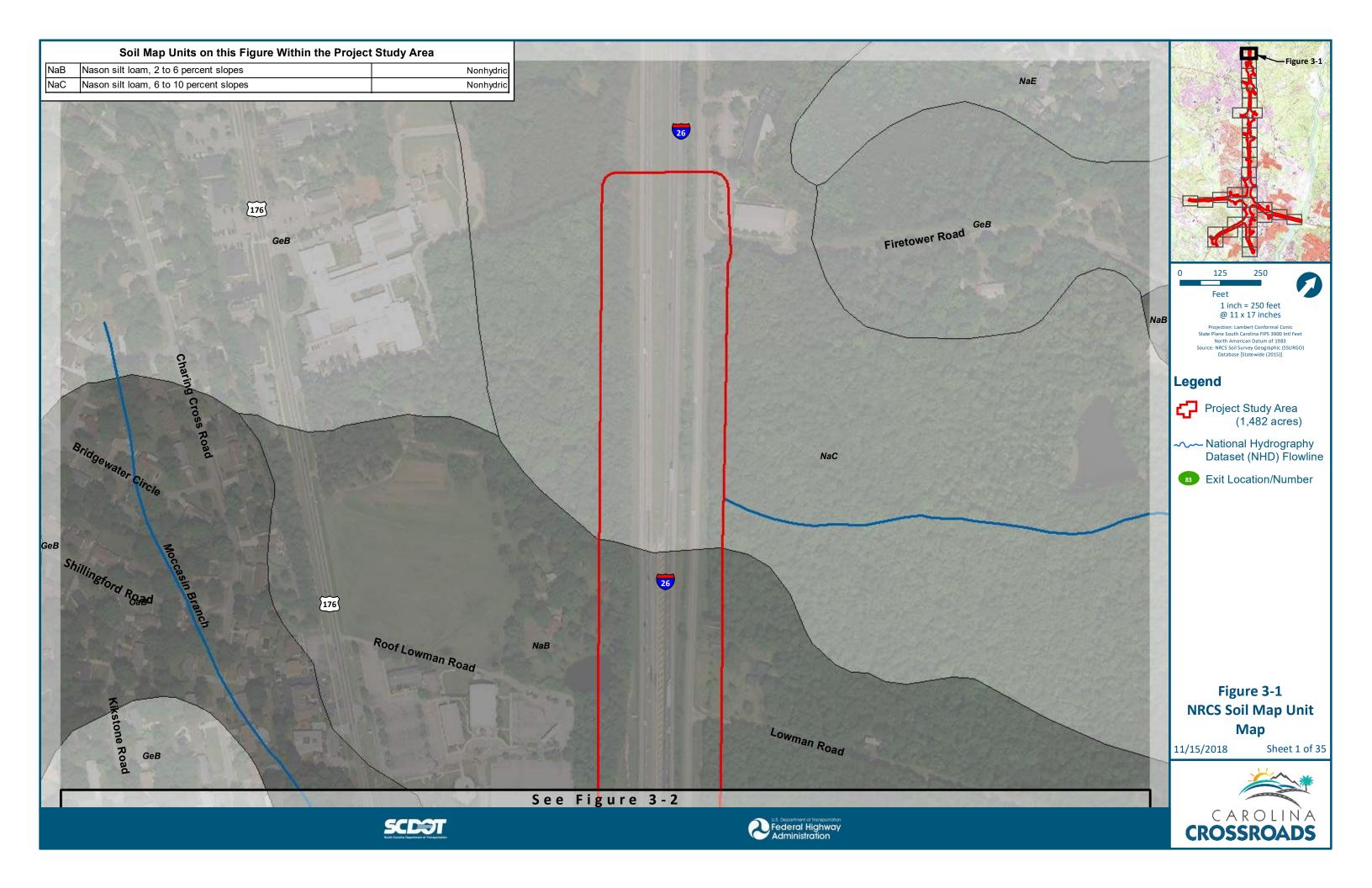


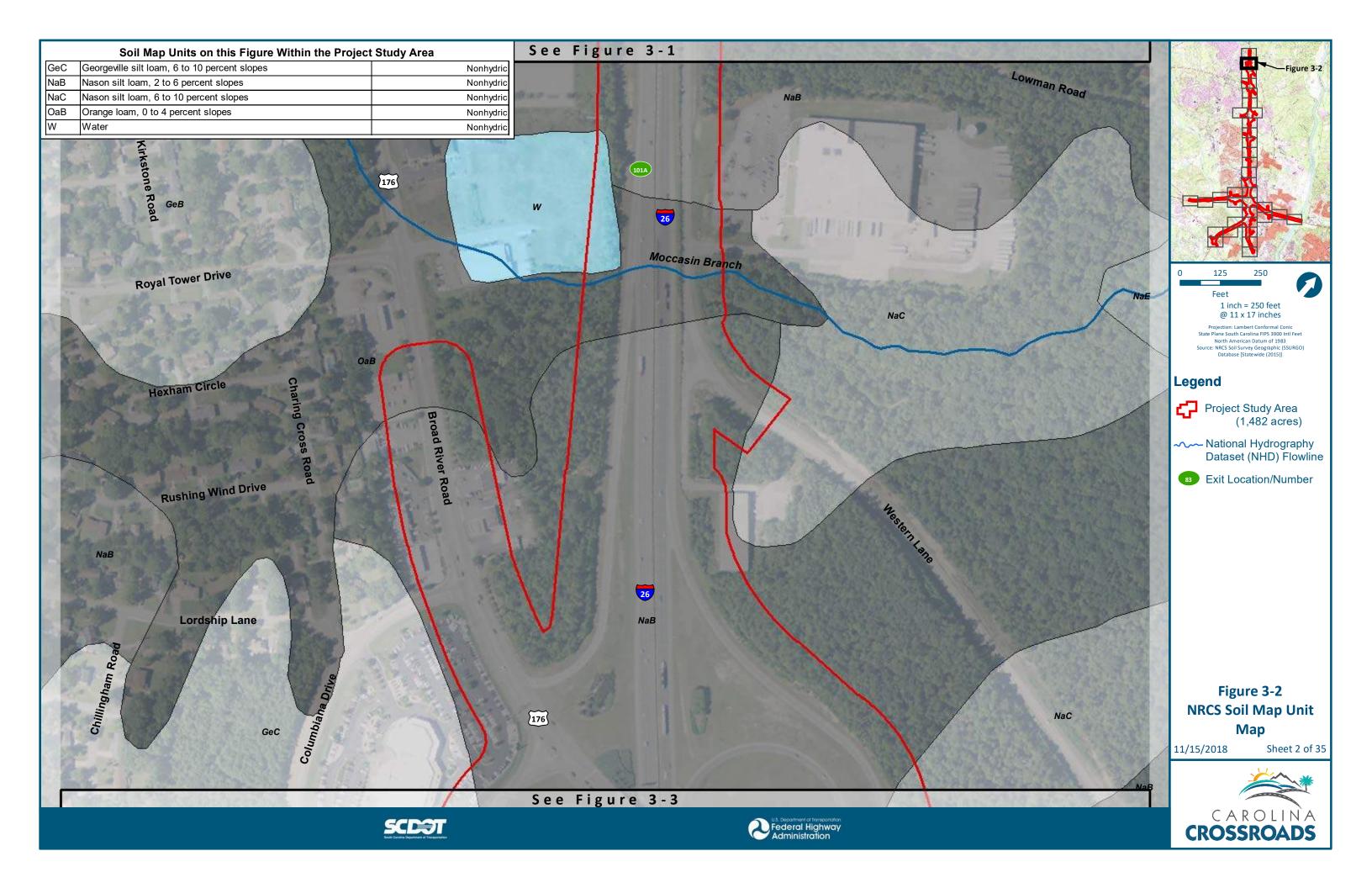


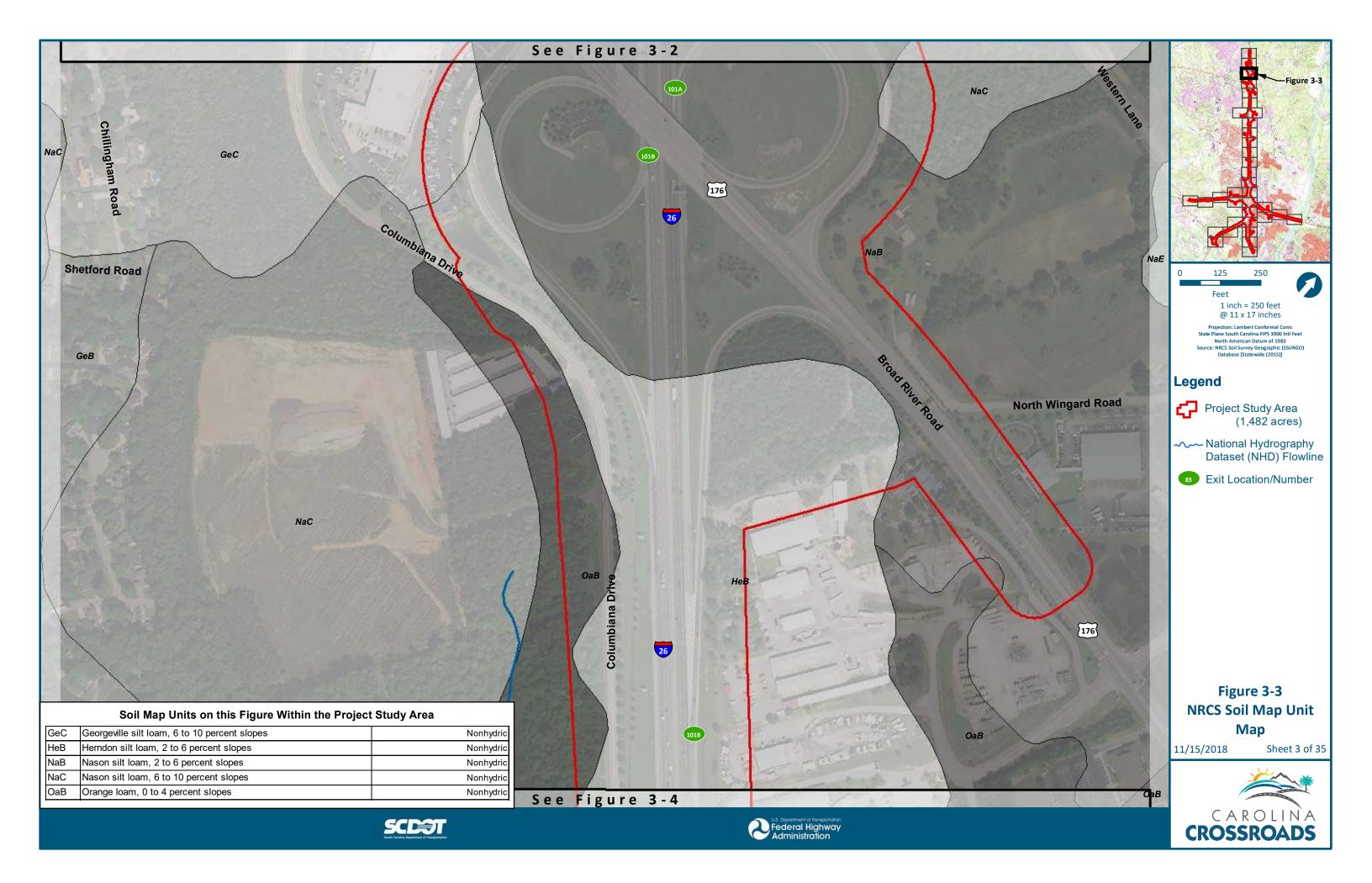


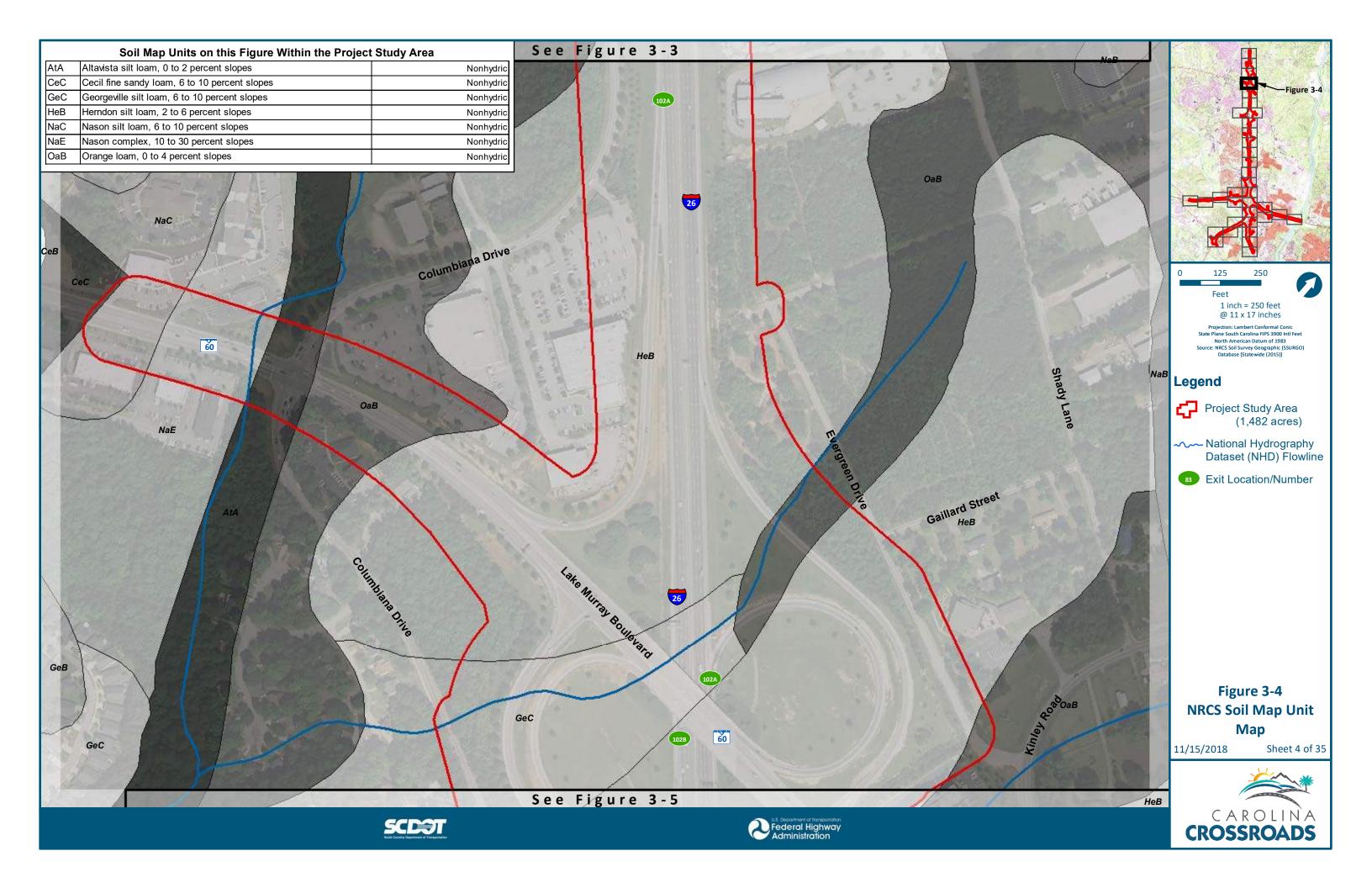


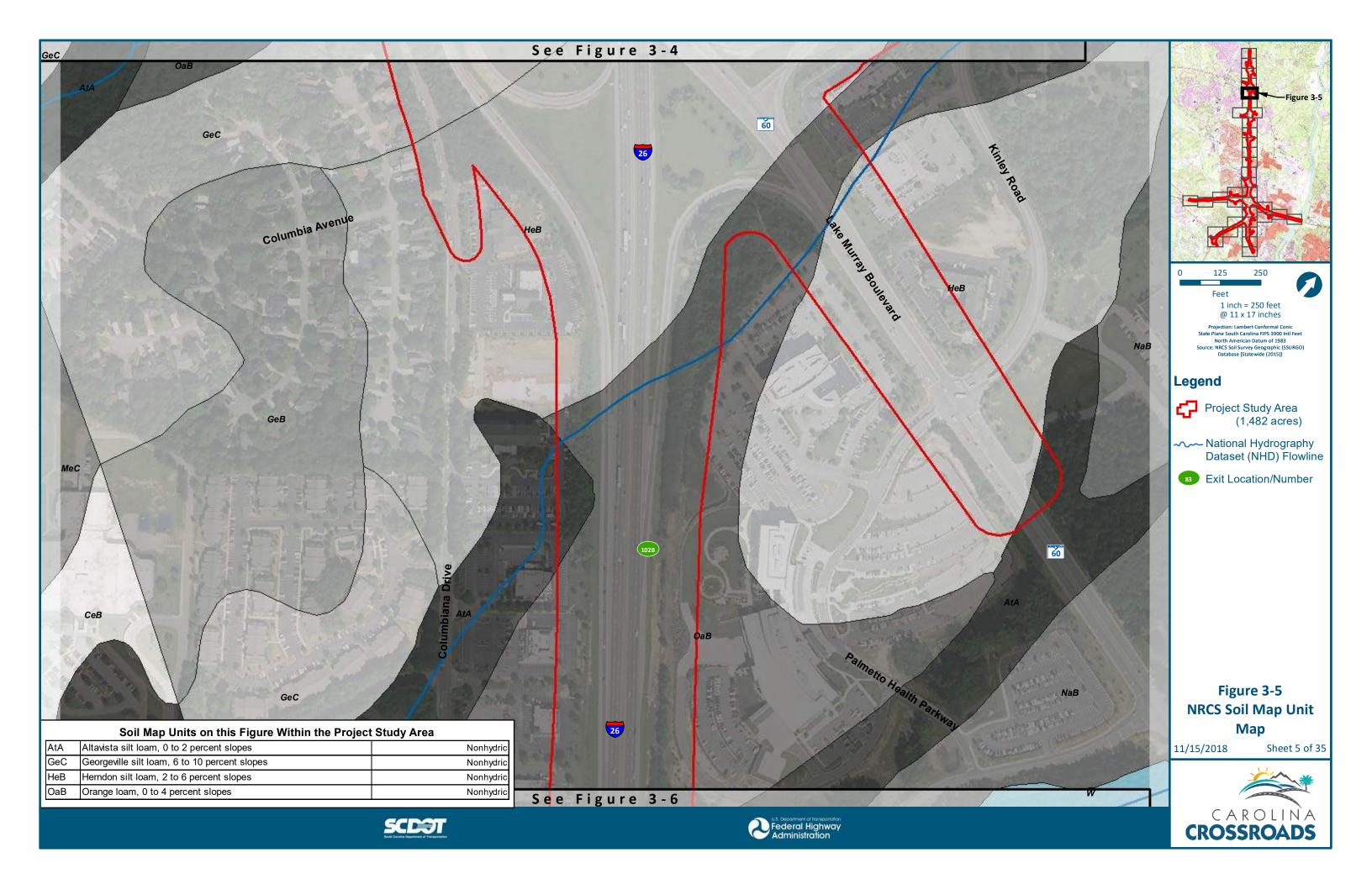


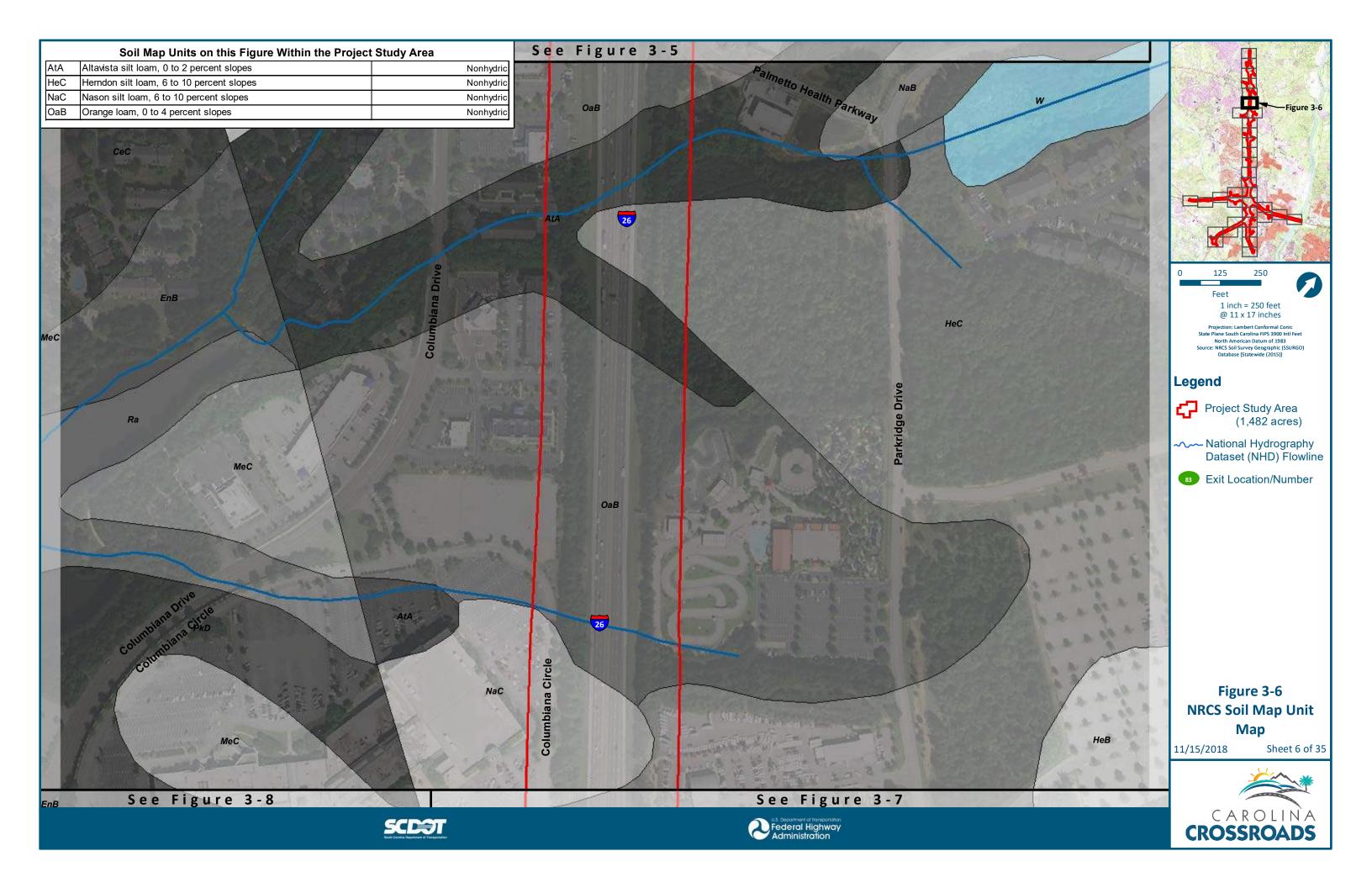


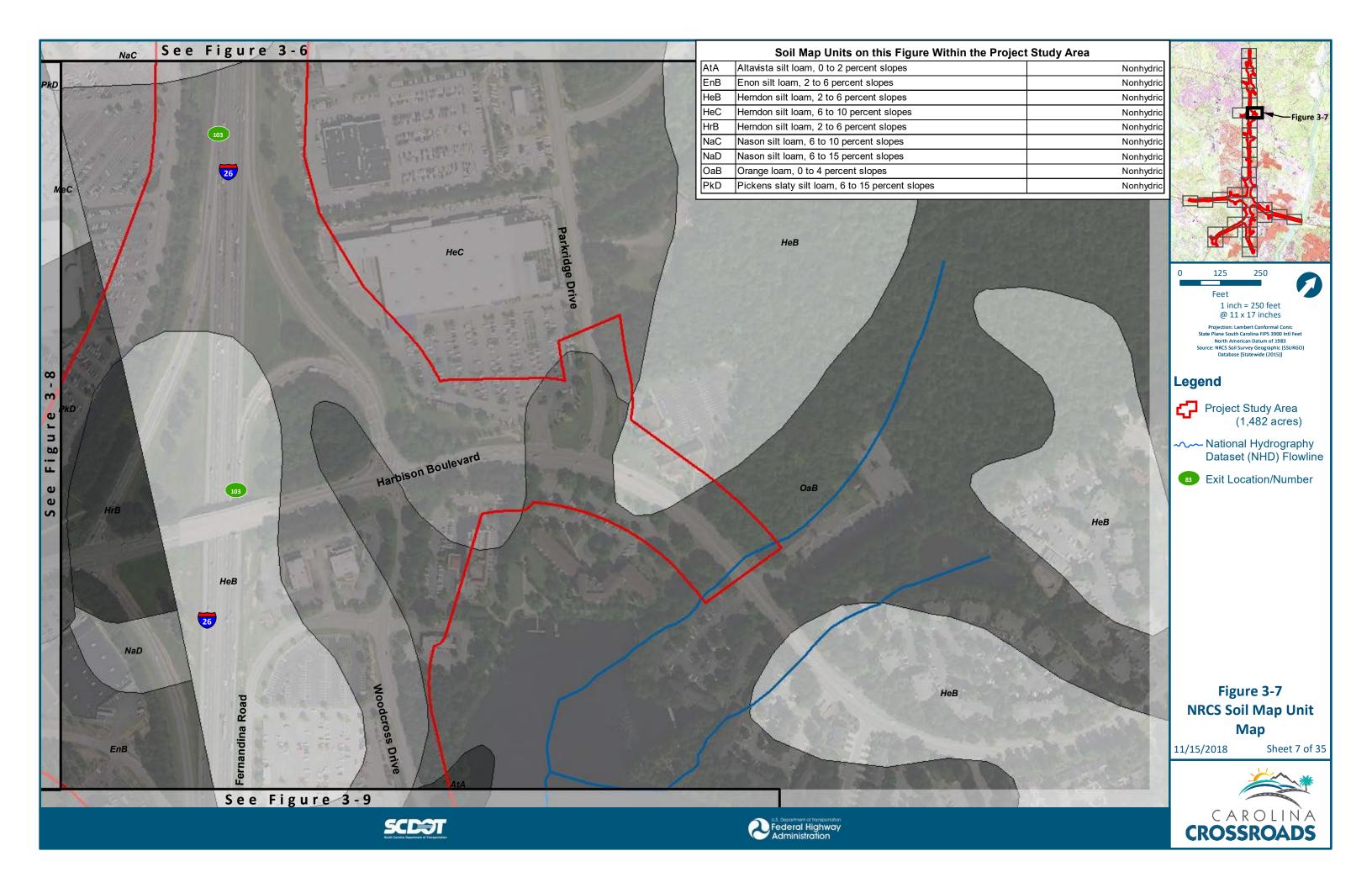


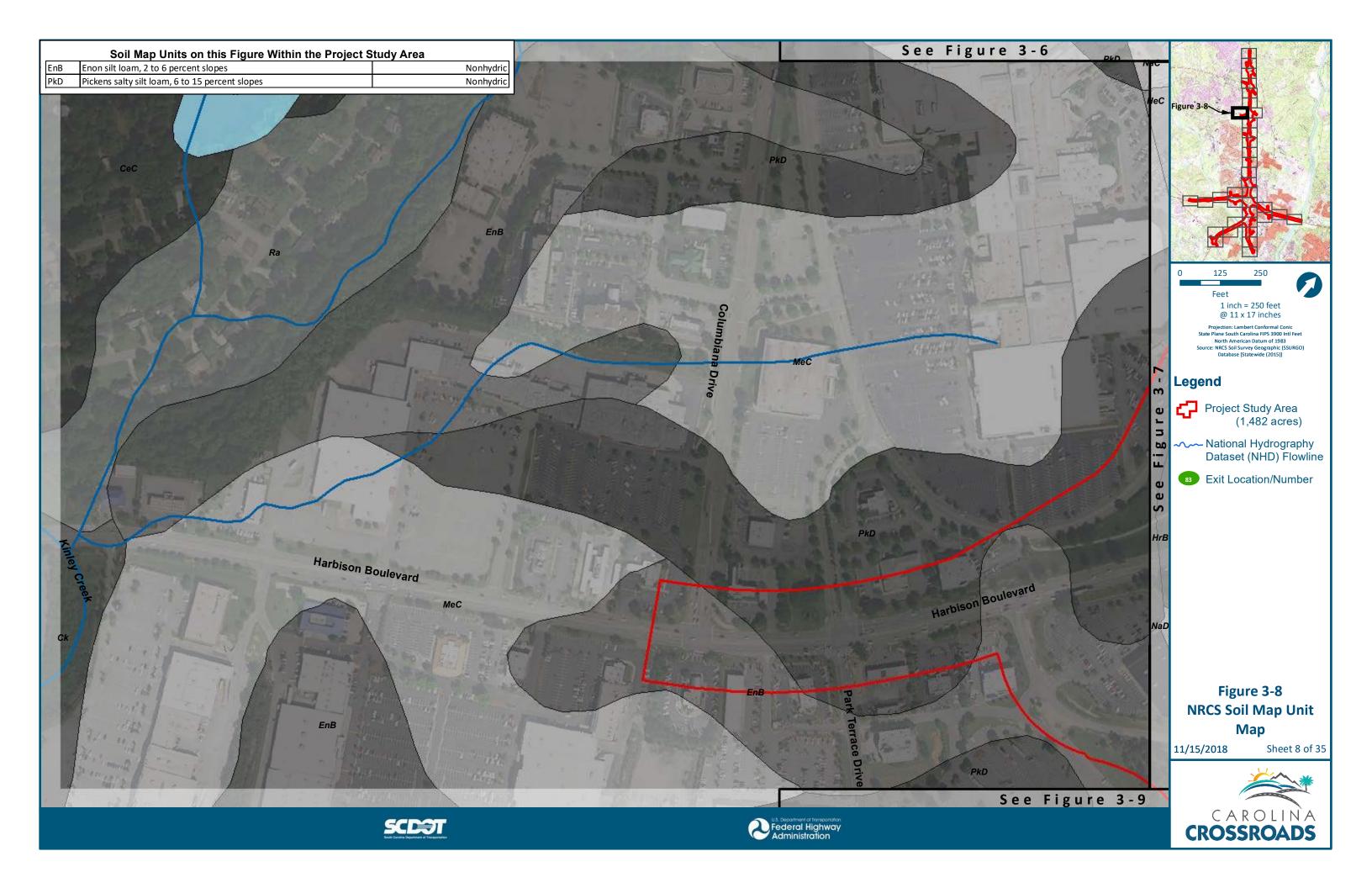


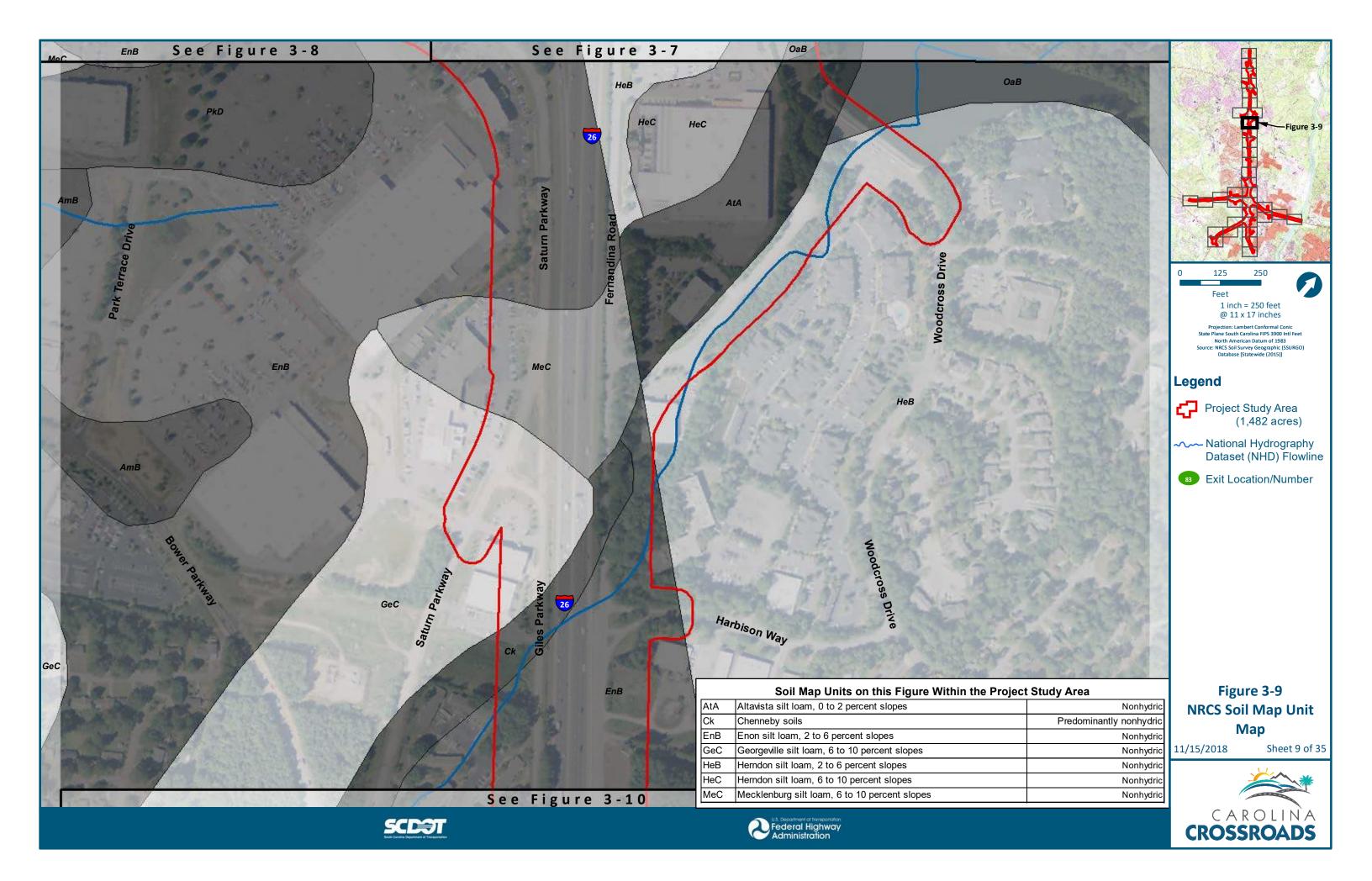




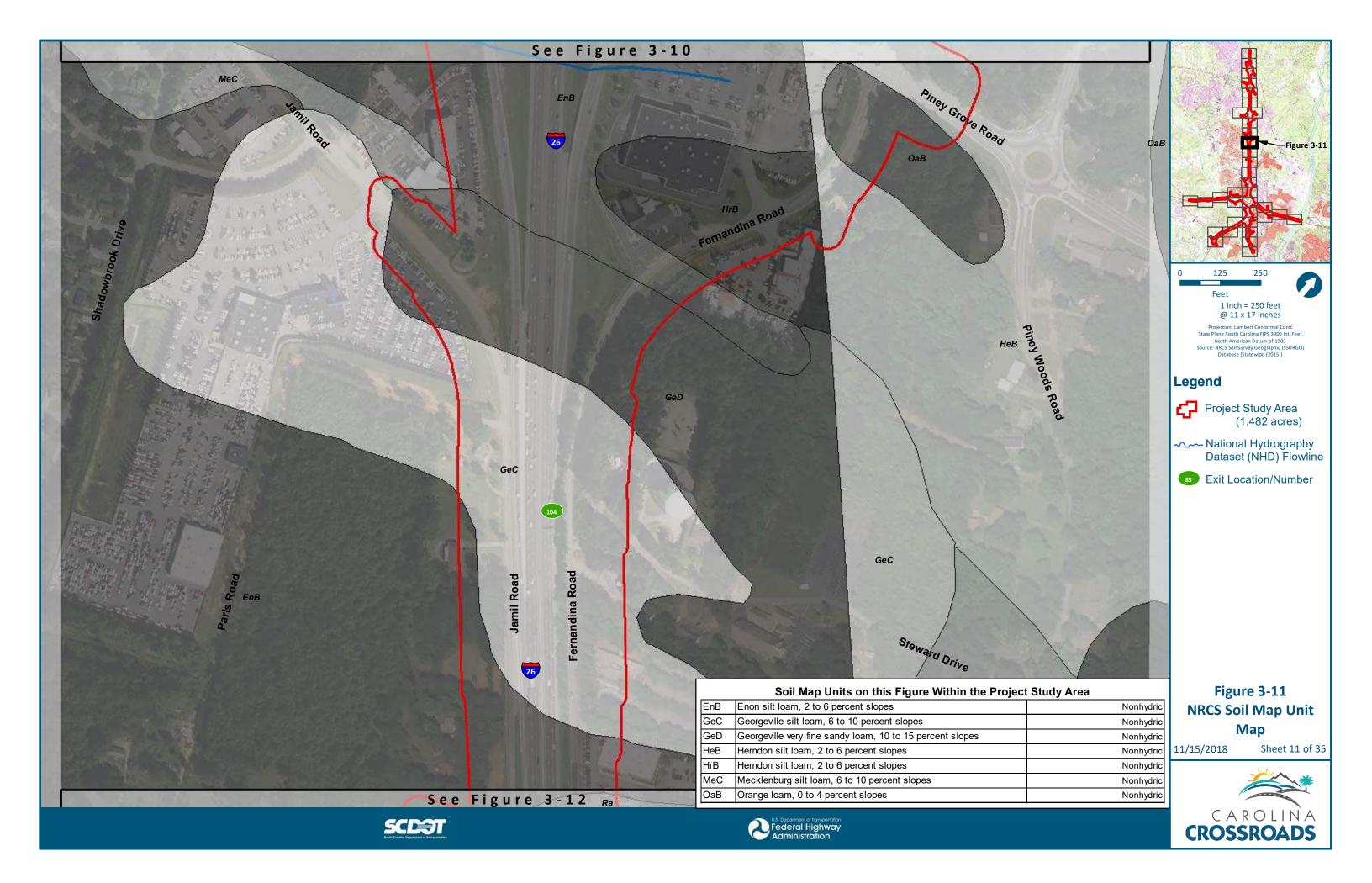


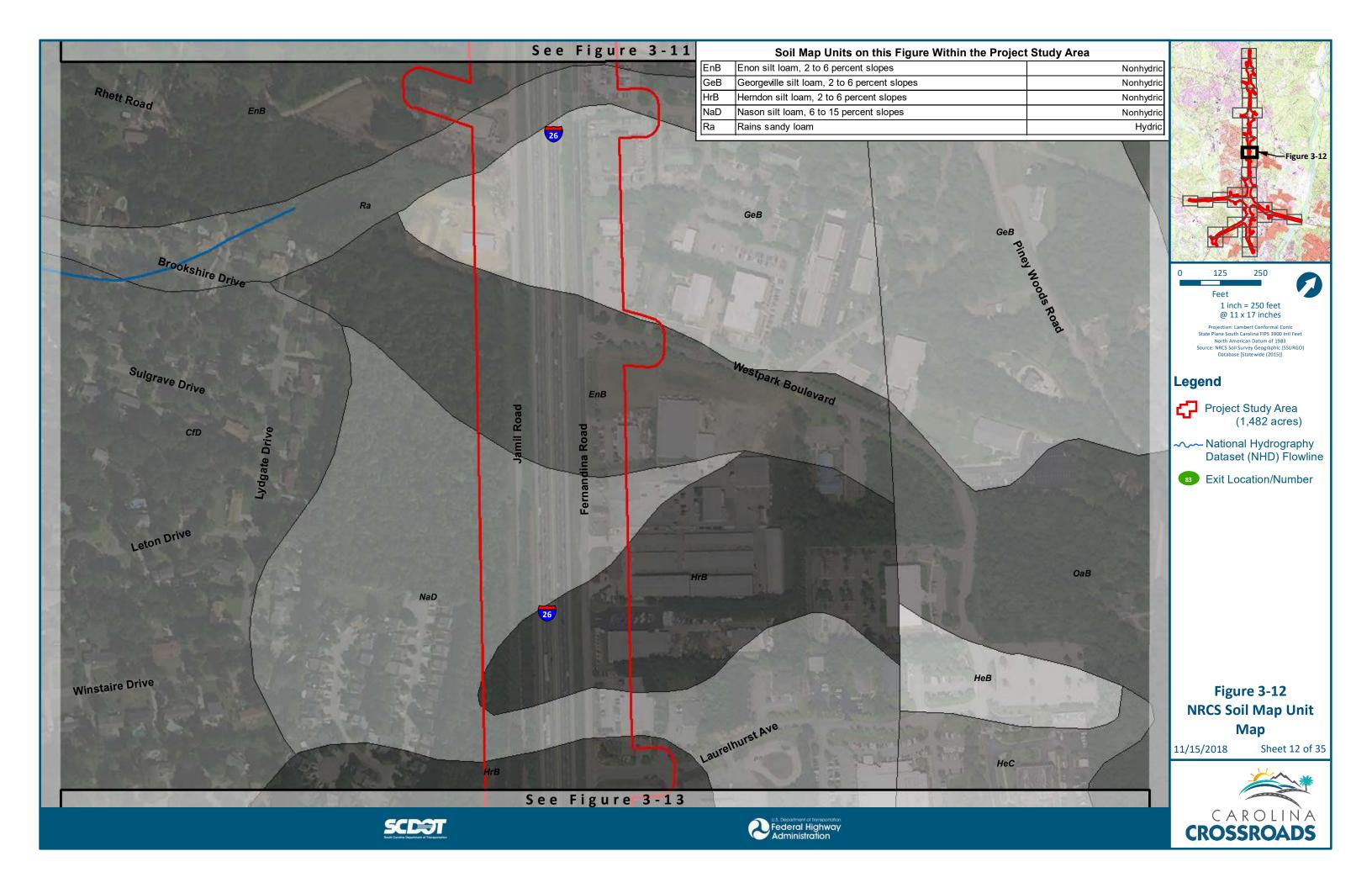


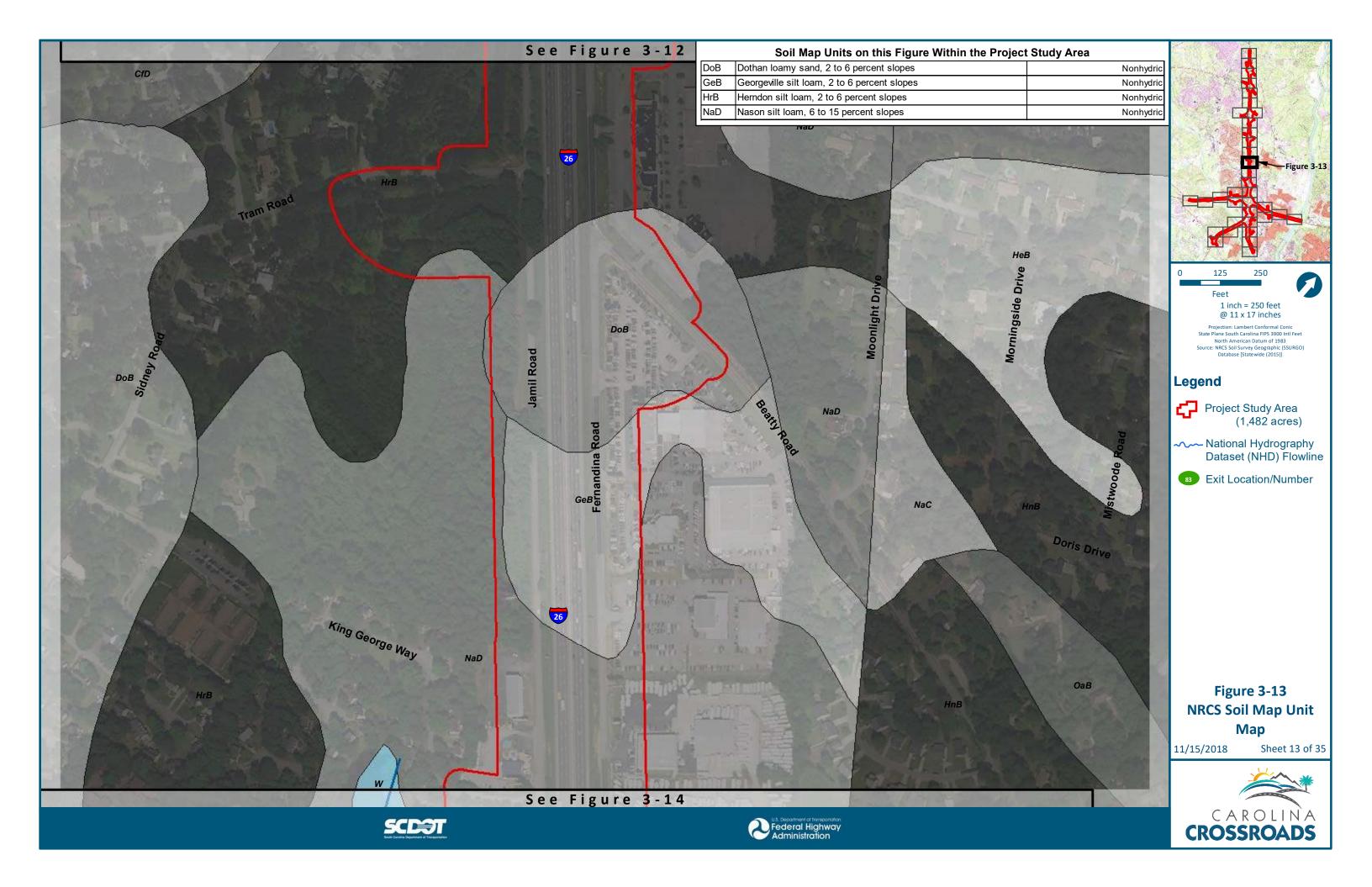


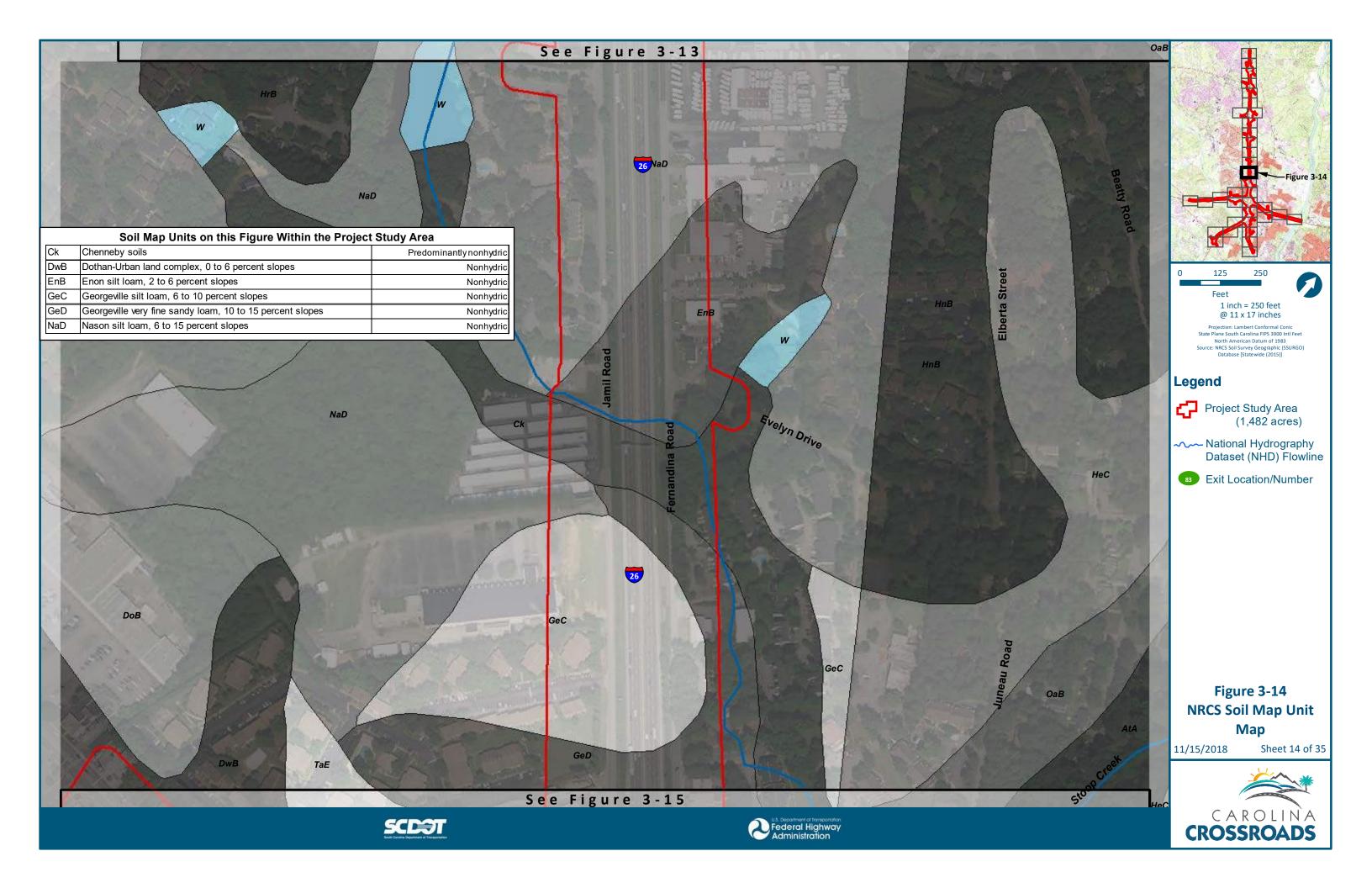


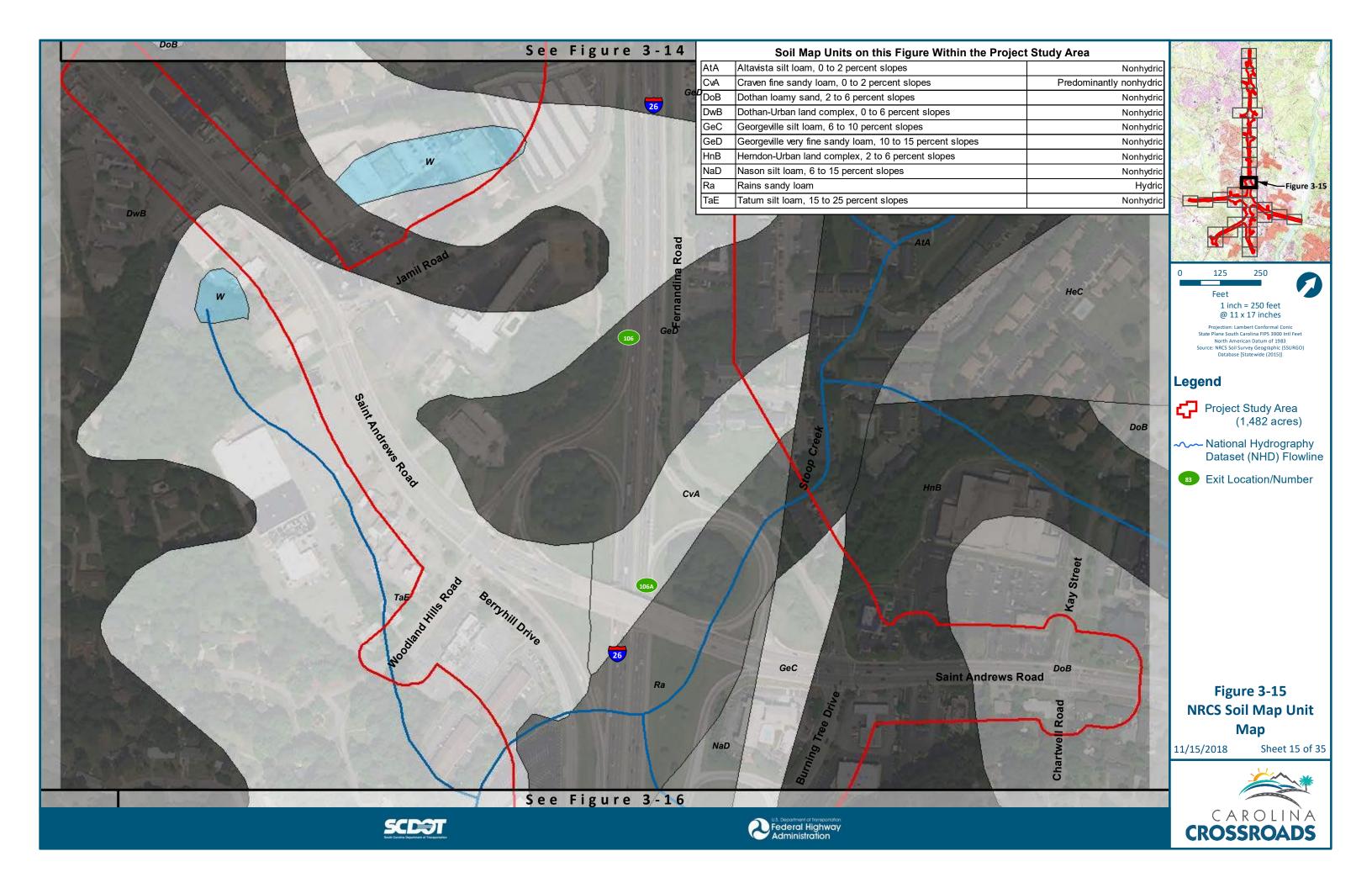


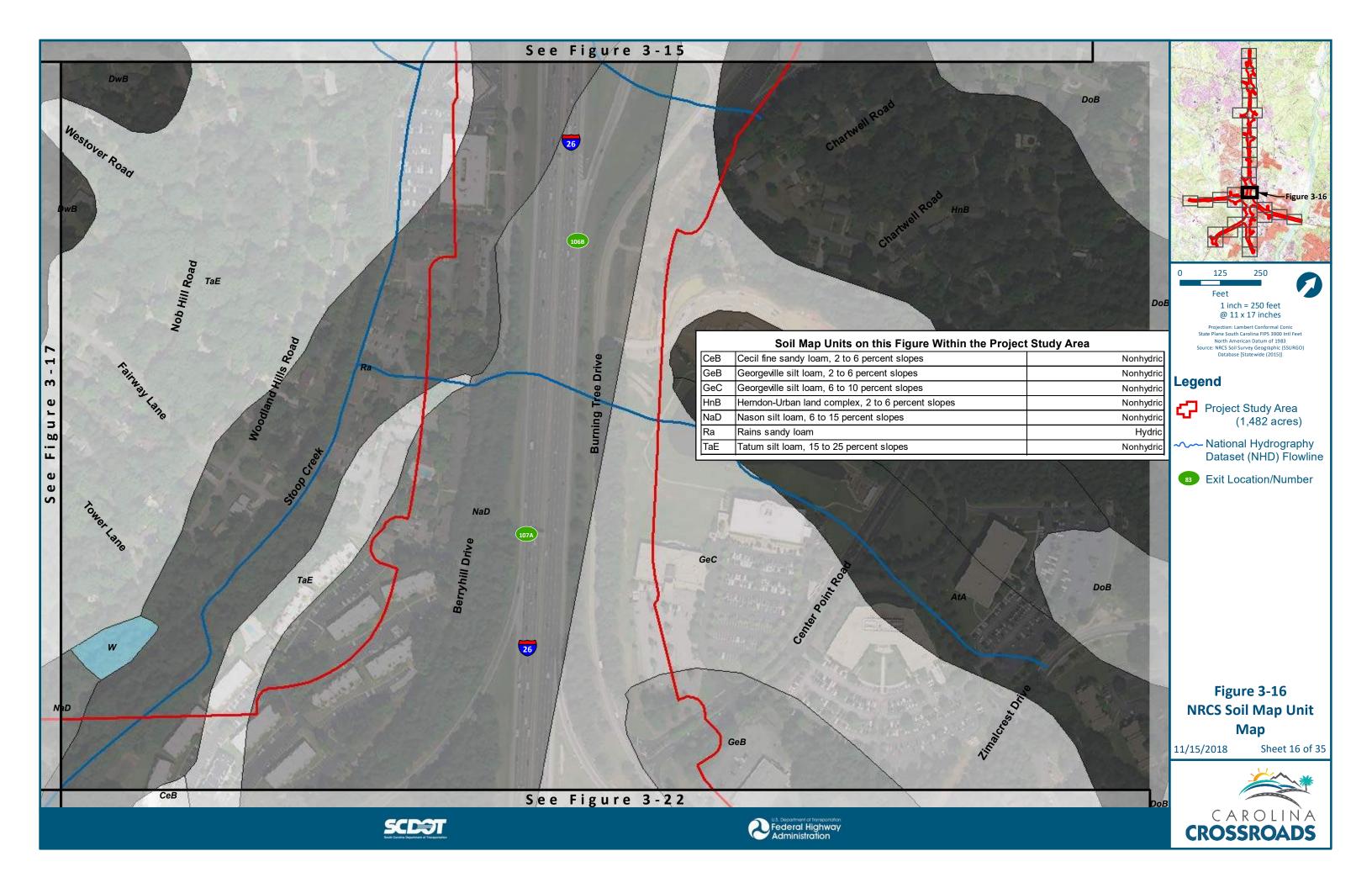


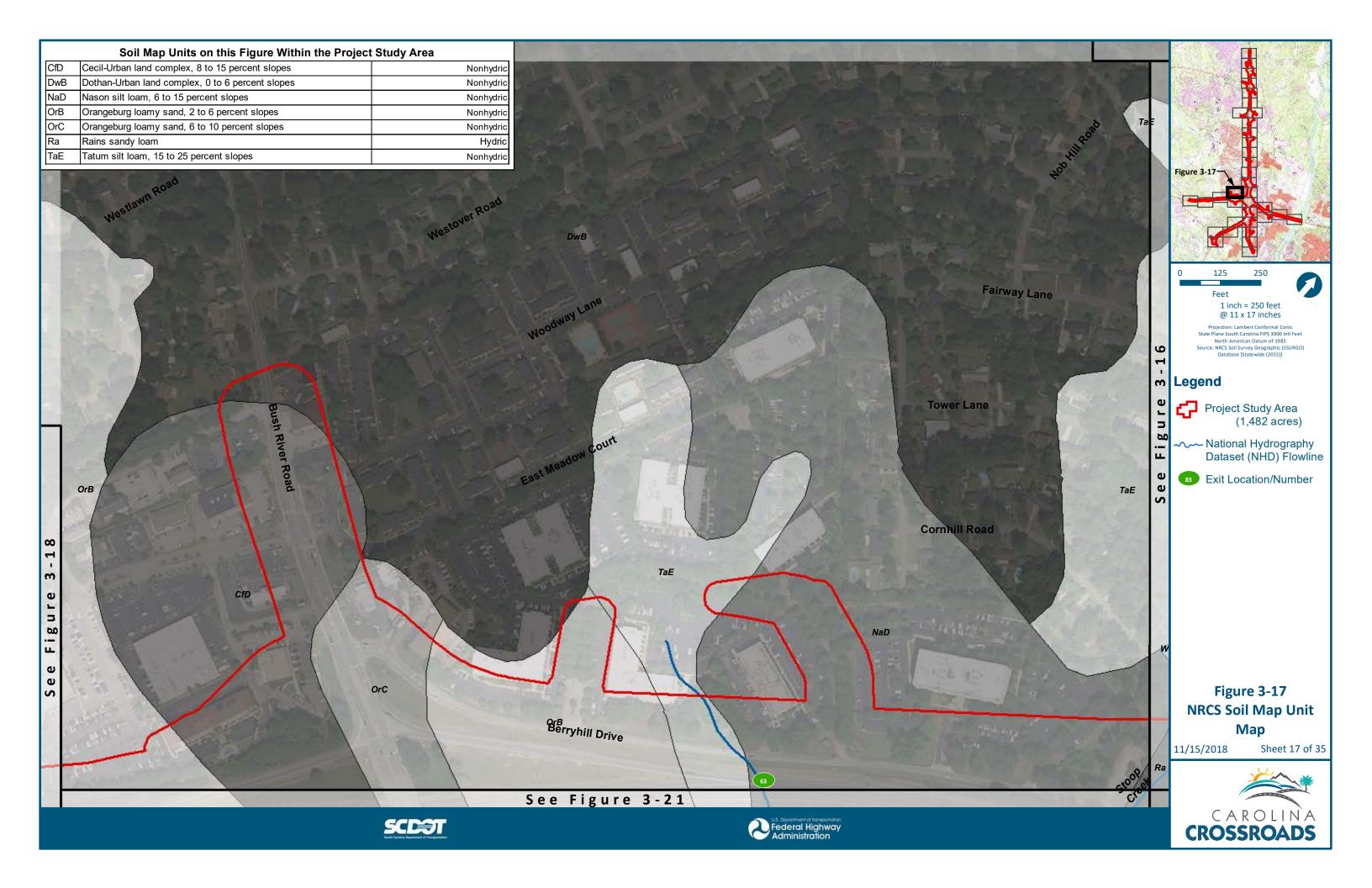


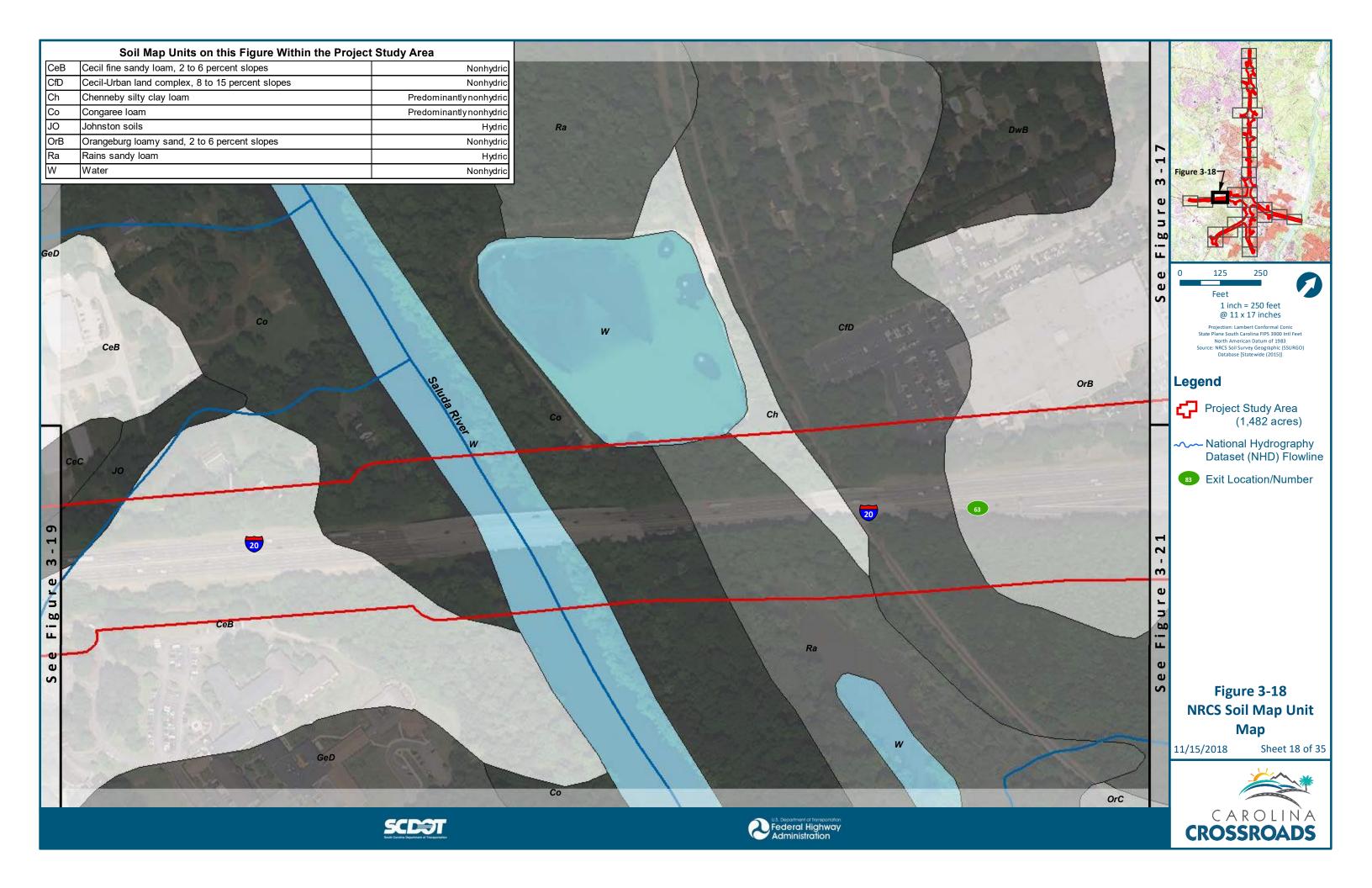


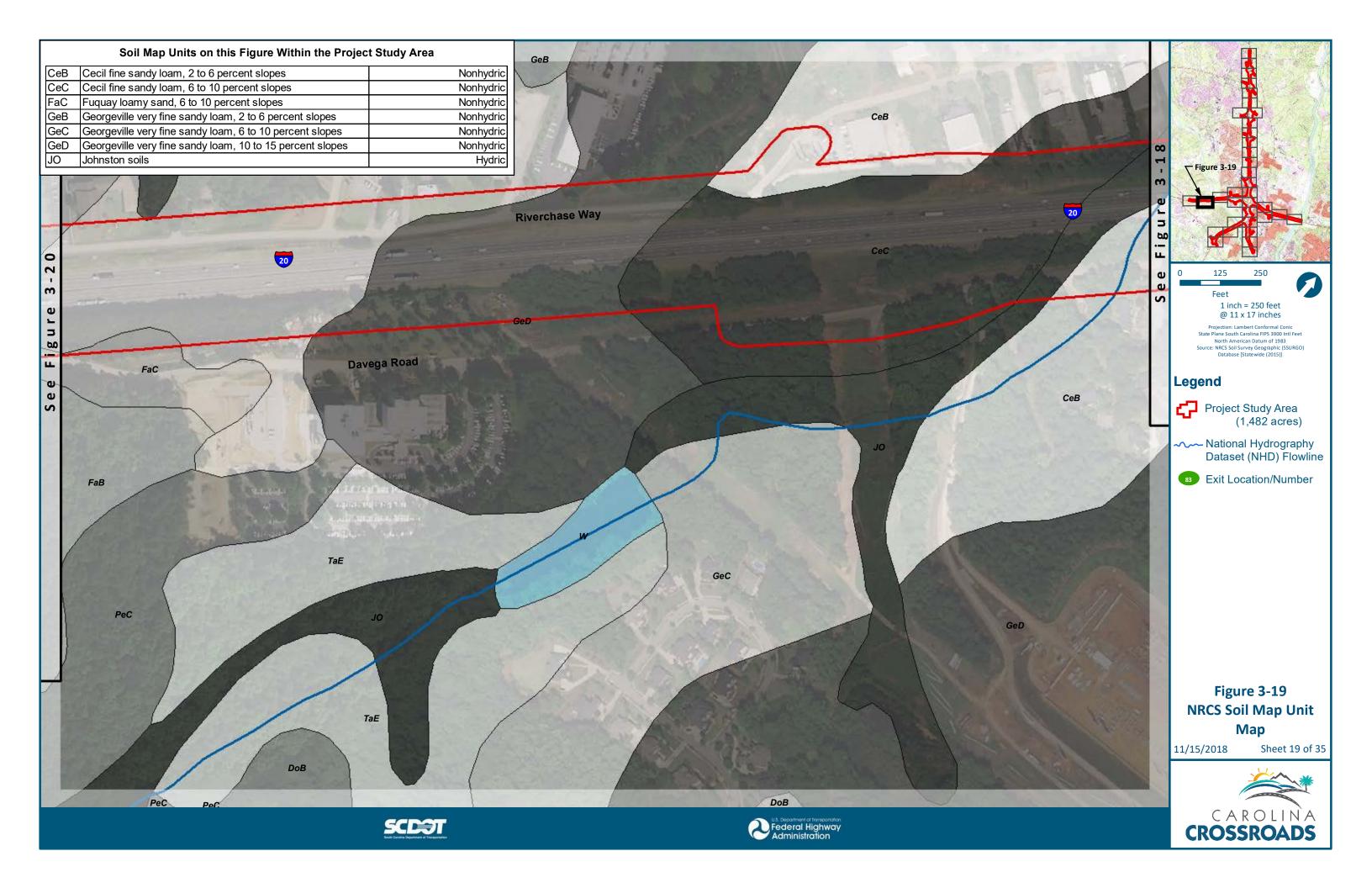


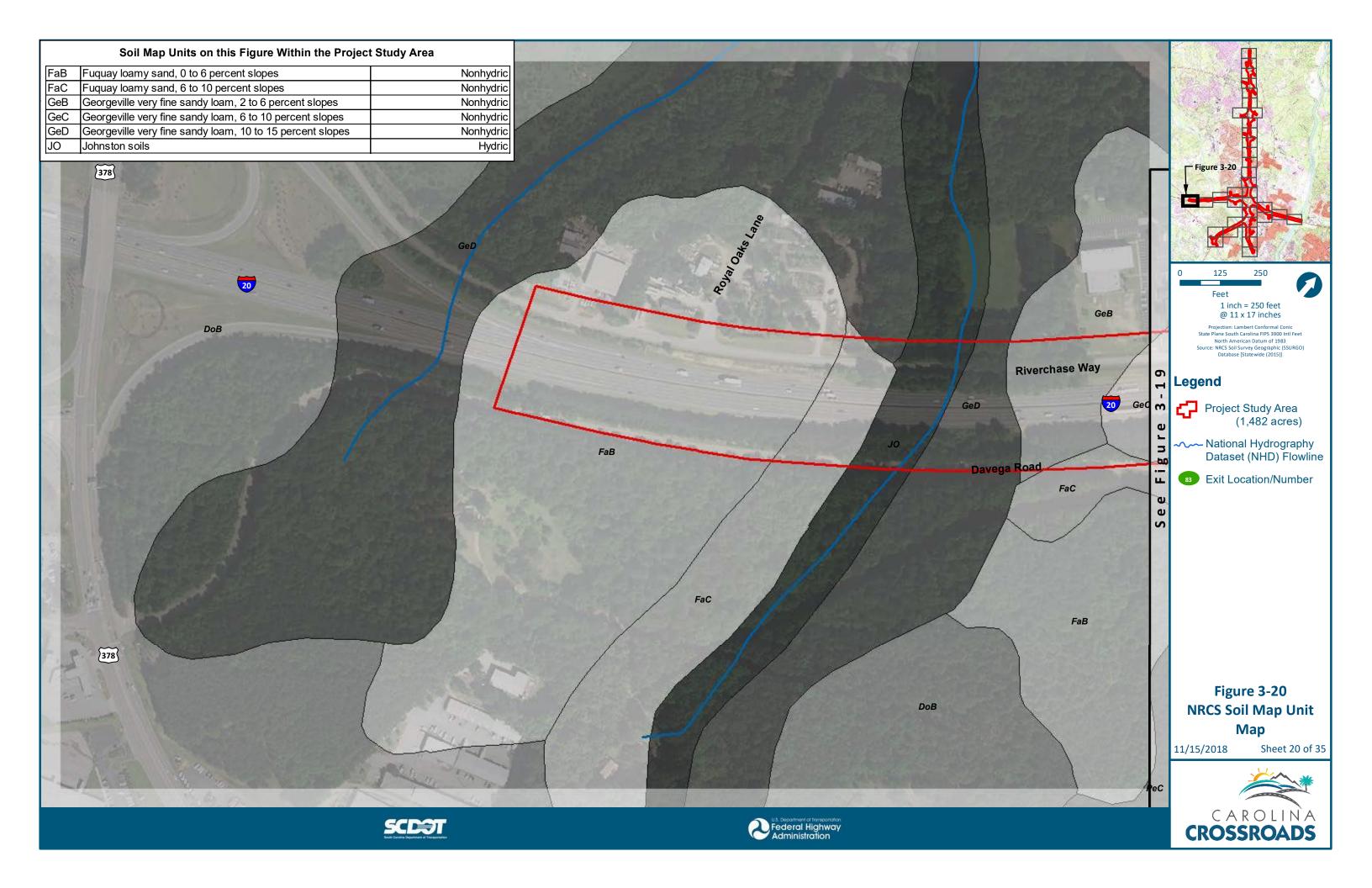


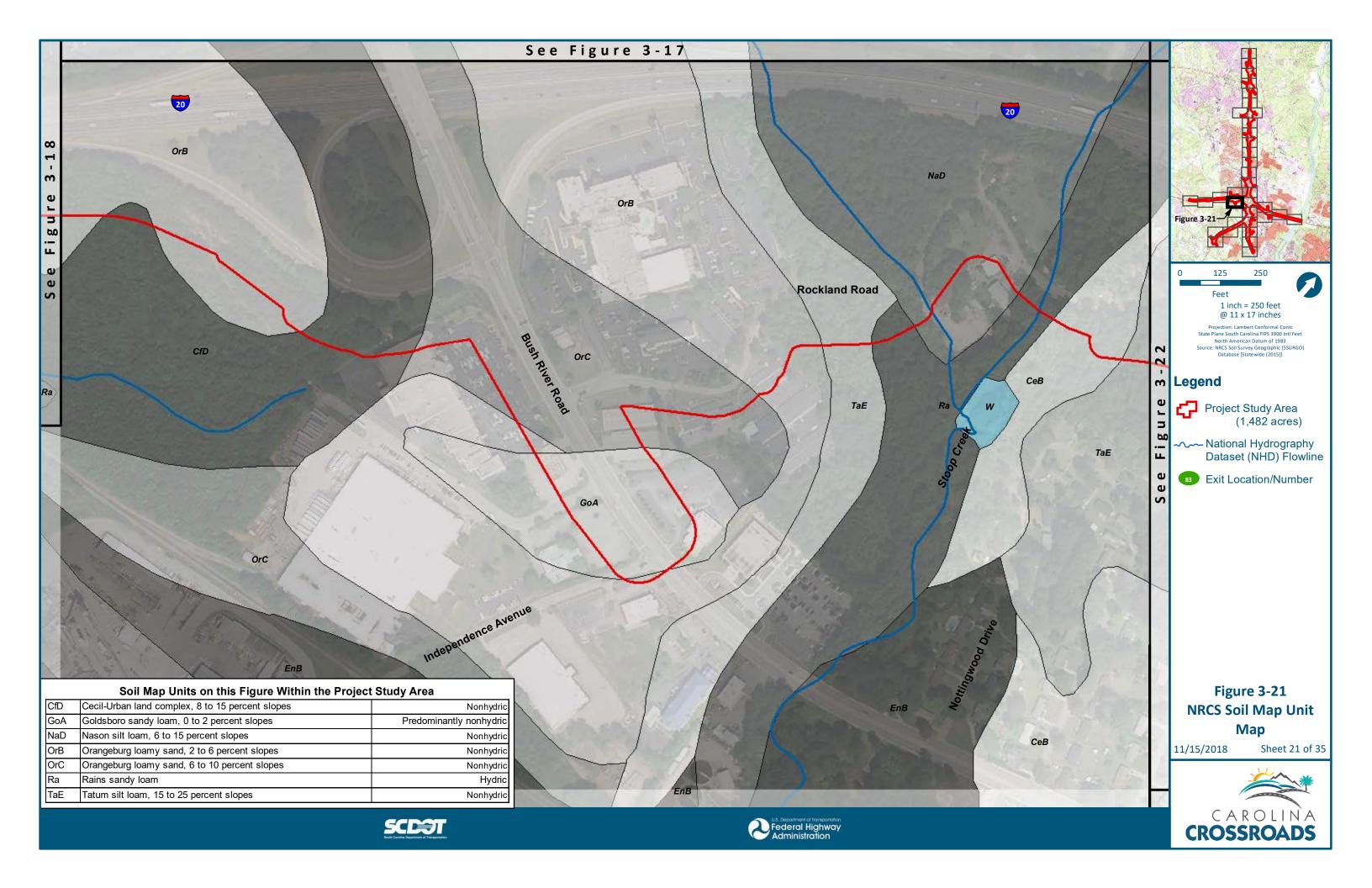


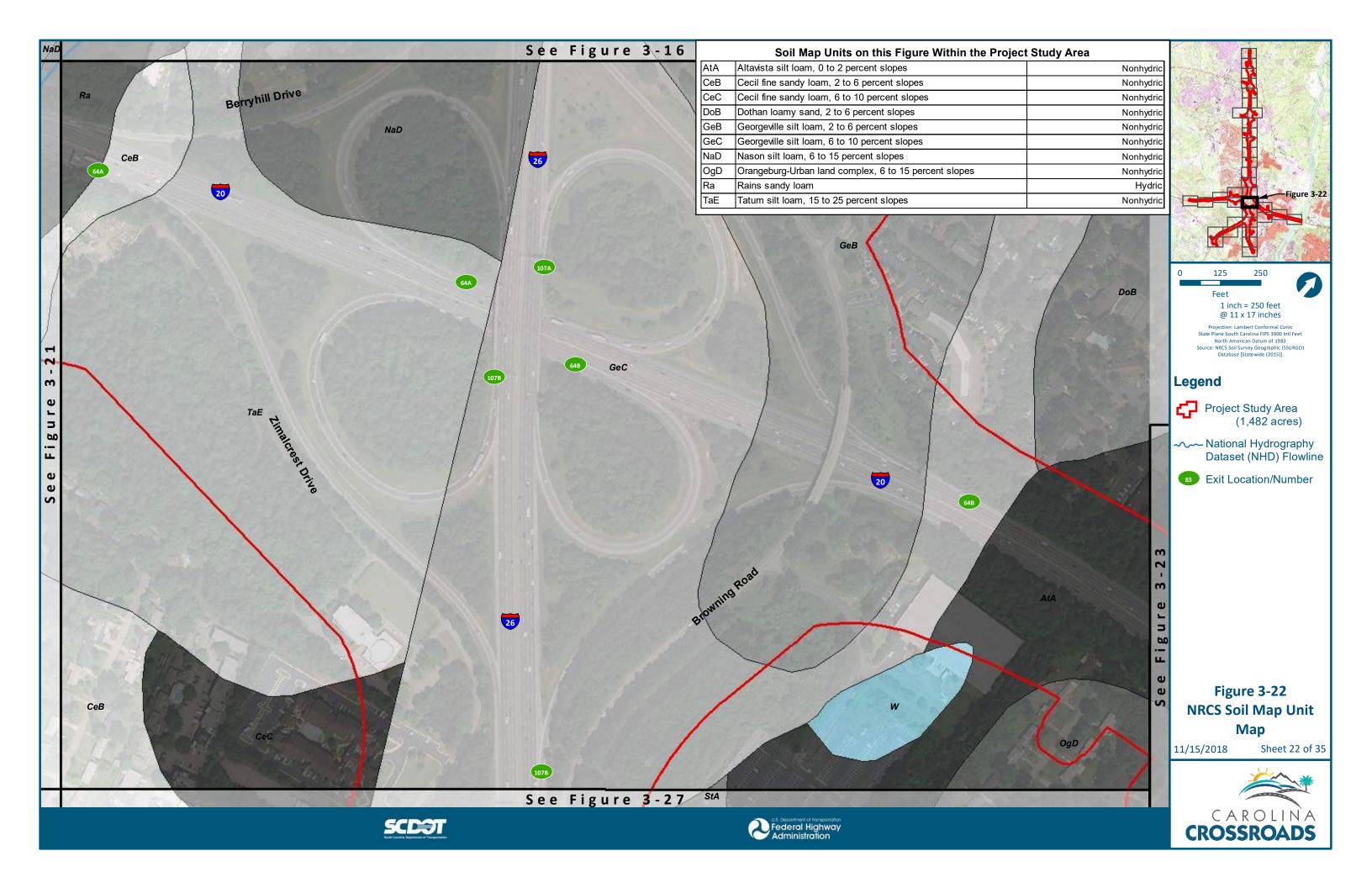


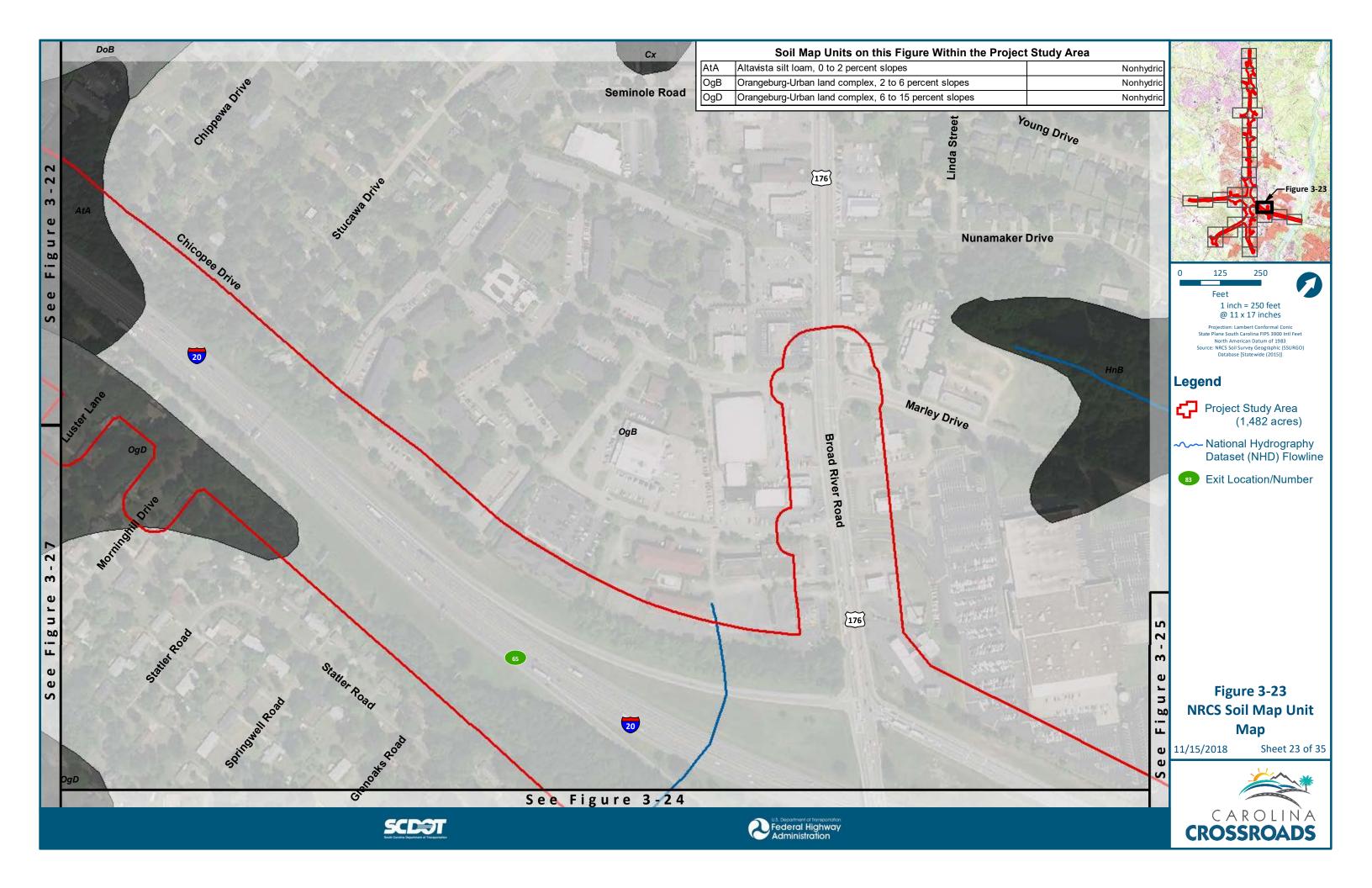


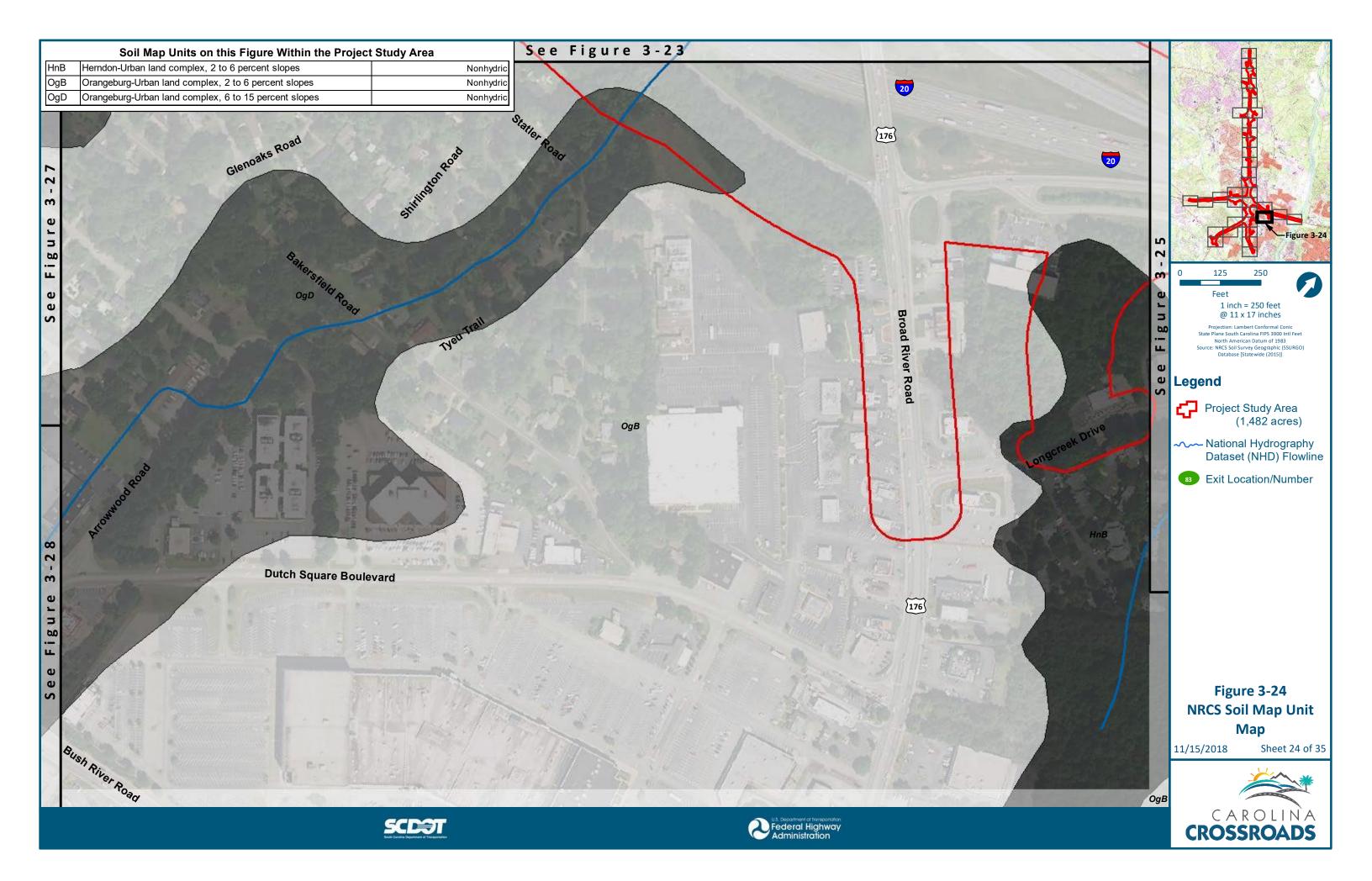


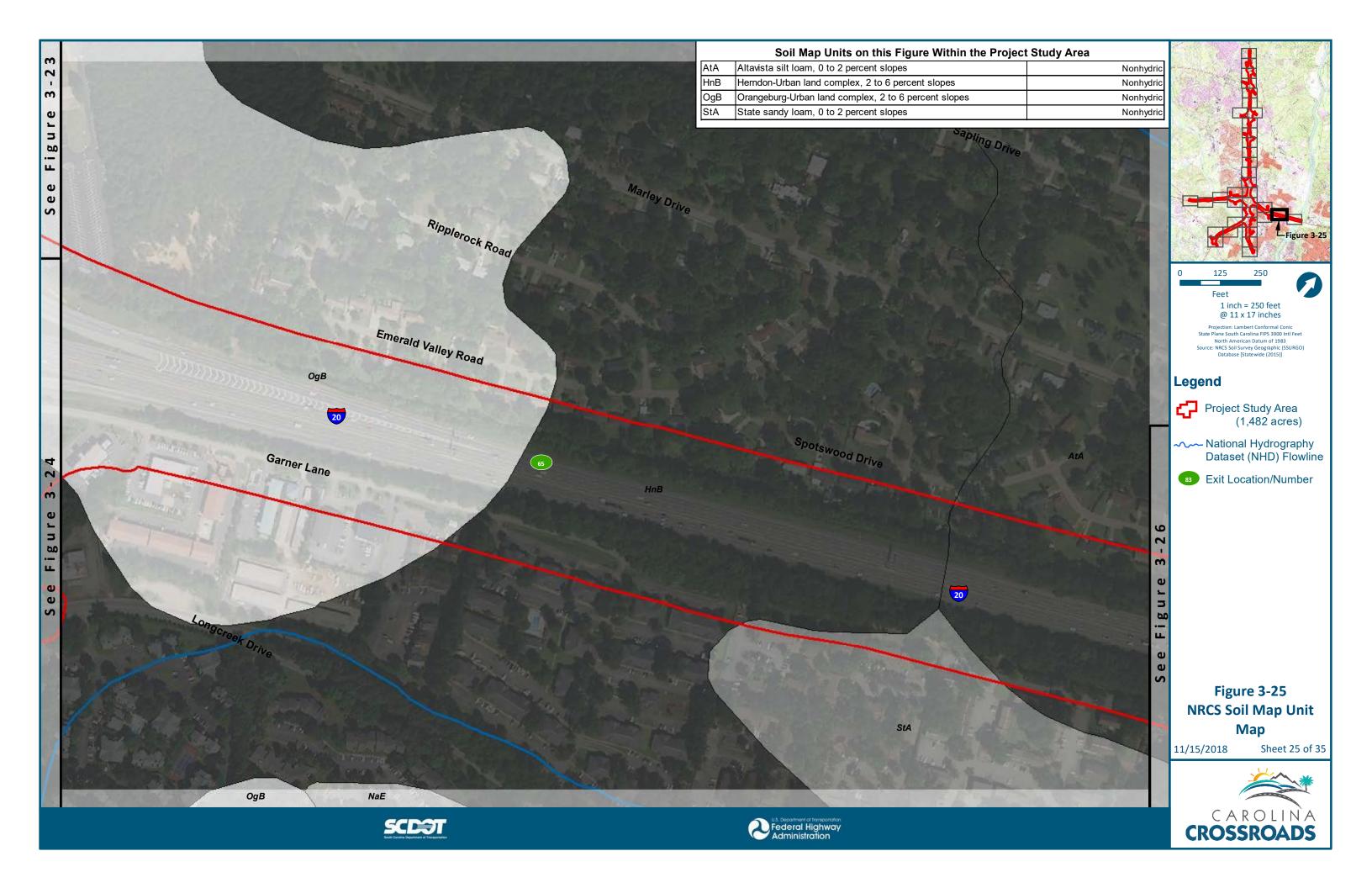


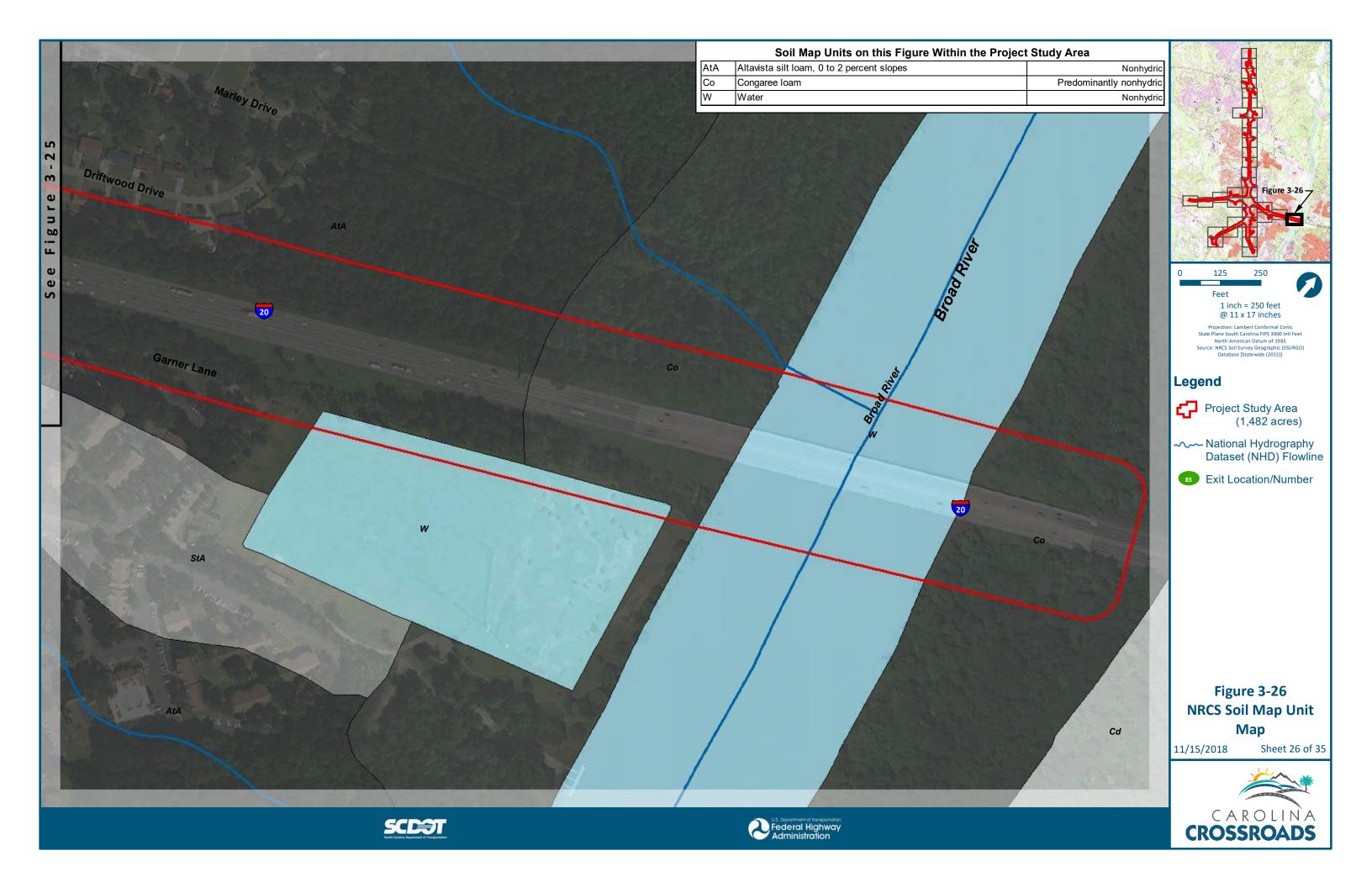


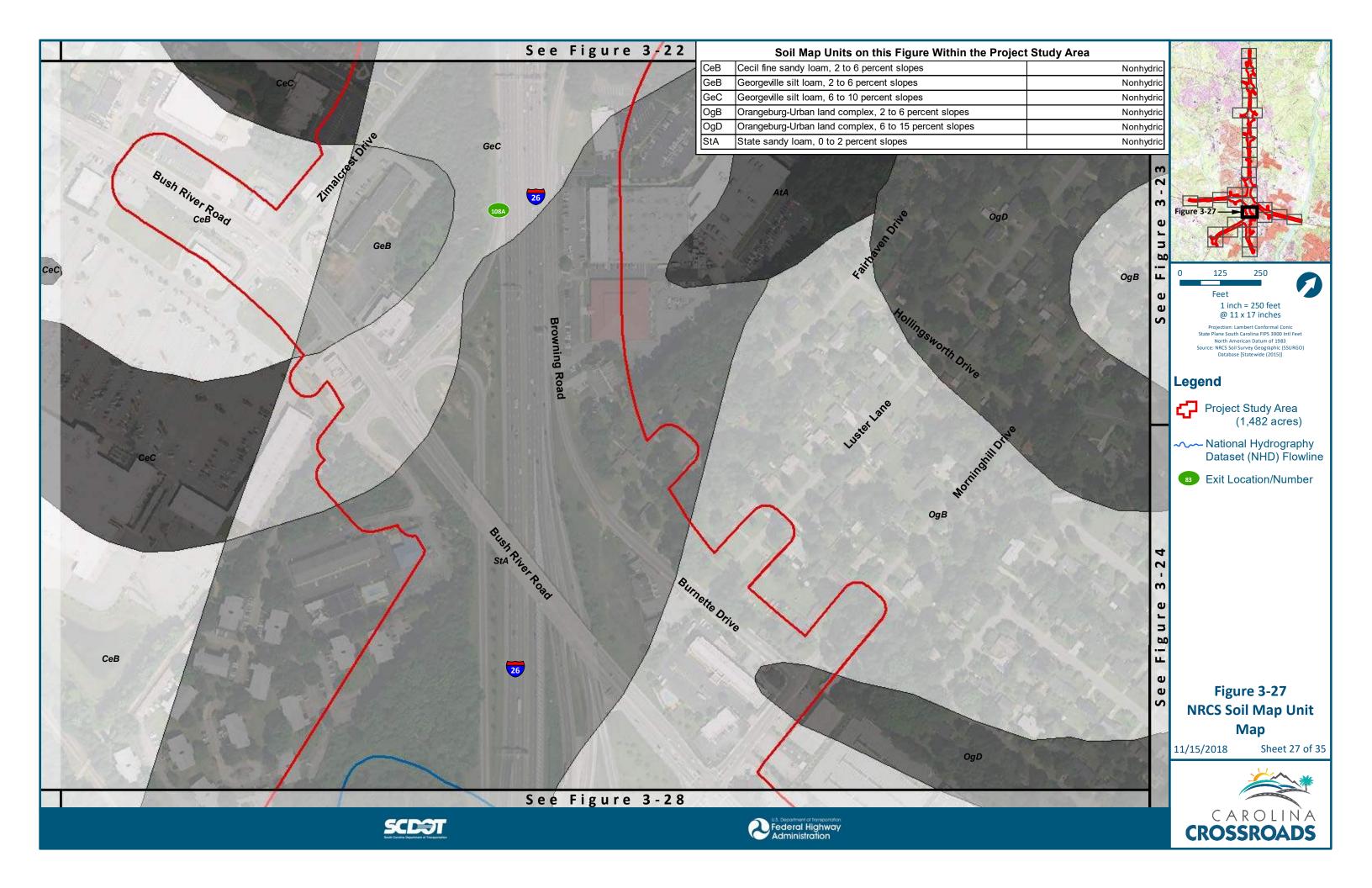


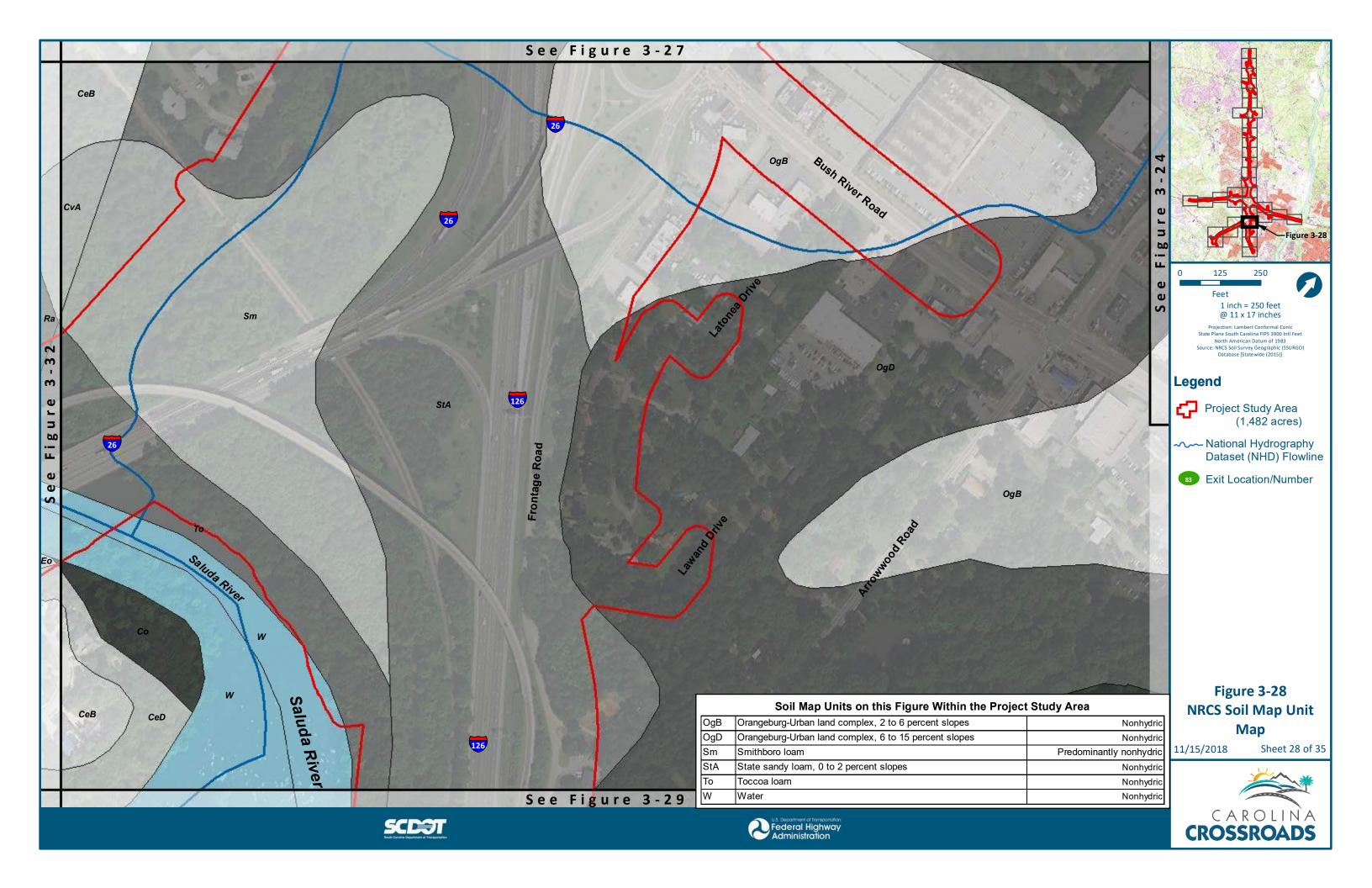


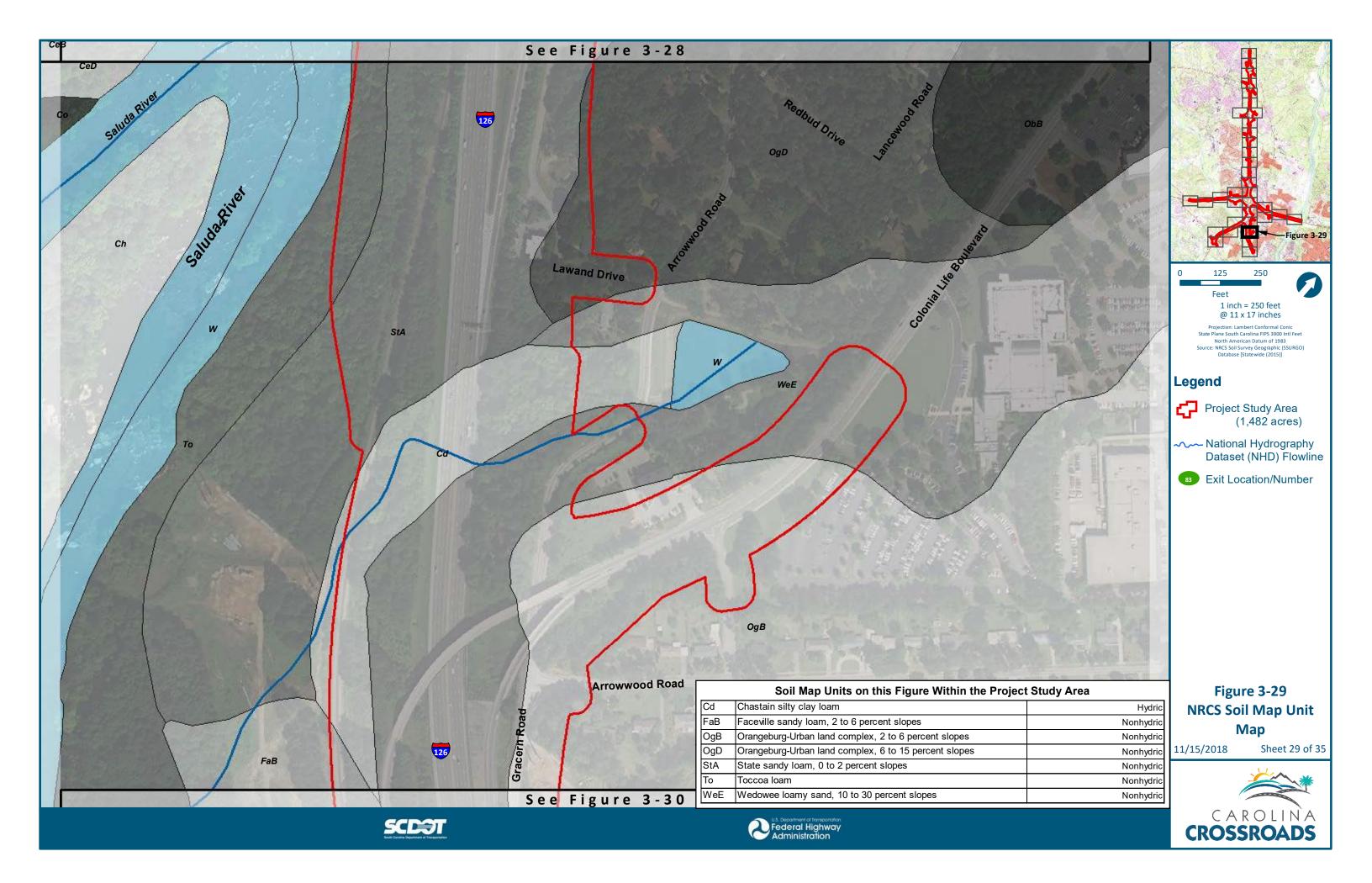


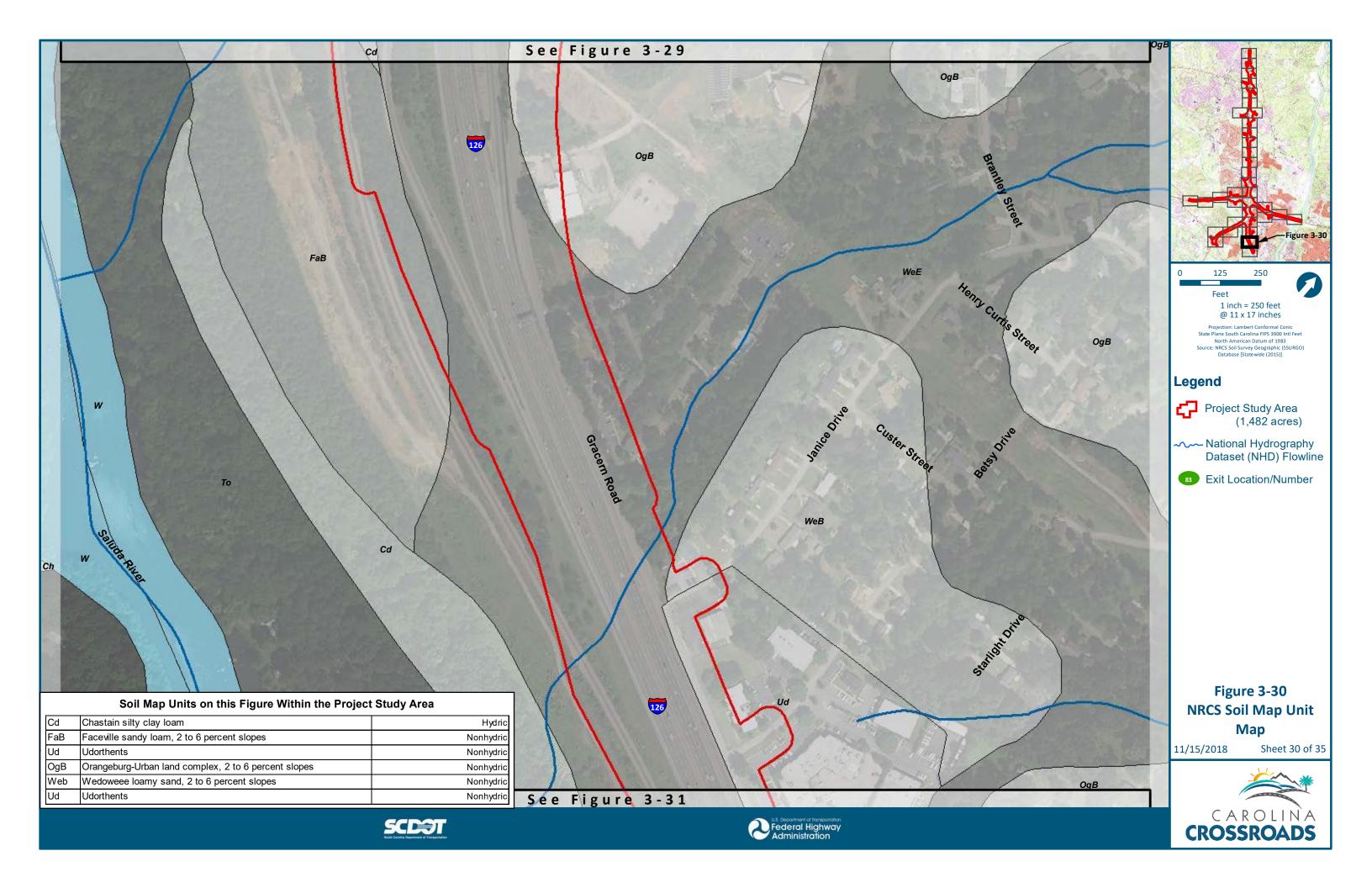


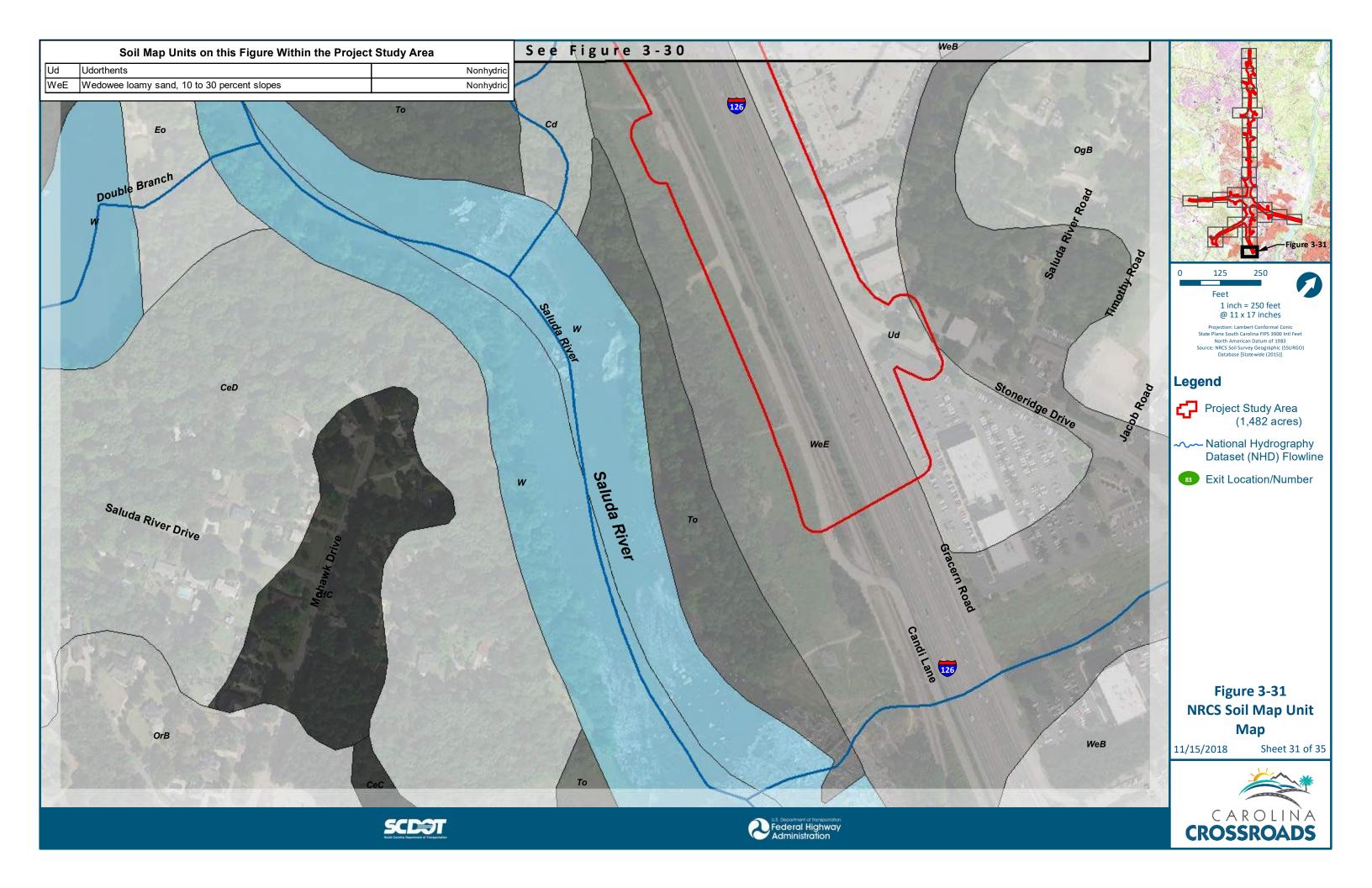


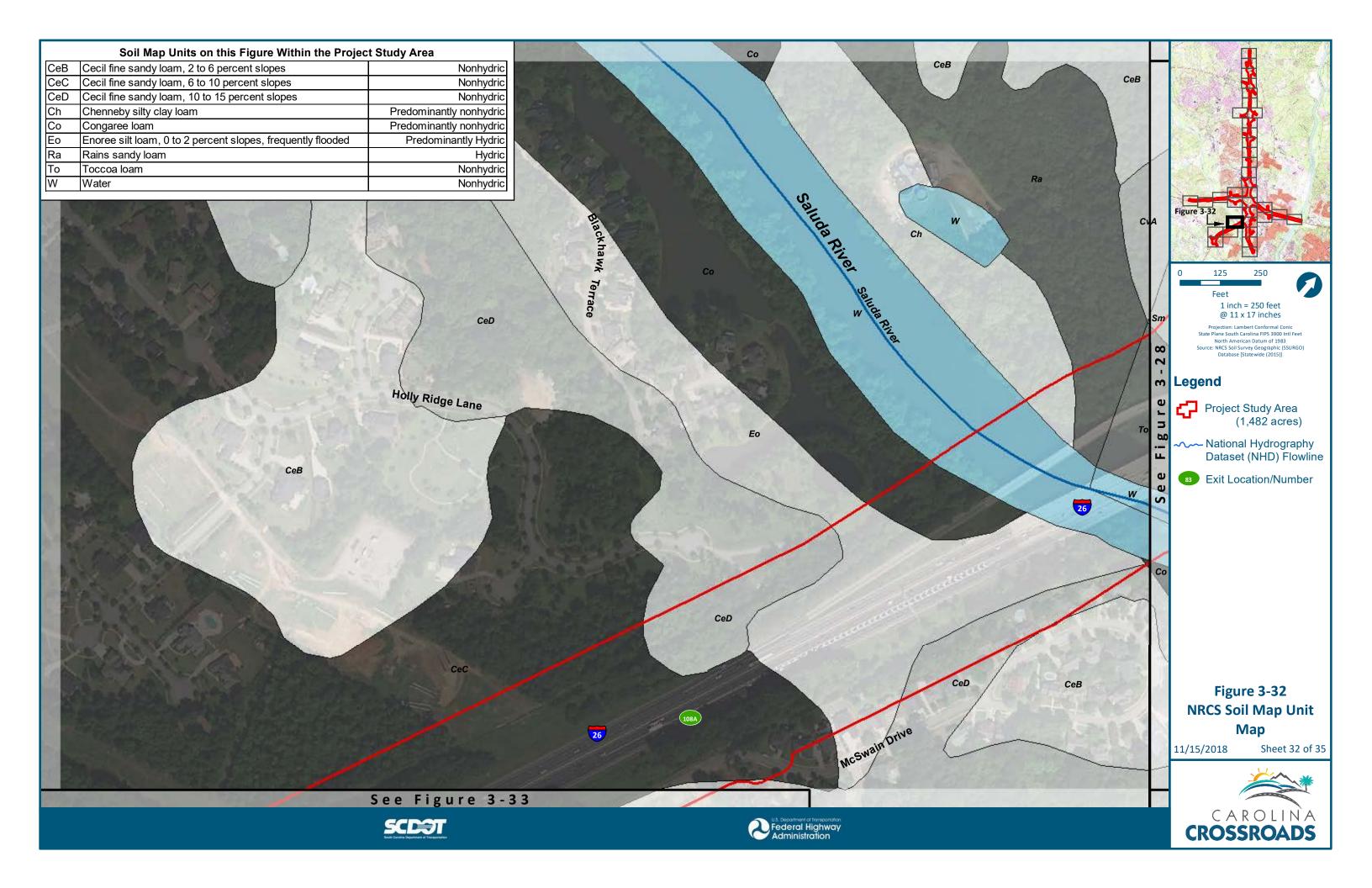


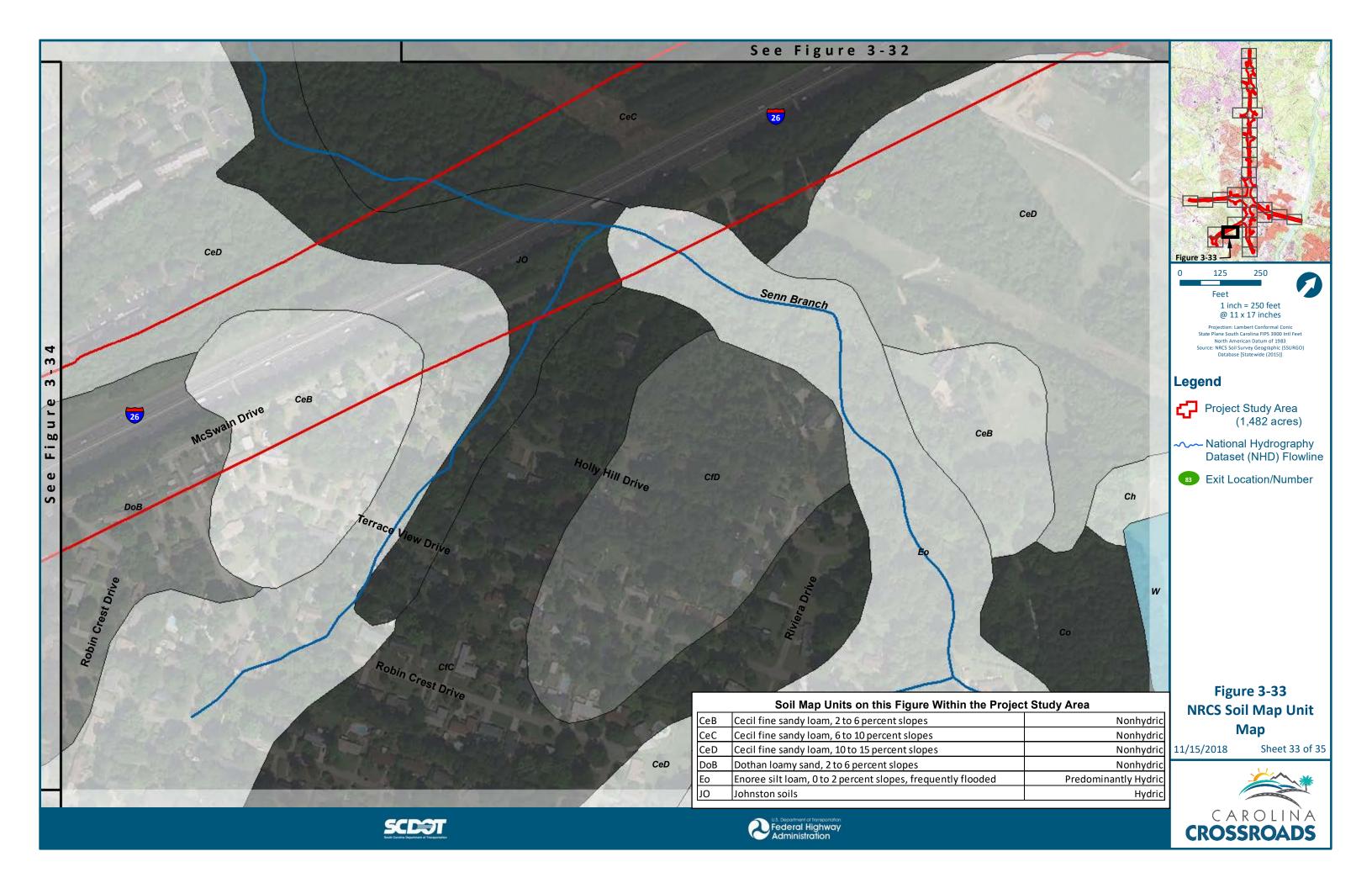


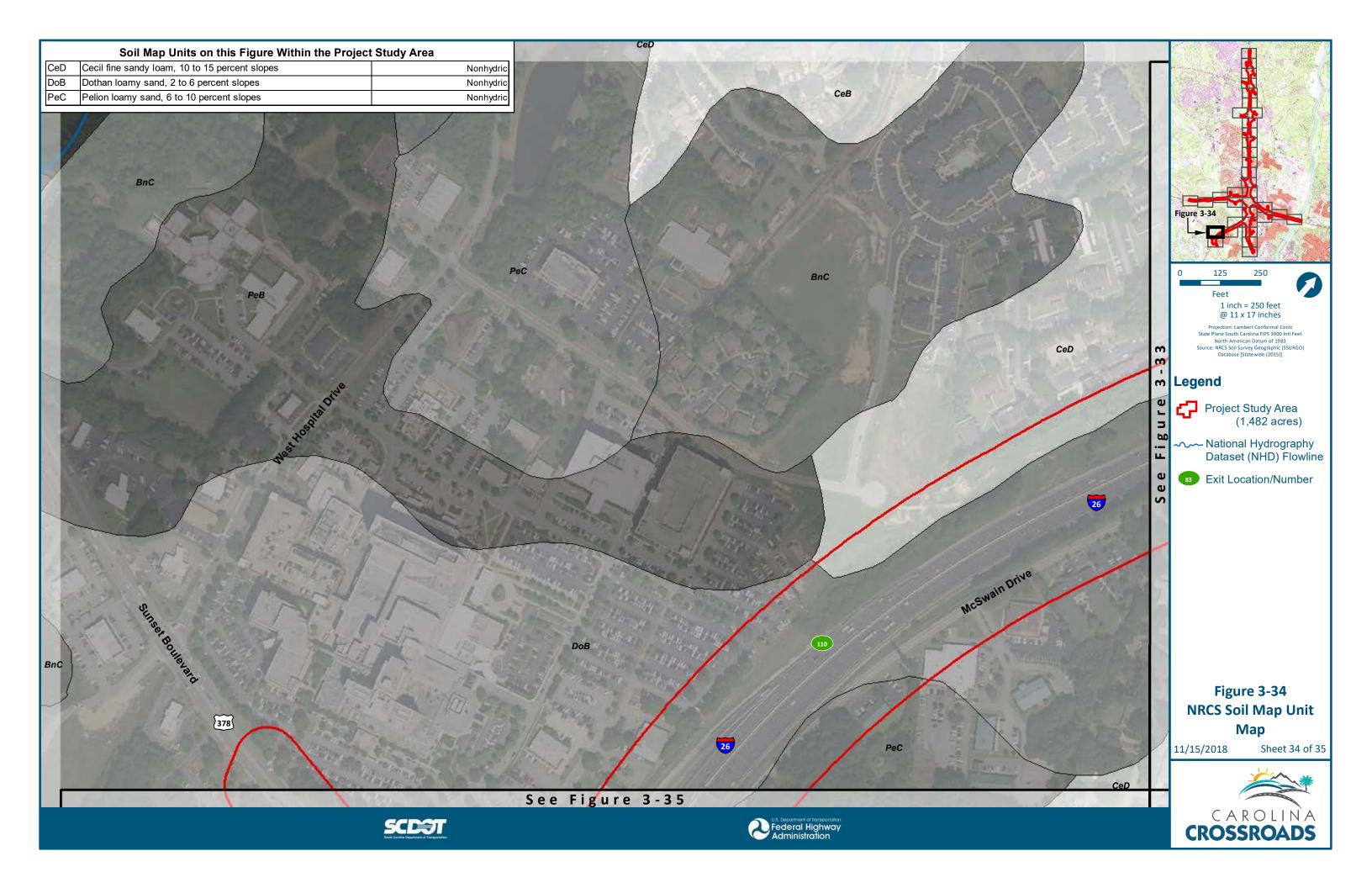


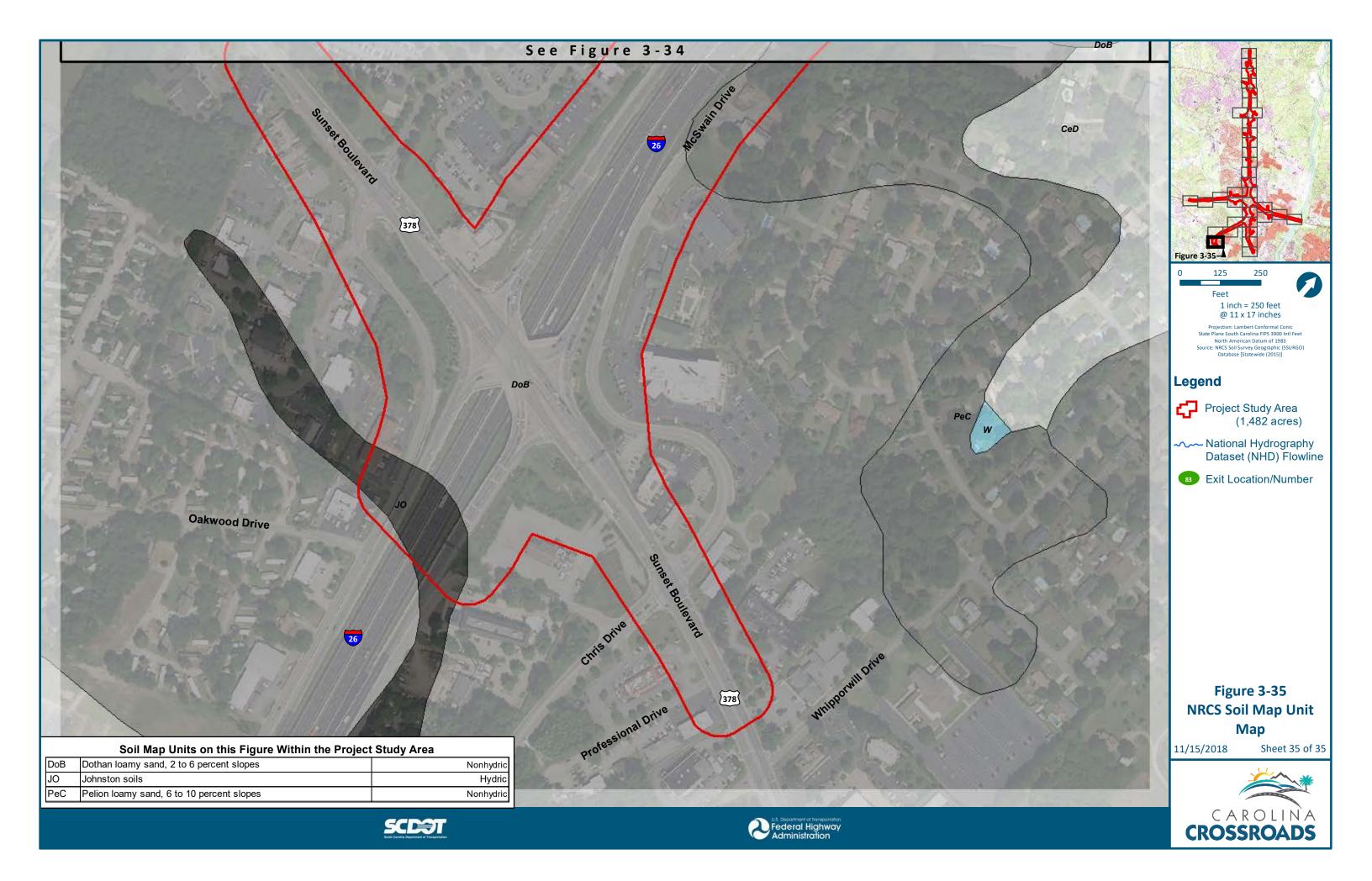






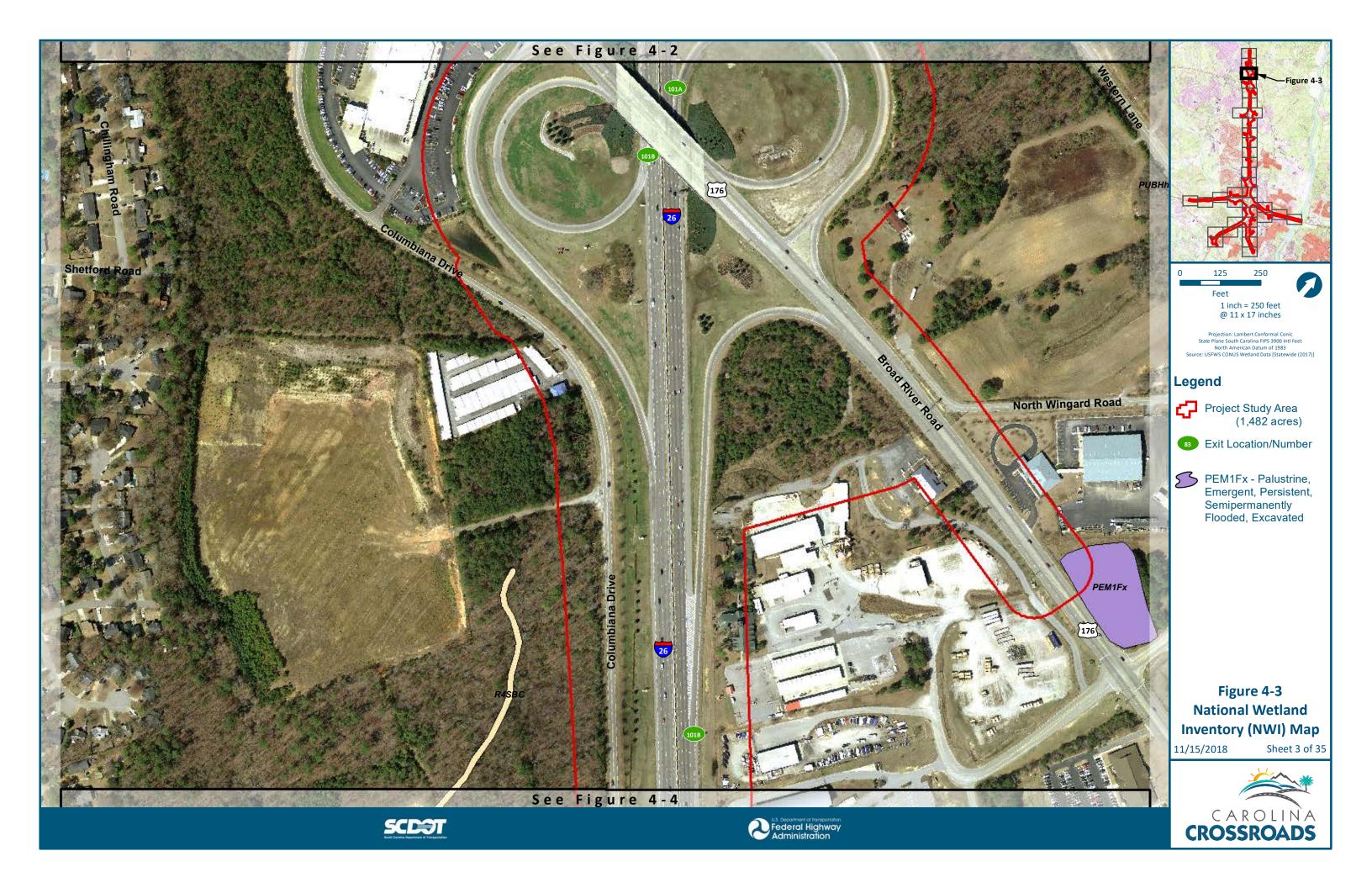








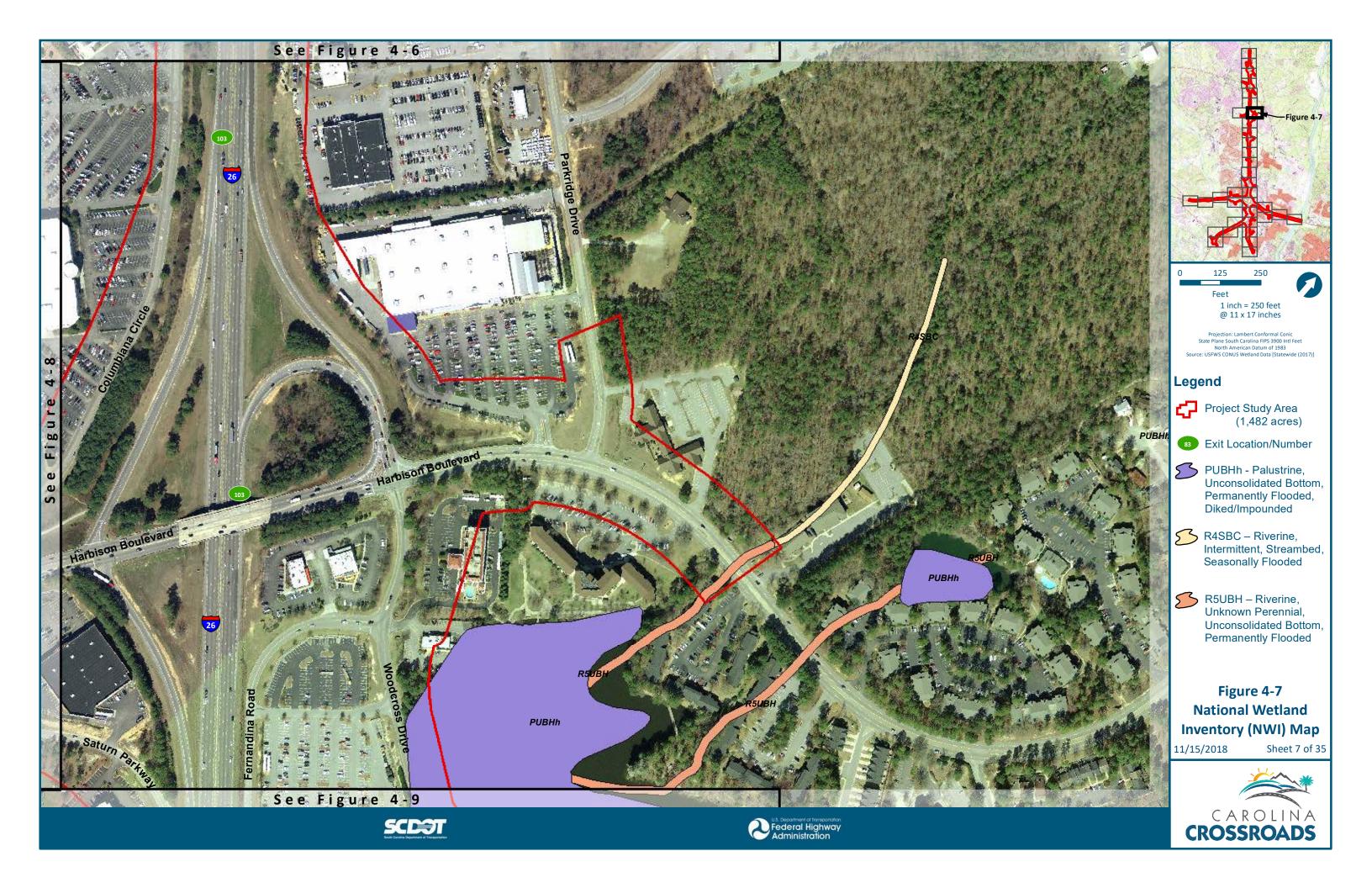


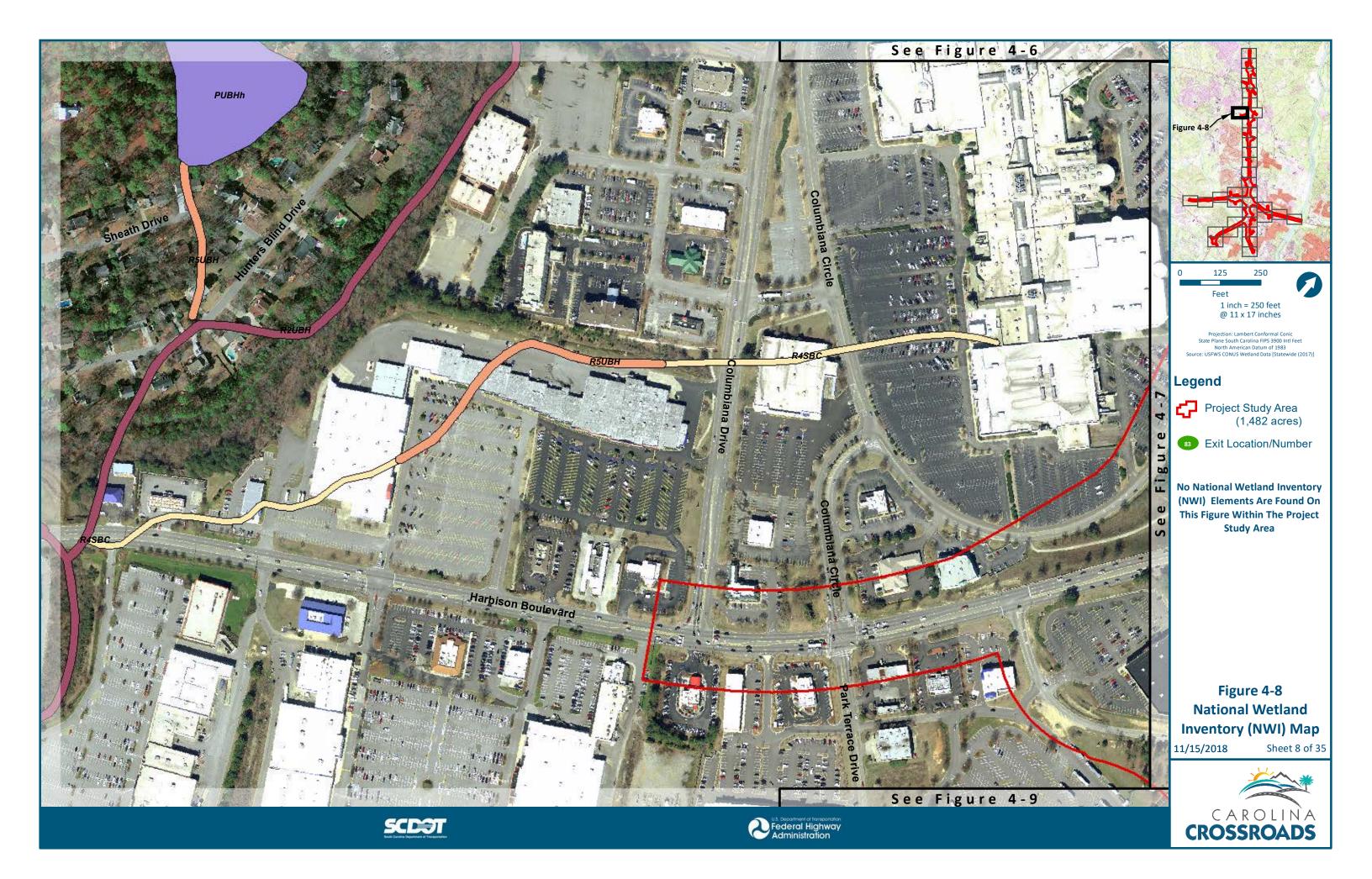














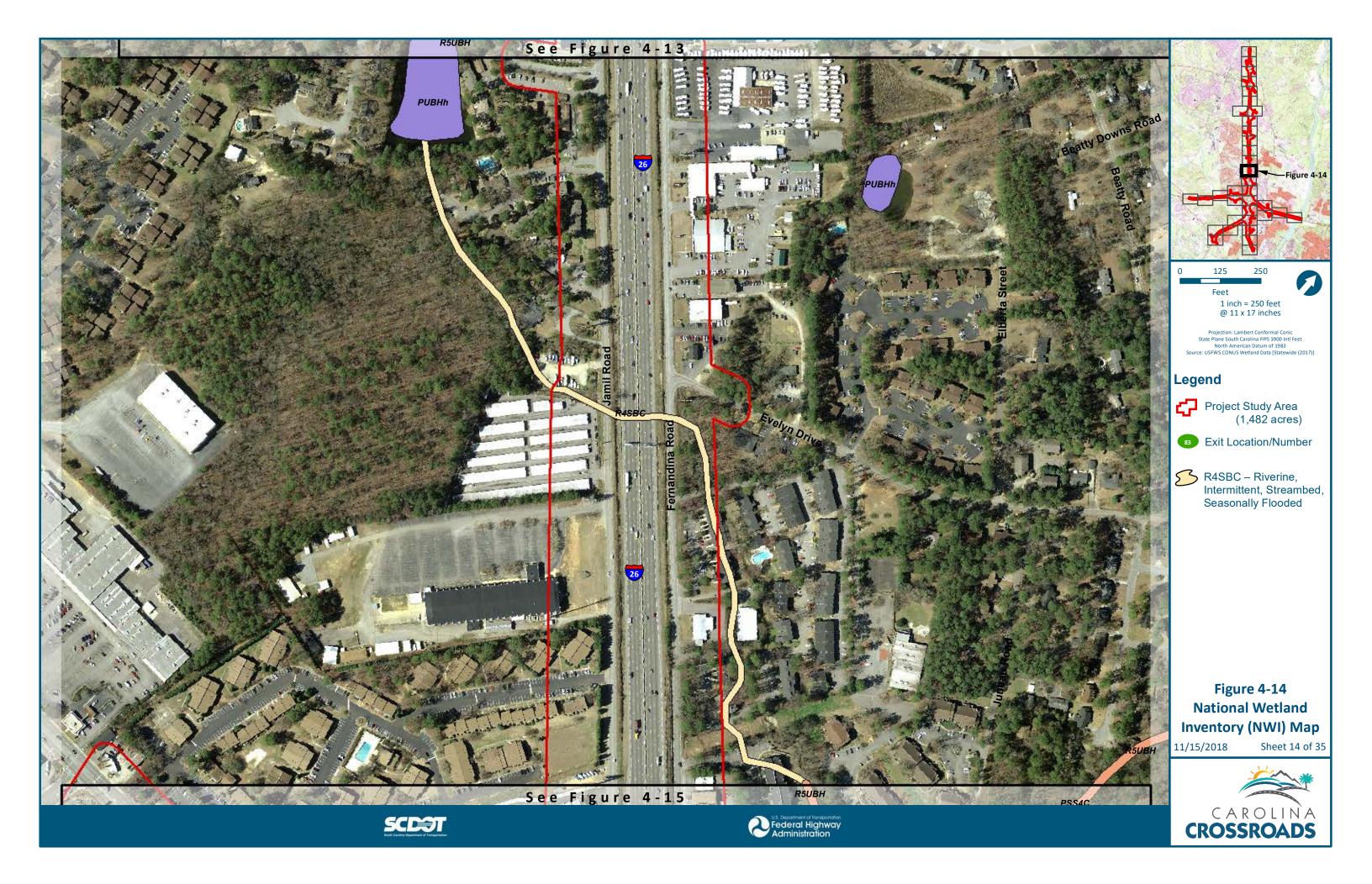






Sheet 12 of 35

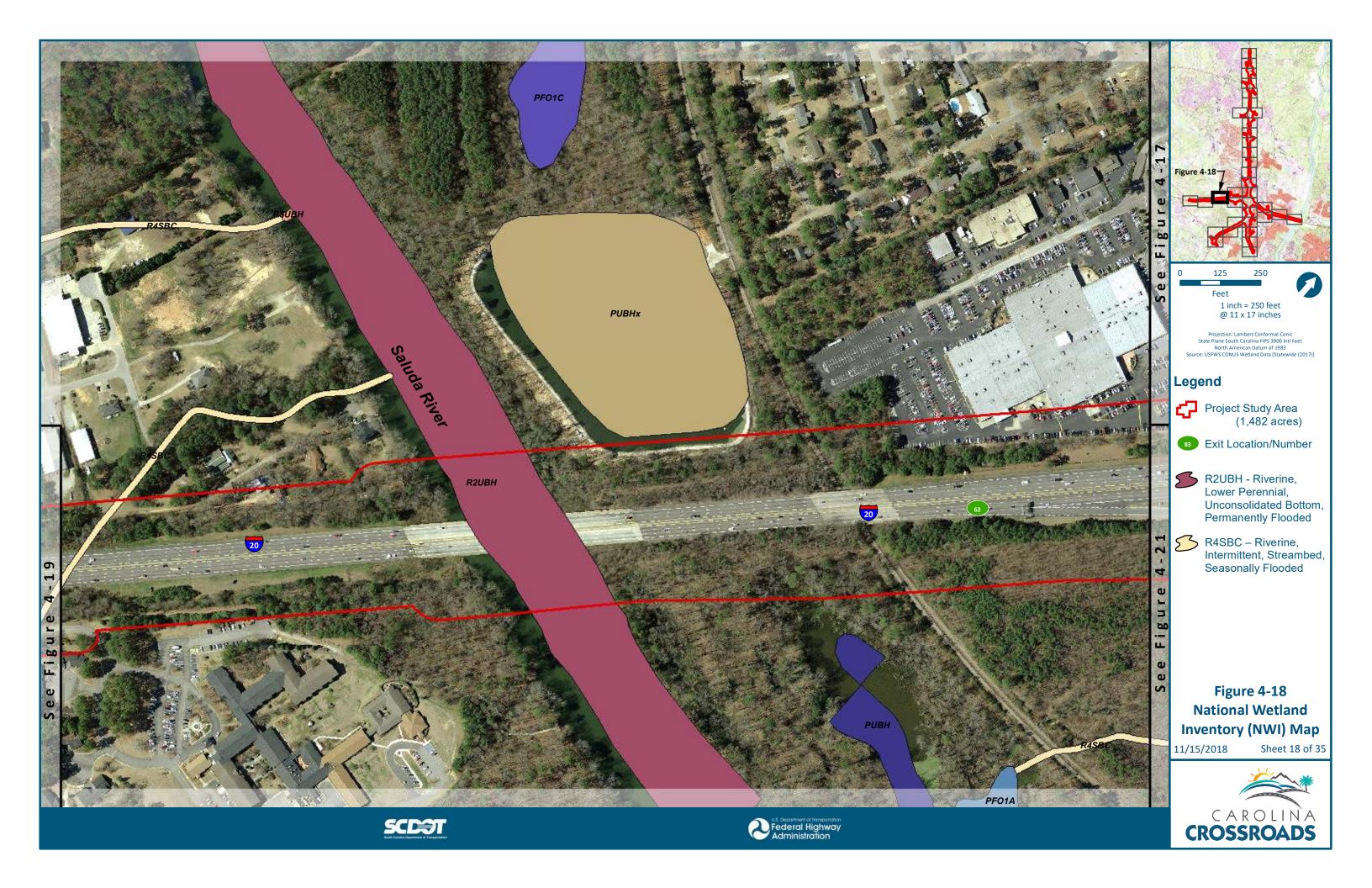


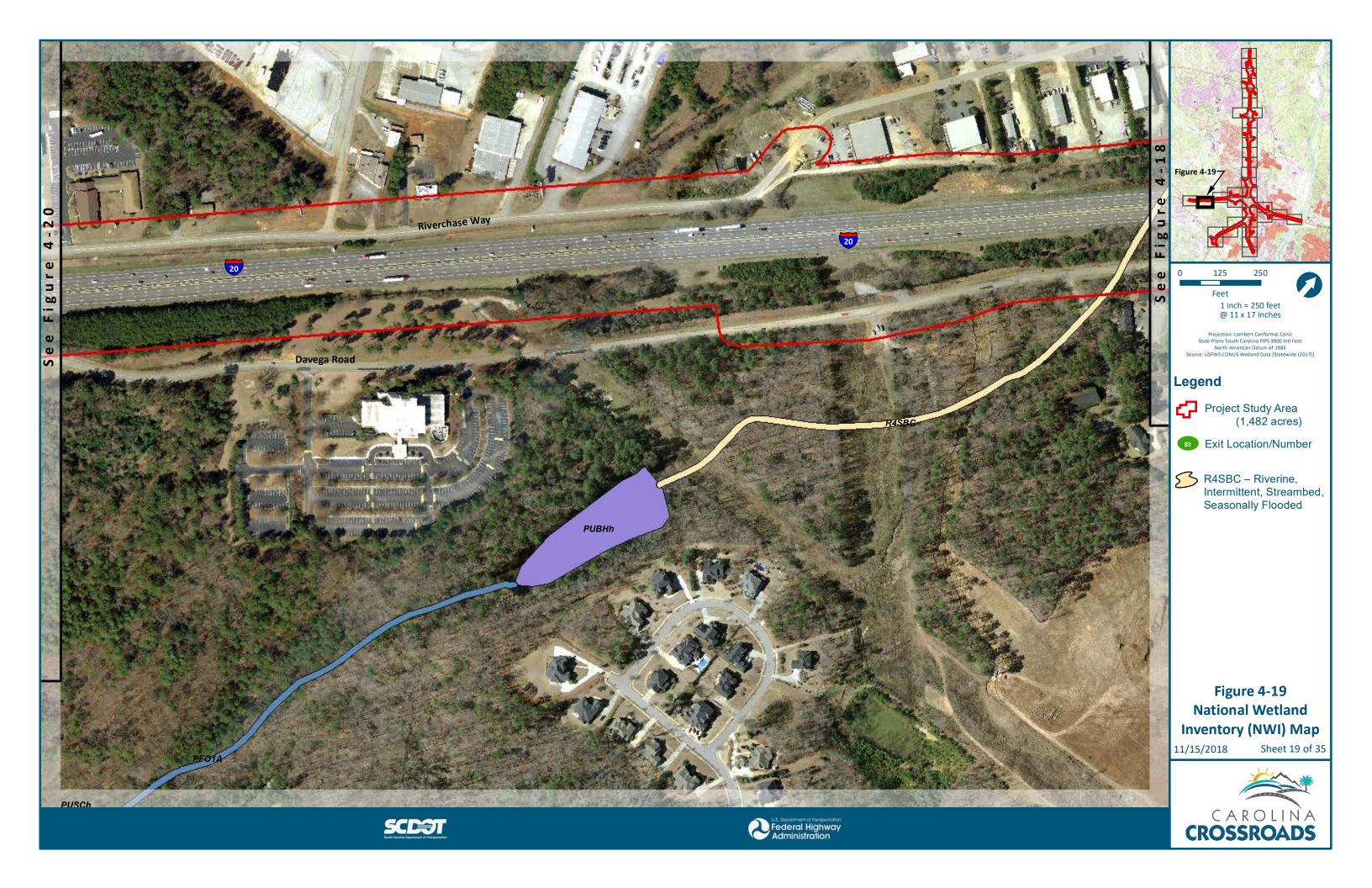










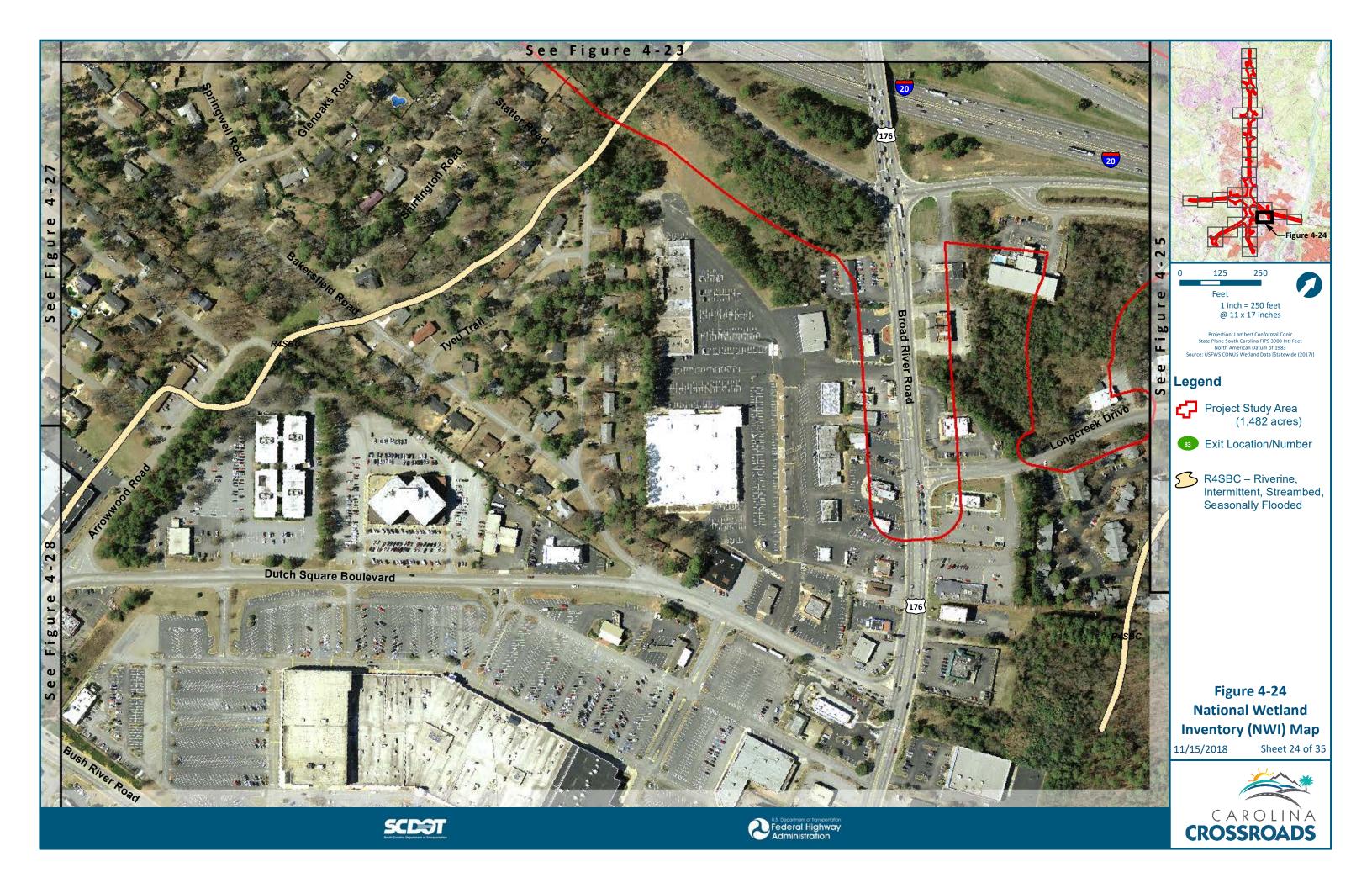




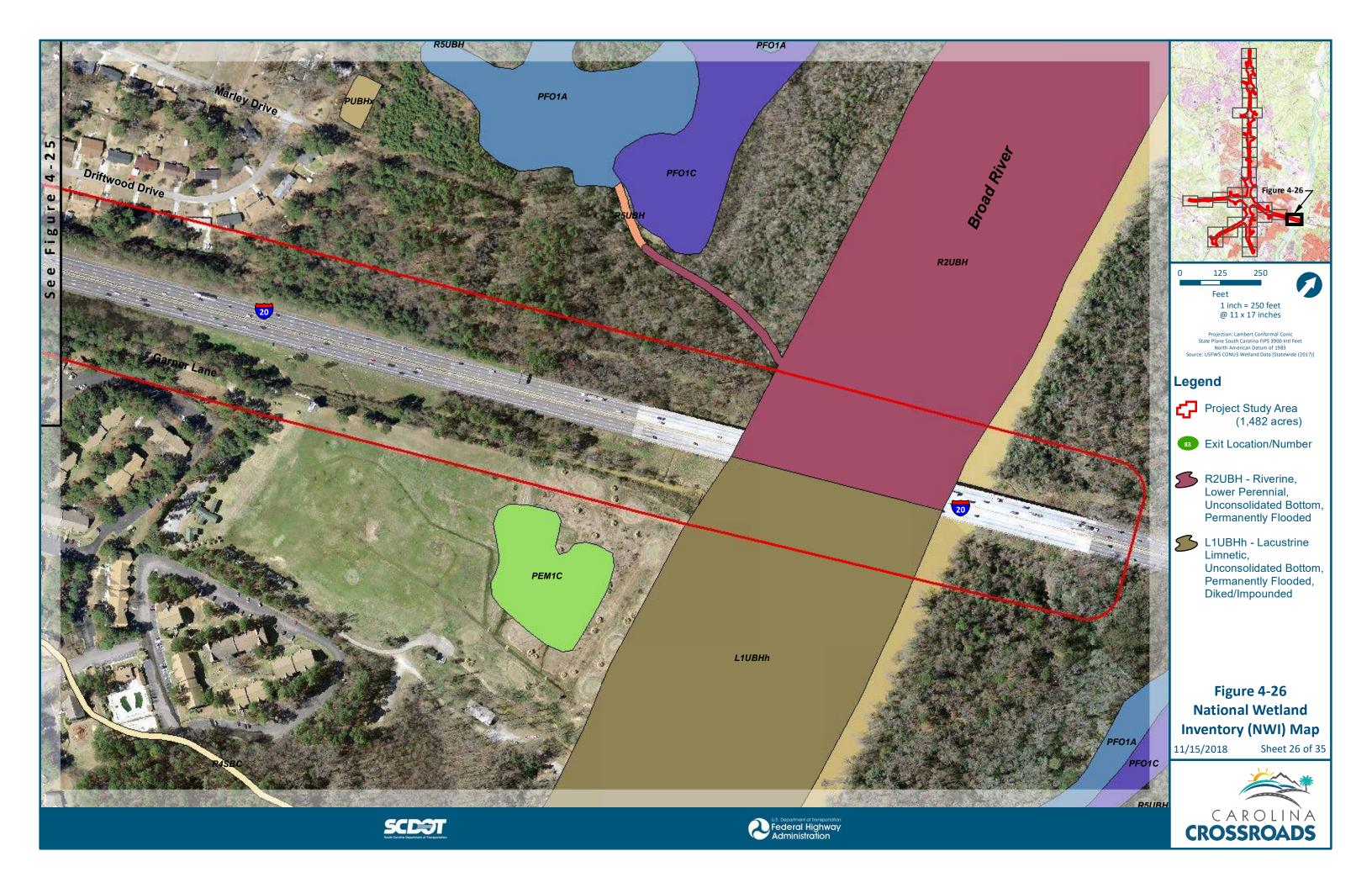




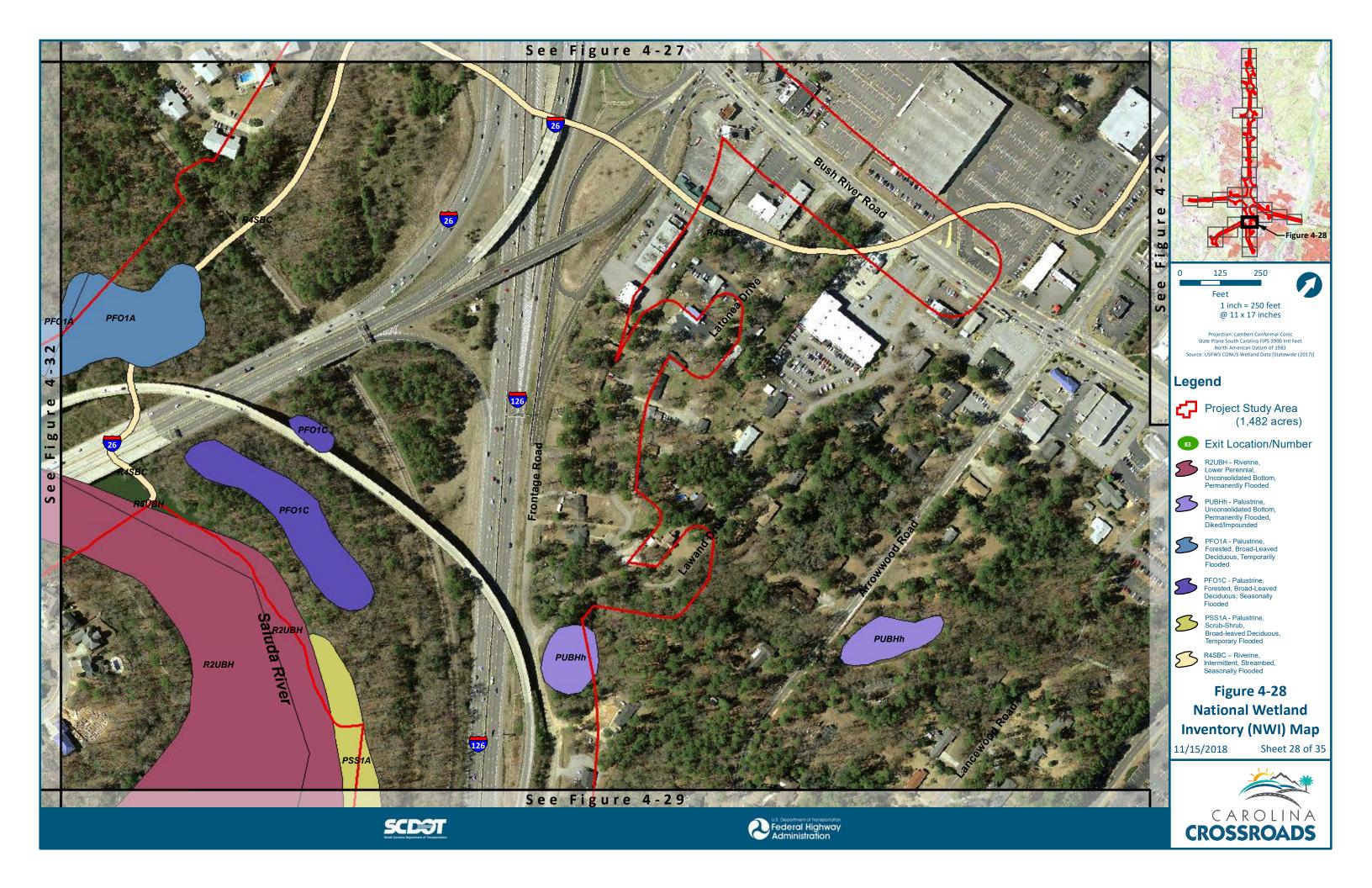


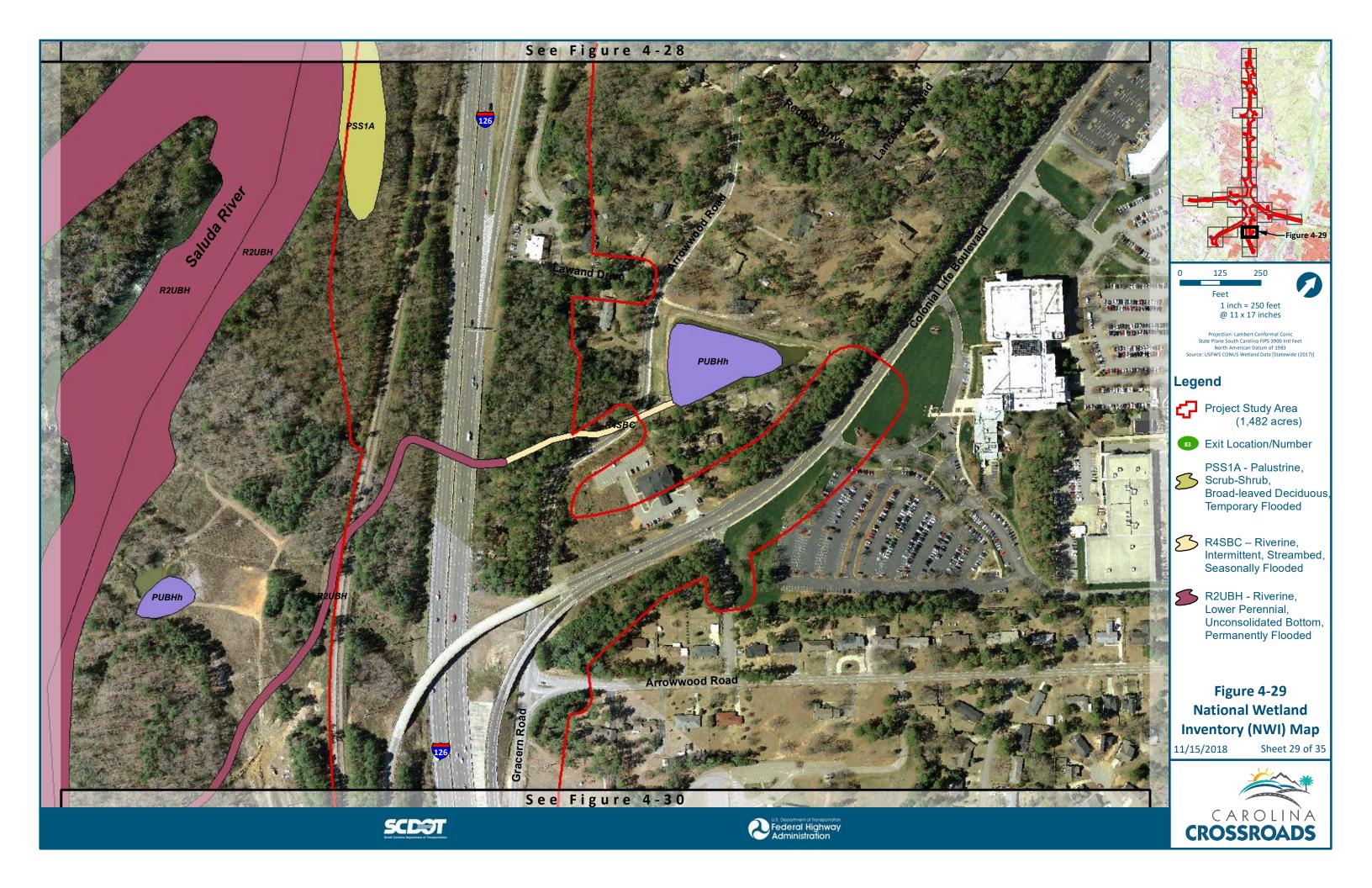




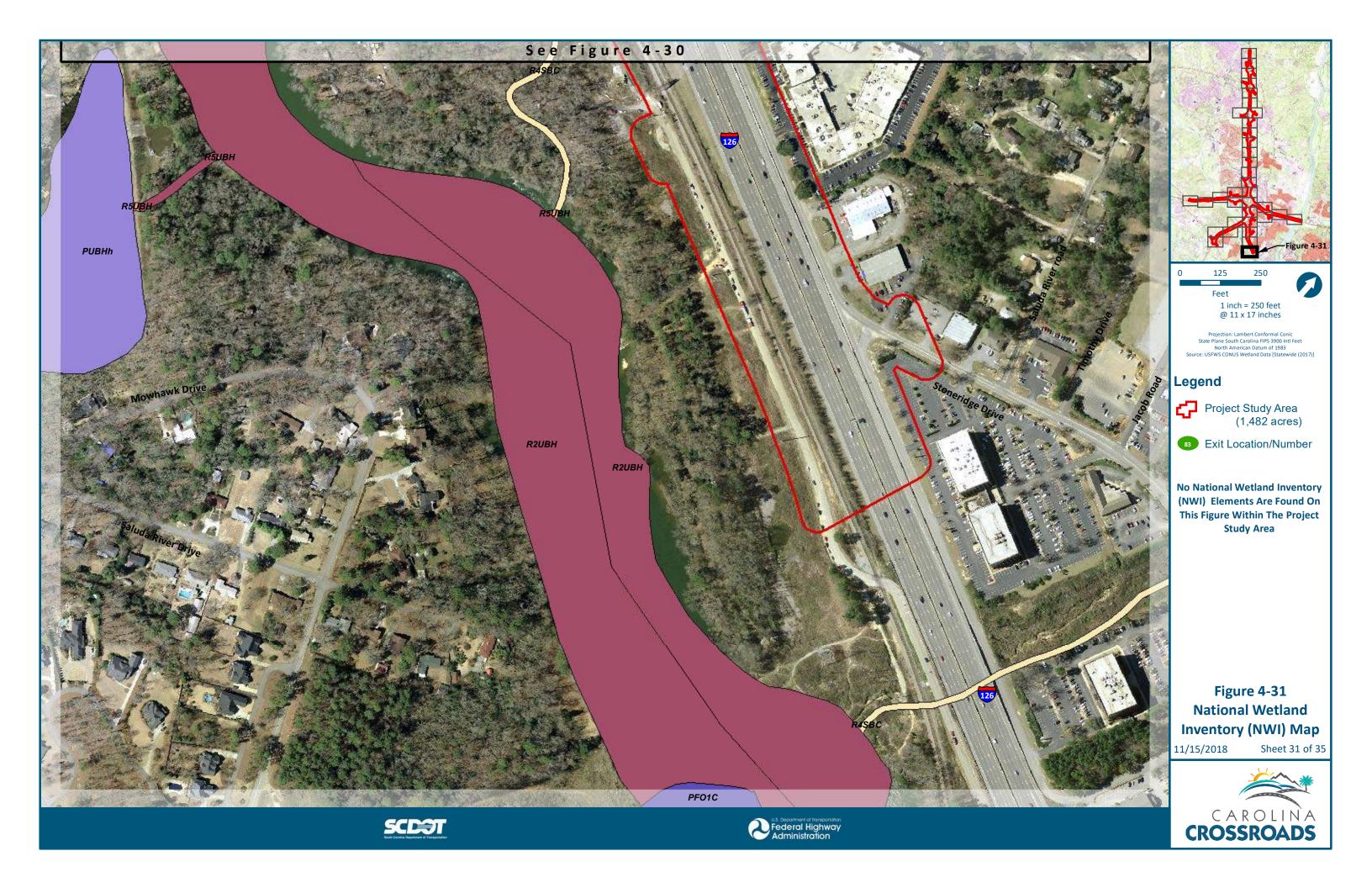












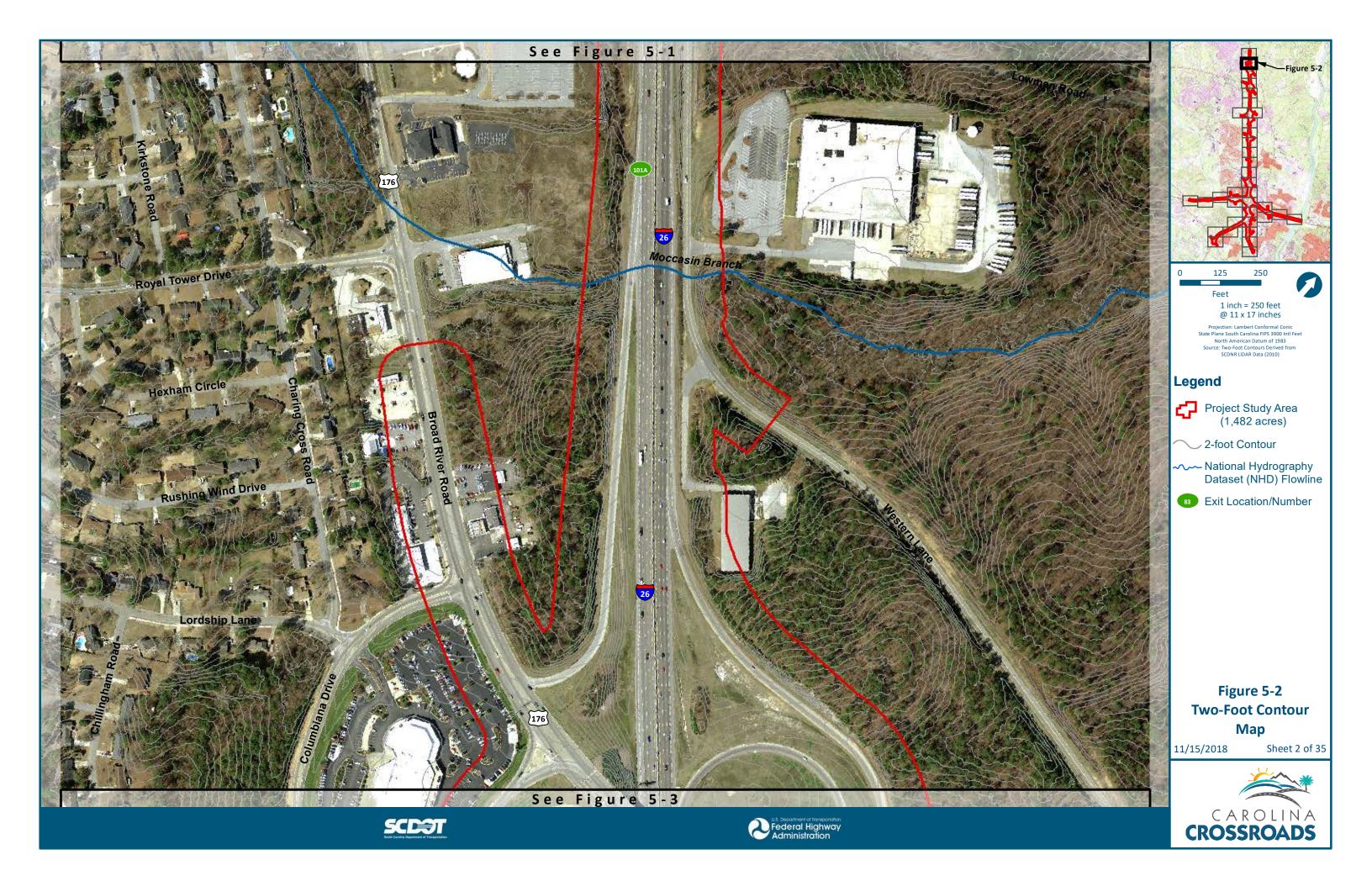


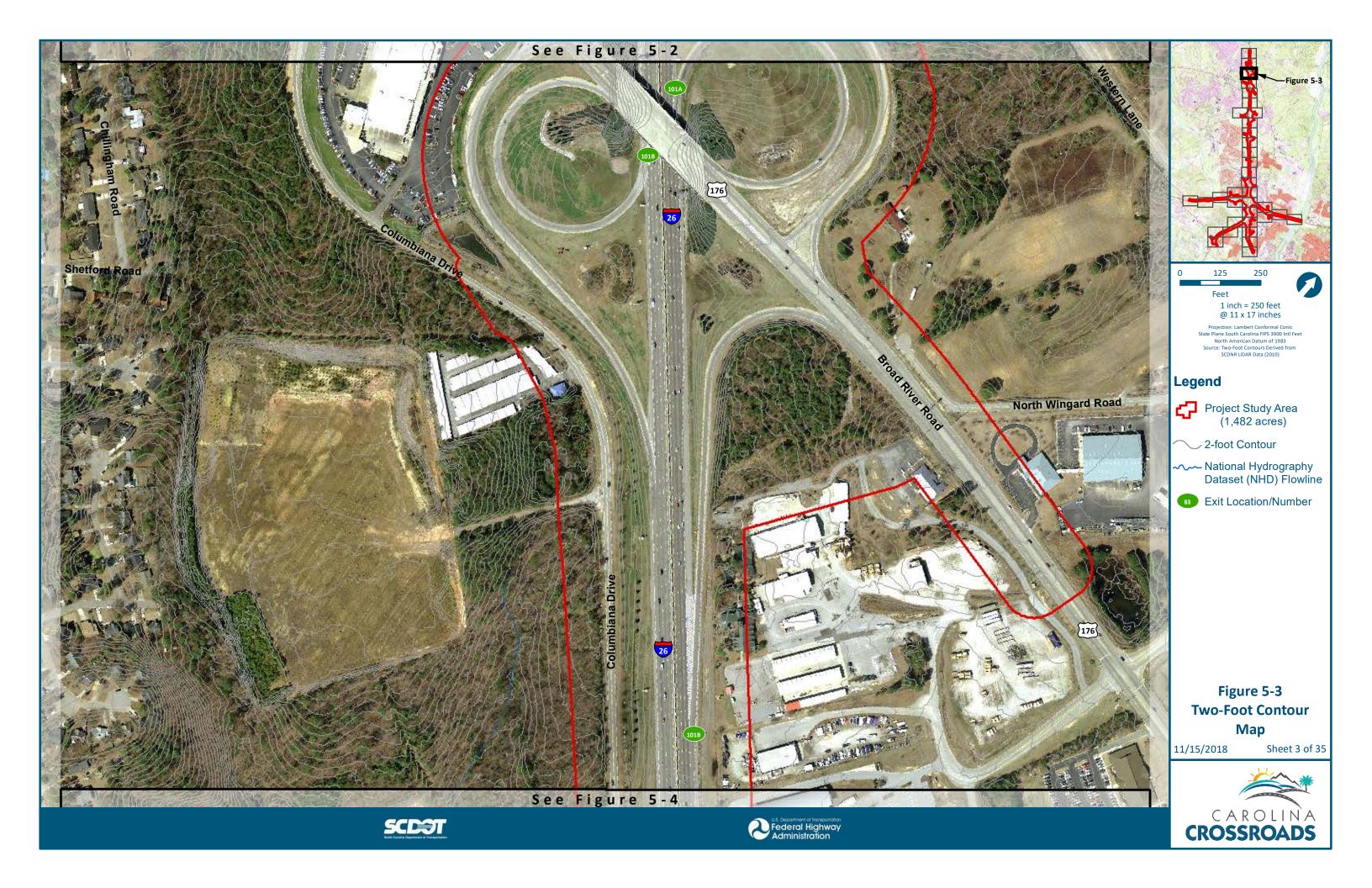






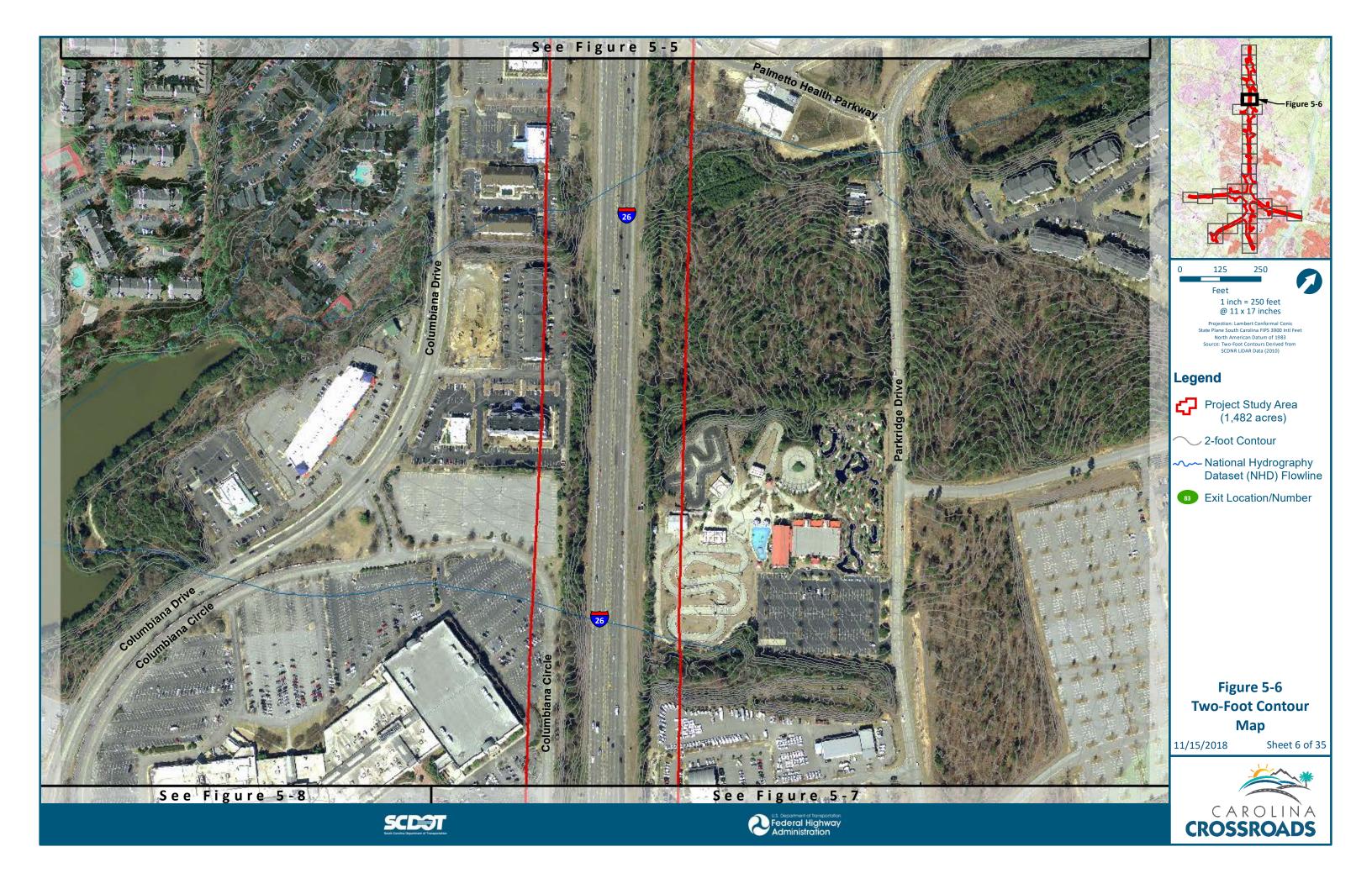


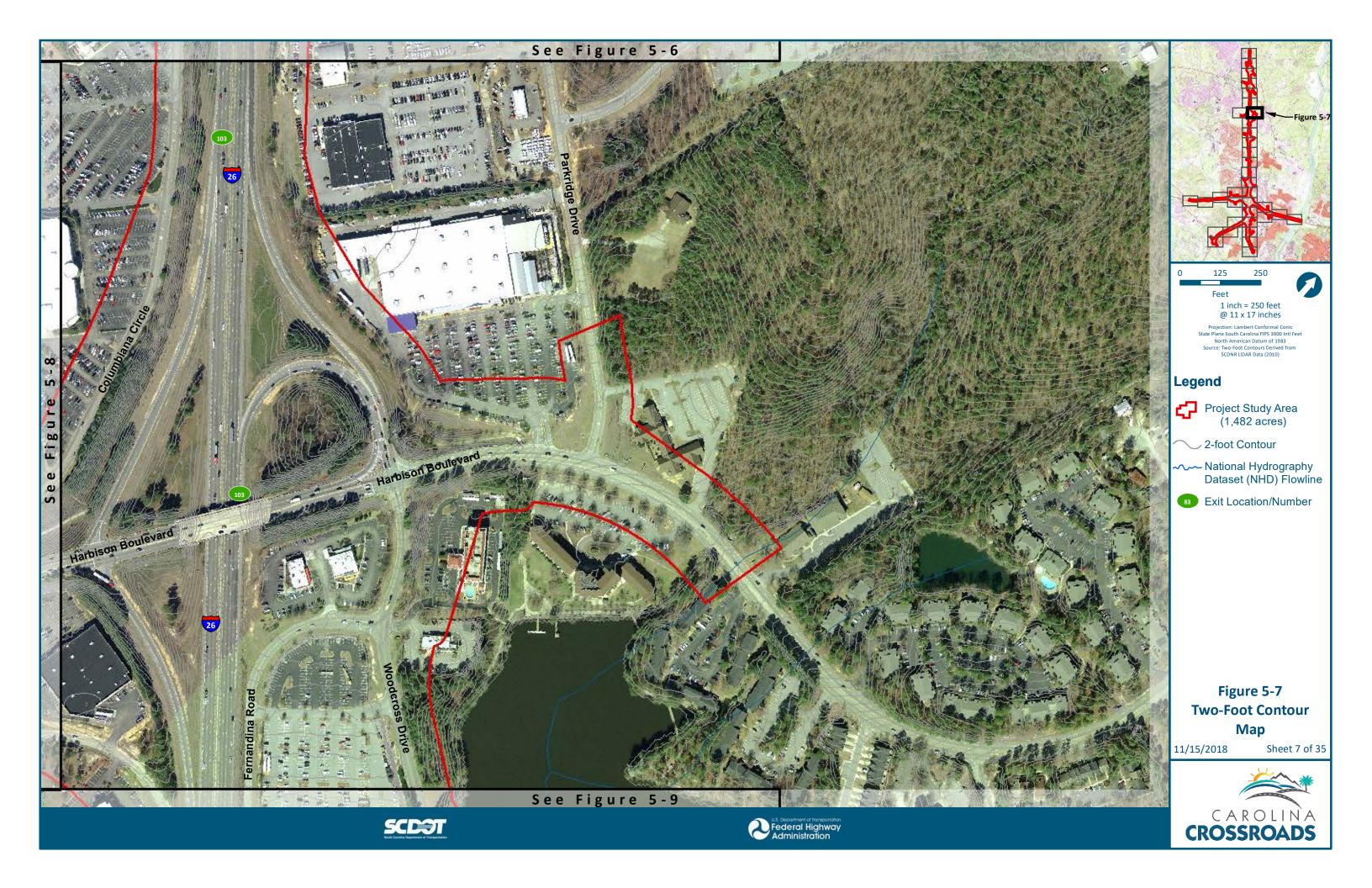














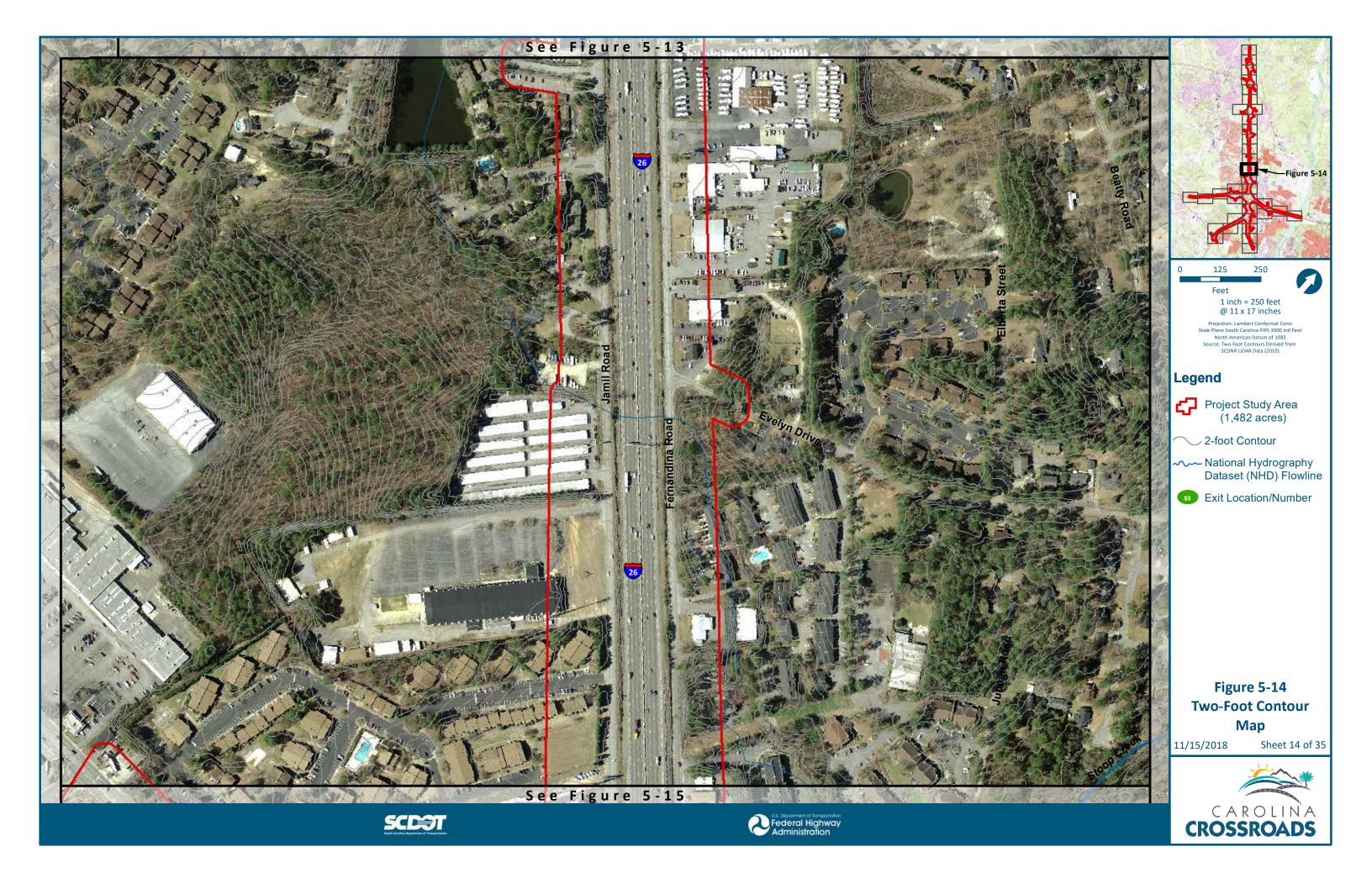








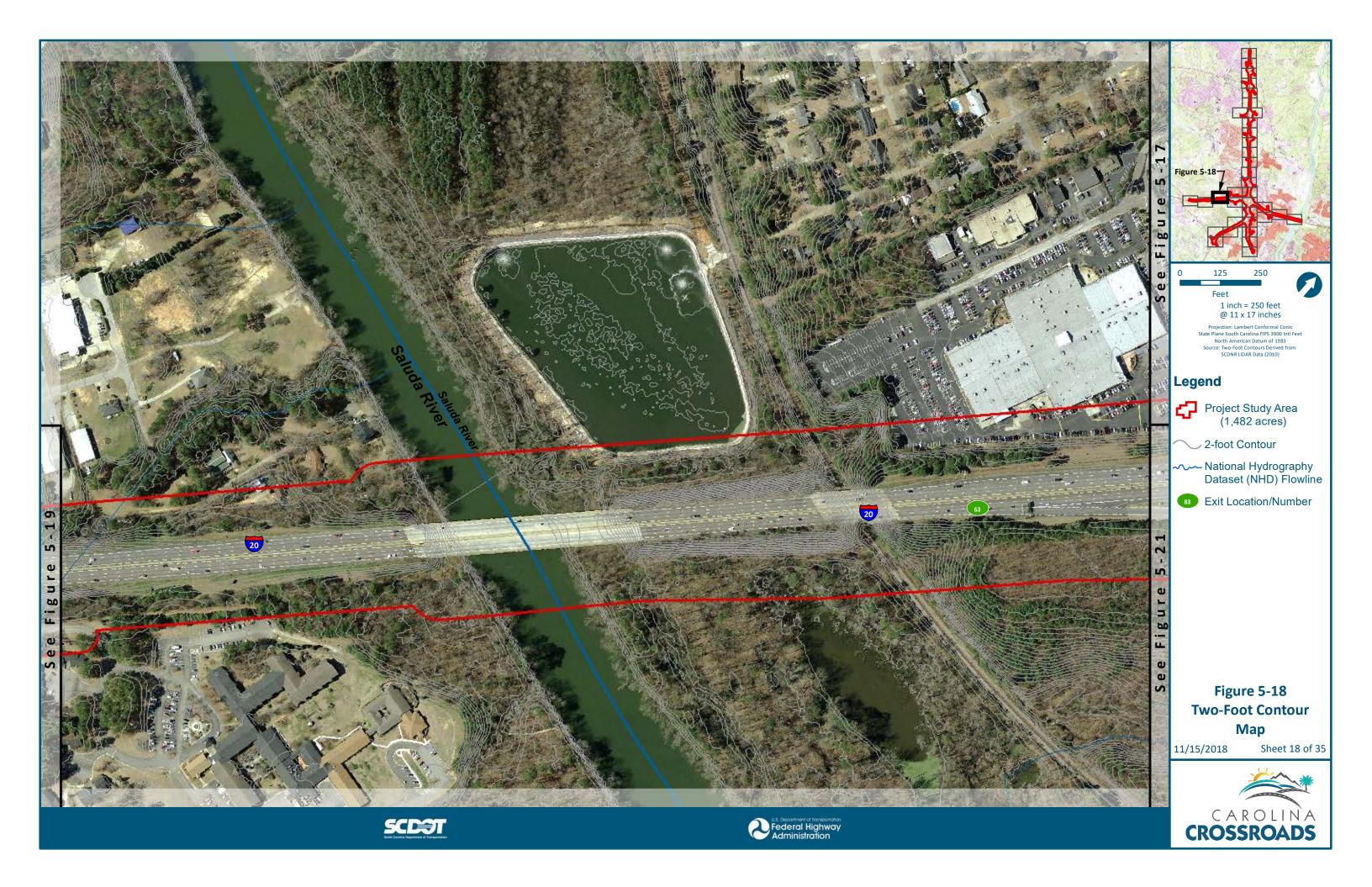






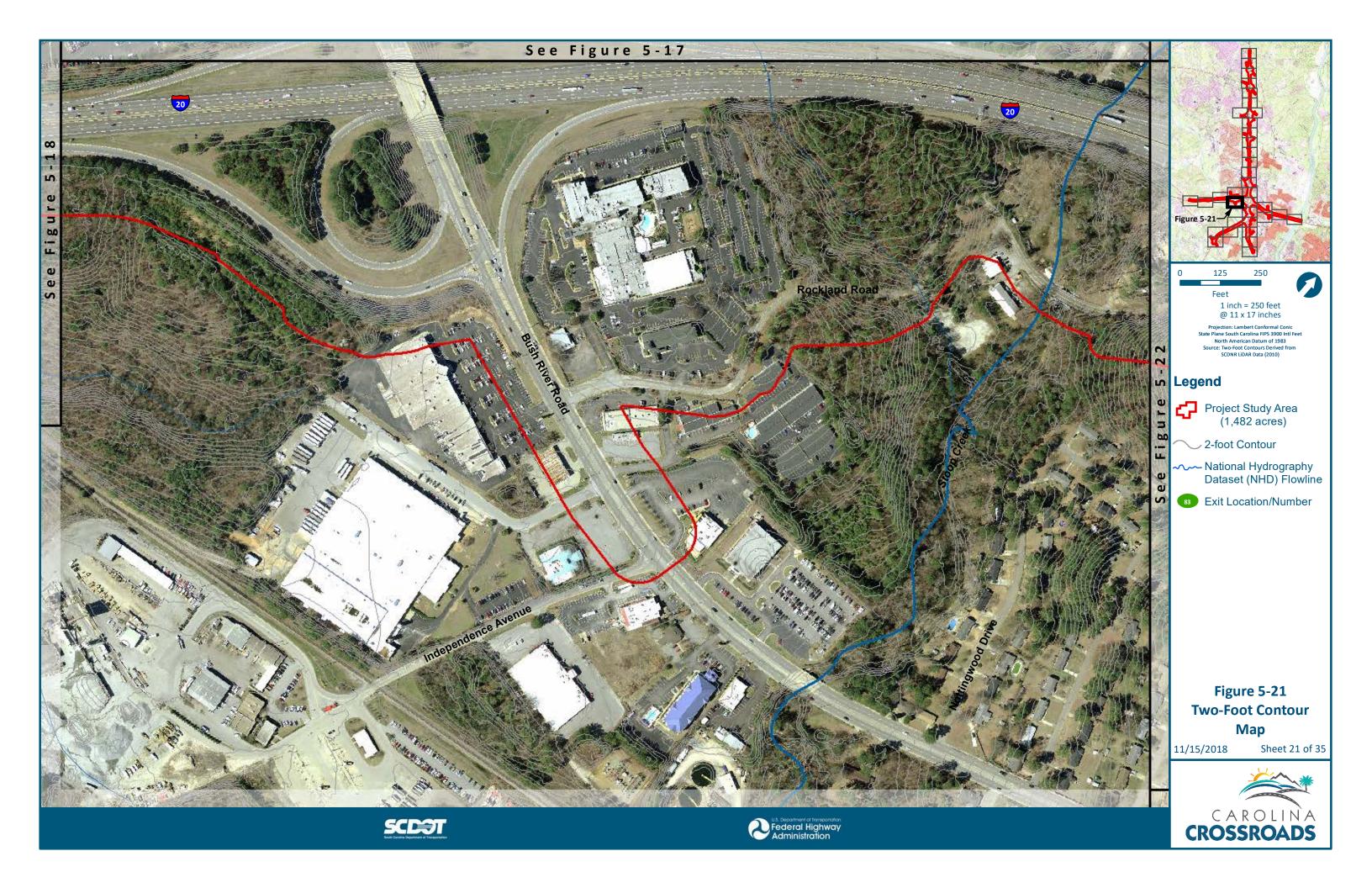






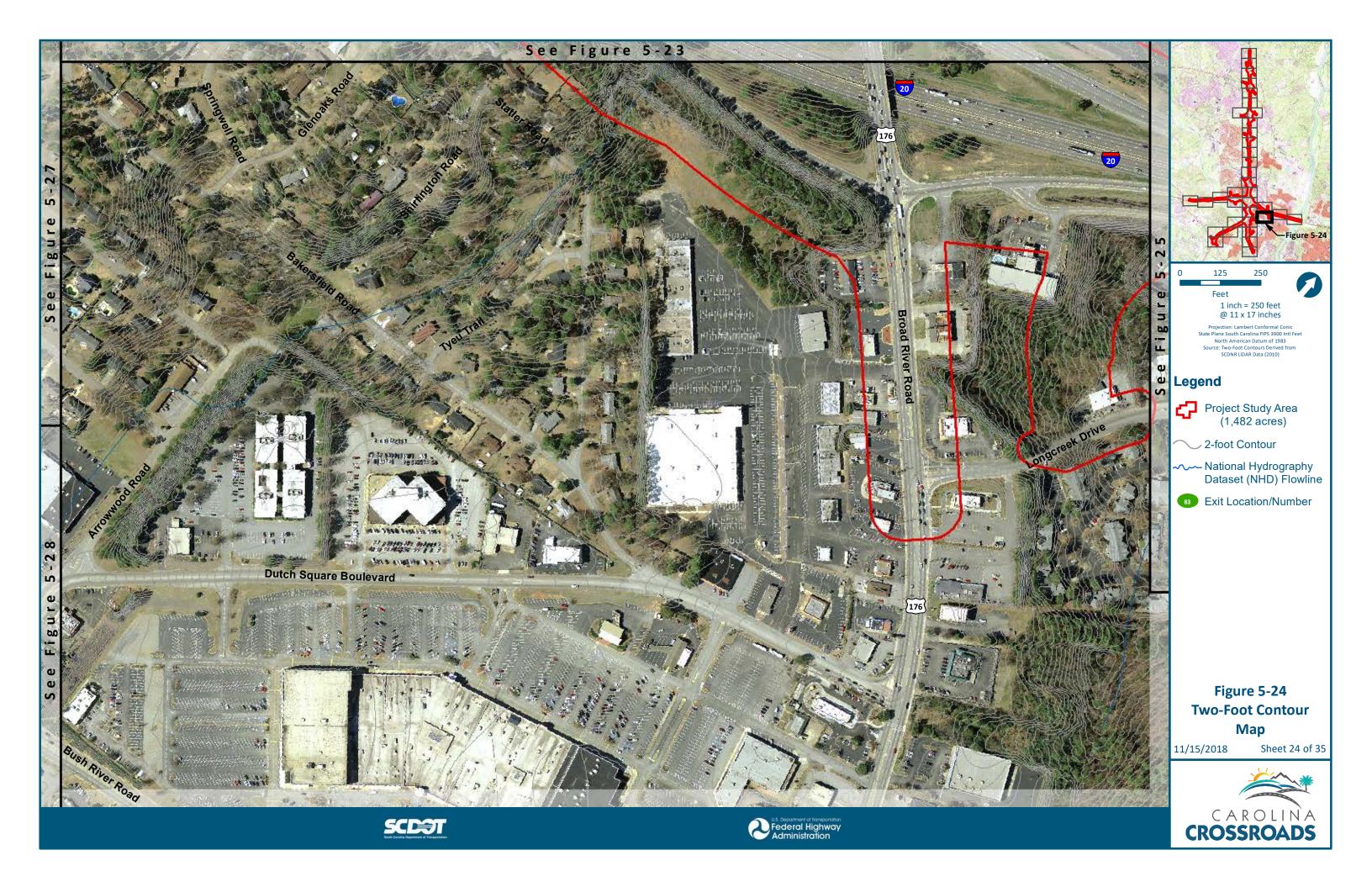




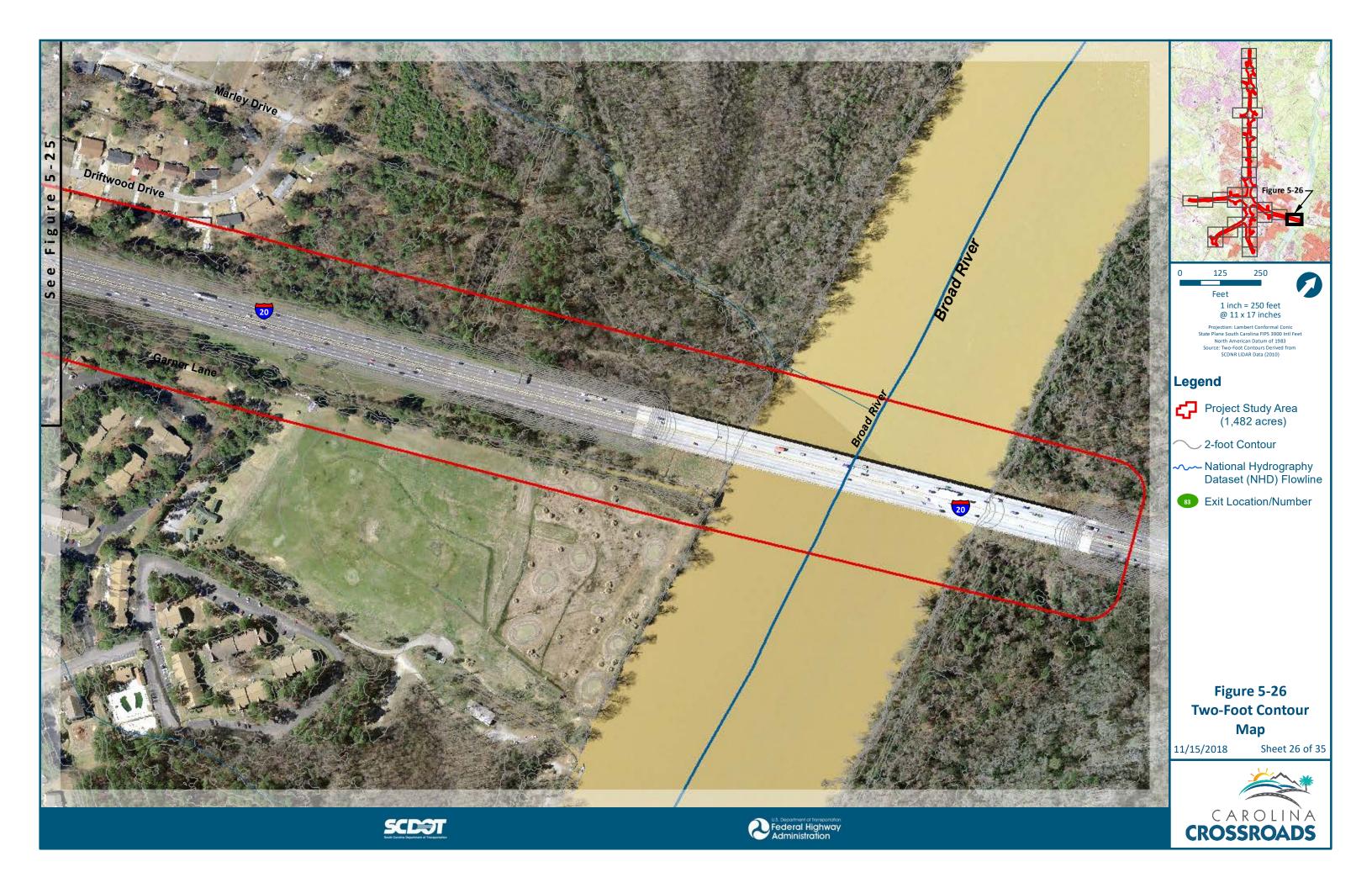


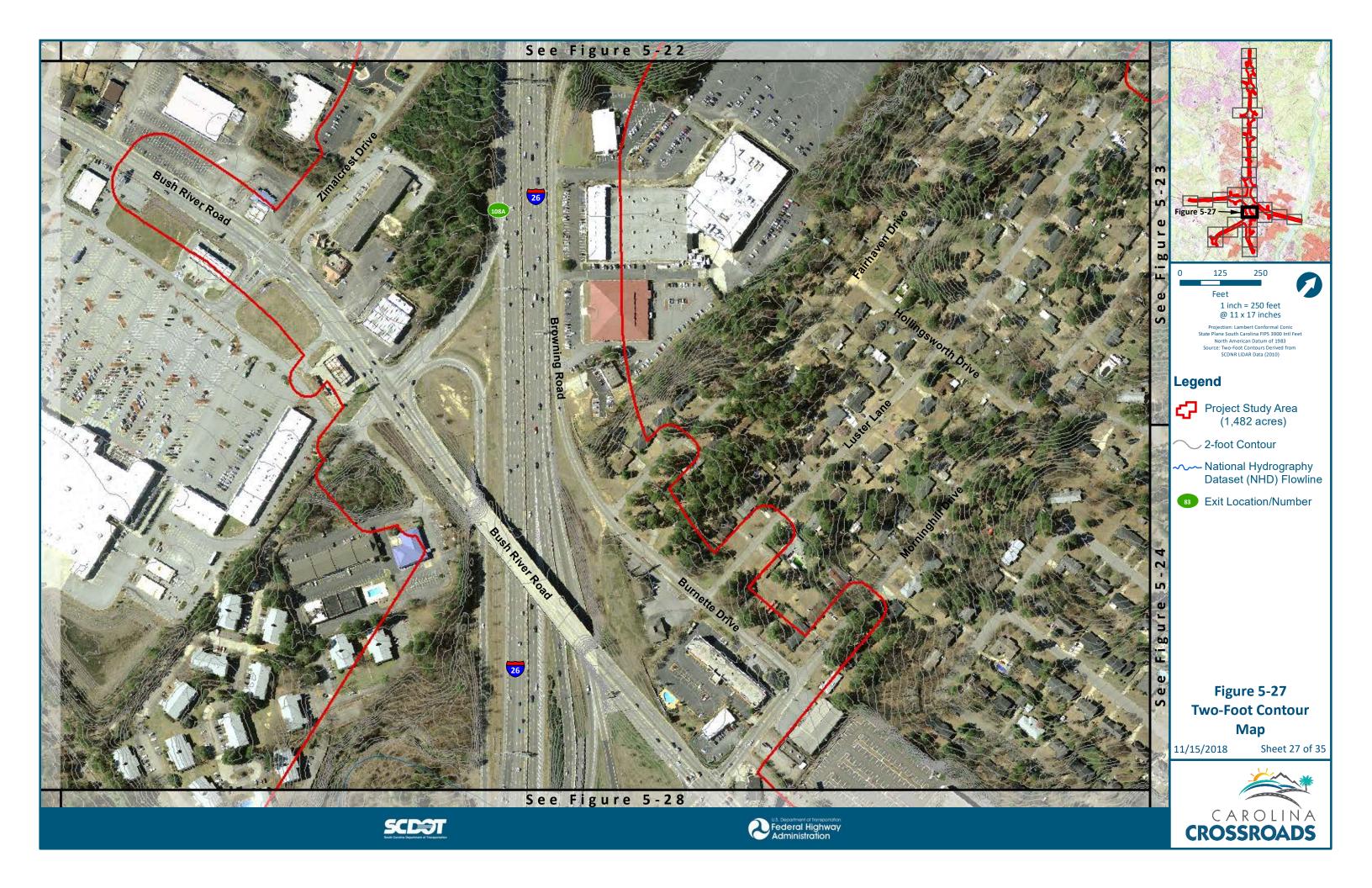




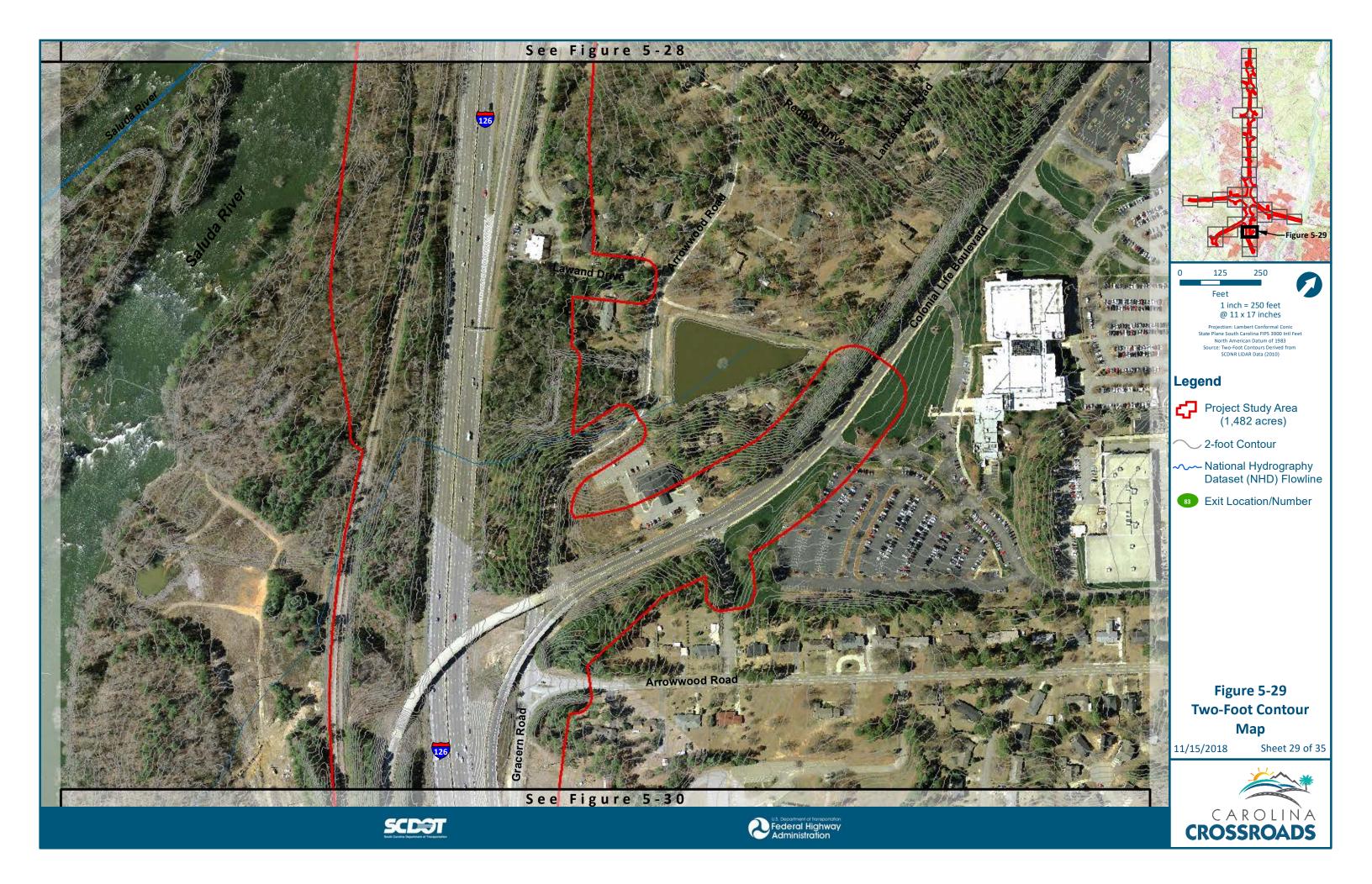




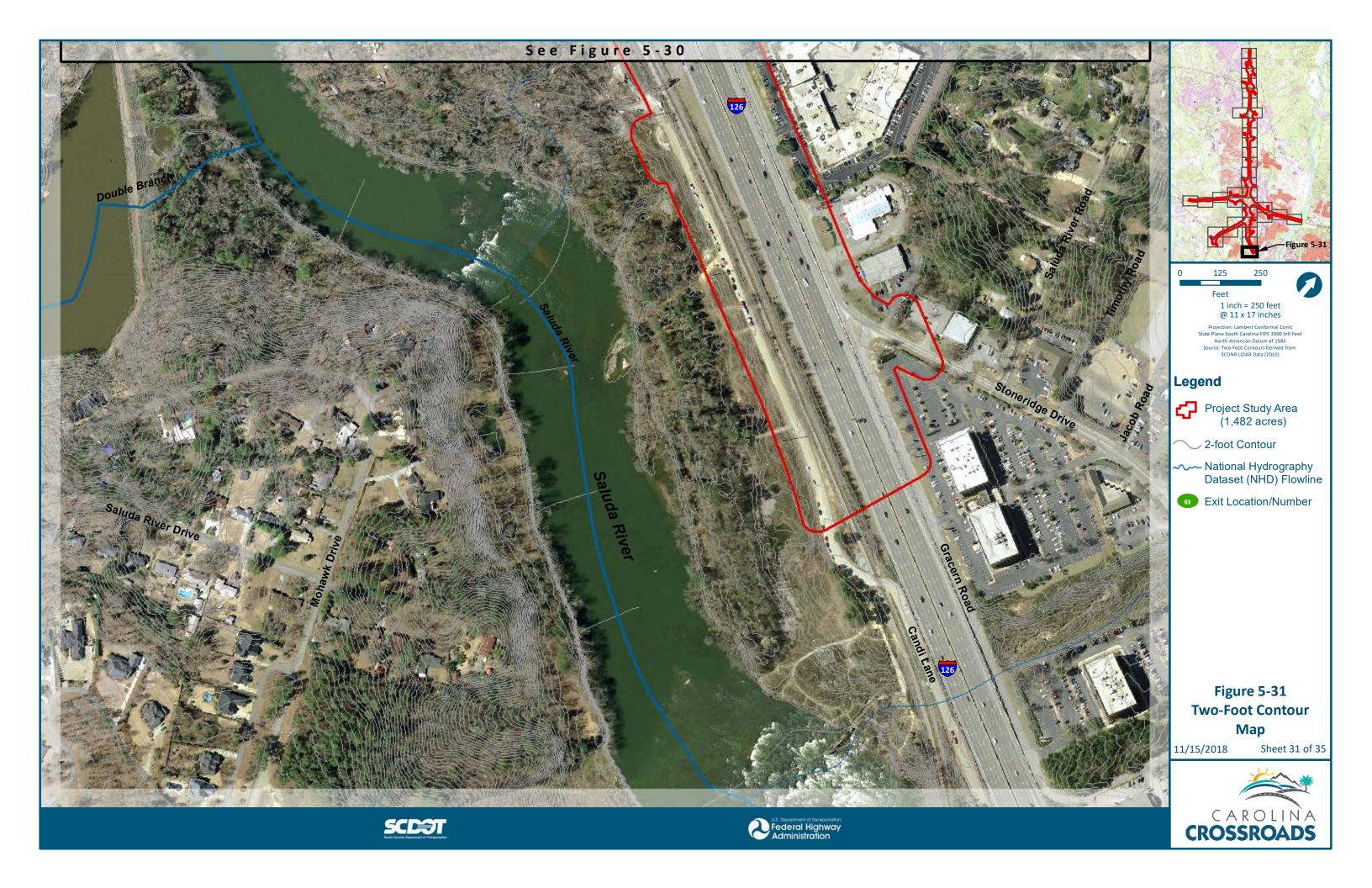




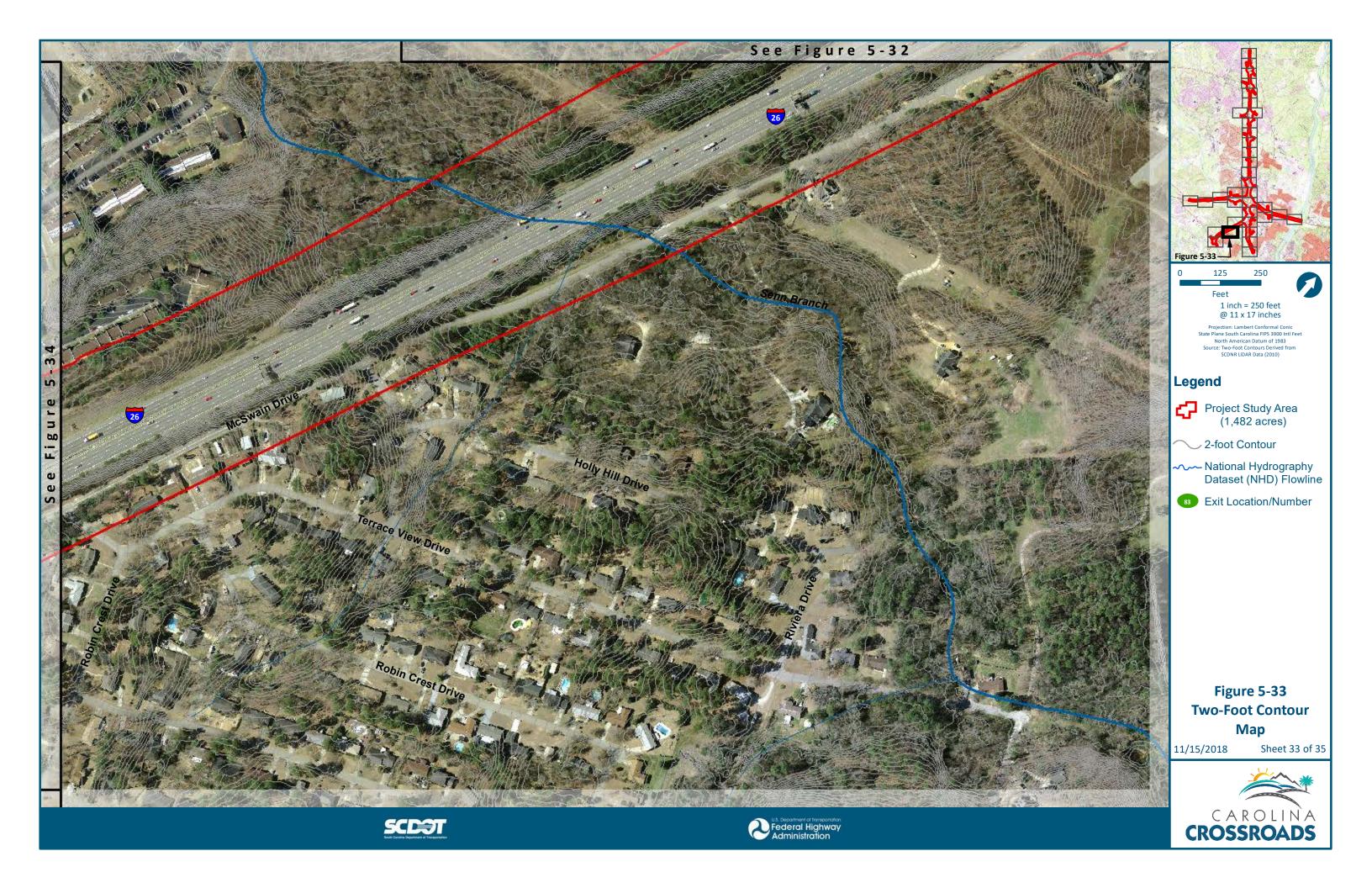


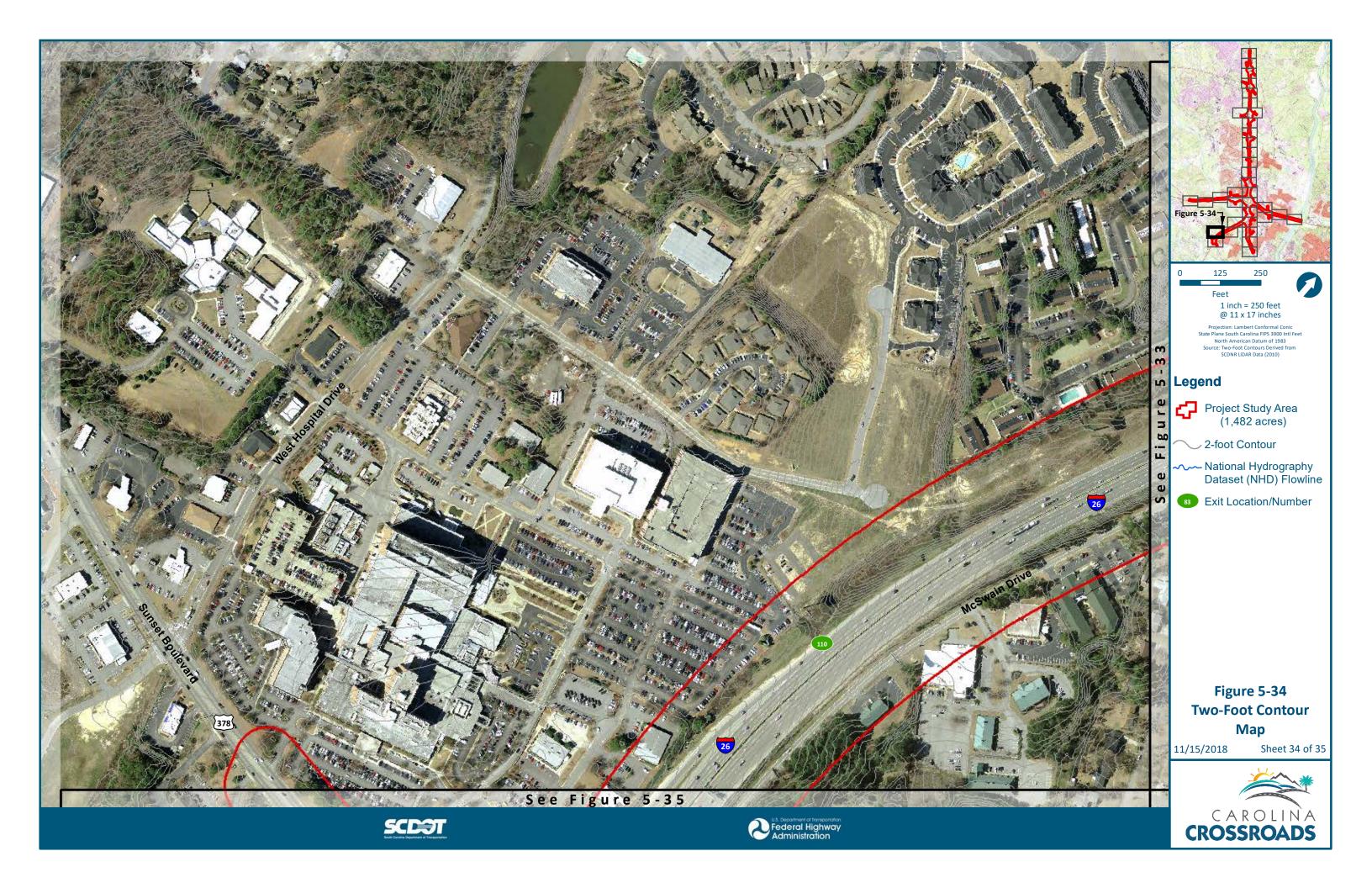






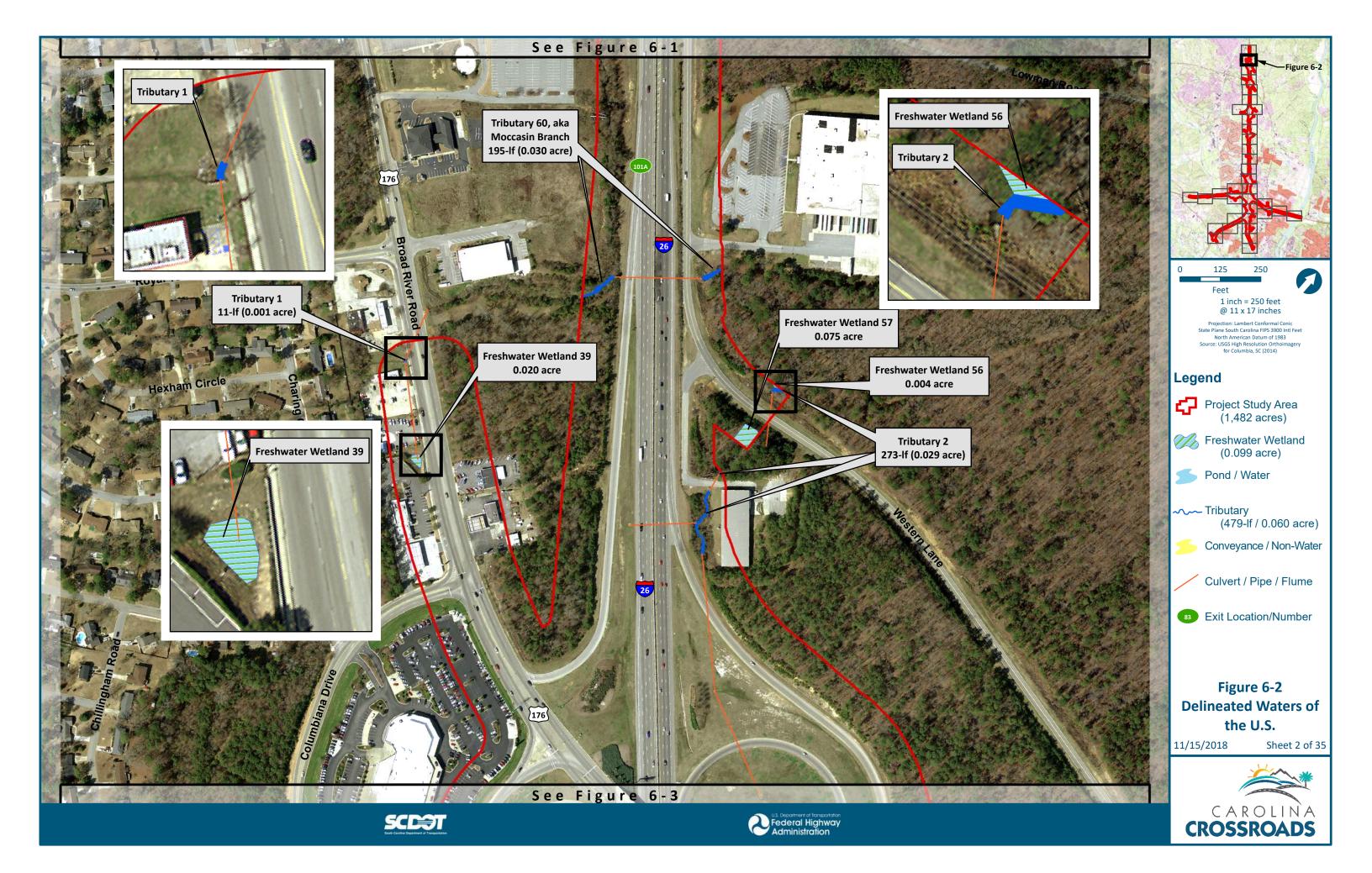


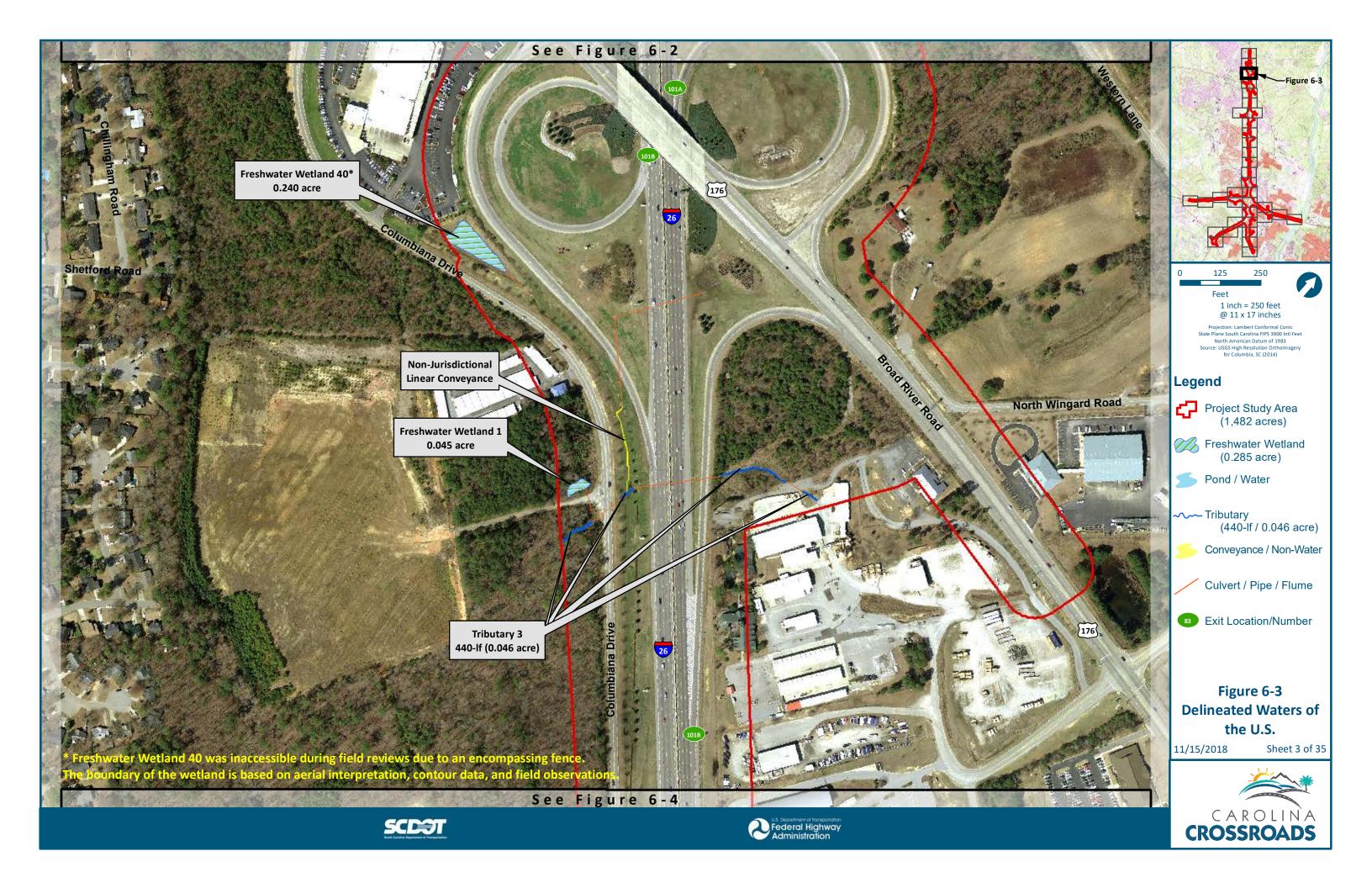




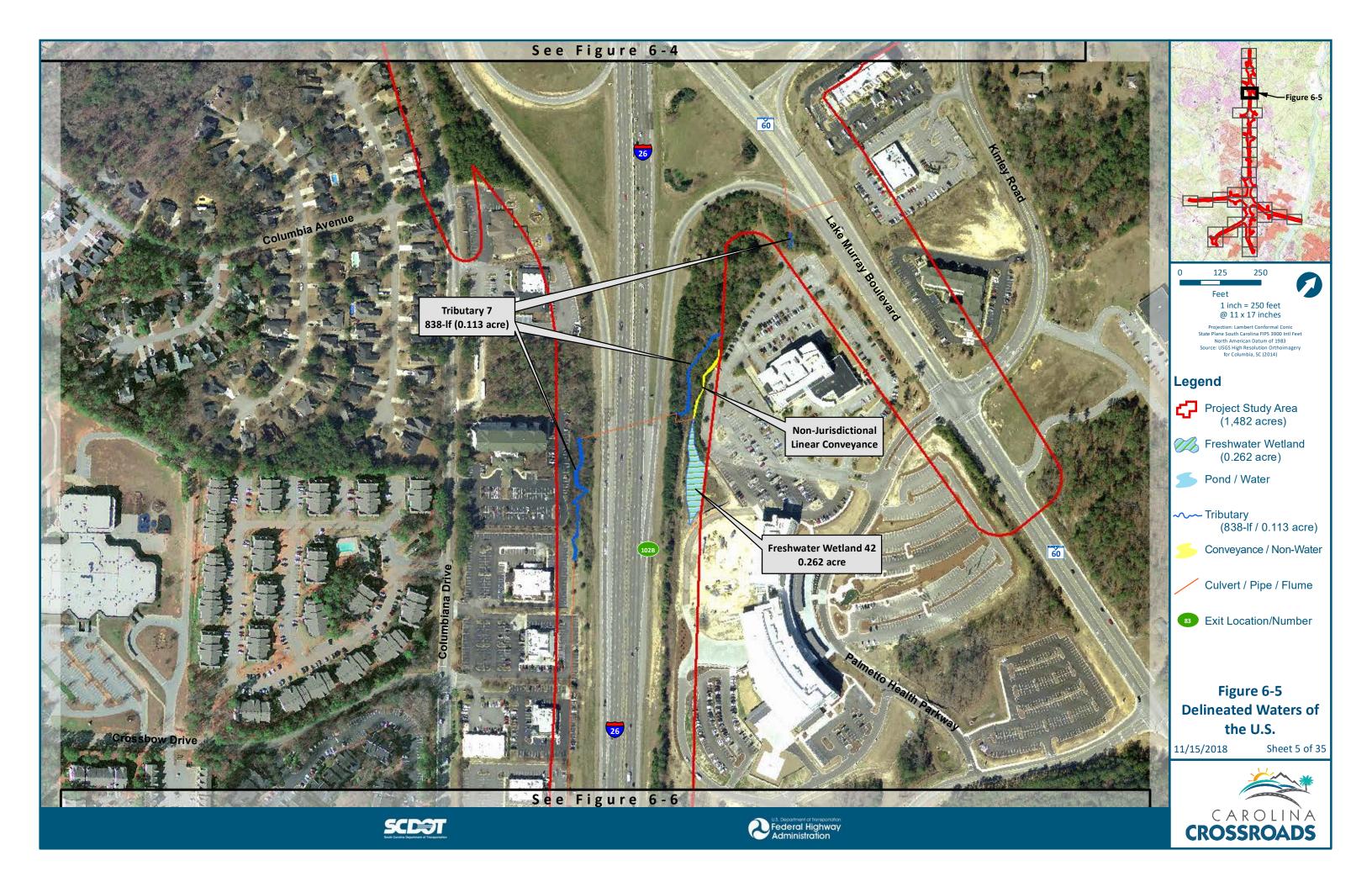


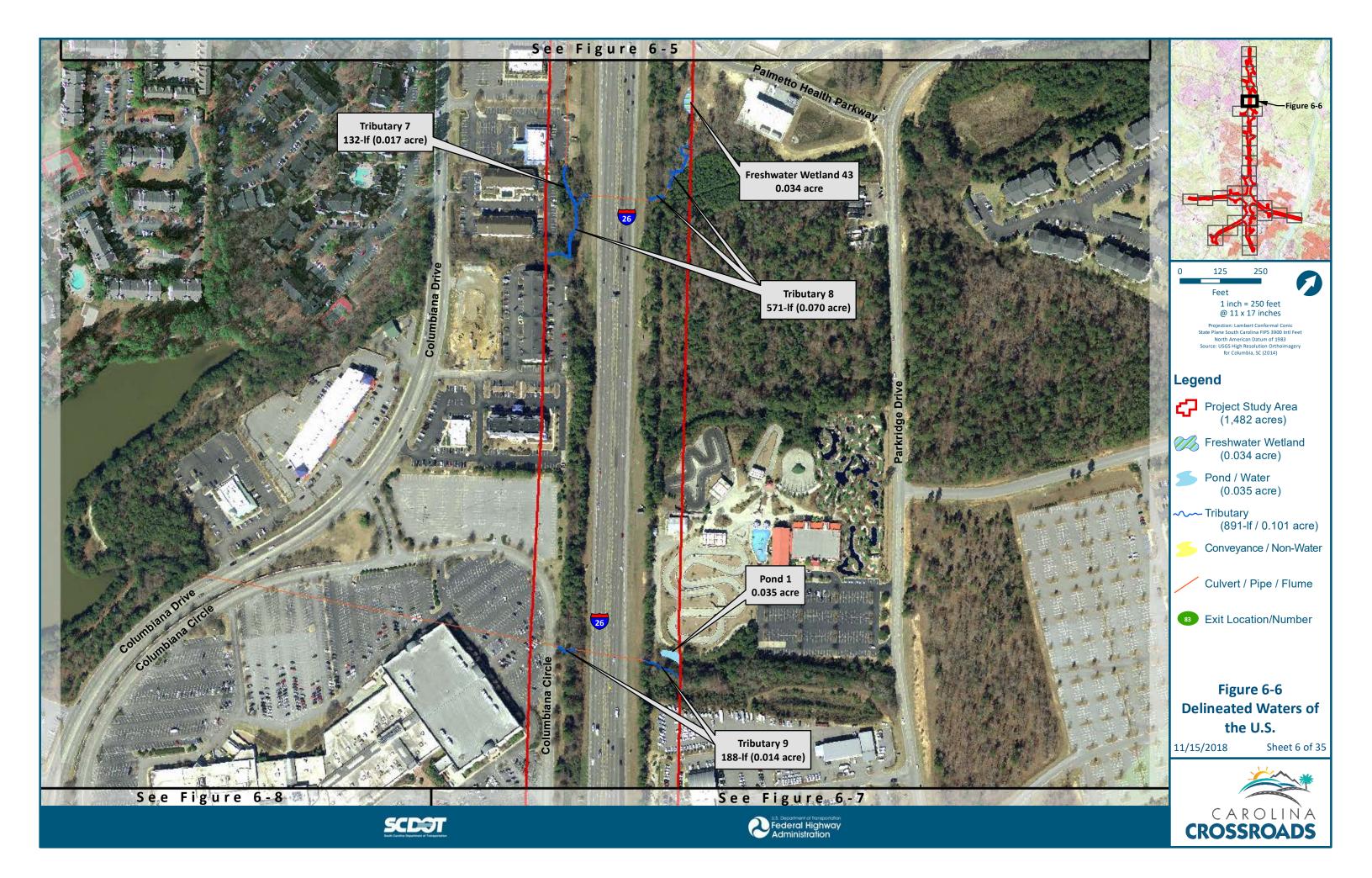


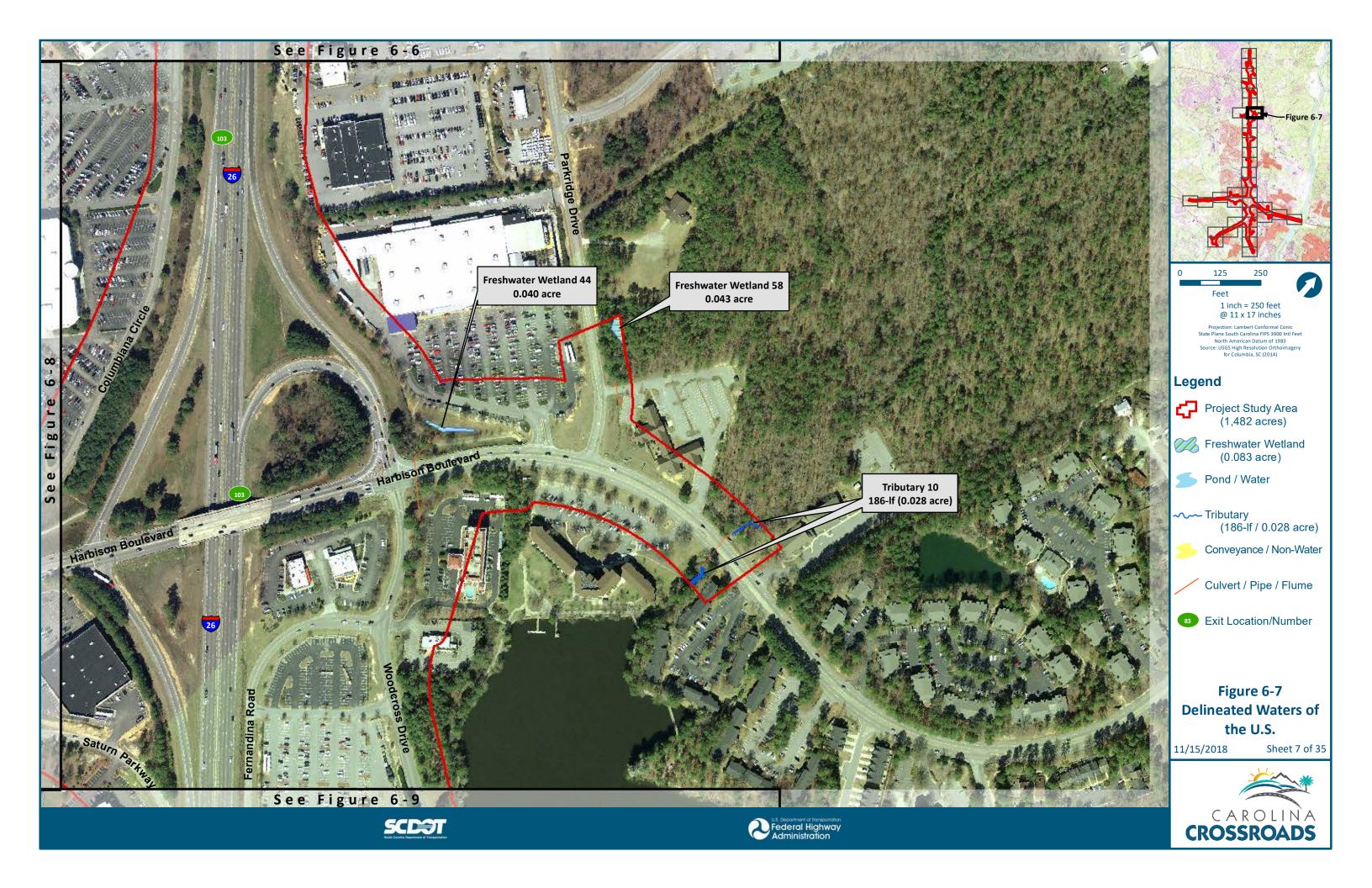




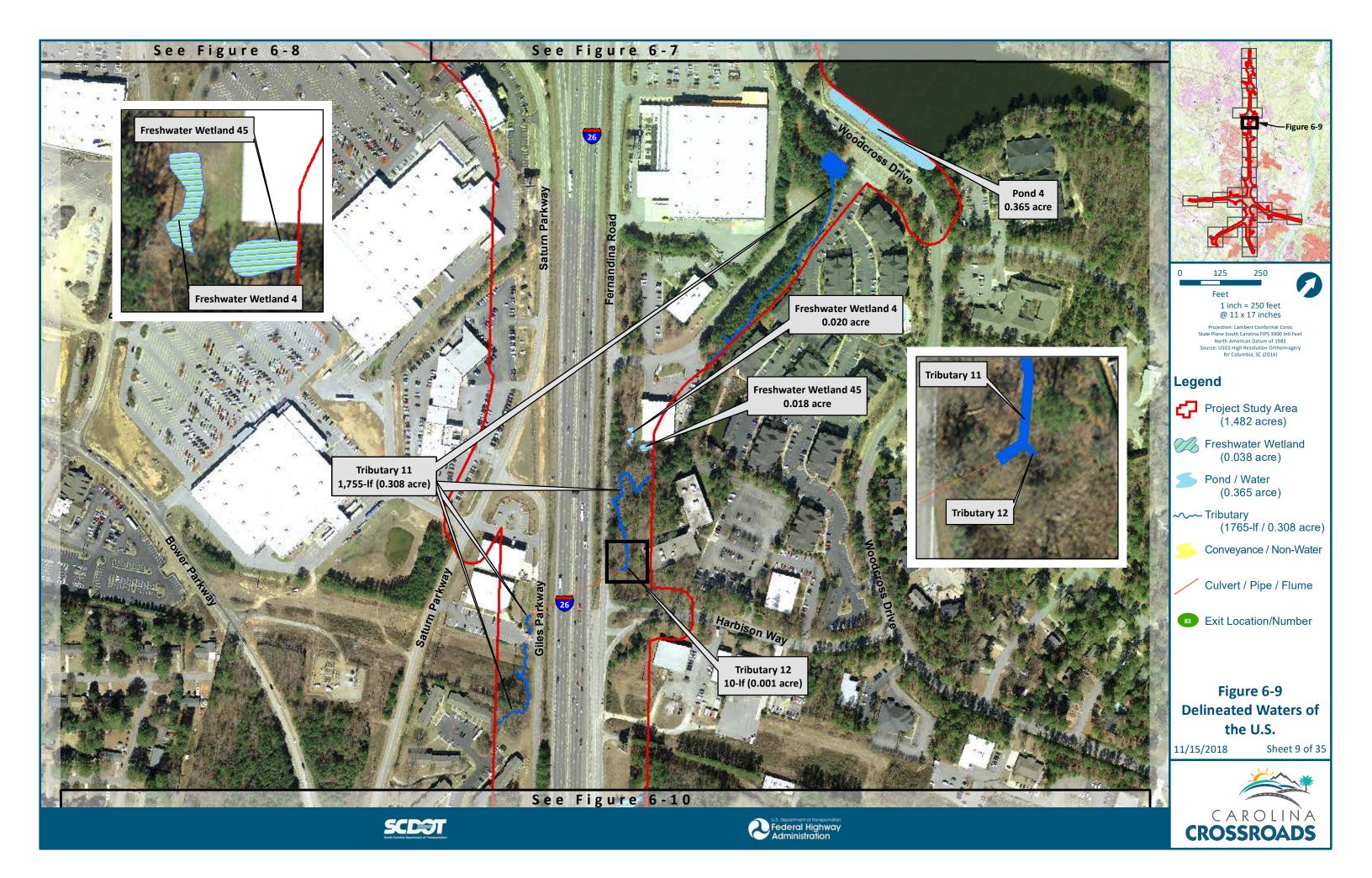




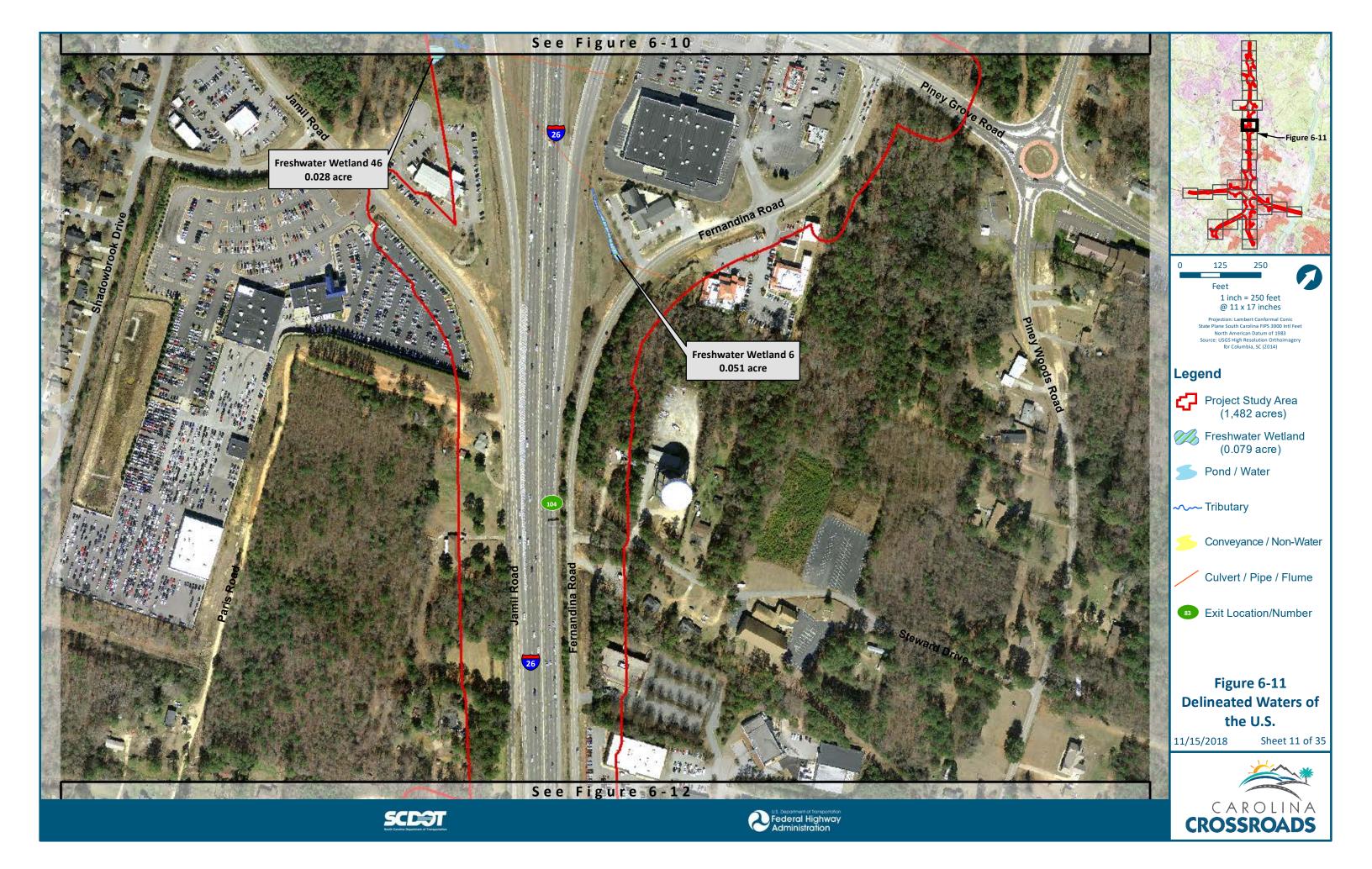






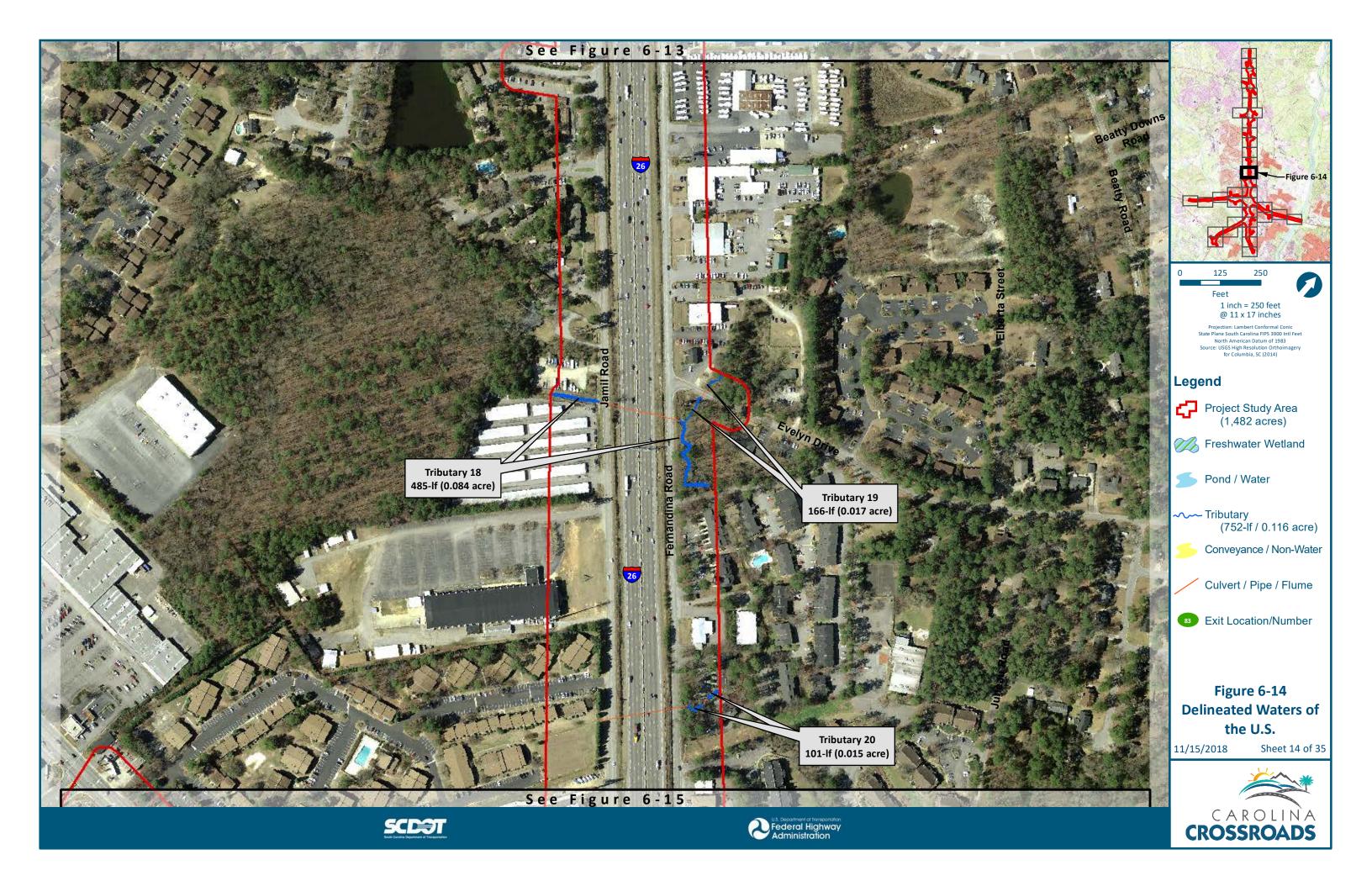








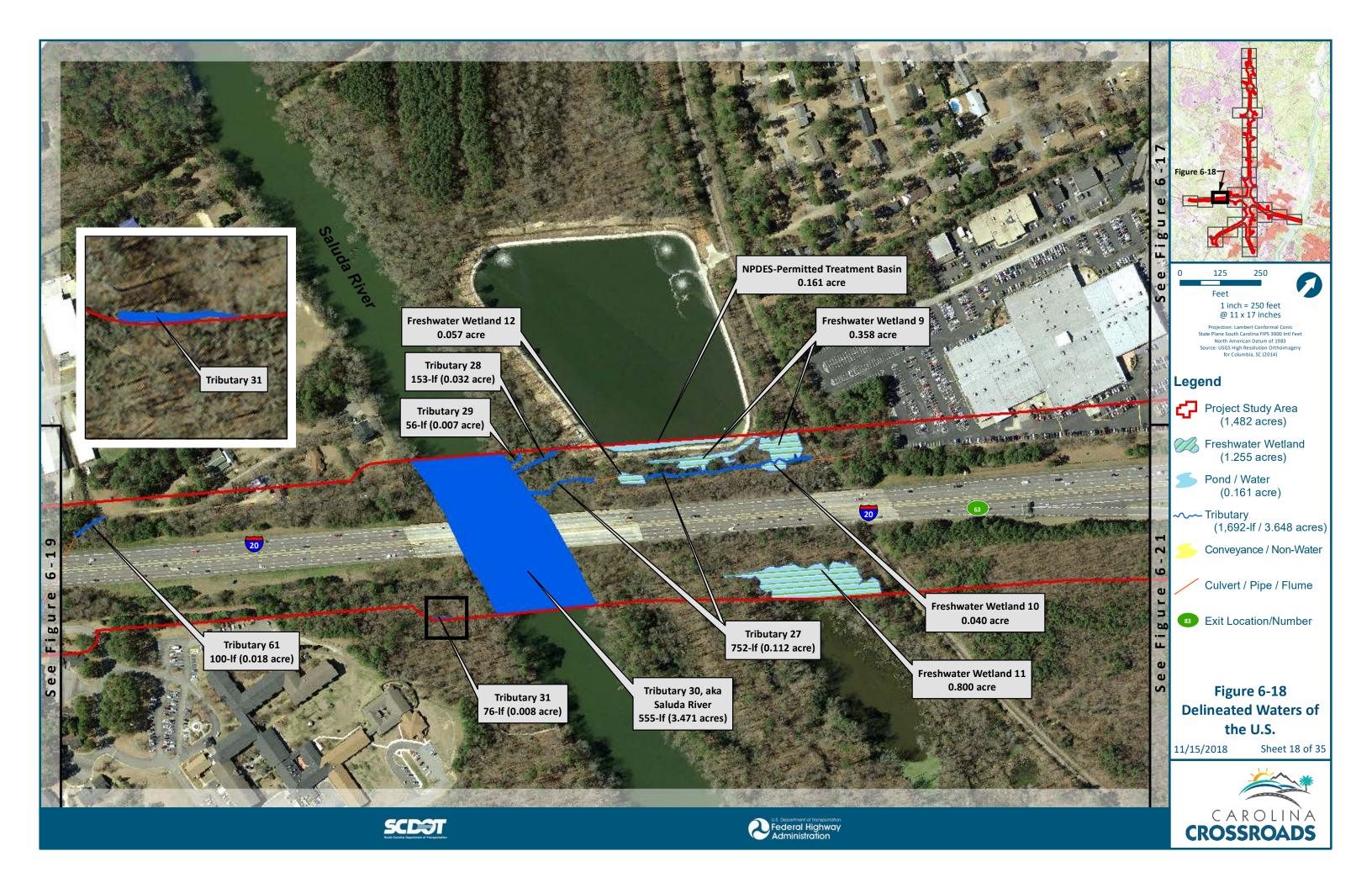


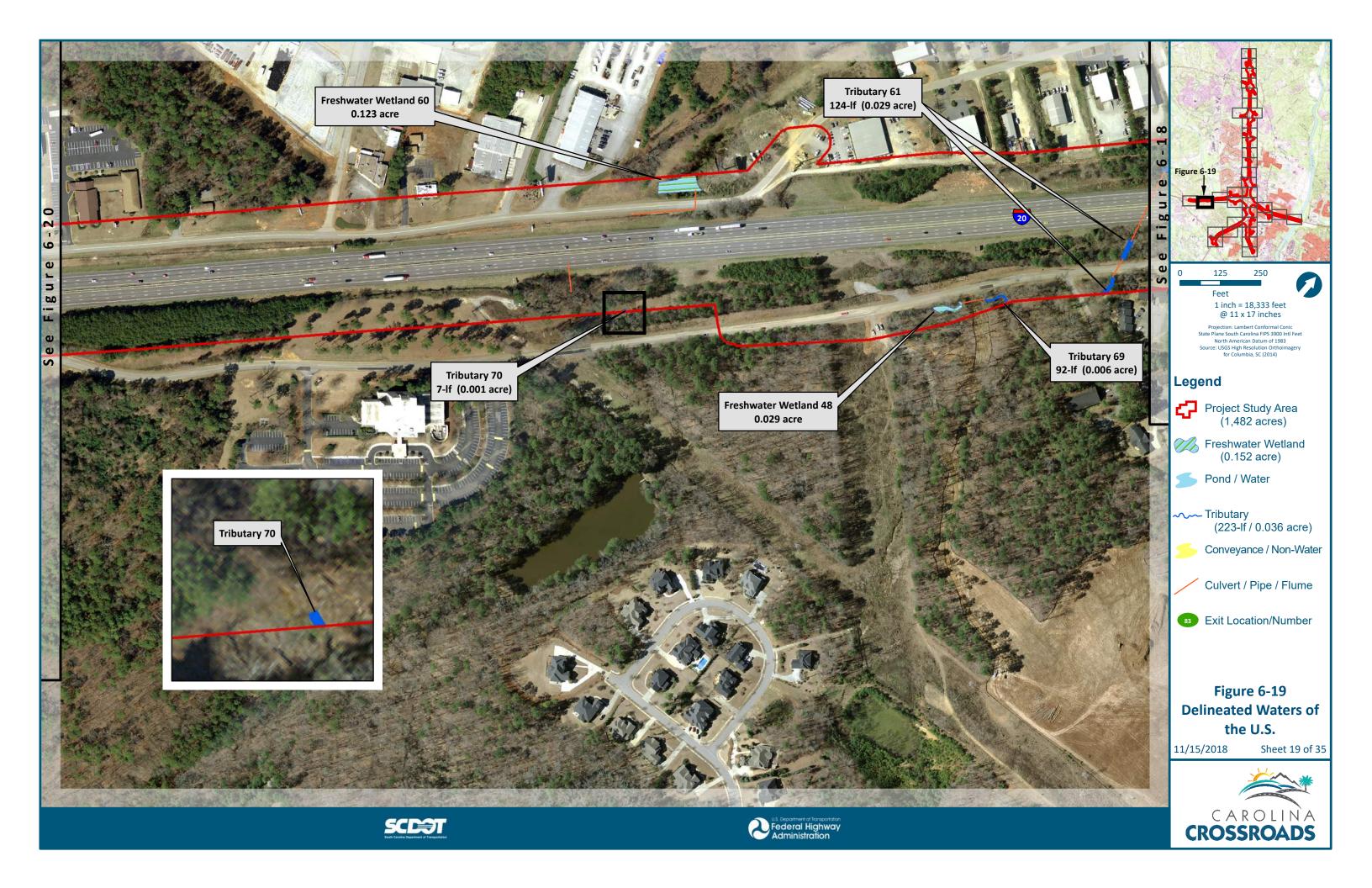


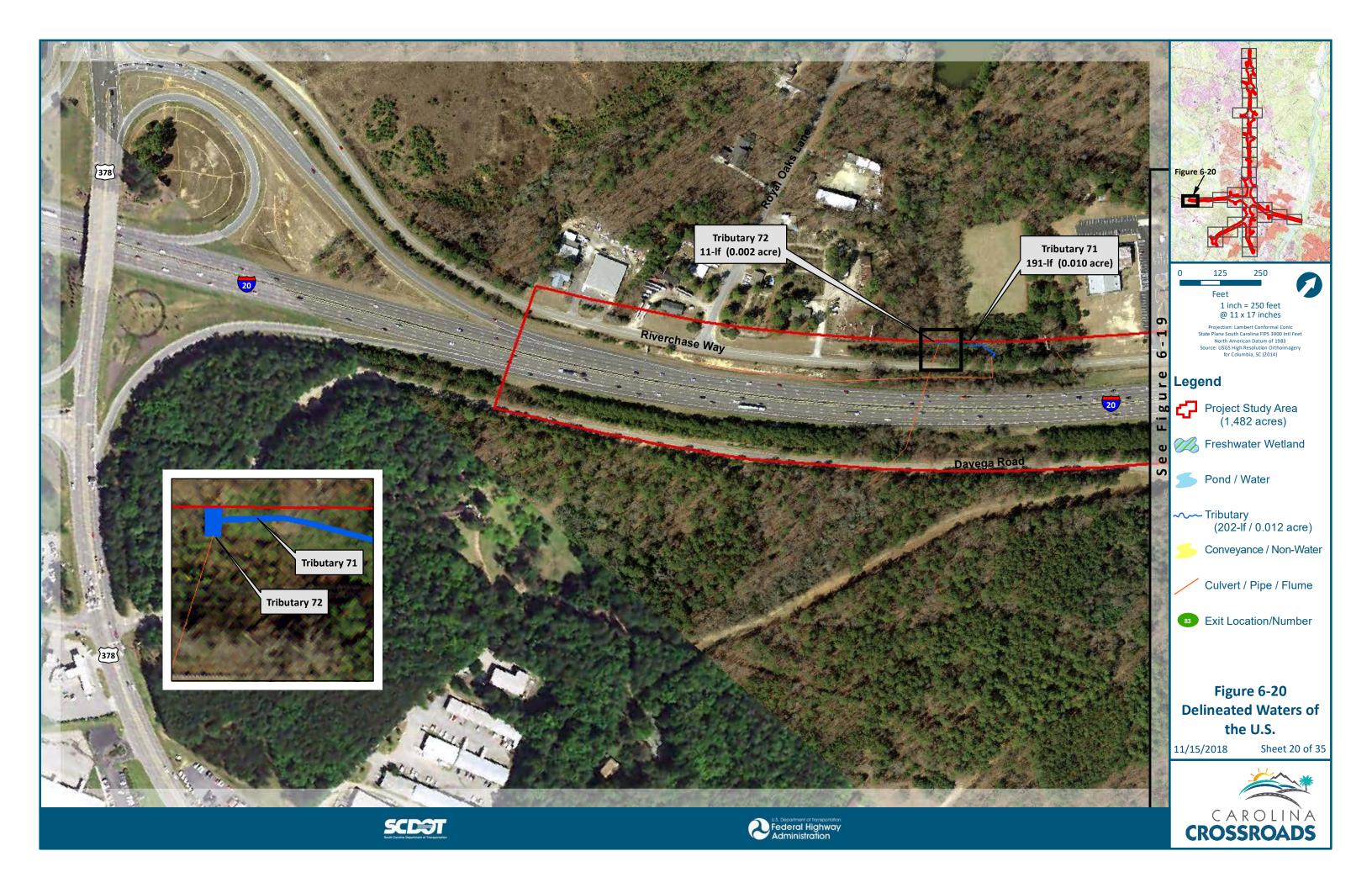


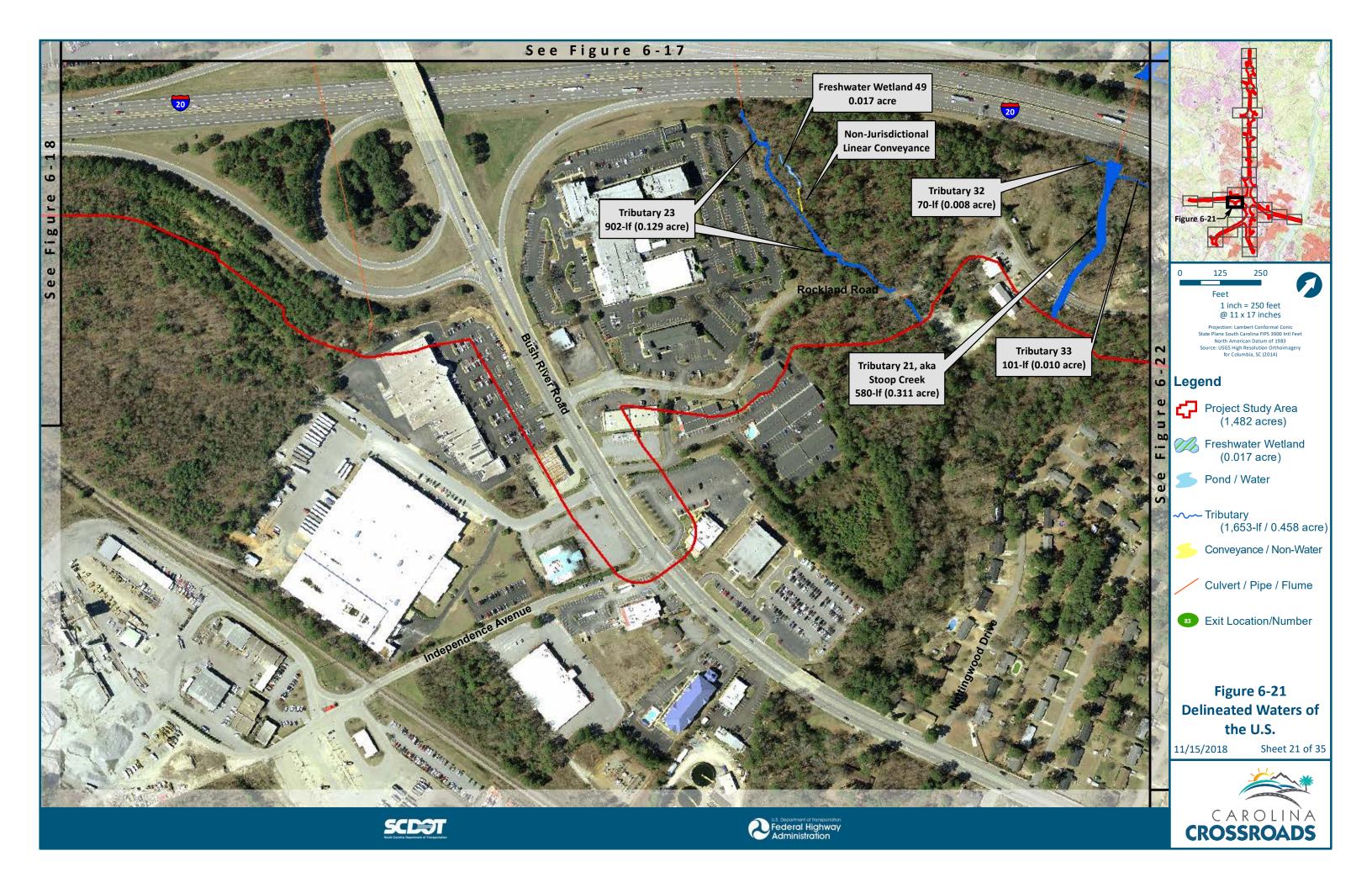






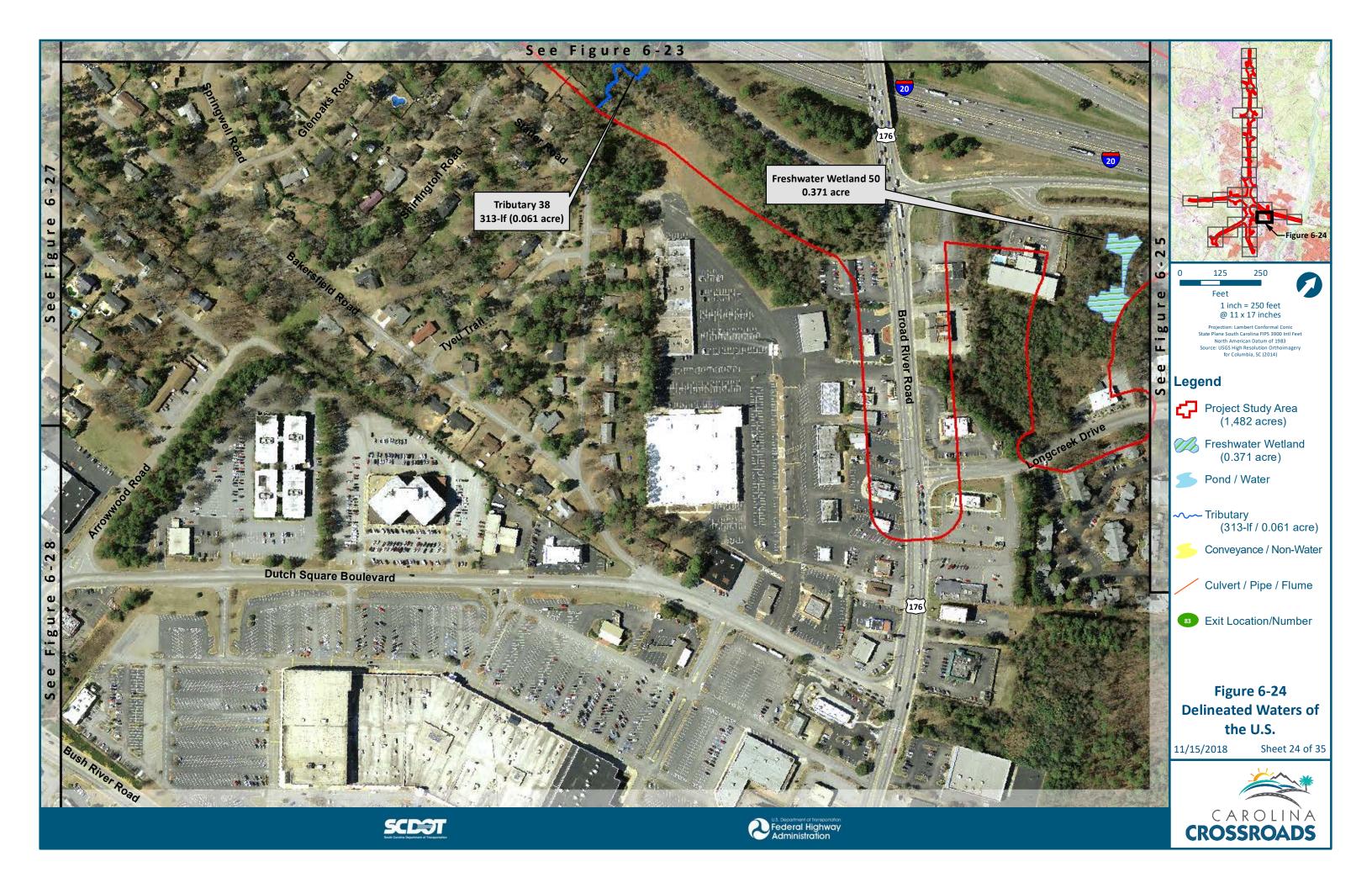




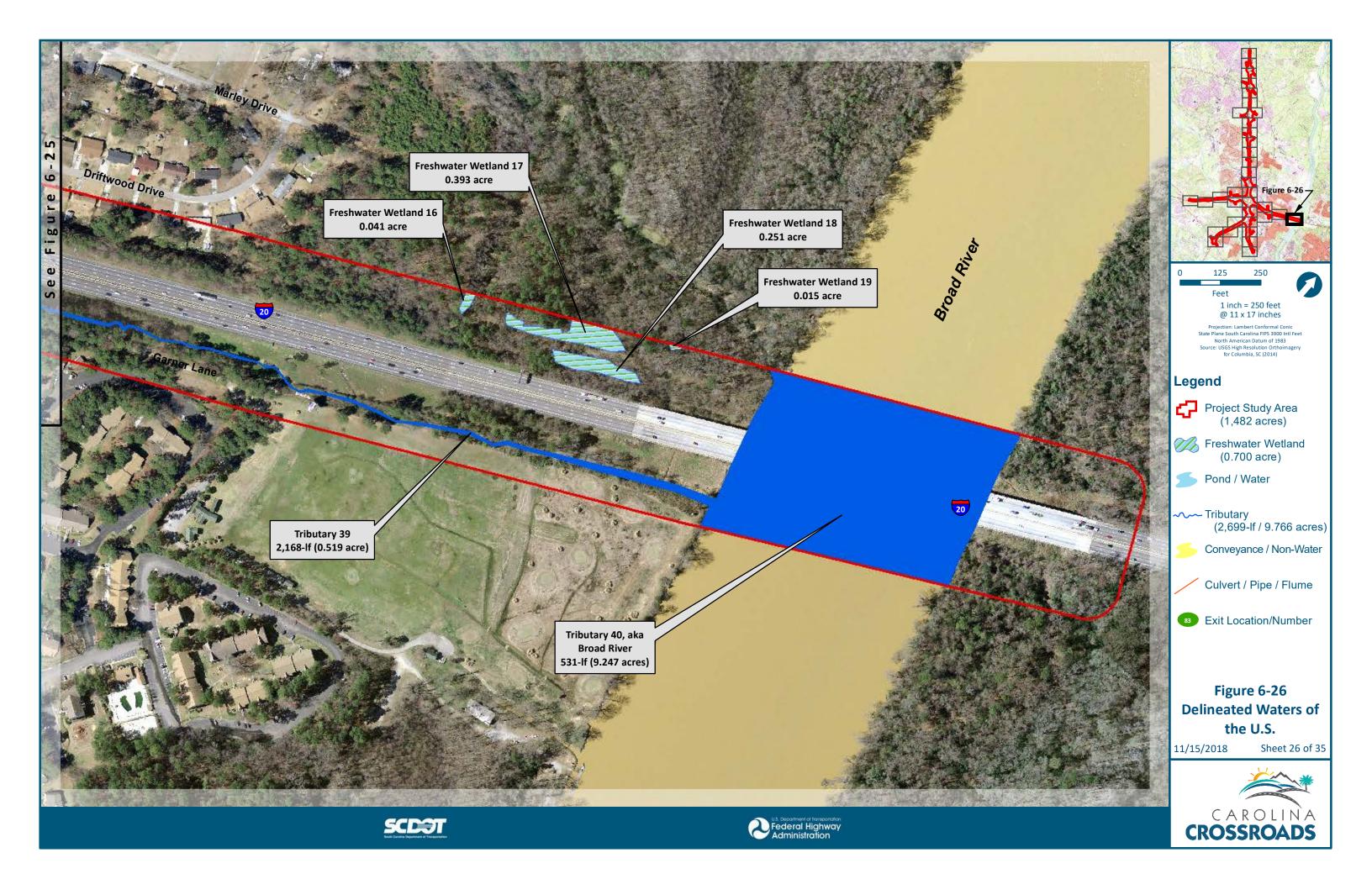


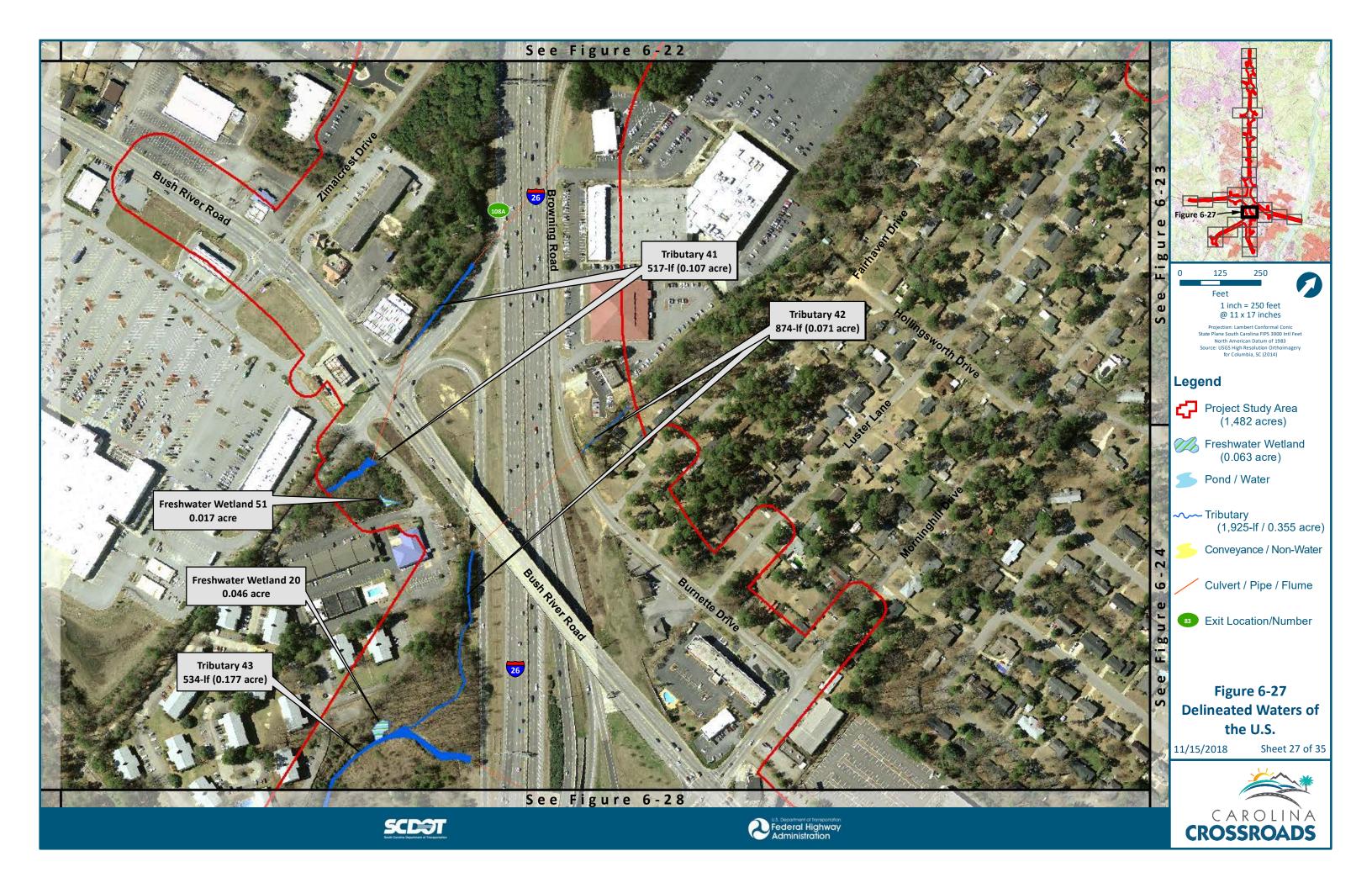


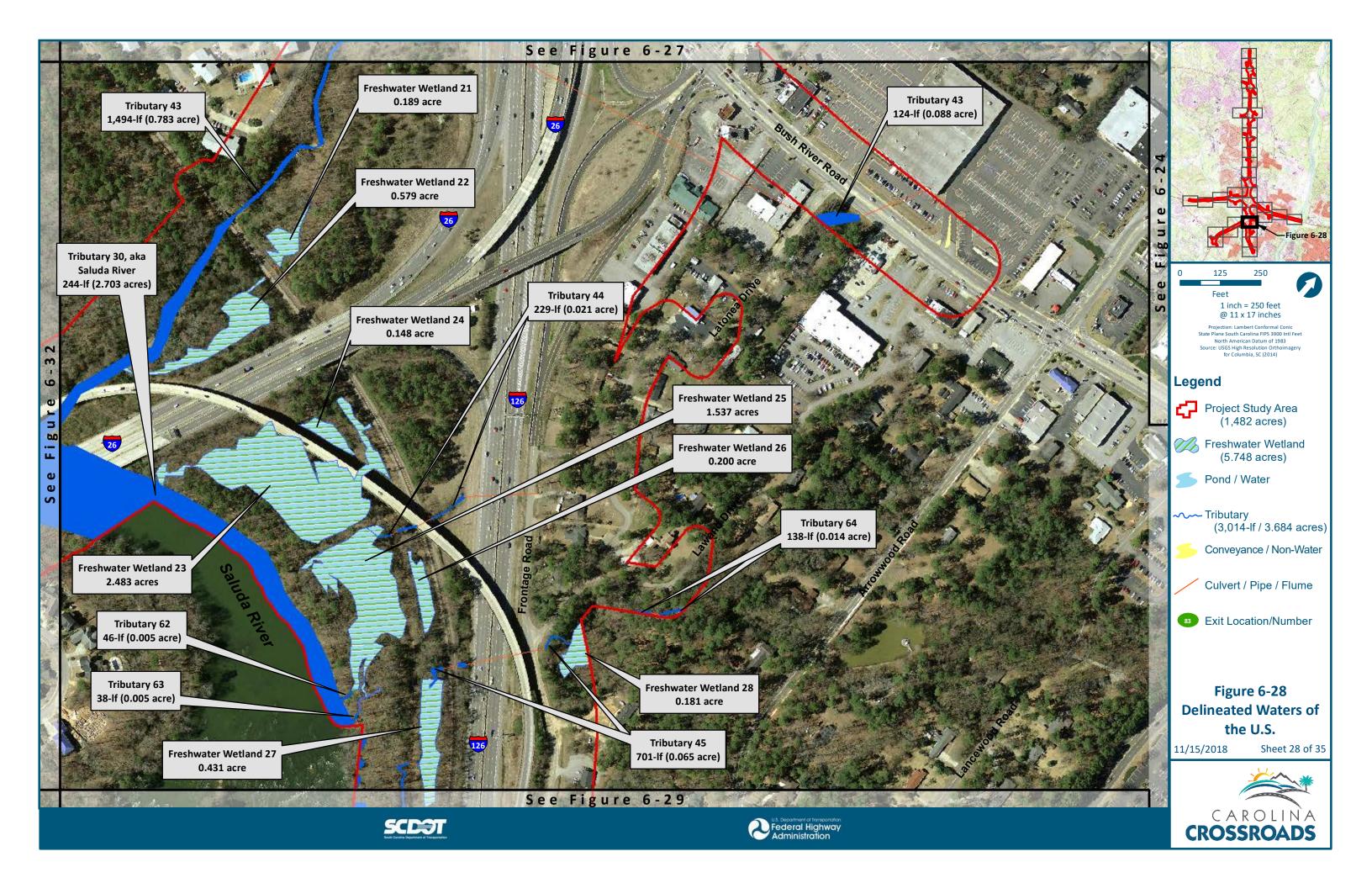


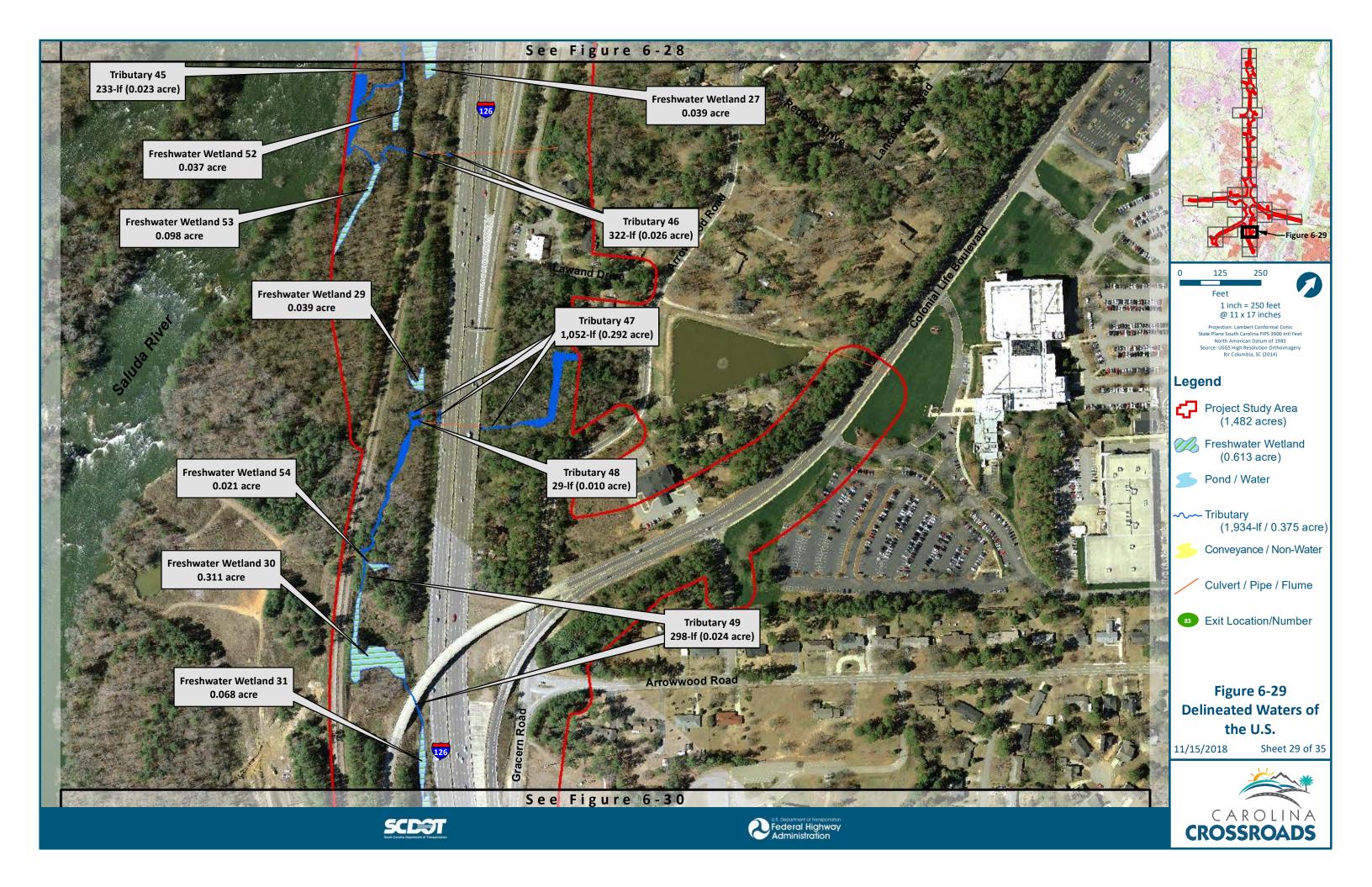


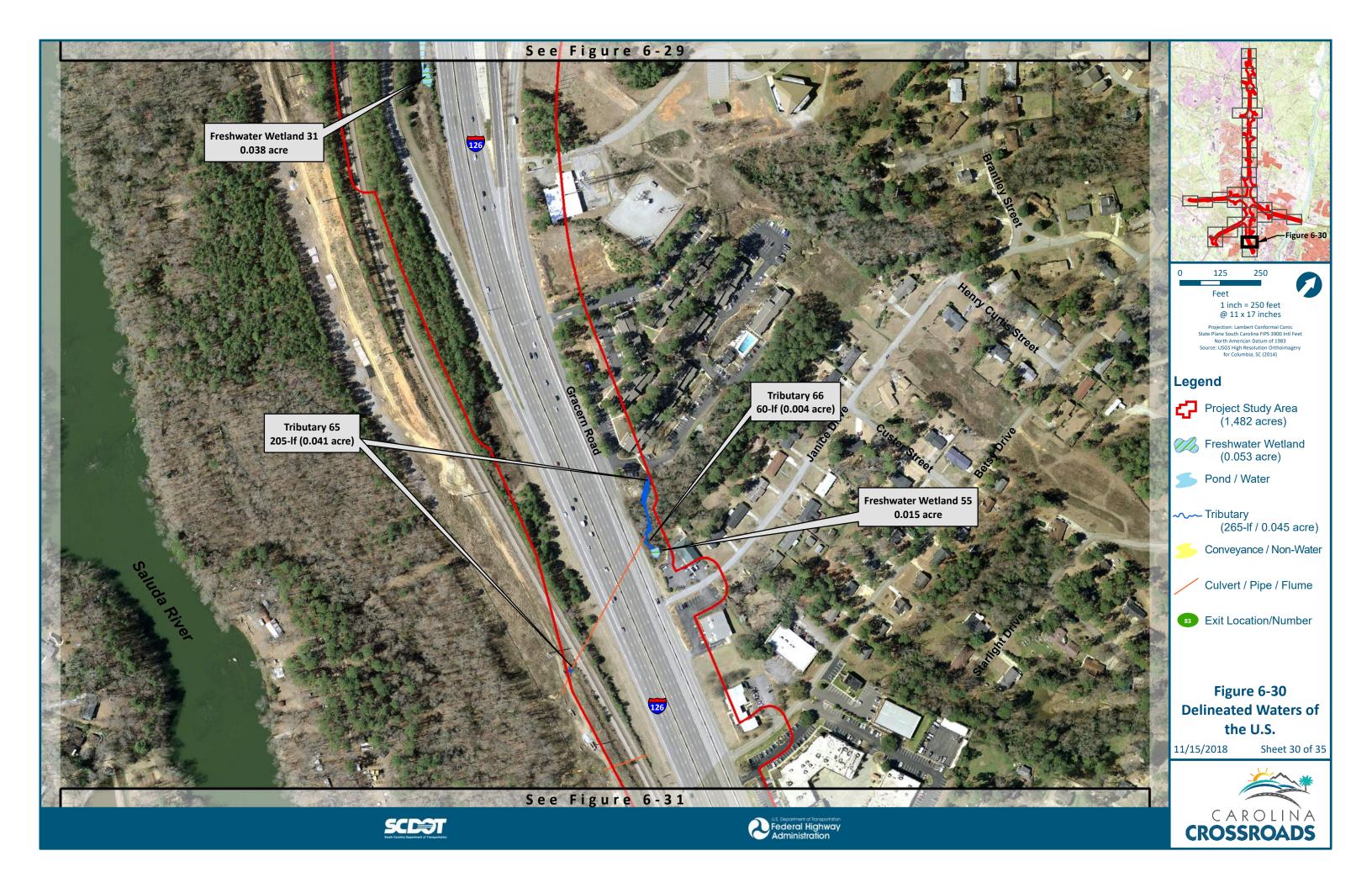


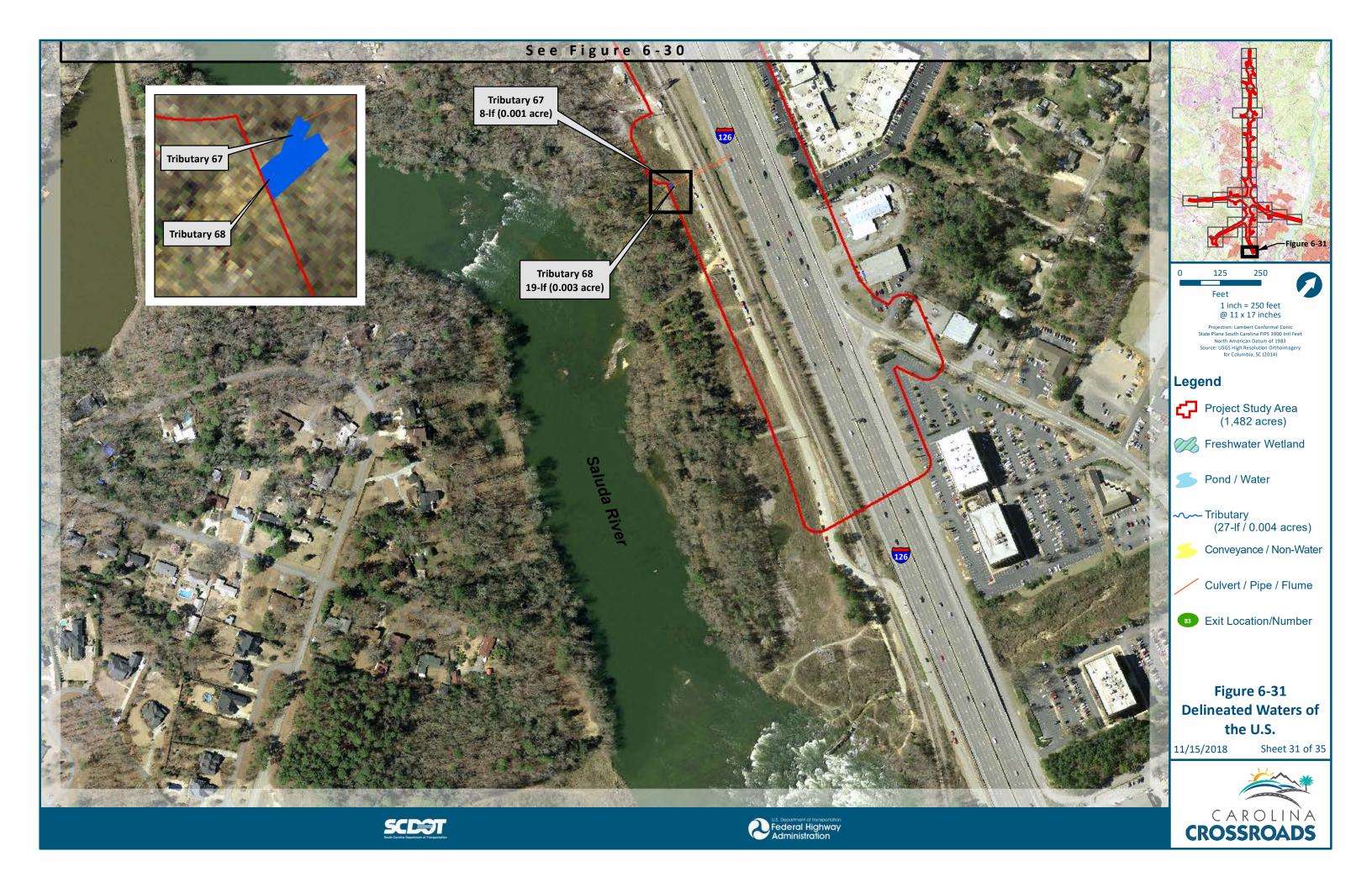


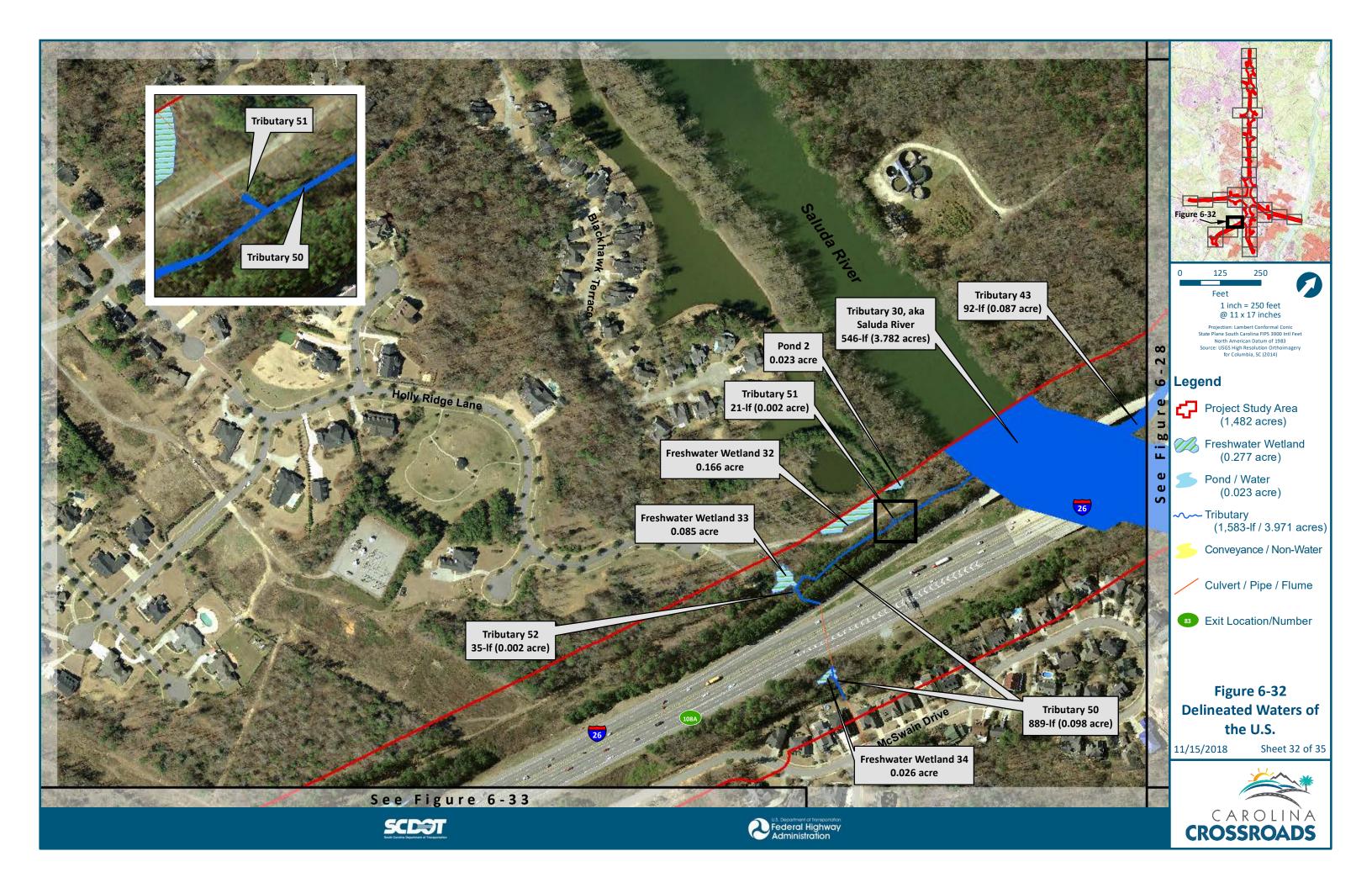


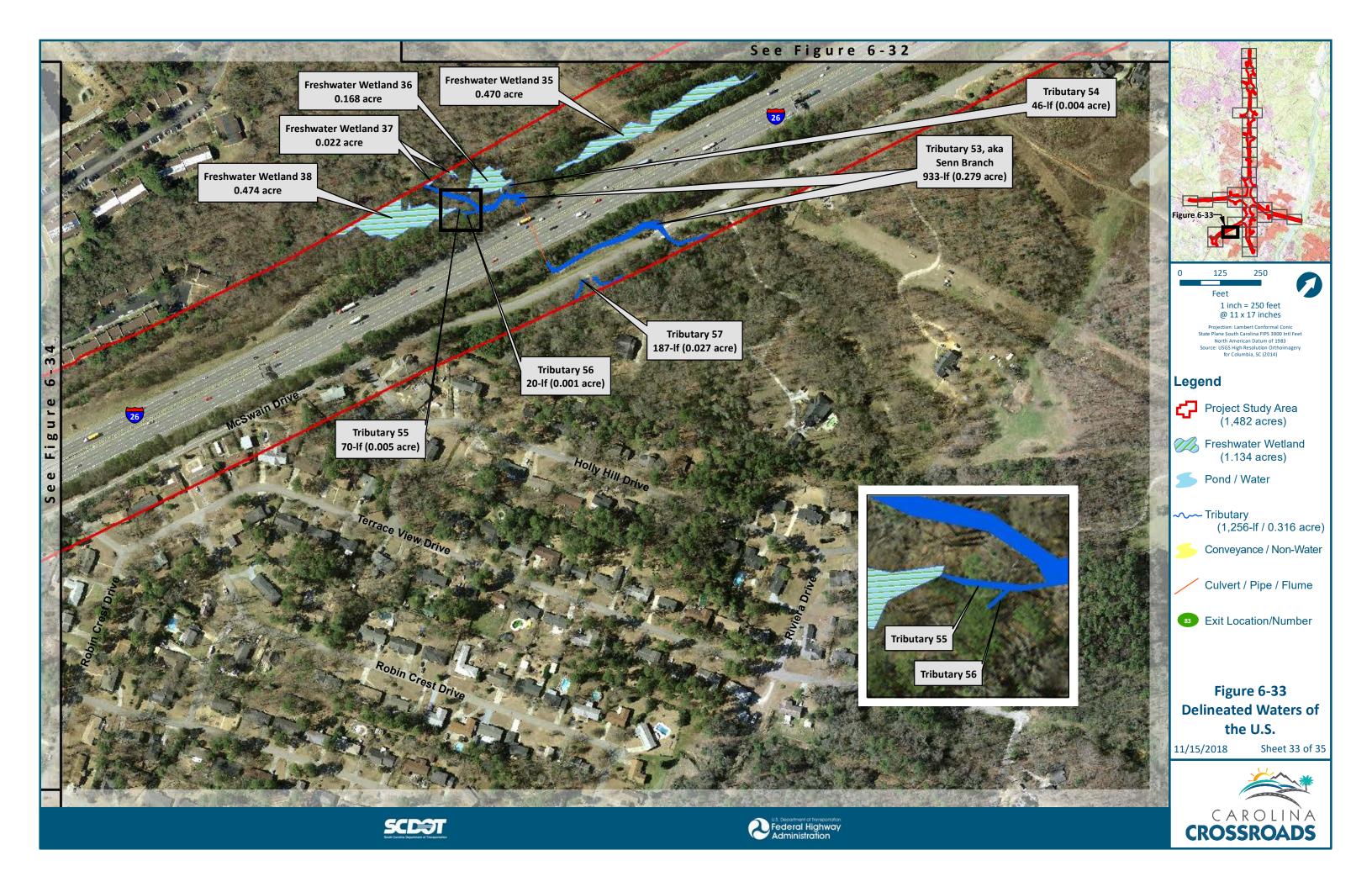






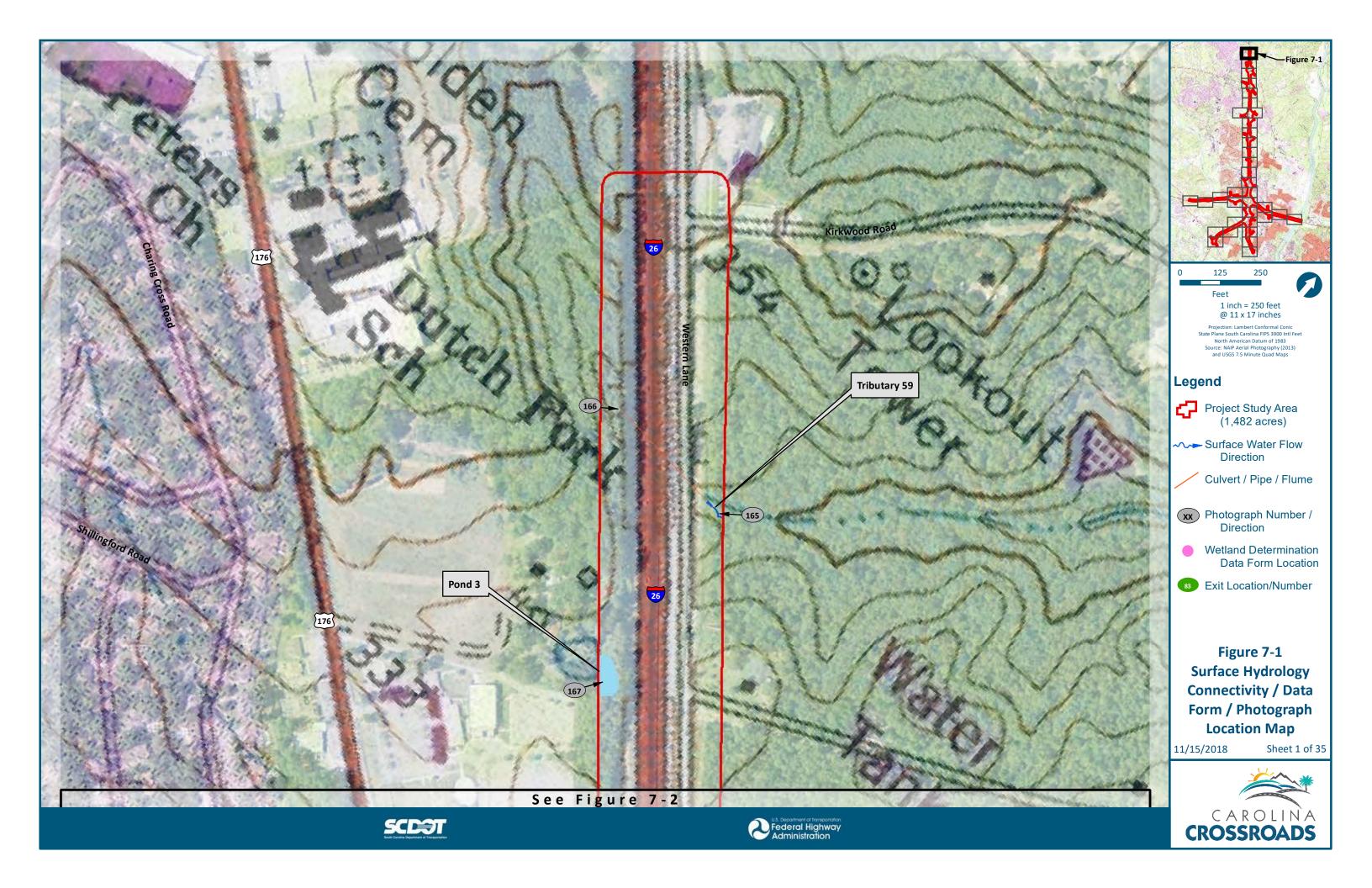


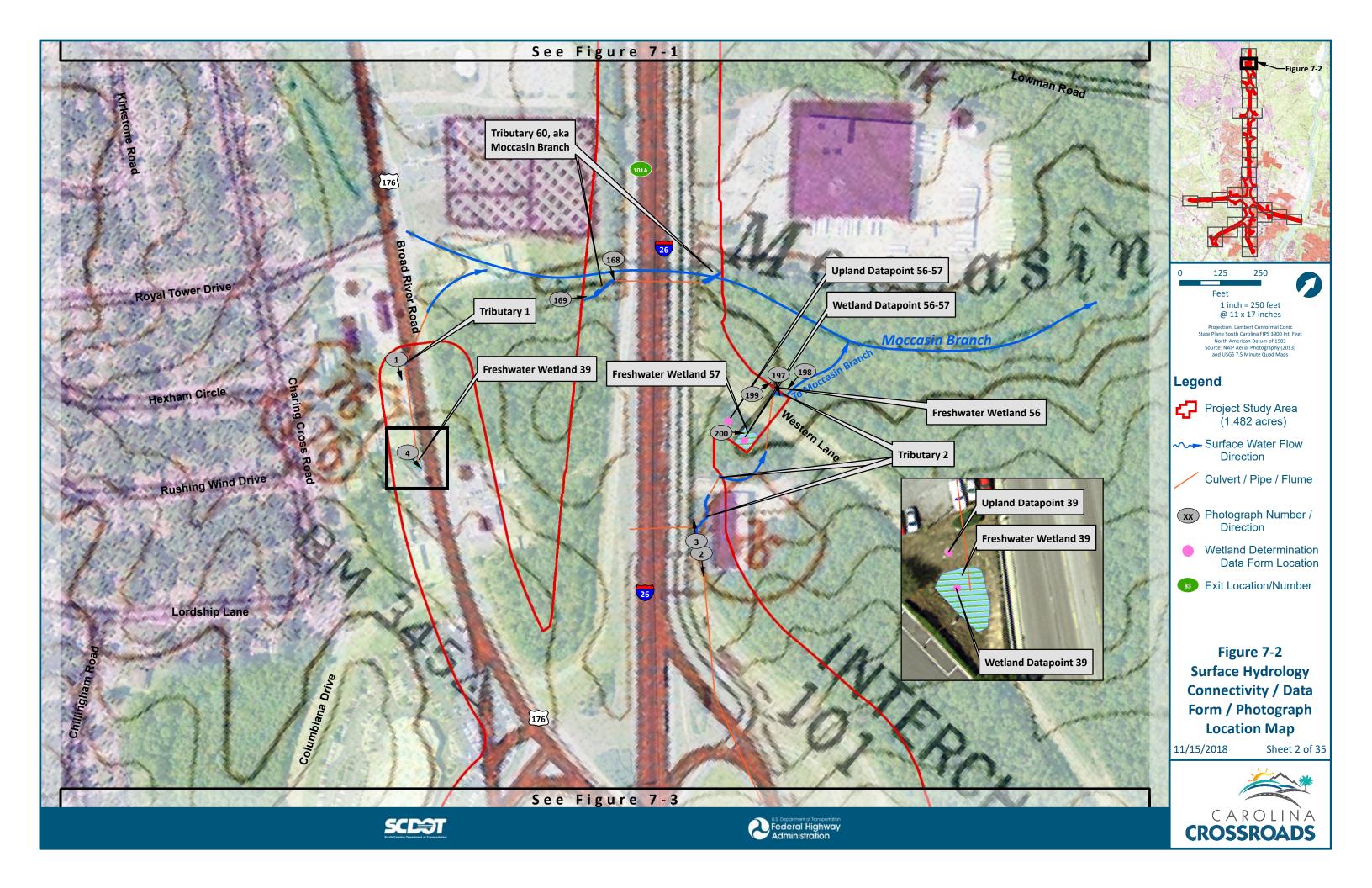


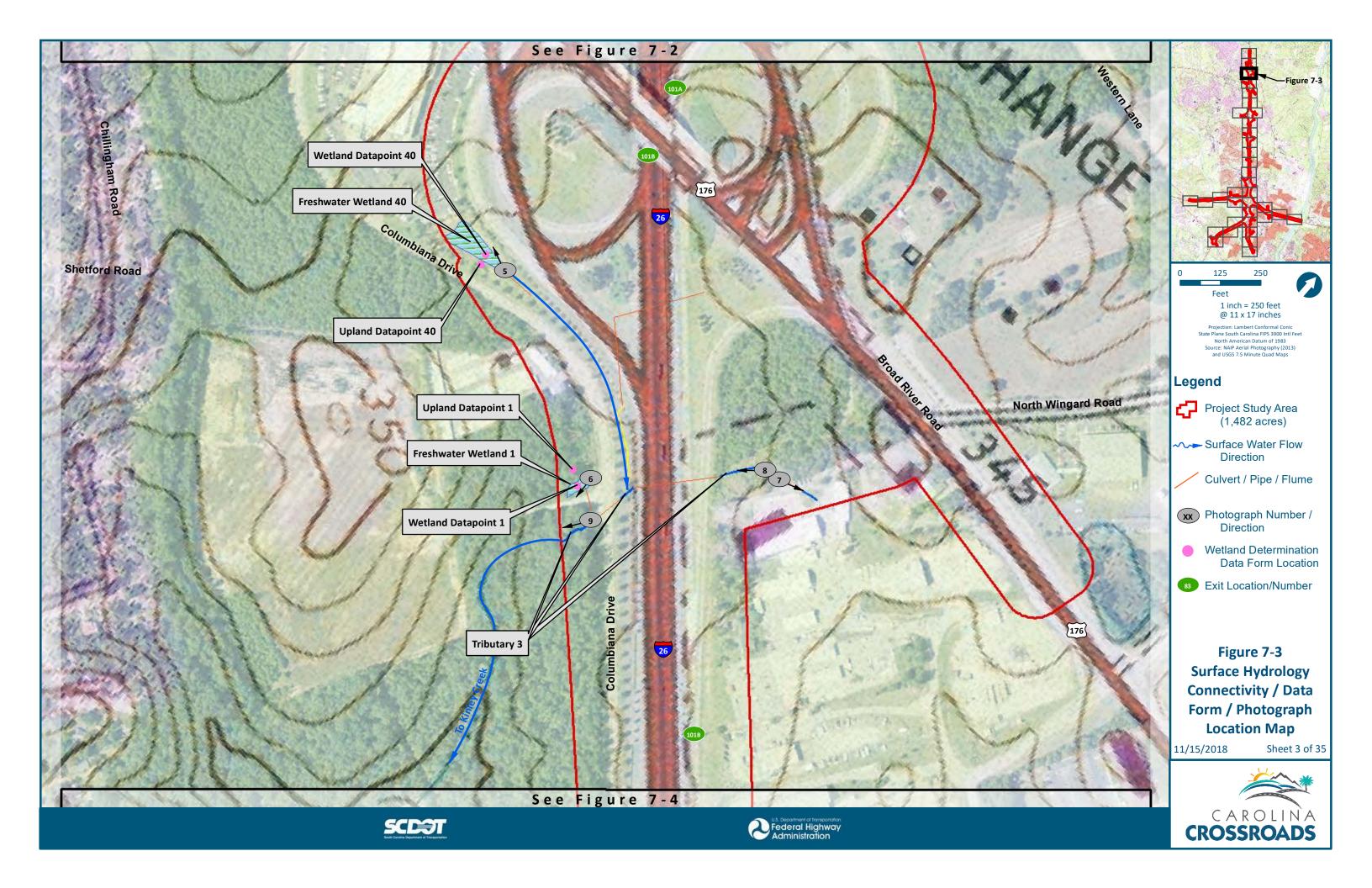


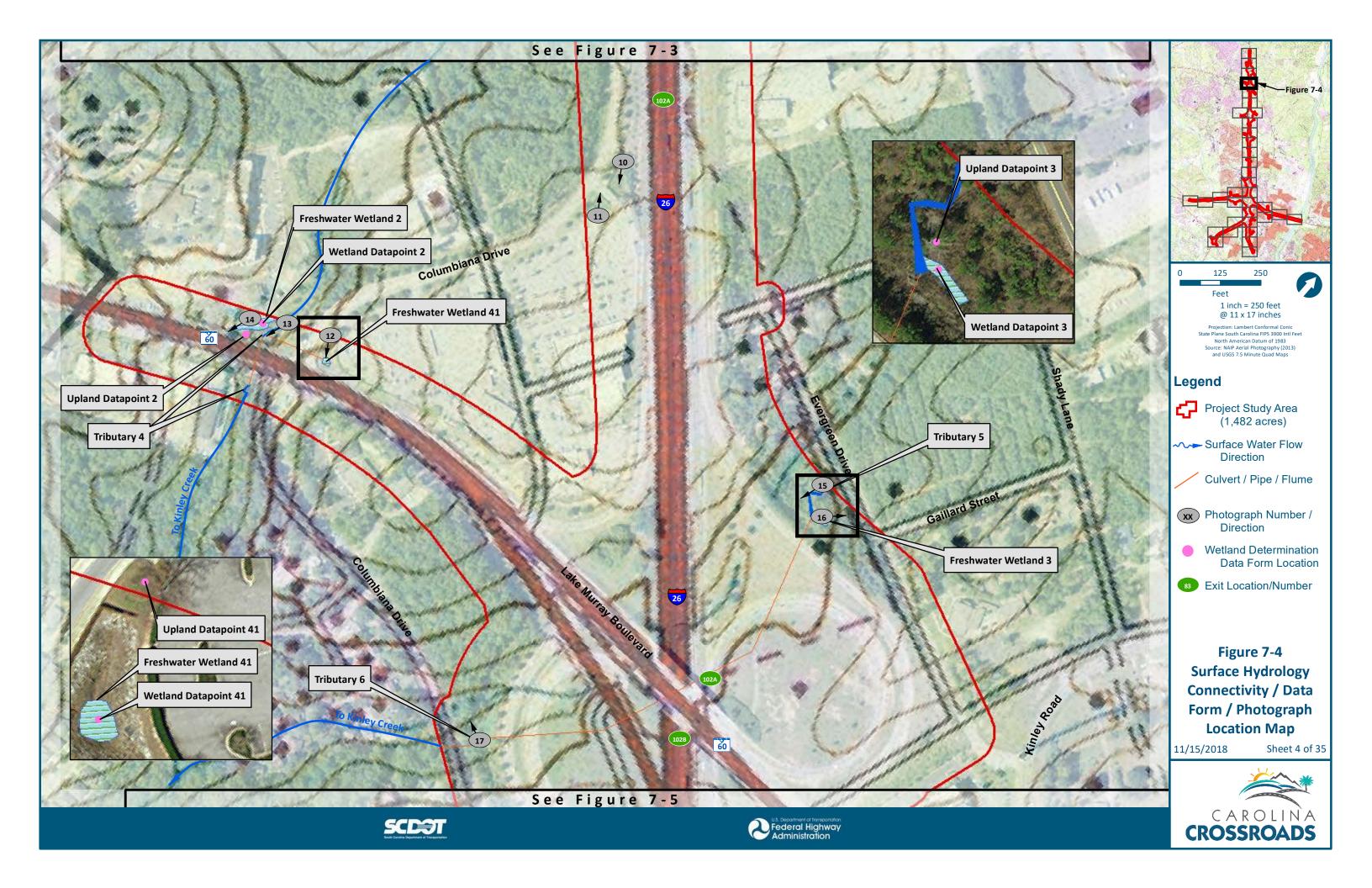


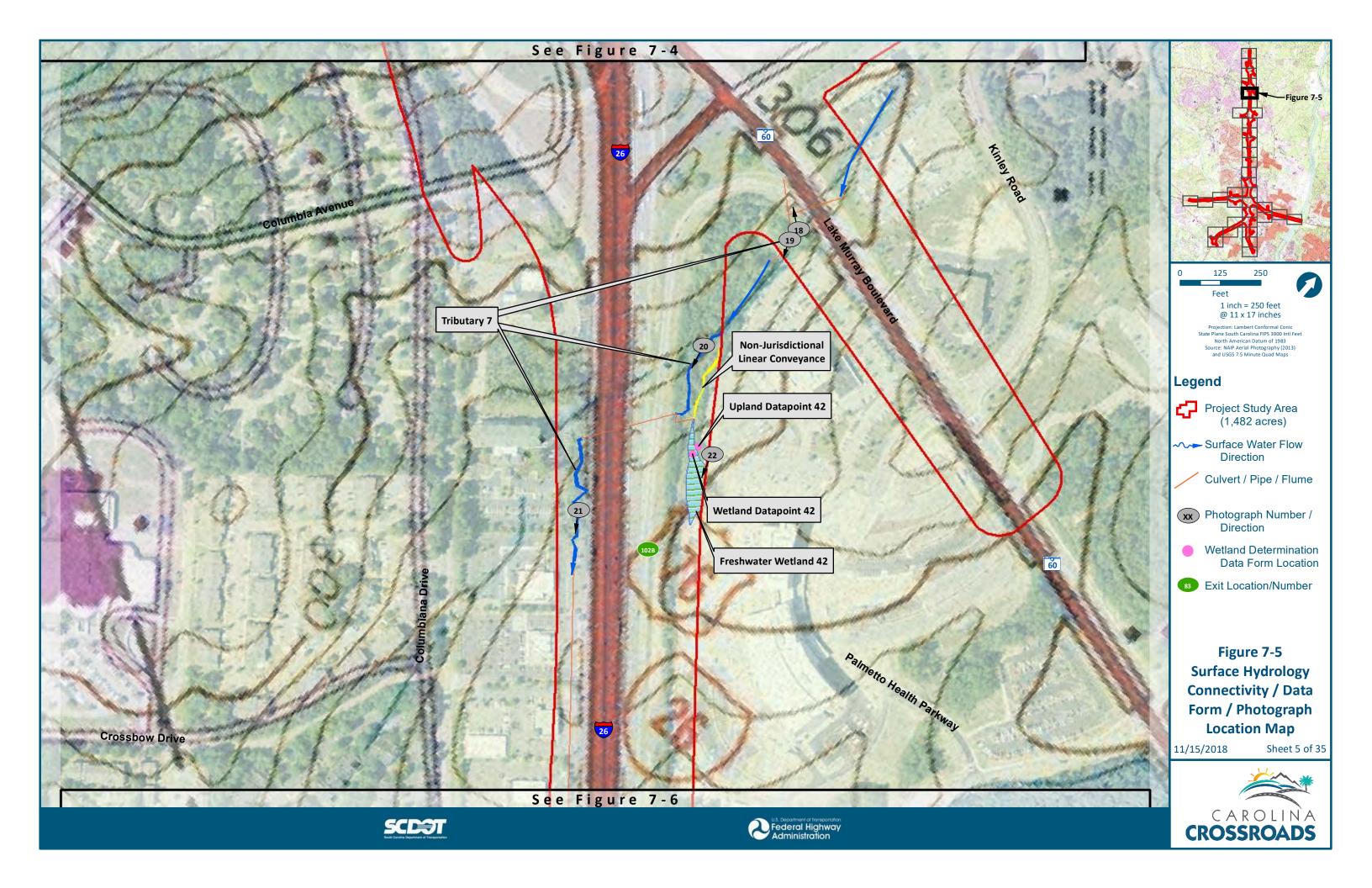


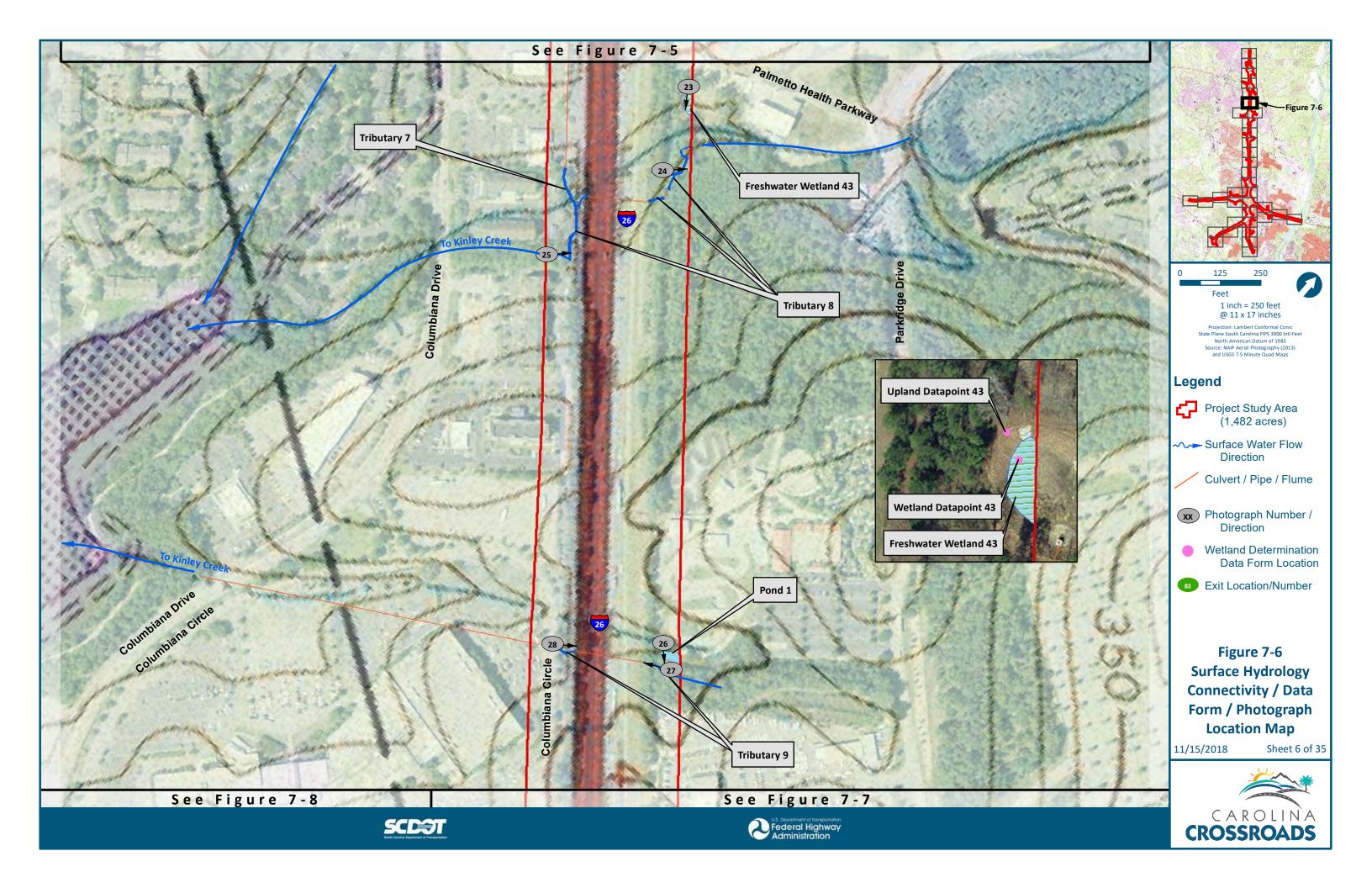


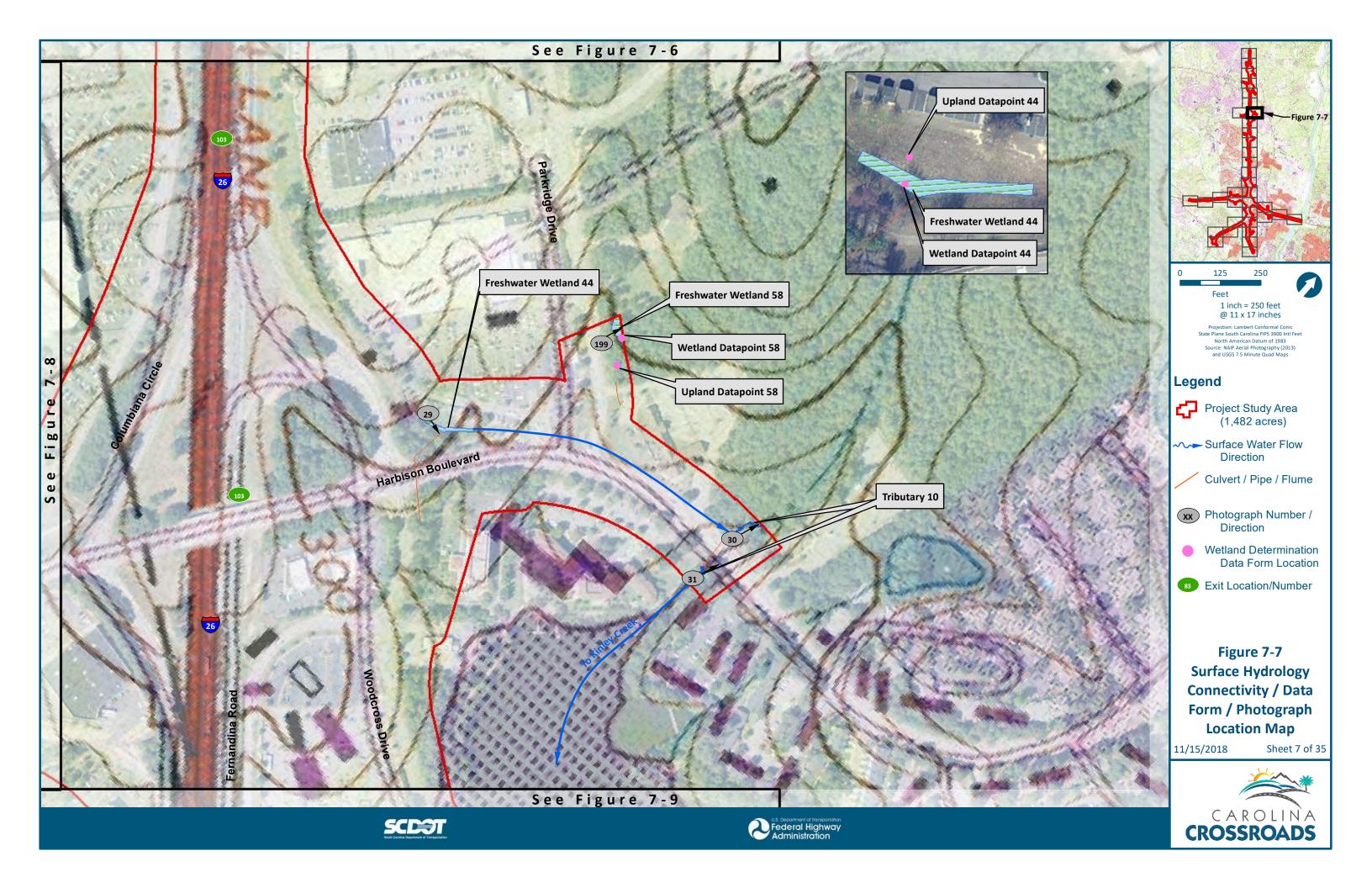


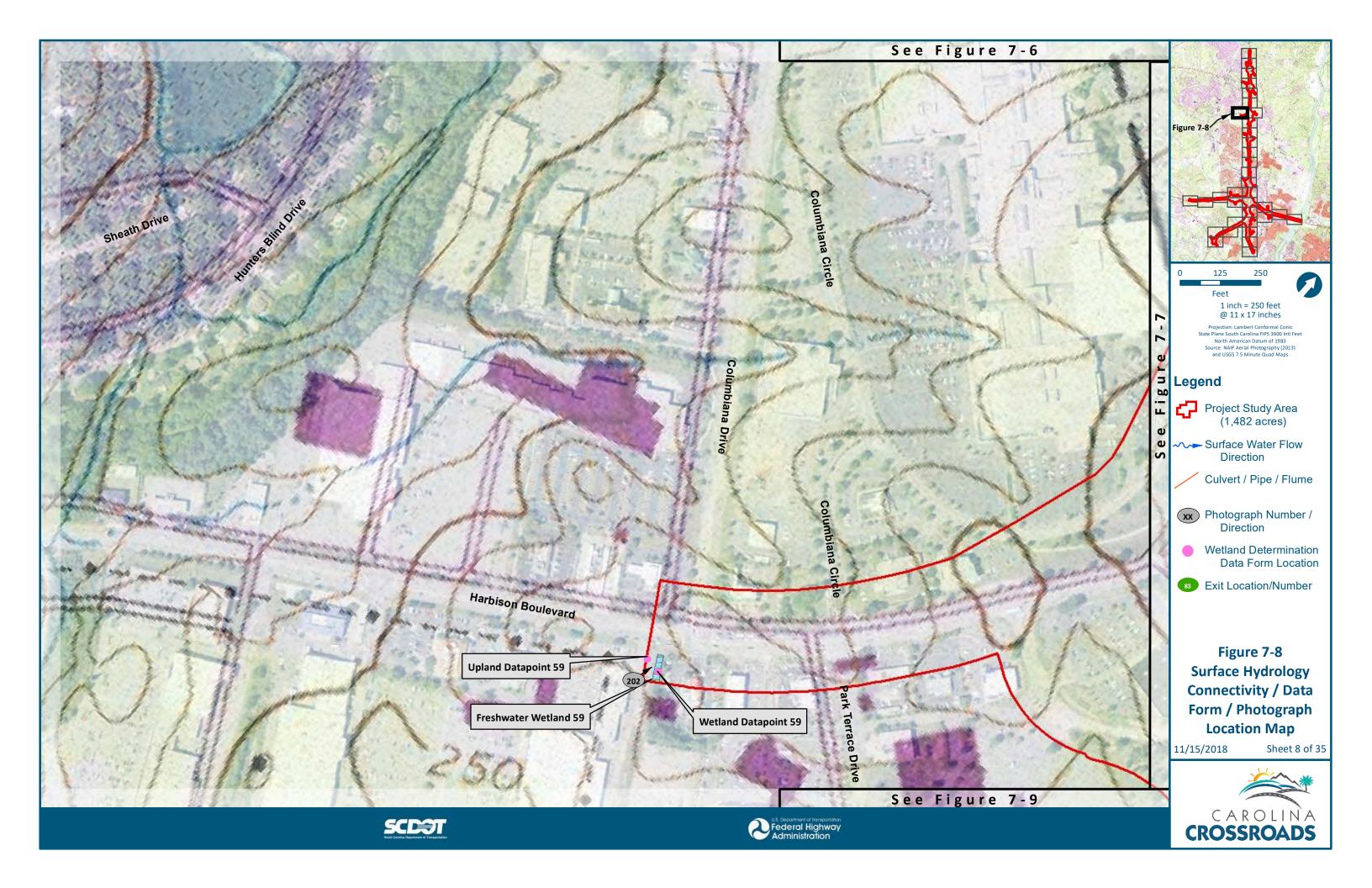


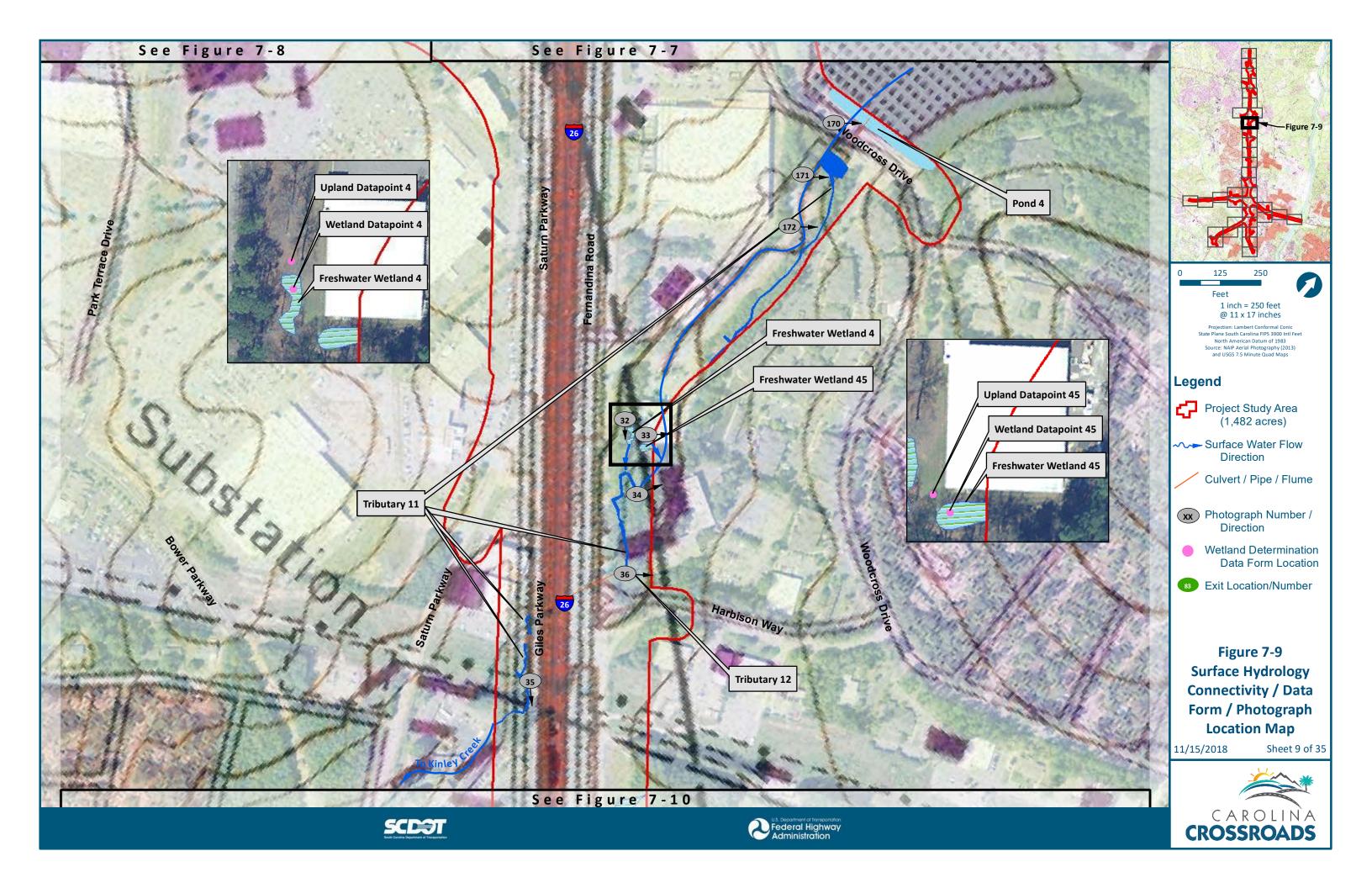




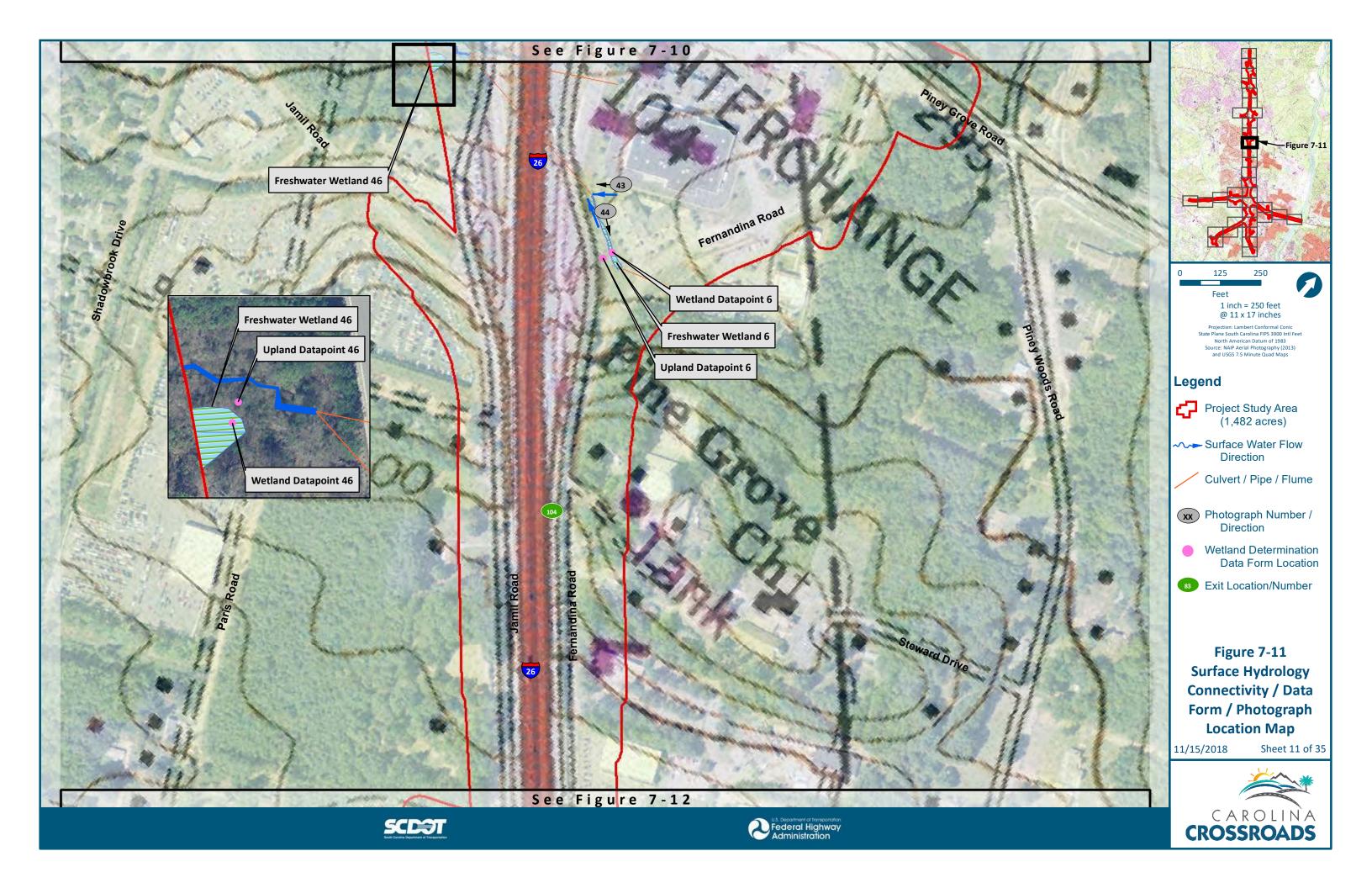


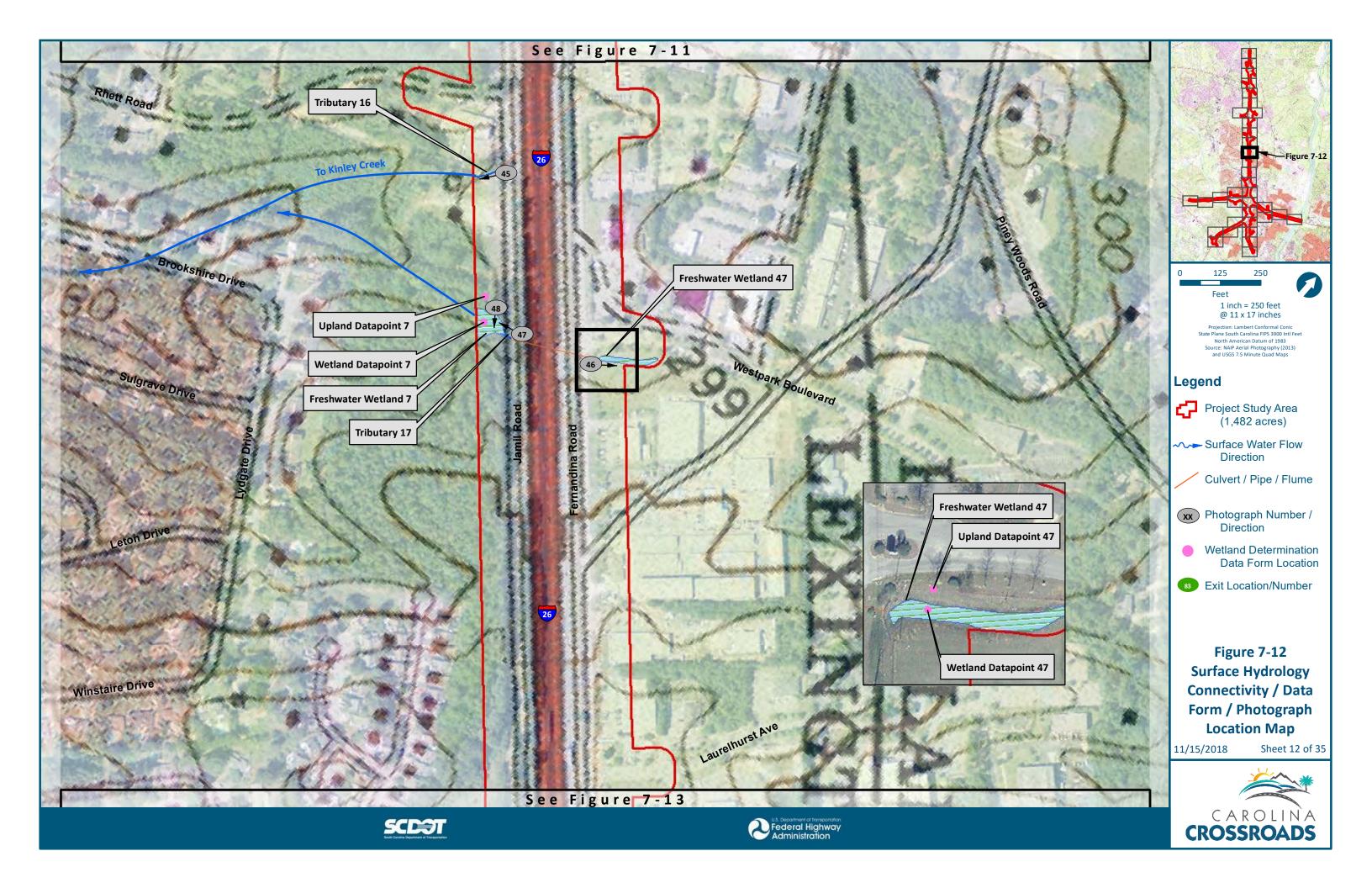


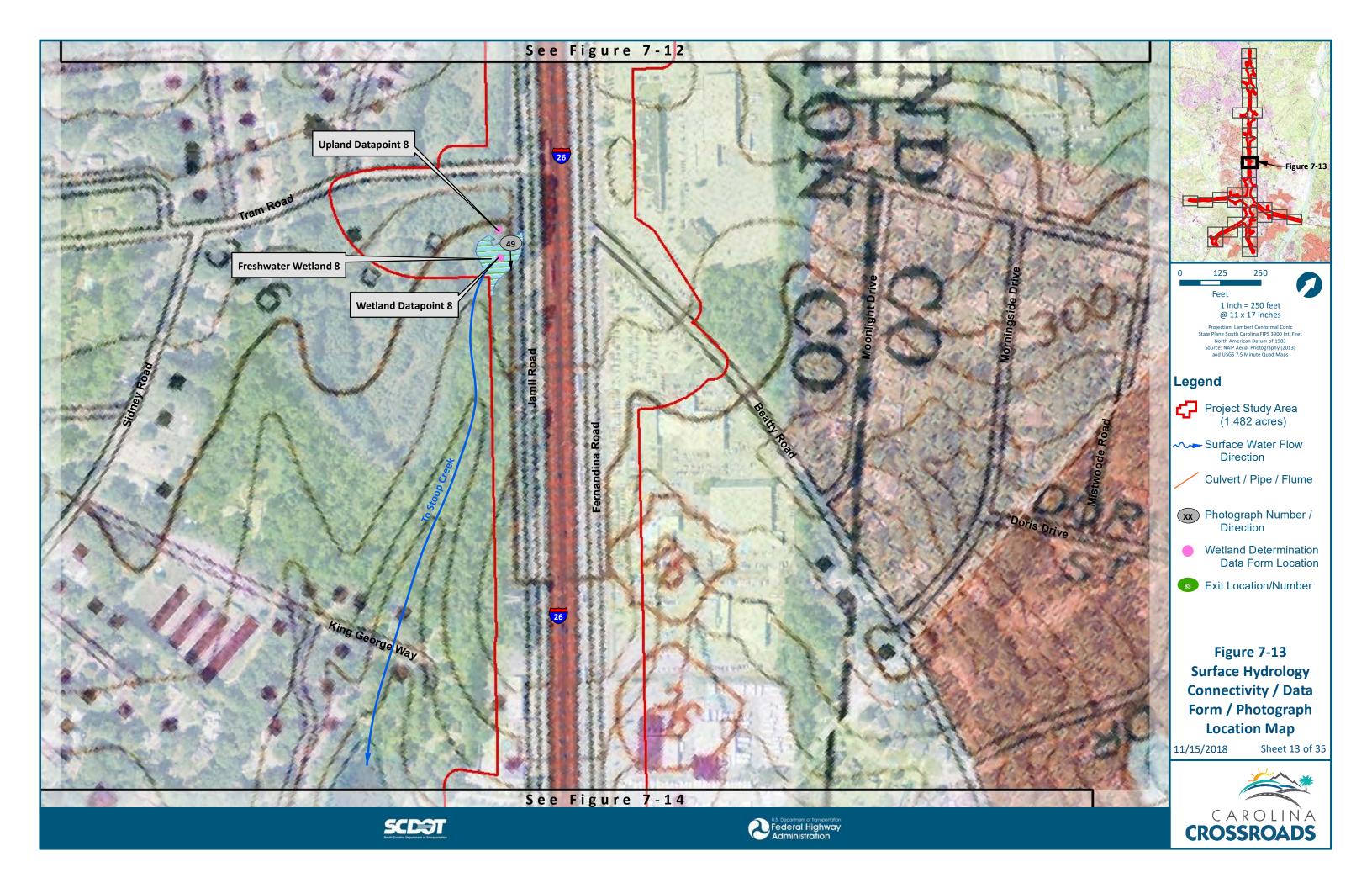


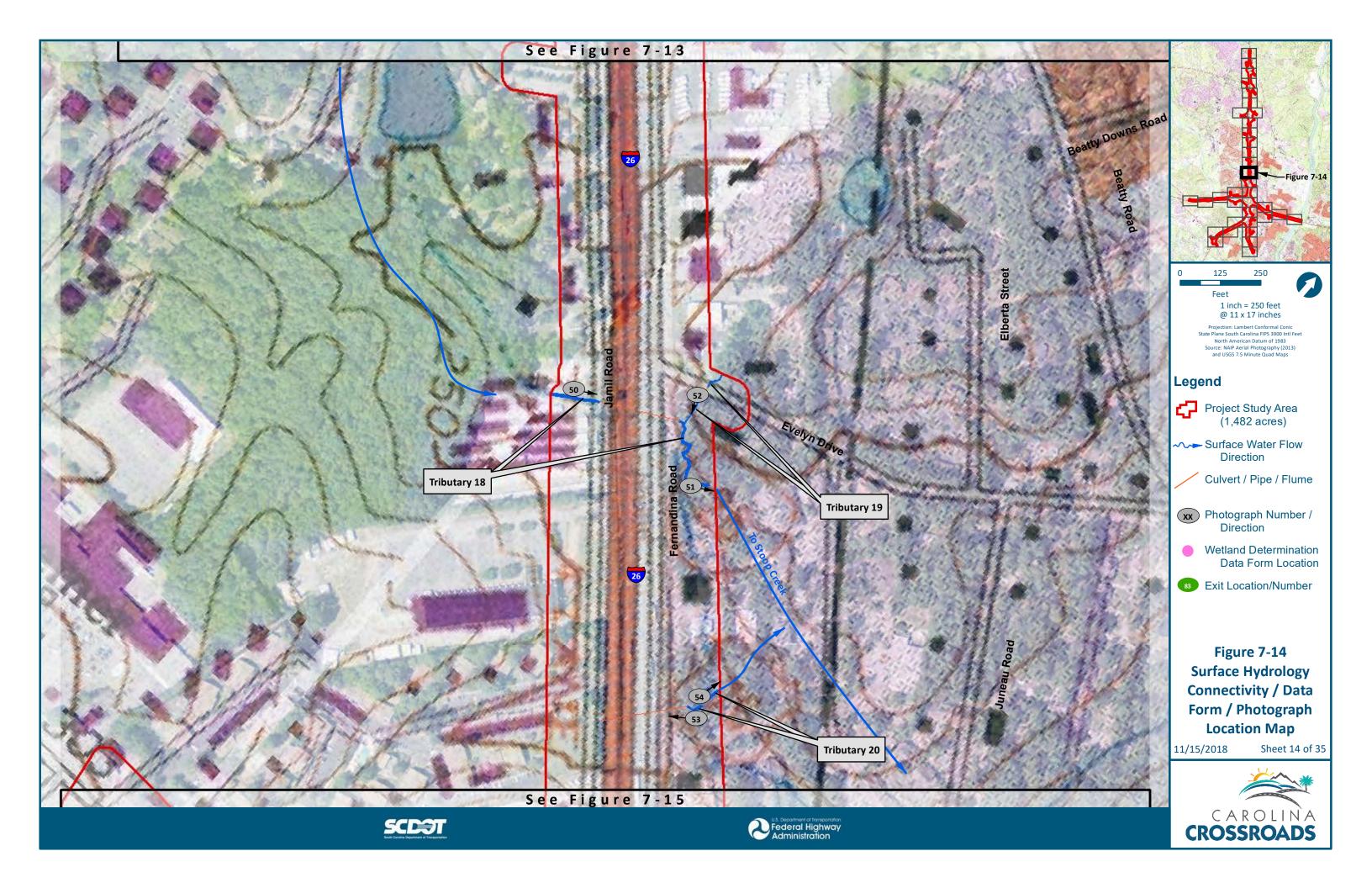




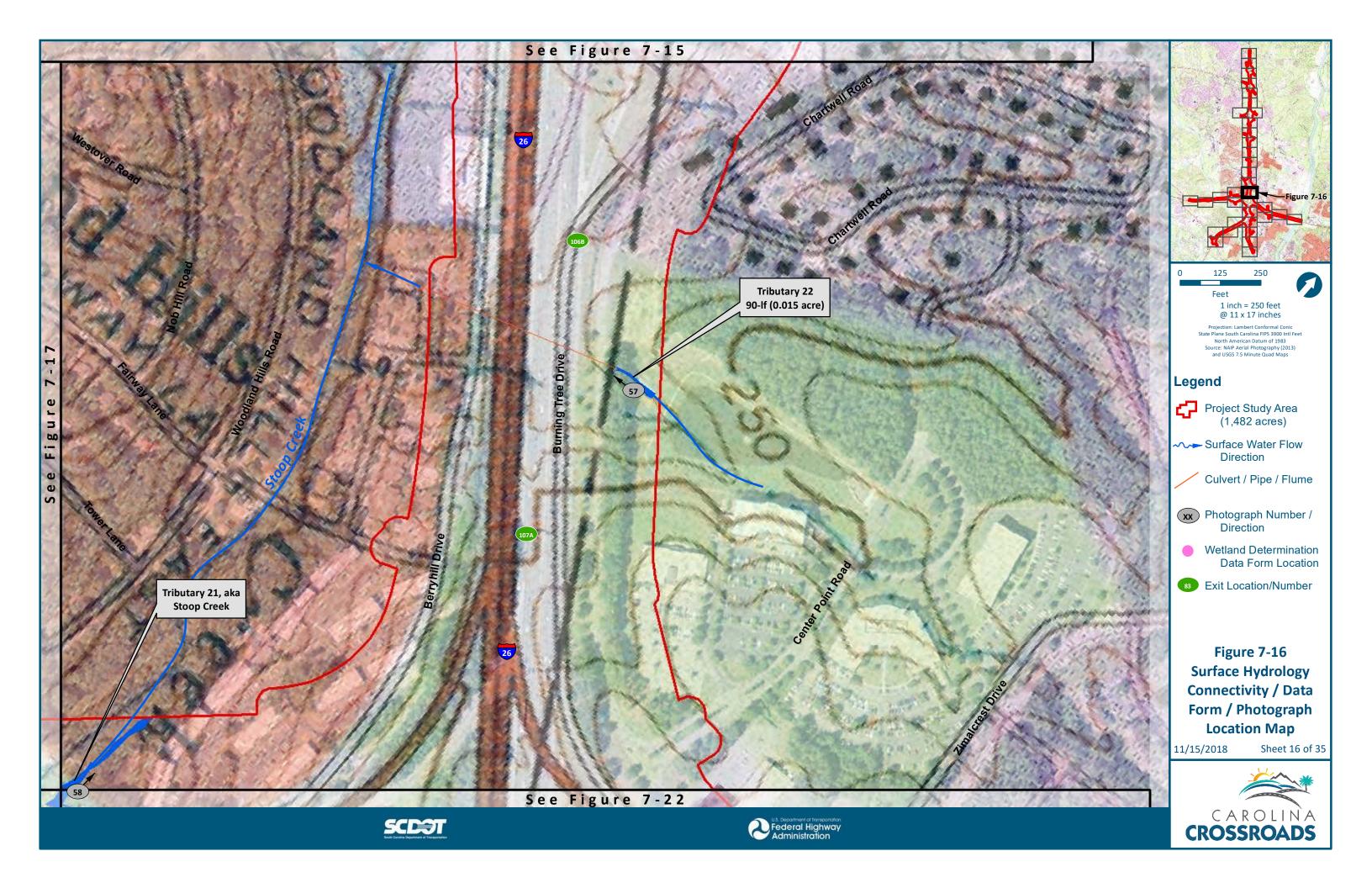


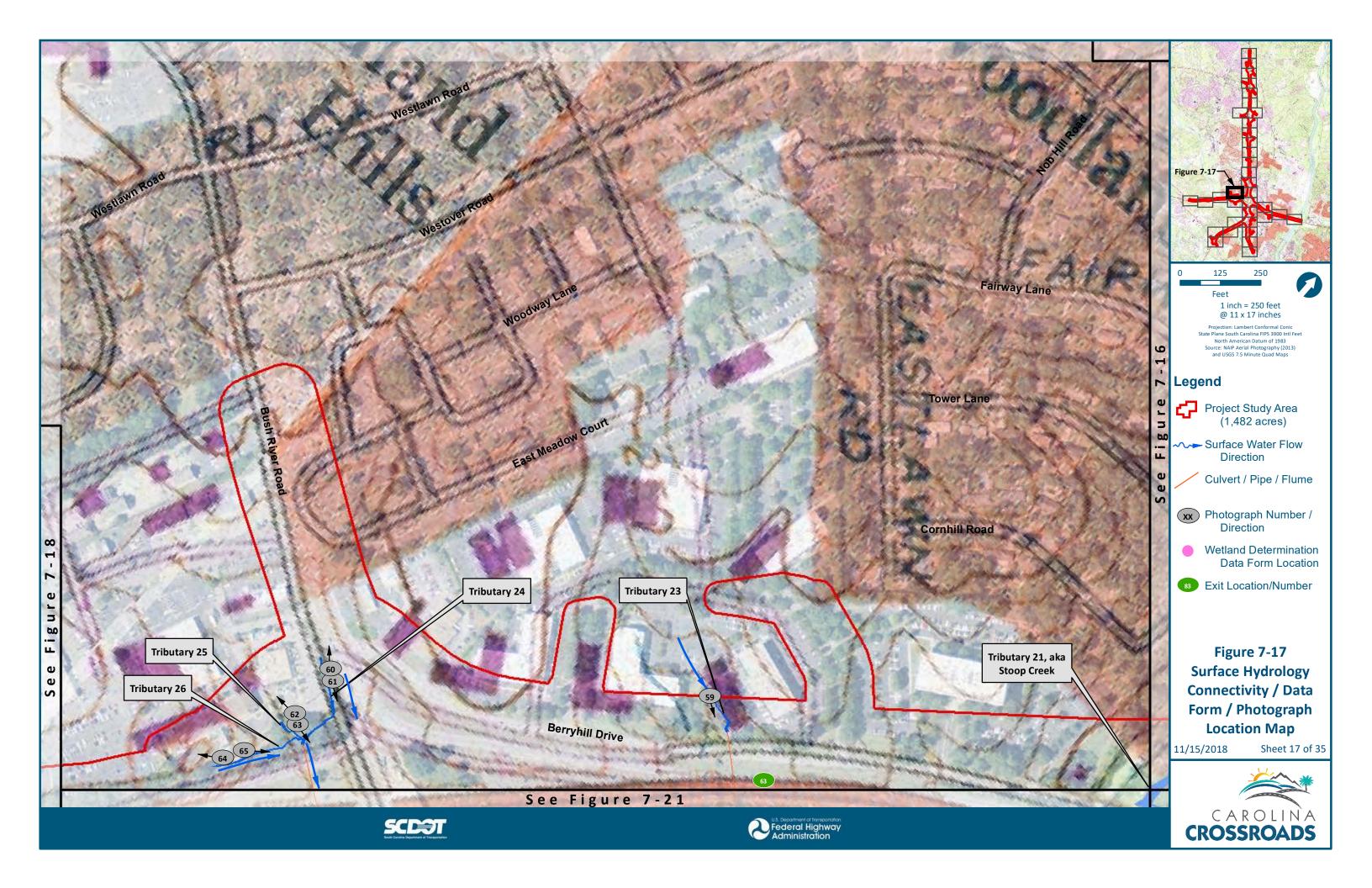


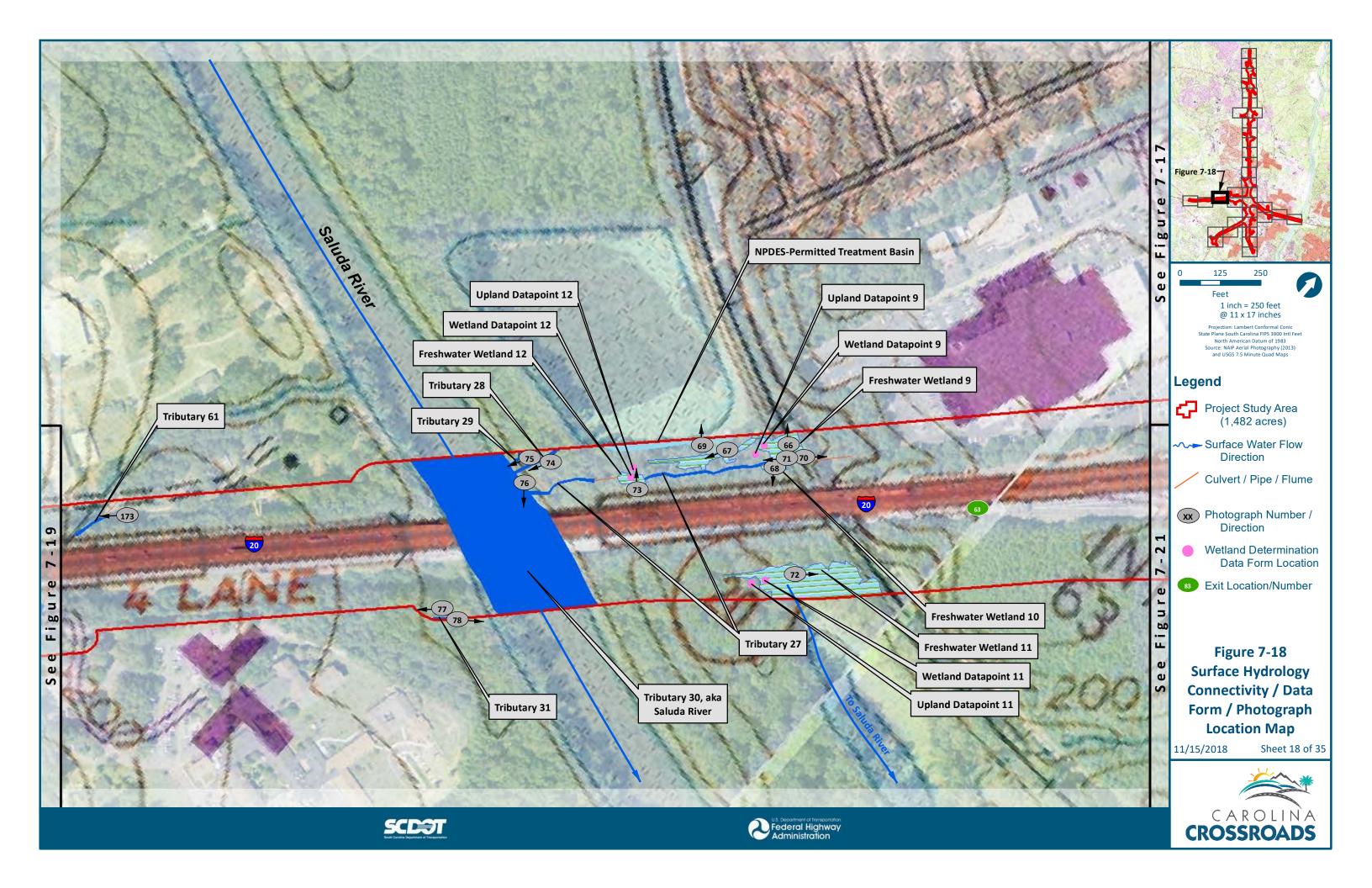


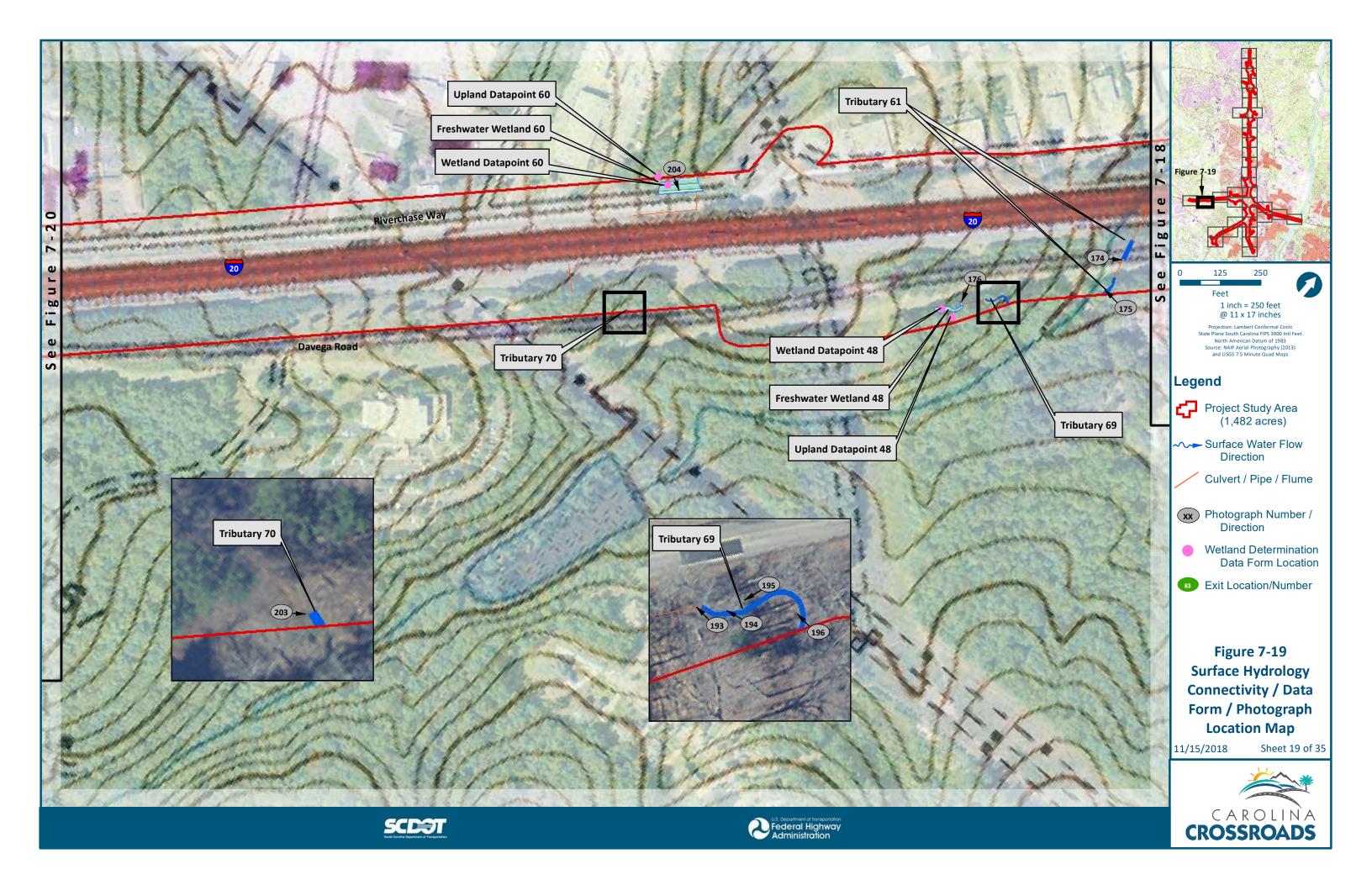


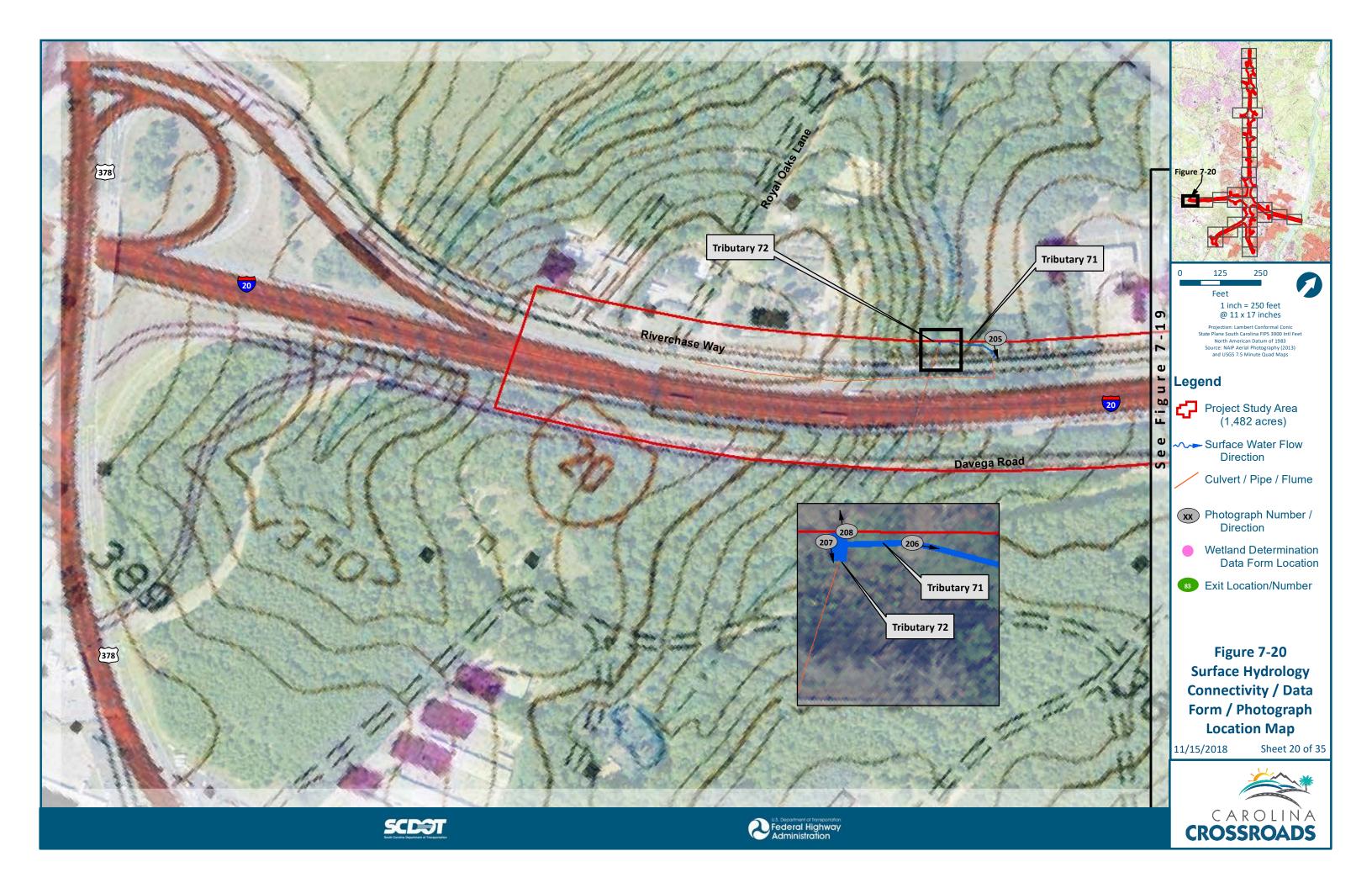


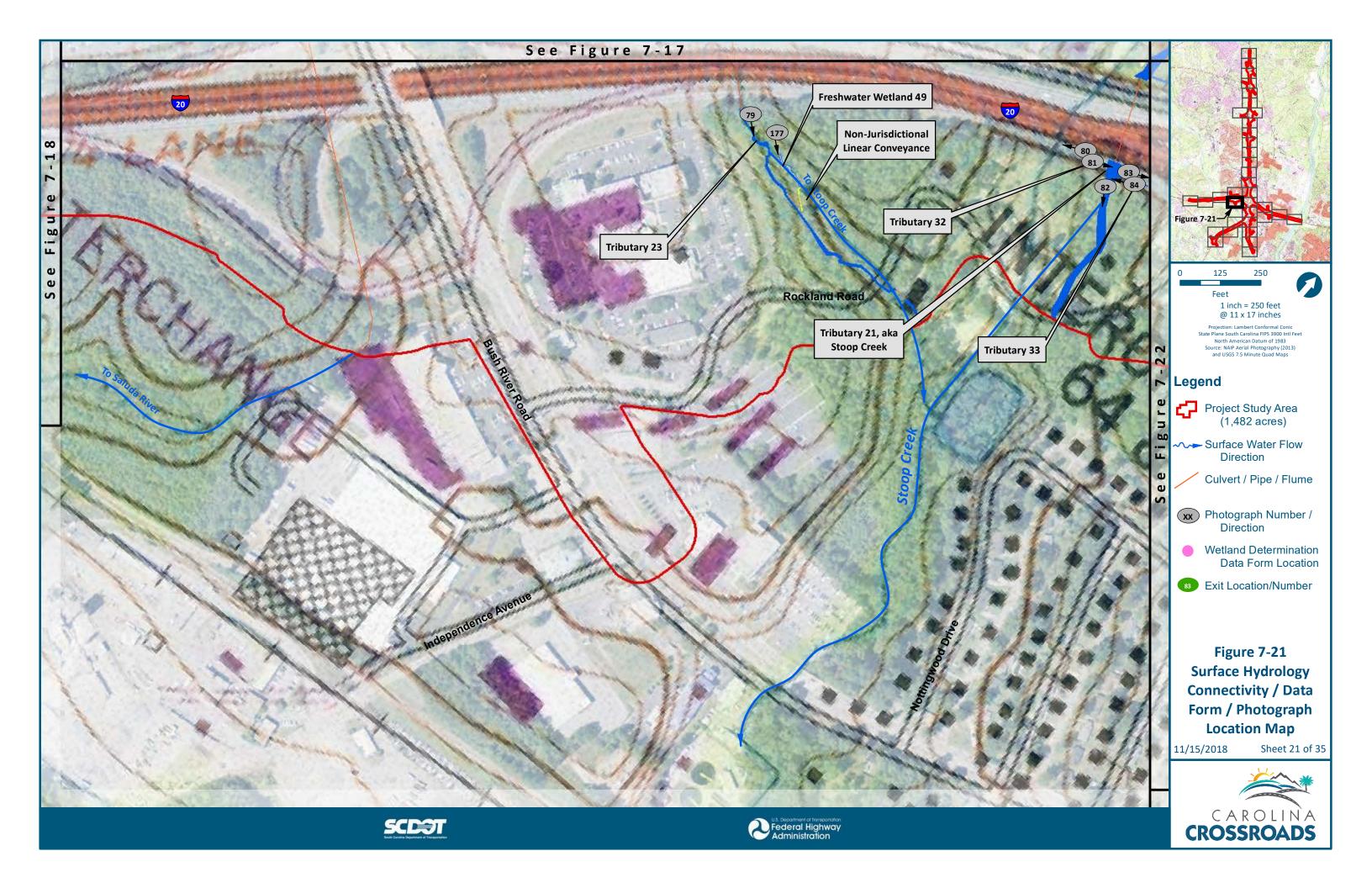


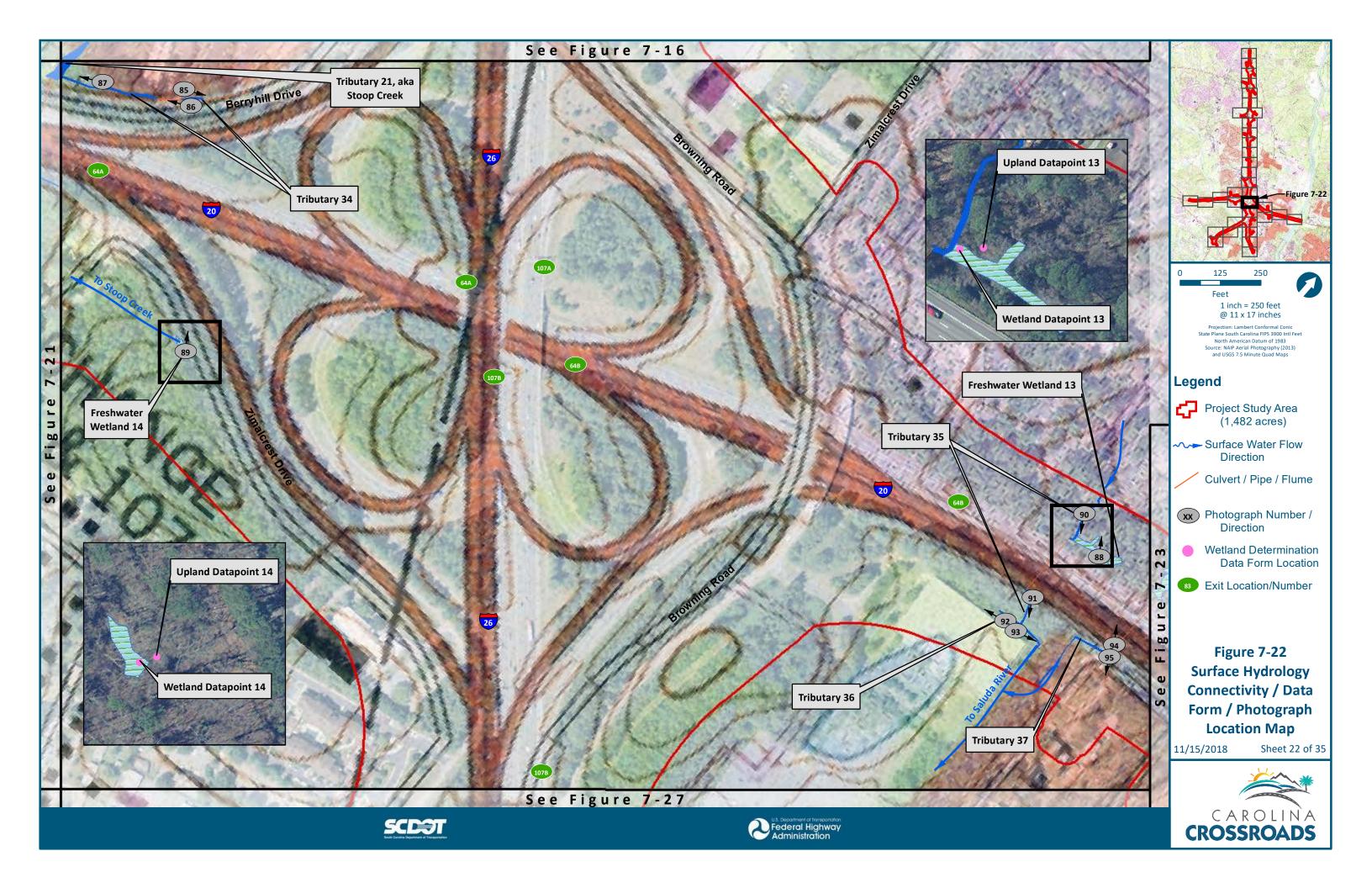




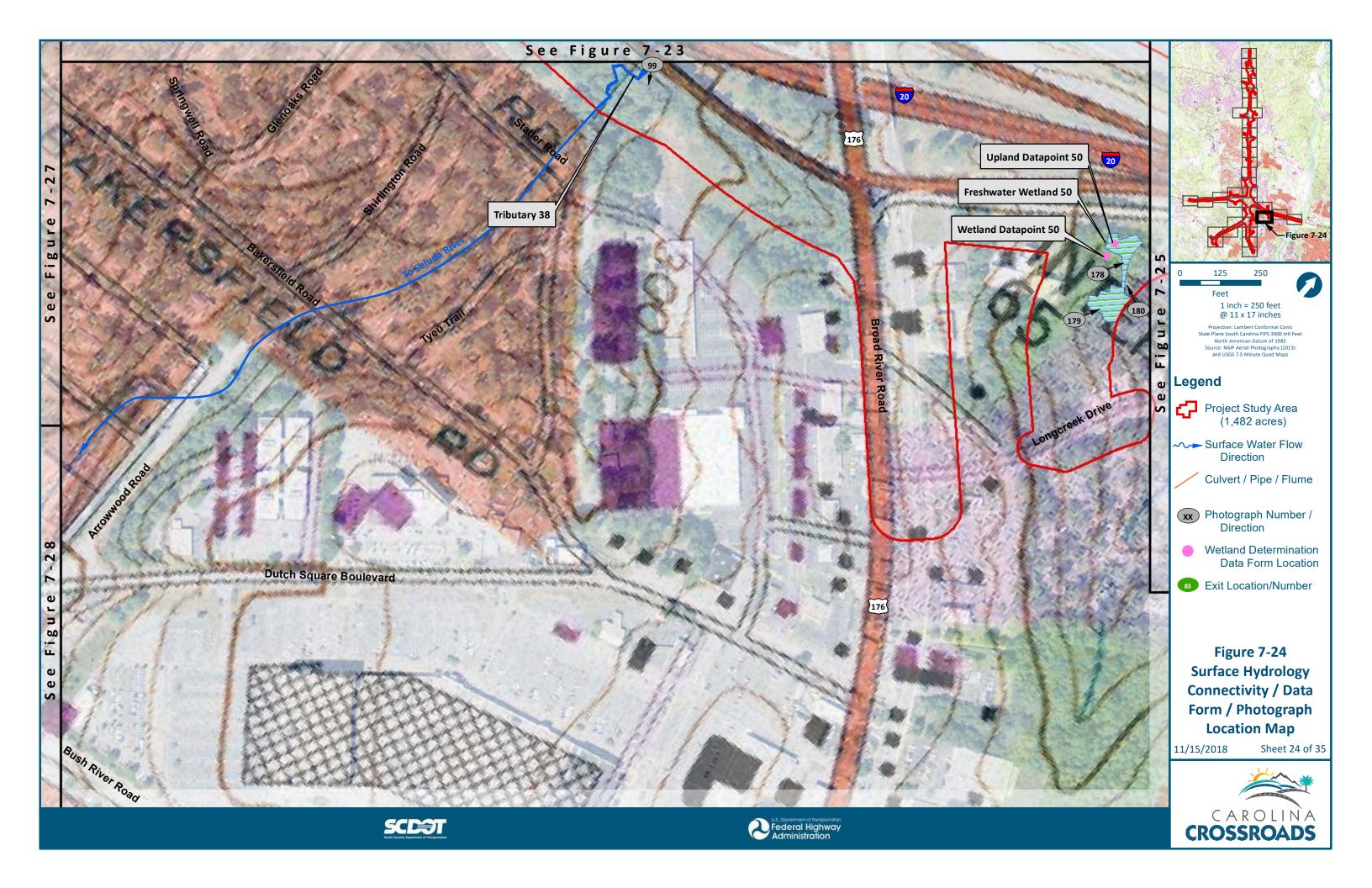


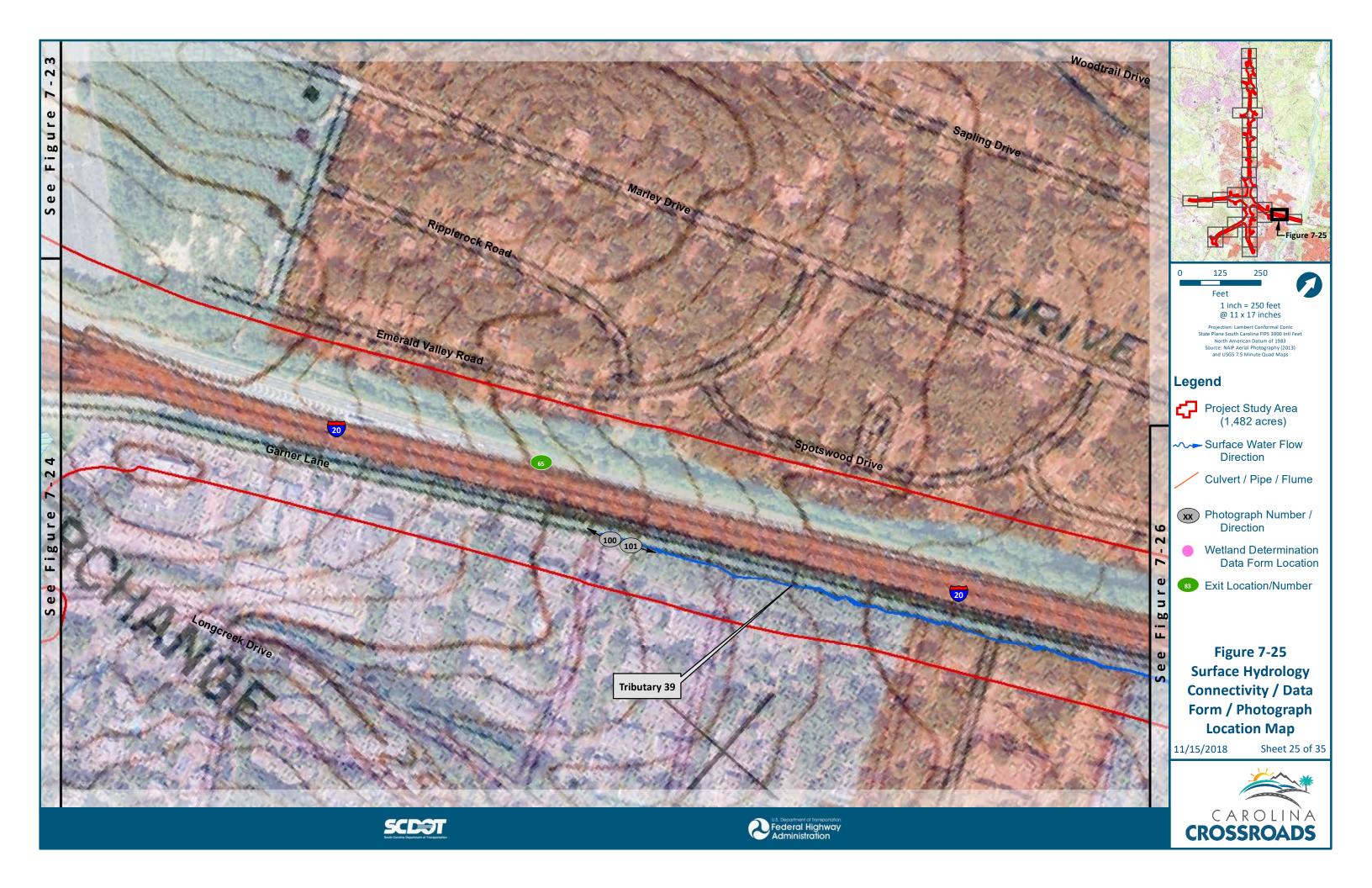


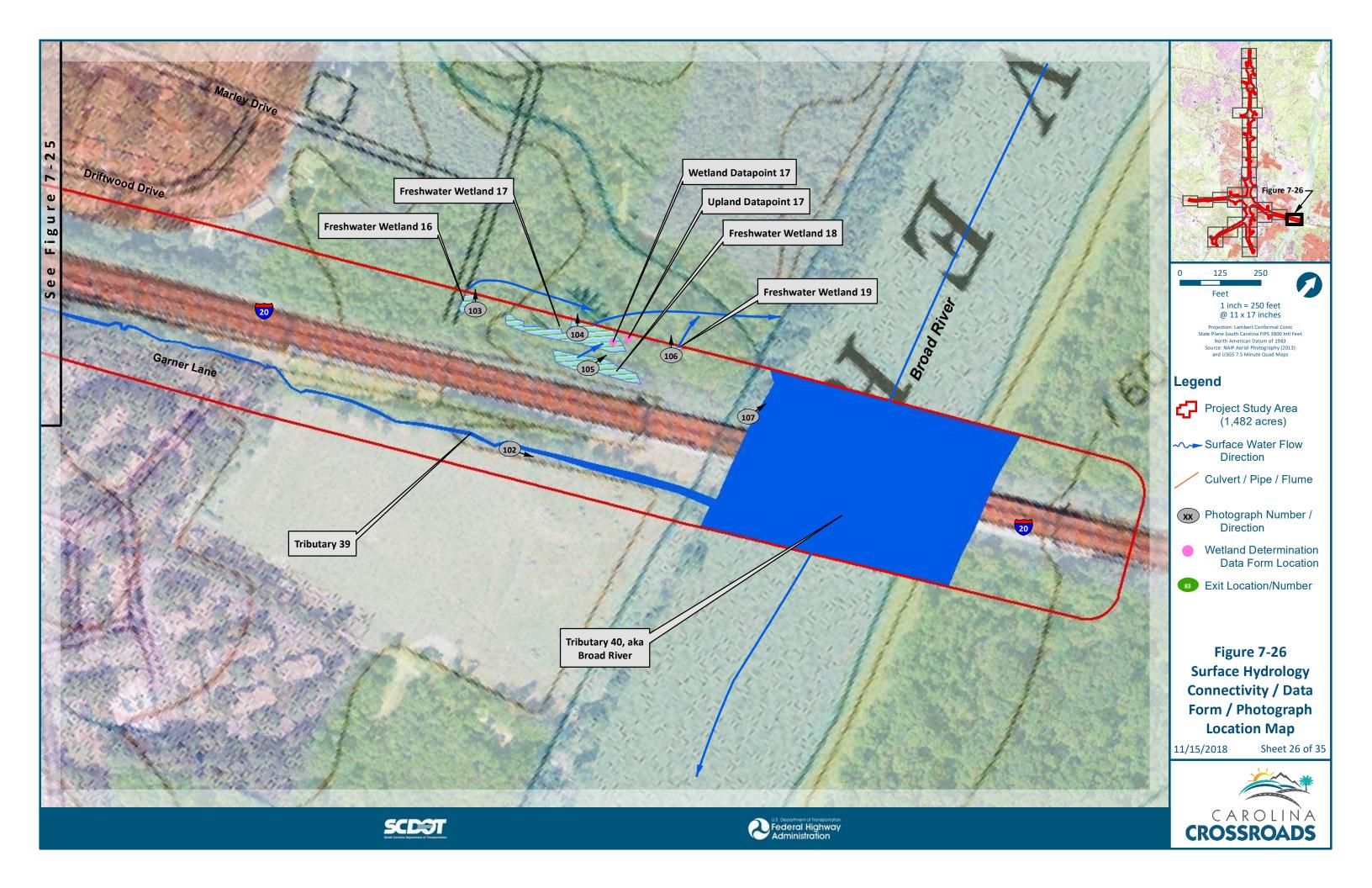


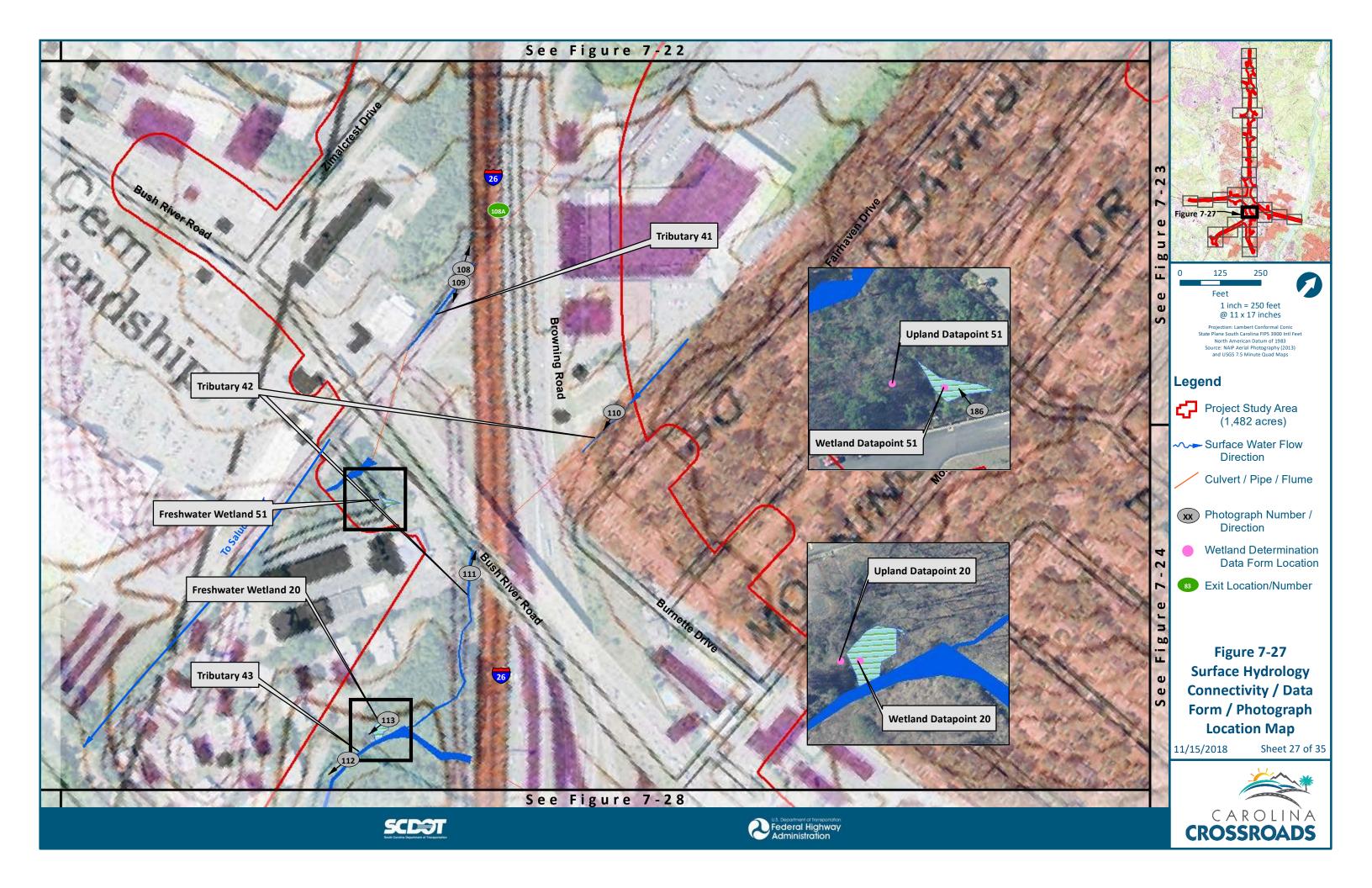


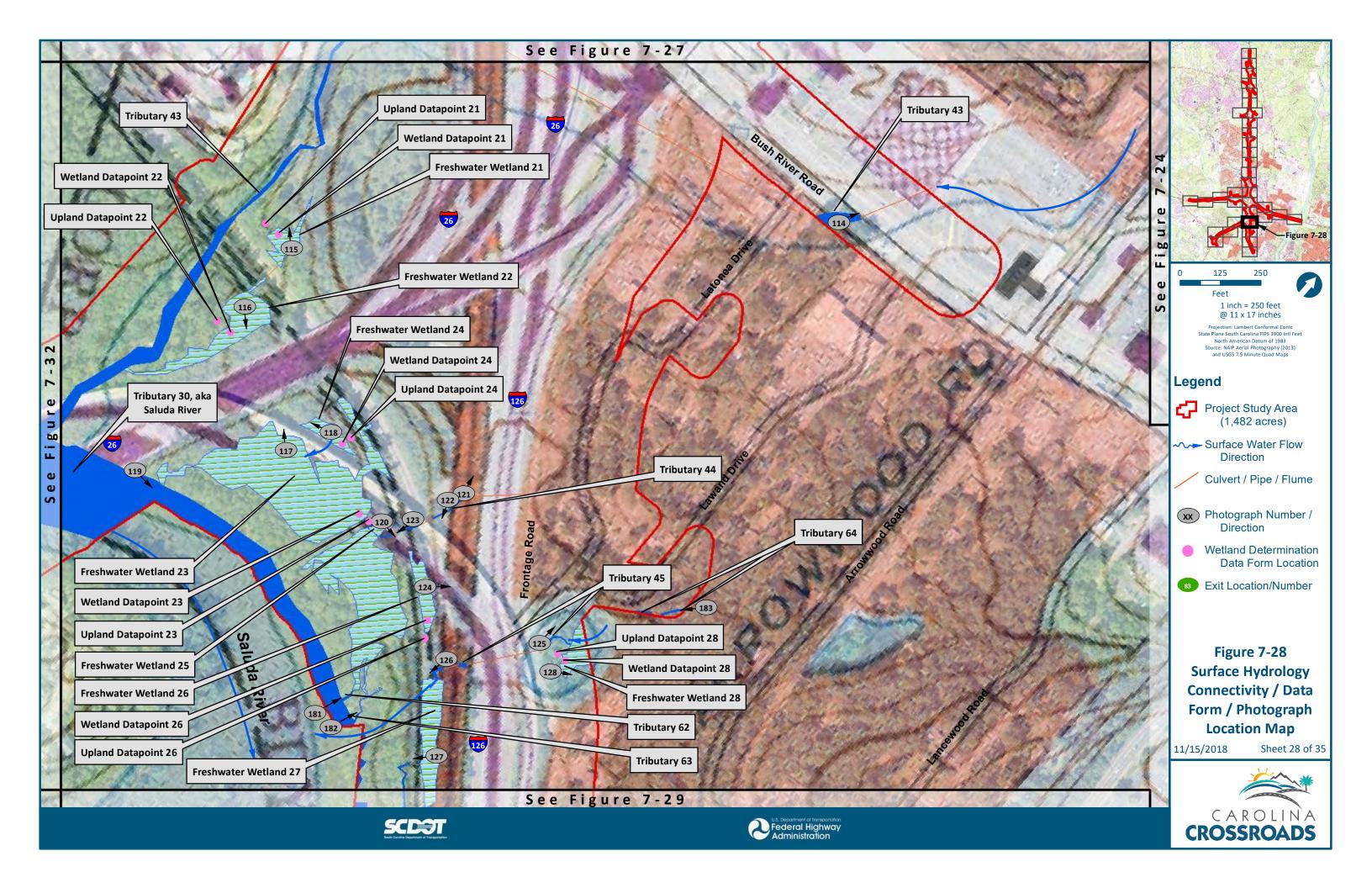


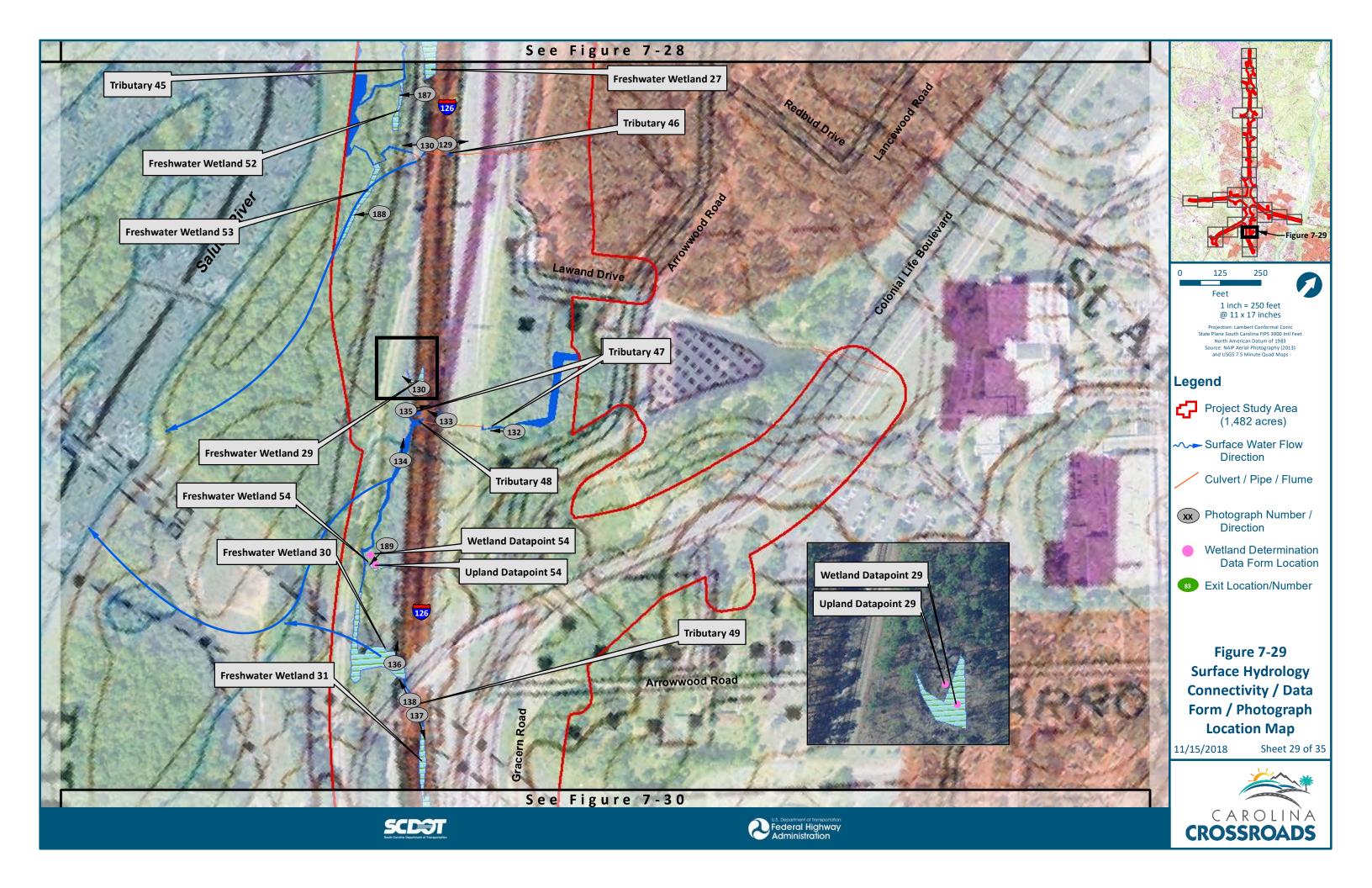






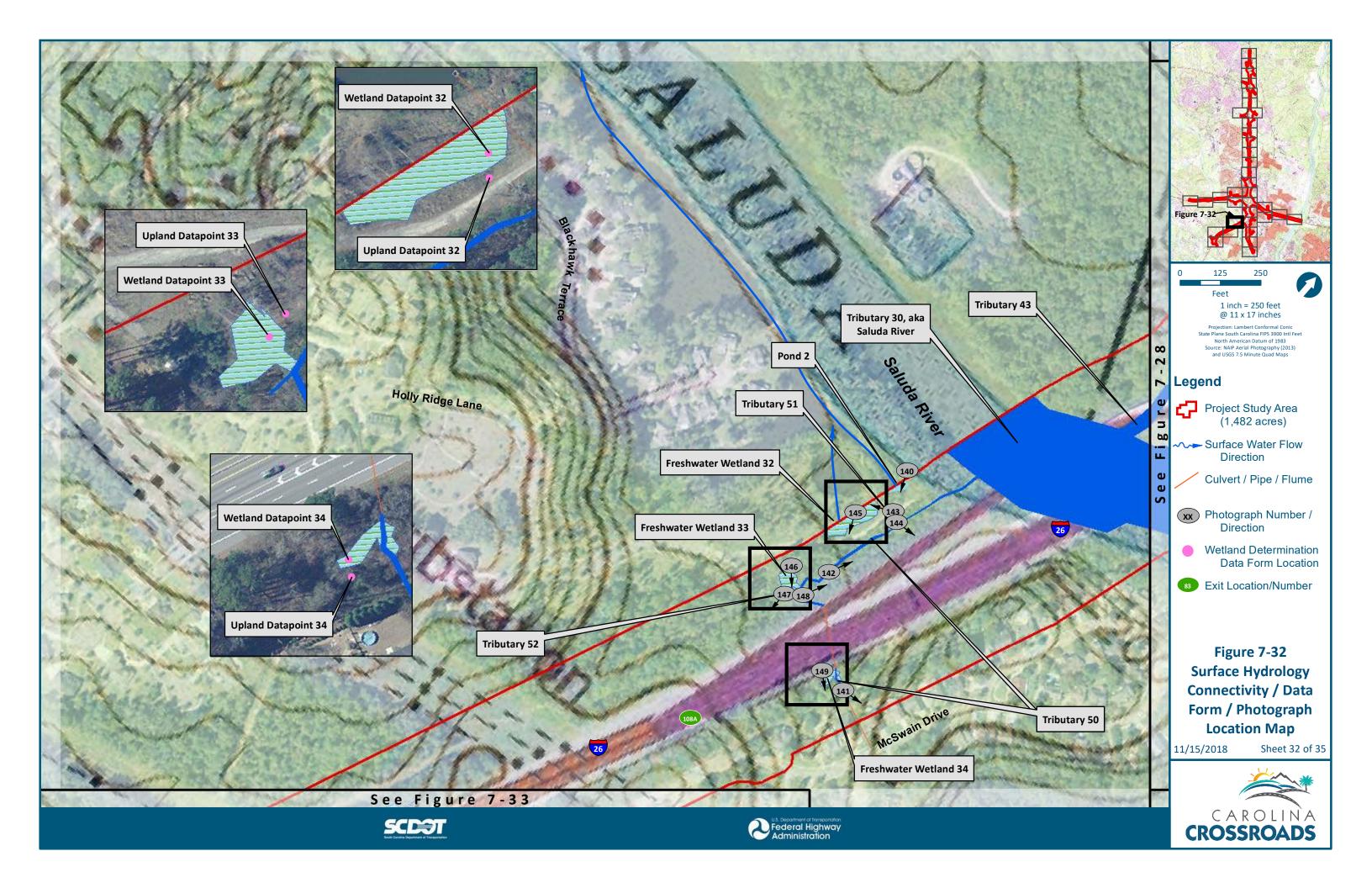


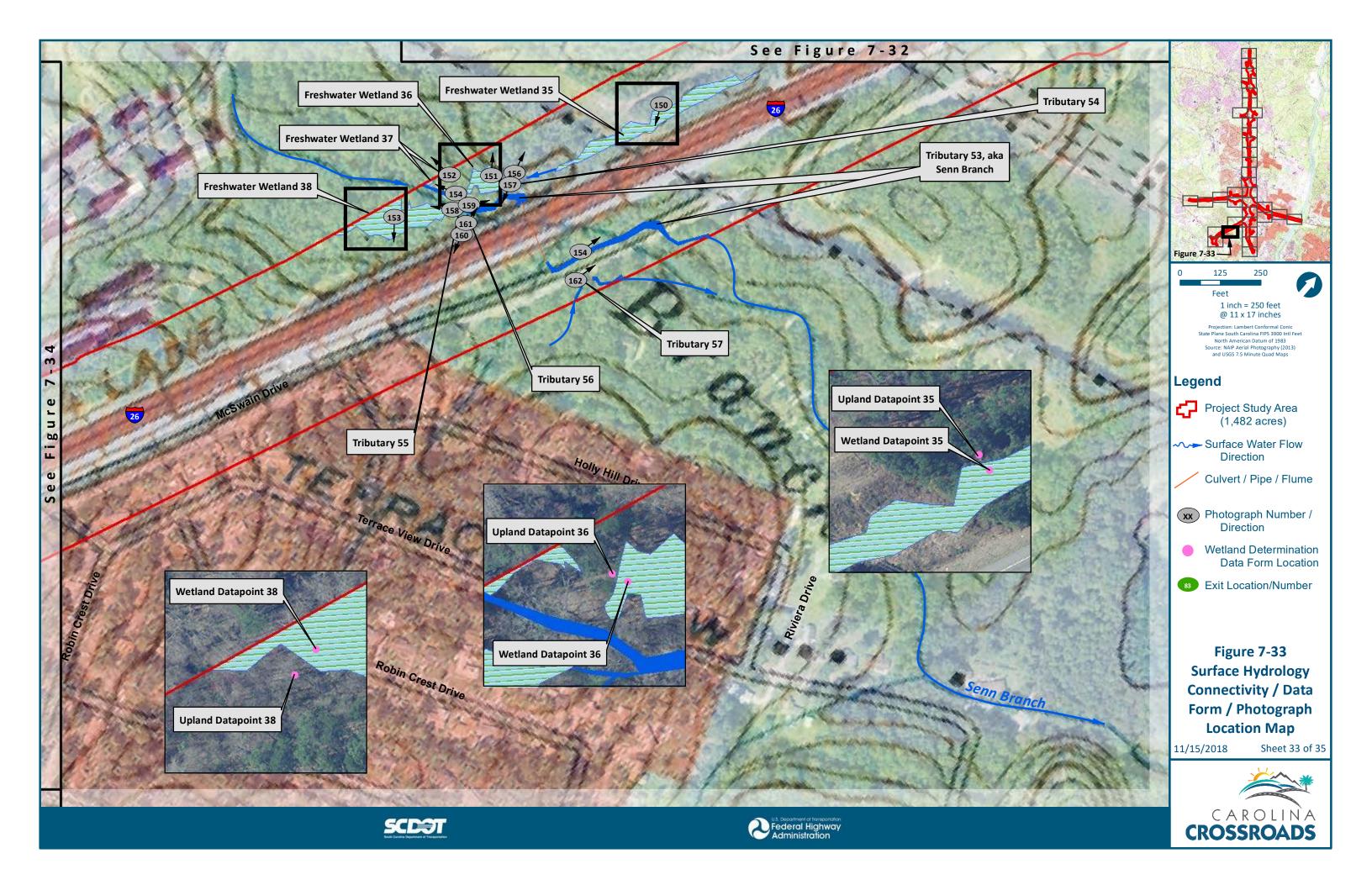


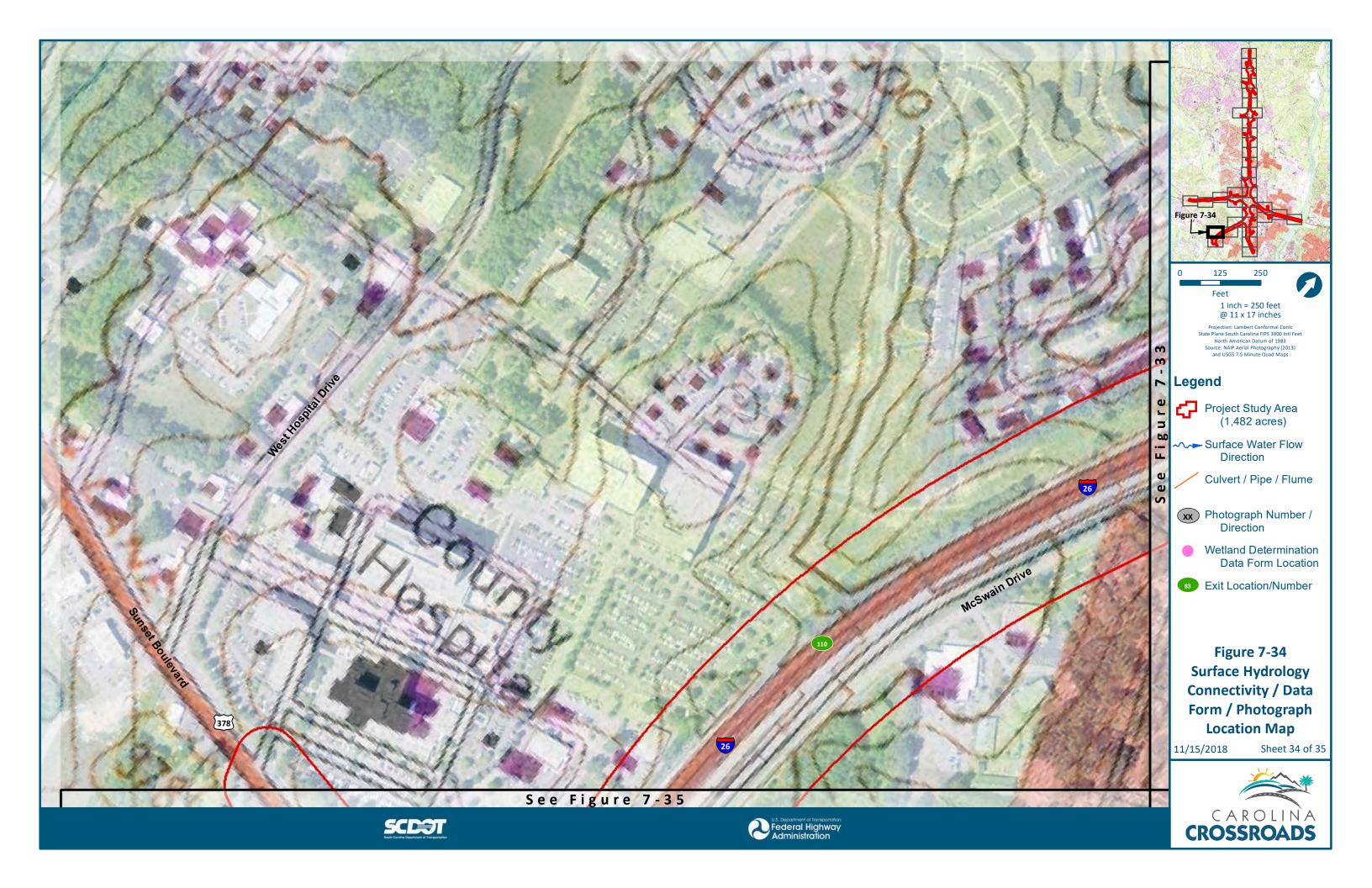


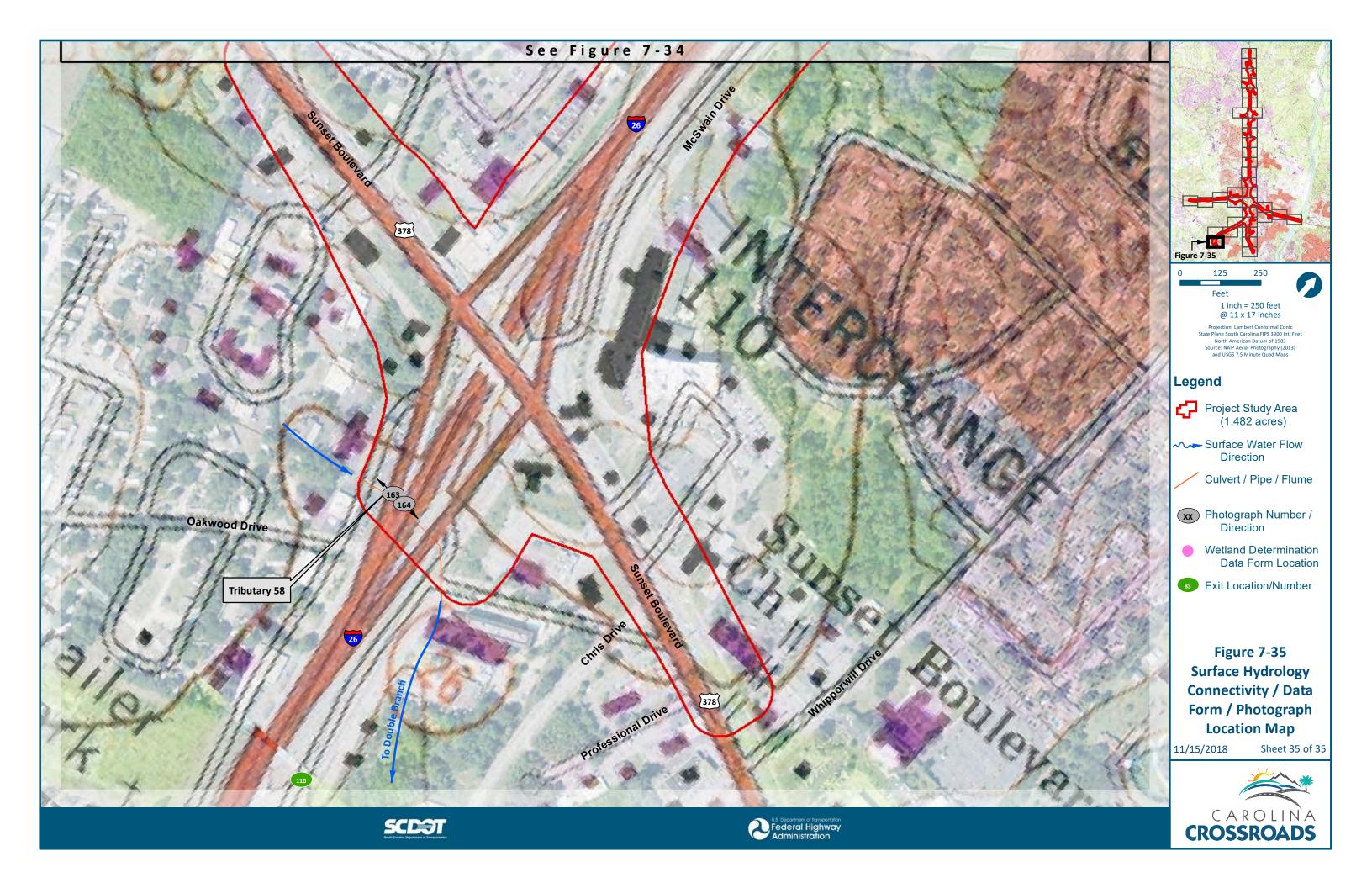


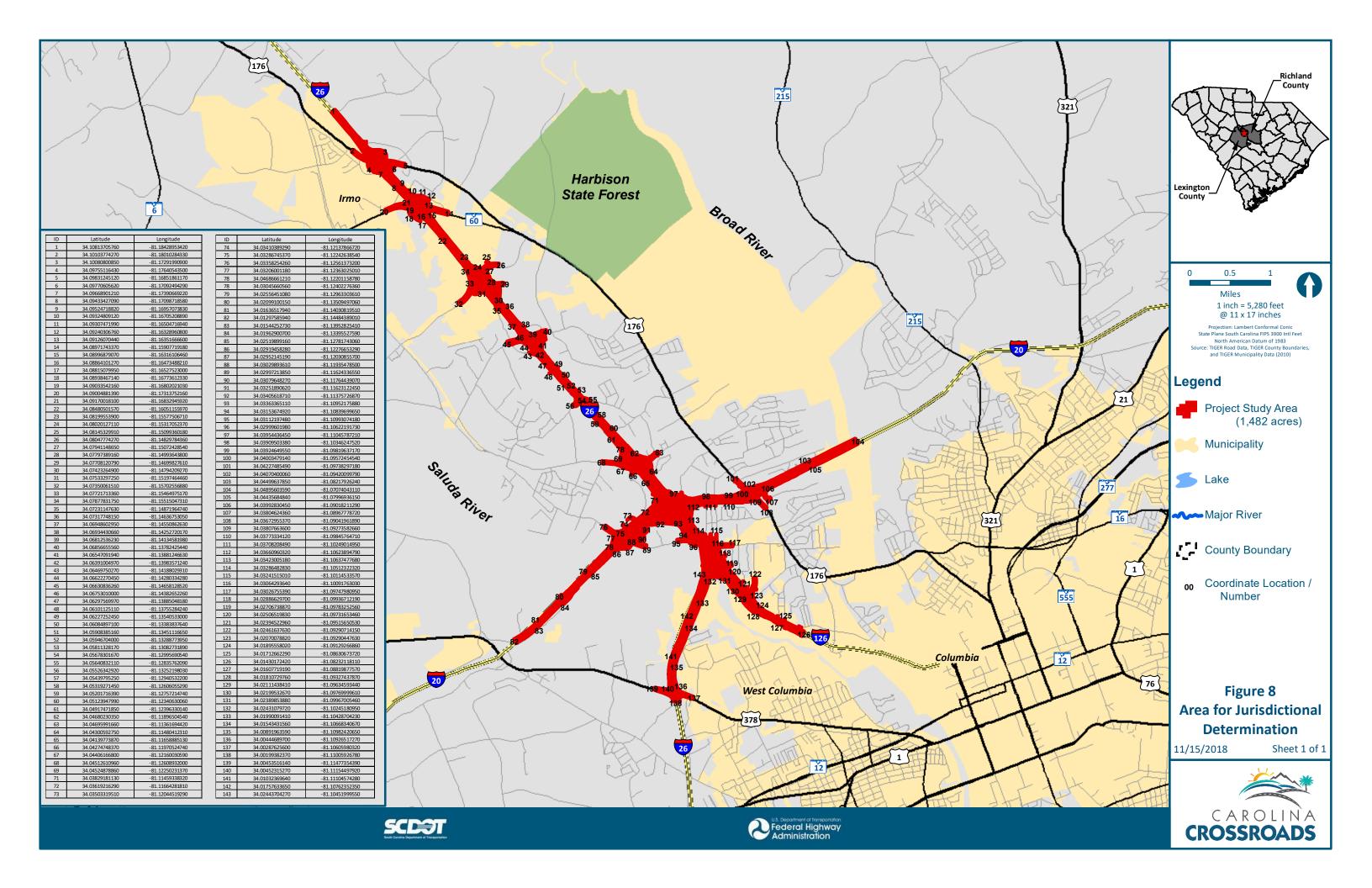














Attachment D

Wetland and Upland Dataforms for Additional Wetlands





Project/Site: Carolina Crossroads	City/County: Lexington		Sampling Date: 11/16/2018		
Applicant/Owner: SCDOT	, ,		Sampling Point: Wet. 56-57		
	Section, Township, Range: V		_ capg . c		
Landform (hillslope, terrace, etc.): Depression			Slope (%): 2-4%		
Subregion / RD or MLDA), MLRA 136	4 Langue -81	.177063	Slope (%)		
Subregion (LRR or MLRA): MLRA 136 Lat: 34.10271 Soil Map Unit Name: NaC - Nason silt loam, 6 to 10 percent	slopes	NWI classifica	ation: N/A		
Are climatic / hydrologic conditions on the site typical for this time o	_				
Are Vegetation, Soil, or Hydrology signification,			<u> </u>		
Are Vegetation, Soil, or Hydrology naturally		explain any answers			
SUMMARY OF FINDINGS – Attach site map show		•	·		
Hydrophytic Vegetation Present? Yes ✓ No		./			
Hydric Soil Present? Yes No		Yes	No		
Wetland Hydrology Present? Yes No	_				
Remarks: Wetland 56 and 57 are separated by Wester					
profiles. There was moderate rain in the day	s preceding field revie	ws.	+		
HYDROLOGY					
Wetland Hydrology Indicators:		Secondary Indicat	ors (minimum of two required)		
Primary Indicators (minimum of one is required; check all that app	ly)	Surface Soil C			
_	c Plants (B14)	Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2) Hydrogen S	Drainage Patt				
	nizospheres on Living Roots (C3)		, ,		
	f Reduced Iron (C4)	Dry-Season Water Table (C2)			
Sediment Deposits (B2) Recent Iron Drift Deposits (B3) Thin Muck S	Reduction in Tilled Soils (C6)	Crayfish Burro	sible on Aerial Imagery (C9)		
	ain in Remarks)		ressed Plants (D1)		
Iron Deposits (B5)	an in remarks)	Geomorphic F			
Inundation Visible on Aerial Imagery (B7)		Shallow Aquit			
✓ Water-Stained Leaves (B9)		Microtopograp			
Aquatic Fauna (B13)		FAC-Neutral			
Field Observations:					
Surface Water Present? Yes No Depth (incl	•				
Water Table Present? Yes No Depth (incl					
Saturation Present? Yes No Depth (incl	nes): 0" Wetland I	Hydrology Present	t? Yes <u></u> No		
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial pl		ailable:			
	, , , ,				
Remarks:					
Primary and secondary indicators of wetland	d hydrology are presen	t.			
,	,				

201	Absolute	Dominant		Dominance Test worksheet:	
<u>Tree Stratum</u> (Plot size: 30'		Species?		Number of Dominant Species _	
1. Quercus phellos	30%	YES	FAC	That Are OBL, FACW, or FAC: 5	(A)
2. Pinus taeda	25%	YES	FAC	Total Number of Dominant	
3. Acer rubrum	10%	NO	FAC		(B)
4. Fagus grandifolia	10%	NO	FACU		
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 100%	(A/B)
6			-	That the OBE, Thow, of the	(,,,,,,
7			-	Prevalence Index worksheet:	
8				Total % Cover of: Multiply by:	
o	75	= Total Cov		OBL species x 1 =	
Sapling/Shrub Stratum (Plot size: 15')		- Total Cov	rei	FACW species x 2 =	
1. Quercus phellos	15%	YES	FAC	FAC species x 3 =	
2.				FACU species x 4 =	
				UPL species x 5 =	
3				Column Totals: 0 (A) 0	
4				Column Totals. (A)	(D)
5				Prevalence Index = B/A = 0	
6				Hydrophytic Vegetation Indicators:	•
7				1 - Rapid Test for Hydrophytic Vegetation	
8				✓ 2 - Dominance Test is >50%	
9					
10				3 - Prevalence Index is ≤3.0 ¹	
Herb Stratum (Plot size: 5')	15	= Total Cov	er/	4 - Morphological Adaptations¹ (Provide suppodata in Remarks or on a separate sheet)	orting
		_	_	Problematic Hydrophytic Vegetation ¹ (Explain))
1.					
2				¹ Indicators of hydric soil and wetland hydrology mu	ust
3				be present, unless disturbed or problematic.	
4				Definitions of Four Vegetation Strata:	
5				- W	,
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cr more in diameter at breast height (DBH), regardles	
7				height.	33 01
8			-		
9.			-	Sapling/Shrub – Woody plants, excluding vines, lethan 3 in. DBH and greater than 3.28 ft (1 m) tall.	ess
10			-	than 5 m. BBH and greater than 5.25 k (1 m) tall.	
11				Herb - All herbaceous (non-woody) plants, regard	lless
			_	of size, and woody plants less than 3.28 ft tall.	
12	0			Woody vine - All woody vines greater than 3.28 ft	t in
Woody Vine Stratum (Plot size: 30')		= Total Co	er/er	height.	
1. Campsis radicans	10%	YES	FAC		
2 Toxicodendron radicans	10%	YES	FAC		
3					
4				Hydrophytic	
5				Vegetation	
6				Present? Yes No	
	20	= Total Co	er/er		
Remarks: (Include photo numbers here or on a separate s	heet.)			•	

Vegetation passes the dominance test for hydrophytic vegetation

Sampling Point: Wet. 56-57

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix		Redo	x Feature	S			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4"	10YR 3/2						sandy clay loam	
4-18"	7.5YR 4/2	75%	10YR 5/6	25%	C	M	clay loam	
	7.0111 1/2	7070	101110/0				olay loain	
		-		. —	· 			
¹ Type: C=Co	ncentration. D=Dep	etion. RM	=Reduced Matrix, MS	S=Masked	d Sand G	ains.	² Location: Pl	L=Pore Lining, M=Matrix.
Hydric Soil I		, , , , , , , , , , , , , , , , , , , ,	,					ators for Problematic Hydric Soils ³ :
Histosol			Dark Surface	(S7)				2 cm Muck (A10) (MLRA 147)
	ipedon (A2)		Polyvalue Be		ce (S8) (I	MLRA 147.		Coast Prairie Redox (A16)
Black His			Thin Dark Su					(MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye			, ,	F	Piedmont Floodplain Soils (F19)
	Layers (A5)		✓ Depleted Mat		` ,			(MLRA 136, 147)
2 cm Mu	ck (A10) (LRR N)		Redox Dark S	Surface (F	-6)			
Depleted	Below Dark Surface	e (A11)	Depleted Dar	k Surface	e (F7)		\	/ery Shallow Dark Surface (TF12)
Thick Da	rk Surface (A12)		Redox Depre	ssions (F	(8)		(Other (Explain in Remarks)
	ucky Mineral (S1) (L	RR N,	Iron-Mangan		es (F12)	(LRR N,		
	147, 148)		MLRA 13	-				
	leyed Matrix (S4)		Umbric Surfa					dicators of hydrophytic vegetation and
	edox (S5)		Piedmont Flo					vetland hydrology must be present,
	Matrix (S6)		Red Parent N	/laterial (F	² 1) (MLF	RA 127, 147	7) u	nless disturbed or problematic.
Restrictive L	ayer (if observed):							
Туре:								./
Depth (inc	hes):		<u></u>				Hydric Soi	Present? Yes No
Remarks:		. ,	F0 D					
So	oils meet crite	rıa tor	F3 Depleted M	⁄latrıx				

Project/Site: Carolina Cross	roads	City/C	ounty: Lexington		Sampling Date: 11	1/16/2018
Applicant/Owner: SCDOT			,	State: SC	Sampling Point:	Up. 56-57
Investigator(s): Conor Make	peace	Section	on, Township, Range: <u>W</u>			
Landform (hillslope, terrace, et	_{tc.):} Slope	Local reli	ef (concave, convex, noi	_{ne):} Convex	Slope	(%): <u>2-4%</u>
Subregion (LRR or MLRA): M	ILRA 136 Lat	34.102214	Long: -81	.177404	Datum:	NAD83
Subregion (LRR or MLRA): Mas - Nas -	Vason silt loam, 2 to 6	6 percent slopes		NWI classific	ation: N/A	
Are climatic / hydrologic condit	tions on the site typical f	or this time of year? Y	es No	—— (I f no, explain in R	emarks.)	
Are Vegetation, Soil					_	No
Are Vegetation, Soil				explain any answe		
SUMMARY OF FINDING					·	tures, etc.
Hydrophytic Vegetation Pres	ent? Yes	No -				
Hydric Soil Present?		No	Is the Sampled Area within a Wetland?	Yes	No	
Wetland Hydrology Present?	Yes	No	Within a Wetland	103		
Remarks:						
Up. 56-57 was sam	•		ted with Freshwa	ater Wetland	56-57. There	was
moderate rain in the	aays preceding	g field reviews.				
HYDROLOGY						
Wetland Hydrology Indicat	ors:			Secondary Indica	tors (minimum of tw	o required)
Primary Indicators (minimum	of one is required; chec	ck all that apply)		Surface Soil	Cracks (B6)	
Surface Water (A1)		True Aquatic Plants (I	,		getated Concave Su	rface (B8)
High Water Table (A2)		Hydrogen Sulfide Odd		Drainage Pat		
Saturation (A3) Water Marks (B1)		Presence of Reduced	- , ,	Moss Trim Li	nes (B16) Water Table (C2)	
Sediment Deposits (B2)		Recent Iron Reduction		Crayfish Burr	` ,	
Drift Deposits (B3)		Thin Muck Surface (C			sible on Aerial Imag	ery (C9)
Algal Mat or Crust (B4)		Other (Explain in Ren			tressed Plants (D1)	. , ,
Iron Deposits (B5)				Geomorphic	Position (D2)	
Inundation Visible on Ae				Shallow Aqui		
Water-Stained Leaves (F	39)				phic Relief (D4)	
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)	
Field Observations: Surface Water Present?	Voo No ✔	_ Depth (inches):				
Water Table Present?		_ Depth (inches):				
Saturation Present?		_ Depth (inches):		lydrology Presen	it? Yes	No <u> </u>
(includes capillary fringe)						
Describe Recorded Data (str	eam gauge, monitoring	well, aerial photos, pre	vious inspections), if ava	illable:		
Remarks:						
No indicators of we	tland hydrology	are present.				
	nana nyarology (a. o p. oco				

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: Up. 56-57

201	Absolute	Dominant		Dominance Test worksheet:		
<u>Tree Stratum</u> (Plot size: 30'		Species?		Number of Dominant Species		
1. Quercus alba	20%	YES	FACU	That Are OBL, FACW, or FAC: 3 (A	A)	
2. Acer rubrum	15%	YES	FAC	Total Number of Dominant		
3. Liquidambar styraciflua	10%	YES	FAC	Species Across All Strata: 6 (B	3)	
4			-			
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A	VB)	
6.			-	That the OBE, Thow, of the	(D)	
7			-	Prevalence Index worksheet:		
8.			_	Total % Cover of: Multiply by:		
o	4 =	= Total Cov		OBL species x 1 =		
Sapling/Shrub Stratum (Plot size: 15')		- Total Cov	ы	FACW species x 2 =		
1. Fagus grandifolia	10%	YES	FACU	FAC species $\frac{3}{}$ x 3 = $\frac{9}{}$		
2.			_	FACU species $\frac{3}{}$ x 4 = $\frac{12}{}$		
			-	UPL species x 5 =		
3				Column Totals: 6 (A) 21 ((B)	
4				Column rotals (A) ((D)	
5				Prevalence Index = B/A = 3.5		
6				Hydrophytic Vegetation Indicators:		
7				1 - Rapid Test for Hydrophytic Vegetation		
8				2 - Dominance Test is >50%		
9				3 - Prevalence Index is ≤3.0 ¹		
10					4.	
	4.0	= Total Cov	er	 4 - Morphological Adaptations¹ (Provide supportidata in Remarks or on a separate sheet) 		
Herb Stratum (Plot size: 5')		\/ E 0	=	Problematic Hydrophytic Vegetation ¹ (Explain)		
1. Poa pratensis	20%	YES	FACU	robiematic riyarophytic vegetation (Explain)		
2				Indicators of hydric call and watland hydrology mys	.4	
3				 Indicators of hydric soil and wetland hydrology mus be present, unless disturbed or problematic. 		
4			-	Definitions of Four Vegetation Strata:		
5				Definitions of Four Vegetation Strata.		
6.			-	Tree – Woody plants, excluding vines, 3 in. (7.6 cm)		
7.			-	more in diameter at breast height (DBH), regardless height.	s of	
8.			_	neight.		
			-	Sapling/Shrub – Woody plants, excluding vines, les	ss	
9				than 3 in. DBH and greater than 3.28 ft (1 m) tall.		
10				Herb - All herbaceous (non-woody) plants, regardle	ess	
				of size, and woody plants less than 3.28 ft tall.		
12				Woody vine – All woody vines greater than 3.28 ft i	in	
Woody Vine Stratum (Plot size: 30')	20	= Total Cov	er	height.		
1. Campsis radicans	10%	YES	FAC			
· ·	- 1070					
2						
3						
4				Hydrophytic		
5				Vegetation		
6				Present? Yes No		
	10	= Total Cov	er			
Remarks: (Include photo numbers here or on a separate s	sheet.)					

Vegetation does not pass either the dominance or prevalence test for hydrophytic vegetation.

Sampling Point: Up. 56-57

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth	Matrix			Features						
(inches)	Color (moist)	<u> % C</u>	olor (moist)	<u></u> %	Type ¹	Loc ²	Texture		Remarks	
0-8"	7.5YR 4/3						sandy clay lo	oam		
4-18"	7.5YR 5/4						clay loa	ım		
			_							_
¹ Type: C=Co	ncentration, D=Deple	etion, RM=Redu	uced Matrix, MS	=Masked	Sand Gra	ins.	² Location	: PL=Pore Linir	ng, M=Matrix.	
Hydric Soil I		,	,					dicators for Pi		ydric Soils³:
Histosol	(A1)		_ Dark Surface	(S7)					A10) (MLRA 1	
	ipedon (A2)		_ _ Polyvalue Bel		e (S8) (M	LRA 147,	148)	Coast Prairie		
Black His	stic (A3)		_ Thin Dark Sui					(MLRA 14		
Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix (F	2)		_	_ Piedmont Flo	oodplain Soils	(F19)
	Layers (A5)		_ Depleted Mat					(MLRA 13	86, 147)	
	ck (A10) (LRR N)		_ Redox Dark S							
	Below Dark Surface		_ Depleted Dar				_		v Dark Surface	, ,
	rk Surface (A12)		Redox Depre				-	_ Other (Expla	in in Remarks	5)
	ucky Mineral (S1) (L	RR N,	_ Iron-Mangane		s (F12) (L	RR N,				
	. 147, 148) leyed Matrix (S4)		MLRA 136 Umbric Surfac		/II DA 12/	2 122)		³ Indicators of h	vdrophytic voc	rotation and
	edox (S5)		_ Piedmont Flo						rology must be	
	Matrix (S6)		Red Parent M						bed or probler	-
	ayer (if observed):		Trod Faroncis	iatoriai (i 2	· · / (_	,	1	arriodo diotari	bod of problem	114110.
Type:	,									_
Depth (inc	·hee).						Hydric	Soil Present?	Yes	No 🗸
Remarks:							Tiyano	oon i resent.	103	
Neillaiks.	o hydric soil in	dicators a	re present							
	,									

Project/Site: Carolina Crossroads	_ City/County: Lexington		Sampling Date: 11/16/2018
Applicant/Owner: SCDOT		State: SC	_ Sampling Point: Wet. 58
• •	_ Section, Township, Range: V		
Landform (hillslope, terrace, etc.): Linear Depression L			Slope (%). 0-2%
Subregion (LRR or MLRA): MLRA 136 Lat: 34.081357	Long: -81	.150921	NAD83
Subregion (LRR or MLRA): MLRA 136 Lat: 34.081357 Soil Map Unit Name: HeC - Herndon silt loam, 6 to 10 percent	slopes	NWI classifica	ation: N/A
Are climatic / hydrologic conditions on the site typical for this time of			
Are Vegetation, Soil, or Hydrology significant	ly disturbed? Are "Norma	ıl Circumstances" pr	resent? Yes No
Are Vegetation, Soil, or Hydrology naturally p		explain any answers	
SUMMARY OF FINDINGS – Attach site map showin		•	·
Hydrophytic Vegetation Present? Yes No		./	
Hydric Soil Present? Yes _ Wetland Hydrology Present? Yes _ No		Yes	No
Remarks:	-		
Wetland 58 is a paluistrine forested wetland. reviews.	There was moderate	rain in the da	ys preceding field
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indicat	ors (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply	•	Surface Soil C	
Surface Water (A1) True Aquatic		etated Concave Surface (B8)	
✓ High Water Table (A2) Hydrogen Su		✓ Drainage Patt	
	zospheres on Living Roots (C3) Reduced Iron (C4)		Vater Table (C2)
	Reduction in Tilled Soils (C6)	Crayfish Burro	
✓ Drift Deposits (B3) Thin Muck Su			sible on Aerial Imagery (C9)
	n in Remarks)		ressed Plants (D1)
Iron Deposits (B5)		Geomorphic F	Position (D2)
Inundation Visible on Aerial Imagery (B7)		Shallow Aquit	
✓ Water-Stained Leaves (B9)		Microtopograp	
Aquatic Fauna (B13)		FAC-Neutral 1	Test (D5)
Field Observations:			
Surface Water Present? Yes No Depth (inche			
Water Table Present? Yes No Depth (inche			/
Saturation Present? Yes No Depth (inche (includes capillary fringe)	:s): Wetland	Hydrology Present	? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial pho	tos, previous inspections), if av	ailable:	
Remarks:			
Primary and secondary indicators of wetland	hydrology are presen	t.	

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: Wet. 58

Tree Stratum (Plot size: 30') % Cover Species? Status Number of Dominant Species		
1. Pinus taeda 25% YES FAC That Are OBL, FACW, or FAC): <u>8</u>	(A)
2. Liquidambar styraciflua 15% YES FAC Total Number of Dominant		
3. Quercus phellos 10% NO FAC Species Across All Strata:	8	(B)
4. llex opaca 10% NO FACU Percent of Dominant Species		
5 That Are OBL, FACW, or FAC		(A/B)
6		
7 Prevalence Index workshee		
8 Total % Cover of:		
60 = Total Cover OBL species		
Sapling/Shrub Stratum (Plot size: 15' FACW species)	x 2 =	_
1. Pinus taeda YES FAC species	x 3 =	_
2. Quercus phellos 5% YES FAC FACU species	x 4 =	_
3 UPL species	x 5 =	_
4 Column Totals: 0	(A) <u>0</u>	_ (B)
	0	
6. Prevalence index = B/A		_
7. Hydrophytic Vegetation Ind	icators:	
8 1 - Rapid Test for Hydrop	hytic Vegetation	
9	0%	
1 3 - Prevalence Index IS S.	3.0 ¹	
10 20 = Total Cover 4 - Morphological Adapta	tions¹ (Provide sup	porting
Herb Stratum (Plot size: 5') data in Remarks or on	. ,	
1 Problematic Hydrophytic	Vegetation¹ (Explai	n)
2		
indicators of rightic soil and v		nust
4 Definitions of Four Vegetati	on Strata:	
5	ng vines, 3 in. (7.6	cm) or
o more in diameter at breast he		
7 height.		
8 Sapling/Shrub – Woody plan	ts, excluding vines,	, less
9 than 3 in. DBH and greater the	an 3.28 ft (1 m) tall.	
10 Herb – All herbaceous (non-w	voody) plants regar	rdless
11 of size, and woody plants less		dicas
12		6.1.
0 = Total Cover Woody vine – All woody vine height.	s greater than 3.28	πın
Woody Vine Stratum (Plot size:)		
1. Vitis rotundifolia 10% YES FAC		
2. Toxicodendron radicans 10% YES FAC		
3. Gelsemium sempervirens 5% YES FAC		
4		
5. Hydrophytic Vegetation	,	
6 Present? Yes	No	
25 = Total Cover		
Remarks: (Include photo numbers here or on a separate sheet.)		

Vegetation passes the dominance test for hydrophytic vegetation

Sampling Point: Wet. 58

SOIL

Profile Desc	ription: (Describe	to the de	oth needed to docur	nent the i	indicator	or confirn	n the absence	of indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	<u>Loc²</u>	<u>Texture</u>	Remarks
0-2"	10YR 5/3						clay loam	
2-10"	10YR 6/1	85%	10YR 5/6	15%	С	М	clay loam	
10-18"	10YR 4/2	90%	7.5YR 4/8	10%	С	М	clay	
				•				
				-				
				-				
	·						-	
				-				
1 _{T.,,,,} , C-C		Jation DM	I-Daduard Makes Mi				21 tion DI	-Dana Liminas M-Matrix
Hydric Soil I		ietion, Riv	=Reduced Matrix, M	<u>S=Masked</u>	a Sand Gr	ains.		_=Pore Lining, M=Matrix. ators for Problematic Hydric Soils ³ :
Histosol			Dark Surface	(97)				cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be		ce (S8) (I	MLRA 147.		Coast Prairie Redox (A16)
Black His			Thin Dark Su				=	(MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye			, ,	P	riedmont Floodplain Soils (F19)
Stratified	Layers (A5)		Depleted Ma					(MLRA 136, 147)
	ick (A10) (LRR N)		Redox Dark					
	d Below Dark Surfac	e (A11)	Depleted Da					ery Shallow Dark Surface (TF12)
	ark Surface (A12)		Redox Depre				c	other (Explain in Remarks)
	lucky Mineral (S1) (I	_RR N,	Iron-Mangan		es (F12) ((LRR N,		
	A 147, 148) Gleyed Matrix (S4)		MLRA 13 Umbric Surfa		(MI DA 1	36 122)	3Ind	licators of hydrophytic vegetation and
	ledox (S5)		Piedmont Flo					vetland hydrology must be present,
	Matrix (S6)		Red Parent I					nless disturbed or problematic.
	_ayer (if observed):					<u> </u>	<u> </u>	·
Type:								•
Depth (inc	ches):						Hydric Soil	Present? Yes No
Remarks:								
S	oils meet crite	eria for	F3 Depleted N	/latrix				

Project/Site: Carolina Crossroads	City/County: Lexing	iton	Sampling Date: 11/16/2018			
Applicant/Owner: SCDOT		State: SC	Sampling Point: Up. 58			
• •	Section, Township, F		<u> </u>			
Landform (hillslope, terrace, etc.): Slope			Slope (%): 0-2%			
Subregion (LRR or MLRA): MLRA 136 Lat: 34	.081096	ong81.150658	Datum: NAD83			
Subregion (LRR or MLRA): MLRA 136 Lat: 34 Soil Map Unit Name: HeC - Herdon silt loam, 2 to 6 pe	rcent slopes	NWI classific	cation: N/A			
Are climatic / hydrologic conditions on the site typical for thi						
Are Vegetation, Soil, or Hydrologys	significantly disturbed? Are	e "Normal Circumstances" p	oresent? Yes No			
Are Vegetation, Soil, or Hydrology		needed, explain any answe				
SUMMARY OF FINDINGS – Attach site map			,			
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes N Remarks:	o ✓ within a Wetl	ed Area land? Yes	No			
Up. 58 is an upland area associated wi days preceding field reviews.	th Freshwater Wetlan	d 58. There was r	moderate rain in the			
HYDROLOGY						
Wetland Hydrology Indicators:		Secondary Indica	ators (minimum of two required)			
Primary Indicators (minimum of one is required; check all	that apply)	Surface Soil				
	e Aquatic Plants (B14)		Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2) Hyd	tterns (B10)					
	dized Rhizospheres on Living Ro		, ,			
	sence of Reduced Iron (C4) ent Iron Reduction in Tilled Soils		Water Table (C2)			
	n Muck Surface (C7)		isible on Aerial Imagery (C9)			
	er (Explain in Remarks)		tressed Plants (D1)			
Iron Deposits (B5)	(_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Position (D2)			
Inundation Visible on Aerial Imagery (B7)		Shallow Aqu				
Water-Stained Leaves (B9)		Microtopogra	aphic Relief (D4)			
Aquatic Fauna (B13)		FAC-Neutral	Test (D5)			
Field Observations:						
	pth (inches):					
	pth (inches):					
	pth (inches): V	Wetland Hydrology Preser	nt? Yes No			
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well,	l aerial photos, previous inspectio	ns), if available:				
Remarks:						
No indicators of wetland hydrology are	present.					

Sampling Point: Up. 58

<u>Tree Stratum</u> (Plot size: 30')	Absolute	Dominant		Dominance Test worksheet:
1. Pinus taeda	% Cover 60%	Species? YES	FAC	Number of Dominant Species That Are OBL FACW or FAC: 3 (A)
2. Liquidambar styraciflua	10%	NO	FAC	That Are OBL, FACW, or FAC: 3 (A)
3	· 			Total Number of Dominant Species Across All Strate: 4 (B)
4				Species Across All Strata: 4 (B)
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 75% (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8	70	Total Cov		OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15')		= Total Cov	ei	FACW species x 2 =
1. Pinus taeda	20%	YES	FAC	FAC species x 3 =
2. Ilex opaca	10%	YES	FACU	FACU species x 4 =
3.		_	-	UPL species x 5 =
4.			-	Column Totals: 0 (A) 0 (B)
5.			-	0.5
6.			-	Prevalence Index = B/A = 3.5
7				Hydrophytic Vegetation Indicators:
8.				1 - Rapid Test for Hydrophytic Vegetation
9.			-	2 - Dominance Test is >50%
10.				3 - Prevalence Index is ≤3.0 ¹
	00	Total Cov	er	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5')				Problematic Hydrophytic Vegetation ¹ (Explain)
1				Problematic Hydrophytic Vegetation (Explain)
2				¹ Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
7				height.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
10				Heath All heathers are (near weads) plants as sealless
11				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
12				
201	0	= Total Cov	er	Woody vine – All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size: 30')	100/	VEC	FAC	g.m.
1. Toxicodendron radicans	10%	YES	FAC	
2				
3				
4				Hydrophytic
5	<u> </u>			Vegetation
6				Present? Yes No
	10	= Total Cov	er	
Remarks: (Include photo numbers here or on a separate s	•			

Sampling Point: Up. 58

Color (maist)	Depth	Matrix Color (moist) %	Redox Features Color (moist) % Type¹ Loc²	Toytura	Domanica
Tight Tigh			Color (moist) % Type* Loc*		<u>Remarks</u>
ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. 2 Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric So Histosol (A1)					
Histosol (A1)	-18"	7.5 Y H 5/5		clay loam	
Histosol (A1)					
Histosol (A1)					
Histosol (A1)					
Histosol (A1)					
Histosol (A1)					
Histosol (A1)					
Histosol (A1)					
Histosol (A1)					
Histosol (A1)					
Histosol (A1)				2	
Histosol (A1)			Reduced Matrix, MS=Masked Sand Grains.		
Histic Epipedon (A2)					
Black Histic (A3)					
Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Strictive Layer (if observed): Type: Depth (inches): Loamy Gleyed Matrix (F2) Depleted Matrix (F2) Depleted Matrix (F3) (MLRA 136, 147) (MLRA 136, 147) Very Shallow Dark Surface (TF12) Very Shallow Dark Surface (TF12) Loamy Gleyed Dark Surface (F7) Sedox Depressions (F8) Loany Gleyed Matrix (S4) Sandy Mucky Mineral (S1) (LRR N, MLRA 136) MLRA 136) MLRA 136, MLRA 136, Sitrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No_ Matrix (S6) MLRA 136, 147) No_ MIRA 136, 147) MIRA				148) (
Stratified Layers (A5)				_	
2 cm Muck (A10) (LRR N)		* *		<u> </u>	
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Very Shallow Dark Surface (TF12) Thick Dark Surface (A12) Redox Depressions (F8) Other (Explain in Remarks) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 136, 122) 3Indicators of hydrophytic vegetation a wetland hydrology must be present graph of the problematic of the					(
				\	Very Shallow Dark Surface (TF12)
MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) Wetland hydrology must be present unless disturbed or problematic. Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) Strictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No	Thick D	ark Surface (A12)	Redox Depressions (F8)	(Other (Explain in Remarks)
Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) wetland hydrology must be present unless disturbed or problematic. Type: Depth (inches): Bryanch (inch					
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic. **strictive Layer (if observed):** Type: Depth (inches): Hydric Soil Present? Yes No **emarks:**			•	3	
_ Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic. estrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No emarks:					
Pestrictive Layer (if observed): Type: Depth (inches): Pemarks: Hydric Soil Present? Yes No					
Type: Depth (inches):			Red Parent Material (F21) (MLRA 127, 147	/) u	inless disturbed or problematic.
Depth (inches): Hydric Soil Present? Yes No		Layer (II observed).			
emarks:		1 \			
No hydric soil indicators are present		icnes):		Hydric Soil	Present? Yes No
	N	lo hydric soil indicato	rs are present		

Project/Site: Carolina Crossroads	City/County: Lexington	Sa	ampling Date: 11/16/2018
Applicant/Owner: SCDOT	. ,	State: SC	Sampling Point: Wet. 59
• • • • • • • • • • • • • • • • • • • •	Section, Township, Range: W		
Landform (hillslope, terrace, etc.): Linear Depression Lo			Slone (%): 0-2%
Subregion (LRR or MLRA): MLRA 136 Lat: 34.073199	Long: <u>-81.</u>	156663	
Soil Map Unit Name: Enon Silt Loam, 2 to 6 percent slopes	Long:	NWI classification	Datum: <u></u>
Are climatic / hydrologic conditions on the site typical for this time of year	ear? Yes V	— If no explain in Rem	arks)
Are Vegetation, Soil, or Hydrology significantly			-
Are Vegetation, Soil, or Hydrology naturally pro			
SUMMARY OF FINDINGS – Attach site map showing		explain any answers i	·
Somman or Findings - Attach site map showing		mis, transects, ii	inportant leatures, etc.
Hydrophytic Vegetation Present? Yes No	Is the Sampled Area	•	
Hydric Soil Present? Yes Yes No	within a Wetland?	Yes_	No
Wetland Hydrology Present? Yes No			
Remarks:			
Wetland 59 is an emergent wetland located in	a drainage area. The	ere was moder	rate rain in the days
preceding field reviews.	9		,
proceding held reviews.			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indicators	s (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		Surface Soil Cra	· · · · · · · · · · · · · · · · · · ·
			ated Concave Surface (B8)
✓ Surface Water (A1) True Aquatic P ✓ High Water Table (A2) Hydrogen Sulfi			
Water Marks (B1) Presence of Re		Moss Trim Lines Dry-Season Wa	, ,
	eduction in Tilled Soils (C6)	Crayfish Burrow	
Drift Deposits (B3) Thin Muck Sur			le on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain		Stunted or Stres	
Iron Deposits (B5)	·····,	Geomorphic Po	
Inundation Visible on Aerial Imagery (B7)		Shallow Aquitare	
✓ Water-Stained Leaves (B9)		Microtopographi	
Aquatic Fauna (B13)		FAC-Neutral Te	
Field Observations:			
Surface Water Present? Yes No Depth (inches): <u>2"</u>		
Water Table Present? Yes <u>✓</u> No Depth (inches			
Saturation Present? Yes Vo Depth (inches		lydrology Present?	Yes No
(includes capillary fringe)	,		
Describe Recorded Data (stream gauge, monitoring well, aerial photo	os, previous inspections), if ava	ilable:	
Demodes			
Remarks:			
Primary and secondary indicators of wetland h	ydrology are present	· ·•	

Sampling Point: Wet. 59

001	Absolute	Dominant		Dominance Test worksheet:	
<u>Tree Stratum</u> (Plot size: 30'	-	Species?		Number of Dominant Species	
1. Pyrus calleryana	25%	YES	FAC	That Are OBL, FACW, or FAC: 4	(A)
2				Total Number of Dominant	
3				Species Across All Strata: 4	(B)
4				Percent of Dominant Species	
5					(A/B)
6				Prevalence Index worksheet:	
7				Total % Cover of: Multiply by:	
8				OBL species x 1 =	_
Sapling/Shrub Stratum (Plot size: 15')	25	= Total Cov	er	FACW species x 2 =	
1. Morella cerifera	50%	YES	FAC	FAC species x 3 =	
2. Pyrus calleryana	10%	NO	FAC	FACU species x 4 =	
	· ——			UPL species x 5 =	
3				Column Totals: 0 (A) 0	
4				Column rotals (A)	. (D)
5				Prevalence Index = B/A = 0	_
6				Hydrophytic Vegetation Indicators:	
7				1 - Rapid Test for Hydrophytic Vegetation	
8				✓ 2 - Dominance Test is >50%	
9				3 - Prevalence Index is ≤3.0 ¹	
10	00			4 - Morphological Adaptations ¹ (Provide supp	orting
Herb Stratum (Plot size: 5')	-00	= Total Cov	er	data in Remarks or on a separate sheet)	_
1		-	=	Problematic Hydrophytic Vegetation ¹ (Explain	1)
2.					
3.				¹ Indicators of hydric soil and wetland hydrology m	ust
4				be present, unless disturbed or problematic.	
5			_	Definitions of Four Vegetation Strata:	
6.			_	Tree – Woody plants, excluding vines, 3 in. (7.6 cl	
7				more in diameter at breast height (DBH), regardle height.	ss of
8.			_	neight.	
9.				Sapling/Shrub – Woody plants, excluding vines,	less
10.				than 3 in. DBH and greater than 3.28 ft (1 m) tall.	
11.				Herb – All herbaceous (non-woody) plants, regard	lless
12.			_	of size, and woody plants less than 3.28 ft tall.	
12.	0	= Total Cov	or.	Woody vine - All woody vines greater than 3.28 f	t in
Woody Vine Stratum (Plot size: 30')		- Total Cov	Ci Ci	height.	
1. Smilax rotundifolia	60%	YES	FAC		
2					
3					
4					
5				Hydrophytic Vegetation	
6.		-	-	Present? Yes No	
	60	= Total Cov	er		
Remarks: (Include photo numbers here or on a separate s				1	
Vegetation passes the dominance test	•	anhytia	vagatat	tion	

SOIL Sampling Point: Wet. 59

Profile Desc	ription: (Describe	to the dep	oth needed to docum	nent the	indicator	or confirr	n the absence	e of indicators.)
Depth	Matrix		Redo	x Feature	s			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	<u>Loc²</u>	<u>Texture</u>	<u>Remarks</u>
0-4"	10YR 3/2						clay loam	
4-18"	10YR 5/2	80%	7.5YR 5/5	20%	С	M	clay loam	
				-	-			
			-				-	
								·
					-			. —
¹ Type: C=Co	ncentration, D=Depl	letion, RM	=Reduced Matrix, MS	S=Maske	d Sand Gr	ains.	² Location: P	L=Pore Lining, M=Matrix.
Hydric Soil I		,	,					cators for Problematic Hydric Soils ³ :
Histosol	(A1)		Dark Surface	(S7)			2	2 cm Muck (A10) (MLRA 147)
	ipedon (A2)		Polyvalue Be	low Surfa	ace (S8) (l	/ILRA 147		Coast Prairie Redox (A16)
Black His	stic (A3)		Thin Dark Su	rface (S9) (MLRA	147, 148)		(MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye		(F2)		F	Piedmont Floodplain Soils (F19)
	Layers (A5)		✓ Depleted Mat					(MLRA 136, 147)
	ck (A10) (LRR N)	- (844)	Redox Dark S				,	(and Ohalland David Onders (TE40)
	l Below Dark Surface irk Surface (A12)	e (A11)	Depleted Dar Redox Depre					Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
	ucky Mineral (S1) (L	RR N	Iron-Mangan			I RR N	<u> </u>	Other (Explain in Nemarks)
	. 147, 148)	,	MLRA 13		,00 (i 12) (
	leyed Matrix (S4)		Umbric Surfa		(MLRA 13	36, 122)	3Inc	dicators of hydrophytic vegetation and
	edox (S5)		Piedmont Flo					wetland hydrology must be present,
	Matrix (S6)		Red Parent N	/laterial (F	21) (MLR	A 127, 14	7)	ınless disturbed or problematic.
Restrictive L	.ayer (if observed):							
Type:								
Depth (inc	ches):						Hydric Soi	il Present? Yes No
Remarks:								
So	oils meet crite	ria for	F3 Depleted M	1atrix				

Project/Site: Carolina Crossroads	City/County: Lexington	;	Sampling Date: 11/16/2018
Applicant/Owner: SCDOT		State: SC	Sampling Point: Up. 59
• •	Section, Township, Range: <u>W</u>		
Landform (hillslope, terrace, etc.): Slope			Slone (%): 0-2%
Subregion (LRR or MLRA): MLRA 136 Lat: 34.073391			
Soil Map Unit Name: Enon Silt Loam, 2 to 6 percent slopes	Long	NWI classifica	tion: N/A
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes No	(I f no, explain in Re	marks.)
Are Vegetation, Soil, or Hydrology significantl			
Are Vegetation, Soil, or Hydrology naturally p		· explain any answers	
SUMMARY OF FINDINGS – Attach site map showin			
	<u> </u>		
Hydrophytic Vegetation Present? Yes No			1
Hydric Soil Present? Yes No No No	within a Wetland?	Yes	No
Remarks:			
Up. 59 is an upland area associated with Fres days preceding field reviews.	shwater Wetland 59.	There was m	oderate rain in the
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indicate	ors (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		Surface Soil C	
Surface Water (A1) True Aquatic F			etated Concave Surface (B8)
High Water Table (A2) Setumation (A2) Oxidized Phila		Drainage Patte	
Saturation (A3) Oxidized Rhiz Water Marks (B1) Presence of R	ospheres on Living Roots (C3)	Moss Trim Lin	/ater Table (C2)
	eduction in Tilled Soils (C6)	Crayfish Burro	
Drift Deposits (B3) Thin Muck Su			ible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain			essed Plants (D1)
Iron Deposits (B5)		Geomorphic P	osition (D2)
Inundation Visible on Aerial Imagery (B7)		Shallow Aquita	
Water-Stained Leaves (B9)		Microtopograp	·
Aquatic Fauna (B13)		FAC-Neutral T	est (D5)
Field Observations: Surface Water Present? Yes No✓ Depth (inchest)	2).		
Water Table Present? Yes No Depth (inches			
Saturation Present? Yes No Depth (inches		lydrology Present	? Yes No ✔
(includes capillary fringe)			1 1es NO
Describe Recorded Data (stream gauge, monitoring well, aerial pho	tos, previous inspections), if ava	illable:	
Remarks:			
No indicators of wetland hydrology are preser	nt		
Two indicators of wetland flydrology are preser	14.		
1			

Sampling Point: Up. 59

201		Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 30')		Species?		Number of Dominant Species
1				That Are OBL, FACW, or FAC: 3 (A)
2				Total Number of Dominant
3				Species Across All Strata: 4 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 75% (A/B)
6				
7		-		Prevalence Index worksheet:
8				Total % Cover of: Multiply by:
		= Total Cov	er er	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15')				FACW species x 2 =
1				FAC species x 3 =
2				FACU species x 4 =
3				UPL species x 5 =
4				Column Totals: 0 (A) 0 (B)
5.			-	0.5
6.			-	Prevalence Index = B/A = 3.5
7			-	Hydrophytic Vegetation Indicators:
8.				1 - Rapid Test for Hydrophytic Vegetation
				2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 ¹
10	0	= Total Cov		4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5')		- Total Cov	/EI	data in Remarks or on a separate sheet)
1. Poa pratensis	95%	YES	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
2.		_	-	
3			_	¹ Indicators of hydric soil and wetland hydrology must
4				be present, unless disturbed or problematic.
				Definitions of Four Vegetation Strata:
5				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7.				height.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12				Manda de cina All consider de constantina a 2 20 fi in
201	95	= Total Co	er/er	Woody vine – All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size: 30')				noight.
1				
2				
3				
4				Hudranbutia
5				Hydrophytic Vegetation
6				Present? Yes No
	0	= Total Co	/er	
Remarks: (Include photo numbers here or on a separate	sheet.)			
Vegetation does not pass either the do	•	or prev	/alence	test for hydrophytic vegetation.

Sampling Point: Up. 59

Depth	Matrix Color (moist) %	Redox Features Color (moist) % Type ¹ Loc ²	Tautone	Damanik-
inches))-4"	10YR 5/3	Color (moist) % Type ¹ Loc ²	<u>Texture</u> clay loam	Remarks
	· ——————			
-18"	7.5YR 4/6		clay	
	·			
	· <u> </u>			
	· 		2	- 1
		Reduced Matrix, MS=Masked Sand Grains.		PL=Pore Lining, M=Matrix.
	Indicators:			cators for Problematic Hydric Soils ³ :
_ Histoso		Dark Surface (S7)		2 cm Muck (A10) (MLRA 147)
	pipedon (A2)	Polyvalue Below Surface (S8) (MLRA 147	, 148)	Coast Prairie Redox (A16)
	listic (A3) en Sulfide (A4)	Thin Dark Surface (S9) (MLRA 147, 148) Loamy Gleyed Matrix (F2)		(MLRA 147, 148) Piedmont Floodplain Soils (F19)
	ed Layers (A5)	Depleted Matrix (F3)		(MLRA 136, 147)
	uck (A10) (LRR N)	Redox Dark Surface (F6)		(1111/100, 147)
	ed Below Dark Surface (A11)	Depleted Dark Surface (F7)		Very Shallow Dark Surface (TF12)
	ark Surface (A12)	Redox Depressions (F8)		Other (Explain in Remarks)
	Mucky Mineral (S1) (LRR N,	Iron-Manganese Masses (F12) (LRR N,		
	A 147, 148)	MLRA 136)	3	
	Gleyed Matrix (S4)	Umbric Surface (F13) (MLRA 136, 122)		ndicators of hydrophytic vegetation and
	Redox (S5)	Piedmont Floodplain Soils (F19) (MLRA 14		wetland hydrology must be present,
	d Matrix (S6) Layer (if observed):	Red Parent Material (F21) (MLRA 127, 14	<u>'')</u>	unless disturbed or problematic.
	Layer (ii observed).			
Type:	1 \			
Depth (in	icnes):		Hydric So	oil Present? Yes No
emarks: N	lo hydric soil indicato	rs are present		

Project/Site: Carolina Crossroads	City/County: Lexington	:	Sampling Date: 11/16/2018
Applicant/Owner: SCDOT		State: SC	_ Sampling Point: Wet. 60
Investigator(s): Conor Makepeace	Section, Township, Range:		
Landform (hillslope, terrace, etc.): Depression			Slope (%): 2-4%
Subregion (LRR or MLRA): MLRA 136 Lat: 34.020409 Soil Map Unit Name: GeD - Georgeville very fine sandy loam,	0 to 15 percent slopes	NWI classifica	tion: N/A
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes <u> / </u>	(If no, explain in Re	marks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are "Norm	al Circumstances" pr	esent? Yes 🗹 No
Are Vegetation, Soil, or Hydrology naturally p		explain any answers	
SUMMARY OF FINDINGS – Attach site map showing		ons, transects,	important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Yes No No No Remarks:	within a Wetland?	Yes	_ No
Wetland 60 is an emergent wetland. There was	as moderate rain in t	ne days prece	ding field reviews.
HYDROLOGY		0 1 1 1 1 1	(
Wetland Hydrology Indicators:			ors (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		Surface Soil C	
✓ Surface Water (A1) True Aquatic F ✓ High Water Table (A2) Hydrogen Sulf			etated Concave Surface (B8)
	ospheres on Living Roots (C3)		
Water Marks (B1) Presence of R			Vater Table (C2)
	eduction in Tilled Soils (C6)	Crayfish Burro	
Drift Deposits (B3) Thin Muck Su			ible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain			essed Plants (D1)
Iron Deposits (B5)		Geomorphic F	Position (D2)
Inundation Visible on Aerial Imagery (B7)		Shallow Aquita	ard (D3)
✓ Water-Stained Leaves (B9)		Microtopograp	phic Relief (D4)
Aquatic Fauna (B13)		FAC-Neutral T	Test (D5)
Field Observations:			
Surface Water Present? Yes No Depth (inches			
Water Table Present? Yes No Depth (inches			√
Saturation Present? Yes _ No Depth (inchest (includes capillary fringe)	s): Wetland	Hydrology Present	? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos	cos, previous inspections), if av	ailable:	
Remarks:			
Primary and secondary indicators of wetland I	nydrology are preser	nt.	

Sampling Point: Wet. 60

Tree Stratum (Plot size: 30') % Cover 10% YES FAC Status FAC Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A	
2. Quercus nigra 3.	3)
3.	
4	
5. ————————————————————————————————————	√B)
5. ————————————————————————————————————	√B)
Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x 1 = FACW species x 2 = FAC species x 3 = FAC species x 3 = FAC species x 4 = UPL species x 5 = Column Totals: 0 FAC species x 5 = Column Totals: 0 FAC species x 5 = Column Totals: 0 FAC species x 5 = Column Totals: 0 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation Y 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹	·
Total % Cover of: Multiply by: Sapling/Shrub Stratum (Plot size: 15') Carpinus caroliniana 50% YES FAC FAC species x 2 =	
Sapling/Shrub Stratum (Plot size: 15' 15	
Sapling/Shrub Stratum (Plot size: 15') 1. Carpinus caroliniana 50% YES FAC FAC species x 2 =	
1. Carpinus caroliniana 50% YES FAC FAC species x 3 = 2. Quercus phellos 5% YES FAC FACU species x 4 = 3. - - - UPL species x 5 = 4. - - Column Totals: 0 (A) 0 5. - - - Prevalence Index = B/A = 0 6. - - - Hydrophytic Vegetation Indicators: 7. - - - - - - - - 2 - Dominance Test for Hydrophytic Vegetation 9. -	
2. Quercus phellos 5% YES FAC FACU species x 4 =	
3	
4	
4	
5.	(B)
6	
7	
8	
9	
10	
10	
55 = Total Cover — 4 - Morphiological Adaptations (Provide suppor	ting
Herb Stratum (Plot size: 5' data in Remarks or on a separate sheet)	
1. Saururus cernuus 60% YES OBL — Problematic Hydrophytic Vegetation¹ (Explain)	
2 Microstegium vimineum 10% NO FAC	
3	st .
4 Definitions of Four Vegetation Strata:	
Tree Woody plants, avaluding vince 2 in 776 am) or
6	of
7 height.	
8 Sapling/Shrub – Woody plants, excluding vines, le	SS
9 than 3 in. DBH and greater than 3.28 ft (1 m) tall.	
10 Herb – All herbaceous (non-woody) plants, regardle	ess
11 of size, and woody plants less than 3.28 ft tall.	
12	in
Woody vine – All woody vines greater than 3.28 ft height.	.11
Woody Vine Stratum (Plot size: 30') 1. Vitis rotundifolia 10% YES FAC	
2. Campsis radicans 10% YES FAC	
3	
4 Hydrophytic	
5 Vegetation	
6 Present? Yes No	
20 = Total Cover	
Remarks: (Include photo numbers here or on a separate sheet.)	

SOIL Sampling Point: Wet. 60

Profile Desc	cription: (Describe	to the de	oth needed to docun	nent the i	ndicator	or confirn	n the absence	e of indicators.)
Depth	<u>Matrix</u>			x Feature		1 2	- .	Б
(inches) 0-2"	Color (moist) 10YR 3/1	%	Color (moist)	<u></u> %	Type'	Loc ²	<u>Texture</u> clay loam	Remarks
2-12"	10YR 5/2	90%	7.5YR 4/4	10%	С	M	clay loam	
12-18"	10YR 4/1			· 			clay loam	
				. ———				
				· 				
				· 	-			
				· <u></u>				
	-							
			-	·	-			
1 0 0							2, ,, ,	
Hydric Soil		oletion, RM	=Reduced Matrix, MS	S=Masked	Sand Gr	ains.		L=Pore Lining, M=Matrix. ators for Problematic Hydric Soils ³ :
Histosol			Dark Surface	(S7)				2 cm Muck (A10) (MLRA 147)
	oipedon (A2)		Polyvalue Be		ce (S8) (I	/ILRA 147,		Coast Prairie Redox (A16)
Black Hi			Thin Dark Su				,	(MLRA 147, 148)
Hydroge	en Sulfide (A4)		Loamy Gleye		(F2)		F	Piedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Mat					(MLRA 136, 147)
	ick (A10) (LRR N)	(4.44)	Redox Dark S					(OL
-	d Below Dark Surfac ark Surface (A12)	e (A11)	Depleted Dar Redox Depre					/ery Shallow Dark Surface (TF12) Other (Explain in Remarks)
	fik Sunace (A12) lucky Mineral (S1) (I	RRN	Iron-Mangan			I RR N	_ `	ottler (Explain in Remarks)
	\ 147, 148)		MLRA 13		00 (1 12)			
	Gleyed Matrix (S4)		Umbric Surfa		(MLRA 1	36, 122)	³ Inc	dicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	18) v	vetland hydrology must be present,
	Matrix (S6)		Red Parent N	/laterial (F	21) (MLF	A 127, 14	7) u	nless disturbed or problematic.
Restrictive I	Layer (if observed):	:						
Type:								√
Depth (in	ches):						Hydric Soi	I Present? Yes No
Remarks:	oils meet crite	eria for	F3 Depleted M	1atrix				
)	. o Bopicioa ii	Idilix				

Project/Site: Carolina Crossro	ads	City/County: Le	exington		Sampling Date: 1	/16/2018
Applicant/Owner: SCDOT					Sampling Point:	
Investigator(s): Conor Makepe	ace	Section, Towns			_ , ,	
Landform (hillslope terrace etc.)	. Hillslope	Local relief (concar	ve convex non	_{e)} . Convex	Slope	(%): 0-2%
Subregion (LRR or MLRA): MLF	RA 136 Lat: 34.0)20399	Long: -81.	135607	 Datum:	NAD83
Subregion (LRR or MLRA): MLF Soil Map Unit Name: GeD - Ge	orgeville very fine sandy	loam, 10 to 15 percer	t slopes	NWI classifica	ation: N/A	
Are climatic / hydrologic condition						
Are Vegetation, Soil					-	No
Are Vegetation, Soil				xplain any answer		
SUMMARY OF FINDINGS					,	tures, etc.
Hydrophytic Vegetation Present Hydric Soil Present? Wetland Hydrology Present?		Is the So within a	ampled Area Wetland?	Yes		
Up. 60 is an upland a days preceding field r		h Freshwater We	tland 60.	Γhere was m	noderate rain	in the
HYDROLOGY						
Wetland Hydrology Indicators Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeria Water-Stained Leaves (B9) Aquatic Fauna (B13)	one is required; check all the content of the conte	nat apply) Aquatic Plants (B14) ogen Sulfide Odor (C1) zed Rhizospheres on Livir ence of Reduced Iron (C4) ent Iron Reduction in Tilled Muck Surface (C7) r (Explain in Remarks)	ng Roots (C3) Soils (C6)	Surface Soil C Sparsely Veg Drainage Patt Moss Trim Lir Dry-Season V Crayfish Burro Saturation Vis Stunted or Str Geomorphic F Shallow Aquit	etated Concave Susterns (B10) nes (B16) Vater Table (C2) ows (C8) sible on Aerial Imagressed Plants (D1) Position (D2) ard (D3) ohic Relief (D4)	rface (B8)
Water Table Present?	Yes No Dep Yes No Dep Yes No Dep m gauge, monitoring well, a	th (inches):th (inches):	_ Wetland H	ydrology Present lable:	? Yes	No
Remarks: No indicators of wetla	and hydrology are p	oresent.				

Sampling Point: Up. 60

· · · · · · · · · · · · · · · · · · ·	Absolute	Dominant	Indicator	Dominance Test worksheet:	
<u>Tree Stratum</u> (Plot size: 30'	% Cover	Species?		Number of Dominant Species	
1. Quercus alba	25%	YES	FACU	That Are OBL, FACW, or FAC: 6 (A)	
2. Liquidambar styraciflua	15%	YES	FAC	Total Number of Dominant	
3. Pinus elliottii	10%	YES	FACW	Species Across All Strata: 8 (B)	
4. Carya tomentosa	10%	YES	FAC	Daniel of Daniel and One air	
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 75% (A/B)	
6					
7		-		Prevalence Index worksheet:	
8		-		Total % Cover of: Multiply by:	
	00	= Total Cov	/er	OBL species x 1 =	
Sapling/Shrub Stratum (Plot size: 15')				FACW species x 2 =	
1. Quercus alba	10%	YES	FACU	FAC species x 3 =	
2.				FACU species x 4 =	
3				UPL species x 5 =	
4			_	Column Totals: 0 (A) 0 (B)	
5				2.5	
6.			-	Prevalence Index = B/A = 3.5	
7.			-	Hydrophytic Vegetation Indicators:	
8.			-	1 - Rapid Test for Hydrophytic Vegetation	
9.			-	2 - Dominance Test is >50%	
10.			-	3 - Prevalence Index is ≤3.0 ¹	
10 = Total Cover		/er	4 - Morphological Adaptations ¹ (Provide supporting		
Herb Stratum (Plot size: 5')		Total Oov		data in Remarks or on a separate sheet)	
1. Microstegium vimineum	15%	YES	FAC	Problematic Hydrophytic Vegetation¹ (Explain)	
2		-		4	
3.			-	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
4.			-	Definitions of Four Vegetation Strata:	
5.			-	Definitions of Four Vegetation Strata.	
6.		-	-	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or	
7.				more in diameter at breast height (DBH), regardless of height.	
8.			-	noight.	
9.			_	Sapling/Shrub – Woody plants, excluding vines, less	
10.			_	than 3 in. DBH and greater than 3.28 ft (1 m) tall.	
11.				Herb – All herbaceous (non-woody) plants, regardless	
12.				of size, and woody plants less than 3.28 ft tall.	
12.	15	= Total Cov		Woody vine - All woody vines greater than 3.28 ft in	
Woody Vine Stratum (Plot size: 30')		- Total Cov	/ei	height.	
1. Toxicodendron radicans	10%	YES	FAC		
2. Campsis radicans	10%	YES	FAC		
3.		_			
4.			_		
5.				Hydrophytic	
6.				Vegetation Present? Yes No	
o	20	= Total Cov		135	
Demantical (Include whete must are transported to		- 10tal C0V			
Remarks: (Include photo numbers here or on a separate	sneet.)				

Sampling Point: Up. 60

SOIL

Depth	Matrix Color (moist) %	Redox Features Color (moist) % Type ¹ Loc ²	Tovt	Remarks
inches))-6"	10YR 5/3	Color (moist) % Type ¹ Loc ²	<u>Texture</u> clay loam	<u>Remarks</u>
	· ·			
-18"	10YR 4/6		clay loam	
	· · · · · · · · · · · · · · · · · · ·			. ,
	· ———		-	
	·			
	·			
	·			
	· —————		2	. ————
		=Reduced Matrix, MS=Masked Sand Grains.		L=Pore Lining, M=Matrix.
	Indicators:			eators for Problematic Hydric Soils ³ :
_ Histoso		Dark Surface (S7)		2 cm Muck (A10) (MLRA 147)
	Epipedon (A2)	Polyvalue Below Surface (S8) (MLRA 147	, 148) (Coast Prairie Redox (A16)
	listic (A3) en Sulfide (A4)	Thin Dark Surface (S9) (MLRA 147, 148) Loamy Gleyed Matrix (F2)		(MLRA 147, 148) Piedmont Floodplain Soils (F19)
	ed Layers (A5)	Depleted Matrix (F3)		(MLRA 136, 147)
	uck (A10) (LRR N)	Redox Dark Surface (F6)		(III.L. 100, 147)
	ed Below Dark Surface (A11)	Depleted Dark Surface (F7)	\	Very Shallow Dark Surface (TF12)
	Park Surface (A12)	Redox Depressions (F8)		Other (Explain in Remarks)
	Mucky Mineral (S1) (LRR N,	Iron-Manganese Masses (F12) (LRR N,		
	A 147, 148)	MLRA 136)		
	Gleyed Matrix (S4)	Umbric Surface (F13) (MLRA 136, 122)		dicators of hydrophytic vegetation and
Sandy F	Redox (S5)	Piedmont Floodplain Soils (F19) (MLRA 14)	48) v	wetland hydrology must be present,
_ Stripped	d Matrix (S6)	Red Parent Material (F21) (MLRA 127, 14		inless disturbed or problematic.
_ Stripped				ınless disturbed or problematic.
_ Stripped estrictive Type:	d Matrix (S6) Layer (if observed):		7) u	
_ Stripped estrictive Type: Depth (in	d Matrix (S6) Layer (if observed):		7) u	I Present? Yes No
_ Stripped estrictive Type: Depth (in	d Matrix (S6) Layer (if observed): nches):	Red Parent Material (F21) (MLRA 127, 14	7) u	
_ Stripped estrictive Type: Depth (in	d Matrix (S6) Layer (if observed):	Red Parent Material (F21) (MLRA 127, 14	7) u	
_ Stripped estrictive Type: Depth (in	d Matrix (S6) Layer (if observed): nches):	Red Parent Material (F21) (MLRA 127, 14	7) u	
Stripped strictive Type: Depth (in emarks:	d Matrix (S6) Layer (if observed): nches):	Red Parent Material (F21) (MLRA 127, 14	7) u	
_ Stripped estrictive Type: Depth (in	d Matrix (S6) Layer (if observed): nches):	Red Parent Material (F21) (MLRA 127, 14	7) u	
_ Stripped estrictive Type: Depth (in	d Matrix (S6) Layer (if observed): nches):	Red Parent Material (F21) (MLRA 127, 14	7) u	
_ Stripped estrictive Type: Depth (in	d Matrix (S6) Layer (if observed): nches):	Red Parent Material (F21) (MLRA 127, 14	7) u	
_ Stripped estrictive Type: Depth (in	d Matrix (S6) Layer (if observed): nches):	Red Parent Material (F21) (MLRA 127, 14	7) u	
_ Stripped estrictive Type: Depth (in	d Matrix (S6) Layer (if observed): nches):	Red Parent Material (F21) (MLRA 127, 14	7) u	
_ Stripped estrictive Type: Depth (in	d Matrix (S6) Layer (if observed): nches):	Red Parent Material (F21) (MLRA 127, 14	7) u	
_ Stripped estrictive Type: Depth (in	d Matrix (S6) Layer (if observed): nches):	Red Parent Material (F21) (MLRA 127, 14	7) u	
_ Stripped estrictive Type: Depth (in	d Matrix (S6) Layer (if observed): nches):	Red Parent Material (F21) (MLRA 127, 14	7) u	
Stripped strictive Type: Depth (in	d Matrix (S6) Layer (if observed): nches):	Red Parent Material (F21) (MLRA 127, 14	7) u	
_ Stripped estrictive Type: Depth (in	d Matrix (S6) Layer (if observed): nches):	Red Parent Material (F21) (MLRA 127, 14	7) u	
_ Stripped estrictive Type: Depth (in	d Matrix (S6) Layer (if observed): nches):	Red Parent Material (F21) (MLRA 127, 14	7) u	
_ Stripped estrictive Type: Depth (in	d Matrix (S6) Layer (if observed): nches):	Red Parent Material (F21) (MLRA 127, 14	7) u	
_ Stripped estrictive Type: Depth (in	d Matrix (S6) Layer (if observed): nches):	Red Parent Material (F21) (MLRA 127, 14	7) u	
Stripped estrictive Type: Depth (in	d Matrix (S6) Layer (if observed): nches):	Red Parent Material (F21) (MLRA 127, 14	7) u	
_ Stripped estrictive Type: Depth (in	d Matrix (S6) Layer (if observed): nches):	Red Parent Material (F21) (MLRA 127, 14	7) u	
_ Stripped estrictive Type: Depth (in	d Matrix (S6) Layer (if observed): nches):	Red Parent Material (F21) (MLRA 127, 14	7) u	
_ Stripped estrictive Type: Depth (in	d Matrix (S6) Layer (if observed): nches):	Red Parent Material (F21) (MLRA 127, 14	7) u	
Stripped strictive Type: Depth (in	d Matrix (S6) Layer (if observed): nches):	Red Parent Material (F21) (MLRA 127, 14	7) u	
Stripped strictive Type: Depth (in	d Matrix (S6) Layer (if observed): nches):	Red Parent Material (F21) (MLRA 127, 14	7) u	